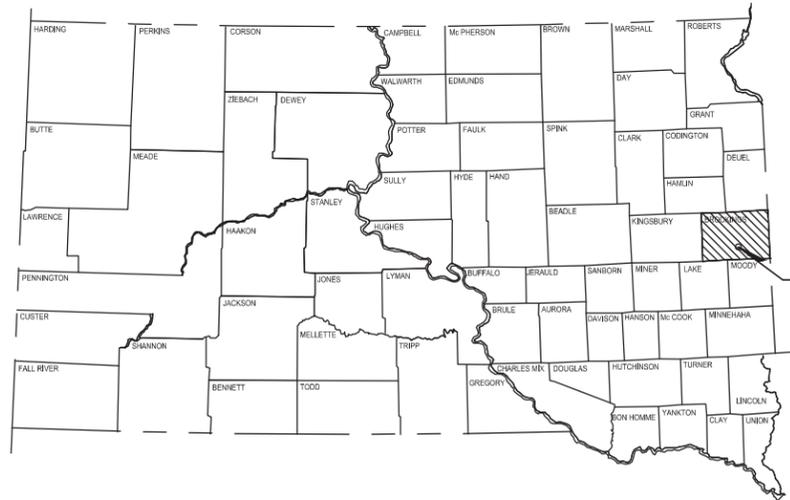


STATE OF SOUTH DAKOTA **FOR BIDDING PURPOSES ONLY**
 DEPARTMENT OF TRANSPORTATION

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	1	119



PLANS FOR PROPOSED
PROJECT P 3273(09)
17TH AVENUE
BROOKINGS COUNTY

COLD MILLING ASPHALT CONCRETE, ASPHALT CONCRETE RESURFACING,
 CURB RAMP MODIFICATIONS, TRAFFIC AND PEDESTRIAN SIGNAL
 IMPROVEMENTS, AND PAVEMENT MARKINGS
 PCN 03CT

INDEX OF SHEETS

SHEET 1:	TITLE AND INDEX OF SHEETS
SHEET 2-3:	ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS
SHEET 4-5:	RATES OF MATERIALS
SHEET 6-19:	PLAN NOTES AND TABLES
SHEET 20-21:	TYPICAL SECTIONS
SHEET 22-26:	TRAFFIC CONTROL
SHEET 27-29:	HORIZONTAL ALIGNMENT AND VERTICAL CONTROL DATA
SHEET 30-42:	ROW TABLE & LAYOUT
SHEET 43-52:	REMOVAL PLAN
SHEET 53-62:	INSTALLATION PLAN
SHEET 63-78:	CURB & GUTTER / SIDEWALK LAYOUT
SHEET 79-88:	PAVEMENT MARKING PLAN
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SHEET 97:	SPECIAL DETAILS
SHEET 98-119:	STANDARD PLATES

PROJECT

END PROJECT P3273(09)
 STA. 57+51.36
 APPROXIMATELY 2126' WEST AND 80' SOUTH OF
 THE NE CORNER OF SEC. 25-T110N-R50W



SCALES

DESIGN DESTINATION

ADT 2013	4240
ADT 2033	5035
DHV	565
d	50%
T DHV	1.70%
T ADT	3.70%

TITLE LAYOUT	1 INCH = 750 FEET
ROW LAYOUTS	1 INCH = 40 FEET
CURB & GUTTER LAYOUTS	1 INCH = 10 FEET
REMOVAL & INSTALL LAYOUTS	1 INCH = 40 FEET
PAVEMENT MARKING LAYOUTS	1 INCH = 40 FEET

HORIZONTAL DATUM:
 - NAD 83
 - PROJECTION: SOUTH DAKOTA STATE PLANE
 COORDINATES NORTH ZONE

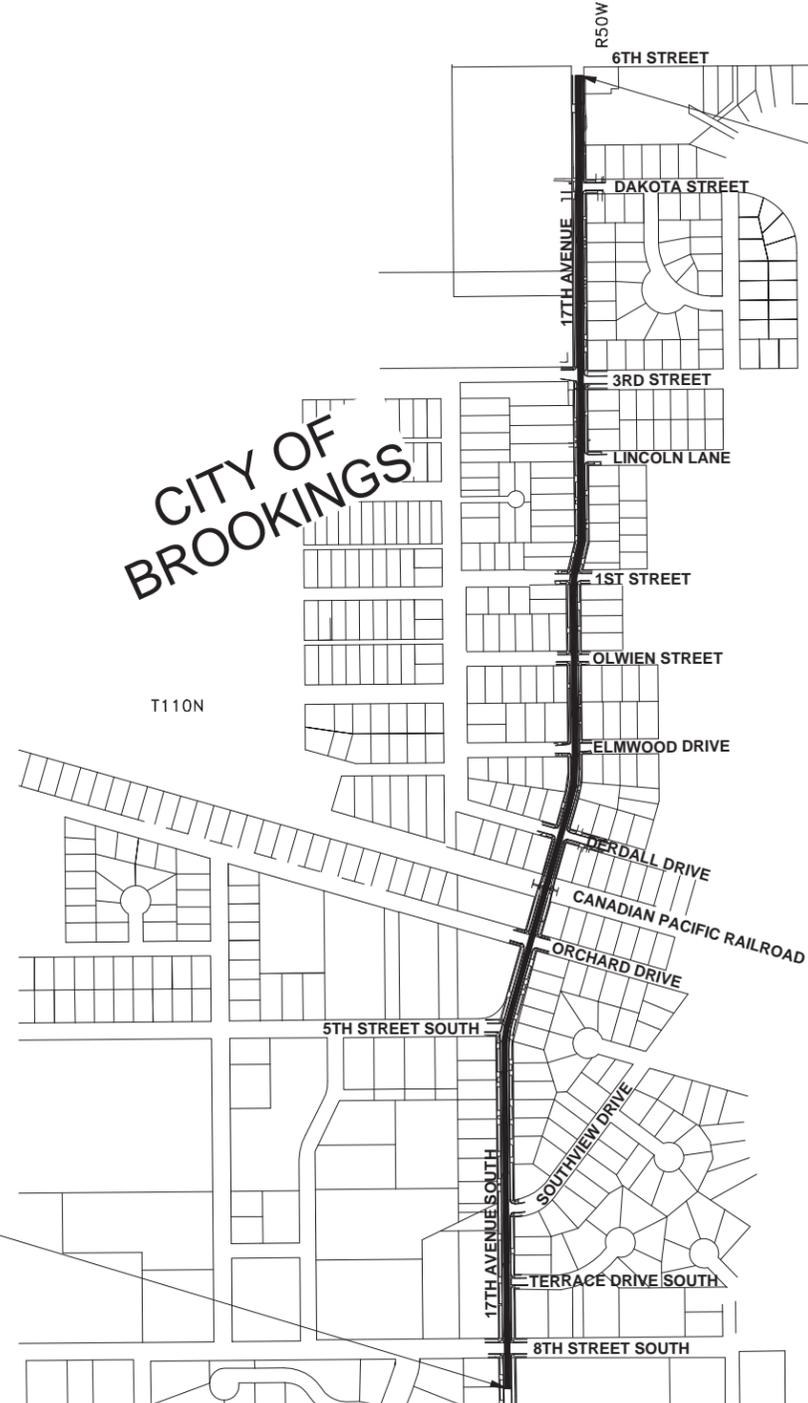
VERTICAL DATUM:
 - NAVD 88
 - GEOID 09

BASIS OF BEARING: GEODETIC NORTH

ALL DIMENSIONS SHOWN ARE IN
 TERMS OF U.S. SURVEY FEET

STORMWATER PERMIT
 NONE REQUIRED

BEGIN PROJECT P3273(09)
 STA. 0+00.00
 APPROXIMATELY 2465' WEST AND 500' SOUTH OF
 THE NE CORNER OF SEC. 36-T110N-R50W



11

GROSS LENGTH	5751.36 FEET	1.089 MILES
LENGTH OF EXCEPTIONS	0.00 FEET	0.000 MILES
NET LENGTH	5751.36 FEET	1.089 MILES

BANNER
 Engineering | Architecture | Surveying
 BAI NO. 21620.03.00

HDR PLANS BY:
 HDR, INC.
 SIOUX FALLS, S.D.

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

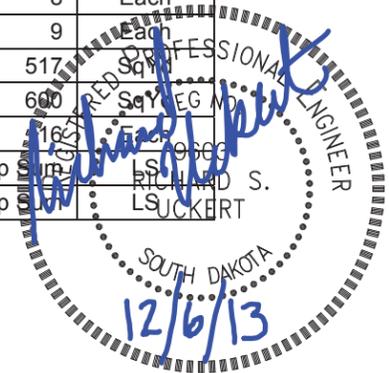
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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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UPDATED BY RSU: 12/06/13

BID ITEM NO.	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
110E0300	Remove Concrete Curb and Gutter	2653	Ft
110E0420	Remove Drop Inlet Frame and Grate Assembly	4	Each
110E0430	Remove Precast Concrete Drop Inlet Lid	4	Each
110E1010	Remove Asphalt Concrete Pavement	1444.3	SqYd
110E1100	Remove Concrete Pavement	394.3	SqYd
110E1130	Remove Concrete Driveway Pavement	187.7	SqYd
110E1140	Remove Concrete Sidewalk	992.7	SqYd
110E1400	Remove Pavement Marking, 4" or Equivalent	3111	Ft
110E1540	Remove Luminaire Pole Footing	2	Each
110E5100	Salvage Luminaire Pole	2	Each
110E5110	Salvage Signal Equipment	Lump Sum	LS
110E7150	Remove Sign for Reset	14	Each
120E0100	Unclassified Excavation, Digouts	285	CuYd
120E6300	Water for Vegetation	9.3	MGal
260E1010	Base Course	660	Ton
260E1050	Base Course, Salvaged Asphalt Mix	200	Ton
320E0004	PG 58-28 Asphalt Binder	106.7	Ton
320E1070	Class HR Asphalt Concrete	2344.0	Ton
320E1200	Asphalt Concrete Composite	482	Ton
320E3000	Compaction Sample	3	Each
330E0100	SS-1h or CSS-1h Asphalt for Tack	4.2	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	4.2	Ton
330E2000	Sand for Flush Seal	79.5	Ton
332E0010	Cold Milling Asphalt Concrete	14212	SqYd
380E3020	6" PCC Driveway Pavement	167.6	SqYd
380E3025	6" Reinforced PCC Driveway Pavement	40.6	SqYd
380E4050	8" PCC Fillet Section	572.5	SqYd
380E5010	Fast Track Concrete	70.1	SqYd
380E6110	Insert Steel Bar in PCC Pavement	48	Each
451E6075	Adjust Curb Stop Box	1	Each
451E6080	Adjust Water Valve Box	5	Each
632E1320	2.0" x 2.0" Perforated Tube Post	14.0	Ft
632E3205	Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity	91.2	SqFt
632E3500	Reset Sign	14	Each
632E3520	Remove, Salvage, Relocate, and Reset Traffic Sign	5	Each
633E0010	Cold Applied Plastic Pavement Marking, 4"	3558	Ft
633E0030	Cold Applied Plastic Pavement Marking, 24"	919	Ft
633E0040	Cold Applied Plastic Pavement Marking, Arrow	6	Each
633E0055	Cold Applied Plastic Pavement Marking, Railroad Crossing	2	Each
633E0062	Cold Applied Plastic Pavement Marking, Symbol	1	Each
633E5000	Grooving for Cold Applied Plastic Pavement Marking, 4"	3558	Ft
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24"	919	Ft
633E5025	Grooving for Cold Applied Plastic Pavement Marking, Arrow	6	Each
633E5037	Grooving for Cold Applied Plastic Pavement Marking, Symbol	1	Each
633E5040	Grooving for Cold Applied Plastic Pavement Marking, Railroad Crossing	2	Each
634E0010	Flagging	250	Hour
634E0100	Traffic Control	4627	Unit

BID ITEM NO.	ITEM	QUANTITY	UNIT
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	1	Each
634E0630	Temporary Pavement Marking	2.7	Mile
634E2020	Temporary Curb Ramp	10	Each
635E2130	Signal Pole with 30' Mast Arm and Luminaire Arm	2	Each
635E3330	Roadway Luminaire, 250 Watt with Photoelectric Cell	2	Each
635E4030	3 Section Vehicle Signal Head	8	Each
635E4040	4 Section Vehicle Signal Head	8	Each
635E5030	3' Diameter Footing	26.0	Ft
635E5301	Type 1 Electrical Junction Box	3	Each
635E5303	Type 3 Electrical Junction Box	3	Each
635E5304	Type 4 Electrical Junction Box	1	Each
635E5515	Signal Head Battery Backup and Flash System	1	Each
635E5540	Sawed-In Detector Loop	18	Each
635E5560	Emergency Vehicle Preemption Unit	2	Each
635E5570	Optical Detector	4	Each
635E5900	Pedestrian Push Button	8	Each
635E5910	Pedestrian Push Button Pole	8	Each
635E5922	Pedestrian Signal Head with Countdown Timer	8	Each
635E5930	Pedestrian Crossing Sign	8	Each
635E6200	Miscellaneous, Electrical	Lump Sum	LS
635E7600	Maintenance of Traffic Signal(s)	16	Hour
635E8020	2" Rigid Galvanized Steel Conduit	86	Ft
635E8030	3" Rigid Galvanized Steel Conduit	24	Ft
635E8110	1" Rigid Conduit, Schedule 40	133	Ft
635E8120	2" Rigid Conduit, Schedule 40	35	Ft
635E8830	2/2/2/4 Aluminum Wire	63	Ft
635E9504	4/C #14 AWG Copper Tray Cable, K2	1418	Ft
635E9505	5/C #14 AWG Copper Tray Cable, K2	293	Ft
635E9512	12/C #14 AWG Copper Tray Cable, K2	551	Ft
635E9524	24/C #14 AWG Copper Tray Cable, K2	551	Ft
635E9600	#16 AWG Copper Twisted Shielded Pair	735	Ft
635E9710	2/C #10 AWG Copper Pole and Bracket Cable	86	Ft
650E0059	Modified Type B66 Concrete Curb and Gutter	271	Ft
650E2100	Special Concrete Curb and Gutter	1847	Ft
650E6080	8" Concrete Valley Gutter	173	Ft
651E0040	4" Concrete Sidewalk	10307	SqFt
651E7000	Type 1 Detectable Warnings	882	SqFt
670E5200	Special Frame and Grate Assembly	4	Each
670E5400	Precast Drop Inlet Collar	8	Each
671E7010	Adjust Manhole	9	Each
733E0100	Sodding	517	SqYd
831E0200	Woven Geotextile Separator	600	SqYd
900E0010	Refurbish Single Mailbox	16	Each
900E5410	Modify Sprinkler System	Lump Sum	LS
998E0100	Railroad Protective Insurance	Lump Sum	LS



ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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SPECIFICATIONS

Standard Specifications for Roads & Bridges, 2004 Edition and Required Provisions, Supplemental Specifications and/or Special Provisions as included in the Proposal.

ENVIRONMENTAL COMMITMENTS

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

COMMITMENT C: WATER SOURCE

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

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

Action Taken/Required:

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

COMMITMENT E: STORM WATER

Construction activities constitute less than 1 acre of disturbance.

Action Taken/Required:

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

COMMITMENT H: WASTE DISPOSAL SITE

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

Action Taken/Required:

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

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

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

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

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

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

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

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

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

COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES

The SDDOT has obtained concurrence with the State Historical Preservation Office (SHPO or THPO) for all work included within the project limits and all designated option borrow sites provided within the plans.

Action Taken/Required:

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

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

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

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

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

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



RATES OF MATERIALS, SURFACING

The Estimate of Surfacing Quantities is based on the following quantities of materials per station.

CLASS HR ASPHALT CONCRETE

33' +/- Pavement Width

Station Ranges

Sta. 3+53 to Sta. 4+74
 Sta. 5+27 to Sta. 21+61
 Sta. 22+09 to Sta. 28+58
 Sta. 30+30 to Sta. 32+99

Crushed Aggregate 31.1 Tons
 Salvaged Asphalt Concrete 8.3 Tons
 PG 58-28 Asphalt Binder 1.9 Tons
Total 41.3 Tons

SS-1h or CSS-1h Asphalt for Tack at the rate of 0.08 tons applied 33 feet wide (Rate = 0.05 gallon per square yard)

30' +/- Pavement Width

Station Ranges

Sta. 28+58 to Sta. 30+30
 Sta. 32+99 to Sta. 44+35

Crushed Aggregate 28.3 Tons
 Salvaged Asphalt Concrete 7.5 Tons
 PG 58-28 Asphalt Binder 1.7 Tons
Total 37.5 Tons

The exact proportions of these materials will be determined on construction.

SS-1h or CSS-1h Asphalt for Tack at the rate of 0.07 tons applied 30 feet wide (Rate = 0.05 gallon per square yard)

29' +/- Pavement Width

Station Ranges

Sta. 44+35 to Sta. 57+51

Crushed Aggregate 27.4 Tons
 Salvaged Asphalt Concrete 7.3 Tons
 PG 58-28 Asphalt Binder 1.6 Tons
Total 36.3 Tons

The exact proportions of these materials will be determined on construction.

SS-1h or CSS-1h Asphalt for Tack at the rate of 0.07 tons applied 29 feet wide (Rate = 0.05 gallon per square yard)

FLUSH SEAL

33' +/- Pavement Width

Station Ranges

Sta. 3+53 to Sta. 4+74
 Sta. 5+27 to Sta. 21+61
 Sta. 22+09 to Sta. 28+58
 Sta. 30+30 to Sta. 32+99

SS-1h or CSS-1h Asphalt for Tack at the rate of 0.08 tons applied 33 feet wide (Rate = 0.05 gallon per square yard)

Sand for Flush Seal at the rate of 1.47 tons applied 33 feet wide (Rate = 8 pounds/square yard)

30' +/- Pavement Width

Station Ranges

Sta. 28+58 to Sta. 30+30
 Sta. 32+99 to Sta. 44+35

SS-1h or CSS-1h Asphalt for Tack at the rate of 0.07 tons applied 30 feet wide (Rate = 0.05 gallon per square yard)

Sand for Flush Seal at the rate of 1.33 tons applied 30 feet wide (Rate = 8 pounds/square yard)

29' +/- Pavement Width

Station Ranges

Sta. 44+35 to Sta. 57+51

SS-1h or CSS-1h Asphalt for Tack at the rate of 0.07 tons applied 29 feet wide (Rate = 0.05 gallon per square yard)

Sand for Flush Seal at the rate of 1.29 tons applied 29 feet wide (Rate = 8 pounds/square yard)

SUMMARY OF ASPHALT CONCRETE

UPDATED 1/07/14 RSU

Locations	Class HR Hot Mixed Asphalt Concrete with Specified Density Compaction (Tons)	Class HR Hot Mixed Asphalt Concrete without Specified Density Compaction (Tons)
Mainline	2123.1	
Additional Quantities	173.9	
Leveling Course/Spot Repair		47.0
Total:	2297.0	47.0
Total Class HR Hot Mixed Asphalt Concrete		2344.0



TABLE OF ADDITIONAL QUANTITIES

Sta.	Sta.	L/R	Description	2" Class HR Asphalt Concrete (Tons)	PG 58-28 Binder (Tons)	SS-1/CSS-1h Asphalt for Tack (Tons)	SS-1/CSS-1h Asphalt for Flush Seal (Tons)	Sand for Flush Seal (Tons)
3+31	to 3+53	L	Lane Transition	3.7	0.2	0.01	0.01	0.1
3+31	to 3+53	R	Lane Transition	3.7	0.2	0.01	0.01	0.1
7+60	to 7+85	R	Terrace Drive S.	4.8	0.2	0.01	0.01	0.2
10+55	to 10+90	R	Southview Drive	10.7	0.5	0.02	0.02	0.4
17+33	to 18+26	L	Mainline Radius	3.5	0.2	0.01	0.01	0.1
17+91	to 18+24	L	5 th Street S	5.6	0.3	0.01	0.01	0.2
18+36	to 18+49	L	Church Parking Lot	1.0	0.1	0.01	0.01	0.1
26+22	to 26+51	L	Derdall Drive	6.6	0.3	0.01	0.01	0.2
26+22	to 26+51	R	Derdall Drive	25.3	1.1	0.05	0.05	0.9
29+75	to 30+09	L	Elmwood Drive	7.9	0.4	0.01	0.01	0.3
29+80	to 30+14	R	Elmwood Drive	6.3	0.3	0.01	0.01	0.2
33+49	to 33+75	L	Olwein Street	6.1	0.3	0.01	0.01	0.2
33+49	to 33+75	R	Olwein Street	4.9	0.2	0.01	0.01	0.2
36+80	to 37+08	L	1 st Street	4.3	0.2	0.01	0.01	0.2
36+80	to 37+08	R	1 st Street	8.2	0.4	0.02	0.02	0.3
41+70	to 41+98	R	Lincoln Lane	6.1	0.3	0.01	0.01	0.2
44+91	to 45+18	R	3 rd Street	32.9	1.6	0.06	0.06	1.2
45+03	to 45+45	L	3 rd Street	12.5	0.6	0.02	0.02	0.4
45+18	to 45+31	R	3 rd Street (Lane Widening)	13.8	0.7	0.01	0.01	0.1
52+84	to 53+10	R	Dakota Street	5.4	0.2	0.01	0.01	0.2
53+17	to 53+27	L	Bike Path	0.6	0.1	0.01	0.01	0.1
TOTAL:				173.9	8.4	0.33	0.33	5.9



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 3273 (09)	6	119

SEQUENCE OF OPERATIONS

1. Install temporary traffic control signing
2. Complete geometric improvements south of 8th Street South and at 3rd Street.
3. Complete ADA sidewalk, ramp, and traffic and pedestrian signal improvements. (3 blocks allowed to be disturbed at one time or as approved by the City of Brookings)
4. Complete cold milling operations
5. Complete miscellaneous curb and gutter improvements
6. Complete digout operations between Orchard Drive and 5th Street South
7. Complete grade change and digout operations between 1st Street and Lincoln Lane
8. Complete asphalt leveling, strengthening, paving, and adjustment of manholes and water valves
9. Complete flush seal operations
10. Complete permanent pavement marking operations
11. Complete remaining project items
12. Remove temporary traffic control signing

Any changes to the Sequence of Operations require approval from the Engineer and the City of Brookings.

SCOPE OF WORK

The work required for the project includes, but is not limited to, the following items, not listed in order of execution:

1. Cold milling asphalt concrete
2. Asphalt concrete resurfacing
3. ADA sidewalk, ramp, and traffic and pedestrian signal improvements
4. Digouts
5. Curb and gutter replacement
6. Pavement markings

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 elsewhere in the plans or bidding documents.

All manholes, water valves, and drop inlets shall be protected by covering with a protective covering, such as building paper, at the time tack and the flush seal coat is applied. The Contractor shall also take care to prevent placement of tack or flush seal oil on the curb and gutter and valley gutter. All costs for equipment, labor, materials, and incidentals necessary for protecting structures, curb and gutter, and valley gutter shall be incidental to the various contract items.

UTILITY CONTACTS

South Dakota One Call	All Utilities	800-781-7474
Brookings Municipal Utilities	Electric, Water, Sewer	605-692-6325
Swiftel Communications Telephone		605-692-6211
Mediacom	TV	605-692-5508
Northwestern Energy	Gas	605-245-6977

TRAFFIC CONTROL

The Contractor shall submit a traffic control plan at the preconstruction meeting detailing how traffic will be maintained as discussed below. The submitted traffic control plan shall comply with MUTCD standards.

Traffic control units, as shown in the Estimate of Quantities, are estimates. Contractor's operation may require adjustments in quantities. Payment will be for those signs actually ordered by the Engineer and used.

"GROOVED PAVEMENT" signs along with the supplementary Motorcycle plaque (W8-15P) shall be placed at each end of the project and at the intersection of 17th Avenue and Orchard Drive until all cold milled areas are covered with asphalt concrete. These signs are included in the Itemized List for Traffic Control table.

GENERAL MAINTENANCE OF TRAFFIC

All costs, labor and materials to furnish, install and remove the traffic control for the traffic control items discussed below shall be included in the bid item "Traffic Control, Miscellaneous."

One lane of traffic in each direction shall be maintained at all times except during the digout operations between Orchard Drive and 5th Street South. Any channelizing devices needed for lane separation shall be incidental to the contract lump sum price for "Traffic Control, Miscellaneous" and no additional payment will be made. Channelizing devices shall be installed as shown in the standard plates. Any flagging required shall be paid for at the contract unit price per hour for "Flagging." 250 hours have been included in the quantities.

The Contractor shall protect all work areas with cones/drums with a spacing of no more than 10' between the cones/drums. Where channelizing devices are used to divert traffic as shown in the standard plates, the spacing of the channelizing devices shall meet the requirements set forth in the standard plates. Removing, relocating, covering, salvaging and resetting of existing traffic control devices, including delineation, shall be the responsibility of the Contractor. Cost for this work shall be incidental to the contract unit prices for the various items unless otherwise specified in the plans. Any delineators and signs damaged or lost shall be replaced by the Contractor at no cost to the City.

The existing signals at the intersection of 8th Street South and 17th Avenue will need to be shut down during the signal improvement portion of the project. All-way stop control shall be maintained until the proposed traffic signals are placed into final operation. The Contractor shall furnish, install, remove, relocate and reset "STOP" signs as many times as necessary to achieve this requirement. The stop signs shall be placed to maintain clear visibility from each approach. Signal heads shall be covered until the signal is put back into operation. Refer to the special provisions regarding date restrictions for this work.

No Parking (R8-3) signs shall be installed at 500' increments on each side of the street throughout the project length.

Storage of vehicles and equipment shall be outside the clear zone and as near as possible to the right-of-way line. Contractor's employees shall mobilize at a location off the right-of-way and arrive at the work sites in a minimum number of vehicles necessary to perform the work.

Indiscriminate driving and parking of vehicles within the right-of-way will not be permitted. Any damage to the vegetation, surfacing, embankment, delineators and existing signs resulting from such indiscriminate use shall be repaired and/or restored by the Contractor, at no expense to the City, and to the satisfaction of the Engineer.

Construction equipment and vehicles working within or adjacent to traffic shall, at all times, display a flashing or revolving amber light to warn the traveling public. Work activities during non-daylight hours are subject to prior approval from the Engineer.

The traffic control signs designated on the standard plates shall be maintained by the Contractor in a satisfactory manner. No sign shall be improperly displayed or left in place inappropriately.

The Contractor shall expect to move signs periodically throughout the day as work progresses. The Contractor is expected to use signs and barricades multiple times to coincide with construction phasing and to reduce the amount of construction signage necessary on-site.

Traffic approaching the project from intersecting roadways, streets, and approaches must be adequately accommodated. Major intersections or large commercial entrances may require additional signing, flaggers, and channelized devices on a temporary basis until work activities pass these areas.

The bottom of signs on portable or temporary supports shall not be less than seven (7) feet above the pavement in urban areas and one foot above the pavement in rural areas. Portable sign supports may be used as long as the duration is less than three (3) days. If the duration is more than three (3) days, the signs shall be on fixed location, breakaway supports.

All breakaway sign supports shall comply with FHWA NCHRP 350 or MASH crash-worthy requirements. The Contractor shall provide post installation details at the preconstruction meeting for all steel post breakaway sign support assemblies.



PEDESTRIAN TRAFFIC CONTROL

The existing sidewalks cannot be closed without supplying an alternate route. When crosswalks, sidewalks or other pedestrian facilities are blocked, closed or relocated, temporary facilities shall include accessibility features.

The Contractor shall adhere to the requirements of the Americans with Disabilities Act (ADA) during construction. Tape, rope, or plastic chain strung between devices are not detectable, do not comply with the design standards in the Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG), and should not be used as a control for pedestrian movements.

The Contractor will be limited to working on one side of 17th Avenue at a time to allow for pedestrian traffic during ADA construction.

A smooth, continuous hard surface should be provided throughout the entire length of the temporary pedestrian facility. There should be no curbs or abrupt changes in grade or terrain that could cause tripping or be a barrier to wheelchair use.

A temporary pedestrian ramp shall be provided by the Contractor in all cases where an alternate route cannot be found, and the intersection will carry pedestrian traffic. A suitable ramp would be one made out of wood that is at least 3' wide and no greater than a 12:1 slope. The ramp should be sufficiently sturdy and unyielding with hand rails.

The cost of the temporary pedestrian ramps shall be incidental to the contract price per each for "Temporary Curb Ramp."

The Contractor shall adequately sign and barricade the sidewalk for pedestrian traffic. The Contractor must not leave un-barricaded holes open either overnight or over the weekend.

The Contractor shall accommodate pedestrian traffic, including those with disabilities. Bicycle traffic shall also be accommodated. The Contractor shall submit a detailed plan to the Engineer on how pedestrian and bicycle traffic will be accommodated during the various phases of the work at the effected locations. This plan should be in conformance with the details contained in these plans for pedestrian accommodation. The plan may be submitted at the Preconstruction Meeting.

The plan shall be submitted no later than two weeks prior to the start of work. Some options for consideration to accommodate the pedestrian traffic include:

1. The use of various approved traffic control devices to maintain the pedestrians through or past the immediate work area,
2. The detour of pedestrians and bicycles to the opposite side of the street, alternate routes(s) or around a City block,
3. Manned crossing assistance (crossing guards) combined with an accessible path.

UNSTABLE MATERIAL / CENTERLINE PROFILE ALTERATION / LANE WIDENING EXCAVATION

Included in the Table of Asphalt Concrete Pavement Removal are 492.6 square yards of "Remove Asphalt Concrete Pavement" for the removal of unstable material and centerline profile alterations. Areas to be removed shall be saw cut full depth to a true line with a vertical face. No separate payment shall be made for sawing and the cost of sawing shall be incidental to the contract unit price per square yard for "Remove Asphalt Concrete Pavement."

Included in the Estimate of Quantities is 285 cubic yards of "Unclassified Excavation, Digouts" for the necessary removal of unstable material, excavation for centerline profile alterations, and for excavation for lane widening. Unstable material excavation shall be paid for at the contract unit price per cubic yard for "Unclassified Excavation, Digouts". All areas designated as unstable by the Engineer shall be excavated. The unstable material excavated on this project shall become property of the Contractor and shall be removed from the site.

Field measurement of unstable material excavation shall not be made. However, if there are additional areas of unstable material excavation 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.

Included in the Estimate of Quantities is 210 tons of "Base Course" to be used for backfill in the top lift (upper 6") in the digout, centerline profile alteration, and lane widening locations. Base course shall be paid for at the contract unit price per ton for "Base Course." Weigh tickets shall be provided for all base course installed. The Contractor shall furnish and install base course in accordance with SD DOT specifications except compaction shall be to the satisfaction of the Engineer. Water for compaction of base course shall be incidental to the contract unit price per ton for "Base Course."

If excess asphalt concrete millings exist on the project that will not be used in the asphalt concrete mix, the Contractor will be allowed to install this material in the bottom lift (lower 6") of the base course in the digout and lane widening sections. The material shall meet the requirements set forth in the Standard Specifications for Aggregate Base Course. This material shall be paid for at the contract unit price per ton for "Base Course, Salvaged Asphalt Mix." Weigh tickets shall be provided for all salvaged asphalt mix installed. The Contractor shall furnish and install base course, salvaged asphalt mix in accordance with SD DOT specifications except compaction shall be to the satisfaction of the Engineer. Water for compaction of base course shall be incidental to the contract unit price per ton for "Base Course, Salvaged Asphalt Mix."

If there is not sufficient asphalt concrete millings to install in the lower lift, the Contractor shall install base course in the lower lift. The quantities will be adjusted to reflect this change.

WOVEN GEOTEXTILE SEPARATOR

Included in the Estimate of Quantities is 600 square yards of "Woven Geotextile Separator" to be installed on the prepared subgrade in the digout, centerline profile alteration, and lane widening areas. Contractor shall follow manufacturer's recommendations for installation.

TABLE OF CONCRETE PAVEMENT REMOVAL

Station	to	Station	Description	Quantity (SqYd)	
4+61	- L	4+79	- L	Fillet	13.7
4+63	- R	4+79	- R	Fillet	13.9
4+76	- L	4+76	- R	Valley Gutter	17.1
5+22	- L	5+39	- L	Fillet	14.4
5+22	- R	5+39	- R	Fillet	14.0
5+25	- L	5+25	- R	Valley Gutter	18.0
7+42	- R	7+60	- R	Fillet	14.7
7+60	- R	7+85	- R	Valley Gutter	8.3
7+85	- R	8+03	- R	Fillet	14.5
17+76	- L	17+94	- L	Fillet	13.4
17+94	- L	18+28	- L	Valley Gutter	11.2
18+26	- L	18+41	- L	Fillet	8.9
22+04	- L	22+23	- L	Fillet	14.7
22+04	- R	22+21	- R	Fillet	15.2
22+06	- L	22+06	- R	Valley Gutter	18.2
29+69	- R	29+81	- R	Fillet	5.5
30+15	- R	30+25	- R	Fillet	5.8
33+32	- L	33+48	- L	Fillet	13.8
33+32	- R	33+48	- R	Fillet	14.3
33+49	- R	33+75	- R	Valley Gutter	9.3
33+75	- L	33+93	- L	Fillet	14.4
33+75	- R	33+93	- R	Fillet	14.2
36+63	- L	36+79	- L	Fillet	13.6
36+79	- L	37+06	- L	Valley Gutter	8.6
37+06	- L	37+23	- L	Fillet	11.6
37+08	- L	37+13	- R	Valley Gutter	15.9
37+10	- R	37+32	- R	Fillet	16.6
44+73	- R	44+89	- R	Fillet	10.8
44+88	- R	44+90	- L	Valley Gutter	13.2
44+88	- L	45+01	- L	Fillet	7.2
53+10	- R	53+23	- R	Fillet	9.2
Total:				394.3	



TABLE OF ASPHALT CONCRETE PAVEMENT REMOVAL

Station	to	Station	L/R	Quantity (SqYd)
3+31		3+53	L	6.8
3+31		3+53	R	6.8
4+72		4+74	L/R	6.9
4+79		4+81	L/R	18.4
5+21		5+23	L/R	20.0
5+27		5+48	L/R	16.0
6+40		9+11	R	62.0
7+40		7+51	L	2.4
7+59		7+85	R	17.5
7+93		8+04	L	2.4
10+35		10+46	L	2.4
10+37		10+57	R	16.2
10+86		11+07	R	19.1
10+92		11+02	L	2.4
12+23		15+89	R	81.1
17+75		18+45	L	16.8
17+90		18+25	L	42.1
18+36		18+49	L	4.0
18+40		18+51	R	2.4
20+83		21+63	L/R	314.8
22+02		22+04	L/R	15.3
22+08		22+22	L/R	12.0
25+90		26+25	R	23.3
26+04		26+25	L	16.0
26+48		26+68	L	18.7
26+48		26+68	R	33.4
29+59		29+77	L	13.4
29+64		29+80	R	4.6
29+80		29+83	R	3.7
30+05		30+25	L	13.5
30+11		30+13	R	3.7
30+13		30+31	R	4.4
33+31		33+51	L	8.8
33+31		33+94	R	14.6
33+49		33+76	R	17.9
33+73		33+95	L	9.7
34+51		34+62	L	2.9
34+96		35+16	L	4.3
36+61		37+08	L	12.9
36+62		36+85	R	16.9
36+79		37+05	L	18.0
37+06		37+08	R	10.1
37+10		37+86	L/R	177.8
38+43		40+11	L	37.3
38+93		40+52	R	35.3
40+24		42+16	L	42.7
41+53		41+72	R	15.4
41+96		42+16	R	15.1
44+62		44+86	L	11.7
44+65		44+86	R	13.6
44+90		45+06	L	19.4
44+90		44+97	R	11.2
45+15		45+17	R	3.4
45+30		45+48	R	4.0
45+42		45+62	L	15.1
46+15		46+94	R	17.7

TABLE OF ASPHALT CONCRETE PAVEMENT REMOVAL (CONT.)

Station	to	Station	L/R	Quantity (SqYd)
47+99		49+74	R	46.7
52+64		52+84	R	15.3
53+08		53+26	R	7.5
53+15		53+31	L	3.6
53+17		53+27	L	5.5
56+08		56+42	R	7.4
Total:				1444.3

TABLE OF CONCRETE DRIVEWAY PAVEMENT REMOVAL

Station	to	Station	L/R	Quantity (SqYd)
3+70		3+93	R	29.9
26+53		26+61	R	19.2
37+52		37+78	R	23.5
38+46		38+69	L	17.9
39+71		39+96	L	20.1
46+16		46+40	R	18.5
48+00		48+19	R	12.6
48+79		48+97	R	10.7
49+12		49+26	R	10.2
53+15		53+31	L	15.2
56+09		56+39	R	9.9
Total:				187.7

TABLE OF CONCRETE CURB AND GUTTER REMOVAL

Station	to	Station	L/R	Quantity (Ft)
3+31 - 17' L		4+61 - 17' L	L	130
3+31 - 17' R		4+63 - 17' R	R	132
4+76 - 32.5' L		4+76 - 42' L	L	8
4+76 - 31' R		4+78 - 31' R	R	2
5+25 - 33.5' L		5+25 - 42' L	L	9
5+25 - 33.5' R		5+25 - 41.5' R	R	8
5+39 - 18.5' R		5+47 - 18.5' R	R	8
5+39 - 19' L		5+48 - 19' L	L	9
6+40 - 19' R		7+42 - 19' R	R	102
7+40 - 19' L		7+51 - 19' L	R	11
7+57 - 34' R		7+57 - 37' R	R	3
7+88 - 34' R		7+88 - 37' R	R	3
7+94 - 19' L		8+05 - 19' L	L	11
8+03 - 19' R		9+19 - 19' R	R	116
10+36 - 19' R		10+52 - 37' R	R	27
10+35 - 19' L		10+46 - 19' L	L	11
10+92 - 41' R		11+07 - 19' R	R	31
10+92 - 19' L		11+02 - 19' L	L	10
12+23 - 19' R		15+88 - 19' R	R	365
17+74 - 22.5' L		17+76 - 22.5' L	L	2
18+26 - 30' L		18+26 - 37' L	L	7
18+40 - 19' R		18+51 - 19' R	R	11
18+41 - 19' L		18+45 - 19' L	L	4
21+12 - 19' L		21+58 - 36' L	L	120
21+44 - 19' R		21+58 - 36' R	R	26

TABLE OF CONCRETE CURB AND GUTTER REMOVAL (CONT.)

Station	to	Station	L/R	Quantity (Ft)
22+06 - 34' L		22+06 - 35' L	L	1
22+06 - 34' R		22+06 - 37' R	R	3
25+90 - 19' R		26+20 - 43' R	R	47
26+04 - 19' L		26+20 - 36' L	L	28
26+53 - 36' L		26+68 - 18' L	L	27
26+53 - 89' R		26+68 - 18' R	R	80
29+58 - 17' L		29+73 - 32' L	L	26
29+64 - 17.5' R		29+69 - 17.5' R	R	5
29+78.5 - 29' R		29+79 - 35.5' R	R	7
30+10 - 35' L		30+25 - 17' L	L	28
34+51 - 16' L		34+64 - 16' L	L	13
34+97 - 16' L		35+17 - 16' L	L	20
36+62 - 16' R		36+80 - 32' R	R	25
37+17 - 35' R		37+19 - 42' R	R	7
37+32 - 16' R		37+86 - 16' R	R	54
38+41 - 16' L		40+11 - 16' L	L	170
38+93 - 16' R		40+52 - 16' R	R	159
40+23 - 16' L		42+16 - 16' L	L	193
41+53 - 16' R		41+68 - 32' R	R	24
42+00 - 31' R		42+16 - 16' R	R	24
44+63 - 17' L		44+88 - 17' L	L	25
44+66 - 15.5' R		44+77 - 15.5' R	R	11
45+00 - 29' L		45+02 - 37' L	L	8
45+20 - 110' R		45+48 - 17' R	R	152
45+47 - 32' L		45+62 - 17' L	L	24
46+16 - 17' R		46+94 - 17' R	R	78
47+99 - 17' R		49+74 - 17' R	R	175
52+64 - 16' R		52+81 - 30' R	R	24
53+15 - 17' L		53+31 - 17' L	L	16
56+08 - 17' R		56+41 - 17' R	R	33
Total:				2653

Actual curb replacement lengths may be adjusted in the field.



TABLE OF SIDEWALK REMOVAL

Station	to	Station	L/R	Quantity (SqYd)
4+35		4+76	R	44.0
4+55		4+76	L	18.5
5+25		5+56	L	30.0
5+25		5+55	R	29.7
7+43		7+57	R	10.0
7+88		8+02	R	9.8
10+28		10+52	R	21.7
10+92		11+08	R	22.0
17+47		17+88	L	34.7
18+24		18+49	L	26.2
18+38		18+53	R	7.2
21+44		21+58	L	21.0
21+44		21+58	R	17.3
22+06		22+27	L	17.2
22+06		22+35	R	24.4
23+91		24+02	L	6.3
23+91		24+02	R	6.2
24+12		24+24	L	6.3
24+12		24+23	R	5.9
25+93		26+20	L	26.1
25+98		26+20	R	22.4
26+53		26+85	L	29.0
26+53		26+85	R	29.3
29+56		29+73	L	17.1
29+61		29+79	R	18.6
30+11		30+29	L	19.1
30+15		30+43	R	28.3
33+04		33+44	L	29.6
33+14		33+46	R	29.3
33+78		34+06	L	26.5
33+78		34+01	R	21.7
36+50		36+77	L	26.9
36+50		36+79	R	21.3
37+05		37+41	L	30.9
37+17		37+44	R	20.4
41+21		41+68	R	29.8
41+41		41+71	L	14.4
42+00		42+18	R	12.1
42+03		42+18	L	7.4
44+56		45+00	L	27.2
44+61		44+88	R	25.1
45+21		45+53	R	36.4
45+47		45+67	L	29.9
52+47		52+81	R	26.0
53+06		53+34	L	14.4
53+13		53+34	R	15.0
Total:				992.7

The contractor shall remove the detectable warning panel at Sta. 37+17 – Rt. All costs for removing the detectable warning panel shall be incidental to the project cost.

TABLE OF DROP INLET FRAME & GRATE ASSEMBLY REMOVAL

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

Station	L/R	Quantity (Each)
26+16	R	1
26+17	L	1
26+56	L	1
26+57	R	1
Total:		4

DROP INLET FRAME AND GRATE ASSEMBLY

All costs for installation of the drop inlet frame and grate assembly, excluding drop inlet collars, shall be incidental to the contract unit price per each for "Special Frame and Grate Assembly." The frame and grate assembly shall be a Neenah R-3067-VB or Engineer approved equal. The Contractor will be required to have precast drop inlet collars on-site to install frame and grate to proposed height. All costs for installation or the drop inlet collars shall be incidental to the contract unit price per each for "Precast Drop Inlet Collar".

TABLE OF SPECIAL FRAME & GRATE ASSEMBLY

Station	L/R	Quantity (Each)
26+16	R	1
26+17	L	1
26+56	L	1
26+57	R	1
Total:		4

COLD MILLING ASPHALT CONCRETE

UPDATED 1/07/14 RSU

The Contractor shall note the varying depths and slope of cold milling asphalt concrete required to meet the lines shown on the typical sections. The Contractor will be required to mill the areas adjacent to curb and gutter and valley gutter as shown in the typical sections.

Asphalt concrete overlaid above the gutter pan shall be cold milled to depth shown in the typical sections.

Existing asphalt concrete adhering to the gutter pan or gutter face on in-place curb and gutter in areas where the gutter pan is not overlaid shall be removed by the Contractor. Removal may be accomplished by means of a blade or other methods approved by the Engineer. The cost of this work shall be incidental to the contract unit cost per square yard for "Cold Milling Asphalt Concrete." Separate measurement and payment will not be made.

All manholes and water valves noted in the plans are shown for informational purposes only. Brookings Municipal Utilities will locate the manholes and water valve boxes and mark them with paint for the Contractor. It will be necessary to mill around approximately 9 manholes, 6 water valve boxes, and 1 gas valve box by use of special tools or equipment. The cost of this work shall be incidental to the contract unit price per square yard for "Cold Milling Asphalt Concrete."

The Contractor shall retain ownership of any excess millings. Contractor shall remove the millings from the site and will not be allowed to store millings on the project. All costs for removing millings from project site shall be incidental to the contract unit cost per square yard for "Cold Milling Asphalt Concrete."

Cold milling asphalt is estimated to produce 1600 tons of salvaged asphalt concrete material. An estimated 470 tons of salvaged asphalt concrete will be used on this project in the Class HR Asphalt Concrete mixture. The Contractor is responsible to assure enough asphalt concrete salvage is available for the Class HR Asphalt Concrete.



TABLE OF COLD MILLING ASPHALT CONCRETE

Station to	Station	L/R	Location	Quantity (SqYd)
3+31	4+73	L	Mainline	238
3+31	4+73	R	Mainline	238
5+27	20+83	L	Mainline	1336
5+27	20+83	R	Mainline	1334
7+60	7+85	R	Terrace Dr. S.	40
10+55	10+90	R	Southview Dr.	95
17+91	18+24	L	5 th St. S.	50
22+09	24+02	L	Mainline	366
22+09	24+02	R	Mainline	374
24+12	37+08	L	Mainline	1744
24+12	37+08	R	Mainline	1627
26+22	26+51	L	Derdall Dr.	58
26+22	26+51	R	Derdall Dr.	225
29+75	30+09	L	Elmwood Dr.	70
29+80	30+14	R	Elmwood Dr.	56
33+49	33+75	L	Olwein St.	54
33+49	33+75	R	Olwein St.	43
36+80	37+08	L	1 st St.	38
36+80	37+08	R	1 st St.	72
37+69	44+88	L	Mainline	1207
37+69	44+84	R	Mainline	1148
41+70	41+98	R	Lincoln Ln.	54
44+91	57+51	L	Mainline	1651
44+91	57+51	R	Mainline	1628
44+91	45+18	R	3 rd St.	307
45+03	45+45	L	3 rd St.	111
52+84	53+10	R	Dakota St.	48
Total:				14212

BASE COURSE FOR DRAINAGE IMPROVEMENTS

Included in the Estimate of Quantities is 450 tons of "Base Course" to be used in areas where drainage improvements, such as curb and gutter, valley gutter, and fillets, are proposed. The areas adjacent to these improvements that must be removed for formwork are also included in this quantity. Base course shall be paid for at the contract unit price per ton for "Base Course." Weigh tickets shall be provided for all base course installed. The Contractor shall furnish and install base course in accordance with SD DOT specifications except compaction shall be to the satisfaction of the Engineer. Water for compaction of base course shall be incidental to the contract unit price per ton for "Base Course."

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 by placing adjusting rings, and resetting the manhole frame and lid. Manhole inserts are not an acceptable method of raising the manhole and will not be allowed. The elevation of the lid shall be set at the same elevation to 1/4" below the elevation of the adjacent new pavement or surrounding ground. Adjustments shall be completed prior to paving activities.

Manhole elevations not within this tolerance shall be re-adjusted without additional cost.

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 to the Standard 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".

All reusable salvaged rings and/or covers will be retained by the Utility owner.

TABLE OF ADJUST MANHOLES

Station	Offset	L/R	Quantity	Type	Adjustment (Ft)
7+73	0.4'	R	1	Sanitary	+0.17'
8+40	1.5'	L	1	Sanitary	+0.17'
10+49	1.7'	L	1	Sanitary	+0.17'
10+93	18.4'	R	1	Storm	-0.04'
11+76	1.6'	L	1	Sanitary	+0.17'
15+14	0.6'	L	1	Sanitary	+0.17'
18+19	12.0'	L	1	Sanitary	+0.04'
30+00	1.2'	L	1	Sanitary	+0.17'
49+33	6.3'	R	1	Sanitary	+0.17'
Total:			9		

ADJUSTMENT OF WATER/GAS VALVE BOXES

The Contractor shall adjust water and gas valve boxes to the extent necessary on this project. The elevation of the box cover shall be set at the same elevation to 1/4" below the elevation of the adjacent new pavement or surrounding ground. Water and gas valve boxes not within this tolerance shall be readjusted without additional cost. Adjustments shall be completed prior to paving activities.

All valve boxes that are cracked or broken due to carelessness of the Contractor shall be replaced with new boxes at the Contractor's expense. Valve boxes shall be adjusted to the satisfaction of the Engineer. All costs involved in adjusting the valve boxes shall be incidental to the contract unit price per each for "Adjust Water Valve Box".

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

All reusable salvaged valve boxes will be retained by the Utility owner.

TABLE FOR ADJUSTMENT OF WATER/GAS VALVE BOXES

Station	Offset	L/R	Quantity	Adjustment (Ft)
7+83	12.6'	R	1	+ 0.41'
37+15	14.4'	R	1	+ 0.16'
44+86	12.1'	R	1	- 0.22'
45+23	23.3'	R	1	+ 0.15'
45+29	17.3'	R	1	+ 0.16'
Total:			5	

ADJUSTMENT OF CURB STOP BOX

The Contractor shall adjust the curb stop box to the finished elevation of the sidewalk at Sta. 42+05 - Lt. The elevation of the box shall be set at the same elevation to 1/4" below the elevation of the adjacent new sidewalk. Curb stop boxes not within this tolerance shall be readjusted without additional cost. Adjustments shall be completed prior to sidewalk installation.

All curb stop boxes that are cracked or broken due to carelessness of the Contractor shall be replaced with new boxes at the Contractor's expense. All costs involved in adjusting the curb stop box shall be incidental to the contract unit price per each for "Adjust Curb Stop Box".



CLASS HR ASPHALT CONCRETE

Asphalt concrete shall be furnished by the Contractor and shall meet the requirements of Class HR. Longitudinal joints will be permitted only at the centerline, lane boundaries, at points shown on the typical section or as approved by the Engineer.

Asphalt concrete aggregates shall consist of salvaged asphalt concrete mix material (RAP) and virgin mineral aggregate. Virgin mineral aggregate shall be furnished by the Contractor and shall conform to the requirements for Class E, Type 1. Salvaged asphalt concrete material (RAP) shall be obtained from the cold milled material produced from this project and can be used without further testing. The RAP shall be crushed to provide a homogenous mixture of material so that the maximum particle size in the cold feed will not exceed 1.5 inches. The Class HR Asphalt Concrete shall include twenty (20) percent salvaged asphalt concrete (RAP) in the mixture. Job mix formula tolerances for the RAP shall be +/-5% from the target value. All other requirements for Class HR shall apply.

It will be necessary to install asphalt concrete around approximately 13 manholes, 7 water valve boxes, and 1 gas valve box by use of special tools, equipment, and labor. The cost of this work shall be incidental contract unit price per ton of "Class HR Asphalt Concrete."

Included in the quantity is 47 ton of Class HR Asphalt Concrete and 2.1 ton of PG 58-28 Asphalt Binder to be used as a leveling course to be placed where and as directed by the Engineer and for spot repair.

Class HR Asphalt Concrete placement shall begin within five (5) days following the cold milling asphalt operations.

FLUSH SEAL

Application of flush seal shall be completed within 10 working days following completion of the asphalt concrete surfacing.

Application of the flush seal may be eliminated by the Engineer. If the paved surface remains tight, the Engineer shall notify the Contractor as soon as possible that the flush seal is not necessary.

SAND FOR FLUSH SEAL

Aggregate for Flush Seal shall conform to the requirements of Section 879 of the Standard Specifications.

ASPHALT CONCRETE COMPOSITE

The Contractor shall furnish and install asphalt concrete composite. The mineral aggregate for the asphalt concrete composite shall conform to the Standard Specifications for Class E, Type 1. The asphalt binder shall be PG 64-28. Compaction shall be to the satisfaction of the Engineer. All other requirements in the Standard Specifications for Asphalt Concrete Composite shall apply.

Included in the Estimate of Quantities is 482 ton of Asphalt Concrete Composite to be placed where and as directed by the Engineer and for placement along the front of installed drainage improvements such as curb and gutter, valley gutters, and fillets.

SURFACING THICKNESS DIMENSIONS

Plans tonnage will be applied even though the thickness may vary from that shown on the plans.

At those locations where material much be placed to achieve a required elevation, plans tonnage may be varied to achieve the required elevation.

SAWING EXISTING SURFACING

Where new asphalt concrete pavement is placed adjacent to existing asphalt concrete, the existing asphalt concrete shall be sawed full depth to a true line with a vertical face. No separate measurement shall be made for sawing.

CONCRETE CURB AND GUTTER, FILLET SECTIONS, AND SIDEWALK

Any excavation required to install the new concrete curb and gutter, valley gutter, fillet sections, and sidewalk shall be incidental to the unit price for the respective bid item.

The Contractor will be allowed to saw out and remove the asphalt concrete surfacing two (2) foot wide in front of the new concrete items to facilitate the installation of the form work. The cut-out areas shall be filled back in with asphalt concrete composite immediately following a 3-day cure period of the concrete.

TABLE OF MODIFIED TYPE B66 CONCRETE CURB AND GUTTER

Station to	Station	L/R	Quantity (Ft)
3+31 - 17.3' L	3+53 - 19.0' L	L	22
3+31 - 17.3' R	3+53 - 17.3' R	R	22
3+53 - 19.0' L	4+55.5 - 19.0' L	L	103
3+53 - 19.0' R	4+55.5 - 19.0' R	R	103
4+76 - 39.0' L	4+76 - 42.0' L	L	3
4+76 - 39.0' R	4+76 - 41.0' R	R	2
5+25 - 39.5' L	5+25 - 42.0' L	L	3
5+25 - 38.5' R	5+25 - 41.5' R	R	3
29+79 - 31.3' R	29+79 - 35.7' R	R	5
30+10 - 35.4' L	30+10 - 30.6' L	L	5
Total:			271

TABLE OF SPECIAL CONCRETE CURB AND GUTTER

Station to	Station	L/R	Quantity (Ft)
5+45 - 19.3' L	5+48 - 19.3' L	L	3
5+45 - 19.0' R	5+47 - 19.0' R	R	2
6+40 - 19.0' R	7+42 - 19.0' R	R	102
7+40 - 19.0' L	7+51 - 19.0' L	L	11
7+57 - 34.1' R	7+57 - 36.6' R	R	3
7+88 - 33.9' R	7+88 - 36.5' R	R	3
7+94 - 19.0' L	8+05 - 19.0' L	L	11
8+03 - 18.9' R	9+11 - 19.0' R	R	116
10+35 - 19.0' L	10+46 - 19.0' L	L	11
10+52 - 33.6' R	10+52 - 36.8' R	R	3
10+92 - 35.0' R	10+92 - 41.0' R	R	6
10+92 - 19.0' L	11+02 - 19.0' L	L	10
12+23 - 18.9' R	15+88 - 18.5' R	R	365
17+74 - 22.6' L	17+76 - 22.9' L	L	2
18+25 - 30.2' L	18+23 - 37.3' L	L	7
18+38 - 19.0' L	18+45 - 19.0' L	L	7
18+40 - 18.7' R	18+51 - 18.6' R	R	11
21+12 - 19.0' L	21+43 - 18.9' L	L	31
21+58 - 33.8' L	21+58 - 36.2' L	L	3
21+58 - 33.8' R	21+58 - 36.2' R	R	3
22+06 - 33.9' L	22+06 - 35.3' L	L	3
22+07 - 33.8' R	22+07 - 36.8' R	R	3
25+90 - 18.8' R	26+03 - 18.6' R	R	13
26+04 - 18.7' L	26+08 - 18.7' L	L	4
26+20 - 36.1' R	26+20 - 43.3' R	R	6
26+20 - 30.6' L	26+20 - 35.7' L	L	5
26+53 - 32.5' L	26+53 - 36.1' L	L	4
26+53 - 32.3' R	26+53 - 88.7' R	R	56
26+68 - 17.4' R	26+68 - 17.4' R	R	1
33+78 - 30.7' R	33+78 - 35.9' R	R	5
33+93 - 15.8' R	33+94 - 15.8' R	R	1
33+93 - 16.0' L	33+95 - 16.0' L	R	2
34+51 - 16.0' L	34+64 - 16.0' L	L	13
34+96 - 16.0' L	35+16 - 16.0' L	L	20
36+61 - 15.9' L	36+62 - 15.9' L	L	1
36+79 - 30.7' R	36+79 - 32.1' R	R	2
37+05 - 27.7' L	37+05 - 31.1' L	L	3
37+17 - 34.7' R	37+17 - 41.9' R	R	7
37+18 - 15.6' L	37+22 - 15.5' L	L	4
37+34 - 16.1' R	37+86 - 16.2' R	R	52
38+41 - 16.0' L	40+11 - 16.1' L	L	170
38+93 - 15.7' R	40+52 - 15.7' R	R	159
40+24 - 16.1' L	42+16 - 16.0' L	L	192
44+62 - 16.8' L	44+77 - 16.8' L	L	15
44+66 - 15.4' R	44+73 - 15.5' R	R	7
45+20 - 110.0' R	45+31 - 29.5' R	R	81
45+45 - 16.4' R	45+48 - 16.5' R	R	3
46+16 - 16.5' R	46+94 - 16.6' R	R	78
47+99 - 16.7' R	49+74 - 16.6' R	R	175
53+15 - 16.7' L	53+31 - 16.6' L	L	16
53+23 - 16.5' R	53+26 - 16.5' R	R	3
56+08 - 17.5' R	56+41 - 17.5' R	R	33
Total:			1847



CONCRETE CURB AND GUTTER TRANSITION

The Contractor shall transition the proposed curb and gutter section to match the existing curb and gutter section at all installation limits. This work shall be incidental to the unit price for Concrete Curb and Gutter.

TABLE OF 8" CONCRETE VALLEY GUTTER

Station	to	Station	Width	Quantity (Ft)
7+60	- 19.0' R	7+85	- 19.0' R	5
17+92	- 27.8' L	18+26	- 21.5' L	10
22+06	- 16.5' L	22+06	- 16.5' R	5
33+49	- 17.5' R	33+76	- 15.5' R	5
36+79	- 16.5' R	37+05	- 16.0' R	5
37+08	- 13.5' L	37+13	- 13.5' R	5
Total:				173

The valley gutters at the intersection of 1st Street and 17th Avenue and the valley gutter at 3rd Street and 17th Avenue shall be constructed when the detour is in place for the digout operations at the intersection of 1st Street and 17th Avenue to avoid multiple road closures.

The valley gutters in the table below shall be constructed with Fast Track concrete so the intersection closure/lane reduction can be kept to a minimum. The quantity for these valley gutters will be paid for at the contract unit price per square yard for "Fast Track Concrete."

TABLE OF 8" CONCRETE VALLEY GUTTER - FAST TRACK CONCRETE

Station	to	Station	Width	Quantity (SqYd)
4+76	- 16.5' L	4+76	- 16.5' R	5
5+25	- 16.7' L	5+25	- 16.7' R	5
44+85	- 13.1' R	44+94	- 14.2' L	10
Total:				70.1

8" PCC FILLET SECTIONS

Payment for "8" 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 "8" PCC Fillet Section".

TABLE OF 8" PCC FILLET SECTION

Station	to	Station	L/R	Radius (Ft)	Quantity (SqYd)
4+55.5		4+78	L	20	21.6
4+55.5		4+78	R	20	21.6
5+22.5		5+45	L	20	21.6
5+22.5		5+45	R	20	21.6
7+42		7+59.5	R	15	14.3
7+85.5		8+03	R	15	14.3
10+36.5		10+54	R	15	14.1
10+88		11+06.5	R	15	15.9
17+76		17+92.5	L	15	14.3
18+26.5		18+38	L	15	9.5
21+43.5		21+61	L	15	14.3
21+43.5		21+61	R	15	14.3
22+04		22+21.5	L	15	14.3
22+04		22+21.5	R	15	14.3
26+02.5		26+22.5	R	17.5	17.8
26+07.5		26+22.5	L	13.8	13.3
26+50		26+67.5	L	15.9	15.2
26+50		26+67.5	R	15	14.0
29+58		29+73	L	15	14.3
29+63.5		29+81	R	15	12.7
30+07.5		30+25	L	15	12.5
30+13.5		30+31	R	15	14.3
33+31		33+48.5	L	15	14.3
33+31		33+48.5	R	15	14.5
33+75		33+93	L	15	14.4
33+75.5		33+93	R	15	14.4
36+61.5		36+79	L	15	14.4
36+64		36+81	R	15	14.4
37+05		37+18	L	15	10.0
37+10		37+33.5	R	15	20.5
41+53		41+70.5	R	15	14.4
41+98		42+16	R	15	14.4
44+73		44+90	R	15	14.1
44+77		45+04.5	L	25	22.1
45+29		45+46	R	15	11.8
45+44		45+61.5	L	15	14.5
52+64		52+82	R	15	14.4
53+10		53+23	R	11	9.8
Total:					572.5

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 brick red color or the natural patina of cast iron plates for application in concrete curb ramps.

Type 1 Detectable Warnings Approved List

Product	Manufacturer
Detectable Warning Plate Cast Iron Plate	Neenah Foundry Company Neenah, WI 800-558-5075 http://www.neenahfoundry.com/
Detectable Warning Plate Cast Iron Plate	Deeter Foundry Lincoln, NE 800-234-7466 http://www.deeter.com/
Detectable Warning Plate Cast Iron Plate	East Jordan Iron Works, Inc. 301 Spring Street East Jordan, MI 49727 800-626-4653 http://www.ejiw.com

TABLE OF TYPE 1 DETECTABLE WARNINGS

Station	L/R	Quantity (SqFt)
4+63	L	10
4+63	R	10
4+73	L	10
4+73	R	10
5+30	L	10
5+30	R	10
5+39	L	10
5+39	R	10
7+45	L	10
7+45	R	10
7+55	R	10
7+90	R	10
7+99	L	10
7+99	R	10
10+40	L	10
10+40	R	10
10+50	R	10
10+94	R	10
10+97	L	10
11+00	R	10
17+86	L	10
18+26	L	10
18+39	L	10
18+46	R	10



TABLE OF TYPE 1 DETECTABLE WARNINGS (CONT.)

Station	L/R	Quantity (SqFt)
21+51	L	10
21+51	R	10
21+56	L	10
21+56	R	10
22+08	L	10
22+08	R	10
22+13	L	10
22+13	R	10
23+97	L	10
23+97	R	10
24+17	L	10
24+17	R	10
26+10	L	10
26+10	R	10
26+17	L	10
26+17	R	10
26+56	L	10
26+56	R	10
26+63	L	10
26+63	R	10
29+64	L	10
29+69	R	10
29+69	L	10
29+75	R	10
30+14	L	10
30+20	R	10
30+20	L	10
30+26	R	10
33+36	L	10
33+36	R	10
33+42	L	10
33+42	R	10
33+81	L	10
33+81	R	10
33+88	L	10
33+88	R	10
36+68	L	10
36+68	R	10
36+73	L	10
36+76	R	10
37+08	L	10
37+15	L	10
37+20	R	10
37+25	R	10
41+59	L	10
41+59	R	10
41+65	R	10
42+03	R	10
42+10	L	10
42+10	R	10

TABLE OF TYPE 1 DETECTABLE WARNINGS (CONT.)

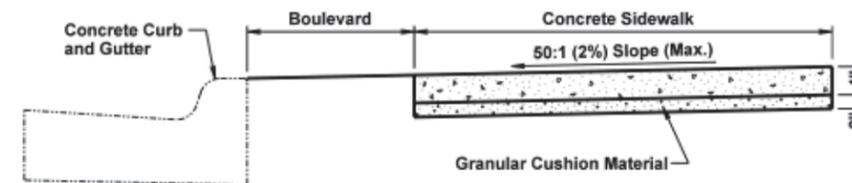
Station	L/R	Quantity (SqFt)
44+71	R	10
44+82	L	10
44+84	R	10
44+96	L	10
45+34	R	10
45+42	R	10
45+50	L	10
45+55	L	10
52+77	R	10
53+17	R	10
53+21	R	10
53+23	L	22
Total		882

TABLE OF 6" PCC DRIVEWAY PAVEMENT

Station	L/R	Opening (Ft)	Type	Quantity (SqYd)
3+82.5	L	21	Unreinforced	29.7
26+52.8	R	21	Unreinforced	20.4
37+66.0	R	24	Unreinforced	25.2
38+55.5	L	21	Unreinforced	18.9
39+85.5	L	21	Unreinforced	20.8
46+29.0	R	21	Unreinforced	19.9
48+09.5	R	12	Unreinforced	12.0
48+88.0	R	9	Unreinforced	9.7
49+19.5	R	11	Unreinforced	11.0
53+22.5	L	11	Reinforced	29.7
56+24.5	R	27.5	Reinforced	10.9
Total:				208.2

The sidewalk adjacent to the driveway at Sta. 53+22.5 is included in the quantity.

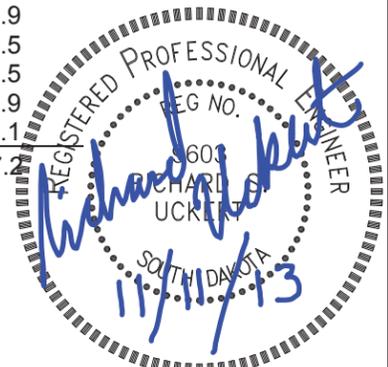
CONCRETE SIDEWALK



The concrete sidewalk shall be constructed in accordance with Section 651 of the Standard Specifications. The sidewalk details shown above are typical of this project; however, the sidewalk widths and other special details are shown on the Curb and Gutter Layout and Special Details sheets.

TABLE OF 4" CONCRETE SIDEWALK

Station	to	Station	L/R	Quantity (SqFt)
4+35		4+76	R	493.6
4+55		4+76	L	225.6
5+25		5+56	L	272.9
5+25		5+55	R	372.6
7+43		7+57	R	182.5
7+40		7+51	L	74.2
7+88		8+05	R	181.3
7+94		8+05	L	74.2
10+28		10+52	R	291.6
10+35		10+46	L	75.8
10+92		11+08	R	218.7
10+92		11+02	L	73.4
17+46		17+88	L	247.5
18+24		18+49	L	322.9
18+38		18+53	R	131.8
21+44		21+59	L	202.2
21+44		21+59	R	184.4
22+06		22+27	L	184.6
22+06		22+35	R	239.9
23+90		24+02	L	57.0
23+90		24+02	R	56.2
24+12		24+24	L	56.3
24+12		24+23	R	53.2
25+93		26+20	L	248.0
25+98		26+20	R	240.0
26+53		26+85	L	263.8
26+53		26+85	R	280.6
29+55		29+72	L	136.1
29+61		29+79	R	201.8
30+10		30+29	L	207.2
30+16		30+43	R	226.1
33+04		33+46	L	287.9
33+13		33+46	R	283.1
33+78		34+06	L	258.0
33+78		34+01	R	218.0
36+50		36+76	L	263.4
36+50		36+80	R	217.7
37+05		37+42	L	296.6
37+17		37+44	R	218.3
41+36		41+68	R	253.8
41+41		41+71	L	192.6
42+00		42+18	R	172.7
42+02		42+18	L	128.0
44+56		45+00	L	276.2
44+61		44+87	R	302.9
45+31		45+53	R	218.5
45+47		45+67	L	291.5
52+47		52+81	R	201.9
53+12		53+34	R	150.1
Total:				10307.2



INSERT STEEL BAR IN PCC PAVEMENT

The Contractor will be required to insert steel tie bars between the valley gutter and fillet section as shown in the Special Details and on Standard Plate 380.10. The Contractor will be required to drill in the bars and anchor them with epoxy resin adhesive in locations where either the fillet section or the valley gutter is to remain in place as shown in Standard Plate 380.10.

TABLE OF INSERT STEEL BAR IN PCC PAVEMENT

Station	to	Station	Quantity (Each)	Comment
4+76 – 16.5' L		4+76 – 16.5' R	4	
5+25 – 16.7' L		5+25 – 16.7' R	4	
7+60 – 19.0' R		7+85 – 19.0' R	4	
17+92 – 27.8' L		18+26 – 21.5' L	8	
22+06 – 16.5' L		22+06 – 16.5' R	4	
29+80 – 18.0' R		30+14 – 18.0' R	4	Drilled
33+49 – 17.5' R		33+76 – 15.5' R	4	
36+79 – 16.5' R		37+05 – 16.0' R	4	
37+08 – 13.5' L		37+13 – 13.5' R	4	
44+85 – 13.1' R		44+94 – 14.2' L	8	
Total:			48	

MAILBOXES

The Contractor shall refurbish 16 mailboxes. The local Postmaster will determine the recommended mounting height of the mailboxes throughout the project. The Contractor shall coordinate with the Engineer on the proper postal representative to contact.

All costs for removing the existing mailboxes, providing a temporary mailbox, and resetting the mailboxes shall be incidental to the contract unit price per each for "Refurbish Single Mailbox."

TABLE OF REFURBISH SINGLE MAILBOX

Station	L/R	Quantity	Comment
2+90	L	1	
3+65	L	1	Relocate to Sta. 3+65 – 20.5' L
8+02	L	1	Relocate to Sta. 8+08 – 21' L
13+12	L	1	
13+62	R	1	
14+12	L	1	
14+40	R	1	
14+77	L	1	
15+20	R	1	
15+61	L	1	
16+10	R	1	
16+37	L	1	
16+85	R	1	
19+27	L	1	
19+86	R	1	
20+30	R	1	
Total:			16

TEMPORARY PAVEMENT MARKINGS

Temporary pavement markings to denote the centerline of roadway throughout full length of project shall consist of the following: Two tabs of appropriate color (one at beginning of skip line followed by second one four ft. into skip) placed along skipline path on 40 ft. intervals prior to asphalt surface treatment. Covers on tabs shall be removed prior to opening roadway to normal traffic flow.

Flagger symbol signs (W20-7a) and flaggers, or a shadow vehicle with rotating yellow lights or strobe lights shall be positioned on the roadway shoulder in advance of workers for both directions of traffic during the installation of temporary road markers. The traffic control device used shall be moved to provide proper warning of the work operation. A ROAD WORK AHEAD (W20-1), a Worker symbol sign (W21-1a) or a BE PREPARED TO STOP (W3-4) warning sign shall be mounted on the rear of the shadow vehicle. The method of traffic control used by the Contractor for this work shall be approved by the Engineer.

All costs for temporary pavement marking including furnishing, applying, and uncovering of tabs shall be incidental to the contract price per mile for "Temporary Pavement Marking".

GROOVE PAVEMENT FOR PAVEMENT MARKING

The Contractor shall establish a positive means for the removal of the grinding and/or grooving residue. Grooving shall be done with a machine that dry grooves the asphalt concrete and includes a vacuum to control the grinding residue and dust. Solid residue shall be removed from the pavement surfaces before being blown by traffic action or wind. Residue shall not be permitted to flow across lanes being used by public traffic or into gutter or drainage facilities. Residue, whether in solid or slurry form, shall be disposed of in a manner that will prevent it from reaching any waterway in a concentrated state. Grooving shall comply with Section 633 of the Standard Specifications.

REMOVAL OF PAVEMENT MARKINGS

Pavement markings which conflict with new pavement markings shall be removed by the Contractor. Masking of pavement marking will not be allowed. The method of removal shall be non-destructive to pavements which will remain in place at project completion and shall be approved by the Engineer. Pavement marking removal shall be paid at the contract unit price per foot for "Remove Pavement Marking, 4" or Equivalent".

DETECTOR LOOPS

Contractor shall be responsible for removing detector loops prior to milling. Removal of the detector loops is incidental to the project cost. Once the loops are removed, signals will automatically default to the pre-timed scenario. Brookings Municipal Utilities (BMU) will ensure maximum green time is not excessive and will make appropriate modifications to signal timing. Prior to removal, Contractor shall coordinate with BMU to ensure signal timing is adjusted appropriately.

REMOVE SIGN FOR RESET/RESET SIGN

The Contractor shall remove for reset and reset signs delineated on the project on the Table of Remove Sign for Reset/Reset Sign. Damage or misplaced signs shall be replaced by the contractor at no expense to the SD DOT or the City of Brookings.

TABLE OF REMOVE SIGN FOR RESET/RESET SIGN

Intersection	Quadrant	Quantity	Comment
17 th Ave. S & Terrace Dr. S.	SE	1	Street Marker
17 th Ave. S & Southview Dr.	SE	1	Street Marker
17 th Ave. S & 5 th St S.	SW	1	Stop Sign
17 th Ave. S & 5 th St S.	NW	1	Street Marker
17 th Ave. & Derald Dr.	NW	1	Street Marker
17 th Ave. & Derald Dr.	SE	1	Street Marker
17 th Ave. & Elmwood Dr.	NW	1	Street Marker
17 th Ave. & Elmwood Dr.	SE	1	Street Marker
17 th Ave. & Olwein St.	SW	1	Stop Sign
17 th Ave. & 1 st St.	NW	1	Street Marker
17 th Ave. & Lincoln Ln.	SE	1	Street Marker
17 th Ave. & 3 rd St.	SE	1	Street Marker
17 th Ave. & Dakota St.	SE	1	Street Marker
17 th Ave. & Dakota St.	NE	1	Street Marker
Total:		14	

TABLE OF REMOVE, SALVAGE, RELOCATE & RESET TRAFFIC SIGN

Sign	Sta. & Offset	Proposed Sta. & Offset	Quantity
No Parking	5+30 – R	5+30 – 43' R	1
RR Warning Sign	22+28 – R	22+90 – 23' R	1
No Parking	25+18 – L	25+87 – 21' L	1
RR Warning Sign	26+05 – L	25+26 – 21' L	1
Stop Sign	45+23 – R	45+32 – 34' R	1
Total:			5

The No Parking sign currently located at Sta. 5+30 – R and the RR Warning sign currently located at Sta. 26+05 – L shall be removed from the light pole and installed on a 2.0" x 2.0" perforated tube post at the proposed station.



PERFORATED TUBE POST

Payment for 2.0" x 2.0" perforated tube post shall include all cost for labor, equipment, and materials necessary to complete the following work:

1. Furnish all posts, stiffeners, breakaway bases, soil stabilizers, and hardware.
2. Assembly and installation of breakaway sign supports as per details shown in these plans.
3. Assembly of sign to sign post as per erection details for Highway signs as shown in these plans
4. Installation of sign post and sign.

SODDING

The areas to be sodded shall comprise of all newly graded areas where ADA improvements have been made and at locations determined by the Engineer during construction. Peat sod is not permitted.

Sod shall be installed in accordance with Section 733 of the SD DOT Standard Specifications for Roads and Bridges.

An estimated 18 gallons of water per square yard of sod was used to compute the quantity for the bid item "Water for Vegetation." All costs involved for watering sod shall be incidental to the contract unit price per MGAL for "Water for Vegetation."

All costs for equipment, labor, materials, and incidental necessary for completing this work, including furnishing and installing topsoil, shall be incidental to the various contract items.

TABLE OF SODDING

Station	to	Station	L/R	Quantity (SqYd)
4+40		4+60	R	46
4+55		4+60	L	3
5+40		5+55	L	12
5+40		5+55	R	21
10+27		10+37	R	11
11+07		11+15	R	8
17+45		17+72	L	23
18+38		18+53	R	8
21+42		21+47	R	5
21+42		21+47	L	9
22+17		22+37	R	14
22+17		22+27	L	6
25+96		26+06	L	20
26+01		26+06	R	14
26+66		26+86	R	32
26+66		26+86	L	26
29+54		29+59	L	3
29+59		29+69	R	11
30+19		30+29	L	11
30+29		30+44	R	21
33+02		33+32	L	20
33+12		33+32	R	33
33+92		34+02	R	9
33+92		34+07	L	20
36+48		36+63	R	5
36+48		36+63	L	11
37+16		37+42	L	16
37+36		37+46	R	10
41+18		41+53	R	23
41+41		41+71	L	17
42+03		42+18	L	8
42+14		42+19	R	3
44+56		44+64	L	5
44+59		44+64	R	6
45+44		45+53	R	7
45+58		45+68	L	21
52+44		52+66	R	14
53+25		53+35	R	6
Total:				517

LANDSCAPING, MISCELLANEOUS

The Contractor shall remove and relocate the existing landscaping surrounding the mailbox at Sta. 3+65 – L.

All costs for equipment, labor, materials, and incidentals necessary for completing this work, including removing and installing landscape rock, landscape fabric, and landscape timbers, shall be incidental to the various contract items.

SPRINKLER SYSTEMS

There may be several locations along the project where sprinkler systems will be encountered during construction. The Contractor shall repair any damaged sprinkler systems to the extent that the functionality of the sprinkler system is retained after the project is complete at no additional cost to the owner.

Where replacement is necessary, the existing system shall be replaced with the appropriate materials. All costs associated with the repair and replacement of the sprinkler system shall be incidental the contract lump sum price for "Modify Sprinkler System."

Locations where pedestrian facility improvements will take place and sprinkler systems have been verified include:

- 1700 8th St S (St. Thomas More Catholic Church)
- 1616 8th St S
- 532 Southview Drive
- 421 17th Avenue S
- 1706 Orchard Drive
- 1617 Orchard Drive (Eidsness Funeral Home)
- 1633 Elmwood Drive
- Hillcrest Park



TRAFFIC SIGNAL CONTROL CABLE LABELS

Traffic signal cable shall be identified in hand holes, junction boxes, pedestal bases, electrical service cabinets, and controller cabinets as indicated on the Wiring Diagram. Labels shall be wrapped around traffic signal cable to indicate the signal pole and signal head that it is connected to. Labels shall be self-adhesive vinyl cloth with a preprinted legend. Traffic signal control cables to the poles shall be marked with a legend and shall be color coded as follows; northwest (blue), northeast (red), southeast (green), and southwest (orange).

SUPPLYING AS BUILT PLANS

If the traffic signal systems or roadway lighting systems are constructed differently than what is stated in the plans, the Contractor shall supply as built plans to the Engineer and a copy shall be sent to the Traffic Design Engineer. The as built plans may include conduit layouts, wiring diagrams, or other drawings depicting the changes from the original plans.

SHOP DRAWING AND CATALOG CUTS SUBMITTAL

The Contractor shall submit shop drawings and catalog cuts in accordance with Section 985 of the Standard Specifications or in Adobe PDF format. PDF submittals shall be sent to the following email address:

Lance.McQueen@hdrinc.com

Upon review of the submittals, they will be sent by the Engineer to the following email addresses for concurrence of approvals or remarks:

JLanning@cityofbrookings.org
Pete.Longman@state.sd.us
Stacy.Bartlett@state.sd.us

ON-SITE INSPECTION

An on-site inspection of the traffic signals shall be conducted before acceptance of the project, once the traffic signals are completed and operational. The on-site inspection shall be conducted by the Project Engineer or Region Traffic Engineer with the Contractor, City Traffic Engineer, and the Traffic Design Engineer present.

MISCELLANEOUS, ELECTRICAL

The bid item "Miscellaneous, Electrical", shall included all costs, labor and material for the following work at the intersection of 8th Street and 17th Avenue:

- Connecting/tying to existing conduits (12 Each)
- Furnishing and installation of the knock-out plugs (2 Each)
- Wiring of the vehicle, pedestrian signals and pedestrian push buttons
- Removal of the existing cable and conduit as shown on the conduit layout sheet.
- Signal aiming
- Tree trimming (as needed)

SALVAGE SIGNAL EQUIPMENT

At the intersection of 8th Street and 17th Avenue, the existing signal equipment shall be salvaged by the Contractor and delivered to the City of Brookings. The Contractor shall notify the City 5 days before the delivery of the salvaged signal equipment to coordinate the drop-off location. Contact Jackie Lanning at 605-692-6629 for delivery location.

The following equipment shall be salvaged and delivered to the City:

- Salvage existing electrical junction boxes (5 total)
- Salvage existing 3 section vehicle signal heads (8 total)
- Salvage existing 5 section vehicle signal heads (4 total)
- Salvage existing pedestrian signal heads w/ countdown timers (4 total)
- Salvage existing pedestrian push button units (4 total)
- Salvage existing pedestrian crossing signs (4 total)
- Salvage existing street name signs (4 total)

All costs for work involved for removing, salvaging and delivering the existing signal equipment to the City of Brookings shall be included in the contract lump sum price for the bid item "Salvage Signal Equipment".

SALVAGE LUMINAIRE POLE

At the intersection of 8th Street and 17th Avenue, the existing luminaire poles to be salvaged shall be delivered to the City of Brookings by the Contractor. The Contractor shall notify the City 5 days before the delivery of the salvaged luminaire poles to coordinate the drop-off location. Contact Jackie Lanning at 605-692-6629 for delivery location.

All costs for work involved in the salvage and delivery of the existing luminaire poles shall be incidental to the contract unit price per each for "Salvage Luminaire Pole".

REMOVE LUMINAIRE POLE FOOTING

At the intersection of 8th Street and 17th Avenue, the footings of the salvaged existing luminaire poles shall be removed by the Contractor to a minimum of 2' below the ground surface. Restoration of the disturbed area shall be to the satisfaction of the Engineer.

All costs for removing the footings of the existing luminaire poles shall be incidental to the contract unit price per each for "Remove Luminaire Pole Footing".

KNOCK-OUT PLUGS

At the intersection of 8th Street and 17th Avenue, the Contractor shall salvage the existing pedestrian push button units located on the existing signal poles. The Contractor shall furnish and install a weather-proof knock-out plug at the hole left in the signal poles upon the removal of these push button units.

The weather-proof knock-out plug shall be an oil-tight seal plug as manufactured by Wiegmann Company or approved equal. The plug shall be sized large enough to cover the hole, which shall be verified by the Contractor. The plug shall be capable of being removed after installation by un-screwing the single center screw of the plug. The Contractor shall assume the knock-out plug will be 2" diameter, Wiegmann Company Part # WAS-200.

Prior to its installation, the plug shall be lined with a weather-proof silicone sealant. Upon installation, the Contractor shall round the plug edges to conform to the signal pole shape.

All costs for the knock-out plug shall be included in the contract lump sum price for the bid item "Miscellaneous, Electrical". This bid item shall include, but not be limited to furnishing, installation, plugs, screws, washers, gaskets, silicone sealant and shaping.

FOR BIDDING PURPOSES ONLY

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TABLE OF FOOTING DATA

Signal Pole ID	Footing Diameter	Footing Depth	**Spiral Dia	**Spiral Length	Vertical Reinf.
S1	3-0"	13.0 ft	2'-8"	145' - 10"	14-#8 x 12' -6"
S2	3-0"	13.0 ft	2'-8"	145' - 10"	14-#8 x 12' -6"
Totals:		26.0 ft			

* Footing depth allows for a maximum of 0'-6" of shaft above ground.
** The size of all spirals shall be #3.

SOILS INFORMATION

The subsurface soils at the intersection of 17th Ave. S and 8th St. S consist of brown sand-clay to the bottom of the borings at 25'. Measureable groundwater was not encountered but the soils below 19' were logged as water bearing. The borings caved at 19.2' and 22.3' below the surface. The caved depth of the boreholes is generally related to the depth of the groundwater table.

During construction of the traffic signal footings, concrete placement operations should closely follow excavation procedures. The longer the excavations are left open the more likely caving may occur. If caving soils are encountered during excavation, casing may be required to construct the cylindrical footings.

Concrete shall not be dropped through standing water. If water is present in the excavation it shall be removed prior to concrete placement or the concrete shall be tremied. If caving occurs during dewatering the concrete shall be placed through a tremie or by means of casing.



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BREAKAWAY BASES

A statement is required, signed by a Professional Engineer registered in the State of South Dakota, certifying that the breakaway base devices meet the design requirements, including breakaway and structural adequacy, of the "AASHTO Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals". The physical testing procedures outlined in Section 8 of the Fifth Edition of the Aluminum Association's "Specifications for Aluminum Structures" may be used to establish service limits for structural adequacy certification of aluminum breakaway transformer bases and frangible couplings. If requested, test data of production samples to support the certification shall be provided.

POLES

New poles shall be galvanized steel. Galvanizing shall be in accordance with AASHTO Specification M111 (ASTM A123). Steel pole material shall be in accordance with ASTM A36, A242, A570, A572, A607 or A595 Grade A or B. A595 material shall be limited to a 3/8 inch maximum thickness. Steel pole material with a thickness of 1/2 inch to 2 inches, shall satisfy Charpy V-Notch toughness test requirements of 15 ft. lb. at 40 degrees F. The SDDOT Office of Bridge Design shall be contacted for Charpy impact requirements for steel pole material thickness greater than 2 inches.

The steel pole-to-base-plate connection shall be a full-penetration groove-welded connection with a backing ring as described in Table 11.9.3.1-1, Section 4.5 of the current edition of the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals.

Cantilever traffic signal supports, including anchor bolts, shall be designed for fatigue in accordance with Fatigue Importance Category III without galloping and truck induced gusts.

Signal poles shall have rotatable mast arms.

Luminaire extension(s) shall have a **30 Ft.** mounting height with an **8 Ft.** arm.

All poles shall have transformer bases.

SIGNAL POLE ANCHOR BOLTS AND FOOTINGS INSTALLATION

Due to the time provisions associated with this project, the Contractor shall anticipate having **early delivery of the signal pole anchor bolts and associated bolt patterns**. The anchor bolts shall be labeled clearly for each signal footing location. This will ensure the footings can be constructed and cured prior to the placement of the signal poles themselves. The Contractor shall also clearly document that the signal poles are ordered in a timely manner to prevent contractual issues arising with late delivery of the signal poles that adversely affects the completion date of the project.

LUMINAIRES

Luminaires shall be High Pressure Sodium, medium, semi-cutoff, type III. The luminaire bulbs shall be 250W HPS.

The following luminaires meet the requirements for this design:

1. General Electric M2RR Series
2. Lumark RY Series
3. Hubbell RL Series

Three copies of the isofootcandle charts and utilization curves shall be furnished to the Engineer for approval. The Contractor must get approval from the Engineer prior to installation of the luminaires.

The approved isofootcandle data for each case shall be used to determine the correct socket position at each site. Each luminaire shall be installed with its lamp socket in the proper position and in a level attitude.

2/2/2/4 ALUMINUM WIRE

The proposed 2/2/2/4 Aluminum Wire referred to on the plans to provide power to the proposed luminaires on the signal poles shall meet the following specifications:

- Three Conductors – #2 stranded aluminum, 600 volt, XLP, triples
- One Neutral – #4 stranded aluminum with yellow markings and footage markers

All costs for this wire shall be included in the contract unit price per foot for the bid item "2/2/2/4 Aluminum Wire". This bid item shall include all splices required to the existing 2/2/2/4 wire within the proposed junction boxes. These splices shall meet NEC requirements.

LIGHTNING PROTECTION

All luminaire poles, tower lighting poles, and service cabinets shall be equipped with industrial lightning arrestors compliant with current NEMA and UL Standards for lightning arrestors. Cost for ground rods and lightning arrestors shall be incidental to the contract unit price for the corresponding luminaire pole, tower lighting pole, and service cabinet bid item.

SIGNAL AIMING AND TREE TRIMMING

Signals shall be aimed and trees shall be trimmed such that all the signals for each approach shall be continuously visible for the minimum distance listed in the table in Section 4D.12 of the MUTCD. All costs, labor and materials for this work shall be included in the bid item "Miscellaneous, Electrical".

MULTICONDUCTOR CONTROL CABLE FOR SIGNAL CIRCUITS

The cable furnished for signal circuits shall be furnished with the number and size of the conductors shown in the plans and shall meet the specifications for either of the two types specified below.

1. General Purpose Control Cable with stranded copper conductors, ICEA S-61-402, PE-PV Insulated (20-10), 600 volts.
2. General Purpose Control Cable, with standard copper conductors, Aerial and Duct., IMSA 20-1, 600 volts.

The Conductor Jackets for the above cables shall be color coded in accordance with ICEA S-61-402 Appendix K, Table K-1 or IMSA 19-1 Table II.

SIGNAL BACKPLATES

Signal backplates shall extend not less than 5 inches from the edge of the signal head at the top, bottom, and sides. The bottom of the backplate on vehicle signal faces mounted directly above pedestrian signal indications shall be sized to permit the separate adjustment of the vehicle and pedestrian signal indication and may be less than 4 inches. All backplates shall have a dull black finish.

Signal backplates for the 3 and 4-section heads shall be polycarbonate.

CONTROLLER PROGRAMMING

The existing traffic signal controller at the intersection of 8th Street and 17th Avenue shall be reprogrammed by a qualified technician per the proposed signal timing plan shown in the plans.

The existing controller has 12 load switch positions available, but only 7 of these are currently being utilized. The Contractor shall utilize the available load switch positions to accommodate the proposed signal timing plan.

The Contractor shall furnish the City of Brookings with a copy of the data programmed into the Controller prior to the full operation of the Controller for approval. The address is as follows:

Jackie Lanning
City Engineer
JLanning@cityofbrookings.org
City Hall
520 3rd Street, Suite 140
P.O. Box 270
Brookings, SD 57006

All costs associated with reprogramming the existing signals to operate on a pre-timed upon abandoning/removing the existing detector loops and reprogramming the controller per the proposed signal timing plan shall be at the per hour cost of "Maintenance of Traffic Signal(s)". **16 hours** has been estimated for this work.

BATTERY BACKUP AND FLASH SYSTEM

The proposed Battery Backup and Flash System shall be installed within the proposed side mounted cabinet to be installed on the existing traffic signal controller cabinet at the southwest corner of the intersection of 8th Street and 17th Avenue.

The proposed Battery Backup and Flash System shall be furnished, installed and paid for as discussed in the **Special Provision for Signal Head Battery Backup and Flash System**.

The Contractor shall furnish and install a side mounted cabinet for housing the battery backup and flash system at the controller cabinet. The side mounted cabinet shall meet the following specifications:

- The side mounted cabinet shall meet standards for a NEMA Traffic Enclosure.
- The side mounted cabinet shall be plumb and level in reference to the back side of the controller cabinet. The Contractor must take precautions when positioning the side mounted cabinet to avoid damaging wire or equipment within the controller cabinet while drilling the mounting holes and the access hole. The access hole shall be six inch diameter and shall be drilled through the side mounted cabinet into the controller cabinet. A grommet or bushing shall be installed in the six inch diameter hole to prevent damage during pull through of the cables.
- The side mounted cabinets shall be mounted and tightened securely to the controller cabinet using a minimum of four bolts. A bead of clear silicon caulking shall be placed in all gaps between the side mounted cabinet and controller cabinet to prevent water intrusion into either cabinet.
- All work involved in furnishing and installing the cabinet shall be incidental to the contract unit price per each for "Signal Head Battery Backup and Flash System".

OPTICAL ACTIVATED EMERGENCY VEHICLE PRE-EMPTION SYSTEM

The proposed Optical Detectors and Emergency Vehicle Pre-Emption Units shall be furnished, installed and paid for as discussed in the **Special Provision for Optical Activated Emergency Vehicle Pre-Emption System** for the intersection of 8th Street south and 17th Avenue south.

PEDESTRIAN PUSH BUTTON

The pedestrian push button shall meet the following requirements:

General Requirements:

1. Shall be pressure activated with essentially no moving parts.
2. Shall be vandal resistant.
3. Shall activate with 3 lbs. force or less.
4. Shall have an LED that illuminates when the button is being pushed.
5. Shall give a toned beep verification of button being pushed.
6. Shall have an operating life of 1 million actuations.
7. Shall be compatible with NEMA TS1 and TS2 controllers.

Housing:

1. Button housing shall be high impact cast or machined aluminum.
2. All switch electronics shall be sealed within the high impact cast or machined aluminum housing.
3. Shall have a gasket between the button housing and the mounting cup.

Electrical:

1. Operating Voltage: 15 to 24V DC or 12 to 24V AC.
2. On Resistance 10 Ohms (When the button is activated and placing a call).
3. Standby Current 10 micro amps typical.
4. Shall have built in surge protection.
5. Shall have a solid state electronic piezo switch rated for 1 million cycles with no moving plunger or moving electrical contacts.
6. Shall hold the call for a minimum of 5 seconds.
7. Requires only two conductors be run from the traffic signal cabinet to the push button to operate.
8. Six units wired in parallel on a single pedestrian isolator input shall not pull the input voltage of the pedestrian isolator down such that a false pedestrian call is placed in the controller.

Mounting Requirements:

1. The pedestrian buttons shall be mounted on the poles as shown on the plans. The pole/button shall be installed adjacent to, and within 10 inches of a clear ground space or a landing on the pedestrian access route leading to the crosswalk. **A clear ground space is an obstruction-free concrete sidewalk at least 32 inches by 54 inches with surface slopes not exceeding 0.02ft/ft in any direction.** A landing is an obstruction-free concrete sidewalk at least 48 inches by 48 inches with surface slopes not exceeding 0.02ft/ft in any direction. Landing locations are designated on the surfacing plan sheets. The locations for the pedestrian push button poles can be adjusted but the final location shall be adjacent to a clear ground space as defined above. All pedestrian push buttons poles shall be no farther than 10' to the edge of the curb except when noted in the plans and no closer than 10' in spacing to other pedestrian push button poles. The plans clearly indicate the placement of the pedestrian push button poles.

PERMANENT SIGNING

All sign materials and installation procedures shall be as shown on the plans sheets and shall comply with Sections 632 and 982 of the SD DOT Standard Specifications for Roads and Bridges.

All sign legend, border, and background sheeting material shall meet or exceed standards for ASTM D 4956 classified Type III high intensity sheeting or Type IX or Type XI super/very high intensity (diamond graded) microprismatic sheeting, as indicated in the plans.

The Contractor shall affix a date decal to each sign installed. Each decal is a self-adhesive sticker approximately 2" X 2" with removable paper backing and black numerals on a white background. The date decal displays the last two digits of the year the sign was manufactured (as illustrated).



One decal shall be placed in the extreme lower left corner of the back of flat aluminum signs. Sign supports or other obstructions shall not block the view of the date decal upon completion of the sign installation.

All costs, labor and materials for furnishing and installing of date decals on new signs shall be incidental to the various signing bid items.

All costs, labor and materials for furnishing and installing the signs as shown on the plans shall be included in the appropriate bid item of either "Flat Aluminum Sign, Nonremovable Copy High Intensity" or "Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity".

- Signs to be installed on the mast arms shall be attached to the mast arm with Astro Sign-Brack Stellar Series Band Mount for Overhead Street Name Sign or approved equal. All materials for these brackets/mounts shall be stainless steel. All costs for these brackets/mounts shall be incidental to sign bid items.

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TABULATED QUANTITIES

TABLE FOR SALVAGE LUMINAIRE POLE AND REMOVE LUMINAIRE POLE FOOTING		
Location	Salvage Pole (Each)	Remove Footing (Each)
D2	1	1
D4	1	1
TOTAL	2	2

TABLE FOR SALVAGE SIGNAL EQUIPMENT	
Location	Quantity (LS)
8th St & 17th Ave	1
TOTAL	1

TABLE FOR FLAT ALUMINUM SIGN, NONREMOVABLE COPY SUPER/VERY HIGH INTENSITY	
Location	Quantity (SqFt)
NE corner of 8th St & 17th Ave	21.3
SE corner of 8th St & 17th Ave	24.3
SW corner of 8th St & 17th Ave	21.3
NW corner of 8th St & 17th Ave	24.3
Total	91.2

TABLE FOR SIGNAL POLE WITH 30' MAST ARM AND LUMINAIRE ARM	
Location	Quantity (Each)
S1	1
S2	1
TOTAL	2

TABLE FOR ROADWAY LUMINAIRE, 250 WATT WITH PHOTOELECTRIC CELL	
Location	Quantity (Each)
S1	1
S2	1
TOTAL	2

TABLE FOR 3 SECTION VEHICLE SIGNAL HEAD	
Location	Quantity (Each)
D1	2
S1	2
D3	2
S2	2
TOTAL	8

TABLE FOR 4 SECTION VEHICLE SIGNAL HEAD	
Location	Quantity (Each)
D1	2
S1	2
D3	2
S2	2
TOTAL	8



TABULATED QUANTITIES CONT'D

FOR BIDDING PURPOSES ONLY

Junction Box	Type 1 (Each)	Type 3 (Each)	Type 4 (Each)
TJB1	1		
TJB2	1		
TJB3		1	
TJB4		1	
TJB5		1	
TJB6	1		
TJB7			1
TOTAL	3	3	1

Location	Quantity (Each)
SW corner of 8th St & 17th Ave	1
TOTAL	1

Location	Quantity (Each)
north side of 8th St & 17th Ave	6
east side of 8th St & 17th Ave	3
south side of 8th St & 17th Ave	6
west side of 8th St & 17th Ave	3
TOTAL	18

Location	Quantity (Each)	EVP Unit @ Controller (4 channel cards) (Each)
NE corner of 8th St & 17th Ave	1	
SE corner of 8th St & 17th Ave	1	
SW corner of 8th St & 17th Ave	1	2
NW corner of 8th St & 17th Ave	1	
TOTAL	4	2

Location	Push Button (Each)	Push Button Pole (Each)	Pedestrian Crossing Sign (Each)
NE corner of 8th St & 17th Ave	2	2	2
SE corner of 8th St & 17th Ave	2	2	2
SW corner of 8th St & 17th Ave	2	2	2
NW corner of 8th St & 17th Ave	2	2	2
TOTAL	8	8	8

Location	Quantity (Each)
D1	2
S1	2
D3	2
S2	2
TOTAL	8

Location to Location		Steel Conduit		PVC Conduit		Cable*							Pole & Bracket (Ft)	PC** (Ft)
		RGSC		Sch 40		2/2/2/4 (Ft)	4/C (Ft)	5/C (Ft)	12/C (Ft)	24/C (Ft)	TSP (Ft)			
		2" (Ft)	3" (Ft)	1" (Ft)	2" (Ft)									
TJB1	S2					17	31						43	
TJB6	S1					18	32						43	
Controller	TJB7		24											
TJB7	S2	20												
TJB7	PB7			19										
TJB7	PB8			9										
TJB7	TJB3	8												
TJB3	D3	9												
TJB3	PB5			24										
TJB3	PB6			11										
TJB7	TJB4													
TJB4	TJB2													
TJB4	D1													
TJB4	PB1			13										
TJB4	PB2			24										
TJB4	TJB5	24												
TJB5	S1	25												
TJB5	PB3			22										
TJB5	PB4			11										
Controller	TJB7											35		
Controller	TJB3											214		
Controller	TJB2											286		
Controller	TBJ5											200		
Controller	PB1							123						
Controller	PB2							134						
Controller	PB3							221						
Controller	PB4							211						
Controller	PB5							137						
Controller	PB6							123						
Controller	PB7							58						
Controller	PB8							48						
Controller	S1									228	228			277
Controller	S2									63	63			113
Controller	D1									127	127			182
Controller	D3									133	133			188
Controller	S1							88	69					
Controller	S2							89	70					
Controller	D1							94	77					
Controller	D3							92	77					
Total:		86	24	133	35	63	1418	293	551	551	735	86		760

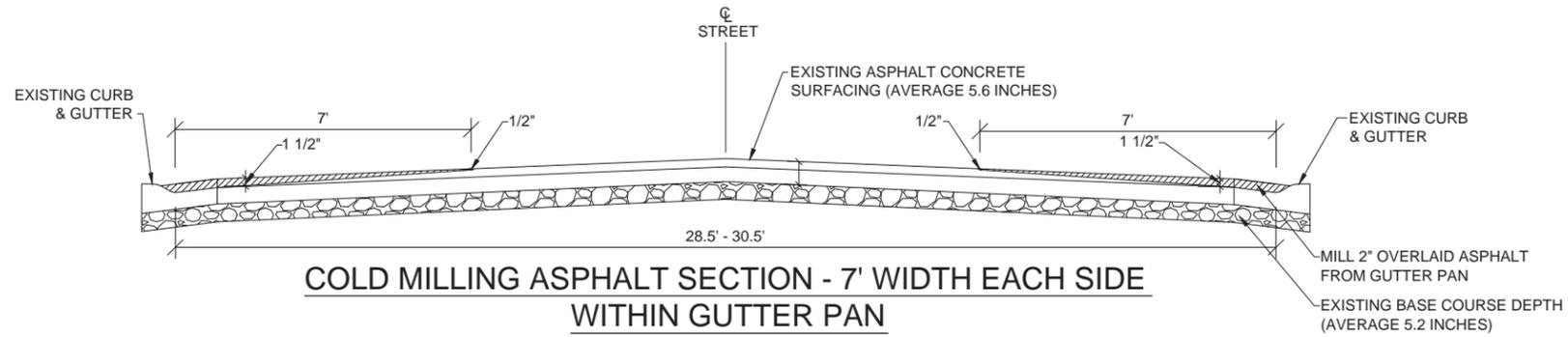
*All cable quantities shown include 6' of slack/coil installed in each junction box, unless shown otherwise.
 **Incidental.



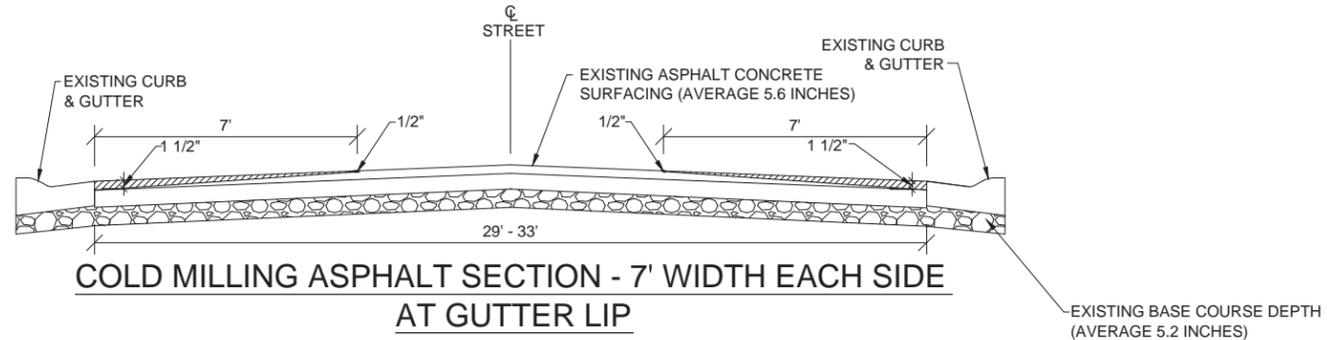
TYPICAL SECTIONS - COLD MILLING

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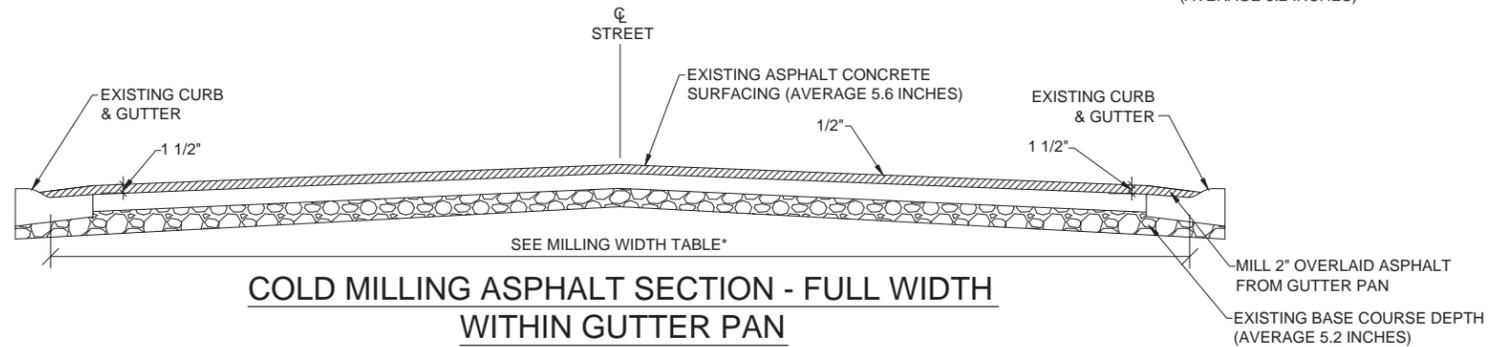
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STATION RANGES
STA. 27+01 TO STA. 28+58
STA. 30+30 TO STA. 32+99

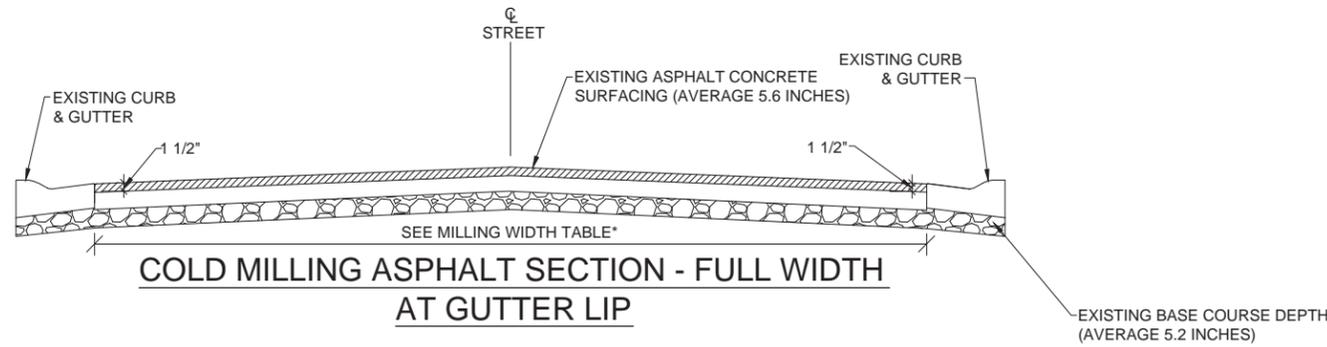


STATION RANGES
STA. 5+77 TO STA. 20+00
STA. 28+58 TO STA. 30+30
STA. 47+95 TO STA. 52+62



STATION RANGES
STA. 33+49 TO STA. 44+35

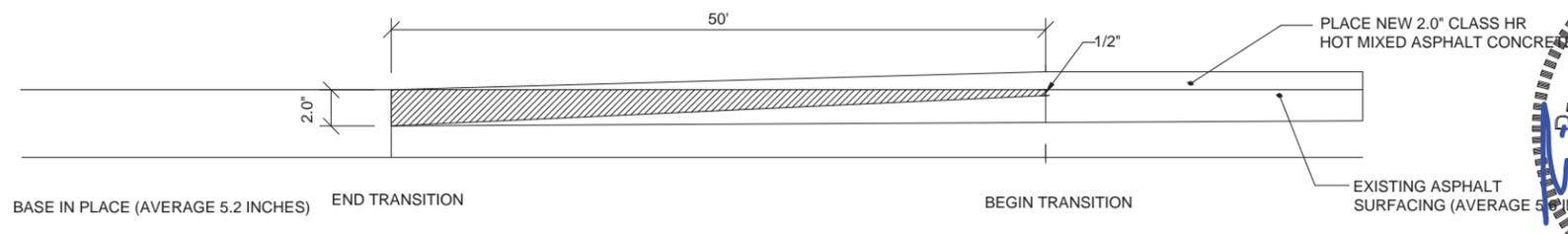
*MILLING WIDTH
STA. 33+49 TO STA. 42+33 - 30'
STA. 42+33 TO STA. 44+35 - 31'



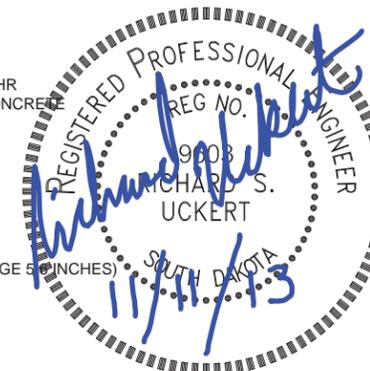
STATION RANGES
STA. 3+35 TO STA. 4+74
STA. 20+50 TO STA. 21+61
STA. 22+09 TO STA. 26+51
STA. 44+91 TO STA. 47+45
STA. 53+12 TO STA. 57+51

*MILLING WIDTH
STA. 3+35 TO STA. 4+74 - 29.5'
STA. 20+50 TO STA. 21+61 - 33.5'
STA. 22+09 TO STA. 26+51 - 33.0'
STA. 44+91 TO STA. 47+45 - 29.0'
STA. 53+12 TO STA. 57+51 - 29.0'

COLD MILLING DETAILS - TRANSITION AREAS



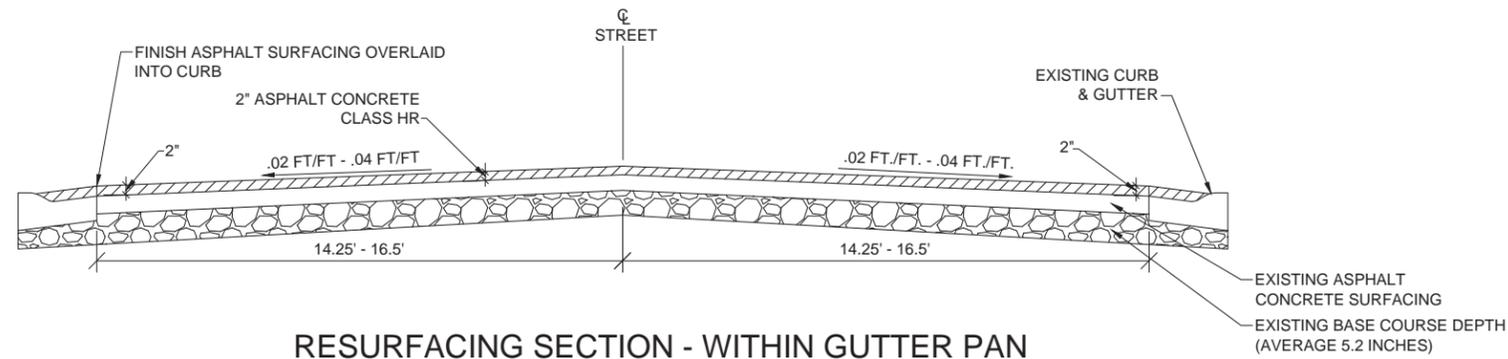
ALL COSTS ASSOCIATED WITH TAPERING THE DEPTH OF COLD MILLING ASPHALT CONCRETE SHALL BE INCIDENTAL TO THE CONTRACT UNIT PRICE PER SQUARE YARD FOR COLD MILLING ASPHALT CONCRETE



STATION RANGES
STA. 5+27 TO STA. 5+77
STA. 20+00 TO STA. 20+50
STA. 26+51 TO STA. 27+01
STA. 32+99 TO STA. 33+49
STA. 44+35 TO STA. 44+85
STA. 47+45 TO STA. 47+95
STA. 52+62 TO STA. 53+12

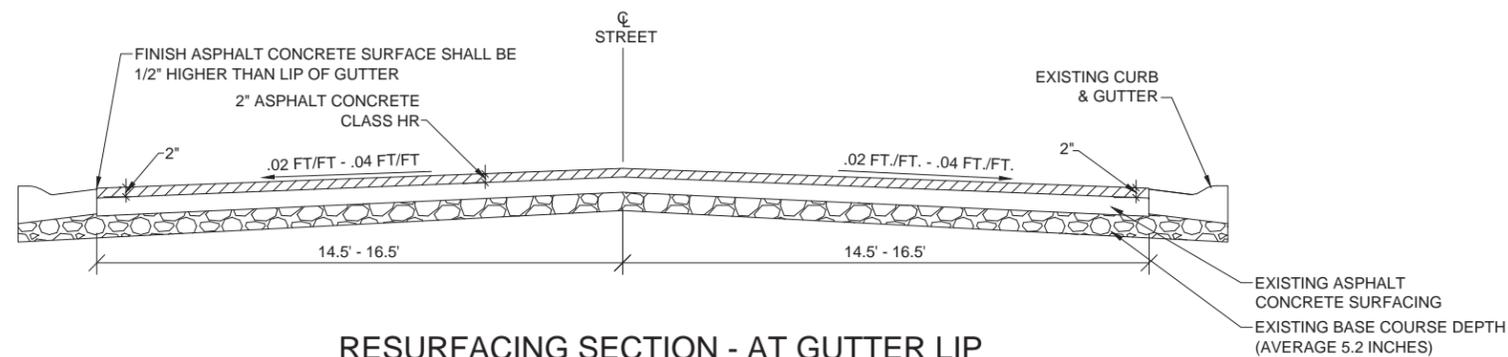
TYPICAL SECTIONS - SURFACING FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	21	119



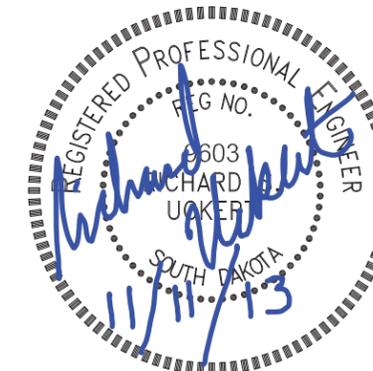
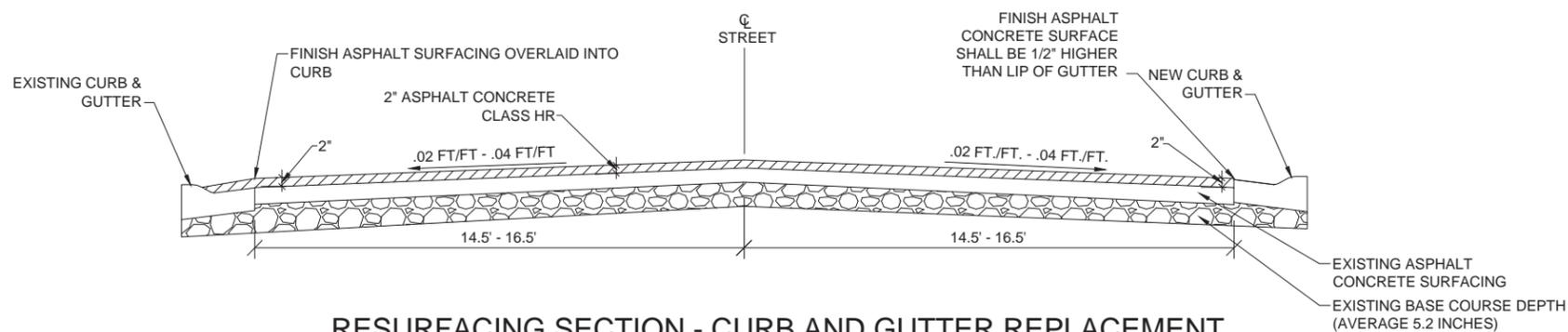
STATION RANGES
 STA. 27+01 TO STA. 32+99
 STA. 33+49 TO STA. 44+65

RESURFACING SECTION - WITHIN GUTTER PAN



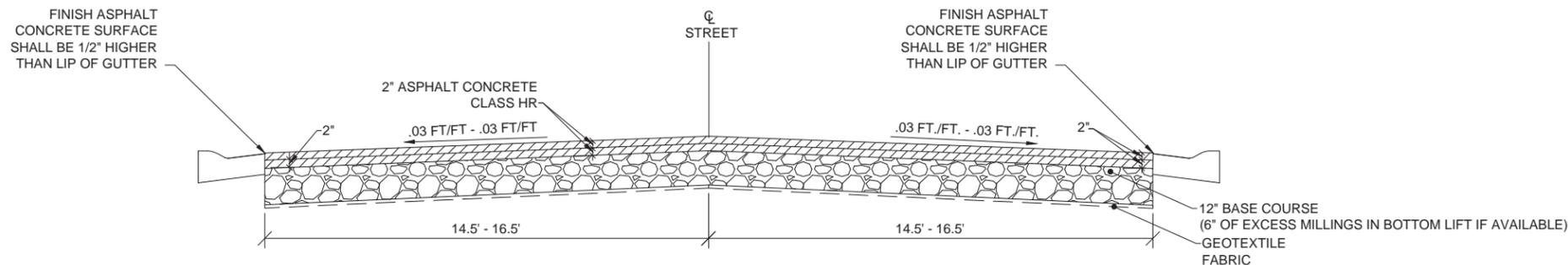
STATION RANGES
 STA. 5+77 TO STA. 21+61
 STA. 22+09 TO STA. 26+51
 STA. 44+91 TO STA. 57+51

RESURFACING SECTION - AT GUTTER LIP



NOTE:
 TYPICAL SECTION SHOWN SHOWS NEW CURB AND GUTTER ON RIGHT SIDE. THERE ARE ALSO LOCATIONS WHERE THE CURB AND GUTTER IS REPLACED ON THE LEFT SIDE AND/OR BOTH SIDES. REFER TO NOTES FOR CURB AND GUTTER REPLACEMENT LOCATIONS.

RESURFACING SECTION - CURB AND GUTTER REPLACEMENT



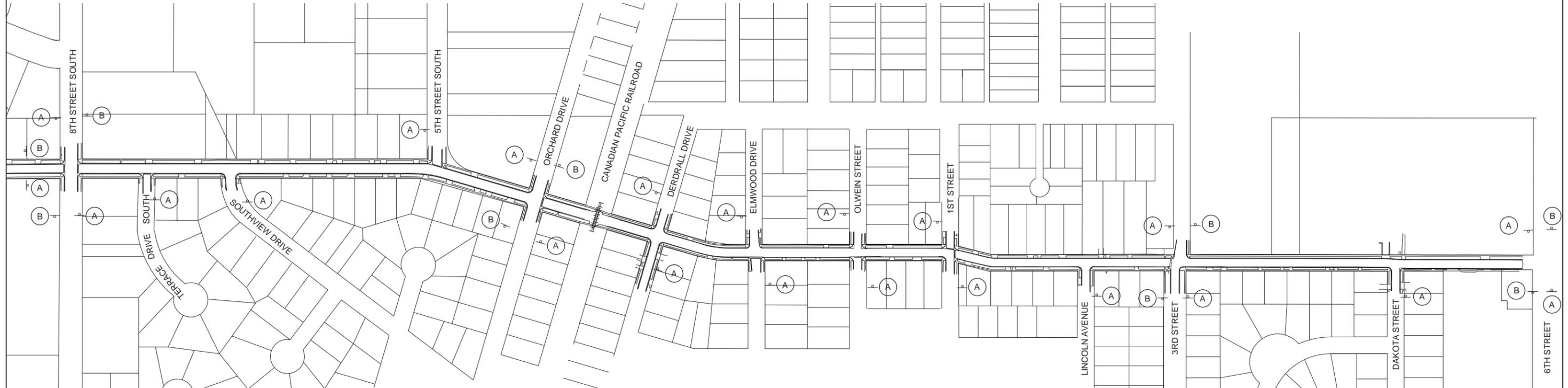
STATION RANGES
 STA. 20+83 TO STA. 27+61
 STA. 37+13 TO 37+69

DIGOUT SECTION

TRAFFIC CONTROL LAYOUT AND SUMMARY FOR BIDDING PURPOSES ONLY

FIXED LOCATION GROUND MOUNTED BREAKAWAY SUPPORT SIGNS

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	22	119

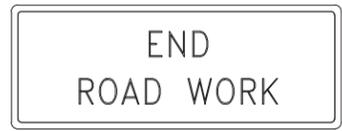


ITEMIZED LIST FOR TRAFFIC CONTROL

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-2	36" x 18"	END ROAD WORK	11	17	187
M4-8	24" x 12"	DETOUR	8	4	32
M4-10L	48" x 18"	DETOUR ARROW (LEFT)	1	22	22
M4-10R	48" x 18"	DETOUR ARROW (RIGHT)	2	22	44
M5-1R	21" x 15"	ADVANCE TURN 90 DEGREE (RIGHT)	1	5	5
M5-1L	21" x 15"	ADVANCE TURN 90 DEGREE (LEFT)	1	5	5
M6-1R	21" x 15"	DIRECTION ARROW - HORIZONTAL SINGLE HEAD	3	5	15
M6-1L	21" x 15"	DIRECTION ARROW - HORIZONTAL SINGLE HEAD	3	5	15
R1-1	48" x 48"	STOP	5	34	170
R3-2	24" x 24"	LEFT TURN PROHIBITED (SYMBOL)	1	12	12
R8-3	24" x 24"	NO PARKING (SYMBOL)	24	12	288
R9-9	24" x 12"	SIDEWALK CLOSED	12	4	48
R9-11	24" x 12"	SIDEWALK CLOSED AHEAD, CROSS HERE	12	4	48
R11-2	48" x 30"	ROAD CLOSED	4	27	108
R11-4	60" x 30"	ROAD CLOSED TO THRU TRAFFIC	16	30	480
W1-4R	48" x 48"	CURVE SIGN	1	34	34
W1-6	48" x 24"	LARGE ARROW	2	24	48
W3-1	48" x 48"	STOP AHEAD	1	34	34
W3-4	48" x 48"	BE PREPARED TO STOP	2	34	68
W4-2R	48" x 48"	RIGHT LANE ENDS (SYMBOL)	1	34	34
W8-1	36" x 36"	BUMP	8	27	216
W8-11	48" x 48"	UNEVEN LANES	4	34	136
W8-15	48" x 48"	GROOVED PAVEMENT	4	34	136
W8-15P	30" x 24"	MOTORCYCLE (PLAQUE)	4	21	84
W9-3	48" x 48"	CENTER LANE CLOSED AHEAD	1	34	34
W20-1	48" x 48"	ROAD WORK AHEAD	24	34	816
W20-2	48" x 48"	DETOUR AHEAD	6	34	204
W20-4	48" x 48"	ONE LANE ROAD AHEAD	2	34	68
W20-5R	48" x 48"	RIGHT LANE CLOSED AHEAD	1	34	34
W20-7a	48" x 48"	FLAGGER	2	34	68
SPECIAL	36" x 18"	17TH AVENUE	6	14	84
*****	*****	TYPE III BARRICADE - 6 FT. DOUBLE SIDED	25	42	1050
TOTAL UNITS			4627		



W20-1
48" X 48"



G20-2A
60" X 24"



NOTE:
 1. TYPE III BARRICADES WITH ATTACHED "ROAD CLOSED TO THRU TRAFFIC" SIGN MAY BE USED ON SIDE STREETS TO REDIRECT TRAFFIC DURING PAVING OPERATIONS AS DIRECTED BY THE ENGINEER.
 2. "ROAD WORK AHEAD" AND "END ROAD WORK" SHALL BE INSTALLED A MINIMUM OF 200' EACH WAY OF THE PROJECT ENDS.

If a sign is required on a project and not listed in the above inventory, the units per sign will be determined as follows:
 Signs 36" x 36" will be measured at 27 units each and signs 48" x 48" will be measured at 34 units each, otherwise:
 If a sign measures less than 25" high and 25" wide the units per sign will be computed as sign size (sq ft) x 3.
 If a sign measures between 23H" and 37H" the units per sign will be computed as sign size (sq ft) x 1.2 +15.

DETOUR SIGNING

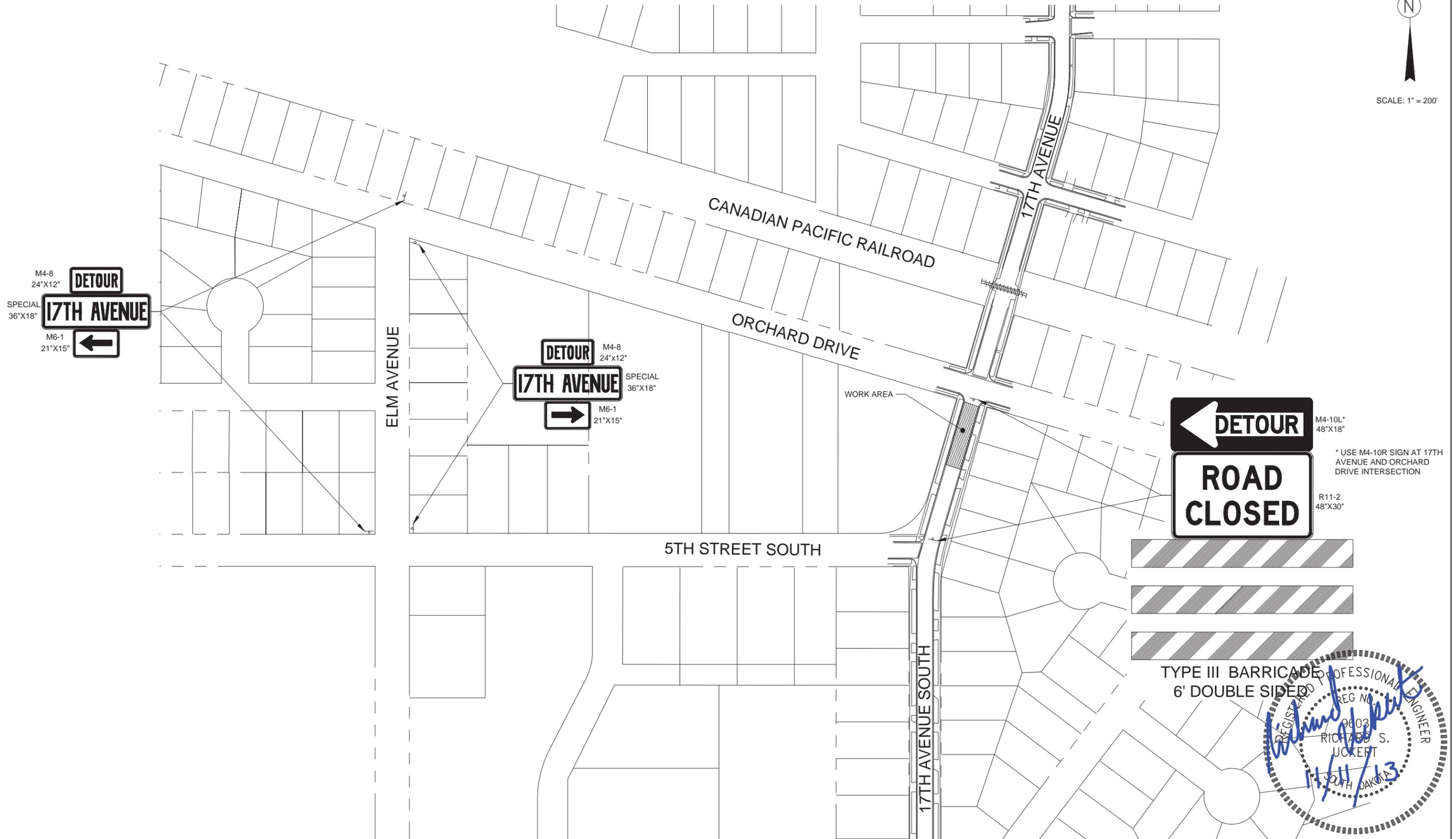
FOR BIDDING PURPOSES ONLY

TEMPORARY TRAFFIC CONTROL FOR DIGOUT OPERATIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	23	119



SCALE: 1" = 200'

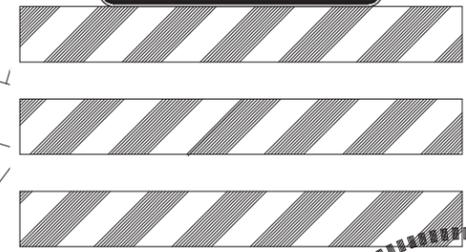


M4-8
24"x12"
DETOUR
SPECIAL
36"x18"
17TH AVENUE
M6-1
21"x15"
←

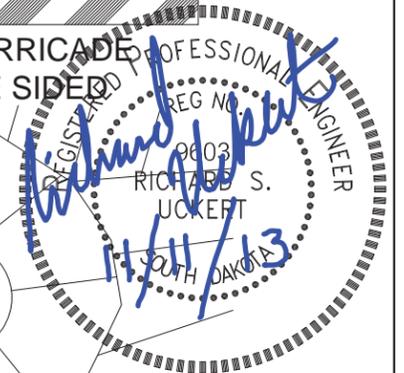
M4-8
24"x12"
DETOUR
SPECIAL
36"x18"
17TH AVENUE
M6-1
21"x15"
→

M4-10L*
48"x18"
DETOUR
←
R11-2
48"x30"
**ROAD
CLOSED**

* USE M4-10R SIGN AT 17TH AVENUE AND ORCHARD DRIVE INTERSECTION



TYPE III BARRICADE
6' DOUBLE SIDED



DETOUR SIGNING

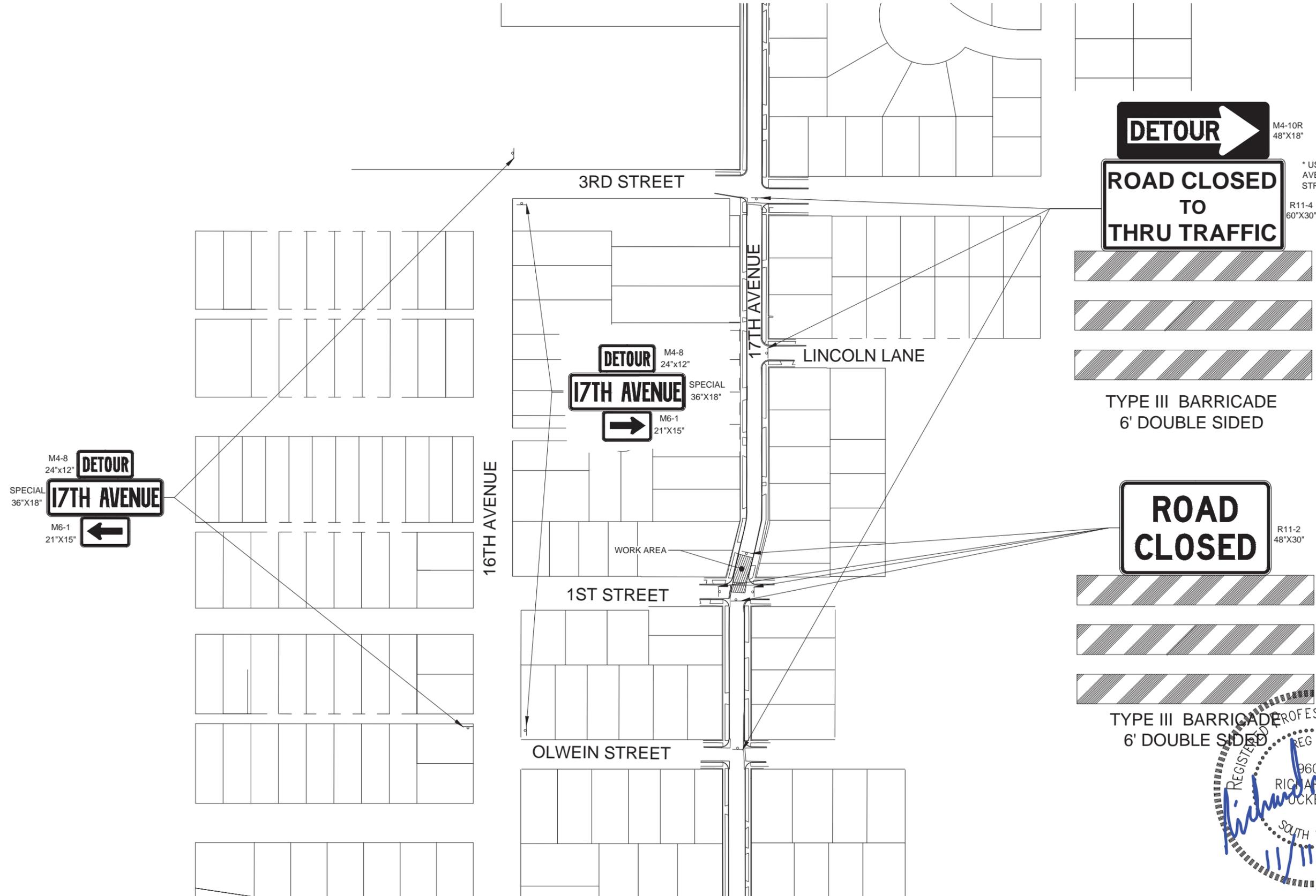
FOR BIDDING PURPOSES ONLY

TEMPORARY TRAFFIC CONTROL FOR DIGOUT OPERATIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	24	119

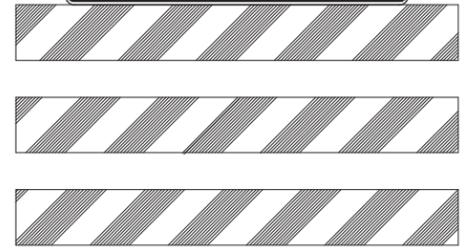


SCALE: 1" = 200'



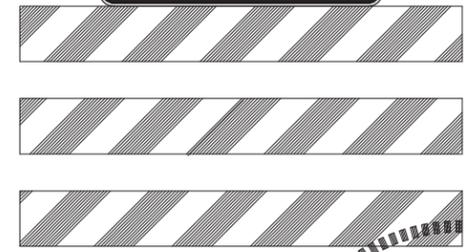
DETOUR M4-10R 48"x18"

ROAD CLOSED TO THRU TRAFFIC R11-4 60"x30"

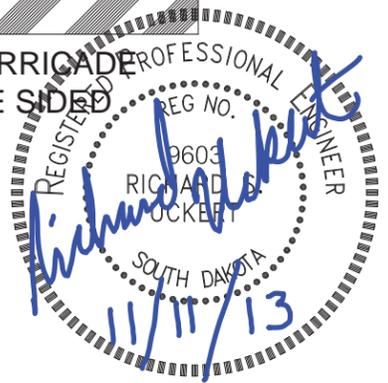


TYPE III BARRICADE 6' DOUBLE SIDED

ROAD CLOSED R11-2 48"x30"



TYPE III BARRICADE 6' DOUBLE SIDED



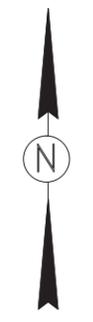
* USE M4-10L SIGN AT 17TH AVENUE AND OLWEIN STREET INTERSECTION

DETOUR SIGNING

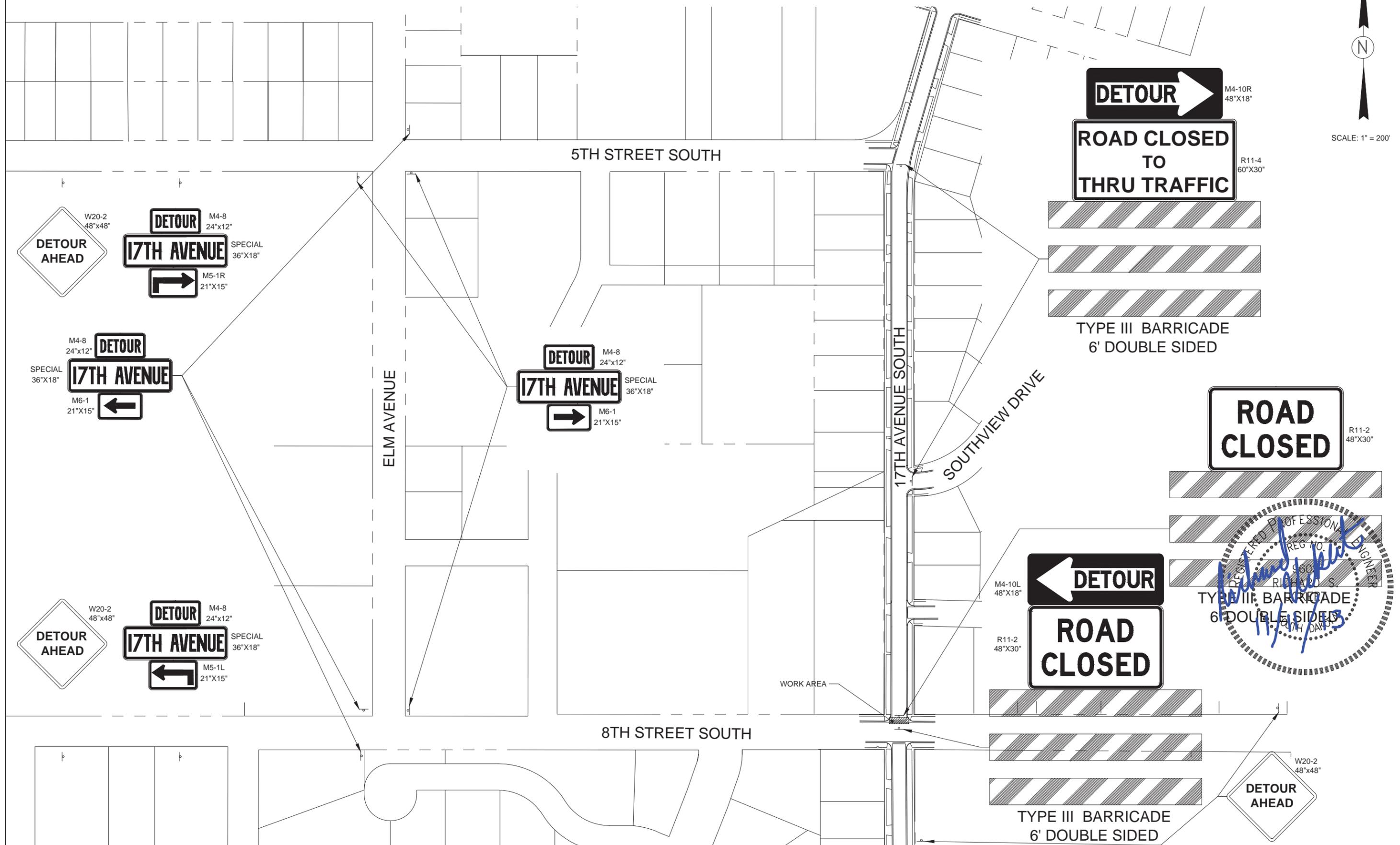
FOR BIDDING PURPOSES ONLY

TEMPORARY TRAFFIC CONTROL FOR VALLEY GUTTER REPLACEMENT
AT 8TH STREET SOUTH AND 17TH AVENUE SOUTH (NORTH PORTION)

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	25	119



SCALE: 1" = 200'



W20-2 48"x48"
DETOUR AHEAD

M4-8 24"x12"
DETOUR

SPECIAL 36"x18"
17TH AVENUE

M5-1R 21"x15"
→

M4-8 24"x12"
DETOUR

SPECIAL 36"x18"
17TH AVENUE

M6-1 21"x15"
←

W20-2 48"x48"
DETOUR AHEAD

M4-8 24"x12"
DETOUR

SPECIAL 36"x18"
17TH AVENUE

M5-1L 21"x15"
←

M4-10R 48"x18"
DETOUR →

R11-4 60"x30"
ROAD CLOSED TO THRU TRAFFIC

TYPE III BARRICADE
6' DOUBLE SIDED

M4-8 24"x12"
DETOUR

SPECIAL 36"x18"
17TH AVENUE

M6-1 21"x15"
→

R11-2 48"x30"
ROAD CLOSED

M4-10L 48"x18"
DETOUR ←

R11-2 48"x30"
ROAD CLOSED

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 1175
RICHARD S. RICHARDS
STATE OF SOUTH DAKOTA
TYPE III BARRICADE
6' DOUBLE SIDED

TYPE III BARRICADE
6' DOUBLE SIDED

W20-2 48"x48"
DETOUR AHEAD

DETOUR SIGNING

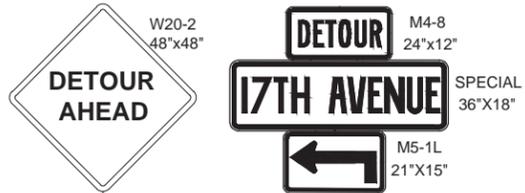
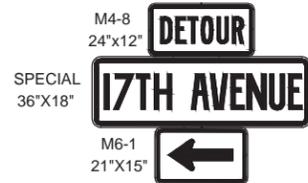
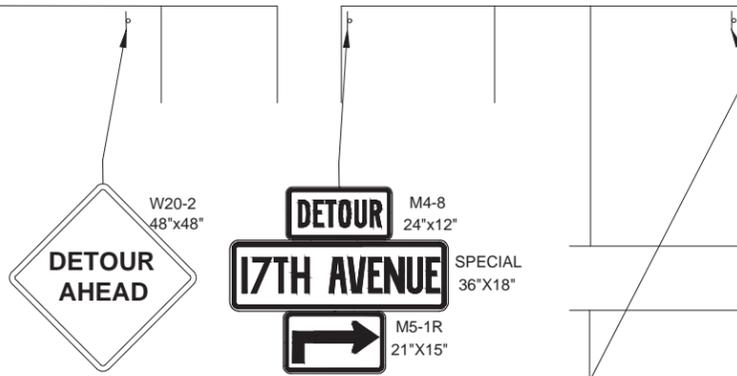
FOR BIDDING PURPOSES ONLY

TEMPORARY TRAFFIC CONTROL FOR VALLEY GUTTER REPLACEMENT
AT 8TH STREET SOUTH AND 17TH AVENUE SOUTH (SOUTH PORTION)

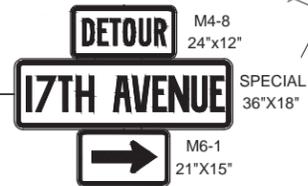
STATE OF SOUTH DAKOTA	PROJECT P 3273(09)	SHEET No. 26	TOTAL SHEETS 119
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8TH STREET SOUTH

WORK AREA



CHRISTINE AVENUE



TYPE III BARRICADE
6' DOUBLE SIDED



TYPE III BARRICADE
6' DOUBLE SIDED



TYPE III BARRICADE
6' DOUBLE SIDED

12TH STREET SOUTH

17TH AVENUE SOUTH



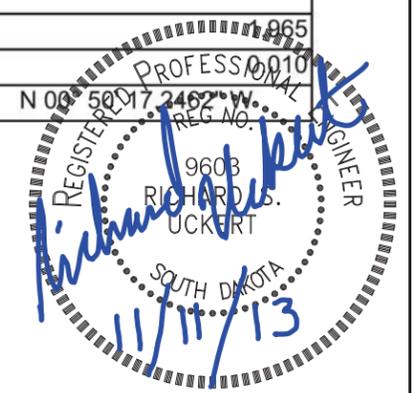
HORIZONTAL ALIGNMENT DATA FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT P 3273 (09)	SHEET No. 27	TOTAL SHEETS 119
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Tangent Data			
Type	Station	Northing	Easting
POB:	3+35.009	185651.985	2811975.885
Length:	143.342	Course: N 02° 09' 42.1870" W	
PI:	4+78.351	185795.225	2811970.479
Length:	96.811	Course: N 02° 09' 42.2001" W	
PI:	5+75.163	185891.968	2811966.827
Length:	273.835	Course: N 01° 59' 41.7873" W	
PI:	8+48.997	186165.637	2811957.294
Length:	366.087	Course: N 02° 00' 30.9280" W	
PI:	12+15.084	186531.498	2811944.463
Length:	499.049	Course: N 01° 56' 21.6382" W	
Curve Point Data			
PC:	17+14.133	187030.261	2811927.575
RP:		187052.715	2812356.909
PT:	18+35.838	187151.077	2811938.391
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	16° 13' 10.9585"	Type:	RIGHT
Radius:	429.921		
Length:	121.705	Tangent:	61.262
Mid-Ord:	4.299	External:	4.343
Chord:	121.299	Course:	N 05° 06' 57.6433" E
Tangent Data			
Description	PT Station	Northing	Easting
PI:	18+35.838	187151.077	2811938.391
Length:	292.032	Course: N 14° 14' 52.0222" E	
PI:	21+27.870	187434.127	2812010.265
Length:	543.507	Course: N 14° 18' 40.4177" E	
PI:	26+71.378	187960.768	2812144.614
Length:	110.84	Course: N 13° 56' 12.0678" E	
PC:	27+82.217	188068.345	2812171.310
RP:		188179.139	2811780.703
PT:	29+15.481	188200.176	2812186.174
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	18° 48' 20.7802"	Type:	LEFT
Radius:	406.016		
Length:	133.264	Tangent:	67.237
Mid-Ord:	5.455	External:	5.530
Chord:	132.666	Course:	N 06° 25' 58.6371" E

Tangent Data			
Description	PT Station	Northing	Easting
PI:	29+15.481	188200.176	2812186.174
Length:	52.897	Course: N 02° 00' 48.6465" W	
PI:	29+68.378	188253.04	2812184.315
Length:	179.594	Course: N 01° 55' 58.9700" W	
PI:	31+47.972	188432.532	2812178.257
Length:	503.646	Course: N 02° 02' 31.9413" W	
Curve Point Data			
PC:	36+51.619	188935.858	2812160.309
RP:		188954.595	2812426.057
PT:	37+39.008	189022.475	2812168.443
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	18° 47' 40.6354"	Type:	RIGHT
Radius:	266.408		
Length:	87.389	Tangent:	44.091
Mid-Ord:	3.575	External:	3.624
Chord:	86.998	Course:	N 05° 21' 51.6196" E
Tangent Data			
Description	PT Station	Northing	Easting
PI:	37+39.008	189022.475	2812168.443
Length:	95.747	Course: N 11° 17' 02.7292" E	
Curve Point Data			
PC:	38+34.755	189116.371	2812187.178
RP:		189134.269	2812112.767
PT:	38+55.495	189136.944	2812189.253
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	15° 31' 37.5450"	Type:	LEFT
Radius:	76.533		
Length:	20.74	Tangent:	10.434
Mid-Ord:	0.701	External:	0.708
Chord:	20.677	Course:	N 05° 45' 37.3153" E

Tangent Data			
Description	PT Station	Northing	Easting
PI:	38+55.495	189136.944	2812189.253
Length:	377.734	Course: N 02° 00' 11.4599" W	
PI:	42+33.230	189514.447	2812176.049
Length:	237.489	Course: N 01° 49' 47.7063" W	
PI:	44+70.719	189751.816	2812168.466
Length:	90.926	Course: N 02° 21' 38.6889" W	
PI:	45+61.644	189842.664	2812164.720
Length:	682.702	Course: N 01° 53' 48.1570" W	
Curve Point Data			
PC:	52+44.347	190524.992	2812142.124
RP:		190531.612	2812342.015
PT:	52+46.077	190526.722	2812142.075
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	00° 29' 44.8765"	Type:	RIGHT
Radius:	200		
Length:	1.731	Tangent:	0.865
Mid-Ord:	0.002	External:	0.002
Chord:	1.731	Course:	N 01° 38' 55.7188" W
Tangent Data			
Description	PT Station	Northing	Easting
PI:	52+46.077	190526.722	2812142.075
Length:	9.155	Course: N 01° 24' 03.2805" W	
Curve Point Data			
PC:	52+55.232	190535.874	2812141.851
RP:		190540.764	2812341.791
PT:	52+59.161	190539.803	2812141.793
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	01° 07' 32.0687"	Type:	RIGHT
Radius:	200		
Length:	3.929	Tangent:	1.965
Mid-Ord:	0.01	External:	0.01
Chord:	3.929	Course:	N 06° 50' 17.2462" W



HORIZONTAL ALIGNMENT DATA FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273 (09)	28	119

Tangent Data			
Description	PT Station	Northing	Easting
PI:	52+59.161	190539.803	2812141.793
Length:	11.124	Course:	N 00° 16' 31.2119" W
Curve Point Data			
PC:	52+70.285	190550.927	2812141.740
RP:		190551.888	2812341.738
PT:	52+80.314	190560.952	2812141.943
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	02° 52' 22.8967"	Type:	RIGHT
Radius:	200		
Length:	10.029	Tangent:	5.015
Mid-Ord:	0.063	External:	0.063
Chord:	10.028	Course:	N 01° 09' 40.2365" E
Tangent Data			
Description	PT Station	Northing	Easting
PI:	52+80.314	190560.952	2812141.943
Length:	25.615	Course:	N 02° 35' 51.6849" E
Curve Point Data			
PC:	53+05.929	190586.54	2812143.104
RP:		190591.586	2812031.896
PT:	53+12.908	190593.518	2812143.202
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	03° 35' 31.3071"	Type:	LEFT
Radius:	111.322		
Length:	6.979	Tangent:	3.491
Mid-Ord:	0.055	External:	0.055
Chord:	6.978	Course:	N 00° 48' 06.0313" E

Tangent Data			
Description	PT Station	Northing	Easting
PI:	53+12.908	190593.518	2812143.202
Length:	5.087	Course:	N 00° 59' 39.6222" W
Curve Point Data			
PC:	53+17.995	190598.604	2812143.113
RP:		190596.672	2812031.808
PT:	53+18.293	190598.902	2812143.108
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	00° 09' 12.4939"	Type:	LEFT
Radius:	111.322		
Length:	0.298	Tangent:	0.149
Mid-Ord:	0	External:	0.000
Chord:	0.298	Course:	N 01° 04' 15.8693" W
Tangent Data			
Description	PT Station	Northing	Easting
PI:	53+18.293	190598.902	2812143.108
Length:	9.695	Course:	N 01° 08' 52.1161" W
Curve Point Data			
PC:	53+27.988	190608.595	2812142.914
RP:		190606.365	2812031.614
PT:	53+29.566	190610.173	2812142.871
Circular Curve Data			
Parameter	Value	Parameter	Value
Delta:	00° 48' 43.7688"	Type:	LEFT
Radius:	111.322		
Length:	1.578	Tangent:	0.789
Mid-Ord:	0.003	External:	0.003
Chord:	1.578	Course:	N 01° 33' 14.0005" W
Tangent Data			
Description	PT Station	Northing	Easting
PI:	53+29.566	190610.173	2812142.871
Length:	279.359	Course:	N 01° 57' 35.8849" W
PI:	56+08.925	190889.368	2812133.316
Length:	142.433	Course:	N 01° 48' 36.7576" W
POE:	57+51.358	191031.73	2812128.817



VERTICAL CONTROL DATA

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273 (09)	29	119

POINT	STATION	OFFSET	DESCRIPTION	NORTHING	EASTING	ELEVATION
CP ST. THOMAS	2+18	21' R	5/8" X 18" REBAR	185534.838	2812001.501	1649.75
CP 8 TH ST & 17 TH AVE	5+62	23' L	5/8" X 18" REBAR	185877.058	2811944.212	1649.31
CP BETHEL	8+09	23' R	5/8" X 18" REBAR	186126.228	2811981.982	1650.40
CP OLD MAN	10+55	23' L	5/8" X 18" REBAR	186370.224	2811927.345	1649.39
CP BLACK TRUCK	13+84	22' R	5/8" X 18" REBAR	186701.363	2811960.650	1651.76
CP 5 TH ST	17+66	24' L	5/8" X 18" REBAR	187083.490	2811904.308	1655.93
CP ORCHARD DR	21+32	23' R	5/8" X 18" REBAR	187431.935	2812033.415	1666.13
CP BLINKING LP	24+31	32' L	5/8" X 18" REBAR	187736.286	2812054.104	1674.27
CP DERDALL DR	26+79	21' R	5/8" X 18" REBAR	187963.434	2812166.965	1673.73
CP ELMWOOD DR	29+65	22' R	5/8" X 18" REBAR	188250.655	2812206.466	1679.93
CP OLWIEN ST	33+24	20' L	5/8" X 18" REBAR	188607.654	2812151.608	1683.12
CP 1 ST ST	37+38	21' R	5/8" X 18" REBAR	189016.458	2812188.601	1678.03
CP LINCOLN LN	42+14	20' R	5/8" X 18" REBAR	189496.117	2812197.034	1667.76
CP 3 RD ST	45+65	21' L	5/8" X 18" REBAR	189845.623	2812143.797	1665.40
CP PARK	49+97	20' R	5/8" X 18" REBAR	190278.878	2812170.577	1660.39
CP 17 TH & DAKOTA	52+96	58' L	5/8" X 18" REBAR	190579.411	2812084.458	1658.54
CP SILVER	54+47	30' R	5/8" X 18" REBAR	190729.035	2812168.656	1656.60
CP 6 TH & 17 TH	57+63	48' L	5/8" X 18" REBAR	191042.415	2812080.865	1653.04

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System.
 North Zone (NAD 83/07) SF = 0.9999438949
 The elevations shown on this sheet are based on NAVD 88.



RIGHT-OF-WAY EASEMENT OWNERSHIP TABLE FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	30	119

PARCEL	STATION TO STATION	SIDE	TYPE	PURPOSE	AREA	OWNER	DESCRIPTION
1	4+40 TO 4+60	RT	TEMPORARY	ADA RAMP REPLACEMENT	415 SQ. FT.	ST. THOMAS MORE CATHOLIC CHURCH	DISTRICT 4001 MORIARTY FOURTH ADDITION, BLOCK 1, SECTION 36-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
2	4+55 TO 4+60	LT	TEMPORARY	ADA RAMP REPLACEMENT	31 SQ. FT.	WILLIAM L. HARDEN	EARLY ADDITION, LOT 1, SECTION 36-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
3	5+40 TO 5+55	LT	TEMPORARY	ADA RAMP REPLACEMENT	109 SQ. FT.	BETHEL BAPTIST CHURCH	BROOKDALE ADDITION, LOT 98, BLOCK 3, SECTION 25-T110N-R50W, CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
4	5+40 TO 5+55	RT	TEMPORARY	ADA RAMP REPLACEMENT	274 SQ. FT.	MAREE LARSON	BROOKDALE ADDITION LOTS 18A & 18B, BLOCK 13, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY
5	10+27 TO 10+37	RT	TEMPORARY	ADA RAMP REPLACEMENT	100 SQ. FT.	KOSTA & KATHERINE THEODOPOULOS	BROOKDALE ADDITION LOTS 1, BLOCK 7, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY
6	11+07 TO 11+15	RT	TEMPORARY	ADA RAMP REPLACEMENT	76 SQ. FT.	GREGG SHEFNER	BROOKDALE ADDITION LOT 21, BLOCK 6, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY
7	17+45 TO 17+72	LT	TEMPORARY	ADA RAMP REPLACEMENT	178 SQ. FT.	MARCUS & CLARICE WIESE	BROOKDALE ADDITION, LOT 1, BLOCK 3, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
8	18+38 TO 18+45	RT	TEMPORARY	ADA RAMP REPLACEMENT	36 SQ. FT.	MARLYS J. STRASSBURG	BROOKDALE ADDITION, LOT 28, BLOCK 6, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
9	18+45 TO 18+53	RT	TEMPORARY	ADA RAMP REPLACEMENT	40 SQ. FT.	CARL & CLEO EDEBURN	BROOKDALE ADDITION, LOT 29, BLOCK 6, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA.
10	21+42 TO 21+47	RT	TEMPORARY	ADA RAMP REPLACEMENT	43 SQ. FT.	MICHAEL & LELONNIE KUCK	BROOKDALE ADDITION, NORTH 9' OF LOT 31 & ALL OF LOT 32, BLOCK 6, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
11	21+42 TO 21+47	LT	TEMPORARY	ADA RAMP REPLACEMENT	77 SQ. FT.	FIRST ASSEMBLY OF GOD CHURCH	BROOKDALE ADDITION, BLOCK 2, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA.
12	22+17 TO 22+37	RT	TEMPORARY	ADA RAMP REPLACEMENT	123 SQ. FT.	NORMAN JOHNSTON	BROOKDALE ADDITION, LOT 1 BLOCK 5, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
13	22+17 TO 22+27	LT	TEMPORARY	ADA RAMP REPLACEMENT	52 SQ. FT.	EIDSNESS FUNERAL HOME, INC.	BROOKDALE ADDITION, BLOCK 1, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA.
14	25+96 TO 26+01	RT	TEMPORARY	ADA RAMP REPLACEMENT	25 SQ. FT.	GWEN HORSLEY	EAST ACRES SECOND ADDITION, LOT 14, BLOCK 14, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
14	26+01 TO 26+06	RT	PERMANENT	ADA RAMP REPLACEMENT	25 SQ. FT.	GWEN HORSLEY	EAST ACRES SECOND ADDITION, LOT 14, BLOCK 14, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
14	26+01 TO 26+06	RT	TEMPORARY	ADA RAMP REPLACEMENT	75 SQ. FT.	GWEN HORSLEY	EAST ACRES SECOND ADDITION, LOT 14, BLOCK 14, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
15	25+91 TO 26+06	LT	TEMPORARY	ADA RAMP REPLACEMENT	155 SQ. FT.	EUGENE & DOROTHY BUTLER	EAST ACRES SECOND ADDITION, LOT 1, BLOCK 15, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA.
15	26+01 TO 26+06	LT	PERMANENT	ADA RAMP REPLACEMENT	25 SQ. FT.	EUGENE & DOROTHY BUTLER	EAST ACRES SECOND ADDITION, LOT 1, BLOCK 15, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA.



RIGHT-OF-WAY EASEMENT OWNERSHIP TABLE FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	31	119

UPDATED 1/2/14 RSU

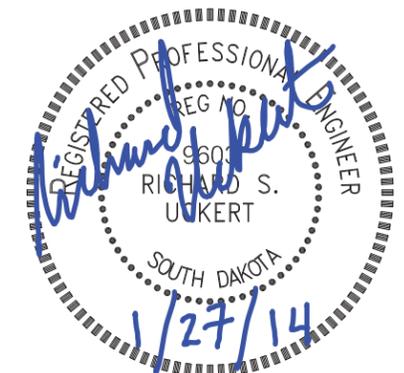
PARCEL	STATION TO STATION	SIDE	TYPE	PURPOSE	AREA	OWNER	DESCRIPTION
16	26+66 TO 26+86	RT	TEMPORARY	ADA RAMP REPLACEMENT	290 SQ. FT.	MICHAEL & CHRISITI HOLBECK	EAST ACRES SECOND ADDITION, LOT 10, BLOCK 6, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
17	26+66 TO 26+86	LT	TEMPORARY	ADA RAMP REPLACEMENT	208 SQ. FT.	JILL ALMS	EAST ACRES SECOND ADDITION, LOT 6, BLOCK 5, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA.
17	26+66 TO 26+71	LT	PERMANENT	ADA RAMP REPLACEMENT	25 SQ. FT.	JILL ALMS	EAST ACRES SECOND ADDITION, LOT 6, BLOCK 5, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA.
18	29+59 TO 29+69	RT	TEMPORARY	ADA RAMP REPLACEMENT	50 SQ. FT.	DANIEL & VICTORIA WAKEMAN	EAST ACRES SECOND ADDITION, LOT 4, BLOCK 6, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
18	29+64 TO 29+69	RT	PERMANENT	ADA RAMP REPLACEMENT	50 SQ. FT.	DANIEL & VICTORIA WAKEMAN	EAST ACRES SECOND ADDITION, LOT 4, BLOCK 6, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
19	29+54 TO 29+59	LT	TEMPORARY	ADA RAMP REPLACEMENT	25 SQ. FT.	BRETT BEHREND	EAST ACRES SECOND ADDITION, LOT 5, BLOCK 6, SECTION 25-T110N R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
20	30+29 TO 30+44	RT	TEMPORARY	ADA RAMP REPLACEMENT	190 SQ. FT.	RENEE OSCARSON	EAST ACRES SECOND ADDITION, SOUTH 80', LOT 1, BLOCK 2, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
21	30+19 TO 30+29	LT	TEMPORARY	ADA RAMP REPLACEMENT	50 SQ. FT.	KEITH & KAREN SKOGSTAD	EAST ACRES SECOND ADDITION, LOT 5, BLOCK 1, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
21	30+19 TO 30+24	LT	PERMANENT	ADA RAMP REPLACEMENT	50 SQ. FT.	KEITH & KAREN SKOGSTAD	EAST ACRES SECOND ADDITION, LOT 5, BLOCK 1, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
22	33+12 TO 33+32	RT	TEMPORARY	ADA RAMP REPLACEMENT	296 SQ. FT.	ALAN & CHARLOTTE KUECHENMEISTER	SIOUX HEIGHTS ADDITION, LOT 1, BLOCK 4, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
23	33+02 TO 33+32	LT	TEMPORARY	ADA RAMP REPLACEMENT	178 SQ. FT.	JAMES STEEN	SIOUX HEIGHTS ADDITION, LOT 6, BLOCK 3, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
24	33+92 TO 34+02	RT	TEMPORARY	ADA RAMP REPLACEMENT	80 SQ. FT.	PERRY & DORA WILLIAMS	SIOUX HEIGHTS ADDITION, WEST 1/2 OF LOT 1 & 2, BLOCK 2, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
25	33+92 TO 34+07	LT	TEMPORARY	ADA RAMP REPLACEMENT	181 SQ. FT.	MICHAEL & CAREY KILMER	SIOUX HEIGHTS ADDITION, LOT 6, BLOCK 1, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
27	36+48 TO 36+63	LT	TEMPORARY	ADA RAMP REPLACEMENT	102 SQ. FT.	ELIZABETH ELLEN GORHAM	SIOUX HEIGHTS ADDITION, EAST 74.8' OF LOT 7 & 8, BLOCK 1, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
28	37+36 TO 37+46	RT	TEMPORARY	ADA RAMP REPLACEMENT	93 SQ. FT.	ROGER & JULIE JOHNSON	SIOUX HEIGHTS ADDITION, ALL OF LOT 5 & 6, EXCLUDING EAST 70' THEREOF BLOCK 2 & EXCLUDING SOUTH 58.4' OF LOT 5, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA



RIGHT-OF-WAY EASEMENT OWNERSHIP TABLE FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	32	119

PARCEL	STATION TO STATION	SIDE	TYPE	PURPOSE	AREA	OWNER	DESCRIPTION
29	37+16 TO 37+42	LT	TEMPORARY	ADA RAMP REPLACEMENT	148 SQ. FT.	BRADLEY & MINDY LUZE	SIOUX HEIGHTS ADDITION, LOT 10 & 11, EXCLUDING WEST 83.5' BLOCK 1 SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
30	41+18 TO 41+53	RT	TEMPORARY	ADA RAMP REPLACEMENT	204 SQ. FT.	CHRIS & ALISHA VANDERWAL	MORNINGSIDE ADDITION, LOT 1 & NORTH 10' LOT 2, BLOCK 2, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA.
31	41+41 TO 41+71	LT	TEMPORARY	ADA RAMP REPLACEMENT	150 SQ. FT.	T & Z PROPERTIES LLC	BROWN AND KRON ADDITION, ALL OF LOT 6 & NORTH 24' OF LOT 7, EXCLUDING WEST 4' OF EACH BLOCK 2, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
32	42+03 TO 42+18	LT	TEMPORARY	ADA RAMP REPLACEMENT	75 SQ. FT.	KARLA GRAYSON	BROWN AND KRON ADDITION, LOT 1, BLOCK 1, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
33	42+14 TO 42+19	RT	TEMPORARY	ADA RAMP REPLACEMENT	25 SQ. FT.	HARRY & LILLIAN GREENBAUM	MORNINGSIDE ADDITION, LOT 9 EXCLUDING EAST 12' IN REPLAT OF LOTS 7-8, BLOCK 1, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA.
34	44+56 TO 44+64	LT	TEMPORARY	ADA RAMP REPLACEMENT	40 SQ. FT.	CORRIE QUALE	BROWN AND KRON ADDITION, LOT 4, BLOCK 1, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
35	44+59 TO 44+64	RT	TEMPORARY	ADA RAMP REPLACEMENT	50 SQ. FT.	JUSTIN & CHRISTINA WERKMEISTER	MORNINGSIDE ADDITION, LOT 7, REPLAT OF LOTS 7-8, BLOCK 1, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA.
36	45+44 TO 45+53	RT	TEMPORARY	ADA RAMP REPLACEMENT	65 SQ. FT.	DAVID & MONGLAN KNEIFF	BANE AND POOLE ADDITION, LOT 10, BLOCK 2, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA.
37	45+58 TO 45+68	LT	TEMPORARY	ADA RAMP REPLACEMENT	190 SQ. FT.	BROOKINGS SCHOOL DISTRICT	OUTLOTS ADDITION, OUTLOT M, 6.04 ACRES (HILLCREST SCHOOL), SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
38	52+44 TO 52+66	RT.	TEMPORARY	ADA RAMP REPLACEMENT	128 SQ. FT.	ALLEN WORKMAN	BANE AND POOLE ADDITION, LOT 3, BLOCK 2, SECTION 25-T110N R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
39	53+25 TO 53+35	RT	TEMPORARY	ADA RAMP REPLACEMENT	50 SQ. FT.	DUANE KNUTSON	BANE AND POOLE ADDITION, LOT 1, BLOCK 1, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA
40	56+07 TO 56+41	RT	TEMPORARY	DRIVEWAY REPLACEMENT	165 SQ. FT.	BRICKWOOD ENTERPRISES, INC.	BANE AND POOLE ADDITION, SUBLOT 2, OF LOT "B" & WEST 71.5' OF VACATED ALLEY, SECTION 25-T110N-R50W - CITY OF BROOKINGS, BROOKINGS COUNTY, SOUTH DAKOTA



RIGHT-OF-WAY PLAN

17TH AVENUE SOUTH
STA. 0+00 TO STA. 6+00

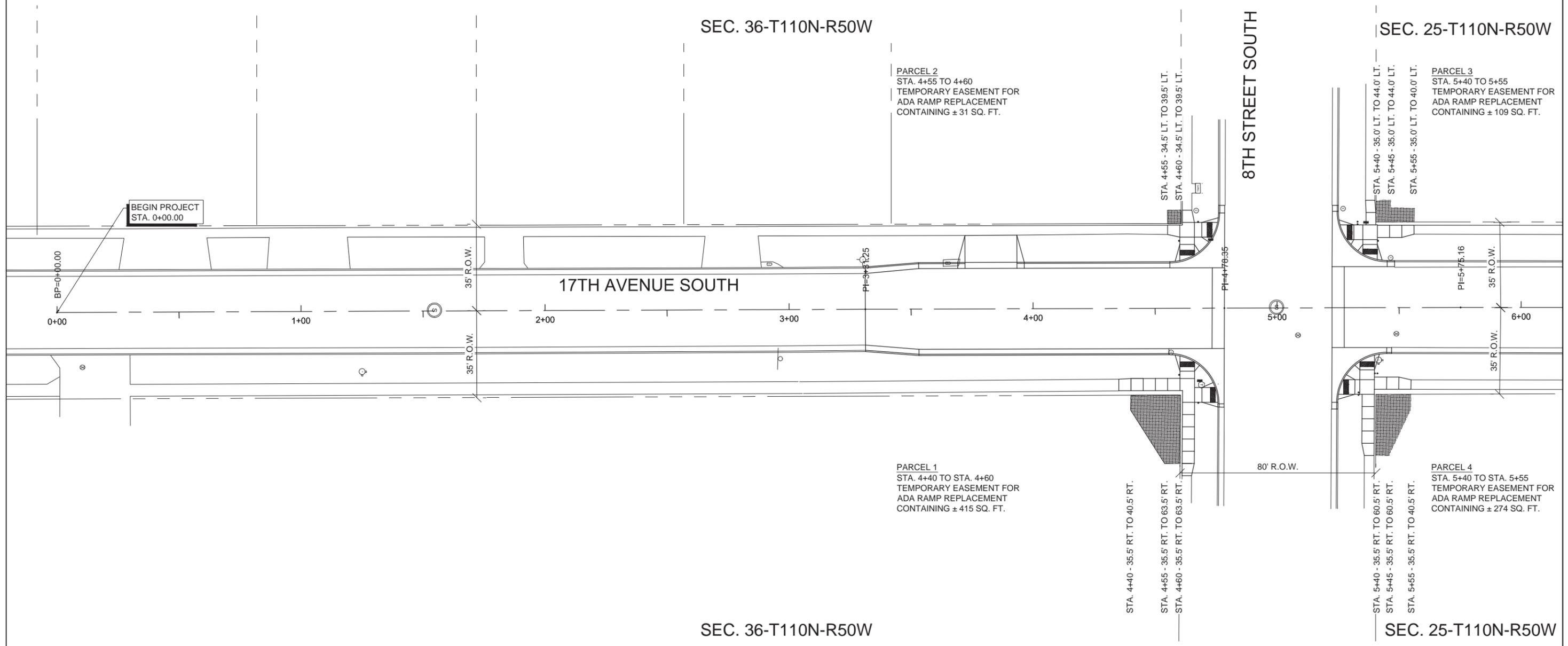
FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	33	119



SEC. 36-T110N-R50W

SEC. 25-T110N-R50W



BEGIN PROJECT
STA. 0+00.00

PARCEL 2
STA. 4+55 TO 4+60
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 31 SQ. FT.

PARCEL 3
STA. 5+40 TO 5+55
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 109 SQ. FT.

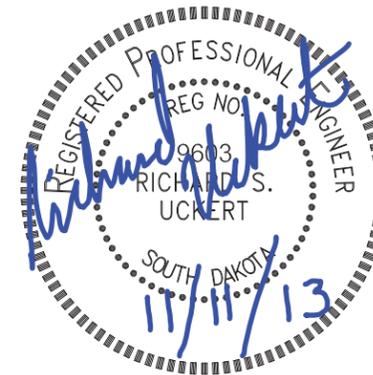
PARCEL 1
STA. 4+40 TO STA. 4+60
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 415 SQ. FT.

PARCEL 4
STA. 5+40 TO STA. 5+55
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 274 SQ. FT.

SEC. 36-T110N-R50W

SEC. 25-T110N-R50W

LEGEND:



- STREET SIGN
- CURB STOP
- WATER VALVE
- GAS VALVE
- STORM SEWER AREA INLET
- FIRE HYDRANT
- LIGHT POLE
- TELEPHONE MANHOLE
- TRAFFIC SIGNAL JUNCTION BOX
- TELEPHONE PEDESTAL
- SANITARY SEWER MANHOLE
- STORM SEWER MAHOLE
- PROPERTY LINE

RIGHT-OF-WAY PLAN

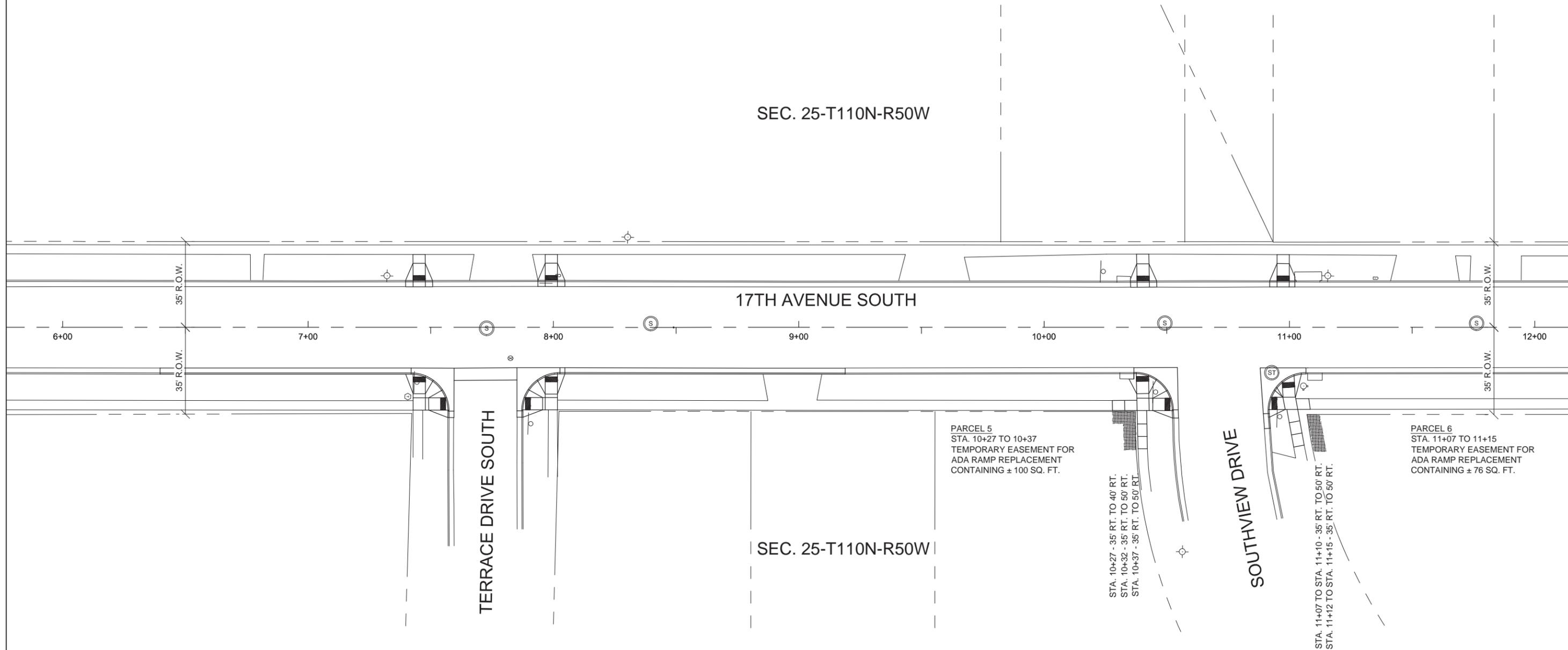
17TH AVENUE SOUTH
STA. 6+00 TO STA. 12+00

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	34	119



SEC. 25-T110N-R50W



TERRACE DRIVE SOUTH

SOUTHVIEW DRIVE

PARCEL 5
STA. 10+27 TO 10+37
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 100 SQ. FT.

PARCEL 6
STA. 11+07 TO 11+15
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 76 SQ. FT.

STA. 10+27 - 35' RT. TO 40' RT.
STA. 10+32 - 35' RT. TO 50' RT.
STA. 10+37 - 35' RT. TO 50' RT.

STA. 11+07 TO STA. 11+10 - 35' RT. TO 50' RT.
STA. 11+12 TO STA. 11+15 - 35' RT. TO 50' RT.

SEC. 25-T110N-R50W

LEGEND:

- STREET SIGN
- CURB STOP
- WATER VALVE
- GAS VALVE
- STORM SEWER AREA INLET
- FIRE HYDRANT
- LIGHT POLE
- TELEPHONE MANHOLE
- TRAFFIC SIGNAL JUNCTION BOX
- TELEPHONE PEDESTAL
- SANITARY SEWER MANHOLE
- STORM SEWER MAHOLE
- PROPERTY LINE



RIGHT-OF-WAY PLAN

17TH AVENUE SOUTH
STA. 12+00 TO STA. 18+00

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	35	119

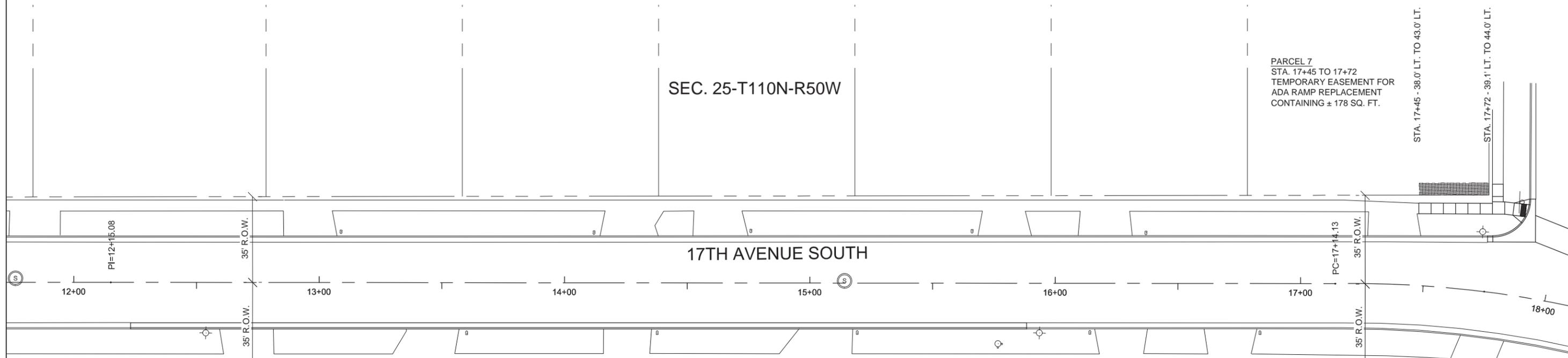


SEC. 25-T110N-R50W

PARCEL 7
STA. 17+45 TO 17+72
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 178 SQ. FT.

STA. 17+45 - 38.0' LT. TO 43.0' LT.

STA. 17+72 - 39.1' LT. TO 44.0' LT.



17TH AVENUE SOUTH

SEC. 25-T110N-R50W

LEGEND:



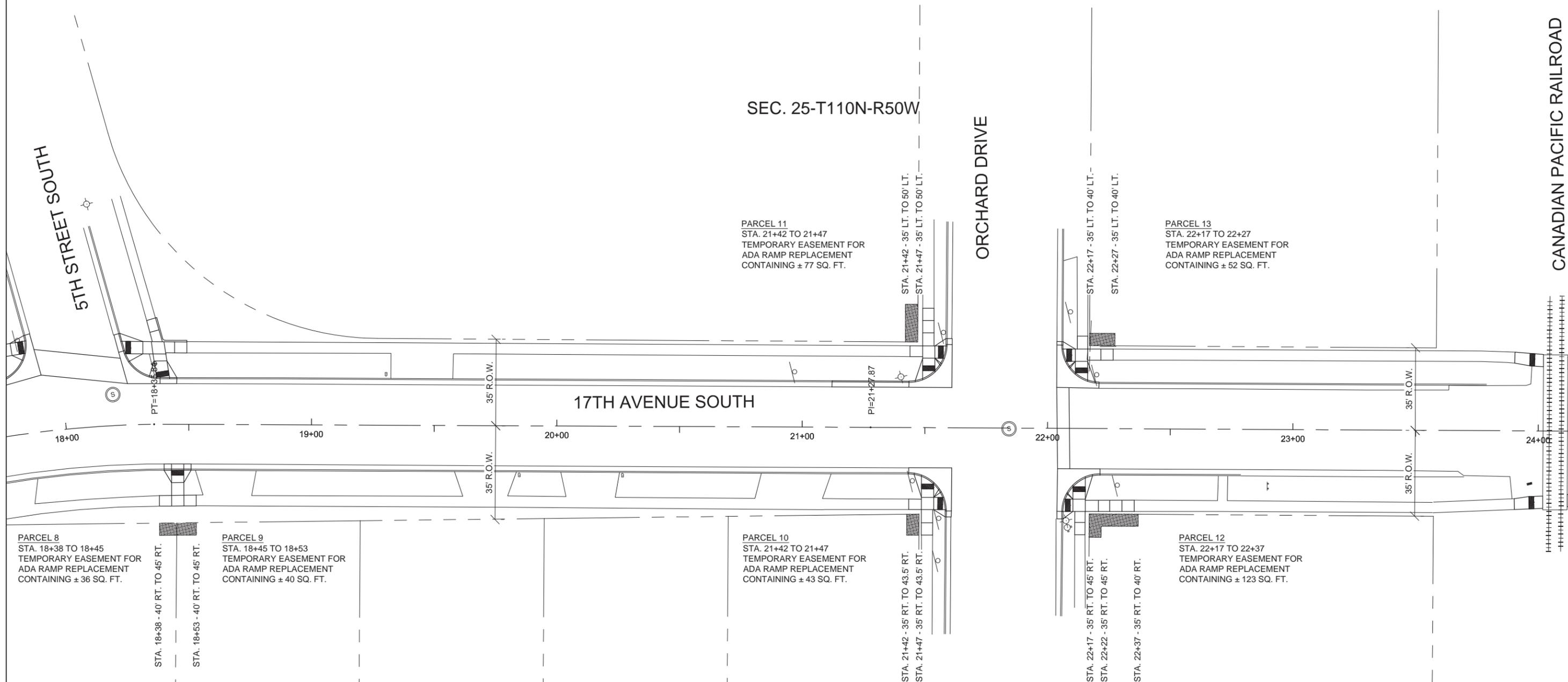
- STREET SIGN
- CURB STOP
- WATER VALVE
- GAS VALVE
- STORM SEWER AREA INLET
- FIRE HYDRANT
- LIGHT POLE
- TELEPHONE MANHOLE
- TRAFFIC SIGNAL JUNCTION BOX
- TELEPHONE PEDESTAL
- SANITARY SEWER MANHOLE
- STORM SEWER MAHOLE
- PROPERTY LINE

RIGHT-OF-WAY PLAN

17TH AVENUE SOUTH
STA. 18+00 TO STA. 24+00

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	36	119



PARCEL 8
STA. 18+38 TO 18+45
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 36 SQ. FT.

STA. 18+38 - 40' RT. TO 45' RT.
STA. 18+53 - 40' RT. TO 45' RT.

PARCEL 9
STA. 18+45 TO 18+53
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 40 SQ. FT.

PARCEL 10
STA. 21+42 TO 21+47
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 43 SQ. FT.

STA. 21+42 - 35' RT. TO 43.5' RT.
STA. 21+47 - 35' RT. TO 43.5' RT.

STA. 22+17 - 35' RT. TO 45' RT.
STA. 22+22 - 35' RT. TO 45' RT.
STA. 22+37 - 35' RT. TO 40' RT.

PARCEL 12
STA. 22+17 TO 22+37
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 123 SQ. FT.

PARCEL 13
STA. 22+17 TO 22+27
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 52 SQ. FT.

SEC. 25-T110N-R50W



LEGEND:

- STREET SIGN
- CURB STOP
- WATER VALVE
- GAS VALVE
- STORM SEWER AREA INLET
- FIRE HYDRANT
- LIGHT POLE
- TELEPHONE MANHOLE
- TRAFFIC SIGNAL JUNCTION BOX
- TELEPHONE PEDESTAL
- SANITARY SEWER MANHOLE
- STORM SEWER MAHOLE
- PROPERTY LINE

RIGHT-OF-WAY PLAN

FOR BIDDING PURPOSES ONLY

17TH AVENUE SOUTH
STA. 24+00 TO STA. 30+00

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	37	119



LEGEND:

- STREET SIGN
- ⊗ CURB STOP
- ⊗ WATER VALVE
- ▣ GAS VALVE
- STORM SEWER AREA INLET
- ⊕ FIRE HYDRANT
- ⊕ LIGHT POLE
- T TELEPHONE MANHOLE
- E TRAFFIC SIGNAL JUNCTION BOX
- ⊕ T TELEPHONE PEDESTAL
- S SANITARY SEWER MANHOLE
- ST STORM SEWER MAHOLE
- PROPERTY LINE

CANADIAN PACIFIC RAILROAD

SEC. 25-T110N-R50W

DERDALL DRIVE

ELMWOOD DRIVE

PARCEL 15
STA. 25+91 TO 26+06
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 155 SQ. FT.

PARCEL 15
STA. 26+01 TO 26+06
PERMANENT EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 25 SQ. FT.

PARCEL 17
STA. 26+66 TO 26+86
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 208 SQ. FT.

PARCEL 17
STA. 26+66 TO 26+71
PERMANENT EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 25 SQ. FT.

PARCEL 19
STA. 29+54 TO 29+59
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 25 SQ. FT.

PARCEL 14
STA. 25+96 TO 26+01
STA. 26+01 TO 26+06
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 100 SQ. FT.

PARCEL 14
STA. 26+01 TO 26+06
PERMANENT EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 25 SQ. FT.

PARCEL 16
STA. 26+66 TO 26+86
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 290 SQ. FT.

PARCEL 18
STA. 29+59 TO 29+69
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 50 SQ. FT.

PARCEL 18
STA. 29+64 TO 29+69
PERMANENT EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 50 SQ. FT.

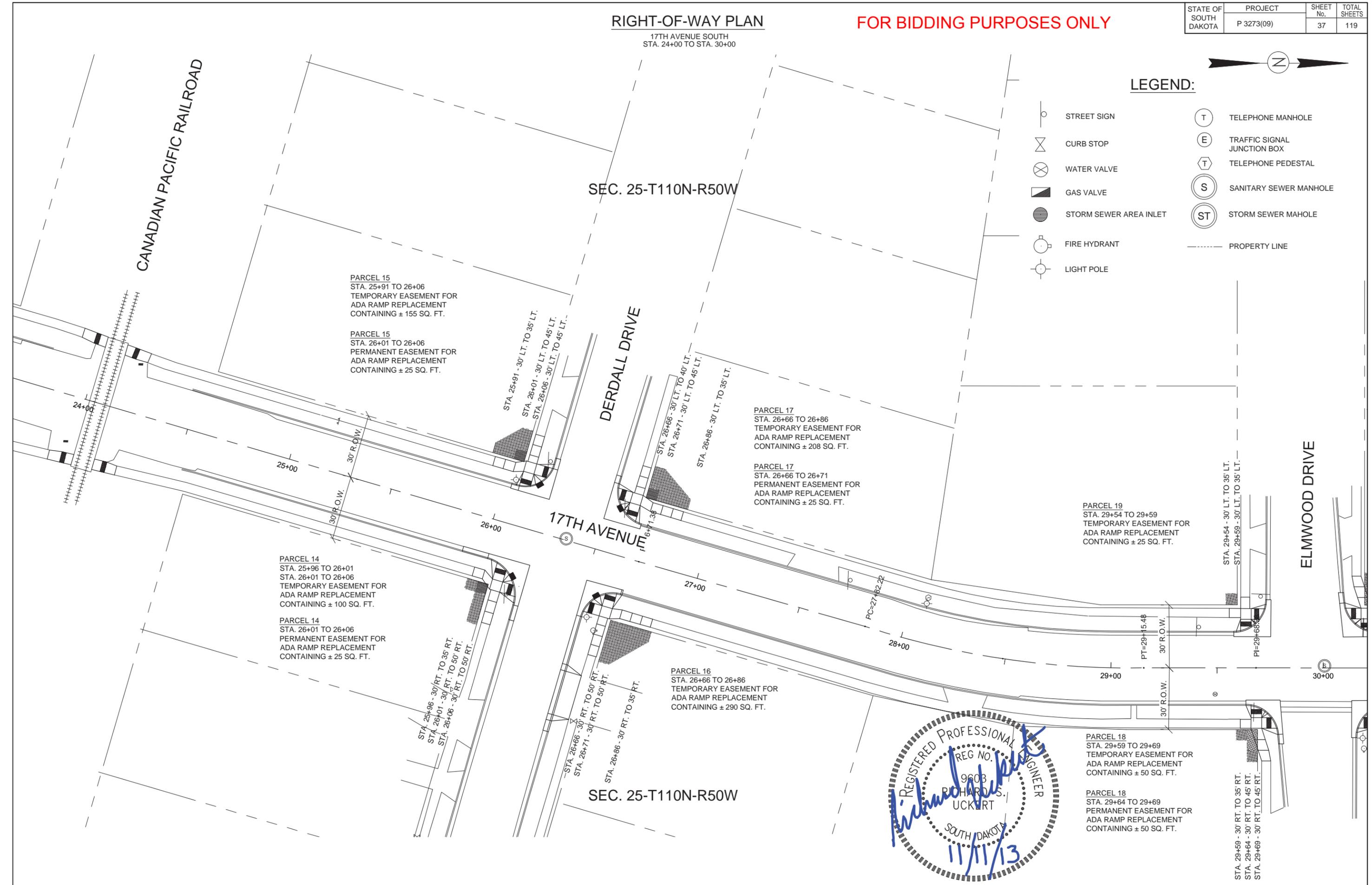
STA. 25+96 - 30' RT. TO 35' RT.
STA. 26+01 - 30' RT. TO 50' RT.
STA. 26+06 - 30' RT. TO 50' RT.

STA. 26+66 - 30' RT. TO 50' RT.
STA. 26+71 - 30' RT. TO 50' RT.
STA. 26+86 - 30' RT. TO 35' RT.

STA. 29+59 - 30' RT. TO 35' RT.
STA. 29+64 - 30' RT. TO 45' RT.
STA. 29+69 - 30' RT. TO 45' RT.



SEC. 25-T110N-R50W



RIGHT-OF-WAY PLAN

17TH AVENUE SOUTH
STA. 30+00 TO STA. 36+00

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	38	119



SEC. 25-T110N-R50W

ELMWOOD DRIVE

OLWEIN STREET

17TH AVENUE

SEC. 25-T110N-R50W

STA. 30+19 - 30' LT. TO 45' LT.
STA. 30+24 - 30' LT. TO 45' LT.
STA. 30+29 - 30' LT. TO 35' LT.

PARCEL 21
STA. 30+19 TO 30+29
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 50 SQ. FT.

PARCEL 21
STA. 30+19 TO 30+24
PERMANENT EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 50 SQ. FT.

PARCEL 23
STA. 33+02 TO 33+32
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING 178 SQ. FT.

STA. 33+02 - 30' LT. TO 35' LT.

STA. 33+27 - 30' LT. TO 40' LT.

STA. 33+32 - 30' LT. TO 40' LT.

STA. 33+92 - 30' LT. TO 45' LT.

STA. 33+97 - 30' LT. TO 45' LT.

STA. 34+07 - 30' LT. TO 35' LT.

PARCEL 25
STA. 33+92 TO 34+07
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 181 SQ. FT.

30+00

31+00

32+00

33+00

34+00

35+00

36+00

30' R.O.W.

30' R.O.W.

30' R.O.W.

30' R.O.W.

PI=31+47.97

STA. 30+29 - 30' RT. TO 45' RT.
STA. 30+34 - 30' RT. TO 45' RT.
STA. 30+44 - 30' RT. TO 35' RT.

PARCEL 20
STA. 30+29 TO 30+44
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 190 SQ. FT.

PARCEL 22
STA. 33+12 TO 33+32
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 296 SQ. FT.

STA. 33+12 - 30' RT. TO 35' RT.

STA. 33+27 - 30' RT. TO 50' RT.

STA. 33+32 - 30' RT. TO 50' RT.

STA. 33+92 - 30' RT. TO 40' RT.

STA. 33+97 - 30' RT. TO 40' RT.

STA. 34+02 - 30' RT. TO 35' RT.

PARCEL 24
STA. 33+92 TO 34+02
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 80 SQ. FT.

LEGEND:

- STREET SIGN
- CURB STOP
- WATER VALVE
- GAS VALVE
- STORM SEWER AREA INLET
- FIRE HYDRANT
- LIGHT POLE
- TELEPHONE MANHOLE
- TRAFFIC SIGNAL JUNCTION BOX
- TELEPHONE PEDESTAL
- SANITARY SEWER MANHOLE
- STORM SEWER MAHOLE
- PROPERTY LINE



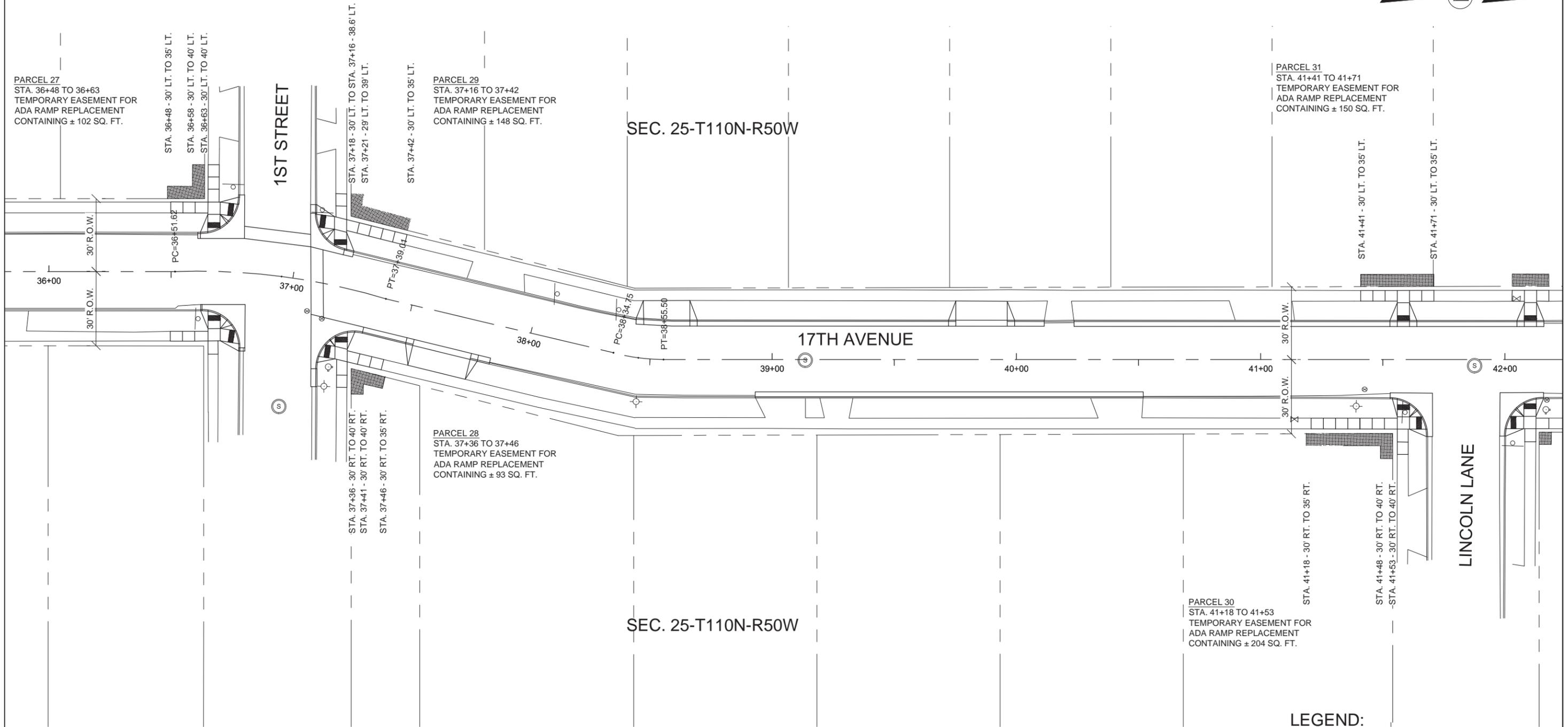
RIGHT-OF-WAY PLAN

17TH AVENUE SOUTH
STA. 36+00 TO STA. 42+00

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL
	P 3273(09)	No. 39	SHEETS 119

UPDATED 1/2/14 RSU



LEGEND:

	STREET SIGN		TELEPHONE MANHOLE
	CURB STOP		TRAFFIC SIGNAL JUNCTION BOX
	WATER VALVE		TELEPHONE PEDESTAL
	GAS VALVE		SANITARY SEWER MANHOLE
	STORM SEWER AREA INLET		STORM SEWER MAHOLE
	FIRE HYDRANT		PROPERTY LINE
	LIGHT POLE		



RIGHT-OF-WAY PLAN

17TH AVENUE SOUTH
STA. 42+00 TO STA. 48+00

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	40	119



PARCEL 32
STA. 42+03 TO 42+18
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 75 SQ. FT.

SEC. 25-T110N-R50W

PARCEL 37
STA. 45+58 TO 45+68
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 190 SQ. FT.

PARCEL 34
STA. 44+56 TO 44+64
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 40 SQ. FT.

3RD STREET

17TH AVENUE

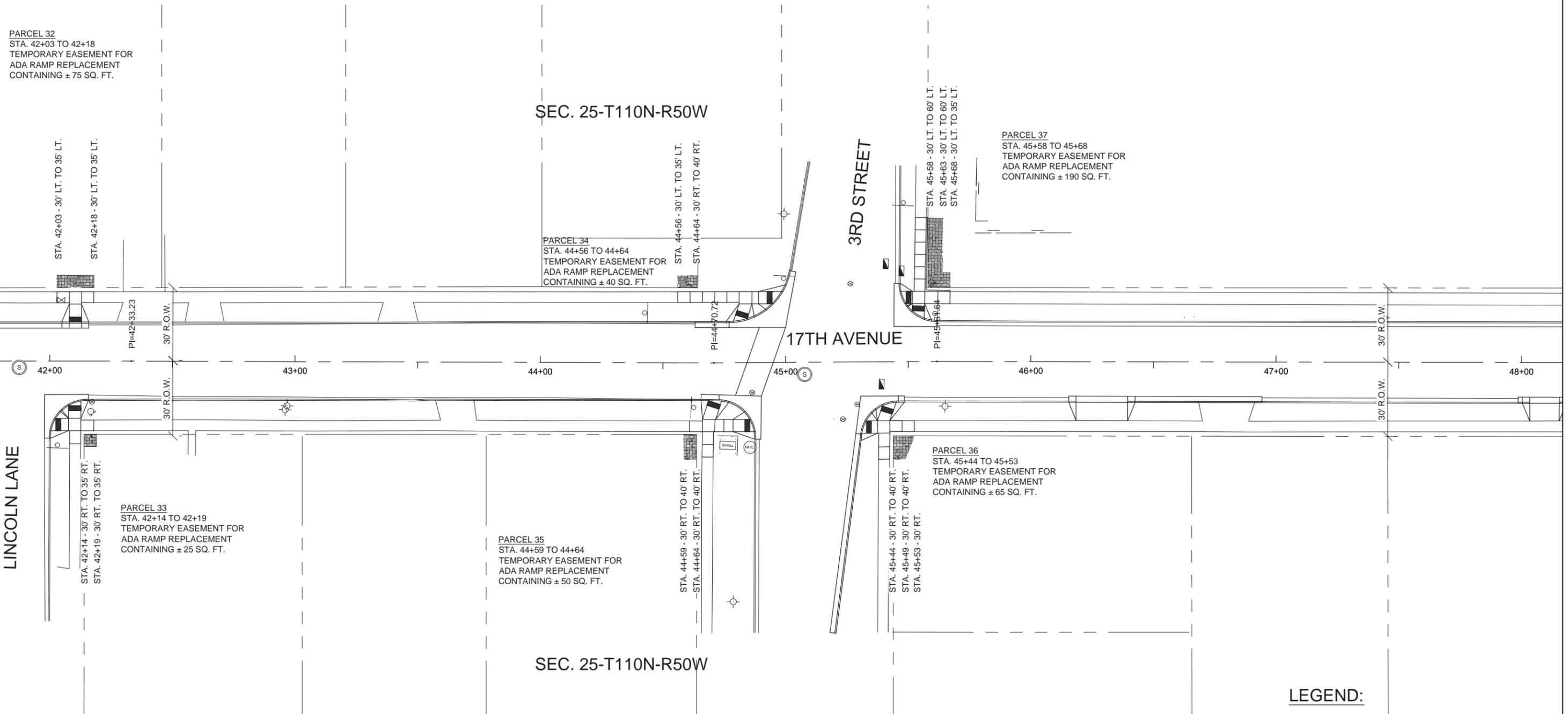
LINCOLN LANE

PARCEL 33
STA. 42+14 TO 42+19
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 25 SQ. FT.

PARCEL 35
STA. 44+59 TO 44+64
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 50 SQ. FT.

PARCEL 36
STA. 45+44 TO 45+53
TEMPORARY EASEMENT FOR
ADA RAMP REPLACEMENT
CONTAINING ± 65 SQ. FT.

SEC. 25-T110N-R50W



LEGEND:

- STREET SIGN
- CURB STOP
- WATER VALVE
- GAS VALVE
- STORM SEWER AREA INLET
- FIRE HYDRANT
- LIGHT POLE
- TELEPHONE MANHOLE
- TRAFFIC SIGNAL JUNCTION BOX
- TELEPHONE PEDESTAL
- SANITARY SEWER MANHOLE
- STORM SEWER MAHOLE
- PROPERTY LINE



RIGHT-OF-WAY PLAN

17TH AVENUE SOUTH
STA. 48+00 TO STA. 54+00

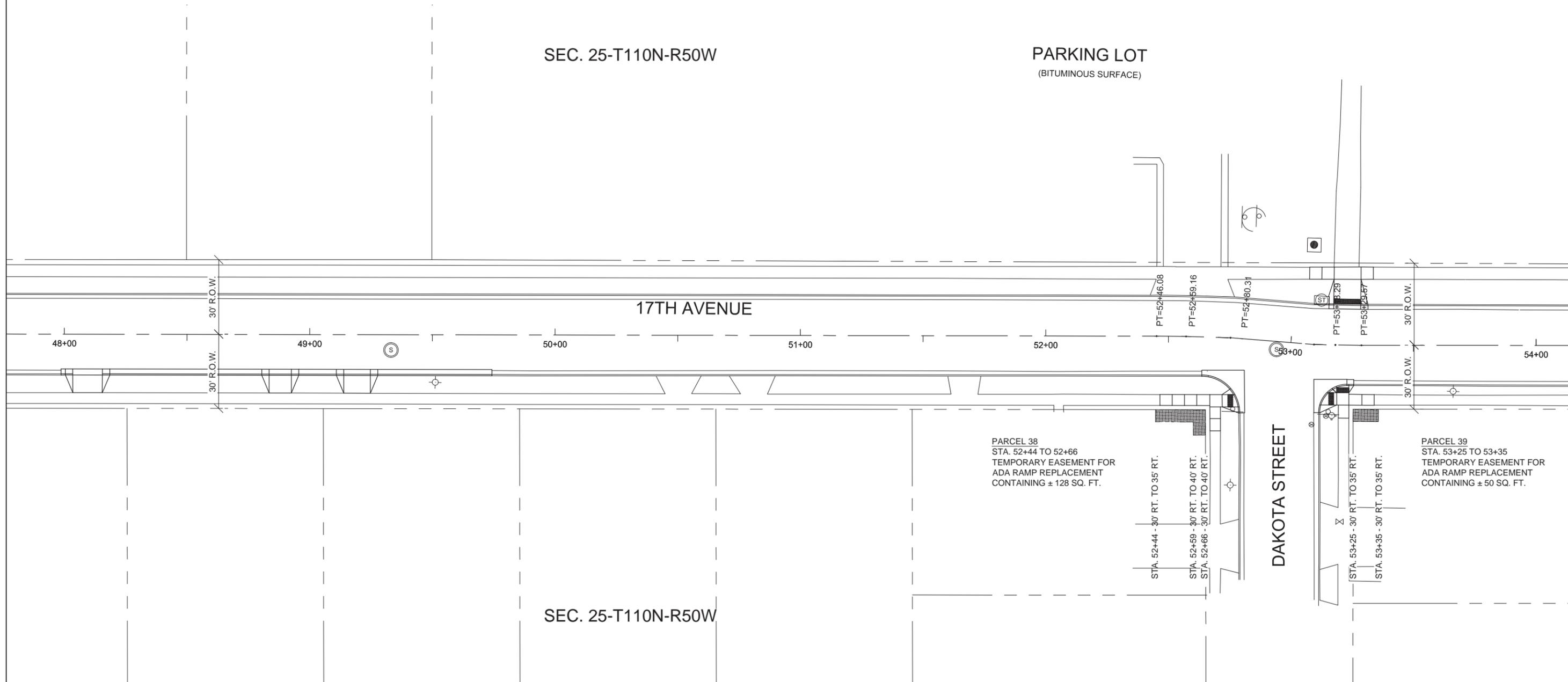
FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	41	119



SEC. 25-T110N-R50W

PARKING LOT
(BITUMINOUS SURFACE)



- LEGEND:**
- STREET SIGN
 - ⊗ CURB STOP
 - ⊗ WATER VALVE
 - ▣ GAS VALVE
 - STORM SEWER AREA INLET
 - FIRE HYDRANT
 - LIGHT POLE
 - TELEPHONE MANHOLE
 - ⊕ TRAFFIC SIGNAL JUNCTION BOX
 - ⊕ TELEPHONE PEDESTAL
 - SANITARY SEWER MANHOLE
 - STORM SEWER MAHOLE
 - PROPERTY LINE

RIGHT-OF-WAY PLAN

17TH AVENUE SOUTH
STA. 54+00 TO STA. 57+51.36

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	42	119



SEC. 25-T110N-R50W

PARKING LOT
(BITUMINOUS SURFACE)

6TH STREET

END PROJECT
STA. 57+51.36

17TH AVENUE

54+00

55+00

56+00

57+00

58+00

58+24

30' R.O.W.

30' R.O.W.

21.5' R.O.W.

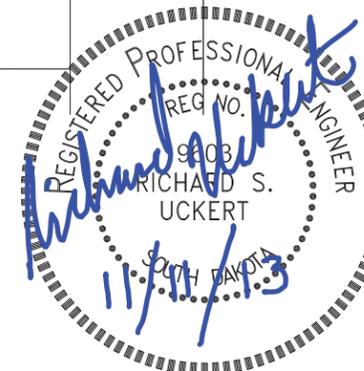
STA. 56+07 - 21.5' RT. TO 26.5' RT.

STA. 56+41 - 21.5' RT. TO 26.5' RT.

PARCEL 40
STA. 56+07 TO 56+41
TEMPORARY EASEMENT FOR
DRIVEWAY REPLACEMENT
CONTAINING ± 165 SQ. FT.

PARKING LOT
(BITUMINOUS SURFACE)

SEC. 25-T110N-R50W



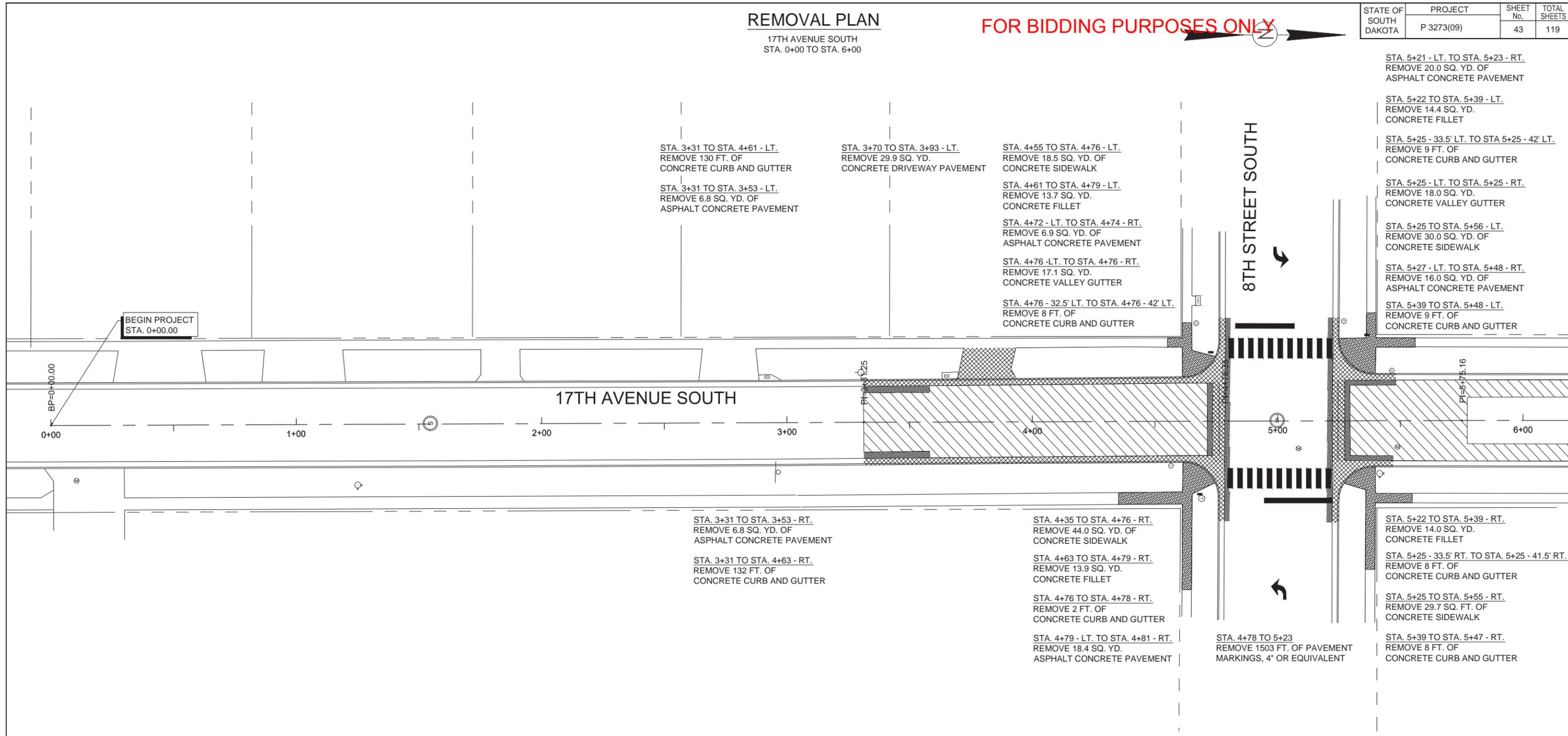
- LEGEND:**
- STREET SIGN
 - ⊗ CURB STOP
 - ⊗ WATER VALVE
 - ▒ GAS VALVE
 - STORM SEWER AREA INLET
 - FIRE HYDRANT
 - LIGHT POLE
 - TELEPHONE MANHOLE
 - ⊕ TRAFFIC SIGNAL JUNCTION BOX
 - ⊕ TELEPHONE PEDESTAL
 - SANITARY SEWER MANHOLE
 - STORM SEWER MAHOLE
 - PROPERTY LINE

REMOVAL PLAN

17TH AVENUE SOUTH
STA. 0+00 TO STA. 6+00

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	43	119



- STA. 5+21 - LT. TO STA. 5+23 - RT.
REMOVE 20.0 SQ. YD. OF ASPHALT CONCRETE PAVEMENT
- STA. 5+22 TO STA. 5+39 - LT.
REMOVE 14.4 SQ. YD. CONCRETE FILLET
- STA. 5+25 - 33.5' LT. TO STA 5+25 - 42' LT.
REMOVE 9 FT. OF CONCRETE CURB AND GUTTER
- STA. 5+25 - LT. TO STA. 5+25 - RT.
REMOVE 18.0 SQ. YD. CONCRETE VALLEY GUTTER
- STA. 5+25 TO STA. 5+56 - LT.
REMOVE 30.0 SQ. YD. OF CONCRETE SIDEWALK
- STA. 5+27 - LT. TO STA. 5+48 - RT.
REMOVE 16.0 SQ. YD. OF ASPHALT CONCRETE PAVEMENT
- STA. 5+39 TO STA. 5+48 - LT.
REMOVE 9 FT. OF CONCRETE CURB AND GUTTER

- STA. 3+31 TO STA. 4+61 - LT.
REMOVE 130 FT. OF CONCRETE CURB AND GUTTER
- STA. 3+31 TO STA. 3+53 - LT.
REMOVE 6.8 SQ. YD. OF ASPHALT CONCRETE PAVEMENT
- STA. 3+70 TO STA. 3+93 - LT.
REMOVE 29.9 SQ. YD. CONCRETE DRIVEWAY PAVEMENT
- STA. 4+55 TO STA. 4+76 - LT.
REMOVE 18.5 SQ. YD. OF CONCRETE SIDEWALK
- STA. 4+61 TO STA. 4+79 - LT.
REMOVE 13.7 SQ. YD. CONCRETE FILLET
- STA. 4+72 - LT. TO STA. 4+74 - RT.
REMOVE 6.9 SQ. YD. OF ASPHALT CONCRETE PAVEMENT
- STA. 4+76 - LT. TO STA. 4+76 - RT.
REMOVE 17.1 SQ. YD. CONCRETE VALLEY GUTTER
- STA. 4+76 - 32.5' LT. TO STA. 4+76 - 42' LT.
REMOVE 8 FT. OF CONCRETE CURB AND GUTTER

- STA. 3+31 TO STA. 3+53 - RT.
REMOVE 6.8 SQ. YD. OF ASPHALT CONCRETE PAVEMENT
- STA. 3+31 TO STA. 4+63 - RT.
REMOVE 132 FT. OF CONCRETE CURB AND GUTTER

- STA. 4+35 TO STA. 4+76 - RT.
REMOVE 44.0 SQ. YD. OF CONCRETE SIDEWALK
- STA. 4+63 TO STA. 4+79 - RT.
REMOVE 13.9 SQ. YD. CONCRETE FILLET
- STA. 4+76 TO STA. 4+78 - RT.
REMOVE 2 FT. OF CONCRETE CURB AND GUTTER
- STA. 4+79 - LT. TO STA. 4+81 - RT.
REMOVE 18.4 SQ. YD. ASPHALT CONCRETE PAVEMENT

- STA. 4+78 TO 5+23
REMOVE 1503 FT. OF PAVEMENT MARKINGS, 4" OR EQUIVALENT

- STA. 5+22 TO STA. 5+39 - RT.
REMOVE 14.0 SQ. YD. CONCRETE FILLET
- STA. 5+25 - 33.5' RT. TO STA. 5+25 - 41.5' RT.
REMOVE 8 FT. OF CONCRETE CURB AND GUTTER
- STA. 5+25 TO STA. 5+55 - RT.
REMOVE 29.7 SQ. FT. OF CONCRETE SIDEWALK
- STA. 5+39 TO STA. 5+47 - RT.
REMOVE 8 FT. OF CONCRETE CURB AND GUTTER

LEGEND:

- STREET SIGN
- CURB STOP
- WATER VALVE
- GAS VALVE
- STORM SEWER AREA INLET
- FIRE HYDRANT
- LIGHT POLE
- TELEPHONE MANHOLE
- TRAFFIC SIGNAL JUNCTION BOX
- TELEPHONE PEDESTAL
- SANITARY SEWER MANHOLE
- STORM SEWER MAHOLE
- PROPERTY LINE
- FULL - DEPTH REMOVAL
- COLD MILL ASPHALT
- CONCRETE SURFACING REMOVAL
- CURB AND GUTTER/FILLET REMOVAL



REMOVAL PLAN

17TH AVENUE SOUTH
STA. 6+00 TO STA. 12+00

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	44	119



STA. 7+40 TO STA. 7+51 - LT.
REMOVE 11 FT. OF
CONCRETE CURB AND GUTTER

STA. 7+40 TO STA. 7+51 - LT.
REMOVE 2.4 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 7+93 TO STA. 8+04 - LT.
REMOVE 2.4 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

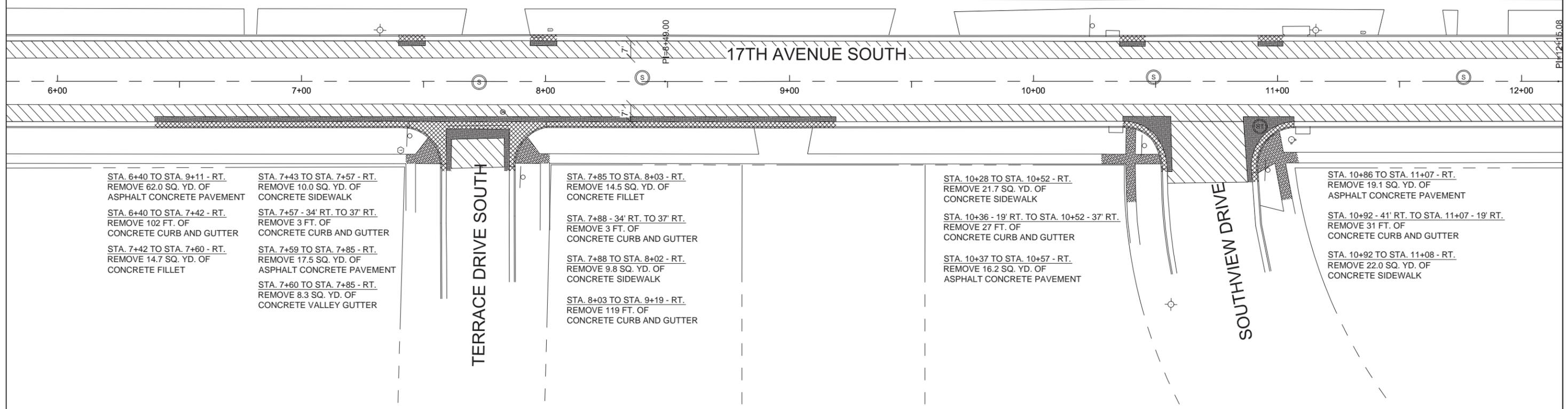
STA. 7+94 TO STA. 8+05 - LT.
REMOVE 11 FT. OF
CONCRETE CURB AND GUTTER

STA. 10+35 TO STA. 10+46 - LT.
REMOVE 2.4 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 10+35 TO STA. 10+46 - LT.
REMOVE 11 FT. OF
CONCRETE CURB AND GUTTER

STA. 10+92 TO STA. 11+02 - LT.
REMOVE 2.4 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 10+92 TO STA. 11+02 - LT.
REMOVE 10 FT. OF
CONCRETE CURB AND GUTTER



STA. 6+40 TO STA. 9+11 - RT.
REMOVE 62.0 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 6+40 TO STA. 7+42 - RT.
REMOVE 102 FT. OF
CONCRETE CURB AND GUTTER

STA. 7+42 TO STA. 7+60 - RT.
REMOVE 14.7 SQ. YD. OF
CONCRETE FILLET

STA. 7+43 TO STA. 7+57 - RT.
REMOVE 10.0 SQ. YD. OF
CONCRETE SIDEWALK

STA. 7+57 - 34' RT. TO 37' RT.
REMOVE 3 FT. OF
CONCRETE CURB AND GUTTER

STA. 7+59 TO STA. 7+85 - RT.
REMOVE 17.5 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 7+60 TO STA. 7+85 - RT.
REMOVE 8.3 SQ. YD. OF
CONCRETE VALLEY GUTTER

STA. 7+85 TO STA. 8+03 - RT.
REMOVE 14.5 SQ. YD. OF
CONCRETE FILLET

STA. 7+88 - 34' RT. TO 37' RT.
REMOVE 3 FT. OF
CONCRETE CURB AND GUTTER

STA. 7+88 TO STA. 8+02 - RT.
REMOVE 9.8 SQ. YD. OF
CONCRETE SIDEWALK

STA. 8+03 TO STA. 9+19 - RT.
REMOVE 119 FT. OF
CONCRETE CURB AND GUTTER

STA. 10+28 TO STA. 10+52 - RT.
REMOVE 21.7 SQ. YD. OF
CONCRETE SIDEWALK

STA. 10+36 - 19' RT. TO STA. 10+52 - 37' RT.
REMOVE 27 FT. OF
CONCRETE CURB AND GUTTER

STA. 10+37 TO STA. 10+57 - RT.
REMOVE 16.2 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 10+86 TO STA. 11+07 - RT.
REMOVE 19.1 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 10+92 - 41' RT. TO STA. 11+07 - 19' RT.
REMOVE 31 FT. OF
CONCRETE CURB AND GUTTER

STA. 10+92 TO STA. 11+08 - RT.
REMOVE 22.0 SQ. YD. OF
CONCRETE SIDEWALK

LEGEND:

- | | | | | | |
|--|------------------------|--|--------------------------------|--|--------------------------------|
| | STREET SIGN | | TELEPHONE MANHOLE | | FULL - DEPTH REMOVAL |
| | CURB STOP | | TRAFFIC SIGNAL
JUNCTION BOX | | COLD MILL ASPHALT |
| | WATER VALVE | | TELEPHONE PEDESTAL | | CONCRETE SURFACING REMOVAL |
| | GAS VALVE | | SANITARY SEWER MANHOLE | | CURB AND GUTTER/FILLET REMOVAL |
| | STORM SEWER AREA INLET | | STORM SEWER MAHOLE | | |
| | FIRE HYDRANT | | PROPERTY LINE | | |
| | LIGHT POLE | | | | |



REMOVAL PLAN

17TH AVENUE SOUTH
STA. 12+00 TO STA. 18+00

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	45	119



STA. 17+47 TO STA. 17+88 - LT.
REMOVE 34.7 SQ. YD. OF
CONCRETE SIDEWALK

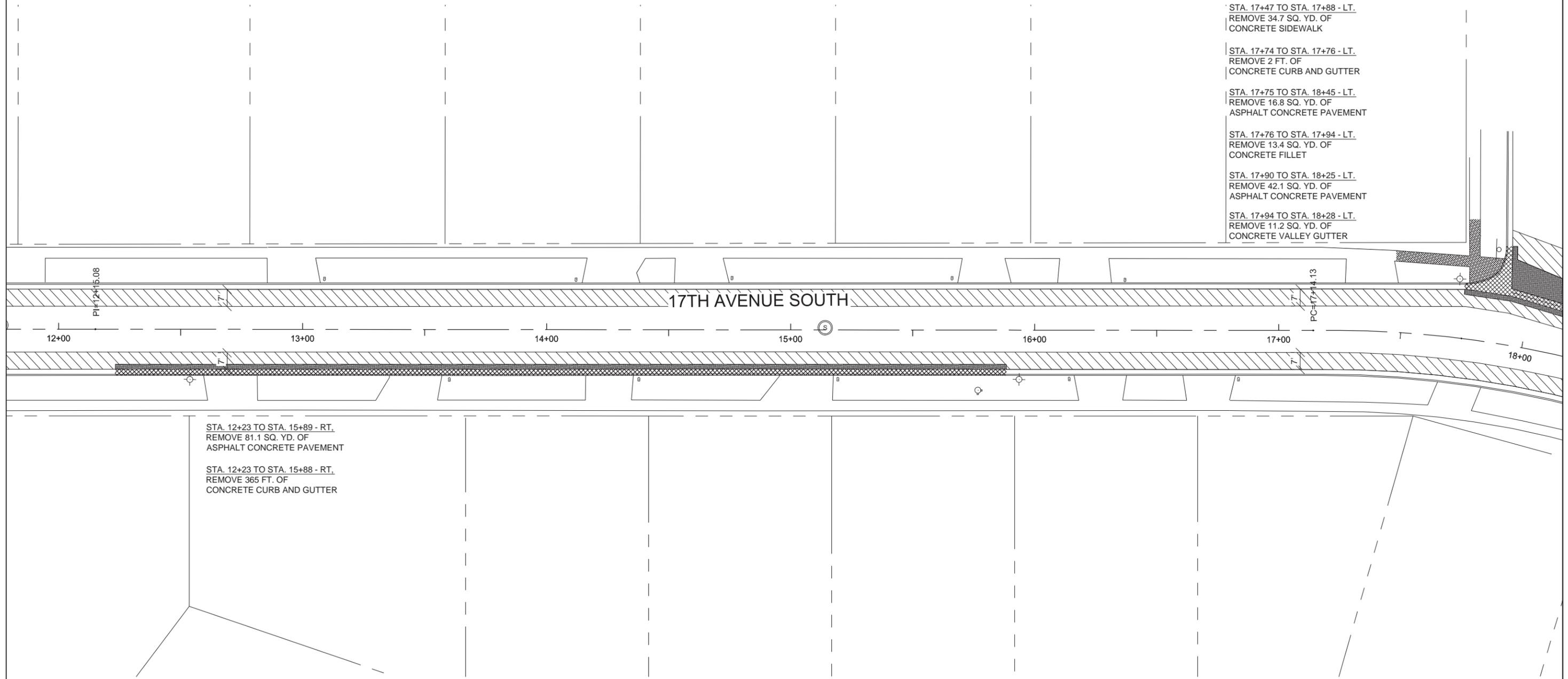
STA. 17+74 TO STA. 17+76 - LT.
REMOVE 2 FT. OF
CONCRETE CURB AND GUTTER

STA. 17+75 TO STA. 18+45 - LT.
REMOVE 16.8 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 17+76 TO STA. 17+94 - LT.
REMOVE 13.4 SQ. YD. OF
CONCRETE FILLET

STA. 17+90 TO STA. 18+25 - LT.
REMOVE 42.1 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 17+94 TO STA. 18+28 - LT.
REMOVE 11.2 SQ. YD. OF
CONCRETE VALLEY GUTTER

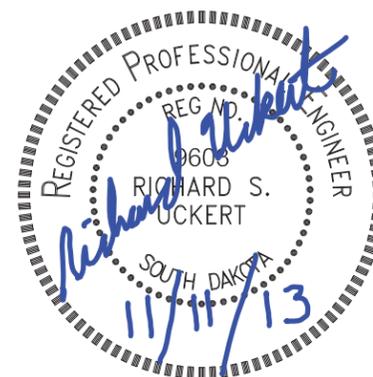


STA. 12+23 TO STA. 15+89 - RT.
REMOVE 81.1 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 12+23 TO STA. 15+88 - RT.
REMOVE 365 FT. OF
CONCRETE CURB AND GUTTER

LEGEND:

- | | | | | | |
|--|------------------------|--|--------------------------------|--|--------------------------------|
| | STREET SIGN | | TELEPHONE MANHOLE | | FULL - DEPTH REMOVAL |
| | CURB STOP | | TRAFFIC SIGNAL
JUNCTION BOX | | COLD MILL ASPHALT |
| | WATER VALVE | | TELEPHONE PEDESTAL | | CONCRETE SURFACING REMOVAL |
| | GAS VALVE | | SANITARY SEWER MANHOLE | | CURB AND GUTTER/FILLET REMOVAL |
| | STORM SEWER AREA INLET | | STORM SEWER MAHOLE | | |
| | FIRE HYDRANT | | PROPERTY LINE | | |
| | LIGHT POLE | | | | |

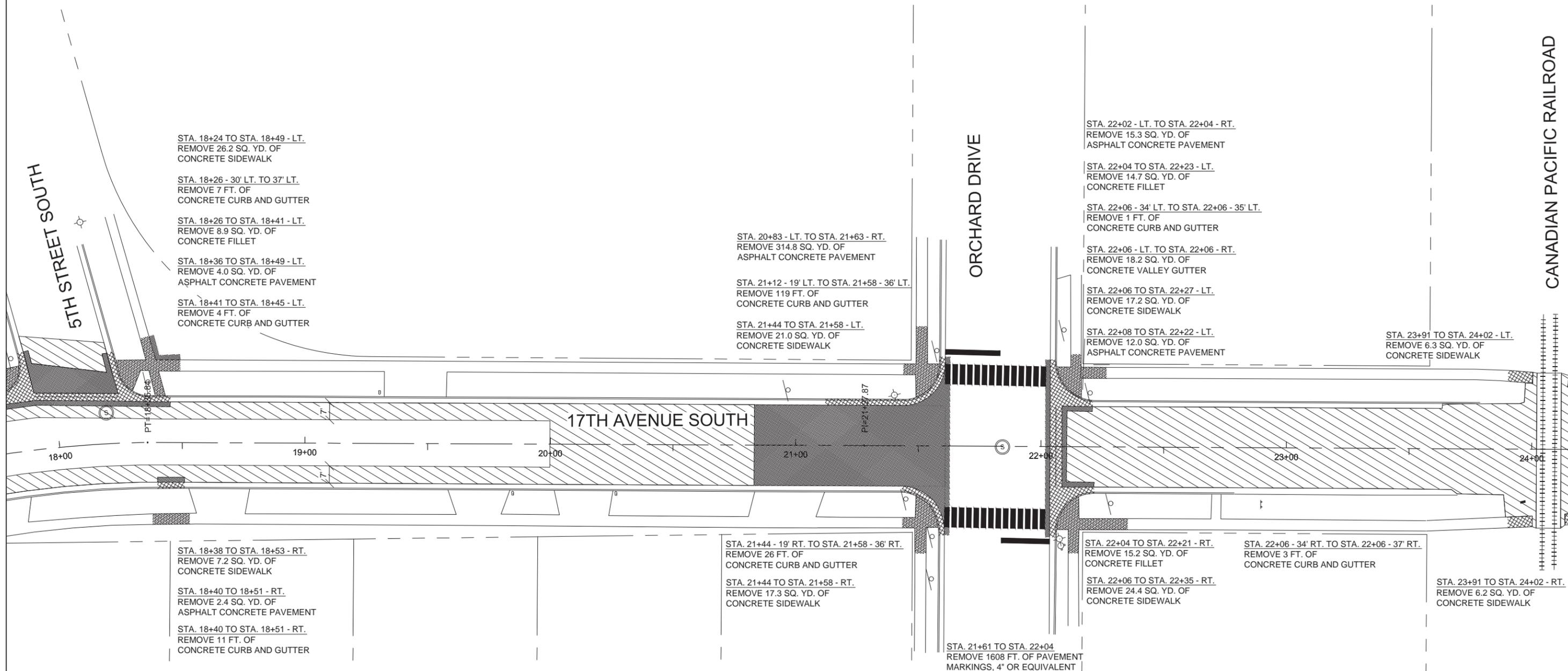


REMOVAL PLAN

17TH AVENUE SOUTH
STA. 18+00 TO STA. 24+00

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	46	119



STA. 18+24 TO STA. 18+49 - LT.
REMOVE 26.2 SQ. YD. OF
CONCRETE SIDEWALK

STA. 18+26 - 30' LT. TO 37' LT.
REMOVE 7 FT. OF
CONCRETE CURB AND GUTTER

STA. 18+26 TO STA. 18+41 - LT.
REMOVE 8.9 SQ. YD. OF
CONCRETE FILLET

STA. 18+36 TO STA. 18+49 - LT.
REMOVE 4.0 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 18+41 TO STA. 18+45 - LT.
REMOVE 4 FT. OF
CONCRETE CURB AND GUTTER

STA. 20+83 - LT. TO STA. 21+63 - RT.
REMOVE 314.8 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 21+12 - 19' LT. TO STA. 21+58 - 36' LT.
REMOVE 119 FT. OF
CONCRETE CURB AND GUTTER

STA. 21+44 TO STA. 21+58 - LT.
REMOVE 21.0 SQ. YD. OF
CONCRETE SIDEWALK

STA. 22+02 - LT. TO STA. 22+04 - RT.
REMOVE 15.3 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 22+04 TO STA. 22+23 - LT.
REMOVE 14.7 SQ. YD. OF
CONCRETE FILLET

STA. 22+06 - 34' LT. TO STA. 22+06 - 35' LT.
REMOVE 1 FT. OF
CONCRETE CURB AND GUTTER

STA. 22+06 - LT. TO STA. 22+06 - RT.
REMOVE 18.2 SQ. YD. OF
CONCRETE VALLEY GUTTER

STA. 22+06 TO STA. 22+27 - LT.
REMOVE 17.2 SQ. YD. OF
CONCRETE SIDEWALK

STA. 22+08 TO STA. 22+22 - LT.
REMOVE 12.0 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 23+91 TO STA. 24+02 - LT.
REMOVE 6.3 SQ. YD. OF
CONCRETE SIDEWALK

STA. 18+38 TO STA. 18+53 - RT.
REMOVE 7.2 SQ. YD. OF
CONCRETE SIDEWALK

STA. 18+40 TO 18+51 - RT.
REMOVE 2.4 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 18+40 TO STA. 18+51 - RT.
REMOVE 11 FT. OF
CONCRETE CURB AND GUTTER

STA. 21+44 - 19' RT. TO STA. 21+58 - 36' RT.
REMOVE 26 FT. OF
CONCRETE CURB AND GUTTER

STA. 21+44 TO STA. 21+58 - RT.
REMOVE 17.3 SQ. YD. OF
CONCRETE SIDEWALK

STA. 22+04 TO STA. 22+21 - RT.
REMOVE 15.2 SQ. YD. OF
CONCRETE FILLET

STA. 22+06 TO STA. 22+35 - RT.
REMOVE 24.4 SQ. YD. OF
CONCRETE SIDEWALK

STA. 22+06 - 34' RT. TO STA. 22+06 - 37' RT.
REMOVE 3 FT. OF
CONCRETE CURB AND GUTTER

STA. 23+91 TO STA. 24+02 - RT.
REMOVE 6.2 SQ. YD. OF
CONCRETE SIDEWALK

STA. 21+61 TO STA. 22+04
REMOVE 1608 FT. OF PAVEMENT
MARKINGS, 4' OR EQUIVALENT

LEGEND:

- STREET SIGN
- ⊗ CURB STOP
- ⊗ WATER VALVE
- ▬ GAS VALVE
- STORM SEWER AREA INLET
- FIRE HYDRANT
- LIGHT POLE
- (T) TELEPHONE MANHOLE
- (E) TRAFFIC SIGNAL JUNCTION BOX
- (T) TELEPHONE PEDESTAL
- (S) SANITARY SEWER MANHOLE
- (ST) STORM SEWER MAHOLE
- PROPERTY LINE
- [Grid Pattern] FULL - DEPTH REMOVAL
- [Diagonal Lines] COLD MILL ASPHALT
- [Cross-hatch] CONCRETE SURFACING REMOVAL
- [Wavy Pattern] CURB AND GUTTER/FILLET REMOVAL



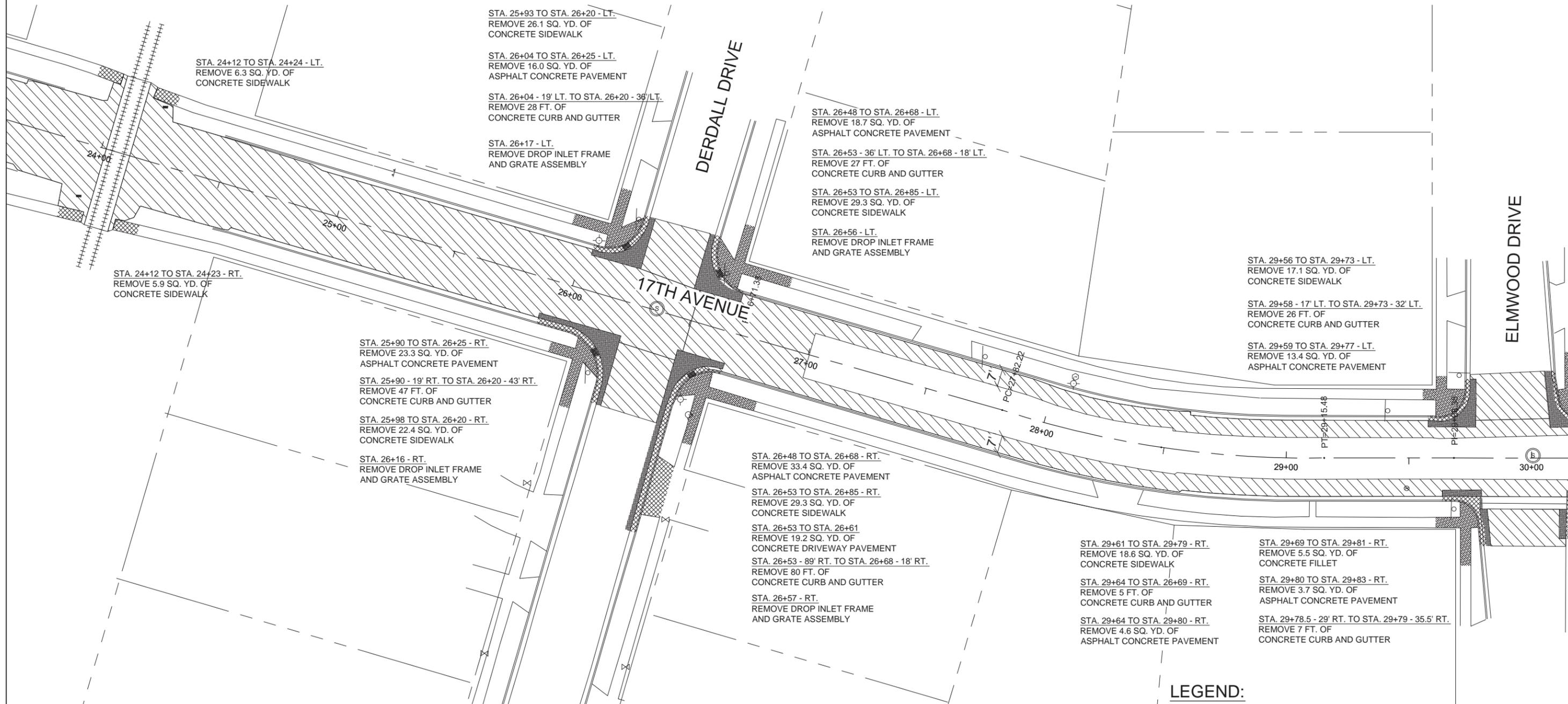
NOTE:
FINAL FULL DEPTH REMOVAL LIMITS AND QUANTITIES WILL BE
DETERMINED IN THE FIELD AND ADJUSTED ACCORDINGLY.

REMOVAL PLAN

17TH AVENUE SOUTH
STA. 24+00 TO STA. 30+00

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT P 3273(09)	SHEET No. 47	TOTAL SHEETS 119
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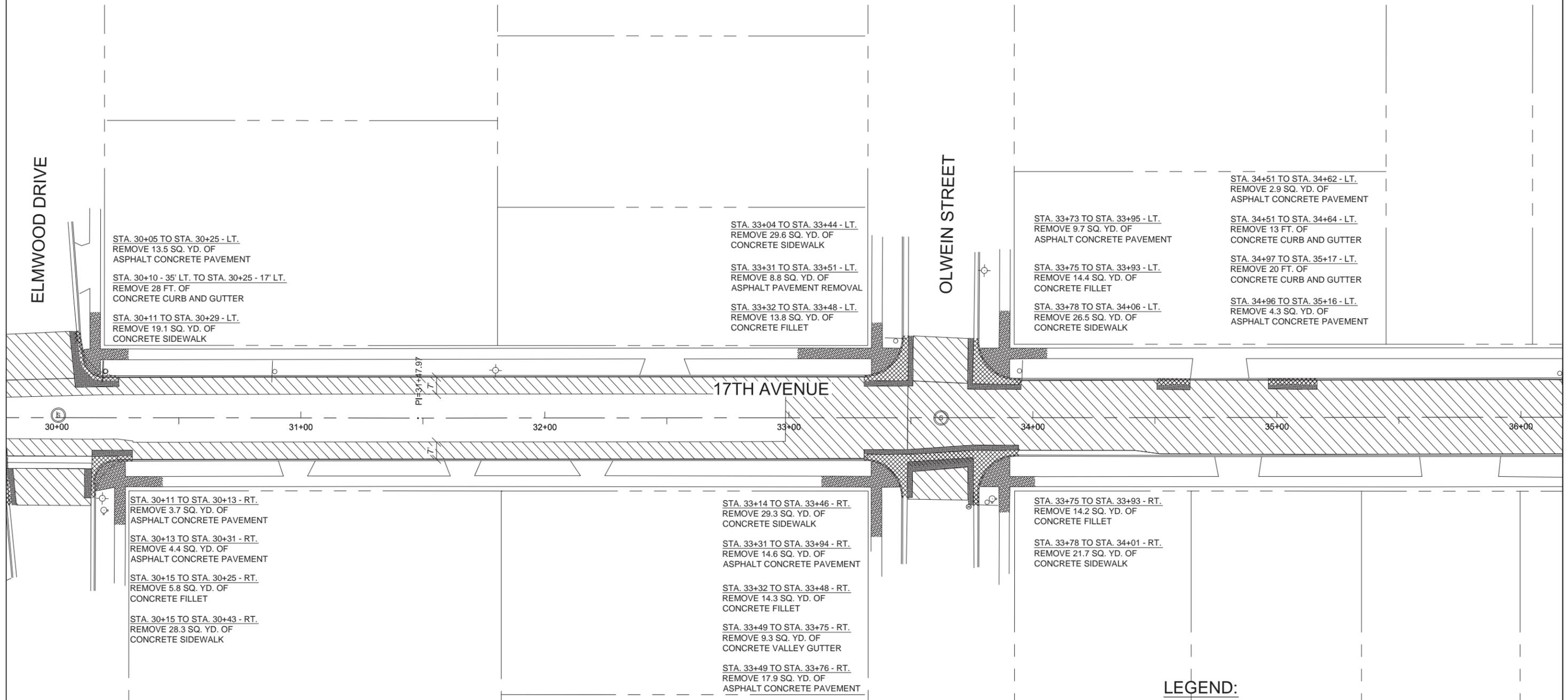
- LEGEND:**
- STREET SIGN
 - ⊗ CURB STOP
 - ⊗ WATER VALVE
 - GAS VALVE
 - STORM SEWER AREA INLET
 - FIRE HYDRANT
 - LIGHT POLE
 - (T) TELEPHONE MANHOLE
 - (E) TRAFFIC SIGNAL JUNCTION BOX
 - (T) TELEPHONE PEDESTAL
 - (S) SANITARY SEWER MANHOLE
 - (ST) STORM SEWER MAHOLE
 - PROPERTY LINE
 - [Grid Pattern] FULL - DEPTH REMOVAL
 - [Diagonal Lines] COLD MILL ASPHALT
 - [Cross-hatch] CONCRETE SURFACING REMOVAL
 - [Cross-hatch] CURB AND GUTTER/FILLET REMOVAL

REMOVAL PLAN

17TH AVENUE SOUTH
STA. 30+00 TO STA. 36+00

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	48	119



STA. 30+05 TO STA. 30+25 - LT.
REMOVE 13.5 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 30+10 - 35' LT. TO STA. 30+25 - 17' LT.
REMOVE 28 FT. OF
CONCRETE CURB AND GUTTER

STA. 30+11 TO STA. 30+29 - LT.
REMOVE 19.1 SQ. YD. OF
CONCRETE SIDEWALK

STA. 33+04 TO STA. 33+44 - LT.
REMOVE 29.6 SQ. YD. OF
CONCRETE SIDEWALK

STA. 33+31 TO STA. 33+51 - LT.
REMOVE 8.8 SQ. YD. OF
ASPHALT PAVEMENT REMOVAL

STA. 33+32 TO STA. 33+48 - LT.
REMOVE 13.8 SQ. YD. OF
CONCRETE FILLET

STA. 33+73 TO STA. 33+95 - LT.
REMOVE 9.7 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 33+75 TO STA. 33+93 - LT.
REMOVE 14.4 SQ. YD. OF
CONCRETE FILLET

STA. 33+78 TO STA. 34+06 - LT.
REMOVE 26.5 SQ. YD. OF
CONCRETE SIDEWALK

STA. 34+51 TO STA. 34+62 - LT.
REMOVE 2.9 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 34+51 TO STA. 34+64 - LT.
REMOVE 13 FT. OF
CONCRETE CURB AND GUTTER

STA. 34+97 TO STA. 35+17 - LT.
REMOVE 20 FT. OF
CONCRETE CURB AND GUTTER

STA. 34+96 TO STA. 35+16 - LT.
REMOVE 4.3 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 30+11 TO STA. 30+13 - RT.
REMOVE 3.7 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 30+13 TO STA. 30+31 - RT.
REMOVE 4.4 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 30+15 TO STA. 30+25 - RT.
REMOVE 5.8 SQ. YD. OF
CONCRETE FILLET

STA. 30+15 TO STA. 30+43 - RT.
REMOVE 28.3 SQ. YD. OF
CONCRETE SIDEWALK

STA. 33+14 TO STA. 33+46 - RT.
REMOVE 29.3 SQ. YD. OF
CONCRETE SIDEWALK

STA. 33+31 TO STA. 33+94 - RT.
REMOVE 14.6 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 33+32 TO STA. 33+48 - RT.
REMOVE 14.3 SQ. YD. OF
CONCRETE FILLET

STA. 33+49 TO STA. 33+75 - RT.
REMOVE 9.3 SQ. YD. OF
CONCRETE VALLEY GUTTER

STA. 33+49 TO STA. 33+76 - RT.
REMOVE 17.9 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 33+75 TO STA. 33+93 - RT.
REMOVE 14.2 SQ. YD. OF
CONCRETE FILLET

STA. 33+78 TO STA. 34+01 - RT.
REMOVE 21.7 SQ. YD. OF
CONCRETE SIDEWALK

LEGEND:

- | | | | | | |
|--|------------------------|--|--------------------------------|--|--------------------------------|
| | STREET SIGN | | TELEPHONE MANHOLE | | FULL - DEPTH REMOVAL |
| | CURB STOP | | TRAFFIC SIGNAL
JUNCTION BOX | | COLD MILL ASPHALT |
| | WATER VALVE | | TELEPHONE PEDESTAL | | CONCRETE SURFACING REMOVAL |
| | GAS VALVE | | SANITARY SEWER MANHOLE | | CURB AND GUTTER/FILLET REMOVAL |
| | STORM SEWER AREA INLET | | STORM SEWER MAHOLE | | |
| | FIRE HYDRANT | | PROPERTY LINE | | |
| | LIGHT POLE | | | | |

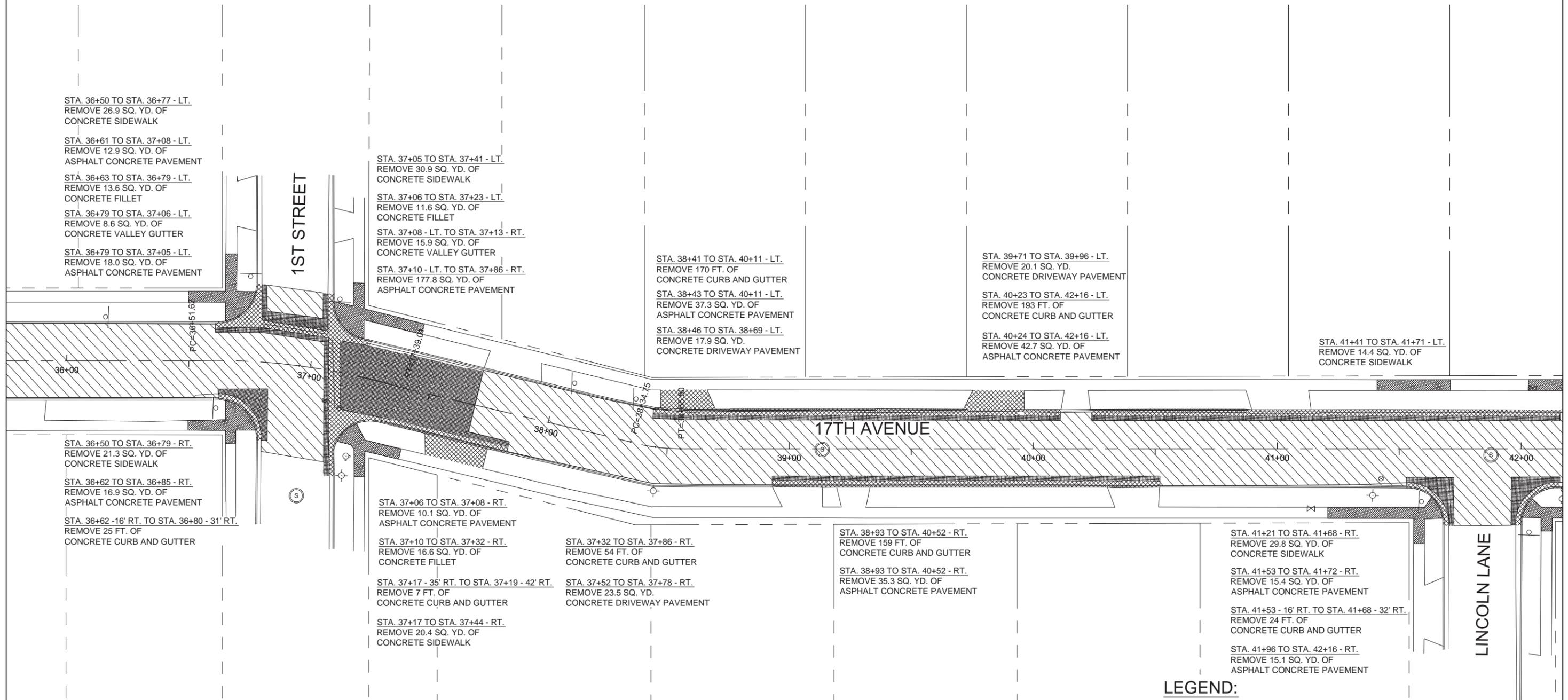


REMOVAL PLAN

17TH AVENUE SOUTH
STA. 36+00 TO STA. 42+00

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	49	119



STA. 36+50 TO STA. 36+77 - LT.
REMOVE 26.9 SQ. YD. OF
CONCRETE SIDEWALK

STA. 36+61 TO STA. 37+08 - LT.
REMOVE 12.9 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 36+63 TO STA. 36+79 - LT.
REMOVE 13.6 SQ. YD. OF
CONCRETE FILLET

STA. 36+79 TO STA. 37+06 - LT.
REMOVE 8.6 SQ. YD. OF
CONCRETE VALLEY GUTTER

STA. 36+79 TO STA. 37+05 - LT.
REMOVE 18.0 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 37+05 TO STA. 37+41 - LT.
REMOVE 30.9 SQ. YD. OF
CONCRETE SIDEWALK

STA. 37+06 TO STA. 37+23 - LT.
REMOVE 11.6 SQ. YD. OF
CONCRETE FILLET

STA. 37+08 - LT. TO STA. 37+13 - RT.
REMOVE 15.9 SQ. YD. OF
CONCRETE VALLEY GUTTER

STA. 37+10 - LT. TO STA. 37+86 - RT.
REMOVE 177.8 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 38+41 TO STA. 40+11 - LT.
REMOVE 170 FT. OF
CONCRETE CURB AND GUTTER

STA. 38+43 TO STA. 40+11 - LT.
REMOVE 37.3 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 38+46 TO STA. 38+69 - LT.
REMOVE 17.9 SQ. YD.
CONCRETE DRIVEWAY PAVEMENT

STA. 39+71 TO STA. 39+96 - LT.
REMOVE 20.1 SQ. YD.
CONCRETE DRIVEWAY PAVEMENT

STA. 40+23 TO STA. 42+16 - LT.
REMOVE 193 FT. OF
CONCRETE CURB AND GUTTER

STA. 40+24 TO STA. 42+16 - LT.
REMOVE 42.7 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 41+41 TO STA. 41+71 - LT.
REMOVE 14.4 SQ. YD. OF
CONCRETE SIDEWALK

STA. 36+50 TO STA. 36+79 - RT.
REMOVE 21.3 SQ. YD. OF
CONCRETE SIDEWALK

STA. 36+62 TO STA. 36+85 - RT.
REMOVE 16.9 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 36+62 -16' RT. TO STA. 36+80 - 31' RT.
REMOVE 25 FT. OF
CONCRETE CURB AND GUTTER

STA. 37+06 TO STA. 37+08 - RT.
REMOVE 10.1 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 37+10 TO STA. 37+32 - RT.
REMOVE 16.6 SQ. YD. OF
CONCRETE FILLET

STA. 37+17 - 35' RT. TO STA. 37+19 - 42' RT.
REMOVE 7 FT. OF
CONCRETE CURB AND GUTTER

STA. 37+17 TO STA. 37+44 - RT.
REMOVE 20.4 SQ. YD. OF
CONCRETE SIDEWALK

STA. 37+32 TO STA. 37+86 - RT.
REMOVE 54 FT. OF
CONCRETE CURB AND GUTTER

STA. 37+52 TO STA. 37+78 - RT.
REMOVE 23.5 SQ. YD.
CONCRETE DRIVEWAY PAVEMENT

STA. 38+93 TO STA. 40+52 - RT.
REMOVE 159 FT. OF
CONCRETE CURB AND GUTTER

STA. 38+93 TO STA. 40+52 - RT.
REMOVE 35.3 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 41+21 TO STA. 41+68 - RT.
REMOVE 29.8 SQ. YD. OF
CONCRETE SIDEWALK

STA. 41+53 TO STA. 41+72 - RT.
REMOVE 15.4 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 41+53 - 16' RT. TO STA. 41+68 - 32' RT.
REMOVE 24 FT. OF
CONCRETE CURB AND GUTTER

STA. 41+96 TO STA. 42+16 - RT.
REMOVE 15.1 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

LEGEND:

- | | | | | | |
|--|------------------------|--|--------------------------------|--|--------------------------------|
| | STREET SIGN | | TELEPHONE MANHOLE | | FULL - DEPTH REMOVAL |
| | CURB STOP | | TRAFFIC SIGNAL
JUNCTION BOX | | COLD MILL ASPHALT |
| | WATER VALVE | | TELEPHONE PEDESTAL | | CONCRETE SURFACING REMOVAL |
| | GAS VALVE | | SANITARY SEWER MANHOLE | | CONCRETE SURFACING REMOVAL |
| | STORM SEWER AREA INLET | | STORM SEWER MAHOLE | | CURB AND GUTTER/FILLET REMOVAL |
| | FIRE HYDRANT | | PROPERTY LINE | | |
| | LIGHT POLE | | | | |



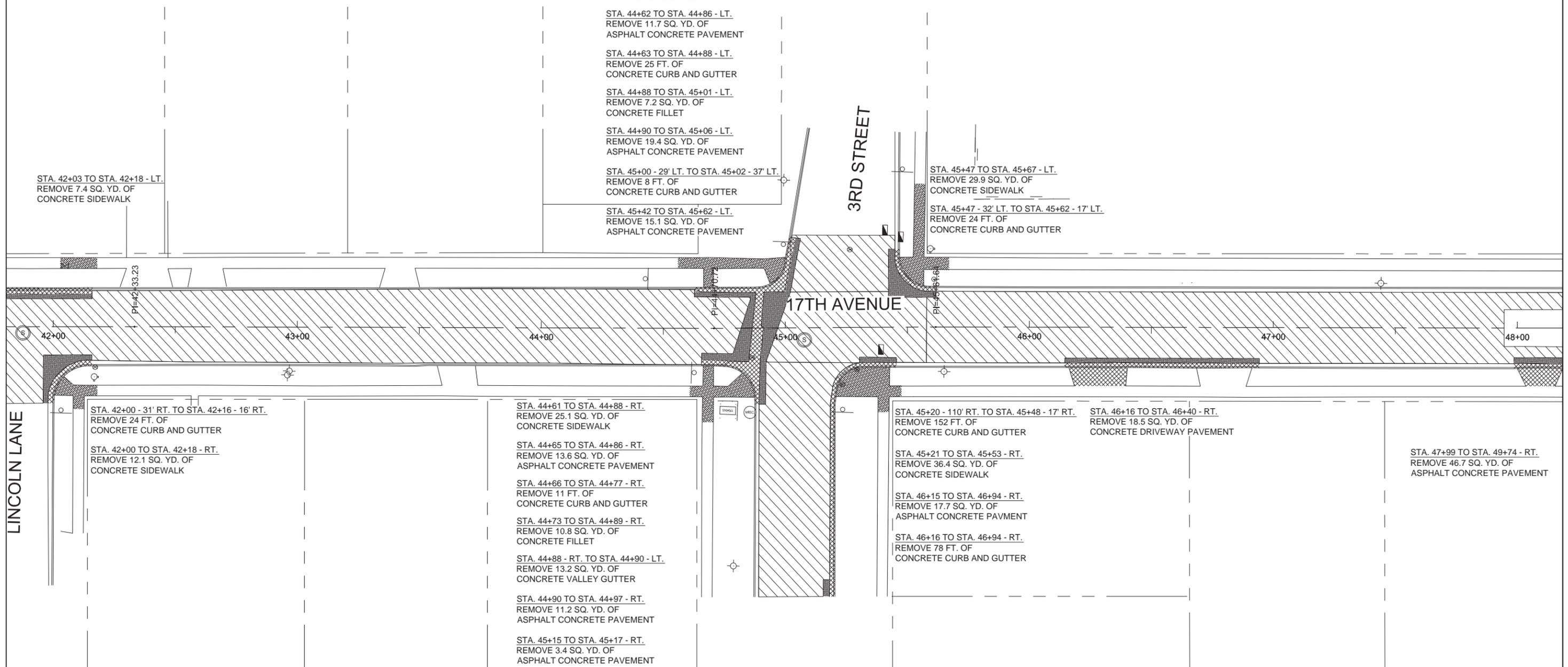
NOTE:
FINAL FULL DEPTH REMOVAL LIMITS AND QUANTITIES WILL
BE DETERMINED IN THE FIELD AND ADJUST ACCORDINGLY.

REMOVAL PLAN

FOR BIDDING PURPOSES ONLY

17TH AVENUE SOUTH
STA. 42+00 TO STA. 48+00

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	50	119



LEGEND:

- | | | | | | |
|--|------------------------|--|-----------------------------|--|--------------------------------|
| | STREET SIGN | | TELEPHONE MANHOLE | | FULL - DEPTH REMOVAL |
| | CURB STOP | | TRAFFIC SIGNAL JUNCTION BOX | | COLD MILL ASPHALT |
| | WATER VALVE | | TELEPHONE PEDESTAL | | CONCRETE SURFACING REMOVAL |
| | GAS VALVE | | SANITARY SEWER MANHOLE | | CURB AND GUTTER/FILLET REMOVAL |
| | STORM SEWER AREA INLET | | STORM SEWER MAHOLE | | |
| | FIRE HYDRANT | | PROPERTY LINE | | |
| | LIGHT POLE | | | | |



REMOVAL PLAN

17TH AVENUE SOUTH
STA. 48+00 TO STA. 54+00

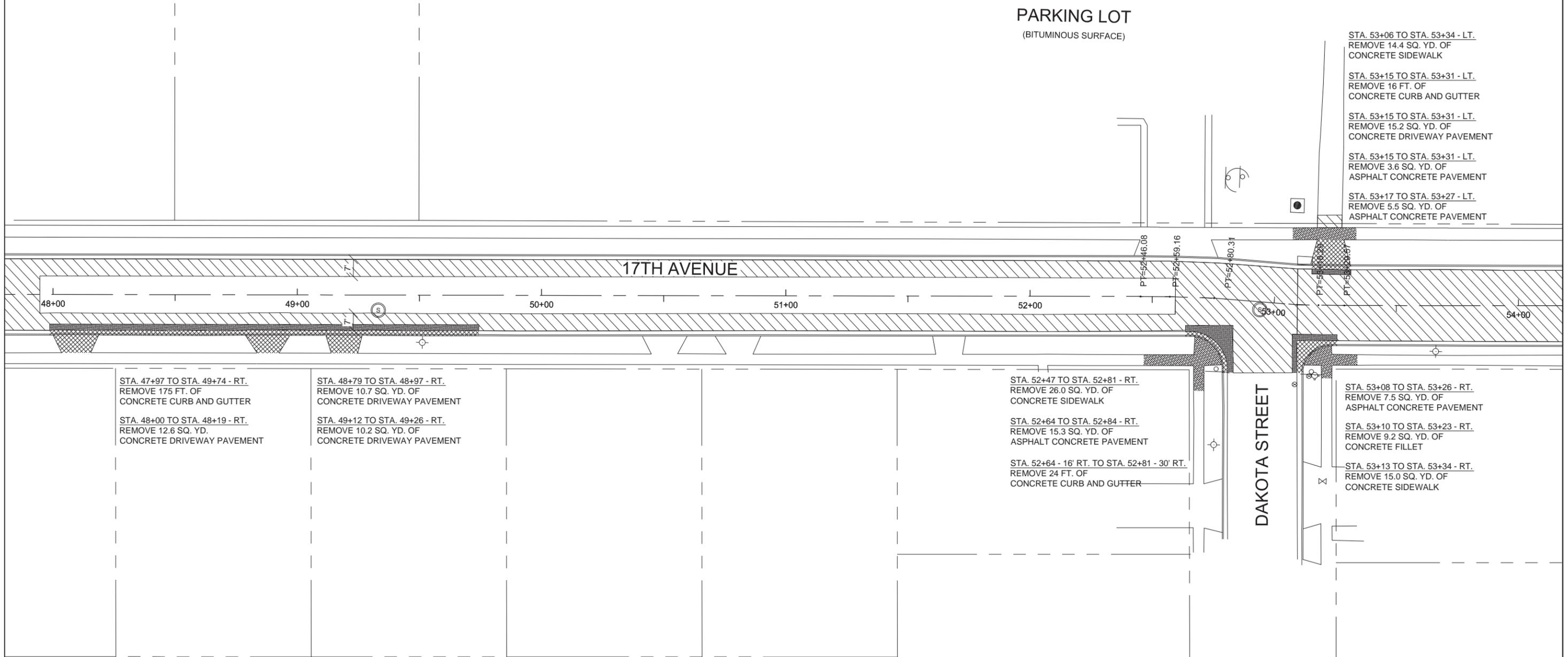
FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT P 3273(09)	SHEET No. 51	TOTAL SHEETS 119
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PARKING LOT

(BITUMINOUS SURFACE)



STA. 53+06 TO STA. 53+34 - LT.
REMOVE 14.4 SQ. YD. OF
CONCRETE SIDEWALK

STA. 53+15 TO STA. 53+31 - LT.
REMOVE 16 FT. OF
CONCRETE CURB AND GUTTER

STA. 53+15 TO STA. 53+31 - LT.
REMOVE 15.2 SQ. YD. OF
CONCRETE DRIVEWAY PAVEMENT

STA. 53+15 TO STA. 53+31 - LT.
REMOVE 3.6 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 53+17 TO STA. 53+27 - LT.
REMOVE 5.5 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 47+97 TO STA. 49+74 - RT.
REMOVE 175 FT. OF
CONCRETE CURB AND GUTTER

STA. 48+00 TO STA. 48+19 - RT.
REMOVE 12.6 SQ. YD.
CONCRETE DRIVEWAY PAVEMENT

STA. 48+79 TO STA. 48+97 - RT.
REMOVE 10.7 SQ. YD. OF
CONCRETE DRIVEWAY PAVEMENT

STA. 49+12 TO STA. 49+26 - RT.
REMOVE 10.2 SQ. YD. OF
CONCRETE DRIVEWAY PAVEMENT

STA. 52+47 TO STA. 52+81 - RT.
REMOVE 26.0 SQ. YD. OF
CONCRETE SIDEWALK

STA. 52+64 TO STA. 52+84 - RT.
REMOVE 15.3 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 52+64 - 16' RT. TO STA. 52+81 - 30' RT.
REMOVE 24 FT. OF
CONCRETE CURB AND GUTTER

STA. 53+08 TO STA. 53+26 - RT.
REMOVE 7.5 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 53+10 TO STA. 53+23 - RT.
REMOVE 9.2 SQ. YD. OF
CONCRETE FILLET

STA. 53+13 TO STA. 53+34 - RT.
REMOVE 15.0 SQ. YD. OF
CONCRETE SIDEWALK

LEGEND:

- STREET SIGN
- ⊗ CURB STOP
- ⊗ WATER VALVE
- ▬ GAS VALVE
- STORM SEWER AREA INLET
- FIRE HYDRANT
- LIGHT POLE
- (T) TELEPHONE MANHOLE
- (E) TRAFFIC SIGNAL JUNCTION BOX
- (T) TELEPHONE PEDESTAL
- (S) SANITARY SEWER MANHOLE
- (ST) STORM SEWER MAHOLE
- - - - - PROPERTY LINE
- [Grid Hatching] FULL - DEPTH REMOVAL
- [Diagonal Hatching] COLD MILL ASPHALT
- [Cross-hatching] CONCRETE SURFACING REMOVAL
- [Cross-hatching] CURB AND GUTTER/FILLET REMOVAL



REMOVAL PLAN

17TH AVENUE SOUTH
STA. 54+00 TO STA. 57+51.36

FOR BIDDING PURPOSES ONLY

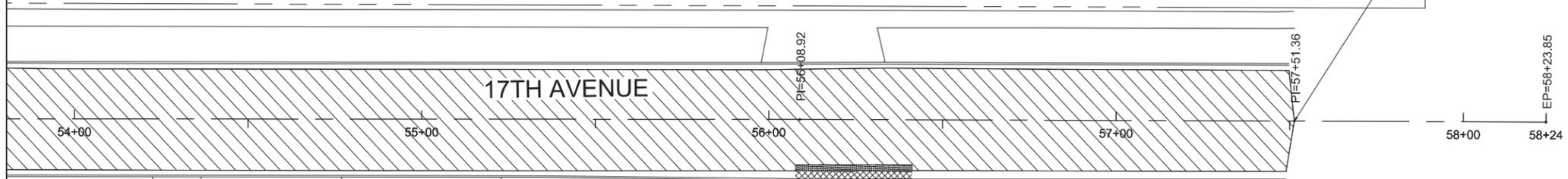
STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	52	119



PARKING LOT
(BITUMINOUS SURFACE)

6TH STREET

END PROJECT
STA. 57+51.36



STA. 56+08 TO STA. 56+42 - RT.
REMOVE 7.4 SQ. YD. OF
ASPHALT CONCRETE PAVEMENT

STA. 56+08 TO STA. 56+41 - RT.
REMOVE 33 FT. OF
CONCRETE CURB AND GUTTER

STA. 56+09 TO STA. 56+39 - RT.
REMOVE 9.9 SQ. YD. OF
CONCRETE DRIVEWAY PAVEMENT

PARKING LOT
(BITUMINOUS SURFACE)

LEGEND:

- | | | | | | |
|--|------------------------|--|--------------------------------|--|--------------------------------|
| | STREET SIGN | | TELEPHONE MANHOLE | | FULL - DEPTH REMOVAL |
| | CURB STOP | | TRAFFIC SIGNAL
JUNCTION BOX | | COLD MILL ASPHALT |
| | WATER VALVE | | TELEPHONE PEDESTAL | | CONCRETE SURFACING REMOVAL |
| | GAS VALVE | | SANITARY SEWER MANHOLE | | CURB AND GUTTER/FILLET REMOVAL |
| | STORM SEWER AREA INLET | | STORM SEWER MAHOLE | | |
| | FIRE HYDRANT | | PROPERTY LINE | | |
| | LIGHT POLE | | | | |

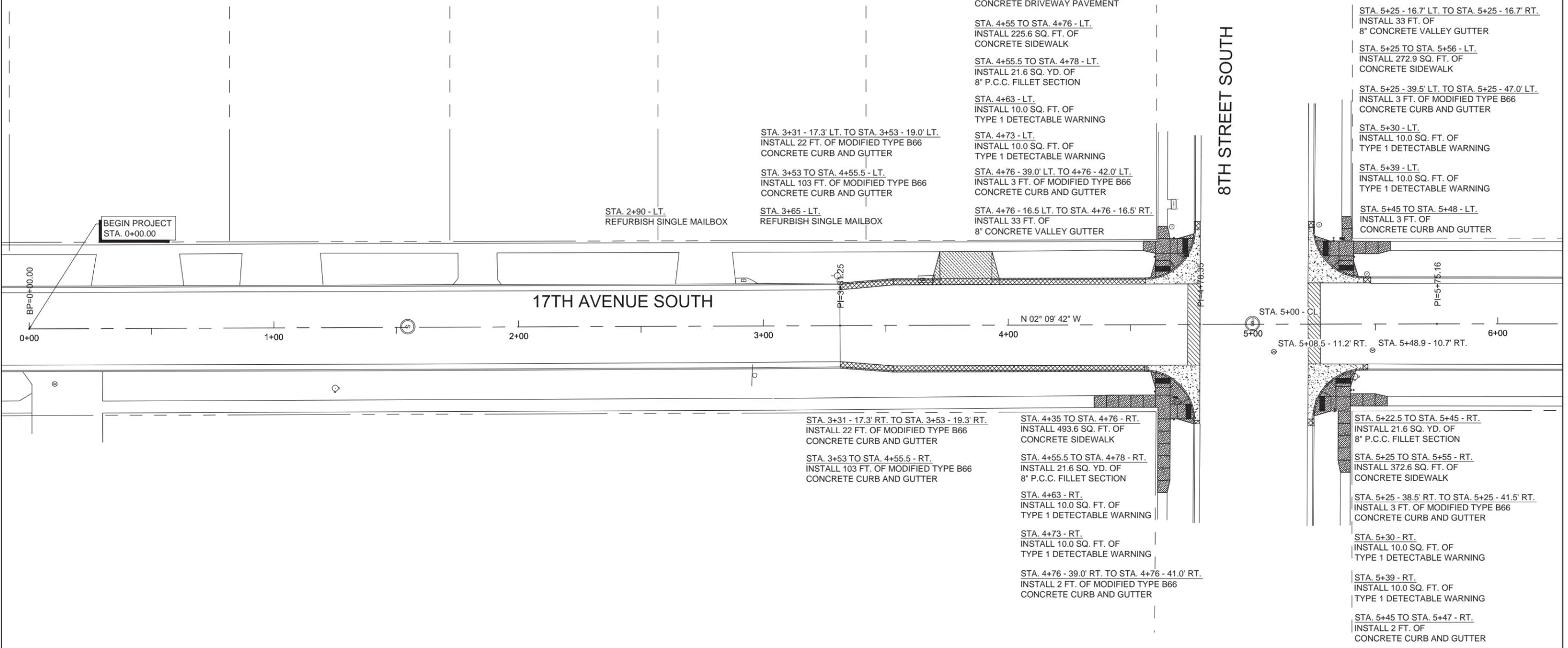


INSTALLATION PLAN

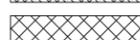
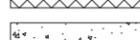
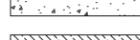
17TH AVENUE SOUTH
STA. 0+00 TO STA. 6+00

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT P 3273(09)	SHEET No. 53	TOTAL SHEETS 119
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LEGEND:

-  STREET SIGN
-  TELEPHONE MANHOLE
-  VALLEY GUTTER INSTALLATION
-  CURB STOP
-  TRAFFIC SIGNAL JUNCTION BOX
-  SIDEWALK INSTALLATION
-  WATER VALVE
-  TELEPHONE PEDESTAL
-  CURB AND GUTTER INSTALLATION
-  GAS VALVE
-  SANITARY SEWER MANHOLE
-  FILLET INSTALLATION
-  STORM SEWER AREA INLET
-  STORM SEWER MAHOLE
-  CONCRETE DRIVEWAY INSTALLATION
-  FIRE HYDRANT
-  PROPERTY LINE
-  LIGHT POLE



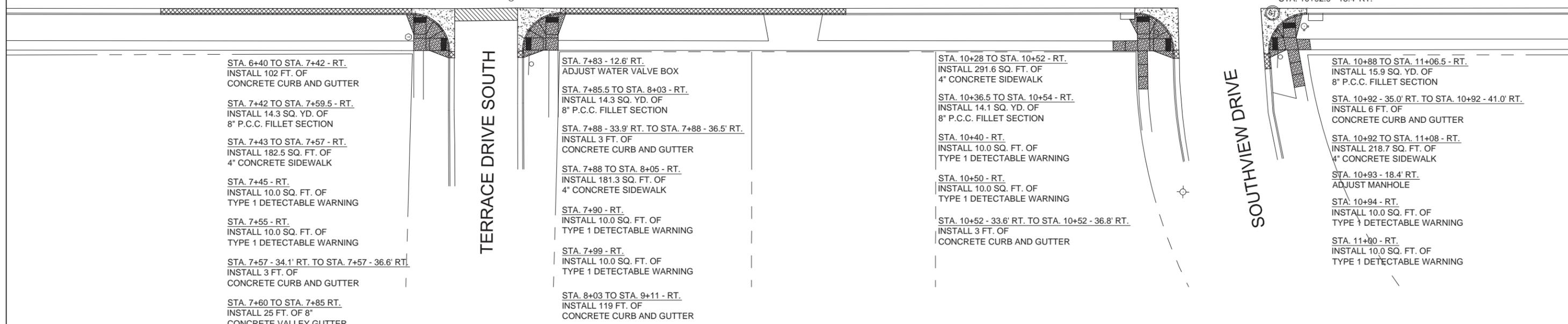
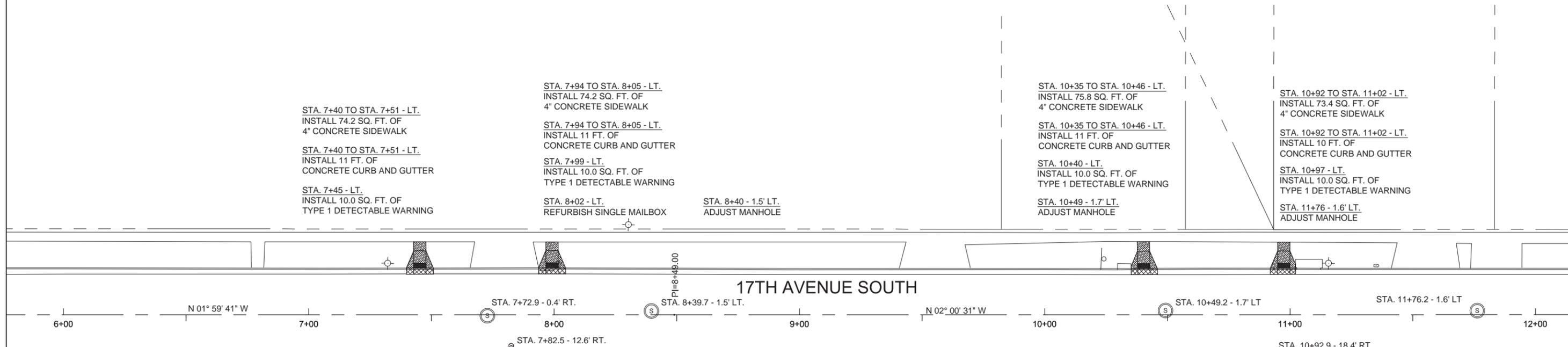
NOTE:
ALL CURB AND GUTTER SHALL BE SPECIAL CONCRETE CURB AND GUTTER UNLESS STATED OTHERWISE IN THE CALL-OFF.

INSTALLATION PLAN

17TH AVENUE SOUTH
STA. 6+00 TO STA. 12+00

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	54	119



NOTE:
ALL CURB AND GUTTER SHALL BE SPECIAL CONCRETE CURB AND GUTTER UNLESS STATED OTHERWISE IN THE CALL-OFF.



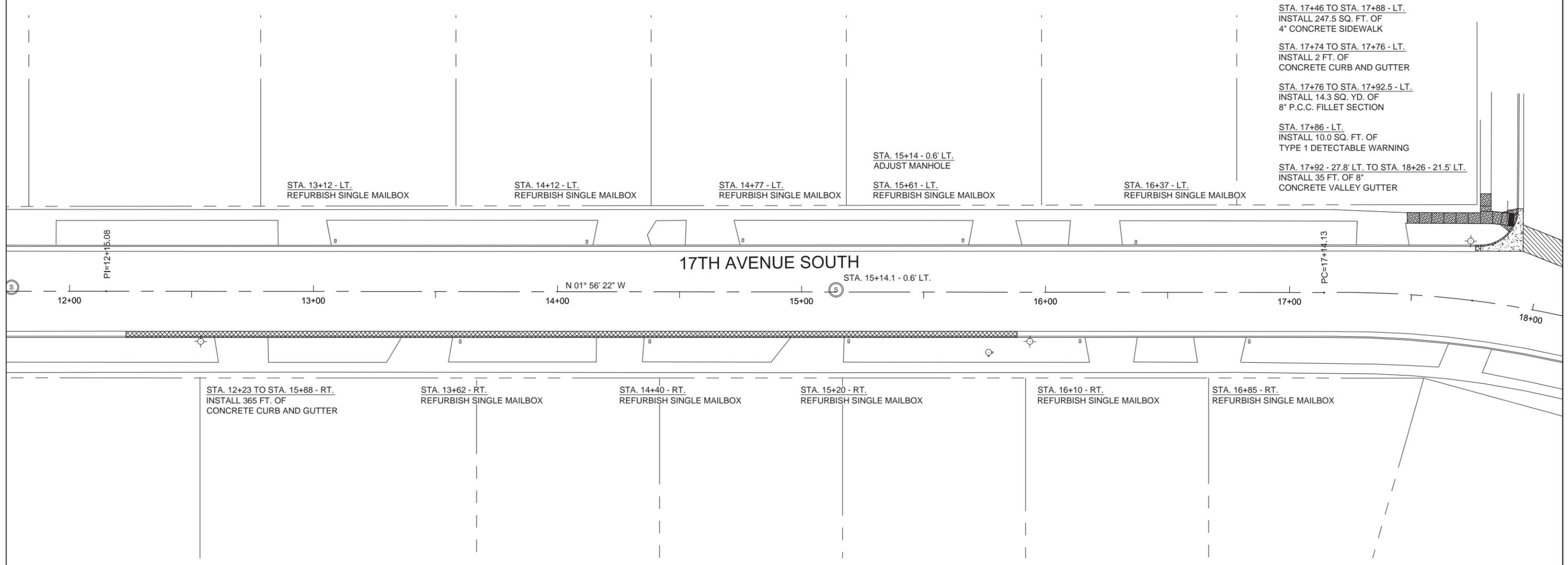
	STREET SIGN		TELEPHONE MANHOLE		VALLEY GUTTER INSTALLATION
	CURB STOP		TRAFFIC SIGNAL JUNCTION BOX		SIDEWALK INSTALLATION
	WATER VALVE		TELEPHONE PEDESTAL		CURB AND GUTTER INSTALLATION
	GAS VALVE		SANITARY SEWER MANHOLE		FILLET INSTALLATION
	STORM SEWER AREA INLET		STORM SEWER MAHOLE		CONCRETE DRIVEWAY INSTALLATION
	FIRE HYDRANT		PROPERTY LINE		
	LIGHT POLE				

INSTALLATION PLAN

17TH AVENUE SOUTH
STA. 12+00 TO STA. 18+00

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	55	119



LEGEND:

- | | | | | | |
|--|------------------------|--|-----------------------------|--|--------------------------------|
| | STREET SIGN | | TELEPHONE MANHOLE | | VALLEY GUTTER INSTALLATION |
| | CURB STOP | | TRAFFIC SIGNAL JUNCTION BOX | | SIDEWALK INSTALLATION |
| | WATER VALVE | | TELEPHONE PEDESTAL | | CURB AND GUTTER INSTALLATION |
| | GAS VALVE | | SANITARY SEWER MANHOLE | | FILLET INSTALLATION |
| | STORM SEWER AREA INLET | | STORM SEWER MAHOLE | | CONCRETE DRIVEWAY INSTALLATION |
| | FIRE HYDRANT | | PROPERTY LINE | | |
| | LIGHT POLE | | | | |



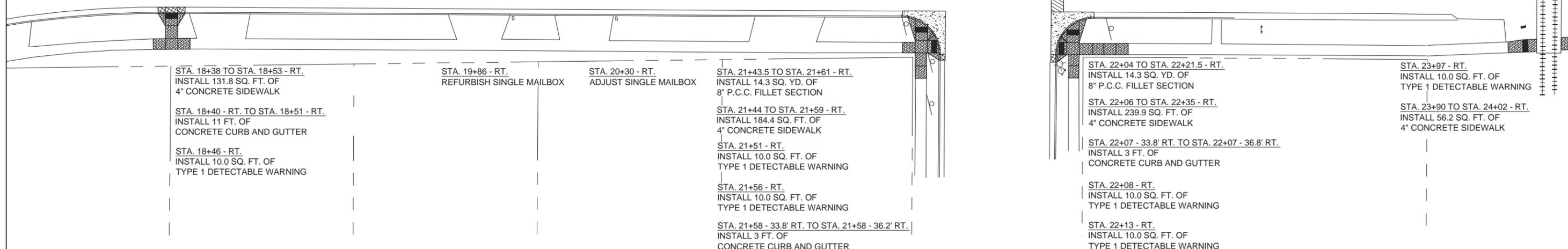
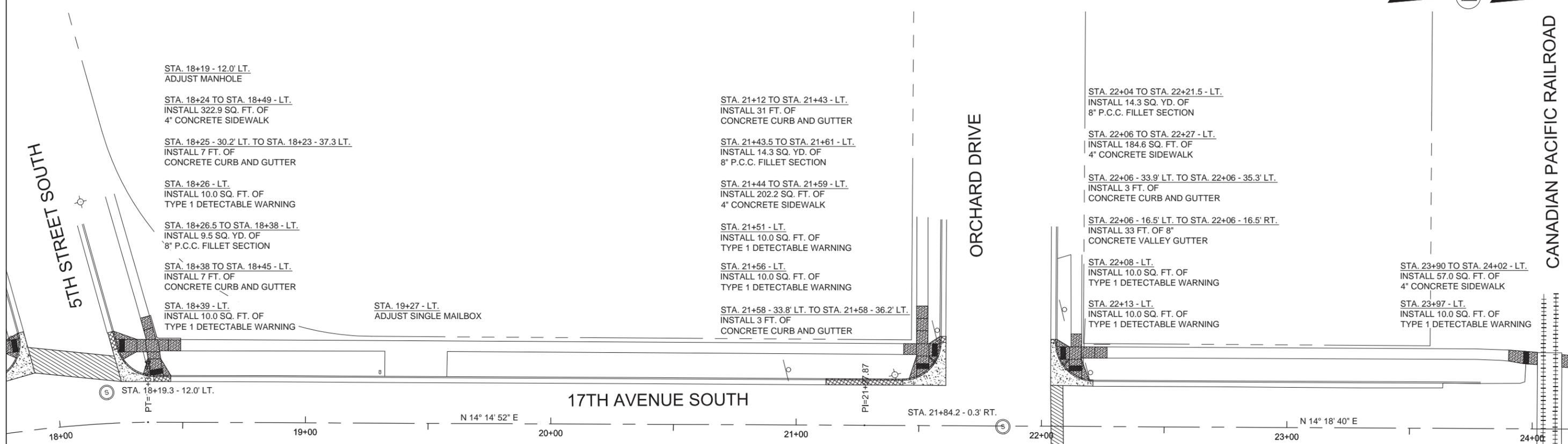
NOTE:
ALL CURB AND GUTTER SHALL BE SPECIAL CONCRETE CURB AND GUTTER UNLESS STATED OTHERWISE IN THE CALL-OFF.

INSTALLATION PLAN

17TH AVENUE SOUTH
STA. 18+00 TO STA. 24+00

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	56	119



STA. 18+19 - 12.0' LT.
ADJUST MANHOLE

STA. 18+24 TO STA. 18+49 - LT.
INSTALL 322.9 SQ. FT. OF
4" CONCRETE SIDEWALK

STA. 18+25 - 30.2' LT. TO STA. 18+23 - 37.3 LT.
INSTALL 7 FT. OF
CONCRETE CURB AND GUTTER

STA. 18+26 - LT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 18+26.5 TO STA. 18+38 - LT.
INSTALL 9.5 SQ. YD. OF
8" P.C.C. FILLET SECTION

STA. 18+38 TO STA. 18+45 - LT.
INSTALL 7 FT. OF
CONCRETE CURB AND GUTTER

STA. 18+39 - LT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 21+12 TO STA. 21+43 - LT.
INSTALL 31 FT. OF
CONCRETE CURB AND GUTTER

STA. 21+43.5 TO STA. 21+61 - LT.
INSTALL 14.3 SQ. YD. OF
8" P.C.C. FILLET SECTION

STA. 21+44 TO STA. 21+59 - LT.
INSTALL 202.2 SQ. FT. OF
4" CONCRETE SIDEWALK

STA. 21+51 - LT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 21+56 - LT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 21+58 - 33.8' LT. TO STA. 21+58 - 36.2' LT.
INSTALL 3 FT. OF
CONCRETE CURB AND GUTTER

STA. 22+04 TO STA. 22+21.5 - LT.
INSTALL 14.3 SQ. YD. OF
8" P.C.C. FILLET SECTION

STA. 22+06 TO STA. 22+27 - LT.
INSTALL 184.6 SQ. FT. OF
4" CONCRETE SIDEWALK

STA. 22+06 - 33.9' LT. TO STA. 22+06 - 35.3' LT.
INSTALL 3 FT. OF
CONCRETE CURB AND GUTTER

STA. 22+06 - 16.5' LT. TO STA. 22+06 - 16.5' RT.
INSTALL 33 FT. OF 8"
CONCRETE VALLEY GUTTER

STA. 22+08 - LT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 22+13 - LT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 23+90 TO STA. 24+02 - LT.
INSTALL 57.0 SQ. FT. OF
4" CONCRETE SIDEWALK

STA. 23+97 - LT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 18+38 TO STA. 18+53 - RT.
INSTALL 131.8 SQ. FT. OF
4" CONCRETE SIDEWALK

STA. 18+40 - RT. TO STA. 18+51 - RT.
INSTALL 11 FT. OF
CONCRETE CURB AND GUTTER

STA. 18+46 - RT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 19+86 - RT.
REFURBISH SINGLE MAILBOX

STA. 20+30 - RT.
ADJUST SINGLE MAILBOX

STA. 21+43.5 TO STA. 21+61 - RT.
INSTALL 14.3 SQ. YD. OF
8" P.C.C. FILLET SECTION

STA. 21+44 TO STA. 21+59 - RT.
INSTALL 184.4 SQ. FT. OF
4" CONCRETE SIDEWALK

STA. 21+51 - RT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 21+56 - RT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 21+58 - 33.8' RT. TO STA. 21+58 - 36.2' RT.
INSTALL 3 FT. OF
CONCRETE CURB AND GUTTER

STA. 22+04 TO STA. 22+21.5 - RT.
INSTALL 14.3 SQ. YD. OF
8" P.C.C. FILLET SECTION

STA. 22+06 TO STA. 22+35 - RT.
INSTALL 239.9 SQ. FT. OF
4" CONCRETE SIDEWALK

STA. 22+07 - 33.8' RT. TO STA. 22+07 - 36.8' RT.
INSTALL 3 FT. OF
CONCRETE CURB AND GUTTER

STA. 22+08 - RT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 22+13 - RT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 23+97 - RT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 23+90 TO STA. 24+02 - RT.
INSTALL 56.2 SQ. FT. OF
4" CONCRETE SIDEWALK

NOTE:
ALL CURB AND GUTTER SHALL BE SPECIAL CONCRETE CURB AND
GUTTER UNLESS STATED OTHERWISE IN THE CALL-OFF.



	STREET SIGN		TELEPHONE MANHOLE		VALLEY GUTTER INSTALLATION
	CURB STOP		TRAFFIC SIGNAL JUNCTION BOX		SIDEWALK INSTALLATION
	WATER VALVE		TELEPHONE PEDESTAL		CURB AND GUTTER INSTALLATION
	GAS VALVE		SANITARY SEWER MANHOLE		FILLET INSTALLATION
	STORM SEWER AREA INLET		STORM SEWER MAHOLE		CONCRETE DRIVEWAY INSTALLATION
	FIRE HYDRANT		PROPERTY LINE		
	LIGHT POLE				

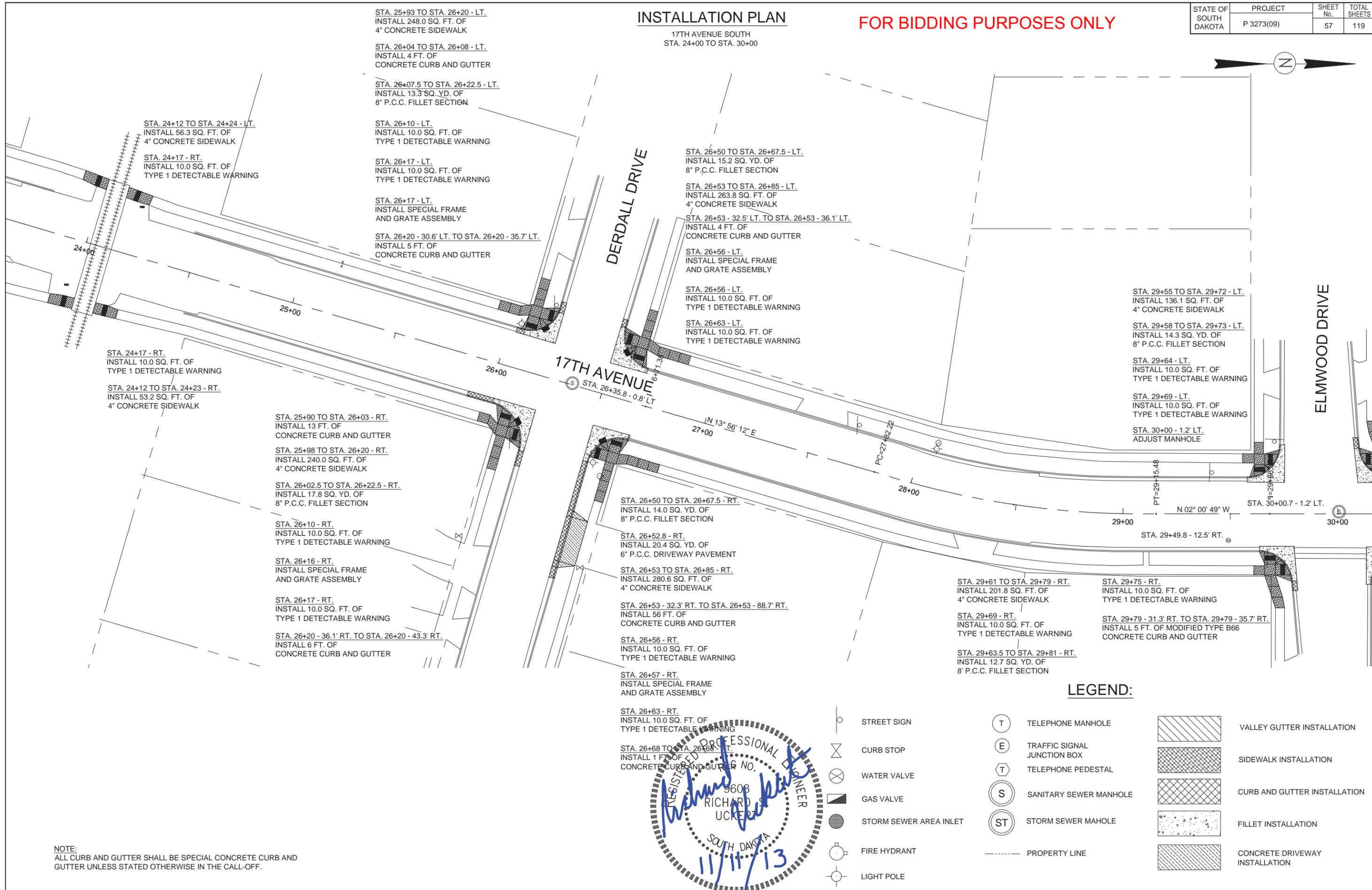
LEGEND:

INSTALLATION PLAN

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT P 3273(09)	SHEET No. 57	TOTAL SHEETS 119
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17TH AVENUE SOUTH
STA. 24+00 TO STA. 30+00



STA. 25+93 TO STA. 26+20 - LT.
INSTALL 248.0 SQ. FT. OF
4" CONCRETE SIDEWALK

STA. 26+04 TO STA. 26+08 - LT.
INSTALL 4 FT. OF
CONCRETE CURB AND GUTTER

STA. 26+07.5 TO STA. 26+22.5 - LT.
INSTALL 13.3 SQ. YD. OF
8" P.C.C. FILLET SECTION

STA. 26+10 - LT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 26+17 - LT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 26+17 - LT.
INSTALL SPECIAL FRAME
AND GRATE ASSEMBLY

STA. 26+20 - 30.6' LT. TO STA. 26+20 - 35.7' LT.
INSTALL 5 FT. OF
CONCRETE CURB AND GUTTER

STA. 24+12 TO STA. 24+24 - LT.
INSTALL 56.3 SQ. FT. OF
4" CONCRETE SIDEWALK

STA. 24+17 - RT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 24+17 - RT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 24+12 TO STA. 24+23 - RT.
INSTALL 53.2 SQ. FT. OF
4" CONCRETE SIDEWALK

STA. 25+90 TO STA. 26+03 - RT.
INSTALL 13 FT. OF
CONCRETE CURB AND GUTTER

STA. 25+98 TO STA. 26+20 - RT.
INSTALL 240.0 SQ. FT. OF
4" CONCRETE SIDEWALK

STA. 26+02.5 TO STA. 26+22.5 - RT.
INSTALL 17.8 SQ. YD. OF
8" P.C.C. FILLET SECTION

STA. 26+10 - RT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 26+16 - RT.
INSTALL SPECIAL FRAME
AND GRATE ASSEMBLY

STA. 26+17 - RT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 26+20 - 36.1' RT. TO STA. 26+20 - 43.3' RT.
INSTALL 6 FT. OF
CONCRETE CURB AND GUTTER

STA. 26+50 TO STA. 26+67.5 - LT.
INSTALL 15.2 SQ. YD. OF
8" P.C.C. FILLET SECTION

STA. 26+53 TO STA. 26+85 - LT.
INSTALL 263.8 SQ. FT. OF
4" CONCRETE SIDEWALK

STA. 26+53 - 32.5' LT. TO STA. 26+53 - 36.1' LT.
INSTALL 4 FT. OF
CONCRETE CURB AND GUTTER

STA. 26+56 - LT.
INSTALL SPECIAL FRAME
AND GRATE ASSEMBLY

STA. 26+56 - LT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 26+63 - LT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 26+50 TO STA. 26+67.5 - RT.
INSTALL 14.0 SQ. YD. OF
8" P.C.C. FILLET SECTION

STA. 26+52.8 - RT.
INSTALL 20.4 SQ. YD. OF
6" P.C.C. DRIVEWAY PAVEMENT

STA. 26+53 TO STA. 26+85 - RT.
INSTALL 280.6 SQ. FT. OF
4" CONCRETE SIDEWALK

STA. 26+53 - 32.3' RT. TO STA. 26+53 - 88.7' RT.
INSTALL 56 FT. OF
CONCRETE CURB AND GUTTER

STA. 26+56 - RT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 26+57 - RT.
INSTALL SPECIAL FRAME
AND GRATE ASSEMBLY

STA. 29+55 TO STA. 29+72 - LT.
INSTALL 136.1 SQ. FT. OF
4" CONCRETE SIDEWALK

STA. 29+58 TO STA. 29+73 - LT.
INSTALL 14.3 SQ. YD. OF
8" P.C.C. FILLET SECTION

STA. 29+64 - LT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 29+69 - LT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 30+00 - 1.2' LT.
ADJUST MANHOLE

STA. 29+61 TO STA. 29+79 - RT.
INSTALL 201.8 SQ. FT. OF
4" CONCRETE SIDEWALK

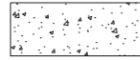
STA. 29+69 - RT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 29+63.5 TO STA. 29+81 - RT.
INSTALL 12.7 SQ. YD. OF
8" P.C.C. FILLET SECTION

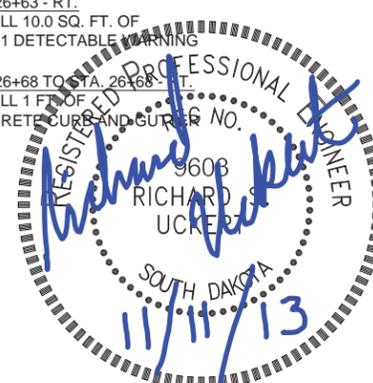
STA. 29+75 - RT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 29+79 - 31.3' RT. TO STA. 29+79 - 35.7' RT.
INSTALL 5 FT. OF MODIFIED TYPE B66
CONCRETE CURB AND GUTTER

LEGEND:

-  STREET SIGN
-  TELEPHONE MANHOLE
-  VALLEY GUTTER INSTALLATION
-  CURB STOP
-  TRAFFIC SIGNAL JUNCTION BOX
-  SIDEWALK INSTALLATION
-  WATER VALVE
-  TELEPHONE PEDESTAL
-  CURB AND GUTTER INSTALLATION
-  GAS VALVE
-  SANITARY SEWER MANHOLE
-  FILLET INSTALLATION
-  STORM SEWER AREA INLET
-  STORM SEWER MAHOLE
-  CONCRETE DRIVEWAY INSTALLATION
-  FIRE HYDRANT
-  PROPERTY LINE
-  LIGHT POLE

NOTE:
ALL CURB AND GUTTER SHALL BE SPECIAL CONCRETE CURB AND GUTTER UNLESS STATED OTHERWISE IN THE CALL-OFF.



INSTALLATION PLAN

17TH AVENUE SOUTH
STA. 30+00 TO STA. 36+00

FOR BIDDING PURPOSES ONLY

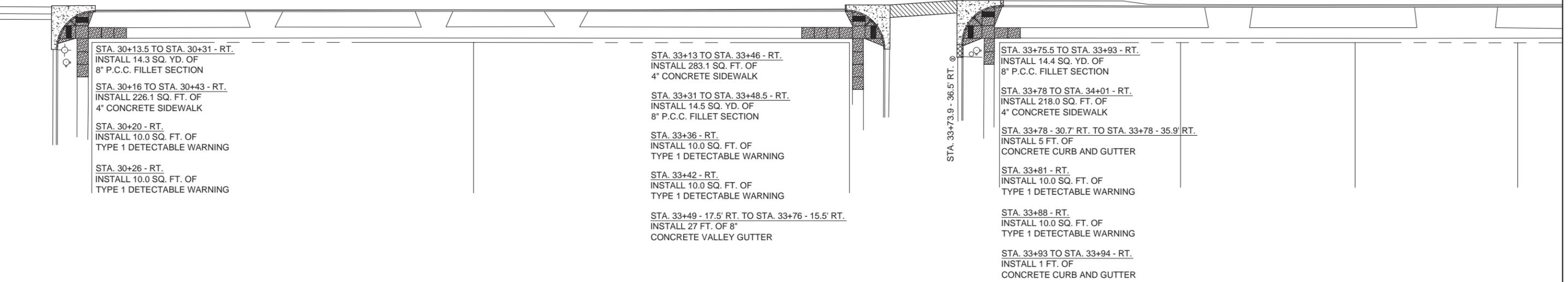
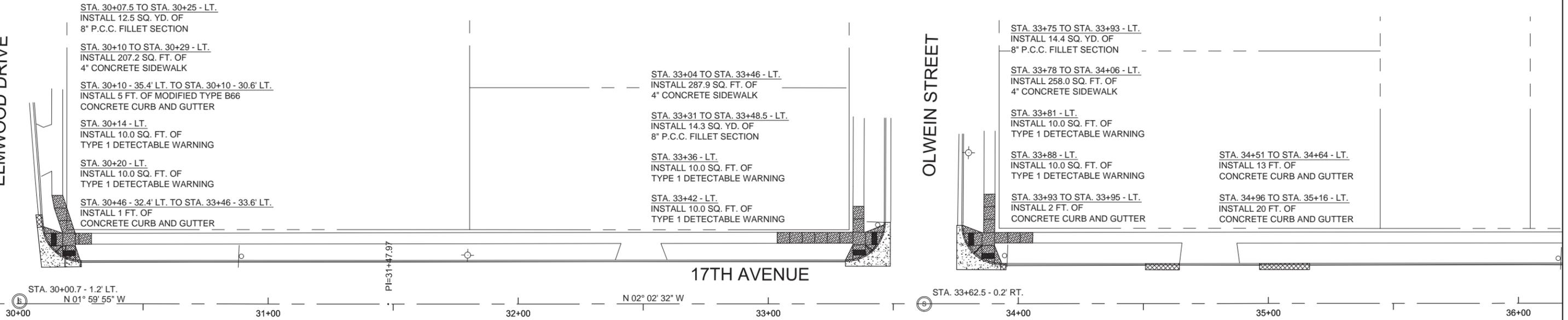
STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	58	119



ELMWOOD DRIVE

OLWEIN STREET

17TH AVENUE



LEGEND:

- | | | | | | |
|--|------------------------|--|--------------------------------|--|-----------------------------------|
| | STREET SIGN | | TELEPHONE MANHOLE | | VALLEY GUTTER INSTALLATION |
| | CURB STOP | | TRAFFIC SIGNAL
JUNCTION BOX | | SIDEWALK INSTALLATION |
| | WATER VALVE | | TELEPHONE PEDESTAL | | CURB AND GUTTER INSTALLATION |
| | GAS VALVE | | SANITARY SEWER MANHOLE | | FILLET INSTALLATION |
| | STORM SEWER AREA INLET | | STORM SEWER MAHOLE | | CONCRETE DRIVEWAY
INSTALLATION |
| | FIRE HYDRANT | | PROPERTY LINE | | |
| | LIGHT POLE | | | | |



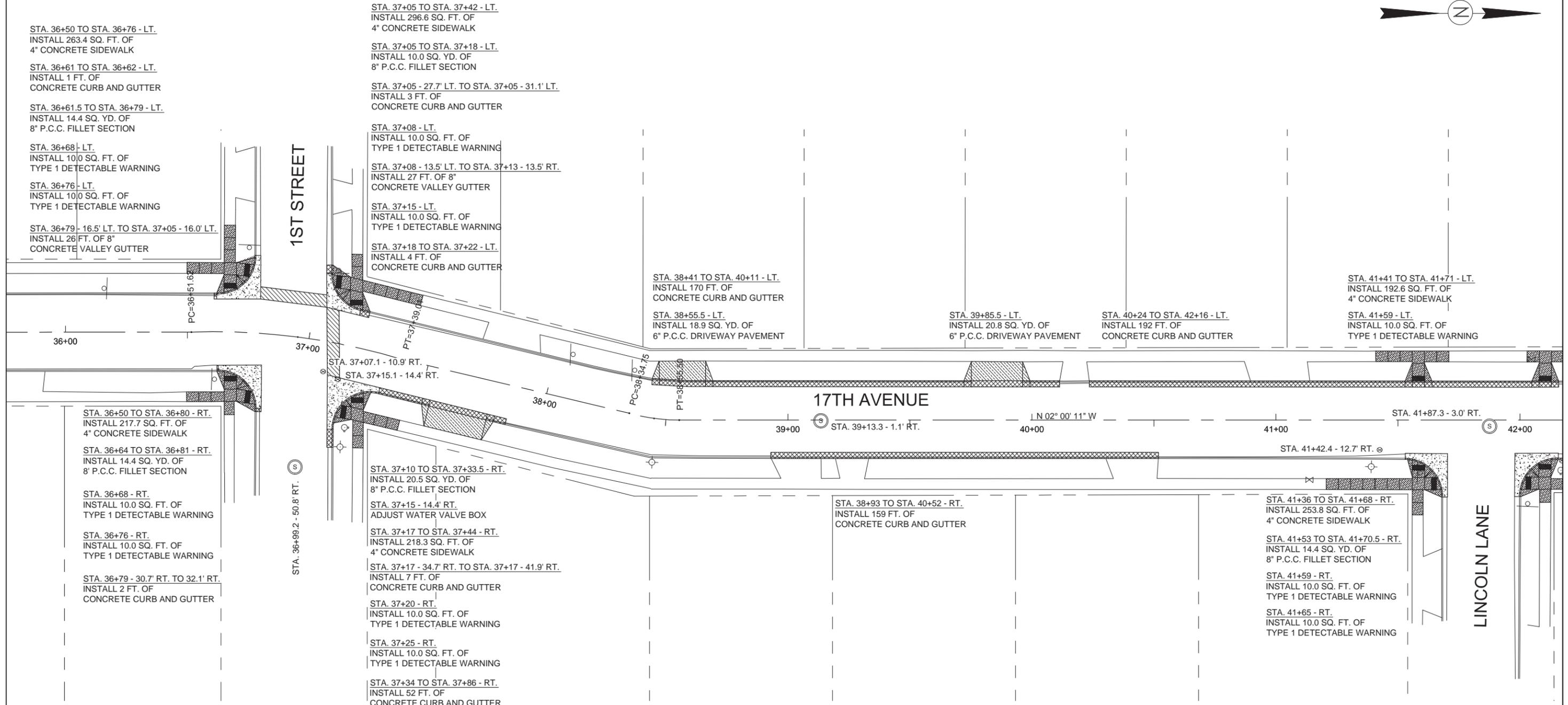
NOTE:
ALL CURB AND GUTTER SHALL BE SPECIAL CONCRETE CURB AND GUTTER UNLESS STATED OTHERWISE IN THE CALL-OFF.

INSTALLATION PLAN

FOR BIDDING PURPOSES ONLY

17TH AVENUE SOUTH
STA. 36+00 TO STA. 42+00

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	59	119



STA. 36+50 TO STA. 36+76 - LT.
INSTALL 263.4 SQ. FT. OF
4" CONCRETE SIDEWALK

STA. 36+61 TO STA. 36+62 - LT.
INSTALL 1 FT. OF
CONCRETE CURB AND GUTTER

STA. 36+61.5 TO STA. 36+79 - LT.
INSTALL 14.4 SQ. YD. OF
8" P.C.C. FILLET SECTION

STA. 36+68 - LT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 36+76 - LT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 36+79 - 16.5' LT. TO STA. 37+05 - 16.0' LT.
INSTALL 26 FT. OF 8"
CONCRETE VALLEY GUTTER

STA. 37+05 TO STA. 37+42 - LT.
INSTALL 296.6 SQ. FT. OF
4" CONCRETE SIDEWALK

STA. 37+05 TO STA. 37+18 - LT.
INSTALL 10.0 SQ. YD. OF
8" P.C.C. FILLET SECTION

STA. 37+05 - 27.7' LT. TO STA. 37+05 - 31.1' LT.
INSTALL 3 FT. OF
CONCRETE CURB AND GUTTER

STA. 37+08 - LT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 37+08 - 13.5' LT. TO STA. 37+13 - 13.5' RT.
INSTALL 27 FT. OF 8"
CONCRETE VALLEY GUTTER

STA. 37+15 - LT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 37+18 TO STA. 37+22 - LT.
INSTALL 4 FT. OF
CONCRETE CURB AND GUTTER

STA. 38+41 TO STA. 40+11 - LT.
INSTALL 170 FT. OF
CONCRETE CURB AND GUTTER

STA. 38+55.5 - LT.
INSTALL 18.9 SQ. YD. OF
6" P.C.C. DRIVEWAY PAVEMENT

STA. 39+85.5 - LT.
INSTALL 20.8 SQ. YD. OF
6" P.C.C. DRIVEWAY PAVEMENT

STA. 40+24 TO STA. 42+16 - LT.
INSTALL 192 FT. OF
CONCRETE CURB AND GUTTER

STA. 41+41 TO STA. 41+71 - LT.
INSTALL 192.6 SQ. FT. OF
4" CONCRETE SIDEWALK

STA. 41+59 - LT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 36+50 TO STA. 36+80 - RT.
INSTALL 217.7 SQ. FT. OF
4" CONCRETE SIDEWALK

STA. 36+64 TO STA. 36+81 - RT.
INSTALL 14.4 SQ. YD. OF
8" P.C.C. FILLET SECTION

STA. 36+68 - RT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 36+76 - RT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 36+79 - 30.7' RT. TO 32.1' RT.
INSTALL 2 FT. OF
CONCRETE CURB AND GUTTER

STA. 37+07.1 - 10.9' RT.
STA. 37+15.1 - 14.4' RT.

STA. 37+10 TO STA. 37+33.5 - RT.
INSTALL 20.5 SQ. YD. OF
8" P.C.C. FILLET SECTION

STA. 37+15 - 14.4' RT.
ADJUST WATER VALVE BOX

STA. 37+17 TO STA. 37+44 - RT.
INSTALL 218.3 SQ. FT. OF
4" CONCRETE SIDEWALK

STA. 37+17 - 34.7' RT. TO STA. 37+17 - 41.9' RT.
INSTALL 7 FT. OF
CONCRETE CURB AND GUTTER

STA. 37+20 - RT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 37+25 - RT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 37+34 TO STA. 37+86 - RT.
INSTALL 52 FT. OF
CONCRETE CURB AND GUTTER

STA. 37+66 - RT.
INSTALL 25.2 SQ. YD. OF
6" P.C.C. DRIVEWAY PAVEMENT

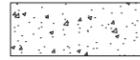
17TH AVENUE

N 02° 00' 11" W

NOTE:
ALL CURB AND GUTTER SHALL BE SPECIAL CONCRETE CURB AND
GUTTER UNLESS STATED OTHERWISE IN THE CALL-OFF.



LEGEND:

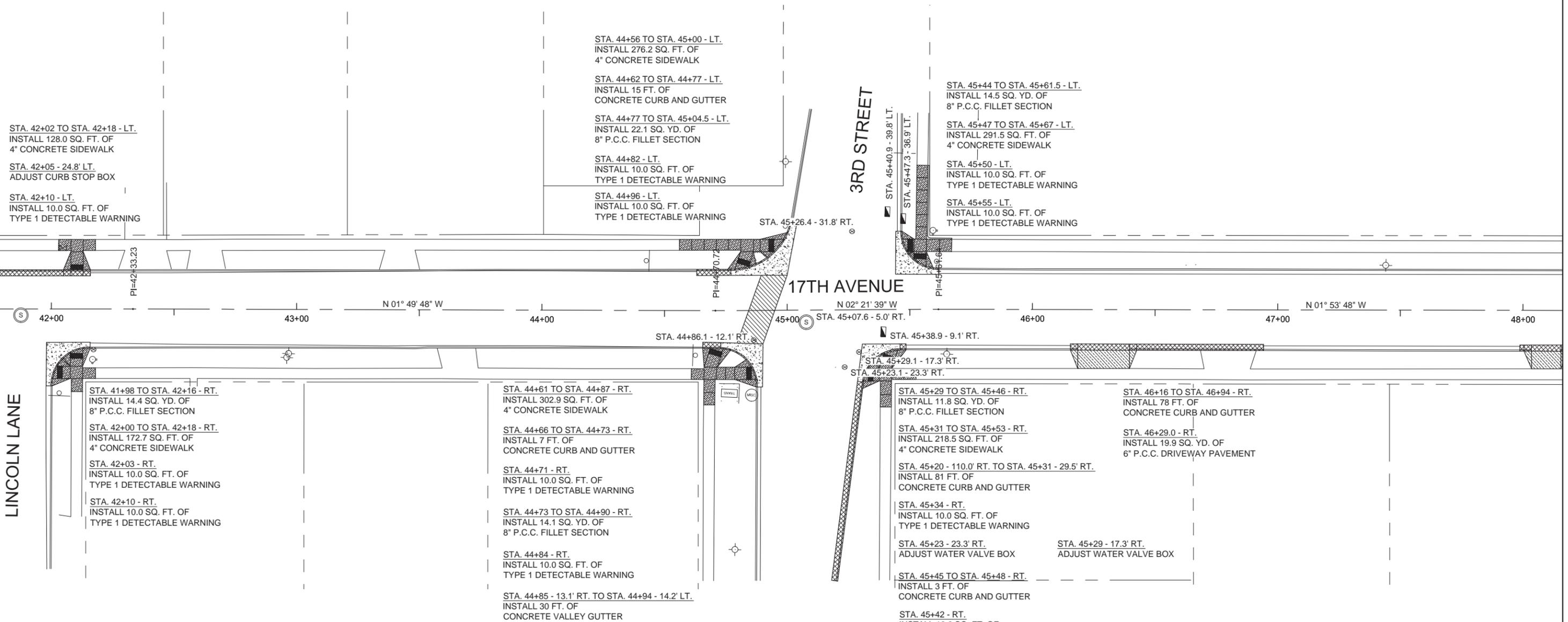
-  STREET SIGN
-  TELEPHONE MANHOLE
-  VALLEY GUTTER INSTALLATION
-  CURB STOP
-  TRAFFIC SIGNAL JUNCTION BOX
-  SIDEWALK INSTALLATION
-  WATER VALVE
-  TELEPHONE PEDESTAL
-  CURB AND GUTTER INSTALLATION
-  GAS VALVE
-  SANITARY SEWER MANHOLE
-  FILLET INSTALLATION
-  STORM SEWER AREA INLET
-  STORM SEWER MAHOLE
-  CONCRETE DRIVEWAY INSTALLATION
-  FIRE HYDRANT
-  PROPERTY LINE
-  LIGHT POLE

INSTALLATION PLAN

17TH AVENUE SOUTH
STA. 42+00 TO STA. 48+00

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	60	119



LINCOLN LANE

3RD STREET

17TH AVENUE

NOTE:
ALL CURB AND GUTTER SHALL BE SPECIAL CONCRETE CURB AND GUTTER UNLESS STATED OTHERWISE IN THE CALL-OFF.



	STREET SIGN		TELEPHONE MANHOLE		VALLEY GUTTER INSTALLATION
	CURB STOP		TRAFFIC SIGNAL JUNCTION BOX		SIDEWALK INSTALLATION
	WATER VALVE		TELEPHONE PEDESTAL		CURB AND GUTTER INSTALLATION
	GAS VALVE		SANITARY SEWER MANHOLE		FILLET INSTALLATION
	STORM SEWER AREA INLET		STORM SEWER MAHOLE		CONCRETE DRIVEWAY INSTALLATION
	FIRE HYDRANT		PROPERTY LINE		
	LIGHT POLE				

LEGEND:

INSTALLATION PLAN

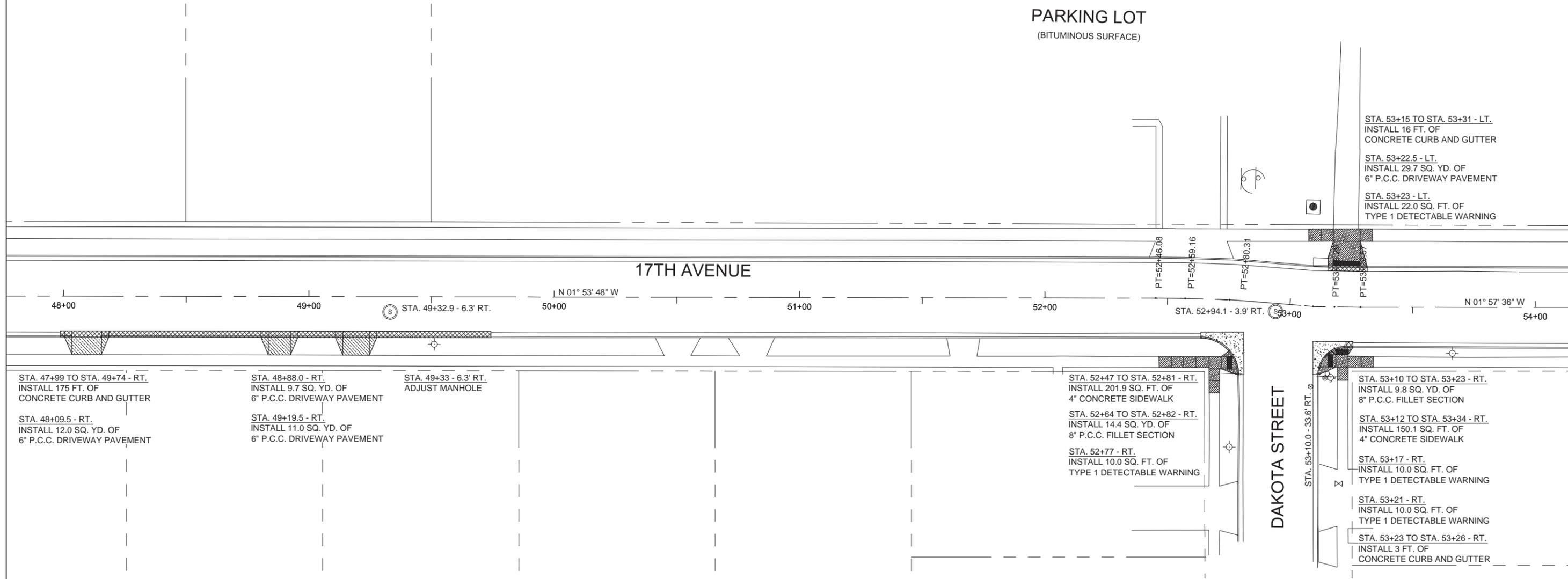
17TH AVENUE SOUTH
STA. 48+00 TO STA. 54+00

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	61	119



PARKING LOT
(BITUMINOUS SURFACE)



STA. 47+99 TO STA. 49+74 - RT.
INSTALL 175 FT. OF
CONCRETE CURB AND GUTTER

STA. 48+09.5 - RT.
INSTALL 12.0 SQ. YD. OF
6" P.C.C. DRIVEWAY PAVEMENT

STA. 48+88.0 - RT.
INSTALL 9.7 SQ. YD. OF
6" P.C.C. DRIVEWAY PAVEMENT

STA. 49+19.5 - RT.
INSTALL 11.0 SQ. YD. OF
6" P.C.C. DRIVEWAY PAVEMENT

STA. 49+33 - 6.3' RT.
ADJUST MANHOLE

STA. 52+47 TO STA. 52+81 - RT.
INSTALL 201.9 SQ. FT. OF
4" CONCRETE SIDEWALK

STA. 52+64 TO STA. 52+82 - RT.
INSTALL 14.4 SQ. YD. OF
8" P.C.C. FILLET SECTION

STA. 52+77 - RT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 53+10 TO STA. 53+23 - RT.
INSTALL 9.8 SQ. YD. OF
8" P.C.C. FILLET SECTION

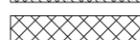
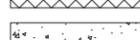
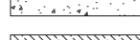
STA. 53+12 TO STA. 53+34 - RT.
INSTALL 150.1 SQ. FT. OF
4" CONCRETE SIDEWALK

STA. 53+17 - RT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 53+21 - RT.
INSTALL 10.0 SQ. FT. OF
TYPE 1 DETECTABLE WARNING

STA. 53+23 TO STA. 53+26 - RT.
INSTALL 3 FT. OF
CONCRETE CURB AND GUTTER

LEGEND:

-  STREET SIGN
-  TELEPHONE MANHOLE
-  VALLEY GUTTER INSTALLATION
-  CURB STOP
-  TRAFFIC SIGNAL JUNCTION BOX
-  SIDEWALK INSTALLATION
-  WATER VALVE
-  TELEPHONE PEDESTAL
-  CURB AND GUTTER INSTALLATION
-  GAS VALVE
-  SANITARY SEWER MANHOLE
-  FILLET INSTALLATION
-  STORM SEWER AREA INLET
-  STORM SEWER MAHOLE
-  CONCRETE DRIVEWAY INSTALLATION
-  FIRE HYDRANT
-  PROPERTY LINE
-  LIGHT POLE



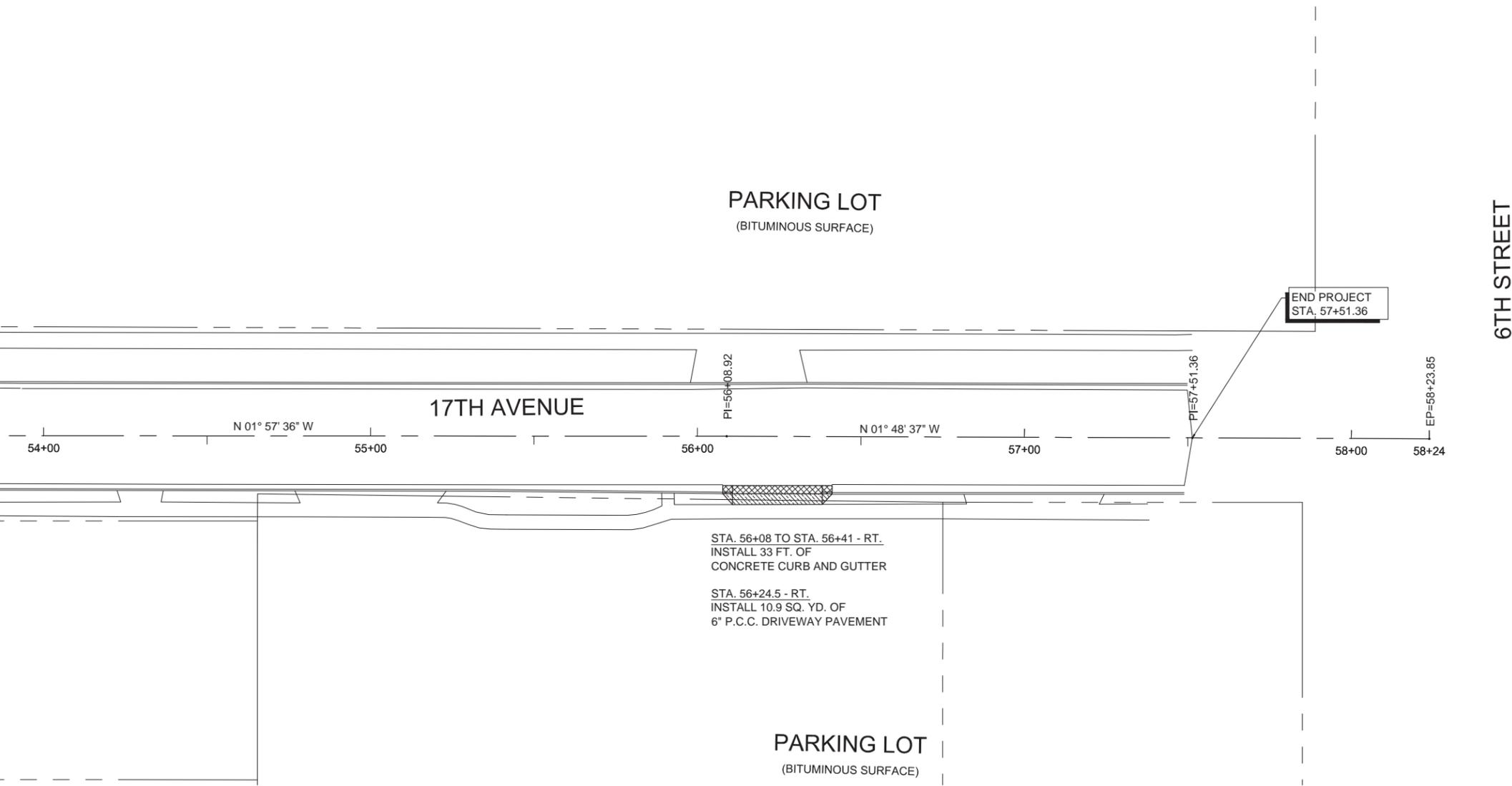
NOTE:
ALL CURB AND GUTTER SHALL BE SPECIAL CONCRETE CURB AND GUTTER UNLESS STATED OTHERWISE IN THE CALL-OFF.

INSTALLATION PLAN

17TH AVENUE SOUTH
STA. 54+00 TO STA. 57+51.36

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	62	119



STA. 56+08 TO STA. 56+41 - RT.
INSTALL 33 FT. OF
CONCRETE CURB AND GUTTER

STA. 56+24.5 - RT.
INSTALL 10.9 SQ. YD. OF
6" P.C.C. DRIVEWAY PAVEMENT

LEGEND:

- | | | | | | |
|--|------------------------|--|--------------------------------|--|-----------------------------------|
| | STREET SIGN | | TELEPHONE MANHOLE | | VALLEY GUTTER INSTALLATION |
| | CURB STOP | | TRAFFIC SIGNAL
JUNCTION BOX | | SIDEWALK INSTALLATION |
| | WATER VALVE | | TELEPHONE PEDESTAL | | CURB AND GUTTER INSTALLATION |
| | GAS VALVE | | SANITARY SEWER MANHOLE | | FILLET INSTALLATION |
| | STORM SEWER AREA INLET | | STORM SEWER MAHOLE | | CONCRETE DRIVEWAY
INSTALLATION |
| | FIRE HYDRANT | | PROPERTY LINE | | |
| | LIGHT POLE | | | | |



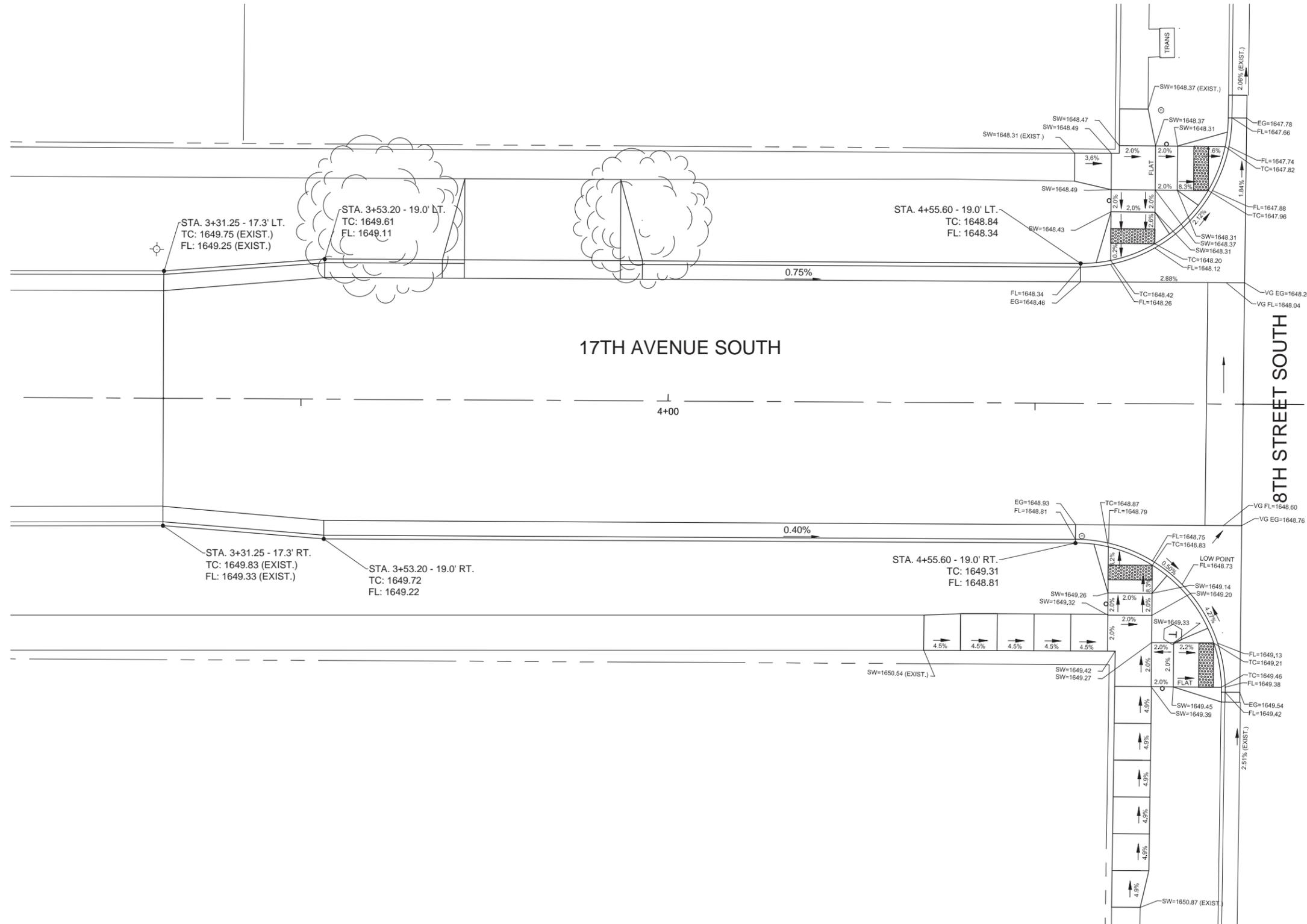
NOTE:
ALL CURB AND GUTTER SHALL BE SPECIAL CONCRETE CURB AND
GUTTER UNLESS STATED OTHERWISE IN THE CALL-OFF.

**CURB AND GUTTER/
SIDEWALK LAYOUT**

17TH AVENUE SOUTH - 8TH STREET SOUTH

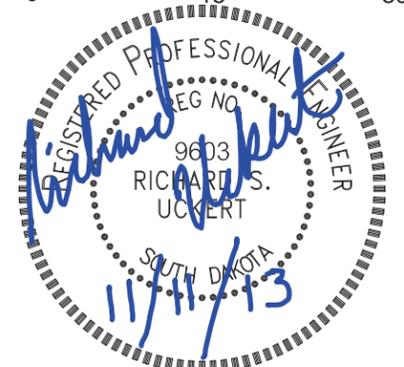
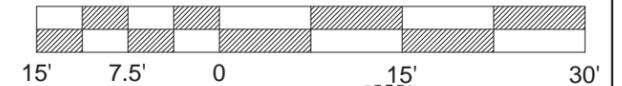
FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT P 3273(09)	SHEET No. 63	TOTAL SHEETS 119
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- NOTES:**
- ALL CURB AND GUTTER SHOWN ON THIS SHEET IS MODIFIED TYPE B66
 - ALL SIDEWALKS ARE 5' WIDE UNLESS NOTED
 - ALL FLARES ARE 10:1 MAX.
 - CONTRACTOR SHALL FIELD VERIFY ALL FLOWLINE ELEVATIONS PRIOR TO INSTALLING CURB AND GUTTER TO ENSURE PROPER DRAINAGE.
 - CONTRACTOR SHALL FIELD VERIFY ALL SIDEWALK SLOPES PRIOR TO INSTALLING SIDEWALK TO MEET ALL ADA REQUIREMENTS.
 - SIDEWALK REMOVAL LENGTHS MAY VARY DEPENDING ON LOCATION OF EXISTING JOINTS.
 - OFFSETS SHOWN ARE TO BACK OF CURB
 - IF A SLOPE IS TO BE EXCEEDED, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR APPROVAL TO DISCUSS SLOPE PROPOSED BY CONTRACTOR.

- LANDING (2% MAX. SLOPE EACH DIRECTION)
- ▨ DETECTABLE WARNING SURFACE
- FLOW ARROW



**CURB AND GUTTER/
SIDEWALK LAYOUT**

17TH AVENUE SOUTH - 8TH STREET SOUTH

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT P 3273(09)	SHEET No. 64	TOTAL SHEETS 119
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NOTES:
ALL CURB AND GUTTER SHOWN ON THIS SHEET IS SPECIAL CONCRETE CURB AND GUTTER UNLESS NOTED

ALL SIDEWALKS ARE 5' WIDE UNLESS NOTED

ALL FLARES ARE 10:1 MAX.

CONTRACTOR SHALL FIELD VERIFY ALL FLOWLINE ELEVATIONS PRIOR TO INSTALLING CURB AND GUTTER TO ENSURE PROPER DRAINAGE.

CONTRACTOR SHALL FIELD VERIFY ALL SIDEWALK SLOPES PRIOR TO INSTALLING SIDEWALK TO MEET ALL ADA REQUIREMENTS.

SIDEWALK REMOVAL LENGTHS MAY VARY DEPENDING ON LOCATION OF EXISTING JOINTS.

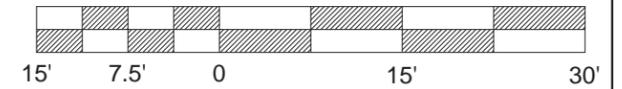
OFFSETS SHOWN ARE TO BACK OF CURB

IF A SLOPE SHOWN IS TO BE EXCEEDED, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR APPROVAL TO DISCUSS SLOPE CHANGES PROPOSED BY CONTRACTOR.

● LANDING (2% MAX. SLOPE EACH DIRECTION)

▨ DETECTABLE WARNING SURFACE

→ FLOW ARROW



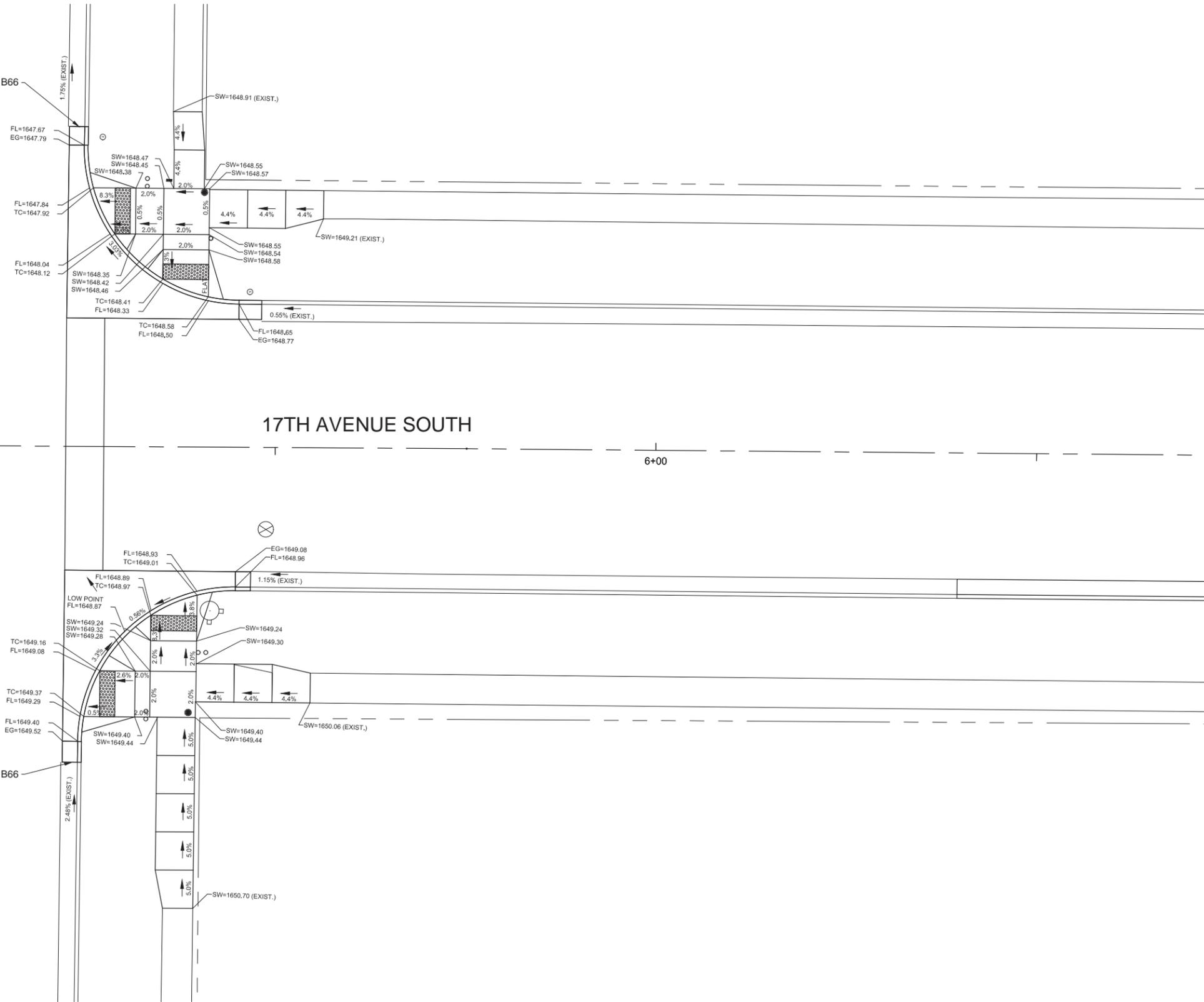
8TH STREET SOUTH

17TH AVENUE SOUTH



6+00

MODIFIED TYPE B66



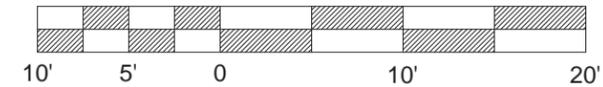
HDR PLANS BY:
HDR, INC.
SIOUX FALLS, S.D.

**CURB AND GUTTER/
SIDEWALK LAYOUT**

17TH AVENUE SOUTH - TERRACE DRIVE SOUTH

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	65	119



NOTES:
ALL CURB AND GUTTER SHOWN ON THIS SHEET IS SPECIAL CONCRETE CURB AND GUTTER UNLESS NOTED

ALL SIDEWALKS ARE 5' WIDE UNLESS NOTED

ALL FLARES ARE 10:1 MAX.

CONTRACTOR SHALL FIELD VERIFY ALL FLOWLINE ELEVATIONS PRIOR TO INSTALLING CURB AND GUTTER TO ENSURE PROPER DRAINAGE.

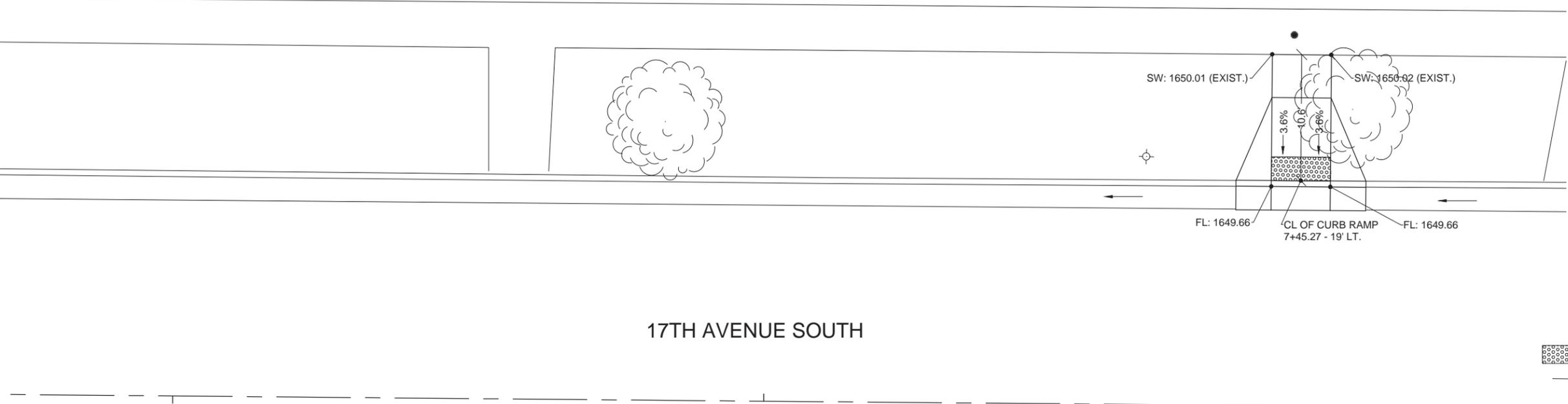
CONTRACTOR SHALL FIELD VERIFY ALL SIDEWALK SLOPES PRIOR TO INSTALLING SIDEWALK TO MEET ALL ADA REQUIREMENTS.

SIDEWALK REMOVAL LENGTHS MAY VARY DEPENDING ON LOCATION OF EXISTING JOINTS.

OFFSETS SHOWN ARE TO BACK OF CURB

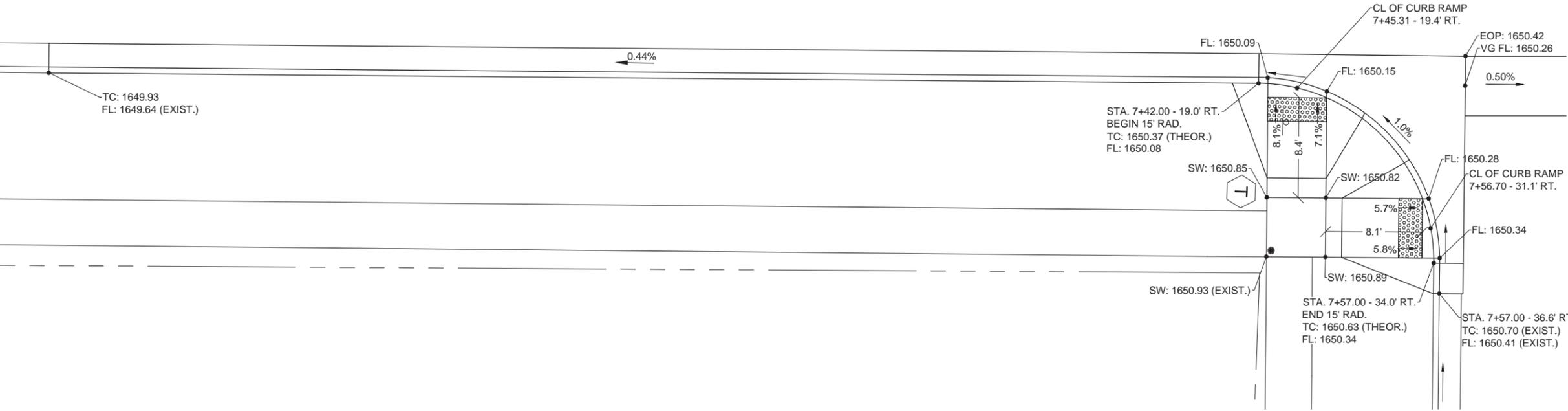
IF A SLOPE SHOWN IS TO BE EXCEEDED, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR APPROVAL TO DISCUSS SLOPE CHANGES PROPOSED BY CONTRACTOR.

- LANDING (2% MAX. SLOPE EACH DIRECTION)
- ▨ DETECTABLE WARNING SURFACE
- FLOW ARROW



17TH AVENUE SOUTH

7+00



TERRACE DRIVE SOUTH

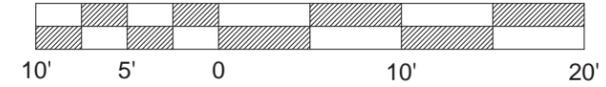


CURB AND GUTTER/ SIDEWALK LAYOUT

17TH AVENUE SOUTH - TERRACE DRIVE SOUTH

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	66	119



NOTES:
ALL CURB AND GUTTER SHOWN ON THIS SHEET IS SPECIAL CONCRETE CURB AND GUTTER UNLESS NOTED

ALL SIDEWALKS ARE 5' WIDE UNLESS NOTED

ALL FLARES ARE 10:1 MAX.

CONTRACTOR SHALL FIELD VERIFY ALL FLOWLINE ELEVATIONS PRIOR TO INSTALLING CURB AND GUTTER TO ENSURE PROPER DRAINAGE.

CONTRACTOR SHALL FIELD VERIFY ALL SIDEWALK SLOPES PRIOR TO INSTALLING SIDEWALK TO MEET ALL ADA REQUIREMENTS.

SIDEWALK REMOVAL LENGTHS MAY VARY DEPENDING ON LOCATION OF EXISTING JOINTS.

OFFSETS SHOWN ARE TO BACK OF CURB

IF A SLOPE SHOWN IS TO BE EXCEEDED, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR APPROVAL TO DISCUSS SLOPE CHANGES PROPOSED BY CONTRACTOR.

● LANDING (2% MAX. SLOPE EACH DIRECTION)

▨ DETECTABLE WARNING SURFACE

→ FLOW ARROW

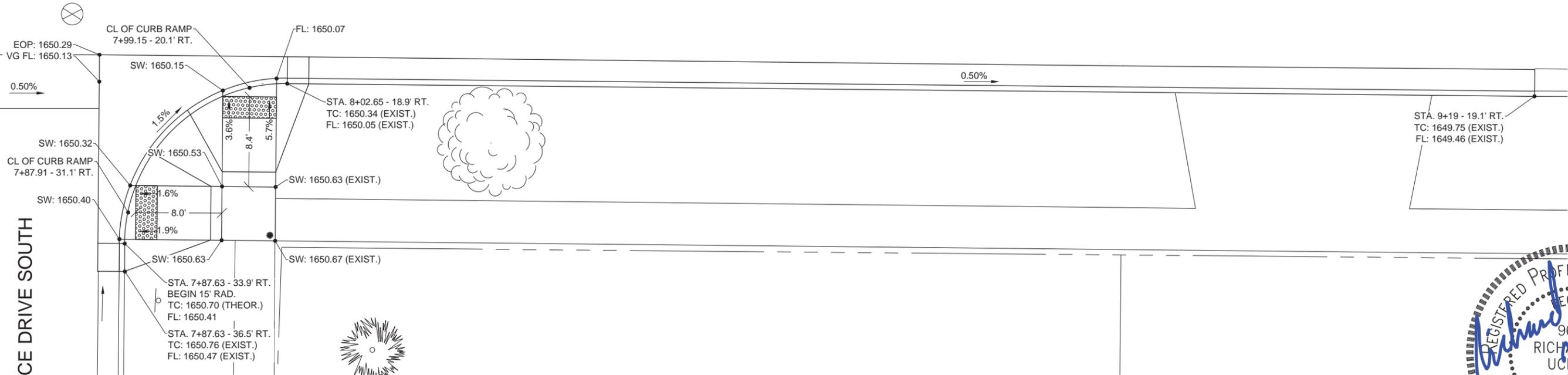
17TH AVENUE SOUTH



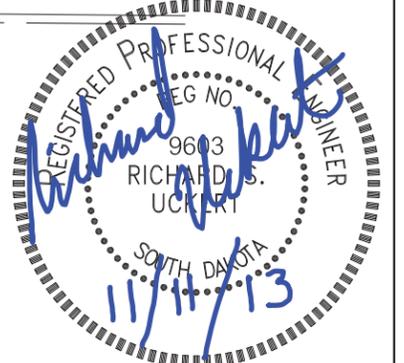
PI=8+49.00

8+00

9+00



TERRACE DRIVE SOUTH



**CURB AND GUTTER/
SIDEWALK LAYOUT**

17TH AVENUE SOUTH - SOUTHVIEW DRIVE

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT P 3273(09)	SHEET No. 67	TOTAL SHEETS 119
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NOTES:
ALL CURB AND GUTTER SHOWN ON THIS SHEET IS SPECIAL CONCRETE CURB AND GUTTER UNLESS NOTED

ALL SIDEWALKS ARE 5' WIDE UNLESS NOTED

ALL FLARES ARE 10:1 MAX.

CONTRACTOR SHALL FIELD VERIFY ALL FLOWLINE ELEVATIONS PRIOR TO INSTALLING CURB AND GUTTER TO ENSURE PROPER DRAINAGE.

CONTRACTOR SHALL FIELD VERIFY ALL SIDEWALK SLOPES PRIOR TO INSTALLING SIDEWALK TO MEET ALL ADA REQUIREMENTS.

SIDEWALK REMOVAL LENGTHS MAY VARY DEPENDING ON LOCATION OF EXISTING JOINTS.

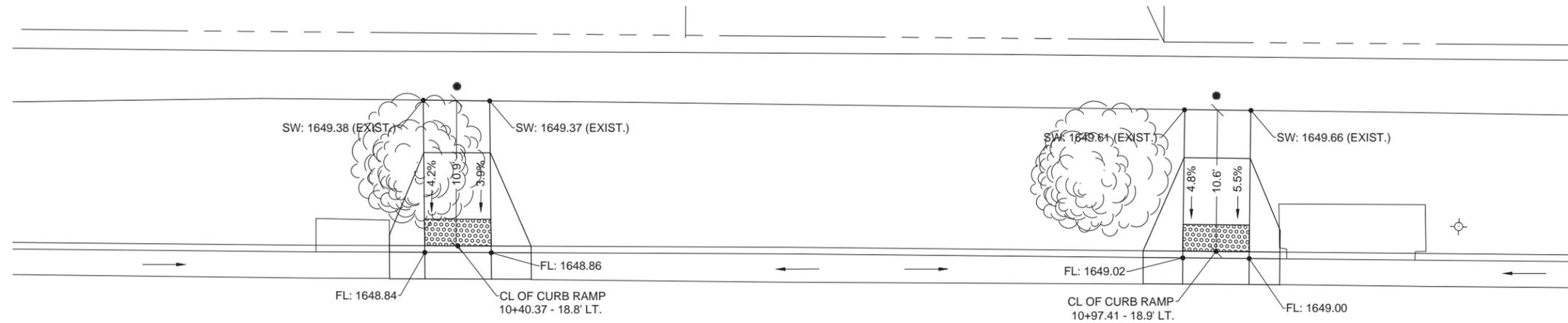
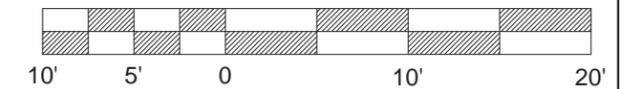
OFFSETS SHOWN ARE TO BACK OF CURB

IF A SLOPE SHOWN IS TO BE EXCEEDED, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR APPROVAL TO DISCUSS SLOPE CHANGES PROPOSED BY CONTRACTOR.

● LANDING (2% MAX. SLOPE EACH DIRECTION)

▨ DETECTABLE WARNING SURFACE

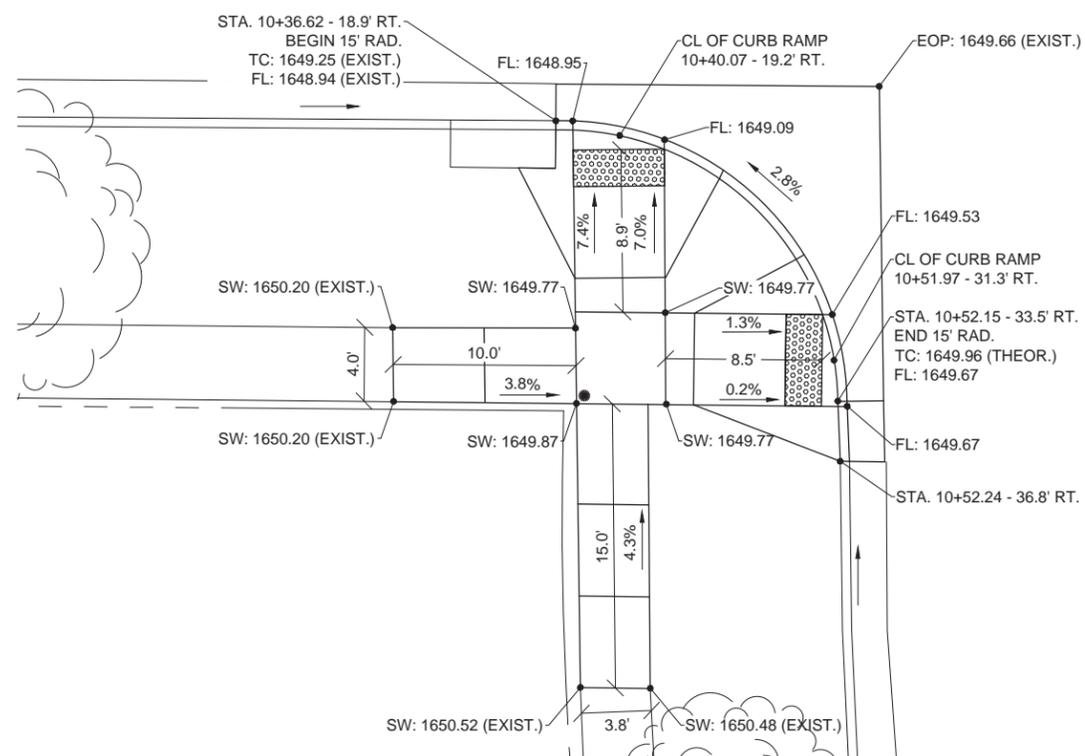
→ FLOW ARROW



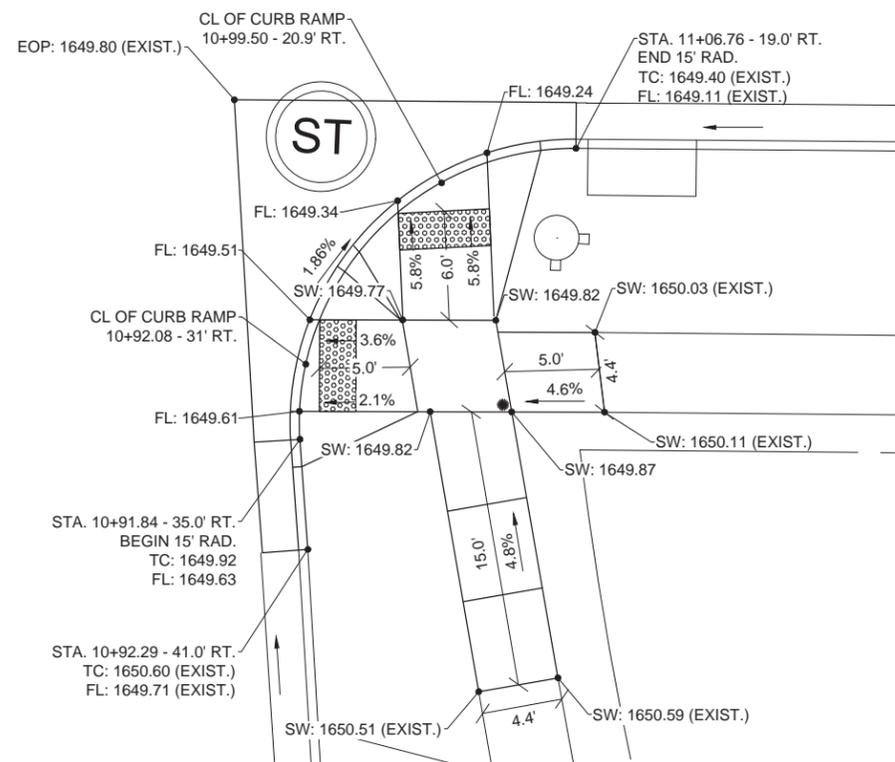
17TH AVENUE SOUTH



11+00



SOUTHVIEW DRIVE



**CURB AND GUTTER/
SIDEWALK LAYOUT**

17TH AVENUE SOUTH - 5TH STREET SOUTH

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	68	119



NOTES:
ALL CURB AND GUTTER SHOWN ON THIS SHEET IS SPECIAL CONCRETE CURB AND GUTTER UNLESS NOTED

ALL SIDEWALKS ARE 5' WIDE UNLESS NOTED

ALL FLARES ARE 10:1 MAX.

CONTRACTOR SHALL FIELD VERIFY ALL FLOWLINE ELEVATIONS PRIOR TO INSTALLING CURB AND GUTTER TO ENSURE PROPER DRAINAGE.

CONTRACTOR SHALL FIELD VERIFY ALL SIDEWALK SLOPES PRIOR TO INSTALLING SIDEWALK TO MEET ALL ADA REQUIREMENTS.

SIDEWALK REMOVAL LENGTHS MAY VARY DEPENDING ON LOCATION OF EXISTING JOINTS.

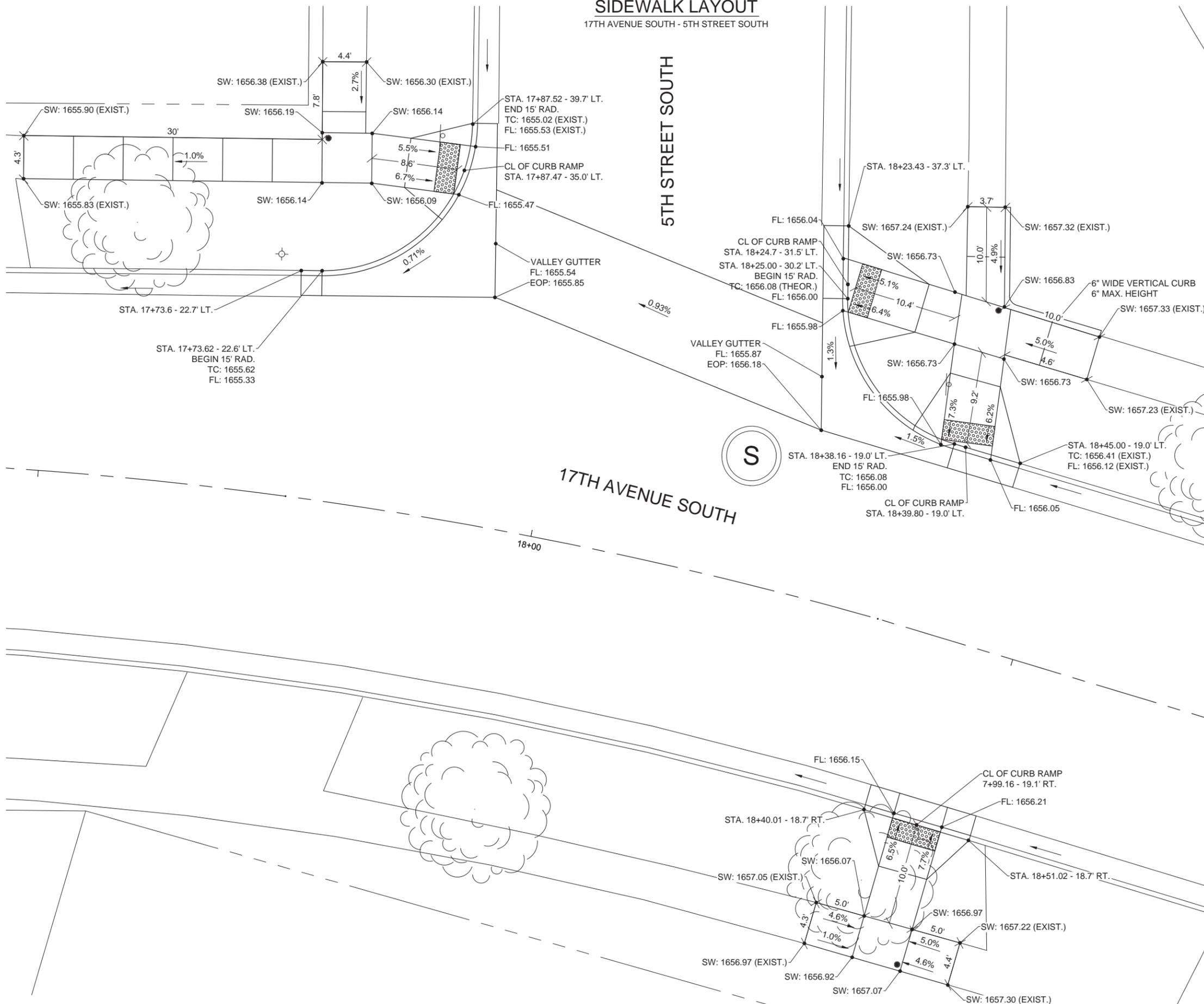
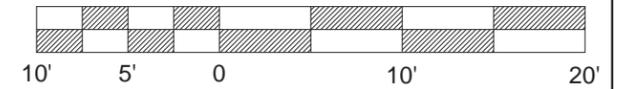
OFFSETS SHOWN ARE TO BACK OF CURB

IF A SLOPE SHOWN IS TO BE EXCEEDED, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR APPROVAL TO DISCUSS SLOPE CHANGES PROPOSED BY CONTRACTOR.

● LANDING (2% MAX. SLOPE EACH DIRECTION)

▨ DETECTABLE WARNING SURFACE

→ FLOW ARROW



**CURB AND GUTTER/
SIDEWALK LAYOUT**

17TH AVENUE SOUTH - CANADIAN PACIFIC RAILROAD

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	70	119



NOTES:
ALL CURB AND GUTTER SHOWN ON THIS SHEET IS SPECIAL CONCRETE CURB AND GUTTER UNLESS NOTED

ALL SIDEWALKS ARE 5' WIDE UNLESS NOTED

ALL FLARES ARE 10:1 MAX.

CONTRACTOR SHALL FIELD VERIFY ALL FLOWLINE ELEVATIONS PRIOR TO INSTALLING CURB AND GUTTER TO ENSURE PROPER DRAINAGE.

CONTRACTOR SHALL FIELD VERIFY ALL SIDEWALK SLOPES PRIOR TO INSTALLING SIDEWALK TO MEET ALL ADA REQUIREMENTS.

SIDEWALK REMOVAL LENGTHS MAY VARY DEPENDING ON LOCATION OF EXISTING JOINTS.

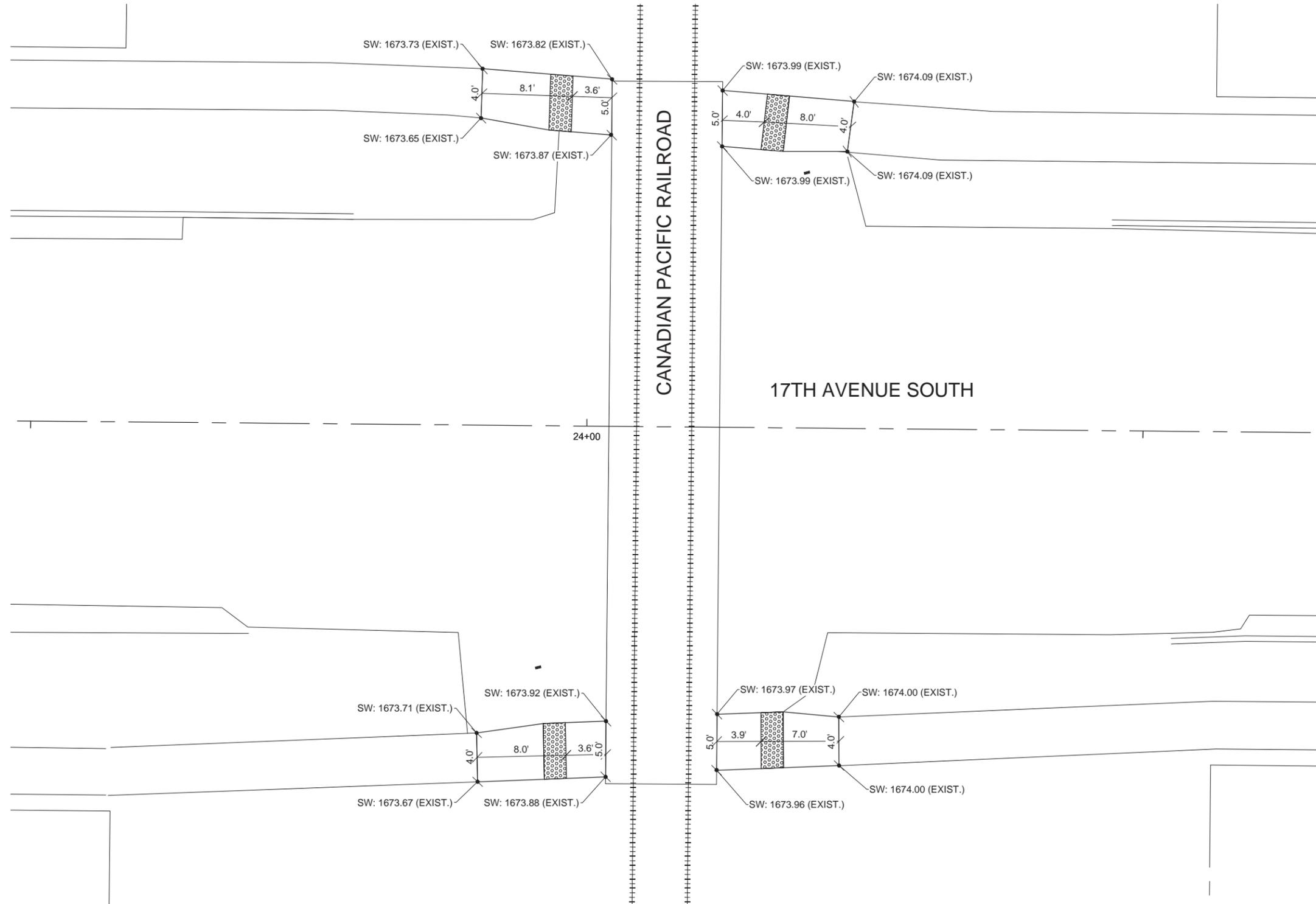
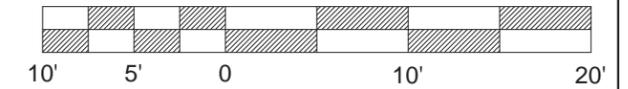
OFFSETS SHOWN ARE TO BACK OF CURB

IF A SLOPE SHOWN IS TO BE EXCEEDED, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR APPROVAL TO DISCUSS SLOPE CHANGES PROPOSED BY CONTRACTOR.

● LANDING (2% MAX. SLOPE EACH DIRECTION)

▨ DETECTABLE WARNING SURFACE

→ FLOW ARROW



**CURB AND GUTTER/
SIDEWALK LAYOUT**

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT P 3273(09)	SHEET No. 71	TOTAL SHEETS 119
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NOTES:
ALL CURB AND GUTTER SHOWN ON THIS SHEET IS SPECIAL CONCRETE CURB AND GUTTER UNLESS NOTED

ALL SIDEWALKS ARE 5' WIDE UNLESS NOTED

ALL FLARES ARE 10:1 MAX.

CONTRACTOR SHALL FIELD VERIFY ALL FLOWLINE ELEVATIONS PRIOR TO INSTALLING CURB AND GUTTER TO ENSURE PROPER DRAINAGE.

CONTRACTOR SHALL FIELD VERIFY ALL SIDEWALK SLOPES PRIOR TO INSTALLING SIDEWALK TO MEET ALL ADA REQUIREMENTS.

SIDEWALK REMOVAL LENGTHS MAY VARY DEPENDING ON LOCATION OF EXISTING JOINTS.

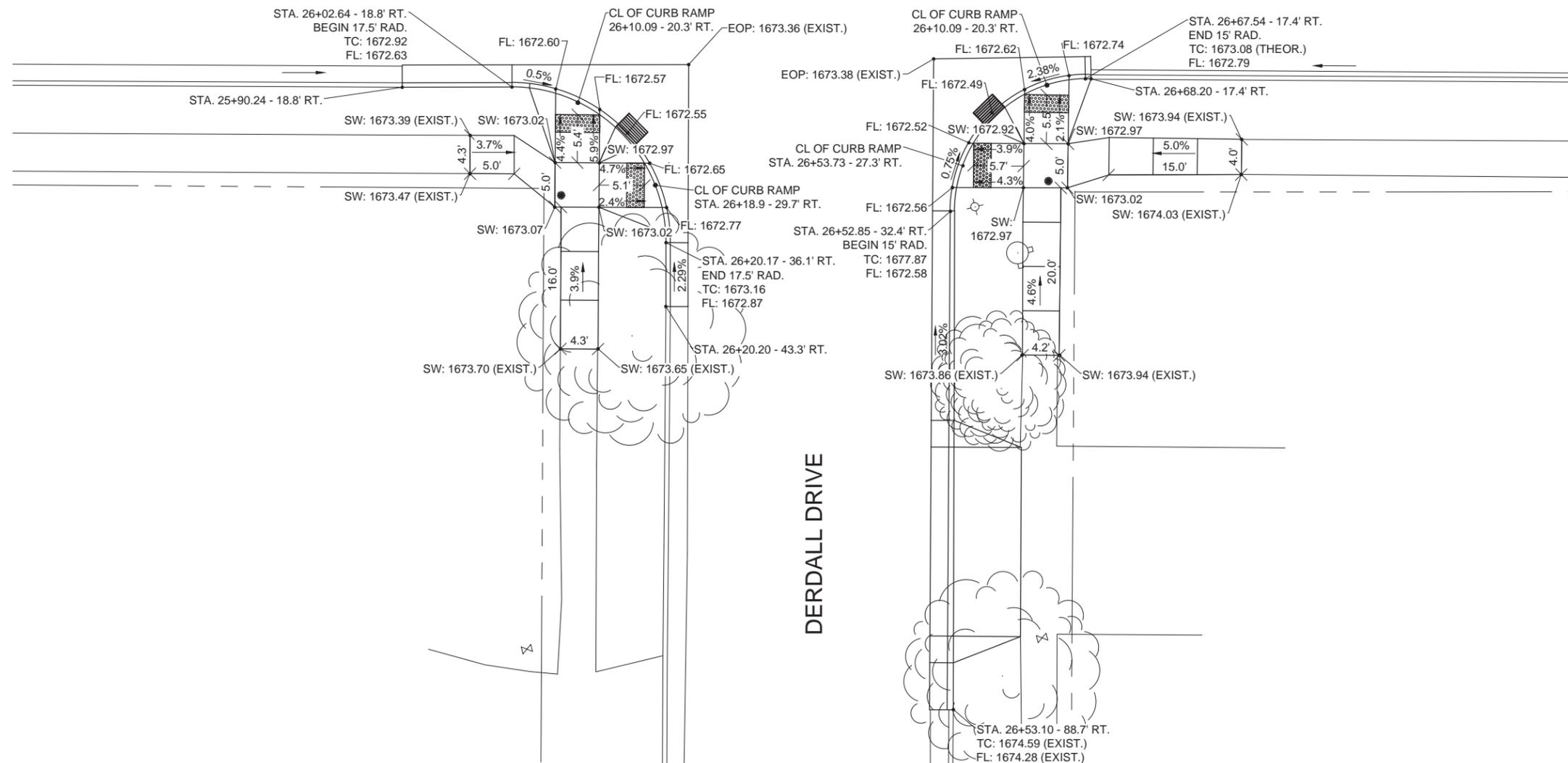
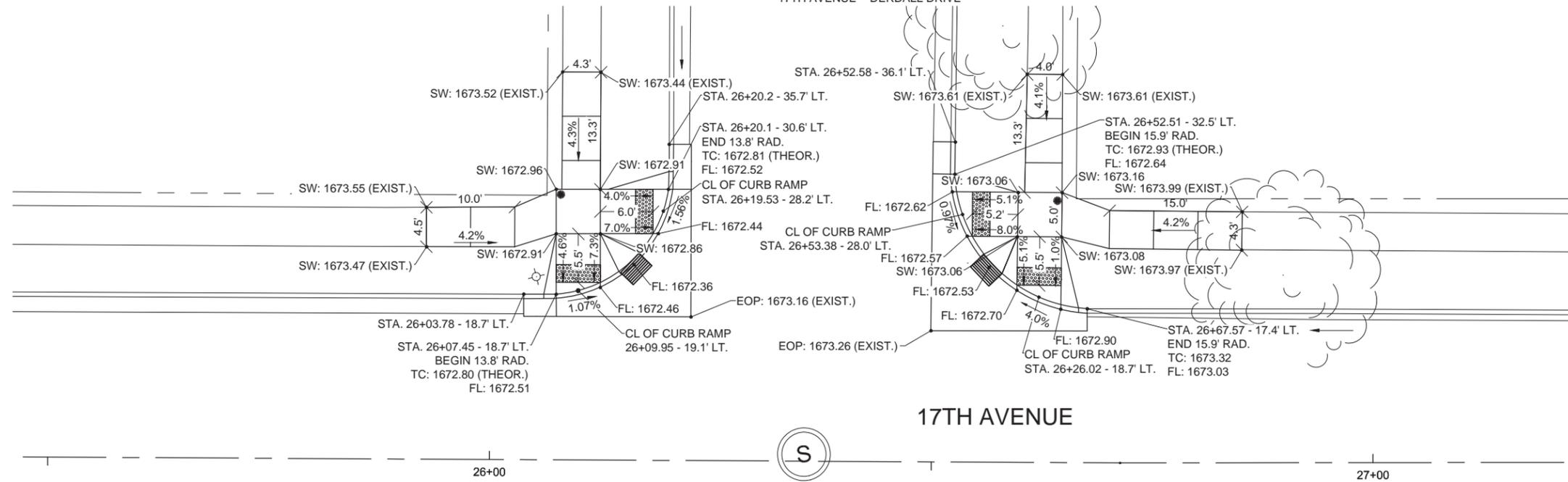
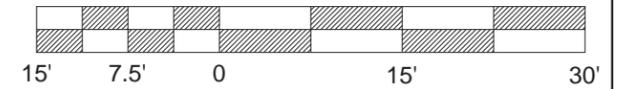
OFFSETS SHOWN ARE TO BACK OF CURB

IF A SLOPE SHOWN IS TO BE EXCEEDED, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR APPROVAL TO DISCUSS SLOPE CHANGES PROPOSED BY CONTRACTOR.

● LANDING (2% MAX. SLOPE EACH DIRECTION)

▨ DETECTABLE WARNING SURFACE

→ FLOW ARROW

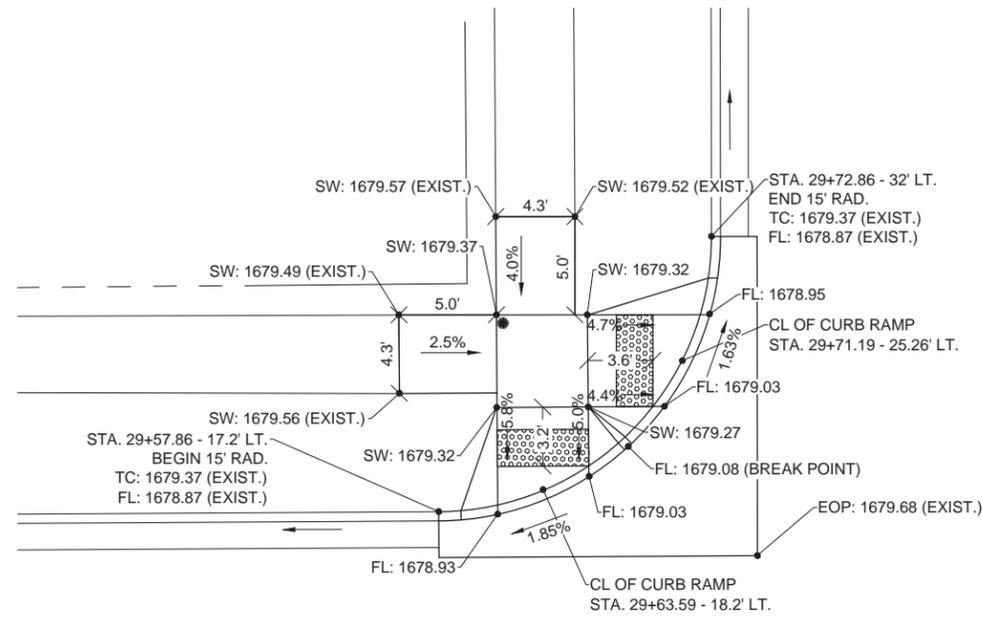


CURB AND GUTTER/ SIDEWALK LAYOUT

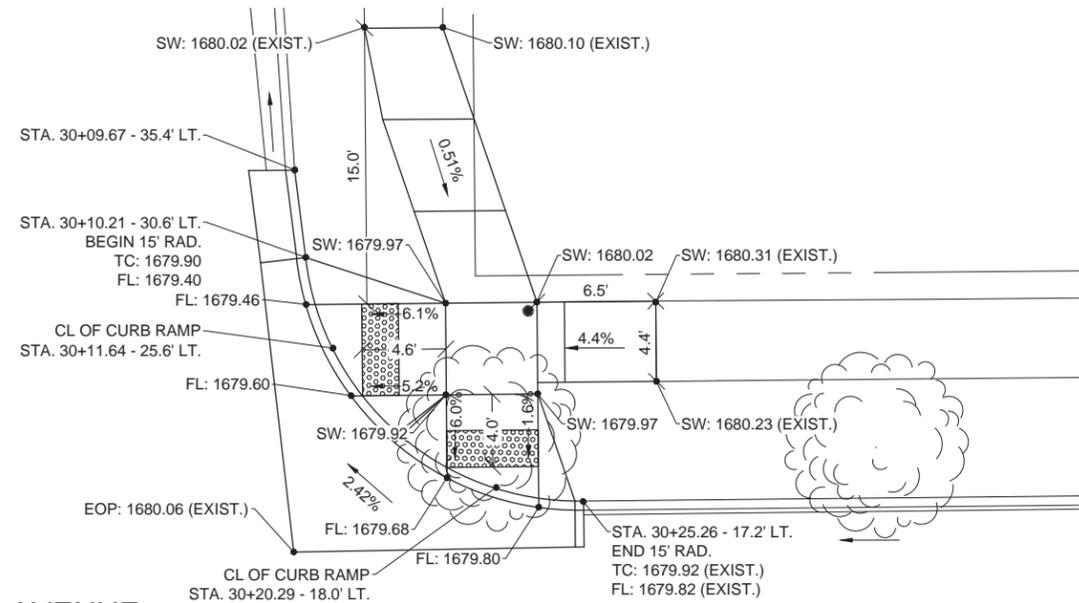
17TH AVENUE - ELMWOOD DRIVE

FOR BIDDING PURPOSES ONLY

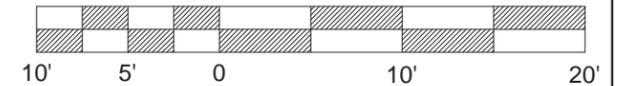
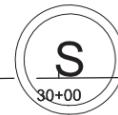
STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	72	119



ELMWOOD DRIVE

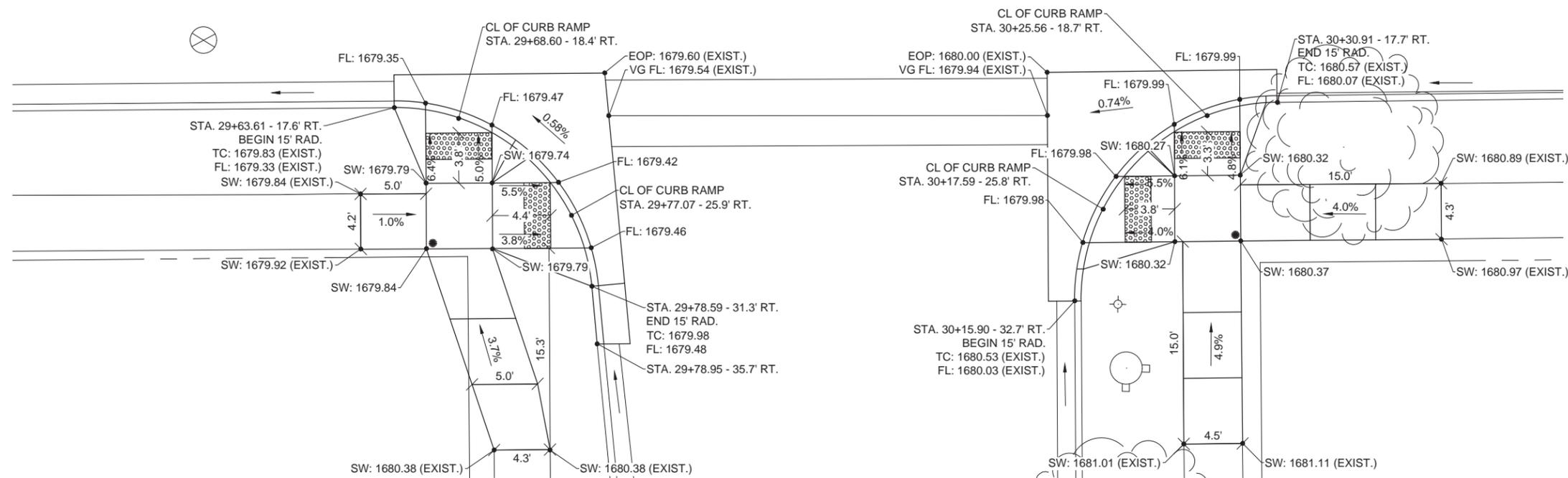


17TH AVENUE



- NOTES:**
- ALL CURB AND GUTTER ON THIS SHEET IS MODIFIED TYPE B66
 - ALL SIDEWALKS ARE 5' WIDE UNLESS NOTED
 - ALL FLARES ARE 10:1 MAX.
 - CONTRACTOR SHALL FIELD VERIFY ALL FLOWLINE ELEVATIONS PRIOR TO INSTALLING CURB AND GUTTER TO ENSURE PROPER DRAINAGE.
 - CONTRACTOR SHALL FIELD VERIFY ALL SIDEWALK SLOPES PRIOR TO INSTALLING SIDEWALK TO MEET ALL ADA REQUIREMENTS.
 - SIDEWALK REMOVAL LENGTHS MAY VARY DEPENDING ON LOCATION OF EXISTING JOINTS.
 - OFFSETS SHOWN ARE TO BACK OF CURB
 - IF A SLOPE IS TO BE EXCEEDED, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR APPROVAL TO DISCUSS SLOPE PROPOSED BY CONTRACTOR.

- LANDING (2% MAX. SLOPE EACH DIRECTION)
- ▨ DETECTABLE WARNING SURFACE
- FLOW ARROW



**CURB AND GUTTER/
SIDEWALK LAYOUT**

17TH AVENUE SOUTH - 1ST STREET

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT P 32763(09)	SHEET No. 74	TOTAL SHEETS 119
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UPDATED 1/2/14 RSU



NOTES:
ALL CURB AND GUTTER SHOWN ON THIS SHEET IS SPECIAL CONCRETE CURB AND GUTTER UNLESS NOTED

ALL SIDEWALKS ARE 5' WIDE UNLESS NOTED

ALL FLARES ARE 10:1 MAX.

CONTRACTOR SHALL FIELD VERIFY ALL FLOWLINE ELEVATIONS PRIOR TO INSTALLING CURB AND GUTTER TO ENSURE PROPER DRAINAGE.

CONTRACTOR SHALL FIELD VERIFY ALL SIDEWALK SLOPES PRIOR TO INSTALLING SIDEWALK TO MEET ALL ADA REQUIREMENTS.

SIDEWALK REMOVAL LENGTHS MAY VARY DEPENDING ON LOCATION OF EXISTING JOINTS.

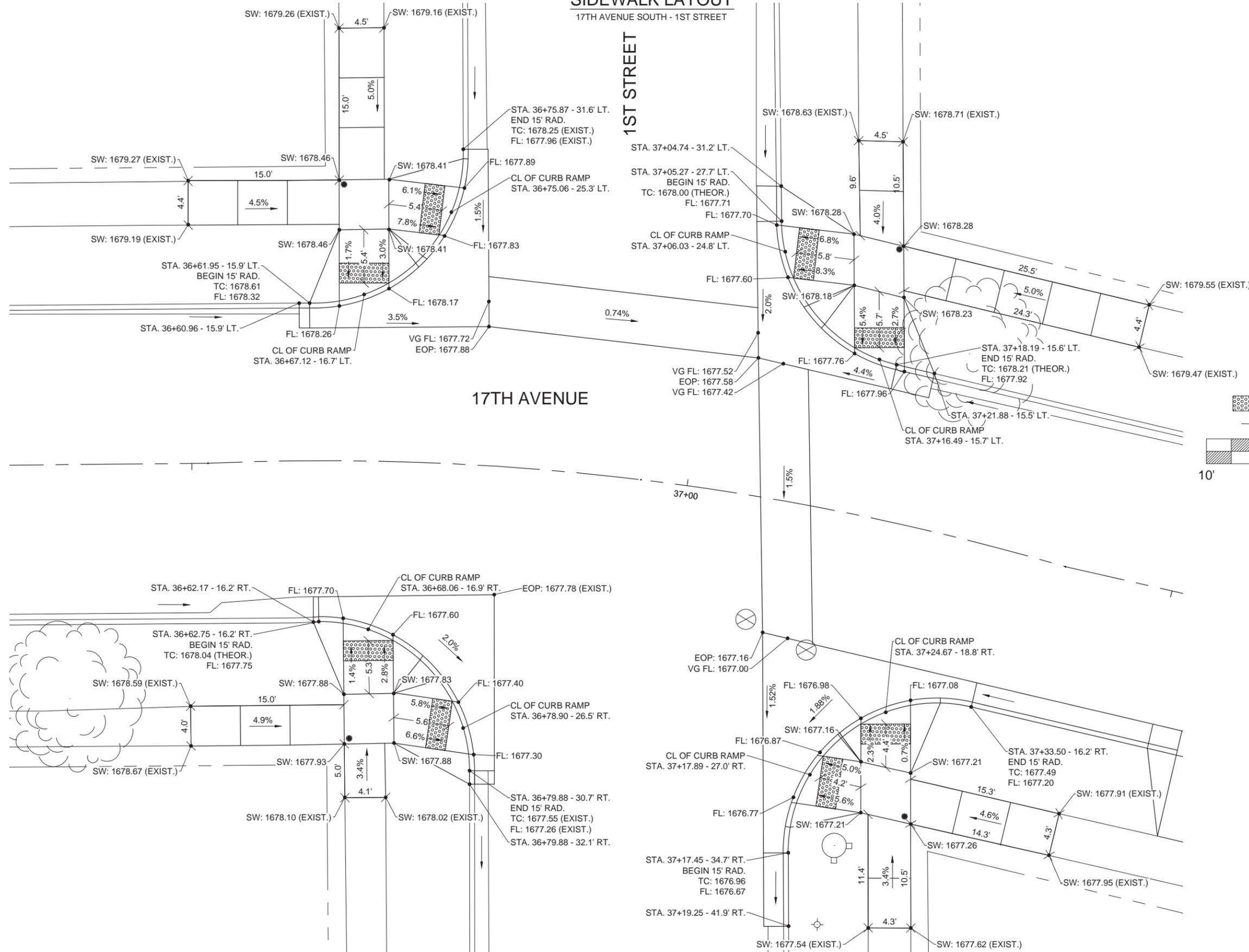
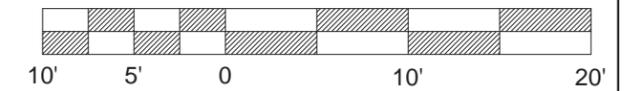
OFFSETS SHOWN ARE TO BACK OF CURB

IF A SLOPE SHOWN IS TO BE EXCEEDED, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR APPROVAL TO DISCUSS SLOPE CHANGES PROPOSED BY CONTRACTOR.

● LANDING (2% MAX. SLOPE EACH DIRECTION)

▨ DETECTABLE WARNING SURFACE

→ FLOW ARROW



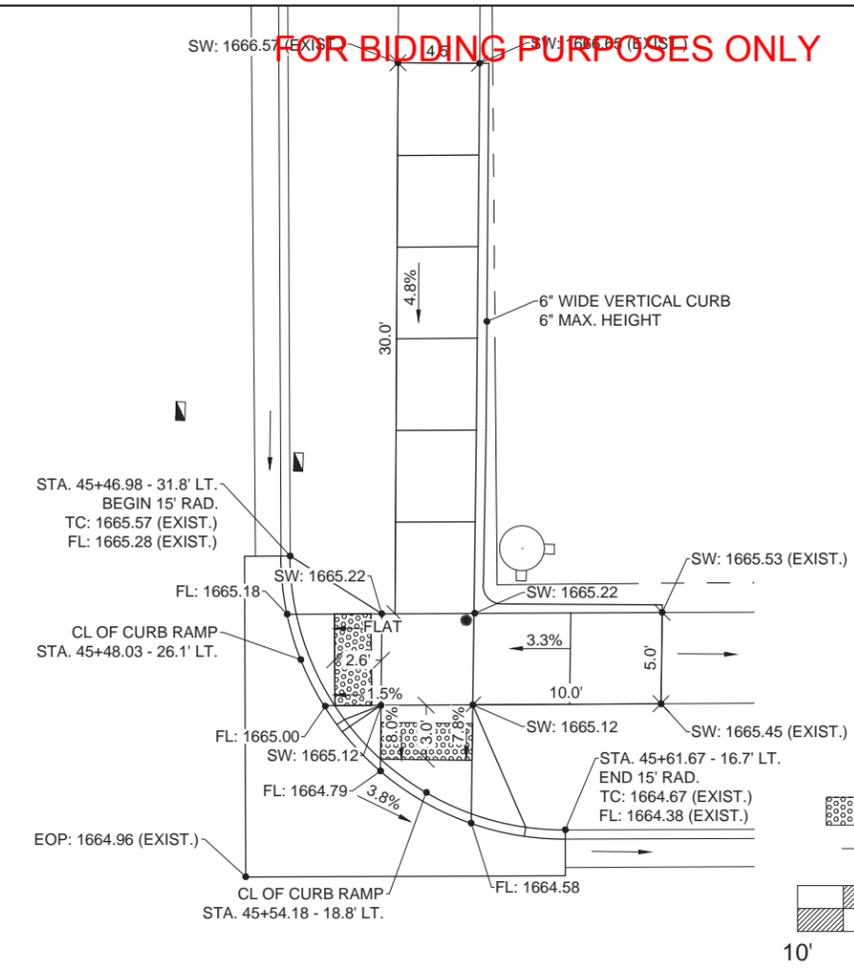
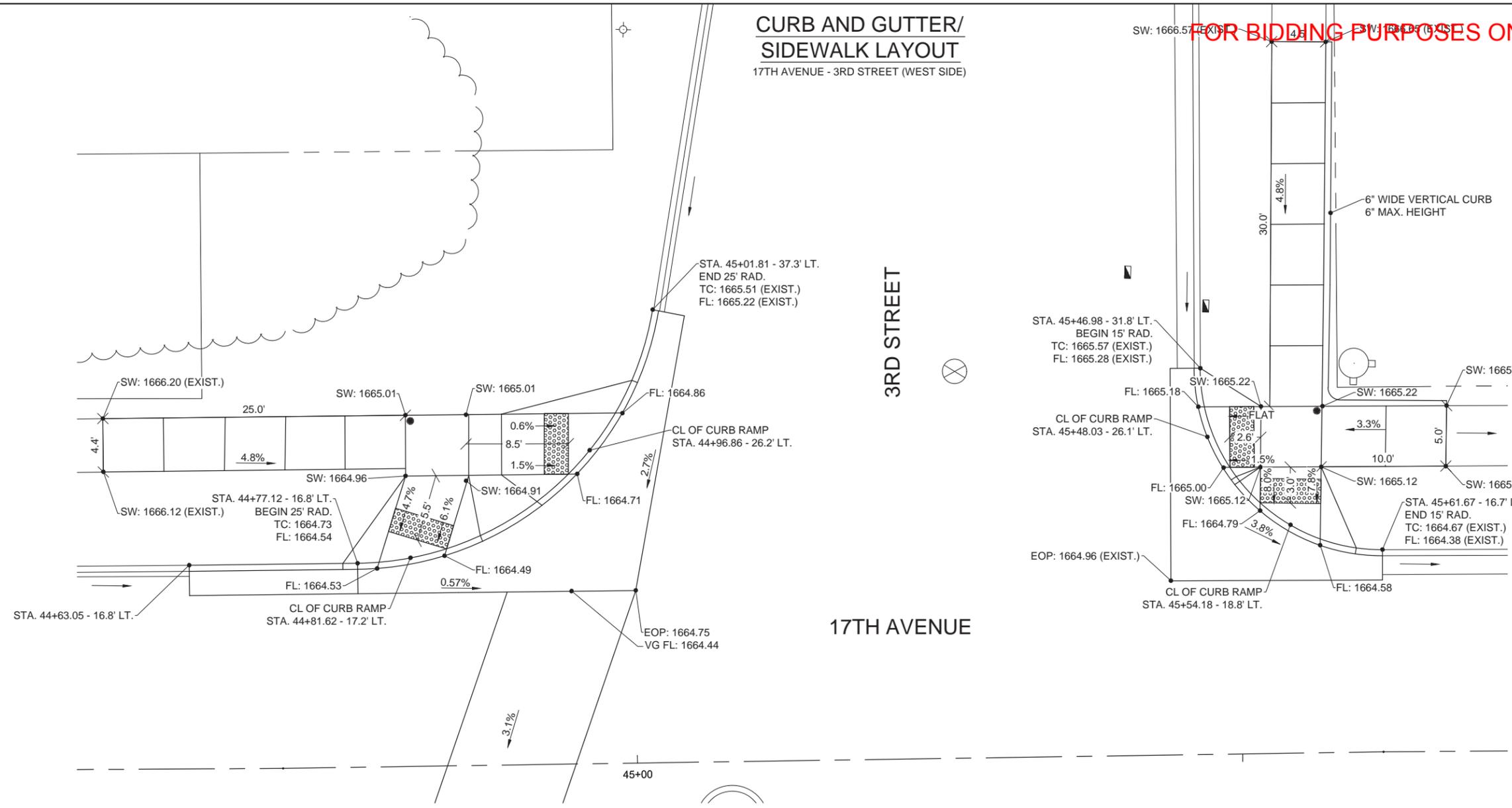
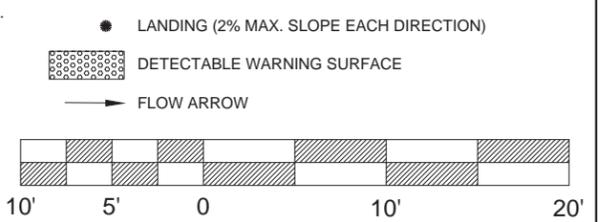
STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	76	119

**CURB AND GUTTER/
SIDEWALK LAYOUT**
17TH AVENUE - 3RD STREET (WEST SIDE)

FOR BIDDING PURPOSES ONLY



- NOTES:**
 ALL CURB AND GUTTER SHOWN ON THIS SHEET IS SPECIAL CONCRETE CURB AND GUTTER UNLESS NOTED
 ALL SIDEWALKS ARE 5' WIDE UNLESS NOTED
 ALL FLARES ARE 10:1 MAX.
 CONTRACTOR SHALL FIELD VERIFY ALL FLOWLINE ELEVATIONS PRIOR TO INSTALLING CURB AND GUTTER TO ENSURE PROPER DRAINAGE.
 CONTRACTOR SHALL FIELD VERIFY ALL SIDEWALK SLOPES PRIOR TO INSTALLING SIDEWALK TO MEET ALL ADA REQUIREMENTS.
 SIDEWALK REMOVAL LENGTHS MAY VARY DEPENDING ON LOCATION OF EXISTING JOINTS.
 OFFSETS SHOWN ARE TO BACK OF CURB
 IF A SLOPE SHOWN IS TO BE EXCEEDED, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR APPROVAL TO DISCUSS SLOPE CHANGES PROPOSED BY CONTRACTOR.



STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	77	119

CURB AND GUTTER/ SIDEWALK LAYOUT

17TH AVENUE - 3RD STREET (EAST SIDE)

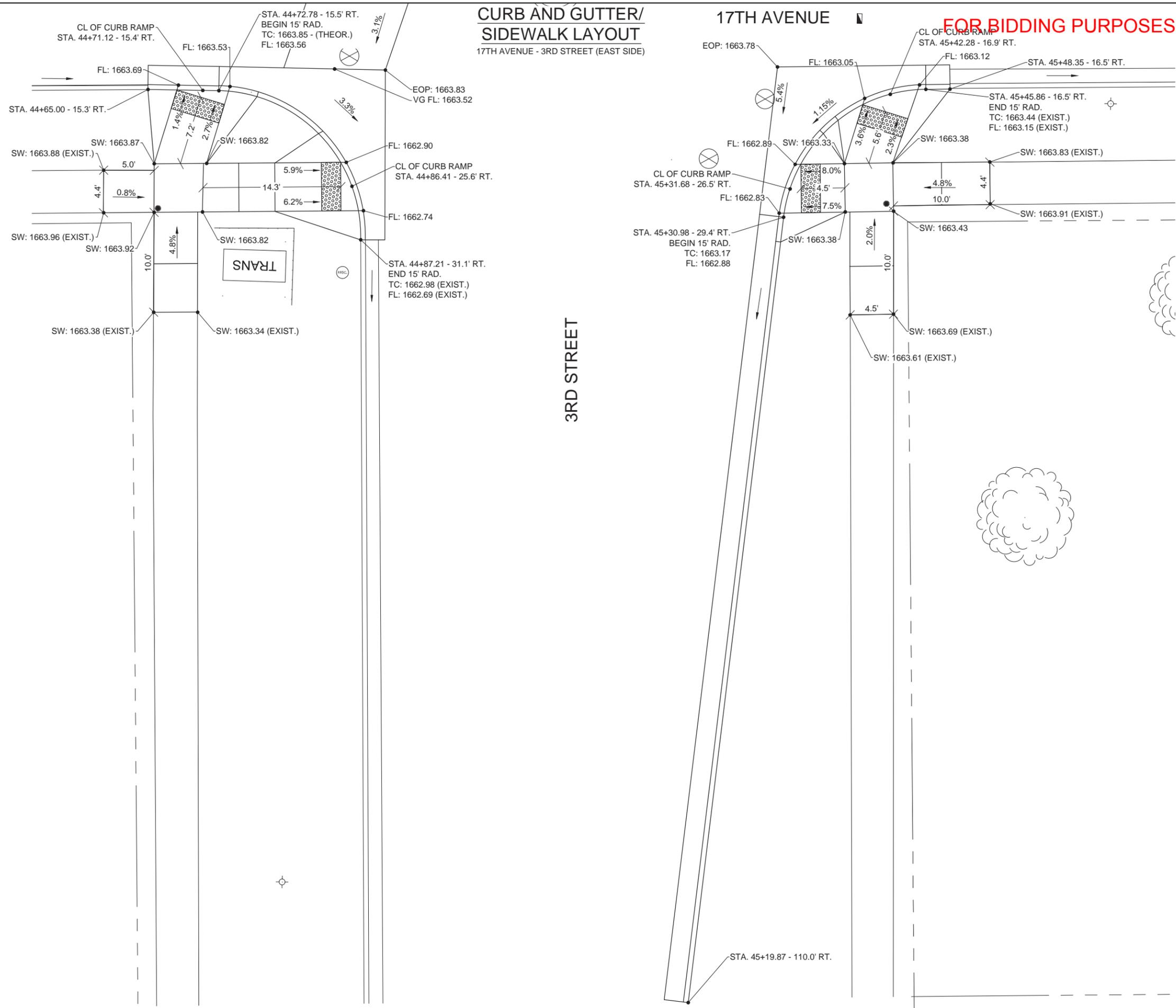
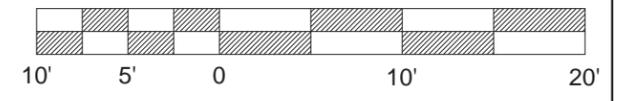
17TH AVENUE

FOR BIDDING PURPOSES ONLY



NOTES:
 ALL CURB AND GUTTER SHOWN ON THIS SHEET IS SPECIAL CONCRETE CURB AND GUTTER UNLESS NOTED
 ALL SIDEWALKS ARE 5' WIDE UNLESS NOTED
 ALL FLARES ARE 10:1 MAX.
 CONTRACTOR SHALL FIELD VERIFY ALL FLOWLINE ELEVATIONS PRIOR TO INSTALLING CURB AND GUTTER TO ENSURE PROPER DRAINAGE.
 CONTRACTOR SHALL FIELD VERIFY ALL SIDEWALK SLOPES PRIOR TO INSTALLING SIDEWALK TO MEET ALL ADA REQUIREMENTS.
 SIDEWALK REMOVAL LENGTHS MAY VARY DEPENDING ON LOCATION OF EXISTING JOINTS.
 OFFSETS SHOWN ARE TO BACK OF CURB
 IF A SLOPE SHOWN IS TO BE EXCEEDED, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR APPROVAL TO DISCUSS SLOPE CHANGES PROPOSED BY CONTRACTOR.

- LANDING (2% MAX. SLOPE EACH DIRECTION)
- ▨ DETECTABLE WARNING SURFACE
- FLOW ARROW



CURB AND GUTTER/ SIDEWALK LAYOUT

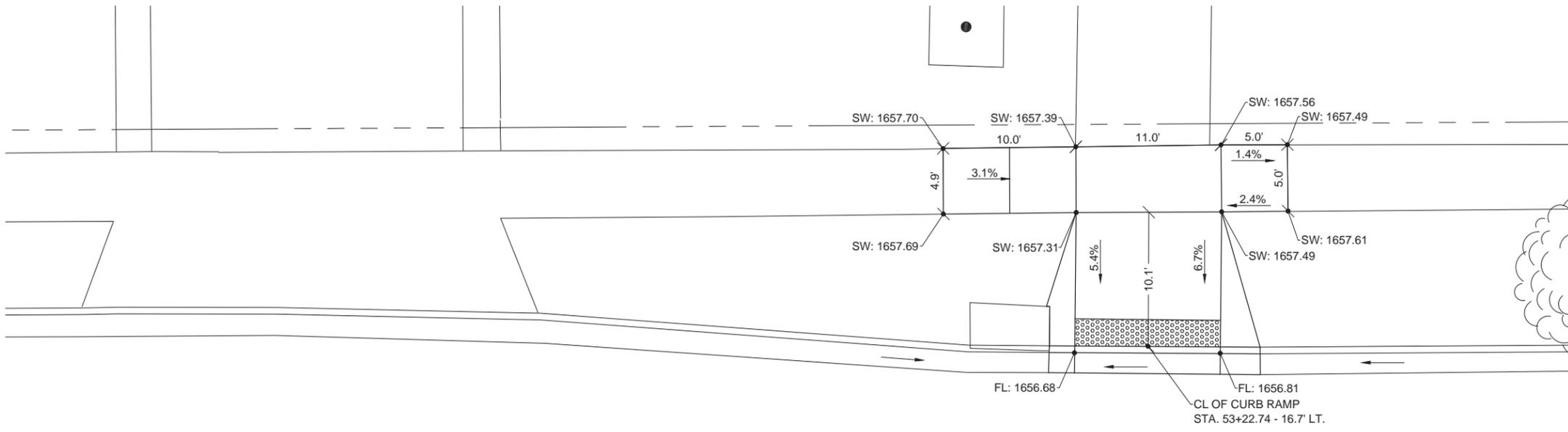
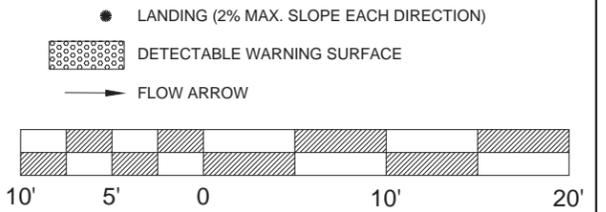
17TH AVENUE - DAKOTA STREET

FOR BIDDING PURPOSES ONLY

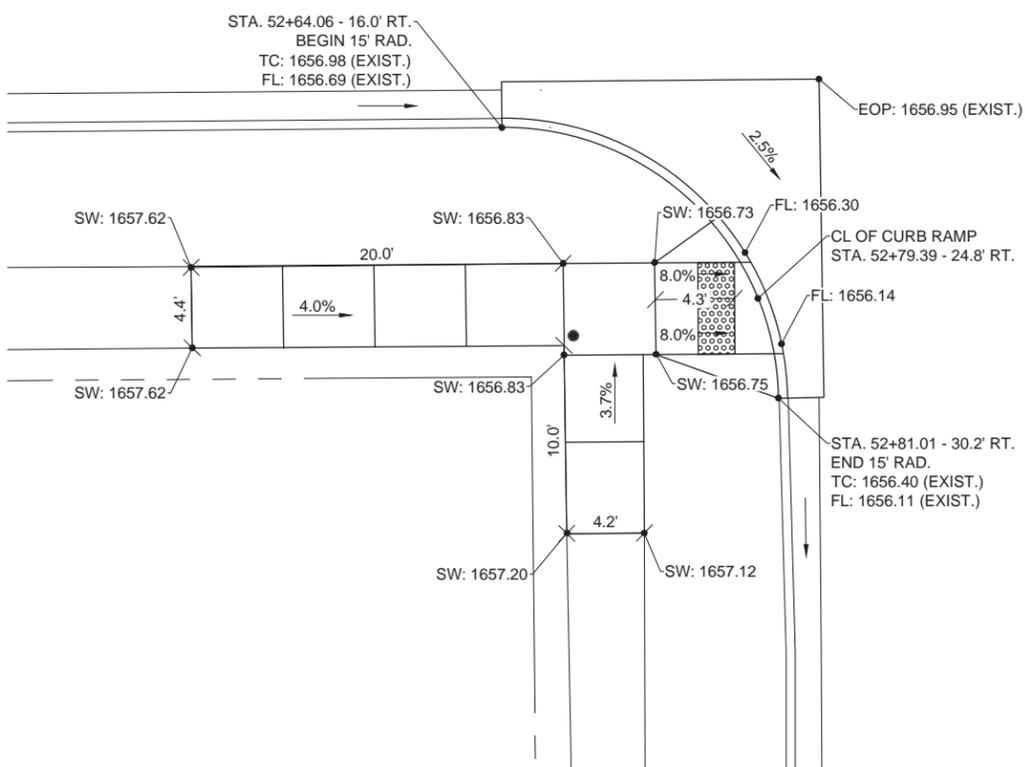
STATE OF SOUTH DAKOTA	PROJECT P 3273(09)	SHEET No. 78	TOTAL SHEETS 119
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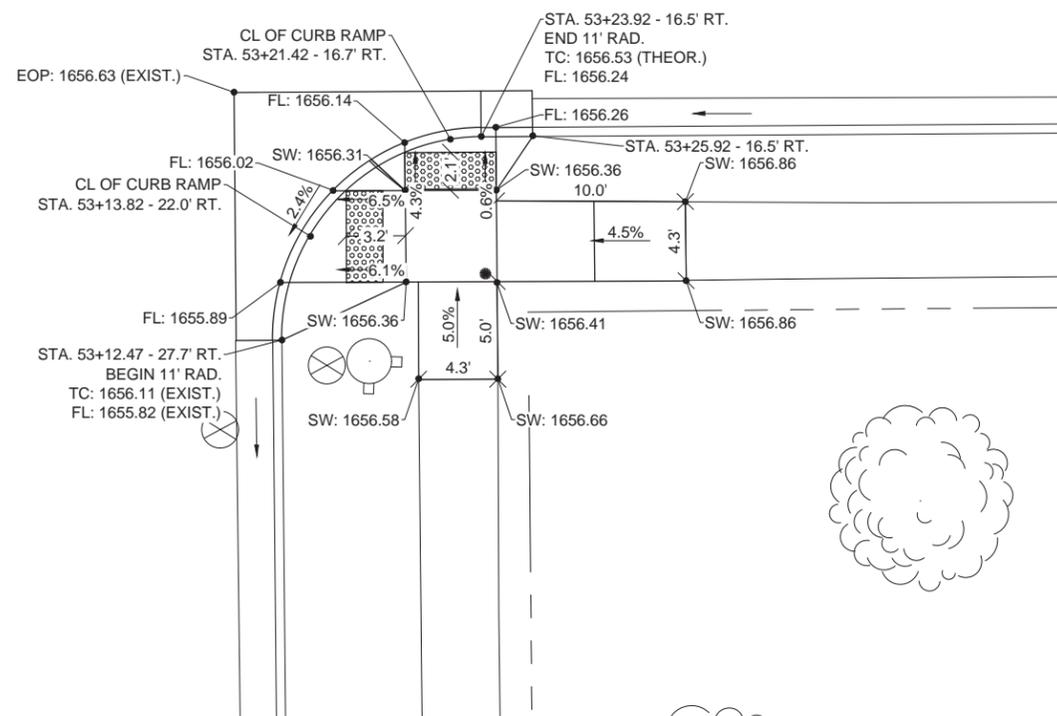
- NOTES:**
ALL CURB AND GUTTER SHOWN ON THIS SHEET IS SPECIAL CONCRETE CURB AND GUTTER UNLESS NOTED
- ALL SIDEWALKS ARE 5' WIDE UNLESS NOTED
- ALL FLARES ARE 10:1 MAX.
- CONTRACTOR SHALL FIELD VERIFY ALL FLOWLINE ELEVATIONS PRIOR TO INSTALLING CURB AND GUTTER TO ENSURE PROPER DRAINAGE.
- CONTRACTOR SHALL FIELD VERIFY ALL SIDEWALK SLOPES PRIOR TO INSTALLING SIDEWALK TO MEET ALL ADA REQUIREMENTS.
- SIDEWALK REMOVAL LENGTHS MAY VARY DEPENDING ON LOCATION OF EXISTING JOINTS.
- OFFSETS SHOWN ARE TO BACK OF CURB
- IF A SLOPE SHOWN IS TO BE EXCEEDED, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR APPROVAL TO DISCUSS SLOPE CHANGES PROPOSED BY CONTRACTOR.



17TH AVENUE



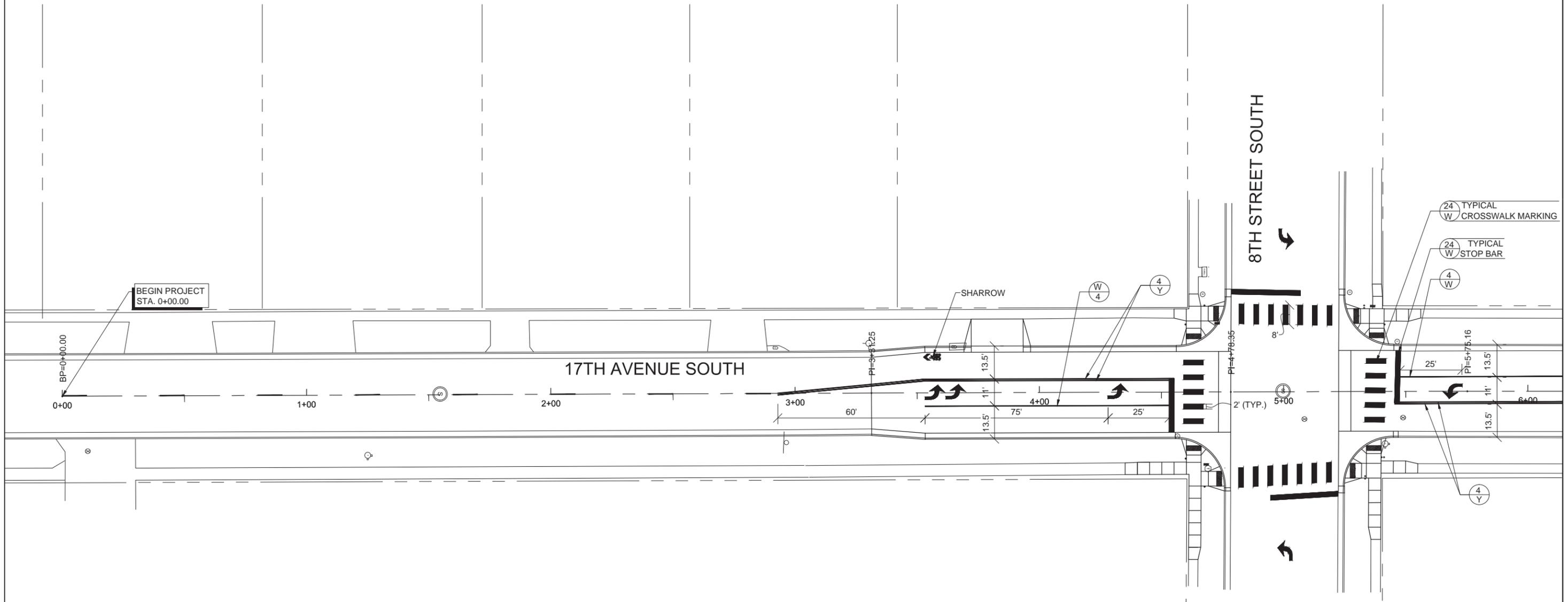
DAKOTA STREET



PAVEMENT MARKING PLAN FOR BIDDING PURPOSES ONLY

17TH AVENUE SOUTH
STA. 0+00 TO STA. 6+00

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	79	119



BEGIN PROJECT
STA. 0+00.00

17TH AVENUE SOUTH

8TH STREET SOUTH

(24) TYPICAL
W CROSSWALK MARKING

(24) TYPICAL
W STOP BAR

(4) W

PI=5+76.16

(4) Y

NOTE:

1. ALL TRAFFIC CONTROL DEVICES AND METHODS SHALL CONFORM WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS ISSUED BY THE UNITED STATES DEPARTMENT OF TRANSPORTATION AND ADOPTED BY THE SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION.
2. ALL PAVEMENT MARKINGS SHALL BE GROOVED INTO SURFACING.
3. REFER TO STANDARD DOT PAVEMENT MARKING PLATE (633.01) FOR PAVEMENT MARKING DIMENSIONS.

LEGEND:

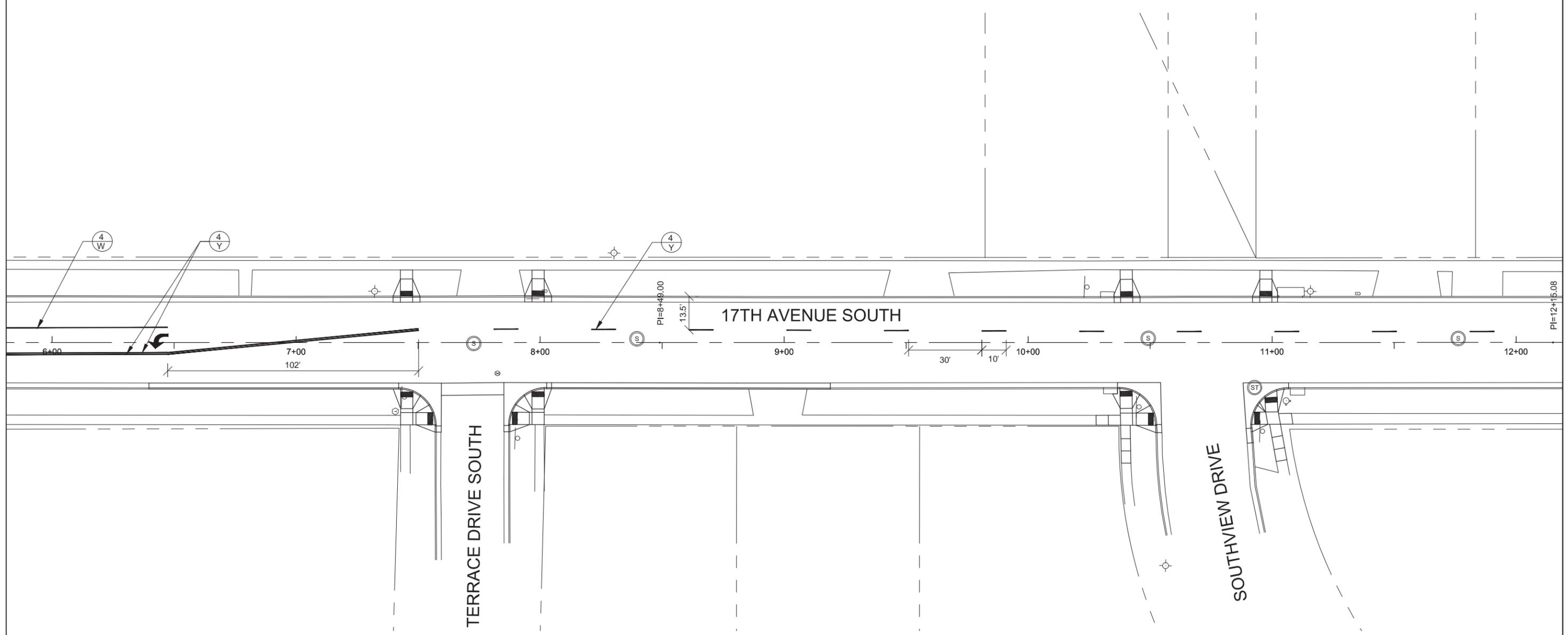
- 24" WHITE COLD PLASTIC PAVEMENT MARKING
- 4" YELLOW COLD PLASTIC PAVEMENT MARKING
- 4" WHITE COLD PLASTIC PAVEMENT MARKING
- ARROW
- SHARROW



PAVEMENT MARKING PLAN FOR BIDDING PURPOSES ONLY

17TH AVENUE SOUTH
STA. 6+00 TO STA. 12+00

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	80	119

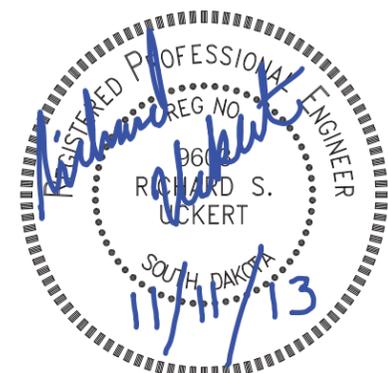


NOTE:

1. ALL TRAFFIC CONTROL DEVICES AND METHODS SHALL CONFORM WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS ISSUED BY THE UNITED STATES DEPARTMENT OF TRANSPORTATION AND ADOPTED BY THE SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION.
2. ALL PAVEMENT MARKINGS SHALL BE GROOVED INTO SURFACING.
3. REFER TO STANDARD DOT PAVEMENT MARKING PLATE (633.01) FOR PAVEMENT MARKING DIMENSIONS.

LEGEND:

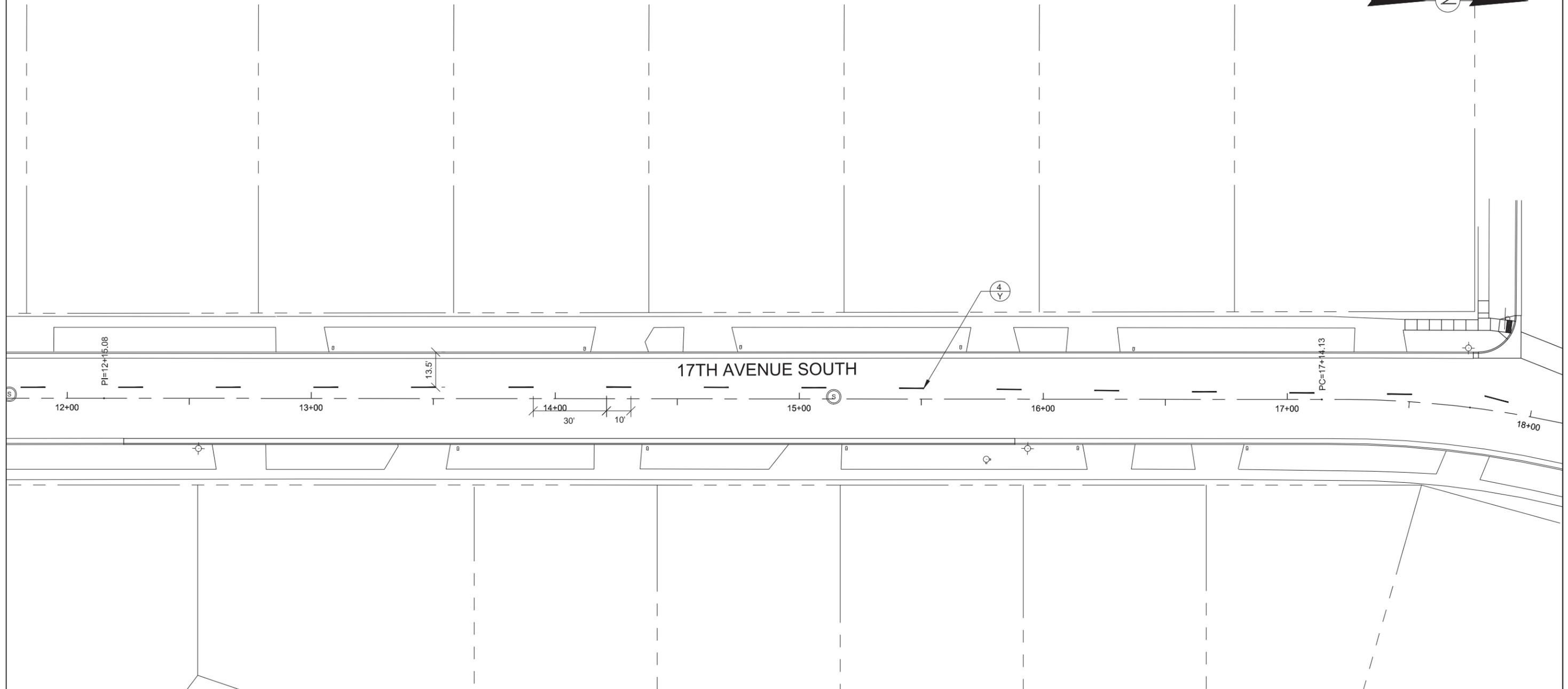
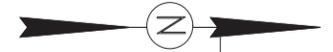
- 24" WHITE COLD PLASTIC PAVEMENT MARKING
- 4" YELLOW COLD PLASTIC PAVEMENT MARKING
- 4" WHITE COLD PLASTIC PAVEMENT MARKING
- ARROW
- SHARROW



PAVEMENT MARKING PLAN FOR BIDDING PURPOSES ONLY

17TH AVENUE SOUTH
STA. 12+00 TO STA. 18+00

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	81	119



17TH AVENUE SOUTH

NOTE:

1. ALL TRAFFIC CONTROL DEVICES AND METHODS SHALL CONFORM WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS ISSUED BY THE UNITED STATES DEPARTMENT OF TRANSPORTATION AND ADOPTED BY THE SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION.
2. ALL PAVEMENT MARKINGS SHALL BE GROOVED INTO SURFACING.
3. REFER TO STANDARD DOT PAVEMENT MARKING PLATE (633.01) FOR PAVEMENT MARKING DIMENSIONS.

LEGEND:

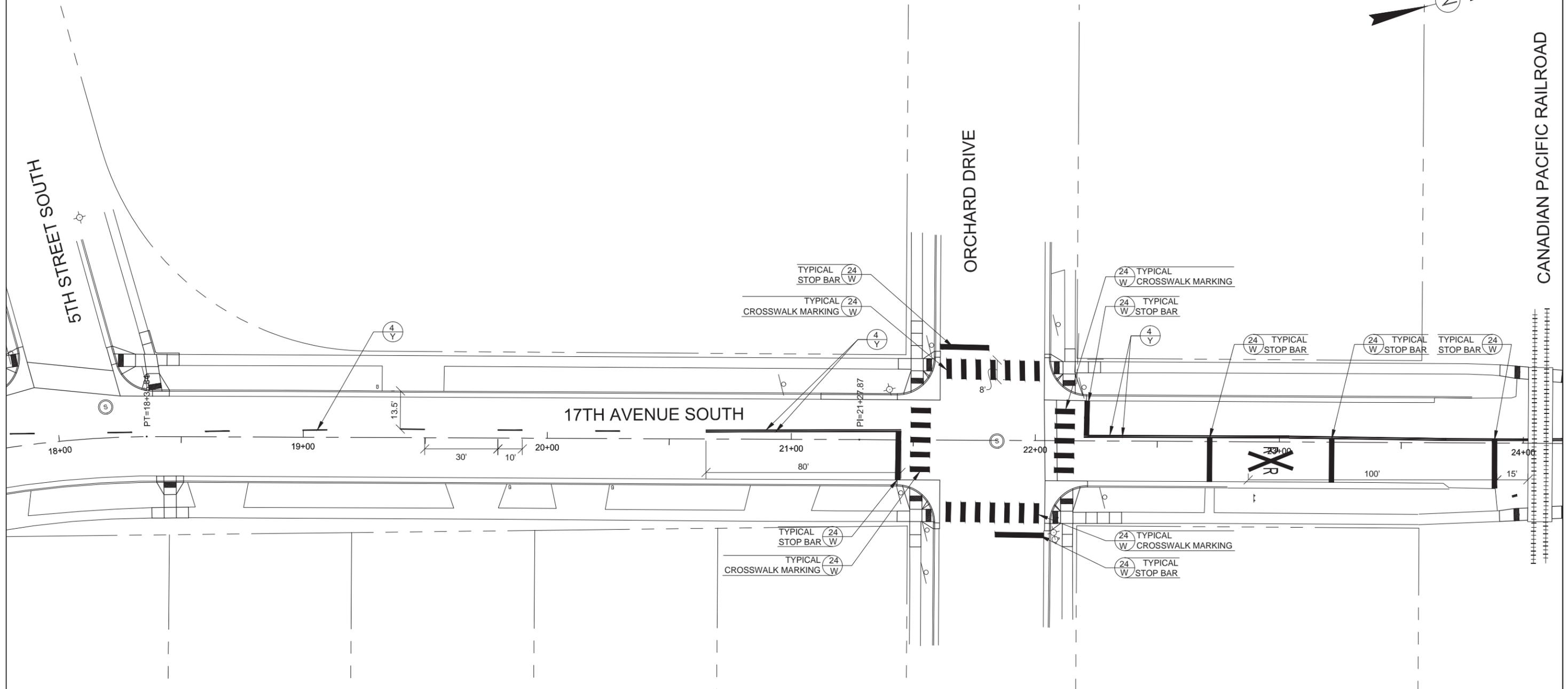
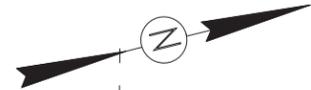
- 24" WHITE COLD PLASTIC PAVEMENT MARKING
- 4" YELLOW COLD PLASTIC PAVEMENT MARKING
- 4" WHITE COLD PLASTIC PAVEMENT MARKING
- ARROW
- SHARROW



PAVEMENT MARKING PLAN FOR BIDDING PURPOSES ONLY

17TH AVENUE SOUTH
STA. 18+00 TO STA. 24+00

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	82	119



NOTE:

1. ALL TRAFFIC CONTROL DEVICES AND METHODS SHALL CONFORM WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS ISSUED BY THE UNITED STATES DEPARTMENT OF TRANSPORTATION AND ADOPTED BY THE SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION.
2. ALL PAVEMENT MARKINGS SHALL BE GROOVED INTO SURFACING.
3. REFER TO STANDARD DOT PAVEMENT MARKING PLATE (633.01) FOR PAVEMENT MARKING DIMENSIONS.
4. REFER TO STANDARD PLATE 633.10 FOR PAVEMENT MARKINGS AT RAILROAD CROSSINGS

LEGEND:

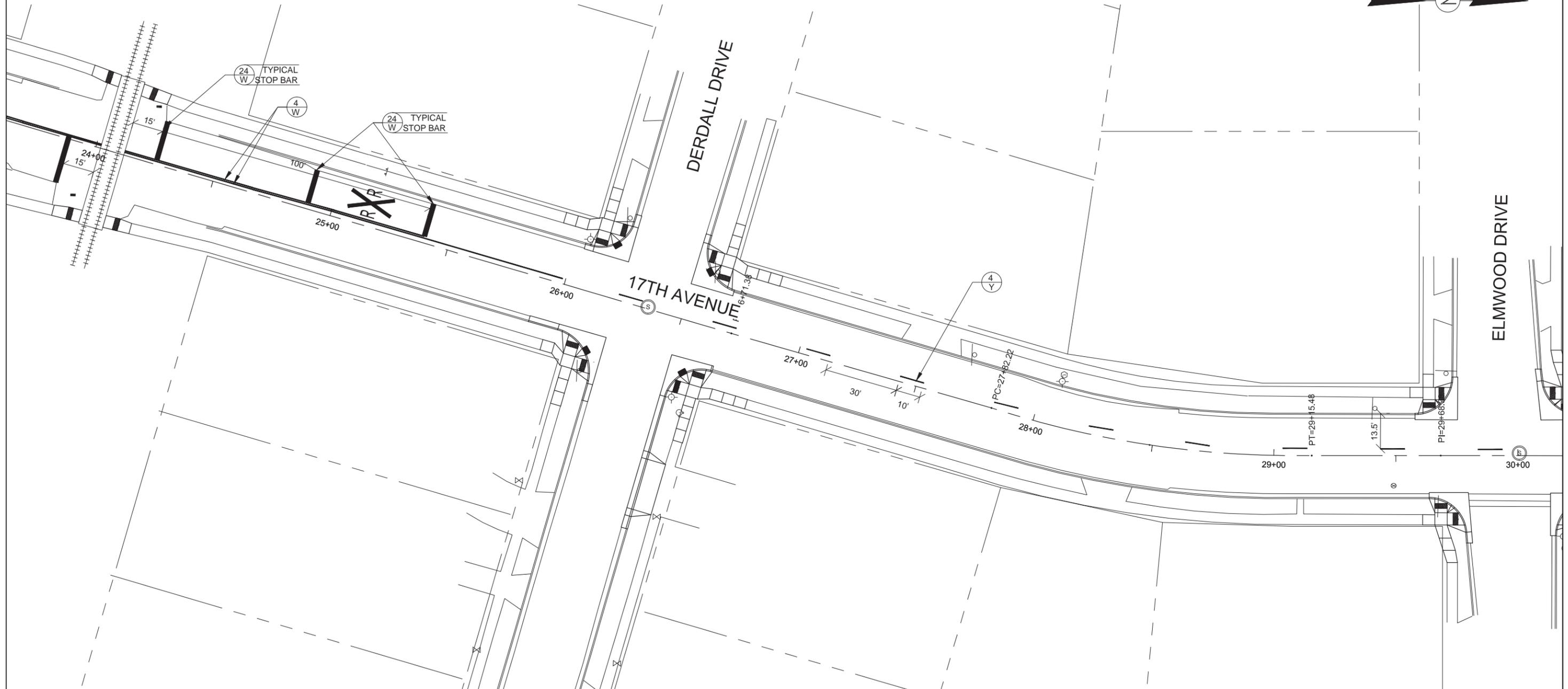
-  24" WHITE COLD PLASTIC PAVEMENT MARKING
-  4" YELLOW COLD PLASTIC PAVEMENT MARKING
-  4" WHITE COLD PLASTIC PAVEMENT MARKING
-  ARROW
-  SHARROW



PAVEMENT MARKING PLAN FOR BIDDING PURPOSES ONLY

17TH AVENUE SOUTH
STA. 24+00 TO STA. 30+00

STATE OF SOUTH DAKOTA	PROJECT P 3273(09)	SHEET No. 83	TOTAL SHEETS 119
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NOTE:

1. ALL TRAFFIC CONTROL DEVICES AND METHODS SHALL CONFORM WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS ISSUED BY THE UNITED STATES DEPARTMENT OF TRANSPORTATION AND ADOPTED BY THE SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION.
2. ALL PAVEMENT MARKINGS SHALL BE GROOVED INTO SURFACING.
3. REFER TO STANDARD DOT PAVEMENT MARKING PLATE (633.01) FOR PAVEMENT MARKING DIMENSIONS.
4. REFER TO STANDARD PLATE 633.10 FOR PAVEMENT MARKINGS AT RAILROAD CROSSINGS

LEGEND:

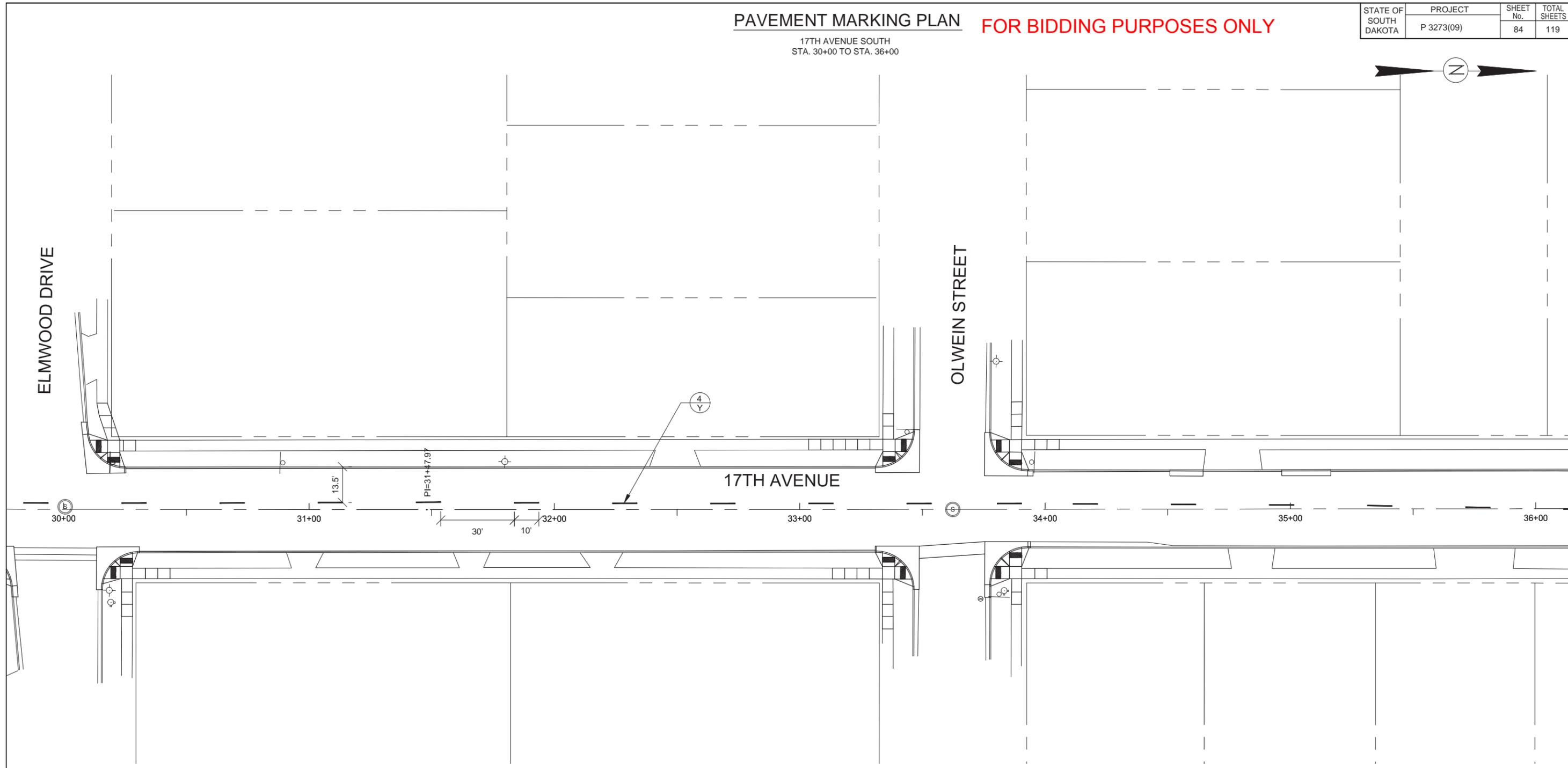
- 24" WHITE COLD PLASTIC PAVEMENT MARKING
- 4" YELLOW COLD PLASTIC PAVEMENT MARKING
- 4" WHITE COLD PLASTIC PAVEMENT MARKING
- ARROW
- SHARROW



PAVEMENT MARKING PLAN FOR BIDDING PURPOSES ONLY

17TH AVENUE SOUTH
STA. 30+00 TO STA. 36+00

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	84	119



NOTE:

1. ALL TRAFFIC CONTROL DEVICES AND METHODS SHALL CONFORM WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS ISSUED BY THE UNITED STATES DEPARTMENT OF TRANSPORTATION AND ADOPTED BY THE SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION.
2. ALL PAVEMENT MARKINGS SHALL BE GROOVED INTO SURFACING.
3. REFER TO STANDARD DOT PAVEMENT MARKING PLATE (633.01) FOR PAVEMENT MARKING DIMENSIONS.

LEGEND:

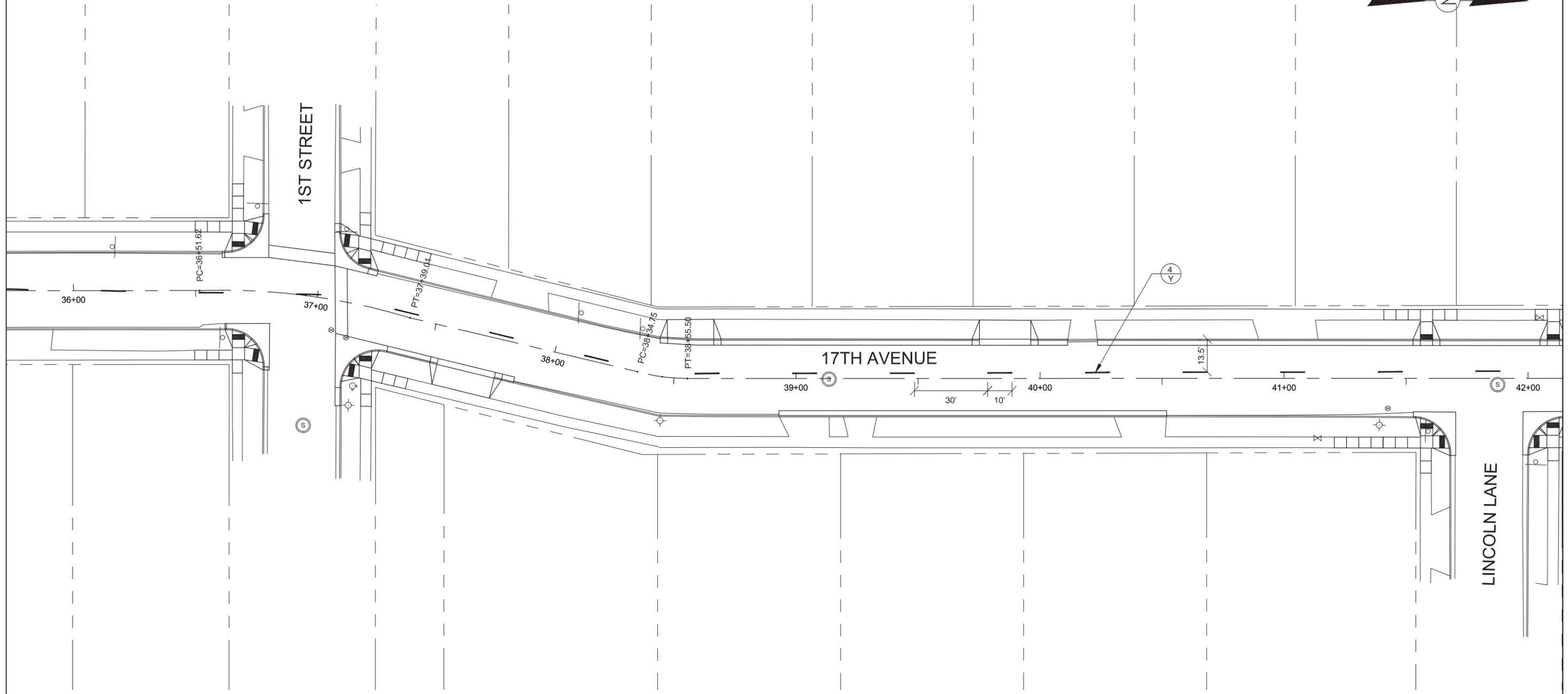
- 24" WHITE COLD PLASTIC PAVEMENT MARKING
- 4" YELLOW COLD PLASTIC PAVEMENT MARKING
- 4" WHITE COLD PLASTIC PAVEMENT MARKING
- ARROW
- SHARROW



PAVEMENT MARKING PLAN FOR BIDDING PURPOSES ONLY

17TH AVENUE SOUTH
STA. 36+00 TO STA. 42+00

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	85	119



NOTE:

1. ALL TRAFFIC CONTROL DEVICES AND METHODS SHALL CONFORM WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS ISSUED BY THE UNITED STATES DEPARTMENT OF TRANSPORTATION AND ADOPTED BY THE SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION.
2. ALL PAVEMENT MARKINGS SHALL BE GROOVED INTO SURFACING.
3. REFER TO STANDARD DOT PAVEMENT MARKING PLATE (633.01) FOR PAVEMENT MARKING DIMENSIONS.

LEGEND:

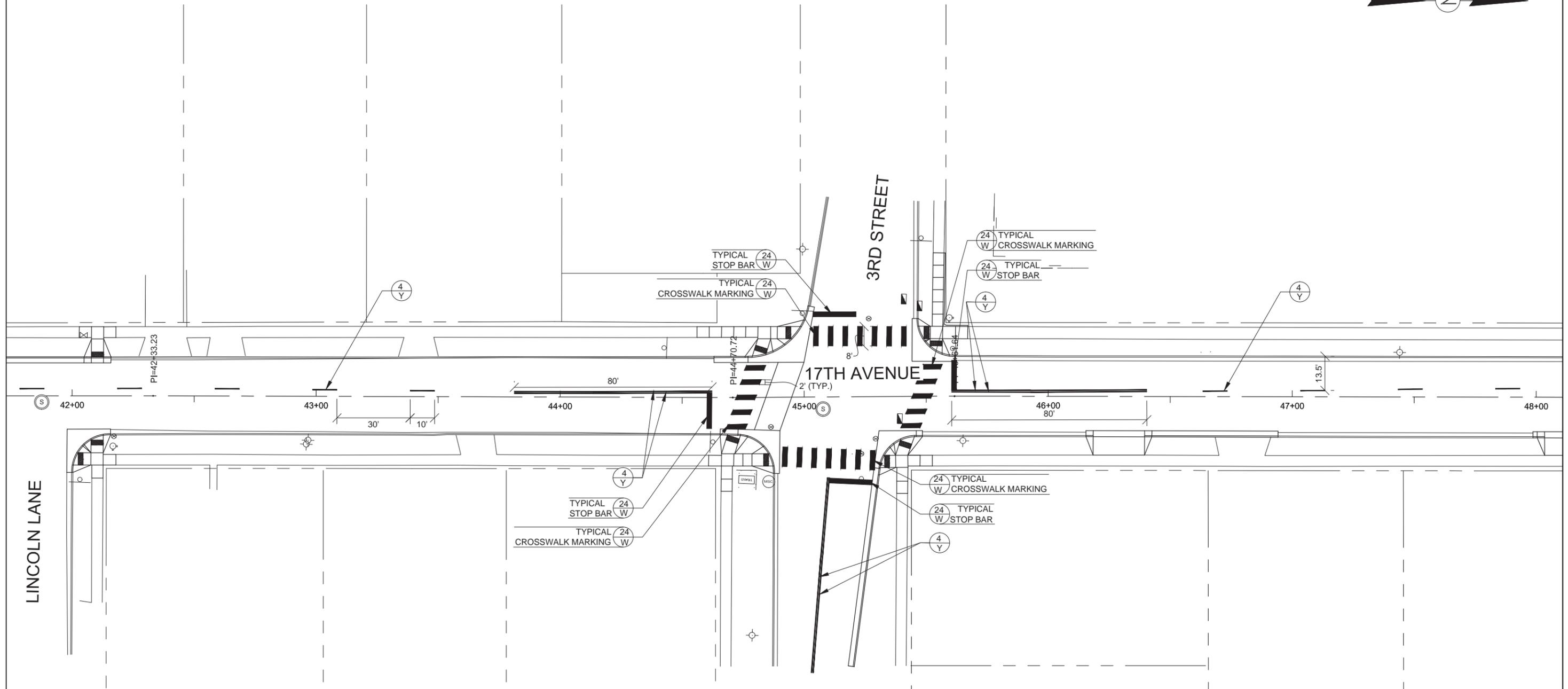
- 24" WHITE COLD PLASTIC PAVEMENT MARKING
- 4" YELLOW COLD PLASTIC PAVEMENT MARKING
- 4" WHITE COLD PLASTIC PAVEMENT MARKING
- ARROW
- SHARROW



PAVEMENT MARKING PLAN FOR BIDDING PURPOSES ONLY

17TH AVENUE SOUTH
STA. 42+00 TO STA. 48+00

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	86	119



LINCOLN LANE

3RD STREET

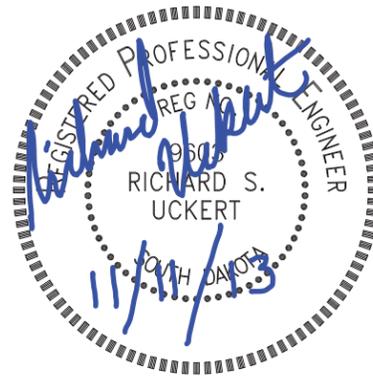
17TH AVENUE

NOTE:

1. ALL TRAFFIC CONTROL DEVICES AND METHODS SHALL CONFORM WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS ISSUED BY THE UNITED STATES DEPARTMENT OF TRANSPORTATION AND ADOPTED BY THE SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION.
2. ALL PAVEMENT MARKINGS SHALL BE GROOVED INTO SURFACING.
3. REFER TO STANDARD DOT PAVEMENT MARKING PLATE (633.01) FOR PAVEMENT MARKING DIMENSIONS.

LEGEND:

- 24" WHITE COLD PLASTIC PAVEMENT MARKING
- 4" YELLOW COLD PLASTIC PAVEMENT MARKING
- 4" WHITE COLD PLASTIC PAVEMENT MARKING
- ARROW
- SHARROW



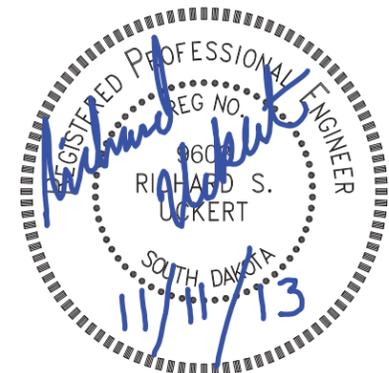
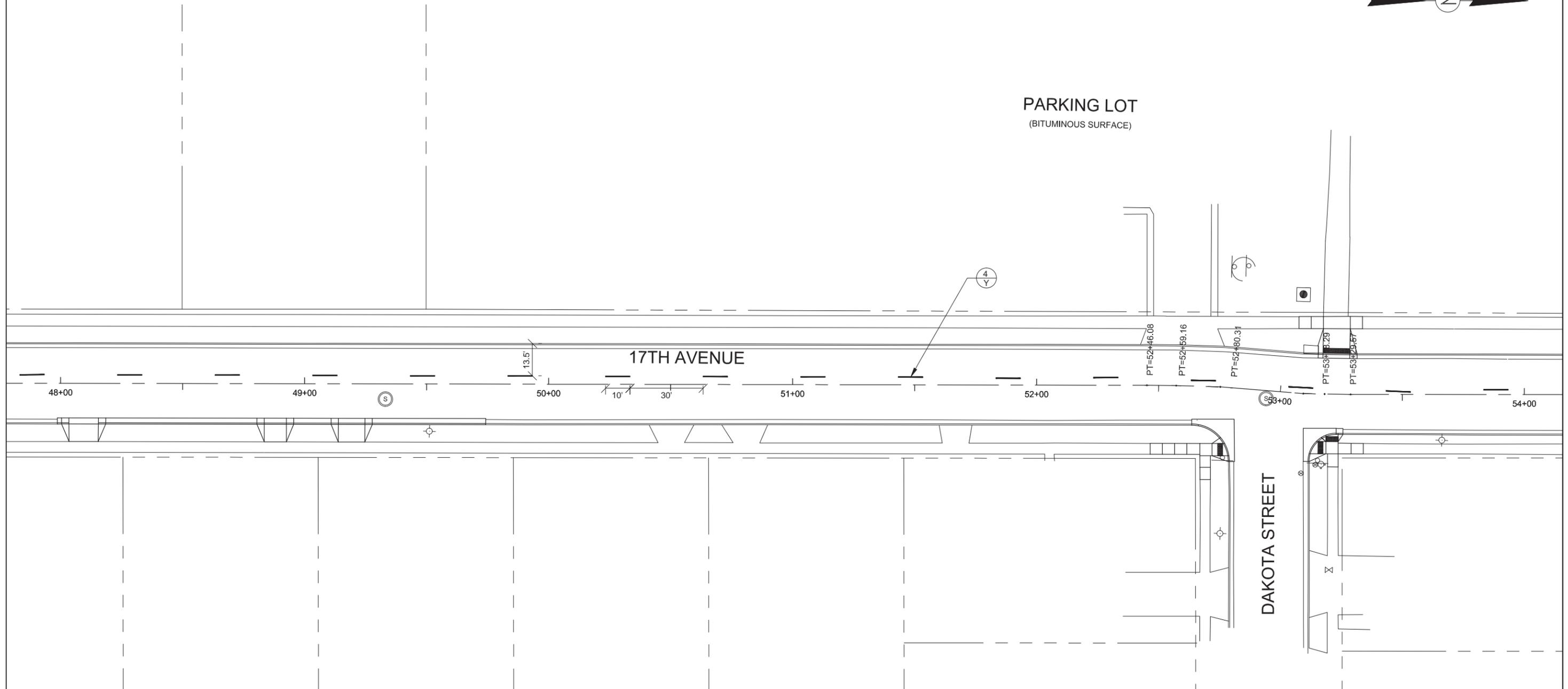
PAVEMENT MARKING PLAN FOR BIDDING PURPOSES ONLY

17TH AVENUE SOUTH
STA. 48+00 TO STA. 54+00

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	87	119



PARKING LOT
(BITUMINOUS SURFACE)



NOTE:

1. ALL TRAFFIC CONTROL DEVICES AND METHODS SHALL CONFORM WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS ISSUED BY THE UNITED STATES DEPARTMENT OF TRANSPORTATION AND ADOPTED BY THE SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION.
2. ALL PAVEMENT MARKINGS SHALL BE GROOVED INTO SURFACING.
3. REFER TO STANDARD DOT PAVEMENT MARKING PLATE (633.01) FOR PAVEMENT MARKING DIMENSIONS.

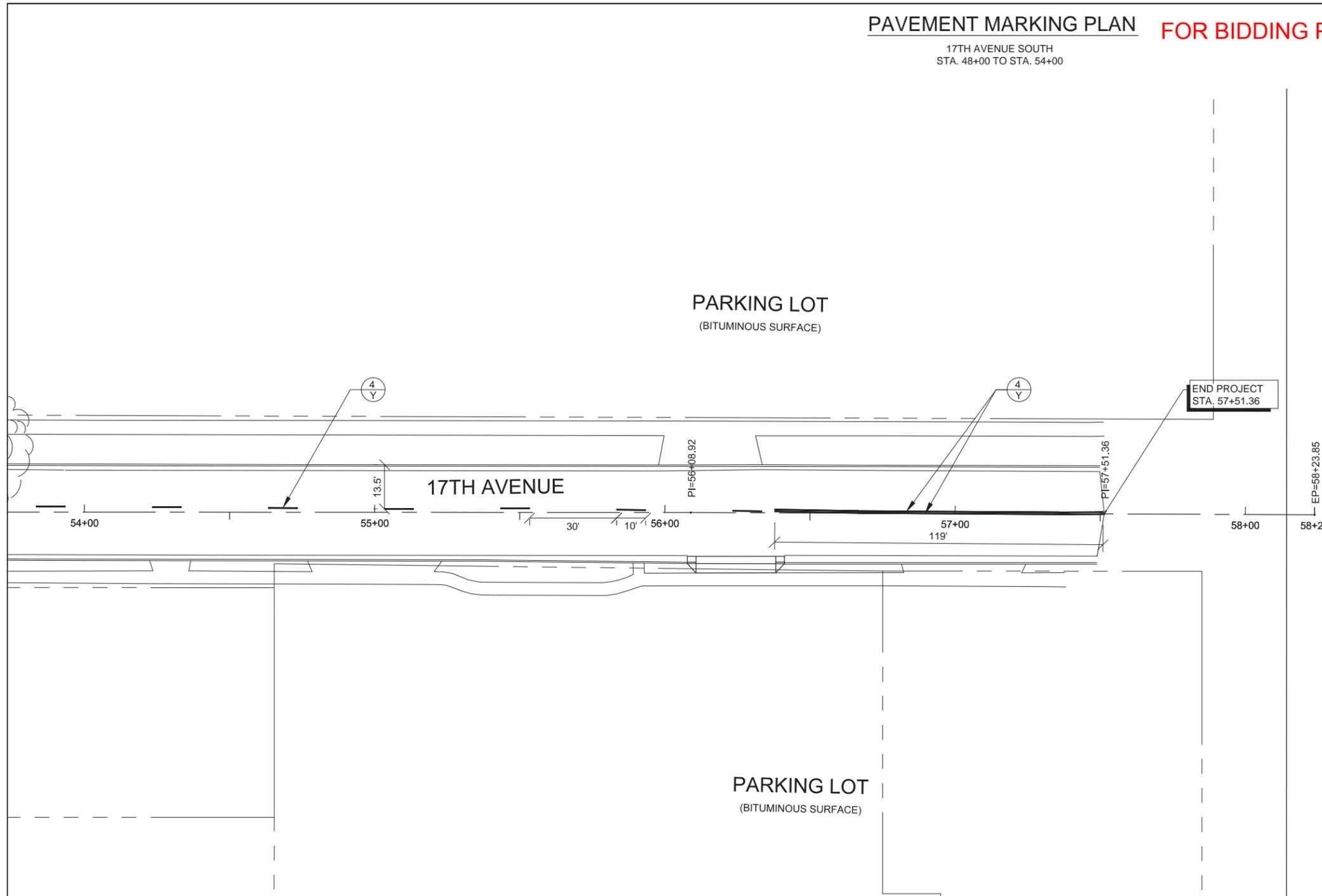
LEGEND:

-  24" WHITE COLD PLASTIC PAVEMENT MARKING
-  4" YELLOW COLD PLASTIC PAVEMENT MARKING
-  4" WHITE COLD PLASTIC PAVEMENT MARKING
-  ARROW
-  SHARROW

PAVEMENT MARKING PLAN FOR BIDDING PURPOSES ONLY

17TH AVENUE SOUTH
STA. 48+00 TO STA. 54+00

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	88	119



6TH STREET

END PROJECT
STA. 57+51.36

PARKING LOT
(BITUMINOUS SURFACE)

PARKING LOT
(BITUMINOUS SURFACE)

NOTE:

1. ALL TRAFFIC CONTROL DEVICES AND METHODS SHALL CONFORM WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS ISSUED BY THE UNITED STATES DEPARTMENT OF TRANSPORTATION AND ADOPTED BY THE SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION.
2. ALL PAVEMENT MARKINGS SHALL BE GROOVED INTO SURFACING.
3. REFER TO STANDARD DOT PAVEMENT MARKING PLATE (633.01) FOR PAVEMENT MARKING DIMENSIONS.

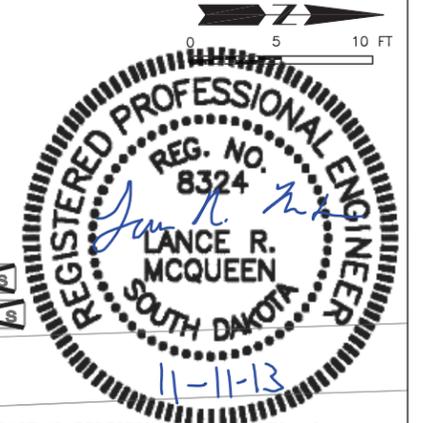
LEGEND:

-  24" WHITE COLD PLASTIC PAVEMENT MARKING
-  4" YELLOW COLD PLASTIC PAVEMENT MARKING
-  4" WHITE COLD PLASTIC PAVEMENT MARKING
-  ARROW
-  SHARROW

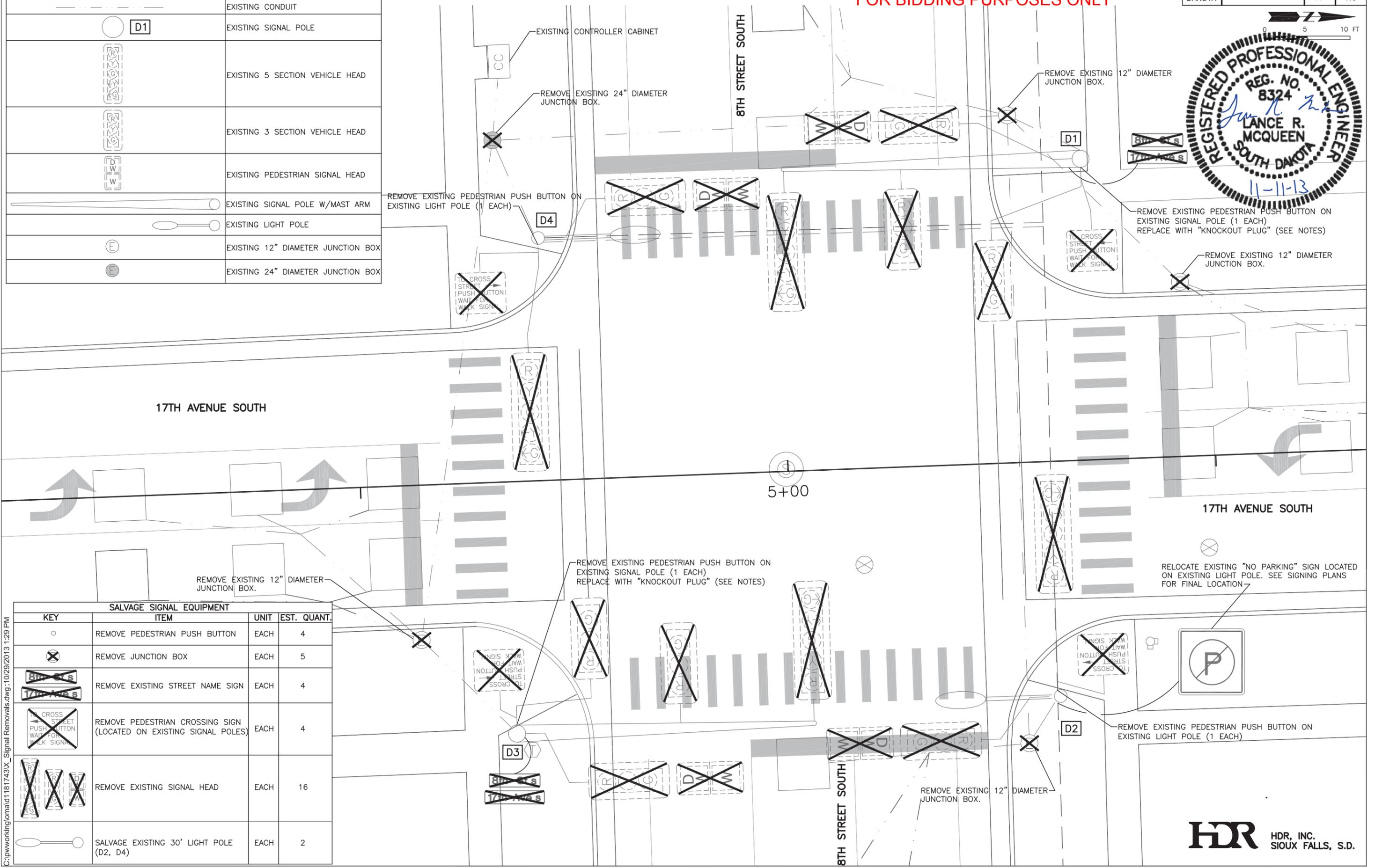


SIGNAL REMOVALS

FOR BIDDING PURPOSES ONLY



KEY	LEGEND	ITEM
	---	EXISTING CONDUIT
D1	○	EXISTING SIGNAL POLE
		EXISTING 5 SECTION VEHICLE HEAD
		EXISTING 3 SECTION VEHICLE HEAD
		EXISTING PEDESTRIAN SIGNAL HEAD
		EXISTING SIGNAL POLE W/MAST ARM
		EXISTING LIGHT POLE
E	○	EXISTING 12" DIAMETER JUNCTION BOX
E	○	EXISTING 24" DIAMETER JUNCTION BOX



KEY	ITEM	UNIT	EST. QUANT.
○	REMOVE PEDESTRIAN PUSH BUTTON	EACH	4
⊗	REMOVE JUNCTION BOX	EACH	5
	REMOVE EXISTING STREET NAME SIGN	EACH	4
	REMOVE PEDESTRIAN CROSSING SIGN (LOCATED ON EXISTING SIGNAL POLES)	EACH	4
	REMOVE EXISTING SIGNAL HEAD	EACH	16
	SALVAGE EXISTING 30' LIGHT POLE (D2, D4)	EACH	2

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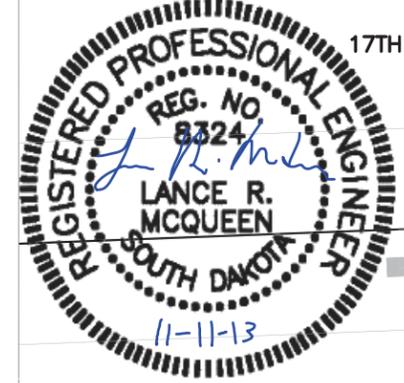
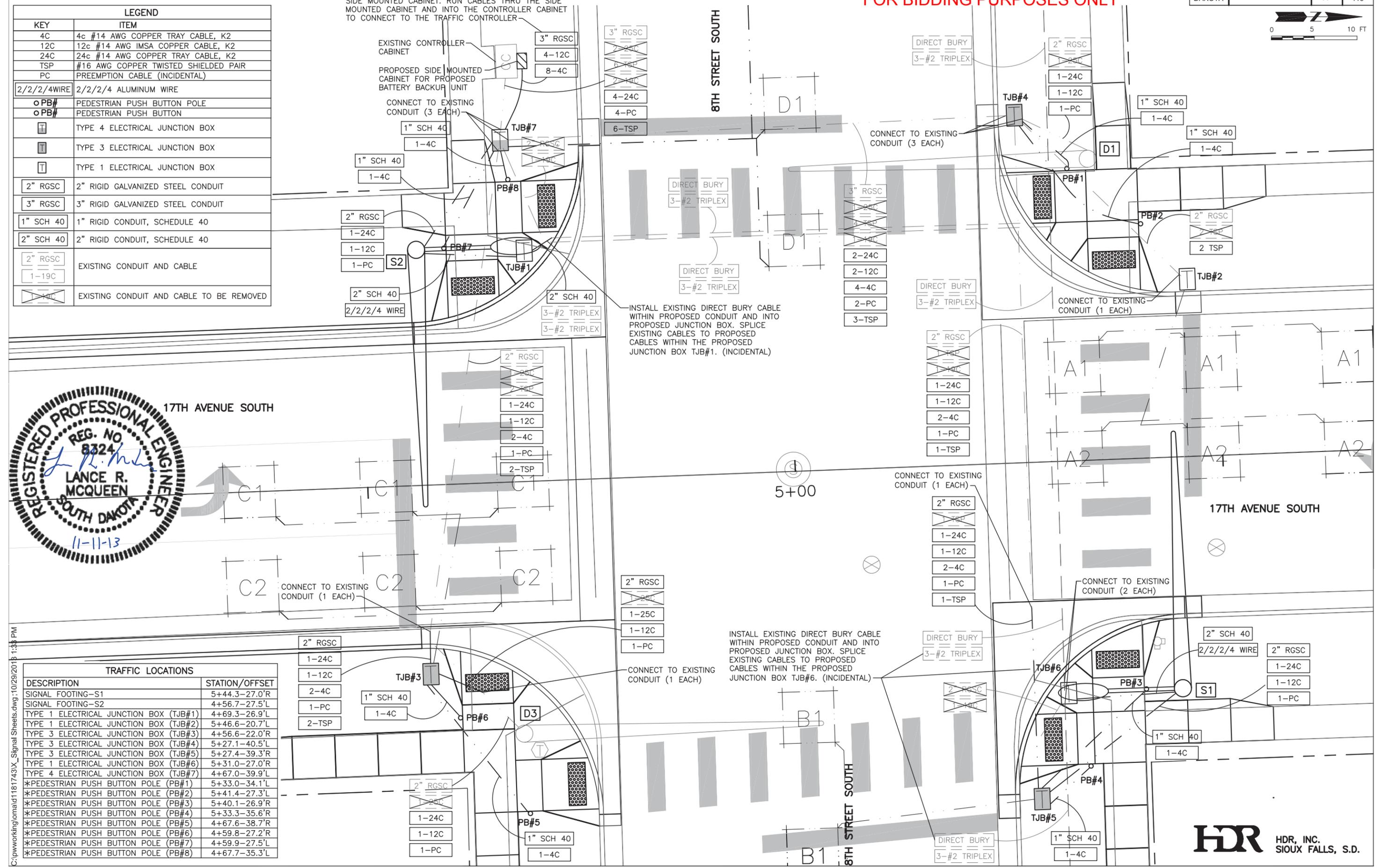


CONDUIT LAYOUT

FOR BIDDING PURPOSES ONLY

LEGEND	
KEY	ITEM
4C	4c #14 AWG COPPER TRAY CABLE, K2
12C	12c #14 AWG IMSA COPPER CABLE, K2
24C	24c #14 AWG COPPER TRAY CABLE, K2
TSP	#16 AWG COPPER TWISTED SHIELDED PAIR
PC	PREEMPTION CABLE (INCIDENTAL)
2/2/2/4WIRE	2/2/2/4 ALUMINUM WIRE
○PB#	PEDESTRIAN PUSH BUTTON POLE
○PB#	PEDESTRIAN PUSH BUTTON
⊕	TYPE 4 ELECTRICAL JUNCTION BOX
⊕	TYPE 3 ELECTRICAL JUNCTION BOX
⊕	TYPE 1 ELECTRICAL JUNCTION BOX
2" RGSC	2" RIGID GALVANIZED STEEL CONDUIT
3" RGSC	3" RIGID GALVANIZED STEEL CONDUIT
1" SCH 40	1" RIGID CONDUIT, SCHEDULE 40
2" SCH 40	2" RIGID CONDUIT, SCHEDULE 40
2" RGSC	EXISTING CONDUIT AND CABLE
1-19C	EXISTING CONDUIT AND CABLE TO BE REMOVED

INSTALL THE 3" RGSC DIRECTLY INTO THE PROPOSED SIDE MOUNTED CABINET. RUN CABLES THRU THE SIDE MOUNTED CABINET AND INTO THE CONTROLLER CABINET TO CONNECT TO THE TRAFFIC CONTROLLER



17TH AVENUE SOUTH

17TH AVENUE SOUTH

5+00

TRAFFIC LOCATIONS	
DESCRIPTION	STATION/OFFSET
SIGNAL FOOTING-S1	5+44.3-27.0'R
SIGNAL FOOTING-S2	4+56.7-27.5'L
TYPE 1 ELECTRICAL JUNCTION BOX (TJB#1)	4+69.3-26.9'L
TYPE 1 ELECTRICAL JUNCTION BOX (TJB#2)	5+46.6-20.7'L
TYPE 3 ELECTRICAL JUNCTION BOX (TJB#3)	4+56.6-22.0'R
TYPE 3 ELECTRICAL JUNCTION BOX (TJB#4)	5+27.1-40.5'L
TYPE 3 ELECTRICAL JUNCTION BOX (TJB#5)	5+27.4-39.3'R
TYPE 1 ELECTRICAL JUNCTION BOX (TJB#6)	5+31.0-27.0'R
TYPE 4 ELECTRICAL JUNCTION BOX (TJB#7)	4+67.0-39.9'L
*PEDESTRIAN PUSH BUTTON POLE (PB#1)	5+33.0-34.1'L
*PEDESTRIAN PUSH BUTTON POLE (PB#2)	5+41.4-27.3'L
*PEDESTRIAN PUSH BUTTON POLE (PB#3)	5+40.1-26.9'R
*PEDESTRIAN PUSH BUTTON POLE (PB#4)	5+33.3-35.6'R
*PEDESTRIAN PUSH BUTTON POLE (PB#5)	4+67.6-38.7'R
*PEDESTRIAN PUSH BUTTON POLE (PB#6)	4+59.8-27.2'R
*PEDESTRIAN PUSH BUTTON POLE (PB#7)	4+59.9-27.5'L
*PEDESTRIAN PUSH BUTTON POLE (PB#8)	4+67.7-35.3'L

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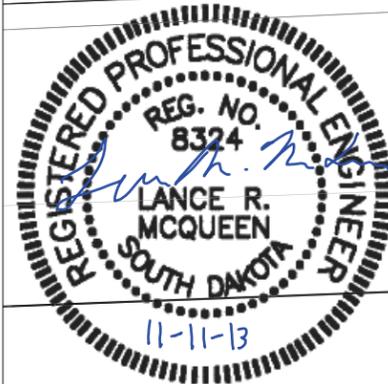
SIGNAL LAYOUT

FOR BIDDING PURPOSES ONLY

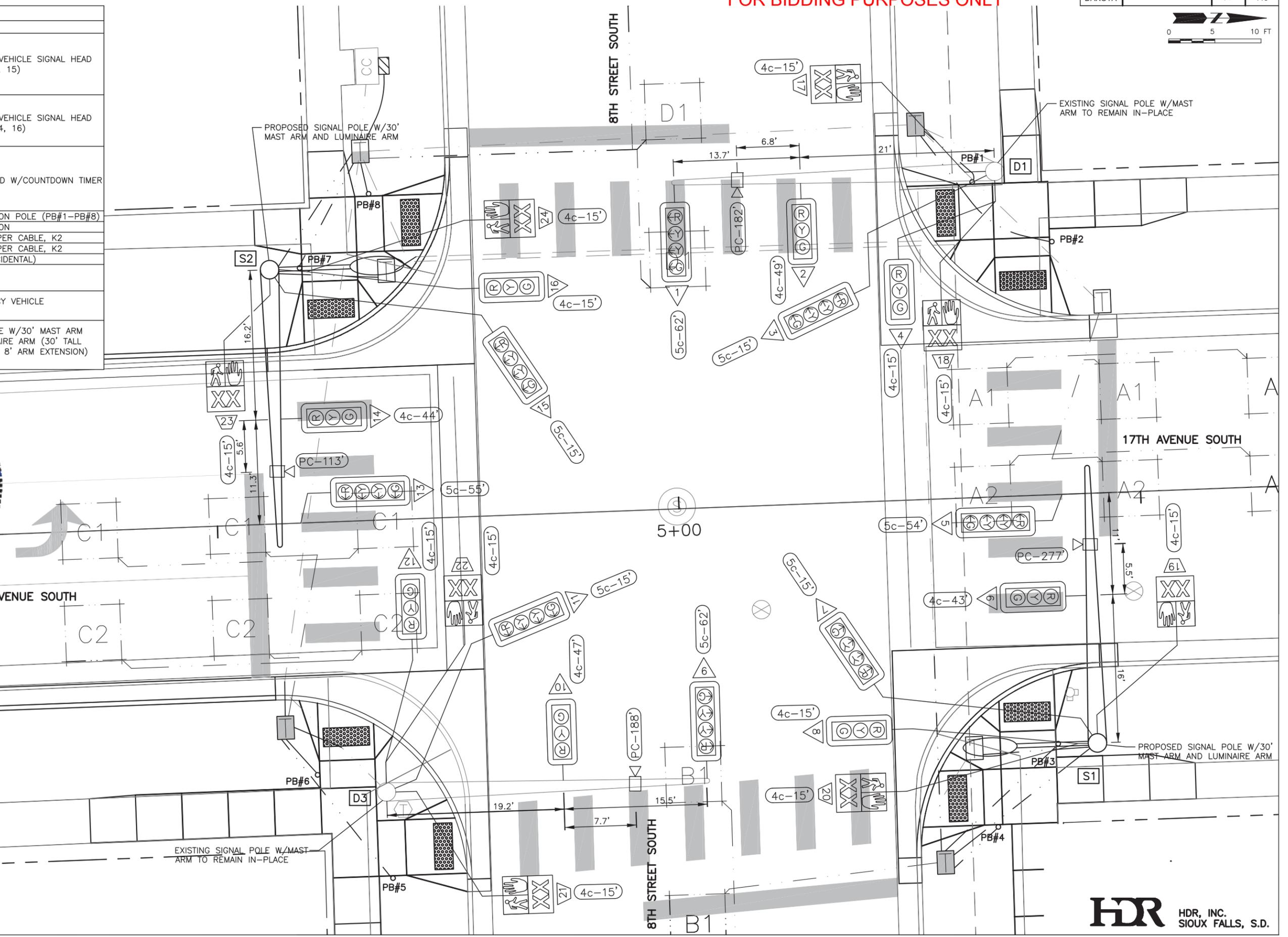
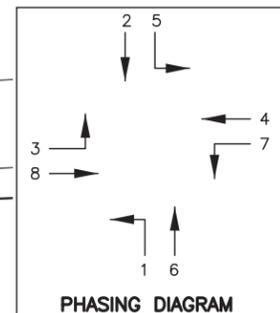
STATE OF SOUTH DAKOTA	PROJECT P 3273(09)	SHEET No. 91	TOTAL SHEETS 119
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KEY	ITEM
	PROPOSED 4-SECTION VEHICLE SIGNAL HEAD (1, 3, 5, 7, 9, 11, 13, 15)
	PROPOSED 3-SECTION VEHICLE SIGNAL HEAD (2, 4, 6, 8, 10, 12, 14, 16)
	PEDESTRIAN SIGNAL HEAD W/COUNTDOWN TIMER (17-24)
	PEDESTRIAN PUSH BUTTON POLE (PB#1-PB#8)
	PEDESTRIAN PUSH BUTTON
	4c #14 AWG IMSA COPPER CABLE, K2
	5c #14 AWG IMSA COPPER CABLE, K2
	PREEMPTION CABLE (INCIDENTAL)
	OPTICAL DETECTOR
	(4 CHANNEL) EMERGENCY VEHICLE PREEMPTION UNIT
	SIGNAL POLE W/30' MAST ARM AND LUMINAIRE ARM (30' TALL LUMINAIRES, 8' ARM EXTENSION) (S1, S2)



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SAWED-IN DETECTOR LOOP LAYOUT

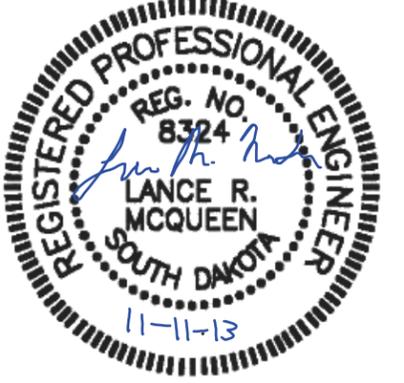
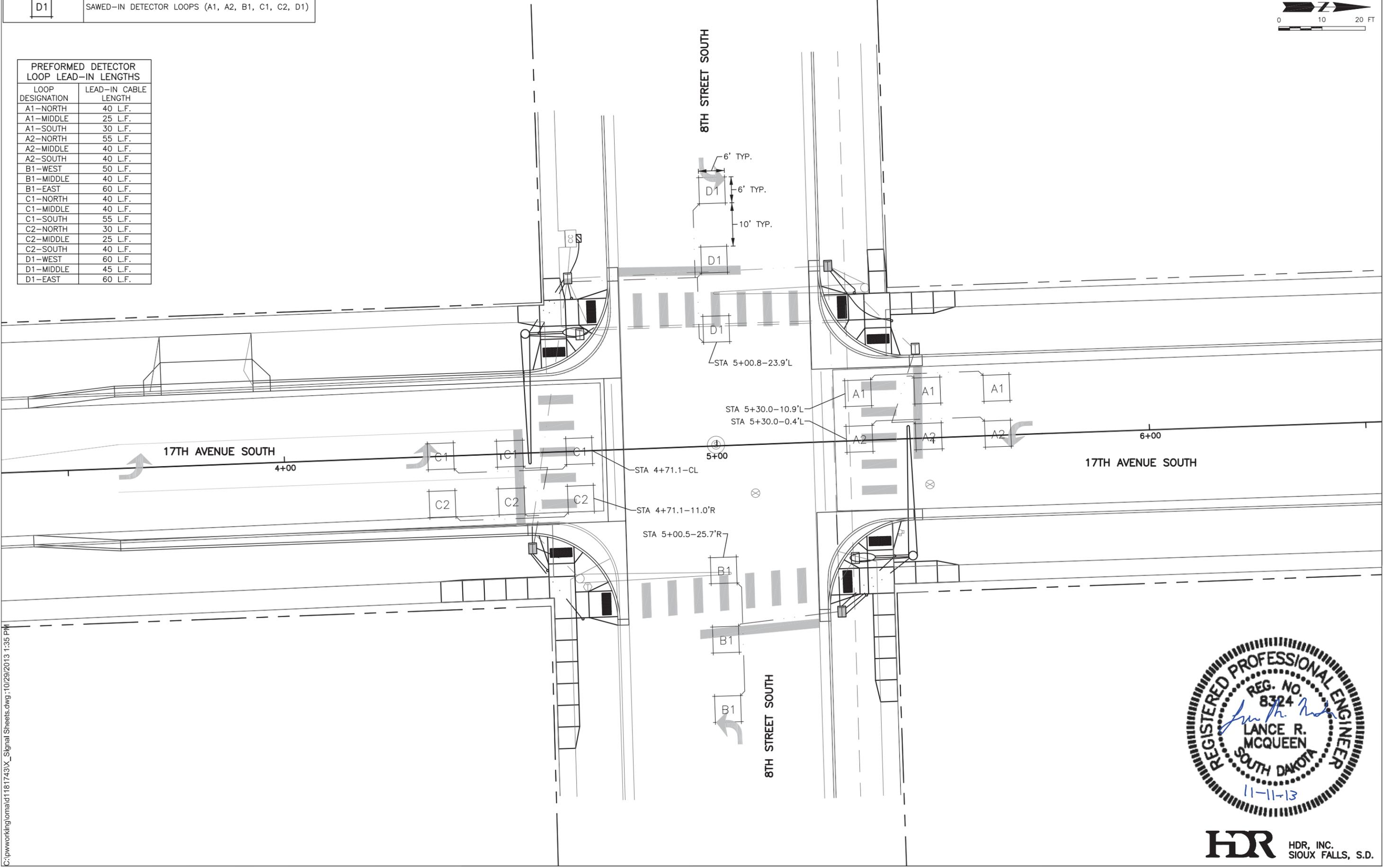
FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT P 3273(09)	SHEET No. 92	TOTAL SHEETS 119
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LEGEND	
KEY	ITEM
	SAWED-IN DETECTOR LOOPS (A1, A2, B1, C1, C2, D1)

PERFORMED DETECTOR LOOP LEAD-IN LENGTHS	
LOOP DESIGNATION	LEAD-IN CABLE LENGTH
A1-NORTH	40 L.F.
A1-MIDDLE	25 L.F.
A1-SOUTH	30 L.F.
A2-NORTH	55 L.F.
A2-MIDDLE	40 L.F.
A2-SOUTH	40 L.F.
B1-WEST	50 L.F.
B1-MIDDLE	40 L.F.
B1-EAST	60 L.F.
C1-NORTH	40 L.F.
C1-MIDDLE	40 L.F.
C1-SOUTH	55 L.F.
C2-NORTH	30 L.F.
C2-MIDDLE	25 L.F.
C2-SOUTH	40 L.F.
D1-WEST	60 L.F.
D1-MIDDLE	45 L.F.
D1-EAST	60 L.F.



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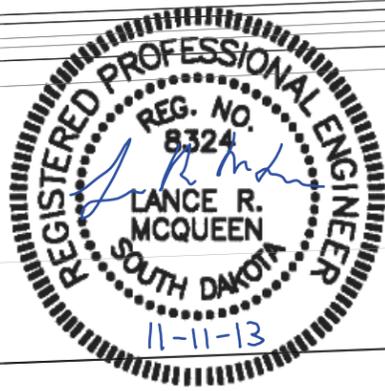
PERMANENT SIGN LAYOUT

FOR BIDDING PURPOSES ONLY

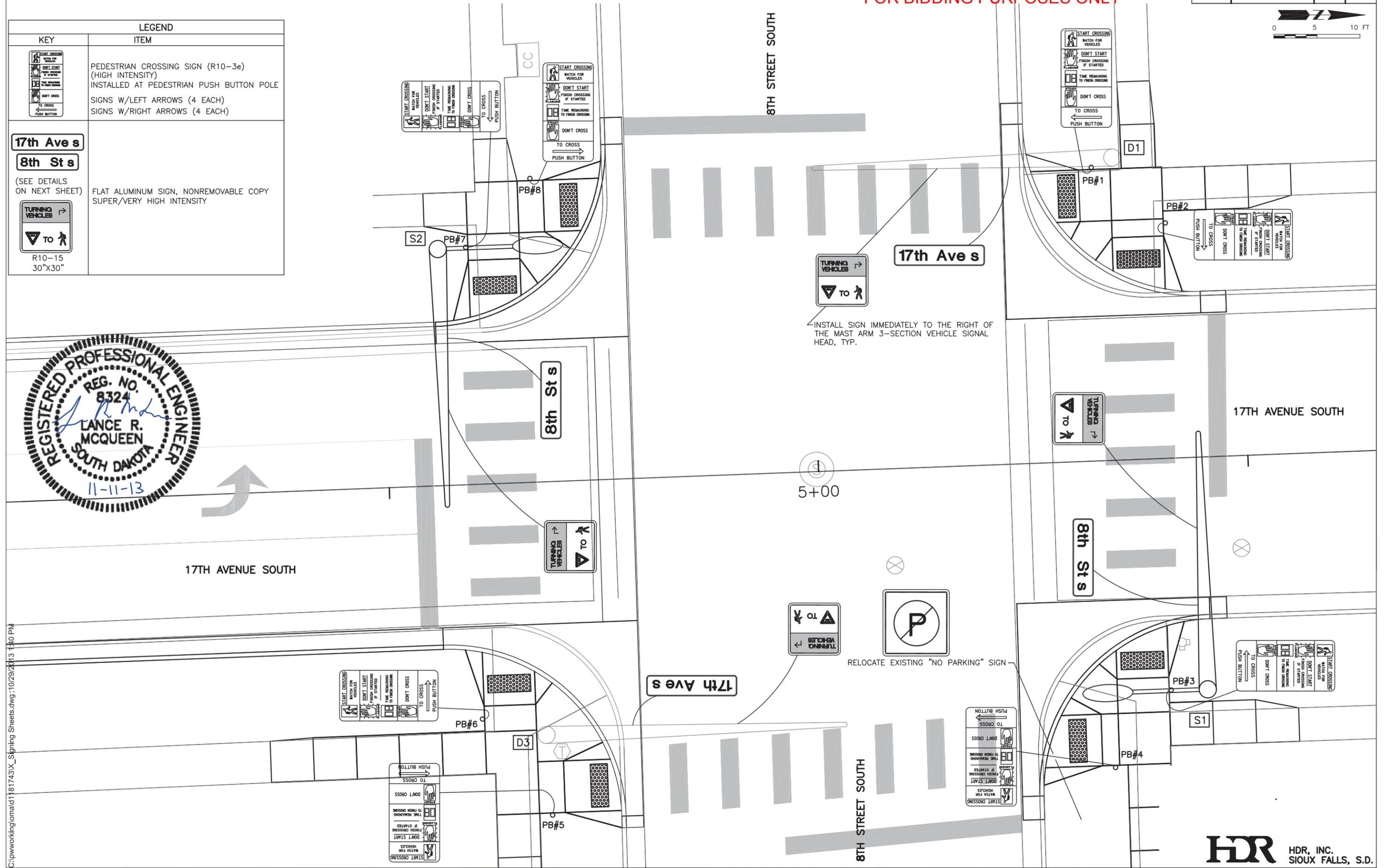
STATE OF SOUTH DAKOTA	PROJECT P 3273(09)	SHEET No. 93	TOTAL SHEETS 119
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KEY	LEGEND
	PEDESTRIAN CROSSING SIGN (R10-3e) (HIGH INTENSITY) INSTALLED AT PEDESTRIAN PUSH BUTTON POLE
	SIGNS W/LEFT ARROWS (4 EACH) SIGNS W/RIGHT ARROWS (4 EACH)
17th Ave s 8th St s	FLAT ALUMINUM SIGN, NONREMOVABLE COPY SUPER/VERY HIGH INTENSITY
(SEE DETAILS ON NEXT SHEET)	
R10-15 30"x30"	



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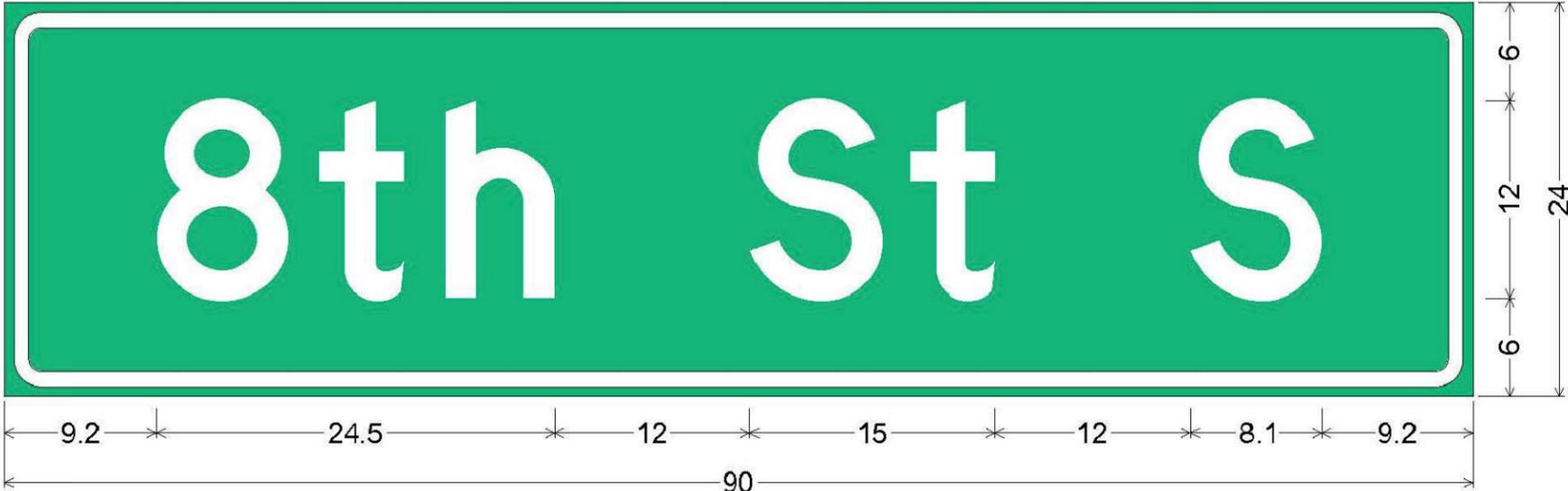
INSTALL SIGN IMMEDIATELY TO THE RIGHT OF THE MAST ARM 3-SECTION VEHICLE SIGNAL HEAD, TYP.

RELOCATE EXISTING "NO PARKING" SIGN

PERMANENT STREET NAME SIGN DETAILS

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT P 3273(09)	SHEET No. 94	TOTAL SHEETS 119
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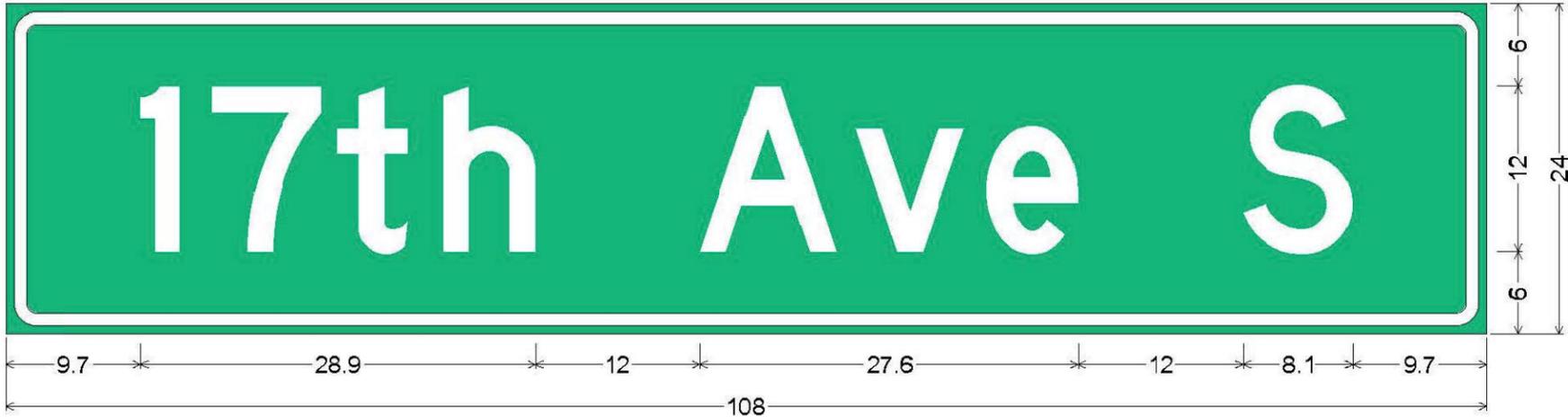


2.3" Radius, 0.9" Border, 0.6" Indent, White on Green;
"8th St S" D;

Table of letter and object lefts.

8	t	h	S	t	S
9.2	19.2	27.0	45.7	55.5	72.7

PERMANENT STREET NAME SIGNS SHALL BE SINGLE SIDED WITH ONLY ONE SIGN INSTALLED PER LOCATION SHOWN.



2.3" Radius, 0.9" Border, 0.6" Indent, White on Green;
"17th Ave S" D;

Table of letter and object lefts.

1	7	t	h	A	v	e	S
9.7	14.9	24.1	31.9	50.6	61.9	71.5	90.2



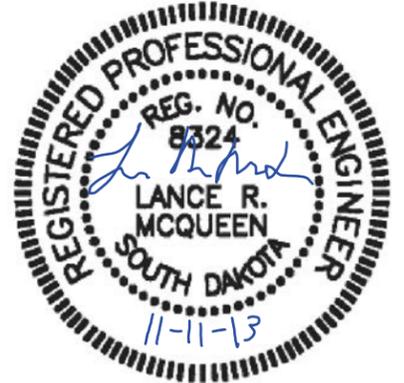
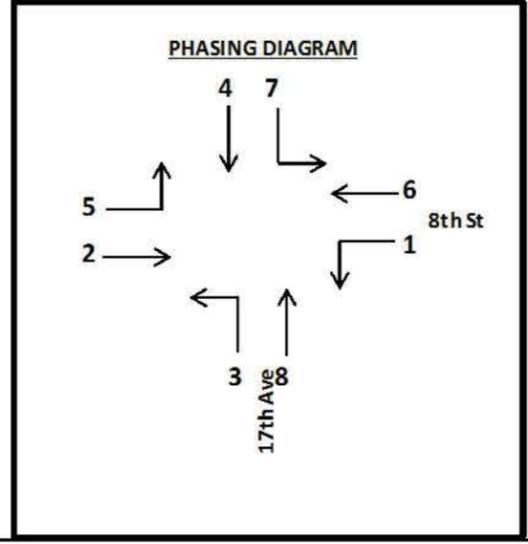
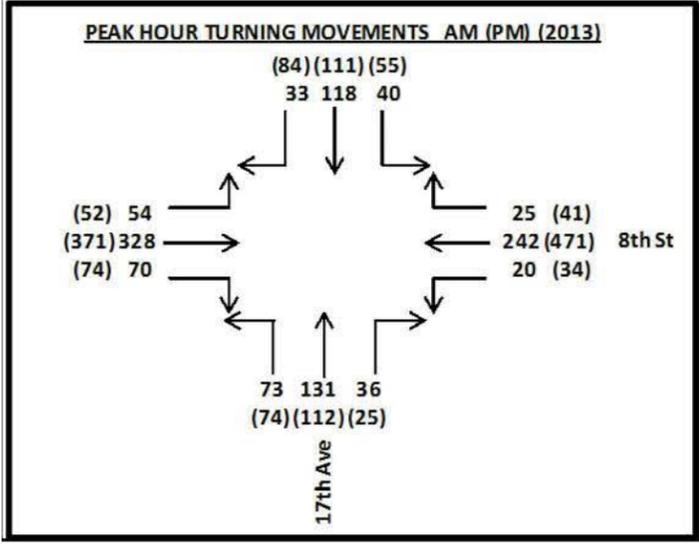
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SIGNAL TIMING DIAGRAM

FOR BIDDING PURPOSES ONLY

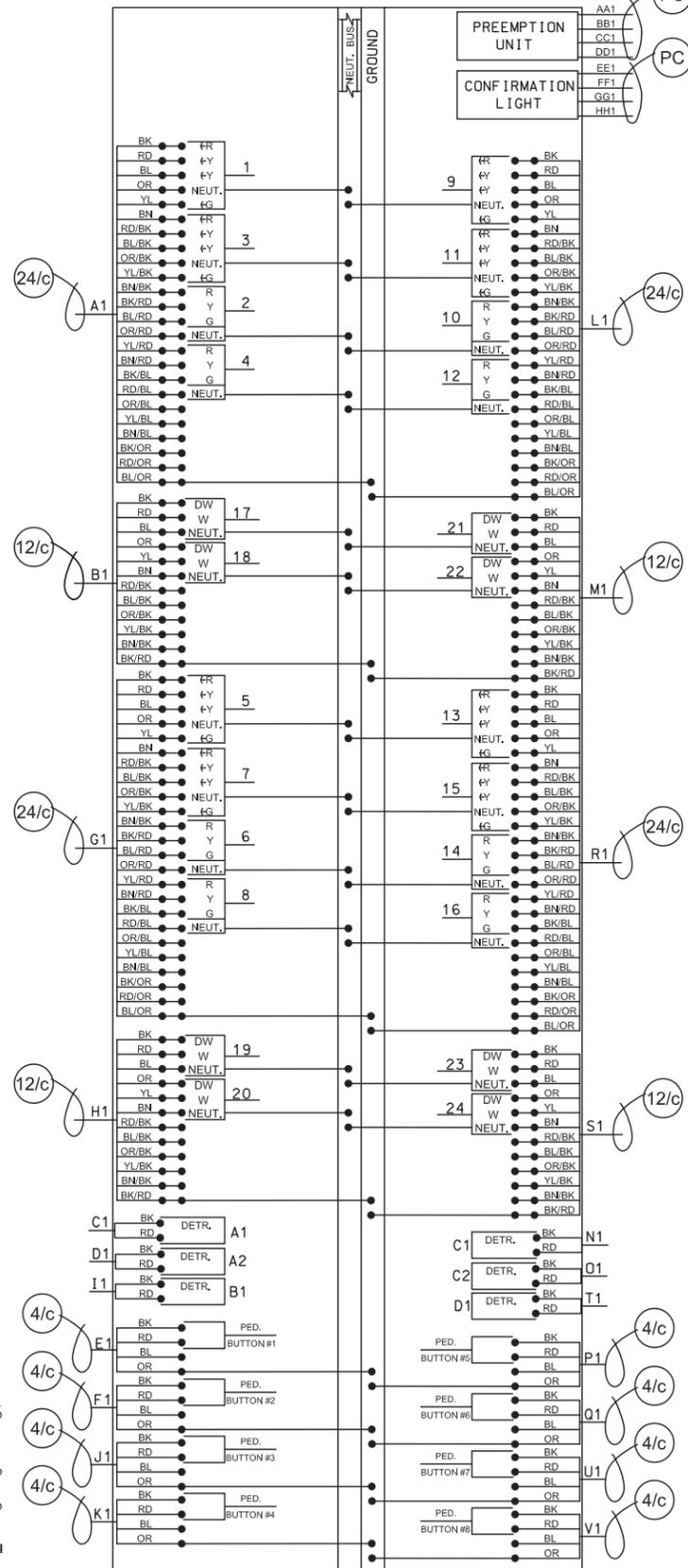
STATE OF SOUTH DAKOTA	PROJECT P 3273(09)	SHEET No. 95	TOTAL SHEETS 119
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PHASING, SEQUENCING & TIMING																												
INTERVALS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	FLASH DISPLAY	
WESTBOUND LEFT	<G	<Y	<R	<R	<G	<Y	<FY	<Y	<R	<FY	<FY	<Y	<R	<R	<R	<R	<R	<R	<R	<R	<R	<R	<R	<R	<R	<R	Y	
WESTBOUND THRU	R	R	R	R	G	G	G	Y	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	
EASTBOUND LEFT	<G	<Y	<G	<Y	<R	<R	<FY	<Y	<R	<FY	<FY	<Y	<R	<R	<R	<R	<R	<R	<R	<R	<R	<R	<R	<R	<R	<R	Y	
EASTBOUND THRU	R	R	G	G	R	R	G	Y	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	
E.B. & W.B. PEDS	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	NO DISPLAY	
NORTHBOUND LEFT	<R	<R	<R	<R	<R	<R	<R	<R	<R	<R	<R	<R	<R	<G	<Y	<G	<Y	<R	<R	<FY	<Y	<R	<FY	<FY	<Y	<R	R	
NORTHBOUND THRU	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	R	R	G	Y	R	G	G	Y	R	R	
SOUTHBOUND LEFT	<R	<R	<R	<R	<R	<R	<R	<R	<R	<R	<R	<R	<R	<G	<Y	<R	<R	<G	<Y	<FY	<Y	<R	<FY	<FY	<Y	<R	R	
SOUTHBOUND THRU	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	G	Y	R	G	G	Y	R	R	
N.B. & S.B. PEDS	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FDW	DW	DW	NO DISPLAY	
SEQUENCE	A						B						C						D						FLASH TIME			
PHASES	-OR-		-OR-		-OR-		-OR-		-OR-		-OR-		-OR-		-OR-		-OR-		-OR-		-OR-		-OR-			-OR-		
MOVEMENTS	1		2		3		4		5		6		7		8		9		10									
CYCLE 1: 6 A.M. TO MIDNIGHT CYCLE LENGTH = 86 SEC.																												
MINIMUM INITIAL PASSAGE	6		6		6		27				5	22			6		6		6		18			5	13			
MAX	6		6		6		27				22			6		6		6		31			31					
VEHICLE CLEARANCES		3		3		3		3.5	1.5			3.5	1.5		3		3		3		3.5	1.5		3.5	1.5			

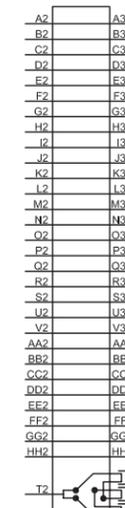


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CONTROLLER CABINET



TJB7



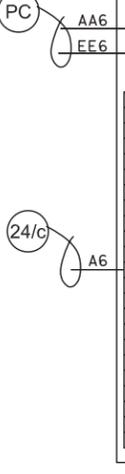
SIGNAL WIRING DIAGRAM

FOR BIDDING PURPOSES ONLY

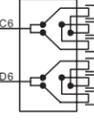
- LEGEND:
- FUSE: 6 amp. Non-Time Delay or 2 8/10 amp. Dual Element
 - LUMINAIRE: 250 watt High Pressure Sodium Lamp

NOTE: All circuits shall be bonded in accordance with the NATIONAL ELECTRICAL CODE. Quantities for bonding conductors are not included in these plans.

TJB4



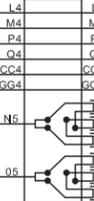
TJB2



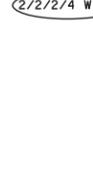
TJB5



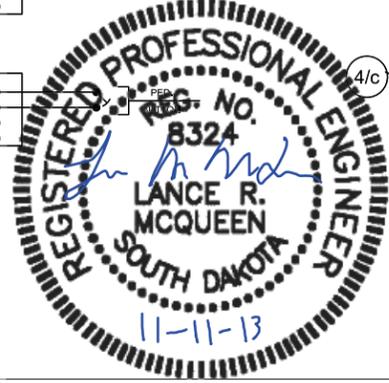
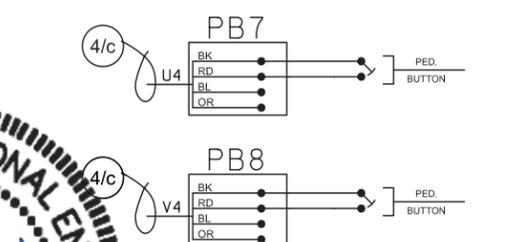
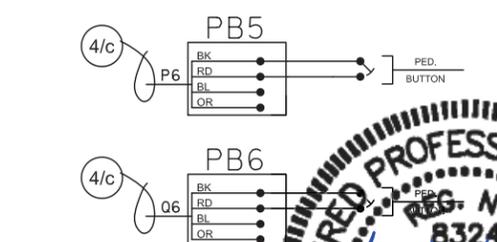
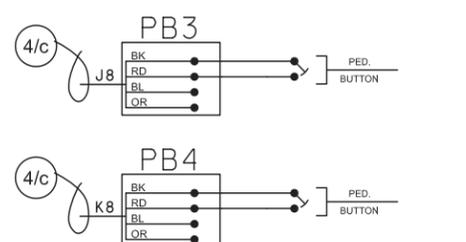
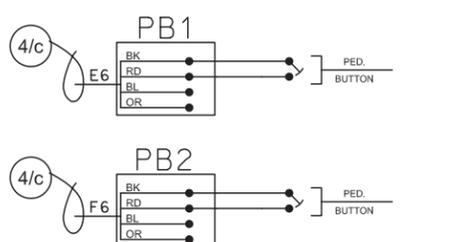
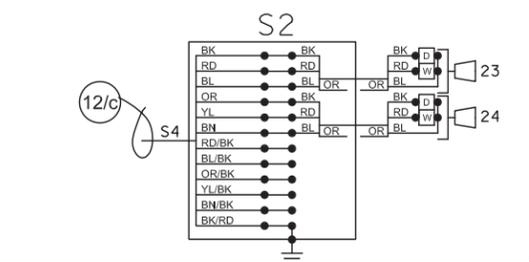
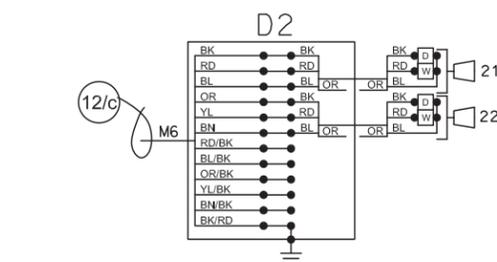
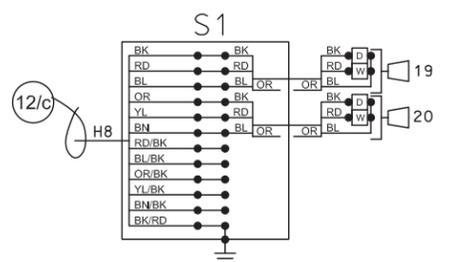
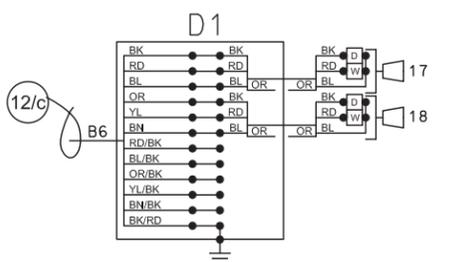
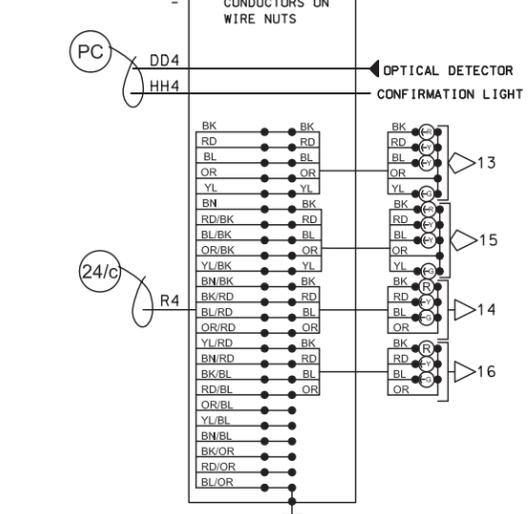
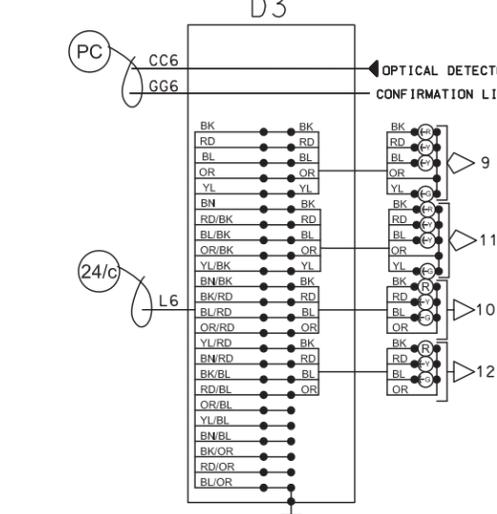
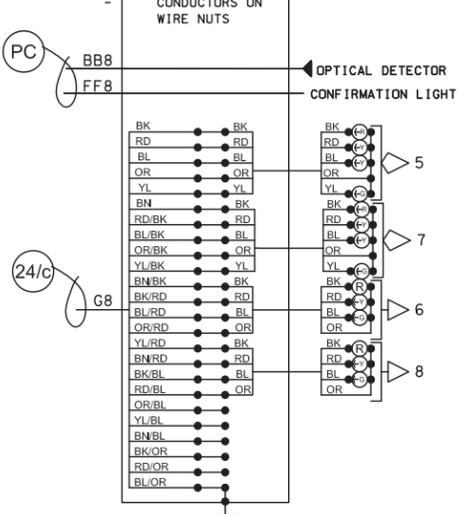
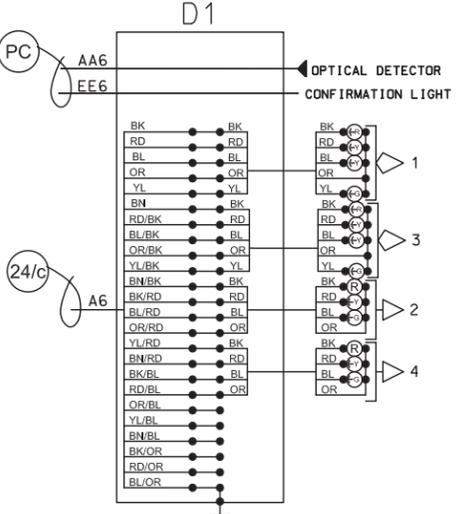
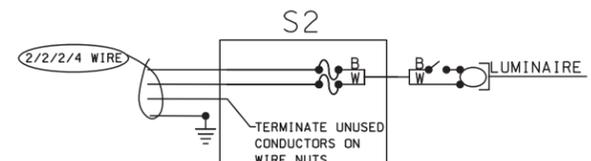
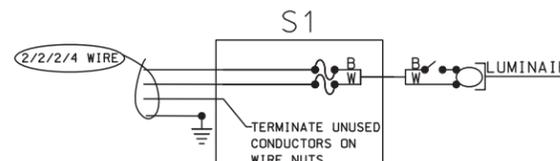
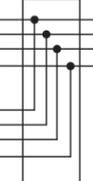
TJB3



TJB1



TJB6

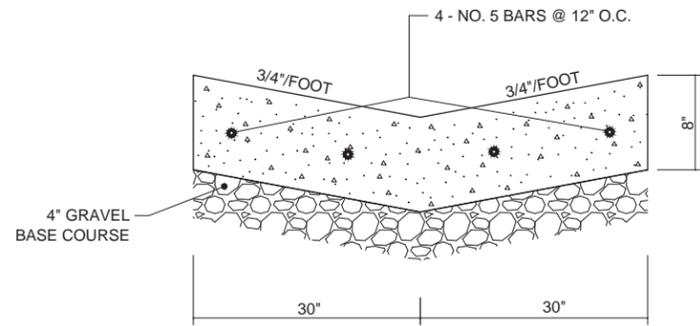


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SPECIAL DETAILS

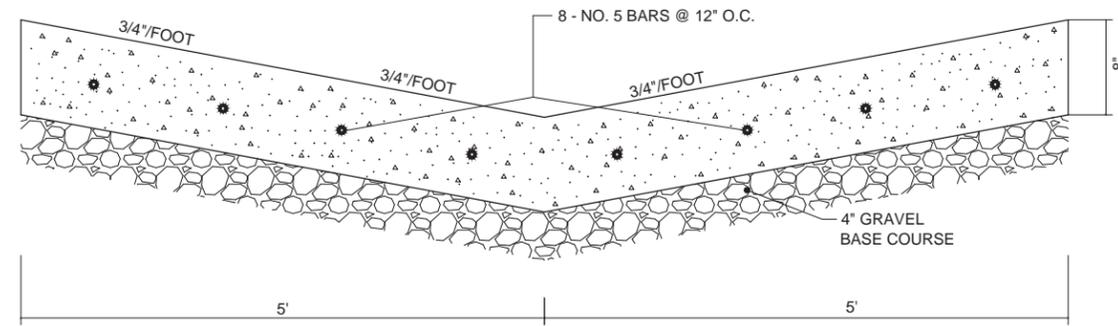
FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	97	119



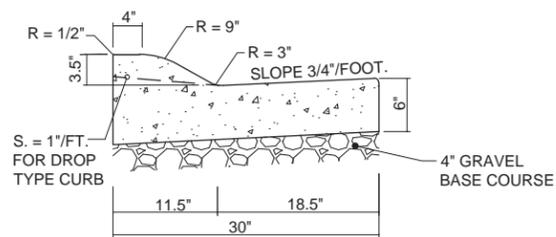
SECTION A-A
5' VALLEY GUTTER DETAILS

SCALE: NONE



SECTION A-A
10' VALLEY GUTTER DETAILS

SCALE: NONE

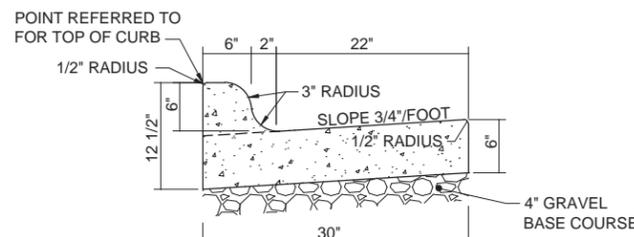


NOTE: * M6 CONCRETE SHALL BE USED IN CONSTRUCTION OF THE CURB AND GUTTER.

1. THE SLOPE OF THE GUTTER SHALL BE A MAXIMUM OF 5% IN LOCATIONS WHERE A PEDESTRIAN RAMP IS DIRECTLY BEHIND THE CURB.

SPECIAL CONCRETE CURB AND GUTTER

SCALE: NONE (BID ITEM 650E2100)

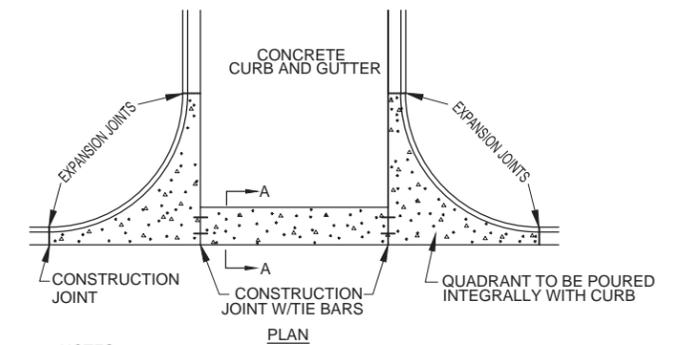


NOTE: * M6 CONCRETE SHALL BE USED IN CONSTRUCTION OF THE CURB AND GUTTER.

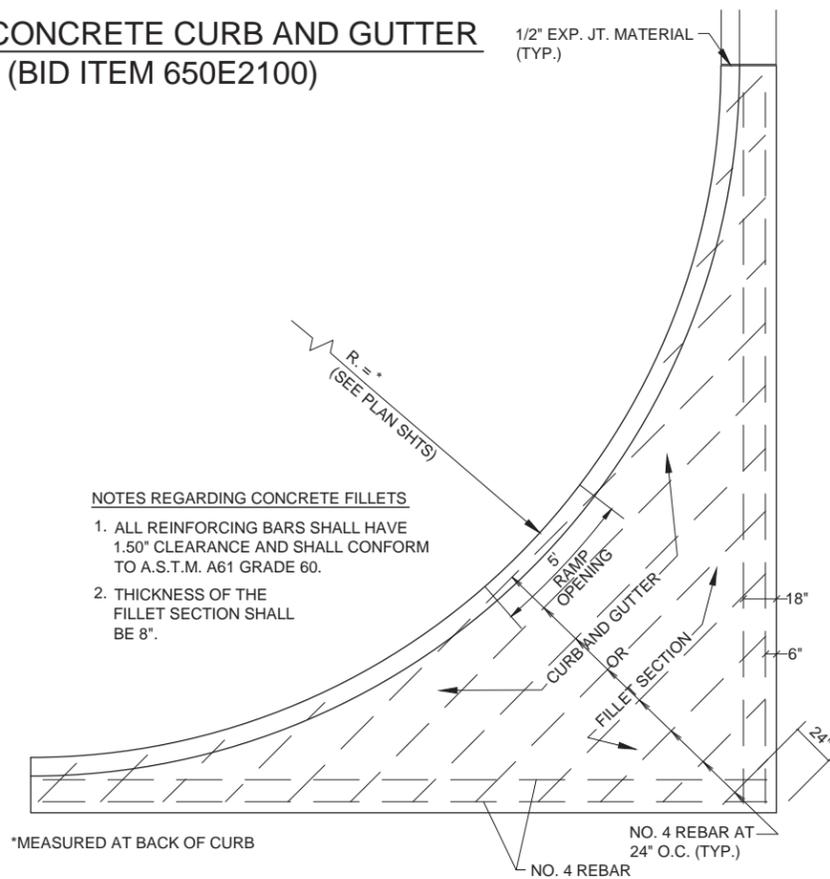
1. THE SLOPE OF THE GUTTER SHALL BE A MAXIMUM OF 5% IN LOCATIONS WHERE A PEDESTRIAN RAMP IS DIRECTLY BEHIND THE CURB.

MODIFIED TYPE B66 CURB AND GUTTER

SCALE: NONE (BID ITEM 650E0080)



- NOTES:**
1. CONTRACTOR SHALL COORDINATE ADDITIONAL JOINTS IN VALLEY GUTTER WITH PAVEMENT JOINT LOCATIONS.
 2. JOINT TIE BARS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "INSERT STEEL BAR IN PCC PAVEMENT."
 3. TIE BARS SHALL BE DRILLED INTO EXISTING VALLEY GUTTERS THAT ARE TO REMAIN IN PLACE AND SECURED WITH EPOXY. NO SEPARATE MEASUREMENT AND PAVEMENT WILL BE MADE FOR INSERTING THE BARS INTO EXISTING VALLEY GUTTERS.



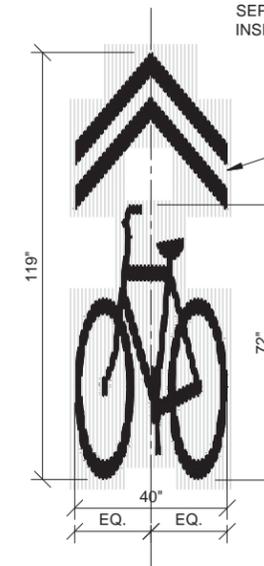
NOTES REGARDING CONCRETE FILLETS

1. ALL REINFORCING BARS SHALL HAVE 1.50" CLEARANCE AND SHALL CONFORM TO A.S.T.M. A61 GRADE 60.
2. THICKNESS OF THE FILLET SECTION SHALL BE 8".

*MEASURED AT BACK OF CURB

CONCRETE FILLET SECTION & CURB OPENINGS

SCALE: NONE



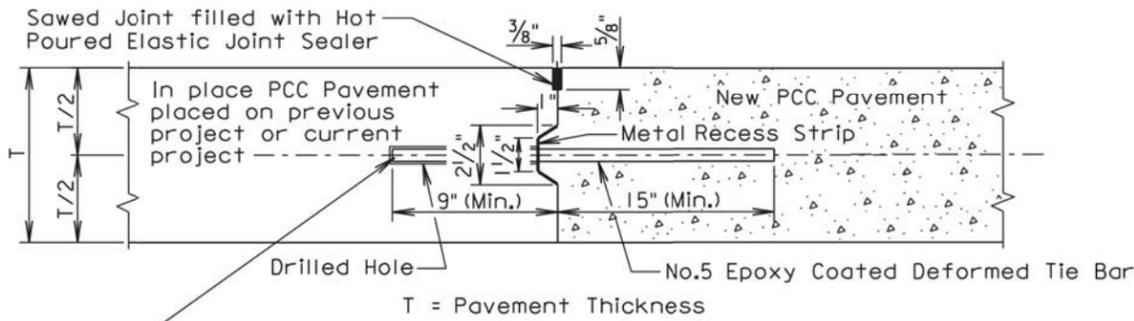
APPROXIMATE PAVEMENT GRINDING PATTERN PARALLEL TO CURB
GRIND TO BE SLIGHTLY BELOW PAVEMENT TO PROTECT THERMOPLASTIC FROM BEING WORN
LAYOUT COLD APPLIED PLASTIC PAVEMENT MARKING PIECES EXACTLY AS SHOWN

SHARROW SYMBOL FOR ROAD USE

SCALE: NONE

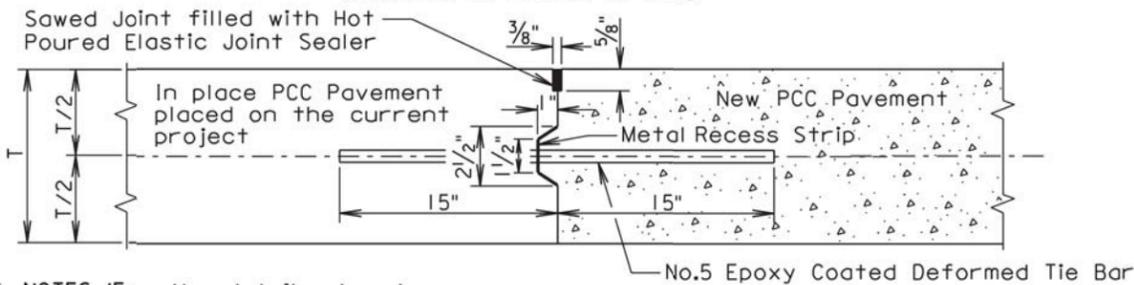


**LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS
(DRILLED IN BARS)**



T = Pavement Thickness
The tie bars shall be embedded a minimum depth of 9 inches into the in place PCC pavement and anchored with an epoxy resin adhesive.

**LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS
(INSERTED OR FORMED IN BARS)**



GENERAL NOTES (For the details above):

The epoxy coated deformed tie bars shall be spaced in accordance with the following tables:

Tie Bar Spacing 48" Maximum	
Transverse Contraction Joint Spacing	Number of Tie Bars
6.5' to 10'	2
10.5' to 14'	3
14.5' to 18'	4
18.5' to 22'	5

Tie Bar Spacing 30" Maximum	
Transverse Contraction Joint Spacing	Number of Tie Bars
5' to 7'	2
7.5' to 9.5'	3
10' to 12'	4
12.5' to 14.5'	5
15' to 17'	6
17.5' to 19.5'	7
20' to 22'	8

The tie bars shall be placed a minimum of 15 inches from transverse contraction joints.

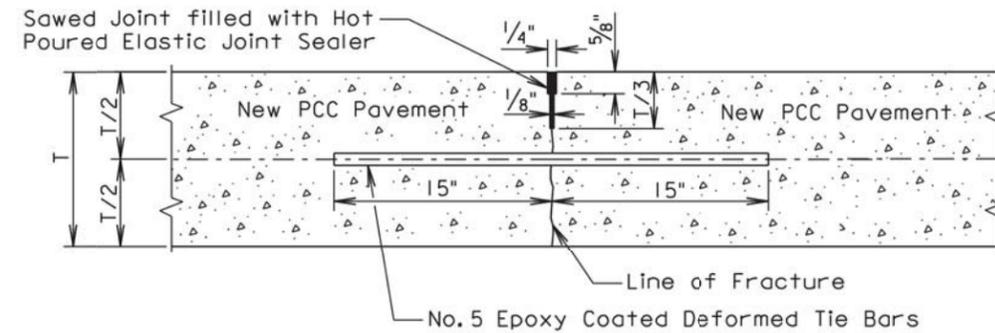
The required number of tie bars as shown in the table shall be uniformly spaced within each panel. The uniformly spaced tie bars shall be spaced a maximum of 48 inches center to center for a female keyway and shall be spaced a maximum of 30 inches center to center for a vertical face and male keyway. The maximum tie bar spacing shall apply to tie bars within each panel.

The keyway illustrated in the above details depict a female keyway.

The keyway is optional and is not required. When concrete pavement is formed and a keyway is provided, a metal recess strip shall be used. When concrete pavement is slip formed, a metal recess strip is not required.

August 31, 2013

**SAWED LONGITUDINAL JOINT WITH TIE BARS
(POURED MONOLITHICALLY)**



T = Pavement Thickness

GENERAL NOTES (For the detail above):

The epoxy coated deformed tie bars shall be spaced in accordance with the following table:

Tie Bar Spacing 48" Maximum	
Transverse Contraction Joint Spacing	Number of Tie Bars
6.5' to 10'	2
10.5' to 14'	3
14.5' to 18'	4
18.5' to 22'	5

The tie bars shall be placed a minimum of 15 inches from the transverse contraction joints.

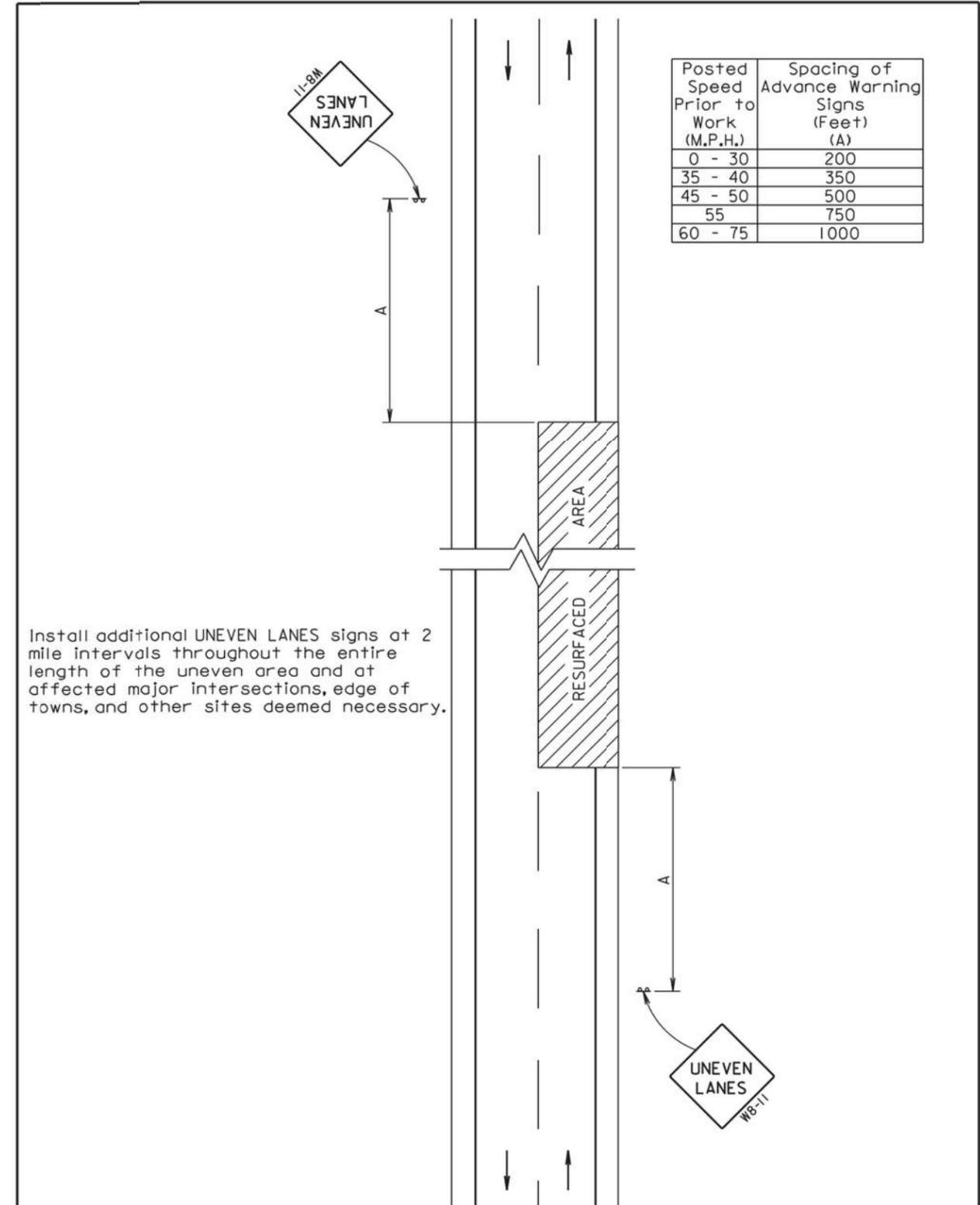
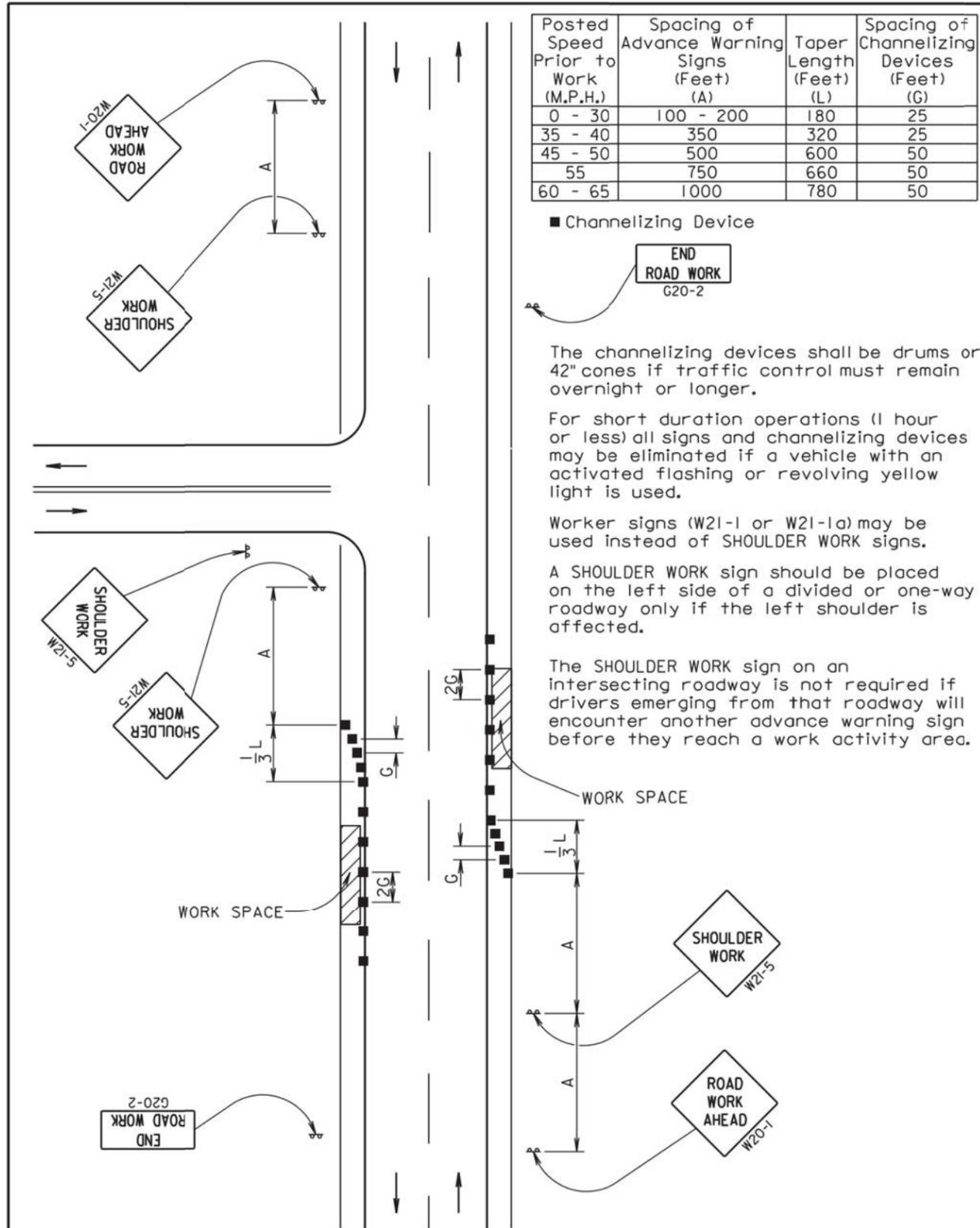
The required number of tie bars as shown in the table shall be uniformly spaced within each panel with a maximum space of 48 inches center to center. The maximum tie bar spacing shall apply to tie bars within each panel.

The first saw cut to control cracking shall be a minimum of 1/3 the thickness of the pavement. Additional sawing for widening the saw cut to provide the width for the installation of the hot poured elastic joint sealer is necessary.

August 31, 2013

Published Date: 4th Qtr. 2013	S D D O T	PCC PAVEMENT LONGITUDINAL JOINTS WITH TIE BARS	PLATE NUMBER 380.10
			Sheet 1 of 2

Published Date: 4th Qtr. 2013	S D D O T	PCC PAVEMENT LONGITUDINAL JOINTS WITH TIE BARS	PLATE NUMBER 380.10
			Sheet 2 of 2



Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	25
35 - 40	350	25
45 - 50	500	50
55	750	50
60 - 65	1000	50

- Flagger
- Channelizing Device

For low-volume traffic situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger may be used.

The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short duration operations (1 hour or less).

For tack and/or flush seal operations, when flaggers are not being used, the FRESH OIL sign (W21-2) shall be displayed in advance of the liquid asphalt areas.

Flashing warning lights and/or flags may be used to call attention to the advance warning signs.

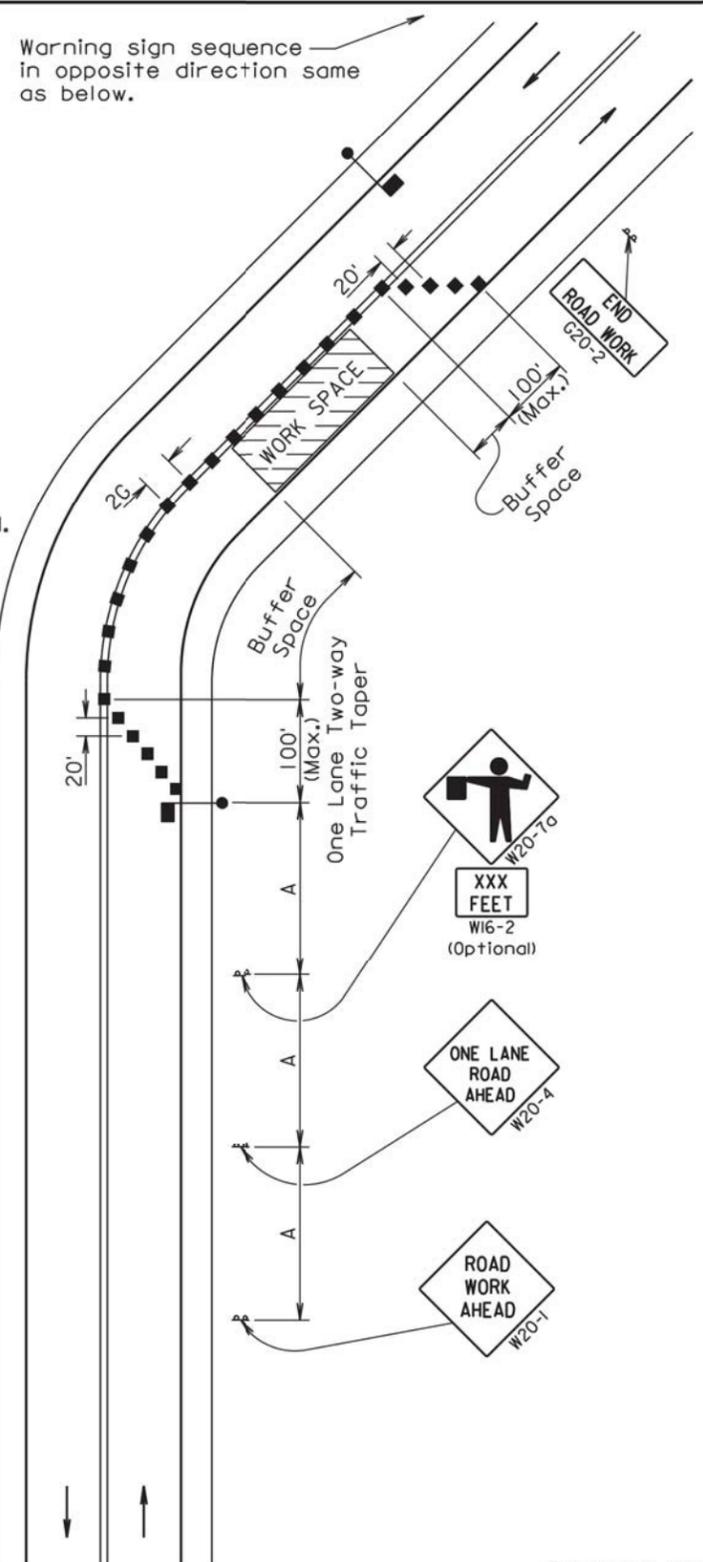
The channelizing devices shall be drums or 42" cones.

Channelizing devices are not required along the centerline adjacent to work area when pilot cars are utilized for escorting traffic through the work area.

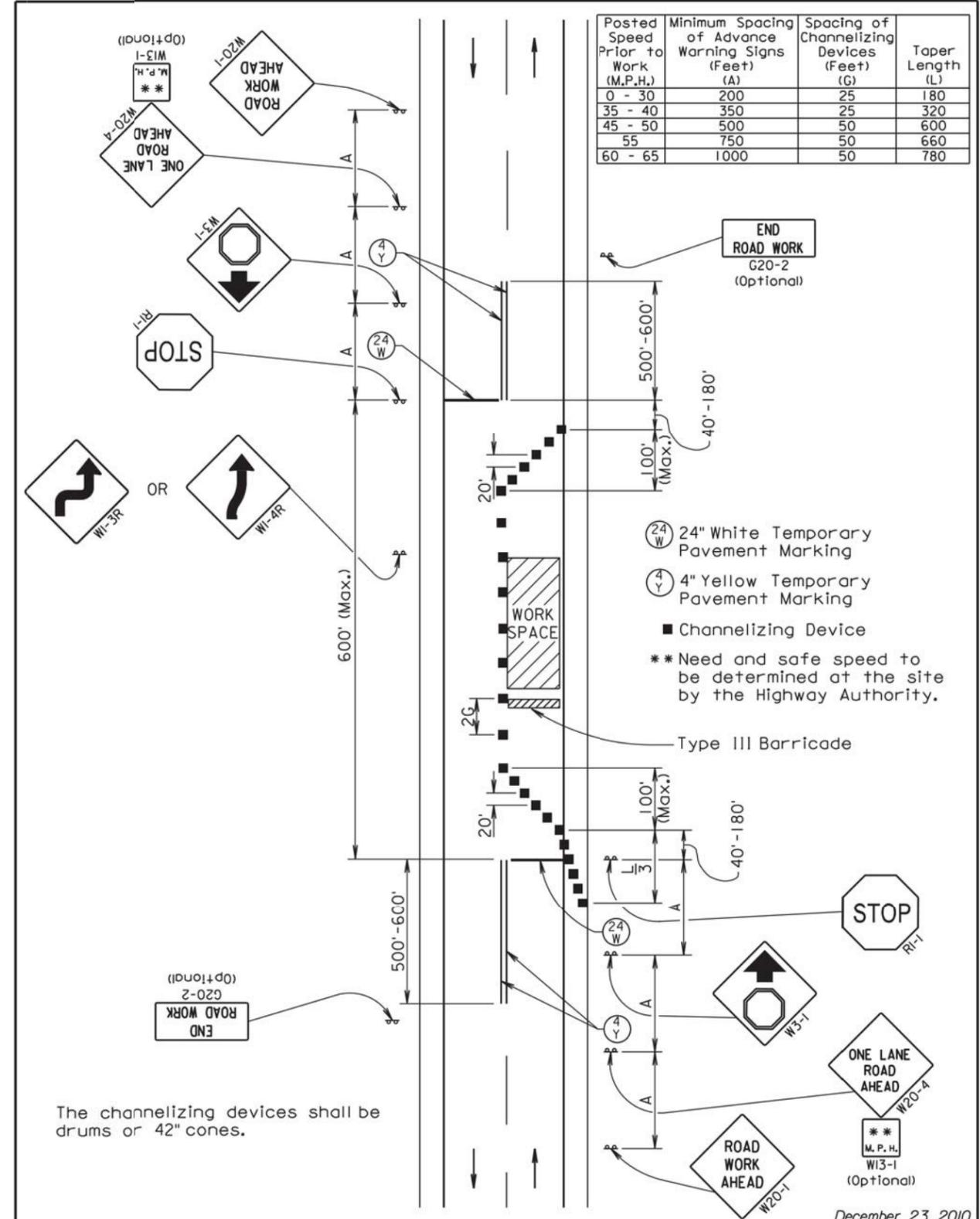
Channelizing devices and flaggers shall be used at intersecting roads to control intersecting road traffic as required.

The buffer space should be extended so that the two-way traffic taper is placed before a horizontal or vertical curve to provide adequate sight distance for the flagger and queue of stopped vehicles.

Warning sign sequence in opposite direction same as below.



February 14, 2011



Posted Speed Prior to Work (M.P.H.)	Minimum Spacing of Advance Warning Signs (Feet) (A)	Spacing of Channelizing Devices (Feet) (G)	Taper Length (L)
0 - 30	200	25	180
35 - 40	350	25	320
45 - 50	500	50	600
55	750	50	660
60 - 65	1000	50	780

- ⊙ 24" White Temporary Pavement Marking
- ⊙ 4" Yellow Temporary Pavement Marking
- Channelizing Device
- ** Need and safe speed to be determined at the site by the Highway Authority.

The channelizing devices shall be drums or 42" cones.

December 23, 2010

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)
0 - 30	200
35 - 40	350
45 - 50	500
55	750
60 - 65	1000

Signage shown for one direction only.

*Use appropriate route marker and number.

Flashing warning lights and/or flags may be used to call attention to the advanced warning signs.

Regulatory traffic control devices are to be modified as needed for the duration of the detour.

If the road is opened for some distance beyond the intersection and/or there are significant origin/destination points beyond the intersection, place the ROAD CLOSED and DETOUR signs on double sided Type III barricades located at the edge of the traveled way.

If the road is closed a short distance beyond the intersection and there are few origin/destination points beyond (a few residences), the ROAD CLOSED and DETOUR sign may be placed on a double sided Type III barricade placed in the center of the roadway.

A route marker directional assembly may be placed on the far left corner of the intersection to augment or replace the one shown on the near right corner.

February 14, 2011

SDDOT

GUIDES FOR TRAFFIC CONTROL DEVICES ROAD CLOSED WITH OFF-SITE DETOUR

PLATE NUMBER 634.29

Sheet 1 of 1

Published Date: 4th Qtr. 2013

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)
0 - 30	200
35 - 40	350
45 - 50	500
55	750
60 - 65	1000

Posted Speed Prior to Work (M.P.H.)	Length of Longitudinal Buffer Space (Feet)
20	35
25	55
30	85
35	120
40	170
45	220
50	280
55	335
60	415
65	485

Buffer space dependent on work site limitations.

Conditions represented are for work that requires closings during daytime hours only.

This application is intended for a planned temporary closing not to exceed 15-20 minutes.

February 14, 2011

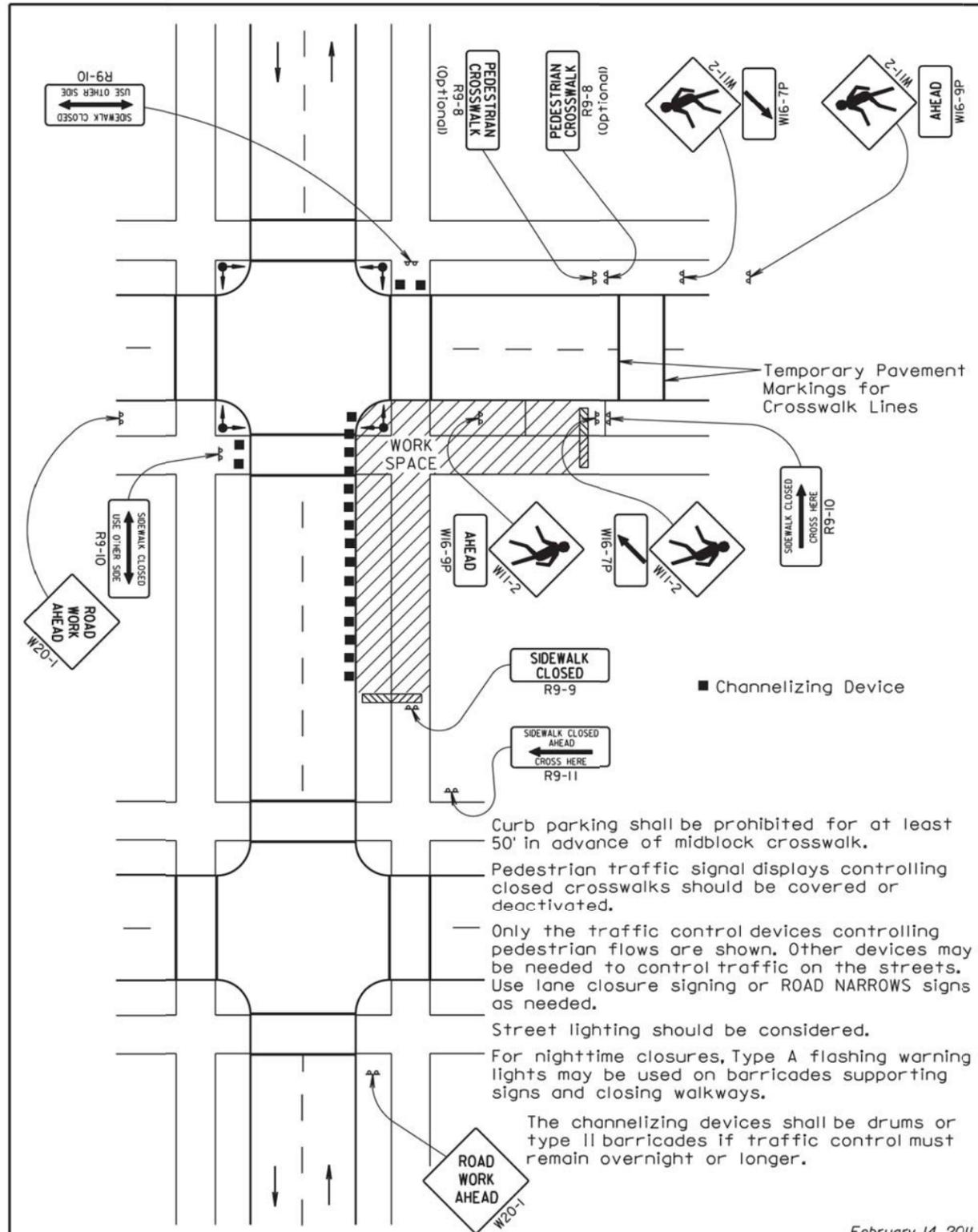
SDDOT

GUIDES FOR TRAFFIC CONTROL DEVICES TEMPORARY ROAD WORK

PLATE NUMBER 634.30

Sheet 1 of 1

Published Date: 4th Qtr. 2013



Curb parking shall be prohibited for at least 50' in advance of midblock crosswalk.

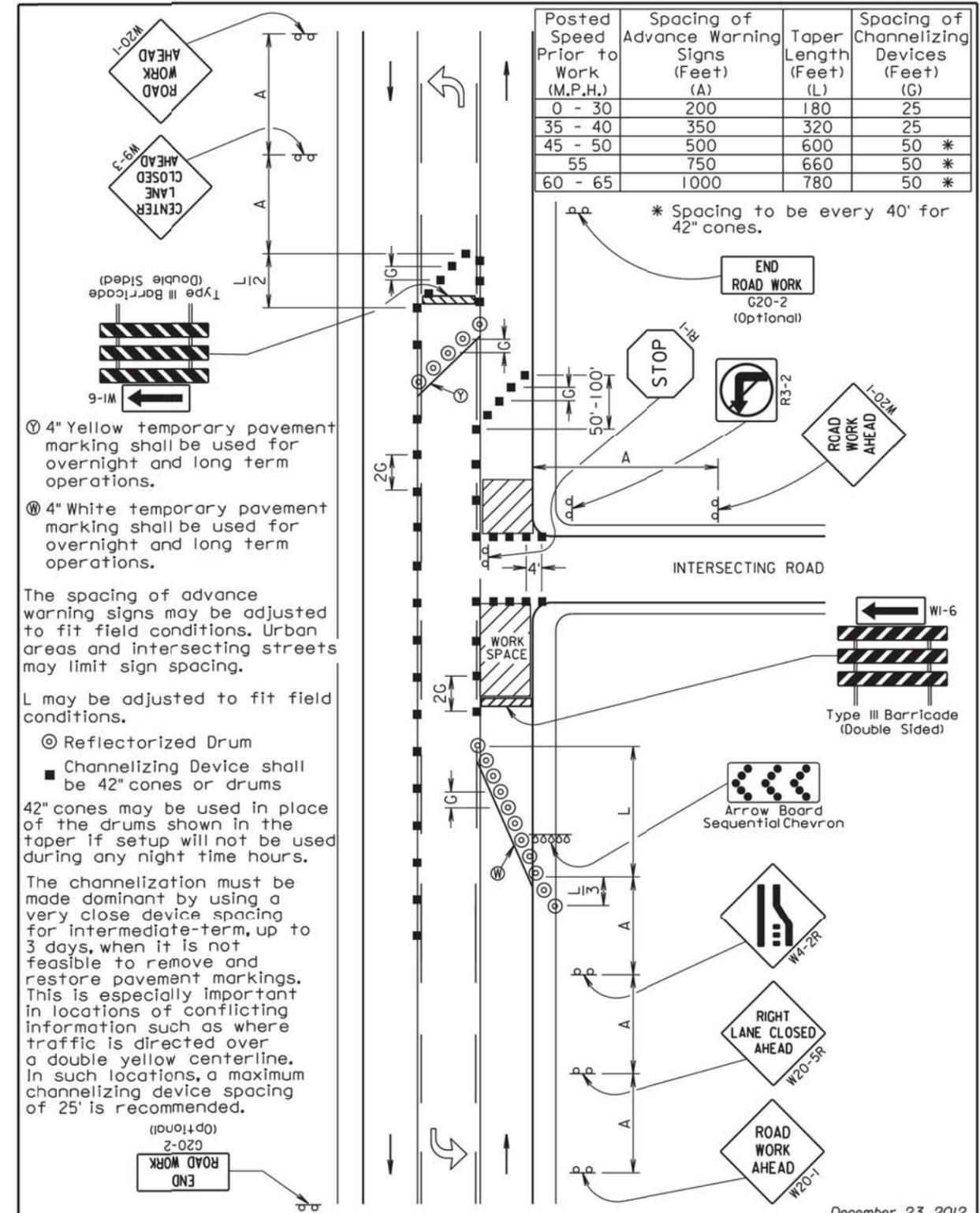
Pedestrian traffic signal displays controlling closed crosswalks should be covered or deactivated.

Only the traffic control devices controlling pedestrian flows are shown. Other devices may be needed to control traffic on the streets. Use lane closure signing or ROAD NARROWS signs as needed.

Street lighting should be considered.

For nighttime closures, Type A flashing warning lights may be used on barricades supporting signs and closing walkways.

The channelizing devices shall be drums or type II barricades if traffic control must remain overnight or longer.



④ 4" Yellow temporary pavement marking shall be used for overnight and long term operations.

Ⓢ 4" White temporary pavement marking shall be used for overnight and long term operations.

The spacing of advance warning signs may be adjusted to fit field conditions. Urban areas and intersecting streets may limit sign spacing.

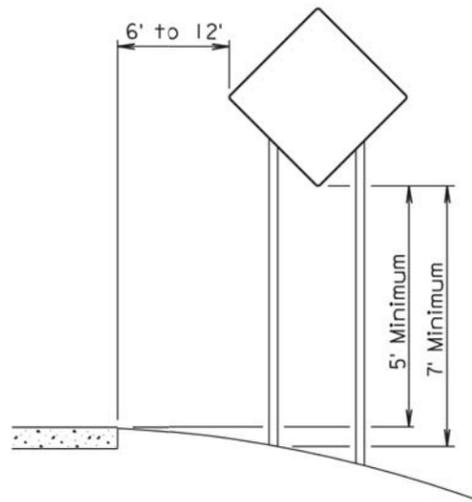
L may be adjusted to fit field conditions.

Ⓞ Reflectorized Drum

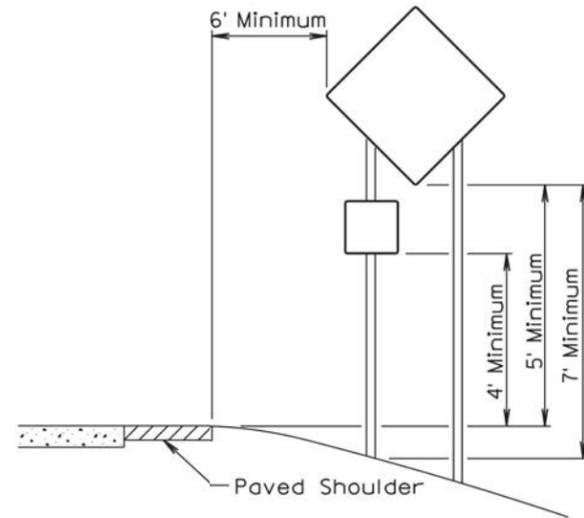
■ Channelizing Device shall be 42" cones or drums

42" cones may be used in place of the drums shown in the taper if setup will not be used during any night time hours.

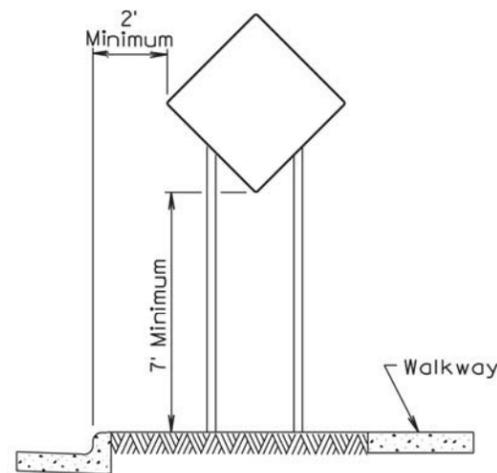
The channelization must be made dominant by using a very close device spacing for intermediate-term, up to 3 days, when it is not feasible to remove and restore pavement markings. This is especially important in locations of conflicting information such as where traffic is directed over a double yellow centerline. In such locations, a maximum channelizing device spacing of 25' is recommended.



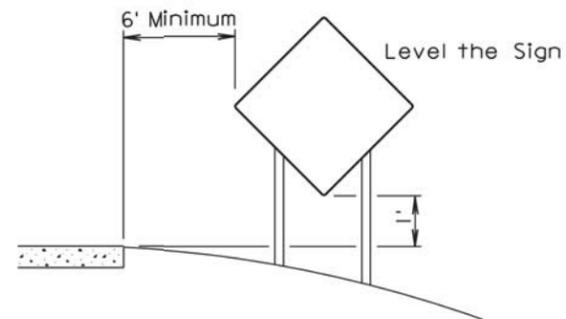
RURAL DISTRICT



RURAL DISTRICT WITH
SUPPLEMENTAL PLATE



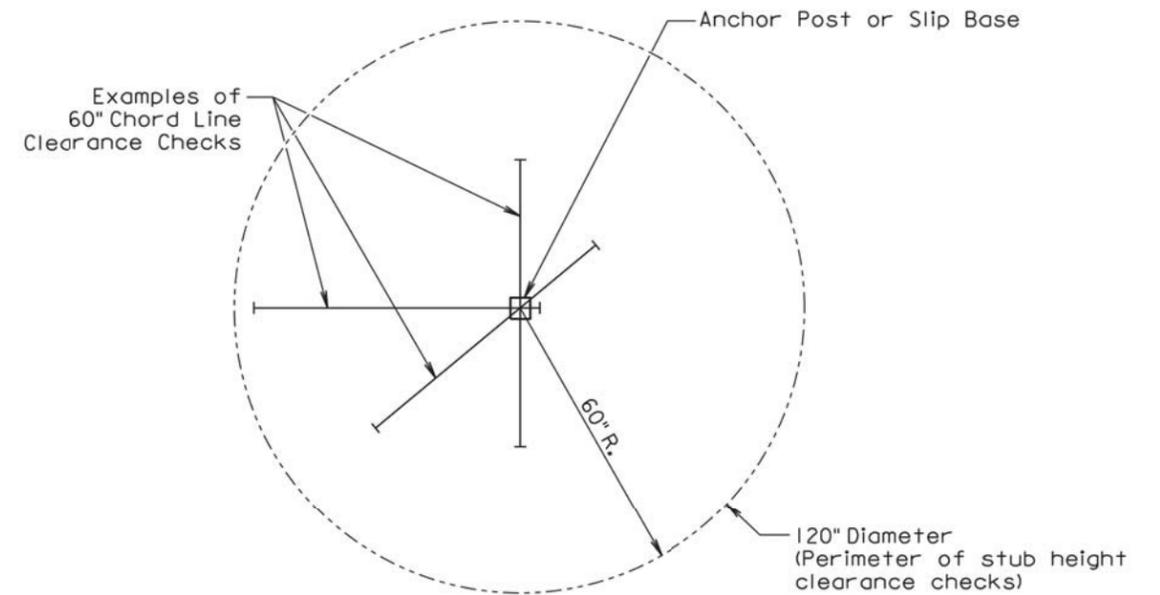
URBAN DISTRICT



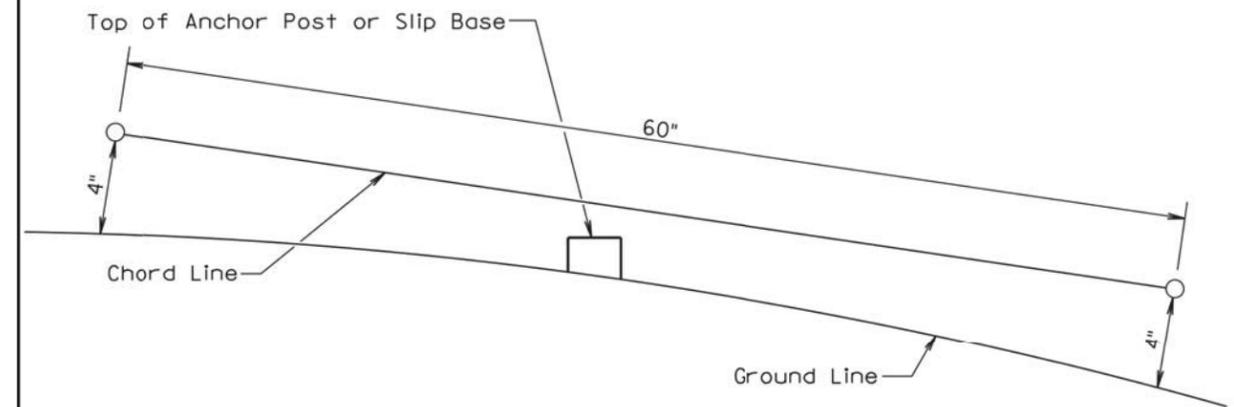
RURAL DISTRICT
3 DAY MAXIMUM

February 14, 2011

Published Date: 4th Qtr. 2013	S D D O T	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 634.85
			Sheet 1 of 1



PLAN VIEW
(Examples of stub height clearance checks)



ELEVATION VIEW

GENERAL NOTES:

The top of anchor posts and slip bases SHALL NOT extend above a 60" chord line within a 120" diameter circle around the post with ends 4" above the ground.

At locations where there is curb and gutter adjacent to the breakaway sign support, the stub height shall be a maximum of 4" above the ground line at the localized area adjacent to the breakaway support stub.

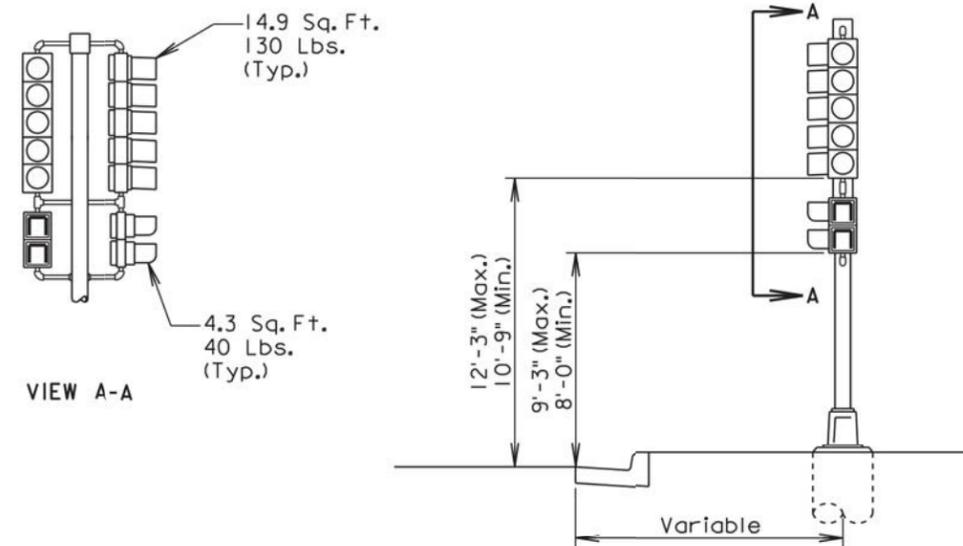
The 4" stub height clearance is not necessary for U-channel lap splices where the support is designed to yield (bend) at the base.

July 1, 2005

Published Date: 4th Qtr. 2013	S D D O T	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 634.99
			Sheet 1 of 1

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT P 3273(09)	SHEET No. 105	TOTAL SHEETS 119
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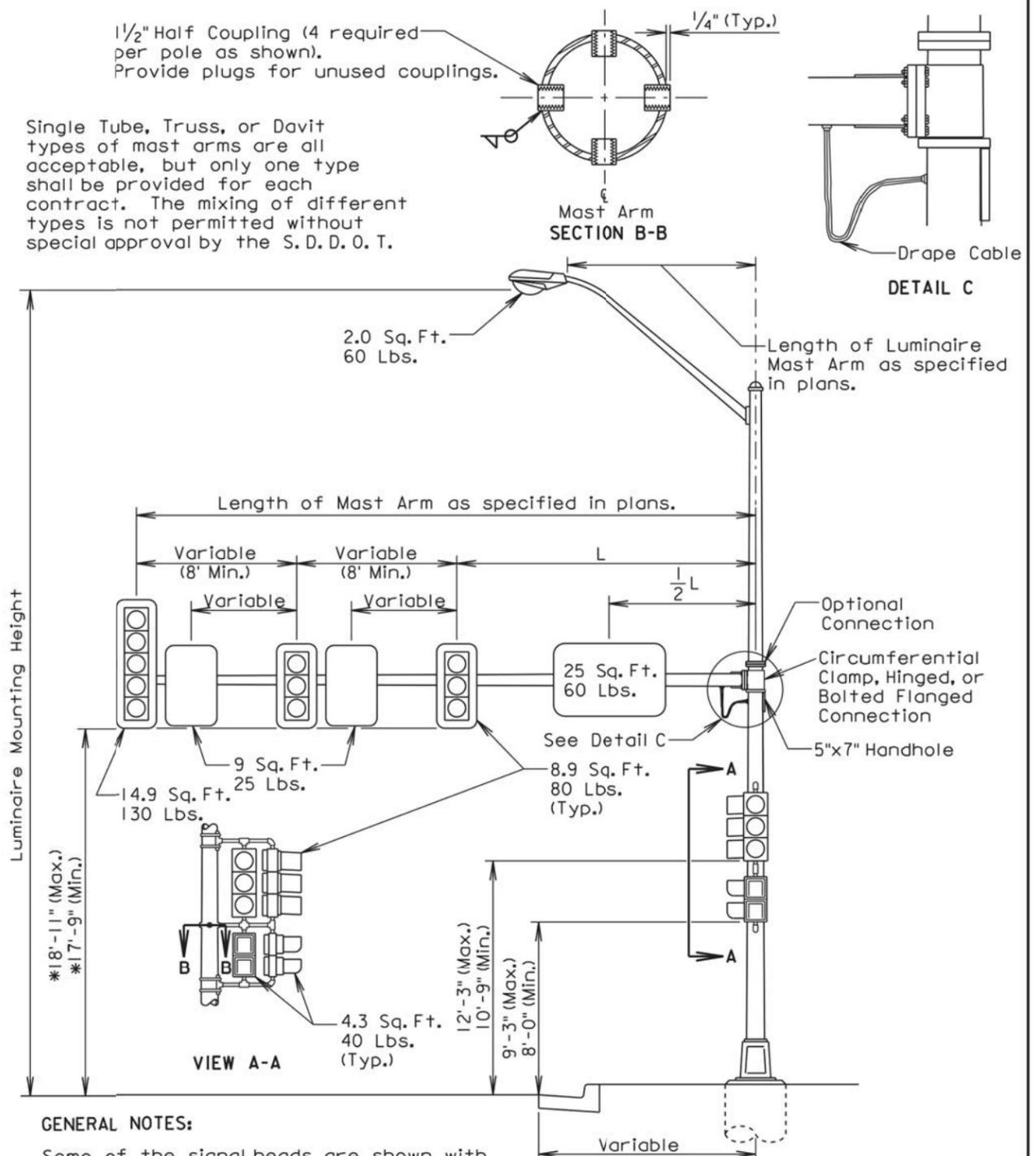


GENERAL NOTE:

The signal heads are shown with backplates removed so that the mounting hardware is visible.

October 15, 2007

Published Date: 4th Qtr. 2013	S D D O T	SIGNAL POLE (PEDESTAL)	PLATE NUMBER 635.30
			Sheet 1 of 1



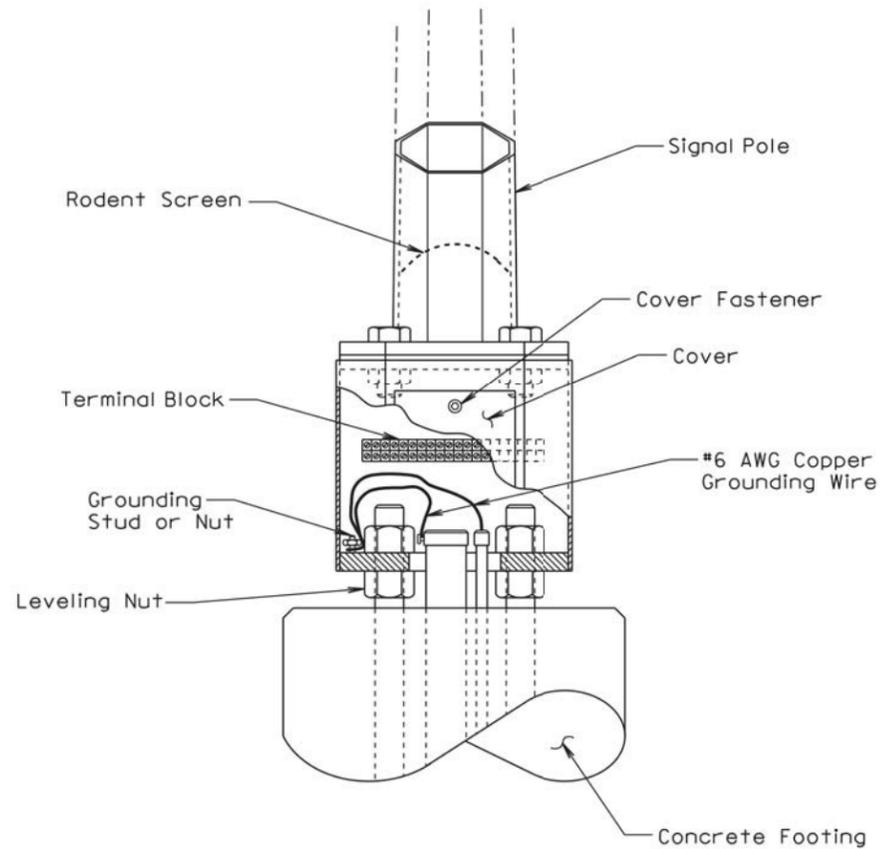
GENERAL NOTES:

Some of the signal heads are shown with backplates removed so that the mounting hardware is visible.

* The signal height allowances shown above are based on a horizontal distance greater than 53' between the signals and stop line. For horizontal distance of 53' and less between the signals and the stop line, the height allowances shall be as specified in Section 4D.15 of the MUTCD.

December 23, 2008

Published Date: 4th Qtr. 2013	S D D O T	SIGNAL POLE (WITH MAST ARM AND LUMINAIRE EXTENSION)	PLATE NUMBER 635.32
			Sheet 1 of 1



GENERAL NOTES:

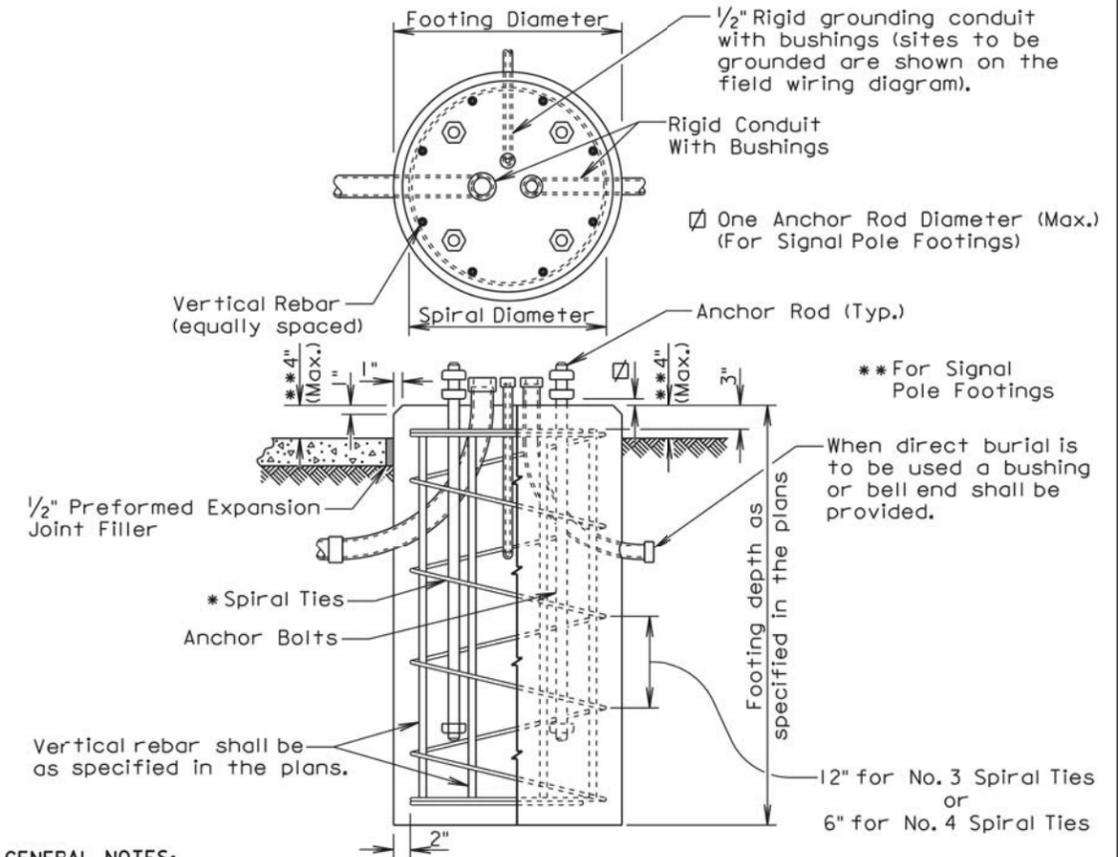
Base details are provided for example only and are not intended to be a complete design.

The Contractor shall furnish and install a rodent screen in the signal pole above the transformer base. The rodent screen shall be a galvanized steel mesh with a maximum opening size of 1/4 inch. The rodent screen shall be friction fitted or installed by other methods approved by the Engineer.

All costs for furnishing and installing the rodent screen including labor, equipment, and materials shall be incidental to the contract unit price per each for the corresponding signal pole bid item.

December 23, 2008

<i>Published Date: 4th Qtr. 2013</i>	S D D O T	TRANSFORMER SIGNAL POLE BASE	PLATE NUMBER 635.50
			Sheet 1 of 1



GENERAL NOTES:

* The tie sizes are specified in the plans. Circular ties may be used in lieu of the spiral ties. The No. 3 shall be spaced 12 inches apart except for the top two which shall be spaced 6 inches apart. The No. 4 ties shall be spaced 6 inches apart except for the top two which shall be spaced 3 inches apart. The ties shall be lapped 18 inches and the laps shall be staggered around the cage.

Spiral ties shall have 1-1/2 extra turns at each end.

See section 985 of the Standard Specifications for footing materials.

Conduits and bushings may project 2 1/2 inches to 6 inches above footing for fixed base poles but shall not project above the slip plane or fracture plane for breakaway poles.

Conduits shall be sealed water-tight during all phases of construction until poles are in place.

The anchor rods shall fit inside the reinforcing steel cage. If the anchor rods designed by the Pole Manufacturer do not fit, contact the Office of Bridge Design for footing redesign. No additional payment will be made for the redesigned footing.

Costs of conduit and conduit bushings shown on footing detail shall be incidental to the footing bid item(s).

The pole shall not be installed until the concrete has attained design strength (4000 psi).

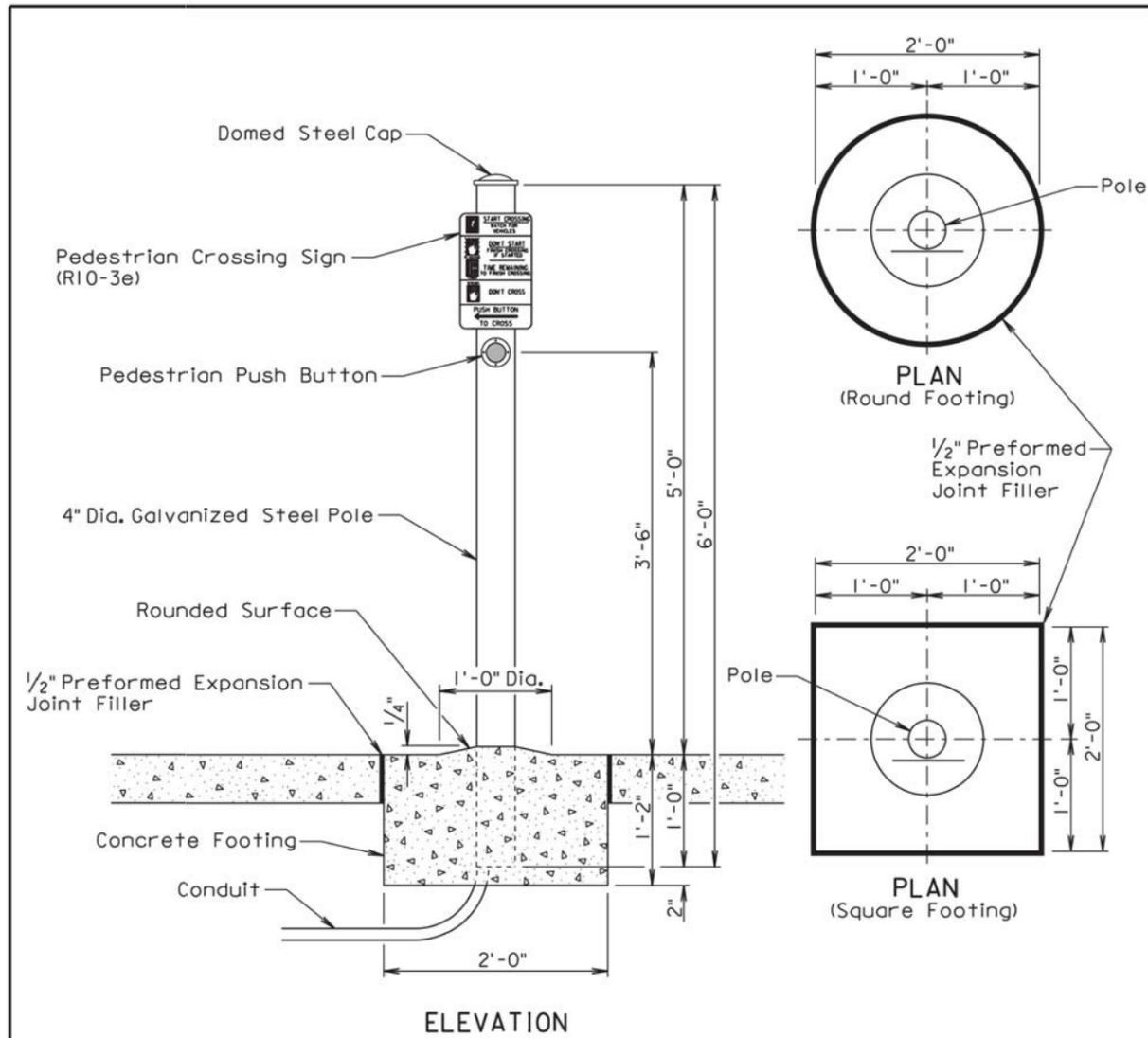
The contour of the area surrounding the breakaway pole shall be flat, though not necessarily level for a distance of 5 feet in all directions. The Contractor may be required to provide finish grading at some breakaway pole locations.

September 6, 2013

<i>Published Date: 4th Qtr. 2013</i>	S D D O T	POLE FOOTING	PLATE NUMBER 635.55
			Sheet 1 of 1

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET No.	TOTAL SHEETS
	P 3273(09)	107	119



GENERAL NOTES:

The Contractor shall install either the round or the square concrete footing. For informational purpose, the quantity of concrete for one footing is 0.14 cubic yards for the round footing and 0.17 cubic yards for the square footing.

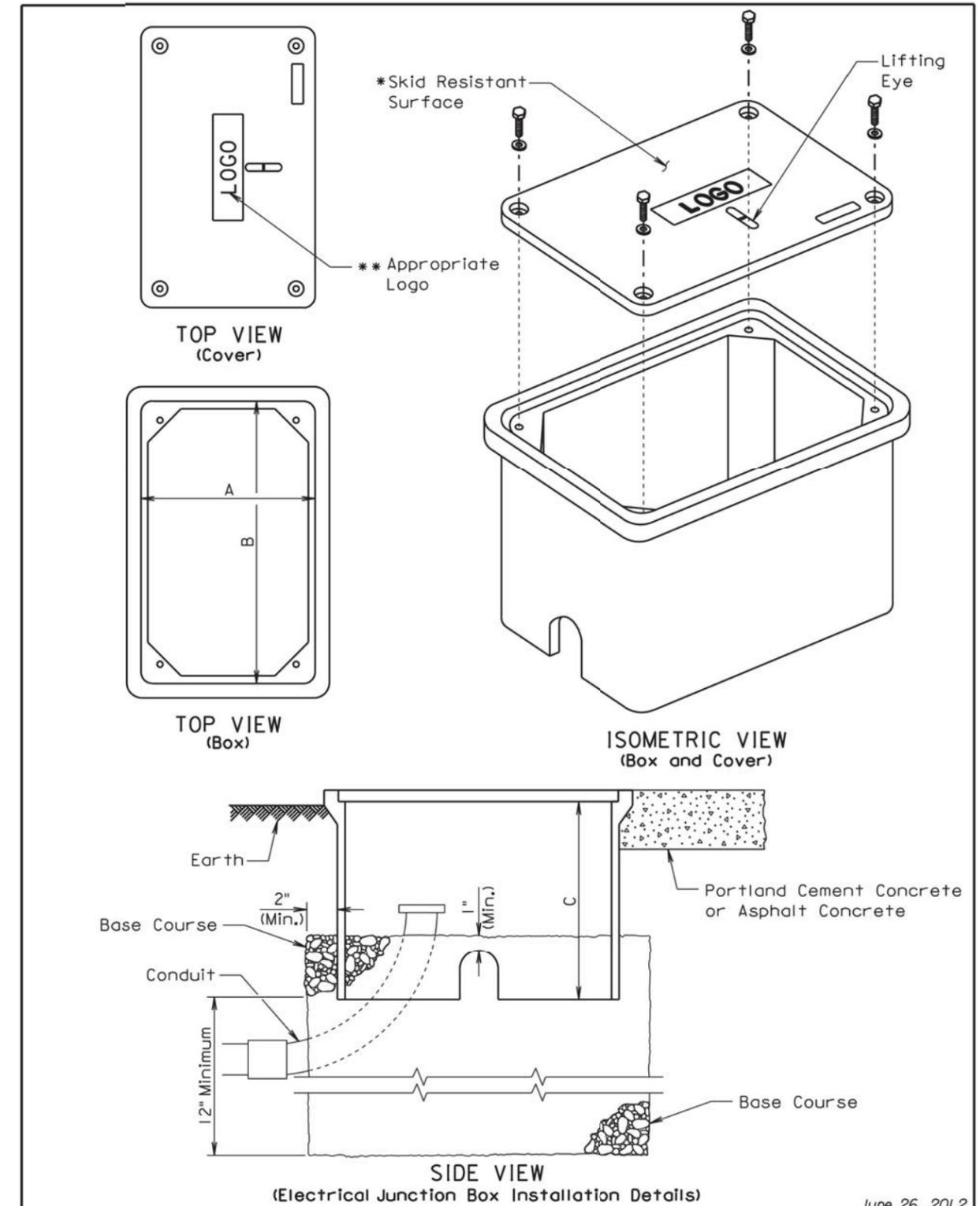
The concrete for the footing shall be class M6 concrete.

The 4" diameter galvanized steel pole shall be 6' long and shall be in conformance with AASHTO Standard Specifications M181. The pole shall be Type 1 and either Grade 1 or Grade 2. The domed steel pole cap shall be in conformance with AASHTO Standard Specifications M181 and shall be Type 1.

All costs for furnishing and installing the pedestrian push button pole including labor, equipment, and materials including the pole, concrete footing, steel cap, and the conduit in the footing shall be incidental to the contract unit price per each for "Pedestrian Push Button Pole".

February 14, 2010

Published Date: 4th Qtr. 2013	S D D O T	PEDESTRIAN PUSH BUTTON POLE	PLATE NUMBER 635.57
			Sheet 1 of 1



June 26, 2012

Published Date: 4th Qtr. 2013	S D D O T	ELECTRICAL JUNCTION BOXES TYPE 1 THROUGH TYPE 4	PLATE NUMBER 635.65
			Sheet 1 of 2

ELECTRICAL JUNCTION BOX

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

GENERAL NOTES:

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

The cover shall have a lifting eye.

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

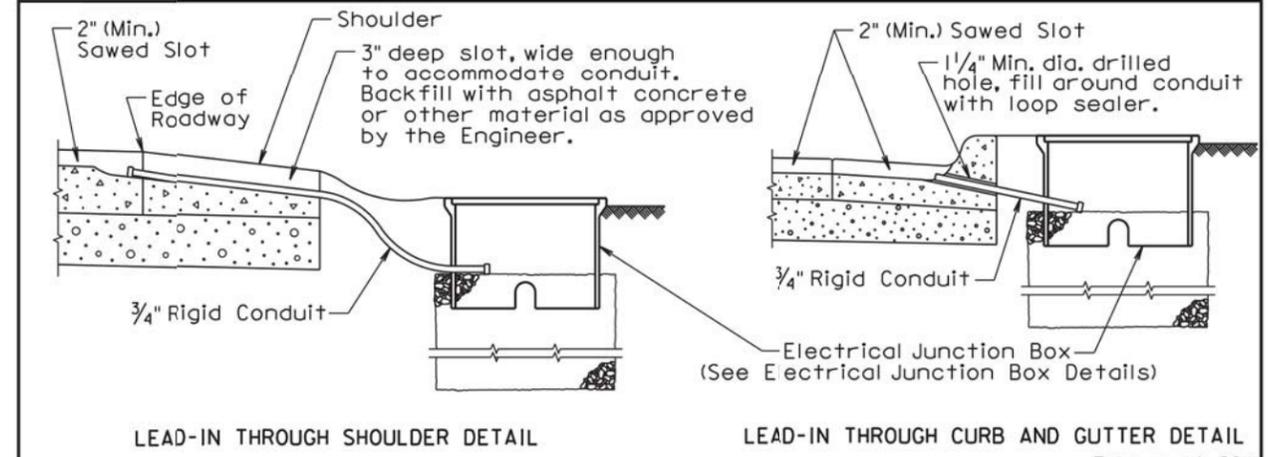
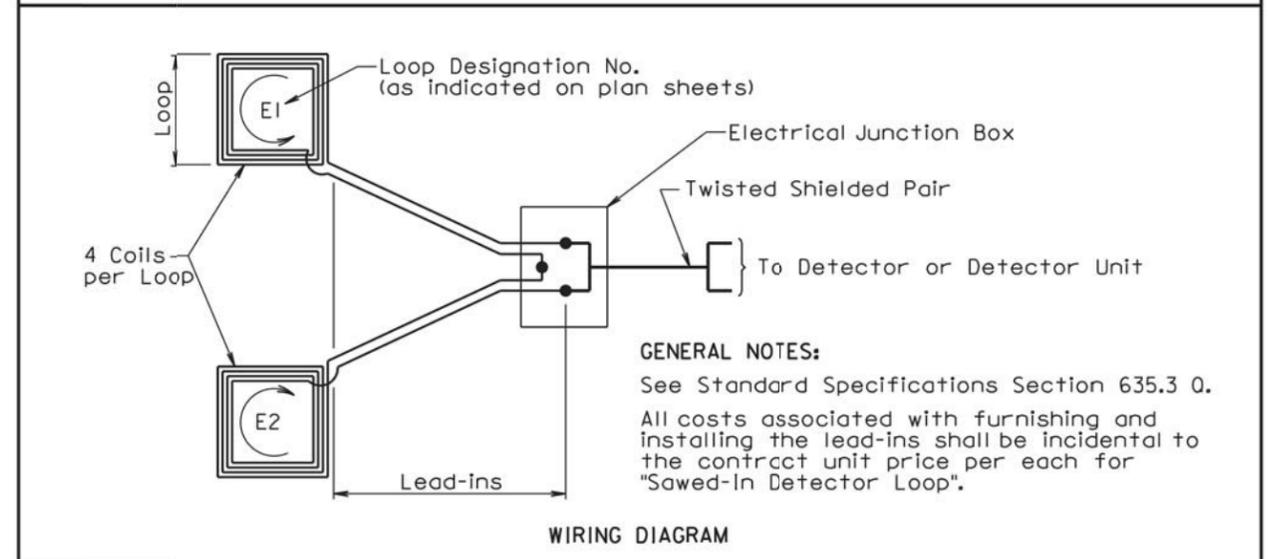
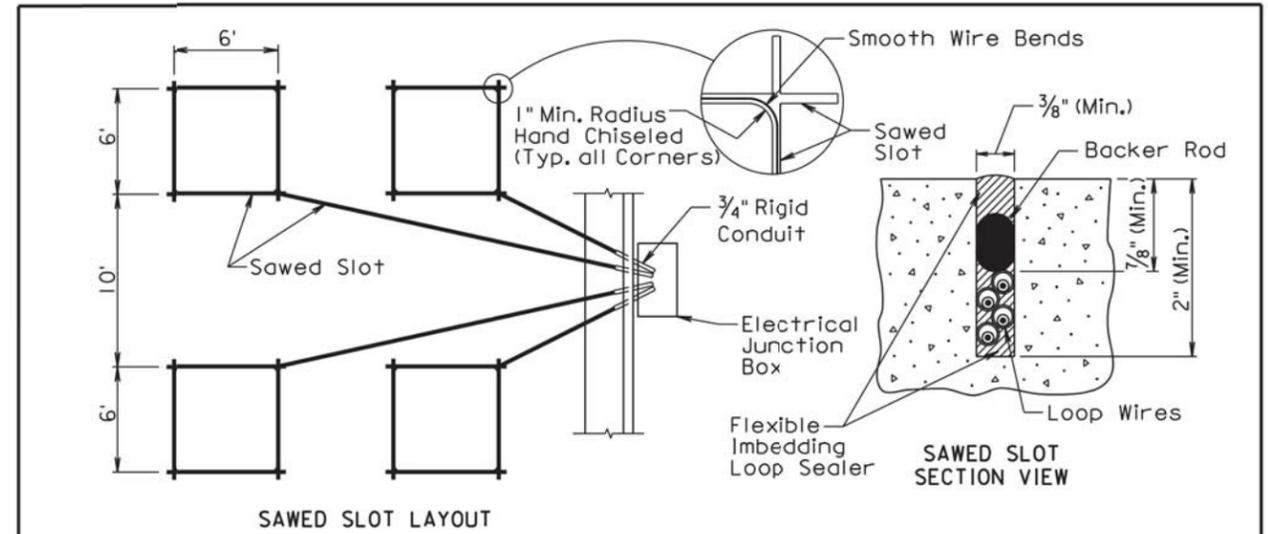
**The cover of the junction box shall have the appropriate logo in one inch size letters and shall be recessed. When the junction box contains cables or wires for a traffic signal then the logo shall be "Signal". When the junction box contains lighting conductors then the logo shall be "Lighting".

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

The electrical junction boxes shall be UL listed.

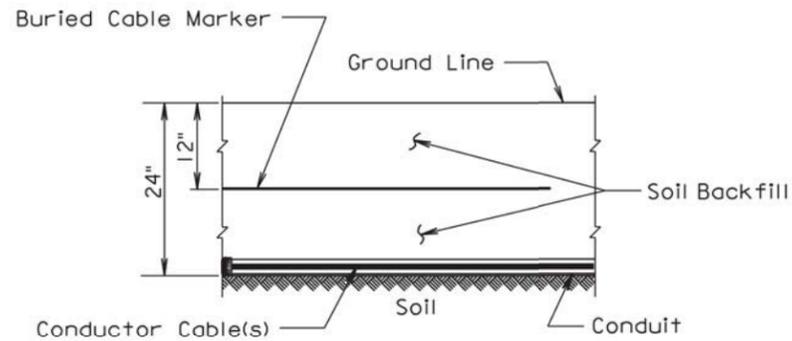
June 26, 2012

S D D O T	ELECTRICAL JUNCTION BOXES TYPE 1 THROUGH TYPE 4	PLATE NUMBER 635.65
	Published Date: 4th Qtr. 2013	Sheet 2 of 2

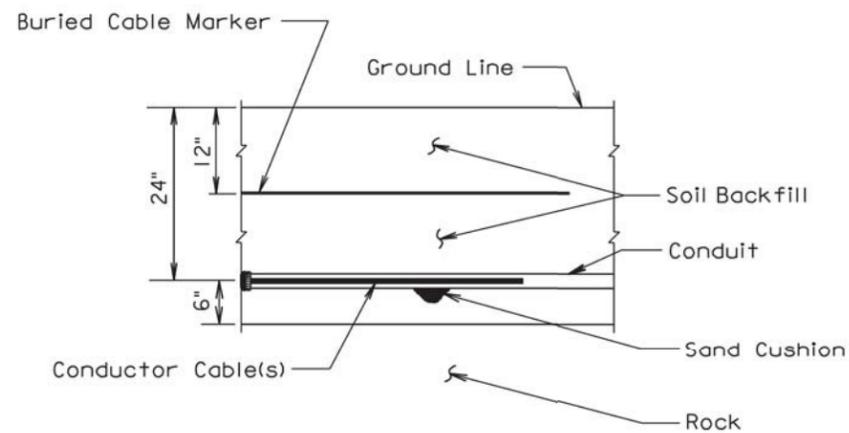


February 14, 2011

S D D O T	SAWED-IN DETECTOR LOOP	PLATE NUMBER 635.71
	Published Date: 4th Qtr. 2013	Sheet 1 of 1



SECTION VIEW



SECTION VIEW

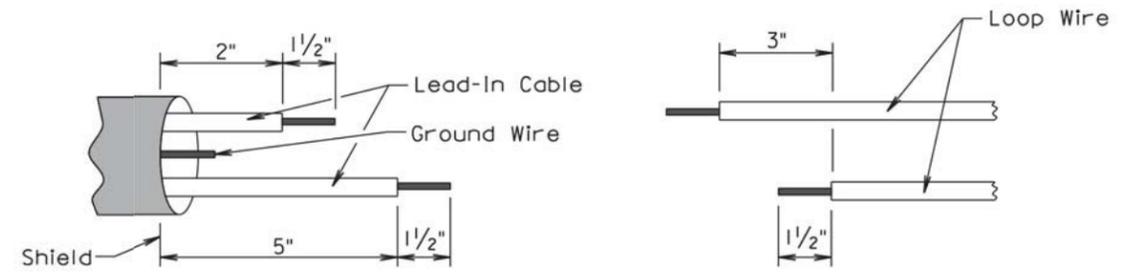
GENERAL NOTE:

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

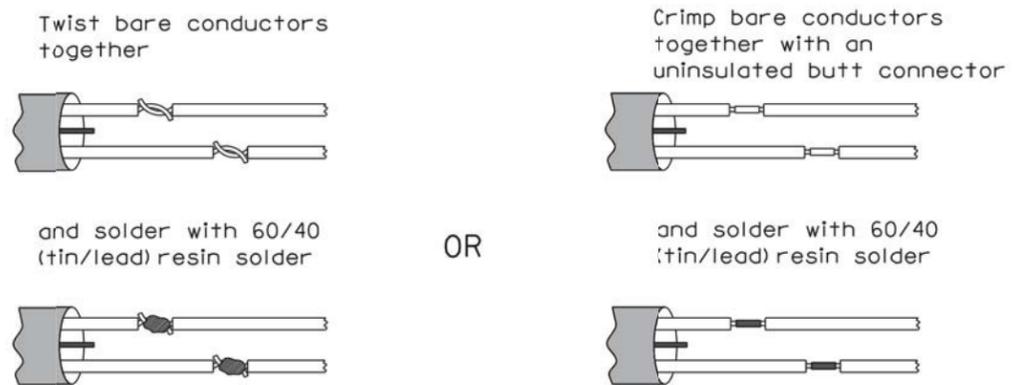
March 31, 2000

Published Date: 4th Qtr. 2013	S D D O T	CONDUIT INSTALLATION	PLATE NUMBER 635.76
			Sheet 1 of 1

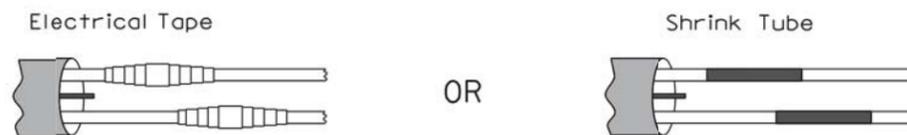
Step 1. Strip loop wires and lead-in cable.



Step 2. Connect and solder.



Step 3. Insulate each solder joint separately.

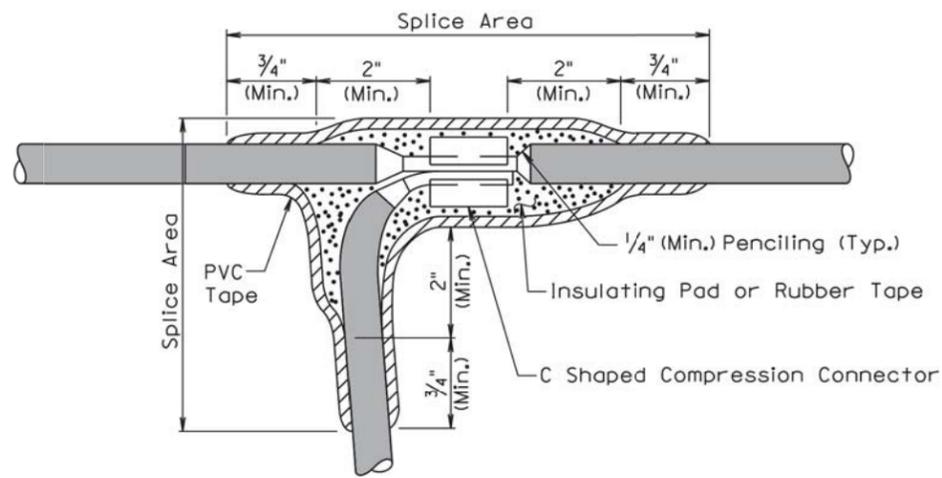


Step 4. Environmentally seal total splice against weather, moisture and abrasion. Methods for environmentally sealing the splice include heat-shrinkable tubing, special sealing kits, special forms to be filled by sealant, and tape and coating.

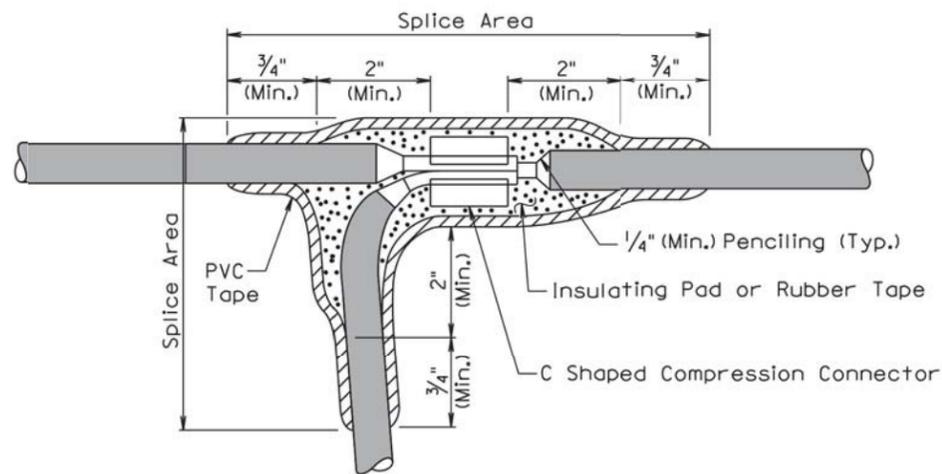


June 20, 2000

Published Date: 4th Qtr. 2013	S D D O T	DETECTOR LOOP WIRE SPLICING	PLATE NUMBER 635.77
			Sheet 1 of 1



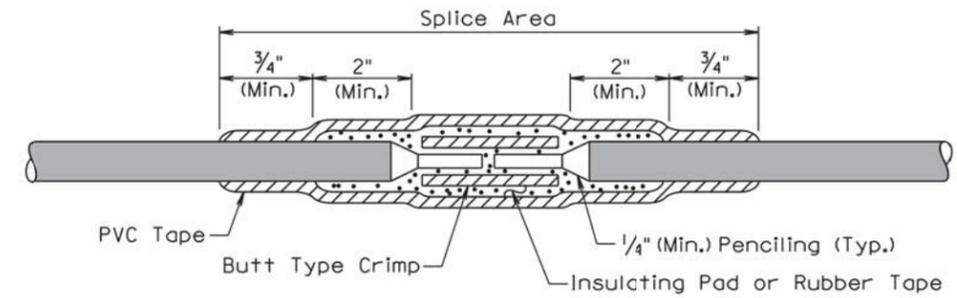
TYPE C SPLICE
(Between 1 free end and 1 through conductor)



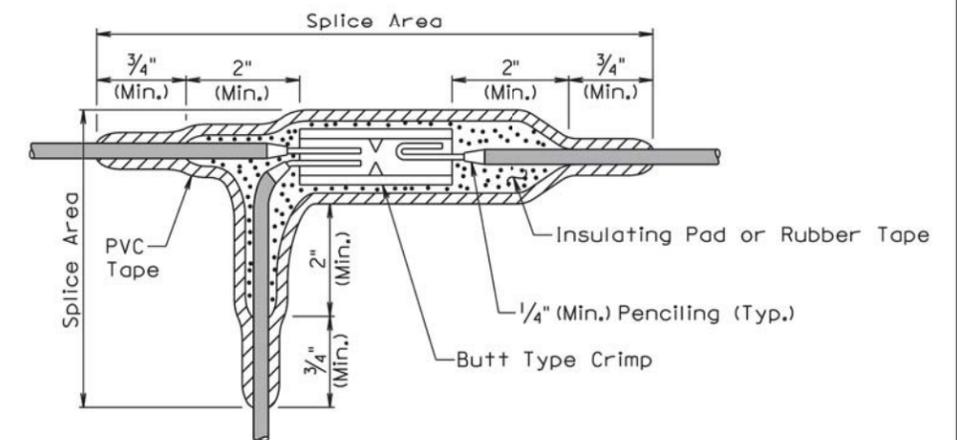
TYPE T SPLICE
(For 3 free ends)

February 14, 2010

Published Date: 4th Qtr. 2013	S D D O T	WIRE SPLICING FOR LIGHTING (LOW VOLTAGE CIRCUITS (0 to 600 V))	PLATE NUMBER 635.80
			Sheet 1 of 2



TYPE S SPLICE
(Between 2 free ends)



TYPE ST SPLICE
(For 3 free ends)

GENERAL NOTES:

The splice shall be environmentally sealed for protection from weather, moisture, and abrasion in accordance with the method stated below.

The rubber tapes shall be rolled after application.

Method for insulating splice area:

1. The splice area shall be completely covered with electrical insulating coating and dried.
2. Apply two layers of 1/8" minimum thickness electrical insulating pad or two layers of half lapped synthetic oil resistant self fusing rubber tape.
3. Three layers of half lapped polyvinyl chloride tape shall be applied.
4. The entire splice area shall be covered with electrical insulating coating and dried.

February 14, 2010

Published Date: 4th Qtr. 2013	S D D O T	WIRE SPLICING FOR LIGHTING (LOW VOLTAGE CIRCUITS (0 to 600 V))	PLATE NUMBER 635.80
			Sheet 2 of 2

GENERAL NOTES:

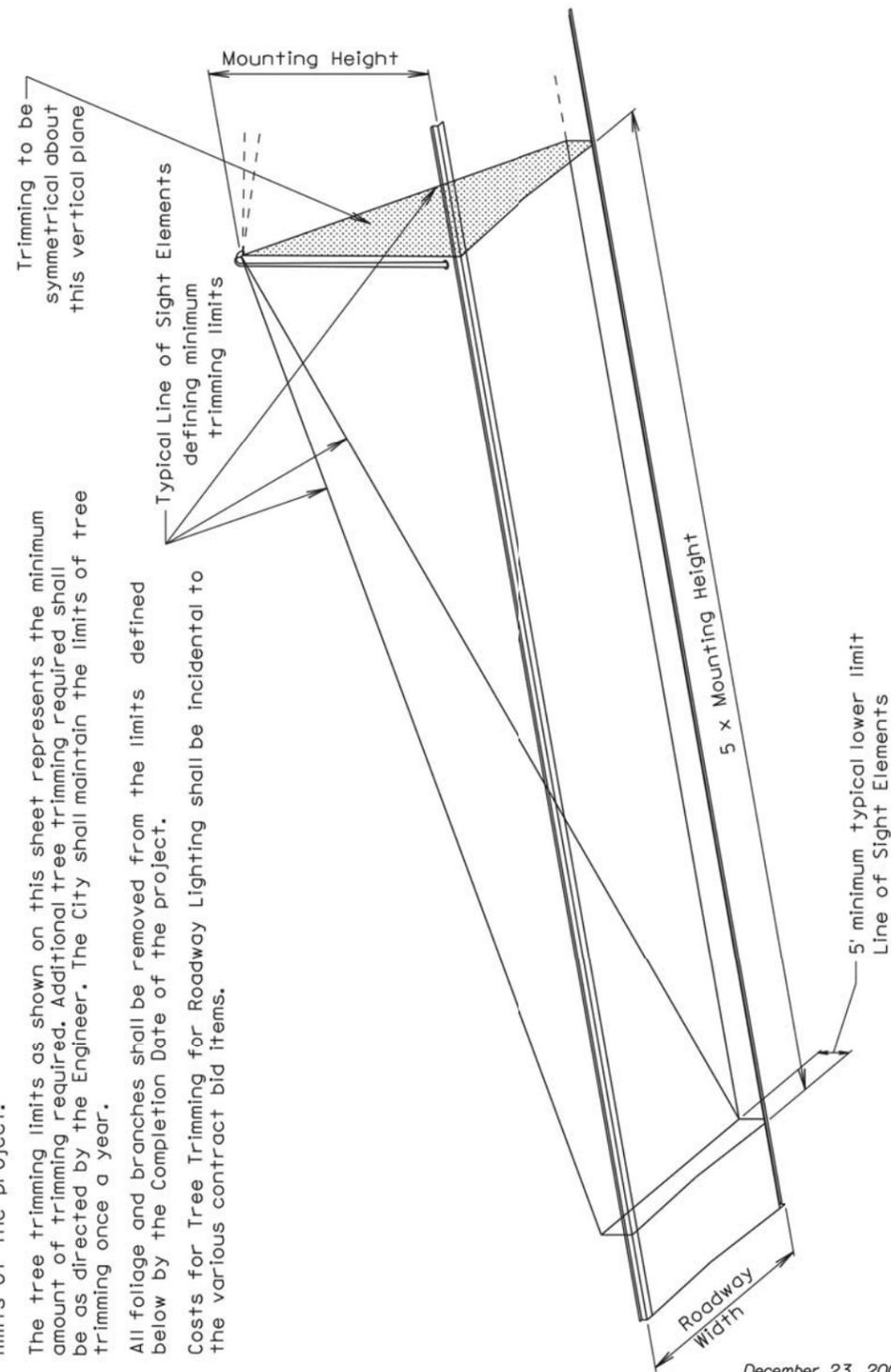
Tree Trimming shall be done in accordance with proper tree trimming practices. The underside of each branch to be removed shall have a groove sawed through the bark (1/2" Min. depth) before any sawing is started on the top side of the branch.

Tree trimming shall be applied around each light source installed within the limits of the project.

The tree trimming limits as shown on this sheet represents the minimum amount of trimming required. Additional tree trimming required shall be as directed by the Engineer. The City shall maintain the limits of tree trimming once a year.

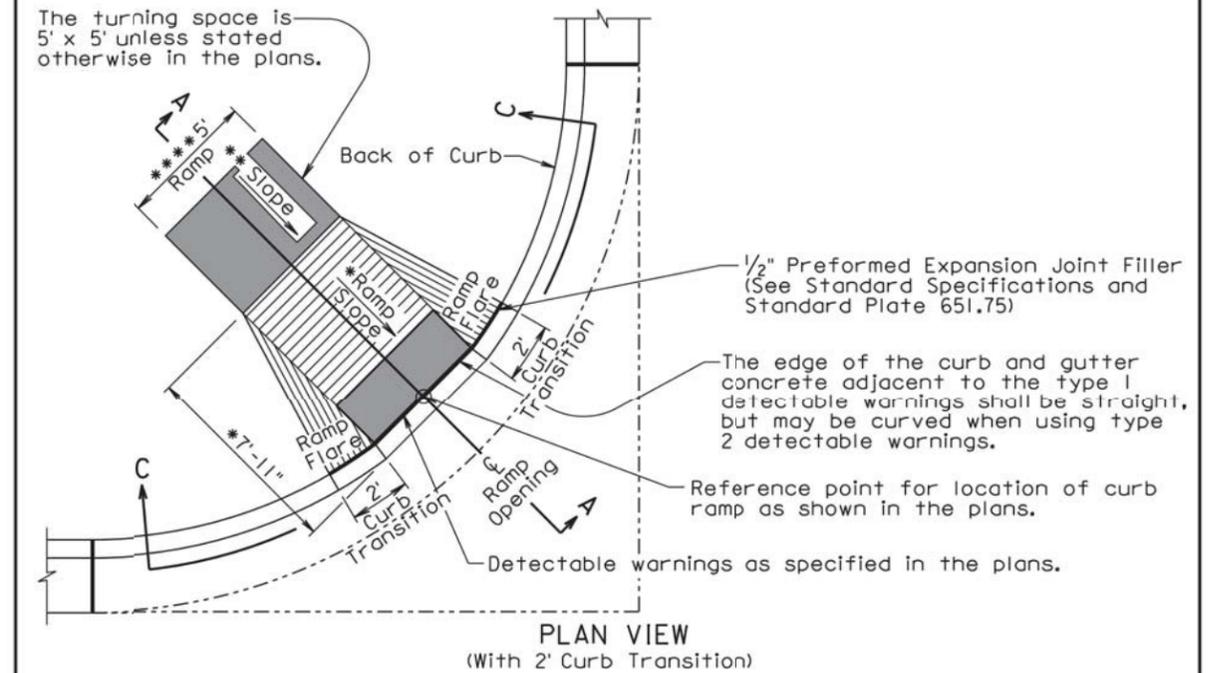
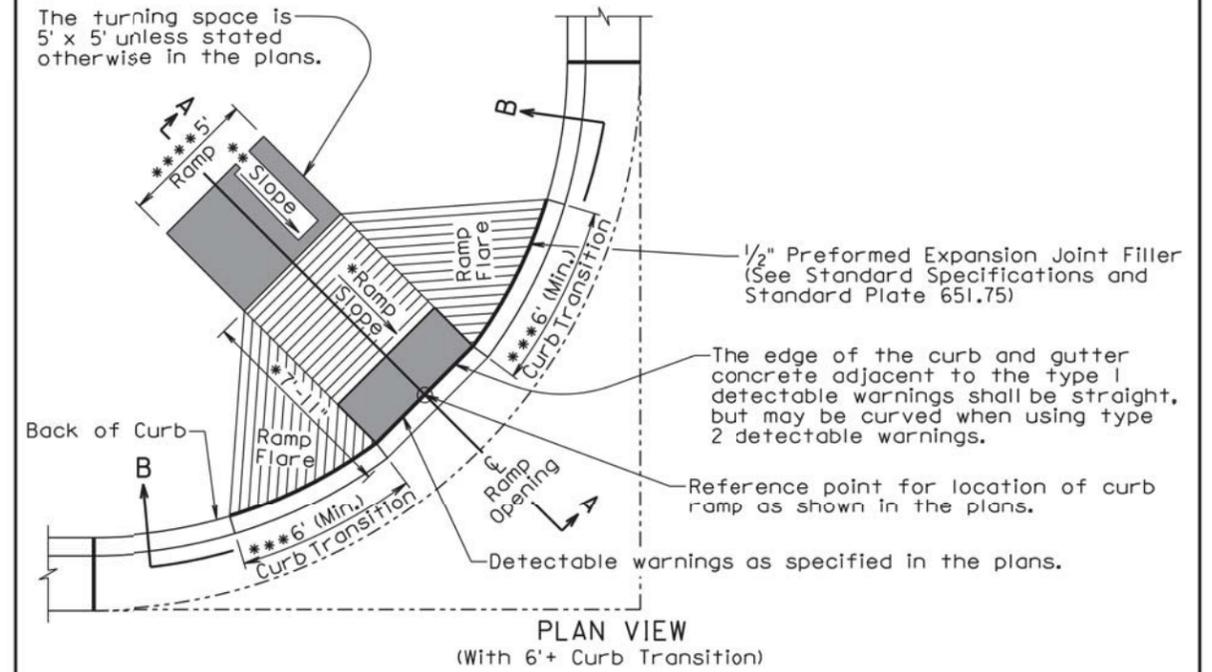
All foliage and branches shall be removed from the limits defined below by the Completion Date of the project.

Costs for Tree Trimming for Roadway Lighting shall be incidental to the various contract bid items.



December 23, 2009

Published Date: 4th Qtr. 2013	S D D O T	TREE TRIMMING FOR ROADWAY LIGHTING	PLATE NUMBER 635.99
			Sheet 1 of 1



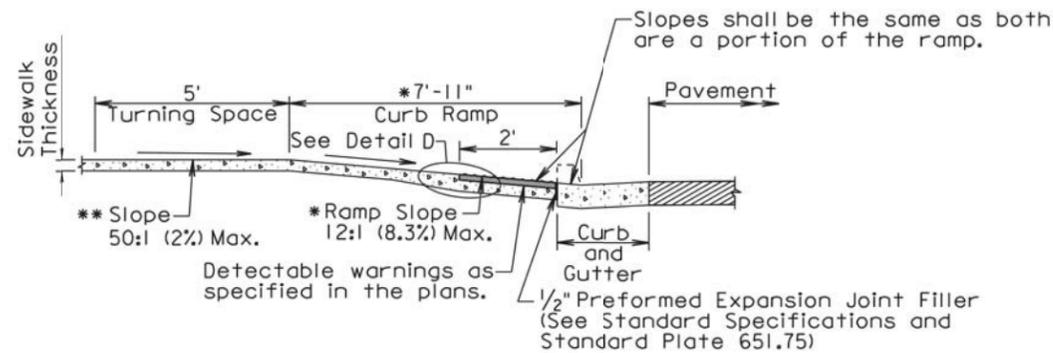
September 6, 2013

Published Date: 4th Qtr. 2013	S D D O T	TYPE 1 CURB RAMP (PERPENDICULAR CURB RAMP)	PLATE NUMBER 651.01
			Sheet 1 of 3

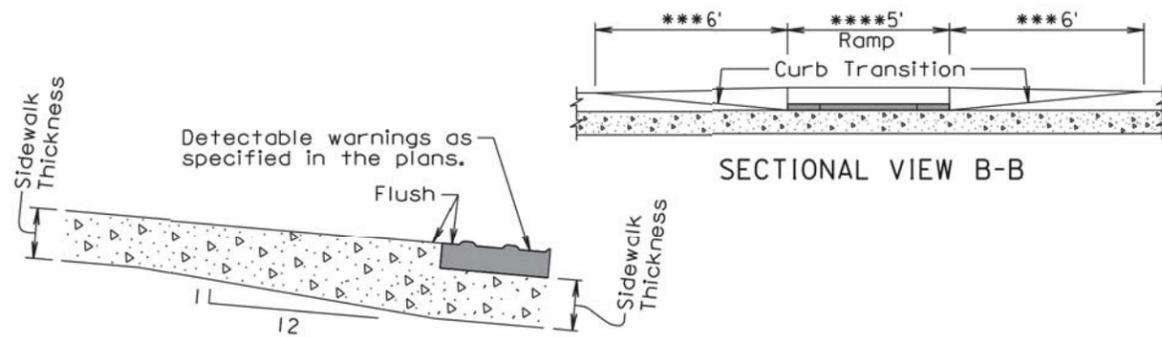
STATE OF SOUTH DAKOTA	PROJECT P 3273(09)	SHEET No. 112	TOTAL SHEETS 119
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The ramp slope shall be 12:1 (8.3%) maximum. The ramp length shall not exceed 15' unless stated otherwise in the plans. Ramp slopes are designed at 12:1 (8.3%) unless stated otherwise 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.



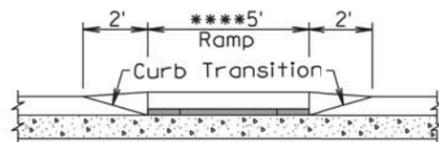
SECTION A-A



SECTIONAL VIEW B-B



DETAIL D



SECTIONAL VIEW C-C

September 6, 2013

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

Published Date: 4th Qtr. 2013

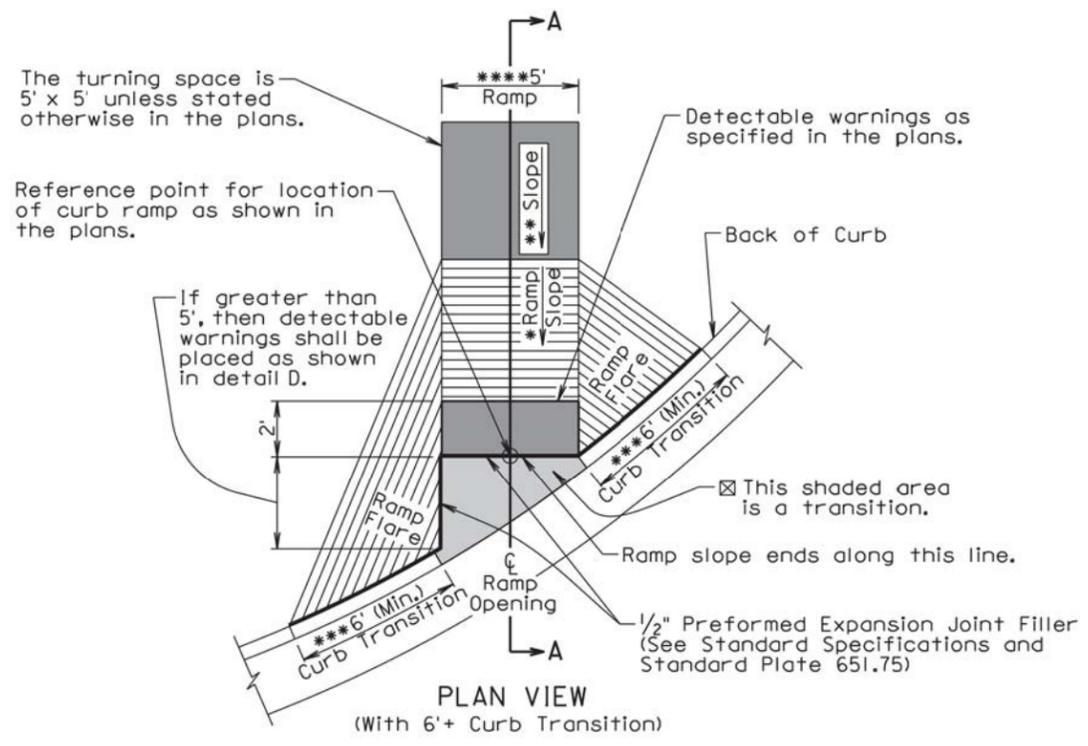
GENERAL NOTES:

- For illustrative purpose only, type 1 detectable warnings are shown in the drawings.
- For illustrative purpose only, PCC fillet sections are shown in the drawings. The curb ramp depicted on this standard plate may be used with a PCC fillet section, 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 1 detectable warnings shall be measured to the nearest square foot. All costs for furnishing and installing the type 1 detectable warnings including labor, equipment, materials, and incidentals shall be paid for at the contract unit price per square foot for "Type 1 Detectable Warnings".
- The type 2 detectable warnings shall be measured to the nearest square foot. All costs for furnishing and installing the type 2 detectable warnings including labor, equipment, and materials, including adhesive, necessary sealant or grout, and necessary grinding shall be paid for at the contract unit price per square foot for "Type 2 Detectable Warnings".

September 6, 2013

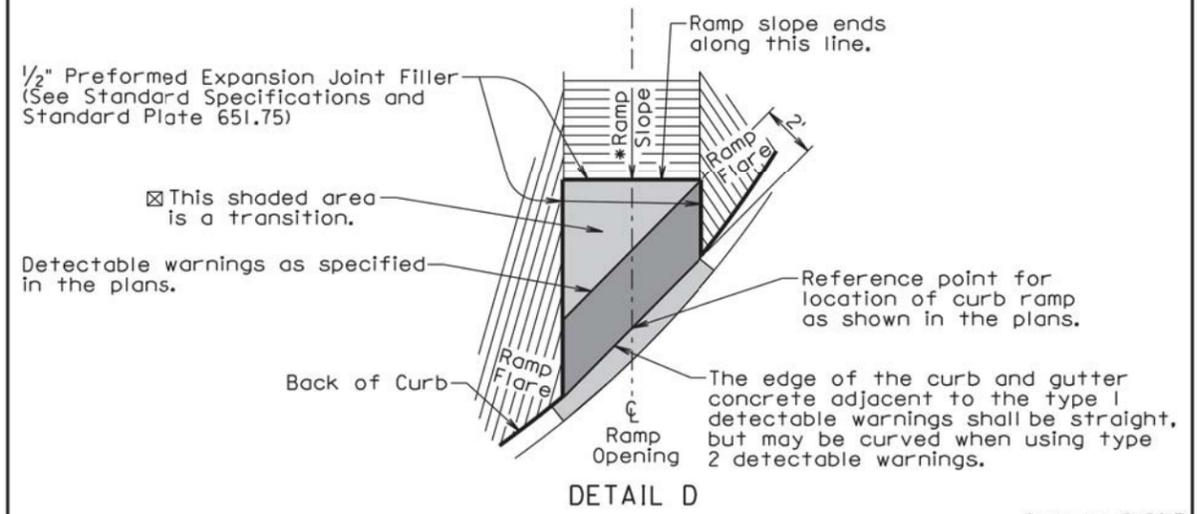
S D D O T	TYPE 1 CURB RAMP (PERPENDICULAR CURB RAMP)	PLATE NUMBER 651.01
		Sheet 3 of 3

Published Date: 4th Qtr. 2013



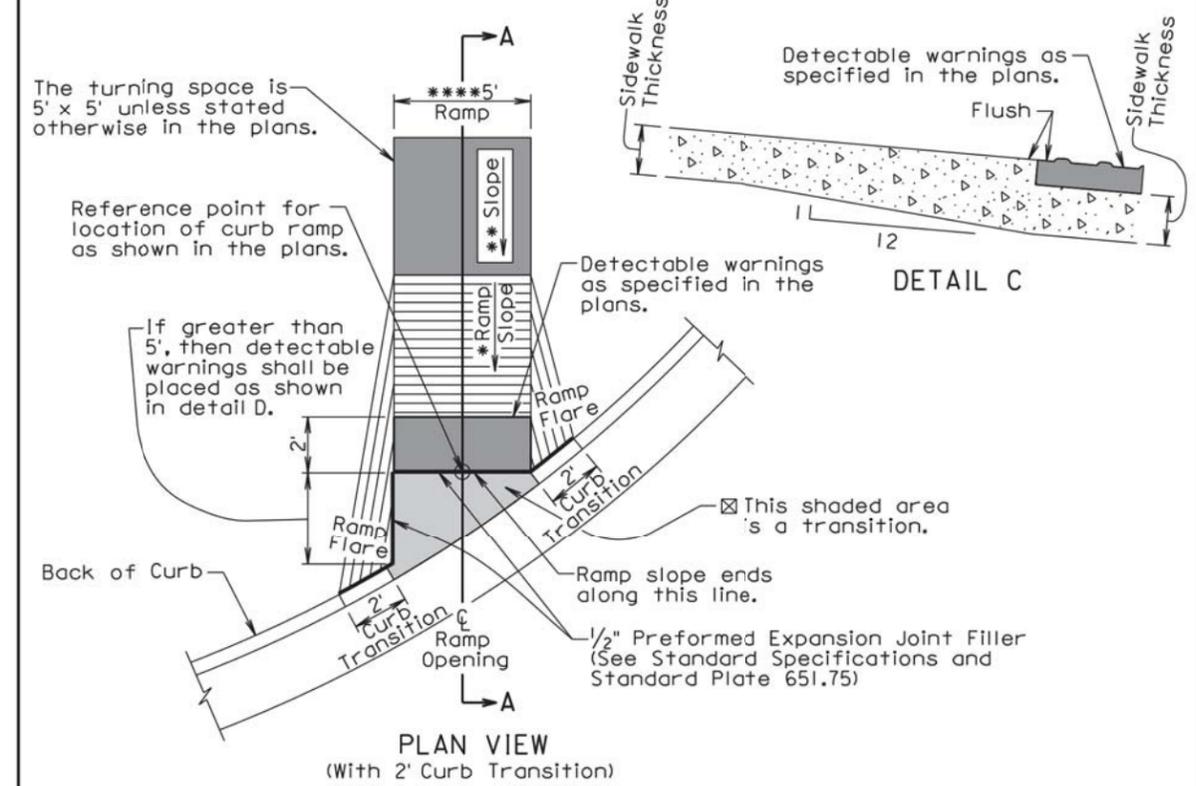
☒ The slope within the transition area shall not be steeper than a 20:1 (5%). The concrete within the transition shall be placed monolithic with the curb and gutter or fillet section concrete. The concrete thickness within the transition shall be the same as the curb and gutter or fillet section concrete 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.



September 6, 2013

S D D O T	TYPE 2 CURB RAMP (DIRECTIONAL CURB RAMP)	PLATE NUMBER 651.02
	Published Date: 4th Qtr. 2013	Sheet 1 of 3

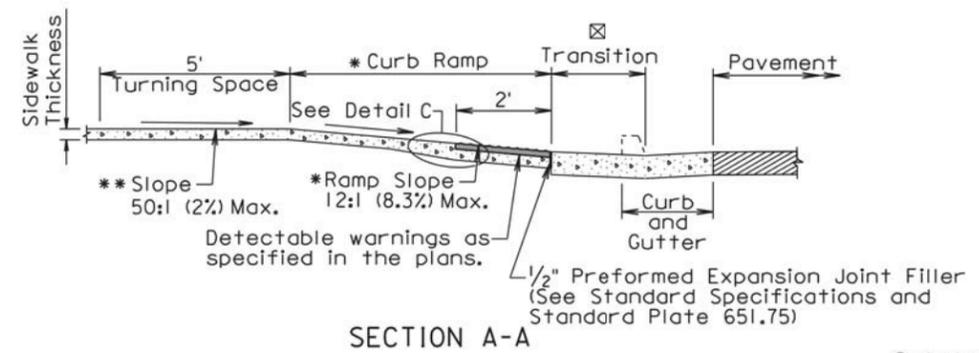


* The ramp slope shall be 12:1 (8.3%) maximum. The ramp length shall not exceed 15' unless stated otherwise in the plans. Ramp slopes are designed at 12:1 (8.3%) unless stated otherwise in the plans.

The cross slope of the ramp shall not be steeper than 50:1 (2%).

**The 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.



September 6, 2013

S D D O T	TYPE 2 CURB RAMP (DIRECTIONAL CURB RAMP)	PLATE NUMBER 651.02
	Published Date: 4th Qtr. 2013	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.

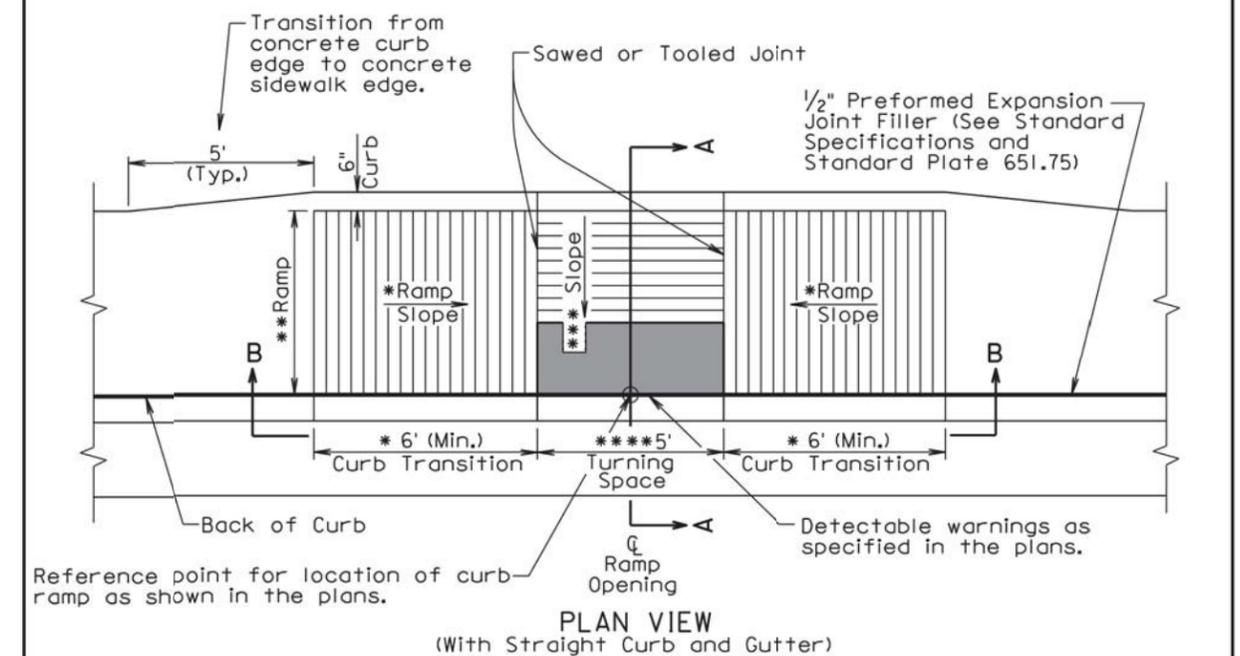
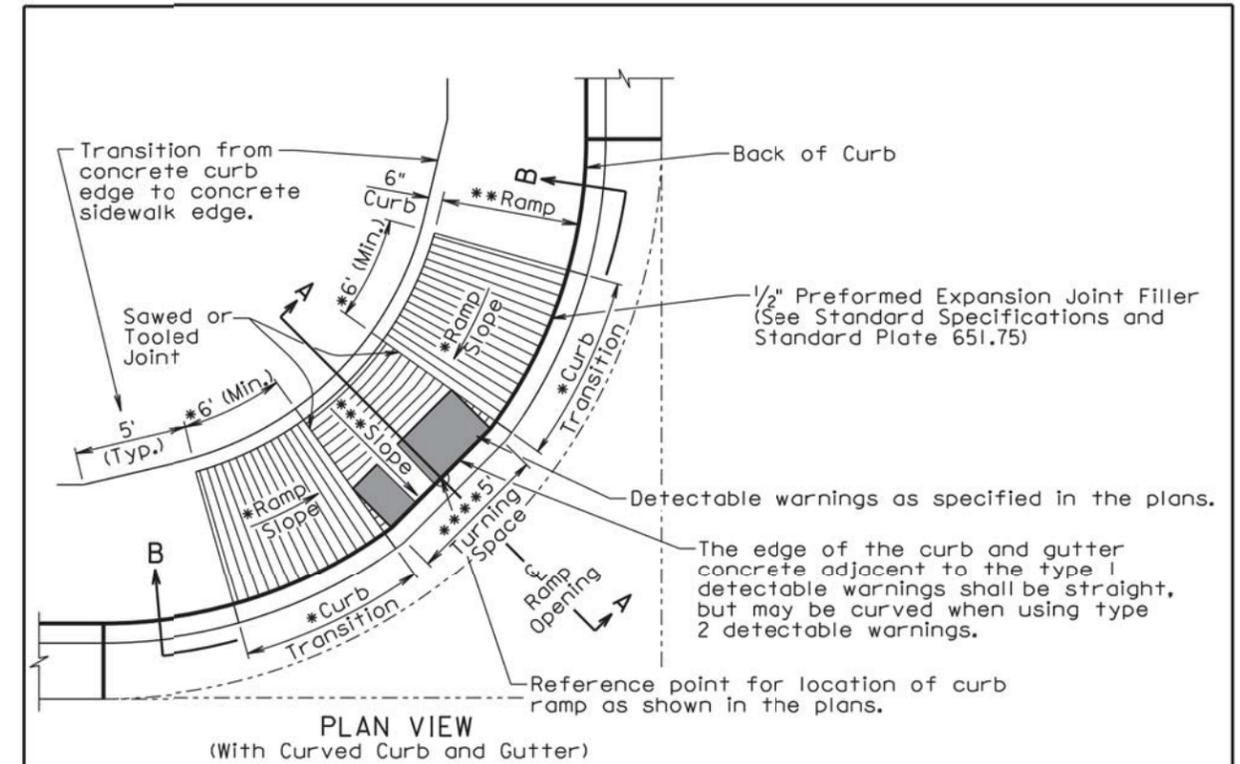
All costs for furnishing and installing the transition area at the base of the ramp shall be incidental to the contract unit price per foot for the corresponding curb and gutter bid item when curb and gutter is used and shall be incidental to the contract unit price per square yard for the corresponding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

September 6, 2013

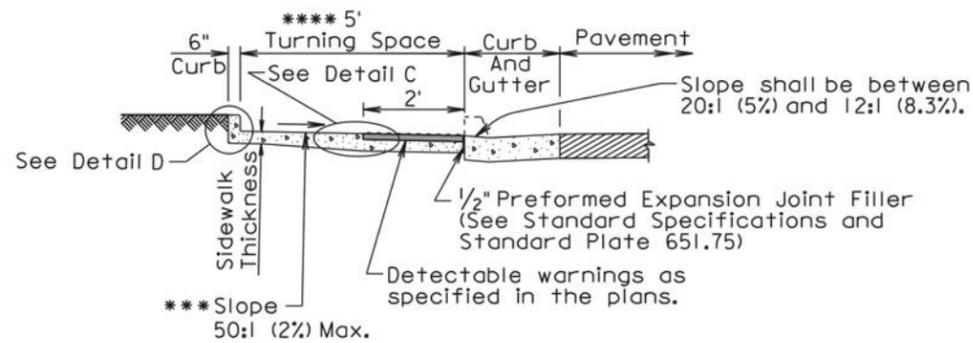
S D D O T	TYPE 2 CURB RAMP (DIRECTIONAL CURB RAMP)	PLATE NUMBER 651.02
		Sheet 3 of 3
Published Date: 4th Qtr. 2013		



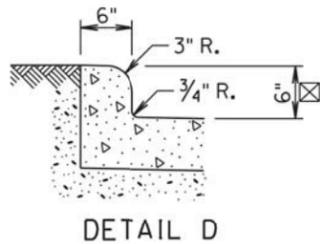
September 6, 2013

S D D O T	TYPE 3 CURB RAMP (PARALLEL CURB RAMP)	PLATE NUMBER 651.03
		Sheet 1 of 3
Published Date: 4th Qtr. 2013		

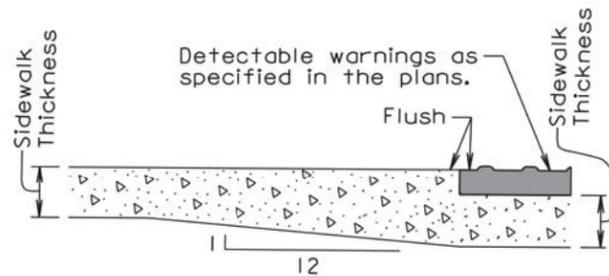
- * The curb transition slope shall match the ramp slope. The ramp slope, at any location of the ramp, shall be 12:1 (8.3%) maximum. The ramp length shall not exceed 15' unless stated otherwise in the plans. Ramp slopes are designed at 12:1 (8.3%) unless stated otherwise in the plans. The minimum length 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.



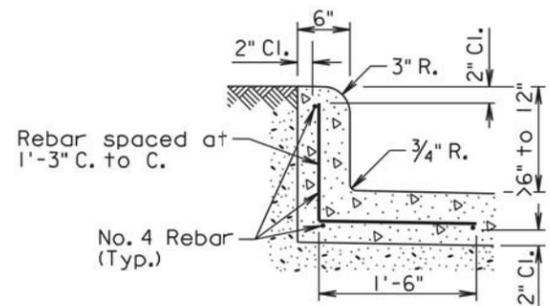
SECTION A-A



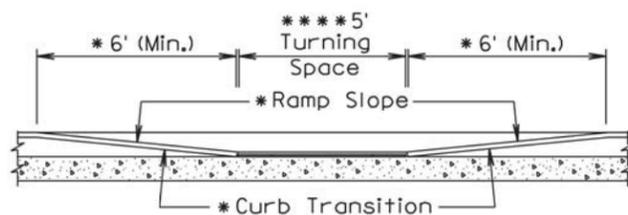
DETAIL D



DETAIL C



DETAIL D
(Use this detail when the curb height is greater than 6" and less than 12")



SECTIONAL VIEW B-B

September 6, 2013

Published Date: 4th Qtr. 2013	S D D O T	TYPE 3 CURB RAMP (PARALLEL CURB RAMP)	PLATE NUMBER 651.03
			Sheet 2 of 3

GENERAL NOTES:

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

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

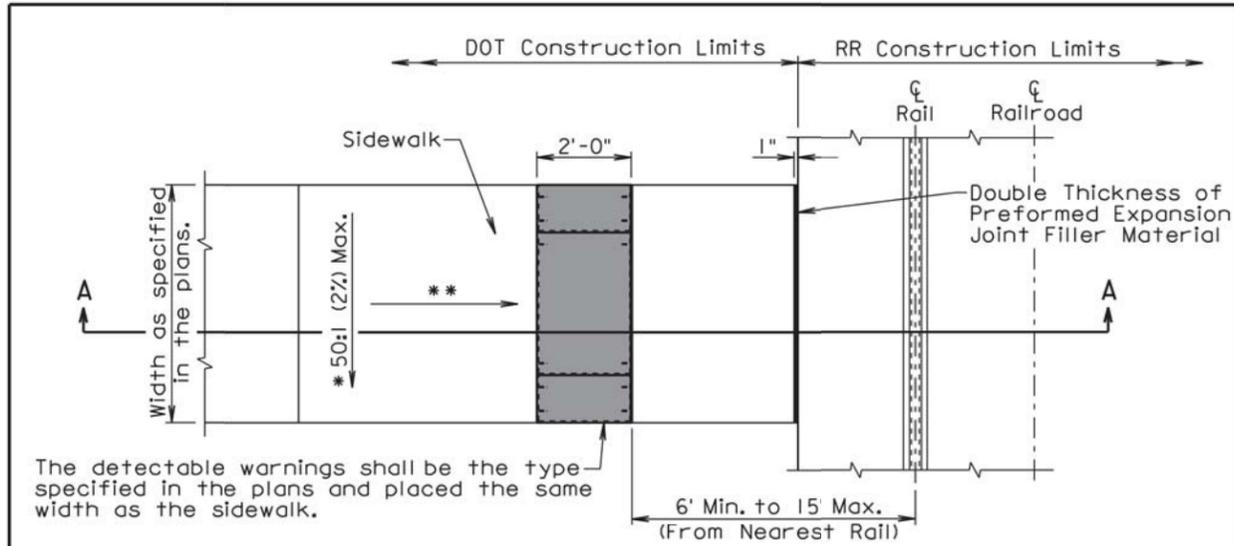
The curb transitions and ramp opening shall be measured and paid for at the contract unit price per foot for the corresponding curb and gutter bid item when curb and gutter is used. The curb transitions and ramp opening shall be measured and paid for at the contract unit price per square yard for the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

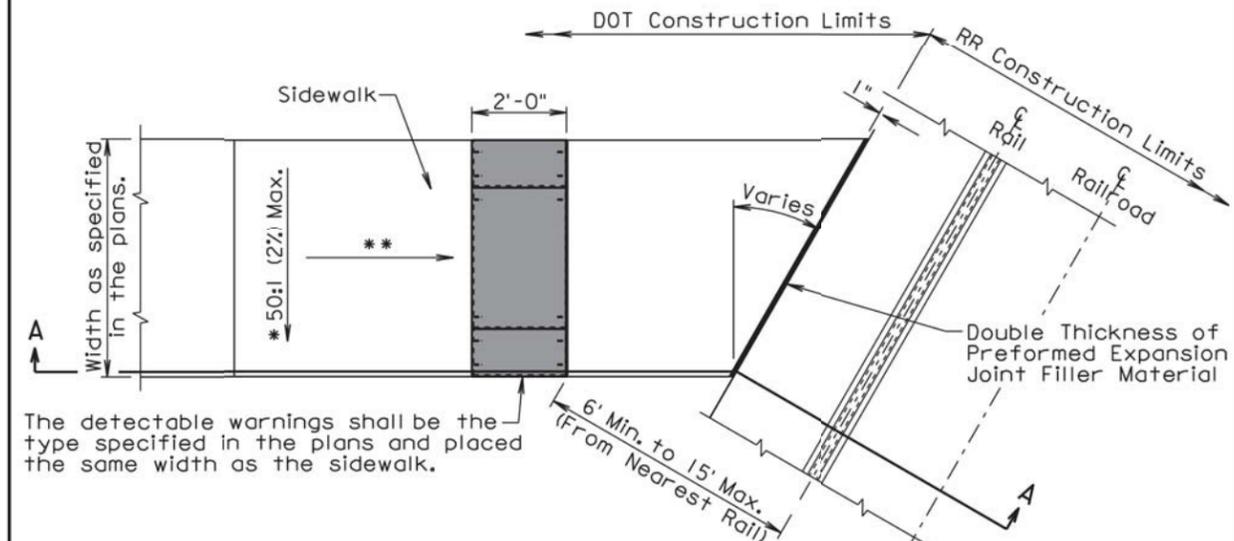
September 6, 2013

Published Date: 4th Qtr. 2013	S D D O T	TYPE 3 CURB RAMP (PARALLEL CURB RAMP)	PLATE NUMBER 651.03
			Sheet 3 of 3



PLAN VIEW
(Railroad Crossing Not Skewed)

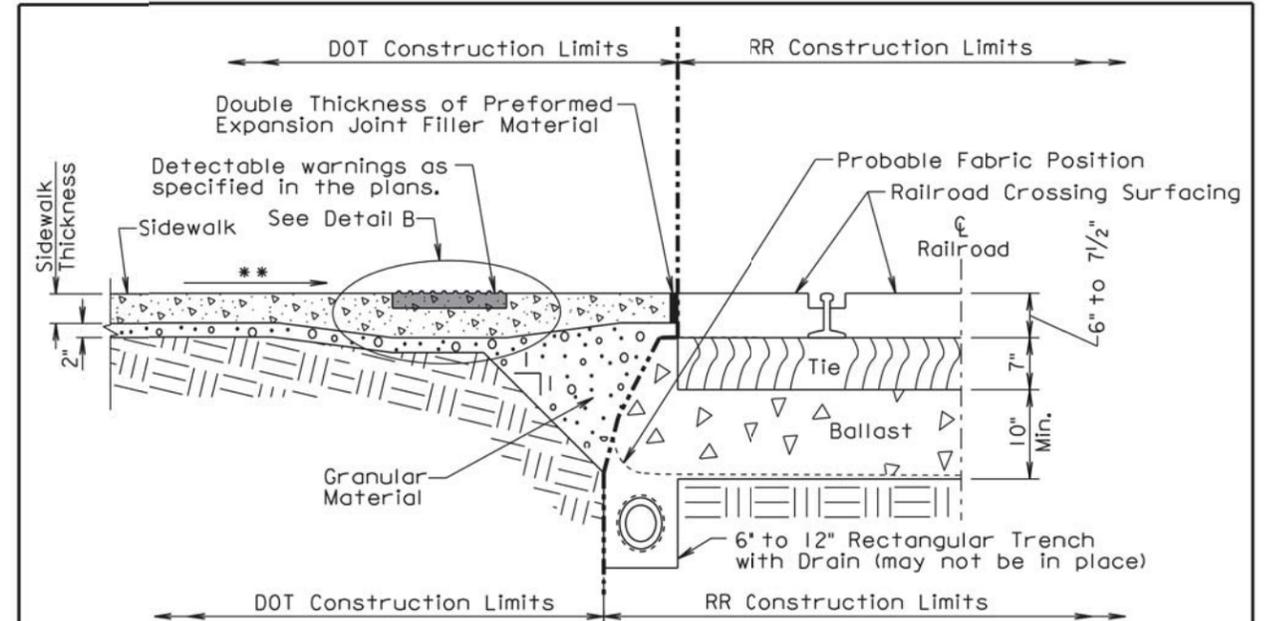
- *The cross slope of the sidewalk shall not be steeper than a 50:1 (2%) unless stated otherwise in the plans.
- **If the sidewalk is curbside, then the surface of the curbside sidewalk shall match the slope of the curb transition. The longitudinal slope of the sidewalk and curb transition, where the sidewalk transitions to the railroad crossing elevation, shall not be steeper than 20:1 (5%) unless stated otherwise in the plans.
- **If there is a boulevard sidewalk, then the curb and gutter transition shall be in accordance with standard plate 650.35. The longitudinal slope of the sidewalk, where the sidewalk transitions to the railroad crossing elevation, shall not be steeper than 20:1 (5%) unless stated otherwise in the plans.



PLAN VIEW
(Railroad Crossing Skewed)

June 26, 2009

Published Date: 4th Qtr. 2013	S D D O T	SIDEWALK AND DETECTABLE WARNINGS ADJACENT TO RAILROAD CROSSING	PLATE NUMBER 651.20
			Sheet 1 of 2



SECTION A-A

GENERAL NOTES:

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

Ballast material shall not be disturbed during construction work adjacent to the railroad crossing unless the adjacent work involves reconstruction or maintenance of the railroad crossing.

The sidewalk shall be placed at the location stated in the plans.

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

If curb and gutter is required adjacent to the railroad crossing, the curb transition shall be measured and paid for at the contract unit price per foot for the corresponding curb and gutter bid item.

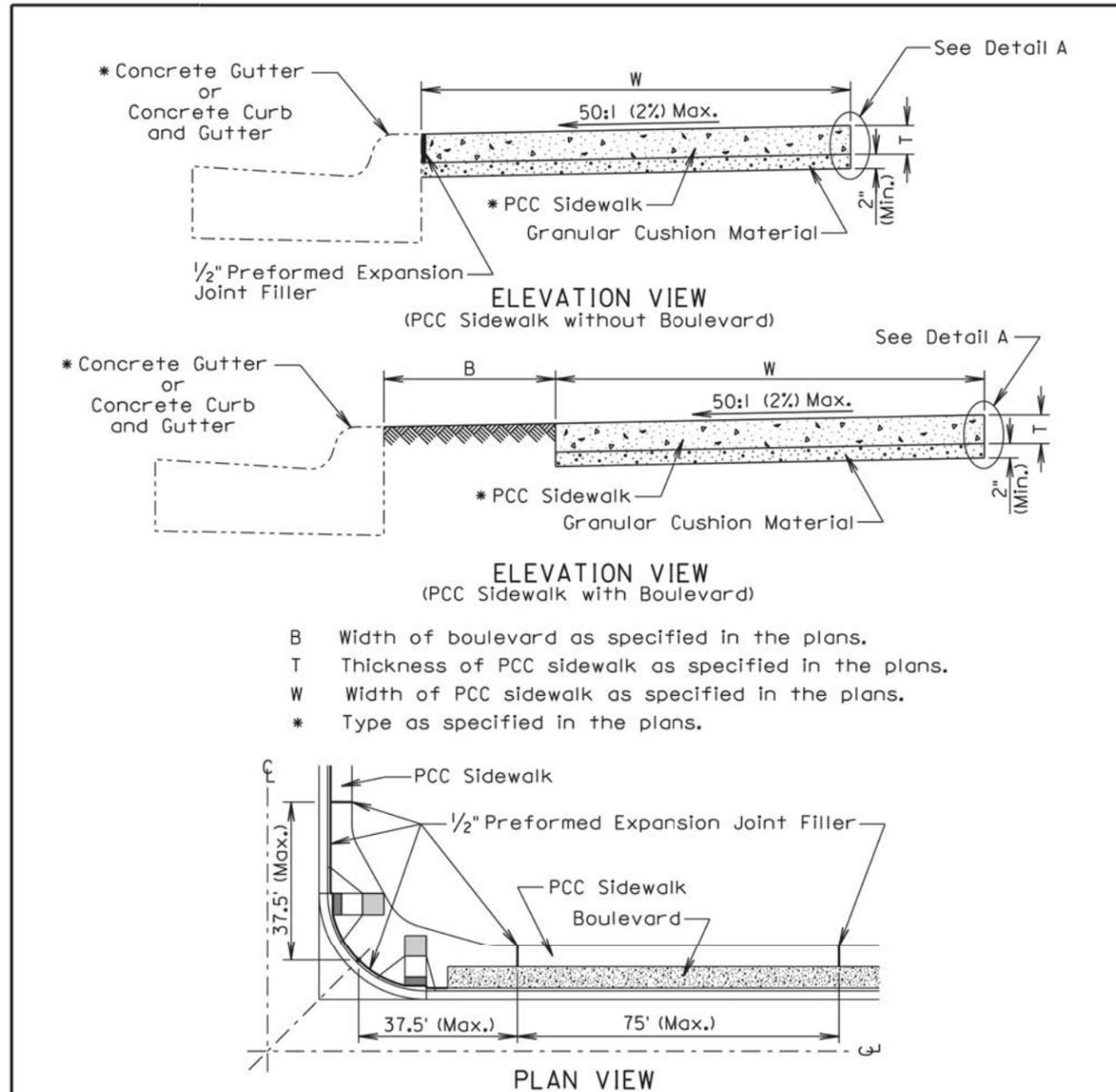
The type 1 detectable warnings shall be measured to the nearest square foot. All costs for furnishing and installing the type 1 detectable warnings including labor, equipment, materials, and incidentals shall be paid for at the contract unit price per square foot for "Type 1 Detectable Warnings".

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".

The square foot area of the detectable warnings shall be included in the measured and paid for quantity of sidewalk.

June 26, 2009

Published Date: 4th Qtr. 2013	S D D O T	SIDEWALK AND DETECTABLE WARNINGS ADJACENT TO RAILROAD CROSSING	PLATE NUMBER 651.20
			Sheet 2 of 2



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

GENERAL NOTES:

The PCC sidewalk shall be constructed in accordance with Section 65I of the Standard Specifications.

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

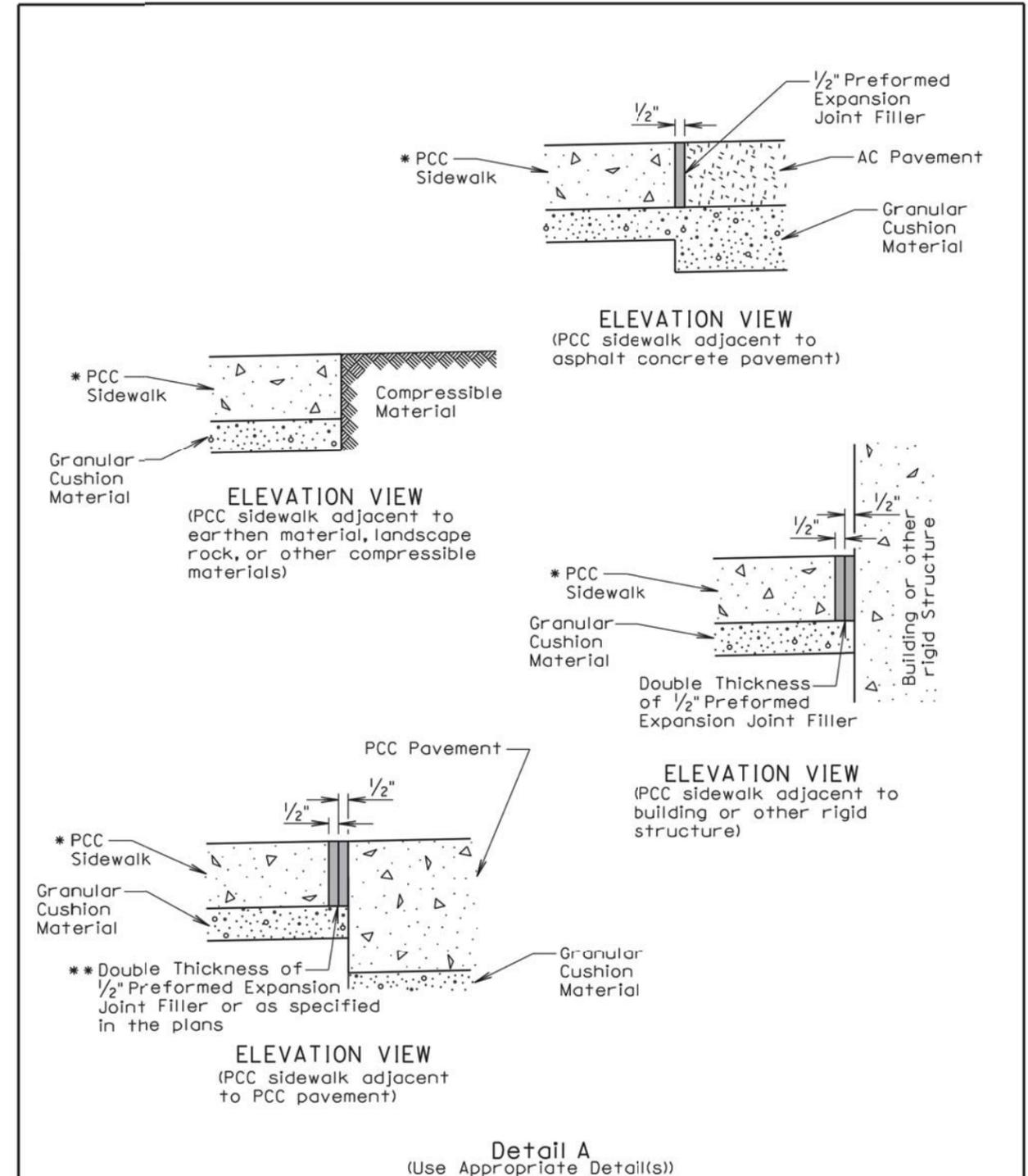
PCC sidewalk placed adjacent to intersection of roadways shall have an expansion joint placed transversely a maximum of 37.5 feet from the intersection. See PLAN VIEW.

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.

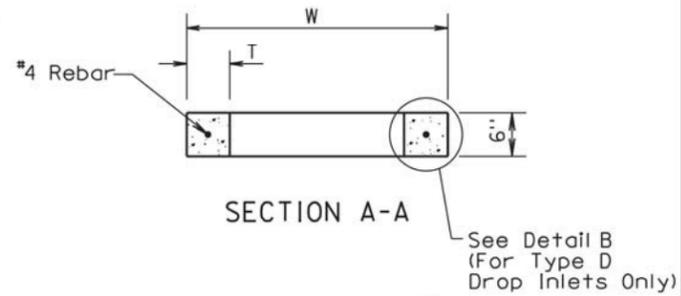
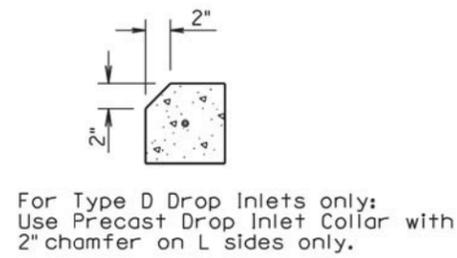
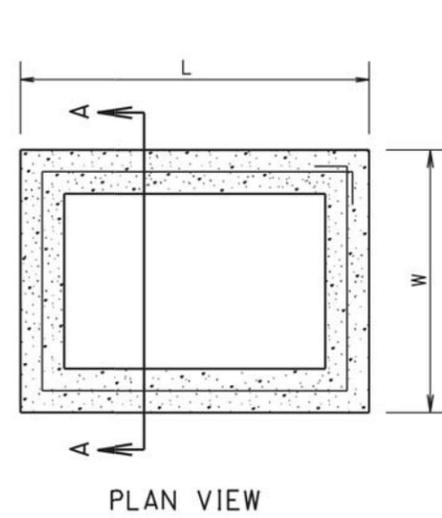
August 31, 2013

<i>Published Date: 4th Qtr. 2013</i>	S D D O T	PCC SIDEWALK	PLATE NUMBER 651.75
			Sheet 1 of 2



August 31, 2013

<i>Published Date: 4th Qtr. 2013</i>	S D D O T	PCC SIDEWALK	PLATE NUMBER 651.75
			Sheet 2 of 2



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:

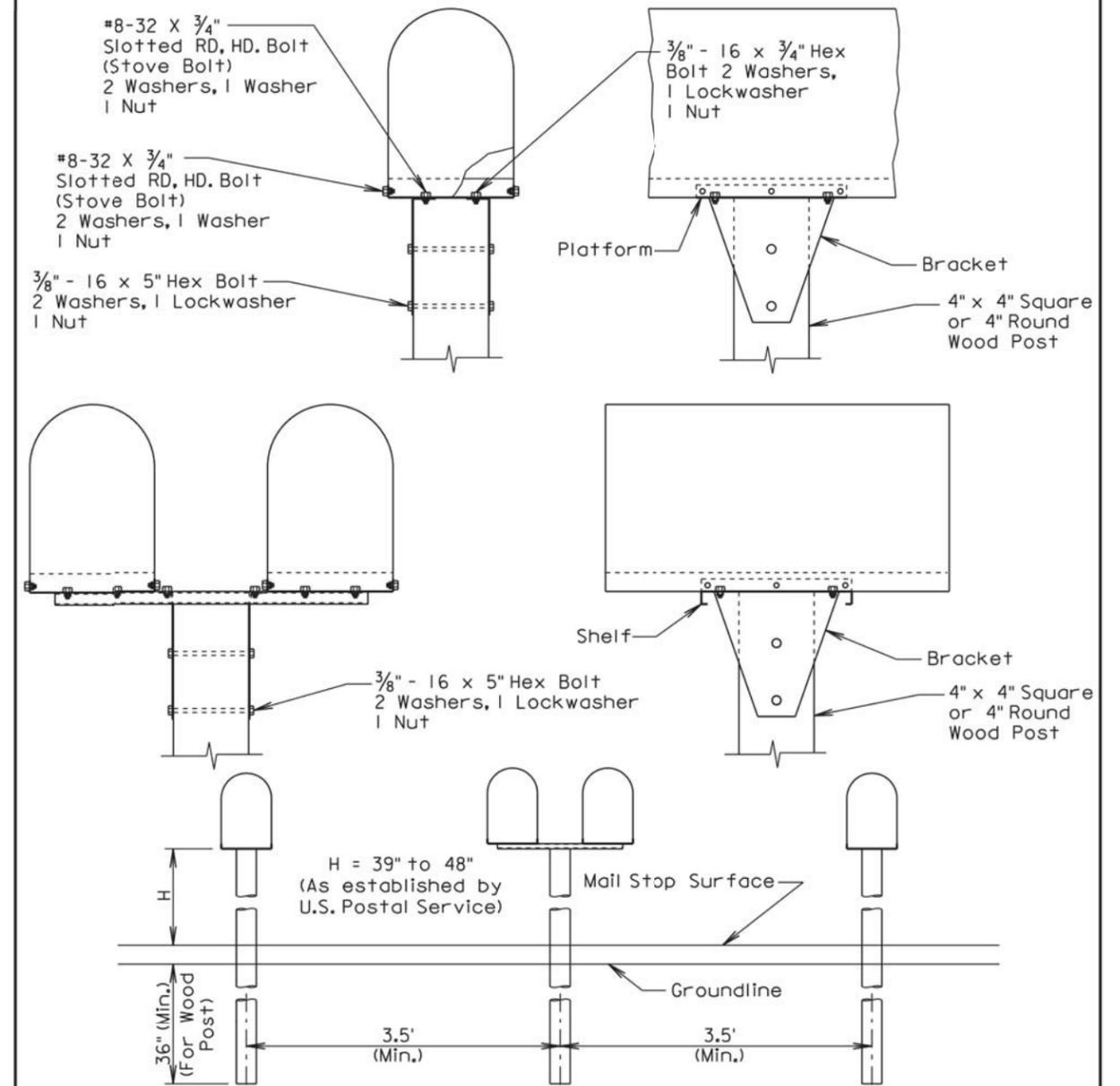
All reinforcing steel shall conform to ASTM A615, Grade 60.

The 1/2" 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: 4th Qtr. 2013	S D D O T	PRECAST DROP INLET COLLAR	PLATE NUMBER
			670.99
			Sheet 1 of 1



GENERAL NOTES: SPACING FOR MULTIPLE POST INSTALLATION

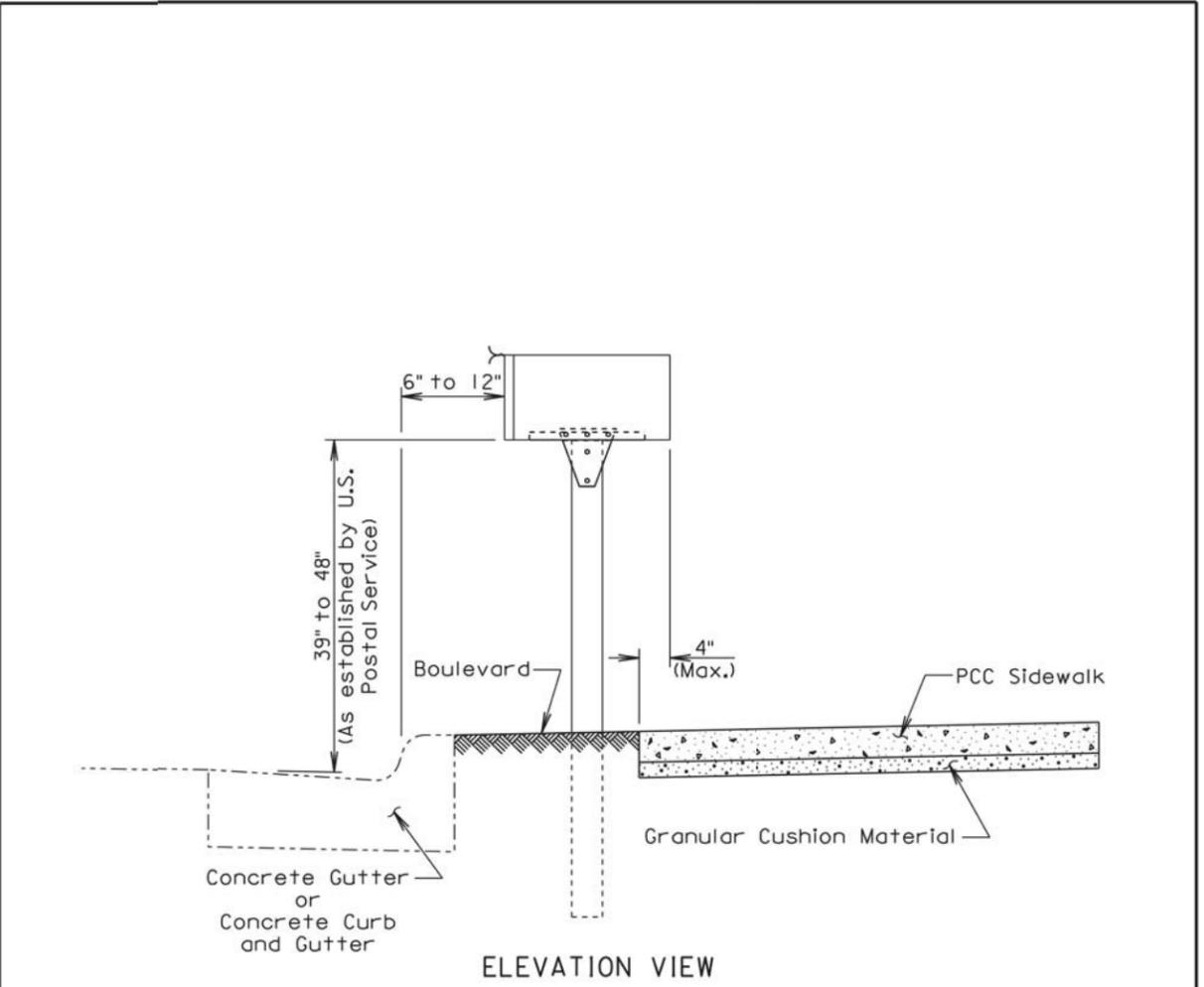
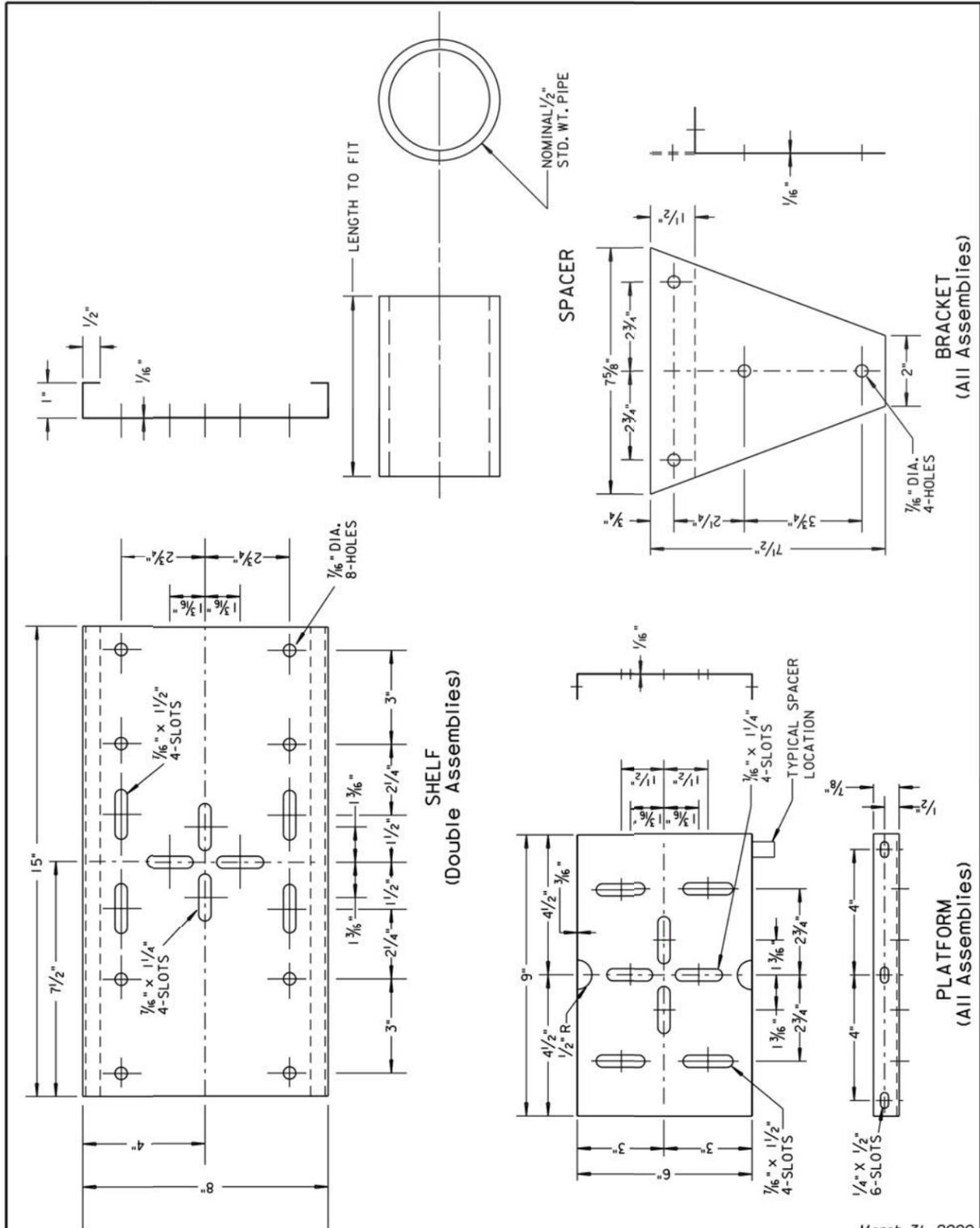
The post support assemblies provided should be consistent throughout the project. Single and double mailboxes may be in any sequence.

Post support assemblies shall be one from the approved products list, a 4"x4" or 4" round wood post, or an alternate post support assembly that meets the test level 3 crash testing requirements of NCHRP 350 or MASH.

Alternate mailbox support assemblies shall be approved by the Engineer prior to installation. The Contractor shall provide the Engineer written certification that the mailbox support assembly has met the crash testing requirements and will be installed in accordance with the manufacturer's installation instructions.

September 6, 2013

Published Date: 4th Qtr. 2013	S D D O T	SINGLE AND DOUBLE MAILBOX ASSEMBLIES	PLATE NUMBER
			900.02
			Sheet 1 of 1



GENERAL NOTES:

The post support assemblies provided should be consistent throughout the project.

Post support assemblies shall be one from the approved products list, a 4"x4" or 4" round wood post, or an alternate post support assembly that meets the test level 3 crash testing requirements of NCHRP 350 or MASH.

Alternate mailbox support assemblies shall be approved by the Engineer prior to installation. The Contractor shall provide the Engineer written certification that the mailbox support assembly has met the crash testing requirements and will be installed in accordance with the manufacturer's installation instructions.

August 31, 2013