

# SECTION B: GRADING PLANS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B1	B60

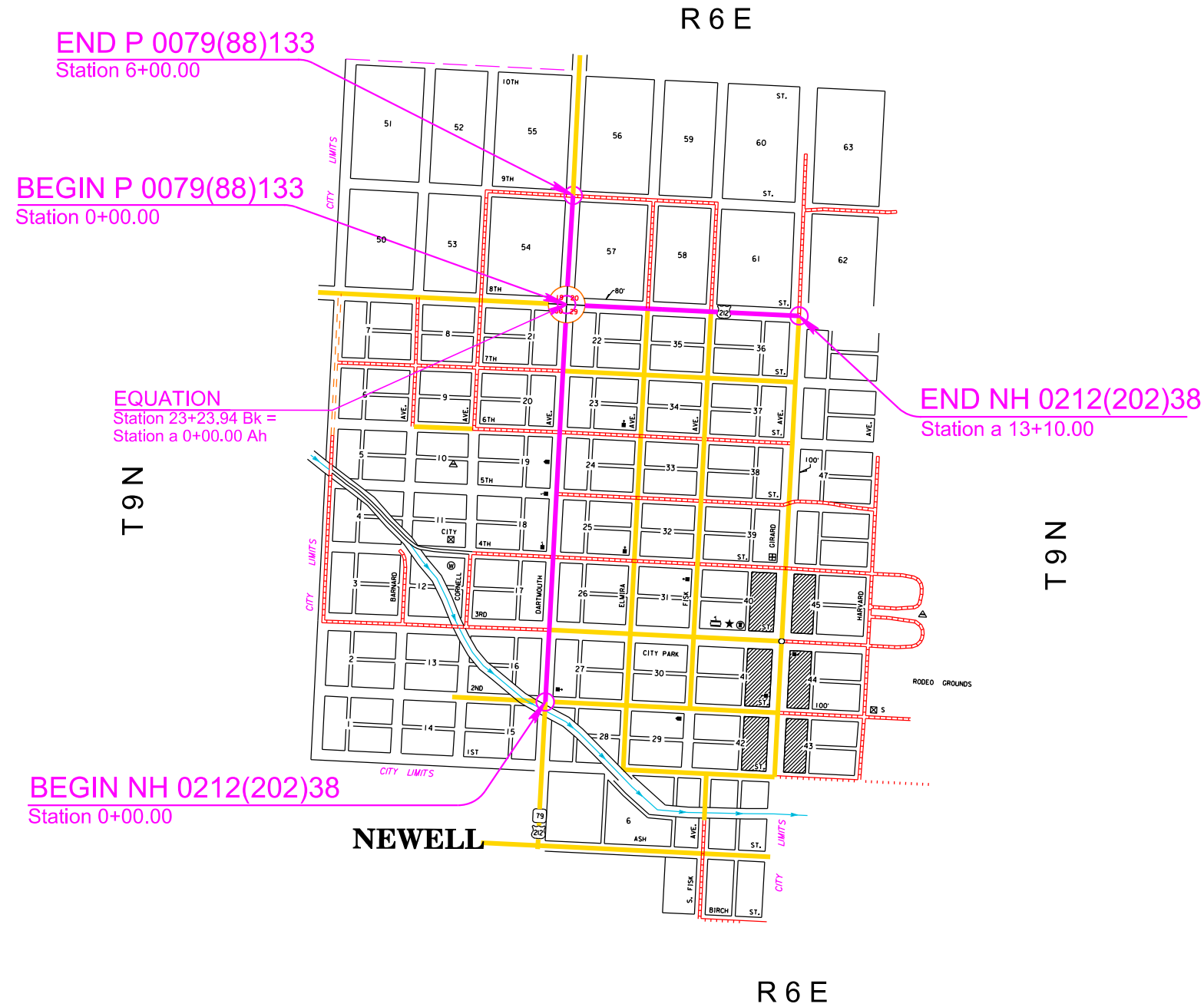
Plotting Date: 04/15/2024

## INDEX OF SHEETS

B1	General Layout with Index
B2-B6	Estimate with General Notes & Tables
B7-B8	Pavement, Curb and Gutter, and Sidewalk Quantities
B9	Typical Grading Sections
B10	Horizontal Alignment Data
B11	Control Data
B12	Legend
B13-B25	Plan and Profile Sheets
B26-B33	Curb and Gutter Layout
B34-B44	Curb Ramp Layout
B45-B46	Trench Drain Detail Sheets
B47-B60	Standard Plates

Plot Scale - 1:200

Plotted From - TRPR13418



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**SECTION B ESTIMATE OF QUANTITIES**
**PCN 06G2**

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3200	Construction Staking	Lump Sum	LS
009E3220	Reestablish Right-of-Way and Property Corner	57	Each
009E3225	Reestablish Public Land Survey System Corner	2	Each
100E0020	Clear and Grub Tree	24	Each
110E0300	Remove Concrete Curb and/or Gutter	1,886	Ft
110E0605	Remove Chain Link Fence	71	Ft
110E1010	Remove Asphalt Concrete Pavement	493.9	SqYd
110E1100	Remove Concrete Pavement	29.0	SqYd
110E1130	Remove Concrete Driveway Pavement	231.0	SqYd
110E1140	Remove Concrete Sidewalk	2,272.0	SqYd
120E0010	Unclassified Excavation	120	CuYd
250E0020	Incidental Work, Grading	Lump Sum	LS
260E2010	Gravel Cushion	377.7	Ton
320E1200	Asphalt Concrete Composite	151.9	Ton
380E3520	6" PCC Approach Pavement	401.8	SqYd
380E3540	8" PCC Approach Pavement	383.7	SqYd
380E4050	8" PCC Fillet Section	109.1	SqYd
420E0400	Structure Excavation, Miscellaneous	15	CuYd
450E0112	15" RCP Class 2, Furnish	24	Ft
450E0120	15" RCP, Install	24	Ft
450E4748	15" CMP 14 Gauge, Furnish	2	Ft
450E4750	15" CMP, Install	2	Ft
450E4758	18" CMP 14 Gauge, Furnish	424	Ft
450E4760	18" CMP, Install	424	Ft
450E8004	15" RCP to CMP Transition, Furnish	1	Each
450E8005	15" Pipe Transition, Install	1	Each
451E6080	Adjust Water Valve Box	5	Each
462E0100	Class M6 Concrete	30.6	CuYd
480E0200	Epoxy Coated Reinforcing Steel	3,383	Lb
621E0030	3' Chain Link Fence with Top Rail	68	Ft
621E0410	Pedestrian Swing Gate	1	Each
650E0060	Type B66 Concrete Curb and Gutter	915	Ft
650E4660	Type P6 Concrete Gutter	28	Ft
650E4680	Type P8 Concrete Gutter	40	Ft
650E6080	8" Concrete Valley Gutter	435	Ft
651E0040	4" Concrete Sidewalk	26,051	SqFt
651E0060	6" Concrete Sidewalk	770	SqFt
651E7000	Type 1 Detectable Warnings	510	SqFt
670E8002	Trench Drain Frame and Grate	221	Ft
735E4000	Tree Trimming	11	Each

**PCN 06G1**

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3200	Construction Staking	Lump Sum	LS
009E3220	Reestablish Right-of-Way and Property Corner	9	Each
100E0020	Clear and Grub Tree	10	Each
110E0300	Remove Concrete Curb and/or Gutter	450	Ft
110E0420	Remove Drop Inlet Frame and Grate Assembly	1	Each
110E1010	Remove Asphalt Concrete Pavement	89.4	SqYd
110E1100	Remove Concrete Pavement	9.2	SqYd
110E1130	Remove Concrete Driveway Pavement	136.2	SqYd
110E1140	Remove Concrete Sidewalk	252.2	SqYd
120E0010	Unclassified Excavation	95	CuYd
120E0600	Contractor Furnished Borrow Excavation	20	CuYd
260E2010	Gravel Cushion	85.5	Ton
320E1200	Asphalt Concrete Composite	19.8	Ton
380E3520	6" PCC Approach Pavement	256.8	SqYd
380E4050	8" PCC Fillet Section	80.4	SqYd
451E6080	Adjust Water Valve Box	1	Each
650E0060	Type B66 Concrete Curb and Gutter	236	Ft
650E4660	Type P6 Concrete Gutter	97	Ft
651E0040	4" Concrete Sidewalk	5,080	SqFt
651E7000	Type 1 Detectable Warnings	60	SqFt
670E1200	Type B Frame and Grate	1	Each
670E6000	Adjust Drop Inlet	1	Each
735E4000	Tree Trimming	3	Each

**GRADING OPERATIONS**

Water for Embankment is estimated at the rate of 10 gallons of water per cubic yard of Embankment minus Waste. The estimated quantity of Water for Embankment is 1 MGal. No separate payment will be made for the Water for Embankment and all costs associated will be incidental to the contract unit price per cubic yard of "Unclassified Excavation".

**UTILITIES**

The Contractor will be aware that the existing utilities shown in the plans were surveyed prior to the design of this project and might have been relocated or replaced by a new utility facility prior to construction of this project, might be relocated or replaced by a new utility facility during the construction of this project, or might not require adjustment and may remain in its current location. The Contractor will contact each utility owner and confirm the status of all existing and new utility facilities. The utility contact information is provided elsewhere in the plans or bidding documents.

**COORDINATION WITH OTHER PROJECTS  
P 0079(87)129, PCN 04L0 & NH 0212(193)28, PCN 06CP**

The intersection improvement, mill & AC resurfacing, and pipe work on project P 0079(87)129, PCN 04L0 and NH 0212(193)28, PCN 06CP is schedule for the construction season of 2025. The location of this project is along US212 from Nisland to the north junction of US212/SD79 and from the north junction of US212/SD79 north on SD79 0.25 miles. The Contractor on this project will coordinate with the Contractor on the mill & AC resurfacing so that work activities do not conflict. The Contractor for the project is unknown at this time. All costs associated with this coordination will be incidental to the various bid items on the project.

**CLEARING AND DISPOSAL OF TIMBER**
**B. Landowner Property**

Merchantable timber will be defined as any species of tree with an inside bark diameter of 8 inches or greater and length greater than 8 feet. All merchantable timber will be limbed and decked outside the right-of-way on the Owners property as directed by the Engineer and will become the property of the Landowner.

Slash and non-merchantable timber will be disposed of by chipping, burning, or burying. All residue from chipping or burning will be buried. Burial pits will be at locations approved by the Engineer. The Contractor will follow the prescribed burning provisions of the Fire Plan in his/her preparation for and conduction of all burning operations. Location of slash piles and all other aspects of slash disposal by burning must be approved in advance by the Engineer.

Stumps from right-of-way clearing will be buried at locations approved by the Engineer.

**TABLE OF CLEAR AND GRUB TREE (>6" DIAMETER)**

\* Landowner has requested merchantable timber at these locations.

Station	L/R	Quantity (Each)
<b>06G2</b>		
4+17	R	1
6+97	R	1
7+10	R	1
*9+12	R	1
10+30	R	1
10+55	R	1
11+04	R	1
11+15	R	1
*11+29	R	1
11+38	R	1
11+54	R	1
11+79	R	1
*13+19	R	1
13+67	R	1
13+83	R	1
15+56	L	1
16+47	R	1
20+35	R	1
20+49	R	1
20+62	R	1
20+75	R	1
20+88	R	1
21+23	R	1
a 7+82	R	1
<b>06G1</b>		
4+89 (SD79)	L	1
5+07 (SD79)	L	1
5+24 (SD79)	L	1
5+44 (SD79)	L	1
5+59 (SD79)	L	1
5+68 (SD79)	L	1
2+69 (SD79)	R	1
2+92 (SD79)	R	1
3+08 (SD79)	R	1
3+34 (SD79)	R	1
<b>06G2 Total:</b>		<b>24</b>
<b>06G1 Total:</b>		<b>10</b>

Stumps will be ground down 1' below ground level.

**TREE TRIMMING**

Trees with branches that hang over US212/SD79 have been identified in the following table and will have those branches cut.

The Engineer may direct tree trimming that were not included in these plans. Payment for tree trimming that were not included in the plans will be at the contract unit price per each for "Tree Trimming".

**TABLE OF TREE TRIMMING**

Station	L/R	Quantity (Each)
<b>06G2</b>		
3+75	R	1
14+23	R	1
14+40	R	1
14+59	R	1
16+87	L	1
17+09	L	1
17+60	R	1
18+35	R	1
18+48	R	1
18+60	R	1
18+70	R	1
<b>06G1</b>		
1+72 (SD79)	R	1
1+93 (SD79)	R	1
3+03 (SD79)	L	1
<b>06G2 Total:</b>		<b>11</b>
<b>06G1 Total:</b>		<b>3</b>

This table includes any branches that extend over the roadway.

**SHRINKAGE FACTOR:** Embankment +30%

**TABLE OF EXCAVATION QUANTITIES BY BALANCES – PCN 06G1**

Station	Excavation (CuYd)	* Contractor Furnished Borrow Exc. (CuYd)	Total Excavation (CuYd)
Totals:	50	20	70

**TABLE OF UNCLASSIFIED EXCAVATION – PCN 06G1**

	(CuYd)
Excavation	70
Topsoil	25
<b>Total</b>	<b>95</b>

**TABLE OF EXCAVATION QUANTITIES BY BALANCES – PCN 06G2**

Station	Excavation (CuYd)	Total Excavation (CuYd)	**Waste (CuYd)
Totals:	44	43	23

\* The quantities for these items are in the Estimate of Quantities under their respective contract items.

\*\* The quantities for these items are for information only.

**TABLE OF UNCLASSIFIED EXCAVATION – PCN 06G2**

	(CuYd)
Excavation	44
Topsoil	76
<b>Total</b>	<b>120</b>

**PROCEDURES FOR DETERMINING UNCLASSIFIED EXCAVATION QUANTITY**

When plan quantities are used for payment, the Unclassified Excavation quantity will be used for final payment and the plans quantity of Topsoil and salvaged surfacing items listed in the Table of Unclassified Excavation will not be adjusted according to field measurements.

The following paragraphs are general earthwork information and information in regard to computing the Unclassified Excavation quantity when final cross sections are taken in the field:

The Unstable Material Excavation quantity is included in the Excavation quantity listed in the Table of Unclassified Excavation. When finaling a project, the Unstable Material Excavation quantity will be added to the Excavation quantity to compute the Unclassified Excavation quantity.

The Topsoil quantity in the Table of Unclassified Excavation is an estimate. When finaling a project, the total quantity of field measured Topsoil will be used in place of the estimated Topsoil quantity. The quantity of Topsoil from the cuts will be paid for twice as Unclassified Excavation, as it will be in both the Excavation and Topsoil quantities. This will be full compensation for Excavation, which includes necessary undercutting to provide space for placement of topsoil.

The Excavation quantities from individual balances and the Table of Unclassified Excavation have been reduced by the volume of in place surfacing that will be removed and/or salvaged.

**CONTRACTOR FURNISHED BORROW EXCAVATION**

The Contractor will provide a suitable site for Contractor furnished borrow excavation material. The Contractor is responsible for obtaining all required permits and clearances for the borrow site. The borrow material will be approved by the Engineer.

Restoration of the Contractor furnished borrow excavation site will be the responsibility of the Contractor.

Contractor Furnished Borrow will be needed from station 4+00 to 6+00 – R SD79.

**INCIDENTAL WORK, GRADING**

Station to Station	Remarks
0+27-20' R to 0+41-17.69' R (XR9R)	Take Out 15"-14' RCP
0+39-18' R to 0+53-16' R (XR9R)	Take Out Trench Drain and Trench Drain Grate
0+26-11' R to 4+51-9'R (XR16R)	Take Out 18"-424' CMP

**REMOVAL OF CONCRETE SIDEWALK**

From approximately 1+80 to 4+40 L the thickness of the existing sidewalk is greater than normal. In this location sidewalk was placed on top of older existing sidewalk.

Before preparing their bid, it is the responsibility of the Contractor to make a visual inspection of the project to verify the extent of the work involved.

**REINFORCED CONCRETE PIPE**

High sulfate levels are likely to be encountered on this project. The type of cement used for the reinforced concrete pipes will be either a type II with 20% to 25% class F modified fly ash substituted for cement in accordance with Specifications Section 605 or a type V. The water/cementitious material ratio will not exceed 0.45 as defined in Specifications Section 460.3 C. The mix will be as per the fabricator's design; however, minimum compressive strength will not be less than 4500 psi at 28 days. The pipe must be marked in an acceptable way to designate meeting requirements for sulfate resistance.

**CORRUGATED METAL PIPE**

Corrugated metal pipes will have 2 3/8-inch x 1/2-inch corrugations for 42-inch and smaller round pipe and 48-inch and smaller arch pipe unless otherwise stated in the plans. Corrugated metal pipes will have 3-inch x 1-inch or 5-inch x 1-inch corrugations for 48-inch and larger round pipe and 54-inch and larger arch pipe unless otherwise stated in the plans.

Areas within the project have soils that are highly corrosive to steel. Corrugated metal pipe in these areas will be polymer coated 14 gauge steel as specified in the Table of Pipe Quantities. Any required connection bands, elbows, tees, crosses, wyes, reducers, and transitions will also be polymer coated. The connection bands will be 24 inches wide. All polymer coated corrugated metal pipe and components will be in conformance with AASHTO M245. Riveted pipe will not be allowed.

All damage to the polymer coating will be repaired in accordance with the manufacturer's recommendations prior to installation of the pipe.

All costs associated with the polymer coating including repair of polymer coating will be incidental to the corresponding CMP contract items.

**CONCRETE PIPE CONNECTIONS**

Pipe connections to existing pipes, manholes, junction boxes, and drop inlets will be done by breaking a hole into the existing structure and inserting the pipe. A concrete collar will then be poured around the pipe in the area of the connection.

When it is not possible to use a normal pipe joint (male-female ends), connections to existing pipe will be made by placing a 2' wide by 6" thick M6 concrete collar around the outside of the connection. The concrete collar will be reinforced with 6x6 W2.9 x W2.9 wire mesh.

All costs for constructing the concrete collars including materials and labor will be incidental to the contract unit price per foot for the corresponding pipe contract item.

**PIPE COVER**

The earthen subgrade cover for some pipe installations is less than one foot. The Contractor will take the necessary precautions to ensure the structural properties of the pipes are not damaged after installation and prior to the placement of final surfacing. Any additional costs for preventing damage to these pipes will be incidental to the contract unit price per foot for the corresponding pipe installation contract item.

**STORM SEWER**

Reinforced concrete pipe may be bell and spigot. The pipe sections will be adjoined such that the ends are fully entered and the inner surfaces are reasonably flush and even.

Lift holes in the reinforced concrete pipe will be plugged with grout.

Watertight joints are required for reinforced concrete pipe, drop inlets, manholes, and junction boxes where storm sewers run parallel to and within 10 feet horizontally from existing or proposed water mains.

Watertight joints are required where reinforced concrete pipes, drop inlets, manholes, or junction boxes cross water mains and are separated a distance of 18 inches or less, above or below, the water main.

If watertight joints are required then the watertight joints will extend for a distance of 10 feet beyond the water main. This measurement will be from the sealed concrete joint to the outer most surface of the water main.

Watertight joint seals will conform to the following requirements:

- Reinforced Concrete Pipe (Circular):** Gasketed pipe will conform to the requirements of ASTM C443 and the gasket will be in conformance with Section 990 of the Specifications. Non-gasketed concrete pipe will be sealed with a mastic joint seal conforming to the requirements of ASTM C990 and encased with a minimum 2-foot wide by 6-inch thick M6 concrete collar reinforced with 6x6 W2.9 x W2.9 wire mesh.
- Drop Inlets, Manholes, and Junction Boxes:** Joints will be sealed with one of the following methods:
  - A flexible strip seal placed in the joints conforming to the requirements of ASTM C990 and the perimeter encased with a minimum 2-foot wide by 6-inch thick M6 concrete collar reinforced with 6x6 W2.9 x W2.9 wire mesh.

- A hydrophilic flexible water stop seal placed in the joints and a 1-foot wide strip of fabric wrapped around the perimeter of the pipe. The fabric will conform to the requirements of Section 831 of the Specifications for Type A Drainage Fabric. The hydrophilic flexible water stop will be from the list below.
- A self-adhesive external joint seal wrap. The seal wrap will be from the list below.

**Approved List of Self-adhesive Joint Wrap**

Product	Manufacturer
Mar Mac Seal Wrap	Mar Mac Construction Products McBee, SC 843-335-5909 <a href="http://www.marmac.com">www.marmac.com</a>
ConWrap CS-212	Concrete Sealants, Inc. Tipp City, OH 800-332-7325 <a href="http://www.conseal.com">http://www.conseal.com</a>

**Approved List of Hydrophilic Flexible Water Stop Seal:**

Product	Manufacturer
Waterstop RX	Cetco Hoffman Estates, IL 800-527-9948 <a href="http://www.cetco.com">www.cetco.com</a>
Conseal CS-231	Concrete Sealants, Inc. Tipp City, OH 800-332-7325 <a href="http://www.conseal.com">http://www.conseal.com</a>

Gaskets and seals (mastic, waterstop, and seal wraps) will be installed in accordance with the Manufacturer's recommendations.

The cost for furnishing and installing all gaskets, mastic joint seal, water stop seal, seal wrap, concrete collars, and for plugging the lift holes will be incidental to the contract unit price per foot for the corresponding pipe contract item.

**REMOVAL OF FRAME AND GRATES**

Frame and Grates removed by the Contractor will become the property of the Contractor.

### ADJUSTMENT OF DROP INLET

The Contractor will adjust drop inlet to the extent necessary on this project. Adjusting the drop inlet may consist of removing the existing Frame & Grate, removing the concrete walls if necessary, replacing the removed materials with Class M6 concrete, placing adjusting rings if necessary. The elevation of the lid will be set at the same elevation of the adjacent new pavement or surrounding ground. All drop inlet frames, lids, and rings that are cracked or broken due to carelessness of the Contractor will be replaced with new drop inlet frames, lids, and rings that conform with the Specifications at the Contractor's expense. Drop Inlets will be adjusted to the satisfaction of the Engineer. All costs involved in adjusting the drop inlet will be incidental to the contract unit price per each for "Adjust Drop Inlet".

The Engineer may direct adjustment of drop inlets that were not included in these plans. Payment for adjusting drop inlets that were not included in the plans will be at the contract unit price per each for "Adjust Drop Inlet".

### TABLE OF ADJUST DROP INLET – PCN 06G1

Station	L/R	Type of Adjustment
5+79 SD79	20.4' R	Raise 2"

### TABLE FOR ADJUSTMENT OF WATER VALVES

Station	Adjustment
Mainline	
6+54 – 34' L	Lower approx. 2"
6+54 - 32' L	Lower approx. 2"
6+63 – 33' R	Lower approx. 5"
7+92 – 32' L	Lower approx. 5"
17+18 – 34' L	Raise approx. 2"
SD79 3+84 – 34' L	Lower approx. 3"

### ASPHALT CONCRETE COMPOSITE

Section 324 will apply except that Class Q3R Hot Mixed Asphalt Concrete as specified elsewhere in the plans may be used as Asphalt Concrete Composite.

Plans specified locations for Asphalt Concrete Composite will be paid for at the contract unit price per ton for Asphalt Concrete Composite regardless of the class of asphalt concrete used at such locations.

### SIDEWALK ADJACENT TO BUILDINGS

When placing sidewalk adjacent to buildings, the elevation of the new sidewalk may be either higher or lower than the existing sidewalk. This may require that modification be made to building exteriors such as: removal of siding, installation of flashing, installation of siding, or other necessary modifications. Building modifications will be approved by the Engineer. All costs associated with modifying the buildings for sidewalk placement will be incidental to the contract unit price per square foot for the corresponding concrete sidewalk contract item.

Sidewalk placed adjacent to building doorways should nearly match the doorway threshold and will have a maximum 1/4-inch vertical rise at the doorway threshold. A sidewalk turning space will be provided at building doorways in accordance with the plans. Sidewalk should ramp or slope down from the turning space to the typical sidewalk as specified in the plans. Additional sidewalk ramp or slope locations may be required. In the plans, the locations without ramps were assumed by the design Engineer as sites that slopes of less than 5 percent could be used from the turning space to the typical sidewalk. The limits of the ramp and steepened sidewalk shown in the plans may need to be adjusted to the actual doorway location and to meet sidewalk slope requirements as specified in the plans.

### 6" PCC FILLET SECTIONS

Payment for "6" PCC Fillet Section" will be based on plans quantity. If additions or reductions to the area of PCC fillet sections are ordered by the Engineer, payment will be made in accordance with the contract unit price per square yard for "6" PCC Fillet Section".

### TYPE 1 DETECTABLE WARNINGS

Detectable warnings will be in compliance with the Americans with Disabilities Act regulations.

The detectable warnings will be installed according to the manufacturer's installation instructions.

A concrete thickness equal to the adjacent concrete sidewalk thickness and 2 inches of granular cushion material will be placed below the Type 1 Detectable Warnings. When concrete is placed below the detectable warnings then the concrete thickness will be transitioned at the rate of 1" per foot to match the adjacent concrete sidewalk thickness.

The detectable warnings will be a brick red color for application in concrete curb ramps. Cast iron plates may be a natural patina (weathered steel).

Type 1 Detectable Warning Panels will be one of the following products:

### Type 1 Detectable Warnings

Product	Manufacturer
Detectable Warning Plate Cast Iron Plate	Neenah Foundry Company Neenah, WI 800-558-5075 <a href="http://www.neenahfoundry.com/">http://www.neenahfoundry.com/</a>
Detectable Warning Plate Cast Iron Plate	Deeter Foundry Lincoln, NE 800-234-7466 <a href="http://www.deeter.com/">http://www.deeter.com/</a>
Detectable Warning Plate	East Jordan Iron Works, Inc. 301 Spring Street East Jordan, MI 49727
Cast Iron Plate(No Coating)	800-626-4653 <a href="http://www.ejiw.com">http://www.ejiw.com</a>
Iron Dome Cast Iron Detectable Warning Tile	ADA Solutions, Inc. 323 Andover Street Suite 3 Wilmington, MA 01887 800-372-0519 <a href="https://adatile.com">https://adatile.com</a>
TufTile (wet-set) Cast Iron Replaceable Tile	TufTile 1200 Flex Court Lake Zurich, IL 60047 888-960-8897 <a href="http://www.tuftile.com/">http://www.tuftile.com/</a>
Advantage Tactile Detectable Warning Cast Iron Plate	Advantage Tactile Systems, Inc. 241 Main Street, Suite 100 Buffalo, NY 14203 800-679-4022 <a href="https://advantagetactile.com/">https://advantagetactile.com/</a>

**TABLE OF CONSTRUCTION STAKING**

Roadway and Description

Roadway and Description	Begin Station	End Station	Length (Ft)
PCN 06G2			
US 212/SD79 Sidewalk	0+35	23+23	2,288
XR9R Modified Curb/Trench Drain	0+40	4+34	394
XR16R Pipe Instrall	0+45	4+51	406
US212 Sidewalk	a 0+00	a 12+81	1,281
PCN 06G1			
SD79 Sidewalk	0+00	6+00	600

**PUBLIC LANDS SURVEY SYSTEM, RIGHT OF WAY, AND PROPERTY CORNERS**

The Contractor will have a Land Surveyor, licensed in the State of South Dakota, to set, reestablish or verify public land survey system (PLSS) corners, right of way (ROW) corners, and property corners as directed by the appropriate SDDOT Region Land Surveyor. It is estimated that 2 PLSS corners and 66 ROW and property corners will be set, reestablished, or verified for this project. The Contractor's Land Surveyor, under the direction of the Region Land Surveyor, will set, reestablish, or verify all corner monuments after surfacing and fencing operations are completed in accordance with the PUBLIC LANDS SURVEY SYSTEM CORNERS section and the RIGHT OF WAY AND PROPERTY CORNERS section in Chapter 8 of the SDDOT Survey Manual.

< <https://dot.sd.gov/doing-business/engineering/design-services/surveyors> >

All costs associated with furnishing and installing PLSS caps, rebar, and all other materials associated with setting, reestablishing, or verifying PLSS, ROW corners, and property corners in accordance with the SDDOT Survey Manual will be incidental to the contract unit price per each for "Reestablish Public Land Survey System Corner" and/or "Reestablish Right-of-Way and Property Corner".

**TABLE OF PIPE QUANTITIES**

Station	Offset (L/R)	Reinforced Concrete		Corragated Metal		
		Circular		Circular 14 Ga		RCP to CMP Transition
		15"	(Ft)	15"	18"	15" to 15"
		(Ft)	(Ft)	(Ft)	Each	
0+27-20' R to 0+78-15.37' R (XR9R)		24		2	1	
0+26-11' R to 4+51-9' R (XR16R)				424		
<b>Total:</b>		24		2	424	
				1		

**TABLE OF FENCE QUANTITIES**

Station to Station	Right-of-Way Fence		Gate	Fence
	3' Chain Link Fence with Top Rail	(Ft)	4' Swing Gate	Remove Chain Link Fence
		(Ft)	Each	(Ft)
7+95	8+45 L	68	1	71
<b>Totals:</b>		68	1	71

# PAVEMENT, CURB AND GUTTER, AND SIDEWALK QUANTITIES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B7	B60

Plotting Date: 06/10/2024

1:200

Plot Scale -

Plotted From -

TRPR13418

File - ...Table of Pavement\_CG\_Sidewalk\_Quantities.dgn

Station to Station	REMOVE					INSTALL															
	Concrete Curb and/or Gutter	Concrete Pavement	Asphalt Concrete Pavement	Concrete Driveway Pavement	Concrete Sidewalk	PCC Fillet Section	Concrete Curb and Gutter Type		Concrete Gutter Type			PCC Approach Pavement Type A		Concrete Sidewalk		Detectable Warnings		Gravel Cushion		Asphalt Concrete Composite	
	Ft	SqYd	SqYd	SqYd	SqYd	8"	B66	P6	P8	Valley 8"	6"	8"	4"	6"	Type 1			Ton		Ton	
<b>US212/SD79 (PCN 06G2)</b>																					
0+35.27 R	0+46.73 R																				
0+78.35 R	3+03.00 R	18.1		2.0			18														
3+03.00 R	4+38.17 R	18.0		2.0	16.9		18					17.2									
4+37.67 R	5+00.94 R	63.3		14.1						63											
5+00.67 R	6+43.00 R	18.0		2.0			18														
6+43.00 R	7+43.00 R			8.4	7.7							17.3									
7+43.00 R	8+57.79 R	22.4		17.8	12.5		22					29.3									
Fourth Street																					
0+39.79 R	1+69.75 R	137.4		1.6			14														
1+69.75 R	2+38.75 R	127.0										16.1									
2+38.75 R	3+44.00 R	121.1					69					13.9		19.2	111.7						
3+44.00 R	4+34.16 R	90.2					80		10			8.8									
<b>US212/SD79 (PCN 06G2)</b>																					
8+59.66 R	8+89.75 R	30.1		6.7						30											
8+89.56 R	9+54.00 R	32.6		3.6			33							412.9		20.0				1.4	3.0
9+54.00 R	10+06.00 R			8.3	9.2							18.8		165.0						3.9	0.7
10+06.00 R	12+19.47 R	19.3		10.1	6.7		19					15.6		1108.6		20.0				3.7	0.7
12+19.34 R	12+49.47 R	30.1		6.7						30										1.4	3.0
12+49.11 R	13+01.00 R	19.8		2.2			20							335.5		20.0				0.7	0.7
13+01.00 R	14+99.00 R			7.5	6.7							15.1		1040.9						3.1	
14+99.00 R	15+80.20 R	46.6		9.5			47					29.1		462.2		20.0				8.5	2.5
15+80.16 R	16+12.66 R	32.5		7.2						33										1.5	3.2
Sixth Street (XR16R) 3+63 R																					
16+12.66 R	17+72.00 R	24.7	3.8	3.8			6.4	19						22.8							
17+72.00 R	19+41.13 R	18.1		12.9	6.5			18						919.6		20.0				1.3	1.3
19+41.27 R	19+67.65 R	26.4		5.9										842.5		20.0				4.6	0.7
19+67.70 R	20+93.00 R	18.3		2.0				18		26										1.2	2.6
20+93.00 R	22+08.00 R				26.5									705.5		20.0				0.6	0.7
22+08.00 R	a 0+70.53 R	82.3		2.4	23.2			78				27.8		468.8						5.8	
0+89.04 L	1+32.79 L	26.9	6.1	5.2			6.1	27				24.2		474		10.0				27.4	7.5
1+33.41 L	4+54.74 L	18		27.7				18						297.8		20.0				1.4	1.7
4+53.89 L	5+00.58 L	46.7		10.4						47			23.6	1624		20.0				4.9	1.6
5+00.5 L	7+38.00 L	18.0		2.0				18												2.2	4.6
7+38.00 L	8+59.74 L	31.4	3.9	12.2	7.2		3.9	31				15.7		1308.1		20.0				0.6	0.6
8+59.78 L	8+89.39 L	29.6		6.6						30				688.3		20.0				4.7	1.6
8+89.39 L	11+27.70 L	27.6	6.4	3.6			6.4	28												1.4	2.9
11+27.70 L	15+80.23 L	59.6		6.9	25.5			60						1307.0		20.0				1.5	1.6
15+80.16 L	16+09.94 L	29.8		6.6						30			18.8	2525.5		40.0				3.9	2.2
16+09.74 L	17+56.00 L	20.9		2.6				21												1.4	3.0
17+56.00 L	19+43.68 L	18.2		11.6	5.8			18				16.5		847.5		20.0				0.7	0.8
19+43.50 L	19+67.95 L	24.4		5.4						24				955.0		20.0				4.0	0.6
19+67.76 L	20+68.00 L	18.2		2.0				18												1.1	2.4
														582.7		20.0				0.6	0.6
<b>06G2 Subtotal:</b>		1365.6	20.2	239.5	154.4	2118	22.8	730	10	0	313	284.7	42.4	21006	112	440				183.9	61.6

# PAVEMENT, CURB AND GUTTER, AND SIDEWALK QUANTITIES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B8	B60
Plotting Date: 06/10/2024			

1:200

Plot Scale -

Station to Station	REMOVE					INSTALL															
	Concrete Curb and/or Gutter	Concrete Pavement	Asphalt Concrete Pavement	Concrete Driveway Pavement	Concrete Sidewalk	PCC Fillet Section	Concrete Curb and Gutter Type		Concrete Gutter Type			PCC Approach Pavement Type A		Concrete Sidewalk		Detectable Warnings		Gravel Cushion		Asphalt Concrete Composite	
	Ft	SqYd	SqYd	SqYd	SqYd	8"	B66	P6	P8	Valley 8"	6"	8"	4"	6"	Type 1		Ton	Ton			
<b>US212/SD79 (PCN 06G2)</b>																					
20+68.00 L	21+26.00 L			11.3	6.1	21.1															
21+26.00 L	22+17.00 L			10.8	6.9	38.1															
22+17.00 L	23+04.86 L	39.6	8.8	6.6	13	47.1	21.7	20													
23+04.70 L	0+21.51 L SD79	40.6		9.0						41											
<b>US212 (PCN 06G2)</b>																					
a 0+70.53 R	a 1+67.23 R	21.1		1.4			8.9														
a 1+67.23 R	a 2+12.00 R	70.8		33.3		11.6	8.9	16		16											
a 2+12.00 R	a 4+53.18 R	45.0		6.7	50.6	36.1	11.8	40	18			53.9					10.0				
a 4+53.18 R	a 8+10.92 R	134.1		59.6			23.4	52		32							20.0				
a 8+10.92 R	a 8+69.62	75.3		105.2			11.6	14		33							10.0				
a 8+69.62 R	a 9+83.00 R											85.0		326.8							
a 9+83.00 R	a 11+01.28 R	84.3		9.4				44		40			92.6		331.4						
a 11+01.28 R	a 12+81.36 R	9.7		1.1								163.7					10.0				
<b>SD79 (PCN 06G1)</b>																					
0+20.19 R	1+44.00 R	33.8	4.6	8.4		68.0	25.6										20.0				
1+44.00 R	2+00.00 R	21.0		2.3	42.8	17.0		8													
2+00.00 R	2+55.00 R				10.9	19.9			13				43.4								
2+55.00 R	4+28.26 R				5.9	19.1							10.6								
4+28.26 R	5+98.52 R	178.8		21.8	31.9	1.7	14.8	132	28				7.2								
0+21.30 L	2+28.00 L	60.0	4.6	7.9		103.4	26.0	26					41.4				10.0				
2+28.00 L	3+51.00 L	38.8		33.9	13.6	23.1		23		16							20.0				
3+51.00 L	4+56.00 L	43.2		4.8	17.8			15		24											
4+56.00 L	5+97.11 L	74.7		9.2	13.3		14.0	32		16											
<b>06G2 Subtotal:</b>		521	8.8	254.4	76.6	154.0	86.3	185	18	40	122	117.1	341.3	5045	658	70	193.8			90.3	
<b>06G1 Subtotal:</b>		450	9.2	89.4	136.2	252.2	80.4	236	97	0	0	256.8	0	5080	0	60	85.5			19.8	
<b>06G2 Total:</b>		1886	29.0	493.9	231.0	2272.0	109.1	915	28	40	435	401.8	383.7	26051	770	510	377.7			151.9	
<b>06G1 Total:</b>		450	9.2	89.4	136.2	252.2	80.4	236	97	0	0	256.8	0	5080	0	60	85.5			19.8	

TRPR13418

Plotted From -

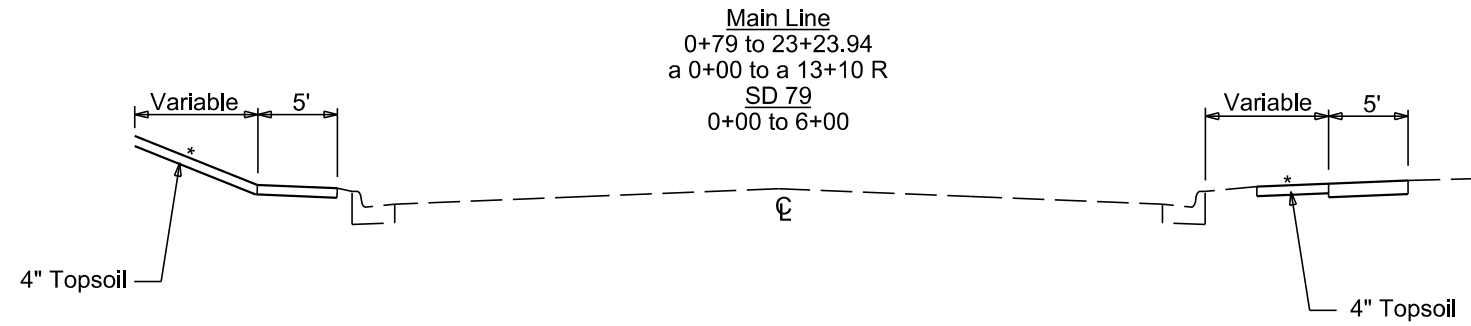
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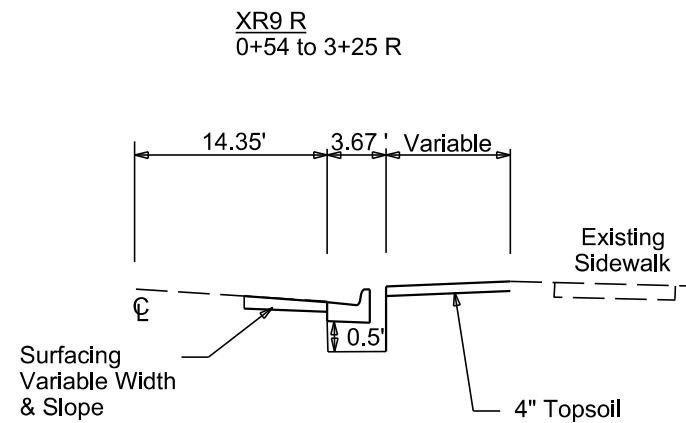
# TYPICAL GRADING SECTION

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B9	B60

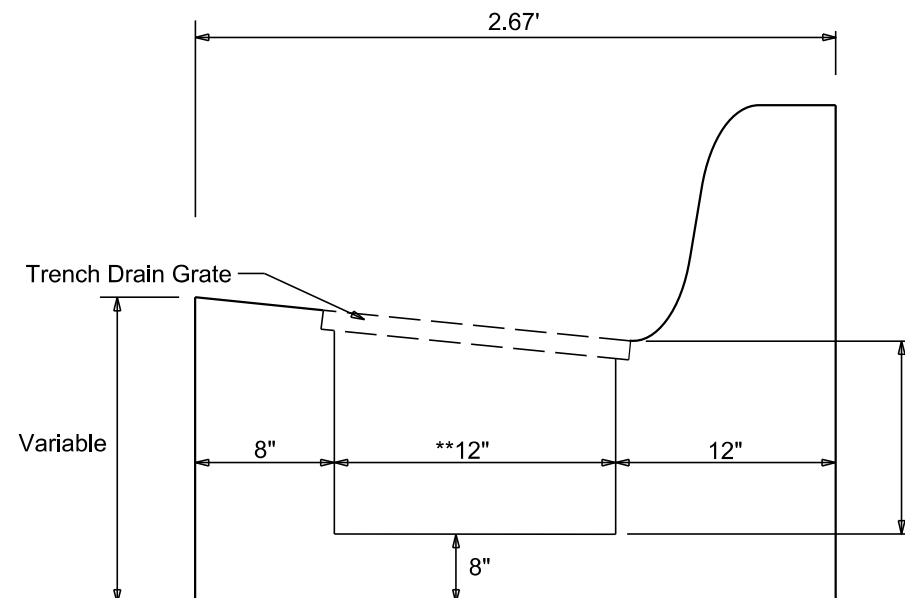
Plotting Date: 11/21/2023



\* Variable Slope



Modified Type B w/ Trench Drain  
0+54 to 2+75 (XR9R)



\*\* 0+54 to 0+58 - 18"  
0+58 to 2+25 - 12"

Transition:  
\* 0+54 to 2+25 - 1.8' to 0.45'  
2+25 to 2+75 - 0.45' to 0.15'

Plot Scale - 1:200

Plotted From - TRPR17192

File - U:\trproj\Bute06G2\typ.dgn

# HORIZONTAL ALIGNMENT DATA

STATE OF SOUTH DAKOTA	PROJECT NH 0212(202)38 P 0079(88)133	SHEET B10	TOTAL SHEETS B60
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Plotting Date: 11/15/2023

### MAINLINE

Type	Station	Northing	Easting
POB	0+00.00	339685.769	1078261.448
EQNBK	23+23.94	342007.599	1078360.462
EQNAHD	a 0+00.00	342007.599	1078360.462
TL= 2323.94    N 2°26'31" E			
PI	a 0+00.00	342007.601	1078360.462
TL= 1309.60    S 87°32'46" E			
POE	a 13+09.60	341951.531	1079668.859

### SD79

Type	Station	Northing	Easting
POB	0+00.00	342007.601	1078360.462
TL= 754.03    N 2°31'12" E			
POE	7+54.03	342760.901	1078393.616

### XR9R

Type	Station	Northing	Easting
POB	0+00.00	340559.361	1078298.702
TL= 330.70    S 87°33'29" E			
POE	3+30.70	340545.271	1078629.106

### XR16R

Type	Station	Northing	Easting
POB	0+00.00	341270.384	1078329.024
TL= 549.13    S 87°33'29" E			
POE	5+49.13	341246.988	1078877.652

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. North Zone (NAD 83/2011); epoch 20010.00; Geoid 12A; SF = 0.99998227882

Plot Scale - 1:200

Plotted From - TRPR17192

File - ...rd\pj\Bute06G2\Data\Horiz.dgn

# CONTROL DATA

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B11	B60

Plotting Date: 11/15/2023

HORIZONTAL AND VERTICAL CONTROL POINTS						
POINT	STATION	OFFSET	DESCRIPTION	NORTHING	EASTING	ELEVATION
AC7910	4+58	6435' R	REFMRK HARN	342182.755	1084809.465	2786.58
CP1	a0+41	2589' R	BARCAP	339419.195	1078290.399	2854.09
CP2	4+19	41' L	BARCAP	340106.060	1078238.806	2850.27
CP3	8+45	40' R	BARCAP	340527.985	1078337.274	2844.52
CP4	16+24	40' L	BARCAP	341310.219	1078290.685	2838.47
CP5	19+24	40' L	BARCAP	341609.956	1078303.310	2836.14
CP6	19+84	40' R	BARCAP	341666.468	1078385.800	2835.51
CP7	0+40	41' L(Hwy79)	BARCAP	342049.405	1078321.046	2835.31
CP8	a4+40	40' R	BARCAP	341948.932	1078798.388	2827.97
CP9	5+85	40' R	BARCAP	342590.034	1078426.105	2820.83
CP10	a11+10	40' R	BARCAP	342000.078	1079471.020	2820.18
CP11	12+60	24' L	REBAR	340946.185	1078290.685	2838.47

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. North Zone (NAD 83/2011); epoch 2010.00  
 Geoid 12A; SF = 0.9998227882  
 The elevations shown on this sheet are based on NAVD 88.

Plot Scale - 1:200

Plotted From - TRPR17192

File - ...\\p1\Bute06G2\DataControl.dgn

# LEGEND

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B12	B60

Plotting Date: 11/15/2023

Anchor		Mailbox		Subsurface Utility Exploration Test Hole		State and National Line	
Antenna		Manhole Electric		Telephone Fiber Optics		County Line	
Approach		Manhole Gas		Telephone Junction Box		Section Line	
Assumed Corner		Manhole Miscellaneous		Telephone Pole		Quarter Line	
Azimuth Marker		Manhole Sanitary Sewer		Television Cable Jct Box		Sixteenth Line	
BBQ Grill/ Fireplace		Manhole Storm Sewer		Television Tower		Property Line	
Bearing Tree		Manhole Telephone		Test Wells/Bore Holes		Construction Line	
Bench Mark		Manhole Water		Traffic Sign Double Face		ROW Line	
Box Culvert		Merry-Go-Round		Traffic Sign One Post		New ROW Line	
Bridge		Microwave Radio Tower		Traffic Sign Two Post		Cut and Fill Limits	
Brush/Hedge		Miscellaneous Line		Traffic Signal		Control of Access	
Buildings		Miscellaneous Property Corner		Trash Barrel		New Control of Access	
Bulk Tank		Miscellaneous Post		Tree Belt		Proposed ROW	
Cattle Guard		Overhang Or Encroachment		Tree Coniferous		(After Property Disposal)	
Cemetery		Overhead Utility Line		Tree Deciduous			
Centerline		Parking Meter		Tree Stumps		Drainage Arrow	
Cistern		Pedestrian Push Button Pole		Triangulation Station			
Clothes Line		Pipe With End Section		Underground Electric Line			
Concrete Symbol		Pipe With Headwall		Underground Gas Line		Remove Concrete Pavement	
Control Point		Pipe Without End Section		Underground High Pressure Gas Line		Remove Concrete Driveway Pavement	
Creek Edge		Playground Slide		Underground Sanitary Sewer		Remove Asphalt Concrete Pavement	
Curb/Gutter		Playground Swing		Underground Storm Sewer		Remove Concrete Sidewalk	
Curb		Power And Light Pole		Underground Tank		Remove Concrete Median Pavement	
Dam Grade/Dike/Levee		Power And Telephone Pole		Underground Telephone Line		Remove Concrete Curb and/or Gutter	
Deck Edge		Power Meter		Underground Television Cable			
Ditch Block		Power Pole		Underground Water Line			
Doorway Threshold		Power Pole And Transformer		Water Fountain			
Drainage Profile		Power Tower Structure		Water Hydrant			
Drop Inlet		Propane Tank		Water Meter			
Edge Of Asphalt		Property Pipe		Water Tower			
Edge Of Concrete		Property Pipe With Cap		Water Valve			
Edge Of Gravel		Property Stone		Water Well			
Edge Of Other		Public Telephone		Weir Rock			
Edge Of Shoulder		Railroad Crossing Signal		Windmill			
Electric Transformer/Power Junction Box		Railroad Milepost Marker		Wingwall			
Fence Barbwire		Railroad Profile		Witness Corner			
Fence Chainlink		Railroad ROW Marker				Detectable Warning	
Fence Electric		Railroad Signs				Pedestrian Push Button Pole	
Fence Miscellaneous		Railroad Switch				and 30" x 48" Clear Space	
Fence Rock		Railroad Track				with 1.5% slope	
Fence Snow		Railroad Trestle					
Fence Wood		Rebar					
Fence Woven		Rebar With Cap					
Fire Hydrant		Reference Mark					
Flag Pole		Retaining Wall					
Flower Bed		Riprap					
Gas Valve Or Meter		River Edge					
Gas Pump Island		Rock And Wire Baskets					
Grain Bin		Rockpiles					
Guardrail		Satellite Dish					
Gutter		Septic Tank					
Guy Pole		Shrub Tree					
Haystack		Sidewalk					
Highway ROW Marker		Sign Face					
Interstate Close Gate		Sign Post					
Iron Pin		Slough Or Marsh					
Irrigation Ditch		Spring					
Lake Edge		Stream Gauge					
Lawn Sprinkler		Street Marker					

Plot Scale - 1:200

Plotted From - TRPR17192

File - U:\trproj\Bute06\G2\Legend.dgn

Plot Scale - 1"=40'

Plotted From - TRPR17192

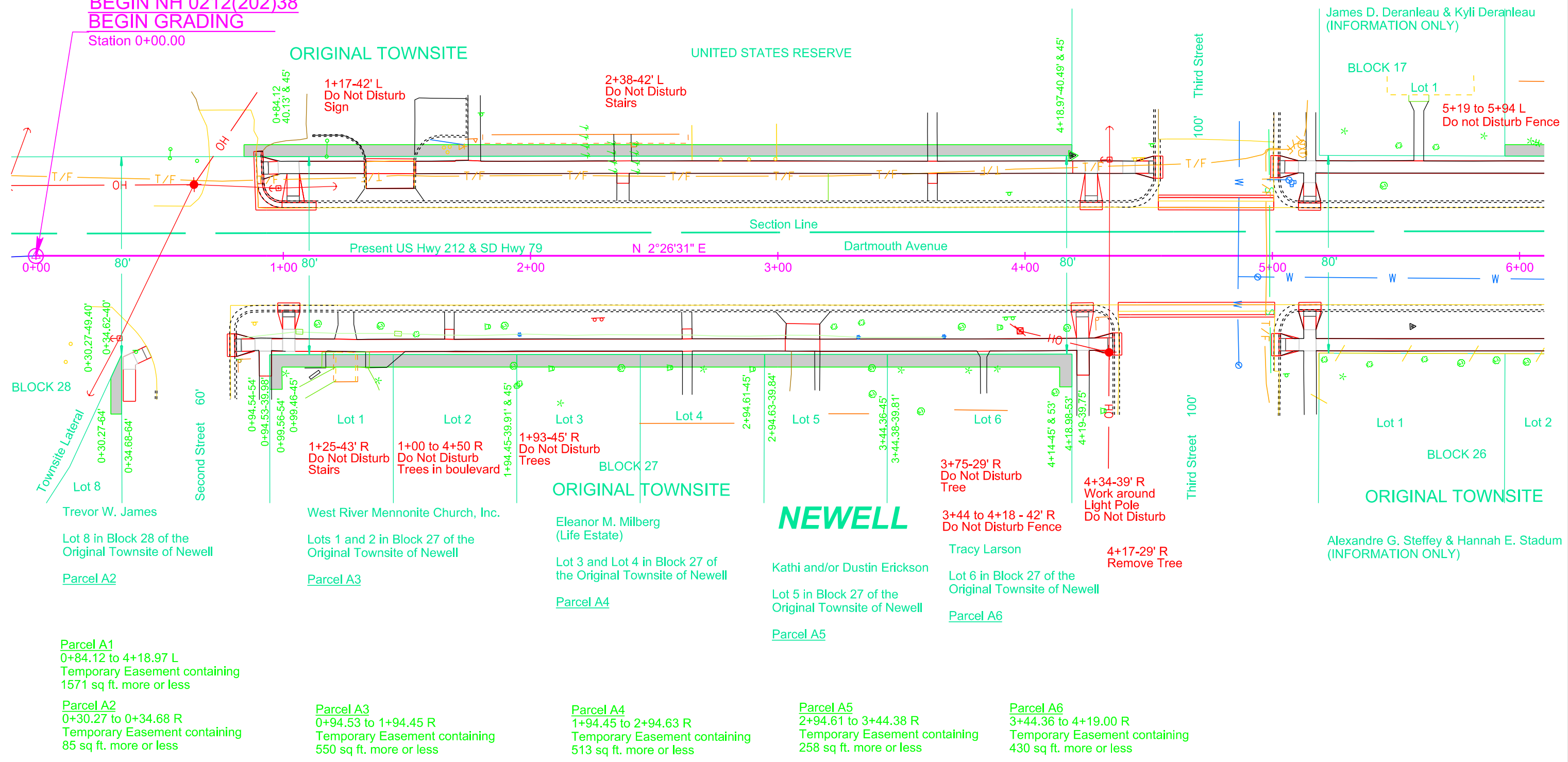
United States of America  
(Bureau of Reclamation)

United States Reserve, located in the NE1/4 of Section 30 - Township 9 North - Range 6 East of the B.H.M., in Newell; as shown on the plat of Newell Townsite, recorded in Plat Book 2, Page 35 in the Butte County Register of Deeds Office, bounded on the North by Third Street, bounded on the South by First Street, bounded on the East by Dartmouth Avenue and bounded on the West by Amherst Avenue



Parcel A1

**BEGIN NH 0212(202)38**  
**BEGIN GRADING**  
Station 0+00.00



Parcel A1  
0+84.12 to 4+18.97 L  
Temporary Easement containing  
1571 sq ft. more or less

Parcel A2  
0+30.27 to 0+34.68 R  
Temporary Easement containing  
85 sq ft. more or less

Parcel A3  
0+94.53 to 1+94.45 R  
Temporary Easement containing  
550 sq ft. more or less

Parcel A4  
1+94.45 to 2+94.63 R  
Temporary Easement containing  
513 sq ft. more or less

Parcel A5  
2+94.61 to 3+44.38 R  
Temporary Easement containing  
258 sq ft. more or less

Parcel A6  
3+44.36 to 4+19.00 R  
Temporary Easement containing  
430 sq ft. more or less

File - U:\trproj\Butte062\000.dgn

7+95.85 to 8+45.86 -40'L  
Remove Chain Link Fence

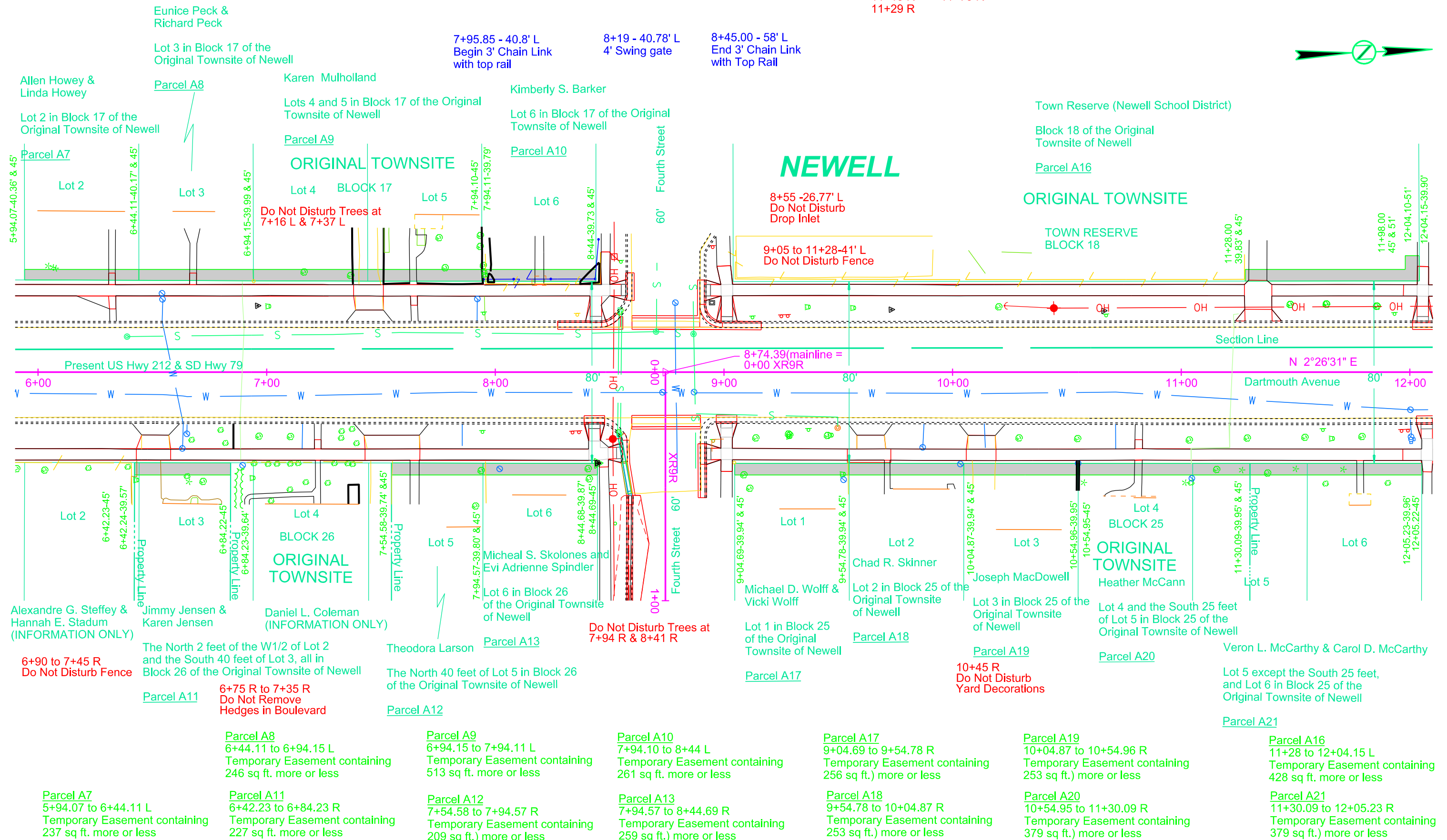
Remove Trees at the following locations:  
 6+97 R 7+10 R  
 9+12 R 10+30 R  
 10+55 R 11+38 R  
 11+04 R 11+54 R  
 11+15 R 11+79 R  
 11+29 R



Plot Scale - 1"=40'

Plotted From - TRPR17192

File - U:\trproj\Bute062\006.dgn



**Parcel A7**  
5+94.07 to 6+44.11 L  
Temporary Easement containing  
237 sq. ft. more or less

**Parcel A11**  
6+42.23 to 6+84.23 R  
Temporary Easement containing  
227 sq. ft. more or less

**Parcel A12**  
7+54.58 to 7+94.57 R  
Temporary Easement containing  
209 sq. ft. more or less

**Parcel A13**  
7+94.57 to 8+44.69 R  
Temporary Easement containing  
259 sq. ft. more or less

**Parcel A18**  
9+54.78 to 10+04.87 R  
Temporary Easement containing  
253 sq. ft. more or less

**Parcel A20**  
10+54.95 to 11+30.09 R  
Temporary Easement containing  
379 sq. ft. more or less

**Parcel A21**  
11+30.09 to 12+05.23 R  
Temporary Easement containing  
379 sq. ft. more or less

**Parcel A8**  
6+44.11 to 6+94.15 L  
Temporary Easement containing  
246 sq. ft. more or less

**Parcel A9**  
6+94.15 to 7+94.11 L  
Temporary Easement containing  
513 sq. ft. more or less

**Parcel A10**  
7+94.10 to 8+44 L  
Temporary Easement containing  
261 sq. ft. more or less

**Parcel A17**  
9+04.69 to 9+54.78 R  
Temporary Easement containing  
256 sq. ft. more or less

**Parcel A19**  
10+04.87 to 10+54.96 R  
Temporary Easement containing  
253 sq. ft. more or less

**Parcel A16**  
11+28 to 12+04.15 L  
Temporary Easement containing  
428 sq. ft. more or less

6+90 to 7+45 R  
Do Not Disturb Fence

The North 2 feet of the W1/2 of Lot 2 and the South 40 feet of Lot 3, all in Block 26 of the Original Townsite of Newell

**Parcel A11**  
6+75 R to 7+35 R  
Do Not Remove Hedges in Boulevard

The North 40 feet of Lot 5 in Block 26 of the Original Townsite of Newell

**Parcel A12**

Do Not Disturb Trees at 7+94 R & 8+41 R

**Parcel A17**

10+45 R  
Do Not Disturb Yard Decorations

**Parcel A20**

Veron L. McCarthy & Carol D. McCarthy  
Lot 5 except the South 25 feet, and Lot 6 in Block 25 of the Original Townsite of Newell

**Parcel A21**

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B15	B60

Plotting Date: 01/17/2024 Rev 6/22/2023 BT

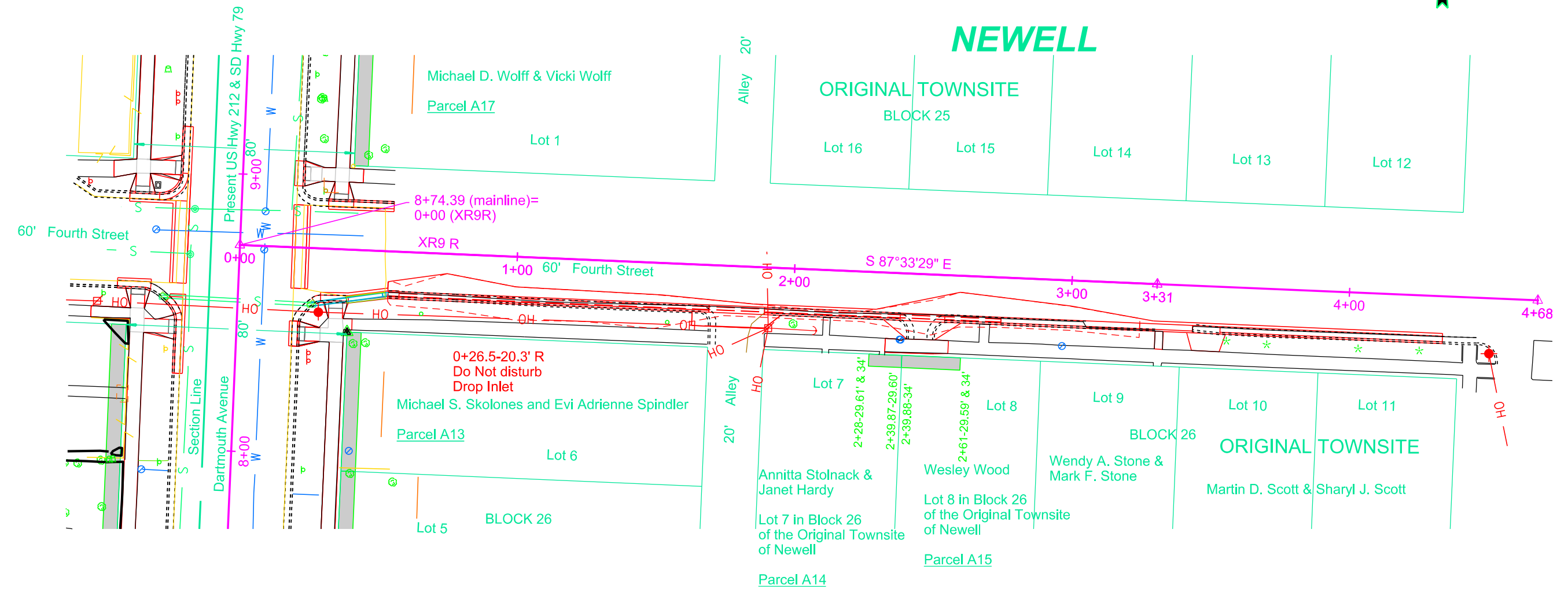
0+27-20' R to 0+52.16 -15.73' R  
Install 15"-24' RC Pipe  
& 1 RCP to CMP Transition  
(Between Existing Drop Inlet & CMP Bend)

0+27-20' R to 0+41-17.69' R  
Take Out 15"-14' RCP  
(Incidental Work, Grading)

0+39-18' R to 0+53-16' R  
Take Out Trench Drain  
and Trench Drain Frame and Grate  
(Incidental Work, Grading)

0+52-15.73' R to 0+78-15.37' R  
Install 15"-2' CMP  
(Between RCP to CMP Transition  
& Trench Drain)

0+54-14.27' R to 2+75 - 14.35' R  
Install 221' Trench Drain and  
Trench Drain Frame and Grate



Parcel A14  
2+28 to 2+39.88 R  
Temporary Easement containing  
52 sq ft. more or less

Parcel A15  
2+39.87 to 2+61 R  
Temporary Easement containing  
93 sq ft. more or less

Plot Scale - 1"=40'

Plotted From - TRPR17192

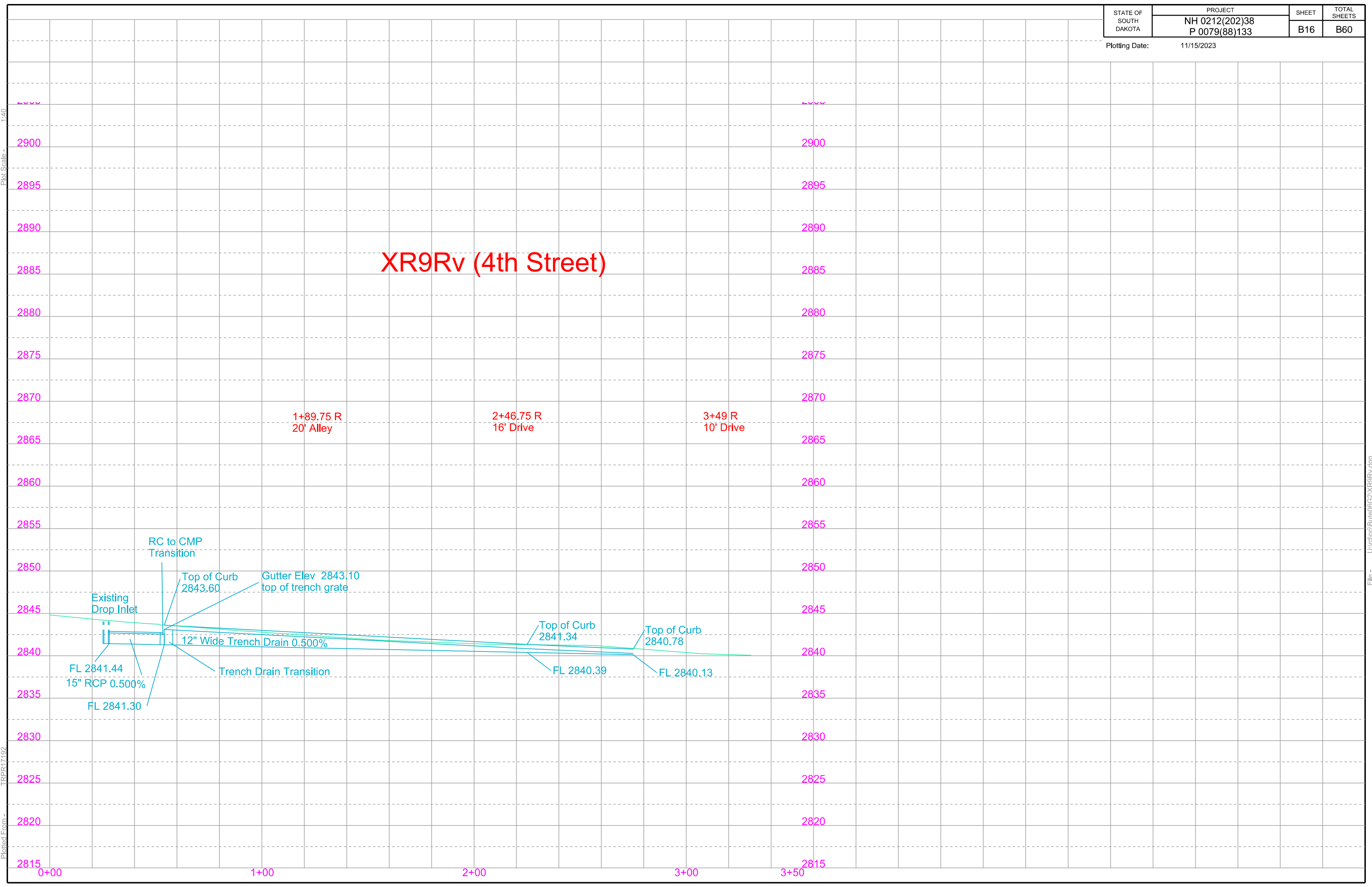
File - U:\trproj\Bute06\G2\XR9R.dgn

# XR9Rv (4th Street)

Plot Scale - 1:40

Plotted From - TRPR317192

File - U:\trproj\Bute06\G2\XR9Rv.dgn





Remove Trees at the following locations:  
 13+19 R  
 13+67 R  
 13+83 R  
 15+56 L



Newell Consolidated Independent School District No. 7 a/k/a Newell Independent Consolidated School District No. 7

Lots 1, 2, 3, 4, 5 and 6 in Block 19 of the Original Townsite of Newell

Parcel A22

16+64 L  
Do Not Disturb Tree

Brian Peterson & Jill Peterson and Whitney Peterson

Spotted Mule Ranch, LLC

Lot 2 in Block 20 of the Original Townsite of Newell

Joanne Jackson, Ruby Jackson and Aaron Hopf  
 Lots 3, 4 and 5 in Block 20 of the Original Townsite of Newell

Parcel A27  
 Lot 1 in Block 20 of the Original Townsite of Newell

Parcel A28

ORIGINAL TOWNSITE

Parcel A29

Lot 3

17+06 L  
Do Not Disturb Tree

ORIGINAL TOWNSITE

BLOCK 19

NEWELL

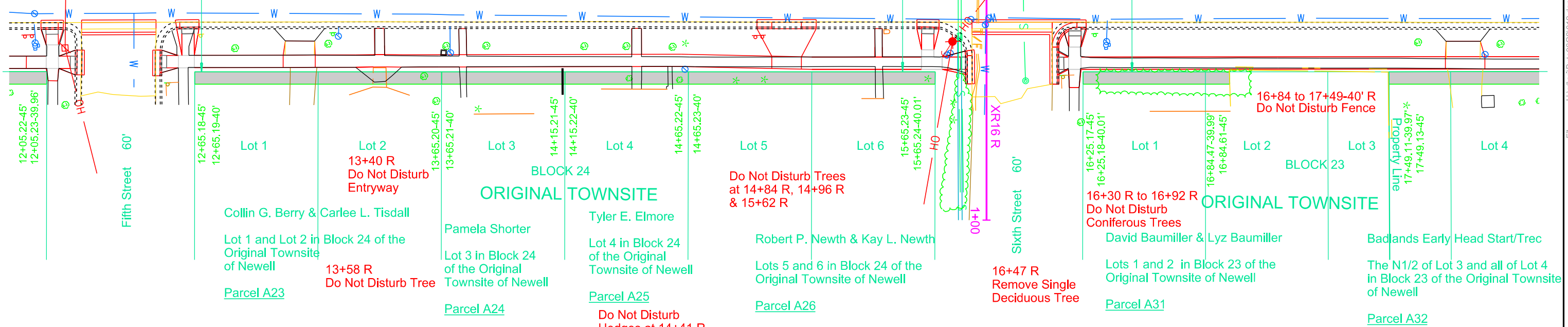
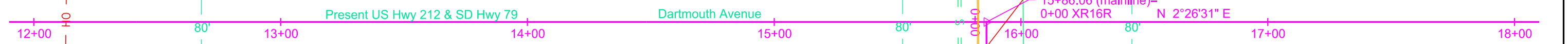
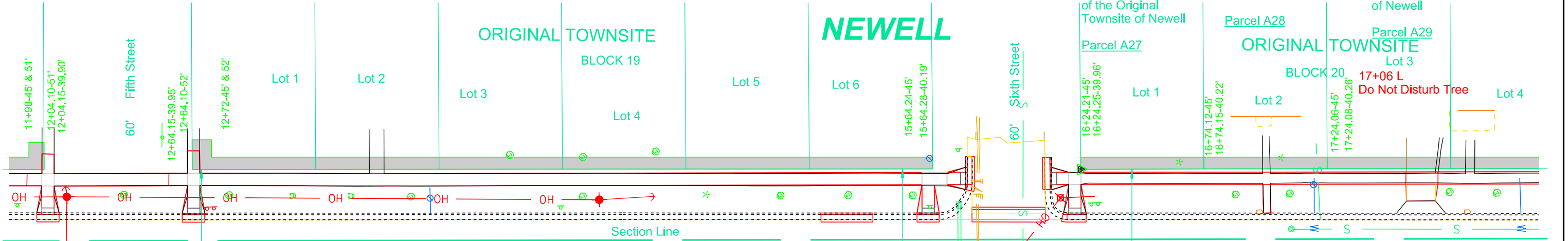
Parcel A27

Lot 1

Lot 2

Lot 3

Lot 4



12+80 R  
Do Not Disturb Bush

Parcel A22  
 12+64.10 to 15+64.28 L  
 Temporary Easement containing 1535 sq ft. more or less

Parcel A23  
 12+65.18 to 13+65.21 R  
 Temporary Easement containing 500 sq ft. more or less

Parcel A24  
 13+62.20 to 14+55.22 R  
 Temporary Easement containing 250 sq ft. more or less

Parcel A24  
 13+62.20 to 14+55.22 R  
 Temporary Easement containing 250 sq ft. more or less

Do Not Disturb Hedges at 14+41 R & 14+62 R

Parcel A25  
 14+15.21 to 14+65.23 R  
 Temporary Easement containing 250 sq ft. more or less

Parcel A26  
 14+65.22 to 15+65.24 R  
 Temporary Easement containing 499 sq ft. more or less

Parcel A27  
 16+24.21 to 16+74.15 L  
 Temporary Easement containing 245 sq ft. more or less

Parcel A28  
 16+74.12 to 17+24.08 L  
 Temporary Easement containing 238 sq ft. more or less

Parcel A29  
 17+24.06 to 18+74.17 L  
 Temporary Easement containing 715 sq ft. more or less

Parcel A31  
 16+25.17 to 16+84.61 R  
 Temporary Easement containing 297 sq ft. more or less

Parcel A32  
 17+49.11 to 18+24.17 R  
 Temporary Easement containing 381 sq ft. more or less

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B18	B60

Plotting Date: 01/17/2024

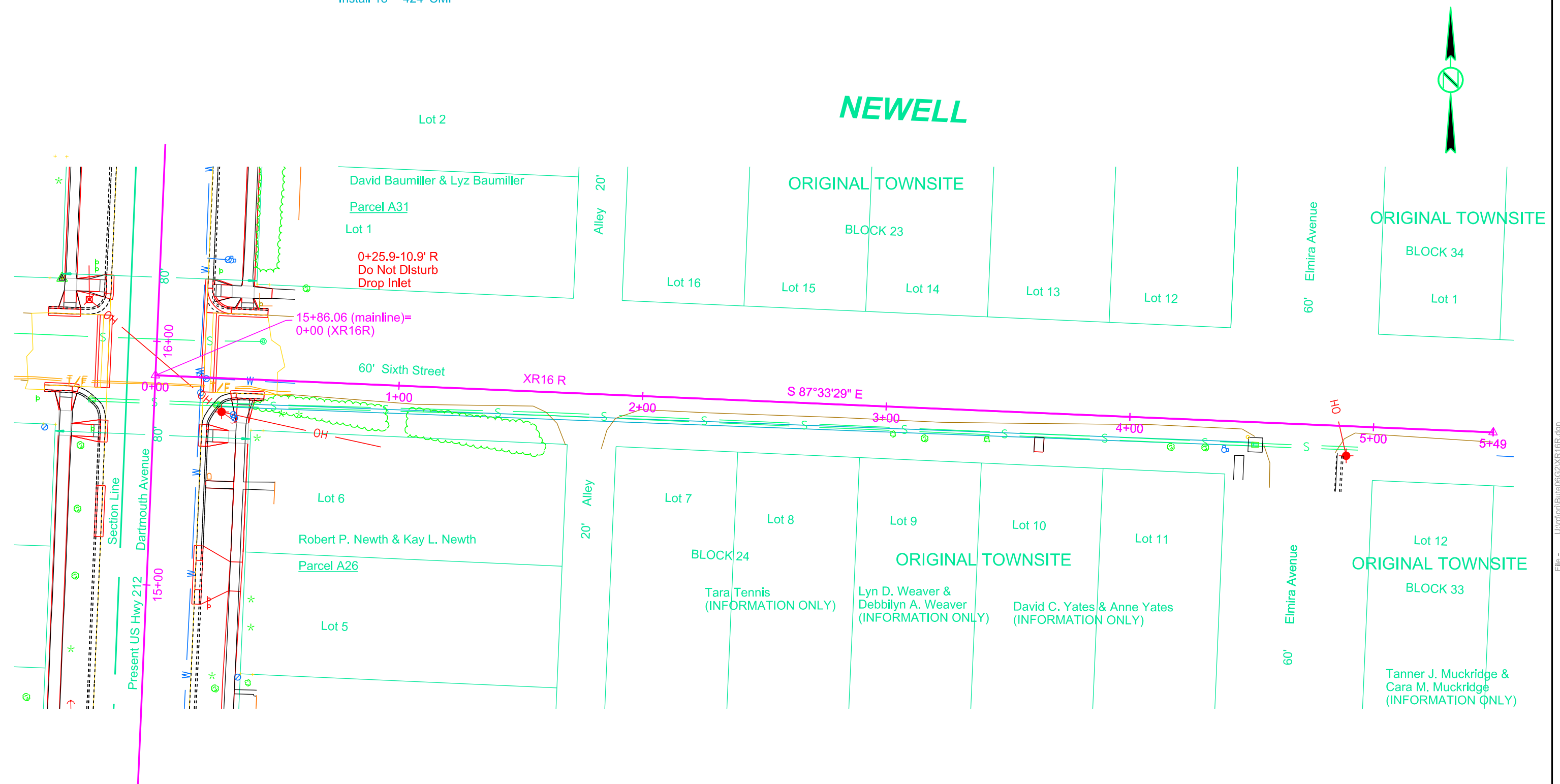
0+26 - 11' R to 4+51 9' R  
Take Out 18" - 424' CMP  
(Incidental Work, Grading)

0+26 - 11' R to 4+51- 9' R  
Install 18" - 424' CMP

Plot Scale - 1:40

Plotted From - TRPR17192

File - U:\trproj\Bute06\G2\XR16R.dgn



Plot Scale - 1:40

Plotted From - TRPR17192

File - U:\proj\Bute06\G2\XR16Rv.dgn

# XR16Rv



Remove Trees at the following locations:  
 20+35 R 20+75 R  
 20+49 R 20+88 R  
 20+62 R 21+23 R

22+10 to 22+65 L  
 Do Not Disturb trees

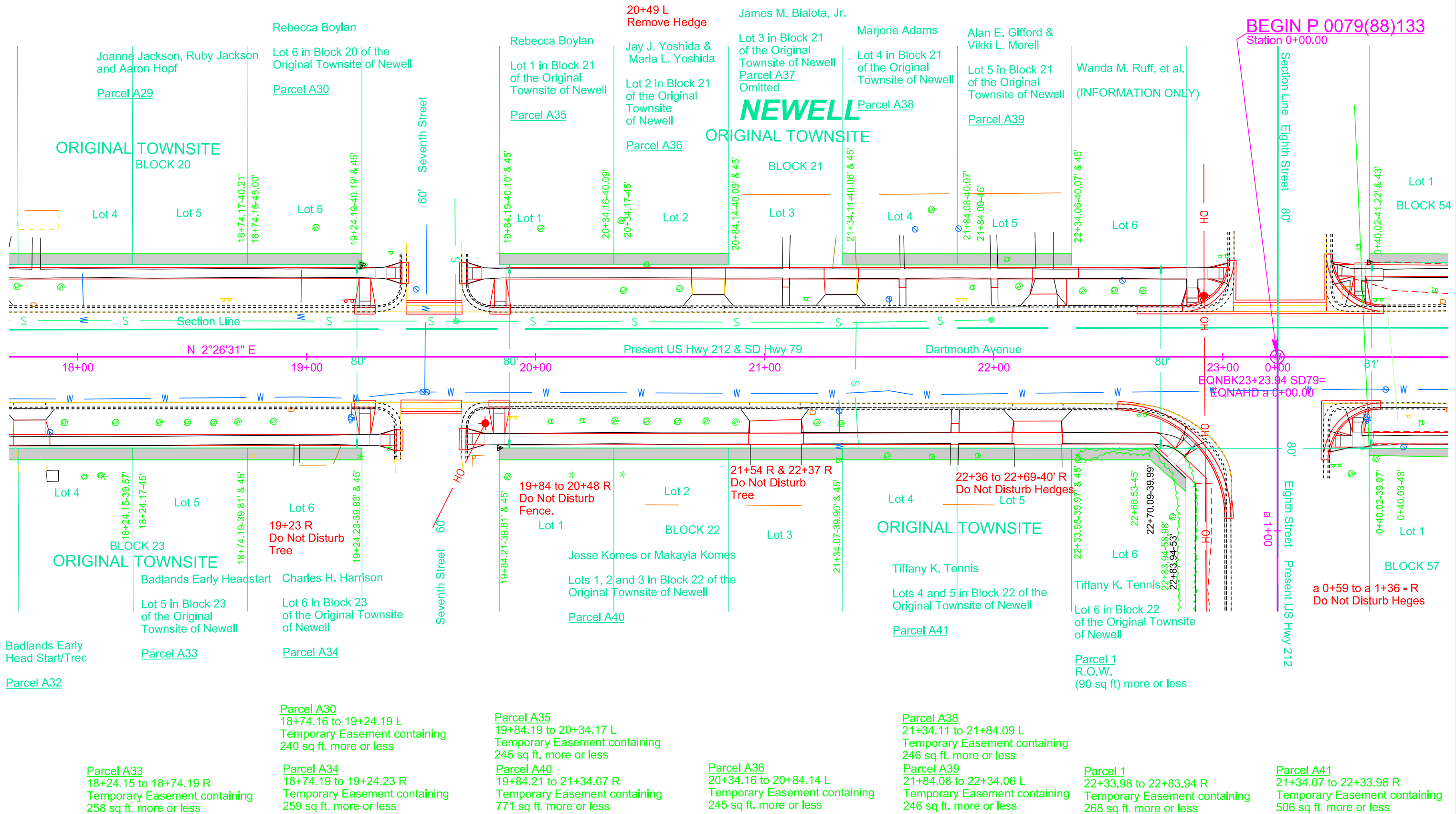


BEGIN P 0079(88)133  
 Station 0+00.00

Plot Scale - 1"=40'

Plotted From - TRPR17192

File - Untrapped\Bute062\018.dgn



Parcel A33  
 18+24.15 to 18+74.19 R  
 Temporary Easement containing  
 258 sq ft. more or less

Parcel A30  
 18+74.16 to 19+24.19 L  
 Temporary Easement containing  
 240 sq ft. more or less

Parcel A34  
 18+74.19 to 19+24.23 R  
 Temporary Easement containing  
 259 sq ft. more or less

Parcel A35  
 19+84.19 to 20+34.17 L  
 Temporary Easement containing  
 245 sq ft. more or less

Parcel A40  
 19+84.21 to 21+34.07 R  
 Temporary Easement containing  
 771 sq ft. more or less

Parcel A36  
 20+34.16 to 20+84.14 L  
 Temporary Easement containing  
 245 sq ft. more or less

Parcel A38  
 21+34.11 to 21+84.09 L  
 Temporary Easement containing  
 246 sq ft. more or less

Parcel A39  
 21+84.08 to 22+34.06 L  
 Temporary Easement containing  
 246 sq ft. more or less

Parcel 1  
 22+33.98 to 22+83.94 R  
 Temporary Easement containing  
 268 sq ft. more or less

Parcel A41  
 21+34.07 to 22+33.98 R  
 Temporary Easement containing  
 506 sq ft. more or less

19+84 to 20+48 R  
 Do Not Disturb  
 Fence.

21+54 R & 22+37 R  
 Do Not Disturb  
 Tree

22+36 to 22+69-40' R  
 Do Not Disturb Hedges

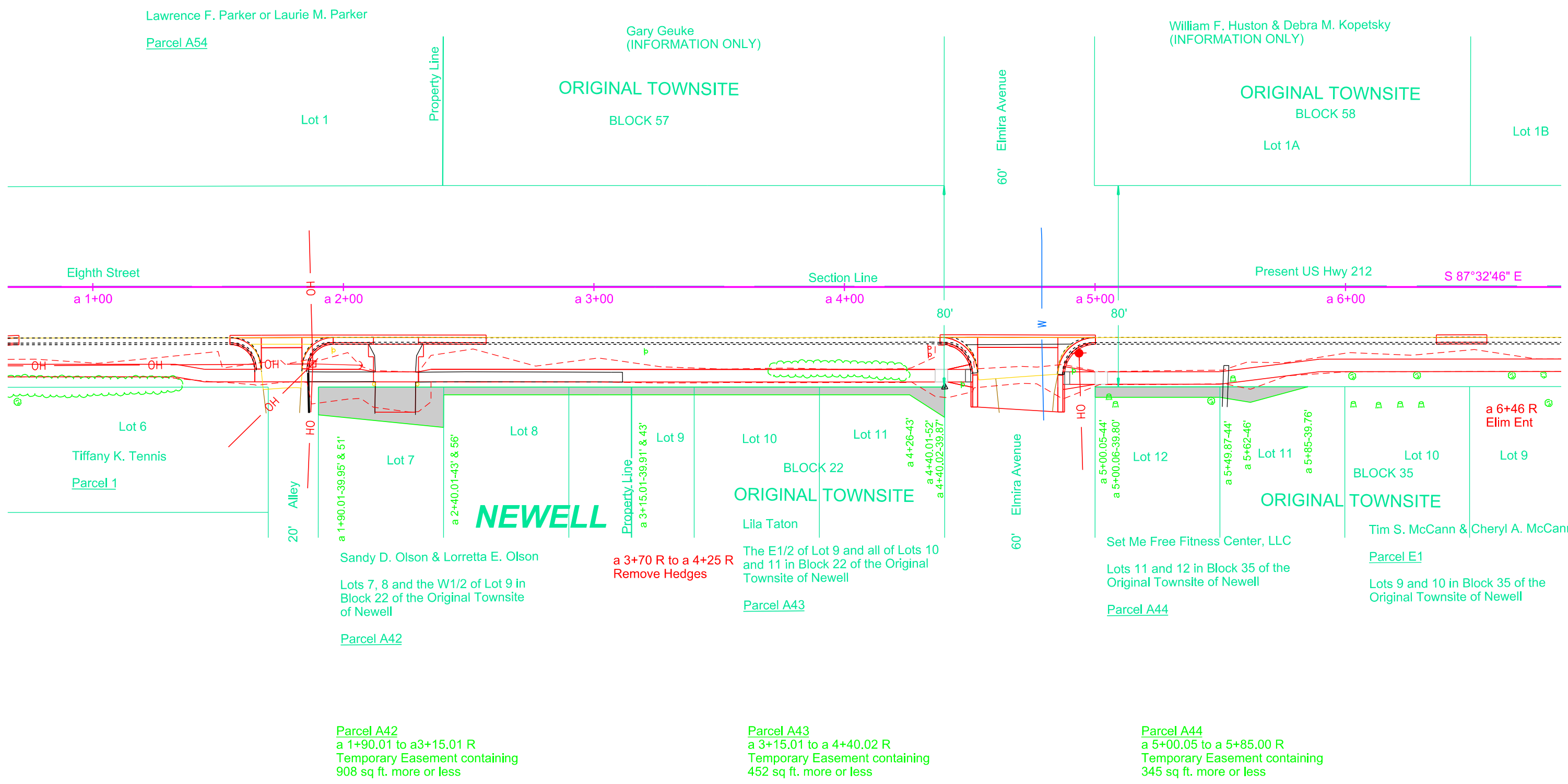
a 0+59 to a 1+36 - R  
 Do Not Disturb Heges



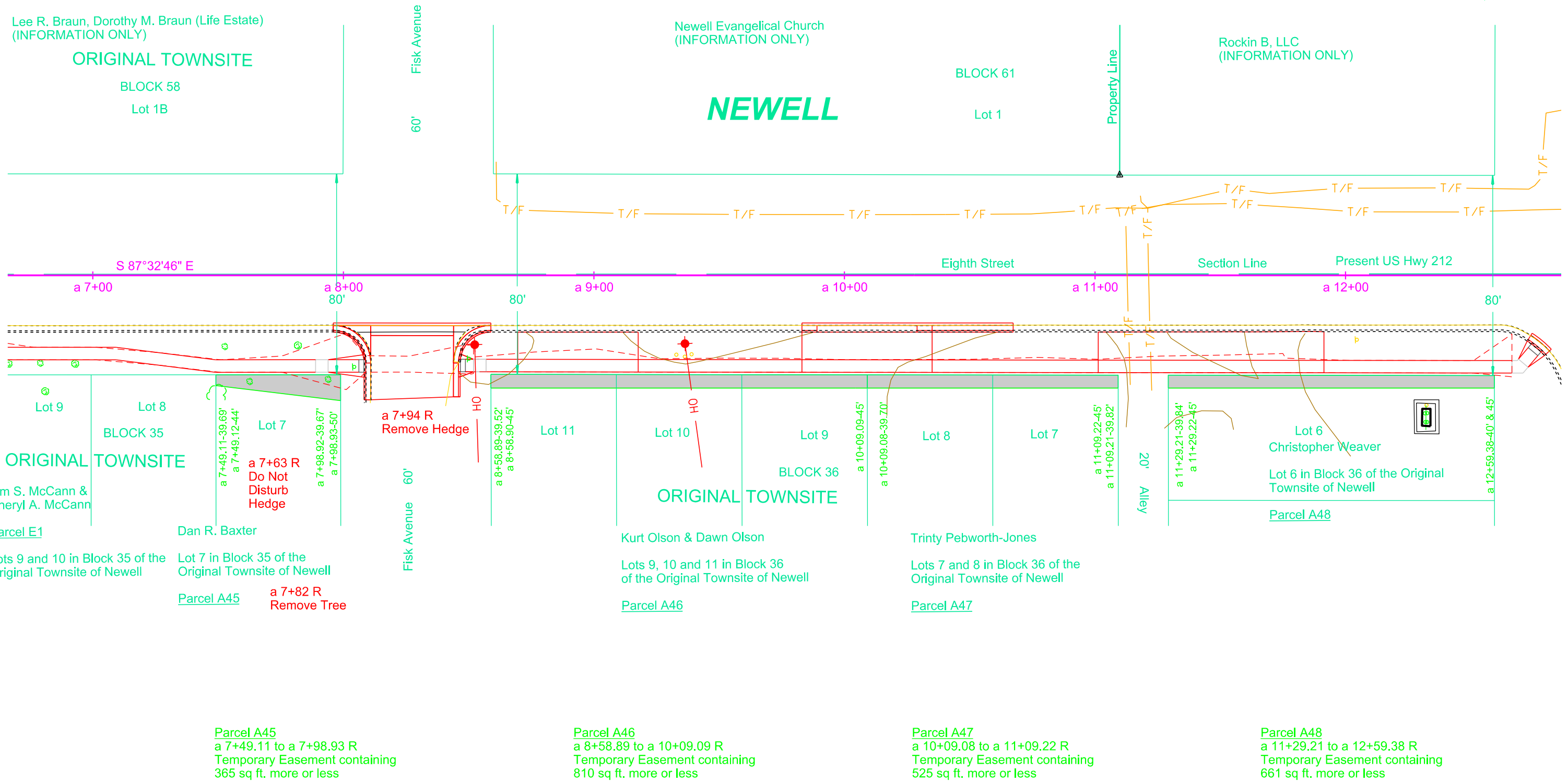
Plot Scale - 1:40

Plotted From - TRPR17192

File - U:\trproj\Bute062\0a1.dgn



Plot Scale - 1"=40'



Plotted From - TRPR17192

File - U:\trproj\Bute062\0a6.dgn

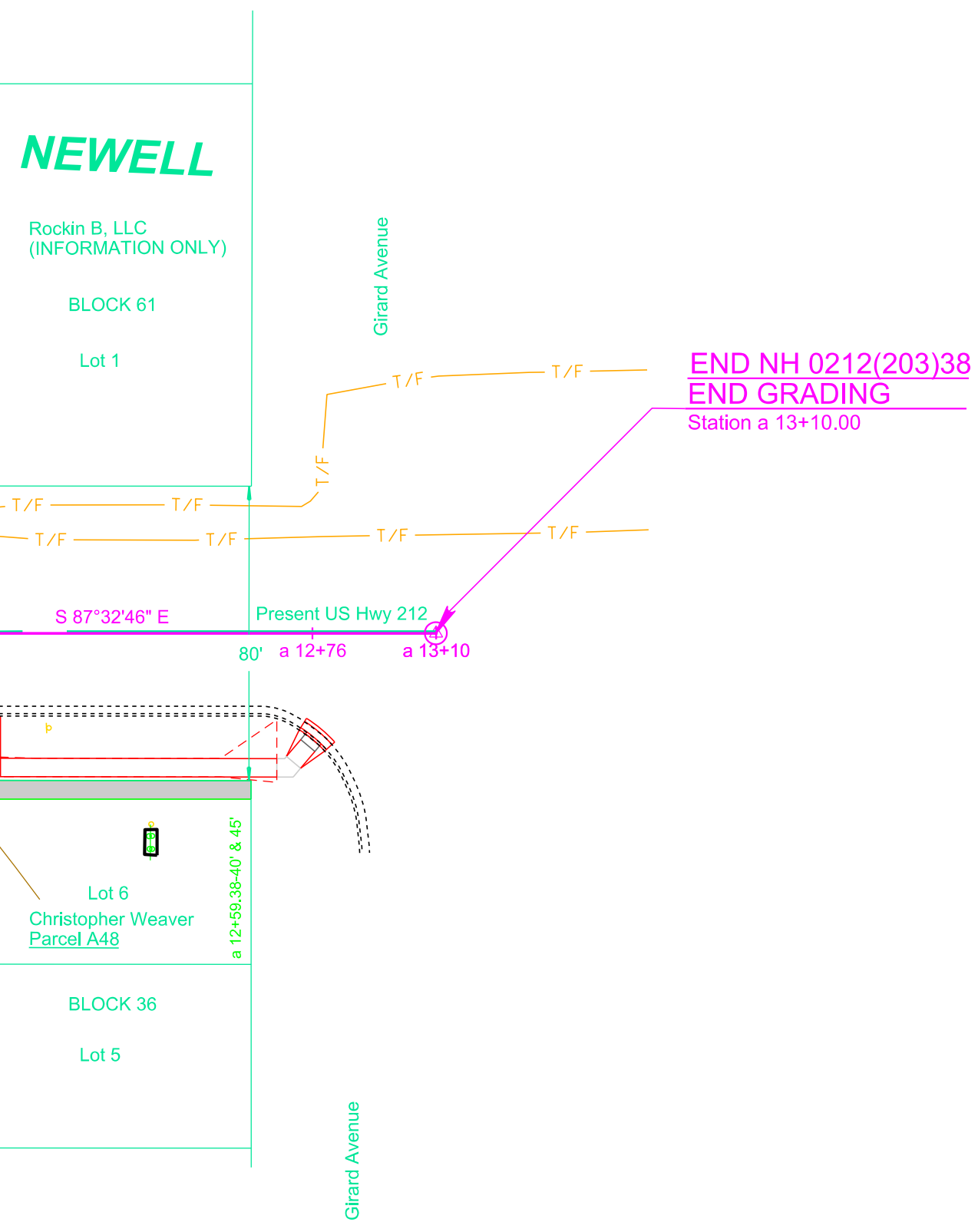
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B23	B60

Plotting Date: 01/17/2024



Plot Scale - 1:40

Plotted From - TRPR17192



5+79-20.4' R  
Remove Type B Frame & Grate

5+79-20.4' R  
Adjust 2'x3' Drop Inlet  
& Install Type B Frame & Grate

Remove Trees at the following locations:  
 4+89 L 5+44 L  
 5+07 L 5+59 L  
 5+24 L 5+68 L  
 2+69 R 3+08 R  
 2+92 R 3+34 R



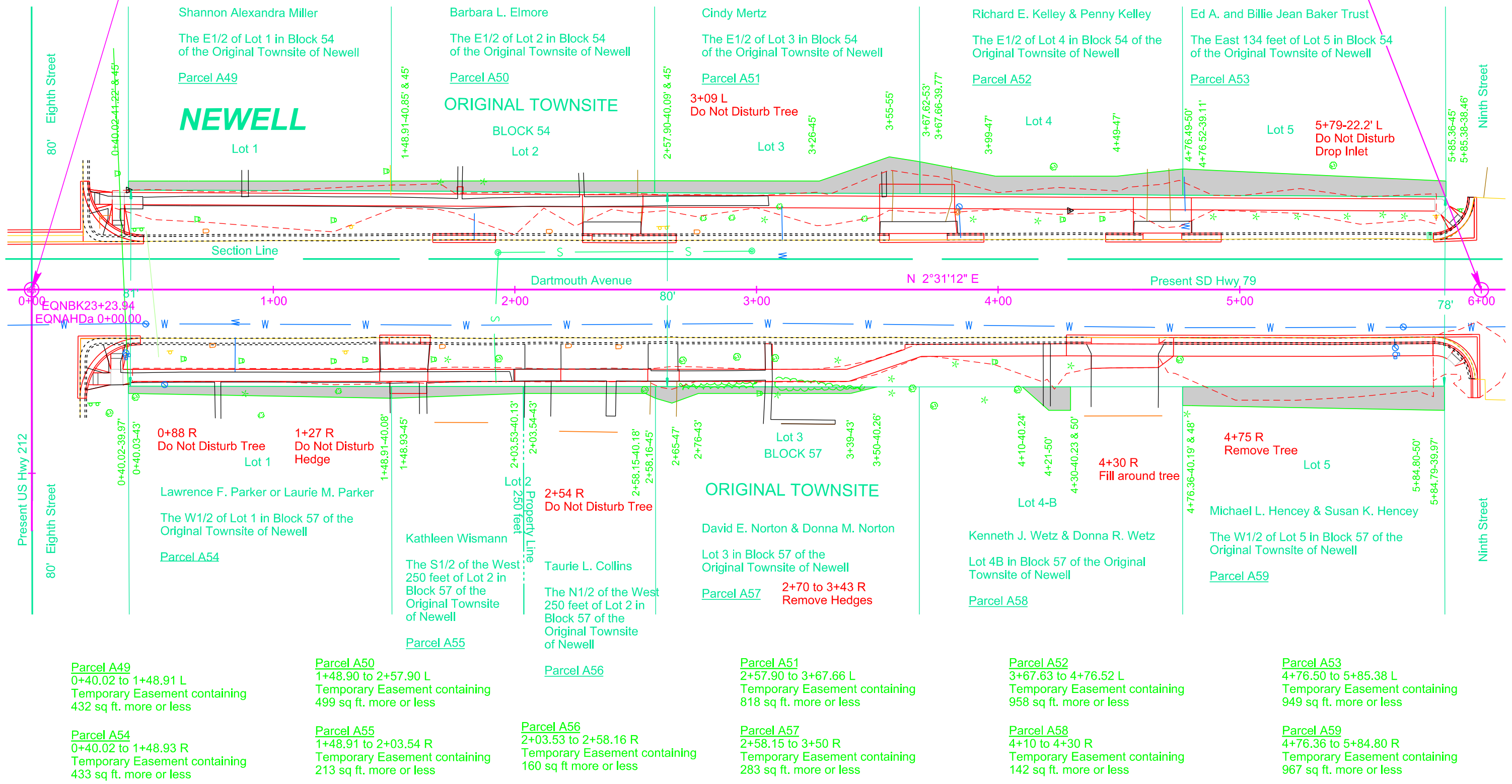
**BEGIN P 0079(88)133**

Station 0+00.00

Do Not Disturb Trees at  
1+69 L & 1+87 L

**END P 0079(88)133**

Station 6+00.00



Plot Scale - 1"=40'

Plotted From - TIRPR17192

File - U:\trproj\Bute062\001.dgn

**Parcel A49**  
0+40.02 to 1+48.91 L  
Temporary Easement containing  
432 sq ft. more or less

**Parcel A50**  
1+48.90 to 2+57.90 L  
Temporary Easement containing  
499 sq ft. more or less

**Parcel A56**  
2+03.53 to 2+58.16 R  
Temporary Easement containing  
160 sq ft more or less

**Parcel A51**  
2+57.90 to 3+67.66 L  
Temporary Easement containing  
818 sq ft. more or less

**Parcel A52**  
3+67.63 to 4+76.52 L  
Temporary Easement containing  
958 sq ft. more or less

**Parcel A53**  
4+76.50 to 5+85.38 L  
Temporary Easement containing  
949 sq ft. more or less

**Parcel A54**  
0+40.02 to 1+48.93 R  
Temporary Easement containing  
433 sq ft. more or less

**Parcel A55**  
1+48.91 to 2+03.54 R  
Temporary Easement containing  
213 sq ft. more or less

**Parcel A57**  
2+58.15 to 3+50 R  
Temporary Easement containing  
283 sq ft. more or less

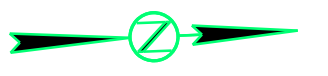
**Parcel A58**  
4+10 to 4+30 R  
Temporary Easement containing  
142 sq ft. more or less

**Parcel A59**  
4+76.36 to 5+84.80 R  
Temporary Easement containing  
967 sq ft. more or less



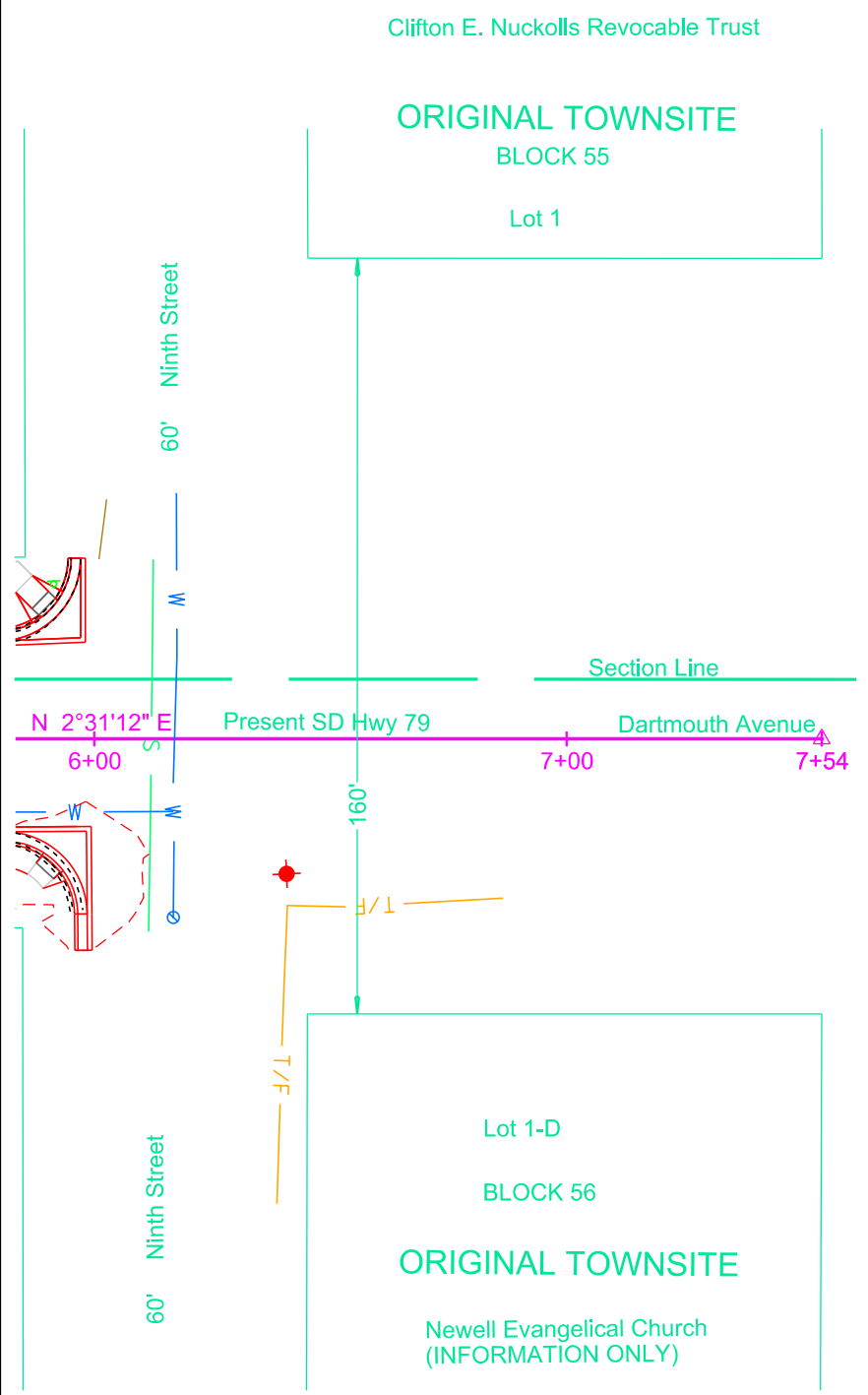
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B25	B60

Plotting Date: 01/17/2024



Plot Scale - 1"=40'

Plotted From - TRPR17192



# CURB AND GUTTER LAYOUT

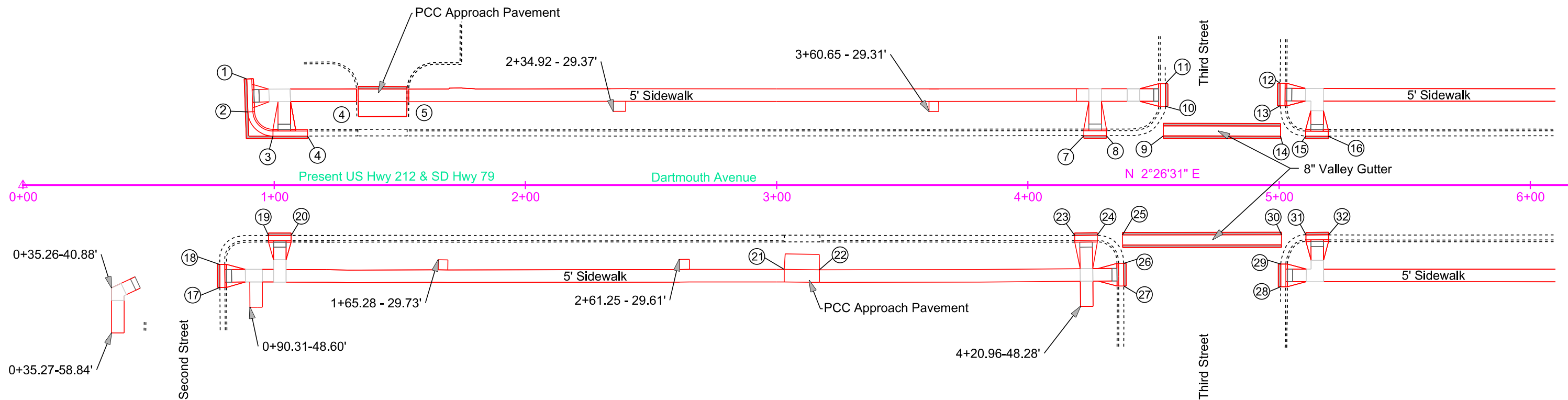
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B26	B60

Plotting Date: 11/15/2023

Note: All curb and gutter shown on this sheet is Type B66 except as noted.  
All sidewalk is 5' wide except as noted.



- |   |   |   |   |  |  |  |
|---|---|---|---|--|--|--|
| 1 0+89.04 - 42.26' L<br>Begin Str C & G<br>TC Elev (Match Existing)                     | 3 0+99.50 - 19.53' L<br>End 10' Rad Fillet<br>Begin Str C & G<br>TC Elev (Set in Field) | 5 1+33.45 - 33.28' L<br>End 4" Sidewalk<br>Begin 8" PCC Approach Pavement | 7 4+22.26 - 19.66' L<br>Begin Str C & G<br>TC Elev (Match Existing) | 9 4+53.89 - 19.58' L<br>Begin Str Valley Gutter                      | 11 4+54.74 - 40.36' L<br>End Str C & G<br>TC Elev (Match Existing)   | 14 5+00.58 - 19.52' L<br>End Str Valley Gutter                       |
| 2 0+89.52 - 29.17' L<br>End Str C & G<br>Begin 10' Rad Fillet<br>TC Elev (Set in Field) | 4 1+13.27 - 19.51' L<br>End Str C & G<br>TC Elev (Set in Field)                         | 6 1+33.45 - 33.28' L<br>End 8" PCC Approach Pavement<br>Begin 4" Sidewalk | 8 4+31.26 - 19.66' L<br>End Str C & G<br>TC Elev (Match Existing)   | 10 4+54.74 - 31.36' L<br>Begin Str C & G<br>TC Elev (Match Existing) | 12 5+00.41 - 40.56' L<br>Begin Str C & G<br>TC Elev (Match Existing) | 15 5+10.59 - 19.49' L<br>Begin Str C & G<br>TC Elev (Match Existing) |
|   |   |   |   |  | 13 5+00.35 - 31.56' L<br>End Str C & G<br>TC Elev (Match Existing)   | 16 5+19.59 - 19.42' L<br>End Str C & G<br>TC Elev (Match Existing)   |



 Asphalt

- |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|
| 17 0+78.36 - 40.70' R<br>Begin Str C & G<br>TC Elev (Match Existing) | 19 0+97.75 - 20.02' R<br>Begin Str C & G<br>TC Elev (Match Existing) | 21 3+03.00 - 33.56' L<br>End 4" Sidewalk<br>Begin 6" PCC Approach Pavement | 23 4+18.64 - 20.03' R<br>Begin Str C & G<br>TC Elev (Match Existing) | 25 4+37.67 - 19.80' R<br>Begin Str Valley Gutter                     | 27 4+38.17 - 40.16' R<br>End Str C & G<br>TC Elev (Match Existing)   | 29 5+00.67 - 31.46' R<br>End Str C & G<br>TC Elev (Match Existing) | 31 5+10.70 - 19.79' R<br>Begin Str C & G<br>TC Elev (Match Existing) |
| 18 0+78.35 - 31.61' R<br>End Str C & G<br>TC Elev (Match Existing)   | 20 1+06.75 - 20.03' R<br>End Str C & G<br>TC Elev (Match Existing)   | 22 3+17.00 - 33.70' L<br>End 6" PCC Approach Pavement<br>Begin 4" Sidewalk | 24 4+27.64 - 19.96' R<br>End Str C & G<br>TC Elev (Match Existing)   | 26 4+38.13 - 31.16' R<br>Begin Str C & G<br>TC Elev (Match Existing) | 28 5+00.67 - 40.46' R<br>Begin Str C & G<br>TC Elev (Match Existing) | 30 5+00.97 - 19.74' R<br>End Str Valley Gutter                     | 32 5+19.70 - 19.77' R<br>End Str C & G<br>TC Elev (Match Existing)   |

Plot Scale - 1"=40'

Plotted From - TRPR17192

File - U:\tr\proj\Bute062\000eg.dgn

# CURB AND GUTTER LAYOUT

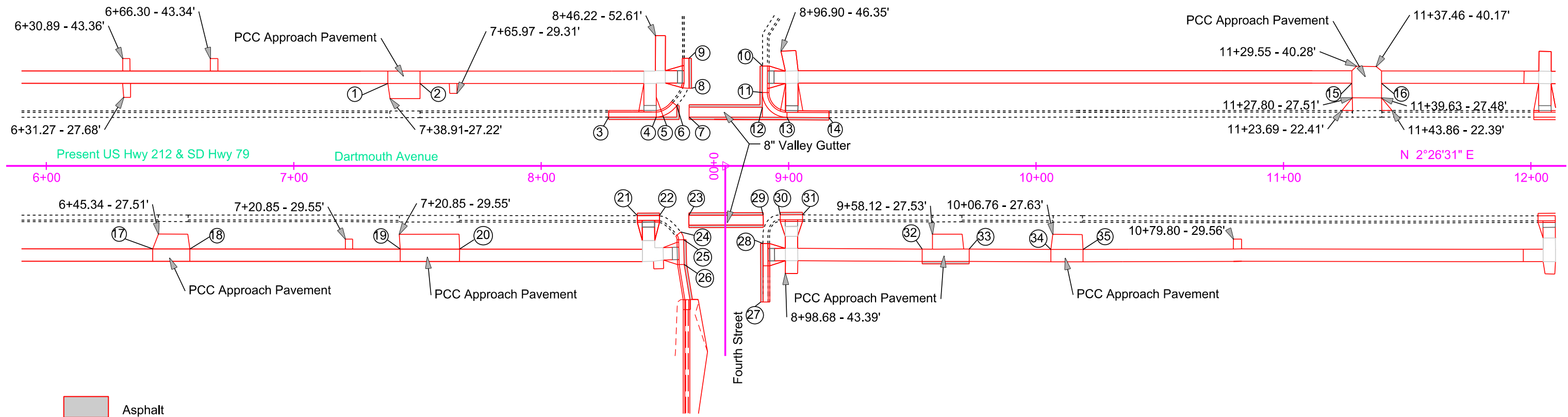
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B27	B60

Plotting Date: 11/15/2023

Note: All curb and gutter shown on this sheet is Type B66 except as noted.  
All sidewalk is 5' wide except as noted.



- |   |   |  |   |   |   |   |
|---|---|--|---|---|---|---|
| 1 7+38.00 - 33.31' L<br>End 4" Sidewalk<br>Begin 6" PCC Approach Pavement | 3 8+27.25 - 19.76' L<br>Begin Str C & G<br>TC Elev (Match Existing)                     | 5 8+49.25 - 20.24' L<br>End 8' Rad Fillet<br>Begin 12' Rad Fillet<br>TC Elev 2844.76 | 7 8+59.79 - 19.76' L<br>Begin Str Valley Gutter                     | 10 8+89.46 - 40.36' L<br>Begin Str C & G<br>TC Elev (Match Existing)              | 13 8+99.36 - 19.63' L<br>End 10' Rad Fillet<br>Begin Str C & G<br>TC Elev 2844.30 (Theor) | 15 11+27.65 - 33.40' L<br>End 4" Sidewalk<br>Begin 8" PCC Approach Pavement |
| 2 7+51.00 - 33.31' L<br>End 6" PCC Approach Pavement<br>Begin 4" Sidewalk | 4 8+46.51 - 19.76' L<br>End Str C & G<br>Begin 8' Rad Fillet<br>TC Elev 2844.77 (Theor) | 6 8+54.78 - 24.38' L<br>End 12' Rad Fillet<br>TC Elev (Set in Field)                 | 8 8+59.76 - 31.34' L<br>Begin Str C & G<br>TC Elev (Match Existing) | 11 8+89.42 - 29.67' L<br>End Str C & G<br>Begin 10' Rad Fillet<br>TC Elev 2845.31 | 14 9+16.31 - 19.53' L<br>End Str C & G<br>TC Elev (Match Existing)                        | 16 11+39.65 - 33.35' L<br>End 8" PCC Approach Pavement<br>Begin 4" Sidewalk |
|   |   |  | 9 8+59.74 - 43.49' L<br>End Str C & G<br>TC Elev (Match Existing)   | 12 8+89.39 - 19.69' L<br>End Str Valley Gutter                                    |   |   |



- |  |  |  |   |  |  |   |
|--|--|--|---|--|--|---|
| 17 6+43.00 - 33.51' R<br>End 4" Sidewalk<br>Begin 6" PCC Approach Pavement | 19 7+43.00 - 33.55' R<br>End 4" Sidewalk<br>Begin 6" PCC Approach Pavement | 21 8+33.83 - 20.02' R<br>Begin Str C & G<br>TC Elev (Match Existing) | 24 8+56.41 - 26.66' R<br>Begin 5' Rad C & G<br>TC Elev (Set in Field)           | 27 8+89.73 - 54.93' R<br>Begin Str C & G<br>TC Elev (Match Existing) | 30 8+96.61 - 19.74' R<br>Begin Str C & G<br>TC Elev (Match Existing)       | 33 9+73.00 - 33.55' R<br>End 6" PCC Approach Pavement<br>Begin 4" Sidewalk  |
| 18 6+58.00 - 33.52' R<br>End 6" PCC Approach Pavement<br>Begin 4" Sidewalk | 20 7+67.00 - 33.56' R<br>End 6" PCC Approach Pavement<br>Begin 4" Sidewalk | 22 8+47.83 - 19.99' R<br>End Str C & G<br>TC Elev (Match Existing)   | 25 8+57.58 - 29.78' R<br>End 5' Rad C & G<br>Begin Str C & G<br>TC Elev 2844.33 | 28 8+89.64 - 31.33' R<br>End Str C & G<br>TC Elev (Match Existing)   | 31 9+05.61 - 19.73' R<br>End Str C & G<br>TC Elev (Match Existing)         | 34 10+06.00 - 33.72' R<br>End 4" Sidewalk<br>Begin 6" PCC Approach Pavement |
|  |  | 23 8+59.66 - 19.95' R<br>Begin Str Valley Gutter                     | 26 8+57.79 - 39.79' R<br>End Str C & G<br>TC Elev 2844.18                       | 29 8+89.75 - 19.84' R<br>End Str Valley Gutter                       | 32 9+54.00 - 33.56' R<br>End 4" Sidewalk<br>Begin 6" PCC Approach Pavement | 35 10+19.00 - 33.72' R<br>End 6" PCC Approach Pavement<br>Begin 4" Sidewalk |

Plot Scale - 1"=40'

Plotted From - TRPR17192

Plotted From -

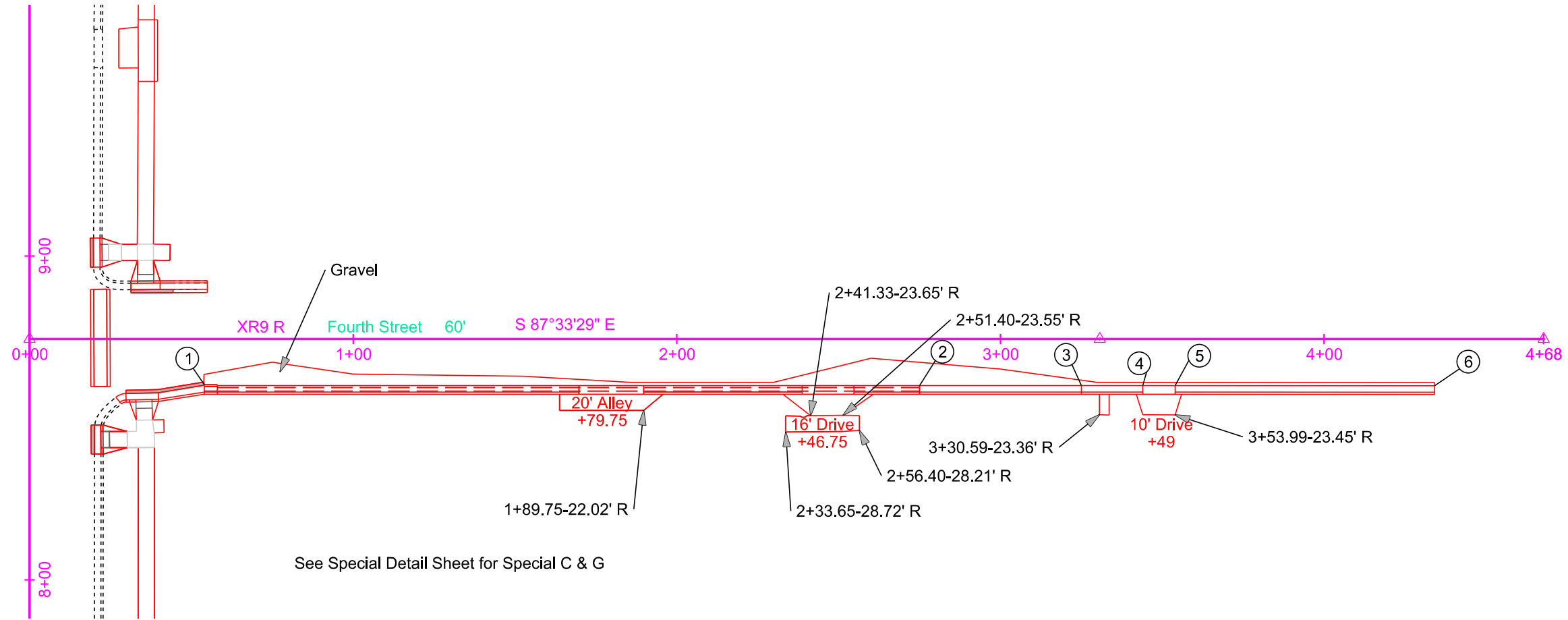
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# CURB AND GUTTER LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B28	B60

Plotting Date: 11/22/2023

Note: All curb and gutter shown on this sheet is Type B66 except as noted.  
All sidewalk is 5' wide except as noted.



See Special Detail Sheet for Special C & G

Asphalt

1 0+54.00 - 14.27' R  
End Str C & G  
Begin Special C & G  
TC Elev 2843.60

2 2+75.00 - 14.35' R  
End Special C & G  
Begin Str C & G  
TC Elev 2840.78

3 3+25.00 - 14.35' R  
End Str C & G  
Begin Str C & G  
TC Elev 2840.22 (Theor)

4 3+44.00 - 14.36' R  
End Str C & G  
Begin Type P6 Gutter  
TC (Set in Field)

5 3+54.00 - 14.37' R  
End Type P Gutter  
Begin Str C & G  
TC (Set in Field)

6 4+34.16 - 14.42' R  
End Str C & G  
TC (Match Existing)

Plot Scale - 1:40

Plotted From - TRPR13478

File - U:\proj\Bute06\G2\XR0Reg.dgn

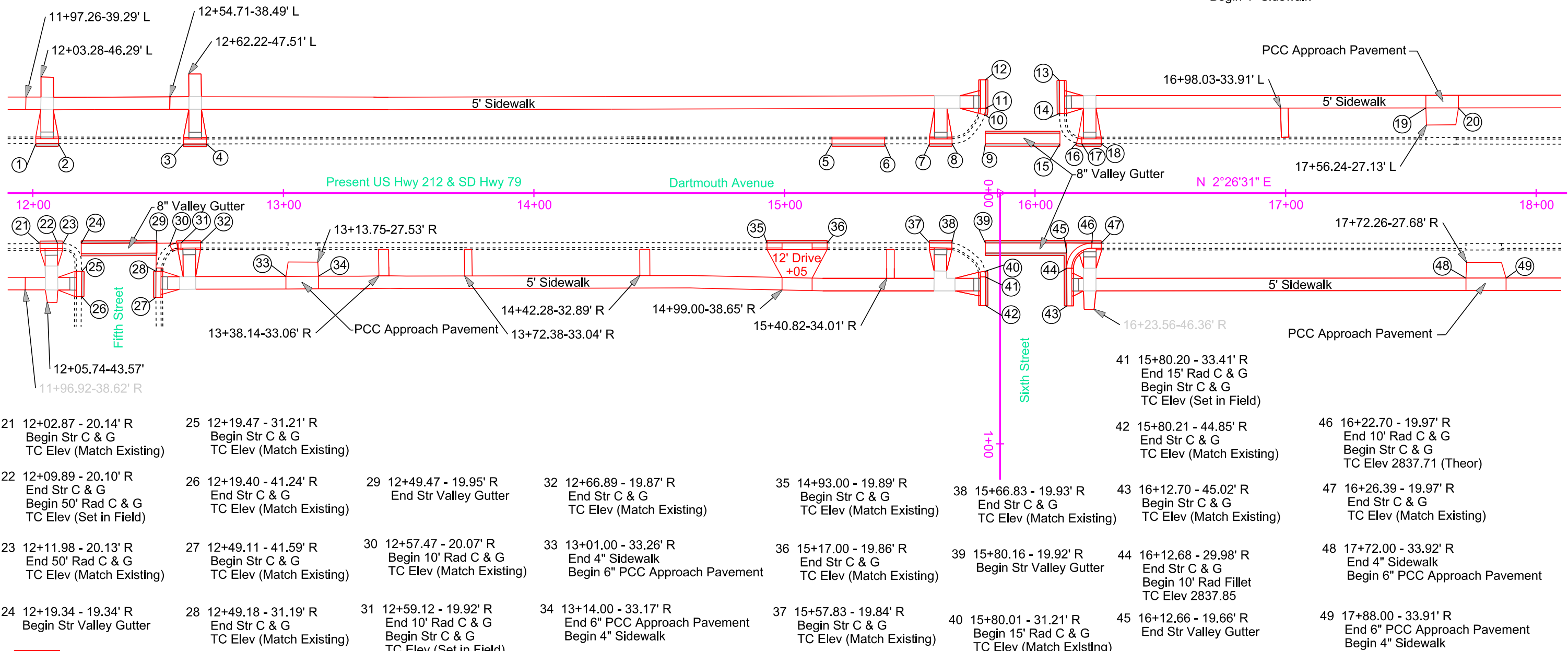
# CURB AND GUTTER LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B29	B60

Plotting Date: 11/15/2023

Note: All curb and gutter shown on this sheet is Type B66 except as noted.  
All sidewalk is 5' wide except as noted.

- |  |  |  |  |   |   |  |
|--|--|--|--|---|---|--|
| 1 12+01.17 - 19.67' L<br>Begin Str C & G<br>TC Elev (Match Existing) | 3 12+60.10 - 19.61' L<br>Begin Str C & G<br>TC Elev (Match Existing) | 5 15+19.00 - 19.64' L<br>Begin Str C & G<br>TC Elev (Match Existing) | 7 15+57.85 - 19.65' L<br>Begin Str C & G<br>TC Elev (Match Existing) | 10 15+79.92 - 31.26' L<br>Begin 11.68' Rad C & G<br>TC Elev (Match Existing)                | 13 16+09.74 - 44.90' L<br>Begin Str C & G<br>TC Elev (Match Existing)       | 17 16+18.68 - 19.65' L<br>End 7.60' Rad C & G<br>Begin Str C & G<br>TC Elev (Set in Field) |
| 2 12+10.21 - 19.71' L<br>End Str C & G<br>TC Elev (Match Existing)   | 4 12+69.29 - 19.60' L<br>End Str C & G<br>TC Elev (Match Existing)   | 6 15+40.00 - 19.64' L<br>End Str C & G<br>TC Elev (Match Existing)   | 8 15+66.85 - 19.64' L<br>End Str C & G<br>TC Elev (Match Existing)   | 11 15+80.21 - 33.82' L<br>End 11.68' Rad C & G<br>Begin Str C & G<br>TC Elev (Set in Field) | 14 16+09.83 - 31.75' L<br>End Str C & G<br>TC Elev (Match Existing)         | 18 16+26.39 - 19.66' L<br>End Str C & G<br>TC Elev (Match Existing)                        |
|  |  |  | 9 15+80.16 - 19.67' L<br>Begin Str Valley Gutter                     | 12 15+80.23 - 45.19' L<br>End Str C & G<br>TC Elev (Match Existing)                         | 15 16+09.94 - 19.66' L<br>End Str Valley Gutter                             | 19 17+56.00 - 33.96' L<br>End 4" Sidewalk<br>Begin 6" PCC Approach Pavement                |
|  |  |  |  |   | 16 16+16.55 - 19.95' L<br>Begin 7.60' Rad C & G<br>TC Elev (Match Existing) | 20 17+69.00 - 33.97' L<br>End 6" PCC Approach Pavement<br>Begin 4" Sidewalk                |



- |  |   |  |   |   |   |   |
|--|---|--|---|---|---|---|
| 21 12+02.87 - 20.14' R<br>Begin Str C & G<br>TC Elev (Match Existing)                    | 25 12+19.47 - 31.21' R<br>Begin Str C & G<br>TC Elev (Match Existing) | 29 12+49.47 - 19.95' R<br>End Str Valley Gutter  | 32 12+66.89 - 19.87' R<br>End Str C & G<br>TC Elev (Match Existing)         | 35 14+93.00 - 19.89' R<br>Begin Str C & G<br>TC Elev (Match Existing) | 38 15+66.83 - 19.93' R<br>End Str C & G<br>TC Elev (Match Existing)       | 41 15+80.20 - 33.41' R<br>End 15' Rad C & G<br>Begin Str C & G<br>TC Elev (Set in Field)  |
| 22 12+09.89 - 20.10' R<br>End Str C & G<br>Begin 50' Rad C & G<br>TC Elev (Set in Field) | 26 12+19.40 - 41.24' R<br>End Str C & G<br>TC Elev (Match Existing)   | 30 12+57.47 - 20.07' R<br>Begin 10' Rad C & G<br>TC Elev (Match Existing)                | 33 13+01.00 - 33.26' R<br>End 4" Sidewalk<br>Begin 6" PCC Approach Pavement | 36 15+17.00 - 19.86' R<br>End Str C & G<br>TC Elev (Match Existing)   | 39 15+80.16 - 19.92' R<br>Begin Str Valley Gutter                         | 42 15+80.21 - 44.85' R<br>End Str C & G<br>TC Elev (Match Existing)                       |
| 23 12+11.98 - 20.13' R<br>End 50' Rad C & G<br>TC Elev (Match Existing)                  | 27 12+49.11 - 41.59' R<br>Begin Str C & G<br>TC Elev (Match Existing) | 31 12+59.12 - 19.92' R<br>End 10' Rad C & G<br>Begin Str C & G<br>TC Elev (Set in Field) | 34 13+14.00 - 33.17' R<br>End 6" PCC Approach Pavement<br>Begin 4" Sidewalk | 37 15+57.83 - 19.84' R<br>Begin Str C & G<br>TC Elev (Match Existing) | 40 15+80.01 - 31.21' R<br>Begin 15' Rad C & G<br>TC Elev (Match Existing) | 43 16+12.70 - 45.02' R<br>Begin Str C & G<br>TC Elev (Match Existing)                     |
| 24 12+19.34 - 19.34' R<br>Begin Str Valley Gutter  | 28 12+49.18 - 31.19' R<br>End Str C & G<br>TC Elev (Match Existing)   |  |   |   |   | 44 16+12.68 - 29.98' R<br>End Str C & G<br>Begin 10' Rad Fillet<br>TC Elev 2837.85        |
|  |   |  |   |   |   | 45 16+12.66 - 19.66' R<br>End Str Valley Gutter   |
|  |   |  |   |   |   | 46 16+22.70 - 19.97' R<br>End 10' Rad C & G<br>Begin Str C & G<br>TC Elev 2837.71 (Theor) |
|  |   |  |   |   |   | 47 16+26.39 - 19.97' R<br>End Str C & G<br>TC Elev (Match Existing)                       |
|  |   |  |   |   |   | 48 17+72.00 - 33.92' R<br>End 4" Sidewalk<br>Begin 6" PCC Approach Pavement               |
|  |   |  |   |   |   | 49 17+88.00 - 33.91' R<br>End 6" PCC Approach Pavement<br>Begin 4" Sidewalk               |

Asphalt

Plot Scale - 1"=40'

Plotted From - TRPR17192

File - U:\trproj\Bute06\G2\012eg.dgn

# CURB AND GUTTER LAYOUT

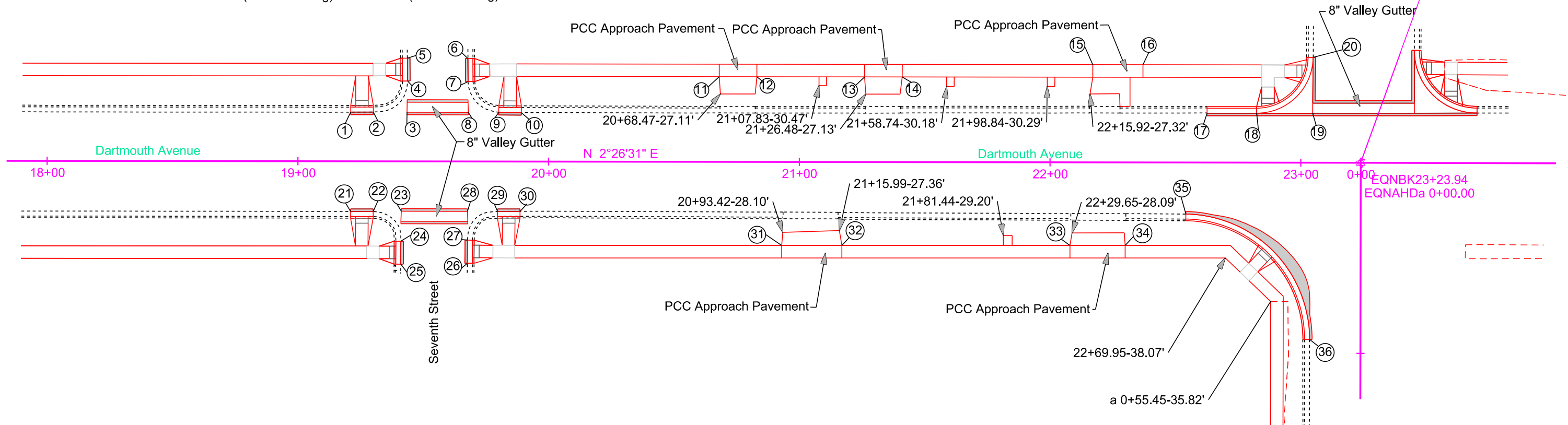
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B30	B60

Plotting Date: 11/15/2023

Note: All curb and gutter shown on this sheet is Type B66 except as noted.  
All sidewalk is 5' wide except as noted.



1 19+21.03 - 19.62' L Begin Str C & G TC Elev (Match Existing)	4 19+43.68 - 32.04' L Begin Str C & G TC Elev (Match Existing)	7 19+67.82 - 31.87' L End Str C & G TC Elev (Match Existing)	10 19+89.08 - 19.53' L End Str C & G TC Elev (Match Existing)	12 20+83.00 - 33.97' L End 6" PCC Approach Pavement Begin 4" Sidewalk	14 21+41.00 - 33.98' L End 6" PCC Approach Pavement Begin 4" Sidewalk	17 22+62.59 - 19.72' L Begin Str C & G TC Elev (Match Existing)	20 23+04.86 - 42.08' L End 22.5' Rad Fillet TC Elev (Match Existing)
2 19+30.03 - 19.63' L End Str C & G TC Elev (Match Existing)	5 19+43.61 - 41.21' L End Str C & G TC Elev (Match Existing)	8 19+67.95 - 19.59' L End Str Valley Gutter	11 20+68.00 - 33.97' L End 4" Sidewalk Begin 6" PCC Approach Pavement	13 21+26.00 - 33.97' L End 4" Sidewalk Begin 6" PCC Approach Pavement	15 22+17.00 - 33.99' L End 4" Sidewalk Begin 6" PCC Approach Pavement	18 22+82.38 - 19.74' L End Str C & G Begin 22.5' Rad Fillet TC Elev 2835.21	
3 19+43.50 - 19.61' L Begin Str Valley Gutter	6 19+67.76 - 41.09' L Begin Str C & G TC Elev (Match Existing)	9 19+80.07 - 19.59' L Begin Str C & G TC Elev (Match Existing)			16 22+37.00 - 33.99' L End 6" PCC Approach Pavement Begin 4" Sidewalk	19 23+04.70 - 19.75' L Begin Str Valley Gutter	



21 19+21.03 - 20.03' R Begin Str C & G TC Elev (Match Existing)	23 19+41.27 - 19.92' R Begin Str Valley Gutter	25 19+41.11 - 41.00' R End Str C & G TC Elev (Match Existing)	27 19+67.70 - 31.38' R End Str C & G TC Elev (Match Existing)	29 19+79.65 - 19.94' R Begin Str C & G TC Elev (Match Existing)	31 20+93.00 - 33.34' R End 4" Sidewalk Begin 6" PCC Approach Pavement	33 22+08.00 - 33.17' R End 4" Sidewalk Begin 6" PCC Approach Pavement	35 22+54.20 - 20.56' R Begin 50' Rad C & G TC Elev (Match Existing)
22 19+30.03 - 20.03' R End Str C & G TC Elev (Match Existing)	24 19+41.13 - 31.87' R Begin Str C & G TC Elev (Match Existing)	26 19+67.63 - 40.63' R Begin Str C & G TC Elev (Match Existing)	28 19+67.65 - 19.93' R End Str Valley Gutter	30 19+88.65 - 19.94' R End Str C & G TC Elev (Match Existing)	32 21+17.00 - 33.30' R End 6" PCC Approach Pavement Begin 4" Sidewalk	34 22+30.00 - 33.13' R End 6" PCC Approach Pavement Begin 4" Sidewalk	36 a 0+70.52 - 20.31' R End 50' Rad C & G TC Elev (Match Existing)

Plot Scale - 1"=40'

Plotted From - TRPR17192

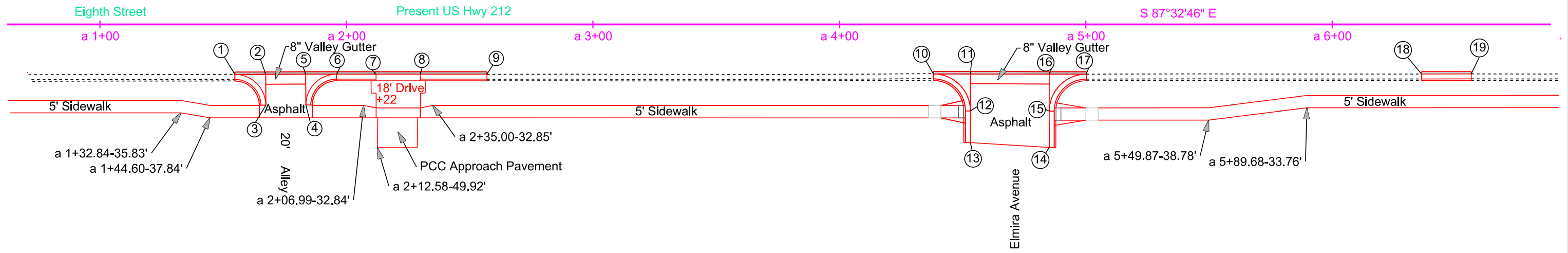
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# CURB AND GUTTER LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B31	B60

Plotting Date: 11/15/2023

Note: All curb and gutter shown on this sheet is Type B66 except as noted.  
All sidewalk is 5' wide except as noted.



Asphalt

	3 a 1+67.27 - 32.73' R End 15' Rad Fillet TC Elev (Set in Field)				12 a 4+53.18 - 37.87' R End 15' Rad Fillet Begin Str C & G TC Elev 2827.03 (Theor)	15 a 4+85.17 - 35.15' R End Str C & G Begin 15' Rad Fillet TC Elev 2826.83 (Theor)	
1 a 1+54.73 - 20.26' R Begin 15' Rad Fillet TC Elev (Match Existing)	4 a 1+83.52 - 32.68' R Begin 15' Rad Fillet TC Elev (Match Existing)	6 a 1+95.98 - 20.14' R End 15' Rad Fillet Begin Str C & G TC Elev 2830.95 (Theor)	8 a 2+30.00 - 20.16' R End Type P6 Begin Str C & G TC Elev 2830.61 (Theor)	10 a 4+38.16 - 20.04' R Begin 15' Rad Fillet TC Elev (Match Existing)	13 a 4+53.17 - 47.87' R End Str C & G TC Elev (Match Existing)	16 a 4+85.17 - 20.15' R End Str Valley Gutter	18 a 6+36.24 - 20.09' R Begin Str C & G TC Elev (Match Existing)
2 a 1+67.23 - 20.23' R Begin Str Valley Gutter	5 a 1+83.48 - 20.18' R End Str Valley Gutter	7 a 2+12.00 - 20.15' R End Str C & G Begin Type P6 TC Elev 2830.79 (Theor)	9 a 4+53.17 - 47.87' R End Str C & G TC Elev (Match Existing)	11 a 4+53.18 - 20.03' R Begin Str Valley Gutter	14 a 4+85.18 - 49.81' R Begin Str C & G TC Elev (Set in Field)	17 a 5+00.17 - 20.14' R End 15' Rad Fillet TC Elev (Match Existing)	19 a 6+56.39 - 20.05' R End Str C & G TC Elev (Match Existing)

Plot Scale - 1:40

T:\RPR\17192

Plotted From -

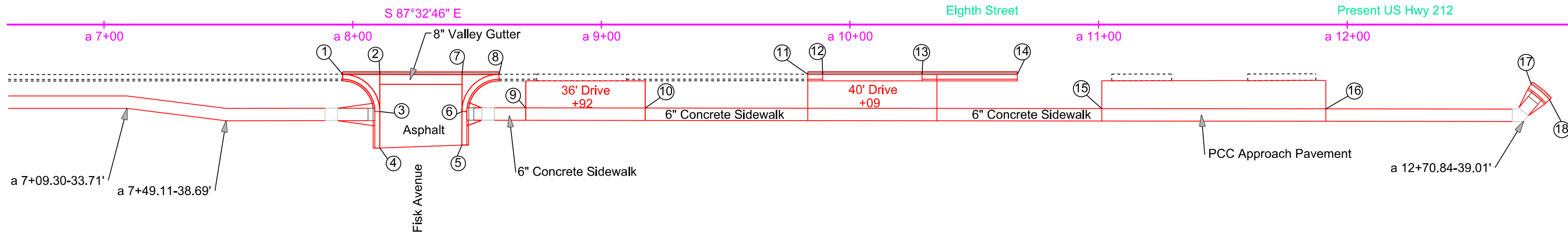
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# CURB AND GUTTER LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B32	B60

Plotting Date: 11/15/2023

Note: All curb and gutter shown on this sheet is Type B66 except as noted.  
All sidewalk is 5' wide except as noted.



Asphalt

1 a 7+95.94 - 19.98' R Begin 15' Rad Fillet TC Elev (Match Existing)	3 a 8+10.93 - 34.98' R End 15' Rad Fillet Begin Str C & G TC Elev 2820.80 (Theor)	5 a 8+43.93 - 48.50' R Begin Str C & G TC Elev (Match Existing)	7 a 8+43.96 - 20.15' R End Str Valley Gutter	9 a 8+69.62 - 33.53' R End 6" Sidewalk Begin 8" PCC Approach Pavement	11 a 9+83.00 - 20.00' R Begin Str C & G TC Elev (Match Existing)	13 a 10+29.00 - 20.00' R End Type P8 Gutter Begin Str C & G TC Elev (Match Existing)	16 a 11+91.35 - 33.92' R End 8" PCC Approach Pavement Begin 4" Sidewalk
2 a 8+10.92 - 20.00' R Begin Str Valley Gutter	4 a 8+10.93 - 49.66' R End Str C & G TC Elev (Match Existing)	6 a 8+43.94 - 34.97' R End Str C & G Begin 15' Rad Fillet TC Elev 2820.80 (Theor)	8 a 8+58.87 - 19.98' R End 15' Rad Fillet TC Elev (Match Existing)	10 a 9+17.64 - 33.59' R End 8" PCC Approach Pavement Begin 6" Sidewalk	12 a 9+89.00 - 20.00' R End Str C & G Begin Type P8 Gutter TC Elev (Match Existing)	15 a 11+01.28 - 33.81' R End 6" Sidewalk Begin 8" PCC Approach Pavement	18 a 12+81.35 - 30.18' R End 35' Rad C & G
						14 a 10+67.31 - 20.00' R End Str C & G TC Elev (Match Existing)	17 a 12+73.93 - 23.93' R Begin 35' Rad C & G

Plot Scale - 1:40

TRPR17192

Plotted From -

File - U:\trproj\Bute06\G2\0a6eg.dgn



# CURB AND GUTTER LAYOUT

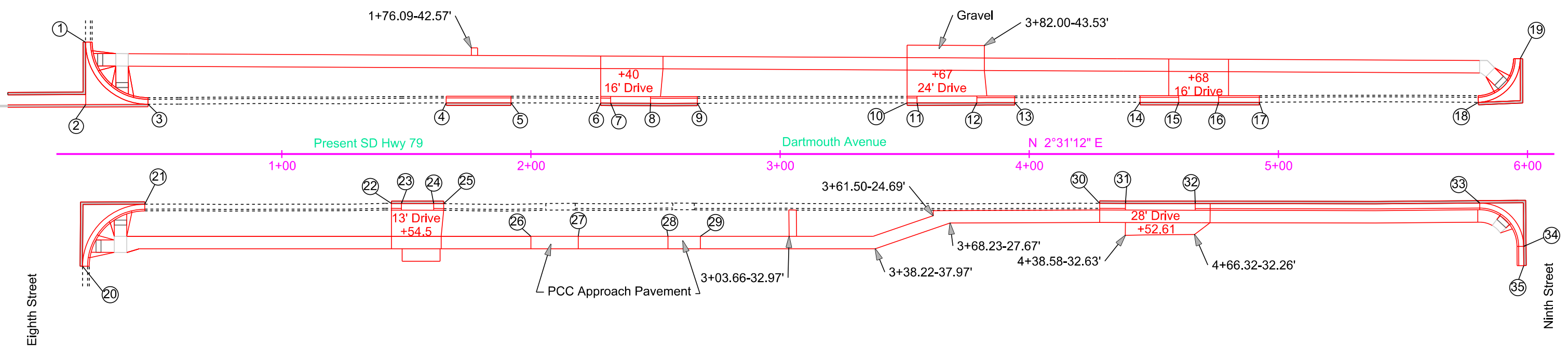
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B33	B60

Plotting Date: 11/15/2023

Note: All curb and gutter shown on this sheet is Type B66 except as noted.  
All sidewalk is 5' wide except as noted.



- |  |   |   |   |  |  |  |   |
|--|---|---|---|--|--|--|---|
| 1 0+21.23 - 44.89' L<br>Begin 25' Rad Fillet<br>TC Elev (Match Existing) | 4 1+66.00 - 20.51' L<br>Begin Str C & G<br>TC Elev (Match Existing) | 6 2+28.00 - 20.45' L<br>Begin Str C & G<br>TC Elev (Match Existing)                     | 8 2+48.00 - 20.39' L<br>End Type P6 Gutter<br>Begin Str C & G<br>TC Elev (Set in Field) | 10 3+51.00 - 20.51' L<br>Begin Str C & G<br>TC Elev (Match Existing)                     | 13 3+94.16 - 20.65' L<br>End Str C & G<br>TC Elev (Match Existing)                       | 16 4+76.00 - 20.77' L<br>End Type P6 Gutter<br>Begin Str C & G<br>TC Elev (Set in Field) |   |
| 2 0+21.30 - 19.85' L<br>End Str Valley Gutter                            | 5 1+92.00 - 20.55' L<br>End Str C & G<br>TC Elev (Match Existing)   | 7 2+32.00 - 20.44' L<br>End Str C & G<br>Begin Type P6 Gutter<br>TC Elev (Set in Field) | 9 2+66.81 - 20.42' L<br>End Str C & G<br>TC Elev (Match Existing)                       | 11 3+55.00 - 20.51' L<br>End Str C & G<br>Begin Type P6 Gutter<br>TC Elev (Set in Field) | 14 4+44.48 - 20.75' L<br>Begin Str C & G<br>TC Elev (Match Existing)                     | 17 4+92.38 - 20.77' L<br>End Str C & G<br>TC Elev (Match Existing)                       | 19 5+97.07 - 38.28' L<br>End 17.5' Rad Fillet<br>TC Elev (Match Existing) |
| 3 0+46.34 - 19.96' L<br>End 25' Rad Fillet<br>TC Elev (Match Existing)   |   |   |   | 12 3+79.00 - 20.62' L<br>End Type P6 Gutter<br>Begin Str C & G<br>TC Elev (Set in Field) | 15 4+60.00 - 20.76' L<br>End Str C & G<br>Begin Type P6 Gutter<br>TC Elev (Set in Field) | 18 5+80.29 - 20.74' L<br>Begin 17.5' Rad Fillet<br>TC Elev (Match Existing)              |   |



Asphalt

- |   |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|
| 20 0+20.04 - 44.99' R<br>Begin 25' Rad Fillet<br>TC Elev (Match Existing) | 22 1+44.00 - 19.79' R<br>Begin Str C & G<br>TC Elev (Match Existing)                     | 24 1+61.00 - 19.84' R<br>End Type P6 Gutter<br>Begin Str C & G<br>TC Elev (Set in Field) | 26 2+00.00 - 32.97' R<br>End 4" Sidewalk<br>Begin 6" PCC Approach Pavement | 28 2+55.00 - 32.97' R<br>End 4" Sidewalk<br>Begin 6" PCC Approach Pavement | 30 4+28.27 - 19.78' R<br>Begin Str C & G<br>TC Elev (Match Existing)                     | 32 4+66.61 - 19.87' R<br>End Type P6 Gutter<br>Begin Str C & G<br>TC Elev 2828.37 (Theor)<br>Verify in Field | 34 5+98.46 - 37.03' R<br>End 17.5' Rad Fillet<br>Begin Str C & G<br>TC Elev (Set in Field) |
| 21 0+44.99 - 20.15' R<br>End 25' Rad Fillet<br>TC Elev (Match Existing)   | 23 1+48.00 - 19.79' R<br>End Str C & G<br>Begin Type P6 Gutter<br>TC Elev (Set in Field) | 25 1+65.00 - 19.86' R<br>End Str C & G<br>TC Elev (Match Existing)                       | 27 2+19.00 - 32.97' R<br>End 6" PCC Approach Pavement<br>Begin 4" Sidewalk | 29 2+68.00 - 32.97' R<br>End 6" PCC Approach Pavement<br>Begin 4" Sidewalk | 31 4+38.61 - 19.80' R<br>End Str C & G<br>Begin Type P6 Gutter<br>TC Elev (Set in Field) | 33 5+80.82 - 19.67' R<br>End Str C & G<br>Begin 17.5' Rad Fillet<br>TC Elev (Set in Field)                   | 35 5+98.52 - 44.75' R<br>End Str C & G<br>TC Elev (Match Existing)                         |

Plot Scale - 1"=40'

Plotted From - TRPR17192

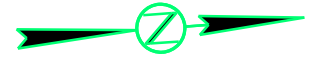
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# CURB RAMP LAYOUT

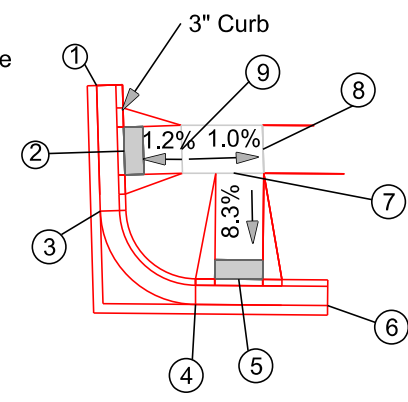
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B34	B60

Plotting Date: 11/15/2023

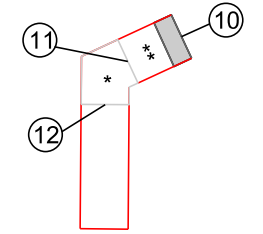
\* Turning Space with 1.5% slope  
 \*\* Curb Ramp with 7.5% slope and 1.5% cross slope  
 Note: All curb and gutter shown on this sheet is Type B66 except as noted.  
 All sidewalk is 5' wide except as noted.



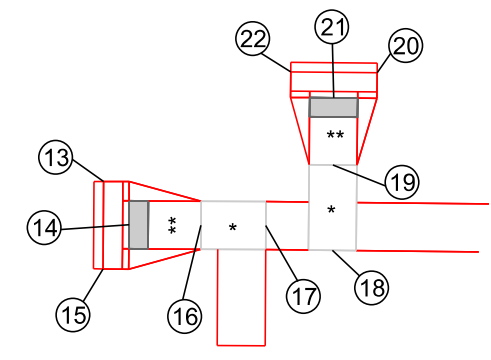
- |  |  |   |
|--|--|---|
| 1 0+89.04-42.26' L<br>Begin Str C & G                                    | 4 0+99.50-19.53' L<br>End 10' Rad Fillet<br>Begin Str C & G              | 7 1+06.43-35.75' L<br>End Ramp Slope        |
| 2 0+91.96-35.46' L<br>Center of Detectable Warning<br>& Type 1 Curb Ramp | 5 1+04.00-22.20' L<br>Center of Detectable Warning<br>& Type 1 Curb Ramp | 8 1+03.37-33.25' L<br>Back of Turning Space |
| 3 0+89.52-29.17' L<br>End Str C & G<br>Begin 10' Rad Fillet              | 6 1+13.27-19.51' L<br>Begin Str C & G                                    | 9 0+97.96-33.68' L<br>End Ramp Slope        |



- |   |
|---|
| 10 0+45.66-38.73' R<br>Center of Detectable Warning<br>& Type 1 Curb Ramp |
| 11 0+40.10-41.36' R<br>End Ramp Slope                                     |
| 12 0+37.76-45.88' R<br>Back of Turning Space                              |



Second Street



- |   |   |
|---|---|
| 13 0+78.35-31.61' R<br>Begin Str C & G                                    | 18 1+02.28-38.58' R<br>Back of Turning Space                              |
| 14 0+81.03-36.09' R<br>Center of Detectable Warning<br>& Type 1 Curb Ramp | 19 1+02.24-29.69' R<br>End Ramp Slope                                     |
| 15 0+78.36-40.70' R<br>End Str C & G                                      | 20 1+06.75-20.03' R<br>End Str C & G                                      |
| 16 0+88.53-36.07' R<br>End Ramp Slope                                     | 21 1+02.25-22.69' R<br>Center of Detectable Warning<br>& Type 1 Curb Ramp |
| 17 0+95.28-36.05' R<br>Back of Turning Space                              | 22 0+97.75-20.02' R<br>Begin Str C & G                                    |

Plot Scale - 1:20

Plotted From - TRPR17192

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# CURB RAMP LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B35	B60

Plotting Date: 11/15/2023



\* Turning Space with 1.5% slope  
 \*\* Curb Ramp with 7.5% slope and 1.5% cross slope  
 Note: All curb and gutter shown on this sheet is Type B66 except as noted.  
 All sidewalk is 5" wide except as noted.

- 1 4+22.26-19.66' L  
Begin Str C & G
- 2 4+26.76-22.33' L  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 3 4+31.26-19.66' L  
End Str C & G
- 4 4+26.76-33.35' L  
End Ramp Slope

- 5 4+26.76-38.35' L  
Back of Turning Space
- 6 4+54.74-31.36' L  
Begin Str C & G
- 7 4+52.07-35.85' L  
Center of Detectable Warning  
& Type 1 Curb Ramp

- 8 4+54.74-40.36' L  
End Str C & G
- 9 4+44.57-35.85' L  
End Ramp Slope
- 10 4+39.57-35.85' L  
Back of Turning Space

- 11 5+00.41-40.56' L  
Begin Str C & G

- 14 5+10.55-35.99' L  
End Ramp Slope

- 12 5+03.05-36.04' L  
Center of Detectable Warning  
& Type 1 Curb Ramp  
TC Elev

- 15 5+17.72-35.94' L  
Back of Turning Space

- 13 5+00.35-31.56' L  
End Str C & G

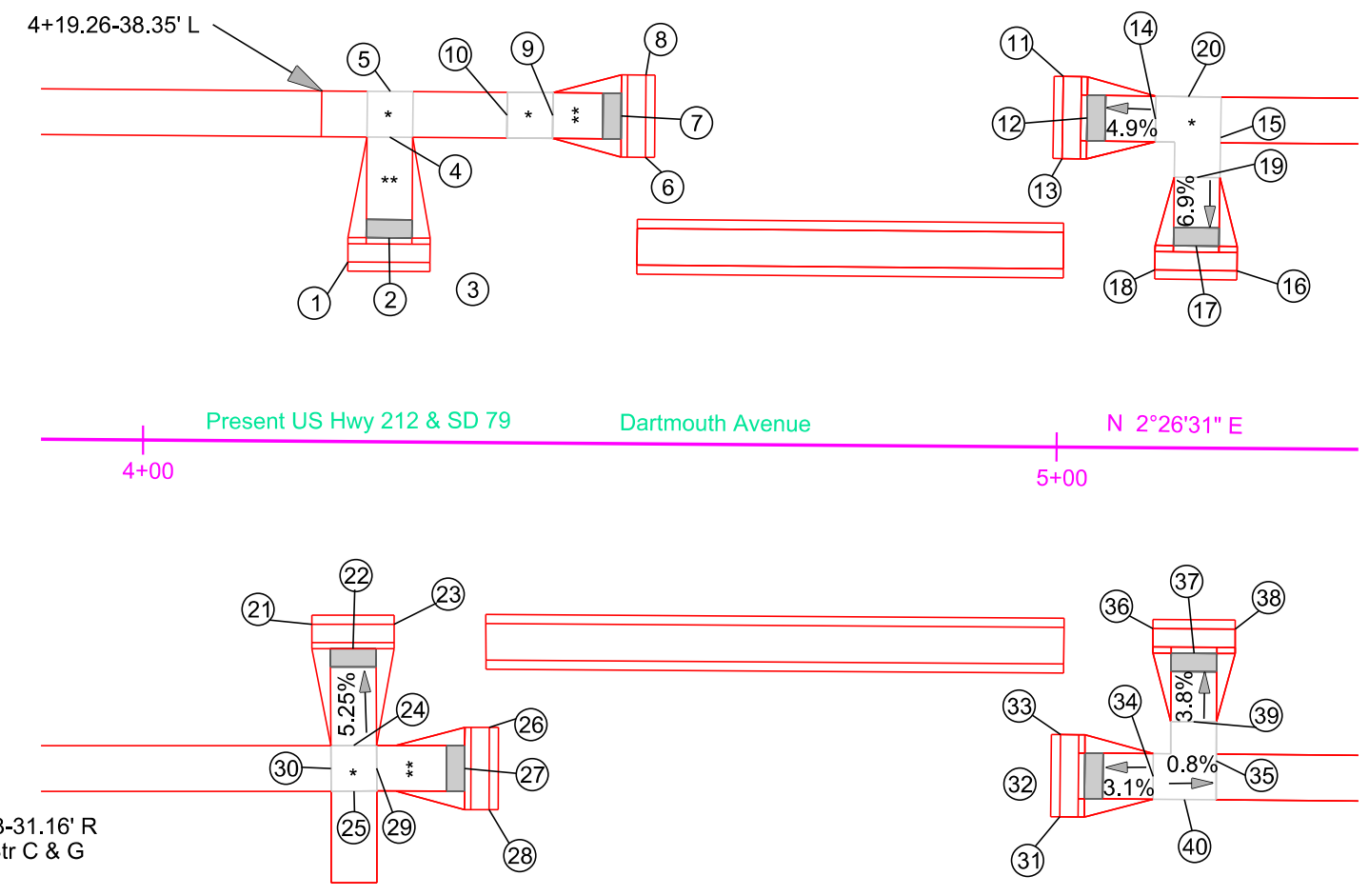
- 16 5+19.59-19.59' L  
Begin Str C & G

- 17 5+15.11-22.12' L  
Center of Detectable Warning  
& Type 1 Curb Ramp

- 18 5+10.59-19.49' L  
End Str C & G

- 19 5+15.16-29.62' L  
End Ramp Slope

- 20 5+14.14-38.46' L  
Back of Turning Space



- 21 4+18.64-20.03' R  
Begin Str C & G
- 22 4+23.16-22.66' R  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 23 4+27.64-19.96' R  
End Str C & G
- 24 4+23.31-33.25' R  
End Ramp Slope
- 25 4+23.38-38.25' R  
Back of Turning Space

- 26 4+38.13-31.16' R  
Begin Str C & G
- 27 4+35.48-35.67' R  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 28 4+38.17-40.16' R  
End Str C & G
- 29 4+25.85-35.71' R  
End Ramp Slope
- 30 4+20.85-35.79' R  
Back of Turning Space

- 31 5+00.67-40.46' R  
Begin Str C & G

- 36 5+10.70-19.79' R  
Begin Str C & G

- 32 5+03.34-35.96' R  
Center of Detectable Warning  
& Type 1 Curb Ramp

- 37 5+15.21-22.45' R  
Center of Detectable Warning  
& Type 1 Curb Ramp

- 33 5+00.67-31.46' R  
End Str C & G

- 38 5+19.70-19.77' R  
End Str C & G

- 34 5+10.83-35.96' R  
End Ramp Slope

- 39 5+15.23-29.95' R  
End Ramp Slope

- 35 5+17.74-34.20' R  
Back of Turning Space

- 40 5+14.29-38.46' R  
Back of Turning Space

Plot Scale - 1:20

Plotted From - TRPR17192

File - U:\trproj\Bute062\04ec.dgn

# CURB RAMP LAYOUT

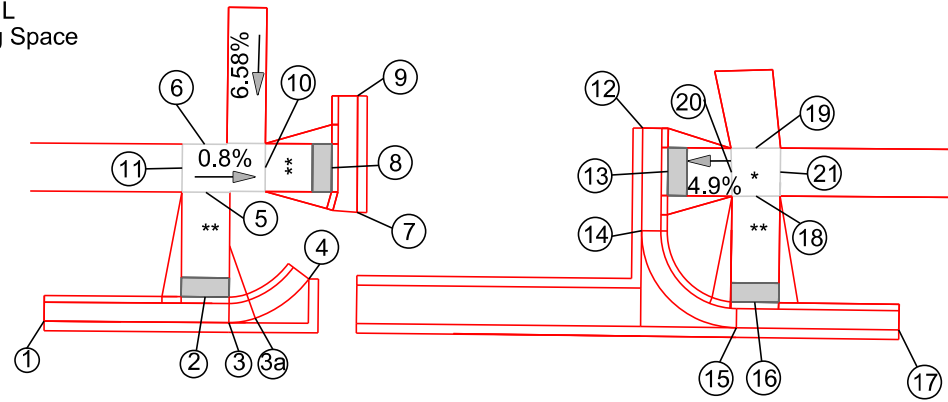
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B36	B60

Plotting Date: 11/15/2023

\* Turning Space with 1.5% slope  
 \*\* Curb Ramp with 7.5% slope and 1.5% cross slope  
 Note: All curb and gutter shown on this sheet is Type B66 except as noted.  
 All sidewalk is 5' wide except as noted.



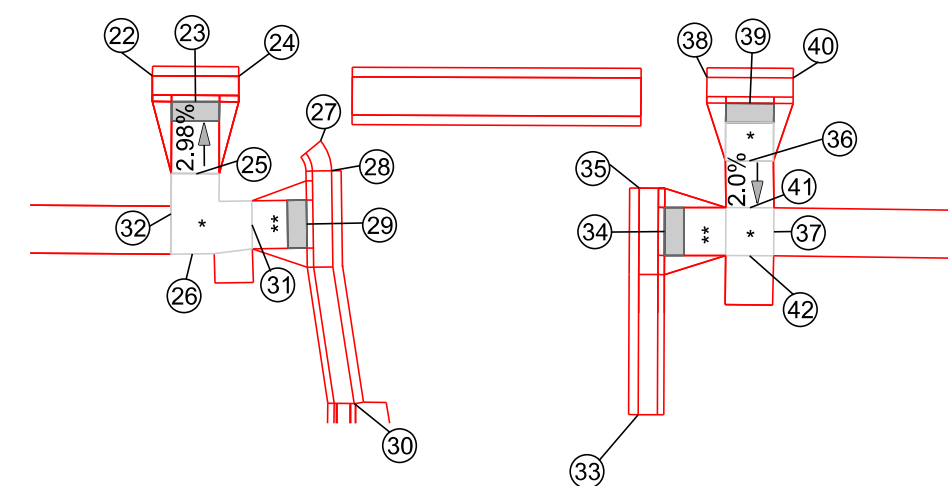
- 1 8+27.25-19.76' L  
Begin Str C & G
- 2 8+44.01-22.43' L  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 3 8+46.51-19.76' L  
End Str C & G  
Begin 8' Rad Fillet
- 3a 8+46.51-19.76' L  
End 8' Rad Fillet  
Begin 12' Rad Fillet
- 4 8+54.78-24.38' L  
End 12' Rad Fillet
- 5 8+44.00-33.33' L  
End Ramp Slope
- 6 8+43.83-38.33' L  
Back of Turning Space
- 7 8+59.76-31.34' L  
Begin Str C & G
- 8 8+57.08-35.97' L  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 9 8+59.74-43.49' L  
End Str C & G
- 10 8+50.17-35.96' L  
End Ramp Slope  
TC Elev
- 11 8+41.50-35.83' L  
Back of Turning Space



- 12 8+89.46-40.36' L  
Begin Str C & G
- 13 8+92.11-35.85' L  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 14 8+89.42-29.67' L  
End Str C & G  
Begin 10' Rad Fillet
- 15 8+99.36-19.63' L  
End 10' Rad Fillet  
Begin Str C & G
- 16 9+01.26-22.32' L  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 17 9+16.31-19.53' L  
End Str C & G
- 18 9+01.32-36.36' L  
End Ramp Slope
- 19 9+01.27-38.36' L  
Back of Turning Space
- 20 8+89.75-35.83' L  
End Ramp Slope
- 21 9+03.84-35.90' L  
Back of Turning Space



- 22 8+38.83-20.02' R  
Begin Str C & G
- 23 8+43.34-22.68' R  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 24 8+47.83-19.99' R  
End Str C & G
- 25 8+43.37-30.18' R  
End Ramp Slope
- 26 8+43.15-38.55' R  
Back of Turning Space
- 27 8+56.41-26.66' R  
Begin 5' Rad C & G
- 28 8+57.58-29.78' R  
End 5' Rad C & G  
Begin Str C & G
- 29 8+55.03-35.35' R  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 30 8+60.11-54.00' R  
End Str C & G
- 31 8+49.33-35.47' R  
End Ramp Slope
- 32 8+40.88-34.39' R  
Back of Turning Space



- 33 8+89.73-54.93' R  
Begin Str C & G
- 34 8+92.33-35.82' R  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 35 8+89.64-31.33' R  
End Str C & G
- 36 8+89.71-35.79' R  
End Ramp Slope
- 37 9+03.71-35.78' R  
Back of Turning Space
- 38 8+96.61-19.74' R  
Begin Str C & G
- 39 9+01.11-22.40' R  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 40 9+05.61-19.73' R  
End Str C & G
- 41 9+01.33-33.28' R  
End Ramp Slope
- 42 9+01.22-38.28' R  
Back of Turning Space

Plot Scale - 1:20

TIRPR17192

Plotted From -

File - U:\tr\proj\Bute06\G2\008er.dgn

# CURB RAMP LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133		

Plotting Date: 11/15/2023

\* Turning Space with 1.5% slope  
 \*\* Curb Ramp with 7.5% slope and 1.5% cross slope  
 Note: All curb and gutter shown on this sheet is Type B66 except as noted.  
 All sidewalk is 5' wide except as noted.



- 1 12+01.17-19.67' L  
Begin Str C & G
- 2 12+05.70-22.36' L  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 3 12+10.21-19.17' L  
End Str C & G
- 4 12+05.66-33.22' L  
End Ramp Slope

- 5 12+05.75-38.24' L  
Back of Turning Space

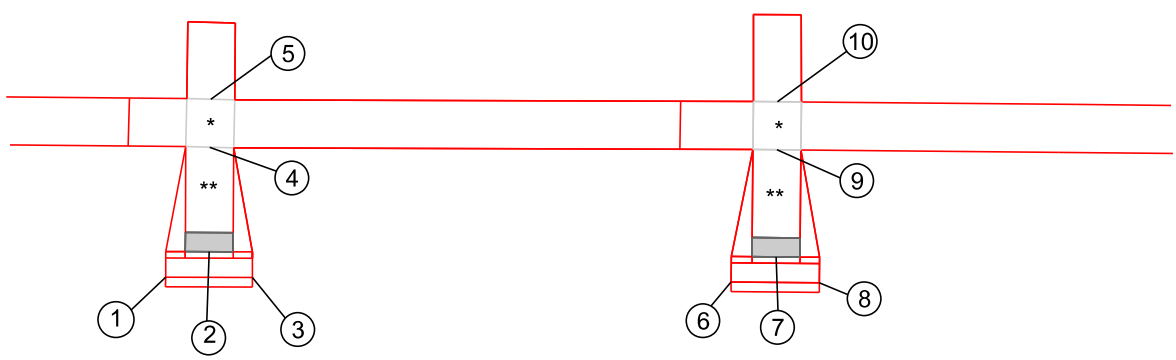
- 6 12+60.10-19.61' L  
Begin Str C & G

- 9 4+44.57-35.85' L  
End Ramp Slope  
TC Elev

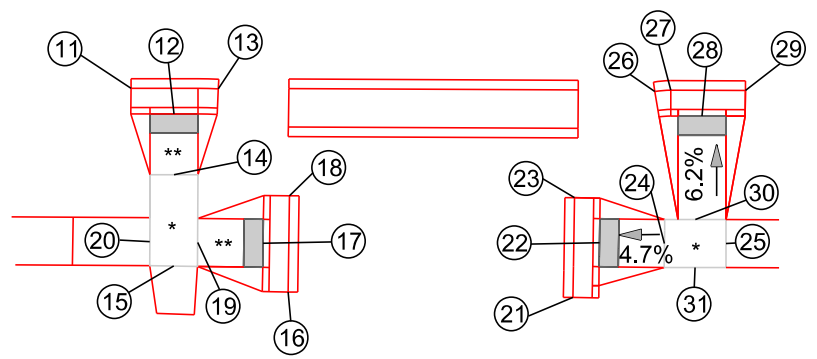
- 7 12+64.77-22.27' L  
Center of Detectable Warning  
& Type 1 Curb Ramp

- 10 4+39.57-35.85' L  
Back of Turning Space  
TC Elev

- 8 12+69.29-19.60' L  
End Str C & G



- 11 12+02.87-20.14' R  
Begin Str C & G
- 12 12+07.39-22.78' R  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 13 12+11.98-20.13' R  
End Str C & G
- 14 12+07.42-29.11' R  
End Ramp Slope
- 15 12+07.46-38.63' R  
Back of Turning Space
- 16 12+19.40-41.24' R  
Begin Str C & G
- 17 12+16.77-36.19' R  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 18 12+19.47-31.21' R  
End Str C & G
- 19 12+09.95-36.15' R  
End Ramp Slope
- 20 12+04.96-36.11' R  
Back of Turning Space



- 21 12+49.11-41.59' R  
Begin Str C & G  
TC Elev

- 26 12+57.30-19.08' R  
Begin 11' Rad C & G  
TC Elev

- 22 12+51.82-35.85' R  
Center of Detectable Warning  
& Type 1 Curb Ramp  
TC Elev

- 27 12+59.12-19.92' R  
End 11' Rad C & G  
Begin Str C & G  
TC Elev

- 23 12+49.18-31.19' R  
End Str C & G  
TC Elev

- 28 12+62.49-22.57' R  
Center of Detectable Warning  
& Type 1 Curb Ramp  
TC Elev

- 24 12+58.58-35.89' R  
End Ramp Slope  
TC Elev

- 29 12+66.89-19.87' R  
End Str C & G  
TC Elev

- 25 12+65.00-35.85' R  
Back of Turning Space  
TC Elev

- 30 12+61.79-33.37' R  
End Ramp Slope  
TC Elev

- 31 12+61.79-38.37' R  
Back of Turning Space  
TC Elev

Plot Scale - 1:20

Plotted From - TRPR17192

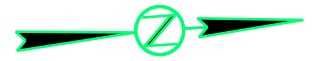
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# CURB RAMP LAYOUT

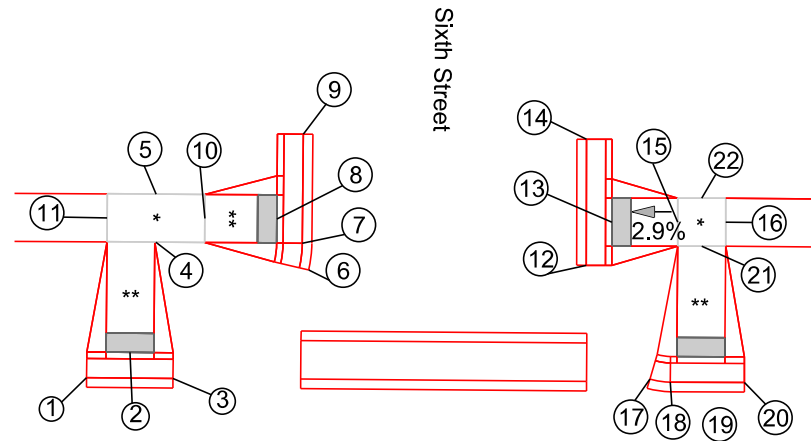
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B38	B60

Plotting Date: 11/15/2023

\* Turning Space with 1.5% slope  
 \*\* Curb Ramp with 7.5% slope and 1.5% cross slope  
 Note: All curb and gutter shown on this sheet is Type B66 except as noted.  
 All sidewalk is 5' wide except as noted.



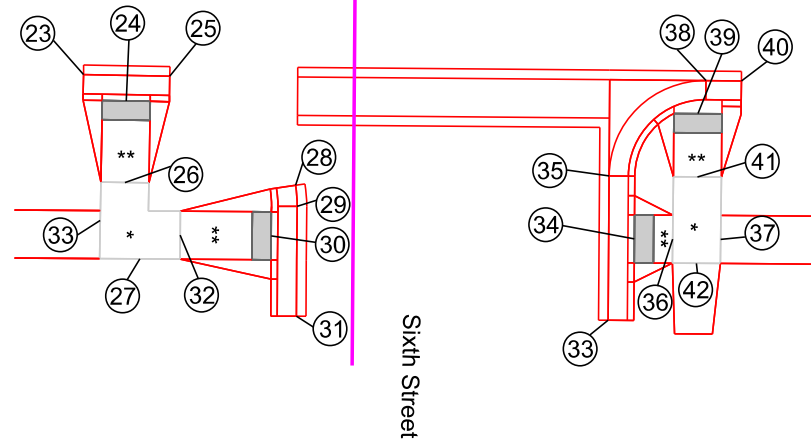
- 1 15+57.85-19.65' L  
Begin Str C & G
- 2 15+62.35-22.31' L  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 3 15+66.85-19.64' L  
End Str C & G
- 4 15+64.95-33.82' L  
End Ramp Slope
- 5 15+64.96-38.82' L  
Back of Turning Space
- 6 15+79.92-31.26' L  
Begin 12.68' Rad C & G
- 7 15+80.21-33.82' L  
End 12.68' Rad C & G  
Begin Str C & G
- 8 15+77.54-36.33' L  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 9 15+81.23-45.18' L  
End Str C & G
- 10 15+70.05-36.32' L  
End Ramp Slope
- 11 15+59.86-36.31' L  
Back of Turning Space



- 12 16+09.83-31.75' L  
Begin Str C & G
- 13 16+12.47-36.27' L  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 14 16+09.74-44.90' L  
End Str C & G
- 15 16+19.32-36.32' L  
End Ramp Slope
- 16 16+24.32-36.35' L  
Back of Turning Space
- 17 16+16.55-19.95' L  
Begin 7.6' Rad C & G
- 18 16+18.68-19.65' R  
End 7.6' Rad C & G  
Begin Str C & G
- 19 16+21.84-22.32' L  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 20 16+26.39-19.66' L  
End Str C & G
- 21 16+21.83-33.83' L  
End Ramp Slope
- 22 16+21.80-38.83' L  
Back of Turning Space



- 23 15+57.83-19.84' R  
Begin Str C & G
- 24 15+62.30-22.56' R  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 25 15+66.83-19.93' R  
End Str C & G
- 26 15+62.22-31.05' R  
End Ramp Slope
- 27 15+63.84-39.01' R  
Back of Turning Space
- 28 15+80.01-31.21' R  
Begin 15' Rad C & G
- 29 15+80.20-33.41' R  
End 15' Rad C & G  
Begin Str C & G
- 30 15+77.53-36.50' R  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 31 15+77.53-36.50' R  
End Str C & G
- 32 15+68.03-36.51' R  
End Ramp Slope
- 33 15+59.69-35.02' R  
Back of Turning Space



- 33 16+12.70-45.02' R  
Begin Str C & G
- 34 16+15.36-36.53' R  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 35 16+12.68-29.98' R  
End Str C & G  
Begin 10' Rad Fillet
- 36 16+19.35-36.52' R  
End Ramp Slope
- 37 16+24.35-36.51' R  
Back of Turning Space
- 38 16+22.70-19.97' R  
End 10' Rad Fillet  
Begin Str C & G
- 39 16+21.89-23.42' R  
Center of Detectable Warning  
& Type 2 Curb Ramp
- 40 16+26.39-19.97' R  
End Str C & G
- 41 16+21.88-30.01' R  
End Ramp Slope
- 42 16+21.86-39.22' R  
Back of Turning Space

Plot Scale - 1:20

Plotted From - TRPR17192

File - U:\trproj\Bute06\G2\01\ecr.dgn

# CURB RAMP LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B39	B60

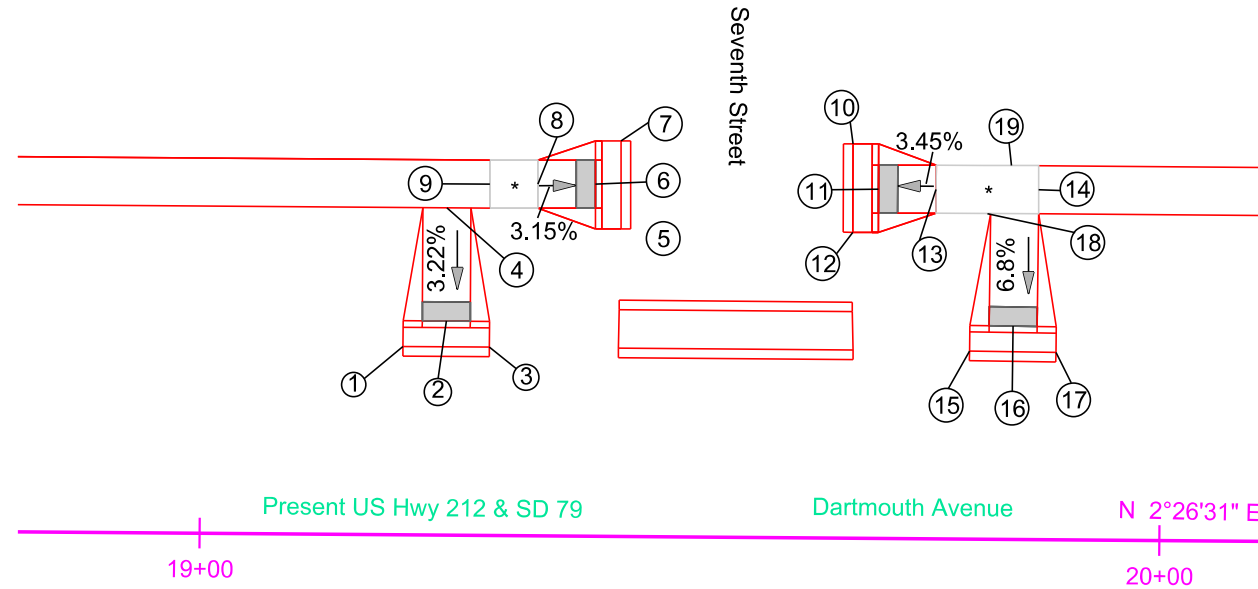
Plotting Date: 11/15/2023

\* Turning Space with 1.5% slope  
 \*\* Curb Ramp with 7.5% slope and 1.5% cross slope  
 Note: All curb and gutter shown on this sheet is Type B66 except as noted.  
 All sidewalk is 5' wide except as noted.



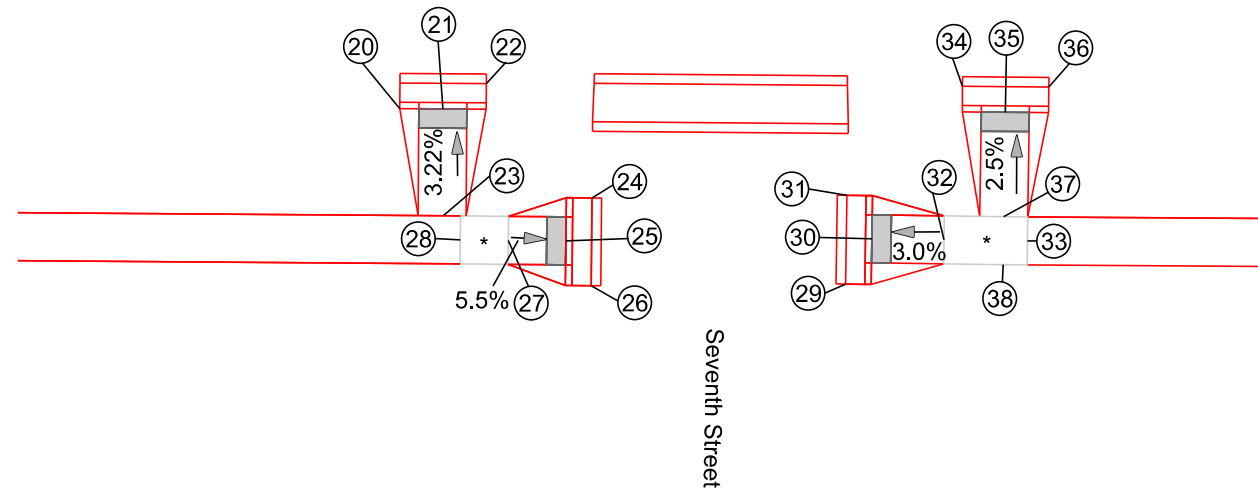
- 1 19+21.03-19.62' L  
Begin Str C & G
- 2 19+25.53-22.30' L  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 3 19+03.03-19.63' L  
End Str C & G
- 4 19+25.65-34.10' L  
End Ramp Slope
- 5 19+43.68-32.04' L  
Begin Str C & G
- 6 19+40.97-36.69' L  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 7 19+43.61-41.21' L  
End Str C & G
- 8 19+34.97-36.65' L  
End Ramp Slope
- 9 19+29.97-36.61' L  
Back of Turning Space

- 10 19+67.76-41.76' L  
Begin Str C & G
- 11 19+70.46-36.39' L  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 12 19+67.82-31.87' L  
End Str C & G
- 13 19+76.46-36.41' L  
End Ramp Slope
- 14 19+87.16-36.45' L  
Back of Turning Space
- 15 19+80.07-19.59' L  
Begin Str C & G
- 16 19+84.60-22.33' L  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 17 19+89.08-19.53' L  
End Str C & G
- 18 19+81.83-33.92' L  
End Ramp Slope
- 19 19+84.30-38.95' L  
Back of Turning Space



- 20 19+21.03-20.03' R  
Begin Str C & G
- 21 19+25.53-22.70' R  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 22 19+30.03-20.03' R  
End Str C & G
- 23 19+25.67-33.83' R  
End Ramp Slope
- 24 19+41.13-31.87' R  
Begin Str C & G
- 25 19+41.11-41.00' R  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 26 19+41.11-41.00' R  
End Str C & G
- 27 19+32.45-36.35' R  
End Ramp Slope
- 28 19+27.45-36.34' R  
Back of Turning Space

- 29 19+67.63-40.63' R  
Begin Str C & G
- 30 19+70.34-35.90' R  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 31 19+67.70-31.38' R  
End Str C & G  
Begin 10' Rad C & G
- 32 19+77.84-35.96' R  
End Ramp Slope
- 33 19+86.54-35.99' R  
Back of Turning Space
- 34 19+79.65-19.94' R  
Begin Str C & G
- 35 19+84.13-22.61' R  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 36 19+88.65-19.94' R  
End Str C & G
- 37 19+84.05-33.48' R  
End Ramp Slope
- 38 19+84.02-38.48' R  
Back of Turning Space



Plot Scale - 1:20

Plotted From - TRPR17192

Plotted From -

File - U:\trproj\Bute06\G2\01ser.dgn

# CURB RAMP LAYOUT

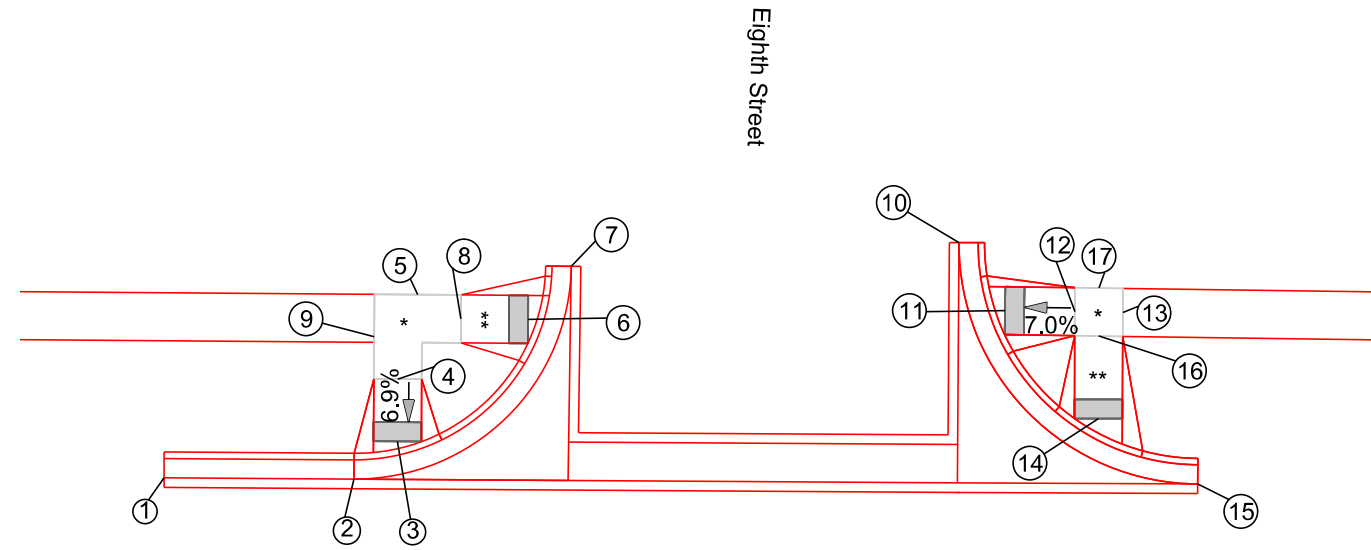
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B40	B60

Plotting Date: 11/15/2023



\* Turning Space with 1.5% slope  
 \*\* Curb Ramp with 7.5% slope and 1.5% cross slope  
 Note: All curb and gutter shown on this sheet is Type B66 except as noted.  
 All sidewalk is 5' wide except as noted.

- 1 22+62.59-19.72' L  
Begin Str C & G
- 2 22+82.38-19.74' L  
End Str C & G  
Begin 22.5' Rad Fillet
- 3 22+86.87-23.69' L  
Center of Detectable Warning  
& Type 2 Curb Ramp
- 4 22+86.87-30.19' L  
End Ramp Slope
- 5 22+88.88-39.00' L  
Back of Turning Space
- 6 23+00.40-36.50' L  
Center of Detectable Warning  
& Type 2 Curb Ramp
- 7 23+04.86-42.08' L  
End 22.5' Rad Fillet
- 8 22+93.40-36.50' L  
End Ramp Slope
- 9 22+84.37-34.59' L  
Back of Turning Space



- 10 0+21.23-44.89' L  
Begin 25' Rad Fillet
- 11 0+26.09-37.83' L  
Center of Detectable Warning  
& Type 2 Curb Ramp
- 12 0+33.37-37.80' L  
End Ramp Slope
- 13 19+76.46-36.41' L  
Back of Turning Space
- 14 0+35.92-26.68' L  
Center of Detectable Warning  
& Type 2 Curb Ramp
- 15 0+46.34-19.96' L  
End 25' Rad Fillet
- 16 0+35.88-35.28' L  
End Ramp Slope
- 17 0+35.86-40.28' L  
Back of Turning Space



- 18 22+54.20-20.56' R  
Begin 50' Rad C & G
- 19 22+86.29-36.41' R  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 20 a 0+70.52-20.31' R  
End 50' Rad C & G
- 21 22+81.11-41.82' R  
End Ramp Slope
- 22 22+77.65-45.44' R  
Back of Turning Space

- 23 a 0+45.02-19.98' R  
Begin 50' Rad Fillet
- 24 a 0+36.95-25.39' R  
Center of Detectable Warning  
& Type 2 Curb Ramp
- 25 a 0+.36.26-32.74' R  
End Ramp Slope
- 26 a 0+36.27-37.74' R  
Back of Turning Space
- 27 a 0+26.53-35.23' R  
Center of Detectable Warning  
& Type 2 Curb Ramp
- 28 a 0+20.20-44.96' R  
End 50' Rad Fillet
- 29 a 0+.33.02-35.23' R  
End Ramp Slope
- 30 a 0+39.50-35.24' R  
Back of Turning Space

Plot Scale - 1:20

Plotted From - TRPR17192

File - U:\trproj\Bute06\G2\023er.dgn



# CURB RAMP LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B41	B60

Plotting Date: 11/15/2023

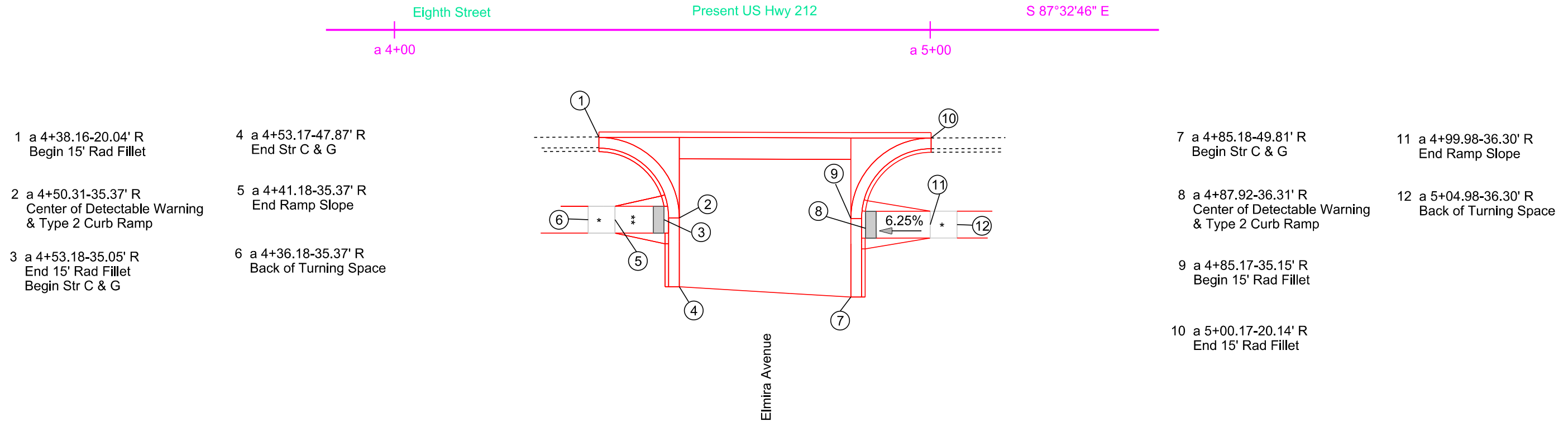
\* Turning Space with 1.5% slope  
 \*\* Curb Ramp with 7.5% slope and 1.5% cross slope  
 Note: All curb and gutter shown on this sheet is Type B66 except as noted.  
 All sidewalk is 5' wide except as noted.



Plot Scale - 1:20

Plotted From - TRPR17192

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- 1 a 4+38.16-20.04' R  
Begin 15' Rad Fillet
- 2 a 4+50.31-35.37' R  
Center of Detectable Warning  
& Type 2 Curb Ramp
- 3 a 4+53.18-35.05' R  
End 15' Rad Fillet  
Begin Str C & G

- 4 a 4+53.17-47.87' R  
End Str C & G
- 5 a 4+41.18-35.37' R  
End Ramp Slope
- 6 a 4+36.18-35.37' R  
Back of Turning Space

- 7 a 4+85.18-49.81' R  
Begin Str C & G
- 8 a 4+87.92-36.31' R  
Center of Detectable Warning  
& Type 2 Curb Ramp
- 9 a 4+85.17-35.15' R  
Begin 15' Rad Fillet

- 10 a 5+00.17-20.14' R  
End 15' Rad Fillet
- 11 a 4+99.98-36.30' R  
End Ramp Slope
- 12 a 5+04.98-36.30' R  
Back of Turning Space

# CURB RAMP LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B42	B60

Plotting Date: 11/15/2023

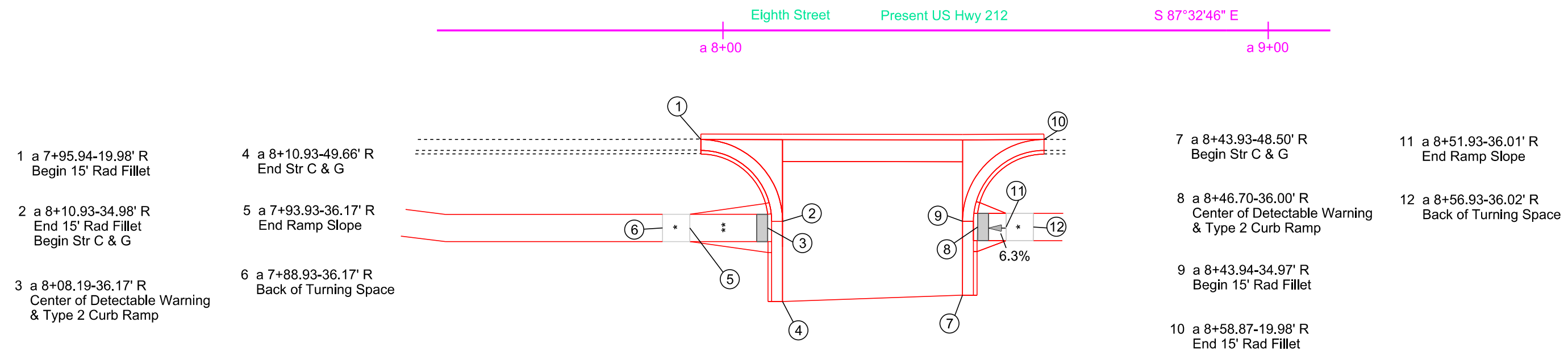
\* Turning Space with 1.5% slope  
 \*\* Curb Ramp with 7.5% slope and 1.5% cross slope  
 Note: All curb and gutter shown on this sheet is Type B66 except as noted.  
 All sidewalk is 5' wide except as noted.



Plot Scale - 1:20

Plotted From - TRPR17192

File - U:\trproj\Bute06\G2\0a8c.dgn

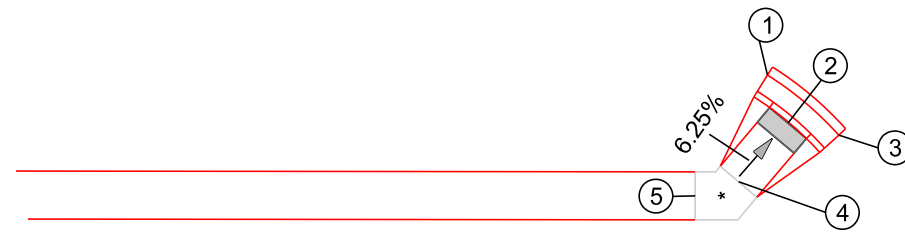
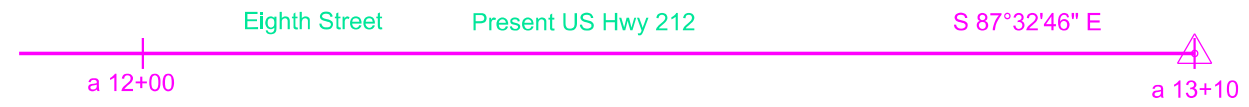


# CURB RAMP LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B43	B60

Plotting Date: 11/15/2023

\* Turning Space with 1.5% slope  
 \*\* Curb Ramp with 7.5% slope and 1.5% cross slope  
 Note: All curb and gutter shown on this sheet is Type B66 except as noted.  
 All sidewalk is 5' wide except as noted.



1 a 12+73.93-23.93' R  
Begin 15' Rad C & G

2 a 12+76.08-28.92' R  
Center of Detectable Warning  
& Type 1 Curb Ramp

3 a 12+81.35-30.18' R  
End 15' Rad C & G  
Begin Str C & G

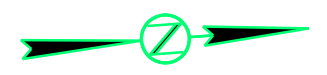
4 a 12+70.93-35.04' R  
End Ramp Slope

5 a 12+66.40-36.51' R  
Back of Turning Space

# CURB RAMP LAYOUT

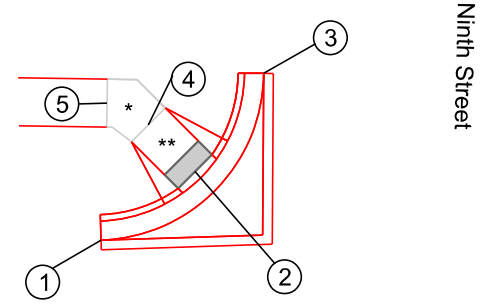
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0212(202)38 P 0079(88)133	B44	B60

Plotting Date: 11/15/2023

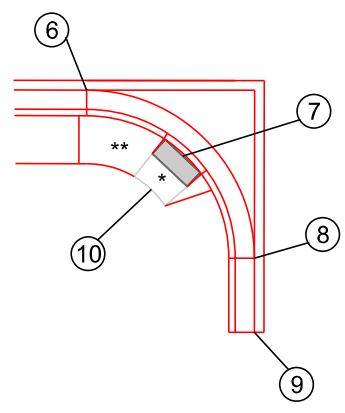


\* Turning Space with 1.5% slope  
 \*\* Curb Ramp with 7.5% slope and 1.5% cross slope  
 Note: All curb and gutter shown on this sheet is Type B66 except as noted.  
 All sidewalk is 5' wide except as noted.

- 1 5+80.29-20.74' L  
Begin 17.5' Rad Fillet
- 2 5+90.00-27.99' L  
Center of Detectable Warning  
& Type 1 Curb Ramp
- 3 5+97.07-38.28' L  
End 17.5' Rad Fillet
- 4 5+85.10-32.80' L  
End Ramp Slope
- 5 5+80.77-35.03' L  
Back of Turning Space



- 6 5+80.82-19.62' R  
Begin 17.5' Rad Fillet
- 7 5+90.90-26.46' R  
Center of Detectable Warning  
& Type 3 Curb Ramp
- 8 5+89.46-37.03' R  
End 17.5' Rad Fillet  
Begin Str C & G
- 9 5+98.52-44.75' R  
End Str C & G
- 10 5+87.64-29.97' R  
Back of Turning Space



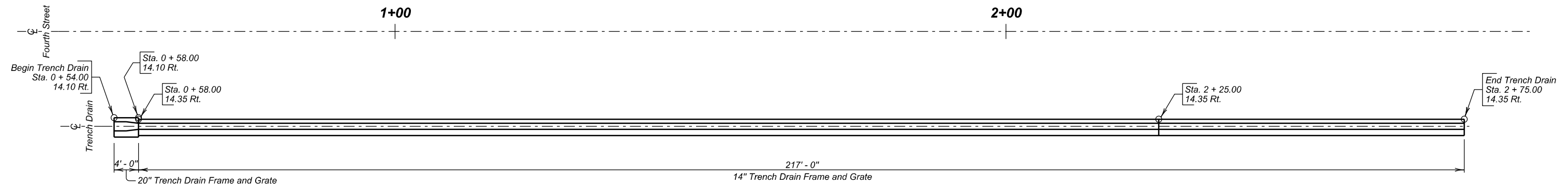
Plot Scale - 1:20

Plotted From - TRPR17192

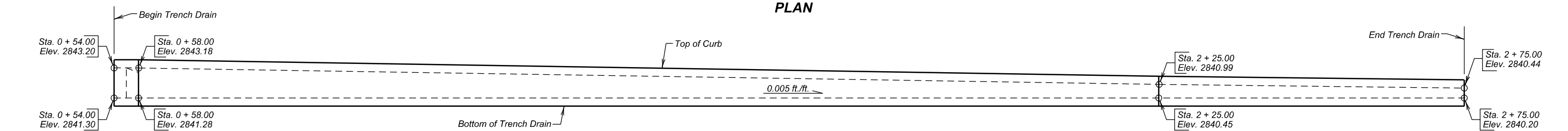
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The elevations shown in these plans are based on the National Geodetic Survey (NGS) North American Vertical Datum of 1988 (NAVD88).

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	NH 0212(202)38 P 0079(88)133	B45	B60



**PLAN**



**ELEVATION**  
(Scale 2 V : 1 H)

**INDEX OF TRENCH DRAIN SHEETS-**

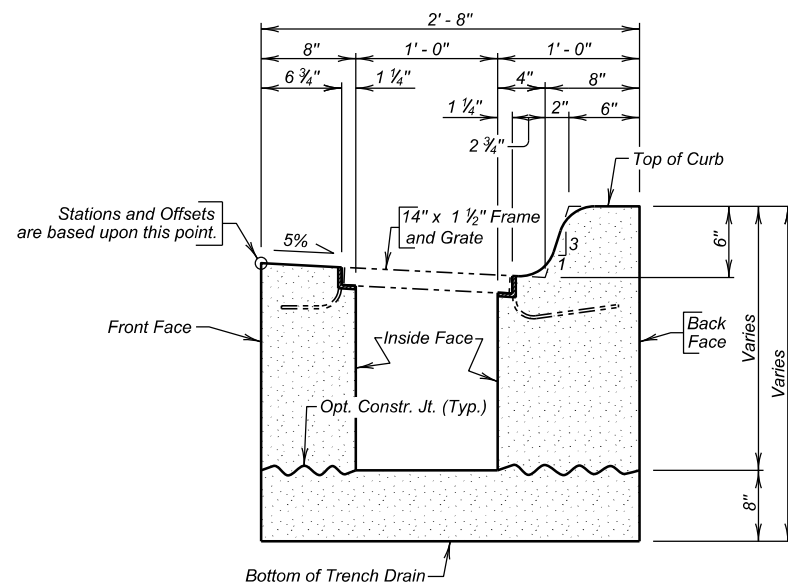
Sheet No. 1 - General Drawing, Quantities, and Notes  
Sheet No. 2 - Details

**SPECIFICATIONS**

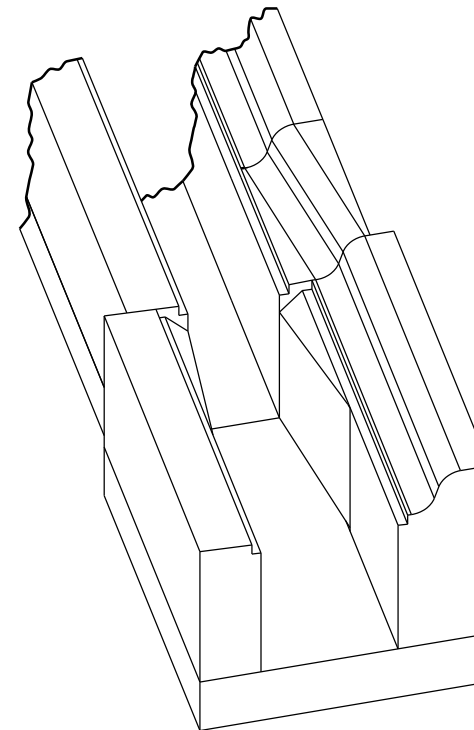
- Design Specifications: AASHTO LRFD Bridge Design Specifications, 9th Edition.
- Construction Specifications: South Dakota Standard Specifications for Roads and Bridges, 2015 Edition and required Provisions, Supplemental Specifications, and/or Special Provisions as included in the Proposal.

**GENERAL NOTES**

- All concrete will be Class M6 in accordance with Section 462.
- All reinforcing steel will conform to ASTM A 615, Grade 60.
- Use 2" clear cover on all reinforcing steel except as shown.
- The maximum contraction joint spacing will be 30 feet.
- The trench drain grate dimensions may vary from those detailed depending on the manufacturer. Grate size and configuration will accommodate hydraulic capacity and bicycle safety. Any variation in dimensions will be approved by the Engineer and will be from a manufacturer on the approved products list.
- Cost for contraction joints including asphalt sealant is included in the Class M6 Concrete unit price.
- Trench drain frame and grate will be installed per the manufacturer's specifications.
- Cost of the installation of the trench drain frame and grate is included in the Trench Drain Frame and Grate unit price.
- Trench Drain Frame and Grate will be rated for HL-93 Live Load.



**TYPICAL SECTION**  
(Re-Steel not shown)



**ISOMETRIC VIEW**  
(Trench Drain Grate not shown)

ESTIMATED QUANTITIES		
ITEM	UNIT	QUANTITY
Class M6 Concrete	Cu. Yd.	30.6
Epoxy Coated Reinforcing Steel	Lb.	3383
Structure Excavation, Miscellaneous	Cu. Yd.	14.6
Trench Drain Frame and Grate	Ft.	221

- 4 ft. 20" Trench Drain Frame and Grate.
- 217 ft. 14" Trench Drain Frame and Grate.

Items 1 thru 2 are approximate quantities contained in the Trench Drain Frame and Grate and are for information only.

**GENERAL DRAWING, QUANTITIES, AND NOTES**

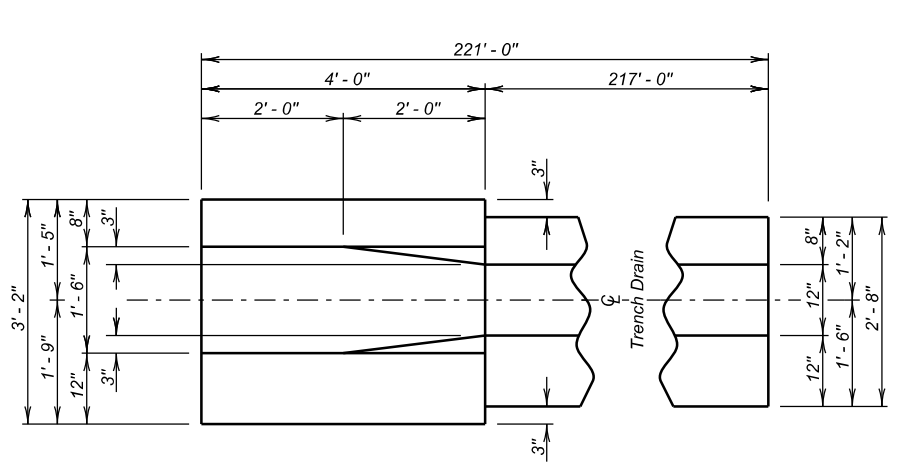
FOR  
**TRENCH DRAIN**

ADJ. TO FOURTH STREET  
STA. 0 + 54.00 TO  
STA. 2 + 75.00  
PCN 06G2

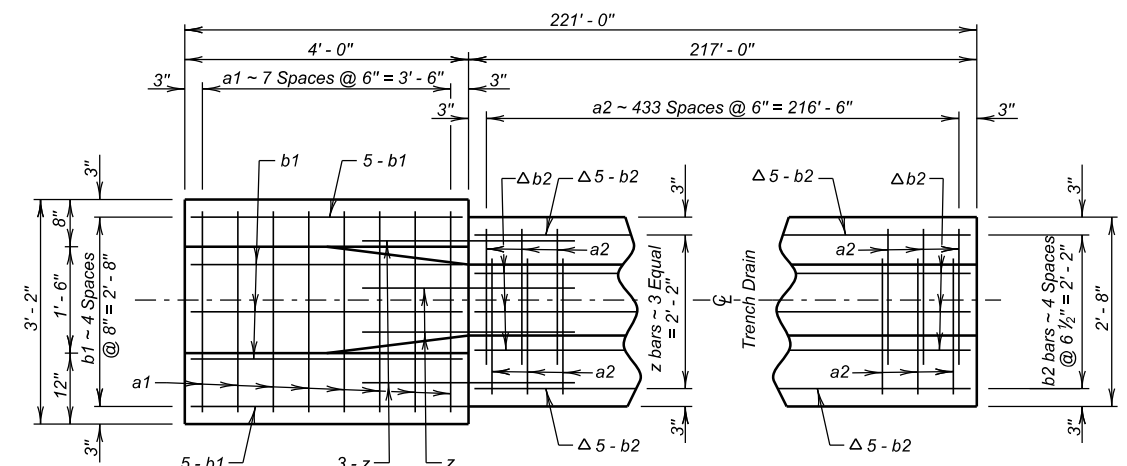
BUTTE COUNTY  
S. D. DEPT. OF TRANSPORTATION  
NOVEMBER 2023

PLANS BY:  
OFFICE OF BRIDGE DESIGN, SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION

DESIGNED BY AU	CK. DES. BY AH	DRAFTED BY BT	<i>Steve A. Johnson</i> BRIDGE ENGINEER
BUTE06G2	06G2TA01		



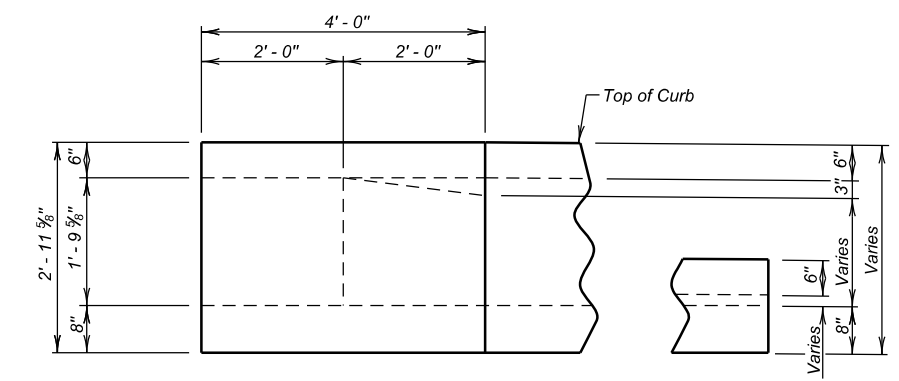
PLAN



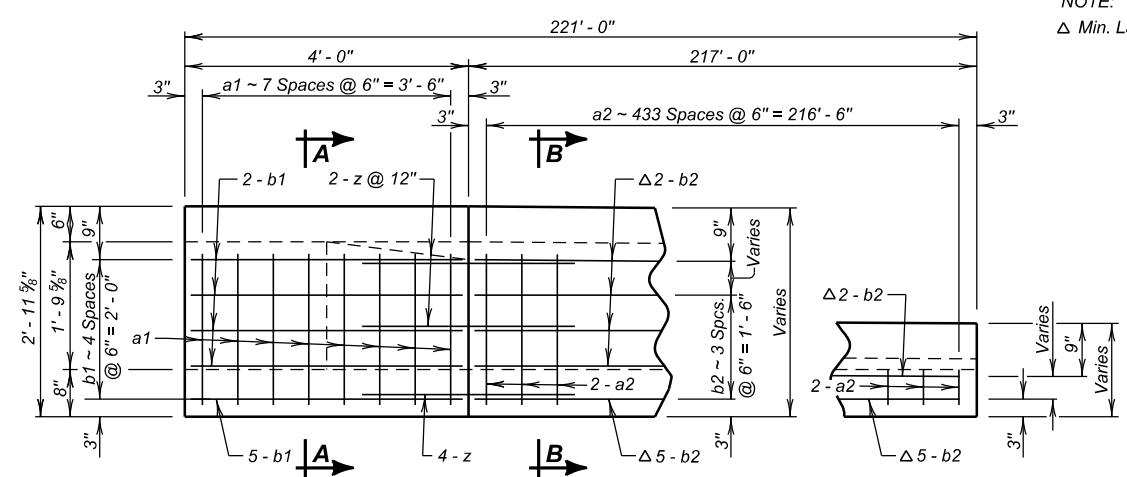
PLAN

REINFORCING SCHEDULE					
Mk.	No.	Size	Length	Type	Bending Details
a1	8	4	7'-0"	17	
a2	434	4	6'-0"	17A	
b1	13	4	3'-9"	Str.	
b2	52	4	44'-9"	Str.	
z	8	4	3'-6"	Str.	

NOTES:  
 All dimensions are out to out of bars.  
 All bars to be epoxy coated.  
 See cutting diagram.

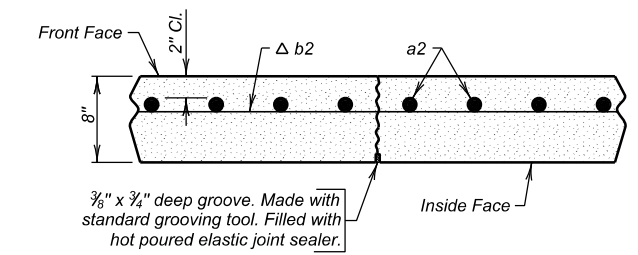


ELEVATION

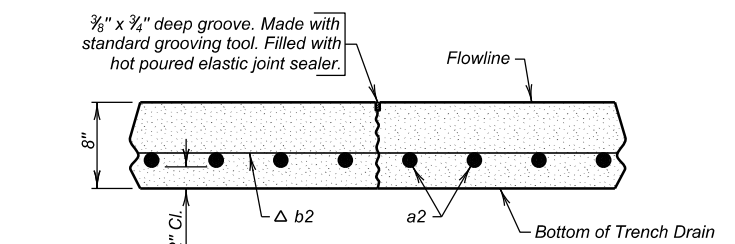


ELEVATION

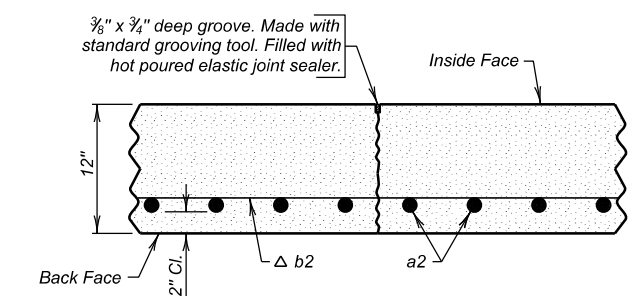
NOTE:  
 Δ Min. Lap = 1'-6"



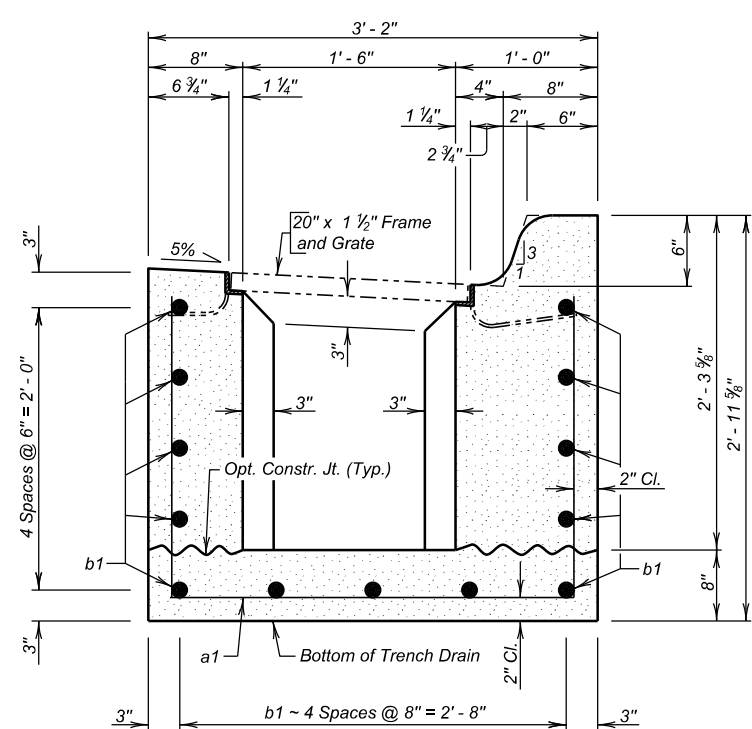
CONTRACTION JOINT (Wall)



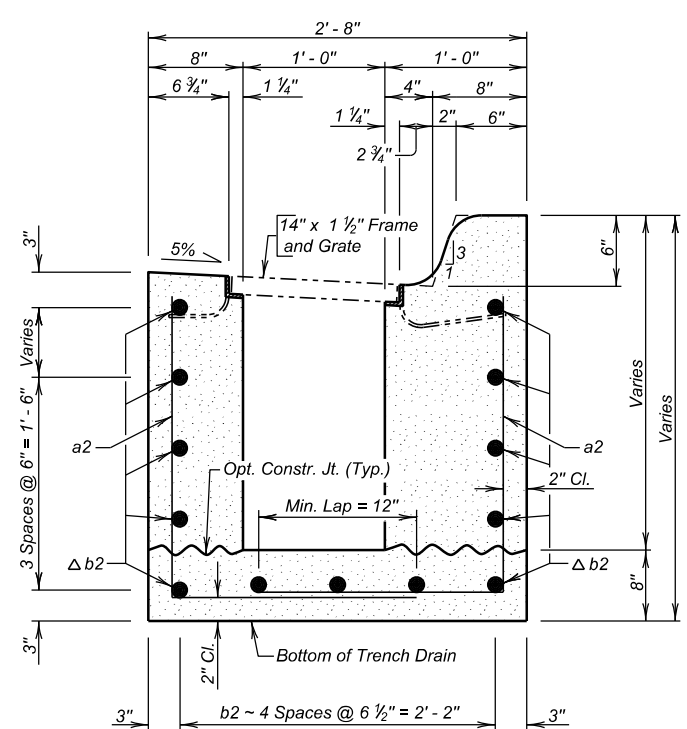
CONTRACTION JOINT (Footing)



CONTRACTION JOINT (Wall)



SECTION A - A

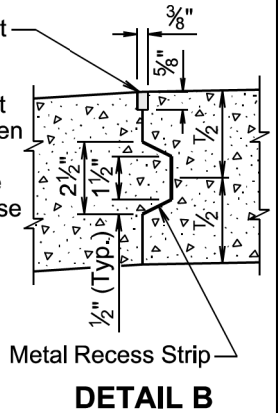
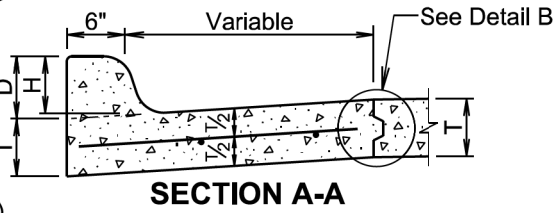
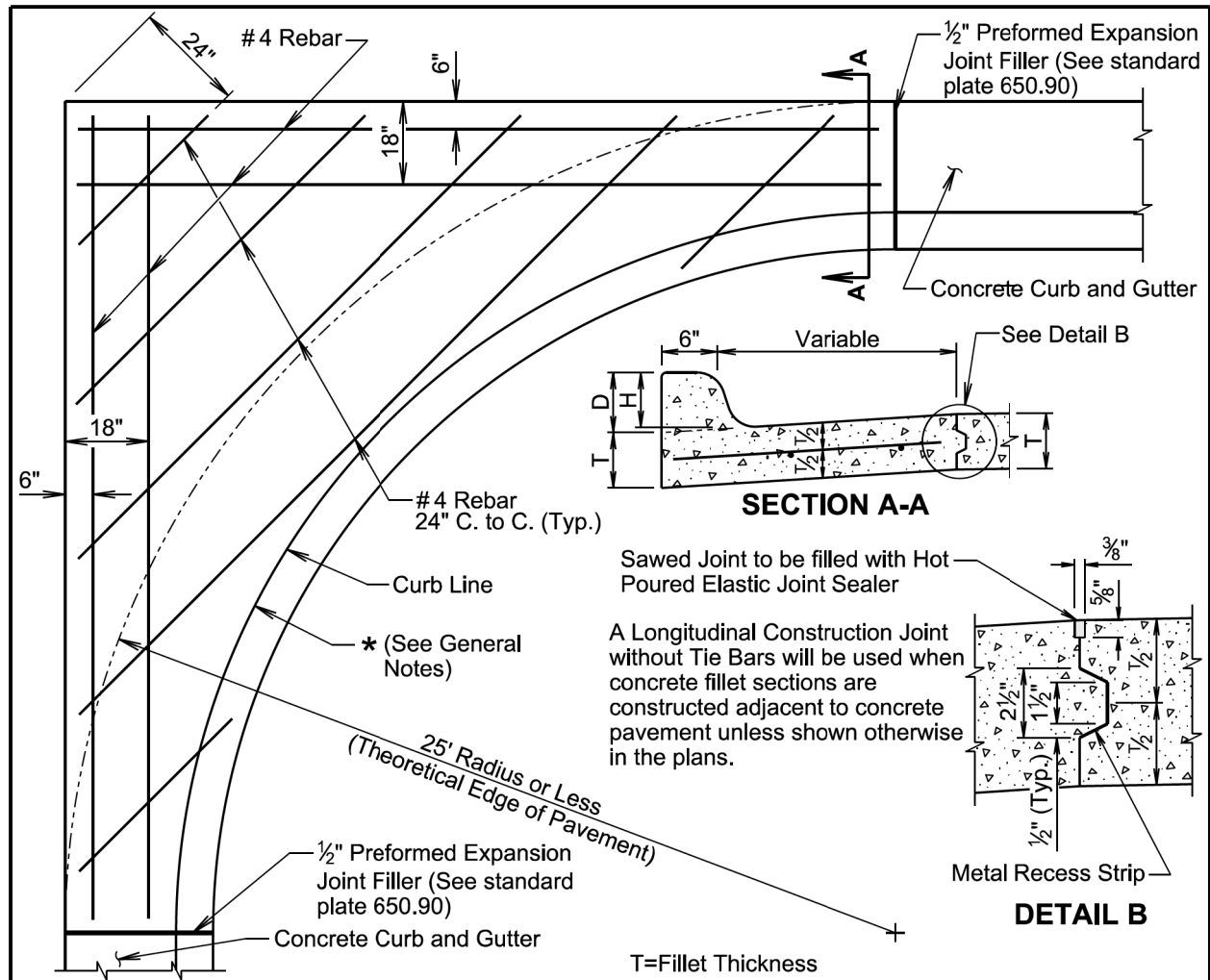


SECTION B - B

DETAILS FOR TRENCH DRAIN  
 ADJ. TO FOURTH STREET STA. 0 + 54.00 TO STA. 2 + 75.00  
 NH 0212(202)38

BUTTE COUNTY  
 S. D. DEPT. OF TRANSPORTATION  
 NOVEMBER 2023

Plot Scale - 1:200



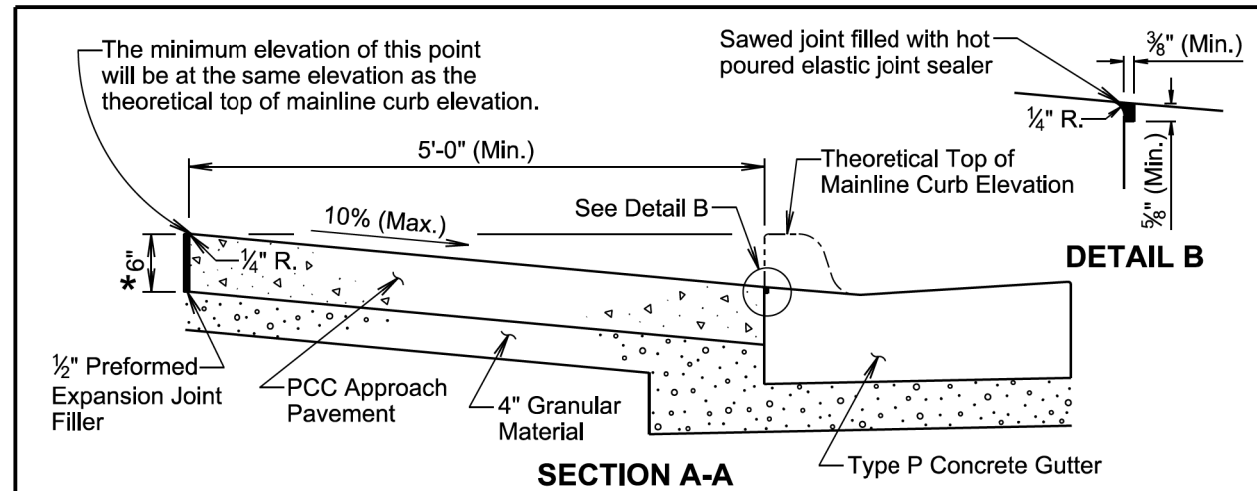
**GENERAL NOTES:**

- \* If a curb ramp is constructed adjacent to a PCC fillet section, the curb will need to be modified. Refer to the corresponding curb ramp standard plate or other special details in the plans for modification of the PCC fillet section.
- Dimensions D, H, and T will conform to those shown on the appropriate curb and gutter standard plate.
- All rebar will be in conformance with Sections 480 and 1010 of the Specifications. All rebar will have a minimum of 3 inches of clear cover.
- Class M6 Concrete will be used in construction of the fillets.
- The concrete curb will be monolithic with the concrete fillet. No separate payment for this curb will be made as the curb is considered a part of the fillet.
- Joints will be constructed at 10-foot intervals except when fillets are constructed adjacent to PCC Pavement. If there is adjacent PCC Pavement the joints will be extended from edge of pavement through the fillet section as directed by the Engineer.
- The cost for all materials, labor, and incidentals necessary to construct the PCC fillet section with curb and gutter will be incidental to the contract unit price per square yard for the corresponding PCC fillet section contract item.

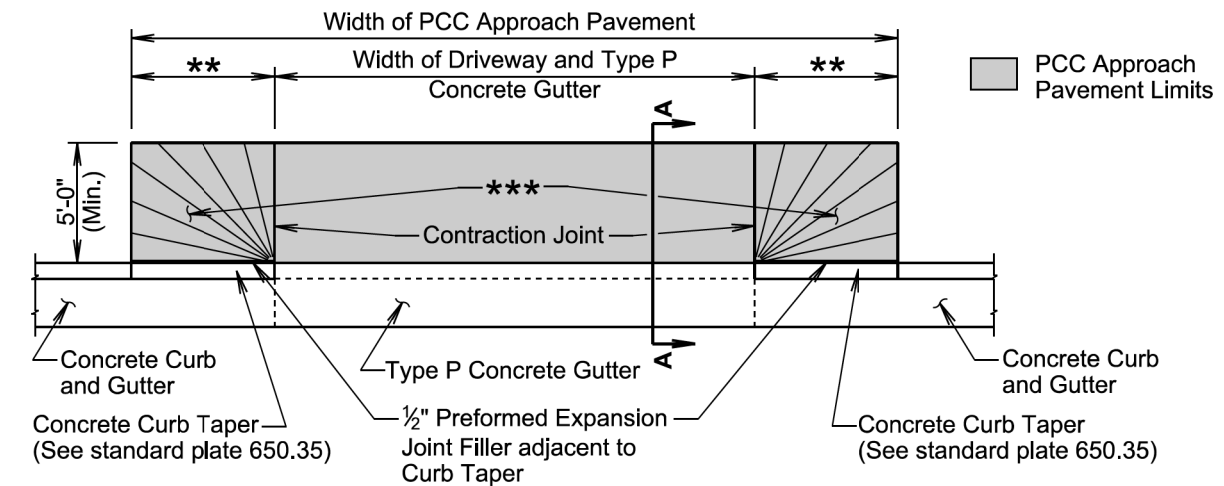
November 19, 2022

<b>S D D O T</b>	<b>PCC FILLET SECTION WITH TYPE B CURB AND GUTTER</b>	PLATE NUMBER <b>380.30</b>
		Sheet 1 of 1

Published Date: 2024



- \* 8" at Commercial Approaches
- \*\* Width for 6" high curb is 6' (See standard plate 650.35)
- \*\*\* Within these areas, the surface of the type A PCC approach pavement will be sloped transitionally as approved by the Engineer.



**GENERAL NOTES:**

The concrete for the type A PCC approach pavement and adjacent driveway will comply with the requirements of the Specifications for class M6 concrete unless otherwise stated in the plans.

Contraction joints in the type A PCC approach pavement will be 1/2 inches deep if formed in the fresh concrete using a suitable grooving tool. If a saw is used to cut the contraction joints, then the depth of the joint will be at least 1/4 the thickness of the approach pavement. Additional contraction joints not shown in the Plan View will be spaced as follows:

- One joint at the center of the approach for driveways 16 feet to 24 feet wide.
- Two joints spaced at equal intervals for driveways greater than 24 feet to 40 feet wide.

All costs for furnishing and placing the type A PCC approach pavement and constructing the expansion and contraction joints including labor, equipment, excavation, and materials including the earthen backfill and granular material, will be incidental to the contract unit price per square yard for the corresponding PCC Approach Pavement contract item.

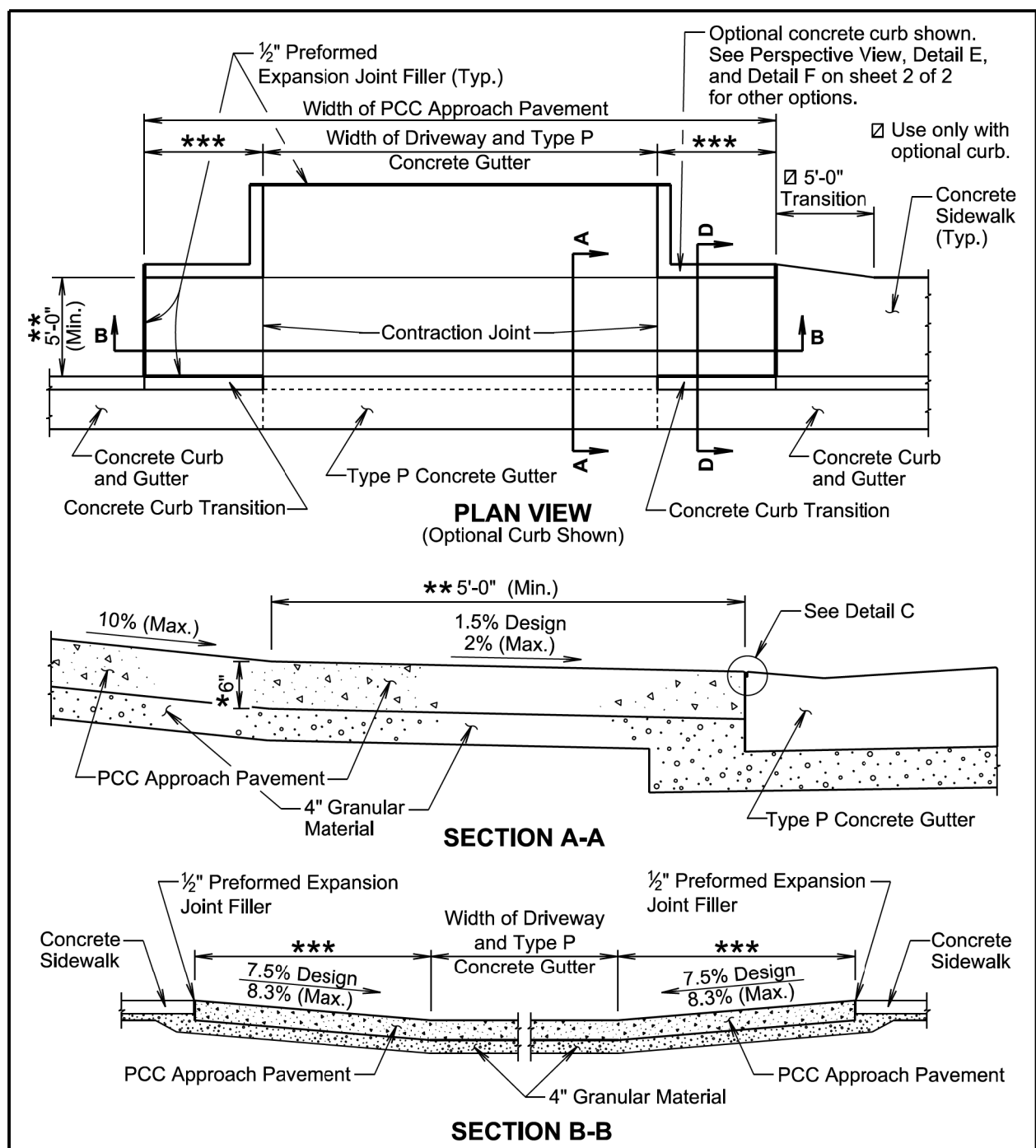
June 26, 2019

<b>S D D O T</b>	<b>TYPE A PCC APPROACH PAVEMENT</b>	PLATE NUMBER <b>380.40</b>
		Sheet 1 of 1

Published Date: 2024

Plotted From: TRPR17192

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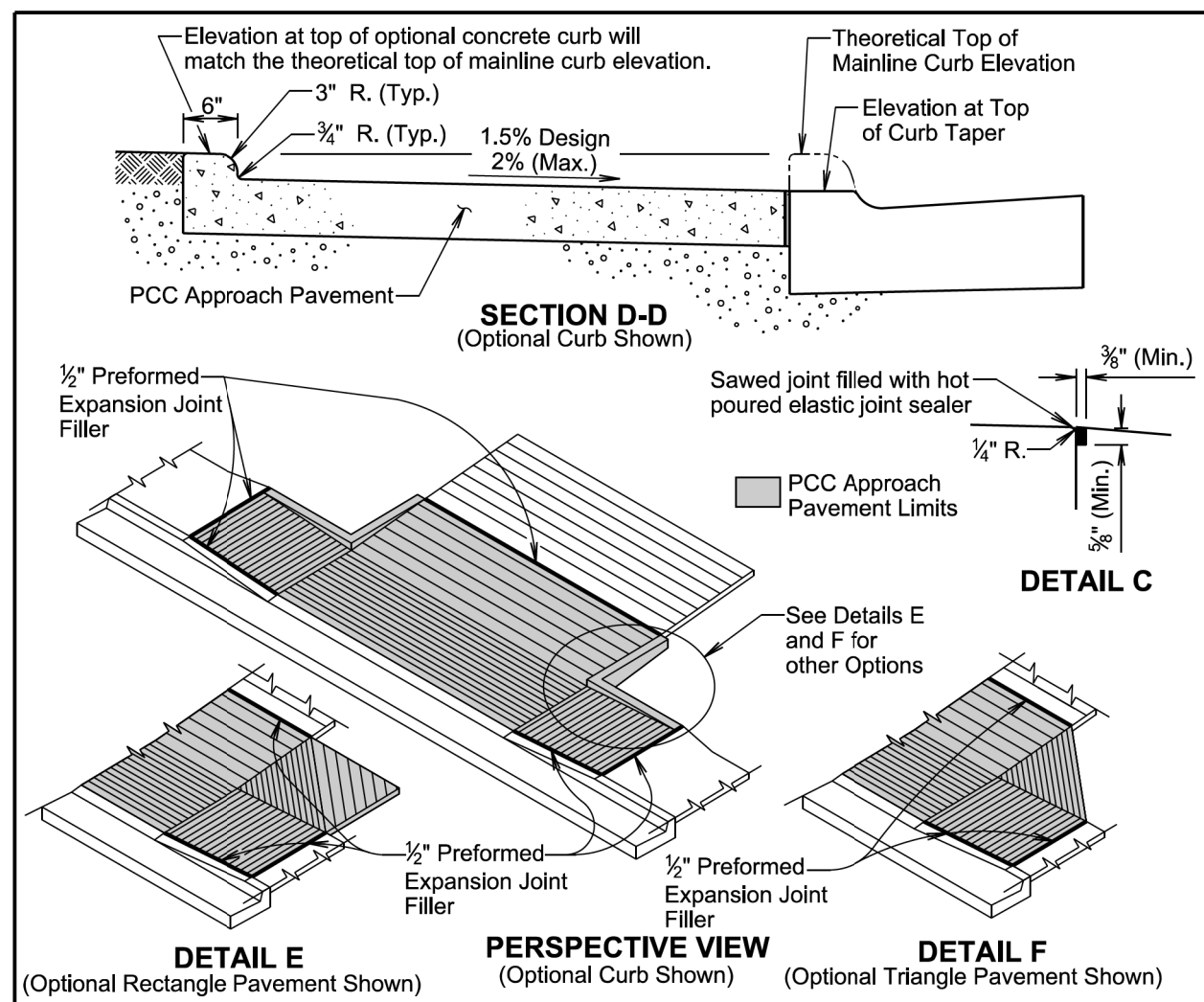
\* 8 inches at Commercial Approaches

\*\* Sidewalk width is 5 feet unless specified otherwise in the plans. The cross slope of the sidewalk is designed at 1.5% and will not be steeper than 2% unless specified otherwise in the plans.

\*\*\* The slope of the type B PCC approach pavement in these areas will match the slope of the concrete curb transition and the length will not be longer than 15 feet. The slope is designed at 7.5% and will not be steeper than 8.3% unless specified otherwise in the plans.

June 26, 2019

<b>S D D O T</b>	<b>TYPE B PCC APPROACH PAVEMENT</b>	PLATE NUMBER <b>380.41</b>
	Published Date: 2024	Sheet 1 of 2



**GENERAL NOTES:**

Use the plan specified option for the pavement adjacent to the driveway and sidewalk. The options are shown above in the Perspective View, Detail E, and Detail F.

The concrete for the type B PCC approach pavement and adjacent driveway will comply with the requirements of the Specifications for class M6 concrete unless otherwise stated in the plans.

Contraction joints in the type B PCC approach pavement will be 1 1/2 inches deep if formed in the fresh concrete using a suitable grooving tool. If a saw is used to cut the contraction joints, then the depth of the joint will be at least 1/4 the thickness of the approach pavement. Additional contraction joints not shown in the Plan View will be spaced as follows:

One joint at the center of the approach for driveways 16 feet to 24 feet wide.  
Two joints spaced at equal intervals for driveways greater than 24 feet to 40 feet wide.

All costs for furnishing and placing the type B PCC approach pavement and constructing the expansion and contraction joints including labor, equipment, excavation, and materials including the earthen backfill and granular material will be incidental to the contract unit price per square yard for the corresponding PCC Approach Pavement contract item.

June 26, 2019

<b>S D D O T</b>	<b>TYPE B PCC APPROACH PAVEMENT</b>	PLATE NUMBER <b>380.41</b>
	Published Date: 2024	Sheet 2 of 2

Plot Scale - 1:200

Plotted From - TRPR17192

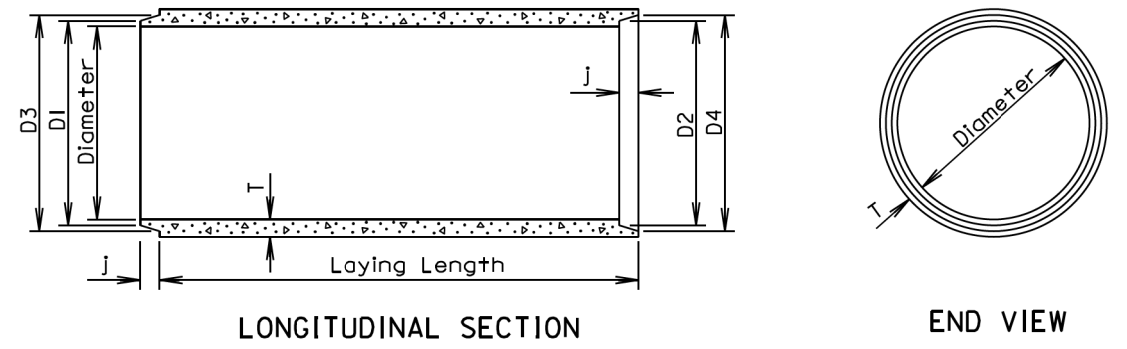
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Plot Scale - 1:200

**TOLERANCES IN DIMENSIONS**

Diameter:  $\pm 1.5\%$  for 24" Dia. or less and  $\pm 1\%$  or  $\frac{3}{8}$ " whichever is more for 27" Dia. or greater.  
 Diameters at joints:  $\pm \frac{3}{16}$ " for 30" Dia. or less and  $\pm \frac{1}{4}$ " for 36" or greater.  
 Length of joint (J):  $\pm \frac{1}{4}$ ".  
 Wall thickness (T): not less than design T by more than 5% or  $\frac{3}{16}$ ", whichever is greater.  
 Laying length: shall not underrun by more than  $\frac{1}{2}$ ".



**LONGITUDINAL SECTION**

**END VIEW**

**GENERAL NOTES:**

Construction of R.C.P. shall conform to the requirements of Section 990 of the Specifications.

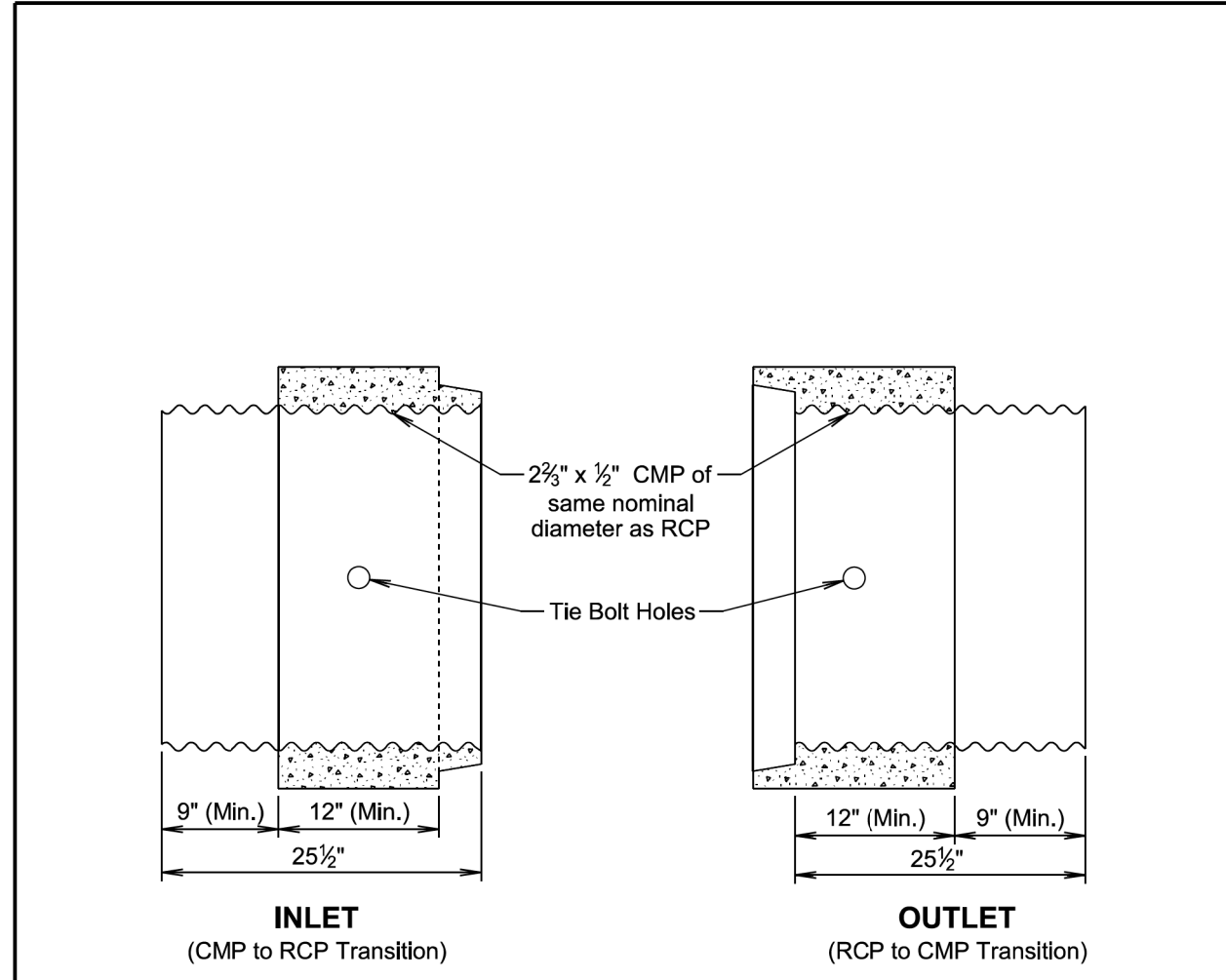
Not more than 2 four-foot sections shall be permitted near the ends of any culvert. Four-foot lengths shall be used only to secure the required length of culvert.

Diam. (in.)	Approx. Wt. /Ft. (lb.)	T (in.)	J (in.)	D1 (in.)	D2 (in.)	D3 (in.)	D4 (in.)
12	92	2	1 3/4	13 1/4	13 5/8	13 7/8	14 1/4
15	127	2 1/4	2	16 1/2	16 7/8	17 1/4	17 5/8
18	168	2 1/2	2 1/4	19 5/8	20	20 3/8	20 3/4
21	214	2 3/4	2 1/2	22 1/8	23 1/4	23 3/4	24 1/8
24	265	3	2 3/4	26	26 3/8	27	27 3/8
27	322	3 1/4	3	29 1/4	29 5/8	30 1/4	30 5/8
30	384	3 1/2	3 1/4	32 3/8	32 3/4	33 1/2	33 7/8
36	524	4	3 3/4	38 3/4	39 1/4	40	40 1/2
42	685	4 1/2	4	45 1/8	45 5/8	46 1/2	47
48	867	5	4 1/2	51 1/2	52	53	53 1/2
54	1070	5 1/2	4 1/2	57 1/8	58 3/8	59 3/8	59 7/8
60	1296	6	5	64 1/4	64 3/4	66	66 1/2
66	1542	6 1/2	5 1/2	70 5/8	71 1/8	72 1/2	73
72	1810	7	6	77	77 1/2	79	79 1/2
78	2098	7 1/2	6 1/2	83 3/8	83 7/8	85 5/8	86 1/8
84	2410	8	7	89 3/4	90 1/4	92 1/8	92 5/8
90	2740	8 1/2	7	95 3/4	96 1/4	98 7/8	98 5/8
96	2950	9	7	102 1/8	102 5/8	104 1/2	105
102	3075	9 1/2	7 1/2	109	109 1/2	111 1/2	112
108	3870	10	7 1/2	115 1/2	116	118	118 1/2

June 26, 2015

<b>S D D O T</b>	<b>REINFORCED CONCRETE PIPE</b>	PLATE NUMBER 450.01
		Sheet 1 of 1

Published Date: 2024



**INLET**  
(CMP to RCP Transition)

**OUTLET**  
(RCP to CMP Transition)

**GENERAL NOTE:**

Arch pipe transitions will be fabricated similar to the round transition shown above.

All pipe transitions will be precast as shown. Alternate designs other than shown will need to be approved by the Engineer.

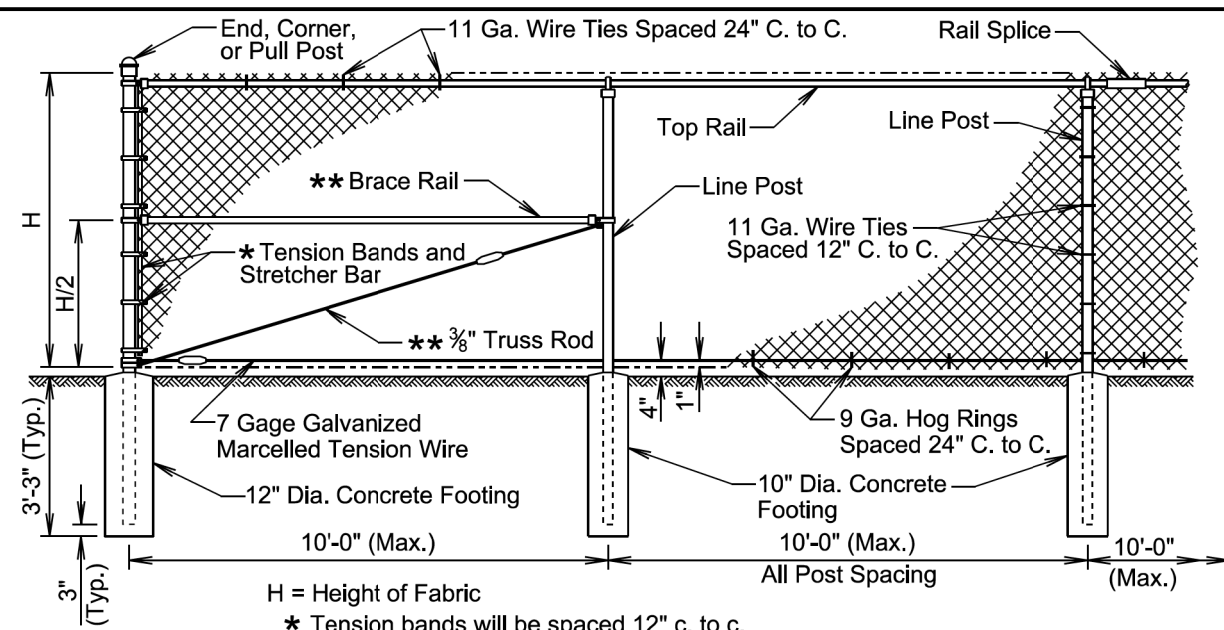
November 19, 2022

<b>S D D O T</b>	<b>C.M.P. TO R.C.P. TRANSITION AND R.C.P. TO C.M.P. TRANSITION</b>	PLATE NUMBER 450.50
		Sheet 1 of 1

Published Date: 2024

Plotted From: - TRPR17192

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H = Height of Fabric  
 \* Tension bands will be spaced 12" c. to c.  
 \*\* Are not required for 3' through 5' height fences.  
 ○ Tightening device such as shown on standard plate 621.03

COMPONENT	END, CORNER, and PULL POST		LINE POST			TOP and BRACE RAIL	
	Round Pipe Nominal	Roll Formed Steel	Round Pipe Nominal	"C" Section	H Beam Steel	Round Pipe Nominal	Roll Formed Steel
Type of Fabrication							
Size	3.00" O. D.	3.5"x3.5"	2.50" O. D.	1.875"x1.625"	2.25"x1.70"	1.625" O. D.	1.625"x1.25"
Weight (lb. / Ft.)	5.79 or 4.64	5.14	3.65 or 3.12	2.34	3.43	2.27 or 1.84	1.35

**GENERAL NOTES:**

Specific details of the component parts of the fence will be approved by the Engineer. Commercially available items produced specifically for the use intended will be used wherever possible in the construction of the fence.

Height of the fabric will be as shown in the plans. Fabric is available at the following heights: 36", 42", 48", 60", 72", 84", 96", 108", 120", and 144". Fabric heights 60 inches and less will be knuckled at both selvages. Fabric heights 72 inches and higher will be knuckled at one selvage and twisted at the other selvage.

Chain link fabric will be 2-inch mesh, No. 9 gage galvanized wire securely fastened to tension wire, line post, rails, braces, and stretcher bars.

Fence may be constructed with either round pipe, "C" section, "H" beam, or roll formed steel components as shown in the table above. Line posts may be round pipe, "C" section, or "H" beam. The corner post and rails will be either round pipe or roll formed steel. The type of components used must be approved by the Engineer prior to installation.

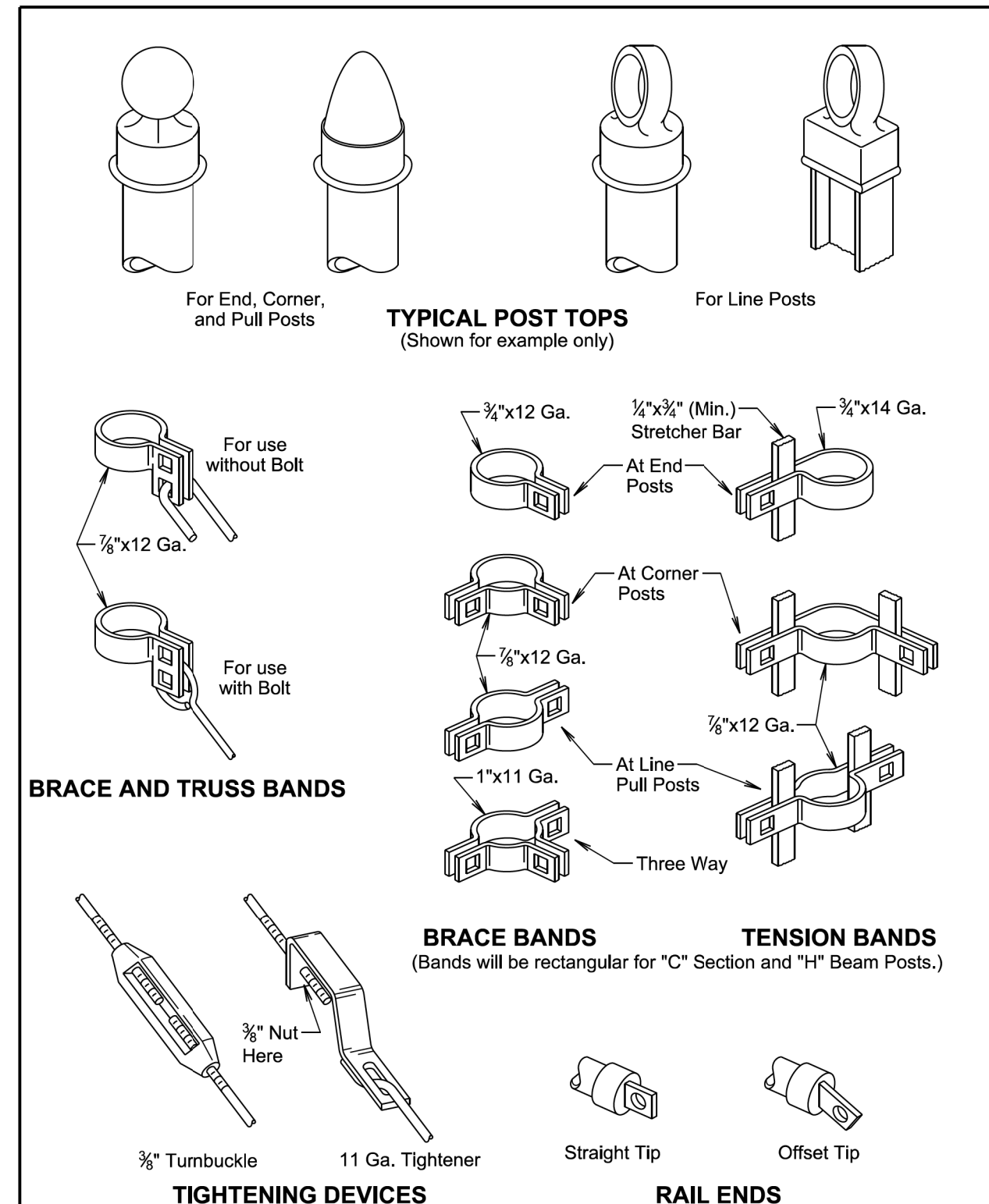
Where fence must cross small bodies of water such as drainage areas or ponds that could freeze during the winter, use 11 gage hog rings. Provide only two ties per tension wire and top rail between line posts.

A suitable method of rail splicing will be used to allow for expansion and contraction while maintaining proper position of the top rail.

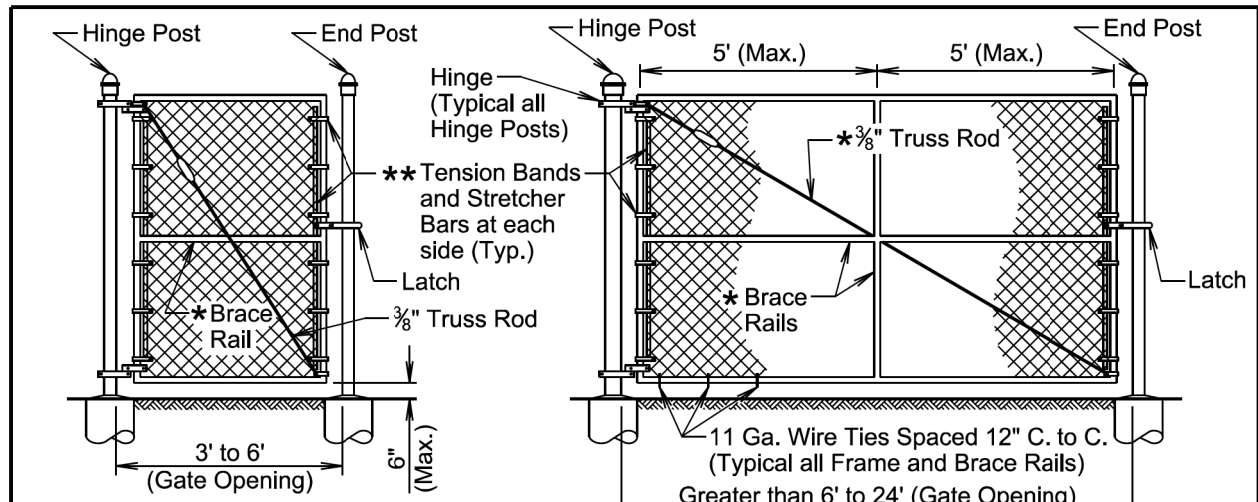
Fence grounding will be as shown on standard plate 620.11.

November 19, 2022

Published Date: 2024	S D D O T	CHAIN LINK FENCE WITH TOP RAIL	PLATE NUMBER 621.01
			Sheet 1 of 1

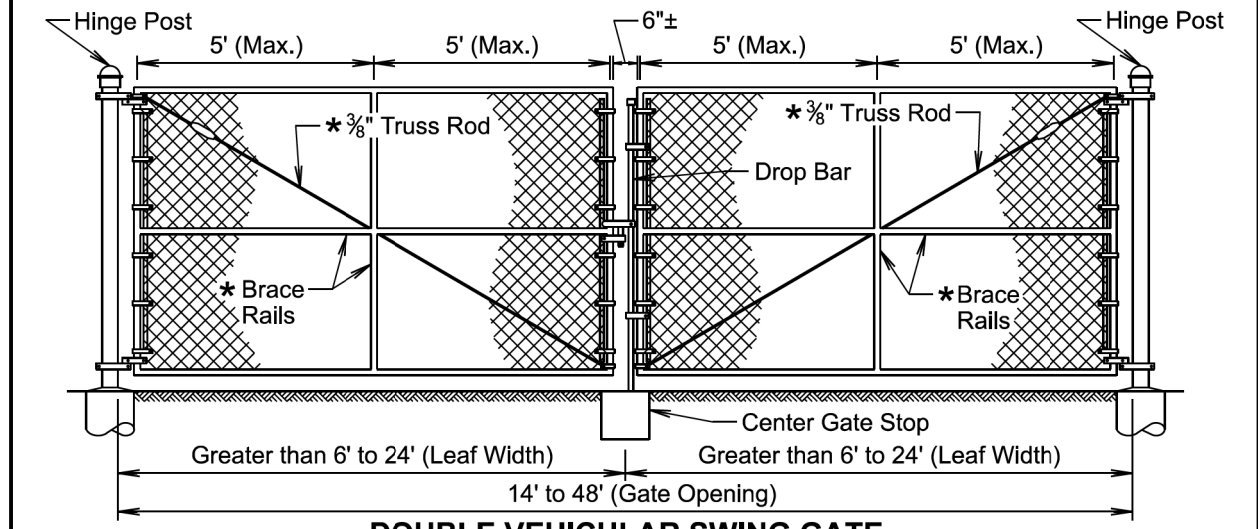


Published Date: 2024	S D D O T	HARDWARE FOR CHAIN LINK FENCE	PLATE NUMBER 621.03
			Sheet 1 of 1



**PEDESTRIAN SWING GATE**

**SINGLE VEHICULAR SWING GATE**



**DOUBLE VEHICULAR SWING GATE**

1 Gate Opening Width	Hinge Post		Concrete Footing	
	Round Pipe Nominal	Roll Formed Steel	Depth	Diameter
3' to 6'	3.00"	3.50"x3.50"	36"	12"
> 6' to 13'	4.00"	—	42"	12"
> 13' to 18'	6.625"	—	48"	18"
> 18' to 23'	8.625"	—	48"	24"

- \* Are not required for gates 3' to 5' height or 5' or less in width.
- \*\* Tension Bands will be spaced 12" center to center.
- Tightening Device such as shown on standard plate 621.03
- 1 Leaf width for Double Vehicular Swing Gate
- 2 Will coincide with fence height

**GENERAL NOTES:**

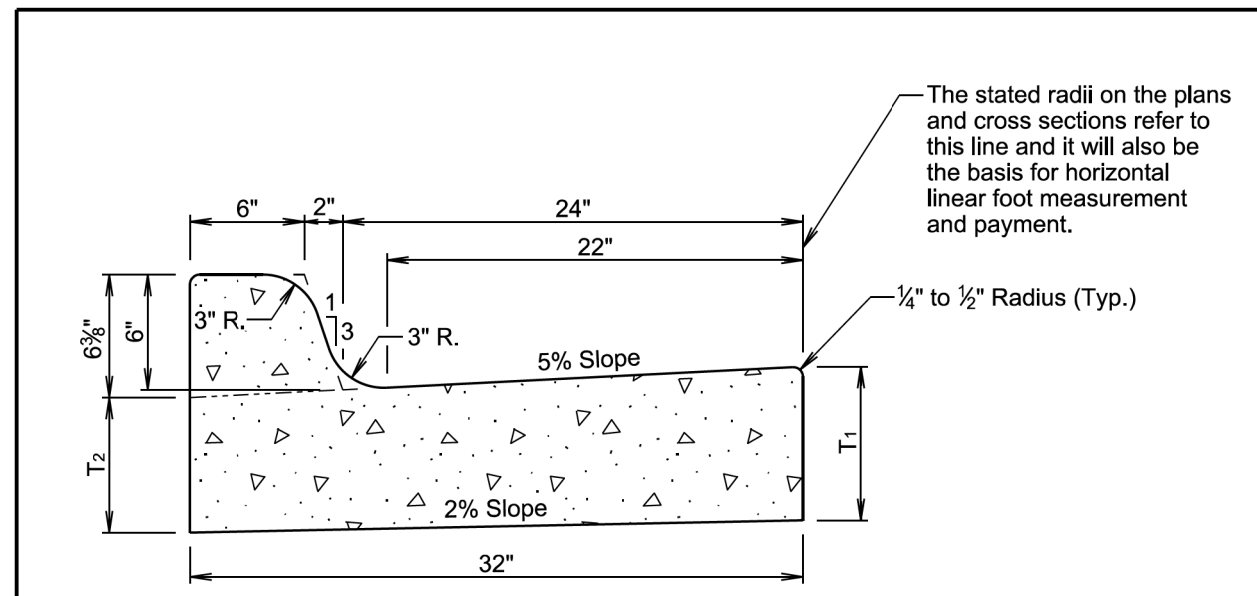
Gate frames may be constructed of bent or welded steel tubing, must be approved by the Engineer prior to installation, and installed in accordance with the Manufacturer's installation instructions.

Center gate stops must be approved by the Engineer prior to installation and will be installed in accordance with the Manufacturer's installation instructions.

June 26, 2019

Gate Opening		Frame Pipe Nominal	Brace Rail Pipe Nominal
1 Width	2 Height		
3' to 8'	3' to 6'	1.50"	1.50"
>8' to 23'	6'	1.90"	1.50"
>8' to 23'	>6' to 12'	1.90"	1.90"

<b>Published Date: 2024</b>	<b>S D D O T</b>	<b>SWING GATES FOR CHAIN LINK FENCE</b>	<b>PLATE NUMBER 621.10</b>
			Sheet 1 of 1



The stated radii on the plans and cross sections refer to this line and it will also be the basis for horizontal linear foot measurement and payment.

**TYPE B CONCRETE CURB AND GUTTER**

Type	T <sub>1</sub> (Inches)	T <sub>2</sub> (Inches)	Cu. Yd. Per Lin. Ft.	Lin. Ft. Per Cu. Yd.
B66	6	5 1/16	0.057	17.7
B67	7	6 1/16	0.065	15.4
B68	8	7 1/16	0.073	13.7
B68.5	8.5	7 9/16	0.077	13.0
B69	9	8 1/16	0.081	12.3
B69.5	9.5	8 9/16	0.085	11.7
B610	10	9 1/16	0.090	11.2
B610.5	10.5	9 9/16	0.094	10.7
B611	11	10 1/16	0.098	10.2
B611.5	11.5	10 9/16	0.102	9.8
B612	12	11 1/16	0.106	9.4

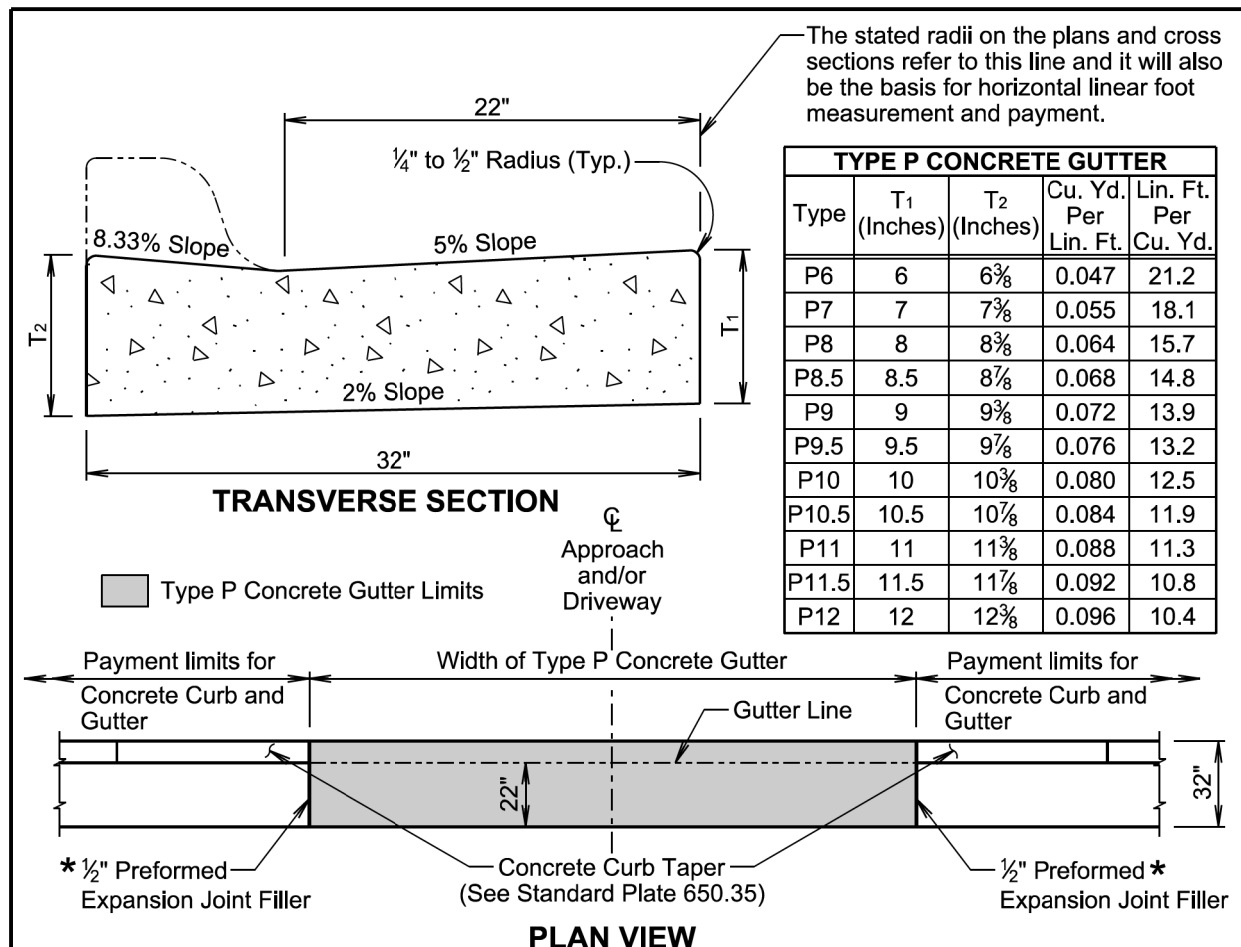
**GENERAL NOTES:**

When concrete curb and gutter longitudinally adjoins new concrete pavement, the method of attachment will be by one of the methods shown on standard plate 380.21.

See standard plate 650.90 for expansion and contraction joints in the curb and gutter.

January 22, 2023

<b>Published Date: 2024</b>	<b>S D D O T</b>	<b>TYPE B CONCRETE CURB AND GUTTER</b>	<b>PLATE NUMBER 650.01</b>
			Sheet 1 of 1



\* 1/2" Preformed Expansion Joint Filler

Concrete Curb Taper (See Standard Plate 650.35)

\* 1/2" Preformed Expansion Joint Filler

\* Joint will not be needed if concrete curb and gutter and type P concrete gutter is placed at the same time. If the 1/2" preformed expansion joint filler is provided, then the joint will be sealed in accordance with standard plate 650.90.

**GENERAL NOTES:**

The concrete for the type P concrete gutter will comply with the requirements of the specifications for class M6 concrete.

When concrete gutter longitudinally adjoins new concrete pavement, the method of attachment will be by one of the methods shown on standard plate 380.21.

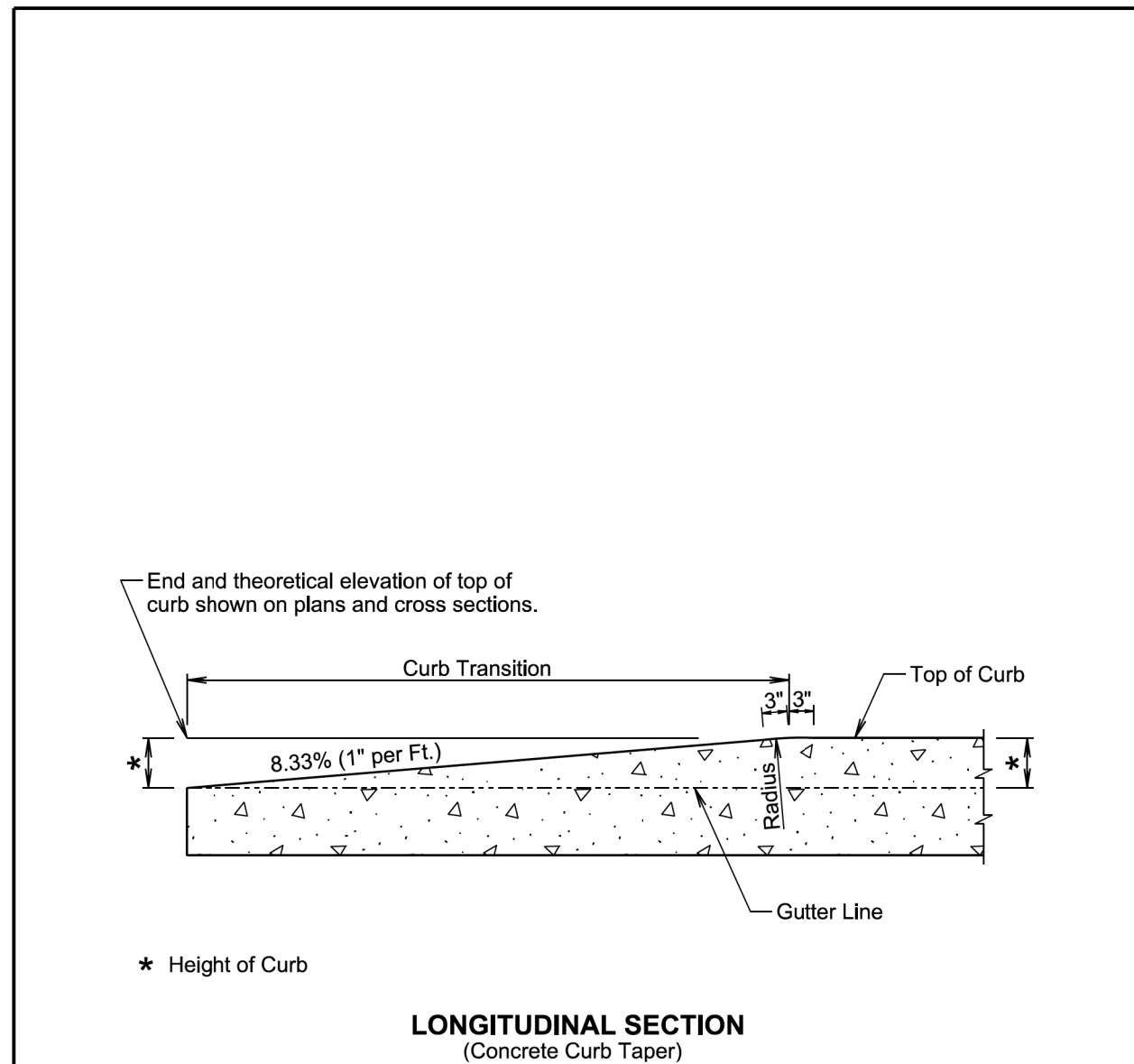
Transverse contraction joints will be constructed at 10-foot intervals in the concrete gutter except when concrete gutter is constructed adjacent to mainline PCC pavement. When concrete gutter is constructed adjacent to mainline PCC pavement, a transverse contraction joint will be constructed in the concrete gutter at each mainline PCC pavement transverse contraction joint location.

When concrete gutter is placed monolithically with mainline PCC pavement, the transverse contraction joints in the concrete gutter will be sawed and sealed the same as the transverse contraction joints in the mainline PCC pavement.

When concrete gutter is not placed monolithically with the mainline PCC pavement and when the adjacent mainline surfacing is not PCC concrete, the transverse contraction joints in the concrete gutter will be 1 1/2 inches deep if formed in the fresh concrete using a suitable grooving tool. If a saw is used to cut the contraction joints, then the depth of the joint will be at least 1/4 the thickness of the concrete.

January 22, 2023

Published Date: 2024	S D D O T	TYPE P CONCRETE GUTTER	PLATE NUMBER 650.30
			Sheet 1 of 1



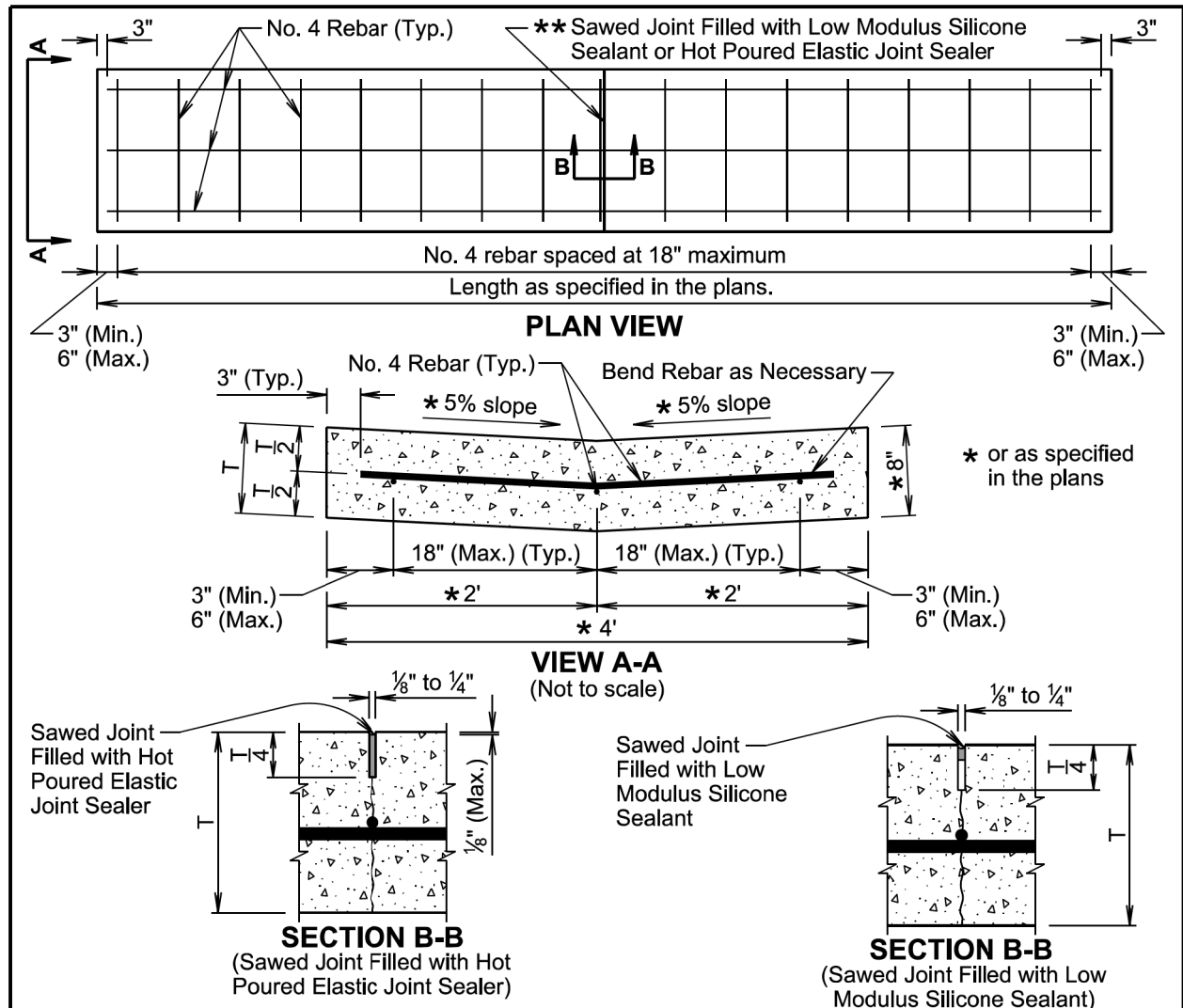
December 23, 2019

Published Date: 2024	S D D O T	CONCRETE CURB TAPER	PLATE NUMBER 650.35
			Sheet 1 of 1

Plot Scale - 1:200

Plotted From - TRPR17192

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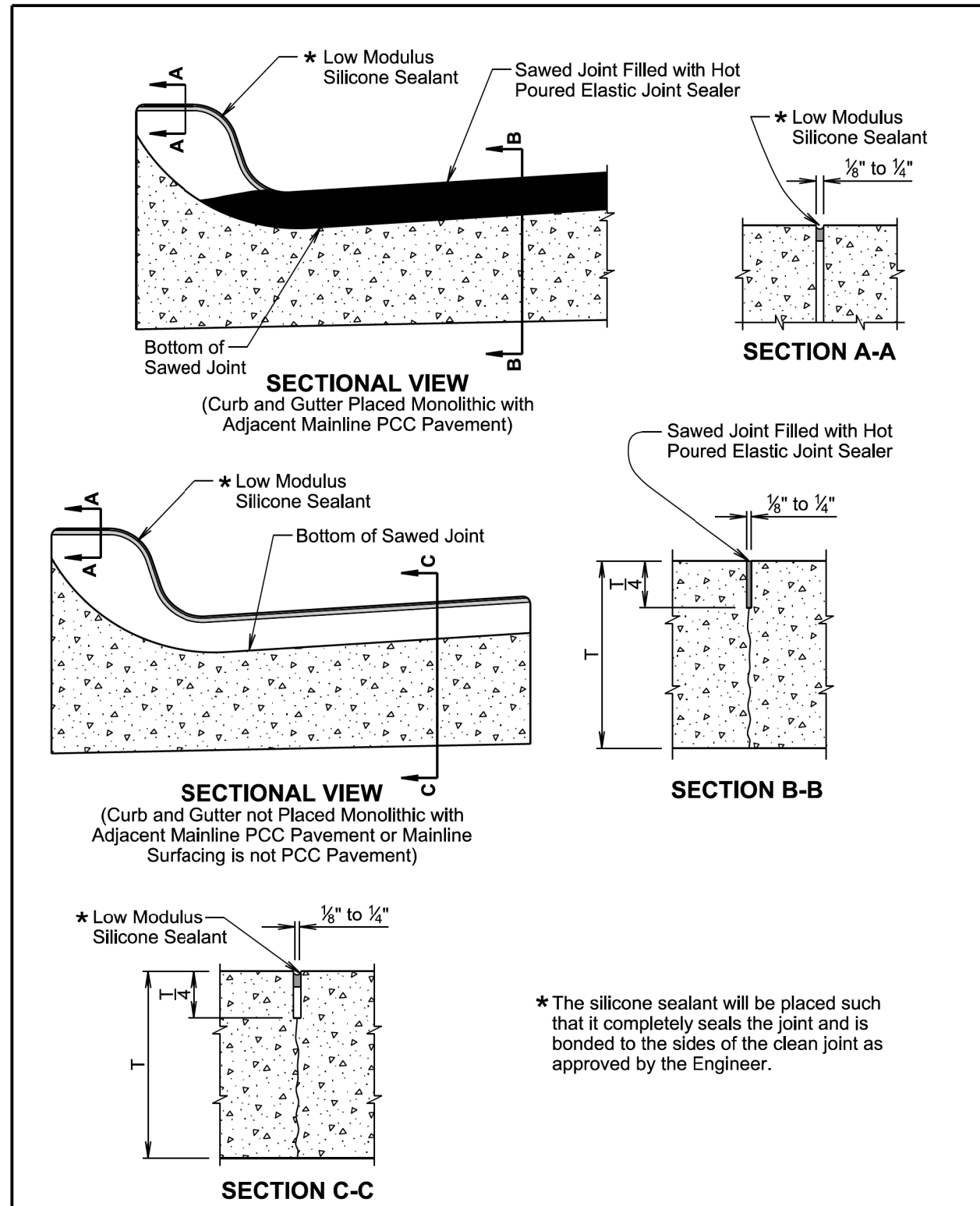


**GENERAL NOTES:**

- The concrete will comply with the specifications for class M6 concrete.
- The reinforcing steel will comply with the requirements of specification sections 480 and 1010.
- If a lap splice is provided the No. 4 rebar will be lapped a minimum of 12 inches.
- \*\* The sawed joints will be spaced at 12 feet; however, when the length of the valley gutter is 12 feet to 24 feet there will be a joint at the midpoint of the length. The saw cut to control cracking will be a minimum of 1/4 the thickness of the pavement.
- All hot poured elastic joint sealer material spilled on the surface of the concrete pavement will be removed as soon as the material has cooled. The extent of removal of material will be to the satisfaction of the Engineer. All costs for removal of the spilled joint sealer material will be borne by the Contractor.
- The silicone sealant will be bonded to the sides of a clean joint to completely seal the joint as approved by the Engineer.
- All costs for furnishing and installing the valley gutter including materials, equipment, labor, and incidentals will be included in the contract unit price per square yard for the corresponding Valley Gutter contract item.

December 23, 2019

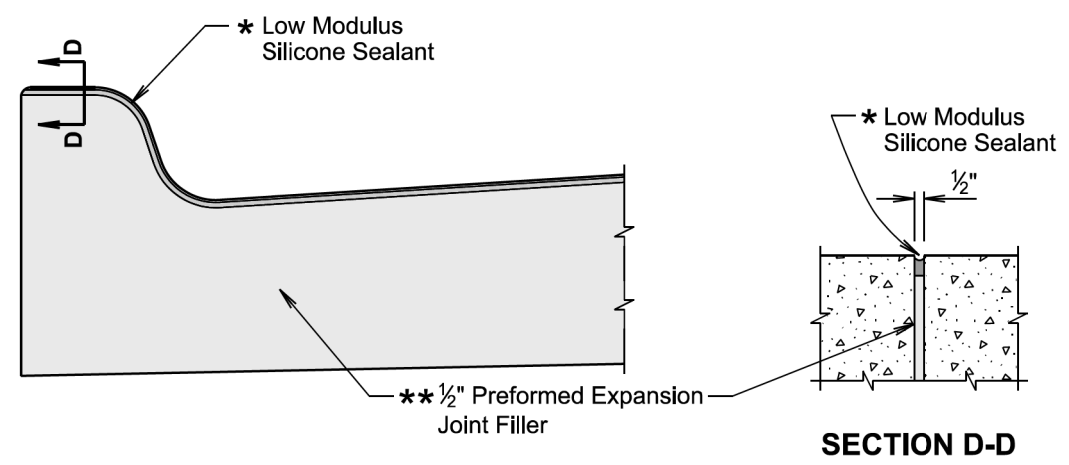
Published Date: 2024	S D D O T	VALLEY GUTTER	PLATE NUMBER 650.40
			Sheet 1 of 1



\* The silicone sealant will be placed such that it completely seals the joint and is bonded to the sides of the clean joint as approved by the Engineer.

December 23, 2019

Published Date: 2024	S D D O T	JOINTS IN CONCRETE CURB AND GUTTER	PLATE NUMBER 650.90
			Sheet 1 of 2



**SECTIONAL VIEW**  
(Curb and Gutter at 1/2" Preformed Expansion Joint Filler Location)

\* The silicone sealant will be placed such that it completely seals the joint and is bonded to the sides of the clean joint as approved by the Engineer.

**GENERAL NOTES:**

For illustrative reason, only the type B curb and gutter is shown.

\*\* A 1/2-inch preformed expansion joint filler will be placed transversely in the curb and gutter at the following locations:

At each junction between the radius return of curb and gutter, and curb and gutter which is parallel to the project centerline.

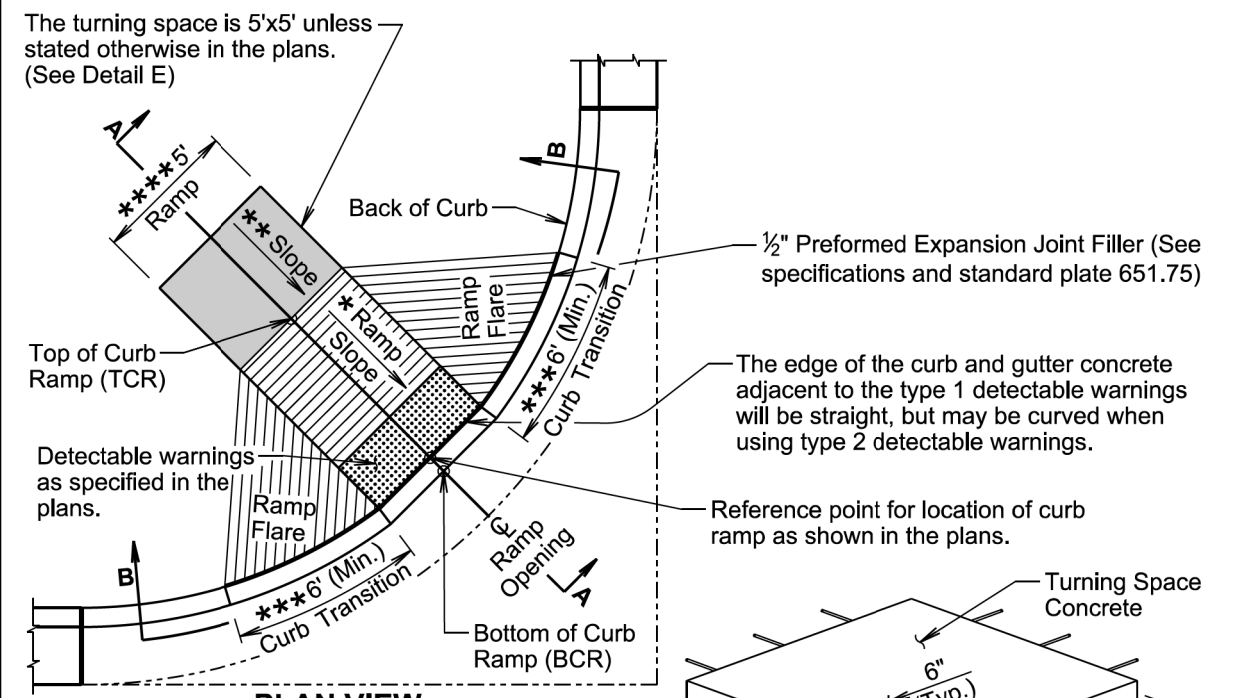
At each junction between new curb and gutter and existing curb and gutter.

Transverse contraction joints will be constructed at 10 foot intervals in the concrete curb and gutter except when the concrete curb and gutter is constructed adjacent to mainline PCC pavement. When concrete curb and gutter is constructed adjacent to mainline PCC pavement, a transverse contraction joint will be constructed in the concrete curb and gutter at each mainline PCC pavement transverse contraction joint location.

When concrete curb and gutter is not placed monolithically with the mainline PCC pavement or when the adjacent mainline surfacing is not PCC concrete, the transverse contraction joints in the concrete curb and gutter will be 1 1/2 inches deep if formed in the fresh concrete using a suitable grooving tool. If a saw is used to cut the contraction joints, then the depth of the joint will be at least 1/4 the thickness of the concrete and the joint will be sealed in accordance with the details shown above.

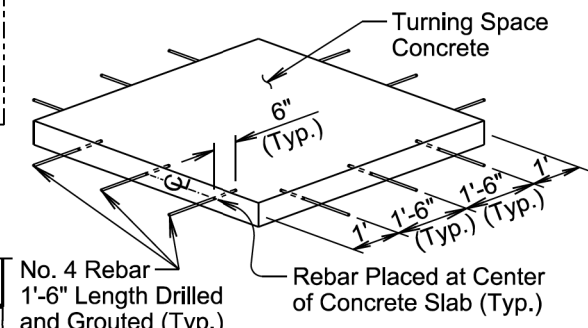
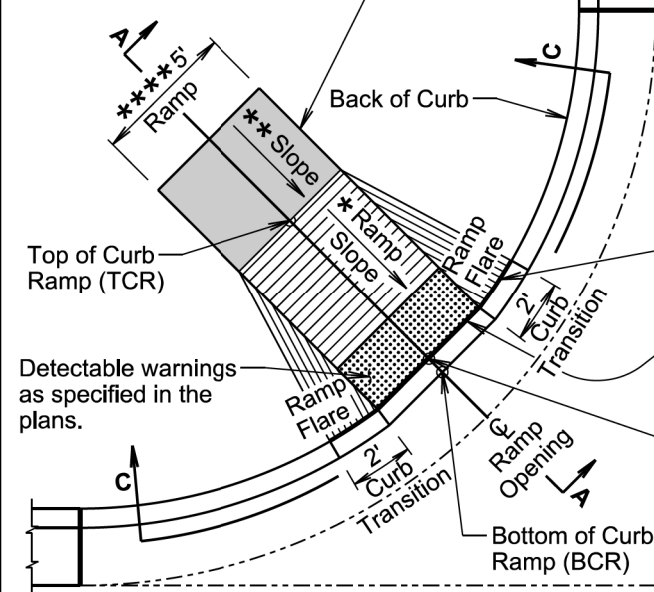
December 23, 2019

Published Date: 2024	S D D O T	PLATE NUMBER 650.90
		JOINTS IN CONCRETE CURB AND GUTTER
		Sheet 2 of 2



The turning space is 5'x5' unless stated otherwise in the plans. (See Detail E)

The turning space is 5'x5' unless stated otherwise in the plans. (See Detail E)



No. 4 Rebar 1'-6" Length Drilled and Grouted (Typ.)  
Rebar Placed at Center of Concrete Slab (Typ.)

February 14, 2020

Published Date: 2024	S D D O T	PLATE NUMBER 651.01
		TYPE 1 CURB RAMP (PERPENDICULAR CURB RAMP)
		Sheet 1 of 3

Plot Scale - 1:200

Plotted From - TRPR17192

File - ...:\Bute06\2\StdPlateSectionB.dgn

Curb ramp slopes are designed at 7.5% unless stated otherwise in the plans. The curb ramp may have a maximum slope of 8.3% and will not exceed 15' in length unless stated otherwise in the plans.

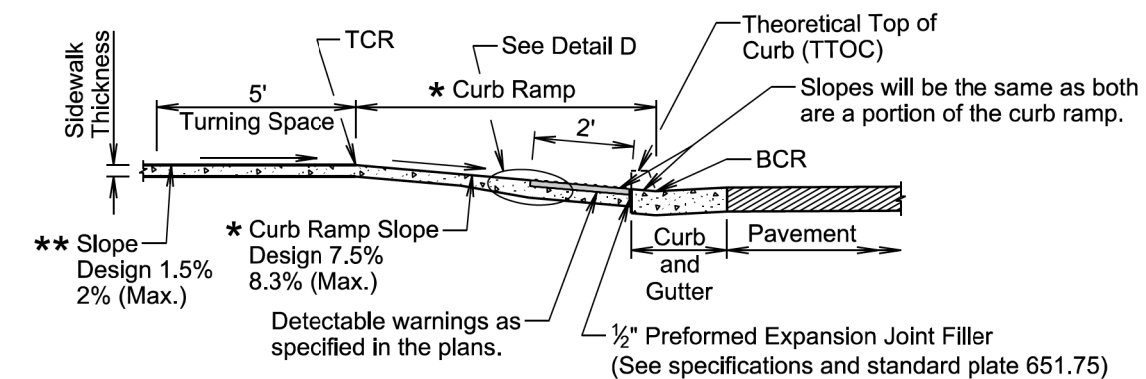
\* The curb ramp length may be computed based on the intersection of a continuous 1.5% theoretical slope from theoretical top of curb (TTOC) with the curb ramp using a continuous 7.5% curb ramp slope. The elevation of point TCR will always be higher than the elevation of point TTOC unless specified otherwise in the plans. The curb ramp length dimension as shown in the plans will be adjusted as necessary to meet all slope and length requirements based on field geometrics.

The cross slope of the ramp will not be steeper than 2%. Plans are designed using a 1.5% slope unless stated otherwise in the plans.

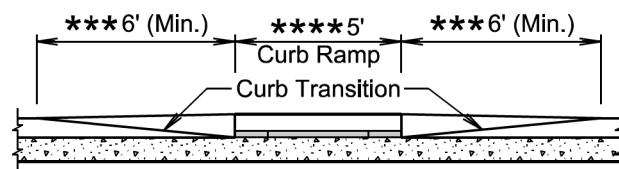
\*\* The slope in the turning space will not be steeper than 2% in any direction of pedestrian travel. Plans are designed using a 1.5% slope unless stated otherwise in the plans.

\*\*\* The curb transition will be a minimum of 6' long, a maximum of 10' long, and the curb transition slope will not be steeper than 10% unless stated otherwise in the plans. The curb transition length will be adjusted as necessary to meet slope and length requirements based on field geometrics.

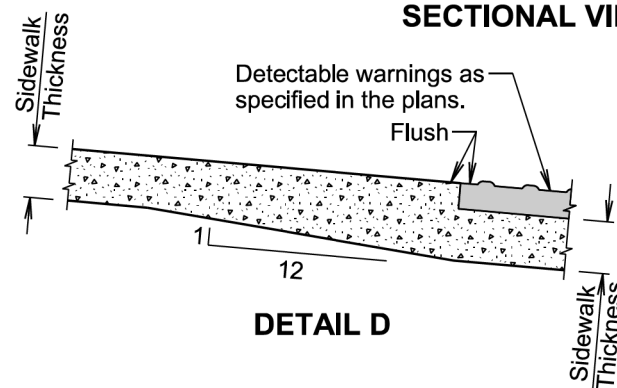
\*\*\*\* The ramp width is 5' unless stated otherwise in the plans.



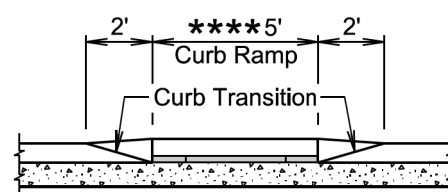
SECTION A-A



SECTIONAL VIEW B-B



DETAIL D



SECTIONAL VIEW C-C

February 14, 2020

February 14, 2020

<b>S D D O T</b>	<b>TYPE 1 CURB RAMP (PERPENDICULAR CURB RAMP)</b>	PLATE NUMBER 651.01
		Sheet 2 of 3

Published Date: 2024

**GENERAL NOTES:**

For illustrative purpose only, type 1 detectable warnings are shown in the drawings.

For illustrative purpose only, PCC fillet sections are shown in the drawings. The curb ramp depicted on this standard plate may be used with a PCC fillet section or curb and gutter.

For illustrative purpose only, the curb ramp location is shown at the center of a PCC fillet section. The curb ramp will be placed at the location stated in the plans.

Sidewalk will not be placed adjacent to the curb ramp flares when a 2-foot curb transition is used unless shown otherwise in the plans.

\* Care will be taken to ensure a uniform grade on the curb ramp, free of sags and short grade changes.

Surface texture of the curb ramp will be obtained by coarse brooming transverse to the slope of the curb ramp.

The normal gutter line profile will be maintained through the area of the ramp opening.

Joints will be sawed or tooled into the concrete adjacent to the detectable warnings to alleviate possible corner cracking.

Care will be taken to ensure that the surface of the detectable warnings are clean and maintains a uniform color.

The detectable warnings will be cut as necessary to fit the plan specified limits of the detectable warnings. Cost for cutting the detectable warnings will be incidental to the corresponding detectable warning contract item.

There will be no separate payment for curb ramps. The curb ramp will be measured and paid for at the contract unit price per square foot for the corresponding concrete sidewalk contract item. The square foot area of the detectable warnings will be included in the measured and paid for quantity of sidewalk.

If rebar is placed in the turning space as depicted in detail E, the cost of the materials, labor, and equipment to furnish and install the rebar will be incidental to the contract unit price per square foot for the corresponding concrete sidewalk contract item.

The curb transitions and ramp opening will be measured and paid for at the contract unit price per foot for the corresponding curb and gutter contract item when curb and gutter is used. The curb transitions and ramp opening will be measured and paid for at the contract unit price per square yard for the corresponding PCC fillet section contract item when a PCC fillet section is used.

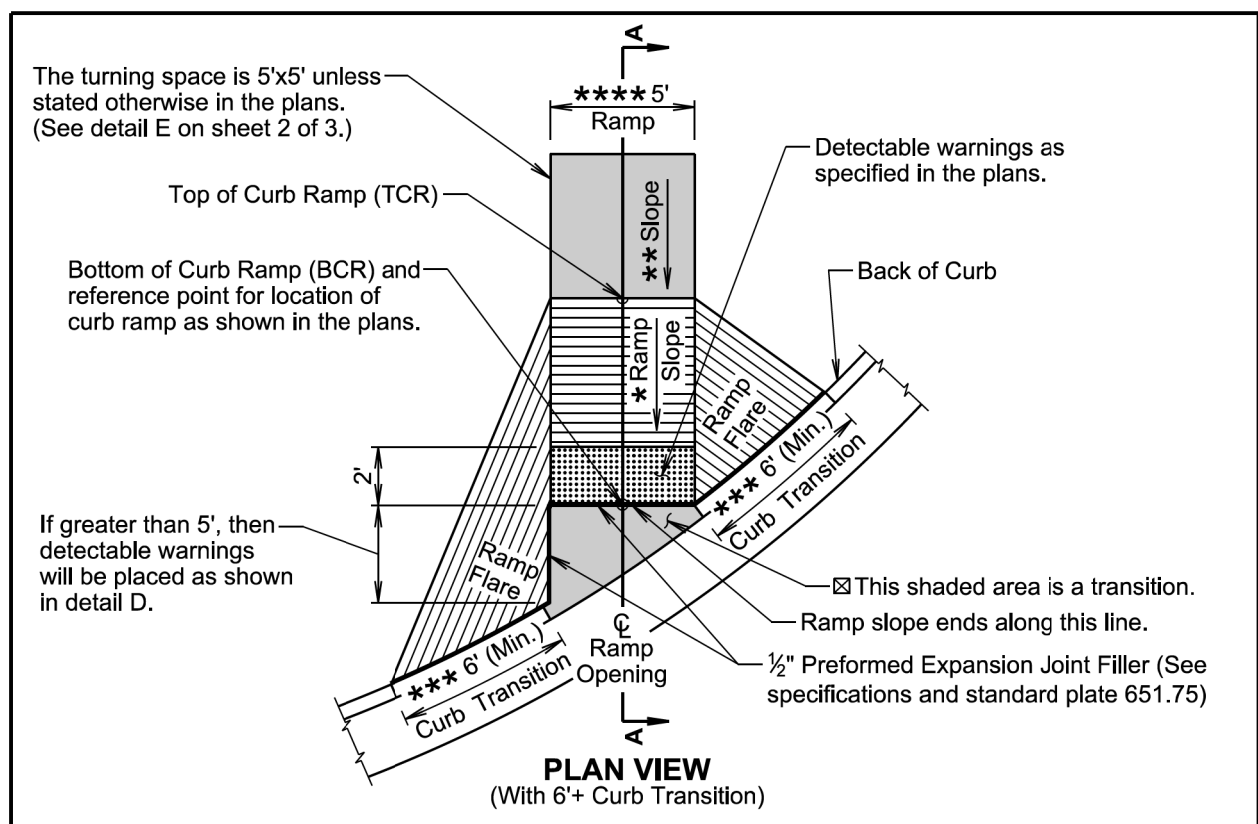
The type 1 detectable warnings will be measured to the nearest square foot. All costs for furnishing and installing the type 1 detectable warnings including labor, equipment, materials, and incidentals will be paid for at the contract unit price per square foot for "Type 1 Detectable Warnings".

The type 2 detectable warnings will be measured to the nearest square foot. All costs for furnishing and installing the type 2 detectable warnings including labor, equipment, and materials, including adhesive, necessary sealant or grout, and necessary grinding will be paid for at the contract unit price per square foot for "Type 2 Detectable Warnings".

<b>S D D O T</b>	<b>TYPE 1 CURB RAMP (PERPENDICULAR CURB RAMP)</b>	PLATE NUMBER 651.01
		Sheet 3 of 3

Published Date: 2024

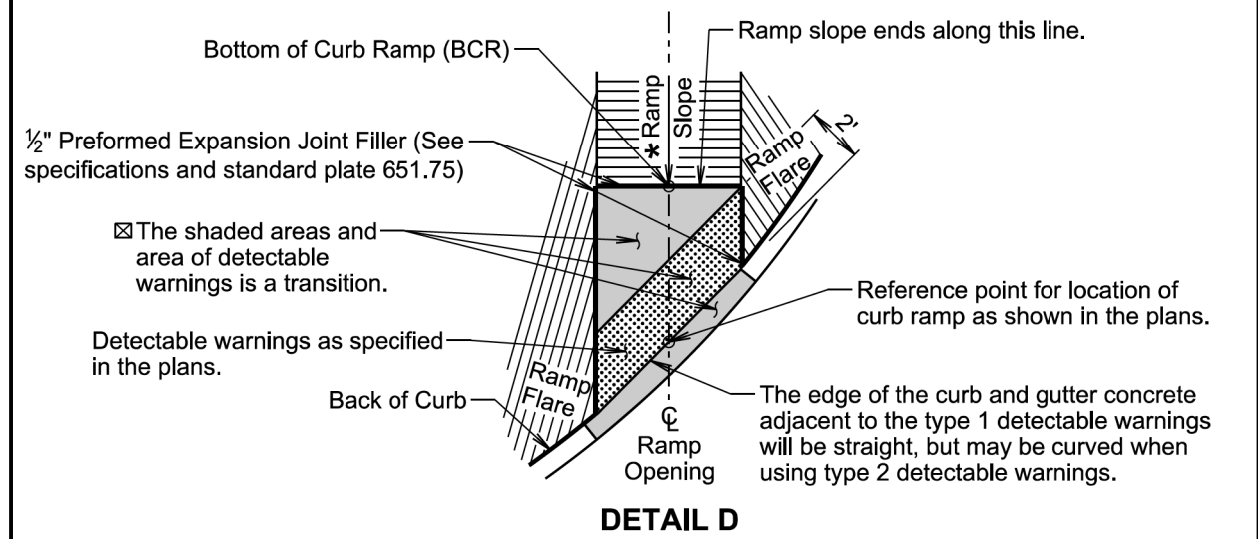
Plot Scale - 1:200



☒ This shaded area is a transition. Ramp slope ends along this line.

☒ The slope within the transition area will not be steeper than 5%. The concrete within the transition will be placed monolithic with the curb and gutter or fillet section concrete. The concrete thickness within the transition will be the same as the curb and gutter or fillet section concrete thickness.

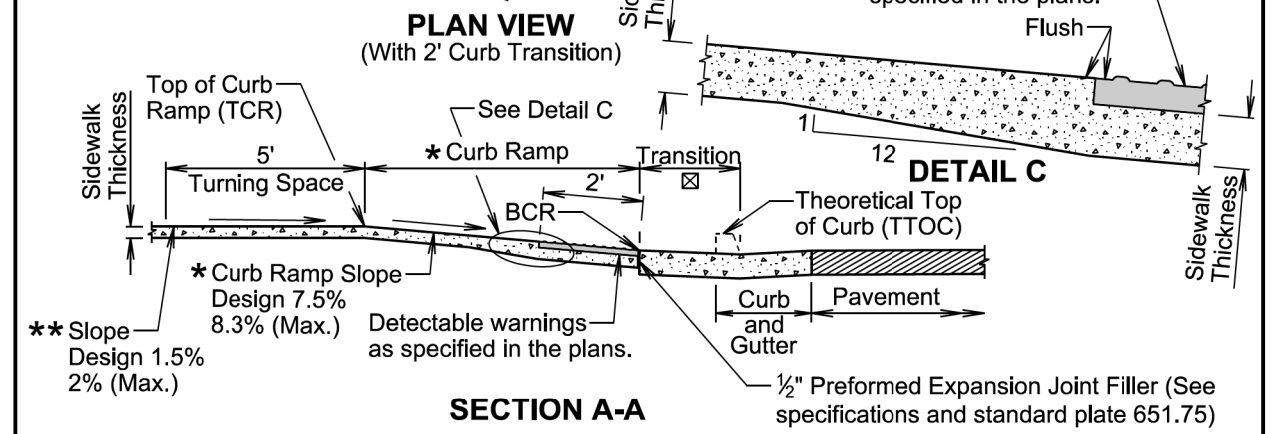
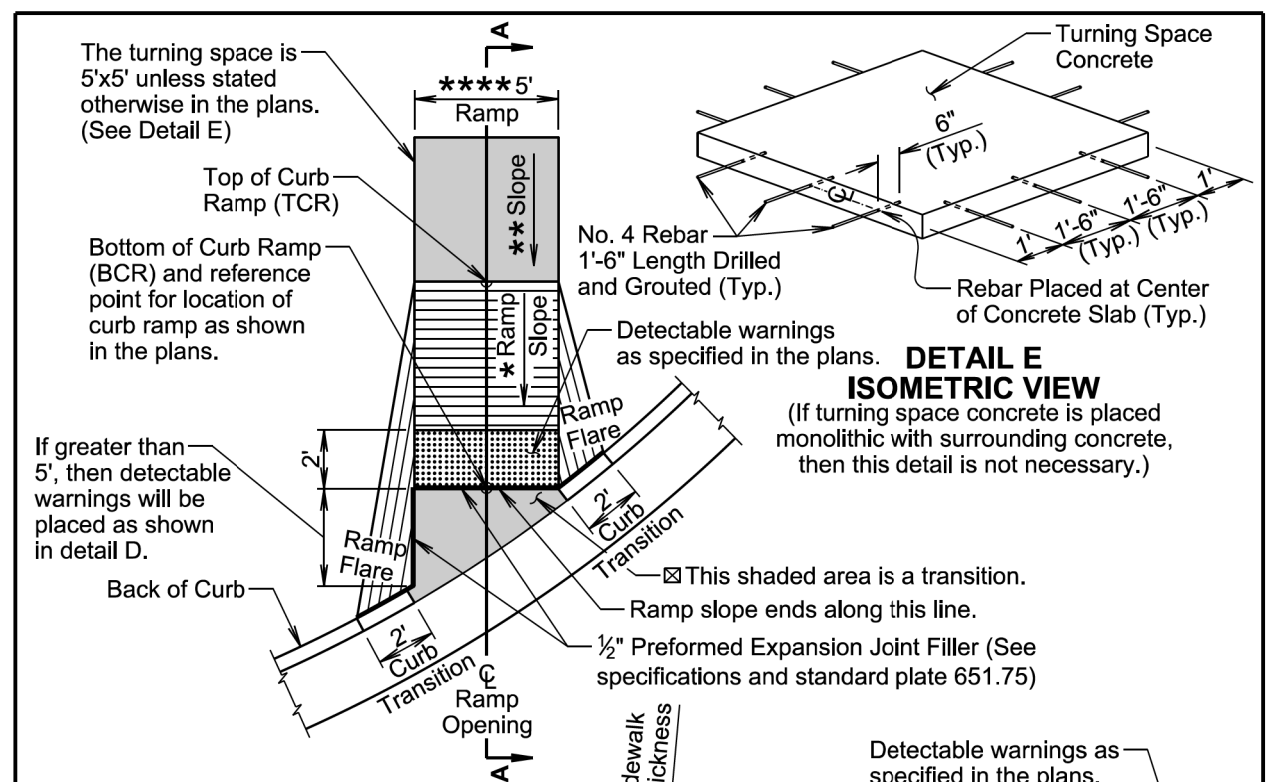
\*\*\* The curb transition will be a minimum of 6' long, a maximum of 10' long, and the curb transition slope will not be steeper than 10% unless stated otherwise in the plans. The curb transition length will be adjusted as necessary to meet slope and length requirements based on field geometrics.



**DETAIL D**

February 14, 2020

<b>S D D O T</b>	<b>TYPE 2 CURB RAMP (DIRECTIONAL CURB RAMP)</b>	PLATE NUMBER <b>651.02</b>
	Published Date: 2024	Sheet 1 of 3



**SECTION A-A**

☒ This shaded area is a transition. Ramp slope ends along this line.

☒ The shaded areas and area of detectable warnings is a transition.

\* Curb ramp slopes are designed at 7.5% unless stated otherwise in the plans. The curb ramp may have a maximum slope of 8.3% and will not exceed 15' in length unless stated otherwise in the plans.

\* The elevation of point TCR will always be higher than the elevation of point TTOC unless specified otherwise in the plans. The curb ramp length dimension as shown in the plans will be adjusted as necessary to meet all slope and length requirements based on field geometrics.

\*\* The slope in the turning space will not be steeper than 2% in any direction of pedestrian travel. Plans are designed using a 1.5% slope unless stated otherwise in the plans.

\*\*\* The ramp width is 5' unless stated otherwise in the plans.

February 14, 2020

<b>S D D O T</b>	<b>TYPE 2 CURB RAMP (DIRECTIONAL CURB RAMP)</b>	PLATE NUMBER <b>651.02</b>
	Published Date: 2024	Sheet 2 of 3

Plotted From - TRPR17192

File - ...:\bute06\G2\StdPlateSectionB.dgn



**GENERAL NOTES:**

For illustrative purpose only, type 1 detectable warnings are shown in the drawings.

The curb ramp depicted on this standard plate may be used with a PCC fillet section or curb and gutter. The curb ramp will be placed at the location stated in the plans.

Sidewalk will not be placed adjacent to the curb ramp flares when a 2-foot curb transition is used unless shown otherwise in the plans.

\* Care will be taken to ensure a uniform grade on the curb ramp, free of sags and short grade changes.

Surface texture of the curb ramp will be obtained by coarse brooming transverse to the slope of the curb ramp.

The normal gutter line profile will be maintained through the area of the ramp opening.

Joints will be sawed or tooled into the concrete adjacent to the detectable warnings to alleviate possible corner cracking.

Care will be taken to ensure that the surface of the detectable warnings are clean and maintains a uniform color.

The detectable warnings will be cut as necessary to fit the plan specified limits of the detectable warnings. Cost for cutting the detectable warnings will be incidental to the corresponding detectable warning contract item.

There will be no separate payment for curb ramps. The curb ramp will be measured and paid for at the contract unit price per square foot for the corresponding concrete sidewalk contract item. The square foot area of the detectable warnings will be included in the measured and paid for quantity of sidewalk.

If rebar is placed in the Turning Space as depicted in DETAIL E, the cost of the materials, labor, and equipment to furnish and install the rebar will be incidental to the contract unit price per square foot for the corresponding concrete sidewalk contract item.

The curb transitions and ramp opening will be measured and paid for at the contract unit price per foot for the corresponding curb and gutter contract item when curb and gutter is used. The curb transitions and ramp opening will be measured and paid for at the contract unit price per square yard for the corresponding PCC fillet section contract item when a PCC fillet section is used.

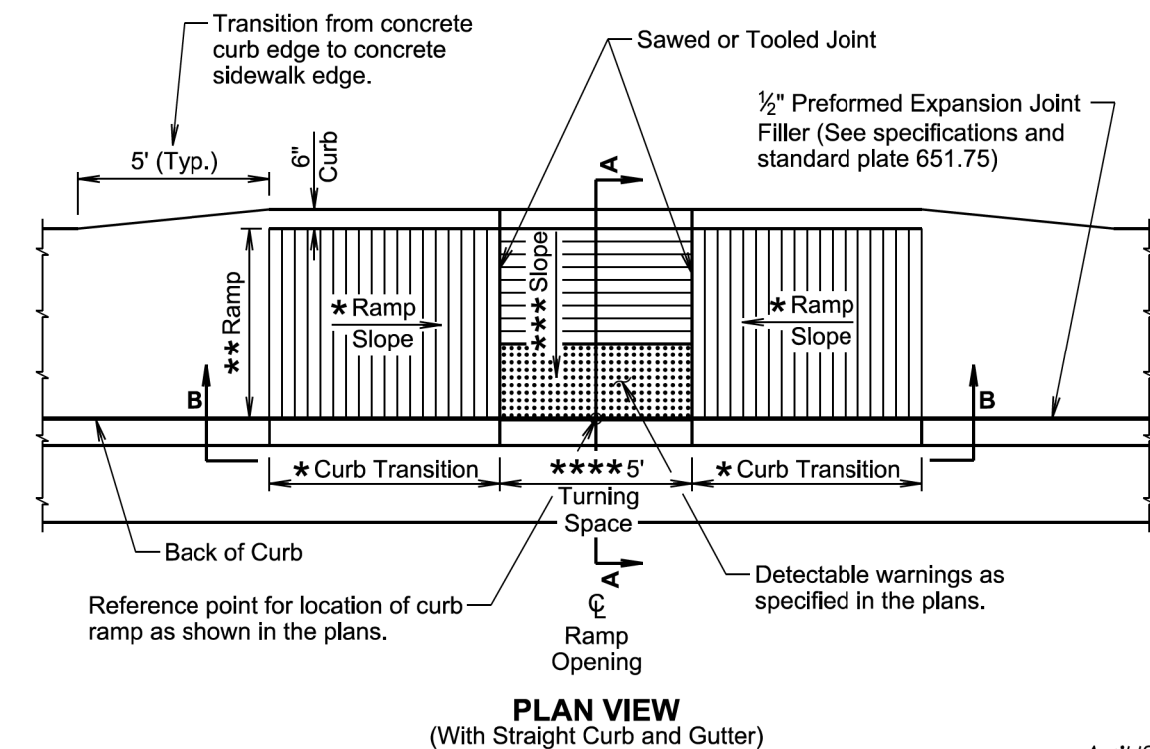
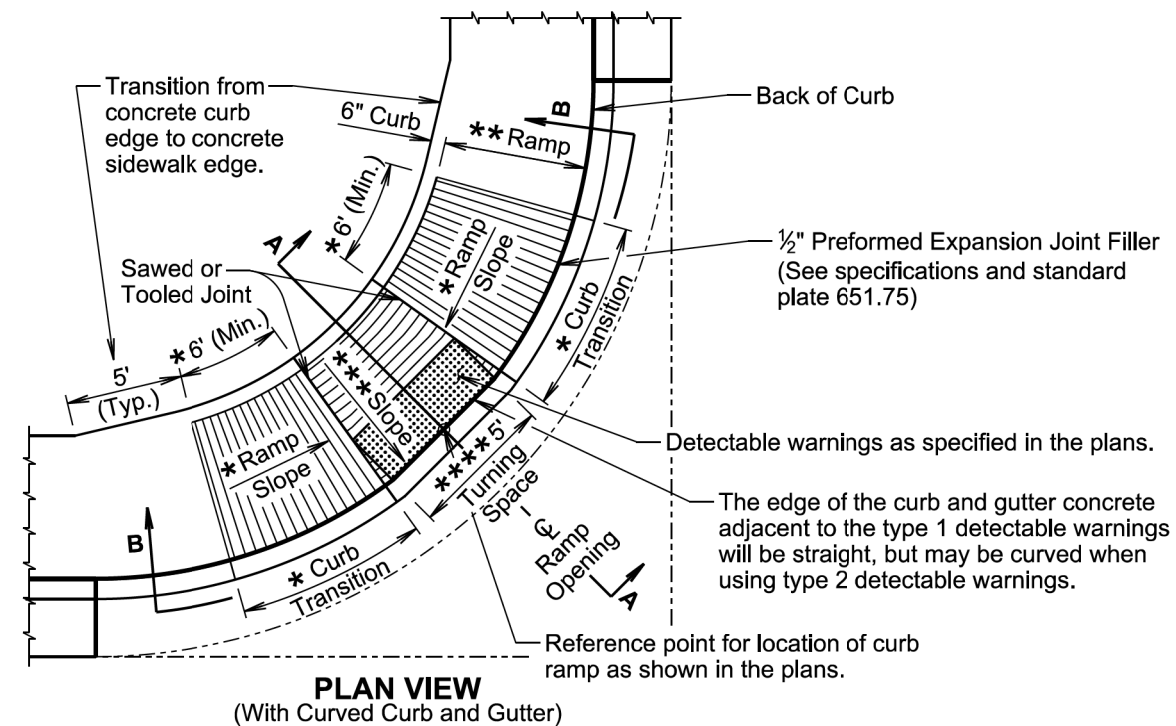
All costs for furnishing and installing the transition area at the base of the curb ramp will be incidental to the contract unit price per foot for the corresponding curb and gutter contract item when curb and gutter is used and will be incidental to the contract unit price per square yard for the corresponding PCC fillet section contract item when a PCC fillet section is used.

The type 1 detectable warnings will be measured to the nearest square foot. All costs for furnishing and installing the type 1 detectable warnings including labor, equipment, materials, and incidentals will be paid for at the contract unit price per square foot for "Type 1 Detectable Warnings".

The type 2 detectable warnings will be measured to the nearest square foot. All costs for furnishing and installing the type 2 detectable warnings including labor, equipment, and materials, including adhesive, necessary sealant or grout, and necessary grinding will be paid for at the contract unit price per square foot for "Type 2 Detectable Warnings".

February 14, 2020

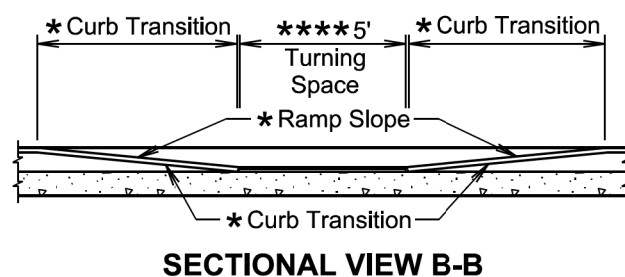
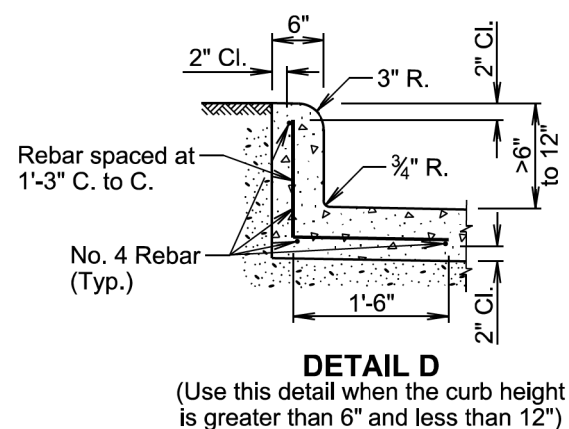
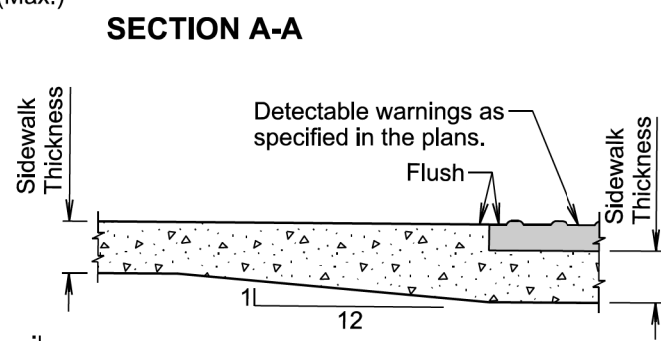
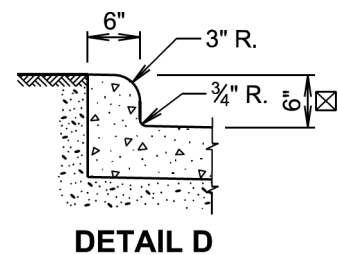
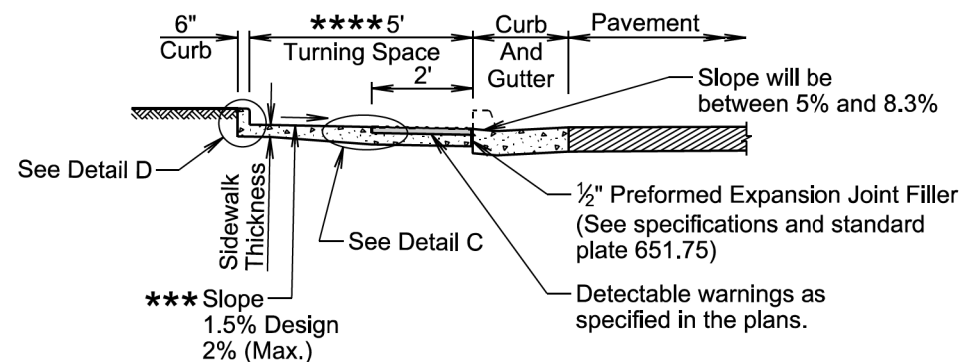
<b>S D D O T</b>	<b>TYPE 2 CURB RAMP (DIRECTIONAL CURB RAMP)</b>	PLATE NUMBER 651.02
	Published Date: 2024	Sheet 3 of 3



April 18, 2021

<b>S D D O T</b>	<b>TYPE 3 CURB RAMP (PARALLEL CURB RAMP)</b>	PLATE NUMBER 651.03
	Published Date: 2024	Sheet 1 of 3

- \* The curb transition slope will match the curb ramp slope. Curb ramp slopes are designed at 7.5% unless stated otherwise in the plans. The curb ramp may have a maximum slope of 8.3% at any location of the curb ramp and will not exceed 15' in length unless stated otherwise in the plans. The curb transitions and curb ramp lengths will be adjusted as necessary to meet all slope and length requirements based on field geometrics.
- \*\* The cross slope of the ramp will not be steeper than 2% and the ramp width is 5' unless stated otherwise in the plans. Plans are designed using a 1.5% cross slope for the ramp unless stated otherwise in the plans.
- \*\*\* The slope in the turning space will not be steeper than 2% in any direction of pedestrian travel. Plans are designed using a 1.5% slope unless stated otherwise in the plans.
- \*\*\*\* The turning space is 5'x5' unless stated otherwise in the plans.
- ☒ The curb height will be 6" unless stated otherwise in the plans.



April 18, 2021

April 18, 2021

Published Date: 2024	S D D O T	TYPE 3 CURB RAMP (PARALLEL CURB RAMP)	PLATE NUMBER 651.03
			Sheet 2 of 3

**GENERAL NOTES:**

For illustrative purpose only, type 1 detectable warnings are shown in the drawings.

For illustrative purpose only, a PCC fillet section is shown in one of the drawings. The curb ramp depicted on this standard plate may be used with a PCC fillet section or with curb and gutter.

The curb ramp will be placed at the location stated in the plans.

Sidewalk adjacent to the curb ramp will be as shown in the plans.

Care will be taken to ensure a uniform grade on the curb ramp, free of sags and short grade changes.

Surface texture of the curb ramp will be obtained by coarse brooming transverse to the slope of the curb ramp.

The normal gutter line profile will be maintained through the area of the ramp opening.

Joints will be sawed or tooled into the concrete adjacent to the detectable warnings to alleviate possible corner cracking (see plan view for joint location).

Care will be taken to ensure that the surface of the detectable warnings are clean and maintains a uniform color.

The detectable warnings will be cut as necessary to fit the plan specified limits of the detectable warnings. Cost for cutting the detectable warnings will be incidental to the corresponding detectable warning contract item.

When curb height is greater than 6" and less than 12", reinforcing steel is required in accordance with the detail on sheet 2 of 3. The reinforcing steel will conform to ASTM A615, Grade 60. Cost for furnishing and installing the reinforcing steel will be incidental to the contract unit price per square foot for the corresponding concrete sidewalk contract item.

There will be no separate payment for curb ramps. The curb ramp will be measured and paid for at the contract unit price per square foot for the corresponding concrete sidewalk contract item. The square foot area of the detectable warnings and the curb along the short radius will be included in the measured and paid for quantity of sidewalk.

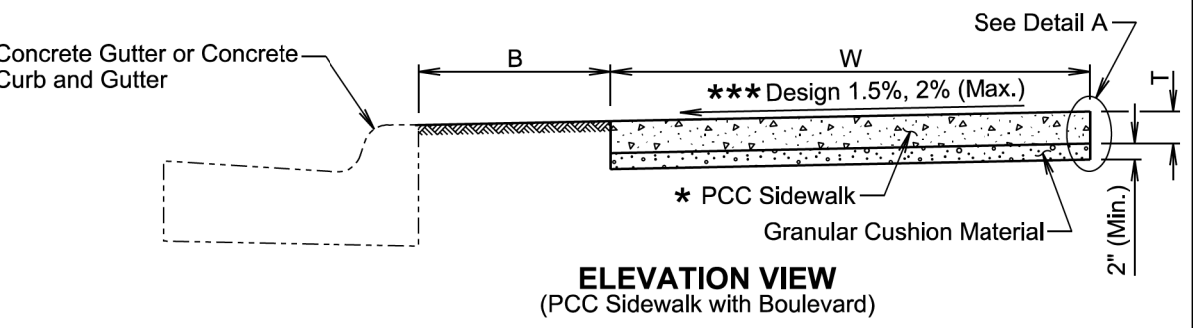
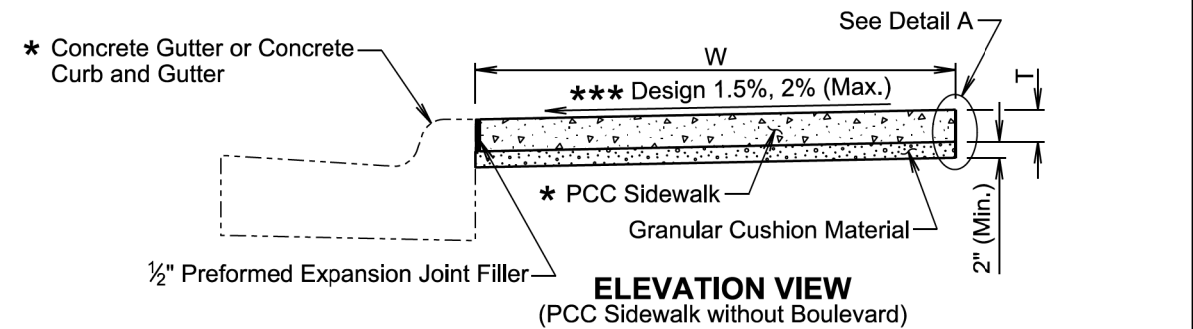
The curb transitions and ramp opening will be measured and paid for at the contract unit price per foot for the corresponding curb and gutter contract item when curb and gutter is used. The curb transitions and ramp opening will be measured and paid for at the contract unit price per square yard for the corresponding PCC fillet section contract item when a PCC fillet section is used.

The type 1 detectable warnings will be measured to the nearest square foot. All costs for furnishing and installing the type 1 detectable warnings including labor, equipment, materials, and incidentals will be paid for at the contract unit price per square foot for "Type 1 Detectable Warnings".

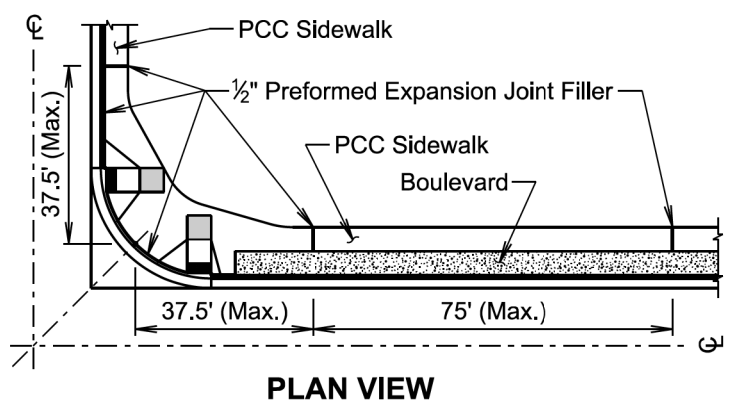
The type 2 detectable warnings will be measured to the nearest square foot. All costs for furnishing and installing the type 2 detectable warnings including labor, equipment, and materials, including adhesive, necessary sealant or grout, and necessary grinding will be paid for at the contract unit price per square foot for "Type 2 Detectable Warnings".

Published Date: 2024	S D D O T	TYPE 3 CURB RAMP (PARALLEL CURB RAMP)	PLATE NUMBER 651.03
			Sheet 3 of 3

Plot Scale - 1:200



- B Width of boulevard as specified in the plans.
- T Thickness of PCC sidewalk as specified in the plans.
- W Width of PCC sidewalk as specified in the plans.
- \* Type as specified in the plans.



**GENERAL NOTES:**

The PCC sidewalk will be constructed in accordance with Section 651 of the Specifications.

\*\*\* The cross slope of the sidewalk is designed at 1.5% and the maximum slope allowed is 2% unless specified otherwise in the plans.

The maximum length between expansion joints in the PCC sidewalk is 75 feet.

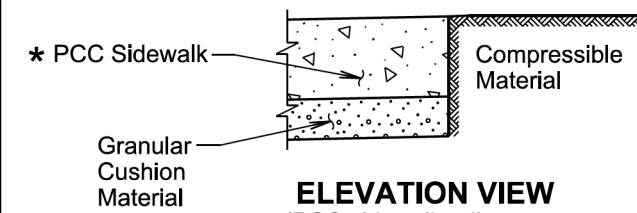
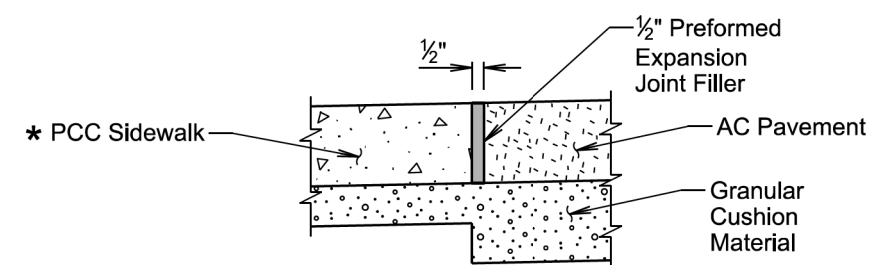
PCC sidewalk placed adjacent to intersection of roadways will have an expansion joint placed transversely a maximum of 37.5 feet from the intersection. See Plan View.

An expansion joint in the PCC sidewalk will consist of a 1/2 -inch thick preformed expansion joint filler material placed full depth and width of the PCC sidewalk.

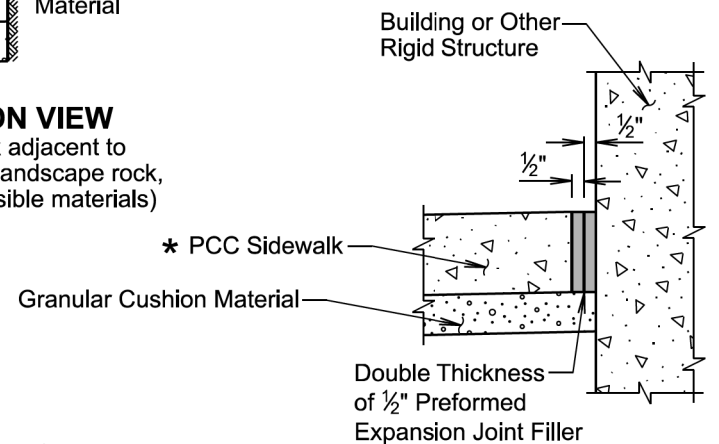
\*\* Large areas of PCC pavement adjacent to the PCC sidewalk may require a different joint treatment than shown in the detail. If a different joint detail is necessary, plans will contain the joint detail and the Contractor will construct the joint treatment in accordance with the plans.

February 14, 2020

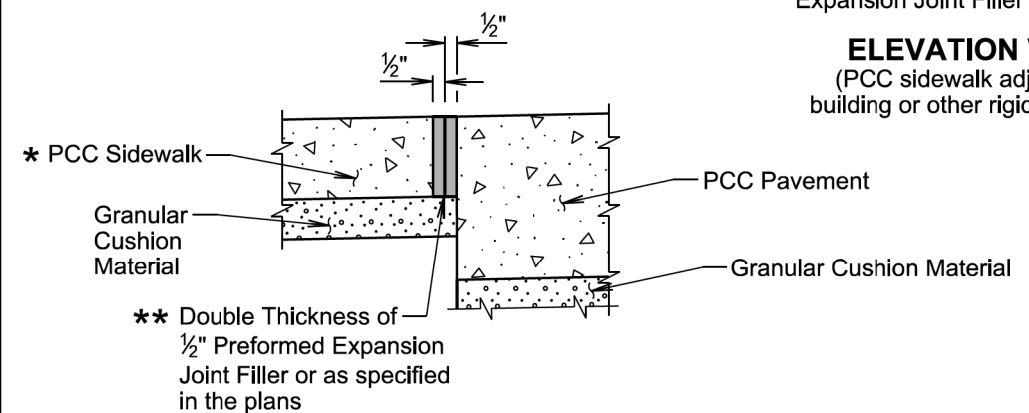
<b>S D D O T</b>	<b>PCC SIDEWALK</b>	PLATE NUMBER <b>651.75</b>
		Sheet 1 of 2
Published Date: 2024		



**ELEVATION VIEW**  
(PCC sidewalk adjacent to earthen material, landscape rock, or other compressible materials)



**ELEVATION VIEW**  
(PCC sidewalk adjacent to building or other rigid structure)



**ELEVATION VIEW**  
(PCC sidewalk adjacent to PCC pavement)

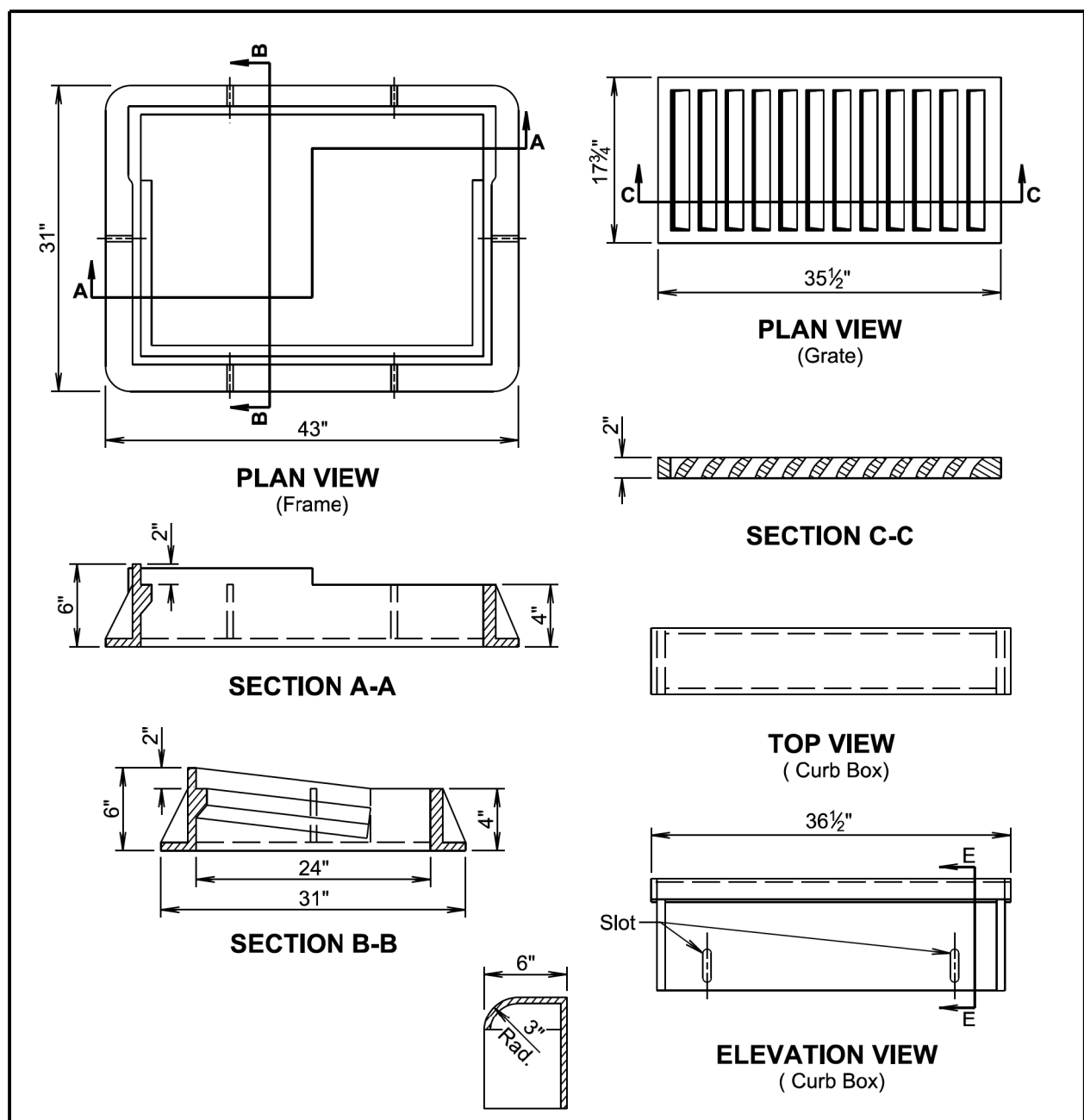
**DETAIL A**  
(Use Appropriate Detail(s))

February 14, 2020

<b>S D D O T</b>	<b>PCC SIDEWALK</b>	PLATE NUMBER <b>651.75</b>
		Sheet 2 of 2
Published Date: 2024		

Plotted From - TRPR17192

File - ...:\bute06\G2\StdPlateSectionsB.dgn



**GENERAL NOTES:**

The product dimensions may vary from those shown on the standard plate depending on the manufacturer. Grate size and configuration will be similar to the standard plate for hydraulic capacity and bicycle safety. Any variation in dimensions will be approved by the Engineer and the type B frame and grate assembly will be from a manufacturer on the approved products lists.

Design load for the grate will meet the requirements of AASHTO HL-93.

The curb box will be adjustable 6" to 9".

June 1, 2022

<i>Published Date: 2024</i>	<b>S D D O T</b>	<b>TYPE B FRAME AND GRATE</b>	PLATE NUMBER <b>670.80</b>
			Sheet 1 of 1