Meade County
P 7668(05)
PCN 04AE

A Pre-Bid meeting will be held in Sturgis at the Sturgis Fire Hall (1901 Ballpark Road) from 10:00am to 12:00pm MT on Thursday, February 18, 2016. All interested parties are strongly encouraged to attend.

SECTION B: GRADING PLANS

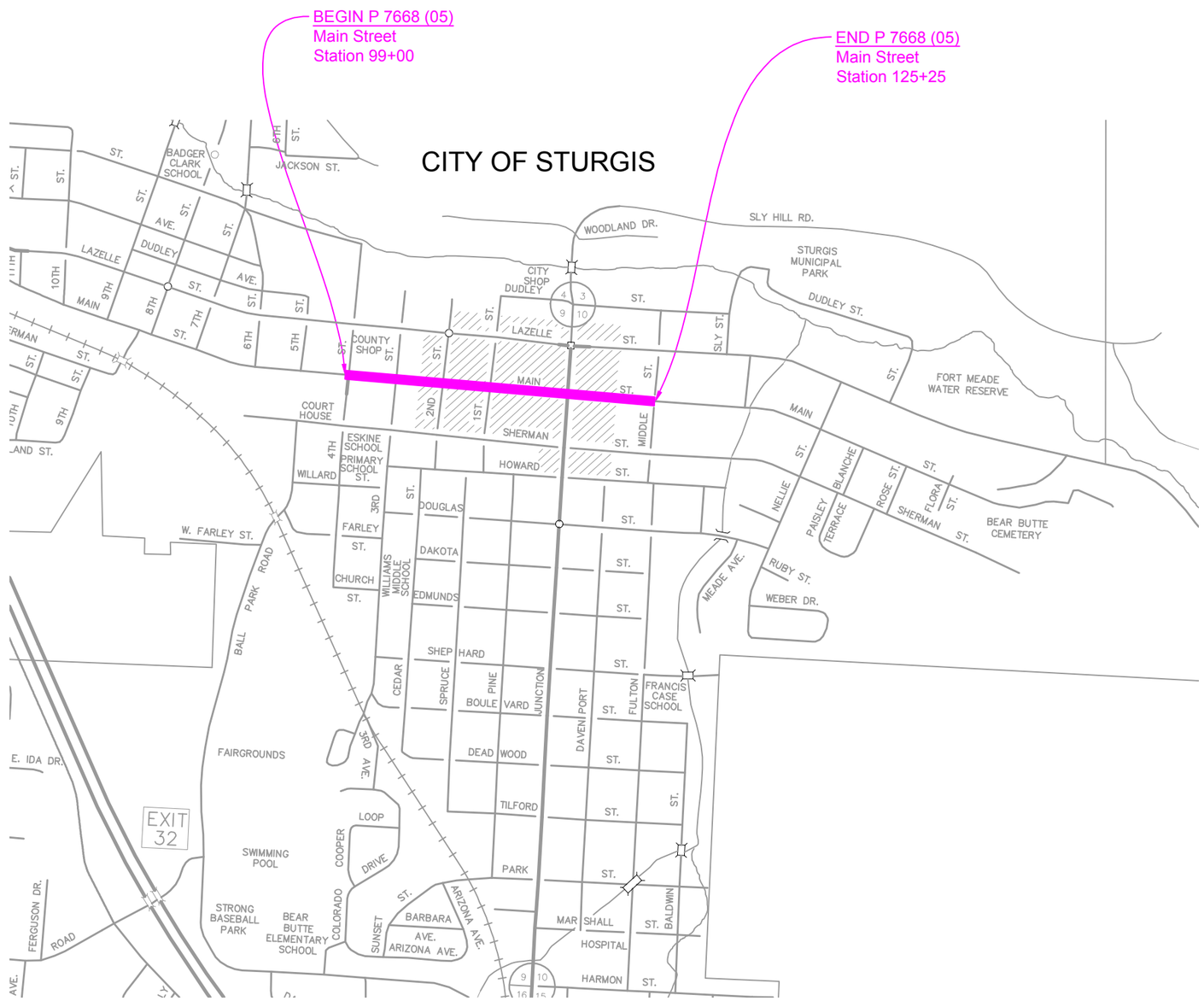
FOR BIDDING PURPOSES ONLY

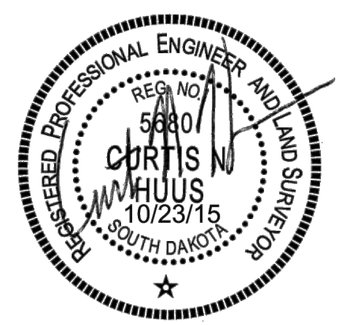
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B1	B67

Plotting Date: 10/26/2015

INDEX OF SHEETS

B1	General Layout with Index
B2 - B13	Estimate of Quantities, General Notes and Tables
B14 - B17	Typical Sections
B18	Control Data
B19	Horizontal Alignment Data
B20	Topography Symbols and Legend
B21 - B32	Plan and Profile Sheets
B33 - B39	Curb and Gutter Layout
B40 - B47	Curb Ramp Details
B48 - B52	Right of Way Layout
B53	Special Details
B54 - B67	Standard Plates





L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\14-2030 SECTION B GRADING.dwg 10/26/2015 9:47:16 AM

REVISED 12-10-15

SECTION B ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3210	Construction Staking	0.511	Mile
009E3230	Grade Staking	0.511	Mile
009E3250	Miscellaneous Staking	0.511	Mile
009E3300	Three Man Survey Crew	120	Hour
009E4300	Construction Schedule, Category III	Lump Sum	LS
100E0020	Clear and Grub Tree	6	Each
110E0300	Remove Concrete Curb & Gutter	54	Ft
110E0400	Remove Drop Inlet	14	Each
110E0530	Remove Storm Sewer Pipe	556	Ft
110E1010	Remove Asphalt Concrete Pavement	4134.6	SqYd
110E1100	Remove Concrete Pavement	9898.4	SqYd
110E1110	Remove Concrete Approach Pavement	265.4	SqYd
110E1140	Remove Concrete Sidewalk	4382.7	SqYd
120E0010	Unclassified Excavation	11669	CuYd
120E2000	Undercutting	6005	CuYd
120E6100	Water for Embankment	101	Mgal
250E0010	Incidental Work	Lump Sum	LS
380E3520	6" PCC Approach Pavement	68.3	SqYd
380E4010	6" PCC Fillet Section	367.9	SqYd
450E0123	18" RCP Class 3, Furnish	1786	Ft
450E0130	18" RCP, Install	1786	Ft
450E0143	24" RCP Class 3, Furnish	390	Ft
450E0150	24" RCP, Install	390	Ft
450E0223	60" RCP Class 3, Furnish	20	Ft
450E0230	60" RCP, Install	20	Ft
450E0408	18" RCP Bend,Furnish	2	Each
450E0409	18" RCP Bend, Install	2	Each
450E0700	RCP Tee, Furnish	12	Each
450E0701	RCP Tee, Install	12	Each
451E0004	4" PVC Pipe Encasement	826	Ft
451E0518	8" PVC Pipe	14	Ft
451E3008	8" Pipe Bend	1	Each
462E0100	Class M6 Concrete	26.0	CuYd
480E0100	Reinforcing Steel	3205	Lb
650E0060	Type B66 Concrete Curb and Gutter	3946	Ft
650E4660	Type P6 Concrete Gutter	311	Ft
650E6060	6" Concrete Valley Gutter	149	Ft
651E0050	5" Concrete Sidewalk	31829	SqFt
651E0150	5" Reinforced Concrete Sidewalk	60	SqFt
651E0550	5" Colored Concrete Sidewalk	13676	SqFt
651E5000	Sidewalk Drain	41	Ft
651E7000	Type 1 Detectable Warnings	646	SqFt
670E1200	Type B Frame and Grate Assembly	34	Each
671E1048	48" Manhole	3	Each
671E1060	60" Manhole	1	Each
671E6007	Type A7 Manhole Frame and Lid	4	Each
671E7010	Adjust Manhole	1	Each
831E0300	MSE Geotextile Fabric	7028	SqYd
900E6828	Remove and Replace Brick	1044	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 101 MGal.

UNSTABLE SUBGRADE

Some areas of unstable subgrade may be exposed after the removal of the existing pavement and undercut. If, in the opinion of the Engineer, the area will not stabilize by backfilling with the undercut material, MSE Geotextile fabric and granular material may be used. Stabilization will be accomplished by placing a layer of MSE Geotextile Fabric at the bottom of the undercut. The undercut will then be backfilled with granular material and compacted. Contact the Geotechnical Engineering Activity (605-773-3725) for assistance should the use of geotextile become necessary.

7,028 sq. yds. of MSE Geotextile Fabric have been included in the materials quantities for bidding purposes. This quantity is assumed to cover 6,111 sq. yds. of subgrade (55' wide x 1000' long). The bid quantity has been increased by 15% to account for overlaps. 3,850 tons of granular material have been included in the Base Course bid item for use as backfill. Refer to Section F for Base Course bid item quantities, notes, and specifications. These quantities can be adjusted or eliminated by CCO, depending on field conditions.

The top of the subgrade shall be prepared by smoothing the surface of the subgrade to minimize any ruts, ridges, and depressions. Any rocks or other protrusions that might damage the geotextile will be removed. The geotextile will be unrolled perpendicular to the centerline and overlapped a minimum of 2 feet.

The geotextile will be placed as taut as possible with minimal wrinkles. Placement will be done so that subsequent granular cover material does not shove, wrinkle or distort the in place geotextile. The overlaps will be shingled in a manner that assures granular material will not be forced under the geotextile during backfilling operations. The geotextile may be held in place with small piles of granular material or staples. No traffic will be allowed on the uncovered geotextile.

Granular material will be dumped at least 20 feet behind the leading edge of the backfill and pushed into place with a loader or dozer from the covered areas to the uncovered areas. The granular material will be placed in 8 inch lifts or as directed by the Engineer. The granular material will be compacted to 95% maximum dry density as determined by the Specified Density Method. A copy of the Soils Report is available for review from the Local Government Assistance Office in the SDDOT Central Office in Pierre.

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 provided on sheet B10.

CONDUIT INSTALLATION

Each end of each conduit shall be marked with a ½-inch dia. x 12-inch long reinforcing bar driven flush with the finished grade, except when the conduit end terminates inside a junction box. The ends of each conduit run shall be capped to prevent water and soil from entering. This work shall be done by the Lighting Contractor and shall not be disturbed by the Grading Contractor.

SHRINKAGE FACTOR: Embankment +20%

TABLE OF EXCAVATION QUANTITIES BY BALANCES

Station to	Station	Excavation (CuYd)	*Undercut (CuYd)	Total Exc (CuYd)	**Waste (CuYd)
99+00	117+82.70	5302	5580	10882	226
123+85.32	125+20.41	362	425	787	362
	Totals:	5664	6005	11669	588

The quantities for these items are in the Estimate of Quantities under their respective bid items.
** The quantities for these items are for information only.

"Unclassified Excavation" and "Undercutting" will be paid for based on the quantities shown in the "Estimate of Quantities". No field measurement will be taken. If a change is necessary during construction which affects the quantities, the area in which the change was made will be measured and the affected quantities will be adjusted accordingly.

The table of Excavation Quantities includes all earthwork to be completed for the mainline alignment and for all side streets

TABLE OF UNCLASSIFIED EXCAVATION

Excavation	5664 CuYd
Undercut	6005 CuYd
Total	11669 CuYd

PROCEDURES FOR DETERMINING UNCLASSIFIED EXCAVATION QUANTITY

When plan quantities are used for payment, the Unclassified Excavation quantity shall be used for final payment. If final cross sections are taken in the field, add all of the items in the Table of Unclassified Excavation using the following procedures:

Topsoil removal, stockpiling and placement are included in Unclassified Excavation. The estimated quantity of 3 cubic yards shall be plans quantity and will not be adjusted according to field measurements.

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.

The volume of in place Concrete/Asphalt Surfacing removed will NOT be paid for as Unclassified Excavation.

The Excavation quantities from individual balances and the table above have been reduced by the volume of in-place concrete pavement that will be removed.

When finalizing a project, the estimated quantity of 4286 cubic yards of Concrete Pavement removed and 1378 cubic yards of Asphalt Concrete Pavement removed from the cut sections shall be subtracted from the Unclassified Excavation quantity for final payment. The quantity of Concrete Pavement from cut sections subtracted from the Unclassified Excavation quantity shall be plans quantity and will not be adjusted according to field measurements.

UNDERCUTTING

In all cut sections, the earthen subgrade shall be undercut 1 foot below the finished subgrade. The undercut will extend under the sidewalk in those places where there is sidewalk from the curb to an adjacent building. In all other locations, the undercut will extend to behind the curb. The distance behind the curb will be determined by the paving operation. Shallow embankment sections, fills less than 1 foot in height measured at the finished subgrade shoulders, shall be undercut to assure a minimum height of 1 foot of earth embankment for the entire width of the roadbed. The undercut material or other suitable material, as directed by the engineer, shall then be replaced and re-compacted to the density specified for the section being constructed.

An exception to the undercut requirements shall be made in sections that encounter in place rock. Cut sections made through in place rock shall be excavated to the top of the subgrade surface only. Shallow embankment sections (as described above) placed over in place rock with less than 2 feet of soil cover shall be excavated to the surface of the rock prior to placing any fill.

The plan shown quantity will be the basis of payment. However, if there are additional areas of undercut other than what is shown in the plans, the Engineer shall direct removal of these areas and the additional areas will be measured according to the Engineer.

TABLE OF UNDERCUTTING

Station	to	Station	Quantity (CuYd)
99+00.00		117+82.70	5580
123+85.32		125+20.41	425
		Total:	6005

INCIDENTAL WORK

All costs for involved in protecting the banner poles and their foundations, including material and labor, shall be paid for under the contract lump sum price for Incidental Work. Any damage to the banner poles or their foundations shall be paid for by the contractor at no additional cost to the SDDOT or the City of Sturgis.

TABLE OF INCIDENTAL WORK

Station	L/R	Quantity (Each)	Description
103+31	L/R	2	Protect Banner Poles
106+21	L/R	2	Protect Banner Poles
110+73	L/R	2	Protect Banner Poles
113+39	L/R	2	Protect Banner Poles
115+42	L/R	2	Protect Banner Poles
119+68	L/R	2	Protect Banner Poles
123+54	L/R	2	Protect Banner Poles

REMOVAL OF EXISTING CONCRETE PAVEMENT STA. 99+42 to STA. 117+82 and 123+85 to 125+20

Existing asphalt concrete and/or existing asphalt concrete patch work that was placed above the existing concrete pavement is included in the quantity for "Remove Concrete Pavement". The Contractor shall dispose of the concrete pavement and asphalt concrete at a site approved by the Engineer.

Test holes were drilled to check the depth of in place surfacing. A log of these test holes is detailed below.

TABLE OF IN PLACE SURFACING AND GRANULAR MATERIAL

Sta.	Offset L/R	Depth of AC (in)	Depth of PCCP (in)	Depth Granular Base (in)
101+62	18.0' R	4.8	0	7.2
106+58	16.0' R	3.6	3.6	4.8
111+58	15.0" R	3.6	3.6	12
116+58	11.0' R	4.8	6	4.8
121+58	9.0' R	4.8	0	7.2

In the locations where there is both AC and PCCP, the AC is on top of the PCCP.

In the AC and PCCP section on Main Street, it is estimated there are 239 cubic yards of surfacing material per station. This quantity shall be used to compute unclassified excavation quantities. This quantity is based on a 50 foot width
and 15.5 inches depth of surfacing. The AC only sections have 181 cubic yards per station, based on a 49.3 foot width and 11.9 inches depth of surfacing. Width measurements include the adjacent curb and gutter.

TABLE OF CONCRETE PAVEMENT REMOVAL

Station	to	Station	Description	Quantity (SqYd)
101+62.00		117+82.70	Main Street	8026.7
300+25.15		301+00.19	4th Street North	211.3
400+96.68		402+49.61	3rd Street	492.7
500+51.79		502+05.38	2nd Street	590.7
600+64.40		602+18.27	1st Street	577.0
			Total	9898.4

TABLE OF ASPHALT CONCRETE PAVEMENT REMOVAL

Station	to	Station	Description	Quantity (SqYd)
99+00.00		101+62.00	Main Street	2900.3
123+85.32		125+20.41	Main Street	735.3
201+08.32		201+59.00	4th Street South	151.5
800+63.88		801+83.63	Middle Street	347.5
			Total	4134.6

TABLE OF CONCRETE CURB AND GUTTER REMOVAL

Station	to	Station	L/R	Quantity (Ft)
118+25.07		118+42.10	R	26.6
118+25.56		118+43.20	L	27.3
			Total:	53.9

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

TABLE OF CONCRETE APPROACH PAVEMENT REMOVAL

Station	to	Station	L/R	Quantity (SqYd)
101+34.28		101+50.93	R	8.2
101+70.43		101+94.39	L	22.0
102+00.07		102+30.73	L	29.0
105+10.27		105+30.48	L	22.8
106+25.53		106+45.37	L	22.2
106+78.94		107+12.86	R	28.5
107+12.54		107+24.54	L	13.5
107+37.57		107+81.81	L	48.9
114+10.80		114+35.08	R	19.5
116+90.73		117+39.00	L	50.8
			Total	265.4

TABLE OF REMOVE AND REPLACE BRICK

Station	to	Station	L/R	Quantity (Each)
115+69.31		116+21.26	L	522
116+32.67		116+74.84	L	522
			Total	1044

SIDEWALK REMOVAL

See Section E for notes and details for the removal of the sidewalk vault structures located between Sta. 113+13 to Sta. 113+39 and Sta. 116+64 to Sta. 117+42.

TABLE OF SIDEWALK REMOVAL

Station	to	Station	L/R	Quantity (SqYd)
99+42		100+65	R	254.3
100+75		100+80	R	127.5
100+51		100+77	L	25
101+31		104+34	R	310.1
101+34		104+31	L	303.6
104+96		107+98	R	316
104+97		107+97	L	346
108+72		111+73	R	319
108+73		111+74	L	333.1
112+30		113+13	R	120
113+39		116+64	R	355
117+42		117+81	R	48
112+40		115+69	L	350
116+21		116+33	L	11.9
116+75		117+79	L	124.5
117+82		117+88	R	60
117+87		117+93	R	60
118+84		118+95	R	13.8
119+63		119+73	L	6.2
119+68		119+74	R	3.8
120+62		120+67	R	4.5
120+90		120+99	R	8.4
121+22		121+67	L	1.8
121+55		121+60	L	4.1
122+74		122+65	L	3.9
123+04		123+10	L	3.9
123+36		123+44	L	5.9
123+47		123+57	R	7.8
123+50		123+60	L	6.7
123+85		124+46	L	51.4
124+02		124+44	R	45.6
124+85		125+18	R	52.2
124+87		125+15	L	34.7
201+06		201+41	R	72.7
300+28		300+75	R	58.6
400+96		401+47	L	46.7
400+96		401+47	R	32.5
402+03		402+50	L	61.3
402+03		402+50	R	58.2
500+52		501+02	L	62.5
500+52		501+02	R	39.8
501+58		502+07	L	38.2
501+59		502+05	R	35.9
600+64		601+14	L	40.6
600+64		601+15	R	42.4
601+71		602+18	L	37.3
601+72		602+18	R	37.3
			Total	4382.7

REMOVE STORM SEWER PIPE

Station	to	Station	L/R	Remarks
104+15		104+64	L	Take Out 48' of 18" RCP
104+27		104+44	R	Take Out 21' of 18" RCP
104+45		104+72	R	Take Out 27' of 18" RCP
104+72		104+82	R	Take Out 10' of 18" RCP
111+63		111+81	R	Take Out 24' of 18" RCP
111+66		112+09	L	Take Out 44' of 18" RCP
111+82		112+28	R	Take Out 46' of 18" RCP
117+62		117+64	L	Take Out 2' of 18" RCP
201+15		201+35	R	Take Out 20' of 18" RCP
201+37		201+69	R	Take Out 32' of 18" RCP
201+34		201+36	R	Take Out 3' of 8" PVC
300+00		300+27	R	Take Out 27' of 18" RCP
300+29		301+00	R	Take Out 71' of 18" RCP
401+27		401+39	R	Take Out 12' of 60" RCP
401+37		402+01	L	Take Out 65' of 18" RCP
701+78		702+29	L	Take Out 51' of 18" RCP
801+00		801+53	L	Take Out 53' of 18" RCP
			Totals	556' of Storm Sewer Pipe

DROP INLET REMOVAL

Frame and grate assemblies to be to be salvaged for future use and hauled to the City of Sturgis Maintenance Yard as directed by the Engineer. Care shall be taken not to damage the structural properties of the items during dismantling and transporting. All broken concrete and materials not salvaged shall be disposed of in accordance with the Specifications.

All costs for removal and salvage of the frame and grate assembly shall be incidental to the contract unit price per each for "Remove Drop Inlet

TABLE OF DROP INLET REMOVAL

Station	L/R	Quantity (Each)
101+16	L	1
101+14	R	1
104+14	L	1
104+27	R	1
104+44	R	1
104+83	R	1
111+63	R	1
111+64	L	1
111+81	R	1
112+29	R	1
117+60	L	1
117+61	R	1
124+34	R	1
124+34	L	1
	Total:	14

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

CONCRETE PIPE CONNECTIONS

Pipe connections to existing pipes, manholes, junction boxes, and drop inlets shall be done by breaking a hole into the existing structure and inserting the pipe. A concrete collar shall 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 shall be made by placing a 2' wide by 6" thick M6 concrete collar around the outside of the connection. The concrete collar shall be reinforced with 6x6 W2.9 x W2.9 wire mesh.

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

STORM SEWER

Reinforced concrete pipe may be either bell and spigot or tongue and groove. The pipe sections shall 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 shall 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.

The Contractor shall be aware of the existing 60" Storm Sewer located within this project and shall use extreme caution not to damage the existing pipe while conducting construction related activities.

If watertight joints are required then the watertight joints shall extend for a distance of 10 feet beyond the water main. This measurement shall be from the sealed concrete joint to the outer most surface of the water main. Watertight joint seals shall conform to the following requirements:

1. Reinforced Concrete Pipe (Circular): Gasketed pipe shall conform to the requirements of ASTM C443. Non-gasketed concrete pipe shall be sealed with a mastic joint seal conforming to the requirements of ASTM C990 and encased with a minimum 2' wide by 6" thick M6 concrete collar reinforced with 6x6 W2.9 x W2.9 wire mesh.

2. Reinforced Concrete Pipe (Arch): Joints shall be sealed with a waterstop seal meeting the requirements of ASTM C990. Waterstop seals shall consist of hydrophilic compounds such as Waterstop-RX or ConSeal CS-231.

3. Drop Inlets, Manholes, and Junction Boxes: Joints shall be sealed with a waterstop seal or seal wrap meeting the requirements of ASTM C990 or encased with a minimum 2' wide by 6" thick M6 concrete collar reinforced with 6x6 W2.9 x W2.9 wire mesh. Waterstop seal shall contain hydrophilic compounds such as Waterstop-RX or ConSeal CS-231. Seal wrap shall be a self-adhesive external joint wrap such as ConWrap CS-217 or Mar Mac Seal Wrap.

4. PVC Storm Sewer Pipe: Shall be AWWA Specification C900, DR18

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

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

DROP INLETS

Where drop inlets are constructed within areas of curb and gutter, the Contractor shall construct weep holes of at least 3 inches in diameter in the drop inlet walls. The weep holes shall be constructed at the same elevation as the adjacent top of the earthen subgrade and shall be maintained clean and open at all times until the permanent surfacing is placed. The drop inlets shall be covered throughout construction operations as necessary with an Engineer approved cover to provide safe travel for motorists and to prevent materials from entering the storm sewer system. After the permanent surfacing has been placed, the Contractor shall seal the weep holes with grout and remove all debris from the drop inlet. All costs involved with the coverings, weep holes, and removing debris from the drop inlets shall be incidental to the contract unit prices for the components of the drop inlets.

The plan shown quantities of the drop inlet components such as Class M6 Concrete, Reinforcing Steel, and Type B Frame and Grate Assembly which will be the basis of payment for these items.

If additions or reductions to the number of drop inlets are ordered by the Engineer, payment for the components required to construct the drop inlets will be made at the contract unit prices for the components of the drop inlets.

TABLE OF DROP INLETS AND QUANTITIES

Station	L / R	Drop Inlet Size	Drop Inlet Type	Class M6 Concrete (CuYd)	Reinf. Steel (Lb)	Concrete Collar (Each)	Frame and Grate/Lid Type
99+48.35	R	2'x3'	B	0.6	69.9	0	B
99+52.35	R	2'x3'	B	0.5	72.3	0	B
99+56.35	R	2'x3'	B	0.6	74.4	0	B
100+57.20	L	2'x3'	B	0.5	63.7	0	B
100+61.20	L	2'x3'	B	0.5	65.7	0	B
100+81.03	R	2'x3'	B	0.6	79.1	0	B
100+81.03	R	2'x3'	B	0.8	86.4	0	B
101+08.80	R	3'x4'	B	1.3	173.7	0	B
101+19.68	L	2'x3'	B	0.5	64.5	0	B
101+19.69	L	2'x3'	B	0.5	62.6	0	B
103+76.54	L	2'x3'	B	0.8	88.2	0	B
103+96.64	R	2'x3'	B	0.7	77.8	0	B
104+44.11	R	2'x3'	B	0.7	84.2	0	B
104+44.11	R	2'x3'	B	0.7	83.4	0	B
104+83.46	R	2'x3'	B	0.8	90.8	0	B
107+40.48	L	3'x4'	B	1.5	188.6	0	B
107+59.31	R	2'x3'	B	0.7	77.3	0	B
108+09.44	R	2'x3'	B	0.5	71.9	0	B
108+09.44	R	2'x3'	B	0.5	67.0	0	B
108+63.78	R	2'x3'	B	0.6	71.6	0	B
110+31.37	L	3'x4'	B	1.5	209.1	0	B
110+31.37	R	2'x3'	B	0.7	83.4	0	B
111+18.05	L	3'x4'	B	1.6	213.8	0	B
111+38.21	R	2'x3'	B	0.8	94.1	0	B
111+81.07	R	2'x3'	B	0.7	83.4	0	B
111+81.08	R	2'x3'	B	0.7	85.9	0	B
112+29.43	R	2'x3'	B	0.6	76.7	0	B
114+35.67	L	2'x3'	B	0.8	96.9	0	B
114+37.97	R	2'x3'	B	0.8	87.4	0	B
117+55.90	L	2'x3'	B	0.7	94.8	0	B
117+55.90	R	2'x3'	B	0.7	86.0	0	B
123+92.30	L	2'x3'	B	0.8	93.7	0	B
124+06.83	R	2'x3'	B	0.7	79.3	0	B
124+44.95	R	2'x3'	B	1.0	107.3	0	B
			Total:	26.0	3204.9	0	
Total Type B Frame and Grate Assembly					**34**		

TABLE OF 48" MANHOLES

Station	L/R	Frame and Lid (Type)
101+00.02	L	A7
108+36.61	R	A7
124+33.84	R	A7
	Totals:	3

REVISED 12-10-15

TABLE OF 60" MANHOLES

Station	L/R	Frame and Lid (Type)
101+08.33	L	A7
	Totals:	1

ADJUSTMENT OF MANHOLES

The Contractor shall adjust manholes to the extent necessary on this project. Adjusting the manholes may consist of removing the upper course of brick or removing the concrete walls, replacing the removed materials with brick or Class M6 concrete, placing adjusting rings if necessary, and resetting the manhole frame and lid. The elevation of the lid shall be set at the same elevation of the adjacent new pavement or surrounding ground. All manhole frames, lids, and rings that are cracked or broken due to carelessness of the Contractor shall be replaced with new manhole frames, lids, and rings that conform with the Specifications at the Contractor's expense. Manholes shall be adjusted to the satisfaction of the Engineer. All costs involved in adjusting the manholes shall be incidental to the contract unit price per each for "Adjust Manhole".

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

TABLE OF ADJUST MANHOLES

Station	L/R	Type of Adjustment
100+95.27	R	Adjust Rim to Match Finish Grade

TABLE OF TYPE B66 CONCRETE CURB AND GUTTER

Station	to Station	L/R	Quantity (Ft)
100+10.10	100+62.73	L	52.6
100+79.15	100+78.90	L	30.8
101+20.77	101+12.59	L	67.4
101+28.10	101+62.96	L	41.5
101+74.96	101+97.03	L	22.1
102+03.03	104+35.71	L	235.8
104+51.24	104+43.58	L	42.2
104+84.50	104+76.40	L	42.2
104+91.99	105+14.23	L	28.9
105+26.23	105+37.08	L	10.9
105+43.08	106+29.36	L	86.3
106+41.36	107+12.50	L	71.1
107+24.50	108+00.90	L	79.5
108+18.24	108+18.19	L	6.0
108+64.68	108+51.99	L	45.0
108+78.27	108+92.21	L	16.1
108+96.11	111+72.67	L	282.0
111+88.24	111+80.17	L	42.2
112+30.63	112+22.54	L	42.1
112+43.93	112+58.71	L	17.2
112+62.61	114+77.10	L	219.7
114+83.10	115+05.84	L	25.2
115+09.74	116+94.13	L	186.4
117+35.13	117+60.35	L	25.2
99+42.35	100+65.35	R	127.5
100+80.21	100+80.31	R	22.9
101+09.76	101+10.01	R	35.8
101+34.15	101+73.35	R	43.6
101+85.35	104+05.25	R	222.3
104+09.15	104+35.71	R	28.7
104+51.12	104+43.10	R	45.1
104+84.56	104+76.31	R	45.1
104+91.99	106+82.88	R	194.0
107+08.82	107+67.95	R	61.5
107+71.85	108+00.90	R	31.2
108+16.47	108+08.40	R	45.5
108+64.75	108+54.63	R	46.2
108+72.27	111+46.85	R	280.1
111+50.74	111+72.67	R	24.0
111+88.10	111+80.11	R	46.0
112+30.06	112+22.31	R	46.2
112+37.89	113+98.00	R	163.2
114+04.00	114+14.85	R	10.9
114+30.67	114+77.10	R	53.0
114+83.10	117+63.40	R	283.3
117+78.26	117+81.06	R	9.3
123+85.30	124+40.70	L	58.7
124+53.09	124+45.76	L	28.2
124+86.80	124+78.43	L	27.9
124+91.57	125+20.27	L	31.4
123+85.34	124+40.21	R	59.9
124+52.49	124+43.92	R	33.8
124+84.91	124+77.86	R	33.9
124+52.42	124+43.96	R	33.8
124+91.56	125+20.54	R	31.7
100+80.21	100+80.31	R	22.9
		Total:	3946.0

REVISED 12-10-15

TABLE OF TYPE P6 CONCRETE GUTTER

Station	to	Station	L/R	Quantity (Ft)
101+12.55		101+12.52	L	6.0
101+62.96		101+74.96	L	12.0
101+97.03		102+03.03	L	6.0
104+51.27		104+51.24	L	6.0
104+76.40		104+85.99	L	6.0
105+14.23		105+26.23	L	12.0
105+37.08		105+43.08	L	6.0
106+29.36		106+41.36	L	12.0
107+12.50		107+24.50	L	12.0
108+18.29		108+18.24	L	6.0
108+51.99		108+52.03	L	6.0
108+92.21		108+96.11	L	6.0
111+88.28		111+88.24	L	6.0
112+22.54		112+22.51	L	6.0
112+58.71		112+62.61	L	6.0
114+77.10		114+83.10	L	6.0
115+05.84		115+09.74	L	6.0
116+94.13		117+35.13	L	41.0
101+73.35		101+85.35	R	12.0
104+05.25		104+09.15	R	6.0
104+51.14		104+51.12	R	6.0
104+76.31		104+76.27	R	6.0
106+82.88		107+08.82	R	25.9
107+67.95		107+71.85	R	6.0
108+16.49		108+16.47	R	6.0
108+54.63		108+54.59	R	6.0
111+46.85		111+50.74	R	6.0
111+88.12		111+88.10	R	6.0
112+22.31		112+22.27	R	6.0
113+98.00		114+04.00	R	6.0
114+14.85		114+30.67	R	15.8
114+77.10		114+83.10	R	6.0
124+53.03		124+53.09	L	6.0
124+78.43		124+78.38	L	6.0
124+52.54		124+52.49	R	6.0
124+52.49		124+52.42	R	6.0
			Total:	310.7

TABLE OF 6” CONCRETE VALLEY GUTTER

Station	to	Station	L/R	Quantity (Ft)
101+08.46		101+12.48	L/R	20.1
104+53.93		104+73.54	R	19.6
108+19.30		108+51.85	R	32.6
108+21.15		108+49.52	L	28.4
111+90.91		112+19.55	R	28.6
124+55.36		124+75.36	R	20.0
			Total	149.3

6” PCC FILLET SECTIONS

Payment for 6” PCC Fillet Section” shall 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”.

TABLE OF 6" PCC FILLET SECTION

Station	to	Station	L/R	Radius (Ft)	Quantity (SqYd)
100+62.73		100+81.86	L	15	15.91
101+09.79		101+28.15	L	15	15.70
101+07.13		101+28.15	R	15	15.73
104+35.75		104+53.93	R	15	15.65
104+35.75		104+54.08	L	15	15.68
104+73.64		104+92.03	L	15	15.70
104+73.54		104+92.03	R	15	15.73
108+00.95		108+19.28	R	15	15.70
108+00.95		108+21.17	L	12.33	14.55
108+49.53		108+72.27	L	15	16.88
108+51.83		108+72.27	R	15	16.35
111+72.71		111+91.09	L	15	15.73
111+72.71		111+90.91	R	15	15.63
112+19.78		112+37.93	L	15	15.67
112+19.54		112+37.93	R	15	15.72
117+58.88		117+81.99	L	20	22.31
117+61.12		117+83.23	R	20	21.33
118+22.53		118+42.07	R	20	19.62
118+22.79		118+41.14	L	20	20.69
124+40.70		124+55.57	L	12.33	11.59
124+40.21		124+55.36	R	12.33	11.89
124+75.36		124+91.57	R	12.33	11.96
124+75.57		124+91.57	L	12.33	12.14
				Total:	367.86

TYPE 1 DETECTABLE WARNINGS

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 federal yellow 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/
CAST-DWD Cast Iron Plate	Key 3 Casting (Northern Foundry) 555 West 25th Street Hibbing, MN 55746 218-263-8871 http://key3casting.com

TABLE OF TYPE 1 DETECTABLE WARNINGS

Station	L/R	Quantity (SqFt)
100+64.41	15.67' R	8
100+73.82	33.14' L	10
100+77.76	39.53' R	8
101+12.42	23.08' R	12
101+13.58	32.00' L	12
101+25.15	13.68' L	12
101+25.15	13.90' R	12
102+00.07	28.00' L	12
104+08.00	20.16' R	12
104+38.75	14.74' R	12
104+38.75	14.68' L	12
104+50.28	32.00' L	12
104+50.18	31.97' R	12
104+77.32	31.97' R	12
104+77.44	32.00' L	12
104+89.03	14.67' L	12
104+89.03	14.64' R	12
105+40.12	28.00' L	12
107+70.70	20.17' R	12
108+03.95	14.69' R	12
108+03.95	13.67' L	12
108+15.52	31.99' R	12
108+17.28	32.00' L	12
108+53.05	32.01' L	12
108+55.65	31.99' R	12
108+69.27	13.70' L	12
108+69.27	14.06' R	12
108+93.44	20.17' L	12
111+49.60	20.16' R	12
111+75.71	14.73' R	12
111+75.71	14.67' L	12
111+87.15	31.97' R	12
111+87.29	32.00' L	12
112+23.31	31.97' R	12
112+23.59	32.00' L	12
112+34.93	14.68' R	12
112+34.93	14.76' L	12
112+59.94	20.81' L	12
114+01.04	28.00' R	12
114+80.14	13.67' R	12
114+80.14	13.67' R	12
115+07.11	20.84' L	12
117+72.80	33.52' L	16
117+74.50	32.80' R	16
118+31.45	34.38' L	16
118+30.38	33.61' R	16
124+43.21	15.21' R	12
124+43.73	15.27' L	12
124+51.52	28.11' R	12
124+52.06	27.90' L	12
124+78.86	27.89' R	12
124+79.40	28.10' L	12
124+88.56	14.60' R	12
124+88.58	14.77' L	12
	Total:	646

TABLE OF 6" PCC APPROACH PAVEMENT

Station	to	Station	L/R	Type	Quantity (SqYd)
101+59.00		101+79.00	L	A	6.2
101+68.57		101+89.39	R	A	6.4
105+10.27		105+30.27	L	A	6.2
106+25.40		106+45.40	L	A	6.2
106+78.92		107+12.86	R	A	11.6
107+08.54		107+28.54	L	A	6.2
114+10.89		114+35.98	R	A	8.0
116+90.17		117+39.17	L	A	17.5
				Total:	68.3

CONCRETE SIDEWALK

The concrete sidewalk shall be constructed in accordance with Section 651 of the Specifications. The sidewalk standard plates in this plan set are typical of this project, the sidewalk widths and other special details are shown on the Curb and Gutter Layout Sheets as well as Section H: Landscaping.

COLORED CONCRETE SIDEWALK

The 5" Non-reinforced concrete sidewalk (Full Depth Integral Colored) shall have the Liquid Oxide color "Charcoal", "Doeskin" or "Fox Red" featured. To produce the color, utilize Colorflo for Colorselect Liquid Dispensing System per Solomon Colors, Inc. (or as per manufacturer's recommendations for other provider). All costs to furnish and install 5" Non-reinforced concrete sidewalk (Full Depth Integral Colored) shall be incidental to the contract unit price per square feet for 5" Colored Concrete Sidewalk. See Section H layout sheets for 5" Colored Concrete Sidewalk details and color selections.

CURING OF COLORED CONCRETE

Do NOT fog or spray water on the surface during the initial curing period.
Do NOT cover the surface with plastic.
Use Legacy or Brickform Cure and Seal compounds per ASTM C309 and ASTM 1315.

TABLE OF 5" #413 – FOX RED COLORFLO LIQUID COLORED CONCRETE SIDEWALK

Station	to	Station	L/R	Quantity (SqFt)
101+09.85		101+22.15	R	204.7
101+13.27		101+22.15	L	77.7
104+41.75		104+50.46	R	75.1
104+41.75		104+50.60	L	77.5
104+77.04		104+86.03	R	79.4
104+77.12		104+86.03	L	78.2
108+06.94		108+18.11	L	120.4
108+06.95		108+15.81	R	77.5
108+52.80		108+66.26	L	149.2
108+55.34		108+66.27	R	108.6
111+78.71		111+87.45	R	75.7
111+78.71		111+87.61	L	78.2
112+23.04		112+31.93	R	77.8
112+23.27		112+31.93	L	74.7
			Total:	1354.7

TABLE OF 5" #920 – CHARCOAL COLORFLO LIQUID COLORED CONCRETE SIDEWALK

Station	to	Station	L/R	Quantity (SqFt)
101+32.30		104+31.59	L	510.1
101+32.04		104+31.58	R	535.7
104+96.17		107+96.73	R	511.9
104+96.66		107+97.13	L	460.4
108+76.09		111+68.55	L	559.9
108+76.23		111+68.54	R	560.4
112+42.08		117+63.40	R	950.6
			Total:	4089.0

TABLE OF 5" STANDARD GRAY CONCRETE SIDEWALK

Station	to	Station	L/R	Quantity (SqFt)
100+51.33		100+78.95	L	279.2
101+12.55		104+51.31	L	3083.1
101+11.80		104+51.18	R	2962.5
104+76.35		108+16.48	R	3185.9
104+76.41		108+18.33	L	2748.7
108+52.07		111+88.29	L	3203.8
108+54.65		111+88.15	R	3188
112+22.31		117+81.11	R	4336.5
112+22.59		115+67.93	L	2987.8
116+76.03		117+78.85	L	610.2
117+81.88		117+87.88	R	60.0
117+86.66		117+92.66	R	60.0
118+25.56		118+43.20	L	176.8
118+25.04		118+47.36	R	246.0
118+83.59		118+95.06	R	117.6
119+62.48		119+72.75	L	54.9
119+67.89		119+74.32	R	34.2
120+61.89		120+67.09	R	40.9
120+90.28		120+99.18	R	72.5
121+21.85		121+26.68	L	14.7
121+54.75		121+59.68	R	35.7
122+73.70		122+84.55	L	31.4
123+04.46		123+10.23	L	34.7
123+35.51		123+44.42	L	53.2
123+49.58		123+59.68	L	60.3
123+46.72		123+56.91	R	69.8
123+85.31		124+53.03	L	1264.4
124+01.62		124+52.54	R	1023.4
124+77.89		125+14.81	R	909.4
124+78.38		125+14.40	L	883.6
			Total:	31829.2

TABLE OF 5" #238 – DOESKIN COLORFLO LIQUID COLORED CONCRETE SIDEWALK

Station	to	Station	L/R	Quantity (SqFt)
101+12.59		104+51.31	L	1029.6
101+11.80		104+51.18	R	798.8
104+76.41		108+18.33	L	1012.0
104+76.35		108+16.48	R	959.0
108+52.07		111+88.29	L	909.0
108+54.65		111+88.15	R	942.2
112+22.31		117+63.39	R	1383.8
112+22.59		117+60.41	L	1198.5
			Total:	8232.9

REINFORCED CONCRETE SIDEWALK

Contractor shall install deformed 18 inch deformed, epoxy coated, #4 bars doweled into existing sidewalk at 12" on center between Sta 99+42.35 to Sta 99+60.35. All material and work for installation of dowels shall be incidental to the contract price for 5" Reinforced Concrete Sidewalk.

TABLE OF 5" REINFORCED CONCRETE SIDEWALK

Station	to	Station	L/R	Quantity (SqFt)
99+42.35		99+60.35	R	40.0
100+60.47		100+65.39	R	20.3
			Total:	60.3

SIDEWALK DRAINS

At the locations noted in the Table of Sidewalk Drains, drainage from adjacent buildings will be carried through the sidewalk to the gutter. The sidewalk drains shall be constructed in accordance with the details shown on Standard Plate 651.50.

TABLE OF SIDEWALK DRAINS

Station	L/R	Length (ft)
104+32.02	L	12.6
114+44.80	R	18.1
117+42.85	R	10.2
	Total	40.9

ROOF DRAIN CONNECTIONS

At the location noted in the Table of Roof Drain Connections, drainage from adjacent building's roof drain will be carried through the sidewalk to the gutter by a connection to the roof drain. The Roof Drain Connection will be constructed in accordance with the detail shown in the Special Detail. All material including PVC pipe, expansion joint material, aluminum grating, and base course will be incidental to the contract price for Sidewalk Drains.

TABLE OF ROOF DRAIN CONNECTIONS

Station	L/R	Quantity
117+44.8	R	1
	Total	1

4" PVC PIPE ENCASEMENT

4" diameter Schedule 80 PVC Sleeve with solvent welded external fittings shall be used for irrigation sleeves and installed prior to surfacing. Depth is 24". See specifications for trench coordination and backfill requirements per SDDOT.

TABLE OF 4" PVC PIPE ENCASEMENT

Station to	Station	Quantity Ft.
100+50.63 - 38.92' L	100+63.50 - 23.85' L	19.8
101+19.77 - 38.93' L	101+32.46 - 23.70' L	19.8
101+33.84 - 15.59' L	101+34.19 - 18.18' R	33.8
104+17.75 - 15.29' L	104+18.00 - 15.86' R	31.1
104+31.24 - 23.91' L	104+44.06 - 38.70' L	19.6
104+32.71 - 23.60' R	104+44.89 - 36.69' R	17.9
104+32.77 - 19.52' R	104+95.03 - 19.41' R	62.3
104+83.47 - 36.06' L	104+95.53 - 22.86' L	17.9
104+83.52 - 36.62' R	104+95.30 - 23.27' R	17.8
104+97.12 - 15.21' L	104+97.37 - 15.95' R	31.1
107+81.79 - 15.25' L	107+82.03 - 15.91' R	31.1
107+97.88 - 23.36' R	108+10.05 - 36.45' R	17.9
107+97.93 - 19.61' R	108+75.06 - 19.53' R	77.1
108+61.94 - 38.17' R	108+75.13 - 23.32' R	19.9
108+63.30 - 36.01' L	108+75.36 - 22.82' L	17.9
108+76.95 - 15.16' L	108+77.19 - 15.95' R	31.1
111+56.53 - 15.38' L	111+56.77 - 15.77' R	31.1
111+65.27 - 24.48' L	111+80.98 - 42.21' L	23.7
111+69.65 - 23.52' R	111+81.82 - 36.61' R	17.9
111+71.30 - 19.71' R	112+38.70 - 19.64' R	67.5
112+29.29 - 36.54' R	112+41.15 - 23.17' R	17.9
112+29.55 - 37.00' L	112+41.61 - 23.81' L	17.9
112+42.21 - 15.16' L	112+42.46 - 15.99' R	31.1
114+73.82 - 20.99' R	114+86.12 - 21.05' R	12.3
114+74.54 - 23.22' L	114+86.78 - 23.16' L	12.2
114+87.83 - 15.68' L	114+88.08 - 15.47' R	31.1
124+51.41 - 22.31' R	124+78.70 - 22.27' R	27.3
124+52.40 - 22.65' L	124+79.70 - 22.69' L	27.3
124+95.28 - 20.43' R	124+95.68 - 22.29' L	42.7
	Total	826.1

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.

TABLE OF CLEAR AND GRUB TREE

Station	L/R	Quantity (Each)
105+06.52	28.78' R	1
105+79.37	29.00' L	1
105+84.53	28.66' R	1
112+50.29	29.27' R	1
115+60.02	29.29' L	1
117+44.69	29.00' L	1
	Total:	6

UTILITY CONTACT INFORMATION

City of Sturgis Public Works
Rick Bush – Public Works Director
(605) 347-3916
1040 Harley-Davidson Way
Sturgis, SD 57785

Black Hills Power
Luke Ross
(605) 206-2964
1251 Otter Road
Sturgis, SD 57785

Midcontinent Communications
1-800-888-1300
PO Box 5010
Sioux Falls, SD 57117

CenturyLink
1-800-350-1044

Montana-Dakota Utilities
(605) 342-0160
718 Steele Avenue
Rapid City, SD 57701

Butte Electric
(605) 456-2494
PO Box 137
Newell, SD 57760

Vast Broadband
Brenda Grabow – Manager
(605) 721-2000
809 Deadwood Avenue N.
Rapid City, SD 57702

TABLE OF CONSTRUCTION STAKING FOR PROJECT P 76689 (05) PCN 04AE
(See Special Provision for Contractor Staking)

Roadway and Description	Begin Station	End Station	*Number of Lanes	Length (Ft)	Grade Staking: Length (Mile)	Grade Staking: Lane Factor	Grade Staking: **Sets of Stakes	Grade Staking: ***Grade Staking Quantity (Mile)	Miscellaneous Staking Quantity (Mile)	Construction Staking Quantity (Mile)
MAIN STREET (2 Lanes AC Pavement)	99+42	117+83	2	1,841	0.349	1	1	0.349	0.349	0.349
MAIN STREET (2 Lanes AC Pavement)	123+85	125+20	2	135	0.026	1	1	0.026	0.026	0.026
4th STREET NORTH (2 Lanes AC Pavement)	300+00	300+75	2	75	0.014	1	1	0.014	0.014	0.014
4th STREET SOUTH (2 Lanes AC Pavement)	201+08	201+69	2	61	0.012	1	1	0.012	0.012	0.012
3rd STREET (2 Lanes AC Pavement)	400+97	402+50	2	153	0.029	1	1	0.029	0.029	0.029
2nd STREET (2 Lanes AC Pavement)	500+52	502+05	2	153	0.029	1	1	0.029	0.029	0.029
1st STREET (2 Lanes AC Pavement)	600+64	602+18	2	154	0.029	1	1	0.029	0.029	0.029
MIDDLE STREET (2 Lanes AC Pavement)	800+64	801+84	2	120	0.023	1	1	0.023	0.023	0.023
							Totals:	0.511	0.511	0.511

* Note that Main Street has widened lanes to accommodate parking, there will be no additional costs associated with staking the full width of the roadway.

** 1 = Blue Top Stakes Only (Asphalt Concrete Pavement)
2 = Blue Top and Paving Hub Stakes (PCC Pavement)

*** Grade Staking Quantity = (Length) x (Lane Factor) x (Sets of Stakes)

TABLE OF PIPE QUANTITIES

Station and Offset (L/R)	Reinforced Concrete									PVC	
	Circular			Bend		Tee				Circular	Bend
	18" Cl 3 FT	24" Cl 3 FT	60" Cl 3 FT	18" 15° Each	18" 22.5° Each	18" x 18" Each	24" x 18" Each	60" x 18" Each	60" x 24" Each	8" FT	8" 22.5° Each
99+48.35 – 12.87 R TO 99+52.35 – 12.87 R	4										
99+52.35 – 12.87 R TO 99+53.35 – 12.87 R	4										
99+56.35 - 12.87 R TO 100+64.28 - 1.51 L	110										
100+61.20 - 26.75 L TO 100+57.20 - 26.74 L	4										
100+64.28 - 1.51 L TO 100+61.20 - 26.75 L	26					1					
100+65.01 - 1.00 L TO 101+00.02 - 6.35 L	36										
100+81.30 - 44.99 R TO 100+81.30 - 48.99 R	4										
101+00.02 - 6.35 L TO 101+08.80 - 32.67 R	40										
101+08.30 - 68.23 L TO 101+00.02 - 6.35 L	62										
101+08.30 - 68.23 L TO 101+08.30 - 76.23 L	8										
101+08.30 - 68.23 L TO 101+19.68 - 68.23 L	12										
101+08.30 - 76.23 L TO 101+16.60 - 96.29 L	22										
101+08.80 - 32.67 R TO 100+81.30 - 44.99 R	30										
101+08.80 - 32.67 R TO 101+12.60 - 51.05 R	20										
101+12.46 - 55.05 R TO 101+08.27 - 178.66 R	124										
101+12.60 - 51.05 R TO 101+12.46 - 55.05 R	4			1							
101+13.80 - 33.09 R TO 101+08.80 - 32.67 R										6	
101+13.80 - 33.09 R TO 101+20.39 - 36.81 R										8	1
101+16.60 - 96.29 L TO 101+16.64 - 100.29 L	4				1						
101+16.92 - 134.22 L TO 101+16.64 - 100.29 L	34										
101+19.69 - 72.23 L TO 101+19.68 - 68.23 L	4										
103+76.54 - 26.00 L TO 103+96.16 - 26.17 L	20					1					
103+96.16 - 26.17 L TO 104+71.64 - 26.97 L	76							1			
103+96.64 - 25.96 R TO 103+96.16 - 26.17 L	52										
104+44.11 - 67.45 R TO 104+71.67 - 66.94 R	28							1			
104+44.11 - 71.45 R TO 104+44.11 - 67.45 R	4										
104+71.68 - 35.40 L TO 104+71.69 - 47.36 L			12								
104+83.46 - 70.94 R TO 104+71.70 - 70.94 R	12							1			
107+40.48 - 26.00 L TO 107+59.40 - 26.00 L		20									
107+59.31 - 26.00 R TO 107+59.40 - 26.00 L		52									
107+59.40 - 26.00 L TO 108+36.43 - 26.00 L		78					1				
108+09.44 - 71.32 R TO 108+09.44 - 75.32 R	4										
Subtotal:	748	150	12	1	1	2	1	3	0	14	1

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

TABLE OF PIPE QUANTITIES (CONTINUED)

Station and Offset (L/R)	Reinforced Concrete									PVC	
	Circular			Bend		Tee				Circular	Bend
	18" Cl 3 FT	24" Cl 3 FT	60" Cl 3 FT	18" 15° Each	18" 22.5° Each	18" x 18" Each	24" x 18" Each	60" x 18" Each	60" x 24" Each	8" FT	8" 22.5° Each
108+09.44 - 71.32 R TO 108+36.61 - 71.42 R	28										
108+36.43 - 26.00 L TO 110+31.37 - 26.00 L	196						1				
108+36.61 - 71.42 R TO 108+36.43 - 26.00 L	98										
108+63.78 - 71.48 R TO 108+36.61 - 71.42 R	28										
110+31.37 - 26.00 L TO 111+18.05 - 26.00 L		88									
110+31.37 - 26.00 R TO 110+31.37 - 26.00 L	52										
111+18.05 - 26.00 L TO 111+37.86 - 26.02 L		20									
111+37.86 - 26.02 L TO 112+09.24 - 26.10 L		72					1		1		
111+38.21 - 26.00 R TO 111+37.86 - 26.02 L	52										
111+81.08 - 67.48 R TO 111+81.07 - 71.48 R	4										
111+81.08 - 67.48 R TO 112+07.36 - 67.49 R	26							1			
112+29.43 - 71.95 R TO 112+07.28 - 71.53 R	22							1			
112+07.92 - 39.61 R TO 112+07.76 - 47.67 R			8								
114+35.67 - 26.00 L TO 117+55.90 - 26.00 L	320										
114+37.97 - 23.13 R TO 114+35.67 - 26.00 L	50										
117+55.90 - 26.00 L TO 117+62.51 - 26.31 L	8										
117+55.90 - 26.00 R TO 117+55.90 - 26.00 L	52										
123+92.30 - 26.59 L TO 124+32.62 - 26.40 L	40										
124+06.83 - 25.66 R TO 124+32.38 - 21.99 R	26										
124+32.38 - 21.99 R TO 124+32.62 - 26.40 L		48					1				
124+32.38 - 21.99 R TO 124+44.95 - 55.66 R	36										
124+32.62 - 26.40 L TO 124+32.65 - 38.77 L		12									
Subtotal:	1038	240	8	0	0	0	3	2	1	0	0
Total	1786	390	20	1	1	2	4	5	1	14	1

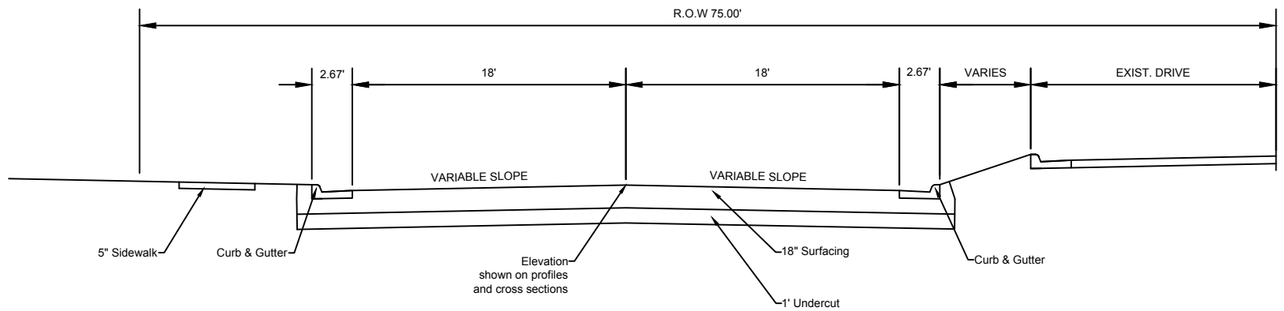
REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

TYPICAL SECTIONS

FOR BIDDING PURPOSES ONLY

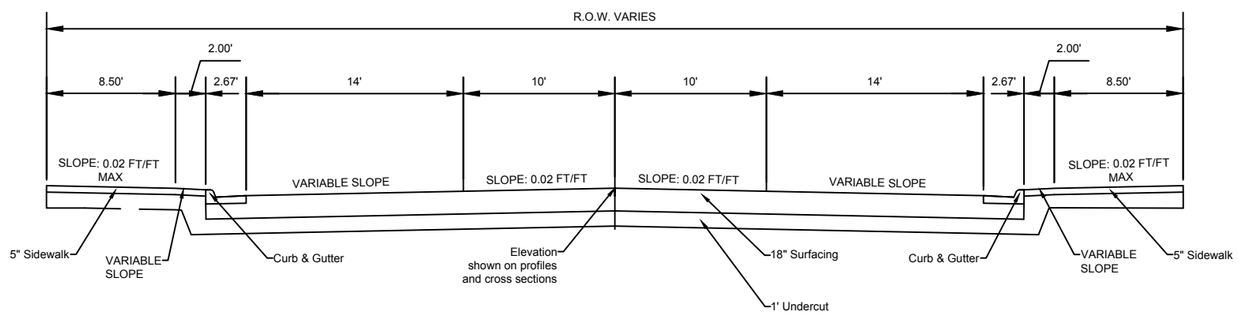
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B14	B67

Plotting Date: 10/26/2015



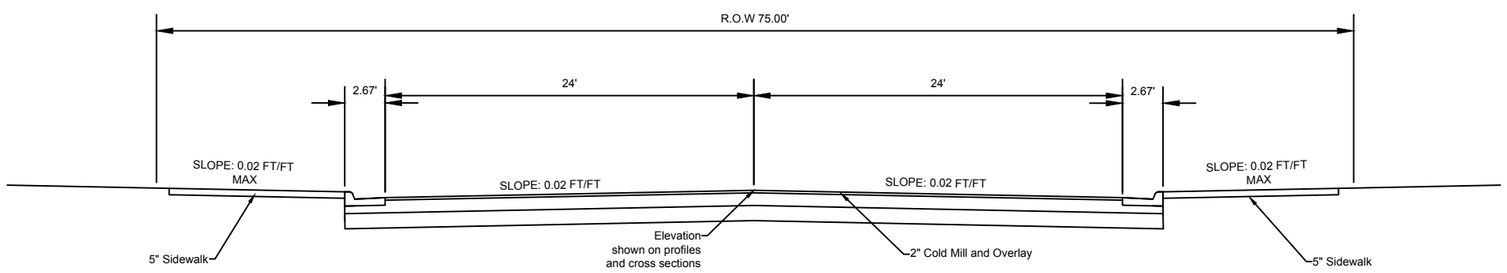
Typical Section - Main Street

STA 100+00 TO100+64.17



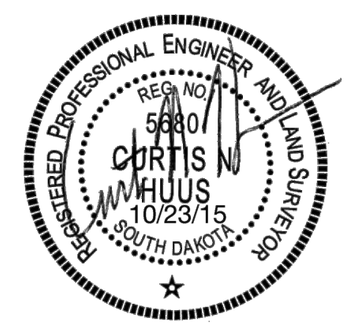
Typical Section - Main Street

STA 101+08.46 TO 104+54.08
STA 104+73.59TO 108+20.23
STA 108+50.68 TO 111+91.00
STA 112+45.58 TO 117+82.62
STA 123+85.33 TO 125+20.23



Typical Section - Main Street

STA 118+22.66 TO 123+85.33



NOTE: REFER TO CURB AND GUTTER LAYOUT SHEETS FOR CONSTRUCTION STAKING.

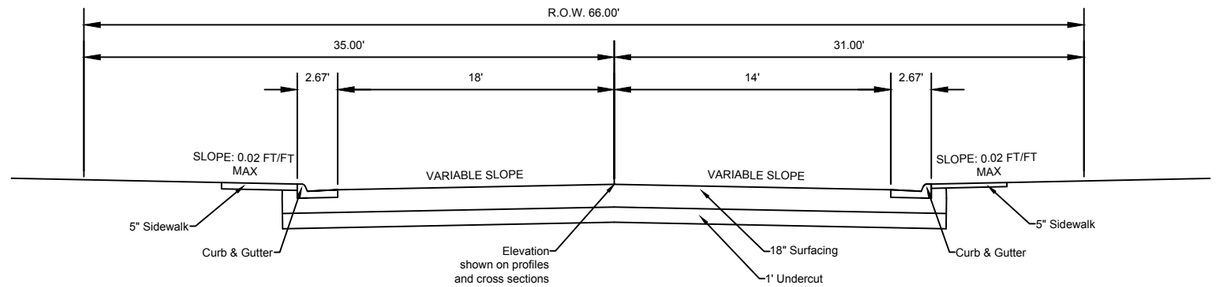
L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\TYPICAL SECTION.dwg 10/26/2015 10:33:50 AM

TYPICAL SECTIONS

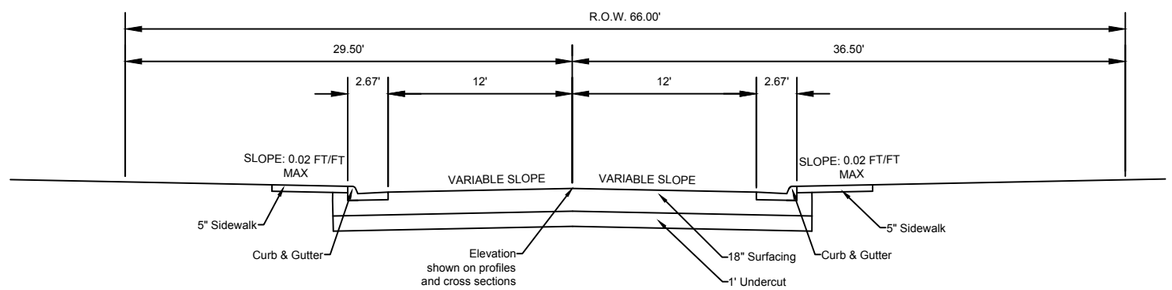
FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B15	B67

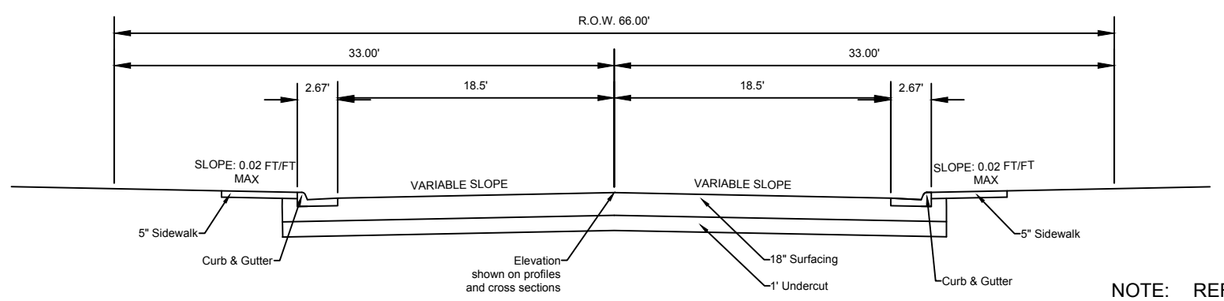
Plotting Date: 10/26/2015



Typical Section - Fourth Street North



Typical Section - Fourth Street South



Typical Section - Third Street North

NOTE: REFER TO CURB AND GUTTER LAYOUT SHEETS FOR CONSTRUCTION STAKING.

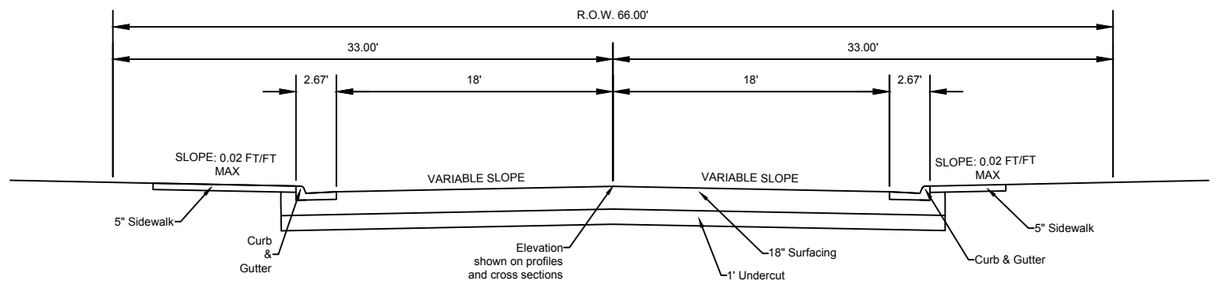
L:\114-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B/TYPICAL SECTION.dwg 10/26/2015 10:33:51 AM

TYPICAL SECTIONS

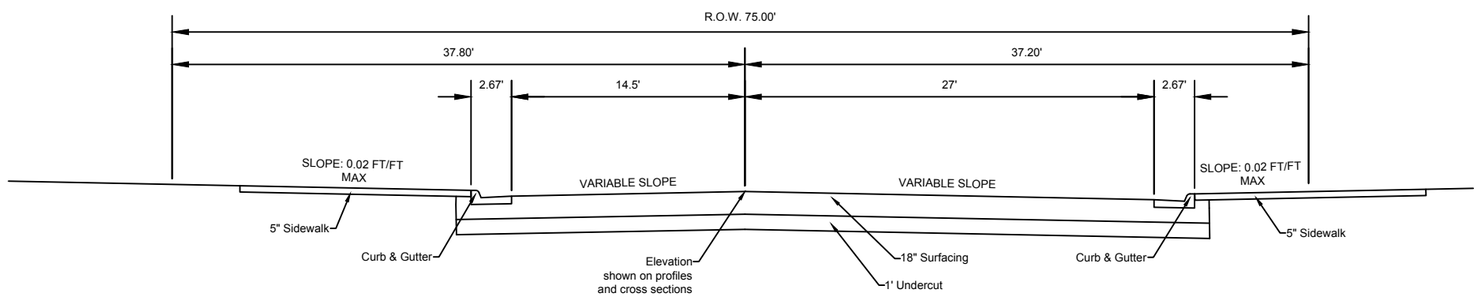
FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B16	B67

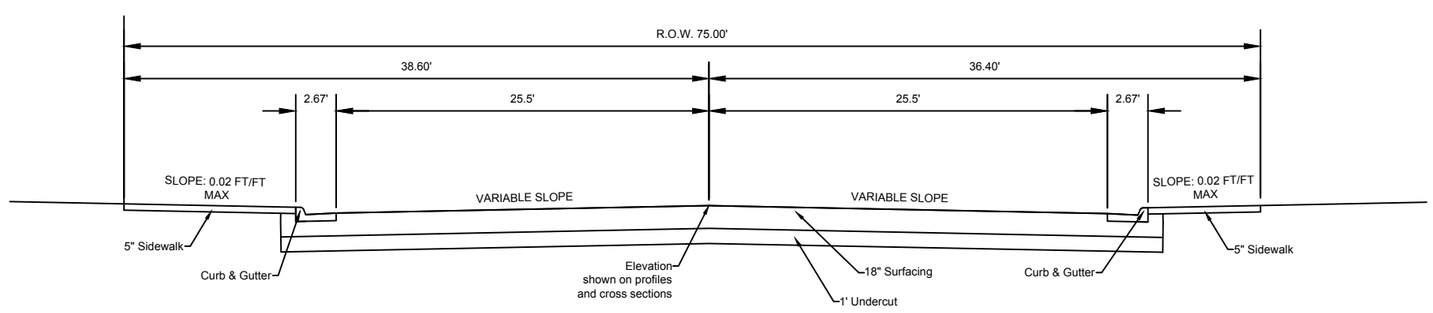
Plotting Date: 10/26/2015



Typical Section - Third Street South



Typical Section - Second Street North



Typical Section - Second Street South

NOTE: REFER TO CURB AND GUTTER LAYOUT SHEETS FOR CONSTRUCTION STAKING.

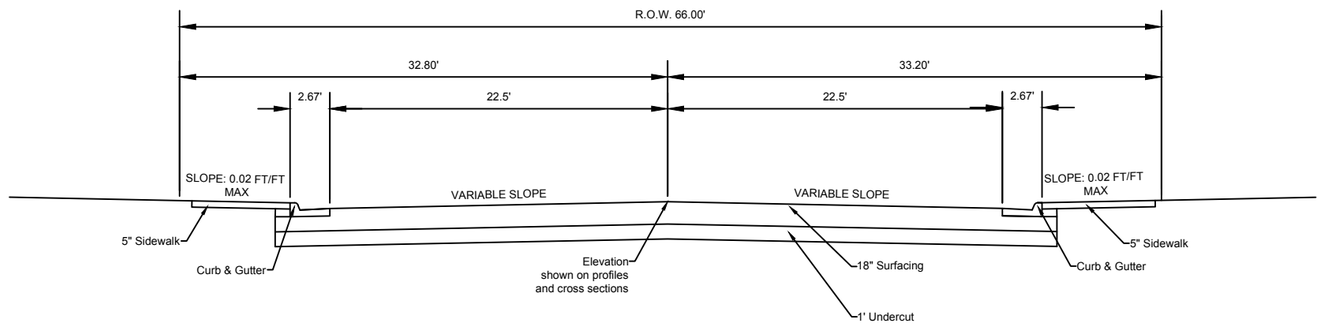
L:\114-2030 Sturgis Main St Recons\Drawings\Eng\Sheet Files\Section B\TYPICAL SECTION.dwg 10/26/2015 10:33:56 AM

TYPICAL SECTIONS

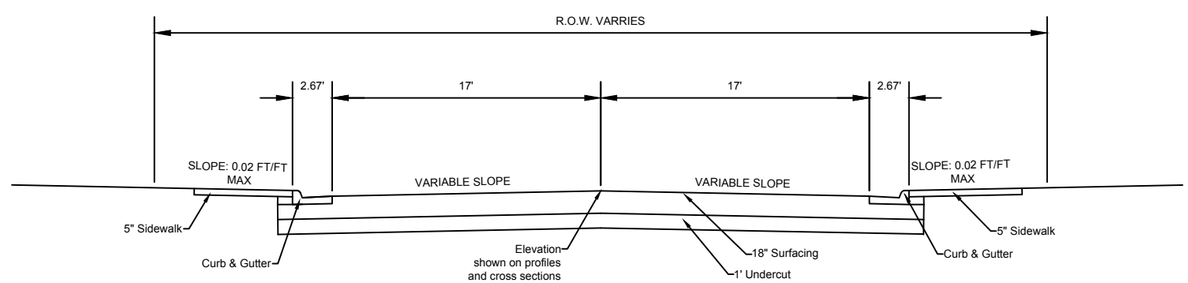
FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B17	B67

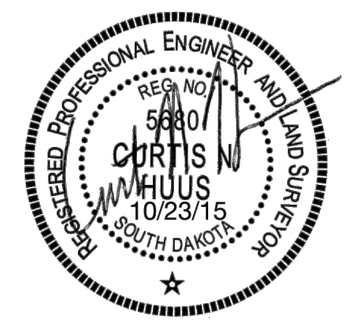
Plotting Date: 10/26/2015



Typical Section - First Street



Typical Section - Middle Street



NOTE: REFER TO CURB AND GUTTER LAYOUT SHEETS FOR CONSTRUCTION STAKING.

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\TYPICAL SECTION.dwg 10/26/2015 10:34:01 AM

FOR BIDDING PURPOSES ONLY

CONTROL DATA

HORIZONTAL AND VERTICAL CONTROL POINTS

POINT	STATION & OFFSET	DESCRIPTION	NORTHING	EASTING	ELEVATION
CP1	124+37.35 - 35.35' R	CP PK NAIL	231640.755	1052491.791	3398.89
CP3	118+49.93 - 37.64' R	CP PK NAIL	231669.798	1051905.085	3403.92
CP4	101+30.45 - 38.85' L	CP PK NAIL	231890.857	1050197.058	3420.76
CP5	98+77.49 - 29.06' L	CP PK NAIL	231902.490	1049944.134	3423.40
CP6	116+83.44 - 43.15' L	CP 3/8" REBAR	231762.862	1051744.769	3405.51
CP7	114+34.56 - 32.48' R	CP PK NAIL	231708.703	1051490.353	3407.75
CP8	112+34.34 - 31.06' R	CP PK NAIL	231727.168	1051290.979	3409.09
CP9	110+62.04 - 33.10' R	CP PK NAIL	231739.818	1051119.132	3410.92
CP10	108+68.58 - 30.08' R	CP PK NAIL	231759.305	1050926.633	3412.65
CP11	106+81.55 - 32.01' R	CP PK NAIL	231773.309	1050740.118	3414.28
CP12	104+28.72 - 35.37' R	CP PK NAIL	231791.501	1050487.915	3417.04
CP13	105+97.99 - 31.73' R	CP PK NAIL	231780.711	1050656.880	3415.48

COORDINATES SHOWN ARE US STATE PLANE NAD83, ZONE SOUTH DAKOTA NORTH,
US SURVEY FEET. VERTICAL DATUM AND COORDINATES DERIVED FROM CITY OF STURGIS
GPS BASE STATION.
CSF = .999839688

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\14-2030 CONTROL DATA PLAN.dwg 10/26/2015 9:56:19 AM

HORIZONTAL ALIGNMENT DATA

FOR BIDDING PURPOSES ONLY

MAIN STREET CENTERLINE					
TYPE	STATION	DISTANCE	DIRECTION	NORTHING	EASTING
BOP	99+00	TL = 1896.66	S 85° 06' 48.76" E	231871.78	1049964.09
PI	117+96.66	TL = 728.38	S 86° 56' 36.54" E	231710.22	1051853.86
EOP	125+25.04			231671.39	1052581.20

4TH STREET SOUTH CENTERLINE					
TYPE	STATION	DISTANCE	DIRECTION	NORTHING	EASTING
BOP	200+00	TL = 169.34	N 04° 29' 39.16" E	231686.44	1050144.14
EOP	201+69.34			231855.26	1050157.41

4TH STREET NORTH CENTERLINE					
TYPE	STATION	DISTANCE	DIRECTION	NORTHING	EASTING
BOP	300+00	TL = 139.24	N 04° 43' 07.34" E	231854.74	1050163.41
EOP	301+39.24			231993.51	1050174.86

3RD STREET CENTERLINE					
TYPE	STATION	DISTANCE	DIRECTION	NORTHING	EASTING
BOP	400+00	TL = 174.61	N 04° 41' 04.36" E	231649.75	1050511.36
PI	401+74.61	TL = 182.24	N 05° 11' 59.65" E	231823.78	1050525.62
EOP	403+56.85			232005.27	1050542.14

2ND STREET CENTERLINE					
TYPE	STATION	DISTANCE	DIRECTION	NORTHING	EASTING
BOP	500+00	TL = 130.12	N 04° 19' 42.35" E	231662.37	1050886.17
PI	501+30.12	TL = 123.19	N 04° 46' 28.00" E	231792.11	1050895.99
EOP	502+5331			231914.88	1050906.24

1ST STREET CENTERLINE					
TYPE	STATION	DISTANCE	DIRECTION	NORTHING	EASTING
BOP	600+00	TL = 143.30	N 05° 03' 54.01" E	231617.84	1051252.25
PI	601+43.30	TL = 136.20	N 04° 50' 00.19" E	231760.58	1051264.90
EOP	602+79.49			231896.29	1051276.38

JUNCTION STREET CENTERLINE					
TYPE	STATION	DISTANCE	DIRECTION	NORTHING	EASTING
BOP	700+00	TL =202.45	N 03° 22' 03.26" E	231507.80	1051847.93
PI	702+02.45	TL = 210.04	N 03° 22' 47.49" E	231709.91	1051859.82
EOP	704+12.49			231919.58	1051872.20

MIDDLE STREET CENTERLINE					
TYPE	STATION	DISTANCE	DIRECTION	NORTHING	EASTING
BOP	800+00	TL = 126.69	N 03° 37' 57.91" E	231548.12	1052513.70
PI	801+26.69	TL = 119.88	N 03° 34' 28.99" E	231674.56	1052521.72
EOP	802+46.58			231794.21	1052529.20

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\14-2030 HORIZ ALIGN PLAN.dwg 10/26/2015 10:12:53 AM

TOPOGRAPHY SYMBOLOGY AND LEGEND

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B20	B67

Plotting Date: 10/26/2015

Anchor
Antenna
Approach
Assumed Corner
Azimuth Marker
BBQ Grill / Fireplace
Bearing Tree
Bench Mark
Box Culvert
Bridge
Brush
Buildings
Bulk Tank
Cattle Guard
Cemetery
Centerline
Cistern
Clothes Line
Commercial Sign Double Face
Commercial Sign One Post
Commercial Sign Overhead
Commercial Sign Two Post
Concrete Symbol
Creek Edge
Curb/Gutter
Curb
Dam Grade/Dike/Levee
Deck Edge
Ditch Block
Doorway Threshold
Drainage Profile
Drop Inlet
Edge Of Asphalt
Edge Of Concrete
Edge Of Gravel
Edge Of Other
Edge Of Shoulder
Elec. Trans./Power Jct. Box
Fence Barbwire
Fence Chainlink
Fence Electrical
Fence Misc.
Fence Rock
Fence Snow
Fence Wood
Fence Woven
Fire Hydrant
Flag Pole
Flower Bed
Gas Valve Or Meter
Gas Pump Island
Grain Bin
Guardrail
Guide Sign One Post
Guide Sign Two Post
Gutter
Guy Pole
Haystack

Hedge
Highway R.O.W. Marker
Interstate Close Gate
Iron Pin
Irrigation Ditch
Lake Edge
Lawn Sprinkler
Mailbox
Manhole Electric
Manhole Gas
Manhole Misc.
Manhole Sanitary Sewer
Manhole Storm Sewer
Manhole Telephone
Manhole Water
Merry-Go-Round
Microwave Radio Tower
Misc. Line
Misc. Property Corner
Misc. Post
Overhang Or Encroachment
Overhead Utility Line
Parking Meter
Pipe With End Section
Pipe With Headwall
Pipe Without End Section
Playground Slide
Playground Swing
Power And Light Pole
Power And Telephone Pole
Power Meter
Power Pole
Power Pole And Transformer
Power Tower Structure
Propane Tank
Property Pipe
Property Pipe With Cap
Property Stone
Public Telephone
Railroad Crossing Signal
Railroad Milepost Marker
Railroad Profile
Railroad R.O.W. Marker
Railroad Signs
Railroad Switch
Railroad Track
Railroad Trestle
Rebar
Rebar With Cap
Reference Mark
Regulatory Sign One Post
Regulatory Sign Two Post
Retaining Wall
Riprap
River Edge
Rock And Wire Baskets
Rockpiles
Roofdrains/Sidewalk Drains
Satellite Dish
Septic Tank

Shrub Tree
Sidewalk
Sign Face
Sign Base With Cap
Sign Post
Slough Or Marsh
Spring
Stream Gauge
Street Marker
Subsurface Utility Exploration Test Hole
Telephone Fiber Optics
Telephone Junction Box
Telephone Pole
Telephone Cable Jct Box
Television Tower
Test Wells/Bore Holes
Traffic Signal
Trash Barrel
Tree Belt
Tree Coniferous
Tree Deciduous
Tree Stumps
Triangulation Station
Underground Electric Line
Underground Gas Line
Underground High Pressure Gas Line
Underground Sanitary Sewer
Underground Storm Sewer
Underground Tank
Underground Telephone Line
Underground Television Cable
Underground Water Line
Warning Sign One Post
Warning Sign Two Post
Water Fountain
Water Hydrant
Water Meter
Water Tower
Water Valve
Water Well
Weir Rock
Windmill
Wingwall
Witness Corner

State and National Line
County Line
Section Line
Quarter Line
Sixteenth Line
Property Line
Construction Line
R.O.W. Line
New R.O.W. Line
Cut and Fill Limits
Control of Access
New Control of Access
Proposed ROW
(After Property Disposal)

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\14-2030 EXIST TOPO LEGEND PLAN.dwg 10/26/2015 10:11:51 AM

STORM SEWER PLAN

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
FOURFRONT DESIGN INC	P 7668 (05)	B21	B67

Plotting Date: 10/26/2015

Remove Drop Inlet With Frame and Grate at the Following Locations:
101+13.80 - 33.14' R
101+16.03 - 27.93' L

101+13.80 - 33.14' R
101+16.03 - 27.93' L
Remove 18" - 62' RCP

101+16.01 - 29.06' L
101+16.15 - 47.06' L
Remove 18" - 18' RCP

99+56.35 - 12.87' R to
100+64.28 - 1.51' L
Install 18" - 109' RCP
(Between 18"x18"x18" Tee and Drop Inlet)

100+64.28 - 1.51' L to
100+61.20 - 26.75' L
Install 18" - 25' RCP
(Between 18"x18"x18" Tee and Drop Inlet)

100+64.28 - 1.51' L to
101+00.02 - 6.35' L
Install 18" - 36' RCP
(Between 18"x18"x18" Tee and 48" Manhole)

101+00.02 - 6.35' L to
101+08.30 - 76.23' L
Install 18" - 70' RCP
(Between 48" Storm Manhole and 60" Storm Manhole)

101+08.30 - 76.23' L to
101+19.69 - 76.23' L
Install 18" - 11' RCP
(Between Drop Inlet and 60" Storm Manhole)

101+08.30 - 76.23' L to
101+16.60 - 96.29' L
Install 18" - 22' RCP
(Between 18" 22.5 Degree Bend and 48" Manhole)

101+16.60 - 96.29' L to
101+16.64 - 100.29' L
Install 18" - 4' RCP
(Between 18" 15 Degree Bend and Existing 18" RCP)

101+00.02 - 6.35' L to
101+08.80 - 32.67' R
Install 18" - 40' RCP
(Between Drop Inlet and 48" Storm Manhole)

100+81.30 - 44.99' R to
101+08.80 - 32.67' R
Install 18" - 30' RCP
(Between Drop Inlets)

101+12.46 - 55.05' R to
101+12.60 - 51.05' R
Install 18" - 4' RCP
(Between 18" 15 Degree Bend and Existing 18" RCP)

101+08.80 - 32.67' R to
101+12.60 - 51.05' R
Install 18" - 19' RCP
(Between Drop Inlet and 18" 15 Degree Bend)

101+13.80 - 33.09' R to
101+20.39 - 36.81' R
Install 8" - 8' PVC
(Between 8" PVC 22.5 Degree Bend and Existing 8" PVC Pipe)

101+08.80 - 32.67' R to
101+13.80 - 33.09' R
Install 8" - 5' PVC
(Between Drop Inlet and 8" PVC 22.5 Degree Bend)

Install 2'x3' Type B Drop Inlet With Type B Frame and Curved Vane Grate at the Following Locations:
99+48.35 - 12.87' R
99+52.35 - 12.87' R
99+56.35 - 12.87' R
100+57.20 - 26.74' L
100+61.20 - 26.75' L
101+19.70 - 80.23' L
101+19.69 - 76.23' L
100+81.30 - 44.99' R
100+81.30 - 48.99' R

Install 18" 22.5 Degree Bends at the Following Locations:
101+16.60 - 96.29' L

Install 48" Manhole at the Following Locations:
101+00.02 - 6.35' L

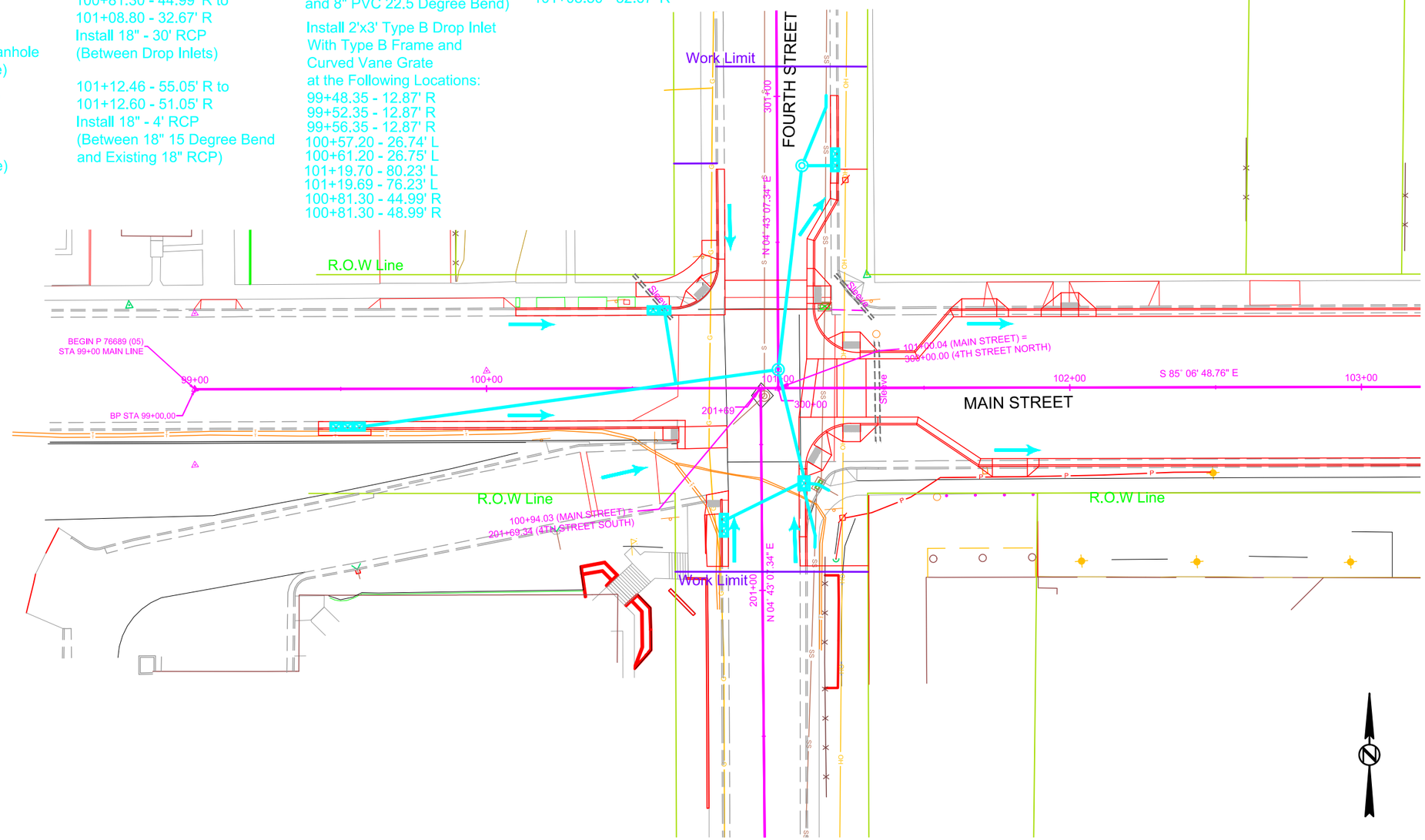
Install 60" Manhole at the Following Locations:
101+08.30 - 76.23' L

Install 3'x4' Type B Drop Inlet With Type B Frame and Curved Vane Grate at the Following Locations:
101+08.80 - 32.67' R

Install 18" 15 Degree Bend at the Following Location:
101+12.60 - 51.05' R

Install 8" 22.5 Degree Bend at the Following Location:
101+13.80 - 33.09' R

Install 18" x 18" x 18" Tee at the Following Location:
100+64.28 - 1.51' L



L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\STORM SEWER PLAN.dwg 10/26/2015 10:30:38 AM

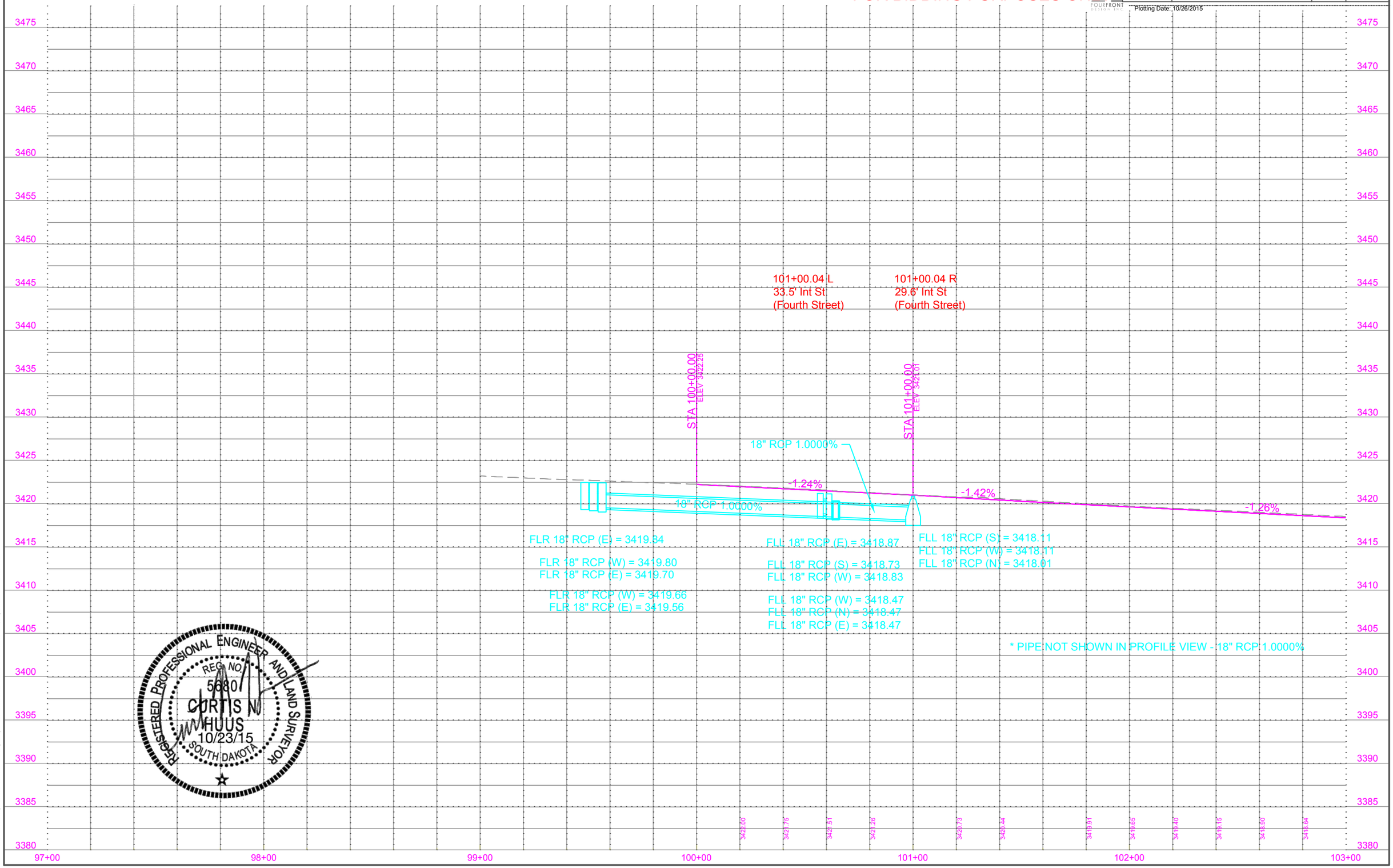
STORM SEWER PROFILE

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B22	B67

FOURFRONT DESIGN INC

Plotting Date: 10/26/2015



REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

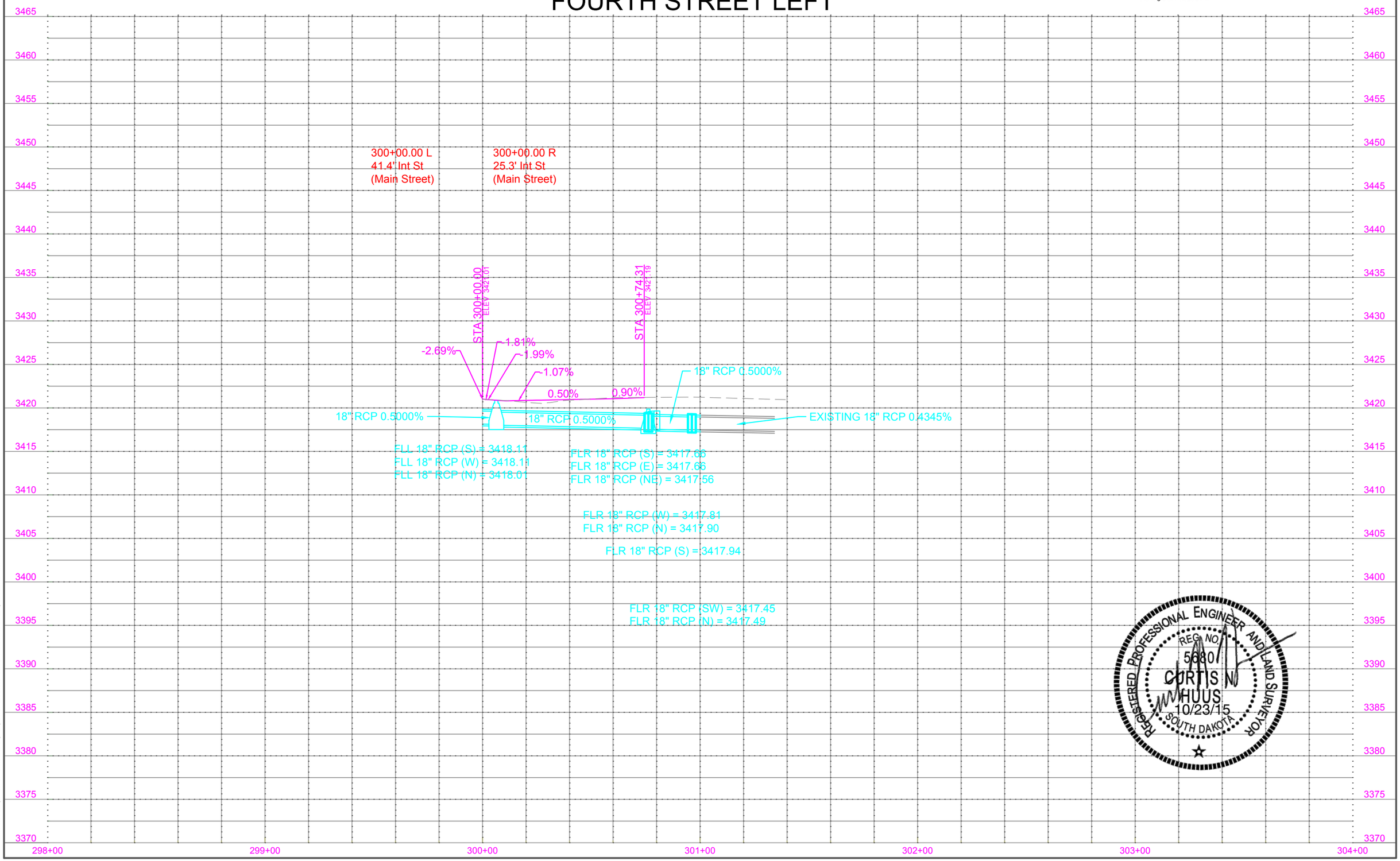
L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\STORM SEWER PLAN.dwg 10/26/2015 10:30:44 AM

STORM SEWER PROFILE
FOURTH STREET LEFT

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B23	B67

Plotting Date: 10/26/2015



L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\STORM SEWER PLAN.dwg 10/26/2015 10:30:48 AM

STORM SEWER PROFILE
FOURTH STREET RIGHT

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B24	B67

Plotting Date: 10/26/2015

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\STORM SEWER PLAN.dwg 10/26/2015 10:30:53 AM

STORM SEWER PLAN

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B25	B67

Plotting Date: 10/26/2015

Remove Drop Inlet With Frame and Grate at the Following Locations:
104+14.12 - 26.83' L
104+26.45 - 25.78' R
104+44.14 - 39.24' R
104+82.78 - 43.14' R

104+26.44 - 27.28' R
104+42.64 - 39.25' R
Remove 18" - 21' RCP

104+16.12 - 26.85' L To
104+71.66 - 26.88' L
Remove 18" - 56' RCP

104+45.64 - 29.24' R To
104+71.64 - 39.49' R
Remove 18" - 26' RCP

104+44.17 - 25.50' L To
104+44.19 - 37.93' R
Remove 18" - 64' RCP

103+76.54 - 26.00' L to
103+96.16 - 26.17' L
Install 18" - 20' RCP
(Between Drop Inlet
and 18"x18"x18" Tee)

103+96.64 - 25.96' R to
103+96.16 - 26.17' L
Install 18" - 52' RCP
(Between Drop Inlet
and 18"x18"x18" Tee)

103+96.16 - 26.17' L to
104+71.64 - 26.97' L
Install 18" - 75' RCP
(Between 18"x18"x18" Tee
and 60"x60"x18" Tee)

104+44.11 - 67.45' R to
104+71.67 - 66.94' R
Install 18" - 28' RCP
(Between Drop Inlet
and 60"x60"x18" Tee)

104+71.70 - 70.94' R to
104+83.46 - 70.94' R
Install 18" - 12' RCP
(Between Drop Inlet
and 60"x60"x18" Tee)

104+71.68 - 35.49' R to
104+71.69 - 47.36' R
Install 60" - 12' RCP
(Between Existing 60" RCP)

107+40.48 - 26.00' L to
107+59.40 - 26.00' L
Install 24" - 19' RCP
(Between Drop Inlet
and 24"X24"X18" Tee)

107+59.31 - 26.00' R to
107+59.40 - 26.00' L
Install 18" - 52' RCP
(Between Drop Inlet
and 24"X24"X18" Tee)

107+59.40 - 26.00' L to
108+36.43 - 26.00' L
Install 24" - 77' RCP
(Between Drop Inlet
and 24"X24"X18" Tee)

108+09.44 - 71.32' R to
108+36.61 - 71.42' R
Install 18" - 27' RCP
(Between 48" Storm Manhole
and Drop Inlet)

108+36.61 - 71.42' R to
108+63.78 - 71.48' R
Install 18" - 27' RCP
(Between Drop Inlet
and 48" Storm Manhole)

108+36.61 - 71.42' R to
108+36.43 - 26.00' L
Install 18" - 97' RCP
(Between 24"X24"X18" Tee
and 48" Storm Manhole)

108+36.43 - 26.00' L to
110+31.37 - 26.00' L
Install 24" - 195' RCP
(Between 24"x24"x18" Tee
and Drop Inlet)

Install 2'x3' Type B Drop Inlet
With Type B Frame and
Curved Vane Grate
at the Following Locations:
103+76.54 - 26.00' L
103+96.64 - 25.96' R
104+44.11 - 67.45' R
104+44.11 - 71.45' R
104+83.46 - 70.94' R
107+59.31 - 26.00' R
108+09.44 - 71.32' R
108+09.44 - 75.32' R
108+63.78 - 71.48' R

Install 3'x4' Type B Drop Inlet
With Type B Frame and
Curved Vane Grate
at the Following Location:
107+40.48 - 26.00' L

Install 18"X18"X18" Tee
at the Following Locations:
103+96.16 - 26.17' L

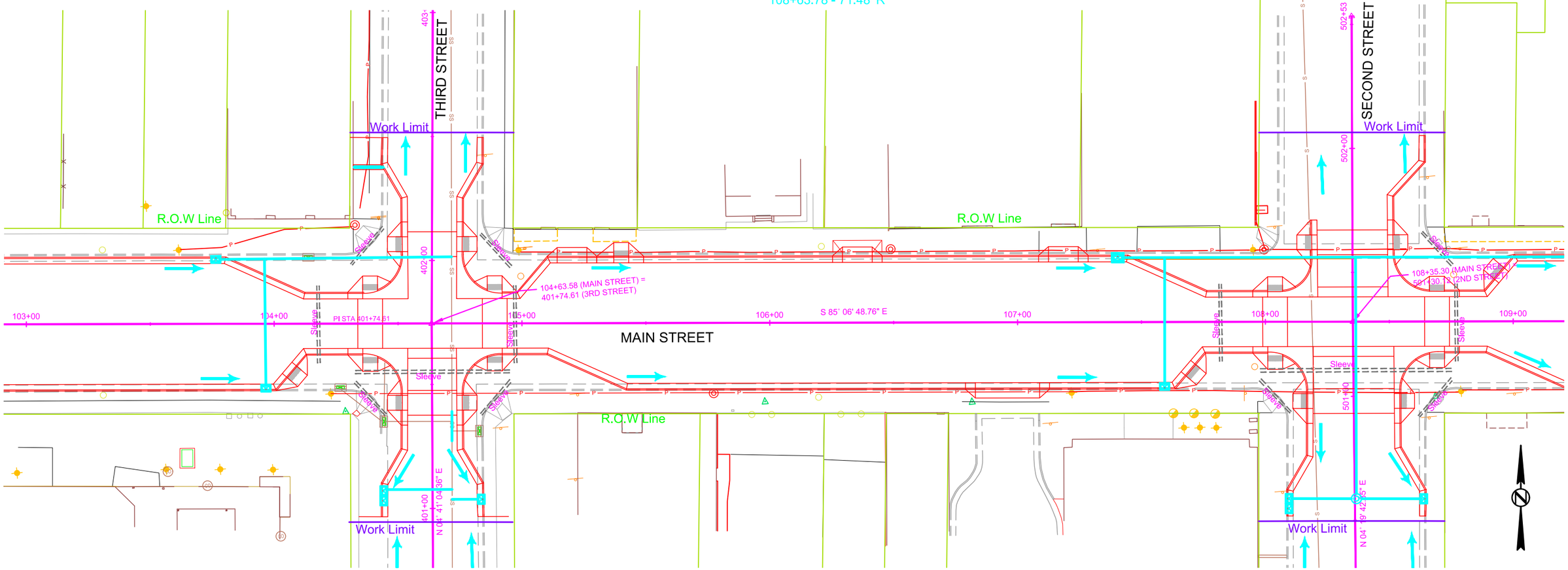
Install 60"X60"X18" Tee
at the Following Locations:
104+71.64 - 26.97' L
104+71.67 - 66.94' R
104+71.70 - 70.94' R

Install 48" Manhole
at the Following Locations:
108+36.61 - 71.42' R

Install 24"X24"X18" Tee
at the Following Locations:
107+59.40 - 26.00' L
108+36.43 - 26.00' L

Install Roof Drain at the
following locations:
104+32.03 - 63.10' L to
104+44.49 - 63.09' L

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA



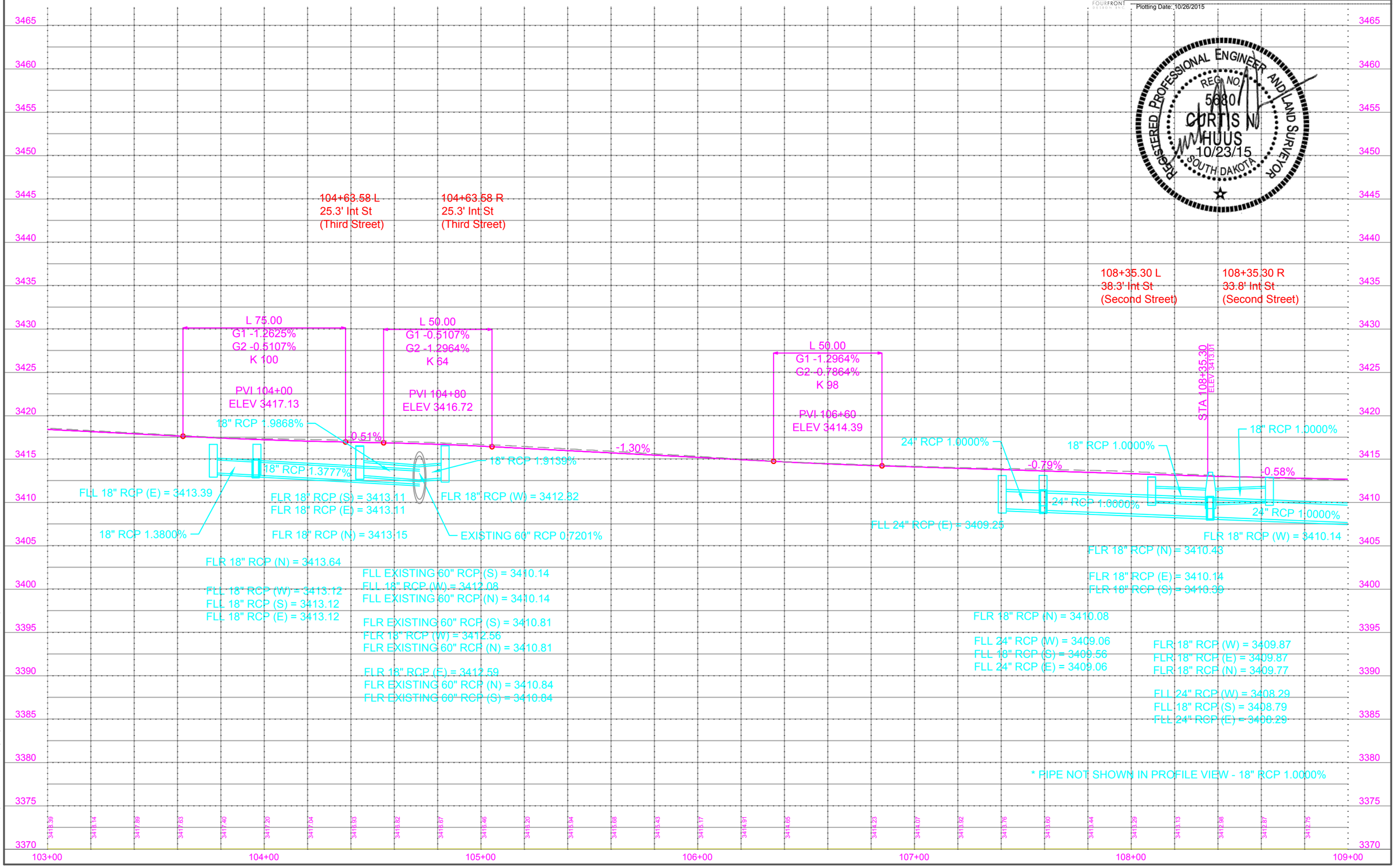
L:\114-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\STORM SEWER PLAN.dwg 10/26/2015 10:31:00 AM

STORM SEWER PROFILE

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
FOURFRONT DESIGN INC.	P 7668 (05)	B26	B67

Plotting Date: 10/26/2015



L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\STORM SEWER PLAN.dwg 10/26/2015 10:31:04 AM

STORM SEWER PLAN

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
FOURFRONT DESIGN INC	P 7668 (05)	B27	B67

Plotting Date: 10/26/2015

Remove Drop Inlet With Frame and Grate at the Following Locations:
111+63.88 - 26.51' L
111+63.19 - 26.26' R
111+81.48 - 43.76' R
112+28.84 - 44.03' R

111+63.18 - 27.76' R To 111+79.98 - 43.76' R
Remove 18" - 24' RCP

111+65.88 - 26.52' L To 112+09.19 - 25.83' L
Remove 18" - 44' RCP

111+81.14 - 25.25' L To 111+81.48 - 42.27' R
Remove 18" - 68' RCP

111+82.98 - 43.83' R
112+07.80 - 43.66' R
Remove 18" - 25' RCP

110+31.37 - 26.00' R to 110+31.37 - 26.00' L
Install 18" - 52' RCP (Between Drop Inlets)

110+31.37 - 26.00' L to 111+18.05 - 26.00' L
Install 24" - 87' RCP (Between Drop Inlets)

111+18.05 - 26.00' L to 111+37.86 - 26.02' L
Install 24" - 20' RCP (Between Drop Inlet and 24"X24"X18" Tee)

111+38.21 - 26.00' R to 111+37.86 - 26.02' L
Install 18" - 52' RCP (Between Drop Inlet and 24"X24"X18" Tee)

111+37.86 - 26.02' L to 112+09.24 - 26.10' L
Install 24" - 71' RCP (Between 24"X24"X18" Tee and 60"X60"X24" Tee)

111+81.08 - 67.48' R to 112+07.36 - 67.49' R
Install 18" - 26' RCP (Between Drop Inlet and 60"X60"X18" Tee)

112+07.92 - 39.61' R to 112+07.76 - 47.67' R
Install 60" - 8' RCP (Between Existing 60" RCP)

112+07.28 - 71.53' R to 112+29.43 - 71.95' R
Install 18" - 22' RCP (Between Drop Inlet and 60"X60"X18" Tee)

114+35.67 - 26.00' L to 114+37.97 - 23.13' R
Install 18" - 49' RCP (Between Drop Inlets)

114+35.67 - 26.00' L to 117+55.90 - 26.00' L
Install 18" - 320' RCP (Between Drop Inlets)

Install 2'x3' Type B Drop Inlet With Type B Frame and Curved Vane Grate at the Following Locations:
110+31.37 - 26.00' R
111+38.21 - 26.00' R
111+81.08 - 67.48' R
111+81.07 - 71.48' R
112+29.43 - 71.95' R
114+37.97 - 23.13' R
114+35.67 - 26.00' L

Install 3'x4' Type B Drop Inlet With Type B Frame and Curved Vane Grate at the Following Locations:
110+31.37 - 26.00' L
111+18.05 - 26.00' L

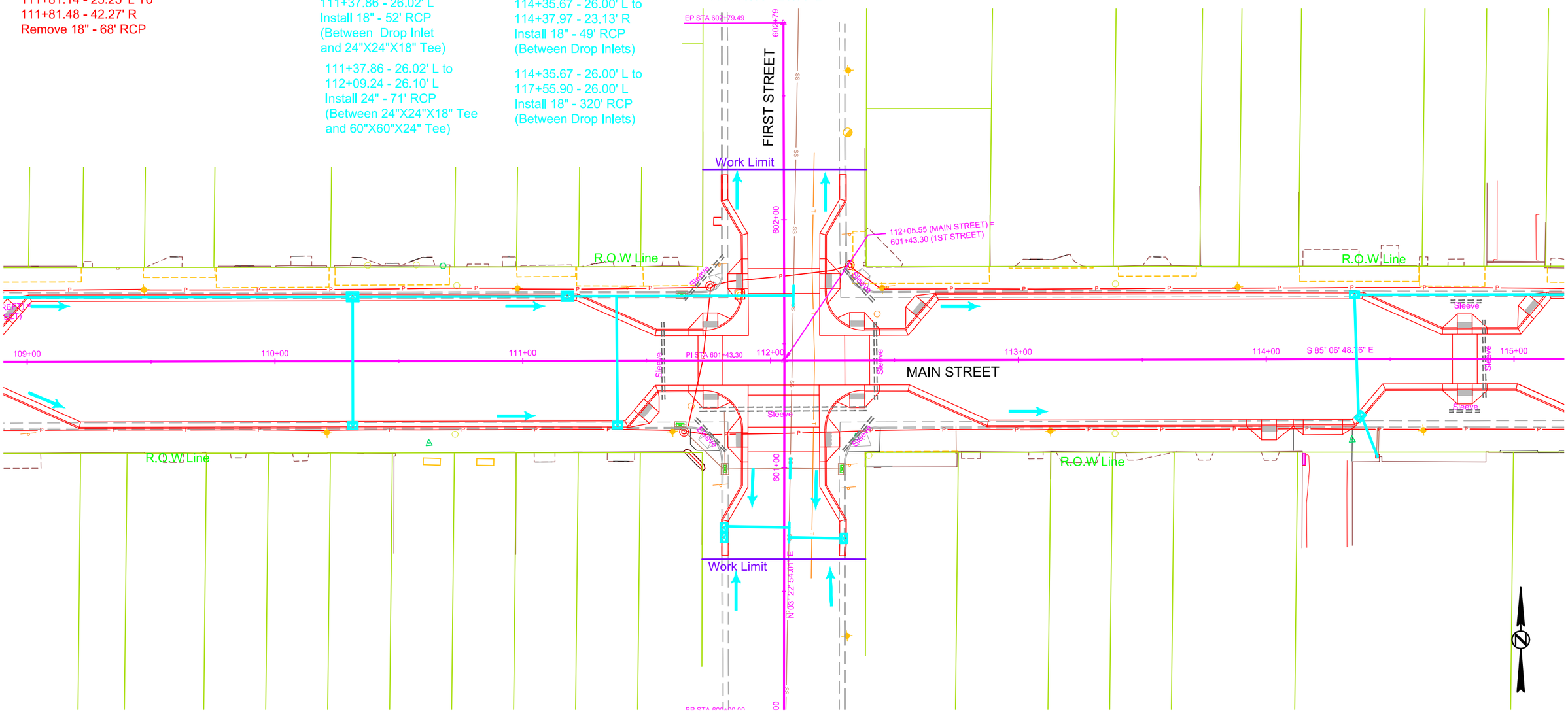
Install 60"X60"X18" Tee at the Following Locations:
112+07.36 - 67.49' R
112+07.28 - 71.53' R

Install 60"X60"X24" Tee at the Following Locations:
112+09.24 - 26.10' L

Install 24"X24"X18" Tee at the Following Locations:
111+37.86 - 26.02' L

Install Roof Drain at the following locations:
114+38.73 - 23.78' R to 114+44.80 - 39.22' R

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N HUUS
10/23/15
SOUTH DAKOTA



L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\STORM SEWER PLAN.dwg 10/26/2015 10:31:09 AM

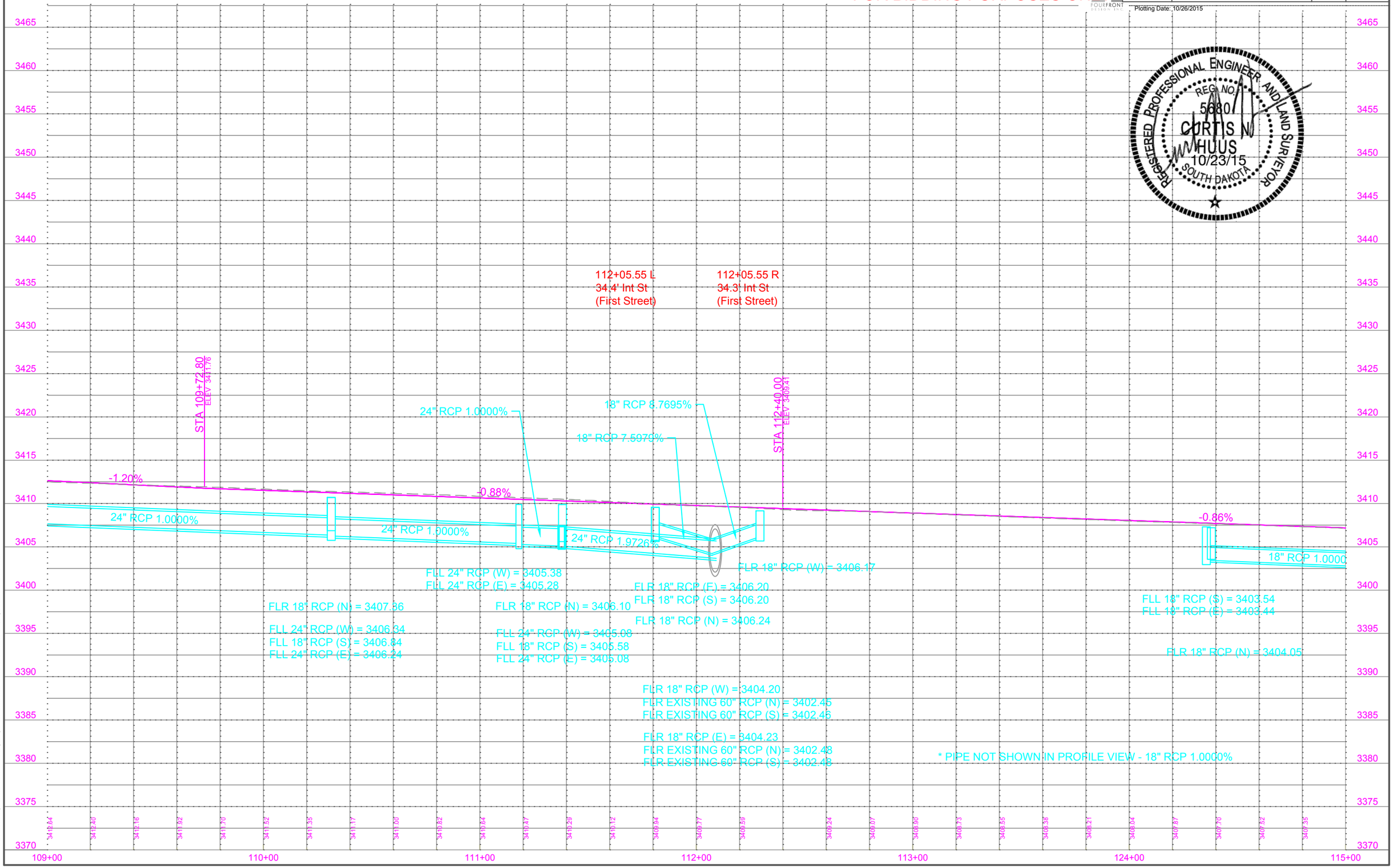
STORM SEWER PROFILE

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B28	B67

FOURFRONT DESIGN INC

Plotting Date: 10/26/2015



L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\STORM SEWER PLAN.dwg 10/26/2015 10:31:14 AM

STORM SEWER PLAN

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B29	B67

Plotting Date: 10/26/2015

Remove Drop Inlet With Frame and Grate at the Following Locations:
117+59.90 - 26.34' L
117+60.91 - 26.46' R

117+60.43 - 24.89' L
117+60.92 - 24.96' R
Remove 18" - 50' RCP

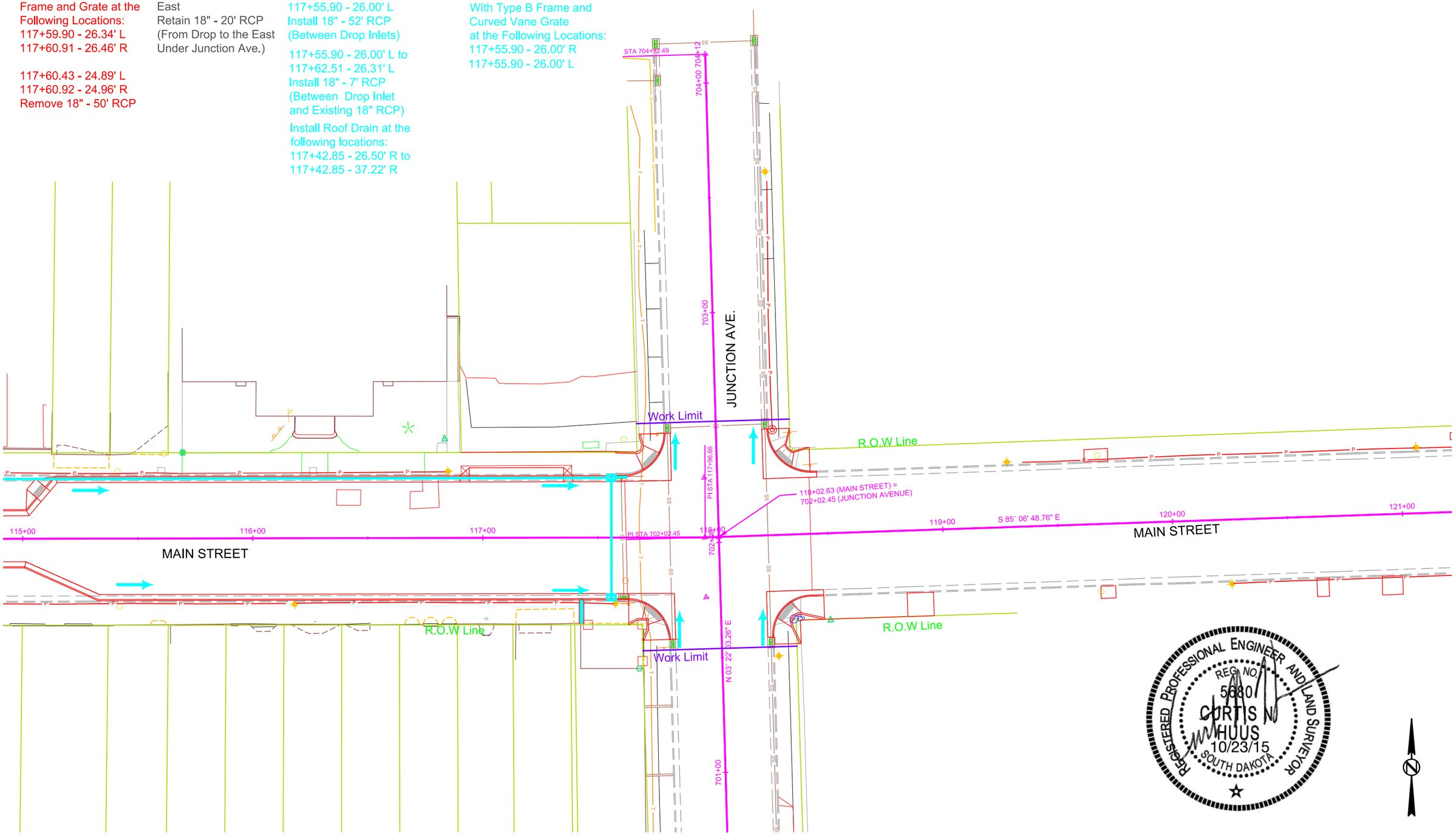
117+61.64 - 26.44'L To East
Retain 18" - 20' RCP
(From Drop to the East Under Junction Ave.)

117+55.90 - 26.00' R to 117+55.90 - 26.00' L
Install 18" - 52' RCP
(Between Drop Inlets)

117+55.90 - 26.00' L to 117+62.51 - 26.31' L
Install 18" - 7' RCP
(Between Drop Inlet and Existing 18" RCP)

Install Roof Drain at the following locations:
117+42.85 - 26.50' R to 117+42.85 - 37.22' R

Install 2'x3' Type B Drop Inlet With Type B Frame and Curved Vane Grate at the Following Locations:
117+55.90 - 26.00' R
117+55.90 - 26.00' L



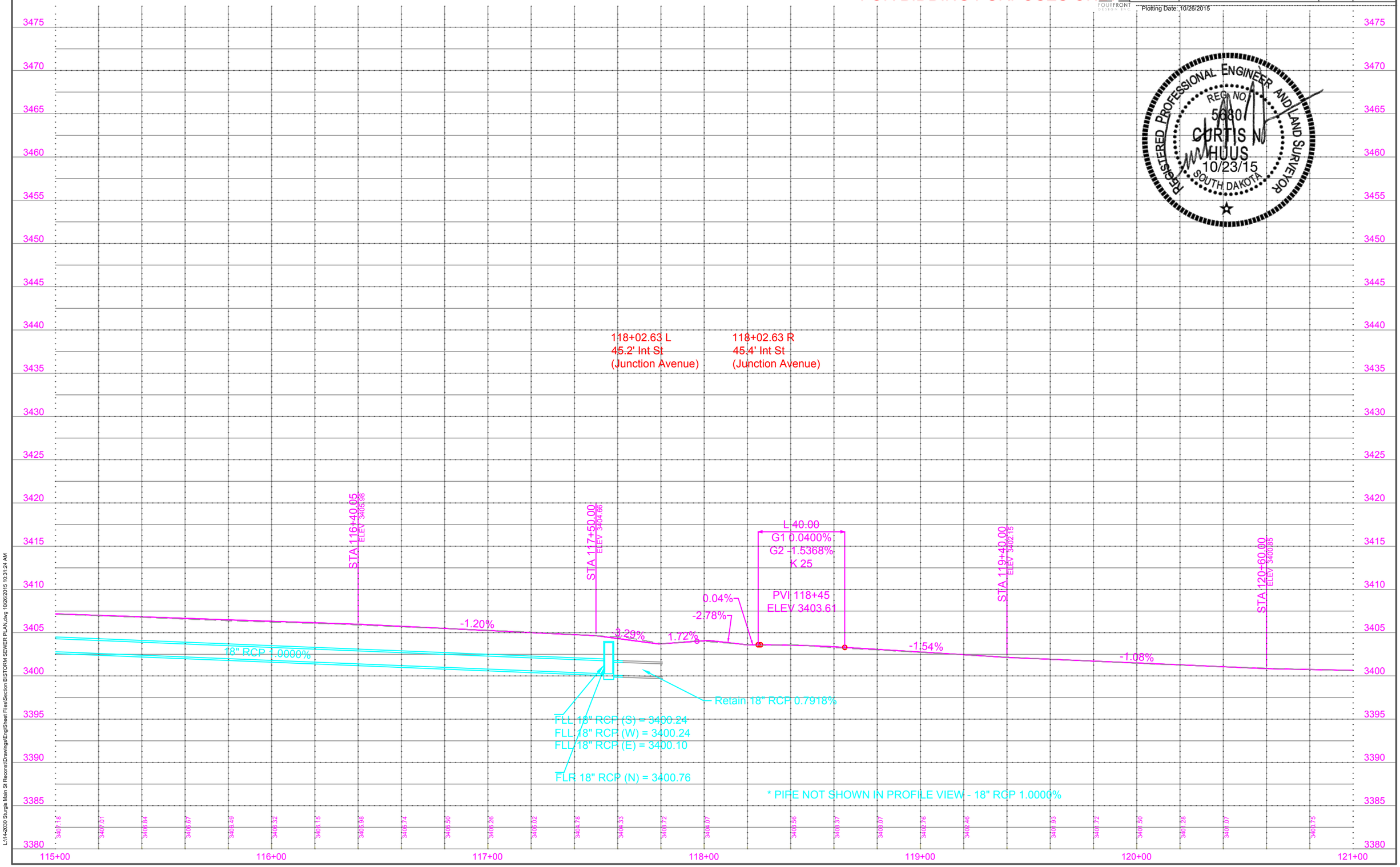
L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\STORM SEWER PLAN.dwg 10/26/2015 10:31:20 AM

STORM SEWER PROFILE

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B30	B67

Plotting Date: 10/26/2015



L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\STORM SEWER PLAN.dwg 10/26/2015 10:31:24 AM

STORM SEWER PLAN FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B31	B67

Plotting Date: 10/26/2015

123+92.30 - 26.59' L to
124+32.62 - 26.40' L
Install 18" - 40' RCP
(Between 24"x24"x18" Tee
and Drop Inlet)

124+06.83 - 25.66' R to
124+32.38 - 21.99' R
Install 18" - 26' RCP
(Between Drop Inlet and
48" Manhole)

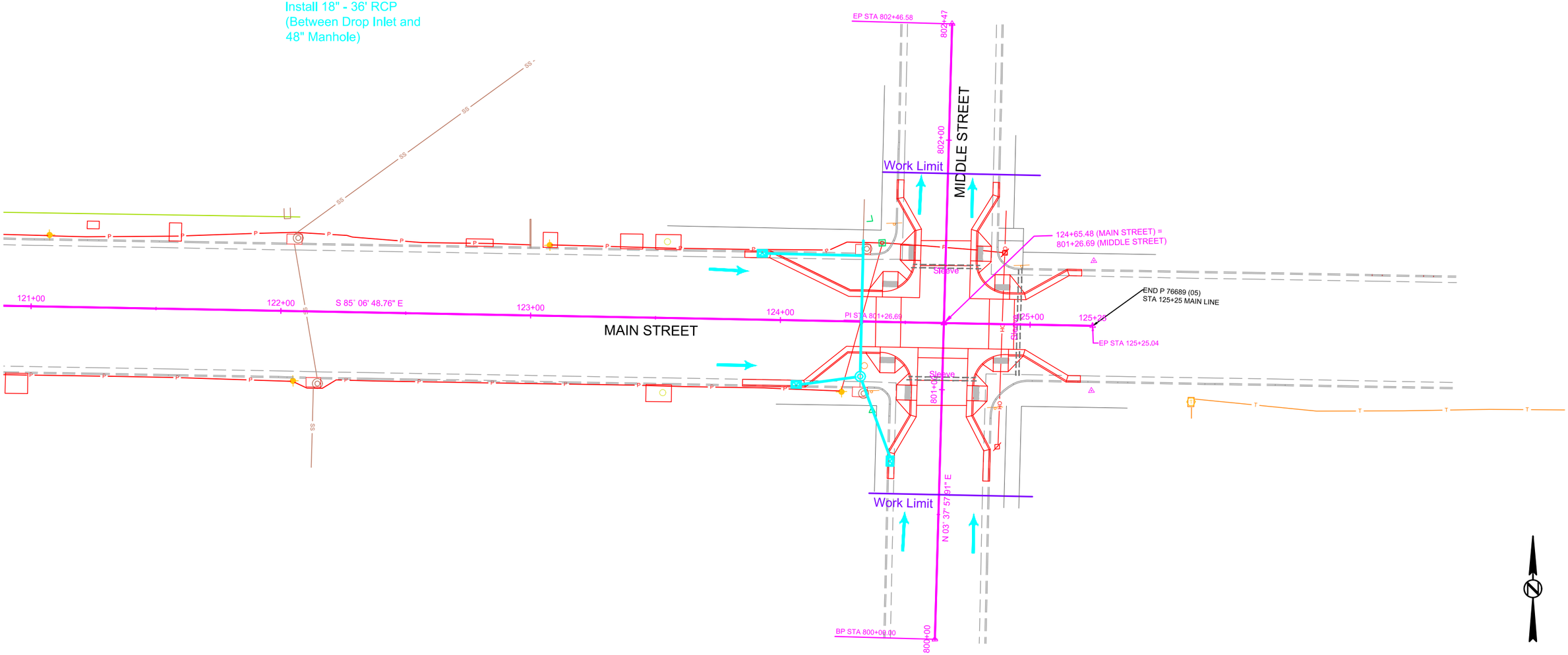
124+32.38 - 21.99' R to
124+32.62 - 26.40' L
Install 24" - 48' RCP
(Between 48" Manhole and
24" x 24" x 18" Tee)

124+32.38 - 21.99' R to
124+44.95 - 55.66' R
Install 18" - 36' RCP
(Between Drop Inlet and
48" Manhole)

Install 2'x3' Type Drop Inlet
With Type B Frame and
Curved Vane Grate
at the Following Locations:
123+92.30 - 26.59' L
124+06.83 - 25.66' R
124+44.95 - 55.66' R

Install 48" Manhole
at the Following Locations:
124+32.38 - 21.99' R

Install 24" x 24" x 18" Tee
at the Following Location:
124+32.62 - 26.40' L



REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\STORM SEWER PLAN.dwg 10/26/2015 10:31:29 AM

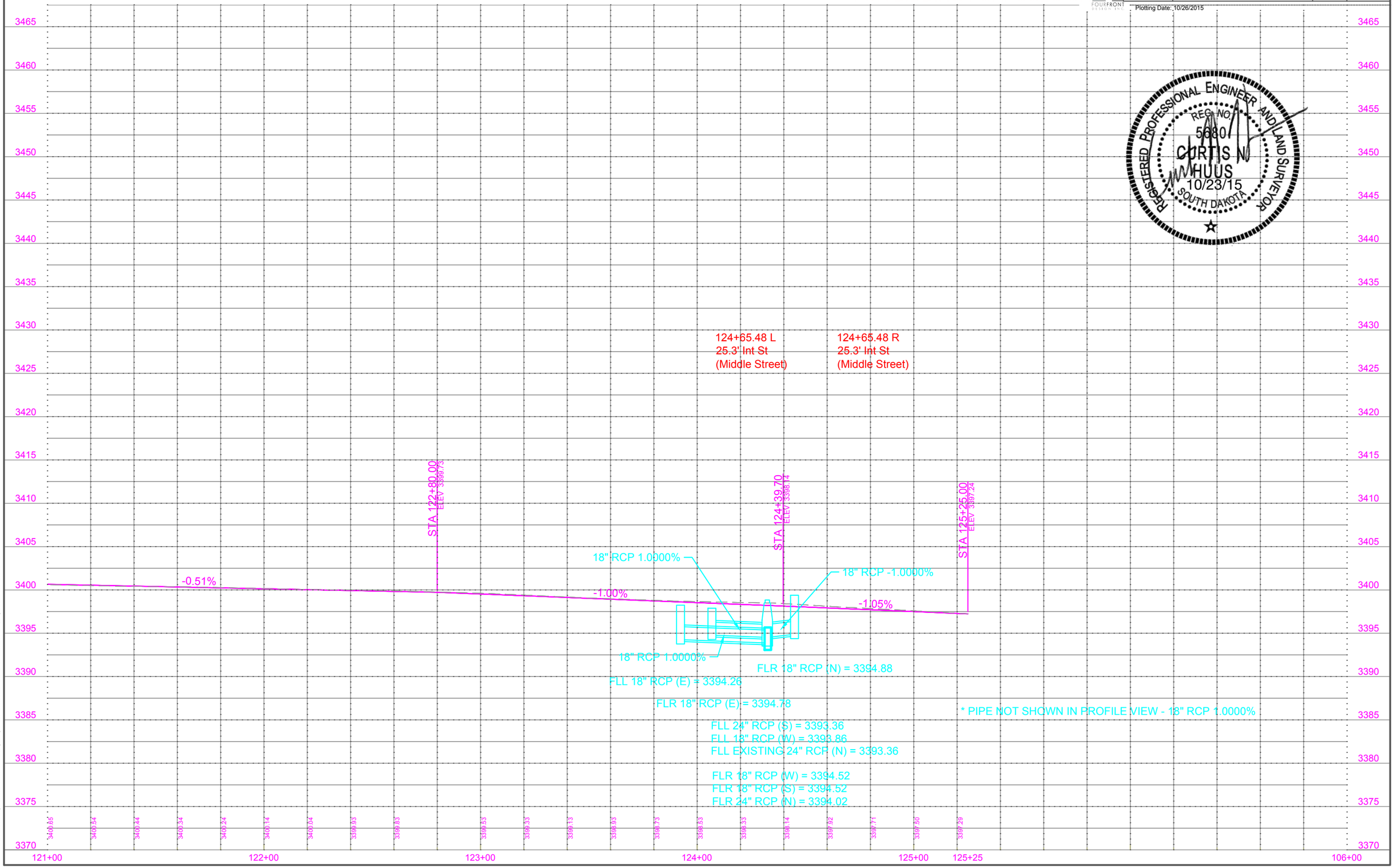
STORM SEWER PROFILE

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B32	B67

FOURFRONT DESIGN INC

Plotting Date: 10/26/2015



L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\STORM SEWER PLAN.dwg 10/26/2015 10:31:34 AM

CURB & GUTTER LAYOUT

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
FOURFRONT DESIGN INC	P 7668 (05)	B33	B67

Plotting Date: 10/26/2015

Note: All Curb & Gutter shown on this sheet is Type B66 and all P Gutter is Type P6 except as noted.
All sidewalk extends from the ROW line or building face with a 2% maximum slope to 2' behind the curb, where a variable slope for vehicle overhang begins.
Coordinate with Section H: Landscape for colored concrete locations.

1 Sta 100+10.10 - 27.60' L
Begin Str Type B66 C & G
Match Existing
TC Elev = 3422.18'

2 100+64.16 - 27.76' L
End Str Type B66 C & G
Begin 15.0' Rad.
Type B66 C & G
TC Elev = 3421.64'

3 Sta 100+72.12 - 30.07' L
End Type B66 C & G
Begin Type P6 Gutter
Theor. TC Elev = 3421.54'

4 Sta 100+76.78 - 34.72' L
End Type P6 Gutter
Being Type B66 C & G
Theor. TC Elev = 3421.48'

5 Sta 100+79.11 - 72.79' L
End 15.0' Rad.
Begin Str Type B66 C & G
TC Elev = 3421.41'

6 Sta 100+79.15 - 75.08' L
End Str Type B66 C & G
Match Existing
TC Elev = 3421.20'

7 Sta 101+20.65 - 75.00' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3420.70

8 Sta 101+20.64 - 64.30' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3420.67

9 Sta 101+12.64 - 50.49' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3420.75'

10 Sta 101+12.55 - 35.00' L
End Str Type B66 C & G
Begin Str Type P6 C & G
Theor. TC Elev = 3420.83'

11 Sta 101+12.52 - 29.00' L
End Str Type P6 Gutter
Begin Type B66 C & G
Theor. TC Elev = 3420.86'

12 Sta 101+12.51 - 27.75' L
End Str Type B66 C & G
Begin 15' Rad.
Type B66 C & G
Theor.TC Elev = 3420.87'

13 Sta 101+22.10 - 13.68' L
End Type B66 C & G
Begin Type P6 Gutter
Theor. TC Elev = 3420.97'

14 Sta 101+27.51 - 12.67' L
End 15' Rad.
Begin Str Type P6 Gutter
Theor. TC Elev = 3420.86'

15 Sta 101+28.10 - 12.67' L
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3420.85'

16 Sta 101+46.72 - 12.67' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3420.54'

17 Sta 101+58.96 - 27.00' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3420.11'

18 Sta 101+62.96 - 27.00' L
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor.TC Elev = 3420.07'

19 Sta 101+74.96 - 27.00' L
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3419.92'

20 Sta 101+97.03 - 27.00' L
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor. TC Elev = 3419.64'

21 Sta 102+03.03 - 27.00' L
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3419.56'

22 Sta 99+42.35 - 13.87' R
Begin Str Type B66 C & G
Match Existing
TC Elev = 3423.00'

23 Sta 100+65.38 - 13.66' R
End Str Type B66 C & G
Begin Type P6 Gutter
Theor. TC Elev = 3422.00'

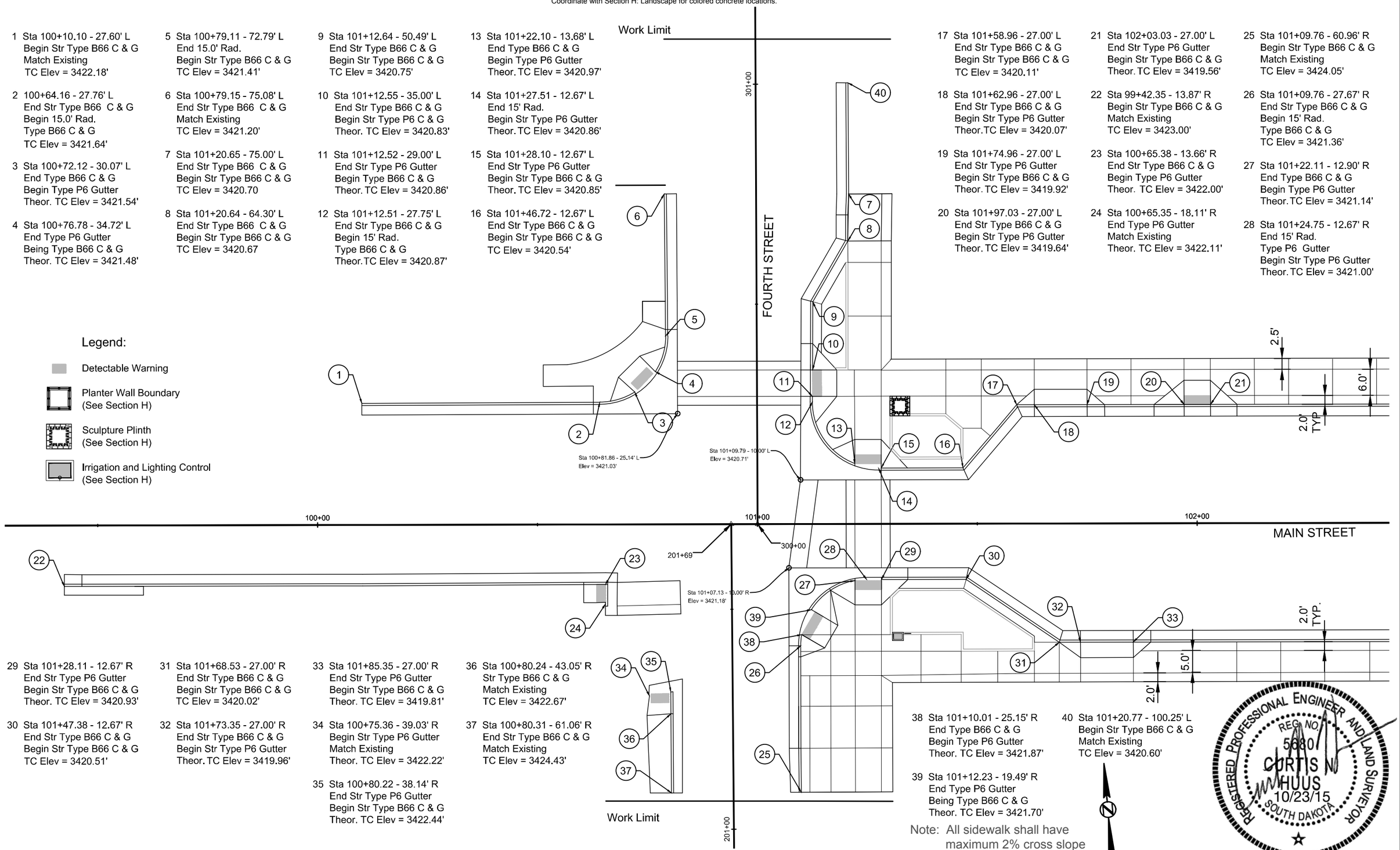
24 Sta 100+65.35 - 18.11' R
End Type P6 Gutter
Match Existing
Theor. TC Elev = 3422.11'

25 Sta 101+09.76 - 60.96' R
Begin Str Type B66 C & G
Match Existing
TC Elev = 3424.05'

26 Sta 101+09.76 - 27.67' R
End Str Type B66 C & G
Begin 15' Rad.
Type B66 C & G
TC Elev = 3421.36'

27 Sta 101+22.11 - 12.90' R
End Type B66 C & G
Begin Type P6 Gutter
Theor.TC Elev = 3421.14'

28 Sta 101+24.75 - 12.67' R
End 15' Rad.
Type P6 Gutter
Begin Str Type P6 Gutter
Theor.TC Elev = 3421.00'



Legend:

- Detectable Warning
- Planter Wall Boundary (See Section H)
- Sculpture Plinth (See Section H)
- Irrigation and Lighting Control (See Section H)

29 Sta 101+28.11 - 12.67' R
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3420.93'

30 Sta 101+47.38 - 12.67' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3420.51'

31 Sta 101+68.53 - 27.00' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3420.02'

32 Sta 101+73.35 - 27.00' R
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor. TC Elev = 3419.96'

33 Sta 101+85.35 - 27.00' R
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3419.81'

34 Sta 100+75.36 - 39.03' R
Begin Str Type P6 Gutter
Match Existing
Theor. TC Elev = 3422.22'

35 Sta 100+80.22 - 38.14' R
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3422.44'

36 Sta 100+80.24 - 43.05' R
Str Type B66 C & G
Match Existing
TC Elev = 3422.67'

37 Sta 100+80.31 - 61.06' R
End Str Type B66 C & G
Match Existing
TC Elev = 3424.43'

38 Sta 101+10.01 - 25.15' R
End Type B66 C & G
Begin Type P6 Gutter
Theor. TC Elev = 3421.87'

39 Sta 101+12.23 - 19.49' R
End Type P6 Gutter
Being Type B66 C & G
Theor. TC Elev = 3421.70'

40 Sta 101+20.77 - 100.25' L
Begin Str Type B66 C & G
Match Existing
TC Elev = 3420.60'

Note: All sidewalk shall have maximum 2% cross slope

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\14-2030 CURB PLAN.dwg 10/26/2015 9:58:22 AM

CURB & GUTTER LAYOUT

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
FOURFRONT DESIGN INC	P 7668 (05)	B34	B67

Plotting Date: 10/26/2015

1 Sta 103+80.50 - 27.00' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3417.13'

2 Sta 104+12.40 - 12.67' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3417.27'

3 Sta 104+35.71 - 12.67' L
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor. TC Elev = 3417.37'

4 Sta 104+36.28 - 12.67' L
End Str Type P6 Gutter
Type P6 C & G
Begin 15' Rad.
Theor. TC Elev = 3417.37'

5 Sta 104+41.71 - 13.68' L
End Type P6 Gutter
Being Type B66 C & G
Theor. TC Elev = 3417.28'

6 Sta 104+51.28 - 27.75' L
End 15.0' Rad.
Begin Str Type B66 C & G
Theor. TC Elev = 3416.61'

7 Sta 104+51.27 - 29.00' L
End Str Type B66 C & G
Begin Str Type P6 C & G
Theor. TC Elev = 3416.60'

8 Sta 104+51.24 - 35.00' L
End Str Type P6 C & G
Being Str Type B66
Theor. TC Elev = 3416.57'

9 Sta 104+51.15 - 50.49' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3416.98'

10 Sta 104+43.15 - 64.69' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3416.90'

11 Sta 104+43.58 - 75.00' L
End Str Type B66 C & G
Match Existing
TC Elev = 3416.85'

12 Sta 104+84.50 - 75.00' L
Begin Str Type B66 C & G
Match Existing
TC Elev = 3415.73'

13 Sta 104+84.52 - 64.29' L
End Str Type B66 C & G
Begin Type B66 C & G
TC Elev = 3415.97'

14 Sta 104+76.49 - 50.49' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3416.25'

15 Sta 104+76.40 - 35.00' L
End Str Type B66 C & G
Begin Str Type P6 C & G
Theor. TC Elev = 3416.54'

16 Sta 104+76.37 - 29.00' L
End Str Type P6 C & G
Begin Str Type B66 C & G
Theor. TC Elev = 3416.64'

17 Sta 104+76.36 - 27.75' L
End Str Type B66 C & G
Begin 15' Rad.
Type B66 C & G
Theor. TC Elev = 3416.66'

18 Sta 104+85.99 - 13.67' L
End Type B66 C & G
Begin Type P6 C & G
Theor. TC Elev = 3416.74'

19 Sta 104+91.36 - 12.67' L
End Type P6 C & G
Begin Str Type P6 C & G
Theor. TC Elev = 3416.66'

20 Sta 104+91.99 - 12.67' L
End Str Type P6 C & G
Begin Str Type B66 C & G
Theor. TC Elev = 3416.67'

21 Sta 104+97.99 - 12.67' L
End Str Type B66 C& G
Begin Str Type B66 C & G
TC Elev = 3416.55'

22 Sta 105+10.23 - 27.00' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3416.11'

23 Sta 105+14.23 - 27.00' L
End Str Type B66 C & G
Begin Str Type P6 C & G
Theor. TC Elev = 3416.10'

24 Sta 105+26.23 - 27.00' L
End Str Type P6 C & G
Begin Str Type B66 C & G
Theor. TC Elev = 3416.04'

25 Sta 105+37.08 - 27.00' L
End Str Type B66 C & G
Begin Str Type P6 C & G
Theor. TC Elev = 3415.94'

26 Sta 105+43.08 - 27.00' L
End Str Type P6 C & G
Begin Str Type B66 C & G
Theor. TC Elev = 3415.86'

27 Sta 104+00.83 - 26.96' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3417.15'

28 Sta 104+05.25 - 21.79' R
End Str Type B66 C & G
Begin Str Type P6 C & G
Theor. TC Elev = 3417.19'

29 Sta 104+09.15 - 17.23' R
End Str Type P6 C & G
Begin Str Type B66 C & G
Theor TC Elev = 3417.22'

30 Sta 104+13.05 - 12.67' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3417.25'

31 Sta 104+35.71 - 12.67' R
End Type B66 C & G
Begin Type P6 C & G
Theor. TC Elev = 3417.34'

32 Sta 104+36.15 - 12.67' R
End Str Type P6 C & G
Begin 15' Rad.
Type P6 C & G
Theor. TC Elev = 3417.34'

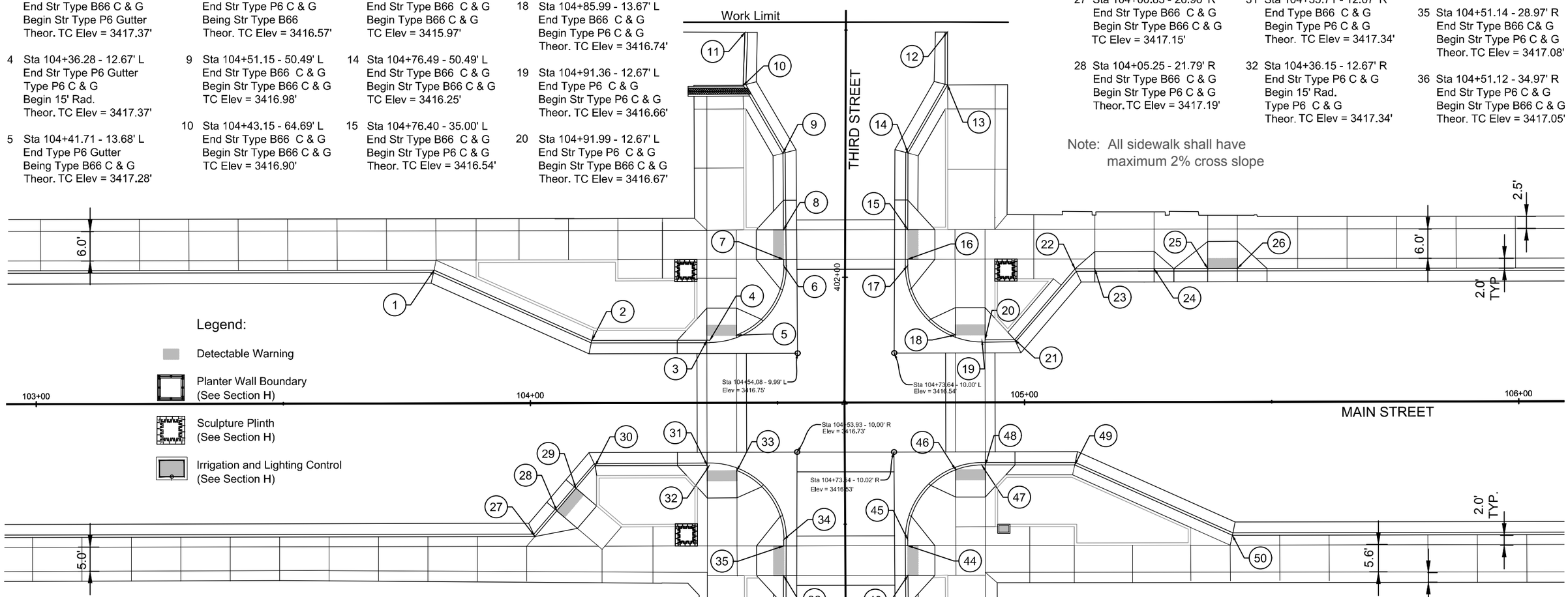
33 Sta 104+41.71 - 13.74' R
End Type P6 C & G
Begin Type B66 C & G
Theor. TC Elev = 3417.26'

34 Sta 104+51.15 - 27.73' R
End 15' Rad.
Type B66 C & G
Begin Str Type B66 C & G
Theor. TC Elev = 3417.09'

35 Sta 104+51.14 - 28.97' R
End Str Type B66 C& G
Begin Str Type P6 C & G
Theor. TC Elev = 3417.08'

36 Sta 104+51.12 - 34.97' R
End Str Type P6 C & G
Begin Str Type B66 C & G
Theor. TC Elev = 3417.05'

Note: All sidewalk shall have maximum 2% cross slope



Legend:

- Detectable Warning
- Planter Wall Boundary (See Section H)
- Sculpture Plinth (See Section H)
- Irrigation and Lighting Control (See Section H)

37 Sta 104+51.05 - 50.43' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3416.97'

38 Sta 104+43.07 - 64.25' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3416.89'

39 Sta 104+43.10 - 77.91' R
End Str Type B66 C & G
Match Existing
TC Elev = 3416.56'

40 Sta 104+84.56 - 77.94' R
Begin Str Type B66 C & G
Match Existing
TC Elev = 3416.58'

41 Sta 104+84.40 - 64.31' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3417.03'

42 Sta 104+76.40 - 50.51' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3416.95'

43 Sta 104+76.31 - 34.97' R
End Str Type B66 C & G
Begin Str Type P6 C & G
Theor. TC Elev = 3416.87'

44 Sta 104+76.27 - 28.97' R
End Str Type P6 C & G
Begin Str Type B66 C & G
Theor. TC Elev = 3416.84'

45 Sta 104+76.27 - 27.77' R
End Str Type B66 C& G
Begin 15' Rad.
Type B66 C & G
Theor. TC Elev = 3416.83'

46 Sta 104+85.99 - 13.64' R
End Type B66 C& G
Begin Type P6 C & G
Theor. TC Elev = 3416.73'

47 Sta 104+91.26 - 12.68' R
End 15' Rad.
Type P6 C & G
Begin Str Type P6 C & G
Theor. TC Elev = 3416.69'

48 Sta 104+91.99 - 12.68' R
End Str Type P6 C & G
Begin Str Type B66 C & G
Theor. TC Elev = 3416.69'

49 Sta 105+10.08 - 12.68' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3416.55'

50 Sta 105+41.97 - 27.00' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3415.84'

SIDEWALK DRAIN

Sta 104+32.03 - 63.10' L
F&I 12.5 LF of Sidewalk Drain

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\14-2030 CURB PLAN.dwg 10/26/2015 9:58:31 AM

CURB & GUTTER LAYOUT

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
FOURFRONT DESIGN INC	P 7668 (05)	B35	B67

Plotting Date: 10/26/2015

1 Sta 106+29.36 - 27.00' L
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor. TC Elev = 3414.59'

2 Sta 106+41.36 - 27.00' L
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3414.42'

3 Sta 107+12.50 - 27.00' L
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor. TC Elev = 3413.80'

4 Sta 107+24.50 - 27.00' L
End Type P6 Gutter
Begin Type B66 C & G
Theor. TC Elev = 3413.71'

5 Sta 107+44.52 - 27.00' L
End Str Type B66 C & G
Begin Type B66 C & G
TC Elev = 3413.57'

6 Sta 107+76.41 - 12.67' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3413.75'

7 Sta 108+00.90 - 12.67' L
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor. TC Elev = 3413.37'

8 Sta 108+06.00 - 12.67' L
End Str Type P6 Gutter
Begin 15' Rad.
Type P6 Gutter
Theor. TC Elev = 3413.29'

9 Sta 108+06.90 - 12.70' L
End Type P6 Gutter
Begin Type B66 C & G
Theor. TC Elev = 3413.27'

10 Sta 108+18.33 - 25.10' L
End 15' Rad.
Type B66 C & G
Begin Str Type B66 C & G
Theor. TC Elev = 3413.16'

11 Sta 108+18.29 - 29.05' L
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor. TC Elev = 3413.17'

12 Sta 108+18.24 - 35.00' L
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3413.20'

13 Sta 108+18.19 - 41.00' L
End Str Type B66 C & G
Match Existing
TC Elev = 3412.82'

14 Sta 108+64.68 - 75.00' L
Begin Str Type B66 C & G
Match Existing
TC Elev = 3412.74'

15 Sta 108+64.65 - 66.28' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3412.88'

16 Sta 108+51.89 - 50.48' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3413.06'

17 Sta 108+51.99 - 35.00' L
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor. TC Elev = 3412.98'

18 Sta 108+52.03 - 29.00' L
End Str Type P6 C & G
Begin Str Type B66 Gutter
Theor. TC Elev = 3412.95'

19 Sta 108+52.04 - 27.57' L
End Str Type B66 C & G
Begin 15' Rad.
Type B66 C & G
Theor. TC Elev = 3412.95'

20 Sta 108+66.22 - 12.70' L
End Type B66 C & G
Begin Type P6 Gutter
Theor. TC Elev = 3412.81'

21 Sta 108+67.04 - 12.67' L
End 15' Rad.
Type P6 Gutter
Begin Str Type P6 Gutter
Theor. TC Elev = 3412.80'

22 Sta 108+72.22 - 12.67' L
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3412.91'

23 Sta 108+88.31 - 12.67' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3412.69'

24 Sta 108+92.21 - 17.23' L
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor. TC Elev = 3412.66'

25 Sta 108+96.11 - 21.79' L
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3412.63'

26 Sta 109+00.56 - 27.00' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3412.60'

27 Sta 106+82.88 - 27.00' R
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor. TC Elev = 3414.18'

28 Sta 107+08.82 - 27.00' R
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3413.98'

29 Sta 107+63.50 - 27.00' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3413.59'

30 Sta 107+67.95 - 21.80' R
End Str Type B66 C & G
Begin Type P6 Gutter
Theor. TC Elev = 3413.66'

31 Sta 107+71.85 - 17.24' R
End Type P6 Gutter
Begin Type B66 C & G
Theor. TC Elev = 3413.72'

32 Sta 107+75.74 - 12.68' R
End Type B66 C & G
Being Type B66 C & G
TC Elev = 3413.78'

33 Sta 108+00.90 - 12.68' R
End Str Type B66 C & G
Begin Str Type P6 C & G
Theor. TC Elev = 3413.65'

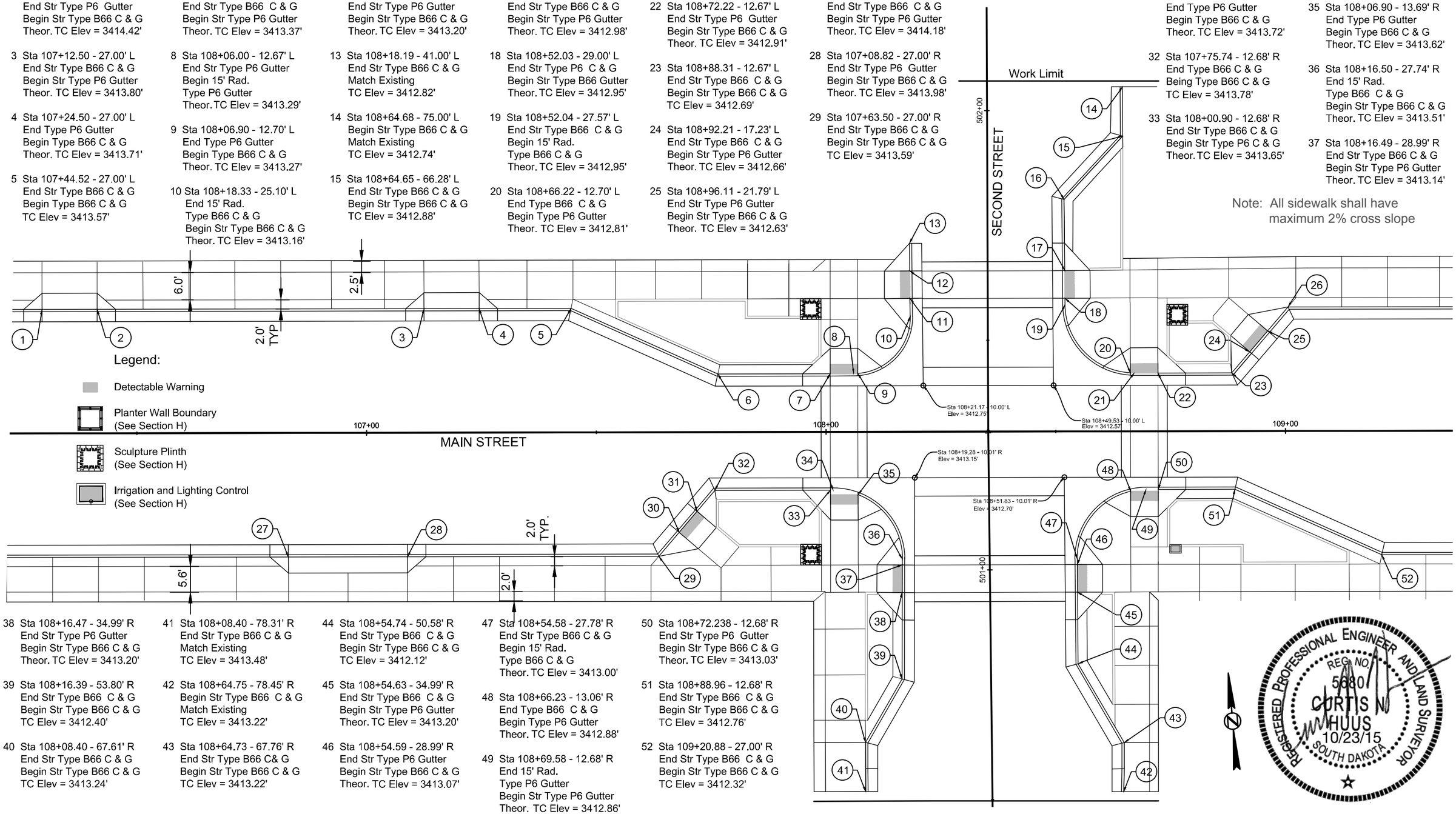
34 Sta 108+01.50 - 12.68' R
End Str Type P6 Gutter
Begin 15' Rad.
Type P6 Gutter
Theor. TC Elev = 3413.65'

35 Sta 108+06.90 - 13.69' R
End Type P6 Gutter
Begin Type B66 C & G
Theor. TC Elev = 3413.62'

36 Sta 108+16.50 - 27.74' R
End 15' Rad.
Type B66 C & G
Begin Str Type B66 C & G
Theor. TC Elev = 3413.51'

37 Sta 108+16.49 - 28.99' R
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor. TC Elev = 3413.14'

Note: All sidewalk shall have maximum 2% cross slope



Legend:

- Detectable Warning
- Planter Wall Boundary (See Section H)
- Sculpture Plinth (See Section H)
- Irrigation and Lighting Control (See Section H)

38 Sta 108+16.47 - 34.99' R
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3413.20'

39 Sta 108+16.39 - 53.80' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3412.40'

40 Sta 108+08.40 - 67.61' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3413.24'

41 Sta 108+08.40 - 78.31' R
End Str Type B66 C & G
Match Existing
TC Elev = 3413.48'

42 Sta 108+64.75 - 78.45' R
Begin Str Type B66 C & G
Match Existing
TC Elev = 3413.22'

43 Sta 108+64.73 - 67.76' R
End Str Type B66 C& G
Begin Str Type B66 C & G
TC Elev = 3413.22'

44 Sta 108+54.74 - 50.58' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3412.12'

45 Sta 108+54.63 - 34.99' R
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor. TC Elev = 3413.20'

46 Sta 108+54.59 - 28.99' R
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3413.07'

47 Sta 108+54.58 - 27.78' R
End Str Type B66 C & G
Begin 15' Rad.
Type B66 C & G
Theor. TC Elev = 3413.00'

48 Sta 108+66.23 - 13.06' R
End Type B66 C & G
Begin Type P6 Gutter
Theor. TC Elev = 3412.88'

49 Sta 108+69.58 - 12.68' R
End 15' Rad.
Type P6 Gutter
Begin Str Type P6 Gutter
Theor. TC Elev = 3412.86'

50 Sta 108+72.238 - 12.68' R
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3413.03'

51 Sta 108+88.96 - 12.68' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3412.76'

52 Sta 109+20.88 - 27.00' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3412.32'

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\14-2030 CURB PLAN.dwg 10/26/2015 9:58:40 AM

CURB & GUTTER LAYOUT

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
FOURFRONT DESIGN INC	P 7668 (05)	B36	B67

Plotting Date: 10/26/2015

1 Sta 111+22.88 - 27.00' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3410.37'

2 Sta 111+53.98 - 12.67' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3410.55'

3 Sta 111+72.67 - 12.67' L
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor. TC Elev = 3410.33'

4 Sta 111+73.28 - 12.67' L
End Str Type P6 Gutter
Begin 15' Rad.
Type P6 Gutter
Theor. TC Elev = 3410.33'

5 Sta 111+78.67 - 13.67' L
End Type P6 Gutter
Begin Type B66 C & G
Theor. TC Elev = 3410.25'

6 Sta 111+88.28 - 27.75' L
End 15' Rad.
Type B66 C & G
Begin Str Type B66 C & G
Theor. TC Elev = 3410.01'

7 Sta 111+88.28 - 75.00' L
End Str Type B66 Gutter
Begin Str Type P6 Gutter
Theor. TC Elev = 3410.00'

8 Sta 111+88.24 - 35.00' L
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3409.93'

9 Sta 111+88.16 - 50.48' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3409.75'

10 Sta 111+80.17 - 64.27' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3409.62'

11 Sta 111+80.17 - 75.00' L
End Str Type B66 C & G
Match Existing
TC Elev = 3409.63'

12 Sta 112+30.63 - 74.99' L
Begin Str Type B66 C & G
Match Existing
TC Elev = 3409.28'

13 Sta 112+30.62 - 64.27' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3409.39'

14 Sta 112+22.63 - 50.48' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3409.65'

15 Sta 112+22.54 - 35.00' L
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor. TC Elev = 3409.74'

16 Sta 112+22.51 - 29.00' L
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3409.77'

17 Sta 112+22.50 - 27.75' L
End Str Type B66 C & G
Begin 15' Rad.
Type B66 C & G
Theor. TC Elev = 3409.77'

18 Sta 112+31.89 - 13.76' L
End Type B66 C & G
Begin Type P6 Gutter
Theor. TC Elev = 3409.78'

19 Sta 112+37.51 - 12.67' L
End 15' Rad.
Type P6 Gutter
Begin Str Type P6 Gutter
Theor. TC Elev = 3409.72'

20 Sta 112+37.89 - 12.67' L
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3409.71'

21 Sta 112+54.27 - 12.67' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3409.55'

22 Sta 112+58.71 - 17.88' L
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor. TC Elev = 3409.39'

23 Sta 112+62.61 - 22.44' L
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3409.26'

24 Sta 112+66.51 - 27.00' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3409.12'

25 Sta 111+42.40 - 27.00' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3410.37'

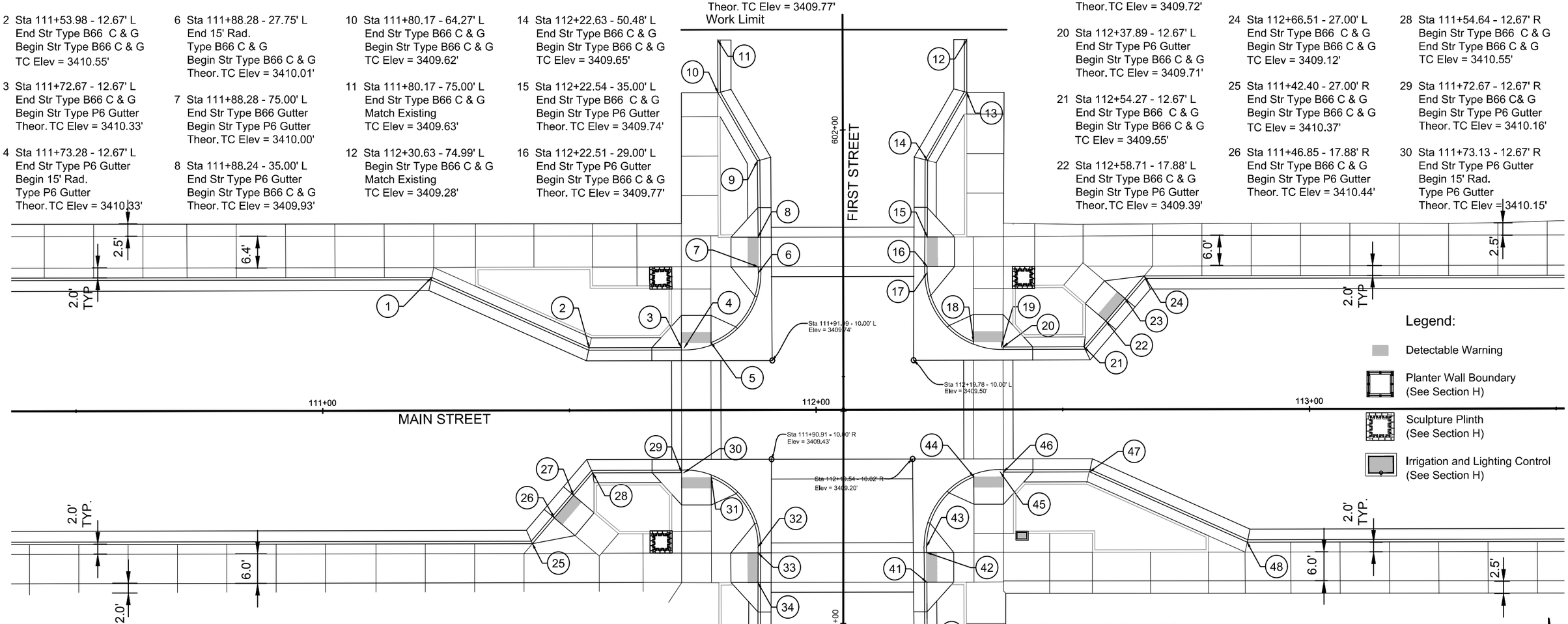
26 Sta 111+46.85 - 17.88' R
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor. TC Elev = 3410.44'

27 Sta 111+50.74 - 17.23' R
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3410.49'

28 Sta 111+54.64 - 12.67' R
Begin Str Type B66 C & G
End Str Type B66 C & G
TC Elev = 3410.55'

29 Sta 111+72.67 - 12.67' R
End Str Type B66 C& G
Begin Str Type P6 Gutter
Theor. TC Elev = 3410.16'

30 Sta 111+73.13 - 12.67' R
End Str Type P6 Gutter
Begin 15' Rad.
Type P6 Gutter
Theor. TC Elev = 3410.15'



Legend:

- Detectable Warning
- Planter Wall Boundary (See Section H)
- Sculpture Plinth (See Section H)
- Irrigation and Lighting Control (See Section H)

31 Sta 111+78.76 - 13.73' R
End Type P6 Gutter
Begin Type B66 C & G
Theor. TC Elev = 3410.01'

32 Sta 111+88.13 - 27.73' R
End 15' Rad.
Type B66 C & G
Begin Str Type B66 C & G
Theor. TC Elev = 3409.91'

33 Sta 111+88.12 - 28.97' R
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor. TC Elev = 3409.92'

34 Sta 111+88.10 - 34.97' R
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3409.94'

35 Sta 111+88.03 - 50.43' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3410.05'

36 Sta 111+80.0 - 64.27' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3409.99'

37 Sta 111+80.11 - 78.78' R
End Str Type B66 C & G
Match Existing
TC Elev = 3409.94'

38 Sta 112+30.06 - 78.95' R
Begin Str Type B66 C & G
Match Existing
TC Elev = 3409.54'

39 Sta 112+30.39 - 64.27' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3409.58'

40 Sta 112+22.39 - 50.74' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3409.64'

41 Sta 112+22.31 - 34.97' R
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor. TC Elev = 3409.51'

42 Sta 112+22.27 - 28.97' R
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3409.49'

43 Sta 112+22.26 - 27.77' R
End Str Type B66 C & G
Begin 15' Rad.
Type B66 C & G
Theor. TC Elev = 3409.49'

44 Sta 112+31.89 - 13.68' R
End Type B66 C & G
Begin Type P6 Gutter
Theor. TC Elev = 3409.39'

45 Sta 112+37.26 - 12.69' R
End Type P6 Gutter
Begin Str Type P6 Gutter
Theor. TC Elev = 3409.36'

46 Sta 112+37.89 - 12.69' R
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3409.36'

47 Sta 112+55.37 - 12.69' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3409.27'

48 Sta 112+87.27 - 27.00' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3409.09'

Note: All sidewalk shall have maximum 2% cross slope

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\14-2030 CURB PLAN.dwg 10/26/2015 9:58:50 AM

CURB & GUTTER LAYOUT

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
FOURFRONT DESIGN INC	P 7668 (05)	B37	B67

Plotting Date: 10/26/2015

1 Sta 114+39.20 - 27.00' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3407.79'

2 Sta 114+71.10 - 12.67' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3407.62'

3 Sta 114+77.10 - 12.67' L
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor.TC Elev = 3407.61'

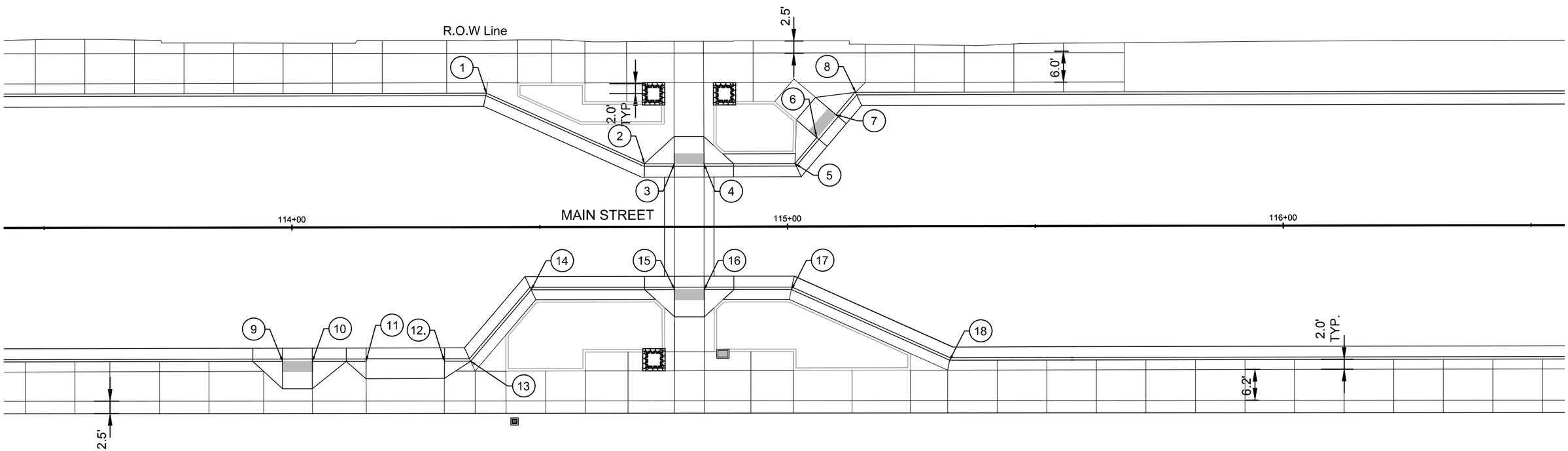
4 Sta 114+83.10 - 12.67' L
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3407.56'

5 Sta 115+01.47 - 12.67' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3407.37'

6 Sta 115+05.84 - 17.94' L
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor. TC Elev = 3407.19'

7 Sta 115+09.74 - 22.50' L
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor.TC Elev = 3407.03'

8 Sta 115+13.73 - 27.00' L
End Str Type B6 C &6 G
Begin Str Type B66 C & G
TC Elev = 3406.87'



Legend:

- Detectable Warning
- Planter Wall Boundary (See Section H)
- Sculpture Plinth (See Section H)
- Irrigation and Lighting Control (See Section H)

9 Sta 113+98.00 - 27.00' R
End Type B66 C &G
Begin Type P6 Gutter
Theor. TC Elev = 3408.15'

10 Sta 114+04.00 - 27.00' R
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3408.09'

11 Sta 114+14.85 - 27.00' R
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor.TC Elev = 3407.96'

12 Sta 114+30.67 - 27.00' R
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor.TC Elev = 3407.74'

13 Sta 114+35.94 - 27.00' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3407.68'

14 Sta 114+48.18 - 12.67' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3407.87'

15 Sta 114+77.10 - 12.67' R
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor. TC Elev = 3407.61'

16 Sta 114+83.10 - 12.67' R
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor.TC Elev = 3407.56'

17 Sta 115+00.70 - 12.69' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3407.40'

18 Sta 115+32.61 - 27.01' R
End Str Type B66 C & G
Begin Str Type B66 C & G
Theor.TC Elev = 3406.84'

ROOF DRAIN CONNECTION

Sta 114+44.80 - 39.17' R
F&I 1 Each, Roof Drain Connection
See Special Detail Sheet B60

Note: All sidewalk shall have maximum 2% cross slope

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\14-2030 CURB PLAN.dwg 10/26/2015 9:59:00 AM

CURB & GUTTER LAYOUT

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B38	B67

FOURFRONT DESIGN INC

Plotting Date: 10/26/2015

1 Sta 116+94.13 - 27.00' L
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor. TC Elev = 3405.18'

2 Sta 117+35.13 - 27.00' L
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3404.73'

3 Sta 117+60.35 - 27.00' L
End Str Type B66 C & G
Begin 18.50' Rad.
Type B66 C & G
TC Elev = 3404.43'

4 Sta 117+69.84 - 29.62' L
End Type B66 C & G
Begin Type P6 Gutter
Theor. TC Elev = 3404.20'

5 Sta 117+76.70 - 36.84' L
End Type P6 Gutter
Begin Type B66 C & G
Theor. TC Elev = 3404.00'

6 Sta 117+78.85 - 45.32' L
End 18.50' Rad
Type B66 C & G
Match Existing
TC Elev = 3403.78'

7 Sta 118+25.56 - 46.21' L
Begin 18.50' Rad.
Type B66 C & G
Match Existing
TC Elev = 3403.41'

8 Sta 118+28.28 - 36.03' L
End Type B6 C &6 G
Begin Type P6 Gutter
Theor. TC Elev = 3403.38'

9 Sta 118+35.28 - 29.41' L
End Type P6 Gutter
Begin Type B66 C & G
Theor. TC Elev = 3403.37

10 Sta 118+46.01 - 27.20' L
End Type B66 C & G
Match Existing
TC Elev = 3403.33'

11 Sta 117+63.39 - 27.00' R
End Str Type B66 C & G
Begin 18.50' Rad.
Type B66 C & G
TC Elev = 3404.39'

12 Sta 117+70.71 - 28.88' R
End Type B66 C & G
Begin Type P6 Gutter
Theor. TC Elev = 3404.25'

13 Sta 117+78.26 - 35.64' R
End Type P6 Gutter
Begin Type B66 C & G
Theor. TC Elev = 3404.45'

14 Sta 117+81.06 - 44.36' R
End 18.50' Rad.
Type B66 C & G
Match Existing
TC Elev = 3404.47'

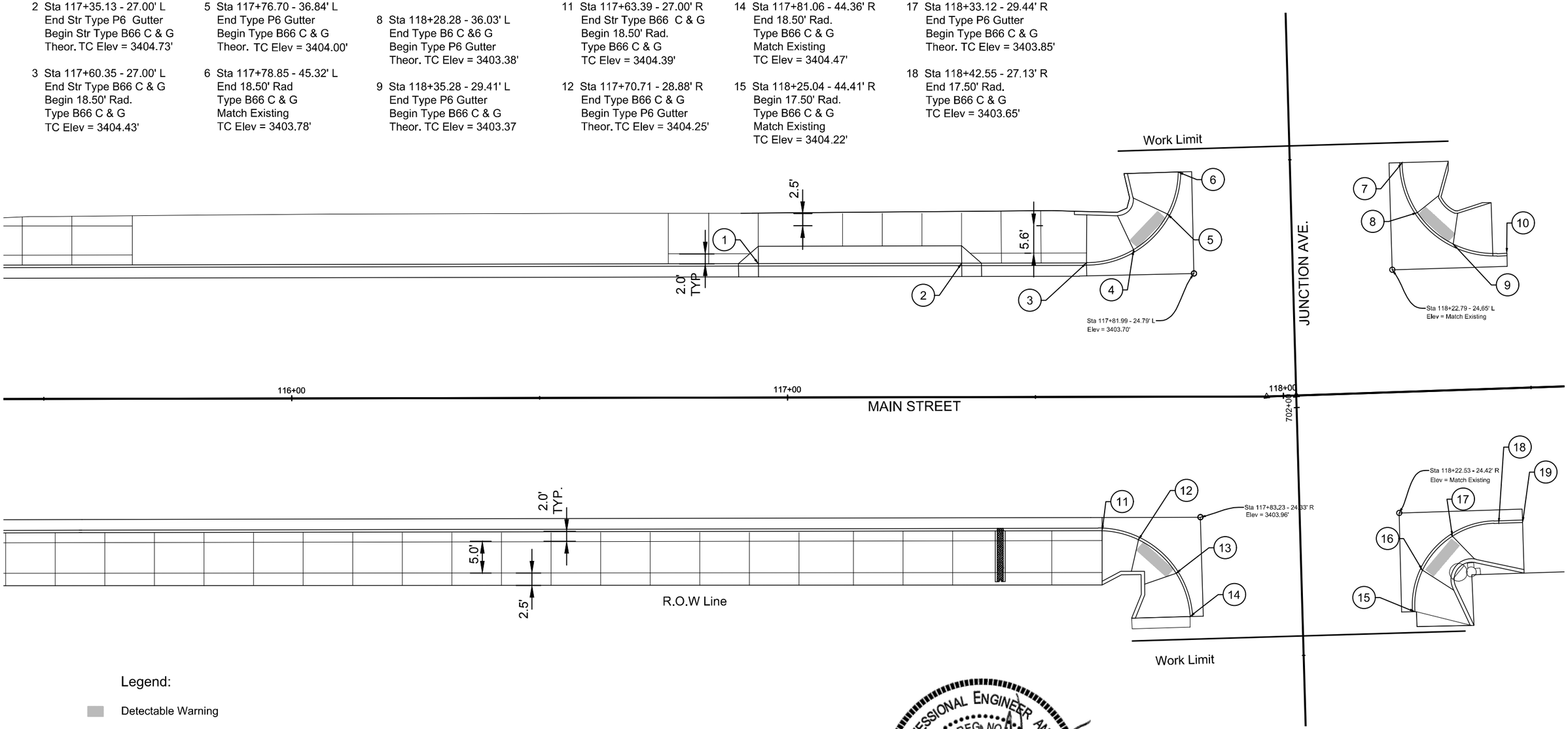
15 Sta 118+25.04 - 44.41' R
Begin 17.50' Rad.
Type B66 C & G
Match Existing
TC Elev = 3404.22'

16 Sta 118+26.86 - 36.09' R
End Type B66 C & G
Begin Type P6 Gutter
Theor. TC Elev = 3404.04'

17 Sta 118+33.12 - 29.44' R
End Type P6 Gutter
Begin Type B66 C & G
Theor. TC Elev = 3403.85'

18 Sta 118+42.55 - 27.13' R
End 17.50' Rad.
Type B66 C & G
TC Elev = 3403.65'

19 Sta 118+47.36 - 27.14' L
End Type B66 C & G
Match Existing
TC Elev = 3403.55'



Legend:

- Detectable Warning
- Planter Wall Boundary (See Section H)
- Sculpture Plinth (See Section H)
- Irrigation and Lighting Control (See Section H)

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5030
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

Note: All sidewalk shall have maximum 2% cross slope

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\14-2030 CURB PLAN.dwg 10/26/2015 9:59:10 AM

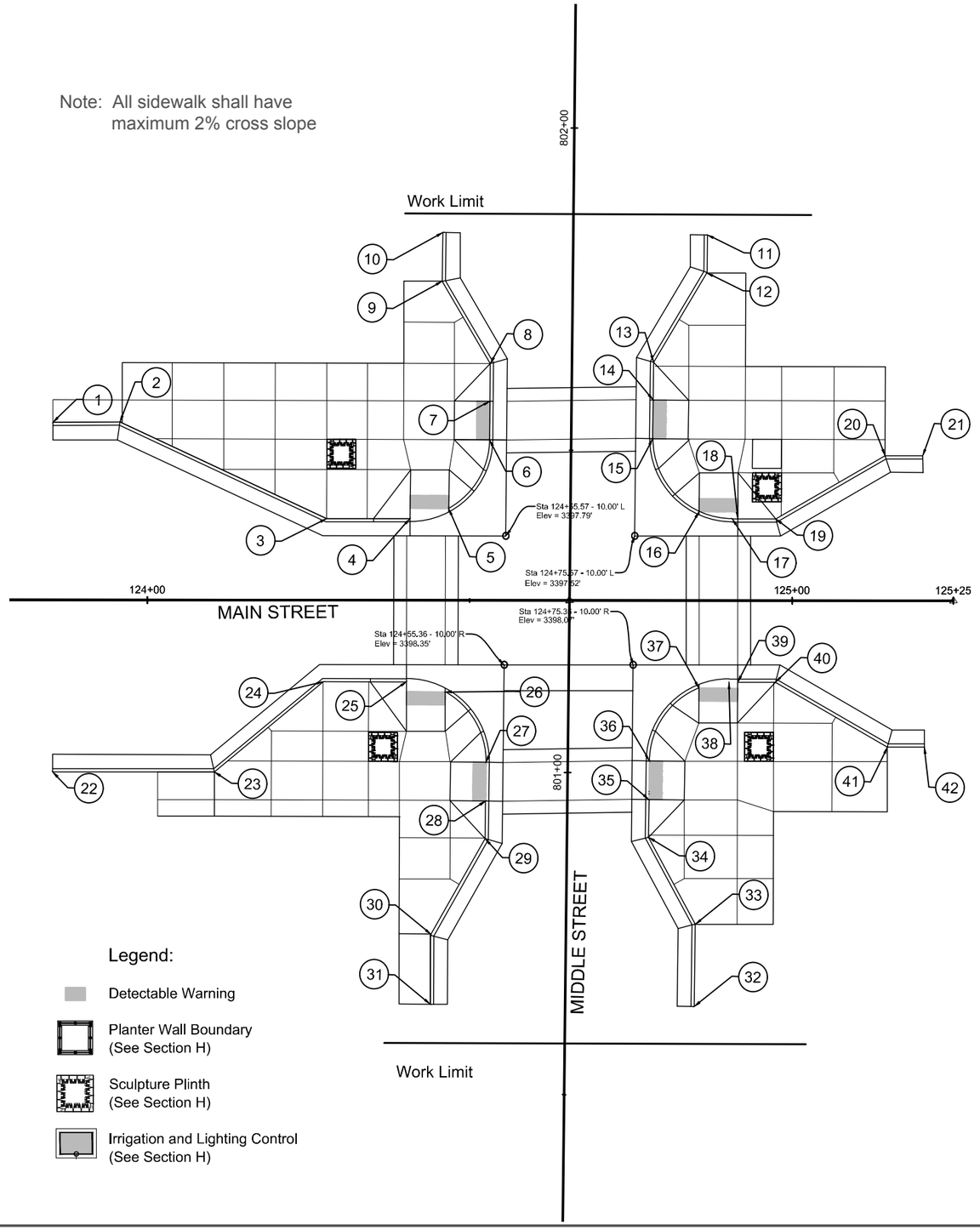
CURB & GUTTER LAYOUT

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
FOURFRONT DESIGN INC	P 7668 (05)	B39	B67

Plotting Date: 10/26/2015

Note: All sidewalk shall have maximum 2% cross slope



1 Sta 123+85.30 - 27.56' L
Begin Str Type B66 C & G
Match Existing
TC Elev = 3398.25'

2 Sta 123+95.71 - 27.61' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 33.98.04'

3 Sta 124+27.78 - 12.67' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3398.43'

4 Sta 124+40.70 - 12.67' L
End Str Type B66 C & G
Begin 12.33' Rad.
Type P6 Gutter
Theor. TC Elev = 3398.37'

5 Sta 124+46.72 - 14.24' L
End Type P6 Gutter
Begin Type B66 C & G
Theor. TC Elev = 3398.25'

6 Sta 124+53.03 - 24.89' L
End 12.33' Rad.
Type B66 C & G
Begin Str Type P6 Gutter
Theor. TC Elev = 3397.86'

7 Sta 124+53.09 - 30.89' L
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3397.69'

8 Sta 124+53.14 - 36.75' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3397.53'

9 Sta 124+45.70 - 49.50' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3397.07'

10 Sta 124+45.76 - 57.06' L
End Str Type B66 C & G
Match Existing
TC Elev = 3396.86'

11 Sta 124+86.80 - 57.06' L
Begin Type B66 C & G
Match Existing
TC Elev = 3396.78'

12 Sta 124+86.77- 50.92' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3396.92'

13 Sta 124+78.48 - 36.98' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3397.32

14 Sta 124+78.43 - 31.11' L
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor. TC Elev = 3397.46'

15 Sta 124+78.38 - 25.11' L
End Str Type P6 Gutter
Begin 12.33' Rad.
Type B66 C & G
Theor. TC Elev = 3397.61'

16 Sta 124+85.57 - 13.79' L
End Type B66 C & G
Begin Type P6 Gutter
Theor. TC Elev = 3397.82'

17 Sta 124+90.70 - 12.67' L
End 12.33' Rad.
Type P6 Gutter
Begin Str Type P6 Gutter
Theor. TC Elev = 3397.85'

18 Sta 124+91.57 - 12.67' L
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3397.84'

19 Sta 124+97.48 - 12.67' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3397.64'

20 Sta 125+14.40 - 22.50' L
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3397.28'

21 Sta 125+20.27 - 22.50' L
End Str Type B66 C & G
Match Existing
TC Elev = 3397.18'

22 Sta 123+85.34 - 26.70' R
Begin Str Type B66 C & G
Match Existing
TC Elev = 3398.58'

23 Sta 124+10.43 - 26.66' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3397.96'

24 Sta 124+27.29 - 12.67' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3398.58'

25 Sta 124+40.21 - 12.67' R
End Str Type B66 C & G
Begin 12.33' Rad.
Type P6 Gutter
Theor. TC Elev = 3398.77'

26 Sta 124+46.21 - 14.23' R
End Type P6 Gutter
Begin Type B66 C & G
Theor. TC Elev = 3398.92'

27 Sta 124+52.54 - 25.12' R
End Type 12.33' Rad.
Type B66 C & G
Begin Str Type P6 Gutter
Theor. TC Elev = 3399.23'

28 Sta 124+52.49 - 31.12' R
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3399.35'

29 Sta 124+52.42 - 36.99' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3399.32'

30 Sta 124+43.96 - 51.98' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3399.13'

31 Sta 124+43.92 - 62.66' R
End Str Type B66 C & G
Match Existing
TC Elev = 3399.63'

32 Sta 124+84.91 - 62.97' R
Begin Str Type B66 C & G
Match Existing
TC Elev = 3400.00'

33 Sta 124+85.01 - 50.18' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3399.65'

34 Sta 124+77.77 - 36.75' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3399.27'

35 Sta 124+77.86 - 30.88' R
End Str Type B66 C & G
Begin Str Type P6 Gutter
Theor. TC Elev = 3399.07'

36 Sta 124+77.89 - 24.88' R
End Type P6 Gutter
Begin 12.33' Rad.
Type B66 C & G
Theor. TC Elev = 3398.87'

37 Sta 124+85.56 - 13.58' R
End Type B66 C & G
Begin Type P6 Gutter
Theor. TC Elev = 3398.48'

38 Sta 124+90.21 - 12.67' R
End 12.33' Rad.
Type P6 Gutter
Begin Str Type P6 Gutter
Theor. TC Elev = 3398.37'

39 Sta 124+91.56 - 12.67' R
End Str Type P6 Gutter
Begin Str Type B66 C & G
Theor. TC Elev = 3398.36'

40 Sta 124+97.42 - 12.67' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3398.10'

41 Sta 125+14.81 - 22.71' R
End Str Type B66 C & G
Begin Str Type B66 C & G
TC Elev = 3398.26'

42 Sta 125+20.54 - 22.71' R
End Str Type B66 C & G
Match Existing
TC Elev = 3397.99'

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N HUUS
10/23/15
SOUTH DAKOTA

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\14-2030 CURB PLAN.dwg 10/26/2015 9:59:20 AM

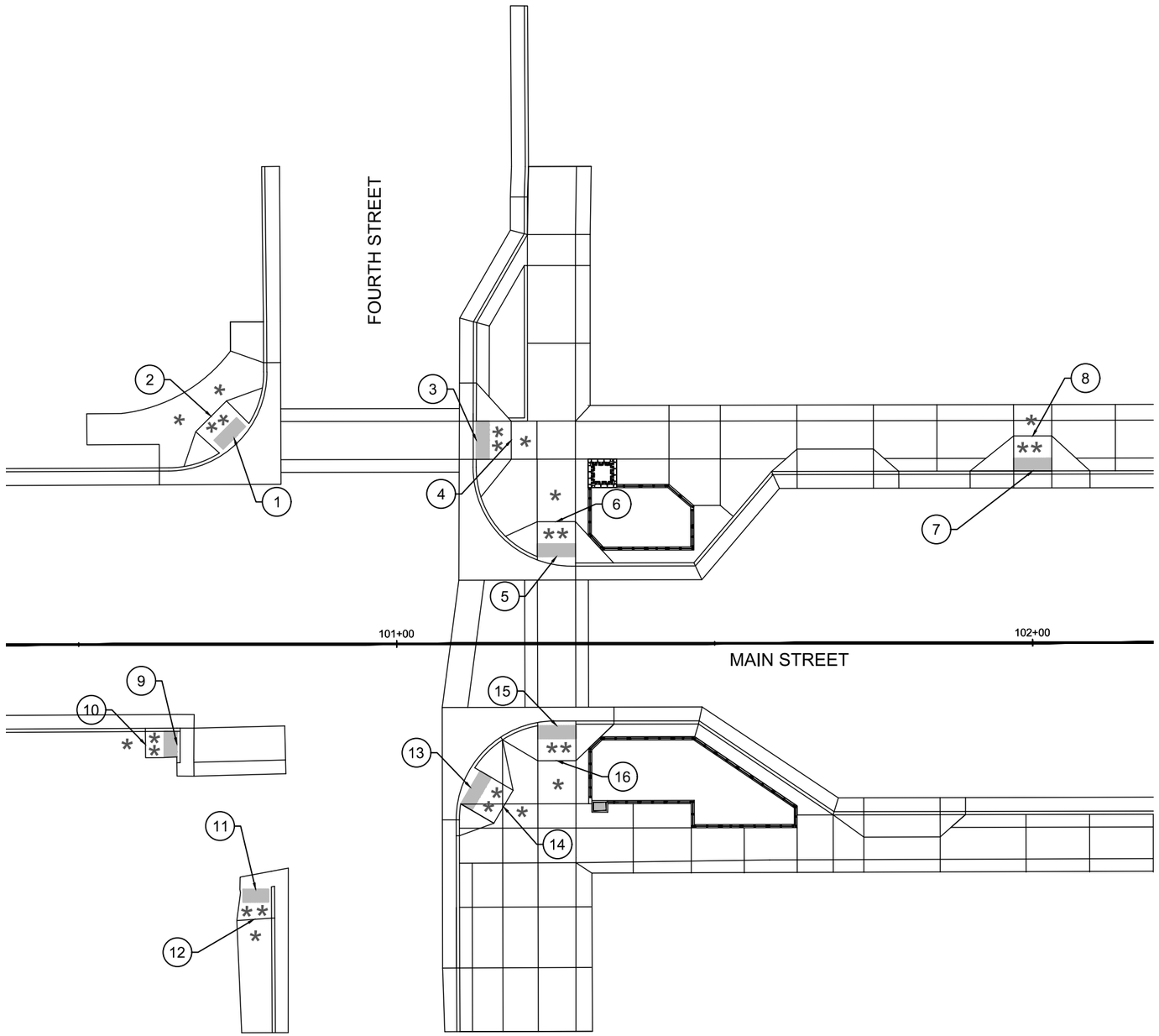
CURB RAMP DETAILS

(INTERSECTION OF 4TH STREET & MAIN STREET)

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B40	B67

Plotting Date: 10/26/2015



1 Sta 100+74.53 - 32.44' L
Begin Detectable Warning and Ramp Slope

2 Sta 100+70.88 - 35.85' L
End Ramp Slope

3 Sta 101+12.58 - 32.00' L
Begin Detectable Warning and Ramp Slope

4 Sta 101+18.08 - 32.00' L
End Ramp Slope

5 Sta 101+25.15 -13.68' L
Begin Detectable Warning and Ramp Slope

6 Sta 101+25.15 - 19.18' L
End Ramp Slope

7 Sta 102+00.07 - 27.00' L
Begin Detectable Warning and Ramp Slope

8 Sta 102+00.07 - 32.50' L
End Ramp Slope

9 Sta 100+65.41 - 15.67' R
Begin Detectable Warning and Ramp Slope

10 Sta 100+60.46 - 15.74' R
End Ramp Slope

11 Sta 100+77.75 - 38.53' R
Begin Detectable Warning and Ramp Slope

12 Sta 100+77.51 - 43.25' R
End Ramp Slope

13 Sta 101+11.56 - 22.57' R
Begin Detectable Warning and Ramp Slope

14 Sta 101+16.73 - 25.62' R
End Ramp Slope

15 Sta 101+25.15 - 12.90' R
Begin Detectable Warning and Ramp Slope

16 Sta 101+25.15 - 18.40' R
End Ramp Slope

Legend:

- * Turning Space with 2% maximum slope
- ** Curb ramp with 8.3% maximum slope and 2% cross slope
- Detectable Warning
- Planter Wall Boundary
- Sculpture Plinth
- Irrigation and Lighting Control

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5880
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\CURBRAMPPLAN.dwg 10/26/2015 10:22:07 AM

CURB RAMP DETAILS

FOR BIDDING PURPOSES ONLY

(INTERSECTION OF 3RD STREET & MAIN STREET)

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B41	B67

Plotting Date: 10/26/2015

1 Sta 104+38.75 - 13.68' L
Begin Detectable Warning and Ramp Slope

2 Sta 104+38.75 - 19.18' L
End Ramp Slope

3 Sta 104+51.28 - 32.00' L
Begin Detectable Warning and Ramp Slope

4 Sta 104+45.78 - 32.00' L
End Ramp Slope

5 Sta 104+76.44 - 32.00' L
Begin Detectable Warning and Ramp Slope

6 Sta 104+81.94 - 32.00' L
End Ramp Slope

7 Sta 104+89.03 - 13.67' L
Begin Detectable Warning and Ramp Slope

8 Sta 104+89.03 - 19.17' L
End Ramp Slope

9 Sta 105+40.12 - 27.00' L
Begin Detectable Warning and Ramp Slope

10 Sta 105+40.12 - 32.50' L
End Ramp Slope

11 Sta 104+07.24 - 19.51' L
Begin Detectable Warning and Ramp Slope

12 Sta 104+11.42 - 23.08' R
End Ramp Slope

13 Sta 104+38.75 - 13.74' R
Begin Detectable Warning and Ramp Slope

14 Sta 104+38.75 - 19.24' R
End Ramp Slope

15 Sta 104+51.18 - 31.97' R
Begin Detectable Warning and Ramp Slope

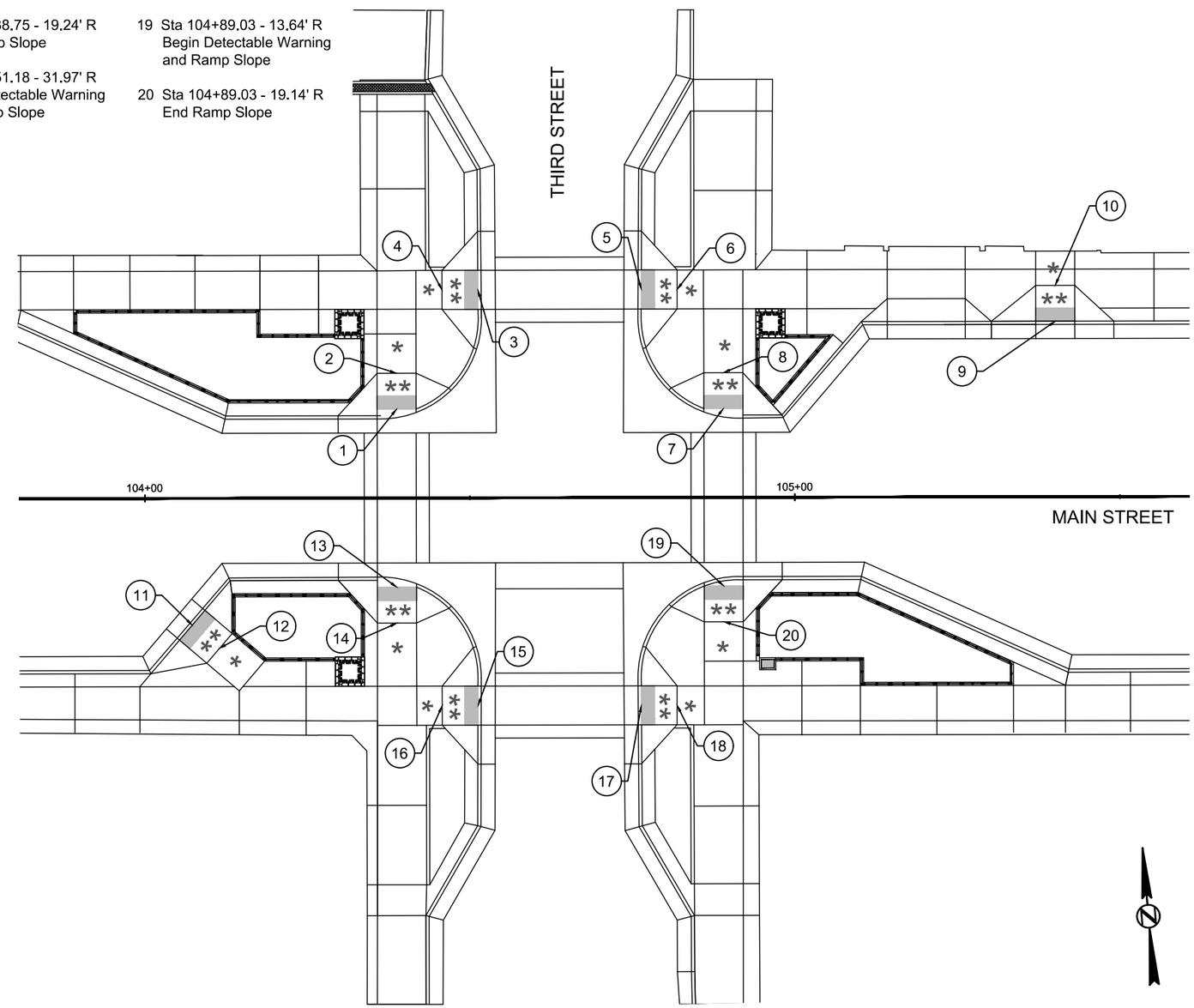
16 Sta 104+45.68 - 31.97' R
End Ramp Slope

17 Sta 104+76.32 - 31.97' R
Begin Detectable Warning and Ramp Slope

18 Sta 104+81.82 - 31.97' R
End Ramp Slope

19 Sta 104+89.03 - 13.64' R
Begin Detectable Warning and Ramp Slope

20 Sta 104+89.03 - 19.14' R
End Ramp Slope



Legend:

- * Turning Space with 2% maximum slope
- ** Curb ramp with 8.3% maximum slope and 2% cross slope
- Detectable Warning
- Planter Wall Boundary
- Sculpture Plinth
- Irrigation and Lighting Control

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\CURBRAMPPLAN.dwg 10/26/2015 10:22:13 AM

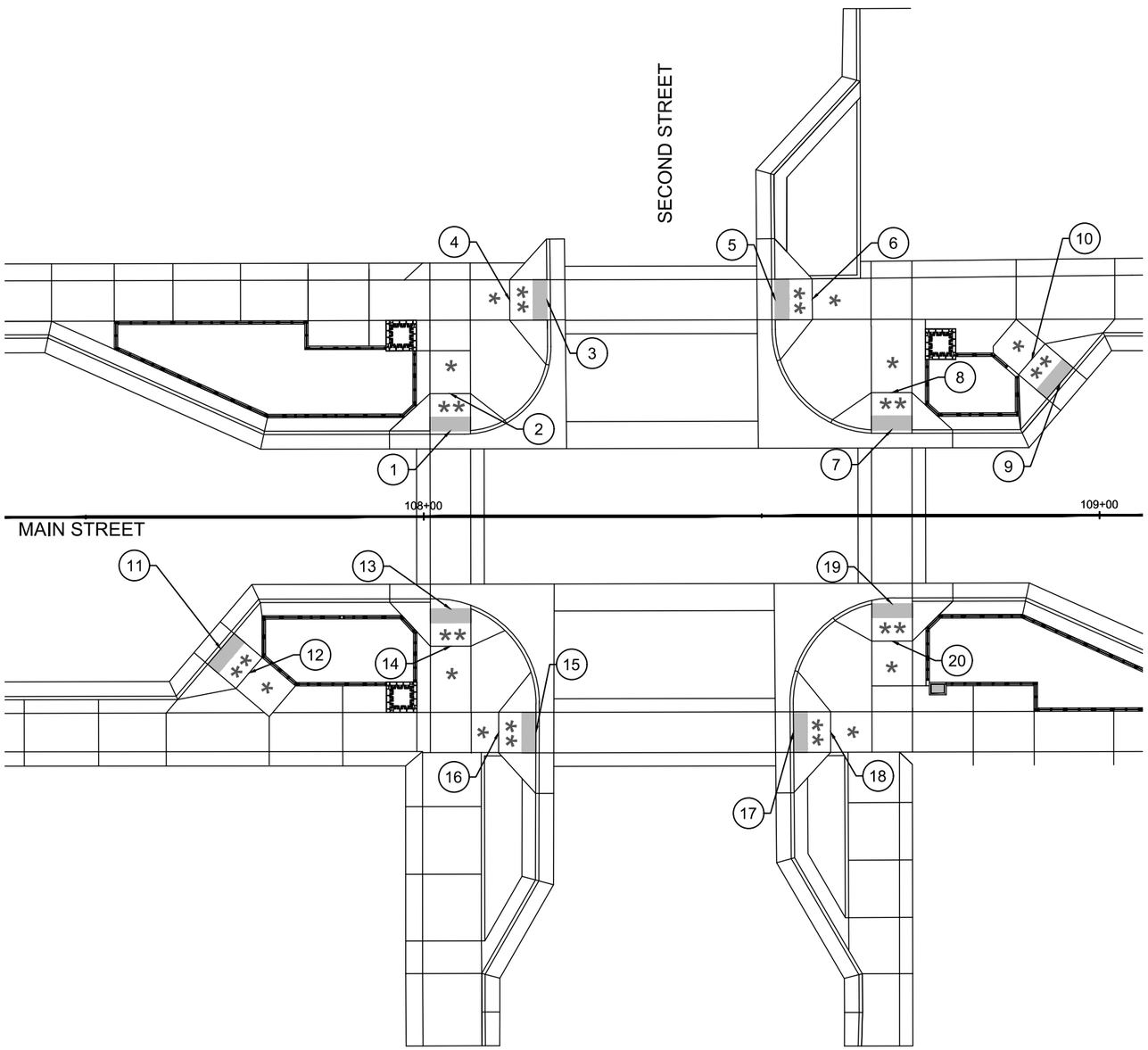
CURB RAMP DETAILS

(INTERSECTION OF 2ND STREET & MAIN STREET)

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B42	B67

Plotting Date: 10/26/2015



1 Sta 108+03.95 - 12.67' L
Begin Detectable Warning and Ramp Slope

2 Sta 108+03.95 - 18.17' L
End Ramp Slope

3 Sta 108+18.28 - 32.00' L
Begin Detectable Warning and Ramp Slope

4 Sta 108+12.78 - 32.00' L
End Ramp Slope

5 Sta 108+52.05 - 32.00' L
Begin Detectable Warning and Ramp Slope

6 Sta 108+57.55 - 32.04' L
End Ramp Slope

7 Sta 108+69.27 - 12.70" L
Begin Detectable Warning and Ramp Slope

8 Sta 108+69.26 - 18.20' L
End Ramp Slope

9 Sta 108+94.20 - 19.51' L
Begin Detectable Warning and Ramp Slope

10 Sta 108+90.02 - 23.09' L
End Ramp Slope

11 Sta 107+69.94 - 19.52' R
Begin Detectable Warning and Ramp Slope

12 Sta 107+74.12 - 23.10' R
End Ramp Slope

13 Sta 108+03.95 - 13.69' R
Begin Detectable Warning and Ramp Slope

14 Sta 108+03.95 - 19.19' R
End Ramp Slope

15 Sta 108+16.52 - 31.99' R
Begin Detectable Warning and Ramp Slope

16 Sta 108+11.02 - 31.97' R
End Ramp Slope

17 Sta 108+54.65 - 31.99' R
Begin Detectable Warning and Ramp Slope

18 Sta 108+60.15- 31.99' R
End Ramp Slope

19 Sta 108+69.27 - 13.06' R
Begin Detectable Warning and Ramp Slope

20 Sta 108+69.27 - 18.56' R
End Ramp Slope

Legend:

* Turning Space with 2% maximum slope

** Curb ramp with 8.3% maximum slope and 2% cross slope

Detectable Warning

Planter Wall Boundary

Sculpture Plinth

Irrigation and Lighting Control

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\CURBRAMPPLAN.dwg 10/26/2015 10:22:18 AM

CURB RAMP DETAILS

(INTERSECTION OF 1ST STREET AND MAIN STREET)

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B43	B67

Plotting Date: 10/26/2015

1 Sta 111+75.71 - 13.67' L
Begin Detectable Warning and Ramp Slope

2 Sta 111+75.71 - 19.17' L
End Ramp Slope

3 Sta 111+88.29 - 32.00' L
Begin Detectable Warning and Ramp Slope

4 Sta 111+82.79 - 32.00' L
End Ramp Slope

5 Sta 111+48.84 - 19.51' L
Begin Detectable Warning and Ramp Slope

6 Sta 111+53.02 - 23.08' R
End Ramp Slope

7 Sta 111+75.71 - 13.73' R
Begin Detectable Warning and Ramp Slope

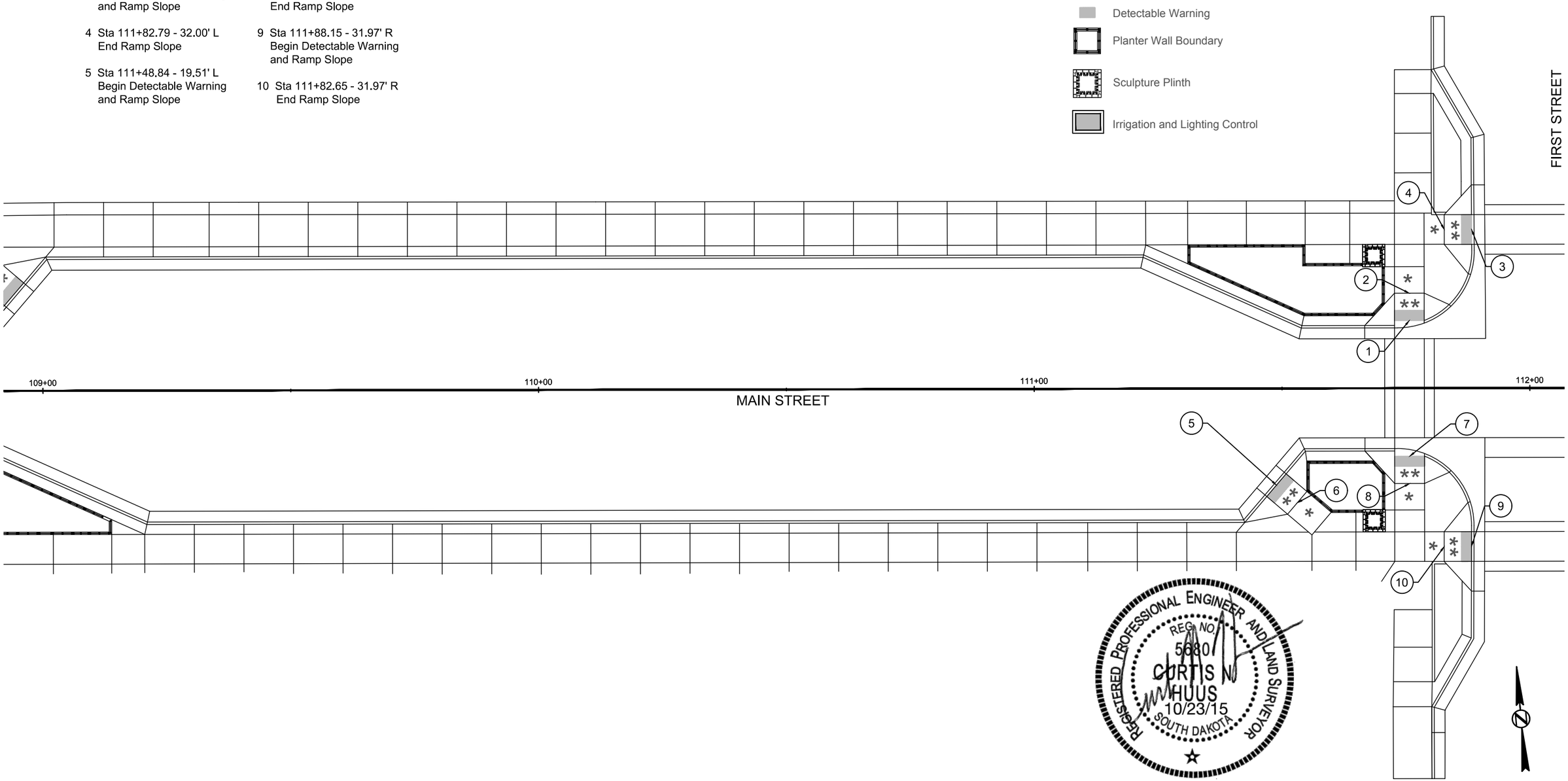
8 Sta 111+75.71 - 19.23' R
End Ramp Slope

9 Sta 111+88.15 - 31.97' R
Begin Detectable Warning and Ramp Slope

10 Sta 111+82.65 - 31.97' R
End Ramp Slope

Legend:

- * Turning Space with 2% maximum slope
- ** Curb ramp with 8.3% maximum slope and 2% cross slope
- Detectable Warning
- Planter Wall Boundary
- Sculpture Plinth
- Irrigation and Lighting Control



REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\CURBRAMPPLAN.dwg 10/26/2015 10:22:23 AM

CURB RAMP DETAILS

FOR BIDDING PURPOSES ONLY

(INTERSECTION OF 1ST STREET & MAIN STREET, MID-STREET CROSSWALK)

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B44	B67

Plotting Date: 10/26/2015

Legend:

- * Turning Space with 2% maximum slope
- ** Curb ramp with 8.3% maximum slope and 2% cross slope
- Detectable Warning
- Planter Wall Boundary
- Sculpture Plinth
- Irrigation and Lighting Control

1 Sta 112+22.59 - 32.00' L
Begin Detectable Warning and Ramp Slope

2 Sta 112+28.09 - 32.00' L
End Ramp Slope

3 Sta 112+34.93 - 13.76' L
Begin Detectable Warning and Ramp Slope

4 Sta 112+34.93 - 19.26' L
End Ramp Slope

5 Sta 112+60.70 - 20.16' L
Begin Detectable Warning and Ramp Slope

6 Sta 112+56.52 - 23.73' L
End Ramp Slope

7 Sta 114+80.14 - 12.67' L
Begin Detectable Warning and Ramp Slope

8 Sta 114+80.14 - 18.17' L
End Ramp Slope

9 Sta 112+22.40 - 31.97' R
Begin Detectable Warning and Ramp Slope

10 Sta 112+27.81 - 31.97' R
End Ramp Slope

11 Sta 112+34.93 - 13.68' R
Begin Detectable Warning and Ramp Slope

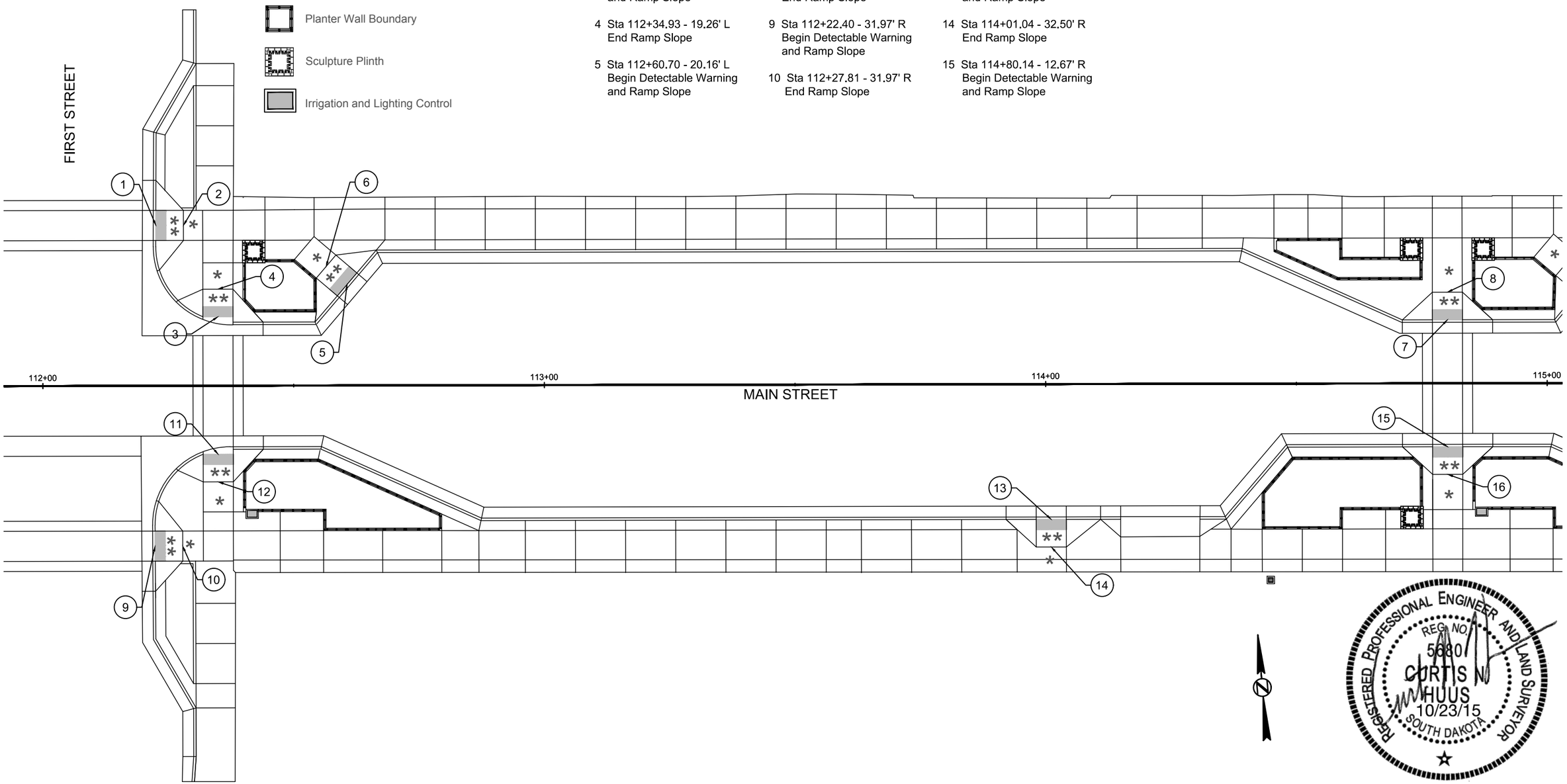
12 Sta 112+34.93 - 19.18' R
End Ramp Slope

13 Sta 114+01.04 - 27.00' R
Begin Detectable Warning and Ramp Slope

14 Sta 114+01.04 - 32.50' R
End Ramp Slope

15 Sta 114+80.14 - 12.67' R
Begin Detectable Warning and Ramp Slope

16 Sta 114+80.14 - 18.17' R
End Ramp Slope



REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\CURBRAMPPLAN.dwg 10/26/2015 10:22:28 AM

CURB RAMP DETAILS FOR BIDDING PURPOSES ONLY

(INTERSECTION OF MID-STREET CROSSWALK, JUNCTION AVENUE & MAIN STREET)

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B45	B67

Plotting Date: 10/26/2015

Legend:

- * Turning Space with 2% maximum slope
- ** Curb ramp with 8.3% maximum slope and 2% cross slope
- Detectable Warning
- Planter Wall Boundary
- Sculpture Plinth
- Irrigation and Lighting Control

1 Sta 115+07.83 - 20.22' L
Begin Detectable Warning and Ramp Slope

2 Sta 115+03.73 - 23.73' L
End Ramp Slope

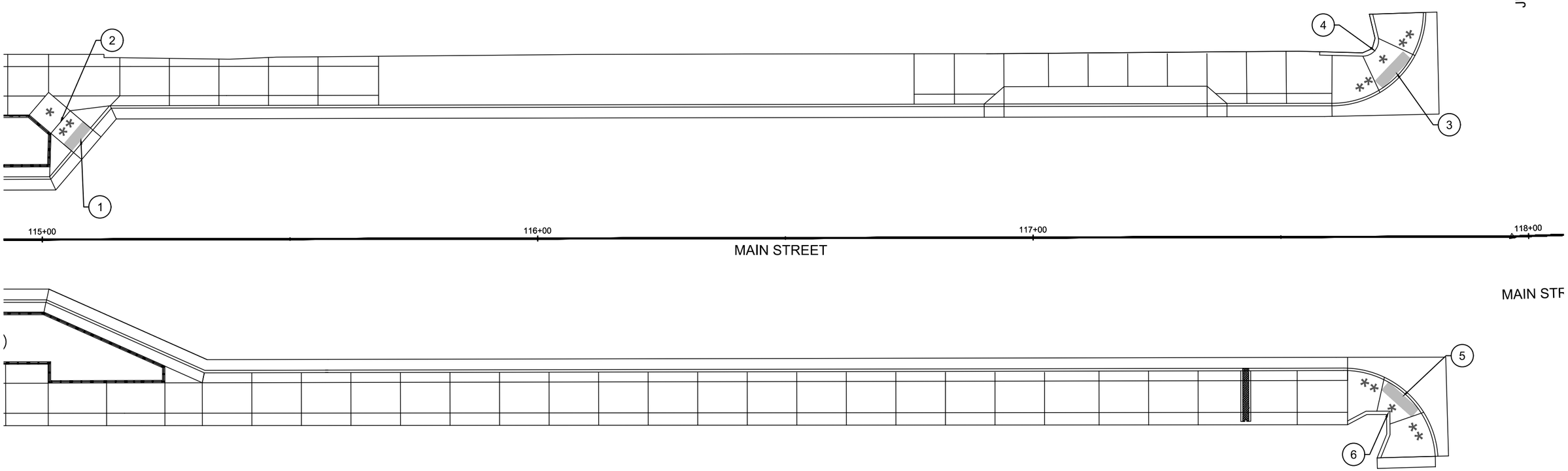
3 Sta 117+73.41 - 33.05' L
Begin Detectable Warning and Ramp Slope

4 Sta 117+69.03 - 37.61' L
End Ramp Slope

5 Sta 117+74.67 - 32.11' R
Begin Detectable Warning and Ramp Slope

6 Sta 117+71.64 - 35.51' R
End Ramp Slope

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA



L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\CURBRAMP\PPLAN.dwg 10/26/2015 10:22:33 AM

CURB RAMP DETAILS

FOR BIDDING PURPOSES ONLY

(INTERSECTION OF JUNCTION STREET & MAIN STREET)

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B46	B67

Plotting Date: 10/26/2015

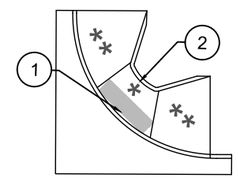
1 Sta 118+31.40 - 32.82' L
Begin Detectable Warning
and Ramp Slope

2 Sta 118+33.96 - 36.88' L
End Ramp Slope

3 Sta 118+30.23 - 33.00' R
Begin Detectable Warning
and Ramp Slope

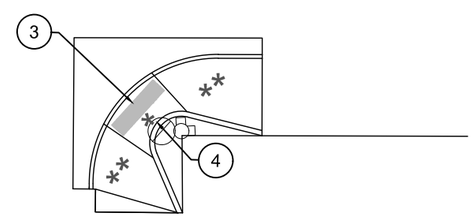
4 Sta 118+33.50 - 35.60' R
End Ramp Slope

JUNCTION AVENUE



118+00

MAIN STREET



Legend:

*	Turning Space with 2% maximum slope
**	Curb ramp with 8.3% maximum slope and 2% cross slope
	Detectable Warning
	Planter Wall Boundary
	Sculpture Plinth
	Irrigation and Lighting Control

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

L:\14-2030 Sturgis Main St Recons\Drawings\Eng\Sheet Files\Section B\CURBRAMPPLAN.dwg 10/26/2015 10:22:38 AM

CURB RAMP DETAILS

FOR BIDDING PURPOSES ONLY

(INTERSECTION OF MIDDLE STREET & MAIN STREET)

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B47	B67

Plotting Date: 10/26/2015

1 Sta 124+43.72 - 14.26' L
Begin Detectable Warning and Ramp Slope

2 Sta 124+43.81 - 20.23' L
End Ramp Slope

3 Sta 124+53.06 - 27.89' L
Begin Detectable Warning and Ramp Slope

4 Sta 124+47.56 - 27.94' L
End Ramp Slope

5 Sta 124+78.40 - 28.11' L
Begin Detectable Warning and Ramp Slope

6 Sta 124+83.90 - 28.06' L
End Ramp Slope

7 Sta 124+88.57 - 13.77' L
Begin Detectable Warning and Ramp Slope

8 Sta 124+88.61 - 19.79' L
End Ramp Slope

9 Sta 124+43.21 - 14.21' R
Begin Detectable Warning and Ramp Slope

10 Sta 124+43.25 - 20.31' R
End Ramp Slope

11 Sta 124+52.52 - 28.12' R
Begin Detectable Warning and Ramp Slope

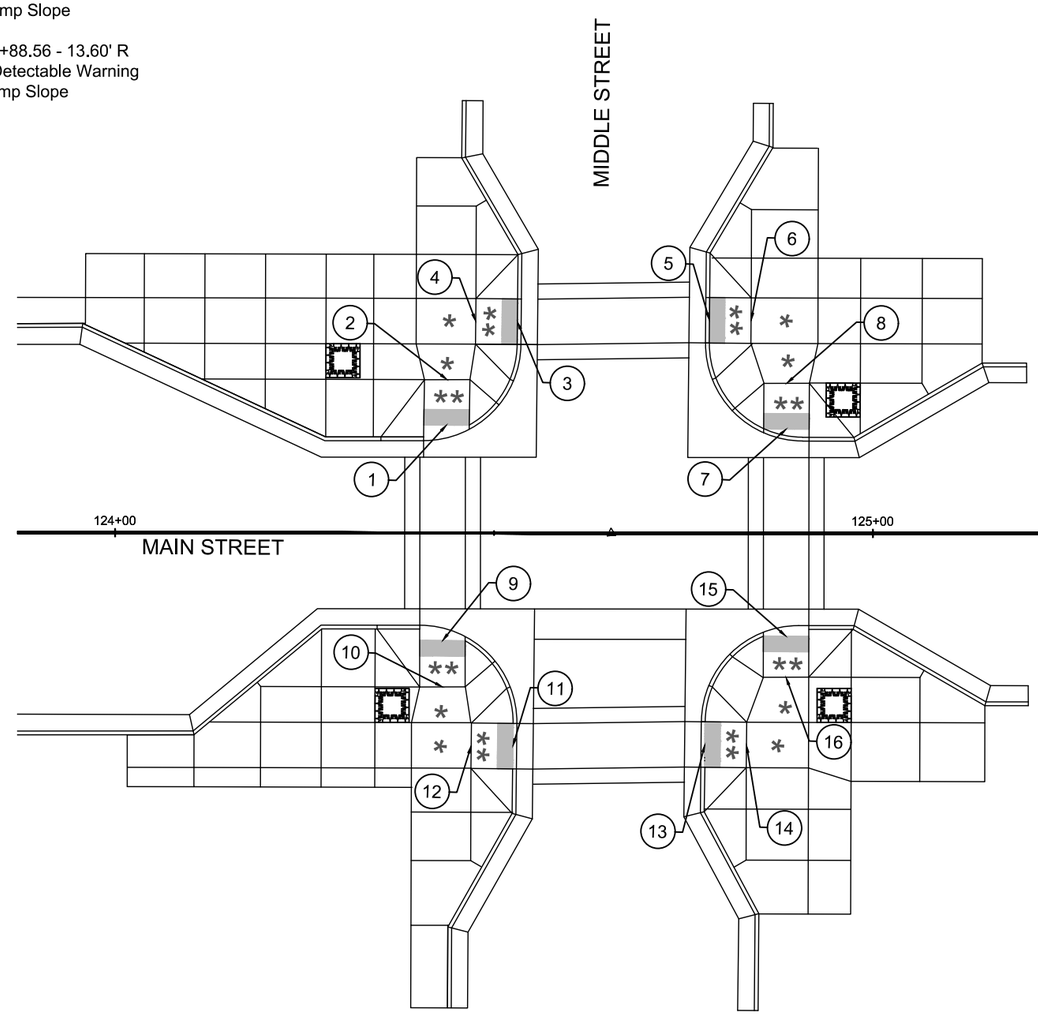
12 Sta 124+47.01 - 28.07' R
End Ramp Slope

13 Sta 124+77.86 - 27.88' R
Begin Detectable Warning and Ramp Slope

14 Sta 124+83.36 - 27.93' R
End Ramp Slope

15 Sta 124+88.56 - 13.60' R
Begin Detectable Warning and Ramp Slope

16 Sta 124+88.56 - 18.98' R
End Ramp Slope



Legend:

- * Turning Space with 2% maximum slope
- ** Curb ramp with 8.3% maximum slope and 2% cross slope
- Detectable Warning
- Planter Wall Boundary
- Sculpture Plinth
- Irrigation and Lighting Control

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\CURBRAMPPLAN.dwg 10/26/2015 10:22:43 AM

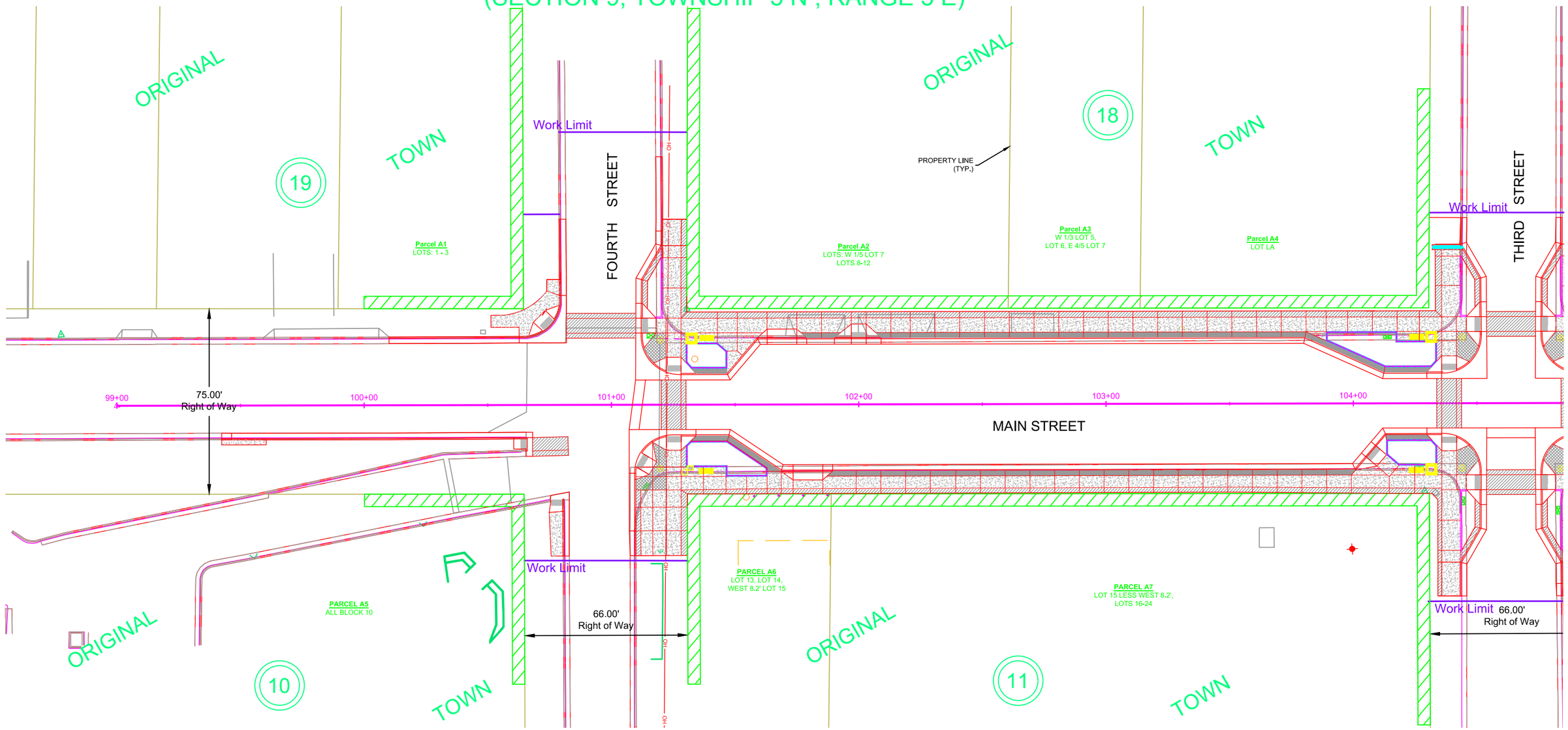
ROW LAYOUT

(SECTION 9, TOWNSHIP 5 N , RANGE 5 E)

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B48	B67

Plotting Date: 11/24/2015



PARCEL A1
OWNER: LARRY PLAGGEMEYER (OWNER)
Sta 100+00.04 - 39.07' L Sta 100+64.49 - 38.95' L
Temporary 5' Construction Easement
Containing 904 Sq. Ft. More or Less

PARCEL A2
OWNERS: FIVE ROCKS, LLC.
RAYMOND OR DALLERIE RIESLAND (OWNER)
Sta 101+30.49 - 38.85' L to Sta 102+60.51 - 38.72' L
Temporary 5' Construction Easement
Containing 1232 Sq. Ft. More or Less

PARCEL A3
OWNERS: RUSSELL ULLERICH (OWNER)
Sta 102+60.51 - 38.72' L to Sta 103+13.85 - 38.67' L
Temporary 5' Construction Easement
Containing 267 Sq. Ft. More or Less

PARCEL A4
OWNER: HOMESLICE MANAGEMENT, LLC.
MARK BRUCH (MANAGEMENT)
Sta 103+13.85 - 38.67' L to Sta 104+30.53 - 38.55' L
Temporary 5' Construction Easement
Containing 1000 Sq. Ft. More or Less

PARCEL A5
OWNER: MEADE COUNTY
ALAN AKER (COUNTY COMMISSIONER)
Sta 100+00.04 - 35.93' R to Sta 100+64.62 - 36.05' R
Temporary 5' Construction Easement
Containing 682 Sq. Ft. More or Less

PARCEL A6
OWNER: CHOKDEE, LLC.
GOLD FAMILY, LP
RAY GOLD (GOLD)
Sta 101+30.62 - 36.08' R to Sta 101+88.83 - 36.15' R
Temporary 5' Construction Easement
Containing 650 Sq. Ft. More or Less

PARCEL A7
OWNER: GOLD FAMILY LIMITED PARTNERSHIP
PETER GOLD (OWNER)
Sta 101+88.83 - 36.15' R to Sta 104+30.69 - 36.45' R
Temporary 5' Construction Easement
Containing 1652 Sq. Ft. More or Less

TEMPORARY CONSTRUCTION EASEMENT

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\ROW PLAN.dwg 11/24/2015 9:38:23 AM

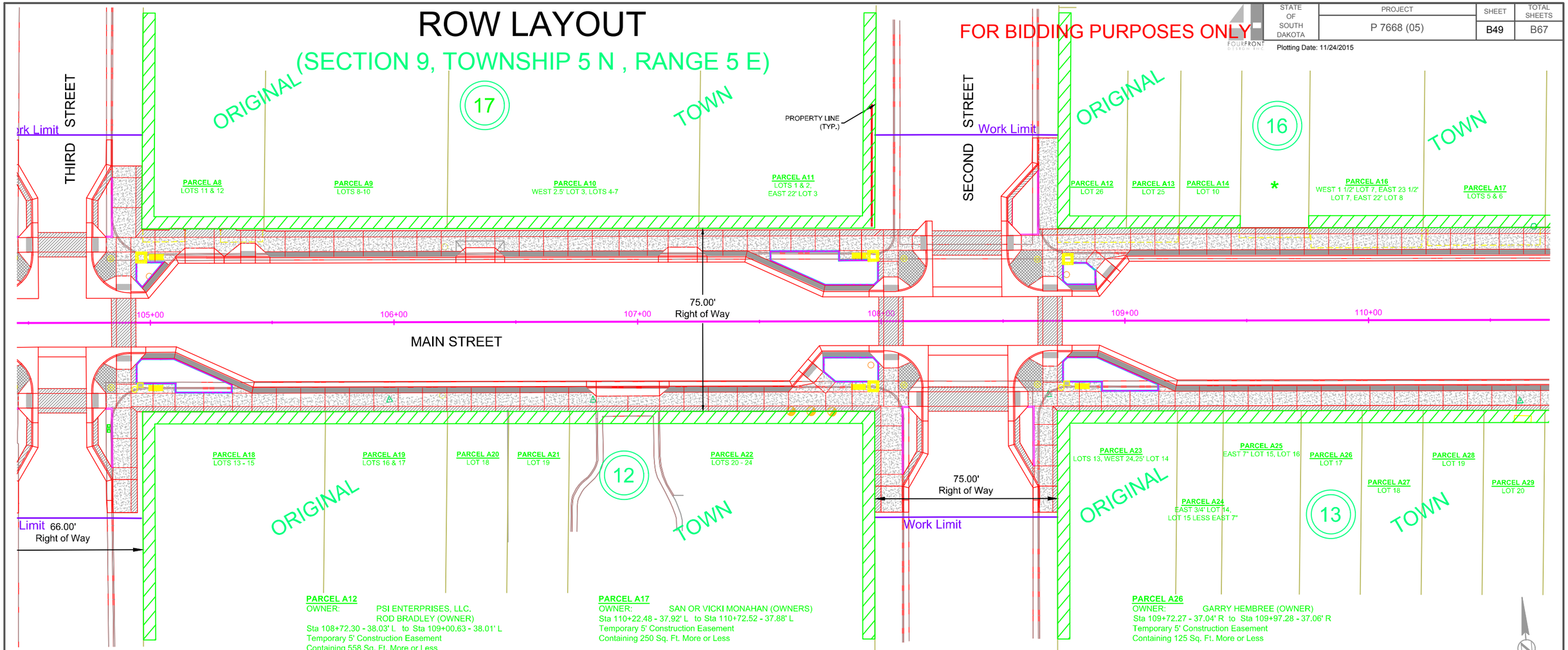
ROW LAYOUT

(SECTION 9, TOWNSHIP 5 N , RANGE 5 E)

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
FOURFRONT DESIGN INC	P 7668 (05)	B49	B67

Plotting Date: 11/24/2015



PARCEL A8
OWNERS: BERGERS & BERGERS, LLC.
DENNIS BERGERS (OWNER)
Sta 104+96.53 - 38.47' L to Sta 105+46.65 - 38.42' L
Temporary 5' Construction Easement
Containing 667 Sq. Ft. More or Less

PARCEL A9
OWNER: FRANCES GRAF (OWNER)
Sta 105+46.65 - 38.42' L to Sta 106+21.85 - 38.33' L
Temporary 5' Construction Easement
Containing 376 Sq. Ft. More or Less

PARCEL A10
OWNER: BERGERS & BERGERS, LLC.
DENNIS BERGERS (OWNER)
Sta 106+21.85 - 38.33' L to Sta 107+25.12 - 38.20' L
Temporary 5' Construction Easement
Containing 516 Sq. Ft. More or Less

PARCEL A11
OWNER: CITY OF STURGIS
RICK BUSH (PWD)
Sta 107+25.12 - 38.20' L to Sta 107+97.29 - 38.12' L
Temporary 5' Construction Easement
Containing 538 Sq. Ft. More or Less

PARCEL A12
OWNER: PSI ENTERPRISES, LLC.
ROD BRADLEY (OWNER)
Sta 108+72.30 - 38.03' L to Sta 109+00.63 - 38.01' L
Temporary 5' Construction Easement
Containing 558 Sq. Ft. More or Less

PARCEL A13
OWNER: PSI ENTERPRISES, LLC.
ROD BRADLEY (OWNER)
Sta 109+00.63 - 38.01' L to Sta 109+22.36 - 37.99' L
Temporary 5' Construction Easement
Containing 109 Sq. Ft. More or Less

PARCEL A14
OWNER: PSI ENTERPRISES, LLC.
ROD BRADLEY (OWNER)
Sta 109+22.36 - 37.99' L to Sta 109+47.38 - 37.97' L
Temporary 5' Construction Easement
Containing 125 Sq. Ft. More or Less

PARCEL A16
OWNER: BIG AL'S SWAP SHOP, INC.
GLENN BAILEY (OWNER)
Sta 109+75.41 - 37.95' L to Sta 110+22.48 - 37.92' L
Temporary 5' Construction Easement
Containing 235 Sq. Ft. More or Less

PARCEL A17
OWNER: SAN OR VICKI MONAHAN (OWNERS)
Sta 110+22.48 - 37.92' L to Sta 110+72.52 - 37.88' L
Temporary 5' Construction Easement
Containing 250 Sq. Ft. More or Less

PARCEL A18
OWNER: FIRST WESTERN BANK STURGIS
SHAWN ROST (PRES.)
Sta 104+96.69 - 36.53' R to Sta 105+71.84 - 36.61' R
Temporary 5' Construction Easement
Containing 376 Sq. Ft. More or Less

PARCEL A19
OWNER: FIRST WESTERN BANK STURGIS
SHAWN ROST (PRES.)
Sta 105+71.84 - 36.61' R to Sta 106+21.93 - 36.67' R
Temporary 5' Construction Easement
Containing 250 Sq. Ft. More or Less

PARCEL A20
OWNER: FIRST WESTERN BANK STURGIS
SHAWN ROST (PRES.)
Sta 106+21.93 - 36.67' R to Sta 106+46.97 - 36.70' R
Temporary 5' Construction Easement
Containing 125 Sq. Ft. More or Less

PARCEL A21
OWNER: FIRST WESTERN BANK STURGIS
SHAWN ROST (PRES.)
Sta 106+46.97 - 36.70' R to Sta 106+72.01 - 36.73' R
Temporary 5' Construction Easement
Containing 125 Sq. Ft. More or Less

PARCEL A22
OWNER: FIRST WESTERN BANK STURGIS
SHAWN ROST (PRES.)
Sta 106+72.01 - 36.73' R to Sta 107+97.24 - 36.88' R
Temporary 5' Construction Easement
Containing 1068 Sq. Ft. More or Less

PARCEL A23
OWNER: RICHARD & CONNIE MEYER (OWNER)
Sta 108+77.24 - 41.98' R to Sta 109+21.50 - 37.01' R
Temporary 5' Construction Easement
Containing 688 Sq. Ft. More or Less

PARCEL A24
OWNER: M & S FINANCIAL, LP.
KENT MORTIMER (OWNER)
Sta 109+21.50 - 37.01' R to Sta 109+40.26 - 37.02' R
Temporary 5' Construction Easement
Containing 94 Sq. Ft. More or Less

PARCEL A25
OWNER: ELWYN COLE (OWNER)
Sta 109+40.26 - 37.02' R to Sta 109+72.27 - 37.04' R
Temporary 5' Construction Easement
Containing 160 Sq. Ft. More or Less

PARCEL A26
OWNER: GARRY HEMBREE (OWNER)
Sta 109+72.27 - 37.04' R to Sta 109+97.28 - 37.06' R
Temporary 5' Construction Easement
Containing 125 Sq. Ft. More or Less

PARCEL A27
OWNER: ARLIN FATLAND (OWNER)
Sta 109+97.28 - 37.06' R to Sta 110+22.30 - 37.08' R
Temporary 5' Construction Easement
Containing 125 Sq. Ft. More or Less

PARCEL A28
OWNER: JANICE WEIMER (OWNER)
Sta 110+22.30 - 37.08' R to Sta 110+47.30 - 37.10' R
Temporary 5' Construction Easement
Containing 125 Sq. Ft. More or Less

PARCEL A29
OWNER: ELWYN COLE (OWNER)
Sta 110+47.30 - 37.10' R to Sta 110+72.31 - 37.12' R
Temporary 5' Construction Easement
Containing 125 Sq. Ft. More or Less

TEMPORARY CONSTRUCTION EASEMENT

* **TEMPORARY CONSTRUCTION EASEMENT NOT OBTAINED. CONTRACTOR SHALL EXERCISE CAUTION TO AVOID ENCROACHMENT ONTO PRIVATE PROPERTY. ALL CONSTRUCTION ACTIVITY SHALL BE PERFORMED WITHIN THE ROW.**

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\ROW PLAN.dwg 11/24/2015 2:17:10 PM

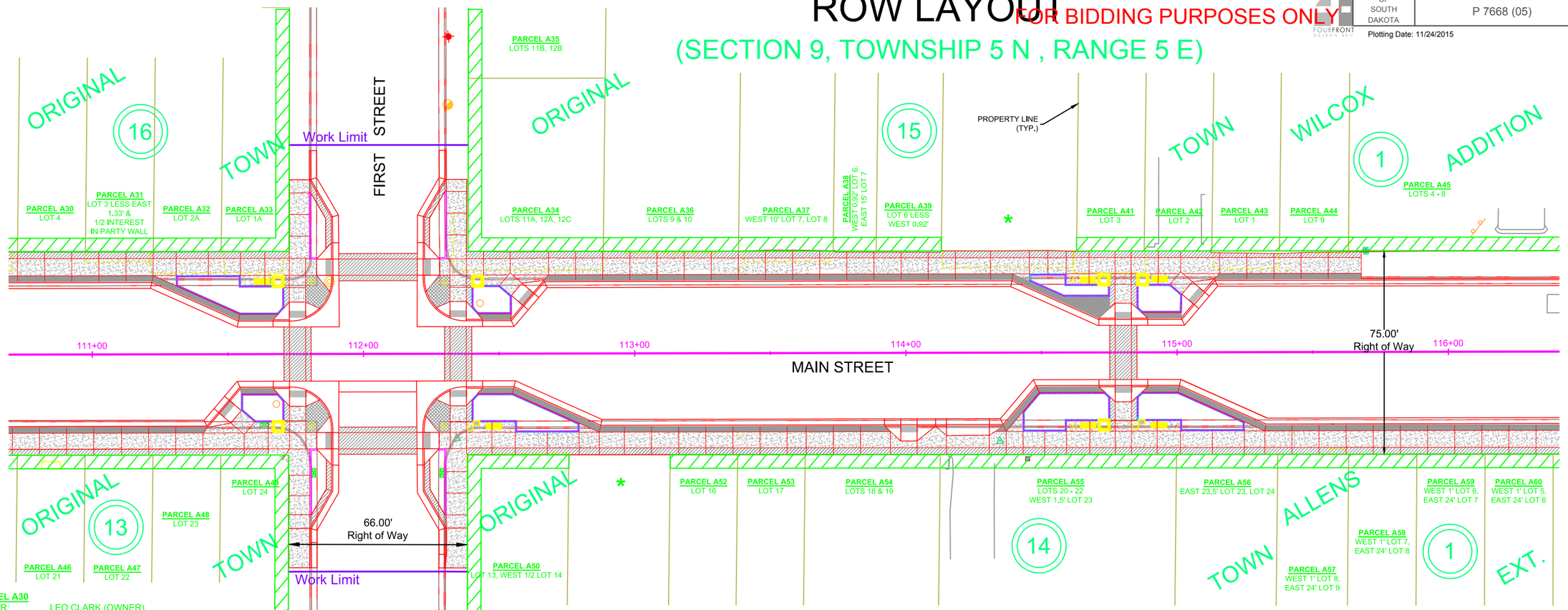
ROW LAYOUT

FOR BIDDING PURPOSES ONLY

(SECTION 9, TOWNSHIP 5 N , RANGE 5 E)

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
FOURFRONT DESIGN INC	P 7668 (05)	B50	B67

Plotting Date: 11/24/2015



PARCEL A30
OWNER: LEO CLARK (OWNER)
Sta 110+72.52 - 37.88' L to Sta 110+97.54 - 37.87' L
Temporary 5' Construction Easement
Containing 125 Sq. Ft. More or Less

PARCEL A31
OWNER: M & S FINANCIAL LP
KENT MORTIMER (OWNER)
Sta 110+97.54 - 37.87' L to Sta 111+22.58 - 37.85' L
Temporary 5' Construction Easement
Containing 125 Sq. Ft. More or Less

PARCEL A32
OWNER: GEORGE F. GANEM (OWNER)
Sta 111+22.58 - 37.85' L to Sta 111+47.60 - 37.83' L
Temporary 5' Construction Easement
Containing 125 Sq. Ft. More or Less

PARCEL A33
OWNER: B.H. RALLY & GOLD
ROBIN BALDWIN (OWNER)
Sta 111+47.60 - 37.83' L to Sta 111+72.63 - 37.81' L
Temporary 5' Construction Easement
Containing 542 Sq. Ft. More or Less

PARCEL A34
OWNER: ROBERT DAVIS (OWNER)
Sta 112+38.63 - 37.73' L to Sta 112+88.49 - 37.66' L
Temporary 5' Construction Easement
Containing 543 Sq. Ft. More or Less

PARCEL A35
OWNER: ROBERT DAVIS
Sta 112+38.87 - 101.54' L to Sta 112+38.97 - 126.99' L
Temporary 5' Construction Easement
Containing 127 Sq. Ft. More or Less

PARCEL A36
OWNER: 1073 MAIN, LLC.
JERRY BERKOWITZ (OWNER)
Sta 112+88.49 - 37.66' L to Sta 113+38.34 - 37.60' L
Temporary 5' Construction Easement
Containing 249 Sq. Ft. More or Less

PARCEL A37
OWNER: FREDERICK LANGE (OWNER)
Sta 113+38.34 - 37.60' L to Sta 113+73.23 - 37.56' L
Temporary 5' Construction Easement
Containing 174 Sq. Ft. More or Less

PARCEL A38
OWNERS: HAPPY INVESTMENTS, LLC.
SHANNA FRIDAY (OWNER)
Sta 113+73.23 - 37.56' L to Sta 113+89.11 - 37.54' L
Temporary 5' Construction Easement
Containing 79 Sq. Ft. More or Less

PARCEL A39
OWNERS: HAPPY INVESTMENTS, LLC.
SHANNA FRIDAY (OWNER)
Sta 113+89.11 - 37.54' L to Sta 114+13.12 - 37.50' L
Temporary 5' Construction Easement
Containing 120 Sq. Ft. More or Less

PARCEL A41
OWNER: JOHN WILLERS (OWNER)
Sta 114+62.96 - 37.44' L to Sta 114+87.91 - 37.41' L
Temporary 5' Construction Easement
Containing 125 Sq. Ft. More or Less

PARCEL A42
OWNER: CUSTOM CORNERS, LLC.
Sta 114+87.91 - 37.41' L to Sta 115+12.83 - 37.38' L
Temporary 5' Construction Easement
Containing 125 Sq. Ft. More or Less

PARCEL A43
OWNERS: MAIN STREET GRILL, INC.
JOHN GRANT (OWNER)
Sta 115+12.83 - 37.38' L to Sta 115+37.76 - 37.35' L
Temporary 5' Construction Easement
Containing 125 Sq. Ft. More or Less

PARCEL A44
OWNER: ROBERT DAVIS (OWNER)
Sta 115+37.76 - 37.35' L to Sta 115+63.24 - 37.31' L
Temporary 5' Construction Easement
Containing 127 Sq. Ft. More or Less

PARCEL A45
OWNER: CITY OF STURGIS
RICK BUSH (PWD)
Sta 115+63.24 - 37.31' L to Sta 116+90.67 - 37.15' L
Temporary 5' Construction Easement
Containing 637 Sq. Ft. More or Less

PARCEL A46
OWNER: ELWYN COLE (OWNER)
Sta 110+72.31 - 37.12' R to Sta 110+97.31 - 37.13' R
Temporary 5' Construction Easement
Containing 125 Sq. Ft. More or Less

PARCEL A47
OWNER: ELWYN COLE (OWNER)
Sta 110+97.31 - 37.13' R to Sta 111+22.33 - 37.15' R
Temporary 5' Construction Easement
Containing 125 Sq. Ft. More or Less

PARCEL A48
OWNER: ELWYN COLE (OWNER)
Sta 111+22.33 - 37.15' R to Sta 111+47.35 - 37.17' R
Temporary 5' Construction Easement
Containing 125 Sq. Ft. More or Less

PARCEL A49
OWNER: STURGIS TRADING POST, LLC.
JOSEPH LUPO (OWNER)
Sta 111+47.35 - 37.17' R to Sta 111+72.34 - 37.19' R
Temporary 5' Construction Easement
Containing 565 Sq. Ft. More or Less

PARCEL A50
OWNER: MEADE PLUS FCU
NORTHERN HILLS FCU
FLOYD RUMMEL III (CEO)
Sta 112+38.34 - 37.27' R to Sta 112+75.68 - 37.32' R
Temporary 5' Construction Easement
Containing 627 Sq. Ft. More or Less

PARCEL A52
OWNER: BJD1, LLC.
ROBERTA DVORAK (OWNER)
Sta 113+13.02 - 37.37' R to Sta 113+37.90 - 37.40' R
Temporary 5' Construction Easement
Containing 124 Sq. Ft. More or Less

PARCEL A53
OWNER: ELWYN COLE (OWNER)
Sta 113+37.90 - 37.40' R to Sta 113+62.79 - 37.43' R
Temporary 5' Construction Easement
Containing 124 Sq. Ft. More or Less

PARCEL A54
OWNER: ELWYN COLE (OWNER)
Sta 113+62.79 - 37.43' R to Sta 114+12.58 - 37.49' R
Temporary 5' Construction Easement
Containing 249 Sq. Ft. More or Less

PARCEL A55
OWNER: WELLS FARGO BANK
BRENT HANSON (V.P.)
Sta 114+12.58 - 37.49' R to Sta 114+99.70 - 37.61' R
Temporary 5' Construction Easement
Containing 436 Sq. Ft. More or Less

PARCEL A56
OWNER: M & S FINANCIAL, LP.
KENT MORTIMER (OWNER)
Sta 114+99.70 - 37.61' R to Sta 115+37.03 - 37.65' R
Temporary 5' Construction Easement
Containing 187 Sq. Ft. More or Less

PARCEL A57
OWNERS: ROYAL FLUSH CASINO & SPORTS BAR, LLC.
TIMOTHY CONRAD (OWNER)
Sta 115+37.03 - 37.65' R to Sta 115+63.17 - 37.69' R
Temporary 5' Construction Easement
Containing 131 Sq. Ft. More or Less

PARCEL A58
OWNER: CAROL EPSKY-HALLOCK (OWNER)
Sta 115+63.17 - 37.69' R to Sta 115+88.30 - 37.72' R
Temporary 5' Construction Easement
Containing 126 Sq. Ft. More or Less

PARCEL A59
OWNER: MEADE COUNTY TIMES
LEE CONSOLIDATED HOLDINGS CO.
SHANNON BRINKER (PUBLISHER)
Sta 115+88.30 - 37.72' R to Sta 116+13.43 - 37.75' R
Temporary 5' Construction Easement
Containing 126 Sq. Ft. More or Less

TEMPORARY CONSTRUCTION EASEMENT

* **TEMPORARY CONSTRUCTION EASEMENT NOT OBTAINED. CONTRACTOR SHALL EXERCISE CAUTION TO AVOID ENCROACHMENT ONTO PRIVATE PROPERTY. ALL CONSTRUCTION ACTIVITY SHALL BE PERFORMED WITHIN THE ROW.**

PARCEL A60
OWNERS: SHIRT SHACK
SAM MUDLIN (OWNER)
Sta 116+13.43 - 37.75' R to Sta 116+38.56 - 37.78' R
Temporary 5' Construction Easement
Containing 126 Sq. Ft. More or Less

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

L:\14-2030 Sturgis Main St Reconst\Drawings\EngSheet Files\Section B\ROW PLAN.dwg 11/24/2015 9:38:35 AM

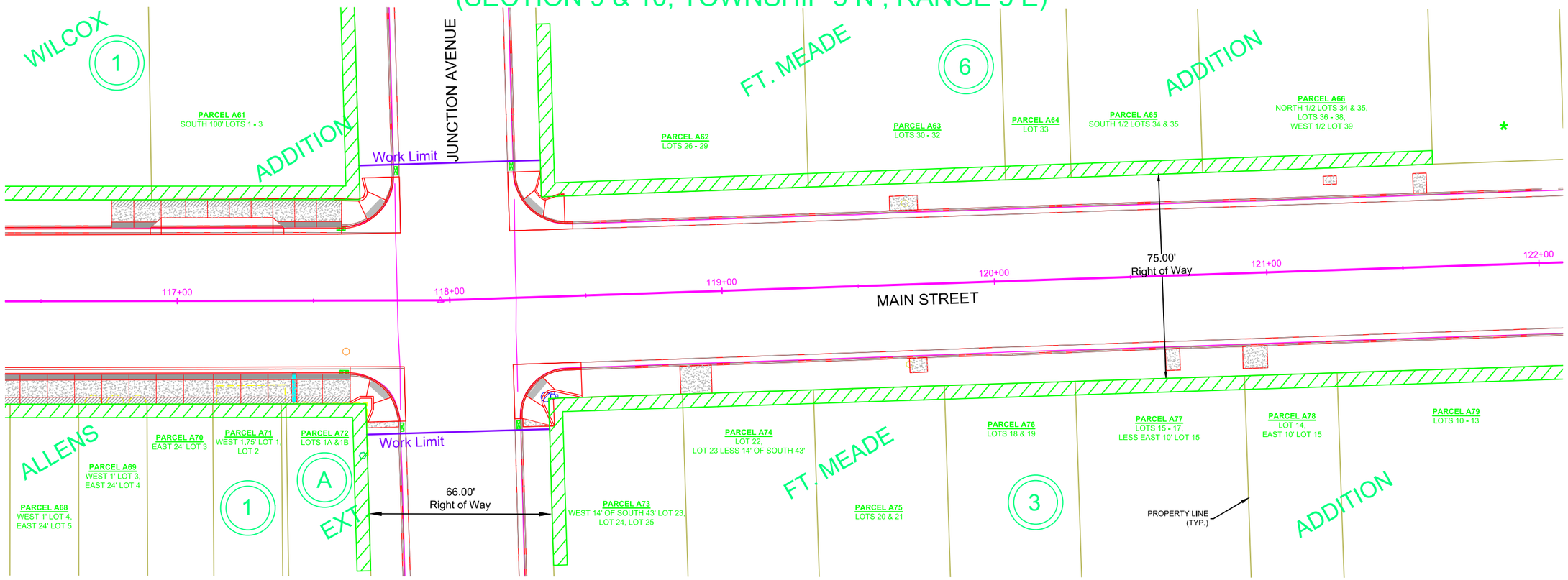
ROW LAYOUT

(SECTION 9 & 10, TOWNSHIP 5 N , RANGE 5 E)

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
FOURFRONT DESIGN INC.	P 7668 (05)	B51	B67

Plotting Date: 11/24/2015



PARCEL A61
OWNER: ROBERT DAVIS (OWNER)
Sta 116+90.67 - 37.15' L to Sta 117+67.14 - 37.05' L
Temporary 5' Construction Easement
Containing 507 Sq. Ft. More or Less

PARCEL A62
OWNER: STURGIS MOTORCYCLE MUSEUM & HALL OF FAME, INC.
CHRISTINE DIERS (OWNER)
Sta 118+34.89 - 36.71' L to Sta 119+32.95 - 36.99' L
Temporary 5' Construction Easement
Containing 781 Sq. Ft. More or Less

PARCEL A63
OWNER: STURGIS MOTORCYCLE MUSEUM & HALL OF FAME, INC.
CHRISTINE DIERS (OWNER)
Sta 119+32.95 - 36.99' L to Sta 120+05.34 - 37.20' L
Temporary 5' Construction Easement
Containing 361 Sq. Ft. More or Less

PARCEL A64
OWNER: STURGIS MOTORCYCLE MUSEUM & HALL OF FAME, INC.
CHRISTINE DIERS (OWNER)
Sta 120+05.34 - 37.20' L to Sta 120+29.47 - 37.26' L
Temporary 5' Construction Easement
Containing 121 Sq. Ft. More or Less

PARCEL A65
OWNER: FIRST NATIONAL BANK
BRYAN HENCKE (PRES.)
Sta 120+29.47 - 37.26' L to Sta 120+77.74 - 37.40' L
Temporary 5' Construction Easement
Containing 241 Sq. Ft. More or Less

PARCEL A66
OWNER: FIRST NATIONAL BANK
BRYAN HENCKE (PRES.)
Sta 120+77.74 - 37.40' L to Sta 121+62.19 - 37.64' L
Temporary 5' Construction Easement
Containing 422 Sq. Ft. More or Less

PARCEL A68
OWNER: ELWYN COLE (OWNER)
Sta 116+38.56 - 37.78' R to Sta 116+63.69 - 37.81' R
Temporary 5' Construction Easement
Containing 126 Sq. Ft. More or Less

PARCEL A69
OWNER: ELWYN COLE (OWNER)
DAVID WILSON (OWNER)
Sta 116+63.69 - 37.81' R to Sta 116+88.83 - 37.85' R
Temporary 5' Construction Easement
Containing 126 Sq. Ft. More or Less

PARCEL A70
OWNER: RICHARD LESTER(OWNER)
Sta 116+88.83 - 37.85' R to Sta 117+12.97 - 37.88' R
Temporary 5' Construction Easement
Containing 121 Sq. Ft. More or Less

PARCEL A71
OWNER: RUSSELL FICEK (OWNER)
Sta 117+12.97 - 37.88' R to Sta 117+38.10 - 37.91' R
Temporary 5' Construction Easement
Containing 126 Sq. Ft. More or Less

PARCEL A72
OWNERS: STURGIS CORNER, LLC.
JERRY BERKOWITZ (OWNER)
Sta 117+38.10 - 37.91' R to **Sta 117+69.16 - 37.95' R**
Temporary 5' Construction Easement
Containing 438 Sq. Ft. More or Less

PARCEL A73
OWNER: JJ DAVENPORT'S
KATHERINE MARTEL (OWNER)
Sta 118+35.05 - 37.34' R to Sta 118+84.19 - 37.41' R
Temporary 5' Construction Easement
Containing 527 Sq. Ft. More or Less

PARCEL A74
OWNER: ELWYN COLE (OWNER)
DAVID WILSON (OWNER)
Sta 118+84.19 - 37.41' R to Sta 119+32.28 - 37.47' R
Temporary 5' Construction Easement
Containing 240 Sq. Ft. More or Less

PARCEL A75
OWNER: FAMILY HOLDINGS, LLC.
ARLIE BECKER (OWNER)
Sta 119+32.28 - 37.47' R to Sta 119+80.35 - 37.54' R
Temporary 5' Construction Easement
Containing 240 Sq. Ft. More or Less

PARCEL A76
OWNER: FAMILY HOLDINGS, LLC.
ARLIE BECKER (OWNER)
Sta 119+80.35 - 37.54' R to Sta 120+28.43 - 37.61' R
Temporary 5' Construction Easement
Containing 240 Sq. Ft. More or Less

PARCEL A77
OWNER: CITY OF STURGIS
RICK BUSH (PWD)
Sta 120+28.43 - 37.61' R to Sta 120+90.54 - 37.69' R
Temporary 5' Construction Easement
Containing 311 Sq. Ft. More or Less

PARCEL A78
OWNER: SERENITY, INC.
CAROL HALLOCK (PRES.)
Sta 120+90.54 - 37.69' R to Sta 121+24.58 - 37.74' R
Temporary 5' Construction Easement
Containing 170 Sq. Ft. More or Less

PARCEL A79
OWNER: JANEEN WALKER (OWNER)
Sta 121+24.58 - 37.74' R to Sta 122+20.73 - 37.87' R
Temporary 5' Construction Easement
Containing 481 Sq. Ft. More or Less

TEMPORARY CONSTRUCTION EASEMENT

* **TEMPORARY CONSTRUCTION EASEMENT NOT OBTAINED. CONTRACTOR SHALL EXERCISE CAUTION TO AVOID ENCROACHMENT ONTO PRIVATE PROPERTY. ALL CONSTRUCTION ACTIVITY SHALL BE PERFORMED WITHIN THE ROW.**

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

L:\14-2030 Sturgis Main St Reconst\Drawings\EngSheet Files\Section B\ROW PLAN.dwg 11/24/2015 9:38:40 AM

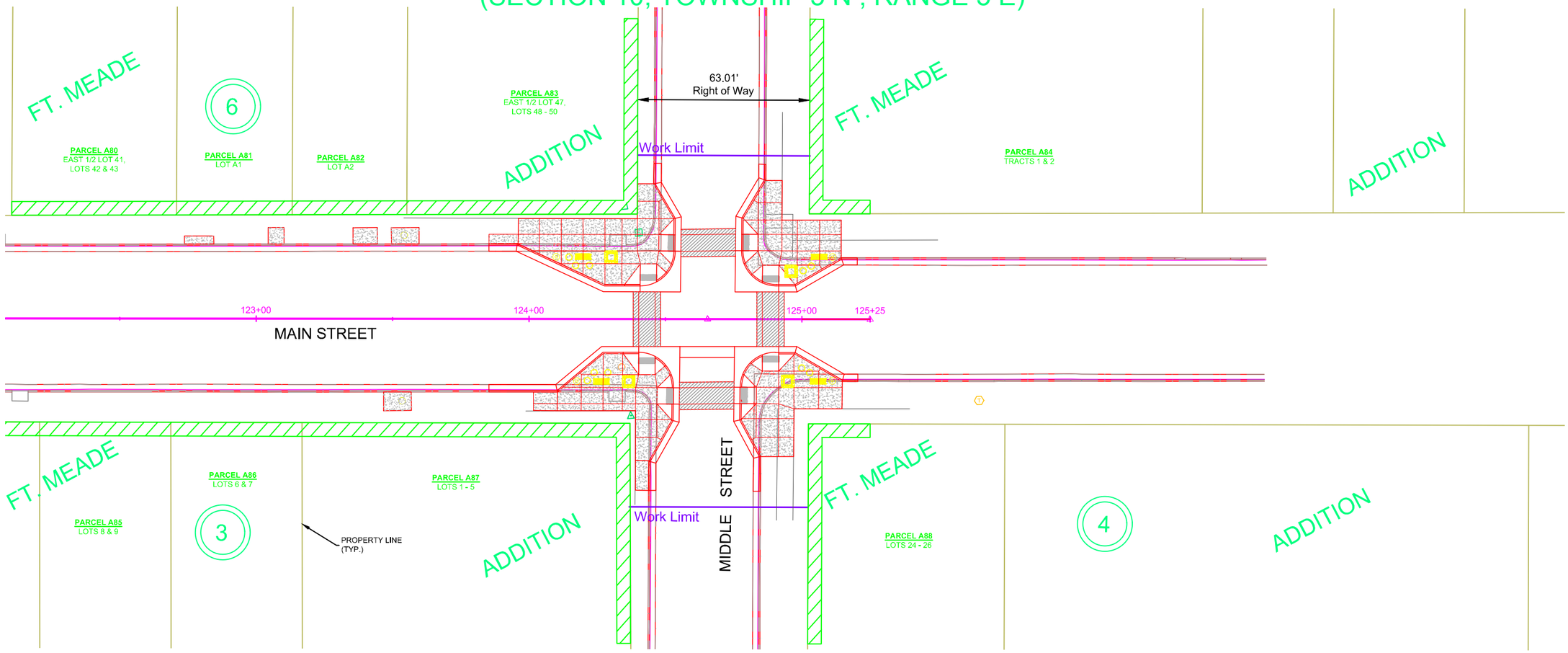
ROW LAYOUT

(SECTION 10, TOWNSHIP 5 N , RANGE 5 E)

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 7668 (05)	B52	B67

Plotting Date: 11/24/2015



PARCEL A80
OWNER: LYBECK RALLY RENTAL, LLC.
KEN LYBECK (OWNER)
Sta 122+10.45 - 37.77' L to Sta 122+70.78 - 37.94' L
Temporary 5' Construction Easement
Containing 302 Sq. Ft. More or Less

PARCEL A81
OWNER: LYBECK CASINO RENTAL, LLC.
KEN LYBECK (OWNER)
Sta 122+70.78 - 37.94' L to Sta 123+13.17 - 38.06' L
Temporary 5' Construction Easement
Containing 212 Sq. Ft. More or Less

PARCEL A82
OWNER: KEN LYBECK (OWNER)
Sta 123+13.17 - 38.06' L to Sta 123+55.23 - 38.18' L
Temporary 5' Construction Easement
Containing 210 Sq. Ft. More or Less

PARCEL A83
OWNER: KEN LYBECK (OWNER)
Sta 123+55.23 - 38.18' L to Sta 124+39.70 - 38.42' L
Temporary 5' Construction Easement
Containing 755 Sq. Ft. More or Less

PARCEL A84
OWNER: MASSA BERRY CLINIIC
MICK GIBBS (CEO)
Sta 125+02.71 - 38.60' L to Sta 125+25.03 - 38.66' L
Temporary 5' Construction Easement
Containing 443 Sq. Ft. More or Less

PARCEL A85
OWNER: THOMAS & LUANNE FRIES (OWNERS)
Sta 122+20.73 - 37.87' R to Sta 122+68.81 - 37.93' R
Temporary 5' Construction Easement
Containing 240 Sq. Ft. More or Less

PARCEL A86
OWNER: THOMAS & LUANNE FRIES (OWNERS)
Sta 122+68.81 - 37.93' R to Sta 123+16.88 - 38.00' R
Temporary 5' Construction Easement
Containing 240 Sq. Ft. More or Less

PARCEL A87
OWNER: ELWYN COLE (OWNER)
DAVID WILSON (OWNER)
Sta 123+16.88 - 38.00' R to Sta 124+37.06 - 38.16' R
Temporary 5' Construction Easement
Containing 979 Sq. Ft. More or Less

PARCEL A88
OWNER: BLACK HILLS POWER & LIGHT CO.
Sta 125+02.52 - 38.25' R to Sta 125+25.04 - 38.28' R
Temporary 5' Construction Easement
Containing 491 Sq. Ft. More or Less

TEMPORARY CONSTRUCTION EASEMENT

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR
REG. NO. 5680
CURTIS N. HUUS
10/23/15
SOUTH DAKOTA

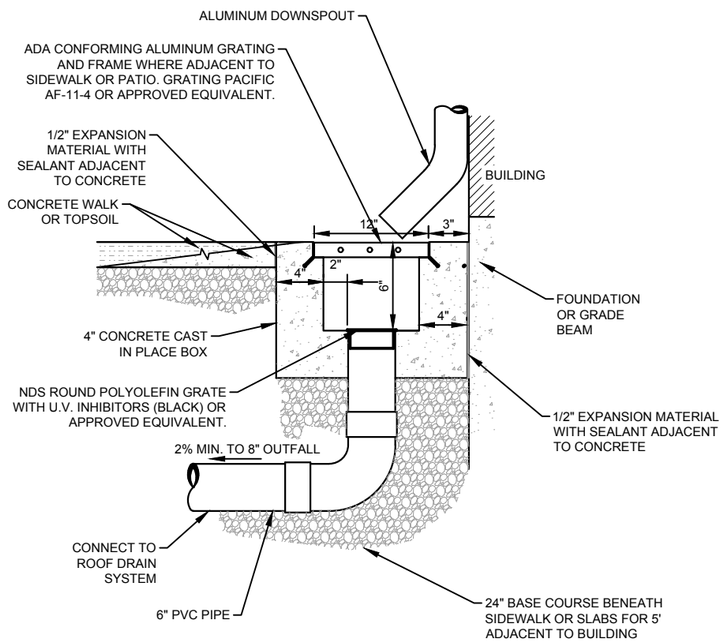
L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\ROW PLAN.dwg 11/24/2015 2:17:34 PM

SPECIAL DETAIL

FOR BIDDING PURPOSES ONLY

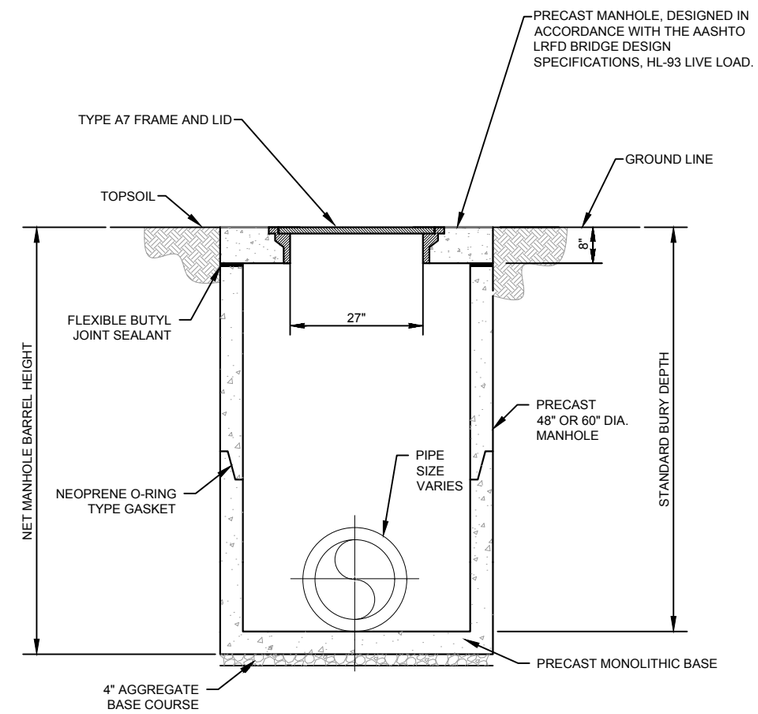
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
FOURFRONT DESIGN INC.	P 7668 (05)	B53	B67

Plotting Date: 10/26/2015



ROOF DRAIN CONNECTION

N.T.S.

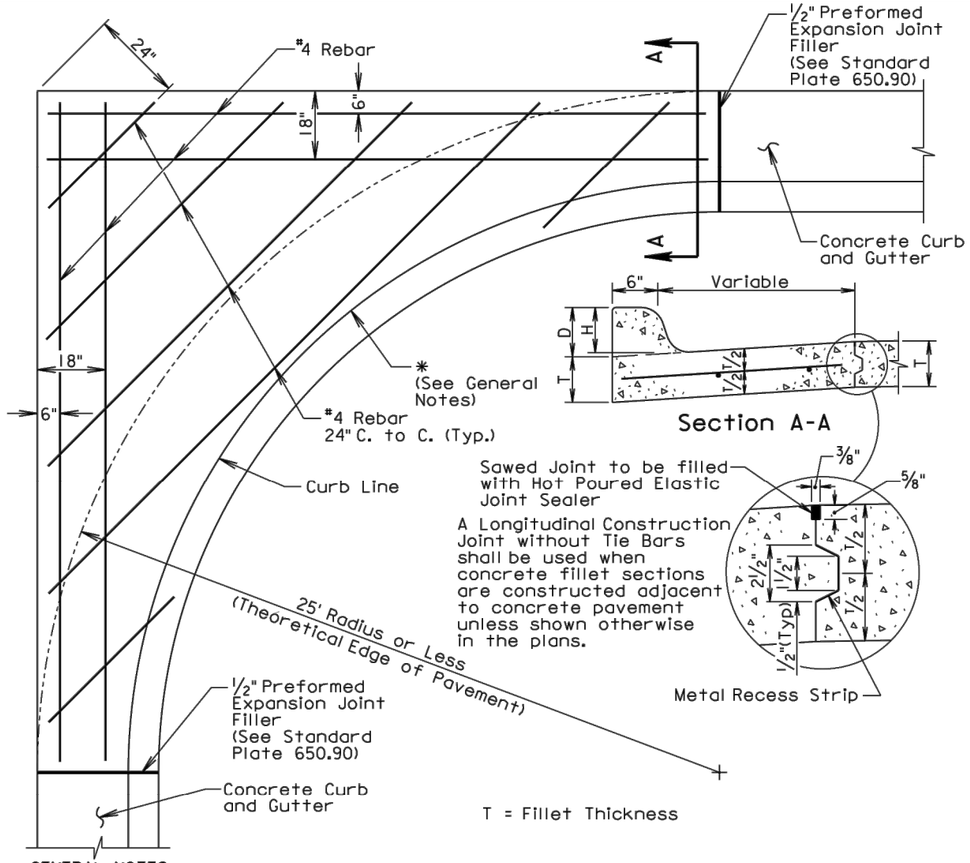


SIDE VIEW

PRECAST MANHOLE W/ COVER SLAB

N.T.S.

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\14-2030 SECTION B PLATES.dwg 10/26/2015 10:15:45 AM



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 shall conform to those shown on the appropriate curb and gutter standard plate.

All rebar shall be in conformance with Sections 480 and 1010 of the Specifications. All rebar shall have a minimum of 3" clear cover.

Class M6 Concrete shall be used in construction of the fillets.

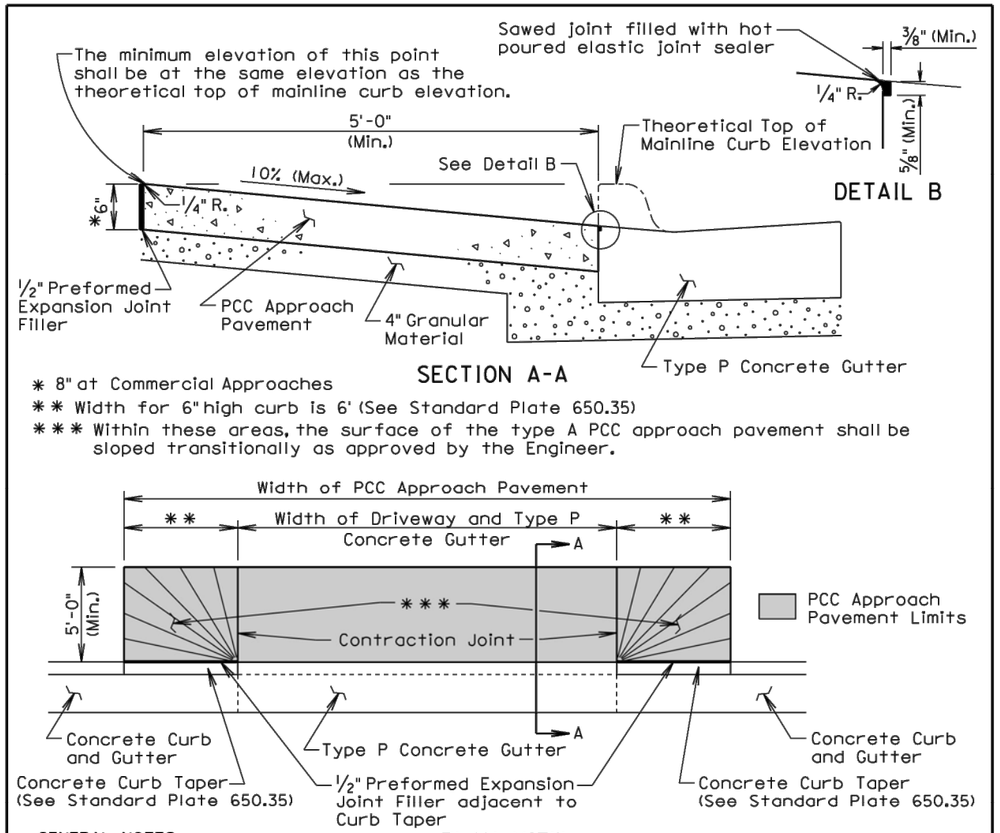
The concrete curb shall be monolithic with the concrete fillet. No separate payment for this curb will be made as the curb is considered a part of the fillet.

Joints shall be constructed at 10' intervals except when fillets are constructed adjacent to PCC Pavement. If there is adjacent PCC Pavement the joints shall 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 shall be incidental to the contract unit price per square yard for the corresponding PCC fillet section bid item.

June 26, 2015

Published Date: 3rd Qtr. 2015	SDDOT	PCC FILLET SECTION WITH TYPE B CURB AND GUTTER	PLATE NUMBER 380.16
			Sheet 1 of 1



GENERAL NOTES:

The concrete for the type A PCC approach pavement and adjacent driveway shall 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 shall 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 shall be at least 1/4 the thickness of the approach pavement. Additional contraction joints not shown in the Plan View shall be spaced as follows:

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

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

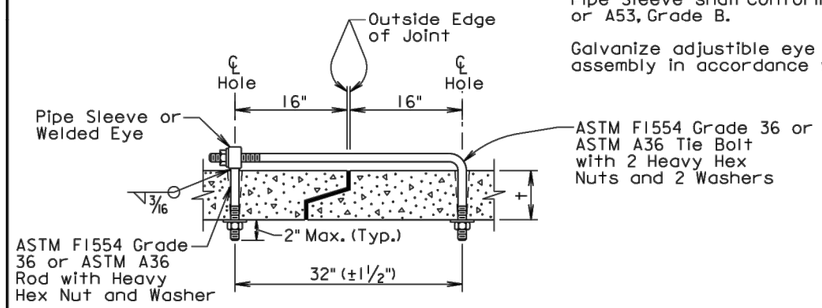
All costs for excavation required for placing the type A PCC approach pavement and granular material shall be incidental to the contract unit price per cubic yard for "Unclassified Excavation". All costs for furnishing and placing the granular material shall be incidental to the contract unit price per ton for the corresponding granular material bid item.

June 26, 2015

Published Date: 3rd Qtr. 2015	SDDOT	TYPE A PCC APPROACH PAVEMENT	PLATE NUMBER 380.40
			Sheet 1 of 1

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\14-2030 SECTION B PLATES.dwg 10/26/2015 10:15:49 AM

Wall "t" (in.)	Rod Dia. (in.)	Pipe Sleeve Dia. (nominal)
≤ 3¼	⅝	¾
3½-6½	¾	1
≥ 7	1	1¼



ADJUSTABLE EYE BOLT TIE

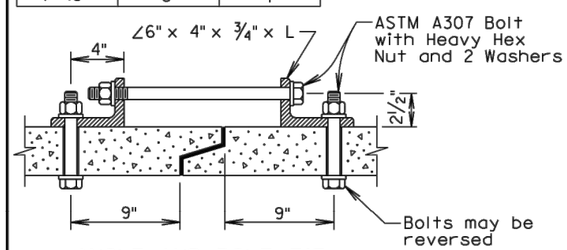
GENERAL NOTES:

Tie bolts shall conform to ASTM F1554 Grade 36 or ASTM A36. Nuts shall be heavy hex conforming to ASTM A563. Washers shall conform to ASTM F436.

Pipe Sleeve shall conform to ASTM A500 or A53, Grade B.

Galvanize adjustible eye bolt tie assembly in accordance with ASTM A153.

Pipe Dia. (in.)	"L" (in.)	Bolt Dia. (in.)
≤ 48	4	¾
> 48	6	1



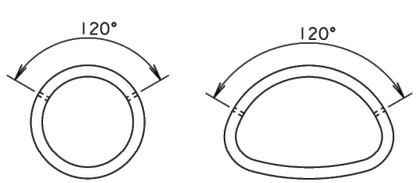
ANGLE AND BOLT TIE

GENERAL NOTES:

Angles shall conform to ASTM A36.

Bolts shall conform to ASTM A307. Nuts shall be heavy hex conforming to ASTM A563. Washers shall conform to ASTM F436.

Galvanize angles, bolts, nuts, and washers in accordance with ASTM A153.



END VIEW "CIRCULAR"

END VIEW "ARCH"

GENERAL NOTES:

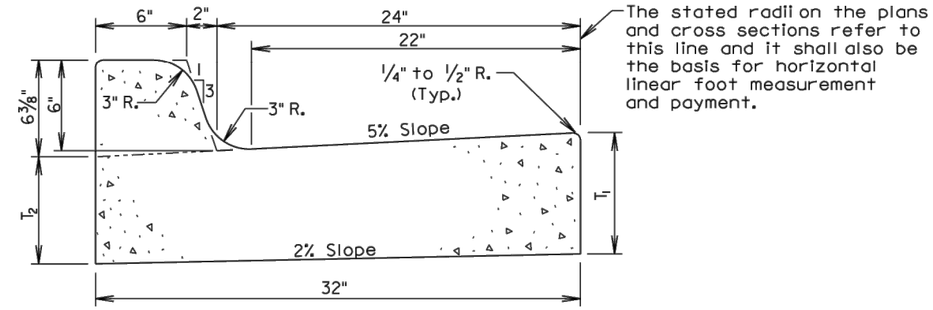
In lieu of the tie bolts detailed above other types of tie bolt connections may be installed as approved by the Office of Bridge Design.

All pipe sections of R.C.P. and R.C.P. Arch shall be tied with tie bolts except for pipe located between drop inlets, manholes, and junction boxes. All pipe sections of pipes that only enter or exit drop inlets, manhole, and junction boxes shall be tied with tie bolts.

There will be no separate measurement or payment for the tie bolts. The cost for furnishing and installing the tie bolts shall be incidental to the contract unit price per foot for the corresponding bid item for R.C.P. or R.C.P. Arch.

February 28, 2013

Published Date: 3rd Qtr. 2015	SDDOT	TIE BOLTS FOR R.C.P. AND R.C.P. ARCH	PLATE NUMBER 450.18 — 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 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:

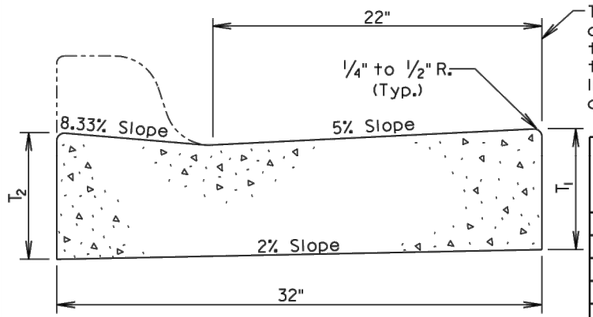
When concrete curb and gutter longitudinally adjoins new concrete pavement, the method of attachment shall be by one of the methods shown on Standard Plate 380.11.

See Standard Plate 650.90 for expansion and contraction joints in the curb and gutter.

September 6, 2008

Published Date: 3rd Qtr. 2015	SDDOT	TYPE B CONCRETE CURB AND GUTTER	PLATE NUMBER 650.01 — Sheet 1 of 1

L:\114-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\114-2030 SECTION B PLATES.dwg 10/26/2015 10:15:54 AM

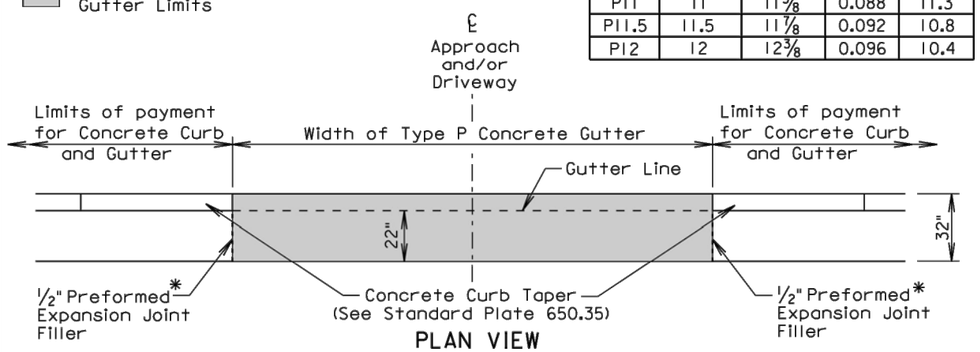


TRANSVERSE SECTION

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.
P6	6	6 3/8	0.047	21.2
P7	7	7 3/8	0.055	18.1
P8	8	8 3/8	0.064	15.7
P8.5	8.5	8 7/8	0.068	14.8
P9	9	9 3/8	0.072	13.9
P9.5	9.5	9 7/8	0.076	13.2
P10	10	10 3/8	0.080	12.5
P10.5	10.5	10 7/8	0.084	11.9
P11	11	11 3/8	0.088	11.3
P11.5	11.5	11 7/8	0.092	10.8
P12	12	12 3/8	0.096	10.4

Type P Concrete Gutter Limits



PLAN VIEW

* 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 shall be sealed in accordance with Standard Plate 650.90.

GENERAL NOTES:

The concrete for the Type P Concrete Gutter shall comply with the requirements of the Specifications for Class M6 Concrete.

When concrete gutter longitudinally adjoins new concrete pavement, the method of attachment shall be by one of the methods shown on Standard Plate 380.11.

Transverse contraction joints shall be constructed at 10' 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 shall be constructed in the concrete gutter at each mainline PCC pavement transverse contraction joint location.

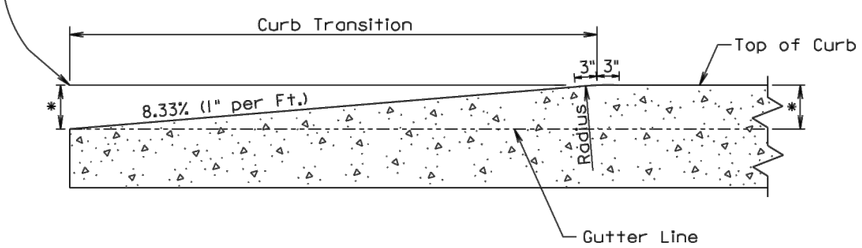
When concrete gutter is placed monolithically with mainline PCC pavement, the transverse contraction joints in the concrete gutter shall be sawed and sealed the same as the transverse contraction joints in the mainline PCC pavement.

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 shall 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 shall be at least 1/4 the thickness of the concrete.

June 26, 2015

Published Date: 3rd Qtr. 2015	SDDOT	TYPE P CONCRETE GUTTER	PLATE NUMBER 650.30
			Sheet 1 of 1

End and theoretical elevation of top of curb and gutter shown on plans and cross sections.



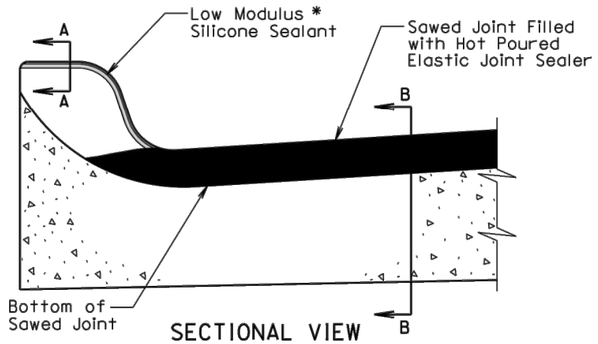
* Height of Curb

LONGITUDINAL SECTION OF CONCRETE CURB TAPER

September 14, 2005

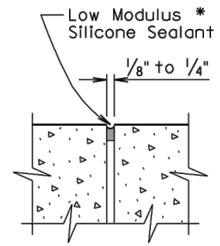
Published Date: 3rd Qtr. 2015	SDDOT	CONCRETE CURB TAPER	PLATE NUMBER 650.35
			Sheet 1 of 1

L:\114-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\114-2030 SECTION B PLATES.dwg 10/26/2015 10:15:59 AM

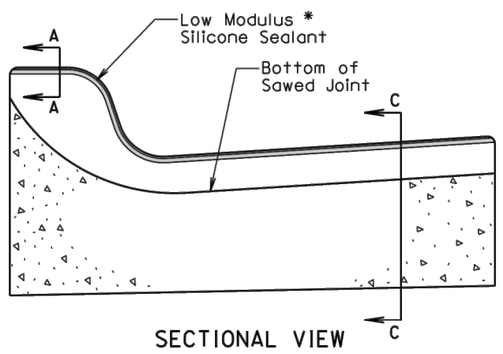


SECTIONAL VIEW

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

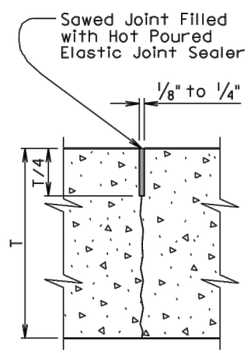


SECTION A-A

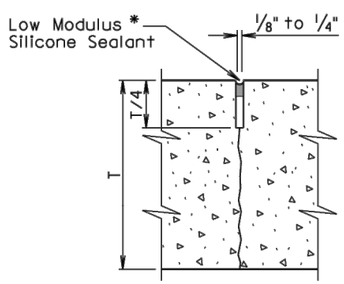


SECTIONAL VIEW

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



SECTION B-B

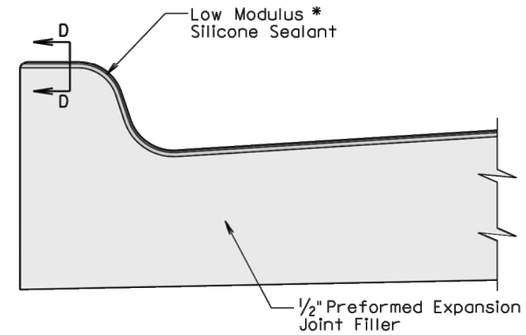


SECTION C-C

* 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.

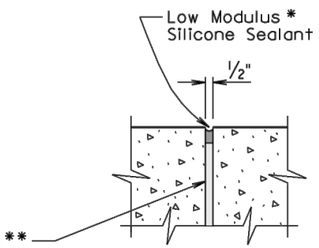
September 6, 2013

Published Date: 3rd Qtr. 2015	SDDOT	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)



SECTION D-D

* 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.

GENERAL NOTES:

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

** A 1/2" preformed expansion joint filler shall be placed transversely in the curb and gutter at the following locations:

1. At each junction between the radius return of curb and gutter and curb and gutter which is parallel to the project centerline.
2. At each junction between new curb and gutter and existing curb and gutter.

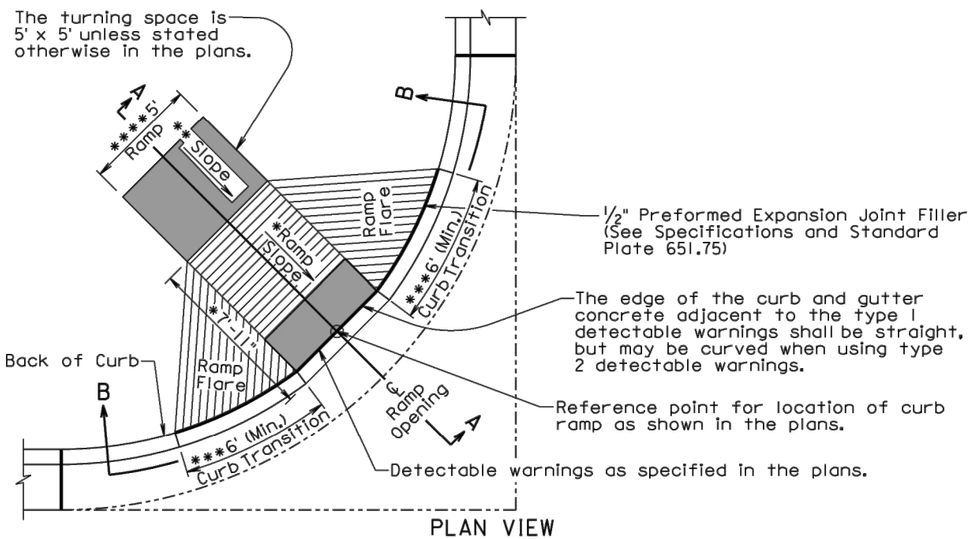
Transverse contraction joints shall be constructed at 10' intervals in the concrete curb and gutter except when the concrete curb and gutter is constructed adjacent to mainline PCC pavement. When concrete curb and gutter is constructed adjacent to mainline PCC pavement, a transverse contraction joint shall 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 shall 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 shall be at least 1/4 the thickness of the concrete and the joint shall be sealed in accordance with the details shown above.

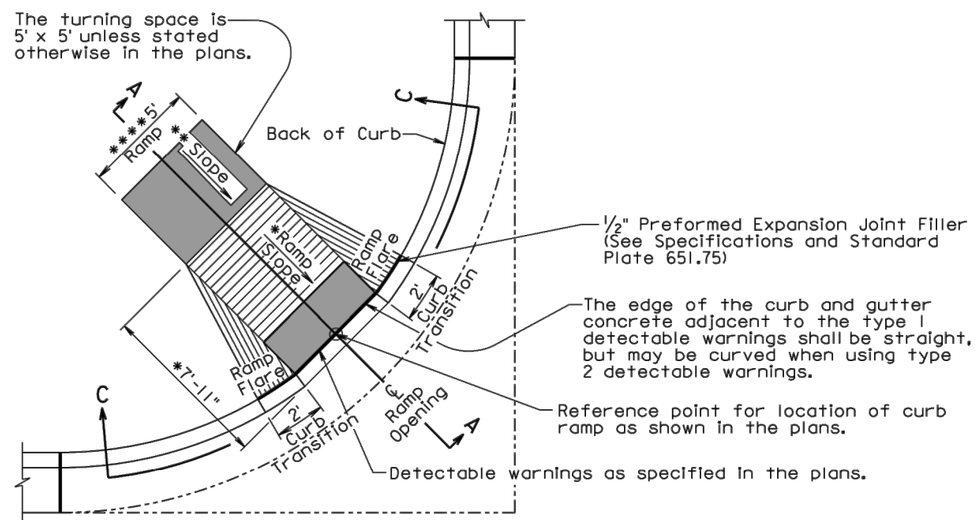
September 6, 2013

Published Date: 3rd Qtr. 2015	SDDOT	JOINTS IN CONCRETE CURB AND GUTTER	PLATE NUMBER 650.90
			Sheet 2 of 2

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\14-2030 SECTION B PLATES.dwg 10/26/2015 10:16:04 AM



PLAN VIEW
(With 6'+ Curb Transition)



PLAN VIEW
(With 2' Curb Transition)

June 26, 2015

Published Date: 3rd Qtr. 2015	SDDOT	TYPE 1 CURB RAMP (PERPENDICULAR CURB RAMP)	PLATE NUMBER 651.01
			Sheet 1 of 3

The ramp slope shall be 12:1 (8.3%) maximum. The ramp length shall not exceed 15' unless stated otherwise in the plans. Ramp slopes are designed at 12:1 (8.3%) unless stated otherwise in the plans.

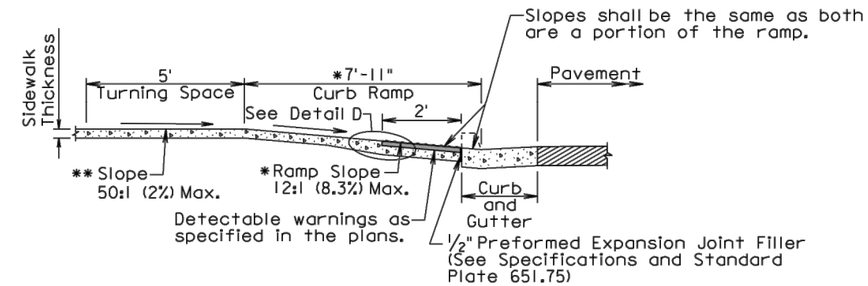
* The cross slope of the ramp shall not be steeper than 50:1 (2%).

The 7'-11" dimension was computed based on a flat roadway profile, a continuous 2% theoretical slope from top of theoretical curb to the top of ramp, and a 6" high curb. The dimension shall be adjusted based on the curb type shown in the plans, the roadway geometrics, and the sidewalk geometrics.

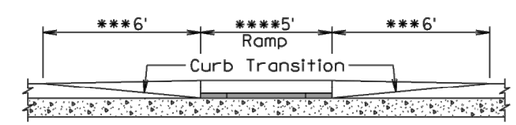
** The slope in the turning space shall not be steeper than 50:1 (2%) in any direction of pedestrian travel.

*** The curb transition shall be a minimum of 6' long, a maximum of 10' long, and the curb transition slope shall not be steeper than 10:1 (10%) unless stated otherwise in the plans.

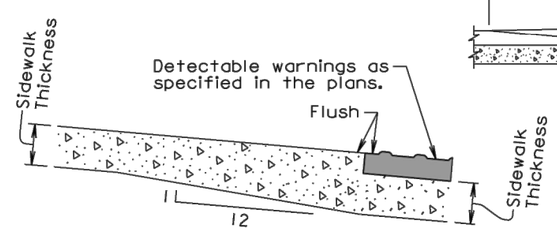
**** The ramp width is 5' unless stated otherwise in the plans.



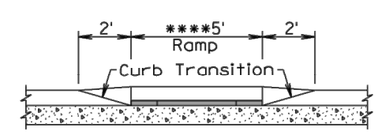
SECTION A-A



SECTIONAL VIEW B-B



DETAIL D



SECTIONAL VIEW C-C

June 26, 2015

Published Date: 3rd Qtr. 2015	SDDOT	TYPE 1 CURB RAMP (PERPENDICULAR CURB RAMP)	PLATE NUMBER 651.01
			Sheet 2 of 3

L:114-2030 Sturgis Main St Reconstr\Drawings\Eng\Sheet Files\Section B\114-2030 SECTION B PLATES.dwg 10/26/2015 10:16:09 AM

GENERAL NOTES:

For illustrative purpose only, type I 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, with curved curb and gutter, or with straight curb and gutter.

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

Sidewalk shall not be placed adjacent to the 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 ramp, free of sags and short grade changes.

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

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

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.

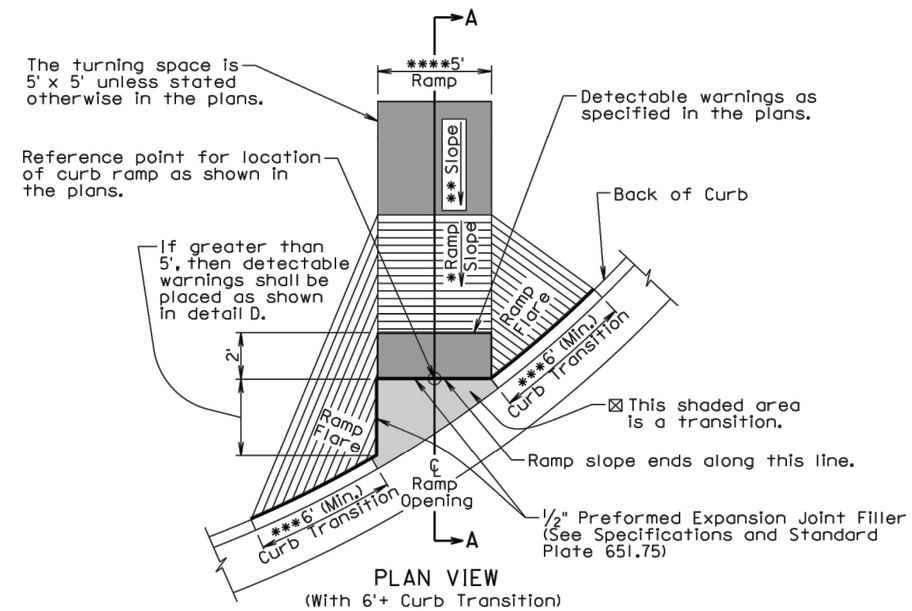
The curb transitions and ramp opening shall be measured and paid for at the contract unit price per foot for the corresponding curb and gutter bid item when curb and gutter is used. The curb transitions and ramp opening shall be measured and paid for at the contract unit price per square yard for the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

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

June 26, 2015

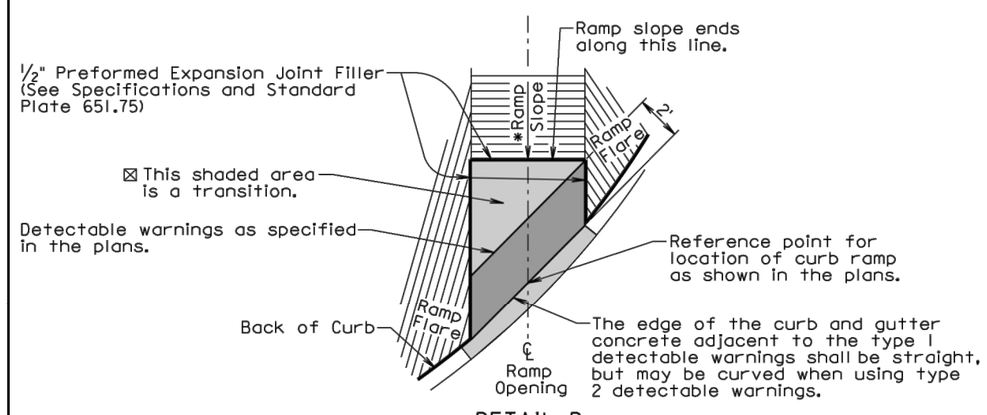
Published Date: 3rd Qtr. 2015	SDDOT	TYPE 1 CURB RAMP (PERPENDICULAR CURB RAMP)	PLATE NUMBER 651.01
			Sheet 3 of 3



PLAN VIEW
(With 6'+ Curb Transition)

⊠ The slope within the transition area shall not be steeper than a 20:1 (5%). The concrete within the transition shall be placed monolithic with the curb and gutter or fillet section concrete. The concrete thickness within the transition shall be the same as the curb and gutter or fillet section concrete thickness.

*** The curb transition shall be a minimum of 6' long, a maximum of 10' long, and the curb transition slope shall not be steeper than a 10:1 (10%) unless stated otherwise in the plans.

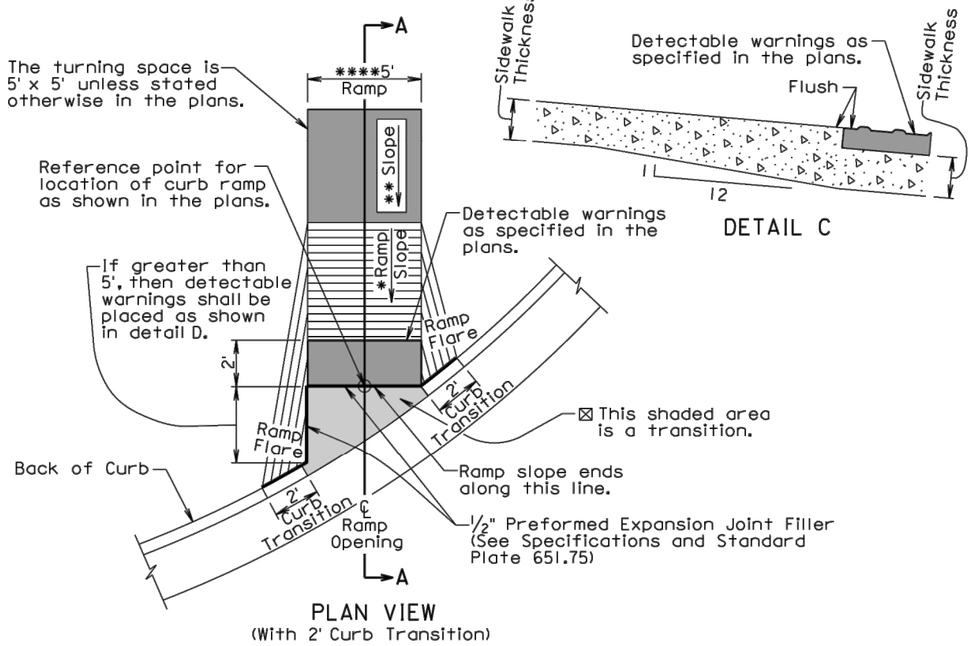


DETAIL D

June 26, 2015

Published Date: 3rd Qtr. 2015	SDDOT	TYPE 2 CURB RAMP (DIRECTIONAL CURB RAMP)	PLATE NUMBER 651.02
			Sheet 1 of 3

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\14-2030 SECTION B PLATES.dwg 10/26/2015 10:16:14 AM



PLAN VIEW
(With 2' Curb Transition)

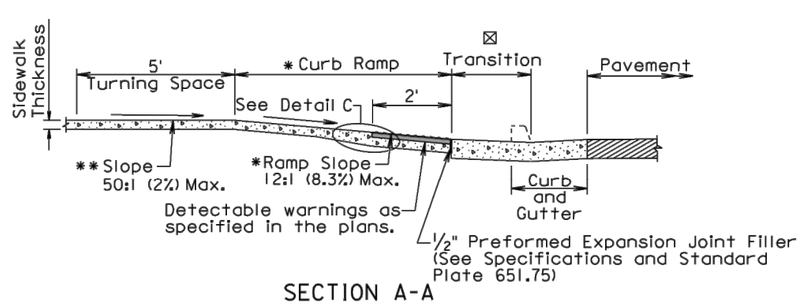
DETAIL C

* The ramp slope shall be 12:1 (8.3%) maximum. The ramp length shall not exceed 15' unless stated otherwise in the plans. Ramp slopes are designed at 12:1 (8.3%) unless stated otherwise in the plans.

The cross slope of the ramp shall not be steeper than 50:1 (2%).

** The slope in the turning space shall not be steeper than a 50:1 (2%) in any direction of pedestrian travel.

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



SECTION A-A

June 26, 2015

Published Date: 3rd Qtr. 2015	SDDOT	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, with curved curb and gutter, or with straight curb and gutter. The curb ramp shall be placed at the location stated in the plans.

Sidewalk shall not be placed adjacent to the 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 ramp, free of sags and short grade changes.

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

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

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.

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 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.

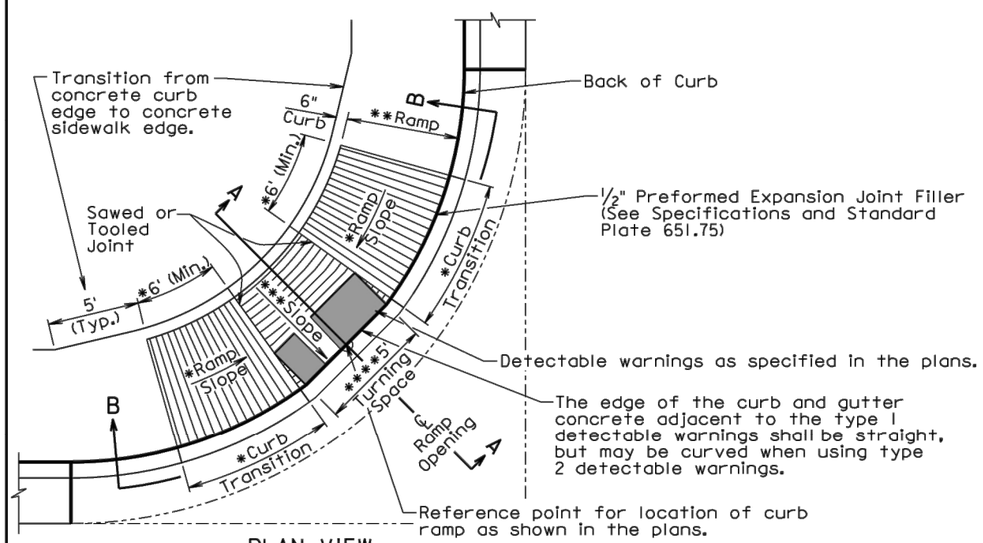
The type 1 detectable warnings shall be measured to the nearest square foot. All costs for furnishing and installing the type 1 detectable warnings including labor, equipment, materials, and incidentals shall be paid for at the contract unit price per square foot for "Type 1 Detectable Warnings".

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".

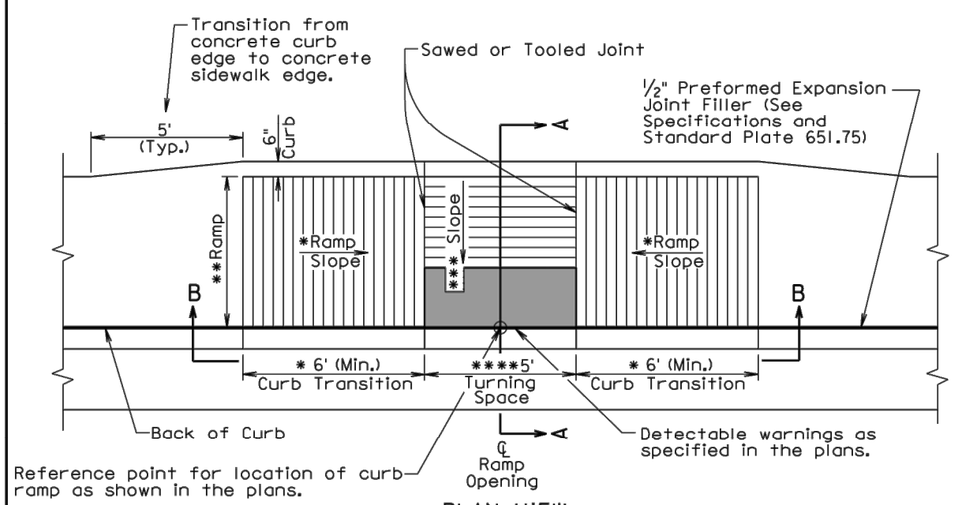
June 26, 2015

Published Date: 3rd Qtr. 2015	SDDOT	TYPE 2 CURB RAMP (DIRECTIONAL CURB RAMP)	PLATE NUMBER 651.02
			Sheet 3 of 3

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\14-2030 SECTION B PLATES.dwg 10/26/2015 10:16:19 AM



PLAN VIEW
(With Curved Curb and Gutter)



PLAN VIEW
(With Straight Curb and Gutter)

June 26, 2015

Published Date: 3rd Qtr. 2015	SDDOT	TYPE 3 CURB RAMP (PARALLEL CURB RAMP)	PLATE NUMBER 651.03
			Sheet 1 of 3

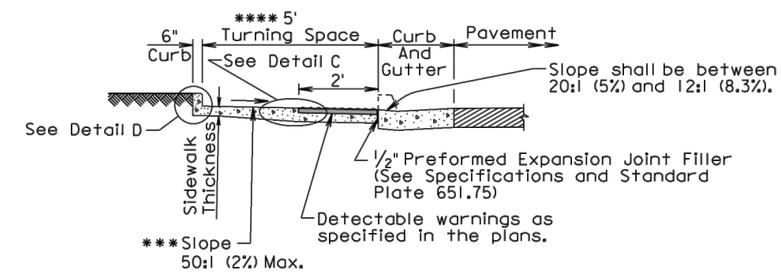
* The curb transition slope shall match the ramp slope. The ramp slope, at any location of the ramp, shall be 12:1 (8.3%) maximum. The ramp length shall not exceed 15' unless stated otherwise in the plans. Ramp slopes are designed at 12:1 (8.3%) unless stated otherwise in the plans. The minimum length of the curb transition shall be 6'.

** The ramp cross slope shall not be steeper than a 50:1 (2%) and the ramp width is 5' unless stated otherwise in the plans.

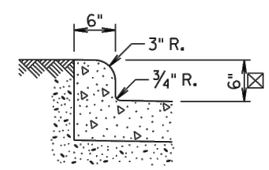
*** The slope in the turning space shall not be steeper than 50:1 (2%) in any direction of pedestrian travel.

**** The turning space is 5' x 5' unless stated otherwise in the plans.

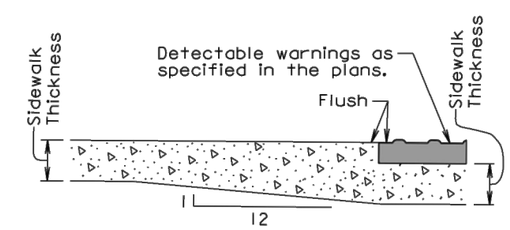
☒ The curb height shall be 6" unless stated otherwise in the plans.



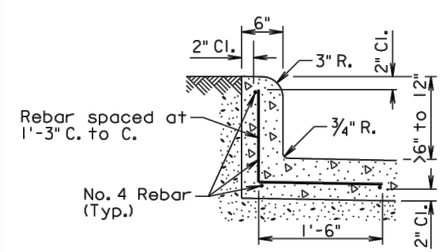
SECTION A-A



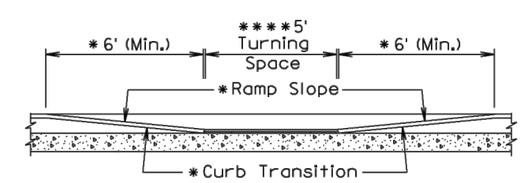
DETAIL D



DETAIL C



DETAIL D
(Use this detail when the curb height is greater than 6" and less than 12")



SECTIONAL VIEW B-B

June 26, 2015

Published Date: 3rd Qtr. 2015	SDDOT	TYPE 3 CURB RAMP (PARALLEL CURB RAMP)	PLATE NUMBER 651.03
			Sheet 2 of 3

L:\114-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\114-2030 SECTION B PLATES.dwg 10/26/2015 10:16:24 AM

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, with curved curb and gutter, or with straight curb and gutter.

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

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

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

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

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

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

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.

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 shall conform to ASTM A615, Grade 60. Cost for furnishing and installing the reinforcing steel shall be incidental to the contract unit price per square foot for the corresponding concrete sidewalk 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 and the curb along the short radius shall be included in the measured and paid for quantity of sidewalk.

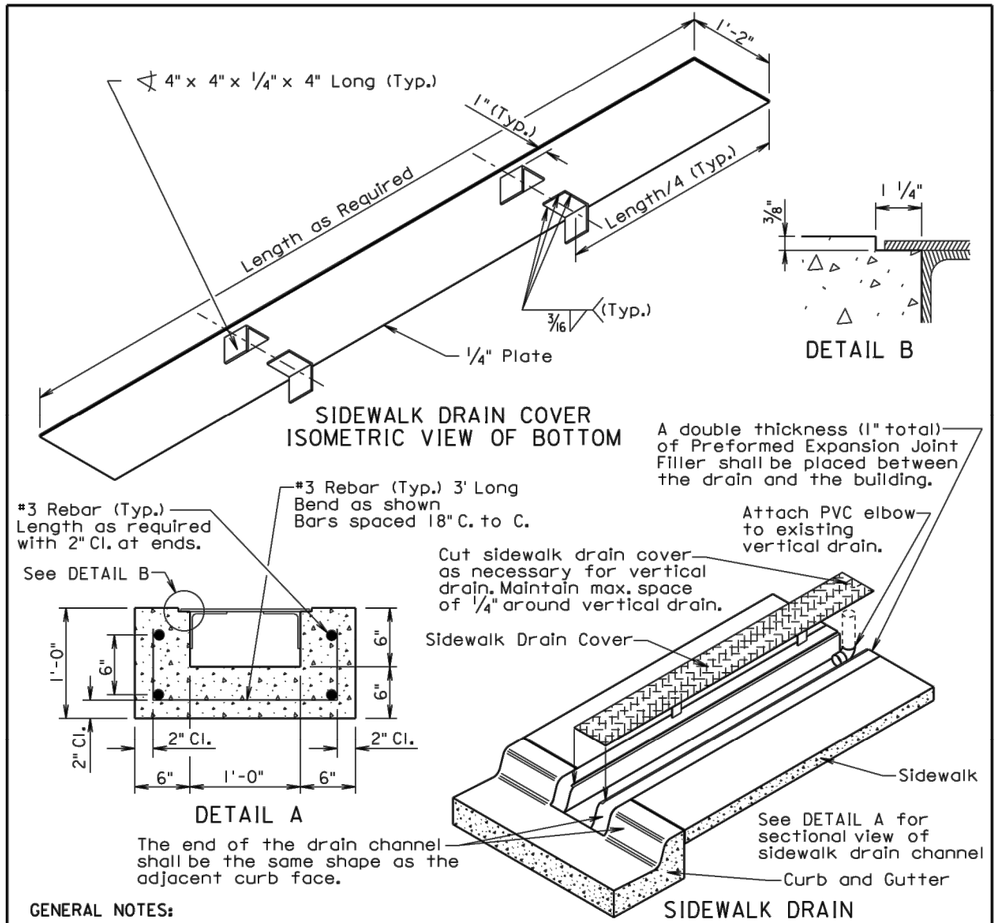
The curb transitions and ramp opening shall be measured and paid for at the contract unit price per foot for the corresponding curb and gutter bid item when curb and gutter is used. The curb transitions and ramp opening shall be measured and paid for at the contract unit price per square yard for the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

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".

June 26, 2015

Published Date: 3rd Qtr. 2015	SDDOT	TYPE 3 CURB RAMP (PARALLEL CURB RAMP)	PLATE NUMBER 651.03
			Sheet 3 of 3



GENERAL NOTES:

Concrete shall be Class M6 in accordance with Section 462 of the Specifications.

Reinforcing steel shall conform to ASTM A615, Grade 60.

Structural Steel shall conform to ASTM A36. The sidewalk drain cover shall conform to ASTM A786.

Welding and weld inspection shall be in conformance with the current edition of the AWS D1.1 Structural Welding Code-Steel.

The cover plate assembly shall be galvanized after fabrication. Galvanizing shall be in accordance with ASTM A123.

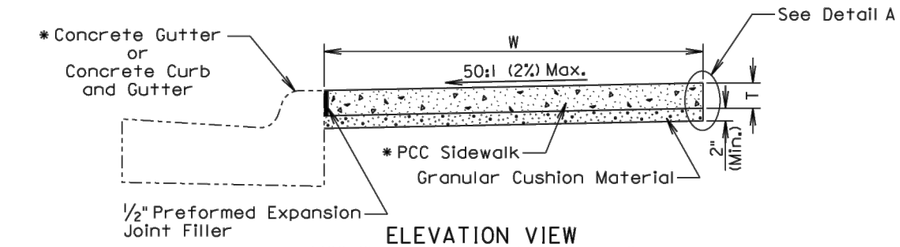
All costs associated for providing the required curb cut shall be incidental to the contract unit price per foot for the corresponding curb and gutter bid item.

The sidewalk drain shall be measured and paid for to the nearest tenth of a foot. The length of the drain shall be measured from the gutter to the necessary end location adjacent to the building. All costs associated with furnishing and installing the sidewalk drain channel and cover including the attachment to the vertical drain shall be incidental to the contract unit price per foot for "Sidewalk Drain".

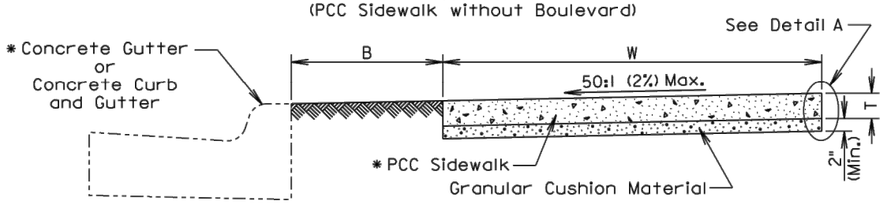
June 26, 2015

Published Date: 3rd Qtr. 2015	SDDOT	SIDEWALK DRAIN	PLATE NUMBER 651.50
			Sheet 1 of 1

L:\114-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\114-2030 SECTION B PLATES.dwg 10/26/2015 10:16:29 AM

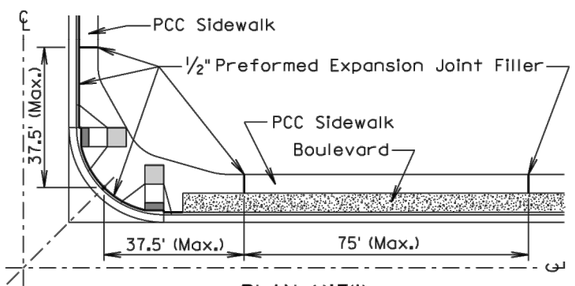


ELEVATION VIEW
(PCC Sidewalk without Boulevard)



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

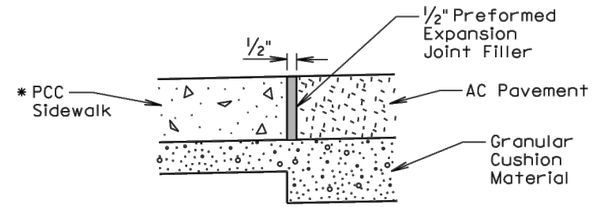
PCC sidewalk placed adjacent to intersection of roadways shall have an expansion joint placed transversely a maximum of 37.5 feet from the intersection. See PLAN VIEW.

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.

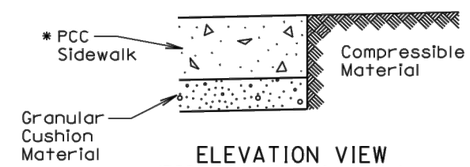
** Large areas of PCC pavement adjacent to PCC sidewalk may require a different joint treatment than shown in the detail. If a different joint detail is necessary, plans will contain the joint detail and the Contractor shall construct the joint treatment in accordance with the plans.

June 26, 2015

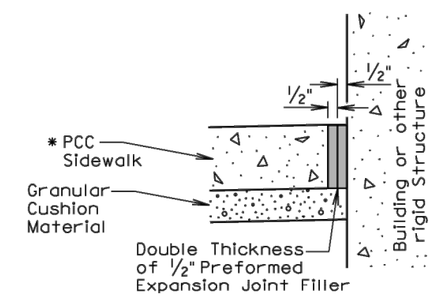
Published Date: 3rd Qtr. 2015	SDDOT	PCC SIDEWALK	PLATE NUMBER 651.75
			Sheet 1 of 2



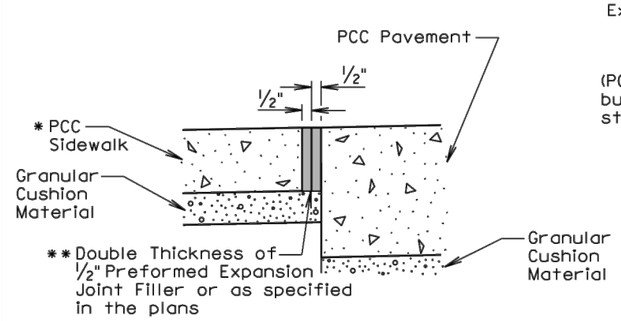
ELEVATION VIEW
(PCC sidewalk adjacent to asphalt concrete pavement)



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)



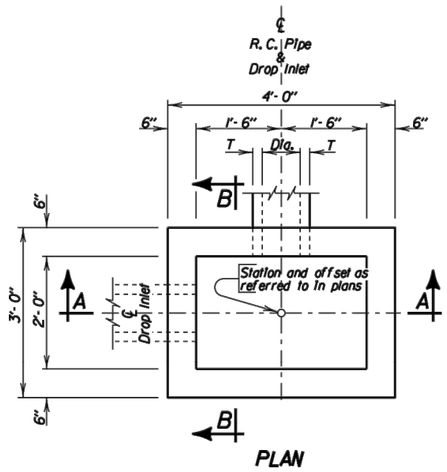
ELEVATION VIEW
(PCC sidewalk adjacent to PCC pavement)

Detail A
(Use Appropriate Detail(s))

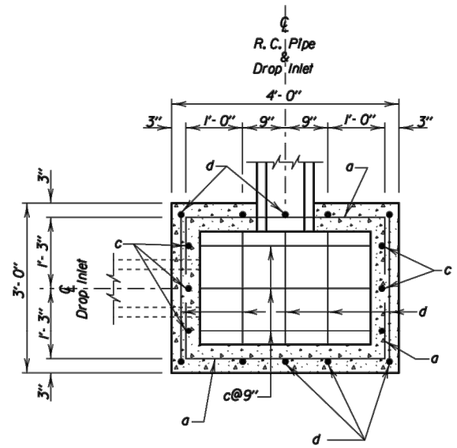
June 26, 2015

Published Date: 3rd Qtr. 2015	SDDOT	PCC SIDEWALK	PLATE NUMBER 651.75
			Sheet 2 of 2

L:\114-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\114-2030 SECTION B PLATES.dwg 10/26/2015 10:16:34 AM



PLAN



BOTTOM SECTION

ESTIMATED QUANTITIES

ITEM	UNIT	CONSTANT QUANTITY	VARIABLE QUANTITY
✳ Class M6 Concrete	Cu'd	0.26	0.22H
Reinforcing Steel	Lb	37	20.04H
Frame and Grate Assembly	Each	1	———

PIPE DISPLACEMENT REDUCTIONS

R.C. Pipe Diameter Inches	T Inches	Class M6 Concrete Cu'd
12	2	0.03
15	2 1/4	0.04
18	2 1/2	0.05
24	3	0.09
27	3 1/4	0.11

DROP INLETS FOR 12" TO 27" DIAMETER PIPE

GENERAL NOTES:

✳ Reduce total quantities of concrete by the amount of concrete displaced by the pipe. The total quantity of concrete shall be computed to the nearest hundredth of a cubic yard. The total quantity of reinforcing steel shall be computed to the nearest pound.

Drop inlets shown may be modified by the addition or omission of connecting pipes as shown on the layouts.

Reinforcing steel shall conform to ASTM A615 Grade 60. The b bars shall be lapped 12 inches. Cut and bend reinforcing steel as required to place pipe(s) through the drop inlet wall.

Pipe shall not enter through a corner of the drop inlet.

Use 2" clear cover on all reinforcing steel unless otherwise noted.

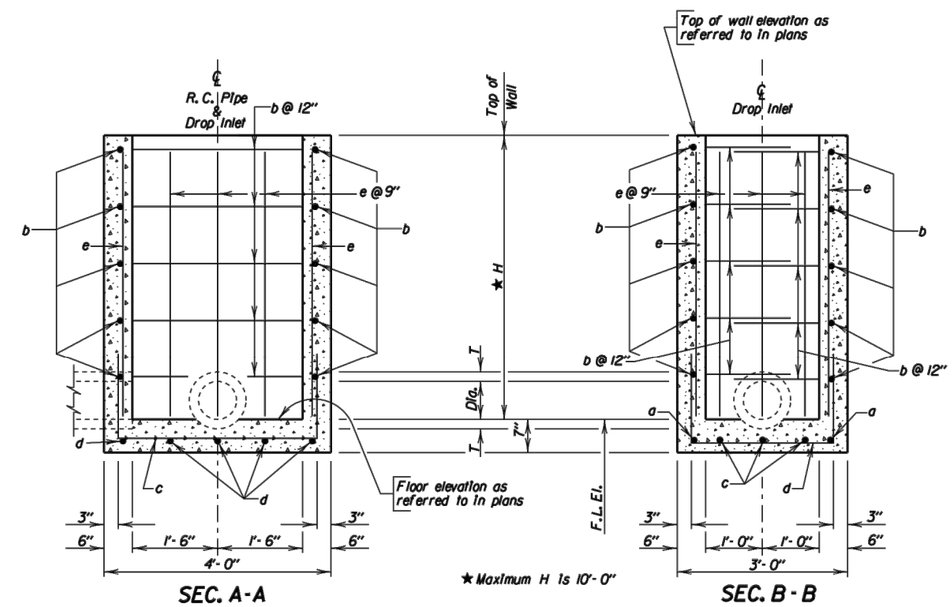
Precasting of reinforced drop inlets will be permissible. Prior to precasting, the Contractor shall submit details to the Engineer for approval.

Maximum pipe diameter shall not exceed 18 inches on the 3 foot wide side and shall not exceed 27 inches on the 4 foot wide side of the drop inlet.

The dimension of H is in feet.

December 23, 2009

Published Date: 3rd Qtr. 2015	SDDOT	2' X 3' TYPE B REINFORCED CONCRETE DROP INLET	PLATE NUMBER 670.01
			Sheet 1 of 2



SEC. A-A

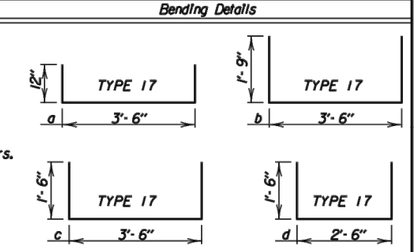
SEC. B-B

DROP INLETS FOR 12" TO 27" DIAMETER PIPE

REINFORCING SCHEDULE

MK.	No.	Size	Length	Type
a	2	4	5'- 6"	17
b	2H	4	7'- 0"	17
c	3	4	6'- 6"	17
d	5	4	5'- 6"	17
e	16	4	H - 2"	Str.

Bending Details



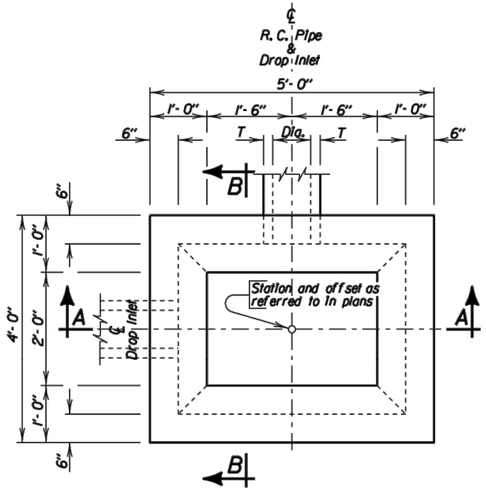
NOTE:

All dimensions are out to out of bars.

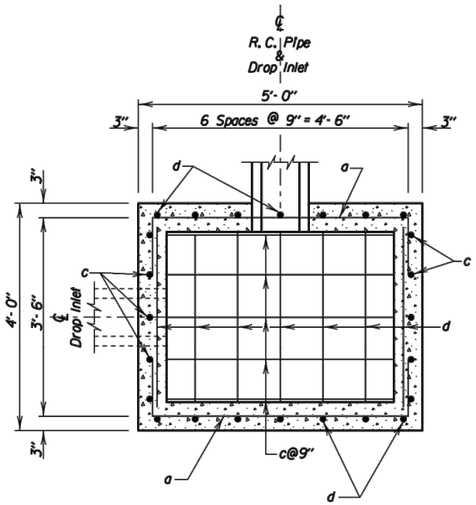
December 23, 2009

Published Date: 3rd Qtr. 2015	SDDOT	2' X 3' TYPE B REINFORCED CONCRETE DROP INLET	PLATE NUMBER 670.01
			Sheet 2 of 2

L:\114-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\114-2030 SECTION B PLATES.dwg 10/26/2015 10:16:39 AM



PLAN



BOTTOM SECTION

PIPE DISPLACEMENT REDUCTIONS		
R.C. Pipe Diameter Inches	T Inches	Class M6 Concrete Cu'd
12	2	0.03
15	2 1/4	0.04
18	2 1/2	0.05
24	3	0.09
30	3 1/2	0.14
36	4	0.20

ESTIMATED QUANTITIES			
ITEM	UNIT	CONSTANT QUANTITY	VARIABLE QUANTITY
✳ Class M6 Concrete	Cu'd	0.72	0.30H
Reinforcing Steel	Lb	98	32.06H
Frame and Grate Assembly	Each	1	———

DROP INLETS FOR 12" TO 36" DIAMETER PIPE

GENERAL NOTES:

✳ Reduce total quantities of concrete by the amount of concrete displaced by the pipe. The total quantity of concrete shall be computed to the nearest hundredth of a cubic yard. The total quantity of reinforcing steel shall be computed to the nearest pound.

Drop inlets shown may be modified by the addition or omission of connecting pipes as shown on the layouts.

Reinforcing steel shall conform to ASTM A615 Grade 60. The b and f bars shall be lapped 12 inches. Cut and bend reinforcing steel as required to place pipe(s) through the drop inlet wall.

Pipe shall not enter through a corner of the drop inlet.

Use 2" clear cover on all reinforcing steel unless otherwise noted.

Precasting of reinforced drop inlets will be permissible. Prior to precasting, the Contractor shall submit details to the Engineer for approval.

Maximum pipe diameter shall not exceed 27 inches on the 4 foot wide side and shall not exceed 36 inches on the 5 foot wide side of the drop inlet.

The dimension of H is in feet.

December 23, 2009

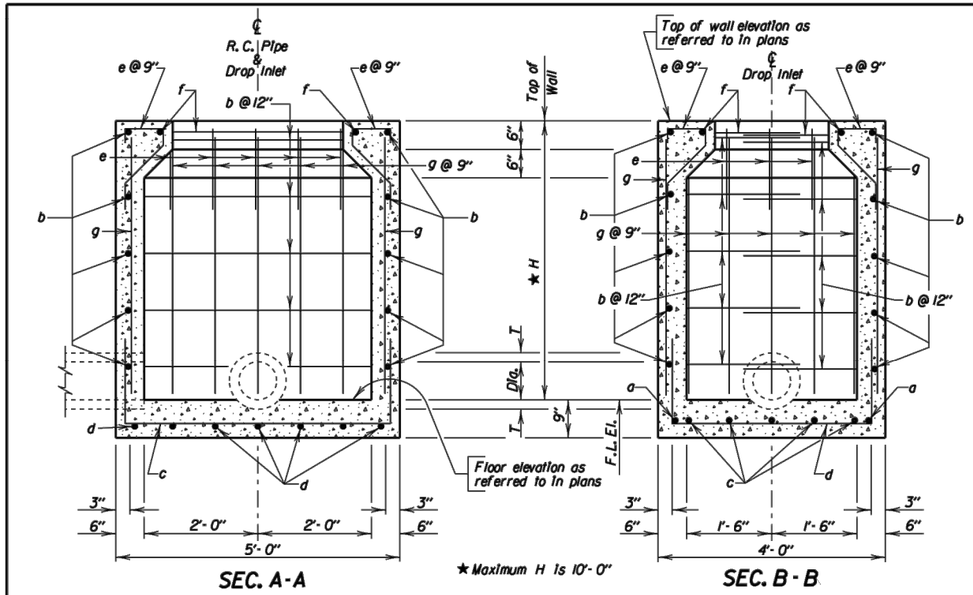
Published Date: 3rd Qtr. 2015

SDDOT

3'X 4' TYPE B
REINFORCED CONCRETE DROP INLET

PLATE NUMBER 670.02

Sheet 1 of 2



SEC. A-A

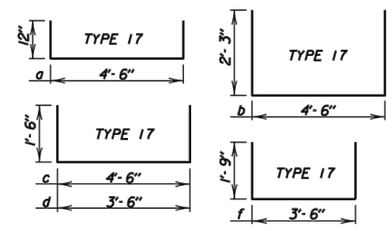
★ Maximum H is 10'-0"

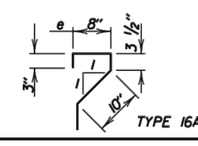
SEC. B-B

DROP INLETS FOR 12" TO 36" DIAMETER PIPE

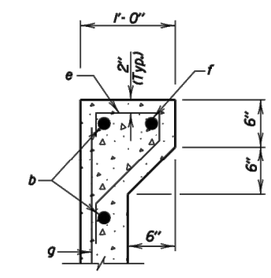
REINFORCING SCHEDULE					
MK.	No.	Size	Length	Type	Bending Details
a	2	4	6'-6"	17	
b	2H	4	9'-0"	17	
c	5	4	7'-6"	17	
d	7	4	6'-6"	17	
e	16	4	2'-6"	16A	
f	2	4	7'-0"	17	
g	24	4	H - 2"	Str.	

NOTE:
All dimensions are out to out of bars.





TYPE 16A



TYPICAL SEC. TOP OF WALL

December 23, 2009

Published Date: 3rd Qtr. 2015

SDDOT

3'X 4' TYPE B
REINFORCED CONCRETE DROP INLET

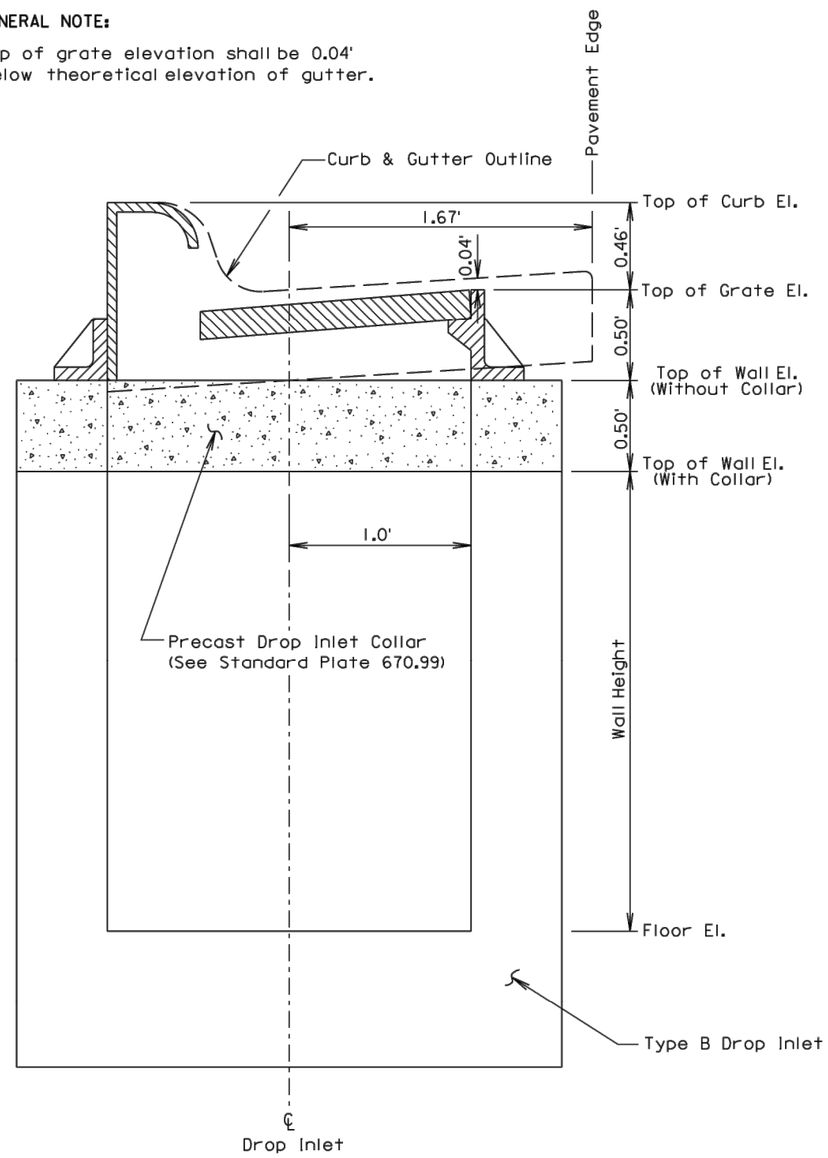
PLATE NUMBER 670.02

Sheet 2 of 2

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\14-2030 SECTION B PLATES.dwg 10/26/2015 10:16:44 AM

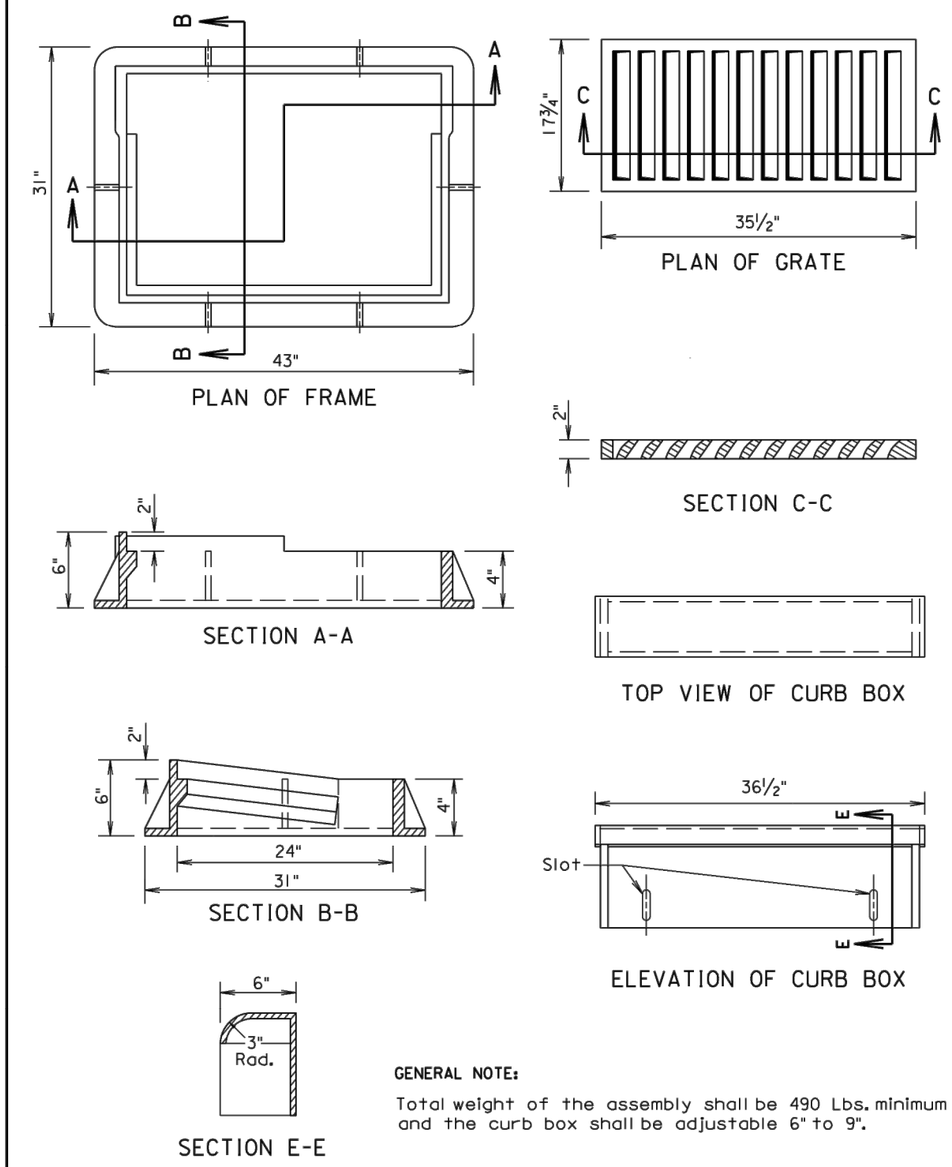
GENERAL NOTE:

Top of grate elevation shall be 0.04' below theoretical elevation of gutter.



June 26, 2011

Published Date: 3rd Qtr. 2015	SDDOT	INSTALLATION OF TYPE B DROP INLET	PLATE NUMBER 670.75
			Sheet 1 of 1



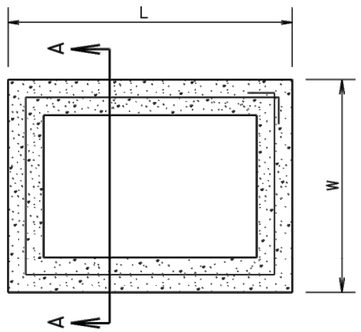
GENERAL NOTE:

Total weight of the assembly shall be 490 Lbs. minimum and the curb box shall be adjustable 6" to 9".

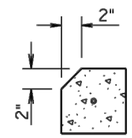
March 31, 2000

Published Date: 3rd Qtr. 2015	SDDOT	TYPE B FRAME AND GRATE ASSEMBLY	PLATE NUMBER 670.80
			Sheet 1 of 1

L:\14-2030 Sturgis Main St Reconst\Drawings\Eng\Sheet Files\Section B\14-2030 SECTION B PLATES.dwg 10/26/2015 10:16:49 AM

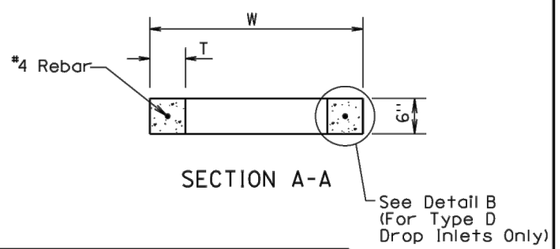


PLAN VIEW



For Type D Drop Inlets only:
Use Precast Drop Inlet Collar with 2" chamfer on L sides only.

DETAIL B



SECTION A-A

INFORMATIONAL QUANTITIES					
FRAME AND GRATE TYPE	L Ft-In	W Ft-In	T In	CLASS M6 CONCRETE CuYd	REINFORCING STEEL Lb
TYPE B	4'-0"	3'-0"	6	0.11	9
TYPE C	5'-0"	4'-0"	6	0.15	11
TYPE D	4'-0"	2'-6"	6	0.10	8

GENERAL NOTES:

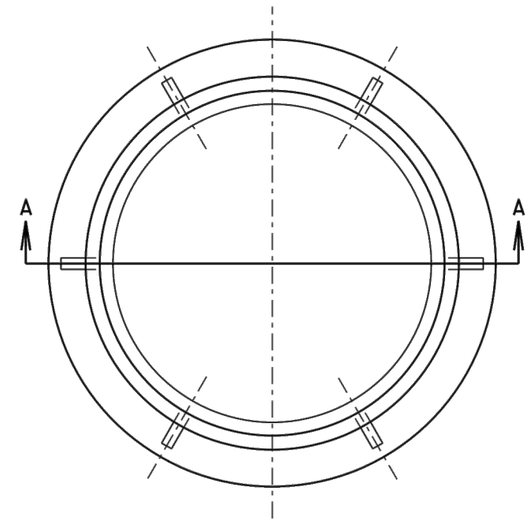
All reinforcing steel shall conform to ASTM A615, Grade 60.

The ½" diameter bar shall lap 6"± and shall be centered in the concrete.

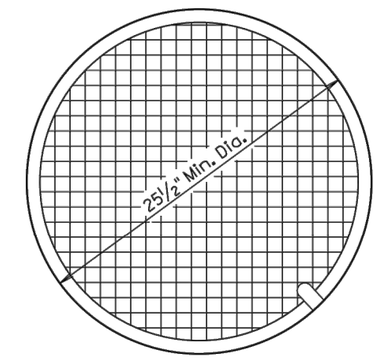
The cost of furnishing and installing Precast Drop Inlet Collars, including labor, materials, and incidentals shall be incidental to the contract unit price per Each for "Precast Drop Inlet Collar".

March 31, 2000

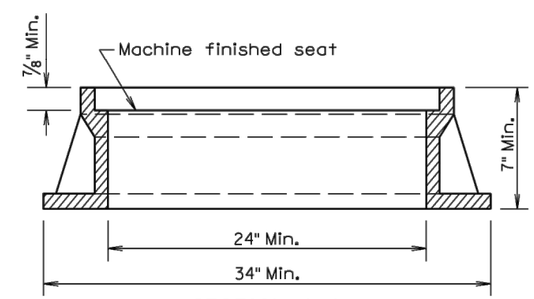
Published Date: 3rd Qtr. 2015	SDDOT	PRECAST DROP INLET COLLAR	PLATE NUMBER 670.99
			Sheet 1 of 1



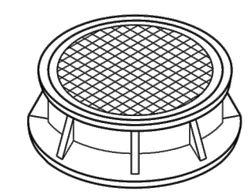
PLAN OF FRAME



PLAN OF LID



SECTION A-A



ASSEMBLED VIEW

TYPE	HEIGHT	MIN. WEIGHT
A7	7"	400Lbs.
A8	8"	440Lbs.
A9	9"	470Lbs.
A10	10"	480Lbs.

GENERAL NOTE:

Geometric pattern on top of lid other than that shown shall be approved by the Engineer.

March 31, 2000

Published Date: 3rd Qtr. 2015	SDDOT	TYPE A MANHOLE FRAME AND LID	PLATE NUMBER 671.10
			Sheet 1 of 1

L:\14-2030 Sturgis Main St Reconst\Drawings\Engi\Sheet Files\Section B\14-2030 SECTION B PLATES.dwg 10/26/2015 10:16:54 AM