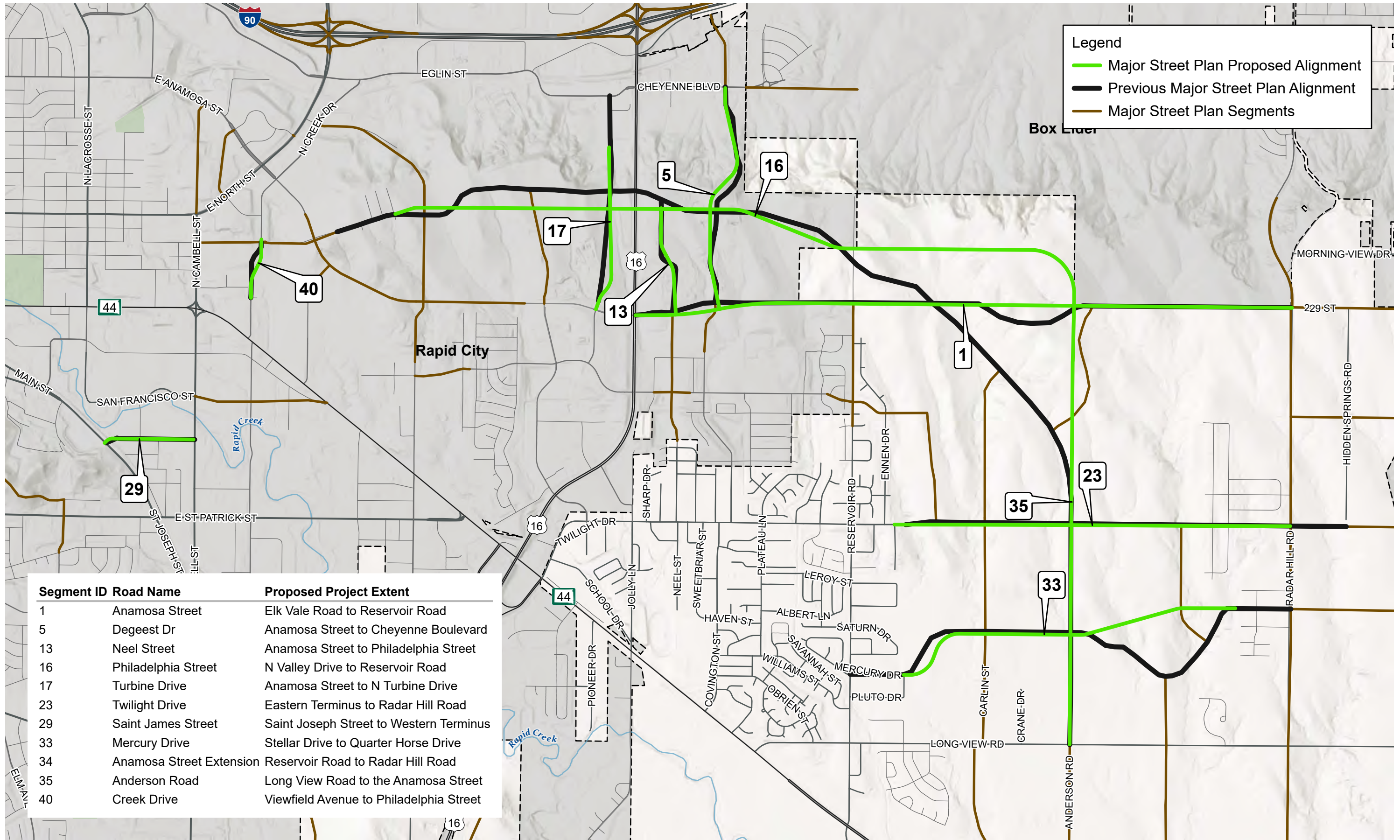


Major Street Plan Analysis and Update

Eastern Growth Area





Legend

- Major Street Plan Proposed Alignment
- Previous Major Street Plan Alignment
- Major Street Plan Segments

Segment ID	Road Name	Proposed Project Extent
1	Anamosa Street	Elk Vale Road to Reservoir Road
5	Degeest Dr	Anamosa Street to Cheyenne Boulevard
13	Neel Street	Anamosa Street to Philadelphia Street
16	Philadelphia Street	N Valley Drive to Reservoir Road
17	Turbine Drive	Anamosa Street to N Turbine Drive
23	Twilight Drive	Eastern Terminus to Radar Hill Road
29	Saint James Street	Saint Joseph Street to Western Terminus
33	Mercury Drive	Stellar Drive to Quarter Horse Drive
34	Anamosa Street Extension	Reservoir Road to Radar Hill Road
35	Anderson Road	Long View Road to the Anamosa Street
40	Creek Drive	Viewfield Avenue to Philadelphia Street

0 0.5 Miles

**STREET PLAN PROPOSED ALIGNMENTS
EASTERN GROWTH AREA**

15XF-SRV01ENG05PROJECTS\CITY_OF_RAPID\MSP_ANALYSIS_103683\FMAP_DOCS\RAPIDCITY_MSP_PRIORITIZATION_ALIGNMENTS.APRX DATE: 7/19/2024

E Anamosa Street

Elk Vale Road to Radar Hill Road

Classification: Principal Arterial

Corridor Length: 15,910 FT

Estimated Quantities

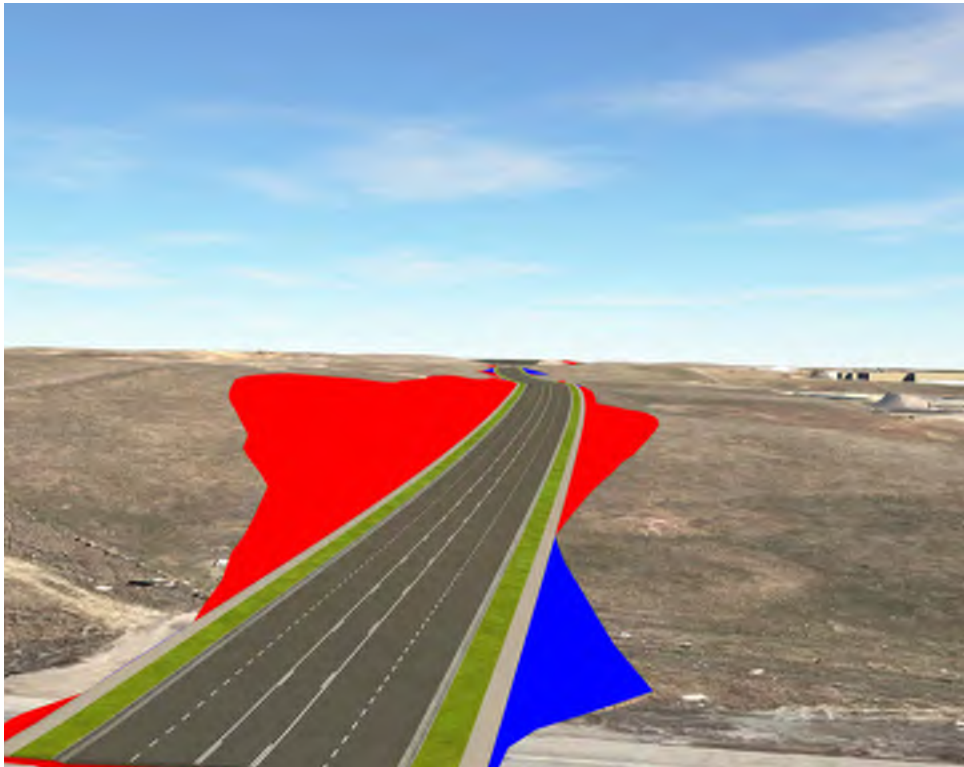
Road Surface: 157,934 SY

Earthwork Cut (Red): 405,392 CY

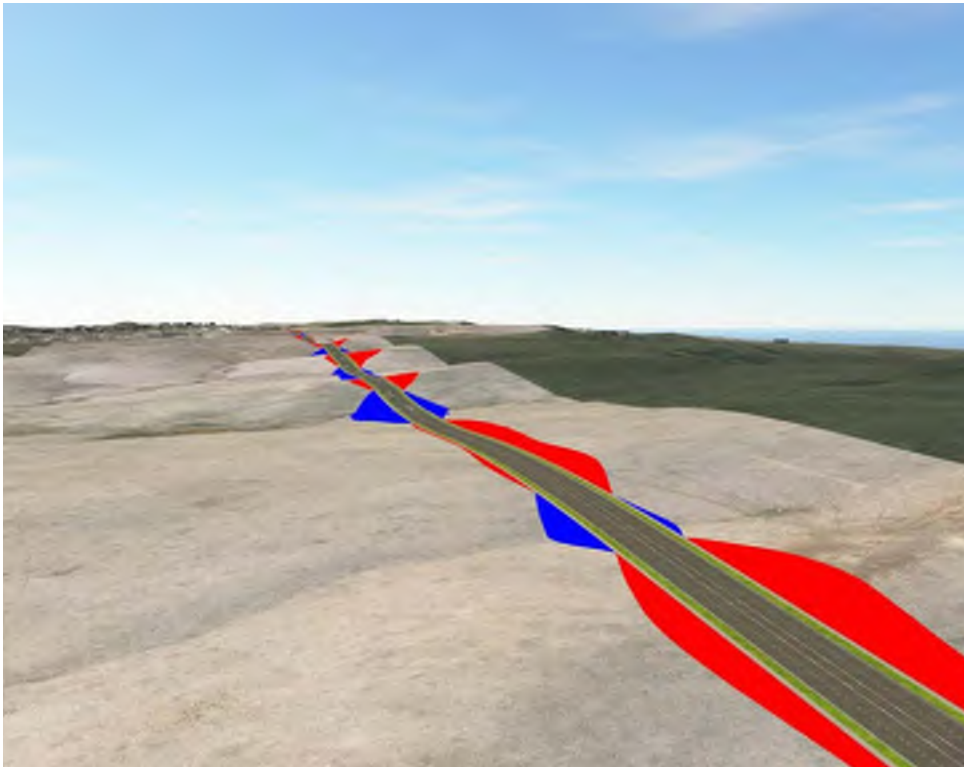
Earthwork Fill (Blue): 436,061 CY

Segment Considerations:

- Design speed – 50 MPH.



Isometric looking east at station 1+00

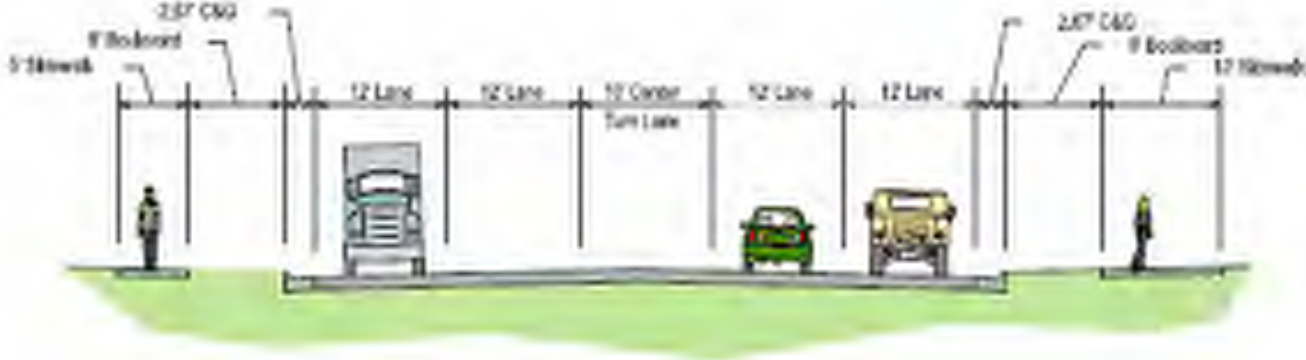


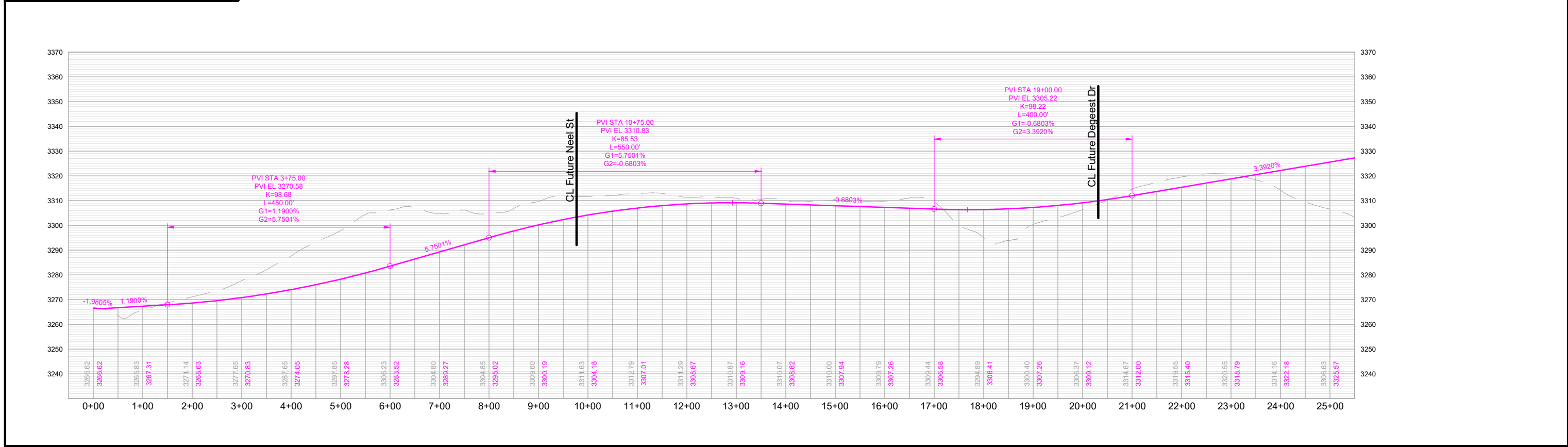
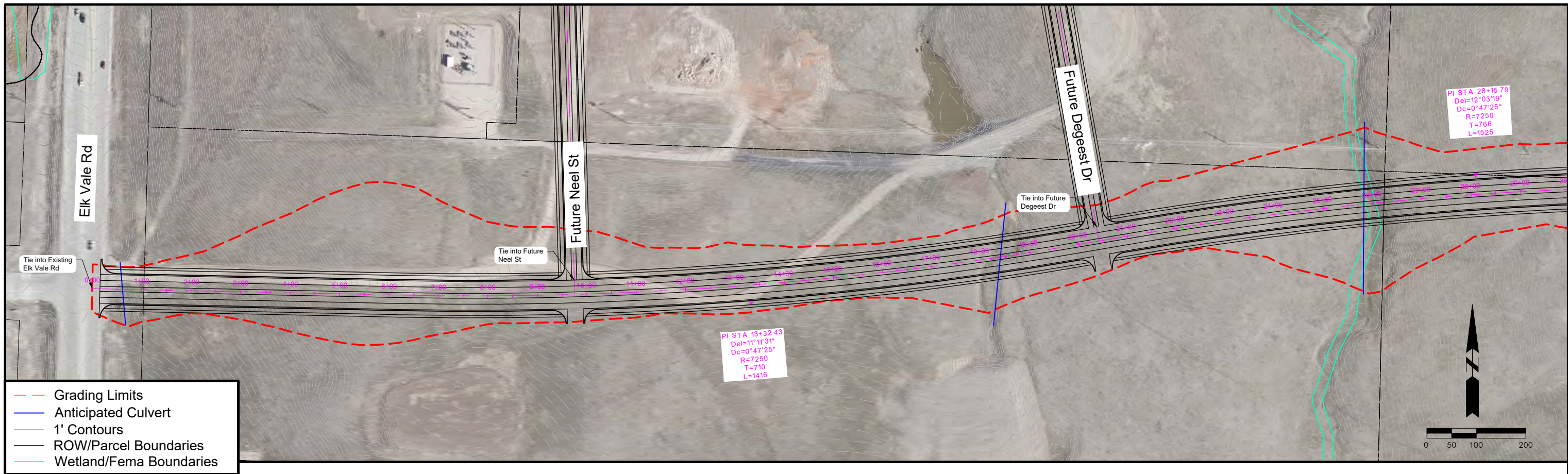
Isometric looking northwest at station 154+00

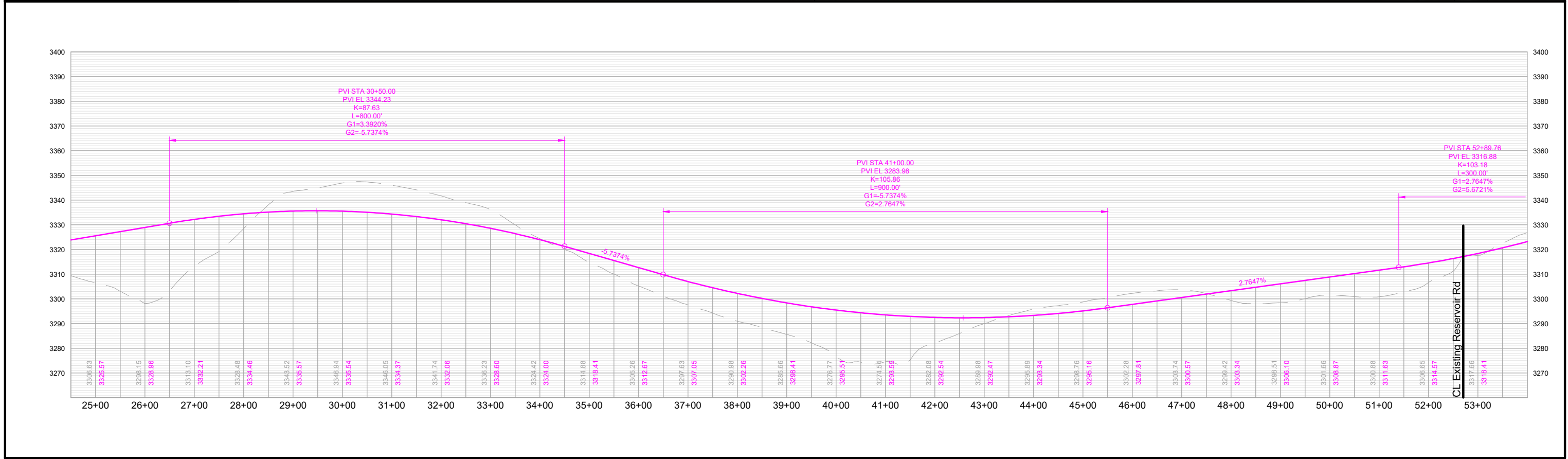
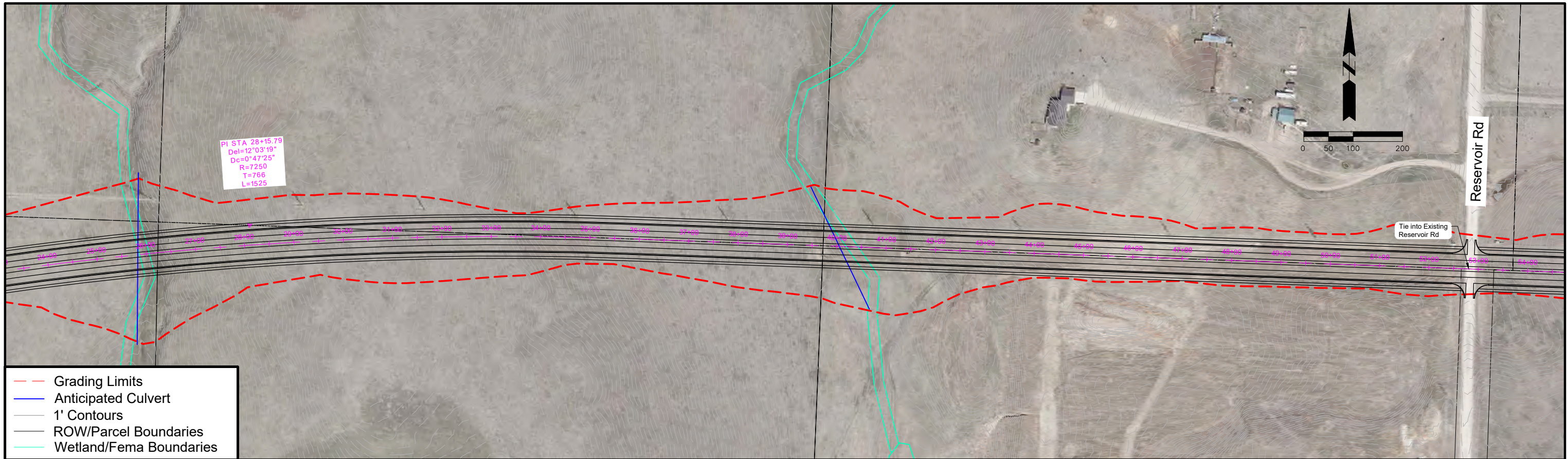


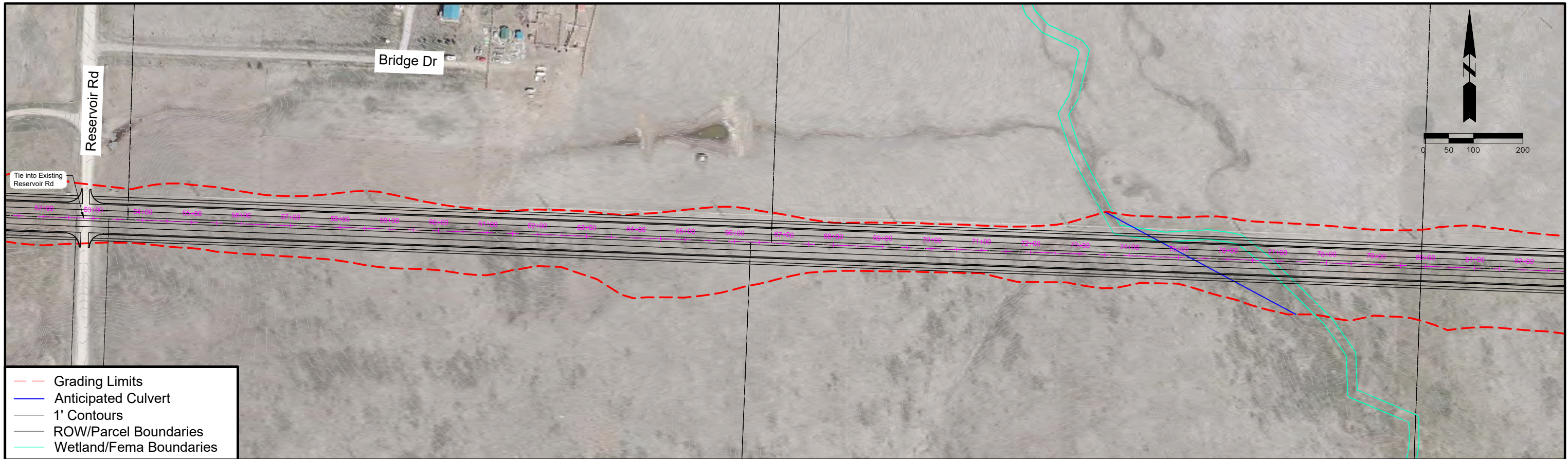
Segment Overview

Proposed Typical Section 5 Lane Principal Arterial

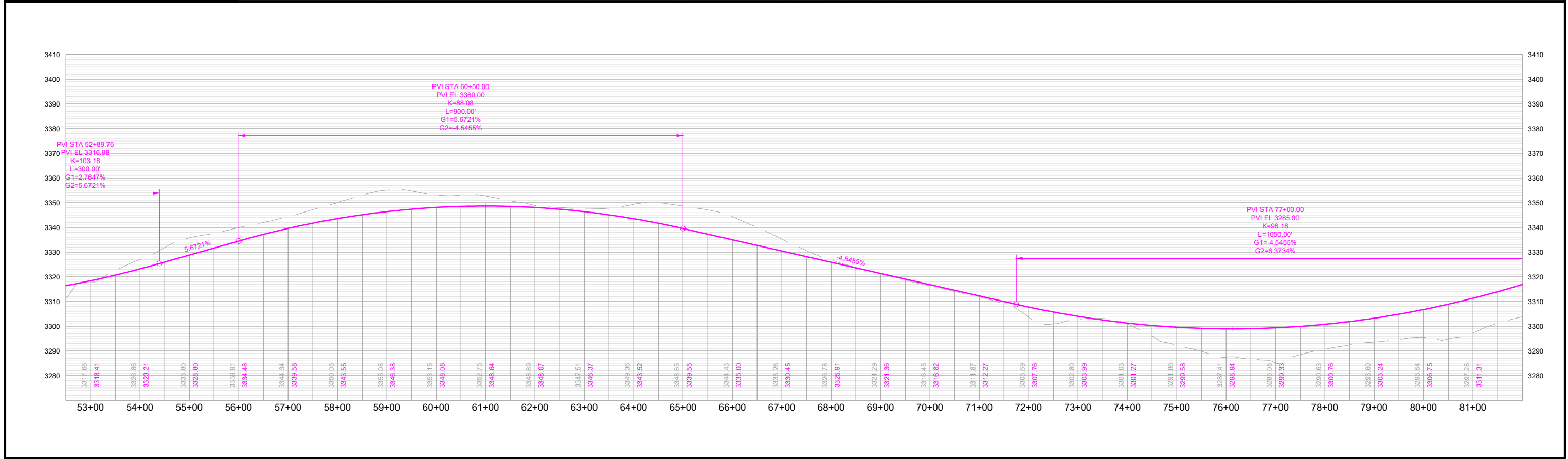


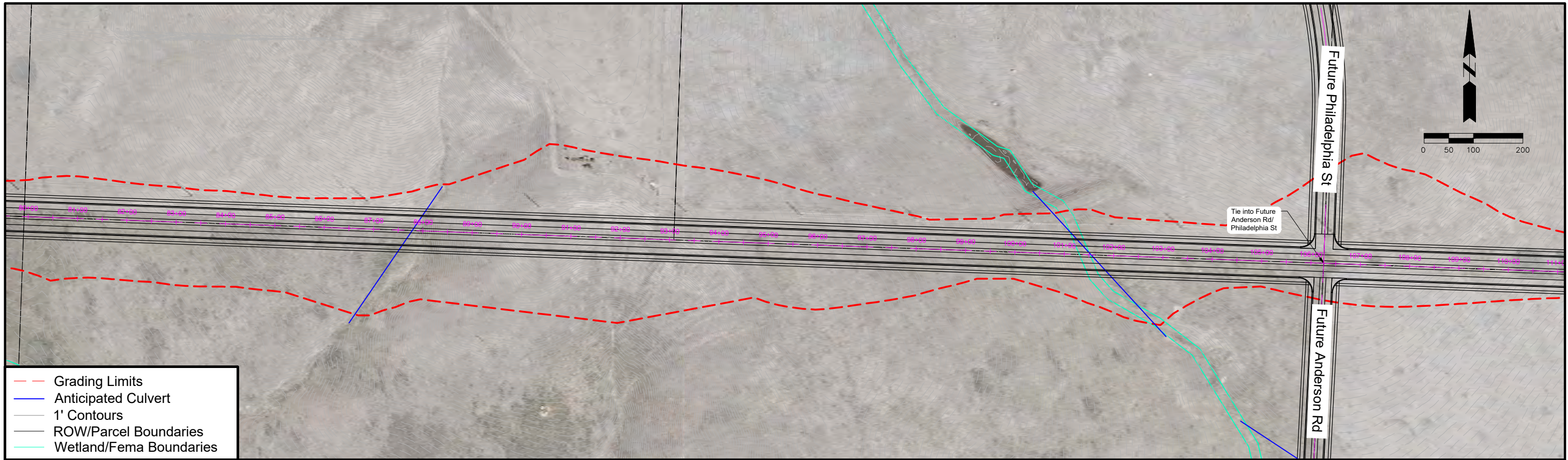




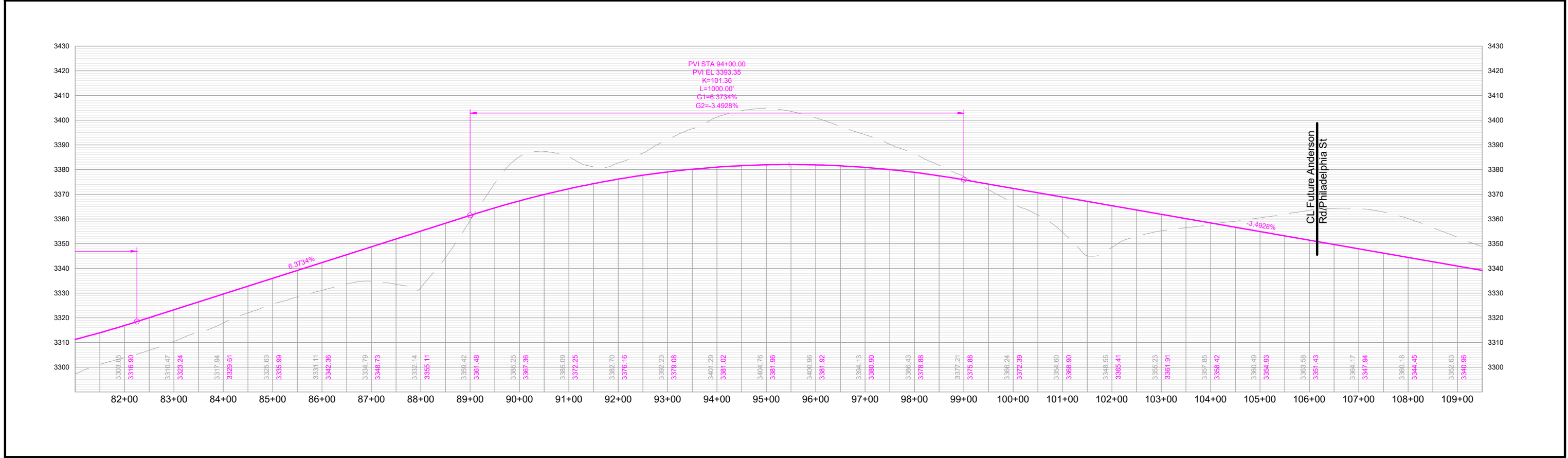


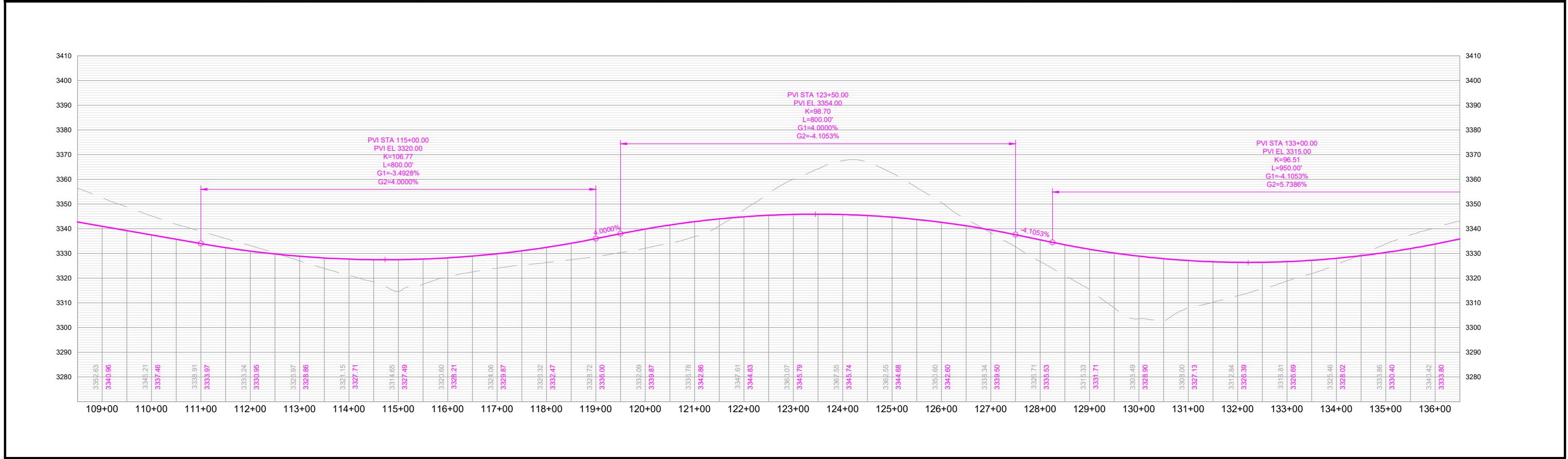
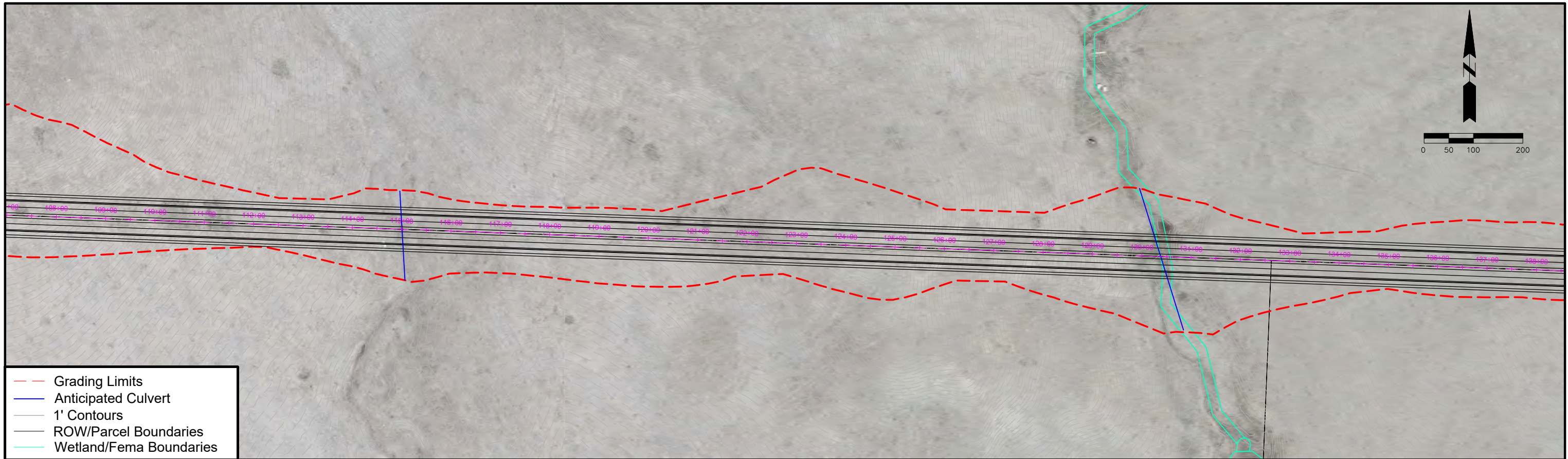
- Grading Limits
- Anticipated Culvert
- 1' Contours
- ROW/Parcel Boundaries
- Wetland/Fema Boundaries

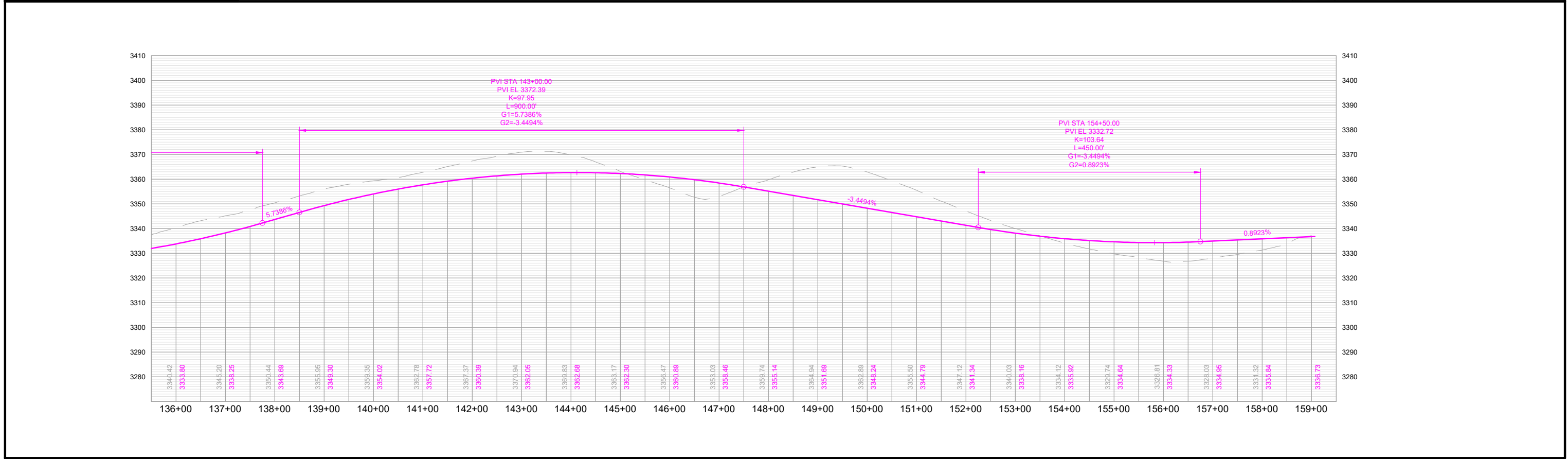
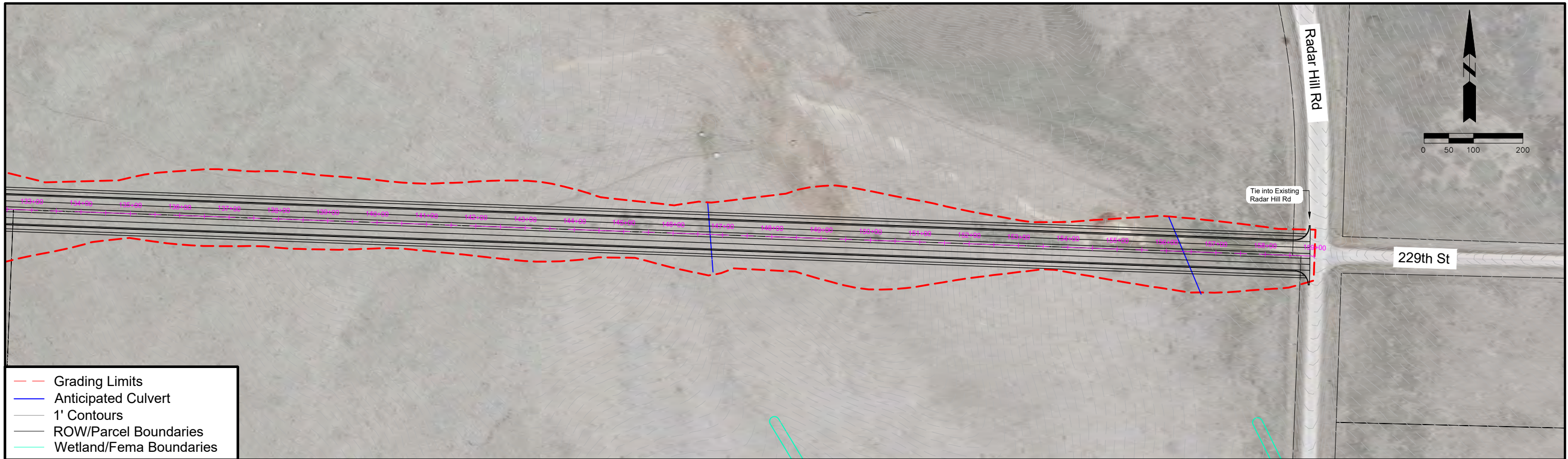




- Grading Limits
- Anticipated Culvert
- 1' Contours
- ROW/Parcel Boundaries
- Wetland/Fema Boundaries







Degeest Drive Anamosa Street to Cheyenne Boulevard

Classification: Collector

Corridor Length: 5,620 FT

Estimated Quantities

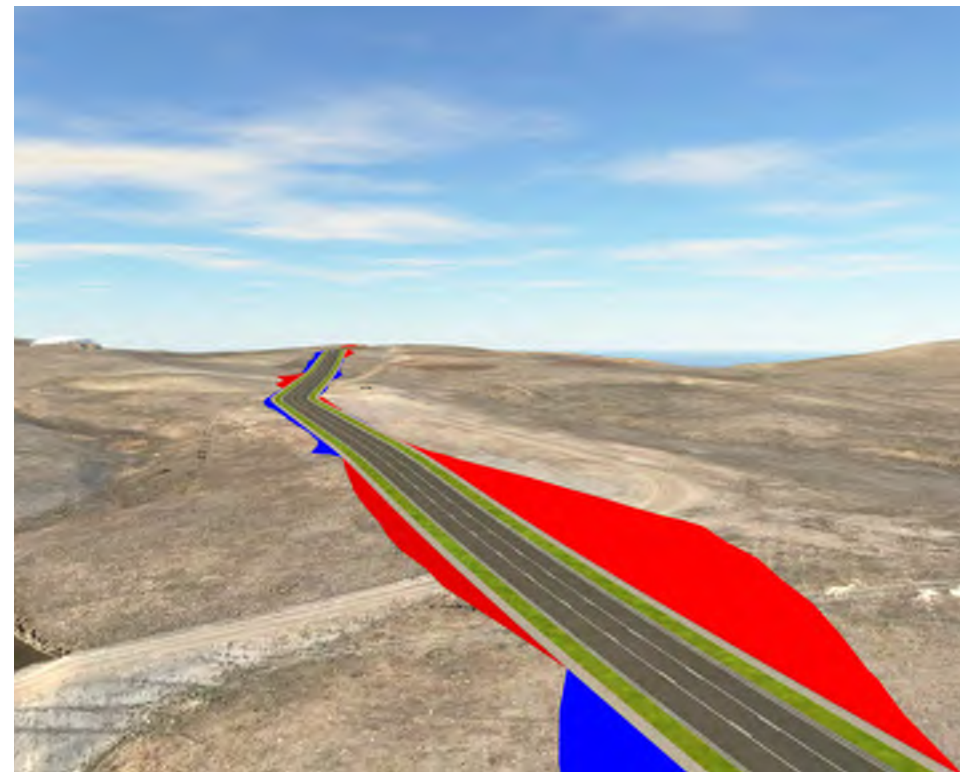
Road Surface: 19,983 SY

Earthwork Cut (Red): 73,559 CY

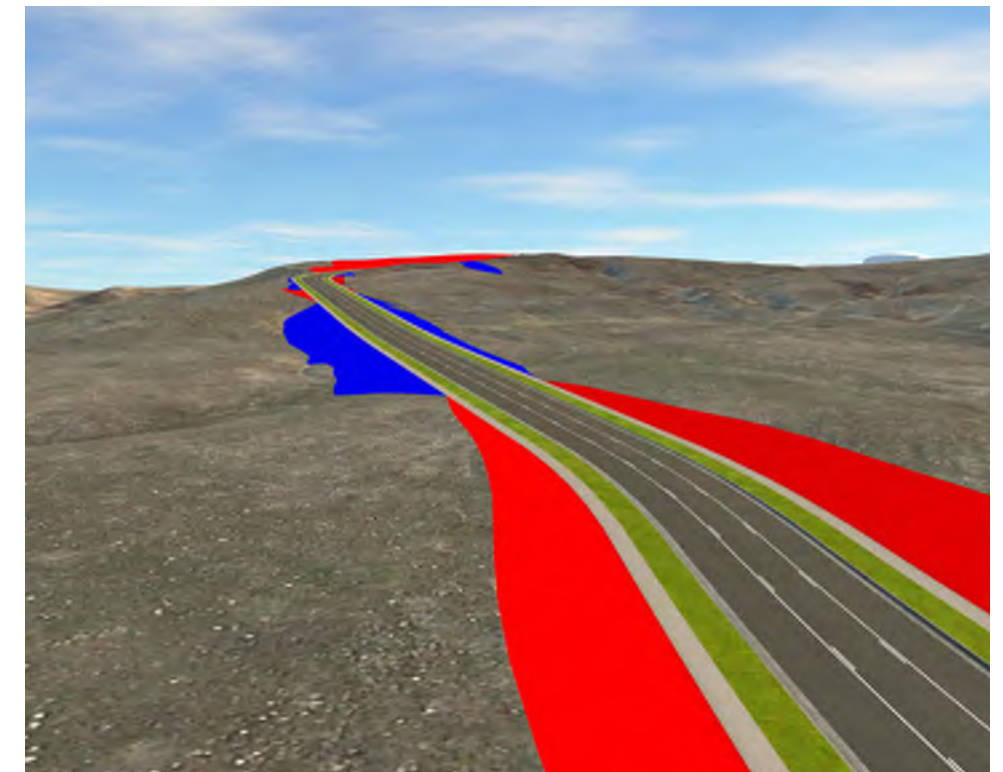
Earthwork Fill (Blue): 39,532 CY

Segment Considerations:

- Connection to the south of Anamosa Street will need further review to connect to existing segment.
- Design speed – 35 MPH.



Isometric looking north at station 2+00



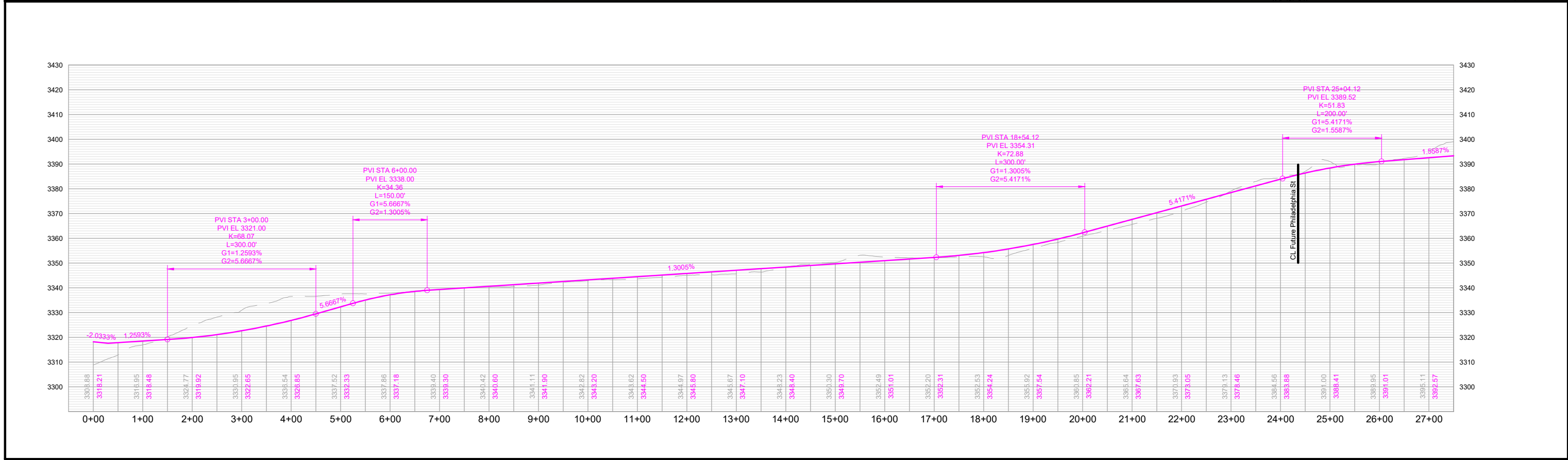
Isometric looking south at station 55+00

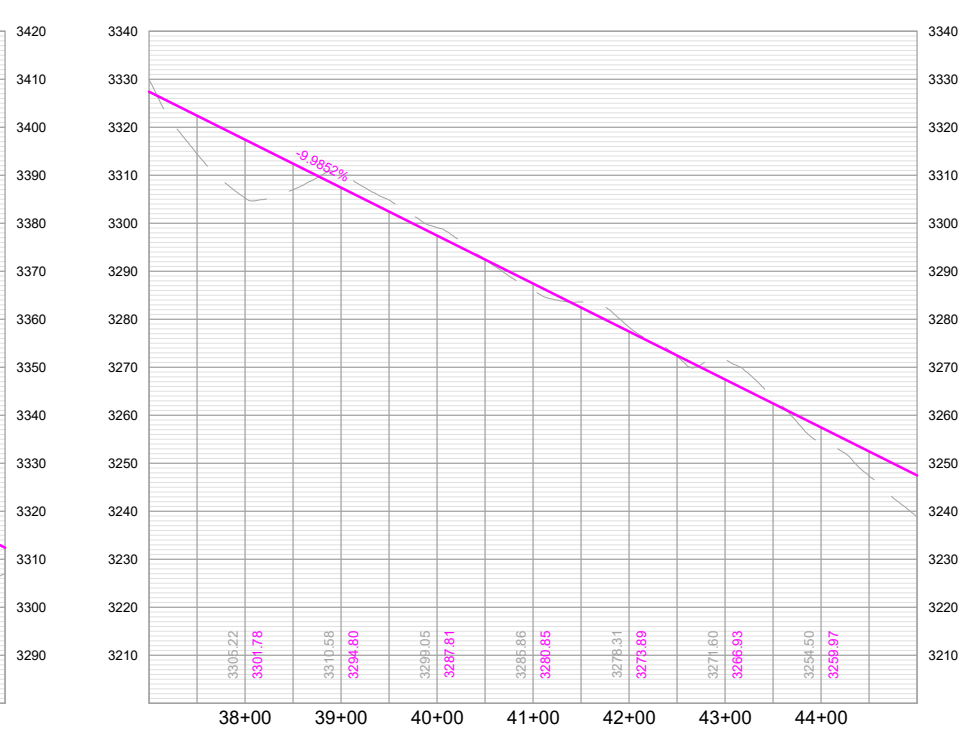
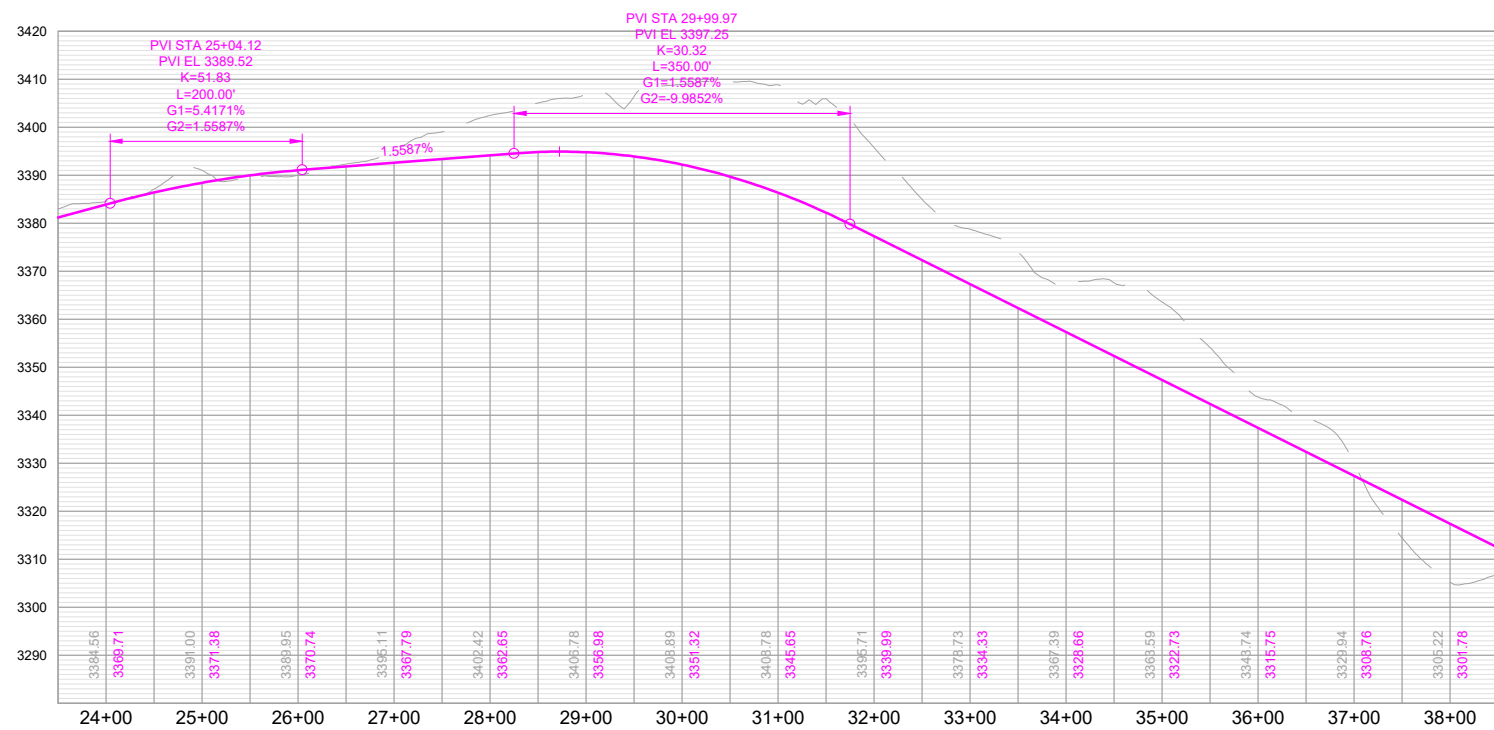
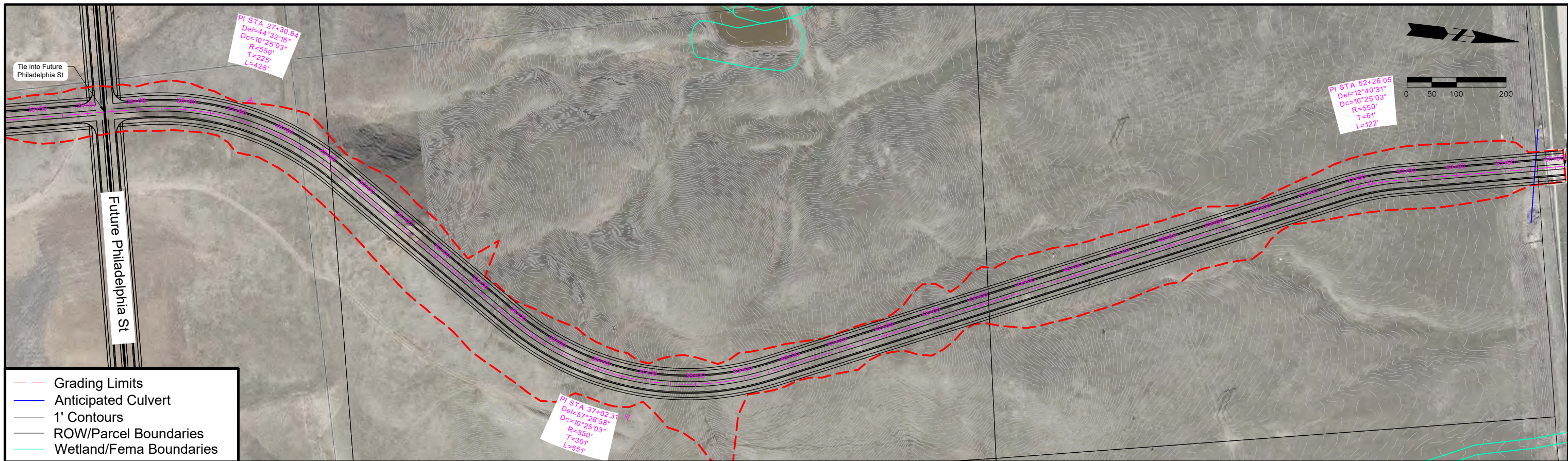


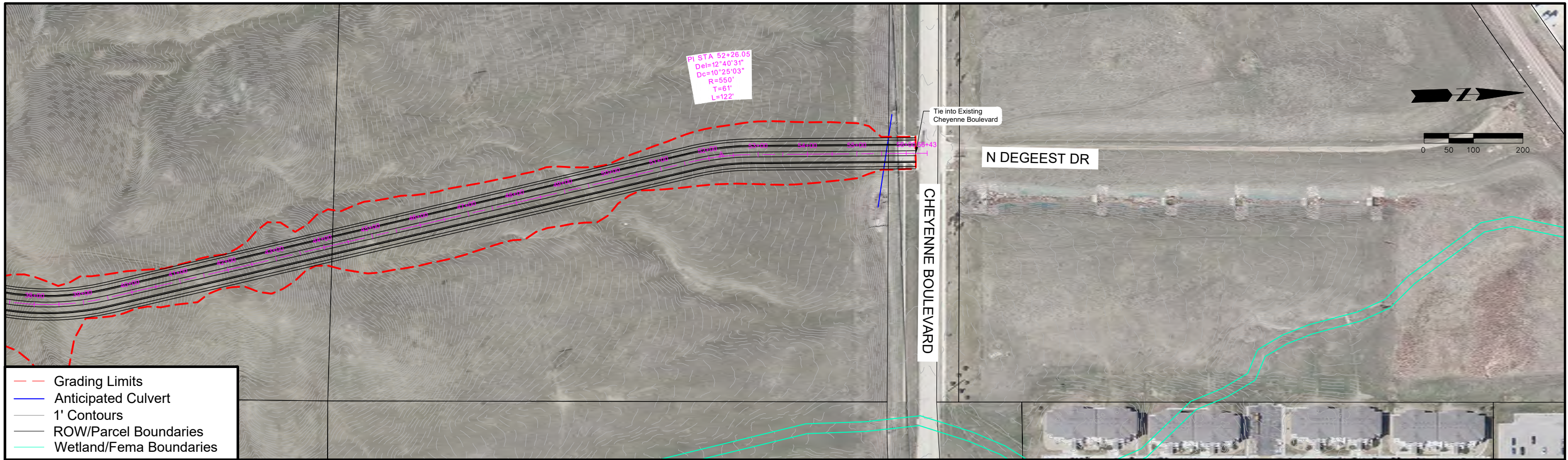
Segment Overview

Proposed Typical Section 3 Lane Collector

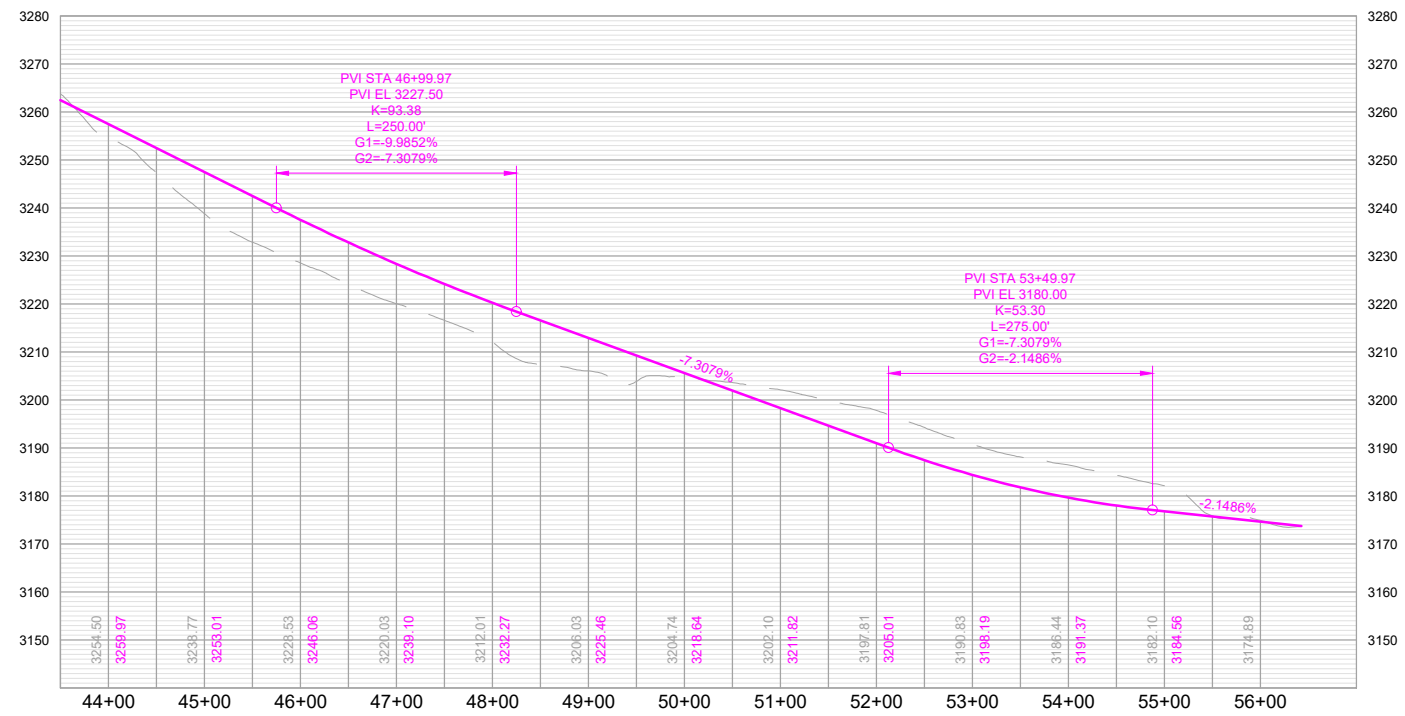








- Grading Limits
- Anticipated Culvert
- 1' Contours
- ROW/Parcel Boundaries
- Wetland/Fema Boundaries



Neel Street

Anamosa Street to Philadelphia Street

Classification: Collector

Corridor Length: 2,610 FT

Estimated Quantities

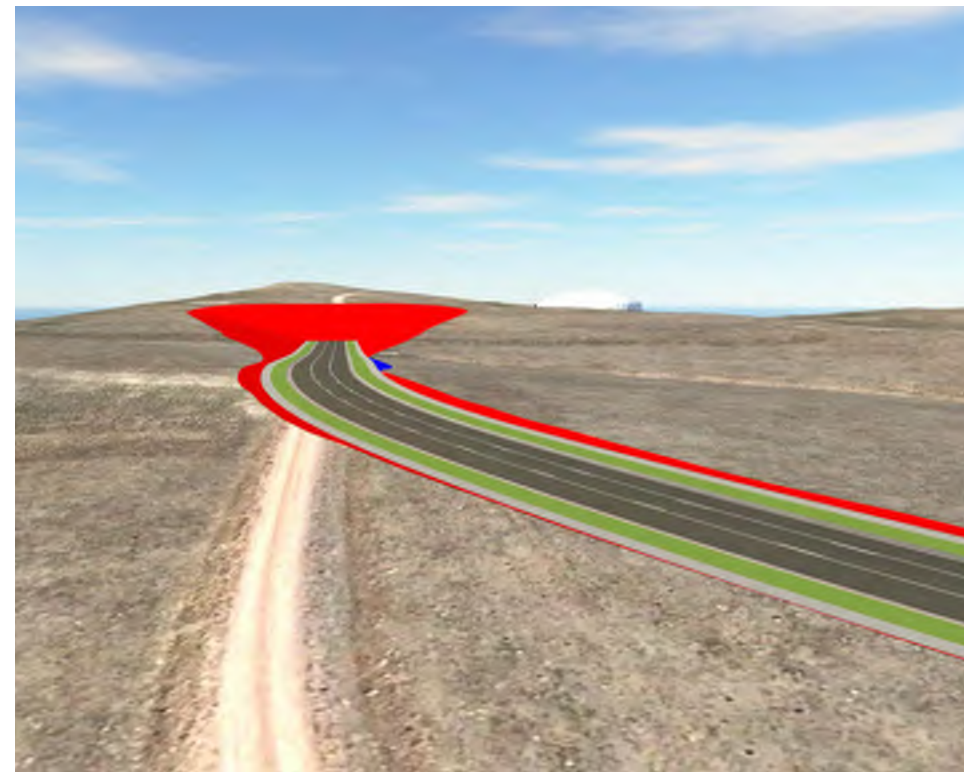
Road Surface: 9,280 SY

Earthwork Cut (Red): 307,978 CY

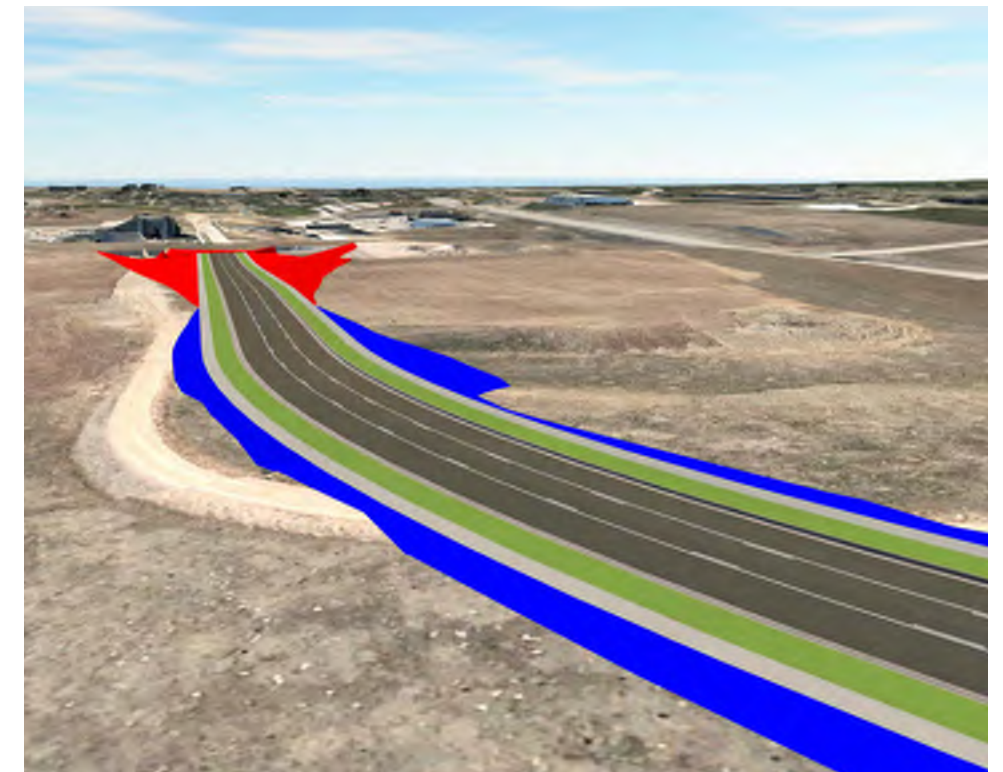
Earthwork Fill (Blue): 4,344 CY

Segment Considerations:

- Connection to the south of Anamosa Street will need further review to connect to existing segment.
- Design speed – 35 MPH.



Isometric looking north at station 15+00

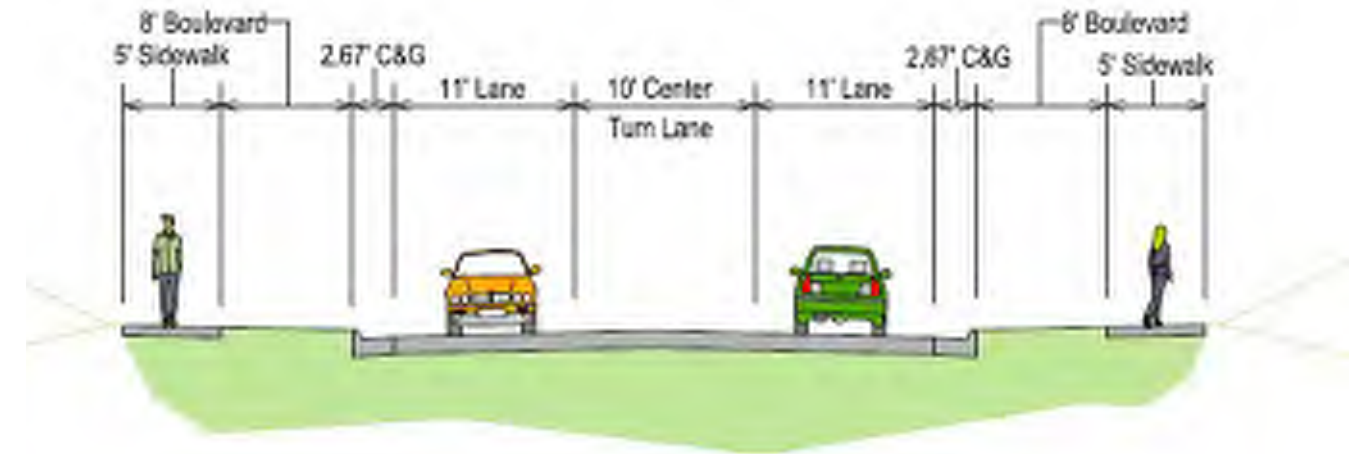


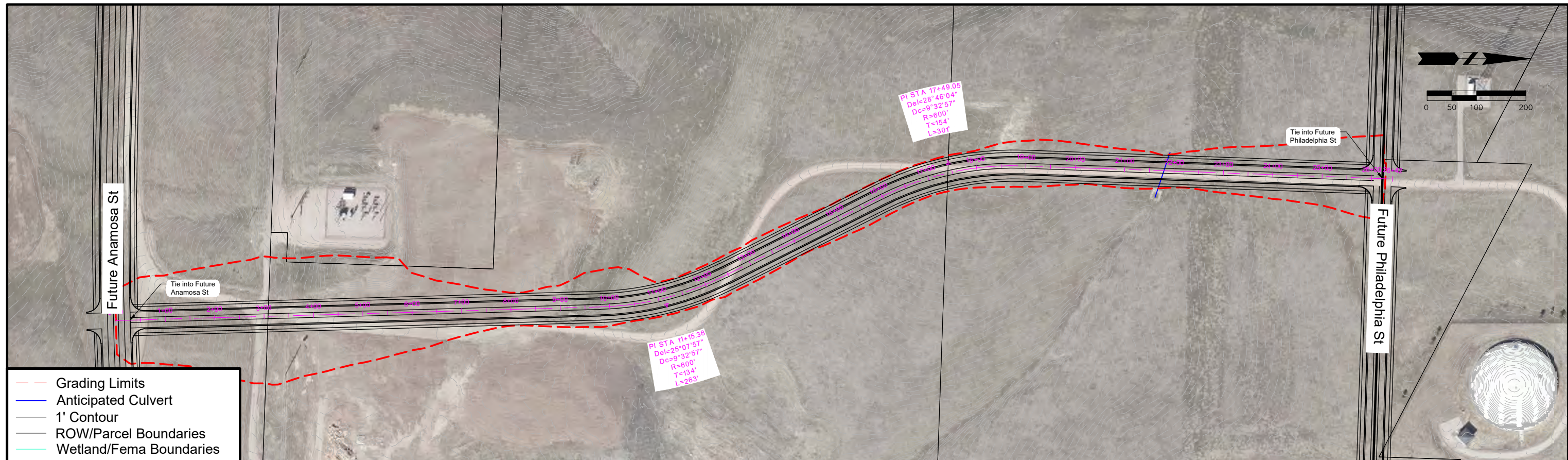
Isometric looking south at station 12+00



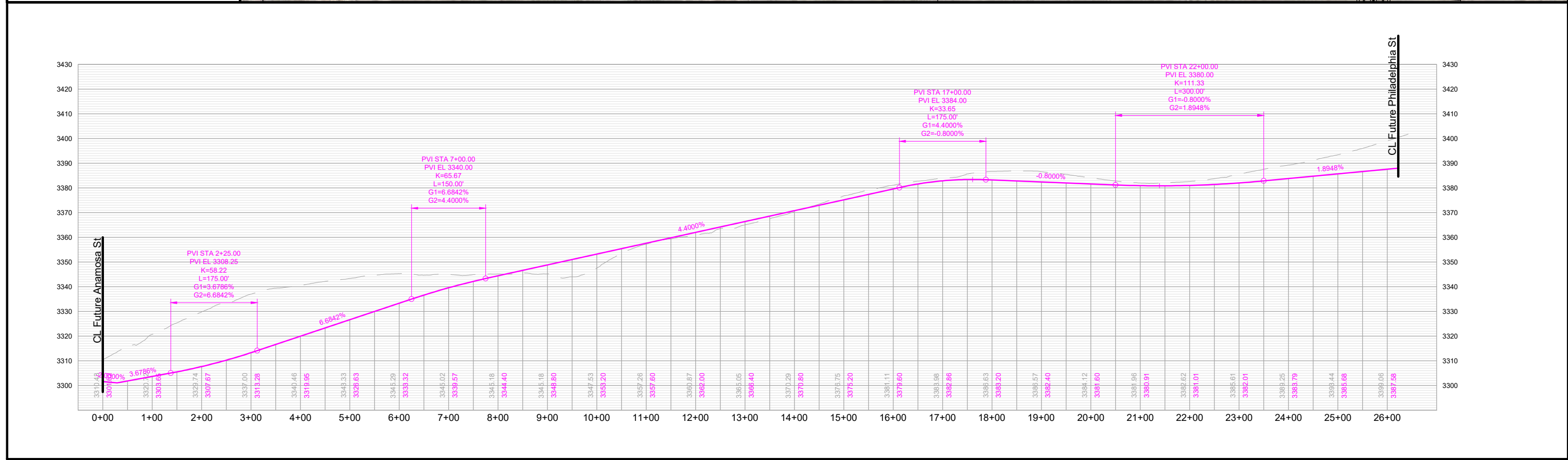
Segment Overview

Proposed Typical Section 3 Lane Collector





- Grading Limits
- Anticipated Culvert
- 1' Contour
- ROW/Parcel Boundaries
- Wetland/Fema Boundaries



E Philadelphia Street

N Valley Drive to Reservoir Road

Classification: Collector/Minor Arterial

Corridor Length: 17,512 FT

Estimated Quantities

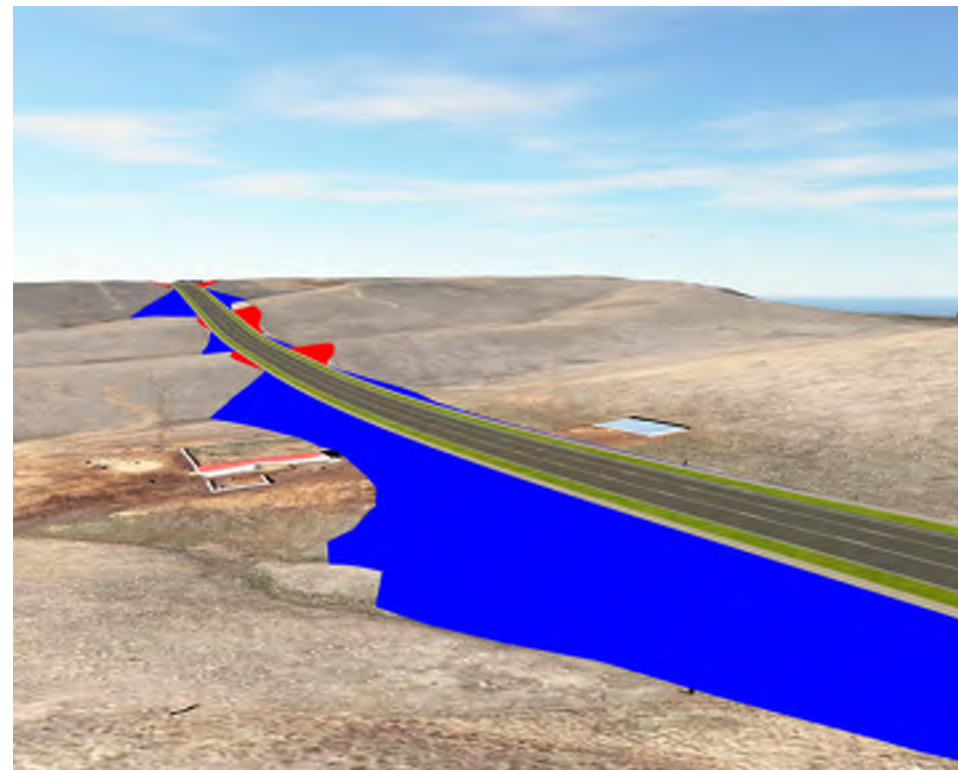
Road Surface: 70,048 SY

Earthwork Cut (Red): 222,212 CY

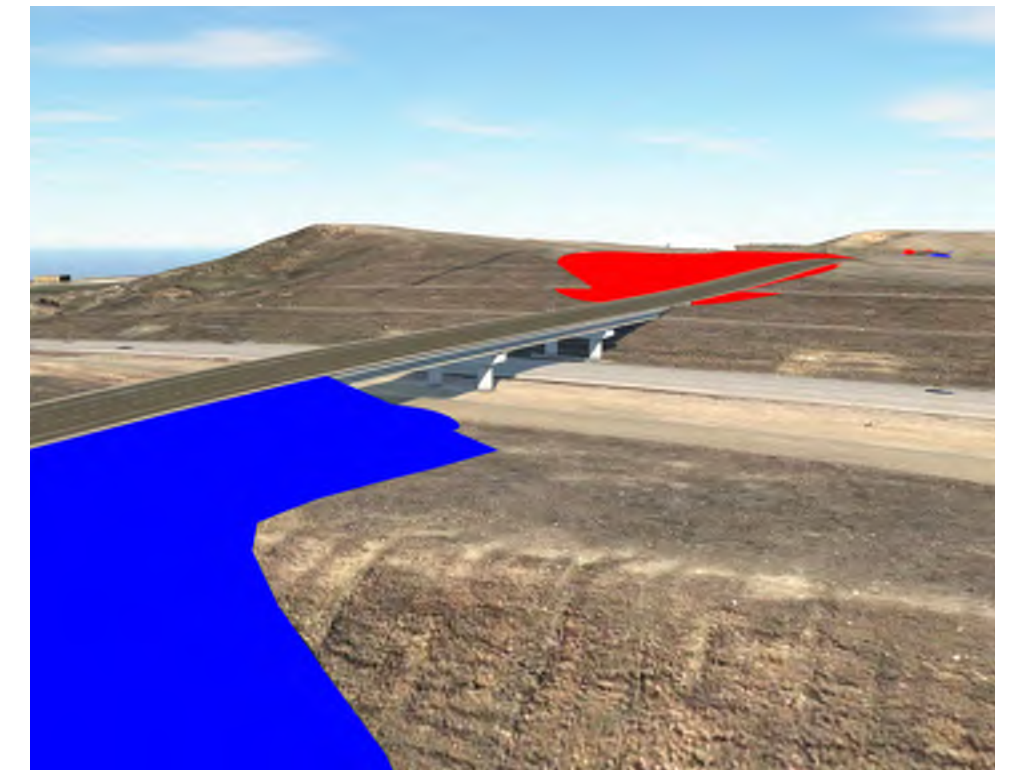
Earthwork Fill (Blue): 507,064 CY

Segment Considerations:

- Collector from Elk Vale to the West and Minor Arterial from Elk Vale to the East.
- Proposed grade separated crossing at Elk Vale Road. May consider as future interchange.
- Design speed – 35 MPH and 45 MPH.



Isometric looking northwest at station 139+00

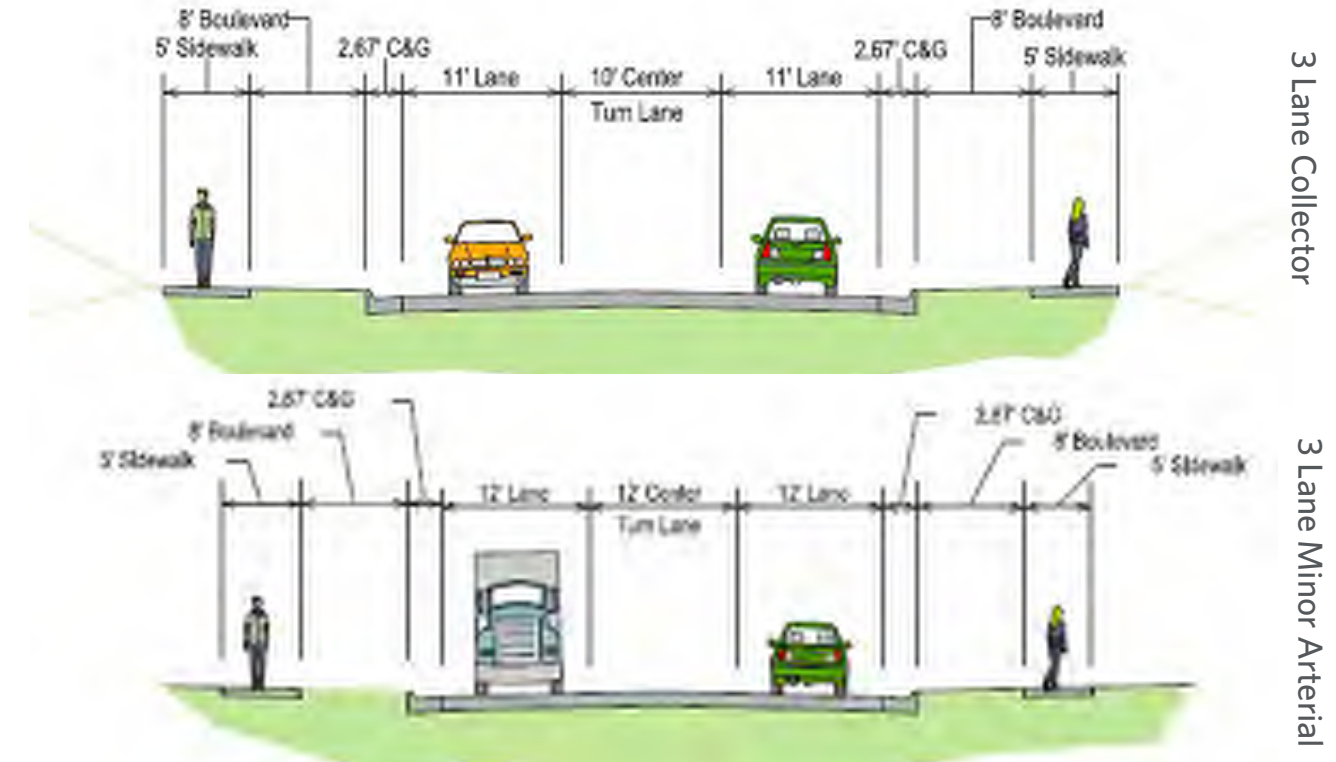


Isometric looking northeast at station 57+00



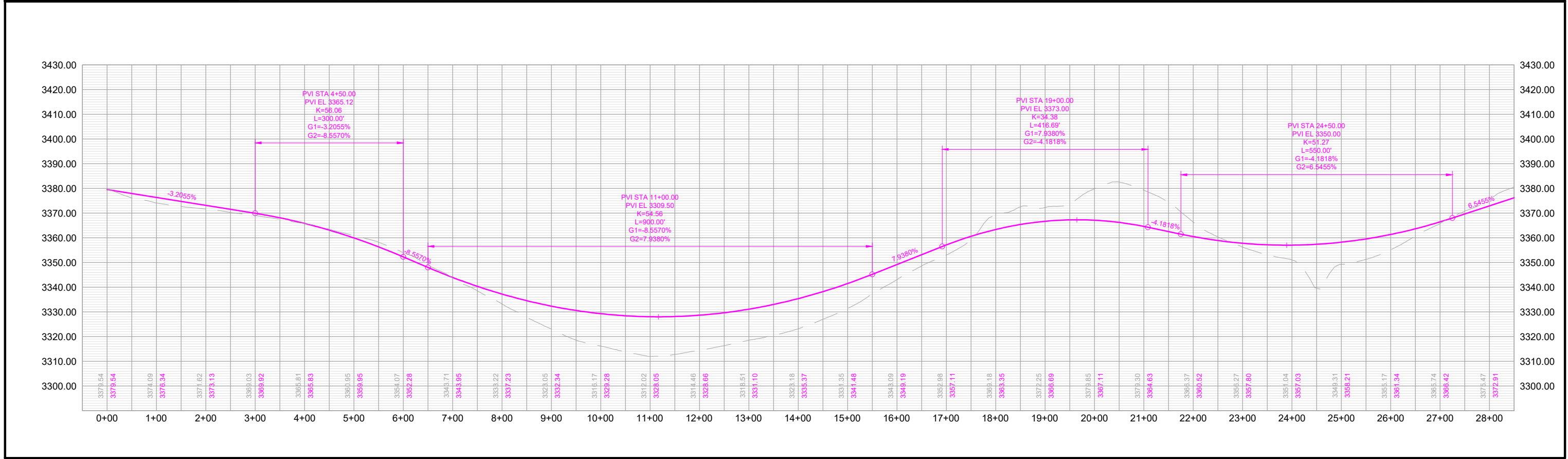
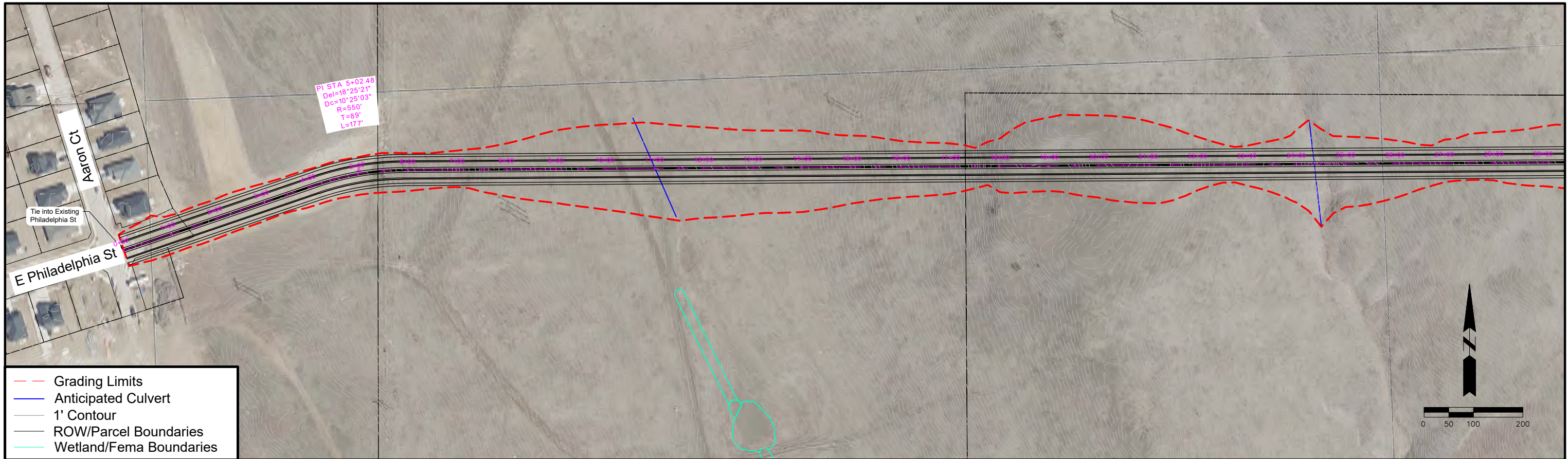
Segment Overview

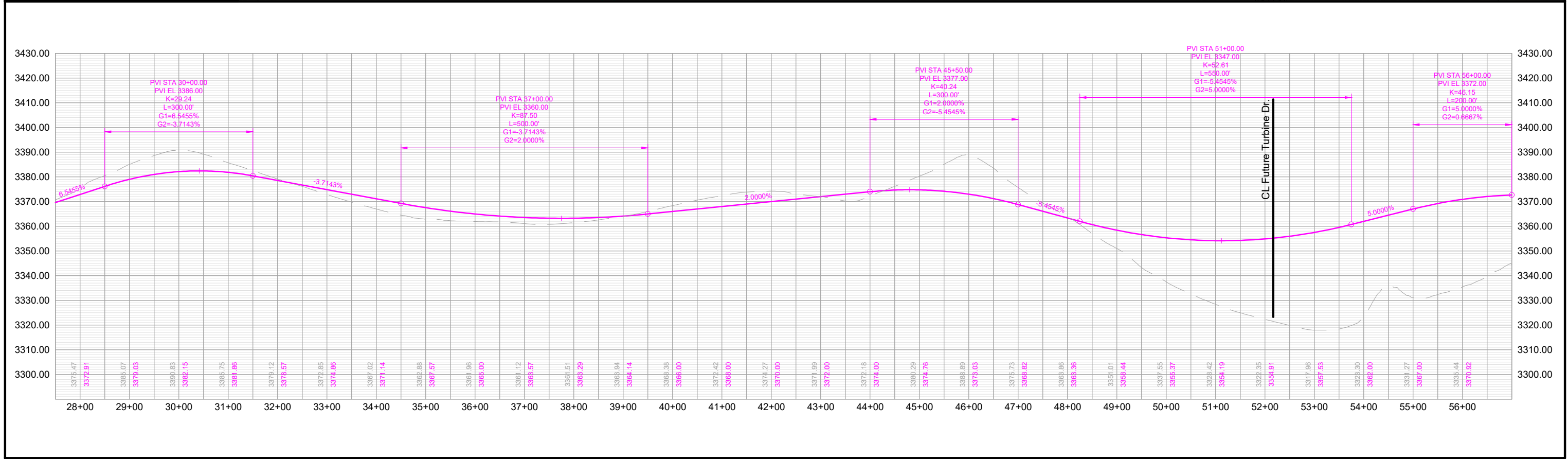
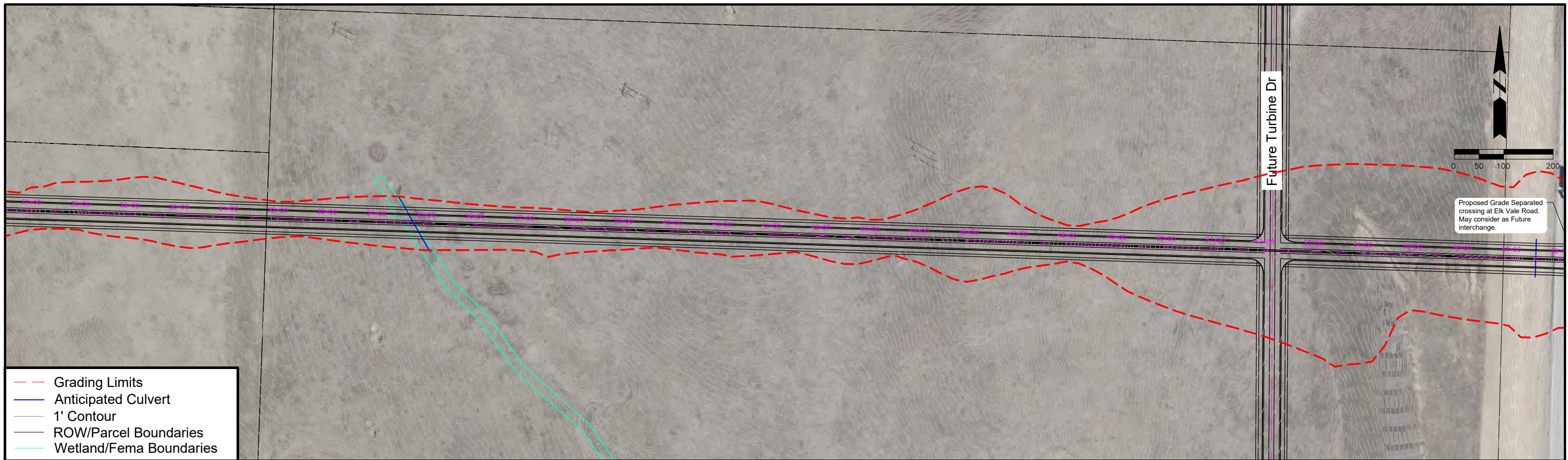
Proposed Typical Sections

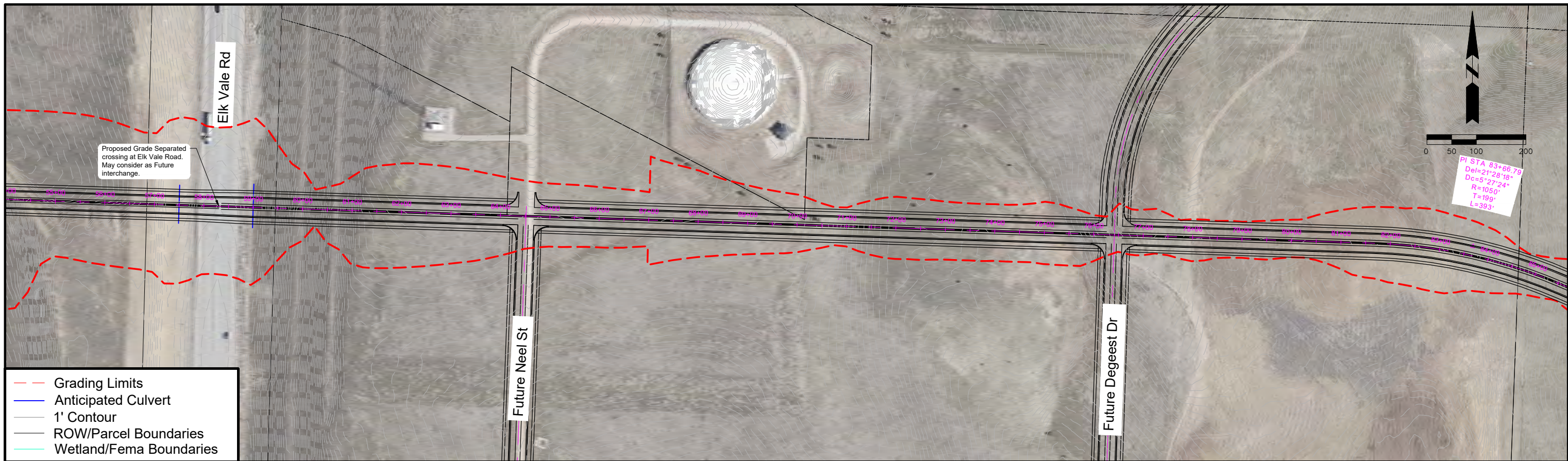


3 Lane Collector

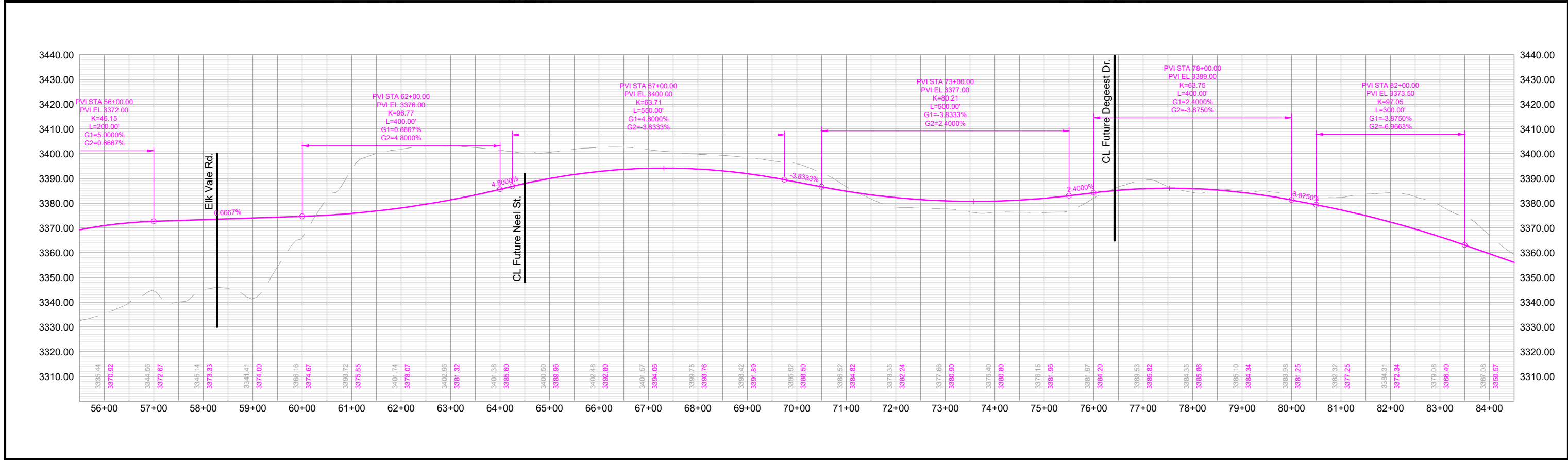
3 Lane Minor Arterial

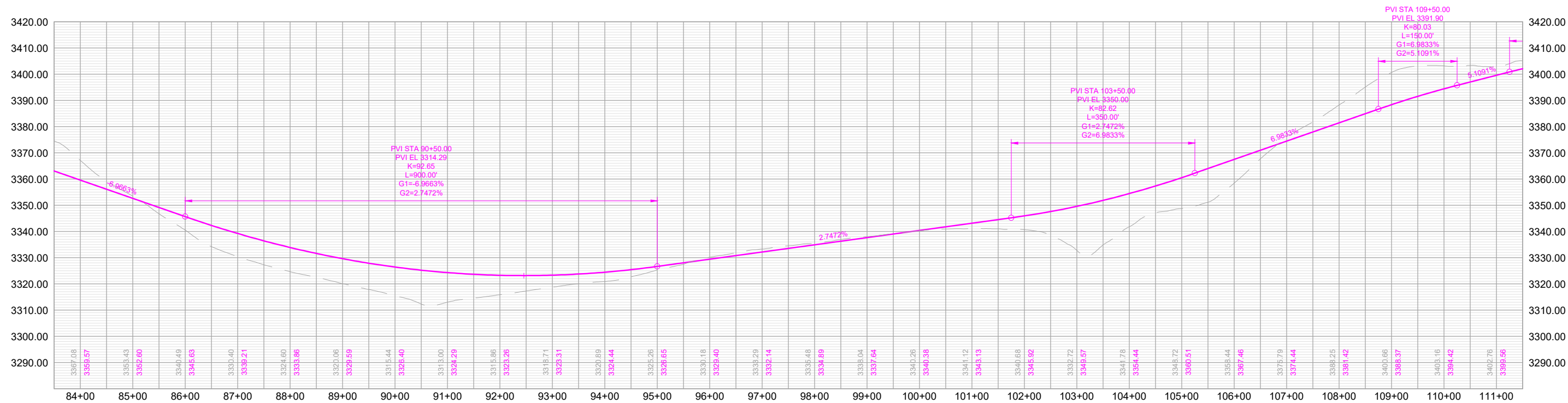
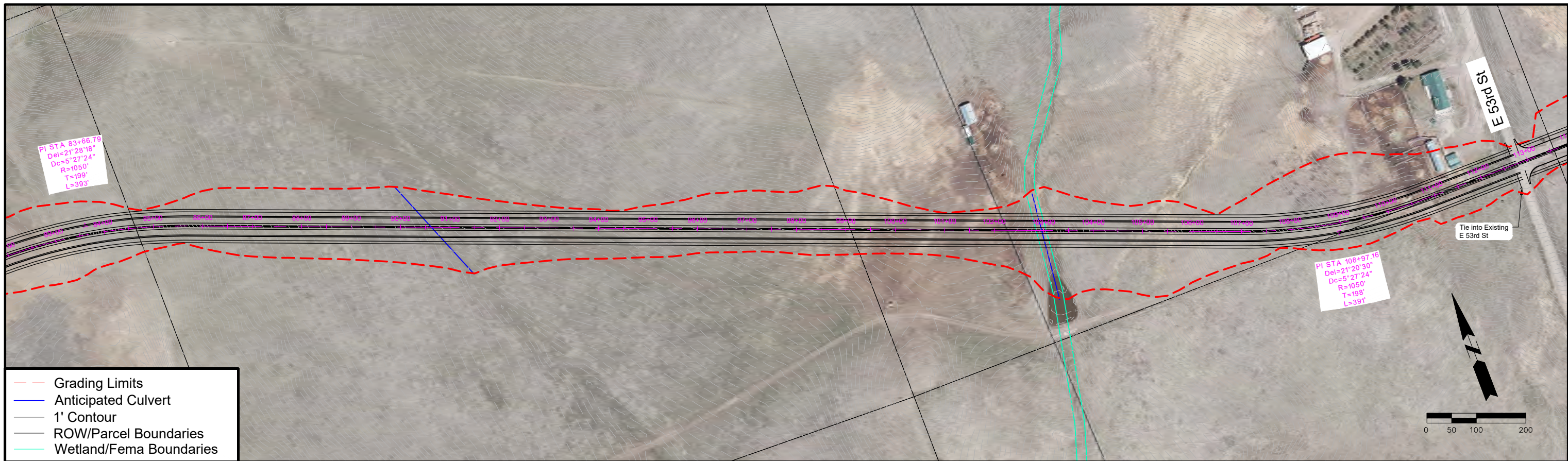


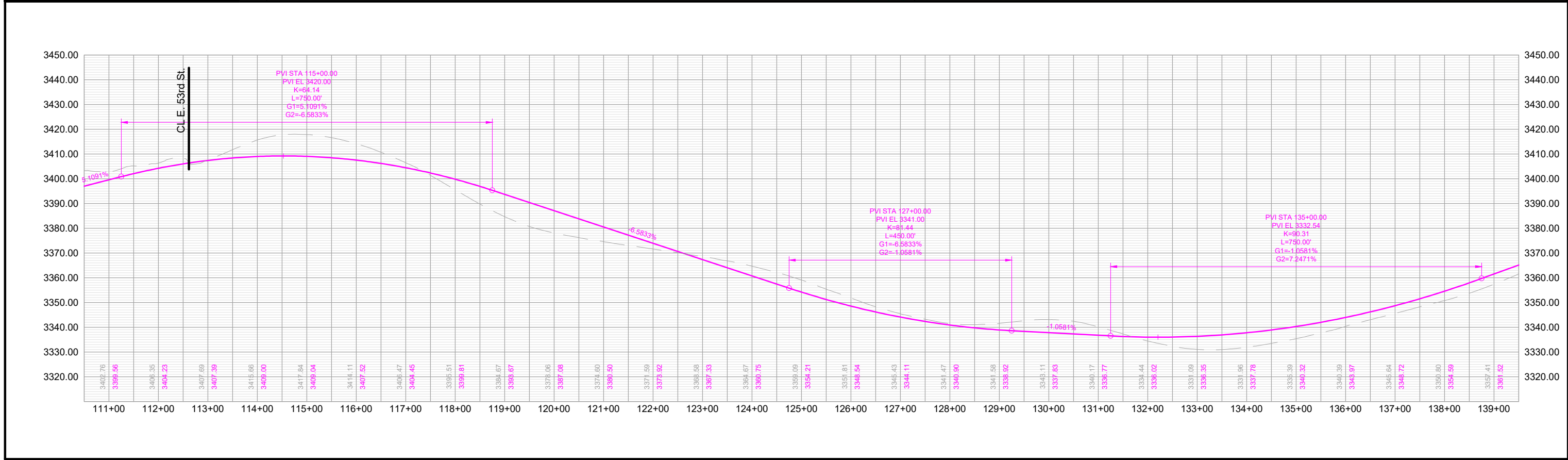
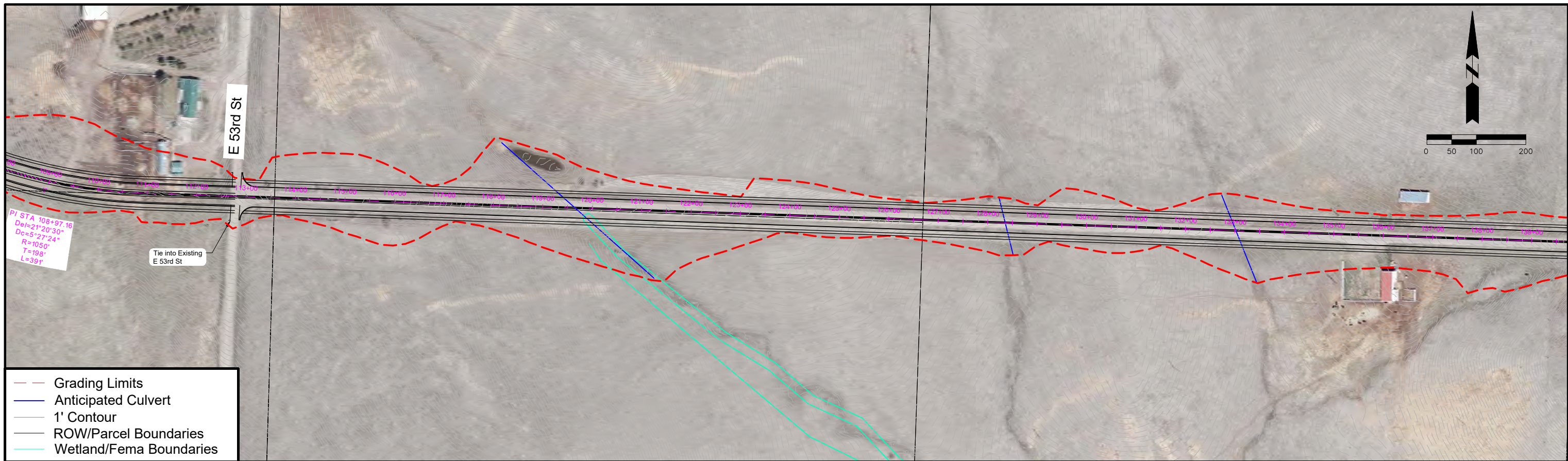




- Grading Limits
- Anticipated Culvert
- 1' Contour
- ROW/Parcel Boundaries
- Wetland/Fema Boundaries

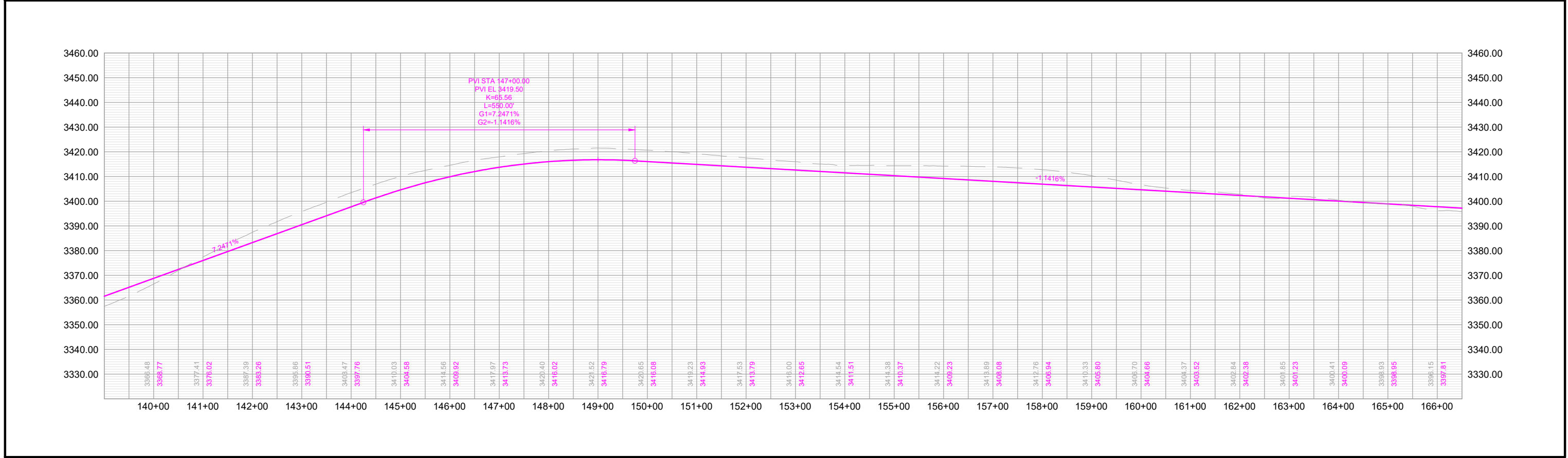


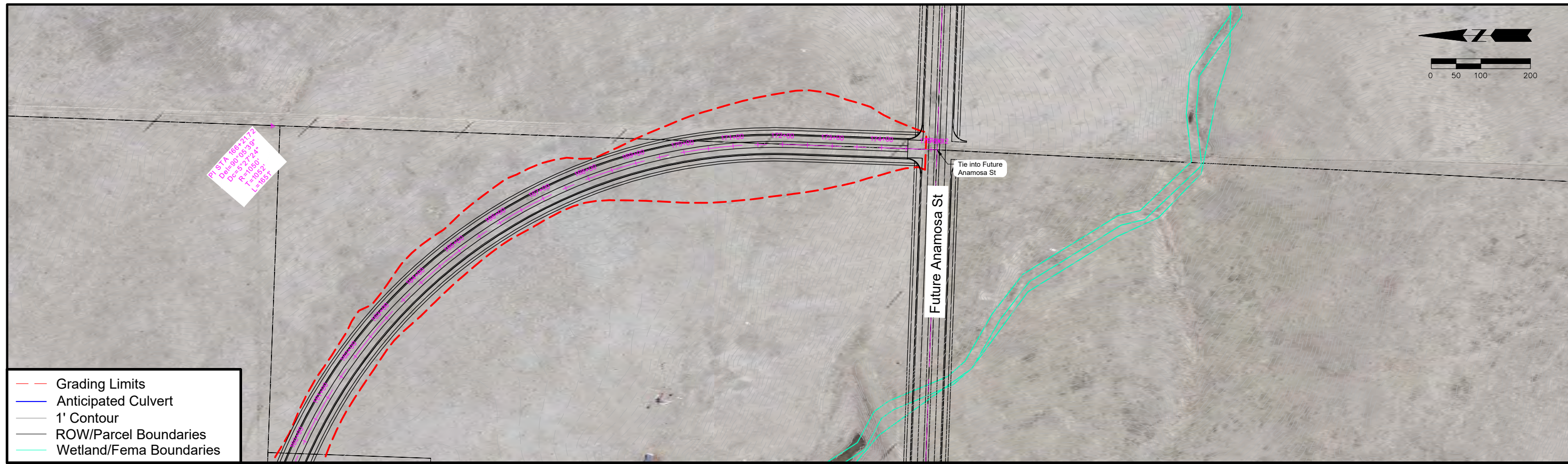
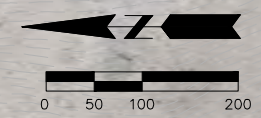




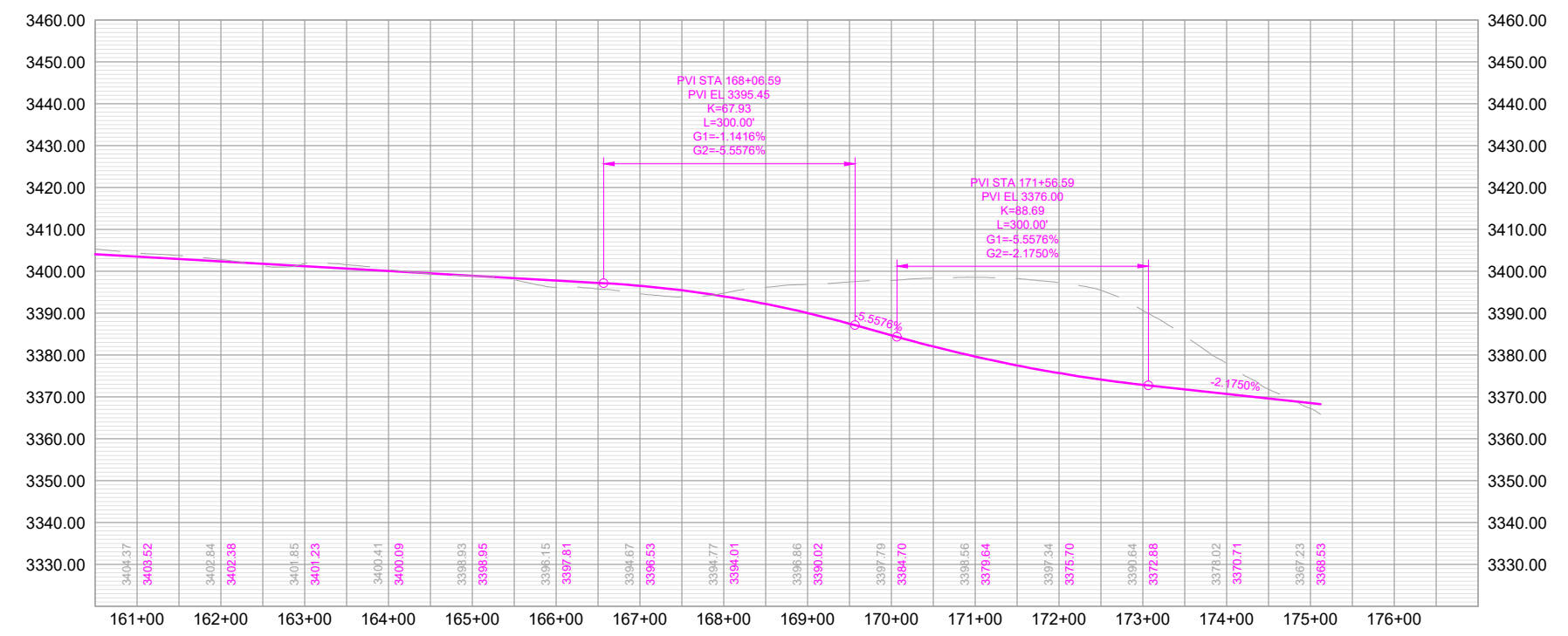


- Grading Limits
- Anticipated Culvert
- 1' Contour
- ROW/Parcel Boundaries
- Wetland/Fema Boundaries





- Grading Limits
- Anticipated Culvert
- 1' Contour
- ROW/Parcel Boundaries
- Wetland/Fema Boundaries



Turbine Drive

Anamosa Street to N Turbine Drive

Classification: Collector

Corridor Length: 4,020 FT

Estimated Quantities

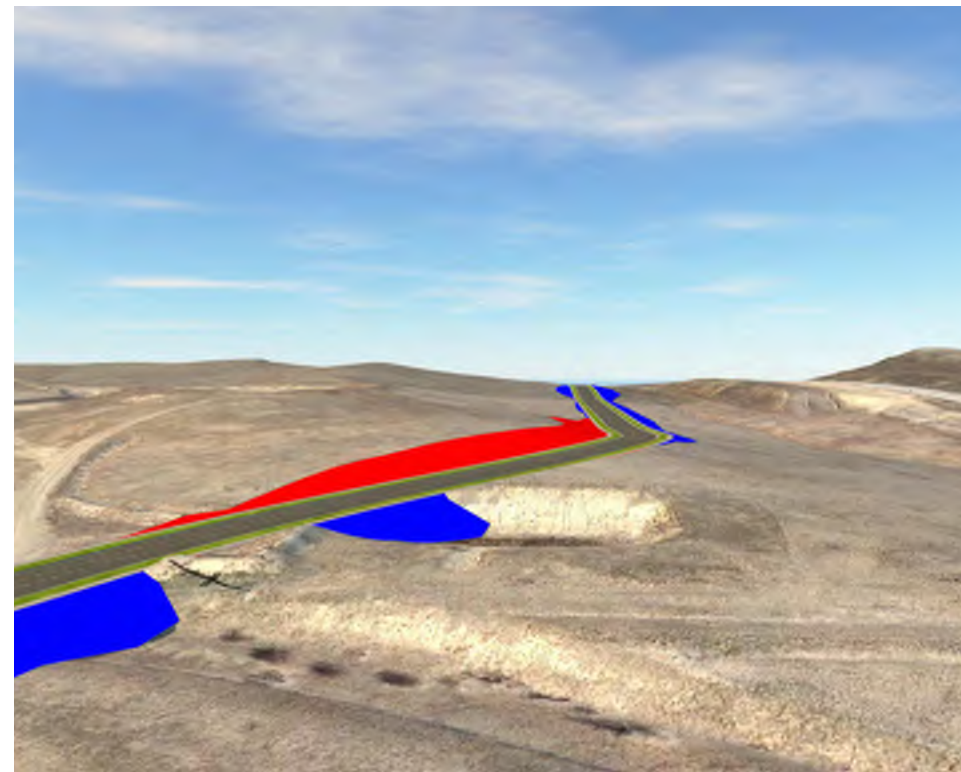
Road Surface: 14,294 SY

Earthwork Cut (Red): 17,188 CY

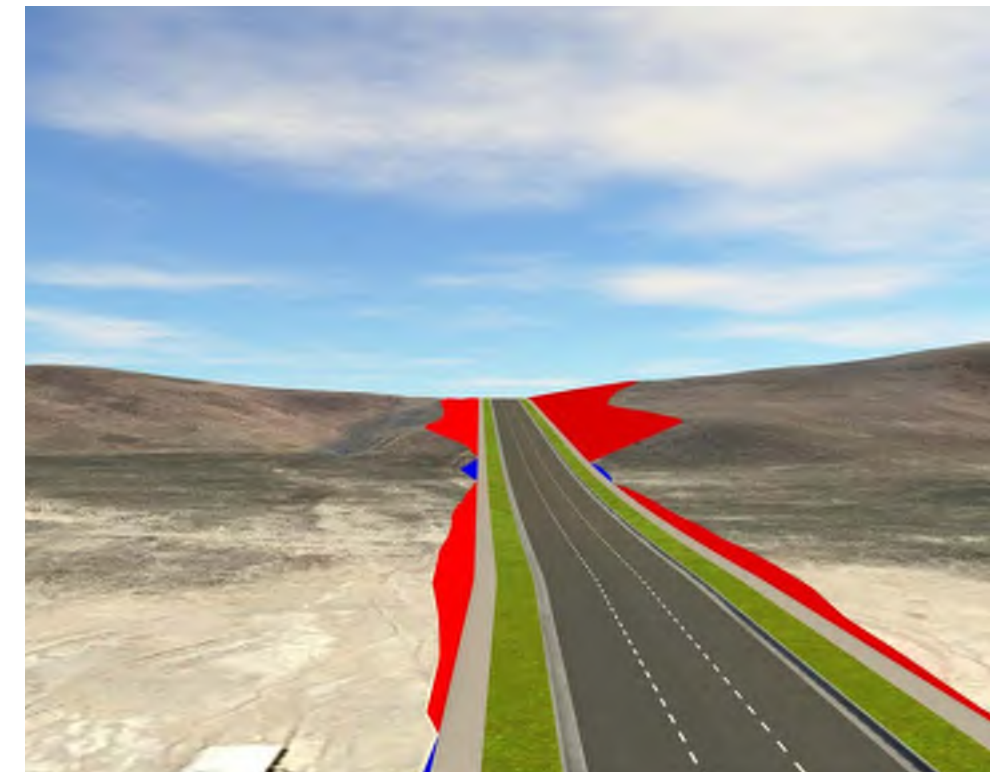
Earthwork Fill (Blue): 195,333 CY

Segment Considerations:

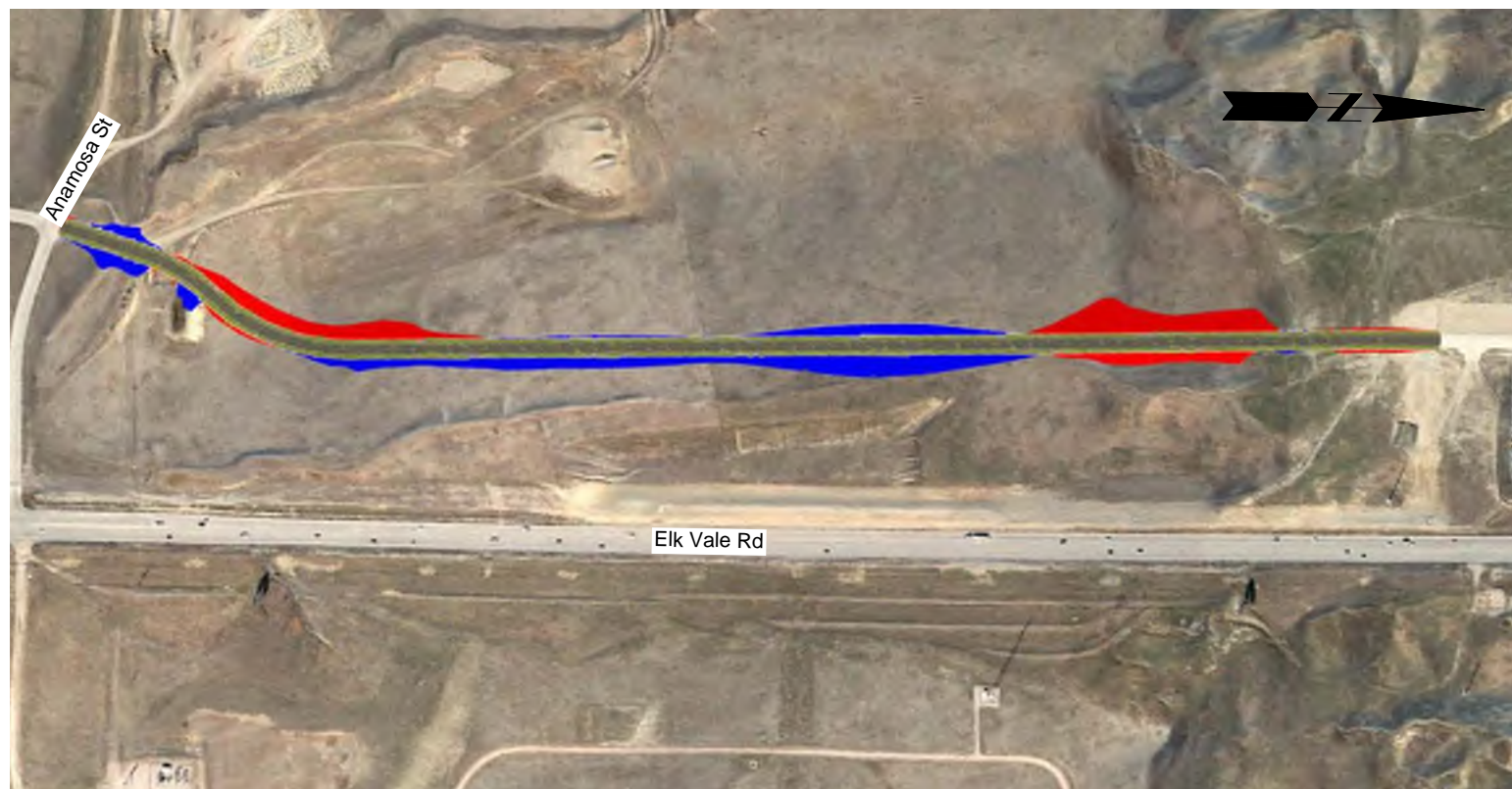
- Design speed – 35 MPH.



Isometric looking north at station 5+00



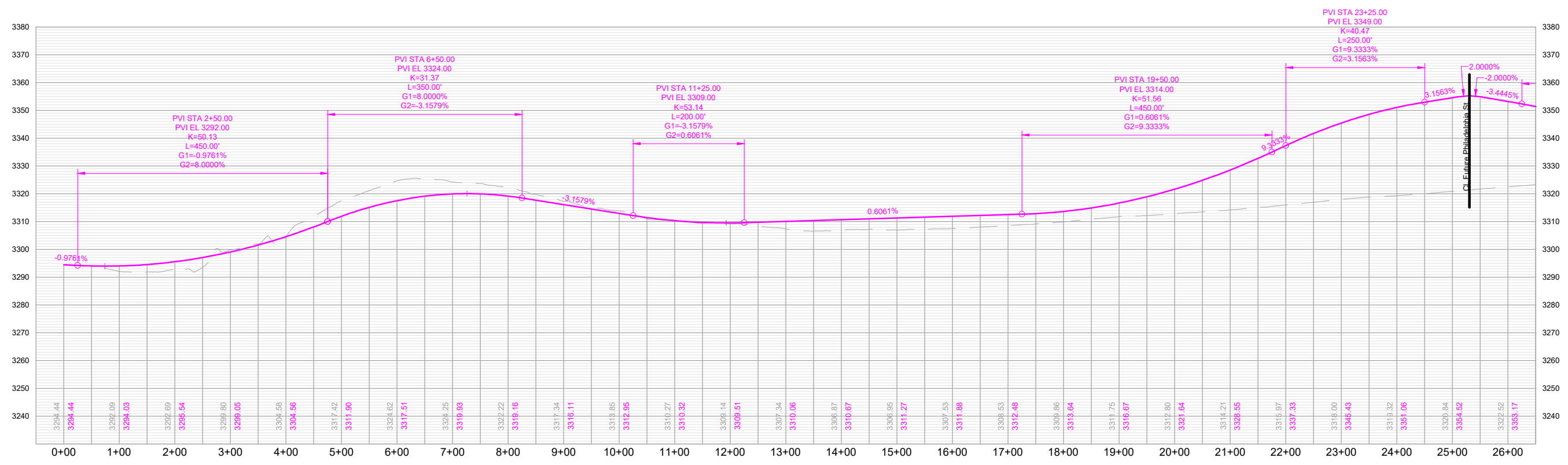
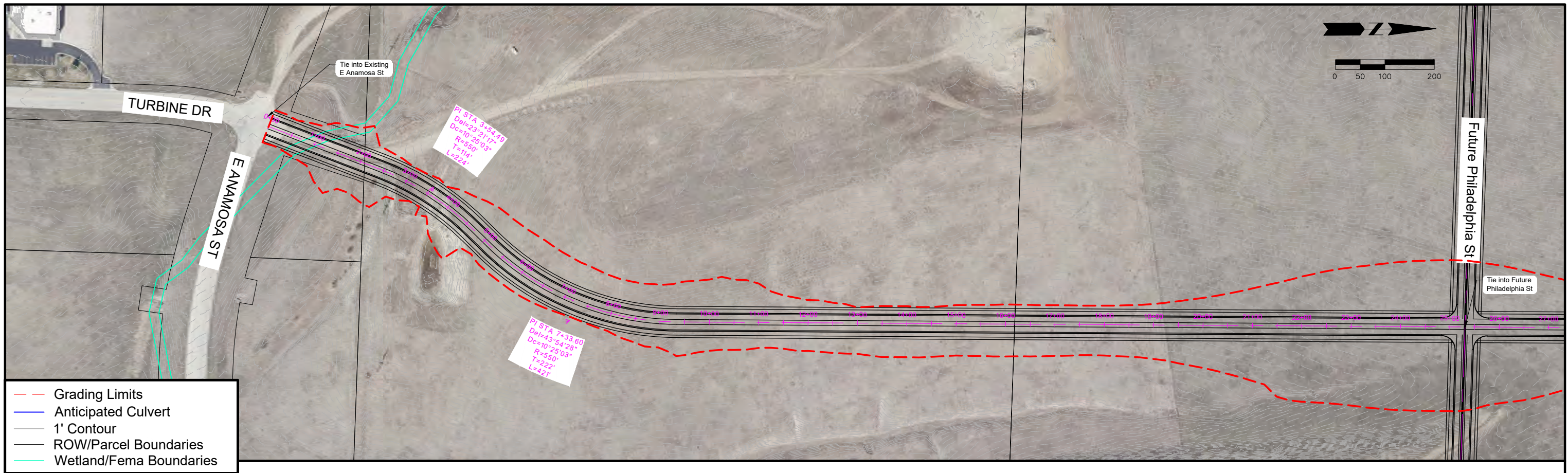
Isometric looking south at station 39+00



Segment Overview

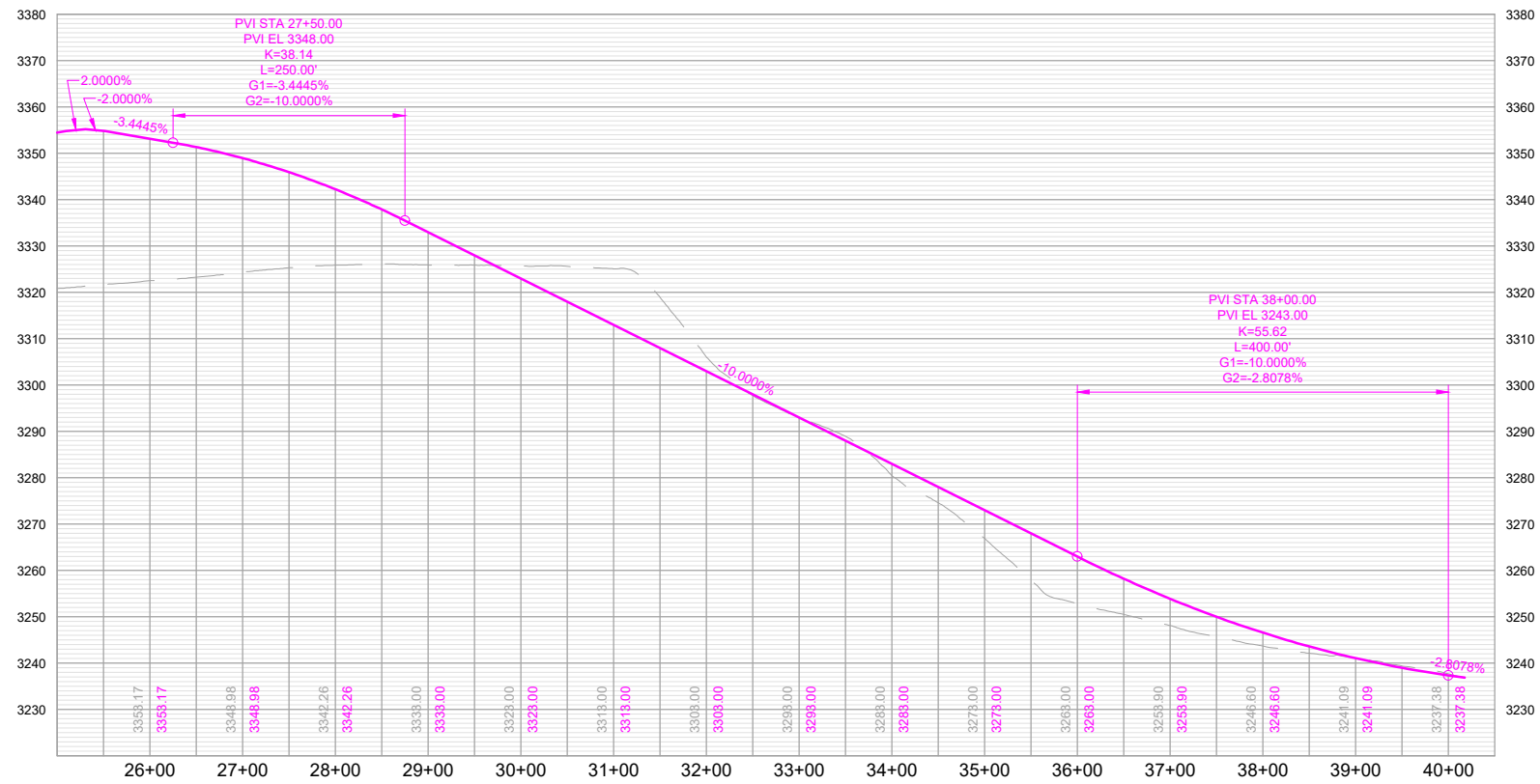
Proposed Typical Section 3 Lane Collector







- Grading Limits
- Anticipated Culvert
- 1' Contour
- ROW/Parcel Boundaries
- Wetland/Fema Boundaries



Twilight Drive

Eastern Terminus to Radar Hill Road

Classification: Minor Arterial

Corridor Length: 9,570 FT

Estimated Quantities

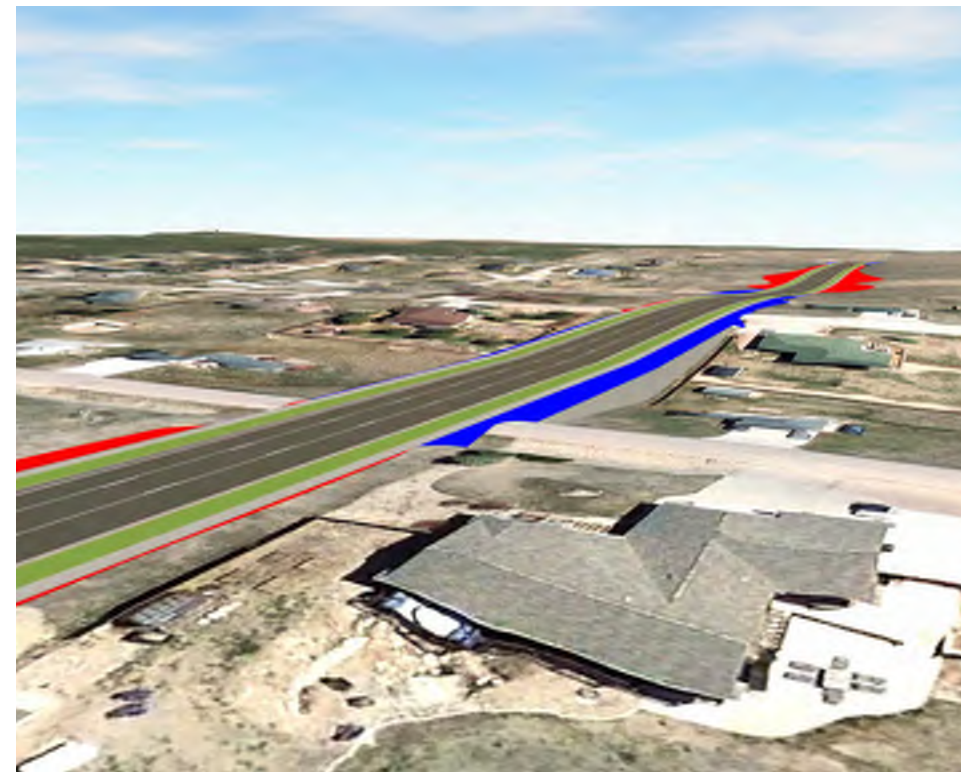
Road Surface: 38,280 SY

Earthwork Cut (Red): 144,158 CY

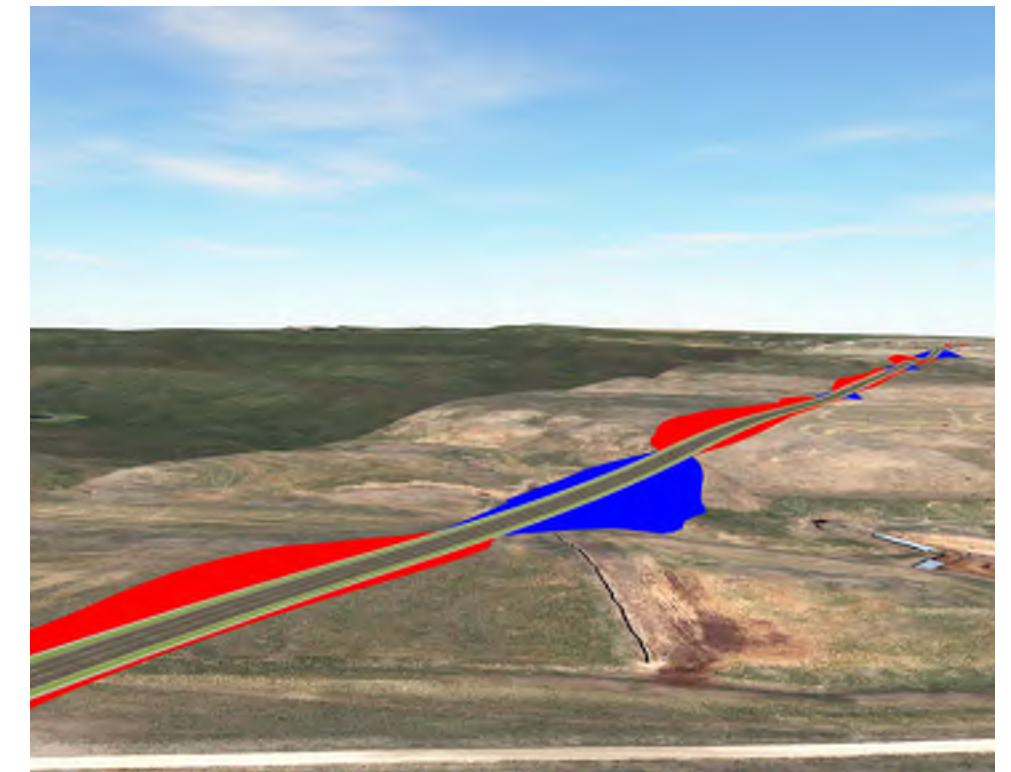
Earthwork Fill (Blue): 312,191 CY

Segment Considerations:

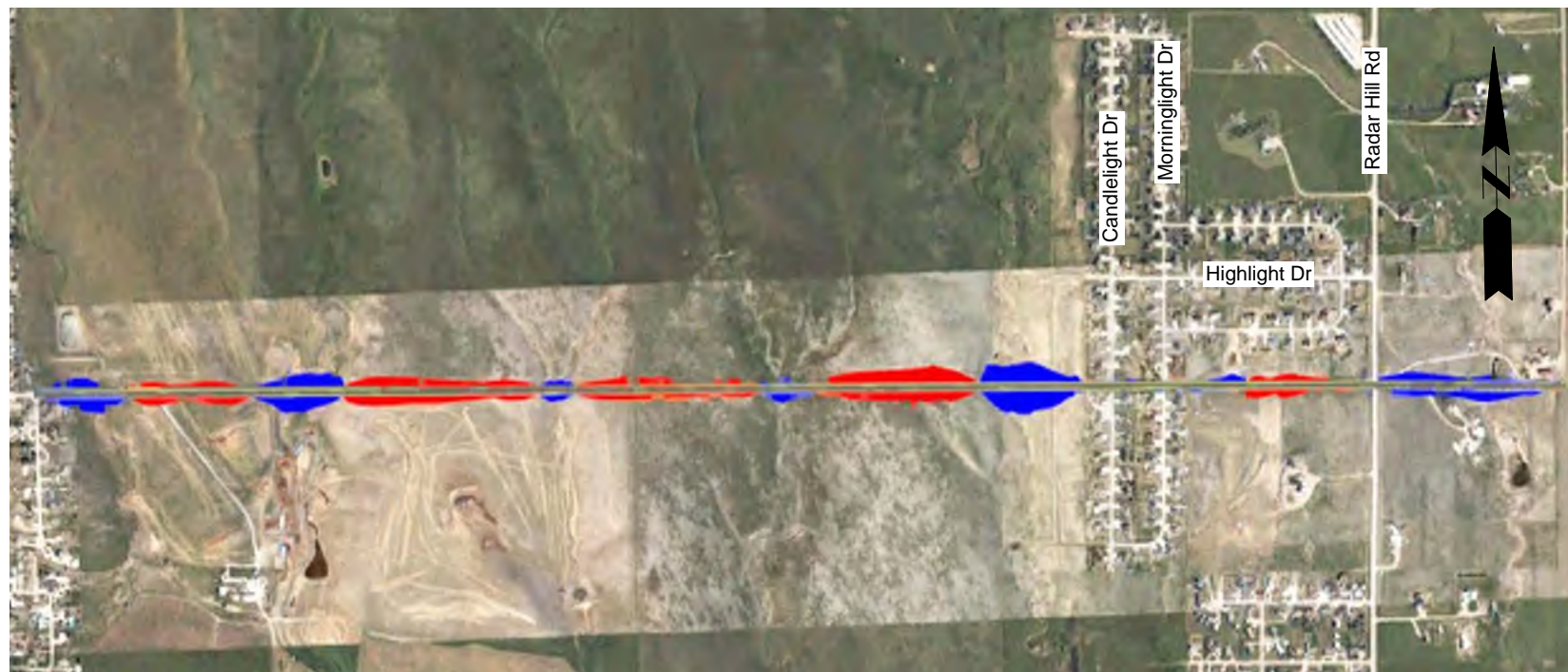
- Design speed reduced to 35 MPH through existing residential areas
- Will need retaining walls to limit impacts on existing properties in the development that has platted ROW.
- Design speed – 45 MPH.



Isometric looking east at station 75+00



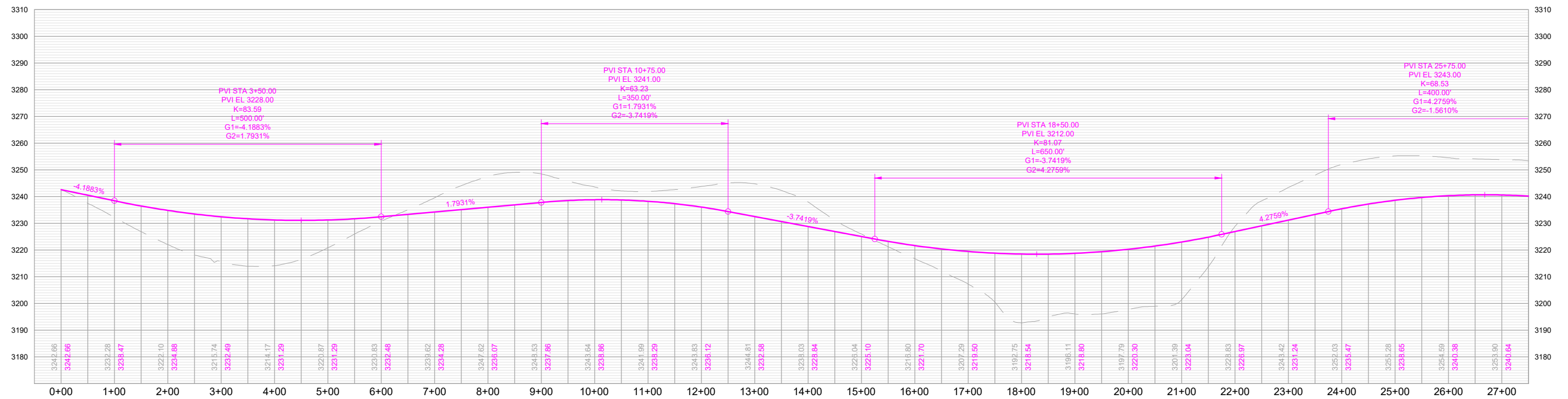
Isometric looking northeast at station 7+00

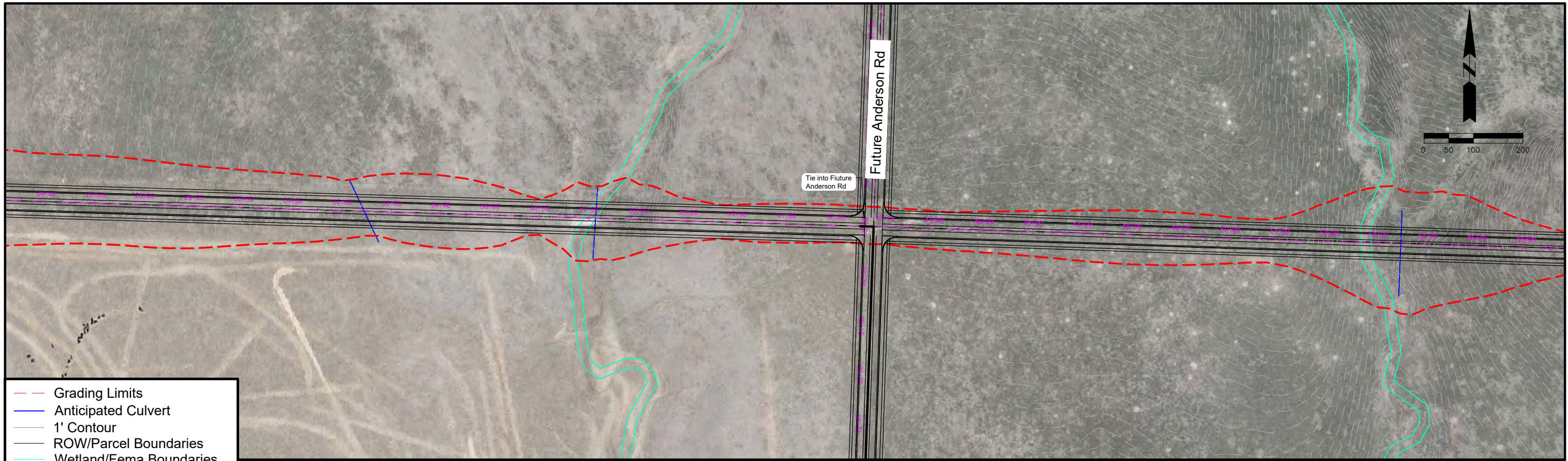


Segment Overview

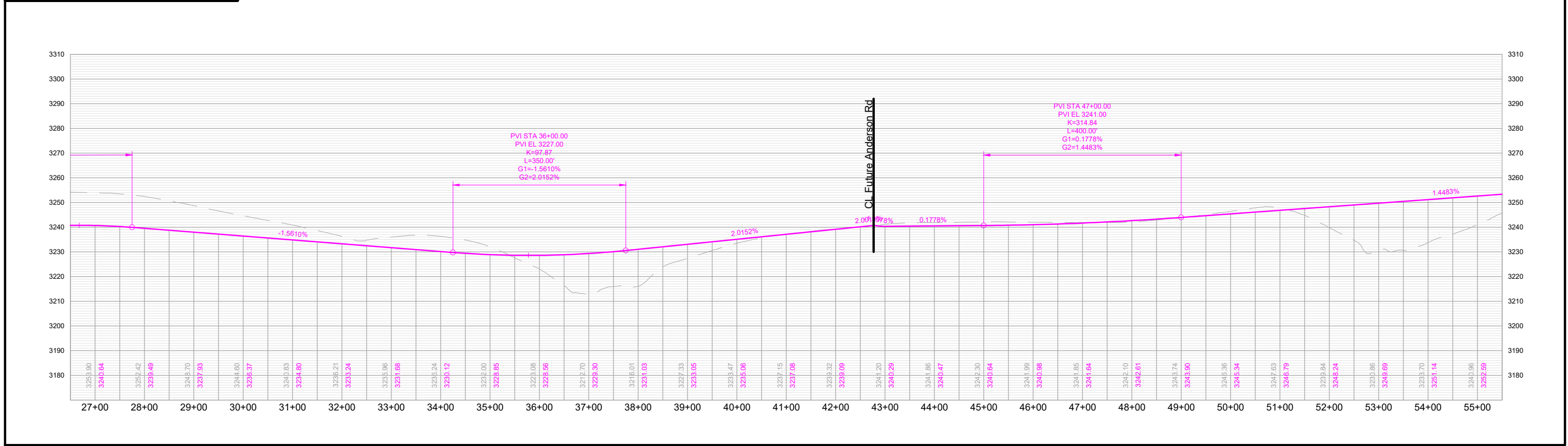
Proposed Typical Section 3 Lane Minor Arterial

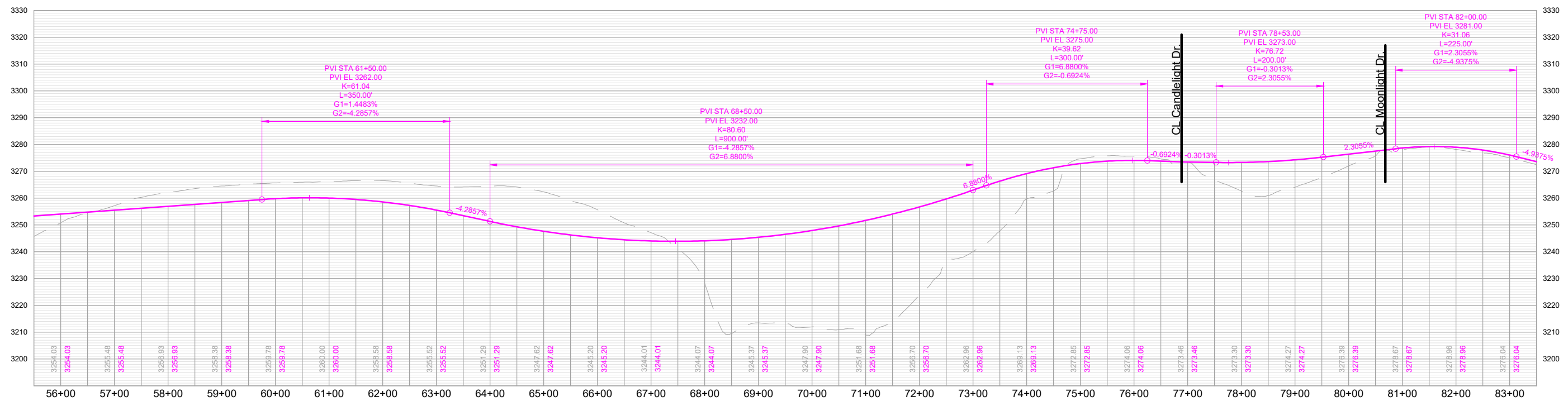
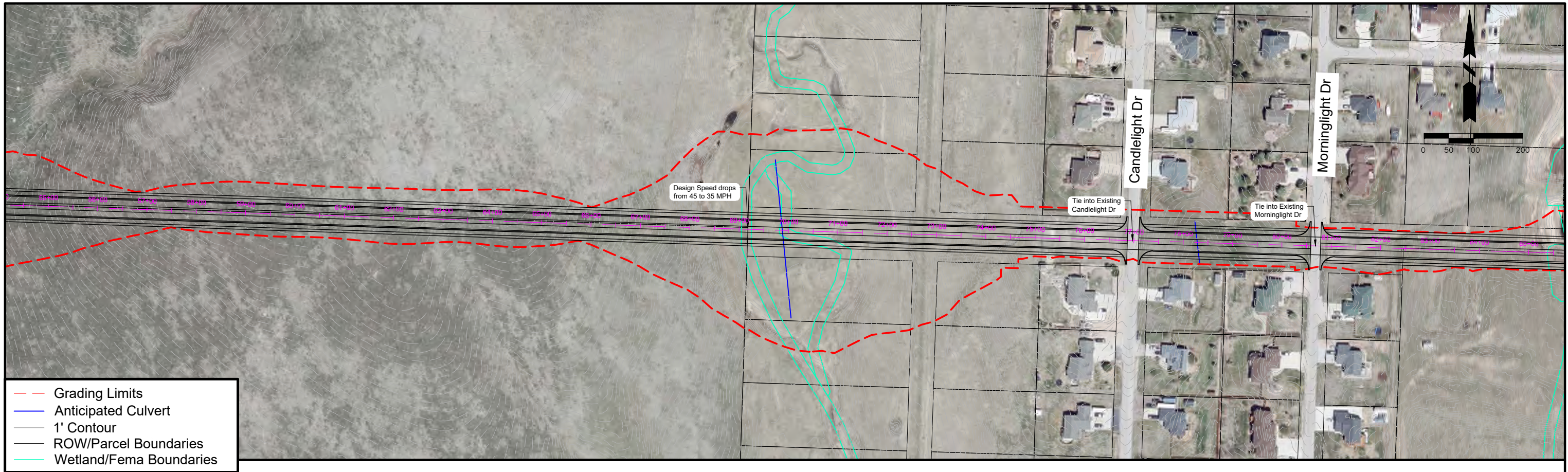


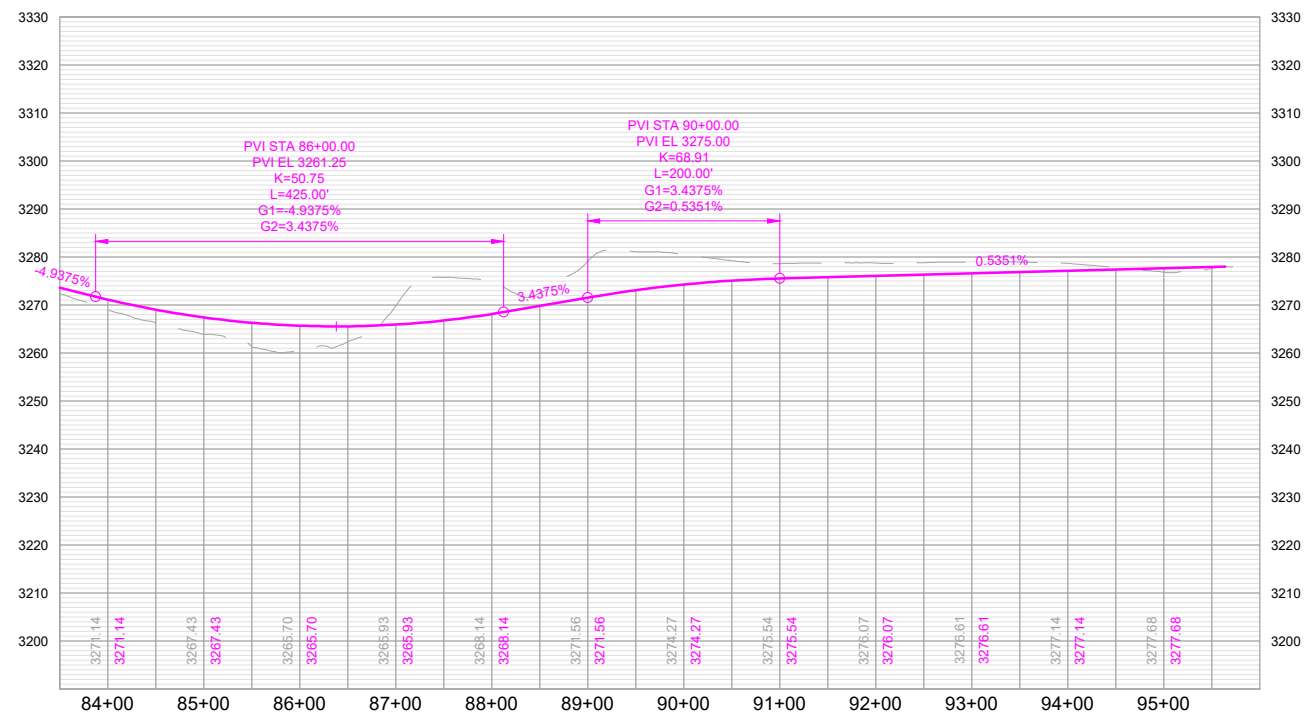
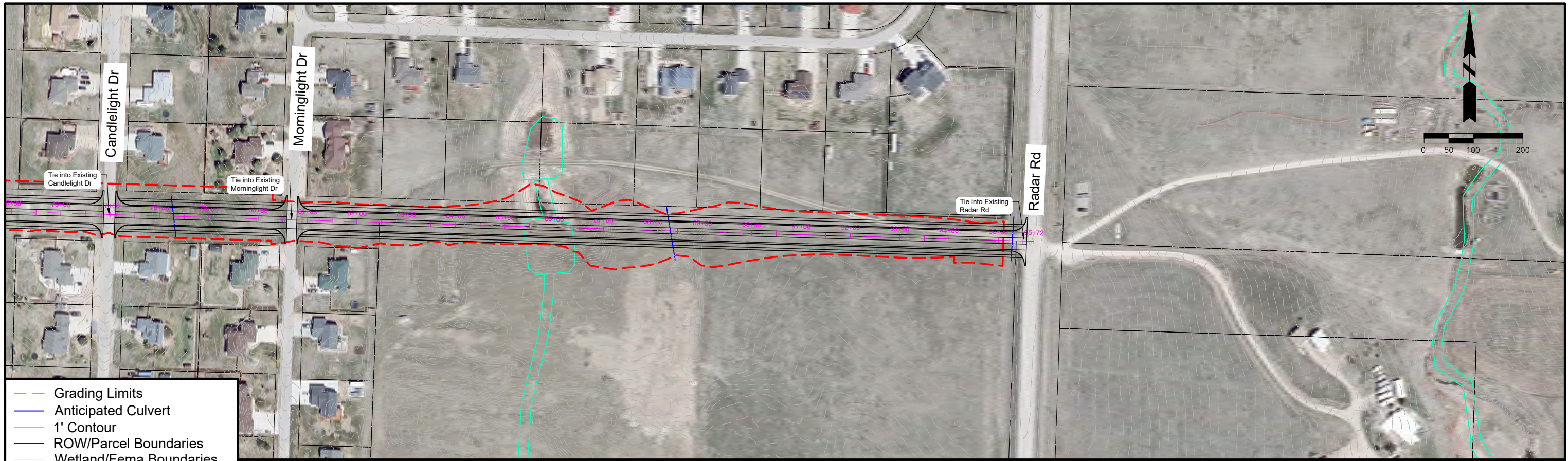




- Grading Limits
- Anticipated Culvert
- 1' Contour
- ROW/Parcel Boundaries
- Wetland/Fema Boundaries







E Saint James Street

Saint Joseph Street to Western Terminus

Classification: Minor Arterial

Corridor Length: 750 FT

Estimated Quantities

Road Surface: 3,000 SY

Earthwork Cut (Red): 643 CY

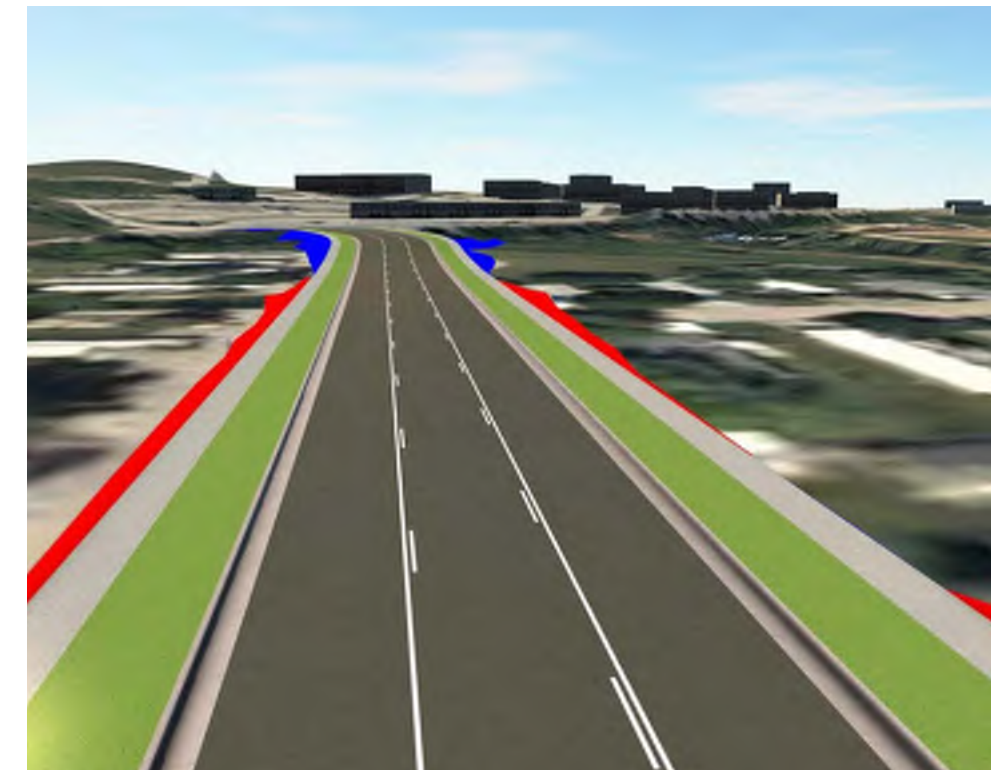
Earthwork Fill (Blue): 12,100 CY

Segment Considerations:

- Space for one vehicle between the stop bar and the railroad tracks at Saint Joseph intersection.
- Railroad access permit required.
- A grade raise on Saint Joseph Street of approximately 7 feet and retaining wall along SDSMT parking lot will likely be required to accommodate connection.
- Grading is impacting floodway, and the 100 year and 500 year floodplain.
- Reduced design speed to 25 MPH for horizontal curve coming into the stop condition.
- Design speed – 45 MPH.



Isometric looking southeast at station 0+50



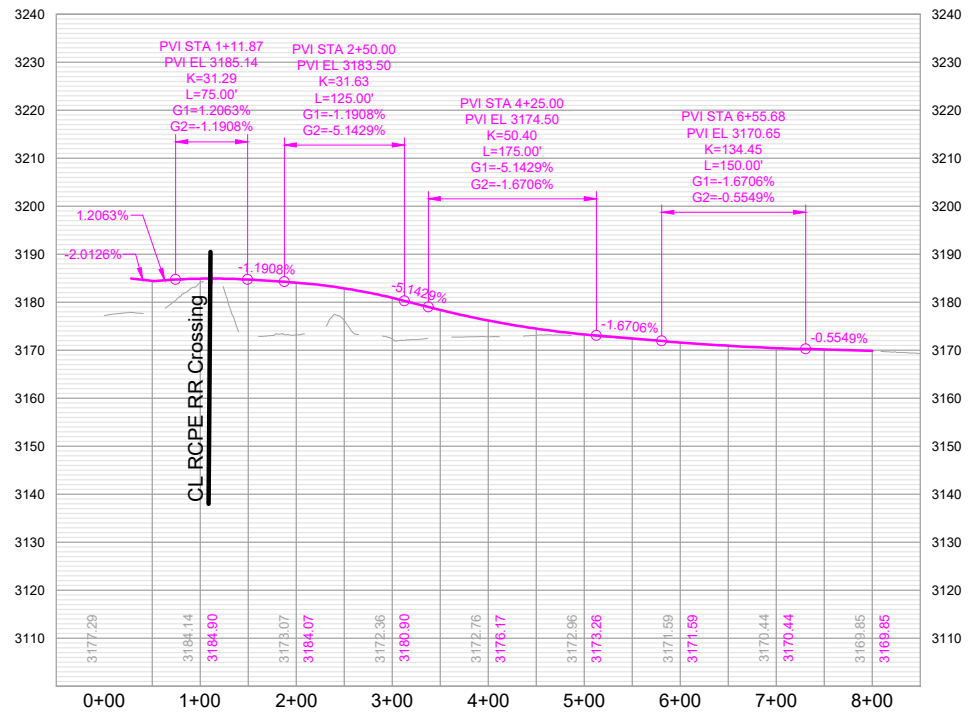
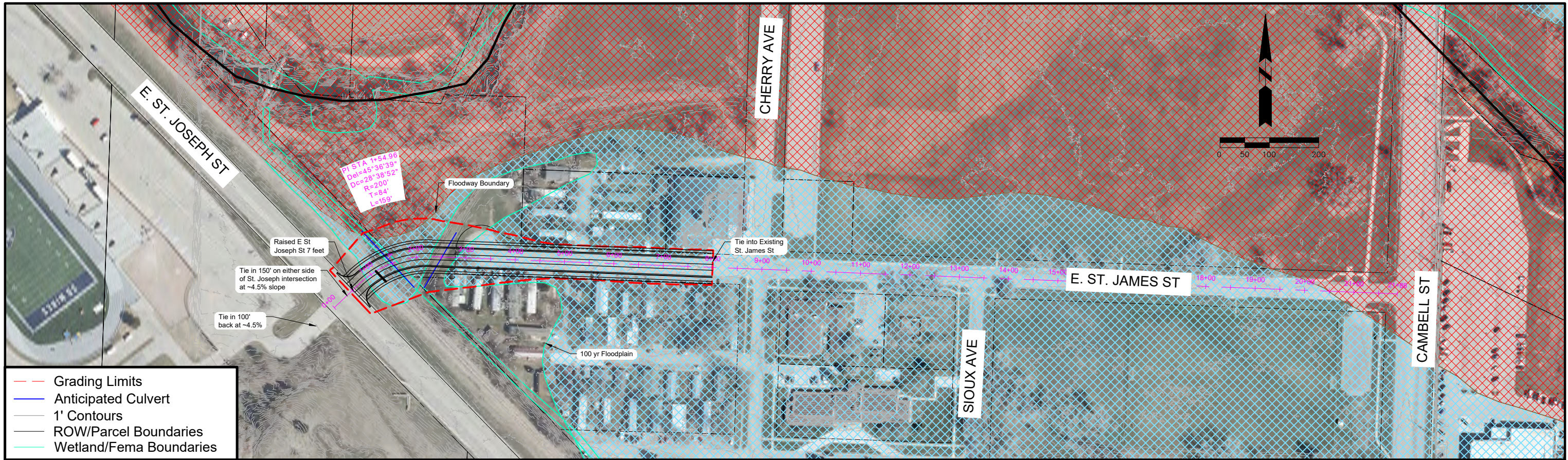
Isometric looking west at station 7+00



Segment Overview

Proposed Typical Section 3 Lane Minor Arterial





Mercury Drive Stellar Drive to Quarter Horse Drive

Classification: Collector

Corridor Length: 8,591 FT

Estimated Quantities

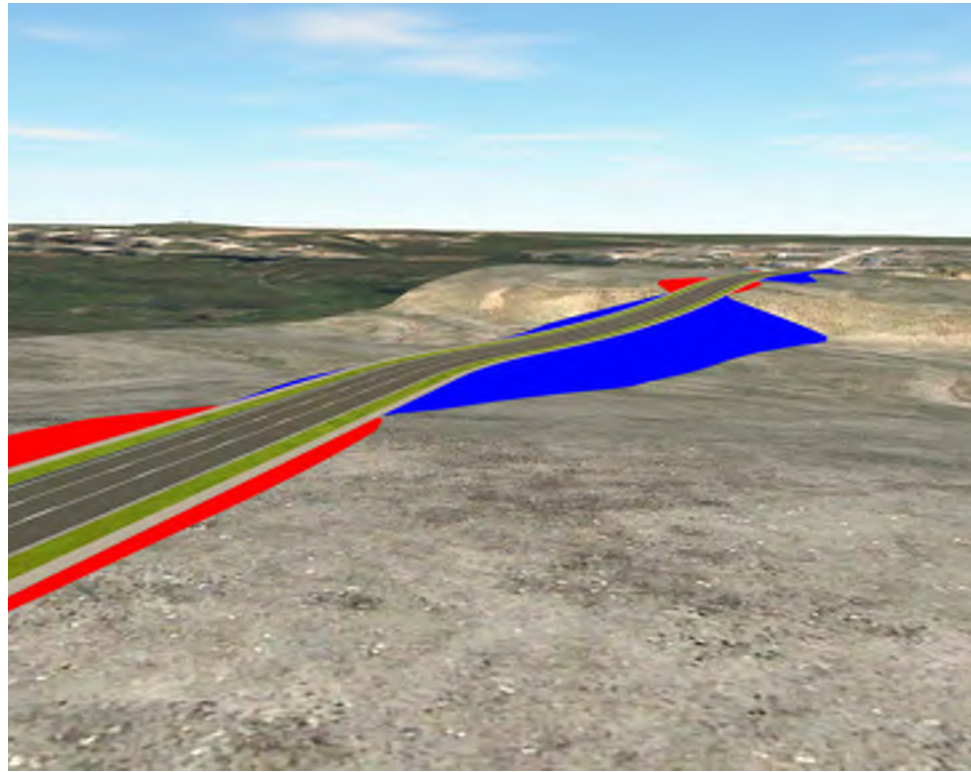
Road Surface: 30,546 SY

Earthwork Cut (Red): 18,445 CY

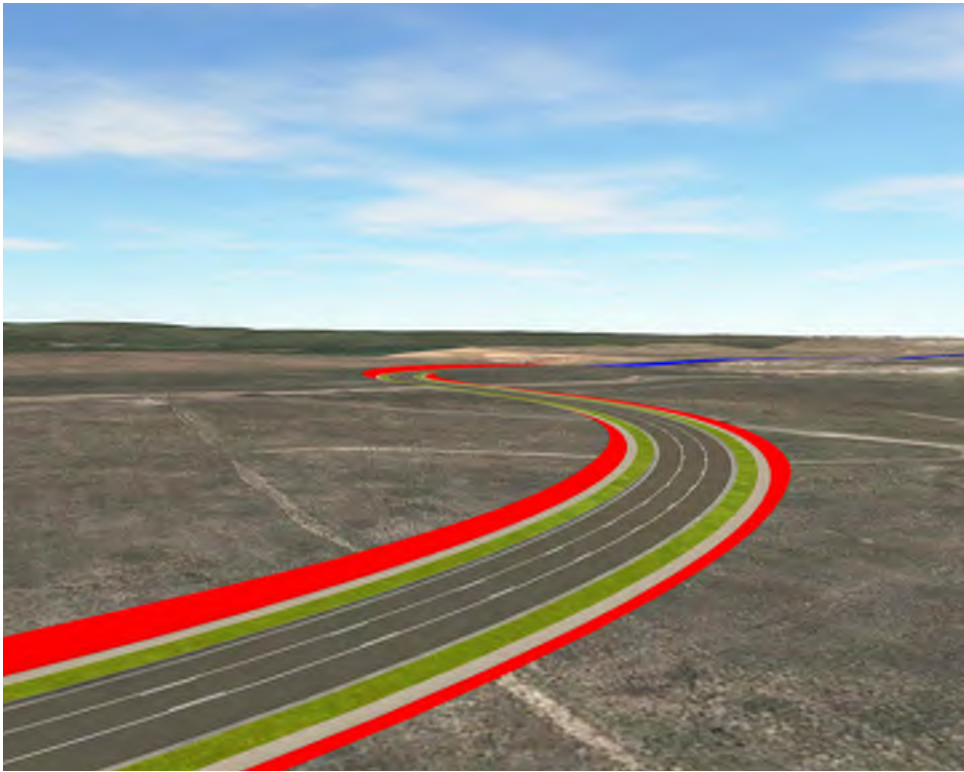
Earthwork Fill (Blue): 111,520 CY

Segment Considerations:

- Design speed – 35 MPH.



Isometric looking northeast at station 72+00

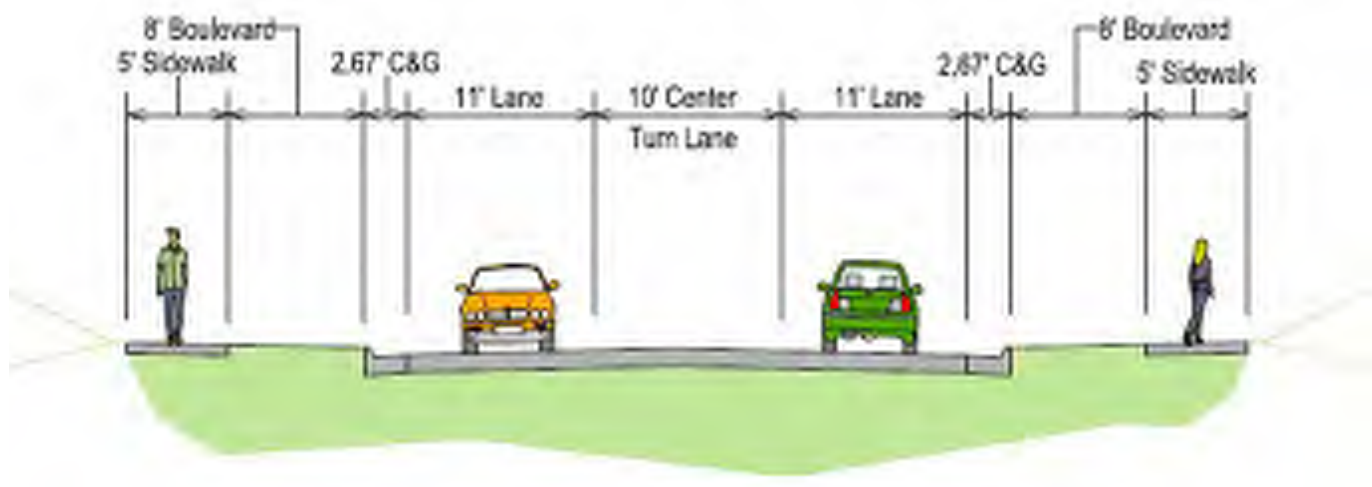


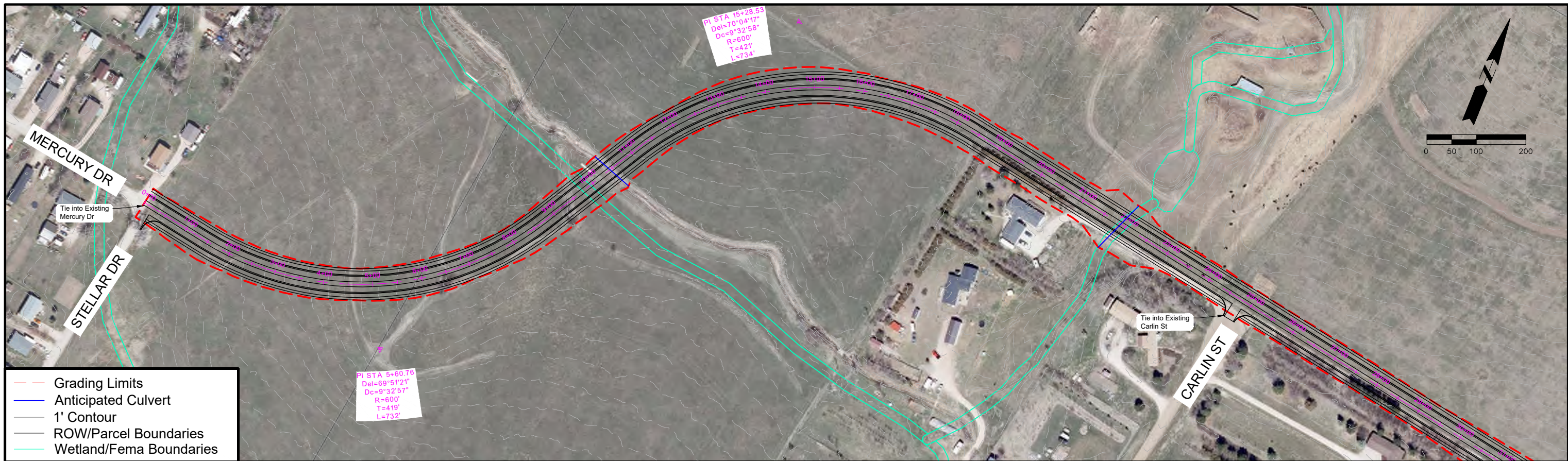
Isometric looking southwest at station 3+00



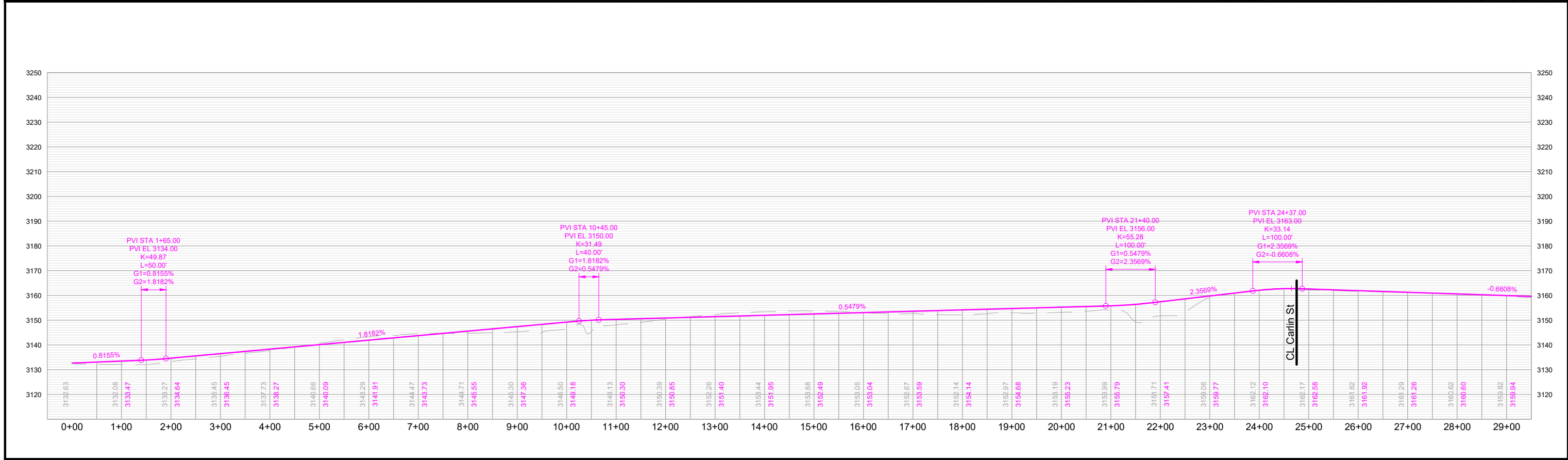
Segment Overview

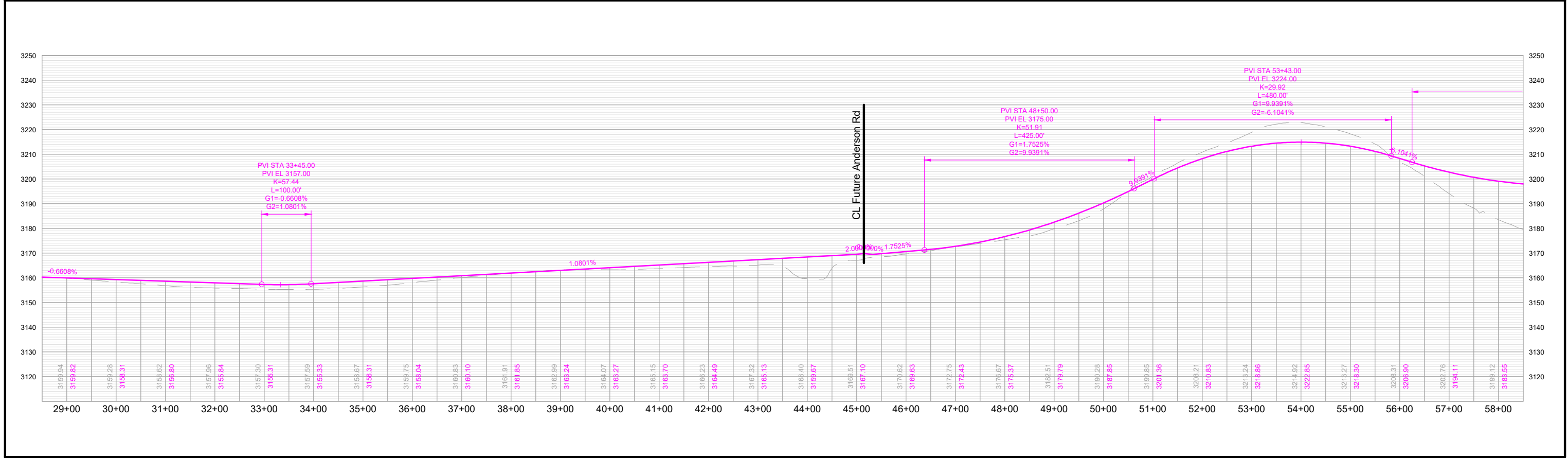
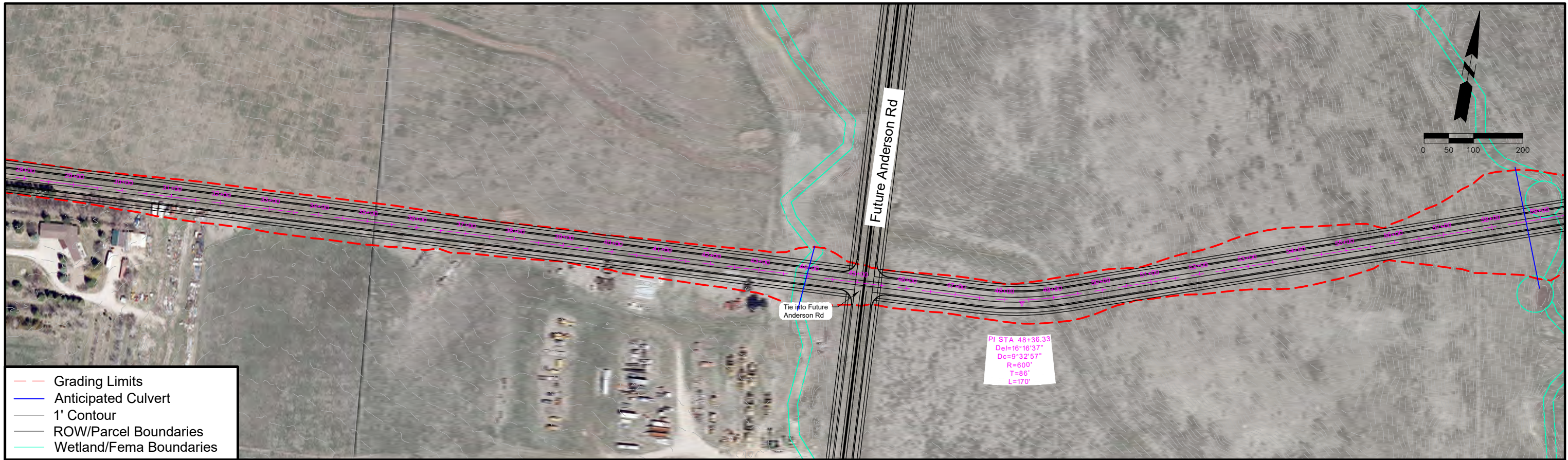
Proposed Typical Section 3 Lane Collector

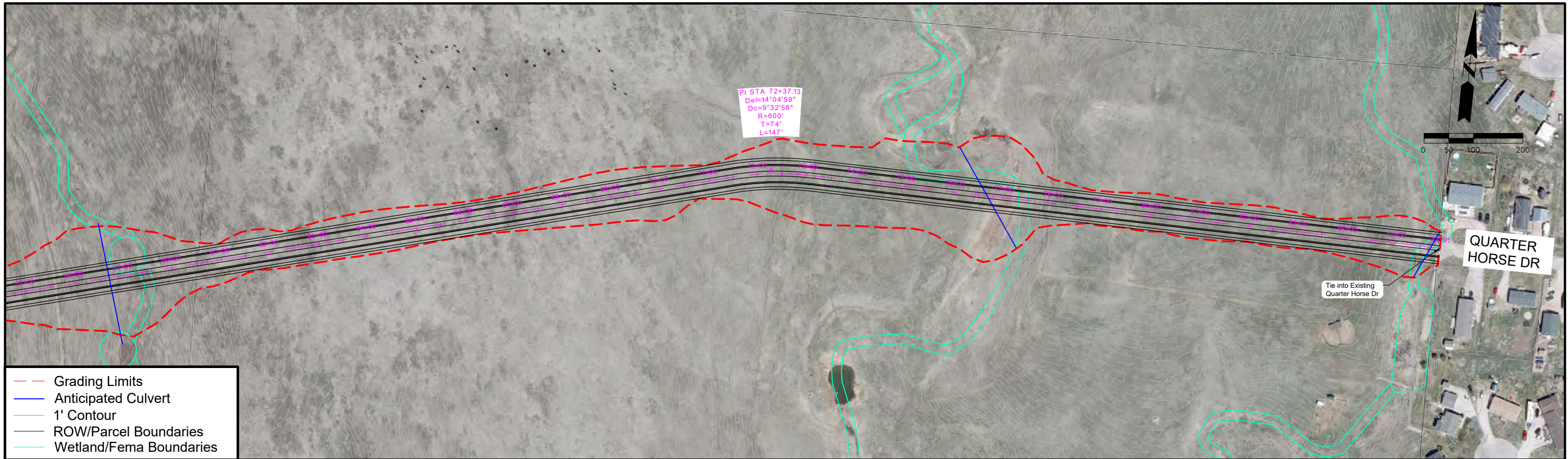




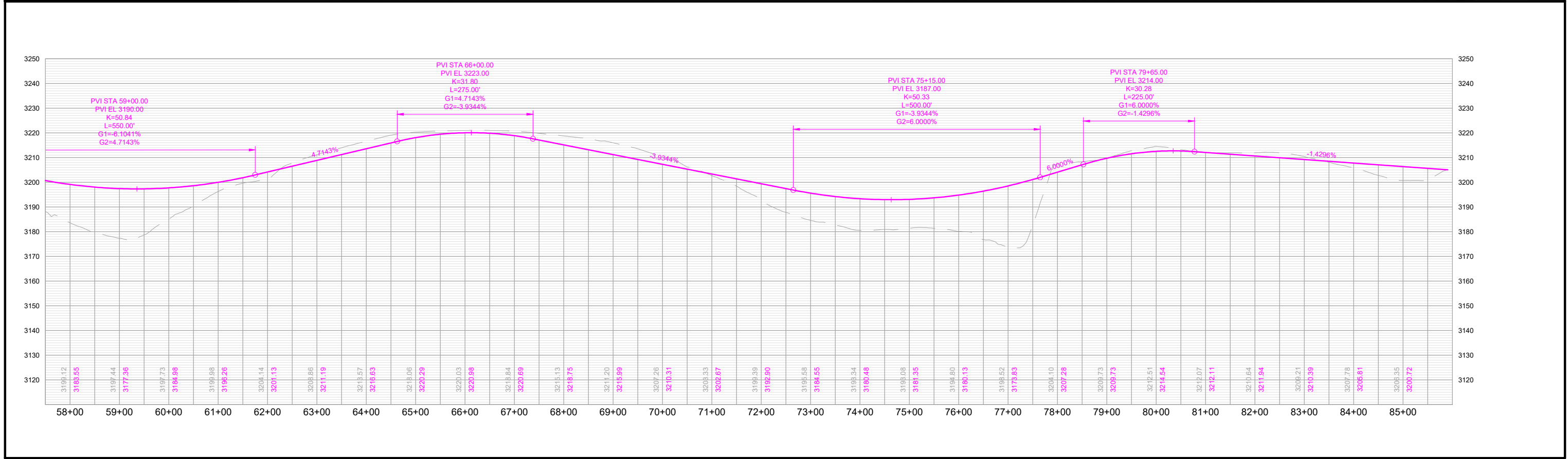
- Grading Limits
- Anticipated Culvert
- 1' Contour
- ROW/Parcel Boundaries
- Wetland/Fema Boundaries







- Grading Limits
- Anticipated Culvert
- 1' Contour
- ROW/Parcel Boundaries
- Wetland/Fema Boundaries



Anderson Road

Long View Road to Anamosa Street

Classification: Minor Arterial

Corridor Length: 10,660 FT

Estimated Quantities

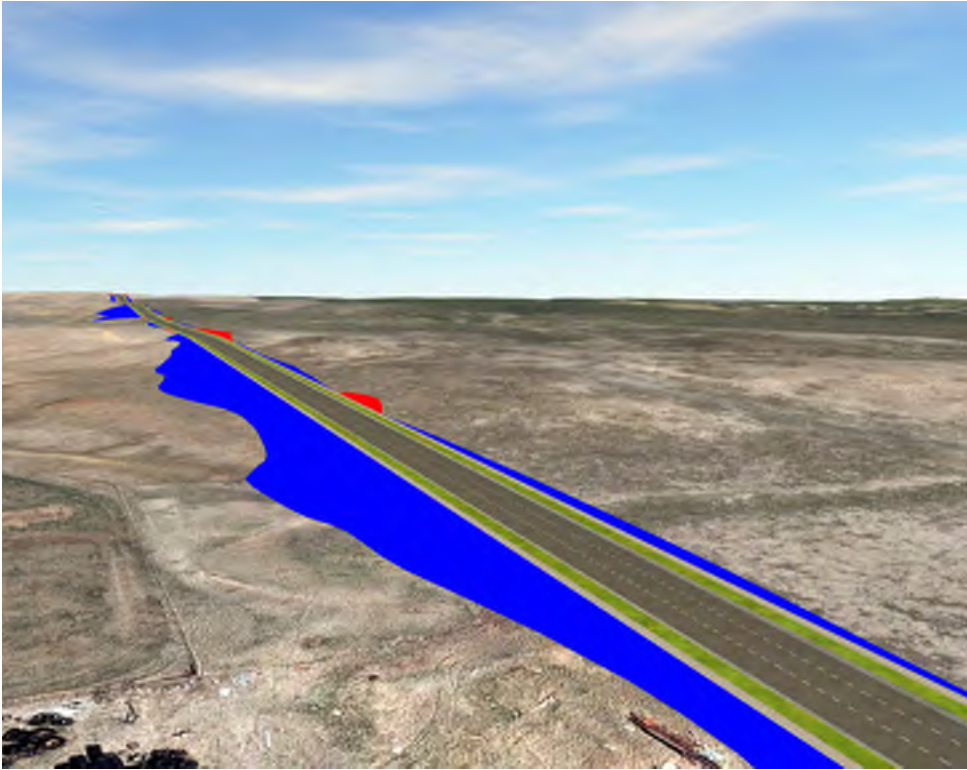
Road Surface: 42,640 SY

Earthwork Cut (Red): 53,034 CY

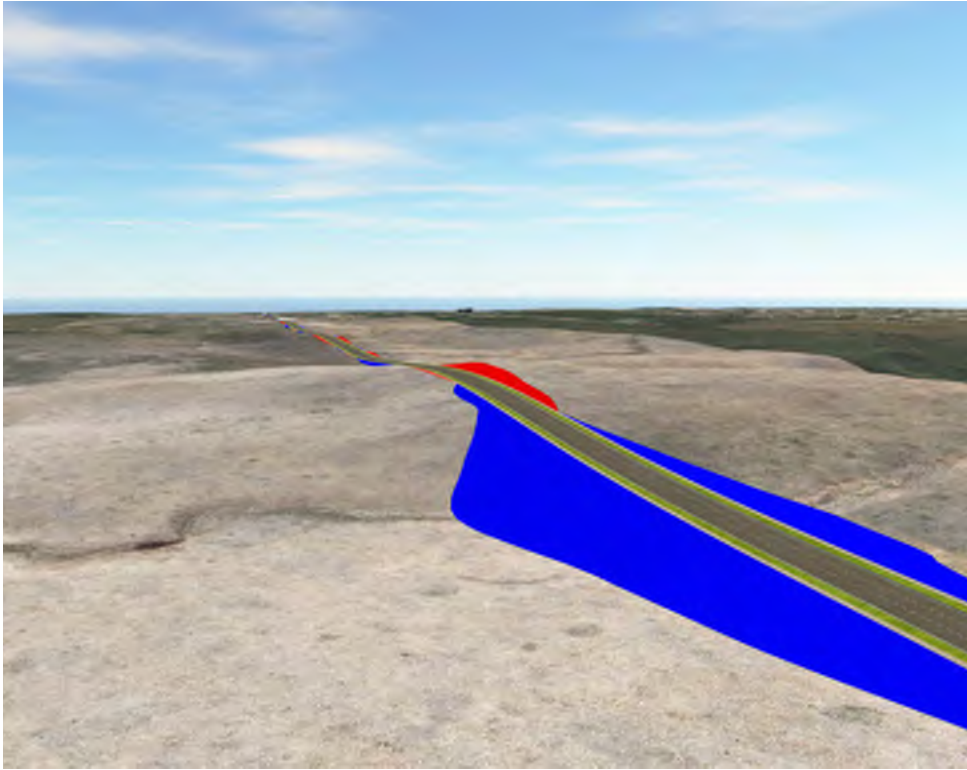
Earthwork Fill (Blue): 181,968 CY

Segment Considerations:

- Design speed – 45 MPH.



Isometric looking north at station 26+00



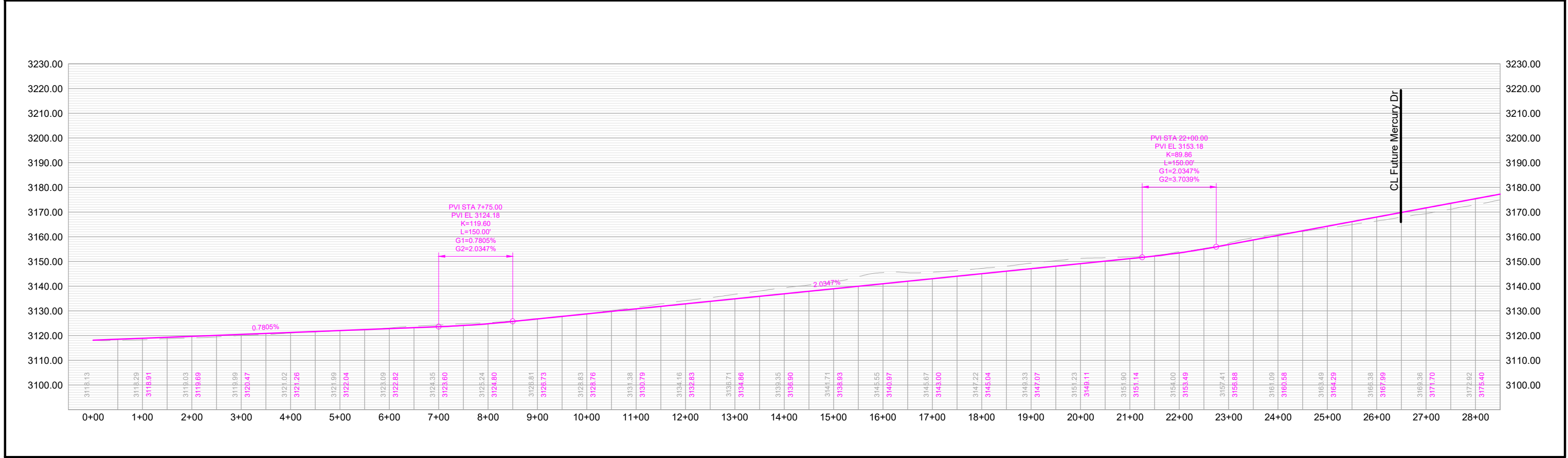
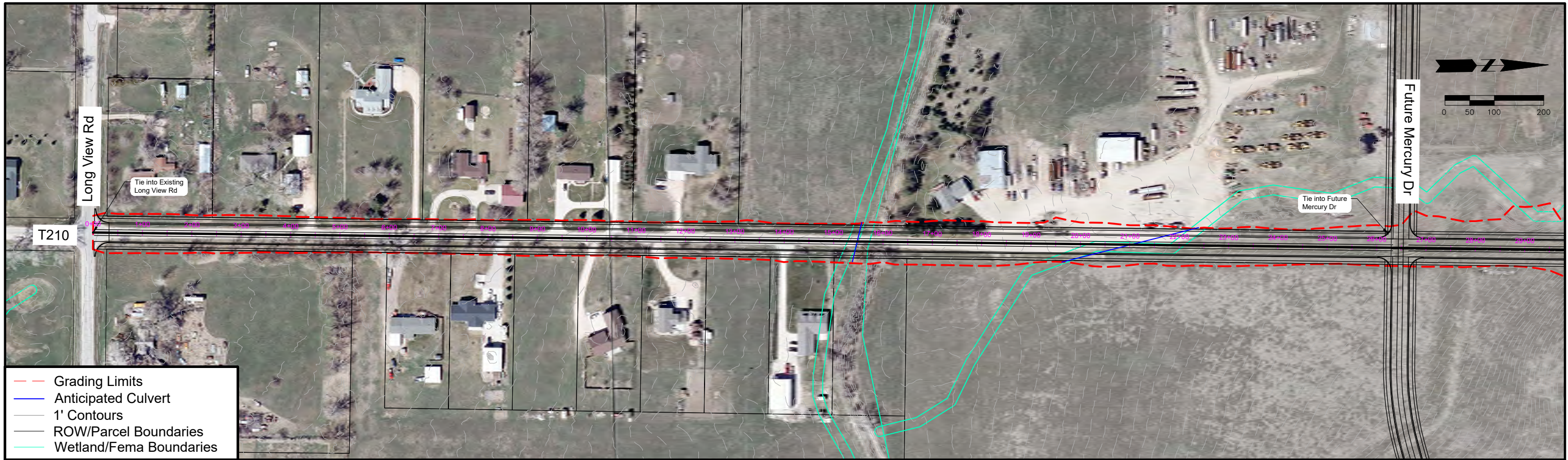
Isometric looking southeast at station 104+00



Segment Overview

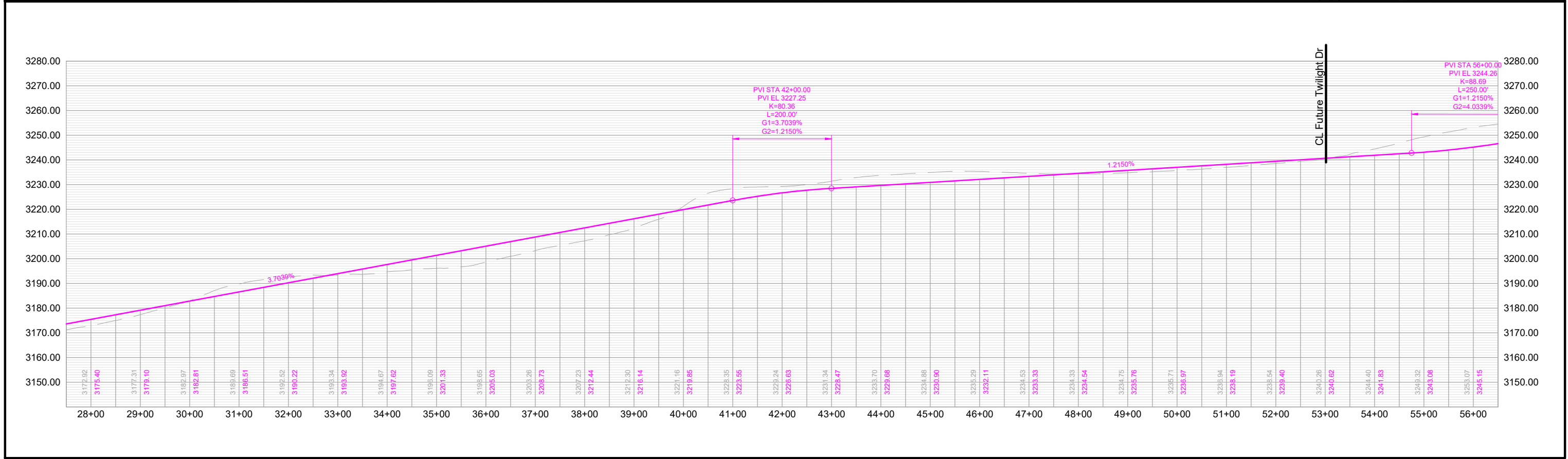
Proposed Typical Section 3 Lane Minor Arterial

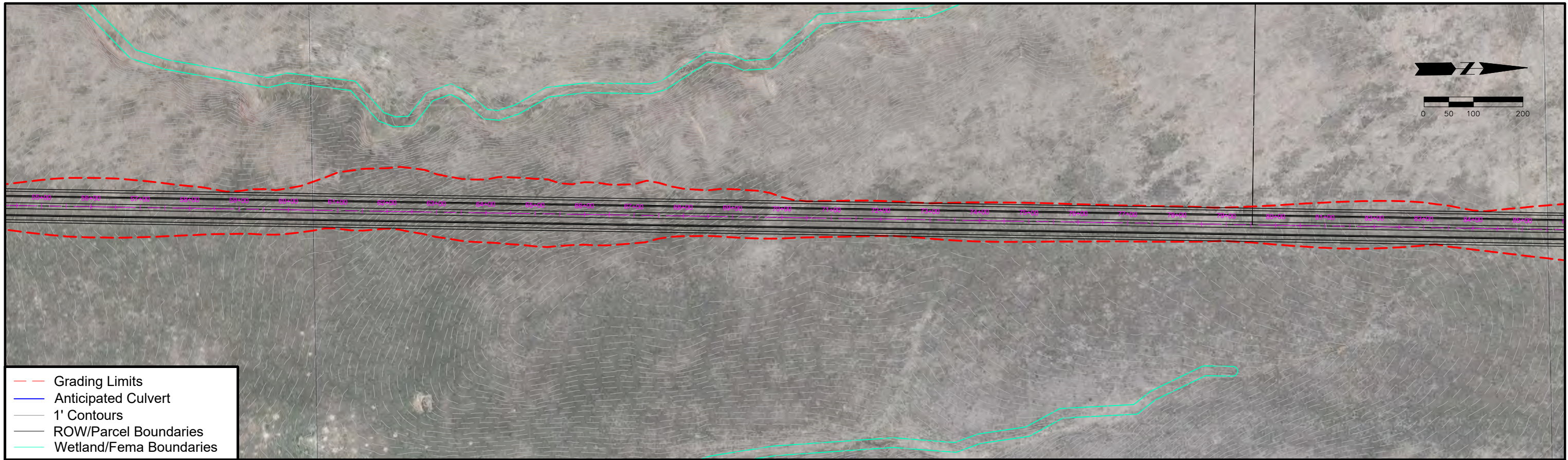




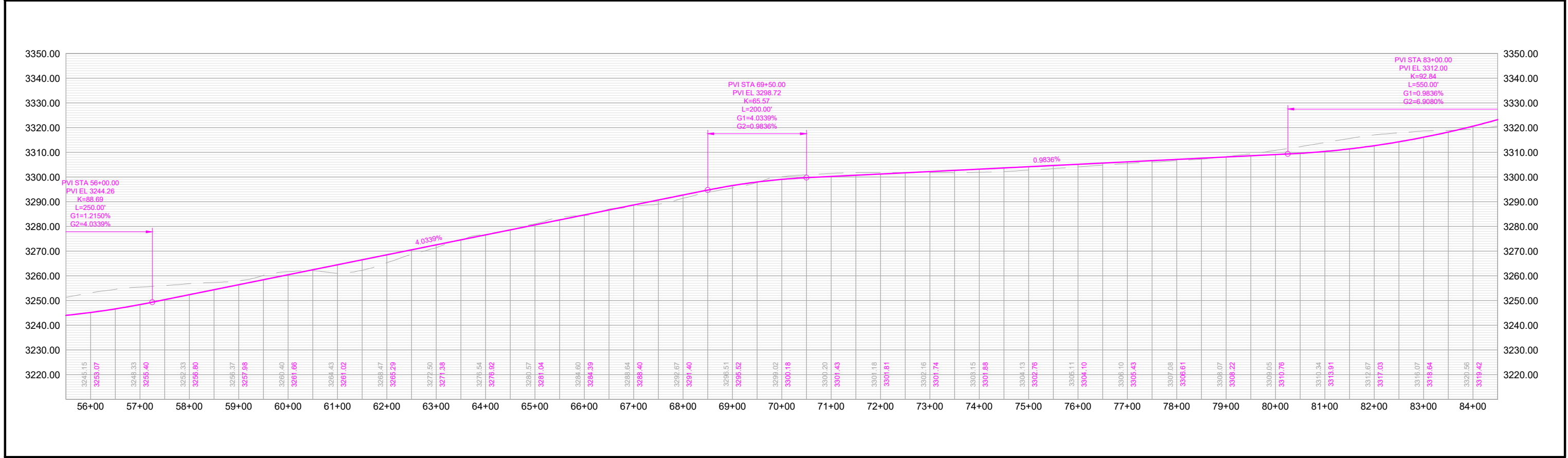


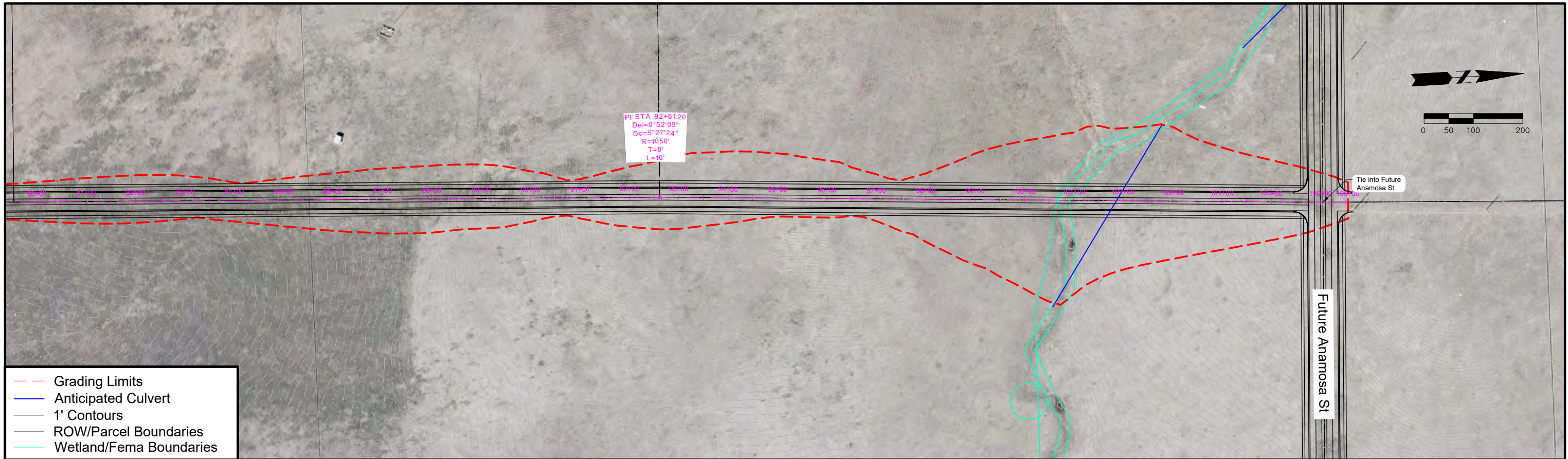
- Grading Limits
- Anticipated Culvert
- 1' Contours
- ROW/Parcel Boundaries
- Wetland/Fema Boundaries



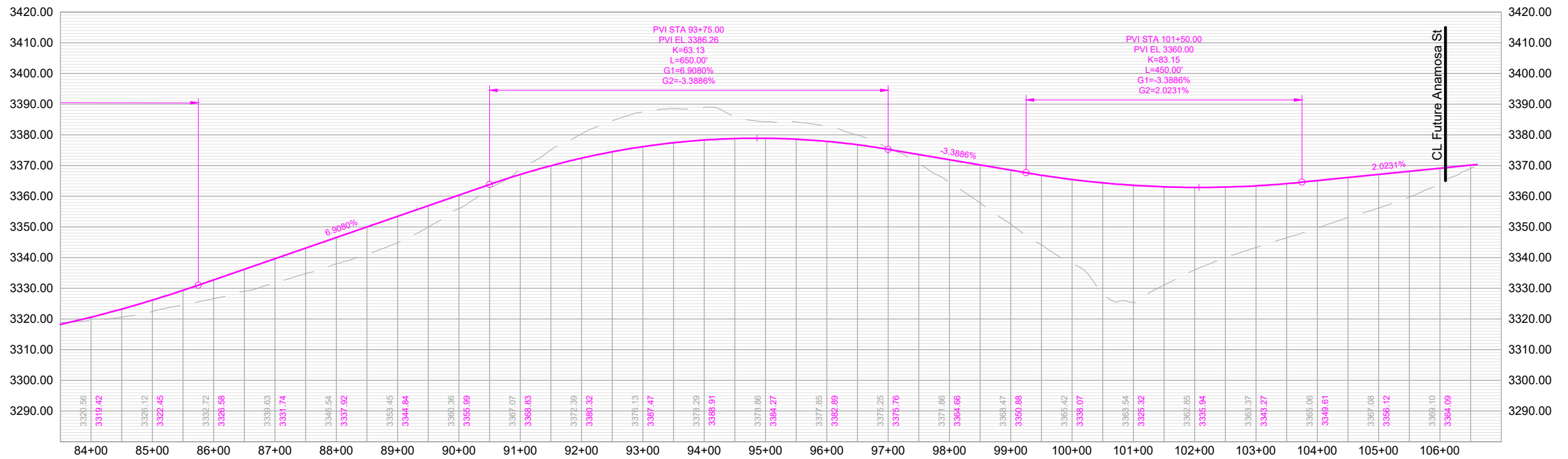


- Grading Limits
- Anticipated Culvert
- 1' Contours
- ROW/Parcel Boundaries
- Wetland/Fema Boundaries





- Grading Limits
- Anticipated Culvert
- 1' Contours
- ROW/Parcel Boundaries
- Wetland/Fema Boundaries



Creek Drive

Viewfield Avenue to Philadelphia Street

Classification: Minor Arterial

Corridor Length: 1,345 FT

Estimated Quantities

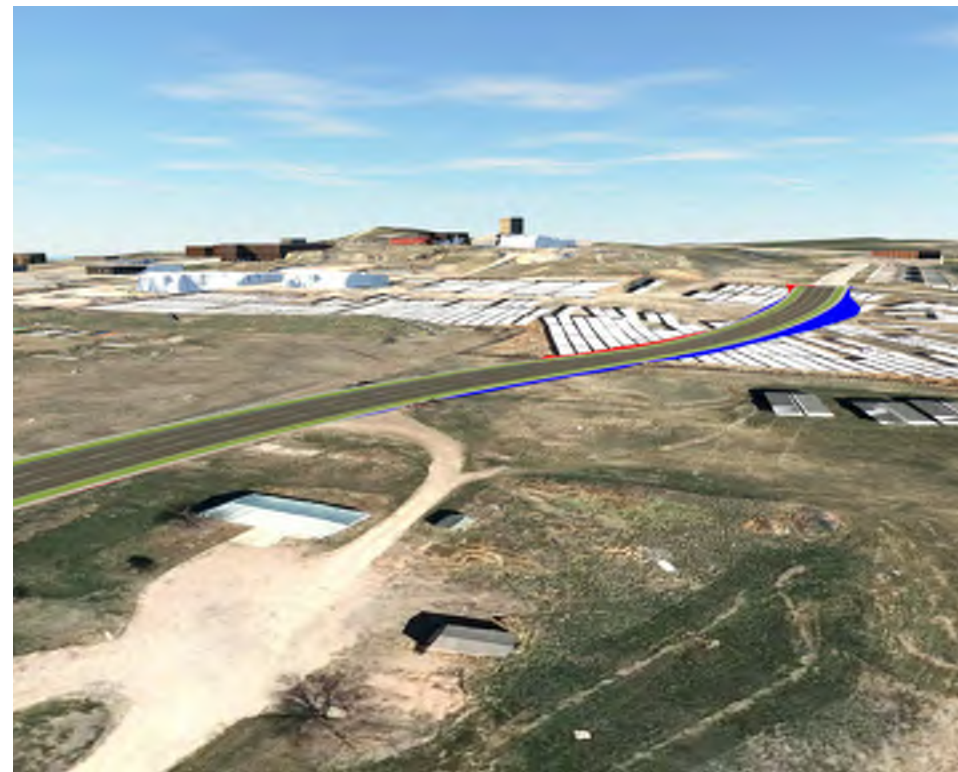
Road Surface: 5,380 SY

Earthwork Cut (Red): 1,085 CY

Earthwork Fill (Blue): 5,083 CY

Segment Considerations:

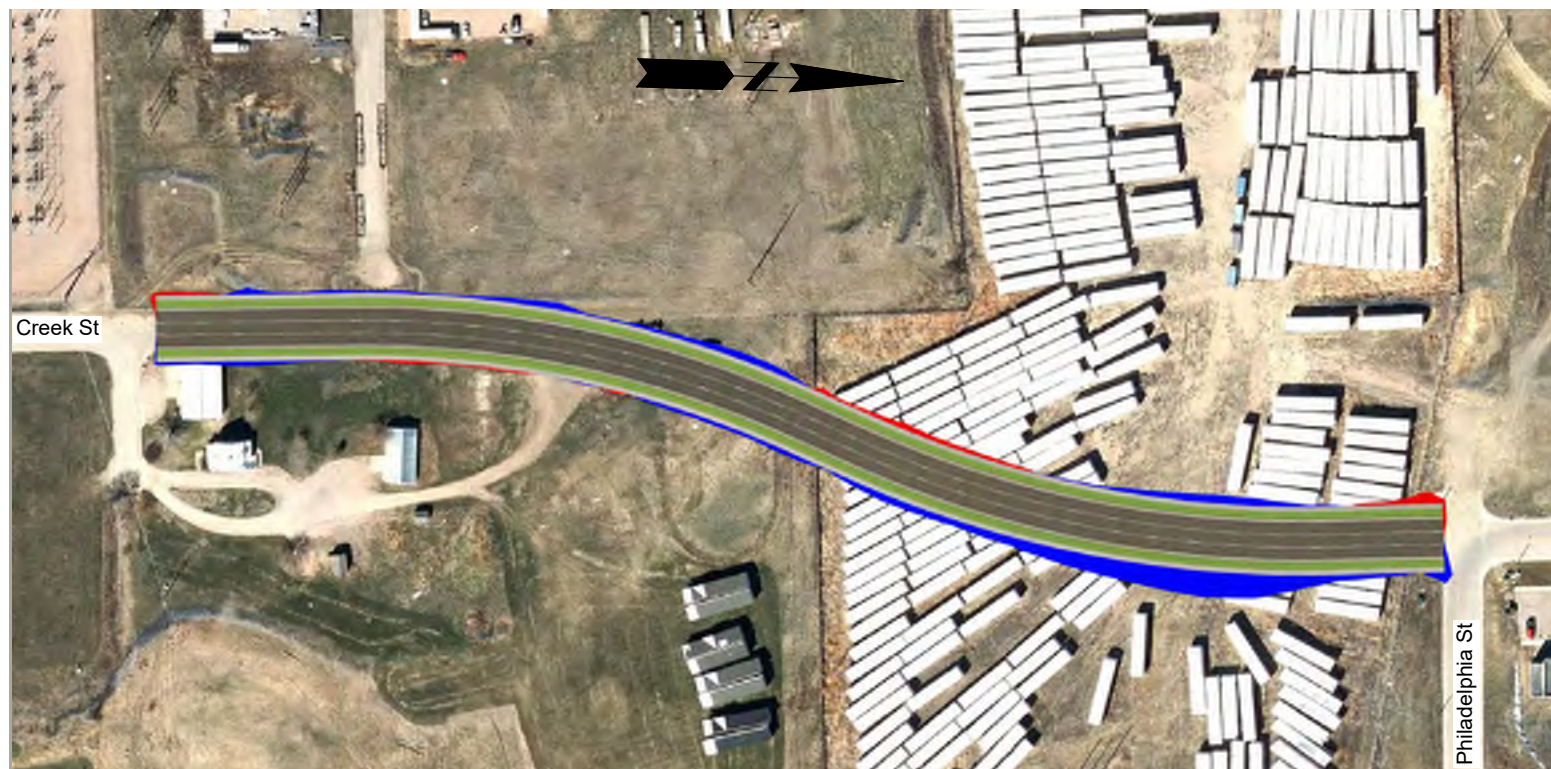
- Design speed – 45 MPH.



Isometric looking northwest at station 7+00



Isometric looking southeast at station 13+50



Segment Overview

Proposed Typical Section 3 Lane Minor Arterial



