

Poole, Andrea

From: Marks, Justin J. <jmarks@ClarkHill.com>
Sent: Friday, May 31, 2024 1:18 PM
To: Alan Summerville; Laurent Cartayrade; Poole, Andrea
Subject: Materials from our last call
Attachments: PVGTB-GER-US-PREF.kmz; Puerto Verde - Green Eagle Railroad US Design.pdf; PVGTB-GER-US-ALT1.dwg; PVGTB-GER-US-ALT1.kmz; PVGTB-GER-US-ALT2.dwg; PVGTB-GER-US-ALT2.kmz; PVGTB-GER-US-PREF.dwg

Good afternoon:

Attached is the presentation Israel prepared for the call last week.

Justin

Justin J. Marks

Attorney at Law

Clark Hill

1001 Pennsylvania Ave. N.W., Suite 1300 South, Washington, DC 20004
+1 202.772.0916 (office) | +1 703.215.6938 (cell) | +1 202.772.0930 (fax)
jmarks@clarkhill.com | www.clarkhill.com

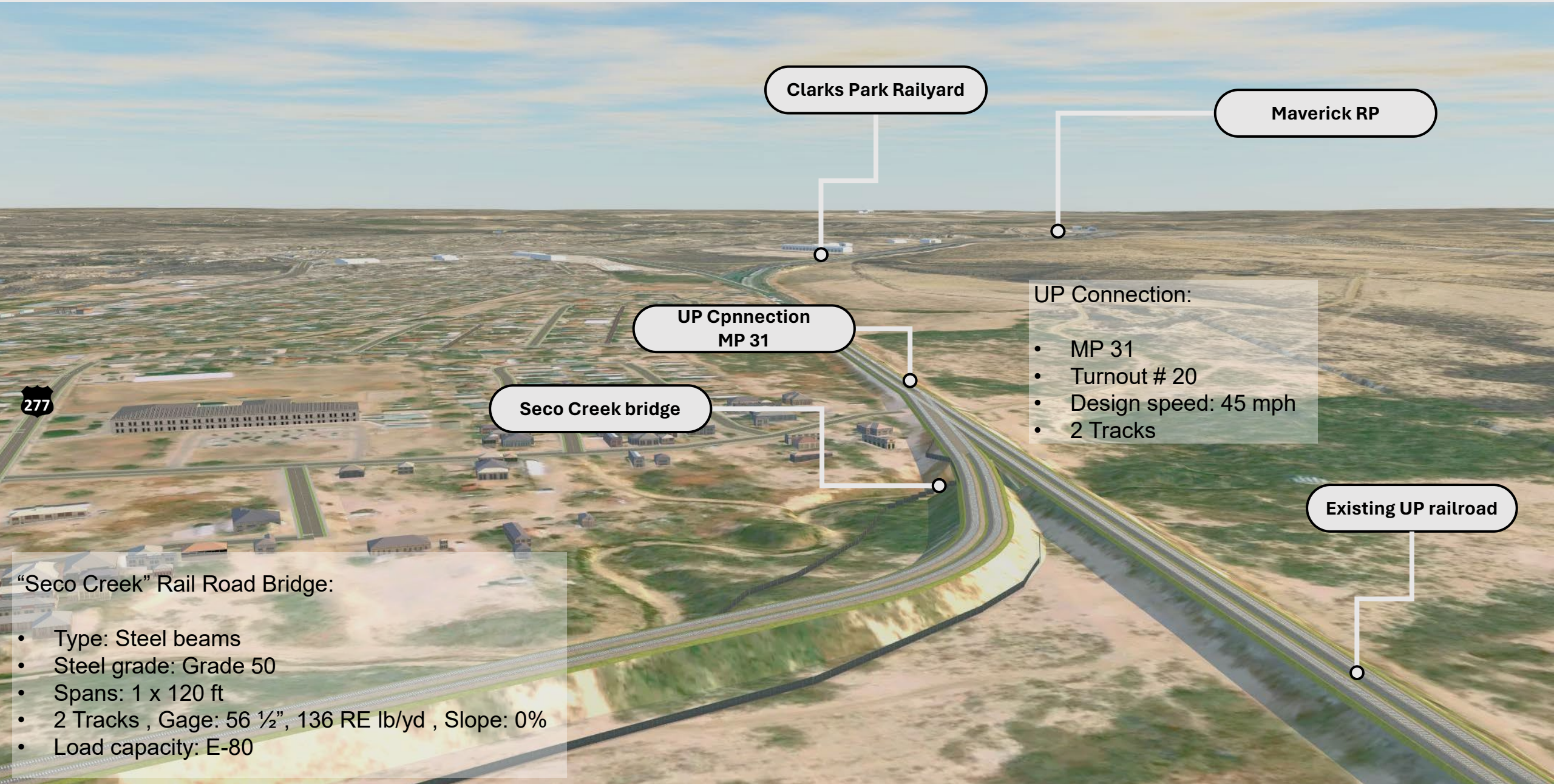


PUERTO VERDE

B I N A T I O N A L I N D U S T R I A L C O M P L E X

Green Eagle Railroad US Alignment

May 25, 2024



Clarks Park Railyard

Maverick RP

UP Cpnnection
MP 31

Seco Creek bridge

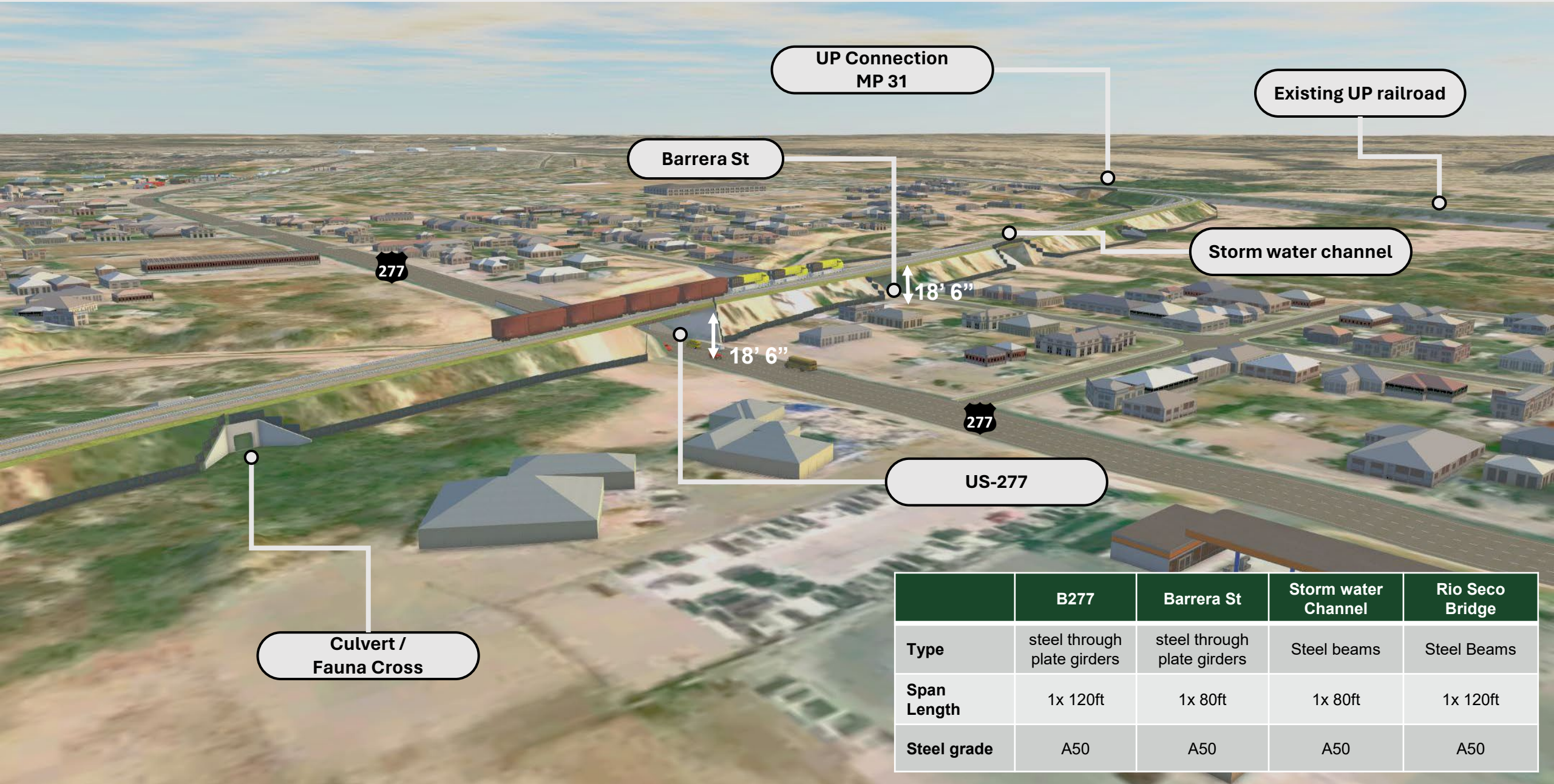
UP Connection:

- MP 31
- Turnout # 20
- Design speed: 45 mph
- 2 Tracks

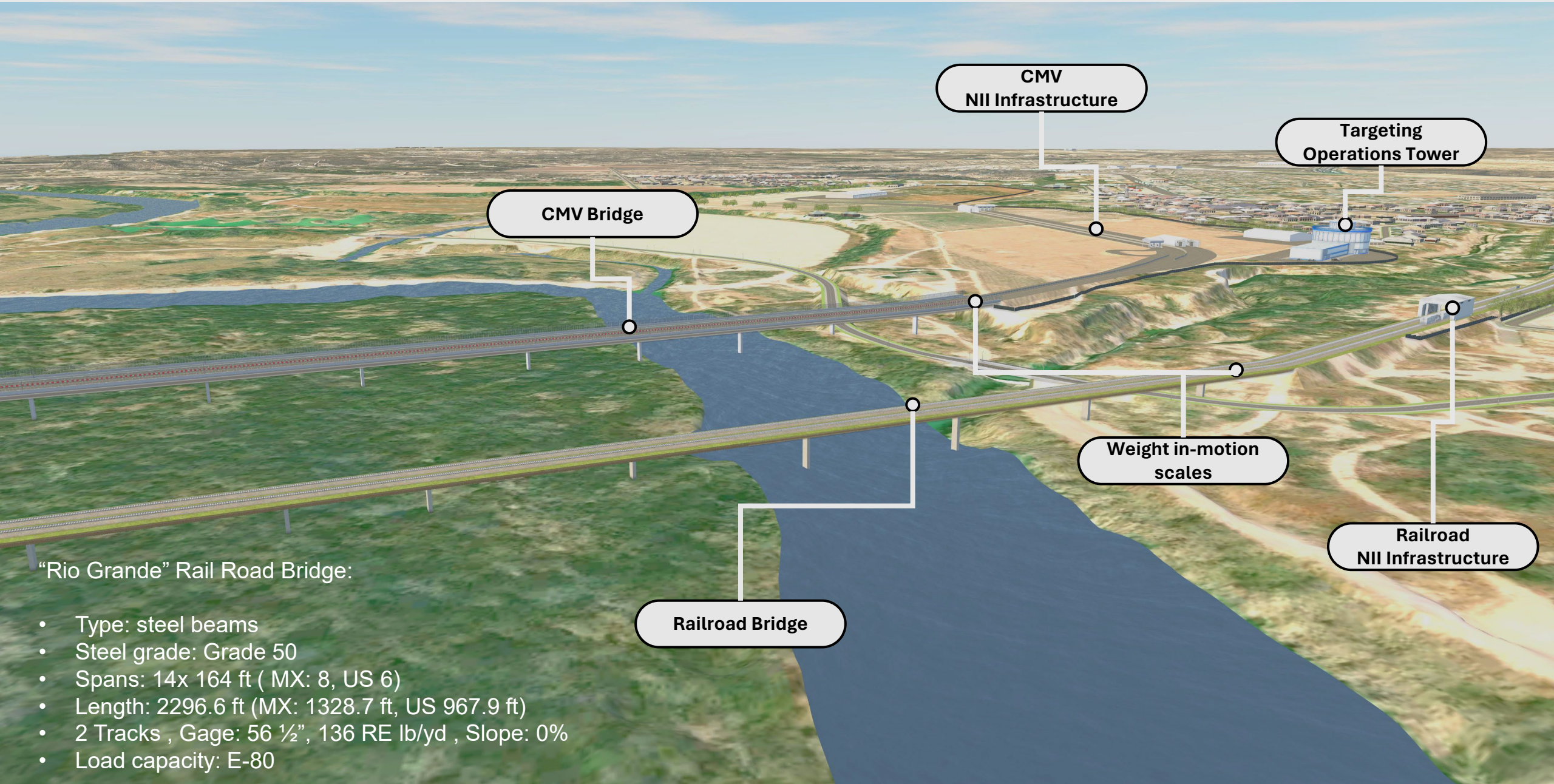
Existing UP railroad

“Seco Creek” Rail Road Bridge:

- Type: Steel beams
- Steel grade: Grade 50
- Spans: 1 x 120 ft
- 2 Tracks , Gage: 56 ½”, 136 RE lb/yd , Slope: 0%
- Load capacity: E-80



	B277	Barrera St	Storm water Channel	Rio Seco Bridge
Type	steel through plate girders	steel through plate girders	Steel beams	Steel Beams
Span Length	1x 120ft	1x 80ft	1x 80ft	1x 120ft
Steel grade	A50	A50	A50	A50



CMV Bridge

CMV
NII Infrastructure

Targeting
Operations Tower

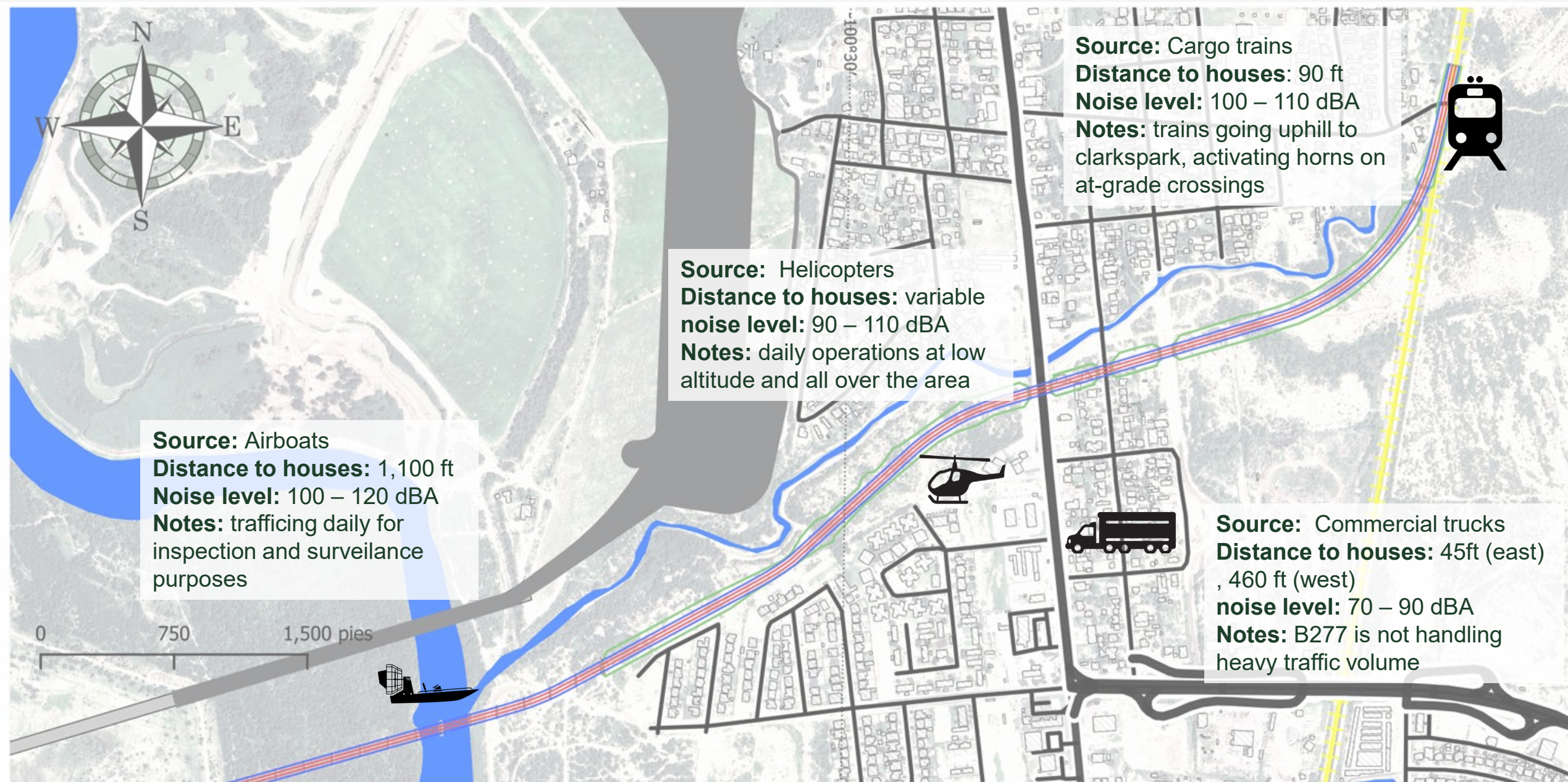
Weight in-motion
scales

Railroad
NII Infrastructure

Railroad Bridge

“Rio Grande” Rail Road Bridge:

- Type: steel beams
- Steel grade: Grade 50
- Spans: 14x 164 ft (MX: 8, US 6)
- Length: 2296.6 ft (MX: 1328.7 ft, US 967.9 ft)
- 2 Tracks , Gage: 56 ½", 136 RE lb/yd , Slope: 0%
- Load capacity: E-80



Noise Source	Estimated noise level (dBA)	Distance to houses
Airboats	100 – 120	1,100 ft to the closest house
Inspection Helicopters	90 – 110	Varies, sometimes flying over the houses at low altitude
Commercial vehicles (B277)	70 – 90	45ft to the closest house to the east 460 ft to the closest house to the west
Train (Existing UP Line, including at-grade crossing)	100 dB climbing uphill to Clarkspark Railyard 110 dB when horn is applied on at-grade crossing	90 ft to the closest house



Source: Commercial Vehicles
Distance to houses: 200 ft
Noise level: 70 – 90 dBA
Notes: truck operation and idling at inspection facilities

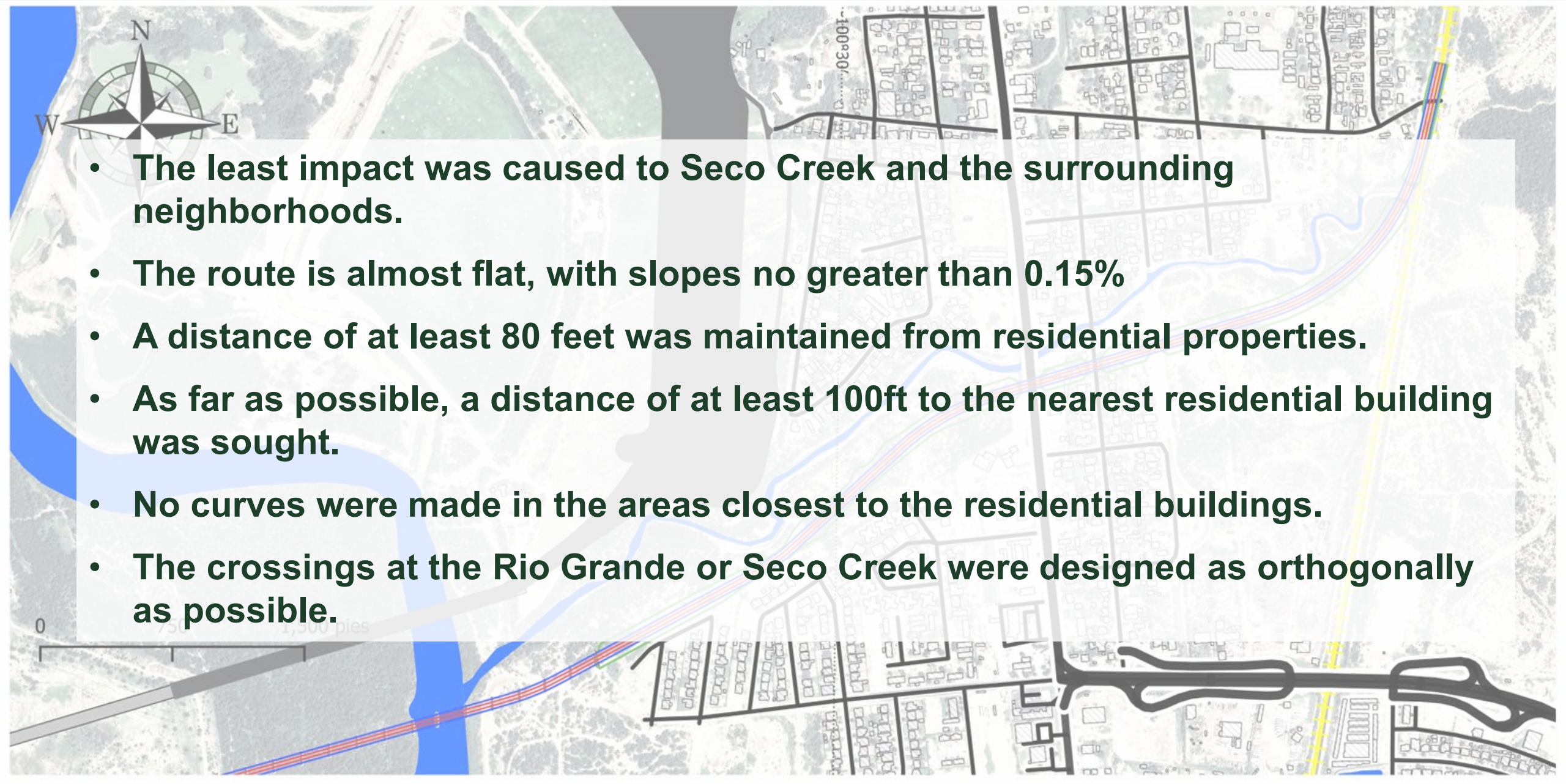


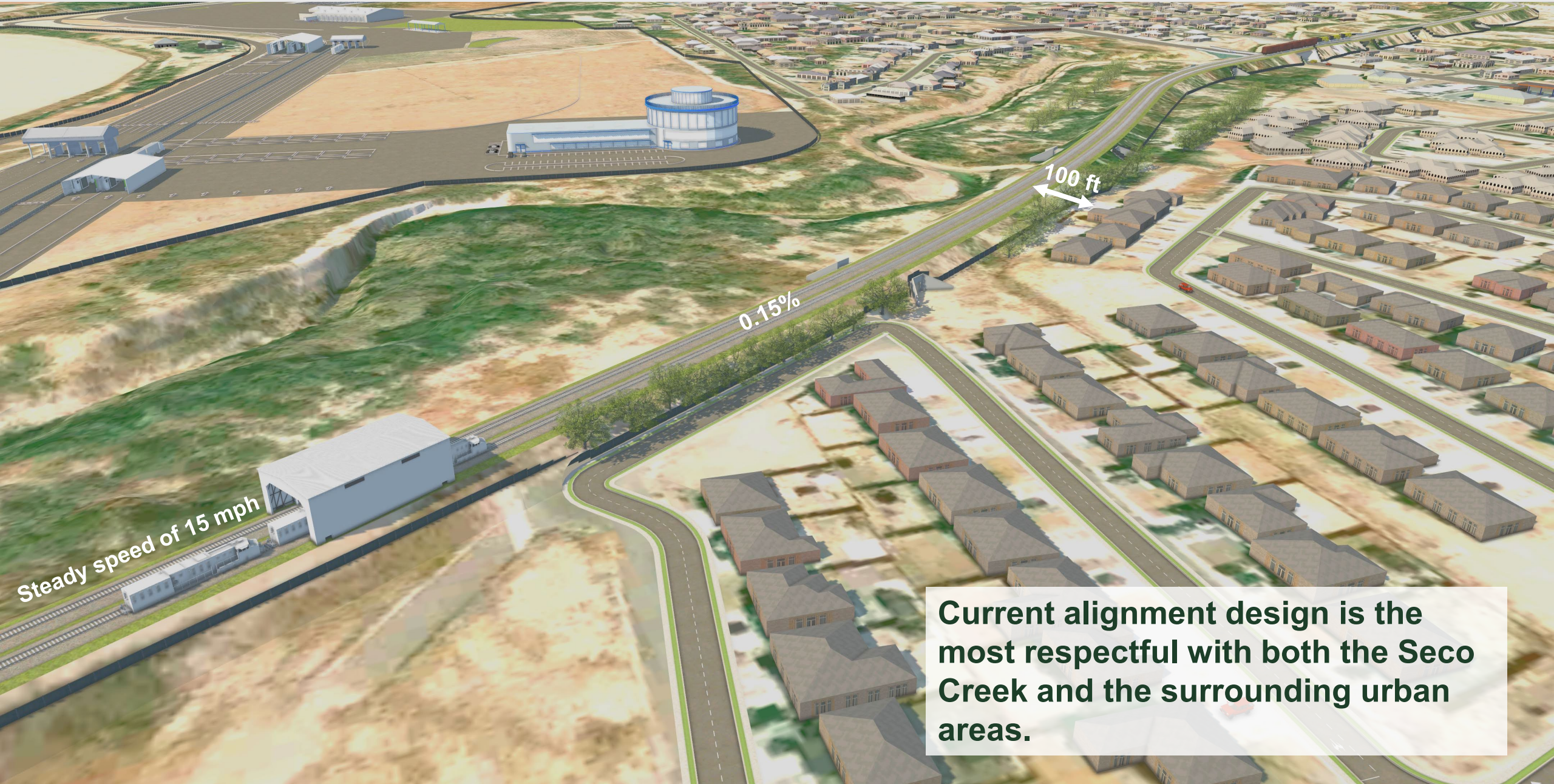
Source: Cargo trains
Distance to houses: 100 ft (min)
noise level: 80 – 88 dBA
Notes: daily operations at continuous speed (15 mph), no at-grade crossings, welded rail tracks, no trains idling.



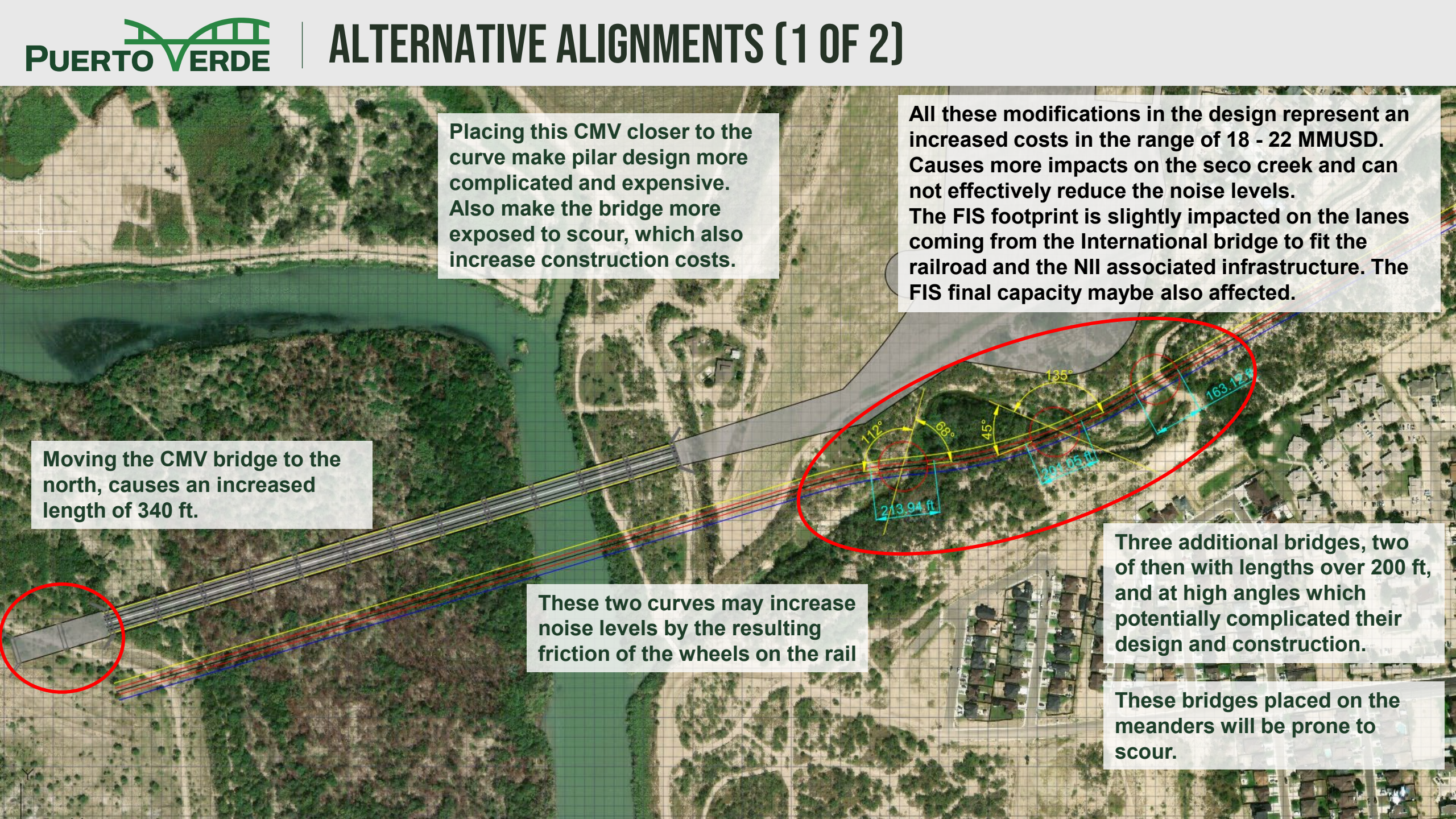
0 750 1,500 pies



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- The least impact was caused to Seco Creek and the surrounding neighborhoods.
 - The route is almost flat, with slopes no greater than 0.15%
 - A distance of at least 80 feet was maintained from residential properties.
 - As far as possible, a distance of at least 100ft to the nearest residential building was sought.
 - No curves were made in the areas closest to the residential buildings.
 - The crossings at the Rio Grande or Seco Creek were designed as orthogonally as possible.



Current alignment design is the most respectful with both the Seco Creek and the surrounding urban areas.

An aerial photograph of a landscape with a river, fields, and some buildings. A proposed rail alignment is shown with multiple colored lines (yellow, red, blue) representing different alternatives. A red oval highlights a specific section of the alignment with several curves. Various angles and distances are labeled in yellow and blue text. A bridge is shown crossing the river, and another bridge is highlighted with a red circle on the left.

Placing this CMV closer to the curve make pillar design more complicated and expensive. Also make the bridge more exposed to scour, which also increase construction costs.

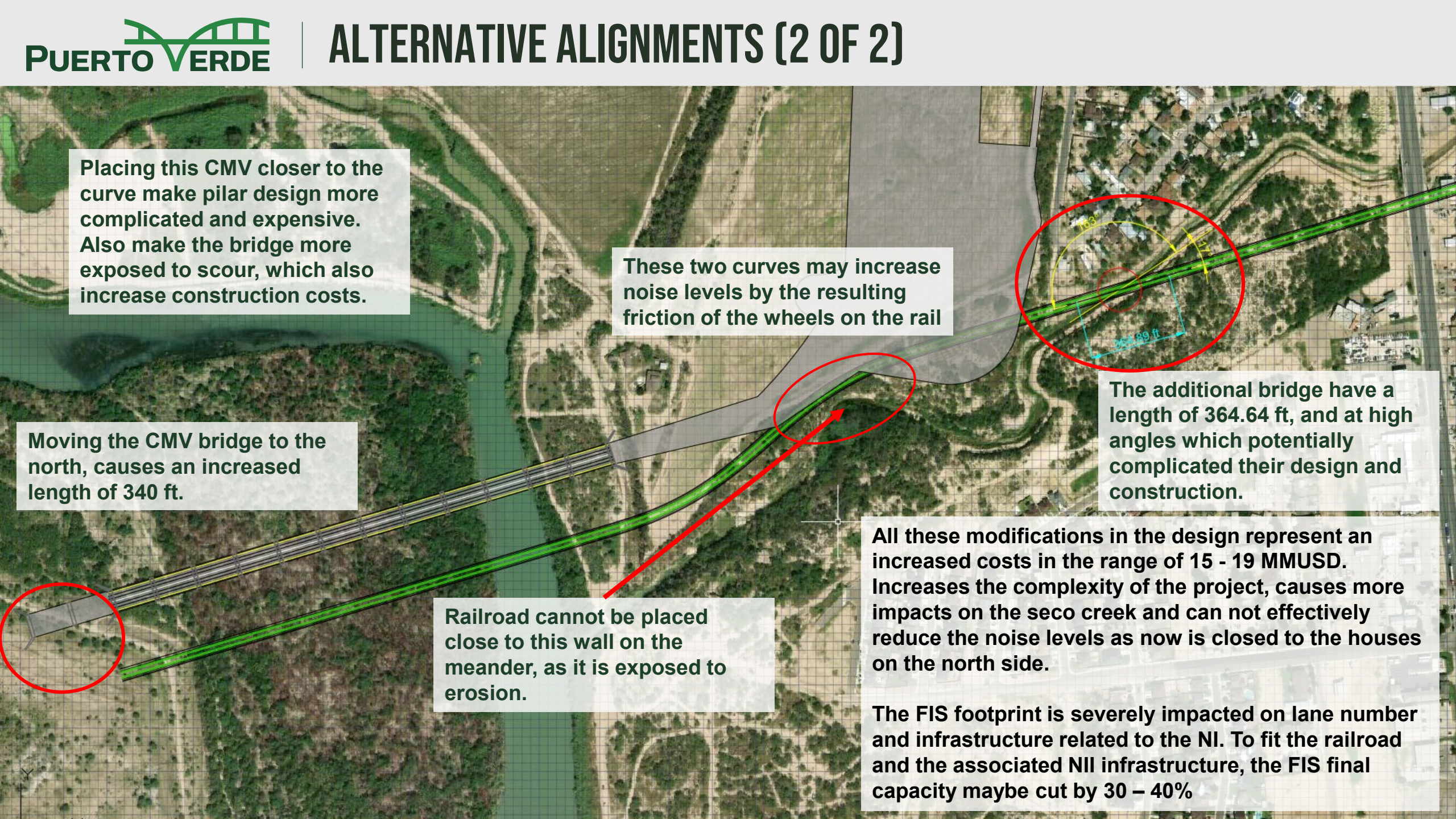
All these modifications in the design represent an increased costs in the range of 18 - 22 MMUSD. Causes more impacts on the seco creek and can not effectively reduce the noise levels. The FIS footprint is slightly impacted on the lanes coming from the International bridge to fit the railroad and the NII associated infrastructure. The FIS final capacity maybe also affected.

Moving the CMV bridge to the north, causes an increased length of 340 ft.

These two curves may increase noise levels by the resulting friction of the wheels on the rail

Three additional bridges, two of then with lengths over 200 ft, and at high angles which potentially complicated their design and construction.

These bridges placed on the meanders will be prone to scour.



Placing this CMV closer to the curve make pillar design more complicated and expensive. Also make the bridge more exposed to scour, which also increase construction costs.

These two curves may increase noise levels by the resulting friction of the wheels on the rail

The additional bridge have a length of 364.64 ft, and at high angles which potentially complicated their design and construction.

Moving the CMV bridge to the north, causes an increased length of 340 ft.

Railroad cannot be placed close to this wall on the meander, as it is exposed to erosion.

All these modifications in the design represent an increased costs in the range of 15 - 19 MMUSD. Increases the complexity of the project, causes more impacts on the seco creek and can not effectively reduce the noise levels as now is closed to the houses on the north side.

The FIS footprint is severely impacted on lane number and infrastructure related to the NI. To fit the railroad and the associated NII infrastructure, the FIS final capacity maybe cut by 30 – 40%