

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (34)	1	48

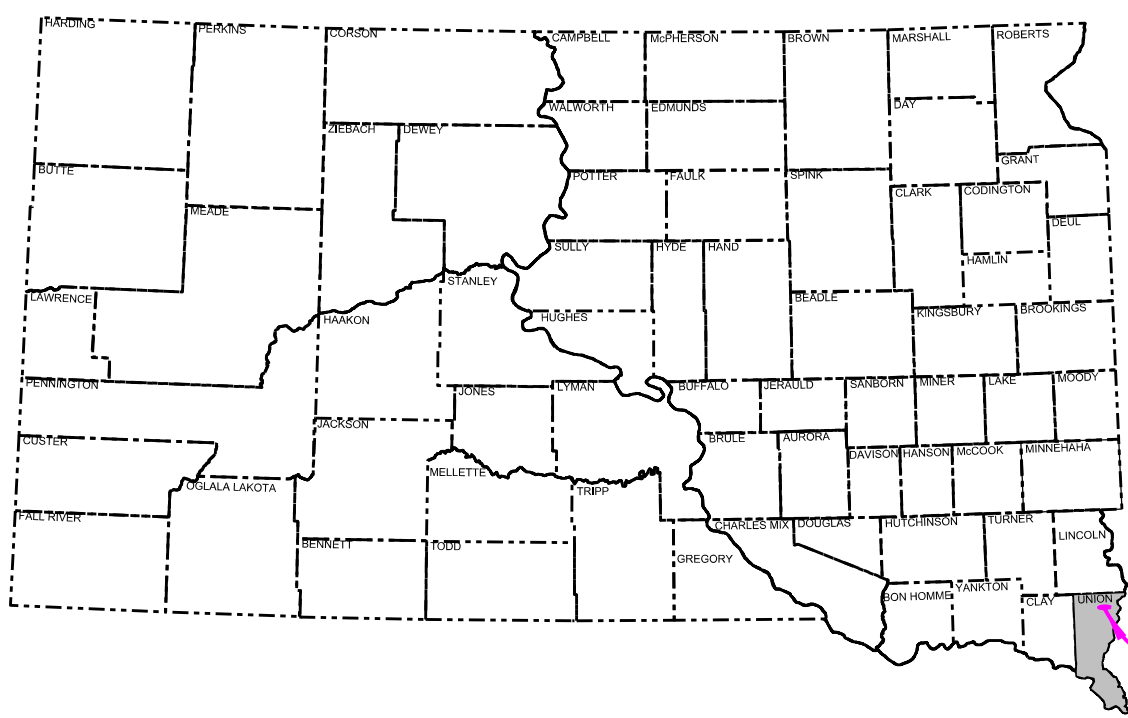
Plotting Date: June 29, 2015 Rev 08/01/16 MDN

PLANS FOR PROPOSED
PROJECT P SRTS(34)
CITY OF ALCESTER

Grading, Sidewalk, and Flashing Beacons
PCN 04NR

INDEX OF SHEETS

1	General Layout W/Index
2-9	General Notes
10	Pipe Table
11-12	Typical Sections
13	Horizontal Alignment Sheet
14	Control Data
15	Symbology Legend
16	Landowner Table
17	Sign Installation Table
18	Wiring Diagram
19	School Zone Signing
20	Traffic Control Sheet
21-26	Plan & Profile Sheets
27-29	Curb & Gutter Layouts
30-32	Curb Ramp Details
33-35	Erosion Control Sheets
36	Pavement Marking Sheet
37-38	Special Details
39-48	Standard Plates



PROJECT

R 49 W

END P SRTS(34)

Approximately 21' West and 785' North of the Southwest corner of Section 2-T95N-R49W.



Kim LaRue McLaury

T 95 N

T 95 N

HIGHWAY 11

TRACT 5

TRACT 1

E 6th Street

E 6th Street

DAKOTA STREET

24

E 5th Street

PARK PLACE

MORNINGSIDE ADDITION

HIGHWAY 11

R 49 W

P SRTS(34)

HIGHWAY 11 GROSS LENGTH	1136 FEET	0.215 MILES
PARK SIDEWALK GROSS LENGTH	317 FEET	0.060 MILES

STORM WATER PERMIT
Major Receiving
Body of Water: Brule Creek
Area Disturbed: 0.5067 Acres
Total Project Area: 0.9772 Acres
Approx. Begin Lat/Long: 43.0248, -96.6279



SCALES **HIGHWAY 11**

PLAN	1"=40'
PROFILE	HORIZONTAL: 1"=40'
	VERTICAL: 1"=4'
CROSS SECTIONS	HORIZONTAL: 1"=20'
	VERTICAL: 1"=10'

BEGIN P SRTS(34)

Approximately 13' East and 405' South of the Southwest corner of Section 2-T95N-R49W.

Plans Prepared by:
McLaury Engineering, Inc.
Elk Point, South Dakota

South Dakota
Department of Transportation
Pierre, South Dakota

Estimate of Quantities

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3200	Reestablish Property Corner	8	Each
009E3230	Grade Staking	0.138	Mile
100E0010	Clear and Grub Stump	1	Each
100E0100	Clearing	Lump Sum	LS
110E0300	Remove Concrete Curb and Gutter	64	Ft
110E1010	Remove Asphalt Concrete Pavement	62.8	SqYd
110E1100	Remove Concrete Pavement	21.6	SqYd
110E1130	Remove Concrete Driveway Pavement	9.2	SqYd
110E1140	Remove Concrete Sidewalk	29.8	SqYd
110E1695	Remove Sediment Filter Bag	20	Ft
110E1700	Remove Silt Fence	12	Ft
120E0010	Unclassified Excavation	313	CuYd
120E0600	Contractor Furnished Borrow Excavation	260	CuYd
230E0010	Placing Topsoil	215	CuYd
250E0020	Incidental Work, Grading	Lump Sum	LS
260E2010	Gravel Cushion	14.0	Ton
380E1000	6" Miscellaneous PCC Pavement	56.0	SqYd
380E3540	8" PCC Approach Pavement	9.2	SqYd
380E4050	8" PCC Fillet Section	36.1	SqYd
450E7005	12" High Density Polyethylene Pipe, Furnish	40	Ft
450E7006	12" High Density Polyethylene Pipe, Install	40	Ft
632E0010	1.25' Diameter Breakaway Support Concrete Footing	8.0	Ft
632E1340	2.5"x2.5" Perforated Tube Post	22	Ft
632E3520	Remove, Salvage, Relocate, and Reset Traffic Sign	4	Each
633E0030	Cold Applied Plastic Pavement Marking, 24"	128	Ft
633E0035	Cold Applied Plastic Pavement Marking, Area	24	SqFt
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24"	128	Ft
633E5020	Grooving for Cold Applied Plastic Pavement Marking, Area	24	SqFt
634E0110	Traffic Control Signs	84	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
635E2530	Galvanized Steel Utility Pole	1	Each
635E4010	1 Section Vehicle Signal Head	2	Each
635E5301	Type 1 Electrical Junction Box	2	Each
635E5400	Electrical Service Cabinet	1	Each
635E5510	Signal Flasher Unit	1	Each
635E8015	1.5" Rigid Galvanized Steel Conduit	39	Ft
635E8115	1.5" Rigid Conduit, Schedule 40	58	Ft
635E8215	1.5" Rigid Conduit, Schedule 80	96	Ft
635E9024	1/C #14 AWG Copper Wire	725	Ft
650E0060	Type B66 Concrete Curb and Gutter	42	Ft
651E0040	4" Concrete Sidewalk	6367	SqFt
651E0060	6" Concrete Sidewalk	255	SqFt
651E0080	8" Concrete Sidewalk	475	SqFt
651E7000	Type 1 Detectable Warnings	30	SqFt
730E0206	Type D Permanent Seed Mixture	105	Lb
731E0100	Fertilizing	510	Lb
732E0250	Fiber Mulching	1033	Lb
734E0103	Type 3 Erosion Control Blanket	50	SqYd
734E0180	Sediment Filter Bag	20	Ft
734E0510	Shaping for Erosion Control Blanket	28	Ft
734E0604	High Flow Silt Fence	45	Ft
734E0610	Mucking Silt Fence	4	CuYd
734E0620	Repair Silt Fence	12	Ft
734E0845	Sediment Control at Inlet with Frame and Grate	1	Each
734E5000	Dewatering	10	Hour
734E5010	Sweeping	5	Hour
900E1310	Concrete Washout Facility	1	Each

SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2015 Edition and Required Provisions, Supplemental Specifications, and Special Provisions as included in the Proposal.

ENVIRONMENTAL COMMITMENTS

An Environmental Commitment is a measure that SDDOT commits to implement in order to avoid, minimize, and/or mitigate a real or potential environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency mentioned below with permitting authority can influence a project if perceived environmental impacts have not been adequately addressed. Unless otherwise designated, the Contractor's primary contact regarding matters associated with these commitments will be the Project Engineer. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office. The environmental commitments associated with this project are as follows:

COMMITMENT C: WATER SOURCE

The Contractor shall not withdraw water with equipment previously used outside the State of South Dakota without prior approval from the SDDOT Environmental Office. Thoroughly wash all construction equipment before entering South Dakota to reduce the risk of invasive species introduction into the project vicinity.

The Contractor shall not withdraw water directly from streams of the James, Big Sioux, and Vermillion watersheds without prior approval from the SDDOT Environmental Office.

Action Taken/Required:

The Contractor shall obtain the necessary permits from the regulatory agencies such as the Department of Environment and Natural Resources (DENR) and the United States Army Corps of Engineers (COE) prior to executing water extraction activities.

COMMITMENT E: STORM WATER

Construction activities constitute less than 1 acre of disturbance.

Action Taken/Required:

At a minimum and regardless of project size, appropriate erosion and sediment control measures must be installed to control the discharge of pollutants from the construction site.

COMMITMENT H: WASTE DISPOSAL SITE

The Contractor shall furnish a site(s) for the disposal of construction and/or demolition debris generated by this project.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (34)	2	48

Action Taken/Required:

REV 01/22/16 MDN

Construction and/or demolition debris may not be disposed of within the State ROW.

The waste disposal site(s) shall be managed and reclaimed in accordance with the following from the General Permit for Highway, Road, and Railway Construction/Demolition Debris Disposal Under the South Dakota Waste Management Program issued by the Department of Environment and Natural Resources.

The waste disposal site(s) shall not be located in a wetland, within 200 feet of surface water, or in an area that adversely affects wildlife, recreation, aesthetic value of an area, or any threatened or endangered species, as approved by the Project Engineer.

If the waste disposal site(s) is located such that it is within view of any ROW, the following additional requirements shall apply:

1. Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials shall be buried in a trench completely separate from wood debris. The final cover over the construction and/or demolition debris shall consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the State ROW shall be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor shall control the access to waste disposal sites not within the State ROW through the use of fences, gates, and placement of a sign or signs at the entrance to the site stating "No Dumping Allowed".

2. Concrete and asphalt concrete debris may be stockpiled within view of the ROW for a period of time not to exceed the duration of the project. Prior to project completion, the waste shall be removed from view of the ROW or buried and the waste disposal site reclaimed as noted above.

The above requirements will not apply to waste disposal sites that are covered by an individual solid waste permit as specified in SDCL 34A-6-58, SDCL 34A-6-1.13, and ARSD 74:27:10:06.

Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

All costs associated with furnishing waste disposal site(s), disposing of waste, maintaining control of access (fence, gates, and signs), and reclamation of the waste disposal site(s) shall be incidental to the various contract items.



COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES

This project is environmentally classified as a CE1.

Action Taken/Required:

All earth disturbing activities not designated within the plans require review of cultural resources impacts. This work includes, but is not limited to: staging areas, borrow sites, waste disposal sites, and all material processing sites.

The Contractor shall arrange and pay for a cultural resource survey and/or records search. The Contractor has the option to contact the state Archaeological Research Center (ARC) at 605-394-1936 or another qualified archaeologist, to obtain either a records search or a cultural resources survey. A record search might be sufficient for review; however, a cultural resources survey may need to be conducted by a qualified archaeologist.

The Contractor shall provide ARC with the following: a topographical map or aerial view on which the site is clearly outlined, site dimensions, project number, and PCN. If applicable, provide evidence that the site has been previously disturbed by farming, mining, or construction activities with a landowner statement that artifacts have not been found on the site.

The Contractor shall submit the records search or cultural resources survey report and if the location of the site is within the current geographical or historic boundaries of any South Dakota reservation to SDDOT Environmental Engineer, 700 East Broadway Avenue, Pierre, SD 57501-2586 (605-773-3180). SDDOT will submit the information to the appropriate SHPO/THPO. Allow **30 Days** from the date this information is submitted to the Environmental Engineer for SHPO/THPO review.

If evidence for cultural resources is uncovered during project construction activities, then such activities shall cease and the Project Engineer shall be immediately notified. The Project Engineer will contact the SDDOT Environmental Engineer in order to determine an appropriate course of action.

SHPO/THPO review does not relieve the Contractor of the responsibility for obtaining any additional permits and clearances for staging areas, borrow sites, waste disposal sites, or material processing sites that affect wetlands, threatened and endangered species, or waterways. The Contractor shall provide the required permits and clearances to the Project Engineer at the preconstruction meeting.



GRADING OPERATIONS

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

UTILITIES

The Contractor shall 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 shall contact each utility owner and confirm the status of all existing and new utility facilities. The utility contact information is providedK

UTILITY	UTILITY COMPANY	PHONE
Water	City Of Alcester	605-934-2851
Sewer	City Of Alcester	605-934-2851
Telephone	Alliance Communications	605-934-9900
Cable	Vast Broadband	866-666-1641
Electricity	MidAmerican Energy	888-427-5632
	Southeastern Electric Cooperative, Inc	800-333-2859
Gas	MidAmerican Energy	888-427-5632

CLEARING

Before clearing activities begin, the Contractor shall contact the Engineer to determine the limits of clearing for the project. If the trees or shrubs that are supposed to remain within the limits of work are damaged or destroyed by the Contractor, the Contractor shall replace them with the same size and type at the Contractor's expense.

CLEAR AND GRUB STUMP

The Contractor shall remove the stumps in the table below. All costs to completely remove and dispose of each stump shall be incidental to the contract unit price per each for "Clear and Grub Stump".

If additions or reductions to the number of stumps removed are ordered by the Engineer, payment shall be made at the contract unit price per each for "Clear and Grub Stump."

TABLE OF CLEAR AND GRUB STUMP

10+52 - 34' R

SHRINKAGE FACTOR: Embankment +20%

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (34)	3	48

REV 08/01/16 MDN

TABLE OF EXCAVATION QUANTITIES BY BALANCES

Station to	Station	Excavation (CuYd)	Contractor Furnished Borrow (CuYd)	Total Excavation (CuYd)	** Waste (CuYd)
1+00	4+47	45	0	45	36
4+77	12+35	52	0	52	14
31+00	34+20	1	260	261	0
TOTALS:		98	260	358	50

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

TABLE OF UNCLASSIFIED EXCAVATION

Excavation	(CuYd)	98
Topsoil		215
Total:		313

PROCEDURES FOR DETERMINING UNCLASSIFIED EXCAVATION QUANTITY

Plans quantity shall be the basis of payment for Unclassified Excavation.

The Topsoil quantity in the Table of Unclassified Excavation is an estimate. 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.

Excavation quantities for Concrete Sidewalk have not been included in the Unclassified Excavation. Excavation for the concrete sidewalk shall be incidental to the sidewalk bid item.

INCIDENTAL WORK, GRADING

The following is a list of major items of Incidental Work:

- 1.) Curb Stop Sleeves: There are a number of curb stops located in the proposed concrete. These curb stops will be required to have a White 5" PVC sleeve installed around them and shall be adjusted to approximately 0.5" below finish concrete elevation. The contractor shall take care not to damage any existing curb stops.
- 2.) Mailboxes: It is not expected that any existing mailboxes will be affected, but if due to the Contractors activities mailboxes are affected it shall be removed, safeguarded through construction, and reset at the correct height and location behind the curb and gutter following construction completion.

TABLE OF INCIDENTAL WORK, GRADING

Station	to	Station	Remarks
4+77 - 44' R		5+02 - 48' R	Remove and Replace Landscape Rock - 58 SY

TABLE OF ASPHALT CONCRETE PAVEMENT REMOVAL

Station	to	Station	L/R	Quantity (SqYd)
4+74.7		4+91.3	R	6.9
7+96.3		8+25.6	R	55.9
Total:				62.8

TABLE OF CONCRETE PAVEMENT REMOVAL

Station	to	Station	L/R	Quantity (SqYd)
4+24.8		4+47.5	R	21.6
Total:				21.6

TABLE OF CONCRETE CURB AND GUTTER REMOVAL

Station	to	Station	Quantity (Ft)
0+99.4 - 20.84' R		1+01.9 - 20.76' R	2.6
4+77.21 - 41.1' R		4+95.3 - 26.8' R	26.3
7+94.33 - 32.0' R		7+94.41 - 49.2' R	17.3
8+27.61 - 32.0' R		8+27.56 - 49.2' R	17.3
Total:			63.5

TABLE OF CONCRETE DRIVEWAY PAVEMENT REMOVAL

Station	to	Station	L/R	Quantity (SqYd)
1+08.1		1+26.3	R	9.2
Total:				9.2



TABLE OF SIDEWALK REMOVAL

Station	to	Station	L/R	Quantity (SqYd)
0+75.2		1+01.9	R	19.4
33+93.4		34+17.1	L	10.4
Total:				29.8

SIDEWALK

The foundation shall be excavated, shaped, and compacted to a firm, uniform bearing surface. Unsuitable foundation material shall be removed and replaced as directed. The foundation shall be thoroughly moistened immediately prior to placing concrete.

Concrete sidewalk will be paid for at the contract unit price per square foot.

Payment will be full compensation for excavation other than removal of existing sidewalk as provided for under Section 110 of the Specifications.

Payment will be full compensation for labor, equipment, tools, backfilling, furnishing and placing materials, including granular material, preformed expansion joint material and incidentals necessary, including disposal of excavation and discarded materials.

TABLE OF 4" PCC SIDEWALK

Station	to	Station	Quantity (SqFt)
0+95.0 - 28.2' R		1+08.1 - 28.2' R	117.4
1+26.3 - 28.0' R		2+32.7 - 34.0' R	535.5
2+45.4 - 34.0' R		4+42.4 - 32.0' R	1009.8
4+80.3 - 32.0' R		7+93.9 - 30.0' R	1616.4
8+28.1 - 30.0' R		11+30.2 - 34.0' R	1529.6
11+63.5 - 34.0' R		11+75.1 - 34.0' R	58.3
31+00.0 - 0.0' L		32+77.0 - 0.0' L	904.7
32+97.0 - 0.0' L		34.17.1 - 0.0' L	595.5
Total:			6367.2

TABLE OF 6" PCC SIDEWALK

Station	to	Station	Quantity (SqFt)
1+08.1 - 28.2' R		1+26.3 - 28.0' R	90.9
2+32.7 - 34.0' R		2+45.4 - 34.0' R	63.6
32+77.0 - 0.0' L		32+97.0 - 0.0' L	100.1
Total:			254.6

TABLE OF 8" PCC SIDEWALK

Station	to	Station	Quantity (SqFt)
11+30.2 - 34.0' R		11+63.5 - 34.0' R	166.4
11+75.1 - 34.0' R		12+35.6 - 34.0' R	308.6
Total:			475.0

TYPE 1 DETECTABLE WARNINGS REV 08/01/16 MDN

Detectable warnings shall be in compliance with the Americans with Disability Act regulations.

The detectable warnings shall 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 shall be placed below the Type 1 Detectable Warnings. When concrete is placed below the detectable warnings then the concrete thickness shall be transitioned at the rate of 1" per foot to match the adjacent concrete sidewalk thickness.

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

When Type 1 Detectable Warnings are specified, the Contractor shall furnish and install only one of the products listed in the Type 1 Detectable Warnings table. Type 1 Detectable Warnings

Product	Manufacturer
Detectable Warning Plate Cast Iron Plate	Neenah Foundry Company Neenah, WI 800-558-5075 http://www.neenahfoundry.com/
Detectable Warning Plate Cast Iron Plate	Deeter Foundry Lincoln, NE 800-234-7466 http://www.deeter.com/
Detectable Warning Plate Cast Iron Plate (No Coating)	East Jordan Iron Works, Inc. 301 Spring Street East Jordan, MI 49727 800-626-4653 http://www.ejiw.com

TABLE OF TYPE 1 DETECTABLE WARNINGS

Station	to	Station	Quantity (SqFt)
0+95.0 - 21.1' R		1+00.0 - 21.1' R	10.0
4+43.3 - 34.0' R		4+43.3 - 39.0' R	10.0
4+81.0 - 34.0' R		4+81.0 - 39.0' R	10.0
Total:			30.0

GRAVEL CUSHION

In addition to the placement of Gravel Cushion as shown in the various details, Gravel Cushion shall also be placed in the locations indicated on the plans, at a compacted depth of 6 inches. The bid item for Gravel Cushion is for all work associated to furnish and install the gravel, in accordance with Section 260 of the Specifications, at the locations listed in the table below.

Compaction shall be to the satisfaction of the Engineer. Installed lifts shall not exceed 3".

TABLE OF GRAVEL CUSHION

Station to	Station	Quantity (SqFt)	Quantity (Tons)
2+32.6 - 26.4' R	2+46.2 - 26.5' R	100	3.4
32+80.7 - 24.1' R	32+90.1 - 22.9' R	175	6.0
32+83.2 - 13.3' L	32+93.3 - 14.6' L	136	4.6
Total:		411	14.0

TABLE OF CONSTRUCTION STAKING
(See Special Provision for Contractor Staking)

Roadway and Description	Begin Station	End Station	Number of Lanes	Length (Ft)	Grade Staking			
					Length (Mile)	Lane Factor	*Sets of Stakes	**Grade Staking Quantity (Mile)
Highway 11	1+00	12+36	1	1,136	0.215	0.5	1	0.108
Park Alignment	31+00	34+17	1	317	0.060	0.5	1	0.03
Totals:								0.138

* 1 = Blue Top Stakes Only (Sidewalk)
 ** Grade Staking Quantity = (Length) x (Lane Factor) x (Sets of Stakes)

REESTABLISH PROPERTY CORNER

8 possible locations have been identified, exact locations will be determined in the field.

The Contractor shall have a Licensed Land Surveyor in the State of South Dakota Reestablish Property Corners in 8 locations. The Land Surveyor shall preserve the location and reestablish all corners in accordance with South Dakota DOT Survey Manual, Chapter 8 Section J – Marking of Public Land Corners.

<http://sddot.com/business/design/docs/survey/smchap8.pdf>

TABLE OF TYPE B66 CONCRETE CURB AND GUTTER

Station to	Station	Quantity (Ft)
0+99.4 - 20.8' R	1+01.9 - 20.8' R	2.6
4+91.2 - 26.8' R	4+95.3 - 26.8' R	4.0
7+94.3 - 32.0' R	7+94.4 - 49.2' R	17.5
8+27.6 - 32.0' R	8+27.6 - 49.2' R	17.5
Total:		41.6

TABLE OF 8" PCC FILLET SECTION

Station to	Station	Quantity (SqYd)
4+24.9 - 18.3' R	4+47.2 - 41.4' R	22.3
4+74.4 - 41.0' R	4+91.3 - 24.2' R	13.7
Total:		36.1

TABLE OF 8" PCC APPROACH PAVEMENT

Station to	Station	Quantity (SqYd)
11+39.7 - 32.3' R	11+63.5 - 32.3' R	4.5
11+75.1 - 32.3' R	11+99.2 - 32.2' R	4.7
Total:		9.2

6" MISCELLANEOUS PCC PAVEMENT

Miscellaneous PCC Pavement shall be Class M6 Concrete.

TABLE OF 6" MISCELLANEOUS PCC PAVEMENT

Station to	Station	Quantity (SqYd)
7+96.3 - 32.0' R	8+25.6 - 32.0' R	56.0
Total:		56.0



TABLE OF REESTABLISH PROPERTY CORNERS

Station	Type	Northing	Easting
0+55.6 - 40.0' R	Rebar W/Cap - 3029 DAN	15637388.767	2274490.057
0+90.6 - 40.0' R	Rebar W/Cap - 3029 DAN	15637523.755	2274489.024
1+65.4 - 40.0' R	Rebar W/Cap - 3029 DAN	15637498.624	2274486.684
4+27.6 - 40.0' R	5/8" Rebar	15637760.503	2274478.595
10+35.5 - 40.0' R	5/8" Rebar	15638368.118	2274462.010
11+95.9 - 40.0' R	5/8" Rebar	15512164.125	2262215.955
32+68.0 - 19.6' R	Rebar W/Cap - 3029 DAN	15637393.375	2274639.974
32+68.0 - 15.4' L	Rebar W/Cap - 3029 DAN	15637428.402	2274638.903

PLACING TOPSOIL

The thickness will be approximately 4 inches within the right-of-way and 6 inches on temporary easements.

The estimated amount of topsoil to be placed is 215 CuYd.

MYCORRHIZAL INOCULUM

Mycorrhizal inoculum shall consist of mycorrhizal fungi spores and mycorrhizal fungi-infected root fragments in a solid carrier. The carrier may include organic materials, calcinated clay, or other materials consistent with application and good plant growth. The supplier shall provide certification of the fungal species claimed and the live propagule count. The inoculum shall include the following fungal species:

<i>Glomus intraradices</i>	25%
<i>Glomus aggregatu</i>	25%
<i>Glomus mosseae</i>	25%
<i>Glomus etunicatum</i>	25%

All seed shall be inoculated by the seed supplier with a minimum of 20,000 live propagules of mycorrhizal fungi per 1,000 square feet. All costs of inoculating the seed shall be incidental to the contract unit price per pound for the corresponding permanent seed mixture.

The mycorrhizal inoculum shall be from the list below or an approved equal:

Product	Manufacturer
MycoApply	Mycorrhizal Applications, Inc. Grants Pass, OR Phone: 1-866-476-7800 http://www.mycorrhizae.com/

FERTILIZING

The Contractor shall apply an all-natural slow release fertilizer prior to seeding or placing sod. The all-natural fertilizer shall have a minimum guaranteed analysis of 4-6-4 and be USDA Certified BioBased. It should provide a minimum of 4% (N) nitrogen with a minimum water insoluble nitrogen (WIN) fraction of 3.2%, a minimum of 6% (P2O5) available phosphate, a minimum of 4% (K2O) soluble potash, and a maximum carbon to nitrogen ratio (C:N ratio) of 5:1. The all-natural fertilizer shall be free of weed-seed and pathogens accomplished through thermophilic composting, and not mechanical or chemical sterilization, to assure presence of beneficial soil microbiology. The fertilizer shall have a near neutral pH, a low salt index, a low biological oxygen demand, contain organic humic and fulvic acids, and have high aerobic organism counts. The fertilizer shall also be stable, free of bad odors, and be unattractive as a food source for animals. It should also be in a granular form that is easily spread.

The all-natural slow release fertilizer shall be applied according to the manufacturer's application recommendations.

The application rate is 34 pounds per 1,000 square feet.

The all-natural slow release fertilizer shall be from the list below or an approved equal:

Product	Manufacturer
Sustane	Sustane Corporate Headquarters Cannon Falls, Minnesota Phone: 1-800-352-9245 http://www.sustane.com/

DRILLS

In addition to the drills specified in Section 730 of the Specifications, other types of drills including no-till drills will be allowed as long as they have baffles, partitions, agitators, or augers which keep the seed distributed throughout the seed box and the seed is planted at a depth of ¼" to ½".

PERMANENT SEEDING

The areas to be seeded consist of all newly graded areas within the project limits except for the top of roadways and other surfacing.

Type D Permanent Seed Mixture shall consist of the following:

Grass Species	Variety	Pure Live Seed (PLS) (Pounds/1000 SqFt)
Kentucky Bluegrass	Avalanche, Appalachian, Wildhorse, Blue Bonnet	1.4
Perennial Ryegrass	Turf Type Varieties	1.4
Creeping Red Fescue	Epic, Boreal	1.4
Chewings Fescue	Ambrose, K2, VNS, Zodiac	1.4
Alkali Grass	Fults, Fults II, Quill, Salty	1.4
Total:		7

FIBER MULCHING

Fiber mulch shall be applied in a separate operation following permanent seeding.

Fiber mulch shall be applied at the rate of 3000 pounds per acre.

The Contractor shall allow the fiber mulch to cure a minimum of 18 hours prior to watering or any storm event to ensure proper cohesion between the soil and fiber particles.

All costs for the additional tackifier added to the fiber mulch including labor, equipment, and materials shall be incidental to the contract unit price per pound for "Fiber Mulching".

The fiber mulch provided shall be from the approved product list. The approved product list for fiber mulch may be viewed at the following internet site:

<http://sddot.com/business/certification/products/Default.aspx>

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (34)	6	48

HIGH FLOW SILT FENCE

REV 01/22/16 MDN

The high flow silt fence fabric provided shall be from the approved product list. The approved product list for high flow silt fence may be viewed at the following internet site:

<http://sddot.com/business/certification/products/Default.aspx>

High flow silt fence shall be placed at the locations noted in the table and at locations that will minimize siltation of adjacent streams, lakes, dams, or drainage areas as determined by the Engineer during construction. Refer to Standard Plate 734.05 for details.

TABLE OF HIGH FLOW SILT FENCE

Station	L/R	Location	Quantity (Ft)
4+82 to 5+01	R	Across Ditch	25
32+70 to 32+80	R	Across Drainage Channel	10
32+89 to 32+97	R	Across Drainage Channel	10
Total:			45



EROSION CONTROL BLANKET

Erosion control blanket shall be installed at the locations noted in the table and at locations determined by the Engineer during construction.

The erosion control blanket provided shall be from the approved product list. The approved product list for erosion control blanket may be viewed at the following internet site:

<http://sddot.com/business/certification/products/Default.aspx>

The Contractor shall install erosion control blanket according to the manufacturer's installation instructions.

TABLE OF EROSION CONTROL BLANKET

Station to	Station	L/R	Location	Type	Quantity (SY)
4+82	5+02	R	Ditch	3	50
Total Type 3 Erosion Control Blanket:					50

SHAPING FOR EROSION CONTROL BLANKET

The ditches shall be shaped for the erosion control blanket as specified on Standard Plate 734.01.

SEDIMENT CONTROL AT INLETS WITH FRAMES AND GRATES

This type of sediment control device should be used where there is pavement in the vicinity of the drop inlets and storm water or sediment could possibly enter the frame and grate. Sediment Control at Inlets with Frame and Grates shall be installed prior to working in the vicinity of the drop inlets.

The Contractor shall be responsible for maintaining and repairing the sediment control devices for the duration of the project for which sediment control measures are required. Maintenance shall be scheduled to prevent storm water from backing up into the driving lane.

"Sediment Control at Inlets with Frames and Grates" will be paid for one time at each location, regardless of the number of times the sediment control devices are installed, inspected, cleaned, removed, repaired, or replaced. All costs associated with furnishing, installing, inspecting, maintaining, cleaning, sediment removal, and repairing Sediment Control at Inlets with Frames and Grates shall be incidental to the contract unit price per each for "Sediment Control at Inlet with Frame and Grate".

Sediment collection devices shall be:

A commercial made sediment collection device from the "Sediment Control at Inlet with Frame and Grate" list or an approved equal. The device shall be installed in reinforced concrete drop inlets according to the manufacturer's recommendations.

Sediment Control at Inlet with Frame and Grate Approved List:

Product	Manufacturer
InfraSafe Debris Collection Device with filter sock	Royal Environmental Systems, Inc. Stacy, MN Phone: 1-800-817-3240 www.royalenterprises.net
Dandy Curb Sack	Dandy Products Inc. Dublin, OH Phone: 1-800-591-2284 www.dandyproducts.com
Silt Trapper	Storm Water Solutions Lakeville, MN Phone: 1-952-461-4376 www.silttrapper.com
DIP Basket	Skyview Construction Co., LLC Waubay, SD Phone: 1-605-520-0555 www.skyviewconst.com
FLEXSTORM Inlet Filters	Inlet and Pipe Protection, Inc. Naperville, IL Phone: 1-866-287-8655 www.inletfilters.com
GR-8 Guard or Combo Guard	ERTEC Environmental Systems LLC Alameda, CA Phone: 1-866-521-0724 www.ertecsystems.com
Sediment Catchers	Shaun Jensen Brookings, SD Phone: 1-605-690-4950
Grate FX, Slammer, or VertPro	Enviroscape ECM, Ltd. Oakwood, OH Phone: 1-419-594-3210 www.strawblanket.com
BX Inlet Sediment Boxes	BX Civil and Construction Dell Rapids, SD Phone: 1-605-428-5483 bx-cc.com

TABLE OF SEDIMENT CONTROL AT INLETS WITH FRAMES AND GRATES

Station	L/R	Quantity (Each)
4+97 - 25.79'	R	1
Total:		1

SEDIMENT FILTER BAG

REV 01/22/16 MDN

The sediment filter bags shall be the Snake Bag from Sacramento Bag Manufacturing Company or an approved equal.

Sediment Filter Bag

Product	Manufacturer
Snake Bag	Sacramento Bag Manufacturing Co. Sacramento, CA Phone: 1-800-287-2247 www.sacbag.com

The sediment filter bags shall be filled with clean aggregate 2" minus or smaller

All costs for furnishing, installing, and removing the sediment filter bags shall be incidental to the contract unit price per foot for "Sediment Filter Bag."

TABLE OF SEDIMENT FILTER BAGS

Station	Quantity (Ft)
0+62 - 18.2' R	5
4+46 - 43.1' R	5
4+75 - 43.0' R	5
12+46 - 24.6' R	5
Total:	20



STREET SWEEPING

Vehicle tracking of sediment from the construction site shall be minimized. Street sweeping shall be used if erosion and sediment control best management practices are not adequate to prevent sediment from being tracked onto the street.

The Contractor shall use a pickup broom having integral self-contained storage to clean the roadway. The pickup broom used shall be a minimum of 6 feet wide and have working gutter brooms.

At a minimum, sweeping will be required:

1. Prior to opening any sidewalk to pedestrian traffic or roadway to vehicular traffic.
2. At the end of each day in which sediment has been tracked into streets open to traffic

All costs for cleaning the roadway with a pickup broom shall be incidental to the contract unit price per hour for "Sweeping".

CONCRETE WASHOUT FACILITY

The Contractor shall install Concrete Washout Facilities as necessary for capture of all wasted concrete and washout water dumped at the construction site. Locations of Concrete Washout Facilities shall be coordinated with and approved by the Engineer during construction.

All costs for furnishing, installing, and maintaining the washout facility, as well as removal of concrete and washout facility shall be incidental to the contract unit price per each for "Concrete Washout Facility".

PAVEMENT MARKING

The pavement marking material shall be as defined in Section 983 of the Specifications.

GROOVE PAVEMENT FOR PAVEMENT MARKING

The Contractor should not use water for the grooving for pavement markings. If water is used, then there shall be adequate time for the concrete pavement to completely dry prior to the installation of pavement markings.

The Contractor shall establish a positive means for the removal of the grinding and/or grooving residue. The Contractor shall use a vacuum attachment to collect dust and residue created by the grooving of pavement. Solid residue shall be removed from the pavement surfaces before being blown by traffic action or wind. Residue shall not be permitted to flow across lanes being used by public traffic or into gutter or drainage facilities. Residue, whether in solid or slurry form, shall be disposed of in a manner that will prevent it from reaching any waterway in a concentrated state.

SCOPE OF PERMANENT SIGN WORK

The permanent sign work includes, but is not limited to, the following:

- A. Items to be removed by the Contractor:
Existing Sign Posts
- B. Items to be removed, salvaged and reset by the Contractor:
Existing permanent signs
- C. Items to be furnished and installed by the Contractor:
Breakaway steel post sign supports with concrete footings
- D. Items installed as listed in the Sign Removal and Installation Table

REMOVE, SALVAGE, RELOCATE AND RESET PERMANENT SIGNS

The Contractor shall remove, salvage, relocate, and reset signs as indicated in the Sign Removal and Installation Table.

The Contractor shall replace in kind any signs, supports, support bases or related hardware lost or damaged during the time the signs were removed, salvaged, stockpiled and reset. Any replacement materials shall be in kind and at the Contractor's expense.

To complete the project sign work, resetting of signs shall be at their original location or as near as practicable to their original locations as completed project related work allows.

SIGN POSTS

The plan post lengths shall be field verified by the Contractor.

Breakaway anchor perforated tube post lengths listed in the Post Size/ Quantity columns of the SIGN INSTALLATION TABLE include 0.8' (9")/post minimum subgrade length.

Supports shall be cut to provide the proper sign height where necessary.

Perforated tube posts shall be fabricated from 12 gauge galvanized steel unless otherwise specified in the plans.

Post anchors shall be 48" long. Two-piece anchor post systems are required for 2" perforated tube post anchor stub posts. Heavy duty 7 gauge galvanized steel anchor stub posts that do not require stiffener sleeves are required for 2 1/2" perforated tube post non slip base post installations.

All breakaway sign supports shall comply with NCHRP 350 or AASHTO Manual for Assessing Safety Hardware (MASH) crash-worthy requirements.

All sign support bases shall conform to Plate number 634.99.

Direct drive perforated tube post lengths listed in the Post Size/ Quantity columns of the Sign Installation table include the minimum 4'/post subgrade length.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (34)	8	48

1.5" RIGID CONDUIT, SCHEDULE 40 REV 01/22/16 MDN

All conduit not located under permanent surfacing shall be 1.5" Rigid Conduit, Schedule 40.

Cost for all schedule 40 rigid conduit fittings, etc. shall be incidental to the contract unit price per foot for 1.5" Rigid Conduit, Schedule 40.

1.5" RIGID CONDUIT, SCHEDULE 80

The Contractor shall bore the rigid conduit beneath asphalt concrete roadways, driveways, and sidewalks, and curb and gutter. Cost for boring shall be incidental to the contract unit price per Foot for 1.5" Rigid Conduit, Schedule 80.

Cost for all fittings, sweeps, etc. shall be incidental to the contract unit price per foot for 1.5" Rigid Conduit, Schedule 80.

1.5" RIGID GALVANIZED STEEL CONDUIT

All conduit exposed above ground shall be Galvanized Rigid Steel.

Cost for all galvanized steel conduit fittings, etc. shall be incidental to the contract unit price per foot for 1.5" Galvanized Steel Conduit.

POWER SOURCE

MidAmerican Energy – Craig Van Meeteren
2103 Park Street
Sheldon, Iowa 51201
(712) 277-7670

SIGNAL FLASHER UNIT

The Contractor shall furnish and install two flashing beacons. Both of the flashing beacons are located at the intersection of Highway 11 and E 5th Street as shown in the plans

Warning beacons shall be flashing 12 inch round yellow light emitting diode (LED) signal modules. Warning beacons shall be compliant with the requirements for design, illumination, and color of signal sections required by Chapter 4L, Flashing Beacons, of the 2009 Manual of Uniform Traffic Control devices.

The 1 section vehicle signal heads shall be fabricated from ultraviolet stabilized polycarbonate with a yellow body with a black door and black tunnel visor.

Each flashing beacon shall have a 12" beacon (facing forward) and be mountable to a 2 1/2" x 2 1/2" tube post.

Each flashing beacon shall be installed on a 11' (0+89.2 – 23.70' R) and 11' (1+13.5 – 22.86' L), 2.5" x2.5" pole that is installed on a breakaway support. A 4.0', 1.25' diameter breakaway footing shall be installed.



SIGNAL FLASHER UNIT (CONTINUED)

The signal housing shall be constructed of polycarbonate material and must be adjustable independent from the bracket for lens alignment. The signal housing shall meet equipment standard of the Institute of Transportation Engineers Vehicle Traffic Control Signal Heads (VTCSH) Chapter 2. The lens shall be ITE compliant and ETL certified 12" yellow LED lens. The lens shall contain a maximum of 10 LEDs.

The flash rate shall be 60 flashes per minute.

The beacon shall flash at 50% duty cycle (0.5s on,0.5s off).

Beacons shall be programmable to the specification of the City of Alcester, SD.

The beacon shall have automatic adjustable brightness and night dimming capability.

The beacon shall be activated by an integrated, programmable microcontroller. The beacon shall store 500 days of flash data. The software must allow for a minimum of seven distinct usage programs to allow for different usage variations. The usage program shall be uploaded by a laptop provided by the City of Alcester, running any of the following Microsoft Windows products: 7 or 8. The microcontroller shall have USB connecting capability to connect to the laptop.

The system shall be able to withstand and operate at temperature extremes of -40 deg F to +165 deg F.

The system should be designed and constructed to withstand 90 mph wind loads in conformance with the requirements of the AASHTO publication, "Standard Specifications for Structural Supports of Highway Signs, Luminaries, and Traffic Signals." Current edition.

The Signal Flasher Unit shall be housed in a 14 guage stainless steel NEMA 4X enclosure. The enclosure shall be painted ANSI 61 gray. A drip shield shall be provided over the door. The enclosure shall be the minimum size necessary to house the all components of the Signal Flasher Unit.

The product must be FCC certified to comply with all 47 CRF FCC Part 15 Subpart B Emissions requirements and Manufacturer must be ISO 9001 certified.

The beacon, including batteries, panels, and all components shall be guaranteed for a minimum of 3 years.

The software needed to program the flashing beacons must be provided to the City of Alcester, SD.

The services of a qualified technician to conduct on-site start-up operations and to instruct the Owner's personnel in system programming, operation, and maintenance shall be furnished.

The flashing beacons, (2) 11' 2.5" x 2.5" perforated tube posts, base, and pole footing along with labor, parts, software, and anything else needed for furnishing and installing the flashing beacons shall be paid at the contract unit price for each respective item.

TABLE OF 1 SECTION VEHICLE SIGNAL HEAD

STATON	Quantity (Each)
0+89.2 - 23.70' R	1
1+13.5 - 22.86' L	1
Total:	2

ELECTRICAL SERVICE DETAILS

The Contractor shall provide a MidAmerican Energy approved 120 VAC lever-bypass meter socket, 5th jaw, where shown on the Plans. Contractor shall provide a 20 amp, service entrance rated, enclosed single pole circuit breaker on the load side of the meter where indicated as "Electrical Service Cabinet with Lock" in the details. The meter socket shall be mounted as shown in the details and shall not be mounted on MidAmerican Energy's Pole.

All costs for furnishing and installing all materials from the electrical service cabinet to the transformer, including labor, equipment, hookup fees, all items within the cabinet, post, concrete footing, post cap, meter socket, and incidentals shall be incidental to the contract unit price per each for "Electrical Service Cabinet."

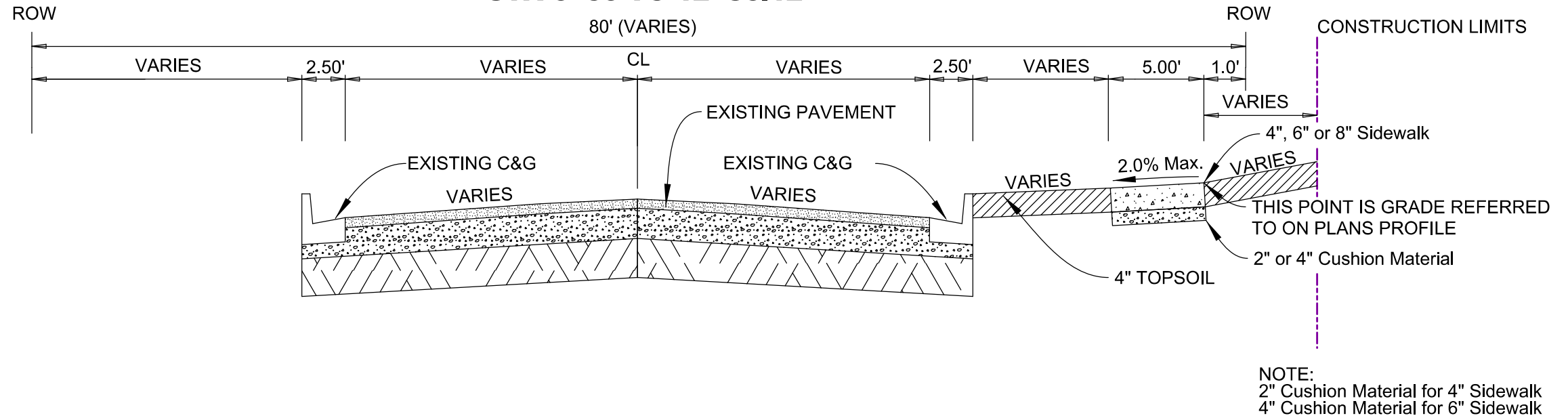
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (34)	9	48



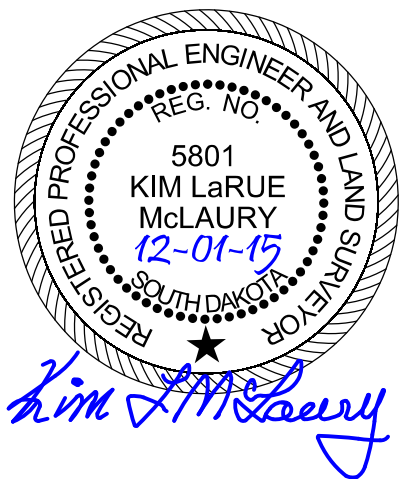
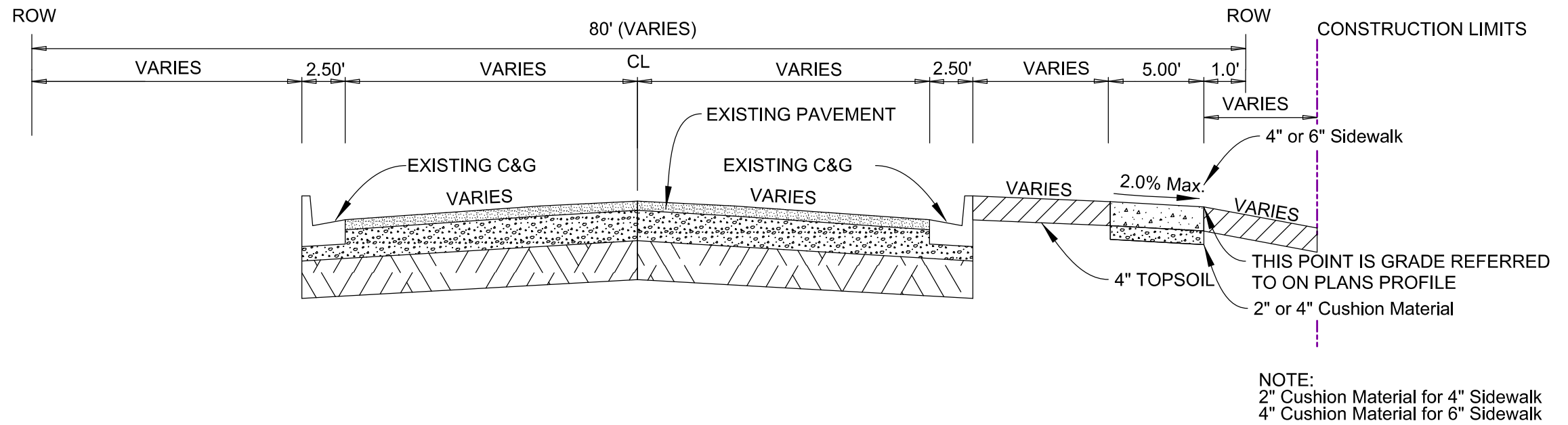
TYPICAL GRADING

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (34)	11	48

HIGHWAY 11 STA 1+00 TO 1+41.25 STA 6+50 TO 12+36.12



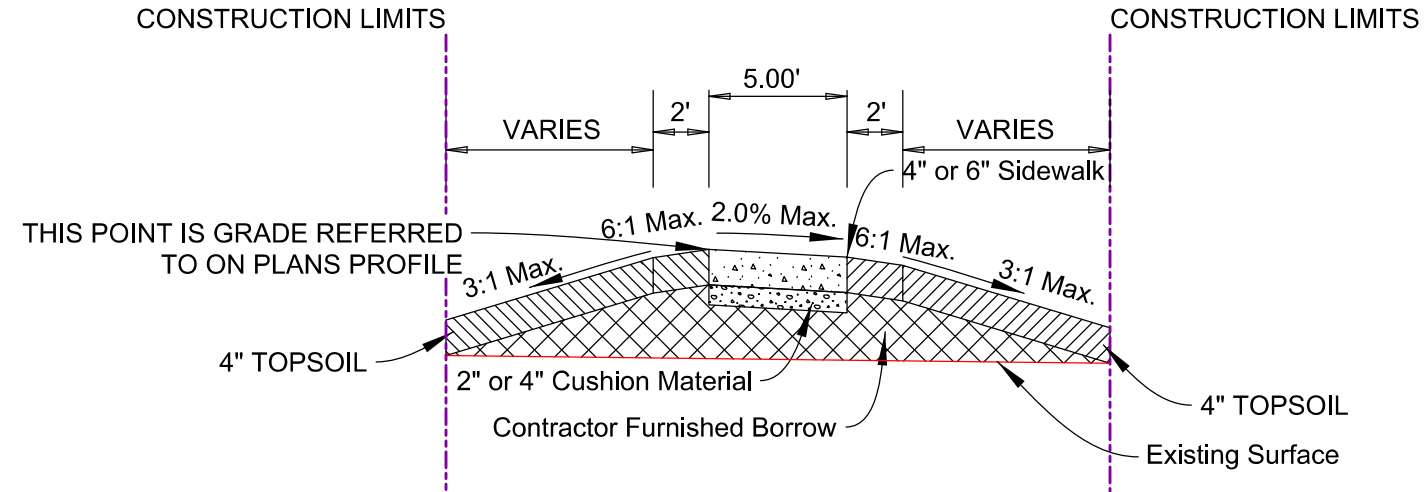
HIGHWAY 11 STA 1+41.25 TO 6+50



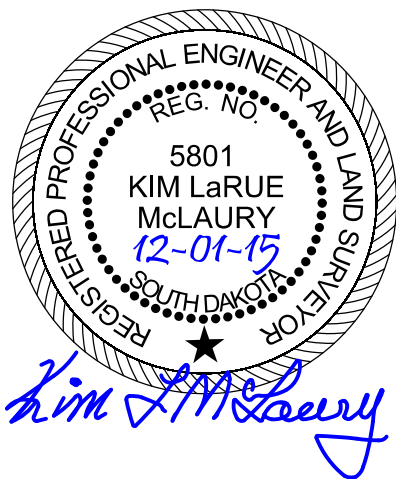
TYPICAL GRADING

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (34)	12	48

PARK SIDEWALK STA 31+00.0 TO 34+20.0 (HWY 11 TO EXISTING PARK SIDEWALK)



NOTE:
2" Cushion Material for 4" Sidewalk
4" Cushion Material for 6" Sidewalk



HORIZONTAL ALIGNMENT DATA

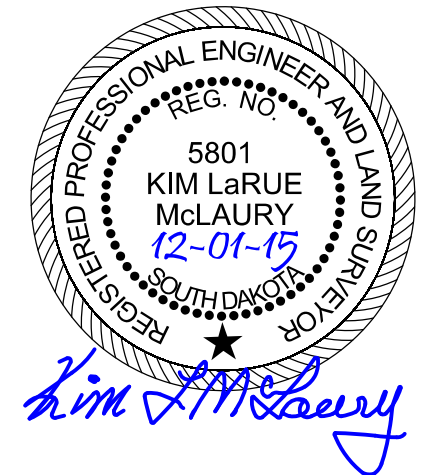
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (34)	13	48

HIGHWAY 11 CENTERLINE

Type	Station		Northing	Easting
POB	0+00.00		15637332.006	2274451.716
		TL= 45.29 N 1°41'29" W		
PI	0+45.29		15637377.273	2274450.379
		TL= 45.29 N 1°41'29" W		
PI	0+90.57		15637422.540	2274449.043
		TL= 74.88 N 1°47'26" W		
PI	1+65.45		15637497.382	2274446.703
		TL= 262.01 N 1°46'09" W		
PI	4+27.46		15637759.269	2274438.614
		TL= 66.14 N 1°33'49" W		
PI	4+93.61		15637825.388	2274436.809
		TL= 541.87 N 1°33'49" W		
PI	10+35.48		15638367.057	2274422.024
		TL= 160.47 N 1°28'36" W		
PI	11+95.95		15638527.475	2274417.889
		TL= 134.72 N 1°29'59" W		
POE	13+30.66		15638662.144	2274414.364

PARK SIDEWALK ALIGNMENT

Type	Station		Northing	Easting
POB	30+95.00		15637432.987	2274481.932
		TL= 5.00 S 2°09'24" E		
PC	31+00.00		15637427.991	2274482.120
PI	31+19.86	R= 20.00 Delta = 89°36'42" L	15637408.140	2274502.106
PT	31+31.28		15637408.753	2274502.723
		TL= 162.46 N 88°13'54" E		
PC	32+93.74		15637413.766	2274665.109
PI	33+37.92	R= 45.00 Delta = 88°56'18" L	15637415.129	2274709.262
PT	33+63.30		15637459.300	2274708.717
		TL= 13.45 N 0°42'24" W		
PC	33+77.05		15637472.750	2274708.551
PI	33+96.95	R= 20.00 Delta = 89°43'36" R	15637492.653	2274708.306
PT	34+08.37		15637492.994	2274728.208
		TL= 91.61 N 89°01'12" E		
POE	34+99.98		15637494.561	2274819.808



CONTROL DATA

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (34)	14	47

HORIZONTAL AND VERTICAL CONTROL POINTS					
POINT	STATION & OFFSET	DESCRIPTION	NORTHING	EASTING	ELEVATION
CP1	1+65.44 - 40.00' R	PROPERTY CORNER - REBAR W/CAP-3029 DAN	15637498.6240	2274486.6840	1407.7100
CP2	4+27.61 - 40.00' R	PROPERTY CORNER - 5/8" REBAR	15637760.5030	2274478.5950	1411.9400
CP3	10+35.51 - 40.00' R	PROPERTY CORNER - 5/8" REBAR	15638368.1180	2274462.0100	1420.6600
CP4	11+95.95 - 40.00' R	PROPERTY CORNER - 5/8" REBAR	15638528.5130	2274457.8760	1420.1300
CP5	31+24.81 - 21.75' R	PROPERTY CORNER - REBAR W/CAP-3029 DAN	15637388.7670	2274490.0570	1404.2800
CP6	32+67.99 - 19.61' R	PROPERTY CORNER - REBAR W/CAP-3029 DAN	15637393.3750	2274639.9740	1396.1000

The coordinates shown on this sheet are based on the South Dakota State Plane Corrdinate System. South Zone (NAD 83/2007);
 Geoid 09; SF=0.99993757
 The elevations shown on this sheet are based on NAVD 88.







EXISTING TOPOGRAPHY SYMBOLOLOGY AND LEGEND

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

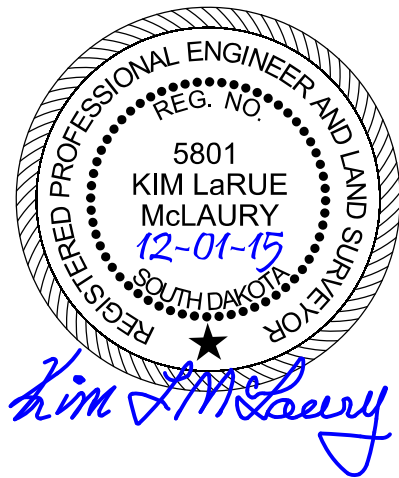
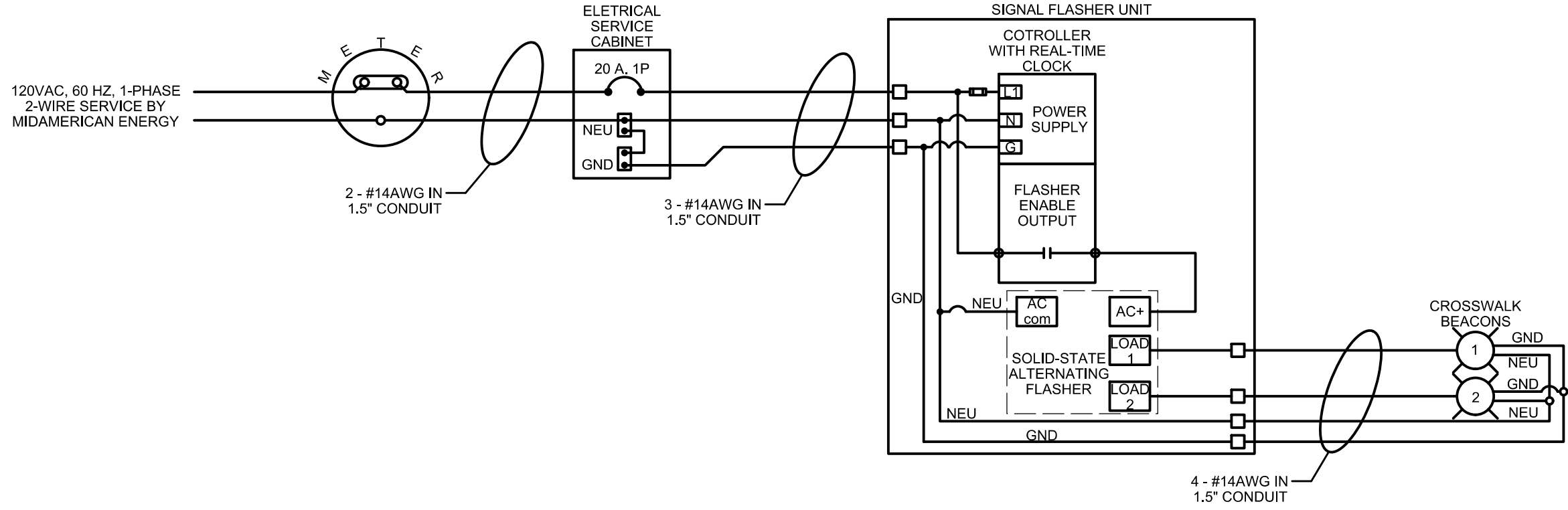
SIGN REMOVAL AND INSTALLATION TABLE

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS(34)	17	47

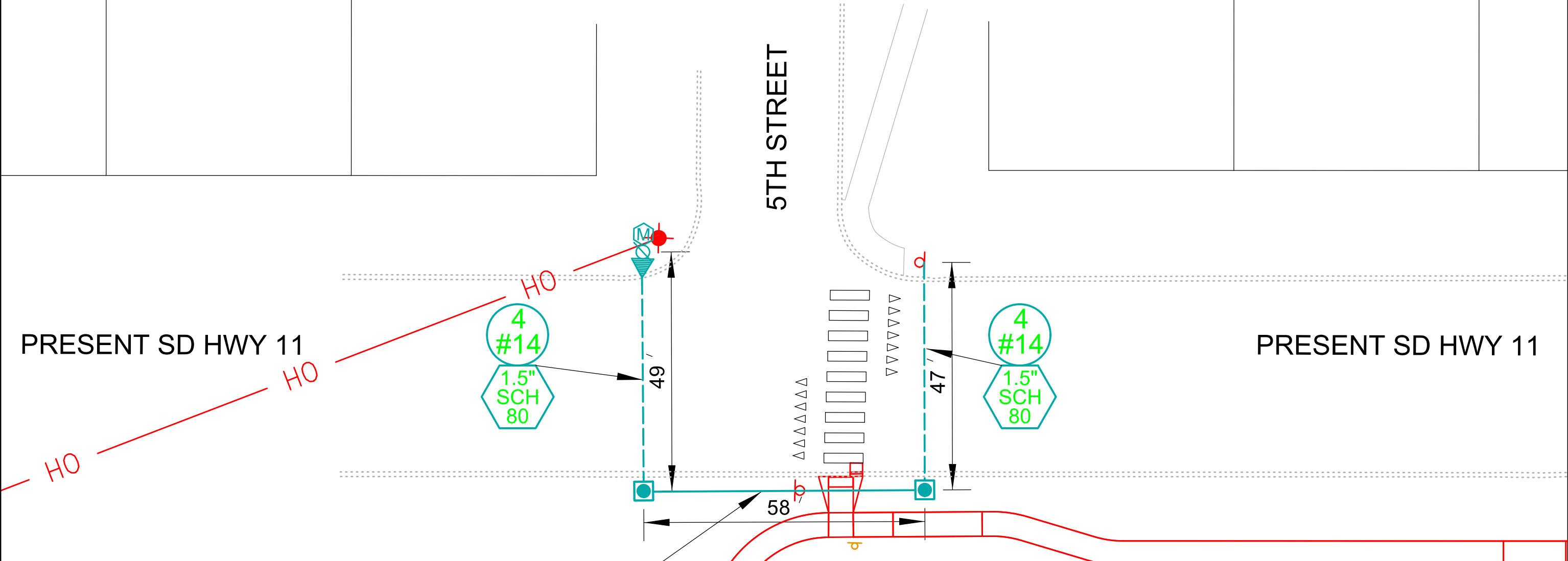
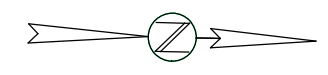
SIGN DATA							COMMENTS	NEW POST DATA				FOOTING DATA				
STATION	DESCRIPTION	REMOVE AND RESET^	SIGN CODE	SIGN SIZE (FT)	OFFSET* (R)IGHT/(L)EFT	SIGN FACES		POST LENGTHS ***		FIXED OR BREAK-AWAY**	SIZE/QUANTITY (FT)		FOOTINGS (FT)		FOOTING LENGTHS	
								INSIDE	OUTSIDE		2.5" x 2.5" TUBE		1.25' DIA.		INSIDE	OUTSIDE
		632E3520								632E1340		632E0010				
0+89 R		1{W}	S1-1	2.5 X 2.5	2.0' R	South	Salvage Existing Signs, Remove Existing Sign Post, Set New Post, and Remount Signs with Flashing Beacon	11.0'	S	11.0		4.0		4.0'		
0+89 R		1{W}	W16-7P	2.0 X 1.0		South										
1+14 L		1{W}	S1-1	2.5 X 2.5	2.0' L	North	Salvage Existing Signs, Remove Existing Sign Post, Set New Post, and Remount Signs with Flashing Beacon	11.0'	S	11.0		4.0		4.0'		
1+14 L		1{W}	W16-7P	2.0 X 1.0		North										



WIRING DIAGRAM



SCHOOL ZONE SIGNING & FLASHING BEACONS



ESTIMATE OF QUANTITIES			
KEY	ITEM	EST QUANTITY	UNIT
	TYPE 1 ELECTRICAL JUNCTION BOX	2	EACH
	ELECTRICAL SERVICE CABINET	1	EACH
	SIGNAL FLASHER UNIT	1	EACH
	GALVANIZED STEEL UTILITY POLE	1	EACH
	METER SOCKET	1	EACH
	1.5" RIGID GALVANIZED STEEL CONDUIT	39	FT
	1.5" RIGID CONDUIT, SCHEDULE 40	58	FT
	1.5" RIGID CONDUIT, SCHEDULE 80	96	FT
	1/C #14 AWG COPPER WIRE	725	FT

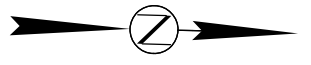
NOTE: 1.5" RIGID GALVANIZED STEEL CONDUIT TO BE USED IN ABOVE GROUND CONDUIT LOCATIONS ON THE GALVANIZED STEEL UTILITY POLE AND THE FLASHING BEACONS OR AS OTHERWISE SHOWN ON THE PLANS.



TRAFFIC CONTROL

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (34)	20	48

Rev 01/22/16 MDN



CONTRACTOR SHALL HAVE 24 HOUR ON CALL PERSON TO MANAGE TRAFFIC CONTROL SIGNS. CONTRACTOR SHALL PROVIDE NAME AND PHONE NUMBER TO THE ENGINEER AT THE PRECONSTRUCTION MEETING.

SIGN SPACING MAY BE ADJUSTED FOR SITE CONDITIONS.

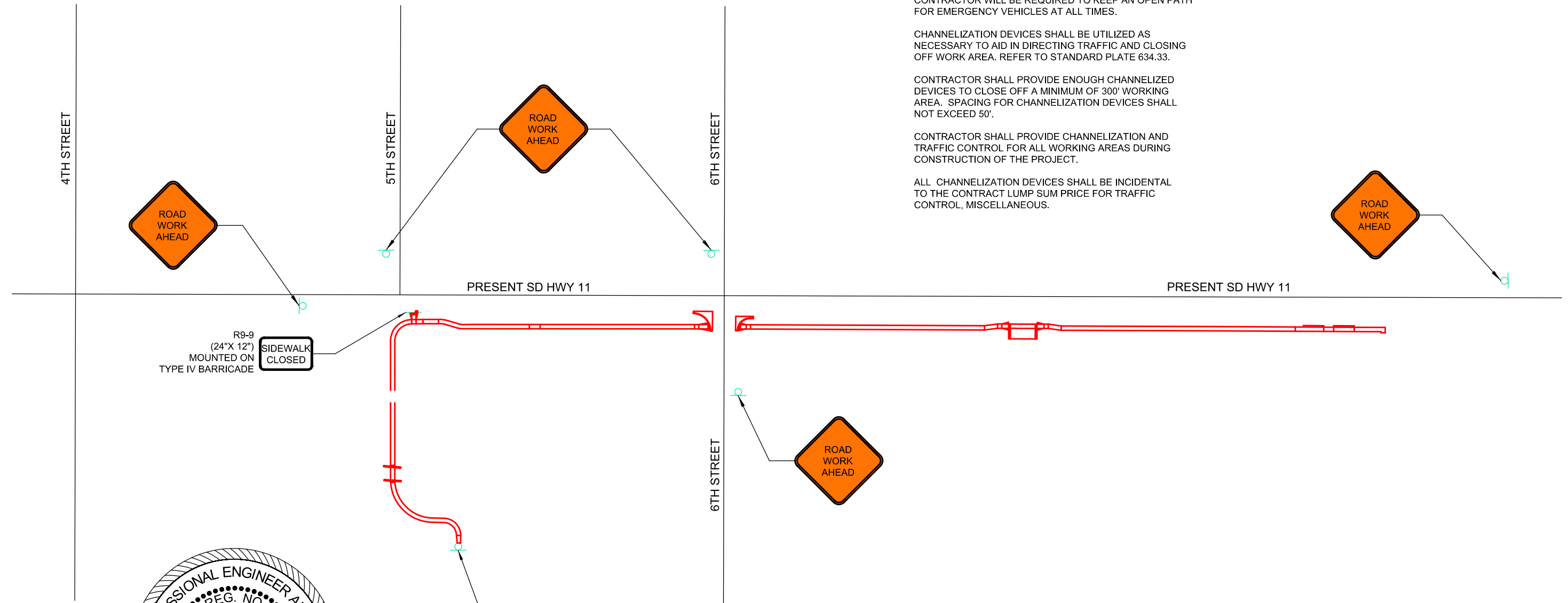
CONTRACTOR WILL BE REQUIRED TO KEEP AN OPEN PATH FOR EMERGENCY VEHICLES AT ALL TIMES.

CHANNELIZATION DEVICES SHALL BE UTILIZED AS NECESSARY TO AID IN DIRECTING TRAFFIC AND CLOSING OFF WORK AREA. REFER TO STANDARD PLATE 634.33.

CONTRACTOR SHALL PROVIDE ENOUGH CHANNELIZED DEVICES TO CLOSE OFF A MINIMUM OF 300' WORKING AREA. SPACING FOR CHANNELIZATION DEVICES SHALL NOT EXCEED 50'.

CONTRACTOR SHALL PROVIDE CHANNELIZATION AND TRAFFIC CONTROL FOR ALL WORKING AREAS DURING CONSTRUCTION OF THE PROJECT.

ALL CHANNELIZATION DEVICES SHALL BE INCIDENTAL TO THE CONTRACT LUMP SUM PRICE FOR TRAFFIC CONTROL, MISCELLANEOUS.



Kim LaRue McLaury

ITEMIZED LIST FOR TRAFFIC CONTROL					
SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRE	SqFt PER SIGN	SqFt
R9-9	24" X 12"	SIDEWALK CLOSED	2	2	4
W20-1	48" X 48"	ROAD WORK AHEAD	5	16	80
				TOTAL SqFt	84

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (34)	21	48

By Others:
 4+87.0 - 35.0' R
 4+90.3 - 34.9' R
 Remove and Reset Utility Box

0+89.2 - 23.7' R
 4+27.7 - 25.7' R
 4+80.9 - 41.7' R
 4+92.0 - 41.7' R
 Do Not Disturb Traffic Sign

1+00.3 - 35.0' R
 2+61.3 - 28.2' R
 3+38.3 - 29.3' R
 3+88.9 - 31.0' R
 4+27.3 - 40.9' R
 5+19.7 - 44.3' R
 Do Not Disturb Sign

2+25.2 - 29.2' R
 2+86.6 - 42.8' R
 3+28.4 - 43.2' R
 3+45.6 - 43.3' R
 3+80.4 - 48.7' R
 4+21.5 - 42.7' R
 Do Not Disturb Tree/Bush

2+26.9 - 21.6' R
 Do Not Disturb Mailbox

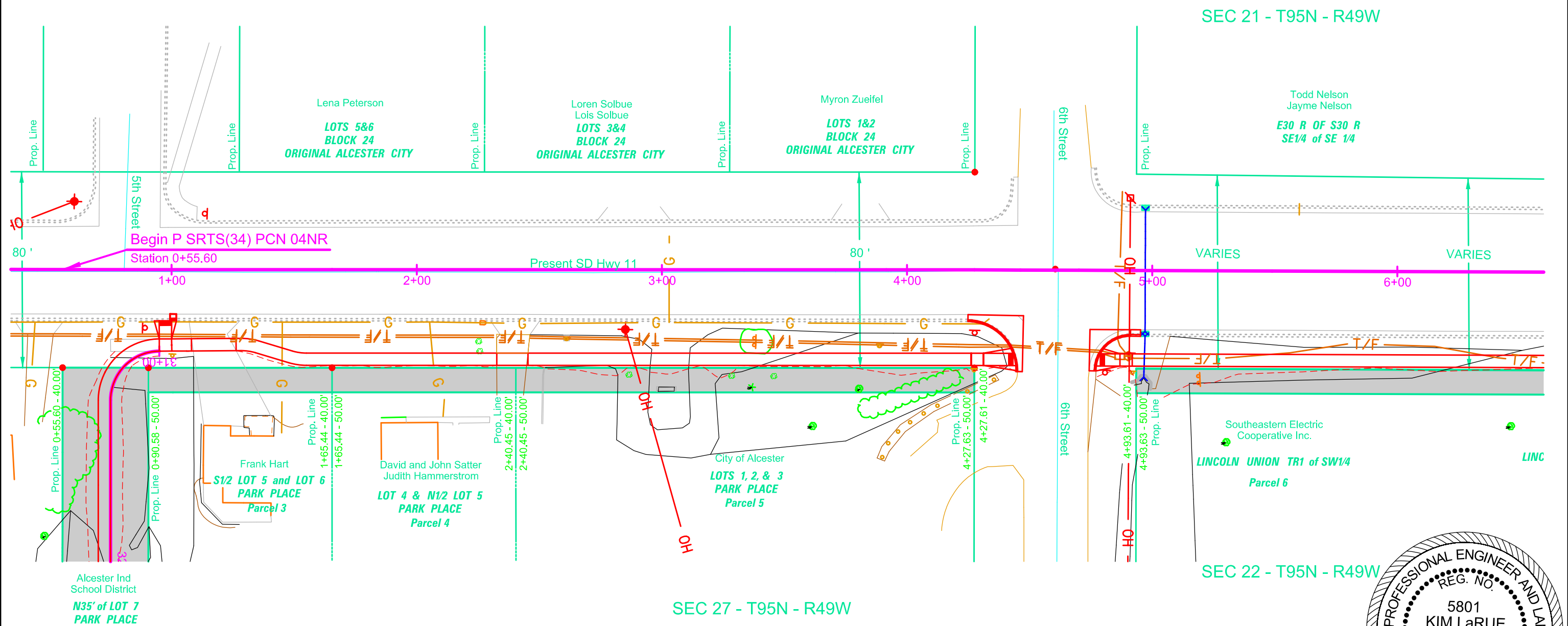
2+85.1 - 24.4' R
 Do Not Disturb Light Pole

4+91.9 - 45.6' R to 4+99.4 - 48.2' R
 Do Not Disturb Retaining Wall

4+77 - 44' R to 5+02 - 48' R
 Remove and Replace Landscape Rock - 58 SY
 (Incidental Work, Grading)

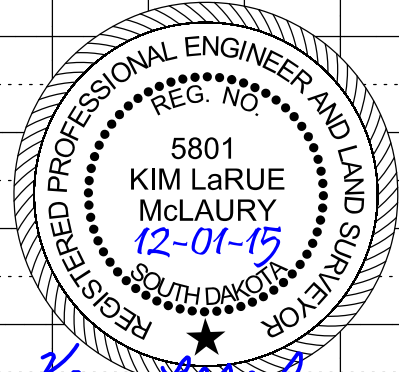
ALCESTER

SEC 28 - T95N - R49W

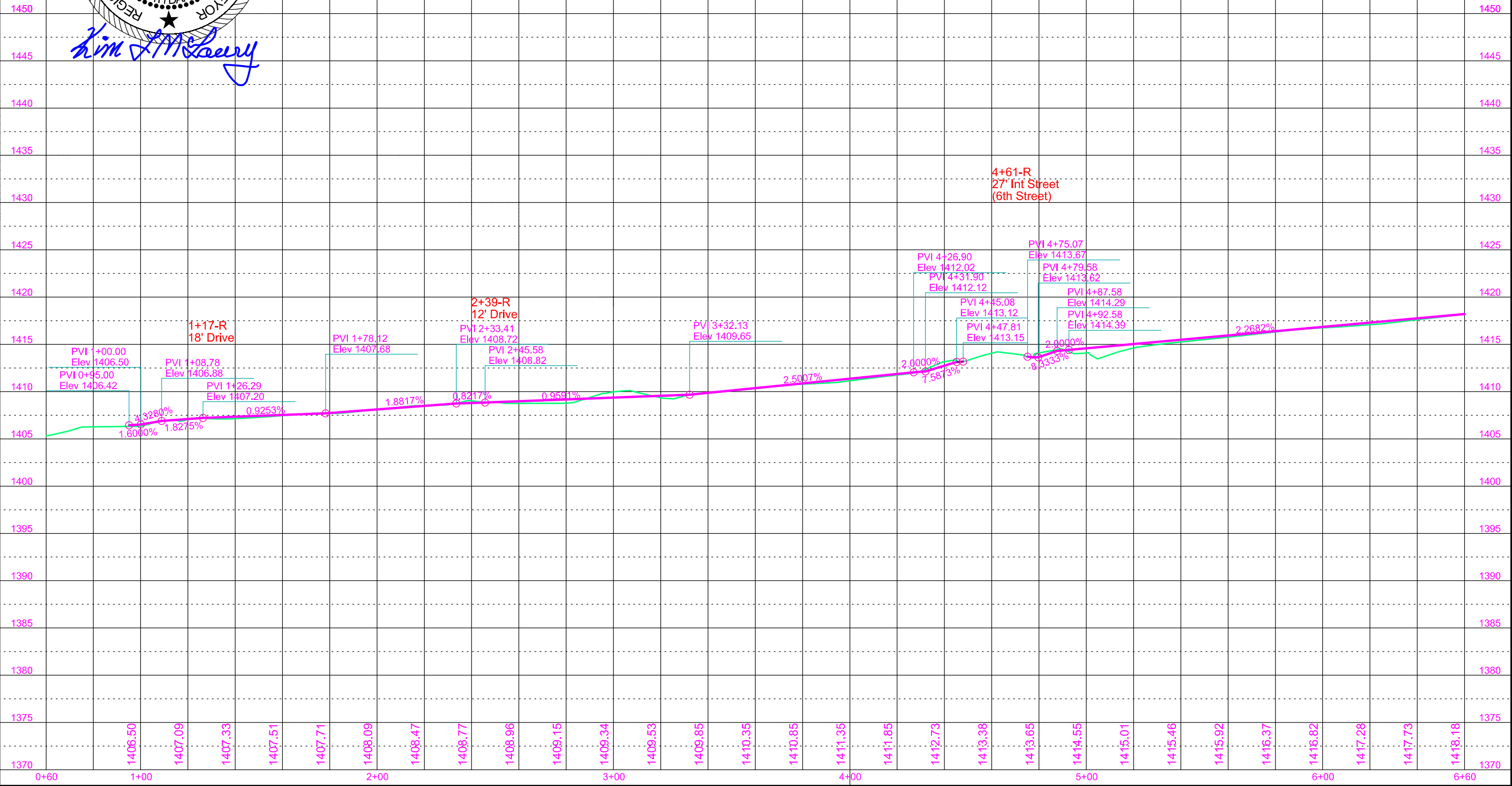


REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
 SOUTH DAKOTA
 REG. NO. 5801
 KIM LaRUE
 McLAURY
 12-01-15

Kim McLaury



Kim LaRue



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (34)	23	48

7+79.5 - 41.0' R
8+34.7 - 30.7' R
Do Not Disturb Traffic Sign

10+52.7 - 28.0' R
12+30.9 - 26.7' R
12+32.1 - 26.7' R
Do Not Disturb Mailbox

10+52 - 34' R
Clear and Grub Stump

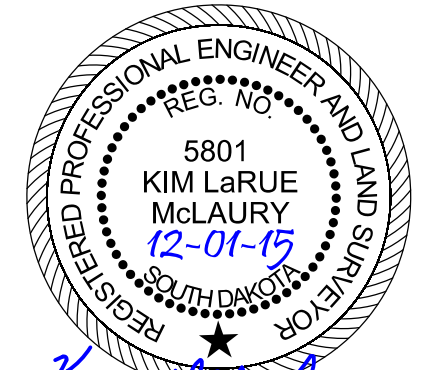
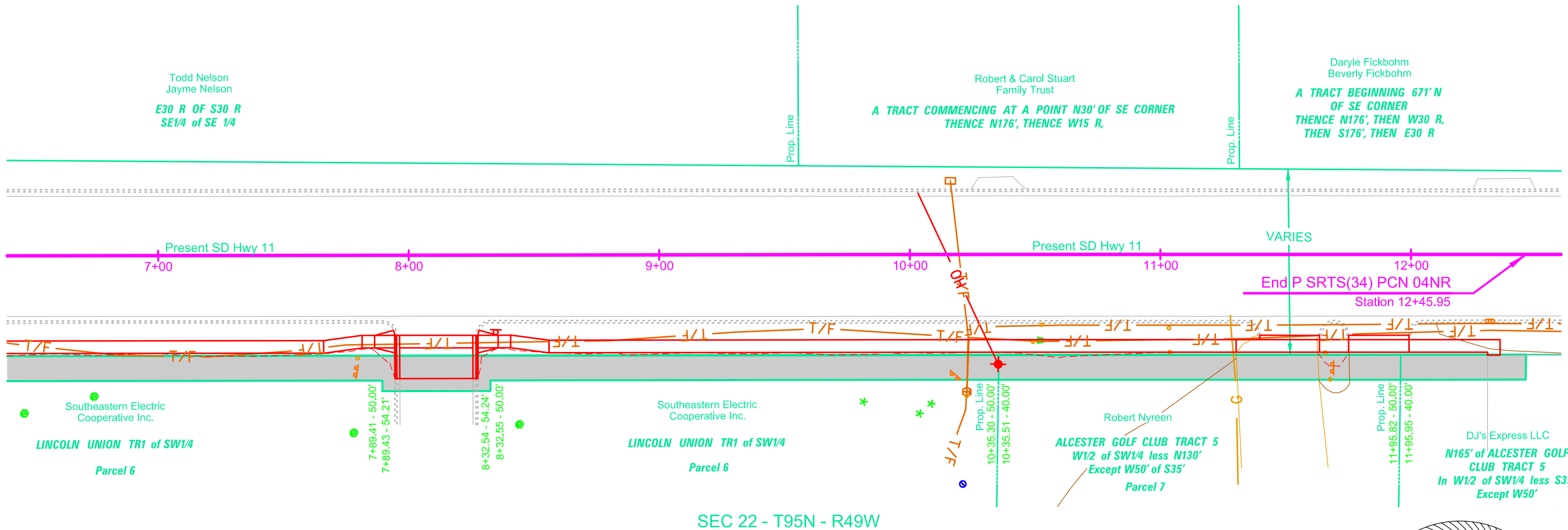
7+79.4 - 46.5' R
10+18.2 - 48.1' R
11+69.2 - 45.3' R
Do Not Disturb Sign

10+35.2 - 43.8' R
Do Not Disturb Light Pole

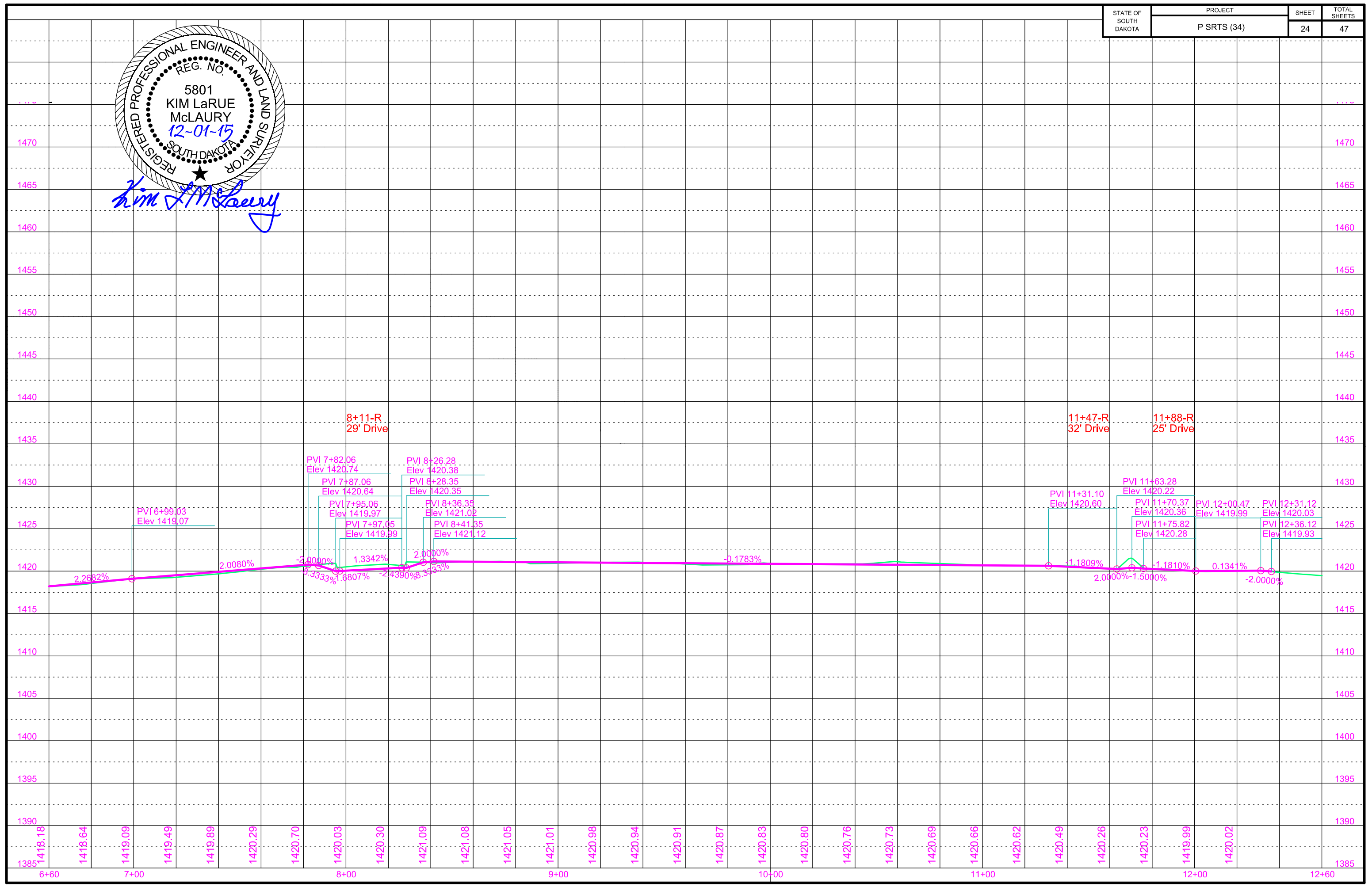
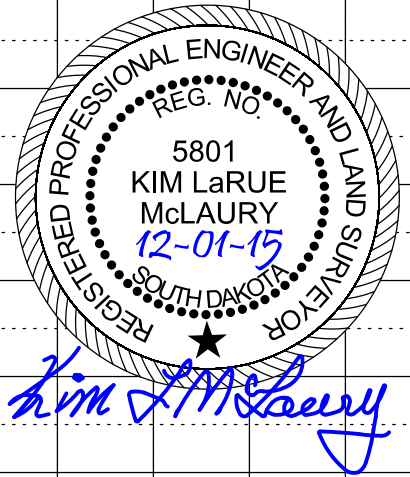


ALCESTER

SEC 21 - T95N - R49W



Kim LaRue McLaury



8+11-R
29' Drive

11+47-R
32' Drive

11+88-R
25' Drive

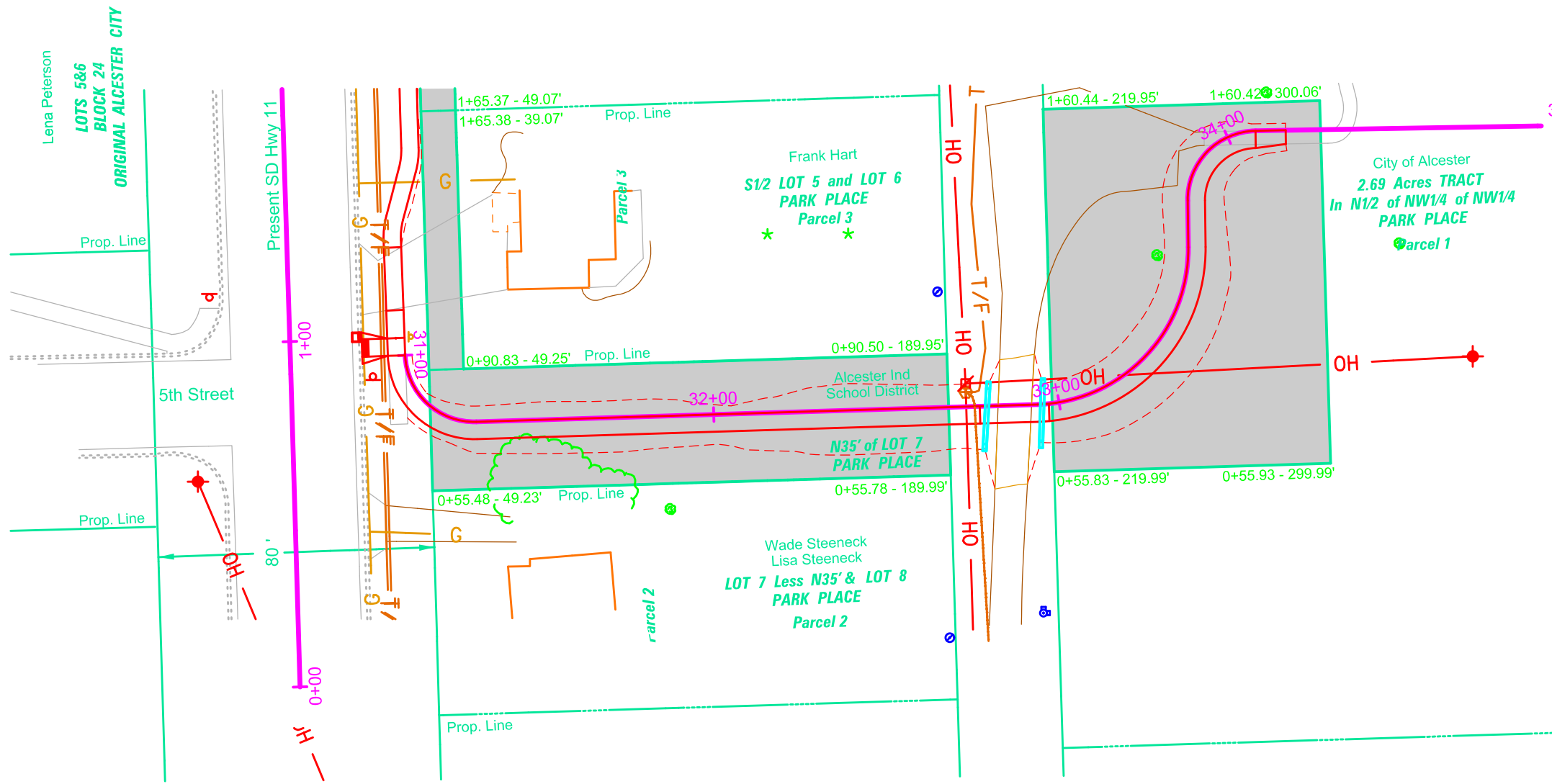
By Others:
 32+73.1 - 4.21' L
 Remove and Reset Utility Box

31+52.0 - 6.2' R
 33+60.8 - 9.0' L
 Do Not Disturb Tree/Bush

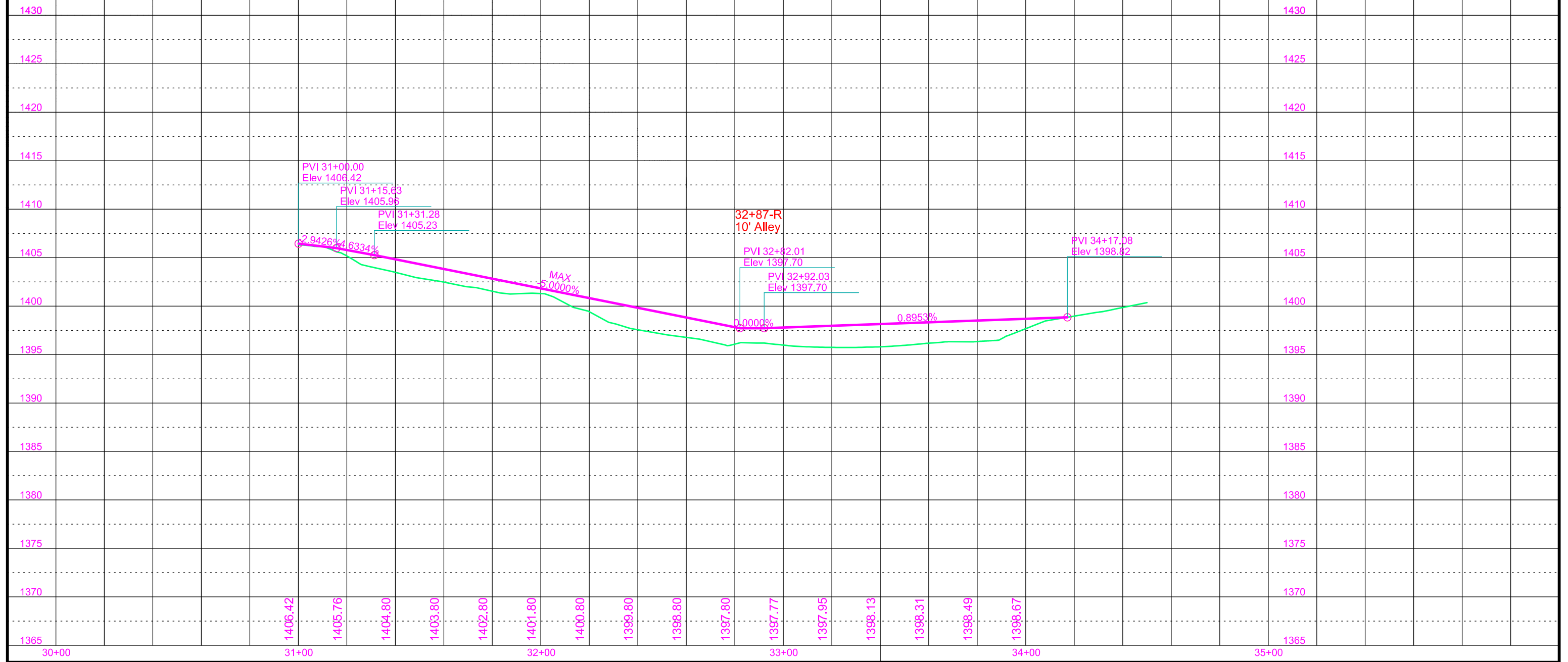
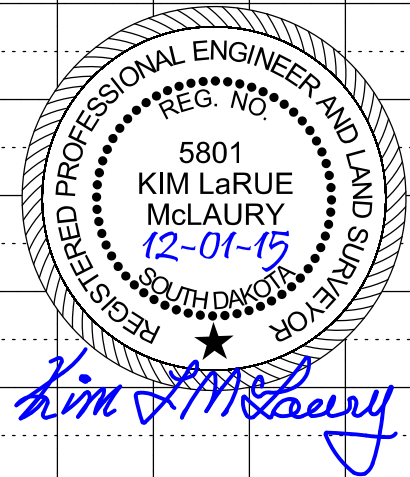
32+78.0-12.94' R to 32+79.8-6.99' L
 Install 12" - 20' HDPE

32+94.2-12.54' R to 32+95.9-7.40' L
 Install 12" - 20' HDPE

32+73.1 - 6.7' L
 Do Not Disturb Light Pole

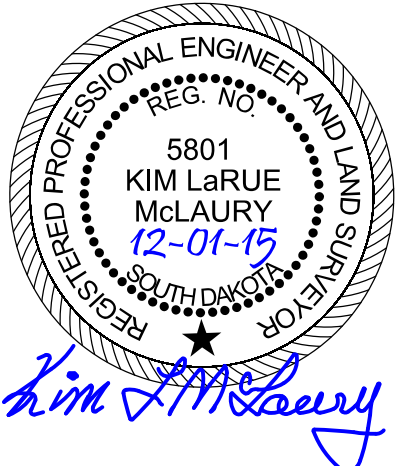
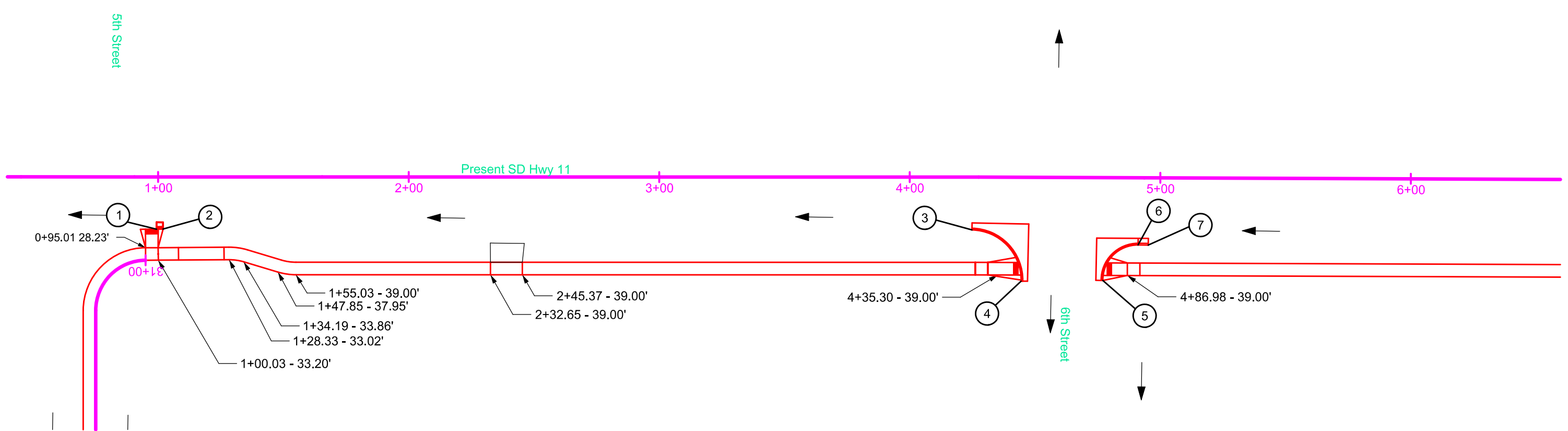


REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
 REG. NO. 5801
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 McLAURY
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CURB & GUTTER LAYOUT

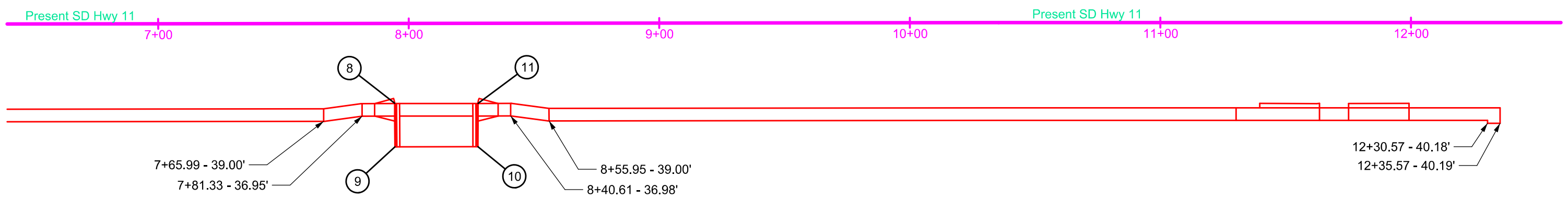
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (34)	27	48



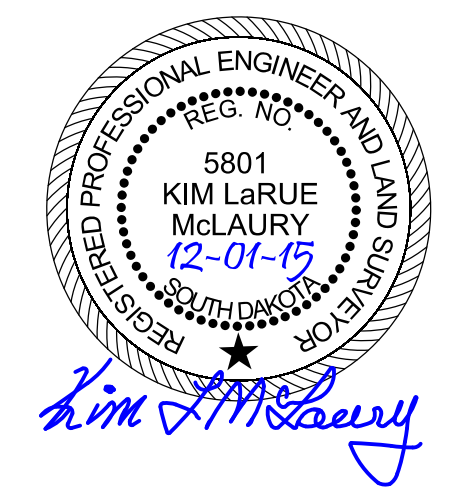
<p>1 0+99.37 - 20.82' R BEGIN STR. C&G TC ELEV. (MATCH EXISTING)</p> <p>2 1+01.93 - 20.76' R END STR. C&G TC ELEV. (MATCH EXISTING)</p> <p>3 4+24.56 - 20.64' R BEGIN 20.00' RAD C&G TC ELEV. (MATCH EXISTING)</p> <p>4 4+44.81 - 40.94' R END 20.00' RAD C&G TC ELEV. 1413.06</p>	<p>5 4+77.28 - 40.68' R BEGIN 14.00' RAD C&G TC ELEV. 1413.50</p> <p>6 4+91.29 - 26.46' R BEGIN 14.00' RAD C&G BEGIN STR. C&G TC ELEV. 1414.67</p> <p>7 4+95.35 - 26.47' R END STR. C&G TC ELEV. (MATCH EXISTING)</p>
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CURB & GUTTER LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (34)	28	48

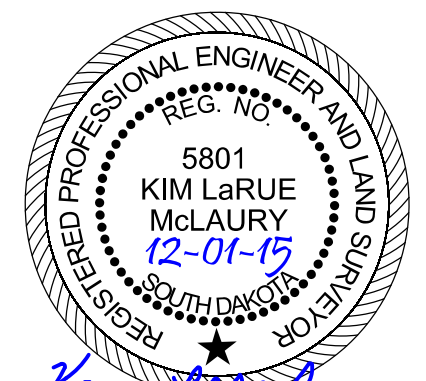
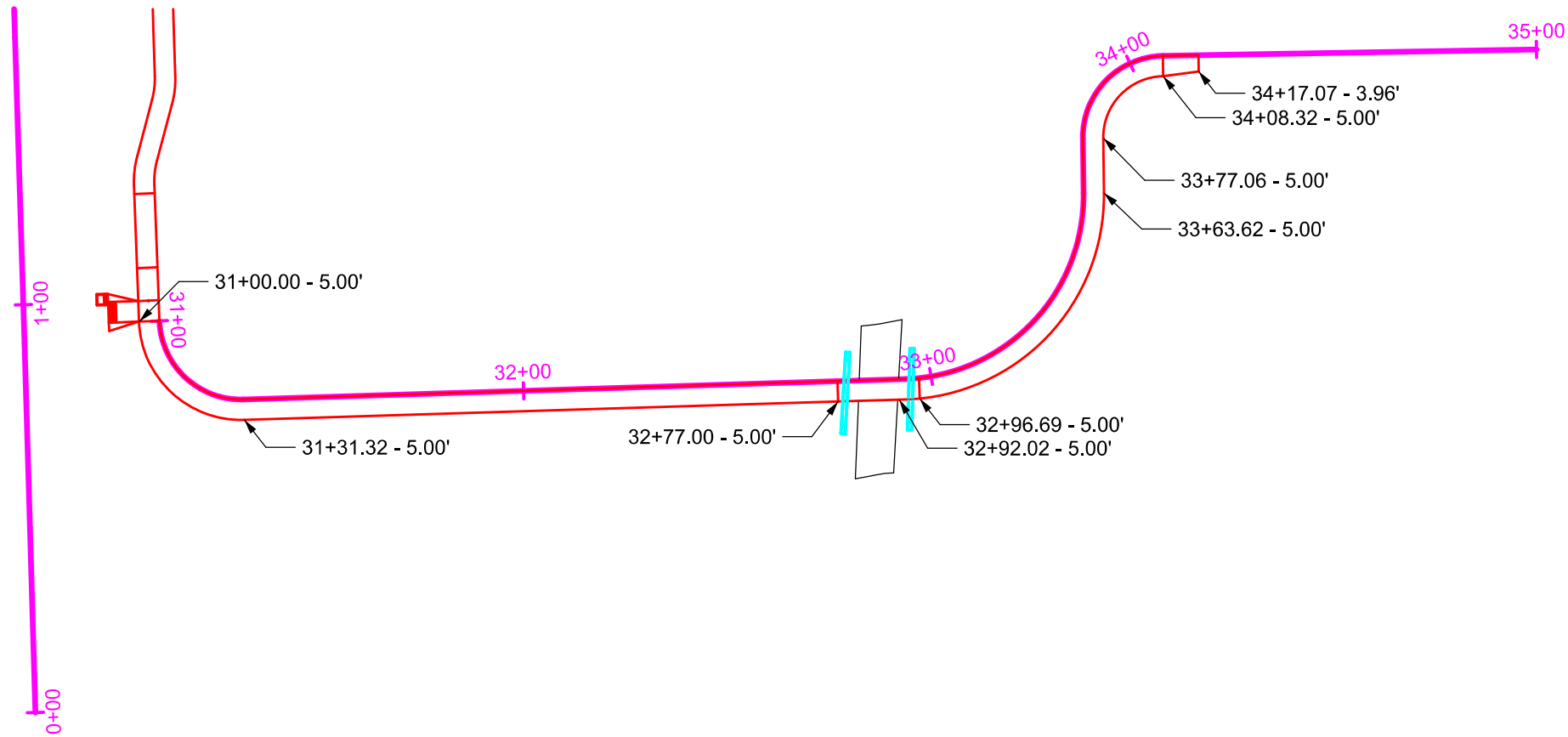


- | | |
|---|---|
| <p>8 7+94.31 - 31.85' R
 BEGIN STR. C&G
 TC ELEV. (MATCH EXISTING)</p> <p>9 7+94.36 - 49.10' R
 END STR. C&G
 TC ELEV. (MATCH EXISTING)</p> | <p>10 8+27.51 - 49.17' R
 BEGIN STR. C&G
 TC ELEV. (MATCH EXISTING)</p> <p>11 8+27.59 - 31.91' R
 END STR. C&G
 TC ELEV. (MATCH EXISTING)</p> |
|---|---|



CURB & GUTTER LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (34)	29	48

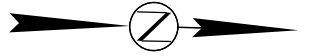


Kim LaRue McLaury

CURB RAMP DETAILS

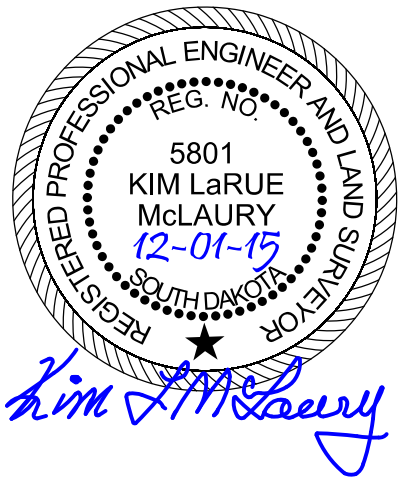
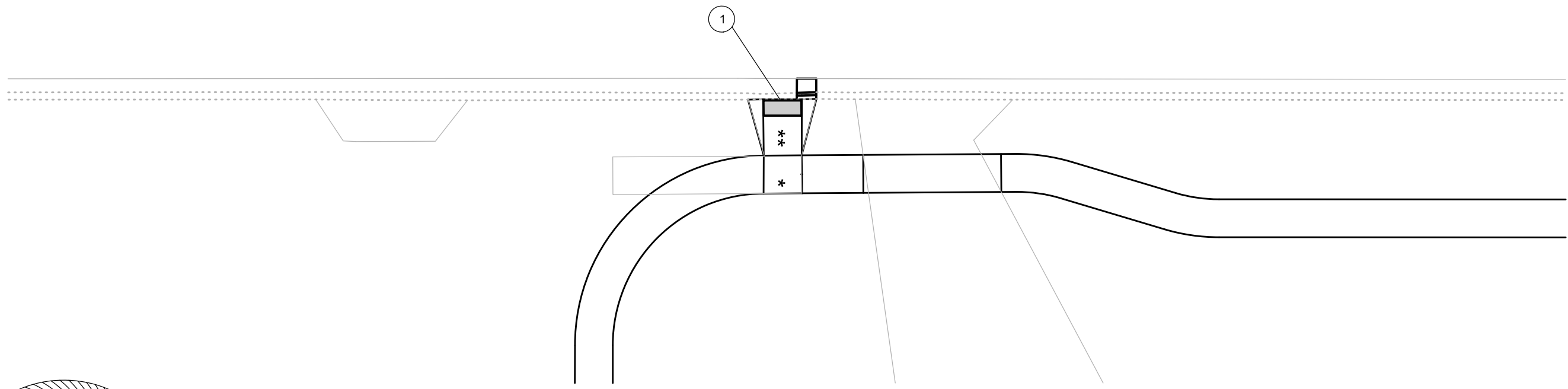
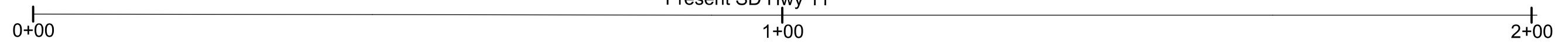
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (34)	30	48

1 0+97.48 - 20.97' R
Center Type 2
Curb Ramp



5th Street

Present SD Hwy 11

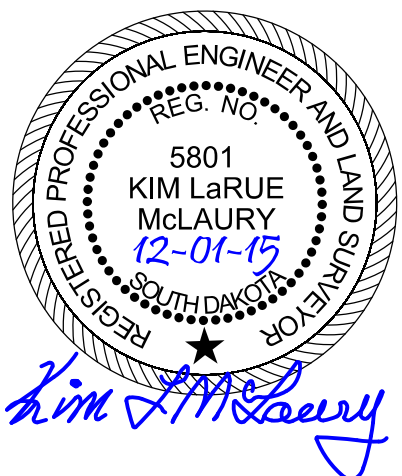
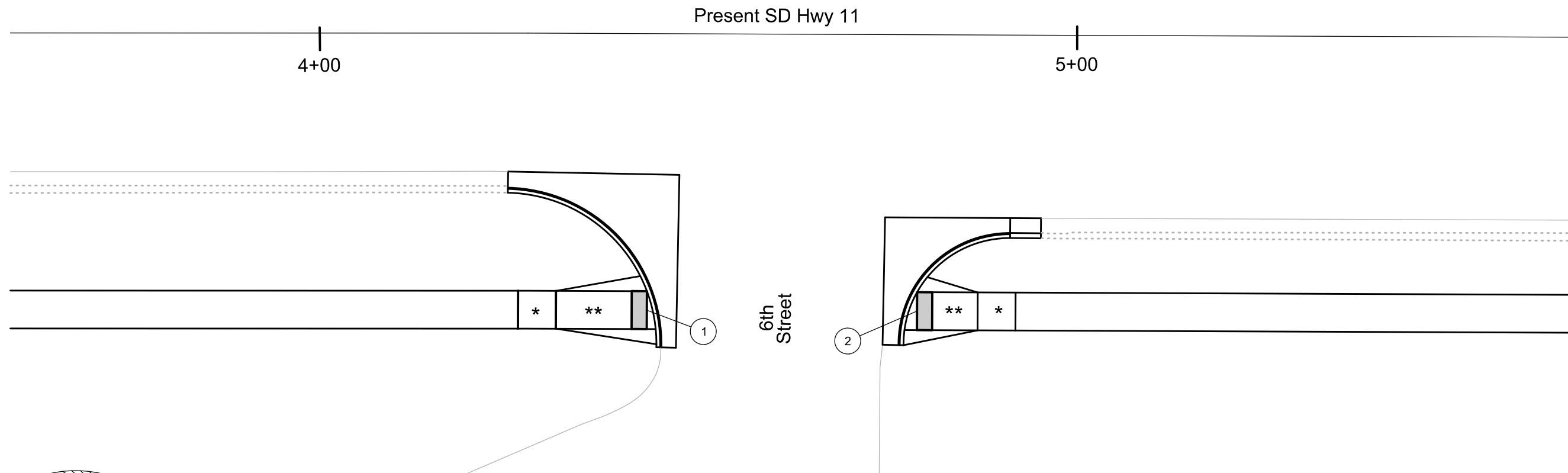


- Legend:
- * Turning Space with 2% maximum slope
 - ** Curb Ramp with 8.3% maximum slope and 2% maximum cross slope
 - Detectable Warning

CURB RAMP DETAILS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (34)	31	48

- 1 4+43.30 - 36.50' R
Center Type 2
Curb Ramp
- 2 4+78.98 - 36.50' L
Center Type 2
Curb Ramp

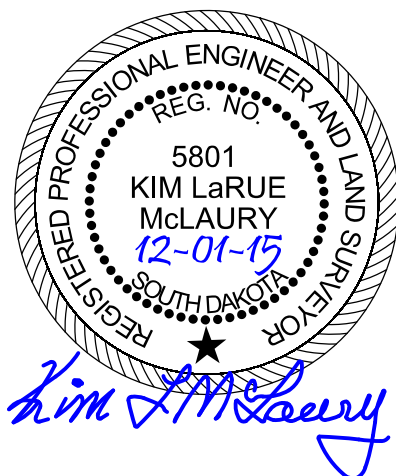
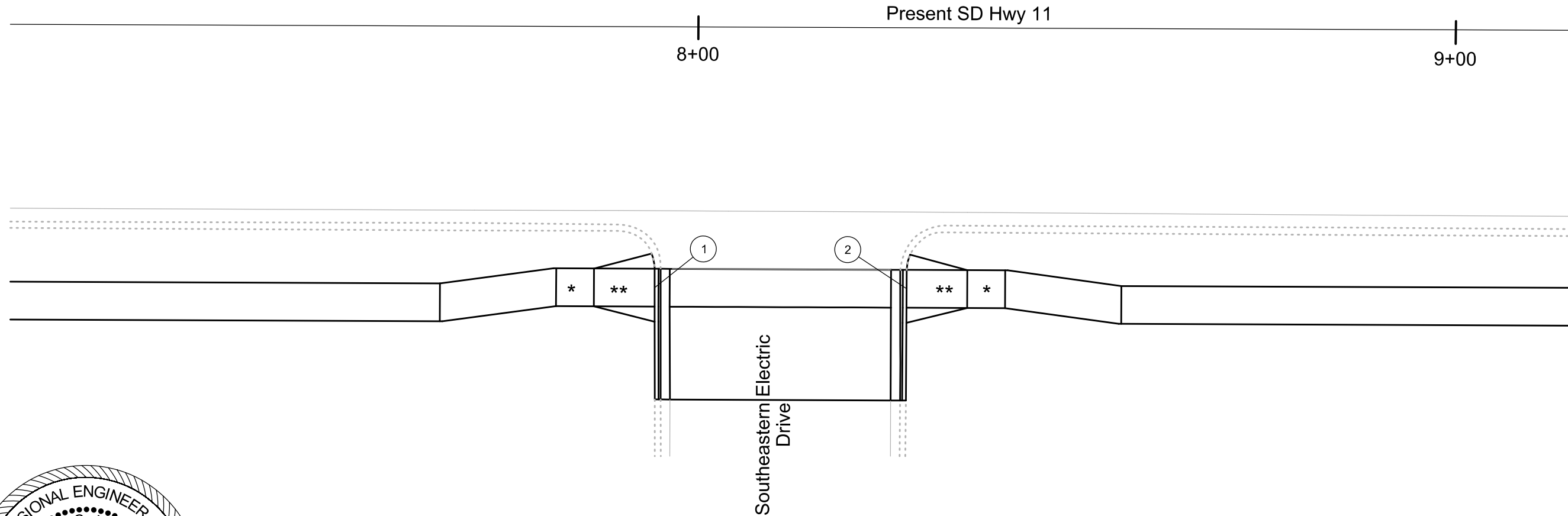


- Legend:
- * Turning Space with 2% maximum slope
 - ** Curb Ramp with 8.3% maximum slope and 2% maximum cross slope
 - Detectable Warning

CURB RAMP DETAILS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (34)	32	48

- 1 7+94.33 - 34.46' R
Center Type 2
Curb Ramp
- 2 8+27.61 - 34.47' R
Center Type 2
Curb Ramp



- Legend:
- * Turning Space with 2% maximum slope
 - ** Curb Ramp with 8.3% maximum slope and 2% maximum cross slope
 - Detectable Warning

EROSION AND SEDIMENT CONTROL PLAN

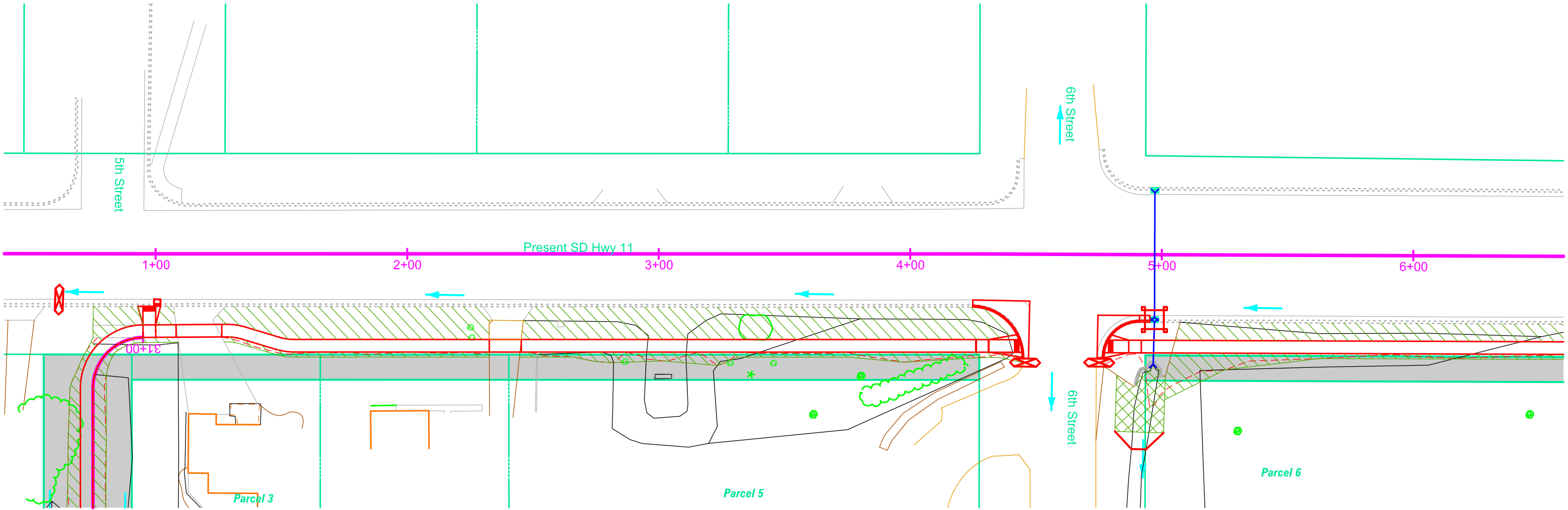
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (34)	33	48

Install Sediment Filter Bags at the following locations:
 0+62 - 18.2' R 5 Ft
 4+46 - 43.1' R 5 Ft
 4+75 - 43.0' R 5 Ft

Install Sediment Control at Inlet with Frame and Grate at the following locations:
 4+97 - 25.79' R

Install Erosion Control Blanket at the following locations:
 4+82 R TO 5+02 R 50 SqYd

Install High Flow Silt Fence at the following locations:
 4+82 R TO 5+01 R 25 Ft



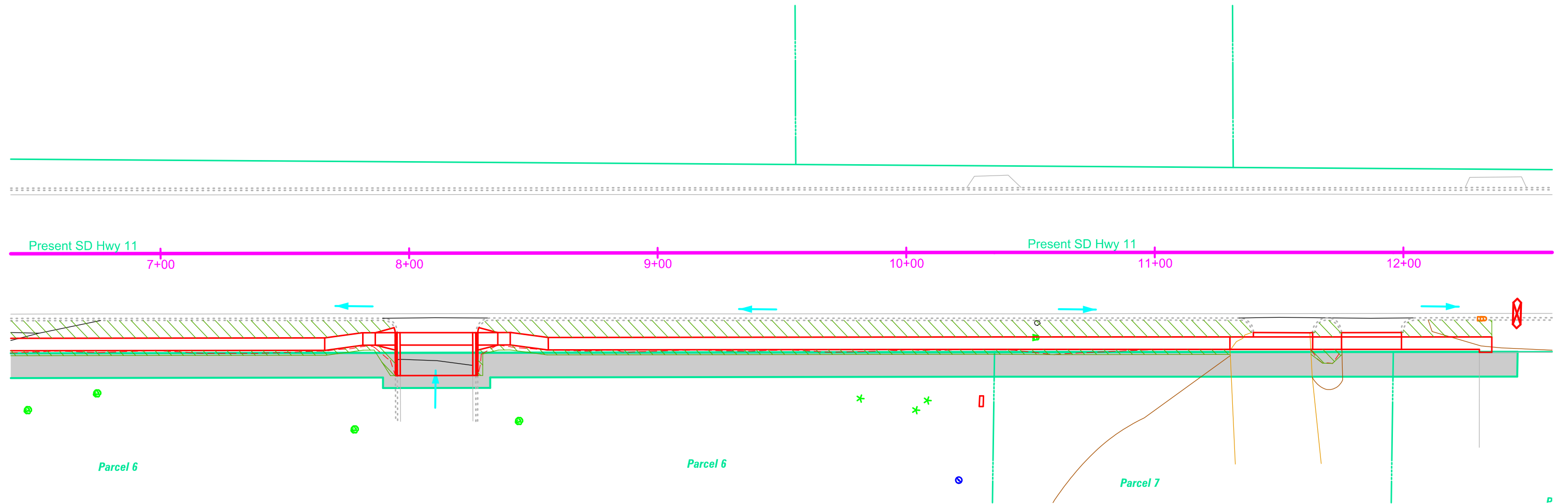
LEGEND

- TYPE D PERMANENT SEED MIXTURE
- EROSION CONTROL BLANKET
- TEMPORARY EASEMENT
- SILT FENCE
- SEDIMENT FILTER BAG
- SEDIMENT CONTROL AT INLET
- DRAINAGE ARROW

EROSION AND SEDIMENT CONTROL PLAN

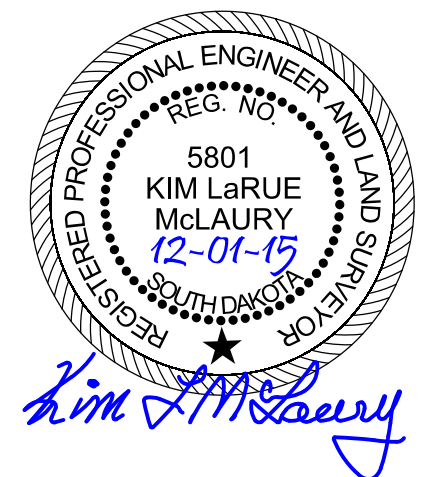
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (34)	34	48

Install Sediment Filter Bags
at the following locations:
12+46 - 24.6' R 5 Ft



LEGEND

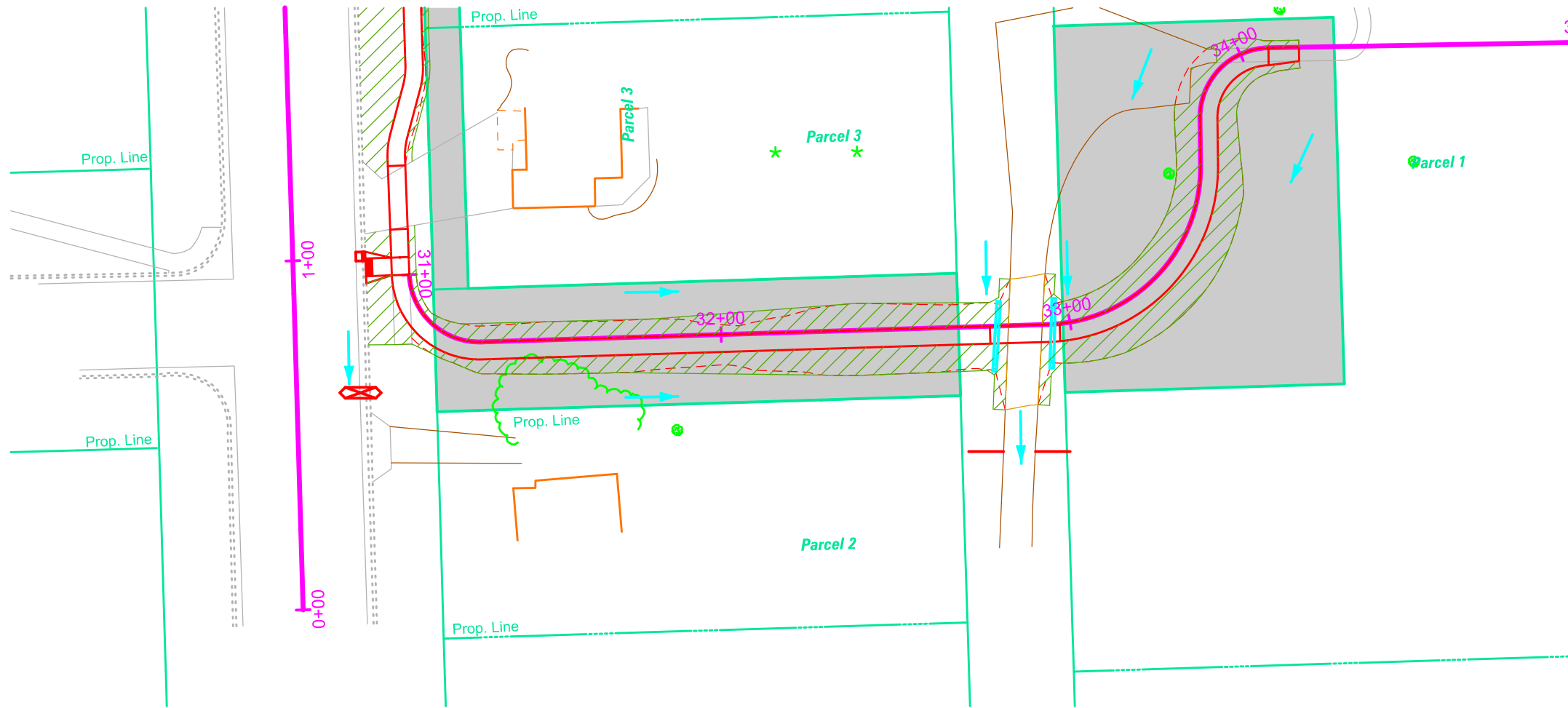
- | | | | |
|---|-------------------------------|---|---------------------------|
|  | TYPE D PERMANENT SEED MIXTURE |  | SILT FENCE |
|  | EROSION CONTROL BLANKET |  | SEDIMENT FILTER BAG |
|  | TEMPORARY EASEMENT |  | SEDIMENT CONTROL AT INLET |
| | |  | DRAINAGE ARROW |










EROSION AND SEDIMENT CONTROL PLAN

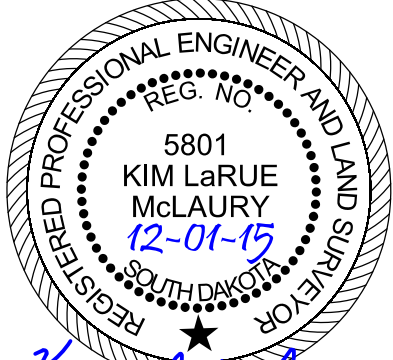
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (34)	35	48

Install High Flow Silt Fence at the following locations:
 32+70 R to 32+80 R 10 Ft
 32+89 R to 32+97 R 10 Ft



LEGEND

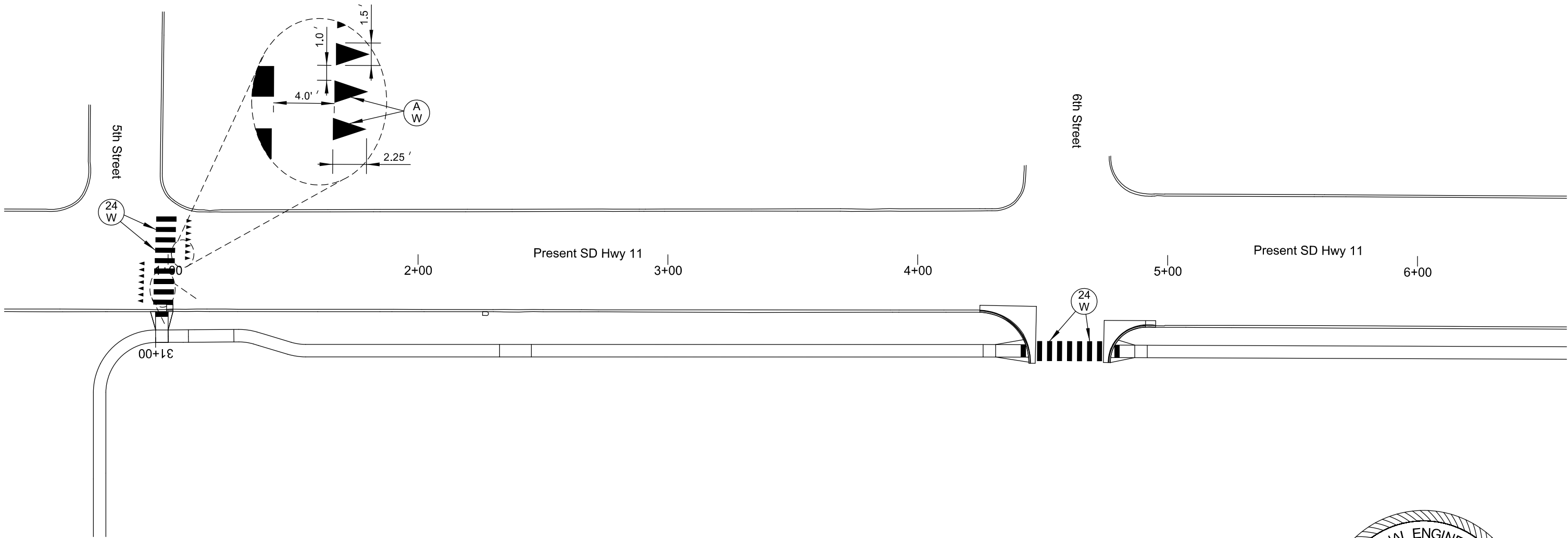
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|---|-------------------------------|---|---------------------------|
|  | TYPE D PERMANENT SEED MIXTURE |  | SILT FENCE |
|  | EROSION CONTROL BLANKET |  | SEDIMENT FILTER BAG |
|  | TEMPORARY EASEMENT |  | SEDIMENT CONTROL AT INLET |
| | |  | DRAINAGE ARROW |





Kim LaRue McLaury

PAVEMENT MARKING LAYOUT

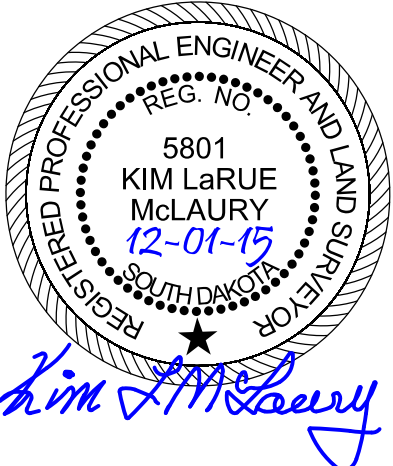
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (34)	36	48



LEGEND

-  COLD APPLIED PLASTIC PAVEMENT MARKING, 24" WHITE
-  COLD APPLIED PLASTIC PAVEMENT MARKING, AREA WHITE

KEY	ITEM	ESTIMATED QUANTITY	UNIT
24 W	COLD APPLIED PLASTIC PAVEMENT MARKING, 24" WHITE	128	FT
A W	COLD APPLIED PLASTIC PAVEMENT MARKING, AREA, WHITE	24	SQFT



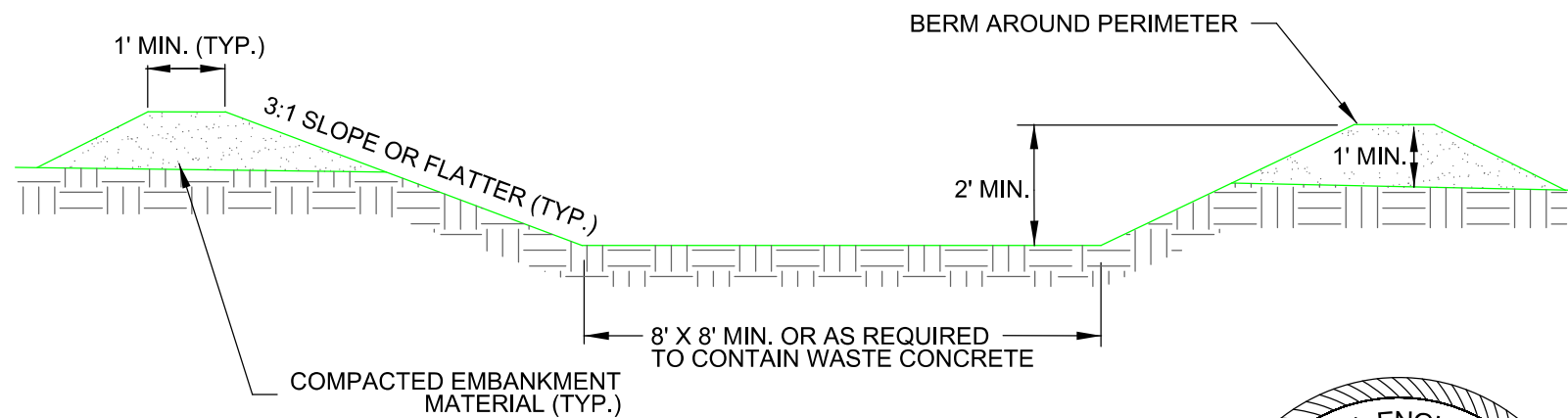
SPECIAL DETAILS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P SRTS (34)	37	48

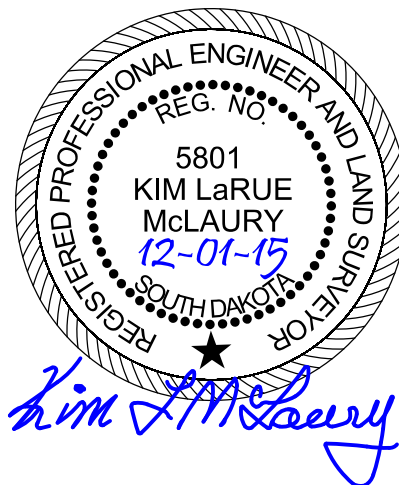
CONCRETE WASHOUT FACILITY

NOTES:

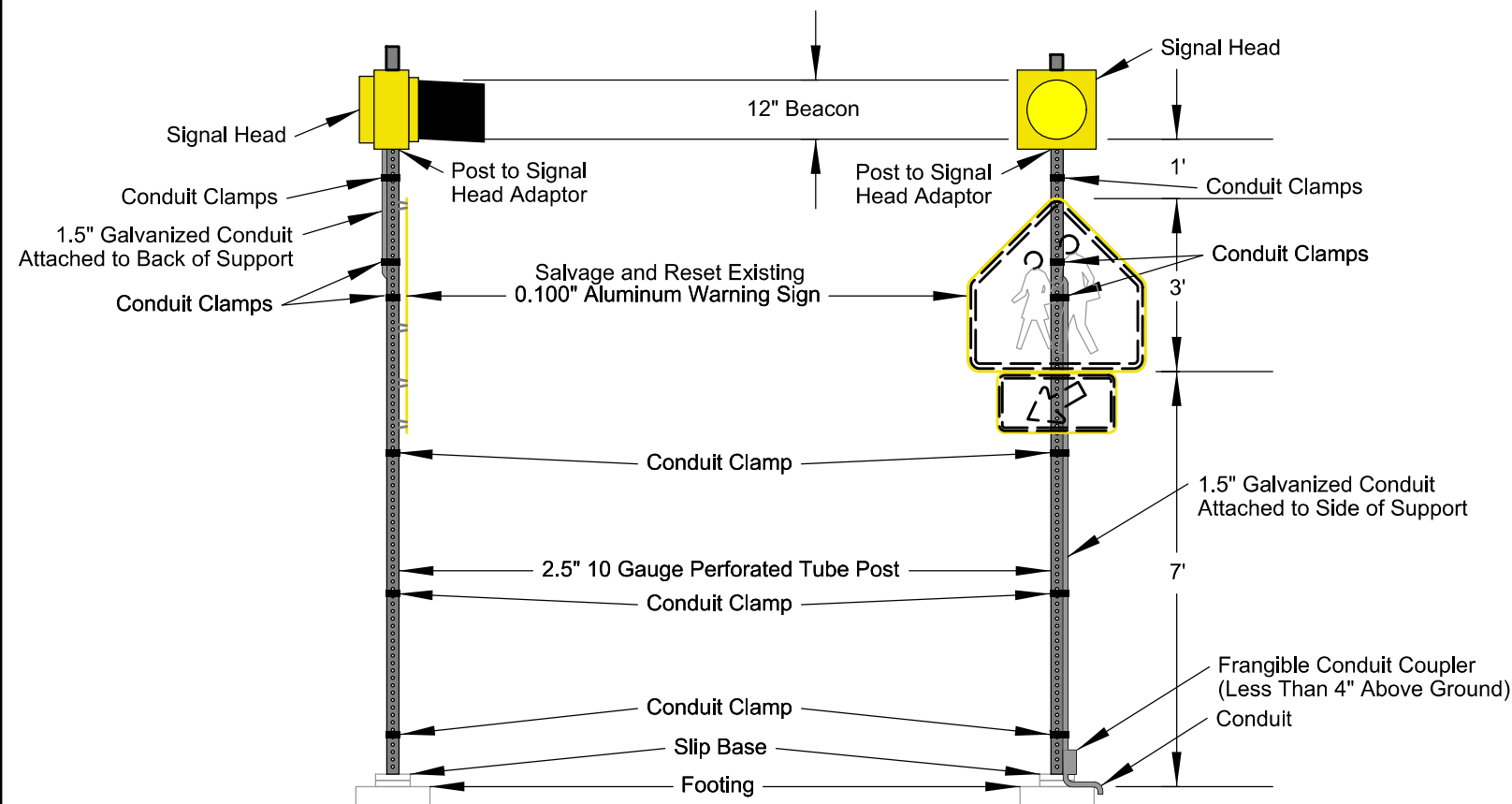
1. CONCRETE WASHOUT FACILITY SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON SITE.
2. A SIGN SHALL BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE CWF.
3. THE CONCRETE WASHOUT FACILITY SHALL BE REPAIRED AND ENLARGED OR CLEANED OUT AS NECESSARY TO MAINTAIN CAPACITY FOR WASTED CONCRETE.
4. WHEN CWF ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE AND MATERIALS USED TO CONSTRUCT THE CWF SHALL BE REMOVED AND DISPOSED OF.
5. WHEN THE CONCRETE WASHOUT FACILITY IS REMOVED, THE HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE SHALL BE BACKFILLED, REPAIRED AND STABILIZED.



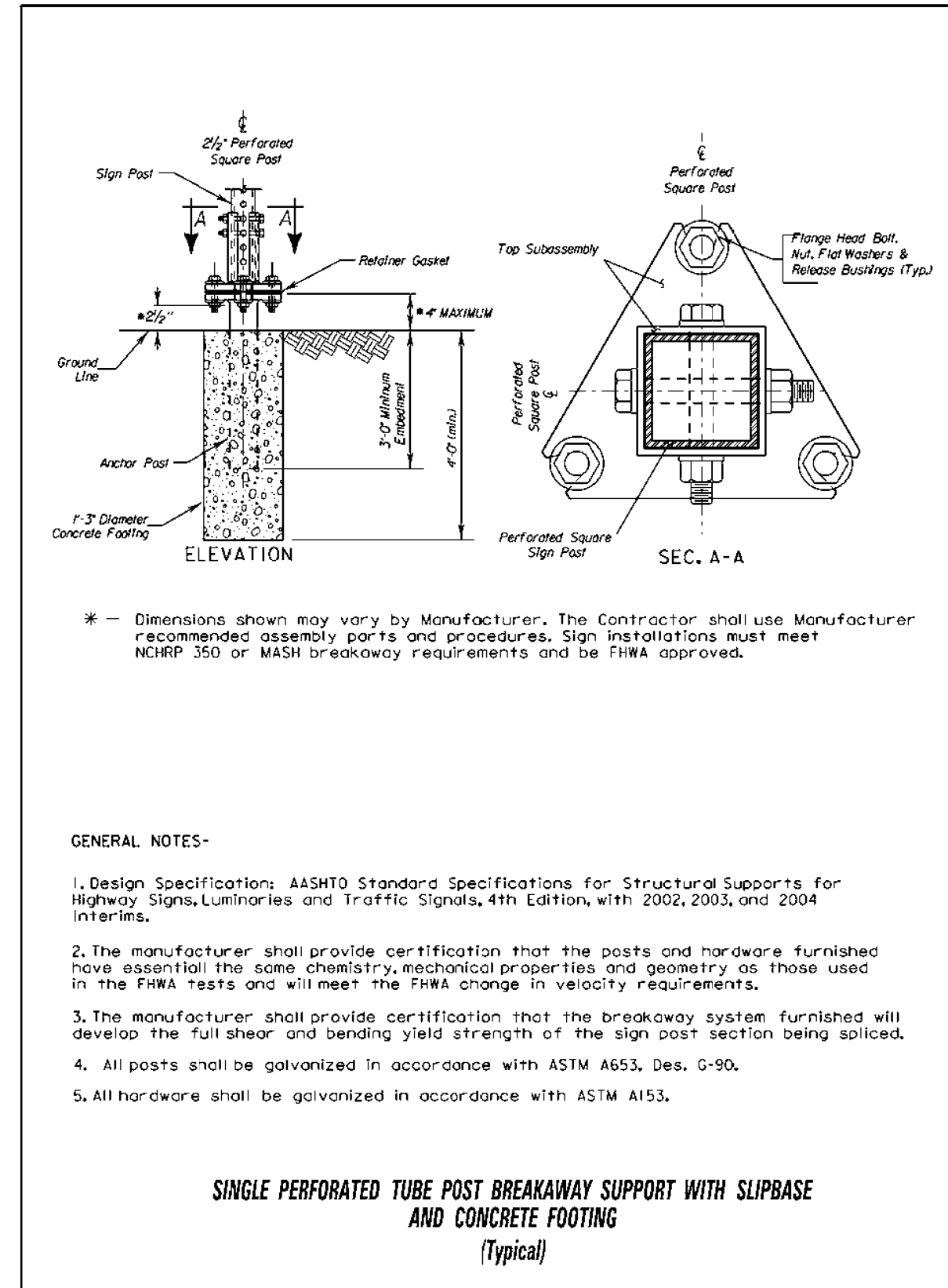
CROSS SECTIONAL VIEW



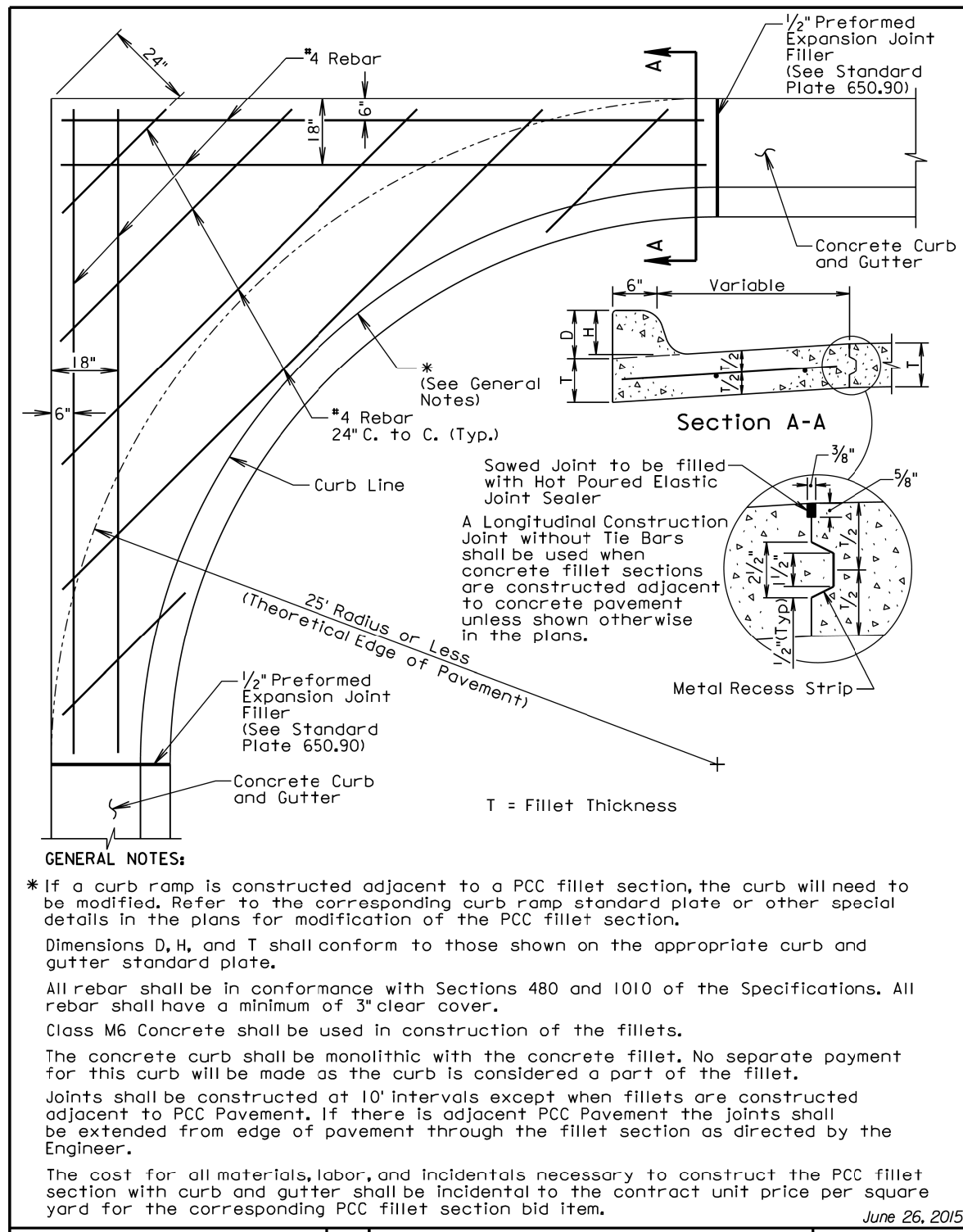
SIGN INSTALLATION



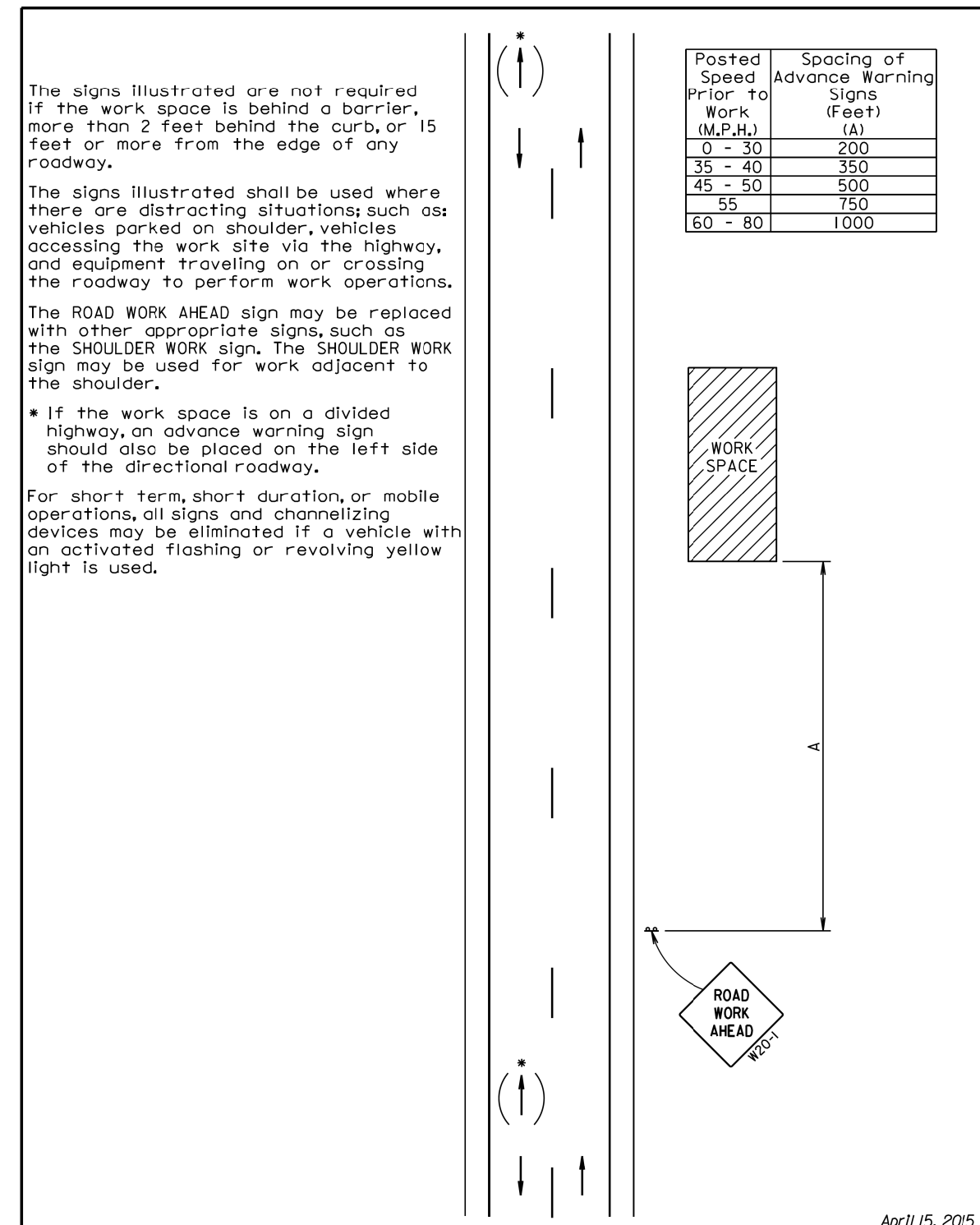
TYPICAL 48" WARNING SIGN ASSEMBLY WITH FLASHING BEACON



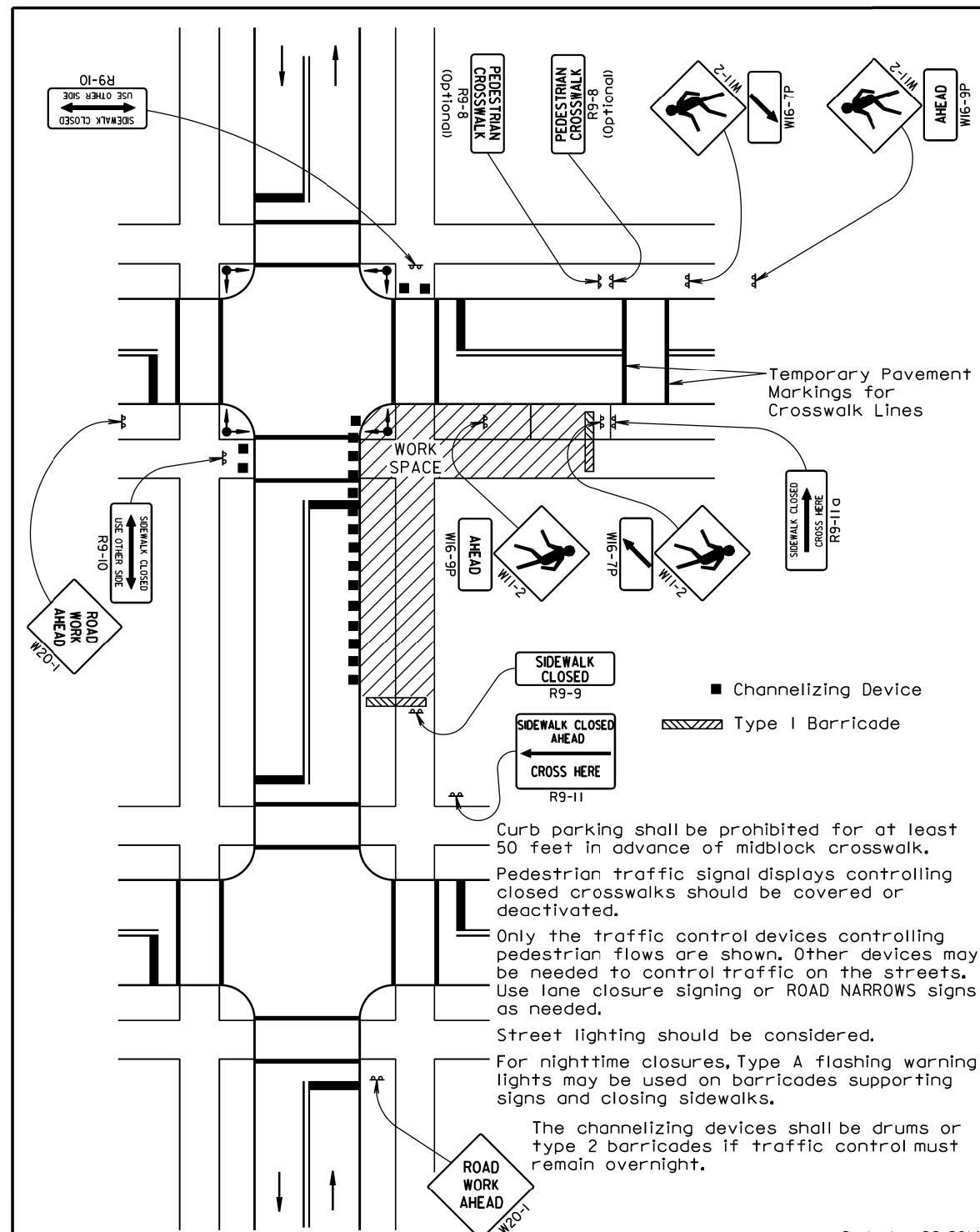
REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
SOUTH DAKOTA
REG. NO.
5801
KIM LaRUE
McLAURY
12-01-15
Kim McLaurry



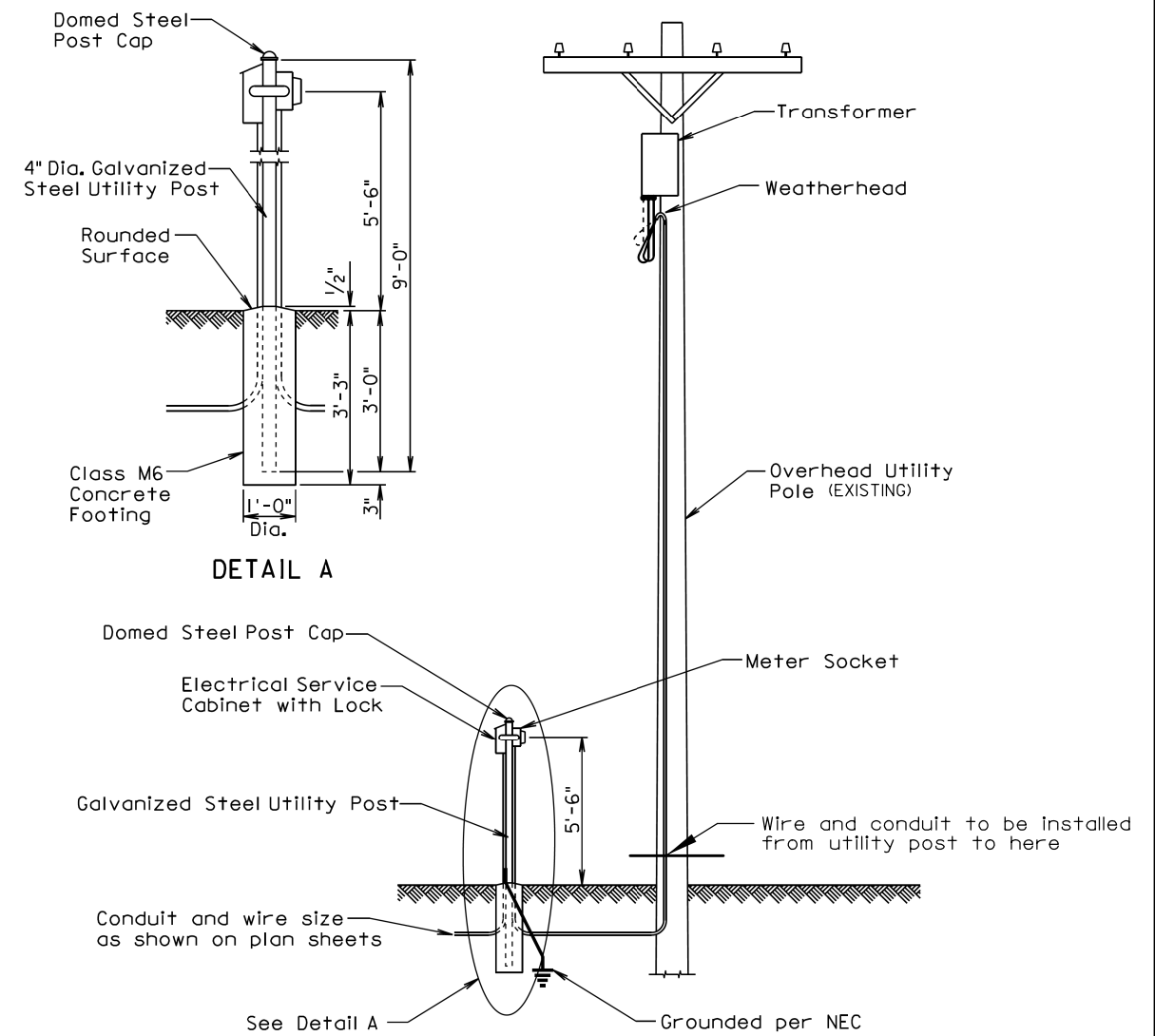
Published Date: 4th Qtr. 2015	S D D O T	PCC FILLET SECTION WITH TYPE B CURB AND GUTTER	PLATE NUMBER 380.16
			Sheet 1 of 1



Published Date: 4th Qtr. 2015	S D D O T	GUIDES FOR TRAFFIC CONTROL DEVICES WORK BEYOND THE SHOULDER	PLATE NUMBER 634.01
			Sheet 1 of 1



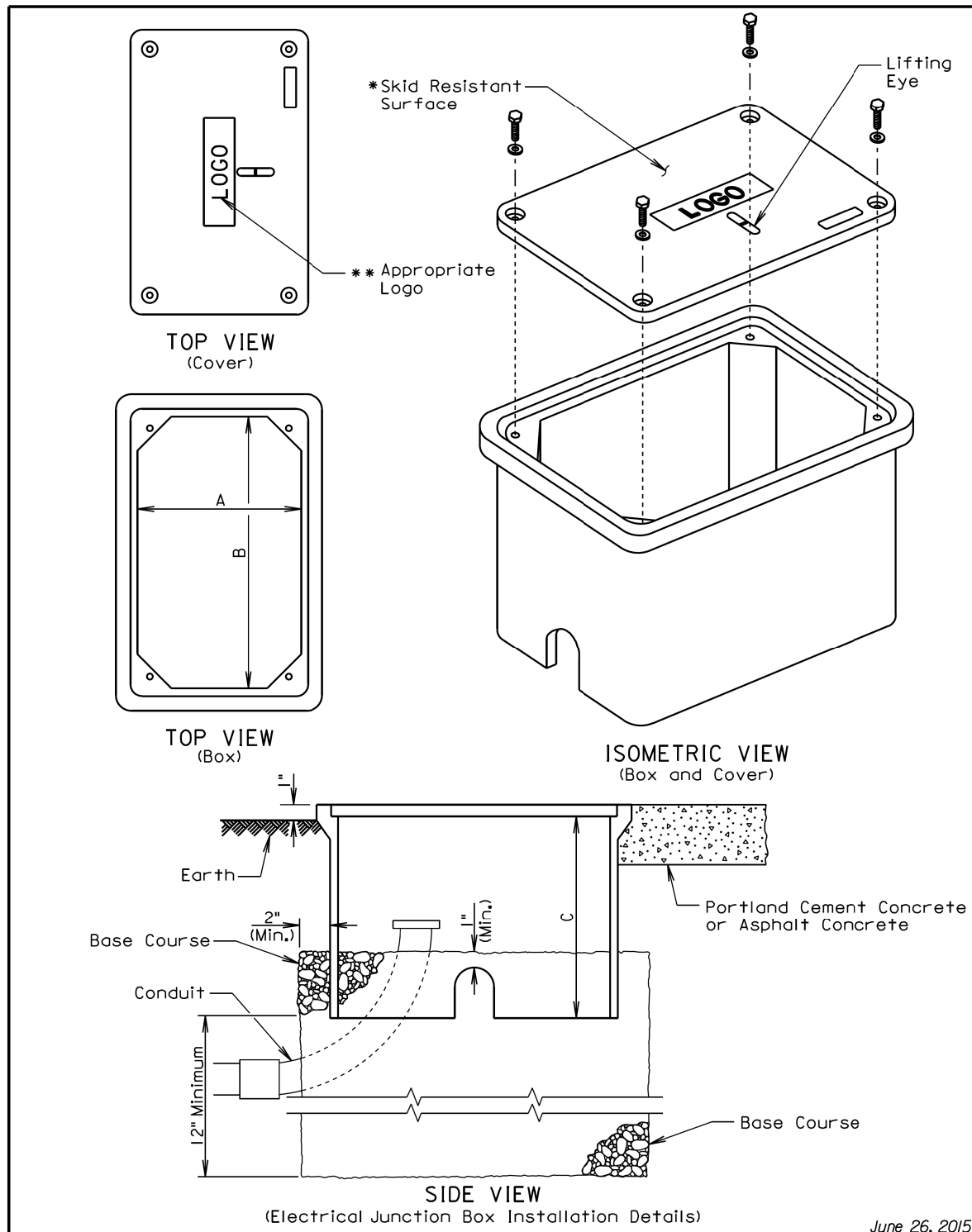
September 22, 2014



GENERAL NOTES:

- The concrete for the post footing shall be class M6 concrete.
- The 4" diameter galvanized steel utility post shall be 9' long and shall be in conformance with AASHTO Standard Specifications M181. The post shall be Type I and either Grade 1 or Grade 2. The domed steel post cap shall be in conformance with AASHTO Standard Specifications M181 and shall be Type 1.
- The Contractor shall contact and coordinate his/her work with the Utility Companies regarding hookup requirements, fees, materials, and equipment necessary.
- Contractor shall install conduit and wire up to the utility pole. Utility company will supply pole, transformer and wiring from transformer to the base of the pole.
- All costs for furnishing and installing all materials from the electrical service cabinet to the location indicated on the detail, including labor, equipment, hookup fees, all items within the cabinet, post concrete footing, post cap, meter socket, conduit, and incidentals shall be incidental to the contract unit price per each for "Electrical Service Cabinet."

**GALVANIZED STEEL UTILITY POST
AND CONNECTION TO ELECTRICAL SERVICE**



June 26, 2015

TYPE	DESCRIPTION	DIMENSIONS		
		A	B	C
1	Open Bottom with Gasket	11"-15"	18"-21"	18" (Min.)
2	Open Bottom with Gasket	13"-18"	23"-28"	18" (Min.)
3	Open Bottom with Gasket	17"-22"	24"-30"	18" (Min.)
4	Open Bottom with Gasket	28"-33"	36"-48"	24" (Min.)

GENERAL NOTES:

The cover shall be gasketed with a minimum of two stainless steel bolts and washers.

The cover shall have a lifting eye.

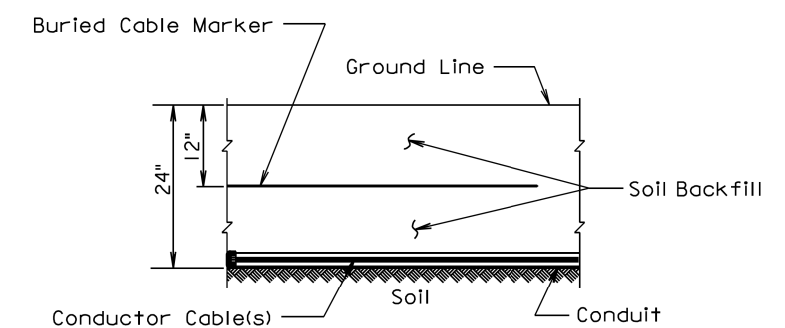
*The surface of the cover shall have a minimum wet and dry coefficient of friction value of 0.5 as determined by ASTM F 609.

**The cover of the junction box shall have the appropriate logo in one inch size letters and shall be recessed. When the junction box contains cables or wires for a traffic signal then the logo shall be "Signal". When the junction box contains lighting conductors then the logo shall be "Lighting".

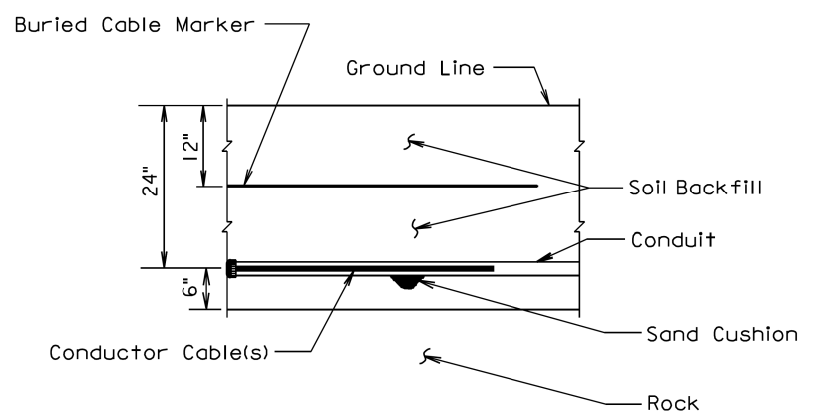
The electrical junction boxes shall comply with the American National Standards Institute (ANSI)/Society of Cable Telecommunications Engineers (SCTE) 77 2007 Specification for Underground Enclosure Integrity. The loading requirement for all the electrical junction boxes shall be Tier 8 of ANSI/SCTE 77 2007.

The electrical junction boxes shall be UL listed.

June 26, 2015



SECTION VIEW



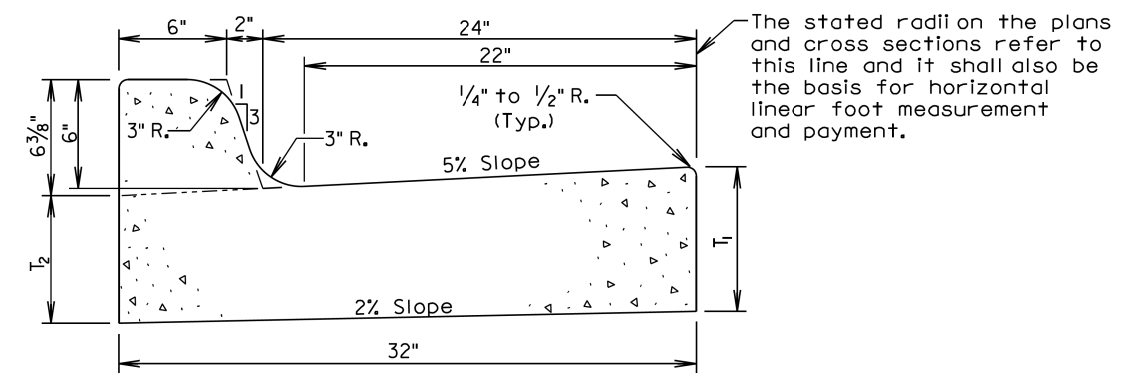
SECTION VIEW

GENERAL NOTE:

The Buried Cable Marker shall be plastic, approximately 6" wide, and shall be capable of sustaining a minimum of a 350% tolerance of elongation without tearing. The Buried Cable Marker shall have a life expectancy approximately equal to that of the conductor(s) beneath it. A phrase indicating the presence of a buried electric circuit below shall be printed in a contrasting color on the cable marker. The Buried Cable Marker shall be subject to approval by the Engineer. All costs associated with furnishing and installing the Buried Cable Marker shall be incidental to the contract unit price per Foot for the bid item used for the electrical conductor.

March 31, 2000

Published Date: 4th Qtr. 2015	S D D O T	CONDUIT INSTALLATION	PLATE NUMBER 635.76
			Sheet 1 of 1



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

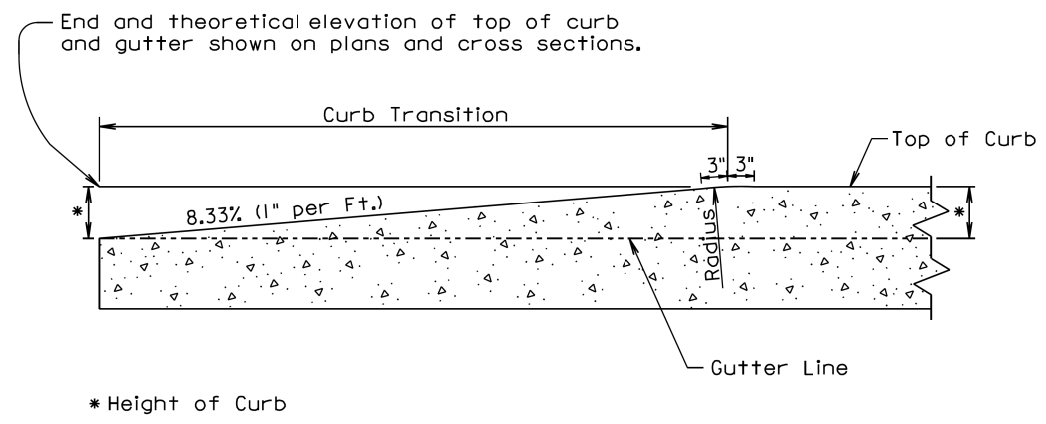
Type	T ₁ (Inches)	T ₂ (Inches)	Cu. Yd. Per Lin. Ft.	Lin. Ft. Per Cu. Yd.
B66	6	5/16	0.057	17.7
B67	7	6/16	0.065	15.4
B68	8	7/16	0.073	13.7
B68.5	8.5	7 9/16	0.077	13.0
B69	9	8/16	0.081	12.3
B69.5	9.5	8 9/16	0.085	11.7
B610	10	9/16	0.090	11.2
B610.5	10.5	9 9/16	0.094	10.7
B611	11	10/16	0.098	10.2
B611.5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

GENERAL NOTES:

When concrete curb and gutter longitudinally adjoins new concrete pavement, the method of attachment shall be by one of the methods shown on Standard Plate 380.11. See Standard Plate 650.90 for expansion and contraction joints in the curb and gutter.

September 6, 2008

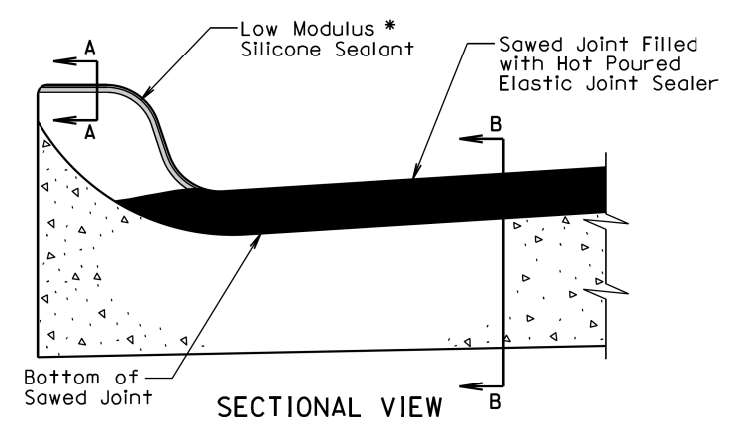
Published Date: 4th Qtr. 2015	S D D O T	TYPE B CONCRETE CURB AND GUTTER	PLATE NUMBER 650.01
			Sheet 1 of 1



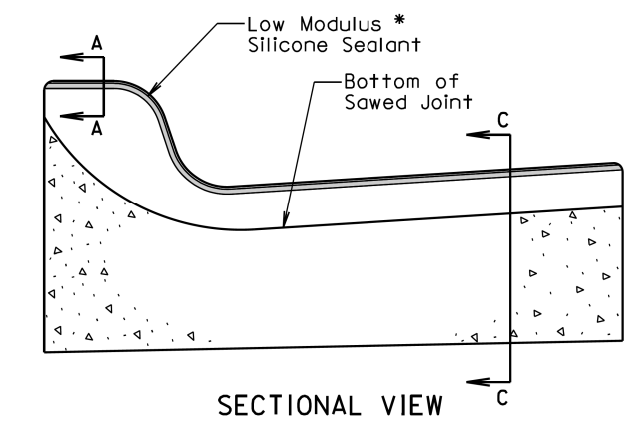
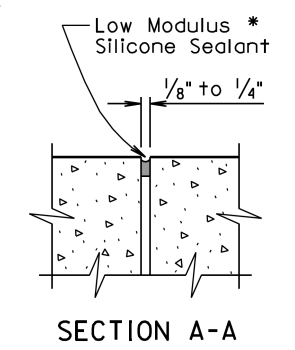
LONGITUDINAL SECTION OF CONCRETE CURB TAPER

September 14, 2005

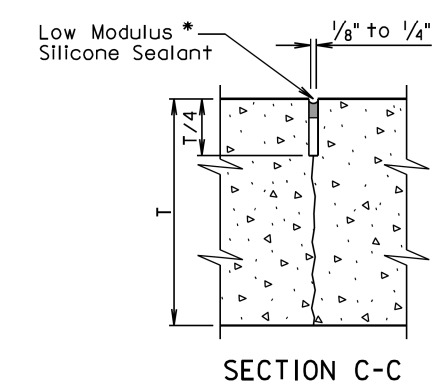
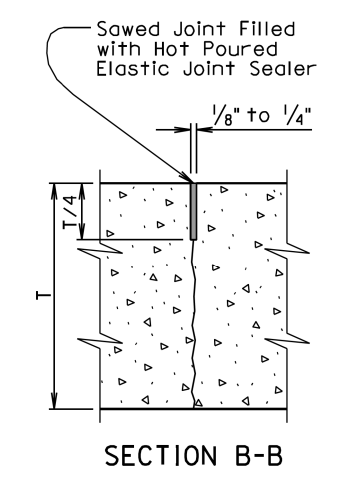
Published Date: 4th Qtr. 2015	S D D O T	CONCRETE CURB TAPER	PLATE NUMBER 650.35
			Sheet 1 of 1



(Curb and Gutter Placed Monolithic with Adjacent Mainline PCC Pavement)



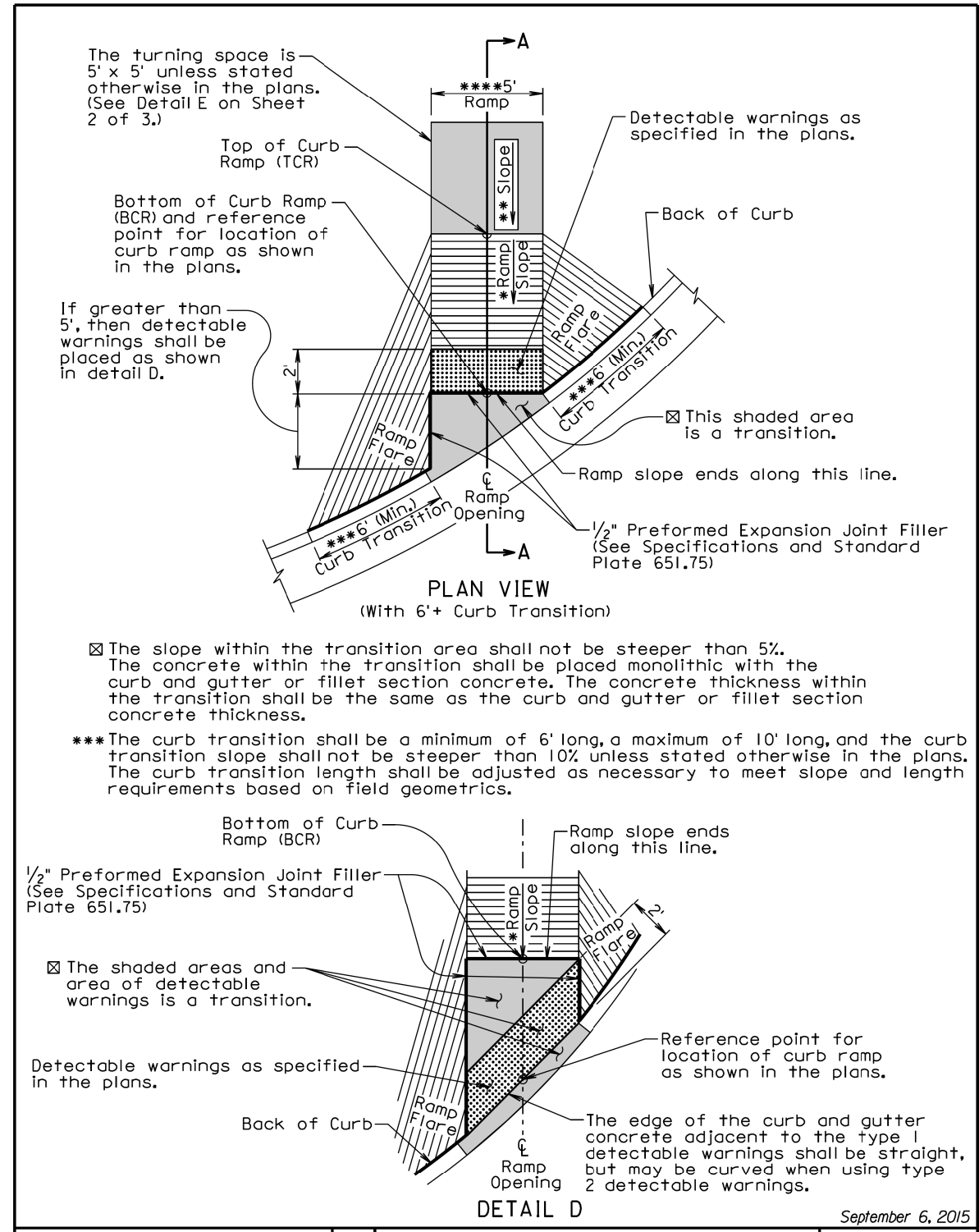
(Curb and Gutter not Placed Monolithic with Adjacent Mainline PCC Pavement or Mainline Surfacing is not PCC Pavement)



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

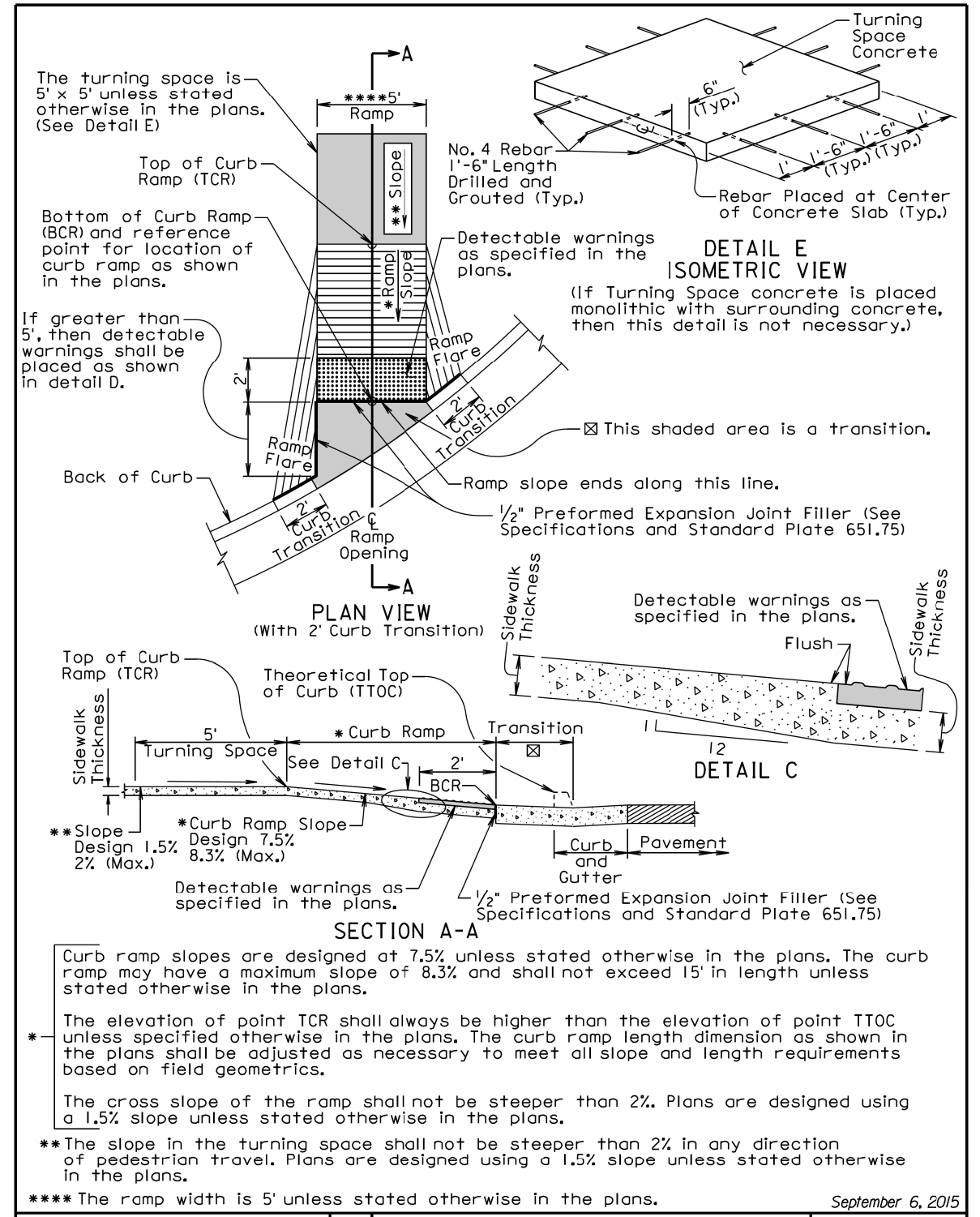
September 6, 2013

Published Date: 4th Qtr. 2015	S D D O T	JOINTS IN CONCRETE CURB AND GUTTER	PLATE NUMBER 650.90
			Sheet 1 of 2



September 6, 2015

Published Date: 4th Qtr. 2015	S D D O T	TYPE 2 CURB RAMP (DIRECTIONAL CURB RAMP)	PLATE NUMBER 651.02
			Sheet 1 of 3



September 6, 2015

Published Date: 4th Qtr. 2015	S D D O T	TYPE 2 CURB RAMP (DIRECTIONAL CURB RAMP)	PLATE NUMBER 651.02
			Sheet 2 of 3

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 shall be placed at the location stated in the plans.

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

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

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

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

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

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

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

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

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

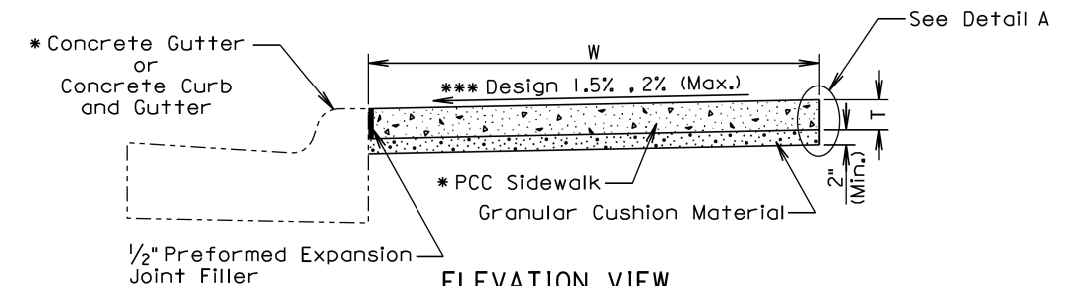
All costs for furnishing and installing the transition area at the base of the curb ramp shall be incidental to the contract unit price per foot for the corresponding curb and gutter bid item when curb and gutter is used and shall be incidental to the contract unit price per square yard for the corresponding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

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

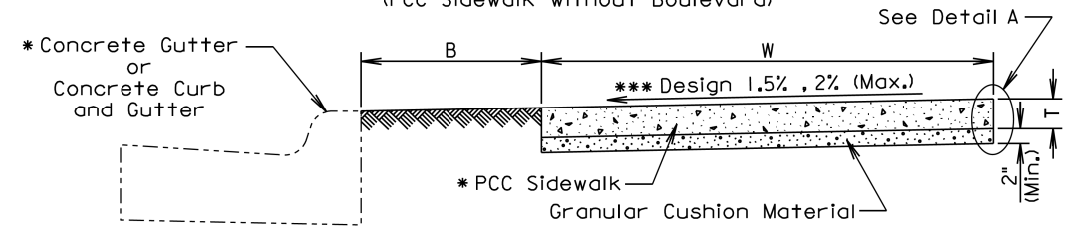
The type 2 detectable warnings shall be measured to the nearest square foot. All costs for furnishing and installing the type 2 detectable warnings including labor, equipment, and materials, including adhesive, necessary sealant or grout, and necessary grinding shall be paid for at the contract unit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

September 6, 2015

S D D O T	TYPE 2 CURB RAMP (DIRECTIONAL CURB RAMP)	PLATE NUMBER 651.02
	Published Date: 4th Qtr. 2015	Sheet 3 of 3

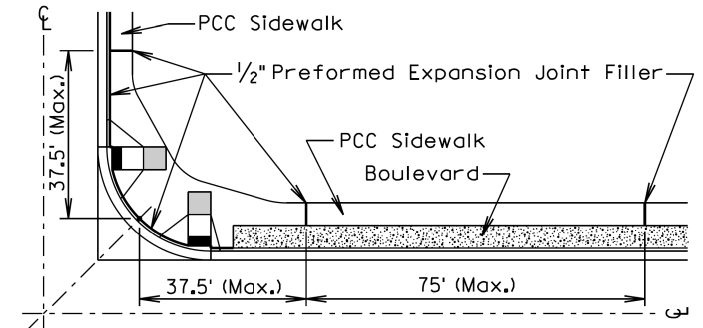


ELEVATION VIEW
(PCC Sidewalk without Boulevard)



ELEVATION VIEW
(PCC Sidewalk with Boulevard)

- 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.



PLAN VIEW

GENERAL NOTES:

The PCC sidewalk shall 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 PCC sidewalk is 75 feet.

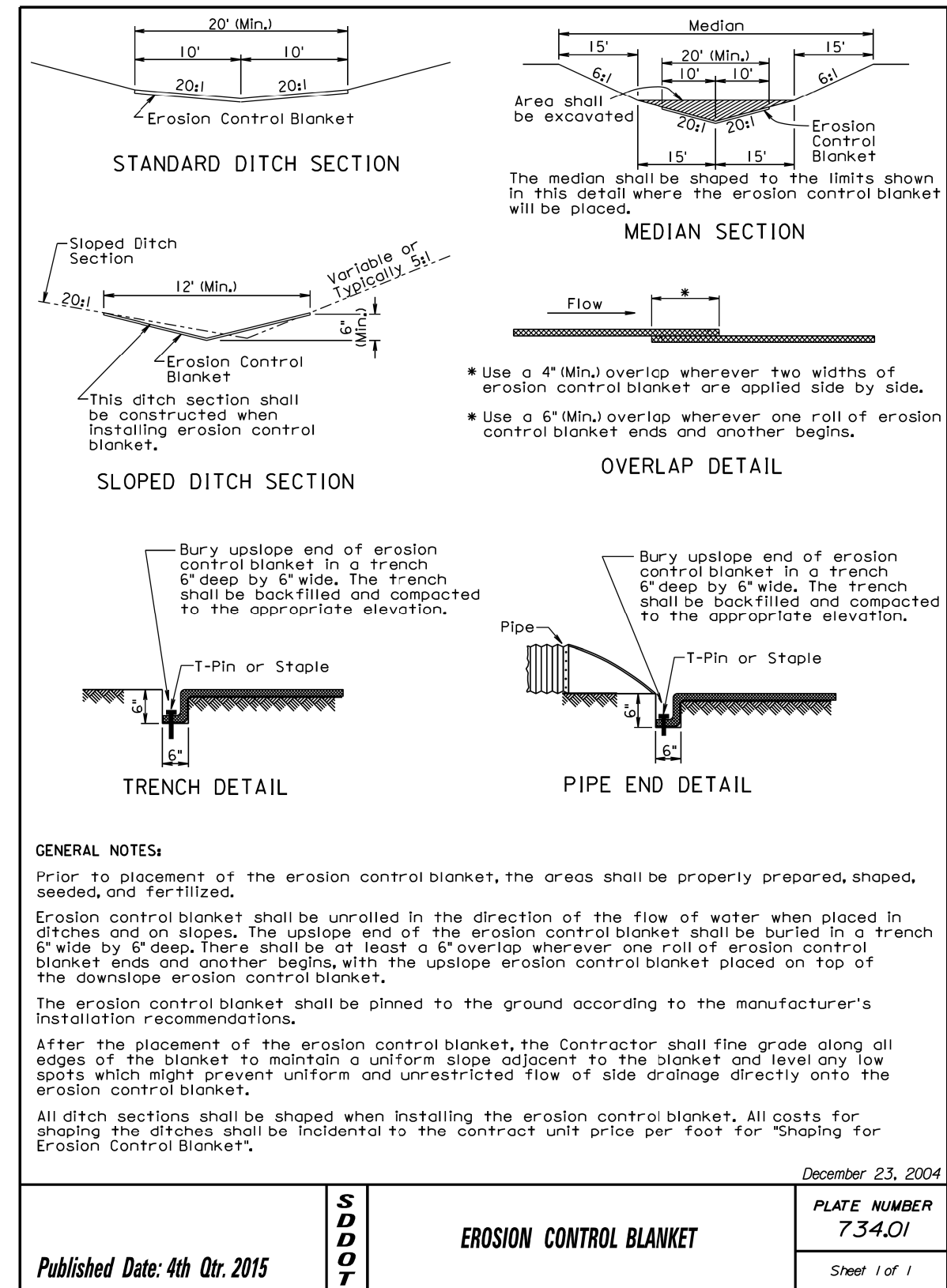
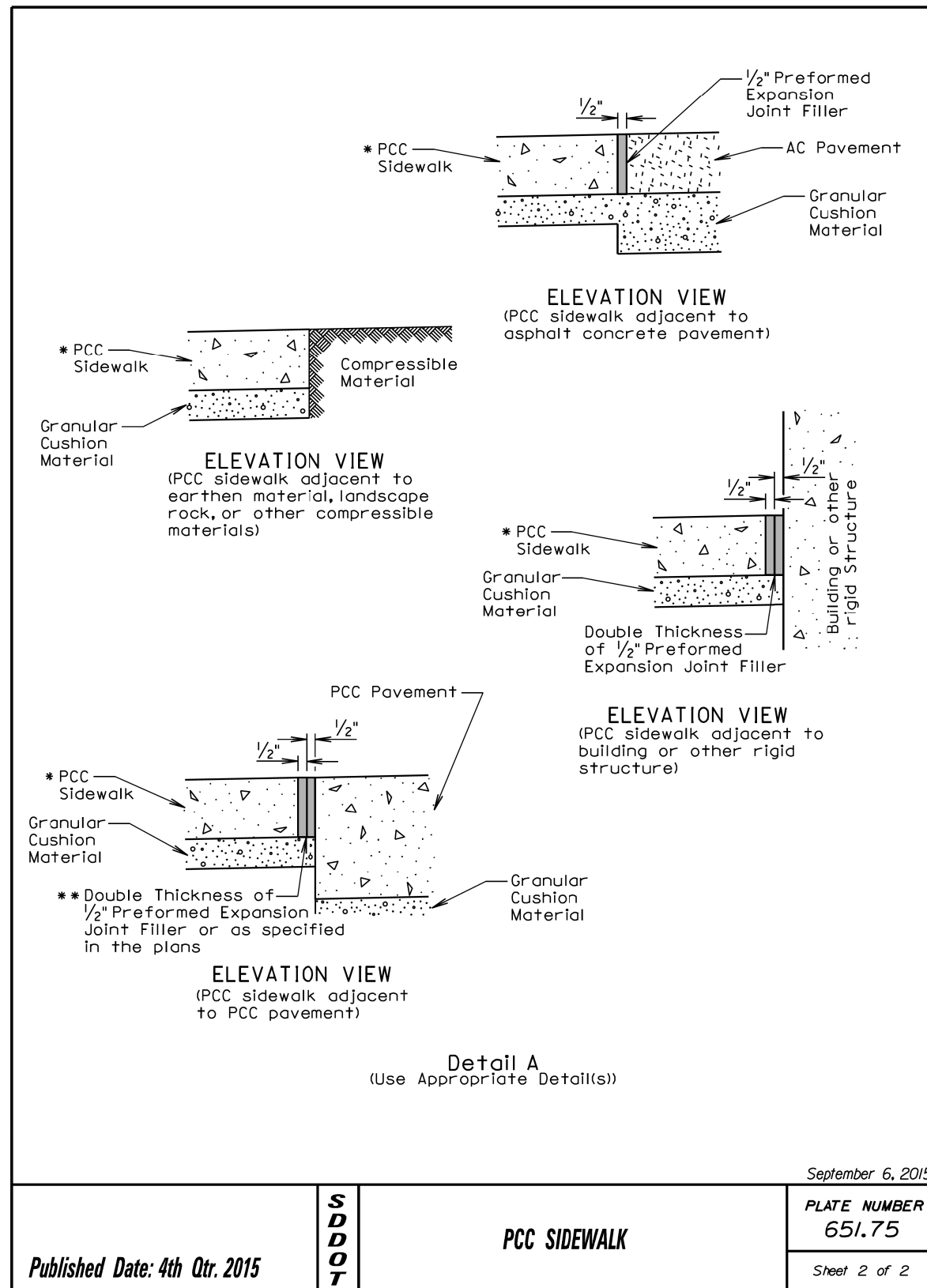
PCC sidewalk placed adjacent to intersection of roadways shall have an expansion joint placed transversely a maximum of 37.5 feet from the intersection. See PLAN VIEW.

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

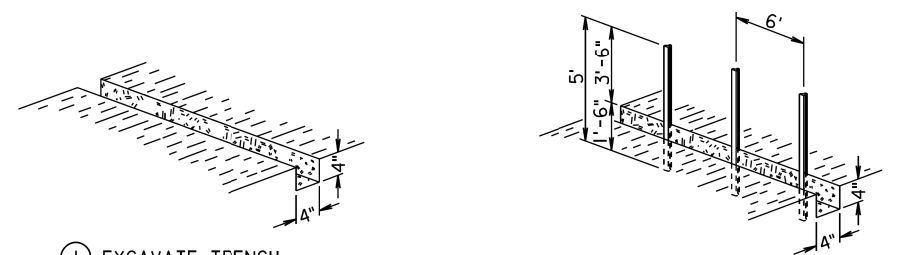
** Large areas of PCC pavement adjacent to PCC sidewalk may require a different joint treatment than shown in the detail. If a different joint detail is necessary, plans will contain the joint detail and the Contractor shall construct the joint treatment in accordance with the plans.

September 6, 2015

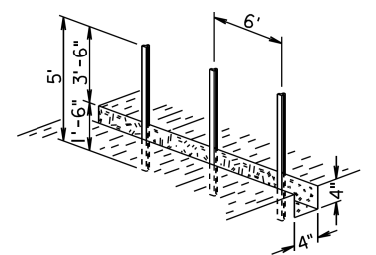
S D D O T	PCC SIDEWALK	PLATE NUMBER 651.75
	Published Date: 4th Qtr. 2015	Sheet 1 of 2



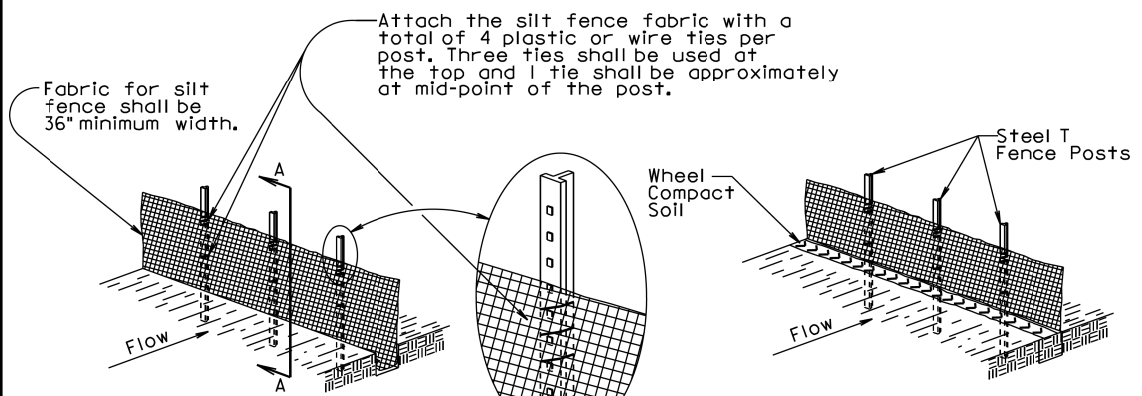
MANUAL HIGH FLOW SILT FENCE INSTALLATION



① EXCAVATE TRENCH

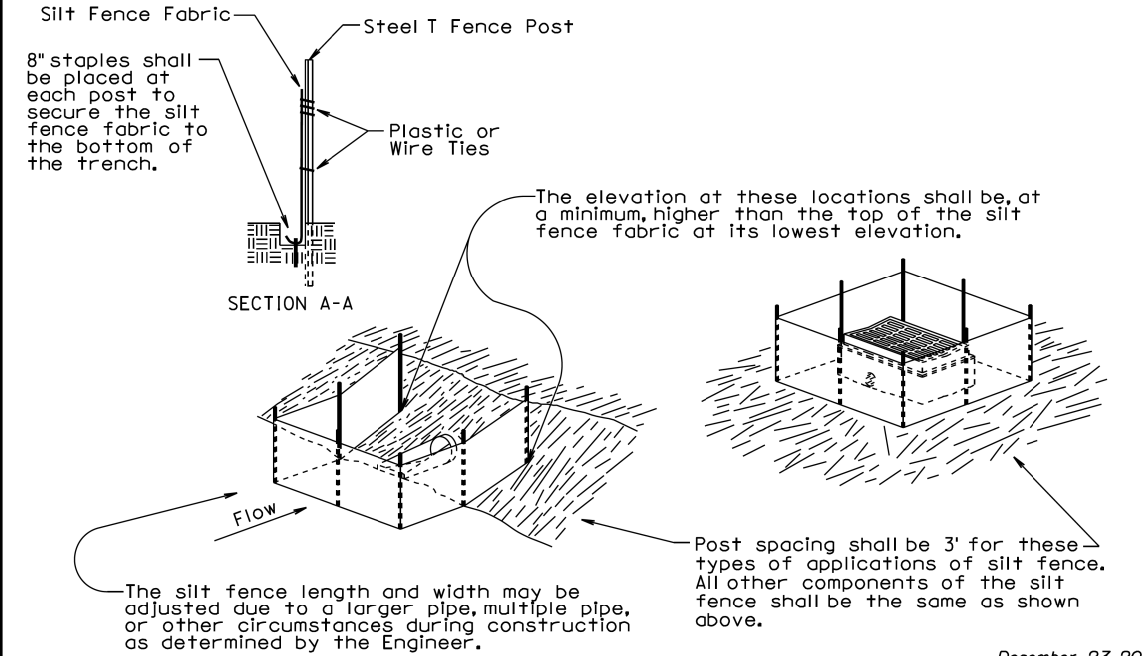


② DRIVE STEEL T FENCE POSTS



③ ATTACH SILT FENCE FABRIC

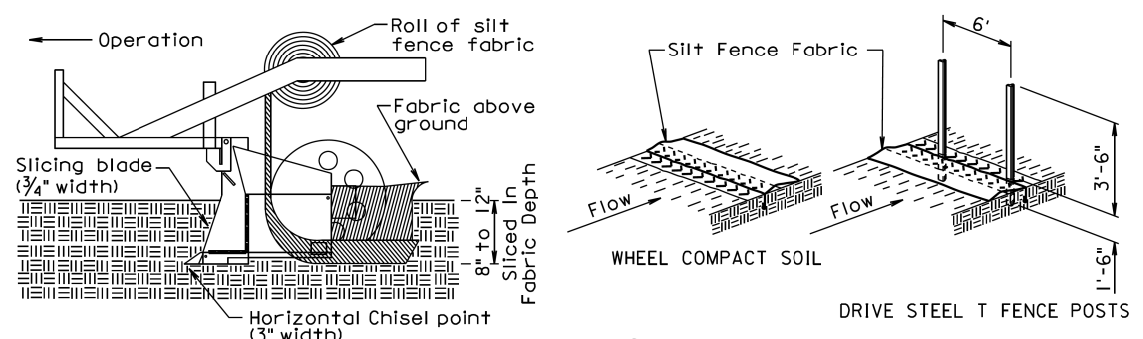
④ BACKFILL TRENCH AND WHEEL COMPACT SOIL



December 23, 2003

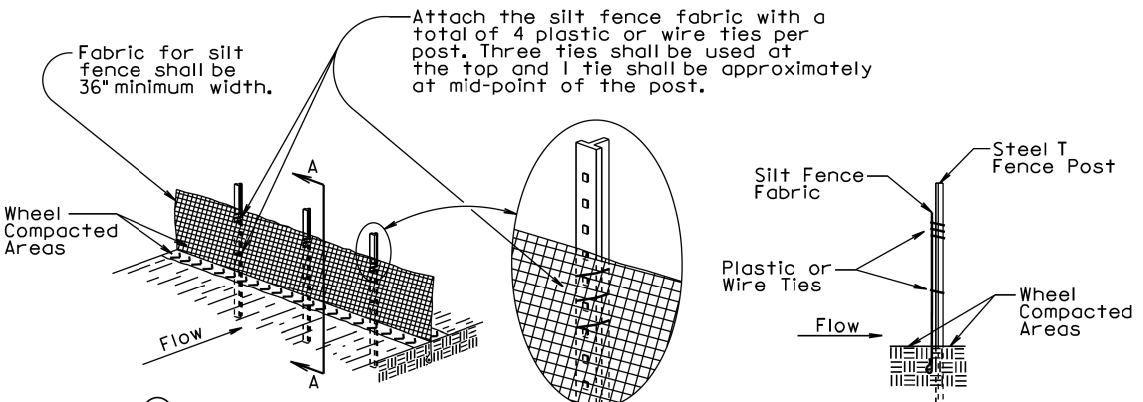
Published Date: 4th Qtr. 2015	S D D O T	HIGH FLOW SILT FENCE	PLATE NUMBER
			734.05
			Sheet 1 of 2

MACHINE SLICED HIGH FLOW SILT FENCE INSTALLATION

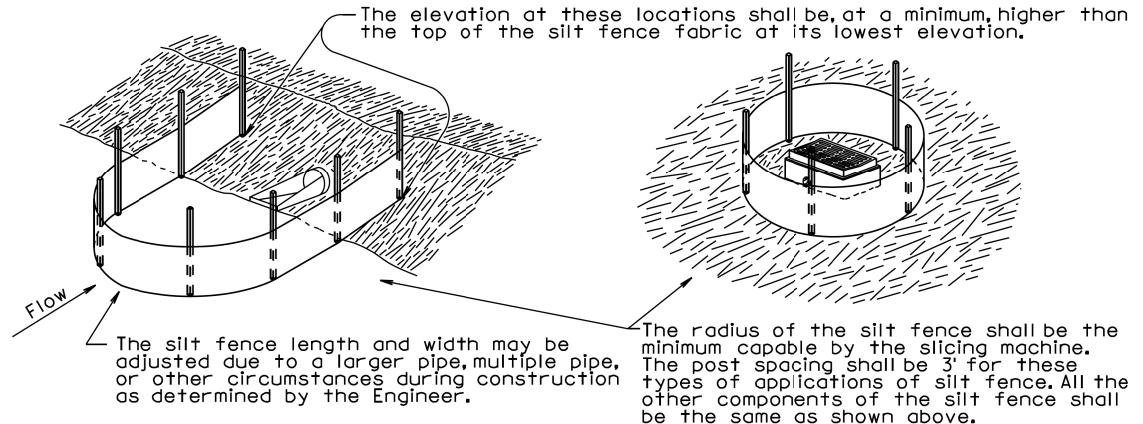


① INSTALL SILT FENCE FABRIC BY MACHINE SLICING METHOD.

② WHEEL COMPACT SOIL ABOVE SLICED IN PORTION OF FABRIC AND THEN DRIVE STEEL T FENCE POSTS.



③ ATTACH SILT FENCE FABRIC

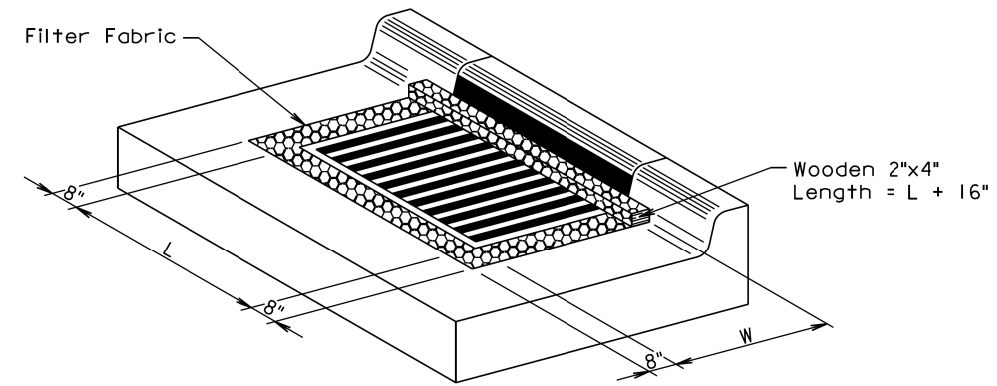


GENERAL NOTE:
If a trench can not be dug or the silt fence fabric can not be sliced in due to the type of earthen material (such as rock), then a row of 30 to 40 pound sandbags butted end to end shall be provided on top of the extra length of silt fence fabric to prevent underflow.

December 23, 2003

Published Date: 4th Qtr. 2015	S D D O T	HIGH FLOW SILT FENCE	PLATE NUMBER
			734.05
			Sheet 2 of 2

L = Length of Grate
W = Width of Grate



ISOMETRIC VIEW

GENERAL NOTES:

The grate and curb and gutter shown are for illustrative purposes only.

The sediment control at inlet with frame and grate shall be placed at locations stated in the plans or at locations determined by the Engineer.

The filter fabric shall be the type specified in the plans.

The filter fabric shall be placed in the inlet opening prior to placing the grate. Approximately 18 inches of excess filter fabric shall be wrapped around the 2"x4" and stapled securely to the 2"x4" after the grate has been placed.

The Contractor shall inspect and maintain the sediment control device once every week and within 24 hours after every rainfall event. The Contractor shall maintain the sediment control device by removing accumulated sediment and replacing torn filter fabric with new filter fabric.

The removed sediment shall be placed at a location away from the drop inlet where the sediment will not be washed back into the drop inlet or other storm sewer system.

All costs for furnishing, installing, inspecting, maintaining, removing, and replacing the sediment control device at the inlet including labor, equipment, and materials shall be incidental to the contract unit price per each for "Sediment Control at Inlet with Frame and Grate".

September 14, 2005

<i>Published Date: 4th Qtr. 2015</i>	S D D O T	SEDIMENT CONTROL AT INLETS WITH FRAMES AND GRATES	PLATE NUMBER 734.10
			Sheet 1 of 1