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VIA E-FILING

Ms. Cynthia T. Brown
Chief, Section of Administration
Office of Proceedings
Surface Transportation Board
395 E Street SW
Washington, D.C. 20423

Re: *Ulster & Delaware Railway Revitalization Corp. - Petition for Declaratory Order*
Finance Docket No. 36164

Dear Ms. Brown:

Enclosed for filing in the above-referenced proceeding is Ulster County, New York's Reply to Petition for Declaratory Relief.

If you have any questions about this filing, please contact me.

Respectfully submitted,

D. C. M.

Donn C. Meindertsma
Counsel for Ulster County, New York

Enclosure

cc: John D. Heffner

BEFORE THE
SURFACE TRANSPORTATION BOARD

FD 36164

ULSTER & DELAWARE RAILWAY REVITALIZATION CORP.
--PETITION FOR DECLARATORY ORDER--

ULSTER COUNTY, NEW YORK
REPLY TO PETITION FOR DECLARATORY RELIEF

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Dated: February 22, 2018

BEFORE THE
SURFACE TRANSPORTATION BOARD

FD 36164

ULSTER & DELAWARE RAILWAY REVITALIZATION CORP.
PETITION FOR DECLARATORY RELIEF

ULSTER COUNTY, NEW YORK
REPLY TO PETITION FOR DECLARATORY RELIEF

The County of Ulster respectfully submits its Reply to the Ulster & Delaware Railway Revitalization Corp. Petition for Declaratory Relief under 49 U.S.C. § 1321 and 5 U.S.C. § 554(e) ("Pet."). Attached to this Reply is the Verified Statement of Christopher White ("White V.S.) who is the Deputy Director of the Ulster County Planning Department and Project Manager of the Ashokan Rail Trail and has been an integral part of the planning process of the rail line at issue in this proceeding.

On January 16, 2018, the Ulster & Delaware Railway Revitalization Corp. petitioned the Surface Transportation Board ("STB" or "Board") to issue a declaratory order (1) as to whether a line of railroad located in Ulster County, NY, known as the Catskill Mountain Branch has been abandoned and (2) if so, whether the conversion of that line's right of way into a trail could be done pursuant to the National Trails System Act. In reply to question 1, Ulster County states that the Catskill Mountain Branch undisputedly has been abandoned pursuant to Section 304(b) of

the Regional Railroad Revitalization Act, 45 U.S.C. § 744(b). In reply to question 2, Ulster County agrees with the Petitioner that since the line at issue has clearly been abandoned, the National Trails System Act is no longer applicable because the rail line is no longer subject to the jurisdiction of the STB.[1]

STATEMENT OF FACTS

The following history and overview are helpful in establishing and documenting that the Catskill Mountain Branch was abandoned more than forty years ago and is no longer under the jurisdiction of the Board. In addition, if one sets aside the issue of abandonment and the lack of connection to the national rail transportation system, the highly deteriorated condition of the Catskill Mountain Branch, resulting from decades of deferred maintenance and severe storm events, makes common carrier rail operations infeasible and unrealistic absent investment of tens of millions of dollars to restore missing bridges, damaged culverts, washed-away embankment, and to conduct massive tie replacement, which are discussed in greater detail below. White V.S. at 1.

The County of Ulster (the "County") purchased the former Catskill Mountain Branch (also known as the Ulster and Delaware Railroad) right-of-way within Ulster County from The Penn Central Corporation and The Owasco River Railway, Inc. on July 24, 1979 for $1,500,000. The right-of-way purchased by the County extends approximately 38.7 miles from the main track of the West Shore Branch in the City of Kingston, NY (at approximately Milepost 2.9) to the

[1] Once a rail line is abandoned, the ICC loses jurisdiction over the right-of-way. *Preseault v. ICC*, 494 U.S. 1, 5, n.3 (1990); *Consolidated Rail Corp. v. Surface Transp. Bd.* 93 F.3d 793, 798 (D.C. Cir. 1996). Consequently, when the ICC lost jurisdiction because of the abandonment of the Catskill Mountain Branch, the National Trails System Act, 16 U.S.C. §§ 1241 *et seq.,* no longer could be used by Ulster County to obtain a rail trail. *See Becker v. Surface Transportation Board*, 132 F.3d 60, 61 (D.C. Cir. 1997). Since this legal proposition regarding the second part of the Petition is beyond cavil, the County will not address this issue any further herein.

hamlet of Highmount, NY at the border of Ulster and Delaware Counties (at approximately Milepost 41.6), as described in the Deed filed with the Ulster County Clerk on August 10, 1979, a copy of which is attached hereto as White V.S. at 1-2, Exhibit A.

The County purchased the aforementioned segment of the Catskill Mountain Branch right-of-way (the "Line") with the intent of using the abandoned line to establish tourism railroad operations for economic development purposes. The Line formerly had been a part of a successful passenger and freight line connecting Kingston, NY to Oneonta, NY (where it connected with the Delaware & Hudson Railroad), winding through the Catskill Mountains and along the Esopus Creek. However, the last regular interstate passenger service on the Catskill Mountain Branch ended in 1954. The last freight carrier ended its remaining operations on September 28, 1976, following the termination of a New York State subsidy. This subsidy had been provided through the State's Branchline Assistance Program to Conrail to operate on the Branch for six months. White V.S. at 2.

In the years prior to the County's purchase of the Line, the Catskill Mountain Branch from Kingston (MP 2.9) to Bloomville (MP 86.6) was analyzed by the United States Railway Association ("USRA") for possible inclusion in the Final System Plan for Restructuring Railroads in the Northeast and Midwest Regions ("Final System Plan") pursuant to the Regional Rail Reorganization Act of 1973 ("3R Act"). The segment between Bloomville and Oneonta had been abandoned previously. In its July 26, 1975 Final System Plan report, the USRA noted the Catskill Mountain Branch was not designated for transfer to the Consolidated Rail Corporation ("Conrail") and was available for subsidy pursuant to section 304 of the 3R Act. A copy of the relevant pages (pp. 270-271) of the Final System Plan is attached as White V.S., Exhibit B. Since

the Catskill Mountain Branch was not included in the Final System Plan, it was authorized for abandonment under the 3R Act. White V.S. at 2-3.

The County Planning Department confirmed the exclusion of the Line from the Final System Plan in a call to Brian O'Boyle of the STB on October 23, 2012, following which Mr. O'Boyle emailed the relevant sections of the Final System Plan to the County. Mr. O'Boyle advised the County that he could not find the documents consummating the abandonment, which at the time, the County had not located in its archives. Most of the documents confirming the abandonment were later located during exhaustive searches of the County record archives relating to the Line. White V.S. at 3.

Following the termination of freight services in 1976, the Trustees of the Penn Central Corporation ("Penn Central"), which was in bankruptcy proceedings, gave notice on March 1, 1977, pursuant to Section 304(b) of the 3R Act, of their intention to abandon the Catskill Mountain Branch from MP 2.9 in Kingston, NY to MP 74.9 in Stamford, NY ("Notice of Abandonment"). The railroad right-of-way subject to this Notice included all 38.7 miles of the Line that was later purchased by the County. A copy of the Notice of Abandonment is attached as White V.S., Exhibit C. On April 1, 1977, the New York State Department of Transportation ("NYS-DOT") issued a Railroad Abandonment Notification for the Catskill Mountain Branch—including the Line—to all interested State and local agencies, including the County of Ulster, noting that the approval for abandonment had been made for the subject railroad property identified in the accompanying map. A copy of said notification and accompanying map are attached as White V.S. at 3, Exhibit D.

Based on these documents, it is clear the abandonment of the line was fully consummated as authorized by the USRA's prior exclusion of the Catskill Mountain Branch from the Final

System Plan, effectively terminating federal jurisdiction over the Line. The abandoned status of the Line is specifically mentioned in the Ulster County Planning Board's Annual Report for 1977 ("1977 Board Report"), a copy of which is attached as White V.S., Exhibit E, and is alluded to in other reports that will be discussed below. White V.S. at 3-4.

Prior to the consummation of abandonment in 1977, it appears that Penn Central had attempted to abandon the Line in 1972-73, by petition at the former Interstate Commerce Commission ("ICC"). According to the Railroad History cited in the "Catskill Mountain Railroad Environmental Assessment" issued in February 1991, a copy of which is attached as White V.S., Exhibit F, this "abandonment [attempt] was invalidated due to procedural deviations." White V.S., Exhibit F at 7. Other documents similarly note the remaining shippers and local municipalities along the Line objected to this earlier attempt(s) to abandon the Catskill Mountain Branch. However, once the Branch was excluded from the Final System Plan, the Trustees of Penn Central were able to complete the abandonment as discussed earlier. The attached Environmental Assessment from 1991 also lists the agencies involved in the Line, and there are no federal agencies, such as the ICC, cited. White V.S., Exhibit F at 30-31.

As noted previously, the County purchased the Line from approximately MP 2.9 to approximately MP 41.6. The remaining right-of-way of the Catskill Mountain Branch in adjacent Delaware County was purchased by the seven town governments in Delaware County through which the track ran (from approximately MP 41.6 to MP 86.6) using grant funding from the A. Lindsay and Olive B. O'Connor Foundation. Following the purchases of the Delaware County sections of the Catskill Mountain Branch ("Delaware Section"), the seven towns created a non-profit organization called the Catskill Revitalization Corporation ("CRC"). The CRC's charge was to manage, insure, maintain, and improve the Delaware Section. In the years since

the purchase of the Delaware Section, the CRC developed the Delaware and Ulster Railroad ("DURR"), an intrastate seasonal tourism railroad excursion operation between Arkville, NY (approximately MP 47.0) and Roxbury, NY (MP 59.5), which continues to operate. White V.S. at 4-5.

In addition to running the seasonal DURR scenic and dinner trains on the 12.5-mile operating track section, the CRC also converted a segment to trail. CRC removed the track infrastructure from and converted a 26-mile section of the Delaware Segment (with a small section in Schoharie County) to a public recreational trail for hiking, bicycling, and snowmobile operations (the "Catskill Scenic Trail") from Roxbury (at approximately MP 60) to South Kortright (at approximately MP 86.) This "rails-to-trails" project was implemented locally without use of the National Trails System Act or federal railbanking as the CRC did not require federal approval for removal of the track from the abandoned Catskill Mountain Branch in Delaware County. The "segmented" use of the Delaware Segment for both rail and trail uses, an overview of which from the CRC is attached as White V.S., Exhibit G, is quite similar to the County's segmented rail and trail policy under which the Ashokan Rail Trail is currently being constructed. This policy designated certain segments of the primarily single-tracked Line for tourism rail operations and other segments for conversion to recreational trail only, including the segment designated for construction of the Ashokan Rail Trail in the Towns of Hurley and Olive, NY between MP 10.0 and MP 21.6 ("Ashokan Segment"). White V.S. at 5.

While the Delaware Segment was redeveloped for both rail and trail use following CRC's purchase of the right-of-way, Ulster County initially planned tourism railroad uses only for the entire 38.7 miles following its purchase of the Line in 1979, although the County planners also noted a possible use for public trails at some point in the future. Following the 1977 Notice of

Abandonment, the County commissioned the "Reuse Feasibility Study for the Catskill Mountain Railroad," which evaluated the feasibility of establishing a tourism railroad on the Line and was completed by CE Maguire, Inc. in January 1978, a copy of which is attached as White V.S., Exhibit H ("Maguire Report"). The Maguire Report notes the following:

> On September 28, 1976, the last run was made over the Catskill Mountain Branch and on March 1, 1977 the trustees of the Penn Central Transportation Company gave notice of their intention to abandon the line.

White V.S. at 6, Exhibit H at 1.

Shortly before the Notice of Abandonment, former Director of the Ulster County Planning Board, Herbert Heckler, organized a meeting of local, County, and State officials to promote the County's re-use of the Line for tourism railroad operations. As evidenced in the previously mentioned 1977 Board Report, many County officials viewed the available rail line as a potential tool for boosting tourism and economic development. The Maguire Report considered potential ridership and economic development opportunities from re-using the Line for tourism steam train operations and cited the relatively close proximity to New York City as a positive factor for the success of future tourism operations. The Maguire Report further noted that the condition of the track was fair to good, citing however, that at that time, heavy tie replacement would be necessary along with repairs to several structures and washouts. Throughout the Maguire Report, the Line is repeatedly referred to as "abandoned," so it is clear that the County was aware of the Line's abandoned status as it prepared to purchase the Line in 1979. White V.S. at 6.

Following the purchase of the Line, the County commissioned a second report, which was conducted by Transportation and Distribution Associates, Inc. and titled, "Inspection and Rehabilitation of the Former Ulster and Delaware Railroad," a copy of which is attached as

White V.S., Exhibit I ("TDA Report"). This December 1979 report covered both the Line in Ulster County and the Delaware Segment and documented a major washout along the Line in Phoenicia (Town of Shandaken), poor tie condition with 85-90 % of ties being defective, and the elimination of an overhead bridge carrying the railroad over State Route 30 in the Delaware Segment. White V.S. at 6-7.

By the time of the inspection in 1979, the Line already had experienced years of deferred maintenance and neglect as Penn Central reduced capital investment in the tracks and supporting structures following its first attempt to abandon the Line in the early 1970s. The TDA report was commissioned as the County was working to attract a major railroad tourism operator and was in discussions with Steamtown, USA, which was looking to relocate from Vermont. Steamtown ultimately decided not to locate its operations in New York State, leaving Ulster County no immediate prospects for re-using the Line for tourism purposes. While the TDA Report made clear that the Line required millions of dollars in capital investment for tie replacement and other maintenance, without the prospect of a major tourism operation such as Steamtown, the County Legislature decided at that time to make no investments in the Line it had purchased. White V.S. at 7.

Beginning in 1982 or 1983, the County began a series of short-term leases with a local tourism railroad company, the Catskill Mountain Railroad Company, Inc. ("CMRR"). CMRR initially operated a seasonal tourism train on approximately 3 miles of track in the Town of Shandaken following the Esopus Creek, where the train (known as the "Tubers Special" or "Esopus Creek Shuttle") primarily carried visitors who rafted in inflatable tubes down the adjacent Esopus Creek from Phoenicia. In the following years, the CMRR incrementally expanded its operations although its maintenance of the Line was, and remains today, a primarily

volunteer effort with limited resources. However, at this time, most of the Line did not meet minimum FRA Class 1 standards so any expansions of CMRR service required rehabilitation of the track. White V.S. at 7.

In 1991, the County Legislature leased the Line to the Ulster County Industrial Development Agency ("IDA"), through which the Line was subleased to CMRR for a period of 25 years starting May 29, 1991 and ending May 31, 2016 (the "Lease".) This extended Lease was well beyond the County's typical five-year property lease, requiring conveyance of the Line to the County IDA to allow for a longer term. The longer term was intended to encourage much-needed capital investment in the Line, which by 1991 had faced nearly two decades of neglect and deterioration. CMRR and others had argued that without a long-term Lease, the required capital investments could not be made. White V.S. at 8.

During the term of the Lease, a copy of which is attached as White V.S., Exhibit J, CMRR was required to spend at least $25,000 per Lease year and rehabilitate at least one mile of track per Lease year to FRA Class 1 standards. It was also responsible for maintaining the rehabilitated track to Class 1 standards or better for the duration of the Lease. This rehabilitation and maintenance provision pertained only to the 25-mile eastern segment of the Line between Kingston (MP 2.9) and Phoenicia (27.9). The Lease provision recognized the reality that most of the track between Kingston and Phoenicia, with the exception of the small section of track used for the Tuber's Special, did not meet Class 1 standards due to a prolonged lack of maintenance since the Line's abandonment. As noted previously, Penn Central had been trying to abandon the Branch since the early 1970s and presumably invested as little as possible in capital projects and maintenance in the years preceding the final abandonment. White V.S. at 8.

The remainder of the Line west of Phoenicia was apparently severed from the Kingston to Phoenicia segment by a washout along the Esopus Creek. This western segment was also more deteriorated than the eastern section due to its close proximity to the Esopus Creek in some areas. Therefore, in the Lease, the CMRR was only required to keep the segment from MP 27.9 to MP 41.6 free of brush, but this segment still was largely neglected. By the time of the execution of the Lease in 1991, the washout in the Town of Shandaken had worsened and a major bridge structure at Herdman Road in Woodland Valley had been severely damaged (and was subsequently removed). White V.S. at 8-9.

Over the 25-year term of the Lease, the Catskill Mountain Railroad was only able to rehabilitate and maintain a small portion of the 38.7-mile Line to Class 1 standards, and as a whole, the Line continued to deteriorate from lack of maintenance and storm events. As it became increasingly evident that CMRR was not conducting the required maintenance of the Line, the County issued CMRR a Notice of Default-Demand to Cure in June 2013 ("Demand to Cure"), a copy of which is attached as White V.S., Exhibit K. While numerous defaults are cited in the Demand to Cure, the lack of rehabilitation and maintenance was the primary issue. White V.S. at 9.

By the time of the Demand to Cure in 2013, CMRR had rehabilitated—and operated trains on—only two short segments of the Line, including the segment it historically operated to serve tourists tubing in the Esopus Creek as well as a short segment in the City of Kingston. In 2014 and 2015 as the Lease was nearing its expiration and the County was involved in litigation commenced by the CMRR following the Demand to Cure, the County commissioned track inspection reports of the Line between Kingston and Phoenicia where the CMRR was required to upgrade 25 miles of track to Class 1 standards by May 2016. The reports documented that

CMRR had rehabilitated and maintained only six or seven miles of Class 1 track, a small fraction of the required 22-23 miles required by the Lease provision to upgrade one mile of track per Lease year. Copies of the 2014 and 2015 track inspection reports, which were performed by Henningson, Durham and Richardson Architecture and Engineering, P.C. ("HDR"), are attached respectively as White V.S. at 9, Exhibits L and M.

In July 2017, the County contracted with HDR to produce a Statement of Opinion Letter ("HDR Letter") based on its inspections and reports recommending to the County whether removing all rail, ties and other track materials from the Ashokan Segment or instead burying these materials was preferable in terms of the County potentially reactivating the Ashokan Segment at some point in the future for tourism or other railroad operations, a copy of which is attached as White V.S., Exhibit N. The HDR Letter recommended the removal of all rail, ties and other track materials, highlighting that if the County wanted to restore railroad uses to the Ashokan Segment at some point in the future, it would be best served by removing the deteriorated railroad infrastructure, stabilizing the existing embankment, and installing all new rail materials. In summarizing the current condition of the Ashokan Segment, the HDR Letter noted the following:

> HDR's Rail Engineer found and documented that the Corridor was in an advanced state of disrepair from this lack of maintenance, and the railroad infrastructure-including as culverts, bridges, drainage ditches, embankment and right-of-way have numerous locations of complete failure with the majority of the infrastructure evidencing marginal function as to its intended design purpose.

White V.S. at 10, Exhibit N at 2.

The prolonged lack of maintenance and resulting damage to the Ashokan Segment was further evidenced during the preliminary and final engineering design of the Ashokan Rail Trail project along this section of track. As the County's consultants collected data and survey

information and subsequently worked to obtain necessary environmental permits and approvals from the New York State Department of Environmental Conservation ("DEC") and the New York City Department of Environmental Protection ("DEP"), several areas of track were now designated as State and/or federal wetlands. The evolution of these track areas into protected wetlands resulted from a failure of CMRR to clean and maintain culverts and ditches over a period of decades, which was required for this eastern segment. In some areas, CMRR had cut fallen trees and dumped the branches and wood debris in adjacent drainage ditches. In at least two spans of the Ashokan Segment, the Ashokan Rail Trail must detour from the railroad alignment or span the rail bed with an engineered surface in order to avoid impacts to wetlands created by years of neglect to the underlying drainage systems. The lack of maintenance to culverts and drainage ditches was unfortunately not unique to the Ashokan Segment. White V.S. at 10-11.

While the Line became heavily deteriorated from lack of maintenance, it was also severely damaged in areas from storm disaster events since the County's purchase of the Line. Esopus Creek flooding in 1987 took a heavy toll on the Line west of Phoenicia, including damaging the aforementioned Woodland Valley Bridge. Subsequent flooding events damaged track within the CMRR's operating area along the Esopus Creek, some of which was repaired. However, in 2011, Hurricane Irene and Tropical Storm Lee delivered severe blows to the Line, leaving the Boiceville Trestle at MP 21.3 substantially destroyed, creating a 600-foot washout along the Esopus Creek at MP 23.3, and damaging track at various other points. The Big Indian Trestle Bridge at MP 36.7 was knocked off its center pier and was near collapsing into the Esopus Creek (and was removed by the County in September 23, 2013 to protect public safety and downstream resources). Photos taken in 2012 and 2013 of the Line's deterioration, tree and

brush overgrowth, and storm damages, including the Boiceville Trestle, Big Indian Trestle and washout at MP 23.3, are attached as White V.S., Exhibit O. In some of these photos, it is difficult to identify the rail or rail bed which are obscured by heavy overgrowth of trees, brush and debris or strewn in the Esopus Creek in areas where the embankment and ballast were completely washed away. Along the Ashokan Section, there is also a failed major culvert at the Butternut Creek, photos of which are attached as White V.S. Exhibit P. This major culvert will be removed as part of the Ashokan Rail Trail project, and the creek will be "daylighted" or restored to its original flow for the first time in a century. Finally, the Line's overpass at MP 36.9 was also removed some years ago by the Town of Shandaken to increase the clearance for vehicles on the road beneath. White V.S. at 11-12.

While some of the brush and trees in the attached photos were subsequently removed, these photos provide a good sense of why the Line is no longer viable for railroad use in many areas and is delineated for conversion to trail uses in multiple segments. While opponents of rail removal claim that railroad services could feasibly be restored along the entire Line, a quick perusal of these photos demonstrate that such contentions are without any basis. In addition to the photos, the County's Department of Environment conducted a detailed survey of the Line in 2012-2013 and documented that 7,225 linear feet (1.37 miles) was completely or substantially washed out, a report and map of which are attached as White V.S., Exhibit Q. Ignoring the extreme costs of rebuilding these areas for a moment, there is zero probability that the environmental regulatory agencies with jurisdiction of this critical area of the New York City Watershed would ever allow new embankment fill to be placed in a creek that feeds a critical drinking water supply reservoir for nine million people. White V.S. at 12.

Following the extreme storm events in 2011, the CMRR applied to the Federal Emergency Management Agency ("FEMA") for disaster recovery assistance for four major projects, including the Boiceville Trestle and washout at MP 23.3, which are included in the attached photos. However, to date, none of these FEMA projects have been implemented because the costs of work estimated by CMRR, on which the FEMA assistance awards are based, were vastly underestimated and based on incomplete scopes of work. For example, the washout at MP 23.3 was estimated to cost approximately $184,000 to repair by CMRR volunteers. However, the County must implement the repairs and therefore conducted survey and engineering design of the repairs followed by a competitive bid process. The lowest responsible bid on this one washout exceeded $757,000. The County has requested rescoping of the project by FEMA, but repair work is on hold until FEMA approves the rescoping request. These facts demonstrate that large portions of this Line are in an advanced state of disrepair and highlight the difficulties and steep expense of restoring even one washout or missing structure. White V.S. at 12-13.

In addition to the many washouts, missing bridge structures, advanced tie deterioration, failure of culverts, and other physical deterioration, the Line is also now permanently severed by a NYSDOT highway bridge structure installed along State Route 28 where the Line previously crossed the State highway. In June 2016, the NYSDOT acquired by Eminent Domain a small stretch of the Line from the County in order to reconstruct and significantly raise a bridge along Route 28 prone to flooding from the Esopus Creek. A copy of the taking letter from NYSDOT is attached as White V.S., Exhibit R. The new bridge structure installed at approximately MP 33.5 was increased in height from the prior bridge to raise it out of the flood zone. As shown in the photos in the attached White V.S., Exhibit S, the new bridge does not provide the vertical

clearance necessary for a train and has effectively cut the Line in that location. The NYSDOT was aware that the Line was abandoned, and the track segment acquired was already delineated by the County Legislature for conversion to trail only. As such, the County was able to have the NYSDOT construct a concrete pedestrian and bike passage under the new bridge to accommodate the future trail, which is evident in the attached photos. White V.S. at 13.

While the history and supporting documents provided demonstrate the Line was properly abandoned and details the Line's deterioration and irreversible gaps in physical continuity in multiple sections, the County believes it is also important to highlight the public interest considerations and public policy development behind the County's rail removal for construction of the Ashokan Rail Trail. Opponents of track removal for the project now argue the County somehow acted rashly or thoughtlessly in pulling up tracks to construct the Ashokan Rail Trail, but the fact is that this Project has been the result of more than a decade of planning, studies, public debate, policy development and design, and negotiation with the City of New York ("City") and its DEP. White V.S. at 13-14.

In 2005, County officials began seriously examining the possibility of opening some of the Line to recreational trail uses due in part to the fact that the CMRR was only using about 15% of the available 38.7 miles of track. The County commissioned Alta Planning & Design to complete a "U & D Rail + Trail" Feasibility Study for the Ulster and Delaware Railroad Corridor ("Alta Study"), a copy of which is attached as White V.S., Exhibit T. Since the CMRR had more than 10 years remaining on its Lease at the time of the Alta Study, the Study was not allowed to consider the alternative of removing rail and converting segments to trail only as the train operations were considered an existing condition. The Alta Report again confirms that the Line was abandoned. White V.S., Exhibit T at 7. Other than in small segments of the Line, the Alta

Report noted serious constraints to co-locating a multi-use recreational trail along the railroad, including rock cuts, topography, and DEP regulations along the Ashokan Reservoir limiting public access at the time. White V.S. at 14.

While the Alta Study created some momentum for development of trail in sections of the Line, no trail projects were implemented in the remainder of the CMRR Lease, in part due to opposition from CMRR for utilizing unused railroad segments for trail. For instance, local residents in the Town of Shandaken had proposed to CMRR to allow trail use of a segment of the existing tracks that were not used by CMRR during the entire 25-year Lease. After months of meetings and negotiations, the CMRR Board of Directors rejected any proposal for trail development during the Lease. White V.S. at 14.

In late 2012, the County Executive announced a proposal to remove some of the track in the unused western segments of the Line where the County owns the Line in fee and which were heavily overgrown with brush and trees. The proposal also included opening up most of the Line for public trail uses, which sparked a prolonged and sometimes fierce debate on the County's "rail versus trail" issue. The trail proposal was consistent with many County policies, including its Non-Motorized Transportation Plan and Open Space Plan. The County then partnered with several local non-profits to commission studies to examine the benefits and feasibility of using some or all of the Line for a recreational trail to support tourism, improve public health, and enhance the quality of life for area residents. The studies included the "Catskill Mountain Rail Trail: Economic & Fiscal Impact Analysis" commissioned by the New York-New Jersey Trail Conference and conducted by Camoin Associates ("Camoin Report"), a copy of which is attached as White V.S., Exhibit U. The report's finding forecast that the conversion of the Line

to a public recreational trail would attract more than 140,000 annual visitors, result in $3.1 million in new local sales, and create 44 jobs. White V.S. at 15.

At the time of the Camoin Report's release, the most recent annual report from CMRR from 2012 noted the total visitors on CMRR's trains as 9,302 customers for the entire year. The Lease payment to the County, which was a percentage of CMRR's gross revenues, was only $4,464 for 2012 for CMRR's exclusive use of the 38.7-mile Line. In fact, prior to Ulster County's proposal for trail development, CMRR ran no licensed theme trains, which only began in 2015. CMRR's revenues from 1991-2014 were so modest that the total Lease payments to the County over those 23 years totaled only $38,561. Based on such data, it is hard to argue that prior to 2015, when CMRR started to offer theme train events like Polar Express and Day Out With Thomas, the limited, seasonal operations on a small fraction of the available Line justified the growing opportunity costs of the CMRR controlling the entire Line to the exclusion of other public uses. White V.S. at 15-16.

In 2013, the County began working with the Open Space Institute on a Feasibility Study for the Ashokan Rail Trail. The more than $150,000 comprehensive study, which included a detailed site assessment and survey, was funded by private sources and was completed by July 2015. As these studies were being done, the County Legislature passed its first policy on the future use of the Line which called for the Line to be converted to trail except between MP 21.3 (location of collapsed Boiceville Trestle) to MP 27.9 (north of which are the most extreme washouts). CMRR and its supporters strongly opposed the removal of track between Kingston and the Boiceville Trestle. White V.S. at 16.

The County Executive proposed a compromise plan to leave a second tourism railroad section in the City of Kingston, which led to the Legislature forming the U&D Railroad

Advisory Committee, a bipartisan committee composed of nine County Legislators. The Committee commissioned a detailed report from a railroad consultant, Stone Consulting & Design, P.C., a copy of which is attached as White V.S., Exhibit V. The report, titled the "Highest and Best Use Recommendations-U&D Railroad Corridor" ("Stone Report"), was conducted over an approximately eight-month period, during which the Committee and consultants reviewed all available data and studies, interviewed a wide range of stakeholders, and visited the majority of the Line to personally observe conditions. White V.S. at 16.

The Stone Report recommendations became the basis for a revised rail and trail policy. The Stone Report's findings recognized that rail and trail use could not exist side-by-side in most sections of the Line, which was constructed as a single-track corridor and had many constraints to co-locating rail and trail, including narrow underpasses, constricted bridge and culvert structures, adjacent wetlands and/or private property encroachments, tight high-fill embankment areas, and regulatory constraints. For instance, in the Ashokan Segment, which the Stone Report strongly recommended for conversion to trail only, the County's Line was an easement for railroad purposes only. Along the majority of the Line, the County owns the right-of-way in fee; however, in the 11.5-mile segment along the City of New York's Ashokan Reservoir, the underlying land ownership was the City and the DEP. The DEP agreed to allow the County to convert the Ashokan Segment into a public recreational trail (and provide $2.5 million in funding to support the project) with the stipulation that rail and trail uses could not take place over the Ashokan Segment concurrently. White V.S. at 16-17.

Recognizing the poor condition of many areas of the Line and the growing opportunity costs of not allowing alternative public uses, the County Legislature developed and passed a compromise segmented rail and trail policy in December 2015 that delineated two sections of the

Line for future tourism rail operations and the rest of the Line for conversion to trail only. This policy resolution (Resolution No. 488 of 2015) passed unanimously (23-0) and was supported by CMRR. A copy of this resolution, its predecessor resolution, and the subsequent thirteen resolutions underlying progressing the Ashokan Rail Trail project are attached as White V.S., Exhibit W. The adoption of this compromise policy and its subsequent implementation was the culmination of years of public debate, research by a specially-appointed bipartisan Legislative committee, and planning and study which started as early as 2005. The tourism railroad components of this policy have already been implemented. The County has issued a multi-year permit to CMRR to operate between MP 3.8 and MP 8.3 although CMRR currently only runs its theme and other trains to MP 6.5 because it has not yet restored the remaining available track to minimum FRA Class 1 standards. Additionally, the County has signed a multi-year lease for a rail bike company, Rail Explorers Corporation, to operate starting in May 2018 in the segment between MP 23.3 to MP 27.9. The combined operations of these two operations is projected to attract more than fifty thousand visitors in 2018, which demonstrates that the segmented rail and trail policy is already spurring economic benefits for the County. White V.S. at 17-18.

While the County was studying the rail and trail issue and formulating policies for the Line's redevelopment following the expiration of CMRR's Lease, the County also worked to secure a critical agreement with the City and DEP to allow trail uses along the Ashokan Reservoir upon property owned by the City over which the County's Railroad Easement exists. In late 2012, the DEP and the County announced an historic agreement in principle to convert the Ashokan Segment to trail only, which would open the northern shores of the Ashokan Reservoir to the public without special permits for the first time since the construction of the Reservoir in 1911-1912. White V.S. at 18.

During the construction of the Ashokan Reservoir, the Line had been relocated from its original alignment along the Esopus Creek Valley that became part of the Reservoir, and the City granted a permanent railroad easement to the Ulster and Delaware Railroad Company upon property owned by the City of New York, along which the permanent easement was granted. Using City funding, the railroad was reconstructed on its current alignment on the border of the Reservoir on City lands, including over two major dikes. The City of New York and DEP were aware that no freight or passenger trains had run on the Ashokan Segment since 1976. In considering the protection of the City's Ashokan Reservoir, a terminal reservoir in the nation's largest unfiltered drinking water system, the City was consistent and clear over a period of more than ten years that a trail could not be built alongside the railroad, which would require significant disturbance of and impact to the lands and waters along the Ashokan Reservoir. White V.S. at 18.

The County and the City negotiated terms for a Memorandum of Agreement ("MOA"), which was approved by the Legislature and executed on June 16, 2015. This MOA, a copy of which is attached as White V.S., Exhibit X, established the framework and partial funding for the conversion of the Ashokan Segment from railroad to recreational trail. In the MOA, the City would grant the County a Land-Use Permit to design and build the Ashokan Rail Trail and the County's easement for railroad purposes ("Railroad Easement") would be modified at some future date. Since a Land-Use Permit is revocable and not a permanent property interest, the County and DEP discussed a potential avenue for protecting the Railroad Easement from possible reversion by using the National Trails System Act. The MOA allowed the County, with DEP input, to seek from the STB reactivation of the Line for freight operations. After a brief period of time in which no shipper(s) in all likelihood would request service that would justify

the significant capital investments necessary to ship freight and reconnect to the national rail transportation system, the County would then seek to use federal railbanking to protect the Railroad Easement while allowing for Interim Trail Use under the National Trails System Act. White V.S. at 19.

The MOA gave the County the option to reactivate the Line and then request railbanking, but it did not require it. As the County and the City further negotiated the follow-up agreement(s) to create the Ashokan Rail Trail, the parties agreed after months of discussion and research that it would be advantageous to both parties not to reactivate the Line. Instead, the County and City negotiated a new trail easement, which would overlay and protect the County's underlying Railroad Easement. The new Ashokan Trail Easement ("Trail Easement"), a copy of which is attached as White V.S., Exhibit Y, obviated the need for, and risks of, a revocable Land-Use Permit and provided the County the right to terminate the Trail Easement in the future in order to re-establish rail uses under its perpetual Railroad Easement. Absent reactivation of the Line and federal railbanking, the Trail Easement enabled the County to protect its underlying Railroad Easement and not be subject to possible reversionary interests upon the removal of rail on the Ashokan Segment. The Trail Easement was executed and filed with the County Clerk's office on August 28, 2017, conveying a permanent trail easement to the County and laying the groundwork for the beginning of trail construction. That construction began in early January 2018 following the bidding and award for track removal and securing of necessary permits and approvals. As of the date of this filing, a majority of the steel rail has been removed and salvaged. White V.S. at 19-20.

It is important to note that in addition to receiving financial support from the DEP for the Ashokan Rail Trail, the Project was also awarded more than $3.6 million in grants through the

New York Department of Environmental Conservation and another $500,000 through the New York State Office of Parks, Recreation, and Historic Preservation ("OPRPH"). In addition to providing funding support, OPRHP also reviewed the project and issued a determination to the County that the proposed track removal and trail construction would have No Adverse Impact on the historical resources along the Line, a copy of which is attached as White V.S. at 20, Exhibit Z.

The Ulster & Delaware Railway Revitalization Corp. ("U&D"), which filed the Petition for Declaratory Relief (FD 36164) on January 16, 2017, appeared not to be aware that the documentation of abandonment exists. Also, U&D appears to be confused about the Line's connection to the national rail transportation system. U&D claims the Line is connected, but that simply is not the case because the Line has clearly been severed at various points. Further, U&D seems unaware that the Ashokan Trail Easement is in addition to the County's Railroad Easement and obviates the need to use the National Trails System Act. The County has not proposed and has no intention to use the National Trails System Act for the Ashokan Rail Trail. The contention that the Ashokan Segment will revert to DEP is simply incorrect, which is clearly addressed in the Ashokan Trail Easement. The U&D has also made public statements questioning why the County had announced it was going to use federal railbanking in early 2013. The fact is that the County had not yet then located in its archives the Notification of Abandonment and other documents showing conclusively that the Catskill Mountain Branch, including the Line, was abandoned in 1977 under the 3R Act. The confirmation of this abandonment is reflected in the 2015 MOA between the County and City in which the County left itself the option of reactivating the Line for freight operations so it could then use railbanking to allow Interim Trail Use to protect its Railroad Easement. In the end, the negotiation of an

additional Trail Easement obviated the need for any reactivation or railbanking. White V.S. at 20-21.

The County met with three Board members of the U&D during the summer of 2016 at the request of the newly-formed organization. Most of the members of this small organization had not been involved in the meetings and public debate of the past five years on this matter and many of them live in other counties. As such, the County representatives conveyed much of the information in this Statement of Facts to the U&D representatives, including information on the physical deterioration and major gaps in the system. The U&D left the meeting and then began to wage a campaign against the County's trail plans. It is important to note that the County worked through to a compromise on the rail versus trail issue that received bipartisan and unanimous support in the Legislature, was supported by the CMRR in public statements at the time of its passage and was lauded by local newspapers for taking a balanced and thoughtful approach to an emotional and complex issue. The County looks forward to implementing diligently the rail and trail components of this compromise policy and appreciates the Board's patience and consideration in allowing the County to clarify and correct the record on this important local issue. White V.S. at 21.

ARGUMENT

1. The Line Was Abandoned Over 40 Years Ago By The Trustees Of Penn Central Under the 3R Act.

As discussed herein, the United States Railway Association analyzed the Catskill Mountain Branch from Kingston (MP 2.9) to Bloomville (MP 86.6) for possible inclusion in the Final System Plan pursuant to the 3R Act. White V.S. at 2. In its July 26, 1975 Final System Plan Report, the USRA determined that the Catskill Mountain Branch would not be designated for transfer to Conrail and was available for subsidy pursuant to the 3R Act. White V.S. at 2,

Exhibit B. Since the Catskill Mountain Branch was not included in the Final System Plan, it was authorized for abandonment at that time under the 3R Act's expedited procedures and did not need to be approved for abandonment under Title 49 by the ICC. *See* 45 U.S.C. § 744(b).[2] U&D concedes this fact it in its Petition. Pet. at 3-4.

In 1976, Penn Central terminated all rail freight services on the Catskill Mountain Branch. White V.S. at 2. Consequently, on March 1, 1977, the Trustees of Penn Central gave notice in accordance with Section 304(b) of the 3R Act, 45 U.S.C. § 744(b), of their intention to abandon the Catskill Mountain Branch from MP 2.9 in Kingston to MP 74.9 in Stamford, NY. White V.S. at 3, Exhibit C. This Notice included the 38.7 miles of rail line that was purchased later by the County in 1979. On April 1, 1977, the New York State Department of Transportation issued the corresponding Railroad Abandonment Notification for the Catskill Mountain Branch to all interested State and local agencies, including the County of Ulster, noting that the approval for abandonment had been made for the subject railroad property identified in the accompanying map. White V.S. at 3, Exhibit D. Consequently, the abandonment of the entire Catskill Mountain Branch was consummated in accordance with 45 U.S.C. § 744(b). As a result of this abandonment notice under the 3R Act, this rail line was no longer subject to the jurisdiction of the Board and required no further action to formalize the abandonment. *See* 45 U.S.C. § 744(b)*; Maryland Transit*, slip op. at 2.

U&D states that it is unaware if proper notice had been provided under 45 U.S.C. § 744(b) to consummate the abandonment of the Catskill Mountain Branch. Pet. at 9. Now that the County has provided these documents required under this statute for the consummation of the

[2] "The United States Railway Association formulated the FSP in the 1970s. It designated which lines were to be retained in active service through transfer to Conrail, a government successor to the various northeastern railroads in reorganization, and which lines would be allowed to be abandoned. The FSP was submitted to Congress on July 26, 1975." *Maryland Transit Administration—Administration—In Somerset County, MD ("Maryland Transit"),* STB Docket AB 590 (Sub-No. 1X), slip op. at 1, n. 3 (STB served May 14, 2015).

abandonment, the case clearly should be dismissed since the Line is no longer subject to the jurisdiction of the STB.

In the unlikely event that U&D were to dispute whether the abandonment consummation took place based on these documents, the County can provide several examples of subsequent documents where the Line is referred to as abandoned. Since these documents were created in the normal course of business, and not for the purposes of litigation, they are further strong evidence that this Line had been abandoned in 1977.

First, right after the abandonment had been consummated, the Line was specifically mentioned to be abandoned in the Ulster County Planning Board's Annual Report for 1977. White V.S. at 4, Exhibit E. This document's close proximity in time to the Notice of Abandonment demonstrates again that the abandonment did in fact take place in 1977.

Again, right after the Catskill Mountain Branch had been abandoned and the County was deciding whether to purchase the Line, the County commissioned a study, which was completed in January 1978 by CE Maguire, Inc., to examine the feasibility of developing an intrastate tourism railroad on the Line. Throughout this report, the Line was repeatedly referred to as "abandoned," including a specific reference to the March 1, 1977 Notice of Abandonment by the Penn Central Trustees. White V.S. at 6, Exhibit H. Again, the close proximity in time of this report to the abandonment consummation and explicit reference to the Notice of Abandonment undisputedly demonstrates that the Catskill Mountain Branch had been abandoned in 1977.

Also, in 2005, the County commissioned another study, the Alta Study, White V.S. at 14, Exhibit T, to examine whether recreational trail use made sense on the Line. The Alta Study also referred to the Line as "abandoned." White V.S. at 14, Exhibit T at p. 7.

Based on these actual documents that authorized and consummated the abandonment pursuant to the 3R Act and these various subsequent written confirmations of the abandonment, there can be no doubt that the line was clearly abandoned under the 3R Act, removed from the national rail transportation system, and is no longer subject to the jurisdiction of the Board. *See Hayfield N. R.R. v. Chi. & N.W. Transp. Co.*, 467 U.S. 622, 633 (1984).

2. Even If The Line Had Not Been Abandoned Pursuant To The 3R Act, Which It Clearly Had Been, The Undisputed Abandonment Authority Was Subsequently Consummated Based On The County's Treatment of the Line After Its Purchase.

As discussed herein, authority to abandon the Catskill Mountain Branch had been provided under the 3R Act. While the County has established that this authority then was clearly consummated under the 3R Act as well, it can also demonstrate the authority was consummated by the County's treatment of the Line as abandoned after its purchase in 1979. For abandonments that were authorized before 1997, the determination of whether abandonment authority has been consummated is made on a case-by-case basis by evaluating all the facts to decide the line owner's intent. [3] *Beaufort R.R.—Modified Rail Certificate*, STB Docket FD 34953 (STB served Mar. 19, 2008). "In determining intent, the Board look[s] to the line owner's actions considered in their entirety, assessing both the owner's stated intentions and the various physical acts taken that might carry out that intent, such as cessation of operations, cancellation of tariffs, the length of time there had been no rail service, efforts taken to maintain the line, salvage of the track and track materials, and relinquishment of control over the right of way." *Maryland Transit*, slip op. at 2 (citing *Beaufort R.R.*). *See Becker,* 132 F.3d at 62 ("In determining whether a railroad has abandoned a line, one must focus on the railroad's objective intent."); *Consolidated Rail Corp.,*

[3] In 1997, the Board established a new requirement that to consummate an abandonment once authorization is received from the STB a railroad must file a "notice of consummation" of abandonment. 49 C.F.R. § 1152.29(e)(2). This case-by-case standard is used now by the Board only when the abandonment was authorized before 1997, like here. *See Maryland Transit*, slip op. at 2.

93 F.3d at 799 (same). Here, like in *Maryland Transit*, the facts clearly demonstrate the County treated the line as abandoned from 1979 until the present. *Id.*

First, the County's "stated intentions" for the Line upon its purchase on July 24, 1979 from The Penn Central Corporation and The Owasco River Railway, Inc. left no doubt that it treated the Line as abandoned. White V.S. at 1, Exhibit A. As previously set forth above, several County documents referred to the Line as abandoned after the authorization, which is further strong evidence of the County's treatment of Line as abandoned. As noted, in the Ulster County 1977 Board Report, the abandoned status of the Line is mentioned. White V.S. at 4, Exhibit E. Also, the County commissioned the Maguire Report, which was published in 1978, which also referred to the Line as abandoned throughout the report and even cites to the 1977 Notice of Abandonment. White V.S. at 6, Exhibit H at 1. Moreover, in 2005, the County commissioned another study which referred to the Line as abandoned. White V.S. at 14, Exhibit T at 7. These various references to the Line as abandoned in these County reports demonstrate the County's treatment of the Line as abandoned.[4]

In addition to these "stated intentions," there were almost countless "physical acts" taken by the County that demonstrated the County was treating the Line as abandoned. Two of these "physical acts" factors include cessation of operations and the length of time there has been no rail service. *Maryland Transit*, slip op. at 2. Here, there has been no interstate rail service on the Line for decades, which demonstrates the Line was treated as abandoned. White V.S. at 2. *See Becker,* 132 F.3d at 62 ("[A] line is fully abandoned [after authorization when] tariffs have been canceled and operations have ceased.") In fact, it appears evident that the Line was already

[4] As these facts clearly establish, the County knew that the Catskill Mountain Branch was abandoned under the 3R Act when it purchased the Line in 1979. Therefore, it did not technically intend to abandon the Line, but instead treated the Line as abandoned based on this understanding after its purchase as the following facts demonstrate.

abandoned by the Penn Central before being purchased by the County based on its intent alone since the railroad had ceased all service and presumably canceled all tariffs in 1976. *See id.*

Other "physical acts" factors include the condition of the line, lack of maintenance, and salvage activities. *Maryland Transit,* slip op. at 2. The disastrous state of the Line from the time of its purchase by the County to the present demonstrates nothing other than the treatment of this Line as abandoned by the County. First, the TDA Report, which was issued right after the County purchased the Line, clearly documented the already deteriorated condition of the Line in 1979, including a major washout along the Line in Phoenicia (Town of Shandaken), poor tie condition with 85-90% of ties being defective, and the elimination of an overhead bridge carrying the railroad over State Route 30 in the Delaware segment. White V.S. at 6-7, Exhibit I. The condition of the Line worsened after the purchase, and in May 2016, the County commissioned an engineering firm to conduct a track inspection and issue a report on its findings to decide what to do next with the Line. The firm in its 2014 and 2015 reports determined that only six or seven miles had reached the Class 1 standard out of the 38.7-mile Line. White V.S. at 9, Exhibits L and M. As a result, the County contracted with this firm to produce a Statement of Opinion Letter on the best path forward if the County eventually decided to rehabilitate the Line for intrastate operations. The firm concluded that removal of all rail, ties, and other track materials would be advisable since the Line "was in an advanced state of disrepair from this lack of maintenance, and the railroad infrastructure—including culverts, bridges, drainage ditches, embankment and right-of-way have numerous locations of complete failure with the majority of the infrastructure evidencing marginal function as to its intended design purpose." White V.S. at 10, Exhibit N at p. 2.

The prolonged lack of maintenance and resulting damage to the Line was further evidenced during the preliminary and final engineering design of the Ashokan Rail Trail project along this specific section of track. As the County's consultants collected data and survey information and subsequently worked to obtain necessary environmental permits and approvals from the New York State Department of Environmental Conservation and the New York City Department of Environmental Protection, several areas of the Line were designated as State and/or federal wetlands. The evolution of these track areas into regulated wetlands resulted from a failure of CMRR to clean and maintain culverts and ditches over a period of decades. White V.S. at 10-11.

While the Line had become heavily deteriorated from lack of maintenance, it was also severely damaged in areas from storm disaster events since the County's purchase of the Line. Flooding in 1987 took a heavy toll on the Line west of Phoenicia, including damaging the Woodland Valley Bridge. Subsequent flooding events damaged track within the CMRR's operating area along the Esopus Creek, some of which was repaired. However, in 2011, Hurricane Irene and Tropical Storm Lee delivered severe blows to the Line, leaving the Boiceville Trestle at MP 21.3 substantially destroyed, creating a 600-foot washout along the Esopus Creek at MP 23.3, and damaging track at various other points. Also, the Big Indian Trestle Bridge at MP 36.7 was knocked off its center pier and was near collapsing into the Esopus Creek (and was removed by the County on September 23, 2013 to protect public safety and downstream resources). Photos taken in 2012 and 2013 of the Line's deterioration, tree and brush overgrowth, and storm damages, including the Boiceville Trestle, Big Indian Trestle and washout at MP 23.3, are attached as Exhibit O to White V.S. Along the Ashokan Section, there is also a failed major culvert at the Butternut Creek, photos of which are attached as Exhibit P to

White V.S. Also, the Line's overpass was removed years ago by the Town of Shandaken to increase the clearance for vehicles on the road beneath. White V.S. at 11-12. In addition, the County's Department of Environment conducted a detailed survey of the Line in 2012-2013 and documented that 7,225 linear feet (1.37 miles) was completely or substantially washed out, a report and map of which is attached as Exhibit Q to White V.S.

In addition to these many washouts, missing bridge structures, advanced tie deterioration, failure of culverts, and other physical deterioration, the Line is also now permanently severed by a New York State Department of Transportation highway bridge structure installed along State Route 28 where the Line previously crossed the State highway. White V.S. at 13. Moreover, 26 miles of the Catskill Mountain Branch track and other rail infrastructure had been removed in Delaware County in order to make a trail, which is in place today. White V.S. at 5. And now, the County has begun salvage operations on the Line in order to begin construction of the Ashokan Rail Trail, which has resulted in the removal of over fifty percent of the deteriorated rail infrastructure on the Ashokan Segment on the Line. As such, the Catskill Mountain Branch has been permanently severed from the national rail transportation network at several locations and could not possibly serve any purpose other than an intrastate tourism line or trail. This severance of the Line in various places and the disastrous state of the line as a whole are further overwhelming "physical acts" factors demonstrating the County's treatment of the Line as abandoned. *See Maryland Transit,* slip op. at 3; *Consolidated Rail,* 93 F.3d at 798 (severance of the line goes beyond the indicia necessary to show intent to abandon).

Clearly, the County's intent, based on the relevant "stated intentions" and "physical acts" factors, demonstrates that the Line has been abandoned. There has been no interstate freight service on the Line in decades. White V.S. at 2. The only service on the Line since 1976 has

been CMRR intrastate tourism operations over approximately six miles of the 38.7-mile Line. White V.S. at 8-9. Moreover, the Line is completely stranded from the national rail transportation network because of numerous locations where the former rail line has been completely removed including the highway bridge, the washout area, and the portions where Delaware County and the County have removed track to make a trail. Further, the Line is extremely deteriorated, even to the extent that parts of the Line have turned into wetlands due to failure to maintain the culverts and drainage on the right of way. In addition, the County has referred to the Line as abandoned in various reports since the abandonment had been authorized under the 3R Act. Also, the County has now started to build a trail over a large part of the Line, that will result in the removal of the remaining rail infrastructure on the Ashokan Segment – over half of which has already been completed. In sum, looking at all these facts in their entirety, it is obvious that the County's stated intent and the physical acts taken that carried out that intent all demonstrate that the Line has been abandoned.

CONCLUSION

On March 1, 1977, the Trustees of Penn Central gave notice in accordance with Section 304(b) of the 3R Act, 45 U.S.C. § 744(b), of their intention to abandon the Catskill Mountain Branch from MP 2.9 in Kingston to MP 74.9 in Stamford, NY. This Notice included the 38.7 miles of rail line that was purchased later by the County in 1979. On April 1, 1977, the New York State Department of Transportation issued the corresponding Railroad Abandonment Notification for the Catskill Mountain Branch to all interested State and local agencies, including the County of Ulster, noting that the approval for abandonment had been made for the subject railroad property identified in the accompanying map. Consequently, the abandonment of the entire Catskill Mountain Branch was consummated in accordance with 45 U.S.C. § 744(b) in

1977. Moreover, the County's treatment of the Line as abandoned was evident from the date of its purchase until the present. Since the line had clearly been abandoned under the 3R Act and based on the County's treatment of the Line, this request for declaratory relief should be dismissed since the Board has no jurisdiction over the Line.

Respectfully submitted

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Counsel for Ulster County, New York

Dated: February 22, 2018

CERTIFICATE OF SERVICE

I, Donn C. Meindertsma, hereby certify that a copy of the foregoing Reply to Petition for Declaratory Order dated February 22, 2018, was sent by Federal Express overnight mail to the following in this proceeding.

John D. Heffner
Strasburger & Price, LLP
1025 Connecticut Avenue, N.W., Suite 717
Washington, D.C. 20036



Donn C. Meindertsma

VERIFIED STATEMENT OF CHRISTOPHER WHITE

My name is Christopher White, and my business address is 244 Fair Street, PO Box 1800, Kingston, NY 12402. I am the Deputy Director of the Ulster County Planning Department. I have over 5 years of experience in the Planning Department, including trail and tourist rail development. I am also Project Manager for the Ashokan Rail Trail and as such, am familiar with Ulster County's plans to develop the 38.7-mile portion of the Catskill Mountain Branch that runs through Ulster and its history since the 1970s.

I am making this statement in support of Ulster County's Reply to the Petition for Declaratory Relief in Finance Docket No. 36164. More specifically, this statement describes and documents the development planning and history of this rail line based on a thorough search of the relevant County files and my personal knowledge. See Exhibits A-Z. This statement concludes that this rail line was abandoned by law.

The following history and overview are helpful in establishing and documenting that the Catskill Mountain Branch was abandoned more than forty years ago and is no longer under the jurisdiction of the Board. In addition, if one sets aside the issue of abandonment and the lack of connection to the national rail transportation system, the highly deteriorated condition of the Catskill Mountain Branch, resulting from decades of deferred maintenance and severe storm events, makes common carrier rail operations infeasible and unrealistic absent investment of tens of millions of dollars to restore missing bridges, damaged culverts, washed-away embankment, and to conduct massive tie replacement, which are discussed in greater detail below. White V.S. at 1.

The County of Ulster (the "County") purchased the former Catskill Mountain Branch (also known as the Ulster and Delaware Railroad) right-of-way within Ulster County from The

Penn Central Corporation and The Owasco River Railway, Inc. on July 24, 1979 for $1,500,000. The right-of-way purchased by the County extends approximately 38.7 miles from the main track of the West Shore Branch in the City of Kingston, NY (at approximately Milepost 2.9) to the hamlet of Highmount, NY at the border of Ulster and Delaware Counties (at approximately Milepost 41.6), as described in the Deed filed with the Ulster County Clerk on August 10, 1979, a copy of which is attached hereto as White V.S. at 1-2, Exhibit A.

The County purchased the aforementioned segment of the Catskill Mountain Branch right-of-way (the "Line") with the intent of using the abandoned line to establish tourism railroad operations for economic development purposes. The Line formerly had been a part of a successful passenger and freight line connecting Kingston, NY to Oneonta, NY (where it connected with the Delaware & Hudson Railroad), winding through the Catskill Mountains and along the Esopus Creek. However, the last regular interstate passenger service on the Catskill Mountain Branch ended in 1954. The last freight carrier ended its remaining operations on September 28, 1976, following the termination of a New York State subsidy. This subsidy had been provided through the State's Branchline Assistance Program to Conrail to operate on the Branch for six months. White V.S. at 2.

In the years prior to the County's purchase of the Line, the Catskill Mountain Branch from Kingston (MP 2.9) to Bloomville (MP 86.6) was analyzed by the United States Railway Association ("USRA") for possible inclusion in the Final System Plan for Restructuring Railroads in the Northeast and Midwest Regions ("Final System Plan") pursuant to the Regional Rail Reorganization Act of 1973 ("3R Act"). The segment between Bloomville and Oneonta had been abandoned previously. In its July 26, 1975 Final System Plan report, the USRA noted the Catskill Mountain Branch was not designated for transfer to the Consolidated Rail Corporation

("Conrail") and was available for subsidy pursuant to section 304 of the 3R Act. A copy of the relevant pages (pp. 270-271) of the Final System Plan is attached as White V.S., Exhibit B. Since the Catskill Mountain Branch was not included in the Final System Plan, it was authorized for abandonment under the 3R Act. White V.S. at 2-3.

The County Planning Department confirmed the exclusion of the Line from the Final System Plan in a call to Brian O'Boyle of the STB on October 23, 2012, following which Mr. O'Boyle emailed the relevant sections of the Final System Plan to the County. Mr. O'Boyle advised the County that he could not find the documents consummating the abandonment, which at the time, the County had not located in its archives. Most of the documents confirming the abandonment were later located during exhaustive searches of the County record archives relating to the Line. White V.S. at 3.

Following the termination of freight services in 1976, the Trustees of the Penn Central Corporation ("Penn Central"), which was in bankruptcy proceedings, gave notice on March 1, 1977, pursuant to Section 304(b) of the 3R Act, of their intention to abandon the Catskill Mountain Branch from MP 2.9 in Kingston, NY to MP 74.9 in Stamford, NY ("Notice of Abandonment"). The railroad right-of-way subject to this Notice included all 38.7 miles of the Line that was later purchased by the County. A copy of the Notice of Abandonment is attached as White V.S., Exhibit C. On April 1, 1977, the New York State Department of Transportation ("NYS-DOT") issued a Railroad Abandonment Notification for the Catskill Mountain Branch—including the Line—to all interested State and local agencies, including the County of Ulster, noting that the approval for abandonment had been made for the subject railroad property identified in the accompanying map. A copy of said notification and accompanying map are attached as White V.S. at 3, Exhibit D.

Based on these documents, it is clear the abandonment of the line was fully consummated as authorized by the USRA's prior exclusion of the Catskill Mountain Branch from the Final System Plan, effectively terminating federal jurisdiction over the Line. The abandoned status of the Line is specifically mentioned in the Ulster County Planning Board's Annual Report for 1977 ("1977 Board Report"), a copy of which is attached as White V.S., Exhibit E, and is alluded to in other reports that will be discussed below. White V.S. at 3-4.

Prior to the consummation of abandonment in 1977, it appears that Penn Central had attempted to abandon the Line in 1972-73, by petition at the former Interstate Commerce Commission ("ICC"). According to the Railroad History cited in the "Catskill Mountain Railroad Environmental Assessment" issued in February 1991, a copy of which is attached as White V.S., Exhibit F, this "abandonment [attempt] was invalidated due to procedural deviations." White V.S., Exhibit F at 7. Other documents similarly note the remaining shippers and local municipalities along the Line objected to this earlier attempt(s) to abandon the Catskill Mountain Branch. However, once the Branch was excluded from the Final System Plan, the Trustees of Penn Central were able to complete the abandonment as discussed earlier. The attached Environmental Assessment from 1991 also lists the agencies involved in the Line, and there are no federal agencies, such as the ICC, cited. White V.S., Exhibit F at 30-31.

As noted previously, the County purchased the Line from approximately MP 2.9 to approximately MP 41.6. The remaining right-of-way of the Catskill Mountain Branch in adjacent Delaware County was purchased by the seven town governments in Delaware County through which the track ran (from approximately MP 41.6 to MP 86.6) using grant funding from the A. Lindsay and Olive B. O'Connor Foundation. Following the purchases of the Delaware County sections of the Catskill Mountain Branch ("Delaware Section"), the seven towns created

a non-profit organization called the Catskill Revitalization Corporation ("CRC"). The CRC's charge was to manage, insure, maintain, and improve the Delaware Section. In the years since the purchase of the Delaware Section, the CRC developed the Delaware and Ulster Railroad ("DURR"), an intrastate seasonal tourism railroad excursion operation between Arkville, NY (approximately MP 47.0) and Roxbury, NY (MP 59.5), which continues to operate. White V.S. at 4-5.

In addition to running the seasonal DURR scenic and dinner trains on the 12.5-mile operating track section, the CRC also converted a segment to trail. CRC removed the track infrastructure from and converted a 26-mile section of the Delaware Segment (with a small section in Schoharie County) to a public recreational trail for hiking, bicycling, and snowmobile operations (the "Catskill Scenic Trail") from Roxbury (at approximately MP 60) to South Kortright (at approximately MP 86.) This "rails-to-trails" project was implemented locally without use of the National Trails System Act or federal railbanking as the CRC did not require federal approval for removal of the track from the abandoned Catskill Mountain Branch in Delaware County. The "segmented" use of the Delaware Segment for both rail and trail uses, an overview of which from the CRC is attached as White V.S., Exhibit G, is quite similar to the County's segmented rail and trail policy under which the Ashokan Rail Trail is currently being constructed. This policy designated certain segments of the primarily single-tracked Line for tourism rail operations and other segments for conversion to recreational trail only, including the segment designated for construction of the Ashokan Rail Trail in the Towns of Hurley and Olive, NY between MP 10.0 and MP 21.6 ("Ashokan Segment"). White V.S. at 5.

While the Delaware Segment was redeveloped for both rail and trail use following CRC's purchase of the right-of-way, Ulster County initially planned tourism railroad uses only for the

entire 38.7 miles following its purchase of the Line in 1979, although the County planners also noted a possible use for public trails at some point in the future. Following the 1977 Notice of Abandonment, the County commissioned the "Reuse Feasibility Study for the Catskill Mountain Railroad," which evaluated the feasibility of establishing a tourism railroad on the Line and was completed by CE Maguire, Inc. in January 1978, a copy of which is attached as White V.S., Exhibit H ("Maguire Report"). The Maguire Report notes the following:

> On September 28, 1976, the last run was made over the Catskill Mountain Branch and on March 1, 1977 the trustees of the Penn Central Transportation Company gave notice of their intention to abandon the line.

White V.S. at 6, Exhibit H at 1.

Shortly before the Notice of Abandonment, former Director of the Ulster County Planning Board, Herbert Heckler, organized a meeting of local, County, and State officials to promote the County's re-use of the Line for tourism railroad operations. As evidenced in the previously mentioned 1977 Board Report, many County officials viewed the available rail line as a potential tool for boosting tourism and economic development. The Maguire Report considered potential ridership and economic development opportunities from re-using the Line for tourism steam train operations and cited the relatively close proximity to New York City as a positive factor for the success of future tourism operations. The Maguire Report further noted that the condition of the track was fair to good, citing however, that at that time, heavy tie replacement would be necessary along with repairs to several structures and washouts. Throughout the Maguire Report, the Line is repeatedly referred to as "abandoned," so it is clear that the County was aware of the Line's abandoned status as it prepared to purchase the Line in 1979. White V.S. at 6.

Following the purchase of the Line, the County commissioned a second report, which was conducted by Transportation and Distribution Associates, Inc. and titled, "Inspection and Rehabilitation of the Former Ulster and Delaware Railroad," a copy of which is attached as White V.S., Exhibit I ("TDA Report"). This December 1979 report covered both the Line in Ulster County and the Delaware Segment and documented a major washout along the Line in Phoenicia (Town of Shandaken), poor tie condition with 85-90 % of ties being defective, and the elimination of an overhead bridge carrying the railroad over State Route 30 in the Delaware Segment. White V.S. at 6-7.

By the time of the inspection in 1979, the Line already had experienced years of deferred maintenance and neglect as Penn Central reduced capital investment in the tracks and supporting structures following its first attempt to abandon the Line in the early 1970s. The TDA report was commissioned as the County was working to attract a major railroad tourism operator and was in discussions with Steamtown, USA, which was looking to relocate from Vermont. Steamtown ultimately decided not to locate its operations in New York State, leaving Ulster County no immediate prospects for re-using the Line for tourism purposes. While the TDA Report made clear that the Line required millions of dollars in capital investment for tie replacement and other maintenance, without the prospect of a major tourism operation such as Steamtown, the County Legislature decided at that time to make no investments in the Line it had purchased. White V.S. at 7.

Beginning in 1982 or 1983, the County began a series of short-term leases with a local tourism railroad company, the Catskill Mountain Railroad Company, Inc. ("CMRR"). CMRR initially operated a seasonal tourism train on approximately 3 miles of track in the Town of Shandaken following the Esopus Creek, where the train (known as the "Tubers Special" or

"Esopus Creek Shuttle") primarily carried visitors who rafted in inflatable tubes down the adjacent Esopus Creek from Phoenicia. In the following years, the CMRR incrementally expanded its operations although its maintenance of the Line was, and remains today, a primarily volunteer effort with limited resources. However, at this time, most of the Line did not meet minimum FRA Class 1 standards so any expansions of CMRR service required rehabilitation of the track. White V.S. at 7.

In 1991, the County Legislature leased the Line to the Ulster County Industrial Development Agency ("IDA"), through which the Line was subleased to CMRR for a period of 25 years starting May 29, 1991 and ending May 31, 2016 (the "Lease".) This extended Lease was well beyond the County's typical five-year property lease, requiring conveyance of the Line to the County IDA to allow for a longer term. The longer term was intended to encourage much-needed capital investment in the Line, which by 1991 had faced nearly two decades of neglect and deterioration. CMRR and others had argued that without a long-term Lease, the required capital investments could not be made. White V.S. at 8.

During the term of the Lease, a copy of which is attached as White V.S., Exhibit J, CMRR was required to spend at least $25,000 per Lease year and rehabilitate at least one mile of track per Lease year to FRA Class 1 standards. It was also responsible for maintaining the rehabilitated track to Class 1 standards or better for the duration of the Lease. This rehabilitation and maintenance provision pertained only to the 25-mile eastern segment of the Line between Kingston (MP 2.9) and Phoenicia (27.9). The Lease provision recognized the reality that most of the track between Kingston and Phoenicia, with the exception of the small section of track used for the Tuber's Special, did not meet Class 1 standards due to a prolonged lack of maintenance since the Line's abandonment. As noted previously, Penn Central had been trying to abandon the

Branch since the early 1970s and presumably invested as little as possible in capital projects and maintenance in the years preceding the final abandonment. White V.S. at 8.

The remainder of the Line west of Phoenicia was apparently severed from the Kingston to Phoenicia segment by a washout along the Esopus Creek. This western segment was also more deteriorated than the eastern section due to its close proximity to the Esopus Creek in some areas. Therefore, in the Lease, the CMRR was only required to keep the segment from MP 27.9 to MP 41.6 free of brush, but this segment still was largely neglected. By the time of the execution of the Lease in 1991, the washout in the Town of Shandaken had worsened and a major bridge structure at Herdman Road in Woodland Valley had been severely damaged (and was subsequently removed). White V.S. at 8-9.

Over the 25-year term of the Lease, the Catskill Mountain Railroad was only able to rehabilitate and maintain a small portion of the 38.7-mile Line to Class 1 standards, and as a whole, the Line continued to deteriorate from lack of maintenance and storm events. As it became increasingly evident that CMRR was not conducting the required maintenance of the Line, the County issued CMRR a Notice of Default-Demand to Cure in June 2013 ("Demand to Cure"), a copy of which is attached as White V.S., Exhibit K. While numerous defaults are cited in the Demand to Cure, the lack of rehabilitation and maintenance was the primary issue. White V.S. at 9.

By the time of the Demand to Cure in 2013, CMRR had rehabilitated—and operated trains on—only two short segments of the Line, including the segment it historically operated to serve tourists tubing in the Esopus Creek as well as a short segment in the City of Kingston. In 2014 and 2015 as the Lease was nearing its expiration and the County was involved in litigation commenced by the CMRR following the Demand to Cure, the County commissioned track

inspection reports of the Line between Kingston and Phoenicia where the CMRR was required to upgrade 25 miles of track to Class 1 standards by May 2016. The reports documented that CMRR had rehabilitated and maintained only six or seven miles of Class 1 track, a small fraction of the required 22-23 miles required by the Lease provision to upgrade one mile of track per Lease year. Copies of the 2014 and 2015 track inspection reports, which were performed by Henningson, Durham and Richardson Architecture and Engineering, P.C. ("HDR"), are attached respectively as White V.S. at 9, Exhibits L and M.

In July 2017, the County contracted with HDR to produce a Statement of Opinion Letter ("HDR Letter") based on its inspections and reports recommending to the County whether removing all rail, ties and other track materials from the Ashokan Segment or instead burying these materials was preferable in terms of the County potentially reactivating the Ashokan Segment at some point in the future for tourism or other railroad operations, a copy of which is attached as White V.S., Exhibit N. The HDR Letter recommended the removal of all rail, ties and other track materials, highlighting that if the County wanted to restore railroad uses to the Ashokan Segment at some point in the future, it would be best served by removing the deteriorated railroad infrastructure, stabilizing the existing embankment, and installing all new rail materials. In summarizing the current condition of the Ashokan Segment, the HDR Letter noted the following:

> HDR's Rail Engineer found and documented that the Corridor was in an advanced state of disrepair from this lack of maintenance, and the railroad infrastructure-including as culverts, bridges, drainage ditches, embankment and right-of-way have numerous locations of complete failure with the majority of the infrastructure evidencing marginal function as to its intended design purpose.

White V.S. at 10, Exhibit N at 2.

The prolonged lack of maintenance and resulting damage to the Ashokan Segment was further evidenced during the preliminary and final engineering design of the Ashokan Rail Trail project along this section of track. As the County's consultants collected data and survey information and subsequently worked to obtain necessary environmental permits and approvals from the New York State Department of Environmental Conservation ("DEC") and the New York City Department of Environmental Protection ("DEP"), several areas of track were now designated as State and/or federal wetlands. The evolution of these track areas into protected wetlands resulted from a failure of CMRR to clean and maintain culverts and ditches over a period of decades, which was required for this eastern segment. In some areas, CMRR had cut fallen trees and dumped the branches and wood debris in adjacent drainage ditches. In at least two spans of the Ashokan Segment, the Ashokan Rail Trail must detour from the railroad alignment or span the rail bed with an engineered surface in order to avoid impacts to wetlands created by years of neglect to the underlying drainage systems. The lack of maintenance to culverts and drainage ditches was unfortunately not unique to the Ashokan Segment. White V.S. at 10-11.

While the Line became heavily deteriorated from lack of maintenance, it was also severely damaged in areas from storm disaster events since the County's purchase of the Line. Esopus Creek flooding in 1987 took a heavy toll on the Line west of Phoenicia, including damaging the aforementioned Woodland Valley Bridge. Subsequent flooding events damaged track within the CMRR's operating area along the Esopus Creek, some of which was repaired. However, in 2011, Hurricane Irene and Tropical Storm Lee delivered severe blows to the Line, leaving the Boiceville Trestle at MP 21.3 substantially destroyed, creating a 600-foot washout along the Esopus Creek at MP 23.3, and damaging track at various other points. The Big Indian

Trestle Bridge at MP 36.7 was knocked off its center pier and was near collapsing into the Esopus Creek (and was removed by the County in September 23, 2013 to protect public safety and downstream resources). Photos taken in 2012 and 2013 of the Line's deterioration, tree and brush overgrowth, and storm damages, including the Boiceville Trestle, Big Indian Trestle and washout at MP 23.3, are attached as White V.S., Exhibit O. In some of these photos, it is difficult to identify the rail or rail bed which are obscured by heavy overgrowth of trees, brush and debris or strewn in the Esopus Creek in areas where the embankment and ballast were completely washed away. Along the Ashokan Section, there is also a failed major culvert at the Butternut Creek, photos of which are attached as White V.S. Exhibit P. This major culvert will be removed as part of the Ashokan Rail Trail project, and the creek will be "daylighted" or restored to its original flow for the first time in a century. Finally, the Line's overpass at MP 36.9 was also removed some years ago by the Town of Shandaken to increase the clearance for vehicles on the road beneath. White V.S. at 11-12.

While some of the brush and trees in the attached photos were subsequently removed, these photos provide a good sense of why the Line is no longer viable for railroad use in many areas and is delineated for conversion to trail uses in multiple segments. While opponents of rail removal claim that railroad services could feasibly be restored along the entire Line, a quick perusal of these photos demonstrate that such contentions are without any basis. In addition to the photos, the County's Department of Environment conducted a detailed survey of the Line in 2012-2013 and documented that 7,225 linear feet (1.37 miles) was completely or substantially washed out, a report and map of which are attached as White V.S., Exhibit Q. Ignoring the extreme costs of rebuilding these areas for a moment, there is zero probability that the environmental regulatory agencies with jurisdiction of this critical area of the New York City

Watershed would ever allow new embankment fill to be placed in a creek that feeds a critical drinking water supply reservoir for nine million people. White V.S. at 12.

Following the extreme storm events in 2011, the CMRR applied to the Federal Emergency Management Agency ("FEMA") for disaster recovery assistance for four major projects, including the Boiceville Trestle and washout at MP 23.3, which are included in the attached photos. However, to date, none of these FEMA projects have been implemented because the costs of work estimated by CMRR, on which the FEMA assistance awards are based, were vastly underestimated and based on incomplete scopes of work. For example, the washout at MP 23.3 was estimated to cost approximately $184,000 to repair by CMRR volunteers. However, the County must implement the repairs and therefore conducted survey and engineering design of the repairs followed by a competitive bid process. The lowest responsible bid on this one washout exceeded $757,000. The County has requested rescoping of the project by FEMA, but repair work is on hold until FEMA approves the rescoping request. These facts demonstrate that large portions of this Line are in an advanced state of disrepair and highlight the difficulties and steep expense of restoring even one washout or missing structure. White V.S. at 12-13.

In addition to the many washouts, missing bridge structures, advanced tie deterioration, failure of culverts, and other physical deterioration, the Line is also now permanently severed by a NYSDOT highway bridge structure installed along State Route 28 where the Line previously crossed the State highway. In June 2016, the NYSDOT acquired by Eminent Domain a small stretch of the Line from the County in order to reconstruct and significantly raise a bridge along Route 28 prone to flooding from the Esopus Creek. A copy of the taking letter from NYSDOT is attached as White V.S., Exhibit R. The new bridge structure installed at approximately MP 33.5

was increased in height from the prior bridge to raise it out of the flood zone. As shown in the photos in the attached White V.S., Exhibit S, the new bridge does not provide the vertical clearance necessary for a train and has effectively cut the Line in that location. The NYSDOT was aware that the Line was abandoned, and the track segment acquired was already delineated by the County Legislature for conversion to trail only. As such, the County was able to have the NYSDOT construct a concrete pedestrian and bike passage under the new bridge to accommodate the future trail, which is evident in the attached photos. White V.S. at 13.

While the history and supporting documents provided demonstrate the Line was properly abandoned and details the Line's deterioration and irreversible gaps in physical continuity in multiple sections, the County believes it is also important to highlight the public interest considerations and public policy development behind the County's rail removal for construction of the Ashokan Rail Trail. Opponents of track removal for the project now argue the County somehow acted rashly or thoughtlessly in pulling up tracks to construct the Ashokan Rail Trail, but the fact is that this Project has been the result of more than a decade of planning, studies, public debate, policy development and design, and negotiation with the City of New York ("City") and its DEP. White V.S. at 13-14.

In 2005, County officials began seriously examining the possibility of opening some of the Line to recreational trail uses due in part to the fact that the CMRR was only using about 15% of the available 38.7 miles of track. The County commissioned Alta Planning & Design to complete a "U & D Rail + Trail" Feasibility Study for the Ulster and Delaware Railroad Corridor ("Alta Study"), a copy of which is attached as White V.S., Exhibit T. Since the CMRR had more than 10 years remaining on its Lease at the time of the Alta Study, the Study was not allowed to consider the alternative of removing rail and converting segments to trail only as the train

operations were considered an existing condition. The Alta Report again confirms that the Line was abandoned. White V.S., Exhibit T at 7. Other than in small segments of the Line, the Alta Report noted serious constraints to co-locating a multi-use recreational trail along the railroad, including rock cuts, topography, and DEP regulations along the Ashokan Reservoir limiting public access at the time. White V.S. at 14.

While the Alta Study created some momentum for development of trail in sections of the Line, no trail projects were implemented in the remainder of the CMRR Lease, in part due to opposition from CMRR for utilizing unused railroad segments for trail. For instance, local residents in the Town of Shandaken had proposed to CMRR to allow trail use of a segment of the existing tracks that were not used by CMRR during the entire 25-year Lease. After months of meetings and negotiations, the CMRR Board of Directors rejected any proposal for trail development during the Lease. White V.S. at 14.

In late 2012, the County Executive announced a proposal to remove some of the track in the unused western segments of the Line where the County owns the Line in fee and which were heavily overgrown with brush and trees. The proposal also included opening up most of the Line for public trail uses, which sparked a prolonged and sometimes fierce debate on the County's "rail versus trail" issue. The trail proposal was consistent with many County policies, including its Non-Motorized Transportation Plan and Open Space Plan. The County then partnered with several local non-profits to commission studies to examine the benefits and feasibility of using some or all of the Line for a recreational trail to support tourism, improve public health, and enhance the quality of life for area residents. The studies included the "Catskill Mountain Rail Trail: Economic & Fiscal Impact Analysis" commissioned by the New York-New Jersey Trail Conference and conducted by Camoin Associates ("Camoin Report"), a copy of which is

attached as White V.S., Exhibit U. The report's finding forecast that the conversion of the Line to a public recreational trail would attract more than 140,000 annual visitors, result in $3.1 million in new local sales, and create 44 jobs. White V.S. at 15.

At the time of the Camoin Report's release, the most recent annual report from CMRR from 2012 noted the total visitors on CMRR's trains as 9,302 customers for the entire year. The Lease payment to the County, which was a percentage of CMRR's gross revenues, was only $4,464 for 2012 for CMRR's exclusive use of the 38.7-mile Line. In fact, prior to Ulster County's proposal for trail development, CMRR ran no licensed theme trains, which only began in 2015. CMRR's revenues from 1991-2014 were so modest that the total Lease payments to the County over those 23 years totaled only $38,561. Based on such data, it is hard to argue that prior to 2015, when CMRR started to offer theme train events like Polar Express and Day Out With Thomas, the limited, seasonal operations on a small fraction of the available Line justified the growing opportunity costs of the CMRR controlling the entire Line to the exclusion of other public uses. White V.S. at 15-16.

In 2013, the County began working with the Open Space Institute on a Feasibility Study for the Ashokan Rail Trail. The more than $150,000 comprehensive study, which included a detailed site assessment and survey, was funded by private sources and was completed by July 2015. As these studies were being done, the County Legislature passed its first policy on the future use of the Line which called for the Line to be converted to trail except between MP 21.3 (location of collapsed Boiceville Trestle) to MP 27.9 (north of which are the most extreme washouts). CMRR and its supporters strongly opposed the removal of track between Kingston and the Boiceville Trestle. White V.S. at 16.

The County Executive proposed a compromise plan to leave a second tourism railroad section in the City of Kingston, which led to the Legislature forming the U&D Railroad Advisory Committee, a bipartisan committee composed of nine County Legislators. The Committee commissioned a detailed report from a railroad consultant, Stone Consulting & Design, P.C., a copy of which is attached as White V.S., Exhibit V. The report, titled the "Highest and Best Use Recommendations-U&D Railroad Corridor" ("Stone Report"), was conducted over an approximately eight-month period, during which the Committee and consultants reviewed all available data and studies, interviewed a wide range of stakeholders, and visited the majority of the Line to personally observe conditions. White V.S. at 16.

The Stone Report recommendations became the basis for a revised rail and trail policy. The Stone Report's findings recognized that rail and trail use could not exist side-by-side in most sections of the Line, which was constructed as a single-track corridor and had many constraints to co-locating rail and trail, including narrow underpasses, constricted bridge and culvert structures, adjacent wetlands and/or private property encroachments, tight high-fill embankment areas, and regulatory constraints. For instance, in the Ashokan Segment, which the Stone Report strongly recommended for conversion to trail only, the County's Line was an easement for railroad purposes only. Along the majority of the Line, the County owns the right-of-way in fee; however, in the 11.5-mile segment along the City of New York's Ashokan Reservoir, the underlying land ownership was the City and the DEP. The DEP agreed to allow the County to convert the Ashokan Segment into a public recreational trail (and provide $2.5 million in funding to support the project) with the stipulation that rail and trail uses could not take place over the Ashokan Segment concurrently. White V.S. at 16-17.

Recognizing the poor condition of many areas of the Line and the growing opportunity costs of not allowing alternative public uses, the County Legislature developed and passed a compromise segmented rail and trail policy in December 2015 that delineated two sections of the Line for future tourism rail operations and the rest of the Line for conversion to trail only. This policy resolution (Resolution No. 488 of 2015) passed unanimously (23-0) and was supported by CMRR. A copy of this resolution, its predecessor resolution, and the subsequent thirteen resolutions underlying progressing the Ashokan Rail Trail project are attached as White V.S., Exhibit W. The adoption of this compromise policy and its subsequent implementation was the culmination of years of public debate, research by a specially-appointed bipartisan Legislative committee, and planning and study which started as early as 2005. The tourism railroad components of this policy have already been implemented. The County has issued a multi-year permit to CMRR to operate between MP 3.8 and MP 8.3 although CMRR currently only runs its theme and other trains to MP 6.5 because it has not yet restored the remaining available track to minimum FRA Class 1 standards. Additionally, the County has signed a multi-year lease for a rail bike company, Rail Explorers Corporation, to operate starting in May 2018 in the segment between MP 23.3 to MP 27.9. The combined operations of these two operations is projected to attract more than fifty thousand visitors in 2018, which demonstrates that the segmented rail and trail policy is already spurring economic benefits for the County. White V.S. at 17-18.

While the County was studying the rail and trail issue and formulating policies for the Line's redevelopment following the expiration of CMRR's Lease, the County also worked to secure a critical agreement with the City and DEP to allow trail uses along the Ashokan Reservoir upon property owned by the City over which the County's Railroad Easement exists. In late 2012, the DEP and the County announced an historic agreement in principle to convert

the Ashokan Segment to trail only, which would open the northern shores of the Ashokan Reservoir to the public without special permits for the first time since the construction of the Reservoir in 1911-1912. White V.S. at 18.

During the construction of the Ashokan Reservoir, the Line had been relocated from its original alignment along the Esopus Creek Valley that became part of the Reservoir, and the City granted a permanent railroad easement to the Ulster and Delaware Railroad Company upon property owned by the City of New York, along which the permanent easement was granted. Using City funding, the railroad was reconstructed on its current alignment on the border of the Reservoir on City lands, including over two major dikes. The City of New York and DEP were aware that no freight or passenger trains had run on the Ashokan Segment since 1976. In considering the protection of the City's Ashokan Reservoir, a terminal reservoir in the nation's largest unfiltered drinking water system, the City was consistent and clear over a period of more than ten years that a trail could not be built alongside the railroad, which would require significant disturbance of and impact to the lands and waters along the Ashokan Reservoir. White V.S. at 18.

The County and the City negotiated terms for a Memorandum of Agreement ("MOA"), which was approved by the Legislature and executed on June 16, 2015. This MOA, a copy of which is attached as White V.S., Exhibit X, established the framework and partial funding for the conversion of the Ashokan Segment from railroad to recreational trail. In the MOA, the City would grant the County a Land-Use Permit to design and build the Ashokan Rail Trail and the County's easement for railroad purposes ("Railroad Easement") would be modified at some future date. Since a Land-Use Permit is revocable and not a permanent property interest, the County and DEP discussed a potential avenue for protecting the Railroad Easement from

possible reversion by using the National Trails System Act. The MOA allowed the County, with DEP input, to seek from the STB reactivation of the Line for freight operations. After a brief period of time in which no shipper(s) in all likelihood would request service that would justify the significant capital investments necessary to ship freight and reconnect to the national rail transportation system, the County would then seek to use federal railbanking to protect the Railroad Easement while allowing for Interim Trail Use under the National Trails System Act. White V.S. at 19.

The MOA gave the County the option to reactivate the Line and then request railbanking, but it did not require it. As the County and the City further negotiated the follow-up agreement(s) to create the Ashokan Rail Trail, the parties agreed after months of discussion and research that it would be advantageous to both parties not to reactivate the Line. Instead, the County and City negotiated a new trail easement, which would overlay and protect the County's underlying Railroad Easement. The new Ashokan Trail Easement ("Trail Easement"), a copy of which is attached as White V.S., Exhibit Y, obviated the need for, and risks of, a revocable Land-Use Permit and provided the County the right to terminate the Trail Easement in the future in order to re-establish rail uses under its perpetual Railroad Easement. Absent reactivation of the Line and federal railbanking, the Trail Easement enabled the County to protect its underlying Railroad Easement and not be subject to possible reversionary interests upon the removal of rail on the Ashokan Segment. The Trail Easement was executed and filed with the County Clerk's office on August 28, 2017, conveying a permanent trail easement to the County and laying the groundwork for the beginning of trail construction. That construction began in early January 2018 following the bidding and award for track removal and securing of necessary permits and

approvals. As of the date of this filing, a majority of the steel rail has been removed and salvaged. White V.S. at 19-20.

It is important to note that in addition to receiving financial support from the DEP for the Ashokan Rail Trail, the Project was also awarded more than $3.6 million in grants through the New York Department of Environmental Conservation and another $500,000 through the New York State Office of Parks, Recreation, and Historic Preservation ("OPRPH"). In addition to providing funding support, OPRHP also reviewed the project and issued a determination to the County that the proposed track removal and trail construction would have No Adverse Impact on the historical resources along the Line, a copy of which is attached as White V.S. at 20, Exhibit Z.

The Ulster & Delaware Railway Revitalization Corp. ("U&D"), which filed the Petition for Declaratory Relief (FD 36164) on January 16, 2017, appeared not to be aware that the documentation of abandonment exists. Also, U&D appears to be confused about the Line's connection to the national rail transportation system. U&D claims the Line is connected, but that simply is not the case because the Line has clearly been severed at various points. Further, U&D seems unaware that the Ashokan Trail Easement is in addition to the County's Railroad Easement and obviates the need to use the National Trails System Act. The County has not proposed and has no intention to use the National Trails System Act for the Ashokan Rail Trail. The contention that the Ashokan Segment will revert to DEP is simply incorrect, which is clearly addressed in the Ashokan Trail Easement. The U&D has also made public statements questioning why the County had announced it was going to use federal railbanking in early 2013. The fact is that the County had not yet then located in its archives the Notification of Abandonment and other documents showing conclusively that the Catskill Mountain Branch,

including the Line, was abandoned in 1977 under the 3R Act. The confirmation of this abandonment is reflected in the 2015 MOA between the County and City in which the County left itself the option of reactivating the Line for freight operations so it could then use railbanking to allow Interim Trail Use to protect its Railroad Easement. In the end, the negotiation of an additional Trail Easement obviated the need for any reactivation or railbanking. White V.S. at 20-21.

The County met with three Board members of the U&D during the summer of 2016 at the request of the newly-formed organization. Most of the members of this small organization had not been involved in the meetings and public debate of the past five years on this matter and many of them live in other counties. As such, the County representatives conveyed much of the information in this Statement of Facts to the U&D representatives, including information on the physical deterioration and major gaps in the system. The U&D left the meeting and then began to wage a campaign against the County's trail plans. It is important to note that the County worked through to a compromise on the rail versus trail issue that received bipartisan and unanimous support in the Legislature, was supported by the CMRR in public statements at the time of its passage and was lauded by local newspapers for taking a balanced and thoughtful approach to an emotional and complex issue. In addition, the County has entered into a legally valid agreement with the City that enables the County to remove track for the Ashokan Rail Trail without the right-of-way reverting to the City or compromising the Railroad Easement. The County looks forward to implementing diligently the rail and trail components of this compromise policy and appreciates the Board's patience and consideration in allowing the County to clarify and correct the record on this important local issue. White V.S. at 21.

VERIFICATION

I, Christopher White, verify under penalty of perjury under the laws of the United States that the foregoing is true and correct. Further, I certify that I am qualified and authorized to file this Verified Statement.

Executed on February 20, 2018.

Christopher White

EXHIBIT A

SEE CROSSING AGREEMENT DEED LIBER 1478 PAGE 017

Quitclaim Deed - New York

THIS INDENTURE, made the 24th day of July Nineteen Hundred and Seventy-Nine (1979).

BETWEEN THE PENN CENTRAL CORPORATION, a Pennsylvania corporation, and THE OWASCO RIVER RAILWAY, INC., a New York corporation, each having an office at 1700 Market Street, Philadelphia, Pennsylvania 19103,

hereinafter referred to as the Grantor, and COUNTY OF ULSTER, a municipal corporation, one of the Counties of the State of New York, having its office at 240 Fair Street, Kingston, New York 12401,

hereinafter referred to as the Grantee;

WITNESSETH, that the Grantor, for and in consideration of the sum of ONE MILLION FIVE HUNDRED THOUSAND DOLLARS ($1,500,000.00)- - - lawful money of the United States, paid by the Grantee, the receipt whereof is hereby acknowledged, does hereby remise, release and quitclaim unto the Grantee, the heirs or successors and assigns of the Grantee forever, all right, title and interest of the Grantor of, in and to the premises described in Schedule "A" attached hereto and made a part hereof.

SCHEDULE "A"

ALL THAT PROPERTY SITUATE in the City of Kingston, Towns of Ulster, Hurley, Kingston, Woodstock, Olive and Shandaken, and the Village of Pine Hill, County of Ulster and State of New York, being all the right, title and interest of The Penn Central Corporation and/or The Owasco River Railway, Inc., of, in and to all that certain piece or parcel of land and premises, easements, rights of way and other rights of any kind whatsoever appurtenant thereto or used in conjunction therewith on and along that portion of the railroad known as the Catskill Mountain Branch, said portion being described as follows:

BEGINNING at a line in said City of Kingston which is drawn across the right of way of said Catskill Mountain Branch parallel with and 100 feet northwestwardly and radially from the centerline of the near main track of the railroad of Consolidated Rail Corporation known as the West Shore Branch, said line being the lateral cut line described on page B-7 of the Deed from the Trustees of the property of Penn Central Transportation Company to Consolidated Rail Corporation identified as document no. PC-CRC-RP-138 and recorded in Liber 1398 at page 1138; thence extending in a general northwesterly direction, along said right of way of Catskill Mountain Branch, approximately 38.71 miles to the line dividing said County of Ulster on the southeast from the County of Delaware in said State of New York on the northwest, the place of ending.

TOGETHER with the existing railroad track and appurtenances thereto located thereon.

ALL AS SHOWN in yellow on valuation map numbers 500-1450-0-3 to 500-1450-0-23 inclusive, which map was filed in the Ulster County Clerk's Office August 10,1979 as map #3976,sheets nos.1 through 31 inclusive.

EXCEPTING thereout and therefrom, all those parcels of land identified as follows: Parcel B on map 5; Parcels A, B, D, E and F on map 6; Parcel B on map 7; Parcel A on Map 18; and Parcels B and C on map 23.

AND EXCEPTING AND RESERVING to Grantor, easements for all existing wire and pipe agreements, occupancies and licenses, if any, between Grantor and other parties, of record or not of record, that in any way encumber the premises hereinabove described, together with the right to convey such easements to the occupant without securing approval of the Grantee herein. Grantor specifically reserves and retains all rentals, fees and considerations resulting from such agreements, occupancies, licenses and easement conveyances.

SUBJECT, however, to any state of facts that an accurate survey or personal inspection of the premises may disclose.

THIS DEED is delivered by Grantor and accepted by Grantee upon the understanding and agreement (1) that the within conveyance is made without covenants of title or warranties, express or implied; (2) that should any claim adverse to the title hereby quitclaimed be asserted and/or proved, no recourse shall be had against the Grantor; and (3) that the said Grantor shall not be liable or obligated to construct or maintain any fence between the land hereinbefore described and land of the said Grantor adjoining the same; or be liable or obligated to pay for any part of the cost or expense of constructing or maintaining such a fence or any part thereof; or be liable for any compensation for any damage that may result by reason of the non-existence of such a fence.

THAT this conveyance is made pursuant to Order No. 3731 of the United States District Court for the Eastern District of Pennsylvania, dated September 7, 1978, in re Penn Central Transportation Company, Debtor, Bankruptcy Docket No. 70-347, which approved the sale and provided for the Premises to be conveyed free and clear of liens.

TOGETHER with the appurtenances and all the estate and rights of the Grantor in and to said premises.

TO HAVE AND TO HOLD the premises herein quitclaimed unto the Grantee, the heirs or successors and assigns of the Grantee forever., EXCEPTING, RESERVING AND SUBJECT as aforesaid.

AND the Grantor, in compliance with Section 13 of the Lien Law, covenants that the Grantor will receive the consideration for this conveyance or an equal sum and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvements, if any, made by the Grantor upon said premises and will apply the same first to the payment of the cost of any such improvements before using any part of the total of the same for any other purposes.

THE words "Grantor" and "Grantee" used herein shall be construed as if they read "Grantors" and "Grantees", respectively, whenever the sense of this Indenture so requires and whether singular or plural, such words shall be deemed to include in all cases the heirs or successors and assigns of the respective parties.

IN WITNESS WHEREOF, the Grantor has caused this Indenture to be executed the day and year first above written.

SEALED and DELIVERED
in the presence of us:

Nancy Lee Marshall

Karen Pellegrino

THE PENN CENTRAL CORPORATION

By: Paul W Olson
Paul W. Olson - Director -
Sales and Marketing

Attest: _____
Secretary

THE OWASCO RIVER RAILWAY, INC.,

By: _____
Vice President

Attest: _____
ASSISTANT Secretary

NEW YORK - Acknowledgment

STATE OF PENNSYLVANIA :
:ss
COUNTY OF PHILADELPHIA:

ON THE 24 day of July, 1979, before me came PAUL W. OLSON to me known, who, being by me duly sworn, did depose and say that he resides at 432 School House Lane, Devon, Pennsylvania 19333 that he is the Director, Sales and Marketing of THE PENN CENTRAL CORPORATION, the corporation described in, and which executed, the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that he signed his name thereto by like authority.

Olin S. Shockley
Notary Public

OLIN S. SHOCKLEY
Notary Public, Phila., Phila. Co.
My Commission Expires March 9, 1981

STATE OF PENNSYLVANIA :
:ss
COUNTY OF PHILADELPHIA:

ON THE 24 day of July, 1979, before me came G. C. HOLPP to me known, who, being by me duly sworn, did depose and say that he resides at 113 Crestside Way, Malvern, Pennsylvania, 19355 that he is the VICE PRESIDENT of THE OWASCO RIVER RAILWAY, INC., the corporation described in, and which executed, the foregoing instrument; that he knows the seal of said corporation; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation; and that he signed his name thereto by like authority.

Olin S. Shockley
Notary Public

OLIN S. SHOCKLEY
Notary Public, Phila., Phila. Co.
My Commission Expires March 9, 1981

00 207

CASE NO. 81969

DEED

FILED
11:32 AM
AUG 10 1979
ALBERT SPADA
ULSTER COUNTY CLERK

0167

RECEIVED
$ 0.00
REAL ESTATE
AUG 10 1979
TRANSFER TAX
ULSTER
COUNTY

THE PENN CENTRAL CORPORATION and THE OWASCO RIVER RAILWAY, INC.,

to

COUNTY OF ULSTER

Premises:
City of Kingston
Towns of Ulster, Hurley and Kingston, Woodstock, Oliver and Shandaken and Village of Pine Hill
County of Ulster
State of New York

Typed: teo
Proofread: lmf

Approved:

Recorded on the 10 day of August 79 at 11:32 o'clock A.M. in Liber 1414 of Deeds at page 933

Clerk

1414 937

EXHIBIT B

WALLKILL VALLEY BRANCH

USRA Line No. 136

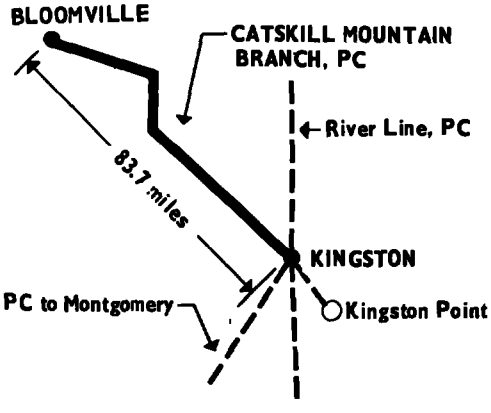
Penn Central

The Wallkill Valley Branch, extending from *Kingston* (Milepost 0.0) to *Montgomery, N.Y.* (Milepost 33.0), a distance of *33.0 miles*, in Ulster and Orange Counties, N.Y., a line which was recommended for inclusion on page 626 of the Preliminary System Plan, shall be transferred to the Consolidated Rail Corp.

CATSKILL MOUNTAIN BRANCH

USRA Line No. 137

Penn Central



The Catskill Mountain Branch, formerly part of the New York Central RR, extends from *Kingston* (Milepost 2.9) to *Bloomville, N.Y.* (Milepost 86.6), a distance of *83.7 miles*, in Ulster, Delaware and Schoharie Counties, N.Y. At Kingston, this branch connects with the River Line and the Wallkill Valley Branch of the PC (see Line No. 136).

Traffic and Operating Information

Stations (with their 1973 carloads) served by this line:	
West Hurley	0
Phoenicia	3
Grand Hotel Station	0
Fleischmann's	42
Arkville	7
Halcottville	1
Roxbury	346
Grand Gorge	23
Stamford	334
Hobart	3
South Kortright	87
Bloomville	6
Total carloads generated by the line	852
Average carloads per week	16.4
Average carloads per mile	10.2
Average carloads per train	9.5
1973 operating information:	
Number of round trips per year	90
Estimated time per round trip (hours)	23.0
Locomotive horsepower	1,800
Train crew size	4

Public Comments on Preliminary System Plan

The Catskill Mountain Transportation Corp. (CMTC), said this line could show a profit of $90,701 on the assumption that the line would produce $100,429 in additional revenues with assurance of improved and expanded service. Included was a surcharge of $2 per ton which shippers on the line would be willing to pay on all freight shipped or received on the line. Lutz Feed and Briggs Lumber Co. stated that they offered PC such a surcharge 3 years ago but have never received a reply.

CMTC reported it had three qualified men thoroughly check "every inch" of roadbed on the Catskill branch and submitted a 200-page, mile-for-mile report describing the condition of the roadbed. The report concluded that total rehabilitation costs for the branch would be $467,000 or $47,000 per year.

CMTC also pointed out the following errors in USRA's analysis of the line:

—USRA stated there were 180 round trips, but there were not more than 90.
—The average number of cars per train was 10, not 4.7.
—The line has only one turnout every 5 miles instead of one every 2 miles as estimated by USRA's average.
—The line has only one crossing every 3 miles instead of one per mile as estimated by USRA's average.

Lutz Feed and Briggs Lumber account for 50 percent of the traffic on the line. These companies stated that the line now meets FRA Class I standards and could be brought to Class II standards with a minimum of work. Lutz predicts that its traffic would grow 25 percent if the line remains in service.

Lutz Feed receives 20,000 tons of feed per year. Lutz, Briggs and Wadler Lumber stated that loss of service would have a serious effect upon their competitive positions.

Williamson Veneer has reopened a plant at Fleischmann's which will generate at least 35 carloads per year.

Husky Industries of Grand Gorge and Stamford would build a new plant with a rail siding if assured of continued service. The plant would produce 90 carloads per year.

The New York DOT noted the following station errors: Roxbury generated 445 carloads and Stamford generated 449 carloads. New York DOT recommended

that the line be evaluated as the Kingston to Stamford branch since service is not warranted beyond Stamford.

Information for Line-Transfer Decision

Revenue received by PC		$404,358
Average revenue per carload	$475	
Variable (avoidable) cost of continued service:		
Cost incurred on the branch line	659,730	
Cost of upgrading branch line to FRA Class I: (1/10 of total upgrading cost)	97,579	
Cost incurred beyond the branch line	328,175	
Total variable (avoidable) cost		1,085,493
Net contribution (loss): total		(681,135)
Average per carload	(799)	

This line would require upgrading to meet the requirements of the Federal Railroad Administration's minimum safety standards (Class I track, which has a maximum safe operating speed of 10 m.p.h.). Based on available information, this upgrading would include the replacement of a total of 18,000 crossties (an average of 215 crossties per mile).

This line was reanalyzed using 90 round trips per year and 23 hours per round trip.

Service to this line generated a loss of $681,135 in 1973. Recovery of this loss would require approximately a ninefold increase in traffic or a 168-percent rate increase. The inclusion of an additional 214 carloads on this line, as reported by New York DOT, would reduce this loss to $662,000. In addition, with the reduced rehabilitation reported in the testimony presented to the RSPO, the loss would still be $612,000. The surcharge of $2 per ton offered by the shippers would further reduce the loss to $534,102.

Disposition

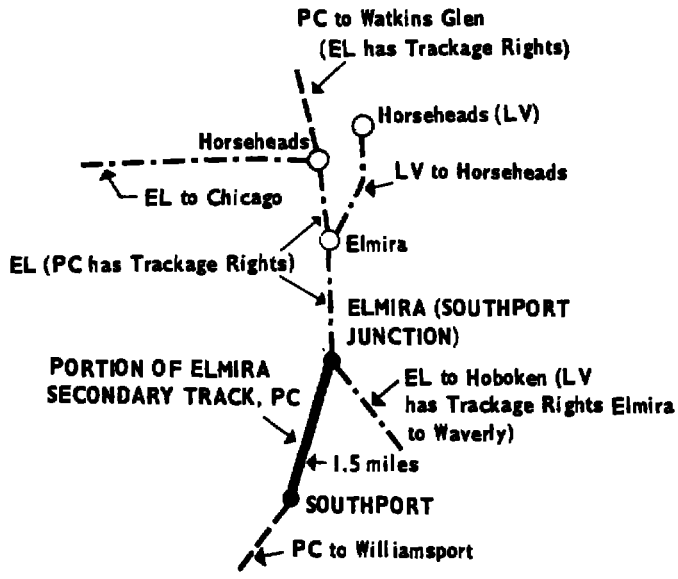
The Catskill Mountain Branch is *not* designated for transfer to Consolidated Rail Corp. and is available for subsidy pursuant to section 304 of the Act. Public officials have recommended that certain rail rights-of-way be used for other public purposes if rail service is discontinued. For line-specific recommendations, see section C of this appendix.

PORTION OF THE ELMIRA SECONDARY TRACK

USRA Line No. 230a

Penn Central

This portion of the Elmira Secondary Track, formerly part of the Pennsylvania RR, extends from *Southport* (Milepost 74.0) to *Elmira* (*Southport Junction*), *N.Y.* (Milepost 75.5), a distance of *1.5 miles* in Chemung County, N.Y. At Elmira, this line connects with the Jersey City-to-Chicago line of the EL over which PC has trackage rights to Horseheads (see Line No. 231a). From Southport, this line continues to Williamsport (See Line No. 230). LV also serves Elmira and Horseheads via trackage rights over the EL from Waverly to Elmira.



Traffic and Operating Information

Stations (with their 1973 carloads) served by this line:	
Elmira (Southport) [1]	114
Total carloads generated by the line	114
Average carloads per week	2.2
Average carloads per mile	76.0
Average carloads per train	2.2
1973 operating information:	
Number of round trips per year	52
Estimated time per round trip (hours)	1.0
Locomotive horsepower	2,000
Train crew size	4

[1] Includes only traffic on segment.

Public Comments on Preliminary System Plan

Thatcher Glass Manufacturing Co. has a $30 million plant at Elmira which uses this line and Line No. 231a. The plant consumes 120,000 tons of sand and 43,000 tons of soda ash per year.

Linn S. Chapel Co., Inc. of Elmira reported that it shipped 114 carloads over this line in 1973 and 142 carloads in 1974 and contended that the line would meet USRA's criteria for inclusion in ConRail. USRA attributed only 48 carloads to the entire line.

The data available indicates that the USRA analysis included two locomotives per trip. The traffic involved does not appear to warrant a second unit.

EXHIBIT C

N O T I C E

The Trustees of Penn Central Transportation Company hereby give notice, pursuant to Section 304(b) of the Regional Rail Reorganization Act of 1973, as amended, of their intention, effective March 1, 1977 to abandon the Catskill Mountain Branch, between Kingston (Milepost 2.9), and Stamford (Milepost 74.9), in the State of New York.

In the Final System Plan adopted under the terms of the 1973 statute, as amended, the line to which this notice relates is not designated for continued operation by Consolidated Rail Corporation or any other carrier, and no offer of subsidy pursuant to Section 304(c) of the above statute has been received.

ROBERT W. BLANCHETTE, RICHARD C. BOND AND JOHN H. McARTHUR, TRUSTEES OF THE PROPERTY OF PENN CENTRAL TRANSPORTATION COMPANY, DEBTOR

PC 137 1436 7/1/77

EXHIBIT D

NEW YORK STATE
DEPARTMENT OF TRANSPORTATION
Raymond T. Schuler, Commissioner

1220 Washington Avenue, State Campus, Albany, New York 12232

April 1, 1977

Re: Railroad Abandonment Notification
Penn Central Transportation Co.
Catskill Mountain Branch, Kingston
to Stamford, Ulster, Delaware &
Schoharie Counties

Dear

Under the provisions of Chapter 998 of the Laws of 1973, the Department of Transportation is designated as the official State agency to receive all notifications from the Federal Interstate Commerce Commission, United States Railroad Association (USRA), or any other Federal or State agency in regard to discontinuance of service or railroad property abandonment proceedings, including notification of applications from railroad companies for such purposes.

Furthermore, the Department of Transportation is required to inform all interested State agencies, transportation authorities and local municipalities in which such railroad property is located of these notifications.

In accordance with the provisions of this statute, you are hereby notified that the approval for the abandonment has been made for the subject railroad property identified in the enclosed description and map. You are being advised of this abandonment for informational purposes only.

Sincerely,

Allan E. Taylor for

JOHN H. SHAFER, Director
Project Development Bureau

Enclosures

JHS/JPB/dc

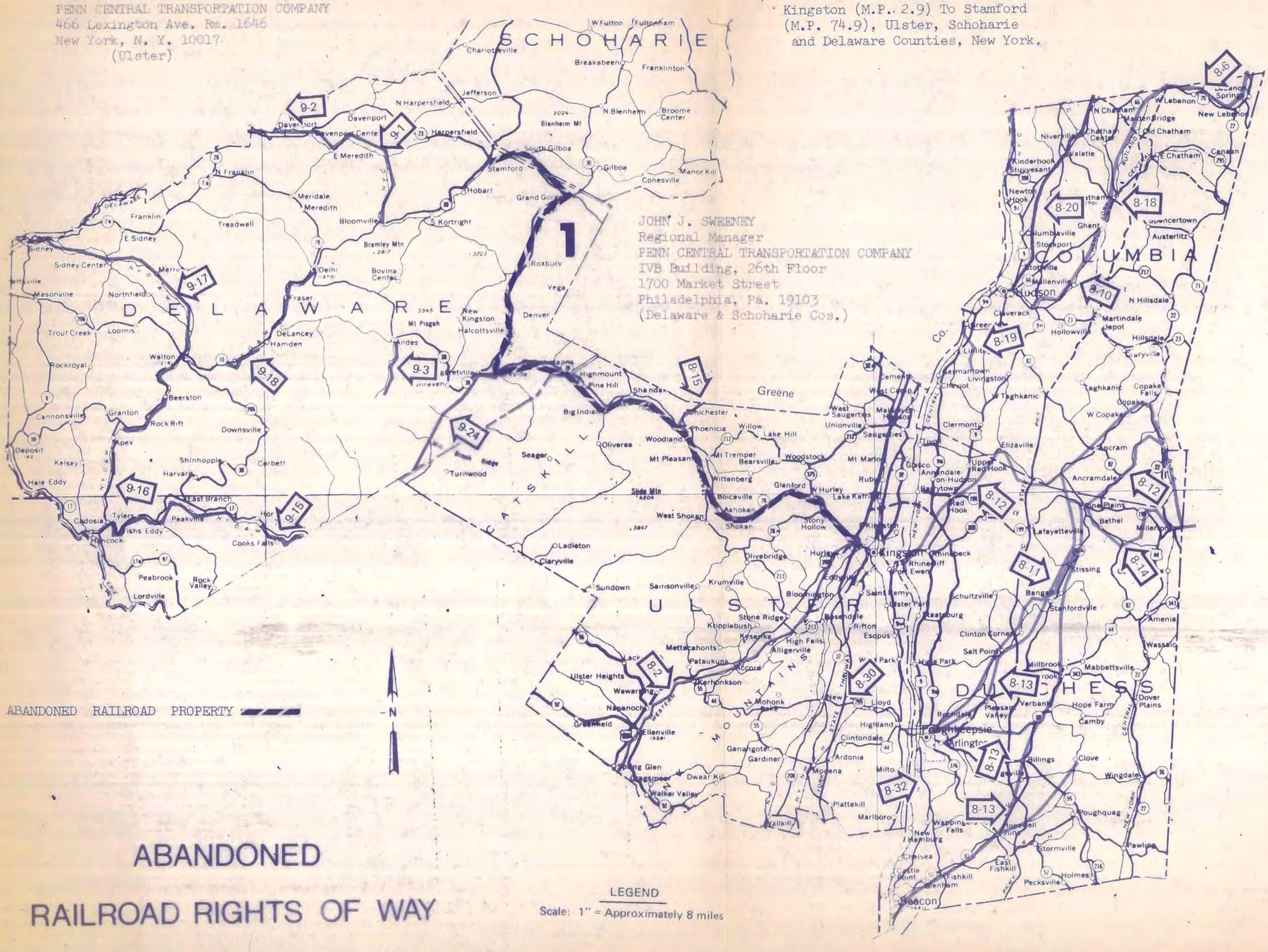
bcc: J. K. Mladinov, 502-5
J. E. Collison, 204-5
K. W. Shiatte, 115-4
H. B. Clarkson, 115-4
J. K. Lussi, 212-4
B. S. Zodikoff, 316A-5
H. L. Peyrebrune, 206-4
M. D. Graham, 404-5
A. E. Dickson, Region #8
J. Lawrence, Region #8
J. K. Connors, Region #9
J. P. Carrington, Region #9

SANFORD I. SHULL
Regional Manager
PENN CENTRAL TRANSPORTATION COMPANY
466 Lexington Ave. Rm. 1646
New York, N. Y. 10017
(Ulster)

PENN CENTRAL TRANSPORTATION COMPANY

1) Catskill Mountain Branch, Kingston (M.P.. 2.9) To Stamford (M.P. 74.9), Ulster, Schoharie and Delaware Counties, New York.

JOHN J. SWEENEY
Regional Manager
PENN CENTRAL TRANSPORTATION COMPANY
IVB Building, 26th Floor
1700 Market Street
Philadelphia, Pa. 19103
(Delaware & Schoharie Cos.)



ABANDONED
RAILROAD RIGHTS OF WAY

LEGEND

Scale: 1" = Approximately 8 miles

EXHIBIT E

ULSTER COUNTY PLANNING BOARD
COUNTY OFFICE BUILDING -:- U. P. O. BOX 483
KINGSTON, NEW YORK 12401
TELEPHONE AREA CODE 914 331-9300

1977 ANNUAL REPORT

The Ulster County Planning Board has a variety of responsibilities under federal, state, and municipal law. Among these are federal certification requirements in land use and housing, analysis of local federal aid applications, areawide planning certification to facilitate grants for water and sewer facilities, and review of certain local zoning actions. In addition to these mandated responsibilities, the Board provides technical services to the County Legislature for projects such as building programs and county parks, advises on policy matters such as the Corps of Engineers' proposals for water supply takings, and provides a technical and statistical data base for county agencies, local governments, businesses and the public. In the past year, the Board's highest priority objective was seeking means to improve the County's economic climate.

Economic development is a many facetted goal which requires a long term investment in staff effort. We believe significant progress has been made. The first step was analysis of the problem and determining activities which might be helpful. This was done in cooperation with the Legislature's Industrial Development Committee, the Overall Economic Development Planning Committee, and liaison with the County's Industrial Development Agency and the Chamber of Commerce. The overall objectives were included in the County Land Use Plan and essentially consist of promotion of industrial activity (used in its broadest sense of production, assembly, warehousing and distribution), expansion of tourism, and pursuit of federal and state programs which might aid in employment.

Regarding industrial expansion, the Board has begun an inventory of available industrial buildings and sites, has shown sites to prospective employers, and is working with other agencies to provide technical support for their promotional activities. Expansion of the industrial sector is the most difficult but potentially most rewarding portion of an economic recovery plan.

The second area of opportunity is expansion of tourism. We believe this is a natural function for Ulster County because of the existing tourist base and beauty of the county and proximity to the New York Metropolitan area. Toward this end staff has spent considerable time in attempting to redevelop the now abandoned Catskill Mountain

Branch railroad into a steam powered tourist excursion line. Such a facility could provide the type of focal point to lure tourists off the Thruway and facilitate a promotional campaign to encourage tourists to visit other attractions in the county. The economic impact of a major attraction such as Steamtown is estimated by consultants to be in excess of $19 million dollars annually.

The third area for economic improvement is recovery of federal and state funds. The Planning Board's staff completed the extensive application procedure for the County's new Public Works Building with a result of an $809,000 grant to the County. The Board also provided assistance to many localities in the preparation of their federal aid applications and provided the areawide planning certification for funding of millions of dollars of new sewer projects in Saugerties, Esopus, Highland, Rosendale, and Wallkill. These projects will provide many jobs for the hard hit local construction industry.

Although economic development is our primary objective, the Board also fulfilled its numerous legal responsibilities. After a public hearing, the proposed land use plan was revised and improved. It was adopted by the Planning Board in November and will be submitted to the Legislature for endorsement. Much work was done with state and federal agencies, especially the U.S. Corps of Engineers on the Hudson Flood Skimming Proposal and with the Department of Environmental Conservation on numerous environmental studies. 171 zoning referrals were reviewed and 33 A-95 federal aid applications were studied. An alternative route for the Tennaco Pipeline was suggested, intervener status on the Prattsville pump storage project secured, and meetings too numerous to enumerate held on subjects ranging from regional industrial waste disposal to legislation for the future of the Catskill region.

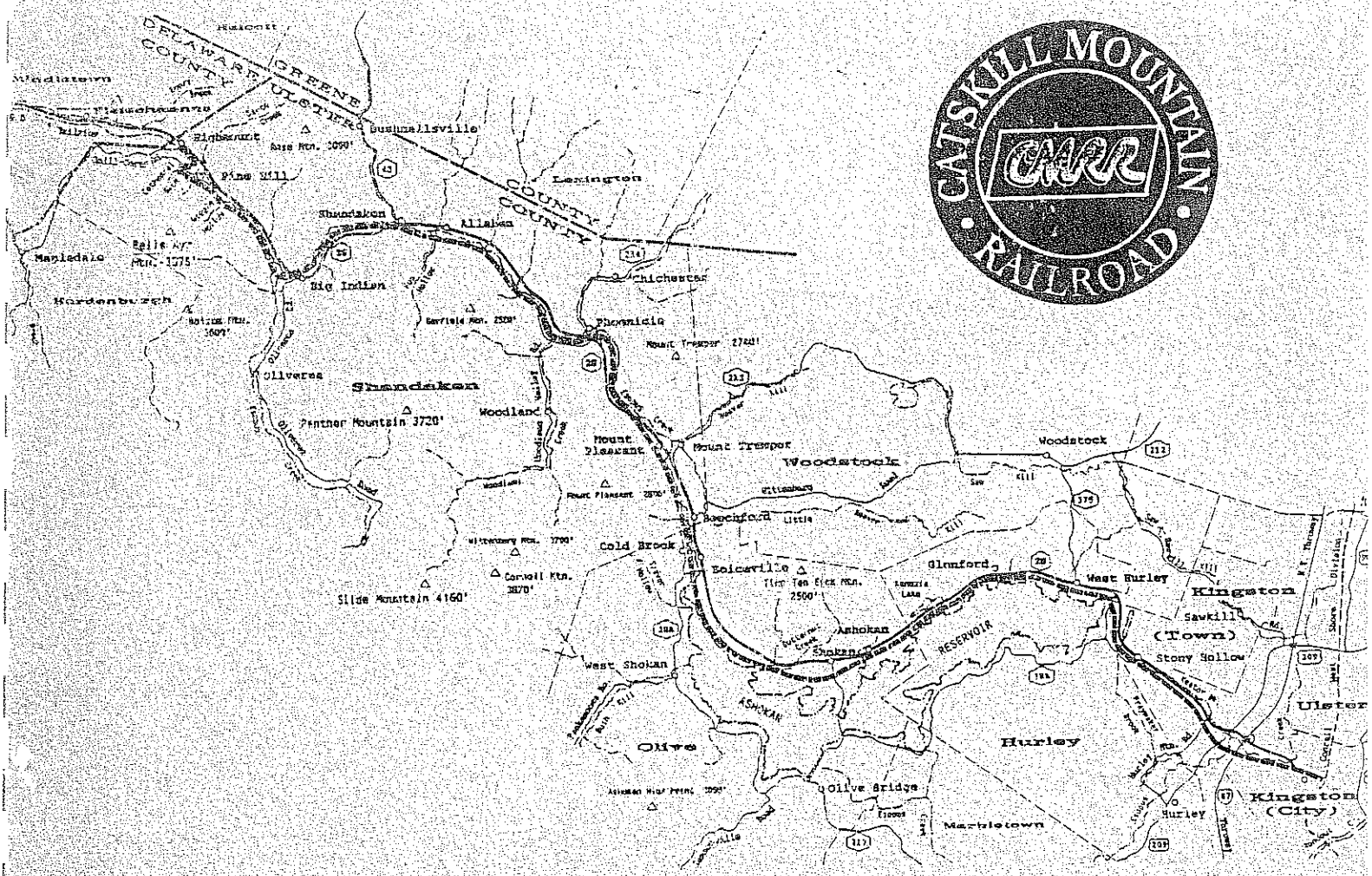
Concerning next year's work program, we believe that economic development continues to be the most important objective the County should pursue. We hope that a successful conclusion to the Catskill Railroad Reuse Study can be made and that completion of current mandated federal land use responsibilities will allow greater staff time in economic development activities. Because of the County's fiscal situation, we recommend a continued policy of a small staff of professional level personnel attending to county issues rather than a more typical larger planning staff with draftsman and other personnel performing local planning functions. We also recommend a continued open planning process with as much public participation as possible.

Finally, we wish to thank the Ulster County Legislature for allowing us to serve the people of this County and for the trust and financial support it has given the Board over the past years.

Respectfully submitted,

Thomas Polizzi, Chairman
Ulster County Planning Board

EXHIBIT F



CATSKILL MOUNTAIN RAILROAD

ENVIRONMENTAL ASSESSMENT

ULSTER COUNTY, NEW YORK

CATSKILL MOUNTAIN RAILROAD

ENVIRONMENTAL ASSESSMENT

ULSTER COUNTY, NEW YORK

JANUARY 1991

REVISED FEBRUARY 1991

SHUSTER
ASSOCIATES
PLANNING & ZONING

ENVIRONMENTAL ASSESSMENT

NAME OF PROJECT: Catskill Mountain Railroad of Ulster County

APPLICANT: Catskill Mountain Railroad Company, Inc.

Address: P.O. Box 46
Shokan, NY 12481

CONSULTANT:

Land Planner: Shuster Associates
RD 1 Box 259
Stone Ridge, NY 12484

LEAD AGENCY: Ulster County Industrial Development Agency
44 Main Street
Kingston, NY 12401

617.21
Appendix A
State Environmental Quality Review

FULL ENVIRONMENTAL ASSESSMENT FORM

Purpose: The full EAF is designed to help applicants and agencies determine, in an orderly manner, whether a project or action may be significant. The question of whether an action may be significant is not always easy to answer. Frequently, there are aspects of a project that are subjective or unmeasureable. It is also understood that those who determine significance may have little or no formal knowledge of the environment or may be technically expert in environmental analysis. In addition, many who have knowledge in one particular area may not be aware of the broader concerns affecting the question of significance.

The full EAF is intended to provide a method whereby applicants and agencies can be assured that the determination process has been orderly, comprehensive in nature, yet flexible to allow introduction of information to fit a project or action.

Full EAF Components: The full EAF is comprised of three parts:

Part 1: Provides objective data and information about a given project and its site. By identifying basic project data, it assists a reviewer in the analysis that takes place in Parts 2 and 3.

Part 2: Focuses on identifying the range of possible impacts that may occur from a project or action. It provides guidance as to whether an impact is likely to be considered small to moderate or whether it is a potentially-large impact. The form also identifies whether an impact can be mitigated or reduced.

Part 3: If any impact in Part 2 is identified as potentially-large, then Part 3 is used to evaluate whether or not the impact is actually important.

DETERMINATION OF SIGNIFICANCE—Type 1 and Unlisted Actions

Identify the Portions of EAF completed for this project: ☐ Part 1 ☐ Part 2 ☐ Part 3

Upon review of the information recorded on this EAF (Parts 1 and 2 and 3 if appropriate), and any other supporting information, and considering both the magitude and importance of each impact, it is reasonably determined by the lead agency that:

☐ A. The project will not result in any large and important impact(s) and, therefore, is one which **will not** have a significant impact on the environment, therefore **a negative declaration will be prepared.**

☐ B. Although the project could have a significant effect on the environment, there will not be a significant effect for this Unlisted Action because the mitigation measures described in PART 3 have been required, therefore **a CONDITIONED negative declaration will be prepared.***

☐ C. The project may result in one or more large and important impacts that may have a significant impact on the environment, therefore **a positive declaration will be prepared.**

* A Conditioned Negative Declaration is only valid for Unlisted Actions

Catskill Mountain Railroad
Name of Action

Ulster County Industrial Development Agency
Name of Lead Agency

Print or Type Name of Responsible Officer in Lead Agency

Title of Responsible Officer

Signature of Responsible Officer in Lead Agency

Signature of Preparer (If different from responsible officer)

Date

PART 1—PROJECT INFORMATION

Prepared by Project Sponsor

NOTICE: This document is designed to assist in determining whether the action proposed may have a significant effect on the environment. Please complete the entire form, Parts A through E. Answers to these questions will be considered as part of the application for approval and may be subject to further verification and public review. Provide any additional information you believe will be needed to complete Parts 2 and 3.

It is expected that completion of the full EAF will be dependent on information currently available and will not involve new studies, research or investigation. If information requiring such additional work is unavailable, so indicate and specify each instance.

NAME OF ACTION: Catskill Mountain Railroad			
LOCATION OF ACTION (Include Street Address, Municipality and County): Ulster County			
NAME OF APPLICANT/SPONSOR: Catskill Mountain Railroad Company	BUSINESS TELEPHONE: ( )		
ADDRESS: P.O. Box 46			
CITY/PO: Shokan,	STATE: NY	ZIP CODE: 12481	
NAME OF OWNER (If different): County of Ulster	BUSINESS TELEPHONE: (914) 331-9300		
ADDRESS: Fair Street			
CITY/PO: Kingston,	STATE: NY	ZIP CODE: 12401	
DESCRIPTION OF ACTION: 25 year lease of 38 miles of railroad right-of-way extending from the City of Kingston to the Delaware County boundary.			

Please Complete Each Question—Indicate N.A. if not applicable

The nature of the proposed action is such that use of the standard Project Information section of the Environmental Assessment Form is inappropriate. Therefore, the necessary information has been provided in the attached document which comprises a "generic" Environmental Assessment.

CATSKILL MOUNTAIN RAILROAD ENVIRONMENTAL ASSESSMENT

TABLE OF CONTENTS

	PAGE
SUMMARY	i
I. SITE DESCRIPTION	
A. Location	1
B. Natural Features	1
1. Geology, Topography and Soils	1
2. Wetlands, Waterbodies, and Streams	4
3. Flood Hazard Areas	4
C. Cultural Features	5
1. Historic Sites	5
2. Visual Character	5
D. Land Use and Zoning	8
1. Existing land use along the Railroad	8
2. Existing Zoning	12
3. Proposed Land Uses	14
II. PROJECT DESCRIPTION	
A. Long-Term Lease	15
B. Overall Development Program	15
C. Staging	18
1. Time Frame	18
2. Purpose	18
3. Rehabilitation Necessary	18

III. POSSIBLE IMPACTS AND MITIGATION MEASURES..... 24

A. Impact of Twenty-five Year Lease..... 24

B. Possible Impacts of Future Actions..... 24

C. Mitigation Measures..... 28

IV. APPROVALS REQUIRED/AGENCIES INVOLVED..... 30

A. Required Approvals for Lease..... 30

B. SEQR Status..... 30

C. Project Specific Approvals..... 30

V. VERIFICATION..... 32

MAPS

No. 1 - Location Map
No. 2 - Natural and Cultural Features
No. 3 - Staging/Phasing of Development
No. 4 - Rehabilitation and Improvement Locations

EXHIBITS

A. Proposed Lease
B. Photographs

REFERENCES

SUMMARY

The proposed project will involve a long-term 25 year lease of railroad property by the Ulster County Industrial Development Agency (IDA) from the landowner, Ulster County. Future projects will encompass phased improvements and rehabilitation of sections of the railroad trackage by the Catskill Mountain Railroad, Incorporated, as the designated assignee of this lease. Rehabilitation of individual sections will require less intensive outlay of capital than rehabilitation of the entire line at one time. Each segment is defined based upon a particular train excursion that is believed to be economically viable.

The property involved is situated between Downs Street in the City of Kingston and the Delaware County boundary in Highmount, Town of Shandaken. The property dimensions are 38 miles in length by approximately 66 feet in width. This results in over 100 contiguous acres of land being leased by a "local agency" (Ulster County) and thus the project is a "Type 1" action under the State Environmental Quality Review (SEQR) regulations.

The existing one-year lease is due to expire in June, 1991. The Ulster County Railroad Advisory Committee recommends that a long-term lease of the railroad is consistent with the county's planning and economic development goals and policies and related legislation.

The action which is the primary subject of this EAF is the proposed 25-year lease which will create mostly positive impacts. The possible impacts and mitigation of subsequent physical actions which are proposed as part of the long-term development program are discussed here to provide a basis for evaluation of specific actions when they are proposed.

CATSKILL MOUNTAIN RAILROAD

CMRR

SHUSTER ASSOCIATES
PLANNING & ZONING

RD 1 BOX 259
STONE RIDGE
NEW YORK 12484
(914) 687-0758

LOCATION

MAP NO. 1

0 1 2 3 4
Miles

Legend

- Catskill Mountain Railroad
- Route 28 (Onteora Trail)

Halcott
Middletown
Fleischmanns
D & O Railride
Highmount
Galli-Curci Rd.
Cathedral Glen
Pine Hill
Giggle Hollow
Rose Mtn. 3090'
Bushnellsville
Lexington
Shandaken
Allaben
Belle Ayr Mtn. 3375'
Mapledale
Hardenburgh
Balsam Mtn. 3600'
Big Indian
Oliverea Rd.
Oliverea
Fox Hollow
Garfield Mtn. 2580'
Chichester
Phoenicia
Mount Tremper 2740'
Shandaken
Panther Mountain 3720'
Woodland
Woodland Creek
Mount Pleasant
Mount Pleasant 2800'
Mount Tremper
Woodstock
Wittenberg Road
Beechford
Little Beaver Kill
Cold Brook
Wittenberg Mtn. 3790'
Cornell Mtn. 3870'
Slide Mountain 4160'
Boiceville
Tice Ten Eyck Mtn. 2500'
Traver Hollow
Glenford
Kenozia Lake
West Hurley
Kingston
Sawkill
(Town)
Stony Hollow
Ashokan
Shokan
Buttermut Creek
RESERVOIR
West Shokan
Peekamoose Rd.
Bush Kill
Olive
Hurley
Praymaker Brook
Hurley Mtn. Rd.
Ulster
Olive Bridge
Esopus Creek
Marbletown
Samsonville Road
Ashokan High Point 3090'
Kingston (City)
Rondout Cr.
HUDSON RIVER
N.Y. Thruway
Division
Shore
West
Conrail
Keator Bk.
Saw Kill
Kill
Creek
Road
Rd.
Mtn.
Brook
Valley
Kill
Beaver
Esopus
Atwood
Thruway
28
28A
42
214
212
375
9W
199
209
32
87
213

I. SITE DESCRIPTION

A. LOCATION (See Map No. 1)

The Catskill Mountain Railroad corridor traverses 38.6 miles from Kingston to Highmount in northern Ulster County. It traverses sections of the lower and upper valleys of the Esopus Creek, and follows the shore of the Ashokan Reservoir. The railroad is situated in the corridor of NY Route 28, a major access road into the Catskills for tourist and recreational traffic, and passes through several hamlets, such as Big Indian, Highmount, Pine Hill and Phoenicia, that are proximal to recreation facilities. Major recreation activities in the corridor include skiing, canoeing and tubing, hiking, camping, hunting and fishing. The corridor is located in scenic stream valleys that attract many tourists throughout the year.

B. NATURAL FEATURES (See Map No. 2)

1. Geology, Topography and Soils

a. Geology

The Catskill Mountain Railroad corridor extends through sedimentary rocks ranging from mid to upper Devonian in Age. Limestones and siltstones in Kingston and the Hurley flats soon give way to increasingly thicker bedded sandstones, conglomerates and intervening shale layers. The bedrock geology has strongly influenced the topographic characteristics of the corridor.

Due to a mantle of soil underneath most of the railbed, rock outcrops and exposures along the railroad are few in number. Bedrock is at or close to surface along the railroad in Stony Hollow (sandstones of the mid-Devonian age Mount Marion and Ashokan Formations), along the Esopus Creek in Mount Tremper (gray and red sandstones and conglomerates of the Oneonta Formation) and on the mountainside between Big Indian and Highmount (gray and red sandstones and conglomerates of the upper Devonian age lower Walton Formation).

b. Topography

The Catskill Mountain Railroad traverses two major physiographic provinces: the Appalachian

Ridge and Valley, and the Allegheny (or Appalachian) Plateau. Between Downs Street in Kingston and Hurley Mountain Road, the railroad is situated in the Rondout-Esopus Valley province of the Ridge and Valley Region. West of Hurley Mountain Road, the railroad rises through the Helderberg and Hoogeberg Plateau provinces of the Allegheny region at Stony Hollow, West Hurley and Shokan, and enters the Catskill Mountain province in Boiceville.

The traverse of the Rondout-Esopus province is along level areas and flood plains of the lower Esopus Creek, locally known as the "Hurley Flats". The altitude here ranges from 180 to 185 feet above sea level. The railroad begins its ascent into the Helderberg-Hoogeberg provinces west of Hurley Mountain Road, following the south hillslope of the Keator Brook ravine into Stony Hollow.

From here the railroad crosses the upper reaches of the Praymaker Brook and its tributaries until reaching West Hurley, where it follows the top of the plateau along the Ashokan Reservoir. The altitude changes from 185 to about 590 feet above sea level over a distance of four miles. There is little change for the next 13 miles on the railroad's grade as it follows the north shore of the reservoir into Cold Brook across the Esopus Creek from Boiceville. There the altitude of the railroad gradually increases from about 640 feet to 1,210 feet at Big Indian, a distance of about 13 miles. This section of railroad runs through a fairly wide upland stream valley.

Beyond Big Indian, the valley narrows, and the railroad grade rises sharply over the next 5.8 miles to an altitude of over 1,880 feet at Highmount, an average grade of about 2.2%, with one section reaching 3.2% near Pine Hill. The railroad follows the south hillslope of the valley and forms a "horse shore" curve at Pine Hill, rising 100 feet vertically over a distance of about 3,800 feet.

c. Soils

Soils and surface deposits along the railroad reflect deglaciation, recent fluvial activity

and underlying bedrock. Between Kingston and Hurley Mountain Road, soils are of the general association of Hoosic-Schoharie-Chenango series. These soils are found in valley and plains, and are generally excessively to moderately well drained, with gentle slopes. Common units include the Riverhead fine sandy loam and Unadilla silt loam.

Between Hurley Mountain Road and Stony Hollow, soils generally are of the Bath-Nassau association, having moderate to shallow depth to bedrock, moderate to steep slopes and being well to excessively well drained. Typical soil units along the railroad are the Bath-Nassau-rock outcrop and Nassau-Bath-rock outcrop complexes, formed from till and the shales and sandstones of the underlying Mount Marion formation.

From Stony Hollow west to Shokan, the soils are of the Lordstown-Arnot-Mardin associates, found on uplands. Soils in this association are shallow to deep, derived mostly from till with bedrock and are excessively to moderately well drained. Typical units include the Lordstown-Arnot-rock outcrop complex, to the Oquaga-Arnot-rock outcrop complex which can have a high seasonal water table, the Valois very bouldery soils, and the Wellsboro very bouldery soils.

Between Shokan and Highmount, the railroad traverses the area of the Arnot-Oquaga-Lackawanna association. General characteristics include shallow to deep bedrock depth, excessive to moderate drainage, steep slopes and origins in till. However, since much of the railroad corridor is alongside the Esopus Creek, the commonly encountered soils units include not only the Arnot-Lordstown-rock outcrop complex, Lackawanna very bouldery soils, and Wellsboro very bouldery soils, but also flood plain and lowland soils such as the Barbour loam, Haven loam, Hudson and Schoharie silty clay loams, and Suncook loamy fine sand. Most of these lowland soils are excessively well to somewhat poorly drained soils, but can have a high water table of several months duration, are subject to flooding, and have high potential for erosion.

2. Wetlands, Waterbodies, Streams

Virtually all of the Catskill Mountain Railroad corridor lies within the drainage basin of the Esopus Creek. A small area in Highmount drains into the Delaware River via the Emory Brook. Between Kingston and Hurley Mountain Road, drainage is directly into the lower Esopus Creek or via its tributaries. The Keator Brook, an Esopus tributary, drains the area between Hurley Mountain Road and Stony Hollow. Drainage from Stony Hollow to West Hurley is into the Praymaker Brook which joins the Esopus Creek near Hurley. Between West Hurley and Glenford, the railroad follows a drainage divide between the Ashokan Reservoir and the Saw Kill watersheds, while drainage between Glenford and Boiceville is into the Ashokan Reservoir. Between Boiceville and Highmount, the railroad corridor is drained by the upper Esopus Creek and many of its tributaries.

The railroad crosses a total of 28 streams, according to New York State Department of Environmental Conservation (DEC) inventory maps, of which 17 are designated as protected, having a water quality rating of C(T) (suitable for the propagation of trout) or better. The railroad also crosses three state designated wetlands. These are Class II wetland KW-3 in Stony Hollow, on the Praymaker Brook, and Class II wetland AS-19 and Class III wetland AS-20, both in Shokan, north of the Ashokan Reservoir. Most of the protected streams crossed are near the Ashokan Reservoir, and many of the unprotected streams are intermittent tributaries of the upper and lower Esopus Creek and the Birch Creek.

3. Flood Hazard Zone

The Catskill Mountain Railroad crosses several federally designated 100-year flood hazard zones. One such zone is encountered in Kingston and Ulster along the lowlands of the Esopus Creek. This zone extends from Washington Avenue west to US 209. A second flood hazard area is traversed numerous times from Butternut Cove at the upper end of Ashokan Reservoir in Olive, extending into Shandaken along the banks of the upper Esopus Creek to Shandaken, and crossed again at the Esopus Creek at Big Indian and Giggle Hollow at Pine Hill.

The railroad also traverses part of the 500 year

flood hazard zone of the Esopus Creek north of Cold Brook, and in Mount Pleasant, Phoenicia, and Allaben.

C. CULTURAL FEATURES (See Map No. 2)

1. Historic Sites

For most of its length, the Catskill Mountain Railroad follows a long-established travel corridor of the Esopus Creek valley. The valley creates a path of least resistance through the central interior of the Catskills. Following what were initially old Delaware Indian trails, and later, plank roads, the Catskill Mountain Railroad's predecessor, the Ulster and Delaware, was constructed from Kingston to Oneonta between the years 1866 and 1900. Settlement of the corridor began towards the close of the 18th century and was spurred on by the development of the tanning industry and, in the latter half of the 19th century, hotels and resorts.

There are many old buildings and structures in the hamlets traversed by the railroad, but there are presently no structures or sites adjacent to the corridor, outside of the City of Kingston that are listed, or deemed eligible for listing, on the State or National Register of Historic Places. The railroad does pass through several "archaeologic sensitivity areas" located along the Esopus Creek lowlands in Kingston and on the north side of Ashokan Reservoir in Hurley and Olive. These sensitivity areas are one square mile or one mile in diameter in area and encompass archaeologic sites listed in the files of the New York State Museum or the Office of Parks, Recreation and Historic Preservation.

2. Railroad History

In 1866, construction of a rail line extending from Kingston through the Catskills was begun under the direction of Thomas Cornell, Isaac Longyear, Orson Allaben and others. Communities in the Catskills were clamorous in their desire to obtain railroad service as a spur to economic growth. This was a reflection of a phenomena that affected most of the nation following the Civil War. It was under these circumstances that railroads like the Ulster and Delaware (U&D) came into being.

The U&D initially started life as the Rondout and Oswego. Passenger service to Mount Pleasant was established in 1870. Financial troubles in 1872 resulted in the line being re-organized into the New York, Kingston and Syracuse (NYK&S). Cornell was ousted from the railroad presidency. But another reorganization in 1875 brought the "Ulster and Delaware" into existence and reinstated Thomas Cornell as president of the company. Beer's Atlas from 1875 shows most of the present day Catskill Mountain Railroad section completed between Pine Hill and Kingston. By 1900, the railroad was extended into Oneonta, connecting with the Delaware and Hudson.

By 1880, the narrow-gauge branch from Phoenicia to Stony Clove and Hunter was built. This branch was extended to South Lake in 1883, and converted to standard gauge in 1899. Connections were made to the Ontario and Western by way two other railroads--of Ellenville and Kingston and the Delaware and Northern that linked East Branch and Arkville.

At its peak in 1913, the U&D carried about 676,000 passengers to various resort destinations in the Catskills. Three passengers trains were run both ways daily between Kingston and Oneonta prior to America's entry into World War I. The Grand Hotel Station at Highmount was one of the busiest on the line. The U&D was primarily a passenger rail line. Although it shipped some coal (accounting for half of revenues in the 1920's) and milk, there was little to no industrial development along the railroad route to generate any substantial revenue from freight shipping. What little freight movement existed was mostly one way, from Oneonta to Kingston, and virtually no freight traffic in the opposite direction.

During the 1920's, both ownership of private automobiles and the expansion of an improved highway system increased greatly. Many railroads that catered to summertime recreational and tourist traffic, such as the U&D, lost a significant part of their revenue base. The automobile permitted greater access not only to destinations in the Catskills situated far from the railroad, but also to recreational destinations away from the Catskills. Financial problems on the U&D were exacerbated by the stock market crash of 1929 and the depression.

Both the New York Central (NYC) and Delaware and Hudson (D&H) railroads were approached on taking over the U&D. The NYC reluctantly agreed to absorb the U&D in 1934 as part of an agreement with the federal Interstate Commerce Commission (I.C.C.) permitting takeover of three other midwestern railroads. As a result of this takeover, the U&D became the Catskill Mountain Branch (CMB) of the NYC. The Stony Clove branch to Tannersville was abandoned soon thereafter.

The Delaware and Northern ceased operations in 1942, severing the connection to the O&W at Arkville. After World War II, oil displaced coal as a primary fuel, and freight shipments on CMB plummeted along with the passenger traffic. In 1954 passenger service was completely terminated. The O&W stopped operations in 1957, and its trackage was removed that year. The future of the CMB as a "bridge line" was foreclosed when the NYC abandoned 20.5 miles of trackage between Bloomville, in Delaware County and Oneonta.

With declining traffic came declining maintenance of the CMB. This was especially true after the creation of the Penn Central (PC) in 1968 from merger of the NYC and Pennsylvania railroads, and the PC's bankruptcy in 1970. The PC petitioned the I.C.C. in 1972 to abandoned the Catskill Mountain Branch, but the hearings were invalidated due to procedural deviations.

In 1976, the PC was incorporated into the Conrail system. Small branch lines, such as the CMB, were immediately targeted for abandonment. However, the state participated financially in the Branchline Assistance Program, contracting with Conrail to operate on the CMB. The State's participation was short-lived, and the operations contract was terminated after six months. The last rolling stock was removed from the line in October 1976.

The Ulster County Legislature foresaw the potential in maintaining the railroad corridor, and purchased the 38 miles of track in the county on August 9, 1979. The remaining trackage in Delaware and Schoharie Counties was purchased in 1980 through funding by the O'Connor Foundation.

In 1983, the Ulster Legislature posted a local law providing for leasing of the railroad property by the IDA.

Limited operations were begun in 1982 transporting tubers between Mount Tremper and Phoenicia. In March of 1983, the Catskill Mountain Railroad Company, Incorporated was formed, and began more extensive operations on this section in 1983. Extensive track rehabilitation efforts were undertaken as well at the time. Operations were limited between Phoenicia and the Sleepy Hollow Campsite in 1987 because of the washout, but full service to Mount Pleasant was restored in 1988.

3. Visual Character

Much of the railroad corridor along the Ashokan Reservoir and upper Esopus Creek has been noted for its spectacular scenery with vistas of waterbodies, streams, valleys and mountain panoramas. The Hurley Flats section is also noteworthy for its vistas of the Hurley Mountain escarpment and productive farmlands along the lower Esopus Creek.

Although ongoing development along the highways in the corridor has introduced elements that detract from the natural beauty (large scale clearing, inappropriate architecture, signs and overhead utility lines), much of the railroad right-of-way has been shielded from these intrusions by physical characteristics such as dense woodland vegetation, streams and distance from the highways. Yet there are many locations along the railroad where vegetation is sparse, or has been cleared, resulting in scenic vistas. The most spectacular portion of the railroad is from West Hurley to Cold Brook, where there are many views across Ashokan Reservoir and towards the plateaus and mountains of the Catskills. Other scenic locations include Snyder Hollow, the Rock Cut north of Cold Brook, and the vista into the Birch Creek Valley at Highmount.

Along other sections of the railroad, the dense woodland vegetation provides a visually pleasant setting in contrast to the developed areas along the highways, and enhances the contrast with the open areas.

D. LAND USE AND ZONING

1. Existing Land Use along the Railroad

Between Kingston and Highmount, the land use along the railroad corridor gradually changes from urban commercial and residential, through suburban

NATURAL AND CULTURAL FEATURES

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CATSKILL MOUNTAIN RAILROAD
CMRR

Legend

- Catskill Mountain Railroad
- Route 28 (Onteora Trail)
- Protected Streams
- Wetlands
- Flood Hazard Zone
- Scenic Viewpoints and Vistas
- Forest Preserve and Fishing Access Points
- State Campsite
- Ski Area
- Catskill Interpretative Center (proposed site)

N

0 1 2 3 4
Miles

MAP NO. 2

DELAWARE COUNTY
GREENE COUNTY
ULSTER COUNTY
Halcott
Middletown
Fleischmanns
D & O Railride
Highmount
Pine Hill
Rose Mtn. 3090'
Bushnellsville
Lexington
Shandaken
Allaben
Belle Ayr Mtn. 3375'
Mapledale
Hardenburgh
Big Indian
Balsam Mtn. 3600'
Oliverea
Garfield Mtn. 2580'
Chichester
Phoenicia
Mount Tremper 2740'
Shandaken
Panther Mountain 3720'
Woodland
Mount Pleasant
Mount Pleasant 2800'
Mount Tremper
Woodstock
Wittenberg Mtn. 3790'
Cornell Mtn. 3870'
Slide Mountain 4160'
Beechford
Cold Brook
Boiceville
Tice Ten Eyck Mtn. 2500'
Glenford
West Hurley
Kingston (Town)
Kingston (City)
Ashokan
Shokan
RESERVOIR
West Shokan
Olive
Ashokan High Point 3090'
Olive Bridge
Marbletown
Hurley
Stony Hollow
Ulster
Saw Kill
Little Beaver Kill
Beaver Kill
Esopus Creek
Woodland Creek
Oliverea Creek
Kenozia Lake
Butternut Creek
Praymaker Brook
Keator Bk.
Peekamoose Rd.
Bush Kill
Samsonville Road
Atwood Rd.
Hurley Mtn. Rd.
Sawkill Rd.
Wittenberg Road
Traver Hollow
Foxy Hollow
Biggie Hollow
Cathedral Glen
Galli-Curci Rd.
Emory Brook
Birch Creek
Oliverea Rd.
Keller Rd.
LONG PATH
Conrail
Shore
West Shore
N.Y. Thruway
Thruway
Rondout Cr.
HUDSON RIVER
28
28A
42
214
212
375
9W
199
209
32
87
213

"strip" development, to rural hamlets and second home residential development. This change in character is most distinct between Kingston and the Hurley Flats, but less so beyond the flats. The attractiveness of the Catskills for second homes and seasonal residences has resulted in ongoing exurban development in many areas between the Hurley Flats and Highmount. In this section of the corridor, there are still many open areas and large landholdings, such as the New York City reservoir properties, which are not likely to be developed.

There are several older hamlets of varying size in the corridor, such as Big Indian, Boiceville-Cold Brook, Highmount, Phoenicia, Pine Hill, Shandaken, and West Hurley. These communities were established as local centers of trade and commerce, particularly in the processing and shipping of the many natural resources of the region, such as bluestone, lumber and tanned goods. Many subsequently became resort and recreation centers. These hamlets were served by transportation routes that included not only the railroad but also roads such as the Brabant Plank Road and the Ulster and Delaware Turnpike. These hamlets were developed at a fairly high density, though not as intensively as Kingston.

The location of NY 28, with its heavy volumes of tourist and commuter traffic, has created ongoing demand for dispersed commercial and residential development, especially outside of the older hamlet areas alongside open sections of the highway.

Much of the land use along the corridor within the City of Kingston is intensively developed for commercial and residential uses. Between Downs Street and the Thruway, the railroad abuts the central Broadway business area, the Elmendorf residential neighborhood, the offices and stores in the vicinity of Kingston Plaza, the Dutch Village apartments, and motels and offices abutting Washington Avenue. West of the Thruway, the railroad traverses lands being developed for the Trailways bus line terminal before crossing the Esopus Creek into the Town of Ulster. From here, the railroad crosses the rich farmlands of the Hurley Flats before reaching Hurley Mountain Road.

The climb into Stony Hollow sets the railroad up hill and apart from burgeoning highway commercial development along NY 28. Through Stony Hollow and

uphill into West Hurley, the railroad passes by a mixture of vacant lands, abandoned quarries, residential and semi-industrial uses.

At West Hurley, the railroad enters into the lands of the New York City Bureau of Water Supply and stays within them until reaching Cold Brook. With the exception of some residential lands in Shokan and commercial properties along NY 28 in Ashokan, the line is completely surrounded by city watershed lands that will remain undeveloped.

North of the NY 28A overpass, the railroad enters into the hamlet of Cold Brook, once an active station. There are several homes remaining in Cold Brook as well as a bed and breakfast and the old station building. Between Cold Brook and Mount Pleasant the rail line traverses undeveloped forested sloping mountainsides, with much of the upslope lands part of the Forest Preserve.

Mount Pleasant was the site of the old Long Year station. The present eastern terminus of the Catskill Mountain Railroad operations is 0.4 miles further to the west. Land use in the "center" of Mount Pleasant (along Mount Pleasant Road) consists of single family dwellings and a few older wood frame hotel and lodge buildings.

The railroad follows public roads between Mount Tremper and the western end of Herdman Road in the Phoenicia area. Development in this section consists of mixed residential, highway and tourist oriented uses along NY 28, High Street and Herdman Road in Phoenicia. There is also a small piece of Forest Preserve along the creek in Mount Pleasant, and trail parking near Sleepy Hollow Campsites.

The railroad traverses another undeveloped section of forested mountain slopes between Herdman Road and Station Road in Allaben including about one mile of Forest Preserve.

In Allaben are a sawmill and residences on Station and Fox Hollow Roads. Fox Hollow Road provides access to Forest Preserve trails. West of Allaben is another undeveloped section of railroad, that includes Forest Preserves. The railroad crosses NY 28 at Shandaken, and passes by small resort lodges and undeveloped lands. At Big Indian there is a small concentration of commercial and residential uses.

As the railroad climbs away from Big Indian toward Highmount, its location within private lands on the mountain slope isolates it from the commercial and residential development on NY 28. Only at Highmount does the railroad draw close to the highway and into an area of residential and limited commercial development related to Belleayre ski area. The railroad abuts Forest Preserve in Pine Hill, between Mill Street and the horseshoe curve.

Other transportation and utility land uses traversed by the railroad consist of highways, overhead utility lines, and, in the City of Kingston, underground facilities such as gas, sewer and water lines.

The railroad crosses 33 public highways, and about twenty private access roads. Ten of the public road crossings are grade separated, and the rest are at grade. The grade separated crossings consist of one city street overpass in Kingston, three state maintained overpasses, a Thruway overpass, and two overpasses maintained by the New York City Bureau of Water Supply (BWS). The railroad crosses over four town roads and a BWS road. The at-grade crossings involve three city streets, seven town roads, five county roads, and five state highways (three being on the same route), and all private crossings.

The railroad crosses several public hiking trails in the upper Esopus Valley. The Long Path is intercepted in Phoenicia at the Woodland Valley Road crossing. The rail line passes over the Pine Hill-West Branch Trail that follows Mill Street in Pine Hill. The railbed is also used from this point as a hiking trail into Cathedral Glen.

There is also some ongoing trespass of the line for hiking and stream access particularly where the railroad is situated between a highway and stream. This had been a problem in Phoenicia.

The railroad is crossed by several major electric transmission lines, including Central Hudson Gas and Electric's Hurley Avenue-Leeds 345,000 volt and Hurley Avenue-Lincoln Park 115,000 volt line in Kingston, and New York State Electric and Gas' Arkville-Shandaken 115,000 volt line twice in the Town of Shandaken.

The State DEC has an easement across the railroad

in Pine Hill for a water supply line to its snow-making facilities at Belle Ayr Mountain Ski Area.

Between Downs Street and the West Shore Division in the City of Kingston, Kingston Recyclers and National Micronetics have a pre-existing legal encumbrance giving them priority in the use of this trackage. Therefore, this section is not part of the proposed lease, but CMRR will have the right to utilize the trackage not for excursion operations but for the necessary movement of equipment and materials.

2. Existing Zoning

The railroad is located in the City of Kingston and the Towns of Ulster, Kingston, Hurley, Woodstock, Olive and Shandaken. All but the Towns of Kingston and Ulster have zoning regulations in place. Development in the Town of Ulster is presently regulated by a site development review law; a zoning law is in preparation. The Town of Kingston is considering adoption of a site plan review law, but has no other similar regulations.

Most of the existing zoning regulations do not specifically cite railroads as a permitted or prohibited use. However, the Town of Hurley Zoning Ordinance does list railroad stations as special permit uses. Railroads can be considered as belonging to broader categories of "transportation" and "public utility" uses, which are listed in the zoning regulations of Kingston (city), Olive, Shandaken and Woodstock, requiring a special permit in all four municipalities. Shandaken further distinguishes between a transportation use "excluding garage or facility", permitted in several zoning districts, and a "transportation garage or facility", which is permitted in only one district. The proposed Town of Ulster Zoning Law does not list railroads but again does include a general category of "utility uses" that require special permit approval.

The Catskill Mountain Railroad generally pre-dates most of the zoning laws and ordinances of the municipalities it traverses. It would appear that as a public transportation facility some aspects of the railroad's operations might be preempted from any local government regulations. However, the CMRR was required to obtain site plan approval from the Town of Shandaken for the buildings erected for

its shuttle operations. Therefore, additional site plan approvals may be necessary for similar improvements.

The railroad generally forms a dividing line in the City of Kingston between commercial and residential districts. Between Downs Street and Chandler Drive, the railroad separates the Central Commercial zone on the south from the Two Family zone on the north. Between Chandler Drive and Washington Avenue, the line separates the Central Commercial District from the Shopping Center and Multiple Residence Districts. West of Washington Avenue, the railroad separates Central Commercial and One Family Residential from Shopping Center Districts, then traverses a One Family District, the General Commercial District and then forms the border between these latter two districts in its approach to the Esopus Creek and Ulster Town line.

In Ulster, the railroad traverses through the proposed Office-Manufacturing District in the flats, and then will form the dividing line between the Highway Commercial and Rural Residential Districts into Stony Hollow. In the Stony Hollow section of Hurley the railroad presently traverses a section of the A Low Density Residential District that is being proposed for rezoning to a Light Industrial zone. It then enters the Town of Kingston, which has no zoning.

In the West Hurley area, the railroad traverses a Neighborhood Commercial District in Woodstock and again re-enters the A District in Hurley, which in this location is proposed to be redesignated as an A-4 Very Low Density Residential District by the Town of Hurley. In Olive, the railroad forms a dividing line between the low density residential Rural Conservation District on the south and, on the north side, from east to west, a Village Business, Highway Business, Village Business and Exurban Residence Districts. West of Butternut Cove, the line is entirely within the Rural Conservation District until it crosses the Esopus Creek where once again it forms a zoning district boundary, this time with the Exurban Residential District on the west side, toward the mountain, and the Conservation District on the east side, toward the creek. This continues north to the Town line with Shandaken.

The Town of Shandaken is divided into seven zoning

districts. However, a current official zoning map of the Town is not presently available to the public. A determination of which zoning districts the CMRR lies in can be made by application to the Town Zoning Board of Appeals.

3. Proposed Land Uses

The Catskills have long been an important recreational destination, and this is reflected in past and present land uses. Tourist-oriented commercial facilities such as campgrounds, inns, motels, restaurants and other attractions have become established over time inside and outside of the hamlets in the railroad corridor. Subdivision activity has met the demand for year-round housing near Kingston and Woodstock and seasonal homes in the upper Esopus valley.

Major new land use proposals in the corridor are likely to consist of residential subdivisions, office and commercial development in Kingston and its immediate vicinity, and tourist related commercial development in the upper Esopus valley.

One important use proposal is by New York State Department of Environmental Conservation for the Catskills Interpretive Center (CIC) in Mount Pleasant. The CIC is to serve as a multi-purpose educational, interpretive and informational center for visitors to the Catskill Park. Similar to two such centers in the Adirondacks, the CIC's programs will include exhibits, demonstrations and distribution of literature and guides to the region. The site is located across the Esopus Creek from the railroad on NY 28 in the hamlet of Beechford, Town of Shandaken, just southeast of the NY 212 intersection in Mount Tremper. Access will be easiest from the Mount Pleasant Station.

Several future highway improvements in the corridor have been proposed. The State DOT has been studying a highway bypass around Shokan. The tentative design calls for two new at grade crossings of the railroad as most of the bypass will be located to the south on New York City property. Although action on this project is not expected for at least 15 years, the CMRR will be in periodic contact with DOT about the status of this and other projects so that the concerns of the railroad will be incorporated into project design and implementation.

II. PROJECT DESCRIPTION

A. LONG-TERM LEASE (See Exhibit A)

The current short-term lease arrangement between the County and Catskill Mountain Railroad Company is not conducive to planning and implementation of long-term improvements to the railroad, and thus a 25 year lease is proposed, the maximum permitted by Ulster County Local Law No. 4 of 1983.

The County Railroad Advisory Committee has recommended that a long-term lease of the Catskill Mountain Branch railroad to the Ulster County Industrial Development Agency (IDA) would serve the intent of Local Law No. 4 by "improving the County's economic climate by increasing business and employment opportunities", as this property is "not required for the corporate purposes of the County".

The leasing of the railroad to the IDA, and its assignee, the Catskill Mountain Railroad, Inc. (CMRR), will also serve the county planning goal of preservation, rehabilitation and reestablishment of railroad operations within Ulster County.

B. FUTURE DEVELOPMENT PROGRAM

The Catskill Mountain Railroad Company envisions the ultimate rehabilitation and use of the entire rail line through a system of improvements on individual segments of the line. Each segment would host an excursion that would justify its rehabilitation. Each segment so improved would be contiguous to a segment already in operation. By linking contiguous rehabilitated segments, the railroad has the option to create new excursions that would provide further revenue for rehabilitation of another segment of the line.

The rehabilitation and operations of the Catskill Mountain Railroad have been divided into five segments with different excursions, as follows:

1. Rehabilitation Segments (See Map No. 3)

a. Segment A, Kingston to Butternut Cove (Milepost 3 to MP19)

This 16 miles section runs through the City of Kingston, Hurley Flats, Stony Hollow and the north side of Ashokan Reservoir between West Hurley and Shokan.

STAGING AND PHASING OF DEVELOPMENT

SHUSTER ASSOCIATES
PLANNING & ZONING
RD 1 BOX 259
STONE RIDGE
NEW YORK 12484
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CATSKILL MOUNTAIN RAILROAD
CMRR

Segment A
Segment B
Segment C
Segment D
Segment E

Legend

- Catskill Mountain Railroad
- Route 28 (Onteora Trail)

EXCURSION NAME	SEGMENT
Esopus Creek Shuttle	C
Scenic Train	B,C
Fall Foliage Train	B,C
Dining Car Train	A,B,C
Railfan Excursions	A,B,C
Shuttle Extension	C,D
Long Distance Excursions and Ski Trains	A,B,C,D,E

0 1 2 3 4
Miles

MAP NO. 3

b. **Segment B, Butternut Cove to Mount Pleasant**
(MP 19 to MP 25)

This is a six mile section that runs along the Ashokan Reservoir, across and along the Esopus Creek through Cold Brook to the station at Mount Pleasant.

c. **Segment C, Mount Pleasant to Phoenicia**
(MP 25- MP 28)

This 2 1/2 mile section is presently in use, following the southwesterly banks of the Esopus Creek, between the Mount Pleasant station and Bridge Street.

d. **Segment D, Phoenicia to Allaben**
(MP 28-MP 32)

This is a four mile section along the south side of the Esopus Creek between Bridge Street and the old Shandaken railroad station.

e. **Segment E, Allaben to Highmount**
(MP 32 - MP 39.7)

This section, over seven miles in length, runs from the old Shandaken Station, through Big Indian, around Pine Hill and into Highmount at the old Grand Hotel Station.

Operations west of the Highmount are part of the Delaware and Ulster Railride, based in Arkville.

2. **Existing and Proposed Excursions**

a. **Esopus Creek Shuttle**

The shuttle presently operates on Segment C. The shuttle carries both round trip tourist passengers from Mount Pleasant to Phoenicia and back again, and, on one-way trips, creek tubers returning to Phoenicia. The shuttle operates on weekends between Memorial Day and the second week in September. Eight trips per day are made leaving Mount Pleasant on the hour between 11 a.m. and 6 p.m. Weekday trips during July and August are a possibility. Average number of riders per day between 1988 and 1986 ranged from 98 to 158. Special theme excursions were held in 1985 and 1986. No

excursions were held in 1987 due to a major washout in April of that year. Repairs were made and the shuttle was back in operation in 1988.

b. **Scenic Train**

This round trip excursion is planned for segment B, between Mount Pleasant and Butternut Cove. Service is planned for each weekend between Memorial Day and the second weekend in September, and weekday operations are planned for July and August.

c. **Dining Car Train**

This excursion will provide round trip service between Kingston and Phoenicia. Daily service is planned in the evenings between April 1 and December 31, with weather permitting in the winter months. In addition, a Sunday Brunch and Saturday night excursion are planned.

d. **Esopus Creek Shuttle Extension**

Shuttle service is to be extended to Allaben from Phoenicia for both one-way and round-trip passengers. The operating season would be similar to the present shuttle, with weekday trips in July and August a possibility.

e. **Long Distance Train**

Two types of excursions are envisioned: a long distance scenic/tourist excursion during the warmer months and a skier's excursion during the winter. These trips will operate over all five segments of the entire railroad line between Kingston and Highmount. An anticipated schedule has yet to be developed.

f. **Fall Foliage Train**

This would operate on weekends in September and October between Phoenicia and Butternut Cove (segments B and C), with boarding and disembarking at the Mount Pleasant Station.

g. **Railfan Excursions**

These trips would be made once in the Spring and in the fall, between Kingston and Phoenicia (segments A, B, and C).

h. **Future Excursions**

Rehabilitation of the entire line between Kingston and Highmount will create possibilities for other operations, such as rural commuter service and short line freight operations.

C. STAGING

1. Time Frame

The initial rehabilitation work will be on Segment B. Four plans have been developed for financing and improvements of this segment. These range from a short term one year rehabilitation that would require an investment of $400,000 ($350,000 of which would be a loan), to a five year rehabilitation that would require a loan of only $75,000. The most capital intensive plan would rely on paid labor while the least intensive plan would require volunteer labor. Two intermediate staging and funding plans have also been developed that would accomplish the rehabilitation in two and three years time.

2. Purpose

The purpose of segmenting the rail line and developing alternate financing plans for each segment is economic. Segmented rehabilitation prevents the capital cost incurred by the CMRR from becoming burdensome and beyond its means. Implementing additional theme excursions as each segment is reopened for traffic will provide immediate revenue to offset the costs of rehabilitation and CMRR's debt load. By pursuing this incremental approach, the CMRR should be able to adequately restore the entire rail line in Ulster County over a gradual period of time without incurring a debilitating amount of debt.

3. Rehabilitation Necessary (See Map No. 4)

Rehabilitation of the Catskill Mountain Railroad covers four general areas of concern: upgrading track and roadbed; repair of erosion and washout areas; repair of bridges; and repair of at-grade road and highway crossings.

Segment C has already been rehabilitated. On this 2.8 mile segment vegetation has been cut, culverts have been cleared and 1,236 ties replaced (about 441 per mile). The grade crossing at Bridge Street was opened with help from the Ulster County Department of Public Works (DPW), and advance warning signs were installed. A major washout in 1987 was repaired in 1988.

a. **Upgrading of the Track and Roadbed**

This will involve replacement of ties, about 700 per mile, for all four remaining segments of the railroad (Segment C has already been completed), inspection of joint bars and replacement of joint bolts as necessary, and minor rehabilitation to the right-of-way which will involve the cleaning out of culverts, cutting and clearing of brush so as not to interfere with train operations, and strengthening the roadbed embankment with fill or rip-rap at spot locations where it is needed.

When the Ulster County Department of Public Works demolished the Stony Hollow Road overpass in 1989, a new at-grade crossing was built. This required removal and replacement of rails.

b. **Repair of Erosion and Washout Areas**

These repairs will make up significant portions of the rehabilitation program for Segments A, B and D. The two most significant washouts on the entire line are at the Railroad Rapids(MP 28.7) and Herdman (MP 28.8) in Phoenicia. These washouts are located respectively east and west of the Woodland Valley Bridge over the Esopus Creek. In both places the washout and subsequent erosion has removed ballast, grade, ties and track. The Herdman Road washout was granted federal funds for repair, but these funds were not utilized by the county in a timely manner.

A third washout on Segment D is a Mile post (MP) 31.5, southeast of Allaben. It is 510 feet long, but is not considered to be so significant as to require governmental funding to repair.

On Segment B, the Rock Cut Washout, located at MP 24.17 between Cold Brook and Mount Pleasant, 250 feet long, 28 feet wide, and 12 feet deep. The railroad tracks are still intact at this location.

Further south is an area of unstable embankment

between MP 23.2 and 23.8. Mass wasting of the hillsides here is gradually pushing the track toward the Esopus Creek.

About 12 culverts on Segment B between MP 23 and 24.2 have collapsed and must be replaced.

On Segment A, the south wing walls at Butternut Cove (MP 18.57) have collapsed, and fill under the railroad bed is eroding. The wing will be rebuilt and fill replaced under the road bed. Nearby subsidence at MP 18.6 was caused by weak subgrade material. The subsidence has stabilized, so new ballast will be added, and the track will be jacked up to a level grade.

The design of the Stony Hollow Road at-grade crossing is such that road drainage is diverted onto the rail line and has caused some erosion of the ballast under the ties. Drainage will have to be diverted off the railroad and additional ballast will be placed under the tracks.

c. **Bridge Repairs**

On Segment A, a small hole in the concrete deck over Basin Road will need to be repaired. The Esopus Creek bridge at the Hurley Flats will need an engineering inspection to determine what repairs, if any, are necessary. The Beesmer Road bridge is in good condition.

On Segment B, repairs will be needed on the three center piers of the Boiceville Bridge over the Esopus Creek (MP 22.2). The footings of these piers have been partially eroded causing some settling of the piers, and these will have to be repaired to shore up and protect the foundations. 83 new bridge timbers will have to be installed. Further engineering inspection work is necessary before undertaking repairs in order to fully assess the scope of work that will be required for this project.

The Herdman Road Railroad Bridge over the Woodland Creek, adjacent to the washout at MP 28.8 (Segment D) will require major structural work on the western abutment and center pier, which are missing over half their stones. This undermining of support has caused the deck of the western span to tilt toward the creek. These structures will be replaced. Some work is needed on the eastern

abutment.

There are five bridges on Segment E, all in need of repairs. The Fox Hollow stream bridge needs rip rap to protect the eastern abutment from erosion. Bridge timbers are in poor condition. The Big Indian Bridge over the Esopus Creek will need work on the center pier, which tilts toward the east because of erosion of its footing. The spans on this bridge will have to be jacked up while the footing is either repositioned or replaced. Nine bridge timbers will have to be replaced.

The bridge over Lasher Road requires a new span. The original span was removed by the Shandaken Town Highway Department, but can be readily replaced. The stone block bridge abutments are in good condition.

The Giggle Hollow bridge and its abutments are in good condition. Twelve bridge timbers will need replacing.

The Pine Hill bridge over Mill Street and the Woodchuck Hollow stream is in good condition. The abutments are in fair to good condition. No major repairs are foreseen for this bridge.

d. <u>Grade Crossings</u>

On Segment A, railroad cross buck signs are needed on Downs Street, Fair Street Extension, Westbrook Lane, Washington Avenue, US 209, and Hurley Mountain Road. Advance warning signs will also be needed on all but the Washington Avenue crossing. A set of flashing warning lights will be needed for the US 209 crossing. One private driveway crossing in the Town of Kingston will have to be rebuilt, as the owner placed three yards of gravel over the original wood plank crossing. The Stony Hollow Road crossing is paved with rail flanges installed, and is in good shape. Advance warning and cross buck signs are needed here.

On Segment B, the crossing at NY 28 in Mount Pleasant is paved over and will have to be rebuilt with new ties, and rubberized transition strips along with advance warning and cross buck signs. Preliminary approval for this project has been granted by the State DOT.

Grade crossings on Segment D are open and in good

shape. Advance warning and cross buck signs will be needed at Woodland Valley and Fox Hollow Roads.

Six public road crossings on Segment E are in need of repair. The two crossings of NY 28, Oliverea Road in Big Indian, Fox Hollow Road and the Galli-Curci Road in Highmount have all been paved over and will need to be rebuilt. In addition, a guard-rail along NY 28 at the Shandaken crossing will need to be removed.

The rails and ties of the Station Road crossing in Pine Hill were removed by the Shandaken Town Highway Department but have been replaced by the CMRR. Advance warning and cross buck signs will be needed at all six crossings.

Except where noted above, the private road crossings are generally in good shape.

e. **Other Improvements**

Two new sidings are proposed at Butternut Cove and Allaben, to permit switching of the engine on the Scenic Train and Esopus Creek Shuttle Extension. In conjunction with the Scenic Train, the passenger loading platform at Mount Pleasant will be extended. In Allaben, a new passenger loading platform will be built along with development of a picnic area, as part of the Shuttle Extension.

The Empire State Railroad Museum, Incorporated (ESRM), a tax-exempt not-for-profit corporation founded in 1960 (a separate legal entity from the railroad) has rehabilitated the historic Phoenicia Station for its headquarters. The museum also owns a historic steam engine (the No. 23) and dining car (the Lion Gardiner). These two pieces of equipment are presently stored on the trackage in Kingston, and will be moved to Phoenicia after the intervening trackage is rehabilitated and opened for service by the Catskill Mountain Railroad.

The museum intends to have the Catskill Mountain Railroad operate excursions with the historic engine and dining car. This benefits the Catskill Mountain Railroad by making equipment available for operation with minimal cost, and the ESRM benefits by having rail facilities to use this historic equipment upon. Both operations benefit by public exposure from use of this equipment. The ESRM has also contracted with the Catskill Mountain Railroad

for protection against vandalism of its equipment and property.

III. POSSIBLE IMPACTS AND MITIGATION MEASURES

A. IMPACT OF TWENTY-FIVE YEAR LEASE

The purpose of the proposed 25-year lease between CMRR and the IDA is to allow current railroad operations to continue and to enhance the ability of the CMRR to undertake further rehabilitation of the track and expansion of operations. A discussion of the possible impacts of such future actions is set forth below. In conjunction with data on the existing environmental setting, set forth in Section I, this section will provide the basis for initial evaluation of future actions and a determination as to whether any further review is required. The direct impacts of the lease itself are as follows:

1. Economic Benefits

The lease will permit the CMRR to continue operations of its existing run, east of Phoenicia, which is one of the attractions which comprise the Route 28 tourism corridor. This corridor generates substantial economic benefit to the County through expenditures by tourists, most of whom are not County residents. In addition, the County will continue to receive the benefit of lease payments or in-kind services by CMRR to improve the railroad facilities.

2. Public Access

The lease requires that CMRR "shall allow the public to use the right-of-way for walking, cross country skiing and fishing provided such activity does not interfere with its operations". As a result of CMRR's maintenance of the right-of-way, a unique resource will remain accessible to the general public for a variety of recreational purposes at no cost or obligation to the County.

B. POSSIBLE IMPACTS OF FUTURE ACTIONS

1. Land Use Policy

Rehabilitation of the railroad right-of-way and expansion of operations of the railroad will further County policies and objectives. The resolution approving purchase of the line (Resolution No. 372-August 1979) cites "scenic railway and recreation purposes" as the reasons for acquisition. The County Land Use Plan supports expansion of

REHABILITATION AND IMPROVEMENT LOCATIONS

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NEW YORK 12484
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CATSKILL MOUNTAIN RAILROAD
CMRR

MAP NO. 4

0 1 2 3 4
Miles

Legend

- Catskill Mountain Railroad
- Route 28 (Onteora Trail)
- ○ Washout
- △ Other Erosion Problem
- □ Bridge Repair
- ◇ Grade Crossing Rehabilitation
- ✡ Other Work

DELAWARE COUNTY
GREENE COUNTY
ULSTER COUNTY

Halcott
Middletown
Fleischmanns
D & O. L. Railride
Emory Brook
Bushnellsville Cr.
Birch Creek
Highmount
Rose Mtn. 3090'
Bushnellsville
Galli-Curci Rd.
Cathedral Glen
Pine Hill
Giggle Hollow
Lexington
Shandaken
Allaben
Belle Ayr Mtn. 3375'
Mapledale
Big Indian
Fox Hollow
Chichester
Hardenburgh
Balsam Mtn. 3600'
Oliverea Rd.
Garfield Mtn. 2580'
Phoenicia
Mount Tremper 2740'
Oliverea
Shandaken
Esopus Creek
Beaver Kill
Woodland Valley Rd.
Panther Mountain 3720'
Woodland
Woodland Creek
Mount Pleasant
Mount Tremper
Woodstock
Mount Pleasant 2800'
Wittenberg Road
Saw Kill
Beechford
Little Beaver Kill
Wittenberg Mtn. 3790'
Cold Brook
Traver Hollow
Boiceville
Tice Ten Eyck Mtn. 2500'
Glenford
Kenozia Lake
West Hurley
Cornell Mtn. 3870'
Slide Mountain 4160'
Ashokan
Butternut Creek
Shokan
RESERVOIR
West Shokan
Peekamoose Rd.
Bush Kill
ASHOKAN
Stony Hollow
Keator Bk.
Praymaker Brook
Olive
Hurley
Hurley Mtn. Rd.
Ulster
Conrail
Ashokan High Point 3090'
Olive Bridge
Esopus Creek
Atwood Rd.
Marbletown
Samsonville Road
Hurley
Kingston (City)
Rondout Cr.
Kingston (Town)
Sawkill Rd.
Shore Division
West Shore
N.Y. Thruway
HUDSON RIVER

tourism as part of the County's economic development policies and cites revival of the Catskill Mountain Railroad as a "supporting activity" to this policy.

Future development of the rail line will strengthen the role of the Route 28 corridor and provide a potential link for tourist activities such as the Catskill Visitors Center, the Empire State Railway Museum and other visitor destinations from Kingston to the Bel Aire Ski Center. By doing so, it will support the County land use goal of "strengthening and improving the existing centers rather than duplicating facilities and services in rural undeveloped areas", since many of the destinations are in the older hamlets served by the railroad.

2. **Track Upgrading and Maintenance.**

Replacement of deteriorated ties requires disposal of the old ties and the older joint bars and bolts. Brush that is cleared from the railroad grade and debris and sediment from the culverts will also have to be disposed. Clearing the culverts may cause short-term siltation in downstream waters, which will have a minor affect on stream quality. Replacement of culverts and ballast at small eroded locations on the railbed will have little impact. Vegetation will be cleared only by manual and mechanical means. Where the use of herbicides is found to be absolutely necessary, they would be applied in a limited manner and under the direct control and supervision of New York City Bureau of Water Supply. Clearing of vegetation will, in some locations, improve vistas. It should be noted that many of the actions discussed in this paragraph as well as those in paragraphs 3, 4 and 5 below will be required, regardless of the lease, to maintain drainage, prevent erosion and provide the other recreation activities permitted on the right-of-way in a safe manner.

3. **Repair of Washouts and Major Eroded Areas**

Repair of the four major washouts between Cold Book and Allaben will require building a new railroad grade with stone, ballast and fill, with rip-rap placed along the Esopus Creek. This work has the potential to cause major, site-restricted, short-term siltation impacts upon the protected stream. In some instances, the work may either involve shifting of the stream channel away from the railroad, or induce such a shift by the stream after

project completion. The affect of this action may cause clouding of the water from siltation, but should not otherwise affect water quality. Similar affects may result from the replacement of the wing wall at Butternut Cove. The addition of ballast at Stony Hollow and at MP 18.6 should have a negligible effect upon the environment. A disposal site will have to be found for the sand to be removed at MP 19.5.

4. **Bridge Repairs**

The repair, realignment and/or replacement of abutments and piers on the Boiceville, Herdman Road (Woodland Creek), Fox Hollow, and Big Indian bridges, could result in short-term but significant siltation and streambed disturbance by construction equipment. Work on other bridges, such as replacement of bridge timbers and repairing of holes, should have little effect upon the environment.

5. **Grade Crossing Rehabilitation**

Rehabilitation and improvement of at-grade crossings should have a minimal impact upon the environment. Pavement and gravel removal from closed crossings will have to be disposed. The crossing at Route 28 in Mount Pleasant will result in some disruption of traffic on this state route.

6. **Other Improvements**

Installation of a new siding at Butternut Cove may require filling to create a new railroad grade. Some fill material may erode before vegetation is established, causing siltation in the Ashokan Reservoir.

Development of a picnic area at Allaben will enhance the visual setting at that station.

7. **Operations**

Rail operation impacts are generally of several categories, including land use, noise, air quality, use of energy, and transportation.

The excursions will require diesel fuel or coal (for the steam engines). About 1,600 gallons of diesel fuel are used for the Esopus Creek Shuttle during a typical 80 day operating season. The Scenic Train would use 4,800 gallons, and the Shuttle Extension would use 1,600 gallons. The

Dining Car Train would use the steam engine and require three tons of coal per day. This amount is substantially less than the tonnage required when steam engines were regularly used on the railroad. Smoke and particulate matter from both steam and diesel engines would be dispersed over the railroad corridor as it is sparsely populated. Fly ash catchers can be utilized on the steam engines during times of drought to minimize risk of starting a forest fire. Emissions from the small diesel engines on the line is comparable to that of commercial tractor-trailer trucks. Little impact on air quality is likely to result from traffic generated by this operation.

No on-site storage of coal or diesel fuel is proposed. This avoids potential groundwater and surface water impacts resulting from seepage, and visual impacts from coal storage areas. The location of parking areas for individual excursion terminal points close to protected stream beds could lead to increased stormwater runoff and introduction of pollutants into the water. However, such lots will be relatively small, on a limited basis and paved with gravel or other porous material.

The steam engine will require 1,500 gallons of water per trip, or 120,000 gallons per 80-day operating year. The source of this water will be the Esopus Creek and will require approval of water supply permits from the DEC prior to use.

Re-use of this rail facility for train operations will be consistent with its past use. The frequency of train excursions will be much less than when the railroad was last in operation. Much of the railroad's right-of-way is situated away from existing roads and development, with the intervening vegetation forming greenbelt strips alongside the tracks.

Operation of the train excursions is not expected to exceed the local ambient noise levels. Equipment noise will be comparable to that of heavy trucks on the highway. Much of the operating noise will be at a distance from residences and business, and muted by intervening vegetation.

8. Traffic

Expanded railroad operations will depend on in-

creased visitation. While some additional traffic will be drawn to Route 28, a number of factors will serve to reduce traffic impacts. Since Route 28 is a major traffic route, many rail visitors will be captured from traffic already using the corridor as opposed to new traffic. Furthermore, use of the railroad by tourists to visit the various destinations in the corridor will actually reduce trips that would otherwise have been made by car.

C. MITIGATION MEASURES

1. The proposed lease includes the following provisions which will mitigate potential impacts:

   a. "Non-railroad uses or commercial concessions" will not be permitted without the written consent of the County Legislature. This will allow for evaluation of the possible effects of any proposed action other than railroad related actions and imposition of any necessary mitigation measures based on the specific proposal.

   b. The CMRR will be required to maintain certain portions of the railroad right-of-way free from brush, papers and trash.

   c. The CMRR will allow the public to use the right-of-way for walking, cross country skiing and fishing.

   d. The CMRR has and will continue to provide bodily injury liability and property damage liability insurance for the property.

   e. The lease requires the CMRR to obtain "any and all (required) permits, licenses and approvals of any agency or person, governmental or otherwise".

2. Prior to undertaking an action requiring approval or permit by any of the involved agencies listed in Part IV, below, plans will be prepared and submitted to the involved agency which will make a determination of significance concerning the action. The data and general guidelines included in this EAF will provide the background for such a determination.

3. Those actions which do not require any further approvals involve minor rehabilitation of the rails

and railbed, removal of vegetation and operation of additional trains on Section C (the existing run). These actions will be undertaken in accord with existing procedures which have been utilized for the past five years and have not resulted in any significant effects as well as the following guidelines:

a. The New York State Erosion and Sediment Control Guidelines will be utilized in maintenance and construction procedures where erosion may be a problem.

b. All facilities on leased premises will be sited in accordance with local and federal regulations regarding floodplain protection. On track equipment storage will avoid floodplains wherever possible.

c. Regularly scheduled train movements will take place only where line rehabilitation has been completed in accordance with Federal Railroad Administration Class 1 standards.

d. All motorized equipment will be equipped with proper mufflers and other noise control equipment.

e. Vegetative clearing beyond the standard 66 foot wide right-of-way will be kept to a minimum and additional clearing will only be undertaken upon consultation with a qualified landscape professional.

IV. NECESSARY APPROVALS/AGENCIES INVOLVED

A. REQUIRED APPROVALS FOR LEASE

1. Approval by the **Ulster County Legislature.**

2. Approval by the **Ulster County Industrial Development Agency.**

B. SEQR STATUS

1. Type of Action

The proposed lease, by the County to a private party, of 38 miles of 66 foot wide railroad property involves approximately 300 acres and, therefore, constitutes a "Type 1" action under §617.12 of the State Environmental Quality Review (SEQR) regulations.

2. Involved Agencies

For purposes of the lease of the railroad property, the only involved agencies are the Ulster County Legislature and the Ulster County Industrial Development Agency.

Subsequent specific actions as described herein may involve any of the agencies listed in C below.

C. PROJECT SPECIFIC APPROVALS

After the lease is approved, the CMRR's rehabilitation and repair programs may involve specific approvals from one or more of the agencies listed below. Each of these agencies will determine the appropriate SEQR classification and environmental significance of each action.

1. **State Highway Access Permit** from the **New York State Department of Transportation (NYSDOT)** for the railroad grade crossing work within state highway right-of-way.

2. Stream Disturbance and Wetland Disturbance Permits from the **New York State Department of Environmental Conservation** for right-of-way rehabilitation, introduction of fill, and alteration of streambeds during the repair of washouts, and repair and replacement of bridge structures and retaining

(wing) walls.

3. County Road Access/Work Permit from the **Ulster County Department of Public Works** for railroad grade crossing work within county road right-of-way.

4. Local* Zoning (Site Plan/Special Permit) Approvals from **Town Planning Boards and Zoning Boards of Appeals** for development of stations, loading platforms, parking areas, equipment and material storage.

5. Local* Highway Access/Work Permits from **Town Highway and City Public Works Departments**, for at grade railroad crossing work on city streets and town highways.

6. **New York City Department of Environmental Protection Bureau of Water Supply** approvals for roadbed and retaining (wing) wall work within Ashokan Reservoir lands and for compliance with watershed rules and regulations.

7. **Ulster County Health Department** for any sanitary facilities which may be provided.

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*Local government bodies which may become involved agencies as a result of approval procedures are those in the City of Kingston and the Towns of Hurley, Kingston, Woodstock, Olive and Shandaken.

V. VERIFICATION

I certify that the information provided above is true to the best of my knowledge.

Applicant/Sponsor Name: Catskill Mountain Railroad Company

Signature _____

Title: _____ **Date:** _____

catskill\909925.ea

EXHIBITS

EXHIBIT A

DRAFT

THIS LEASE is made between the COUNTY OF ULSTER, a municipal corporation, having its principal office at 240 Fair Street, Kingston, New York, herein called LESSOR or the COUNTY, and

ULSTER COUNTY INDUSTRIAL DEVELOPMENT AGENCY, having its office or principal place of business at 44 Main Street, Kingston, New York, hereinafter called LESSEE.

ULSTER COUNTY RAILROAD ADVISORY COMMITTEE

The term RAILROAD ADVISORY COMMITTEE when contained herein, shall mean that board or body created under the authority of Resolution No. 70 of March 14, 1986 and whose members have been duly appointed thereunder.

DESCRIPTION OF LEASED PREMISES

Lessor hereby leases to Lessee and lessee hereby hires from lessor, certain mileage of the Catskill Mountain Branch railroad from the east side of Downs Street to the Delaware County line for railroad purposes, subject to the terms and conditions hereinafter contained.

AUTHORIZED USES OF PROPERTY

Lessee is authorized to operate a passenger carrying tourist ride on the leased premises, and to operate freight and passenger service.

Lessee is also authorized to use the leased premises for maintenance and rehabilitation. In addition, Lessee may use the trackage between Washington Avenue and the Conrail main line as well as that portion of the railroad extending from milepost 39.7 to the Delaware County line for transport of equipment upon due regard for and coordination with others having any rights with respect to such trackage, including but not limited to, Kingston Associates, National Micronetics, Catskill Rail Committee, Conrail and their successors and assigns, and the rights of the public. Any such use shall be approved by the Railroad Advisory Committee.

The County as Lessor, makes no representations or

warranties concerning the condition of the railroad tracks, road bed or any other portions of the property, nor as to the suitability of any such property for any operations contemplated under this lease. All such operations shall be at Lessee's risk.

Customary railroad accessory uses are permitted by Lessee. These uses shall specifically include ticket sales, giftshop, snack bar and dining facilities, but only as part of train operations.

Non-railroad uses or commercial concessions shall not be permitted on the leased premises without prior written consent from the County Legislature, upon the recommendation of the Railroad Advisory Committee. Such consent shall be based upon, but not limited to, consideration of the nature of the proposed activity, the risks of liability involved, and the ability of Lessee adequately to insure against such risks.

As a condition precedent to any non-railroad use, the County may require that Lessee provide public notice and warning of the risks and hazards of the activity involved, and disclaimers of liability where appropriate, in a form and manner which is acceptable to the County Legislature.

TOURIST CAR OPERATION

Lessee agrees to operate a passenger carrying tourist ride between Mt. Pleasant and Phoenicia. No tourist car shall be operated at a speed in excess of that which is permitted by Federal regulations, based on the type of vehicle and class of track utilized, as certified by an independent, Federal Railroad Administration certified inspector, and approved by the Commissioner of Public Works, after consultation with the Railroad Advisory Committee.

The County, acting through its Commissioner of Public Works, after consultation with the Railroad Advisory Committee, reserves the right to waive any requirement of passenger car operation as set forth, and further to prohibit any such operations if the Commissioner of Public Works after consultation with the Railroad Advisory Committee, in his discretion, or the County Legislature in its discretion, determines that such operations would present an unreasonable risk of injury or harm to passengers or the general public.

Railway operations and passenger service must take place a minimum of 30 days (consecutive or non-consecutive) during the months of May through September.

Lessee shall perform on-site safety inspections of the track and equipment used for any rail service on each day of operation and prior to commencement of such operation. Documentation of such inspections shall be made available to the Commissioner of Public Works and the Railroad Advisory Committee upon request.

TERM

The premises shall be leased for a term of twenty-five (25) years, to commence on and to end at twelve o'clock Noon on ,or on such earlier date as this lease may terminate as hereinafter provided, except that if any such date falls on a Sunday or holiday, then this lease shall end at twelve o'clock Noon on the next business date.

REHABILITATION AND MAINTENANCE

The Lessee shall expend a minimum of $25,000 to rehabilitate a minimum of 1 mile of track per lease year so that the line of track from Kingston to Phoenicia is entirely rehabilitated to Class 1 condition by the end of this lease. This rehabilitation requirement may be performed in advance of any lease year. The term "Class 1 Condition" shall be such condition described by such classification under the standards of the United States Department of Transportation.

The Lessee shall perform all maintenance necessary to keep the rehabilitated track at that Class 1 standard. The Lessor shall have the right, at least once a year, to inspect the track through professional engineers selected by Lessor and paid for by Lessee to insure that the requirements of this lease are being met.

The Lessee shall, at all times, maintain the entire railroad right-of-way free from brush, papers and trash from the Conrail main line to the Delaware County line.

The Lessee may make other capital improvements to the right-of-way over and above the rehabilitation and maintenance requirement.

PERCENTAGE RENT PROVISIONS

Lessee agrees to pay Lessor at the times and in the manner specified in this agreement, rent in an amount equal to 1% (one percent) of Lessee's gross revenue for each of lease years 1-5 inclusive; 2% (two percent) of Lessee's gross revenue for each of lease years 6-10 inclusive; 3% (three percent) of Lessee's gross revenue for each of lease years 11-15 inclusive; 4% (four percent) of Lessee's gross revenue for each of lease years 16-20 inclusive; and 5% (five percent) of Lessee's gross revenue for each of lease years 21-25 inclusive.

Lessee shall make an advance payment to Lessor of $3,500 upon the execution of this lease which shall be applied to any amounts found to be due to the Lessor under the above formula. The amount of actual rent shall be determined by the Lessor based on its examination of the statements, books and papers and operations of Lessee within 90 days after the end of each lease year. If the amount so found has not been approved and certified to by an independent certified public accountant hired at the joint expense of the parties, lessee may request within 30 days the joint hiring of such a person, and in either event the determination of such person shall be final and binding on the parties. If Lessee should fail to timely request the hiring of such a person, Lessor's determination, however made, shall be final and binding.

In the event that the aforesaid advance payment of $3,500 is insufficient to cover the rent as finally determined, Lessee shall pay the difference to Lessor within 10 days after such determination. In the event the $3,500 exceeds the rent actually determined, the excess shall be refunded to Lessee after submission of an appropriate voucher therefor.

On or before the commencement of each lease year after the first, Lessee shall make a similar advance payment of $3,500 (subject to increase as hereinafter set forth) which shall be applied to the rental for that year in the same manner and which said rental shall be determined as and under the conditions above set forth. Provided, however, that if the rent for the year immediately preceding is finally determined to be in excess of $3,500, Lessee, within 30 days after such determination, shall pay to Lessor the amount of such excess so that the total amount paid to Lessor as an advance payment shall be at least the preceding year's rent, or $3,500, whichever is greater.

The term "gross revenue" as used in this agreement, shall mean any income derived from the lease of the property including, but not limited to, train operations including train fares and freight charges, gift shops on the trains or elsewhere, dining income to the Lessee from dining cars, and any revenues from concessions. The term "gross revenue" shall not include grants from any government or governmental agency nor income that is derived from activities not related to train operations on the leased premises, and there shall be deducted from Lessee's gross revenue, for the purpose of accounting to Lessor, the amount of actual capital investments made by Lessee.

Within 30 days after the end of each year commencing and ending of the , Lessee shall furnish Lessor with a statement certified as correct by Lessee or an officer authorized to so certify, which shall set forth the gross revenue of Lessee and any authorized deductions for capital investments.

Lessee shall keep full, complete and proper books, records and accounts of its gross revenue. The books, records and accounts including any records that Lessee may be required to furnish to any government or governmental agency, shall at all reasonable times be open to the inspection of Lessor, Lessor's auditor, or other authorized representative or agent.

RESTRICTION AGAINST MECHANIC'S LIENS

Lessee shall pay and settle all expenses and liabilities arising out of or in any way connected with any installation, repairs, alterations, rehabilitation, maintenance or upkeep of the premises and shall keep the same free and clear from all liens of mechanics or materialmen, and all liens of a similar character arising out of or growing out of the aforesaid activities.

Neither Lessee nor anyone claiming through, by or under Lessee shall have any right to file or place any mechanic's lien of any kind or character whatsoever upon the premises, and notice is hereby given that no contractor, subcontractor or anyone else who may furnish any material, services or labor for any of the foregoing installation, repairs, alterations, rehabilitation, maintenance or upkeep at any time shall become entitled to any lien thereon whatsoever. For the further security of Lessor, Lessee shall give actual

notice of this restriction in advance to any and all contractors, subcontractors or other persons, firms, or corporations that may furnish any such materials, services or labor.

PROPERTY GUARANTY

Any property of the County damaged or destroyed by the Lessee incident to the exercise of the privileges herein granted shall be promptly repaired or replaced by the Lessee to the satisfaction of the Commissioner of Public Works after consultation with the Railroad Advisory Committee. This obligation shall be in addition to that of normal rehabilitation and upkeep as hereinabove provided.

LEASE SUBJECT TO EXISTING LICENSES AND AGREEMENTS

This lease shall be subject to a license to the Catskill Rail Committee to use and operate trains on that portion of the railroad extending from 150 yards east of the east switch at Highmount to the Delaware County line, and grants, leases or agreements heretofore or hereafter made between the County and Kingston Associates, National Micronetics, and Consolidated Rail Corporation, or others.

RIGHT OF ENTRY

Lessor, its agents, servants or employees may enter upon and over the premises at any time in accordance with the procedures and safety practices of "Conway Safety Rules." In addition, the Superintendant of Operations, manager on duty or designee of the Lessee must be notified to protect said persons from any possible danger or conflict with on-going rail operations. In any event, lessee may not unreasonably deny access to the premises for any and all purposes as may be reasonably necessary or required in the Lessor's judgment. No track-mounted equipment may be used without a prior written train order signed by the Superintendant of the Lessee.

The County reserves the right to grant to third persons the right of private crossings, for right-of-way access, ingress over and upon the leased premises, so long as such crossings do not prevent safe train operations. Prior to such grant, the Lessee shall be given the opportunity to review and approve such proposal. In addition, Lessee has the right to post the leased

premises to prevent trespass by unauthorized users of the leased premises. The Lessee shall allow the public to use the right of way for walking cross country skiing and fishing provided such activity does not interfere with its operations.

WORKER'S COMPENSATION INSURANCE

Lessee shall take out and maintain during the life of this lease, Worker's Compensation insurance and Employer's liability insurance for all of his employees employed at the site of the project, and in case any work is sublet, Lessee shall require his subcontractors similarly to provide Worker's Compensation for all subcontractor's employees unless such employees are covered by protection afforded by Lessee.

In case any class of employees engaged in hazardous work under this lease is not protected under the Worker's Compensation statute, the Lessee shall provide other, and shall cause each of his subcontractors to provide other adequate insurance for protection of his employees not otherwise protected in compliance with the Worker's Compensation Law of the State of New York.

GENERAL LIABILITY INSURANCE

The Lessee shall take out and maintain during the life of the lease, such bodily injury liability and property damage liability insurance as shall protect the Lessee and Lessor from claims for damages for personal injury including accidental death, as well as from claims for property damage which may arise from the premises and operations under this lease, whether such operations be by the Lessee or by any of Lessee's subcontractors or by anyone directly or indirectly employed by either of them. It shall be the responsibility of the Lessee to maintain such insurance in full force and effect and in amounts sufficient to fully protect the Lessee and the Lessor, but in no instance shall the amounts be less than those set forth below. The amounts are specified only to establish the minimum coverage acceptable.

Lessee shall take out and maintain during the term of this lease a premises and operations general liability policy which covers both the leased premises and operations thereon in an amount of not less than $2,000,000.00 (two million

dollars).

CONDITIONS APPLICABLE TO GENERAL LIABILITY INSURANCE

Bodily injury liability and property damage liability insurance to be obtained by the Lessee shall include the following:

1. Comprehensive General Liability cover form.
2. Broad form comprehensive general liability endorsement.
3. Include employees and volunteers in definition of persons insured.
4. 45 (forty-five) days notice of cancellation.
5. County of Ulster to be included as named insured.
6. Coverage afforded named insured County of Ulster shall be primary, as such coverage pertains to the leased premises, as well as operations thereon.
7. Include coverage for independent contractors, if any.
8. Include coverage for products and completed operations, if any.
9. Include coverage for personal injury liability.

OWNERS PROTECTIVE LIABILITY INSURANCE

Lessee shall provide the Lessor with owners protective liability coverage with the County of Ulster as named insured and the Lessee as contractor. The following minimum limits will apply:

Bodily injury and property damage combined single limit $1,000,000 (One Million Dollars).

CONDITIONS APPLICABLE TO OWNERS PROTECTIVE LIABILITY POLICY

The owners protective liability limit shall apply separately from the liability limits in the comprehensive general liability coverage part.

OTHER CONDITIONS OF INSURANCE

1. Lessee shall provide Lessor's insurance officer with complete copies of all insurance policies prior to renewal of the lease and each year thereafter immediately subsequent to renewal of all insurance policies.

2. Lessee agrees that no additional individual or entity may be added to any insurance policy as "additional insured" or "named insured" during the life of the lease without the expressed consent of the Lessor.

3. If the insurance policies provided by the Lessee contain a per claim deductible or self-insured retention, the Lessee will be responsible for the payment of the entire per claim deductible and the entire self-insured retention for each and every claim presented for payment as it pertains to the leased premises and/or operations thereon.

4. Lessee shall renegotiate insurance specifications, limits of liability, and conditions with the Lessor each year at least 90 (ninety) days prior to renewal of Lessee's insurance policies for the life of the lease.

5. If legal defense costs for any claim against the parties to this lease agreement are not provided by the Lessee's insurance policies, the Lessee will pay for any and all legal defense costs of each claim, as it pertains to the leased premises and/or operations thereon.

6. Notwithstanding anything to the contrary contained in this lease, Lessee shall have no right to keep, maintain or otherwise use and occupy the leased premises in any manner during any period or periods when insurance as required above (in all respects) is not in force. In such event Lessor may obtain injunctive relief from any court of competent jurisdiction to include a temporary restraining order granted without notice, in addition to any and all other remedies which may be available to lessor.

INDEMNIFICATION

The Lessee shall protect, defend, indemnify and hold the County of Ulster and its officers, employees and agents free and harmless from and against any and all losses, penalties, damages, settlements, cost, charges, professional fees or other expenses or liabilities of every kind and character arising out of or relating to any and all claims, liens, demands, obligations, with or arising directly or indirectly out of the lease agreement and/or the performance hereof. Without limiting the generality of the foregoing, any and all such claims, etc. relating to personal injury, death, damage

to property, defects in materials or workmanship, actual or alleged infringement of any patent, trademark, copywrite (or application of any thereof) or any other tangible or intangible personal or property right or any actual or alleged violation of any applicable statute, ordinance, administrative order, rule or regulation, or decree of any court, shall be included in the indemnity hereunder. The Lessee shall further agree to investigate, handle, respond to, provide defense for and defend any such claims, etc. at its sole expense and agrees to bear all other costs and expenses related thereto, even if it (claims, etc.) is groundless, false or fraudulent. In any case in which indemnification would violate Section 5-322.1 of New York General Obligation Law, or any other applicable legal prohibition, the foregoing provisions concerning indemnification shall not be construed to indemnify the County for damage arising out of bodily injury to persons or damage to property caused by or resulting from the sole negligence of the County, its officers, employees or agents, as it pertains to the leased premises and/or operations thereon.

Lessee is prohibited from entering into any agreement with a third party, whereby Lessee would indemnify, hold harmless, or otherwise assume liability under a contract with such third party.

FAILURE TO PERFORM

This lease is subject to the Lessee's performance of the covenants and conditions set forth in this lease. If Lessee defaults in performance of any of the covenants or conditions, and the breach continues for more than 30 days after Lessee receives written notice, Lessor may, at its option:

1. Pursue any legal remedy to recover for the breach, and continue the lease in force.

2. Declare the lease forfeited, reenter the demised premises, and remove all persons and Lessee's property from the premises. Lessee specifically waives service of written notice of intention to reenter.

PERMITS, LICENSES AND APPROVALS

Lessee shall be responsible for and shall obtain any and all other and further permits, licenses and approvals of any agency or person, governmental or otherwise, having jurisdiction of or interest in the operations contemplated hereunder, and the Lessee shall comply with all laws, ordinances, rules or regulations of any kind which may apply thereto. Lessee shall coordinate its activities with all townships and localities wherein operations are conducted.

RECORDS AND REPORTS

Lessee shall submit to the Railroad Advisory Committee a quarterly report of progress and activities with respect to the leased premises. In addition, any unusual occurrence or any accident shall immediately be communicated to the Chairman of the Railroad Advisory Board or his designee, and shall be followed by a detailed written description of such occurrence or accident within 48 hours.

Lessee shall submit to the Committee an annual track inspection statement prior to commencement of operations, prepared by an independent, Federal Railroad Administration certified inspector who is approved by the Commissioner of Public Works after consultation with the Railroad Advisory Committee. Such statement shall specify that the track, bridges and equipment are in a safe condition for the intended purpose, whether such purpose is passenger service or equipment transport, or otherwise.

Any request made by lessee for change or approval requiring the consent of the County Legislature, the Department of Public Works, or others, shall be made to the Chairman of the Railroad Advisory Committee, or his designee, who shall respond to such request within ten (10) business days.

TAXES

Lessee shall be responsible for the payment of any and all taxes that may hereafter become due on the leased premises or as a result of Lessee's operations on the leased premises.

LESSEE'S PROPOSAL FOR USE

Lessee shall prepare and submit an Environmental Assessment Form to the County Legislature in conjunction with this lease, an Environmental Impact Statement, if the same shall be required, shall comply in all respects at all times with the requirements of the State Environmental Quality Review Act and regulations promulgated thereunder, and hold Lessor harmless with respect thereto.

ASSIGNMENT

Lessor hereby consents to the assignment of this lease to the Catskill Mountain Railroad, Inc. under the condition that said assignee shall in writing agree to assume all of the rights, duties and liabilities of the Lessee hereunder and shall make any and all payments required and comply with all the terms and conditions of this lease. In the event of such assignment, the Lessee shall be relieved of its obligations hereunder. Lessee may add any other or additional conditions to any such assignment as will be to its benefit and that of the Lessor.

STRICT PERFORMANCE

The failure of the Lessor to insist upon strict performance of any of the covenants or conditions of this lease or to exercise any option herein conferred in any one or more instances, shall not be construed as a waiver or relinquishment for the future of any such covenants, conditions or options, but the same shall be and remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have executed this lease the _____ day of _____, 19 .

COUNTY OF ULSTER

By: _____
Richard B. Mathews, Chairman
Ulster County Legislature

ULSTER COUNTY INDUSTRIAL DEVELOPMENT AGENCY

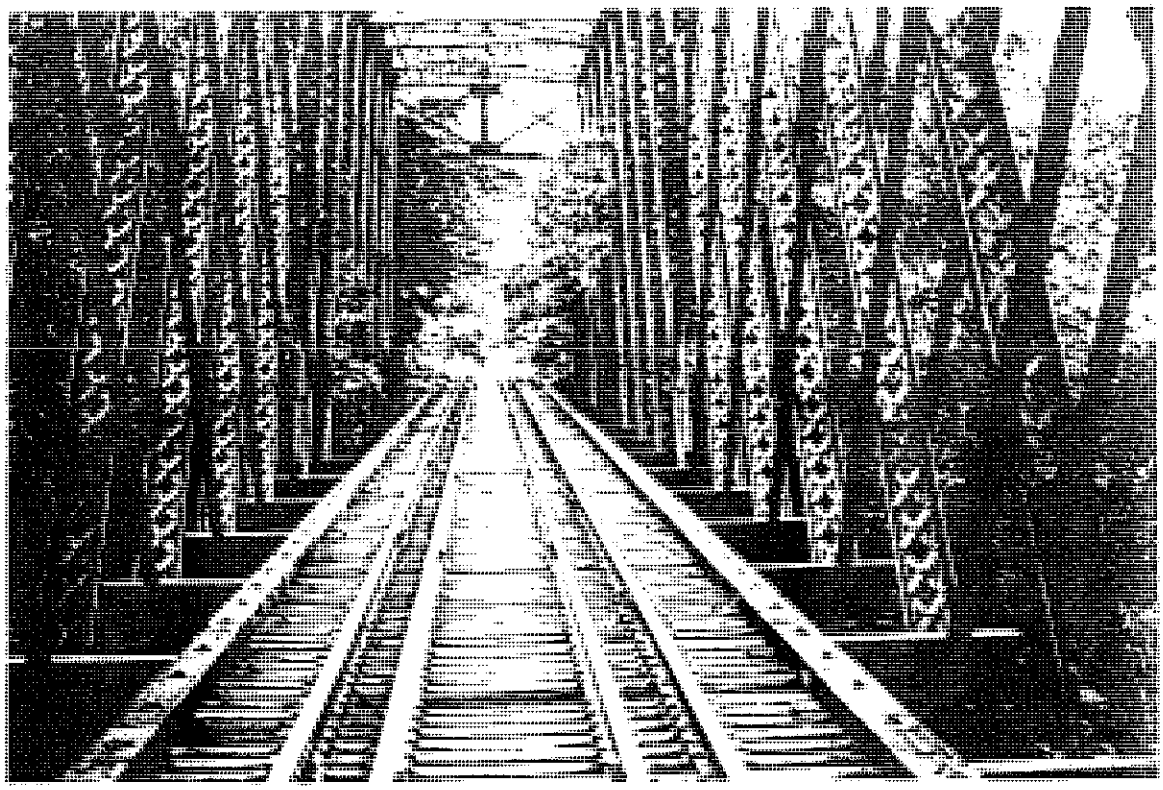
By: _____
Alice H. Cocalas, Executive Director

EXHIBIT B

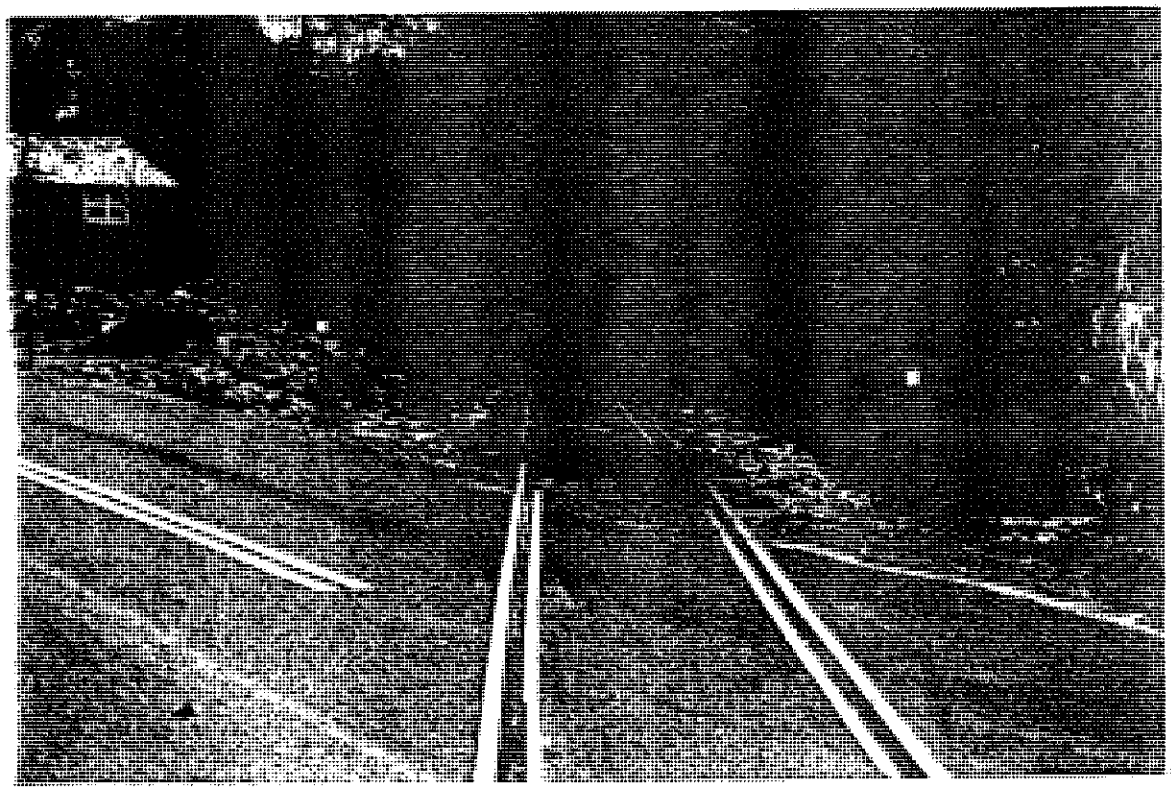
EXHIBIT B

PHOTOGRAPHS

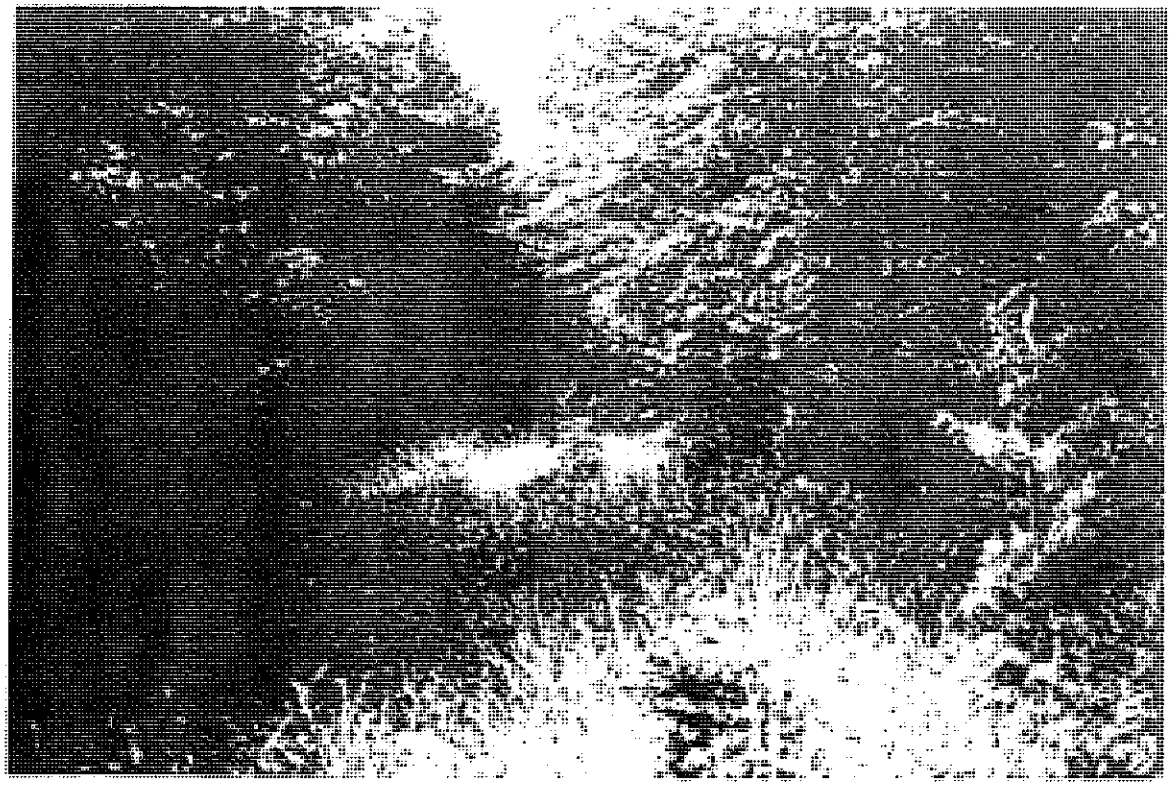
1. Bridge over the Esopus Creek - City of Kingston.
2. Grade Crossing at Stony Hollow - Town of Hurley.
3. Rail line - Town of Hurley.
4. Washout - Town of Hurley.
5. Eroded track bed - Town of Hurley.
6. Culvert - Town of Hurley.
7. Cold Brook Station - Town of Olive.
8. Rock Cut washout - Town of Shandaken.
9. Bridge abutment - Town of Shandaken.
10. Washout - Town of Shandaken.
11. Mill Street Bridge - Town of Shandaken.



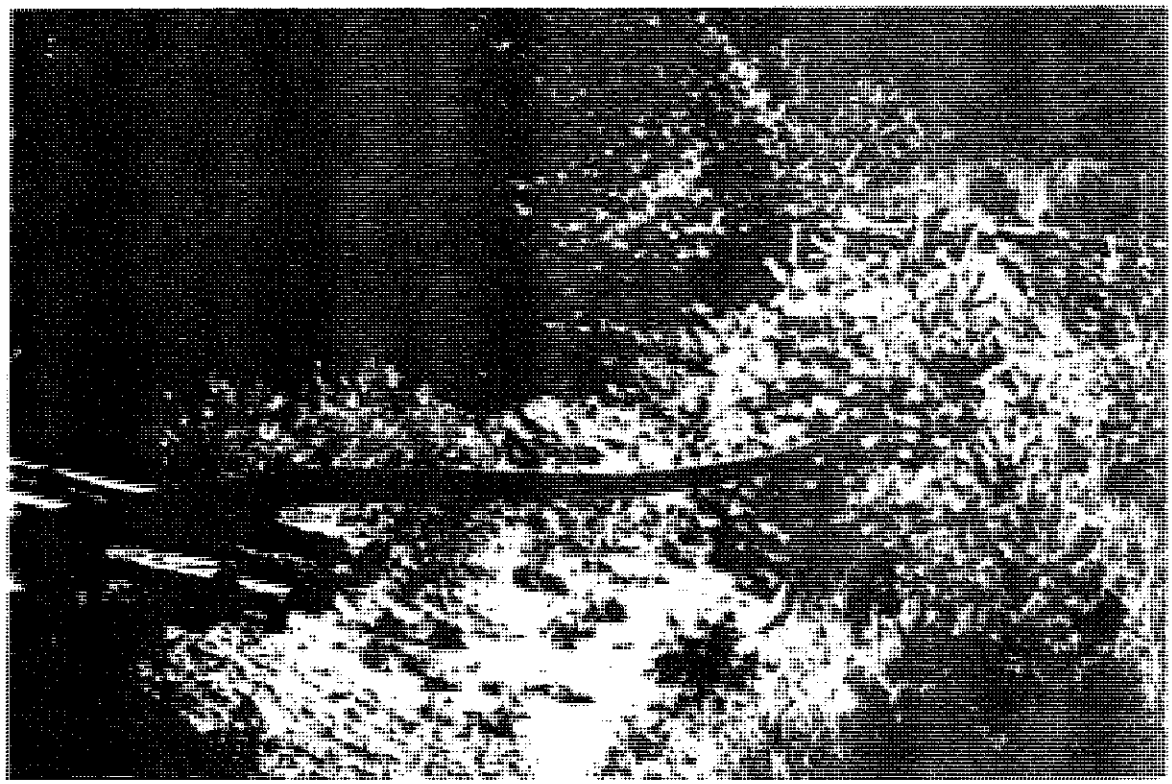
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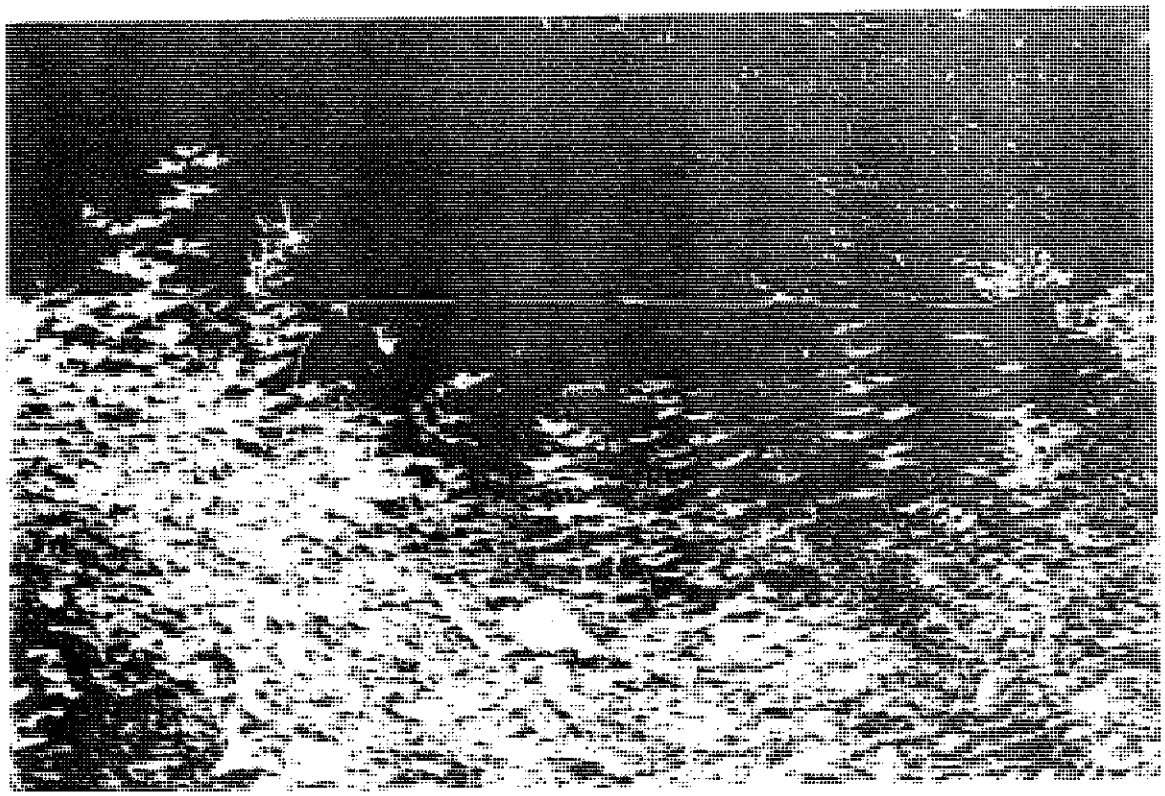
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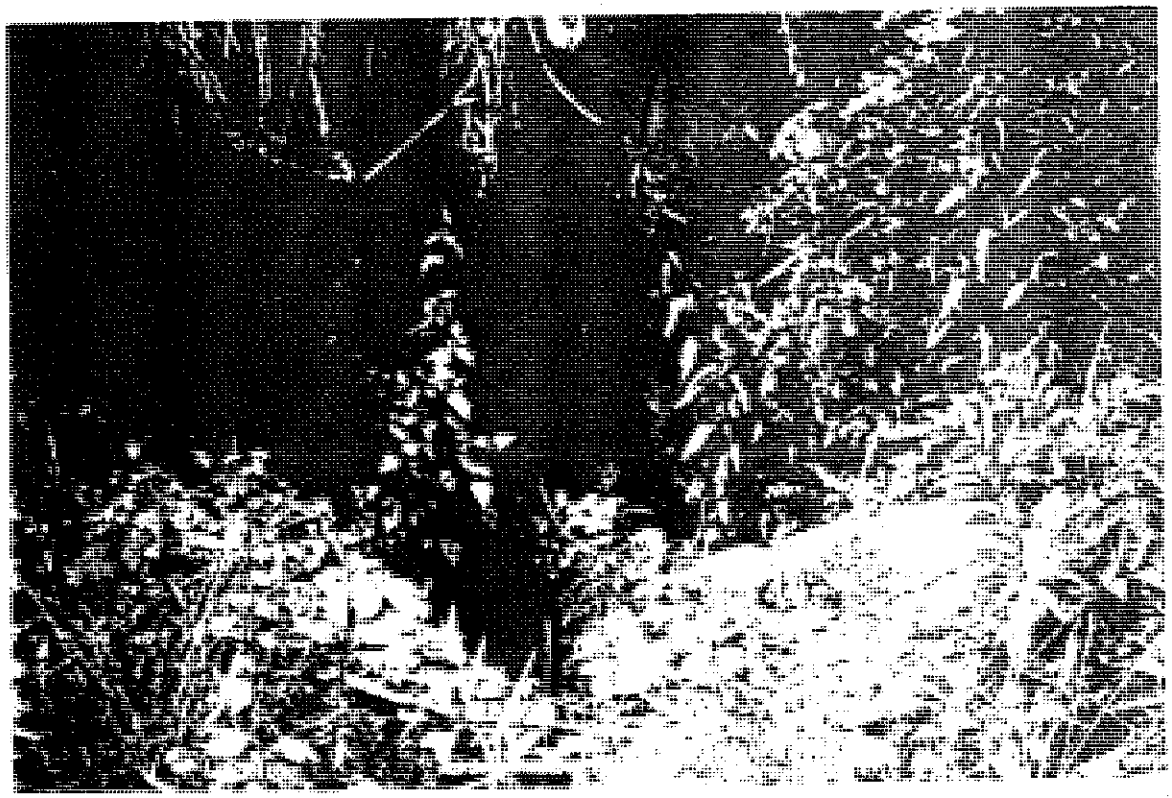
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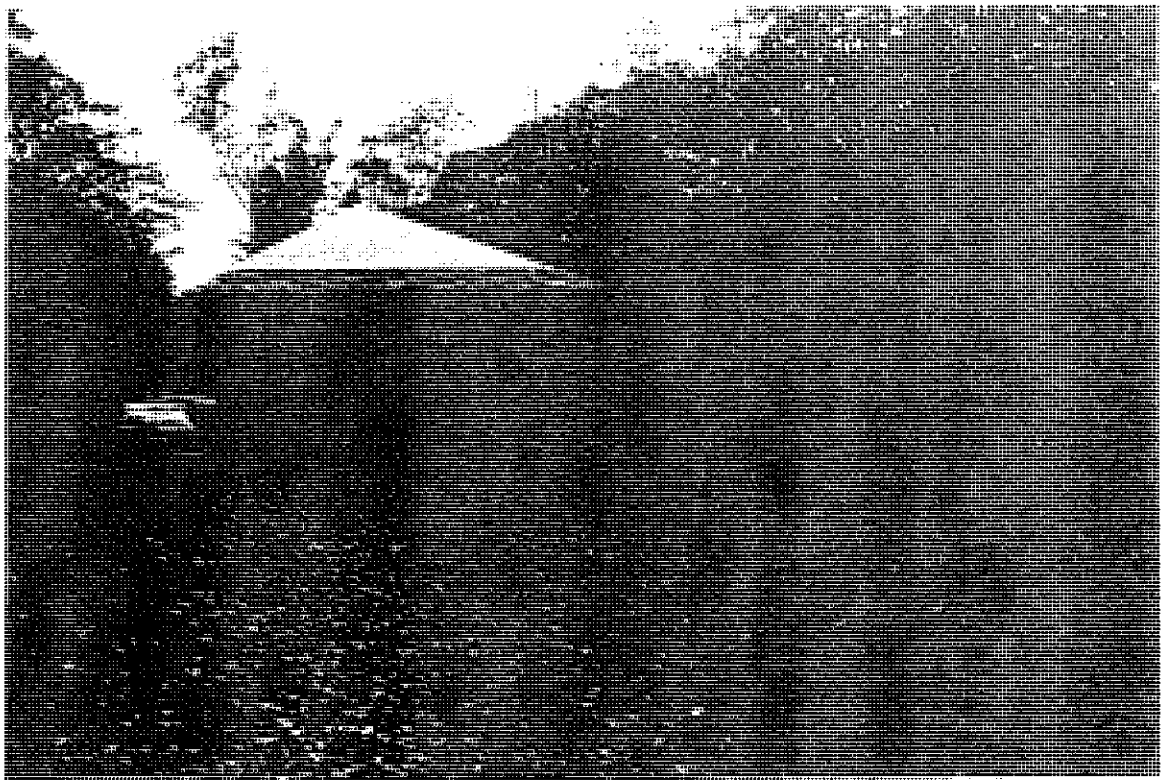
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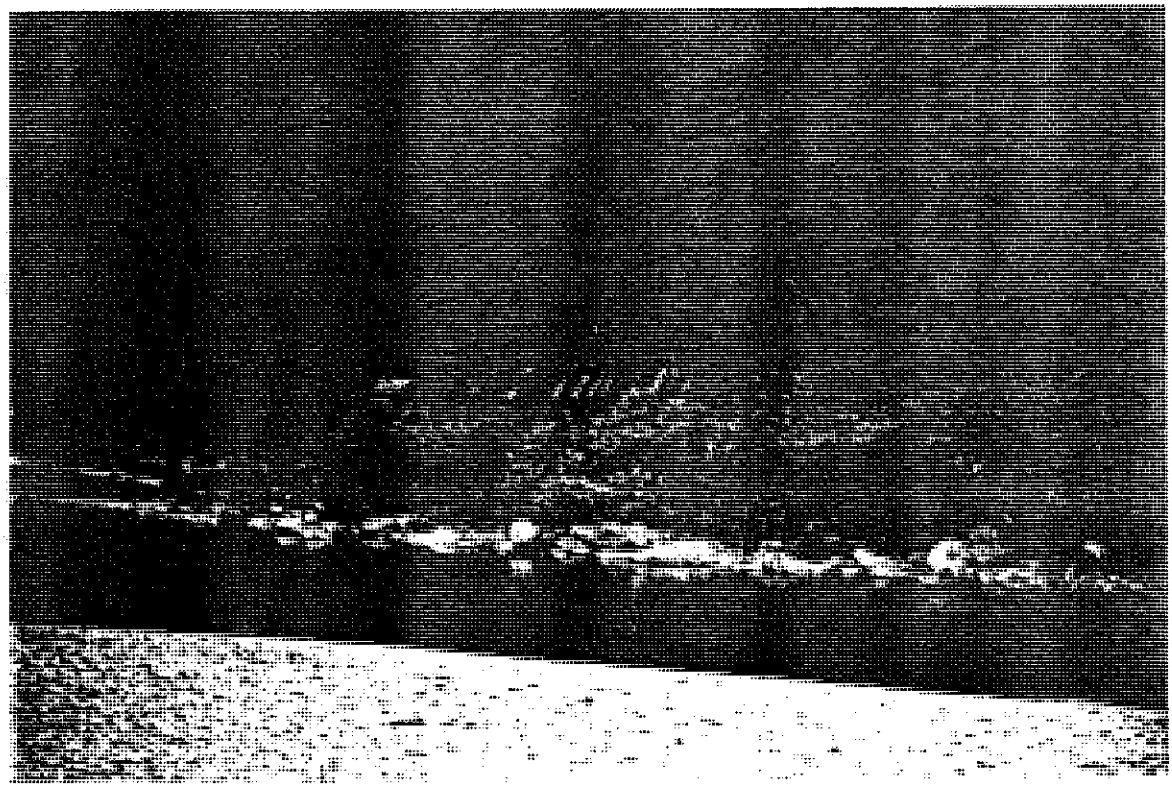
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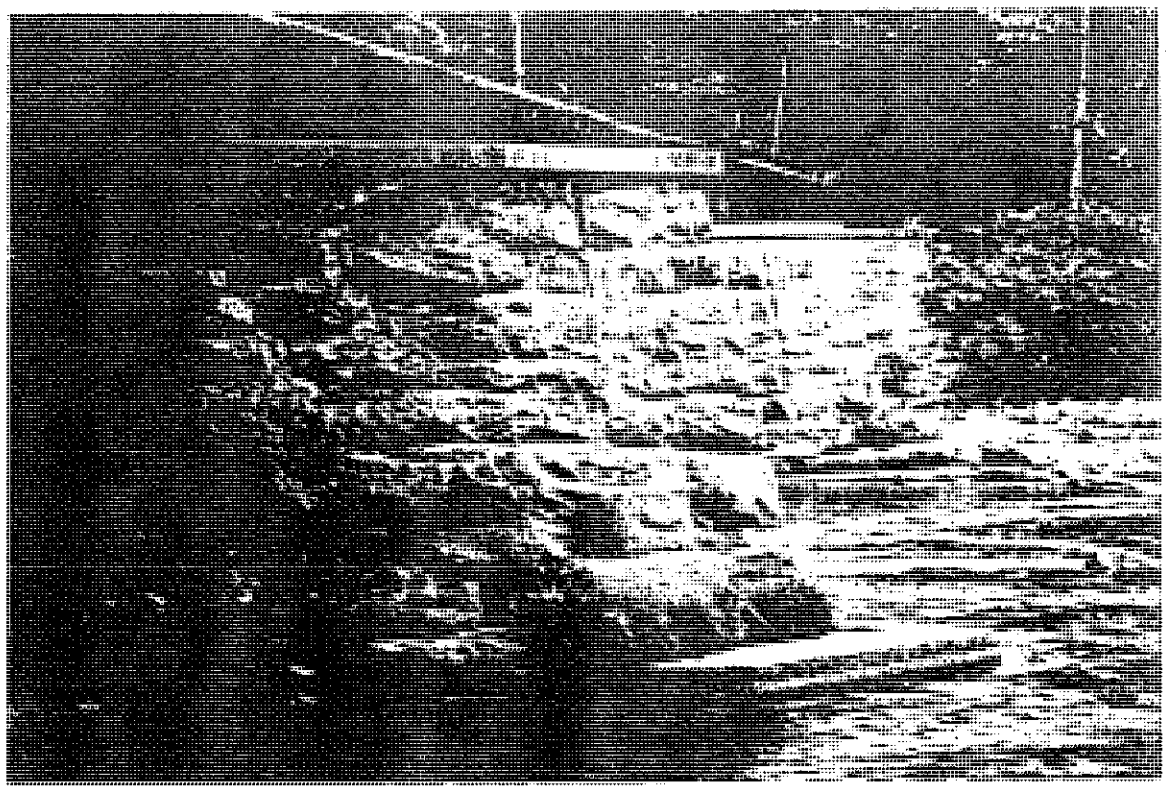
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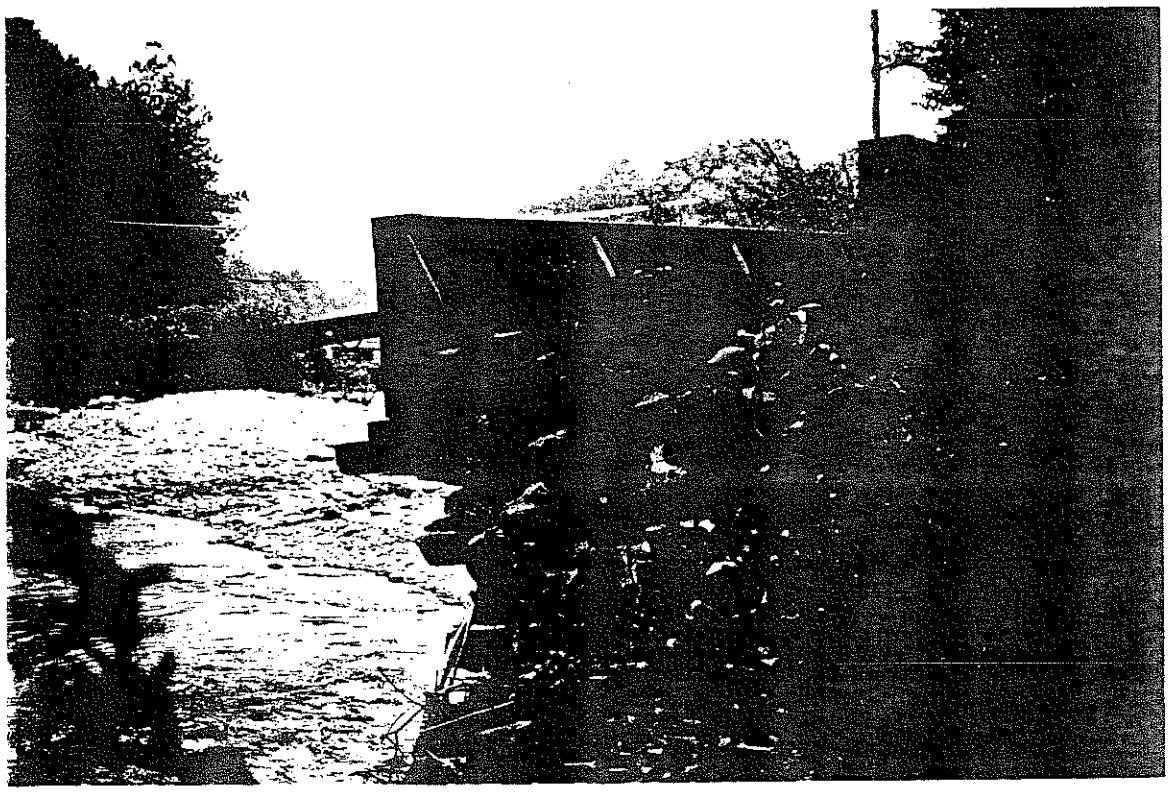
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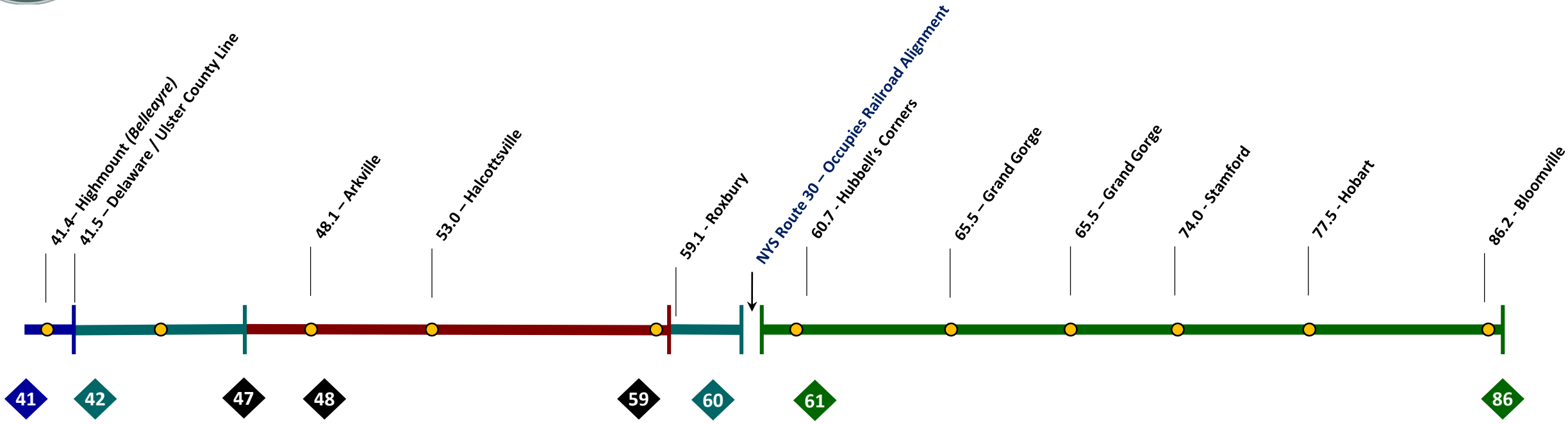
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EXHIBIT G

Catskill Revitalization Corporation – Trail/Rail System



Legend

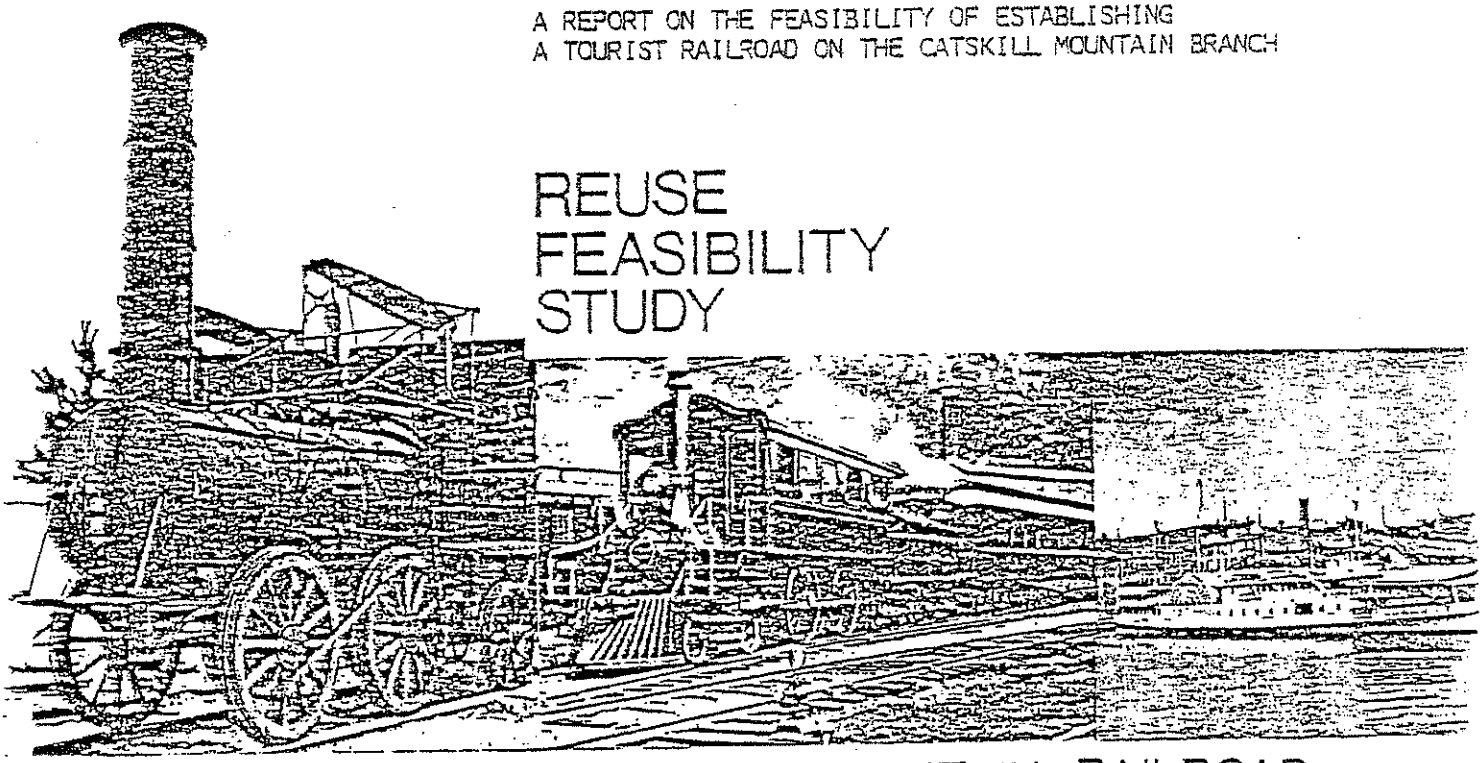
- Ulster County MP 41.5 - East
- DURR / Under Repair (Motor Car's Only)
  MP 41.5 to MP 47.0
  MP 59.5 to MP 60.2
- DURR Active Railroad
  MP 47 to MP 59.5
- Catskill Scenic Trail
  MP 60.5 to MP 86.2
- MP - Milepost
- Station

Not to Scale

EXHIBIT H

A REPORT ON THE FEASIBILITY OF ESTABLISHING
A TOURIST RAILROAD ON THE CATSKILL MOUNTAIN BRANCH

REUSE FEASIBILITY STUDY



CATSKILL MOUNTAIN RAILROAD

SUBMITTED TO ULSTER COUNTY, NEW YORK

CE MAGUIRE, INC.
ARCHITECTS · ENGINEERS · PLANNERS

JANUARY 1978

TABLE OF CONTENTS

TITLE PAGE
LIST OF TABLES
LIST OF FIGURES

I. INTRODUCTION 1

BRIEF HISTORY OF CATSKILL MOUNTAIN BRANCH 1
BACKGROUND AND PURPOSE OF THE STUDY 2
LOCATION OF BRANCH 2

II. MARKET STUDY 5

SURVEY OF TOURIST RAILROADS IN THE U.S. 5
MARKET FACTORS 8
MARKETABILITY OF ULSTER COUNTY 9
TOURIST RAILROAD OPPORTUNITIES IN ULSTER COUNTY 23

III. ECONOMIC BENEFIT OF A TOURIST RAILROAD OPERATION 33

SUMMARY 33
IMPORTANCE OF TOURIST/TRAVEL RELATED ACTIVITY 33
METHODOLOGY FOR CALCULATING ECONOMIC BENEFIT 35
ESTIMATE OF ANNUAL ECONOMIC BENEFIT 39

IV. COSTS OF ACQUISITION AND REHABILITATION (GENERAL) 43

ACQUISITION 44
REHABILITATION 45
Overall Conditions 46
Specific Areas of Intense Rehabilitation 48
Rehabilitation Costs 52

V. ALTERNATIVE SCENARIOS 59

OPTIONS 59
ALTERNATIVE SCENARIOS 60
FISCAL IMPACTS 60
NON-FISCAL IMPACTS 65
OTHER CONSIDERATIONS 69

VI. POSSIBLE FUNDING SOURCES 75

OVERVIEW 75
MOST PROMISING 76
LEAST PROMISING 80

VII. CONCLUSION 85

LIST OF FIGURES

FIGURE NO.	TITLE	PAGE NO.
1	General Location Catskill Mountain Branch	4
2	Resident Population Market Areas of Selected Tourist Railroads	12
3	Vacation Attractions In and Near Ulster County	17
4	Travel Regions - 1975 Per Capita Travel Expenditures, New York State	22
5	Areas of Intense Rehabilitation	51
6	Activities and Attractions Accessible From the Catskill Mountain Railroad	66

LIST OF TABLES

TABLE NO.	TITLE	PAGE NO.
1	Tourist Railroad Operations in U.S.	6
2	Effect of Travel Dollars On New York State	21
3	Visitor/Rider Estimates-Catskill Mountain Railroad	24
4	Comparative Statistics/ Tourist R.R. Operations	25
5	Estimated Annual Economic Benefits of Catskill Mountain R.R. (Short-trip)	39
6	Economic Benefits of Catskill Mountain R.R.(Short-trip & excursion)	40
7	Economic Benefits of Catskill Mountain R.R. Theme Land/Town (Incl. Short-Trip & Excursion)	41
8	Cost of Acquisition/Estimates	44
9	Comparison, Rehabilitation Costs and Tie Replacement Costs	50
10	Areas of Intensive Tie Replacement	52
11	Unit Rehabilitation Costs	54

I INTRODUCTION

BRIEF HISTORY OF CATSKILL MOUNTAIN BRANCH

Since 1870, the Catskill Mountain Branch (originally the Ulster & Delaware Railroad) has exerted a strong influence on the development of the Catskill Mountains. Originally conceived as a link between the rich farmlands to the west and the river ports along the Hudson River to the east, the railroad also opened up the region to city dwellers seeking the cool serenity and beauty of the Catskill Mountains during the summer. New Yorkers came to the grand hotels and modest boarding houses which sprang up along the line. The completion of the narrow gauge branches to Hunter and Katterskill and the opening of the West Shore Railroad made it possible to reach any point in the Catskills by train. However, with the advent of the automobile and construction of new highways, including the New York State Thruway, passenger service on the Branch diminished. Acquired by New York Central Railroad in 1932, the line later became part of the Penn Central conglomerate.

The line carried only freight in recent years and freight service fell victim to the consolidation of the new Conrail system. On September 28, 1976, the last run was made over the Catskill Mountain Branch and on March 1, 1977 the trustees of the Penn Central Transportation Company gave notice of their intention to abandon the line.

BACKGROUND AND PURPOSE OF THE STUDY

On February 16, 1977, two weeks before Penn Central's abandonment announcement, Herbert Heckler, Director of the Ulster County Planning Board, called a meeting of local, County and State officials to discuss preservation of the rail line. The consensus of the group was to concentrate on a steam railroad as the most feasible reuse for the railroad to complement and draw from the well established tourist industry in the Catskills. On July 4, 1977, the Ulster County legislature approved funding for a study to ascertain the feasibility of County involvement in developing a steam railroad on the Catskill Mountain Branch.

The purpose of this study is to present an objective analysis of the ability of the Ulster County area to support a tourist railroad operation and to determine the economic impact of such a facility on the community. The study also discusses alternative reuse scenarios and possible methods of implementation.

LOCATION OF BRANCH

The Catskill Mountain Branch extends in an easterly direction from Kingston (mile post 2.9) to Kingston Point (mile post 0.0) and in a westerly direction from Kingston to Bloomville (mile point 86.6). The easterly portion of the branch, known as the Rondout Spur, runs through Kingston to Kingston Point on the Hudson River. This portion of the line has not been abandoned but has scant use.

This study concentrates on the section from mile post 2.9 to mile post 48.3 (Arkville), almost all of which (40 miles) is within Ulster County. See Figure 1 for the general location of the Branch.

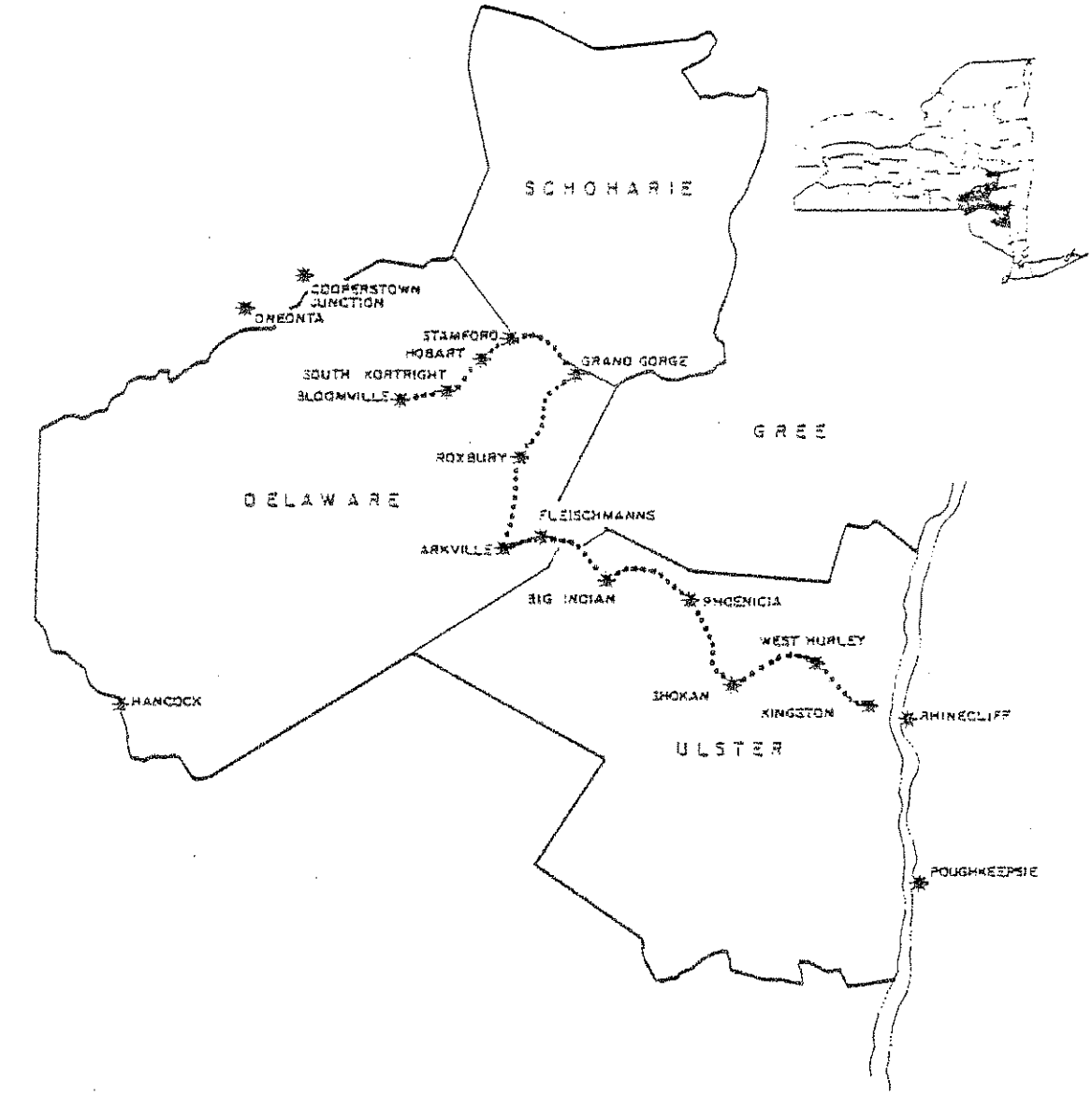


FIGURE 1

GENERAL LOCATION
CATSKILL MOUNTAIN BRANCH

II MARKET STUDY

The estimated potential of a tourist railroad operation to draw visitors to Ulster County is based on 1) a comparative analysis of the market areas and character of other tourist railroad facilities as well as 2) an evaluation of Ulster County as an area uniquely suited to this type of attraction.

SURVEY OF TOURIST RAILROADS IN THE U.S.

REGIONAL LOCATION

As is noted in Table 1, there are approximately 127 tourist railroad operations in the United States. The northeast leads the regions with forty-three, perhaps due partly to the prevalence of short-line railroads and abandoned track, partly to the dense population concentration, and partly to the abundance of persons interested in railroading heritage in the region.

TYPE OF OPERATION

Tourist railroad attractions range from museums and exhibitions without rides, to short rides, to excursions to theme towns. At the railroad in Ashland, Pennsylvania, for example, the ride is combined with a coal mine tour; Durango, Colorado offers a 9-hour excursion through the Rockies; Blowing Rock, North Carolina has an Old West Town; and Tacoma, Washington throws in a logging exhibit.

Most railroads, however, offer a short ride on a restored steam train,

TABLE 1

TOURIST RAILROAD OPERATIONS IN U.S.

Northeast - 43	South - 15	Midwest - 35	West - 34
Conn. - 3	Ala. - 1	Ill. - 5	Ariz. - 1
Del. - 1	Ark. - 2	Ind. - 3	Calif. -12
D.C. - 2	Fla. - 2	Iowa - 1	Colo. - 9
Maine - 2	Ga. - 2	Ken. - 1	N.M. - 1
Md. - 5	N.C. - 1	Mich. - 4	Hawaii - 1
Mass. - 1	Tenn. - 2	Minn. - 2	Nev. - 1
N.H. - 4	Texas - 2	Missouri - 1	Oregon - 4
N.J. - 4	Va. - 2	Neb. - 1	Utah - 1
N.Y. - 6	W. Va. - 1	Ohio - 9	Wash. - 4
Pa. -13		S.D. - 1	
Vt. - 2		Wisc. - 7	
Median Number of Days of Operation: 94 days	Median Number of Days of Operation: 52 days	Median Number of Days of Operation: 65 days	Median Number of Days of Operation: 104-116 days
Range: 15-365 days	Range: 4 to 154 days	Range: 5 to 365 days	Range: 1 to 365 days
Median Length of Trip: 4 mi.	Median Length of Trip: 8 mi.	Median Length of Trip: 4 mi.	Median Length of Trip: 4 mi.
Range: 3/4 mi. to 24 miles	Range: ½ mi. to 150 miles	Range: 3/4 mi. to 50 miles	Range: 1 mi. to 90 miles
Average Fare Per Mile:	Average Fare Per Mile:	Average Fare Per Mile:	Average Fare Per Mile:
Adults 41¢	Adults 58¢	Adults 55¢	Adults 39¢
Range: 11¢ - $3.33	Range: 12¢ - $1.67	Range: 11¢ - $1.75	Range: 5¢ - $5.67

Source: 1977 Steam Passenger Directory, Empire State Railway Museum, Inc.

with a gift shop and exhibition of railroad memorabilia available.

NUMBER OF DAYS OF OPERATION

The number of days in operation appears to be a factor of the length of the tourist season rather than that of climate. In the northeast, as expected, the seasons run almost invariably through summer and early fall with the median number of days 94. In the south, however, almost all operations are also limited to the summer, with only two year-round rides, both of which are confined to weekends. Even in the southwest, most railroads run in the summer and fall, with twelve month operation located principally in southern California and year-round tourist areas such as Maui, Hawaii.

LENGTH OF TRIP

Most of the railroads offer some type of trip for visitors. In fact, for the overwhelming majority, that aspect is the greatest attraction. Length of trip ranges from a half mile to 150 miles with the median number of miles in a 4 to 8 range. Except for the 64 mile and 90 mile daily trips in Antonito and Durango, Colorado, respectively, most of the longer trips are run infrequently or are specially scheduled excursions. The prevalent attitude of tourist railroad operators is that the shorter (5-10 mile round trip), more frequent trip is the most attractive to the average potential rider.

FARES

While fares range from $.25 to $16.00 for adults, the median fare per mile is about $.50. The lower fare per mile railroads generally offer only a ride, while the more expensive operations have additional attractions. For example, Valley Railroad in Essex, Connecticut charges $3.00 for a 10 mile round-trip ($.30 per mile) and Steamtown in Bellows Falls, Vermont charges $5.50 for 24 miles ($.23 per mile). Tweetsie Railroad in Blowing Rock, North Carolina, however, with a fare of $5.00 for a 3 mile trip ($1.67 per mile) also offers an Old West Town with amusements, lodging and refreshments.

MARKET FACTORS

Annual attendance varies greatly among tourist railroads. Discussions with railroad operators have yielded the following factors which weigh heavily in influencing attendance figures.

1) Location

   Proximity to population centers or a popular tourist attraction area is very important.

2) Length of Trip

   In general, operators (both of excursion and short ride trips) favor short trips - approximately one hour, covering from 8-12 miles round-trip. The attraction of the trip is the authentically restored cars and engines and the scenery.

Most operators feel that most potential passengers - families or tour groups - would lose interest in a longer trip. Moreover, the cost of a longer trip necessitates a fare which is too high for most vacationers.

3) Complementary Attractions

A complementary attraction, either on site or nearby, is considered a definite asset. Strasburg has a plethora of historic attractions in the area, Valley Railroad combines its trip with a boat ride, and Otter Valley shares parking with the Proctor Marble museum.

4) Operation

Private, experienced operators are essential to a successful facility. Railroading, even of the tourist variety, requires expert knowledge of both technical and business details.

5) Promotion

You can never do too much.

MARKETABILITY OF ULSTER COUNTY

Ulster County is particularly suited as a location for a tourist railroad for the following reasons:

1) It is within easy access of one of the most dense areas of population in the nation.
2) It has an established reputation as a fine vacation destination and its tourism industry is well developed.

3) Its spectacular mountain scenery and historic and cultural attractions are an excellent complement to a steam railroad operation.
4) It draws visitors during all four seasons and is especially popular during the fall foliage season.
5) It has a fine railroad tradition including local talent and expertise in railroad operation.

Ulster County's capability to attract riders to the Catskill Mountain Railroad will depend on its ability to take advantage of two existing market sources:

1) the existing population residing within 100 miles of the site
2) vacation visitors to the Catskills and Hudson Valley

RESIDENT POPULATION

As indicated in Table 4 , Ulster County (Kingston) is located within easy driving time of one of the most densely populated areas in the nation. More than 20 million persons reside within 100 miles - 2 to 2.5 hours driving time.

An intricate system of interstate highways connecting with Route 87 (New York thruway) make Kingston accessible to every major population center in the area.

Of those areas which were studied in detail, only Essex, Connecticut

is located in an area which even approaches that size population.

As noted on Figure 2, however, a tourist railroad operation in Ulster County would compete with the other three major operations in the area for resident population. Kingston would share the New York Metropolitan area, western Massachusetts and most of Connecticut with Valley Railroad in Essex, Connecticut, and the Albany/Schenectady area, northern Connecticut and western Massachusetts with the Vermont operations. However, only a minor section of its resident population market area in northwestern Pennsylvania and eastern New Jersey overlaps with that of Strasburg.

Nevertheless, the sheer magnitude of population alone would assure an adequate source of visitors.

Even if all visitors were drawn only from a 100 mile radius, which is unlikely, attendance at the other attractions would account for less than .05% of the available population. An increase of .05% of the population visiting such attractions would mean a sufficient pool from which Catskill could draw.

Moreover, due to Ulster County's image to New Yorkers, it may be more likely that, given the choice, they would prefer to travel to upstate New York rather than to Connecticut or Pennsylvania.

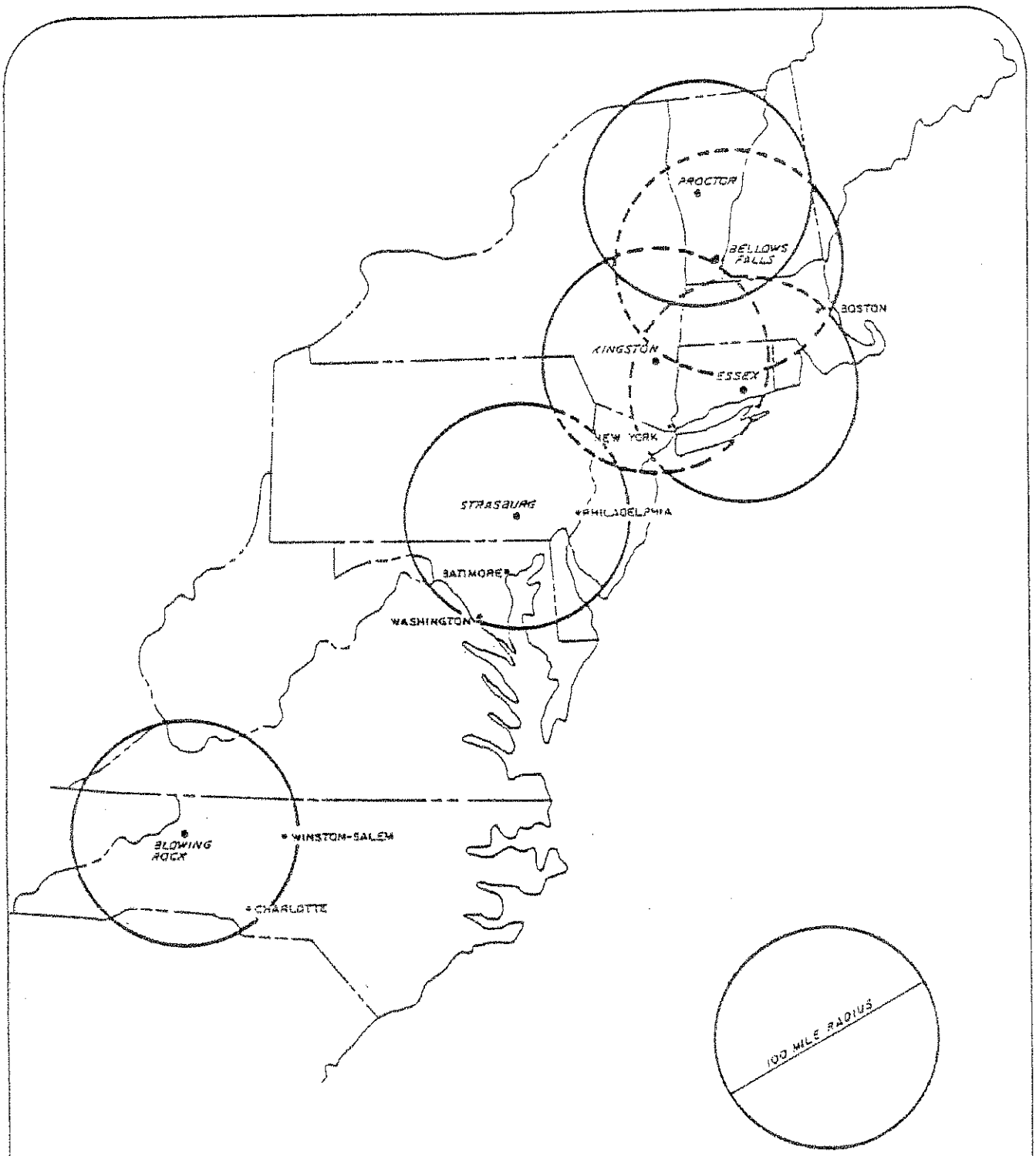


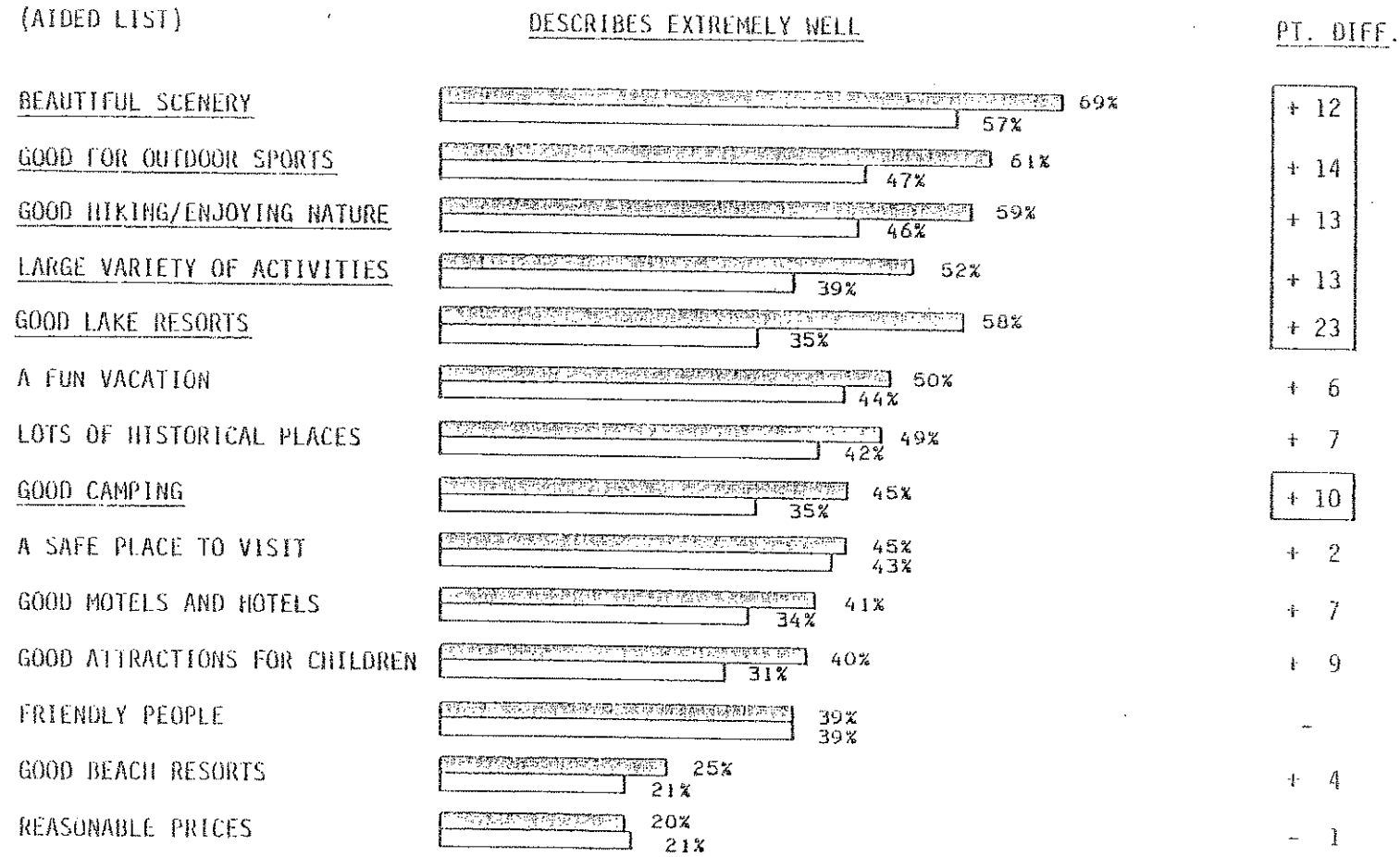
FIGURE 2

RESIDENT POPULATION MARKET AREAS OF SELECTED TOURIST RAILROADS

On the other hand, potential visitors in Connecticut or Massachusetts may be more likely to look to Essex or Vermont.

The following page - from a market study done for the State Department of Commerce - suggests that the perception of New York State ranks favorably with that of its nearby competition.

PERCEPTIONS OF NEW YORK STATE (EXCL. N.Y.C.) VS. ITS KEY COMPETITORS



SOURCE: New York State Department of Commerce

VISITORS TO THE CATSKILLS AND HUDSON RIVER VALLEY

Ulster County and its environs is an important tourist area in its own right and attracts visitors from all over the country. It is well suited to a tourist railroad operation since it is especially rich in natural beauty and historical/cultural attractions which are complementary to a steam railroad.

The Catskill Mountain line itself is steeped in history and tradition as well as passing through areas of spectacular scenic beauty.

The reputation of the area is well established as an interesting and attractive area. It benefits by being identified as part of two particularly desirable vacation areas: 1) the Catskills and 2) the Hudson River Valley. The southwestern section of the County is well known for its hotels and bungalow colonies, the eastern plateau for its abundant historical treasures and the northwest for its wild, untouched beauty and excellent hunting and fishing. (Figure 3 which follows, indicates areas of interest in Ulster County and its environs.)

Recent studies by the New York Department of Commerce indicate that Hudson Valley ranks first among upstate areas in travel spending and that "in addition to its many fine highways and parks, the area is rich in the qualities that attract vacationers

- majestic river and mountain scenery, historic landmarks and outstanding recreational and amusement facilities".

The Catskills, famous for its luxurious resorts, ranks third in upstate travel spending. It attracts family vacationers, conventioners and skiers and contains the largest concentration of seasonal cottages and vacation homes in the state.

Sullivan County, which leads the State in per capita receipts of travel expenditures, accommodates an estimated additional 125,000 persons per day during the summer and fall months.

Another good source of visitors to a railroad in Ulster County is the summer camps located throughout Sullivan and Ulster Counties. A ride on a restored steam railroad is an excellent field trip for youngsters, many of whom spend the entire summer in the area.

The area has proven that it can easily handle a large influx of visitors for both short term events and entire seasons. For example, over half a million persons visit Catskill Game Farm each year. Hunter Mountain Ski Area attracts 375,000 persons annually, mostly during the winter months and the Vanderbilt Mansion and Roosevelt Museum each attracts approximately 322,000. The Hunter German Alps Festival draws about 240,000 for a 12 day event and the Northeast & Dutchess County Crafts Fair draws over 200,000 persons.

Table 2 and Figure 4 show travel expenditures in New York State. In comparison, the estimated annual travel expenditures in the State of Vermont for 1976/77 were approximately $275 million.

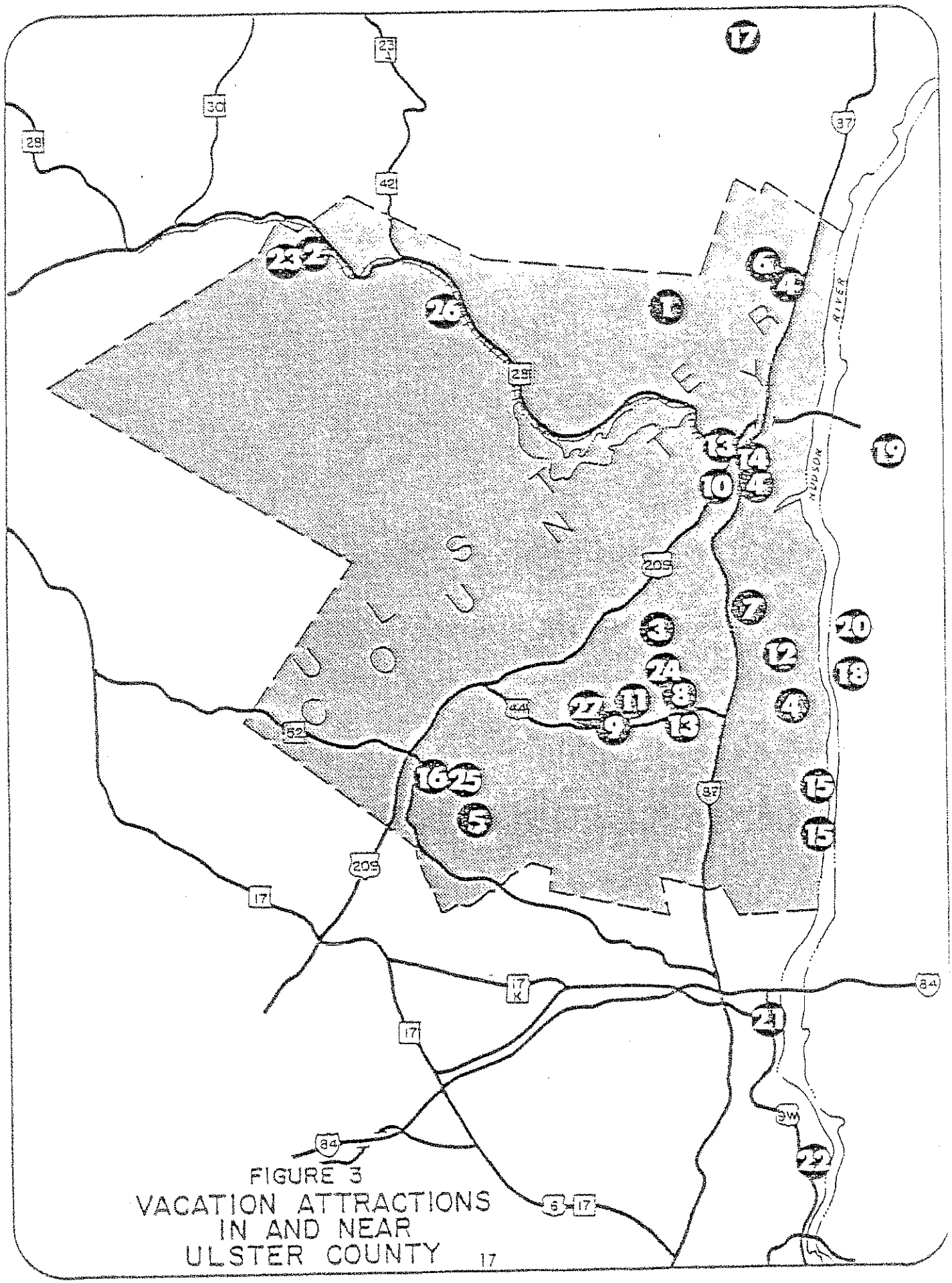


FIGURE 3
VACATION ATTRACTIONS
IN AND NEAR
ULSTER COUNTY

VACATION ATTRACTIONS IN AND NEAR ULSTER COUNTY

1 ART COLONY. Located on Route 212, Woodstock's natural and harmonious surroundings foster a wide range of art forms.

2 BELLEAYRE MT. CHAIR LIFT. This vacation attraction is located off Route 28 near Pine Hill and is operated by the Department of Environmental Conservation.

3 D&H CANAL AND MUSEUM. Stone locks of the old Delaware and Hudson Canal are a reminder of an earlier era when canal boats carried coal more than 100 miles from Pennsylvania to tidewater in Ulster County.

4 PAGEANTRY, PARADES AND FIREWORKS. The colorful Miss Ulster County Pageant is held each May in Kingston, while a variety of 4th of July activities - including large fireworks displays are offered in Saugerties and in Highland. Volunteer fire departments from throughout the County put on one of the largest parades in the State each year during the last weekend in July. Vacationists will enjoy sidewalk sales and a host of other activities during Old Timers Day, held in mid-August in Saugerties.

5 ICE CAVES MOUNTAIN. Located south of Ellenville, about six miles off Route 52, this unusual summer attraction features caves with ice and snow, nature trails, rock formations and a scenic mountain lookout.

6 MUM FESTIVAL. Each year in mid-October, about 1,500 colorful mum plants reach their peak of beauty in Seamon Memorial Park on Route 9W in Saugerties. In addition to the mum festival, on the second and third Sundays in October the park is the site for other interesting events, like an art show and a concert of Music For a Sunday Afternoon.

7 PERRINE'S BRIDGE. Built more than a century ago, this covered wooden bridge crosses the Wallkill River near Rifton. Perrine's Bridge is the oldest bridge of its type in New York State.

8 RED CARPET WEEK. A wide variety of historical, cultural, educational and recreational activities will take place in the Village of New Paltz from July 27 to August 3.

9 ROCK CLIMBING. The escarpment of the Shawangunk Mountains can be reached from Routes 44 and 55, a few miles west of New Paltz. At the same location, a walk along Undercliff Road provides a stimulating look at nature at its best.

10 SENATE HOUSE. This stone house was already more than 100 years old when the very first meeting of the New York State Senate was held there in 1777. The Senate House and adjacent museum are located in Kingston.

11 SKY TOP OBSERVATION TOWER. Located at Lake Mohonk, the Shawangunk Mountains, the lookout provides a view of seven states.

12 SLABSIDES. The woodland cabin, built in 1895 by naturalist John Burroughs, is now a National Historic Landmark. The rustic retreat is located about one mile off Route 9W West Park.

13 STONE HOUSES. Hurley, founded in 1661, is a National Historic Landmark. The village's annual Stone House Day is held on the second Saturday in July. New Paltz, founded in 1678, holds its Stone House Day on the first Saturday in August. Open year round is Huguenot Street, the oldest street in America with its original houses.

14 WALKING TOUR. A walking tour of historic stone houses dating back to the 17th century is conducted in Kingston on the third Thursday of each month during May through September. The free tour includes historic points of interest within the old stockade area of Kingston, now in the fourth century of its history.

15 WINERY TOURS. The old traditions of an European estate winery are in evidence at the Hudson Valley Wine Company, located south of Highland off Route 9W. The public is invited to tour the winery and view the complete wine-making process from April 28 through November 22, Monday through Saturday. The public also is invited to visit the Kedem Royal Winery in Milton. This winery is open every day except Saturday beginning in May and extending through the end of the year.

16 HOTEL - BUNGALOW COLONY. Luxurious hotel accommodations and an extensive bungalow colony attract thousands of guests to the Ellenville area in southern Ulster County.

17 CATSKILL GAME FARM. Nationally famous game farm, near Cairo.

18 FRANKLIN D. ROOSEVELT. National historic site and library, at Hyde Park.

19 OLD RHINEBECK AERODROME. Antique airplanes, near Rhinebeck.

20 VANDERBILT MANSION. Millionaire's 19th century home, at Hyde Park.

21 WASHINGTON'S HEADQUARTERS. The general's headquarters 1782-1783, in Newburgh.

22 UNITED STATES MILITARY ACADEMY. At West Point.

23 HIGHMOUNT. High in the central Catskills, operates Friday, Saturday, Sunday and holidays and by appointment. Four lifts and four tows carry skiers to ten trails and slopes designed for the expert, intermediate and novice.

24 MOHONK SKI CENTER. Provides complete skiing facilities for novice and intermediate skiers. Located on Mountain Rest Road only five miles west of Thruway Exit #18 at New Paltz.

25 MT. CATHALIA. Has extensive snowmaking equipment to help ensure excellent skiing on 11 trails and slopes. Located on Route 52, two miles south of Ellenville, Mt. Cathalia is open daily and operates a double chair lift, T-bar and rope tow.

26 PHOENICIA SKI CENTER. Has nine trails and slopes groomed to appeal to all classes of skiers - from the expert to the beginner. Located about 25 miles west of Thruway Exit #19 at Kingston, Phoenicia is open weekends and holidays and at other times by appointment.

27 SKI MINNEWASKA. Is located in the beautiful Shawangunk Mountains. Skiers can use 9 trails with double chairlift, T-bar and J-bar lifts, and a beginner's area with rope tows.

TABLE 2

EFFECT OF TRAVEL DOLLARS ON NEW YORK STATE

REGION	AMOUNT SPENT ($ MILLIONS)	EXPENDITURES PER RESIDENT POPULATION $
NEW YORK CITY	$ 1,981	$ 253
LONG ISLAND	507	201
FINGER LAKES	441	233
HUDSON VALLEY	432	265
CATSKILLS	330	1,234
NIAGARA FRONTIER	312	213
CAPITAL - SARATOGA	190	224
CENTRAL AREA	173	212
ADIRONDACK - CHAMPLAIN	138	501
SOUTHWEST GATEWAY	68	249
THOUSAND ISLANDS - ST. LAWRENCE	59	297
TOTAL NEW YORK STATE	$ 4,631	$ 257

SOURCE: U.S. Census, NYS Dept. of Taxation & Finance

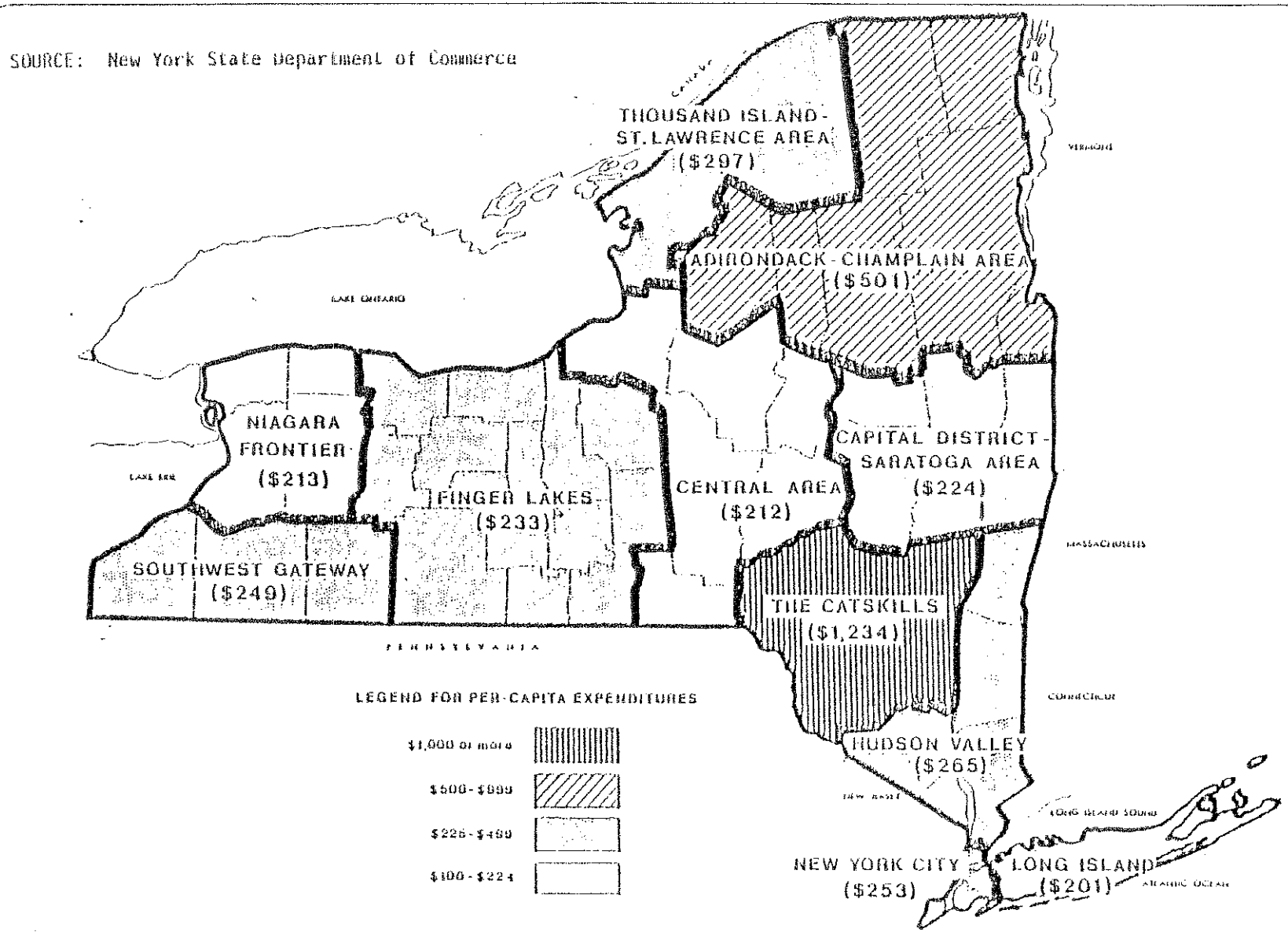


FIGURE 4

TRAVEL REGIONS

1975 PER-CAPITA TRAVEL EXPENDITURES, NEW YORK STATE

TOURIST RAILROAD OPPORTUNITIES IN ULSTER COUNTY

VISITOR ESTIMATES

Table 3 displays the estimated potential number of riders/ visitors to a tourist railroad operation in Ulster County.

COMPARATIVE STUDY

The estimates were derived by comparing the potential type of operation in Ulster County to those in other similar areas.

SHORT-RIDE

The areas which were studied to determine Ulster County's potential as a site for a short-ride operation were Strasburg Railroad, Strasburg, Pennsylvania, Valley Railroad, Essex, Connecticut and Otter Valley Railroad, Proctor, Vermont. As is indicated in Table 4 , Strasburg is the most successful in terms of number of riders. It has been in operation for approximately twenty years. Otter Valley has just completed its first season. Strasburg offers only a railroad ride while Essex combines its ride with an optional steamboat trip on the Connecticut River. All are in areas which have a high scenic or historical attraction. For example, the Strasburg Railroad is located in Amish Country, Lancaster County, Pennsylvania and travels through scenic farmland. The Valley Railroad is in Essex, Connecticut, a preserved fishing and yachting village and travels along the Connecticut River.

TABLE 3

VISITOR/RIDER ESTIMATES-CATSKILL MOUNTAIN RAILROAD

(1 year to 20 years in Operation)

TYPE OF OPERATION	AVERAGE VISITORS/ RIDERS PER YEAR (20 YRS.)		YEARS IN OPERATION 1	2-10	11-15	16-20
Short-Run	150,000		30,000	100,000	150,000	200,000
Short-Run	175,000	(short-run)	30,000	100,000	150,000	200,000
& Excursion		(excursion)		10,000	20,000	30,000
Theme Land/Town	400,000	(short-run)	100,000	200,000	400,000	500,000
		(excursion)		10,000	20,000	30,000

Source: Comparative analysis, CE Maguire, Inc.

TABLE 4

COMPARATIVE STATISTICS
TOURIST RAILROAD OPERATIONS

Short-Trip	Pop. 1970 50 mi. radius	Pop. 1970 100 mi. radius	Annual Attendance 1976 or 77	Attendance as % of Pop. 50 mi.	Attendance as % of Pop. 100 mi.	Days in Operation	Average Daily Ridership
Strasburg, Pa.	6,202,000	10,000,000	365,000	.058	.037	213	1714
Bellows Falls, Ft. (Steamtown)	838,000	6,600,000	125,000	.150	.018	106	1179
Essex, CT (Valley RR)	3,400,000	22,700,000	100,800	.03	.004	148	681
Proctor, VT (Otter Valley RR)	461,000	1,360,000	40,000	.087	.030	147	272
Excursion							
Chama, New Mexico (Cumbres & Toltec RR)			40,000				
Vermont (Bicentennial RR)			35,000				
Themetown							
Blowing Rock, N.C. (Tweetsie RR)		1,200,000	220,000		.183	154	1428
Ulster County (Catskill Mt. RR)	1,500,000	20,063,000					
Short-trip	estimates (over 20 yrs.)		150,000		.007	210	950
Short-trip & Excursion			175,000		.009		
Themetown			400,000		.019		

amount of tourist appeal, the character of Lancaster County's travel industry centers almost exclusively around the Amish history and culture. Ulster County has a much more diversified appeal as noted earlier in this section. Therefore, the visitor to Lancaster County, who goes principally for the purpose of sightseeing, differs markedly from the visitor to New York State, Connecticut or Vermont, whose purpose may be to hike, camp, fish, ski or boat. An individual tourist attraction would be more likely to attract greater numbers of the existing visitor population in Lancaster County than in Ulster County.

Ulster County can be compared to southwestern Connecticut more readily since that area attracts visitors for camping, boating and swimming as well as sightseeing.

Ulster County could be expected to draw more visitors than Essex, however, because of a stronger connection - at least in terms of perception - between the New York Metropolitan area and upstate New York.

EXCURSION

Most operators contacted consider this type of attraction as extremely limited in terms of number of riders. The general criticism for this type of operation is that the length of ride is not conducive to any of the potential ridership groups, principally because a) most riders become bored with a long

trip to no specific destination; b) tour groups who have been traveling on a bus to the railroad station are not likely to want to take another long trip; c) spectacular scenery is usually required to keep attention and interest of passengers; d) the cost of the trip is usually beyond the budget of the average travelling family.

Two of the more sucessful operations of this type are in the Rocky Mountains - Durango, Coloardo (Denver & Rio Grande western Railroad) and Chama, New Mexico (Cumbres & Toltec Scenic Railroad). Both travel through the Rocky Mountains with truly spectacular sights and are usually booked to capacity during the tourist season. Such capacity, however, means one trip per day.

Durango's trips last 9 hours round-trip, including a 2 hour stop-over in Silverton, Colorado. Cumbres and Toltec has a 64 mile trip one way to Antonito, Colorado with return trip by bus. Durango, which has been in operation since 1895, attracts approximately 100 thousand riders while Cumbres & Toltec's ridership is 40 thousand - far below its original projection of 70 thousand. Durango charges $10.25 and Cumbres & Toltec charges $16.00.

Another type of excursion is that similar to the Vermont Bicentennial Train which ran for one summer in 1976. That train made a 200 mile round-trip through the state each day stopping off at small towns

along the way. Riders could buy a ticket for either the complete run ($35.00) or for sections of the trip. The train was not considered a success, however, due principally to the lack of lead time in organizing it, the high price of the ticket and some external (e.g. weather) influences.

The theory behind the trip was that the visitors would leave their cars and tour the State in a train, stopping from place-to-place to take side trips. While some communities cooperated, however, not all did, often leaving riders at the station with no transportation or guidance to venture forth for sightseeing.

Approximately 35,000 persons rode the train during its 2 month season, but many of the trips were short ones. The average amount spent by each passenger was about $6.00.

For an excursion-type trip to be successful in Ulster County, there must be an attraction which greatly enhances the ride and makes it worthwhile to pay a much higher fare. While there are some possibilities in combining train rides with local events and sites, the expected ridership would be much lower than a short trip due principally to the price of the fare. There is also the possibility of drawing from both sides of the line (Highmount, if the line is restricted to Ulster County, or Stamford in Delaware County). However, the population density to the northwest is not adequate to greatly increase the ridership. Moreover, if the trip were so long

that a one-way ride would take most of the day, the origin of the trips would have to alternate between the east end and the west end thus reducing the effectiveness of drawing from the traveler-rich Hudson River Valley.

Theme Land/Town

The third type of operation in which a train ride has been successful is a theme land/town. Theme towns have been growing in popularity and may range from a farm community to a natural wildlife preserve to a Disneyworld-type fairy land.

The Tweetsie Railroad in Blowing Rock, North Carolina is part of an Old West Town. The railroad runs through the scenic Blue Ridge Mountains. Although the area population is small, the area attracts many visitors to such attractions as the Land of Oz and Grandfather Mountain.

It is apparent moreover, that an added attraction such as shops, a museum, a show, tours, etc., increases visitorship. A theme land/town - depending on its size and character - would have a major effect on the railroad's appeal. Other theme land/towns in the northeast have been major attractions. The Catskill Game Farm, just north of Kingston, and Mystic Village, near Essex, attract in the vicinity of half a million annual visitors each.

It is extremely difficult to estimate the number of visitors a theme land /town would attract without knowing the actual size and character of the operation. The price of the ticket would also have an impact on visitorship. Our estimate takes into account the easy access from New York Metropolitan area, but also competing tourist attractions.

III ECONOMIC BENEFIT OF A TOURIST RAILROAD OPERATION

The estimated annual economic benefit to Ulster County and the State of New York from a tourist railroad operation is summarized below. This amount represents only the dollar benefit from the operation and does not include costs or benefits involved with acquiring or rehabilitating the track or other non-monetary benefits which will be discussed in Section V, Alternative Scenarios.

Type of Operation	Total Econ. Impact	State Tax Receipts	Local & County Tax Receipts
Short-trip	$ 2,600,000	$ 74,640	$ 72,800
Short-trip & Excursion	4,875,000	143,000	136,500
Theme land/town (incl. short-trip and excursion)	19,159,000	567,960	536,410

IMPORTANCE OF TOURIST/TRAVEL-RELATED ACTIVITY

As is noted in most discussions of the travel-related industry, estimating its impact is usually complex and imprecise. Even measuring the amount spent directly in the travel industry is not easily determinable because services to travelers are frequently provided by the same businesses that service local residents. Therefore, the benefits of providing travel activity are often overlooked.

According to the New York State Department of Commerce, the travel "industry" yields many economic benefits because:

1) A large proportion of travel expenditures is made in small communities where other sources of income are very limited.

2) Travel is an "export" industry -- it attracts income and tax revenues from outside the State and from outside the communities providing travel services. Because of this, it is particularly important to the economies of numerous communities in the State.

3) Additional jobs and income are produced by the "multiplier effect" -- that is, income from travel generates additional local demand for goods and services, requiring, in turn, more supporting jobs and payrolls.

4) The basic structure of the local economy changes in response to the increased volume of business generated by travelers. Secondary industries, such as business services and wholesale trade, may expand and new firms may be established to provide goods and services previously "imported." This induced economic development helps to offset the leakage of travel industry income outside the community to purchase goods and services not provided by local suppliers.

It must be noted that, because travelers rely on a variety of government services, there are some offsetting costs against tax revenues. However, available evidence indicates that tax receipts from travel exceed such expenses, since travelers do not add to the most costly government services, education and welfare. To a large degree, the services required by travelers are also used by local residents.

METHODOLOGY FOR CALCULATING ECONOMIC BENEFIT

The economic benefit of a tourist railroad in Ulster County was estimated by the following method:

a) Estimated Receipts

The estimated receipts were determined by multiplying the average number of riders/visitors by the expected fares. Most tourist railroads report that two-thirds of their riders are adults, a proportion that is used in this report. Average fares were estimated at rates approximating typical fares for similar operations around the country.

b) Total Direct Economic Impact

As indicated above, every dollar spent in a tourist related activity produces a multiplier effect, generating additional economic benefit. The multiplier effect varies depending on the location and type activity, but averages approximately 2.5, which has been used here.

c) Total Indirect Economic Impact

Most visitors to the tourist railroad are expected to be travelers who live in or near, or are vacationing in or near, Ulster County. Therefore, their spending for other travel-related activities is probably not increased by the tourist railroad. However, depending on the type of operation, approximately 20 to 30 percent of visitors are estimated to be new travelers who are coming to Ulster County principally because of the railroad operation.

The short-trip operation is expected to draw approximately 20 percent of its visitors from those who would not have come to Ulster County if it were not for the tourist railroad operation. Most operators see the short-trip operation alone as complementary to other attractions but not a large draw in and of itself.

Combining short-trips with an excursion run, the railroad may be expected to draw about 25 percent of its visitors from first timers. The uniqueness of the excursion runs and the additional publicity and interest generated with this type of operation should attract more new visitors.

The theme town is expected to draw the largest percentage of new visitors to the area - 30 percent. This type of operation would be most likely to attract visitors from longer distances who plan to spend an entire day visiting the theme town.

These figures are conservative, however, and are used for purposes of estimating additional economic impact of new visitors to the area. With good publicity and packaging of complementary attractions and special events, there exists a potential to attract even more new visitors to the area.

Estimates in travel market studies done for the State of New York and for Lancaster County, Pennsylvania, indicate that amusements and recreation account for approximately 11% of a traveler's dollar. Therefore, for every new tourist dollar spent at the Catskill Mountain Railroad, it is expected that $8.00 (or 89% of total travel expenditures) is spent directly in other areas of the travel economy. In our calculations of economic benefit we have multiplied new travel dollars spent at the Railroad times 8 to estimate the amount spent by new visitors in other parts of the travel economy. Those dollars in turn must be multiplied by 2.5 to determine their overall economic impact.

d) Taxes

Primary taxes are those paid by visitors/riders directly in the form of County sales tax (3%) and State sales tax (4%) and other taxes (2%).

Secondary taxes are paid by travel industry employees and businesses. Their amount as a percentage of total expenditures was derived from Travel in New York State, Research Bulletin No. 43, March 1977,

New York State Department of Commerce, Table 1, Distribution of Estimated Travel Expenditures and Table 4, Estimated Tax Revenue Generated by the Travel Industry. We have broken down those taxes into State sales tax (.006 of total expenditures),County sales tax (.003), local and County real estate taxes (.037) and other taxes (including gasoline, cigarettes, alcholic beverages, personal income, corporate income, and licenses) (.014). Tables 5 through 7 detail the economic benefit of each type of operation.

TABLE 5

ESTIMATE OF ANNUAL
ECONOMIC BENEFITS OF CATSKILL MOUNTAIN R.R.

SHORT-TRIP

Estimated Attendance at Railroad		150,000 Persons	
Adult:		100,000	
Children:		50,000	
Estimated Travel Expenditures in Ulster County			
R.R. Receipts (100%)		100,000 x $3.00 =	$300,000.
		50,000 x $2.00 =	$100,000.
			$400,000.
Induced Travel Expenditures New Visitors (20% of total R.R. Receipts)		$ 80,000 x 8 =	$640,000.

I. Total Economic Impact

Direct:	
$400,000. x 2.5	$ 1,000,000.
Indirect:	
$640,000. x 2.5	$ 1,600,000.
	$ 2,600,000.

II. Tax Impact

	State	County/Local
Primary:		
R.R. Receipts ($400,000.)		
County Sales Tax (3%)		$ 12,000.
State Sales Tax (4%)	$ 16,000.	
Induced Travel Expenses ($640,000.)		
County Sales Tax (3%)		19,200.
State Sales Tax (4%)	25,600.	
Other Taxes (2%)	12,800.	
Secondary:		
R.R. Receipts ($400,000.)		
County Sales Tax (.3%)		1,200.
State Sales Tax (.6%)	2,400.	
Local Real Estate Tax (3.7%)		14,800.
Other Taxes (1.4%)	5,040.	
Induced Travel Expenses ($640,000.)		
County Sales Tax (.3%)		1,920.
State Sales Tax (.6%)	3,840.	
Local Real Estate Tax (3.7%)		23,680.
Other Taxes (1.4%)	8,960.	
TOTAL TAXES	$ 74,640.	$ 72,800.

TABLE 6

ESTIMATE OF ANNUAL
ECONOMIC BENEFITS OF CATSKILL MOUNTAIN R.R.

SHORT-TRIP & EXCURSION

Estimated Attendance	150,000 Persons	
Adult:	100,000	
Children:	50,000	
Excursion:	25,000	
Estimated Travel Expenses		
R.R. Receipts (100%)	100,000 x $3.00	= $300,000.
	50,000 x $2.00	= 100,000.
	25,000 x $10.00	= 250,000.
		$650,000.
Induced Travel Expenses New Visitors(25% of total R.R. Receipts)	$162,500 x 8	= $1,300,000.

I. Total Economic Impact

Direct:	
$650,000. x 2.5	$ 1,625,000.
Indirect:	
$1,300.000. x 2.5	3,250,000.
	$ 4,875,000.

II. Tax Impact	State	County/Local
Primary:		
R.R. Receipts ($650,000.)		
County Sales Tax (3%)		$ 19,500.
State Sales Tax (4%)	$26,000.	
Induced Travel Expenses ($1,300,000.)		
County Sales Tax (3%)		39,000.
State Sales Tax (4%)	52,000.	
Other Taxes (2%)	26,000.	
Secondary:		
R.R. Receipts ($650,000.)		
County Sales Tax (.3%)		1,950.
State Sales Tax (.6%)	3,900.	
Local Real Estate Tax (3.7%)		24,040.
Other Taxes (1.4%)	9,100	
Induced Travel Expenses ($1,300,000.)		
County Sales Tax (.3%)		3,900.
State Sales Tax (.6%)	7,800.	
Local Real Estate Tax (3.7%)		48,110.
Other Taxes (1.4%)	18,200.	
TOTAL TAXES	$ 143,000.	$ 136,500.

TABLE 7

ESTIMATE OF ANNUAL
ECONOMIC BENEFITS OF CATSKILL MOUNTAIN R.R.
THEME LAND/TOWN (INCL. SHORT-TRIP AND EXCURSION)

Estimated Attendance	400,000 Persons		
Adult:	268,000		
Children:	132,000		
Excursion:	25,000		
Estimated Travel Expenses			
R.R. Receipts (100%)	268,000 x $6.00	=	$1,608,000.
	132,000 x $3.00	=	396,000.
	25,000 x $10.00	=	250,000.
			$2,254,000.
Induced Travel Expenses New Visitors (30% of total R.R. Receipts)	$676,200 x 8	=	$5,409,600.

I. Total Economic Impact

Direct:		
$2,254,000. x 2.5	$5,635,000.	
Indirect:		
$5,409,600. x 2.5	$13,524,000.	
	$19,159,000.	

II. Tax Impact	State	County/Local
Primary:		
R.R. Receipts ($2,254,000.)		
County Sales Tax (3%)		$ 67,620.
State Sales Tax (4%)	$ 90,160.	
Induced Travel Expenses ($5,409,600.)		
County Sales Tax (3%)		$162,270.
State Sales Tax (4%)	$216,360.	
Other Taxes (2%)	$108,180.	
Secondary:		
R.R. Receipts ($2,254,000.)		
County Sales Tax (.3%)		$ 6,762.
State Sales Tax (.6%)	$ 13,524.	
Local Real Estate Tax (3.7%)		$ 83,398.
Other Taxes (1.4%)	$ 31,556.	
Induced Travel Expenses ($5,409,600.)		
County Sales Tax (.3%)		$ 16,227.
State Sales Tax (.6%)	$ 32,454.	
Local Real Estate Tax (3.7%)		$200,133.
Other Taxes (1.4%)	$ 75,726.	
TOTAL TAXES	$567,960.	$536,410.

IV COSTS OF ACQUISITION AND REHABILITATION

ACQUISITION

Acquisition represents the most complex and uncertain cost of the proposal. The cost of the line is divided into two principle categories:

1) Right-of-way
2) Trackage

Right-of-way is traditionally valued according to its "fair market value." The methods for arriving at that value vary widely, however. It may be appraised for use as:

1) Rail right-of-way
2) Transportation/utility corridor
3) Additions to adjacent property

Many appraisals of the property will be made before any final price is agreed upon, so this report shall use an estimate of $30,000 per mile ($22,000 for track and $8,000 for land) as a ball park figure for the purposes of developing overall costs for most of the track. The property along the Ashokan Reservoir (approximately 11 miles) is owned by the City of New York, and Penn Central can convey only a perpetual easement for railroad purposes. For the purpose of the report this section of right-of-way has been estimated at $1,000 per mile because of its limited reuse, making the total cost for the 11 mile stretch $23,000 per mile.

The above figures were derived from 1) recent estimates of all or sections

of the line and from estimates and 2) actual costs of other Penn Central Railroad lines.

TABLE 8

COST OF ACQUISITION

ESTIMATES

	1 Mile	9.1 Miles	86.5 Miles
Penn Central (304 (f) Abandonment Proceedings 1976)	$59,032.		$5,106,268.
Penn Central (letter of 10/77)	75,275.	$685,000.	
USRA estimate (NY DOT-Lake Placid Line)	30,000.		
BREAKDOWN ESTIMATE:			
Land (average, recent State of Ct. acquis.)	6,684.		
Track (90 lb.) 158.4 tons/mi. + 39 tons/mi. (other scrap) = 197.4 @ $100/ton scrap * material (Penn Cen'l est.)	19,740.		
	$26,424.		

actual estimate

* Current price of delivered scrap in Chicago is $47 per ton.

PHYSICAL CONDITION/REHABILITATION

The purpose of this section is to evaluate the overall physical condition of the line, especially that portion extending from Mile Post (M.P.) 2.9 in Kingston to M.P. 48.2 in Arkville. Specific problem areas within this segment are also identified and described. Additionally, rehabilitation costs are specified for USRA operation, Class I and Class III, and applied to selected route subsections. Finally, these route subsections, either singly or in combination, are presented as potential reuse scenarios.

During the recent past, several condition surveys were conducted on the subject route. These surveys, each of which is based upon direct observation of the facility,are identified as follows:

1) Survey of Track and Roadbed Condition and Equipment and Structural Needs by the Track and Equipment Committee of Catskill Mountain Transportation Company completed in February 1975.

2) Catskill Mountain Division Conrail Railroad, Report on Conditions: Kingston (Route 209) to Arkville, by Messrs. Ives and Smith completed in July 1977.

3) Track, Roadbed and Structure;Cursory Condition Survey

by CE Maguire, Inc. in September 1977.

The first of these surveys (No. 1 above) is the result of a mile-by-mile walking inspection of the entire line. The report specifies conditions observed, categorizes repair and replacement needs and presents costs required to improve each mile of the line to USRA Class I operation. Total rehabilitation costs are also presented.

The second survey (No. 2 above) was conducted to determine the physical condition of the roadbed and right-of-way for non-railroad recreational use potential, and as such presents a slightly different point of view regarding rehabilitation needs.

The third survey (No. 3 above) was undertaken to verify and update the finding of prior condition surveys if needed.

OVERALL CONDITION

Although the line has not been used for more than a year and a half (abandoned in March 1976), the overall condition of the line is fair to good and is definitely salvageable for the proposed use.

For ease of presentation, the overall condition is subdivided into five rehabilitation categories, as follows:

- Rails: Rail wear is well within acceptable limits throughout most of the route. There are, however, limited

quantities of substandard rail sections which need to be replaced along with a number of angle bars.

-Right-of-way: With non-use of the railroad, vegetation has encroached upon the R.O.W., and will have to be cut back to provide proper clearance for the proposed use. Maintenance will be necessary. In certain areas where visibility (for outlooks, scenic vistas, etc.) or access (for service, etc.) are desired, it would be advantageous to incorporate the required tree/brush removal into the initial overall clearing program.

- Roadbed/Embankment: Overall, the roadbed and embankment are in fair to good condition. Some machine work and additional ballast and rip-rap is required. In some areas drainage is a problem due to clogged cross culverts which need cleaning. With the exception of one area, washouts in general are limited. However, there are a number of potential washout areas which are in need of maintenance. This maintenance does not represent a major problem in terms of either engineering or cost.

- Ties: Tie condition is the most difficult item to quantify without a detailed up-to-date inventory. Based upon the afore-mentioned surveys, it appears that the ties in general are in

fair condition. Despite this, at least one tie in five must be replaced for minimal future railroad use (Class I).

According to USRA Standard Code, certain minimum standards must be met for each usage classification. Possible rating for proposed use of the subject line are Class I and Class III. Characteristics of each of these ratings are as follows:

Class	Permitted speed (MPH) Freight	Passenger	Minimum # of good ties required to maintain alignment
I	10	20	1 in 5
III	40	60	1 in 3

Class II is not considered for this study simply because both the intensity of effort and the expense of attaining this level of usage is very close to that required for Class III operation and the expense saved would be minimal.

SPECIFIC AREAS REQUIRING INTENSE REHABILITATION

In addition to the general condition noted above, there are a number of specific major problem areas which bear further discussion. These are: Boiceville Bridge; Snyder Hollow Washout; Horseshoe Curve; and several miles of heavy tie replacement (see Figure 5 for appropriate locations).

Boiceville Bridge M.P. 21.3: Although basically sound, this structure requires heavy timber replacement. Total cost of required repairs including 35 bridge timbers is estimated to be between $2,500 and $3,500.

Snyder Hollow Washout M.P. 28.6: This is a relatively new washout located just upstream of Phoenicia. The Esopus has undermined the roadbed and left the tracks and ties suspended in air. Although major, the washout damage is confined to a relatively short distance. Both repair and preventative maintenance are required even for Class I use. Repairs will include rebuilding of the roadbed and protecting the exposed side with large rip-rap (2 to 4 ton stone) for a distance of 10- to 150 feet. Additionally, new ballast is needed along with track jacking and tamping. The cost of the above repairs is estimated to be between $4,000 and $5,000.

Horseshoe Curve (M.P. 40 to M.P. 41): This is a tight double reverse curve with a maximum curvature of 11 degrees - the sharpest curve on the entire line. In order to rehabilitate this curve, the badly worn rails on both curves need replacement and great care must be taken during their realignment. The cost for the required repairs, including 20 rail lengths and 10 angle bars, is estimated

to be between $3,000 and $3,500.

It should be noted at this point that costs for the three preceding rehabilitation problem sites comprise only a small portion (usually less than half) of tie replacement costs for each of their respective miles:

TABLE 9

COMPARISON, REHABILITATION COSTS AND TIE REPLACEMENT COSTS

Rehabilitation Site	Between Mile Posts	Rehabilitation Cost	Tie Replacement Cost For Same Mile (Class I)
Boiceville Bridge	21-22	$3,000	$4,800
Snyder Hollow Washout	28-29	$4,500	$4,800
Horseshoe Curve	40-41	$3,250	$8,000

Table 9 is included here to indicate that, even at problem sites, tie replacement costs are the major expense in rehabilitating the Ulster and Delaware Line for Class I use alone. Based on the above, the most expensive and intensive rehabilitation actively will occur on those miles requiring heavy tie replacement. The worst of these are presented in the following table.

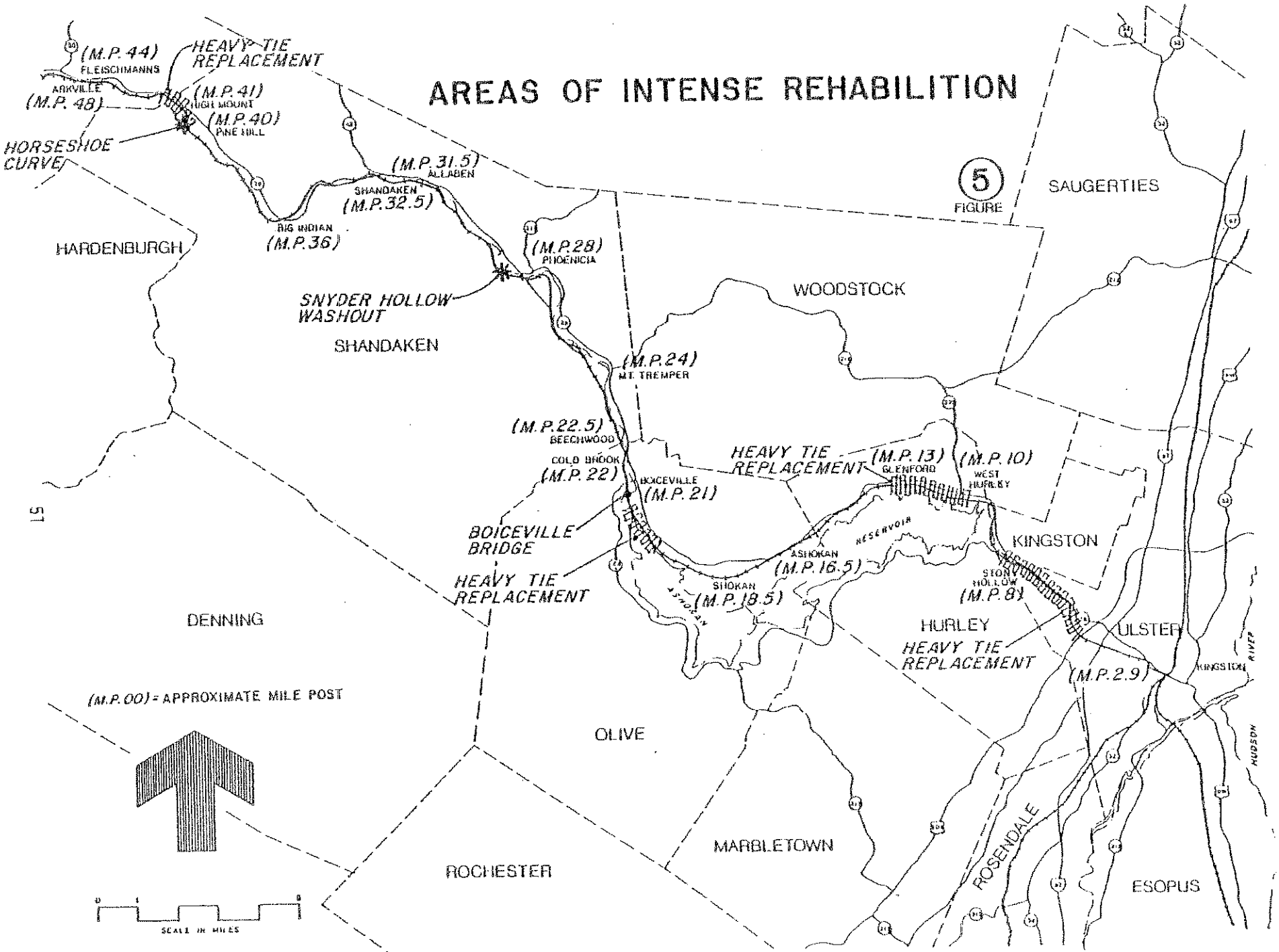

AREAS OF INTENSE REHABILITION
FIGURE 5
(M.P. 44)
FLEISCHMANNS
HEAVY TIE REPLACEMENT
ARKVILLE
(M.P. 48)
(M.P. 41)
HIGH MOUNT
(M.P. 40)
PINE HILL
HORSESHOE CURVE
(M.P. 31.5)
ALLABEN
SHANDAKEN
(M.P. 32.5)
BIG INDIAN
(M.P. 36)
(M.P. 28)
PHOENICIA
SNYDER HOLLOW WASHOUT
HARDENBURGH
SHANDAKEN
WOODSTOCK
SAUGERTIES
(M.P. 24)
MT. TREMPER
(M.P. 22.5)
BEECHWOOD
COLD BROOK
(M.P. 22)
BOICEVILLE
(M.P. 21)
HEAVY TIE REPLACEMENT
(M.P. 13)
GLENFORD
(M.P. 10)
WEST HURLEY
BOICEVILLE BRIDGE
ESOPUS
ASHOKAN RESERVOIR
ASHOKAN
(M.P. 16.5)
KINGSTON
HEAVY TIE REPLACEMENT
SHOKAN
(M.P. 18.5)
STONY HOLLOW
(M.P. 8)
DENNING
HURLEY
ULSTER
HEAVY TIE REPLACEMENT
(M.P. 2.9)
KINGSTON
HUDSON RIVER
(M.P. 00) = APPROXIMATE MILE POST
OLIVE
MARBLETOWN
ROSENDALE
ROCHESTER
ESOPUS
SCALE IN MILES
0
1
2
3
17

TABLE 10

AREAS OF EXTENSIVE TIE REPLACEMENT

Location	# Miles	# Ties Needing Replacement		Approximate Costs	
		Class I	Class II	Class I	Class II
M.P. 6 to M.P. 8	2	875±	2450±	$17,500	$49,000
M.P. 12 to M.P. 14	2	985±	2785±	$19,700	$55,160
M.P. 20 to M.P. 21	1	625±	1750±	$12,500	$35,000
M.P. 40 to M.P. 41	2	800±	2240±	$16,000	$44,800

REHABILITATION COSTS

Since the various scenarios call for rehabilitation of a number of different length segments at different operation classes, it is useful to determine unit (1 mile and 10 mile) costs for Class I and again for Class III.

Class I. Class I operations require that at least 1 tie in 5 be in good condition in order to maintain rail alignment. Since there are 3,200 ties per mile, at least 640 ties $(\frac{3,200}{5})$ per mile must be top condition to attain Class I status. The previously described mile by mile line inventory found that approximately 20,500 ties need replacement over the entire 86.5 mile route or an average of roughly 237 ties per mile.

Since 640 good ties are required per mile and the inventory indicates that 237 need to be replaced, then 403 of the 640 are presently in good condition. The inplace cost (1977) of a tie is approximately $20.00 per tie - about half of which is labor cost. The cost of the

replacement for Class I operation would therefore be 237 ties/mile x $20.00/tie or about $4,760 per mile. Tie replacement on this project represents approximately 80% of the required rehabilitation expenses, with other necessary improvements amounting to an additional $1,185 per mile. Total cost would therefore be $5,925 per mile. Because of recent fluctuations in material and labor costs and inflation in general, it would be prudent to add at least 10% to cover contingencies. This would bring the total rehabilitation cost per mile for a Class I operation to $6,518 per mile or $65,175 per 10 mile segment.

Class III. Class III operations require that at least 1 tie in 3 be in good condition to maintain rail alignment. Since there are 3,200 ties per mile, at least 1066 ties ($\frac{3,200}{3}$) per mile must be in top condititon to attain Class III status. Since at least 403 ties per mile were found to be in good condition (see Class I above), an additional 663 ties (1066-403=663) are required to be replaced per mile in order to attain Class III operational status. At $20.00 per tie installed, tie replacement cost per mile would be $13,260, which, for Class III, represents 90% of the base total rehabilitation cost. Other necessary improvements would therefore amount to an additional 10% ($1437) per mile for a base total of $14,733. An additional 10% ($1,473) to cover contigencies results in a grand total of $16,206 per mile for the level of rehabilitation required for Class III operation.

Class I and Class II unit rehabilitation costs are summarized in the following table.

TABLE 11

UNIT REHABILITATION COSTS
(12/77)

CLASS (# TIES)	ACTIVITY	(% COST)	UNIT COST 1 MILE	10 MILES
I (1 tie in 5)	Tie replacement	(80)	$4,740.	$47,400.
	Other	(20)	$1,185.	$11,850.
		Sub total	$5,925.	$59,250.
		10% Contingency*	593.	5,925.
		Grand Total	$6,518.	$65,175.
III (1 tie in 3)	Tie replacement	(90)	$13,260.	$132,600.
	Other	(10)	$ 1,473.	$ 14,730.
		Sub total	$14,733.	$147,330.
		10% Contingency*	$ 1,473.	$ 14,733.
		Grand Total	$16,206.	$162,063.

* Includes allowance for continued deterioration of rails and embankments.

ALTERNATIVE REHABILITATION COSTS

In order to provide the study team with a series of viable choices for future operation, a series of alternatives has been selected for discussion.

Kingston (M.P. 2.9) to Arkville (M.P. 48.2)

Class III. The basic cost of Class III rehabilitation for this 45.3 mile segment would be $16,206/mile time 45.3 miles or $734,132. Since this alternative encompasses all three problem areas, additional costs would be as follows:

Boiceville Bridge: $3,000-$1,473*	=	$1,527
Snyder Hollow Washout: $4,500-$1,473	=	$3,027
Horseshoe Curve: $3,250-$1473*	=	$1,777
		$6,331

Due to the level of the replacement required for Class III operations, heavy tie replacement miles don't significantly alter the cost. The total cost for this alternative is therefore $734,132 + $6,331 or $740,463.

Kingston (M.P. 2.9) to Highmount (M.P. 41.4)

Class III. The basic cost of Class III rehabilitation for this 38.5 mile segment would be $16,206/mile times 38.5 miles or $623,931. This alternative also encompasses all three problem areas and additional costs would be the same at $6,331. Total cost for this alternative is therefore $623,931 + $6,331 or $630,262.

*Normal allowance for non-tie rehabilitation costs for Class III (see table on Unit Rehabilitation Costs).

Kingston (M.P. 2.9) to Phoenicia (M.P. 27.4)

Class III and Phoenicia (M.P. 27.4) to Arkville (M.P. 48.2)

Class I. The cost of the first 24.5 miles in this alternative would be $16,206/mile times 24.5 miles or $397,047. With only the Boiceville Bridge being located in the subject segment, additional costs will come to only $1,527 resulting in a total rehabilitation for this segment $398.574. The cost for the 20.8 miles of Class I rehabilitation will be as follows:

Basic cost 20.8 miles x $6,518	$135,574.
Snyder Hollow Washout $4,500-$1,185[1]	3,315.
Horseshoe Curve $3,250-$1,185[1]	2,065.
2 miles of heavy tie replacement $16,000-$9,480[2]	6,220.
Class I segment Sub total	$135,174.
Class III segment Sub total	$398,574.
Total Rehabilitation Cost for this alternative	$545,748.

West Hurley (M.P. 10.3) to Phoenicia (M.P. 27.4)

Class III. The basic cost of Class III rehabilitation for this 17.1 mile segment would be $16,206/mile times 17.1 miles or $277,123. The only additional cost would be Boiceville Bridge at $1,527. resulting in a total of $278,650.

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[1] Normal allowance for non-tie rehabilitation costs for Class III (see table on Unit Rehabilitation Costs).

[2] Normal allowance for tie replacement costs for Class I ($4,740/mile x 2 miles = $9,480).

Cold Brook (M.P. 22.3) to Phoenicia (M.P. 27.4)

Class III. Since there are no problem areas or heavy tie replacement miles ih this segment, the total cost of rehabilitation to Class III for this 5.1 mile length will be 5.1 miles times $16,206/mile or $82,651.

V ALTERNATIVE SCENARIOS

OPTIONS

It is apparent from the preceding analyses that there are three types of steam railroad operations which could operate on the Catskill Mountain Branch - 1) short-trip; 2) short-trip and excursion and 3) theme town.

To provide the trackage and facilities for any of these operations, the County must acquire and rehabilitate to at least Class I standards a section of the existing rail line. It has the option of acquiring and rehabilitating:

1) A short section (5-10 miles) (short-trip operation) or
2) The portion of the line in Ulster County ($\pm$ 40 miles) (short-trip, excursion, theme town) or
3) The entire rail line to Bloomville (short-trip, excursion, theme town)

The scope of this study includes options 1) and 2) since the marginal unit of economic benefit to Ulster County of the longer length would not justify the extra cost to the County.

As noted in Section IV, the level of rehabilitation required - Class I or Class III or a combination thereof - depends upon the speed of travel desired and the frequency of use.

ALTERNATIVE SCENARIOS

To illustrate the costs and impacts of various options, five scenarios have been selected for each of the railroad operations previously discussed.

Factors such as accessibility, adjacent land availability and scenic beauty, were considered in the selection of the locations. At this stage, however, the scenarios must be merely illustrative, and examination of specific sites should consider land costs, site characteristics surrounding land uses, traffic considerations and local regulations.

The type of operation and method of implementation selected should also reflect the goals which the County is pursuing carrying out this project.

FISCAL IMPACTS OF ALTERNATIVE SCENARIOS

The following tables have been prepared to demonstrate the comparative fiscal impact of alternative County involvement in the development of a tourist railroad operation. They have been derived from the analyses in Sections III and IV of this study.

The following assumptions underly these comparisons:

1) The County will acquire and rehabilitate all trackage.
2) The track will be rehabilitated to Class III standards. (In some cases, a combination of Class I and Class III track would be feasible and would decrease the costs of rehabilitation.)
3) A private operator will lease the track for a consideration

to be determined during negotiations.

4) The cost of maintenance has been estimated, but it is anticipated that it will be cancelled out as a County cost since maintenance should be considered as part of the cost of operations to be financed by revenues.

SHORT TRIP SCENARIOS

Length of Track Needed	Possible Acquisition Alternatives	COUNTY EXPENDITURES: Cost of Acquisition	Cost of Rehabilitation	Cost of Land, Bldgs. & Improvements	TOTAL
5-10 miles	A. Cold brook to Phoenicia (6 miles)	$180,000	$82,650	$50,000	$312,658
	B. Kingston to Arkville (45.1 miles)	$1,023,000	$740,463	$50,000	$1,813,463

COST/BENEFIT

Cost	Per Year A	Per Year B	Total 20 Years A	Total 20 Years B
Principal	$15,633	$90,675	$312,650	$1,813,500
Interest (at 5%)	15,633	90,675	312,650	1,813,500
Total Financing	$31,266	$181,350	$625,300	$3,627,000
(Maintenance of R-O-W)	(20,000)	(50,000)		
Benefit				
Total Econ. benefit		$2,600,000		$52,000,000
Local & County tax benefit		72,800		1,456,000
State tax benefit		74,640		1,492,000

SHORT TRIP EXCURSION SCENARIOS

		COUNTY EXPENDITURES			
Length of Track Needed	Possible Acquisition Alternatives	Cost of Acquisition	Cost of Rehabilitation	Cost of Land, Bldgs. & Improvements	TOTAL
50+ miles	Kingston to Arkville (45.1 miles)	$1,023,000	$740,463	$50,000	$1,813,463

COST/BENEFIT

Cost	Per Year	Total 20 Years
Principal	$ 90,675	$1,813,500
Interest (at 5%)	90,675	1,813,500
Total Financing	$181,350	$3,627,000
(Maintenance of R-O-W)	(60,000)	
Benefit		
Total Econ. benefit	$4,875,000	$97,500,000
Local & County tax benefit	136,500	2,730,000
State tax benefit	143,000	2,860,000

THEME LAND SCENARIOS

Length of Track Needed	Possible Acquisition Alternatives	COUNTY EXPENDITURES: Cost of Acquisition	Cost of Rehabilitation	Cost of Land, Bldgs. & Improvements	TOTAL
5 Mi.+	A. Kingston to Arkville (43.1 miles)	$1,023,000	$740,463	100,000	$1,863,463
	B. Kingston to Phoenicia (24.5 miles)	$ 676,000	398,574	100,000	1,174,574

COST/BENEFIT

Cost	Per Year A	Per Year B	Total 20 Years A	Total 20 Years B
Principal	$ 93,175	$ 58,730	$1,863,500	$1,174,600
Interest (at 5%)	93,175	58,730	1,863,500	1,174,600
Total Financing	$186,350	$117,460	$3,727,000	$2,349,200
(Maintenance of R-O-W)	(60,000)	(30,000)		
Benefit				
Total Econ. benefit	$19,159,000		$383,180,000	
Local & County tax benefit	567,960		11,359,200	
State tax benefit	536,410		10,728,200	

NON-FISCAL IMPACTS OF ALTERNATIVE SCENARIOS

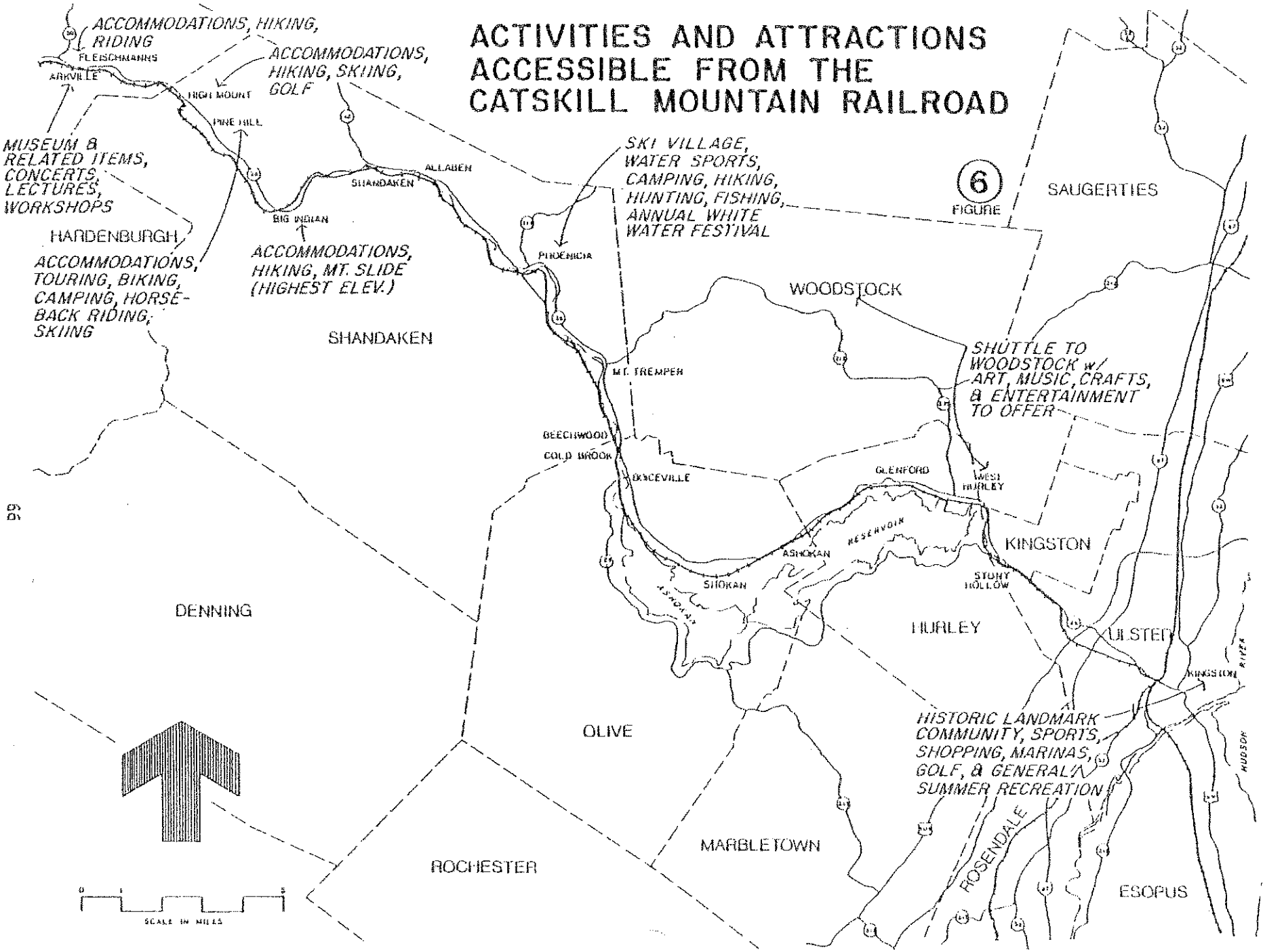
During discussions with the Reuse Study Committee, several County goals for this effort emerged. While it is up to the legislature to finally establish such policy considerations, the following goals will help to illustrate the non-fiscal impacts of the various scenarios on the community.

I. EXPANSION AND ENHANCEMENT OF THE TOURISM INDUSTRY IN ULSTER COUNTY

All of the scenarios would impact tourism in Ulster County by bringing new visitors into the area. Of course, the theme town, by virtue of its scope and size, should be a greater attraction than the other two alternatives. On the other hand, the short-trip would tend to have a more frequent turnover and thus be more complementary to other historical and cultural attractions. Whereas one attraction of this type may not be large draw of itself, the synergistic effect of a number of complementary attractions should greatly enhance tourism in Ulster County. Each of the operations could be combined with other attractions in package trips. For example, a complete rail package from New York City with transfers from Rhinecliff could be arranged. Another possibility is a river boat/steam train package with connections at Kingston Point. Packages could also be arranged with hotels in the area. See Figure 6 for attractions and activities accessible from the railroad.

II. EMPLOYMENT OPPORTUNITIES

Additional employment opportunities would be generated from three basic sources:


ACTIVITIES AND ATTRACTIONS ACCESSIBLE FROM THE CATSKILL MOUNTAIN RAILROAD
FIGURE 6
ACCOMMODATIONS, HIKING, RIDING
FLEISCHMANNS
ARKVILLE
HIGH MOUNT
PINE HILL
ACCOMMODATIONS, HIKING, SKIING, GOLF
MUSEUM & RELATED ITEMS, CONCERTS, LECTURES, WORKSHOPS
HARDENBURGH
ACCOMMODATIONS, TOURING, BIKING, CAMPING, HORSE-BACK RIDING, SKIING
BIG INDIAN
ACCOMMODATIONS, HIKING, MT. SLIDE (HIGHEST ELEV.)
SHANDAKEN
ALLABEN
SHANDAKEN
SKI VILLAGE, WATER SPORTS, CAMPING, HIKING, HUNTING, FISHING, ANNUAL WHITE WATER FESTIVAL
PHOENICIA
SAUGERTIES
WOODSTOCK
SHUTTLE TO WOODSTOCK W/ ART, MUSIC, CRAFTS, & ENTERTAINMENT TO OFFER
MT. TREMPER
BEECHWOOD
COLD BROOK
BOICEVILLE
GLENFORD
WEST HURLEY
ASHOKAN RESERVOIR
ASHOKAN
STONY HOLLOW
KINGSTON
SHOKAN
ESOPUS CREEK
DENNING
HURLEY
ULSTER
KINGSTON
HISTORIC LANDMARK COMMUNITY, SPORTS, SHOPPING, MARINAS, GOLF, & GENERAL SUMMER RECREATION
OLIVE
ROSENDALE
MARBLETOWN
ROCHESTER
ESOPUS
HUDSON RIVER
SCALE IN MILES

REHABILITATION AND MAINTENANCE OF TRACK

All labor and most materials for rehabilitation will be drawn from Ulster County. It is expected that labor costs should amount to approximately one-half of the total costs of the improvements. The actual amount of employment generated by rehabilitation and maintenance will of course be a function of the length of track to be used and the standard to be achieved.

MANAGEMENT AND OPERATION OF THE RAILROAD FACILITY

Again, the number of employees needed would be a function of the size of the operation. Valley Railroad, for example, employs five full time staff members and twenty-five seasonal personnel. A theme town would probably employ many more persons. There would be a need in any case for railroad personnel, mechanics, clerical workers and seasonal workers.

INDUCED EMPLOYMENT IN TRAVEL INDUSTRY

As indicated in Section III, induced expenditures in other areas of the tourism industry will provide additional job opportunities.

III. PRESERVATION AND CONTROL OF CATSKILL MOUNTAIN BRANCH (AT LEAST AS IT PASSES THROUGH ULSTER COUNTY

To preserve the railroad line, it appears as if the County will have to acquire at least the section passing through Ulster County since, at

present, other alternatives for its use would probably result in the removal of trackage. Acquisition as far as Arkville would preserve the option for future freight service from Delaware County if the economic climate becomes favorable.

The acquisition of a short (5-10 mile) section of trackage would be sufficient to allow a short-trip operation; but preserving only a landlocked section would foreclose the option for expansion.

Control of the line would be attained if the County acquired and leased the R-O-W rather than disposing of it to a private organization. For example, the State of Connecticut currently leases track in Essex for 2% of gross revenues to the Valley Railroad which also is responsible for maintenance.

PRESERVATION OF THE RAILROADING TRADITION IN ULSTER COUNTY

While acquisition of a short section of track will allow a steam railroad operation which will preserve the history of railroading in Ulster County, only acquisition of the longer stretch will keep open the option of resuming full rail service on the Catskill Mountain Branch.

OTHER CONSIDERATIONS

Other considerations which the County should take into account when making a decision include the following:

PREFERENTIAL RIGHTS OF ACQUISITION OF ABANDONED R.R. PROPERTY

Under Chapter 998 of the New York State Laws of 1973, all State agencies, metropolitan or regional transportation authorities and counties, cities, towns and villages are granted preferential rights of acquisition for public transportation and non-transportation purposes as well as for joint public uses of abandoned railroad property under provisions of this act, a railroad company intending to dispose of abandoned railroad transportation property shall notify the Department of Transportation of its intention and may not dispose of the property until it is granted a release of the preferential rights. If the County does not exercise its preferential right during the allotted time period other State or local bodies may acquire the R-O-W for another use or Penn Central may dispose of the right-of-way to private investors. In either case it is likely that the trackage will be torn up for another use.

ALTERNATIVE USES FOR CATSKILL MOUNTAIN BRANCH

Freight:

Since the U.S. Railway Association has excluded the line from the Conrail System Plan and the State of New York recommended, in its Rail Plan of January 1976, that the State not subsidize freight service on the line, there appears to be little chance that the line would be acquired solely for freight service.

Recreation:

The State Department of Environmental Quality has expressed an interest in acquiring the right-of-way for hiking and other passive recreation purposes. However, as noted earlier, the section along the Ashokan Reservoir is owned by the City of New York. Penn Central may convey only an easement for rail purposes.

Utility R-O-W:

The entire right of way or sections of it may be suitable for such utility uses as electric power transmission lines, communication lines or water or fuel pipelines, although no utility company or commission has publicly expressed interest in it.

Multiple Use:

A further examination of needs for these uses and the physical characteristics of the R-O-W may show its suitability for more than one use. For example, electrical transmission lines may be stretched along side the track. With proper safety precautions, hiking or bicycle trails may coexist with a steam railroad. More than one use of the right-of-way would of course allow greater flexibility in funding an acquisition plan.

ENVIRONMENTAL FACTORS

Even at this early planning stage, certain environmental factors should be considered, primarily those concerning steam engine operation and waste disposal.

Steam Engine Operation

Fuel: The fuel utilized for steam engines is coal, and it is recommended that a low sulphur grade be used exclusively. An additional consideration regarding coal is its storage. Any coal storage area should be designed to limit or contain runoff either through covering the storage site or utilizing full surround containment berms.

Noise: Since steam engines are relatively noisy during operation, the effect of this noise on the nearby populace may be an important consideration. However, given the location of the subject route in a relatively rural setting, noise should not be a problem. In fact, persons living adjacent to steam railroad operations often express enjoyment at hearing the throb of the steam engine.

Waste Disposal: The longer excursions will require on-board self-contained chemical toilets (similar to those on long distance buses) with an appropriate pump out/holding facility at the terminal.

Care should be taken to design and construct adequate waste disposal facilities (with a safety margin) for the anticipated maximum number of visitors. If an on-site system is utilized, the absorption capabilities of the soils will be a major consideration. Additionally, the system should be designed with periodic pump out capability. The preferred method of sewerage disposal would be through a collection system for treatment at a sewerage treatment plant.

SITE DEVELOPMENT CONSIDERATIONS

The development of any scenario requires the consideration of the environs along the right-of-way and the possible acquisition of adjacent properties to support required activities. These requirements for additional areas change as a function of the scenario selected. However, there exists some basic parameters that must be met regardless of the ultimate development program scenario. These are:

A base station for arrival, boarding and departure

A storage of equipment, rolling stock and maintenance operations

A western terminus area for operations control, turn-around, and so on

In addition to these three basic requirements, a wide-range of economic development opportunities are possible in association with the right-of-way and the services it provides. Included could be a series of intermediate stopping points with support passenger amenities such as shops, restaurants, cultural and historic facilities, special event areas and so on, to a major theme park or recreational entertainment complex. The space requirements for these types of operations could range from a few acres to in excess of 100 acres for an entertainment complex.

Given these factors, it is necessary to first discuss the three basic property requirements. A base station area must provide auto and

bus parking immediately adjacent to a major State or Federal roadway. It must be of sufficient size, shape and tooography to offer easy access, circulation, short-term (up to 4 hours) storage of vehicles, long-term employee parking (up to 10 hours), drop-off and pick up area for a station and boarding platforms, public conveniences, possible concessions, administration and staff offices and so on. In addition, the area must be buffered from surrounding landuses that it could adversely impact. These criteria imply an area of approximately 2-3 acres.

The maintenance and storage area could be adjacent to the base station or along the right-of-way. It should contain a garage, track sidings and yard area and range in size from 1-3 acres. If the maintenance area is incorporated with the base station the total complex could be accommodated in 3-4 acres.

The western terminus area could be handled within the existing right-of-way. However, it would be desirable to acquire some additional acreage to provide for a siding and equipment storage area. With this in mind, an area of approximately one acre is recommended.

These three basic support requirements represent an area 4-7 acres that should be acquired in addition to the right-of-way corridor.

The following table summarizes these requirements and describes the range of additional economic development area opportunities that could occur.

ESTIMATED ACREAGE REQUIREMENTS

	SCENARIOS			
	1 SHORT TRIP	2 SHORT TRIP PLUS EXCURSION	3 THEME TOWN WITHOUT EXCURSION	WITH EXCURSION
DESCRIPTION	10 Mi.	40 Mi. Plus	10 Mi.	40 Mi. Plus
Basic Support Facilities	4 acres	7 acres	3 acres+	5 acres
Base Station	2 acres	3 acres	in Theme Town	in Theme Town
Maintenance Area	1 acre	3 acres	2 acres	2 acres
Western Terminus	1 acre	1 acre	1 acre	3 acres
Economic Development Opportunities				
Theme Town	N/A	N/A	20 acres to	100 acres+
Intermediate Stations	N/A	2 acres±	N/A	5 acres±
Cultural/Historic	N/A	variable	N/A	variable

VI POSSIBLE FUNDING SOURCES

OVERVIEW

The undertaking of a steam railroad excursion line is certainly not a common occurrence and consequently, relative to competitiveness for fiscal assistance, its priority ranking is relatively low. To the extent that it promises potential for the creation of jobs, for the amelioration of the lot of low income people, for the productive re-use of a railroad right-of-way, and for the provision of significant recreational facilities, there is hope. It must also be said that there appears to be little hope for securing funding for re-use of the line to move freight, even as an incidental activity. The Rail Revitalization and Regulatory Reform Act of 1976 and New York's Rail Plan have, at least for the present, indicated that rail expenditures will be concentrated on upgrading viable lines, therefore generally precluding acquisition of abandoned lines like the Catskill Mountain Branch.

In the investigation of funding sources, a number of factors were considered. First, both outright grants as well as loans were viewed as valid contributors to the proposed undertaking - with grants obviously the more desirable of the two. Second, funds for both land acquisition and construction activities were seen as necessary. Within this context, Federal, State and private sources were scrutinized for applicability and relevant programs selected for review here. The selected programs were placed in two categories - "most promising" and "least promising" - for reasons that will be apparent in the following discussion.

MOST PROMISING FUNDING SOURCES

FEDERAL HOME ADMINISTRATION COMMUNITY FACILITIES LOANS

As part of the Rural Development Act of 1972, the Farmers Home Administration will make 5% loans for a maximum 40 year term to public bodies for a wide range of community facilities projects. While the actual level of funding available for next fiscal year is not known it is anticipated that the Community Facilities Loan Program will be a funding priority. Projects have ranged from bus acquisition to town hall construction. Probable eligibility of this project appears favorable.

DEPARTMENT OF INTERIOR; BUREAU OF OUTDOOR RECREATION; LAND AND WATER CONSERVATION FUND GRANTS

This fund, which has substantial monies, provide grants up to fifty percent of the project cost (acquisition and development) for a wide range of recreation-related undertakings. The County is eligible for these funds, applying for them through the State Bureau of Outdoor Recreation, once assurances that the proposed venture is compatible with the State Comprehensive Outdoor Recreation Plan are made.

DEPARTMENT OF COMMERCE; ECONOMIC DEVELOPMENT ADMINISTRATION GRANTS AND LOANS FOR PUBLIC WORKS AND DEVELOPMENT FACILITIES

Monies are available from this source, predominantly in the form of grants up to fifty percent of project cost, to construct public facilities that encourage long-term economic growth in designated areas such as Ulster County. The County, or its Industrial Development Corporation, would be the eligible recipient of these funds, assuming it met the requirements of the program. It should be noted that the proposed steam excursion line is an activity highly compatible with the County's overall Economic Development Program and Land Use Plan, two factors which are of importance in evaluating compliance with the funding program.

PUBLIC WORKS IMPACT PROJECTS

It is the aim of this program to create immediate jobs for unemployed or underemployed people in designated areas through the construction of public facilities. Ulster County, or the Industrial Development Corporation constitute the eligible recipients of these funds, which are generally given to projects of $600,000 or less on an eight percent basis.

GRANTS TO STATES FOR SUPPLEMENTAL AND BASIC FUNDING OF TITLES I, II AND IV ACTIVITIES - (SECTION 304 GRANTS)

This program provides somewhat limited discretionary funds to governors to augment the titles listed. Grants may be given for construction of public facilites (including public tourism related activities) which have already received EDA Title I, II or IV grants, with the money going to the County or its Development Corporation.

REDEVELOPMENT LOAN AREA DEMONSTRATION PROGRAM

Draft 204 guidelines are being reviewed at this time for final inclusion in the Federal Register this month. Initially, the program will be funded on a trial basis with an appropriation of $15 million for selected demonstration projects. Ulster County or Industrial Development Corporation could receive interest-free loan funds which may be used for a variety of activities including land acquisition, development and rehabilitation.

As the loan is repaid, the funds would be recycled within the designated redevelopment area for use in other projects.

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As the loan is repaid, the funds would be recycled within the designated redevelopment area for use in other projects.

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
COMMUNITY DEVELOPMENT BLOCK GRANTS/DISCRETIONARY GRANTS

Ulster County can apply for funding under this program, but it must substantiate the relevance of the proposed project to improving the quality of life and economic opportunities for low and moderate income people in the area. In so doing, the County would be eligible for substantial funding for a wide range of activities covered by the program.

PRIVATE FOUNDATIONS

(Full investigation of possible private foundation grants is a task that goes beyond the scope of this study, but a few sources for further investigation are listed here as worthy of consideration.)

JACKSON HOLE PRESERVE, INC.; 30 ROCKEFELLER PLAZA, ROOM 5425, NEW YORK 10020

Sustained by the Rockefeller brothers, this foundation has substantial assets that are doled out in modest increments for the purpose of restoring, protecting and preserving public primitive grandeur and natural beauties in picturesque areas. These funds also may be used to provide facilities for public enjoyment, use and understanding of these areas.

SACHEM FUND; 405 ORANGE STREET, NEW HAVEN, CONNECTICUT 06510

This fund has shown interest in the past relative to undertakings connected with railroad uses and further investigation would be reasonable.

ARKVILLE FREE FUND, INC. ARKVILLE, NEW YORK 12406

This fund, which is of a general purpose nature, is listed here because the town, while outside of Ulster County, straddles the path of the rail line in question, and has been discussed as a possible western terminus for the excursion run. The local status of this fund is what makes it of particular interest and not what the fund is geared to accomplish.

LEAST PROMISING FUNDING SOURCES

DEPARTMENT OF INTERIOR; BUREAU OF OUTDOOR RECREATION
GRANTS AND ALLOCATIONS FOR RECREATION AND CONSERVATION
USE OF ABANDONED RAILROAD RIGHTS-OF-WAY

While this program addresses issues that lie at the heart of the proposed steam rail line, it has two present drawbacks relative to undertaking the project. First, the program is in a fledgling state, with a funding level of $5 million nationwide - funding that is being heavily sought after. Second, the program is philosophically geared to right-of-way re-use for trails, hiking, and the like and not particularly to continued railroad use, albeit recreational.

Should the program be expanded in the future, it should certainly be considered, since it might provide the County with acquisition and development money up to ninety percent of the project cost.

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
COMMUNITY DEVELOPMENT BLOCK GRANTS/ENTITLEMENT GRANTS

The City of Kingston received CD entitlement grants which could be in part used for implementation of the excursion line if compliance with program requirements could be demonstrated. However, the activity would have to be confined to Kingston, which encompasses a relatively small segment of the line and whose priorities may not include the proposed venture.

URBAN DEVELOPMENT ACTION GRANTS

This program, which is still evolving, will make substantial funds available to assist the public sector in attracting private investment and providing jobs for the labor force. However, at this point, it would appear that Ulster County does not meet the eligibility requirements for this program.

DEPARTMENT OF TRANSPORTATION: FEDERAL RAILROAD ADMINISTRATION
TITLE IV SERVICE CONTINUATION GRANTS

Formula grants are available to the State for continuation of local rail freight service and for "rail banking" right-of-way

acquisition. The State, however, is using these funds for updating existing viable lines as designated in the State Rail Plan and views any possibility of expenditures on lines that are in the process of being abandoned (or have been abandoned) as remote.

RAILROAD REHABILITATION AND IMPROVEMENT—GUARANTEE OF OBLIGATIONS

Substantial funds in the form of guaranteed/insured loans in sizeable amounts are to be made available to applicants for acquisition and/or rehabilitation and improvement of facilities or equipment. Funding under this program can cover the full cost of the project.

To the extent that the State Rail Plan has placed the line in question on a low priority basis, it is not likely to receive funding, however.

DEPARTMENT OF THE INTERIOR; NATIONAL PARK SERVICE
HISTORIC PRESERVATION GRANTS

This program has limited funding that is used for restoring/preserving facilities listed in the Federal Register of Historical Places. Since the proposed excursion line in all probability will not include activity related to facilities listed in the Federal Register under Ulster County, this funding source would not appear to be relevant.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION
STATE RAIL BONDS

The $280 million authorized by the 1974 Bond Act has been almost entirely allocated for priority projects, and again, it is unlikely that any money would be available from this source.

At this point, until the scope of the project proposed herein has been carefully defined and focused, the listed funding sources (and their relative merits) must be viewed as guidelines whose validity may shift with the passage of time and changes in what is to be achieved. The intent here was to touch all the bases, saving in depth review for a more appropriate juncture in the maturation of the project. In regard to this point, several loose ends bear listing here:

- Funding relative to UMTA and AMTRAK related legislation was investigated and found to be inapplicable.

- Funds for planning of a venture of this type, along with technical assitance input, are available, but are not listed here since the issue is not central to the focus of the study.

- The New York State Department of Commerce provides no funding assistance to ventures like the steam excursion line. However, the Ulster County Industrial Development

- Corporation has bonding authority at the County level, and therefore, as a last resort, could seek to achieve project funding in this manner. Certainly, this vehicle must be considered as a source if local matching participation is a necessary part of some overall funding scheme.

VII CONCLUSION

To preserve the trackage in pace and keep open an option for future rail service of any type, it appears desireable for Ulstar County to acquire at least a segment of the Catskill Mountain Branch.

If Ulster County decides to take no action on acquiring a section, or the entire length of the Catskill Mountain Branch, it is probable that the R.O.W. will be disposed of by Penn Central to either a State agency or in segments to private users. Such action would result in the removal of trackage and the loss of a rail corridor through the Catskills in Ulstar County.

From the Market Study, it becomes clear that, between the short-trip operation and excursion operation, the short-trip type operation is the most profitable and economically feasible in terms of number of visitors attracted to the County and the favorable fiscal cost/benefit ratio. However, the latter benefit seems likely, only if the County acquires and rehabilitates a short (10 mile) section of track. An outlay of $30,000 to $50,000 per year could yield a return in tax dollars of $150,000. The benefits to be gained by an enhanced tourist industry and additional employment opportunities add to its attractiveness.

In the short-run, that approach could be readily justified. It will, however, preclude other options for the use of the line, e.g., expansion of the steam railroad operation, flexibility in location of stations and accessory facilities, addition of excursion trips, resumption of

freight service or even regular passenger service in the future.

While development of the segment in Ulster County does involve a certain risk of tax dollars, the risk may be mitigated by phasing the implementation into the following four stages.

1. Aquisition

   Acquisition of the line -- at least as far as Arkeville by Ulster County will ensure the preservation of both trackage and R.O.W. for future railroad use. Moreover, the estimated one million dollar outlay assures the County of control over its dispostion.

   Since more than three quarters of cost of the line is trackage, the County could be assured of recouping approximately $750,000 of its investment by removing and disposing of the track as scrap if a successful railroad use does not materialize.

2. Rehabilitation

   Because of the already deteriorated condition of the existing track, the cost of rehabilitation increases each day. If a goal of the County is to pursue future service on the line, it must make at least minimal improvements. Restoration to Class I standards would cost the County approximately $260,000.

3. Operations

   Operating a tourist railroad can be a profitable venture, but most operations run on a limited budget. Experience and technical

expertise in railroading is essential to a successful operation. It is therefore recommended that the County lease the needed track and other facilities to a competent operator who could run a profit-making or non-profit railroad attraction.

Major expenses of operation are 1) salaries, 2) loan and mortgage payments, 3) advertising and promotion, 4) insurance and 5) fuel. To keep expenses down, operators often rely on volunteers, but a dependable salaried staff is also essential.

The County would encourage a potential operator by offering assistance in 1) financing, 2) land assemblage, 3) provision of utilities and 4) marketing and promotion.

4. Promotion

Aside from the goal of preserving the rail line, the greatest benefit to the County from a steam railroad operation would be the potential for enhancing the tourism in the area. Packaging of railroad trips with fairs, historical and cultural events, and outdoor recreational attractions could impact all aspects of the travel industry and serve as a focal point for promotion. The County itself should take the lead in this area.

In considering all aspects of this project, the County should keep in mind possible funding assistance available through private and public programs. Eligibility may hinge on timing or method of implementation, so promising sources of funding should be carefully examined before steps are taken.

EXHIBIT I

Transportation and Distribution Associates, Inc.

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Report Prepared For

Catskill Rail Committee

December 1979

Inspection and Rehabilitation of the Former Ulster and Delaware Railroad

Transportation and Distribution Associates, Inc.

600 North Jackson Street
Media, Pennsylvania 19063

215/565-0238

December 21, 1979

Mr. Lewis E. Kolar, Director
Catskill Rail Committee
P.O. Box 141
Arkville, New York 12406

Dear Mr. Kolar:

TAD is pleased to submit its final report on the inspection and rehabilitation of track structure of the former Ulster and Delaware Railroad and construction of new connections with Conrail and the Delaware & Hudson Railway Company.

A supplemental report in two volumes on the inspection and rehabilitation of bridges is submitted separately, as well as two separate books of Photographic Records of Inspection.

If TAD can be of further assistance on future projects, we would be pleased to discuss our capabilities with you and/or your staff.

Very truly yours,

Alan B. Buchan
Executive Vice President

ABB/smg
792900/1370

TABLE OF CONTENTS

Section		Page
I	PURPOSE	1
II	INSPECTION METHODOLOGY	1
III	INVENTORY	2
IV	SUMMARY OF CONDITIONS	25
V	REHABILITATION	
	GENERAL	30
	STANDARDS	31
	GENERAL ASSUMPTIONS AND DECISIONS	32
	METHODS OF REHABILITATION AND CONSTRUCTION	35
	REHABILITATION WORK REQUIRED MP 3-65.0	36
	CONSTRUCTION REHABILITATION WORK REQUIRED MP 65.0-ONEONTA	48
	SPECIAL PROJECTS	55
	REHABILITATION VERSUS NORMAL MAINTENANCE	66
	OTHER WORK	66
	COST SUMMARY	69

I - PURPOSE

The purpose of this report is to provide to the Catskill Rail Committee:

- an inventory of track and bridges
- track and bridge rehabilitation requirements
- rehabilitation cost estimates
- new connection requirements
- new connection cost estimates

for the former Ulster and Delaware Railroad between Kingston and Oneonta.

II - INSPECTION METHODOLOGY

The inspection of right-of-way and track structure was accomplished by walking from Oneonta to Pheonica and West Hurley to Kingston. The segment between Pheonica and West Hurley was inspected from a track car.

The inspection of bridges was accomplished by visiting each bridge site and inspecting the structure components.

III - INVENTORY

The inventory of track and bridges between Kingston and Bloomville is shown in Exhibit III-1 and between Bloomville to Oneonta is shown in Exhibit III-2.

DEFINITIONS

The following definitions apply to the inventory exhibits that follow.

Right-of-Way

The general condition of the grading work on which the track structure rests from toe-of-fill to top-of-cut (as applicable) including apparent stability of soil as indicated.

Rail

The weight of rail in track is shown. Number of pounds is weight per yard. If rail has been removed from ties, this is so indicated.

Ties

The number of effective, or sound ties, per mile assuming a standard of 22.5" tie spacing which equates to 2,816 ties per mile.

OTM

General status of rail joint bars, bolts, tie plates and spiking.

Turnouts

List of turnouts (frog and switch material).

Side Track

List of side track materials.

Bridges

Number indicates location to the nearest hundredths of mile; abbreviations are as follows:

- OH - Overhead (the type construction is not indicated)
- UG - Undergrade (type construction is further annotated as follows:
  - CA - Concrete Arch
  - CB - Concrete box
  - DG - Deck girder
  - IB - I-beam
  - SC - Steel Culvert
  - RT - Rail top
  - TG - Thru girder
  - TS - Timber stringer
  - TT - Thru truss

NOTE: A more detailed inventory is contained in Supplemental Report of Bridges.

Grade Crossings

The number of crossings specifying public or private.

INVENTORY
Kingston - Bloomville

MILEPOST	3 - 4	4 - 5	5 - 6	6 - 7	7 - 8
LOCATION	Kingston				
Right-of-way	ok	ok	ok	ok	ok
Rail	.8 mi.-105 lb. .2 mi.-90 lb.	1 mi.-90 lb.	1 mi.-90 lb.	1 mi.-90 lb.	1 mi.-90 lb.
Effective Ties	500	560	560	450	330
OTM	complete	complete	complete	complete	complete
Turnouts	3-105 lb. No. 8 1 missing stand	1-105 lb. No. 8 1 RH pt. missing 1-105 lb. No. 10 w/pipe connected derail	-	-	-
Side Track	.2 mi.-90 lb. rail side track with OTM	-	-	-	-
Bridges*	3.30 OH 3.40 OH 3.56 OH	4.85 OH 4.99 UG TT	5.94 OH	-	8.33 OH 8.98 UG IB
Grade Crossings	5 public 2 private	2 public 5 private	1 public	1 private	-

*Detailed bridge inventory contained in Supplemental Report on Inspection and Rehabilitation of Bridges.

EXHIBIT III-1

INVENTORY
Kingston - Bloomville

MILEPOST	8 - 9	9 - 10	10 - 11	11 - 12	12 - 13
LOCATION	Stony Hollow		West Hurley		
Right-of-way	ok	ok	ok	ok	ok
Rail	1 mi.-90 lb.	.2 mi.-105 lb. .8 mi.-90 lb.	1 mi.-90 lb.	1 mi.-90 lb.	1 mi.-90 lb.
Effective Ties	330	330	280	280	280
OTM	complete	complete	complete	complete	complete
Turnouts	-	-	1-105 lb. No. 10	-	-
Side Track	-	-	-	-	-
Bridges*	-	-	10.01 UG TG	-	12.06 UG CA
Grade Crossings	-	-	-	-	-

*Detailed bridge inventory contained in Supplemental Report on Inspection and Rehabilitation of Bridges.

EXHIBIT III-1

INVENTORY
Kingston - Bloomville

MILEPOST	13 - 14	14 - 15	15 - 16	16 - 17	17 - 18
LOCATION	Glenford		Ashokan		
Right-of-way	ok	ok	ok	ok	ok
Rail	1 mi.-90 lb.	1 mi.-90 lb.	1 mi.-90 lb.	1 mi.-90 lb.	1 mi.-90 lb.
Effective Ties	420	420	420	140	140
OTM	complete	complete	complete	complete	complete
Turnouts	-	-	-	-	-
Side Track	-	-	-	-	-
Bridges*	13.15 UG CA	14.10 UG CA	-	16.33 UG RT 16.89 UG RT	17.00 OH
Grade Crossings	-	-	-	-	-

*Detailed bridge inventory contained in Supplemental Report on Inspection and Rehabilitation of Bridges.

EXHIBIT III-1

INVENTORY
Kingston - Bloomville

MILEPOST	18 - 19	19 - 20	20 - 21	21 - 22	22 - 23
LOCATION				Cold Brook	
Right-of-way	ok	ok	.6 mi. bank erosion	1.0 mi. bank erosion	ok
Rail	1 mi.-90 lb.	1 mi.-90 lb.	1 mi.-90 lb.	1 mi.-90 lb.	1 mi.-90 lb.
Effective Ties	140	140	140	140	280
OTM	complete	complete	complete	complete	complete
Turnouts	-	-	-	-	-
Side Track	-	-	-	-	-
Bridges*	18.57 UG CA	19.11 UG SC 19.72 UG SC	20.25 UG SC 20.61 UG SC	21.26 UG DG 21.59 OH	22.80 UG TG
Grade Crossings	-	-	-	-	1 public

*Detailed bridge inventory contained in Supplemental Report on Inspection and Rehabilitation of Bridges.

EXHIBIT III-1

INVENTORY
Kingston - Bloomville

MILEPOST	23 - 24	24 - 25	25 - 26	26 - 27	27 - 28
LOCATION	Mt. Pleasant				Pheonica
Right-of-way	ok	ok	ok	ok	.2 mi. bank erosion
Rail	1 mi.-90 lb.	1 mi.-90 lb.	1 mi.-90 lb.	1 mi.-90 lb.	.3 mi.-105 lb. .7 mi.-90 lb.
Effective Ties	280	280	280	560	420
OTM	complete	complete	complete	complete	complete
Turnouts	-	-	-	-	2-105 lb. No.8
Side Track	-	-	-	-	.5 mi.-90 lb. side track comp. w/OTM
Bridges*	-	24.50 UG RT	25.35 UG DG	26.09 UG DG	27.89 UG CA
Grade Crossings	-	1 public 1 private	1 public 4 private	1 private	1 public

*Detailed bridge inventory contained in Supplemental Report on Inspection and Rehabilitation of Bridges.

EXHIBIT III-1

INVENTORY
Kingston - Bloomville

MILEPOST LOCATION	28 - 29	29 - 30	30 - 31	31 - 32	32 - 33 Shandaken
Right-of-way	major washout MP 28.2	200' bank erosion	ok	minor washout MP 31.5	ok
Rail	.6 mi.-105 lb. .4 mi.-90 lb.	1 mi.-90 lb.	1 mi.-90 lb.	1 mi.-90 lb.	.6 mi.-90 lb. .4 mi.-105 lb.
Effective Ties	375	960	960	960	280
OTM	complete except for washout	complete	complete	complete	complete
Turnouts	-	-	-	-	1-105 lb. No.10 (east end)
Side Track	-	-	-	-	.2 mi.-90 lb. side track comp. w/OTM
Bridges*	28.80 UG DG	-	30.10 UG DG 30.31 UG TS	-	32.59 UG TG
Grade Crossings	1 public	-	-	1 private	1 public 2 private

*Detailed bridge inventory contained in Supplemental Report on Inspection and Rehabilitation of Bridges.

EXHIBIT III-1

INVENTORY
Kingston - Bloomville

MILEPOST LOCATION	33 - 34	34 - 35	35 - 36	36 - 37 Big Indian	37 - 38
Right-of-way	ok	ok	ok	ok	.4 mi. bank erosion
Rail	.1 mi.-90 lb. .9 mi.-105 lb.	.2 mi.-105 lb. .8 mi.-90 lb.	.5 mi.-90 lb. .5 mi.-105 lb.	.6 mi.-105 lb. .4 mi.-90 lb.	1 mi.-105 lb.
Effective Ties	280	280	240	850	850
OTM	complete	complete	complete	complete	complete
Turnouts	-	-	-	-	
Side Track	-	-	-	-	
Bridges*	33.74 UG CA	-	35.38 UG DG 35.96 UG TS	36.70 UG DG 36.77 UG DG 36.89 UG DG	37.34 UG TS
Grade Crossings	1 public	-	1 public 2 private	3 public 1 private	1 private

*Detailed bridge inventory contained in Supplemental Report on Inspection and Rehabilitation of Bridges.

EXHIBIT III-1

INVENTORY
Kingston - Bloomville

MILEPOST	38 - 39	39 - 40	40 - 41	41 - 42	42 - 43
LOCATION		Pine Hill		Grand Hotel Sta.	
Right-of-way	.4 mi. bank erosion	ok	ok	ok	.25 mi. bank erosion
Rail	1 mi.-105 lb.	1 mi.-105 lb.	1 mi.-105 lb.	1 mi.-105 lb.	1 mi.-105 lb.
Effective Ties	850	850	420	600	790
OTM	complete	complete	complete	complete	complete
Turnouts	-	-	-	1-90 lb. No.8 1-105 lb. No.10	-
Side Track	-	-	-	1000'-80 lb. side track comp. w/OTM	-
Bridges*	38.9 UG DG	39.75 UG DG	-	-	-
Grade Crossings	1 public 2 private	-	1 private	1 public	2 private

*Detailed bridge inventory contained in Supplemental Report on Inspection and Rehabilitation of Bridges.

EXHIBIT III-1

INVENTORY
Kingston - Bloomville

MILEPOST	43 - 44	44 - 45	45 - 46	46 - 47	47 - 48
LOCATION		Fleischmanns			
Right-of-way	.25 mi. bank erosion	ok	.25 mi. bank erosion	320' bank erosion	150' bank erosion
Rail	.8 mi.-127 lb. .2 mi.-105 lb.	.9 mi.-90 lb. .1 mi.-127 lb.	1 mi.-90 lb.	1 mi.-90 lb.	.5 mi.-90 lb. .5 mi.-105 lb.
Effective Ties	790	700	700	700	700
OTM	complete	complete	complete	complete	complete
Turnouts	-	1-105 lb. No.8 missing stand	-	-	-
Side Track	-	450'-80 lb. rail comp. w/OTM	-	-	-
Bridges*	-	44.15 UG DG 44.97 UG CB	-	-	47.52 UG TT 47.79 UG DG
Grade Crossings	1 private	1 private	-	2 private	-

*Detailed bridge inventory contained in Supplemental Report on Inspection and Rehabilitation of Bridges.

EXHIBIT III-1

INVENTORY
Kingston - Bloomville

MILEPOST	48 - 49	49 - 50	50 - 51	51 - 52	52 - 53
LOCATION	Arkville			Kelly's Corners	
Right-of-way	.5 mi. bank erosion	ok	ok	ok	500' bank erosion
Rail	1 mi.-105 lb.	.9 mi.-90 lb. .1 mi.-105 lb.	1 mi.-90 lb.	1 mi.-90 lb.	.3 mi.-105 lb. .7 mi.-90 lb.
Effective Ties	560	560	560	560	560
OTM	complete	complete	complete	complete	complete
Turnouts	4-105 lb. No.8 1-90 lb. No.8 1-Hayes derail	-	-	-	-
Side Track	.4 mi.-90 lb. comp. w/OTM .1 mi.-105 lb. comp. w/OTM	-	-	-	-
Bridges*	48.48 UG DG	-	-	51.16 UG DG	52.87 UG DG
Grade Crossings	1 public 4 private	1 public	1 public	1 public 2 private	4 private

*Detailed bridge inventory contained in Supplemental Report on Inspection and Rehabilitation of Bridges.

EXHIBIT III-1

INVENTORY
Kingston - Bloomville

MILEPOST	53 - 54	54 - 55	55 - 56	56 - 57	57 - 58
LOCATION	Halcottville				
Right-of-way	.5 mi. bank erosion	ok	ok	ok	ok
Rail	1 mi.-105 lb.	1 mi.-90 lb.	1 mi.-90 lb.	1 mi.-90 lb.	1 mi.-90 lb.
Effective Ties	450	450	450	450	450
OTM	complete	complete	complete	complete	complete
Turnouts	-	-	-	-	-
Side Track	-	-	-	-	139'-90 lb. stock-piled where re-moved from indus-try spur
Bridges*	-	-	55.57 UG RT	56.03 UG TG 56.96 UG TG	57.70 UG TS
Grade Crossings	2 public 2 private	1 public	1 public 3 private	1 private	1 public 2 private

*Detailed bridge inventory contained in Supplemental Report on Inspection and Rehabilitation of Bridges.

EXHIBIT III-1

INVENTORY
Kingston - Bloomville

MILEPOST	58 - 59	59 - 60	60 - 61	61 - 62	62 - 63
LOCATION		Roxbury			
Right-of-way	ok	.25 mi. bank erosion	remove from MP 60-MP 60.5	ok	ok
Rail	1 mi.-90 lb.	.9 mi.-90 lb. .1 mi.-105 lb.	90 lb. except .5 mi. removed see Note 1	1 mi. 90 lb. except 5 rail lengths of 105 lb. at turnout	1 mi.-90 lb.
Effective Ties	450	390	195	390	390
OTM	complete	complete	comp. except for .5 mi. removed	complete	complete
Turnouts	1-90 lb. No.8	2-105 lb. No.8 no stands	-	1-105 lb. No.8 no stand	-
Side Track	E. end of Roxbury sdg. ends in this mi. Totals shown in next mile	1518'-90 lb. rail complete w/OTM 2% effective ties sdg.	-	industry spur	-
Bridges*	-	59.30 UG DG 59.98 UG TG	-	-	62.13 UG TG
Grade Crossings	1 public 3 private	2 private	realignment of SR 30 through former ROW	1 public 2 private	1 public 2 private

*Detailed bridge inventory contained in Supplemental Report on Inspection and Rehabilitation of Bridges.

EXHIBIT III-1

INVENTORY
Kingston - Bloomville

MILEPOST	63 - 64	64 - 65	65 - 66	66 - 67	67 - 68
LOCATION			Grand Gorge		
Right-of-way	ok	ok	ok	ok	ok
Rail	1 mi.-90 lb.	1 mi-90 lb.	.8 mi.-105 lb. .3 mi.-90 lb. removed from ties west of MP 65.5	1 mi-105 lb. removed from ties	.1 mi.-105 lb. .7 mi.-90 lb. removed from ties
Effective Ties	390	390	170	170	140
OTM	complete	complete	-	-	spikes & plates approx. 1 ton MP 67.8 Wheelers Road Note 2
Turnouts	-	-	2-105 lb. No.8	-	-
Side Track	-	-	1370'-90 lb. comp. w/OTM 5% effective ties	-	-
Bridges*	-	-	-	66.16 UG RT 66.69 UG DG	67.39 UG RT 67.74 UG DG 67.89 UG DG
Grade Crossings	-	-	1 public 1 private	1 public	2 public 3 private

*Detailed bridge inventory contained in Supplemental Report on Inspection and Rehabilitation of Bridges.

EXHIBIT III-1

INVENTORY
Kingston - Bloomville

MILEPOST LOCATION	68 - 69	69 - 70	70 - 71 South Gilboa	71 - 72	72 - 73
Right-of-way	ok	ok	ok	ok	ok
Rail	1 mi.-90 lb. Note 3 removed from ties	.5 mi-90 lb. removed from ties	None in track 174-90 lb. rails in stckple. MP 70.5	none	none
Effective Ties	140	70	none	none	none
OTM	-	-	stckple. of bars no tie plates MP 70.5	none	none
Turnouts	-	-	-	-	-
Side Track	-	-	-	-	-
Bridges*	68.01 UG DG 68.04 UG RT 68.62 UG RT	69.66 UG RT 69.85 UG DG	70.05 UG DG 70.19 UG DG 70.41 UG RT 70.91 OH	71.94 UG RT	-
Grade Crossings	1 public 1 private	1 public	1 private	-	2 public 1 private

*Detailed bridge inventory contained in Supplemental Report on Inspection and Rehabilitation of Bridges.

EXHIBIT III-1

INVENTORY
Kingston - Bloomville

MILEPOST	73 - 74	74 - 75	75 - 76	76 - 77	77 - 78
LOCATION	Stamford				Hobart
Right-of-way	ok	ok	ok	ok	ok
Rail	none	none	none	none	none
Effective Ties	none	none	none	none	none
OTM	none	none	none	none	none
Turnouts	-	-	-	-	-
Side Track	-	-	-	-	-
Bridges*	74.24 UG DG	74.35 UG RT	75.99 UG DG	-	77.33 UG TG
Grade Crossings	4 public 2 private	2 public 1 private	1 public 1 private	1 private	5 public 2 private

*Detailed bridge inventory contained in Supplemental Report on Inspection and Rehabilitation of Bridges.

EXHIBIT III-1

INVENTORY
Kingston - Bloomville

MILEPOST	78 - 79	79 - 80	80 - 81	81 - 82	82 - 83
LOCATION				South Kortright	
Right-of-way	1000' bank erosion	ok	ok	ok	ok
Rail	none	none	none	none	none
Effective Ties	none	none	none	none	none
OTM	none	none	none	none	none
Turnouts	-	-	-	-	-
Side Track	-	-	-	-	-
Bridges*	78.19 UG TG	79.66 UG RT	-	-	-
Grade Crossings	1 public 5 private	1 public 1 private	-	3 public	4 private

*Detailed bridge inventory contained in Supplemental Report on Inspection and Rehabilitation of Bridges.

EXHIBIT III-1

INVENTORY
Kingston - Bloomville

MILEPOST	83 - 84	84 - 85	85 - 86	86 - 86.5
LOCATION				Bloomville
Right-of-way	200' major washout vic. MP 83.1 - bank erosion vic. MP 83.3	300' bank erosion	ok	ok
Rail	none	.9 mi.-105 lb. removed from ties E. of MP 84.3. No rail E. of MP 84.1	1 mi.-105 lb.	2340'-105 lb.
Effective Ties	none	140	30	none
OTM	none	complete for rail in track	complete	complete for rail in track
Turnouts	-	-	-	2-105 lb. No.10
Side Track	-	-	-	1560'-90 lb. rail comp. w/OTM 5% effective ties
Bridges*	83.13 UG DG 83.51 UG TG 83.85 UG TG	84.16 UG TG 84.91 UG TG	85.06 UG CB	-
Grade Crossings	1 public 2 private	4 private	2 private	1 public

*Detailed bridge inventory contained in Supplemental Report on Inspection and Rehabilitation of Bridges.

EXHIBIT III-1

NOTE 1

Some rail removed from track for highway realignment stockpiled vicinity MP 60.5 - not counted.

NOTE 2

Where rail is removed from track plates and spikes are missing, rail is connected in five rail length strings. Every fifth pair of bars are missing.

NOTE 3

Ten rail lengths rail missing vicinity Issel's Road.

EXHIBIT III-1

INVENTORY
Bloomville - Oneonta

LOCATION	Bloomville - Kortright	Kortright - Kortright Sta.	Kortright Sta. - E. Meredith
Right-of-way	existing	existing	existing
Bridges*	-	-	96.6± UG TG 96.8± UG DG 96.9± UG CB 97.1± UG DG
Grade Crossings	1 public 3 private	1 public 5 private	2 public 4 private

*Detailed bridge inventory contained in Supplemental Report on Inspection and Rehabilitation of Bridges.

EXHIBIT III-2

INVENTORY
Bloomville - Oneonta

LOCATION	E. Meredith - Davenport Center	Davenport Center - W. Davenport	W. Davenport - Mickle Bridge
Right-of-way	existing - except for major obstruction created by realignment of SR 23 at Davenport Cntr.	existing	existing but portion occupied by junkyard and portions used as access road for land fill
Bridges*	99.1 UG TG	?? UG TT (approx. 200' west of the Davenport Station)	?? UG TT (Mickle Bridge)
Grade Crossings	1 public	2 public 3 private	3 public

*Detailed bridge inventory contained in Supplemental Report on Inspection and Rehabilitation of Bridges.

EXHIBIT III-2

INVENTORY
Bloomville - Oneonta

LOCATION	Mickle Bridge - Oneonta	
Right-of-way	majority of existing ROW between Mickle Bridge and the Susquehanna River will not be used. A new alignment is being proposed	
Bridges	?? UG TT/TG (Susquehanna River crossing) new alignment requires the construction of a new bridge crossing the Susquehanna	
Grade Crossings	assume 2 private on new alignment	

EXHIBIT III-2

IV - SUMMARY OF CONDITIONS

RIGHT-OF-WAY

Generally speaking, the right-of-way is in good to fair condition relative to grading and stability except for two major washouts, one in Pheonica and one between Bloomville and South Kortright, and a minor washout also in the vicinity of Shandaken. The washout between Bloomville and South Kortright and the bank erosion west of that location is caused by the meandering nature of Rose Brook. This problem should be permanently corrected by relocating the river bed.

The realignment of SR 23 through Davenport Center is a major obstacle in that the new route replaces the bridge over the right-of-way with earth fill about 50' to the east of the former crossing and at lesser elevation which will present clearance problems.

There are several locations where fill slopes have eroded but are not presenting any major obstacles to rehabilitation. It should also be pointed out that a significant brush removal and ditching program is required.

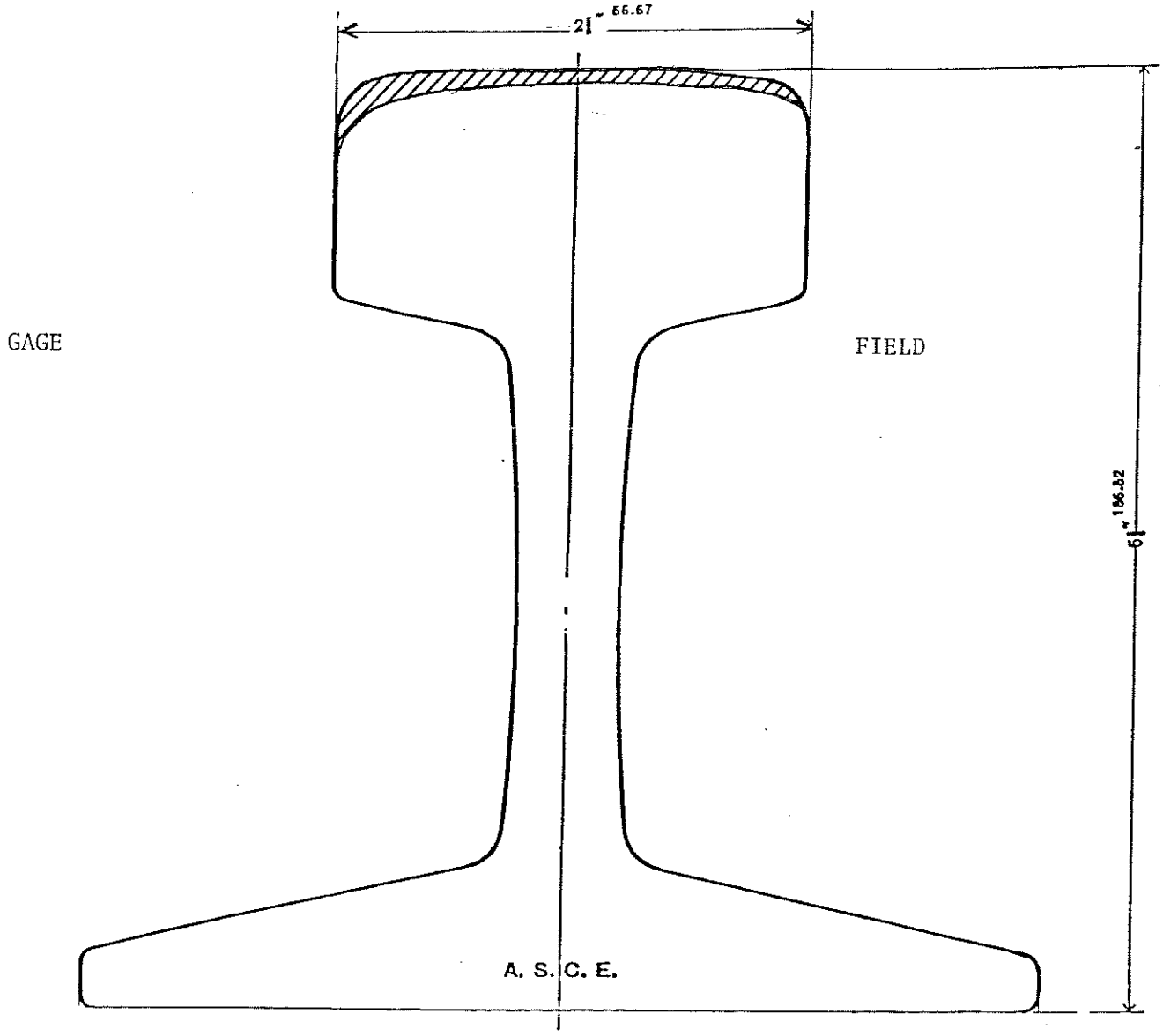
TIES

The tie condition, where a track structure exists, is very poor with generally 85% to 90% of the ties being defective.

RAIL

All of the rail, except for .9 miles of 127 lb., is not control cooled. Control cooling is a process developed in the early nineteen thirties to reduce shatter cracks and subsequent transverse fissures. Therefore, the probability of broken rails will be higher than what could be expected from control cooled rail, however, we do not believe this to be significant at this time.

Most all of the 90 lb. and 105 lb. rail is in good condition. Wear is not a major factor except for some wear on curves. Based on measurements taken using a profilometer, the general wear pattern is shown in Exhibits IV-1 and IV-2. The shaded area in these diagrams shows the average amount of wear which has occurred. The wear which has occurred on some rail exceeds that which is shown. The rail condition in the joint area is good as it is not battered or lipped and generally the rail is not seriously end bent. The



SECTION 9040

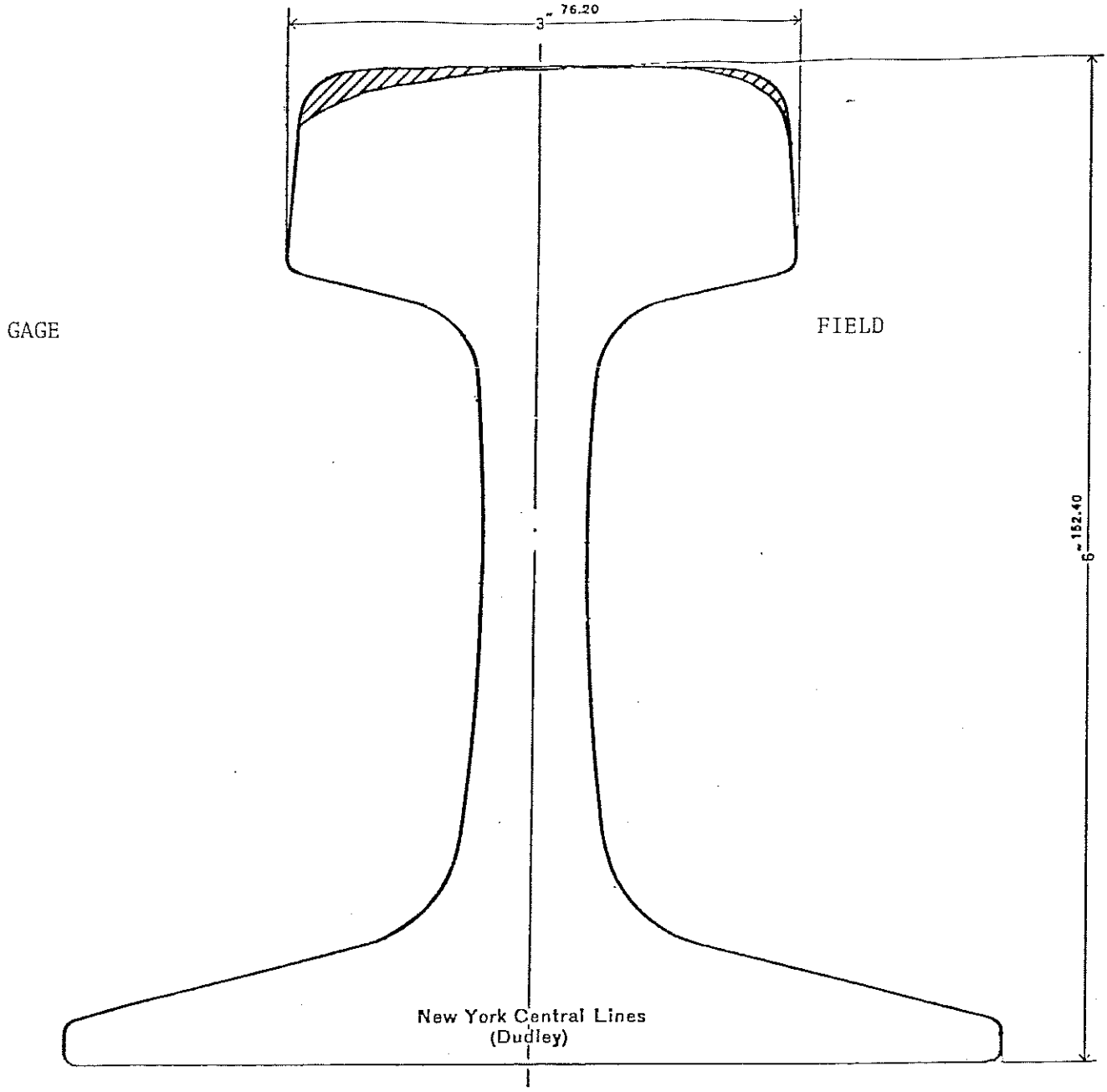
PROPERTIES OF SECTION

Area:	Head	3.71 Sq. In.	42.0%	2394 mm.²	Moment of Inertia		34.39
	Web	1.85 " "	21.0%	1194 "	Section Modulus, Head		12.19
	Base	3.27 " "	37.0%	2110 "	" "	Base	13.49
	Total	8.83 " "	100.0%	5698 "	Ratio M. I. To Area		3.90
Weight per yard			90.1 lbs.		Ratio Mod. Sec. Head To Area		1.38
" " Meter			44.7 kg.				

Gross Tons per mile of single Track 141.43
Tonnes per Kilometer " " 89.28

GENERAL RAIL PATTERN 90 LB. RAIL

EXHIBIT IV-1



SECTION 10524

PROPERTIES OF SECTION

Area:	Head	4.20 Sq. In.	40.9%	2710 mm.^{2}	Moment of Inertia		49.86
	Web	2.46 " "	24.0%	1587 "	Section Modulus, Head		15.96
	Base	3.60 " "	35.1%	2323 "	" "	Base	17.31
	Total	10.26 " "	100.0%	6620 "	Ratio M. I. To Area		4.86
Weight per yard			104.7 lbs.		Ratio Sec. Mod. Head To Area		1.56
" " Meter			51.9 kg.				

Gross Tons per mile of single Track 165.00
Tonnes per Kilometer " " 104.16

GENERAL RAIL PATTERN 105 LB. RAIL

EXHIBIT IV-2

fillet and web area within the joint bars could not be observed for defects, however, the condition of this area and bolt holes were checked on some of the 90 lb. rail at South Gilboa Station and was found to be satisfactory.

OTM

Where rail is still spiked to gage, tie plate conditions and the spiking pattern appears to be adequate, although some additional spiking may be required on curves. There are virtually no rail anchors applied which could present future running rail problems. Joint bars and bolt conditions vary greatly over the line and little evidence was found of nut locks. Most of the 105 lb. bars are satisfactory, however, bolt conditions vary from good to poor. A large number of 90 lb. bars are worn requiring the installation of new bars while other locations can be brought to satisfactory condition with only bolt renewal.

The 90 lb. rail initially thought to be a Dudley Section is an ASCE Section which will present no OTM supply problems

TURNOUTS

All of the 105 lb. turnouts are in satisfactory condition except for missing components such as switch stands and in one case, a switch point. All of the 90 lb. turnouts are considered to be scrap only.

BRIDGES

Except for bridge ties and masonry repairs, the bridges are generally in fair condition. All of the steel bridges are rusty and, except for a few, there is very little reduction in the structural member cross section due to corrosion or oxidation.

The most urgent repair work is the replacement of bridge ties and the repair and solidification of masonry. The bridge ties are totally inadequate for present day loadings. For example, bridge ties are 6-1/2" deep on 7'0" center deck girders while current accepted practice specifies a 10" minimum depth tie. The few bridges recommended for cleaning and painting should be done within five years, the remainder should be programmed for cleaning and painting within ten years.

GRADE CROSSINGS

Generally, almost all of the public grade crossings on this line are not in satisfactory condition as they have either been removed or paved over. At several locations where the track has been removed, the profile of the road has been changed so that a difference in elevation exists between the rail grade and the road grade. The elimination of the SR 30 overhead bridge at Hubbell Corners will present some engineering problems and require a grade crossing at the site of a previous separation.

V - REHABILITATION REQUIREMENTS

GENERAL

The two basic requirements of track are that it is safe and that it is economical for the uses to which it will be subjected. When considering the safety aspects of the track structure, the FRA Track Standards (Title 49 CFR Part 213) are usually sighted. The application of these rules as standards in rehabilitation or improvement is not valid. These standards prescribe initial minimum safety requirements for railroad track that is part of a general railroad system of transportation. They are rejection limits, and any one case of being out of limits is cause for derating a line. Inasmuch as these these standards are not construction standards, they are of minimal value for rehabilitation and/or improvement planning and have no direct correlation to track economy.

In summary, the FRA Track Safety Standard are useful as an indication of minimum conditions under which trains may pass at certain speeds. The present FRA Safety Standards have been in effect since December 22, 1972. On September 6, 1979, FRA published a notice of Proposed Rulemaking (Federal Register, Volume 44, No. 174) which propose to amend the FRA Track Safety Standards.

TAD is of the opinion that these standards will pass and modify the existing rules. Part 213.9 of the proposed rules, "Classes of track; operating speed limits," specify maximum allowable operating speeds (MAS) as a function of rail weight as shown in Exhibit 5 below.

OPERATING SPEED LIMITS (PROPOSED)

	MAS Over Rail Of:		
FRA Track Class	Less Than 112 lb./yd.	112 lb./yd. to 131 lb./yd.	More than 131 lb./yd.
1	10	10	15
2	25	30	30
3	30	40	50
4	50	60	80
5	70	80	110
6	90	110	125

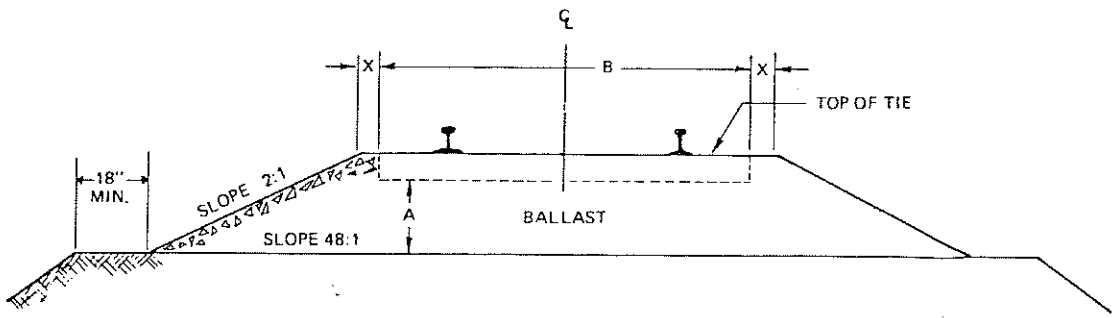
EXHIBIT V-1

The primary reason for pointing this out is that it is TAD's understanding previous commitments may have been made specifying FRA track classes and speeds. As indicated in the inventory, all rail between Kingston and Bloomville except for .9 miles of 127 lb. (in the area of MP 43 and MP 44) is less than 112 lb. per yard.

STANDARDS

Based on the assumption that the annual traffic will be less than 1.0 million gross tons and the maximum authorized operating speed will be 30 mph, all rehabilitation work required and new construction is based on the trackwork design standard shown in Exhibit 6.

TRACK STRUCTURE STANDARDS



DIMENSIONS:	A – 8" B –(SEE BELOW) X – BOLTED–6" / CWR–12"
RAIL:	NEW – 119 RE
	FIT – 100 # OR HEAVIER
	NOTE: MAY BE BOLTED OR CWR CONSTRUCTION, IF JOINTED USE 6 HOLE, 36" BARS.
TIES:	AREA GRADE 3, 4 OR 5, 2 2½" SPACING
BALLAST:	AREA NO. 4, PER AREA SPECIFICATION.

EXHIBIT V-2

The rehabilitation work specified for bridges is based on the American Railway Engineering Association standards and good engineering practice.

TAD's greatest concern relative to standards is in the area of grade crossing protection. Through discussion with personnel in the New York State Department of Transportation[1] it is our understanding that, if the grade crossings have been formally abandoned (and we do not know if this is the case) they can only be reopened under Section 89 of Chapter 49 of the consolidated laws of the State of New York pertaining to Railroad Operations. It is our understanding that this law specifies grade separation, however, we have been lead to believe that relief is usually granted relative to reopening an out-of-service line. We have been advised that as a "going-in" position for State approval, the protection should be as good as previously provided. Some crossings on the branch had previously been protected by bell warning devices which are obsolete, therefore, flashers will be recommended at these locations as well as those that previously had flashers. All other crossings will be protected by signs only, except the following crossings which, at the request of the Director of Ulster County Planning Board, will be protected as shown:

- Washington Avenue, MP 4.4 - Flashers and Gates
- Old Pleasant Road, MP 24.9 - Flashers and Gates
- Pheonica Road, MP 27.8 - Flashers
- SR 28, MP 33.5 - Flashers
- SR 28, MP 36.3 - Flashers

The final decisions on the protection required at specific crossings might well require further engineering and traffic studies.

Public crossings will be monolithic bituminous with timber spacers either side of the running rail while private (farm) crossings shall be timber spacers either side of the running rail with gravel fill and approaches. Rail through public crossings will be continuously welded so that no joint will fall within 12 feet of the edge of the road crossing.

GENERAL ASSUMPTIONS AND DECISIONS

While the rehabilitation requirements specified herein are based on actual conditions and recommended standards, experience has shown that additional work will be discovered as actual rehabilitation work progresses. In order to account for these almost contingency-type situations, assumptions are made so as to account for necessary work, material and costs.

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[1] Mr. R. A. Wiita, Associate Railroad Engineer, Rail Operations Bureau; J. Jennings, Esq., and Mr. R. Gwin.

- Rail - The rail presently in track (90 lb., 105 lb., and 127 lb.) will remain in track. It is assumed, however, that 1% of this rail in track, or 3 rails per mile will require replacement because of hidden defects, failures or damage. The grade crossings in the locations where rail is in track will be reconstructed using cropped and welded 105 lb. rail. Where rail is not presently in track, cropped and welded 115 lb. AREA relayer rail will be used.
- Ties - Only new cross ties will be used as required to replace defective cross ties. Where 35% of bridge ties are found defective, an entire new deck is recommended.
- Bars - The present 105 lb. bars in track are considered adequate. It is assumed, however, that 3% or 9 pair of bars per mile are defective and will require replacement. About 50% of the 90 lb. bars in track are considered adequate. It is, therefore, assumed that 50% of all 90 lb. bars will be replaced.
- Bolts - It is felt that most of the bolts are either rusted shut and cannot be adequately tightened or backed-off for application of nutlocks or are loose and damaged, therefore, it is assumed that 100% of all bolts will be renewed with nutlocks.
- Tie Plates - The present single shoulder tie plates will remain in track. It is assumed, however, that 1% of all tie plates, or 60 per mile, are either broken, bent or missing.
- Spikes - The present spikes in track where driven into an effective tie are considered adequate. All spikes used for tie renewal will be new.
- Turnouts and Side Tracks - Where 105 lb. turnouts exist in track, they will be retained and rehabilitated with 100% new timbers and made complete with new parts. Where side tracks exist, they will be rehabilitated to usable condition. At the request of the Director of the Ulster County Planning Board, the cost to rehabilitate or install new track facilities at the following locations are included:

- wye vicinity MP 5.5, with 1500' tail
- passing siding, 1500', vicinity MP 16
- passing siding, 1500', Shandaken, vicinity MP 32

At all other locations where main track does not now exist, no turnouts will be provided except for interchange tracks at Oneonta and connections to the D&H and Conrail.

- Ballast - All existing track will be raised and lined on eight inches of newly applied ballast.

METHODS OF REHABILITATION AND CONSTRUCTION

The unit costs used in this estimate are based on the following methods of rehabilitation and construction.

Track Rehabilitation Methods

The construction of all public grade crossings will be accomplished separately in advance of any other work so that when renewal/rehabilitation gangs using on-track equipment arrive at grade crossing locations, a contiguous track structure will be in place.

The construction associated with the special projects will be accomplished separately from track rehabilitation or track construction in advance of track work so as to provide a contiguous right-of-way and/or track structure, except that the D&H connection can be completed last after other track construction work is completed.

Between MP 3 and MP 65.5, approximately 62 miles where a track structure exists with rail spiked to ties, the sequence of renewal is assumed to be as outlined below:

- install additional cross drain culverts
- vegetation control chemical application
- install gage holding ties
- raise 4" out-of-face
- distribute ties
- renew ties, bars, bolts, install anchors
- distribute ballast
- raise and line
- repair fill slopes
- dress shoulder ditches and cut slopes

Where rail is on the right-of-way, unspiked from MP 65.0 to MP 69.5, and MP 84.2 to MP 84.5 and spiked to gage between MP 84.5 and MP 86.5, it should be removed and stockpiled. This rail stockpile will then be used to replace the anticipated deficient rails found in track. Also some of the 105 lb. rail will be cropped and welded for subsequent use as long rails in grade crossings.

Track Construction Methods

Once the rail is removed from the right-of-way, the sequence of construction is assumed to be as outlined below:

- regrade and remove brush
- install cross drainage culverts
- spike plates to ties
- pull rail into place
- gage, spike, anchor
- distribute ballast
- raise and line

REHABILITATION WORK REQUIRED MP 3 TO MP 65

this section outlines the rehabilitation requirements by type work required, by location. The cost of this work is then summarized in a later section on a mile-by-mile basis.

Vegetation Control

This work element includes the control of vegetation from center line of right-of-way to a point ten feet from that location and can be accomplished primarily by chemical application. Vegetation and brush control outside of the shoulder area is not considered as part of rehabilitation and can be accomplished with both on and off track brush cutters as part of maintenance after the line is open. Therefore, the cost for vegetation removal and control outside of the shoulders is not included.

The cost for application of chemicals from a contracted rail highway truck unit is $80/acre for medium to heavy weeds. Assuming a 20 foot right-of-way equates to 2.42 acres per mile or an average cost of $194 per mile.

Erosion Repair

This work element includes primarily the restoration of shoulders on fill slopes. Work is required as shown below.

MP Location	Length of Bank Erosion	Tons #8 Stone	Tons 1&2 Man Stone
20-21	.6 mi.	1,750	
21-22	.1 mi.	3,500	
27-28	.2 mi.	700	
29-30	200'	1,400	350
37-38	.4 mi.	1,750	
38-39	.4 mi.	1,750	
42-43	.25 mi.	800	
43-44	.25 mi.	800	
45-46	.25 mi.	800	
46-47	320'	800	
47-48	150'	500	
48-49	.5 mi.	1,750	
52-53	500'	800	
53-54	.5 mi.	2,000	
59-60	.25 mi.	1,500	

Total requirement is 20,600 tons #8 stone and 350 tons 1&2 man stone. This equates to 206 carloads #8 stone and 4 carloads 1&2 man stone. Assuming the contractor has a 10-car set of 100 ton air dump cars, the cost per ton to install at the site is $7.00/ton including work train service.

Ditching

This work element includes the re-establishment of side ditches in flat and cut locations at a uniform grade line below subgrade. The ratio of flat and cut distance per mile is assumed to be relatively uniform at about 50% or 2,600 feet per mile. Work will be done on-track with a ditcher-spreader at a cost of $5,400/mile.

Culverts

The installation of culverts in diameter specified is required as shown below. The assumed unit cost per foot installed is $20 for 24", $50 for 36" and $75 for 48".

MP Location	Number of Culverts To Be Installed 24"	36"	48"
3-4	2		
11-12	2		
14-15	2		
15-16	1		
17-18	1		
18-19	1		
19-20	2		
20-21	1		
21-22	1		
24-25	8		
30-31			1
37-38	4		
38-39	4		
41-42	1		
43-44	3		
45-46	1		
47-48	2		
48-49	7		
51-52	4		
52-53	6		
57-58	1		3
62-63	3		
63-64	13		
64-65	2		

Tie Renewal, Anchoring and Plating

The tie renewal required in each mile is equal to 2,816 minus the estimated effective ties as shown in the inventory at an estimated unit cost per installed tie of $30.00.

Exceptions to this are the ties required between MP 28 and MP 29 for correction of the Pheonica washout and the ties required between MP 60 and MP 61 for correction of the Hubbell Corners right-of-way, which are included within the special projects cost.

Included in the tie renewal cost is the cost to install gage ties, raise the track four inches out-of-face, and distribute and install ties. It is estimated that 1,920 anchors per mile and 60 plates per mile will be applied at a per mile cost of $2,300.

Rail Renewal

It is anticipated that 1% or three rails per track are defective. The cost estimate to replace these rails with rails from existing supply is $250 per mile.

Bar Replacement and Bolt Renewal

Based on previous assumptions where 105 lb. rail is in-track, nine pair of bars per mile will be replaced, and where 90 lb. rail is in-track, 160 pairs of bars per mile will be replaced. All bolts will be renewed in conjunction with the bar replacement program. Where 105 lb. rail is in-track, 1,750 bolts per mile will be renewed, and where 90 lb. rail is in-track, 1,920 bolts per mile will be renewed. The cost per mile for 105 lb. rail is $6,500 and for 90 lb. rail is $9,600.

Ballast Distribution, Raising and Lining

The raising and lining of track on eight inches of ballast will require the distribution of 1,400 tons ballast per mile. The raising of track will be accomplished in two lifts. Estimated cost per mile is $10,400.

Turnout Renewal

Turnouts will be renewed as follows:

MP 3- 4 - 1 switch stand, 3 sets #8 switch timber

MP 4- 5 - 1 RH switch point and stock rail, 1 set #8 switch timber, 1 set #10 switch timber

MP 10-11 - 1 set #8 switch timber

MP 27-28 - 2 sets #8 switch timber

MP 41-42 - 1 set #10 switch timber

MP 44-45 - 1 switch stand, 1 set #8 switch timber

MP 48-49 - 3 switch stands, 4 sets #8 switch timber

MP 59-60 - 1 LH switch point and stock rail, 2 switch stands, 2 sets #8 switch timber

MP 61-62 - 1 switch stand, 1 set #8 switch timber

Estimated costs are $350 per switch stand, $2,500 per point and stock rail, 1 set #8 timber @ $1,160 and 1 set #10 @ $1,320.

Siding Rehabilitation

The work required on sidings presently in existence is estimated as follows: 100% tie renewal, bolt renewal and raising to same grade line as main track. Estimated cost per track foot for siding renewal is $19.00.

Sidings to be renewed are located as follows:

MP 3- 4 - .2 mi.

MP 27-28 - .5 mi.

MP 32-33 - .2 mi.

MP 41-42 - .2 mi.

MP 44-45 - .1 mi.

MP 48-49 - .5 mi.

MP 59-60 - .3 mi.

Grade Crossings

The work and cost for renewal of grade crossings is divided into several components.

- Crossing - The opening of pavement for track reconstruction and reinstalling pavement in the area of the grade crossing is shown separately and for a crossing site where the grade line of the rail right-of-way and the highway has not been altered, the cost is estimated at $125 per linear foot.
- Protection - The cost of protection is divided into three separate costs: crossing signs only at $250 per crossing, flashers only at $48,300 per crossing, flashers and gates at $75,900 per crossing.
- Private - The renewal of a private crossing is estimated at $350 per crossing.

Bridges

The work required on bridges is summarized below. Specific comments on each bridge can be found in supplemental reports on the inspection and rehabilitation of bridges.

ULSTER COUNTY

- MP 4 to MP 5-West of Kingston
  - UG Bridge 4.99
    - 30 bridge ties @ $32/tie $ 960
    - 2 roller nests @ $3,000 each 6,000
      $6,960
- MP 10 to MP 11-West Hurley
  - UG Bridge 10.01
    - patch concrete slab, 2 cubic feet @ $130/cubic foot $ 260
- MP 16 to MP 17-Ashokan
  - UG Bridge 16.89
    - remove beaver dams $ 500
- MP 18 to MP 19-West of Ashokan
  - UG Bridge 18.57
    - erosion control - wingwall, 5 cubic yards concrete @ $260/cubic yard $1,300
      15 cubic yards stone @ $100/cubic yard $1,500
      $2,800
- MP 21 to MP 22-Cold Brook
  - UG Bridge 21.26
    - repoint 400 sq. ft. @ $2/sq. ft. $ 800
    - paint 72.5' @ $60/ft. 4,350
    - 252 bridge ties @ $32/tie 8,064
    - 300 linear ft. spacer bar @ $3.25/linear ft. 975
      $14,189
- MP 22 to MP 23-Cold Brook
  - Bridge 22.80
    - repoint 32 sq. ft. @ $2/sq. ft. $ 64
    - 24 bridge ties @ $32/tie 768
    - 50 linear ft. spacer bar @ $3.25/linear ft. @ $60/ft. 1,380
      $2,375

- MP 25 to MP 26-Mt. Pleasant
  - UG Bridge 25.35
    - 24 bridge ties @ $32/tie $ 768
    - 46 linear ft. spacer bar @ $3.25/linear ft. 150
    $ 918
- MP 26 to MP 27-Pheonica
  - Bridge 26.09
    - repoint 100 sq. ft. @ $2/sq. ft. $ 200
    - 23 bridge ties @ $32/tie 736
    - 46 linear ft. spacer bar @ $3.25/linear ft. 150
    $1,086
- MP 28 to MP 29-Pheonia
    - 3 bridge ties @ $32/tie $ 96
    - paint 106 ft. @ $60/ft. 6,360
    - 4 timber bearing blocks @ $374 each 1,496
    $7,952
- MP 30 to MP 31-East of Shandaken
  - UG Bridge 30.10
    - point 80 sq. ft. @ $2/sq. ft. $ 160
    - 15 bridge ties @ $32/tie 480
    - 29 linear ft. spacer bar @ $3.25/linear ft. 95
    $ 735
  - UG Bridge 30.31
    - erosion control, 5 cu. yrds. concrete @ $260/cu. yrd. $1,300
    - 12 bridge ties @ $32/tie 384
    - 26 linear ft. spacer bar @ $3.25/linear ft. 85
    $1,769
    $2,504

- MP 32 to MP 33-Shandaken
  - UG Bridge 32.59
    - paint 50.5' @ $90/ft. $4,545
    - 46 bridge ties @ $32/tie 1,472
    - 106 linear ft. spacer bar @ $3.25/linear ft. 345
    $6,362
- MP 35 to MP 36-Big Indian
  - UG Bridge 35.38
    - point 4 sq. ft. @ $2/sq. ft. $ 8
    - 19 bridge ties @ $32/tie 608
    - 40 linear ft. spacer bar @ $3.25/linear ft. 130
    $ 746
  - UG Bridge 35.96
    - 16 bridge ties @ $32/tie $ 512
    $1,258
- MP 36 to MP 37-Big Indian
  - UG Bridge 36.70
    - concrete caps 4 cu. yrd. @ $260/cu. yrd. $1,040
    - 8 bridge ties @ $32/tie 256
    - 36 linear ft. spacer bar @ $3.25/linear ft. 117
    $1,413
  - UG Bridge 36.77
    - 96 bridge ties @ $32/tie $3,072
    - 230 linear ft. spacer bar @ $3.25/linear ft. 748
    $3,820
    $5,233

- MP 37 to MP 38-West of Big Indian - UG Bridge 37.34
  - 13 bridge ties @ $32/tie $ 416
  - 24 linear ft. spacer bar @ $3.25/linear ft. 78
  $ 494
- MP 38 to MP 39-East of Pine Hill
  - UG Bridge 38.90
    - 59 bridge ties @ $32/tie $1,888
    - 136 linear ft. spacer bar @ $3.25/linear ft. 442
    $2,330
- MP 39 to MP 40-Pine Hill
  - UG Bridge 39.75
    - repair bridge seat with concrete $ 410
    - 78 bridge ties @ $32/tie 2,496
    - 180 linear ft. spacer bar @ $3.25/linear ft. 585
    $3,491

DELAWARE COUNTY

- MP 44 to MP 45-Fleischmanns
  - UG Bridge 44.15
    - repair bridge seat with conrete $ 410
    - point 750 sq. ft. @ $2/sq. ft. 1,500
    - 15 bridge ties @ $32/tie 480
    - 44 linear ft. spacer bar @ $3.25/linear ft. 143
    $2,533
  - UG Bridge 44.15A
    - repair bridge seat with concrete $ 410
    - point 630 sq. ft. @ $2/sq. ft. 1,260
    - 20 bridge ties @ $32/tie 640
    - 60 linear ft. spacer bar @ $3.25/linear ft. 195
    $2,505
    $5,038

- MP 47 to MP 48-Arkville
  - UG Bridge 47.52

- erosion control 7.4 cu. yrd. concrete @ $260/cu. yrd.	$ 1,924
- 97 bridge ties @ $32/tie	3,104
- 230 linear ft. spacer bar @ $3.25/linear ft.	748
- paint 110 ft. @ $120/ft.	13,200
	$18,976

  - UG Bridge 47.79

- remove bridge	$ 3,000
- one 36" corrugated pipe, 30' @ $75/ft.	2,250
	$ 5,250
	$24,226

- MP 48 to MP 49-Arkville
  - UG Bridge 48.48

- point 3,000 sq. ft. @ $2/sq. ft.	$ 600
- 6 bridge ties @ $32/tie	192
	$ 792

- MP 51 to MP 52-Kelly's Corners
  - UG Bridge 51.16

- repair bridge seat with concrete	$ 410
- erosion control 5 cu. yrd. @ $260/cu. yrd.	1,300
- point 400 sq. ft. @ $2/sq. ft.	800
- grout 400 sq. ft. @ $10.80/sq. ft.	4,320
	$ 6,830

- MP 52 to MP 53-Halcottville
  - UG Bridge 52.87
    - repair bridge seat with concrete $ 410
    - point 600 sq. ft. @ $2/sq. ft. 1,200
    - grout 45 sq. ft. @ $10.80/sq. ft. 486
    - repair pier 5 cu. yrd. @ $260/cu. yrd. 1,300
    - 15 linear ft. spacer bar @ $3.25/linear ft. 50

      $3,446
- MP 56 to MP 57-East of Roxbury
  - UG Bridge 56.03
    - 2 bridge ties @ $32/tie $ 64
  - UG Bridge 56.93
    - repair bridge seat with concrete $ 410
    - point 20 sq. ft. @ $2/sq. ft. 40
    - 56 bridge ties @ $32/tie 1,792
    - 130 linear ft. spacer bar @ $3.25/linear ft. 423

      $2,665

      $2,729
- MP 57 to MP 58-East of Roxbury
  - UG Bridge 57.70
    - remove bridge $1,000
    - 4-48" culverts 120' @ $65/ft. 7,800

      $8,800
- MP 59 to MP 60-Roxbury
  - UG Bridge 59.30
    - 2 timber bearing blocks @ $356 each $ 712

- MP 59 to MP 60-Roxbury (continued)
  - repair 2 bridge seats with concrete @ $410 each — $ 820
  - 85 bridge ties @ $32/tie — 2,720
  - 200 linear ft. spacer bar @ $3.25/linear ft. — 650

  $4,190

  $4,902

- MP 62 to MP 63-East of Grand Gorge
  - UG Bridge 62.13
    - 10 bridge ties @ $32/tie — $ 320
    - 32 linear ft. spacer bar @ $3.25/linear ft. — 104

    $ 424

CONSTRUCTION AND REHABILITATION WORK REQUIRED MP 65 - ONEONTA

This section outlines the construction and rehabilitation requirements by type work, by location. The cost of this work is then summarized in a later section on a mile-by-mile basis.

Grading and Brush Removal

This work element will prepare the right-of-way for the receipt of a track structure and includes the removing of old ties from the road bed, removal of brush in the shoulder area, repair of fill slopes where required and installation of side ditches at the proper grade line. The cost for this is estimated at $ 7,800 per mile.

Culvert Installation

The installation of culverts in diameter specified is required as shown below. The assumed unit cost per foot installed is $20 for 24", $50 for 36" and $75 for 48".

	Number of Culverts to be Installed		
Location	24"	36"	48"
Grand Gorge to Stamford	10	4	
Stamford to Bloomville	13		
Bloomville to Mickle Bridge	22	4	2

Track Construction

This work element concerns the construction of a track structure including installation of ballast and raising and lining. The estimated cost per mile is $ 248,500.

Grade Crossings

The work and cost for renewal of grade crossings is divided into several components.

- Crossing - The opening of pavement for track reconstruction and reinstalling the areas of the grade crossing site where the grade line of the rail right-of-way and the highway has not been altered, the cost is estimated at $125 per linear foot. This does not include rail installation.

- Protection - The cost for protection is divided into three separate costs: crossing signs only at $250 per crossing, flashers only at $48,300 per crossing, flashers and gates at $75,900 per crossing.
- Private - The renewal of a private crossing is estimated at $350.

Because of significant changes in the profile of the highway, the grade crossing renewal at Rice Clark Road (SR 23) MP 67.2 at Grand Gorge and CR 11 at East Meridith locations specified below requires special regrading of the highway and will cost approximately $13,000 and $35,000 respectively.

Bridges

The work required on bridges is summarized below. Specific comments on each bridge can be found in supplemental report on the inspection and rehabilitation of bridges.

DELAWARE COUNTY

- MP 66 to MP 67-Grand Gorge
  - UG Bridge 66.69

- Repair bridge seat with concrete	$ 410
- point 15 sq. ft. @ $2/sq. ft.	30
- 37 bridge ties @ $32/tie	1,184
- 78 linear ft. spacer bar @ $3.25/linear ft.	254
	$1,878

- MP 67 to MP 68-West of Grand Gorge
  - UG Bridge 67.74

- repair bridge seat 3 cu. yrd. @ $130/cu. yrd.	$ 910
- point 200 sq. ft. @ $2/sq. ft.	400
- 43 bridge ties @ $32/tie	1,376
- 92 linear ft. spacer bar @ $3.25/linear ft.	299
	$2,985
	$6,155

- MP 68 to MP 69-West of Grand Gorge
  - UG Bridge 68.01
    - repair abutment 18 cu. yrd. @ $260/cu. yrd. $4,680
    - point 50 sq. ft. @ $2/sq. ft. 100
    - 2 bearing blocks @ $356 each 712
    - 42 bridge ties @ $32/tie 1,344
    - 94 linear ft. spacer bar @ $3.25/linear ft. 306

      $7,142

SCHOHARIE COUNTY

- MP 69 to MP 70-East of South Gilboa
  - UG Bridge 69.85
    - 2 bridge seats with concrete @ $410 each $ 810
    - point 200 sq. ft. @ $2 sq. ft. 400
    - 30 bridge ties @ $32/tie 960
    - 70 linear ft. spacer bar @ $3.25/linear ft. 228

      $2,398
- MP 70 to MP 71-South Gilboa
  - UG Bridge 70.05
    - backwall - 3 cu. yrd. concrete @ $130/cu. yrd. $ 390
    - point 200 sq. ft. @ $2/sq. ft. 400
    - 44 bridge ties @ $32/tie 1,408
    - 100 linear ft. spacer bar @ $3.25/linear ft. 325

      $2,525
  - UG Bridge 70.19
    - 2 bridge seats with concrete @ $410 each $ 820
    - point 400 sq. ft. @ $2/sq. ft. 800
    - 31 bridge ties @ $32/tie 992
    - 70 linear ft. spacer bar @ $3.25/linear ft. 228

      $2,840

      $5,365

- MP 71 to MP 72-South Gilboa
  - UG Bridge 71.94
    - repair top with timber stringers $3,072

DELAWARE COUNTY

- MP 73 to MP 74-Stamford
  - UG Bridge 74.24

- point 40 sq. ft. @ $2/sq. ft.	$ 80
- 37 bridge ties @ $32/tie	1,184
- 76 linear ft. spacer bar @ $3.25/linear ft.	250
	$1,514

- MP 74 to MP 75-Stamford
  - UG Bridge 74.38

- remove bridge	$3,000
- 1-48" culvert 30' @ $75/ft.	2,250
	$5,250

- MP 75 to MP 76-West of Stamford
  - UG Bridge 75.99

- 4 cu. yrd. concrete @ $260/cu. yrd.	$1,040
- point 100 sq. ft. @ $2/sq. ft.	200
- 11 bridge ties @ $32/tie	352
- 10 linear ft. spacer bar @ $3.25/linear ft.	62
	$1,654

- MP 77 to MP 78-Hobart
  - UG Bridge 77.33

- bridge seats 24 cu. yrd. @ $60/cu. yrd.	$1,440
- backwall 6 cu. yrd. @ $230/cu. yrd.	1,380
- 41 bridge ties @ $32/tie	1,312
- 100 linear ft. spacer bar @ $3.25/linear ft.	325
	$4,457

- MP 78 to MP 79-Hobart
  - UG Bridge 78.19
    - point 600 sq. ft. @ $2/sq. ft. $1,200
    - grout 45 sq. ft. @ $10.80 sq. ft. 486
    - 66 bridge ties @ $32/tie 2,112
    - 158 linear ft. spacer bar @ $3.25 linear ft. 514
    - 2 tons rip-rap in place 1,000

      $5,312
- MP 79 to MP 80-East of South Kortright
  - UG Bridge 79.66
    - point 150 sq. ft. @ $2/sq. ft. $ 300
    - erosion control 150 sq. ft. @ $2.86/sq. ft. 430

      $ 730
- MP 83 to MP 84-West of South Kortright
  - UG Bridge 83.13
    - 18 bridge ties @ $32/tie $ 576
    - 40 linear ft. spacer bar @ $3.25/linear ft. 130

      $ 706
  - UG Bridge 83.51
    - point 210 sq. ft. @ $2/sq. ft. $ 420
    - 72 bridge ties @ $32/tie 2,304
    - 170 linear ft. spacer bar @ $3.25/linear ft. 553

      $3,249

      $7,232
- MP 84 to MP 85-East of Bloomville
  - UG Bridge 84.16
    - 73 bridge ties @ $32/tie $2,336
    - 170 linear ft. spacer bar @ $3.25/linear ft. 553

      $2,889

- MP 96 to MP 97-East Meredith
  - UG Bridge 96.6±
    - 50 bridge ties @ $32/tie — $1,600
    - 116 linear ft. spacer bar @ $3.25/linear ft. — 377
  - UG Bridge 96.8±
    - 66 bridge ties @ $32/tie — $2,112
    - 150 linear ft. spacer bar @ $3.25/linear ft. — 488
  - $2,600
  - $4,577
- MP 97 to MP 98-East Meredith
  - UG Bridge 97.1±
    - 54 bridge ties @ $32/tie — $1,728
    - 124 linear ft. spacer bar @ $3.25/linear ft. — 403
  - $2,131
- MP 99 to MP 100-West of East Meredith
  - UG Bridge 99.1±
    - 78 bridge ties @ $32/tie — $2,496
    - 182 linear ft. spacer bar @ $3.25/linear ft. — 592
  - $3,088
- Davenport Center
  - UG Bridge (No. unknown) Charlotte Creek
    - point 150 sq. ft. @ $2/sq. ft. — $ 300
    - 1 cu. yrd. concrete — 130
    - 2 roller nests @ $3,000 each — 6,000
    - 137 bridge ties @ $32/tie — 4,384
    - 320 linear ft. spacer bar @ $3.25/linear ft. — 1,040
  - $11,854

- MP 99 to MP 100-East of Oneonta (continued)
  - UG Bridge (No. unknown) Mickle Bridge
    - 2 roller nests @ $3,000 each $6,000
    - 111 bridge ties @ $32/tie 3,552
    - 260 linear ft. spacer bar @ $3.25/linear ft. 845

$10,397

$25,339

SPECIAL PROJECTS

This section outlines the construction requirements and costs for those items which fall outside of normal track rehabilitation and/or require the restoration of or construction of a right-of-way which is ready to receive a track structure.

These special projects include:

- Conrail Connection, Kingston, NY - MP 3
- Pheonica Washout - MP 28.2
- Shandaken Washout - MP 31.5
- Hubbell Corners Right-of-Way - MP 60.5
- Roses Brook Washout - MP 83.2
- Davenport Center Right-of-Way
- Delaware & Hudson Connection, Oneonta, NY

It is assumed that these special projects will be completed before normal track rehabilitation or track construction will take place, except that the D&H Connection, Oneonta, NY can be completed last after other track construction work is completed.

Conrail Connection, Kingston, New York - MP 3

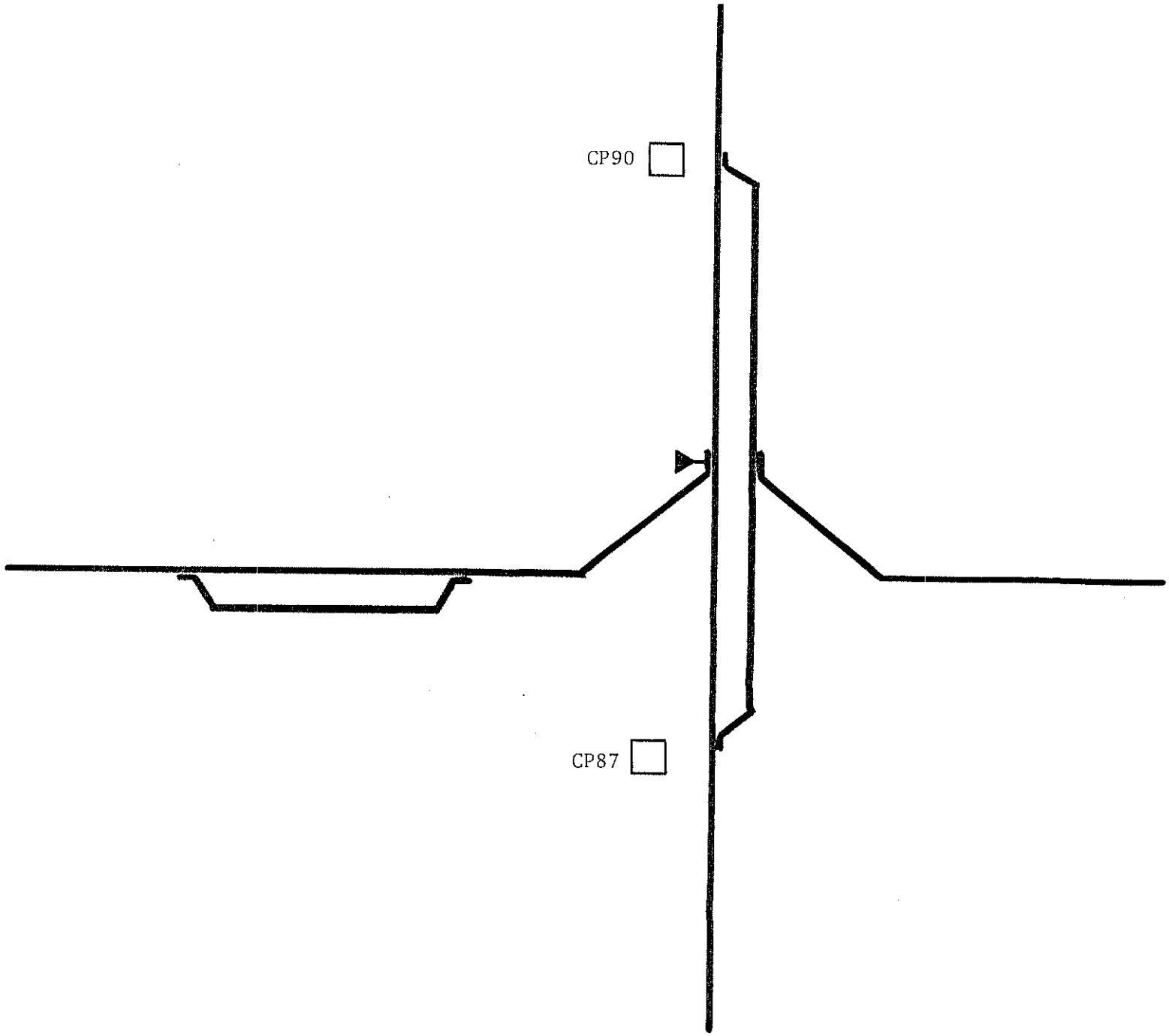
There are two alternatives for connection of the U&D to Conrail at Kingston, New York. The simplest connection would be to install a turnout in the Conrail main track and provide a siding to permit the running around of a cut of cars to facilitate interchange. The Conrail signal rules in effect would require as a minimum the protection of the connection turnout with an electric lock. This configuration is shown in Exhibit V-3.

The right-of-way is intact for this alternative.

The estimated cost to install this connection is $52,500. It is assumed that Conrail personnel will perform all the work required to install this crossing to a point just west of the grade crossing.

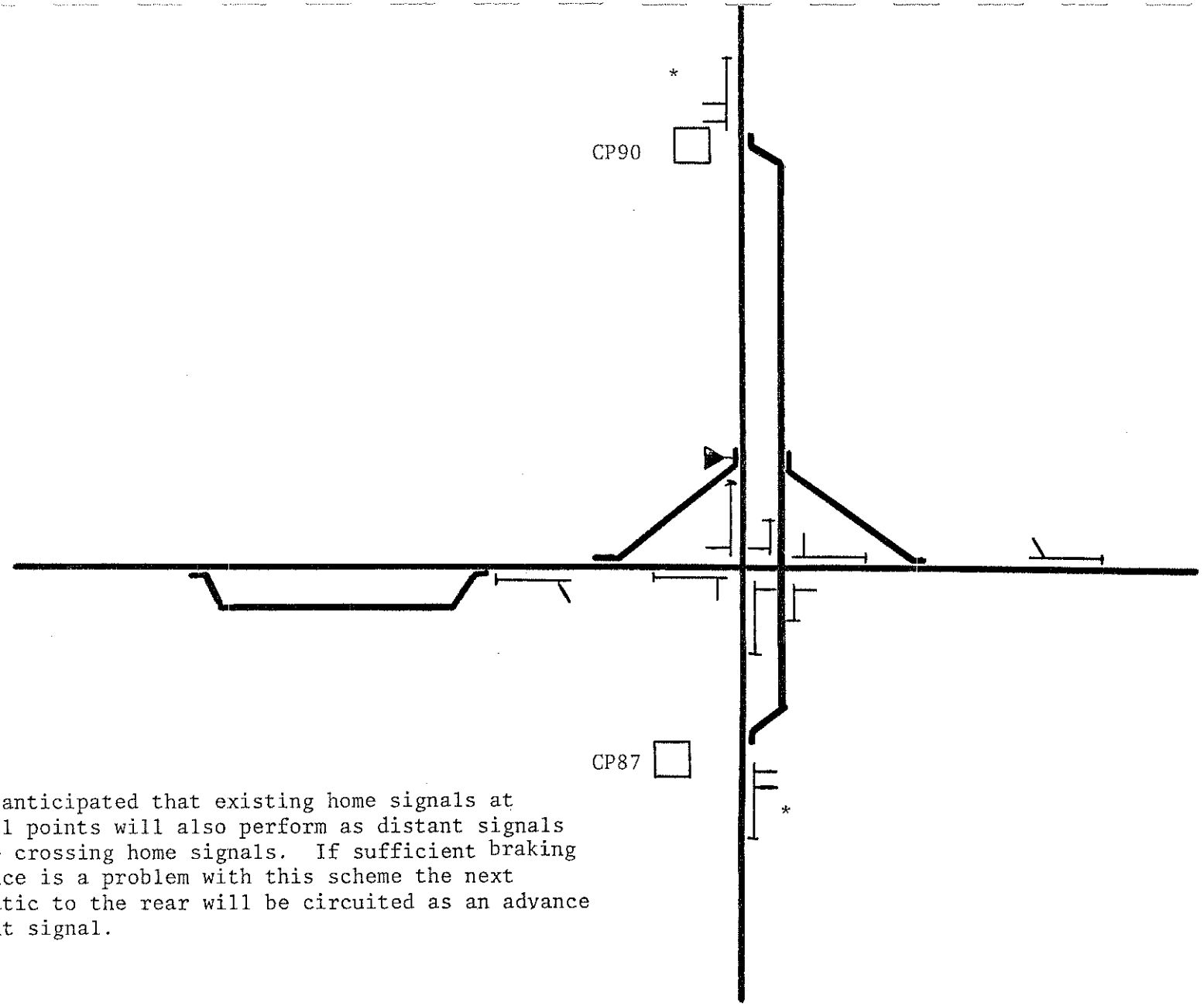
A more complicated connection will be required to permit trains to run through from the U&D to Kingston (uptown) and Kingston Point. This configuration is shown in Exhibit V-4 and is essentially the same type connection that existed in the later days of the U&D.

The right-of-way is intact for this alternative, however, between the Conrail main line and the point where a connection will be made to the eastern portion of the branch, portions of a parking lot and some electric utility poles will require relocation.



CONRAIL CONNECTION, KINGSTON, NY

EXHIBIT V-3



* It is anticipated that existing home signals at control points will also perform as distant signals to the crossing home signals. If sufficient braking distance is a problem with this scheme the next automatic to the rear will be circuited as an advance distant signal.

CONRAIL CONNECTION, KINGSTON, NY

EXHIBIT V-4

The estimated incremental cost to install this connection is $379,240 and when combined with the cost of the first alternative, totals $431,740. These costs do not include land acquisition costs nor the cost to relocate any facilities on the land to be acquired.

Pheonica Washout - MP 28.2

Approximately 400 square feet of right-of-way and all track has washed out at this location.

The estimated cost to correct this situation is $45,800. This cost includes the reinstallation of rail on new ties with new bolts and bars but no ballast applied.

Shandaken Washout - MP 31.5

Approximately 200 feet of bank has severly eroded making passage over the existing track structure impossible.

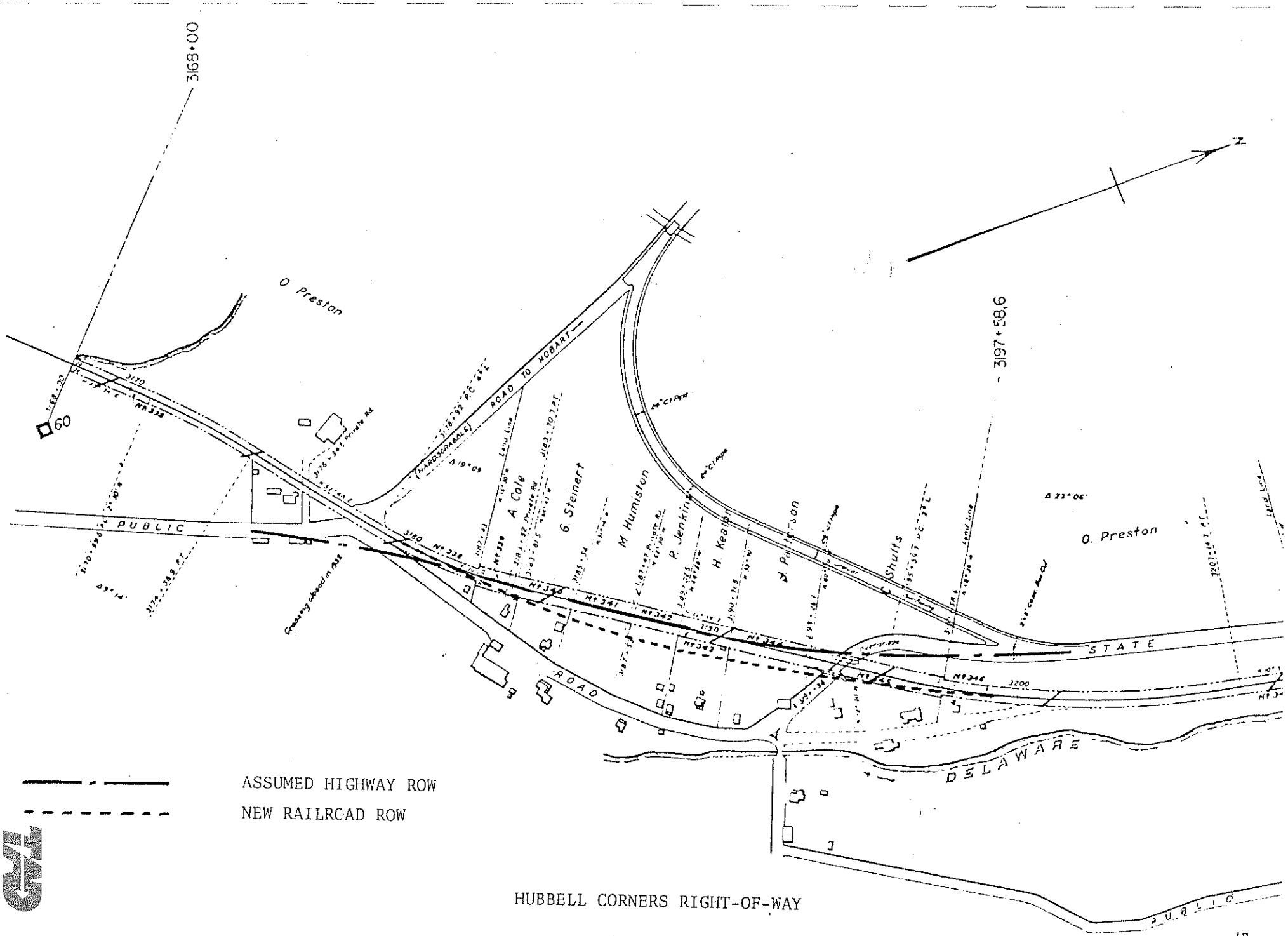
The estimated cost to correct this situation is $2,463 not including rehabilitation of the track structure.

Hubbell Corners Right-of-Way - MP 60.5

The elimination of the overhead bridge and the realignment of SR 30 adjacent to Hubbell Corners presents an obstacle to the original right-of-way. This realignment from a topographic map, valuation plan, and ground reconnaissance appears to have taken the railroad right-of-way for the highway right-of-way for about 1,400 feet. Based on this, Exhibit V-5 illustrates the assumed center line of SR 30 and the proposed center line of rail right-of-way. A topographic map illustrating the previous alignment is also provided in Exhibit V-6.

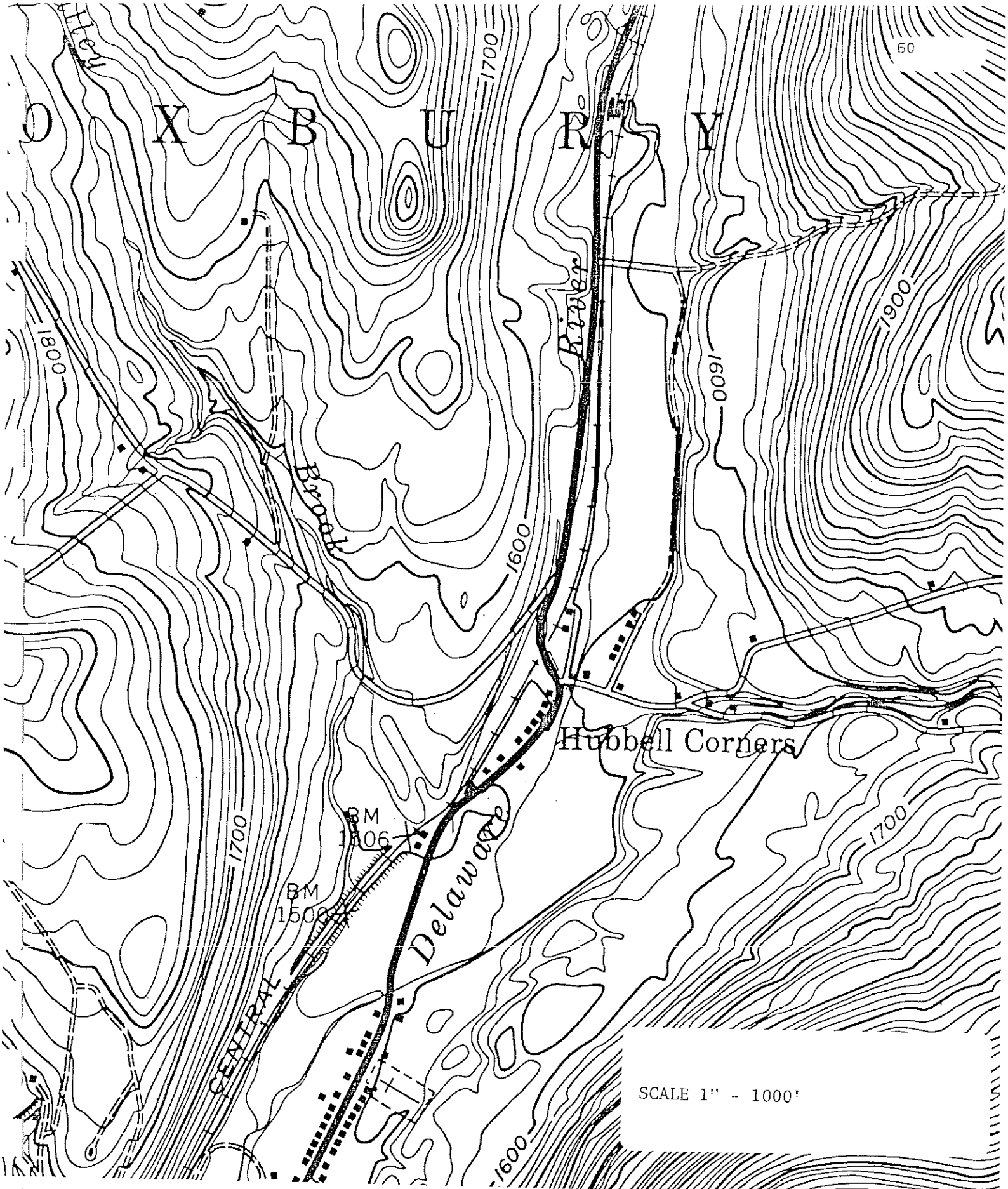
The elimination of this situation will require the grading of a new right-of-way adjacent to SR 30 from approximately station 3182+43 to 3197+58.6 and the modification of the profile of the existing right-of-way from station 3197+58.6 to approximately station 3297+00 to provide a sufficient run-off to met the required grade line at station 3197+58.6.

The construction of three grade crossings will be required at this location. One approximate 100 ft. crossing with SR 30 and two 20 ft. each crossings with side roads from SR 30 to Hubbell Corners proper. Inasmuch as the SR 30 crossing was previously grade-separated, it is assumed that flashers



HUBBELL CORNERS RIGHT-OF-WAY

EXHIBIT V-5



HUBBELL CORNERS

EXHIBIT V-6

will be the minimum protection allowed while the two side roads will be protected by signs only.

The estimated cost to install 1,500 feet of new right-of-way and regrade 1,000 feet of right-of-way including installation of sub-ballast and install three grade crossings is $242,800. This cost includes removal of track structure from station 3197+58.6 to 3297+00 to permit regrading and reinstallation of the rail on new ties with ballast, new bolts and bars from station 3180 to 3297. This cost does not include property acquisition required for any new rail right-of-way.

Roses Brook Washout - MP 83.2

Approximately 400 feet west of MP 83; vicinity Creamery Road, Stamford Township; Roses Creek has washed out the entire right-of-way for a distance of 100-200 feet, as illustrated in Exhibit V-7. Roses Brook has also caused some minor bank erosion west of washout between Station 4390+00 and 4400+00. The apparent meandering nature of this brook leads us to recommend a permanent solution by relocating the creek bed along a line from the point of washout, northwest parallel to the Sackrider, et al - Nesbitt property boundary, to confluence with the Delaware River about 2,200 feet upstream from the present confluence. This alternative will require installation of four 36" culverts regrading and compaction of the right-of-way and installation of sub-ballast. The estimated cost to correct this situation is $9,809.

This cost does not include the cost to relocate Roses Brook, or install the track structure.

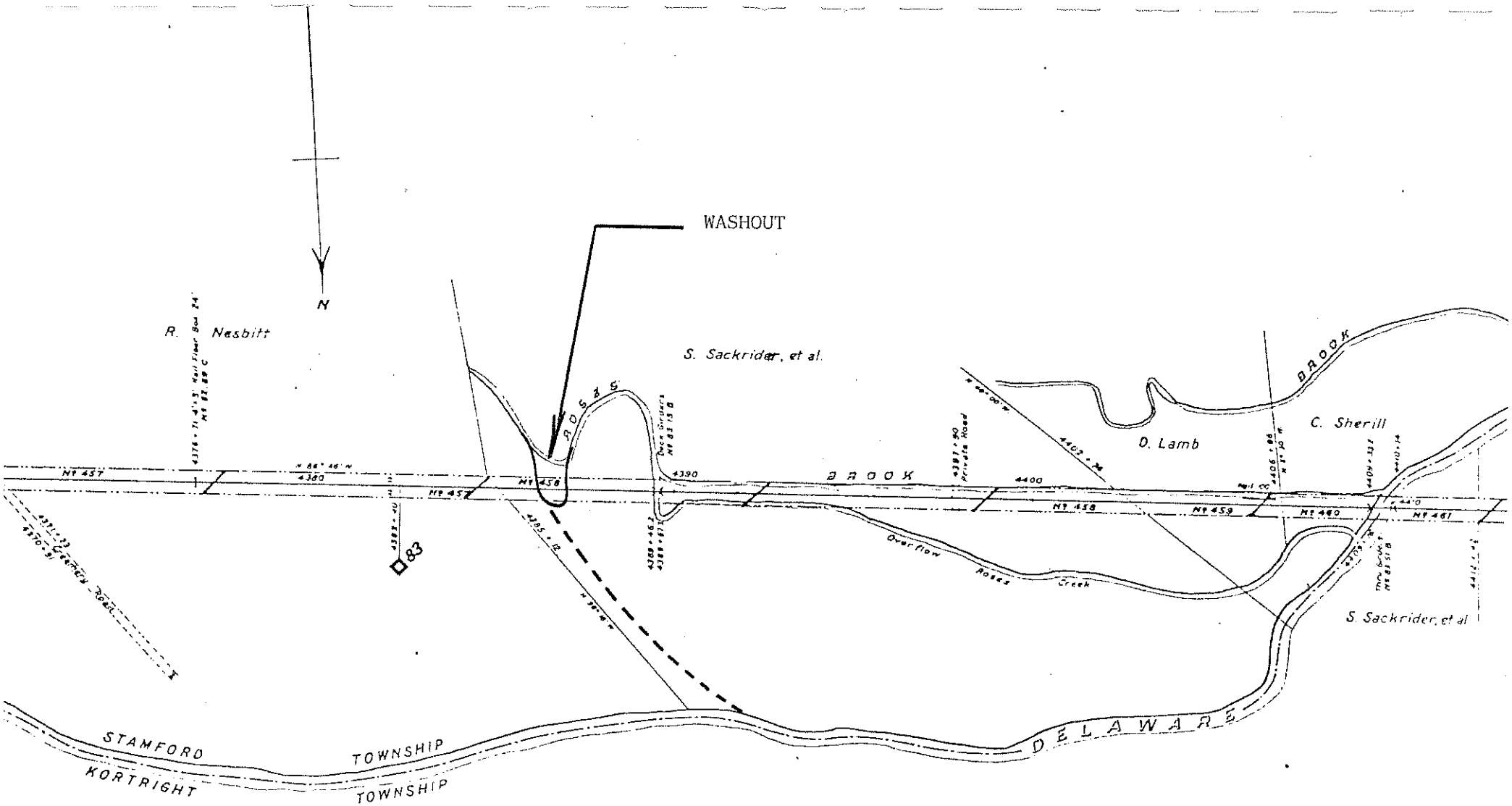
Davenport Center Right-of-Way

The realignment of SR 23 through Davenport Center presents an obstacle to the original right-of-way. This realignment replaces a bridge over the right-of-way with an earth fill to the east of the former crossing and a lesser elevation than the former crossing presenting overhead clearance problems to reuse of the railroad right-of-way.

There are four possible alternative solutions to this situation, illustrated in Exhibit V-8.

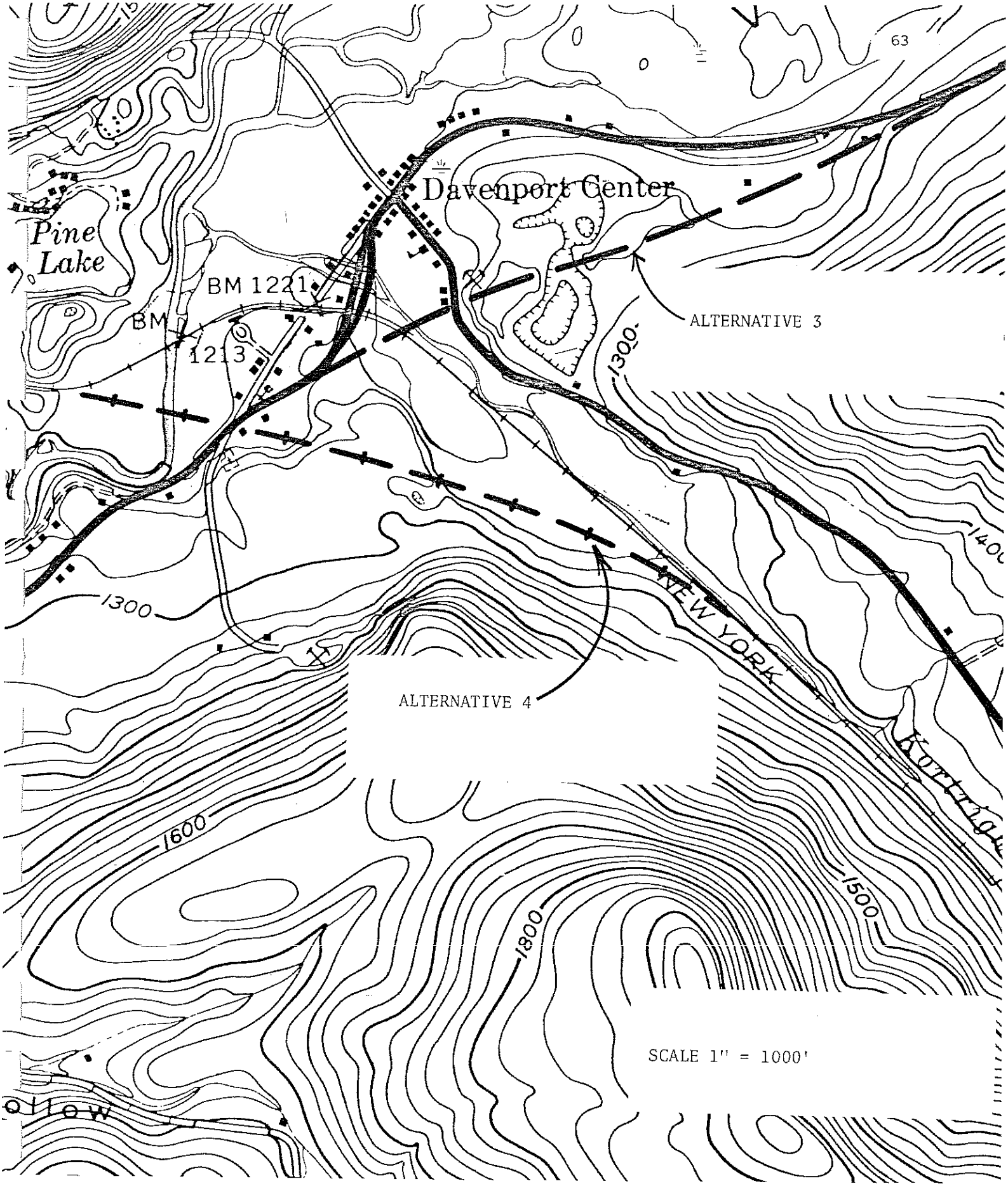
1. Install an overhead bridge over the existing right-of-way at a proper clearance point and raise the profile of the existing highway.

2. Install an overhead bridge over the existing right-of-way on the existing highway profile and lower the right-of-way profile under the bridge.



ROSES BROOK WASHOUT

EXHIBIT V-7



DAVENPORT CENTER ALTERNATIVES

EXIBIT V-8

3. Completely relocate the highway around Davenport Center, close the present road, and reopen the right-of-way.

4. Completely relocate the right-of-way around Davenport Center.

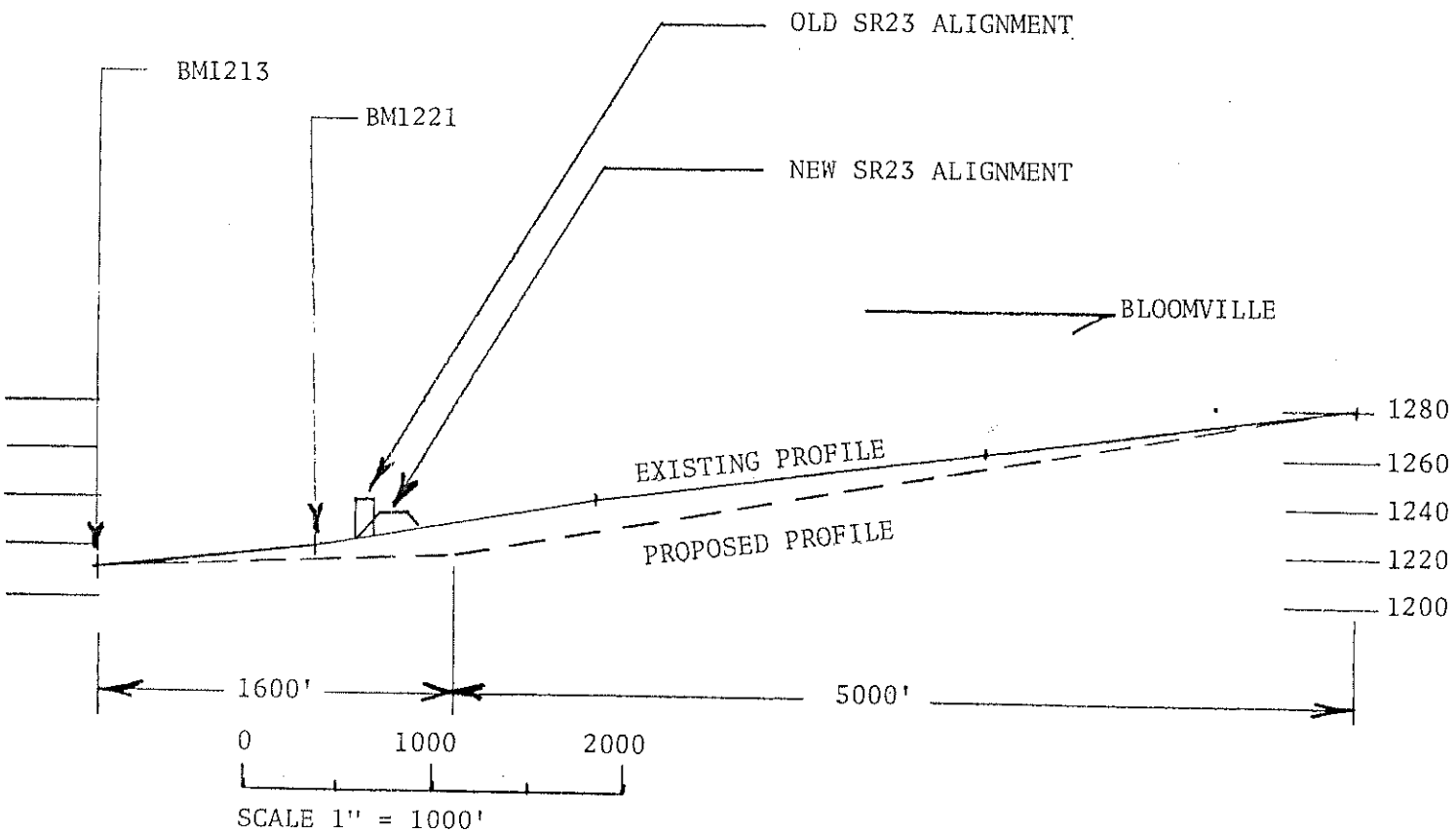
Alternatives 1 and 2 keep the same basic alignment of both the rail and the highway rights-of-way and require the construction of an overhead bridge at the crossing point. The cost to construct an overhead structure is equal for both alternatives. The basic modification required by both these alternatives is changing of the profile of one of the rights-of-way.

The change required in either profile will most likely be approximately ten feet. However, this to some extent will depend on the depth of the overhead bridge superstructure.

A general profile of the rail right-of-way developed from a topographic map reconnaisance is shown in Exhibit V-9. A lowering of the rail right-of-way ten feet would required undercutting to the west of the crossing site approximately 1,600 feet to the east pier of the Charlotte Creek bridge vicinity BM 1213, and to the east approximately 5,000 feet in order to maintain a 1.2% grade.

Because of the proximity of Kortright Creek parallel to the rail right-of-way and the appearance of flood plain characteristics adjacent to the right-of-way, the reduction of the rail right-of-way could present serious potential drainage problems from subsurface water and creek flooding during periods of heavy rain and spring thawing. In order to minimize potential flooding problems, it is anticipated that drainage structures will be required for this alternative. The estimated cost for lowering track and construction of a drainage network and pump station is $208,000. This does not include any contingency costs for overcoming hidden obstructions and does not include ballast, track structure, or the highway bridge over the right-of-way at the crossing site.

Alternative 1 proposes to provide sufficient clearance by changing the profile of the highway. The only potential problem associated with this alternative is a possible excessive vertical curve somewhere between the crossing site and the junction with the previous alignment just southwest of the junction with CR 11. The estimated cost to restore the rail right-of-way for Alternative 1 is $108,200. This does not include ballast, track structure, or the highway bridge over the right-of-way at the crossing site.



TRACK LOWERING PROFILE

EXHIBIT V-9

Alternatives 3 and 4 were developed for information only. The cost for each of these alternatives would greatly exceed those for alternatives 1 and 2 and would require the acquisition of land and significant earthwork.

Delaware & Hudson Connection, Oneonta, New York

The connection proposed with the D&H is simple in configuration but requires the acquisition and construction of a new right-of-way including a new crossing of the Susquehanna River. The proposed right-of-way will leave the existing right-of-way west of Mickle Bridge and generally parallel Charlotte Creek crossing the Susquehanna River just west its confluence with Charlotte Creek. A preliminary alignment is shown in Exhibit V-10.

The configuration of the connection is shown in Exhibit V-11. The installation of this connection will require installation of 11,500' track including a 3,000' siding, three turnouts, and a bridge. The estimate of costs for this connection are as follows:

Clearing, grading and construction of subgrade	$ 137,000
Track structure	765,000
Signal	18,000
Bridge	904,000
Total	$1,824,000

REHABILITATION VERSUS NORMAL MAINTENANCE

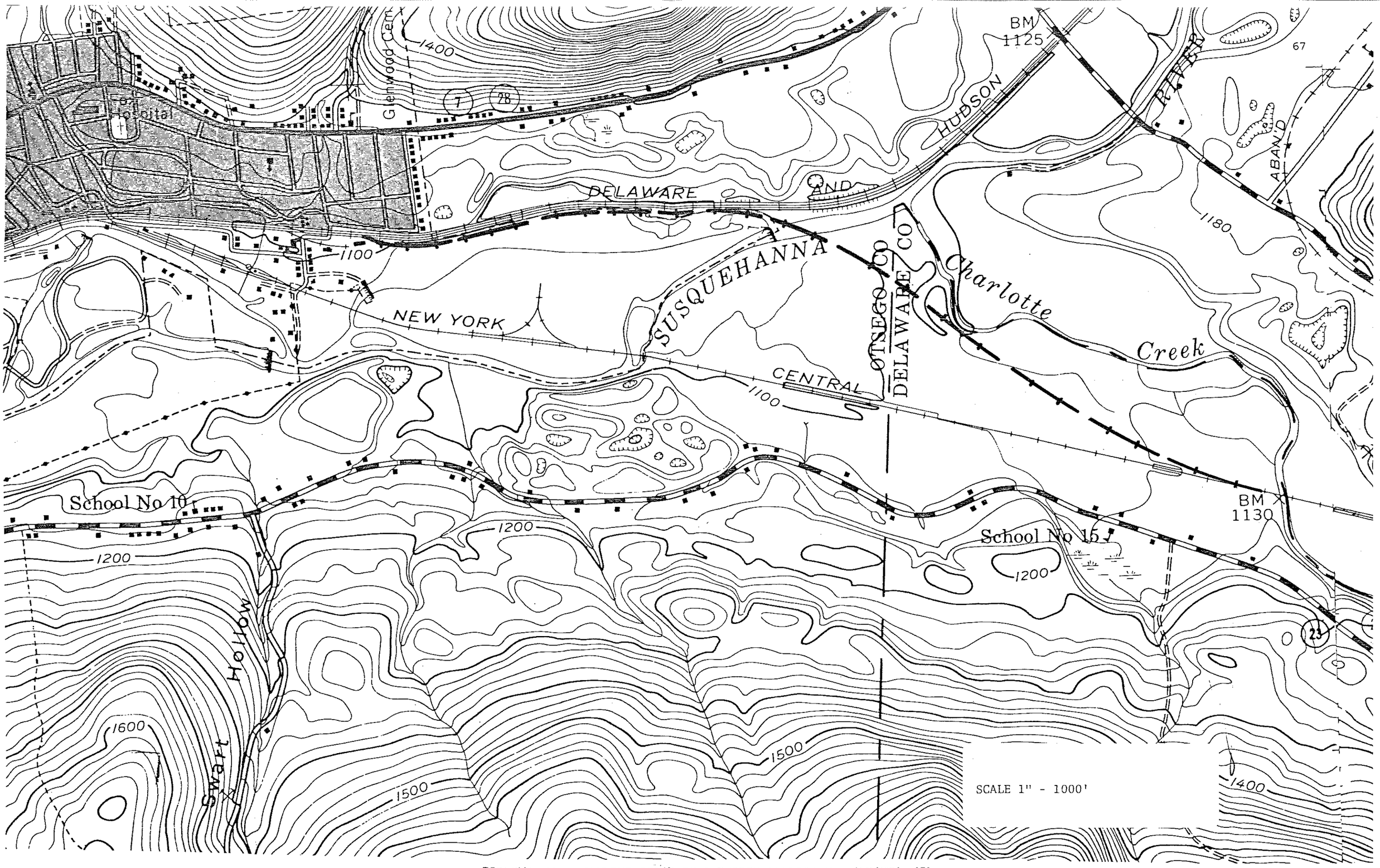
All work outlined as rehabilitation work required or special projects is that which is found to be needed now. This is to say that work which will be created in the furture as a result of operations would be under the purview of "normal maintenance" and, therefore, is not included in this work program.

OTHER WORK

At the request of the Director of the Ulster County Planning Board, the cost to construct a wye and a new passing siding for the purpose of facilitating operation of passenger trains is estimated in this section.

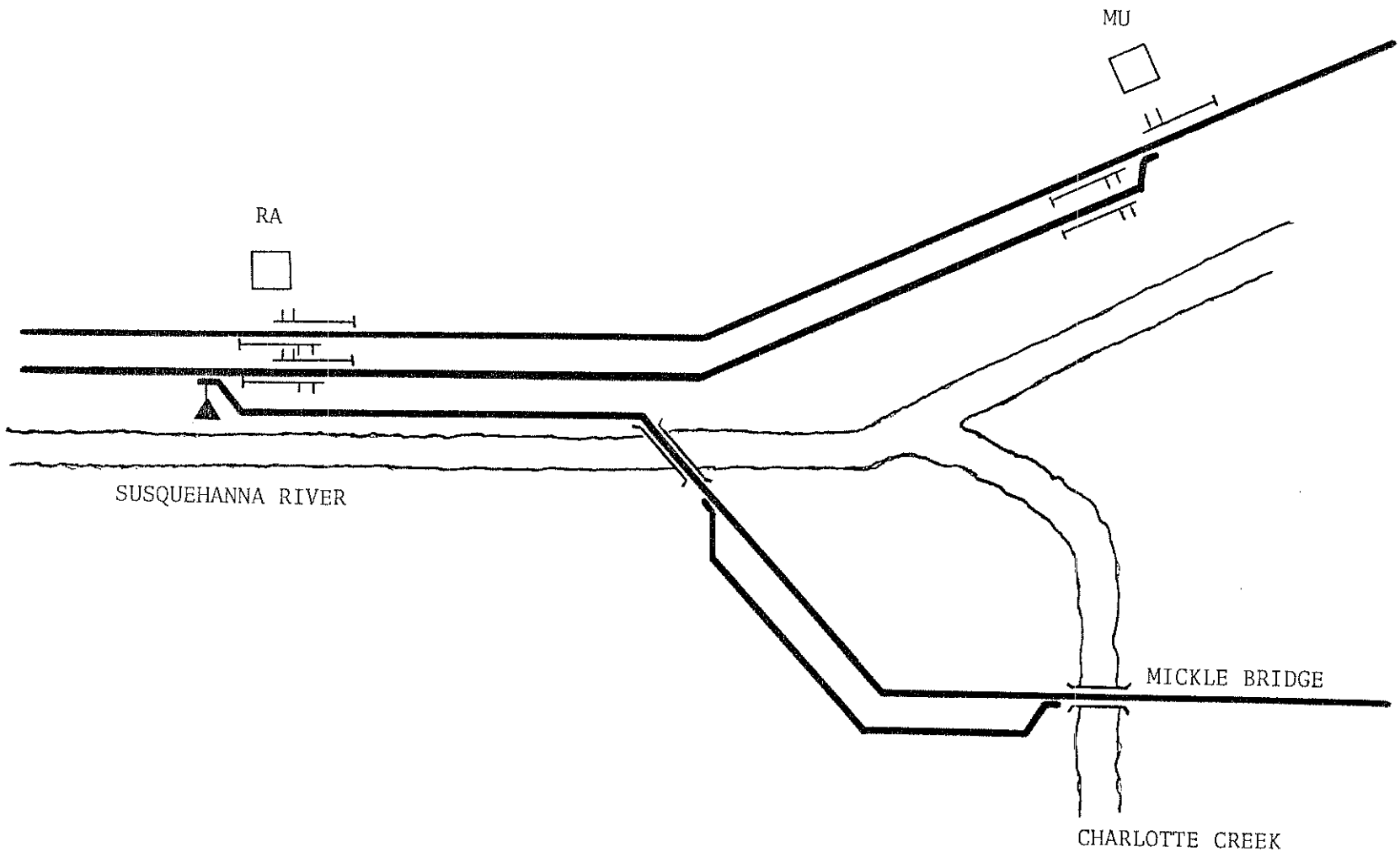
Hurley Flats Wye - MP 5.5

A new wye facility with a 1,500' tail at this location is estimated to cost $318,000.



PRELIMINARY ALIGNMENT DELAWARE & HUDSON CONNECTION, ONEONTA, NY

EXHIBIT V-10



PROPOSED CONFIGURATION DELAWARE & HUDSON CONNECTION ONEONTA, NY

EXHIBIT V-11

Ashokan Passing Siding - MP 16

A new 1,500' siding at this location is estimated to cost $129,000.

Shandaken Passing Siding - MP 32

The renewal of the existing siding to provide a 1,500' siding is estimated to cost $51,000.

REHABILITATION COST SUMMARY

A mile by mile cost for rehabilitation between Kingston and Grand Gorge is shown in Exhibit V-12, and the cost for construction of a new track structure and rehabilitation of existing right-of-way and bridges between Grand Gorge and Oneonta is shown in Exhibit V-13, and both are summarized below.

ULSTER COUNTY	
Kingston (MP 3) to Grand Hotel Station (MP 41.6+)	$ 5,807,275
DELAWARE COUNTY-Including Schoharie County	
Grand Hotel Station (MP 41.6+) to Bloomville (MP 86.5+)	$ 8,860,906
Bloomville to Oneonta	$ 6,782,690
Total	$15,643,596
Grand Total	$21,450,871

In order to provide a more accurate estimate it is recommended that 6% ($1,287,000) be added for detail engineering including necessary surveying and engineering management and 10% ($2,145,000) be added for contingencies making a grand total, including additives, of $24,882,871.

REHABILITATION COST SUMMARY

COUNTY	ULSTER									
LOCATION	KINGSTON					STONYHOLLOW		WEST HURLEY		
MILEPOST	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13
Vegetation Control	194	194	194	194	194	194	194	194	194	194
Erosion Repair	-	-	-	-	-	-	-	-	-	-
Ditching	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400
Culverts	1,200	-	-	-	-	-	-	-	1,200	-
Ties/Anchors/Plates	71,780	69,980	69,980	73,280	76,880	76,880	76,880	78,380	78,380	78,380
Rail Replacement	250	250	250	250	250	250	250	250	250	250
Bar/Bolt Renewal	9,600	9,600	9,600	9,600	9,600	9,600	8,980	9,600	9,600	9,600
Ballast, Raising/Lining	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Turnout Renewal	3,830	4,980	-	-	-	-	-	1,160	-	-
Siding Renewal	20,064	-	-	-	-	-	-	-	-	-
Public Crossings	5	2	1	-	-	-	-	-	-	-
Road Renewal	39,625	27,500	7,500	-	-	-	-	-	-	-
Protection - Signs	-	-	-	-	-	-	-	-	-	-
- Flashers	193,200	48,300	-	-	-	-	-	-	-	-
- F/Gates	-	75,900	75,900	-	-	-	-	-	-	-
Private Crossings	2	5	-	1	-	-	-	-	-	-
Road Renewal	700	1,750	-	350	-	-	-	-	-	-
Bridge Repair	-	6,960	-	-	-	-	-	260	-	-
Special Projects	431,740[1]	-	-	-	-	-	-	-	-	-
Other Work	-	-	318,000[2]	-	-	-	-	-	-	-
Total	787,983	261,214	497,224	99,474	102,724	102,724	102,104	105,644	105,424	104,224
County Total (000)	787.9	1,049.2	1.546.4	1,645.9	1,748.6	1,851.3	1,953.4	2,059.1	2,164.5	2,268.7

[1] Conrail Connection (see page 55)
[2] Hurley Flats Wye (see page 66)

EXHIBIT V-12

REHABILITATION COST SUMMARY

COUNTY	ULSTER									
LOCATION	GLENFORD	ASHOKAN							COLD BROOK	
MILEPOST	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23
Vegetation Control	194	194	194	194	194	194	194	194	194	194
Erosion Repair	-	-	-	-	-	-	-	12,250	24,500	-
Ditching	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400
Culverts	-	1,200	600	-	600	600	1,200	600	600	-
Ties/Anchors/Plates	74,180	74,180	74,180	82,580	82,580	82,580	82,580	82,580	82,580	78,380
Rail Replacement	250	250	250	250	250	250	250	250	250	250
Bar/Bolt Renewal	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600
Ballast, Raising/Lining	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Turnout Renewal	-	-	-	-	-	-	-	-	-	-
Siding Renewal	-	-	-	-	-	-	-	-	-	-
Public Crossings	-	-	-	-	-	-	-	-	-	1
Road Renewal	-	-	-	-	-	-	-	-	-	5 000
Protection - Signs	-	-	-	-	-	-	-	-	-	250
- Flashers	-	-	-	-	-	-	-	-	-	-
- F/Gates	-	-	-	-	-	-	-	-	-	-
Private Crossings	-	-	-	-	-	-	-	-	-	-
Road Renewal	-	-	-	-	-	-	-	-	-	-
Bridge Repair	-	-	-	500	-	2,800	-	-	14,189	2,375
Special Projects	-	-	-	-	-	-	-	-	-	-
Other Work	-	-	129,000[3]	-	-	-	-	-	-	-
Total	100,024	101,224	229,624	108,924	109,024	111,824	109,624	121,274	147,713	111,849
County Total (000)	2,368.9	2,470.2	2,699.8	2,808.7	2,917.7	3,029.6	3,139.2	3,260.5	3,408.2	3,520.0

[3] Ashokan Passing Siding (see page 69)

EXHIBIT V-12

REHABILITATION COST SUMMARY

COUNTY	ULSTER									
LOCATION	MT. PLEASANT				PHEONICA					SHANDAKEN
MILEPOST	23-24	24-25	25-26	26-27	27-28	28-29	29-30	30-31	31-32	32-33
Vegetation Control	194	194	194	194	194	194	194	194	194	194
Erosion Repair	-	-	-	-	4,900	-	12,250	-	-	-
Ditching	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400
Culverts	-	4,800	-	-	-	-	-	2,250	-	-
Ties/Anchors/Plates	78,380	78,380	78,380	69,980	74,180	45,530	57,980	57,980	57,980	78,380
Rail Replacement	250	250	250	250	250	250	250	250	250	250
Bar/Bolt Renewal	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600
Ballast, Raising/Lining	10,400	10,400	10,400	10,400	10,400	8,000	10,400	10,400	10,400	10,400
Turnout Renewal	-	-	-	-	2,320	-	-	-	-	-
Siding Renewal	-	-	-	-	50,160	-	-	-	-	-
Public Crossings	-	1	1	-	1	1	-	-	-	1
Road Renewal	-	15,000	5,000	-	5,000	5,000	-	-	-	5,000
Protection - Signs	-	-	250	-	-	250	-	-	-	250
- Flashers	-	-	-	-	48,300	-	-	-	-	-
- F/Gates	-	75,900	-	-	-	-	-	-	-	-
Private Crossings	-	1	4	1	-	-	-	-	1	2
Road Renewal	-	350	1,400	350	-	-	-	-	350	700
Bridge Repair	-	-	918	1,086	-	7,952	-	2,504	-	6,362
Special Projects	-	-	-	-	-	45,800[4]	-	-	2,463[5]	-
Other Work	-	-	-	-	-	-	-	-	51,000[6]	-
Total	104,224	200,274	111,792	97,260	209,774	126,116	96,074	88,578	140,100	114,596
County Total (000)	3,624.2	3,824.5	3,936.3	4,033.6	4,243.3	4,369.5	4,465.5	4,554.1	4,694.2	4,808.8

[4] Pheonica Washout (see page 58)
[5] Shandaken Washout (see page 58)
[6] Shandaken Siding (see page 69)

EXHIBIT V-12

REHABILITATION COST SUMMARY

COUNTY	ULSTER									DELAWARE
LOCATION	BIG INDIAN						PINE HILL		GRAND HOTEL	STATION
MILEPOST	33-34	34-35	35-36	36-37	37-38	38-39	39-40	40-41	41-42	42-43
Vegetation Control	194	194	194	194	194	194	194	194	194	194
Erosion Repair	-	-	-	-	12,250	12,250	-	-	-	5,600
Ditching	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400
Culverts	-	-	-	-	2,400	2,400	-	-	600	-
Ties/Anchors/Plates	78,380	78,380	79,580	61,280	61,280	61,280	61,280	74,180	68,780	63,080
Rail Replacement	250	250	250	250	250	250	250	250	250	250
Bar/Bolt Renewal	6,810	8,980	8,050	7,740	6,500	6,500	6,500	6,500	6,500	6,500
Ballast, Raising/Lining	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Turnout Renewal	-	-	-	-	-	-	-	-	1,320	-
Siding Renewal	-	-	-	-	-	-	-	-	20,064	-
Public Crossings	1	-	1	3	-	1	-	-	1	-
Road Renewal	8,750	-	10,000	26,250	-	5,000	-	-	9,000	-
Protection - Signs	-	-	250	500	-	250	-	-	250	-
- Flashers	48,300	-	-	48,300	-	-	-	-	-	-
- F/Gates	-	-	-	-	-	-	-	-	-	-
Private Crossings	-	-	2	1	1	2	-	1	-	2
Road Renewal	-	-	700	350	350	700	-	350	-	700
Bridge Repair	-	-	1,258	5,233	494	2,330	3,491	-	-	-
Special Projects	-	-	-	-	-	-	-	-	-	-
Other Work	-	-	-	-	-	-	-	-	-	-
Total	158,484	103,604	116,082	165,897	99,518	106,954	87,515	84,374	122,758*	92,124
County Total (000)	4,967.3	5,070.9	5,187.0	5,352.9	5,452.4	5,559.4	6,646.9	5,731.2	U-5,807.3 D-46.7	138.8

*All costs evenly split between Ulster and Delaware Counties except siding renewal and public crossing fully allocated to Ulster County.

EXHIBIT V-12

REHABILITATION COST SUMMARY

COUNTY	DELAWARE									
LOCATION	FLEISCHMANNS				ARKVILLE		KELLY'S CORNERS			
MILEPOST	43-44	44-45	45-46	46-47	47-48	48-49	49-50	50-51	51-52	52-53
Vegetation Control	194	194	194	194	194	194	194	194	194	194
Erosion Repair	5,600	-	5,600	5,600	3,500	12,250	-	-	-	5,600
Ditching	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400
Culverts	1,800	-	600	-	1,200	4,200	-	-	2,400	3,600
Ties/Anchors/Plates	63,080	65,780	65,780	65,780	65,780	69,980	69,980	69,980	69,980	69,980
Rail Replacement	250	250	250	250	250	250	250	250	250	250
Bar/Bolt Renewal	6,200	9,600	9,600	9,600	8,050	6,500	9,290	9,600	9,600	8,220
Ballast, Raising/Lining	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400	10,400
Turnout Renewal	-	1,510	-	-	-	5,690	-	-	-	-
Siding Renewal	-	10,032	-	-	-	50,160	-	-	-	-
Public Crossings	-	-	-	-	-	1	1	1	1	-
Road Renewal	-	-	-	-	-	11,250	5,000	23,125	3,000	-
Protection - Signs	-	-	-	-	-	-	-	-	250	-
- Flashers	-	-	-	-	-	48,300	48,300	48,300	-	-
- F/Gates	-	-	-	-	-	-	-	-	-	-
Private Crossings	1	1	-	2	-	4	-	-	2	4
Road Renewal	350	350	-	700	-	1,400	-	-	700	1,400
Bridge Repair	-	5,038	-	-	24,226	792	-	-	6,830	3,446
Special Projects	-	-	-	-	-	-	-	-	-	-
Other Work	-	-	-	-	-	-	-	-	-	-
Total	93,274	108,554	97,824	97,924	119,000	226,766	148,814	167,249	109,004	108,490
County Total (000)	232.1	340.7	438.5	536.4	655.4	882.2	1,031.0	1,198.3	1,307.3	1,415.7

EXHIBIT V-12

REHABILITATION COST SUMMARY

COUNTY	DELAWARE									
LOCATION	HALCOTTVILLE				ROXBURY					
MILEPOST	53-54	54-55	55-56	56-57	57-58	58-59	59-60	60-61	61-62	62-63
Vegetation Control	194	194	194	194	194	194	194	194	194	194
Erosion Repair	14,000	-	-	-	-	-	10,500	-	-	-
Ditching	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400
Culverts	-	-	-	-	4,350	-	-	-	-	1,800
Ties/Anchors/Plates	73,280	73,280	73,280	73,280	73,280	73,280	75,080	40,530	75,080	75,080
Rail Replacement	250	250	250	250	250	250	250	250	250	250
Bar/Bolt Renewal	6,500	9,600	9,600	9,600	9,600	9,600	9,290	2,400	9,600	9,600
Ballast, Raising/Lining	10,400	10,400	10,400	10,400	10,400	10,400	10,400	2,600	10,400	10,400
Turnout Renewal	-	-	-	-	-	-	5,520	-	-	-
Siding Renewal	-	-	-	-	-	-	30,096	-	-	-
Public Crossings	2	1	1	-	1	1	-	See	1	1
Road Renewal	7,500	3,750	6,125	-	4,000	3,250	-	Special	3,375	3,750
Protection - Signs	500	250	250	-	250	250	-	Projects	250	250
- Flashers	-	-	-	-	-	-	-	-	-	-
- F/Gates	-	-	-	-	-	-	-	-	-	-
Private Crossings	2	-	3	1	2	3	2	-	2	2
Road Renewal	700	-	1,050	350	700	1,050	700	-	700	700
Bridge Repair	-	-	-	2,729	8,800	-	4,902	-	-	424
Special Projects	-	-	-	-	-	-	-	242,800[7]	-	-
Other Work	-	-	-	-	-	-	-	-	-	-
Total	118,724	103,124	106,549	102,203	117,224	103,674	152,332	294,174	105,249	107,848
County Total (000)	1,534.5	1,637.6	1,744.1	1,846.3	1,963.6	2,067.2	2,219.6	2,513.7	2,619.0	2,726.8

[7] Hubbell Corners Right-of-Way (see page 58)

EXHIBIT V-12

REHABILITATION COST SUMMARY

COUNTY	DELAWARE		
LOCATION	GRAND GORGE		
MILEPOST	63-64	64-65	
Vegetation Control	194	194	
Erosion Repair	-	-	
Ditching	5,400	5,400	
Culverts	7,800	1,200	
Ties/Anchors/Plates	75,080	75,080	
Rail Replacement	250	250	
Bar/Bolt Renewal	9,600	9,600	
Ballast, Raising/Lining	10,400	10,400	
Turnout Renewal	-	-	
Siding Renewal	-	-	
Public Crossings	-	-	
Road Renewal	-	-	
Protection - Signs	-	-	
- Flashers	-	-	
- F/Gates	-	-	
Private Crossings	-	-	
Road Renewal	-	-	
Bridge Repair	-	-	
Special Projects	-	-	
Other Work	-	-	
Total	108,724	102,124	Cumulative Total - Ulster County - $ 5,807,275
			Delaware County - 2,937,697
County Total (000)	2,835.6	2,937.7	Cumulative Total MP 3 to MP 65 - $ 8,744,969

EXHIBIT V-12

REHABILITATION COST SUMMARY

	Grand Gorge to Stamford	Stamford to Bloomville	Bloomville to Mickle Bridge	Mickle Bridge to Oneonta
Grading	75,400[1]	97,500	139,620	-
Culverts	12,000	7,800	23,700	-
Track	2,236,500	3,106,250	4,448,150	-
Public Crossings	12	14	8	none
Road	93,375	77,250	99,250	-
Protection - Signs	2,500	3,250	2,000	-
- Flashers	96,600	48,300	-	-
- F/Gates	-	-	-	-
Private Crossings	7	22	15	2
Road	2,450	7,700	5,250	700
Bridge Repairs	27,524	27,524	21,650	10,370
Special Projects	-	9,089[2]	208,000[3]	1,824,000[4]
Total	$2,546,349	$3,376,863	$4,947,620	$1,835,070
Cumulative Total	$2,546,349	$5,923,212	$10,870,832	$12,705,902

1 Includes cost of removing rail from ROW MP 65 to MP 69.5
2 Roses Brook ROW (see page 61)
3 Davenport Center ROW (see page 61)
4 D&H Connection (see page 66)

EXHIBIT V-13

EXHIBIT J

THIS LEASE is made between the COUNTY OF ULSTER, a municipal corporation, having its principal office at 240 Fair Street, Kingston, New York, herein called LESSOR or the COUNTY, and

ULSTER COUNTY INDUSTRIAL DEVELOPMENT AGENCY, having its office or principal place of business at 44 Main Street, Kingston, New York, hereinafter called LESSEE.

ULSTER COUNTY RAILROAD ADVISORY COMMITTEE

The term RAILROAD ADVISORY COMMITTEE when contained herein, shall mean that board or body created under the authority of Resolution No. 70 of March 14, 1986 and whose members have been duly appointed thereunder.

DESCRIPTION OF LEASED PREMISES

Lessor hereby leases to Lessee and lessee hereby hires from lessor, certain mileage of the Catskill Mountain Branch railroad from the east side of Downs Street to the Delaware County line for railroad purposes, subject to the terms and conditions hereinafter contained.

AUTHORIZED USES OF PROPERTY

Lessee is authorized to operate a passenger carrying tourist ride on the leased premises, and to operate freight and passenger service.

Lessee is also authorized to use the leased premises for maintenance and rehabilitation. In addition, Lessee may use the trackage between Washington Avenue and the Conrail main line as well as that portion of the railroad extending from milepost 39.7 to the Delaware County line for transport of equipment upon due regard for and coordination with others having any rights with respect to such trackage, including but not limited to, Kingston Associates, National Micronetics, Catskill Rail Committee, Conrail and their successors and assigns, and the rights of the public. Any such use shall be approved by the Railroad Advisory Committee.

The County as Lessor, makes no representations or

warranties concerning the condition of the railroad tracks, road bed or any other portions of the property, nor as to the suitability of any such property for any operations contemplated under this lease. All such operations shall be at Lessee's risk.

Customary railroad accessory uses are permitted by Lessee. These uses shall specifically include ticket sales, giftshop, snack bar and dining facilities, but only as part of train operations.

Non-railroad uses or commercial concessions shall not be permitted on the leased premises without prior written consent from the County Legislature, upon the recommendation of the Railroad Advisory Committee. Such consent shall be based upon, but not limited to, consideration of the nature of the proposed activity, the risks of liability involved, and the ability of Lessee adequately to insure against such risks.

As a condition precedent to any non-railroad use, the County may require that Lessee provide public notice and warning of the risks and hazards of the activity involved, and disclaimers of liability where appropriate, in a form and manner which is acceptable to the County Legislature.

TOURIST CAR OPERATION

Lessee agrees to operate a passenger carrying tourist ride between Mt. Pleasant and Phoenicia. No tourist car shall be operated at a speed in excess of that which is permitted by Federal regulations, based on the type of vehicle and class of track utilized, as certified by an independent, Federal Railroad Administration certified inspector, and approved by the Commissioner of Public Works, after consultation with the Railroad Advisory Committee.

The County, acting through its Commissioner of Public Works, after consultation with the Railroad Advisory Committee, reserves the right to waive any requirement of passenger car operation as set forth, and further to prohibit any such operations if the Commissioner of Public Works after consultation with the Railroad Advisory Committee, in his discretion, or the County Legislature in its discretion, determines that such operations would present an unreasonable risk of injury or harm to passengers or the general public.

Railway operations and passenger service must take place a minimum of 30 days (consecutive or non-consecutive) during the months of May through September.

Lessee shall perform on-site safety inspections of the track and equipment used for any rail service on each day of operation and prior to commencement of such operation. Documentation of such inspections shall be made available to the Commissioner of Public Works and the Railroad Advisory Committee upon request.

TERM

The premises shall be leased for a term of twenty-five (25) years to commence on the 1st day of June, 1991,and to end at twelve o'clock Noon on May 31st, 2016 ,or on such earlier date as this lease may terminate as hereinafter provided, except that if any such date falls on a Sunday or holiday, then this lease shall end at twelve o'clock Noon on the next business date.

REHABILITATION AND MAINTENANCE

The Lessee shall expend a minimum of $25,000 to rehabilitate a minimum of 1 mile of track per lease year so that the line of track from Kingston to Phoenicia is entirely rehabilitated to Class 1 condition by the end of this lease. This rehabilitation requirement may be performed in advance of any lease year. The term "Class 1 Condition" shall be such condition described by such classification under the standards of the United States Department of Transportation.

The Lessee shall perform all maintenance necessary to keep the rehabilitated track at that Class 1 standard. The Lessor shall have the right, at least once a year, to inspect the track through professional engineers selected by Lessor and paid for by Lessee to insure that the requirements of this lease are being met.

The Lessee shall, at all times, maintain the entire railroad right-of-way free from brush, papers and trash from the Conrail main line to the Delaware County line.

The Lessee may make other capital improvements to the right-of-way over and above the rehabilitation and maintenance requirement.

PERCENTAGE RENT PROVISIONS

Lessee agrees to pay Lessor at the times and in the manner specified in this agreement, rent in an amount equal to 1% (one percent) of Lessee's gross revenue for each of lease years 1-5 inclusive; 2% (two percent) of Lessee's gross revenue for each of lease years 6-10 inclusive; 3% (three percent) of Lessee's gross revenue for each of lease years 11-15 inclusive; 4% (four percent) of Lessee's gross revenue for each of lease years 16-20 inclusive; and 5% (five percent) of Lessee's gross revenue for each of lease years 21-25 inclusive.

Lessee shall make an advance payment to Lessor of $3,500 upon the execution of this lease which shall be applied to any amounts found to be due to the Lessor under the above formula. The amount of actual rent shall be determined by the Lessor based on its examination of the statements, books and papers and operations of Lessee within 90 days after the end of each lease year. If the amount so found has not been approved and certified to by an independent certified public accountant hired at the joint expense of the parties, lessee may request within 30 days the joint hiring of such a person, and in either event the determination of such person shall be final and binding on the parties. If Lessee should fail to timely request the hiring of such a person, Lessor's determination, however made, shall be final and binding.

In the event that the aforesaid advance payment of $3,500 is insufficient to cover the rent as finally determined, Lessee shall pay the difference to Lessor within 10 days after such determination. In the event the $3,500 exceeds the rent actually determined, the excess shall be refunded to Lessee after submission of an appropriate voucher therefor.

On or before the commencement of each lease year after the first, Lessee shall make a similar advance payment of $3,500 (subject to increase as hereinafter set forth) which shall be applied to the rental for that year in the same manner and which said rental shall be determined as and under the conditions above set forth. Provided, however, that if the rent for the year immediately preceding is finally determined to be in excess of $3,500, Lessee, within 30 days after such determination, shall pay to Lessor the amount of such excess so that the total amount paid to Lessor as an advance payment shall be at least the preceding year's rent, or $3,500, whichever is greater.

The term "gross revenue" as used in this agreement, shall mean any income derived from the lease of the property including, but not limited to, train operations including train fares and freight charges, gift shops on the trains or elsewhere, dining income to the Lessee from dining cars, and any revenues from concessions. The term "gross revenue" shall not include grants from any government or governmental agency nor income that is derived from activities not related to train operations on the leased premises, and there shall be deducted from Lessee's gross revenue, for the purpose of accounting to Lessor, the amount of actual capital investments made by Lessee.

Within 30 days after the end of each year commencing on the 1st. day of June and ending the 31st day of May during the term of this lease , Lessee shall furnish Lessor with a statement certified as correct by Lessee or an officer authorized to so certify, which shall set forth the gross revenue of Lessee and any authorized deductions for capital investments.

Lessee shall keep full, complete and proper books, records and accounts of its gross revenue. The books, records and accounts including any records that Lessee may be required to furnish to any government or governmental agency, shall at all reasonable times be open to the inspection of Lessor, Lessor's auditor, or other authorized representative or agent.

RESTRICTION AGAINST MECHANIC'S LIENS

Lessee shall pay and settle all expenses and liabilities arising out of or in any way connected with any installation, repairs, alterations, rehabilitation, maintenance or upkeep of the premises and shall keep the same free and clear from all liens of mechanics or materialmen, and all liens of a similar character arising out of or growing out of the aforesaid activities.

Neither Lessee nor anyone claiming through, by or under Lessee shall have any right to file or place any mechanic's lien of any kind or character whatsoever upon the premises, and notice is hereby given that no contractor, subcontractor or anyone else who may furnish any material, services or labor for any of the foregoing installation, repairs, alterations, rehabilitation, maintenance or upkeep at any time shall become entitled to any lien thereon whatsoever. For the further security of Lessor, Lessee shall give actual

notice of this restriction in advance to any and all contractors, subcontractors or other persons, firms, or corporations that may furnish any such materials, services or labor.

PROPERTY GUARANTY

Any property of the County damaged or destroyed by the Lessee incident to the exercise of the privileges herein granted shall be promptly repaired or replaced by the Lessee to the satisfaction of the Commissioner of Public Works after consultation with the Railroad Advisory Committee. This obligation shall be in addition to that of normal rehabilitation and upkeep as hereinabove provided.

LEASE SUBJECT TO EXISTING LICENSES AND AGREEMENTS

This lease shall be subject to a license to the Catskill Rail Committee to use and operate trains on that portion of the railroad extending from 150 yards east of the east switch at Highmount to the Delaware County line, and grants, leases or agreements heretofore or hereafter made between the County and Kingston Associates, National Micronetics, and Consolidated Rail Corporation, or others.

RIGHT OF ENTRY

Lessor, its agents, servants or employees may enter upon and over the premises at any time in accordance with the procedures and safety practices of "Conway Safety Rules." In addition, the Superintendant of Operations, manager on duty or designee of the Lessee must be notified to protect said persons from any possible danger or conflict with on-going rail operations. In any event, lessee may not unreasonably deny access to the premises for any and all purposes as may be reasonably necessary or required in the Lessor's judgment. No track-mounted equipment may be used without a prior written train order signed by the Superintendant of the Lessee.

The County reserves the right to grant to third persons the right of private crossings, for right-of-way access, ingress over and upon the leased premises, so long as such crossings do not prevent safe train operations. Prior to such grant, the Lessee shall be given the opportunity to review and approve such proposal. In addition, Lessee has the right to post the leased

premises to prevent trespass by unauthorized users of the leased premises. The Lessee shall allow the public to use the right of way for walking cross country skiing and fishing provided such activity does not interfere with its operations.

WORKER'S COMPENSATION INSURANCE

Lessee shall take out and maintain during the life of this lease, Worker's Compensation insurance and Employer's liability insurance for all of his employees employed at the site of the project, and in case any work is sublet, Lessee shall require his subcontractors similarly to provide Worker's Compensation for all subcontractor's employees unless such employees are covered by protection afforded by Lessee.

In case any class of employees engaged in hazardous work under this lease is not protected under the Worker's Compensation statute, the Lessee shall provide other, and shall cause each of his subcontractors to provide other adequate insurance for protection of his employees not otherwise protected in compliance with the Worker's Compensation Law of the State of New York.

GENERAL LIABILITY INSURANCE

The Lessee shall take out and maintain during the life of the lease, such bodily injury liability and property damage liability insurance as shall protect the Lessee and Lessor from claims for damages for personal injury including accidental death, as well as from claims for property damage which may arise from the premises and operations under this lease, whether such operations be by the Lessee or by any of Lessee's subcontractors or by anyone directly or indirectly employed by either of them. It shall be the responsibility of the Lessee to maintain such insurance in full force and effect and in amounts sufficient to fully protect the Lessee and the Lessor, but in no instance shall the amounts be less than those set forth below. The amounts are specified only to establish the minimum coverage acceptable.

Lessee shall take out and maintain during the term of this lease a premises and operations general liability policy which covers both the leased premises and operations thereon in an amount of not less than $2,000,000.00 (two million

dollars).

CONDITIONS APPLICABLE TO GENERAL LIABILITY INSURANCE

Bodily injury liability and property damage liability insurance to be obtained by the Lessee shall include the following:

1. Comprehensive General Liability cover form.
2. Broad form comprehensive general liability endorsement.
3. Include employees and volunteers in definition of persons insured.
4. 45 (forty-five) days notice of cancellation.
5. County of Ulster to be included as named insured.
6. Coverage afforded named insured County of Ulster shall be primary, as such coverage pertains to the leased premises, as well as operations thereon.
7. Include coverage for independent contractors, if any.
8. Include coverage for products and completed operations, if any.
9. Include coverage for personal injury liability.

OWNERS PROTECTIVE LIABILITY INSURANCE

Lessee shall provide the Lessor with owners protective liability coverage with the County of Ulster as named insured and the Lessee as contractor. The following minimum limits will apply:

Bodily injury and property damage combined single limit $1,000,000 (One Million Dollars).

CONDITIONS APPLICABLE TO OWNERS PROTECTIVE LIABILITY POLICY

The owners protective liability limit shall apply separately from the liability limits in the comprehensive general liability coverage part.

OTHER CONDITIONS OF INSURANCE

1. Lessee shall provide Lessor's insurance officer with complete copies of all insurance policies prior to renewal of the lease and each year thereafter immediately subsequent to renewal of all insurance policies.

2. Lessee agrees that no additional individual or entity may be added to any insurance policy as "additional insured" or "named insured" during the life of the lease without the expressed consent of the Lessor.

3. If the insurance policies provided by the Lessee contain a per claim deductible or self-insured retention, the Lessee will be responsible for the payment of the entire per claim deductible and the entire self-insured retention for each and every claim presented for payment as it pertains to the leased premises and/or operations thereon.

4. Lessee shall renegotiate insurance specifications, limits of liability, and conditions with the Lessor each year at least 90 (ninety) days prior to renewal of Lessee's insurance policies for the life of the lease.

5. If legal defense costs for any claim against the parties to this lease agreement are not provided by the Lessee's insurance policies, the Lessee will pay for any and all legal defense costs of each claim, as it pertains to the leased premises and/or operations thereon.

6. Notwithstanding anything to the contrary contained in this lease, Lessee shall have no right to keep, maintain or otherwise use and occupy the leased premises in any manner during any period or periods when insurance as required above (in all respects) is not in force. In such event Lessor may obtain injunctive relief from any court of competent jurisdiction to include a temporary restraining order granted without notice, in addition to any and all other remedies which may be available to lessor.

INDEMNIFICATION

The Lessee shall protect, defend, indemnify and hold the County of Ulster and its officers, employees and agents free and harmless from and against any and all losses, penalties, damages, settlements, cost, charges, professional fees or other expenses or liabilities of every kind and character arising out of or relating to any and all claims, liens, demands, obligations, with or arising directly or indirectly out of the lease agreement and/or the performance hereof. Without limiting the generality of the foregoing, any and all such claims, etc. relating to personal injury, death, damage

to property, defects in materials or workmanship, actual or alleged infringement of any patent, trademark, copywrite (or application of any thereof) or any other tangible or intangible personal or property right or any actual or alleged violation of any applicable statute, ordinance, administrative order, rule or regulation, or decree of any court, shall be included in the indemnity hereunder. The Lessee shall further agree to investigate, handle, respond to, provide defense for and defend any such claims, etc. at its sole expense and agrees to bear all other costs and expenses related thereto, even if it (claims, etc.) is groundless, false or fraudulent. In any case in which indemnification would violate Section 5-322.1 of New York General Obligation Law, or any other applicable legal prohibition, the foregoing provisions concerning indemnification shall not be construed to indemnify the County for damage arising out of bodily injury to persons or damage to property caused by or resulting from the sole negligence of the County, its officers, employees or agents, as it pertains to the leased premises and/or operations thereon.

Lessee is prohibited from entering into any agreement with a third party, whereby Lessee would indemnify, hold harmless, or otherwise assume liability under a contract with such third party.

FAILURE TO PERFORM

This lease is subject to the Lessee's performance of the covenants and conditions set forth in this lease. If Lessee defaults in performance of any of the covenants or conditions, and the breach continues for more than 30 days after Lessee receives written notice, Lessor may, at its option:

1. Pursue any legal remedy to recover for the breach, and continue the lease in force.

2. Declare the lease forfeited, reenter the demised premises, and remove all persons and Lessee's property from the premises. Lessee specifically waives service of written notice of intention to reenter.

PERMITS, LICENSES AND APPROVALS

Lessee shall be responsible for and shall obtain any and all other and further permits, licenses and approvals of any agency or person, governmental or otherwise, having jurisdiction of or interest in the operations contemplated hereunder, and the Lessee shall comply with all laws, ordinances, rules or regulations of any kind which may apply thereto. Lessee shall coordinate its activities with all townships and localities wherein operations are conducted.

RECORDS AND REPORTS

Lessee shall submit to the Railroad Advisory Committee a quarterly report of progress and activities with respect to the leased premises. In addition, any unusual occurrence or any accident shall immediately be communicated to the Chairman of the Railroad Advisory Board or his designee, and shall be followed by a detailed written description of such occurrence or accident within 48 hours.

Lessee shall submit to the Committee an annual track inspection statement prior to commencement of operations, prepared by an independent, Federal Railroad Administration certified inspector who is approved by the Commissioner of Public Works after consultation with the Railroad Advisory Committee. Such statement shall specify that the track, bridges and equipment are in a safe condition for the intended purpose, whether such purpose is passenger service or equipment transport, or otherwise.

Any request made by lessee for change or approval requiring the consent of the County Legislature, the Department of Public Works, or others, shall be made to the Chairman of the Railroad Advisory Committee, or his designee, who shall respond to such request within ten (10) business days.

TAXES

Lessee shall be responsible for the payment of any and all taxes that may hereafter become due on the leased premises or as a result of Lessee's operations on the leased premises.

LESSEE'S PROPOSAL FOR USE

Lessee shall prepare and submit an Environmental Assessment Form to the County Legislature in conjunction with this lease, an Environmental Impact Statement, if the same shall be required, shall comply in all respects at all times with the requirements of the State Environmental Quality Review Act and regulations promulgated thereunder, and hold Lessor harmless with respect thereto.

ASSIGNMENT

Lessor hereby consents to the assignment of this lease to the Catskill Mountain Railroad, Inc. under the condition that said assignee shall in writing agree to assume all of the rights, duties and liabilities of the Lessee hereunder and shall make any and all payments required and comply with all the terms and conditions of this lease. In the event of such assignment, the Lessee shall be relieved of its obligations hereunder. Lessee may add any other or additional conditions to any such assignment as will be to its benefit and that of the Lessor.

STRICT PERFORMANCE

The failure of the Lessor to insist upon strict performance of any of the covenants or conditions of this lease or to exercise any option herein conferred in any one or more instances, shall not be construed as a waiver or relinquishment for the future of any such covenants, conditions or options, but the same shall be and remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have executed this lease the 29th day of May, 1991.

COUNTY OF ULSTER

By: _____
Richard B. Mathews, Chairman
Ulster County Legislature

ULSTER COUNTY INDUSTRIAL DEVELOPMENT AGENCY

By: _____
Alfred J. Ford, Chairman

EXHIBIT K

ULSTER COUNTY ATTORNEY

240 Fair Street, PO Box 1800
Kingston, New York 12402
845-340-3685 • Fax: 845-340-3691

BEATRICE HAVRANEK
County Attorney
845-340-3685

KRISTIN A. GUMAER
Assistant County Attorney
845-334-5402

SUSAN K. PLONSKI
Assistant County Attorney/
Contract Manager
845-340-3441

MICHAEL P. HEIN
County Executive

Service by facsimile or e-mail not accepted

CLINTON G. JOHNSON
First Assistant County Attorney
845-340-3685

WILLIAM N. CLOONAN
Assistant County Attorney
845-340-3685

ROLAND A. BLOOMER
Assistant County Attorney/
Assistant Contract Manager
845-331-2447

Via Certified Mail, Return Receipt Requested
And First Class Mail

Mr. Ernest E. Hunt, President
Catskill Mountain Railroad Company, Inc.
1165 Park Avenue (Suite 1-D)
New York, NY 10128

Catskill Mountain Railroad Company, Inc.
P.O. Box 1415
Kingston, NY 12401

Catskill Mountain Railroad Company, Inc.
P.O. Box 46
3107 Route 28
Shokan, NY 12481

Mr. Earl Pardini, Chief Executive Officer
Catskill Mountain Railroad Company, Inc.
1 Washington Avenue
Kingston, NY 12401

June 12, 2013

NOTICE OF DEFAULT
DEMAND TO CURE

Re: Ulster County Lease Agreement, dated May 29, 1991 with the Catskill Mountain Railroad Company, Inc., as assignee to the Ulster County Industrial Development Agency

NOTICE IS HEREBY GIVEN pursuant to the terms of the above-referenced Lease dated May 29, 1991 (the "Lease"), that Catskill Mountain Railroad Company, Inc. ("CMRR"), as assignee under said Lease, has defaulted in its performance of certain

covenants and conditions set forth in the Lease, a copy of which is annexed hereto and made a part of this Notice. The defaults are as follows:

1) **REHABILITATION OF TRACK**

The Lease requires CMRR to "rehabilitate a minimum of 1 mile of track per lease year so that the line of track from Kingston to Phoenicia is entirely rehabilitated to Class 1 condition by the end of this lease." CMRR has failed to comply with this covenant and condition, and as such is in default as to that section of the Lease entitled "REHABILITATION AND MAINTENANCE."

2) **MAINTENANCE OF TRACK TO CLASS 1 STANDARD**

The Lease requires CMRR to "perform all maintenance necessary to keep the rehabilitated track at that Class 1 standard." CMRR has allowed tracks in some areas to deteriorate, and to become heavily overgrown with brush and mature trees, such that the tracks no longer meet the Class 1 standard. CMRR therefore has failed to comply with the aforementioned covenant and condition, and as such is in default as to that section of the Lease entitled "REHABILITATION AND MAINTANENCE."

3) **MAINTENANCE OF TRACKS**

The Lease requires CMRR to "maintain the entire railroad right-of-way free from brush, papers and trash from the Conrail main line to the Delaware County line." CMRR has allowed debris and litter to accumulate on the track and in the right-of-way in the City of Kingston and other areas of the leased premises. CMRR therefore has failed to comply with the aforementioned covenant and condition, and as such is in default as to that section of the Lease entitled "REHABILITATION AND MAINTANENCE."

4) **PROPERTY GUARANTY**

The Lease requires CMRR to promptly repair or replace any County property that is "damaged or destroyed by [CMRR] incident to the exercise of the privileges herein granted . . . ." By its failure to perform necessary maintenance of drainage facilities, structures and embankments, CMRR has damaged County property and failed to repair or replace same. CMRR therefore has failed to comply with the aforementioned covenant and condition, and as such is in default as to that section of the Lease entitled "PROPERTY GUARANTY."

5) **PERMITS, LICENSES, AND APPROVALS**

The Lease requires CMRR to obtain any and all "permits, license and approvals of any agency or person, governmental or otherwise, having jurisdiction of or interest in the operations contemplated hereunder . . . ." The Lease also requires CMRR to "comply with all laws, ordinances, rules or regulations of any kind which may apply thereto." The Lease further requires CMRR to "coordinate its activities with all townships and localities wherein operations are conducted."

CMRR is currently operating a rail yard on the U&D right-of-way from Downs Street east to Cornell Street, which site is located outside the lease premises. By reason of the foregoing, CMRR is trespassing on County-owned property. CMRR's operation of said rail yard also violates City of Kingston Code § 405.30 (failure to obtain a site plan approval) and Section 405-39 (prohibits unenclosed storage of vehicles). Upon information and belief, CMRR also has violated Section 302.1 of the New York State Property Maintenance Code ("NYSPMC"), which requires that all exterior property be kept clean; NYSPMC § 302.7, which requires all structures to be structurally sound; and NYSPMC § 307.1, which requires that exterior property be free from accumulation of rubbish or garbage. CMRR therefore has failed to comply with the aforementioned covenants and conditions, and as such is in default as to that section of the Lease entitled "PERMITS, LICENSES AND APPROVAL."

6) **PERCENTAGE OF RENT**

The Lease requires CMRR to pay the Lessor rent based upon a percentage of its "gross revenue," which term is defined in the Lease. CMRR has improperly deducted its operating expenses in calculating its gross revenue for the purpose of paying such rent. CMRR therefore has failed to comply with the aforementioned covenant and condition, and as such is in default as to that section of the Lease entitled "PERCENTAGE RENT PROVISIONS."

7) **FAILURE TO PROVIDE DOCUMENTATION**

The Lease requires CMRR to "keep full, complete and proper books, records and accounts of its gross revenue." The Lease also requires CMRR to allow the Lessor to inspect such books, records and accounts that the Lessee may be required to furnish to any government or governmental agency" Despite due demand, CMRR has failed and refused to permit the County to inspect its books, records and accounts. CMRR has refused to furnish these records to the County despite a due demand made by the Ulster County Commissioner of Finance on May 13, 2013. CMRR therefore has failed to comply with the aforementioned covenants and conditions, and as such is in default as to that section of the Lease entitled "PERCENTAGE RENT PROVISIONS."

8) **INSURANCE**

The Lease requires CMRR to hold Worker's Compensation Insurance and an Owner's Protective Liability Policy at all times, and to provide Lessor with complete copies of all insurance policies. CMRR has failed to provide proof of such insurance to the County of Ulster. CMRR therefore has failed to comply with the aforementioned covenants and conditions, and as such is in default as to that section of the Lease entitled "OTHER CONDITIONS OF INSURANCE."

9) **RIGHT OF ENTRY**

The Lease requires CMRR to "allow the public to use the right of way for walking, cross country skiing, and fishing provided such activity does not interfere with its operations." CMRR is not allowing the public to use the corridor for these purposes.

CMRR therefore has failed to comply with the aforementioned covenant and condition, and as such is in default as to that section of the Lease entitled "RIGHT OF ENTRY."

PLEASE TAKE FURTHER NOTICE that Ulster County reserves the right to amend and/or supplement this Notice of Default and Demand to Cure to the fullest extent permitted under the Lease.

PLEASE TAKE FURTHER NOTICE that upon failure of CMRR to cure the aforementioned defaults within thirty (30) days of its receipt of this Notice, the County of Ulster shall declare the Lease forfeited; reenter the demised premises; and remove all persons and Lessee's property from the premises.

PLEASE TAKE FURTHER NOTICE that upon failure of CMRR to cure the aforementioned defaults within thirty (30) days of its receipt of this Notice, the County of Ulster further reserves its right to avail itself of all other rights afforded to it under the Lease, including, without limitation, its right to recover damages and all legal costs and expenses (including professional fees) as against CMRR, as provided in that section of the Lease entitled "INDEMNIFICATION."

Dated: June 12, 2013

Beatrice Havranek

Beatrice Havranek
County Attorney
County of Ulster
PO Box 1800
Kingston, NY 12402

cc: Walter E. Zullig, Jr., Esq.
77 Mystic Drive
Ossining, NY 10562
(via First Class Mail and Certified Mail, Return Receipt Requested)

EXHIBIT L

HDR



June 6, 2014

Mr. Chris White, Deputy Director
Ulster County Planning Department
244 Fair Street
Kingston, NY 12402

Re: Catskill Mountain Railroad Condition Report

Dear Mr. White:

HDR conducted a track inspection on the behalf of Ulster County to determine compliance with Code of Federal Regulations (CFR) Title 49, Part 213, Subpart A to F, Class 1 and Non-Class Specific Standards on the Catskill Mountain Railroad between Downs Street in Kingston, NY and Bridge Street in Phoenicia, NY. In addition, this inspection was performed to determine if the Lessee Operator is in compliance with its lease requirements in regards to track and right of way maintenance.

Inspections were conducted on foot with two (2) HDR inspectors and one (1) representative from Ulster County between Monday, May 12, 2014 and Thursday, May 15, 2014. Both HDR inspectors have been trained and qualified on Roadway Worker Protection Procedures.

A level board was used to measure deviations in crosslevel and to check gage. If gage was found using a level board, a 1" x 25 ft. tape measure was used to verify the deviation. Joint tie defects were determined by using the tape measure to determine a 24" envelope from the center of the joint. Deviations were visually determined and verified by using the appropriate measurement tools.

Deviations from Class I track were determined by comparing them to standard, newly constructed track. Standard track consists of creosote-treated hardwood crossties, spaced 19 ½" on center. Steel rails measuring 33 ft. are fastened to the hardwood crossties using 5/8" x 6" cut spikes. Individual rails are then bolted together using 6 hole joint bars. Tie plates of varying dimensions are used to restrain the rail vertically and laterally. Rail anchors are used to restrain the rail longitudinally and are typically box-anchored for four (4) ties per rail length. The track structure is restrained by granite ballast material that also aids in drainage.

Conditions that did not meet Class 1 Standards, Non-Class Specific Standards, or Terms of the Lease were photographed with approximate GPS coordinates. This data was then evaluated and used to make a map (found in Appendix 'A' of this report) that shows the approximate location and density of noted defects. Class 1 Defects must be repaired to operate passenger service; Non-Class Specific Defects must be repaired within 30 days of identification to remain in compliance with CFR Title 49, Part 213 regulations.

Appendix 'B' contains photographs of typical conditions that were found. These photographs are representative of the majority of the Corridor.

hdrinc.com

695 Atlantic Ave, Boston MA 02111
T 617.357.7700 F 617.357.7759

The following table is a summary of the general conditions found during the walking inspection:

From	To	Approximate Distance	Condition Assessment
Downs Street	RT. 209	2.2 miles	Maintained to Class 1 standards, defects within these limits have been identified.
RT. 209	Hurley Mountain Road	0.5 miles	Does not meet Class 1 standards, an attempt is being made to restore the track.
Hurley Mountain Road	Esopus Creek Trestle	15.3 miles	Does not meet Class 1 standards, poor tie conditions observed, drainage work required, vegetation not maintained.
Esopus Creek Trestle		400 ft	Bridge is washed out.
Esopus Creek Trestle	Cold Brook Station	0.9 miles	Does not meet Class 1 standards, poor tie conditions observed, drainage work required, vegetation not maintained.
Cold Brook Station	MP 23.3	1.1 miles	Was maintained to Class 1 standards, however due to washouts, track is inoperable, and vegetation is beginning to regrow.
MP 23.3	MP 25.8	2.5 miles	Maintained to Class 1 standards, defects within these limits have been identified.
MP 25.8	Bridge Street	1.9 miles	Does not meet Class 1 standards, poor tie conditions noted, washouts, drainage work required, vegetation not maintained.

As of May 31, 2014, the Lessee has completed its 23 lease year with the county. According to the Rehabilitation and Maintenance section of the lease dated May 29, 1991, the Lessee is required to rehabilitate a minimum of 1 mile of track per lease year. Additionally, the Lessee shall perform all maintenance necessary to keep the rehabilitated track at that Class 1 Standard. Of the 24.5 miles inspected, 4.7 miles appeared to be maintained to meet Class 1 conditions. Also, it appeared the Lessee was attempting to restore another 0.5 miles between Rt. 209 and Hurley Mountain Road.

The majority of the corridor experiences minimal, if any, maintenance based on our visual inspection. In the two areas where train operations are conducted, the condition of the corridor exhibited past maintenance keeping it mostly within Class I Standards. However, some defects were identified and were submitted to Ulster County in a preliminary report (Appendix 'C').

In areas where train operations are not conducted, it was not evident that the required level of maintenance to support Class 1 railroad operations was performed over the 20-year period. Mature trees were found growing in the ditches, rotted, split, and missing ties were observed consistently, and numerous joint conditions were found. Some limited brush cutting was conducted in areas along the reservoir, but not to a degree that would comply with CFR Title 49, Part 213, Section 37.

In order to bring all areas that do not meet Title 49, Part 213 Class I standards into compliance, a comprehensive maintenance plan must be implemented. Drainage and vegetation defects will need to be repaired along the entire corridor. A tie replacement program will need to be

implemented along the corridor which will require an average of 700 new ties per mile. The maintenance plan will also require track bolt maintenance and joint bar replacement.

Ongoing neglect of drainage and vegetation maintenance may lead to further washouts along the corridor. It was observed that many of the washouts that occurred were caused by drainage structures becoming fouled with branches, leaves, and other debris.

Thank you for the opportunity to make the condition assessment along the Catskill Mountain Rail Corridor. If I could be of any further assistance, please contact me at (617) 357-7700.

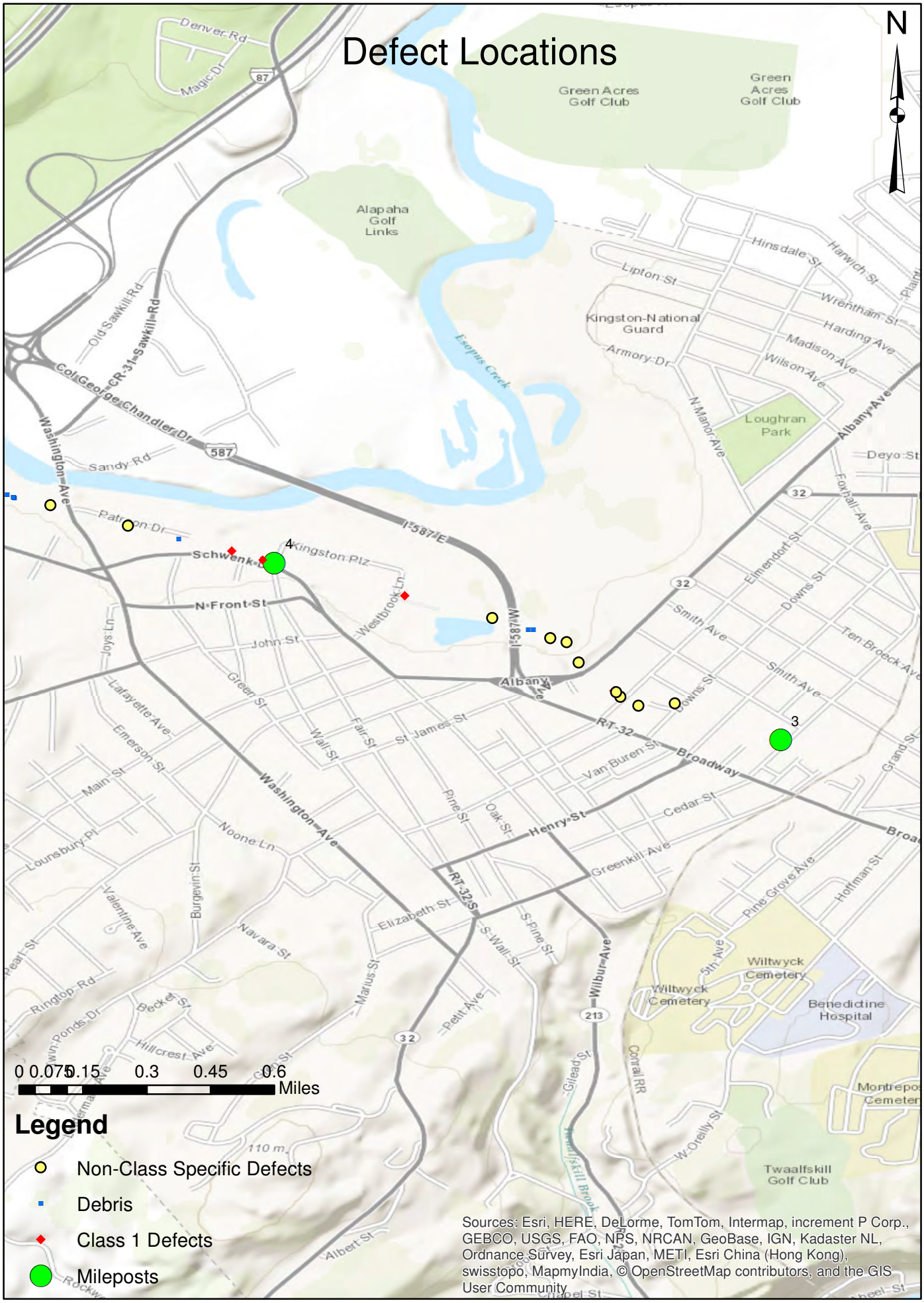
Sincerely,

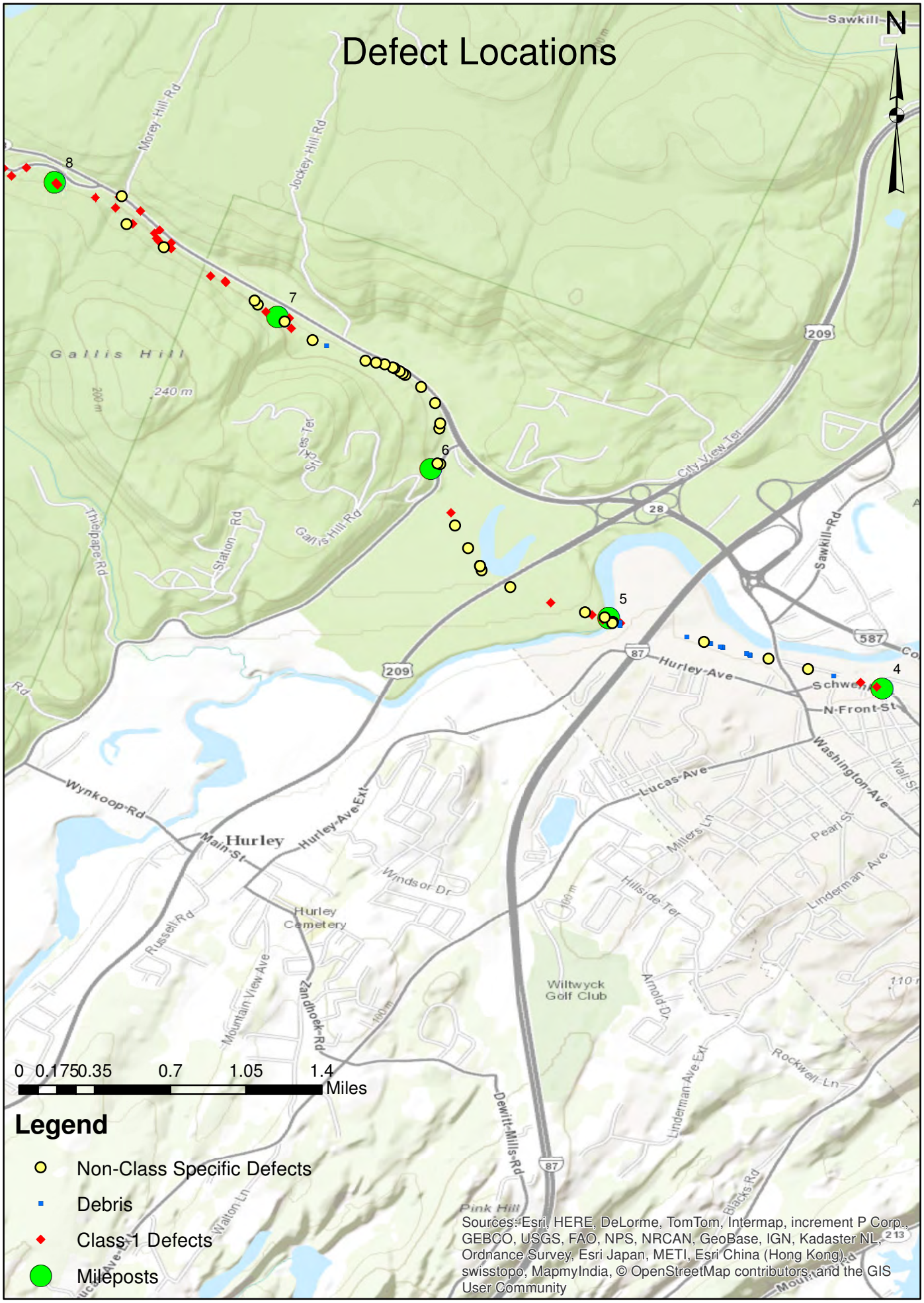
Owen Smith
Rail Engineer

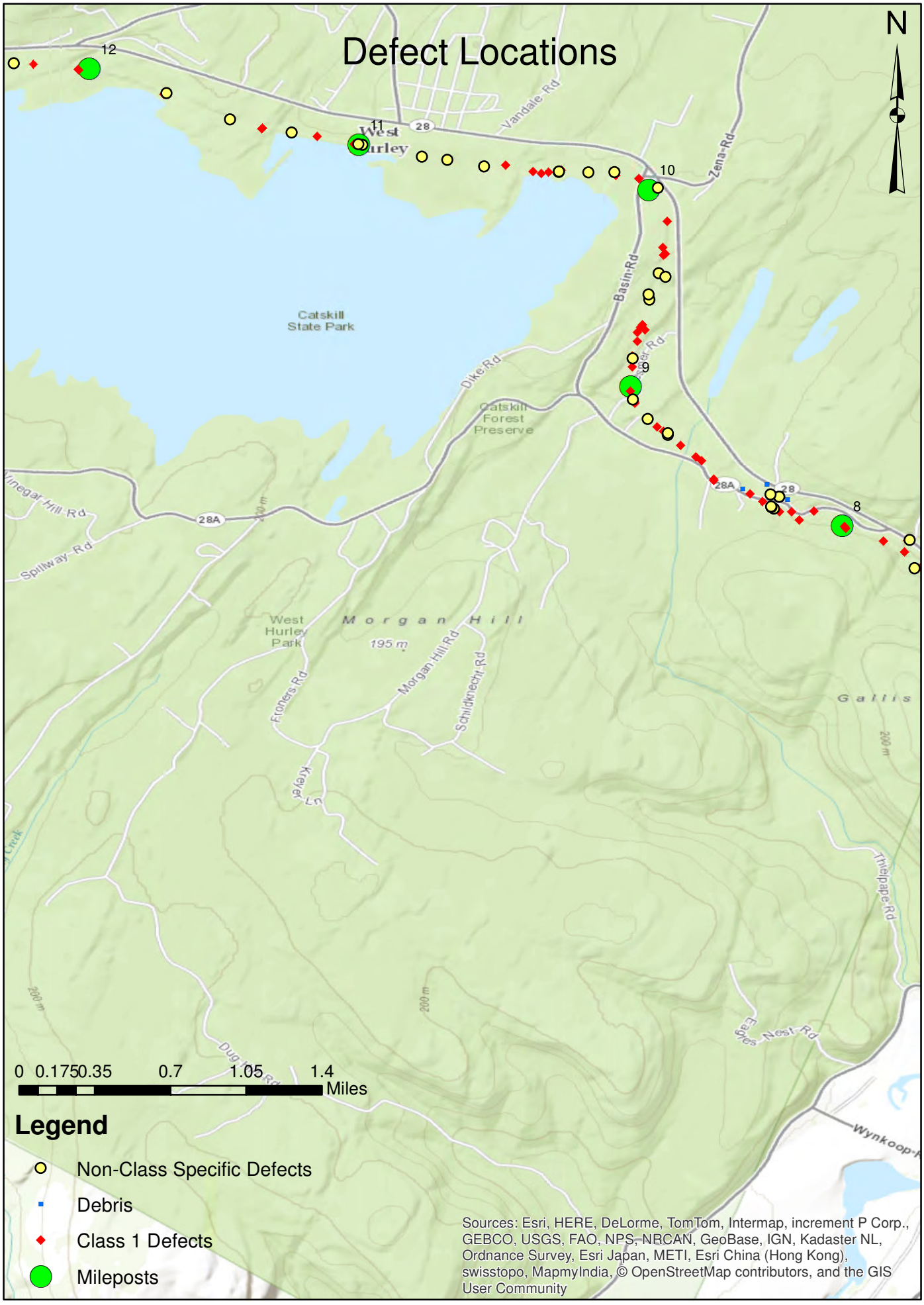
Attachments (3)

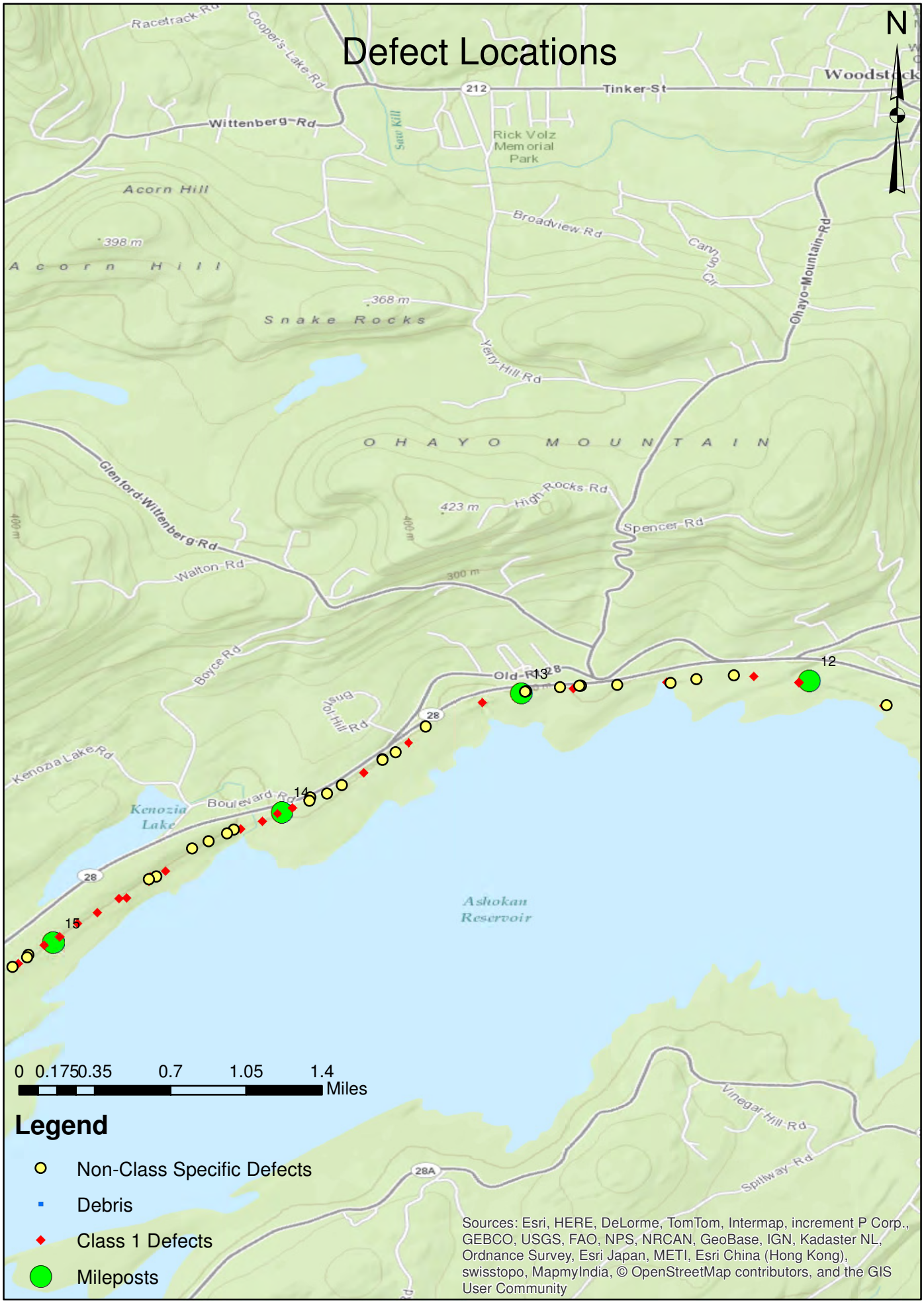
cc: Richard Semenick, HDR
Ken Briggs, HDR

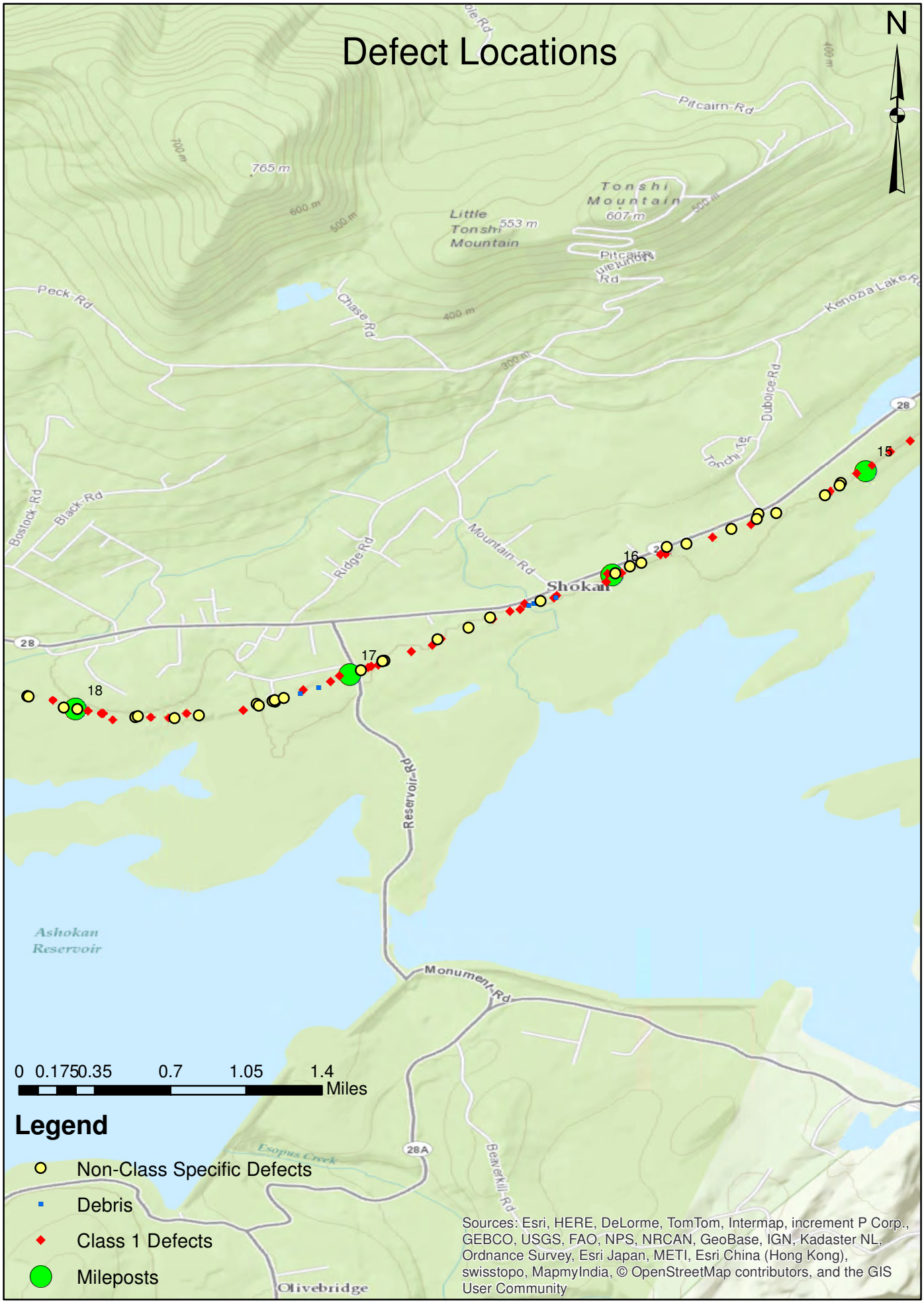
Appendix A
Defect Locations

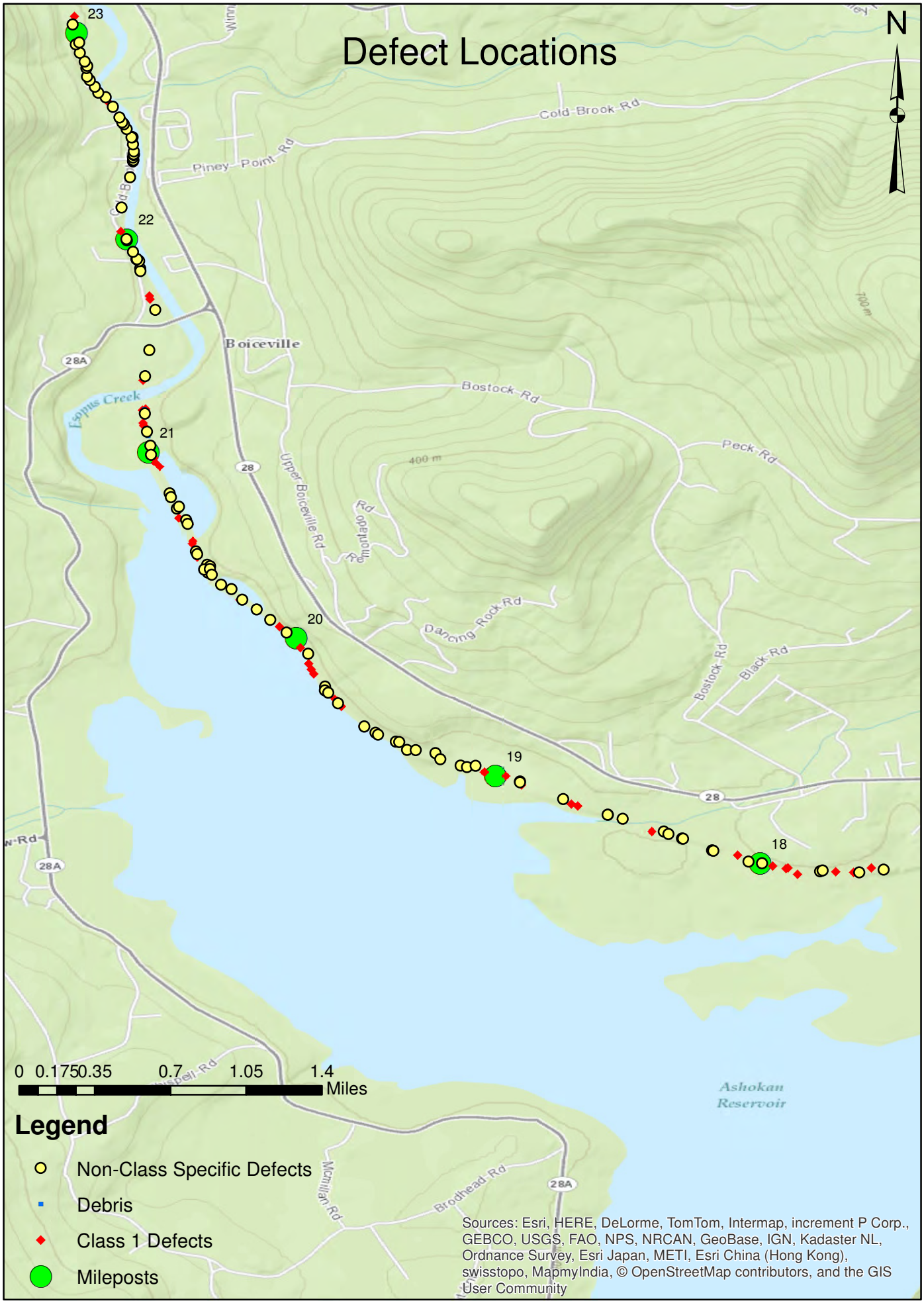

Defect Locations
N
0 0.075 0.15 0.3 0.45 0.6
Miles
Legend
Non-Class Specific Defects
Debris
Class 1 Defects
Mileposts
4
3
Green Acres Golf Club
Alapaha Golf Links
Kingston-National Guard
Loughran Park
Wiltwyck Cemetery
Benedictine Hospital
Twaalfskill Golf Club
Esopus Creek
Col George Chandler Dr
CR-31 Sawkill Rd
Washington Ave
Albany Ave
I-587 E
I-587 W
RT-32
Broadway
Henry St
RT-32S
Wilbur Ave
N Front St
Schwenk Dr
Kingston Plz
Sandy Rd
Patroon Dr
Westbrook Ln
John St
Green St
Fair St
Wall St
St James St
Van Buren St
Pine St
Oak St
Cedar St
Greenkill Ave
Elizabeth St
S Wall St
S Pine St
Noone Ln
Navara St
Marius St
Petit Ave
Gilead St
Conrail RR
W O'reilly St
Albert St
Chapel St
Denver Rd
Magic Dr
Old Sawkill Rd
Lipton St
Hinsdale St
Harwich St
Wrentham St
Harding Ave
Madison Ave
Wilson Ave
Armory Dr
N Manor Ave
Deyo St
Foxhall Ave
Elmendorf St
Downs St
Smith Ave
Ten Broeck Ave
Joys Ln
Lafayette Ave
Emerson St
Main St
Lounsbury Pl
Burgevin St
Valentine Ave
Pearl St
Ringtop Rd
Becker St
Hillcrest Ave
Pine Grove Ave
Hoffman St
5th Ave
Grand St
Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

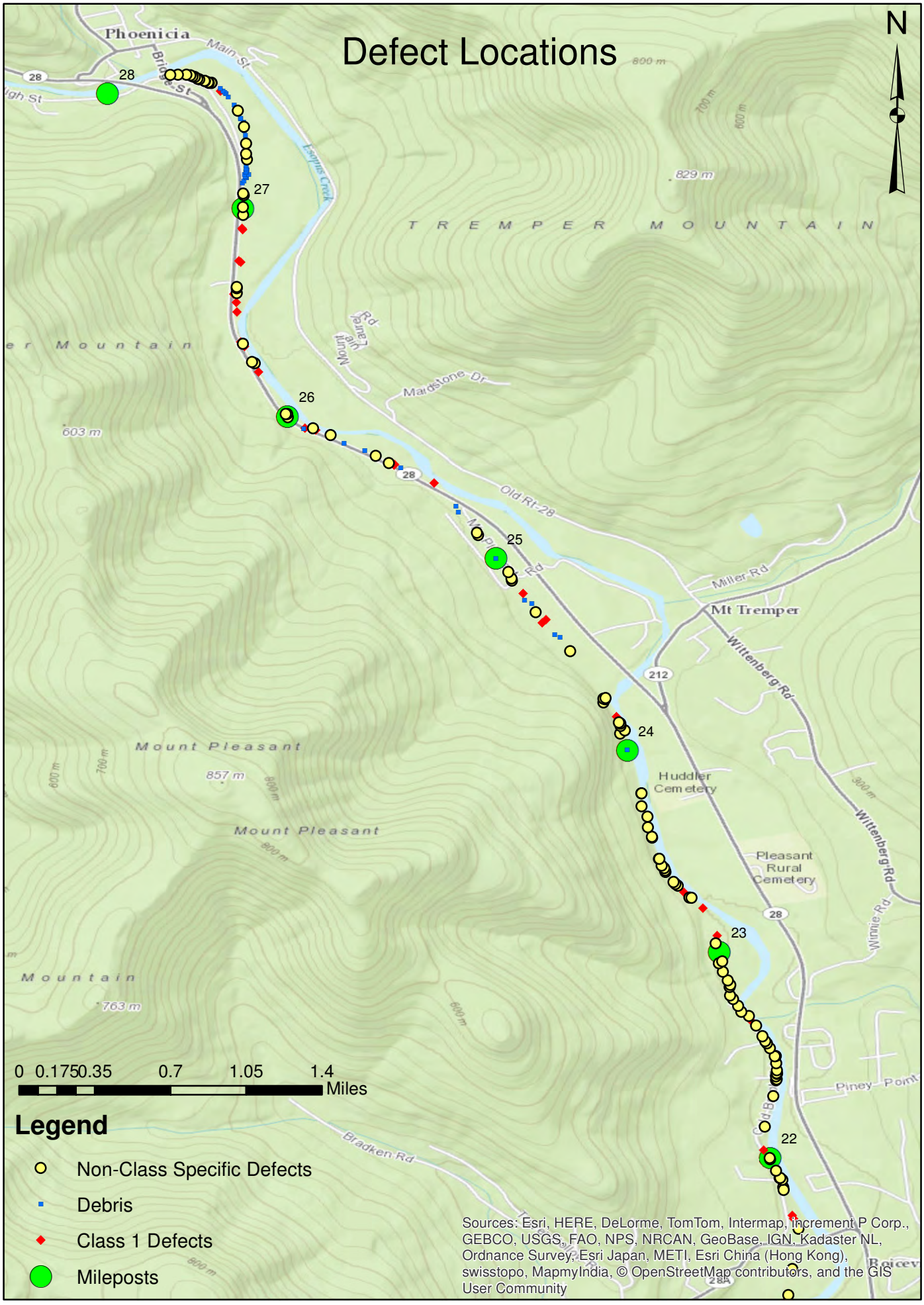

Defect Locations
N
8
7
6
5
4
Morey Hill Rd
Jockey Hill Rd
Gallis Hill
240 m
200 m
Thielpape Rd
Station Rd
Gallis Hill Rd
Cyclones Ter
City View Ter
209
28
Sawkill Rd
587
87
Hurley Ave
N Front St
Wynkoop Rd
Hurley Ave Ext
Main St
Hurley
Lucas Ave
Washington Ave
Windsor Dr
Hurley Cemetery
Russell Rd
Mountain View Ave
Zandhoek Rd
Miller Ln
Pearl St
Hillside Ter
Linderman Ave
Wiltwyck Golf Club
Arnold Dr
Linderman Ave Ext
Rockwell Ln
Dewitt Mills Rd
Walton Ln
Pink Hill
Blacks Rd
0 0.175 0.35 0.7 1.05 1.4
Miles
Legend
Non-Class Specific Defects
Debris
Class 1 Defects
Mileposts
Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community


Defect Locations
N
12
11
10
9
8
West Hurley
28
Vandale Rd
Zena Rd
Basin Rd
Catskill State Park
Dike Rd
Catskill Forest Preserve
28A
Vinegar Hill Rd
Spillway Rd
West Hurley Park
Morgan Hill
195 m
Morgan Hill Rd
Schildkriecht Rd
Froners Rd
Kreiger Ln
Gallis
Thielpape Rd
Eagles Nest Rd
Wynkoop
0 0.175 0.35 0.7 1.05 1.4
Miles
Legend
Non-Class Specific Defects
Debris
Class 1 Defects
Mileposts
Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community


Defect Locations
N
Racetrack Rd
Cooper's Lake Rd
212
Tinker St
Woodstock
Wittenberg Rd
Saw Kill
Rick Volz Memorial Park
Acorn Hill
398 m
Acorn Hill
Broadview Rd
Caryn Cir
Ohayo Mountain Rd
368 m
Snake Rocks
Yerry Hill Rd
OHAYO MOUNTAIN
Glenford Wittenberg Rd
High Rocks Rd
423 m
Spencer Rd
Walton Rd
300 m
Boyce Rd
Old Rt 28
13
12
Bristol Hill Rd
28
Kenozia Lake Rd
Boulevard Rd
14
Kenozia Lake
28
15
Ashokan Reservoir
0 0.175 0.35 0.7 1.05 1.4
Miles
Legend
Non-Class Specific Defects
Debris
Class 1 Defects
Mileposts
Vinegar Hill Rd
28A
Spillway Rd
Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community


Defect Locations
N
Pitcairn Rd
765 m
Tonshi Mountain
607 m
Little Tonshi Mountain
553 m
Peck Rd
Chase Rd
Kenoza Lake Rd
Dubois Rd
Bostock Rd
Black Rd
Ridge Rd
Mountain Rd
Shokan
15
16
17
18
28
Reservoir Rd
Ashokan Reservoir
Monument Rd
28A
Esopus Creek
Beaverkill Rd
Olivebridge
0 0.175 0.35 0.7 1.05 1.4
Miles
Legend
Non-Class Specific Defects
Debris
Class 1 Defects
Mileposts
Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community


Defect Locations
N
23
22
21
20
19
18
Boiceville
Cold Brook Rd
Piney Point Rd
Bostock Rd
Peck Rd
Upper Boiceville Rd
Dancing Rock Rd
Black Rd
Esopus Creek
28
28A
0 0.175 0.35 0.7 1.05 1.4
Miles
Legend
Non-Class Specific Defects
Debris
Class 1 Defects
Mileposts
Ashokan Reservoir
Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community


Defect Locations
N
Phoenicia
Main St
Bridge St
28
27
26
25
24
23
22
Esopus Creek
Mount Pearl Rd
Mardstone Dr
Old Rt 28
Miller Rd
Mt Tremper
Wittenberg Rd
212
Huddler Cemetery
Pleasant Rural Cemetery
Winnie Rd
Piney Point
Bradken Rd
TREMPER MOUNTAIN
Mount Pleasant
Mountain
829 m
857 m
763 m
603 m
0 0.175 0.35 0.7 1.05 1.4
Miles
Legend
Non-Class Specific Defects
Debris
Class 1 Defects
Mileposts
Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Appendix B
Typical Conditions



Example of a washout along a riverbank. One possible mechanism for such a failure is stormwater runoff infiltrating into the roadbed. With the added weight, the soil becomes unstable and shifts. Warning signs of such conditions include observing track surface and alignment irregularities. Best practices to prevent such failures include maintaining ditches and culverts to allow surface water to flow away from the roadbed.



Example of a center-cracked joint bar. Such a defect is not permitted in Class 1 track as described in Title 49, Part 213, Section 121, Paragraph (b). This photograph was taken in an area that currently does not experience train operations. Proper remedial action includes replacing the cracked joint bar.



Example of a joint tie defect. According to Title 49, Part 213, Section 109, Paragraph (e), rail joints must be supported by one (1) crosstie that meets the specifications in paragraphs (c) and (d) of this section within 24” of the center of the joint. The three (3) ties within this envelope do not meet the specifications because they are broken through, split so ballast may work through, and are split so that the crosstie will not hold rail fasteners (spikes).



Example of typical vegetation conditions along sections of the Corridor that are not operated on. The Operating Lease requires that the corridor be free of brush, papers, and trash. In addition, Title 49, Part 213, Section 37 has requirements that vegetation be maintained. This example would hinder a railroad employee from performing their trackside duties (i.e. inspecting a passing train from the side of the tracks, walking along the side of a train, or clearing the tracks for a passing train).



Example of a fouled ballast condition caused by poor drainage. Title 49, Part 213, Section 33 requires that each drainage or other water carrying facility under or immediately adjacent to the roadbed be maintained and kept free of obstruction, to accommodate expected water flow for the area concerned. Since the ditches have become fouled with leaves and branches, water has accumulated in this area causing the roadbed to become saturated. If this section of track were to be operated on, this would be a hazard because the roadbed has less structural stability to maintain proper alignment and surface.



Example of a location where brush is growing within the right of way. White pines and other undergrowth are developing inside the gage of the track. This hinders a track inspector's ability to properly inspect track.



Example of tie piles left along the right of way. Ties should be disposed of at an approved facility.



Eastward photograph showing alignment deviations on both approaches of the C9 Bridge. HDR advised the County to cease operations over this bridge until the structure can be evaluated. HDR Track Inspectors observed that the concrete abutments have shifted.



Example of a washout which may have been caused by a blocked culvert. Allowing debris to build up around culverts can cause the drainage path to be redirected, causing the roadbed and ballast section to be washed out.



Location where a drainage or water carrying facility is not maintained to accommodate expected water flow. As stormwater accumulated, sediment deposited on the roadbed. Routine ditch maintenance would keep sediment from accumulating.



Example of debris accumulating in a ditch.



Example of a washout caused by a ditch becoming flooded from heavy rainfall. Stormwater that could not flow naturally to a culvert would flow laterally over the track structure, washing away ballast. The final result of this would leave the track in inoperable condition.



Example of a center-cracked joint bar with a joint tie defect. Center cracked joint bars can be caused by fatigue. Such fatigue may be caused by excessive bending stress. The intent of the joint tie regulations is to ensure that a joint is supported, thereby minimizing vertical bending stresses.



Example of a ditch where debris and sediment have accumulated over time. Note the trees that have grown in the area. Routine ditch maintenance ensures proper stormwater flow and prevents vegetation from growing and fouling the waterway.

Appendix C
Preliminary Reports

May 16, 2014

Mr. Chris White, Deputy Director
Ulster County Planning Department
244 Fair Street
Kingston, NY 12402

Re: Temporary Closure of the C9 Bridge, Pending a Structural Engineering Review

Dear Mr. White:

HDR conducted a walking track inspection to determine compliance with Title 49 Part 213 Class 1 and Non-Class Specific Standards on May 12, 2014 between Downs Street and Route 209.

HDR has identified two (2) issues which may potentially pose a hazard to railroad operations or the general public in the vicinity of the C9 Bridge. In order to ensure the safety of the general public, HDR recommends that operations cease until a Structural Engineering Review is completed.

Upon approaching the bridge, it was visually determined that there is an alignment deviation at the east approach of the through truss span of the bridge. An alignment deviation at such a location may indicate that the bridge superstructure is shifting. A more thorough inspection was conducted on May 15, 2014 and it was determined that the eastern retaining wall has cracked and shifted, allowing the roadbed to become unstable at the East Approach.

Additionally, HDR inspected the bridge deck and noted that the recently installed bridge timbers have shifted longitudinally. This shifting has allowed gaps exceeding 14 inches to form between bridge timbers. This would allow a person to be able to fall through the bridge deck, which fails to comply with OSHA regulation 1925.501(b)(4)(i) which states, "Each employee on walking/working surfaces shall be protected from falling through holes (including skylights) more than 6 feet (1.8 m) above lower levels, by personal fall arrest systems, covers, or guardrail systems erected around such holes."

Thank you for your prompt attention to this matter. If you have any additional questions please call me at (617) 357-7717.

Sincerely,

Owen Smith
Rail Engineer

Attachments

cc: Peter Reilly, HDR
Ken Briggs, HDR

hdrinc.com

695 Atlantic Ave, Boston MA 02111
T 617.357.7700 F 617.357.7759



Photograph showing longitudinal shifting of a bridge timber, creating a condition where a person could fall through.



Photograph showing the eastern bridge abutment. The movement has allowed the roadbed to destabilize which is non-compliant with FRA Rule 213.103(a).



Eastward photograph showing the alignment deviations on both approaches.

May 20, 2014

Mr. Chris White, Deputy Director
Ulster County Planning Department
244 Fair Street
Kingston, NY 12402

Re: Identified Class 1 and Non-Class Specific Defects on the Catskill Mountain Railroad

Dear Mr. White:

HDR conducted a track inspection on the behalf of Ulster County to determine compliance with Title 49, Part 213, Class 1 and Non-Class Specific Standards on the Catskill Mountain Railroad (CMRR) between Downs Street in Kingston, NY and Bridge Street in Phoenicia, NY. Inspections were conducted on foot between May 12, 2014 and May 15, 2014. Identified defects were marked in yellow paint by the HDR inspectors. Listed in a table below are defects, which must be inspected by a person qualified under Title 49, Part 213, Subpart A, §213.7.

	Location			
Photo #	Latitude	Longitude	Defect Description	Defect Section
440	N 41d 55m 59.29s	W 74d 0m 33.73s	Insufficient ballast	§213.103(a)
455	N 41d 56m 13.00s	W 74d 1m 16.33s	Center cracked joint bar (jointed track)	§213.121(c)
497	N 41d 56m 32.21s	W 74d 2m 31.13s	Center cracked joint bar (jointed track)	§213.121(c)
1018	N 42d 2m 19.31s	W 74d 16m 54.47s	3-1/2" difference in crosslevel in 62 feet	§213.63(a)
1026	N 42d 2m 42.73s	W 74d 17m 11.56s	No effective support ties within the prescribed distance from a joint	§213.109(e)(1)
1027	N 42d 2m 41.92s	W 74d 17m 12.49s	No effective support ties within the prescribed distance from a joint	§213.109(e)(1)
1028	N 42d 2m 44.30s	W 74d 17m 13.83s	Improper fit between switch point and stock rail	§213.135(b)
1034	N 42d 2m 49.00s	W 74d 17m 16.97s	Loose joint bars (jointed track)	§213.121(f)
1047	N 42d 3m 15.41s	W 74d 17m 38.46s	No effective support ties within the prescribed distance from a joint	§213.109(e)(1)
1050	N 42d 3m 19.75s	W 74d 17m 48.15s	No effective support ties within the prescribed distance from a joint	§213.109(e)(1)
1051	N 42d 3m 20.08s	W 74d 17m 47.94s	No effective support ties within the prescribed distance from a joint	§213.109(e)(1)
1059	N 42d 3m 28.25s	W 74d 18m 6.94s	No effective support ties within the prescribed distance from a joint	§213.109(e)(1)

Under FRA Rule §213.7(a), CMRR is required to designate a person qualified to supervise certain track renewals and inspect track. Such a person shall have at least:

- 1 year of experience in railroad track maintenance; or

- A combination of supervisory experience in track maintenance and training from a course in track maintenance or from a college level education program related to track maintenance.

In addition the individual must demonstrate to the owner that he or she:

- Knows and understands the requirements of Title 49, Part 213 that apply to the restoration and renewal of the track for which he or she is responsible;
- Can detect deviations from the requirements of Title 49, Part 213; and,
- Can prescribe appropriate remedial action to correct or safely compensate for those deviations.

Thank you for your attention to this matter. Additional FRA Class 1 and Non-Class Specific defects in areas that currently do not have passenger operations will be provided in a future report. If you have any questions, please contact me at (617) 357-7700.

Sincerely,



Owen Smith
Rail Engineer

Attachments

cc: Peter Reilly, HDR
Ken Briggs, HDR
Neil Kollios, HDR



Photo # 440



Photo # 455



Photo # 497



Photo # 1018



Photo # 1026



Photo # 1027



Photo # 1028



Photo # 1034



Photo # 1047



Photo # 1050



Photo # 1051



Photo # 1059

EXHIBIT M

September 21, 2015



Ms. Marisa Hansen, Esq.
Ulster County Attorney's Office
244 Fair Street
Kingston, NY 12401

Re: 2015 Follow-up Inspection of the Ulster County Rail Corridor

Dear Ms. Hansen:

HDR Engineering, Inc. (HDR) conducted a follow-up track inspection on behalf of Ulster County to determine compliance with Title 49, Part 213, Subpart A to F for Class 1 and Non-Class Specific Standards (hereafter Track Safety Standards) as required per agreement with the Catskill Mountain Railroad (CMRR). Inspections were conducted on foot on the Ulster and Delaware Corridor (hereafter the Corridor) between Downs Street in Kingston, NY and Bridge Street in Phoenicia, NY with two (2) HDR inspectors on Thursday, September 3 and Friday, September 4, 2015.

Based on the 2014 and 2015 inspections, the following are HDR's findings:

1. It was observed that the majority of the Corridor receives minimal maintenance. On the two (2) sections where train operations are conducted (totaling 6.23 miles), it was observed that evidence of maintenance activities had occurred.. It is the inspection team's conclusion that these sections, which are marked in green on the map in Appendix A, meet Class 1 Standards.
2. In areas where train operations are not conducted (totaling 17.24 miles), There was no evidence of any level of maintenance to support Class 1 operations since the last inspection in 2014. Mature trees were found growing in the ditches, rotted, split, and missing ties were observed consistently, and numerous joint conditions were found. Limited brush cutting was conducted in areas along the Ashokan Reservoir, but not to a degree that would comply with Title 49, Part 213, Section 37. Heavy timber was removed so on-track equipment could clear, but only to a clearance envelope sufficient for small on-track equipment.
3. Along all segments of the Corridor, it was observed that it was not kept free of brush, litter, and debris. Brush conditions were worse along segments not experiencing train operations. In areas where train operations do occur, vegetation is overgrown to where it brushes along the sides of equipment and hinders the ability of inspectors from performing their trackside duties.
4. Two (2) segments between Rt. 209 and MP 6.45 (totaling approximately 1 mile) have recently had ties installed to meet Class 1 Tie Condition. The first segment, between Rt. 209 and Hurley Mountain Road, was receiving improvements during the 2014

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inspection. The second segment, between Hurley Mountain Road and MP 6.45, is currently receiving improvements as of the 2015 inspection. In order to meet Class 1 Standards, additional work must be conducted to ensure compliance. Vegetation is overgrown to the point where it is brushing the sides of equipment parked in this segment.

The table below outlines the specific conditions identified by the inspection team.

	From	To	Approximate Distance	Condition Assessment
1.	Downs Street (MP 3.23)	Rt. 209 (MP 5.4)	2.2 miles	Maintained to Class 1 Standards; passenger trains operate in this section. Other defects were observed that are not Class 1 compliant. *
2.	Rt. 209 (MP 5.4)	Hurley Mountain Road (MP 5.93)	0.5 miles	Tie condition generally meets Class 1 Standards; section was restored by CMRR in 2014. Other defects were observed that are not Class 1 compliant. *
3.	Hurley Mountain Road (MP 5.93)	MP 6.45	0.5 miles	Ties are currently being installed by CMRR to meet Class 1 Standards. However, other conditions will need to be addressed to meet Class 1 Standards. *
4.	MP 6.45	East End Esopus Creek Trestle (MP 21.26)	14.8 miles	Does not meet Class 1 Standards, poor tie conditions observed, loose joint bars, center cracked joint bars, drainage work required, no vegetation management. *
5.	East End Esopus Creek Trestle (MP 21.26)	West End Esopus Creek Trestle (MP 21.31)	290 ft	Bridge is washed out. *
6.	West End Esopus Creek Trestle (MP 21.31)	Cold Brook Station (MP 22.16)	0.9 mile	Does not meet Class 1 standards, poor tie conditions observed, loose joint bars, center cracked joint bars, drainage work required, and no vegetation management. *
7.	Cold Brook Station (MP 22.16)	MP 23.50	1.3 miles	Tie condition generally meets Class 1 Standards, however due to washouts, track segment is inoperable, loose joint bars, center cracked joint bars were observed, and no vegetation management. *
8.	MP 23.50	MP 27.53	4.03 miles	Maintained to Class 1 Standards; passenger trains operate in this section. Other defects were observed that are not Class 1 compliant. *
9.	MP 27.53	Bridge Street (MP 27.77)	0.24 mile	Does not meet Class 1 Standards, poor tie conditions noted, vegetation not maintained. *

*See Appendix B for photos of segment.

HDR inspected between MP 10 and MP 21.26 on September 3, 2015. The remainder of the Corridor was inspected on September 4, 2015 (MP 3.23 to MP 10 and MP 21.31 to MP 27.77).

Inspectors visually inspected tie conditions to determine compliance with §213.109 (Crossties). Inspectors would verify gage measurements with a tape measure and test the ability of ties to retain fasteners by hand. A portable track loading fixture (PTLF) was not used. In the most severe locations, spikes (rail fasteners) were able to be removed by hand and the rail was able to be moved laterally by applying minimal force. Crossties must be able to retain spikes (fasteners) and restrain the rail laterally to allow the track structure to support the vertical and lateral forces of a train. Merely operating work equipment is not proof that the track structure can support the load of a train.

Language in the lease agreement between Catskill Mountain Railroad, Inc. and the County of Ulster specifically requires the assignee to rehabilitate a minimum of 1 mile of track per lease year so that at the end of the lease the entire line is rehabilitated to "Class 1 Condition."[1] As such, this inspection was conducted as if the CMRR was governed by the Track Safety Standards. Volume 2, Chapter 1 of the *Track and Rail and Infrastructure Integrity Compliance Manual* was referenced to ensure consistency with HDR's interpretation of the Track Safety Standards and the generally accepted practices of track maintenance and inspection. In addition, the lead inspector used his experience maintaining and inspecting Class 1 through Class 4 track to identify defects.

Class 1 Defects are defined as defects identified that, in isolation or in combination, exceed the maximum parameter for track designated as Class 1. These Class-Specific Defects include, but are not limited to, parameters such as:

- Gage,
- Alinement (alignment),
- Track surface,
- Rail end mismatch,
- Minimum number of effective crossties within twenty-four inches (24") of a joint,
- Minimum number of effective crossties per thirty-nine feet (39').
    - The minimum number of effective crossties is broken down into three specific locations:
        - In tangent (straight) track or in curves less than or equal to two (2) degrees, and
        - Turnouts and curves greater than two (2) degrees.

Non-class Specific Defects are defined as defects that do not meet the standards set forth in Title 49, Part 213, Subpart A to F and are not specific to a certain class. These defects should be considered as the "minimum" conditions that should be followed for a railroad to operate at any speed. These defects include, but are not limited to, minimum requirements for:

- Drainage,
- Vegetation management, and
- Ballast.

[1] Lease Agreement, Page 3, Rehabilitation and Maintenance Paragraph.

Class 1 Defects must be repaired to operate passenger service, as revenue passenger trains are not permitted to operate on excepted track; Non-class Specific Defects must be repaired within 30 days of identification to remain in compliance with Track Safety Standards.

In order to ensure compliance with the Track Safety Standards, a comprehensive maintenance plan must be implemented. Drainage and vegetation defects will need to be addressed along the entire Corridor. Upon removal of vegetation, a detailed tie inspection should be conducted. A qualified individual (person meeting the requirements of (§213.7(a)) should determine the number of ties to replace in order to meet the minimum number of effective ties prescribed in the Track Safety Standards. Upon completion of the tie inspection and replacement, the operator should install ballast to support the new ties and maintain surface and alignment parameters set forth in the Track Safety Standards. A bolt and joint bar replacement program will also need to be implemented to ensure center cracked or broken joint bars are removed from the track and that at least one (1) bolt per rail is tight.

Sincerely,
HDR Engineering, Inc.

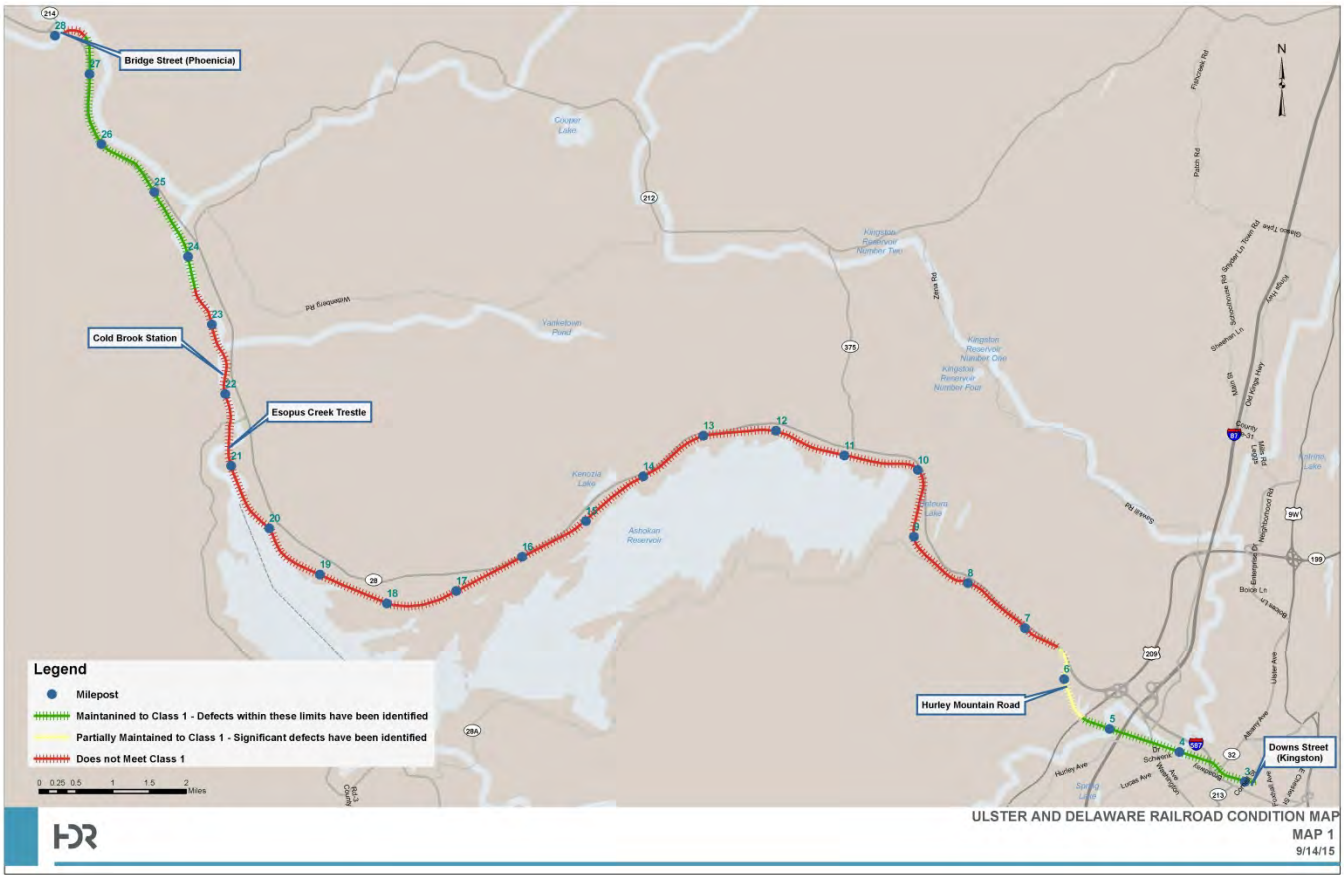


Owen Smith
Rail Engineer

Attachments

cc: Peter Reilly, HDR
Ken Briggs, HDR
Richard Semenick, HDR

Appendix A
Map 1: Ulster and Delaware Railroad Corridor Condition Map
2015 Follow-up Inspection



Appendix B
Conditions Observed

1. Conditions Observed from Downs Street (MP 3.23) to RT. 209 (MP 5.4)



1.1 Recently Mowed Vegetation



1.2 Tie Condition Observed



1.5 Vegetation Observed at Milepost 4



1.4 Tie Condition Generally Meets Class 1

2. Conditions Observed from RT. 209 (MP 5.4) to Hurley Mountain Road (MP 5.93)



2.1 Vegetation Maintained to Class 1



2.2 Tie Condition Generally Meets Class 1



2.3 No effective supports ties within the prescribed distance from a joint (§213.109(e) (1))



2.4 Tie Condition Generally Meets Class 1. Insufficient ballast (§213.103(a))

3. Conditions Observed from Hurley Mountain Road (MP 5.93) to MP 6.45



3.1 Recently Changed Ties To Meet Class 1. No Vegetation Management (§213.37)



3.2 No Vegetation Management (§213.37)

4. Conditions Observed from MP 6.45 to East End Esopus Creek Trestle (MP 21.31)



4.1 Previously Observed Tire Pile. Right Of Way Was Not Free Of Brush, Litter And Debris.



4.2 Poor Drainage And Defective Tie Condition (§213.33 and §213.109(e) (1))



4.3 Defective Tie, Tie Unable To Hold Spike (§213.109(c) (2))



4.4 Rockslide Next To Joint Tie Defect (§213.109(e) (1))



4.5 Previously Marked Joint Tie Defect, Tie Unable To Hold Spike – Defect Not Addressed (§213.109(c) (2))



4.6 Previously Marked Center Cracked Joint Bar – Defect Not Addressed (§213.121(c))



4.7 No Effective Support Ties Within The Prescribed Distance From A Joint (§213.109(e) (1))



4.8 Defect Tie Condition (§213.109(e) (1))



4.9 No Vegetation Management (§213.37)



4.10 Previously Marked Joint Tie Defect, Tie Unable To Hold Spike – Defect Not Addressed (§213.109(c) (2))



4.11 No Vegetation Management (§213.37), Difficult To Inspect



4.12 Center Cracked Joint Bar (§213.121(c))



4.13 Poor Drainage And No Vegetation Management (§213.33 And §213.37)



4.14 Poor Tie Condition and Insufficient Ballast (§213.109(e) (1) and §213.103(a))



4.15 No Vegetation Management (§213.37)



4.16 No Vegetation Management (§213.37), Difficult To Inspect



4.17 Washout, Insufficient Ballast (§213.103(a))



4.18 Rail End Mismatch (§213.115)



4.19 Previously Marked Center Cracked Joint Bar – Defect Not Addressed (§213.121(c))



4.20 Detailed View of Deteriorated (§213.109(c) (3))



4.21 No Vegetation Management (§213.37), Difficult To Inspect



4.22 Rail End Mismatch (§213.115)



4.23 Defective Tie, Vegetation Growing Through Tie (§213.109(c) (2))



4.24 Defective Tie, Tie Unable To Hold Spike (§213.109(c) (2))

5. **Conditions Observed from East End Esopus Creek Trestle (MP 21.26) to West End Esopus Creek Trestle (MP 21.31)**



5.1 Failed Esopous Creek Trestle



5.2 Poor Tie Condition On Espous Creek Trestle Approach (§213.109(e) (1))



5.2 Poor Timber Condition On Espous Creek Trestle Approach (§213.109(e) (1))

6. Conditions Observed from West End Esopus Creek Trestle (MP 22.31) to Cold Brook Station (MP 22.16)



6.1 Poor Drainage And No Vegetation Management (§213.33 And §213.37)



6.2 No Effective Support Ties Within The Prescribed Distance From A Joint (§213.109(e) (1))



6.3 Defective Tie, Tie Unable To Hold Spike (§213.109(c) (2))

7. Conditions Observed from Cold Brook Station (MP 22.16) to MP 23.50



7.1 Washout, Insufficient Ballast (§213.103(a))



7.2 No Vegetation Management (§213.37)



7.3 Washout, Insufficient Ballast (§213.103(a))



7.4 Center Cracked Joint Bar (§213.121(c))

8. Conditions Observed from MP 23.50 to MP 27.53



8.1 Tie Condition Generally Meets Class 1



8.2 Tie Condition Generally Meets Class 1, Vegetation Defects Observed (§213.37)



8.3 Tie Condition Generally Meets Class 1, Vegetation Defects Observed (§213.37)



8.4 Previously Observed Tie Pile, Ties Should Be Disposed Of At An Approved Facility

9. Observed Conditions from MP 27.53 to Bridge Street (MP 27.77)



9.1 Poor Tie Condition and Insufficient Ballast (§213.109(e) (1) and §213.103(a))



9.2 Defective Tie, Tie Unable To Hold Spike (§213.109(c) (2))



9.3 No Effective Support Ties Within The Prescribed Distance From A Joint (§213.109(e) (1))

EXHIBIT N



July 20, 2017

Mr. Chris White, Deputy Director
Ulster County Planning Department
P.O. Box 1800
244 Fair Street
Kingston, NY 12402-1800

Re: Ulster & Delaware Railroad - Ashokan Reservoir Segment
Summary of Opinion Statement

Dear Mr. White:

HDR was engaged by the Ulster County Planning Department to develop a recommendation and Summary of Opinion Statement ("**Summary**") regarding the Ulster & Delaware Railroad Corridor between Milepost 10 at Basin Road in West Hurley and Milepost 21.6 at Route 28A in Boiceville, NY ("**Corridor**"). Specifically, HDR was asked to make a recommendation based on our railroad engineering experience and familiarity with the Corridor as to whether it is preferable from the perspective of restoring railroad uses in the future to remove the existing track infrastructure to construct a rail trail, or alternatively, bury the existing track infrastructure.

For background, I am currently the Association Vice President and Rail Section Manager for HDR with more than 35 years' experience in railroad engineering as well as a Licensed Professional Engineer in the State of New York with a Bachelor of Science Degree of Civil Engineering from the University of Pittsburgh, A Master of Science from New York Polytechnic and a Post Graduate Engineers Degree from Columbia University.

Summary Statement/ Recommendation:

As detailed below, it is our recommendation that the County remove the existing railroad infrastructure—including track, ties, and other track materials ("**OTM**")-- in developing the **Ashokan Rail Trail ("ART") rather than bury the** track and tie infrastructure for potential future use in building the ART. Based on cost, constructability, drainage considerations, current condition of the track and ties, and other factors, any future restoration of railroad uses on the Corridor is best served by removal of existing track and ties and stabilization of the underlying railroad infrastructure, including repairs to drainage structures, as proposed for the ART development. Burying and then uncovering the existing railroad infrastructure will make restoration of railroad uses on the Corridor more expensive and labor-intensive. It would also make trail construction and restoration of the drainage facilities much more difficult and expensive and make future maintenance of the trail problematic. Finally, leaving deteriorated ties in the corridor are likely to have environmental consequences that should be avoided.

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My recommendation is based on familiarity with the Corridor from prior inspection reports and on my experience with all aspects of railroad construction and maintenance. As you know, HDR's Rail Engineer and staff visited and documented the condition of the U&D Corridor between Kingston and Phoenicia, including this segment, in 2015 and 2016 and provided an assessment of the rail infrastructure to the County in reports dated June 6, 2014 and September 21, 2015 ("Condition Reports"). I reviewed the Condition Reports at the time they were produced and certified them as the supervising engineer. For purposes of this Summary, I have conducted a detailed review of the Condition Reports, including the accompanying photographs to re-familiarize myself with the Corridor and the condition of its railroad infrastructure. I have also researched other rail trail corridors to determine whether others have any experience in building trails on top of existing rail infrastructure that would inform my recommendation.

Current Conditions of the U&D Corridor:

As detailed in HDR's Condition Reports from 2015 and 2016, the U&D Corridor along the Ashokan Reservoir does not meet FRA Class I safety standards, the minimum safety standard for any operation of passenger or freight service. We understand that the last freight service on this segment was in the late 1970's, and it appears that for the most part, little or no maintenance of the railroad infrastructure has occurred since that time. HDR's Rail Engineer found and documented that the Corridor was in an advanced state of disrepair from this lack of maintenance, and the railroad infrastructure—including as culverts, bridges, drainage ditches, embankment and right-of-way have numerous locations of complete failure with the majority of the infrastructure evidencing marginal function as to its intended design purpose. In support of these statements I note that during the 2015 and 2016 inspections, HDR's Rail Engineer was unable to record every track defect as the condition of the Corridor was so poor. Many defects were hidden under debris, and the main charge of the inspection was to provide sufficient data to show that the areas that did not meet Class 1 standards. The Rail Engineer sampling throughout the Corridor at regular intervals did document 297 FRA Class I defects (77 Class Specific defects, 120 Non Class Specific). Most importantly for the purpose of this Opinion Statement, the photos and written statements in the Condition Report reveals that approximately 95% of the railroad ties were in an advanced state of decay or missing.

The inspections also detailed a long list of other railroad infrastructure issues in the Corridor. The rail, itself, is misaligned and has surface irregularities in many areas. Tie conditions are very poor, and ballast is no longer even visible in many areas due to build-up of organic materials over a period of decades. Drainage systems have largely failed, with ditches plugged and overgrown with trees, ballast missing (which allows drainage), many culverts heavily deteriorated (including the complete failure of the major culvert at Butternut Creek), and ditch lines that over a period of years have now become wetlands and left the railroad

bed saturated. All of these issues are critical factors in weighing the advisability of burying this infrastructure for reuse in the future.

Issues with Burying Rail Infrastructure:

The choice of whether to remove or bury the existing track and ties requires consideration of the impacts both on the trail and future ability to restore the rail that was buried to operating condition. The existing railroad ties throughout the corridor are in an advanced state of decay, which will only accelerate once they are buried. Their continued decay will likely foul trail construction materials resulting in a "wash board" trail surface over a short timeframe causing challenging trail maintenance. Removing the ties and track before constructing the trail allows for removal of the built-up organic material and refreshment of the existing ballast to restore its drainage capabilities. This, along with repair and replacement of other drainage structures, will better preserve the integrity of the rail corridor, and stabilized trail material itself will serve as an improved sub-base for any future track restoration.

Burying track infrastructure is not a typical rail-to-trail conversion practice. We have found no instances of it being used in similar situation or for this length. Leaving the track structure will complicate the installation of the trail as construction equipment will have to avoid damage to the rail, which is nearly impossible in many sections of the narrow corridor. Additionally, burying track and tie makes the correction of drainage issues along the rail gage similarly more difficult as construction of swales, new culverts, and replacement of ballast where washed out will need to be done while maintaining the track in place. Stabilization of the underlying railroad embankment/ bed is best accomplished by removing the track, ties and OTM, excavating the built-up organic materials layers, and re-establishing a functioning drainage system, including new ballast. The rail and OTM can be sold as scrap offsetting trail construction costs and help to offset the cost of disposal for the existing deteriorated ties.

In addition to the issues highlighted above, the following considerations also cause us to discourage burying the existing track materials for future re-use for railroad operations:

- Restoration of existing track to future service after burial will require heavy tie renewal. It is likely that, even after a short time, nearly 100% of the ties will require replacement as few, if any will survive being uncovered and set to final geometry.

- Reestablishment of alignment using the current 100 LB DY rail (which is no longer produced) with 6 hole joints throughout is problematic as it should not be welded without cropping every end due to bolt hole fractures (i.e., not "weld friendly"). The exiting 100 LB rail may require over 3000 welds plus each end being cropped due to 6 hole joints as best practice does not support welding within 9.5" of a bolt hole.

In addition, the condition of the existing rail that already has pitting and flange issues also makes replacement of the rail a better choice from a safety perspective.

- Continuous welded rail (CWR) is today's preference for rail corridor restoration. AREMA rail sections sizes 115 and up are the rail sections now used in railroad reconstruction and repair. Railroad ties for this type of rail can be spaced at 24 inches on center versus 19.5 inches common with 100 LB rail sections. Approximately 7000 less railroad ties would be required on the 11.6 mile section of the Corridor using 115 size rail.

- Modern track construction methods have economic and constructability advantages over any restoration attempts of this Corridor that leave the track and ties buried in place. The use of CWR/wood tie track structure on a graded restored ballast system with drainage improvements is likely to be more cost effective from a purely rail standpoint given the amount of ties needed to be replaced, the condition of the ballast and drainage in the corridor, and the type and condition of the rail itself.

- It is not clear how major reconstruction of the Butternut Creek Culvert and Boiceville Bridge could be accomplished without removing the track and tie infrastructure and stabilizing the road bed for construction vehicles. Much of the Corridor is remotely located and narrow, and retention of the existing track would make construction access very difficult and expensive.

- Significant costs will be incurred for trail construction associated as additional fill will have to be brought in over a long narrow corridor. Adding fill to cover the tracks is also likely to cause problems in maintaining trail width as side slopes and shoulder issues will arise on the narrow embankments and drainage issues will occur in the narrow rock cuts.

Conclusion:

Based on our inspection and review of the existing conditions in the Corridor, the Ulster & Delaware Railroad Corridor segment from Milepost 10 at Basin Road to Milepost 21.6 at Route 28A we offer the following:

- The Corridor in its current condition cannot support rail service without major rehabilitation and repair, burying this rail infrastructure will only add to its deficiencies and efforts needed to uncover and re-establish geometry will further add to the problems with the existing track.

- Significant barriers exist to the constructability and maintenance of a trail over the rail that include: removal of organic material now present throughout the existing

ballast; restoration and improvements to drainage systems; avoiding damage to the existing rail infrastructure during construction, particularly during placement of fill; and maintaining the trail width and need shoulders on narrow embankments and rock cuts.

- Each of the above factors will significantly increase the costs of trail construction as will the need for additional fill to cover the tracks. Maintenance costs for the trail will rise in both the near and long term as the underlying rail infrastructure deteriorates and shifts with usage.

- Environmental issues will be heightened with the existing ties being left in place.

For all of the reasons discussed above, the County would be best served by removing all existing rail appliances (Rail/Ties/OTM) before the installation the trail based on the cost, constructability and usability of the trail and the feasibility of restoring railroad services at some future date using the existing rail infrastructure. Future restoration of the Corridor to a properly functioning condition will best be accomplished with total replacement of rail/ties/OTM with more currently available materials installed by modern means and methods.

If there are further questions, I can be contacted at (212)-542-6028 or via email: richard.semenick@hdrinc.com.

Sincerely,



Richard C. Semenick, PE
Associate Vice President

EXHIBIT O

Ulster & Delaware Railroad Corridor
Pine Hill Section (Milepost 38.9)- July 2, 2013





Ulster & Delaware Railroad Corridor
Pine Hill Section (Milepost 38.9)- July 2, 2013





Ulster & Delaware Railroad Corridor
Big Indian to Pine Hill Section– Mileposts 34.7 to 41.4 - May 18, 2013





Ulster & Delaware Railroad Corridor
Big Indian to Pine Hill Section– Mileposts 34.7 to 41.4 - May 18, 2013



Ulster & Delaware Railroad Corridor
Big Indian to Pine Hill Section– Mileposts 34.7 to 41.4 - May 18, 2013





Ulster & Delaware Railroad Corridor
Big Indian to Pine Hill Section– Mileposts 34.7 to 41.4 - May 18, 2013



Ulster & Delaware Railroad Corridor
Big Indian to Pine Hill Section– Mileposts 34.7 to 41.4 - May 18, 2013





Ulster & Delaware Railroad Corridor
Big Indian to Pine Hill Section– Mileposts 34.7 to 41.4 - May 18, 2013





Ulster & Delaware Railroad Corridor
Big Indian to Pine Hill Section– Mileposts 34.7 to 41.4 - May 18, 2013



Ulster & Delaware Railroad Corridor
Big Indian to Pine Hill Section– Mileposts 34.7 to 41.4 - May 18, 2013



Ulster & Delaware Railroad Corridor
Big Indian to Pine Hill Section– Mileposts 34.7 to 41.4 - May 18, 2013



Ulster & Delaware Railroad Corridor
Big Indian to Pine Hill Section– Mileposts 34.7 to 41.4 - May 18, 2013



Ulster & Delaware Railroad Corridor
Big Indian to Pine Hill Section– Mileposts 34.7 to 41.4 - May 18, 2013



Ulster & Delaware Railroad Corridor
Big Indian to Pine Hill Section– Mileposts 34.7 to 41.4 - May 18, 2013



Ulster & Delaware Railroad Corridor
Big Indian to Pine Hill Section– Mileposts 34.7 to 41.4 - May 18, 2013



Ulster & Delaware Railroad Corridor
Big Indian to Pine Hill Section– Mileposts 34.7 to 41.4 - May 18, 2013



Ulster & Delaware Railroad Corridor
Big Indian to Pine Hill Section– Mileposts 34.7 to 41.4 - May 18, 2013



Ulster & Delaware Railroad Corridor
Big Indian to Pine Hill Section– Mileposts 34.7 to 41.4 - May 18, 2013



Ulster & Delaware Railroad Corridor
Big Indian to Pine Hill Section– Mileposts 34.7 to 41.4 - May 18, 2013



Ulster & Delaware Railroad Corridor
Big Indian to Pine Hill Section– Mileposts 34.7 to 41.4 - May 18, 2013





Ulster & Delaware Railroad Corridor
Big Indian to Pine Hill Section– Mileposts 34.7 to 41.4 - May 18, 2013





Ulster & Delaware Railroad Corridor
Big Indian Section- February 15, 2013





Ulster & Delaware Railroad Corridor
Big Indian Section- February 15, 2013





Ulster & Delaware Railroad Corridor
Big Indian Section (Milepost 36.1.-36.4)- July 2, 2013





Ulster & Delaware Railroad Corridor
Big Indian Section (Milepost 36.1.-36.4)- July 2, 2013





Ulster & Delaware Railroad Corridor
Big Indian Section (Milepost 36.1.-36.4)- July 2, 2013





Ulster & Delaware Railroad Corridor
Shandaken Section – MP 32.56 to MP33.75 - May 1, 2013



Ulster & Delaware Railroad Corridor
Shandaken Section – MP 32.56 to MP33.75 - May 1, 2013



Ulster & Delaware Railroad Corridor
Shandaken Section – MP 32.56 to MP33.75 - May 1, 2013



Ulster & Delaware Railroad Corridor
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Ulster & Delaware Railroad Corridor
Shandaken Section – MP 32.56 to MP33.75 - May 1, 2013



Ulster & Delaware Railroad Corridor
Shandaken Section – MP 32.56 to MP33.75 - May 1, 2013



Ulster & Delaware Railroad Corridor
Shandaken Section - Milepost 30.40 to 32.56 - April 26, 2013



Ulster & Delaware Railroad Corridor
Shandaken Section - Milepost 30.40 to 32.56 - April 26, 2013



Ulster & Delaware Railroad Corridor
Shandaken Section - Milepost 30.40 to 32.56 - April 26, 2013



Ulster & Delaware Railroad Corridor
Shandaken Section - Milepost 30.40 to 32.56 - April 26, 2013





Ulster & Delaware Railroad Corridor
Shandaken Section - Milepost 30.40 to 32.56 - April 26, 2013



Ulster & Delaware Railroad Corridor
Shandaken Section - Milepost 30.40 to 32.56 - April 26, 2013



Ulster & Delaware Railroad Corridor
Shandaken Section - Milepost 30.40 to 32.56 - April 26, 2013



Ulster & Delaware Railroad Corridor
Shandaken Section - Milepost 30.40 to 32.56 - April 26, 2013



Ulster & Delaware Railroad Corridor
Shandaken Section - Milepost 30.40 to 32.56 - April 26, 2013



Ulster & Delaware Railroad Corridor
Shandaken Section - Milepost 30.40 to 32.56 - April 26, 2013



Ulster & Delaware Railroad Corridor
Shandaken Section - Milepost 30.40 to 32.56 - April 26, 2013



Ulster & Delaware Railroad Corridor
Shandaken Section - Milepost 30.40 to 32.56 - April 26, 2013



Ulster & Delaware Railroad Corridor
Shandaken Section - Milepost 30.40 to 32.56 - April 26, 2013



Ulster & Delaware Railroad Corridor
Shandaken Section - Milepost 30.40 to 32.56 - April 26, 2013





Ulster & Delaware Railroad Corridor
Phoenicia to Shandaken Section – Mileposts 27.0 to 28.6, and 33.7 to MP 34.7 - May 17, 2013





Ulster & Delaware Railroad Corridor
Phoenicia to Shandaken Section – Mileposts 27.0 to 28.6, and 33.7 to MP 34.7 - May 17, 2013



Ulster & Delaware Railroad Corridor
Phoenicia to Shandaken Section – Mileposts 27.0 to 28.6, and 33.7 to MP 34.7 - May 17, 2013



Ulster & Delaware Railroad Corridor
Phoenicia to Shandaken Section – Mileposts 27.0 to 28.6, and 33.7 to MP 34.7 - May 17, 2013



Ulster & Delaware Railroad Corridor
Phoenicia to Shandaken Section – Mileposts 27.0 to 28.6, and 33.7 to MP 34.7 - May 17, 2013



Ulster & Delaware Railroad Corridor
Phoenicia to Shandaken Section – Mileposts 27.0 to 28.6, and 33.7 to MP 34.7 - May 17, 2013



Ulster & Delaware Railroad Corridor
Phoenicia to Shandaken Section – Mileposts 27.0 to 28.6, and 33.7 to MP 34.7 - May 17, 2013



Ulster & Delaware Railroad Corridor
Phoenicia to Shandaken Section – Mileposts 27.0 to 28.6, and 33.7 to MP 34.7 - May 17, 2013



Ulster & Delaware Railroad Corridor
Phoenicia to Shandaken Section – Mileposts 27.0 to 28.6, and 33.7 to MP 34.7 - May 17, 2013



Ulster & Delaware Railroad Corridor
Phoenicia to Shandaken Section – Mileposts 27.0 to 28.6, and 33.7 to MP 34.7 - May 17, 2013





Ulster & Delaware Railroad Corridor
Phoenicia to Shandaken Section – Mileposts 27.0 to 28.6, and 33.7 to MP 34.7 - May 17, 2013



Ulster & Delaware Railroad Corridor
Phoenicia to Shandaken Section – Mileposts 27.0 to 28.6, and 33.7 to MP 34.7 - May 17, 2013



Ulster & Delaware Railroad Corridor
Phoenicia to Shandaken Section – Mileposts 27.0 to 28.6, and 33.7 to MP 34.7 - May 17, 2013





Ulster & Delaware Railroad Corridor
Shandaken Section – MP 29.80 to MP 29.95 – July 10, 2013





Ulster & Delaware Railroad Corridor
Shandaken Section – MP 29.80 to MP 29.95 – July 10, 2013



Ulster & Delaware Railroad Corridor
Shandaken Section – MP 29.80 to MP 29.95 – July 10, 2013



Ulster & Delaware Railroad Corridor
Phoenicia Section– Mileposts 28.4 to 29.0 - May 13, 2013





Ulster & Delaware Railroad Corridor
Shandaken Section – Mileposts 21.6 to 21.85, 25.4 to 26.4, and 30.1 to 30.4 - May 23, 2013



Ulster & Delaware Railroad Corridor
Shandaken Section – Mileposts 21.6 to 21.85, 25.4 to 26.4, and 30.1 to 30.4 - May 23, 2013





Ulster & Delaware Railroad Corridor
Shandaken Section – Mileposts 21.6 to 21.85, 25.4 to 26.4, and 30.1 to 30.4 - May 23, 2013





Ulster & Delaware Railroad Corridor
Boiceville Sections– Milepost 22.8 to 24.2- May 2, 2013





Ulster & Delaware Railroad Corridor
Route 28 / Town of Ulster and Boiceville Sections– Mileposts 8.3-10.2, and Milepost 22.8 to 24.2- May 2, 2013





Ulster & Delaware Railroad Corridor
Cold Brook Section (Milepost 22.8 to 22.5 and 22.2 to 21.9)- July 2, 2013





Ulster & Delaware Railroad Corridor
Cold Brook Section (Milepost 22.8 to 22.5 and 22.2 to 21.9)- July 2, 2013





Ulster & Delaware Railroad Corridor
Cold Brook Section (Milepost 22.8 to 22.5 and 22.2 to 21.9)- July 2, 2013





Ulster & Delaware Railroad Corridor
Cold Brook Section (Milepost 22.8 to 22.5 and 22.2 to 21.9)- July 2, 2013





Ulster & Delaware Railroad Corridor
Cold Brook Section (Milepost 22.8 to 22.5 and 22.2 to 21.9)- July 2, 2013





Ulster & Delaware Railroad Corridor
Cold Brook Section (Milepost 22.8 to 22.5 and 22.2 to 21.9)- July 2, 2013





Ulster & Delaware Railroad Corridor
Cold Brook Section (Milepost 22.8 to 22.5 and 22.2 to 21.9)- July 2, 2013





Ulster & Delaware Railroad Corridor
Cold Brook Section (Milepost 22.8 to 22.5 and 22.2 to 21.9)- July 2, 2013





Ulster & Delaware Railroad Corridor
Ashokan Reservoir Section (Milepost 21.3 to 16.3)- May 3, 2013





Ulster & Delaware Railroad Corridor
Ashokan Reservoir Section (Milepost 21.3 to 16.3)- May 3, 2013





Ulster & Delaware Railroad Corridor
Ashokan Reservoir Section (Milepost 21.3 to 16.3)- May 3, 2013





Ulster & Delaware Railroad Corridor
Ashokan Reservoir Section (Milepost 21.3 to 16.3)- May 3, 2013



Ulster & Delaware Railroad Corridor
Ashokan Reservoir Section (Milepost 21.3 to 16.3)- May 3, 2013





Ulster & Delaware Railroad Corridor
Ashokan Reservoir Section (Milepost 21.3 to 16.3)- May 3, 2013





Ulster & Delaware Railroad Corridor
Ashokan West Basin Section (Milepost 21.3 to 20.0)- July 2, 2013





Ulster & Delaware Railroad Corridor
Ashokan West Basin Section (Milepost 21.3 to 20.0)- July 2, 2013





Ulster & Delaware Railroad Corridor
Ashokan East Basin Section (Milepost 13.1 to 10.8)- July 2, 2013





Ulster & Delaware Railroad Corridor
Ashokan East Basin Section (Milepost 13.1 to 10.8)- July 2, 2013





Ulster & Delaware Railroad Corridor
Ashokan East Basin Section (Milepost 13.1 to 10.8)- July 2, 2013





Ulster & Delaware Railroad Corridor
Ashokan East Basin Section (Milepost 13.1 to 10.8)- July 2, 2013





Ulster & Delaware Railroad Corridor
Ashokan East Basin Section (Milepost 13.1 to 10.8)- July 2, 2013





Ulster & Delaware Railroad Corridor
Ashokan East Basin Section (Milepost 13.1 to 10.8)- July 2, 2013





Ulster & Delaware Railroad Corridor
Route 28/Town of Ulster Section (Milepost 8.2 to 8.5)- July 2, 2013





Ulster & Delaware Railroad Corridor
Route 28/Town of Ulster Section (Milepost 8.2 to 8.5)- July 2, 2013





Ulster & Delaware Railroad Corridor
Route 28/Town of Ulster Section (Milepost 8.2 to 8.5)- July 2, 2013





Ulster & Delaware Railroad Corridor
Route 28/ Town of Ulster Section- November 2, 2012



Ulster & Delaware Railroad Corridor
Route 28/ Town of Ulster Section- November 2, 2012





EXHIBIT P

Ashokan Rail Trail Project
Views from the Corridor



Ashokan Rail Trail Project
Views from the Corridor



Ashokan Rail Trail Project
Views from the Corridor



EXHIBIT Q

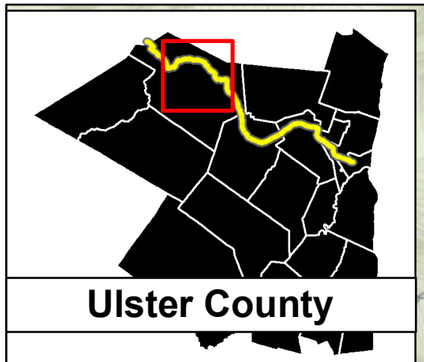
Washouts with either complete loss of ballast material of substantial loss where rails and/or ties are hanging in air U&D Corridor WEST of Phoenicia only

Map Number	Street Address/Location of WASHOUT SECTION	LENGTH of washout in FEET (approx)	STREAM	MP (approx)
1	160 High Street to above Bridge Street	1,100	Esopus Creek	27.87 - 28.07
2	250 High Street to 300 High Street	1,025	Esopus Creek	28.43 - 28.61
3	2 - 20 Herdman Road	600	Esopus Creek	28.79 - 28.90
4	Flintlock and Herdman Rd intersection	650	Esopus Creek	29.07 - 29.19
5	Near end of Herdman Road	75	Trib to Esopus Creek	30.31
6	"Greeny Deep" section behind the Copperhood Inn	375	Esopus Creek	31.17 - 31.23
7	Behind the Copperhood Inn	325	Esopus Creek	31.28 - 31.33
8	Behind the Shandaken Town Hall to the "Portal"	1,750	Esopus Creek	31.72 - 32.04
9	Upstream of Fox Hollow Rd	550	Esopus Creek	32.71 - 32.81
10	Alongside NYS Route 28 upstream of NYS Rte 42 intersection	650	Esopus Creek	33.77 - 33.90
11	On mountainside between Peekamoose Restaurant and DEP wastewater treatment plant	50	Intermittent stream	38.01
12	On mountainside just east of Winding Mountain Road	75	Intermittent stream	38.28
	TOTAL	**7,225 feet**		

These washouts are not as substantial. Nonetheless, RR ties and/or rails are hanging in the air at each locations and ballast material has been washed away.

Washouts along the Esopus Creek between Phoenicia and hamlet of Shandaken total approximately 7,000 linear feet

Substantial Washouts
U&D Corridor
Phoenicia to Big Indian



Legend

- Mileposts
- U&D Corridor
- Washout Locations

NYSDOT Bridge work

#8 - Behind Shandaken Town Hall
(+/- 1,750')



#6 & #7 Copperhood Inn/"Greeny Deep" Area
(+/- 700' total)





#1 - Above Bridge Street
(+/- 1,100')

#2 - 250-300 High Street
(+/- 1,025')



#3 - 2-20 Herdman Rd
(+/- 600')



#5 - Near End of Herdman Rd
(+/- 75')

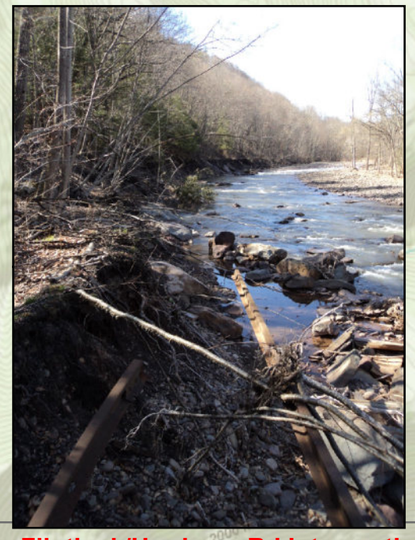


#9 - Upstream Fox Hollow Rd
(+/- 550')

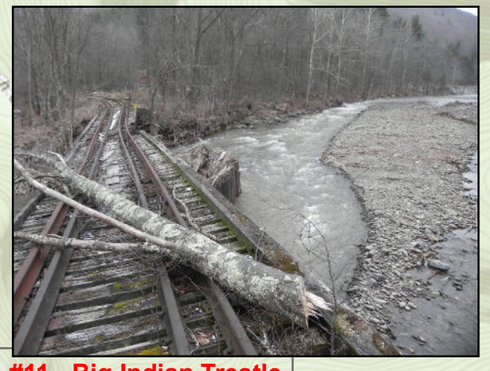


#10 - Upstream Rte 42/28 Intersection
(+/- 650')





#4 - Flintlock/Herdman Rd Intersection
(+/- 650')



#11 - Big Indian Trestle
(+/- 150')

N
W E
S

0 0.5 1 Miles

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Or
Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

EXHIBIT R

STATE OF NEW YORK
OFFICE OF THE ATTORNEY GENERAL

ERIC T. SCHNEIDERMAN
ATTORNEY GENERAL

May 27, 2016

DIVISION OF STATE COUNSEL
REAL PROPERTY BUREAU

Proceeding 14291
P.I.N. 8BOW.09
Ulster – Delaware, Part 3
S.H. No. 31
County of Ulster
Map 165, Parcel 276
Map 166, Parcel 277

Deposit Notification

RECEIVED
MAY 31 2016
PUBLIC WORKS
COUNTY OF ULSTER
RECEIVED
MAY 31 2016
PUBLIC WORKS
COUNTY OF ULSTER

County of Ulster
313-317 Shamrock Lane
Kingston, NY 12401

Dear Sir or Madam:

Pursuant to Section 304 of the Eminent Domain Procedure Law, the State Comptroller has deposited the sum of $5,160.30 in an Eminent Domain account. This sum is the amount of the State's offer for its eminent domain acquisition of the property interest described in the above captioned acquisition maps, together with interest to the date of deposit. All or a portion of the deposited sum may be disbursed following an interested party's proper application for a distribution proceeding pursuant to said statute.

As of the date of the State's acquisition, you had or may have had an interest in the acquired property by reason of being fee owner of the premises affected by the above maps.

If the interest described in the preceding paragraph has lapsed, been satisfied, or otherwise terminated, please disregard this letter. If, however, you or your attorney wish to obtain additional information or to commence a distribution proceeding in the Court of Claims, please contact the Regional Real Estate Office of the New York State Department of Transportation at (845) 437-3391.

Sincerely,

Eric T. Schneiderman
Attorney General

By

Lisa H. Baum
Associate Attorney

ser
cc: DOT Regional Office 8

EXHIBIT S





EXHIBIT T

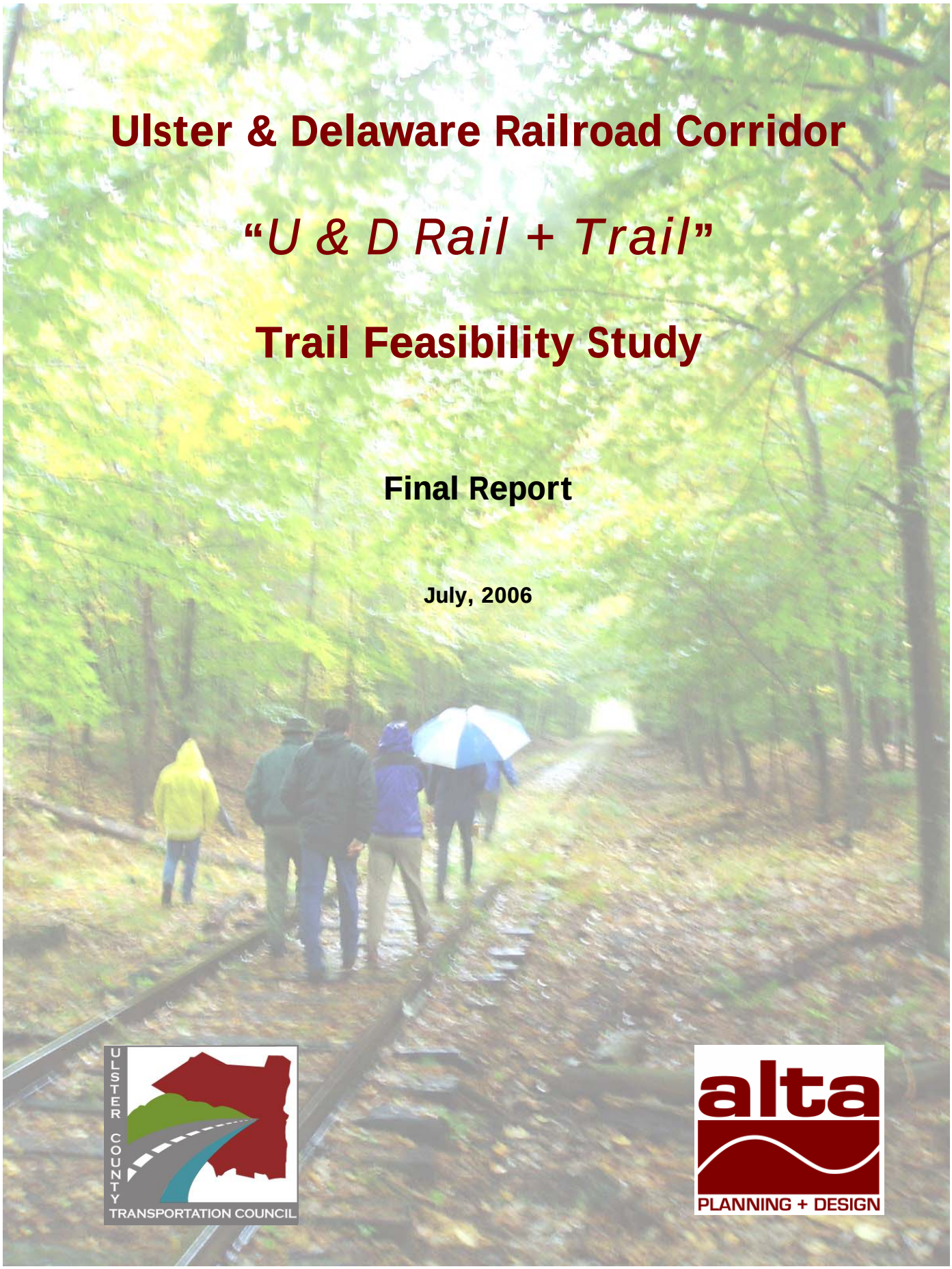
Ulster & Delaware Railroad Corridor

"U & D Rail + Trail"

Trail Feasibility Study

Final Report

July, 2006



ULSTER COUNTY TRANSPORTATION COUNCIL

alta PLANNING + DESIGN

TABLE OF CONTENTS

1. EXECUTIVE SUMMARY 1
2. PROJECT BACKGROUND AND PURPOSE 6
3. TRAIL USER IDENTIFICATION AND SAFETY ASSESSMENT 15
4. ALIGNMENT ALTERNATIVES 27
5. PROPOSED "RAIL + TRAIL" CONCEPT 29
6. FINDINGS AND RECOMMENDATIONS 44
APPENDIX: SUMMARY OF PUBLIC INVOLVEMENT 52
APPENDIX: POTENTIAL FUNDING SOURCES 53

This report was prepared for the Ulster County Transportation Council by Alta Planning + Design (www.altaplanning.com), in cooperation with the Ulster County Rail Trail Committee. Funding and in-kind support were provided by the Federal Highway Administration (FHWA), Ulster County, and the State of New York.

This document is based on information presented in prior task reports developed during the course of this study, including:

Existing Conditions Summary
Needs Identification and Safety Assessment
Trail Alignment and Feasibility Assessment
Preferred Alignment and Recommendations

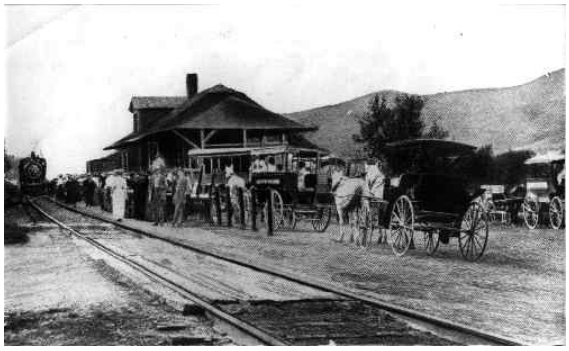
Ulster County Transportation Council
244 Fair Street
PO Box 1800
Kingston, NY 12402-1800
P: (845) 340-3340
F: (845) 340-3429
www.ulstercountyny/planning/tran.html

Ulster and Delaware Railroad Corridor
Rail Trail Feasibility Study Acknowledgements

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Helen Chase, Town of Olive
Michael Comerford, NYS Police - Kingston
Linda Cook, Town of Hurley
Wally Cook, Town of Hurley
Richard Cripe, City of Kingston
Peter DiSclafani, Town of Shandaken
Randy Dickinson, Federal Railroad Administration
Dennis Doyle, UC Planning Board
Richard Edling, Trolley Museum of New York
Gladys Gilbert, Catskill Mountain Railroad
Jeff Graf, NYCDEP
Evan Jennings, Trolley Museum of New York
Harry Jameson, Catskill Mountain Railroad
Peter Kraft, UC Legislator
Laura Lemire, NYSDOT Region 8
Bruce La Monda, Town of Olive
Tom Mank, UC Transportation Council
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Russ Robbins, NYSDOT Region 8
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Robert Stanley, Town of Shandaken
Bill Tobin, UC Transportation Council
Greg Vaughn, Catskill Mountain Railroad

1. Executive Summary

The Ulster and Delaware (U&D) Railroad corridor has the potential to become a unique "Rail + Trail" system providing transportation, economic development, tourism, and recreation benefits for Ulster County and the communities along the route. The existing corridor is approximately 40 miles long, 30-66 feet wide, and includes more than 300 acres of land. The U&D line runs from the historic Rondout section of Kingston, New York to the Belleayre Ski Center at the top of the Catskill Mountains. The majority of the railroad property (38.5 miles) is owned by Ulster County and is leased to the Catskill Mountain Railroad (CMRR) by the Ulster County IDA. The City of Kingston owns approximately 1.5 miles of the railroad property that is leased to the Trolley Museum of New York, which operates the Kingston Trolley on part of the line. The other major landowner along the Corridor is the New York City Department of Environmental Protection (NYCDEP). It owns approximately 12 miles of the railroad bed along the north side of the Ashokan Reservoir, which is leased to the Catskill Mountain Railroad. Several sections of the railroad are technically 'out of service,' but the tracks are still in place.



Historic photo of the Phoencia train station, which has been restored by the CMRR.

The planning process included research on the history of the railroad corridor, an analysis of existing conditions, and detailed review of opportunities and constraints. The project team took several tours of the corridor, including along the Ashokan Reservoir, through downtown Kingston, and a ride on the CMRR; and developed a photo inventory of key locations. Meetings were held with the County's Rail Trail Committee (RTC), key stakeholders, and the public.

Key issues identified for the U&D Rail + Trail corridor during the planning process include:

- The CMRR lease is for 25 years and began in 1991. The Trolley Museum lease with the City of Kingston is for 99 years. Both rail operations were considered as existing conditions, and therefore the rail tracks will remain in any of this study's proposed alternatives.

- Sections of the corridor are currently in need of substantial repairs and upgrades, including washouts along the Esopus Creek in Phoenicia, deterioration of the Butternut Basin culvert, and repairs to the Boiceville Bridge.

- Connect the region's history: The unique heritage and culture should be integrated into the Rail + Trail concept.

- Shared-use trail activity is not currently permitted by NYCDEP on lands around the Ashokan Reservoir. Any uses, other than the railroad, within reservoir lands would require NYCDEP approval.

- Walking and bicycling account for more than 5% of all commuter transportation in Ulster County, but use of these modes declined by 11% from 1990-2000. With rising fuel costs, the need for increased non-motorized transportation will continue to be an important issue for the region.

- Cardiovascular disease accounts for more than 30% of all fatalities in Ulster County. This is consistent with the widely documented national obesity epidemic. There is a need for increased physical activity in Ulster County, especially for children.

- There are more than 100 rail-with-trail projects in the U.S., and both rail and trail use can be part of a corridor preservation strategy.

Based on the available information and input, the consultant presented a series of alternative scenarios, ranging from a paved shared-use path for walking, bicycling, running, and other uses parallel to the railroad for the length of the corridor to a more rustic single track trail for hiking and mountain biking, to a 'hybrid' concept with a mix of rail and trail uses. The 'hybrid' concept is presented as the preferred alternative, connecting 40 miles of rail and trail facilities from the Hudson River in Kingston to the Belleayre Ski Center. Key connections would be made to the Long Path and NYSDEC hiking trails in the Catskill Forest Preserve. A summary of the public involvement process for this project is provided in the Appendix of this document.

The project will require a public-private partnership between Ulster County, the City of Kingston, New York City DEP, the Catskill Mountain Railroad, the Trolley Museum of New York, NYSDEC, and other organizations. Due to right-of-way, environmental, financial, and other constraints, a continuous railroad service with a parallel shared-use path is not currently feasible along the entire corridor. However, a continuous facility can be developed that utilizes a combination of railroad, trail, and rail-with-trail sections to create an innovative, 40-mile "rail + trail" system. The project is illustrated in the map on the following page. Detailed section maps are provided in the full report, as follows:

Section 1: Rondout Trolley Trail

Section 2: Downtown Kingston Trail

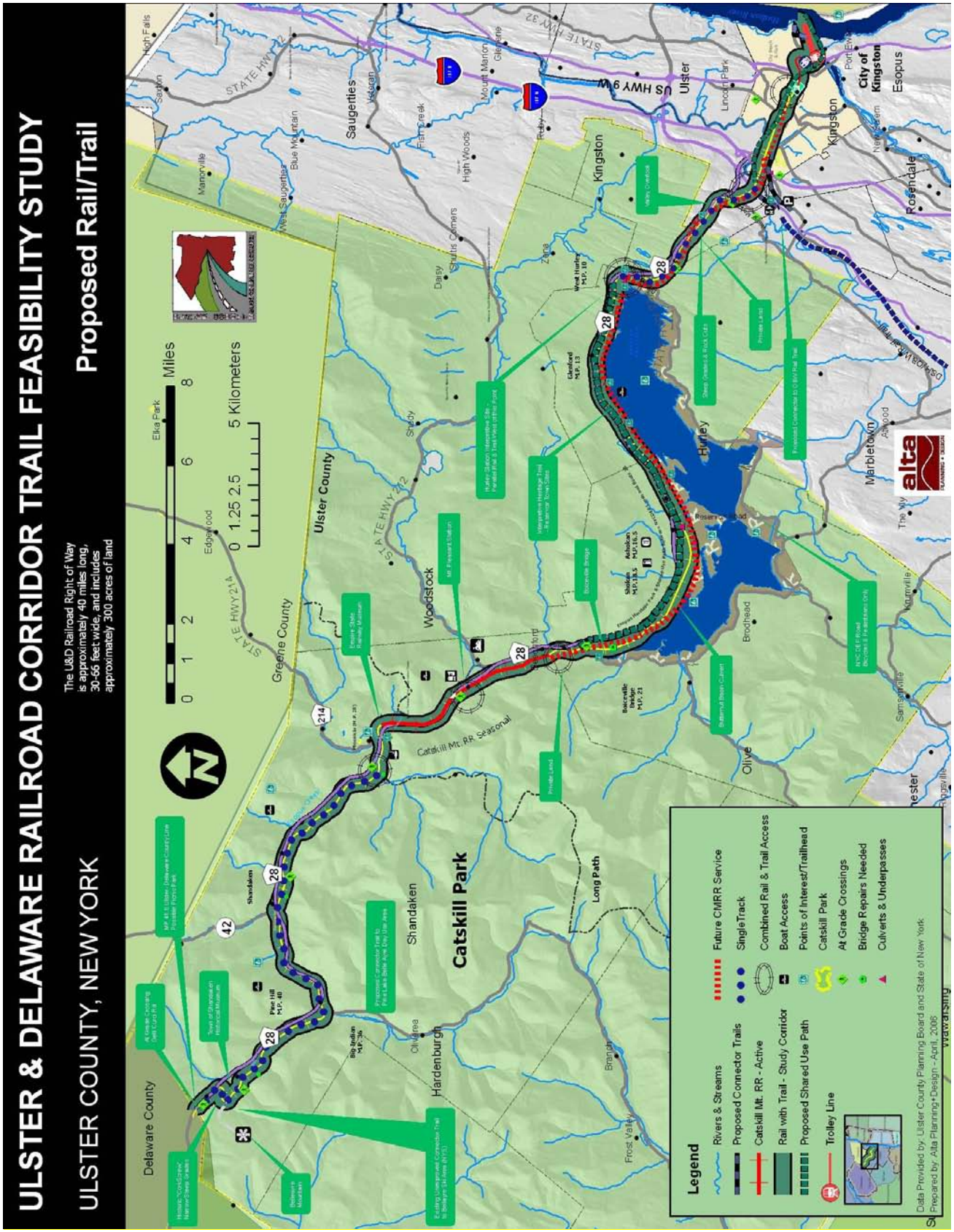
Section 3: O&W Trail Connector

Section 4: I-87 to West Hurley Station

Section 5: West Hurley to Boiceville

Section 6: Boiceville to Phoenicia

Section 7: Phoenicia to Highmount


ULSTER & DELAWARE RAILROAD CORRIDOR TRAIL FEASIBILITY STUDY
ULSTER COUNTY, NEW YORK
Proposed Rail/Trail
The U&D Railroad Right of Way is approximately 40 miles long, 30-66 feet wide, and includes approximately 300 acres of land
Miles
0 1 2 4 6 8
5 Kilometers
0 1.25 2.5
Legend
Rivers & Streams
Proposed Connector Trails
Catskill Mt. RR - Active
Rail with Trail - Study Corridor
Proposed Shared Use Path
Trolley Line
Future CMRR Service
SingleTrack
Combined Rail & Trail Access
Boat Access
Points of Interest/Trailhead
Catskill Park
At Grade Crossings
Bridge Repairs Needed
Culverts & Underpasses
Data Provided by: Ulster County Planning Board and State of New York
Prepared by: Alta Planning+Design - April, 2006
Delaware County
Ulster County
Greene County
Catskill Park
Shandaken
Hardenburgh
Woodstock
Kingston
Ulster
Saugerties
Hurley
Marbletown
Olive
Rosendale
Esopus
City of Kingston
Long Path
Catskill Mt. RR Seasonal
STATE HWY 212
STATE HWY 214
STATE HWY 32
US HWY 9W
alta

Creating the 40-mile U&D Rail Trail project will take a sustained effort with many partners. Both the CMRR and the Kingston Trolley have relied primarily on volunteers and grants for their support. In order to advance the project, the following 'next steps' have been identified:

- **Preserve the Right-of-Way**: Regardless of the outcome of this report, it was the consensus of all participants involved in the project that the top priority is to ensure that the U&D right-of-way remains intact and in public ownership.

- **Conduct an Engineering Assessment:** The current railroad lease includes a provision for routine engineering evaluations of the railroad line. An annual review should be conducted for all sections of track and related structures.

- **"Early Win" Projects:** Support and action at the local level will be a key to success for the rail trail project. Local municipalities and agencies will need to be involved in creating sections of the trail that can be linked over time into the overall concept.

- **Initiate Fundraising and Grant Writing:** There are a variety of funding sources available for projects like the U&D Rail Trail, and all available opportunities should be pursued, including SAFETEA-LU federal transportation funds.



Participants at a U&D Rail Trail public meeting, in the Town of Olive. (Photo: J.Olson)

- **Set Up a Maintenance Endowment:** Many successful trails establish a fund for ongoing operation and maintenance. Starting this effort at the beginning of a trail project will help sustain effort in the future.

- **Public-Private Non-Profit Partnership:** Establish a "Friends of the U&D Rail Trail" non-profit organization to advocate for the project, and reconfigure the County RTC and/or Rail Advisory committee to include the involved agencies and organizations required to advance the project.

The future vision of the Ulster & Delaware Rail + Trail is a significant opportunity for local communities, Ulster County, and the region. The combination of two historic tourist railroads, the trolley and railroad museums, restored historic sites, and a trail for multiple uses will compliment the tourism and recreation economy of the Catskill Mountain Region. The project can become a model of sustainable transportation and cooperation between a wide range of public, private, and non-profit partners.









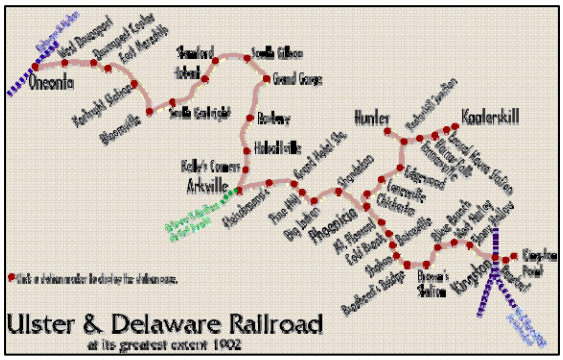
A possible vision of the future for Ulster County: clockwise from bottom left: Tourists of all ages enjoy the CMRR in Phoenicia; The existing right of way at Washington Street in Kingston; A multi-modal train service in California; An artist's rendering of a new trail along the CMRR line at Washington Street in Kingston. (Photos: J.Olson)

2. Project Background and Purpose

The purpose of the Ulster & Delaware Railroad Corridor Trail Feasibility Study is to analyze the feasibility and potential for the phased implementation and maintenance of a trail system within the Ulster and Delaware Railroad Corridor right-of-way, from Kingston Point Park on the Hudson River to the Belleayre Mountain Ski Resort at the Delaware County line. The majority of the approximately 40-mile right-of-way of the former Ulster & Delaware Railroad is currently leased by Catskill Mountain Railroad and owned by Ulster County and the City of Kingston. Currently, two operators utilize active sections of the railroad corridor: (1) Catskill Mountain Railroad and (2) the Trolley Museum of New York. Ulster County purchased the majority of the Ulster and Delaware Railroad right-of-way in 1979. The U&D Railroad Trail Corridor presents a potential opportunity for a continuous transportation and recreation corridor from the Susquehanna River in Oneonta to the Hudson River in Kingston.

In 1991, the Catskill Mountain Railroad Co., Inc. (CMRR) signed a 25-year lease with the County, with the intent of providing tourist railroad service. Currently, CMRR operates the Catskill Mountain Railroad Scenic Train, (a 14-mile, 90-minute round trip excursion, three times per day between Phoenicia and Boiceville) , and the Esopus Creek Shuttle, (a six-mile round trip, which operates hourly between Mount Pleasant and Phoenicia and provides service for both excursions and people tubing on the Esopus Creek). CMRR is a volunteer, for-profit corporation, with approximately 30-40 volunteers per year providing railroad operations and maintenance. To the west of the Belleayre Ski area in Delaware County, the Delaware and Ulster Rail Ride operates scenic train service between Arkville and Roxbury, and the 19- mile Catskill Scenic Trail has been developed from Grand Gorge to Bloomville.

The Trolley Museum of New York is a non-profit educational museum founded in 1955. The goals of the museum are to "*offer a ride to the public and through exhibits and educational programs to share the rich history of rail transportation and the role it played in the Hudson Valley region.*" In addition to displays of trolley, subway, and rapid transit cars from the United States and Europe, an excursion ride runs 1 1/2 miles from the foot of Broadway in downtown Kingston, to Kingston Point Park on the shore of the Hudson River. A small causeway and a trail were reconstructed in 2002 with a federal Recreation Trails Program grant.



Map of the Ulster and Delaware Railroad in 1902, showing the line from Kingston to Oneonta.
Source: Ulster & Delaware Railroad Historical Society, www.udrrhs.org/ images/map/udmap2.gif

Regional Heritage and Culture

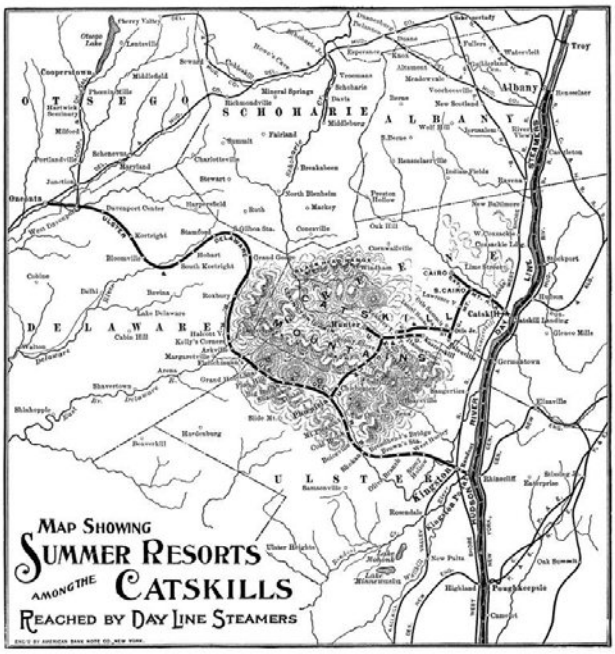
Ulster County, the Hudson River Valley, the Catskill Mountains, and the U&D Railroad corridor are rich in history and culture. Key military routes from the American Revolution are documented in the area. The region's landscape was the setting for the famous Hudson River School painters. Catskill tanneries supplied most of the saddles used in the Civil War. Native American sites are located throughout the river valley, but the mountain landscape above Kingston was only occasionally inhabited by permanent residents before the arrival of Dutch, English, Irish, and German settlers in the 1800's. The region's history also includes logging, bluestone quarrying, wintergreen and blueberry harvesting, and even World War II pilot training. The Catskills offer some of the finest trout fishing in the east; the Beaverkill-Willowemoc area is the birthplace of fly fishing in America. Kingston was the first Capital of New York State, and its historic districts are a center for county government and business. The Catskill Park and Forest preserve are among the premier examples of land conservation in the U.S. The legend of Rip Van Winkle is based in the Catskill Mountains. In the twentieth century, the name Woodstock became a symbol for contemporary music and the arts. All of these elements are part of the heritage and culture of the Ulster and Delaware Railroad corridor.

In 1868, the Ulster & Delaware Railroad was originally built as the Rondout & Oswego Railroad. It ran from Kingston Point on the Hudson River to a connection and shared station with the New York, West Shore, and Buffalo (which later became the New York Central West Shore Branch, Penn Central, and now Conrail / CSX) near Cornell Street and Broadway in Kingston. The tracks then extended through the Shandaken Valley to Bloomsville in Delaware County. The railroad included a branch north from Phoenicia through Stony Clove to Hunter, Tannersville, and Haines Falls (the tracks were removed from this section in the 1940's.). In the early 1900's, the U&D was completed to connect with the Delaware and Hudson Railroad in Oneonta.

Trains of the Ulster & Delaware Railroad carried vital freight and tourist traffic to and from the region. Bluestone for the sidewalks of New York and other cities as far away as Cuba and Europe was quarried along the line, and dairy products were delivered to the city by rail. Summer tourism brought city dwellers to the region's boarding houses and grand hotels. In 1913, more than 676,000 passengers rode the U&D to the Catskills. Indeed, traffic was so heavy in the first two decades of the century that automatic block signaling was installed to Phoenicia, and the entire line graded and spiraled to allow 60 mph running. In subsequent years, the New York Central railroad operated on the U&D tracks, and was succeeded by the Penn Central Railroad. In the 1930s, special ski trains provided service to the Simpson Ski Slope in Woodland Valley. During the railroad's heyday, through coaches and Pullman sleepers (some from as far as Washington) coupled onto U&D trains. Coaches would stand ready at Kingston Point for the steamships of the Hudson River Day Line, then load additional passengers at Kingston Union Station connecting out of Weehawken, before taking on the steep mountain grades.

Suffering losses of both freight and passenger business in the early 1930's, the railroad was taken into receivership February 1932, then sold to the New York Central. The post-World War II growth in automobile use and the construction of the New York State Thruway (I-87) led to a reduction in railroad travel. The New York Central's successor, Conrail, abandoned the railroad in 1976, by then

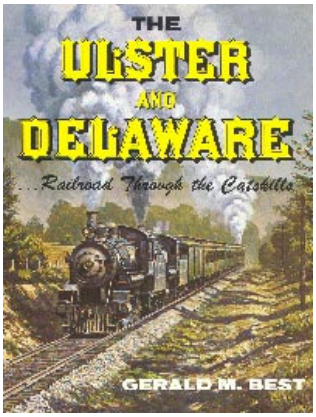
shorn back past Stamford. Ulster County acquired the corridor and saved the remaining trackage and the right-of-way for future use. [1]



Map showing the connections between Day Line Steamers on the Hudson River at Kingston and the Ulster & Delaware Railroad Source: www.catskillarchive.com/ rrextra/udpage.Html

A detailed history of the U&D Railroad by author Gerald M. Best tells the story of the "*Railroad Through the Catskills*."

Source: www.theoldandwearycarshop.com/ uanddbybest.jpg



[1] Sources: Castkill Mountain Railroad, http://www.catskillmtrailroad.com/about_us.htm, Empire State Railroad Museum, http://www.esrm.com/esrm/phoenicia_station.htm,,

Empire State Railway Museum

In 1985, the Phoenicia Station was purchased by the Empire State Railway Museum, Inc. and the SHARP committee, a community-based redevelopment agency. The station is listed on the National Register, and has been renovated as the home of the Empire State Railway Museum. The former baggage room is now an exhibition gallery for the Museum's collection of photographs and local railroad artifacts. The waiting room hosts regular seminars and membership meetings. The Museum's vision is that the former Ulster & Delaware tracks will become the Northeast's premier scenic railroad, and the Phoenicia Station will once again become a busy passenger depot.



The historic Phoenicia Station is now the home of the Empire State Railway Museum.

Source: http://www.esrm.com/esrm/phoenicia_station.htm

The Trolley Museum of New York

The Trolley Museum of New York is a non-profit educational museum founded in 1955. The goals of the museum are to "*offer a ride to the public and through exhibits and educational programs to share the rich history of rail transportation and the role it played in the Hudson Valley region.*" In addition to static displays of trolley, subway, and rapid transit cars from the United States and Europe, an excursion ride runs 1 1/2 miles from the foot of Broadway in downtown Kingston, to Kingston Point Park on the shore of the Hudson River. A small causeway and a trail were reconstructed in 2002 with a federal Recreation Trails Program grant. Picnic tables are available at the Hudson River and the West Strand Park (Rondout Creek) trolley stops. Along the way, the trolley stops at the museum grounds.

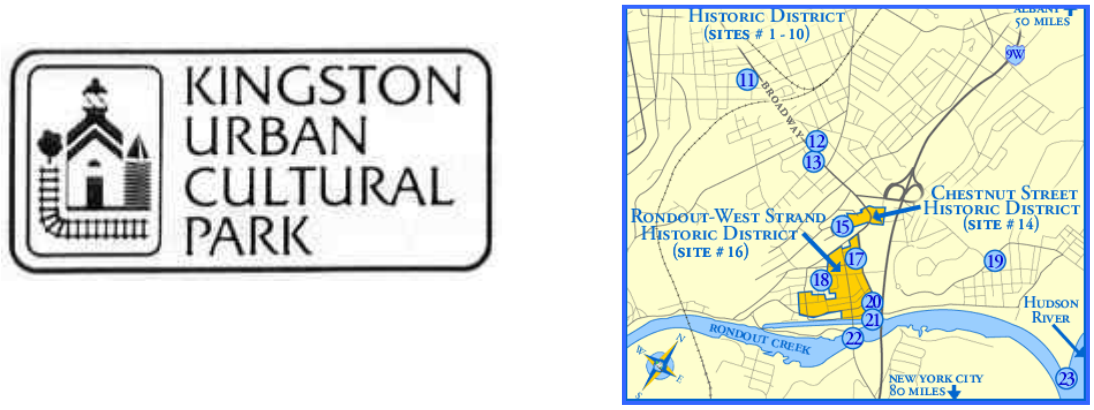
The museum is on the original site of the Ulster and Delaware Railroad yards at Milepost 1. The main building is built on the foundation of the engine house which existed at the turn of the century. The upper level includes a Visitors Center featuring seasonal and permanent displays, a video viewing area, and large windows overlooking the restoration shop. Visitors can see up to eight trolley cars being housed and restored below.



A restored former trolley stop shelter is used as a picnic area along the Hudson River waterfront in Kingtson.
Source: http://www.tmny.org/

Kingston Urban Cultural Park

New York State's innovative Urban Cultural Park / Heritage Area program highlights the unique histories of communities throughout the state. Established in 1982 as a joint venture between the New York State Office of Parks, Recreation, and Historic Preservation and 22 historically significant communities, the UCP Program incorporates 16 Urban Cultural Parks. Kingston's Urban Cultural Park/ Heritage Area works closely with local businesses and the Chamber of Commerce to combine economic development with good preservation practices. The Kingston UCP/HA has created a series of outreach, history, and educational programs including Stockade Day, Artober--A Celebration of Art, and World War II Commemorative Weekend. The well-known "Reenactment of the Burning of Kingston," the Tall Tales Festivals, and holiday tree-lighting celebrations, are all annual events developed through the program, as are Band Concerts on the Waterfront and the City's trolley and walking tours of historic districts.



Logo and Map of the Kingston Urban Cultural Park and Heritage Area.
Source: http://www.cr.nps.gov/nr/travel/kingston/urbanpark1.htm

Catskill Park and Forest Preserve

> "*The Catskill Park is a mountainous region of public and private lands in Ulster, Greene, Delaware and Sullivan Counties - the "forest preserve" counties. Ninety-eight peaks over 3,000 feet high form an impressive skyline. Its blend of public and private lands is typical of large parks in Europe, where people and unique lands have coexisted for centuries. The Catskill Forest Preserve is the state land within the Catskill Park. Since its creation in 1885, it has grown from 34,000 to almost 300,000 acres. The forest preserve has thousands of acres of forests with meadows, remnants of old farmsteads, lakes, rivers, springs, waterfalls, cliffs, fire towers, bears, rattlesnakes and other wildlife, rare plants and animals. Also, there are hundreds of miles of abandoned woods, roads, and trails to enjoy. Today, it serves as a watershed, recreation area and ecological and scenic reserve.*
>
> *Special areas, including spruce-fir forests on boreal mountaintops, wetlands, trout streams, rattlesnake dens, and old-growth forests are found throughout the forest preserve. Coyotes, bears, bobcats, minks and fishers are some of the more secretive residents of the Catskills, but coyotes are often heard and some of the 400 bears that live in the region are spotted, even though they generally avoid people. Red squirrels and porcupines are*

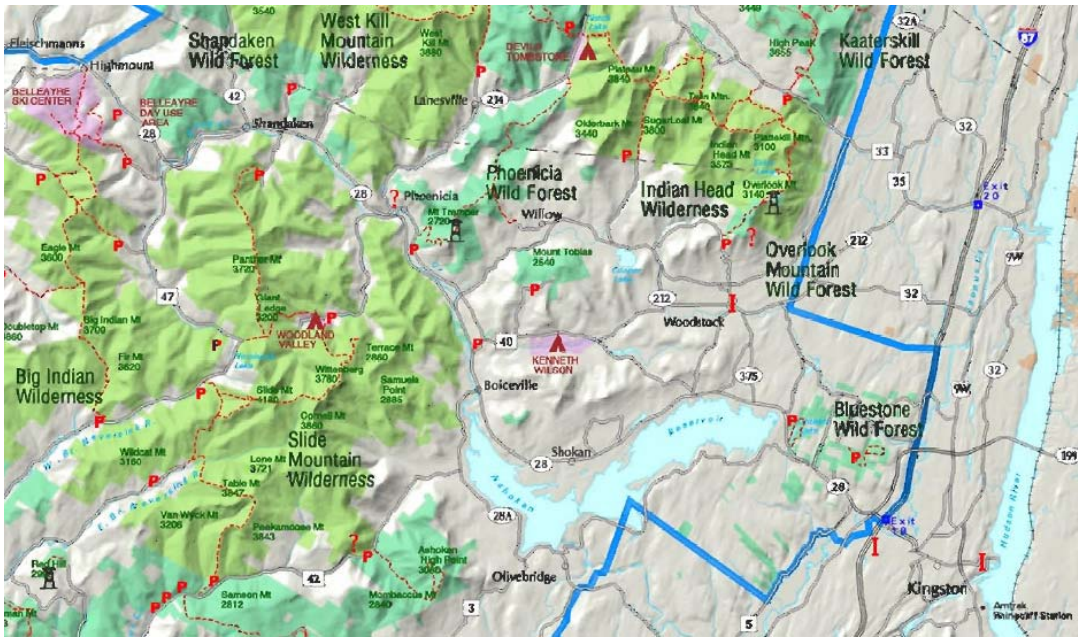
more common at higher elevations where they live among the balsam fir, red spruce trees and flowers of the boreal forest. Old growth hemlock and northern hardwood forests on steep mountainsides and remote valleys were so inaccessible that they survived the logging, tanbarking and charcoal industries of the past 300 years. Elsewhere, repeated fires have burned deeply into the shallow mountain soils, forming mountaintop blueberry meadows."

Today, over 60 percent of the lands in the Catskill Park is privately owned, with about 50,000 people living there year-round; the rest is publicly owned "forest preserve." Hunting is permitted on forest preserve lands. Hunting, fishing and trapping licenses are required.
Source: NYSDEC http://www.dec.state.ny.us/website/dlf/publands/cats/

Both Wilderness and Wild Forest lands are located adjacent to the U&D railroad corridor. New York State land use areas in the study area include:

- Belleayre Ski Center
- Belleayre Day Use Area
- Shandaken Wild Forest
- West Kill Mountain Wilderness
- Slide Mountain Wilderness
- Phoenicia Wild Forest
- Bluestone Wild Forest

These land use classifications are illustrated on the map below:

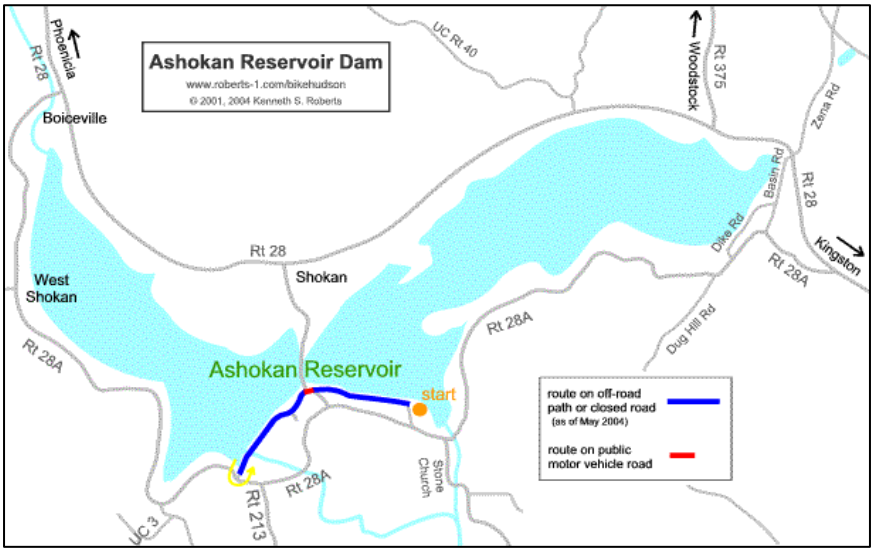


NYSDEC map of the Catskill Park and Forest Preserve.
Source: http://www.dec.state.ny.us/website/dlf/publands/cats/catlarge.pdf>

Ashokan Reservior

The New York City Water Supply watershed extends 1,972 square miles across parts of eight New York counties and Fairfield County, Connecticut. It is the largest unfiltered surface water supply in the world. The Catskill/Delaware watershed is responsible for almost 90% of New York City's water supply. Ashokan Reservoir supplies about 40% of New York City's daily drinking water needs in non-drought periods. Ashokan is located in Ulster County, about 13 miles west of Kingston and 73 miles north of New York City. The reservoir was formed by the damming of the Esopus Creek, which eventually flows northeast and drains into the Hudson River. It holds 122.9 billion gallons at full capacity and was placed into service in 1915. The Ashokan watershed's drainage basin is 255 square miles and includes parts of 11 towns: Denning, Hardenburgh, Hurley, Kingston, Marbletown, Olive, Shandaken, and Woodstock in Ulster County; Hunter and Lexington in Greene County, and Middletown in Delaware County.

The history of the Ashokan Reservoir and its construction included significant challenges and controversy. Nine villages were either removed or obliterated by the construction of the reservoir. These included West Hurley, Ashton, Glenford, Brown's Station, Olive Bridge, Brodhead, Shokan, West Shokan and Boiceville. Approximately 1,200 residents were forced to be relocated, and much of the land was taken by eminent domain. Eleven miles of the Ulster & Delaware Railroad tracks were taken up and relocated from the original route along the Esopus Creek valley to the current route along the north shore of the reservoir. Sixty-four miles of highway were discontinued, including a long stretch of the historic Plank Road. Forty new miles of boulevard were built, mainly of macadam, and ten new bridges were constructed. The current reservoir has roads around its entire perimeter, including State Routes 28 and 28a, and the causeway separating the two holding basins. A shared-use path is currently in use on the south side of the reservoir, and experienced road bicyclists ride the on-road loop around the perimeter.



A bike route map for the Ashokan reservoir shows the shared-use path on top of the dam on the south side.

Source: http://www.roberts-1.com/bikehudson/r/west/ash_dam/map/

In January 1997, Governor Pataki concluded negotiations that involved the City, the State, EPA, representatives of the counties and towns, residents of the watershed, and representatives from environmental groups with the signing of a Catskill Watershed Memorandum of Agreement (MOA). The MOA supplemented the City's existing watershed protection program with approximately $350 million in additional funding for economic-environmental partnership programs with upstate communities, including a water quality investment program, a regional economic development fund, and a regional advisory forum for water quality initiatives and watershed concerns. The State issued a land acquisition permit, which allows the City to purchase land in the watershed, and approved a revision to the City Watershed Rules and Regulations governing certain aspects of land use in the watershed.

The Ulster & Delaware Railroad corridor from mile points 10-22 is currently permitted by NYCDEP for railroad purposes only. Many New York City Water Supply reservoirs and lands are open to the public for low-impact recreational activities when compatible with water supply protection. In order to responsibly provide recreation access to City property, DEP issues a comprehensive permit — The Access Permit — that allows for fishing and hiking on certain designated areas in the watershed. Access Permit holders may also obtain a DEP Hunting Tag for deer hunting and a DEP Boat Tag for keeping a rowboat at one of the reservoirs for fishing. *Hiking is not allowed at or around any of the New York City reservoirs, but a number of other City properties throughout the watershed are open for hiking.* People must have a valid Access Permit in order to enter these areas and they must agree to abide by the following permit conditions. Use of the corridor as a trail for walking, bicycling, and other uses would require new permission for NYCDEP for the change in use.

Sources: http://www.nyc.gov/html/dep/watershed/html/ashokaninfo.html
http://www.nyc.gov/html/dep/watershed/html/wsrecreation.html#application,
http://www.nyc.gov/html/dep/watershed/pdf/wsrecrules.pdf

Proposed Rules and Regulations for the Recreational Use of Water Supply Lands and Waters

§. 16.07 Property Use and Designation

(a.) Hiking. Hiking is allowed only at Hiking Areas and Public Areas

(1) Hiking Activities: Activities permitted in hiking areas are hiking, walking, running, cross-country skiing, snowshoeing, bird watching, nature observation and photography.

(2) Additional Activities: Cycling is allowed at Public Areas only, unless otherwise posted. Other Activities may be allowed or restricted in accordance with NYSDEP postings or notices.

(3) Season: Access to Hiking Areas and Public Areas is year-round except as otherwise restricted by these regulations or other NYSDEP postings or notices.

Source: Proposed Rules and Regulations for the Recreational Use of Water Supply Lands and Waters , NYSDEP 2004, http://www.nyc.gov/html/dep/watershed/pdf/wsrecrules.pdf

Existing Conditions Summary

The Ulster & Delaware Railroad corridor is a regional asset. It includes significant heritage and cultural resources, and can provide important transportation and recreation benefits. Its existing conditions can be summarized as follows:

- The corridor is approximately 40 miles long, from the Hudson River in Kingston to the Belleayre Ski center. The majority of the former U&D railroad line is owned by Ulster County. These lands were acquired from the Penn Central Railroad Corporation in 1979 for $1.5 million dollars.
- The Castskill Mountain Railroad (CMRR) is a volunteer operated, for profit tourist railroad. The CMRR currently operates on seven miles of track between Phoenicia and Mt. Tremper. CMRR has a 25-year lease from the County on the old U&D line from Downs Street in Kingston to the Delaware Count line. The lease was originally between Ulster County and the Ulster County Industrial Development Agency (IDA), and then assigned by the IDA to CMRR on May 29, 1991. The lease requires CMRR to pay the County a percentage of gross railroad revenue, to "*expend a minimum of $25,000 to rehabilitate a minimum of 1 mile of track per lease year*" and to "*perform all maintenance necessary to keep the rehabilitated track at <a> Class 1 standard.*" The end date of the lease is May 31, 2016.
- The Trolley Museum of New York operates vintage trolleys on the 1.5-mile section of track beginning at the Hudson River in Kingston. This section is owned by the City of Kingston.
- The New York City Department of Environmental Protection (NYCDEP) owns the land under the railroad right-of-way along the north shore of the Ashokan Reservoir. The tracks were moved from their original alignment along the Esopus Creek Valley when the reservoir was built in the early 1900's. The U&D right-of-way is operated under a NYCDEP permit that currently does not allow uses other than railroad operations. Hunting, fishing, and hiking are allowed under permit on certain lands by DEP.

3. Trail User Identification and Safety Assessment

Trail User Identification

Identifying the needs of trail users is critical to providing appropriate trail alignments and design features that respond to the surrounding community and anticipated uses of the trail. It is important to understand who will be using the trail, how they will use it, and what types of amenities will be most effective in making this trail an asset to the surrounding community. The trail's design will need to respond directly to the needs of the trail users and managers, including the mobility impaired; provide interpretive information for heritage tourism; provide intermodal connections between the trail and railroad; and contain access points along the route.

Description of Potential Trail Users:

1. Pedestrians: This group includes people of multiple ages and abilities from children through seniors, who require a smooth walking surface, clearly delineated crossings, benches, and shade for resting. This group may include long-distance hikers who are traveling through the region's trail system (and require camping sites), day-hikers who will walk a section of the trail (3-10 miles a day) and casual walkers looking for an hour of exercise and relaxation on the trail.

2. Runners: Many runners prefer soft (dirt, crushed stone or cinder) surfaces or trail shoulders as an alternative to asphalt or concrete. Generally recreational users, runners are less likely than bicyclists to be commuting on trails.

3. Disabled: People with disabilities require smooth, firm, ADA compliant pathways, with rest areas on steep grades, maximum 2% cross slopes, barrier-free facilities, and accessibility information at trailheads. It is important to note that the ADA applies to all types of physical and cognitive disabilities, including hearing and vision impairments as well as wheelchair access.

4. Bicyclists: People on bicycles include several types of skill levels, from children and seniors who ride between 5 to10 mph to highly skilled cyclists capable of sustaining speeds of more than 20 mph, to mountain bicyclists who may use pathways for access to more rugged single track trails. Road and touring bicycles require smooth, firm surfaces free of cracks, seams, or other surface imperfections.

5. In-Line Skaters: Skaters require both a very smooth surface and wider pathways due to their swinging motion. They prefer asphalt pathways 10 ft. wide, with limited downhill grades.

6. Equestrians: Horseback riders are concerned with multiple-use conflicts, especially with bicyclists since horses can react suddenly to them. Equestrians are able to ride on 'natural' surfaces with minimal maintenance. They require water, parking for horse trailers, and adequate height clearances.

7. Winter Trail Users: These uses include skating and track skiers, and snowshoe users, who require different groomed surfaces. Winter users can operate over frozen sections that may not be accessible year-round.

8. Transit Customers: This group includes passengers who use the Catskill Mountain Railroad, the Kingston Trolley, and regional bus transit system who are pedestrians, bicyclists, skiers, and others who choose to travel without using a private motor vehicle.

9. Motorized Trail Uses: ATVs and snowmobiles are generally not allowed on shared-use pathways. There are exceptions, and in some cases snowmobiles and ATV users may help groom and maintain trails. This issue must be handled carefully, since the speed and range of motorized trail users can create safety and operational conflicts with non-motorized trail uses.

10. Water Trails: The Esopus Creek is often used by people canoeing, tubing, and kayaking. The CMRR provides shuttle service for these uses, and there is potential for improved access and amenities to people using the creek as a water trail.

11. Hunting and Fishing: These uses are part of the Catskill Mountain heritage. The trail can provide improved access for hunting and fishing, as long as appropriate measures are provided to ensure the safety of people using the trail during hunting season.





The range of potential trail issues includes transit customers, safe crossings, ADA access, and shared multiple uses along the trail.
(Photos: J.Olson)

Safety Assessment

Trail safety consists of a range of issues including road crossings, possible on-road segments, and the continuing use of the railroad – especially in a potential rail-with-trail alternative. The existing field conditions must be addressed for topographic constraints, isolation, and general trail user directional orientation. Also, multi-use trails attract a wide variety of users that may have inherent conflicts. For example, mountain bikes may not mix well with equestrian users, and in-line skaters may pursue a different set of interests from bird watchers. Finally, security and safety concerns surrounding the Ashokan Reservoir and water transmission facilities must be identified. Specific solutions should be proposed to reduce user conflicts along the trail and promote trail safety. Site-specific physical and operational conditions for each alignment are required to maximize user safety.

User Safety – Existing Conditions

Roadway crossings, topographic constraints, isolation, emergency access, and general trail user directional orientation are key issues. The following field and data observations should be taken into consideration during project design:

Trail – Roadway Crossings: Trail-roadway crossings should be grade-separated or provided with well-designed at-grade crossings. All crossings should be provided with appropriate Manual of Uniform Traffic Control Devices (MUTCD) compliant signage and/or signals where at-grade crossings are necessary. There are approximately 30 roadway crossings of the U&D right-of-way between Kingston and Belleayre Ski area. The majority of these crossings are low-volume, unsignalized, at-grade crossings of two-lane roads, while the others include crossings of State Route 28 and existing railroad trestles and bridges.



Examples of trail/roadway crossings include well-marked and signed at-grade crossings with refuge islands (L) and grade separated crossings which include either tunnels below grade or pedestrian/bicycle bridges (R).
(Photos: J.Olson)

New York State Route 28 Traffic Data: Since one potential alternative for the corridor may include a trail or on-road bicycling route in the NYS Route 28 highway corridor, it is important to consider the existing conditions for traffic volumes, speed, and safety along the roadway. Route 28 is currently a 55mph State highway with four lanes from Kingston to Mount Tremper, and two lanes from Mt. Tremper to the County line. The route is designated as New York State Bike Route 28, and paved shoulder conditions vary from new sections with 6-8 foot paved shoulders to narrow sections with poor pavement. Current roadway volume conditions include:

NYSDOT Traffic Volume Data

Location:	Average Annual Daily Travel (motor vehicles)
Phoenicia	4400 AADT
Mt. Tremper	5960
Route 209	20,300
Route 28a	400 -800 (Between Boiceville and Stony Hollow)

Source: NYSDOT 2003 Traffic Volume Report
http://www.dot.state.ny.us/tech_serv/high/2003tvbk.pdf



Route 28 is designated as part of the New York State Bike Route System.

(Photo: J.Olson)

Safety Data: According to the 2003 Ulster County Transportation Plan, Route 28 has 1.5-3.5 crashes per million vehicle miles traveled; the area east of the Route 209 junction to the Kingston city line has 12-20 crashes per million vehicle miles traveled. This is the highest level of crashes identified in the 2003 Plan, but does not reflect the potential benefits of the new roundabout installed at the NYS Thruway entrance. Bicyclist and pedestrian crashes represent a small percentage of the total number of crashes in the corridor, but it should be noted that there are no existing traffic counts of pedestrians or bicyclists, so it is not possible to establish a crash rate for these modes. (Source: http://www.co.ulster.ny.us/planning/uctc/2.6.pdf)

Recreation Data: Trails have historically been an important part of the Catskill region. Since there are no large population centers between Kingston and the Delaware County line, a successful trail (and/or tourist railroad) must be a destination attraction to encourage tourism and recreation for Ulster County and the Hudson Valley region. The potential exists for this kind of facility, and there is documented demand for trails in New York State. Walking, bicycling, and trail uses are among the most popular outdoor activities statewide. Facilities for walking and bicycling were ranked as the top priorities identified by Park professionals for new recreational facilities in the New York State Comprehensive Outdoor Recreation Plan (SCORP) in 2003. SCORP also estimates that more than 14,000,000 people walk or bike for recreation in New York State, and that these numbers are expected to grow by 2020.

Health Data: America is currently experiencing a health epidemic - caused, in part, by a lack of physical activity. This issue is not usually considered in a typical safety analysis, but warrants attention in the case of a potential trail corridor. Obesity, caused by poor diet and lack of exercise, is a leading cause of cardiovascular disease, diabetes, and other conditions. Part of the solution to this epidemic is providing facilities for people to walk, bicycle, and be more physically active. Trails are an important part of this solution, and the U&D corridor could provide a significant health benefit to people who use the trail.

According to data from New York State Department of Health County Health Indicator Profiles, **cardiovascular disease accounts for more than 30% of all fatalities in Ulster County**. In 2003, more people died from heart disease in Ulster County than from lung cancer, AIDS, homicides, and motor vehicle crashes combined. (Source: http://www.health.state.ny.us/statistics/chip/ulster.htm). The specific benefits of the U&D corridor for physical activity will depend on a variety of factors, including how well connected the trail is to adjacent communities (especially the City of Kingston, which is the largest population center along the corridor), integration into a regional trails system, and its ability to attract trail users from both local residents and visitors to the region. In order to achieve physical activity benefits that reduce the risk of cardiovascular disease, the U.S. Surgeon General recommends that the average American get 30 minutes of exercise, 5 days a week.

Rail with Trail (RWT) Considerations: Setback and Separation

Appropriate setback and separation techniques are key issues for potential rail-with-trail projects. The *2002 Rails-with-Trails: Lessons Learned* report, produced by Alta Planning + Design for USDOT, found that the range of trail setback on existing RWTs varies from less than 2.1 m (7 ft) to as high as 30 m (100 ft), with an average of almost 10 m (33 ft) of setback from the centerline of the nearest track. A comparison of RWT setback distance to both train speed and frequency reveals little correlation; over half (33 of 61) of the existing RWTs have 7.6 m (25 ft) or less setback, even alongside high-speed trains. Many of the trails identified in the national study with limited setbacks are ones that have been established for many years. The trail managers for these well-established trails report few problems. However, interviews with train engineers in several areas indicate that they observe a tremendous amount of daily trespassing and problems in areas with little setback and no physical separation.

There is no current standard for either 'typical' setback requirements or a method of determining these requirements. Some trail planners use the AASHTO Bike Guide for guidance. Given that bicycle lanes are set back 1.5 to 2.1 m (5 to 7 ft) from the centerline of the outside travel lane of even the busiest roadway, some consider this analogous. Others use their State Public Utilities Commission's (PUC) minimum setback standards (also known as 'clearance standards'), developed for adjacent railroad switchmen's walkways. For example, the Pennsylvania PUC has a standard setback dimension of 12 feet and has strict requirements for any variance. New York State is currently reviewing potential RWT guidelines, but has not published them at this time. It is possible that a flexible guideline can be adopted in New York that would provide for a desired 12 foot minimum setback dimension, but also allow exceptions based on environmental, right-of-way, or other constraints. This is the concept currently being proposed for the Saranac-Lake Placid RWT, which runs parallel to the Remsen-Lake Placid tourist railroad and has similar conditions to the U&D line. Because of the lack of standards on setback distances, the appropriate distance must be determined on a case-by-case basis. In addition, the U&D project will need to incorporate the following technical factors, including:

- type, speed, and frequency of trains in the corridor: (currently tourist rail, under 20 mph, less than 10 trips per day, weekends only)
- separation technique: (consider fencing for sections within minimum required setback of 12 feet)
- topography: (uphill grade between Kingston city line and Ashokan Reservoir, rolling terrain west of the Reservoir, uphill grade to Highpoint)
- sight distance: (varies along corridor, limited due to encroaching vegetation)
- maintenance requirements, and
- historical problems: (multiple washouts have occurred periodically along the Esopus Creek)

Relatively narrow setback distances of 3 m (10 ft) to 7.6 m (25 ft) may be acceptable to a railroad, RWT agency, and design team in certain situations, such as in constrained areas, along relatively low speed and frequency lines, and in areas with a history of trespassing where a trail might help alleviate a current problem. The presence of vertical separation or techniques such as fencing or walls also may allow for narrower setback. (see Figure 1 below).

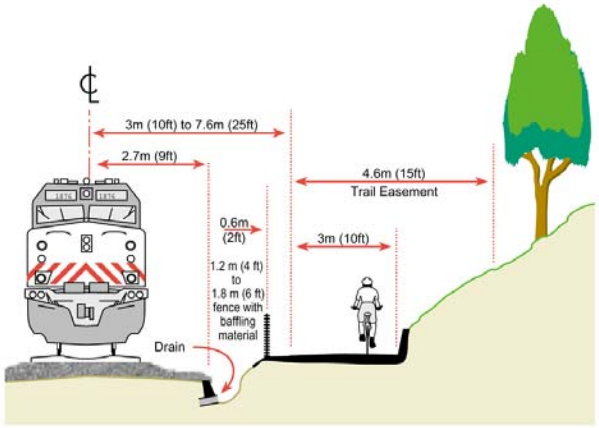


Figure 1. Minimum RWT Setback

At an absolute minimum, trail users must be kept outside the "dynamic envelope" of the tracks – that is, the space needed for the train to operate (see Figure 2 below). According to the MUTCD (Section 8), the dynamic envelope is "*the clearance required for the train and its cargo overhang due to any combination of loading, lateral motion, or suspension failure*." It includes the area swept by a turning train.

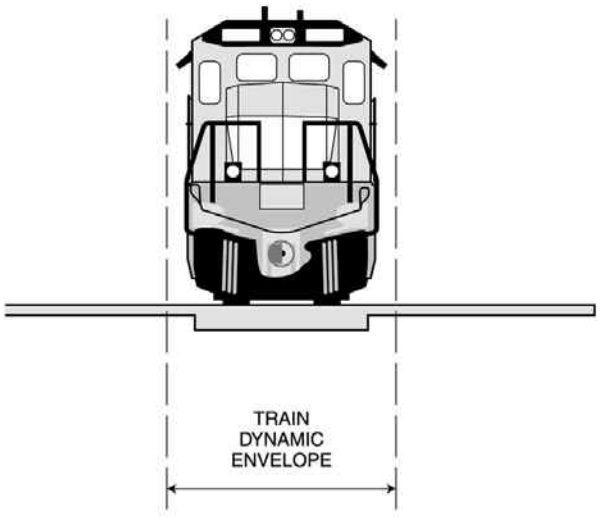


Figure 2. Dynamic Envelope Delineation

According to the *2002 Rails-with-Trails: Lessons Learned* report, over 70 percent of existing RWTs utilize fencing and other barriers such as vegetation for separation from adjacent active railroads and other properties. Barriers include fencing (34 percent), vegetation (21 percent), vertical grade (16 percent), and drainage ditch (12 percent.) The fencing style varies considerably, from chain link to wire, wrought iron, vinyl, steel picket, and wooden rail. Fencing height ranges from 0.8 m (3 ft) to 1.8 m (6 ft), although typical height is 0.8 to 1.2 m (3 to 4 ft.). Other barrier types such as vegetation, ditches, or berms are often used to provide separation, especially where a RWT is located further than 7.6 m (25 ft) from the edge of the trail to the centerline of the closest track, or where the vertical separation is greater than 3 m (10 ft). In constrained areas, using a combination of separation techniques may allow narrower acceptable setback distances.



The existing U&D corridor has the railroad tracks in place, with numerous bermed sections, drainage, wetlands and restrictive land uses within the existing right-of- way. Trail feasibility will need to balance these constraints with appropriate setback and separation techniques for RWT sections.
(Photo: J.Olson)

Isolated Sections: Throughout the Ulster & Delaware corridor, there are locations where the right-of-way is more than a mile in length between road crossings and trail access points. In addition to the section along the Ashokan Reservoir, this condition occurs between the Belleyare Ski area and Phoenicia, between Phoenicia and Mt. Tremper, and between the City of Kingston and Ashokan reservoir. The areas along the right-of way are generally remote, including sections of the NYSDEC Slide Mountain and West Kill Mountain Wilderness areas between Belleayre and the west end of the reservoir at Boiceville. For most of these sections, population is limited to small hamlets and limited developed areas along Route 28. Access to Route 28 will be important for emergency, trail access, and general services. It is important to note that mobile phone coverage is limited in the study area, particularly in the area west of Ashokan Reservoir.

Trail Orientation and Visibility: The proposed U&D trail should be clearly identified at all roadway crossings, trestles, and junctions. On the trail, signage should indicate the names of all crossing roads. Trail mile points and distance-to-destination signage should be provided to maintain user orientation and accurate locations for emergency response, if necessary. There are more than 30 roadway crossings on the current U&D railroad alignment between the City of Kingston and the County line.

Managing Multiple Uses: A significant challenge for shared-use trails is the need to manage multiple and potentially conflicting trail user groups. The following section provides a general overview of concepts for managing multiple uses in the U&D corridor:

- Plan, design, and manage to reduce conflicts among users with adjacent properties, including: reckless and unsafe behavior; incompatible uses and values; trespass; disturbances and adverse environmental impacts.
- Recognize the different goals of different users, such as equestrians and bicyclists, and separate them where feasible.
- Provide user education through signage, patrol, volunteers, brochures, and media.
- Provide adequate trail mileage and open space acreage to accommodate user populations.
- Solicit input from user groups.
- Monitor, document, and log problem areas and address problems through design and management.
- Promote trail etiquette.
- Educate bicyclists and hikers on how to pass horses using subdued voice cues rather than bells, horns, or sudden loud noise that might startle a horse.
- Avoid excessive regulatory and negative signage and "heavy handed" enforcement.
- Employ temporary closure of facilities when conditions dictate or for resource recovery.



In addition to having trail users 'share the trail' with each other, it is equally important for them to respect adjacent property owners and managers. Many sections of the U&D corridor are located on or near significant resource areas, private property and businesses. The following section offers guidelines for making trails and adjacent properties good neighbors.

Reducing Conflicts with Trail Neighbors
(Source: Flink, Searns and Olka**—***Trails for the 21st Century*)

- Provide contact information for reporting problems.
- Maintain facilities regularly.
- Distribute or publish a trail maintenance schedule.
- Respond to illegal or disturbing activity quickly.
- Meet periodically with neighbors and provide other feedback means.
- Respond promptly and effectively to complaints, concerns, and suggestions.

Ashokan Reservoir: Safety and Security
The Ulster and Delaware Railroad Corridor passes through New York City owned land around the Ashokan Reservoir. The environmental sensitivity and attractiveness of the reservoir creates unique safety, security, trail alignment, and access restrictions to satisfy New York City Department of Environmental Protection (NYCDEP) concerns. Since the current permitted use of the U&D Railroad corridor does not include the trail, these issues must be addressed if a trail is to be developed.



Access to NYSDEP lands is regulated by permitted access only. Permitted uses include hunting, fishing and hiking.
(Photo: J.Olson)

In terms of security of the water supply, it should be noted that boats are allowed on the reservoir, there are roads around the perimeter, and the potential health or terrorist threat posed by trail users is equivalent to these other existing uses. While it is possible to imagine a scenario in which the water supply is poisoned, vandalized, or damaged via access from the trail, this could be potentially mitigated by routine mountain bike or vehicular patrols and access controls on the trail in the vicinity of the reservoir.

Trail user safety is a concern for potential drowning, forest fire danger, isolated locations along the reservoir, and limited access for emergency personnel. A key issue is whether trail users will be required to have a NYCDEP permit to use the trail – this would be a limitation for visitors and infrequent trail users, but would provide a measure of control for the agency. Signage (and possibly fencing) will need to clearly delineate the trail boundary and use regulations.

It should also be noted that the trail could potentially have positive benefits for safety and security of the Ashokan Reservoir, and could provide positive public relations benefits for NYCDEP. Discussions with NYCDEP staff indicated that they do not currently perceive that the potential for improved security patrols would be significant, and that the increased public access would be a challenge to their enforcement capabilities. If a trail or RWT were developed, law enforcement could have improved access to the perimeter of the reservoir on the trail, but provisions would have to be made for routine patrols, maintenance access, and emergency operations.





Access to the NYSDEP lands around Ashokan Reservoir is currently access controlled by gates (L) and barriers (R). Note that the signs in the photo on the right, of the weir across the reservoir, say "*No Motor Vehicles*" and "*Road Closed, Pedestrian and Bicycle Traffic Only.*" This section was closed to motor vehicles as a security measure after Spetember 11, 2001, and has since become a popular pathway and wildlife viewing location.
(Photos: J.Olson)

Summary

- The trail's design will need to respond directly to the needs of multiple trail users and year-round, four-season conditions, including providing for the mobility impaired / ADA compliance, interpretive information for heritage tourism, intermodal connections between the trail and railroad, and multi-functional access points along the route.
- If a trail or RWT were developed along the perimeter of Ashokan Reservoir, law enforcement could have improved access to the perimeter of the reservoir on the trail, but provisions would have to be made for routine patrols, maintenance access, and emergency operations.
- Trail-roadway crossings should be grade-separated or provided with well-designed at-grade crossings. All crossings should be provided with appropriate Manual of Uniform Traffic Control Devices (MUTCD) compliant signage and/or signals where at-grade crossings are necessary.
- State Route 28 is a 55 mph State highway with four lanes from Kingston to West Hurley and primarily two lanes from there to the County line. The route is designated as New York State Bike Route 28, and paved shoulder conditions vary from new sections with 6-8 foot paved shoulders, to narrow sections with poor pavement.
- Facilities for walking and bicycling were ranked as the top priorities identified by Park professionals for new recreational facilities in the New York State Comprehensive Outdoor Recreation Plan (SCORP) in 2003.
- Cardiovascular disease (which is related to a lack of physical activity) accounts for more than 30% of all fatalities in Ulster County. In 2003, more people died from heart disease in Ulster County than from lung cancer, AIDS, homicides and motor vehicle crashes combined.
- New York State is currently reviewing potential RWT guidelines, and it is possible that a flexible guideline can be adopted that would provide for a desired minimum setback dimension, but also allow exceptions based on environmental, right-of-way, or other constraints. A setback of 12 feet from the centerline of the railroad track can be used as a guideline for RWT sections of the U&D corridor.
- The proposed trail will need to be planned, designed, and managed to reduce conflicts among multiple types of users, and with adjacent properties, including consideration of potential reckless and unsafe behavior; incompatible uses and values; trespass; disturbances, and adverse environmental impacts.

4. Alignment Alternatives

Based on the opportunities and constraints identified in the planning process, a series of conceptual alternative alignments were proposed. The following descriptions served as illustrations of possible alternatives for review and discussion. Note that in each alternative, the Catskill Mountain Railroad is considered as an existing condition. Railroad operations are assumed to exist at least until the end of the current 25-year lease between the County IDA and CMRR. In all of the alternatives, the U&D corridor is preserved intact with the rails in place, regardless of which combination of rail and/or trail uses are advanced. The potential alternatives are described as follows:

1. Single Track Trail: This alignment includes a natural surfaced trail parallel to the railroad tracks. This trail would be suitable for hiking, mountain biking, cross-country skiing, and potentially equestrian use in some sections. Any alignment other than rail would require a permit negotiation with the NYCDEP. This alternative's cost would be substantially less than a paved, shared-use path. This type of trail would be similar to other trails in the Catskill Park managed by NYSDEC. In the section west of Phoenicia, the railroad right-of-way would be stabilized and the trail could run on top of the tracks until railroad operations are re-established.

2. Rail-with-Trail: This alternative is proposed as a 10-foot, paved, shared-use path along the entire U&D corridor. It would be designed to allow railroad operations to exist alongside the trail. The path would provide year-round multiple uses for walkers, runners, bicyclists, in-line skaters, cross-country skiers, and equestrians. The Ashokan Reservoir section would require special consideration to ensure security and water quality, and these issues could prohibit the project from advancing. This alternative would provide a maximum amount of intermodal travel using both the train and the trail. However, this option is likely to be the most costly due to the need to accommodate both rail and trail use in the corridor, especially considering wetlands, bridge/culvert repairs, narrow cross-sections of the existing railroad berm, and rock cut areas.

3. 'Hybrid' Rail and Trail: This option integrates a range of solutions within different sections of the 40-mile corridor. Rail operations are oriented to provide service in the existing section, and the section between Washington Street in Kingston and a viewpoint at the edge of the Ashokan Reservoir. Along the reservoir, the U&D right-of-way is allowed to remain in its existing condition until track and bridge repairs can be made, and the shared-use path is routed along Route 28 between the road and the western edge of the NYCDEP lands. This would allow the trail and rail to be developed on "parallel tracks" as independent but complimentary projects, and would provide an alternative to having the currently non-permitted trail uses along the reservoir. West of Phoenicia, the trail could become a single track for hiking and mountain bicycling. The railroad would be able to provide 'uphill' service for the trail for people coming up from Kingston, who could then return downhill along the trail.

These alternatives were evaluated using a matrix that addressed the following criteria:

1. Railroad operations

2. NYDEP environmental/security issues

3. Multiple trail uses

4. Trail user safety

5. Trail connectivity/transportation benefits

6. Economic/tourism benefits

7. Financial feasibility

8. Ease of implementation

9. Impact to adjacent landowners

10. Health and recreation benefits

After review by the Rail Trail Committee and with input from the public, the following key issues were identified for the development of the preferred alternative:

1. Preserve the Right-of-Way. There is significant support for keeping the Ulster & Delaware right-of-way intact along the entire corridor, and for preserving the region's heritage and culture. Rail tracks should remain in place for the remainder of the CMRR and Trolley Museum leases, at a minimum.

2. A Hybrid Solution. Due to constraints identified in the planning process, a 'hybrid' solution is preferred that allows rail and trail operations to coexist within the project corridor, but not necessarily with the same combinations of uses in each section.

3. Flexibility and Phasing. The project can be developed over time, with uses evolving as resources and opportunities become available. The proposed alternative should support this flexible approach.

Based on the analysis developed in prior task reports, the consensus of the RTC participants, and the evaluation of the key issues, a proposed alternative was identified, and it is presented in the following section.

5. Proposed "Rail + Trail" Concept

Overview: The proposed alternative for the Ulster & Delaware Rail Trail is a 'hybrid' rail *and* trail project connecting 40 miles of rail and trail facilities from the Hudson River in Kingston to the Belleayre Ski Center in the Catskill Mountains. The project will involve a public-private partnership between Ulster County, the City of Kingston, the New York City DEP, the Catskill Mountain Railroad, the Trolley Museum of New York, and other organizations. Due to right-of-way, environmental, financial, and other constraints, a continuous railroad service with a parallel shared-use path is not currently feasible along the entire corridor. However, by combining concepts based on the opportunities identified within the corridor, a continuous rail and trail theme can be developed. The project is illustrated in sections based on potential for phasing and the characteristics of the proposed concept for each section as follows:

Section 1: Rondout Trolley Trail

Section 2: Downtown Kingston Trail

Section 3: O&W Trail Connector

Section 4: I-87 to West Hurley Station

Section 5: West Hurley to Boiceville

Section 6: Boiceville to Phoenicia

Section 7: Phoenicia to Highmount

The trail mileage, primary trail surface, and structure quantities are summarized in the table below. Note that quantities indicated for different surface types are approximate and will vary depending on the final facility design. Detailed descriptions and maps of each Rail Trail section are provided on the following pages.

Ulster & Delaware Trail by Section

		Mileage	Feet	Asphalt Feet	Crushed Stone Feet	Bridge Decking'	Bridge Abuttments'	At-Grade Crossings
Section	1	2.25	11880	11880	0	460	0	7
Section	2	0.8	4224	4224	0	0	0	6
Section	3	1.5	7920	7920	0	0	0	3
Section	4	5.75	30360	0	30360	200	200	5
Section	5	10.0	52800	0	52800	0	0	3
Section	6	7.0	36960	0	36960	0	0	6
Section	7	12.5	66000	0	66000	520	500	6
Total	**********	39.8	210144	24024	186120	1180	700	36
			Miles	4.55	35.25			

Section 1: Rondout Trolley Trail

Description: Urban Heritage Park
Rail Service: Trolley
Shared Rail with Trail: No
Trail Type: Asphalt on existing rail, tracks to remain in place
Rail Tracks to Remain: Yes
Segment Length: 2.25 miles

The trail begins with the Trolley at Kingston Point Park along the Hudson River. E.Strand Street will be a low-speed, traffic-calmed boulevard with wide sidewalks and bike lanes. Historic trolleys will provide service from the Trolley Museum to the Hudson River. West of the museum, a linear park will be created on the rail line up to E. Chester Street near Kingston Hospital. The tracks will stay in place for occasional use by special event trains and potential future urban transit use. The linear park will be a railroad-themed heritage area and playground, with an asphalt surface and timber decking at bridges and trestles. Slides, swings, and benches will be crafted from recycled materials. The park will be an outdoor extension of the Trolley Museum, and will help tell the transportation history of Kingston.





Existing conditions in Kingston include this image of a woman jogging along the shoulder of the Route 9W bridge (left) which indicates the need for safe places to walk and bike; and the paved section of active trolley tracks in front of the Trolley Museum, which is an example of a "trail on rail" that accommodates walking, bicycling, and rail use. (right)
(Photos: J.Olson)


ULSTER & DELAWARE RAILROAD CORRIDOR TRAIL FEASIBILITY STUDY
ULSTER COUNTY, NEW YORK
Section 1: Rondout Trolley Trail
The U&D Railroad Right-of-Way is approximately 40 miles long, 30-66 feet wide, and includes approximately 300 acres of land
Rondout Trolley Trail
Description: Urban Heritage Park
Rail Service: Trolley
Shared Rail with Trail: No
Trail Type: Asphalt on existing trail, tracks to remain in place
Rail Tracks to Remain: Yes
Approximate Length: 2.25 Miles
Connector Trail to BMX Track & Beach Park (Causeway) 2100' Segment
Linear Park: E. Chester Street to Rondout Garden Apartments
Bridge over 9W (300')
Tunnel
Trolley Museum
Rondout Gardens Apartments
Mother Marion
Study Area Map
Prepared by: Alta Planning+Design - April, 2006
Data Provided by: Ulster County Planning Board and State of New York
0 0.15 0.3 0.6 0.9 1.2
Miles
Legend

Section 2: Downtown Kingston Trail: E. Chester Street to Cornell Street

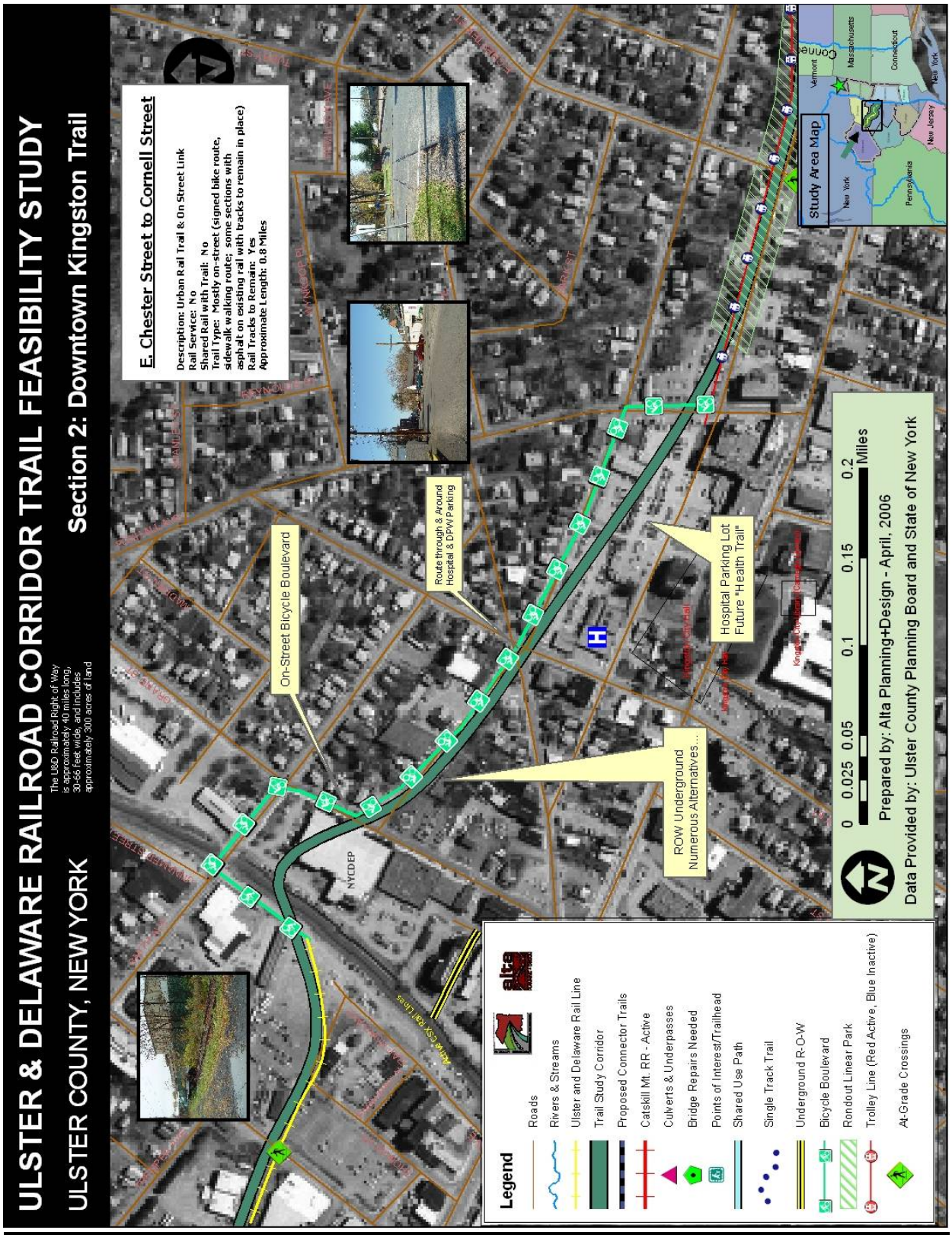
Description: Urban rail trail & on-street link
Rail Service: No
Shared Rail with Trail: No
Trail Type: Mostly on-street (signed bike route, sidewalk walking route; some sections with asphalt on existing rail with tracks to remain in place)
Rail Tracks to Remain: Yes
Segment Length: 0.8 miles

This section will begin at the Kingston Hospital. In this area, the railroad tracks were removed and the right-of-way was eliminated. The original rail route goes right through the current hospital site, and it is not likely that this alignment can be reconnected for active rail use unless the hospital property is redeveloped. In the short term, the trail follows an on-street route from the intersection of E. Chester Street at Jansen Avenue, using a combination of Jansen Avenue, Foxhall Avenue, and Smith Streets before reconnecting with the U&D rail line at Cornell Street. In the future, a possible enhancement to this route could include redesigning the hospital parking areas to include a "health trail" (supporting a community response to the national cardiovascular health and physical inactivity epidemic) and reconnecting the rail right-of-way through the filled-in tunnel under the active CSX mainline tracks. The trail surface in this section would be asphalt, with the existing tracks to remain in place up to Albany Street.





In downtown Kingston, the U&D rail tracks are still in place through the parking lot used by NYCDEP and Kingston Hospital along the west side of the CSX freight line.(left); and through the downtown neighborhoods and parking lots around the hospital (right). This is an opportunity for creating an urban greenway in the City.
(Photos: J.Olson)


ULSTER & DELAWARE RAILROAD CORRIDOR TRAIL FEASIBILITY STUDY
ULSTER COUNTY, NEW YORK
Section 2: Downtown Kingston Trail
The U&D Railroad Right of Way is approximately 40 miles long, 30-66 Feet wide, and includes approximately 300 acres of land
E. Chester Street to Cornell Street
Description: Urban Rail Trail & On Street Link
Rail Service: No
Shared Rail with Trail: No
Trail Type: Mostly on-street (signed bike route, sidewalk walking route; some sections with asphalt on existing rail with tracks to remain in place)
Rail Tracks to Remain: Yes
Approximate Length: 0.8 Miles
On-Street Bicycle Boulevard
Route through & Around Hospital & DPW Parking
ROW Underground Numerous Alternatives...
Hospital Parking Lot Future "Health Trail"
NYCDEP
Study Area Map
Vermont
New York
Massachusetts
Connecticut
Pennsylvania
New Jersey
Legend
Roads
Rivers & Streams
Ulster and Delaware Rail Line
Trail Study Corridor
Proposed Connector Trails
Catskill Mt. RR - Active
Culverts & Underpasses
Bridge Repairs Needed
Points of Interest/Trailhead
Shared Use Path
Single Track Trail
Underground R-O-W
Bicycle Boulevard
Rondout Linear Park
Trolley Line (Red Active, Blue Inactive)
At-Grade Crossings
0 0.025 0.05 0.1 0.15 0.2 Miles
Prepared by: Alta Planning+Design - April, 2006
Data Provided by: Ulster County Planning Board and State of New York

Section 3: Albany Street to the Ontario and Western Rail Trail

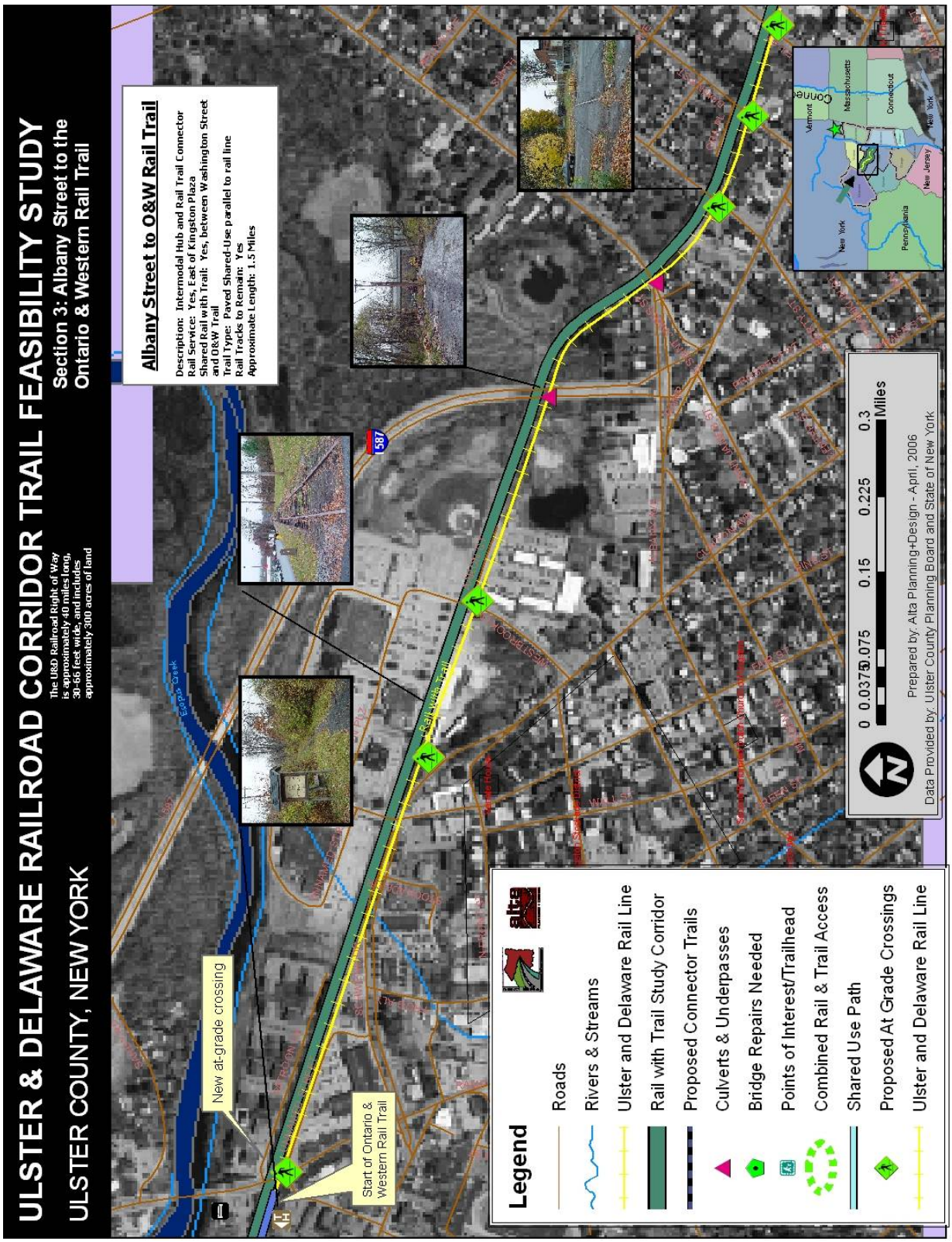
Description: Intermodal hub and rail trail connector
Rail Service: Yes, east of Kingston Plaza
Shared Rail with Trail: Yes, between Washington Street and O&W Trail
Trail Type: Paved shared-use parallel to rail line
Rail Tracks to Remain: Yes
Segment Length: 1.5 miles

From Albany Street west through Kingston Plaza, the U&D line would become a rail-with-trail to Washington Street. The tracks would remain in place parallel to a paved shared-use path in this section. At Washington Street, a new at-grade crossing would begin a connector trail along the U&D to connect with the O&W Rail Trail along Route 209. This important 'missing link' can be accomplished with current available funding, and will serve as a hub of the County's growing shared-use path system. Active rail service would likely begin at Washington Street, with good access from I-87 and adequate parking for rail and trail use.





Existing conditions along the U&D tracks in Kingston show the right-of-way at Kingston Plaza (left); and the tracks under Route 587 near Albany Street (right). This area is a potential "rail-with-trail" location, providing multi-modal access to retail and commercial sites, the nearby recreation fields along the Esopus Creek, and adjacent neighborhoods.
(Photos: J.Olson)


ULSTER & DELAWARE RAILROAD CORRIDOR TRAIL FEASIBILITY STUDY
ULSTER COUNTY, NEW YORK
Section 3: Albany Street to the Ontario & Western Rail Trail
The U&D Railroad Right of Way is approximately 40 miles long, 30-66 feet wide, and includes approximately 300 acres of land
Albany Street to O&W Rail Trail
Description: Intermodal Hub and Rail Trail Connector
Rail Service: Yes, East of Kingston Plaza
Shared Rail with Trail: Yes, between Washington Street and O&W Trail
Trail Type: Paved Shared-Use parallel to rail line
Rail Tracks to Remain: Yes
Approximate Length: 1.5 Miles
New at-grade crossing
Start of Ontario & Western Rail Trail
Esopus Creek
Rail Trail
587
Legend
Roads
Rivers & Streams
Ulster and Delaware Rail Line
Rail with Trail Study Corridor
Proposed Connector Trails
Culverts & Underpasses
Bridge Repairs Needed
Points of Interest/Trailhead
Combined Rail & Trail Access
Shared Use Path
Proposed At Grade Crossings
Ulster and Delaware Rail Line
0 0.0375 0.075 0.15 0.225 0.3 Miles
Prepared by: Alta Planning+Design - April, 2006
Data Provided by: Ulster County Planning Board and State of New York
Vermont
Massachusetts
Connecticut
New York
Pennsylvania
New Jersey

Section 4: I-87 to West Hurley Station

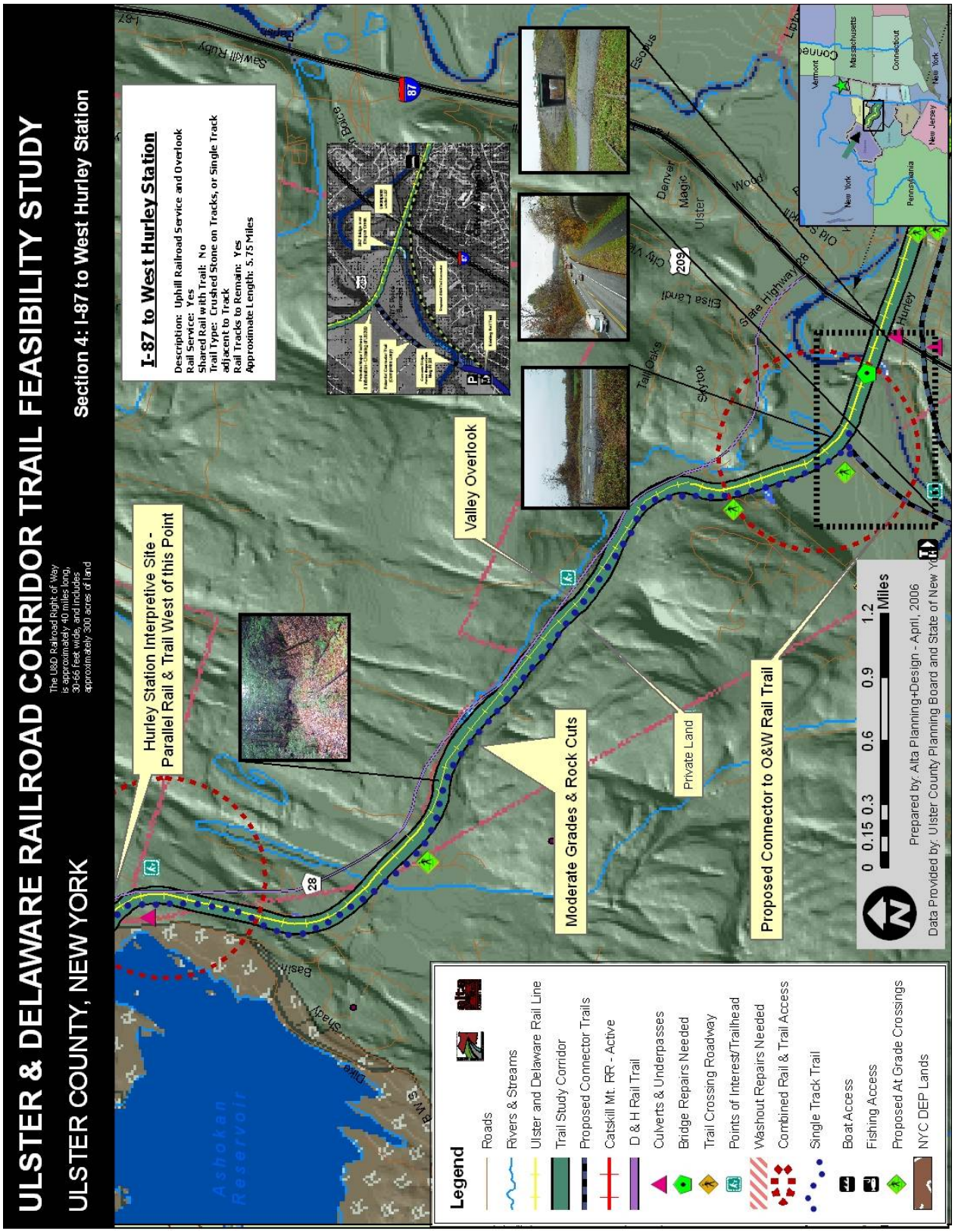
Description: Uphill railroad service and overlook
Rail Service: Yes
Shared Rail with Trail: No
Trail Type: Crushed stone between rails (interim use for hiking and mountain bikes)
Rail Tracks to Remain: Yes
Segment Length: 5.75 Miles

From the tunnel under I-87 to West Hurley, the corridor would be a railroad-only section due to rock cuts, right-of-way constraints, and topography. This would allow for a scenic train ride up the grade to the east end of Ashokan Reservoir, and the rail trail station at Washington Street would serve as both a 'terminal' for the O&W Rail Trail and the gateway for the Catskill Mountain branch. The railroad would serve a function similar to a ski lift, taking passengers up the steepest grade in the corridor. At West Hurley, a new trailhead station would provide an overlook point for views of the Hudson River Valley. An interim 'single track' trail could be developed with the tracks to remain in place until railroad service is provided. This would require maintenance upgrades to the right-of-way, and the installation of a wooden deck on the bridge over the Esopus Creek near I-87. Note that due to steep grades, this section would be challenging for use by in-line skating, and that since the tracks must remain in place, thin-tired road bikes would be better served by improved paved shoulders along the adjacent Route 28 New York State bike route.





The 'uphill' section from I-87 to West Hurley provides an opportunity for a phased approach that allows an interim trail from the O&W rail trail (left) to the east end of the Ashokan Reservoir. When rail service is re-established in this section, the trail could shuttle trail users from Kingston to a high point in West Hurley. Narrow rock cuts (right) are a constraint to shared rail-with-trail use in this section.
(Photos: J.Olson)


ULSTER & DELAWARE RAILROAD CORRIDOR TRAIL FEASIBILITY STUDY
ULSTER COUNTY, NEW YORK
The U&D Railroad Right of Way is approximately 40 miles long, 30-66 feet wide, and includes approximately 300 acres of land
Section 4: I-87 to West Hurley Station
I-87 to West Hurley Station
Description: Uphill Railroad Service and Overlook
Rail Service: Yes
Shared Rail with Trail: No
Trail Type: Crushed Stone on Tracks, or Single Track adjacent to Track
Rail Tracks to Remain: Yes
Approximate Length: 5.75 Miles
Hurley Station Interpretive Site - Parallel Rail & Trail West of this Point
Valley Overlook
Moderate Grades & Rock Cuts
Private Land
Proposed Connector to O&W Rail Trail
Legend
Roads
Rivers & Streams
Ulster and Delaware Rail Line
Trail Study Corridor
Proposed Connector Trails
Catskill Mt. RR - Active
D & H Rail Trail
Culverts & Underpasses
Bridge Repairs Needed
Trail Crossing Roadway
Points of Interest/Trailhead
Washout Repairs Needed
Combined Rail & Trail Access
Single Track Trail
Boat Access
Fishing Access
Proposed At Grade Crossings
NYC DEP Lands
0 0.15 0.3 0.6 0.9 1.2 Miles
Prepared by: Alta Planning+Design - April, 2006
Data Provided by: Ulster County Planning Board and State of New York
Ashokan Reservoir
Basin
Shady
Dike
Sawkill
Esopus
Denver
Magic
Ulster
Wood
Elisa Landi
Tail Oaks
Skytop
State Highway 28
Hurley
Old Stage
Vermont
Massachusetts
Connecticut
New York
New Jersey
Pennsylvania

Section 5: West Hurley to Boiceville

Description: Parallel rail and trail
Rail Service: Yes
Shared Rail with Trail: Yes
Trail Type: Crushed stone, shared-use path (walking, bicycling, running, cross-country skiing)
Rail Tracks to Remain: Yes
Segment Length: 10.0 miles

From West Hurley to Boiceville, the trail and rail would split on different alignments due to right-of-way, safety, and security issues. The CMRR trains would follow the historic alignment along the reservoir to Boiceville, providing a scenic route with views of the reservoir without compromising the NYCDEP concerns about people trespassing along the water's edge. CMRR would remain responsible for reconstruction of the Boiceville Bridge and Butternut Basin culvert. The trail alignment would follow along the north edge of the DEP lands, preferably between the existing fence line and the shoulder of NYS Route 28. (An alternative would be to align the trail along the south side of the reservoir on NYCDEP lands between the reservoir and Route 28a). Along this route, the historical markers describe the former sites of small settlements which were lost during the construction of the reservoir. These sites would become trailheads, rest stops, and potentially small trail-related business locations (B&B's, a bike shop, general store, ice cream stand, deli, etc) designed within the historical context of the Catskill Region. With this combination, the West Hurley to Boiceville section can become an Esopus Valley Heritage Park, with the ability to enjoy the advantages of both rail and trail facilities. Due to the environmental concerns of the NYCDEP, cost concerns, and the historic quality of the corridor, a crushed stone surface could be used for the trail in this section. However, if a full range of multiple uses (including road bikes and in-line skating) are a priority, and the increased cost of a paved surface is acceptable, an asphalt surface would be preferred.





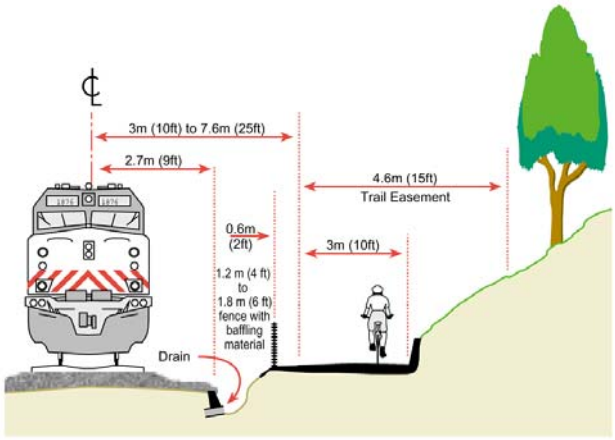
The proposed concept between West Hurley and Boiceville would create a heritage trail connecting the former sites of towns along the U&D, including the Town of Olive, shown left and right above. These locations can provide interpretive waysides, and potential sites for a general store, bicycle shop, B&B, ice cream stand, or café linked to the trail theme.
(Photos: J.Olson)


ULSTER & DELAWARE RAILROAD CORRIDOR TRAIL FEASIBILITY STUDY
ULSTER COUNTY, NEW YORK
Section 5: West Hurley to Boiceville
The U&D Railroad Right of Way is approximately 40 miles long, 30-66 feet wide, and includes approximately 300 acres of land
West Hurley to Boiceville
Description: Parallel Rail and Trail
Rail Service: Yes
Shared Rail with Trail: Yes
Trail Type: Crushed Stone, shared use path
Rail Tracks to Remain: Yes
Approximate Length: 10.0 Miles
Boiceville Bridge
Interpretive Heritage Trail - Reservoir Town Sites
FORMER SITE OF GLENFORD
Butternut Basin Culvert
NYCDEP Road Bicycles & Pedestrians Only
Esopus Heritage Park & Shared-Use Path Between NYCDEP Lands and Route 28
Shokan M.P.18.5
Ashokan M.P.16.5
Ashokan Reservoir
Old Route 28
State Highway 28A
Reservoir Road
Boiceville
Chris
Beaver Kill
Bundy
Skea
Baker
Hurley
Ashokan
Marbletown
Quarry
Legend
Roads
Rivers & Streams
Ulster and Delaware Railroad
Shared Use Path Ashokan Route 28 Section
Proposed Connector Trails
Catskill Mt. RR - Active
Culverts & Underpasses
Bridge Repairs Needed
Trail Crossing Roadway
Points of Interest/Trailhead
Washout Repairs Needed
Combined Rail & Trail Access
Boat Access
Fishing Access
Proposed At Grade Crossings
NYC DEP Lands
0 0.3 0.6 1.2 1.8 2.4 Miles
Prepared by: Alta Planning+Design - April, 2006
Data Provided by: Ulster County Planning Board and State of New York
Vermont
Massachusetts
Connecticut
New York
New Jersey
Pennsylvania

Section 6: Boiceville to Phoenicia

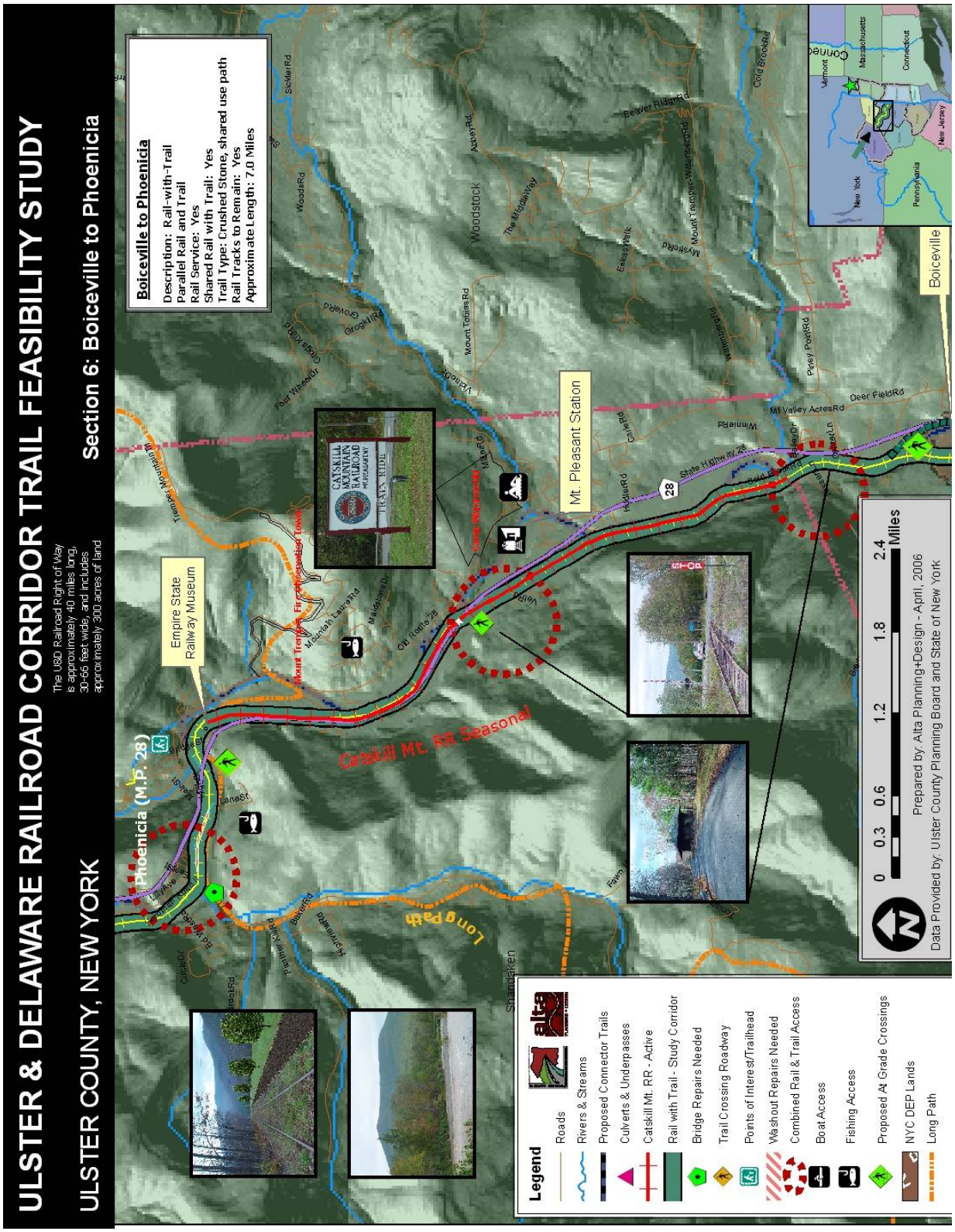
Description: Rail-with-trail**,** parallel rail and trail
Rail Service: Yes
Shared Rail with Trail: Yes
Trail Type: Crushed stone, shared-use path (walking, bicycling, running, cross-country skiing)
Rail Tracks to Remain: Yes
Segment Length: 7.0 miles

From Boiceville to Phoenicia, the corridor would be developed as a Rail-with-Trail, utilizing the space between the existing rail line and Route 28. The CMRR would continue its operations, and the Empire State Railway museum would remain the focal point of operations. The new sewer line being developed in Phoenicia would be aligned under the proposed trail, with the trail serving as a maintenance facility for both the railroad and the utility. The trail surface would also be crushed stone in this section. Note: Currently, a 4,000-foot section of sewer line is proposed along the corridor from Phoenicia to the east which could be surfaced with a crushed stone maintenance path that could double as a section of the shared-use rail-with-trail path. As with the other proposed trail sections, asphalt could be used as a trail surface in hamlet areas, or along the entire section if environmental, cost, and multiple uses dictate.





Between Phoenicia and Boiceville, there are opportunities to create a shared-use Rail-with-Trail along the corridor. The diagram at left is from the Alta/FHWA National Rail-with-Trails study, and shows the optimum conditions for trails of this type. The photo on the right was taken from the engine of a CMRR train, showing the relationship between the tracks and NYS Route 28. Some constrained sections exist, including rock cuts south of Mt. Pleasant station.
(Photo: J.Olson)


ULSTER & DELAWARE RAILROAD CORRIDOR TRAIL FEASIBILITY STUDY
ULSTER COUNTY, NEW YORK
The U&D Railroad Right of Way is approximately 40 miles long, 30-66 feet wide, and includes approximately 300 acres of land
Section 6: Boiceville to Phoenicia
Boiceville to Phoenicia
Description: Rail-with-Trail
Parallel Rail and Trail
Rail Service: Yes
Shared Rail with Trail: Yes
Trail Type: Crushed Stone, shared use path
Rail Tracks to Remain: Yes
Approximate Length: 7.0 Miles
Phoenicia (M.P. 28)
Empire State Railway Museum
Mt. Pleasant Station
Boiceville
Catskill Mt. RR Seasonal
Long Path
Woodstock
Legend
Roads
Rivers & Streams
Proposed Connector Trails
Culverts & Underpasses
Catskill Mt. RR - Active
Rail with Trail - Study Corridor
Bridge Repairs Needed
Trail Crossing Roadway
Points of Interest/Trailhead
Washout Repairs Needed
Combined Rail & Trail Access
Boat Access
Fishing Access
Proposed At Grade Crossings
NYC DEP Lands
Long Path
0 0.3 0.6 1.2 1.8 2.4 Miles
Prepared by: Alta Planning+Design - April, 2006
Data Provided by: Ulster County Planning Board and State of New York

Section 7: Phoenicia to Highmount

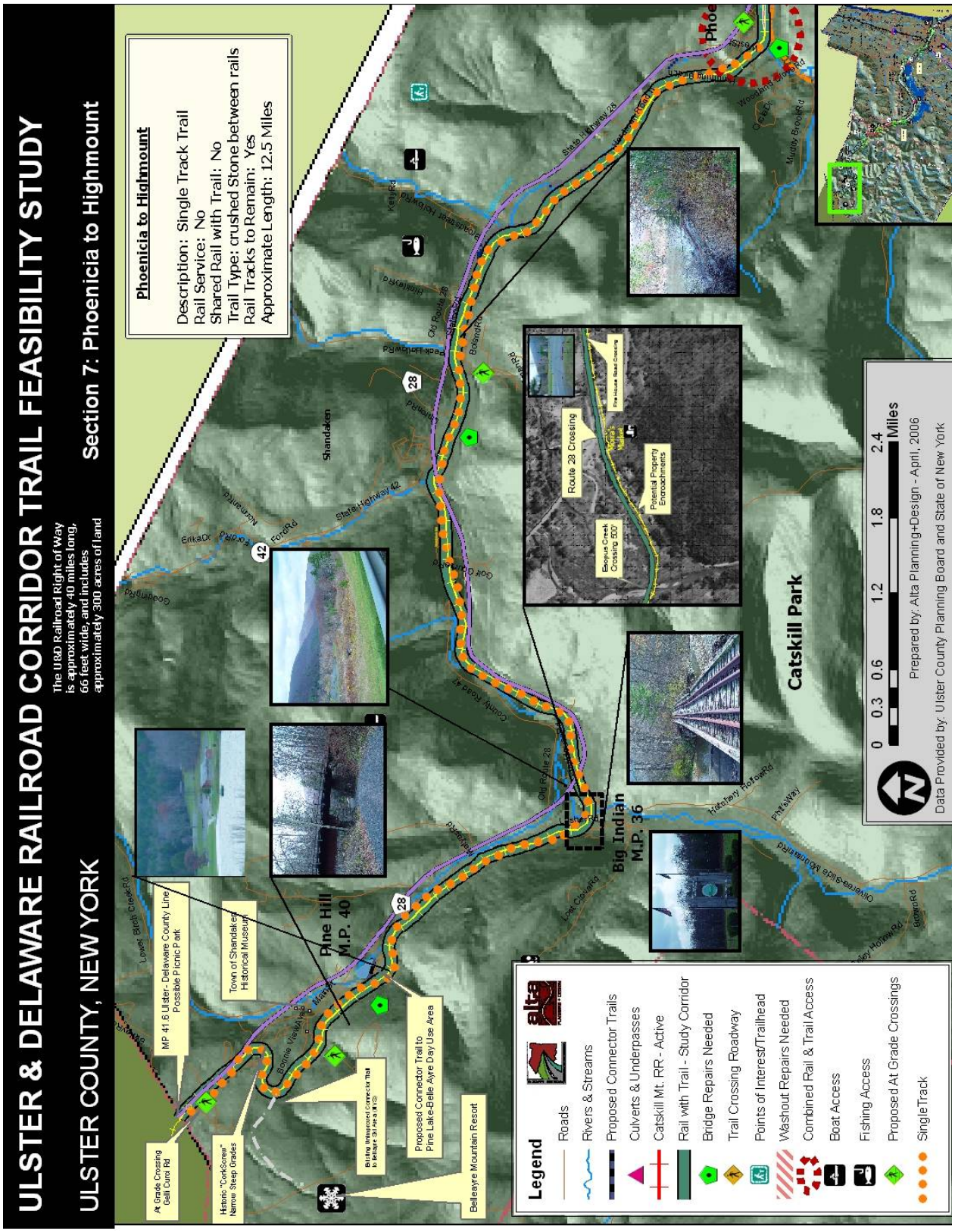
Description: Single track trail
Rail Service: No
Shared Rail with Trail: No
Trail Type: Crushed stone between rails (hiking and mountain bike shared use)
Rail Tracks to Remain: Yes
Segment Length: 12.5 miles

This is the most remote section of the corridor, and currently the lowest priority for the CMRR to develop active rail service. This section is proposed to remain in as minimal a state as possible, with uses including cross-country skiing, fishing, hiking, and mountain biking. A connection will be made to Pine Lake and to the Belleayre Ski Center, as well as to NYSDEC trails in the area. The railroad tracks will be maintained with crushed stone placed between the rails as a trail surface. The washouts along the Esopus Creek will be repaired based on principles that minimize future erosion and maintain fish habitat along the Creek.





The western section of the corridor is through NYSDEC lands in the Catskill Park, including the highpoint at the entrance to the Belleayre Ski Center (left) and environmentally sensitive areas and fishing habitat along the Esopus Creek (right). (Photos: J.Olson)


ULSTER & DELAWARE RAILROAD CORRIDOR TRAIL FEASIBILITY STUDY
ULSTER COUNTY, NEW YORK
The U&D Railroad Right of Way is approximately 40 miles long, 66 feet wide, and includes approximately 300 acres of land
Section 7: Phoenicia to Highmount
Phoenicia to Highmount
Description: Single Track Trail
Rail Service: No
Shared Rail with Trail: No
Trail Type: crushed Stone between rails
Rail Tracks to Remain: Yes
Approximate Length: 12.5 Miles
Legend
Roads
Rivers & Streams
Proposed Connector Trails
Culverts & Underpasses
Catskill Mt. RR - Active
Rail with Trail - Study Corridor
Bridge Repairs Needed
Trail Crossing Roadway
Points of Interest/Trailhead
Washout Repairs Needed
Combined Rail & Trail Access
Boat Access
Fishing Access
Proposed At Grade Crossings
SingleTrack
Pine Hill M.P. 40
Big Indian M.P. 36
Catskill Park
Route 28 Crossing
Esopus Creek Crossing 800'
Potential Property Encroachments
Pine House Road Crossing
MP 41.6 Ulster - Delaware County Line Possible Picnic Park
Town of Shandaken Historical Museum
At Grade Crossing Delli Curci Rd
Historic "CorkScrew" Narrow Steep Grades
Proposed Connector Trail to Pine Lake-Belle Ayre Day Use Area
Belleayre Mountain Resort
Shandaken
State Highway 42
State Highway 28
Ford Rd
Old Route 28
Peck Hollow Rd
Kelly Rd
Boiceville
Phoenicia
Mountain Boro Rd
Muddy Brook Rd
Lower Birch Creek Rd
Bonnie View Rd
Pine Hill
Fisher Rd
Pine Way
Hatchery Hollow Rd
Overlook Mountain Rd
Brown Rd
Loet Clove Rd
0 0.3 0.6 1.2 1.8 2.4 Miles
Prepared by: Alta Planning+Design - April, 2006
Data Provided by: Ulster County Planning Board and State of New York

6. Findings and Recommendations

Trail and Community Connections

The proposed alternative would connect the entire 40-mile corridor from Highmount to the Hudson River. The trail would serve local neighborhoods in downtown Kingston, and provide access to recreation and transportation for the smaller towns along the route. The sites of historic towns lost during the construction of the NYC water supply system would be restored as trailside facilities. The Long Path, the NYSDEC Catskill Park Trails system, D&H Heritage Trail, and O&W Rail Trail would be connected, and these facilities would link the U&D to the Hudson Valley Greenway regional trail system.

Environmental Impacts and Benefits

The U&D Rail-with-Trail would provide public access to the currently underutilized corridor. This would provide opportunities for environmental interpretation, fishing, recreational access, and sustainable transportation. Since the proposed trail section does not follow the current railroad alignment along the Ashokan Reservoir, potential negative environmental impacts to watershed lands would be reduced. An area of particular concern is the series of washouts of the existing rail line along the Esopus Creek near Phoenicia. These areas should be restored in collaboration with local environmental organizations (such as NYCDEC and Trout Unlimited) to ensure that aquatic habitat is enhanced and appropriate methods are applied.

Economic Benefits

Economic development and tourism are critical issues for Ulster County. The U&D Rail Trail has the potential to be a key element in the County's ongoing economic development strategy. Trails have significant economic benefits in terms of direct tourism spending, public health cost savings, providing affordable transportation, and creating the quality of life that attracts 21st century businesses. The following text from the New York Parks Conservation Association summarizes these benefits:

> "*Numerous studies show that trails boost tourism by attracting visitors, extending their length of stay, and adding to the constellation of attractions in an area. This directly benefits area restaurants, motels, and service stations and spurs the growth of businesses selling recreational gear and other goods. Rail-trails, especially, can breathe new life into small towns left to wither after the trains stopped running. More than 100 million Americans walk for pleasure, 100 million bicycle, 17 million ride horses, 12 million in-line skate, and 6 million cross country ski. Localities with safe, pleasant trails are becoming highly desirable vacation destinations for these educated and affluent travelers. Trail users need food, lodging, and fuel. They need special clothes, shoes, and equipment. They buy souvenirs, crafts, film, and other items. They also combine visiting a trail with other money-spending activities*."
>
> Source: **Greenways & Trails: *Bringing Economic Benefits to New York,*** www.ptny.org

With the potential for urban redevelopment along the trail in Kingston and the opportunities for trail-related services (B&B's, bike shops, restaurants, etc.) along the route, the U&D corridor can provide increased economic benefits for Ulster County.

Bridges and Roadway Crossings

The U&D Rail Trail project involves a total of 37 bridges and roadway crossings. These have been identified by the following types:

Total Trail Road/Water Crossings	
5	Bridge Crossings
25	At-Grade Crossings
7	Under-pass Crossings

Significant crossings include the Esopus Creek Bridge, the Reservoir Road Bridge, and the narrow trestles which currently accommodate single railroad tracks. Note that two of the largest infrastructure repairs within the corridor are the Boiceville Bridge and Butternut Basin Culvert, which in the proposed alternative are maintained as railroad-only structures within the current CMRR lease agreement.

Security, Safety, and Liability

As the owners and occupiers of their rights-of-way, railroads and property owners have legal duties and responsibilities to persons both on and off their premises. The property owners have a duty to exercise reasonable care on their premises to avoid an unreasonable risk of harm to others who may be off the railroad premises. For example, railroads may be found liable if the use of their right-of-way creates an unreasonable risk to persons on an adjacent "public highway" such as through derailments or objects falling off the trains.

In most states, the duty of care owed to persons who enter another's property depends on whether the injured person is considered a trespasser, a licensee, or an invitee. A trespasser is a person who enters or remains upon land in possession of another without a privilege to do so, created by the possessor's consent or otherwise. A licensee is a person on land with the owner's tacit or express permission but only for the visitor's benefit. An invitee is a person on the owner's land with the owner's permission, expressly or implied, for the owner's benefit. Trespassers are due the least duty of care, while invitees are due the most.

In deciding whether to allow a rail-with-trail (RWT) on its right-of-way or determining the indemnity and insurance coverage appropriate for a given RWT, a property owner needs to weigh and balance three factors: (1) the extent, if any, to which the RWT will elevate the land owner's duty of care to any particular individual; (2) the potential increased scope of the owner's liability; and (3) the increased or decreased likelihood of an injury occurring as a result of the RWT.

Potentially offsetting some of a railroad's increased liability attributable to a RWT are the State-enacted Recreational Use Statutes (RUSs). All 50 states have RUSs, which provide protection to landowners who allow the public to use their land for recreational purposes. An injured person must prove the landowner deliberately intended to harm him or her. States created RUSs to encourage

landowners to make their land available for public recreation by limiting their liability provided they do not charge a fee. Railroad companies and institutions that agree to a RWT on their property would have limited liability due to these statutes. However, if the railroad or institution owns the property, they may still demand that the trail managing entity provide as much indemnification to the railroad as is allowable.

In New York State, the General Obligations Law § 9-103, is commonly known as the Recreational Use Statute or RUS. Section 9-103 provides that "*an owner, lessee or occupant of premises, whether or not posted as provided in section 11-2111 of the environmental conservation law, owes no duty, to keep the premises safe for entry or use by others*" for a number of specifically enumerated recreational activities "*or to give warning of any hazardous condition or use of or structure or activity on such premises*" to people entering the property for such activities.

Probable Cost Summary

At the level of detail of this feasibility study, it is difficult to identify specific costs for improvements to the entire 40-mile corridor. Conditions of the lease agreements with the County require the CMRR to maintain the entire corridor. Compliance with these conditions could potentially reduce some trail costs for sections where the right-of-way needs to be restored due to washouts and structural repairs. The railroad has, in the past, relied on volunteer labor and grants to maintain the corridor. This has reduced costs but has also presented challenges to keeping the tracks in a state of good repair.

The most recent documentation for the railroad is the "Design Report: Restoration of the Catskill Mountain Railroad: Kingston to Phoenicia, New York" prepared by CMRR. This document indicates that approximately $3.56 million dollars in funding is required to restore the track to FRA Class 2 standards to permit operation of scenic passenger service over the railroad line. The document states that if this funding is not provided, …"*the (no build) alternative will effectively eliminate the possibility of preserving and restoring the former Ulster & Delaware Railroad right-of-way t a level permitting operation of passenger service*…"

The project cost summary provided in the CMRR document does not include a detailed engineering analysis of critical infrastructure needs, including the Boiceville Bridge, Butternut Basin culvert, and sections where washouts have eroded the tracks. The document also indicates that the proposed service would not extend past Phoenicia (where the Esopus Creek has washed out a section of the track) and the service would be Class 2 for this 25-mile section. If the additional 15 miles of track were to be reconstructed, and if the railroad were to be returned to Class 1 service, the total costs would be significantly greater. New freight rail track can cost in excess of $700,000 per mile to more than a million dollars per mile, plus the cost of rail cars, operations, and maintenance. For a complete upgrade of the 40 miles of rail service between Kingston and Belleayre, the capital cost could be in the range of $28 million to $40 million.

For discussion purposes, the following ranges of cost can be identified on a per mile basis for different types of trail facilities:

Low Cost: Natural surface hiking or mountain bike trail, 4 ft width
$ 75,000 / mile x 40 miles = $3,000,000

Mid-Cost Crushed stone surface, shared-use (rural) trail, 8 ft width
$ 300,000 / mile x 40 miles = $12,000,000

High Cost Paved asphalt surface, shared-use (urban) trail, 10 ft width
$ 550,000 / mile x 40 miles = $ 22,000,000

The proposed concept for the U&D Rail Trail is a combination of the above conditions with unique characteristics, including multiple bridge and road crossings, the need to leave the existing railroad tracks in place, and constraints associated with adjacent land uses. Based on the proposed concept, the following probable costs were identified using the "*BikeCost*" model provided by the USDOT's National Pedestrian and Bicycle Information Center.



The U&D Railroad corridor has played a significant role in the history of the Catskill Mountain region.
(Photo: J.Olson)

Trail Development Cost	Ulster and Delaware Rail/Trail Corridor
• Bridges / Structures	$ 3.854 million
• Fencing	$ 250,000
• Signage and Information	$ 175,000
• Trailheads / Rest Areas	$ 1.2 million
• Crossings / Signals	$ 159,000
• Trail Surface - paved	$ 5.49 million (Kingston Point to I-87)
• Trail Surface –stone dust	$ 8.16 million (I-87 to Highmount)
Operations & Maintenance	$ 10,000 / mile / year
Total	$ 14.264 million - $19.018 million

These costs amount to approximately $357,000 - $475,000 per mile, and assume that all costs are contracted out. Note that construction costs will vary with detailed engineering and the type of trail cross-section (single track, asphalt vs. stone dust, etc.). This amount is consistent with the cost of similar trails in New York State, and is within the range identified in the categories above. It is possible that significant cost savings can be realized through the use of volunteer labor, in-kind labor contributions, or through trail construction integrated into adjacent land development or infrastructure projects.

Note that once a shared-use trail is in place, its annual operating costs are minimal compared to other types of infrastructure. Similar trails have shown annual user rates in the 50,000 – 100,000 uses per year range. With the combined rail and trail infrastructure in place, the potential annualized cost per user could result in significant benefits for Ulster County.

Funding

The U&D Rail + Trail project will require a wide range of funding resources, including public, private, non-profit, and corporate support. There are a wide range of transportation, conservation, historic preservation, recreation, health, and safety funding sources available. A list of available funding sources is provided in the Appendix of this document. It is important to note that a local foundation has played a central role in developing the railroad service west of High Point. Since the CMRR is organized as a non-profit corporation, a non-profit entity would need to be created to receive foundation and charitable contributions. While most trails are not organized as direct revenue producing entities, there are examples of voluntary fee collections, annual user permits, rental equipment operations, and parking lot access charges being used to generate revenues for similar trails. Adopt-a-mile and donations linked to naming opportunities have been used to generate support. An excellent example is the P'tit Train du Nord (the Little Train of the North), a rail trail project north of Montreal that has a comprehensive branding strategy including microbrew beer, station stops, and consumer gifts linked to the trail.

Property Ownership

The majority of the U&D right-of-way is owned by Ulster County and leased to the CMRR and the Trolley Museum. In the proposed alternative, there are at least three areas where right-of-way is a concern:

1. Ashokan Reservoir / NYCDEP Lands: The proposed alternative along Route 28 will require a negotiation for use of lands between the current DEP fence line and NYSDOT Route 28.

2. Private Land West of Boiceville Bridge: There is a section of land identified as private ownership between Phoenicia and the Boiceville Bridge. This may require a modification of the current railroad easement to allow trail use across the property.

3. Downtown Kingston: There are several parcels east of the CSX mainline tracks where the old U&D right-of-way has been built over and is no longer continuous. The NYCDEP building, Kingston Hospital, and the City of Kingston DPW building are located in this area. In the long term, the trail could be integrated into redevelopment of these urban properties.

It should be noted that the scope of this study did not include a complete parcel inventory and title search for all of the lands along the proposed corridor. The County was identified as the current owner of the U&D rail line and the property was identified on original railroad valuation maps. Prior to advancing recommendations of this study, a more detailed property ownership evaluation should be conducted.

Phased Implementation Approach

It is likely that the U&D Rail + Trail project will advance in phases, as resources and opportunities become available. The following sections are recommended for advancement:

Phase 1: (2-5 years)

O&W Trail Connector: Upgrade the existing trail from Washington Street to the new Route 209 trail to connect the O&W Trail and downtown Kingston.

Town of Olive: Ashokan to Shokan: Create a section of trail linking the two hamlet areas along Route 28, with an interpretive site at the former site of the town of Olive.

Phoenicia to Boiceville: Construct RWT section in coordination with new sewer line construction.

Downtown Kingston: Construct Trolley Line Park in Rondout from the Trolley Museum to Kingston Hospital. Provide an interim on-street route around the Hospital, and connect the rail-with-trail through the Kingston Plaza Section.

Phase 2: (5-10 years)

Phoenicia to Highmount: Restore the Rondout Creek washouts and provide 'single track' trail to the Belleayre Ski Center.

I-87 to West Hurley Station: Provide an interim single-track trail between the O&W trailhead and the west end of the Ashokan Reservoir. Maintain tracks for development of future rail service.

Phase 3: (10 -20 years)

Boiceville to West Hurley: Develop the Ashokan Reservoir trail as an interpretive heritage trail connecting the former sites along the route.

Downtown Kingston: Integrate the trail into the redevelopment of Kingston Hospital, NYCDEP, and City DPW to provide a continuous trail through the City.

Operations & Management Strategies

The U&D Rail + Trail will require an innovative public-private partnership to ensure its successful development. Keys to this effort will include the following strategies:

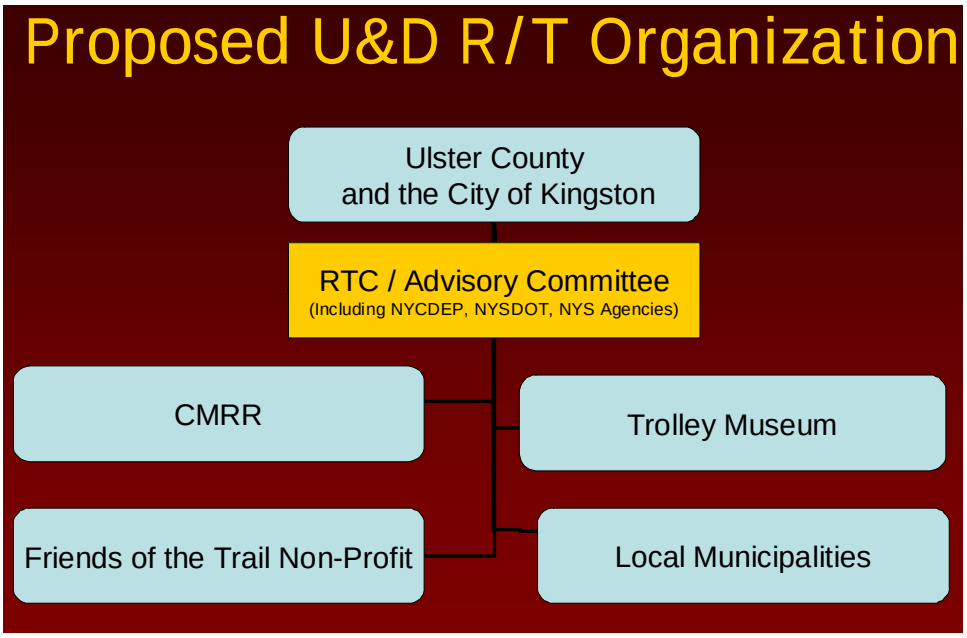
1. Friends of the U&D Rail Trail Organization: Advocacy will be an important issue in developing this project. It is recommended that a non-profit organization (or a chapter of an existing organization) be established to create momentum for the project.

2. RTC Committee: The County should formally establish an ongoing RTC advisory committee that includes the CMRR, the proposed Friends organization, the Trolley Museum, NYCDEP, NYSDOT, and other interested organizations.

3. Maintenance Endowment: Early in the development of this project, a maintenance fund or endowment should be established. This will ensure that the project will be supported in the long term.

4. Management Responsibilities: Ulster County, the City of Kingston, and other project partners will need to identify a coordinated strategy for management responsibilities including emergency response, routine repairs, annual facilities inspections, litter removal, trail safety patrols, and other related activities.

A proposed organization for the U&D Rail Trail is shown on the following chart:



Next Steps

This feasibility study is just one step in the ongoing development of the U&D Rail + Trail project. While the concepts proposed in this report may seem like new ideas, they are really just a new interpretation of a corridor that has a long history, from Native American paths, to Revolutionary War history, the great railroad era, and the current efforts to sustain the corridor. In order for the project to move forward, the following actions are necessary:

RTC Committee: The County should formally establish an ongoing RTC advisory committee that includes the CMRR, the proposed Friends organization, the Trolley Museum, NYCDEP, NYSDOT, NYSDEC, and other interested organizations.

Early Win Projects: Identify, in cooperation with local communities, sections which can serve as 'proof of concept' projects within the overall vision of the corridor. These projects may serve local destinations, but can be built as prototypes for the future.

Public Outreach: A project website and a PowerPoint presentation about the project are available. Additional public meetings led by a 'Speakers Bureau' of local volunteers help gain support. Local media, service organizations, and other groups will need to be involved in the project.

"Champions": Every successful trail project needs individual leaders who will support the project, and stay involved for the long term.

Organization: "Before you advocate, organize" is a great message for this project. Even an informally organized group can help move the project forward, possibly under the umbrella of an existing non-profit until formal status can be established.

The Ulster and Delaware (U&D) Railroad corridor has the potential to become a unique "Rail + Trail" system providing transportation, economic development, tourism, and recreation for Ulster County and the communities along the route. With leadership, creativity, and a commitment to a common vision, this project will become a unique world-class, multi-modal rail trail system for future generations to enjoy.

Appendix: Summary of Public Involvement

The scope of this study included a series of meetings with the Rail Trail Committee (RTC), public meetings and presentations as follows:

October 12, 2005: Project kickoff meeting with RTC at the Olive Free Public Library, site tour of NYCDEP lands.

February 9, 2006: RTC meeting (5pm) and Public Informational Meeting (6:30pm) at the Olive Town Meeting Hall. Discussion of Working Paper #1, Existing Conditions Report.

March 28, 2006: RTC meeting (5pm) and Public Informational Meeting (7:00pm), Ulster County Legislative Chambers, Kingston. Discussion of Working Paper #3: Trail Alignment and Feasibility Assessment.

May 9, 2006: RTC meeting (4:30pm) at the Olive Free Public Library. Discussion of the proposed alternative and development of the final Plan.

June 6, 2006: Presentation to the Ulster County Transportation Council (UCTC) Policy Committee (11am) at Ulster County Community College, Stone Ridge.

Summaries for each of these meetings were provided to the RTC. Individual comments were collected on comment sheets, and a matrix of the potential alternatives was used by the RTC in evaluating the proposed alignment. The project received multiple media references in the local press, including both editorial and news coverage. The public comments at the beginning of the project were largely in reaction to a misconception that the intent of the study was to 'put the railroad out of business.' Once the scope of the project was communicated through the public meetings, a more balanced range of comments were received. These ranged from concerns that the railroad tracks are not being maintained properly, to advocates for a bike/hike trail along the corridor, to a proposal for an 'emerald necklace' of greenways and trails throughout the County. As the planning process moved forward, the comments were more oriented towards support of the bike/ped trail, but it must be noted that there is significant support for rail service where feasible, and support for the years of effort invested by the railroad organizations along the line. These comments were consolidated and reflected in the preferred alternative proposed in the feasibility study report.

Appendix: Potential Funding Sources

Source: New York Bicycling Coalition

www.nybc.net

Public Sector Funding Sources for Bicycle / Pedestrian / Trail- Related Projects

Funding Source	Stipulations	Contact Information
SAFETEA Federal Transportation Enhancements Program*	Project must relate to surface transportation and meet one of the eligible activities	• http://www.fhwa.dot.gov/environment/te/index.htm • http://www.enhancements.org/profile.asp (NYS Program)
NY S Governor's Traffic Safety Committee	Funds for the development, implementation, and evaluation of the traffic safety projects	• http://www.nhtsa.dot.gov/people/outreach/safedige/Fall1998/n5-111.html
NYS Consolidated Local Street and Highway Improvement Program (CHIPS) *	Local highway and bridge capital improvements	• http://www.dot.state.ny.us/chips/index.html • http://www.dot.state.ny.us/chips/guide.pdf (Guidelines)
NY State Environmental Protection	Funds to local government and not-for-profit organizations to purchase, develop, and preserve park lands and historic resources	• http://www.dec.state.ny.us/website/opensp/opepfl4.html
Land and Water Conservation Fund/ Municipal Parks Matching Grant Program	Allocates funds for walking and biking projects, and those protecting open spaces	• http://www.nysparks.com/grants/ • http://nysparks.state.ny.us/grants/info.html • http://nysparks.state.ny.us/grants/ProgramInfoLWCF.htm • http://www.nysparks.state.ny.us/grants/ProgramInfoPKS.htm
Hudson River Valley Greenway	Allocates funds for planning and project implementation	• http://www.hudsongreenway.state.ny.us/funding/funding.htm • http://www.hudsongreenway.state.ny.us/funding/commgrant.pdf • http://www.hudsongreenway.state.ny.us/funding/compgrant.pdf

Funding Source	Stipulations	Contact Information
Empire State Development: Economic Development Fund	Funding to large and small businesses for economic development	• http://www.awib.org/content_frames/articles/empire.html • http://publications.budget.state.ny.us/fy0405app1/esdc.pdf
Division of Housing and Community Renewal (Community Development)	Provide funds to develop housing, for housing preservation, and development activities within communities	• http://www.dhcr.state.ny.us/ocd/pubs/pdf/cpm03.pdf • http://www.dhcr.state.ny.us/ocd/ocd.htm • http://www.dhcr.state.ny.us/ocd/progs/ocdprogs.htm • http://www.dhcr.state.ny.us/ocd/nofas/ocdnofas.htm
NYS Department of Health, Healthy Heart Program	Funds programs that make it easier for New Yorkers to choose healthy lifestyles	• http://www.health.state.ny.us/nysdoh/heart/healthy/healthy.htm • http://www.health.state.ny.us/nysdoh/heart/heart_disease.htm

***NOTE**: For additional information on State and Federal Transportation Funds, contact the Ulster County Transportation Committee (UCTC) or NYSDOT Region 8. There is a wide range of transportation funding sources available for rail, trail, and enhancements projects.

Greenways & Rail-Trails NY

New York State Government Funding Sources For Greenways and Community Trails

Source: Parks and Trails New York

www.ptny.org

Environmental Protection Fund Matching Grant Program
NYS Office of Parks, Recreation and Historic Preservation (OPRHP)

TYPE OF PROJECTS: Acquisition, development and improvement of parks, historic properties and Heritage Area Systems
ELIGIBILITY: Municipalities and not-for-profits with ownership interest
FUNDING: Up to $350,000 (special funding cap of $1 million for projects over $4 million), 50% local match required (state funds are eligible as match but federal funds are not)
DEADLINE: Call for proposals usually in June, with August deadline
FOR MORE INFORMATION: NYS Office of Parks, Recreation and Historic Preservation (OPRHP), Bureau of Grant Management, Empire State Plaza, Agency Building One, 16th Floor, Albany, NY 12238, (518) 474-0427. http://nysparks.state.ny.us

NYS Department of State - Division of Coastal Resources and Waterfront Revitalization

TYPE OF PROJECTS: Waterfront rediscovery; coastal education and tourism programs; preparation or implementation of Local Waterfront Revitalization Programs (LWRP) or components of LWRP programs
ELIGIBILITY: Municipalities located on New York's coastal waters (including tidal rivers) or on designated inland waterways
FUNDING: Up to $500,000. 50% local match required.
DEADLINE: Call for proposals usually in June, with August deadline
FOR MORE INFORMATION: NYS Department of State, Division of Coastal Resources, Albany, NY 12231-0001, (518) 474-6000, www.dos.state.ny.us/cstl/epfba2.html

NYS Department of Environmental Conservation

Oversees acquisition of significant open space lands included in the official NYS Open Space Plan, revised every five years. No application process. Contact regional DEC offices to get information on regional open space committees, which is the route to get your trail corridor included in the Open Space Plan. http://dec.state.ny.us

Hudson River Valley Greenway

TYPE OF PROJECTS: Capital construction projects related to development of the Hudson River Valley Greenway Trail System, waterfront and main street revitalization, regional tourism strategies, and natural resource inventories.
ELIGIBILITY: Municipalities and not-for-profits within legislatively designated Hudson River Valley Greenway area
FUNDING: Up to $300,000, 50% match required (federal and state funds are not eligible as match)

DEADLINE: Call for proposals usually in June, with August deadline
FOR MORE INFORMATION: Hudson River Valley Greenway, Capitol Station, Room 254, Albany, NY 12224, (518) 473-3835
http://www.hudsongreenway.state.ny.us/conserv/trailfund.htm

National Recreational Trails Program (funded by the Federal Highway Administration)
NYS Office of Parks, Recreation and Historic Preservation (OPRHP)

TYPE OF PROJECTS: Acquisition, development and maintenance of trails
ELIGIBILITY: State and local governments, not-for-profits, corporations, individuals
FUNDING: Up to $1.5 million for grants ranging from $5,000 to $100,000, 20% local match required. 30% of funds must go to motorized trails, 30% to non-motorized trails
DEADLINE: Irregular, usually spring (last deadline was February 28, 2001)
FOR MORE INFORMATION: NYS Office of Parks, Recreation and Historic Preservation (OPRHP), Bureau of Grant Management, Empire State Plaza, Agency Building One, 16th Floor, Albany, NY 12238, (518) 474-0427. http://nysparks.state.ny.us/offices/

National Park Service Rivers and Trails Conservation Assistance Program (funded by the U.S. Department of the Interior)
TYPE OF PROJECTS: Technical Assistance for developing community trails and greenways; assistance in organization of non-profits and advocacy organizations Funding is currently not available, but may be available in future years. http://www.nps.gov/rtca/

Greenways & Rail-Trails NY
Private Funding Sources For Greenways and Trails

Source: Parks and Trails New York www.ptny.org

American Greenways Kodak Award

TYPE OF PROJECTS: Local greenway planning, design or development
ELIGIBILITY: Primarily local, regional, statewide non-profits, public agencies may also apply
FUNDING: Up to $2,500
DEADLINE: Early June
FOR MORE INFORMATION: The Conservation Fund, 1800 North Kent Street, Suite 1120, Arlington, VA 22209, (703) 525-6300, www.conservationfund.org/conservation/amgreen

Bikes Belong Coalition

TYPE OF PROJECTS: Development of bicycle facilities, especially projects that could be funded under Transportation Equity Act for the 21st Century (TEA-21).
ELIGIBILITY: Local non-profits, agencies, citizens
FUNDING: Up to $10,000
DEADLINE: Rolling
FOR MORE INFORMATION: Bikes Belong Coalition, Ltd/. 1368 Beacon Street, Suite 102, Brookline, MA 02446-2800, (617) 734-2800, www.bikesbelong.org

Powerbar's Direct Impact on Rivers and Trails (DIRT)

TYPE OF PROJECTS: Protect, preserve and restore recreational lands and waterways
ELIGIBILITY: Primarily non-profits
FUNDING: $1,000-$5,000
DEADLINE: Early June
FOR MORE INFORMATION: Powerfood, Inc., DIRT Program, 2150 Shattuck Avenue, Berkely, CA 94710, www.powerbar.com

Furthermore…

TYPE OF PROJECTS: Publications, including maps, guides, pamphlets. Conservation a key interest.
ELIGIBILITY: Non-profits, public agencies may apply in partnership with a non-profit
FUNDING: Up to $15,000
DEADLINE: March 15 and September 15
FOR MORE INFORMATION: Furthermore..., 518 Warren Street, P.O. Box 667, Hudson, NY 12534, (518) 828-8900, www.furthermore.org

Recreational Equipment Incorporation (REI)

1. CONSERVATION GRANTS TYPE OF PROJECTS: Protect lands and waterways and make them more a accessible by mobilizing communities, building constituencies and influencing public policies
FUNDING: Up to $2,000

2. COMMUNITY RECREATION GRANTS TYPE OF PROJECTS: Increase access to outdoor activities, encourage involvement and promote safe participation in muscle-powered sports, promote proper care of outdoor resources
FUNDING: Primarily in form of gear, typical value from $500-$5,000

3. GREAT PLACES GRANTS (highly competitive) **TYPES OF PROJECTS:** Ensure access to and protection of outdoor resources (including trails) essential to outdoor recreation
FUNDING: $15,000-$25,000
All REI grant programs:
ELIGIBILITY: Non-profits
DEADLINE: Conservation and Community Recreation Grants: March-October; Great Places: February 15
FOR MORE INFORMATION: REI Public Affairs, Grants Administrator, P.O. Box 1938, Summer, WA 98390-0800, (253) 395-3780, www.rei.com

Conservation Alliance Grants

TYPE OF PROJECTS: Protection of wild and natural areas where outdoor enthusiasts recreate
ELIGIBILITY: Non-profits, must be sponsored by a member company (EMS, Patagonia, Timberland, etc.)
FUNDING: Up to $50,000
DEADLINE: January and August
FOR MORE INFORMATION: The Conservation Alliance, P.O. Box 3313, Park City, Utah, 84060, (801) 649-8226, www.outdoorlink.com/consall

American Hiking Society

1. NATIONAL TRAILS ENDOWMENT
TYPE OF PROJECTS: Building, improving, protecting trails or increasing the constituency for a specific trail project (focus is on hiking trails).
FUNDING: Up to $10,000
DEADLINE: Late November

2. TRAILS FOR TOMORROW
TYPE OF PROJECTS: Outstanding National Trails Day events that put trails at the forefront of communities.
FUNDING:$500 in cash, gear and goods worth up to $2,000
DEADLINE: June
All American Hiking Society grant programs:
ELIGIBILITY: Non-profits
FOR MORE INFORMATION: American Hiking Society, 1422 Fenwick Lane, Silver Springs, MD 20910, (301) 565-6704, www.americanhiking.org

Catskill Mountain Rail Trail: Economic & Fiscal Impact Analysis

Commissioned by the New York – New Jersey Trail Conference

June 2013

camoin associates
ECONOMIC DEVELOPMENT

120 West Avenue, Suite 303
Saratoga Springs, NY 12866

EXHIBIT U

Table of Contents

Executive Summary **1**
Introduction 3
Methodology **5**
Data Sources 5
Methodology Employed 5
Modeling Software 6
Visitor Counts 6
Economic Impacts on Ulster County **11**
New Visitation Estimates 11
Total Impacts on Ulster County 12
Economic Impacts on New York State **14**
New Visitation Estimates 14
New Visitation Spending Estimates 14
Total Impacts on New York State 15
Limited Fiscal Impact Study **16**
Ulster County Fiscal Impacts 16
New York State Fiscal Impacts 17
Attachment A: What is an Economic Impact Analysis? **19**
Attachment B: Sources **21**

EXECUTIVE SUMMARY

Introduction

Camoin Associates was commissioned by New York-New Jersey Trail Conference to conduct an economic impact analysis on a project intended to create a 32 to 38 mile rail trail connecting the City of Kingston with Belleayre Ski Resort in Ulster County, to be known as the Catskill Mountain Rail Trail "CMRT). The Trail Conference is 501(c)3 nonprofit that works with volunteers and outdoor recreation agencies to enable the public to safely access public open space. The Trail Conference maintains 2,000 miles of recreational trails in the greater New York metropolitan area, including the Catskills.

The report was completed with assistance from the Dyson Foundation and Ulster County Businessman Sean Eldridge. The Dyson Foundation works toward improving people's lives through grant funding, promoting philanthropy, and strengthening the capacity of nonprofit organizations. They have previously provided funding for the Walkway over the Hudson Project. Sean Eldridge is the CEO and Founder of Hudson River Ventures, a small business investment fund working to empower entrepreneurs and build thriving businesses throughout the Hudson Valley. He sees the completion of the rail trail as a key driver for the economic development of this region.



The goal of the CMRT is to create a world-class tourism destination that enhances the current recreational resources in the Catskill mountain region by creating an interconnected rail trail network throughout the Hudson Valley and Catskills including links with other heavily used rail trails in the region such as the D&H Heritage Trail (Hurley or O&W Rail Trail), the Wallkill Valley Rail Trail, and the Hudson Valley Rail Trail. In addition, the CMRT will connect to the Belleayre Ski Resort, a number of campgrounds, day use areas, mountain biking trails, fishing areas, urban neighborhoods and rural hamlets, small businesses, and other recreational facilities throughout the Catskill region. Finally, it is envisioned that the CMRT will act as host to a number of events throughout the year including running and hiking events, mountain biking races, triathlons, festivals, etc.

The purpose of this report is to project and quantify the likely economic and fiscal benefits of the CMRT on Ulster County and New York State. Specifically, the report determines the impact on sales, jobs, and wages. In addition to the economic impact resulting from the construction of the CMRT, Camoin Associates also considers the fiscal impacts on government revenues. The new business activity and wages resulting from visitor spending generates additional revenue for local and state governments in the form of sales and bed taxes. The following is a summary of the major findings of the report.

Estimated Visitation

Camoin Associates conducted research into trail use to develop a reasonable estimate as to the number of anticipated users of the CMRT on an annual basis. This involved reviewing previous trail user counts, regional and national impact analyses, discussions with local and state organizations, understanding of regional populations and an overall understanding of the proposed CMRT and the likely types of users. The research indicates that annual use of the CMRT will be approximately 140,000.

Ulster County

Using the estimated visitation figure, Camoin Associates was able to estimate the percent of visitors who would be from outside of Ulster County. Based on previous research in the area, it is assumed that 23% of CMRT users would be from places other than Ulster County. Using an average spending per person figure, we aggregated this new spending into major categories and ran them through an economic impact modeling system. The following table shows the direct and indirect economic and fiscal impacts of the CMRT on Ulster County.

Summary of Impact on Ulster County	
Annual Sales	**$ 3,107,667**
Direct Sales	$ 2,044,518
Indirect Sales	$ 1,063,149
Annual Jobs	**44**
Direct Jobs	32
Indirect Jobs	12
Annual Earnings	**$ 1,156,000**
Direct Earnings	$ 704,878
Indirect Earnings	$ 451,122
Annual County Revenue	**$ 111,844**

The $2 million in direct spending by non-local users results in nearly $1 million in indirect "spillover effects" for a total of $3.1 million in new sales in the County, 44 new jobs, and $1.1 million in new earnings. In addition, Ulster County will receive $111,844 annually in sales and bed tax revenue generated by this new economic activity.

New York State

Similarly, an analysis was conducted to determine the economic impacts of the CMRT on New York State. Using the same methodology described above, Camoin Associates found that 9% of total visitors would come from outside of the State, which would result in over $916,571 in direct annual sales by non-state residents. The following table shows the economic and fiscal impacts of the CMRT on New York State.

Summary of Impact on New York State	
Annual Sales	**$ 1,860,638**
Direct Sales	$ 916,571
Indirect Sales	$ 944,068
Annual Jobs	**18**
Direct Jobs	11
Indirect Jobs	7
Annual Earnings	**$ 684,000**
Direct Earnings	$ 316,667
Indirect Earnings	$ 367,333
Annual State Revenue	**$ 57,843**

The $916,000 in direct sales results in $1.8 million in total sales, 18 total jobs, and $684,000 in new earnings. In addition, the State receives $57,843 in sales tax revenue.

Introduction

The CMRT is a proposed multi-use recreational trail that would connect the City of Kingston to the Ulster and Delaware County border near the Belleayre Ski Center. The total distance would span between 32 and 38 miles[1] and would run along the Ashokan Reservoir, along the Esopus Creek, and through or near a number of smaller Catskill communities including Pine Hill, Phoenicia, Boiceville, West Hurley, and others. The New York-New Jersey Trail Conference hired Camoin Associates to conduct an economic and fiscal impact analysis on the proposed CMRT. The Trail Conference is 501(c)3 nonprofit that works with volunteers and outdoor recreation agencies to enable the public to safely access public open space. The Trail Conference maintains 2,000 miles of recreational trails in the greater New York metropolitan area, including the Catskills.

The report was completed with assistance from the Dyson Foundation and Ulster County Businessman Sean Eldridge. The Dyson Foundation works toward improving people's lives through grant funding, promoting philanthropy, and strengthening the capacity of nonprofit organizations. They have previously provided funding for the Walkway over the Hudson Project. Sean Eldridge is the CEO and Founder of Hudson River Ventures, a small business investment fund working to empower entrepreneurs and build thriving businesses throughout the Hudson Valley. He sees the completion of the rail trail as a key driver for the economic development of this region.

The CMRT would run along the former Ulster & Delaware ("U&D") Railroad Corridor. The U&D Railroad Corridor was purchased by Ulster County in 1979 with the intention of using it for a major tourism railroad destination called "Steamtown, USA". When the proposed Steamtown project went to another state, the Corridor was leased to the Catskill Mountain Railroad ("CMRR") for tourism railroad operations. The most recent lease with CMRR is due to expire in 2016. The Catskill Mountain Railroad currently operates on less than 3 miles of track between Cold Brook and Phoenicia, as well as within the City of Kingston. Studies have been conducted regarding the transformation of the Corridor into rail with trail, but the scope of operations and future of the CMRR is unknown at this time. Therefore, this analysis does not consider the impact of a continued tourism railroad operation.

The intention of the CMRT is to create a world-class tourism destination that enhances the current recreational resources in the Catskill mountain region by creating an interconnected rail trail network throughout the Hudson Valley and Catskills including linking with the D&H Heritage Trail (also known as Hurley Rail Trail and O&W Rail Trail), the Wallkill Valley Rail Trail, and eventually, the Hudson Valley Rail Trail (including the Walkway Over the Hudson, which attracts an estimated 750,000 people each year). In addition, the CMRT will connect to the Belleayre Ski Resort, a number of campgrounds, public day use areas, hiking and mountain biking trail networks, fishing areas, and other recreational facilities throughout the Catskill mountain region. Finally, it is envisioned that the CMRT will act as host to a number of events throughout the year including running races, bike races, mountain biking events, triathlons, festivals, etc. It is interesting to note that the City of Kingston is within a two hours drive of 19 million people, making it a premier destination for those looking for recreational resources within close proximity.

[1] The range in the distance of the CMRT will depend on the County's future decisions regarding the continuance of a tourism railroad operation in 6 miles of the corridor. This area might be railroad use only or could be rail with trail if feasible.

The completed CMRT will be surfaced with natural crushed stone although some portions, such as the City of Kingston section, will likely be asphalt. Ten miles of the CMRT will run along the Ashokan Reservoir, offering users magnificent views of the Catskill Mountains. The CMRT will also connect communities in the Catskills in a way that has never been possible before, including running alongside schools, downtown business districts, existing campgrounds and hiking trails, proposed mountain biking trails, and residential developments, including senior citizen housing.

The Catskill Mountain Rail Trail can be described as three unique, but interconnected, major sections of trail. The three segments include 1) an **urban section** in the City of Kingston, 2) the **Ashokan Reservoir section** running along the northern border of New York City's reservoir, and 3) a more **rural section** that connects Phoenicia to the Belleayre Ski Resort trails in Pine Hill and Highmount.

1) The **urban section** will run through the City of Kingston, serving the City's 23,000 residents and providing car-free access to and from midtown-Kingston and a major shopping center. Residents are currently using the corridor in an informal way, but with proposed rail removal and improved surface, the use is likely to increase dramatically, used both for modes of transportation and for recreation and exercise. In addition to improving the quality of life in Kingston and supporting nearby small businesses, this kind of urban linear-park could also increase property values along the Corridor. Prior research has demonstrated access to public trails and parks, including linear rail trail parks, have a positive impact on property values of nearby properties.[2]

2) The **Ashokan Reservoir section** will run approximately ten miles along the northern edge of the Ashokan Reservoir, offering beautiful views of the Catskill Mountains and the reservoir at the eastern and western ends of the Reservoir. This section of the trail could offer a connection to heavily used trails that are located on the southeast bank of the Ashokan using Reservoir Road that crosses the Reservoir near Shokan. This section of the CMRT has the potential to become a major destination in the region for local residents and visitors alike.

3) Finally, the **rural section** will run approximately 13 miles and connect areas north of Phoenicia to the Belleayre Ski Resort at the Delaware County border. The rural section will be more of a mountain trail



[2] A study conducted on the Massachusetts Minuteman bikeway indicates that homes along the bikeway sold an average of three weeks quicker than those not along the bikeway and closer to their asking price. Another study on home values near the Little Miami Scenic trail in Ohio indicates that for the average home, homeowners were willing to pay $9,000 extra to be located one thousand feet closer to the trail. Finally, a study about housing preferences of baby-boomers suggests that access to walking/jogging trails is the most important factor when considering retirement locations. All of this is to say that access to trails has a positive impact on property values and adjacent properties in Kingston and elsewhere in the Corridor can expect to see similar results.

experience and will connect into a growing network of existing and proposed trails that are used for hiking, cross-country skiing, snow-shoeing, and mountain biking. This section of trail also has the potential to become a major recreation destination and access to the CMRT will complement and augment other available recreation opportunities in the NYS Route 28 corridor.

The following report projects and quantifies the economic and fiscal benefits of the CMRT on Ulster County and New York State. Specifically, the report determines the impact on sales, jobs and wages. In addition to the economic impact resulting from the construction of the CMRT, Camoin Associates also considers the fiscal impacts on government revenues. The new business activity and wages resulting from visitor spending generates additional revenue for local and state government in the form of sales and hotel tax.

METHODOLOGY

Data Sources

Camoin Associates reviewed data and information from a variety of sources including regional trail use studies, visitor spending surveys, local and regional visitor estimates, etc.

Visitor Counts	Visitor Spending	Other Visitor Estimates	Other Information
• Report of the 2012 New York State Trail User Count • 2008 New York State Trail Survey • Salem-Concord Bikeway Demand Estimate, November 2003 • Economic Valuation Study for Public Lands in the Central Catskills, December 2012	• 2011 Walkway Over the Hudson visitor survey • 2008 New York State Trail Survey • 2011 Adirondack Rail Corridor Analysis	• Discussions with HITS Endurance Race Management Organization • D&L Trail 2012 User Survey and Economic Impact Analysis, December 2012 • Armstrong Trail, 2010 User Survey and Economic Impact Analysis • Pine Creek Rail Trail, 2006 User Survey and Economic Impact Analysis • Ghost Town Trail, 2009 User Survey and Economic Impact Analysis	• National Park Service Planning Notes for the Ulster County Catskill Mountain Rail Trail Concept, May 2013 • Review of survey data collected in 2011 as part of an economic impact analysis of the Walkway Over the Hudson pedestrian bridge • Discussions with Parks and Trails New York • Discussions with the National Park Service • Discussions with NYS Department of Environmental Conservation • Discussions with the Woodstock Conservancy

Methodology Employed

Camoin Associates employed the following methodology to determine the economic impact of the Catskill Mountain Rail Trail:

1. Camoin Associates used a three-prong approach to project a reasonable number for total annual trail use including baseline, additional visitor capture, and hosting events. Please see the Visitor Count section of this report for more information.
2. Camoin Associates developed an estimate for the percent of users who will be coming from outside of the County based on a survey conducted at the Walkway Over the Hudson pedestrian bridge, which asked respondents for their zip code of origin. The percent of users from outside of New York State was based on a review of similar studies to come up with an average percent of trail users who are from out of the home state.
3. Based on the new visitation estimates developed in Step 1 and the number of local users on the CMRT identified in Step 2, Camoin Associates determined the number of new non-local users that would visit the CMRT as a result of the Project.
4. Based on information gathered from a previous visitor spending survey, Camoin Associates determined average visitation spending of a typical non-County and non-State CMRT user. This information was based on a visitor survey conducted at the Walkway Over the Hudson pedestrian bridge, which asked respondents about their spending habits related to their trip to the Walkway. This information was compared to other regional and national studies and was determined to be reasonable related to typical trail use spending habits.
5. Aggregated "new" spending by multiplying the average spending (Step 4) by the "new annual visitor" estimates (Step 3).
6. Calculated direct jobs/economic activity resulting from the "new" spending.
7. Modeled indirect impacts on jobs/economic activity using multipliers provided through the EMSI software package.
8. Arrived at total economic impacts as the sum of all direct and indirect impacts in the first full year of venue operation.
9. Calculated fiscal impact to Ulster County and State of New York (in 2013 current dollars).

Modeling Software

Economic Modeling Specialists, Inc. (EMSI) designed the input-output model used in this analysis. The EMSI model allows the analyst to input the amount of new direct economic activity (spending or jobs) occurring within the study area and uses the direct inputs to estimate the spillover effects that the net new spending or jobs have as these new dollars circulate through the study area's economy. This is captured in the indirect impacts and is commonly referred to as the "multiplier effect." See Attachment A for more information on economic impact analysis.

Visitor Counts

In order to project the number of annual trail users, Camoin Associates pulled data from a wide variety of sources including those listed in the section above entitled Data Sources. Using the information from these sources as well as discussions with those familiar with the area and likely use, it became clear that the CMRT would generate traffic in three primary ways: 1) **Baseline**: typical trail usage based on regional averages for similar rail trails, 2) **Extended Stay Use**: increase in duration of visits by those already recreating in the Catskills, 3) **Event Use**: trail use and visitation as a result of specific events hosted on the CMRT. Further information and the calculations for these are listed below.

Baseline Use

All trails are unique in their visitation patterns and are dependent on location, surface type, signage/marketing, demographics, and proximity to other resources, which makes it difficult to project trail use on a currently non-existent trail. While it is difficult to pinpoint the exact numbers of users, multi-use rail trails are becoming more popular and widely-used and more studies are being conducted on typical visitation patterns that result from the existence of a trail that can serve as a baseline for the estimate. Many residents and visitors find the flat or gently slope grade and accessibility of rail trails as advantages over more rugged hiking trails, and rail trails can also be used by senior citizens, families with stroller and young children, and persons with disabilities. Using information gathered from the 2012 NYS Trail User Count report, Camoin Associates identified trails that have similar qualities to the proposed CMRT and came to an average use of 113,347 persons per year.

Average Use of Regional Trails		
Trail	Reason	Annual Users
Burlington Waterfront Bikeway*	Near City/Views	292,000
Genesee Valley Greenway - Mi .5-33	Type/Length	120,840
Uncle Sam Bikeway	Near City	25,196
Robert Moses Trail	Near City/Views	107,950
O& W Rail Trail/D&H Canal Trail	Proximity/Type	81,157
Harlem Valley Rail Trail- Millerton	Proximity	111,380
Harlem Valley Rail Trail- Copake	Proximity	54,908
Catskill Scenic Trail	Excluded	-
Hudson Valley Rail Trail	Excluded	-
Total		793,431
Average Users (793,431/7)		113,347

* Used lowest estimate of 800 people per day
Note that the Catskill Scenic Trail was excluded due to an issue with the counting methodology and the Hudson Valley Rail Trail was excluded due to the high number of users as a result of the Walkway Over the Hudson pedestrian bridge.

Another way to estimate trail use is based on average use per mile. To complement the average use of regional trails, Camoin Associates also looked at average trail use per mile to come to an estimated use of the proposed 32 to 38 mile Catskill Mountain Rail Trail. We gathered information on trails that are similar to the Catskill Mountain Rail Trail in a few key ways, including the following: 1) they feature significant scenic views, 2) they include sections that are more rural in nature, and 3) they adjoin neighborhoods and communities along the route. The following table shows this calculation.

Average Use Per Mile			
Trail	Location	Length	Annual Users
O& W Rail Trail/D&H Canal Trail	NY	10.4	81,157
Red Cedar Trail	WI	14.5	40,000
Harlem Valley Rail Trail*	NY	15	83,144
Sugar River Trail	WI	23.5	47,566
Elroy-Sparta Trail	WI	32	50,000
Genesee Valley Greenway - Mi .5-33	NY	33	120,840
Virginia Creeper Trail	VA	35	130,172
Ghost Town Trail	PA	36	75,557
Pine Creek Trail	PA	62.6	125,000
Total		262	753,436
Average Use Per Mile			2,876
Number of Miles of CMRT			32
Number of Users			92,023

* Average of two trailhead studies

Based on these two calculations and confirmed through conversations with those familiar with the CMRT, the assumption for a baseline trail use is estimated to be around 102,600 (average of two methods). It can be assumed that due to the proximity of the CMRT to other recreational resources, the existence of the CMRT will not be the sole reason trail users visit the area but rather an amenity that might extend visitor length-of-stay. Therefore, in addition to the baseline estimate, we also consider the CMRT's impact on extending the duration of stays from potential trail users, including from special scheduled public and private events, as described below.

Extended Stay Use

The Catskill Park is heavily used for recreation purposes. Popular activities include fishing and hunting, mountain biking, hiking, winter sports, camping, and swimming. The CMRT is unique from many rail trails in that it will be well connected to the high quality recreational resources in the Catskills, making it possible for visitors and residents alike to extend their recreation time in an area that already receives significant tourism visitation. A study conducted in 2012 estimated visitation to the Catskills for outdoor recreation to be approximately 2.5 million annually. Camoin Associates estimates that nearly 400,000 users of Catskill Lands are in close proximity to the CMRT and are doing similar types of activities. Based on discussions with the National Park Service, a review of literature on the topic of recreation, site visits, and discussions with others familiar with the area, it was determined that 5% of the current Catskill outdoor recreation visitors will likely be attracted to the CMRT and use it in addition to their current activities or during a different visit.

Catskill Lands Visitation	
Site	Visitation
DEC Region 3 Hiking, Equestrian, Mtn Biking	82,290
DEC Pine Hill Lake	21,098
DEC Region 3 Camping	82,515
Windham, Hunter, Plattekill Summer	192,500
Private Preserves Open to the Public	2,000
Private Cross Country Facilities	10,000
Total	390,403
Capture Rate	5%
Captured Visitors Using CMRT	19,520

Source:Economic Valuation Study for Public Lands in the Central

The tourism industry is always looking for ways to increase the amount of time people are spending in a particular destination. The greater number of activities and tourism amenities that exist, the more time and money the visitors will spend. The existence of the CMRT will increase the total number of recreational resources that are available to a Catskill Park visitor, not only creating a destination in itself, but also providing another point of interest and reason for visitors to the Catskill area to extend stays or come back to the area.

Event Use

Finally, in addition to the baseline visitation and the visitors coming from other recreation sites in the Catskills, the CMRT could also serve as a host for a number of major and minor events each year and become both a Statewide and nationwide draw. Healthy living events are becoming more popular and the proximity to the New York Metropolitan area, Boston, the Capital Region, and other major population centers in the northeast make the Catskills a prime location for competition sports participants looking to add an event to their schedule, both beginners and advanced. Speaking to local race management companies, Camoin Associates estimated the likely use of the CMRT for events that would draw local and non-local participants and their families. Likely events on the CMRT could include triathlons, running races, horse events, mountain biking events, festivals, charity walks, etc. The running and biking events would benefit from the long distance, off-road trail, and the ability to avoid having to send competitors onto street surfaces with other traffic. Many bicycle competition promoters look for trail networks with 40 or more miles of connected bike paths and trails.



Based on conversations with those in the race management industry, it can conservatively be assumed that the CMRT will be the venue for at least 3 major events, 6 medium sized events, and 10 minor events per year. A major event could include a multi-day triathlon series that draws at least 3,500 people or a similarly sized multi-

day running race event that draws people for a half-marathon or marathon, which are increasingly popular. These kinds of large events can typically be held twice a year in the fall and spring. Medium sized events are likely to include 5k and 10k races, cause-based run/walk events, single distance triathlon events, and bike races. The medium sized events are held throughout the year, but primarily during the spring, summer, and fall as they rely on attracting participants who may not be interested in a winter event. Finally, the minor events could include community 5k runs and walks, local fundraisers, mountain biking events, equestrian outings, cross country skiing, winter 5k series, snowshoe races, etc. These smaller events could take place throughout the year; many running clubs are starting to hold winter race series events and the connection of the CMRT to Belleayre Ski Resort could create demand for cross country skiing events. Note that the true number of minor events is likely to be higher, as local running and bicycling clubs are very active. With a venue like the CMRT they would be able to host events throughout the year and all along the CMRT without conflict. It is important to state that the event numbers represent the number of new events being held in the County based on growth in the industry and demand locally, regionally, and nationally.[3]

In total, events could draw at least 17,500 people annually, including both the primary attendees and family/friends that are coming to provide support or watch. Based on conversations with race management professionals, these figures are a conservative estimate and as the events and the venue become more well-known, the frequency, event scope, and participation will likley increase as more people and organizations become familiar with the trail.

CMRT Events		
Event	Number	Event
Major (3,500 people)	3	10,500
Medium (750 people)	6	4,500
Minor (250 people)	10	2,500
Total		17,500

Total Trail Use

In total, baseline, extended stay, and events related to CMRT are expected to generate nearly 140,000 users per year.

CMRT Total Visitation	
Baseline	102,685
Extended Stay	19,520
Events	17,500
Total	139,705

[3] Based on conversations with those familiar with race management, the CMRT represents an opportunity to capitalize on the growth of the racing industry in the northeast and around the United States. As more people are interested in healthy and active lifestyles, including aging "baby-boomers," there has been growing demand for running, bicycle, skiing, and triathlon competitions. The CMRT will provide a venue that is attractive to race management companies looking for safe and accessible routes in reasonable proximity to New York City that avoid major roadways and traffic. The race management company contacted for this report, HITS Endurance, indicated that their large events would attract 5,000-10,000 people multiple times (and get larger as they become more well known) a year but for the purposes of this analysis Camoin Associates used a more conservative estimate.

ECONOMIC IMPACTS ON ULSTER COUNTY

New Visitation Estimates

As summarized in the following table, net new visitation is considered the number of visitors to the Catskill Mountain Rail Trail who originate from outside of Ulster County. Camoin Associates gathered information from a variety of studies that indicate the percent of trail users who are from outside of the trail's "home" county. The table below shows the findings of the research as well as the average. For this analysis, we assume that just fewer than 25% of the total users of the CMRT will be from outside of Ulster County. It is not expected that visitation to the CMRT will be as heavily non-local as the Walkway Over the Hudson pedestrian bridge but the unique aspects of the CMRT could generate more non-county visitation as compared to some of the other NYS trails.

Non-Ulster County Trail Users	
Trail	Non-County Trail Use
Catharine Valley Trail Survey	20.83%
Chautauqua Rails to Trails	35.19%
Erie Canalway	17.24%
Genesee Valley	15.07%
Lehigh and Auburn Trails	9.62%
Mohawk Hudson	17.21%
North/South County	6.57%
O/W Rail Trail	11.72%
Walkway Over the Hudson	48.00%
D&L Rail Trail (Pennsylvania)	45.90%
Average	23%

Using the total visitor estimate established in the previous section, the table below shows that 31,762 visitors to the CMRT will be net new to the economy and, therefore, their spending will have an economic impact.

Net New Annual Visitation	
Ulster County	
Total Visitation Estimate	139,705
Percent Non-County Users	23%
Net New Out of County Visitors	31,762

Visitor Spending by Category

The next step in the analysis is to calculate the types and amounts of non-county resident visitor spending. In general, the types of purchases that are expected to occur as a direct result of the CMRT include spending on lodging, transportation, recreation and entertainment, food, and retail. As stated previously, this analysis will use visitor spending information collected during a survey at the Walkway Over the Hudson pedestrian bridge in 2011. The table below shows the non-county resident spending reported in the survey responses.

Visitor Spending		
Non-Ulster County Users		
Spending Categories	Spending Per Person Per Day	Net New Spending (31,762 Visitors)
Food	$ 24.09	$ 765,146
Retail	$ 3.87	$ 122,919
Recreation	$ 2.90	$ 92,110
Lodging	$ 23.80	$ 755,935
Transportation	$ 5.78	$ 183,584
Other	$ 3.93	$ 124,825
Total	$ 64.37	$ 2,044,518

Source: Camoin Associates, 2011 Walkway Over the Hudson Impact Analysis Report

The above table also calculates the direct spending in Ulster County resulting from the CMRT by multiplying the total spending per category by the number of annual non-county resident visitors to the CMRT ("net new" visitors). Direct spending that is occurring in Ulster County as a result of the CMRT is equal to $2 million.

Total Impacts on Ulster County

Based on the projections for new visitation, $2 million in direct net new spending by non-county residents was used as the input for the EMSI economic impact model. The EMSI model allows the analyst to break down the total spending by NAICS code to get an accurate read for how one dollar spent in a specific sector multiplies throughout the local economy. To analyze the impact of the Trail on Ulster County, the total spending is broken down into a variety of NAICS codes that capture the spending habits of a typical rail trail user.



The table below outlines the direct and indirect economic impact of the CMRT on Ulster County. The indirect impacts are those that occur as the dollars from direct impacts cycle through the economy. For example, the new employees receive wages and in turn spend a portion of those dollars in the local economy for daily needs, housing and other expenses, and a proportion of those dollars are again re-spent in the local economy. As those dollars continue to circulate, additional jobs and business activity are created. This effect is captured in the indirect impacts. Taking into account the direct and indirect

economic impacts, the CMRT is estimated to create a total of $3.1 million in new sales, 44 new jobs[4], and $1.1 million in new earnings.

Economic Impact			
Ulster County			
	Direct	Indirect	Total
Sales	$ 2,044,518	$ 1,063,149	$ 3,107,667
Jobs	32	12	44
Earnings	$ 704,878	$ 451,122	$ 1,156,000

Source: EMSI, Camoin Associates

[4] Note that in this impact analysis, "jobs" is defined as a Full Time Equivalent (FTE) position, which includes both full time employees and well as two or more part time employees that when their working hours are added together equal at least 35 hours per week. The CMRT will generate a demand for more employees as well as increased hours for certain employees throughout the year; the "jobs" impact is not exclusively full time positions.

ECONOMIC IMPACTS ON NEW YORK STATE

Camoin Associates followed the same process as above to determine the economic impact of the Catskill Mountain Rail Trail on New York State. In order to capture the impact of the CMRT on the State, Camoin Associates used information from the Walkway Over the Hudson visitor survey that was specific to non-NYS residents as well as other research into out of state visitation to trails.

New Visitation Estimates

Using information from the 2008 Office of Parks, Recreation and Historic Preservation Trail Survey as well as survey information from the Walkway Over the Hudson analysis and a recent report prepared by the Rails-to-Trails Conservancy on the D&L Rail Trail in Pennsylvania, it can be assumed that approximately 9% of the CMRT users will be from out of New York State. The non-state use is not expected to be as high as the Walkway Over the Hudson due to the uniqueness of the Walkway and the broad based marketing campaign backed by NYS. However, the views of the Ashokan Reservoir and a long distance rail trail are likely to be a strong draw for non-NYS residents. In addition, the trail's location in the Catskill Park means that many visitors already traveling through the area will be from out of state.

Non-NY Trail Users	
Trail	Non-State Trail Use
Catharine Valley Trail	6.00%
Chautauqua Rails to Trails	12.90%
Erie Canalway	6.00%
Genesee Valley	2.30%
Lehigh and Auburn Trails	2.40%
Mohawk Hudson	1.60%
North/South County	2.30%
O/W Rail Trail	3.47%
Walkway Over the Hudson	28.00%
D&L Rail Trail (Pennsylvania)	22.50%
Average	9%

Based on the annual visitation numbers estimated earlier in this report, the table below shows that just under 12,225 visitors to the CMRT are net new to New York State, and therefore, their spending has an economic impact on the state economy.

Net New Annual Visitation	
New York State	
Total Visitation Estimate	139,705
Percent Non-State Users	9%
Net New Out of State Visitors	12,224

New Visitation Spending Estimates

Similar to the analysis conducted for Ulster County benefits, the following table breaks down the non-NYS resident survey responses into total spending by category. Based on the survey respondents' report

of the number of people in their party and their spending habits, the following table establishes average spending per person estimates. As seen below, the average spending per non-State resident trail user is $74.98 per day.

Visitor Spending		
Non-New York State Users		
Spending Categories	Spending Per Person Per Day	Net New Spending (12,224 Visitors)
Food	$ 25.77	$ 315,018
Retail	$ 3.71	$ 45,352
Recreation	$ 3.39	$ 41,440
Lodging	$ 27.07	$ 330,909
Transportation	$ 6.62	$ 80,924
Other	$ 8.42	$ 102,928
Total	$ 74.98	$ 916,571

Source: Camoin Associates, 2011 Walkway Over the Hudson Impact Analysis Report

Using the average per person spending and the number of non-NYS resident annual visitors, the table above shows the direct net new spending that is attributable to the CMRT. Spending occurring in New York State as a result of the CMRT totals $916,571. The impact of the CMRT on NYS is less than that on the County because some of the new visitors to Ulster County will be residents of New York State and are, therefore, not bringing "new dollars" into the state.

Total Impacts on New York State

The direct net new spending by non-NYS residents was used as the input for the EMSI economic impact model (described above). Taking into account the indirect economic impacts, the CMRT is estimated to create $1.8 million in sales, 18 jobs and $684,000 in new wages in New York State each year.

Economic Impact			
New York State			
	Direct	Indirect	Total
Sales	$ 916,571	$ 944,068	$ 1,860,638
Jobs	11	7	18
Earnings	$ 316,667	$ 367,333	$ 684,000

Source: EMSI, Camoin Associates

LIMITED FISCAL IMPACT STUDY

Fiscal impacts of the CMRT on Ulster County include sales tax revenue from direct sales and earnings and hotel tax revenue. New York State will also enjoy additional sales tax revenue related to the project. The section below outlines the additional municipal revenue associated with CMRT.

Ulster County Fiscal Impacts

Sales Tax Revenue

County sales tax is generated in two ways: total direct sales related to the CMRT and spending related to job creation and new earnings.

First, of the $3.1 million in new sales generated as a result of the CMRT, the majority would be taxable and, therefore, result in the generation of sales tax revenue for Ulster County. Based on the analysis, direct sales would result in $87,015 in new local sales tax revenue for Ulster County.

Ulster County Sales Tax Revenue - Total Sales		
Total Sales	$	3,107,667
Percent Taxable		70%
Taxable Sales	$	2,175,367
County Sales Tax Rate		4%
New Local Tax Revenue	$	87,015

* Not all sales will be subject to sales tax

Source: Camoin Associates, Ulster County

Secondly, the additional earnings described by the total economic impact of the ongoing use of CMRT (see the previous section) would lead to additional sales tax revenue for the County. It is assumed that 70% of the earnings are spent within Ulster County and that 30% of those purchases are taxable.

Ulster County Sales Tax Revenue - Total Earnings		
Total New Earnings	$	1,156,000
Amount Spent in County (70%)	$	809,200
Amount Taxable (30%)	$	242,760
County Sales Tax Rate		4%
New Local Tax Revenue	$	9,710

* Some earnings will be spent outside of Ulster County and not all sales will be subject to sales tax

Source: Camoin Associates, Ulster County

Under these assumptions, the County will receive approximately $9,710 annually from the earning related economic impacts of CMRT.

Bed Tax Revenue

In addition to the sales tax revenue, Ulster County would also receive additional bed tax revenue from the new visitation lodging spending. With a 2% bed tax, Ulster County will receive $15,119 in additional revenue annually.

Ulster County Bed Tax		
New Visitation Lodging Spending	$	755,935
Bed Tax		2%
New County Bed Tax Revenue	$	15,119

Source: Camoin Associates, Ulster County

Summary of Ulster County Revenue

Based on the figures calculated in the above sections, CMRT is projected to generate $111,844 in annual revenue for Ulster County.

Combined New County Revenue		
Sales Tax - Total Sales	$	87,015
Sales Tax - Total Earnings	$	9,710
Bed Tax	$	15,119
Combined County Revenue	$	111,844

Source: Camoin Associates

New York State Fiscal Impacts

Sales Tax Revenue

Sales and earnings associated with the Catskill Mountain Rail Trail will generate 4% sales tax on most goods purchased in New York State. The following tables calculate the State sales tax revenue.

Sales tax generated from the new spending in NYS associated with the CMRT will generate $52,098 in sales tax receipts for NYS. This assumes that approximately 70% of the goods purchased by non-NYS resident CMRT users are taxable.

New York State Sales Tax Revenue - Total Sales		
Total Sales	$	1,860,638
Percent Taxable		70%
Taxable Sales	$	1,302,447
State Sales Tax Rate		4%
New Local Tax Revenue	$	52,098

* Not all sales will be subject to sales tax

Source: Camoin Associates

In addition, the new earning in NYS associated with CMRT will also lead to additional sales tax for New York State. It is assumed that 70% of the earnings are spent within the State and that 25% of those purchases are taxable.

New York State Sales Tax Revenue - Total Earnings		
Total New Earnings	$	684,000
Amount Spent in County (70%)	$	478,800
Amount Taxable (30%)	$	143,640
State Sales Tax Rate		4%
New Local Tax Revenue	$	5,746

* Not all sales will be subject to sales tax

Source: Camoin Associates, Ulster County

Combined, New York State will receive $57,843 annually in sales tax associated with the CMRT.

Combined New State Revenue		
Sales Tax - Total Sales	$	52,098
Sales Tax - Total Earnings	$	5,746
Combined State Revenue	$	57,843

Source: Camoin Associates

Attachment A: What is an Economic Impact Analysis?

The purpose of conducting an economic impact study is to ascertain the total cumulative changes in employment, earnings and output in a given economy due to some initial "change in final demand.". To understand the meaning of "change in final demand", consider the installation of a new widget manufacturer in Anytown, USA. The widget manufacturer sells $1 million worth of its widgets per year exclusively to consumers in Canada. Therefore, the annual change in final demand in the United States is $1 million because dollars are flowing in from outside the United States and are therefore "new" dollars in the economy.

This change in final demand translates into the first round of buying and selling that occurs in an economy. For example, the widget manufacturer must buy its inputs of production (electricity, steel, etc.), must lease or purchase property and pay its workers. This first round is commonly referred to as the "Direct Effects" of the change in final demand and is the basis of additional rounds of buying and selling described below.

To continue this example, the widget manufacturer's vendors (the supplier of electricity and the supplier of steel) will enjoy additional output (i.e. sales) that will sustain their businesses and cause them to make additional purchases in the economy. The steel producer will need more pig iron and the electric company will purchase additional power from generation entities. In this second round, some of those additional purchases will be made in the US economy and some will "leak out." What remains will cause a third round (with leakage) and a fourth (and so on) in ever-diminishing rounds of spending. These sets of industry-to-industry purchases are referred to as the "Indirect Effects" of the change in final demand.

Finally, the widget manufacturer has employees who will naturally spend their wages. As with the Indirect Effects, the wages spent will either be for local goods and services or will "leak" out of the economy. The purchases of local goods and services will then stimulate other local economic activity; such effects are referred to as the "Induced Effects" of the change in final demand.

Therefore, the total economic impact resulting from the new widget manufacturer is the initial $1 million of new money (i.e. Direct Effects) flowing in the US economy, plus the Indirect Effects and the Induced Effects. The ratio between Direct Effects and Total Effects (the sum of Indirect and Induced Effects) is called the "multiplier effect" and is often reported as a dollar-of-impact per dollar-of-change. Therefore, a multiplier of 2.4 means that for every dollar ($1) of change in final demand, an additional $1.40 of indirect and induced economic activity occurs for a total of $2.40.

Key information for the reader to retain is that this type of analysis requires rigorous and careful consideration of the geography selected (i.e. how the "local economy" is defined) and the implications of the geography on the computation of the change in final demand. If this analysis wanted to consider the impact of the widget manufacturer on the entire North American continent, it would have to conclude that the change in final demand is zero and therefore the economic impact is zero. This is because the $1 million of widgets being purchased by Canadians is not causing total North American demand to increase by $1 million. Presumably, those Canadian purchasers will have $1 million less to spend on other items and the effects of additional widget production will be cancelled out by a commensurate reduction in the purchases of other goods and services.

Changes in final demand, and therefore Direct Effects, can occur in a number of circumstances. The above example is easiest to understand: the effect of a manufacturer producing locally but selling globally. If, however, 100% of domestic demand for a good is being met by foreign suppliers (say, DVD players being imported into the US from Korea and Japan), locating a manufacturer of DVD players in

the US will cause a change in final demand because all of those dollars currently leaving the US economy will instead remain. A situation can be envisioned whereby a producer is serving both local and foreign demand, and an impact analysis would have to be careful in calculating how many "new" dollars the producer would be causing to occur domestically.

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EXHIBIT V

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ECONOMIC DEVELOPMENT

COUNTY OF ULSTER, NY
HIGHEST AND BEST USE RECOMMENDATIONS
U&D RAILROAD CORRIDOR







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Highest and Best Use Recommendations
U&D Railroad Corridor

Table of Contents

Executive Summary

1. Introduction 1

2. **Historic Perspective and Impact** 4

3. Existing Trail Conditions and Connections 6

4. **Existing Rail Operations** 10

4.1 Kingston 10

4.2 Phoenicia/Mt. Tremper 13

4.3 Future Ridership Trends 14

5. **Economic Impact Analysis**.. 16

5.1 Trail Impacts: Camoin Study. 16

5.2 Rail Impacts: Catskill Mountain Railroad . . . 17

5.3 Comparisons 19

6. Health Impact Analysis 25

7. Segment by Segment Corridor Analysis 28

7.1 Kingston 28

7.1.1 CSX to Kingston Plaza 29

7.1.2 Cornell St. Yard 31

7.1.3 Trail Usage Within Kingston 31

7.1.4 Rail with Trail Alternatives – Kingston . . . 32

7.1.5 NYDOT Funding vs. Trail Design Standards . . 34

7.1.6 Kingston Recommendations 36

7.2 Kingston Plaza Zone (I-587 bridge to I-87 bridge) . . . 37

7.2.1 Economic Impacts – Plaza 39

7.2.2 Kingston Plaza Zone Recommendations . . . 40

7.3 Kingston Flats – I-87 to Hurley Mt. Road 40

7.3.1 Industrial, Transload or Railroad Shop Area in Flats . 42

7.3.2 Flats Recommendation 42

7.4 Hurley Mt. Road to Basin Road (DEP Easement Boundary) . 43

7.4.1 Hurley Mt. Rails Issues 44

7.4.2 Hurley Mt. Trails Issues 45

7.4.3 Rails with Trails Concepts 46

7.4.4 Hurley Mt. Road Recommendations . . . 48

7.5 Ashokan Reservoir Area (Basin Rd. Bridge to Rt. 28A Boiceville) 49

7.5.1 Ashokan Rail Use 49

7.5.2 Ashokan Trail Use 51

7.5.3 Ashokan Rail with Trail Use 51

7.5.4 DEP Memorandum of Understanding . . . 52

7.5.5 Basin Road? 54

7.5.6 Recommendation 55

7.6 Boiceville – Mt. Tremper – Phoenicia Area 55

7.61 Phoenicia Zone Existing Rail Operations . . . 56

7.6.2 Phoenicia Zone Rail-with-Trail 59

7.6.3 Phoenicia Zone Economic Impact 59

7.6.4 Phoenicia Zone Recommendation 60

7.7 Phoenicia to Big Indian 61

7.8 Big Indian to Highmount (County Line) 63

8. Capital Cost Factor Analysis 65

8.1 Track Valuation and Removal 65

8.2 Track Rehabilitation 67

8.3 Boiceville Bridge 68

8.4 Bridge Clearances 69

8.5 MP 23.4 Washout (West of Boiceville) 69

9. Railbanking 71

9.1 Pre-WWII 71

9.2 O&W Abandonment 72

9.3 Penn Central Bankruptcy, USRA and Conrail . . . 72

9.4 Abandoned right-of-ways since 1983 73

9.5 Surface Transportation Board and Service Preservation . . 75

9.6 And Excursion Railroads? 77

9.7 Conclusion 78

10. Freight Services In Kingston? On the U&D? 79

10.1 Hurley Mt. Road 80

10.2 Existing CMRR Website 81

10.3 Rt. 209/28 Existing Operations – Potential and Active Operations 81

10.4 Transloading 101 82

10.5 Other Excursion Railroad Transload/Freight Examples . . 83

Attachments

Highest and Best Use Matrix

Cost Estimates by Segment and Use

COUNTY OF ULSTER

Highest and Best Use Recommendations
U&D Railroad Corridor

Executive Summary

Our recommendations for "highest and best use" become an effort to evaluate, through a variety of perspectives and methods, what the best benefit that the Ulster County U&D Rail Corridor can make to Ulster County residents. Ulster County is faced with difficult decisions and evaluations because it is struggling with choosing between two very good alternatives when compared with the other. This alternatives analysis intends to lay those issues out, throughout the entire corridor – comparing and contrasting the alternatives in a localized manner rather than generalizations. The goal is to develop the use of the corridor to increase the economic and health well-being of Ulster County.

The history of the railroad very much impacts its future. The 1911-13 construction of the Ashokan Reservoir permanently relocated approximately 13 miles of railroad out of the Valley and up onto hillsides. That portion has wide cuts, well-engineered fills, low grades, and reinforced concrete bridges and culverts. All those features make trail conversion far easier than the original 1868 construction, and that directly impacts cost and feasibility of alternatives today.

Projected annual usage of the Catskill Mountain Rail Trail was projected to nearly 140,000, but over the entire 38-mile distance as a connected system from Kingston to the County line. The Catskill Mountain Railroad reported 2014 ridership of 40,270 ticketed riders. Existing railroad ridership and peak projected trail usage areas are concentrated in different areas and at different times of the year.

Existing trails are built in Ulster County and more are under development. While Route 28 already has a paved-shoulder bicycle lane, the vehicle traffic on Rt. 28 is heavy enough to discourage bicycle use. Route 28A is narrow, twisting roadway, lacking paved shoulders of any kind. Trail connectivity, as well as destination zones are an issue.

At Kingston, Catskill Mountain Railroad now has 2.7 miles of track in operation, which is about ¼ mile more than in 2014. Discussions with Rail Events, the franchise owner for Polar Express, indicated that during the 2014 season, they did not have enough running time at Kingston to actually finish the program while underway. The additional distance of operable trackage above Hurley Mt. Road is actually very strategic in the total operating and impact plan. As a result of this analysis, a great deal of additional

study time was spent examining and measuring corridor clearance and physical conditions between Hurley Mt. Road and Basin Road trying to resolve trail connectivity with the actual needs of the rail program.

Economic Impact of the two programs was examined and compared between the full-corridor potential trail construction vs. the 2014 actual economic impact of the railroad (which was adjusted to reduce out-of-county spending factors). Our conclusions were that the 2014 railroad impacts of $2.66 million are generally comparable with the Camoin Study impacts of $3.1 million. Both have similar percentages of outside-county draw potential. Both have rather subjective analysis of the percentage of overnight stay impacts, and could be greatly improved with better user survey techniques. We do feel that the Ashokan Reservoir has strong visitor attraction and trail potential, but what portion of the 140,000 visitors it can draw is not estimated by Camoin; our interpretation is that it is strongly concentrated within Kingston and at Ashokan. The railroad is very, very concentrated in particular areas of existing operations for impact at the Kingston end of the railroad.

Health Benefits can be monetized for comparison purposes, and are based on an estimated number of user trips and distances. For example, a neighborhood population of 10,000 within Kingston with an annual usage of one trip/yr (10,000 trips, one trip per person/year) on a two-mile round trip average would equate to a comparative annual health benefit of $32,858.

Preservation of the rail connection from I-587 to CSX strictly for occasional passenger car or equipment movements, while feasible, is a business advantage, but not a strategic necessity, of an excursion railroad in Kingston. The connection is not critical, unless it allows preserving the corridor for potential transload freight services. The excursion operation must have some base of operations for equipment storage and maintenance. We recommend relocating this shop and yard site to an industrial-zoned parcel located near Hurley Mt. Rd. The comparative community advantage is clearly to the trail alternative for this segment unless some new factors exist that may emerge during operator review and lease renewal.

The I-587 to Washington St. Kingston Plaza zone can support both rail and trail interests equally well, due to sufficient corridor width. It is equally strategic to both programs, and is equally necessary for economic impact for both programs.

As long as the current concept is to use alternate rail-with trail locations via O&W trail to reach Hurley Mt. Road from Washington St., our recommendation is to continue that approach. It leverages the connectivity, economic and health impacts for all corridor concerns at this time. If a point is reached where cost, rather than concept, is driving the discussion, a review of alternatives should be done again.

For at least the first mile and a half west of Hurley Mt. Road, dual-use potential can be achieved with the willingness to address ¾ mile of cut widening, and the half mile beyond that where sufficient width exists to allow multi-use trail alongside existing rail. Beyond that point, the challenge resumes to put rail and trail together, and will require extensive cut and fill widening of the primarily shale hillside area, rather than attempting a narrow side-trail on a retaining wall. The 300' Bluestone cut at Rt. 28A requires drainage remediation preferably addressed under railroad maintenance permitting circumstances. We strongly recommend that retention of sufficient operating track space be retained as far as 7.28 to continue operating distance for Polar Express operations to its current location or beyond. Rail with trail remains preferable as far as Rt. 28A (MP 8.33) for a special events and joint trailhead location.

The 'fatal flaw' if there is one for the rail-with-trail concept beyond that point is the long 2700' fill at Stony Hollow dating to the original 1868 alignment. It crosses designated high-quality wetlands that are essentially marshland to both sides, and is too narrow for joint use. Highest and best use conclusions for this segment remain open and linked to other sections on both ends. Rt. 28A road shoulders are not an acceptable trail detour, but alternative trail locations have also not been fully researched for alternatives.

The Ashokan Reservoir section remains the most studied and best-defined portion of the corridor. CMRR envisioned regular excursion operations at least reaching Glenford Dike, for a destination scenic view of the reservoir. Our investigation showed the ability to successfully locate full-width rail with trail by track relocation and use of the original 10' walking trail across the Glenford Dike. But the June 2015 DEP agreement specified rail or trail, with no provisions for co-occupation of any portion of the corridor. Similar conditions exist at the west end at Boiceville, where this agreement prevents rail entrance beyond Rt. 28A at the overpass. Trail benefits are relatively clear, feasible, and funded – and strongly supported by DEP as a goal on their property. The trail value here is the highest of the entire corridor in terms of economic impact for the County.

The research on trail potential for the Boiceville-Phoenicia segment has been limited to connectivity to the west to Bellayre, but certainly has equal potential for a conventional trail and was researched as a rail with trail in 2006.

As the DEP boundary ends at Rt. 28A, there should be at least some consideration as to what potential exists for a true events site, destination, or rail and trail presence at the general location of Rt. 28A and Rt. 28. Resolution of that issue could impact the Kingston end as well, and preserve the special event market in the process. Without that, the west end can certainly continue as rail-only operations, but has limited economic impact in comparison to Kingston. Highest and best use of this portion of the corridor will hinge on the decision of the provider for excursion rail services, as well as

the ability to determine if a new agreement or location can be found to serve for rail and trail terminal as close to the Boiceville interface with 28A as possible.

The most damaged and difficult portion of the entire 40 mile corridor begins west of Phoenicia. The corridor is generally unwalkable due to generally heavy brush and tree conditions, is missing two major bridges, and has 7000' of washouts. Cost projections, as well as permitting difficulties, question feasibility of any alternative other than trail usage on the remaining and intact segments.

Above Big Indian, the hillside location and steeper rail grade favor trail use and connectivity. The only valid rail application is connecting to the Delaware and Ulster Railroad at Highmount. This has been requested in the past by DURR, but contacts to the organization during the study period did not appear to result in a formal response to clarify intent. County-based benefits for this would appear to be limited to a lease payment only. Trail use interest for this section appears to be increasing beyond ski season as originally reported in the Camoin study.

Above Boiceville it may be feasible to consider seasonal snowmobile use similar to the Adirondacks, as well as cross-county skiing, as it requires little if any additional construction and provides new economic impacts toward a winter-based destination at Bellayre.

Capital cost estimates, including track value, track rehabilitation, washouts and a specific look at the Boiceville Bridge were included in the Study that impacted projected costs.

Railbanking in Ulster County requires understanding the history of the effort, as the post-Penn Central era of the U&D Corridor bridges the period when rail abandonments, operator selection, and railbanking law were still in their infancy. Resolving the pre-1983 actions as they impact the present day is anything but predictable and conclusive. The separation of the definition of a railroad as a service provider and a property owner under current definitions clouds the issue. Abandonment in front of the US Surface Transportation Board regards common-carrier service, not just property, as the defining issue, and the service history is anything but conclusive. Intent to abandon the U&D corridor for trail designation are public, and other freight carriers may even petition the STB to re-establish freight services based on feasibility and shipper need.

Kingston is also in an ideal geographic and highway network situation north of New York City to develop intermodal services for a low-to-medium volume commodity transfer service from rail to truck. Operators other than CMRR typically look at this opportunity first, and the passenger second, as possible reasons to take on an operator contract with or without passenger services. Validity and opportunity of this situation may directly impact the benefits analysis of preserving a rail-with-trail corridor and connector between I-587 and the CSX connection within Kingston itself.

COUNTY OF ULSTER

Highest and Best Use Recommendations U&D Railroad Corridor

December 2015

1. Introduction

Our recommendations for "highest and best use" becomes an effort to evaluate, through a variety of perspectives and methods, what the best benefit that the Ulster County U&D Rail Corridor can make to Ulster County residents.

Right from the start, that establishes some ground rules and distinctions. There are potential benefits well beyond Ulster County, and there are also benefits likely to non-residents. The rules for our evaluation must keep the clear focus on Ulster County businesses and residents. Alternatives that provide economic and/or health benefits, but primarily outside of Ulster County, are not necessarily ignored, but must be clearly identified as such.

The other major factor in our evaluation is that the evaluation of alternatives must consider other rail operators that may not necessarily be the Catskill Mountain Railroad as the rail business provider beyond lease expiration in 2016. Other rail operators may look at different business factors and opportunities in different ways. Based on our national experience, we are to evaluate the corridor for those conditions, as well as the specific business model and business plan submitted by the Catskill Mountain Railroad. That evaluation also impacts potential rehabilitation or construction costs, as relatively few operators repair track and perform regular maintenance with an all-volunteer staff.

While economic impact analysis (for both dollar activity and resulting equivalent jobs) has been used as an analysis tool for decision making for decades, a new tool has been requested for this project – the Health Impact Analysis based upon potential increased trail usage by County residents. This allows the logical application of providing additional outdoor recreation opportunities to assist in providing more opportunities for exercise, increasing longevity, and to monetize those benefits in a manner comparable to economic impacts using recognized methods and tools. Adding those benefits in for local trail evaluation recognizes that economic impact is not the only resulting benefit of alternatives. Evaluating health benefits can decrease health costs for an identified local

population. But like other analysis, it also has to be subjected to a County, not necessarily statewide or regional, scope of evaluation.

Ulster County is already well-experienced in trail development and benefits. High quality trails already exist, and the problem is more of building the disconnected islands of existing trails into a unified system rather than considering the trail concept either unproven or experimental in nature. The unparalleled success of "Walkway over the Hudson" has converted a rusting railroad bridge across the river into one of the most heavily-visited pedestrian sites in the Eastern United States with a national audience. Connecting these sites would conceivably leverage the asset into longer visitor experiences and more of a destination attraction nature. Based on that success, Ulster County has been a primary target from the state level to develop additional trails, and funding has been secured for several new linkages and opportunities. Ulster County has an established recreational trail community, with visitors outside and inside the county developing local business opportunity to serve them.

Likewise, after 23 years of relative quiet, the Catskill Mountain Railroad launched an intense effort in 2014 to develop the event-based tourist railroad market, and the results were outstanding. In one year, they effectively quadrupled their ridership, developed a state-regional market for event-based activity, and developed enough cash flow from that activity to seriously begin long-neglected maintenance and repair work on the corridor. The obvious effects on local visitation, and on downtown Kingston business, were sufficient to justify reexamination of what had been previously regarded as a hobbyist activity with minimal local impacts.

The problem of course is that these two desirable opportunities tend to collide both physically and philosophically. The decision would be far easier if trails had already been developed in Ulster County and were not being used and had few demonstrated benefits, or if the Catskill Mountain Railroad had shown no capability to either progress or grow for either its own or the County's benefit. Neither of those statements is now true. The truth is that Ulster County is faced with difficult decisions and evaluations because it is struggling with choosing with two very good alternatives, in what is at least perceived to be rather mutually exclusive territory when compared to the other. This alternatives analysis intends to lay those issues out, throughout the entire corridor – comparing and contrasting the alternatives in a localized manner rather than generalizations. The goal is to develop the use of the corridor to increase the economic and health well-being of Ulster County.

One deliberate choice of words here is important. Rather than a "feasibility" analysis, this is genuinely an "alternatives" analysis. By any rational statement, the railroad is 'feasible' as it physically existed and for the most part, still exists, the difficulty is in rebuilding the portions that were destroyed through storms and decades of deferred

maintenance. The trail is certainly feasible, as the process of removing railroad track and turning it into a trail is by no means a new exercise. Even putting the two in the same corridor is likely feasible, given nearly unlimited funding and unlimited time to address specific physical and environmental restraints that do exist. Feasibility is more a measure of how big the resulting number has to be to accomplish the task, rather than whether it could even be done. The definition of feasibility becomes more of a reflection of both cost and time, and the individual conclusion of whether or not the resulting outcomes of economic impact and health benefits are sufficient to justify the effort, or if it crosses into simply irrational levels of cost vs. perceived or defined benefit.

The alternatives analysis also acknowledges that to achieve any progress within economic and time limits, compromises must be made in approach, goals, and planning. Some compromises may be considered, and some may not be, but our interest on maximizing benefit will challenge previous assumptions by all in this evaluation. Our national experience includes proven approaches that have not just been considered in the past, but those that are in practice today. While some may or may not be considered to be acceptable to Ulster County, they must be recognized for what they have done – produce benefits for their own localities by recognizing that some segments really do have a better use than the other, and of finding a way to include rails and trails together as partners rather than opponents.

Perhaps the most promising aspect to this alternatives analysis is that both groups of interest have publicly acknowledged that their own realistic viewpoint of the overall corridor is that portions of it may likely be equally suited to the others use. The County Executive has previously offered portions of the trackage in both Kingston and in the Phoenicia area for continued rail operations, and the 2015 business plan of the Catskill Mountain Railroad heavily concentrated on finding alternatives for parallel trail development.

This recognizes that the corridor is not entirely homogenous for either use, and requires an in-depth analysis of identified segments for “Highest and Best Use”. Whatever the eventual outcome, we recognize and salute the stakeholders for respecting the others viewpoint and considering it in an open manner.

2. Historic Perspective and Impact

Although the railroad was built as a corporate entity with a rather single-minded purpose and approach in the late 1860's (take tourists up into the Catskill Mountain to the grand hotels), it is no longer easy to classify what remains today in such an easy manner. Our on-site inspections in October and November revealed that dramatically different methods of construction and material exist within the corridor, as well as current condition. This legacy impacts rail and trail considerations, costs, and uses. History still very much impacts the analysis to the future.

First, as a passenger railroad, it was actually designed for speed. Those traces remain today with superelevated (banked) curves remaining in the track, well-designed geometric curves with approach spirals, historic station locations very closely spaced, and passenger trains that run frequently enough to require both passing sidings and signal systems to prevent collisions. At the peak, tourist hotels were all up and down the valley, and all had a small local passenger station with connecting stage or bus service. Passenger trains were run as fast as possible, and during the summer season, frequent. Freight traffic, for what existed, was comparatively late to develop, and other than some early Bluestone quarry activity, was almost exclusively on the western end of the railroad beyond Phoenicia. Freight consisted of single-car traffic with small lumberyards, creameries, and further toward Oneanta, feed mills for the dairy farms. Through traffic from the rail connections at Oneonta, when the connection was finally made in 1900, were mostly agricultural commodities, milk traffic, and anthracite coal for home heating inbound to Kingston. So, much of the infrastructure (and upgrading) typically necessary for heavy industrial freight traffic (and the longer and heavier freight cars it uses) simply never developed here. Much of the steel rail dates back to the early 1900's and is relatively light by current standards. That light local freight traffic and no strategic interconnections to the west is why the corridor was proposed for abandonment at the end of Penn Central operations in 1976.

Approximately in 1910, passenger train speeds were raised on the railroad to as much as 60mph in some places. To achieve that, curves were superelevated and they were also relocated on the right-of-way for better approach spirals. These track relocations are noted on the valuation maps, and in some places, the track is no longer in the center of the right-of-way.

Because passenger trains were significantly lighter than freight trains, steep grades were much less of an issue. The railroad was built with a very steep 4.5% grade out of Rondout, requiring multiple locomotives per train to crest the hill at Kingston. Stony Hollow required a 2% climb out of Kingston, and the final approach to Highmount was at the top of a 4.3% grade out of Big Indian. The total climb from Rondout to

Highmount is 1854 feet over 40 miles of track – but the climb is actually irregular and focuses on those three rather distinct grades. In direct contrast, the other great rail/trail corridor across Ulster County – from the Poughkeepsie Bridge west, is nearly dead-flat and heavily engineered as it was one of the major interconnecting freight gateways between New England and the Mid Atlantic with peak levels of 40 heavy trains a day into the 1950's.

The 1911-13 construction of the Ashokan Reservoir permanently relocated approximately 13 miles of railroad out of the Esopus Creek valley and up onto the surrounding hillsides. As that reservoir project was paid for by New York City and relocated (by force) what was then a rather active and very profitable passenger railroad, the City paid a premium price to the Ulster and Delaware Railroad to relocate it high and alongside the new reservoir – 43 years after the railroad was originally built. Much had developed in both engineering technology and railroad materials by that time, and the relocated section between Stony Hollow and Boiceville is more like a 'modern' freight railroad with wide cuts, well-engineered fills, newer steel rail dating to at least 1911, low grades, and reinforced concrete bridges and culverts. It is a far superior railroad corridor to the original 1868 segments on either end. This issue in particular creates underlying situations for the current trail proposals and corridor repairs as what is a relatively straightforward trail conversion program alongside the reservoir can meet with surprisingly constrictive situations elsewhere.

3. Existing Trail Conditions and Connections

After examining existing reports, field notes and observations were made on some of the existing multi-use trail and bicycle connections that impact this analysis. This was done both in October and November 2015.

One of the key statements in the Camoin Trail Impact study is that the existing O&W/D&H Canal trail within Ulster County had 81,157 users, and that the projected annual usage of the Catskill Mountain Rail Trail was projected to nearly 140,000, with sufficient detail to identify specific subgroups. Unlike the railroad, there are no hard ticket counts to rely on, and no revenue-producing activity to examine as a financial report. While technology may be developing to actually count trail users like vehicle counts on a roadway, they are still based strictly on estimates and sampling. Much of the projected economic impact as well as health impacts is based on these numbers in our analysis.

Our unofficial observations during our field trips verified that the O&W trail, in particular, was obviously well-used. Cars were in trailhead parking lots, runners and bicyclists were out in force. One day in particular was a very nice fall day, and the trail, while not packed, was steady with use and users were clearly visible alongside Rt. 209. We have also visited the "Walkway over the Hudson", both in 2011 and 2015, and have seen firsthand the high volume of visitors and users on that attraction. While we cannot verify the numbers or methods, we also cannot disprove them either, and will accept the potential existing user estimates for the O&W trail or the U&D, lacking better data from other sources. We would encourage, however, that the ongoing process of counting trail users on local trails would be done with improved technology rather than relying entirely on estimates[1]. Our 2015 visit to the Walkway disclosed that camera technology and sampling has been instituted although the exact method is yet unknown.



Walkway over Hudson, 2011

Similarly, the "Dike trails" on the south side of the Ashokan reservoir were visibly used by both walkers and bicyclists; the obvious connectivity problems beyond parking lots and relatively short segment lengths were observed although the reservoir views were as outstanding as the potential to the north side. The facilities provided by DEP near Ashokan are relatively minimalist in nature despite the quality of the views, and reflect

[1] Sample people counting technology: http://www.videoturnstile.com/

their mission to protect, rather than promote, the resource. It is obvious that whatever impact that Ashokan trail sections may produce, it will be up to the County, or some other group, to develop it. On the same day as the O&W trail was well-used, Ashokan Dike trails were probably 20% of the same density.

Our concern in reviewing these numbers is the unknown level of diversionary activity by the creation of a new trail, both within downtown Kingston (both Greenway and U&D), and the creation of a new trail system toward the Ashokan reservoir that will likely become a preferred destination. It is logical to assume that the creation of a new trail does not necessarily result in 100% new trail users; some will divert from existing trails and simply go to a better trail location - which this U&D corridor could certainly become for some. The primary markets of local users will continue to use the trail closest to them for exercise and new trails next to new users will result in new health benefits purely due to local convenience. A high-quality destination trail (such as the Ashokan reservoir section is capable of) may divert some users, although the prevailing wisdom is to extend individual use through connectivity rather than accept user diversion to other trails. Both concepts are true, but it is difficult to quantify. Some allowance must be made however to accept that 140,000 new trail uses on the U&D corridor will have some impact on existing trail use on O&W for those trail users that drive to a local destination trail.

The vertical difference between Ashokan and Kingston (400' in round numbers over 4 miles of distance, average 2%) is perhaps more consistent on the rail corridor, but is still the same elevation and will be a barrier to connectivity for some users, multiuse trail design or not. This distinct difference in gradient in different proposed sections has really not been examined in terms of projected usage by segment, however we did note in the Camoin study that segmented use (Kingston, Ashokan, Bellayre) was not projected – only the sum of the parts as a whole.

Like the railroad and their own special events, trail usage can be very concentrated in different areas and at different times. The Camoin study identifies special events like marathons, etc. for 17,500 users and 3 major/6 medium/10 minor events; we agree that this new system will be far superior to the existing trail maps and route guides offered on the HIT venue, including the annual marathon with road and trail routes. Events such as the HIT Marathon already exist today, so at least one such major event is a clear diversion on existing use to the potential new trail. These destination events are of particular economic value because any multi-day event such as that feeds directly into out-of-county, out-of-state destination users that are a target market. Trail connectivity across the County will contribute to the success of this long-distance event market. The proof of the existing multi-day HIT event and the established route map justify the Camoin out-of-area estimates.



On paper, the existing map of Ulster bike routes and trails looks impressive, particularly for the bicyclist. At first, we were puzzled on the desirability of developing a new trail running exactly parallel to the existing Route 28 Bicycle Route, which has exceptionally wide and smooth paved shoulders. Two immediate observations were made; one that the vehicle traffic on Rt. 28 is heavy enough to discourage bicycle use despite the paved shoulder lane, and second that during our visits, we never saw anyone actually using it as a bicycle route. It is not particularly well-publicized online but is well-signed as a state bicycle route.

On all on-line trail and tour resources, Route 28A was also shown as part of a 'loop trail' around the reservoir. We observed Route 28A to be a narrow, twisting roadway, and lacking paved shoulders of any kind, as well as having sight distance issues at proposed trail crossings. Like Route 28, it has significant shortcomings and is not an acceptable alternative except for the true road-class bicyclist. While it has not been mentioned in previous studies, our interviews and observations within Ulster County is that there is a definite safety issue of existing bicycle routes in certain areas, despite marking or recommendations, and that these both divert use to other locations and discourage destination use. The need for a dedicated, and safe, rail-trail corridor is rather obvious, and also explains the relative popularity of the existing trails nearer to Kingston that do not have such vehicle conflicts.



DURR Fleischmanns siding – April '14

While the Camoin study considers the U&D corridor as part of a cross-county connectivity to Delaware County, the only existing destination to the west appears to be the Bellayre ski resort at the County line. Within Delaware County, there are also rail-trails, but they do not connect with this corridor, and trail proposals there do not appear to propose to connect to the Ulster County Line. The Delaware and Ulster Railroad (DURR) is the operating entity primarily from Arkville north (as well as the trail operator). While the track is in place from Arkville to the Ulster County line, it is not currently operated. It is, however, sprayed for vegetation and fully cleared and has reportedly been used for a locomotive-only move in 2013. It is in significantly better condition than most of the Ulster County corridor. The concept of trail connectivity to anything further west beyond the County line is not yet clear in terms of either projected or stated benefits, even if the Ashokan district appears to present outstanding trail and recreational potential.

As commentary, within our own local area, national trends in trail use are equally evident and impact our analysis of Ulster County. Warren County PA (pop. 50,000) is firmly within the Allegheny National Forest and has had a long history of forest hiking trails through vertical elevation differences of 300-500'. **64 listed trails** exist within Warren County, and vary from motorized snowmobile trails, forest roads, and true wilderness trails, as well as the long-distance North Country Trail[2]. Conventional rail trails include the paved and multiuse North Warren Rail Trail[3] as well as less developed recreational rail-trails with far less usage[4]. Our own local multiuse rail trail is well-used since having been constructed 15 years ago. Over the last 20 years, Federal budgetary cutbacks within the Allegheny National Forest have led to complete abandonment of some forest walking trails as better-maintained and more scenic routes have come available. A new technical-skills mountain-bike/pedestrian trail is being federally funded in 2015[5], as that is a new and previously untapped market.

Trails, by themselves, must be of extraordinary quality and well-promoted to serve as any kind of destination attraction. Our own local efforts to use the abundance of recreational trails as a destination attraction have not been as successful as the rather outstanding regional success of using the local lakes, rivers, and streams as destination canoe event venues; that has been a relatively unique resource. Warren County PA has hosted the USCA National Canoe Championships for six years and it has contributed major economic impact to our local economy.[6] Our own 'local' excursion railroad, the Knox and Kane, ceased operations as a direct result of the hurricane that destroyed its own destination attraction, the Kinzua Viaduct, in 2003. Before the hurricane, the 1020', 340' high Viaduct attracted 160,000 park visitors on a structure not at all unlike the Walkway over the Hudson. The connecting long-distance (97 mile round trip) steam excursion railroad operated in excess of 25,000 riders per year between 1982 and 2005, but unable to sustain the loss of the bridge attraction. The local economic and tourism impacts of their combined loss were significant enough to justify partial reconstruction of the storm-damaged bridge, and it has reopened as the Kinzua Skywalk, now without the railroad attraction, at less than 50% of original visitation[7].

[2] http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5052728.pdf
[3] http://www.traillink.com/trail/warren-to-north-warren-bike-trail.aspx
[4] http://www.traillink.com/trail/allegheny-national-forest---tidioute-riverside-rectrek-trail-.aspx
[5] https://www.facebook.com/thetrailsatjakesrocks/photos/a.837355112957837.1073741829.826111880748827/1186824708010874/?type=3&theater
[6] http://www.uscanoe.com/2015_USCA_Canoe__Kayak_Nationals__8212_Warren_PA_W168C48.cfm
[7] http://visitanf.com/kinzua-bridge-state-park-has-record-fall-season-allegheny-national-forest-visitors-bureau-releases-new-kinzua-bridge-sky-walk-zippo-lighter/

4. Existing Rail Operations

4.1 Kingston

At Kingston, Catskill Mountain Railroad now has 2.7 miles of track in operation, which is about ¼ mile more than in 2014. Track east of Westbrook to Cornell St. is used to link the storage yard to Westbrook, but is not operated with passengers. Kingston operations consist of a shuttle / special events service from the Kingston Plaza ("Westbrook Station") to just north of the Hurley Mt. road crossing. During 2014, the Polar Express decorated North Pole site was just west of Kenco Outfitters (2.4 miles out). For 2015 it is halfway between the two private crossings on Rt. 28, set on the hillside and within clear view of passing traffic.

The distance from Hurley Mt. Road to Kingston (Westbook) station that has been offered by the County Executive is just over 2 miles; 4.1 mile round trip, running time at 10mph is approximately 30 minutes or less. How much of a difference can this half mile of track section really make?



It is clear to see that for at least 2014-5, the event that drives the success of the Kingston end is the Polar Express special event calendar (Nov. 20-Dec. 27), and 2015 reservations indicate what appears to be near-sellout conditions - capacity still insufficient to meet demand. With the draw of this event and the premium price, this ridership volume also becomes the driver for economic impacts in Kingston. So while it is not the exclusive opportunity for either the operator or Kingston, it does effectively become the key discussion item to determine impact analysis in terms of out-of-county visitors and overnight stays. And, as will be mentioned elsewhere, it has apparently not achieved either any slackening of demand or market saturation level at the current time.

Regionally, and nationally, the Christmas on the train franchise is still expanding today. The numbers being produced by the Essex CT Valley Railroad would indicate their North Pole Express alone is drawing 40-50,000 event numbers with their higher train capacity, also aimed at the New York metro market at a near-identical mileage distance. Valley Railroad showed as 'sold out' as of 11/25/15.

Excursion railroads that operate the Polar Express trips typically cannot schedule back to back trips any closer than 1.5 hours[8]; Catskill Mountain does their trips on two-hour intervals (2015 shows 2PM, 4PM, 6PM and 8PM on the busiest days for 2015). Subtracting time for train loading and unloading (done more efficiently in some event locations than others) the actual trip/event time is effectively an hour. Within that timeframe, the 'arrival at North Pole' is done at walking speed to allow children to wave to Santa standing at the North Pole site. So the actual running time per trip on track at speed is typically in the 45-50 minute range; i.e. 5-7 miles round trip underway is the minimum travel distance even with stops for grade crossings. Dividing that in half results in 2.5 to 3.5 miles of track necessary for typical minimum operating distance to run the presentation and still be on a moving train during the entire presentation.

That relationship between licensed event program length and available operating track is one of the most critical relationships for Ulster County to keep in mind for alternatives analysis of the corridor on the Kingston end. It is simply based on a relatively straightforward analysis of time and distance. Discussions with Rail Events indicated that during the 2014 season, they did not have enough running time at Kingston to actually finish the presentation while underway, and the train had to be stopped back at Westbrook to allow Santa to 'finish his rounds' passing out bells, and finishing the hot chocolate. In terms of a premium-price entertainment experience, this is more or less like turning on the house lights before the show is over. Rail Events had encouraged CMRR to extend their operations further to address what they considered to be a problem in this specific situation[9]. This is not necessarily a case of CMRR extending track purely for their own internal or arbitrary purposes, and would apply to any operator doing this event with Rail Events, not just CMRR. Rail Events, as the show provider, actually has as much if not more influence on operating practices than the hosting railroad.

It's also equally important to understand that even if the railroad already had 30 miles of track in operation today, it still could not use it for this particular event. Texas State Railroad (Palestine-Rusk TX) now has 25 miles of operable track (and over 40,000 riders for Polar Express in 2014), but runs out only 7.3 miles to the North Pole site, as their track has a passenger operating speed of 25mph. Running time from their station to the North Pole is exactly 26 minutes to hit their show queues. To make the Polar Express event schedule, they cannot run out any further and still make the schedule, even when running at twice the track speed of Catskill Mountain. "Polar Express" is a specific, timed, presentation with music, narration and near-stopwatch timing when done properly, and is best compared to an off-Broadway production done on a (slow)

[8] https://www.texasstaterr.com/the-polar-express-train-ride/
[9] Phone Interview with David Schranck, Rail Events, November 2015

moving train. The "North Pole" trackside location is typically selected based on elapsed time calculations on where it has to be to fit the presentation schedule, based on train speed and allowable track conditions. Similar situations exist on other excursion railroads with far longer runs[10] – the "North Pole" site is picked based upon running time to fit the show.

So how does this impact Ulster County? For FRA Class 1 15mph track (which is usually run at 10mph on CMRR) that means the minimum track distance is really in the 3-3.5 mile range resulting in a 7 mile round trip, run just about as slowly as can be done and still actually be moving at all. That is the underlying explanation for the 2015 extension up Rt. 28, increasing their operating distance to 2.7 miles out of Westbrook. It is better than 2014.

What that means for this project is that to preserve the economic impacts for Ulster County that are already being demonstrated and also form the backbone of the business plan for them (and any other passenger operator using this licensed event) the additional distance of operable trackage above Hurley Mt. Road is actually very strategic in the total operating and impact plan. While it doesn't necessarily need ten miles of track to operate Polar Express event, or even five, the 25-minute moving distance to fit the presentation is the underlying reason for the highest and best use conflict in what is really a relatively short physical distance of corridor.

That analysis, in turn, focuses a great deal of attention on specific corridor conditions and challenges on the portion of the railroad between Hurley Mt. Road and Basin Rd., looking for alternatives for rail and trail locations to preserve this existing rail impact and also provide the trail connectivity that the Camoin study envisions. This conflict and search for resolution will look at other areas in the corridor as well.

For the other major special event – "Day Out with Thomas" (DOWT), the space and time restrictions are actually lessened. In terms of all the activities and opportunities on a "Day out with Thomas", the length of the train ride (along with the attention spans of its target audience) is very short. While not as choreographed as Polar Express, DOWT events still have a minimum trip length and time; on the Strasburg Railroad it is only 20 minutes. Essentially, of the two primary event market builders now in place, DOWT can generally fit in any operating envelope that Polar Express occupies. It does not, by itself, drive additional track space issues out of Kingston. Unlike Polar, DOWT has generally reached plateau demand nationally, and in some areas, has actually declined. Whether this is due to the increasingly-difficult economics of the franchise contract terms, or due

[10] Grand Canyon Railroad – 60+ miles available; 40mph track, North Pole is 17 miles out from Williams, AZ. Cuyahoga Valley; 51 miles total length, three on-line cities (Cleveland, Akron, Canton) 25mph track, North Pole relocated to the 25-minute time distance depending on origin of trip.

to a decrease in interest on the underlying characters in the PBS program is difficult to judge, but the animated program offerings in 2015 are significantly different from the peak years of a decade ago.

Other licensed events offered need a destination site – the Dinosaur train, Pumpkin Patch, etc., and all focus to a certain extent on 'going' somewhere by train and getting off the train to see the program. Unlike Polar Express, they need a safe, flat, and accessible area with at least a temporary boarding platform, and are not directly linked to a time/distance schedule. Pumpkin patch trains of all manner (not just Peanuts) have proven to be nearly as much of a sellout as Polar, and are simply limited by the available season and train capacity. Other railroads we have worked with, including the six-mile Lebanon, Mason & Monroe (Lebanon OH) have had great success with PBS-character themed trains and a destination site for the event. In most of these situations, a destination site between Rt. 209 and Hurley Mt. Road would appear to be adequate, but it does need some development and planning effort. Such an event area could just as easily be West Hurley, if that could be accessed.

While the 2015 CMRR business plan envisions operations to West Hurley and Glenford Dike out of Kingston, it is perhaps more important to recognize that the proven success of CMRR is largely based on these two existing Polar and Thomas events, and that for any operator to have any significant financial interest in being in Kingston, must have at least enough operable track to allow them to operate. In addition, some kind of destination event area needs developed alongside the track, in an area large enough and safe enough to allow train unloading. Few if any areas between Hurley Mt. Road and Basin Rd. qualify for that criteria and the corridor was looked at in detail.

As a result of this analysis, a great deal of additional study time was spent examining and measuring corridor clearance and physical conditions between Hurley Mt. Road and Basin Road on our field trip. It would appear that that resolution of this zone, through any means possible, of both trail connectivity and preservation of the existing rail economic benefits of visitation would be at the heart of the entire corridor discussion and alternatives discussion.

4.2 Phoenicia/Mt. Tremper

After the catastrophic flooding of their facilities in 2011, it is frankly remarkable that the Catskill Mountain Railroad survived at all, as many similar volunteer organizations would lack the drive and stamina to rebuild in-place. Our 2014 visit through the corridor was before repairs were completed at Mt. Tremper, and was our first on-site view of the post-storm damage.

Interviews with CMRR, as well as the business plan, confirm that the Mt. Tremper/Phoenicia operation has become a fall-foliage draw, but has plateaued at the 8,000 rider range. This is essentially the same number that CMRR produced over the last decade or so. This low ridership on a short, volunteer-based operation out of major traffic flows is not particularly unusual. While it could be increased, something would need to significantly change in order to even begin to make it produce similar results to what is now happening in Kingston with the special event market.

Our interview with Rail Events disclosed that they had reviewed Mt. Tremper/Phoenicia as an alternate location for Polar Express and had deliberately chosen Kingston. CMRR did not make that final decision. The final factors were additional driving distance from Kingston, available parking, areas, proximity to services, and layout of the museum building interior for anticipated visitor volumes.

At the current time, the markets for the two sections of railroad are fairly distinct; Kingston does high-volume special events, and Mt. Tremper/Phoenicia is the scenic train ride, particularly in the fall season. They don't appear to compete with each other as neither site has what the other now has and the markets are fairly distinct. Kingston 'could' get more scenery by extending up to Glenford Dike, and Mt. Tremper 'could' develop a special events boarding site for high-volume visitors, but no short-term solution is in sight. Either approach will require both time, and investment, on the part of both the County and the operator.

Ulster County is not unique in having different sections of track essentially performing completely different market functions, the only semi-unique feature is that they don't physically now connect under active service. Similar disconnected situations have existed in West Virginia, Washington State, and Colorado. West Virginia, in particular, now has three disconnected scenic railroads under one common operator management (Cass Scenic, West Virginia Central, Durbin & Greenbrier). All three corridors are owned by the State of West Virginia.

4.3 Future Ridership Trends

One of the key issues on corridor usage by rail that has not been openly stated is that the role of excursion railroads nationally has become more and more event-based, and that nationally, the 4th quarter has clearly become peak usage and ridership time between fall foliage season, Halloween, and Christmas markets. The niche for excursion railroads and their offerings is increasingly not so much as a summer vacation destination activity in the three-month summer season, but as a fall-to-winter attraction when most outdoor attractions are either closed or unfavorable. The 'all weather' nature of train rides is a significant advantage when the usual summer competition of

everything from water parks to summer camp is closed. Furthermore, the peak demand for Polar Express is at nighttime, in November and December.

In our analysis, and recommendations, that observation is critical for Ulster County because it greatly lessens potential conflicts between rail and trail users operating in the same corridor when their relative usage peaks for use no longer directly coincide. The very highest-rail demand period is now when trail use, due to both weather and season, is typically at a low point. The trails thrive in ideal weather conditions when everyone that is capable wants to be outside to enjoy the outdoors; excursion trains in vacation areas typically see ridership jump in poor weather conditions. Summer ridership, once the bulwark of tourist trains, is now often only 25-30% of the annual total. Within New York State, the ultimate contrast in successful joint-corridor use continues to be the Adirondack Scenic Railroad, where the entire corridor from Snow Jct. (Remsen) to Lake Placid becomes a designated and exclusive snowmobile trail after October 31st of any year, and will continue despite the Lake Placid portion review.[11] Therefore, concerns about joint occupation should reflect this reality to maximize potential County benefits.

[11] https://www.facebook.com/NewYorkStateSnowmobileAssociation/posts/10152966606194772

5. Economic Impact Analysis

Evaluating highest and best use of the corridor for Ulster County residents implies that one of the key factors is reviewing the stated economic impact factors for both uses, and determining whether or not those need adjusted to achieve a fair comparison basis.

On the surface, the two methodologies appear comparable, so that X-dollars and jobs produced via rail alternatives is comparable to Y-dollars and jobs produced by trail alternatives. In-depth analysis of the data, sources, and methodologies involved disclosed that they aren't entirely that simple. Dollar-for-dollar comparisons cannot truly be used at face value.

Primary comparative input documents are the 2013 Camoin study (Catskill Mountain Rail Trail: Economic and Fiscal Impact Analysis, June 2013) and the Catskill Mountain Railroad Business Plan 2015-2020 (February 2015). Subsequent work replaced that projection with actual 2014 Catskill Mountain Railroad financial results.

5.1 Trail Impacts: Camoin Study

Key factors within the Camoin Study include the projected trail users (visitation figure), user groups, and the resulting economic impacts from those figures. Overall, the 140,000 total estimate makes a clear distinction between in-county and non-county users; for purposes of economic impact the non-county users are key (same standards apply to rail use). Non-county users are projected to be 23%. (Note that the in-county visitors rely primarily on health benefits to compensate; see that section).

Camoin was careful to develop average trail use using relative average users over seven comparable trails and excluded the Hudson Valley Rail Trail due to the Walkway over the Hudson counts which they felt were not comparable; similarly the Catskill scenic trail was not used due to issues with the counting methodology. The highest number actually used was the Burlington Waterfront Bikeway at 292,000 and the lowest number was the Uncle Sam Bikeway at 25,19, giving a potential range of possible use. Removing the Walkway counts is to be commended as we have seen that number used to over-project trail use in other projects when in reality it is a remarkable attraction nearly in a class by itself rather than a comparable trail project.

Total trail visitation was summarized by a baseline of 102,685; 19,520 extended stay, 17,500 for events for a total of 139,705. That projection is also apparently assumed for a full buildout of the entire U&D trail. Camoin did not segregate by area or zone.

Included in that total was 81,157 for the existing use estimate of the O&W Rail Trail, used as an average. That does raise an immediate question of if the creation of a new 40-mile U&D trail will lower visitor use for the O&W, when both are within Ulster

County. Today the prime rail-trail may be O&W, but that may not hold true if the U&D is built. Within the County, one new trail is competing against an existing trail with no adjusting factors shown in the analysis for projected diversion. We feel this is a legitimate estimate, but not necessarily one that recognizes net gain when the O&W trail is also within Ulster County.

Further on in the report, economic impacts per user are projected – but in this case the Walkway Over the Hudson is now included, and factored into the average non-County trail users, to arrive at the 23% total of non-county users on trails. Walkway percentages are highest at 48% non-county, which is entirely likely, but we do not feel should have been included if the Walkway usage was not included in prior analysis. The visitation estimate of 139,705 is taken at the 23% average for 31,762 'net new out of county visitors'. Recalculating the average without Walkway included would then decrease that average to 20%.

When it comes to assigning visitor spending by outside users, the only source shown is for Walkway users; 48% of which are out-of-county. The 'per person per day' totals to $64.37 per person per day. Multiplying that $64.37 by 31,762 results in the projected $2 million direct spending projected impact; adding on an indirect impact factor of .52 results in a total economic spending impact of $3.1 million

We recalculated the entire Camoin Economic Impact using our own adjustments and factors, including recalculation of usage, applying a diversion rate of 20% against existing Ulster trails to net against U&D estimates; separating day trips vs. overnight trips, and applied RIMS II factors such as spending per party rather than per visitor. Our RIMSII indirect-to-direct factor is a higher .965 rather than .52, and is used both here and for the railroad comparison that follows. Spreadsheets are included comparing the results and 'showing the work' on how the relationships apply given adjustments.

All that being said, our adjusted economic impact analysis result was only $30,000 different than the Camoin Study: $3,077,000 vs. $3,107,000 – nearly identical despite some adjustments. The only question remains if a 20% usage diversion is appropriate, as that would lower the Camoin impact number somewhat, but overall, in terms of a working comparison, the numbers are not significantly far enough apart to dispute for our highest and best use analysis purposes for this report, and to make appropriate recommendations.

5.2 Rail Impacts: Catskill Mountain Railroad

Stone initially did an economic impact analysis based on the 2015-2020 business plan, using estimated 2015 budget numbers. This included several major line items of capital spending and payroll that by December 2015, have not been expended. As a

result of that, we did a revision of the economic impact based upon 2014 Actual as reported by Catskill Mountain, including both east and west end. Finally, a third revision was done removing Rail Events licensing fees from the direct rail spending as those were determined to not be a county-beneficial expenditure. While there may be an ongoing debate about the comparison of the trail projections vs. rail prior-year actual as a deciding factor in highest and best use, it is important for us to clearly state what was used for the following analysis.

Calculating railroad economic impact in broad terms is the spending by the railroad itself (unlike a trail, the railroad is an active business that spends the great majority of the ticket revenue it receives from operation) as well as the visitor impacts. This is equally true of the trail, but without ticket prices and a management team, it is far more difficult to determine operational spending. Even maintenance spending, at this point, is assumed to be fully done by volunteers.

One of the bigger differences in approach is that Camoin uses a single per-person impact (overnight and non-overnight) for out-of-county visitors, and ours is segregated by day trips vs. overnight trips, and a per-party factor based on 3.1 persons per party. Despite those differences, recalculating Camoin with our factors (splitting out an estimate of day vs. overnight and applying party size) the end results are generally comparable.

Ticket-based attractions such as CMRR have relatively solid revenue and rider counts as unlike a trail, they charge for admission. Additional data is provided by the fact that Rail Events and HIT! have a designated ticket services provider (third party), and nearly all event reservations have to be made by credit card. This detail provides a great deal more statistical and demographic data, at least on those special event riders that reserve tickets. As the special events have often been in sellout conditions, the percentage of cash walkups other than conventional shuttle and Mt. Tremper trains is relatively low. Out-of-County data is relatively proven, in comparison to trail estimates.

Overnights are more problematic and should be better established with intercept survey data – the only reason this was not done for our study was the short timeframe given for recommendations. The overnight stay estimate for this projection is 6.6% of total riders, which is significantly lower than our historical data intercept survey results of other railroads, but has also been repeatedly questioned as to validity within actual Kingston/Ulster related experience. Overnight vs. day-trip estimates are based on an estimate of the percentage of distant zip codes reported by CMRR. Our historical experience from other excursion railroads that are heavily loaded with Polar Express ridership, which as a late-afternoon to nighttime event with children, is that it contributes to generally higher overnight stays after the event than a normal daytime program.

The overnight stay percentage issue is so critical that it can greatly sway the end results for an economic analysis. Our lowest-ever recorded percentage of overnight stays of 16% was recorded from a 500+ sample-size intercept survey performed on the Lebanon, Mason & Monroe Railroad in 2014 by Stone Consulting and Wright State University interns. LM&M confined their child-based special event marketing to Cincinnati and Dayton, OH markets – both under 30 miles away from the railroad in adjoining counties. If that same 16% overnight factor was applied to this CMRR population, the resulting impact on the economic impact analysis would take it to $3.4 million of impact and 117 jobs. We continue to recommend intercept surveys to support and resolve this issue.

Our conclusion, using 2014 reported actual numbers, is that the previously stated CMRR economic impact has been at least partially understated, due to a mix of indirect multipliers applied between the Camoin study and the Adirondack study, although previous estimates on direct impacts are relatively consistent. Overnight stay percentages can vary the result significantly.

5.3 Comparisons

Our results were that the 2014 railroad impacts of 2.66 million are comparable with the Camoin impacts of $3.1 million, and our adjusted Camoin of $3.1 million.

Two points remain that will likely fuel ongoing debate and have a bearing on our recommendations.

The first key point is that the Camoin study was working under the assumption that the full 38-mile corridor was the effective attraction, rather than subsets of individual geographic focus areas. Due to the extremely high comparative reconstruction cost of the trail corridor at least west of Phoenicia, the timeline for funding and completion of a trail in that section is speculative at best, while it is very close to shovel-ready in the Ashokan Reservoir portion. The buildout timeline should be considered.

We do feel that the Ashokan Reservoir has strong visitor attraction and trail potential, but what portion of the 140,000 visitors can draw is still not estimated. Our impression is that it is by far the highest of the segments, but how much is not entirely clear. We would recommend that Camoin be contacted and asked that question to assist in decision making. Our impression and informal conclusion is that the economic impacts are heavily concentrated on the Ashokan Reservoir as a destination trail location in conjunction with the Walkway, pairing the two together has value even if not directly connected on an immediate buildout basis.

The second key point is that while the railroad impacts can be looked at with historical data as the basic input rather than forecasts, they are also very, very concentrated in

particular areas of existing operations. Isolating the existing ridership vs. benefits clearly highlights the Kingston end of the railroad – the first four miles, as the source of the great majority of the current economic impact. It is not evenly distributed by operating distance; the impacts are more like 5:1 or 6:1 from east-end to west-end. Even if additional ridership in the business plan is added, or even if the primary event location may be relocated, the tendency of the railroad will always be to heavily concentrate impact over a relatively short distance based on where Polar Express, or a like event, is held. The railroad economic impacts are very much not linear to track distance.

Therefore, the economic impacts should not be regarded as competitive, but complimentary in nature to each other, as the best parts of each alternative are not necessarily in direct conflict, and where they are, the greatest attention needs to be paid. That is also why a single recommendation for highest and best use over the entire corridor distance is not appropriate.

IMPACT OF CATSKILL MOUNTAIN RAILROAD OPERATION

ON TOTAL REGIONAL BUSINESS

OUTPUT – CAPITAL BUDGET – 2014-2015 FISCAL

Category of Expenditure	Direct Expenditures	Output Multiplier a/	Impact on Total Output b/
EXPENDITURES			
Equipment – Repair, Maintenance	$50,000	1.9160	$95,800
Maintenance – General	$10,000	1.9160	$19,160
TOTAL	**$60,000**		**$114,960**

a/ Each entry represents the total dollar change in output from all industries for each dollar of output delivered to final demand.

IMPACT OF CATSKILL MOUNTAIN RAILROAD RAIL OPERATION ON TOTAL REGIONAL BUSINESS

OUTPUT – OPERATING BUDGET – 2014-2015 FISCAL

(Rail licensing fees removed)

Category of Expenditure	Direct Expenditures	Output Multiplier a/	Impact on Total Output b/
EXPENDITURES			
Fuel	$10,000	1.4544	$14,544
Admin Expenses	$3,000	1.9799	$5,940
Bridge Inspections	$5,000	1.9799	$9,900
Repairs (Day-to-Day)	$10,000	1.9160	$19,160
Lease Payments	$5,000	1.9119	$95,595
Insurance	$20,000	2.5330	$50,660
Advertising/Promo	$10,000	1.9799	$19,799
Special Events – Production Expenses	$171,721	1.9650	$337,432
Utilities	$3,054	1.4212	$4,340
County Rent – 5%	$37,596	1	$47,853
Property Tax	$3,000	1	$3,054
TOTAL	**$278,371**		**$608,277**

a/ Each entry represents the total dollar change in output from all industries for each dollar of output

delivered to final demand.

NON-RAIL ACTIVITIES

In developing the accurate picture possible of the non-rail economic impact on Ulster County and the communities through which the CMRR runs we separated riders into three distinct categories – local (or trail proximity), day trippers and overnighters. Each has a quite distinct spending pattern.

We have used the most recent ridership figures to determine estimated consumer spending levels by category. In addition, we are using the current standard "family unit" representing 3.1 individuals (two adults and 1.1 children).

Estimated non-rail related tourism expenditures by visitors:

Local Users

We place no dollar value against locals since it is probable that those funds would be spent in pursuit of some other activity within the immediate area. Ticket expenditures for all three category riders show up elsewhere.

Day Trippers

Day Trip riders – 26,936.

Family units of 3.1 individuals – 8,689. ($82.50 per party/day)	$716,843

Overnight

Overnight riders – 2,664. Family Units -- 860 room nights.

Family Units – 860	($313 per party/day	$269,180

Note: This equates to 6.6% of the annual 2014 ridership

Total Estimated Economic Impact – Visitors

$986,023	x	1.9650 multiplier	**$1,937,535**

Total Economic Impact – Summary (Table)

TOTAL ECONOMIC IMPACT –

	$ IMPACT ON TOTAL OUTPUT	**INCREMENTAL JOB CREATION [a, b]**
OPERATING BUDGET	$608,277	
CAPITAL BUDGET	$114,960	
TOTAL ECONOMIC IMPACT – RAILROAD OPERATION	**$723,237$**	**25.0**
TOTAL ECONOMIC IMPACT – NON-RAILROAD OPERATION	**$1,937,535**	**66.8**
TOTALS	**$2,660,772**	**91.8**

a/ Equivalent full-year jobs. Estimated at 34.5 per $ million.

b/ Projection of jobs supported is based on the RIMS II models for the State of New York. The actual number of jobs supported may be higher, but the numbers shown here are equivalent of full-time employment. Job creation for the railroad operation does not necessarily mean employment with the railroad, but rather employment with those firms servicing and selling goods and services to the railroad operation.

Regional Input-Output Modeling System (RIMS II)

6. Health Impact Analysis

One of the stated goals of this Highest and Best Use analysis was to factor in the concept that developing new trails for County residents would likely create new walking and exercise opportunities that do not now currently exist. Encouraging residents to get outside and use trails as a recreational opportunity, and part of the regular routine, would not only have the intrinsic benefits, but given some methodology and experience factors, can be monetized in much the same way as Economic Impacts. The concept is readily acceptable as a generalization, but converting it to a result requires explanation.

This is important because much in the same way that Economic Impacts favor out-of-area users (because of the visitor spending), the health impacts directly favor local residents rather than visitors. Keeping local residents healthy by providing more opportunities should, in theory, reduce disease and mortality rates within a population. Decreasing mortality rates, and in particular, incidence of chronic disease can have palpable local economic benefits, particularly when the costs of healthcare are borne through the public sector.

The science and evolution of standard procedure on this approach has rapidly matured to the point that, much like economic impacts, certain key items like multipliers and standard values (in this case, human life value vs. a standard Job value) can be described and applied. Combining these values with demographic data, use data, and duration of exercise data can produce results that can, for comparative purposes, place a dollar value on the value of additional exercise.

Increasingly, this kind of analysis is used to reflect public policy in decision making, in everything from development of new public transit access to establishing public health standards (i.e. the dollar value of establishing nonsmoking policies in government buildings).

We have attempted to help develop estimates that are not just stated as a total conclusion over the entire corridor, but sufficiently explained to allow comparison and analysis for individual segment decisions in the future. For instance, analysis of the 2-mile round-trip neighborhood trail within Kingston and an eight-mile walk at the Reservoir, are of different health value. But developing use/health dollar constants can assist the County with balancing individual segment needs and evaluation criteria.

Stone was assisted by Harvard University's Jonathan Buonocore, one of the prime authors of the 2014 Massachusetts Bay Transportation Authority Health Impact Analysis of proposed transit service cutbacks and the resulting health impacts[12].

[12] A Health Impact Assessment of Proposed Public Transportation Service Cuts and Fare Increases in Boston, Massachusetts (U.S.A.) http://www.mdpi.com/1660-4601/11/8/8010

Statistical, population, valuation, and mortality data was used with the HEAT tool published by the World Health Organization[13].

6.1 Constants Used for Health Impacts Analysis

Population of Kingston, 2014 **23,557** (as adjusted to 2014)
http://www.census.gov/popest/data/cities/totals/2014/files/SUB-EST2014_36.csv

Population of Ulster County, 2014 **180,445**

http://quickfacts.census.gov/qfd/states/36/36111.html

Ulster County Background Mortality Rate (20-74 year olds, per 100,000) **507.32**

http://wonder.cdc.gov/

Value of statistical life (2015USD) **$7,850,000** (National Center for Environmental Economics)
http://yosemite.epa.gov/EE%5Cepa%5Ceed.nsf/webpages/MortalityRiskValuation.html

Discount rate for future health gains: **5%**

Raw usage data for per-mile usage calculation model

Additional trail visits – county basis (Net trail usage gain) (Camoin)

58,845 annual visits all users

Percentage of local trail users in County (average) 75%

Trail Distance in Miles	Resulting Health Benefits (total $ per yea County Users Only	Health Benefits per trip County Users Only	Health Benefits per trip-mile ($ / trip-mile) County Users Only
2	$ 384,750.00	$ 6.57	$ 3.29
4	$ 769,500.00	$ 13.14	$ 3.29
8	$ 1,539,000.00	$ 26.29	$ 3.29

6.2 Conclusion

With this table, and the base per/user/trip/mile calculation of $3.29, any number of additional trail use scenarios revolving around visits per year and trip distance can be calculated for comparison. This is not based on a total County scenario, but is a tool to be used to evaluate individual options and segments.

For instance, a distinct neighborhood population of 10,000 within Kingston with an annual usage of one trip/yr (10,000 trips, one trip per person/year) on a two-mile round trip average over the distance from Cornell St. to Kingston Plaza would equate to a

[13] Development of the Health Economic Assessment Tools for walking and cycling:
http://www.euro.who.int/__data/assets/pdf_file/0005/248900/Development-of-the-health-economic-assessment-tools-HEAT-for-walking-and-cycling.pdf?ua=1

comparative annual health benefit of $32,858. Multiple trips, and larger population sizes, can be estimated to perform easy calculations.

7. Segment by Segment Corridor Analysis

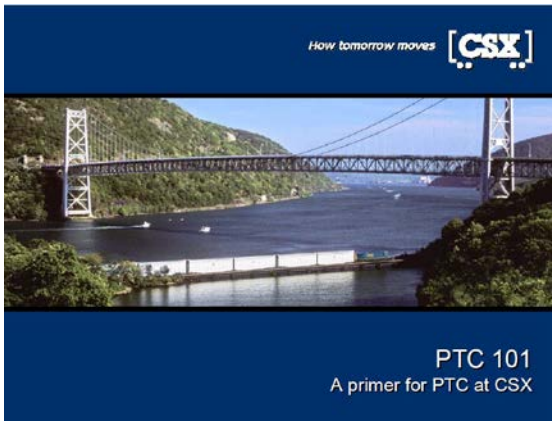
7.1 Kingston

Within Kingston itself, the corridor is effectively severed from the very start with the rest of the national rail network. This creates a comparatively unusual situation, as the lack of this rail-to-rail connection presents a specific set of issues for the current CMRR, and more importantly, any other operator that would be interested in operating the corridor as a railroad.

Keeping the track 'connected' to CSX at Kingston is part of the submitted CMRR business plan, and conceptually justifies the retention of the track in place and operable between Kingston Plaza and the CSX main line. Determining the issues around the retention of this track is not just crucial for CMRR, but directly impacts trail feasibility, potential industrial development, and legal 'railroad' status as part of the general system. Pursuing rail-with-trail alternatives also involves careful examination of the need, and cost, to retain the connecting track for any reason.

7.1.1 CSX to Kingston Plaza

Without personal, on-site examination, it is difficult to even realize that the rails are still in place across the DEP and Post Office parking lots within Kingston. While a 'cut' was left in the vehicle guard rails adjacent to CSX, it is insufficient to actually allow clearance of rail equipment through the opening if the switch was replaced.



CSX presentation with the Hudson Bear Mt. Bridge

Removal of the CSX track switch for the lack of maintenance payment to Conrail was in retrospect, an expensive and critical decision by all parties. Since the inception of Positive Train Control (PTC), main line railroads have now been much more reluctant to place any new turnouts in main line trackage, as the cost of the turnout is now only part of the problem – PTC signal systems must now be modified to account for any potential main line switch ever left open. Detection systems and monitoring software must be updated any time that track modifications are made. This has raised the price of installed main line switches in PTC territory to the $300,000 and up range. Essential to the cost estimation problem is that the track and signal installation is done by CSX forces on CSX property, essentially assigning the 'cost' to them at their

discretion. Putting in a switch is not a negotiable, or competitively biddable, exercise when working with CSX.

CFR 49 236.410 covers the new Federal requirements for signal interlocks using hand-thrown switches on main tracks.[14] Our on-site inspection confirmed that this replaced track switch would now be outside Kingston yard limits, under the control of a remote dispatcher. The nearest switch to the south (remnants of the Walkill Valley Railroad at Broadway) is already wired into the signaling system although it is a hand-thrown switch, proving the existence of dispatcher and pending PTC monitoring.



Signal interlock cable on manual switch at Broadway on CSX main line

CMRR has suggested that it may be possible to have a switch installed that is essentially 'locked down' except for special moves. This would be a rather common-sense approach but at the current time, no such installations appear to have actually been done on CSX or any other identified Class-1 carrier to lower PTC costs. In absence of any written communication with CSX indicating this is actually allowable for this location, we have no current evidence to indicate that this is possible. The impact of this single issue could be well over $200,000 and may need further study.

The CMRR business plan earmarks this connection for two purposes: 1 - the ability to run 'charter trains' over CSX, and 2 - the ability to receive interchange equipment on its own wheels on an as-needed basis. They do not reference the switch for the one key benefit – freight traffic development – and no indication of any potential freight traffic is made within the business plan. Potential freight traffic is separately covered at the end of this report and at this time, is a complete unknown that could dramatically impact the conclusions of this report based on an alternative operator proposal submission.

CMRR's business plan includes proposed access to CSX for 'charter trains'. It is unclear what their definition of 'charter trains' is. CSX has not allowed third-party (effectively everyone but Amtrak-designated special train authority) operating over its trackage without liability insurance coverage at or above $200 million. The price of that insurance has effectively shut down any third-party excursion operations operating over CSX-owned track on a nationwide basis. It is far more feasible to own Amtrak-compliant equipment and operate over CSXT under Amtrak operating and insurance authority; this essentially puts CMRR in the railroad car leasing business rather than

[14] http://www.gpo.gov/fdsys/pkg/CFR-2010-title49-vol4/pdf/CFR-2010-title49-vol4-sec236-410.pdf

'charter', and has shown to be a sustainable business model for car ownership for excursion operators. Kingston, however, is not directly on the Amtrak system, or near an Amtrak terminal, so passenger equipment handling is still done by CSXT as a special freight move to the nearest Amtrak terminal (Albany) at premium rates. Numerous National Railway Historical Society chapters do own Amtrak-compliant passenger cars as fundraising vehicles, and do lease them out for extended periods. The other potential is to bring in specialty or additional passenger cars for special events on a short-term rental basis, and this is a very viable approach done on other operations during Polar Express events to have more and better cars on site during the eight-week market window. These typically consist of one move of passenger cars in and one move of cars out on an annual basis. So, while there some validity in the concept, it is not truly 'charter' in nature, and of very low frequency use. Conflicts are lessened due to low usage, but the cost-benefit ratio is subject to further analysis based on intent.

For historic/museum equipment interchange, CSX has taken a similarly difficult position on the movement of 'non-compliant' equipment over its lines, including vintage locomotives and cars. The definition of 'non-compliant' was extended during 2012 to include locomotives and cars with non-rotating end cap roller bearings on their wheels, and older locomotives without alignment-control couplers (that center the couplers to lessen possibility of derailment when shoving). This unprecedented decision even stranded CSX-owned locomotives and connecting shortline partners over their entire system. This was subsequently eased to be enforced on a 'case by case' basis, but still hangs over any potential vintage equipment move as an unknown issue for both cost and time. Outbound movements of vintage cars via CSX can still be cleared by a CSX equipment inspector with some degree of predictability, but inbound equipment not originating on CSX is still subject to embargo at any non-CSX interchange point without prior notice, effectively stranding the equipment at a distant location and needing extensive modification before it can be moved again on its own wheels.

The overall impact of all these internal CSX policies (*not* from federal regulation) is that vintage equipment movement of all but Amtrak-compliant cars has become both rather unpredictable and expensive. Tourist and museum railroads increasingly resort to movement of vintage equipment over the highway (which is how Iowa Pacific removed the vintage passenger cars from Rt. 209 crossing area to the Midwest) or by putting the equipment on a standard railroad flatcar and moving it via that method. Flatcar equipment movement is far less expensive on a mileage/tariff basis, but has significant additional costs for crane time and rigging. Despite those additional crane costs, it is both predictable for cost and time and has become a preferred method for moving older equipment that is obviously non-compliant for wheels, bearings, and coupler issues. It would not necessarily require an active track connection in Kingston.

7.1.2 Cornell St. Yard

CMRR's current 'yard and shop' location at Cornell St. is cramped and limited for both equipment storage and maintenance uses. It is at best a compromise location based out of necessity and complete lack of any available current alternatives. CMRR's Kingston area business plan prefers a new location elsewhere on the corridor if possible, either on the west side of the I-587/28 overpass, or even out at Hurley Mt. Road, that will provide them a better maintenance location and also be clear of potential trail conflicts. It is important to note that this Cornell-Plaza trackage segment is not used for actual excursion operations and is not really practical to do so for any other potential operator.

That being said, until this new maintenance location is decided, any excursion rail operations out of Kingston are squarely in the path of trail alternatives at Cornell St. The excursion operation must have some base of operations, even if relatively Spartan in nature. Erection of a pre-engineered steel storage building is a rather standard solution elsewhere, the only non-standard feature unique to a railroad is the required addition of an in-track lowered pit for FRA-mandated locomotive safety inspections. It should be cautioned, however, that few railroad excursions or museums that are in the business of equipment storage and restoration manage to keep a site that is not labeled by some in the community as an effective "junkyard". A railroad museum repair shop, and equipment and parts collection, is by definition, industrial in nature, and will cause less community conflict if well-removed from commercial and residential neighbors.

Other than using the connection for occasional excursion equipment interchange or county-beneficial freight service, resolving this shop location issue essentially defines the Cornell St. to I-587 corridor for trail use as the highest and best use concept.

7.1.3 Trail Usage Within Kingston

The primary uses for this first segment of the corridor is for trail connectivity to provide the best, and most seamless, connections across Kingston from east to west with minimal diverging onto side streets, residential, and commercial property to achieve it. The other goal is to provide recreation and pedestrian access for a local neighborhood. Both goals are well-researched and defined in numerous reports examined by Stone Consulting.

Seamlessly connecting rail-trails through Kingston is faced with very limited if nonexistent opportunities for dedicated corridor development across the City from east to west. Trails, pathways, and greenways proposals east of the CSX main line track in Kingston share a similar problem with the existence of the CSX main line. The original Ulster and Delaware railroad crossed the north-south railroad line on a level diamond crossing that was removed in the late 1960's. The trail alternative across Kingston east

of the CSX track is comprised of designated public streets. The railroad corridor has been thoroughly repurposed and built-over east of CSX.

West of the CSX tracks from Rondout, this is truly the only viable east-west corridor available for consideration. However, connectivity issues to the east aside, specific neighborhood needs exist that do not necessarily require seamless corridor connectivity.

Discussions with Kingston's Greenline Proposal (Tim Weidemann) outlined the clear focus of this corridor section on local neighborhoods and connectivity issues. The northwest portion of Kingston (bordered by Broadway, Albany, Manor, and the CSX tracks) has parks only on its outlying boundaries. This neighborhood also lacks self-contained shopping and the closest one appears to be the Kingston Plaza. Unlike the south, west and east districts of Kingston, no existing or proposed trail or greenway corridors now exist for development for greenspace or connectivity to it.

These issues raise the strategic importance of the development of the Cornell St. rail corridor for trail use – particularly to the community – as a new pedestrian corridor connecting the neighborhood to the Kingston Plaza not just for recreation, but for daily walking transportation for shopping. It is considered to be on the 'most wanted' list in terms of trail issues not just within Kingston, but at the County level. This encompasses all goals of trail development – recreation, commercial activity, and health benefits in particular. While it is a short distance, the estimated neighborhood population of 10,000 making just one trail trip per year would have health benefits of $32,858

Because of this issue – neighborhood greenway and accessibility over essentially a mile of corridor between Cornell and Kingston Plaza – trail usage is a local community priority. The only remaining issue then becomes if any *joint* rail with trail activity is actually feasible within this 3000' distance between Cornell St. and the Plaza. After the Rt. 587 overpass, the available space for both rail and trail occupation significantly increases with fewer direct conflicts.

7.1.4 Rail with Trail Alternatives – Kingston



CMRR's alternatives as presented in concept documents essentially consists of a narrower walking trail on one side of the track or the other that rose to street level and back down to track level at the two constricted overpasses at Elmendorf and Albany Streets. We do not consider that as a viable alternative to a conventional multipurpose or recreational trail

design, and would effectively prevent anything but limited pedestrian access. It would neither be accessible nor allow bicycle traffic. Work done to accomplish such an 'up and over' trail to street level would be wasted construction effort if the rail presence were ever to vacate in the future.

Although the right-of-way is as narrow as 50' in some locations (according to the Valuation maps), one factor that has been overlooked is that the current track and ballast condition is still very poor. If the corridor is to be maintained for rail use (and particularly for any freight), it essentially must be reconstructed, as general tie and drainage condition needs significant additional work. If it is reconstructed as it should be, it could also be relocated to one side of the right-of-way, creating much more space for a full-width pedestrian trail than if a narrower trail were squeezed to one side or the other. That approach could, in theory, resolve most of the conflicts *except* at the two street underpasses.

That leaves potentially two seemingly unsolvable constraints at the two narrow underpasses at Albany and Elmendorf – a total of 110 lineal feet out of 3000'. CMRR has proposed for 'crossovers' at various locations throughout the entire corridor, a solution of paved angular crossings with rubber flangeway inserts to eliminate both the tripping hazard of an open flangeway and reduce the hazards presented to bicycles in such situations. This solution is actually well-suited to this slow-speed occasional (and likely seasonal) use of the rail corridor in specific locations. While it may seem unconventional, given such short distances, the rail operator's policy of hand-flagging vehicle crossings could simply be extended to these two short overpasses. Short and slow train operations can simply proceed through these areas at a walking pace. This is not the CSX main line. Alternatives such as overpass reconstruction are an expensive and unnecessary approach to what can be resolved by operating practice.

Concern has been raised, and justifiably, over two specific issues with this concept. First, the design of such crossings presents an oblique angle of any bicycle or wheeled vehicle with the rail rather than a direct crossing angle – presenting a slip hazard on the railhead. Second, the funding agency potentially involved for this trail segment (NYDOT) may not consider this acceptable due to their own design reviews that do not differentiate in any way between a 'main line' crossing and this low-speed, low-use situation.

First, the oblique rail crossing angle issue is primarily impacted by one key design factor – the vertical distance of the railhead surface in relationship to the crossing surface in design specification. Different-criteria transit and heavy rail crossing designs either place the railhead as high as half an inch higher than the crossing surface or place the same railhead flush with the surface to lessen accident potential in mixed-use pavement types. Combined with flangeway insert, this lower rail head to surface standard could

significantly mitigate risk. Finally, unlike the CSX main line, the U&D corridor simply would see insufficient traffic to burnish steel rails to the high side-to-side slick metal polish typically seen that presents a legitimate slip risk.

7.1.5 NYDOT funding vs. Trail Design Standards

The NYDOT funding vs. design standards issue is a critical one that governs whether or not Federal funding enhancement grants can be used for this project, and what standards apply in design. Responsibility was traced to the NYDOT office out of the Poughkeepsie regional office and consulted with both Martin Evans and designer Lance Gurney[15] regarding specific design criteria as it relates to this funding source.

AASHTO design criteria for specific trail cross-sections or width, separation and barriers to adjacent rail are used as guidelines. These definitions matter, as a "recreational trail" and a "multiuse trail" are not the same thing. Ulster County strongly desires the construction of a full width (10-12' surface) multiuse and accessible trail over the entire corridor. CMRR's "Rail with Trail" proposal outlined a "recreational walking trail" between Cornell St. and Glenford Dike beside the existing track – nominally a 4' trail width. These are two very different concepts in finished product. The funding application for this project is for a multiuse trail. Design criteria in that case, according to NYDOT, is reviewed by Federal Highways. Exceptions to full-width 10-12' design specs do exist in two situations – wetlands and rock cuts, both of which this project has in abundance. Gurney noted that a similar project in Duchess County was not approved by FwHA due to a design that went to 6-foot width to get through a wetland. This confirms that given this funding source, restrictions exist, but there is at least some latitude that can be explored.

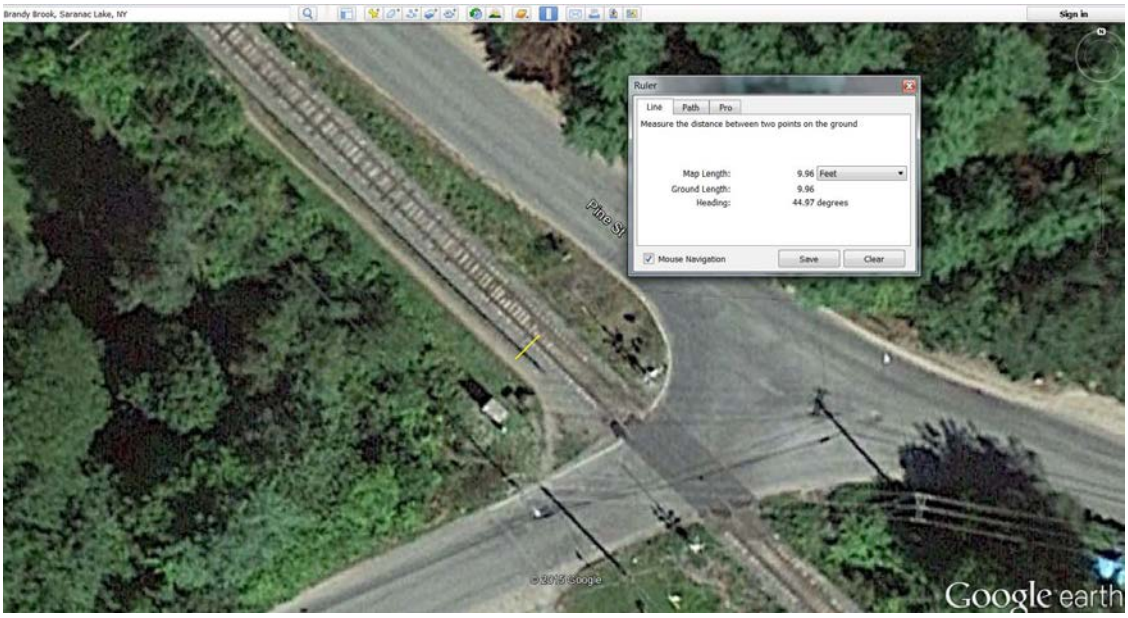
The Rails to Trails Conservancy has been actively promoting trails for decades, and has also made several landmark studies of rail-with-trail corridors nationwide. Overall, these corridors widely vary, and follow no particular standard except that they have worked, and worked relatively well, to provide trail benefits while preserving the rail corridor. There are two significant distinctions to be made – one being that many corridors are beside high-speed, high-volume commercial freight lines, and others are beside low-speed, low-density rail corridors, some of which are only operated seasonally. Many have the luxury of being placed on former double-track lines with one remaining track, where there are actually relatively few conflicts with horizontal space on the existing roadbed. Others have single-track corridors with relatively easy geography, where a parallel trail may be at ground level, stay within the right-of-way, and not necessarily present significant construction barriers. Most corridors are

[15] Lance Gurney (845) 431-5811 contacted 11/30/15

publicly owned, with the railroad being a tenant operator rather than landowner. A wide variety of rail-with-trail projects have actually been constructed.

Ulster County's conflict situation is very location specific – in some areas, a rail with trail location appears tantalizingly possible, and in some it appears nearly impossible. Design compromises necessary for even a limited amount of co-location will likely conflict with funding source design standards than physical design constraints.

While active rail-with-trail corridors exist nationwide, the only confirmed active rail-with-trail occupation today within New York State is ½ of a mile at Saranac Lake NY, which is an unpaved recreational path beside the Adirondack Scenic Railroad[16], operated as a seasonal operation at 30mph track speed (FRA Class 2). "The Adirondack North Country Association (ANCA) proposed the rails-with-trails pathway project in 2001. In 2002 the NYS Department of Transportation (DOT) awarded $796,575 to the Town of North Elba as a portion of the cost for building a pathway beside the railroad tracks between Old Military Road in Lake Placid and the Scarface trail in Ray Brook. This project appears to have been stalled in the design stage due to the same conflicts Ulster is facing, but half a mile was actually constructed by the Town of North Elba next to the track as a walking trail, and locally financed. In this case, the simple and inexpensive solution was to simply locally fund the portion of the trail in conflict. The parallel trail was built, but recent developments are likely to remove the rail from Saranac Lake to Lake Placid to allow construction on the original roadbed.



Saranac Lake, NY Brandy Brook Trail end (Adirondack Scenic Railroad) 10' trail-to-rail centerline with 4' barrier fence and 4' walking trail surface (Google Earth image and measurement).

[16] http://www.traillink.com/trail/saranac-lake-recreational-path.aspx

7.1.6 Kingston Recommendations

Preservation of this corridor connection between I-587 and CSX strictly for occasional passenger car or equipment movements, while feasible, is a potential business advantage, but not a strategic operational necessity, of an excursion railroad in Kingston. The connection, therefore, is not definitively critical, unless that is an incidental benefit of preserving the corridor for potential transload freight services further west. It would benefit seasonal operations of Polar Express events if it was used to bring in additional equipment for more capacity and additional economic impact, but that capacity can also be increased by other approaches (and is being addressed for the 2015 season).

The other key issue within retention of any rail access on this corridor segment would be the recognition that rail usage, even in a revived freight scenario, would be no more than one move each way each business day, at low speed (10mph or under), and with short train lengths. "Freight" movements would be just as short, and as slow, as passenger trains are today, and capable of stopping and flagging through the underpasses just as they do at some road crossings. In that scenario, safety and corridor occupation must be realistically balanced with safety mitigation, along with corridor usage for trails. Rail operations could be structured to minimize trail conflicts rather than to exacerbate them.

Potential for both flexibility and mitigation still exist, including adjusted design criteria to lessen rail crossing hazards. Funding considerations via NYDOT in regard to separation and barriers exist, but were not absolute, for rail-with-trails occupancy on one prior state-funded program. Within the only precedent existing within the state, neither funding source nor design criteria apparently precluded practical design mitigation practices that were location-specific. They were locally funded.

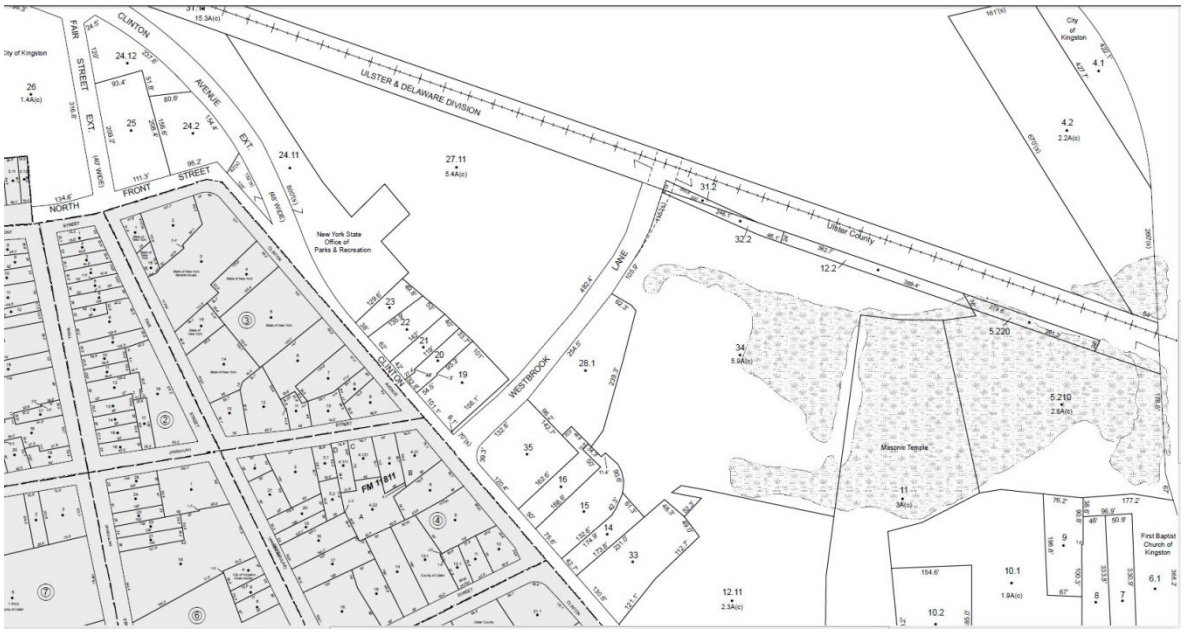
Even without extensive balancing and monetizing of economic vs. health benefits based on additional usage estimates, the comparative community advantage for accessibility is clearly to the trail alternative for this segment unless some new factors exist that may emerge during operator review and lease renewal, or by a freight proposal that actually produces a county-based benefit. The additional commercial advantages through retention of this corridor strictly for equipment interchange do not necessarily translate to specific community benefits or local economic impacts, and they are also not assured given the internal barriers created by CSX that they can be used except for freight. The primary reason for retention for this trackage and any kind of rail plus trail joint occupation remains to display community – not just commercial – benefits.

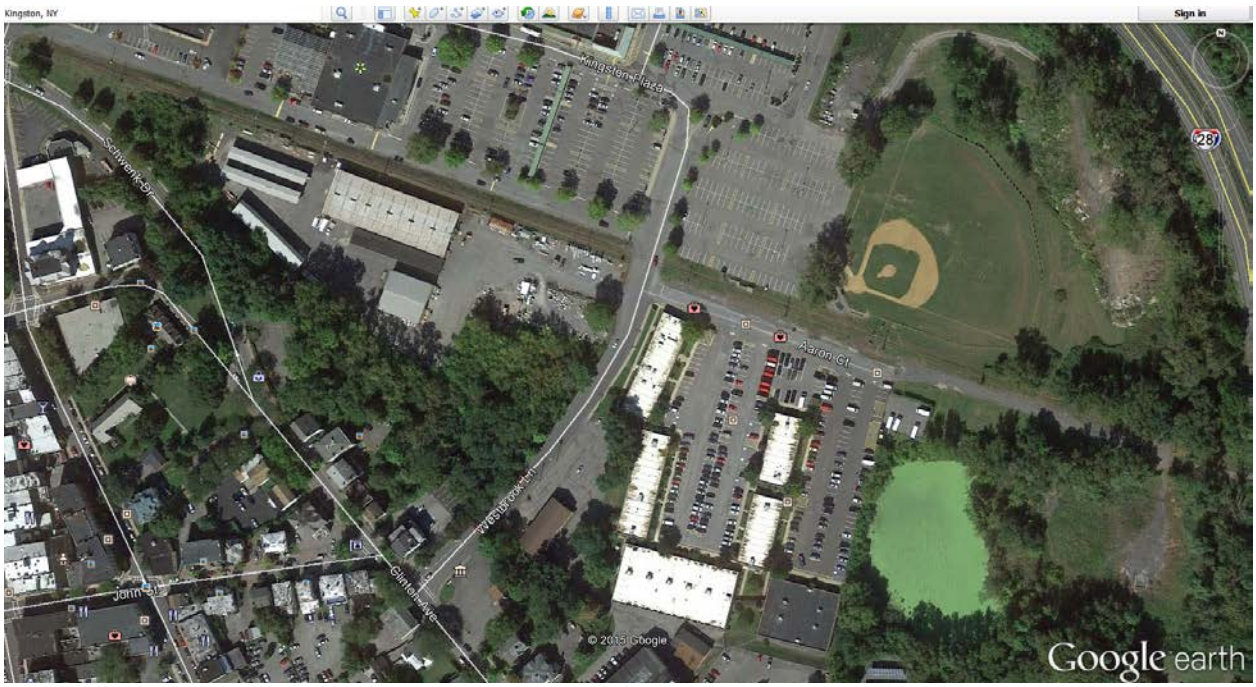
7.2 Kingston Plaza Zone (I-587 bridge to I-87 bridge)

The history of the railroad in this location disclosed an interesting fact in that the remaining track is no longer in the centerline of the right-of-way. The track is already located to the far north edge of the right-of-way, and despite encroachments, leaves some additional distance to the south. Within the right-of-way, there appear to have been significant property encroachments over the years that aren't clearly visible except by detailed research.

Historically, there were as many as four parallel tracks at MP4 (Fair St.), heading east and around the curve, where the I-587 bridge ends. This 'railroad yard' area shift can still be seen from aerial views extends from west of Fair St. back to Westbrook. At Washington St., the track is again back in the centerline of the right-of-way. Aerial views confirm that the track swings from one side to the center, and the one remaining track switch behind the Ulster Savings Bank was the connection that was historically made to the NYO&W railroad yard within Kingston.

As this area was a railroad yard, it is relatively flat and presents almost no barriers to full-width trail placement on the same embankment. Alternative placement on parallel streets, roads or Kingston Plaza zone is not desirable, but physically possible. The most significant potential encroachment in the zone is between the track and the lumberyard, which is located on the site of the former NYO&W passenger depot (wedge-shaped parcel). The tax maps still show a relatively consistent parcel boundary with the 1917 valuation maps, but the aerial view does not clearly coincide with either. The shift of the track to the north side of the right-of-way at this location, vs. the typical centerline location elsewhere, may have led to this potential issue.





Property issues aside, this is a zone where adequate room exists, or alternatives exist, to allow trail passage while leaving the track relatively in place.

Proposals to relocate the CMRR repair shop site to this location, immediately confront the County parcel map that indicate presence of wetlands on the site. The parcel furthest to the east (east of the green, algae-covered pond) is still indicated to be wetlands. The parcel is shown as vacant commercial lot of 2.8 acres in size. If the County or City wishes to proceed with this site, wetland delineation and mitigation is likely. If this site was used as the repair shop rather than Cornell St., much of the previously-discussed issues with the trail are solved, other than periodic equipment moves and/or freight activity.



CMRR's existing "Westbrook Station" is located at the south edge of the parking lot, on the north side of the track, nearest the ballfield. It consists of an open, treated lumber ramp next to a semi-portable ticket booth. Portable restrooms are on site. CMRR indicated that the adjacent ballfield is used for "Day out with Thomas" event site activity.

As "stations" go, this is as minimalist as it can possibly be. Our experience is that neither HIT! nor Rail Events license a site with only portable toilets on site, purely due to customer complaints. The proximity of the Plaza

creates the only possible solution, and undoubtedly contributes to additional Plaza traffic during railroad events.

CMRR's business plan has suggested a 'real' depot building be constructed on this site for the railroad. We would suggest that it be taken one step further, and be developed as a true multi-modal site with restrooms for both trail and rail uses. Multi-modal trailhead/rail depot examples exist, but our own favorite example is the historic Hanover Jct. depot on the Northern Central (York County Rail Trail) which was restored primarily for trail restrooms, but also serves as a destination station for the parallel excursion railroad. The dual nature of the structure (which also features a small museum) is an excellent example of multimodal ideals.



For Kingston, the proximity of this potential site to an active commercial district will assist in security, and could even become a visitor center location or administrative office with on-site security presence by the excursion railroad. Such joint-use multi-modal facilities, particularly those that benefit trails, are frequent funding favorites in most states.

Just west of Washington Avenue, the original New York, Ontario and Western right-of-way comes into Kingston from the southeast. While it is brush-grown and abandoned, the alignment begins to swing almost due west and gently curves southwest under I-87, and connects with the existing Hurley Rail Trail, staying on the south side of Esopus Creek. It is apparently already an informal walking trail and even is indicated on Google Earth.

The amazing retention of the I-87 overpass bridge over the O&W solves a major accessibility problem for this trail concept, considering that the Thruway was built in 1956 and the O&W railroad was abandoned in 1957. Without that underpass, the entire trail connectivity concept would likely be infeasible. With the underpass, this presents Kingston with the immediate ability to connect Kingston to the O&W trail, and is possibly the easiest recommendation we could ever see for a trail project. The connectivity to the existing O&W trail sections is sufficiently superior that even if the U&D corridor were used as the northwest section, this section would still be desirable for connections to the southwest.

7.2.1 Economic Impacts - Plaza

This section of the corridor is clearly strategic to both interests. It will have a tendency to serve as the 'terminal' for both the railroad and the trail, and if properly done, will

become not just a way for the community to connect to a shopping area, but a recognizable gateway to Kingston itself by linking the O&W trail corridor with the U&D corridor within the community. Removing Kingston from either alternative (rail or trail) would reduce local economic impacts by 30-50%, as visitor visibility to food, lodging, and commercial activity within the community would be completely bypassed by any other location. County impacts are less than impacts within Kingston itself.

7.2.2 Kingston Plaza Zone Recommendations

Other than the obvious potential issues revolving around the observed right-of-way encroachments (or inaccurate tax parcel mapping), the ability of this corridor section to support both rail and trail interests had been explored well before this report was ever produced. It is equally strategic to both programs, and is equally necessary for economic impact for both programs. No "A vs. B" choice needs to be made for this portion. We would concur with the attempts to develop joint use of both rail and trail activities as economically and operationally sound.

7.3 Kingston Flats – I-87 bridge to Hurley Mt. Road

Ulster County planning indicated that preliminary designs had already been considered to alter the proposed trail path between the Plaza and Hurley Mt. Road via the O&W trail (Hurley Trail connection), then on a new alignment under Rt. 209, cross the Esopus Creek on a new trail-only bridge, and then resume a 'rail with trail' cross section by shouldering out new trail space beside the existing railroad grade with a full new trail profile on a newly-constructed embankment.

The major obstacle in that concept is a new bridge across the Esopus Creek – for trail use – of at or near 200' in length. The County is legitimately concerned about the cost of such a new bridge, as well as a new trail to get there. A rather similar-length bridge of suspension design for trail use in Vermont was just completed at a cost of $1.6 million by VHB Engineering in South Burlington.[17] In addition to that, the construction of a new embankment to support rail-with-trail activity between Hurley Mt. Road and Rt. 209 needs to be constructed to accomplish a rail-with trail to Hurley Mt. Road. County Planning also thoroughly examined alternatives of farmland crossings, Rt. 29A, and Hurley Mt. Road as alternatives. Route 209 was not an acceptable co-occupation for a crossing due to narrow and stepped sidewalk design, and the bridge design did not allow cantilevering off an additional trail structure.

[17] http://www.burlingtonfreepress.com/story/news/local/2014/08/04/long-trail-bridge-takes-shape-winooski-river/13567455/

Both sides of the existing U&D corridor in this area are substantially below grade and zoned as agricultural use. Other than the last portion near Hurley Mt. Road, they consist of active farm fields that are essentially flood plain, but not wetland. While there are no rock cuts to contend with in this area, rail-with-trail concepts hinge on construction of a lower, parallel fill for trail use with the barrier as part of the existing rail embankment.



The existing railroad corridor crosses Esopus Creek on a bridge comprised of a through truss bridge 218' long with two approach spans on the west side totaling 111'. This bridge has been both inspected and repaired within the last two years for both approaches and bridge tie replacements. The County did not feel that there was any potential for rail-with-trail via this alignment over this particular bridge without substantial bridge changes.

The only similar situation we have seen in the field of any value to this discussion was the overdecking of the wood pile trestles on the Astoria (OR) Waterfront Trail for rail with trail use. Astoria features multiple joint-use rail bridges (pile trestles) of 427', 690', 200', 860', 222', 495', 553', and 234' over an end-to-end trail distance of 4.7 miles. That equates to 3700 lineal feet of wood-decked rail bridge for multi-use trail purposes (almost 13% of the entire trail)[18].





One notable Astoria design feature was the construction of new pedestrian escapes (pullout platforms on the narrower rail bridges every 115'), and additional width added on most of the pile trestles taking the 'trail' width to 17' with full railings on the outside. Trail use and rail use are both heavy; the standard-gauge self-propelled trolley passes every 30 minutes during season at 10mph. Astoria did not attempt to use any rubber flange filler on their trail, the multiple crossings and open flangeways on the bridges have caused complaints from inline skaters and skateboarders despite posted warning signs. Lineal, rather than perpendicular, wood planking on some areas has not weathered well for bike use. The

[18] http://www.oregonhikers.org/field_guide/Astoria_Riverwalk_Hike

rail with trail system has now been in use for 16 years. Half of the trail (from the former Astoria passenger station east) remains accessible to conventional heavy rail including full-sized rail passenger trains, now for special events only. The overall operation is rather similar to a boardwalk shuttle operation on the East Coast; slow-moving vehicle shuttle in the center with constantly ringing bell, wood planking, and high volumes of traffic of both pedestrians and shuttle.

While this is admittedly a design anomaly compared to conventional rail with trail design criteria, it has been an extremely successful community development project. Keys to the success of the operation include low speeds and stopping distances for rail equipment, excellent lines of sight, and copious signage. It should be noted that this would not be likely to qualify under NYDOT/FwHA design criteria, despite success.

7.3.1 Industrial, Transload, or Railroad Shop Area in Flats

The only parcel along the entire corridor that appeared feasible for a transload facility (and was shown primarily as a proposed alternative railroad shop location) is on the north side of the railroad ROW before Hurley Mt. Road. This 15.4 acre site is shown as 'vacant industrial' on the tax mapping system, and is accessed via two driveways that branch around the "His World Revealed" church off of Rt.28. The existing industrial parcel, Kingston Precast, was active in November 2015, and is a different parcel.

This is our recommended railroad shop location, as it has adequate room, is properly zoned for industrial activity, and will have the fewest community conflicts with Kingston and Ulster County over time.

Further discussion of the validity and potential of this potential freight activity is included at the end of the report under the Freight review. For this section, it should be noted that considering track condition, distances, grades, and available parcels, no site further west of this location was seriously considered viable for transload or freight activity, and combining all industrial-related rail activity on one site is also an easy recommendation.

7.3.2 Flats Recommendation

The aggregate capital cost of this section alone (new trail, new pedestrian bridge, rail-with-trail new section) is so large that consideration has been made to invest in relocation of the railroad event operation to Boiceville, purely to avoid the additional rail-with-rail issues as they are now perceived at Kingston. Comparative cost estimates are added as report attachments, but the big item is the new Esopus Creek bridge, necessary because of the lack of pedestrian sidewalk space on the Rt. 209 highway bridge.

Our observation, if not necessarily our recommendation, is that the geography of these trail connection alternatives west to Ashokan Reservoir connectivity in Kingston presents a true trail design dilemma as the layout presents a triangle of opportunities, only two legs of which are contemplated. A trail connection over the U&D corridor will, by definition, encourage a 'shortcut' between the Hurley trail to the south over Rt. 209 to reach the railroad crossing, even if not recommended, signed, or ever intended. This risk of highway shoulder trail use is exactly why DOT reportedly required a separate pedestrian bridge over the creek. But if this alignment is pursued, the other 'shortcut' will then be via the existing railroad grade from Kingston direct to Hurley Mt. Road, using the 329' of railroad bridge with open bridge ties. Neither shortcut is particularly safe for these reasons; one will simply become the attractive nuisance compared to the other. Over time, and with sufficient investigation, both may even be developed for trail use, but as long as any trail system is developed toward Ashokan parallel to Rt. 28, the ultimate (and expensive) solution is to consider both.

As long as the current concept is to use alternate trail locations via O&W trail to reach Hurley Mt. Road, the recommendation is to continue that approach, as it certainly leverages the economic and health impacts for all involved corridor concerns at this time. If a point is reached where cost, rather than concept, is driving the discussion, review of alternatives should be done again.

7.4 Hurley Mt. Road to Basin Road (DEP Easement Boundary)

From the very start, this segment of U&D corridor appeared to have the potential to be the most difficult to examine for highest and best use, and develop a conclusive and long-term recommendation. Our field work and in-depth analysis has not changed that initial perception, and it remains the most problematic portion of the corridor to clearly and decisively make a firm recommendation to the County.

Stone Consulting did two on-the-ground inspections of this corridor, first by motorized track car (speeder) and the second on foot. The detailed report of the on-foot inspection is attached to this report as an Appendix. It details milepost-by-milepost conditions in an effort to examine and resolve conditions for rail, trail, and rail-with-trail. It concluded that while some sections have potential for a rail-with-trail (with varying width potential), some segments exist that are barely wide enough for either use and present two specific areas that define feasibility.

The CMRR business plan includes this portion of the corridor – and extending on through the DEP easement to Glenford Dike, as a strategic portion of their business plan to develop more adult-themed events, charters, and develop a scenic view from the train

at a destination. More about the Glenford Dike concept follows this section, but in order to get there, this section also has to be available for rail use.

Meanwhile, while the Camoin study of the corridor includes this portion of the corridor as 'connectivity', it does not specifically outline either individual economic impacts, visitation, or purpose for it other than connectivity between Kingston and Ashokan trail segments – both of which have significant desirability. Unlike the Kingston or Ashokan sections, this four-mile section is on a consistent 2% grade – the original first climb out of Kingston west. It was steep enough for the railroad that the West Hurley siding was preserved well into the 1980's to allow 'doubling the hill' (breaking the train into smaller movements and then reassembling them into a full train at the top of the hill) as a regular practice due to the difficulty of climbing the mountain.

This section is also a mixed bag of construction practice, as it is the location where the 1911-13 relocation diverts from the original line, just west of the large fill over Stony Hollow. Unlike the Ashokan segment, this portion has challenging areas of narrow cuts, narrow fill tops, and steep embankments tracing back to the original 1868 construction.

7.4.1 Hurley Mt. Rails Issues

Two specific issues for rail planning impact this section of the corridor:

1) Part of it is already in operation west of Hurley Mt. Road, in order to provide sufficient operating and time distance for the Polar Express franchise operation. Today this only includes an additional half-mile of use, our research indicated that an additional ¾ mile would provide adequate operating space for Polar. This portion is particularly valuable to existing Kingston operations.
2) CMRR has included in entirely within its business plan document to access West Hurley and Glenford Dike.

CMRR regards this section as strategic to its business plan. The business plan includes additional adult-themed trains, etc., that would access this corridor for new business opportunities, but the goal remains Glenford Dike. This vision may or may not be shared by any other proposers. Critical rail issues for the West Hurley – Glenford Dike – Ashokan section will be discussed in that section.

Specific rail time and distance issues with this segment regarding Polar Express have already been discussed under "Existing Rail Operations". They do not impact this entire segment, and in fact, only impact the first ¾ of a mile until the historic double-track width area is reached. If the most successful, best-attended, and highest impact program for the entire 40-mile corridor is to be continued, that ¾ of a mile remains a key issue beyond this segment.

As a stand-alone rail segment, the corridor has no additional scenic value or sense of destination. While not unpleasant, the view from the train will either be into the hillside, or into the trees, or into cut faces for the entire four-mile distance. No vista-type or mountain views are evident from this section.

7.4.2 Hurley Mt. Trails Issues

While the Camoin study emphasizes connectivity between Kingston and Ashokan, it does not specifically reference this segment for economic impacts or use. It is unknown what percentage of either trail users or resulting impacts are assigned to this segment. While it may be clear that the Kingston portion or the Ashokan portion have strong stand-alone values for trail usage, the value for the intermediate portion connecting is left to inference.

Our own research shows that the existing HIT Marathon is already linking the reservoir area with Kingston using the patchwork of highways and trails in-place. These include Rt. 28 and 28A.

Parallel NY28 is a veritable four-lane divided expressway in this area, and climbs the same valley as the railroad. While the railroad maintains a relatively steady 2% grade to the top, Rt. 28 has alternating areas of level and steep sections on its shouldered bike route. While the value of the parallel designated bike route could be debated as a connectivity alternative to a trail, it is undoubtedly much less pleasant, and much less safe, on the edge of a four-lane expressway than on a dedicated multi-use trail segment.

For trail purposes, the segment consists of four distinct visual and environment areas:

1) The long rock cut district from Basin Rd.;
2) Commercial/industrial district to Beesman Rd. bridge;
3) Stony Hollow fill to Rt. 28A (most natural, interesting and scenic)
4) Rt. 28A downhill to Hurley Mt. road in the Rt. 28 valley corridor.



Stony Hollow Fill

While not an unpleasant walk, the surprise was that that the lower portion parallel to Rt. 28 was dominated by traffic noise from the adjacent highway (particularly truck traffic climbing the hill) echoing up the valley, and voices had to be raised to talk. While certainly safer than a highway shoulder, it was not a typical trail-corridor experience.

Portions of the 1868 construction pose significant challenges to either the railroad or the trail. First, although the major cross-drainage through fills is actually very good, the side slopes on those fills is much steeper than is present through the Ashokan segment. The major fill at Stony Hollow appears to have been widened at least twice by the property lines on the valuation maps. It also appears narrow; extending just past the tie edges. Two other fills on the downhill section are similarly narrow across the top. Discussions of this issue with County Planning indicated that in areas where the current roadbed was not even wide enough to support a standard multi-use trail width, the intent was to lower and excavate the fill until that width was reached.



Narrow Bluestone cut above Hurley Mt. Road

Mixed Bluestone and shale cuts also dominate the corridor. The hillside ditchlines in the shale cuts are generally filled with eroded and spalled shale, mixed with leaves and topsoil, that now supports tree life. Removing this hillside shale accumulation will generally, if not always, allow additional space.

Two Bluestone cuts on this corridor present trail barriers; the second narrow (15'6" clearance) cut above Hurley Mt. road (and just below the first private crossing), and the Bluestone cut just below the Rt. 28A crossing that is lower, but just as narrow and has significant drainage issues coming from the highway. In any case, unlike the Ashokan trail section, this portion of the corridor has issues that even make trail construction difficult.



Drainage through the rails at Rt. 28A cut

7.4.3 Rails with Trails Concepts

CMRR has produced a series of valuation maps marked with 4' recreational trails sketched on them that were examined in detail during our walk though this corridor. They feature several design concepts, including going 'up and over' cuts at ground level, and the construction of retaining walls to the outside edge (Rt. 28 side) in many locations.

Our evaluation of any rails-with-trails concepts in this area is that any work to be done to even attempt a rail-with-trail alignment should be done at the track level, removing the loose shale accumulation to the inside hillside, conceptually relocating the track (as tie condition is marginal enough to generally justify reconstruction to the outside) to

gain more clearance, and as a last resort, actually excavate the lower-zone Bluestone cut wider where necessary rather than 'up and over', as the additional width will benefit the trail program in any future outcome. The good news is that this is not a widespread problem, and can be defined to specific areas that could actually be addressed. Any sound stone material removed from this zone to create additional trail width could be rail-loaded and moved the short distance to the proposed rail-with-trail alignment between Rt. 209 and Hurley Mt. Road. For at least the first mile and a half, some dual-use potential can be achieved with the willingness to address ¾ mile of cut widening, and the half mile beyond that where width exists to allow multi-use trail alongside existing rail. Beyond that point, the challenge resumes to put either in place let alone both.

The 'fatal flaw' discovered, if there is one, for the rail-with-trail concept in this area is the long 2700' fill at Stony Hollow, dating to the original 1868 alignment. It crosses designated high-quality wetlands that are essentially marshland to both sides (and had ducks taking flight during our inspection), has no through-drainage noted on the valuation maps. Some historic settling and repair at track level was evident, and it has steep side slopes exceeding 2:1. We do not think that the CMRR concept a 4' trail on a retaining wall section on this section is feasible, due to the stability, slope, and construction of the existing fill, without significant erosion into the wetlands below.



Therefore, this rather specific barrier either completely prevents a rail-with-trail (even narrow recreational width) or forces the trail to parallel highway alignment via Rt. 28A and Beesmer Rd. for over 3100 feet. Rt. 28A crosses the same marshland at a lower elevation, and shoulders are nearly in the water level.

7.4.4 Hurley Mt. Road Recommendations

Both rail and trail concepts hinge the value of this segment in relationship to connectivity to other areas – specifically the Ashokan reservoir portion. Therefore, the final status of the Ashokan Reservoir corridor effectively governs the true value of this segment to either approach. If it were not for this connectivity, the only significant value of this corridor segment for either use is in extending the operation of the Polar Express franchise partway up the hill for additional time and running room.

We recommend – strongly, that retention of sufficient operating track space be retained, at least at this point, to continue operating distance for Polar Express operations to its current location or beyond – as far as 7.28. That is a significant impact value for a relatively minimal distance in comparison to the entire corridor, and could justify the excavation and widening of the key ¾ mile segment between Hurley Mt. Road and the beginning of the double track width ROW at MP 6.74. A longer-term solution for program relocation to Boiceville is also possible, but any widening work done here will still produce value to the trail. Extending this dual rail-with-trail corridor preference as far as MP 8.33 (Rt. 28A) addresses the eroded hillside shale, drainage issues, and allows a much better joint events location with a conceptual trailhead location.

Retaining railroad presence beyond 7.28 depends on many design and cost issues, some of which will resolve only with some additional time beyond the due date of this report. It is not known if any other rail proposer sees the connectivity value to Ashokan in the same manner as CMRR. It is also unknown on what if any changes in the DEP-County agreement may produce if reconsidered, but a destination somewhere at the top of the hill the rail connectivity is of little remaining value here. An entirely similar situation exists on the west end of the railroad with similar considerations.

The railroad corridor does, however, have a key element to consider before a final decision is made – as an ‘active’ railroad corridor it has the latitude to perform drainage and embankment corrections under a blanket railroad maintenance permit from DEC, rather than removing the railroad wholesale and then addressing the remaining drainage issues later as a trail activity. The wet drainage and narrow cut portions would allow far more flexibility in environmental permitting activity under an active rail maintenance presence. Mitigation or environmental problems could result in delaying any trail implementation for years.

While the 'most likely' outcome is likely dedicated trail usage based on the current situation, this segment may be the most benefitted by simply delaying the decision to view more definite factors as they emerge in time. There is no particular reason why this segment could not be put on a separate, and shorter, operator lease term to allow review – perhaps five years, and focus on physical corridor improvements in the meantime that benefit all outcomes. Rail use can be extended if benefits are validated, and ridership can be monitored, to see if Polar continues its current economic success. That can then justify corridor widening at one end allowing a modified rail-with-trail presence. Meanwhile, more definitive trail developments on other corridor segments that have clear direction can proceed without delay. Highest and best use conclusions for this segment remain open and linked to other sections.

7.5 Ashokan Reservoir Area (Basin Rd. Bridge to Rt. 28A Boiceville)

Of all the corridor sections, this portion has been the most studied, and at the current time, the only portion of the entire 40 mile corridor that is effectively complete through preliminary engineering studies. The Camoin study has also reviewed it for economic impacts and usage, and has concluded this is one of the showpiece potential trail areas along the entire corridor.

The railroad was relocated to this alignment by a single easement agreement in 1913 that conveyed railroad authority across the reservoir district. The actual construction was part of the total reservoir project, but built by and contracted through the Ulster and Delaware Railroad and effectively billed to New York City. Overall, it had significantly better construction standards, material, and geometry than the original railroad corridor on both ends. The relative ease of trail design and cost estimating on this segment is not a reflection of the entire corridor. It is also the only relatively flat area on the corridor between Hurley Mt. Road and the County line.

While the track is passable by a motorcar (speeder), it has not been maintained to actual passenger rail standards for many years. Equipment has been parked on the track at Shokan, but no active excursion program was run by CMRR to that zone under its current lease. Washouts present at Butternut Cove are the most significant infrastructure issue until the Boiceville bridge is reached – which is inside the DEP zone and presents an expensive and difficult situation on repair and replacement for any corridor use on that end.

7.5.1 Ashokan Rail Use

From an excursion railroad standpoint, two areas in this segment stand out – the reservoir views possible from the Glenford Dike, and the water-level views at the opposite end of the reservoir toward Boiceville, beyond the damaged bridge. Between

those two areas is a woodland area zone that all railroaders refer to as 'a green tunnel', a closed-in right-of-way where the only view through the windows is trees, and in this case, eight miles of it, and at 15mph, that's at least half an hour of nothing from the windows but trees and close-in forest views. This will be a common issue to any potential proposers.

CMRR's current strategy for this section was submitted as the Nov. 2015 Expression of Interest Letter and attachments, where each corridor segment was outlined. A concept was outlined to keep the track physically in-place in areas that were not immediately desired for regular operations, but fill the zone between the rails with packed stone for a trail surface. It would be used infrequently for rail equipment moves, but not for regular train operation until sometime in the future. This design concept is shown as a gauge-width 4' 8 ½" train surface in submitted photos.



Mickleson trail in Deadwood, SD

This concept has been done elsewhere, but does not qualify to standard multiuse trail designs typically approved by NYDOT. States such as South Dakota have done this method where a full-width trail with gravel surface was done with scattered portions of the railhead still visible. While there may be some potential to completely 'bury' the track to lessen trail surface hazards, it would make equipment moves far more difficult. Unoccupied equipment without passengers may be legally moved on "exempt" track, basically at the risk of the operator. This may also be of value if the physical lifting of the rail is interpreted to be a trigger for ROW reversion in some easements.

While no non-CMRR rail operating proposal has been viewed, we agree with the CMRR conclusion that the cost vs. benefit of restoration and operation of this much connecting track entirely through the reservoir area is not creating additional ridership value, only repair and maintenance cost at the current time. Their primary goal is for preservation of the connecting rail if for equipment moves, and a concern that lifting the rail may trigger cancellation of the Ashokan easement across DEP lands. Prior to the 2015 agreement we would agree with this concern but our review of the signed agreement seem to squarely address these issues for trail conversion and right-of-way preservation.

It should be commented that until the storm activity in 2008 and 2011, CMRR's goal was to reach and eventually cross the Boiceville bridge and obtain scenic views from the west end. Only when the bridge was not reconstructed was the experiment done to relocate equipment to Kingston and begin the Kingston Shuttle experiment.

7.5.2 Ashokan Trail Use

Trail use for this corridor section is well-researched, well-defined, and generally, adequately estimated for potential cost under multiple scenarios. Our concerns that specifically relate to this segment are discussed under "Capital Costs", particularly the Boiceville Bridge, as that structure is key for any use and certainly trail use, because the entire west end of the trail needs to connect to Route28A to form a viable corridor.



There is no practical connection to the waterside trail area except via the Boiceville bridge. Repair and replacement of that span is partially included within funding provided by FEMA, but that funding appears based upon 'like for like' replacement; i.e a full-load railroad bridge structure to replace a railroad bridge structure. That has been held under the assumption that only the railroad use would benefit by restoration; we do not agree with that conclusion. If the beams can be re-used, and if the bridge can be raised at some point for future waterway clearance, the only real cost is for abutments and piers that form the true cost and construction issues.

The bridge is also located within the DEP easement zone, which potentially allows funding from either the FEMA damage payment being held in abeyance, or within the initial DEP grant portion, or both.

Overall, the location, scenery, accessibility, ease-of-use, and combination of both isolation and access should produce a trail and recreation product that could provide the majority of projected trail destination use within the entire corridor. The almost complete unanimity of this opinion from so many viewpoints actually surprised us, and the environmental, political, and funding climates appear to be converging to achieve this goal.

7.5.3 Ashokan Rail with Trail Use



The stated goal of the CMRR business plan was proposed in February 2015. It included the description of CMRR operating to the top of Glenford Dike. To understand this concept, we rode the track speeder car to the location to see it for ourselves. It should be noted that this is the only portion of this

DEP segment that was proposed, or requested, to be rail-with-trail.

The four-mile climb from Hurley Mt. Road to Basin Road through the forest offers no particularly remarkable views, until an open spot is reached at West Hurley. Even at this location, the reservoir is not visible. But one mile in, beginning at MP 10.5, the views open up on both sides of the train track for a panoramic view of the eastern reservoir. CMRR envisioned this spot not just as a destination, but as a place to actually park a destination train for a period of a sunset dinner, or even to interface directly with the proposed West Hurley trailhead.



The most curious part of this portion of the railroad is the presence of a well-crafted loose Bluestone wall, approximately 3-4' tall, between the track and the reservoir, and extending 2000' feet across the dike and some distance inland toward West Hurley. It is called the "Chinese Wall", but historic research indicated that it actually was part of the original design of the Dike, to have a 10' wide pedestrian walkway across it, separated from the railroad with a stone wall, to allow safe and separated access beside what was then both high speed and frequent rail use.[19]. This may have been the first deliberate design of 'rail with trail' in the US. While the CMRR proposal suggests the 4' trail be on the inside of the wall between the track and the wall, the original historic design was to the outside, and this constitutes both separation and adequate design width to do so.

Historically, this certainly offers both deliberate design and precedent to the co-occupation of this short segment for both rail and trail. The second advantage to this design is that between the actual dike and the proposed West Hurley trailhead is one of the clearest, and widest, Bluestone cut sections with particularly wide cuts that if cleaned out and the track shifted to one side, would have adequate room for both between the trailhead parking area and the dike. Other than the double-track siding portion in the MP 7 area, this is the most favorable area of the corridor for rail-with-trail with minimal disturbance or excavation.

7.5.4 DEP Memorandum of Understanding

The City of New York, through DEP, and Ulster County drafted a memorandum of understanding concerning the future of the corridor through the Ashokan Reservoir. This memorandum covered mutual responsibilities, procedures, and DEP funding for

[19] https://books.google.com/books?id=HVVYAAAAYAAJ&dq=Glenford%20dike%20stone%20wall&pg=RA2-PA3&ci=172%2C832%2C717%2C350&source=bookclip#v=onepage&q=Glenford%20dike%20stone%20wall&f=false

the conversion of the rail corridor to a trail corridor over the entire 11.5 mile distance. It allows the easement to continue as a trail easement, but the only alternatives are either a trail corridor, or a freight rail corridor, but not both.

The final signed memorandum as of June 15, 2015 included planning, design and construction activities by the County, as well as trailhead facility planning, design and construction by DEP. It only discusses rail revision under freight provisions.

While there would appear to be ample reason to seek to access the Glenford Dike area as a terminal for any rail excursion operations, or even from the opposite direction to the Boiceville Bridge, none of those evaluations appear to be open for discussion under the current memorandum of understanding. The only room for negotiation would appear to be if the memorandum were actually terminated under the agreement and then renegotiated, or if the boundary of the DEP easement were transferred to the County in these specific locations.

DEP is genuinely concerned of the risk of derailment, contamination or accidental discharge into the water supply by any rail activity, no matter how slow or short the activity may be. On the West Hurley end, the first time that the track actually comes into an elevation that drains into the reservoir is on the dike itself, and that is primarily on the 'downhill' side of the dike opposite the wall. Prior to that, the railroad is either climbing, or within a stone cut that effectively serves as a containment location. Beyond the dike, any potential railroad incident would be at risk, but not here. On the other end, at Boiceville, any potential or derailment would conceptually be into the creek, which actually has a far more significant risk on track alongside the waterway than the situation at West Hurley.

Multiple technical mitigation concerns of DEP for any continued railroad presence could be addressed, but the basic question must be if the County is willing to renegotiate this agreement to allow rail access to either end, to provide some kind of destination location for the CMRR or any other operator. At the current time, there is no reason for DEP to reopen discussion; DEP's mission is not economic development or tourism, and removal of the railroad easement lowers their perceived risk. But without that, the essential status quo rail operator alternatives are in place - which does provide for Kingston special events and a second limited operation at Mt. Tremper, but does not provide either for the opportunity to grow to reservoir access and a single-segment operation. The only other alternative is to negotiate a new County property line inclusive of a rail and trail terminal, and assume responsibility of trailhead construction as well.

7.5.5 Basin Road?

There is an undeveloped parcel fronting on Rt. 28 on the southeast corner of Basin Rd. that appears to be an abandoned service station or convenience store. Our research indicates that it is still for sale, although the real estate agency handling it seemed to have not had any inquiries for quite some time. It also appears, by the tax parcel map, to be adjacent to the right-of-way just east of Basin Rd. Without ever entering the DEP easement, this would be the westernmost location possible for a 'hill' terminal to interface rail activity with the Ashokan trail section

This site has not been mentioned in any previous report or proposal. If the Ashokan reservoir lands deemed inaccessible due to the DEP agreement, and rail presence is maintained to the easement for an additional lease term this location could be experimented with as a destination by CMRR or another operator. It is not necessarily scenic, but it does present the alternative to test the function of the railroad as a 'trail elevator' between upper and lower trail sections. This concept has been successful on several excursion railroads that do bike ferry operations beside or between trail segments. Cuyahoga Valley Scenic Railroad in Cleveland is by far the most successful at this effort, and is even subsidized by the National Park Service to provide it at low cost.

This particular concept is speculative at best, but would allow interface between the railroad and the upper Ashokan trail zone without further agreement modification with DEP. It could also prove, or disprove, the value that the railroad might have as an alternative to a four-mile, 2% grade between two relatively flat trail zones. Experimentation with this concept to Basin Road could be done on a shorter interim lease term than remaining portions of the corridor; if it is not successful as a concept, reversion to trail status is justified.

7.5.6 Recommendation

Rail with trail conflicts on the climb to Ashokan are significant. Once reached, the trail potential recommendation within this zone is one of the clearest decisions on the entire corridor. Trail benefits are relatively clear, feasible, and funded – and strongly supported by DEP as a goal within their own control. The trail value here is the highest of the entire corridor in terms of economic impact for the County.

The conflicts within the 'last mile' on either end (Boundary to West Hurley and Glenford Dike, and Boundary to the Boiceville Bridge) were not anticipated in the MOU and now are a more effective barrier than geography or geology. Benefits to the rail operation to reaching a trail interface destination somewhere on the corridor are clear, and the actual mitigation concerns are significantly less on the east side than the west. The debate at this point is the lack of a clear interface plan between the rail and the trail at either end

to the satisfaction of DEP, and if the rail system can reach a good trailhead to benefit both. On the west end, co-location of a trail with rail over the two narrow causeways on the reservoir does not appear as feasible. Reaching a trailhead at the Boiceville bridge area is definitely recommended and in our opinion, worthy of the effort to negotiate a new agreement or change to boundary at 28A and the Esopus Creek to allow at least some rail entrance onto the DEP lands.

Linkage with the Ashokan Reservoir trail system is then a potential rail destination in itself, although how well it would work at Basin Rd. (still a full mile short of the Dike views) will only be settled by a test period to justify keeping rail in, or justifying a rail-with-trail co-location effort. Without any possible linkage to a trail terminal, the section of this corridor is then governed by developing a distance of rail-with-trail to adequately support special events markets for any operator (not just CMRR). A trailhead interface even if further back from Basin Road at MP 8.33 (28A) also offers that potential above MP 7.24, although the difficulty of co-location of rail-with-trail are considerably higher beyond 7.24 and will require detailed engineering and planning to achieve.

7.6 Boiceville - Mt. Tremper – Phoenicia Area

The original zone of excursion operations for the Catskill Mountain Railroad, dating back to the original lease terms, was from Phoenicia south toward Kingston. At one time, rail operations were done as far east as the Boiceville Bridge, where deterioration of the bridge ties stopped them from running over it. But this section of the corridor has been used exclusively for rail for many years.



Historically, this has been 'home track' for the CMRR, and the move to Kingston for the shuttle program was only done after the Boiceville bridge was unreachable due to one of the storm washouts. Now that Kingston has shown to be a significantly better opportunity for ridership and events, if not necessarily scenery, the unusual situation exists with two sections of the same corridor in operation separated by miles of unused, and unrepaired, track, and has now been that way for several years. Even the Adirondack Scenic Railroad, with separated operations over 119 miles of corridor, can do non-occupied equipment moves to relocate equipment between segments.

North of Boiceville, the railroad runs on the south side of the creek, separated from Route 28 for some distance. The large washout at MP23.4 currently precludes any operation short of that location, and that is the stopping point for current train excursion activity east of that location. Our estimates for that repair (see Capital Cost) are now in the $1.4-1.5 million range, and would be necessary for any use of the corridor for either rail or trail purposes.

This begins an area of rail operations where the track is essentially on the side of Esopus Creek until all the way to Big Indian, where it makes its final approach up the hillside. The placement of the corridor beside the creek is the distinguishing general feature, adding both to scenic views, some mountain views, at the price of exposure to the storm events of the parallel creek.

Other than the major washout at MP 23.4, and the minor washouts below it, this portion of the corridor is relatively intact, cleared, and usable for both rail and trail purposes.

7.6.1 Phoenicia Zone Existing Rail Operations

Operations in this area essentially started due to the private purchase and ownership of the Phoenicia station, and grew east out of there. As the station was under private control with an individual interested in developing a railroad museum and an operating line, which was where it all began. There was not a marketing study, or research, or strategic plan after the Steamtown project selected Scranton, PA as their home as to just what location, or portion of the corridor, was best for long-term excursion operation.



Phoenicia depot

Discussions with CMRR's Hunt discussed their viewpoint on this part of the railroad; essentially, after trying Kingston, the expansion of the railroad out of Kingston to Glenford Dike is preferable to expansion of the railroad from Phoenicia back to Boiceville. A key issue remains that there are still two distinct organizations here – the nonprofit Empire State Railroad Museum (ESRM), which owns the actual Phoenicia station and at least some surrounding outparcels, and the for-profit Catskill Mountain Railroad Corp, which has the lease on the right-of-way and bases their actual ticketing operations out of the small station building at Mt. Tremper.

Another on-site vintage station is of particular interest at Cold Brook. This is a standard-plan wood depot similar to many others and is accessible only via a dead-end road west off of Rt. 28A at Boiceville. It is privately owned by a small rod and gun club

and is excellently maintained. Other than an interesting and well-preserved lineside artifact, it currently has no strategic relationship to the railroad program, but has distant potential.


Cold Brook depot

At Phoenicia, ESRM and CMRR have some common relationships, but essentially they are totally different organizations, and have ownership of their own equipment. While they may be cooperating on the operations of this section, that is not a foregone conclusion that the relationship will continue with any other operator. It does appear clear that ESRM's nonprofit status, and museum focus, does not necessarily always agree with CMRR's new events-based philosophy. ESRM maintains its independence, and also appears to remain at Phoenicia for any outcome of corridor discussions, operating excursion rail operator or not.

ESRM was not included on the stakeholders meetings for the corridor, although they control adjacent parcels to the corridor and to a certain extent, govern what can possibly happen at Phoenicia for future operations. Leaving ESRM out of the discussion, or de facto represented by CMRR at the table, does not help clarify future opportunities or limitations. Neither the County, or CMRR, control Phoenicia for improvements necessary to make the site better suited to high volumes of event visitors.


Mt. Tremper (April '14) depot

CMRR has presented multiple plans for various portions of the railroad, and the 2015 Kingston plan did not include this portion. Previous 2014 CMRR Vision documents did include it, as well as the current EOI submission to the County in November 2015. CMRR's 'west end' operations peak during the fall foliage season, when 80% of the approximately 8,000 annual riders visit this area. This is a rather common peak October phenomenon in the Northeast, and until special events came to dominate the excursion train market, fall foliage was the peak season for many operations such as the Potomac Eagle in West Virginia.

As a potential compromise position, the County Executive had offered that the portion above Boiceville to Phoenicia be designated for rail-only operations, but with the understanding that it is truly their desire to concentrate rail operations in that area, freeing the majority of the corridor east of there for trail use. Given the amount of funding that it will take to achieve any 'rails with trails' alternatives in the Kingston end

(particularly the additional pedestrian bridge connection) those dollars could theoretically be expended to improve this end of the railroad for significantly better special events locations – parking, restrooms, depot, and retail space all are currently lacking. These alternatives still lack a clear location on the west end to consider.

As the DEP boundary ends at Rt. 28A, there should be at least some consideration as to what, if any, potential exists for a true events-site, destination, or railroad presence at the general location of Rt. 28A and Rt. 28. The physical location issues are complex, as the land directly east of the 28A overpass bridge is DEP-controlled, and the land west of the overpass bridge is right-of-way only with private ownership of an accessible parcel between Cold Brook Road and the right-of-way. Floodplain issues also complicate land issues. Access to the Ashokan trails and scenic views to the east are just as appealing, and perhaps more so, as the relationship between the boundary line at Basin Road and West Hurley. This is a good strategic location on the west end for a railroad-to-trail interface, and also a good location for development of a true rail operation center. The natural location of such an operation would be just east of Rt. 28A, but that still would be squarely on DEP land subject to an amended occupancy agreement for any rail much in the same way as West Hurley and Glenford Dike. Workarounds down the right-of-way may be possible for at least an unloading location for excursion trains to interface the Ashokan trail, but development of the site into an actual commercial/railroad interface to the degree required to support a Polar Express-sized event would require sufficient available property and space that is not evident today.

Redrawing DEP property lines to re-assign a parcel to County control on this end appears far more viable than at West Hurley/Glenford, and could be explored as an alternative to renegotiating the agreement. In the immediate 28A area, the road forms a rather arbitrary boundary not related to the reservoir itself, and the potential parcel is mostly out of the 100-year flood plain. This would also transfer the responsibility of trailhead/railhead control to the County rather than DEP, which may appeal to them.

Unlike Kingston to Basin Rd, this is a relatively flat zone, has pleasant scenery, and is not so close to Rt. 28 that traffic noise and commercial development impact the appeal of a trail in this zone. Phoenicia has some degree of a destination, and overall, the corridor condition is intact except for the washout. Compared to the condition west of Phoenicia, or the Boiceville Bridge situation, it is straightforward as a trail zone.

Within the Camoin study, this segment is alluded to primarily for trail connectivity, and in this case connectivity all the way west to Highmount, and east to Ashokan over the Boiceville bridge. The only specifically indicated market at Highmount is the winter cross-county connectivity. The trail usage by market, or section, is not indicated for comparative impact and makes trail usage difficult to evaluate based on the Camoin study. The creekside location of this entire zone to Phonecia would make a good trail

by any standards, with the only negative being a rather long distance of expensive barrier rail construction alongside the Esopus Creek bank, as well as the washout repair.

7.6.2 Phoenicia Zone Rail-with-Trail

The 2006 Alta study outlined a general concept of rail-with-trail placement recommended between the railroad and Route 28, in conjunction with the then-new sewer line construction project, with the opinion that adequate space generally existed. While some constraints exist, the degree of difficulty prior to Hurricane Irene was not insurmountable. Rail with trail placement somewhat more difficult in the locations that had been rebuilt with rock fill after Irene, but the track alignment is still in the original locations. Primary constraints are at the south end toward Boiceville, where washouts, creekside location, and hillsides combine to restrict ROW width. Rail with trail is still a potential, even as the focus on other sections of the corridor seems to have dominated the discussion to date.

The only commentary is that as the elevations in the Esopus Creek valley steadily increase, the relative snow depth and retention does as well. Seasonal use of the Adirondack Scenic Railroad of a snowmobile corridor has become extremely popular, and a designated section of trail for snowmobile use has not been previously mentioned in any trail documents. If there is a clear non-motorized focus, the presence of the Bellayre resort also included the cross-country skiing market as a trail potential.

Neither snowmobiles nor cross-county skiing automatically necessarily require removal of railroad track. Adirondack Scenic has been hosting snowmobiles informally, since the 1980 Winter Olympics reopened the corridor under NYDOT ownership, and formally since the bridges were repaired as part of the multi-modal funding program on the corridor. Instead the debate has now shifted as to the economic impact value of the beginning and ending shoulder seasons when snow cover is insufficient to fully cover the ties. But overall, the compatibility of either cross-county skiing or snowmobile use on a seasonally-dedicated corridor (with the rails left in place) should not be discounted.

7.6.3 Phoenicia Zone Economic Impact

As this entire evaluation tends to revolve around the success of the special events market, and the economic impact of those events, the discussion returns to the potential of somehow relocating events to this end of the railroad to then free the entire lower end of the corridor for trail-only purposes, i.e. from Kingston to Boiceville.

Ridership – and County economic impact – can become two different issues at this point. As Rail Events considers their zone a 250-mile circle for marketing, moving a boarding location out of Kingston toward Phonecia for an event as popular (and sold-

out) as Polar Express may not impact ticket sales as much as where visitors spend time and money other than ticket sales before or after the event itself.

The key to economic impact for rail and trail visitors is non-ticket spending for meals, lodging, etc. The current situation of basing operations within downtown Kingston for boarding diverts traffic off I-87, Rt. 209, and 28, and takes it into Kingston itself. That route notes the adjacent food and lodging opportunities within the town. The relationship with the boarding location, and the resulting direct impacts, should not be overlooked. The visitor is literally boarding at a shopping center, and has had to drive by at least two hotels and multiple restaurants to get there. That is actually an uncommon, and ideal, situation between a community and an excursion operation. Many excursion railroads have great difficulty with their community relationships because they don't provide this feature that Kingston now has.

Transplanting the very same events-based operation 'up the road' on Route 28, even if ridership was able to be maintained to current levels, would negatively impact rail visitor impacts with the potential to 'just keep driving' once they got in the car and at leave Ulster County on the connecting highways, with no similar and adjacent opportunities now at Boiceville, Phoenicia, or Mt. Tremper. As there are no chain lodging facilities along the route as when driving into Kingston proper, some loss of rail visitor impacts the County can be assumed, and the only question is how much. Our projection would be that 30-50% of County-based visitor impacts (not railroad operating budget impacts) would be lost as opposed to the current location within Kingston itself.

Economic Impact loss from the relocation of non-rail activity to a distant location could then be estimated at 40% of the $1.9 million of economic impact generated by visitors within the County; i.e. $760,000. Part of that could be recovered with trail impacts if this decision effectively opened up rail-only corridors to trail use as a result of such relocation. The most direct negative commercial economic impact would likely be seen by the City of Kingston, not necessarily the County as a whole. If relocation actually resulted in better trail connectivity resulting in trail users replacing special events, the comparative evaluations between rail and trail alternatives could be essentially even in such a trade-off, but are difficult to evaluate without more trail-use study.

7.6.4 Phoenicia Zone Recommendation

Highest and best use of this portion of the corridor will hinge on the decision of the provider for excursion rail services, as well as the ability to determine if a new agreement or location can be found to serve for rail/trail terminal as close to the Boiceville interface with 28A as possible. In the current situation, combined with the split ownership and control of the Phoenicia end with ESRM, this is not an attractive

opportunity for a rail excursion operator other than CMRR. As a stand-alone situation with approximately an 8,000 rider base without special events, or the lack of operator-controlled support facilities to handle them, it has little commercial interest and only the passion of volunteers to support operations. Insufficient cash flow would limit any significant maintenance or capital activity, much as it has in the past.

That recommendation can be changed if a destination-quality interface could be developed at the Boiceville end – it is still closer to Kingston than Phoenicia. That, however would appear to be linked with reopening the Memorandum of Understanding to keep excursion rail presence within the DEP boundary at Rt. 28A, or alternatively redraw the DEP boundary around a parcel at that end to allow County control. Any operator, not just CMRR, would need a railroad location including ticketing, retail, and event space adjacent to the trail interface with the Ashokan corridor to actually thrive, that would replace the full support system that the Kinston end already has. Limited physical alternatives exist to accomplish that in that location, and still link to the adjacent trail concept. In many respects, however, it is certainly no more difficult than the equally-difficult alternative of attempting to locate rail-with-trail alignment on the Hurley Mt. Road end to accommodate special events to that zone on the east end.

Long term, this may still evolve toward a trail corridor, and it is also suitable for such. Continued use of this section as rail-only, or as the only rail-active portion of the corridor within Ulster County, will depend on the level of investment made to improve connectivity and site development.

7.7 Phoenicia to Big Indian

This portion of the corridor is perhaps the most damaged, and most difficult portion of the entire 40 mile corridor. Just above Phoenicia, significant portions of the right-of-way are completely eroded away from previous flooding. The corridor is generally unwalkable, due to generally heavy brush and tree conditions, and 7000' of washouts. Brush control has been done in some localized areas, but overall, the corridor consists of two steel rails, leaf-and litter-buried ties that are fully deteriorated, and a new forest growing between the rails. There are also isolated areas of cross-drainage and small bridge loss, and the completely missing two-span steel girder bridge at Big Indian, which was damaged during previous flooding and removed as a streambed hazard, leaving almost no trace of



its previous location.

Other than the East Broad Top Railroad in Orbisonia, PA (which ceased operations in 1956 and has not been maintained east of Orbisonia ever since that date) we have not seen tree growth conditions within a roadbed this large, and concentrated, as some portions of this corridor have become.



East of Big Indian

When tree and root growth becomes this pervasive, it is actually easier to recover the corridor as a railroad, because the small stumps and roots can be allowed to deteriorate around newly replaced ties and allowed to rot out without compromising stability. For anything more than a slow-speed excursion railroad, the rail would be completely removed, the subroadbed grubbed and cleared, and new material put down to replace it, essentially, rebuilding the entire roadbed from scratch, only reusing the steel materials.



Partial vegetation clearing closer to Phoenicia

For trail conditions, it is not significantly different. The trail would have to be cleared of tree growth, then grubbed out to remove more significant roots and stumps that would either re-sprout through the trail surface, or rot into a surface depression over time. In either situation, substantial work has to be done to the subroadbed to stabilize it.

Conceptually, as no interest is shown in this as a rail corridor by CMRR, and is highly unlikely by any other organization, this would remain in this condition until sufficient funding or interest surfaces to perform a trail conversion on remaining and intact segments. County interests, in the meanwhile, could start the arduous task of tree-clearing above the ties, as even to remove the rail will require that work. In some cases, such as immediately above Phoenicia, and in Big Indian, the only cost-effective solutions may be for a side-of-the-road trail development with an intermediate barrier, rather than attempting to reconstruct the in-creek embankment and bridge necessary to restore the original railroad grade.

The loss of this section in its entirety effectively places the concept of an unbroken cross-county connectivity trail in jeopardy (along with usage predictions), and impacts our conclusions on the value of that concept all the way down to Boiceville. The County

position on focusing rail activity north of that point is due in no small point to the truth that it may be many, many years before this corridor portion can be resurrected for fully-conncted trail purposes, but that the Ashokan-Kingston portion has its separate value not necessarily linked to a full countywide connectivity concept.

7.8 Big Indian to Highmount (County Line)



Lasher Rd. bridge abutments

Immediately after the bridge at Big Indian, the corridor begins a steep 3.4% climb for the remainder of the corridor. As it is now out of the creek valley and generally on a hillside alignment, the overall corridor condition, while still tree-grown, is considerably better.

Immediately after the Big Indian bridge is one of the narrowest, and lowest, highway underpasses we have ever seen – the Lasher Rd. crossing above Rt. 28. This bridge was reportedly removed and stored on-site to allow emergency vehicles to clear it. The original under-girder clearance appears to be no more than 6', and the width is no more than 10'. This is one of the few issues on the upper end, and is likely to be resolved by either bringing the trail to grade level, putting in a higher-clearance trail-only truss bridge, lowering the roadway through the underpass, or combinations of the three.

The Peekamoose restaurant is at the intersection of Lasher Rd. and Rt. 28, and was noted by the Delaware and Ulster's Dave Riordan as the limit of any of their interest in the corridor, although it is not entirely clear how they would ferry passengers the distance to the corridor or otherwise include this as a destination.

The next point of note is at Pine Hill, where another extraordinarily low and tight highway underpass spans both a creek and the adjacent dirt road. As another road immediately parallels this one and crosses at grade, emergency vehicles have a way around it. West of Pine Hill is what appears to be a former station location, which also provides the last highway interface prior to Highmount.

Immediately after Pine Hill, the grade climbs the side of the mountain on a pair of reverse horseshoe curves, each nearly a full 180-degree curves, the first one over a valley with a fill and the second one curving around the face of the mountain itself. These two curves were specifically noted by the Ulster and Delaware as being of sufficient interest to them to warrant a lease request to extend their operations to them, at least to Pine Hill, and possibly even as far as the Peekamoose Restaurant at Lasher Rd, but not east

of that point. Both curves would appear to be highly scenic in nature, and one of the best available mountain train views available in the Catskills.

Highmount is just east of the County line, and at this point, DURR has cleared the remains of the main line and short passing siding for 1200', and what also appear to be the remains of a small boarding platform. Newspaper reports, as well as Mr. Riordan, confirmed that DURR operated a demonstration locomotive to this point in 2013, but do not operate over the track, even though it is cleared. While the track is generally in better condition into Delaware County, it is not in FRA 1 condition for ties at the current time.



DURR at Arkville

The Bellayre ski resort is just south and west of this location, with the parking lot only 820' off of the County line boundary.

The Camoin report only relates this portion of the trail study into potential cross-country ski activity downhill to Big Indian. That does appear possible, and also would appear entirely possible without necessarily removing the rail, and doing an Adirondack-style seasonal use permit. DURR does not currently operate past the fall foliage season. This is the only portion of the corridor that this might apply to, but given what may be only disconnected trail status at the current time vs. an immediate lease of some portion of the track to DURR, both objectives of ski trail and DURR lease could be accomplished. It should be noted, however, that Bellayre has their own system of groomed cross-country ski trails on their site, and investigation as to whether this addition would be considered to be direct competition or a connecting opportunity was not pursued during this report's deadline period.

Additional trail use opportunities would certainly appear to be present, with more recreational development underway in this region. It is nearly surrounded by DEC lands and Catskill Forest wilderness areas to both sides.

For rail-only use, as DURR is located outside Ulster County, and in-county rail/visitor benefits are marginal at best. The primary benefit is annual lease payments and corridor maintenance paid to Ulster County. DURR does appear ready to operationally connect to this portion, and we would recommend that lease negotiations be reopened, but on a shorter term than 25 years, and that the lease payment be directly linked to revenue plus defined regular maintenance provisions rather than a fixed long-term lease such as was given to CMRR. As of the date of this report, no followup has been received from DURR regarding the inquiry during the study period.

8. Capital Cost Factor Analysis

At the request of Ulster County, some specific rail and trail construction issues were reviewed by Stone Consulting, based upon our rail background and civil engineering experience including New York State. Stone Consulting has two registered New York Civil Engineers on staff, and one environmental/stormwater specialist that reviewed specific issues with the corridor by reviewing our site photos and previous reports.

Some of these issues, particularly washouts and bridge repairs, have little to do with the decision on what to do with the corridor – they are simply necessary to preserve it for any use be it rail or trail. Those issues in particular should not be delayed for any further investigation or implementation. Luckily, the more-typical issue along unused railroad corridors, plugged culverts, loss of streambed clearance, and insufficient cross-drainage, is not an issue here. Flood damage from Hurricane Irene resulted in severe damage to specific areas rather than a widespread cross-drainage pattern that we saw from the same storm in Chenango County.

8.1 Track Valuation and Removal

Several trail conversion projects we have reviewed have considered that the value of the track itself could pay for the trail construction. In some cases that has actually been true. We were requested to review track valuation numbers as part of the overall pricing estimates that had been done in sections that have already been subject to preliminary engineering cost estimates.



90# rail rolled in 1899 on original alignment

Over the last three years, the price of scrap and light relay quality rail has risen and fallen, generally as a direct result of foreign market demand from Brazil, China and India. From all-time-high periods of $660 a ton in late 2006, scrap 80-to-90 pound rail (measured in pounds per yard) is now in the $135-$155 per ton range[20]. Another application for some rail is to have it rerolled into other steel products, which generally commands a slightly better price than scrap but less than relay rail would get; in the $170-$190 per ton range. One prime market for such rail is Franklin Steel in Franklin PA where used rail is rerolled into agricultural and consumer grade steel fence posts. This pricing reflects that market. Rail lighter than

[20] Franklin Steel quote to Stone Consulting, November 2015, Nathan Kovalchick.

115-lb./yard is rarely used in new track construction (industrial or grant-funded projects) although there are spot markets from overseas buyers.

The other metal components of track – plates, bars, bolts, and spikes, is referred to as "Other Track Materials" and may either be relay or scrap grade; it usually gets a higher price per ton as it is smaller material that is more easily melted in electric furnaces.

Crossties usually have some residual value, and it is a matter of assessing their condition against local markets either for railroad relay purposes (CMRR buys relay ties for roughly $12 per tie), landscaping ties unsuitable for relay (but still sound enough to use for retaining walls, etc.), or simply disposal grade ties. While railroads are legally allowed to dispose of fully rotted ties on their own embankments, creation of a new trail results in the harvesting of the entire population down to the subroadbed, and a good working number is 3,000 ties per mile. If the ties can't be sold for relay or landscape, and must be disposed of, they are typically regarded as hazardous material for landfill purposes.

The exercise then (which is then somewhat imprecise) is to convert a 7x9x8'6" rotted railroad tie into estimated pounds and tons of disposal material, which can vary wildly by both wood weight and absorbed water content. Based upon tonnage disposal costs, we used a figure of $7 per tie for disposal, and in the great majority of the corridor the tie condition would be 95% disposal ties. This means that the ties actually cost considerably more money than they are worth to remove, and that they offset the positive value of the rail, always which does have some value.

Against that number is also applied an estimate cost per mile to remove track. This can also vary widely depending on how difficult it is to get to; within Ulster County it ranges from relatively easy within Kingston to nearly inaccessible between Phoenicia and Big Indian – trees would even have to be removed to remove the rail itself. We used an average of $12,000 per mile for difficult access condition.

The net result of this estimate is that the more-typical 90# rail would net out at around $3,400 per mile, and the heavier 105# rail might receive $8,300. It is seen that the trail cost estimates generally consider the track value itself as a zero-dollar item, we concur that the rail value itself is negligible and should certainly not be considered to be sufficient for covering trail construction costs. This can certainly vary, but the assumption is that the trail cannot be paid for by selling the track. As no estimates have been seen particularly within the B&L study that would assume this, we are simply reinforcing the same point.

The only factor that has emerged to impact that assumption in a meaningful way has been the November 2015 announcement that "CB Railroad Ties" in Atlanta GA, has

been formed to develop a waste-tie-to energy company in Georgia and will be soliciting volume tie purchases from the entire northeast United States. Their basic business plan has been to neither charge nor pay for the ties, so the cost of disposal is now the cost of freight (by the ton, in railroad gondola) shipped to Georgia[21].

With rail transportation estimated at $1200 per car, that converts the cost of disposal ties down to roughly $1 each instead of $7 each at a landfill, a value gain of $18,000 per mile of disposal ties. As ties could be loaded on CSX for single-line rail shipment to Georgia, this would be a valuable alternative for landfilling for either rail or trail crosstie disposal costs for Ulster County.



8.2 Track Rehabilitation

CMRR's current lease with the County makes them responsible for rehabilitation of railroad track to 'FRA Class 1 condition', [22]which is also the minimum passenger, track standard (acceptable for 15mph train speed). Class 1 still has standards, however, and the one that costs the most and is the most difficult to achieve is crosstie condition.

Simply put, for minimum passenger train safety, the bolted track joints must be supported by a solid crosstie that can hold a spike and does not allow the rail joint to move laterally. In addition to that, each 39' rail section (or adjusted equivalent in an 30' rail on this line) has to have five good intermediate ties (one of which usually supports the staggered joint on the opposite rail). Effectively, that translates out to about a 40% tie replacement program necessary to restore out-of-service track to usable condition. That agrees with HDR estimates made during their track inspections in 2014.

CMRR has been replacing crossties with relay-quality (used) ties, which cost roughly $12 each as opposed to a mixed-grade new crosstie in the $70 range. Track contractor installed prices are typically close to $100 each for spot tie replacement in similar situations, where CMRR uses volunteers and their own equipment. That means that CMRR is capable of significant



Track rehab underway in 2015

[21] Charles Bradley, CB Railroad Ties, *Tel* 678 818 6448

[22] Class 1 condition is the lowest allowable condition for passenger use and hazardous materials. For comparison, Class 6 is the typical high-speed standard for Amtrak on the Northeast Corridor (110mph) and Class 7 is 125mph.

savings using their approach, equipment, and volunteer labor, but the life of the replaced ties in wet and poorly-drained roadbed is more in the 10-15 year range rather than in the 25-30 year range of a new creosoted tie. Each takes the same amount of effort to install. Therefore, the 'life of repairs' that is being done to achieve passenger operating status today is significantly less, but is also being done without either capital grant dollars or County commitments, which is somewhat unusual– particularly in New York State. Other rail operators may assume that the County will either support or participate in a more typical grant-rehab program using state and county resources to rehabilitate track, using all-new material at contractor prices and prevailing wage rates. These assumptions on track maintenance between a major 'capital rehab' (usually done with grant dollars) and 'regular maintenance' are the distinction lacking in the current lease agreement. When the CMRR has been actually capable of self-funding track repair, the effective cost of a 40% tie replacement program would be closer to $20,000 per mile than a contractor/grant based cost of $120,000 per mile typically seen, so savings are evident even if the ties would have to be replaced again during a 25-year lease period.

8.3 Boiceville Bridge

Several engineering reports and analysis were examined concerning the Boiceville Bridge issues, as well as an on-site inspection. While there is little additional information of value to add to the discussion, some specific points were observed that may have been overlooked:

1) A great deal of cost variance in reconstruction estimates is based on whether the existing bridge girders that are now washed downstream are reusable or not. They do not appear bent, but are partially submerged and embedded in streambed gravel. As the impact on a new bridge is literally in the millions, removal and inspection of the girders is a priority item before the costs can be truly assessed. Portable hydraulic jacks and wood deck beams may be used to lift and drag them out of the creek rather than relying on heavy crane equipment inside the creekbed to lift and carry. At that point, bridge steel can be ultrasonically tested for thickness, measured for straightness, and evaluated for reuse. Our meeting with DEP confirmed that they do want the girders removed as soon as possible and will cooperate to the fullest degree; this is a priority item for any future use and should not be delayed simply due to the rail vs. trail discussion.
2) One bridge study recommended the use of a truss bridge to lower the profile of the structure to reduce potential overtopping damage and side force exposure. We would suggest that the entire bridge be elevated to increase the distance above the stream as an alternative – at least three feet pending a full watershed

analysis. New approach grades for a trail are certainly possible and even approach grades for rail uses are entirely appropriate for short excursion train operations. This line is not being intended for long trains where slack runout over such a structure would be an operating issue even for future rail use. Similar girder bridges on trails in our area have been raised as part of the trail program, on the original abutments and piers.

3) The original 1860's era piers and abutments (likely replaced and repeatedly repaired) were very poorly done in comparison to the usual high cut-stone rockwork standards seen elsewhere on the corridor. The design of the piers was an interior consisting of round-edged, concreted rock faced with cut square stone that had been pointed and sealed. Once the square facing stones were structurally compromised, the demolition of the remainder of the pier and abutment was easily completed due to water flow and debris impact. Placement of the girders inside the abutments and piers, rather than sitting on top of them, also made it possible for the girders to tear apart the stone structures if they were subjected to side water flow stress. Whether the piers failed and dropped the girders or the bridge turned into a dam and tore apart the poorly-built piers, the pier design should certainly not be repeated. While bridge steel may be reusable, the structural needs of the bridge need a much better pier and abutment design for the future.

Overall, the Boiceville Bridge is such a critical link to either the rail or trail proposals that it should be expedited as a decision not linked specifically to rail use, particularly for the analysis stage.

8.4 Bridge Clearances

The extraordinarily tight vehicle clearances of two rail overpasses above Phoenicia at Lasher Rd. and at Pine Hill need to be factored into the corridor discussion. Both of these locations need further study to determine if they can be graded down to level for trail use, or if clearances can be increased for rail use. The Lasher Rd. Bridge (currently removed) is a significant impediment to the consideration of rail renewal, but the Pine Hill bridge will be subject to verification of interest from DURR to ever go to, or beyond that location.

8.5 MP 23.4 Washout (West of Boiceville)

We examined the cost estimates provided by the Catskill Mountain Railroad to repair the washout at MP 23.4 for methodology and cost estimating, along with photos supplied by Ulster County. We were not able to access this site for firsthand inspection. Photos show hanging track, but also a rather tapered washout profile rather than the usual vertical-drop strictly due from streambank cuts in floodwater situations.

Overall quantities and methodology (which had been updated to 2012 pricing) was consistent with repair practices of such a washout, and the use of heavy stone rather than Gabion baskets. This methodology is generally consistent with the repair at Mt Tremper.

CMRR is concerned, however, that since this is the second major repair at this location, that subsurface soil conditions may exist that result in slope slippage, and a conventional repair may not hold. The potential for such an issue is simply unknown, and likely good cause for additional soil study before a second major repair is attempted. Photos are inconclusive, but at least suggest that there may be cause for analysis due to the slope conditions at the site.

The other issue at this site will be permitting. While the Mt. Tremper repair seems to have been accomplished under emergency permitting associated with the preservation of Rt. 28 (the railroad grade is a barrier there), the washout at MP 23.4 is not. As an active railroad comes to the site from the north, some latitude from DEC can be done under a blanket permit, but there still should be at least a wetland clearance letter and a permit analysis budget of $50,000 if not done by in-County resources.

Our cost estimate – concern over soils condition notwithstanding – is as follows:

Basic repair – increased from $1,227,558 (2012) to $1,415,000 (2015 factors applied)

Permitting, Clearance letter	$50,000
Total	$1,465,000

9. Railbanking

To understand railbanking, a little history is required. Other than canals, railroads were the first major public works projects in the early United States. Without large federal taxes, or state taxes to fund them, the methodology was fairly straightforward: A for-profit corporation applied for a charter from the State Legislature to build a line of railroad from Town A to Town B. When they got the state charter, that gave them the legal right, state-granted, for eminent domain proceedings for property acquisition as long as the railroad provided service to the public – common-carrier passenger service and freight.

The railroad would then survey and pick the route, and if it went through your property, you could sell the railroad what they wanted outright at a negotiated price ("fee simple"), or grant a right-of-way easement across your property so that if the railroad ever went away, you'd get the land back. They still had to pay for the easement at fair market or negotiated rates, and it was usually a qualified one – "for railroad purposes". Sometimes the payment value of the easement was almost the same as if they had paid for outright ownership, making it difficult to determine true title status years later.

9.1 Pre-WWII

In the 1830's to 1870's, and until the first financial panics, this worked fairly well. When railroads started to go bankrupt in large numbers in the Panic of 1893, abandonments began, and the first questions of 'now what?' started. For the most part, as a growing industry, smaller lines were simply consolidated in to bigger systems, but leaving behind a labyrinth of corporate names and paperwork in their trail. It was not uncommon for a railroad to go bankrupt, change their name from *railroad* to *railway* and meanwhile, all the land agreements went forward under the new owners. Regulations, including the Interstate Commerce Commission, were borne out of the rate and property disputes of the 1880's, and began to have a say on just what would happen if a railroad shut down and walked away from its "common carrier responsibilities" of providing public service. They could, in this era, now be forced to continue service or divest property even if it was losing money. Regulation now prevented easy or immediate abandonments.

During WWI, the United States nationalized the entire railroad system. A reverberation of that was that when the war was over and the railroads were returned to private control, they demanded to be compensated for the seizure of private assets. The entire ICC "Valuation" process, including the detailed property maps and property documentation that exist today, trace back to that event. These records still stand as the best indicator of land agreements, deeds, easements, boundary lines, etc.

Until the Great Depression, actual railroad abandonments were fairly rare, and when they did, land simply reverted or was sold – that's what was supposed to happen. As railroads began to lose large amounts of money on specific operations and lines, they would petition the ICC to allow specific service or line abandonments. It happened first on a widespread basis on local passenger train service and freight branches. During WWII, railroad abandonments were even expedited to be sold for wartime scrap over shipper objections. Small railroads and obscure branch lines were allowed to be abandoned with little fanfare or public notice. The ICC would look at the service provided and shipping alternatives – not the presence of tracks – as the governing issue of whether or not the service and/or the tracks underneath it could be shut down and removed, and sold for whatever the market could produce back to the railroad company. The ICC also made negotiated deals to force unprofitable railroads on more profitable ones, as they did with the Delaware and Ulster as part of the West Shore Railroad agreement with the Pennsylvania Railroad in the 1920's.

9.2 O&W Abandonment

The landmark shock to the process happened in 1956-7 when the first relatively large railroad (500+ miles) to file for abandonment, the New York, Ontario and Western, was allowed to entirely shut down all at once. There with no government intervention or forced divesture of service to other railroads to keep service. Communities, and entire counties, suddenly had no rail service, no plan, and no alternatives. The economic impacts produced a backlash that still echoes into the modern era. A big railroad shutting down was a previously-unseen issue. Regulators were chastised for not finding better alternatives to the process. Even State attempts to keep the railroad alive were overturned by the Federal process.

As truckload and aircraft competition cut further into the railroads markets, large segments of what had been a profitable business became rapidly unprofitable, and railroads found themselves saddled with an abandonment process that generally favored the service to the shipper in the ICC process. As big, and profitable, corporations, they were often forced to continue service on money-losing branches. The ICC also made deals to force unprofitable railroads on profitable ones, as they did with the Ulster & Delaware as part of the West Shore Railroad agreement with the Pennsylvania Railroad and New York Central. As part of the historic 1924 deal, NYC was 'stuck' with the U&D, setting the stage for today's situation.

9.3 Penn Central Bankruptcy, USRA and Conrail

The second major shock to the system happened in 1969, when the merged Penn Central Company went bankrupt – at that time, the largest corporate bankruptcy in the history of the United States. The Federal Government provided a bank of last resort and

provided loan guarantees, but it was obvious that the entire eastern rail system was overbuilt, and needed to figure out a way to shed unneeded track and service on an expedited basis to either find another way of service or reduce system size, or both.

That created the framework for the United States Railway Administration "Final System Plan", which looked at the entire northeast rail system at one time – with multiple bankrupt carriers, did financial and valuation analysis, and made recommendations to keep or abandon. If your line was on the abandon list, you were at least given alternatives – find or make another railroad to serve your section, or as a community or public entity – buy it for scrap ("Net Liquidation") value and try to preserve it. April 1, 1976 was the deadline.

Approximately 1/3 of all the route miles proposed for liquidation were preserved, with the remaining 2/3 officially abandoned all at once. The original railroad companies could dispose of the abandoned rail, property, and structures as they saw fit if there were no takers. The communities and organizations that bought their track and wanted to preserve rail services contracted with private companies –usually, but not exclusively, existing or newly formed shortline railroads. Sometimes the original carrier was retained, at a contract subsidy, as happened for some trackage in the Kingston area. The new carriers then filed for common carrier status, but the difference here is that for the first time the marked distinction between owner (possibly a state, county or city) and the operator (Class 1 railroad, other carrier, or shortline) separated property ownership from railroad operations. Now <u>two</u> parties were involved where only one had been before.

9.4 Abandoned right-of-ways since 1983

Conrail began life in 1976 on the lines it kept, and dozens of new shortlines sprang to life on publicly-owned remnants to try to preserve and grow local freight service. The problem remained on property that wasn't immediately converted back to common-carrier service – was it still a railroad because it didn't have service but still had track on it? Or did that effectively revert back to the property owners? What is a "line" of railroad, and what is an industrial "siding"? Meanwhile, the pace of railroad abandonments under the Staggers railroad deregulation act of 1980 nearly doubled the pace of proposed and allowed abandonments, and more communities were scrambling to preserve railroad corridors. Fee-simple land could be purchased outright to make trails, but the reversionary easements were another matter entirely.

There was no legal provision to maintain the right-of-ways other than for railroad service between 1976 and 1983 on such easements. In 1983, the landmark amendment to the National Trails act included the following language:[23]

> *The Secretary of Transportation, the Chairman of the Interstate Commerce Commission, and the Secretary of the Interior, in administering the Railroad Revitalization and Regulatory Reform Act of 1976, shall encourage State and local agencies and private interests to establish appropriate trails using the provisions of such programs. Consistent with the purposes of that Act, and in furtherance of the national policy to preserve established railroad rights-of way for future reactivation of rail service, to protect rail transportation corridors, and to encourage energy efficient transportation use, in the case of interim use of any established railroad rights-of-way pursuant to donation, transfer, lease, sale, or otherwise in a manner consistent with the National Trails System Act, if such interim use is subject to restoration or reconstruction for railroad purposes, such interim use shall not be treated, for purposes of any law or rule of law, as an abandonment of the use of such right-of-way for railroad purposes. If a State, political subdivision, or qualified private organization is prepared to assume full responsibility for management of such rights-of-way and for any legal liability arising out of such transfer or use, and for the payment of any and all taxes that may be levied or assessed against such rights-of-way, then the Commission shall impose such terms and conditions as a requirement of any transfer or conveyance for interim use in a manner consistent with this Act, and shall not permit abandonment or discontinuance inconsistent or disruptive of such use.".*

Not surprisingly, this was met with resistance by private property owners that thought an abandoned property should revert back and this constituted seizure; and it was challenged in the US Supreme Count in 1990. In ***Preseault v. ICC***[24], the majority decision ruled:

> *The Amendments are a valid exercise of Congress' Commerce Clause power. The stated congressional purposes - (1) to encourage the development of additional recreational trails on an interim basis and (2) to preserve established railroad rights-of-way for future reactivation of rail service - are valid objectives to which the Amendments are reasonably adapted. Even if petitioners were correct that the rail banking purpose is a sham concealing a true purpose of preventing reversion of rights-of-way to property owners after*

[23] http://www.nps.gov/legal/parklaws/Supp_V/laws1-volume1-ntl_trails_sys_act.pdf
[24] http://caselaw.findlaw.com/us-supreme-court/494/1.html

> *abandonment, the Amendments would still be valid because they are reasonably adapted to the goal of encouraging the development of additional trails. There is no requirement that a law serve more than one legitimate purpose. Moreover, this Court is not free under the applicable rational-basis standard of review to hold the Amendments invalid simply because the rail banking purpose might be advanced more completely by measures more Draconian than 8(d) - such as a program of mandatory conversions or a prohibition of all abandonments. The long history of congressional attempts to address the problem of rail abandonments provides sufficient reason to defer to the legislative judgment that 8(d) is an appropriate answer. Furthermore, in light of that history, Congress was entitled to make the judgment that every line is a potentially valuable national asset meriting preservation even if no future rail use for it is currently foreseeable, so that the fact that the ICC must certify that public convenience and necessity permit abandonment before granting an interim trail use permit does not indicate that the statute fails to promote its purpose of preserving rail corridors.* Pp. 17-19.

9.5 Surface Transportation Board and Service Preservation

There are several subsequent evolutionary steps, the most significant being the change from the Interstate Commerce Commission to the US Surface Transportation Board in 1996. The portion that is the most relevant to this discussion is that the STB operates today, in a very visible and public manner from their website, and all historic filings and decisions are immediately viewable. In contrast, researching previous ICC decisions and filings that were paper-based can be an exercise in frustration. This is particularly important when researching abandonment cases, where the best information for previous ICC decisions is usually the references within current filings. It usually requires a Washington-based STB attorney to access those docket records properly.

The other key points that remain is that while a railroad abandoned today (particularly through expedited rules where no freight has moved on it for at least two years) is relatively quick and straightforward method, the process as done before the 1983 Act was much more haphazard. Railroads, particularly Conrail, were accused of stopping service on some branches that were actually subject to formal abandonment procedures. They sold property to real estate developers that were later found to have been in violation of abandonment law, resulting in the incredible current action of abandoning a railroad right-of-way that is already occupied by a hi-rise apartment. The 'after the fact' abandonment is sometimes necessary to clear title, and has also been contested due to another portion of the same line being eyed for freight resumption such as a freight

transload. Resolving the pre-1983 actions is anything but predictable and conclusive. During the 1970's, the rules, and interpretations, of rail corridor preservation was to be accomplished was far less clear. The clear separation of the definition of a railroad as a service provider and a property owner was just being established.

The STB, however, still operates in much the same manner as the ICC did. Their responsibility is not as an arbiter, or real estate court, or community development agency. Their mission – and clearly stated – is to make every effort to preserve common-carrier (freight or passenger or both) rail services in an effort to preserve competitive mode balance. If a railroad cannot economically serve a market, it goes through a process called "Offer for Financial Assistance", (OFA) which means ANY qualified individual, organization, or operator may submit a proposal to operate the rail line, and the STB will rule on whether it is a rational proposal submitted by a qualified individual.

The STB is very definite on this process, and in the attempt by the Roaring Fork Transportation Authority (Aspen, CO) to seek exemption from this process[25], commented:

> *While RFRHA has proposed interim trail use until service can be restored for passenger and/or freight operations, Congress in section 10904 has established a procedure to address the need for continued rail service when a carrier is authorized to abandon a line. It would be inappropriate for us to subordinate that process to a private agreement simply because interested parties find it preferable to use such a mechanism. Under section 10904, "any" financially responsible person has the right to offer financial assistance to avoid abandonment or discontinuance.(12) Moreover, the statute specifically contemplates that multiple offers to subsidize or purchase a rail line may be made. Accordingly, we find that RFRHA has failed to support its request for an exemption from the OFA provisions. RFRHA should note that its trail use could be delayed, or even foreclosed, by the financial assistance process. If an OFA is timely filed under 49 CFR 1152.27(c)(1), the effective date of this decision and notice will be postponed beyond the effective date indicated here. See 49 CFR 1152.27(e)(2). In addition, the effective date may be further postponed at later stages in the OFA process. See 49 CFR 1152.27(f). Finally, if the line is sold under the OFA procedures, the petition for abandonment exemption will be dismissed and trail use precluded. Alternatively, if a sale under the OFA procedures does not occur, trail use may proceed.*

If the STB accepts it, it encourages the parties to negotiate a sale price. If they cannot negotiate a price, the STB will set it for them on an evidentiary basis, and force the

25 http://www.stb.dot.gov/Decisions/readingroom.nsf/WEBUNID/1213006BEEDF75D5852566970050626 2?OpenDocument

transaction to be executed even over objections of the current railroad operator railroad owner. The transaction must be accepted at the STB price and terms. The object is to preserve service.

That is important, because it is truly the possibility of any other railroad operator to bid on a property being put up for abandonment, and the STB enforcing that decision even if the community disagrees. Their object is to focus on the common-carrier responsibilities involved, which going back to the 1830's, govern the original right-of-way procurement. They will overrule a railroad application for service if the application is not supported by the shipper or customer, but if it is, the STB decision to reopen a proposed abandoned line to freight can only be contested in US District Court.

The overall concept is that a railroad can still be a legal railroad for real estate purposes without track on it – fully, and under the current law as "interim trails use". It has to be abandoned for service discontinuation out of the common-carrier system (in the past or through current activity) by the service provider, and then stepped through the process of checking for any other qualified organizations to provide service. If that passes, then the rail property owner may transfer the right-of-way to a qualified trails organization, and notify the STB the abandonment has been consummated.

One of the remaining issues of the railbanking law is that many, many, desirable trail corridors that were abandoned in the 1976-1983 era reverted back to property owners, or the fee-simple land was resold by the railroad. In Pennsylvania, new environmental law had to be written because oil well drillers bought fee-simple 66' ROW and put wells in – right behind houses – and damaged residential water wells. Other right-of-ways melted back into the forests or fields. These right-of-ways are not now recoverable, even if clearly visible, without voluntary action from the owners. This is the legacy of the O&W Trail in Ulster County, making it a much more difficult exercise.

It has happened that trails corridors are subsequently reopened for rail use, although it is very unusual. While trails concerns may be upset by this, this has actually strengthened the validity of the underlying law when in certain situations; the interim trail use provisions have been exercised. At times, this has been done over objections of the community and trails organizations. In the cases in which we have been involved, the railroad company worked hard to mitigate impacts.

9.6 And Excursion Railroads?

The involvement of excursion railroads on common-carrier railroad property is generally considered incidental by the STB. While they do regulate common-carrier passenger services as transportation services, they do not regulate passenger service that are museums, or 'out and back' operations without a true destination or people getting

off the train at destination as a transportation function. Abandonment applications that have included excursion railroads have generally included either rail maintenance activities, pending freight proposals, or proposed common-carrier passenger features, as their reason for being in front of the STB.

A select number of theoretically excursion-only railroads have crossed the threshold into Non-Amtrak, regulated common-carrier passenger service; most notably the Saratoga and North Creek in New York State, which deliberately changed its status to a commuter railroad and became fully regulated. Other tourist railroads that include a true transportation feature that could potentially be defined as common-carrier by the STB would be the Cuyahoga Valley (given their large one-way bike ferry operations into the Cuyahoga Valley National Recreational Area) and the Grand Canyon Railroad in Arizona – which now delivers 5-9%% of all visitors to the Grand Canyon south rim and generally leave them overnight.

9.6 Conclusion

Abandonment proceedings in front of the US Surface Transportation board primarily address common-carrier service, not property, and the service history post-Penn Central is anything but conclusive in this case. The County has retained a Surface Transportation Board Attorney that is qualified to research and advise on the specifics of this situation. The U&D Corridor bridges the entire period when rail abandonments, operator selection, and railbanking law were still in their infancy. Stone Consulting is not a legal firm and is not providing an opinion on any current or pending case regarding the corridor.

10. Freight Services? In Kingston? On the U&D?

The truly unmentioned issue for the corridor is what, if any, feasibility remains for freight services over part or any of the corridor. In any other location, in any other community, the very first inquiry on the underutilized railroad situation would be to see if there was any remaining potential for freight traffic that had actually been overlooked.

Our observation is that Kingston is in an ideal geographic and highway network situation north of New York City to develop some kind of niche intermodal services for a low-to-medium volume commodity transfer service from rail to truck – likely inbound rather than outbound material. Operators other than CMRR typically look at this opportunity first, and the passenger second, as possible reasons to take on an operator contract with or without passenger services.

Based on our county-specific alternatives analysis, additional issues exist for the examination of freight services that would not normally be done. The preservation of freight services and a rail corridor is typically part of a strategic, county-led plan to preserve or develop industrial employment in the area by the preservation of rail freight service. Even in areas such as Chenango County (which has had no rail through the county since 2006), the impetus for preservation of rail freight service has been to lower the price of delivered agricultural commodities (feed and fertilizer) by transloading at a more competitive price than direct trucking. In Ulster's case, no on-line freight customers remain on the Catskill corridor, CSX provides rail services through the north-south river corridor, and the agricultural business is generally either in the river valley or much further west. So determining not just if freight can be developed at all, but if any freight that was developed would benefit County residents, is an additional obligation. One easy way to explain the difference would be that rail-delivered road salt at a 20% savings to the county would benefit all; an outbound transload of concrete precast product by an Ulster employer would benefit many, and a transload of outbound hardwood logs from Delaware County might benefit few to none.

Still, the entrepreneurial nature of shortline railroaders is such that most can find, with some real research, some freight movement inbound or outbound in an area such as Ulster than can be leveraged back to rail delivery if combined with a truck transload terminal. They are also counting on the fact that CSX generally ignores all but the largest potential customers for their own marketing, leaving such niche markets to the trucks. We would anticipate that based on the geography and transportation links in the County, that any non-CMRR proposers would effectively make this a substantial part of their business plan. Although this report is not a freight study, the implications are so substantial that they must be included in the alternatives analysis.

The initial view of the corridor showed three observations:

10.1 Hurley Mt. Road

Industrially-zoned property exists at Hurley Mt. Road and Rt. 28. CMRR's Hunt commented that this property was discussed as an alternative location for maintenance shops for the railroad. The property was not examined in depth; 'vacant commercial' was shown on the current online county maps of at least 15 acres. The adjacent precast concrete site (Kingston Precast) is still an active business, but does not initially appear to be of sufficient size to develop remote product markets.

This 15-acre undeveloped property is actually ideally located for a potential commodity transload site. While CSX may have had a transload site just south of Broadway in Kingston, it appears difficult to access and is also apparently unused although the turnout remains in place on the CSX main line. It is not now advertised as a transload site on any CSX directories of service.

One of the key issues of a good transload site is the ability to go 'site to thruway' with no downtown traffic issues and generally use existing highway infrastructure. Another one of the key issues to maintaining a good transload service is the ability of on-demand switching to reorder or relocated freight cars on the site. The CSX site at Kingston appears to foul the main line during switching activity, and there is no lead space beyond the derails to reorder cars between tracks. This single issue may be why it is not used. A transload facility operated off of shortline trackage is generally far easier to switch on-demand as there is no main line freight traffic to interfere with.

While this is an initial observation only, it remains to be heard on the ownership of this site, other development plans or restrictions, etc. This appears to be the only rail-accessible, commercially-zoned parcel on the railroad suitable for such activity and should be leveraged as such for the highest and best use for the County as there may be no other location of the same quality. If it is not available for whatever reason, it greatly limits opportunity. Joint use with a tourist operation shop is entirely feasible and perhaps even preferred (see Strasburg Railroad below for example).

Note that the Ulster County Industrial Development Agency site listings do not indicate rail access in any way (http://ulstercountyny.gov/economic-development/properties-and-property-e-blast) even though some of the sites may be in immediate proximity to CSX on the north end of Kingston. Search basis does not have an overall map, or the ability to determine which properties are actually rail-accessible.

10.2 Existing CMRR Website

CMRR's 'freight services' page shows their vintage diesel, a maintenance dump car, and has no map or other indication of how the railroad interfaces with the highway network or the national rail network. There are also spelling errors and no direct link to the Industrial Development Agency. While the "freight" website may exist, it is virtually impossible to leverage the concept either from the County or Railroad side given current available tools. It is unlikely to develop any potential interest.

10.3 Rt. 209/28 Existing Operations – Potential and Active Operations

The existing property use just east of Hurley Mt. Road is apparently active with Kingston Precast, and the undeveloped parcel present just to the east of it parallel to the tracks. Two driveways appear to access the site behind a church property.

Further up Rt. 28, *Kings Town Stone Quarry* is located across from railroad. While it appears active, there is no web page, facebook, or promotional information discovered. Research has indicated that Bluestone is not used for high-volume commercial purposes and is unlikely to produce rail volumes.

Eastern Materials LLC is located trackside. Active. http://easternmaterials.net/ Multi-county; also sourcing asphalt from offsite. Excavation area does not look active but on-site crusher.

Woodstock Landscaping and Excavating between Basin Rd. and track – does not appear to be handling bulk materials and is primarily retail in nature.

Beesmer's Furniture is retail, although significant pallets were discarded on the railroad ROW.

The woodcutting activity adjacent to the right-of-way near Beesmer Rd. appears to be a firewood processing operation (i.e. not rail volumes or remote destinations in or out).

The other typical commodities for local and low-volume specialized transload services remain as rail-delivered road salt (which can have significant cost-savings for municipalities) and outbound logs – as hardwood log exports have remained relatively stable, particularly for lower-grade logs. Other typically transloaded commodities in the niche markets that require specialized sites include propane or LPG gas, plastic pellets, dimensional (construction) lumber, asphalt, etc. Ulster County has a significant legacy of stone and concrete industries that may have niche products with destinations over the 500-mile range that are more attractive to move by rail than direct trucking.

10.4 Transloading 101

The largest economic benefit that a short railroad can possibly offer a region is leveraging 'retail' freight services that a Class-1 railroad chooses to ignore. The ability to deliver bulk materials inbound and outbound is the essential tool, even if direct dockside service is not always possible. This is highly service oriented, which is why most larger railroads have failed at it and why smaller, more nimble, customer-oriented shortlines can thrive. Most transload locations also require on-site car switching services – which Class-1 railroads consider infeasible, and shortlines can provide on-demand. Shortlines also may enter into the final truck delivery services and warehousing as an integrated product, such as Carload Express in Pittsburgh PA[26].

Ideally, the 'highest and best' use for the entire lower end of the corridor (CSX interchange to Hurley Mt. Road) would be as a redevelopment tool for existing and potential industrial development sites (countywide) via a new rail transload. The most likely freight customers are not direct delivery, but to a locally-switched transload site outside of Kingston with easy truck access. The preservation of this link through to Hurley Mt. Road may actually be more viable for attracting a replacement operator for a portion of the remaining rail property than any potential excursion passenger operation would be. At any rate, final decision on this segment should wait until final proposals are received to see what operator-developed opportunities are revealed. If there are no operator-submitted concepts, previous recommendations apply for trail usage.

From a highway access standpoint, the 209/28/I-87 area is actually ideally located. A transload is more critically linked to highway access, and keeping new truck traffic out of high-traffic downtown industrial areas into high-volume connections. Similarly, transloads work best for railroads when they are away from congested rail terminals, yet at least have consistent daily local connecting rail services.

The closest advertised location that is similar to this concept and operating a niche market is Steelways Inc in Newburgh. They specialize in waste transfer truck to barge, but also have rail transloading services to rail, primarily aimed at the waste and steel scrap business.[27] They promote these services on the same basis that Kingston could – geographic location and transportation availability.[28] It is important to recognize that most successful shortline transloads pick only one or two regional commodities to work in and develop their business around that base, using specialized service and location. Other sample locations and services can be viewed at the Bulktransporter.com listings for New York State.

[26] http://carloadexpress.com/logistics/
[27] http://www.steelwaysinc.com/new_york_transloading.php
[28] http://www.steelwaysinc.com/downloads/MN201011.pdf

Numerous tourist, museum, or excursion railroads have found that reopening their freight services were by far the most sustainable and lucrative opportunities open to them to provide solid baseline business, and may provide the highest economic benefits for a wide area between regional business support and some direct employment in transportation and logistics services. In addition, integrating even a limited amount of freight operations opens the corridor to grant opportunities that are unavailable as an excursion-only railroad, particularly in New York State.

Other than the Hurley Mt. Road site, no 'ideal' sites were found on the corridor. Moving freight cars up the 2% grade any further west would be both more expensive and difficult, and the next 'flat spot' to park any cars would be at West Hurley – on the DEP easement – and those site use conflicts would continue west to Boiceville. While technically possible, it is neither advised or is risk-free and is exactly what DEP is trying to prevent via their agreement with the County.

The downside, of course, is that the more successful this concept may be, the more potential conflicts could exist between the restored CSX connection and the transload site. This squarely impacts the potential use of the corridor in that immediate 3000' Kingston section as a trail corridor, with increased rail activity beyond projected CMRR activity strictly for occasional car moves. If this proposal materializes by another operator, it needs to be carefully balanced and mitigated for conflicts.

Development of new freight switching or transload services by tourist or museum railroads, however, has become more popular if the right transportation and demand conditions exist. It is no longer unusual. The following provide examples for further research by the County:

10.5 Other Excursion Railroad Transload/Freight Examples

Texas State Railroad, Palestine TX

The Texas State Railroad Authority reconstructed a 2-mile abandoned interchange track to reconnect the excursion railroad with Union Pacific, connecting developable industrial land to the Union Pacific mainline. TSRA and their operator secured new employer Baze Chemical in 2013 on an abandoned meatpacking plant site with 30+ projected on-site employees. Baze became an active rail shipper in 2015. Received $14M in TEA-21 funding for reconstruction of excursion railroad and equipment in 2007; program ongoing.

See http://www.palestineherald.com/news/local_news/baze-company-to-build-ethoxylation-plant-in-palestine/article_dddc3a64-c218-5b16-ab67-579a09e48f4f.html

Arcade and Attica, Arcade NY

Always a mixed-mode shortline operation, A&A continues servicing the feed mill at North Java NY as well as seasonal steam excursion trains. Freight status allowed grant application for complete track rebuild under NY grants program. $1.1 million in 2010 virtually rebuilt the entire railroad for both freight and passenger operations. A&A is a particularly good example of funding corridor reconstruction via freight service also benefitting passenger operations.

Strasburg Railroad, Strasburg PA

Strasburg Railroad opened a new transload facility on their 4 ½ mile railroad (connecting with NS/Amtrak) that handles lumber, fertilizer, grain and other bulk commodities. Strasburg is possibly the only steam tourist railroad that regularly hauls freight cars with a steam locomotive. Reopening freight services allowed application for grant funding by Pennsylvania to replace a deteriorated bridge.



Strasburg lumber & conveyor transload site

See http://lancasteronline.com/business/strasburg-railroad-lands-m-state-grant/article_2bc82ffd-87cb-553d-bb93-80b357305318.html

Saratoga & North Creek, Saratoga Springs NY

Original excursion operations were done by Warren County through the selection of the passenger excursion operator Upper Hudson Railroad. Saratoga & North Creek (Iowa Pacific) assumed passenger operations contract but also purchased the North Creek – Tahawas abandoned segment to ship mine tailings out for freight opportunity. Shipments have finally begun on a regular basis in 2015, and have been controversial as corridor has also been subject to trail interest.

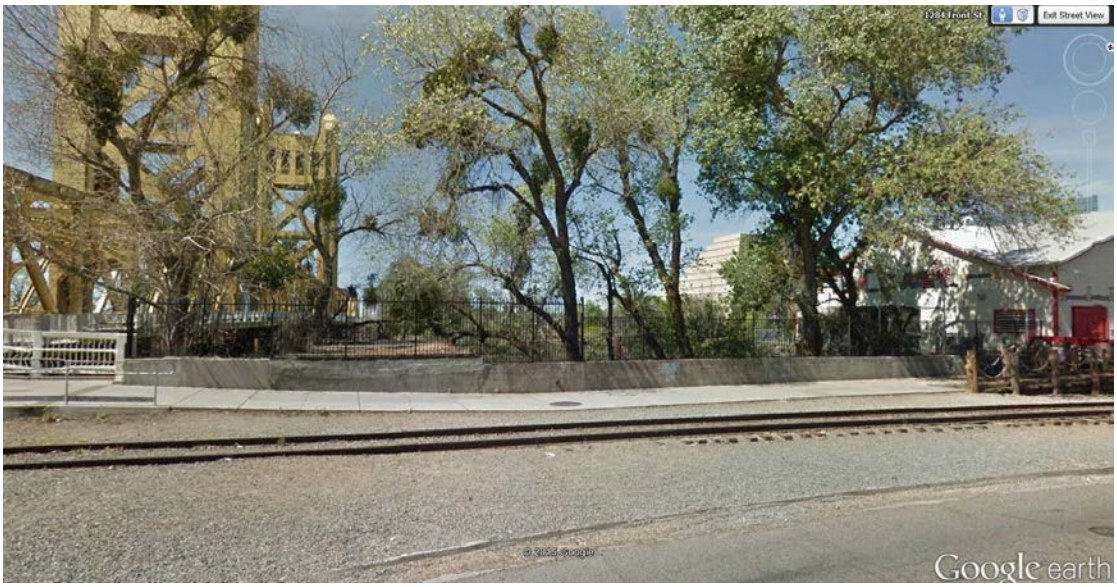
Tennessee Valley Railroad Museum, Chattanooga, TN

Possibly the most spectacular example of railroad museum success through freight, TVRM created a for-profit subsidiary to the railroad museum to handle switching and services to a new Volkswagen of America automobile assembly plant in Chattanooga, TN.

See http://www.chattanoogan.com/2011/10/4/210484/TVRM-In-50th-Year-Branches-Out-To.aspx

California State Railroad Museum/Sacramento Southern Railroad, Sacramento, CA

CSRM has one on-track freight customer, Setzer Forest Products, approximately two miles south of the museum. They organized a for-profit subsidiary, the Sacramento Southern Railroad, to serve this customer. While this siding is used only occasionally, the freight services have qualified the museum railroad for additional state grants, as well as federal status for preserving their right-of-way. CSRM's trackage is also host to a parallel rail trail (American River Bike Trail) over most of its length.



ULSTER COUNTY
U&D CORRIDOR EVALUATION

Highest and Best Use Evaluation Matrix by Segment

12/12/2015 Stone Consulting

TRAVELING WEST FROM KINGSTON TO HIGHMOUNT

MP	Location	Description	Status	Significant issues	Rail only use notes	Trail only use notes	RWT notes	Final Stone Recommendation
START	MP 2.9 to Cornell St.	CSX connection and missing track switch to Ulster County railroad	disconnected out of service inside fences at DEP/Post ofc	DEP and Post Office parking lot, switch removed. Outside CSX yard limits	CMRR desires interchange for charter & Equipment movements via CSX in plan	No current trail proposal identifies section as a valid trail segment	Not proposed	High cost of CSXT switch likely in PTC territory
2.9 to 3.1				Railmark mentioned transload in EOI letter	May be valid pending more information			**Rail only if market proven for transload**
.2 miles		Switch in PTC territory on CSXT main line outside Kingston yard	does not exist	High cost at CSXT terms Not a biddable project as not on county property	Only valid if market found for transload services that can justify segment to MP 6	Not proposed	N/A Not proposed	
3.1 to 3.58	Cornell St. to I-587 bridge (beyond)	Narrow ROW with two tight overpasses Third overpass OK	in service passenger	CMRR's only maintenance area for Kingston operations unless relocated elsewhere	ROW currently used but gated for adjacent property owners	Desired for city area greenway (high priority area to County) Neighborhood greenway	Two overpasses would use flangeway crossovers rather than climb to St. level	**Trail if no freight transload identified** ***relocate RR maint. Area***
.48 miles		*Freight service needs as separate issue based on EOI validity*		*Necessary for access to MP 2.9 to….. ? MP 5.9?*	*Likely rebuild for higher weight loads (tie cond.) and realign for trail clearance*		Track shift for clearance Would need special operating rules and low speed in district for safety	**Trail likely RWT attempt if transload can can show impacts and market for services Underpass mitigation.**
3.58 to 4.4	I-587 bridge to Washington	Kingston Plaza area Interface with City of Kingston	in service passenger	Core area for Kingston boarding and special events Destination for downtown trail connection for local neighborhoods.	Kingston area maint. Shop needed in this area if Cornell St. vacated Needs new boarding area with restrooms and retail *Bridge rating for freight use?*	Relatively easy area for construction despite some ROW encroachments Needs restrooms and trailhead at Kingston Plaza	Should be possible despite some encroachments Joint use structure for both functions highly needed and would qualify multi-modal	**RWT appears feasible across flats** **O&W trail connection allows connectivity west to O&W**
4.4 to 5.9	Washington to Hurley Mt. Rd	Plaza to Hurley Mt. Road	in service passenger	Operating track for all special events Connectivity issues with other trails particularly 209-Hurley Mt.	RWT issues designed but costs unknown. Needed for operating room for any Kingston events	Work-arounds for connectivity are expensive including new bridge over Esopus Creek	Appears to be a workable compromise to Hurley Mt. road but with new bridge	**RWT appears feasible** **O&W trail connection allows connectivity for a high price tag w/bridge**
		Freight service to 5.9 is only industrial parcel open			*End of possible freight service zone - likely*			

ULSTER COUNTY
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MP	Location	Description	Status	Significant issues	Rail only use notes	Trail only use notes	RWT notes	Final Stone Recommendation
5.9 to 6.74	Hurley Mt. Road to Siding Area	Hurley Mt. Road; Includes current Polar Express "North Pole" location for 2014 and 2015	in service passenger to aprox 6.5	Narrow Bluestone cut; tight ROW, encroachments, difficult trail placement for .75 miles, recr. width only	Hurley crossing protection. Allows continued operations to a "North Pole" area for Kingston special events	Hurley crossing protection. Connectivity to Ashokan. Will require excavation for clearing 10' trail section even if no rail presence	Most difficult area to resolve on lower end of corridor	***** critical area **** RWT but very difficult to accomplish; recr. trail cross section only for .75 miles. NYDOT issues**
6.74 to 7.28	Siding Area with double track space	Former passing siding double-track width	out of service passable	relatively easy to accomplish for additional run distance of half a mile for rail events	Extends operations for events with minimal trail interferance for full width trail section Extends run to 3.7 miles	Connectivity to Ashokan Easy construction area with full trail width even w/rail	Easiest RWT section on entire county profile without conflicts	**RWT if can be reached through 6.74 Full width trail possible**
7.28 to 8.33	Hill to Rt. 28A crossing	Single track on hillside in original construction zone from 1868.	out of service passable	Narrow ROW above Rt. 28 with various shale cuts, 2 significant fills	General drainage rehab. destination issue remains as to final location	Some minor fill widening necessary for 12' trail profile. Area is on 2% grade and subject to highway noise. Provides connectivity to Ashokan	Recreational trail only with some shale fill excavation and fill widening toward hillside Possible environmental issues on upper forested hillside	**RWT but subject to any access to hill destination site availability for rail. Delay for trail ROW cleanup**
8.33 to 10	28A to Basin Road DEP boundary	Original line to 8.79, then relocation to 10	out of service passable	Zone of high fill through wetlands, commercial zone adjacent, then deep but wide Bluestone cut	Clean out cuts but generally just tie work for rail only Crossing at 28A hazard	Large fill will require possible lowering to achieve 12'+railings both sides. Commercial activity beside trail. Provides connectivity to Ashokan Crossing at 28A hazard	Virtually infeasible based on high fill issues across wetland with steep side slopes. Trail relocation on 28A unlikely just as narrow a corridor	**RWT not feasible on fill. Co-location depends on trailhead, trail alternatives Delay for trail ROW cleanup**
10 to 11	Boundary to Glenford Dike	Boundary line to west end of Glenford Dike (CMRR business plan destination zone)	out of service passable	Within DEP agreement area signed 2015. Rail OR trail usage, not both Contested area of interest creating conflicting use.	No significant impediments. Provides special events area at West Hurley and viewscape at Glenford Dike. Next reservoir view is at Boiceville end 8 miles away	Grade decreases. Trailhead area proposed. 600' back from Rt. 28. Likely prime trailhead location on east end Reservoir view excellent from dike areas for trail users Full width feasible and designed Destination trail features present	Very feasible based on original RWT beside stone wall and wide cut widths DEP did not sign agreement for RWT provision No incentive for DEP	**Trail if DEP does not allow rail access to W. Hurley or Glenford Dike as destination**
11 to 16.4	Glenford Dike to Shokan MOW shed	Glenford Dike to Shokan generally parallel to Rt. 28	out of service passable	Within DEP agreement area signed 2015. Rail OR trail usage, not both	Generally 'green tunnel' beside Rt. 28 with no remarkable views for rail use	Flat and wooded alternative to paved Rt. 28 shoulders Full width trail designed Destination trail features present	Proposed by CMRR to fill between rails for walking trail and equipment moves	**Destination trail usage**

ULSTER COUNTY
U&D CORRIDOR EVALUATION

Highest and Best Use Evaluation Matrix by Segment

12/12/2015 Stone Consulting

TRAVELING WEST FROM KINGSTON TO HIGHMOUNT

MP	Location	Description	Status	Significant issues	Rail only use notes	Trail only use notes	RWT notes	Final Stone Recommendation
16.4 to 18.?	Shokan to Butternut Cove	Generally woodland alignment well away from Rt. 28 and Reservoir	out of service passable	Within DEP agreement area signed 2015. Rail OR trail usage, not both	Generally 'green tunnel' through forest with no remarkable views	Flat and wooded alternative to paved Rt. 28 shoulders Full width trail designed Destination trail features present Removed from highway noise	Proposed by CMRR to fill between rails for walking trail and equipment moves	**Destination trail usage**
18.? to 21.6	Butternut Cove to Boiceville Bridge (Rt. 28A crossing)	Reservoir views and possibly most scenic specific area for any usage of corridor	out of service (washout and bridge down)	Within DEP agreement area signed 2015. Rail OR trail usage, not both	Best scenery on a restorable segment, but far from Kingston. Desired destination for west-end operations	Best trail experience on entire corridor area, likely 'most used' area of proposed trail sections	RWT as 4' walking trail on causeway and by shoreline	**Destination trail usage**
21.6 to 23.3	Rt. 28A to Coldbrook Washout	Generally creekside; **Coldbrook Sta. at 22.1**	out of service (washout and bridge down)	inaccessible to any use due to washout. Funding received but question on sufficiency	Coldbrook sta. historic/restored but privately owned No passing siding at 28A or at Coldbrook	Good creekside and waterway access where Rt. 28 cannot reach Proposed by county exec as 'rail only' Rail with trail studied in 2006	Proposed and drawn for RWT use in 2006 Alta Study	**Rail/RWT usage w/trailhead. Stand-alone only with full feature event site/term. and interface with trail**
23.3 to 25.7	Washout to Rt. 28 crossing Mt. Tremper	Generally creekside and isolated	In service passenger	Current CMRR operations zone to washout	Current most scenic area away from Rt. 28 highway corridor in operation	Good creekside and waterway access where Rt. 28 cannot reach Proposed by county exec as 'rail only' Rail with trail studied in 2006	Proposed and drawn for RWT use in 2006 Alta Study	Rail usage or RWT
25.7 to 27.8	Rt. 28 to Mt. Tremper and Phoenicia	Generally roadside with Route 28 visible	In service passenger	Current CMRR operations to Mt. Tremper	Washout recently rebuilt to allow operations to Phonecia *Museum owns parcels adjacent*	Generally in same corridor as highway but on creekside. Proposed by county exec as 'rail only' Rail with trail studied in 2006	Proposed and drawn for RWT use in 2006 Alta Study	Rail usage or RWT
27.8 to 28.8	Phoenicia - Bridge C34 washout	Entire roadbed missing to Woodland Valley Road short section visible	Out of service roadbed partially missing	Grade wiped out for significant portions of parallel distance generally visible from 28	Grade missing Bridge out at 28.8 ROW heavily overgrown	Bridge out at 28.8 Out of Rt. 28 corridor beyond ROW heavily overgrown	Not proposed	**Future trail usage**
28.8 to 33.?	C34 bridge to Rt. 28 crossing Shandaken	South creek alignment with limited washouts at creekside locations Crossing removed on 28	Out of service roadbed partially missing	Grade wiped out in isolated locations Difficult to field-check	Alloben bridge remains Rail intact but heavily overgrown	Good location south of Rt. 28 corridor with alternate woodland and creekside locations. Bridge intact at Alloban	Not proposed	**Future trail usage**

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33.? to 36.77	Rt. 28 Shandaken to Big Indian bridge	South creek alignment with limited washouts at creekside locations Crossing removed on 28	Out of service roadbed partially missing	Grade wiped out in isolated locations Difficult to field-check	Big Indian bridge, piers and abutments removed after Irene in 2011	Likely detour via highway around missing Big Indian bridge beyond Lasher Rd. bridge	Not proposed	**Future trail usage**
36.77 to 36.89	Big Indian bridge to Lasher Rd. br	Begin 3.4% grade Bridge removed at Lasher Rd. due to low clearance	Bridges removed out of serv.	Grade heavily overgrown	Lasher Rd. bridge removed for emergency vehicle clearance.	Trail will likely have to detour with two missing bridges	Not proposed	*Unlikely for rail or trail due to missing bridge*
36.89 to 40	Lasher Rd. Br to Pine Hill	3.4% grade to former station site at Pine Hill	very narrow underpass on Station Rd E. of site	Overgrown but bridges intact	Accessible from west end (DURR) with track rehab only	Potential for winter use with rails remaining in place Ski resort.	Not proposed but could be seasonal	Trail potential but subject to connectivity. High potential for ski-related trail or seasonal use
40 to 41.6	Pine Hill to County Line Highmount **1.6 miles**	3.4% grade around 2 sharp curves uphill to former Grand Hotel station	Out of service partially cleared at Grand Hotel DURR has operated from west in 2013	Spectacular but difficult railroad alignment down mountainside 2 horseshoe curves	Accessible from west end (DURR) with track rehab only *DURR has expressed specific interest in this portion*	Potential for winter use with rails remaining in place Ski resort in vicinity.	Not proposed but could be seasonal wintertime and meet Camoin goals	DURR Tourist rail use only if agreement reached with County w/lease payment Strong trail potential remains in any case

ULSTER COUNTY
U&D CORRIDOR EVALUATION

U&D Corridor - Cost Analysis Comparisons
12/12/2015 Stone Consulting
TRAVELING WEST FROM KINGSTON TO HIGHMOUNT

			RAIL ONLY USE REHAB		TRAIL ONLY		RAIL WITH TRAIL(RWT)		
			DONE BY VOL. (CMRR)	DONE BY GRANT/CONTR.	Multi-use trail 10' (preferred)	5-6' Recreational only	Grant-funded	Local-funded	
MP	Location	Item Description	in-kind/used mtl	Required NYDOT/FHA stds	Required NYDOT/FHA stds	Non NYDOT eligible	NYDOT Multi-use	Recreational only	Item Comments
							Only for outside connection with CSX or freight		
	MP 2.9	CSX mainline switch (PTC)	$ 300,000	$ 300,000	*not identified for trail use*	*not identified for trail use*			
START	to	Track rehab - parking lot	$ 30,000	$ 60,845	*area in fenced parking lots*	*area in fenced parking lots*			
2.9	Cornell St.	Crossing rebuild (rail)							
to									
3.1									
Mile	**0.2**		$ 330,000	$ 360,845	0	0			
		ROW clearing	0	0	0	0	$ -	$ -	
3.1	Cornell St.	Track rehab (freight/int)	$ 72,000	$ 146,029	0	0	$ -	$ -	
to	to	track relocation - RWT only	0	0	0	0	$ 240,000	$ 240,000	
3.58	I-587								
		2 New pedestrian Xings w/FF	0	0	RWT only	RWT only	187 $ 146,795	$ 146,795	
		Rebuilt road Xings (3) LF	0	*0*	160 $ 62,400	$ 62,400	160 $ 122,400	$ 122,400	
		New trail construction - stone	0	*0*	0.48 $ 117,390	*$ 78,513*	$ 117,390	$ 78,513	
		Barrier fencing RWT			RWT only	RWT only	2534 $ 96,768	Optional if local	
	0.48		$ 72,000	$ 146,029	$ 179,790	$ 140,913	$ 723,353	$ 587,708	
3.58	I-587	Basic track rehab	*In operation FRA1*	*In operation FRA1*	0	0	*In operation FRA1*		
to	to								
4.4	Washington	Tra Rebuilt road Xings (3) LF			*240 $ 93,600*	*$ 93,600*	$ -		
		New trail construction - stone			*0.82 $ 200,542*	*$ 134,126*	$ 200,542	$ 134,126	
		Barrier fencing RWT					4330 $ 165,312	Optional if local	
	0.82		$ -	$ -	$ 294,142	$ 227,726	$ 365,854	$ 134,126	
					Trail on original ROW	*Trail on original ROW*	*RWT on parallel but longer alignment*		
4.4	Washington	Basic track rehab	*In operation FRA1*	*In operation FRA1*			$ -	$ -	
to	to								
5.9	Hurley Mt. Rd								
		Rebuilt road Xings (3) LF			*115 $ 44,850*	*$ 44,850*			
		New trail construction - stone			*1.5 $ 366,845*	*$ 245,352*	$ 366,845	$ 245,352	
		Additional trail distance 209					0.76 *$ 185,275*	$ 111,165	O&W to U&D
		New RWT subroadbed					1.5 $ 113,742	$ 68,245	Double base used
		209 Esopus bypass bridge (RWT)					$ 1,760,000	$ 1,760,000	Burlington VT * 1.1
		Railroad bridge decking			3300 $ 165,000	$ 165,000			**bridge may still be necessary**
		Guardrail - trail - bridge & approach			1000 $ 38,182	$ 38,182			**even on all-trail**
		Barrier Rail (RWT)					Not needed	Not needed	**for connectivity issues**
	1.5		$ -	$ -	*$ 614,877*	*$ 493,384*	$ 2,425,862	$ 2,184,762	
5.9	Hurley Mt. Road	Basic track rehab	*In operation FRA1 to 6.4*	*In operation FRA1 to 6.4*					
to	to	Basic track rehab to 6.74	$ 51,000	$ 255,551			$ 51,000	$ 51,000	
6.74	Siding Area								

ULSTER COUNTY
U&D CORRIDOR EVALUATION

U&D Corridor - Cost Analysis Comparisons
12/12/2015 Stone Consulting
TRAVELING WEST FROM KINGSTON TO HIGHMOUNT

			RAIL ONLY USE REHAB		TRAIL ONLY		RAIL WITH TRAIL(RWT)		
			DONE BY VOL. (CMRR)	DONE BY GRANT/CONTR.	Multi-use trail 10' (preferred)	5-6' Recreational only	Grant-funded	Local-funded	
MP	Location	Item Description	in-kind/used mtl	Required NYDOT/FHA stds	Required NYDOT/FHA stds	Non NYDOT eligible	NYDOT Multi-use	Recreational only	Item Comments
North Pole 20	*6.4*	New trail construction - stone			0.84 $ 205,433	$ 137,397	$ 205,433	$ 137,397	
		Rock excavation - addtl trail			400 $ 10,800				
		RWT rock excavation - cut1					2000 $ 54,000	$ 27,000	**Cut volumes estimated at**
		RWT rock excavation - cut2			660 $ 17,820		3300 $ 89,100	$ 44,550	**10' and 5' depths**
									Material to widen fills
		Guardrail - trail - highway side			2218 $ 84,672	$ 84,672	*rail is barrier*	*rail is barrier*	
		Barrier rail - RWT					4435 $ 169,344	Optional	**Barrier major cost**
	0.84		$ 51,000	$ 255,551	$ 318,725	$ 222,069	$ 568,877	$ 259,947	
6.74			*Passable by track car*	*Passable by track car*					
to	Siding Area	Track rehab in-place	$ 81,000	$ 164,283					
7.28	with double	New Track relocation RWT outside					$ 216,400	$ 216,400	
	track space								
		New trail construction - stone			*0.54 $ 132,064*	*$ 88,327*	$ 132,064	$ 88,327	
		Stone excavation - addtl trail			380 $ 5,320	$ 5,320			
		Stone excavation - RWT width					1900 $ 26,600	$ 13,300	
		Guardrail - trail			0 $ -	$ -			
	0.54		$ 81,000	$ 164,283	$ 137,384	$ 93,647	$ 375,064	$ 318,026	
			Passable by track car	*Passable by track car*					
		Track rehab in-place	$ 157,500	$ 319,439					
7.28		Drainage repair at 28A (rough)	$ 100,000.00	$ 100,000.00	$ 100,000.00	$ 100,000.00	$ 100,000.00	$ 100,000.00	
to	Hill to Rt.								
8.33	28A crossing								
		New trail construction - stone			*1.05 $ 256,791*	*$ 171,746*	$ 256,791	$ 171,746	
		Stone excavation - addtl trail			908 $ 24,516	$ 24,516			
		Stone excavation - RWT width					3230 $ 45,220	$ 22,610	**Cut volumes estimated at**
							3200 $ 44,800	$ 22,400	**10' and 5' depths**
							5950 $ 83,300	$ 41,650	**Material to widen fills**
							15500 $ 217,000	$ 108,500	
							4540 $ 122,580	$ 61,290	
		Guardrail - trail			2772 $ 105,840	$ 105,840			
		Guardrail - RWT					5544 $ 211,680	*optional*	Barrier major cost
	1.05		$ 257,500	$ 419,439	$ 487,147	$ 402,102	$ 1,081,371	$ 528,196	
			Passable by track car	*Passable by track car*					
8.33	28A to	Track rehab in-place	$ 250,500	$ 508,060					
to	Basin Road						***RWT does not appear***	***RWT does not appear***	
10	(DEP boundary)						***physically feasible on fill***	***feasible on fill***	
	Stoney Hollow	New trail construction - stone			*1.67 $ 408,421*	*$ 273,158*			
	fill area	Stone excavation - addtl trail			1				
							3000' cut on top could		
		Guardrail - trail			5900 $ 225,273	$ 225,273	*be widened to Basin Rd.*		

ULSTER COUNTY
U&D CORRIDOR EVALUATION

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12/12/2015 Stone Consulting
TRAVELING WEST FROM KINGSTON TO HIGHMOUNT

			RAIL ONLY USE REHAB		TRAIL ONLY		RAIL WITH TRAIL(RWT)		
			DONE BY VOL. (CMRR)	DONE BY GRANT/CONTR.	Multi-use trail 10' (preferred)	5-6' Recreational only	Grant-funded	Local-funded	
MP	Location	Item Description	in-kind/used mtl	Required NYDOT/FHA stds	Required NYDOT/FHA stds	Non NYDOT eligible	NYDOT Multi-use	Recreational only	Item Comments
	1.67		$ 250,500	$ 508,060	$ 633,694	$ 498,431			
	Begin Ashokan								
			Passable by track car	*Passable by track car*	MILES				
10	Boundary to	Track rehab (HDR)	$ 150,000	$ 304,227					
to	Glenford Dike	Track Relocation (W. Hurley)							
11		Trail Construction B&L Seg 1			1.0 $ 414,690		***Not feasible due to***		
		Allocated engineering/permits			1.0 $ 47,414		***DEP agreement***		
	1.0								
			Passable by track car	*Passable by track car*					
11	Glenford Dike	Track rehab (HDR)	$ 810,000	$ 1,642,827					
to	to Shokan								
16.4	MOW shed								
		Trail Construction B&L Seg 1			3.0 $ 1,242,107		***Not feasible due to***		
		Trail Construction B&L Seg 2A			2.25 $ 857,682		***agreement***		
		Trail Construction B&L Seg 2B			0.15 $ 43,018				
		Allocated engineering/permits			5.4 $ 256,034				
	5.4								
			Passable by track car	*Passable by track car*					
16.4	Shokan	Track rehab (HDR)	$ 325,500	$ 660,173					
to	to	Butternut Cove Culvert B&L	$ 1,200,000	$ 1,200,000	$ 1,100,000				
18.57	Butternut Cove						***Not feasible due to***		
		Trail Construction B&L Seg 2B			1.64 $ 456,929		***agreement***		
		Trail Construction B&L Seg 3			0.53 $ 117,956				
		Allocated engineering/permits			2.17 $ 102,888				
	2.17								
			Out of service/inaccessible	*Out of service/inaccessible*					
18.57	Butternut Cove	Track rehab (HDR)	$ 454,500	$ 921,809					
to	to								
21.6	Boiceville Bridge								
	(Rt. 28A crossing)								
		Trail Construction B&L Seg 3			0.46 $ 103,562		***Not feasible due to***		
		Trail Construction B&L Seg 4			2.26 $ 839,504		***agreement***		
		Trail Construction B&L Seg 5			0.26 $ 124,797				
		Allocated engineering/permits			3.03 $ 143,664				
	Boiceville Bridge	Repair bridge (B&L Alt. 2)	$ 2,620,000	$ 2,620,000	294 $ 2,620,000				
	Alternative 2	Removal of girders (disputed)	$ 400,000	$ 400,000	$ 400,000				
	3.03								
					Miles *11.6*				

ULSTER COUNTY
U&D CORRIDOR EVALUATION

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12/12/2015 Stone Consulting
TRAVELING WEST FROM KINGSTON TO HIGHMOUNT

MP	Location		Item Description	RAIL ONLY USE REHAB: DONE BY VOL. (CMRR) in-kind/used mtl	RAIL ONLY USE REHAB: DONE BY GRANT/CONTR. Required NYDOT/FHA stds	TRAIL ONLY: Multi-use trail 10' (preferred) Required NYDOT/FHA stds	TRAIL ONLY: 5-6' Recreational only Non NYDOT eligible	RAIL WITH TRAIL(RWT): Grant-funded NYDOT Multi-use	RAIL WITH TRAIL(RWT): Local-funded Recreational only	Item Comments
						constr ***$ 4,200,246***				
Check -- allocated engr						*Engr $ 550,000*				
ASHOKAN SECTION TOTALS				$ 5,960,000	$ 7,749,036	*w/br.* **$ 8,870,246**	$ -			
END	*11.6*									
				Out of service/inaccessible	*Out of service/inaccessible*					
21.6	Rt. 28A		Track rehab (HDR)	$ 255,000	$ 517,186			$ 517,186		
to	to	0.1	Washout Repair 500' (CMRR adj)	$ 1,465,000	$ 1,465,000	$ 1,465,000	$ 1,465,000	$ 1,465,000		
23.3	Coldbrook		New trail construction - stone			1.7 $ 415,757	$ 278,065	$ 415,757		
	Washout		Guardrail - trail (creekside)			528 $ 20,160	20160	$ 20,160		
	1.7			$ 1,720,000	$ 1,982,186	$ 1,900,917	$ 1,763,225	$ 2,418,104		
			Basic track rehab	*In operation FRA1*	*In operation FRA1*					
23.3	Washout to									
to	Rt. 28 crossing		New trail construction - stone			2.4 $ 586,952	$ 392,563	$ 586,952		
25.7	Mt. Tremper		Guardrail - trail (creekside)			4200 $ 160,364	$ 160,364	$ 160,364		
	2.4			$ -	$ -	$ 747,315	$ 552,926	$ 747,315		
25.7	Rt. 28 to		Basic track rehab	*In operation FRA1*	*In operation FRA1*					
to	Mt. Tremper									
27.8	and Phoenicia		New trail construction - stone			2.1 $ 513,583	$ 343,492	$ 513,583		
			Guardrail - trail (creekside)			1828 $ 69,796	$ 69,796	$ 69,796		
	2.1			$ -	$ -	$ 583,379	$ 413,289	$ 583,379		
				Rough estimate only on washout repair		*Rough estimate only on washout repair*	*Narrower cross-section*			
27.8	Phoenicia -	0.52	Washout reconstruction 2725'	$ 7,560,843	$ 7,560,843	$ 7,560,843	$ 5,670,632			
to	Bridge C34	0.52	New Track reconstruction	$ 99,710	$ 206,821			**Not proposed or**		
28.8	washout	0.5	light clearing 6" under	$ 10,265	$ 10,265	$ 10,265	$ 10,265	**recommended**		
		150	ft girder bridge complete gone	$ 1,310,000	$ 1,310,000	$ 1,310,000	$ 1,310,000			
		0.5	Track rehab remaining track	$ 72,585	$ 147,216					
			Guardrail - trail (creekside)			2095 $ 79,999	$ 79,999			
		0.5	New trail construction - stone			0.5 $ 118,345	$ 79,151			
	1.0			$ 9,053,403	$ 9,235,145	$ 9,079,450	$ 7,150,046			
			Track rehab remaining track	$ 705,000	$ 1,429,868					
28.8	C34 bridge to		light clearing 6" under	$ 99,697	$ 99,697	4.7 $ 99,697	$ 99,697			
to	Rt. 28 crossing	0.12	Washout reconstruction 29.1	$ 1,803,504	$ 1,803,504	$ 1,803,504	$ 1,352,628			
33.5	Shandaken	60	New Grade Crossing track	$ 45,900.00	$ 45,900.00			**Not proposed or**		
			New trail construction - stone			4.7 $ 1,149,447	$ 768,769	**recommended**		

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				RAIL ONLY USE REHAB		TRAIL ONLY			RAIL WITH TRAIL(RWT)		
				DONE BY VOL. (CMRR)	DONE BY GRANT/CONTR.		Multi-use trail 10' (preferred)	5-6' Recreational only	Grant-funded	Local-funded	
MP	Location		Item Description	in-kind/used mtl	Required NYDOT/FHA stds		Required NYDOT/FHA stds	Non NYDOT eligible	NYDOT Multi-use	Recreational only	Item Comments
			Guardrail - trail (creekside)			5750	$ 219,545	$ 219,545			
		0.13	Washout reconstruction 31.2	$ 1,577,692	$ 1,577,692		$ 1,577,692	$ 946,615			
		0.33	Washout reconstruction 31.85	$ 4,855,587	$ 4,855,587		$ 4,855,587	$ 2,913,352			
		0.1	Washout reconstruction 32.76	$ 1,526,042	$ 1,526,042		$ 1,526,042	$ 915,625			
	4.7			$ 10,613,422	$ 11,338,290		$ 11,231,514	$ 7,216,232			
	Rt. 28 Shandaken		Track rehab remaining track	$ 490,500	$ 994,823						
33.5	to		Heavy clearing	$ 109,000	$ 109,000	3.27	$ 109,000	$ 109,000	**Not proposed or**		
to	Big Indian		New trail construction - stone			3.3	$ 799,722	$ 534,867	**recommended**		
36.77	bridge	0.12	Washout reconstruction 33.7	$ 1,803,504	$ 1,803,504		$ 1,803,504	$ 1,352,628			
	3.27			$ 2,403,004	$ 2,907,327		$ 2,712,225	$ 1,996,495			
			Track rehab remaining track	$ 18,000	$ 36,507						
36.77	Big Indian		Heavy clearing	$ 4,000	$ 4,000	0.12	$ 4,000	$ 4,000			
to	bridge to	25	ft girder bridge change design	$ 131,000	$ 131,000		$ 131,000	$ 131,000	*May be feasible with*	*May be feasible with*	
36.89	Lasher Rd. br		New trail construction - stone			0.1	$ 29,348	$ 19,628	*hillside cut excavation*	*hillside cut excavation*	
			Guardrail - trail bridge approaches			200	$ 7,636	$ 7,636			
		150	ft girder bridge complete gone	$ 1,310,000	$ 1,310,000		$ 1,310,000	$ 1,310,000			
	0.12			$ 1,463,000	$ 1,481,507		$ 1,481,984	$ 1,472,265			
			Track rehab remaining track	$ 466,500	$ 946,147						
36.89	Lasher Rd. Br		light clearing 6" under	$ 65,970	$ 65,970	3.11	$ 65,970	$ 65,970			
to	to	0.02	Washout reconstruction 38.01-38.	$ 346,828	$ 346,828		$ 346,828	$ 260,121	*May be feasible with*	*May be feasible with*	
40	Pine Hill		New trail construction - stone			3.1	$ 760,592	$ 508,696	*hillside cut excavation*	*hillside cut excavation*	
			Guardrail - trail sides			0	$ -	$ -			
	3.11			$ 879,297	$ 1,358,944		$ 1,173,389	$ 834,786			
	Pine Hill		Track rehab remaining track	$ 240,000	$ 486,764						
40	to		light clearing 6" under	$ 33,939	$ 33,939	1.6	$ 33,939	$ 33,939	***Infeasble for major fill***	***may be feasible***	
to	County Line								***widening***	***w/retaining wall***	
41.6	Highmount		New trail construction - stone			1.6	$ 391,301	$ 261,709			
			Guardrail - fill curve			2000	$ 76,364	$ 76,364			
			Guardrail - outside curve			1000	$ 38,182	$ 38,182			
	1.6			$ 273,939	$ 520,703		$ 539,786	$ 410,193			

ULSTER COUNTY
U&D CORRIDOR EVALUATION

U&D Corridor - Cost Analysis Comparisons

11/30/2015 *Stone Consulting*

TRAVELING WEST FROM KINGSTON TO HIGHMOUNT

			RAIL ONLY USE REHAB		TRAIL ONLY		RAIL WITH TRAIL (RWT)	
			DONE BY VOL. (CMRR)	DONE BY GRANT/CONTR.	Multi-use trail 10' (preferred)	5-6' Recreational only	Grant-funded	Local-funded
MP	Location	Item Description	in-kind/used mtl	Required NYDOT/FHA stds	Required NYDOT/FHA stds	Non NYDOT eligible	NYDOT Multi-use	Recreational only

SUMMARY TABLE **DOES NOT INCLUDE TRAIL FACILITIES AND SHOP RELOCATION**

Section	Miles	Desc.	Rail Only - volunteer with Relay Ties	Rail Only - grant basis New mat'l & Prev. Wg.	Grant Funded Multi-use 10' min Trail NYDOT funded	Local Funded Recr. Trail narrow width	RWT where feasible only Full width NYDOT	RWT where feasible only Narrow recr. Local
CSX con	0.2	CSX connector (CSX switch)	$ 330,000	$ 360,845	0	0		
Kingston	0.48	Kingston to Plaza (Frt. Upgrade)	$ 72,000	$ 146,029	$ 179,790	$ 140,913	$ 723,353	$ 587,708
Plaza	0.82	Plaza area	$ -	$ -	$ 294,142	$ 227,726	$ 365,854	$ 134,126
Flats	1.5	Plaza to Hurley Mt.	$ -	$ -	$ 614,877	$ 493,384	$ 2,425,862	$ 2,184,762
Hill 1	0.84	HM to passing siding	$ 51,000	$ 255,551	$ 318,725	$ 222,069	$ 568,877	$ 259,947
Hill 2	0.54	passing siding	$ 81,000	$ 164,283	$ 137,384	$ 93,647	$ 375,064	$ 318,026
Hill 3- 28A	1.05	siding to 28A	$ 257,500	$ 419,439	$ 487,147	$ 402,102	$ 1,081,371	$ 528,196
28A-Basin	1.67	28A to Basin	$ 250,500	$ 508,060	$ 633,694	$ 498,431	Not feasible on same ROW	
Ashokan	11.6	Entire Ashokan w/bridges	$ 5,960,000	$ 7,749,036	$ 8,870,246	*Option not considered*		
28A-CB	1.7	28A to washout	$ 1,720,000	$ 1,982,186	$ 1,900,917	$ 1,763,225	$ 2,418,104	
Wash-28	2.4	washout to 28 crossing	$ -	$ -	$ 747,315	$ 552,926	$ 747,315	
28-Phonecia	2.1	28 to Phoenicia	$ -	$ -	$ 583,379	$ 413,289	$ 583,379	
Phon-C34	1.0	Phoenicia to C34 w/bridge	$ 9,053,403	$ 9,235,145	$ 9,079,450	$ 7,150,046		
C34-Rt 28	4.7	C34 to 28 crossing	$ 10,613,422	$ 11,338,290	$ 11,231,514	$ 7,216,232		
Rt 28 - BI	3.27	Rt. 28 to Big Indian	$ 2,403,004	$ 2,907,327	$ 2,712,225	$ 1,996,495		
BI - Lasher	0.12	Big Indian to Lasher Rd w/br	$ 1,463,000	$ 1,481,507	$ 1,481,984	$ 1,472,265		
Lasher-Pine	3.11	Lasher Rd to Pine Hill	$ 879,297	$ 1,358,944	$ 1,173,389	$ 834,786		
Pine-Line	1.6	Pine Hill to County Line	$ 273,939	$ 520,703	$ 539,786	$ 410,193		
						Non- Ashokan only		
	38.7	**ENTIRE CORRIDOR**	**$ 33,408,065**	**$ 38,427,345**	**$ 40,985,966**	**$ 23,887,728**		
		Shaded alternatives	***$ 640,000***	***$ 1,982,186***	***$ 9,344,178***		***$ 2,425,862***	

EXHIBIT W

Resolution No. 275 August 19, 2014

Establishing A Policy For A "Rail With Trail" Along The County-Owned Ulster And Delaware Railroad Corridor

Referred to: The Economic Development, Tourism, Housing, Planning & Transit Committee (Chairman Briggs and Legislators Allen, Archer, Litts, Maloney, Maio, and Wishnick)

Legislators Lynn Archer, Craig Lopez, and Mary Beth Maio, and Legislators Gregorius, Provenzano and Wishnick offer the following:

WHEREAS, the County of Ulster purchased the 38.6-mile Ulster and Delaware Railroad (U&D) corridor in 1979 to promote economic development through expanded tourism and to provide recreational opportunities; and

WHEREAS, since 1983, the entire U&D corridor has been leased to a private tourism railroad company, which entered a 25-year lease for the U&D corridor in 1991 that expires on May 31, 2016; and

WHEREAS, the Ulster County Legislature has determined that it is critical to establish a policy for the future uses of this important public asset **following the termination of the lease on May 31, 2016**; and

WHEREAS, Ulster County's adopted Open Space Plan recommends creating better links between communities, trails, transportation and tourism, and the 2008 Ulster County Transportation Council's Non-Motorized Transportation Plan and its Long Range Transportation Plan call for linking regional trail systems together to achieve a seamless non-motorized transportation network that will improve the quality of life for local residents through improved walkability and bikeability and will serve as a tourism resource to market Ulster County as a destination; and

WHEREAS, the Ulster County Legislature shares a vision with the Ulster County Executive to create a world-class tourism destination through the development of a seamless multi-use trail system that closes the gaps in the existing trails and offers substantial public benefits, including expansion of recreational opportunities for residents and visitors, improvement of public health, and promotion of economic development and tourism in the City of Kingston and throughout Ulster County, while also promoting and ensuring future railroad tourism operations in a segment of the U&D corridor between Boiceville and Phoenicia, where such operations have been focused for the past three decades; and

Establishing A Policy For A "Rail With Trail" Along The County-Owned Ulster And Delaware Railroad Corridor

WHEREAS, the conversion of sections of the publicly-owned U&D corridor into a rail trail from Kingston to and along the Ashokan Reservoir will serve to connect three of the County's rail trails, the Hudson Valley Rail Trail with the planned extension to New Paltz, the Wallkill Valley Rail Trail with the opening of the Rosendale Railroad Trestle into Kingston and the O&W Rail Trail with plans to connect to Kingston creating an integrated rail trail network with access to the Ashokan Reservoir and the Walkway Over the Hudson, maximizing quality of life and economic development opportunities across the county; now, therefore, be it

RESOLVED, that the Ulster County Legislature hereby establishes a policy to support a segmented "rail with trail" plan to convert the U&D corridor to a rail trail only in the segment between Kingston and Boiceville; and be it further

RESOLVED, in the furtherance of this policy for segmented rail with trail, the Ulster County Legislature also hereby establishes a policy to support and encourage the continued operation of a tourism railroad along an appropriate section of the U&D corridor west of the Ashokan Reservoir; and be it further

RESOLVED, that the Ulster County Legislature requests the County Executive submit a plan outlining projects and secured funding sources to advance planning and design for the rail trail conversion **and on-going maintenance**; and develop and solicit a request for proposals for potential tourism railroads to operate west of the Ashokan Reservoir in the future, as set forth herein and above; **and, be it further**

RESOLVED, that no railroad tracks shall be removed in any segment except by resolution of the Ulster County Legislature,

and move its adoption

ADOPTED AS AMENDED BY THE FOLLOWING VOTE:

AYES: 18 NOES: 4
(Noes: Legislators Belfiglio, Donaldson, Greene, and Wawro)
(Absent: Legislator Fabiano)

Resolution No. 275 August 19, 2014

Establishing A Policy For A "Rail With Trail" Along The County-Owned Ulster And Delaware Railroad Corridor

Passed Committee: The Economic Development, Tourism, Housing, Planning & Transit on August 5, 2014

FINANCIAL IMPACT:
NONE

Legislator Archer motioned, seconded by Legislator Ronk, to amend the resolution by adding language to the third WHEREAS, adding language to the third RESOLVED, and adding an additional RESOLVED, as indicated above in bold font.

MOTION ADOPTED BY THE FOLLOWING VOTE:

AYES: 20 NOES: 2
(Noes: Legislators Greene, and Wawro)
(Absent: Legislator Fabiano)

STATE OF NEW YORK
ss:
COUNTY OF ULSTER

This is to certify that I, the undersigned Clerk of the Legislature of the County of Ulster have compared the foregoing resolution with the original resolution now on file in the office of said clerk, and which was adopted by said Legislature on the 19th Day of August, 2014, and that the same is a true and correct transcript of said resolution and of the whole thereof.

IN WITNESS WHEREOF, I have hereunto set my hand and seal of the County of Ulster this 20th Day of August in the year Two Thousand and Fourteen.

|s| Victoria A. Fabella
Victoria A. Fabella, Clerk
Ulster County Legislature

Submitted to the County Executive this
21st Day of August, 2014.

|s| Victoria A. Fabella
Victoria A. Fabella, Clerk
Ulster County Legislature

Approved by the County Executive this
28th Day of August, 2014.

|s| Michael P. Hein
Michael P. Hein, County Executive

Resolution No. 187 May 19, 2015

Authorizing The County Executive And Chairman Of The Ulster County Legislature To Execute An Agreement With The City Of New York To Accept Grant Funding For And Facilitate Creation Of A Public Recreational Trail Along The Ashokan Reservoir

Referred to: The Economic Development, Tourism, Housing, Planning, and Transit Committee (Chairman Briggs and Legislators Allen, Archer, Bartels, Litts, Maio, and Maloney), and The Ways and Means Committee (Chairman Gerentine and Legislators Allen, Belfiglio, Briggs, Gregorius, Maio, Maloney, and R. Parete)

Chairman of the Ways and Means Committee, Richard A. Gerentine, and Deputy Chairman Donald J. Gregorius offer the following:

WHEREAS, the County of Ulster is the owner of 38.6 miles of the Ulster & Delaware ("U&D") Railroad corridor running from the City of Kingston to Highmount in the Town of Shandaken, including approximately 11.5 miles of easement through lands adjacent to the Ashokan Reservoir owned by the City of New York ("Watershed Property") and managed by the New York City Department of Environmental Protection ("NYCDEP"); and

WHEREAS, in December 2013, the Ulster County Executive and the then NYCDEP Commissioner announced an historic Agreement in Principle to facilitate and provide significant funding support for the conversion of 11.5 miles of the U&D corridor along the Watershed Property into a public, multi-use recreational trail ("rail trail") in order to provide a major economic development boost to Ulster County and Route 28 businesses, expand recreational opportunities for local residents and visitors, improve public health and quality of life, and further develop Ulster County's rail trail network into a world-class tourism destination; and

WHEREAS, the rail trail along Watershed Property will open the northern shore of the Ashokan Reservoir to the public, without permit or fee, for the first time in more than a century and will ensure year-round public access for walking, running, bicycling, cross country skiing, snowshoeing and other non-motorized uses between Basin Road in West Hurley and Boiceville in the Town of Olive; and

WHEREAS, in August 2014, the Ulster County Legislature adopted Resolution No. 275, which established a policy to convert sections of the U&D corridor into rail trail only, including the 11.5 miles along the Watershed Property identified in the Agreement in Principle; and

WHEREAS, consistent with Resolution No. 275, the County Attorney's office negotiated a Memorandum of Agreement ("MOA") with the City of New York, by and through the NYCDEP, that formalizes the Agreement in Principle; and

Authorizing The County Executive And Chairman Of The Ulster County Legislature To Execute An Agreement With The City Of New York To Accept Grant Funding For And Facilitate Creation Of A Public Recreational Trail Along The Ashokan Reservoir

WHEREAS, the current NYCDEP Commissioner recently visited Ulster County to reiterate the City of New York's commitment to conversion of the U&D corridor along the Watershed Property to rail trail only and announced with the County Executive that the MOA was nearing finalization; and

WHEREAS, the MOA has been finalized and includes the significant benefits highlighted in the 2013 Agreement in Principle, including: (a) $2.5 million in financial assistance, (b) NYCDEP support for an additional $1 million in grants through the Catskill Watershed Corporation, (c) NYCDEP construction and operation of multiple access points with support facilities ("trailheads"), (d) joint marketing of the future rail trail, and (e) pedestrian and bicycle improvements to NYCDEP's Ashokan Dividing Weir Bridge and Route 28A Bridge, also known as the Five Arch Bridge, along with provisions that protect the City of New York's drinking water supply and preserve the County's perpetual easement for railroad use along the Watershed Property; and

WHEREAS, in order to secure the trail funding and other NYCDEP support, it is necessary to execute the agreement with the City of New York while the funding is available and budgeted so these significant commitments of funding and support are not jeopardized by delay, which could result in funds being withdrawn or reprogrammed for other infrastructure projects that might arise; and

WHEREAS, it is also necessary to execute the agreement to ensure inclusion of NYCDEP commitments for improved pedestrian and bicycle accommodations on the Five Arch Bridge on Route 28A and Ashokan Dividing Weir Bridge, for which planning and design for scheduled upgrades and replacements is underway; and

WHEREAS, subparagraphs C through E of Section 2 of the MOA requires the County to undertake the State Environmental Quality Act (SEQRA) process as part of the planning and design of the trail and the County shall act as lead agency therefor; and

Resolution No. 187 May 19, 2015

Authorizing The County Executive And Chairman Of The Ulster County Legislature To Execute An Agreement With The City Of New York To Accept Grant Funding For And Facilitate Creation Of A Public Recreational Trail Along The Ashokan Reservoir

WHEREAS, based upon the examination of the Ulster County Legislature, and pursuant to the County of Ulster's SEQRA Type II List that was adopted by the County in Resolution No. 118 on April 20, 2010, and per Section 4.2.5 of that list, it has been determined that the approval of the proposed MOA does not pose a significant environmental impact and**,** therefore**,** has been determined to be a Type II Action pursuant to 6NYCRR, Part 617 of SEQRA and does not require any determination or procedure under SEQRA; now, therefore, be it

RESOLVED, the Ulster County Legislature hereby authorizes the County Executive and Chairman of the Ulster County Legislature to execute an agreement, and any amendments thereto, with the City of New York to facilitate and provide significant funding and other support for a public rail trail along the Ashokan Reservoir, in the form as filed with the Clerk of the Ulster County Legislature or as modified with the approval of the County Attorney;

and moves its adoption.

ADOPTED BY THE FOLLOWING VOTE:

AYES: 17 NOES: 6
(Noes: Legislators Belfiglio, Donaldson, Greene, Lopez, J. Parete, and Wawro)

Passed Committee: Economic Development, Tourism, Housing, Planning, and Transit on May 5, 2015

Resolution as amended approved for future consideration by Ways and Means Committee on May 13, 2015

Passed Committee: Ways and Means on May 19, 2015

FINANCIAL IMPACT:
$2,500,000.00 – BUDGETED 2015 REVENUE DOLLARS
$1,000,000.00 – ANTICIPATED FUTURE REVENUE DOLLARS

Resolution No. 187 May 19, 2015

Authorizing The County Executive And Chairman Of The Ulster County Legislature To Execute An Agreement With The City Of New York To Accept Grant Funding For And Facilitate Creation Of A Public Recreational Trail Along The Ashokan Reservoir

Legislator Donaldson motioned, seconded by Legislator Greene, to refer the resolution back to the Economic Development, Tourism, Housing, Planning, and Transit Committee.

MOTION DEFEATED BY THE FOLLOWING VOTE:

AYES: 7 NOES: 16
(Ayes: Legislators Bartels, Belfiglio, Donaldson, Greene, Lopez, R. Parete, and Wawro)

STATE OF NEW YORK
ss:
COUNTY OF ULSTER

I, the undersigned Clerk of the Legislature of the County of Ulster, hereby certify that the foregoing resolution is the original resolution adopted by the Ulster County Legislature on the 19th Day of May in the year Two Thousand and Fifteen, and said resolution shall remain on file in the office of said clerk.

IN WITNESS WHEREOF, I have hereunto set my hand and seal of the County of Ulster this 20th Day of May in the year Two Thousand and Fifteen.

|s| Victoria A. Fabella
Victoria A. Fabella, Clerk
Ulster County Legislature

Submitted to the County Executive this
21st Day of May, 2015.

|s| Victoria A. Fabella
Victoria A. Fabella, Clerk
Ulster County Legislature

Approved by the County Executive this
27th Day of May, 2015.

|s| Michael P. Hein
Michael P. Hein, County Executive

Resolution No. 480 December 15, 2015

Establishing Capital Project No. 459 To Provide for Design and Engineering Work for the Ulster County Rail Trail Project along the Ashokan Reservoir ("Ashokan Rail Trail")

Referred to: The Economic Development, Tourism, Housing, Planning and Transit Committee (Chairman Briggs and Legislators Allen, Archer, Bartels, Litts, Maio and Maloney), The Public Works and Capital Projects Committee (Chairman Fabiano and Legislators Archer, Greene, Loughran and Roberts), and The Ways and Means Committee (Chairman Gerentine and Legislators Allen, Belfiglio, Briggs, Gregorius, Maio, Maloney and R. Parete)

Chairman of the Ways and Means Committee, Richard A. Gerentine, and Deputy Chairman Donald Gregorius offer the following:

WHEREAS, this resolution has been submitted by the County Executive on behalf of the Department of Planning; and

WHEREAS, the County of Ulster (hereinafter the "County") is the owner of 38.6 miles of the Ulster & Delaware (hereinafter "U&D") Railroad corridor running from the City of Kingston to Highmount in the Town of Shandaken, including approximately 11.5 miles of easement through lands adjacent to the Ashokan Reservoir owned by the City of New York (hereinafter the "Watershed Property") and managed by the New York City Department of Environmental Protection (hereinafter "NYCDEP"); and

WHEREAS, in December 2013, the Ulster County Executive and the then NYCDEP Commissioner announced an historic Agreement in Principle to facilitate and provide significant funding support for the conversion of 11.5 miles of the U&D corridor along the Watershed Property into a public, multi-use recreational trail (hereinafter the "Ashokan Rail Trail") in order to provide a major economic development boost to Ulster County and Route 28 businesses, expand recreational opportunities for local residents and visitors, improve public health and quality of life, and further develop Ulster County's rail trail network into a world-class tourism destination; and

WHEREAS, the Ashokan Rail Trail will open the northern shore of the Ashokan Reservoir to the public, without permit or fee, for the first time in more than a century and will ensure year-round public access for walking, running, bicycling, cross country skiing, snowshoeing and other non-motorized uses between Basin Road in West Hurley and Boiceville in the Town of Olive; and

WHEREAS, in August 2014, the Ulster County Legislature adopted Resolution No. 275, which established a policy to convert sections of the U&D corridor into rail trail only, including the 11.5 miles along the Watershed Property identified in the Agreement in Principle; and

Resolution No. 480 December 15, 2015

Establishing Capital Project No. 459 To Provide for Design and Engineering Work for the Ulster County Rail Trail Project along the Ashokan Reservoir ("Ashokan Rail Trail")

WHEREAS, in May 2015, the Ulster County Legislature adopted Resolution No. 187 authorizing the County Executive and Chairman of the Ulster County Legislature to execute a final agreement based on the Agreement in Principle with the City of New York to facilitate and provide significant funding and other support for a public rail trail along the Ashokan Reservoir (the "Agreement"); and

WHEREAS, the Agreement was fully executed on June 16, 2015 and included $2,500,000.00 million in direct grant assistance from NYCDEP for trail planning and construction; and

WHEREAS, on October 1, 2015 the first $1,000,000.00 in funding was released to the County in accordance with the Agreement; and

WHEREAS, the County is interested in moving forward design and engineering work for the Ashokan Rail Trail using a portion of the NYCDEP funding, which will be transferred into the Ashokan Rail Trail Capital Project for planning purposes only; and

WHEREAS, the proposed project being considered includes the construction of the Ashokan Reservoir Rail Trail and associated access facilities constitutes an action as defined under NYCRR Part 617.4(b)(6) [SEQRA]; and

WHEREAS, the County is desirous of establishing itself as a lead agency and conducting a coordinated review as provided for in NYCRR Part 617.6; now, therefore, be it

RESOLVED, this resolution authorizes expenditures exclusively for design and engineering work necessary to effectuate the design of the Ashokan Rail Trail; and, be it further

RESOLVED, that pursuant to 6 NYCRR Part 617.6(b) (3) of the Regulations pertaining to Article 8 of the Environmental Conservation Law of New York State (SEQRA), the Ulster County Legislature hereby declares its intent to serve as Lead Agency for the above recited project; and, be it further

RESOLVED, that the Ulster County Legislature has determined, after review of the criteria contained in 6 NYCRR Parts 617.4 (b)(6), that the project is a Type I Action; and, be it further

Resolution No. 480 December 15, 2015

Establishing Capital Project No. 459 To Provide for Design and Engineering Work for the Ulster County Rail Trail Project along the Ashokan Reservoir ("Ashokan Rail Trail")

RESOLVED, that the Ulster County Legislature will conduct a coordinated review and circulate its Notice of Intent to serve as Lead Agency, together with the EAF and accompanying documentation to all interested and involved agencies pursuant to 6 NYCRR Part 617.6(b) (2) (i) and 6 NYCRR Part 617.6(b) (3); and, be it further

RESOLVED, that pursuant to 6 NYCRR Part 617.6(b) (3), at the conclusion of an otherwise unchallenged thirty (30) day period following the date of transmittal of the Notice of Intent, the EAF and documentation aforesaid to the interested agencies, the Legislature shall become the Lead Agency under SEQRA for this project; and, be it further

RESOLVED, that Capital Project No. 459 Ashokan Rail Trail is hereby established as follows:

	CREATE	
Capital Project No. 459	Ashokan Rail Trail	$1,000,000.00

and, be it further

RESOLVED, that Capital Project No. 459- "Ashokan Rail Trail" is hereby established and that the 2015-2020 Capital Fund Budget is amended as follows:

	INCREASE	**AMOUNT**
HH 7197-0459-4300-4355 (App #)	Engineering Services	$550,000.00
HH 7197-0459-3200-2397 (Rev #)	Intergovernmental Charges Capital Projects, Other Gov't (NYC DEP Grant)	$550,000.00

and move its adoption.

ADOPTED BY THE FOLLOWING VOTE:

AYES: 23 NOES: 0

Resolution No. 480 December 15, 2015

Establishing Capital Project No. 459 To Provide for Design and Engineering Work for the Ulster County Rail Trail Project along the Ashokan Reservoir ("Ashokan Rail Trail")

Passed Committee: Economic Development, Tourism, Housing, Planning, and Transit on December 1, 2015

Passed Committee: Public Works and Capital Projects on December 3, 2015

Passed Committee: Ways and Means on December 15, 2015

FINANCIAL IMPACT:
NONE

STATE OF NEW YORK
ss:
COUNTY OF ULSTER

I, the undersigned Clerk of the Legislature of the County of Ulster, hereby certify that the foregoing resolution is the original resolution adopted by the Ulster County Legislature on the 15th Day of December in the year Two Thousand and Fifteen, and said resolution shall remain on file in the office of said clerk.

IN WITNESS WHEREOF, I have hereunto set my hand and seal of the County of Ulster this 16th Day of December in the year Two Thousand and Fifteen.

Victoria A. Fabella, Clerk
Ulster County Legislature

Submitted to the County Executive this
16th Day of December, 2015.

Victoria A. Fabella, Clerk
Ulster County Legislature

Approved by the County Executive this
22 Day of December, 2015.

Michael P. Hein, County Executive

Resolution No. 488 December 15, 2015

Amending Resolution No. 275 Of 2014, Establishing A Policy For A "Rail With Trail" Along The County-Owned Ulster And Delaware Railroad Corridor

Referred to: The Laws and Rules, Governmental Services Committee (Chairman Richard Parete and Legislators Donaldson, Greene, Roberts and Ronk)

The U&D Corridor Advisory Committee (Chairman Tracey Bartels and Legislators Archer, Belfiglio, Donaldson, Greene, Litts, Maloney, Provenzano and Ronk) offers the following:

WHEREAS, the County of Ulster purchased the 38.6-mile Ulster and Delaware Railroad (U&D) corridor in 1979 to promote economic development through expanded tourism and to provide recreational opportunities; and

WHEREAS, the Ulster County Legislature determined that it was critical to establish a policy for the future uses of the U&D Corridor following the termination of the current lease on May 31, 2016; and

WHEREAS, via adoption of Resolution No. 275 of 2014 the Ulster County Legislature established a policy to support a segmented "rail with trail" plan to convert the U&D corridor to a trail only in the segment between Kingston and Boiceville, and continue operation of a tourism railroad west of the Ashokan Reservoir; and

WHEREAS, Resolution No. 155 of 2015 established the Ulster & Delaware Corridor Advisory Committee for the purposes of conducting a thorough reexamination and study regarding the optimum use of the full U&D Corridor, and to recommend possible modifications to the existing policy to ensure the Corridor would be utilized for the greatest benefit to the residents and tourists of Ulster County; and

WHEREAS, the U&D Corridor Advisory Committee successfully retained the services of an independent consulting firm, Stone Consulting & Design, P.C., to advise the Committee on recommendations for the highest and best use for various segments of the Corridor; and

WHEREAS, the Committee met frequently, completed field visits, interviewed stakeholders, reviewed existing reports and available data, and vetted the recommendations of Stone Consulting; and

WHEREAS, Resolution No. 387 of November 2015 authorized the U&D Corridor Advisory Committee to report its findings to the Legislature before December 31, 2015 and the findings of the Advisory Committee are reported herein; and

Amending Resolution No. 275 Of 2014, Establishing A Policy For A "Rail With Trail" Along The County-Owned Ulster And Delaware Railroad Corridor

WHEREAS, the Committee has determined that the segmented approach to the Corridor, which includes railroad only segments , trail only segments, and rail with trail segments will maximize the public benefits of the Corridor; and

WHEREAS, the Committee recommends several modifications to the established segmented "rail with trail" policy that would help the County realize the maximum benefits from the Corridor and accommodate both railroad and recreational trail uses; now, therefore, be it

RESOLVED, the segmented "rail with trail" policy shall be amended to convert to trail only on the segment between Cornell Street and the east side of the Kingston Plaza to enhance quality of life and improve public health in the City of Kingston, provided sufficient track shall be left to load passengers at Kingston Plaza; and, be it further

RESOLVED, the "rail with trail" policy shall include an increased available railroad segment, co-located with public trail wherever feasible, in the segment from the east end of Kingston Plaza to MP 8.33, which would increase the potential for possible future tourism theme trains without sacrificing trail connectivity from Kingston to the Ashokan Reservoir; and, be it further

RESOLVED, the segment between MP 8.33 and Basin Road will require further investigation on the future feasibility of rail with trail and shall be the last segment to be altered or converted on the east side of the Ashokan provided that trail connectivity co-located on the corridor shall be preserved; and, be it further

RESOLVED, the segment from Basin Road to Route 28A in Boiceville, which includes all of the U&D Corridor within New York City Department of Environmental Protection (NYCDEP) lands, shall be converted to a public recreational trail; and, be it further

RESOLVED, from Route 28A in Boiceville to Bridge Street in Phoenicia shall be designated as railroad segment with a co-located trail where it is found to be feasible; and, be it further

RESOLVED, the segment from Bridge Street in Phoenicia to the Ulster County line in the Town of Shandaken shall be utilized as a recreational trail with a co-location of a possible rail station and rail connection to Delaware County immediately near the County border at Highmount; and, be it further

Resolution No. 488 December 15, 2015

Amending Resolution No. 275 Of 2014, Establishing A Policy For A "Rail With Trail" Along The County-Owned Ulster And Delaware Railroad Corridor

RESOLVED, within 90 days from the effective date of this Resolution, Ulster County shall release a Request for Proposals ("RFP") for potential tourism railroad operators to begin following the expiration of the current U&D lease on May 31, 2016 for the segments designated as railroad segments pursuant to this policy; and, be it further

RESOLVED, that the Ulster County Legislature requests that the County Executive submit a revised plan outlining projects in compliance with this policy, including secured funding sources to advance planning and design for the segmented rail with trail conversion, as well as on-going maintenance,

and move its adoption.

ADOPTED BY THE FOLLOWING VOTE:

AYES: 23 NOES: 0

Passed Committee: Laws and Rules, Governmental Services on December 14, 2015

FINANCIAL IMPACT:
NONE

Resolution No. 488 December 15, 2015

Amending Resolution No. 275 Of 2014, Establishing A Policy For A "Rail With Trail" Along The County-Owned Ulster And Delaware Railroad Corridor

STATE OF NEW YORK
ss:
COUNTY OF ULSTER

I, the undersigned Clerk of the Legislature of the County of Ulster, hereby certify that the foregoing resolution is the original resolution adopted by the Ulster County Legislature on the 15th Day of December in the year Two Thousand and Fifteen, and said resolution shall remain on file in the office of said clerk.

IN WITNESS WHEREOF, I have hereunto set my hand and seal of the County of Ulster this 16th Day of December in the year Two Thousand and Fifteen.

|s| Victoria A. Fabella
Victoria A. Fabella, Clerk
Ulster County Legislature

Submitted to the County Executive this
16th Day of December, 2015.

|s| Victoria A. Fabella
Victoria A. Fabella, Clerk
Ulster County Legislature

Approved by the County Executive this
22nd Day of December, 2015.

|s| Michael P. Hein
Michael P. Hein, County Executive

U & D Corridor
Adopted Rail and Trail Use Policy
Resolution No. 488 Dec, 2015

Highmount Interconnect

Phoenicia Interconnect

Boiceville Interconnect

Basin Road Interconnect

Plaza Interconnect

Kingston Plaza

Existing Rail Yard
Cornell Street

Mt Tobias
Wild Forest

Guardian
Mountain

Comeau
Property

Sundown
Wild Forest

Frost
Valley
YMCA

Legend

- Rail with Trail (where feasible)
- Trail Only
- To Be Determined
- O & W Connector

Resolution No. 263 May 17, 2016

Approving The Execution Of A Contract In Excess Of $50,000.00 Entered Into By The County – Barton & Loguidice DPC– Department of Planning

Referred to: The Economic Development, Tourism, Housing, Planning and Transit Committee (Chairman Maloney and Legislators Berky, Delaune, Lapp, Litts, Maio and Rodriguez), and The Ways and Means Committee (Chairman Gerentine and Legislators Allen, Bartels, Belfiglio, Briggs, Maio, and Maloney)

Chairman of the Economic Development, Tourism, Housing, Planning, and Transit Committee, James F. Maloney, and Deputy Chairman Hector Rodriguez offer the following:

WHEREAS, pursuant to Section C-11(O) of the Ulster County Charter and Sections A2-5(15) and A3-4 (X) of the Administrative Code, the Ulster County Legislature shall have the power to approve the execution of certain contracts and amendments in the amount of $50,000.00 or in excess of $50,000.00 entered into by the County; and

WHEREAS, a contract for execution by the County with Barton & Loguidice DPC has been submitted for approval by the Ulster County Legislature, which is described below:

Planning	Barton & Loguidice DPC	2016-00000265 - engineering design services for 11.5 miles of recreational trail along the Ashokan Reservoir	100% Other - NYCDEP	RFP	6/1/16 - 12/31/18	$395,000.00

WHEREAS, said contract has been reviewed by the Contract Manager, County Attorney's Office, Director of Purchasing, and the County Executive; now, therefore, be it

RESOLVED, the Ulster County Legislature has examined the contract, and hereby approves the contract in the form as filed with the Clerk of the Ulster County Legislature or as modified with the approval of the County Attorney and Legislative Counsel,

and move its adoption.

ADOPTED BY THE FOLLOWING VOTE:

AYES: 17 NOES: 5
(Noes: Legislators Donaldson, Greene, J. Parete, R. Parete, and Wawro)
(Absent: Legislator Gerentine)

Resolution No. 263 May 17, 2016

Approving The Execution Of A Contract In Excess Of $50,000.00 Entered Into By The County – Barton & Loguidice DPC– Department of Planning

Passed Committee: Economic Development, Tourism, Housing, Planning and Transit on May 3, 2016

Passed Committee: Ways and Means on May 10, 2016

FINANCIAL IMPACT:
$395,000.00 – 2016/2017/2018 APPROPRIATION DOLLARS

STATE OF NEW YORK
ss:
COUNTY OF ULSTER

I, the undersigned Clerk of the Legislature of the County of Ulster, hereby certify that the foregoing resolution is the original resolution adopted by the Ulster County Legislature on the 17th Day of May in the year Two Thousand and Sixteen, and said resolution shall remain on file in the office of said clerk.

IN WITNESS WHEREOF, I have hereunto set my hand and seal of the County of Ulster this 18th Day of May in the year Two Thousand and Sixteen.

|s| Victoria A. Fabella
Victoria A. Fabella, Clerk
Ulster County Legislature

Submitted to the County Executive this
19th Day of May, 2016.

|s| Victoria A. Fabella
Victoria A. Fabella, Clerk
Ulster County Legislature

Approved by the County Executive this
26th Day of May, 2016.

|s| Michael P. Hein
Michael P. Hein, County Executive

Resolution No. 427 October 18, 2016

Approving The Execution Of A Contract Amendment In Excess Of $50,000.00 Entered Into By The County – Barton & Loguidice DPC– Department Of Planning

Referred to: The Economic Development, Tourism, Housing, Planning and Transit Committee (Chairman Maloney and Legislators Berky, Delaune, Lapp, Litts, Maio and Rodriguez), and The Ways and Means Committee (Chairman Gerentine and Legislators Allen, Bartels, Belfiglio, Briggs, Maio, and Maloney)

Chairman of the Economic Development, Tourism, Housing, Planning, and Transit Committee, James F. Maloney, and Deputy Chairman Hector Rodriguez offer the following:

WHEREAS, pursuant to Section C-11(O) of the Ulster County Charter and Section A2-5(15) of the Administrative Code, the Ulster County Legislature shall have the power to approve the execution of certain contracts and amendments in the amount of $50,000.00 or in excess of $50,000.00 entered into by the County; and

WHEREAS, a contract amendment for execution by the County with Barton & Loguidice DPC has been submitted for approval by the Ulster County Legislature, which is described below:

Planning	Barton & Loguidice DPC	2016-00000265 - Amd #1 - expand scope of work to include engineering review and design work for the Boiceville Trestle - Ashokan Trail Project	100% Other	RFP	10/1/16 - 12/31/18	$154,500.00

WHEREAS, said contract amendment has been reviewed by the Contract Manager, County Attorney's Office, Director of Purchasing, and the County Executive; now, therefore, be it

RESOLVED, the Ulster County Legislature has examined the contract amendment, and hereby approves the amendment in the form as filed with the Clerk of the Ulster County Legislature or as modified with the approval of the County Attorney and Legislative Counsel,

and move its adoption.

ADOPTED BY THE FOLLOWING VOTE:

AYES: 17 NOES: 3
(Noes: Legislators Donaldson, Greene, and J. Parete)
(Absent: Legislators Delaune, Gerentine, and Maloney)

Resolution No. 427 October 18, 2016

Approving The Execution Of A Contract Amendment In Excess Of $50,000.00 Entered Into By The County – Barton & Loguidice DPC– Department Of Planning

Passed Committee: Economic Development, Tourism, Housing, Planning and Transit on October 3, 2016

Passed Committee: Ways and Means on October 13, 2016

FINANCIAL IMPACT:
$154,500.00 – 2016/2017/2018 APPROPRIATION DOLLARS

STATE OF NEW YORK
ss:
COUNTY OF ULSTER

I, the undersigned Clerk of the Legislature of the County of Ulster, hereby certify that the foregoing resolution is the original resolution adopted by the Ulster County Legislature on the 18th Day of October in the year Two Thousand and Sixteen, and said resolution shall remain on file in the office of said clerk.

IN WITNESS WHEREOF, I have hereunto set my hand and seal of the County of Ulster this 19th Day of October in the year Two Thousand and Sixteen.

|s| Victoria A. Fabella
Victoria A. Fabella, Clerk
Ulster County Legislature

Submitted to the County Executive this
19th Day of October, 2016.

|s| Victoria A. Fabella
Victoria A. Fabella, Clerk
Ulster County Legislature

Approved by the County Executive this
24th Day of October, 2016.

|s| Michael P. Hein
Michael P. Hein, County Executive

Resolution No. 119 March 22, 2017

Authorizing The Chairman Of The Ulster County Legislature To Execute A State Assistance Contract With The New York State Department of Environmental Conservation For Grant Funding For The Butternut Cove Culvert Rehabilitation and Slope Stabilization Project along the Ulster & Delaware Railroad Corridor

Referred to: The Economic Development, Tourism, Housing, Planning and Transit Committee (Chairman Maloney and Legislators Berky, Delaune, Lapp, Litts, Maio and Rodriguez), The Energy and Environment Committee (Chairman R. Parete and Legislators Bartels, Heppner, Lapp, and Wawro), and The Ways and Means Committee (Chairman Gerentine and Legislators Allen, Bartels, Belfiglio, Briggs, Maio, and Maloney)

Chairman of the Economic Development, Tourism, Housing, Planning, and Transit Committee, James F. Maloney, and Deputy Chairman Hector Rodriguez offer the following:

WHEREAS, the Butternut Cove Culvert, which is located along the County-owned Ulster & Delaware ("U&D") Railroad Corridor on the northern shore of the Ashokan Reservoir in the Town of Olive, has deteriorated over a period of decades causing the collapse of elements of the culvert structure and resulting in ongoing erosion of the U&D embankment; and

WHEREAS, Ulster County was awarded $329,857 in grant funding from the New York State Department of Environmental Conservation through the Water Quality Improvement Program to assist the County in addressing the failing culvert and stabilizing the eroding embankment, which requires execution of a State Assistance Agreement with NYS DEC; and now, therefore, be it

RESOLVED, the Chairman of the Ulster County Legislature is hereby authorized to execute a State Assistance Contract (Contract No. C305225) and any amendments thereto, with the New York State Department of Environmental Conservation for grant funding for the Butternut Creek Culvert Replacement and Slope Stabilization project; and, be it further

RESOLVED, following execution of the State Assistance Contract, the Director of Planning and the Deputy Director of Planning are hereby authorized to submit all necessary grant related documentation and otherwise act for the County regarding this grant funding; and, be it further

RESOLVED, that the Ulster County Clerk of the Legislature is directed to send one certified copy of this Resolution to the Albany office of the NYS DEC; and be it further

Resolution No. 119 March 22, 2017

Authorizing The Chairman Of The Ulster County Legislature To Execute A State Assistance Contract With The New York State Department of Environmental Conservation For Grant Funding For The Butternut Cove Culvert Rehabilitation and Slope Stabilization Project along the Ulster & Delaware Railroad Corridor

RESOLVED, this Resolution shall take effect immediately,

and move its adoption.

ADOPTED BY THE FOLLOWING VOTE:

AYES: 19 NOES: 4
(Noes: Legislators Donaldson, Greene, R. Parete, and Wawro)

Passed Committee: Energy and Environment on March 6, 2017

Passed Committee: Ways and Means on March 7, 2017

Passed Committee: Economic Development, Tourism, Housing, Planning and Transit on March 8, 2017

FINANCIAL IMPACT:
$329,857 – ANTICIPATED 2017 REVENUE DOLLARS

Resolution No. 119 March 22, 2017

Authorizing The Chairman Of The Ulster County Legislature To Execute A State Assistance Contract With The New York State Department of Environmental Conservation For Grant Funding For The Butternut Cove Culvert Rehabilitation and Slope Stabilization Project along the Ulster & Delaware Railroad Corridor

STATE OF NEW YORK
ss:
COUNTY OF ULSTER

I, the undersigned Clerk of the Legislature of the County of Ulster, hereby certify that the foregoing resolution is the original resolution adopted by the Ulster County Legislature on the 22nd Day of March in the year Two Thousand and Seventeen, and said resolution shall remain on file in the office of said clerk.

IN WITNESS WHEREOF, I have hereunto set my hand and seal of the County of Ulster this 24th Day of March in the year Two Thousand and Seventeen.

|s| Victoria A. Fabella
Victoria A. Fabella, Clerk
Ulster County Legislature

Submitted to the County Executive this
24th Day of March, 2017.

|s| Victoria A. Fabella
Victoria A. Fabella, Clerk
Ulster County Legislature

Approved by the County Executive this
30th Day of March, 2017.

|s| Michael P. Hein
Michael P. Hein, County Executive

Resolution No. 165 April 18, 2017

Authorizing The Chairman Of The Ulster County Legislature To Execute A Grant Agreement With The New York State Department of Environmental Conservation For The Ashokan Rail Trail Project – Planning Department

Referred to: The Economic Development, Tourism, Housing, Planning and Transit Committee (Chairman Maloney and Legislators Berky, Delaune, Lapp, Litts, Maio and Rodriguez), The Energy and Environment Committee (Chairman R. Parete and Legislators Bartels, Heppner, Lapp, and Wawro), and The Ways and Means Committee (Chairman Gerentine and Legislators Allen, Bartels, Belfiglio, Briggs, Maio, and Maloney)

Chairman of the Economic Development, Tourism, Housing, Planning, and Transit Committee, James F. Maloney, offers the following:

WHEREAS, this resolution has been submitted by the County Executive on behalf of the Department of Planning; and

WHEREAS, the State of New York has allocated $2,300,000 in capital project funding for the construction of the Ulster County Rail Trail Project- Ashokan Rail Trail; and

WHEREAS, Ulster County is required to enter into a Grant Agreement with the New York State Department of Environmental Conservation for the allocated funding for the construction phase of the Ashokan Rail Trail project, which is proposed to commence in late 2017; and now, therefore, be it

RESOLVED, the Chairman of the Ulster County Legislature is hereby authorized to execute a Grant Contract (Contract No. DEC01-C00288GG-3350000) and any amendments thereto, with the New York State Department of Environmental Conservation for grant funding for the Ashokan Rail Trail project; and be it further

RESOLVED, following execution of the Grant Contract, the Director of Planning and the Deputy Director of Planning are hereby authorized to submit all necessary grant related documentation and otherwise act for the County regarding this grant funding,

and move its adoption.

ADOPTED BY THE FOLLOWING VOTE:

AYES: 16 NOES: 6
(Noes: Legislators Donaldson, Greene, Lopez, J. Parete, R. Parete, and Wawro)
(Absent: Legislator Briggs)

Resolution No. 165 April 18, 2017

Authorizing The Chairman Of The Ulster County Legislature To Execute A Grant Agreement With The New York State Department of Environmental Conservation For The Ashokan Rail Trail Project – Planning Department

Passed Committee: Economic Development, Tourism, Housing, Planning and Transit on April 4, 2017

Passed Committee: Energy and Environment on April 10, 2017

Passed Committee: Ways and Means on April 11, 2017

FINANCIAL IMPACT:
$2,300,000.00- ANTICIPATED CAPITAL PROJECT REVENUE DOLLARS

STATE OF NEW YORK
ss:
COUNTY OF ULSTER

I, the undersigned Clerk of the Legislature of the County of Ulster, hereby certify that the foregoing resolution is the original resolution adopted by the Ulster County Legislature on the 18th Day of April in the year Two Thousand and Seventeen, and said resolution shall remain on file in the office of said clerk.

IN WITNESS WHEREOF, I have hereunto set my hand and seal of the County of Ulster this 21st Day of April in the year Two Thousand and Seventeen.

|s| Victoria A. Fabella
Victoria A. Fabella, Clerk
Ulster County Legislature

Submitted to the County Executive this
21st Day of April, 2017.

|s| Victoria A. Fabella
Victoria A. Fabella, Clerk
Ulster County Legislature

Approved by the County Executive this
27th Day of April, 2017.

|s| Michael P. Hein
Michael P. Hein, County Executive

Resolution No. 327 August 15, 2017

Authorizing The Chairman Of The Ulster County Legislature To Execute The Ashokan Trail Easement With The City Of New York

Referred to: The Economic Development, Tourism, Housing, Planning and Transit Committee (Chairman Maloney and Legislators Berky, Delaune, Lapp, Litts, Maio and Rodriguez)

Chairman of the Economic Development, Tourism, Housing, Planning, and Transit Committee, James F. Maloney, and Deputy Chairman Hector Rodriguez offer the following:

WHEREAS, this Resolution has been submitted by the County Executive on behalf of the Department of Planning; and

WHEREAS, the County of Ulster is the owner of 38.6 miles of the Ulster & Delaware Railroad Corridor ("U&D Corridor) running from the City of Kingston to Highmount in the Town of Shandaken, including approximately 11.6 miles of easement for railroad purposes ("Railroad Easement") through lands adjacent to the Ashokan Reservoir owned by the City of New York ("Watershed Property") and managed by the New York City Department of Environmental Protection ("DEP"); and

WHEREAS, in December 2013, the Ulster County Executive and DEP announced an historic Agreement in Principle to facilitate and provide significant funding support for the conversion of the Railroad Easement along the Watershed Property into a public, multi-use recreational trail ("Ashokan Rail Trail") in order to provide economic development to Ulster County and Route 28 businesses, expand recreational opportunities for local residents and visitors, improve public health and quality of life, and further develop Ulster County's rail trail network into a world-class tourism destination; and

WHEREAS, the Ashokan Rail Trail along Watershed Property will open the northern shore of the Ashokan Reservoir to the public, without permit or fee, for the first time in more than a century and will ensure year-round public access for walking, running, bicycling, cross country skiing, snowshoeing and other non-motorized uses between Basin Road in West Hurley and Route 28A in Boiceville on a recreational trail that is fully accessible for persons with disabilities and limited mobility; and

WHEREAS, in May 2015, the Ulster County Legislature authorized the County Executive and Chairman of the Legislature to execute an Agreement with the City of New York to accept $2.5 million in grant fund for and facilitate the creation of the Ashokan Rail Trail ("MOA"); and

Resolution No. 327 August 15, 2017

Authorizing The Chairman Of The Ulster County Legislature To Execute The Ashokan Trail Easement With The City Of New York

WHEREAS, in December 2015, the Ulster County Legislature adopted a compromise rail and trail policy for the U&D Corridor that delineated the segment along the Watershed Lands for conversion into a public recreational trail and also established and funded Capital Project No. 459—the Ashokan Rail Trail—for engineering design; and

WHEREAS, under the MOA, the County would construct and operate the Ashokan Rail Trail under a Land-Use Permit and eventually, a Modified Ashokan Railroad Easement, but based on concerns expressed by the Ulster County Legislature and others about the protection of the County's perpetual Railroad Easement, the DEP and County have agreed instead to establish a new, separate permanent easement for trail ("Ashokan Trail Easement"), which ensures that the County can construct and operate a trail without modifying, altering, or extinguishing the County's Railroad Easement or its rights to reactivate railroad uses on the Railroad Easement, which cannot be revoked or cancelled by DEP, as it could with a Land-Use Permit; and

WHEREAS, the County has been awarded approximately $6.3 million in grant funding for the Ashokan Rail Trail by DEP, the New York State Department of Conservation, and New York State Parks, Recreation and Historic Preservation and has requested an additional $2.3 million from the Federal Emergency Management Agency for replacement of the Boiceville Bridge; and

WHEREAS, pursuant to Resolution No. 480 of December 15, 2015 Ulster County declared it intent to act as lead agency as provided for in 6NYCRR Part 617.6(b)(2)(i) of the Regulations pertaining to Article 8 of the Environmental Conservation Law of New York State (SEQRA); and

WHEREAS, Ulster County circulated the necessary notifications on August 31, 2016 and receiving no objections became lead agency 30 days after this date; and

WHEREAS, Ulster County has examined the proposed action consisting of the approval of Ashokan Trail Easement in consideration of this action being a lawful segmented review pursuant to the SEQRA Regulations at 6 NYCRR Part 617.3(g)(1); and

WHEREAS, the Ulster County Legislature has reviewed the Environmental Record prepared for this action and the Ashokan Trail Easement as now on file with the Clerk of the Legislature; now, therefore, be it

Resolution No. 327 August 15, 2017

Authorizing The Chairman Of The Ulster County Legislature To Execute The Ashokan Trail Easement With The City Of New York

RESOLVED, that the Ulster County Legislature based on the review of the Environmental Record, the Ashokan Trail Easement itself, and the requirements under 6 NYCRR Part 617 determines that approval of the Ashokan Trail Easement is a discrete action that can be considered separate and apart from any trail construction and that as such a segmented review is warranted and will be no less protective of the environment nor will it commit the Legislature to any future course of action; and, be it further

RESOLVED, that the Ulster County Legislature based on the review of the Environmental Record finds that the Ashokan Trail Easement constitutes an unlisted action and its approval will not have an adverse impact on the environment and hereby authorizes the issuance of a negative declaration as provided in 6NYCRR 617.7; and, be it further

RESOLVED, the Chairman of the Ulster County Legislature is hereby authorized to execute the Ashokan Trail Easement with the City of New York in the form as filed with the Clerk of the Ulster County Legislature; and, be it further

RESOLVED, all notices, requests and/or approvals required by the Ashokan Trail Easement that are sent by, or delivered to the Ulster County Executive and/or the Ulster County Attorney pursuant to Section 21 of the Easement shall be forwarded promptly to the Clerk of the Ulster County Legislature,

and moves its adoption.

ADOPTED BY THE FOLLOWING VOTE:

AYES: 23 NOES: 0

Passed Committee: Economic Development, Tourism, Housing, Planning and Transit with Paragraph 21 of the Deed of Easement amended to include notice to the Legislature on August 1, 2017

FINANCIAL IMPACT:
NONE

Resolution No. 327 August 15, 2017

Authorizing The Chairman Of The Ulster County Legislature To Execute The Ashokan Trail Easement With The City Of New York

Legislator Greene motioned, seconded by Legislator Donaldson, to insert an additional WHEREAS (placed as 6th WHEREAS) and RESOLVED (placed as 3rd RESOLVED) to read as follows:

"WHEREAS, maximizing the public benefits of the Ulster County-owned U&D Railroad Corridor includes the highest and best combination of rail and trail; and

RESOLVED, that the final design of the Ashokan Rail Trail include leaving the existing railroad tracks operable within the U&D Corridor from MP 10 to MP 11.1, and be it further"

MOTION DEFEATED BY THE FOLLOWING VOTE:

AYES: 5 NOES: 18
(AYES: Legislators Donaldson, Greene, J. Parete, R. Parete, and Wawro)

STATE OF NEW YORK
ss:
COUNTY OF ULSTER

I, the undersigned Clerk of the Legislature of the County of Ulster, hereby certify that the foregoing resolution is the original resolution adopted by the Ulster County Legislature on the 15th Day of August in the year Two Thousand and Seventeen, and said resolution shall remain on file in the office of said clerk.

IN WITNESS WHEREOF, I have hereunto set my hand and seal of the County of Ulster this 17th Day of August in the year Two Thousand and Seventeen.

|s| Victoria A. Fabella
Victoria A. Fabella, Clerk
Ulster County Legislature

Submitted to the County Executive this
17th Day of August, 2017.

|s| Victoria A. Fabella
Victoria A. Fabella, Clerk
Ulster County Legislature

Approved by the County Executive this
21st Day of August, 2017.

|s| Michael P. Hein
Michael P. Hein, County Executive

Resolution No. 421 November 14, 2017

Adopting and Issuing A Negative Declaration Under 6 NYCRR Part 617 State Environmental Quality Review Act (SEQRA) By The Ulster County Legislature For The Construction Of The Ashokan Rail Trail– Capital Project No. 459- Department Of Planning

Referred to: The Economic Development, Tourism, Housing, Planning and Transit Committee (Chairman Maloney and Legislators Berky, Delaune, Lapp, Litts, Maio and Rodriguez), and The Public Works and Capital Projects Committee (Chairman Fabiano and Legislators Greene, Litts, Loughran, and Maloney)

Deputy Chairman of the Economic Development, Tourism, Housing, Planning, and Transit Committee, Hector Rodriguez, offers the following:

WHEREAS, this resolution has been submitted by the County Executive on behalf of the Department of Planning; and

WHEREAS, pursuant to Resolution No. 480 passed on December 15, 2015, the Ulster County Legislature established Capital Project No. 459 to provide for design and engineering work for the Ashokan Rail Trail and approved funding for professional engineering services; and

WHEREAS, pursuant to Resolution No. 480 passed on December 15, 2015, the Ulster County Legislature declared its intent to act as Lead Agency for the Ashokan Rail Trail Project (the "Project") as provided for in 6 NYCRR Part 617.6(b)(3) of the Regulations pertaining to Article 8 of the Environmental Conservation Law of New York State ("SEQRA") and determined that the Project was a Type I Action that required a coordinated review; and

WHEREAS, Ulster County circulated the necessary notifications on August 31, 2016 and receiving no objections became Lead Agency 30 days after this date; and

WHEREAS, pursuant to Resolution No. 327 passed on August 15, 2017, the Ulster County Legislature authorized the execution of the Ashokan Trail Easement with the City of New York, determining that approval of the Ashokan Trail Easement was a discrete unlisted action separate and apart from any trail construction and issued a negative declaration as provided under 6NYCRR Part 617.7; and

WHEREAS, Ulster County has examined the proposed action consisting of the construction of the Ashokan Rail Trail along the Ashokan Trail Easement, including removing rail, ties and other track materials and developing three trailhead areas, to create a public recreational trail and prepared the Environmental Record as now on file with the Clerk of the Legislature; and

Resolution No. 421 November 14, 2017

Adopting and Issuing A Negative Declaration Under 6 NYCRR Part 617 State Environmental Quality Review Act (SEQRA) By The Ulster County Legislature For The Construction Of The Ashokan Rail Trail– Capital Project No. 459- Department Of Planning

WHEREAS, as part of the Project approval process, the County has completed an expanded Environmental Evaluation of Impacts and Negative Declaration that includes an analysis of impacts to historic and archeological sites, wetlands and water bodies, threatened or endangered species, traffic, cumulative growth, and other environmental considerations as required under 6 NYCRR Part 617 of the Regulations of Article 8 of the Environmental Conservation Law of New York State ("SEQRA"); and

WHEREAS, pursuant to the Regulations, the County Legislature has considered the significance of the potential environmental impacts of the Project by (a) using the criteria specified in Section 617.7 of the Regulations, and (b) examining the EAF for the Project, including the facts and conclusions in Parts 1, 2 and 3 of the EAF, together with other available supporting information, to identify the relevant areas of environmental concern, and (c) thoroughly analyzing the areas of relevant environmental concern; and

WHEREAS, such evaluation of impacts and negative declaration has been filed with the Clerk of the Legislature and made available to members of the Legislature; and

WHEREAS, Ulster County has addressed all SEQRA issues as identified, considered and examined by the Involved and Interested Agencies and members of the public in conducting the environmental review and in so doing, hereby determines that the Project will not have a significant adverse environmental impact, will not require the preparation of a Draft Environmental Impact Statement with respect to the Project, and has made a determination of non-significance under SEQRA ("Negative Declaration"), a copy of which is annexed to this Resolution and made a part hereof; now, therefore, be it

RESOLVED, that pursuant to 6 NYCRR Part 617 et seq. of the Regulations of Article 8 of the Environmental Conservation Law of New York State (SEQRA), the Ulster County Legislature hereby adopts and issues the Negative Declaration under SEQRA for the Ashokan Rail Trail Project upon the vote thereupon and the signature of the Ulster County Legislature Chairman herewith; and, be it further

Resolution No. 421 November 14, 2017

Adopting and Issuing A Negative Declaration Under 6 NYCRR Part 617 State Environmental Quality Review Act (SEQRA) By The Ulster County Legislature For The Construction Of The Ashokan Rail Trail– Capital Project No. 459- Department Of Planning

RESOLVED, that Clerk of the Legislature shall file this Resolution and accompanying Negative Declaration with the Involved and Interested Agencies as enumerated in the Negative Declaration and publish the Resolution and Negative Declaration in the Environmental Notice Bulletin; and, be it further

RESOLVED, that the adoption of the Negative Declaration shall constitute the SEQRA Decision of approval for the construction of the Ashokan Rail Trail Project as therein defined to convert the U&D Railroad Corridor from Basin Road in West Hurley to Route 28A in Boiceville to a recreational trail only and all of the actions associated with such project, including the removal of railroad track and ties and the development of trailheads, together with all plans and documents associated therewith,

and move its adoption.

ADOPTED BY THE FOLLOWING VOTE:

AYES: 14 NOES: 7
(Noes: Legislators Donaldson, Fabiano, Greene, Lapp, J. Parete, R. Parete, and Wawro)
(Absent: Legislators Berky and Loughran)

No Action Taken in Committee: Public Works and Capital Projects on November 1, 2017

Passed Committee: Economic Development, Tourism, Housing, Planning and Transit on November 9, 2017

Passed Committee: Public Works and Capital Projects on November 14, 2017

FINANCIAL IMPACT:
NONE

Resolution No. 421 November 14, 2017

Adopting and Issuing A Negative Declaration Under 6 NYCRR Part 617 State Environmental Quality Review Act (SEQRA) By The Ulster County Legislature For The Construction Of The Ashokan Rail Trail– Capital Project No. 459- Department Of Planning

Legislator Greene motioned, seconded by Legislator Donaldson, to amend the sixth WHEREAS and third RESOLVED to add additional language as indicated in bold font:

WHEREAS, Ulster County has examined the proposed action consisting of the construction of the Ashokan Rail Trail along the Ashokan Trail Easement, including removing rail, ties and other track materials **(with the exception of all rail, ties and other track materials between Basin Road and MP 11.1, which shall not be removed)** and developing three trailhead areas, to create a public recreational trail and prepared the Environmental Record as now on file with the Clerk of the Legislature; and

RESOLVED, that the adoption of the Negative Declaration shall constitute the SEQRA Decision of approval for the construction of the Ashokan Rail Trail Project as therein defined to convert the U&D Railroad Corridor from Basin Road in West Hurley to Route 28A in Boiceville to a recreational trail only and all of the actions associated with such project, including the removal of railroad track and ties **(with the exception of all rail, ties and other track materials between Basin Road and MP 11.1, which shall not be removed)** and the development of trailheads, together with all plans and documents associated therewith,

MOTIONED DEFEATED BY THE FOLLOWING VOTE:

AYES: 7 NOES: 14
(Ayes: Legislators Donaldson, Fabiano, Greene, Lapp, J. Parete, R. Parete, and Wawro)
(Absent: Legislators Berky and Loughran)

Resolution No. 421 November 14, 2017

Adopting and Issuing A Negative Declaration Under 6 NYCRR Part 617 State Environmental Quality Review Act (SEQRA) By The Ulster County Legislature For The Construction Of The Ashokan Rail Trail– Capital Project No. 459- Department Of Planning

STATE OF NEW YORK
ss:
COUNTY OF ULSTER

I, the undersigned Clerk of the Legislature of the County of Ulster, hereby certify that the foregoing resolution is the original resolution adopted by the Ulster County Legislature on the 14th Day of November in the year Two Thousand and Seventeen, and said resolution shall remain on file in the office of said clerk.

IN WITNESS WHEREOF, I have hereunto set my hand and seal of the County of Ulster this 16th Day of November in the year Two Thousand and Seventeen.

Victoria A. Fabella, Clerk
Ulster County Legislature

Submitted to the County Executive this
16th Day of November, 2017.

Victoria A. Fabella, Clerk
Ulster County Legislature

Approved by the County Executive this
17th Day of November, 2017.

Michael P. Hein, County Executive

Resolution No. 422 November 14, 2017

Amending Capital Project No. 459 – Ashokan Rail Trail Project - To Include Costs for Construction and Construction Inspection– Department of Planning

Referred to: The Economic Development, Tourism, Housing, Planning and Transit Committee (Chairman Maloney and Legislators Berky, Delaune, Lapp, Litts, Maio and Rodriguez), The Public Works and Capital Projects Committee (Chairman Fabiano and Legislators Greene, Litts, Loughran, and Maloney), and The Ways and Means Committee (Chairman Gerentine and Legislators Allen, Bartels, Belfiglio, Briggs, Maio, and Maloney)

Deputy Chairman of the Economic Development, Tourism, Housing, Planning, and Transit Committee, Hector Rodriguez, offers the following:

WHEREAS, this resolution has been submitted by the County Executive on behalf of the Department of Planning; and

WHEREAS, the County of Ulster is the owner of 38.6 miles of the Ulster & Delaware ("U&D") Railroad Corridor running from the City of Kingston to Highmount in the Town of Shandaken, including approximately 11.5 miles running adjacent to the Ashokan Reservoir, which is owned by the City of New York and managed by the New York City Department of Environmental Protection ("DEP"); and

WHEREAS, pursuant to Resolution No. 275 passed on August 19, 2004, the Ulster County Legislature established a segmented rail and trail policy for the U&D Corridor and delineated the segment along the Ashokan Reservoir for conversion to a public recreational trail only; and

WHEREAS, pursuant to Resolution No. 187 passed on May 19, 2015, the Ulster County Legislature authorized the County Executive and Chairman of the Legislature to execute an Agreement with the City of New York ("Agreement") to accept $2.5 million in grant funding for and facilitate the creation of an 11.5 mile recreational trail along the northern shore of the Ashokan Reservoir on the U&D Corridor (the "Ashokan Rail Trail") in accordance with the policy created by Resolution No. 275; and

WHEREAS, the Ashokan Rail Trail project will open the northern shore of the Ashokan Reservoir to the public, without permit or fee, for the first time in more than a century and will ensure year-round public access for walking, running, bicycling, cross country skiing, snowshoeing and other non-motorized uses between Basin Road in West Hurley and Route 28A in Boiceville on a recreational trail that is fully accessible for persons with disabilities and limited mobility; and

Resolution No. 422 November 14, 2017

Amending Capital Project No. 459 – Ashokan Rail Trail Project - To Include Costs for Construction and Construction Inspection– Department of Planning

WHEREAS, pursuant to Resolution No. 488 unanimously passed on December 15, 2015, the Ulster County Legislature amended its U&D Corridor rail and trail policy under Resolution No. 275 and reaffirmed its prior determination to convert the 11.5 miles of the U&D Corridor along the Ashokan Reservoir for use as a recreational trail only; and

WHEREAS, pursuant to Resolution No. 480 unanimously passed on December 15, 2015, the Ulster County Legislature established Capital Project No. 459 for the Ashokan Rail Trail Project, approved funding for engineering services, and declared its intent to act as Lead Agency for the Project as provided for in 6 NYCRR Part 617.6(b)(3) of the Regulations pertaining to Article 8 of the Environmental Conservation Law of New York State ("SEQRA"), determining the Project was a Type I Action that required a coordinated review; and

WHEREAS, pursuant to Resolution No. 327 passed on August 15, 2017, the Ulster County Legislature authorized the execution of the Ashokan Trail Easement with the City of New York, which provided the County a permanent Ashokan Trail Easement along the U&D Corridor adjacent to the Ashokan Reservoir while preserving the County's underlying perpetual Railroad Easement;

WHEREAS, since the establishment of Capital Project No. 459, the County and its engineering consultants have consulted with the DEP, local stakeholders, and the public to develop, revise and finalize engineering plans for Ashokan Rail Trail, which has been designed both to protect water quality in the Ashokan Reservoir and create a world-class recreational trail; and

WHEREAS, the design plans require the removal of all track and ties and hazard trees along the Ashokan Rail Trail corridor as the first phase of construction to prepare for trail and bridge reconstruction, and the County has issued a Request for Bid for the necessary track and tree service and has received a qualified bid for the proposed services;

WHEREAS, the Ulster County Legislature has examined the proposed action consisting of the constructing the Ashokan Rail Trail, including removing rail, ties and other track materials, to create a public recreational trail and has adopted and issued a Negative Declaration for the Project under SEQRA and finds this action fully in accordance with its existing U&D Corridor policy; and

Resolution No. 422 November 14, 2017

Amending Capital Project No. 459 – Ashokan Rail Trail Project - To Include Costs for Construction and Construction Inspection– Department of Planning

WHEREAS, Ulster County has been awarded approximately $6.3 million in grant funding for the Ashokan Rail Trail by the DEP, the New York State Department of Conservation, and New York State Parks, Recreation and Historic Preservation and is awaiting determination on an additional $2.3 million from the Federal Emergency Management Agency for replacement of the Boiceville Bridge; and

WHEREAS, the entire costs of the proposed first phase of construction and the additional engineering services for construction inspection will be covered by a portion of the DEP grant funds awarded in 2015 Agreement; and now, therefore, be it

RESOLVED, that pursuant to and consistent with the U&D Corridor rail and trail policy established by Resolution 275 of 2014 and amended by Resolution 488 of 2015, the Ulster County Legislature hereby approves the removal of the railroad tracks from Basin Road in West Hurley to Route 28A in Boiceville for purposes of constructing the Ashokan Rail Trail; and be it further

RESOLVED, that the Ulster County Legislature shall monitor the progress of rail service between MP 6.5 to MP 8.33 and shall re-evaluate the rail terminus within 10 years; and be it further

RESOLVED, that the County shall retain 1,000 linear feet of track, (one set of rails) and other track materials, for future use should the Legislature extend rail with trail beyond MP 8.33 and subsequently extend rail with trail beyond Basin Road; and be it further

RESOLVED, that Capital Project 459 is hereby amended as follows:

	INCREASE	**AMOUNT**
HH.7197.0459.2300.2550 (Appr.#)	Construction	$1,043,000.00
HH.7197.0459.4300.4355 (Appr.#)	Engineering	$ 130,000.00
HH.7197.0459.3200.2397 (Rev.#)	Intergovernmental Revenue (DEP)	$1,173,000.00

Amending Capital Project No. 459 – Ashokan Rail Trail Project - To Include Costs for Construction and Construction Inspection– Department of Planning

and move its adoption.

ADOPTED AS AMENDED BY THE FOLLOWING VOTE:

AYES: 14 NOES: 7
(Noes: Legislators Donaldson, Fabiano, Greene, Lapp, J. Parete, R. Parete, and Wawro)
(Absent: Legislators Berky and Loughran)

No Action Taken in Committee: Public Works and Capital Projects on November 1, 2017

Passed Committee: Economic Development, Tourism, Housing, Planning and Transit on November 9, 2017

Passed Committee: Ways and Means on November 14, 2017

Passed Committee: Public Works and Capital Projects on November 14, 2017

FINANCIAL IMPACT:
$1,173,000.00- ADDITIONAL 2017 CAPITAL APPROPRIATIONS
$1,173,000.00- ADDITIONAL CAPITAL REVENUES (100% NYCDEP)

Legislator Rodriguez motioned, seconded by Legislator Maio, to add two additional RESOLVED clauses as indicated above in bold font.

MOTIONED ADOPTED BY THE FOLLOWING VOTE:

AYES: 20 NOES: 1
(Noes: Legislator Gerentine)
(Absent: Legislators Berky and Loughran)

Resolution No. 422 November 14, 2017

Amending Capital Project No. 459 – Ashokan Rail Trail Project - To Include Costs for Construction and Construction Inspection– Department of Planning

Legislator Greene motioned, seconded by Legislator R. Parete, to amend the tenth and eleventh WHEREAS clauses and first RESOLVED to add additional language as indicated in bold font:

WHEREAS, the design plans require the removal of all track and ties **(with the exception of all rail, ties and other track materials between Basin Road and MP 11.1, which shall not be removed)** and hazard trees along the Ashokan Rail Trail corridor as the first phase of construction to prepare for trail and bridge reconstruction, and the County has issued a Request for Bid for the necessary track and tree service and has received a qualified bid for the proposed services;

WHEREAS, the Ulster County Legislature has examined the proposed action consisting of the constructing the Ashokan Rail Trail, including removing rail, ties and other track materials **(with the exception of all rail, ties and other track materials between Basin Road and MP 11.1, which shall not be removed)**, to create a public recreational trail and has adopted and issued a Negative Declaration for the Project under SEQRA and finds this action fully in accordance with its existing U&D Corridor policy; and

RESOLVED, that pursuant to and consistent with the U&D Corridor rail and trail policy established by Resolution 275 of 2014 and amended by Resolution 488 of 2015, the Ulster County Legislature hereby approves the removal of the railroad tracks from **MP 11.1 ~~Basin Road~~** in West Hurley to Route 28A in Boiceville for purposes of constructing the Ashokan Rail Trail; and be it further

MOTIONED DEFEATED BY THE FOLLOWING VOTE:

AYES: 7 NOES: 14
(Ayes: Legislators Donaldson, Fabiano, Greene, Lapp, J. Parete, R. Parete, and Wawro)
(Absent: Legislators Berky and Loughran)

Resolution No. 422 November 14, 2017

Amending Capital Project No. 459 – Ashokan Rail Trail Project - To Include Costs for Construction and Construction Inspection– Department of Planning

STATE OF NEW YORK
ss:
COUNTY OF ULSTER

I, the undersigned Clerk of the Legislature of the County of Ulster, hereby certify that the foregoing resolution is the original resolution adopted by the Ulster County Legislature on the 14th Day of November in the year Two Thousand and Seventeen, and said resolution shall remain on file in the office of said clerk.

IN WITNESS WHEREOF, I have hereunto set my hand and seal of the County of Ulster this 16th Day of November in the year Two Thousand and Seventeen.

Victoria A. Fabella, Clerk
Ulster County Legislature

Submitted to the County Executive this
16th Day of November, 2017.

Victoria A. Fabella, Clerk
Ulster County Legislature

Approved by the County Executive this
17th Day of November, 2017.

Michael P. Hein, County Executive

Resolution No. 423 November 14, 2017

Approving The Execution Of A Contract Amendment In Excess Of $50,000.00 Entered Into By The County – Barton & Loguidice, DPC– Department Of Planning

Referred to: The Economic Development, Tourism, Housing, Planning and Transit Committee (Chairman Maloney and Legislators Berky, Delaune, Lapp, Litts, Maio and Rodriguez), and The Ways and Means Committee (Chairman Gerentine and Legislators Allen, Bartels, Belfiglio, Briggs, Maio, and Maloney)

Deputy Chairman of the Economic Development, Tourism, Housing, Planning, and Transit Committee, Hector Rodriguez, offers the following:

WHEREAS, pursuant to Section C-11(O) of the Ulster County Charter and Section A2-5(15) of the Administrative Code, the Ulster County Legislature shall have the power to approve the execution of certain contracts and amendments in the amount of $50,000.00 or in excess of $50,000.00 entered into by the County; and

WHEREAS, a contract amendment for execution by the County with Barton & Loguidice, DPC has been submitted for approval by the Ulster County Legislature, which is described below:

2016-00000265 - Amendment #2 - expand scope of services to include oversight and support during the removal of rail, hardware and ties along the Ashokan Rail Trail	100% Other	RFP	12/1/17 - 12/31/18	Amd Amt $118,500.00 Total Amt $668,000.00

WHEREAS, said contract amendment has been reviewed by the Contract Manager, County Attorney's Office, Director of Purchasing, and the County Executive; now, therefore, be it

RESOLVED, the Ulster County Legislature has examined the contract amendment, and hereby approves the amendment in the form as filed with the Clerk of the Ulster County Legislature or as modified with the approval of the County Attorney and Legislative Counsel,

and move its adoption.

ADOPTED BY THE FOLLOWING VOTE:

AYES: 15 NOES: 6
(Noes: Legislators Donaldson, Fabiano, Greene, Lapp, J. Parete, and Wawro)
(Absent: Legislators Berky and Loughran)

Resolution No. 423 November 14, 2017

Approving The Execution Of A Contract Amendment In Excess Of $50,000.00 Entered Into By The County – Barton & Loguidice, DPC– Department Of Planning

Passed Committee: Economic Development, Tourism, Housing, Planning and Transit on November 9, 2017

Passed Committee: Ways and Means on November 14, 2017

FINANCIAL IMPACT:
$118,500.00 – 2018 APPROPRIATION DOLLARS

Legislator Greene motioned, seconded by Legislator Donaldson, to amend the RESOLVED to add additional language as indicated in bold font:

RESOLVED, the Ulster County Legislature has examined the contract amendment, and hereby approves the amendment in the form as filed with the Clerk of the Ulster County Legislature or as modified with the approval of the County Attorney and Legislative Counsel, **provided that the contract amendment excludes the removal of all rail, ties and other track materials between Basin Road and MP 11.1, which track shall remain in place, including the siding at West Hurley,**

MOTIONED DEFEATED BY THE FOLLOWING VOTE:

AYES: 7 NOES: 14
(Ayes: Legislators Donaldson, Fabiano, Greene, Lapp, J. Parete, R. Parete, and Wawro)
(Absent: Legislators Berky and Loughran)

Resolution No. 423 November 14, 2017

Approving The Execution Of A Contract Amendment In Excess Of $50,000.00 Entered Into By The County – Barton & Loguidice, DPC– Department Of Planning

STATE OF NEW YORK
ss:
COUNTY OF ULSTER

I, the undersigned Clerk of the Legislature of the County of Ulster, hereby certify that the foregoing resolution is the original resolution adopted by the Ulster County Legislature on the 14th Day of November in the year Two Thousand and Seventeen, and said resolution shall remain on file in the office of said clerk.

IN WITNESS WHEREOF, I have hereunto set my hand and seal of the County of Ulster this 16th Day of November in the year Two Thousand and Seventeen.

Victoria A. Fabella, Clerk
Ulster County Legislature

Submitted to the County Executive this
16th Day of November, 2017.

Victoria A. Fabella, Clerk
Ulster County Legislature

Approved by the County Executive this
17th Day of November, 2017.

Michael P. Hein, County Executive

Resolution No. 424 November 14, 2017

Approving The Execution Of A Contract In Excess Of $50,000.00 Entered Into By The County – Taylor-Montgomery, LLC– Department Of Planning

Referred to: The Economic Development, Tourism, Housing, Planning and Transit Committee (Chairman Maloney and Legislators Berky, Delaune, Lapp, Litts, Maio and Rodriguez), and The Ways and Means Committee (Chairman Gerentine and Legislators Allen, Bartels, Belfiglio, Briggs, Maio, and Maloney)

Deputy Chairman of the Economic Development, Tourism, Housing, Planning, and Transit Committee, Hector Rodriguez, offers the following:

WHEREAS, pursuant to Section C-11(O) of the Ulster County Charter and Section A2-5(15) of the Administrative Code, the Ulster County Legislature shall have the power to approve the execution of certain contracts and amendments in the amount of $50,000.00 or in excess of $50,000.00 entered into by the County; and

WHEREAS, a contract for execution by the County with Taylor-Montgomery, LLC has been submitted for approval by the Ulster County Legislature, which is described below:

2017-00000XXX - removal of rails, hardware and ties along the Ashokan Rail Trail	100% Other	Bid	11/15/17 - 5/25/18	$943,000.00

WHEREAS, said contract has been reviewed by the Contract Manager, County Attorney's Office, Director of Purchasing, and the County Executive; now, therefore, be it

RESOLVED, the Ulster County Legislature has examined the contract, and hereby approves the contract in the form as filed with the Clerk of the Ulster County Legislature or as modified with the approval of the County Attorney and Legislative Counsel,

and move its adoption.

ADOPTED BY THE FOLLOWING VOTE:

AYES: 15 NOES: 6
(Noes: Legislators Donaldson, Fabiano, Greene, Lapp, J. Parete, and Wawro)
(Absent: Legislators Berky and Loughran)

Resolution No. 424 November 14, 2017

Approving The Execution Of A Contract In Excess Of $50,000.00 Entered Into By The County – Taylor-Montgomery, LLC– Department Of Planning

Passed Committee: Economic Development, Tourism, Housing, Planning and Transit on November 9, 2017

Passed Committee: Ways and Means on November 14, 2017

FINANCIAL IMPACT:
$943,000.00 – 2017/2018 APPROPRIATION DOLLARS

Legislator Greene motioned, seconded by Legislator Donaldson, to amend the RESOLVED to add additional language as indicated in bold font:

RESOLVED, the Ulster County Legislature has examined the contract, and hereby approves the contract in the form as filed with the Clerk of the Ulster County Legislature or as modified with the approval of the County Attorney and Legislative Counsel, **provided that 1) the contract excludes the removal of all rail, ties and other track materials between Basin Road and MP 11.1, which track shall remain in place, including the siding at West Hurley, and 2) the contract allows the County to retain one mile of dismantled rail, joint bars and tie plates for future use in other parts of the U&D Corridor where railroad tracks are being retained,**

MOTIONED DEFEATED BY THE FOLLOWING VOTE:

AYES: 7 NOES: 14
(Ayes: Legislators Donaldson, Fabiano, Greene, Lapp, J. Parete, R. Parete, and Wawro)
(Absent: Legislators Berky and Loughran)

Resolution No. 424 November 14, 2017

Approving The Execution Of A Contract In Excess Of $50,000.00 Entered Into By The County – Taylor-Montgomery, LLC– Department Of Planning

STATE OF NEW YORK
ss:
COUNTY OF ULSTER

I, the undersigned Clerk of the Legislature of the County of Ulster, hereby certify that the foregoing resolution is the original resolution adopted by the Ulster County Legislature on the 14th Day of November in the year Two Thousand and Seventeen, and said resolution shall remain on file in the office of said clerk.

IN WITNESS WHEREOF, I have hereunto set my hand and seal of the County of Ulster this 16th Day of November in the year Two Thousand and Seventeen.

Victoria A. Fabella, Clerk
Ulster County Legislature

Submitted to the County Executive this
16th Day of November, 2017.

Victoria A. Fabella, Clerk
Ulster County Legislature

Approved by the County Executive this
17th Day of November, 2017.

Michael P. Hein, County Executive

Resolution No. 374 December 19, 2017

Amending Resolution No. 319 Of 2001, Amending The Policy Of The County Of Ulster With Regard To Project Labor Agreements

Referred to: The Public Works and Capital Projects Committee (Chairman Fabiano and Legislators Greene, Litts, Loughran, and Maloney), The Government Efficiency and Review Committee (Chairman J. Parete and Legislators Belfiglio, Briggs, Greene, and R. Parete), and The Ways and Means Committee (Chairman Gerentine and Legislators Allen, Bartels, Belfiglio, Briggs, Maio, and Maloney)

Legislator John R. Parete offers the following:

WHEREAS, Resolution No. 319 of October 11, 2001, established a County policy requiring the Purchasing Director and relevant department heads to explore the use of a Project Labor Agreement for construction projects over $1,000,000; and

WHEREAS, after consideration of research, studies and discussions with various labor organization representatives it has been determined that the $1,000,000 threshold should be increased; now, therefore be it

RESOLVED, that, **unless otherwise waived and/or modified per the conditions herein established,** it is the policy of the County of Ulster that in all construction projects where the estimated total of construction contracts for an individual project is equal to or exceeds ~~$3,500,000.00~~ **$5,000,000.00**, and the project requires the services of three or more contractors for completion, the Purchasing Director and appropriate Ulster County Department Head shall initiate a Due Diligence Study to explore and consider using project labor agreements to reduce construction costs, avoid delay claims, and potential litigation, when the use of a project labor agreement is rationally based upon reasons in the public interest promoted by the competitive bidding statutes; and, be it further

RESOLVED, upon completion of each Due Diligence Study, the findings of said study and recommendation of the Purchasing Director and appropriate Ulster County Department Head shall be filed with the Clerk of the Legislature; and, be it further

RESOLVED, that each recommendation of the Purchasing Director and appropriate Ulster County Department Head shall be subject to review and ratification by the Ulster County Legislature; and, be it further

RESOLVED that, the Purchasing Director may request that the terms of this policy be waived or modified for a specific project on such terms as may be agreed upon by the Chair and Deputy Chair of the Legislature's Ways and Means Committee. Any such request shall be submitted in the form of a memorandum from the Purchasing Director submitted to the Clerk of the Legislature which shall include any supporting material justifying any deviation from this policy; and be it further

Resolution No. 374 December 19, 2017

Amending Resolution No. 319 Of 2001, Amending The Policy Of The County Of Ulster With Regard To Project Labor Agreements

RESOLVED, that the ~~$3,500,000.00~~ **$5,000,000.00** threshold contained herein shall be reviewed and amended as deemed necessary by the appropriate Standing Committee of the Ulster County Legislature; and, be it further

RESOLVED, that this policy shall not preclude the Legislature from requiring the initiation of a due diligence study for projects under $5,000,000.00 via resolution; and, be it further

RESOLVED, that the Ulster County Project Labor Agreement Policy of the County of Ulster, as amended and set forth in this resolution, shall take effect immediately upon the adoption of this resolution,

and move its adoption.

ADOPTED AS AMENDED BY THE FOLLOWING VOTE:

AYES: 22 NOES: 0
(Absent: Legislator Bartels)

Postponed in Committee: Public Works and Capital Projects on September 6, 2017

Passed Committee: Public Works & Capital Projects as amended on October 4, 2017

Passed Committee: Government Efficiency and Review on October 16, 2017

Postponed in Committee: Ways and Means on October 17, 2017

Postponed in Committee: Ways and Means on November 8, 2017

Postponed in Committee: Ways and Means on November 14, 2017

Passed Committee: Ways and Means as amended on December 19, 2017

FINANCIAL IMPACT:
NONE

Resolution No. 374 December 19, 2017

Amending Resolution No. 319 Of 2001, Amending The Policy Of The County Of Ulster With Regard To Project Labor Agreements

Legislator Gerentine motioned, seconded by Legislator Maio, to insert additional language and amend the threshold in the first RESOLVED, add two additional RESOLVED clauses as indicated in bold font, and amend the threshold in the fifth RESOLVED.

MOTION ADOPTED BY THE FOLLOWING VOTE:

AYES: 22 NOES: 0
(Absent: Legislator Bartels)

STATE OF NEW YORK
ss:
COUNTY OF ULSTER

I, the undersigned Clerk of the Legislature of the County of Ulster, hereby certify that the foregoing resolution is the original resolution adopted by the Ulster County Legislature on the 19th Day of December in the year Two Thousand and Seventeen, and said resolution shall remain on file in the office of said clerk.

IN WITNESS WHEREOF, I have hereunto set my hand and seal of the County of Ulster this 21st Day of December in the year Two Thousand and Seventeen.

|s| Victoria A. Fabella
Victoria A. Fabella, Clerk
Ulster County Legislature

Submitted to the County Executive this
21st Day of December, 2017.

|s| Victoria A. Fabella
Victoria A. Fabella, Clerk
Ulster County Legislature

Returned unsigned by the County Executive and
deemed adopted this 29th Day of December, 2017

|unsigned|
Michael P. Hein, County Executive

Resolution No. 502 December 19, 2017

Authorizing The Chairman Of The Ulster County Legislature To Execute A Grant Agreement With The New York State Department Of Environmental Conservation For The Ashokan Rail Trail Project

Referred to: The Economic Development, Tourism, Housing, Planning and Transit Committee (Chairman Maloney and Legislators Berky, Delaune, Lapp, Litts, Maio and Rodriguez), The Energy and Environment Committee (Chairman Richard Parete and Legislators Bartels, Heppner, Lapp and Wawro), and The Ways and Means Committee (Chairman Gerentine and Legislators Allen, Bartels, Belfiglio, Briggs, Maio, and Maloney)

Chairman of the Economic Development, Tourism, Housing, Planning, and Transit Committee, James F. Maloney, and Deputy Chairman Hector Rodriguez offer the following:

WHEREAS, the State of New York has allocated $1,000,000 in additional capital project funding for the construction of the Ashokan Rail Trail- Capital Project No. 459; and

WHEREAS, Ulster County is required to enter into a Grant Agreement with the New York State Department of Environmental Conservation for the allocated funding for the construction phase of the Ashokan Rail Trail project, which will commence in 2018; now, therefore, be it

RESOLVED, the Chairman of the Ulster County Legislature is hereby authorized to execute a Grant Contract (Contract No. DEC01-C00477GG-3350000) and any amendments thereto, with the New York State Department of Environmental Conservation for grant funding for the Ashokan Rail Trail project; and, be it further

RESOLVED, following execution of the Grant Contract, the Director of Planning and the Deputy Director of Planning are hereby authorized to submit all necessary grant related documentation and otherwise act for the County regarding this grant funding,

and move its adoption.

ADOPTED BY THE FOLLOWING VOTE:

AYES: 15 NOES: 7
(Noes: Legislators Donaldson, Fabiano, Greene, Lapp, J. Parete, R. Parete, and Wawro)
(Absent: Legislator Bartels)

Resolution No. 502 December 19, 2017

Authorizing The Chairman Of The Ulster County Legislature To Execute A Grant Agreement With The New York State Department Of Environmental Conservation For The Ashokan Rail Trail Project

Passed Committee: Economic Development, Tourism, Housing, Planning and Transit on December 5, 2017

Passed Committee: Energy and Environment on December11, 2017

Passed Committee: Ways and Means on December 12, 2017

FINANCIAL IMPACT:
$1,000,000- ANTICIPATED 2018 REVENUE DOLLARS

STATE OF NEW YORK
ss:
COUNTY OF ULSTER

I, the undersigned Clerk of the Legislature of the County of Ulster, hereby certify that the foregoing resolution is the original resolution adopted by the Ulster County Legislature on the 19th Day of December in the year Two Thousand and Seventeen, and said resolution shall remain on file in the office of said clerk.

IN WITNESS WHEREOF, I have hereunto set my hand and seal of the County of Ulster this 21st Day of December in the year Two Thousand and Seventeen.

|s| Victoria A. Fabella
Victoria A. Fabella, Clerk
Ulster County Legislature

Submitted to the County Executive this
21st Day of December, 2017.

|s| Victoria A. Fabella
Victoria A. Fabella, Clerk
Ulster County Legislature

Approved by the County Executive this
28th Day of December, 2017.

|s| Michael P. Hein
Michael P. Hein, County Executive

EXHIBIT X

MEMORANDUM OF AGREEMENT
Between
THE CITY OF NEW YORK
By and Through
THE NEW YORK CITY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
And
THE COUNTY OF ULSTER
In Connection With
THE ASHOKAN RAIL TRAIL PROJECT

THIS MEMORANDUM OF AGREEMENT ("Agreement") made the 16th day of June, 2015, between the **CITY OF NEW YORK ("CITY"),** a municipal corporation of the State of New York, having an office and principal place of business at City Hall, New York, New York acting by and through its **DEPARTMENT OF ENVIRONMENTAL PROTECTION ("DEP"),** a municipal corporation, having its principal offices at 59-17 Junction Boulevard, Flushing, New York 11373, and the **COUNTY OF ULSTER ("COUNTY"),** a municipal corporation and a county of the State of New York, having its principal offices at 244 Fair Street, Kingston, New York 12401. For purposes of this Agreement, the City, DEP and the County shall each be referred to as a "Party" and shall be referred to collectively as the "Parties."

WITNESSETH

WHEREAS, the City of New York operates a water supply system that provides high quality drinking water to over nine million people in New York State; and

WHEREAS, the City is the fee owner of certain water supply property including the Ashokan Reservoir and watershed lands adjacent to the Ashokan Reservoir ("Watershed Property") located in Ulster County; and

WHEREAS, in an agreement dated June 15, 1911, the City granted to the Ulster and Delaware Railroad Company, a perpetual and exclusive easement to some portions of the Watershed Property, totaling approximately 11.5 miles along the rail corridor for "railroad purposes" (the "Ashokan Railroad Easement");[1] and

WHEREAS, the County acquired approximately 38.6-miles of the Ulster & Delaware Railroad ("U&D Railroad") between the City of Kingston and the Delaware County border at Highmount from The Penn Central Corporation and The Owasco River

[1] *AGREEMENT Between THE ULSTER AND DELAWARE RAILROAD, COMPANY, and THE CITY OF NEW YORK, In the Matter of THE LOCATION OF THE TRACKS OF THE RAILROAD COMPANY AND THE DAMAGES TO IT GROWING OUT OF THE CONSTRUCTION BY THE CITY OF NEW YORK OF THE ASHOKAN RESERVOIR – Agreement dated June 15, 1911.*

Railway Inc. by Quitclaim deed dated July 24, 1979 and, as such, is the current owner and successor in interest to the Ashokan Railroad Easement; and

WHEREAS, if freight rail use is infeasible, the County, as evidenced by the Ulster County Legislature's Resolution 275 dated August 19, 2014 that specified trail use only on the Ashokan Railroad Easement, seeks to develop, in an environmentally sensitive manner, the existing railroad corridor along the Ashokan Railroad Easement into a recreational trail, to be known as the Ashokan Rail Trail and displayed in Exhibit A annexed hereto; and

WHEREAS, the County has proposed to take steps to preserve the U&D Railroad corridor for future rail service and/or interim use as a non-motorized public recreational trail under the provisions of the National Trails System Act, 16 U.S.C. sec. 1247 (d) and implementing regulations at 49 C.F.R. §1152.29; and

WHEREAS, the City has agreed as a joint project to work cooperatively with the County and to provide, as specified herein, financial support and other assistance to develop the Ashokan Railroad Easement into the Ashokan Rail Trail, which will improve public access to the Watershed Property, expand recreational opportunities in the County, preserve the corridor for freight rail use, and increase economic development and tourism opportunities in the communities along the Ashokan Rail Trail; and

WHEREAS, the County will design the Ashokan Rail Trail, subject to DEP approval, obtain any required permits and approvals, undertake environmental review in coordination with the City, and construct the Ashokan Rail Trail consistent with the approved design; and

WHEREAS, the County and the City have agreed, at the County's request, to ensure that the Ashokan Rail Trail will be constructed, operated and maintained in a manner fully protective of the City's water supply and, to that end, upon DEP's approval of the completed design, the County will develop and operate the Ashokan Rail Trail under a Land Use Permit issued by the City pursuant to Title 15, Chapter 17 of the Rules of the City of New York and, consistent with the terms of this Agreement; and

WHEREAS, if and when the County obtains from the federal Surface Transportation Board ("STB") a Certificate (or Notice) of Interim Trail Use, or upon written request from the City or the County, the Parties shall modify the existing Ashokan Rail Easement or establish an alternative property interest to allow conditional trail use ("Modified Ashokan Rail Easement") to incorporate the terms of the Land Use Permit to ensure such land use conditions run with the land for so long as the trail use continues in accordance with the terms of the Modified Ashokan Rail Easement and the County acknowledges until such time as the Modified Ashokan Rail Easement is executed by the Parties, the terms of the Land Use Permit shall continue to govern use of the Ashokan Rail Trail.

NOW, THEREFORE, in consideration of the foregoing, the City and the County agree, consistent with the terms below, to cooperatively develop the Ashokan Railroad Easement into the Ashokan Rail Trail and allow the public use thereof. This Agreement shall apply to the easement as described and granted to the Ulster and Delaware Railroad Company by the City of New York in an agreement dated June 15, 1911 and recorded on April 18, 1913 in Liber 443 Page 58 in the Office of the Ulster County Clerk which was conveyed to the County by quitclaim deed, as recorded on August 10, 1979 in Liber 1414 Page 933 in the Office of the Ulster County Clerk, consisting of approximately 11.5 miles. The Parties mutually agree hereto as follows:

Section 1. City Obligations

A. The City, through DEP, shall contribute financial assistance to the County in an amount not to exceed Two Million, Five Hundred Thousand Dollars ($2,500,000), which shall be administered by the County toward the planning, design and construction of the Ashokan Rail Trail in accordance with the terms and conditions set forth in this Agreement.

i. Within ninety (90) days of the City's registration of this Agreement, DEP shall make a payment to the County in the amount of One Million Dollars ($1,000,000). The County may choose not to commence work on the Ashokan Rail Trail until such time as it receives the initial payment.

ii. Upon written request and following a showing by the County that it has paid out or obligated at least Fifty Percent (50%) of the initial payment of One Million Dollars ($1,000,000). DEP shall make a further payment of Five Hundred Thousand Dollars ($500,000).

iii. Upon written request and following a showing by the County that it has paid out or obligated at least Fifty percent (50%) of the $1.5 Million ($1,500,000), DEP shall make a payment in the additional amount of Two Hundred Fifty Thousand Dollars ($250,000);

iv. DEP shall make three additional payments of Two Hundred Fifty Thousand Dollars ($250,000) each consistent with the terms of this paragraph. Each payment shall be made upon written request and following a showing by the County that it has paid out or obligated at least Fifty percent (50%) of the previous $250,000 payment.

v. The County shall deposit all funds received from DEP in an interest bearing account, not to be comingled with funds from other sources. Interest earned on any portion of the Two Million, Five Hundred Thousand Dollars ($2,500,000) may be used by the County for any of the allowed purposes as set forth in and in accordance with this Agreement. Any funds received by the

County from DEP that are not expended, including unspent interest, for the purposes set forth in this Agreement, shall be returned to DEP within thirty (30) days of the completion of all activity and transactions related to this Agreement, or the termination of this Agreement.

vi. The Parties may modify timing of the above structured payments by mutual written agreement in response to changes in the cost, scope of work, and/or schedule for completion.

B. The City shall continue to support the County in obtaining, from the Catskill Watershed Corporation (CWC) Catskill Fund for the Future, an additional One Million Dollars ($1,000,000) in grant funding available in the New York City Watershed as well as provide future support for additional CWC funding to cover any increases in construction costs directly attributable to the Rules and Regulations for the Protection From Contamination, Degradation and Pollution of the New York City Water Supply and Its Sources ("Watershed Regulations"), 15 Rules of the City of New York (RCNY) Chapter 18, 10 New York Codes, Rules and Regulations (NYCRR) Part 128, and not otherwise required by federal or State law; and

C. In addition to the funding set forth in this Section 1, paragraph A, upon the County's satisfaction of 2G below, the City shall fund, design, construct, operate, and maintain public trailheads, with facilities, including, directional and interpretive signage, sanitary facilities, public parking, and other mutually agreed upon trail support amenities, at locations, mutually agreed upon by the Parties, on Watershed Property or adjacent properties. The City shall also, considering input from the County, provide additional entrance points for bicyclists and pedestrians along Watershed Property, which points do not require parking and related facilities, as long as these points are conducive to the security, operation and/or water quality of the Ashokan Reservoir.

D. The City, using its engineering judgment and operational experience, shall accommodate bicycle and pedestrian traffic, including consideration of a possible dedicated shared-used lane for walking and bicycling, when the City reconstructs the Ashokan Dividing Weir Bridge and the Route 28A Bridge in Boiceville, also known as the Five Arch Bridge.

E. The City shall work with the County to foster tourism, develop interpretive signage relating to the unique history of the Ashokan Reservoir, Catskill Park, and U&D Railroad and upon substantial completion of construction of the Ashokan Rail Trail, promote awareness and responsible use of the Ashokan Rail Trail.

F. The City shall be responsible for all costs associated with any relocation or reconstruction of the Ashokan Rail Trail resulting from DEP activities, including reconstruction of dikes, overpasses, bridges, culverts, roadways, or other DEP

facilities that require the temporary closure and/or rebuilding of portions of the Ashokan Rail Trail. During such construction activities, DEP shall, using its engineering judgment and operational experience, design and construct alternative Ashokan Rail Trail routes to avoid areas of construction, to the extent feasible, and will seek to minimize disruption to public access to the Ashokan Rail Trail. DEP shall obtain input from the County, on the location and design of any required alternate routes or trail closures. In the event that DEP determines, based upon its engineering judgment and operational experience, that an alternate route cannot be safely designed at a reasonable cost so as to not affect the use of the trail, portions of the trail may be closed temporarily and DEP may create temporary trailheads and trails to accommodate such closures.

G. The City, by means of a Land Use Permit, shall allow access to the Ashokan Railroad Easement by the County's employees, consultants and agents for the purpose of conducting necessary planning and engineering studies associated with the design and implementation of the Ashokan Rail Trail. In addition, the City, by means of a Land Use Permit or, consistent with paragraph 3D below, a Modified Ashokan Railroad Easement, shall allow the County's employees, consultants and agents any necessary access for construction, security, operation, and maintenance of the Ashokan Rail Trail as well as allow public access to the trailheads and Ashokan Rail Trail until the resumption of railroad operations and/or termination of the County's public trail use.

Section 2. County Obligations

A. With the exception of the aforementioned trailheads, the County shall be fully responsible for all planning, design, and construction activities required for the Ashokan Rail Trail, including coordination of community input with DEP involvement. The County will be responsible for acquiring and expending any additional funding required for the planning, design, construction, operation and maintenance of the Ashokan Rail Trail beyond the amount of funding provided by the City pursuant to this Agreement. The County may hire any contractors, subcontractors and/or consultants necessary for the planning, design, and construction of the Ashokan Rail Trail and they shall have access to the Ashokan Railroad easement therefore.

B. Upon completion of construction, the County, through its employees, agents, contractors, subcontractors, and/or consultants, shall be fully responsible for the operation and maintenance of the Ashokan Rail Trail excluding the trailheads, which the City shall construct, operate and maintain. The County, through its employees, agents, contractors, subcontractors, and/or consultants, shall construct, operate and maintain the Ashokan Rail Trail in a manner that does not endanger, injure or pollute, or otherwise negatively impact, any property or water supply of the City.

C. The County shall consult and include DEP in the environmental review and planning process for the Ashokan Rail Trail, and prior to any construction, the final design of the Ashokan Rail Trail shall be subject to approval by DEP, which approval shall not be unreasonably withheld. The design shall also include necessary public safety measures including the use of barriers such as fencing or guardrails, use of materials which are not deemed impervious[2] under the Watershed Regulations for the trail surface unless otherwise mutually agreed upon, and signage identifying the Watershed Property as part of the City's public drinking water system and highlighting the City's and County's cooperation in developing the Ashokan Rail Trail. The County, through its employees, agents, contractors, subcontractors, and/or consultants, shall construct the Ashokan Rail Trail and related facilities in accordance with the DEP-approved design documents.

D. The County shall act as lead agency for the State Environmental Quality Review Act ("SEQRA) and complete all necessary documents for the construction, operation and maintenance of the Ashokan Rail Trail. With the cooperation of the City and the DEP, the County shall include in its SEQRA review the design, construction, operation and maintenance of the trailheads as well as any other related improvements to be undertaken by DEP with respect to the Ashokan Rail Trail. If the County decides to conduct an environmental review of the Ashokan Rail Trail only, rather than of the entire U&D Railroad corridor, the County shall include, to the extent possible, an analysis of any potential cumulative impacts of the planned future trail development. If the County subsequently conducts an environmental review of additional areas of the U&D Railroad corridor in the New York City Watershed, the County shall afford DEP all the rights of an involved agency during the environmental review(s) of such proposed project(s).

E. The County shall be responsible for obtaining all required federal, State and local permits and approvals for design, construction, operation and maintenance of the Ashokan Rail Trail, including compliance with the City's Watershed Regulations. DEP will work in good faith with the County to schedule a pre-application conference with respect to any required DEP permits or approvals and to expeditiously process and facilitate any required DEP permits or approvals for construction of the Ashokan Rail Trail.

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[2] *"**Impervious surface** means an area which is either impervious to water or which substantially prevents the infiltration of water into the soil at that location. Impervious surfaces include, but are not limited to, paving, concrete, asphalt, rooftops, and other hard surfacing materials, and do not include dirt, crushed stone or gravel surfaces."* Rules and Regulations for the Protection From Contamination, Degradation and Pollution of the New York City Water Supply and Its Sources §18-16 Definitions (54).

F. The County shall advise the City when it has received the Certificate (or Notice) of Interim Trail Use and confirm that no appeals, requests for stays, reconsideration or reopening or other actions that would delay the effective date of the Certificate (or Notice) have been filed. If any such appeal or other petition for stay, reconsideration, or reopening has been filed, the County shall advise the City when any such proceeding has been concluded and the effective date of the Certificate (or Notice) has occurred.

G. Upon DEP's written approval of the completed design of the Ashokan Rail Trail, as well as all other necessary permits and approvals pursuant to federal, State, City and local laws, rules and regulations to construct, operate and maintain the Ashokan Rail Trail and associated structures, including but not limited to culverts and bridges, DEP will issue the County a Land Use Permit pursuant to Title 15, Chapter 17 of the Rules of the City of New York, including the terms and conditions specified in Exhibit B, attached hereto, granting the County permission to construct, operate and maintain the Ashokan Rail Trail, excluding the trailheads. Such terms shall not unreasonably interfere with the public's use of the Ashokan Rail Trail. The County shall and shall cause its employees, agents, contractors, subcontractors, and/or consultants, to shall comply with the terms of the Land Use Permit for so long as it is in effect.

Section 3. Railbanking or Abandonment of the U&D Railroad

A. The Parties agree that their respective counsel shall continue to discuss the legal implications of and consult with each other on any potential action by the County in connection with federal Railbanking pursuant to 16 U.S.C. Sec. 1247 (d) of the National Trails System Act or other legal action to enable the Ashokan Rail Trail to be developed along the Ashokan Railroad Easement.

B. In connection with the County's potential pursuit of an Abandonment or Railbanking submission to the STB, the County shall provide the City an opportunity to review and comment on any submission to the STB at least 30 days prior to its filing at the STB. The County shall work in good faith to incorporate the City's comments and concerns into its submission to the STB in connection with the Ashokan Railroad Easement and shall update the City on the progress of any submission. As long as Ulster County is in compliance with this Agreement, and any Land Use Permit and/or easement for the Ashokan Rail Trail that is in effect governing the County's use of the rail corridor through City property, the City agrees that it will not oppose in any manner the County's request for Abandonment or Railbanking at the STB. The City reserves its right to comment on such submission to ensure that any action by the STB is consistent with the purposes of this Agreement 1 and in particular, the development and operation of the Ashokan Rail Trail in an environmentally sensitive manner.

C. The City acknowledges that this Agreement in no way impinges on or diminishes Ulster County's right to allow a railroad operator or the County to seek a modified certificate of public convenience and necessity under STB rules in order to establish the feasibility of freight operations on the line. The County acknowledges that this Agreement in no way impinges or diminishes the City's rights with respect to ensuring that any future use of the rail corridor is conducted in an environmentally sensitive manner which includes, but is not limited to, asserting whatever legal rights it may have before the Surface Transportation Board to protect such interests.

D. Upon the County obtaining a determination from the STB allowing interim trail use over the Ashokan Railroad Easement, and/or upon written request from the City or the County, the County and the City shall promptly execute a Modified Ashokan Rail Easement which will provide for the County's use of the Ashokan Railroad Easement for trail use. Such Modified Ashokan Rail Easement shall contain, but shall not be limited to, the conditions set forth in Exhibit B to ensure that the Ashokan Rail Trail is constructed, operated and maintained in an environmentally sensitive manner. Pending execution of such Modified Ashokan Rail Easement, the Land Use Permit shall continue to govern the operation of the Ashokan Rail Trail.

E. Except as the parties consensually agree to undertake in the future as set forth herein, this agreement does not modify or extinguish in any manner whatsoever the Ashokan Railroad Easement as described in the Book of Deeds at Liber 443, Page 58 as filed in the Office of the Ulster County Clerk.

Section 4. Effective Date and Term

A. This Agreement shall not take effect until it is executed by the Parties and registered by the City pursuant to Section 328 of the City Charter. The Effective Date of this Agreement shall be the date it is registered pursuant to Section 328.

B. This Agreement shall terminate five (5) years after the Effective Date except that in the event that the County obtains a determination from the STB allowing interim trail use over the Ashokan Railroad Easement, or the City or the County has made a written request for the Parties to execute a Modified Ashokan Rail Easement, this Agreement shall extend until such time as the County has executed such Modified Ashokan Rail Easement. This Agreement may also be extended by mutual written consent of the Parties.

C. This Agreement may be terminated by either DEP or the County upon one hundred and twenty (120) days written notice to the other Party. Upon receipt of such notice of termination, the County shall seek to minimize the expenditure of funds under this Agreement and shall not incur new costs to the extent practicable. In the event of such termination, the City agrees to reimburse or otherwise compensate the County, within sixty (60) days of termination, for all

reasonable costs and/or expenses, actual and/or obligated by the County for costs incurred through the date of such termination.

Section 5. Indemnification

The Parties shall mutually and reciprocally indemnify each other and their respective officers, employees, and agents, and save each other harmless from any liability, damage, claims, demands, costs or losses arising directly or indirectly out of their officers', employees', or agents' respective acts or omissions pursuant to this Agreement, provided however, that: (1) County's indemnification of City extends solely to County's administration of activities and transactions funded with DEP Funds; and (2) in no event or instance shall County have any liability, under any circumstance(s), for lawsuits, property damage, or any other injury suffered by trail users, property owners or anyone else as a result of, or in any way related to or caused, directly or indirectly, by City's acts, omissions, obligations and/or responsibilities related to this Agreement; and (3) in no event or instance shall the City have any liability, under any circumstance(s) for lawsuits, property damage, or any other injury suffered by trail users, property owners or anyone else as a result of, or in any way related to or caused, directly or indirectly, by County's acts, omissions, obligations and/or responsibilities related to this Agreement.

Section 6. Notices

Unless otherwise specified, all notices required or permitted for herein shall be in writing and sent by certified mail with postage prepaid, by hand, by over-night courier, or by facsimile confirmed by any of the previous methods, addressed to the Parties as shown below or at such other addresses as such Parties may designate in writing from time to time:

To DEP: New York City Department of Environmental Protection
71 Smith Avenue
Kingston, New York 12401
Attn: Ira Stern, Chief, Natural Resources Division
Fax: (845) 338-1296 Phone: (845) 340-7207

With a copy to: New York City Department of Environmental Protection
59-17 Junction Boulevard, 19th Floor
Flushing, New York 11373
Attn: General Counsel
Fax: (718) 595-6543 Phone: (718) 595-6555

To the County: Hon. Michael P. Hein
Ulster County Executive

P.O. Box 1800
Kingston, New York 12402-1800
Fax: (845) 334-5724 Phone: (845) 340-3800

With a copy to: Beatrice Havranek, Esq.
County Attorney
P.O. Box 1800
Kingston, New York 12402-1800
Fax: (845) 340-3691 Phone: (845) 340-3685

John Parete,
Chair, Ulster County Legislature
P.O. Box 1800
Kingston, New York 12402-1800
Fax: (845) 340-3900 Phone: (845) 340-3651

Section 7. Agreement is a Legally Binding Contract

The respective commitments of the Parties to this Agreement are in consideration of each other, thereby making this Agreement a legally binding contract enforceable by the County and the City in a court of competent jurisdiction.

Section 8. Employees

A. The County and the City agree that the County and its employees, agents, contractors, subcontractors, and/or consultants, are independent contractors and not employees of the City, DEP, or any department, agency, or unit of the City and further agree that neither the County nor its employees, agents, contractors, subcontractors, and/or consultants will hold themselves out as, nor claim to be, officers or employees of the City, or of any department, agency, or unit thereof.

B. Nothing in this Agreement shall impose any liability or duty on the City for the acts, omissions, liabilities, or obligations of the County, or any person, firm, company, agency, association, expert, consultant, independent contractor, specialist, trainee, employee, servant, or agent of the County, for the payment of taxes of any nature including but not limited to sales tax, unemployment insurance, worker's compensation, disability benefits, and Social Security, except as specifically stated in this Agreement, to any person, firm, or corporation.

C. Nothing in this Agreement shall impose any liability or duty on the County for the acts, omissions, liabilities, or obligations of the City, or any person, firm, company, agency, association, expert, consultant, independent contractor, specialist, trainee, employee, servant, or agent of the City, for the payment of taxes of any nature including but not limited to sales tax, unemployment insurance, worker's compensation, disability benefits, and Social

Security, except as specifically stated in this Agreement, to any person, firm, or corporation.

D. The City shall not be responsible, nor have any liability, for the County's design, construction, operating and maintenance of the Ashokan Rail Trail, except for the trailheads developed and maintained by the City.

E. The provisions of this Agreement shall not be deemed to create any right of action in favor of Third Parties, including any property owners, against the County or the City or their respective officers and employees.

Section 9. Force Majeure

The obligations set forth in this Agreement may be delayed if either Party cannot comply with the terms of this Agreement because of an act of God, war, strike, or other condition as to which conduct on the Ashokan Rail Trail of the Party or its agent was not the proximate cause; provided, however, that such Party notifies the other Party in writing within ten (10) business days of obtaining knowledge of any such condition and requests an appropriate extension of the relevant terms of this Agreement, and provided further that such Party will make its best efforts to provide for alternative arrangements to fulfill the obligation.

Section 10. Cooperation

The Parties acknowledge and agree that during the term of this Agreement they will promptly provide each other with all documentation, reports, and information that the other Party reasonably requests in order to fulfill its obligations under this Agreement. Nothing in this Agreement shall be deemed as consent by, or an obligation of either Party, to provide documents or information protected by or to waive the attorney-client privilege or the attorney-work product privilege.

Section 11. Compliance with Law

The Parties represent and warrant that all actions taken pursuant to the terms of this Agreement shall comply with any and all applicable federal, State, and local laws, rules, and regulations, including State and local procurement laws and regulations.

Section 12. Investigations

The County and the City agree to cooperate fully and faithfully with any investigation, audit, or inquiry relating to the subject matter of this Agreement conducted by a federal, New York State, County, or City governmental agency or authority that is empowered directly or by designation to compel the attendance of witnesses and to examine witnesses under oath, or conducted by the Inspector General of a governmental agency that is a party in interest to the transaction, submitted bid, submitted proposal, contract, lease, permit, or license that is the subject of the investigation, audit, or inquiry.

Depending on the facts and circumstances, any breach or violation of the foregoing may be deemed a breach or violation of a material provision of this Agreement.

Section 13. Counterparts

This Agreement may be executed in one or more counterpart(s), each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

Section 14. Entire Agreement, Amendments, and Assignments

This Agreement contains the entire understanding between the Parties with respect to the subject matter herein and supersedes any prior agreements or understandings, either oral or written. This Agreement shall be governed by, and construed in accordance with, the laws of the State of New York. This Agreement may be amended only upon mutual written agreement signed by both Parties. This Agreement may not be assigned by either Party without the written consent of the other Party.

Section 15. Headings

The headings herein are for reference purposes only.

Section 16. Severability

If any provision of this Agreement or its application should be invalid, illegal, or unenforceable in any respect, the validity, legality, and enforceability of all other provisions and the application thereof shall not in any way be affected or impaired.

*******Signature Page Follows*******

CORPORATION COUNSEL CONTRACT APPROVAL

Agency DEP

E-PIN 82615T0008001

Contractor COUNTY OF ULSTER DEPT OF PUBLIC WORKS

Approved as to form

Certified as to legal authority

Electronically Signed By AMRITA BARTH Date 06/04/2015 18:16

Acting Corporation Counsel

IN WITNESS WHEREOF, the Parties have duly executed this Agreement as of the latest date written below.

COUNTY OF ULSTER

By: _____ Date: June 11, 2015
Michael P. Hein
Ulster County Executive

By: _____ Date: June 10, 2015
John Parete
Chair, Ulster County Legislature

THE CITY OF NEW YORK, acting by and through the New York City Department of Environmental Protection

By: _____ Date: 6/16/15
Mary F. Pazan
Assistant Commissioner

Approved as to form and
Certified as to Legal Authority:

_____ Date: _____
Acting Corporation Counsel of the
City of New York

ACKNOWLEDGMENTS

STATE OF NEW YORK

ss:

COUNTY OF ULSTER

On the 11th day of June in the year 2015, before me, the undersigned, a Notary Public in and for said State, personally came **Michael P. Hein**, to me known, being by me duly sworn did depose and say that he is the **Ulster County Executive**, the individual described herein and who executed the foregoing instrument, and that he signed his name thereto as authorized by said municipal corporation.

Notary Public

MARK LONGTOE
Notary Public, State Of New York
Reg. No. 02LO6086350
Qualified In Ulster County
Commission Expires January 21, 20 19

STATE OF NEW YORK

ss:

COUNTY OF ULSTER

On the 10th day of June in the year 2015, before me, the undersigned, a Notary Public in and for said State, personally came **John Parete**, to me known, being by me duly sworn did depose and say that he is the **Chairman of the Ulster County Legislature**, the individual described herein and who executed the foregoing instrument, and that he signed his name thereto as authorized by said municipal corporation.

GERALDINE ROMANO
Notary Public, State of New York
Qualified In Ulster County
Reg. No. 01RO4767409
My Commission Expires: 9/30/2018

Notary Public

STATE OF NEW YORK

ss:

COUNTY OF QUEENS

On the 16th day of June in the year 2015, before me, the undersigned, a Notary Public in and for said State, personally came **Mary F. Pazan,** to me known, being by me duly sworn did depose and say that she is the **Assistant Commissioner of the Department of Environmental Protection of the City of New York**, the individual described herein and who executed the foregoing instrument, and that she signed her name thereto as authorized by said municipal corporation.

NAOMI BURRUS
Notary Public, State of New York
No. 01BU6304146
Qualified in Queens County
Commission Expires May 27, 2018

Notary Public

EXHIBIT A
(Map of the Ashokan Railroad Easement)

The Ashokan Rail Trail Project
IGA Exhibit A

Legend

- Railroad
- Ashokan Railroad Easement
- NYC Land, Pre-MOA
- LAP, Fee
- LAP, CE

N

0 0.25 0.5 1 Miles

ASHOKAN RESERVOIR

Boiceville
Olivebridge
Ashokan
West Hurley

State Route 28
RT-28
RT-28A
RT-213

Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

EXHIBIT B

SPECIAL CONDITIONS TO BE INCLUDED IN THE PERMIT for Construction, Operation and Maintenance of the ASHOKAN RAIL TRAIL

1. Process/Approvals.

   a) Construction of the Ashokan Rail Trail shall be subject to the conditions outlined in this Land Use Permit consistent with the approved design.

   b) Prior to allowing public access to the Ashokan Rail Trail, Ulster County shall submit to DEP, for its review and approval, an Operation and Maintenance Plan for the Ashokan Rail Trail.

   c) Prior to allowing public access to the Ashokan Rail Trail, Ulster County shall submit to DEP, for its review and approval, a Security Cooperative Agreement.

   d) Ulster County must obtain DEP approval of any proposed changes to the previously approved design, Operation and Maintenance Plan and/or Security Cooperative Agreement.

   e) In the event the County fails to comply with this Land Use Permit including, but not limited to, its duty to maintain and inspect the trail and monitor the trail and trailheads, the City will provide written notice to the County of such failure and provide the County thirty days to provide evidence of curing such non-compliance. Failure to timely cure may result in the City requiring the County to limit the use of any of the access areas or close it from public access until such defect is cured. The City further reserves it right to terminate the permit in accordance with Title 15, Chapter 17 of the Rules of the City of New York.

   f) Compliance with any and all legal requirements, including local, City, State and federal permits, and all expenses undertaken in connection with the construction, operation and maintenance of the Ashokan Rail Trail, excluding trailheads, shall be the responsibility of the County.

   g) The County's use of Watershed Property shall at all times be consistent with all laws and regulations including, but not limited to, the Public Health Law of the State of New York, and the Watershed Regulations, and shall not endanger, injure, or pollute any property or water supply of the City.

2. Trail Construction.

a) Ulster County, through its employees, agents, contractors, subcontractors, and/or consultants, shall construct the Ashokan Rail Trail, including but not limited to the construction of bridges, culverts and other infrastructure, in accordance with the approved design. Such construction shall include, but not be limited to (i) materials other than those deemed impervious under the Rules and Regulations for the Protection From Contamination, Degradation and Pollution of the New York City Water Supply and Its Sources ("Watershed Regulations"), 15 Rules of the City of New York (RCNY) Chapter 18, 10 New York Codes, Rules and Regulations (NYCRR) Part 128, for the trail surface unless otherwise mutually agreed upon and (ii) the use of barriers such as fencing or guardrails as necessary, such as at causeways, to ensure the safety of the public.

b) The County shall procure and post signage agreed to by the City consistent with DEP's Bureau of Water Supply Sign Manual along the trail displaying the rules of trail use, identifying the land as part of the City's drinking water supply system, and recognizing the City's and the County's partnership.

c) The use of portions of the Ashokan Rail Trail shall not be open to the public until the County, through its employees, agents, contractors, subcontractors, and/or consultants, has completed the design and construction of said portion, and the County has submitted a written certification and documentary evidence that it has fully complied with the conditions of this Land Use Permit.

3. Trail Operation & Maintenance.

a) With the exception of the trailheads, and in accordance with the approved Operations and Maintenance Plan, the County, through its employees, agents, contractors, subcontractors, and/or consultants, shall be responsible for the operation and maintenance of the Ashokan Rail Trail and associated facilities, including culverts, bridges, benches and interpretative and directional signage.

b) The County will be responsible for promptly identifying and eliminating trail hazards such as potholes and hazard trees as necessary.

c) The Ashokan Rail Trail and trailheads will be open to public use from dawn to dusk throughout the year; DEP will not require that public users of the Ashokan Rail Trail obtain DEP access permits for such use.

d) Motorized vehicles will be prohibited on the Ashokan Rail Trail, with the exception of vehicles (i) for the disabled such as motorized wheelchairs, and vehicles to be used for security, emergency response, maintenance, and operation of the Ashokan Rail Trail and/or (ii) by DEP for the operation and maintenance of the water supply system.

e) Allowed uses of the Ashokan Rail Trail include walking, running, bicycling, cross country skiing, and snowshoeing. Other non-motorized uses shall be approved by DEP. Dogs on leashes will be permissible, but horses will be prohibited.

f) The Ashokan Rail Trail will be available for special public events, such as fundraising walks, for which the County must obtain prior approval from DEP.

g) The County, through its employees, agents, contractors, subcontractors, and/or consultants, shall be responsible for all trash and litter removal along the Ashokan Rail Trail.

h) It is recognized and accepted that forest management by DEP as well as public recreational uses, including hunting and fishing, currently allowed by DEP, will continue and are considered compatible adjacent land uses to the Ashokan Rail Trail.

i) If at any time the County abandons this Land Use Permit, fails to comply with the terms of this Land Use Permit and/or abandons use of the Ashokan Rail Trail, the City shall be under no obligation to construct, maintain, or operate the trail for recreational use.

4. Trail Security

a) In accordance with the approved Security Cooperative Agreement, the County and DEP shall share responsibility for safety and security along the Ashokan Rail Trail and at trailhead entrances.

b) The County may assign its responsibility for maintenance and security to other parties with prior written approval from DEP; such approval shall not be unreasonably withheld.

~~c~~) The City reserves the right to temporarily shut down access to the Ashokan Rail Trail, including trailheads and other access points for security and water supply purposes for such time as necessary to protect public health and safety. Such temporary shutdown shall be for the minimum time reasonably necessary to ensure the protection of the water supply and public health

5. Insurance & Indemnification.

a) As long as this Land Use Permit is in effect or for as long as the County operates the Ashokan Rail Trail, whichever period is shorter, the County shall provide a Commercial General Liability policy insuring the uses on City property arising hereunder, naming the City entities as additional insureds as

follows: The City of New York, its officials and employees and the New York City Water Board, c/o NYCDEP, 59-17 Junction Boulevard, 19th Floor, Flushing, New York 11373, Attention: General Counsel.

i) Commercial General Liability [CG00 01 (ed.11/88] or equivalent Combined Single Limit- Bodily Injury and Property Damage,
$ 2,000,000 per occurrence
$ 5,000,000 products/completed operations aggregate
$ 5,000,000 general aggregate
$ 75,000 claim maximum deductible.

ii) The insurance policy shall protect the City and the New York City Water Board, its officials and employees against claims for property damage and/or bodily injury, which may arise from the use of City property as a rail trail. The insurance policy shall not contain exclusions or endorsements that are unacceptable to the City. The insurance coverages provided above shall apply unless the Parties mutually agree that greater coverage is necessary based upon the nature of the proposed use.

b) The County and the City shall mutually and reciprocally indemnify each other and their respective officers, employees, and agents, and save each other harmless from any liability, damage, claims, demands, costs, or losses arising directly or indirectly out of their officers', employees', or agents' respective acts or omissions pursuant to this Permit.

6. Additional Conditions

a) Consistent with Title 15, Chapter 17, DEP reserves the right to impose additional conditions as reasonably necessary based upon the design of the Ashokan Rail Trail and, to modify such terms in the future, as necessitated by operational experience. Such terms shall not unreasonably interfere with the public's use of the Ashokan Rail Trail.

Environmental Protection

Emily Lloyd
Commissioner

Mary F. Pazan
Assistant Commissioner
Agency Chief Contracting Officer

59-17 Junction Boulevard
Flushing, N.Y. 11373

Tel. (718) 595-3925
Fax (718) 595-3278
mpazan@dep.nyc.gov

April 20, 2015

Via Email: cwhi@co.ulster.ny.us

County of Ulster
244 Fair Street, P.O. Box 1800
Kingston, New York 12402

ATTN: Chris White

Notice of Award: CAT-459:
The Ashokan Rail Trail Project

Dear Mr. White:

The Department of Environmental Protection (DEP) hereby awards to you a Contract for **The Ashokan Rail Trail Project.**

This award is based upon the approval of the Recommendation for Award by a Certificate of Procedural Requisites signed on April 17, 2015. The original contract amount shall not to exceed $2,500,000.00.

Attached please find the Contract. Please print five (5) copies, sign, notarize and return all five copies along with proof of insurance as per Exhibit B to **NYC Department of Environmental Protection, 59-17 Junction Blvd., 17th Floor, Flushing, New York 11373, ATTN: Ms. Glorivee Roman.**

An Order to Commence Work Letter will follow this notice after the contract is registered with the Comptroller's Office of the City of New York, along with an executed copy of the contract.

Very truly yours,

Mary F. Pazan

EXHIBIT Y

DEED OF TRAIL EASEMENT

THIS DEED OF EASEMENT, (this "Trail Easement"), made this 23rd day of August, 2017, between the **City of New York**, (the "City"), acting by and through the New York City Department of Environmental Protection ("DEP"), a municipal corporation of the State of New York with its principal offices at 59-17 Junction Boulevard, Flushing New York 11373 (the City and DEP as "Grantor"),and the **County of Ulster** (the "County"), a municipal corporation and a county of the State of New York with its principal offices at 244 Fair Street, Kingston, New York 12401 (as "Grantee").

WHEREAS, the Grantor is the owner in fee of certain real property located in the Towns of Olive, Hurley, and Woodstock, County of Ulster, State of New York which lands are indicated on the Ulster County Tax Map as Section 38.4, Block 3, Lot 47, Section 45.2, Block 1, Lot 1, Section 37.2, Block 4, Lot 65, Section 37.4, Block 2, Lot 1, Section 38.1, Block 3, Lot 36 and Section 38.4, Block 6, Lot 1, (the "Property"); and

WHEREAS, DEP operates and maintains the New York City water supply system and is charged with the responsibility of protecting the waters and lands that comprise the system, including the Property, from contamination that threatens the purity of the drinking water supply within the New York City Watershed; and

WHEREAS, the County is the current owner and successor in interest of an easement for railroad purposes, dated June 15, 1911, and recorded in the Office of the Ulster County Clerk under Liber 443 of Deeds, Page 58, and acquired by the County by Quitclaim deed, dated July 24, 1979, recorded at the Ulster County Clerk's Office on August 10, 1979

2017-026725

under Liber 1414 and Page 933, (the "Railroad Easement"), along the Ulster & Delaware Railroad corridor running approximately 11.5 miles through the Property; and

WHEREAS, the City and the County entered into a Memorandum of Agreement ("MOA") on June 16, 2015, outlining the terms and conditions under which the County would construct a recreational multi-use trail, the Ashokan Rail Trail ("ART"); and

WHEREAS, in furtherance of this objective, the City agrees to grant to the County an easement for trail purposes for the County to construct, operate, maintain and repair the recreational multi-use trail situated within the land encumbered by the Railroad Easement on, over and through the Property as more particularly depicted and set forth on that certain map entitled "Boundary Survey and Existing Conditions of the Ashokan Trail Easement," last revised on June 6, 2017, prepared by Brook & Brooks, PC, which map is intended to be filed in the Ulster County Clerk's Office immediately prior to the recording of this Deed of Trail Easement, being more accurately described in the metes and bounds attached hereto as Exhibit A and made a part hereof (the "Trail Easement"), which Trail Easement is intended to be, and shall constitute, a separate and distinct easement from, and shall not alter, modify or extinguish the Railroad Easement; and

WHEREAS, the ART shall be a trail accessible and open to the public contained within a portion of the Trail Easement, and said ART shall be limited to an approximate width of twenty two (22) feet, eleven (11) feet on both sides from the centerline of the trail, in accordance with the final design plans of the ART, as approved by the City and the County; and

WHEREAS, the property within the Trail Easement that is outside the boundaries of the ART shall be off limits to the public unless they have permission to engage in recreational

activities pursuant to the terms of a DEP Access Permit or reserved to the County for only construction, operation, maintenance and repair of the ART; and

WHEREAS, the County and the City have determined it to be desirable and necessary for the Grantee to enter the Trail Easement with workers, materials and equipment to construct, operate, maintain and repair the ART while protecting the New York City drinking water supply from contamination; and

WHEREAS, in view of the foregoing, the County has determined it to be desirable and necessary and has requested that the City grant a permanent Trail Easement to the County authorizing it to enter upon the Property in order to construct, operate, maintain and repair the ART; and

WHEREAS, Grantor and Grantee acknowledge that the Property to be encumbered by this Trail Easement remains encumbered by and subject to the Railroad Easement and further desire to set forth the terms and conditions by which this Trail Easement, and the rights and obligations of the parties hereunder, shall cease and terminate in the event rail use or service is reactivated for railroad purposes.

NOW, THEREFORE, in consideration of ten dollars ($10.00), receipt of which is hereby acknowledged, and of the promises and of the mutual covenants and agreements set forth herein, and of the undertakings of each party to the other, the Grantor and its successors and assigns hereby grants, conveys and releases to Grantee and its successors and assigns, a permanent Trail Easement running with the land i) for so long as public trail use is not discontinued by Grantee or ii) until such time that rail use or service is reactivated on the Railroad Easement and subject to the following terms, conditions and limitations:

1. The purpose of the Trail Easement is to allow the County to design, construct, operate, maintain and repair the ART, including necessary appurtenances and facilities, in accordance with the approved Operations and Maintenance Plan ("O&M Plan") for so long as the ART is operated for trail use and made available to the public by the County. The County, through its employees, agents, contractors, subcontractors, and/or consultants, shall be responsible for the operation and maintenance of the ART and associated facilities, including culverts, bridges, benches, and interpretive and directional signage, with the exception of trailheads, which are to be designed, constructed, maintained and operated by DEP.

2. The Trail Easement, on, over and through the Property is depicted and set forth on that certain map entitled "Boundary Survey and Existing Conditions of the Ashokan Trail Easement," last revised on June 6, 2017, prepared by Brook & Brooks, PC, which map is intended to be filed in the Ulster County Clerk's Office immediately prior to the recording of this Deed of Trail Easement, being more accurately described in the metes and bounds attached hereto as Exhibit A and made a part hereof.

3. The ART shall be limited to an approximate width of twenty two (22) feet, eleven (11) feet from the centerline of the trail, in accordance with the final design plans approved by the City and County. The ART will be open for public access and use from sunrise to sunset, no fees shall be charged for its use, and public users will not be required to obtain an Access Permit from the DEP. Permitted ART uses shall include walking, running, bicycling, nature study, cross country skiing, snowshoeing and other non-motorized recreational uses as may be mutually agreed upon by the parties. Non permitted uses include horseback riding and operation of drones by the public on or over the Trail Easement. Unless otherwise approved by DEP, motorized vehicles are prohibited with the exception of mobility devices by persons with

disabilities, emergency vehicles, and vehicles for security and maintenance purposes in accordance with the O&M Plan. DEP shall be authorized to use motorized vehicles where necessary for the operation and maintenance of the water supply system.

4. In accordance with the O&M Plan, the ART may be made available for County-authorized public events and activities, including fundraising walks, for which the County must obtain prior approval from DEP. The County shall be responsible for ensuring that such County-authorized public events comply with the terms of this Deed of Trail Easement.

5. For so long as public trail use continues in operation, Grantee, and its agents, employees and contractors shall, at its own expense, have the right to enter upon the Trail Easement for such time as Grantee deems may be reasonably necessary to perform maintenance and repair of the trail (the "Trail Work"), provided such work is performed in accordance with the O&M Plan and subject to the terms and conditions of paragraph 6 below.

(a) Subject to paragraph 5b below, Grantee may enter the Trail Easement without notice to Grantor for routine operation and maintenance including, but not limited to, surface repairs, mowing, clean up, drainage maintenance, fencing repairs and hazard tree removal.

(b) Prior to entering the Trail Easement for non-routine maintenance activities, including, but not limited to, excavation, import or export of fill on the Property or other construction related activities, Grantee shall provide reasonable notice to Grantor of no less than 30 days except in cases of emergency, and shall obtain prior written approval from Grantor for non-routine maintenance to be performed on the ART, such Grantor approvals not to be unreasonably withheld.

6. On each occasion that Grantee has conducted Trail Work requiring ground disturbance, the impacted property shall be restored to its previous condition as soon as is practicable. Site restoration and the schedule thereof may include, but is not limited to, regrading, seeding, mulching and sediment and erosion control of the disturbed area and shall be subject to review and approval by Grantor. Specifically the County shall only use native plants when planting along the Trail Easement.

7. Grantee must maintain equipment brought on site in proper working order to avoid spills and leaks. In the event of a spill to the environment or concern for degradation to the New York City water supply, the spill must be ceased immediately and contained, as much as possible, and as safe to do so. DEP shall be notified of any spill immediately and, if not practically feasible, at a minimum within twenty-four (24) hours of the incident.

8. The Property within which the Trail Easement is located currently allows for public recreational uses such as hunting and fishing. Grantee acknowledges that these uses and activities are occurring on lands adjacent to the ART and that they are compatible with trail usage. Grantee also acknowledges that DEP from time to time will conduct projects in connection with water supply infrastructure, natural resources and timber harvesting. DEP reserves the right to temporarily limit public access to sections of the ART consistent with these compatible activities with prior reasonable notice to the County, but in no event less than thirty (30) days unless otherwise agreed to in writing, except in cases of emergency.

9. In accordance with the O&M Plan, as approved by the DEP and County, which the parties may amend by mutual written consent, the County shall be responsible to operate and maintain the ART. The County shall comply with the terms and conditions contained in the O&M Plan. The County may delegate its responsibility under the O&M Plan with approval from the DEP.

10. The City shall be responsible for all costs associated with any relocation or reconstruction of the Ashokan Rail Trail resulting from the failure of DEP infrastructure or from DEP activities, including reconstruction of dikes, overpasses, bridges, culverts, roadways, or other DEP facilities that require the temporary closure and/or rebuilding of portions of the ART.

11. In accordance with the Security Cooperative Agreement ("Security Plan"), as approved by the DEP and County, which the parties may amend by mutual written consent, the DEP and County shall share responsibility for safety and security along the ART and at trailheads. The County shall comply with the terms and conditions contained in the Security Plan. The County may delegate its responsibility under the Security Plan with prior approval from the DEP. Since the City is the owner of the Property, it reserves the right to delegate DEP's responsibility under the Security Plan without approval from the County.

12. The City reserves the right to temporarily shut down or modify access to the ART, including trailheads and other access points, for security and water supply purposes for such time as necessary to protect public health and safety. Such temporary shutdown shall be for the minimum time reasonably necessary to ensure the protection of the water supply and public health.

13. The County shall have a right of access for purposes of accessing, operating and maintaining the ART over and upon the three (3) public trailheads to be designed, constructed, operated, maintained and repaired by DEP.

14. Except as otherwise specified herein, the grant of this Trail Easement is made subject to all rights, covenants, conditions, easements, and other restrictions of record and shall not impair, abrogate, or otherwise affect any rights that persons other than the City may have to use the Property pursuant to such rights covenants, easements or other matters of record.

15. This Trail Easement and exercise by Grantee of its rights hereunder (including, but not limited to, at Grantee's option, the removal of tracks, ties and/or other

railroad infrastructure) shall not alter, modify, or extinguish the Railroad Easement or any right of Grantee's pursuant thereto.

16. Grantee shall have the right to reactivate, or permit the reactivation of, rail use or service for railroad purposes within the Railroad Easement by providing written notice to Grantor of its intent to terminate this Trail Easement, whereupon the parties agree to execute and record an instrument to effectuate such termination.

17. The grant of this Trail Easement is authorized by the New York City Administrative Code, Title 4, Chapter 1, 4-106(9) which specifically requires the forfeiture to the City of such property or interest conveyed herein in the event that the Grantee is in breach of any covenant specified herein to be determined by a court of competent jurisdiction. Grantee shall be provided reasonable notice to cure any condition of breach to avoid the pursuit of legal remedies by the City.

18. The County shall be solely responsible for promptly identifying and eliminating trail hazards such as potholes, erosion and hazard trees as necessary within the Trail Easement. If the City observes a trail hazard, it shall endeavor to provide notice to the County. If the County fails to remove and/or cure such trail hazard in a timely manner after the City notice, the City reserves the right to remove and/or cure such trail hazard and to temporarily close sections of the ART and trailheads to accomplish this purpose. The City shall be entitled to compensation from the County for costs and expenditures to remove and/or cure such conditions on behalf of the County and the City shall not be liable for removing or curing such condition under Section 30 of this Trail Easement. The County shall not be responsible for hazardous conditions on the Property which resulted from or are created by DEP operations or infrastructure, which shall be remedied in a timely manner by DEP at its cost.

19. The City and the County reserve the right to temporarily shut down access to the Trail Easement and trailheads for maintenance, emergencies, security considerations, water supply purposes, and/or to protect the health and safety of the public and the water supply. Such suspensions by either party shall not be deemed as discontinuation of public trail use by Grantee, subject to termination of this Trail Easement.

20. The County shall only be able to convey this Trail Easement to a third party for purposes of operating and maintaining the ART as a public trail with the prior written consent of the City. In the event the County contemplates no longer operating the ART or conveying this Trail Easement to a third party for purposes of operating and maintaining the ART as a public trail, the City shall have a Right of First Refusal to acquire it for one (1) dollar; provided, however, that the City shall not have any such Right of First Refusal if Grantee terminates this Trail Easement pursuant to Section 16 hereof. The County shall provide the City with notice of its intent to convey the Trail Easement, and the City shall provide the County with notice of its election to exercise this right within sixty (60) days of the County's notice, whereupon the County shall discontinue any and all action to convey this Trail Easement. Any conveyance of this Trail Easement pursuant to this section to any third party or to the City, as the case may be, shall be subject to the terms, covenants and conditions of this Trail Easement, including but not limited to, the right of the County at any time thereafter to terminate this Trail Easement pursuant to Section 16 hereof, which right shall survive any conveyance and be exercisable by the County (notwithstanding that the County would no longer be a part to this Trail Easement) and remain in full force and effect from and after any conveyance to any third party or the City, as the case may be, and thereafter.

21. All notices, requests, and/or approvals required by this Trail Easement shall be in writing and shall be delivered by first class mail addressed to the parties as shown below or at such other addresses as such parties may designate in writing:

To DEP: New York City Department of Environmental Protection
71 Smith Avenue
Kingston, New York 12401
Attn: Natural Resources Division
Fax: (845) 338-1296 Phone: (845) 340-7207

With a copy to: New York City Department of Environmental Protection
59-17 Junction Boulevard, 19th Floor
Flushing, New York 11373
Attn: General Counsel
Fax: (718) 595-6543 Phone: (718) 595-6555

To the County: Ulster County Executive
P.O. Box 1800
Kingston, New York 12402-1800
Fax: (845) 334-5724 Phone: (845) 340-3800

With a copy to: County Attorney
P.O. Box 1800
Kingston, New York 12402-1800
Fax: (845) 340-3691 Phone: (845) 340-3685

22. This Trail Easement shall be non-exclusive, run with the land and shall be binding upon and inure to the benefit of Grantee, Grantor and their heirs successors and assigns.

23. This Trail Easement may not be modified, altered, amended, or extinguished except by written instrument signed and executed by both parties hereto and recorded in the Ulster County Clerk's Office.

24. The ART shall be constructed, operated and maintained in compliance with and all activity within the Trail Easement shall be governed by and construed in accordance with all applicable local, state and federal laws and regulations, including, without limitation, the

Rules and Regulations for the Protection From Contamination, Degradation and Pollution of the New York City Water Supply and Its Sources ("Watershed Regulations") and the New York State Public Health Law. Any and all activity within the ART shall not endanger, injure, or pollute any property or water supply of the City.

25. The County, through its employees, agents, contractors, subcontractors, and/or consultants, shall construct the ART, including but not limited to the construction of bridges, culverts and other infrastructure, in accordance with the approved design. Such construction shall include, but not be limited to (i) materials other than those deemed impervious under the Watershed Regulations for the trail surface unless otherwise mutually agreed upon and (ii) the use of barriers such as fencing or guardrail as necessary, such as at causeways, to ensure the safety of the public.

26. The County, through its employees, agents, contractors, subcontractors, and/or consultants, shall be responsible for all trash and litter removal along the ART, including but not limited to the proper disposal of any rail ties, tracks or equipment for rail use, which may not be stored or disposed of on the Property.

27. The grant of this Trail Easement is specifically conditioned upon the construction of the ART in accordance with the design of the trail approved by the City. Any modifications to the design shall be approved by the City, the same of which shall not be withheld unreasonably. For the avoidance of doubt, the purpose of the City's approvals is to ensure that the design of the trail minimizes the likelihood that trail use and construction of the trail will interfere with the purity and safety of the City water supply.

28. The ART or sections thereof shall be open to the public only upon completed design and construction of the same. The County shall provide written certification of the completed compliance in accordance with the design and construction of the ART.

29. In the event that the County fails to complete construction of the ART and/or fails to operate and maintain the ART in accordance with the O&M Plan, the City shall have no obligation to operate and maintain the ART.

30. The parties shall mutually and reciprocally indemnify each other and their respective officials, officers, employees, agents, contractors and subcontractors and save each other harmless from any liability, damage, claims, demands, costs or losses to the extent arising directly or indirectly out of their officials', officers', employees', agents', contractors' or subcontractors' respective acts or omissions pursuant to this Trail Easement, provided however, that: (1) County's indemnification of City extends solely to County's administration and authorization of activities, and transactions funded with DEP Funds; and (2) in no event or instance shall County have any liability, under any circumstance(s), for lawsuits, property damage, or any other injury suffered by trail users, property owners or anyone else as a result of, or in any way related to or caused, directly or indirectly, by City's acts, omissions, obligations and/or responsibilities related to this Trail Easement; and (3) in no event or instance shall the City have any liability, under any circumstance(s) for lawsuits, property damage, or any other injury suffered by trail users, including injuries suffered by trail users or anyone else due to the design or the trail, notwithstanding the City's approval of the design pursuant to Section 27, property owners or anyone else as a result of, or in any way related to or caused, directly or indirectly, by County's acts, omissions, obligations and/or responsibilities related to this Trail Easement.

31. The provisions of this Trail Easement are severable and if any court of competent jurisdiction shall render a judgment that any provision hereof is null or void, the effect of said judgment shall be limited to the nullified or voided provision of this Trail Easement and the remaining provisions shall continue in full force and effect.

32. This Trail Easement shall not be in full force and effect until fully executed by both Grantor and Grantee.

IN WITNESS WHEREOF, the parties have caused this Trail Easement to be executed by their duly authorized representatives as of the date first above written.

THE CITY OF NEW YORK

Dated: 7/19/17

By: _____
[name] Anthony Shorris
Deputy Mayor
Office of the Mayor

Dated: 7/19/17

Attested to by: _____
[name] Michael McSweeney
City Clerk

Approved as to Form

_____
Acting Corporation Counsel of the City of New York

Dated: 6/2/2017

THE COUNTY OF ULSTER

Dated: 8-23-17

By: _____

[Name] KENNETH J. RONK, JR.
[Title] Chairman
Ulster County Legislature

Approved As To Form And Certified
As To Legal Authority

Beatrice Havranek

[Name] BEATRICE HAVRANEK, ESQ.
[Title] Ulster County Attorney
Dated: 08/23/2017

RECORD AND RETURN:

ULSTER COUNTY ATTORNEY
P.O. BOX 1800
KINGSTON NY 12402

ACKNOWLEDGEMENTS

STATE OF NEW YORK)
: SS.:
COUNTY OF NEW YORK)

On this 19th day of July, 2017, before me personally came Anthony Sbarra personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and by his/her/their signatures(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Josephine Miranda
NOTARY PUBLIC

JOSEPHINE MIRANDA
Notary Public, State of New York
No. 01MI6164430
Qualified in Richmond County
Commission Expires April 23, 2019

STATE OF NEW YORK)
: SS.:
COUNTY OF New York)

On this 19th day of July, 2017, before me personally came Michael McSweeney personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and by his/her/their signatures(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument

Lilia Dwyer
NOTARY PUBLIC

LILIA DWYER
Commissioner of Deeds
City of New York No. 3-7093
Certificate Filed in New York County
Commission Expires Feb. 01, 2018

STATE OF NEW YORK)
: SS.:
COUNTY OF ULSTER)

On this 23rd day of August, 2017, before me personally came Kenneth J. Ronk, Jr. personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and by his/her/their signatures(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Beatrice Havranek
NOTARY PUBLIC

BEATRICE HAVRANEK
NOTARY PUBLIC - STATE OF NEW YORK
Registration No. 02HA5024263
Qualified in Ulster County
Commission Expires March 7, 2018

SCHEDULE A

(Metes and Bounds Description of the Trail Easement)

BROOKS & BROOKS, PC
SURVEYING, PLANNING, GIS

www.brooksandbrooks.us
11 Main Street Highland, NY 12528 845-691-7339 phone 845-691-7166 fax

+

DESCRIPTIVE BOUNDARY OF TRAIL EASEMENT TO BE CONVEYED BY NEW YORK CITY TO ULSTER COUNTY

ALL THAT PIECE OR PARCEL OF LAND situate lying and being in the Town of Olive, the Town of Hurley and the Town of Woodstock in the County of Ulster and State of New York, being the railroad bed of the Ulster and Delaware Railroad as it runs through the Ashokan Reservoir lands of the City of New York as shown on a map entitled "Boundary Survey and Existing Conditions of a portion of the Ashokan Rail Trail" dated June and July 2014 last revised June 6, 2017 prepared by Brooks & Brooks Land Surveyors, P.C. , said map to be filed in the Ulster County Clerk's Office, said easement being approximately 11.5 miles in length and being more particularly bounded and described as follows;

Tax Map Section Block and Lots

Town of Olive	**45.2-1-1, portion of**
Town of Hurley	**37.4-2-1, portion of**
	37.2-4-65, portion of
	38.1-3-36, portion of
	38.4-6-1, portion of
Town of Woodstock	**38.4-3-47 portion of**
	38.4-3-50 portion of

BEGINNING at a point in the north bounds of New York State Route 28A and runs thence from said point of beginning along said bounds South 86°05'08" East 83.00 feet;

thence crossing said New York State Route 28 A, crossing the Esopus Creek through said lands of New York City South 03°54'52" West 1,934.70 feet;

thence continuing through said lands of New York City the following one hundred twenty seven courses and distances:

1) along a curve to the left having a radius of 3,224.17 feet, a central angle of 21°05'10", a chord bearing of South 06°36'47" East and a chord distance of 1,179.87 feet for an arc length of 1,186.56 feet;
2) South 25°57'33" East 205.53 feet,
3) South 20°48'38" East 1,091.98 feet,
4) South 27°56'08" East 201.56 feet,
5) South 20°48'38" East 800.00 feet,
6) South 40°05'43" East 302.79 feet,
7) on a curve to the left having a radius of 2,664.93 feet, a central angle of 14°17'06", a chord bearing of South 27°56'13" East and a distance of 662.71 feet for an arc distance of 664.43 feet,
8) South 00°50'26" East 236.68 feet,

www.brooksandbrooks.us
11 Main Street Highland, NY 12528 845-691-7339 phone 845-691-7166 fax

9) along a curve to the left having a radius of 2,804.93 feet, a central angle of 06°38'32", a chord bearing of South 42°24'02" East and a distance of 324.98 feet an arc distance of 325.17 feet,

10) South 45°44'13" East 467.88 feet,
11) South 59°29'52" East 1,008.96 feet,
12) along a curve to the right having a radius of 1,732.69 feet, a central angle of 27°24'58", a chord bearing of South 32°02'49" East and a distance of 821.21 feet for an arc distance of 829.10 feet,
13) South 18°18'53" East 467.03 feet,
14) South 29°56'11" East 457.58 feet,
15) South 41°36'42" East 672.28 feet,
16) South 48°25'04" East 1,089.13 feet,
17) South 65°33'04" East 779.95 feet,
18) North 51°40'02" East 232.69 feet,
19) North 64°04'51" East 83.59 feet,
20) on a curve to the right having a radius of 183.00 feet, a central angle of 32°52'53", a chord of North 80°31'18" East 103.59 feet and an arc distance of 105.02 feet,
21) South 83°02'16" East 52.00 feet,
22) on a curve to the left having a radius of 54.00 feet, a central angle of 62°16'47", a chord of North 65°49'33" East 55.85 feet and an arc distance of 58.70 feet,
23) North 34°41'02" East 109.75 feet,
24) North 33°48'44" East 103.61 feet,
25) North 34°32'16" East 103.86 feet,
26) on a curve to the right having a radius of 125.00 feet, a central angle of 76°56'26", a chord of North 73°00'29" East 155.53 feet and an arc distance of 167.86 feet,
27) South 68°31'20" East 129.52 feet,
28) South 73°32'42" East 158.75 feet,
29) South 79°47'53" East 32.82 feet,
30) South 82°57'07" East 68.28 feet,
31) South 66°08'38" East 55.88 feet,
32) South 56°53'00" East 87.26 feet,
33) on a curve to the left having a radius of 321.00 feet, a central angle of 22°12'01", a chord of South 67°59'00" East 123.60 feet and an arc distance of 124.38 feet,
34) South 79°05'00" East 100.72 feet,
35) South 76°35'36" East 96.61 feet to the south bounds of NYS Route 28
36) along said bounds South 55°36'03" East 108.15 feet,
37) continuing through lands of The City of New York South 79°54'34" West 48.96 feet,
38) North 89°44'43" West 33.99 feet,
39) North 76°35'36" West 118.15 feet,
40) North 79°05'00" West 99.28 feet,
41) on a curve to the right having a radius of 387.00 feet, a central angle of 22°12'00", a chord of North 67°59'00" West 149.01 feet and an arc distance of 149.95 feet,
42) North 56°53'00" West 81.92 feet,
43) North 66°08'38" West 40.78 feet,
44) North 82°57'07" West 60.34 feet,
45) North 79°47'53" West 38.25 feet,

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46) North 73°32'42" West 165.25 feet,

47) North 68°31'20" West 132.42 feet,
48) on a curve to the left having a radius of 59.00 feet, a central angle of 76°56'40"a chord of South 73°00'30" West 73.41 feet and an arc distance of 79.23 feet,
49) South 34°32'16" West 103.44 feet,
50) South 33°48'44" West 103.70 feet,
51) South 34°41'02" West 110.25 feet,
52) on a curve to the right having radius of 120.00 feet, a central angle of 62°16'43", a chord of South 65°49'28" West 124.11 feet and an arc distance of 130.44 feet,
53) North 83°02'16" West 52.00 feet,
54) on a curve to the left having a radius of 117.00 feet, a central angle of 32°52'53", a chord of South 80°31'17" West 66.23 feet and an arc distance of 67.15 feet,
55) South 64°04'51" West 76.41 feet,
56) South 51°40'02" West 191.57 feet,
57) South 65°33'04" East 761.50 feet,
58) South 51°30'54" East 412.31 feet,
59) South 65°33'04" East 4,001.20 feet,
60) Along a curve to the left a radius of 5,629.65 feet, a central angle of 04°57'40", a chord bearing of South 68°01'36" East and a distance of 487.30 feet for an arc distance of 487.46 feet,
61) South 06°47'08" East 33.40 feet,
62) South 71°33'08" East 77.00 feet,
63) South 18°24'52" West 20.71 feet,
64) along a curve to the left a radius of 5,679.65 feet, a central angle of 09°02'31", a chord bearing of South 75°57'29" East and a distance of 895.39 feet for an arc distance of 896.32 feet,
65) North 37°46'52" East 28.40 feet,
66) along a curve to the left a radius of 5,654.65 feet, a central angle of 12°55'08", a chord bearing of South 87°04'29" East and a distance of 1,272.31 feet for an arc distance of 1,275.01 feet,
67) North 80°07'47" East 296.44 feet,
68) Along a curve to the left a radius of 5,629.65 feet, a central angle of 11°44'13", a chord bearing of North 77°35'50" East and a distance of 1,151.21 feet for an arc distance of 1,153.23 feet, said last mentioned curve at a distance of 2.9 feet passes over a vertical T-rail monument with an "X" cut on top,
69) South 84°17'30" East 48.78 feet,
70) along a curve to the left a radius of 5,649.65 feet, a central angle of 06°48'40", a chord bearing of North 67°52'17" East and a distance of 671.20 feet for an arc distance of 671.60 feet,
71) South 25°32'03" East 40.00 feet,
72) along a curve to the left a radius of 5,689.65 feet, a central angle of 01°35'49", a chord bearing of North 63°40'02" East and a distance of 158.58 feet or an arc distance of 158.59 feet,
73) North 62°51'54" East 3,140.30 feet, said last mentioned course at a distance of 3138.9 feet passes through a found vertical T-rail monument with an "X" cut on the top,
74) North 47°13'22" East 311.54 feet, said last mentioned course at a distance of 310.3 feet passes through a found vertical T-rail monument with an "X" cut on the top,

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75) North 62°51'54" East 3,300.00 feet, said last mentioned course at a distance of 777.37 feet intersects the northwesterly corner of a permanent Highway Easement herein after described,
76) North 78°30'26" East 311.54 feet, said last mentioned course at a distance of 177.18 feet intersects the southeast corner of said highway easement,
77) North 62°51'54" East 2,500.00 feet,
78) North 57°09'16" East 201.00 feet, to a found vertical T-rail monument with an "X" cut on the top,
79) North 62°51'54" East 300.00 feet, to a found vertical T-rail monument with an "X" cut on the top,
80) North 69°50'51" East 164.52 feet, to a found vertical T-rail monument with an "X" cut on the top,
81) On a curve to the left a radius of 5,689.65 feet, a central angle of 14°35'13", a chord bearing of North 55°34'31" East and a distance of 1,444.63 feet for an arc distance of 1,448.53 feet, said last mentioned curve crosses the town line between the Town of Olive and the Town of Hurley
82) North 48°16'41" East 3,262.00 feet,
83) North 44°40'21" East 219.71 feet,
84) On a curve to the right a radius of 3,879.83 feet, a radial line a central angle of 11°52'10", a chord bearing of North 57°26'52" East and a distance of 802.32 feet for an arc distance of 803.75 feet,
85) North 63°23'16" East 508.71 feet,
86) North 67°12'06" East 300.67 feet,
87) North 63°23'16" East 502.10 feet,
88) along a curve to the left a radius of 5,689.65 feet, a central angle of 08°58'44", a chord bearing of North 58°54'07" East and a distance of 890.73 feet for an arc distance of 891.65 feet, to the southerly corner of a Permanent Highway Easement hereinafter described, the next four courses and distances being along the northwesterly bounds of said highway easement,
89) North 41°50'42" East 696.68 feet,
90) On a curve to the right having a radius of 5,579.65 feet, a central angle of 01°09'44", a chord bearing of North 46°49'53" East and a distance of 113.16 feet for an arc distance of 113.18 feet,
91) North 46°14'50" East 1,133.49 feet,
92) Along a curve to the right having a radius of 3,969.83 feet, a central angle of 07°43'12", a chord bearing of North 50°06'12" East and a distance of 534.72 feet for an arc distance of 535.13 feet, said last mentioned curve at a distance of 448.99 feet passes through the northerly corner of said highway easement,
93) North 33°27'09" West 37.59 feet to the southeasterly edge of pavement of the New York State Route 28.
94) Along the edge of pavement North 48°23'28" East 66.67 feet,
95) South 33°27'09" East 44.62 feet,
96) Along a curve to the right having a radius of 3,969.83 feet, a central angle of 08°34'37", a chord bearing of North 59°12'30" East and a distance of 593.77 feet for an arc distance of 594.32 feet,
97) North 80°10'35" East 422.27 feet, said last mentioned course at a distance of 2.1 feet passes through a found vertical T-rail monument with an "X" cut on the top, at a distance of 151.26 feet passes through the northwesterly corner of a highway drainage easement and at a distance of 251.78 feet passes through the northeasterly corner of said highway drainage easement,

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98) along a curve to the right having a radius of 3,869.83 feet, a central angle of 14°36'04", a chord bearing of North 76°47'51" East and a distance of 983.50 feet for an arc distance of 986.17 feet,

99) North 84°06'06" East 1,726.60 feet,
100) North 76°30'25" East 302.65 feet, said last mentioned course at a distance of 0.5 feet passes through a found vertical T-rail with a "X" cut on top,
101) North 84°06'06" East 300.00 feet, to a found vertical T-rail monument with a "X" cut on the top,
102) South 88°18'14" East 302.65 feet,
103) North 84°06'06" East 838.20 feet,
104) along a curve to the right having a radius of 3,869.78 feet, a central angle of 23°25'38", a chord bearing of South 84°11'18" East and a distance of 1,571.29 feet for an arc distance of 1,582.28 feet, said last mentioned course at a distance of 1570.4 feet passes through a bolt set in a pile of stones,
105) South 77°59'05" East 204.79 feet,
106) along a curve to the right having a radius of 3,894.78 feet, a central angle of 08°08'37", a chord bearing of South 65°24'11" East and a distance of 553.11 feet for an arc distance of 553.58 feet,
107) South 61°19'43" East 626.70 feet,
108) South 57°02'22" East 200.56 feet,
109) South 61°19'43" East 610.90 feet,
110) along a curve to the left having a radius of 3,759.83 feet, a central angle of 15°22'30", a chord bearing of South 69°00'48" East and a distance of 1,005.91 feet for an arc distance of 1,008.93 feet,
111) South 76°42'11" East 264.30 feet,
112) South 13°17'49" West 10.00 feet,
113) South 76°42'11" East 2,830.20 feet,
114) South 76°42'11" East 870.50 feet,
115) North 82°41'12" East 284.08 feet,
116) along a curve to the left having a radius of 2,714.79 feet, central angle of 12°13'44", a chord bearing of South 82°48'52" East and a distance of 578.33 feet for an arc distance of 579.42 feet,
117) South 88°55'52" East 952.19 feet,
118) South 88°55'52" East 269.60 feet,
119) thence through lands of the City of New York North 01°08'55" East 425.93 feet to the south bounds of New York State Route 28;
120) thence along said highway bounds South 76°48'59" East 67.48 feet to a found concrete highway monument, said last mentioned course at a distance of 2.18 feet passes over a found concrete highway monument,
121) South 01°08'55" West 411.77 feet to the aforementioned northerly bounds of the trail easement marked by a found vertical T-rail monument with a "X" cut on top,
122) South 88°55'52" East 81.70 feet,
123) along a curve to the right, crossing into the Town of Woodstock, having a radius of 1,582.68 feet, a central angle of 32°04'29", a chord bearing of South 72°53'54" East and a distance of 874.48 feet for an arc distance of 886.00 feet, to the west bounds of Basin Road,
124) Along the said bounds of said Basin Road South 14°16'52" West 95.44 feet,
125) thence crossing said Basin Road along a curve to the right, having a radius of 1,492.68 feet, a central angle of 05°15'33", a chord bearing of South 53°02'49" East and a distance of 136.96 feet for an arc distance of 137.01 feet,

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thence crossing said railroad at Mile Post 10, South 39°34'57" West 120.00 feet to a point in the southwesterly bounds of said railroad,

thence through said lands of the City of New York, along said southwesterly bounds of said railroad the following eighty five courses and distances:

1) Crossing said Basin Road on a curve to the left, having a radius of 1,372.68 feet, a central angle of 03°25'15", a chord bearing of North 52°07'40" West and a distance of 81.94 feet for an arc distance of 81.95 feet,
2) on a curve to the left, crossing into the Town of Hurley, having a radius of 1,372.68 feet, a central angle of 35°05'53", a chord bearing of North 71°23'14" West and a distance of 827.78 feet for an arc distance of 840.87 feet,
3) North 88°55'52" West 417.30 feet,
4) North 88°55'52" West 952.20 feet,
5) On a curve to the right having a radius of 2,924.79 feet, a central angle of 12°13'43", a chord bearing of North 82°48'52" West and a distance of 623.05 feet for an arc distance of 624.23 feet,
6) North 76°42'11" West 1,136.40 feet,
7) North 13°17'49" East 44.00 feet,
8) North 76°42'11" West 2,830.20 feet
9) South 13°17'49" West 34.00 feet
10) North 76°42'11" West 264.30 feet,
11) along a curve to the right having a radius of 3,869.83 feet, a central angle of 15°22'30", a chord bearing of North 69°00'48" West and a distance of 1,035.33 feet for an arc distance of 1,038.44 feet,
12) North 61°19'43" West 610.90 feet,
13) North 68°27'13" West 201.56 feet,
14) North 61°19'43" West 626.70 feet,
15) along a curve to the left having a radius of 3,744.78 feet, a central angle of 08°08'37", a chord bearing of North 65°24'11" West and a distance of 531.81 feet for an arc distance of 532.26 feet,
16) North 63°44'04" West 198.29 feet,
17) along a curve to the left having a radius of 3,769.78 feet, a central angle of 23°25'25", a chord bearing of North 84°11'12" West and a distance of 1,530.45 feet for an arc distance of 1,541.16 feet,
18) South 84°06'06" West 638.45 feet,
19) South 74°38'21" West 304.14 feet,
20) South 84°06'06" West 700.00 feet,
21) North 88°46'24" West 201.56 feet to a found vertical T-rail with an "X" cut on top, said last mentioned course at a distance of 0.5 feet passes through a found vertical T-rail monument with a "X" cut on the top,
22) South 84°06'06" West 1,200.00 feet,
23) North 88°46'24" West 201.56 feet, said last mentioned course at a distance of 199.9 feet passes through a found vertical T-rail with a "X" cut on top
24) South 84°06'06" West 226.60 feet,
25) along a curve to the left having a radius of 3,769.83 feet, a central angle of 13°06'04", a chord bearing of South 77°32'51" West and a distance of 860.12 feet for an arc distance of 861.99 feet,
26) South 55°11'40" West 202.33 feet, said last mentioned course at a distance of 201.2 feet passes through a found vertical T-rail with a "X" cut on top,

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27) along a curve to the left having a radius of 3,719.83 feet, a central angle of 12°00'00", a chord bearing of South 61°59'49" West and a distance of 777.66 feet for an arc distance of 779.08 feet,

said last mentioned curve at a distance of 776.7 feet passes through a found vertical T-rail with a "X" cut on top

28) South 63°23'24" West 298.26 feet,
29) along a curve to the left having a radius of 3,769.83 feet, a central angle of 05°15'16", a chord bearing of South 48°52'11" West and a distance of 345.61 feet for an arc distance of 345.73 feet,
30) South 46°14'50" West 1,133.50 feet,
31) along a curve to the right having a radius of 5,779.65 feet, a central angle of 17°08'27", a chord bearing of South 54°49'15" West and a distance of 1,722.64 feet for an arc distance of 1,729.08 feet,
32) South 63°23'16" West 502.10 feet,
33) South 53°55'31" West 304.14 feet, said last mentioned course at a distance of 302.4 feet passes through a found vertical T-rail with a cross cut in the top,
34) South 63°23'16" West 508.69 feet,
35) along a curve to the left having a radius of 3,719.83 feet, a central angle of 15°06'35", a chord bearing of South 55°49'40" West and a distance of 978.13 feet for an arc distance of 980.97 feet,
36) South 48°16'41" West 484.00 feet,
37) South 62°18'51" West 206.16 feet,
38) South 48°16'41" West 900.00 feet, to a found vertical T-rail monument with an "X" cut on the top,
39) South 41°09'11" West 201.56 feet,
40) South 48°16'41" West 1,478.00 feet,
41) South 53°36'05" West 538.20 feet, crossing the line between the Town of Hurley and the Town of Olive, said last mentioned course at a distance of 0.5 feet passes through a found vertical T-rail monument with an "X" cut on the top,
42) on a curve to the right having a radius of 5,779.65 feet, a delta of 9°16'01", a chord bearing of South 58°14'07" West and a distance of 933.77 feet for an arc distance of 934.79 feet, said last mentioned course at a distance of 0.8 feet passes through a found vertical T-rail with an "X" cut on top,
43) South 54°09'39" West 165.20 to a found vertical T-rail monument with an "X" cut on the top,
44) South 62°51'54" West 300.00 feet, to a found vertical T-rail monument with an "X" cut on the top,
45) South 69°59'52" West 201.50 feet,
46) South 62°51'52" West 1,900.06 feet to a found vertical T-rail monument with an "X" cut on the top, said last mentioned course at a distance of 1.4 feet passes through a found vertical T-rail monument with an "X" cut on the top,
47) South 55°44'24" West 201.56 feet,
48) South 62°51'54" West 800.00 feet,
49) South 72°47'28" West 203.04 feet,
50) South 62°51'54" West 2,000.00 feet, said last mentioned course at a distance of 0.7 feet passes through a found vertical T-rail monument with an "X" cut on the top,
51) South 60°00'09" West 400.50 feet, said last mentioned course at a distance of 1.1 feet passes through a found vertical T-rail monument with an "X" cut on top,
52) South 62°51'54" West 600.00 feet,
53) South 66°40'44" West 300.67 feet, said last mentioned course at a distance of 1.25 passes through a found vertical T-rail monument with a "X" cut on the top,
54) South 62°51'54" West 1,700.00 feet,

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55) South 57°09'16" West 201.00 feet,
56) South 62°51'54" West 1,240.30 feet,

57) South 43°22'11" West 172.94 feet, said last mentioned course of a distance of 1.1 feet passes through a vertical T-rail monument with an "X" cut in the top,
58) on a curve to the right having a radius of 5,849.65 feet, a central angle of 19°00'00", a chord bearing of South 73°57'57" West and a distance of 1,930.94 feet for an arc distance of 1,939.82 feet, said last mentioned curve at a distance of 1.8 feet passes through a found vertical T-rail monument with an "X" cut in the top,
59) North 87°34'12" West 307.81 feet, said last mentioned course at a distances of 1.1 feet and 305.2 feet passes through a found vertical T-rail monument with a "X" cut on top,
60) on a curve to the right having a radius of 5,809.65 feet, a central angle of 27°59'17", a chord bearing of North 79°32'25" West and a distance of 2,809.78 feet for an arc distance of 2,837.91 feet,
61) North 65°33'04" West 5,401.20 feet,
62) North 78°54'41" West 411.13 feet,
63) North 65°33'04" West 215.73 feet,
64) along a curve to the right having a radius of 3,039.93 feet, a central angle of 03°41'10", a chord bearing of North 63°41'55" West and a distance of 195.53 feet for an arc distance of 195.57 feet,
65) North 26°49'12" West 209.29 feet,
66) along a curve to the right having a radius of 1,975.80 feet, a central angle of 17°44'35", a chord bearing of North 55°01'10" West and a distance of 609.41 feet for an arc distance of 611.85 feet,
67) North 44°58'49" West 240.72 feet,
68) North 44°17'53" West 505.69 feet
69) along a curve to the right having a radius of 1,300.41 feet, a central angle of 18°13'51", a chord bearing of North 35°23'28" West and a distance of 412.03 feet for an arc distance of 413.78 feet,
70) North 48°45'56" West 114.10 feet,
71) along a curve to the right having a radius of 1,552.68 feet, a central angle of 10°42'07", a chord bearing of North 23°38'34" West and a distance of 289.60 feet for an arc distance of 290.02 feet,
72) North 18°18'53" West 466.85 feet,
73) along a curve to the left having a radius of 1,312.69 feet, a central angle of 27°25'19", a chord bearing of North 32°03'00" West and a distance of 622.28 feet for an arc distance of 628.26 feet,
74) North 35°36'44" West 284.43 feet,
75) North 45°44'13" West 700.00 feet,
76) North 44°15'47" East 10.00 feet,
77) North 45°44'13" West 467.92 feet,
78) along a curve to the right having a radius of 2,924.93 feet, a central angle of 24°55'32", a chord bearing of North 33°15'31" West and a distance of 1,262.44 feet for an arc distance of 1,272.45 feet,
79) North 28°46'40" West 288.59 feet,
80) North 20°48'38" West 800.00 feet,
81) North 13°41'08" West 201.56 feet,
82) North 20°48'38" West 1,092.02 feet,
83) North 12°15'07" West 213.41 feet,
84) along a curve to the right having a radius of 3,324.17 feet, a central angle of 15°16'24", a chord bearing of North 09°31'10" West and a distance of 883.50 feet for an distance of 886.12 feet,

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85) crossing the aforementioned Esopus Creek, North 03°54'52" East 2,271.34 feet to the point of beginning.

CONTAINING Two hundred thirty and forty-one hundredths (230.41) acres.

BEARINGS are with reference to Grid North, New York East Zone, distances are referenced to horizontal ground, to obtain grid distances divide by a scale factor of 0.99988795375.

SUBJECT to overhead utility line easements as they now exist.

SUBJECT to all legally enforceable covenants, easements, restrictions, conditions and agreements of record.

SUBJECT to any right, title and interest the public and the City of New York may have in and to that portion of N.Y.S. Route 28A that is used for highway purposes.

SUBJECT to any right, title and interest the public and the City of New York may have in and to that portion of Reservoir Road that is used for highway purposes.

SUBJECT to the rights of the City of New York to access their lands over the existing woods roads crossing said trail easement.

SUBJECT to a Permanent Highway Easement for New York State Route 28 as shown on State Highway 47-5 map number 40 parcel 47 being bounded and described as follows;

BEGINNING at a point on the north boundary of the herein described rail trail easement distant 777.37 feet on a course of North 62°51'54" East, along the north boundary of said trail easement from the terminus of course number 74 of said easement and runs thence along said north boundary North 62°51'54" East 2522.63 feet;

thence continuing along said boundary North 78°30'26" East 177.18 feet;

thence through said trail easement South 62°39'33" West 2534.56 feet and South 82°34'50" West 168.59 feet to the point of beginning.

SUBJECT to a permanent highway easement for New York State Route 28 as shown on State Highway 47-5 map 39 parcel 46 being bounded and described as follows;

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BEGINNING at a point in the north boundary of the herein described rail trail easement at the terminus of course number 88 and runs thence along the north boundary of said rail trail easement the following four courses and distances:

1) North 41°50'42" East 696.68 feet,

2) On a curve to the right having a radius of 5579.65 feet a central angle of 01°09'44" a chord of North 46°49'53" East 113.16 feet for an arc distance of 113.16 feet,
3) North 46°14'50" East 1133.49 feet and
4) On a curve to the right having a radius of 3969.83 feet a central angle of 49°28' 58" a chord of North 49°28'58" East a distance of 448.75 feet for an arc distance of 448.99 feet;

thence through said rail trail easement the following two courses and distances:

1) South 46°20'29 West 1060.05 feet and
2) South 45°00'31" West 1329.57 feet to the point of beginning.

SUBJECT TO a permanent highway drainage easement for New York State Route 28 as shown on State Highway 47-5 map 38 parcel 45 being bounded and described as follows;

BEGINNING at a point in the north boundary of the herein described rail trail easement distant 151.26 feet along said rail trail boundary from the terminus of course number 52 of the herein described rail trail and runs thence along the north boundary of said rail trail easement North 80°10'35" East 100.52 feet thence running through the herein described rail trail easement the following three courses and distances:

1) South 08°41'01" East 9.00 feet,
2) South 63°39'58" West 115.43 feet and
3) North 04°03'42" East 43.06 feet to the point of beginning

BEING a portion of the premises described in agreement between the Ulster and Delaware Railroad Company and The City of New York dated June 15th 1911 and filed in the Ulster County Clerk's Office in Liber 443 of deeds at Page 59.

EXHIBIT Z

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

October 3, 2016

Ms. Corinne Steinmuller
Environmental Scientist II
Barton and Loguidice
10 Airline Drive
Albany, NY 12203

Re: DEC
Ashokan Rail Trail
16PR06122

Dear Ms. Steinmuller:

Thank you for requesting the comments of the Division for Historic Preservation of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the submitted materials in accordance with the New York State Historic Preservation Act of 1980 (section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the Division for Historic Preservation and relate only to Historic/Cultural resources. They do not include potential impacts that must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6NYCRR Part 617).

We note that the proposed project is located partially within the National Register eligible Ulster and Delaware Railroad Corridor. The historic section of the railway, extending from Shokan to Phoenicia, is listed under National Register Criterion A for its association with historical development of the towns of Shandaken and Olive from the period 1897-1942. We understand that the proposed project will include construction of a pedestrian and bicycle pathway along the existing rail bed extending approximately 11.5 miles from West Hurley to Olive. The proposed rail trail will affect approximately six miles of the historic railway, and will include removal of the rail and ties, repairs to existing culverts, and construction of multiple trailheads within the twenty foot wide easement.

We are pleased that this adaptive reuse project will retain the rail corridor along with its historic feeling, association, and use as a transportation route. Based on this review, it is the opinion of the SHPO that the proposed project will have No Adverse Impact upon the historic Ulster and Delaware Railroad Corridor provided the following conditions are incorporated into the project:

1. A Preservation Plan is developed for the historic rail corridor. At minimum the Plan will identify all historic structures and engineering features that will be impacted by the project.
2. Historic interpretation of the railway will be integrated into development of the rail trail. Interpretive materials should include interpretive signage along the rail trail. A qualified professional should be retained to develop the preservation and interpretive plans.

3. Materials related to documentation and interpretation of historic features should be submitted to our office for review in the preliminary and pre-final stages.

Any additional measures that would further ensure the preservation and understanding of the historic railway are encouraged. Towards this goal, we suggest the following:

- Small sections of track (roughly 50') may be retained at the beginning and end of the proposed rail trail. One or both ends of this could display the existing heavy gauge rails along with a sample of the previous iteration of light rail as part of an interpretive exhibit.
- Additional historic features including buildings, structures, and engineering features that are identified along the eligible route will be protected and interpreted in accordance with the Preservation Plan.

Consultation with our office should continue as the preservation and interpretation measures suggested above are developed. Plans, specifications, and other documentation requested in this letter should be provided via our Cultural Resource Information System (CRIS) at www.nysparks.com/shpo/online-tools/. Once on the CRIS site, you can log in as a guest and choose "submit" at the very top menu. Next choose "submit new information for an existing project". You will need this project number and your e-mail address.

If you have any questions, I can be reached at (518) 268-2164.

Sincerely,



Weston Davey
Historic Site Restoration Coordinator
weston.davey@parks.ny.gov

via e-mail only

CC: Scott Ballard (DEC)
Charles Laing (NYCDEP)
Christopher White (Ulster County)