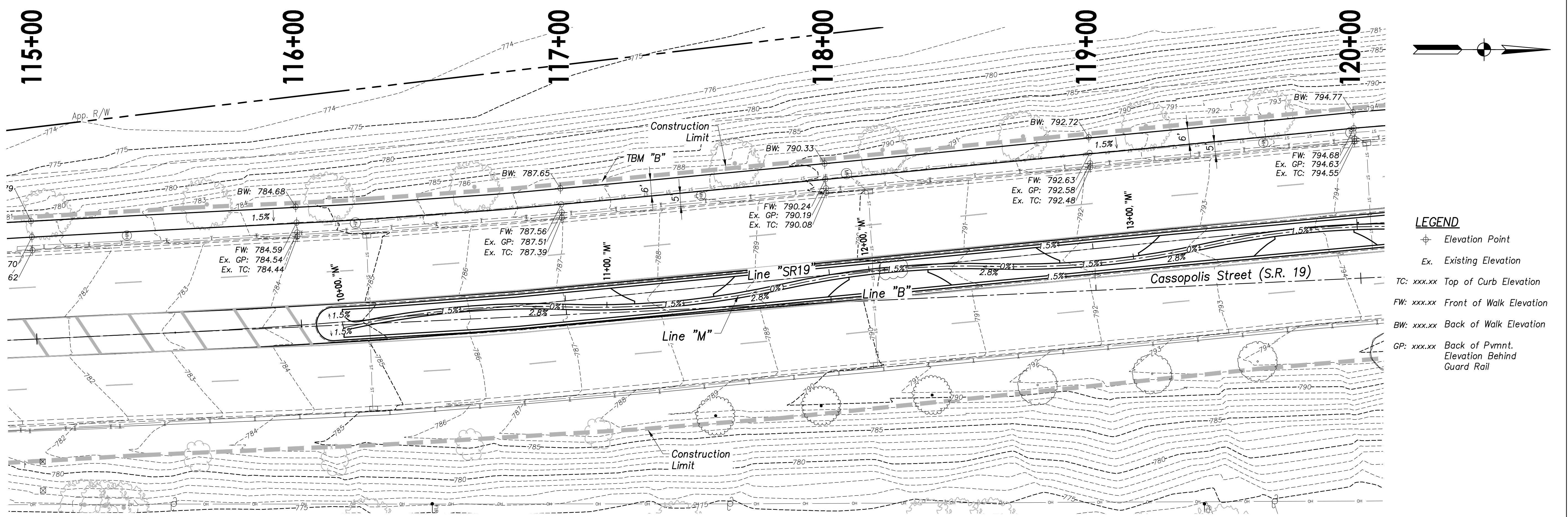
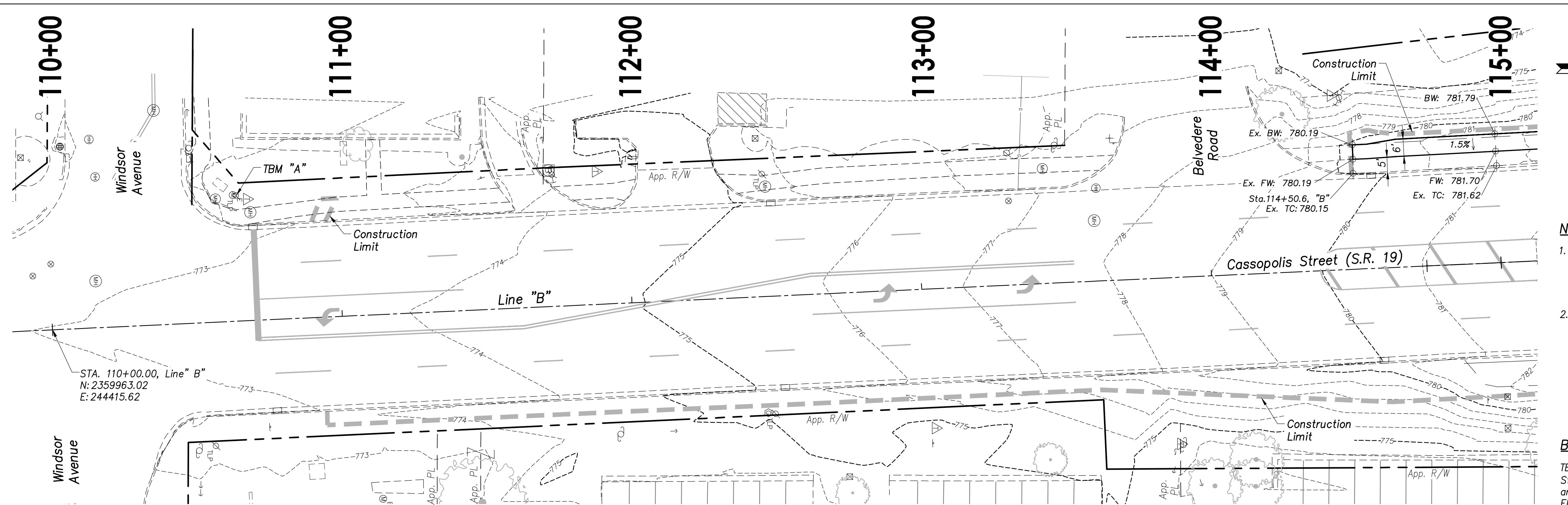


**STATE ROAD 19  
CORRIDOR IMPROVEMENTS  
(PA7663)**

PROJECT:

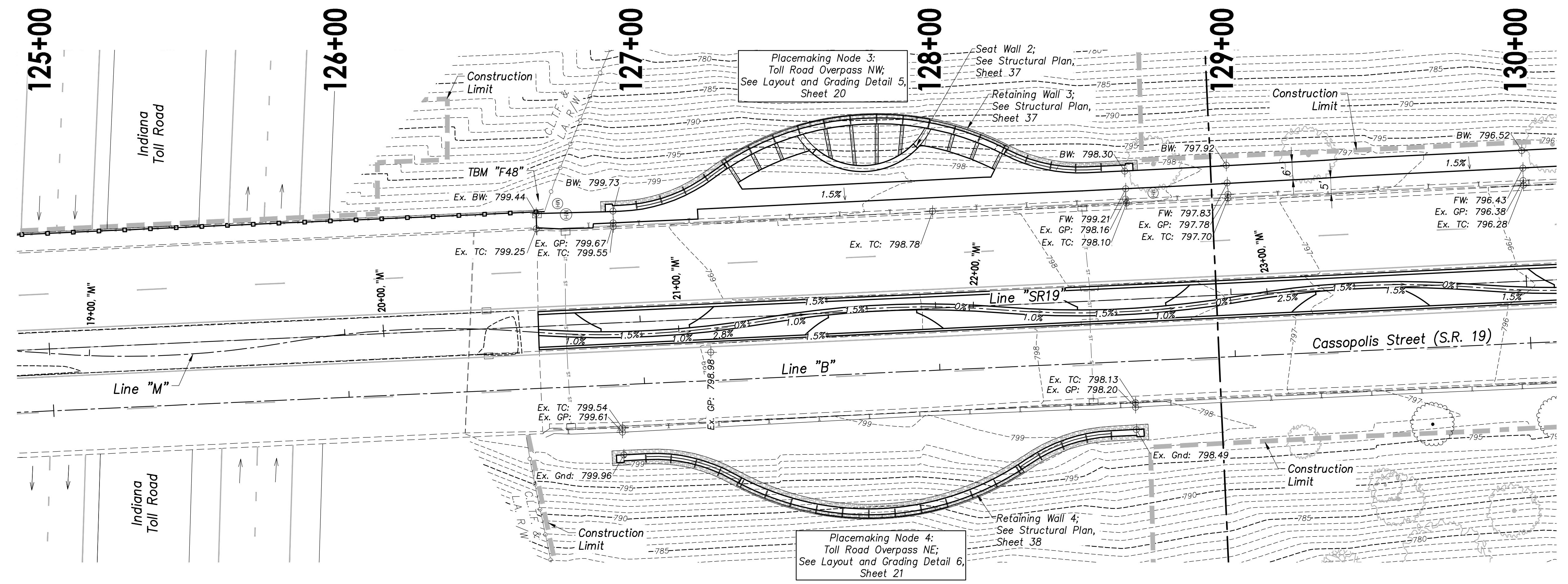
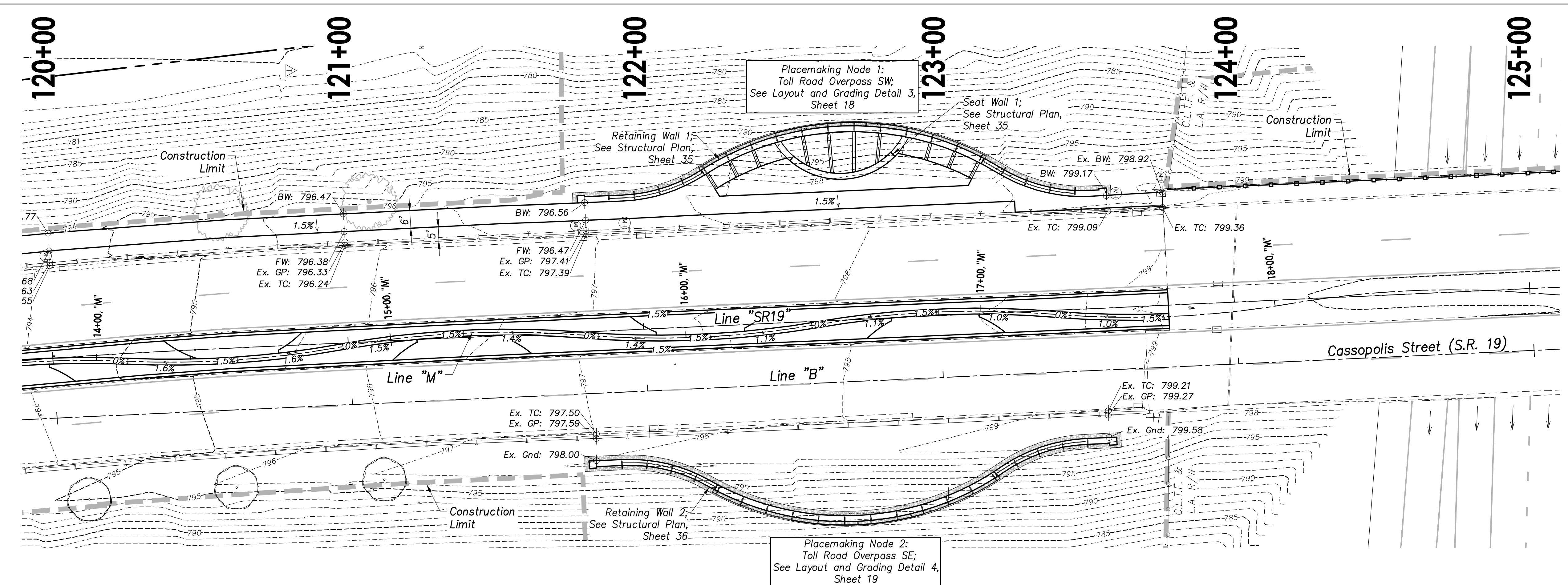


**STATE ROAD 19  
CORRIDOR IMPROVEMENTS  
(PA7663)**

PROJECT:

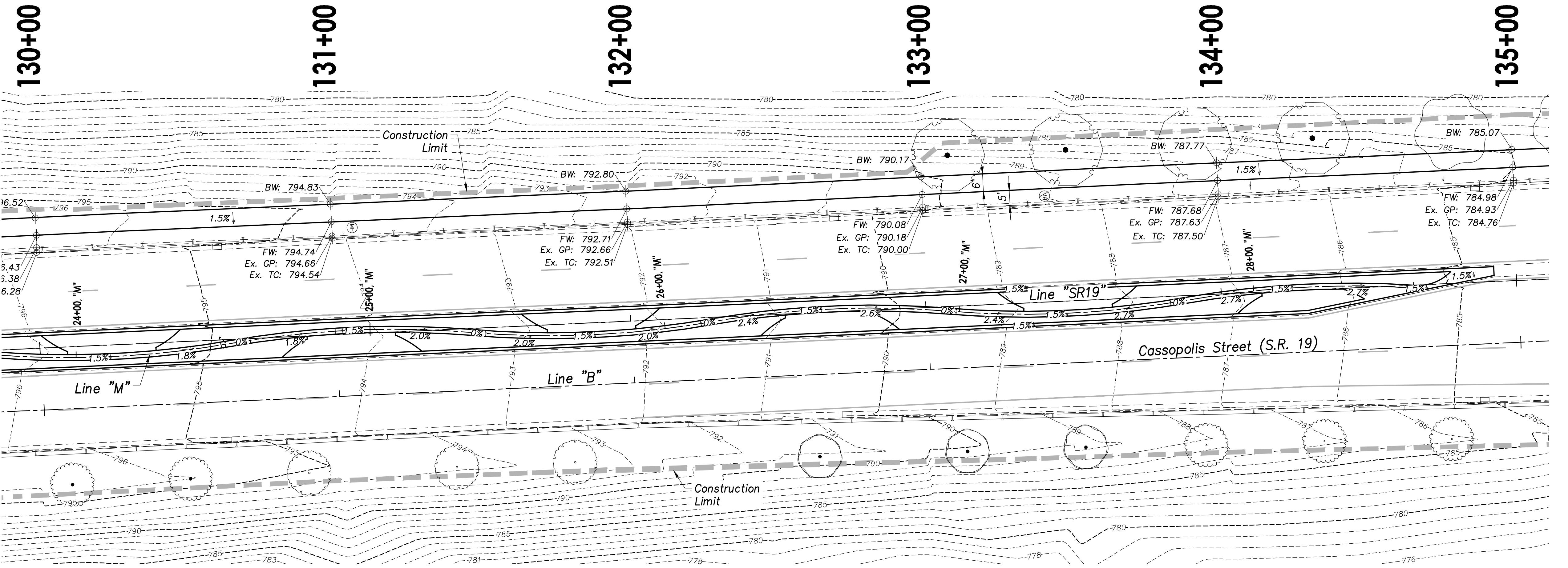
**GRADING PLAN  
STA. 120+00 TO STA. 130+00  
LINE "B"**

SHEET TITLE: DRAWN BY: NI  
 DESIGNED BY: CAK/ZDH  
 PM REVIEW: RAN  
 QA/QC REVIEW: DSK  
 DATE: 03/02/23  
 SEAL: DARYL S. KNAPP, P.E.  
 STATE OF INDIANA  
 PROFESSIONAL ENGINEER  
 NO. PE19900163  
 SIGNATURE: D. S. Knapp  
 DATE: 03/02/2023  
 SCALE: HORIZ: 1" = 20'  
 VERT: N/A  
 ACI JOB #: 20-1114  
 SHEET NO. 14 of 56  
 Abonmarche - August 18, 2023 - 1:47pm



**STATE ROAD 19  
CORRIDOR IMPROVEMENTS  
(PA7663)**

PROJECT:

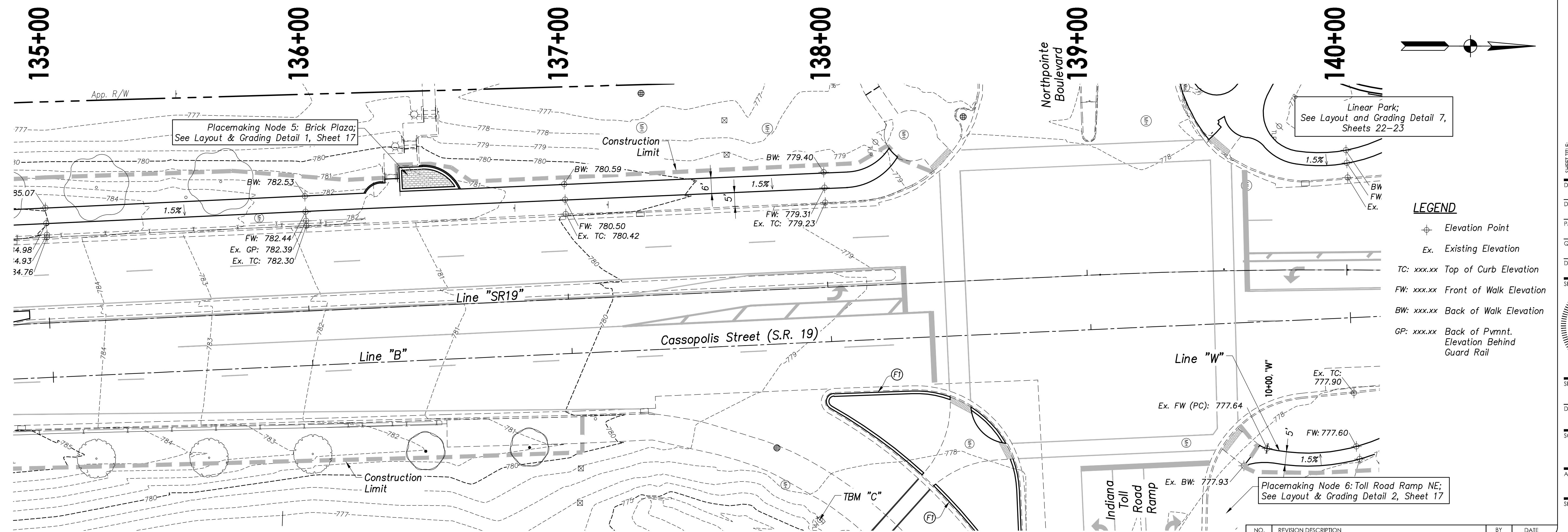


**NOTES**

- Perimeter concrete maintenance strip to be graded at 1.5% up from existing top of curb.
- Interior concrete maintenance path to be installed with no slope. Finished concrete elevation of the interior maintenance path shall match the finished concrete back elevation of the adjacent perimeter maintenance strip.

**BENCHMARK**

TBM "C" - "X" in E Bolt of Strain Pole @ SE Cor. SR 19 and Northpointe Dr. Elev. 778.41



**GRADING PLAN  
STA. 130+00 TO STA. 140+00  
LINE "B"**

SHEET TITLE:

DRAWN BY:

NI

DESIGNED BY:

CAK/ZDH

PM REVIEW:

RAN

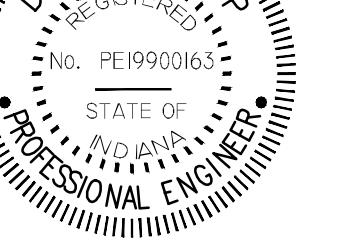
QA/QC REVIEW:

DSK

DATE:

03/02/23

SEAL:



SIGNATURE:

D. Knapp

DATE:

03/02/2023

SCALE:

HORZ: 1" = 20'

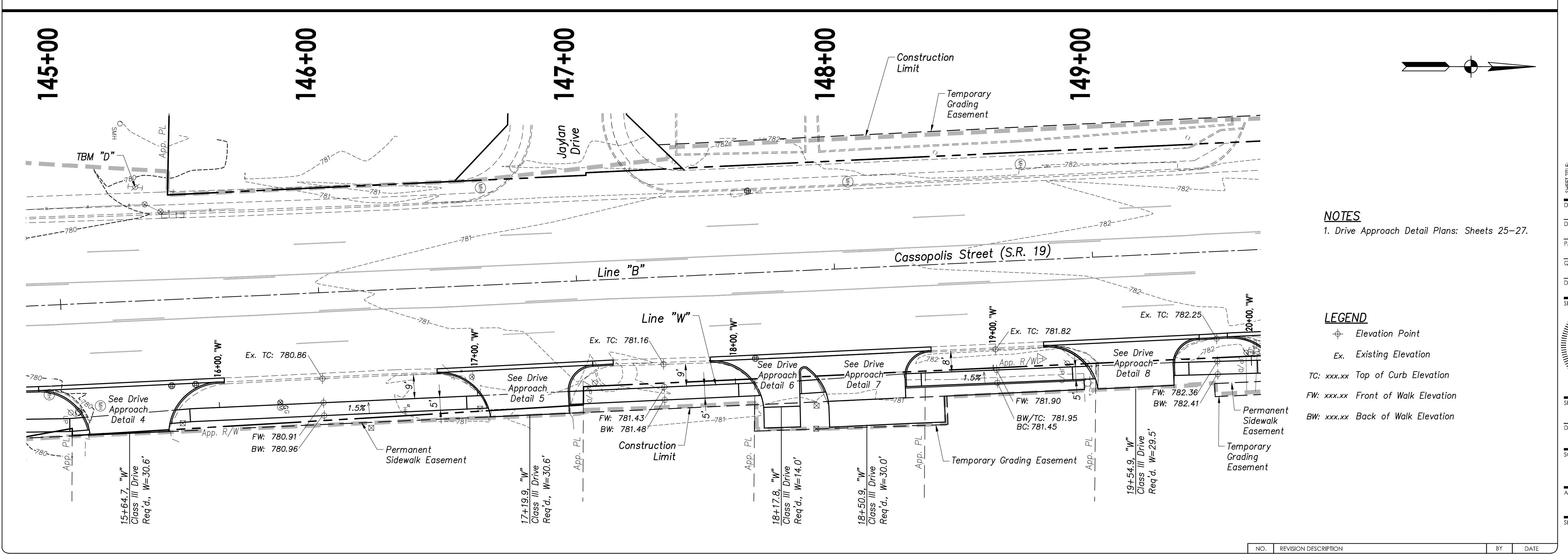
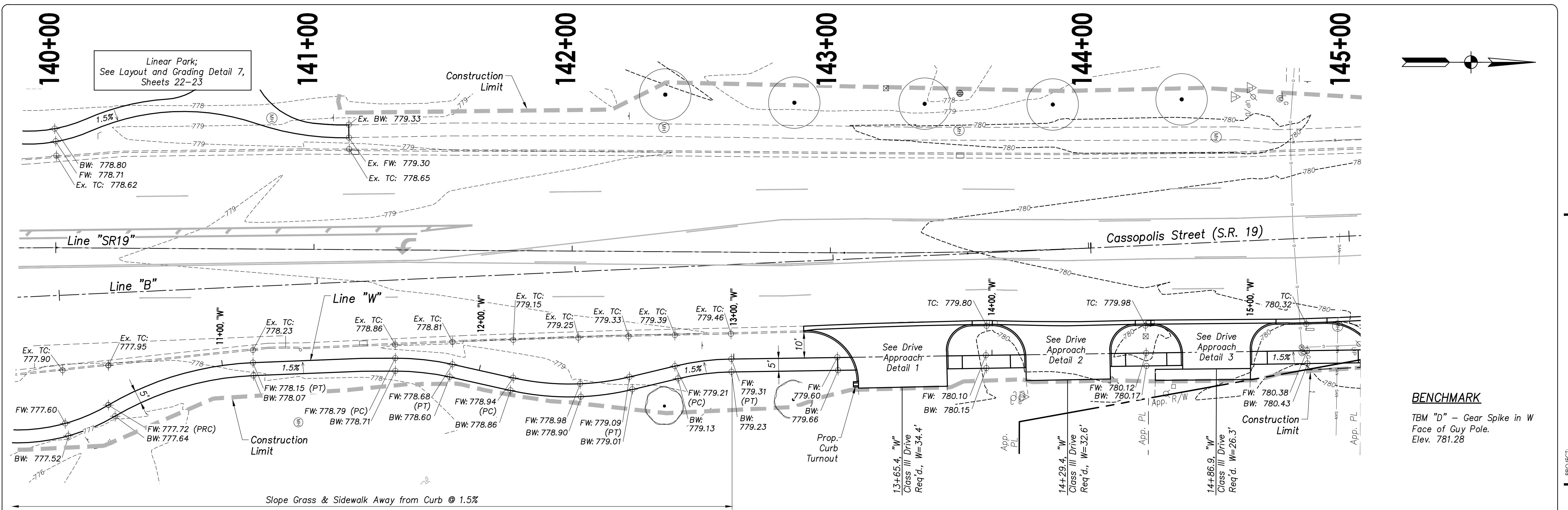
VERT: N/A

ACI JOB #

20-1114

SHEET NO.

15 of 56



# STATE ROAD 9 CORRIDOR IMPROVEMENTS (PA7663)

**GRADING PLAN  
STA. 140+00 TO STA. 149+50  
LINE "B"**

**DRAWN BY:**  
**NI**

---

**DESIGNED BY:**  
**CAK/ZDH**

---

**EM REVIEW:**  
**RAN**

---

**QA/QC REVIEW:**  
**DSK**

---

**DATE:**  
**03/02/23**

A circular registration stamp. The outer ring contains the word "PROFESSIONAL" at the top and "ENGINEER" at the bottom, separated by a horizontal line. The inner circle contains the name "DARYL S. KNIP" at the top, "REGISTERED" below it, and "INDIANA" in the center. At the bottom, it says "STATE OF". Below the stamp is the text "SIGNATURE:".

D. J. K.  
ATE: 03/02/2023  
CALE:  
HORZ: **1" = 20'**  
VERT: **N/A**

**CI JOB #**

---

**20-1114**

HEET NO.

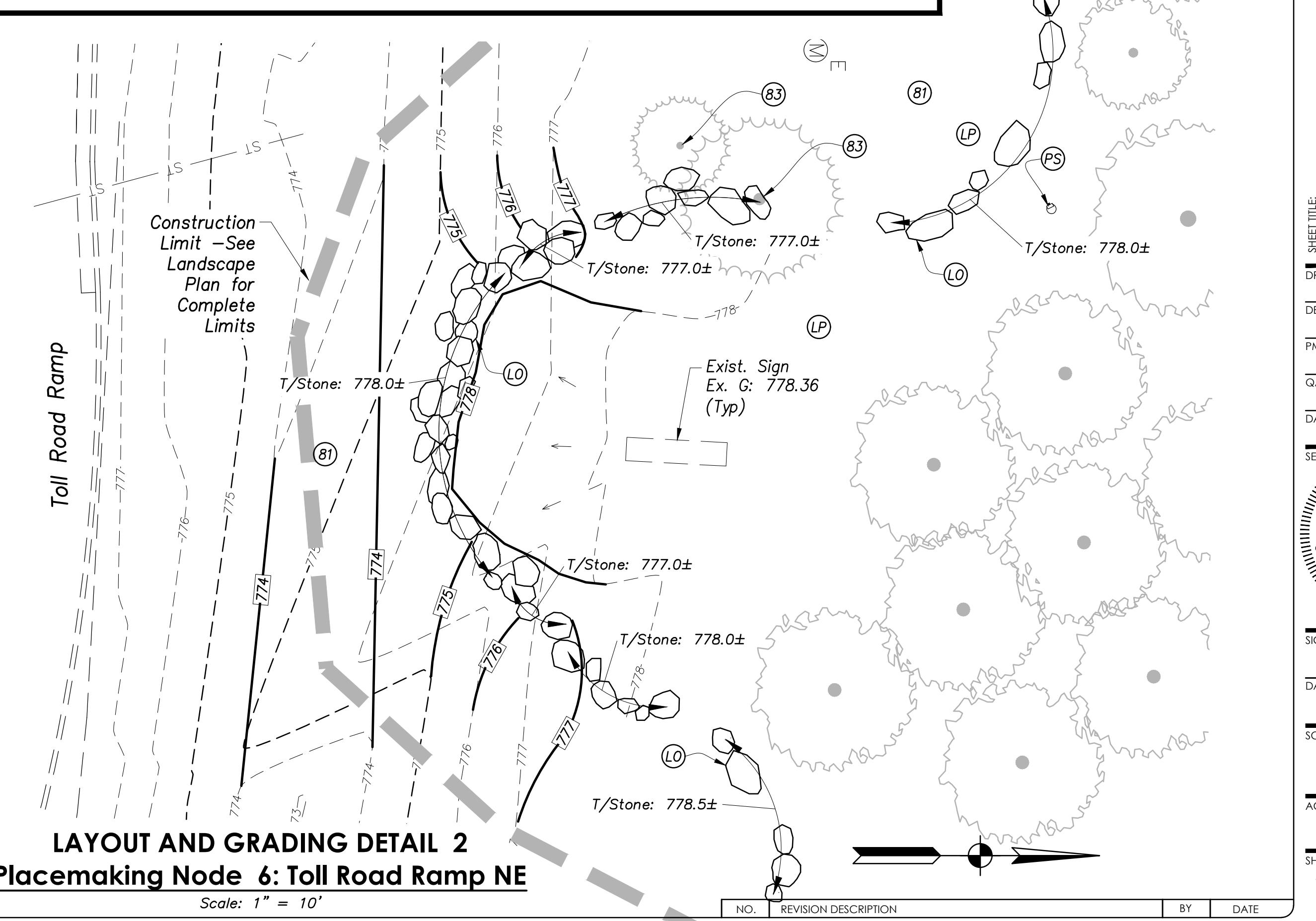
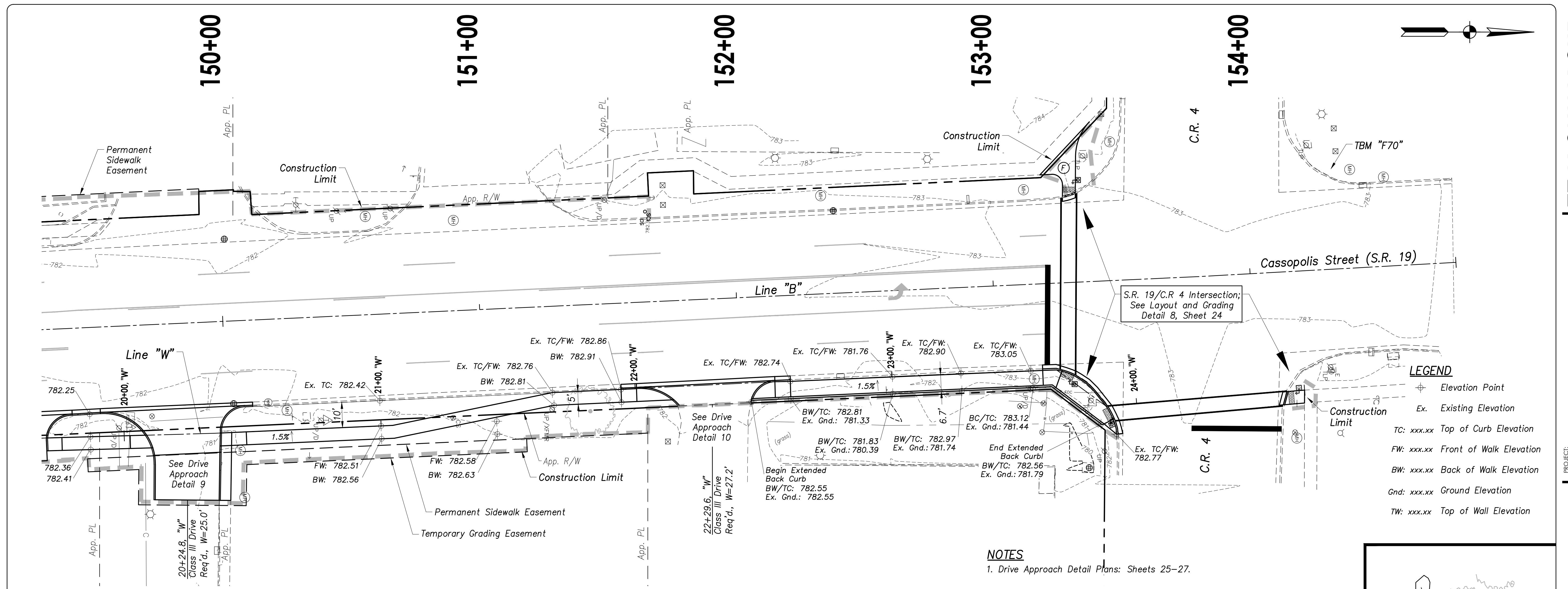
10 of 50

## STATE ROAD 19 CORRIDOR IMPROVEMENTS (PA7663)

PROJECT: STATE ROAD 19 CORRIDOR IMPROVEMENTS (PA7663)

### GRADING PLAN STA. 149+50 TO STA. 154+18 LINE "B"

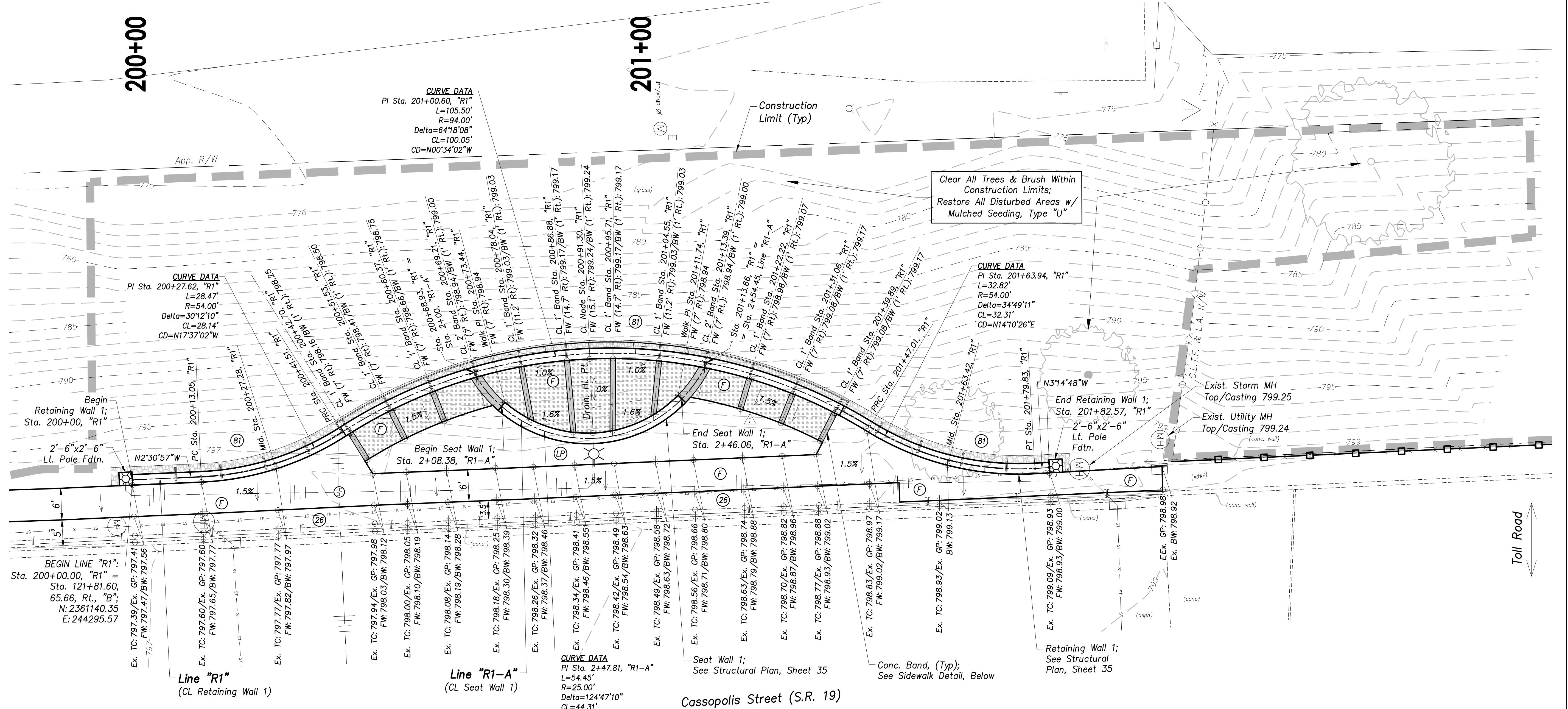
SHEET TITLE: DRAWN BY: NI  
DESIGNED BY: CAK/ZDH  
PM REVIEW: RAN  
QA/QC REVIEW: DSK  
DATE: 03/02/23  
SEAL: DARYL S. KNAPP, P.E., REGISTERED  
NO. PEI9900163  
STATE OF INDIANA  
PROFESSIONAL ENGINEER  
SIGNATURE: DATE: 03/02/2023  
SCALE: HORIZ: 1" = 20'  
VERT: N/A  
ACI JOB #: 20-1114  
SHEET NO. REVISION DESCRIPTION BY DATE  
Abonmarche - March 03, 2023 - 8:54am



## STATE ROAD 19 CORRIDOR IMPROVEMENTS (PA7663)

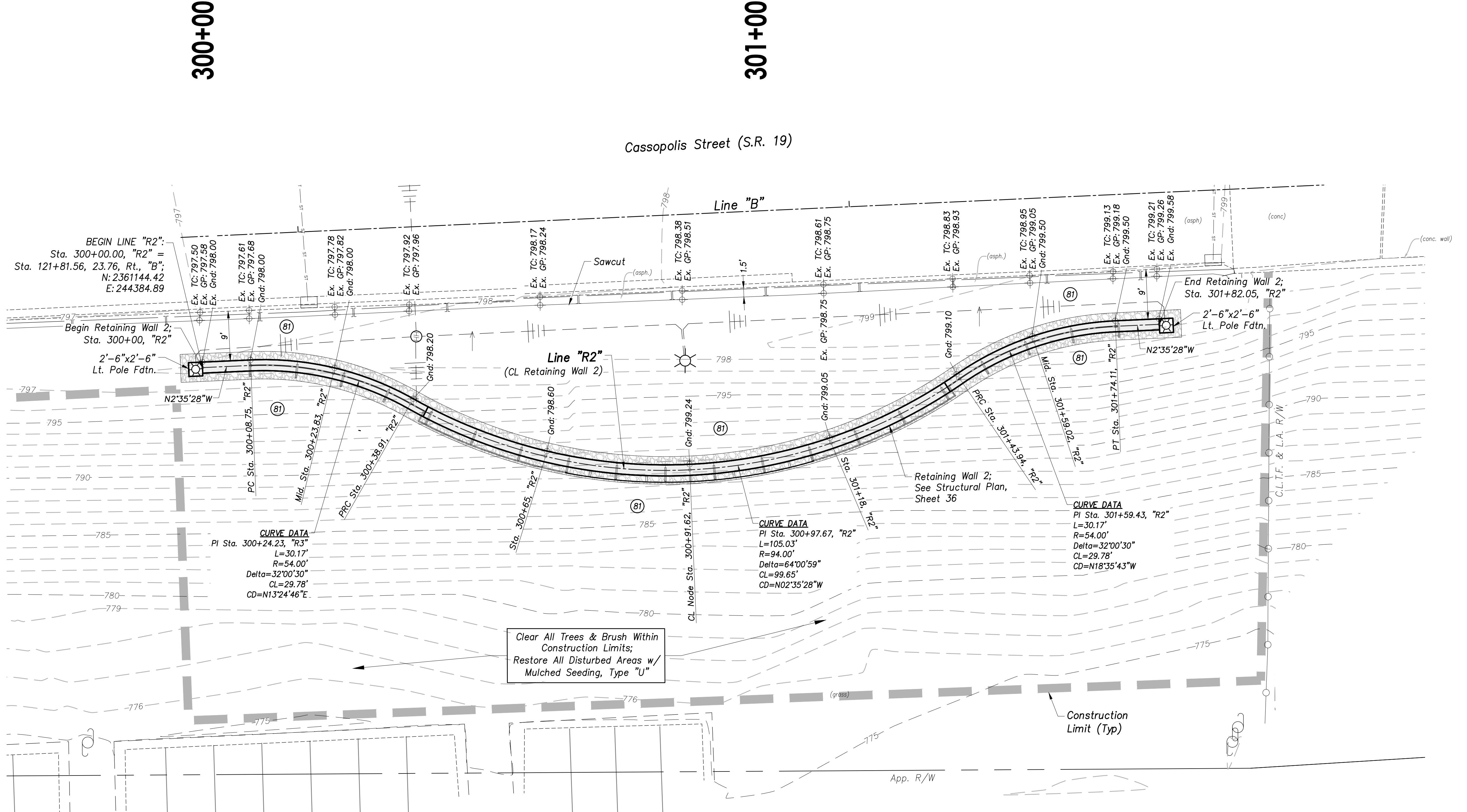
PROJECT:

### LAYOUT AND GRADING DETAILS: PLACEMAKING NODES



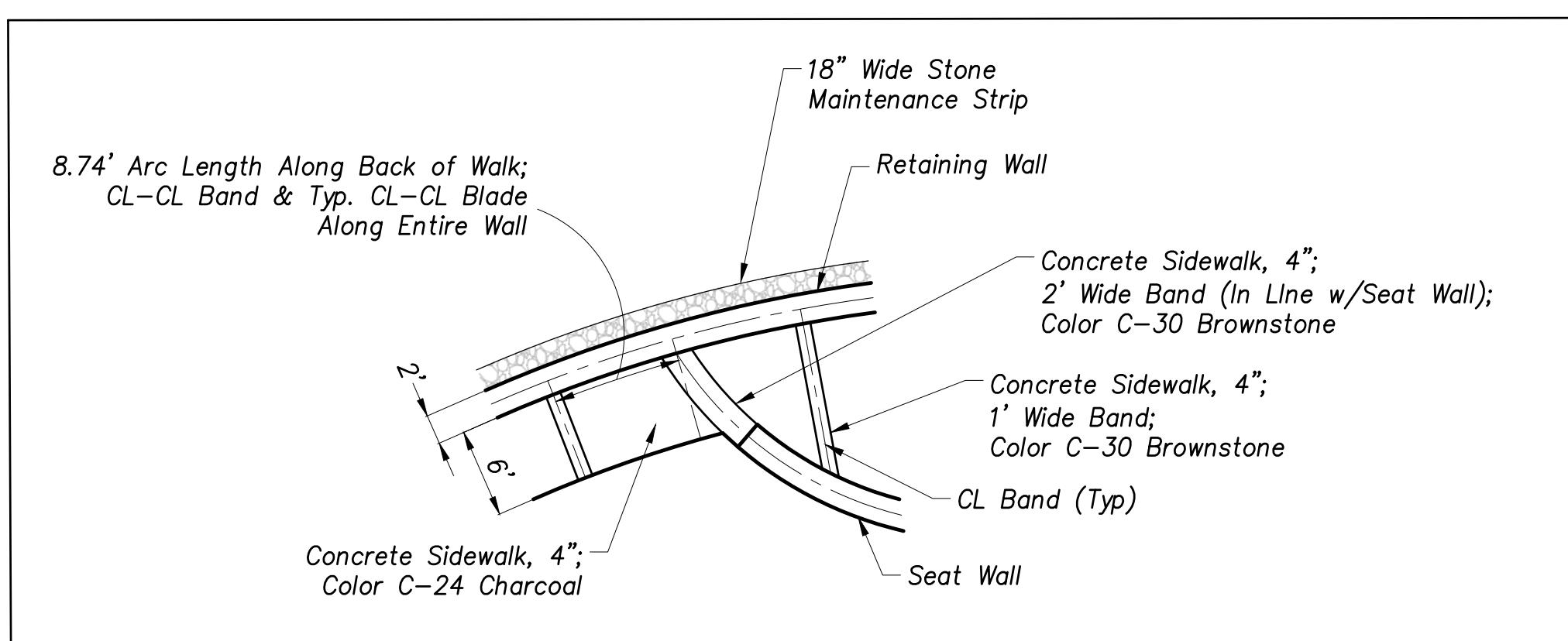
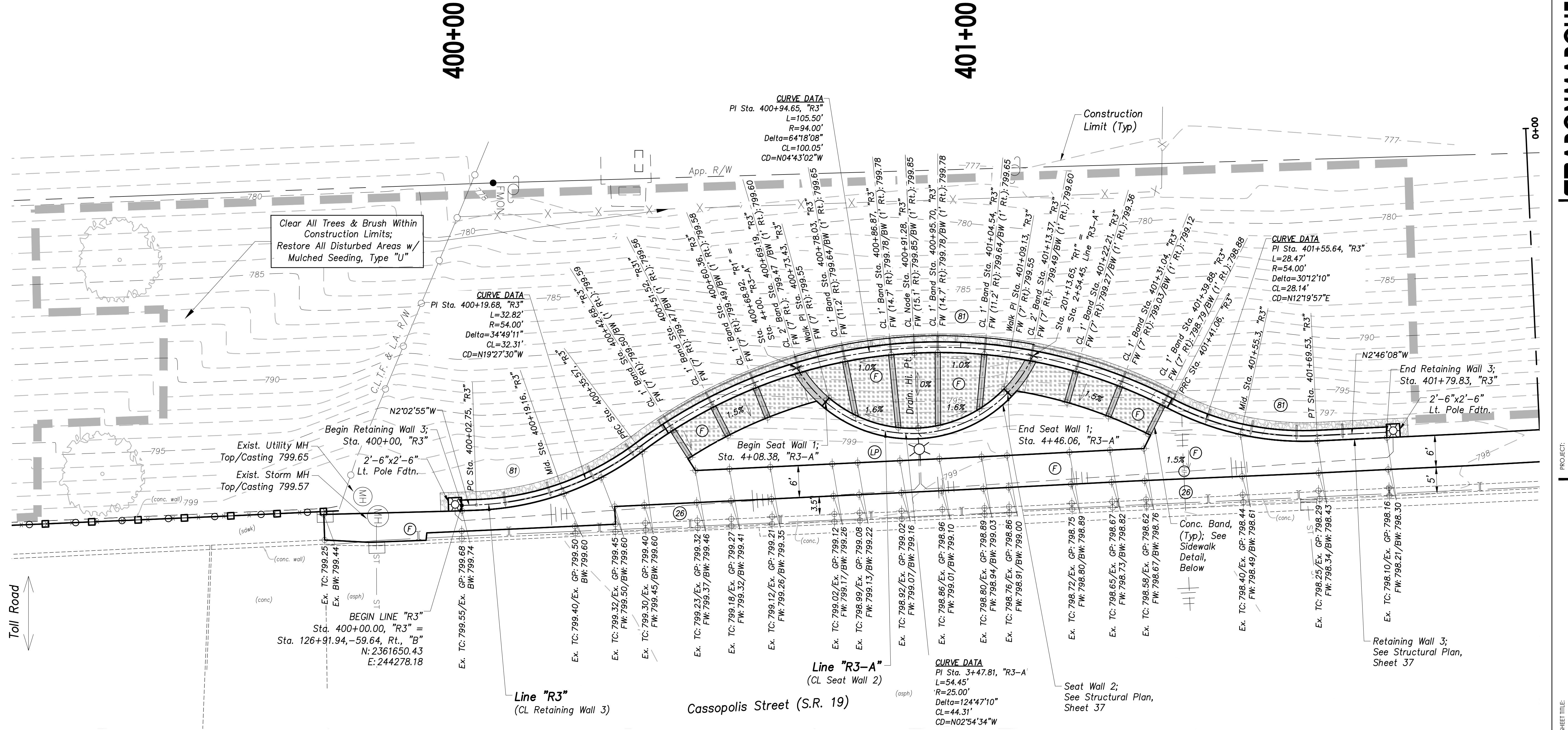
## STATE ROAD 19 CORRIDOR IMPROVEMENTS (PA7663)

PROJECT:	STATE ROAD 19 CORRIDOR IMPROVEMENTS (PA7663)	
SHEET TITLE:	LAYOUT AND GRADING DETAILS: PLACEMAKING NODES	
DRAWN BY:	NI	
DESIGNED BY:	CAK/ZDH	
PM REVIEW:	RAN	
QA/QC REVIEW:	DSK	
DATE:	03/02/23	
SEAL:		
SIGNATURE:		
DATE:	03/02/2023	
SCALE:	HORZ: 1" = 10' VERT: N/A	
ACI JOB #	20-1114	
SHEET NO.	19 of 56	
REVISION DESCRIPTION		
BY		
DATE		



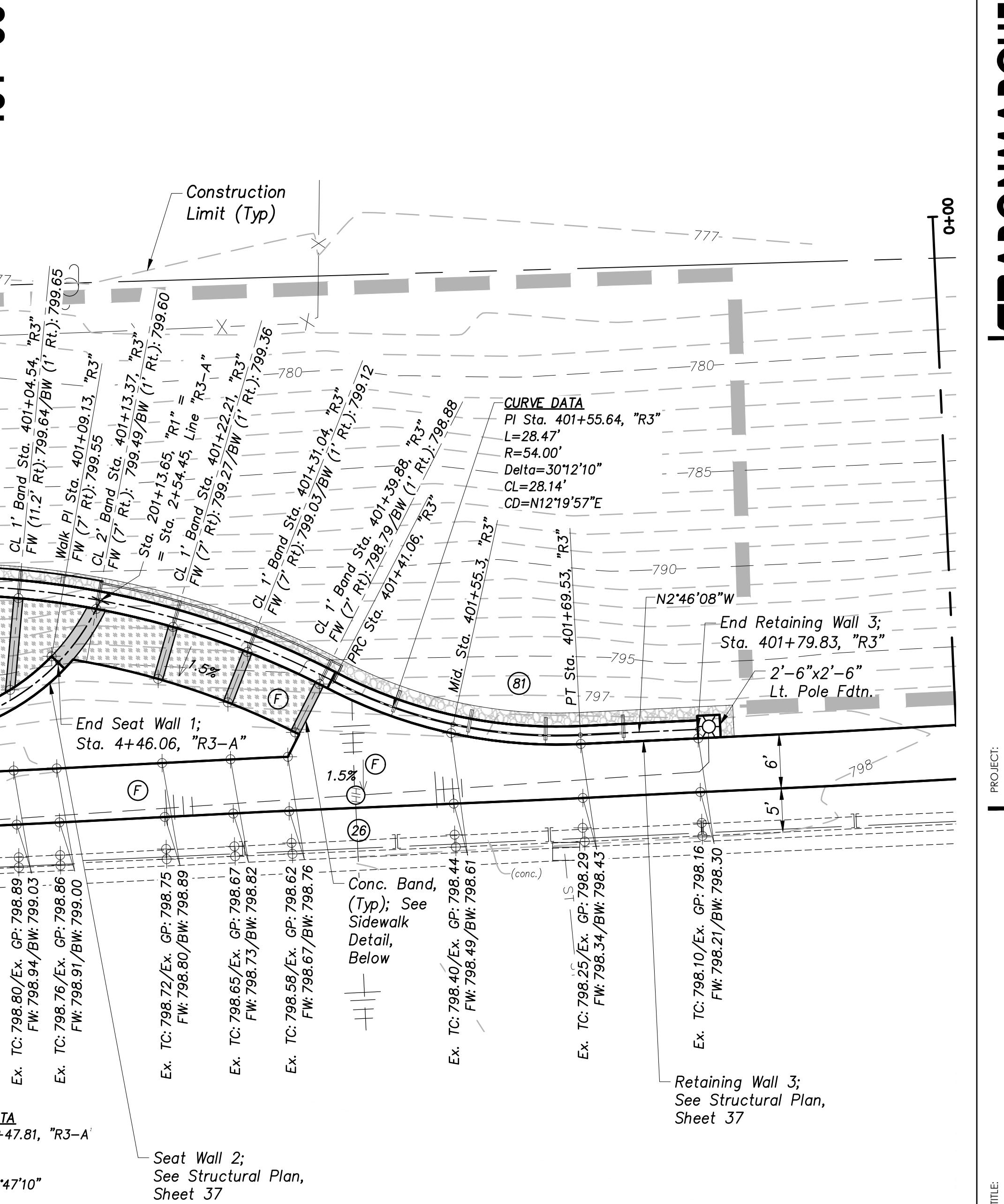
**LAYOUT AND GRADING DETAIL 4**  
**Placemaking Node 2: Toll Road Overpass SE**

Scale: 1" = 10'



**LAYOUT AND GRADING DETAIL 5**  
**Placemaking Node 3: Toll Road Overpass NW**

Scale: 1" = 10'



## STATE ROAD 19 CORRIDOR IMPROVEMENTS (PA7663)

PROJECT:

SHEET TITLE:

DRAWN BY: NI

DESIGNED BY: CAK/ZDH

PM REVIEW:

RAN

QA/QC REVIEW:

DSK

DATE:

03/02/23

SEAL:

SIGNATURE:

DATE:

03/02/2023

SCALE:

HORZ: 1" = 10'

VERT: N/A

ACI JOB #

20-1114

SHEET NO.

20 of 56

REVISION DESCRIPTION

BY

DATE

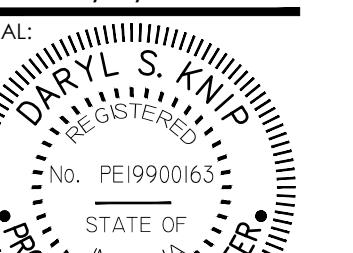
**STATE ROAD 19  
CORRIDOR IMPROVEMENTS  
(PA7663)**

PROJECT:

**LAYOUT AND GRADING DETAILS:  
PLACEMAKING NODES**

SHEET TITLE:

DRAWN BY: **NI**  
DESIGNED BY: **CAK/ZDH**  
PM REVIEW: **RAN**  
QA/QC REVIEW: **DSK**  
DATE: **03/02/23**



SIGNATURE:

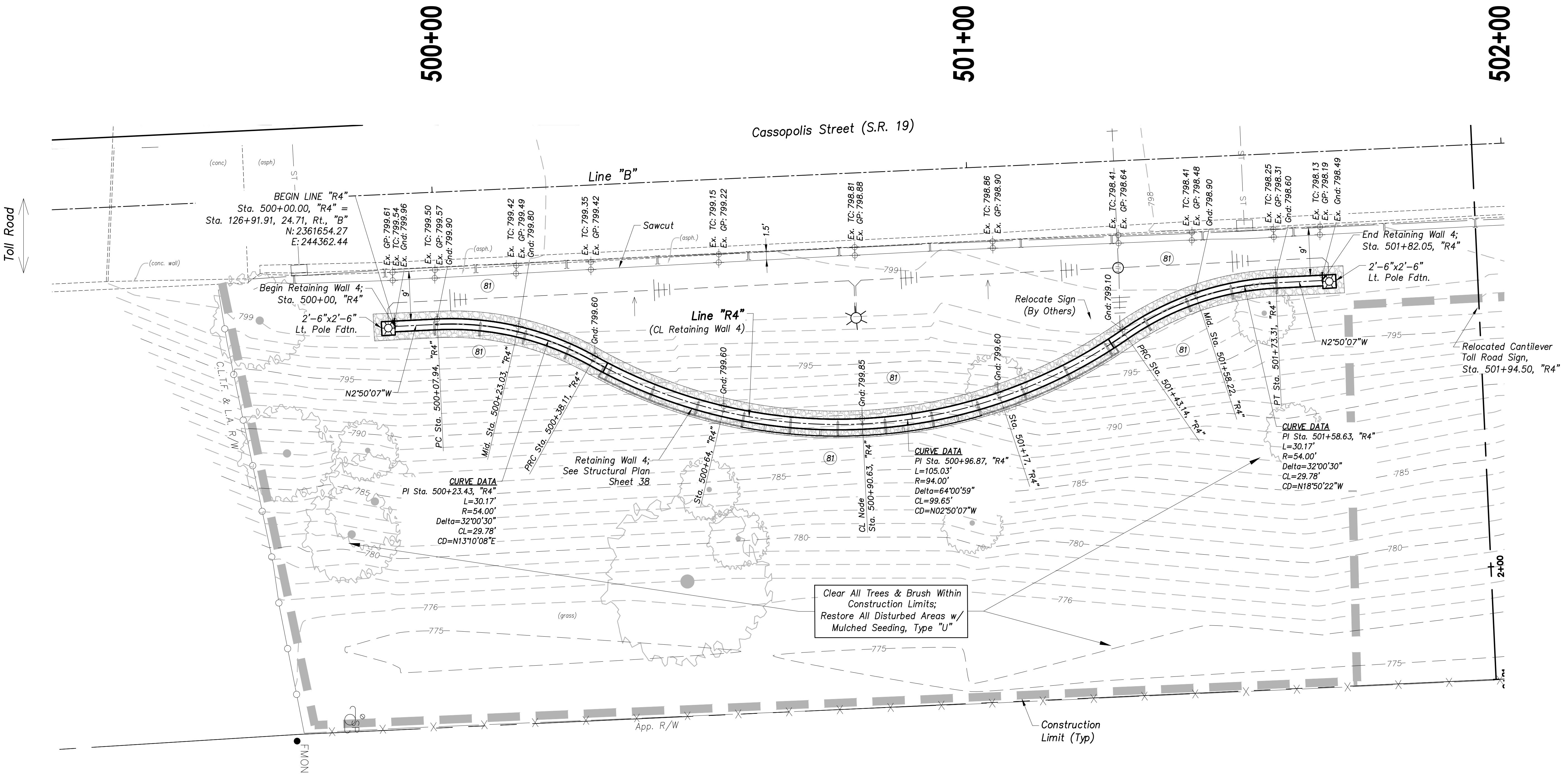
DATE: **03/02/2023**

SCALE: **HORZ: 1" = 10'  
VERT: N/A**

ACI JOB # **20-1114**

SHEET NO. **21 of 56**

ABONMARCHE - March 02, 2023 - 4:37pm



**LAYOUT AND GRADING DETAIL 6  
Placemaking Node 4: Toll Road Overpass NE**

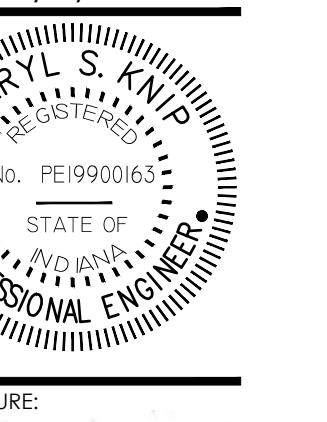
Scale: 1" = 10'

**STATE ROAD 19  
CORRIDOR IMPROVEMENTS  
(PA7663)**

PROJECT: STATE ROAD 19 CORRIDOR IMPROVEMENTS (PA7663)

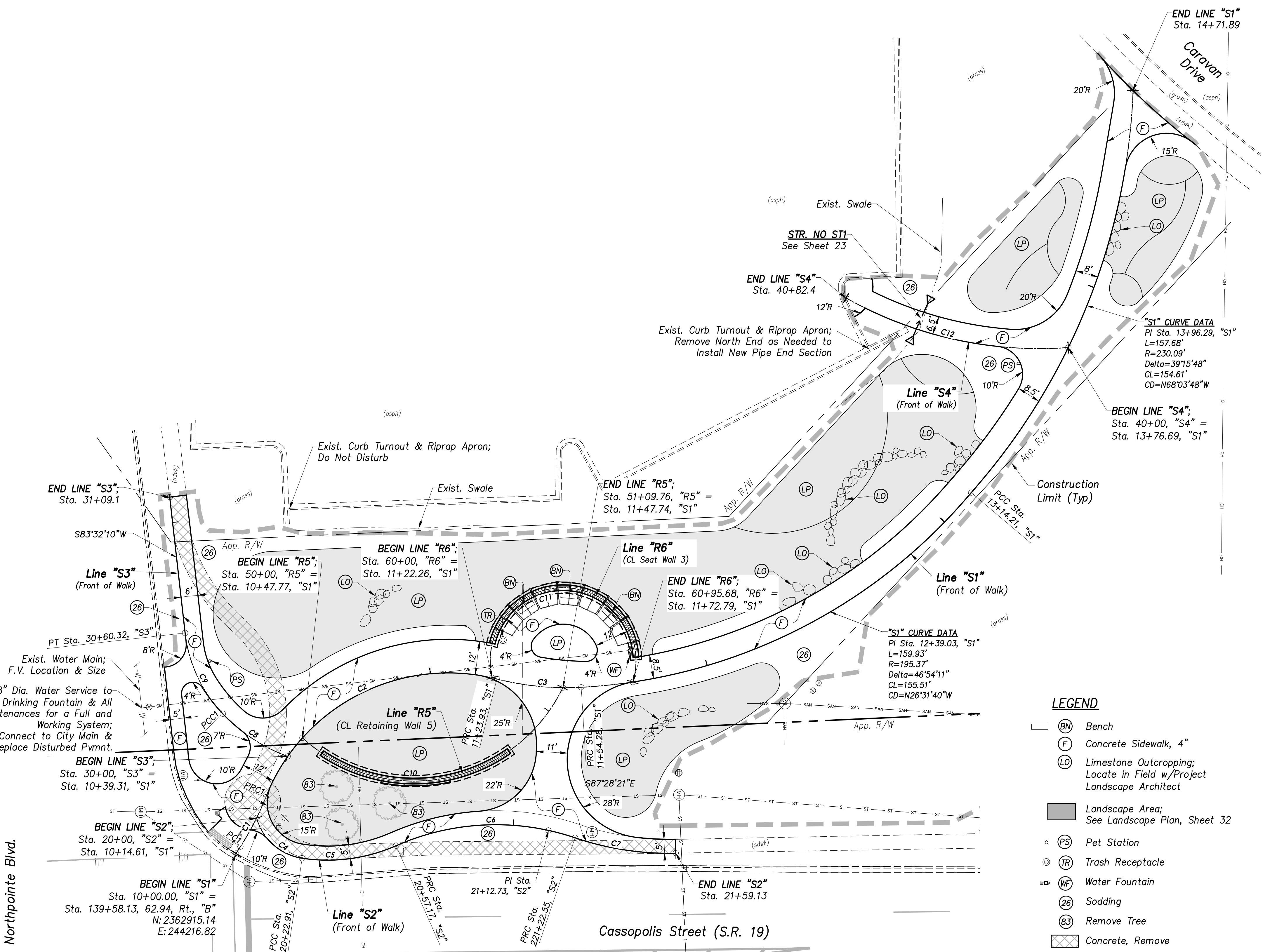
SHEET TITLE: LAYOUT AND GRADING DETAILS: LINEAR PARK

DRAWN BY: NI  
DESIGNED BY: CAK/ZDH  
PM REVIEW: RAN  
QA/QC REVIEW: DSK  
DATE: 03/02/23

SEAL: DARYL S. KNAPP, P.E.  
PROFESSIONAL ENGINEER  
NO. PE19900163  
STATE OF INDIANA  
SIGNATURE:   
DATE: 03/02/2023

SCALE: HORIZ: 1" = 20'  
VERT: N/A  
ACI JOB #: 20-1114  
SHEET NO. 20-1114-7A  
22 of 56

Abonmarche - March 03, 2023 - 4:39pm



**LAYOUT DETAIL 7A**  
**Linear Park**

Scale: 1" = 20'

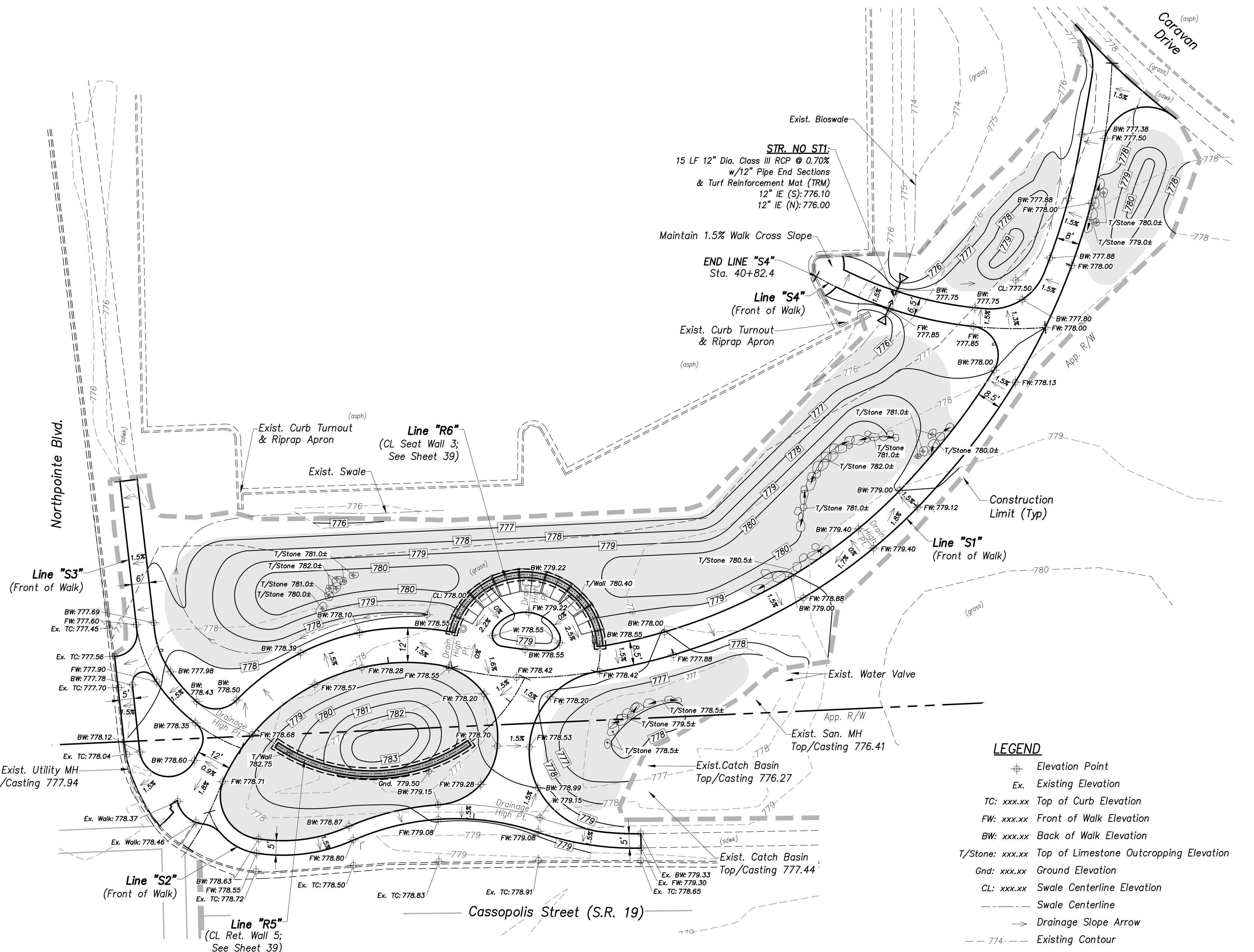
**LEGEND**

-  BN Bench
-  F Concrete Sidewalk, 4"
-  LO Limestone Outcropping; Locate in Field w/Project Landscape Architect
-  Landscape Area; See Landscape Plan, Sheet 32
-  PS Pet Station
-  TR Trash Receptacle
-  WF Water Fountain
-  26 Sodding
-  R3 Remove Tree
-  sdwk Concrete, Remove

LINEAR PARK CURVE & LINE DATA	
<b>CURVE C1</b>	PCI Sta. 10+02.92, "S1"
PI Sta. 10+12.85, "S1"	L=19.80'
R=100.00'	Delta=11°20'36"
CL=19.77'	CD=N62°51'50"W
<b>PRC1</b>	Sta. 10+22.72, "S1"
PI Sta. 10+47.74, "S1"	L=101.22'
R=70.00'	Delta=82°50'48"
CL=92.63'	CD=N27°06'45"W
<b>PCC1</b>	Sta. 30+27.94, "S3"
PI Sta. 30+27.94, "S3"	L=101.22'
R=70.00'	Delta=82°50'48"
CL=92.63'	CD=N27°06'45"W
<b>CURVE C2</b>	PI Sta. 10+84.48, "S1"
L=101.22'	R=70.00'
Delta=82°50'48"	CL=92.63'
CD=N27°06'45"W	CD=N27°06'45"W
<b>CURVE C3</b>	PI Sta. 11+39.22, "S1"
L=30.35'	R=100.00'
Delta=17°23'14"	CL=30.23'
CD=N05°37'02"E	CD=N05°37'02"E
<b>CURVE S4</b>	PI Sta. 20+12.89, "S2"
L=22.91'	R=20.03'
Delta=65°32'30"	CL=21.68'
CD=N41°24'09"E	CD=N41°24'09"E
<b>CURVE C5</b>	PI Sta. 20+40.52, "S2"
L=34.26'	R=60.47'
Delta=32°27'41"	CL=33.80'
CD=N07°35'57"W	CD=N07°35'57"W
<b>CURVE C6</b>	PI Sta. 20+91.45, "S2"
L=65.38'	R=88.00'
Delta=42°34'07"	CL=63.89'
CD=N02°32'43"W	CD=N02°32'43"W
<b>CURVE C7</b>	PI Sta. 21+41.03, "S2"
L=36.57'	R=104.73'
Delta=20°00'30"	CL=36.39'
CD=N08°44'06"E	CD=N08°44'06"E
<b>CURVE C8</b>	PI Sta. 30+14.22, "S3"
L=27.94'	R=61.18'
Delta=26°09'41"	CL=27.69'
CD=S33°20'36"W	CD=S33°20'36"W
<b>CURVE C9</b>	PI Sta. 30+44.72, "S3"
L=32.39'	R=50.00'
Delta=37°06'43"	CL=31.82'
CD=S64°58'48"W	CD=S64°58'48"W
<b>CURVE C10</b>	PI Sta. 50+79.14, "R5"
L=109.76'	R=59.00'
Delta=106°35'25"	CL=94.60'
CD=N10°55'04"W	CD=N10°55'04"W
<b>CURVE C11 (Line "R6")</b>	L=95.68'
R=26.00'	Delta=210°50'55"
Delta=210°50'55"	CL=50.13'
CL=50.13'	CD=N01°42'00"E
CD=N01°42'00"E	CD=N01°42'00"E
<b>CURVE C12</b>	PI Sta. 40+42.42, "S4"
L=82.40'	R=140.58'
Delta=33°34'56"	CL=81.22'
CL=81.22'	CD=S12°34'11"W
CD=S12°34'11"W	CD=S12°34'11"W

NO. REVISION DESCRIPTION

BY DATE



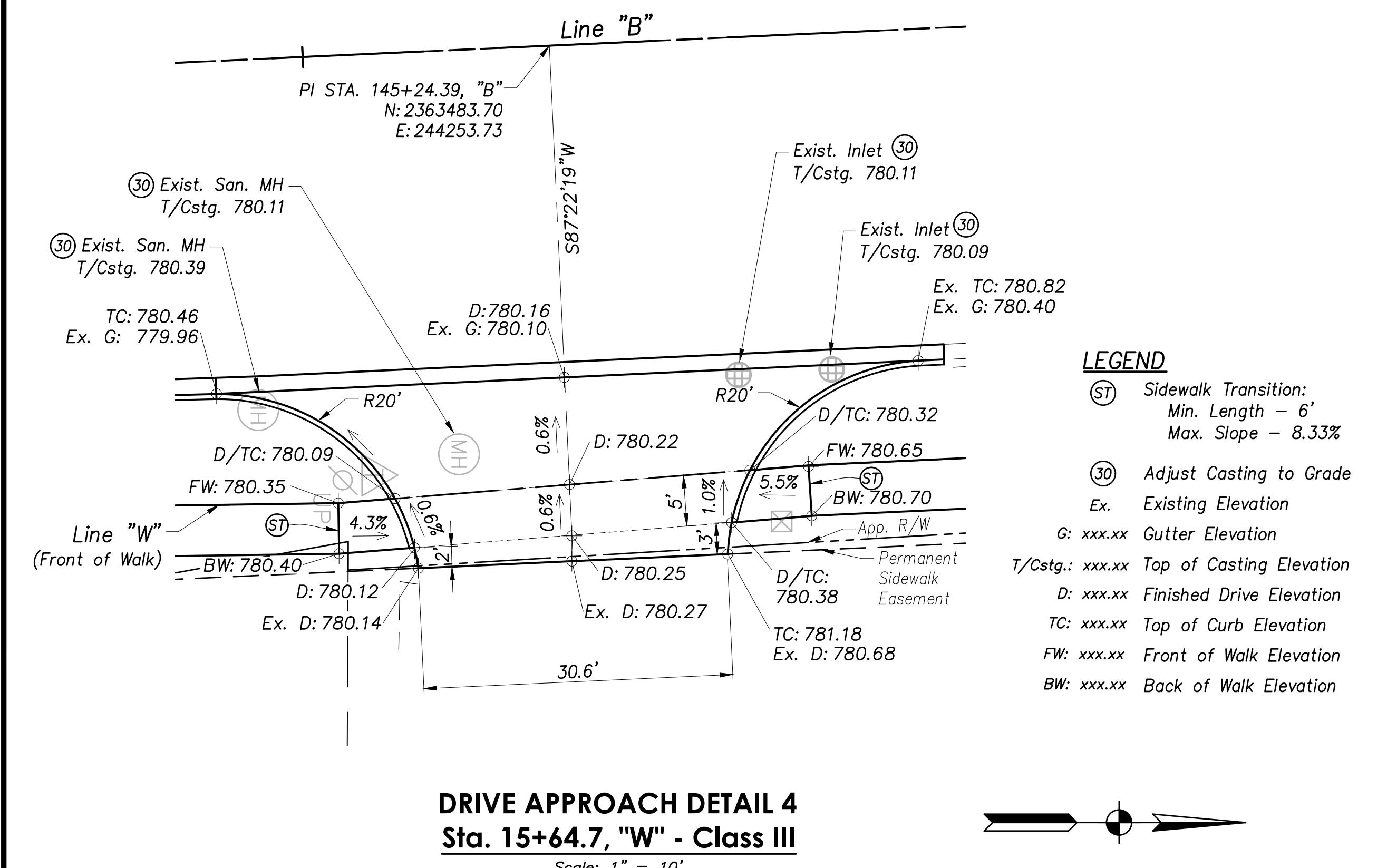
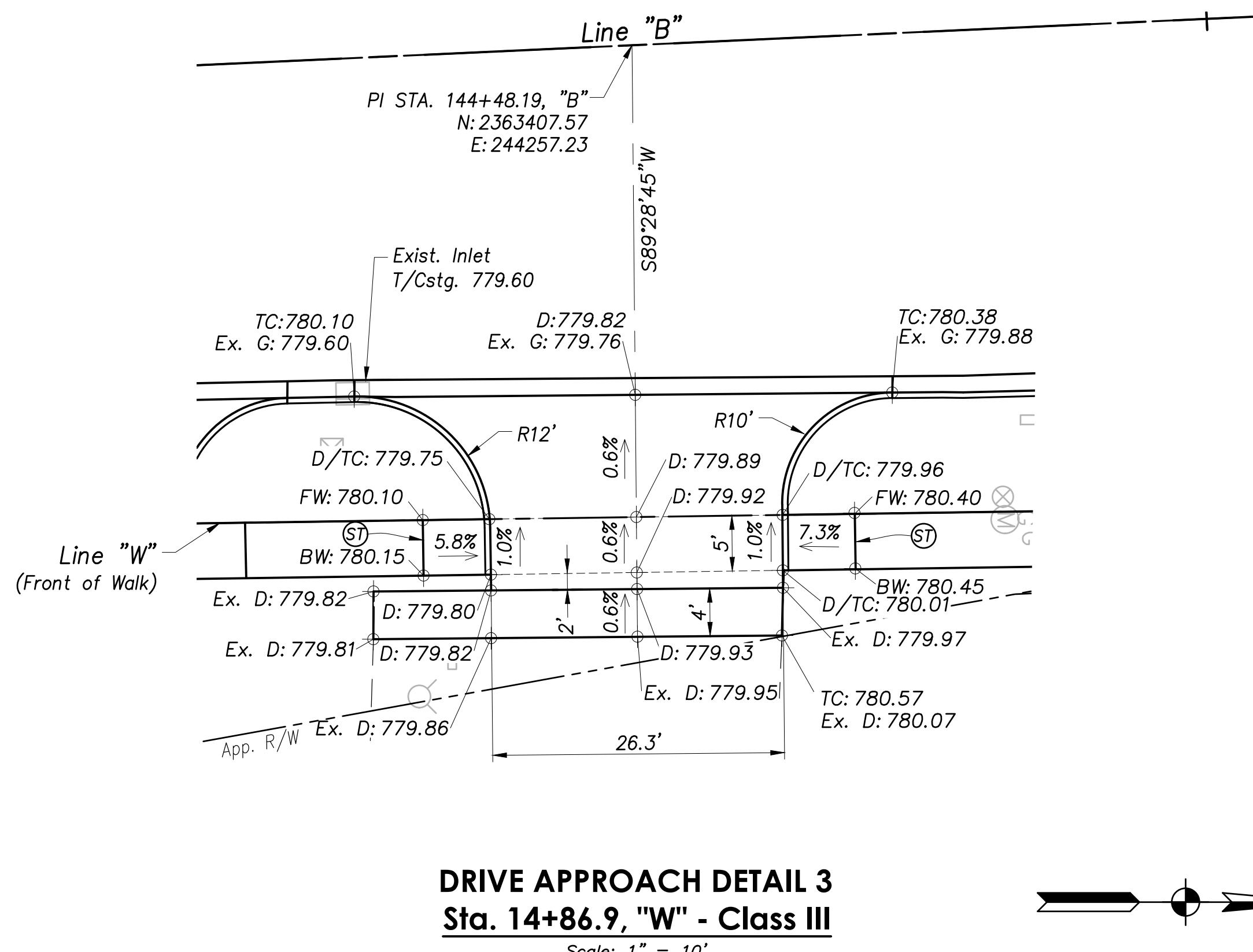
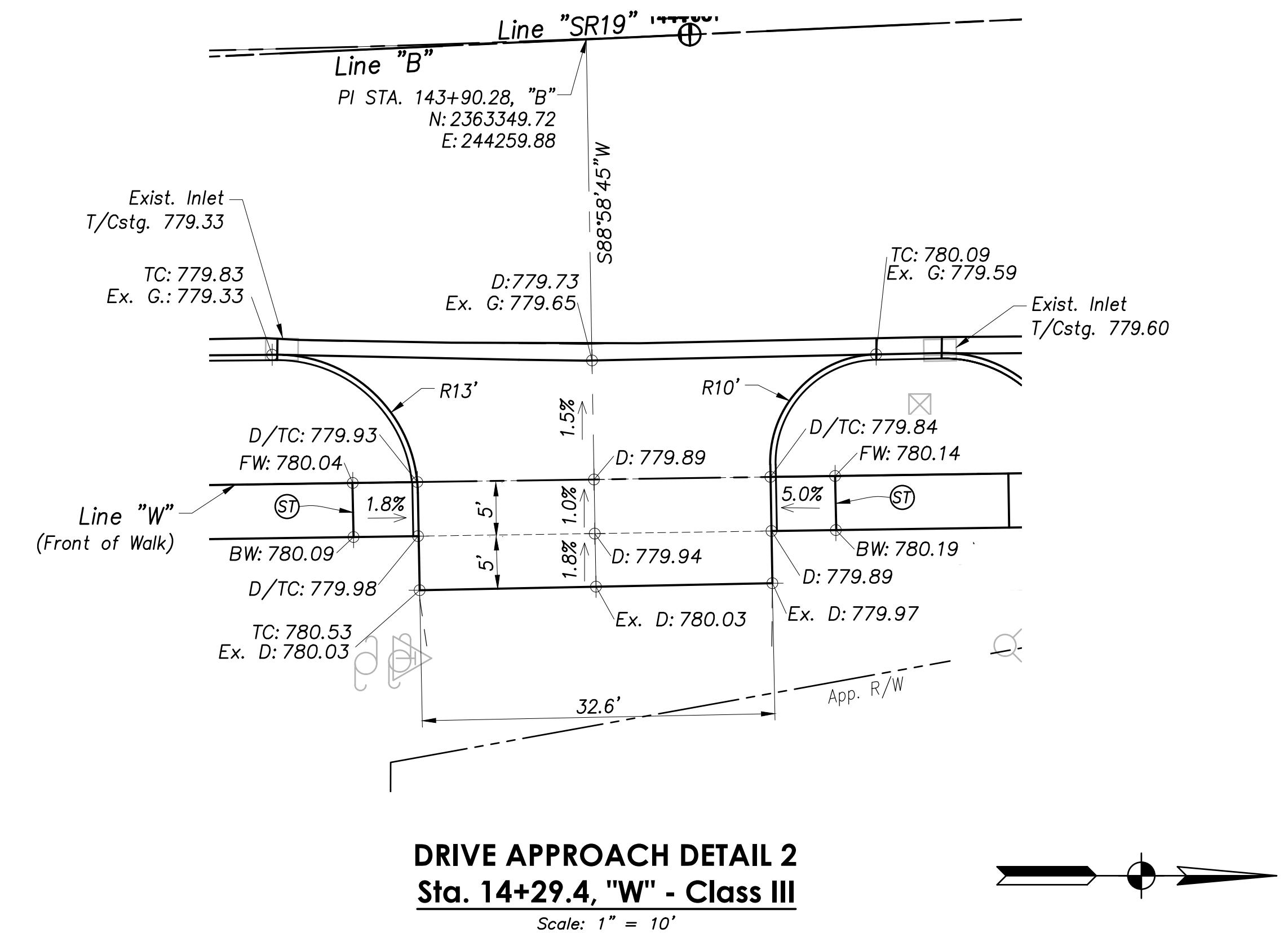
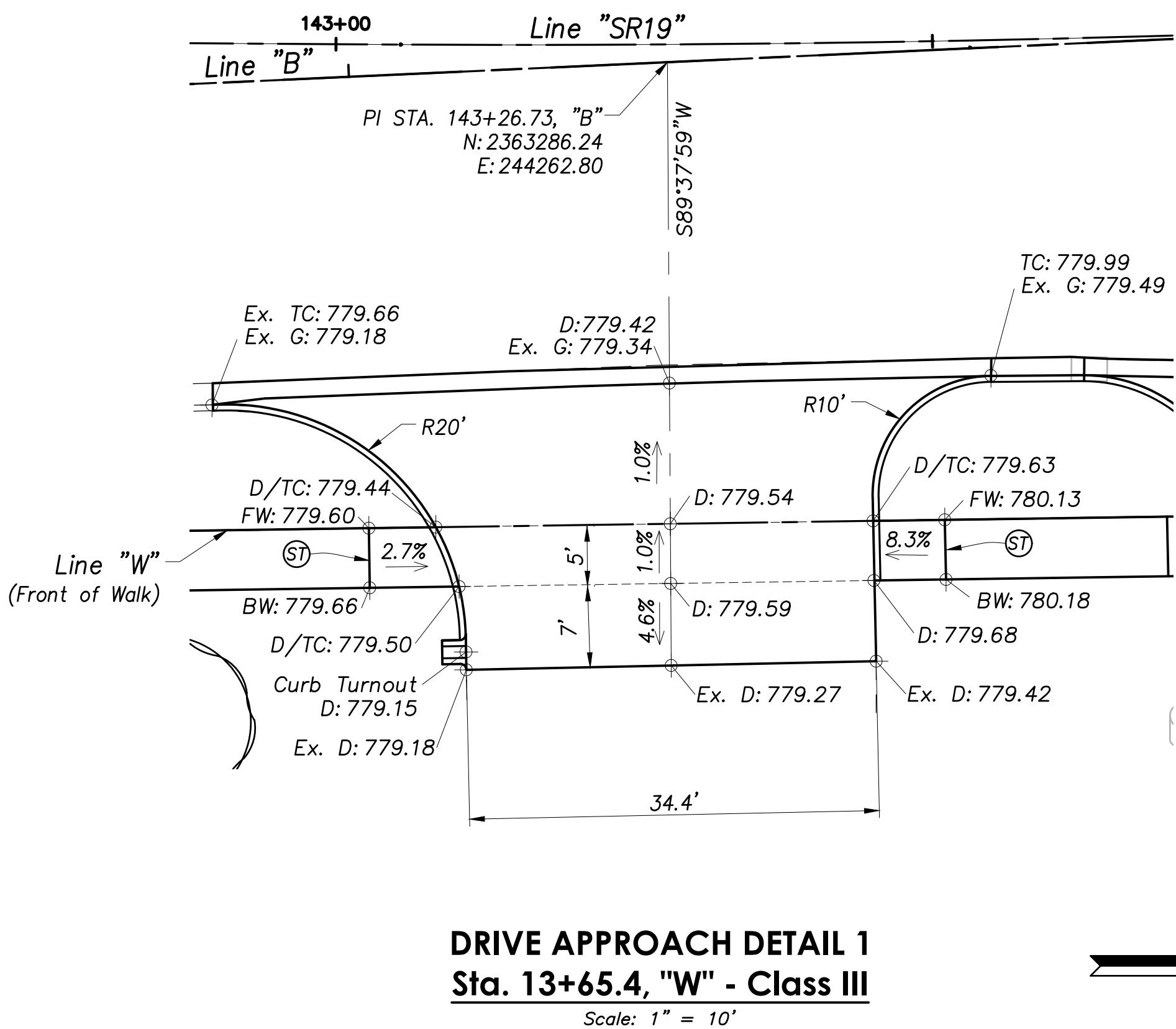
# **GRADING DETAIL 7B**

## **Linear Park**

*Scale: 1" = 20'*

*Scale: 1" = 20*

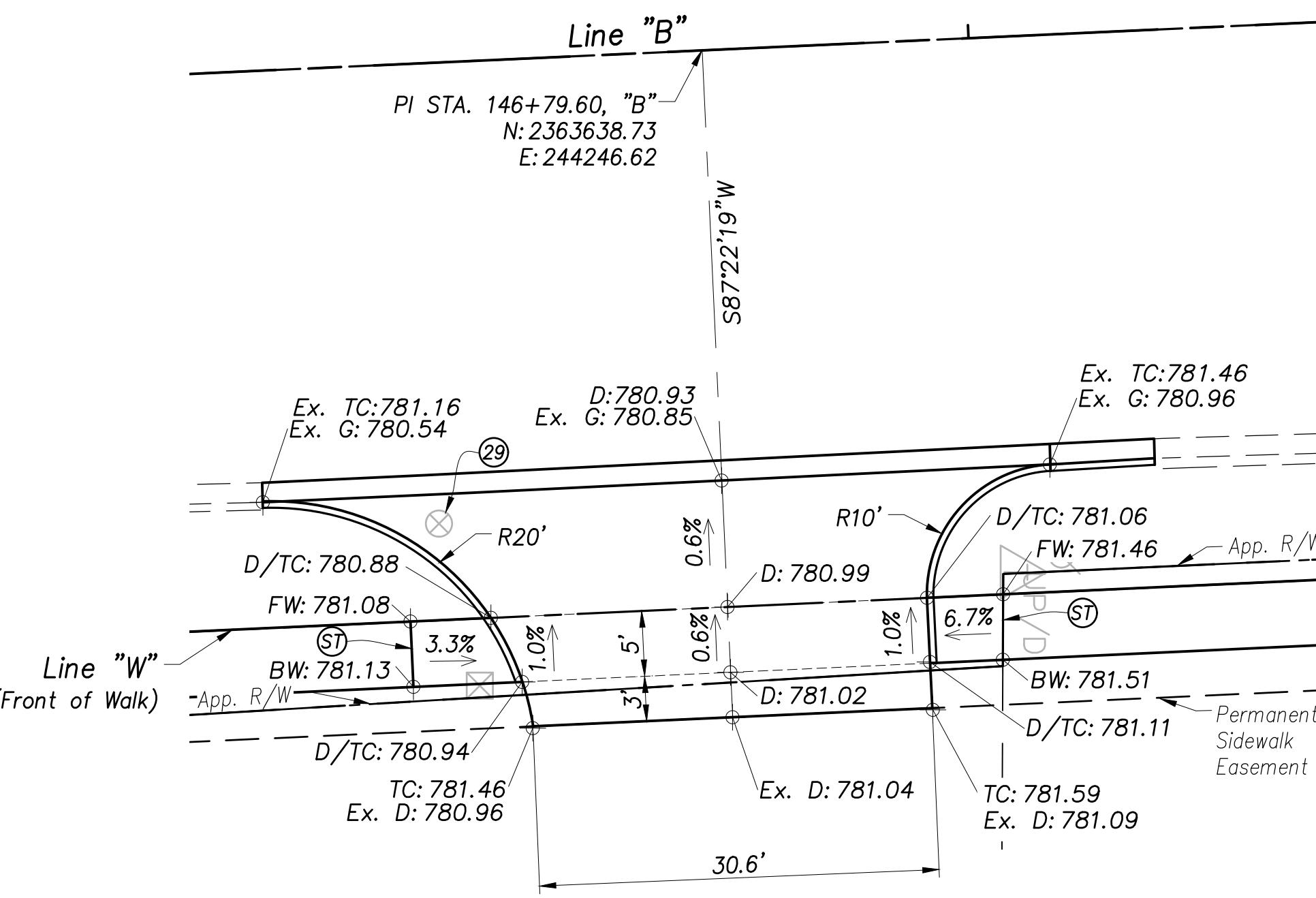




**STATE ROAD 19  
CORRIDOR IMPROVEMENTS  
(PA7663)**

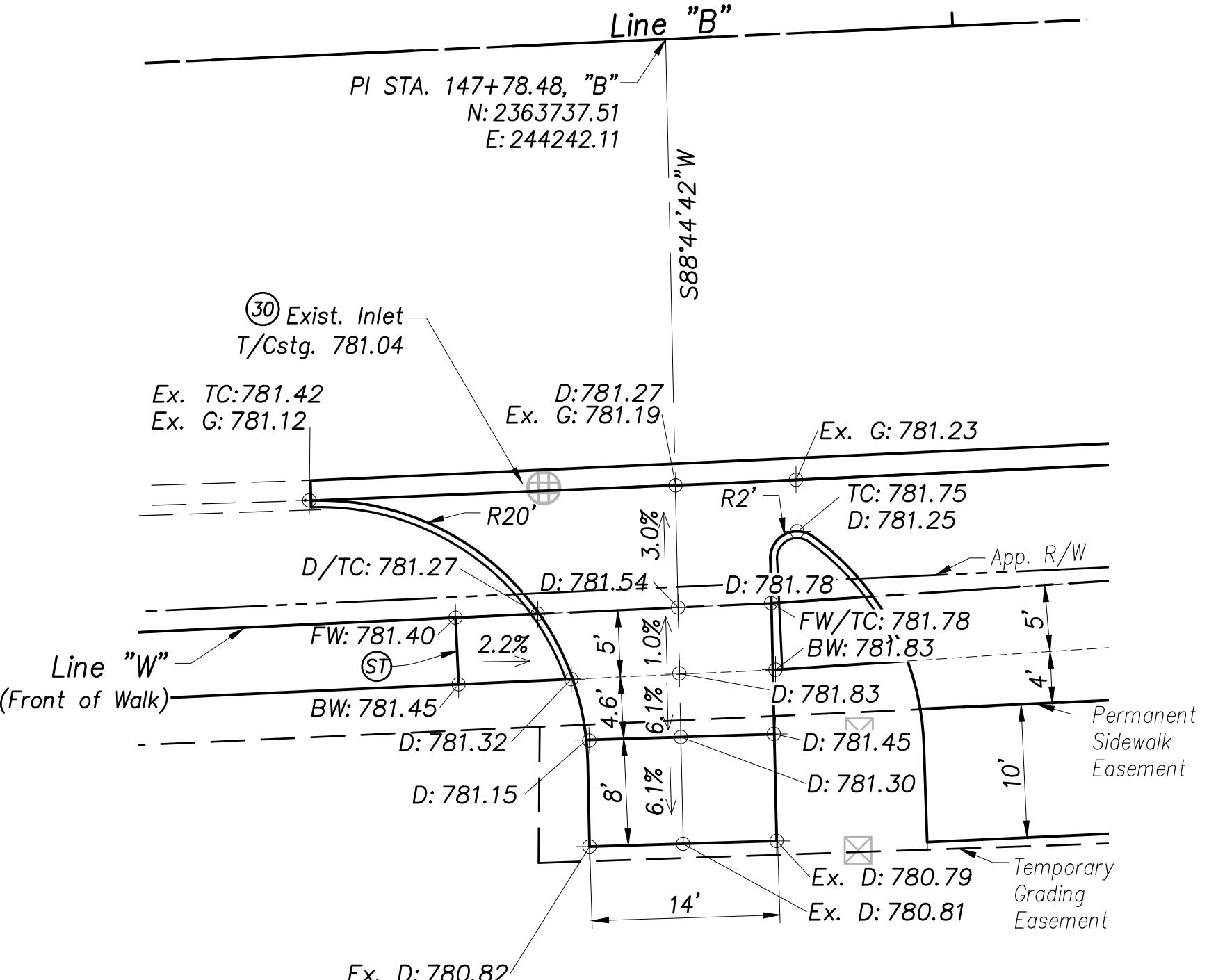
PROJECT:

**LAYOUT AND GRADING DETAILS:  
DRIVE APPROACHES**



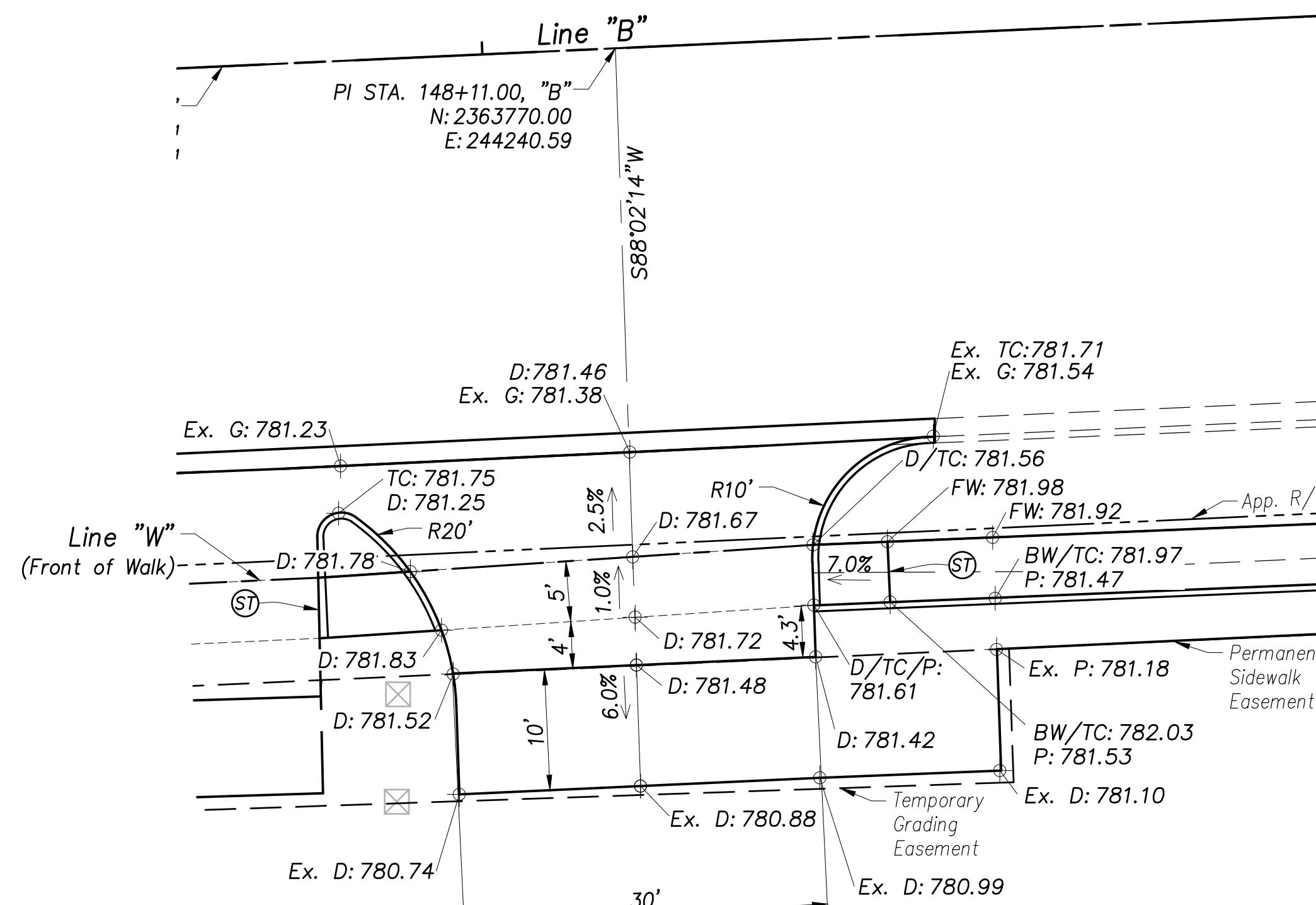
**DRIVE APPROACH DETAIL 5**  
**Sta. 17+19.9, "W" - Class III**

Scale: 1" = 10'



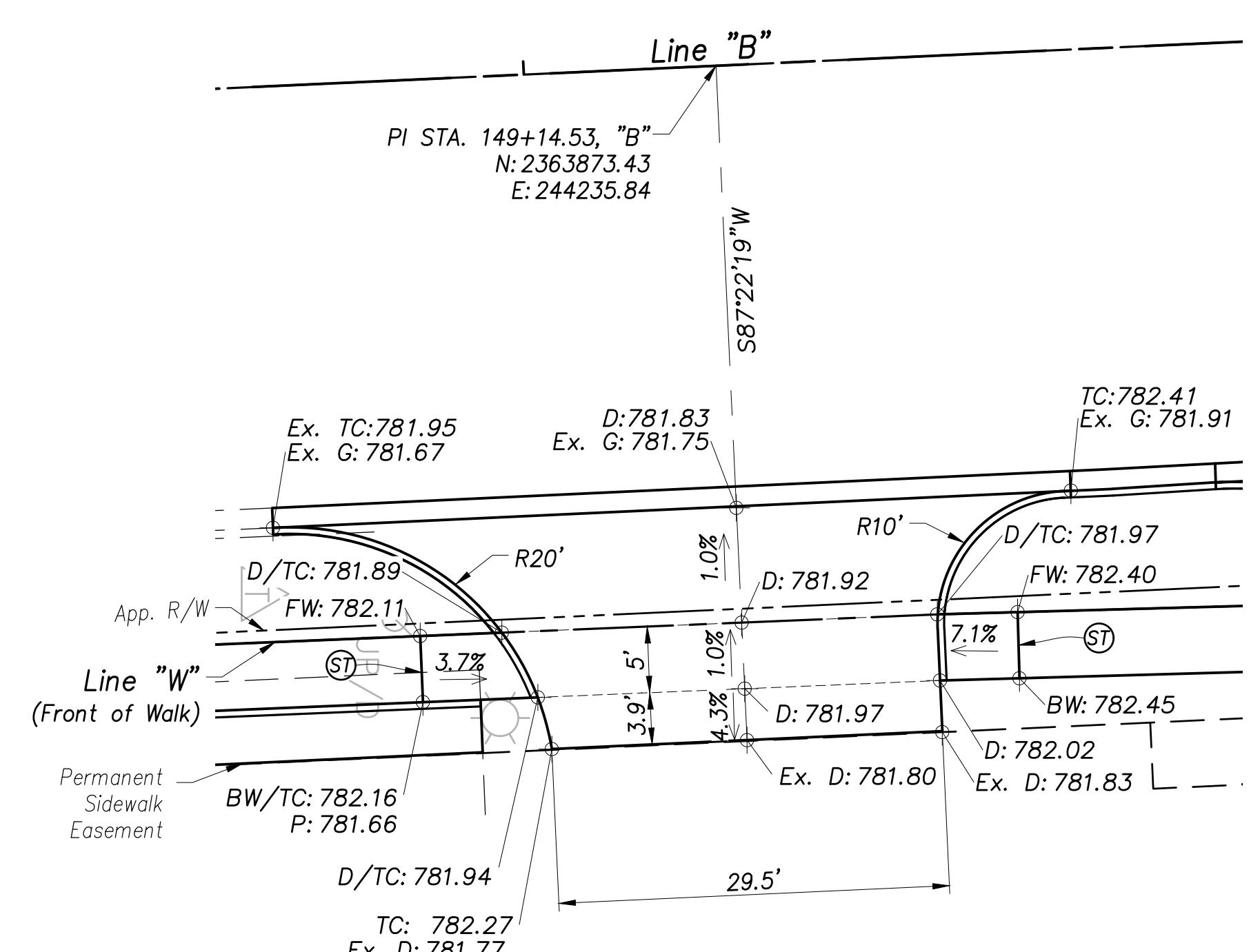
**DRIVE APPROACH DETAIL 6**  
**Sta. 18+17.8, "W" - Class III**

Scale: 1" = 10'



**DRIVE APPROACH DETAIL 7**  
**Sta. 18+50.9, "W" - Class III**

Scale: 1" = 10'



**DRIVE APPROACH DETAIL 8**  
**Sta. 19+54.9, "W" - Class III**

Scale: 1" = 10'

**LEGEND**

- ① Sidewalk Transition:  
Min. Length - 6'  
Max. Slope - 8.33%
- ② Adjust Valve To Grade
- ③ Adjust Casting to Grade
- Ex. Existing Elevation

- G: xxx.xx Gutter Elevation
- T/Cstg.: xxx.xx Top of Casting Elevation
- D: xxx.xx Finished Drive Elevation
- TC: xxx.xx Top of Curb Elevation
- FW: xxx.xx Front of Walk Elevation
- BW: xxx.xx Back of Walk Elevation

SHEET TITLE: **NI**  
DRAWN BY: **NI**  
DESIGNED BY: **CAK/ZDH**  
PM REVIEW: **RAN**  
QA/QC REVIEW: **DSK**  
DATE: **03/02/23**  
SEAL:   
SIGNATURE:   
DATE: **03/02/2023**  
SCALE: **HORZ: 1" = 10'  
VERT: N/A**  
ACI JOB #: **20-1114**  
SHEET NO. **26 of 56**

**STATE ROAD 19**

**CORRIDOR IMPROVEMENTS**

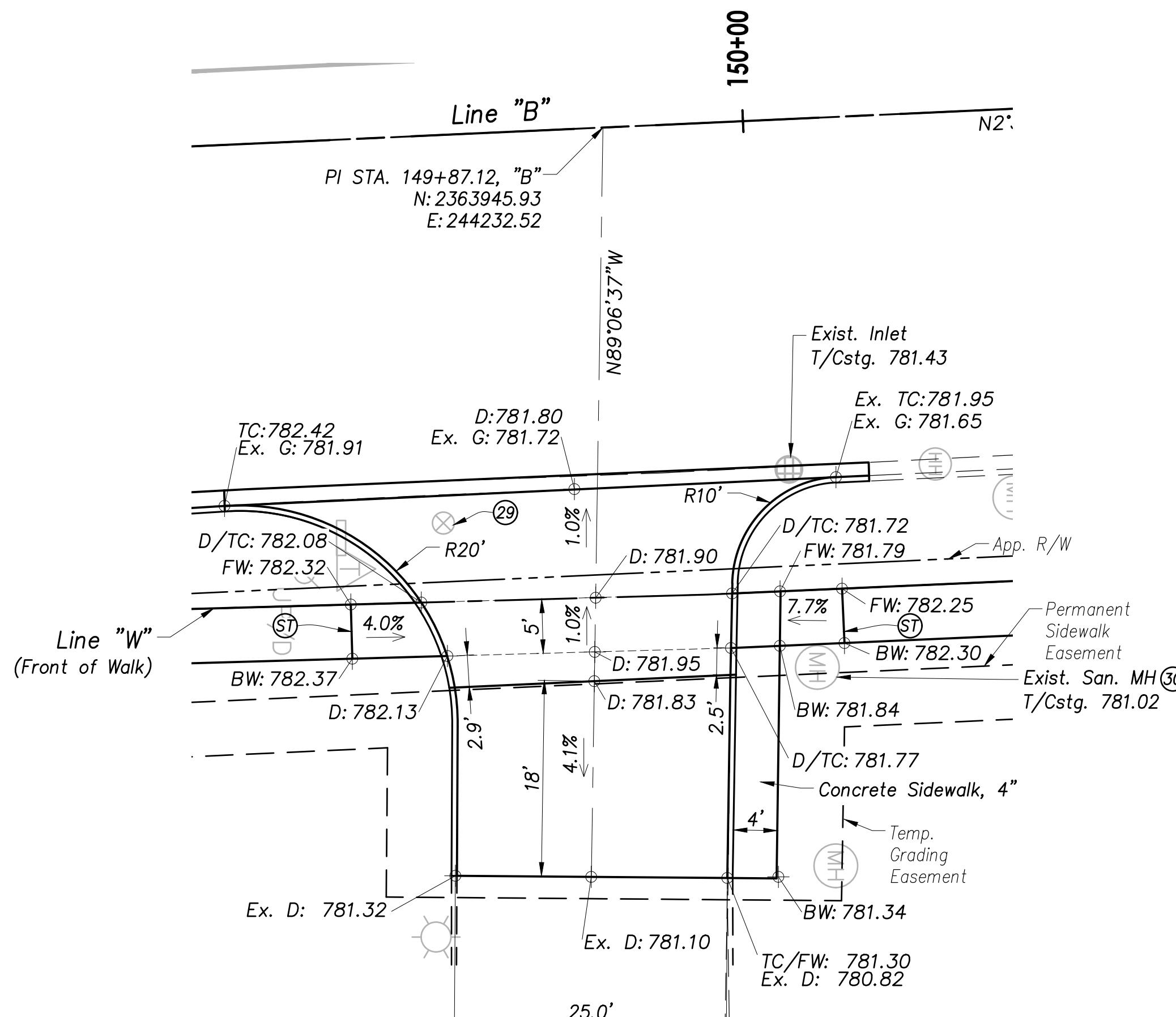
**(PA7663)**

315 W. Jefferson Blvd.  
South Bend, IN 46601  
**T** 574.232.8700  
**F** 574.251.4440  
[abonmarche.com](http://abonmarche.com)

Benton Harbor  
Ft. Wayne  
Goshen  
Hobart  
Lafayette

Portage  
South Bend  
South Haven  
Valparaiso

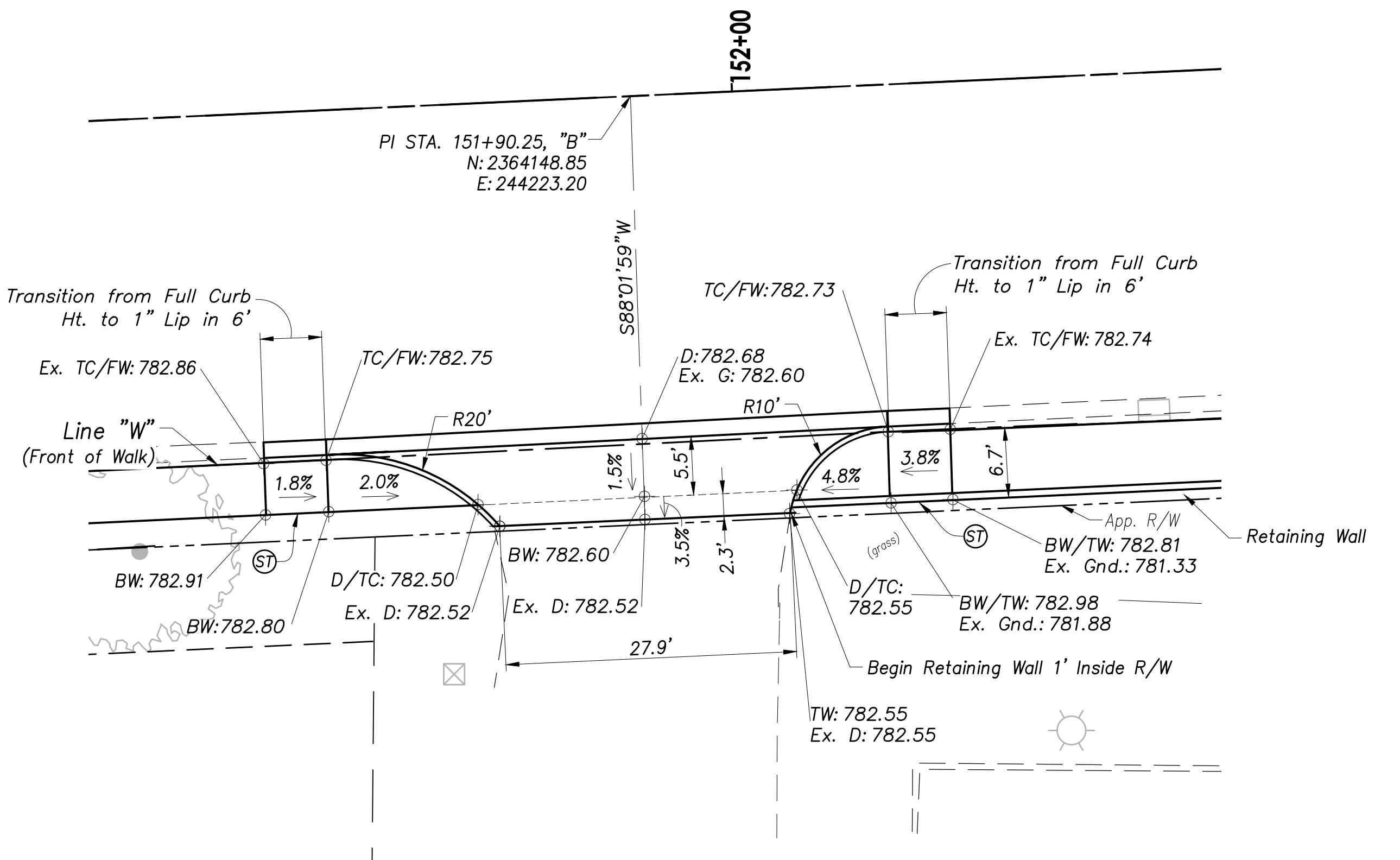
COPYRIGHT 2020 - ABONIMARCHE CONSULTANTS INC. Engineering • Architecture • Land Surveying



# **DRIVE APPROACH DETAIL 9**

## **Sta. 20+24.8, "W" - Class III**

Scale: 1" = 100'



## **DRIVE APPROACH DETAIL 10**

### **Sta. 22+29.6, "W" - Class III**

Scale: 1" = 10'

# CHAPTER 1 LAYOUT AND GRADING DETAILS: DRIVE APPROACHES

*Abonmarche - March 02, 2023 - 4:40pm*

## LEGEND

- (ST) Sidewalk Transition:**  
Min. Length - 6'  
Max. Slope - 8.33%

**(29) Adjust Valve To Grade**

Ex. Existing Elevation  
xxx.xx Gutter Elevation  
xxx.xx Top of Casting Elevation  
xxx.xx Finished Drive Elevation  
xxx.xx Top of Curb Elevation  
xxx.xx Front of Walk Elevation  
xxx.xx Back of Walk Elevation

SHEET TITLE:	<b>LAY</b>
<hr/>	
DRAWN BY:	
<b>NI</b>	
<hr/>	
DESIGNED BY:	
<b>CAK/ZDH</b>	
<hr/>	
PM REVIEW:	
<b>RAN</b>	
<hr/>	
QA/QC REVIEW:	
<b>DSK</b>	
<hr/>	
DATE:	
<b>03/02/23</b>	
<hr/>	
SEAL:	
 <p>DARYL S. KNIP REGISTERED No. PE19900163 STATE OF PENNSYLVANIA</p>	

---

SIGNATURE: 

---

DATE: 03/02/2023

---

SCALE: HOP7: 1" = 10'

HORZ: T - 10  
VERT: N/A  

---

ACI JOB #  
**20-1114**

SHEET NO.

27 of 56