

From: [Phillip Hoskins](#)
To: [Poole, Andrea](#); [Valarie Discafani](#); [Todd Hill](#); [Alan Summerville](#)
Cc: [David Parton](#)
Subject: FW: Lakeview South Approach Documents
Date: Tuesday, November 8, 2022 5:58:22 PM
Attachments: [image907426.png](#)
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[image971523.png](#)
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[image154760.png](#)
[image556453.png](#)
[image322866.png](#)
[image741364.png](#)
[Tooele South Route Plans.pdf](#)
[2021-03-22 Erda Crossings Meeting Minutes FINALIZED.pdf](#)
[Lakeview Business Park; SR-112 Horrocks Work Plan - 20210610.pdf](#)

Andrea,

Here are documents that were generated related to the southern route. Much of the information that we gathered that drove our decision to change the route came together during the development of the southern route was through in-person meetings with officials and the UPRR.

Please let us know if you need any additional information.

Best regards,

Phillip

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From: David Parton <davidparton@savageservices.com>
Sent: Monday, November 7, 2022 1:59 PM
To: Phillip Hoskins <philliphoskins@savageservices.com>
Subject: Lakeview South Approach Documents

Phillip,

I was able to get some documents from RailPros showing the original route from the south. There was one heavily attended Dev Con meeting held on site that was attended by RailPros and CRS. I have attached some meeting minutes taken by RailPros and also reached out to Darren at CRS but he was really not willing or couldn't add any context to the many issues brought up at the Dev Con. It was brought up in that meeting that the city or county had a bunch of future roads planned through

that corridor that would create new several new public crossings and that was one issue. The other was the overhead bridge and all of the utilities and other issues with that bridge. There was also a major UNEV gas pipeline installed in that corridor right under where the tracks were planned to go. Many of the Rails to Trails locations would have needed to be realigned along with several Rail To Trails bridges that would have needed to be built. There are some good takeaways in the meeting notes. Let me know how we want to format this information and who specifically to send it to. Is this going to be enough or does a synopsis need to be written up ?

Thanks



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Attendees:

	Name	Representing / Entity	Contact Information
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☒	Tye Hoffmann	Tooele County (County Council)	(435) 843-3150 thoffmann@tooeleco.org
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☒	Jake Clegg	Tooele County (County Engineer)	(435) 843-3590 jclegg@ensignutah.com

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Action Items:

Romney Group

1. Provide updated plans including all proposed public road crossings, inside and outside the limits of the industrial park.
2. Provide traffic studies with supporting information why the rail benefits the area and why grade separated crossings are not warranted.
3. Provide plans which support Savage Services operations at the interchange yard that detail that there will be no additional active blocking or false activations of signals due to preemption at Utah Avenue.
4. Coordinate with county on trail closures or improvements.
5. Coordinate with city regarding Rodgers Street alterations.

UDOT

1. Provide Mid Valley Highway plans to Romney Group.

Tooele City

1. Provide roadway masterplan to Romney Group.

Meeting Minutes:

1. UDOT briefing on the purpose of diagnostic meetings
 - a. Mentioned that the previously existing crossings which are proposed to be reopened with the south concept are no longer active in the FRA database and do not constitute a reopening but rather a new crossing.
 - b. Purpose of this meeting is to discuss how to open new rail crossings in a safe manner and reduce the overall number of crossings in the state resulting in a net safety increase.
2. CRS performed safety briefing
3. Project background given by Romney Group
 - a. Originally, the Romney Group was interested in the southern concept presented in today's meeting. Due to various concerns they decided to investigate a northern option.

- b. After reviewing the costs and permitting timeframes associated with the northern option including wetland mitigation, rail rehabilitation, and reinstating rail traffic through the Gunderson Acres subdivision they decided to return to the southern alternative as the primary option for rail access to their site.
 - i. Southern alternative plans were prepared previously by Mountain States Contracting, going forward RailPros will be the engineer of record.
 - c. The Romney Group would like both options to remain on the table at this time for evaluation.
 - d. Romney Group may look for alternatives to route the rail around the Gunderson Acres subdivision if they were to proceed with the northern option.
 - e. Romney Group would like to begin construction as soon as possible (as soon as four months from the time of this meeting if permitting allows).
 - i. They were advised that modifying an existing crossing (Utah Ave) could take up to two years through the UP process.
 - f. Current Romney Group plans identify lights & gates at all new public crossings.
4. Discussion by the group
- a. CRS read a portion of Rule R930-5 of the Utah Administrative Code regarding the state's intent to reduce the total number of at-grade rail crossings and create a net safety increase.
 - i. All new crossings require public hearings in accordance with Rule R930-5.
 - ii. All existing crossings that add new tracks require public hearings in accordance with Rule R930-5.
 - b. Roadway statistics obtained from the UDOT Data Portal (<https://data-uplan.opendata.arcgis.com/>) and Utah Vehicle Collisions GIS portal (<https://crashmapping.utah.gov/>) show AADT from 2007-2017 and annual accident frequency from 2016-2019 as shown below. These numbers should be updated with current 2021 traffic studies as it relates to the impacts of this project.
 - i. SR-112 averages 6100 AADT with 6-10 accidents per year.
 - ii. Utah Avenue averages 6600-7700 AADT with 4-9 accidents per year.
 - iii. Rodgers St averages 540 AADT with 1 accident per year.
 - c. Mid Valley Highway (MVH)

- i. MVH is planned to cross the proposed rail corridor in the vicinity of the existing at-grade rail crossing at Utah Avenue. The alignment is not final and is in preliminary stages pending environmental investigations.
 - ii. It is anticipated that the MVH rail crossing near Utah Avenue will be a grade separated crossing over the existing track. If Romney Group pursues the southern connection alternative it would be wise for them to ensure that the highway planners are aware of this new rail line and can design the bridge to be large enough to accommodate the double rail crossing. It is unknown who would fund this betterment.
 - iii. MVH is also planned to parallel the east edge of the rail served industrial park as proposed. There is a possibility of a Department of Defense road connection from the north gate of the Tooele Army Depot to the proposed MVH alignment. It is possible that this connecting road will cross the proposed tracks.
- d. Rail trails
 - i. Impacts to existing railbed trails will need to be reviewed by the county to determine if the trails should be closed or if new pedestrian crossings will be installed where the new tracks cross.
 - 1. Any new at-grade pedestrian crossings would count towards additional new public crossings opened.
- e. UNEV pipeline
 - i. A UNEV pipeline exists in the area and the developer was advised by the county of this and the potential costs associated with it during the meeting. UDOT stated they do not have jurisdiction over rail/utility crossings and will not get involved with that aspect of the project.
- f. Future development
 - i. Tooele City mentioned that the city is anticipating a large amount of industrial and residential development in the area supported by recent economic developments.
 - ii. Tooele City intends to adopt a new transportation masterplan on March 17, 2021. Said plan includes roadways which would cross the Romney Group tracks. Crossings would include arterial and collector streets and number at four (4) crossings located between SR-112 and the Romney Group's site. The master plan does not include the proposed rail line (north or south alternatives).
- g. School bus routes

Meeting Minutes for Pre-Diagnostic

Date: March 16th, 2021

Time: 9:00 am

- i. Tooele School District is in the process of relocating their bus depot in the Tooele Army Depot industrial park. Said relocation would route all their buses (100 per day in number) along SR-112 and Utah Ave.
 - ii. Currently 30 buses a day cross both Utah Avenue and SR-112.
 - iii. Three buses run six times per day on Erda way.
 - iv. 11 buses run twice per day on SR-138.
 - v. Due to the legal requirement for buses to stop before proceeding at all railroad crossings, there was concern about safety at crossings and that new crossings will cause a lot of traffic disruption due to bus traffic.
 - 1. If any crossings are allowed, mitigation was proposed to make each crossing signalized and to include a control box which can communicate with bus drivers. Crossings would then be exempt from the rule requiring buses to stop.
- h. Truck routes
 - i. SR-112 is a designated truck route to eliminate truck traffic on other roads.
 - ii. Carvana has or will soon locate within Tooele. They will bring additional significant truck traffic to SR-112.
 - iii. UDOT mentioned concerns about the need for hazardous material hauling trucks to stop at railroad crossings (same as buses).
- i. Industrial park operations
 - i. It is intended that Savage Services will be the operating railroad within the new industrial park.
 - ii. Savage intends to operate outside of peak hours with operating speeds of 10-20 mph.
 - iii. Operations are anticipated to include up to one round trip from the park to the interchange yard per day and internal switching as needed.
 - iv. Savage intends to operate the facility (either north or south option) in such a way to not have switching movements impact existing roads.
- j. UP involvement
 - i. UP does not own any right of way to be utilized by the Romney Group for the southern alignment.
 - 1. County owned right of way & 1 private owner.

Meeting Minutes for Pre-Diagnostic

Date: March 16th, 2021

Time: 9:00 am

- ii. UP owns a majority of the track and right of way to be utilized by the northern alignment option. Their involvement may be required if any public at grade crossings are proposed within their right of way. Romney Group provided a follow up email after the meeting stating that UP has sold their right of way to another party within the limits of SR-138 and Erda Way.
 - iii. UP will need to be involved in any diagnostic at Utah Avenue as the operating railroad.
- k. Problems with existing railroad crossings
 - i. Grantsville, Tooele, and Tooele School District brought it to the attention of the group that Utah Avenue frequently experiences trains blocking the crossing for long durations of time. Additionally, the crossing frequently experiences prolonged activations without a train crossing the roadway due to switching operations and preemption at the Tooele Army Depot.
 - ii. Savage referred to their previously mentioned operating hours and switching frequency as evidence that their operations will not compound this issue.
 - iii. A concern was raised that additional rail car volumes going into the interchange yard would lengthen the train and make the current blockage worse.
 - iv. UDOT has concerns that false activations while Savage switches the interchange yard could occur and would like plans to confirm how the signal interconnection will be outside of the switching limits of the interchange yard.
- l. Other comments
 - i. This meeting will not be considered an official diagnostic pending further review of the project to determine if crossings will be allowed or not.
 - ii. Five to seven additional at-grade crossings are planned within the park. These crossings would require diagnostics and permitting also.
 - iii. Grantsville City stated that any new crossings on public roads brings additional liability on cities owning the crossing. Grantsville also mentioned a desire to eliminate the additional liability by the installation of grade separated crossings and prefers no new crossings at all. Tooele City and the County stated similar views about not wanting at-grade crossings.
 - iv. Closure of other crossings to offset the addition of new crossings was mentioned but was not pursued at this time.

- v. UDOT mentioned that in either the northern or southern option they have significant concerns about crossing SR-112 or SR-138 at-grade. Functionally they are the similar, both being high speed highways with a significant amount of truck traffic.
 - vi. Tooele city brought up concerns about additional traffic on highways due to travel to and from the Deseret Peak Utah Temple.
 - vii. Romney Group suggested working with the city to cul-de-sac Rodgers St to eliminate a potential new crossing.
 - viii. Several dirt roads exist along the proposed alignment. If these are private crossings they will not require UDOT involvement and the railroad owner will have jurisdiction over private crossings.
- m. Future needs
- i. UDOT would like to see traffic studies performed with supplementing data why at-grade crossings are warranted, how a net safety increase is gained, and why the rail benefits the area.
 - ii. Romney Group will provide an updated the concept drawing per their comment that the drawings were changing. UDOT would like to see planned crossings within the site.
 - iii. A public hearing will be required for each crossing to be opened. The developer was advised that they may hold a hearing for multiple crossings at a time.
 - iv. After receiving more detailed plans and traffic studies. A diagnostic will be held at each crossing to determine which safety devices are appropriate for each crossing.
- n. Summary of proposed crossings, southern vs northern alignments
- i. Southern alignment
 - 1. 1 existing crossing to be expanded at Utah Avenue.
 - 2. 2 new crossings, one on SR-112 and one on Rodgers Street.
 - 3. 4 new crossings per the Tooele City roadway masterplan.
 - 4. 5-7 new public crossings within the proposed industrial park.
 - 5. Possibility for 1 DOD crossing to access MVH from TEAD.
 - ii. Northern alignment
 - 1. 2 new crossings, one on SR-138 and one on Erda Way.
 - 2. 5-7 new public crossings within the proposed industrial park.

Lakeview Business Park; SR-112 over New Railroad Tooele County

Preconstruction Engineering – Phase 1

EXECUTIVE SUMMARY

Brief Description:

The Romney Group and NorthPoint Development are proposing to construct a new rail line which crosses SR-112 in Tooele, UT. Tooele City has requested that the crossing be grade separated to improve safety and mobility. Key elements of the project include:

- Meet applicable Environmental requirements
- Raise the roadway profile and construct a new bridge over the proposed rail line, trail, and petroleum line
- Evaluate utility impacts
 - Relocate or raise a Rocky Mountain Power transmission line
 - Relocate a Rocky Mountain Power distribution line
 - Relocate Tooele City sewer line
 - Avoid impacts to Holly Energy petroleum line
 - Relocate or modify a storm drain

The project is proposed to be constructed using a Design-Bid-Build approach. This work plan is for Phase 1 of the project which includes preliminary environmental and preconstruction engineering services consisting of preliminary plans and coordination with third-party utility owners. Major elements of this project include roadway and drainage design for SR-112, a new bridge, utility coordination, and utility relocations or modifications.

Project Team:

Horrocks Engineers will be the Prime Consultant and will utilize the services of the following subconsultants:

- Gerhart-Cole (Geotechnical)

Assumptions:

- Pavement design to be provided by UDOT Region 2 based on the results of the geotechnical investigation and traffic index.
- Design is anticipated to raise SR-112 over the new railroad, trail, and Holly Energy petroleum pipeline. Horrocks will profile the proposed roadway from 500' on either side outside of the location of the "match existing" points to show the road meets sight distance requirements.
- Scope of work is limited to work within the UDOT right-of-way and does not include hydraulic analysis of existing channel flows. Any required modifications to "foot path" channel running North/South under SR112 related to scour and conveyance to be done by Dominion.
- Hydrology & hydraulics analysis, design, plans, and permitting associated with possible relocation of 72" RCPC to be done by Dominion.
- Scope of work does not include floodplain evaluation, mapping, or coordination with FEMA. No CLOMR or LOMR is included.
- Lighting will be designed under the structure over the railroad to UDOT standards. No other lighting is included in the design.
- Scope of work does not include any at grade crossings of the railroad.
- Scope of work does not include design of the railroad or trail.
- Scope of work assumes that the bridge will be a single-span prestressed concrete girder with cast-in-place deck superstructure. Assumes no UDOT Structures Design Deviations will be required.
- All elements will be designed to UDOT design requirements and standards.
- All retaining walls are the same type. Assume MSE walls around integral abutments.

- Public Involvement before and during construction is not included in this Phase of the project.
- Design assumes UDOT baseline aesthetics for the bridge.
- Design work does not include landscaping. Assume application of UDOT seed mix for disturbed areas within the UDOT right-of-way.
- Work not specifically defined in this document is not included in this scope of work.
- Assume preparation of an environmental memo, showing compliance with UDOT Standard Specification 01355, Section 3.7. No other environmental documentation or clearances are included in this Scope of Work.
- Scope of work does not include property acquisitions or right-of-way services.
- Scope of work assumes survey will be provided by others.
- All design work will be within the UDOT right-of-way.
- No ATMS is anticipated within the UDOT right-of-way. ATMS design services are not included in this Scope of Work.
- No lighting will be required along SR-112 or under the bridge. Lighting design services are not included in this Scope of Work.
- Scope of Work does not include design services for Traffic Control Plans.

Fee Type:

The fee type for Phase I of this project will be lump sum. No work will be performed unless it is contained within the approved work plan. If additional services or a change in the work plan is required, these changes will be negotiated and agreed to by both parties in writing through a contract modification before the additional work is performed.

Contents

1V1 Kickoff Meeting	4
1B1 Develop Base Mapping/Existing Surface	4
1J1 Identify Existing Right-of-Way	4
4J2 Develop Right-of-Way Plans and Documents.....	4
2A1 Develop Aesthetics Conceptual Design	4
2E1 Analyze Environmental Resources.....	4
2Q1 Develop Initial Drainage Design	5
2R1 Model Initial Roadway Design	6
2U1 Utility & Railroad Identification.....	6
2Y1 Prepare/Compile Geometry Review Package.....	7
2V1 Geometry Review Meeting.....	7
3A1 Complete Aesthetics Design.....	7
3Q1 Complete Drainage Design.....	7
3R1 Complete Roadway Design.....	8
3S1 Develop Structure Type Selection Memo and Seismic Design Strategy Report	8
3S4 Develop Situation and Layout for Retaining Walls	8
3S5 Develop Situation and Layout for Bridge	9
3U1 Identify Potential Utility Conflicts	9
3U2 Initial Design Utility Coordination	9

Project Number: UT-TR-3664-21
Project Description: SR-112 over New Railroad

3U3 Identify Utility Depth (SUE Level A).....	10
3Y1 Prepare/Compile Plan-in-Hand Review Package	10
3V1 Plan-in-Hand Review Meeting	10

Work Plan

1V1 KICKOFF MEETING

Prepare for and hold a project kickoff meeting with the project team and UDOT. The purpose of the meeting is to introduce team members, familiarize the team with the project, review the proposed project scope, schedule, and to commit to the project's success.

Tasks:

- Prepare for and hold the Kickoff Meeting
- Distribute meeting minutes including decisions made and action items

1B1 DEVELOP BASE MAPPING/EXISTING SURFACE

Task to be completed by Dominion Engineering.

1J1 IDENTIFY EXISTING RIGHT-OF-WAY

Task to be completed by Dominion Engineering. Dominion Engineering is expected identify existing Right-of-Way (ROW) along the project and adjacent ownerships.

Assumptions:

- Dominion will provide a ROW base map for Horrocks' use

4J2 DEVELOP RIGHT-OF-WAY PLANS AND DOCUMENTS

Task to be completed by Dominion Engineering.

2A1 DEVELOP AESTHETICS CONCEPTUAL DESIGN

Determine concept level baseline aesthetics plan to be incorporated into the project.

Tasks:

- Create a 1-sheet conceptual aesthetics plan showing the proposed bridge with baseline aesthetics.
- Submit to UDOT Region 2 for review

Deliverables:

- Aesthetics Concept Plan

2E1 ANALYZE ENVIRONMENTAL RESOURCES

Identify and describe existing social, economic, and environmental resources within study area. Determine impacts associated with the Proposed Action.

Tasks:

1. Cultural.
 - a. Archaeology
 - i. Prepare Archaeological Literature Search.
 - ii. Prepare Area of Potential Effects (APE) map.
 - iii. Conduct Class III Cultural Resources Inventory of APE.
 - iv. Prepare Report.
 - b. Historic Architecture – Assume no historic architecture present.
 - c. Determine impacts to Cultural Resources (archeological).
2. Paleontological – Coordinate with the UGS. Assume that there are no known paleontological localities in the APE and the formations in the APE have a low potential for containing fossil remains. Obtain clearance letter.
3. Federally Threatened, Endangered, or Candidate Species/Wildlife.
 - a. Identify existing wildlife, habitat, vegetation, and threatened and endangered species present within the study area.
 - b. Determine and document impacts (none are expected). Assume “no effect” to T&E species or their critical habitats.
 - c. Evaluate impacts to migratory birds, including raptors.
4. Wetlands, Water Resources, Storm Water, and Floodplains
 - a. Aquatic Resource Delineation
 - i. Conduct wetland delineation and Waters of the U.S. report in accordance with the minimum standards set forth by the U.S. Army Corps of Engineers. Document findings.
 - ii. Assume no waters of the U.S., including wetlands are present.
 - b. Floodplains
 - i. Determine if Proposed Action would require new construction or alteration of existing structure within the FEMA 100-year floodplain. Document findings.
5. Hazardous Waste
 - a. Determine existing hazardous waste sites within the project area by reviewing appropriate databases (DERR Interactive Map, EPA EnviroMapper) and determining if there is a high, moderate, or low probability of environmental degradation. Document findings.
6. Prepare an environmental memo, showing compliance with UDOT Standard Specification 01355, Section 3.7. Resource findings and documentation will be included in this memo.

Deliverables:

- Environmental Memo
- Cultural Resources Report
- Aquatic Resource Delineation

2Q1 DEVELOP INITIAL DRAINAGE DESIGN
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Tasks:

- Site Visit and Evaluation
- Perform Hydrologic Analysis
- Perform Hydraulic Analysis
- Develop Preliminary Drainage Layout
- Develop Preliminary Water Quality requirements
- Conduct Conflict Analysis of Design Elements
- Coordinate with Design Team

Deliverables:

- Preliminary Drainage Layout

Project Number: UT-TR-3664-21

Project Description: SR-112 over New Railroad

- Preliminary Construction Cost Estimate

2R1 MODEL INITIAL ROADWAY DESIGN

Determine the recommended horizontal and vertical alignments by developing the initial roadway model.

Tasks:

- Develop typical section
- Develop Initial Roadway Model using Bentley OpenRoads

Deliverables:

- Initial roadway model
- Project Design Criteria (PDC)
- Design Exceptions/Waivers (Assume none required)

2U1 UTILITY & RAILROAD IDENTIFICATION

This task will be completed by Dominion Engineering and Horrocks engineering as outlined below:

Tasks to be completed by Dominion Engineering:

- Conduct a search of available utility and railroad company records.
- CAD Depiction of Utility Facilities within project limits.
- Subsurface Utility Engineering (SUE) Level B, C and D within project limits.

Tasks to be completed by Horrocks Engineers:

- Develop Utility and Railroad Companies Contact List (based on SUE work completed by Dominion) for utilities within or crossing the UDOT right-of-way
- Hold one (1) Scoping Meeting with each of the following utility companies:
 - Tooele City (sanitary sewer)
 - Rocky Mountain Power (transmission and distribution power)
 - Beehive Broadband (assumed to be un UDOT ATMS conduit)
 - The scoping meeting will include:
 - Review of horizontal location of existing facilities
 - Discuss protection in place and relocation options, limitations, etc.
 - Scoping meetings will be held via Microsoft Teams or other remote meeting method.
- Work with client and utility companies to establish contracts for work to be completed by the utility companies (i.e. field surveys, design analysis, relocation design, etc.)
 - All contracts will be executed by the client
- Coordinate with project team
- Perform QC

Assumptions:

- All SUE work will be completed by Dominion Engineering (including, but not limited to, obtaining as-builts/ mapping, field locating and survey, camera work of existing storm drain/sanitary sewer facilities, test holes, etc.)
- Dominion Engineering will perform all coordination with UNEV Pipeline LLC

Deliverables:

- Utility Contact List
- Meeting minutes from utility scoping meetings

2Y1 PREPARE/COMPILE GEOMETRY REVIEW PACKAGE

Compile project construction cost estimate and discipline deliverables into one Geometry Review Package.

Tasks:

- Prepare preliminary construction cost estimate
- Prepare and distribute a scroll plot of the proposed design

2V1 GEOMETRY REVIEW MEETING

This meeting is to review the recommended roadway alignments consistency, accuracy, and constructability within the project scope.

Tasks:

- Prepare for and hold the Geometry Review Meeting
- Assemble meeting notes and distribute to team

Deliverables:

- Project Design Criteria (PDC)
- Design exceptions, design waivers, or deviations from standards

3A1 COMPLETE AESTHETICS DESIGN

Finalize the aesthetics plan for review

Tasks:

- Finalize the aesthetics plan
- Develop construction cost estimate

Deliverables:

- Final Aesthetics Plan

3Q1 COMPLETE DRAINAGE DESIGN

Complete design of the roadway drainage and open channel drainage features

Tasks:

- Finalize Hydrology and Hydraulic Analysis
- Complete Storm Drain Design
- Evaluate Design Conflicts
- Prepare Preliminary Drainage Plan and Profile Sheets

Deliverables

- Drainage Plan and Profile sheets
- Updated construction cost estimate
- QC documentation

3R1 COMPLETE ROADWAY DESIGN

Finalize the roadway model and design. Includes signing and striping (3R2). Modify the design based on 1 set of reviewer comments and continued coordination with project team members. Modify the design once to include other disciplines consisting of drainage facilities, utilities, and signs.

Tasks:

- Develop Preliminary 2 Typical Section Plan Sheets
- Develop Preliminary 4 Roadway Plan and Profile Sheet
- Develop Preliminary 4 Signing and Striping Plan Sheets
- Coordinate with other disciplines
- Update construction cost estimate

Deliverables:

- Roadway plan and profile sheets
- Typical section sheets
- Signing and Striping sheets

3S1 DEVELOP STRUCTURE TYPE SELECTION MEMO AND SEISMIC DESIGN STRATEGY REPORT

Determine bridge layout and geometry for new bridge over rail line, trail, and Holly Energy pipeline. Develop the type selection memo and seismic design strategy report.

Tasks:

- Develop structure cross-section
- Discuss structure alternatives (steel plate girders or prestressed girders)
- Develop preliminary structure construction cost estimates
- Develop preliminary seismic strategy
- Develop preliminary layout and finalize the Type Selection Memo
- Perform QC

Deliverables

- Structure Type Selection Memo for the new overpass on SR-112 over railroad, trail, and Holly Energy pipeline will include preliminary S&L and preliminary construction cost estimates
- Preliminary Seismic Design Strategy Report (UDOT Structures requirement)
- Documentation of quality procedures

3S4 DEVELOP SITUATION AND LAYOUT FOR RETAINING WALLS

Develop the S&L plan sheets for retaining walls fully coordinating with the roadway geometric and geotechnical requirements.

Tasks:

- Request structure numbers and develop S&L plan sheets
- Perform QC

Deliverables

Project Number: UT-TR-3664-21

Project Description: SR-112 over New Railroad

- S&L Plan Sheets
- Documentation of quality procedures

3S5 DEVELOP SITUATION AND LAYOUT FOR BRIDGE

Develop S&L plan sheets for bridges to ensure compatibility between the structures and roadway design.

Tasks:

- Request structure numbers and develop S&L plan sheets
- Complete S&L checklist for bridges
-
- Perform QC

Deliverables

- S&L Plan Sheets
- Documentation of quality procedures

3U1 IDENTIFY POTENTIAL UTILITY CONFLICTS

Identify potential utility conflicts through coordination with utility owners and designers

Tasks:

- Identify potential utility conflicts and develop utility conflict matrix using SUE information provided by Dominion Engineering
- Identify relocation options for impacted utility facilities
- Prepare preliminary utility plan sheets (UT Sheets) showing horizontal layout of Tooele City sanitary sewer relocation
- Prepare initial utility company cost estimates for sanitary sewer relocation (based on per foot lengths, based on concept level design layouts)
- Obtain preliminary relocation costs from self-performing utility owners
- Perform QC

Assumptions:

- UNEV Pipeline LLC facilities will be protected in place, no relocation is anticipated
- Beehive Broadband and UDOT ATMS facilities will be protected in place

Deliverables:

- Conflict Summary
- Preliminary Utility (UT) Sheets
- QC documentation

3U2 INITIAL DESIGN UTILITY COORDINATION

Conduct utility design meetings to facilitate relocation solutions. Facilitate the development of utility owner relocation plans.

Tasks:

- Meet with impacted utility owners to develop relocation solutions

Project Number: UT-TR-3664-21

Project Description: SR-112 over New Railroad

- Recommend locations for relocations
 - Assume dry utility owners will be responsible for relocation designs
 - Design of Tooele City sanitary sewer relocation will be prepared by Horrocks
- Identify betterments (if any)
- Revise/update Utility Conflict Matrix
- Hold individual coordination meetings with utility companies (as outlined in Task 2U1), throughout the 3U tasks
 - Prepare and distribute meeting minutes and attendee list for each meeting
- Hold monthly coordination meetings with the client and project team
- Coordinate with project team members
- Perform QC

Assumptions:

- All meetings will take place via Teams or other remote electronic method
- Coordination meetings with Rocky Mountain Power (RMP) will take place on a monthly basis
 - Six (6) total meetings for a duration of one (1) hour
- A total of three (3) coordination meetings with Tooele City will be held, each meeting will be for one (1) hour.

Deliverables:

- Revised/updated conflict summary
- Updated utility cost estimates: from self-performing utility companies and for sanitary sewer relocation (to be prepared by Horrocks)

3U3 IDENTIFY UTILITY DEPTH (SUE LEVEL A)

Task to be completed by Dominion Engineering.

3Y1 PREPARE/COMPILE PLAN-IN-HAND REVIEW PACKAGE
--

Compile Geometry Review comment resolution form, , and all discipline deliverables into one Plan-in-Hand review package.

Tasks:

- Compile various discipline plans for review package
- Distribute to project team for 2-week review

Deliverables:

- Plan-in-Hand Review Package

3V1 PLAN-IN-HAND REVIEW MEETING
--

The Plan-in-Hand review is the review of all major roadway, hydraulic, drainage, ITS, utility, geotechnical, and ROW designs. The meeting should include reviews of available funding, along with design consistency, accuracy, and constructability within the project scope.

Tasks:

- Prepare for and hold the Plan-in-Hand Review Meeting

Project Number: UT-TR-3664-21

Project Description: SR-112 over New Railroad

- Assemble meeting notes and distribute to team

Deliverables:

- Updated Project Design Criteria (PDC), if needed
- Comment Resolution Form

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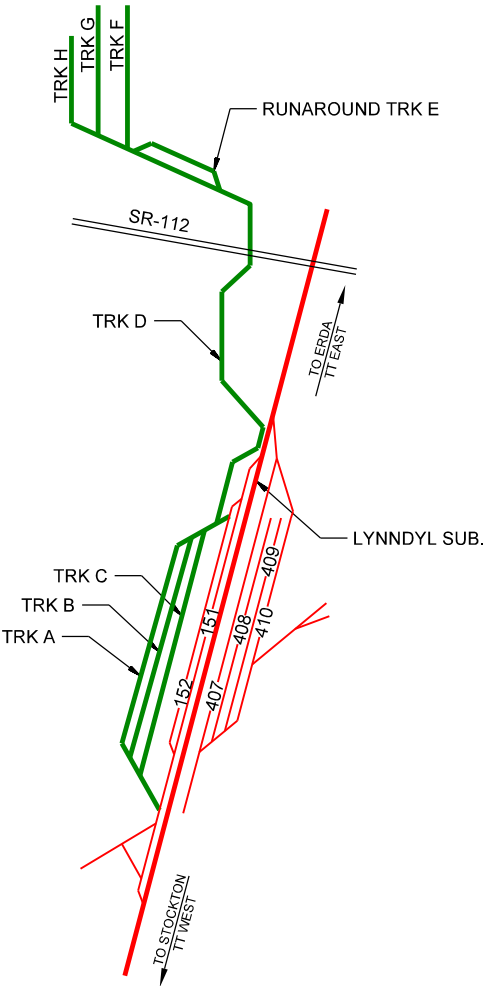
JANUARY 30, 2019

SHEET INDEX

No.	DESCRIPTION
001	COVER SHEET
002	OVERALL TRACK LAYOUT
003	TRACK CONCEPT LAYOUT
004	TRACK CONCEPT LAYOUT
005	TRACK CONCEPT LAYOUT
006	TRACK CONCEPT LAYOUT
007	TRACK CONCEPT LAYOUT
008	TRACK CONCEPT LAYOUT
009	TRACK CONCEPT LAYOUT
010	TRACK CONCEPT LAYOUT
011	TRACK CONCEPT LAYOUT
012	TRACK CONCEPT OVERALL SITE LAYOUT

OPERATING PLAN (MANIFEST):

- UPRR WILL DROP INBOUND CARS ON TRACK B.
- UPRR WILL USE TRACK A FOR A RUNAROUND, IF NECESSARY.
- UPRR WILL PULL OUTBOUND CARS FROM TRACK C.
- INDUSTRY WILL PULL CARS UP TO INDUSTRIAL PARK, RUNAROUND THEM & SWITCH INDIVIDUAL INDUSTRIES.
- INDUSTRY WILL PULL OUTBOUND CARS BACK TO TRACK C.



PROJECT SCHEMATIC LAYOUT

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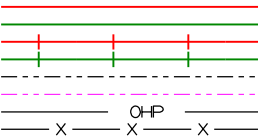
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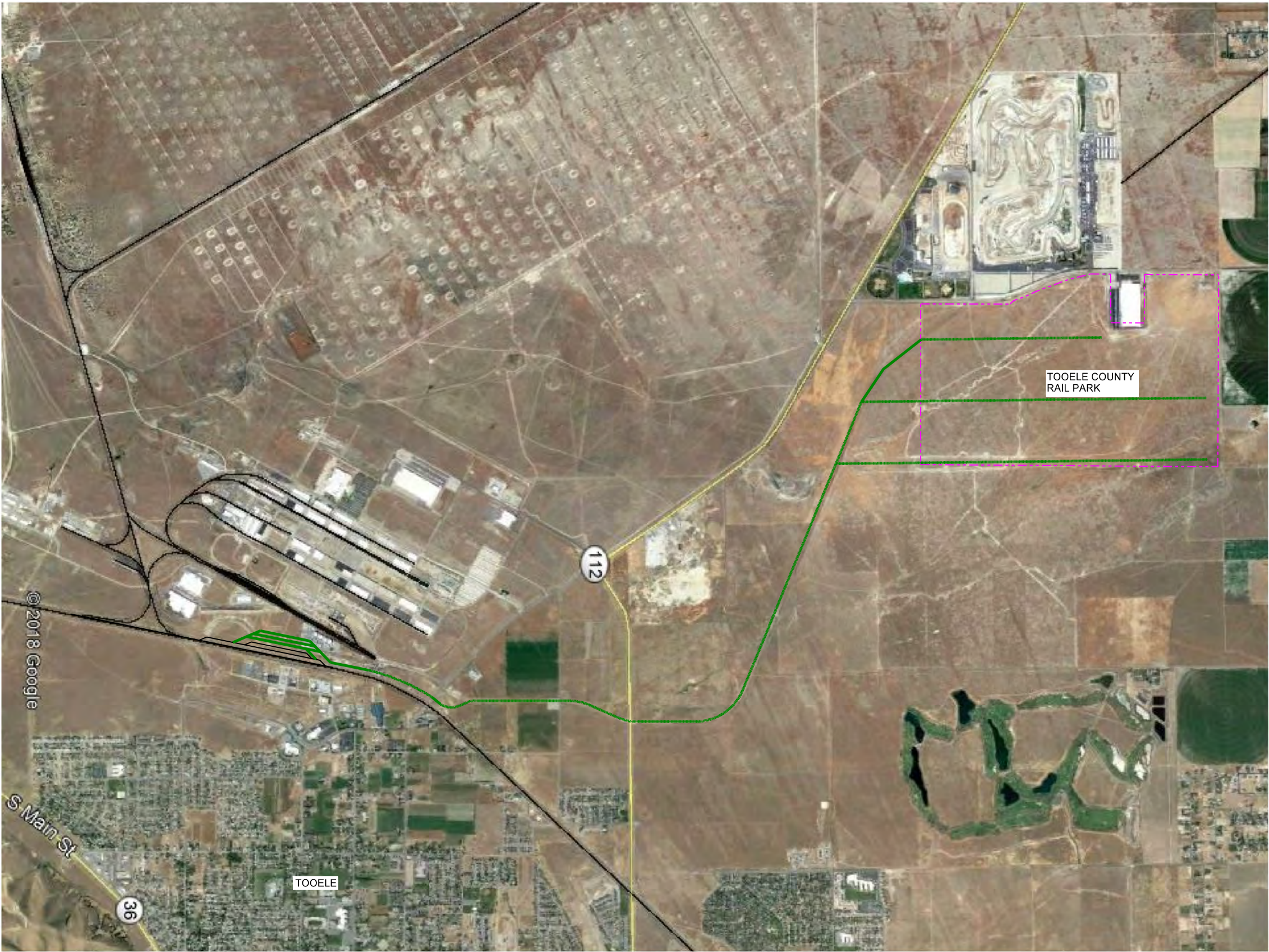
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- EXISTING PROPERTY LINE
- EXISTING OVERHEAD UTILITY
- EXISTING FENCE



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SHEET NUMBER:	1 OF 12	COVER SHEET	

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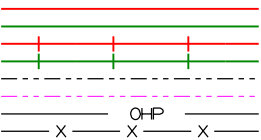
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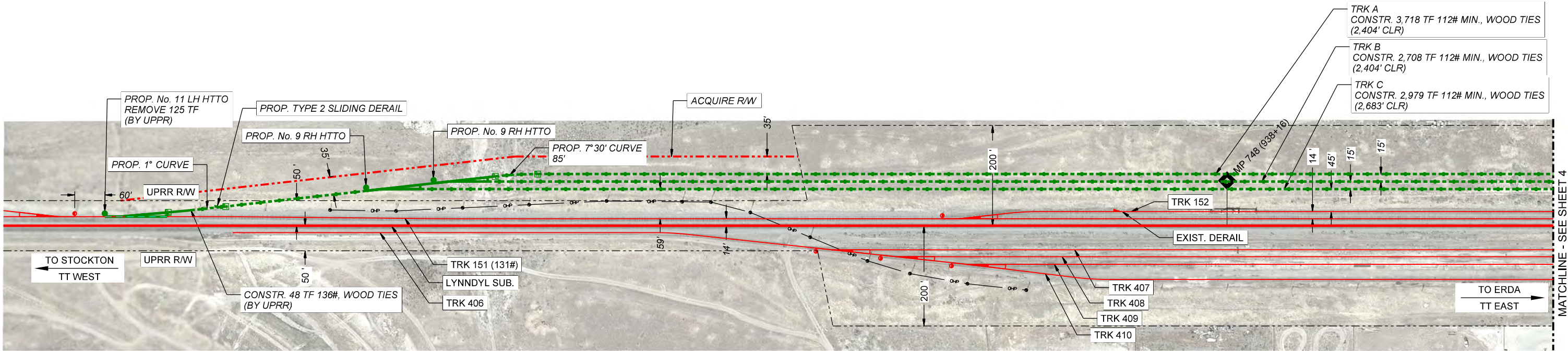
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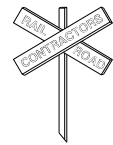
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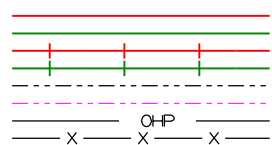
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SHEET NUMBER: 3 OF 12			

10% DESIGN

TO STOCKTON
TT WEST

TRK A
TRK B
TRK C

PROP. 7°30' CURVE
85'

PROP. No. 9 LH HTTO

PROP. No. 9 LH HTTO

PROP. No. 9 LH HTTO
w/ UPRR LOCK

TRK 152

TRK 151 (131#)

LYNNDYL SUB.

CONSTR. 328 TF 112# MIN., WOOD TIES

PROP. 1°30' CURVE
77'

PROP. No. 11 RH HTTO
REMOVE 125 TF
(BY UPRR)

111.49'

CONSTR. 42 TF 136#, WOOD TIES
(BY UPRR)

PROP. TRK D
CONSTR. 18,035 TF 112# MIN., WOOD TIES

PROP. 6° CURVE
74'

EXIST. 1° CURVE

MP 748.31 PS No. 10 POTO
918+67

MP 748.35 PS No. 14 POTO
920+06

PROP. 0°59'32" CURVE

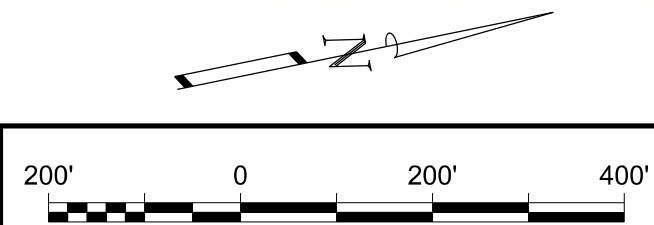
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TO ERDA
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MATCHLINE - SEE SHEET 3

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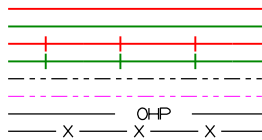
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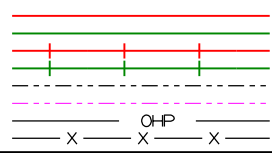
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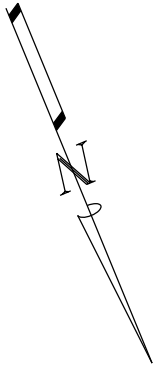


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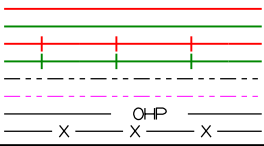
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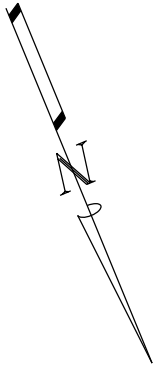
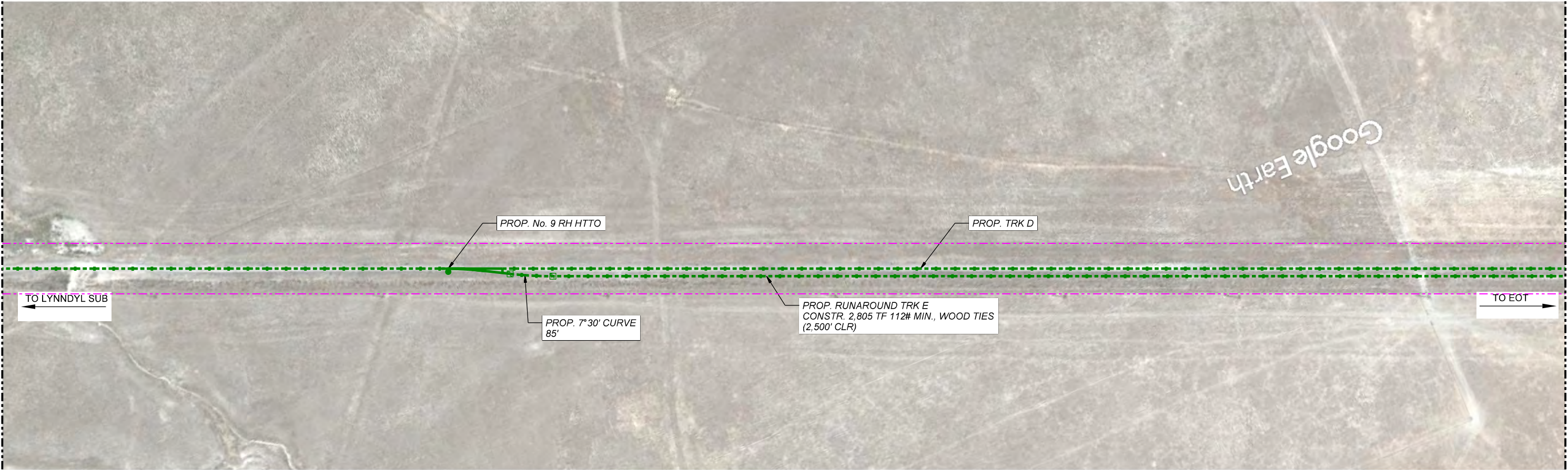


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MATCHLINE - SEE SHEET 8



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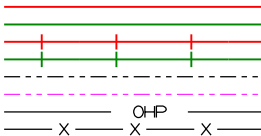
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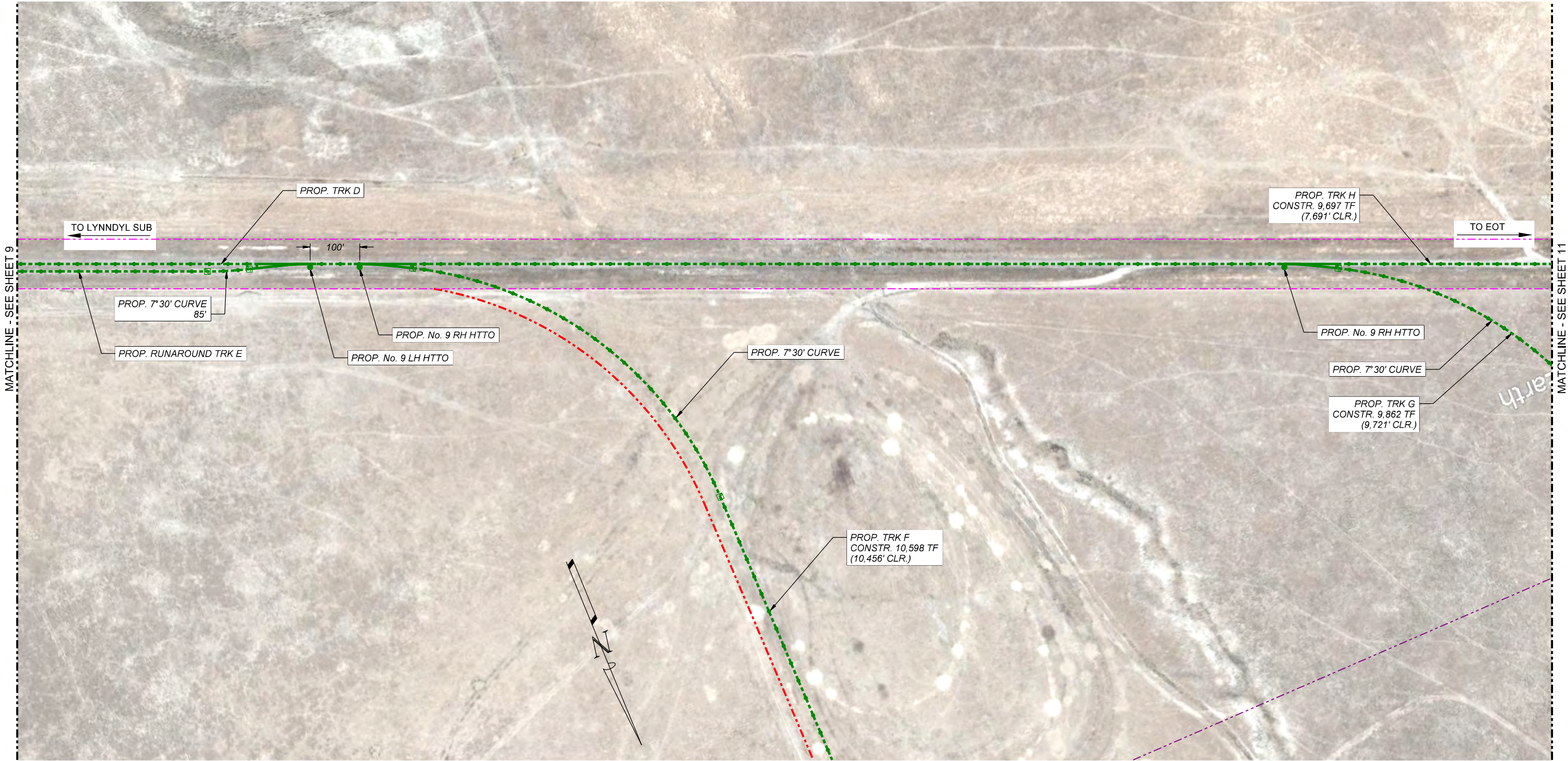
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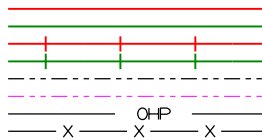
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FES No.: 42121			SHEET TITLE:
SHEET NUMBER: 11 OF 12			TRACK CONCEPT LAYOUT

10% DESIGN

SHEEP LN
 PROP. 7°30' CURVE
 PROP. TRK H
 (7,691' CLR.)
 PROP. TRK G
 (9,721' CLR.)
 PROP. TRK F
 (10,456' CLR.)

MATCHLINE - SEE SHEET 11

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A horizontal graphic scale bar with four segments. The first segment is 600 feet long and is divided into a checkerboard pattern of black and white squares. The second segment is 600 feet long and is solid black. The third segment is 600 feet long and is solid black. The fourth segment is 600 feet long and is solid black. Above the bar, the labels '600'', '0', '600'', and '1200'' are positioned at the start of each segment respectively.

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EXISTING INDUSTRY OWNED TRACKAGE
PROPOSED INDUSTRY OWNED TRACKAGE
EXISTING RAILROAD RIGHT-OF-WAY
EXISTING PROPERTY LINE
EXISTING OVERHEAD UTILITY
EXISTING FENCE

The diagram shows a 3D lattice structure. It consists of several horizontal lines. A red line is positioned above a green line. Below the green line is a dashed line. At the bottom, there are three 'X' marks connected by horizontal lines. The text 'OHP' is written above the middle 'X'.

REVISION #			BY	DATE	DESCRIPTION
DRAWN BY:			SH	FOR USE IN AGREEMENT WITH: UNION PACIFIC RAILROAD	
CHECK'D BY:			JLV	MILEPOST 747.83 LYNNNDYL SUBDIVISION TOOELE COUNTY, UTAH TRACKAGE TO SERVE: TOOELE COUNTY RAIL PARK	
DATE:			1/30/2019		
FES No.:			42121		
SHEET NUMBER:			12 OF 12	SHEET TITLE: TRACK CONCEPT OVERALL SITE LAYOUT	

CHECKLIST FOR INDUSTRY TRACK SUBMITTALS

NAME OF INDUSTRY TOOELE COUNTY RAIL PARK	PROJECT LOCATION TOOELE COUNTY, UTAH	UPRR FES NUMBER 42121
NAME OF FIRM SUBMITTING MOUNTAIN STATES CONTRACTING, INC.	CHECKLIST SUBMITTED BY VERN VAN DE LOO	DATE OF SUBMITTAL 1/30/2019

Item	Description of Items to be Shown on Submittals	Railroad Work				Non Railroad Work ***			No ITA Issued		Railroad Comments
		10% Plan/ Dev Con	30% Plans	Const Plans	Exhibit 'A'	10% Plan/ Dev Con	Const Plans	Exhibit A	10% Plan/ Dev Con	Const Plans	
1	1:100 scale plan sheets, 11x17 sheets, UPRR border, line styles, abbreviations and symbols used, printed in color; North arrow, Mainline track name, Timetable direction and Timetable Station each side of project, customer's name, project location (city, county, state). PDF format required for all submittals. Please submit the entire package in 1 pdf including the checklist.	X									
1a	Aerial Photo background shown in monotone (adjust aerial to approx. -50 contrast, 80 brightness)	X									
1b	Disclaimer shown on each sheet (Available in UPRR Cad Config files)	X									
1c	Print using pen table "UPRR_V8i_Pentable_Bold NID Linstyles.tbl" (Available in UPRR Cad Config files)	X									
1d	Provide operating plan on plan set.	X									
2	Label Ex. tracks with ZTS numbers, Prop. tracks with alpha-numeric names (Trk A, Trk B, etc.). Show all Derails & Ex signals.	X									
2a	Label Ex. tracks with ZTS numbers, Prop. tracks with alpha-numeric names (Trk A, Trk B, etc.). Station & MP (based on UPRR VAL map) shown for turnouts on UPRR track . Show all Derails & Ex. signals.										
3	Show clear lengths for Prop. tracks. 13' clear pt. shown for tracks where cars will be stored. (Plans need to include note "Rail and Tie to be marked with yellow paint at 13' clear point)	X									
4	Eng. Stations shown on proposed tracks										
5	Work Responsibility/Scope of Work - 10% - "Work Responsibility": General statement of project work responsibility for RR and Contractor. 30%, Construction and Exhibit "A" - "Scope of Work": Detailed list of work responsibility for RR and Contractor										
6	Other than required connections, customer tracks and facilities will be designed to be separate from UPRR right-of-way property. All customer tracks must be at least 45 feet away from any UPRR mainline. See Industry Specifications section 3.03 for additional details.	X									
7	Project Exemptions - List all exemptions being requested for project. Special approval will be required by UPRR.	N/A									
8	Existing tracks - UP's track number and any proposed sale or lease of UP owned track(s) (or portion of)	X									
9	All tracks - Total length, stationing of 13' clearance point, derail stationing (describe type), end of track stationing (describe type of EOT device) and center to center distance between all tracks.										
10	Proposed tracks - Provide Engineering Station of "End UPRR Ownership/Maintenance" sign										
11	Proposed tracks - Provide Engineering Station where proposed track crosses UPRR ROW line										
12	Description of point that track stationing was established from and location/desc. of elevation bench mark										
13	Typical sections for proposed track including side ditches and walkways (also see note #48)										
14	Cross-sections: Show entire project plus 200 ft. past the end of the project. Special sections needed at roadway crossings, utility crossings, drainage structures and other key points. Show UPRR ROW, any construction easements, walkways and turnout pads.										
15	For projects involving Signal work, provide cross sections AND profiles for UPRR owned/maintained track on the 30% plans. Provide cross sections at 100 ft. intervals, plus special sections as listed in item #14.										
16	Label length for any tangents and curves that are less than 100'	X									
17	Proposed tracks - Degree of curve labeled, circles marking PC & PT on all curves	X									
18	Proposed tracks - Degree of curve and stationing of PC and PT on all curves										
19	Future Tracks	N/A									No future tracks on the Exhibit "A"
20	Work Matrix Spread Sheet (Titled "Scope of Work Matrix") Incorporated into plans set										
21	Rail Weight - All existing and proposed track										
22	UPRR ROW width and distance to track it's established from. Note on plan set the source for ROW location and width (ex. UPRR Val maps)	X									
23	Existing turnouts shown on plans (within 1500' of proposed turnouts) - Size (No. 11, No. 15, etc.)	X									
23a	Existing turnouts (within 1500' of proposed turnouts) - Size (No. 11, No. 15, etc.), stationing and mile post location (UP Track), Track # if stenciled on frog										
24	Label Prop. turnouts with: Size, LH or RH, PO or HT, frog type, rail weight, tie material, station & MP. Designate point of switch as 0+00 on single ended tracks. On double ended tracks start sta. 0+00 on turnout with the lowest UPRR MP. If Power Turnouts/ Derails are to be used, label type of headblock ties. Refer to UP Std Dwg 0080 for proper turnout selection, headblock ties etc.										
25	Turnout construction pad-location and dimensions (for work performed by UPRR forces)										
26	Landing Pads with turnaround area, lighting (ref STD DWG 0309)										
27	For projects involving signal work, show existing site conditions and all track, crossings, signal facilities, etc. within 1500 ft. of proposed turnouts. A minimum 750 ft. on either side of the project limits must be shown on the 30% submittal.										
28	Existing UP signal lines, masts, houses and cases, etc. Include dimensions, stationing and # found on cases for xings, block plates and CP's Provide stationing for existing insulated joints.										
29	Proposed leaving signals - I - bonds, insulated joints - (stationing)										
30	Proposed Industry tracks with required signal circuits must reference the end of each circuit where mandatory wood ties and insulated materials must be used.										
31	All track culverts - stationing, mile post location (UP Track), length, size, type, T/R to Invert distance, and any proposed modifications of an existing culvert. Note on plans that culverts shall be marked with blue paint on ties over crossing.										
32	All track bridges-stationing, mile post location (UP Track), length, type, T/R to flowline distance, and any proposed modifications of an existing bridge										
33	All other drainage structures (under roads, surface drains, etc.) - location, size, length and type										
34	Proposed drainage structures-submit hydraulic design calculations for review and approval										
35	Direction of runoff throughout project area										
36	Submit detailed plans for any proposed bridge or culvert (or modification of an existing) or any proposed under or over track structure to UP Structures Dept for approval										
37	Existing road crossings (within 1500' of proposed turnouts) - Length, type (public/private), material type, type of warning device, stationing, and mile post location (UP Track), road name and DOT #.										
38	Proposed road crossings shown on plans	X									
38a	Proposed road crossings - Include length, type (public/private), material type, type of warning device, stationing, and mile post location (UP Track)										
39	All Roads or road modifications affecting traffic crossing UP tracks shown on plans	N/A									
39a	All Roads or road modifications affecting traffic crossing UP tracks - Location, width and type of roadway surface, estimated vehicle crossing counts and percentage that will be truck traffic.										
40	Existing and Proposed buildings adjacent to any track - Location, dimensions, doors, docks, ramps etc. and distance to track centerline	N/A									
41	All overhead crossings - Station (include poles, supports, etc.) distance above T/R, voltage (if electrical) and owner.										
42	All underground crossings - stationing, distance below B/R, type, encasement details and owner										
43	All utilities adjacent to any track (above or below ground) - Location (include poles if applicable), type, distance to track CL and owner										
44	All under track structures - include stationing and size										
45	All over track loading structures - include size, stationing, and clearance										
46	All car pulling or indexing devices - stationing and clearance										
47	All fences - stationing of any gate crossing and track and horizontal clearance with gate open										
48	Stationing and distance to any horizontal or vertical impaired clearance										
49	For Hazardous Materials - Label clearances of proposed tracks to ML - 100' for loading and unloading trks , 50' for storage of loaded tank cars trks , and 100' from storage in tanks										
50	Verify state requirements are met. Ex. For projects located in California, refer to California PUC General Orders 26-D and 118-A for walkway/clearance requirements.										
51	Track grounding details of any track used to load or unload flammable materials										
52	Existing track profile - T/R profile (100' minimum interval) 200' each direction from proposed turnout(s) (ML connection +200' for 30% - only)										
53	Proposed track profile - T/R profile of each track at 100' maximum interval, include stationing of vertical curve points (ML connection+200 ' for 30% only)										
54	All other profiles -Top of Road at centerline (including railroad at grade crossings) and/or drainage ditch(es)-proposed and existing elevations										
55	Digital Imagery - signed letter will be required if the Exhibit A includes an aerial photo. - INDUSTRY must sign form and submit with Exhibit A . (Forms found on the UP Web page)	N/A									Per UP Law Dept - 5/8/2015
56	"CHECKLIST FOR INDUSTRY TRACK SUBMITTALS" completed and signed (Submit with multi/page pdf doc. Into proper EDS queue.) Include justification for any Exemptions.	X									
57	Upon UPRR's Acceptance of Construction drawings, submit Geo-referenced (WGS 84 Datum) CAD files in a .dgn or .dwg format or an ARC GIS formatted file. Use the "PTC Design File" category in EDS and title them PTC CAD Files.										

Checklist Color Codes

	Drawing Required
	Switch
	Signal
	Drainage/Structures
	Roads
	Clearances
	Profiles
	Not Required

Project - Type

UP work	X
Non UP Work	
Foreign RR	
Manifest Trains	X
Unit trains	

Project Documents

Needed	
10% Concept	X
30% - Signal	
Construction	
Exhibit A	
Check List	X
Construction	
Work Matrix	

Project Reviews

Needed	
Engineering	X
Signal	
Structure	
1. Bridge	
2. Pit	
3. Gas/ FO	

Recent Revisions

Date	Description
1/3/2018	Updates to 10%/ Dev Con checklist items
8/20/2018	Updates to 39a & 15, Added 57 & 1d
10/4/2018	Updated EDS category for item 57
10/8/2018	Updated #24 identify. Identify headblock ties
11/16/2018	Removed requirement for Construction schedule
11/16/2018	Updated Operating plan requirement

(Select all Item that pertain to Project)

Please note: Situations may arise depending on individual project details where signal work is required even though there is no track or railroad work.