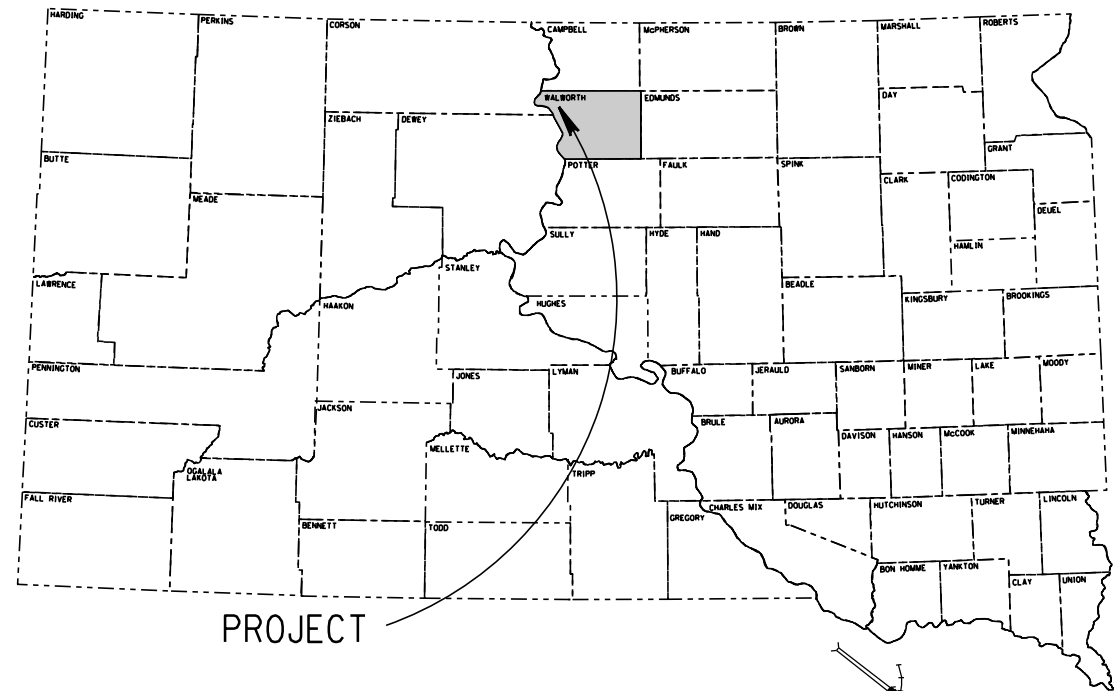


PLOT SCALE - 1:200

PLOTTED FROM - TRM01INT04



STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION  
PLANS FOR PROPOSED  
**PROJECTS**  
**012-371 and 1804-371**  
**US HWY 12 and SD 1804**  
**WALWORTH COUNTY**

ADA CORRECTIONS  
PCN 142E and 143V

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	012-371 and 1804-371	1	34

Plotting Date: 04/21/2016

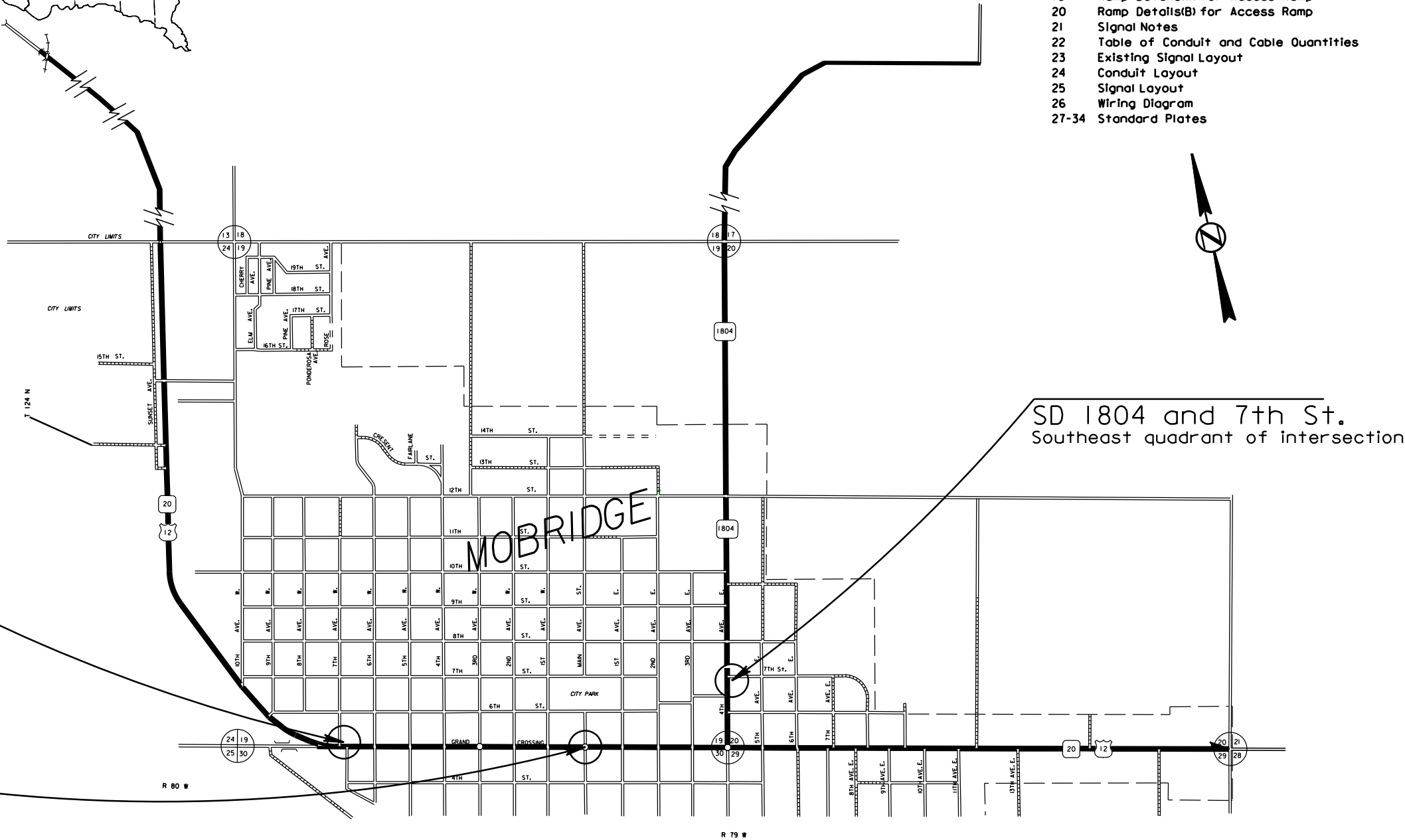
INDEX OF SHEETS

- 1 Title Sheet
- 2 Estimate of Quantities
- 3 Environmental Commitments
- 4-5 Sidewalk Notes
- 6 Traffic control
- 7 Pedestrian Traffic control Details
- 8 US 12 and Main St. Staging  
and Pedestrian Traffic Control
- 9 Erosion Control
- 10 Existing Topography Symbolology and Legend
- 11 Horizontal Alignment Data
- 12 Control Data
- 13 7th St. E. and 4th Ave. E./SD 1804 Curb Ramp Details
- 14 US 12 and Main St. Removals
- 15 US 12 and Main St. Curb Ramp Details
- 16 Sidewalk Removal Layout for ADA Access Ramp
- 17 General Drawing and Quantities for Access Ramp
- 18 Railing Details and Notes for Access Ramp
- 19 Ramp Details(A) for Access Ramp
- 20 Ramp Details(B) for Access Ramp
- 21 Signal Notes
- 22 Table of Conduit and Cable Quantities
- 23 Existing Signal Layout
- 24 Conduit Layout
- 25 Signal Layout
- 26 Wiring Diagram
- 27-34 Standard Plates

STORM WATER PERMIT (No Permit Required)

US 12 near 7th Ave  
Access Ramp at Last Chance

US 12 and Main Street  
ADA Curb Ramp and Button relocations



PLOT NAME - 1

FILE - ... \WALW142E TITLE.DGN

Estimate of Quantities

012-371 PCN I42E

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
110E1140	Remove Concrete Sidewalk	125.3	SqYd
110E1570	Remove Pedestrian Push Button Pole	7	Each
110E7230	Remove Pedestrian Push Button for Reset	8	Each
110E7240	Remove Pedestrian Crossing Sign for Reset	8	Each
120E0010	Unclassified Excavation	14	CuYd
462E0100	Class M6 Concrete	17.5	CuYd
470E0020	Pipe Handrail	93.0	Ft
480E0200	Epoxy Coated Reinforcing Steel	936	Lb
634E0010	Flagging	10.0	Hour
634E0110	Traffic Control Signs	205	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0265	Type 3 Barricade, 6' Double Sided	2	Each
634E0400	Type A Advance Warning Arrow Board	1	Each
634E2000	Longitudinal Pedestrian Barricade	160	Ft
634E2020	Temporary Curb Ramp	4	Each
635E5910	Pedestrian Push Button Pole	6	Each
635E5915	Pedestrian Push Button Station	1	Each
635E5916	Pedestrian Push Button Station Extension Bracket	1	Each
635E6200	Miscellaneous, Electrical	Lump Sum	LS
635E7516	Reset Pedestrian Push Button	8	Each
635E7517	Reset Pedestrian Crossing Sign	8	Each
635E8120	2" Rigid Conduit, Schedule 40	71	Ft
635E9402	2/C #12 AWG Copper Tray Cable, K2	58	Ft
635E9504	4/C #14 AWG Copper Tray Cable, K2	1,156	Ft
651E0040	4" Concrete Sidewalk	631	SqFt
651E7000	Type 1 Detectable Warnings	10	SqFt
734E0010	Erosion Control	Lump Sum	LS

1804-371 PCN I43V

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
110E1140	Remove Concrete Sidewalk	15.9	SqYd
634E0010	Flagging	10.0	Hour
634E0110	Traffic Control Signs	104	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E2020	Temporary Curb Ramp	1	Each
651E0040	4" Concrete Sidewalk	144	SqFt
651E7000	Type 1 Detectable Warnings	10	SqFt
734E0010	Erosion Control	Lump Sum	LS

SPECIFICATIONS

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

REFLECTORIZED SHEETING REQUIREMENTS FOR TEMPORARY TRAFFIC CONTROL DEVICES

Delete the first paragraph of Section 984.1 and replace with the following:

Temporary traffic control devices, including signs, drums, cones, tubular markers, barricades, vertical panels, and direction indicator barricades shall be reflectORIZED with sheeting applied to a satisfactory backing. For all temporary traffic control warning signs, the reflective sheeting shall meet or exceed the standards of Type VII, Type VIII, Type IX, or Type XI as defined by AASHTO M 268 (ASTM D4956). For all other temporary traffic control signs, the reflective sheeting shall meet or exceed the standards of Type IV, Type V, Type VII, Type VIII, Type IX, or Type XI as defined by AASHTO M 268 (ASTM D4956). For barricades, vertical panels, and direction indicator barricades; the reflective sheeting shall meet or exceed the standards of Type III as defined by AASHTO M 268 (ASTM D4956). Round surfaced temporary traffic control devices including, but not limited to; drums, cones, and tubular markers shall be reflectORIZED with reflectORIZED sheeting meeting or exceeding the standards of Type IV as defined by AASHTO M 268 (ASTM D4956). All orange colored material shall be fluorescent.

**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 B: FEDERALLY THREATENED, ENDANGERED, AND PROTECTED SPECIES**

**COMMITMENT B4: BALD EAGLE**

Bald eagles are known to occur in this area.

**Action Taken/Required:**

If a nest is observed within one mile of the project site, notify the Project Engineer immediately so that he/she can consult with the Environmental Office for an appropriate course of action.

**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 Public ROW.

The waste disposal site(s) shall be managed and reclaimed in accordance with the following from the General Permit for 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 Public 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 Public 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 department designated sources and designated option material sources, stockpile sites, storage areas, and waste 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: Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas.

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 Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas 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.

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.

1804-371 PCN I43V  
CONTRACTOR FURNISHED BORROW EXCAVATION

For informational bidding purposes only, the quantity of Contractor Furnished Borrow Excavation material is approximately 2 cubic yards. The borrow material shall be used to construct the subgrade to the plan slopes for the sidewalk on SD 1804.

“Contractor Furnished Borrow Excavation” will not be measured and payment shall be incidental to the per square foot unit price for “4” Concrete Sidewalk”.

The Contractor shall provide a suitable site for Contractor Furnished Borrow Excavation material. The Contractor is responsible for obtaining all required permits and clearances for the borrow site.

Compaction shall be to the satisfaction of the Engineer.

Restoration of the borrow site shall be the responsibility of the Contractor.

012-371 PCN I42E  
UNCLASSIFIED EXCAVATION

The excess material generated from the excavation for the access ramp shall become property of the Contractor and wasted off project. The cost for removal and disposal of the waste material shall be incidental to the contract unit price per cubic yard for Unclassified Excavation.

Compaction shall be to the satisfaction of the Engineer.

ADJUST MANHOLE

All costs for adjusting manholes to the new concrete elevations shall be incidental to the per square foot unit price for “4” Concrete Sidewalk”.

4” CONCRETE SIDEWALK

1/2 inch preformed expansion joint filler shall be placed in joints between all new and old work.

Areas noted as Steepened sidewalk in the Plans shall be receive a rough broom finish perpendicular to the slope.

DETECTABLE WARNINGS

Detectable warnings shall comply with the Americans with Disabilities Act regulations.

The detectable warnings shall be installed according to the manufacturer’s installation instructions.

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

The Contractor shall furnish and install only one of the products listed in the table below.

Type 1 Detectable Warnings	
Product	Manufacturer
Detectable Warning Plate Cast Iron Plate	Neenah Foundry Company Neenah, WI 800-558-5075 <a href="http://www.neenahfoundry.com/">http://www.neenahfoundry.com/</a>
Detectable Warning Plate Cast Iron Plate	Deeter Foundry Lincoln, NE 800-234-7466 <a href="http://www.deeter.com/">http://www.deeter.com/</a>
Detectable Warning Plate Cast Iron Plate(No Coating)	East Jordan Iron Works, Inc. 301 Spring Street East Jordan, MI 49727 800-626-4653 <a href="http://www.ejiw.com">http://www.ejiw.com</a>



TABLE OF PAVEMENT, CURB AND GUTTER, AND SIDEWALK QUANTITIES

		REMOVE		INSTALL		INSTALL											
		Concrete Sidew alk		Concrete Sidew alk		Detectable Warnings											
					4"		Type 1										
Intersection	Quadrant		SqYd		SqFt		SqFt										
1804-371 PCN I43V																	
SD 1804 / 7th St. East	SE		15.9		143.4		10										
Subtotal:			15.9		143.4		10										
012-371 PCN I42E																	
US 12 / Main St	NW		18.9		170.0												
US 12 / Main St	NE		13.5		121.6												
US 12 / Main St	SE		30.8		277.2		10										
US 12 / Main St	SW		6.9		62.1												
Last Chance Access			55.2														
Subtotal:			125.3		630.9		10										
							</										

TRAFFIC CONTROL AND SEQUENCE OF OPERATIONS

The Contractor shall submit his proposed sequence of operations for the Engineer's approval at least one week prior to the preconstruction meeting. This sequence of operations shall include how vehicle traffic and also pedestrian traffic will be accommodated throughout the project.

Street crossings on the projects should be maintained as much as possible during the construction.

The Contractor shall maintain access to local businesses and residences at all times, unless arrangements are made between the Contractor and business or residence owner to provide an alternative entrance during construction.

GENERAL MAINTENANCE OF TRAFFIC

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 State, and to the satisfaction of the Engineer.

The bottom of signs on portable or temporary supports shall not be less than seven 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 3 days. If the duration is more than 3 days the signs shall be on fixed location, ground mounted, breakaway supports.

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

The Contractor shall place protective fencing to keep pedestrians out of all work areas. The cost of the fencing shall be incidental to the contract lump sum price for Traffic Control, Miscellaneous. The fence shall be in place at the end of each day's work to the satisfaction of the Engineer.

Material tracking off vehicles leaving the project, pit, and plant sites must be removed from the roadway in a manner acceptable to the Engineer. All costs associated with this work shall be incidental to the contract lump sum price for Traffic Control, Miscellaneous.

PEDESTRIAN TRAFFIC CONTROL

The existing sidewalks shall not 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 pedestrian signal heads shall be covered while the buttons for those heads are being moved. The Contractor shall phase his work so that the signals for one pedestrian crossing of US Highway 12 are active and functioning at all times during the construction.

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.

PEDESTRIAN TRAFFIC CONTROL (continued)

A smooth, continuous surface which is firm, stable, and slip resistant shall 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.

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 shall be submitted prior to the Preconstruction Meeting.

The Contractor shall notify the Engineer at least three days in advance of any planned sidewalk closure or changes in closures to allow notice to be given to the traveling Public of the closure and alternate routes.

160 ft. of Longitudinal Pedestrian Barricade is included in the Plans for use by the Contractor to close sections of the sidewalk to pedestrians during active 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.

LONGITUDINAL PEDESTRIAN BARRICADE

Longitudinal Pedestrian Barricades should not be used to provide positive protection for pedestrians.

Barricade rail supports may not project into pedestrian routes more than 4 inches from the face of the barricade. To prevent any tripping hazard to pedestrians, ballast shall be located behind or internal to the device.

When Longitudinal Pedestrian Barricades are combined in a series, the maximum gap between devices that do not interlock shall be one inch. Joints between devices that do interlock shall be closed and flush to prevent canes or small wheels from being trapped and to facilitate safe hand trailing. When used as a sidewalk closure mechanism, Longitudinal Pedestrian Barricade must run the entire width of the sidewalk. Longitudinal Pedestrian Barricade should provide a color contrasting pattern. Black should not be used to color any base on a device. The devices should comply with the general color and stripe pattern requirements of Section 6F.68 of the MUTCD.

Longitudinal Pedestrian Barricade shall have continuous bottom and top surfaces. A gap height or opening from the walkway surface up to a maximum of 2 inches is allowed for drainage purposes. The top edge of the bottom portion shall be a minimum of 8 inches above the walkway. The top of the top portion shall be between 34 and 38 inches above the walkway. The top surface shall be smooth to allow safe hand trailing. Both upper and lower surfaces shall share a common vertical plane. All costs shall be incidental to the contract unit price per foot for LONGITUDINAL PEDESTRIAN BARRICADE.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	012-371 and 1804-371	6	34

TEMPORARY CURB RAMP

Temporary Curb Ramps should be firm, stable, and have a non-slip surface. They shall not warp or buckle, and should be made of materials strong enough to support a weight of 800 pounds. Temporary Curb Ramps shall also be color contrasting and contain marked edges so they are noticeable by pedestrians who have visual impairments. Lateral joints or gaps between surfaces shall be a maximum of 0.5 inches in width. Temporary Curb Ramps shall include detectable warning panels.

Temporary Curb Ramps shall be the full width of the temporary pedestrian access route, with a recommended width of 60” and a minimum width of 48”. Temporary Curb Ramps shall have a maximum slope of 1:12, and have free draining surfaces with a maximum cross slope of 2 percent. Handrails on Temporary Curb Ramps are not required unless the curb ramp has a rise exceeding 6” and a length exceeding 72”.

All costs shall be incidental to the contract unit price per each for TEMPORARY CURB RAMP.

TABLE OF TRAFFIC CONTROL SIGNS

012-371 PCN I42E

		CONVENTIONAL ROAD			
SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R3-7R	RIGHT LANE MUST TURN RIGHT	1	30" x 30"	6	6
R9-8	PEDESTRIAN CROSSWALK	2	36" x 18"	5	10
R9-9	SIDEWALK CLOSED	8	24" x 12"	2	16
R9-10	SIDEWALK CLOSED w ith ARROW (L or R) USE OTHER SIDE	2	24" x 12"	2	4
R9-11	SIDEWALK CLOSED AHEAD w ith ARROW (L or R) CROSS HERE	2	24" x 18"	3	6
R9-11a	SIDEWALK CLOSED w ith ARROW (L or R) CROSS HERE	2	24" x 12"	2	4
W11-2	PEDESTRIAN (symbol)	2	36" x 36"	9	18
W16-7P	DOWNWARD DIAGONAL ARROW (plaque)	2	24" x 12"	2	4
W16-9P	AHEAD (plaque)	2	30" x 18"	4	8
W20-1	ROAD WORK AHEAD	10	36" x 36"	9	90
W9-2	LANE ENDS MERGE LEFT	1	30" x 30"	6	6
W21-5	SHOULDER WORK	2	36" x 36"	9	18
G20-2	END ROAD WORK	3	36" x 18"	5	15
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			
		205			

TYPE 3 BARRICADES

ITEM DESCRIPTION	QUANTITY
Type 3 Barricade, 6' Double Sided	2 Each

ARROW BOARDS

ITEM DESCRIPTION	QUANTITY
Type A Arrow Board	1 Each

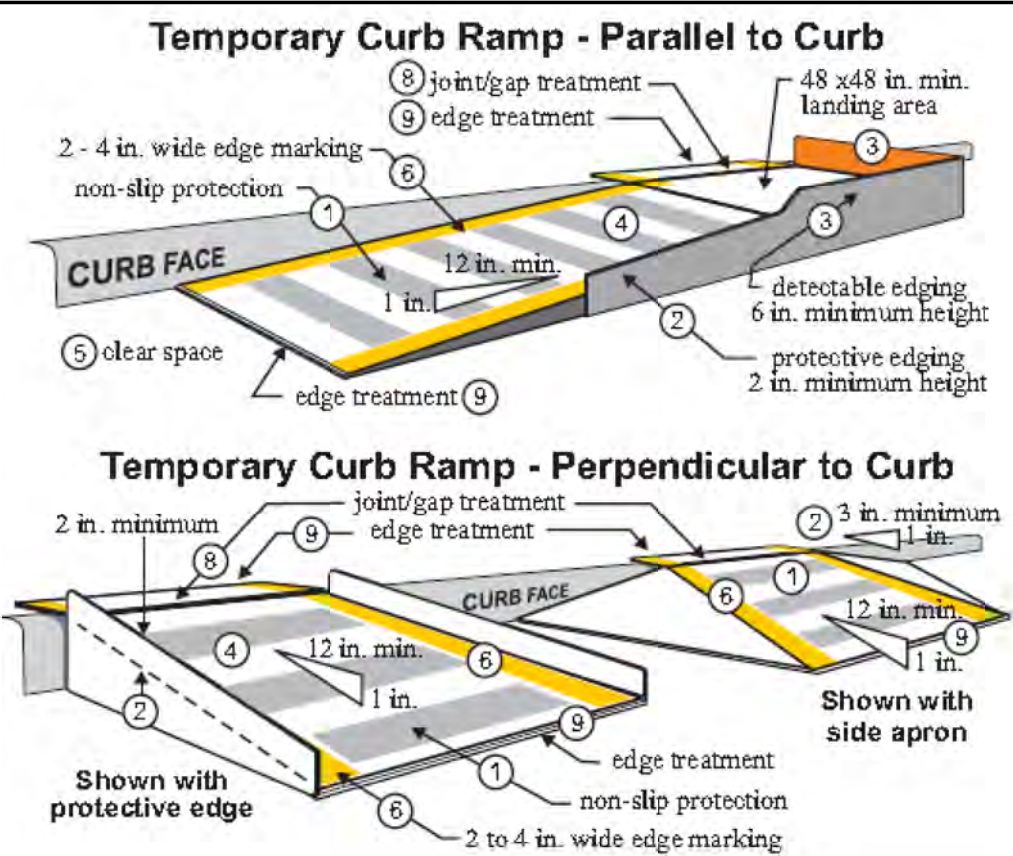
1804-371 PCN I43V

		CONVENTIONAL ROAD			
SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R9-8	PEDESTRIAN CROSSWALK	2	36" x 18"	5	10
R9-9	SIDEWALK CLOSED	2	24" x 12"	2	4
R9-10	SIDEWALK CLOSED w ith ARROW (L or R) USE OTHER SIDE	2	24" x 12"	2	4
R9-11	SIDEWALK CLOSED AHEAD w ith ARROW (L or R) CROSS HERE	2	24" x 18"	3	6
R9-11a	SIDEWALK CLOSED w ith ARROW (L or R) CROSS HERE	2	24" x 12"	2	4
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W16-9P	AHEAD (plaque)	2	30" x 18"	4	8
W20-1	ROAD WORK AHEAD	2	36" x 36"	9	18
W21-5	SHOULDER WORK	2	36" x 36"	9	18
G20-2	END ROAD WORK	2	36" x 18"	5	10
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			
		104			



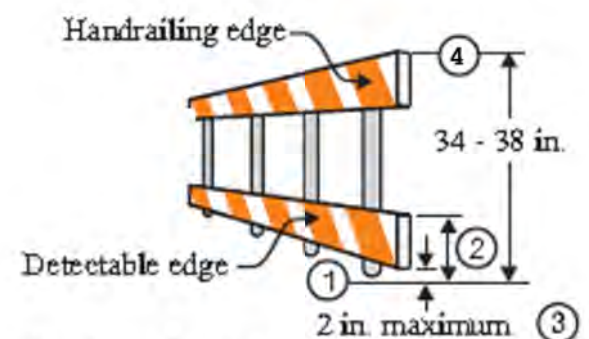
# PEDESTRIAN TRAFFIC CONTROL DETAILS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	012-371and 1804-371	7	34
Plotting Date: 04/21/2016			

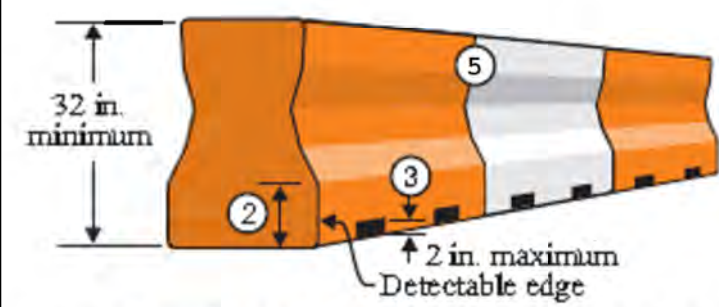


## NOTES:

1. Curb ramps shall be 48 inch minimum width with a firm, stable, and non-slip surface.
2. Protective edging with a 2 inch minimum height shall be installed when the curb ramp or landing platform has a vertical drop of 6 inches or greater or has a side apron slope steeper than 1:33 (33%). Protective edging should be considered when curb ramps or landing platforms have a vertical drop of 3 inches or more.
3. Detectable edging with 6 inches minimum height and contrasting color shall be installed on all curb ramp landings where the walkway changes direction (turns).
4. Curb ramps and landings should have a 1:50 (2%) maximum cross slope.
5. A minimum clear space of 48 inch x 48 inch minimum shall be provided above and below the curb ramp, with a 60 inch x 60 inch clear space preferred.
6. The curb ramp walkway edge shall be marked with a contrasting color 2 to 4 inch wide marking. The marking is optional where color contrasting edging is used.
7. Water flow in the gutter system shall have minimal restriction.
8. Lateral joints or gaps between surfaces shall be less than 0.5 inches in width.
9. Changes between surface heights should not exceed 0.5 inches. Lateral edges should be vertical up to 0.25 inches in height, and beveled at 1:2 between 0.25 inches and 0.5 inches in height.



## Longitudinal Pedestrian Barricade




## Longitudinal Pedestrian Barrier


## NOTES:

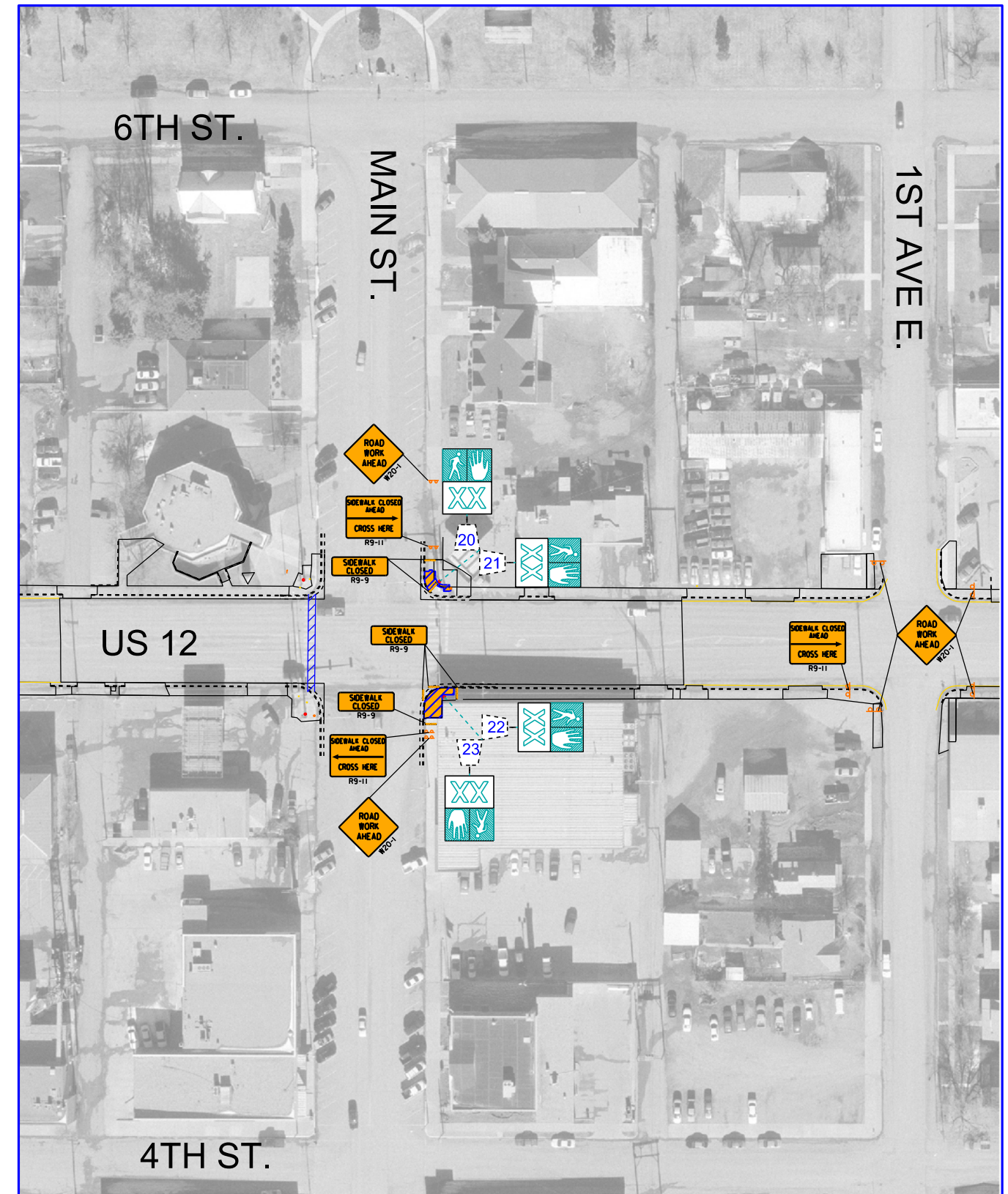
1. Barricade rail supports may not extend into the pedestrian walkway more than 4 inches from the face of the barricade.
2. The top edge of the bottom portion shall be a minimum of 8 inches above the walkway.
3. Devices shall not block water drainage from the walkway. A gap height or opening from the walkway surface up to a maximum of 2 inches in height is allowed for drainage purposes.
4. The top edge of the Longitudinal Pedestrian Barricade is to be used as a guiderail to provide visual and tactile guidance to pedestrians along a designated route. The top surface should have a minimum width of 0.5 inches to allow the hand to feel the surface. The surface should be smooth and free of any sharp or abrasive elements to allow safe hand trailing.
5. Longitudinal Pedestrian Barrier used to provide positive protection from traffic to pedestrians should be crashworthy.
6. When either device is combined in a series, the maximum gap between devices that do not interlock shall be 1 inch. Joints between devices that do interlock should be closed and flush to prevent canes or small wheels from being trapped and to facilitate safe hand trailing.



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	012-371and 1804-371	8	34

 Work space - Stage 2

 Active crossing - Stage 2





**012-371 PCN I42E and 1804-371 PCN I43V  
EROSION CONTROL**

Storm drain curb inlets shall be protected using appropriate BMPs during construction.

Anticipated Locations:

1 - 2’x3’ drop inlet near the intersection of US 12 and SD 1804 may require inlet protection.

4 - 3’x4’ drop inlets in the intersection of Main Street and US 12 may require inlet protection.

1 - 3’x4’ drop inlets at the intersection of 7<sup>th</sup> Ave W and US 12 may require inlet protection.

All costs for installing, maintaining and removing appropriate erosion and sediment control measures to control the discharge of pollutants from the construction site shall be incidental to the contract lump sum price for “Erosion Control”.

**1804-371 PCN I43V  
REMOVE AND REPLACE TOPSOIL**

Topsoil shall be salvaged and stockpiled prior to constructing the sidewalk and curb ramp. Limits of this work, depth of salvage, and stockpile location will be directed by the Engineer. Following completion of construction, topsoil shall be spread evenly over the disturbed areas.

The estimated amount of topsoil to be removed and replaced is 5 cubic yards, based on removing and replacing 6 inches of topsoil in the area indicated in the Plans.

All costs associated with removing and replacing topsoil shall be incidental to the contract lump sum price for “Erosion Control”.

**1804-371 PCN I43V  
PERMANENT SEEDING**

The areas to be seeded consist of all newly graded areas within the project limits except for the top of roadways and temporary easements under cultivation.

Type D Permanent Seed Mixture shall consist of the following:

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

The estimated amount of seed required is 2 pounds based on an area of 263 square feet as shown in the Plans.

All costs associated with seeding shall be incidental to the contract lump sum price for “Erosion Control”.

**1804-371 PCN I43V  
MYCORRHIZAL INOCULUM**

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

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

All seed shall be inoculated by the seed supplier with a minimum of 20,000 live propagules of mycorrhizal fungi per 1,000 square feet or prior to seeding, apply a minimum of 25,000 live propagules of inoculum per 1,000 square feet on bare soil.

All costs of inoculating shall be incidental to the contract lump sum price for “Erosion Control”.

**1804-371 PCN I43V  
FERTILIZING**

A commercial fertilizer with a minimum guaranteed analysis of 13-13-13, 18-46-0, 11-52-0, or an approved alternate fertilizer sold for use as a lawn starter fertilizer shall be applied to all areas designated for permanent seeding. The application rate of fertilizer shall be 3 pounds per 1000 square feet.

The estimated amount of fertilizer required is 1 pound based on an area of 263 square feet as shown in the Plans.

All costs associated with Fertilizing shall be incidental to the contract lump sum price for “Erosion Control”.

**1804-371 PCN I43V  
SOIL STABILIZER**

Soil stabilizer shall be applied on seeded areas and areas deemed necessary by the Engineer. An estimated 263 square feet of soil stabilizer will be required for this project.

The Contractor shall apply soil stabilizer according to the manufacturer's application instructions and at the rate specified in the list of approved soil stabilizers.

All costs for furnishing and applying the soil stabilizer materials, equipment, labor, and incidentals necessary shall be incidental to the contract lump sum price for “Erosion Control”.

The soil stabilizer shall be as shown below or an approved equal:

<u>Product</u>	<u>Manufacturer</u>
Pam-12 Plus Applied at a rate of: 50 lb / 1000 SF	ENCAP, LLC Green Bay, WI Phone: 1-877-405-5050 <a href="http://professional.encap.net/">http://professional.encap.net/</a>





























































EXISTING TOPOGRAPHY SYMBOLOGY AND LEGEND




























































STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	012-371and 1804-371	10	34

























































Plotting Date: 04/21/2016

Plot Scale - 1:200

Plotted From - Irmo1n104

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

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

Shrub Tree	
Sidewalk	
Sign Face	
Sign Post	
Slough Or Marsh	
Spring	
Stream Gauge	
Street Marker	
Subsurface Utility Exploration Test Hole	
Telephone Fiber Optics	
Telephone Junction Box	
Telephone Pole	
Television Cable Jct Box	
Television Tower	
Test Wells/Bore Holes	
Traffic Signal	
Trash Barrel	
Tree Belt	
Tree Coniferous	
Tree Deciduous	
Tree Stumps	
Triangulation Station	
Underground Electric Line	
Underground Gas Line	
Underground High Pressure Gas Line	
Underground Sanitary Sewer	
Underground Storm Sewer	
Underground Tank	
Underground Telephone Line	
Underground Television Cable	
Underground Water Line	
Warning Sign One Post	
Warning Sign Two Post	
Water Fountain	
Water Hydrant	
Water Meter	
Water Tower	
Water Valve	
Water Well	
Weir Rock	
Windmill	
Wingwall	
Witness Corner	
State and National Line	
County Line	
Section Line	
Quarter Line	
Sixteenth Line	
Property Line	
Construction Line	
R. O. W. Line	
New R. O. W. Line	
Cut and Fill Limits	
Control of Access	
New Control of Access	
Proposed ROW (After Property Disposal)	

HORIZONTAL ALIGNMENT DATA

MAINLINE – HWY 12

Type	Station			Northing	Easting
POB	0+00.00			630270.680	1850337.026
		TL= 2284.57	S 51°38'07" E		
PC	22+84.57			628852.731	1852128.302
PI	32+05.91	R = 1960.00	Delta = 50°21'15" R	628280.884	1852850.709
PT	40+07.10			627359.768	1852871.311
		TL= 3849.82	S 1°16'53" E		
PC	78+56.93			623510.908	1852957.396
PI	81+64.45	R = 954.93	Delta = 35°42'03" L	623203.464	1852964.272
PT	84+51.94			622957.809	1853149.266
		TL= 739.02	S 36°58'55" E		
PC	91+90.96			622367.461	1853593.834
PI	94+01.91	R = 3000.00	Delta = 8°02'41" L	622198.945	1853720.737
PT	96+12.18			622049.846	1853869.974
		TL= 236.66	S 45°01'36" E		
PC	98+48.83			621882.584	1854037.392
PI	102+60.30	R = 1000.00	Delta = 44°43'53" L	621591.766	1854328.481
PT	106+29.54			621590.028	1854739.947
		TL= 2536.21	S 89°45'29" E		
PI	131+65.75			621579.316	1857276.136
		TL= 1516.87	S 89°46'58" E		
PI	146+82.62			621573.566	1858792.992
		TL= 2335.40	S 89°38'00" E		
PI	170+18.02			621558.619	1861128.341
		TL= 939.67	S 89°23'28" E		
PI	179+57.69			621548.635	1862067.959
		TL= 2132.85	S 89°12'52" E		
POE	200+90.54			621519.390	1864200.608

MAINLINE – HWY 1804

Type	Station			Northing	Easting
POB	0+00.00			621573.566	1858792.992
		TL= 1615.76	N 0°03'25" W		
PI	16+15.76			623189.329	1858791.383
		TL= 538.18	N 0°03'52" W		
PI	21+53.95			623727.511	1858790.777
		TL= 2076.73	N 0°03'47" W		
PI	42+30.68			625804.242	1858788.487
		TL= 1043.16	N 0°04'14" W		
PI	52+73.84			626847.404	1858787.204
		TL= 1201.47	N 0°08'28" W		
POE	64+75.31			628048.869	1858784.247

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. North Zone (NAD 83/96) SF = 0.99989911

CONTROL DATA

HORIZONTAL AND VERTICAL CONTROL POINTS						
POINT	STATION	OFFSET	DESCRIPTION	NORTHING	EASTING	ELEVATION
FAAMBGA				624263.4234	1865024.8067	1699.87
CP 1				628391.1254	1851848.7466	
BM12-187	22+95.76	96.72' R		628770.2711	1852076.5991	
IS1	35+70.17	21.05' L		627797.0117	1852833.5539	
IS2	80+37.00	19.75'R		623328.1838	1852959.0145	
Y307	91+18.66	213.48' R		622296.7977	1853379.8071	1640.74
CP 2	18+67.17	354.63' R		621671.2480	1854272.2151	1670.96
IS3	106+92.82	53.42' R	PK Nail, 7th Ave. West	621536.3428	1854803.0004	1663.02
IS4	109+87.96	57.85' R	PK Nail, 6th Ave. West	621530.6631	1855098.1159	1665.32
ISS	113+53.09	60.84' R	PK Nail, 5th Ave. West	621526.1328	1855463.2316	1663.84
IS6	117+32.01	51.81'R	PK Nail, 4th Ave. West	621542.5004	1855830.9336	1662.88
IS?	120+85.52	40.75' R	PK Nail, 3th Ave. West	621543.0254	1856195.7447	1666.91
ISS	124+52.13	50.88' R	PK Nail, 2th Ave. West	621531.4525	1856562.3018	1663.23
IS9	128+19.05	49.20' R	PK Nail, 1st Ave. West	621531.4952	1856929.0846	1666.05
IS10	132+00.91	64.39' R	PK Nail, Main Street	621514.7968	1857311.0464	1663.27
IS11	135+81.34	51.78' R	PK Nail, 1 <sup>st</sup> Ave. East	621525.9585	1857691.5204	1659.43
IS12	139+50.71	40.57' R	PK Nail, 2nd Ave. East	621535.7741	1858060.9339	1659.02
IS13	143+15.17	39.36' R	PK Nail, 3rd Ave. East	621535.5967	1858425.3954	1658.61
IS14	146+85.25	40.78' R	PK Nail, 4th Ave. East	621532.7682	1858795.3583	1656.67
IS15	150+51.61	50.09' R	PK Nail, 5th Ave. East	621521.1115	1859161.6570	1656.55
IS16	154+03.30	52.33' R	PK Nail, 6th Ave. East	621516.6261	1859513.3241	1655.76
IS17	157+38.43	52.10' R	PK Nail, 7th Ave. East	621514.7085	1859848.4519	1660.19
IS18	160+13.23	37.40' R	PK Nail, 8th Ave. East	621527.6540	1860123.3333	1668.88
IS19	163.68.68	38.93' R	PK Nail, 9th Ave. East	621523.8415	1860478.7728	1676.72
IS20	167+36.12	49.35' R	PK Nail, 10 <sup>th</sup> Ave. East	621511.0781	1860846.1355	1677.30
IS21	170+96.06	49.75' R	PK Nail, 11 <sup>th</sup> Ave. East	621508.0453	1861205.8503	1672.85
IS22	177+19.23	44.47' R	PK Nail, 13 <sup>th</sup> Ave. East	621506.7365	1861829.0826	1669.49
IS23	184+49.64	29.66' R	PK Nail, 15 <sup>th</sup> Ave. East	621502.4768	1862562.1490	1669.91
IS24	191+86.12	32.70' R	PK Nail, 17 <sup>th</sup> Ave. East	621499.0061	1863295.8242	1677.83
IS25				621557.5297	1863928.2927	1673.41

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. North Zone (NAD 83/96) SF = 0.99989911

7 TH ST. E. AND 4TH AVE. E./ SD 1804 CURB RAMP DETAILS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	012-371and 1804-371	13	34

Plotting Date: 04/21/2016

- Temporary Easement
- Remove and Install Concrete Sidewalk
- Erosion Control (263 sf)
- \*

Turning Space with 1.5% design slope  
(2% maximum slope)

Detectable Warning

- 1

7+15.74-29.6' R  
Begin Type 2 Ramp  
Match existing elevation  
Do not disturb existing fillet concrete
- 2

7+10.74-29.6' R  
End Type 2 Ramp  
Begin Sidewalk
- 3

6+90.74-29.6' R  
End Sidewalk  
Match existing sidewalk elevation

Parcel A1  
6+85.04 to 7+05.04 R  
Temporary Easement for  
Sidewalk containing  
200 sq ft. more or less

16

15

Estimated Quantities		
ITEM	UNIT	QUANTITY
Remove Concrete Sidewalk	Sq Yd	15.9
4" Concrete Sidewalk	Sq Ft	143.4
Type 1 Detectable Warnings	Sq Ft	10
Erosion Control	LS	Lump Sum

Plot Scale - 1:10

Plotted From - trmo1n04

File - ...LADA corrections\0700 PR.dgn

## James J. Volk &amp; LuCinda K. Volk

10

① See EXISTING SIGNAL LAYOUT and CONDUIT LAYOUT sheets for electrical salvage and conduit details

 Remove Concrete Sidewalk

Great Western Bank  
Parcel A2

Lot 12, Block 41, Grand Crossing  
Addition to the City of Moberg

12

$$131 + 26.24 = 157.24$$

131+51.24 - 50'

– DO NOT DISTURB FIRE HYDRANT

131+00

132+00

133+00

[illegible]

Merkel Brothers, LLC  
Lot 18, Block 21, Milwaukee Land Company's  
First Addition to the City of Mobridge

### TABLE OF REMOVE CONCRETE SIDEWALK

Station to	Station	L/R	Quantity (SqYd)
131+31.9	131+56.4	L	18.9
132+38.0	132+55.7	L	13.5
132+38.1	132+59.2	R	30.8
131+44.9	131+61.4	R	6.9
		Total:	70.1

Kramer, Inc.

Lot 1, Block 22, Milwaukee Land Company's  
First Addition to the City of Mobridge

Plot Scale - 1:20

Plotted From - trmo1nt04



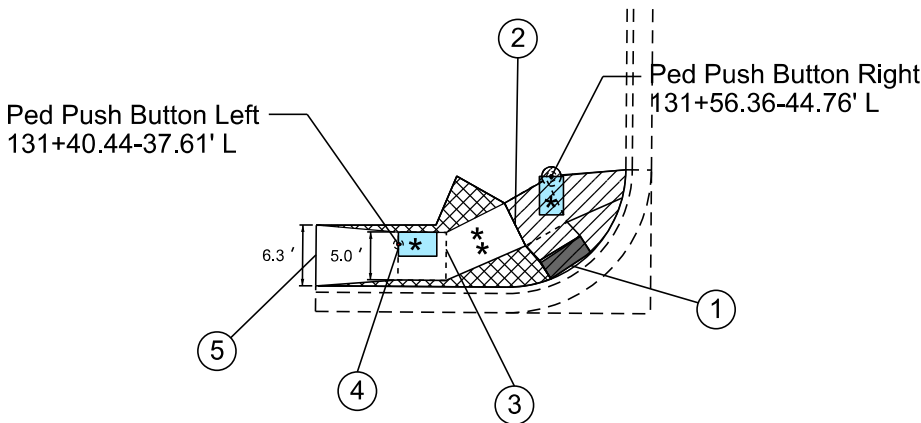
US 12 AND MAIN ST. CURB RAMP DETAILS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	012-371and 1804-371	15	34

Plotting Date: 04/21/2016

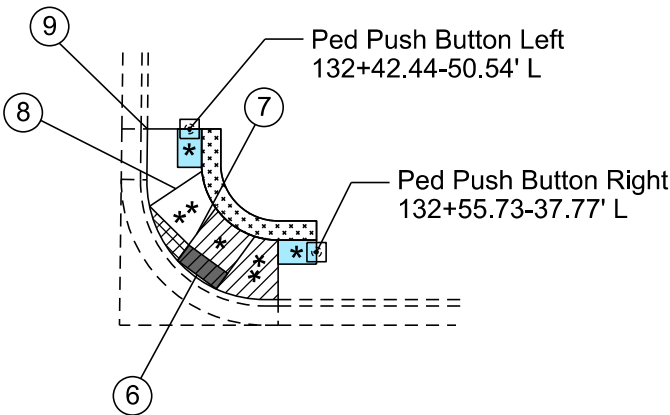
- 1 131+58.45-35.47' L  
Retain Type 1M Ramp
- 2 131+52.60-39.74' L  
Begin Ramp Slope  
EI Match Existing
- 3 131+45.43-37.11' L  
End Ramp Slope  
Begin Turning Space
- 4 131+40.44-37.11' L  
End Turning Space  
Begin Sidewalk
- 5 131+31.83-36.49' L  
End Sidewalk  
EI Match Existing

- Sidewalk to remain in place
- Steepened sidewalk area 10% max.
- Sidewalk area for tie-in to existing slopes variable

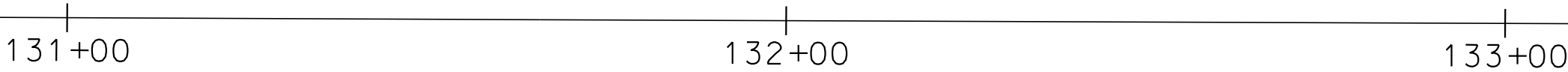


- 6 132+43.27-35.35' L  
Retain Type 3 Ramp
- 7 132+43.21-39.58' L  
Begin Ramp Slope

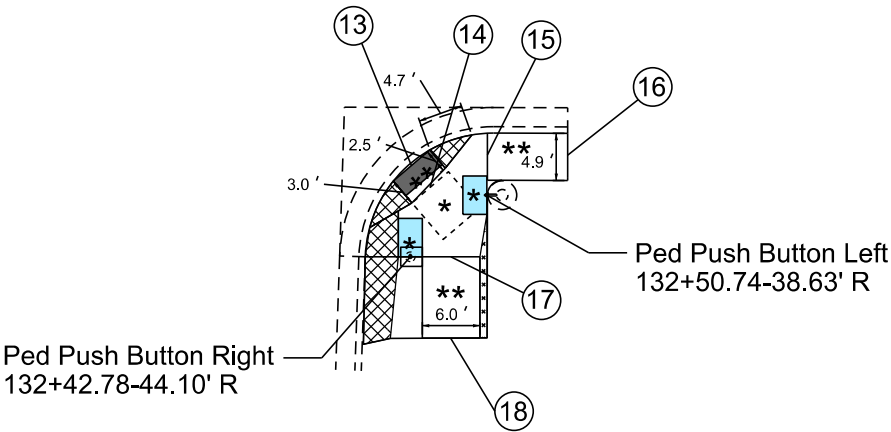
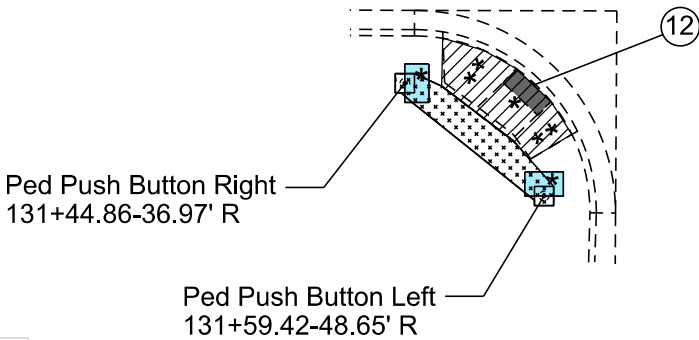
- Turning Space with 1.5% design slope (2% maximum slope)
- Curb ramp with 8.3% maximum slope and 1.5% cross slope
- Detectable Warning



- Push Button clear ground space (48" x 30" min.)
- 8 132+41.02-44.31' L  
End Ramp Slope  
Begin Turning Space
- 9 132+35.39-50.52' L  
End Turning Space  
EI Match Existing



- 12 131+58.29-37.10' R  
Retain Type 3 Ramp



- 13 132+42.87-35.58' R  
Begin Type 1M Ramp  
8.0% slope
- 14 132+44.83-37.84' R  
End Ramp Slope  
Begin Turning Space
- 15 132+50.78-34.44' R  
End Turning Space  
Begin Ramp Slope
- 16 132+59.15-34.44' R  
End Ramp Slope  
EI Match Existing
- 17 132+47.01-45.08' R  
End Turning Space  
Begin Ramp Slope 4.5%
- 18 132+47.02-53.53' R  
End Ramp Slope  
EI Match Existing

TABLE OF 4" CONCRETE SIDEWALK			
Station to	Station	L/R	Quantity (SqFt)
131+31.9	131+56.4	L	170.0
132+38.0	132+55.7	L	121.6
132+38.1	132+59.2	R	277.2
131+44.9	131+61.4	R	62.1
Total:			630.9

Plot Scale - 1:20

Plotted From - tmo1n04

# SIDEWALK REMOVAL LAYOUT FOR ADA ACCESS RAMP

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	012-371and 1804-371	16	34

Plotting Date: 04/21/2016

Remove Concrete Sidewalk and Install ADA Access ramp

Temporary Easement

Parcel A3  
107+41.33 to 107+95.20 L  
Temporary Easement for  
Access Ramp containing  
563.6 sq ft. more or less

Bruce Rinehart &  
Marcia Rinehart

Parcel A3  
Lot 6, Block 41, Northwest  
Townsite Company's  
Third Addition to the  
City of Mobridge

107+51.39 - 39.0'L to 50.05'L  
to 107+68.43 - 39.0'L to 50.05'L  
Take Out Concrete Sidewalk

107+68.43 - 39.0'L to 50.66'L  
to 107+95.13 - 39.0'L to 50.66'L  
Take Out Concrete Sidewalk

66'  
7 TH AVE.

20'

106+00

107+00

108+00

7 TH AVE.

Estimated Quantities		
ITEM	UNIT	QUANTITY
Remove Concrete Sidewalk	SqYd	55.2
Unclassified Excavation	CuYd	14

Plot Scale - 1:20

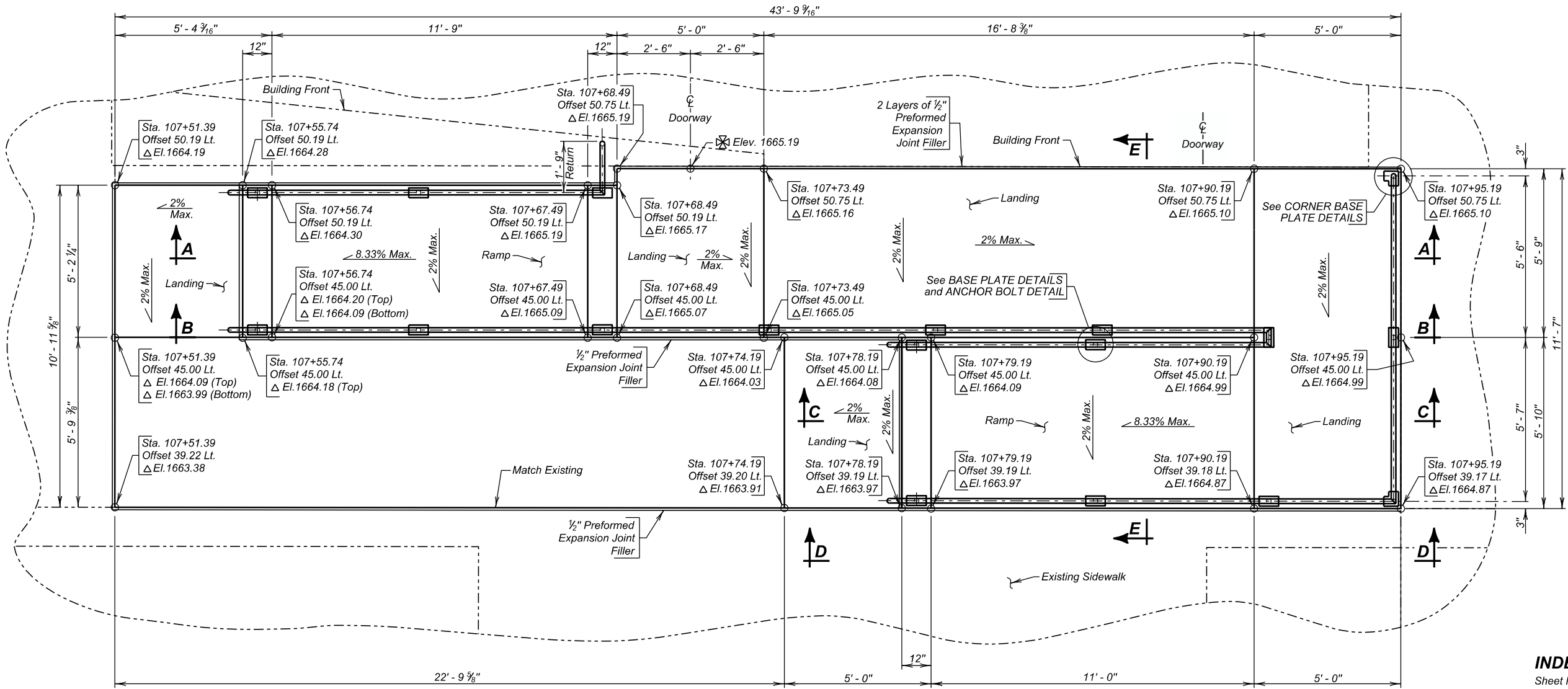
Plotted From - lrmoin04

File - ...ADA corrections10700 PR.dgn

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

See GENERAL NOTES on RAILING DETAILS AND NOTES sheet.

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	012-371 and 1804-371	17	34



PLAN

INDEX OF SHEETS-

Sheet No. 1 - General Drawing and Quantities  
Sheet No. 2 - Railing Details and Notes  
Sheet No. 3 - Ramp Details (A)  
Sheet No. 4 - Ramp Details (B)

ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY
Class M6 Concrete	Cu. Yd.	17.5
Epoxy Coated Reinforcing Steel	Lb.	936
Pipe Handrail	Ft.	93

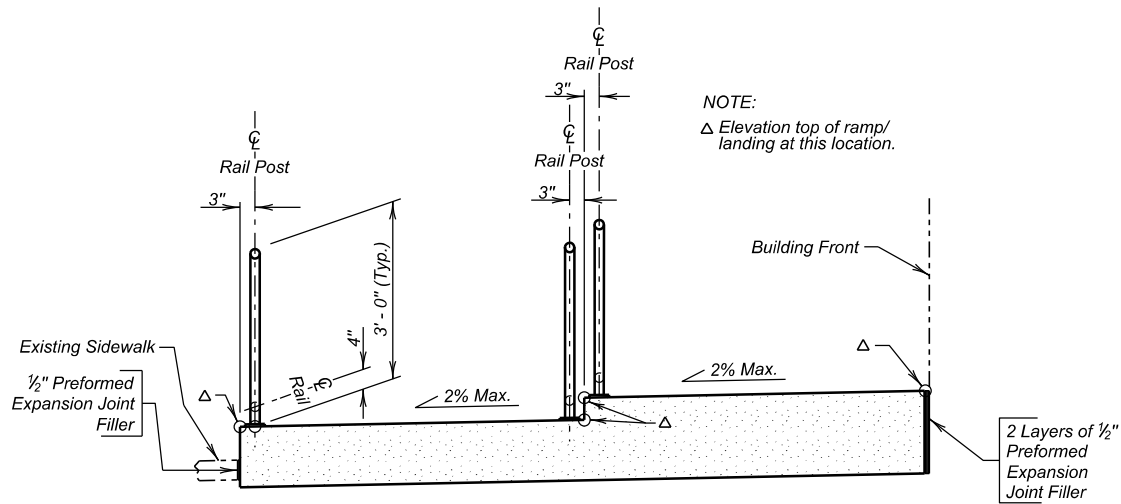
GENERAL DRAWING AND QUANTITIES

FOR  
ACCESS RAMP

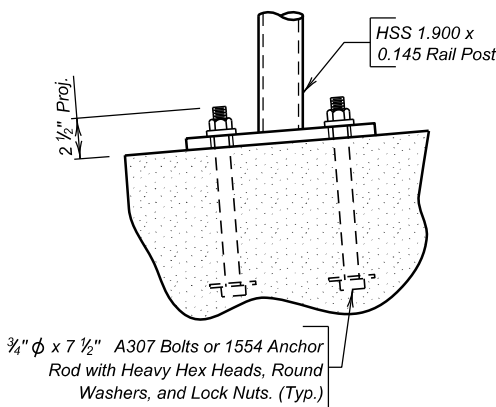
IN MOBRIDGE SEC. 19-T124N-R79W  
STA. 107+51.39 TO STA. 107+95.19 - LT.  
PCN I42E

WALWORTH COUNTY  
S. D. DEPT. OF TRANSPORTATION  
AUGUST 2015

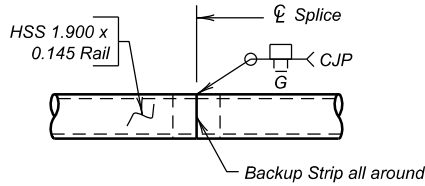
1 OF 4



SEC. E - E  
(Resteel not shown)



ANCHOR BOLT DETAIL



RAIL SPLICE DETAILS

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

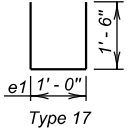
DESIGNED BY BT WLTHI42E	CK. DES. BY JSM I42ETA01	DRAFTED BY BT Kevin N. Goeden BRIDGE ENGINEER
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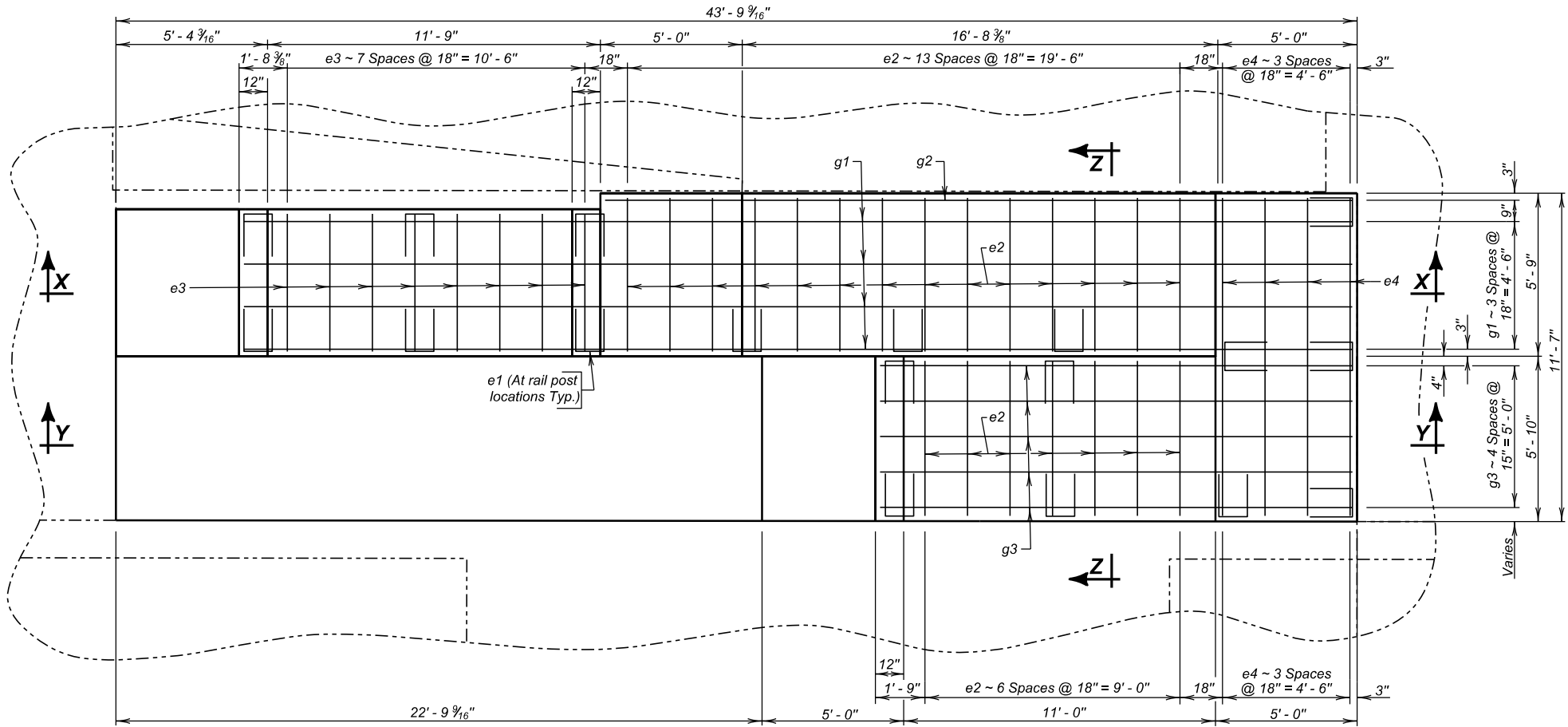
STATE OF	PROJECT 012-371 and 1804-371	SHEET NO.	TOTAL SHEETS
		19	34
S.D.			

REINFORCING SCHEDULE

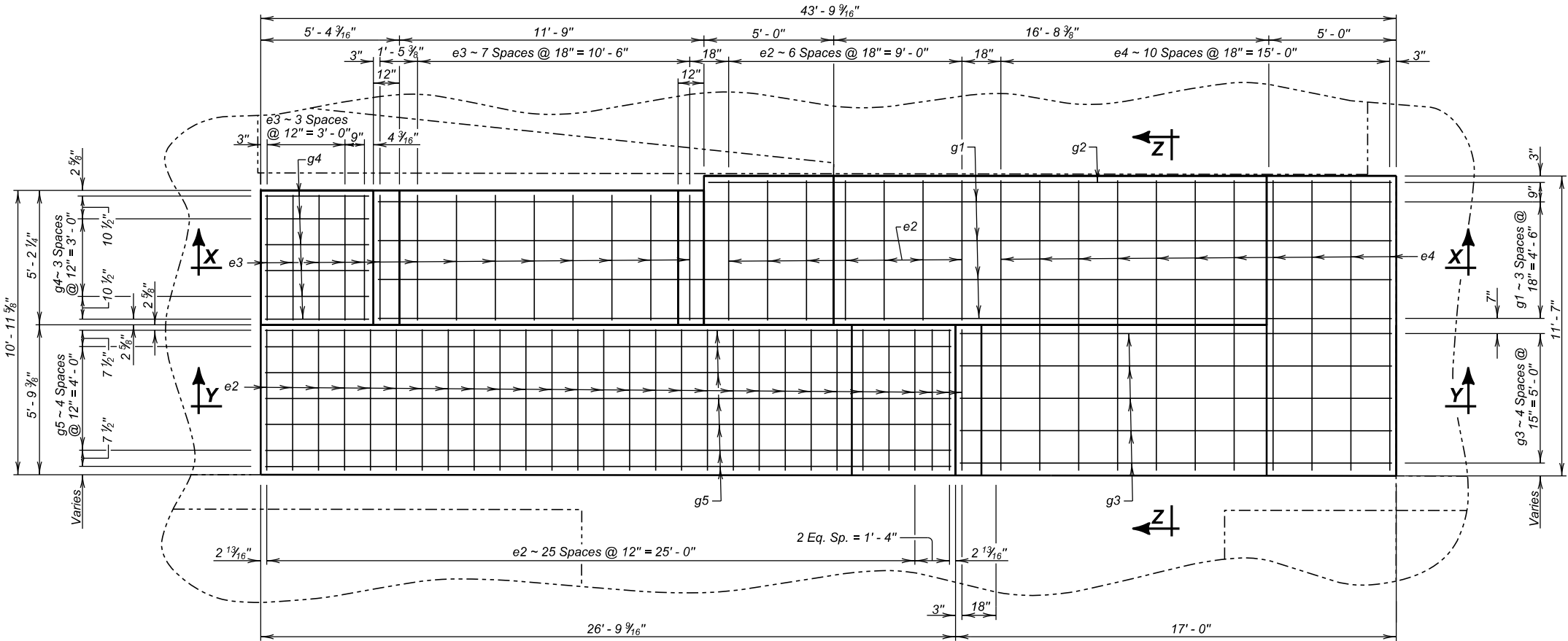
Mk.	No.	Size	Length	Type
e1	18	4	4' - 0"	17
e2	57	4	5' - 6"	Str.
e3	22	4	4' - 9"	Str.
e4	15	4	11' - 3"	Str.
g1	8	4	39' - 0"	Str.
g2	2	4	26' - 3"	Str.
g3	10	4	16' - 9"	Str.
g4	6	4	4' - 0"	Str.
g5	7	4	26' - 6"	Str.



NOTES:  
All dimensions are out to out of bars.  
\* Bend in field as necessary to fit.



PLAN - TOP STEEL



PLAN - BOTTOM STEEL

RAMP DETAILS (A)  
FOR  
ACCESS RAMP

IN MOBRIDGE SEC. 19-T124N-R79W  
STA. 107+51.39 TO STA. 107+95.19 - LT. 012-371

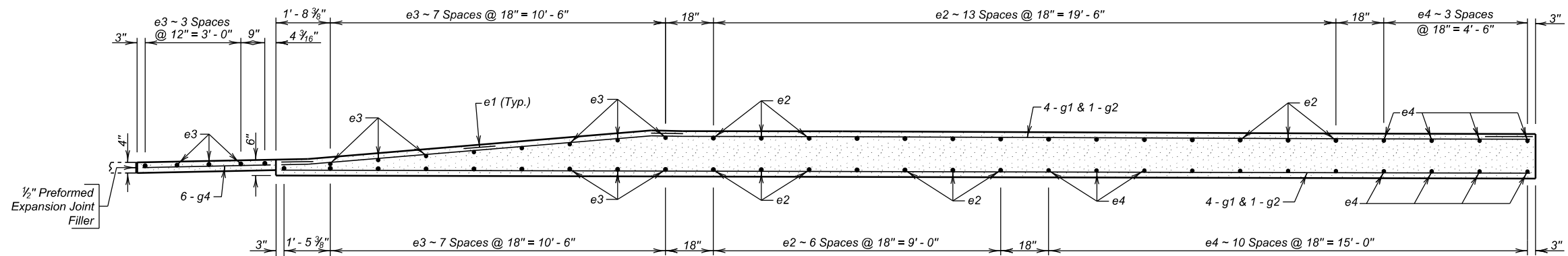
WALWORTH COUNTY  
S. D. DEPT. OF TRANSPORTATION  
AUGUST 2015

3 OF 4

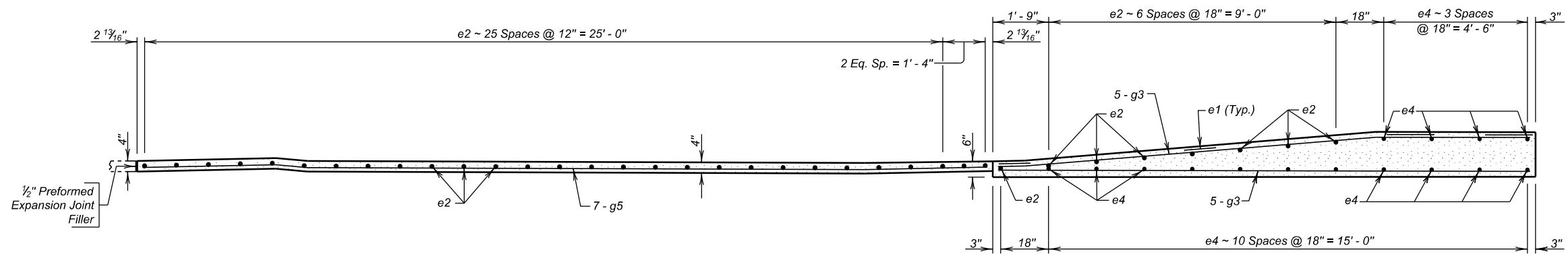
DESIGNED BY BT WLTH42E	CK. DES. BY JSM I42ETA03	DRAFTED BY BT Kevin N. Boeden BRIDGE ENGINEER
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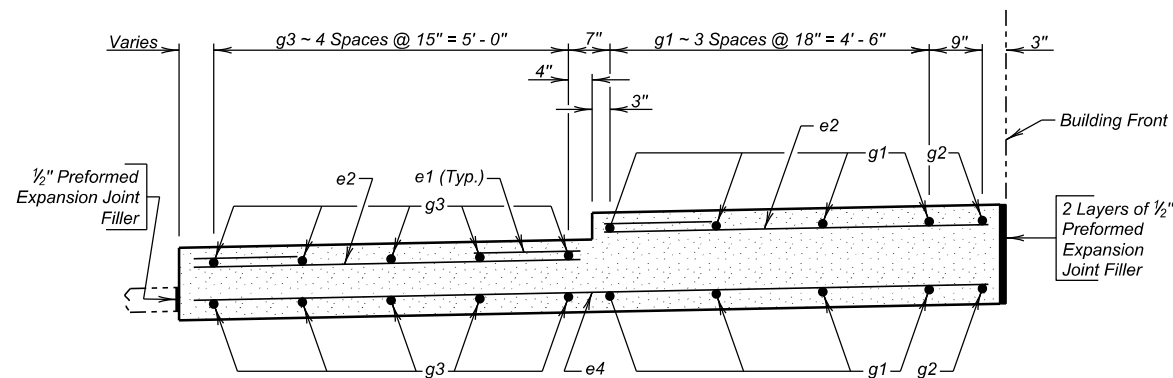
STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	012-371 and 1804-371	20	34



**SEC. X - X**  
(Railing not Shown)



**SEC. Y - Y**  
(Railing not Shown)



**SEC. Z - Z**  
(Railing not Shown)

**RAMP DETAILS (B)**  
FOR  
**ACCESS RAMP**

IN MOBRIDGE  
STA. 107+51.39 TO  
STA. 107+95.19 - LT.

SEC. 19-T124N-R79W  
012-371

WALWORTH COUNTY  
S. D. DEPT. OF TRANSPORTATION  
AUGUST 2015

4 OF 4

DESIGNED BY BT WLTH142E	CK. DES. BY JSM 142ETA04	DRAFTED BY BT	Kevin N. Boeden BRIDGE ENGINEER
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012-371 PCN I42E

Item	Unit	Quantity
Remove Pedestrian Push Button Pole	Each	7
Remove Pedestrian Push Button for Reset	Each	8
Remove Pedestrian Crossing Sign for Reset	Each	8
Pedestrian Push Button Pole	Each	6
Pedestrian Push Button Station	Each	1
Pedestrian Push Button Station Extension Bracket	Each	1
Miscellaneous, Electrical	LS	1
Reset Pedestrian Push Button	Each	8
Reset Pedestrian Crossing Sign	Each	8
2" Rigid Conduit, Schedule 40	Ft	71
2/C #14 AWG Copper Tray Cable, K2	Ft	58
4/C #14 AWG Copper Tray Cable, K2	Ft	1,156

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 SUBMITTALS

The Contractor shall submit shop drawings and catalog cuts in accordance with Section 985 of the Specifications.

Adobe PDF submittals shall be sent to the following email addresses:

John.Less@state.sd.us  
Pete.Longman@state.sd.us

REMOVE PEDESTRIAN PUSH BUTTON POLE

The Contractor shall remove existing push button poles EPB1 and EPB3-EPB8, as shown in the Plan sheet, including the concrete footing.

The Contractor shall pull back all existing cable for the push buttons to the controller, and remove and dispose of the cable.

All costs for labor and equipment necessary for the removal and disposal of the poles shall be incidental to the contract unit price per each for "Remove Pedestrian Push Button Pole".

REMOVE PEDESTRIAN PUSH BUTTON FOR RESET

Existing Push buttons EPB1-EPB8 shall be removed for reset as PB1-PB8 as shown on the plan sheets.

Push Buttons damaged during removal shall be repaired or replaced by the Contractor at no cost to the State.

All costs involved with removing the existing Pedestrian Push Buttons and storing until resetting shall be incidental to the contract unit price per each for "Remove Pedestrian Button for Reset".

REMOVE PEDESTRIAN CROSSING SIGN FOR RESET

Existing Pedestrian Crossing signs from button locations EPB1-EPB8 shall be removed for reset as PB1-PB8 as shown on the plan sheets.

Pedestrian Crossing Signs damaged during removal shall be repaired or replaced by the Contractor at no cost to the State.

All costs involved with removing the existing Pedestrian Push Buttons and storing until resetting shall be incidental to the contract unit price per each for "Remove Pedestrian Crossing Sign for Reset".

PEDESTRIAN PUSH BUTTON POLE

Pedestrian push button poles shall be one of the following types, or an approved equal:

Product  
Crosswalk Pedestal  
CP6ACT4840TCSS

Ped Poles  
SP-3022-NY-SP0001

Manufacturer  
Frey Manufacturing Corp.  
Norwood, MN 55368-9675  
Phone: 1-952-467-4402  
www.freymfgcorp.com

Pelco Products, Inc  
Edmond, OK 73013  
Phone: 1-405-340-3434  
www.pelcoinc.com

RESET PEDESTRIAN PUSH BUTTON

The Contractor shall install the salvaged pedestrian push buttons at locations PB1-PB8 as shown on the plan sheets.

The necessary interface card for converting the push buttons LED indications to latching mode shall be installed in the controller cabinet, along with all necessary wiring to the individual push buttons. The interface card shall be compatible with the existing Campbell 4 Ever 120 pedestrian push buttons. All costs associated with the installation of the interface card shall be incidental to the contract unit price per each for "Reset Pedestrian Push Button".

All costs for materials, equipment and labor necessary to remount the salvaged Pedestrian Push Buttons shall be incidental to the contract unit price per each for "Reset Pedestrian Push Button".

RESET PEDESTRIAN CROSSING SIGN

The Contractor shall install the salvaged pedestrian crossing signs at locations PB1-PB8 as shown on the plan sheets.

Signs shall be installed according to SDDOT Specification Section 632.

All costs for materials, equipment and labor necessary to remount the salvaged crossing signs shall be incidental to the contract unit price per each for "Reset Pedestrian Crossing Sign".

PEDESTRIAN PUSH BUTTON STATION  
PEDESTRIAN PUSH BUTTON STATION EXTENSION

The Contractor shall furnish a Pedestrian Push Button Station and a Pedestrian Push Button Station Extension Bracket from the same manufacturer in the same yellow color.

The furnished extension bracket shall provide a minimum offset from the signal pole face to the surface of the push button of 12 inches.

The Contractor shall install the salvaged pedestrian push button and crossing sign along with the furnished Pedestrian Push Button Station and extension bracket on the existing signal post in the SE quadrant of the intersection labeled PB5.

The Contractor shall mount the pedestrian push button station and extension bracket on the existing signal pole, the wiring for the push button routed through the existing hole, and the bracket bolted or banded to the signal post.

The Push Button Station and Extension shall be as shown below or an approved equal:

Product  
Modular Pedestrian Station  
(MPS)

Manufacturer  
Campbell Company Sales  
450 W. McGregor Dr.  
Boise, ID 83705  
http://www.pedsafety.com/



1:40  
Plot Scale -  
1:40  
Plotted From -

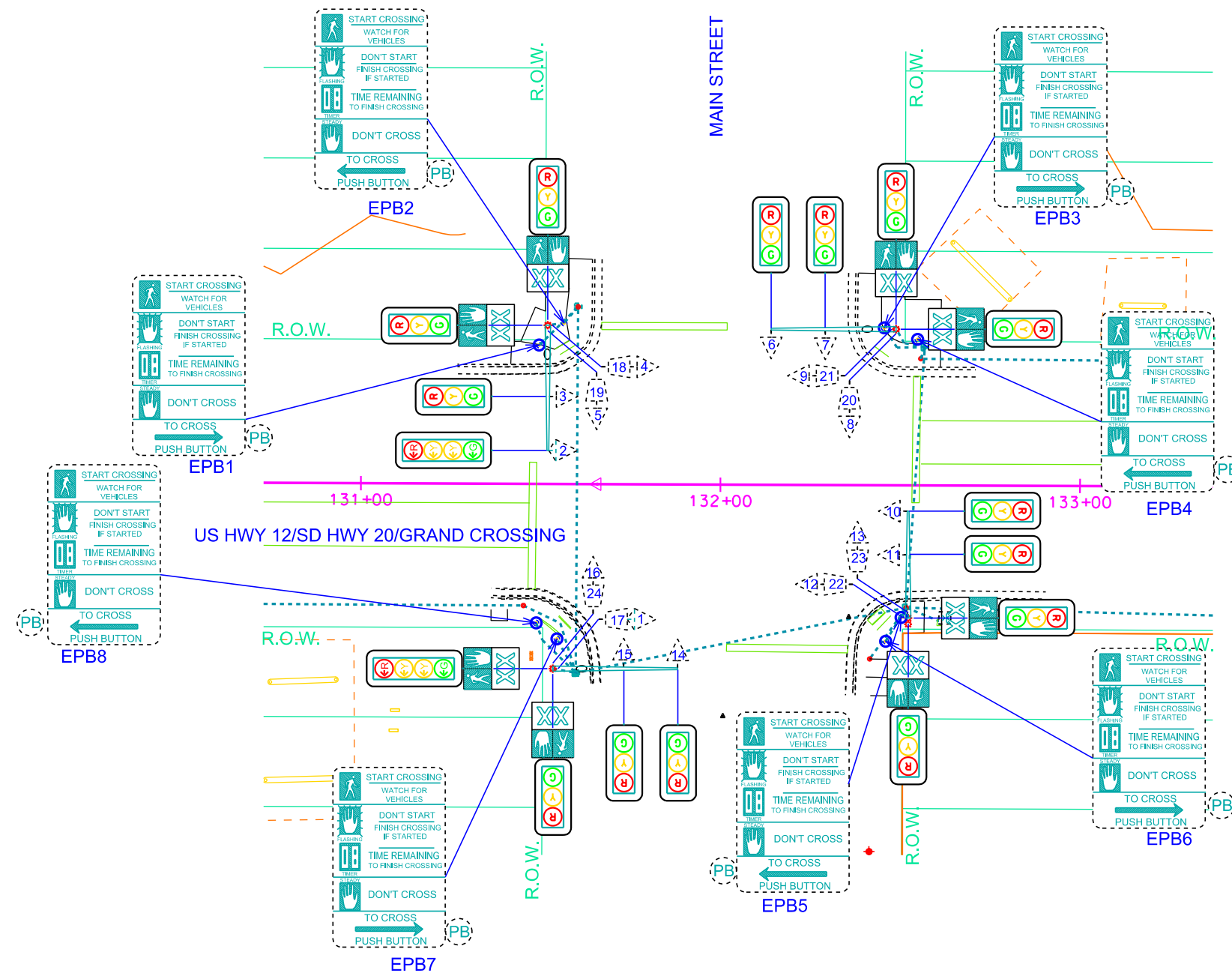
# EXISTING SIGNAL LAYOUT

## US HWY 12/SD HWY 20/GRAND CROSSING & MAIN STREET

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	012-371and 1804-371	23	34

Plotting Date: 04/21/2016

SCALE  
1" = 40'



ESTIMATE OF QUANTITIES			
KEY	ITEM	EST QUANT	UNIT
⊙	Remove Pedestrian Push Button Pole (EPB1, EPB3-EPB8)	7	EACH
⊙PB	Remove Pedestrian Push Button for Reset (EPB1-EPB8)	8	EACH
	Remove Pedestrian Crossing Sign for Reset (EPB1-EPB8) (PEDESTRIAN CROSSING SIGN R10-3e (LEFT-4/RIGHT-4))	8	EACH

Plot Scale - 1"=40'

Plotted From - lrm01n04

# CONDUIT LAYOUT

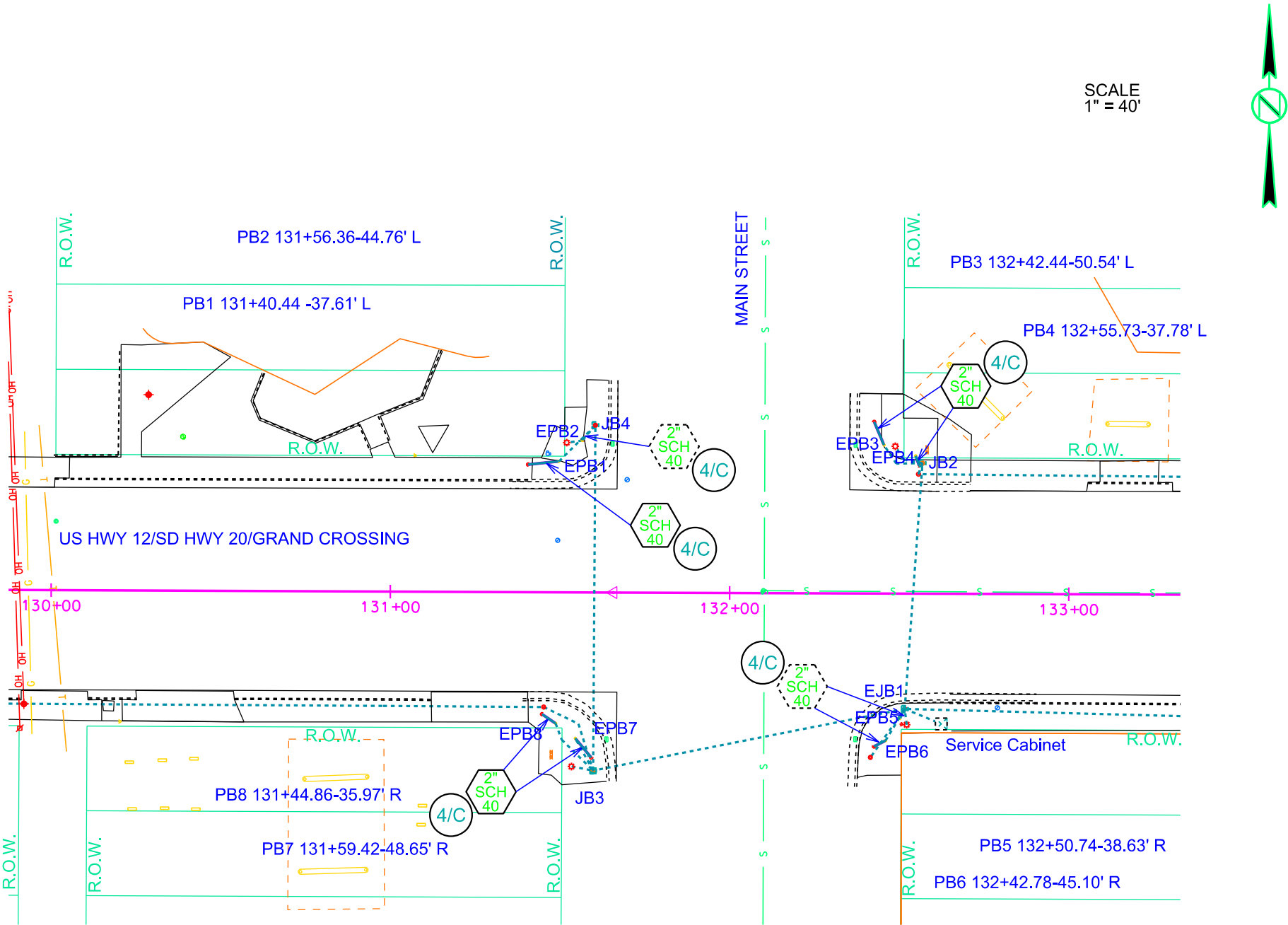
## US HWY 12/SD HWY 20/GRAND CROSSING & MAIN STREET

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	012-371and 1804-371	24	34

Plotting Date: 04/21/2016

EXISTING ITEMS	
KEY	ITEM
	SIGNAL POLE (EB1-EB4)
	JUNCTION BOX (JB1-JB4,EJB1-EJB7)
	DETECTOR LOOP (D5-D8,E1,E2,N3-N6,S3-S6,W1,W2)
	2" RIGID CONDUIT, SCHEDULE 40
	3" RIGID CONDUIT, SCHEDULE 40
	4" RIGID CONDUIT, SCHEDULE 40
	2" RIGID CONDUIT, SCHEDULE 80
	3" RIGID CONDUIT, SCHEDULE 80
	TRAFFIC SIGNAL CONTROLLER
	1/C #4 AWG COPPER WIRE
	1/C #6 AWG COPPER WIRE
	2/C #14 AWG COPPER TRAY CABLE, K2
	4/C #14 AWG COPPER TRAY CABLE, K2
	5/C #14 AWG COPPER TRAY CABLE, K2
	12/C #14 AWG COPPER TRAY CABLE, K2
	19/C #14 AWG COPPER TRAY CABLE, K2
	#16 AWG COPPER TWISTED SHIELDED PAIR

ESTIMATE OF QUANTITIES			
KEY	ITEM	EST QUANT	UNIT
	2/C #14 AWG COPPER TRAY CABLE, K2	58	ft
	4/C #14 AWG COPPER TRAY CABLE, K2	1156	ft
	2" RIGID CONDUIT, SCHEDULE 40	71	ft





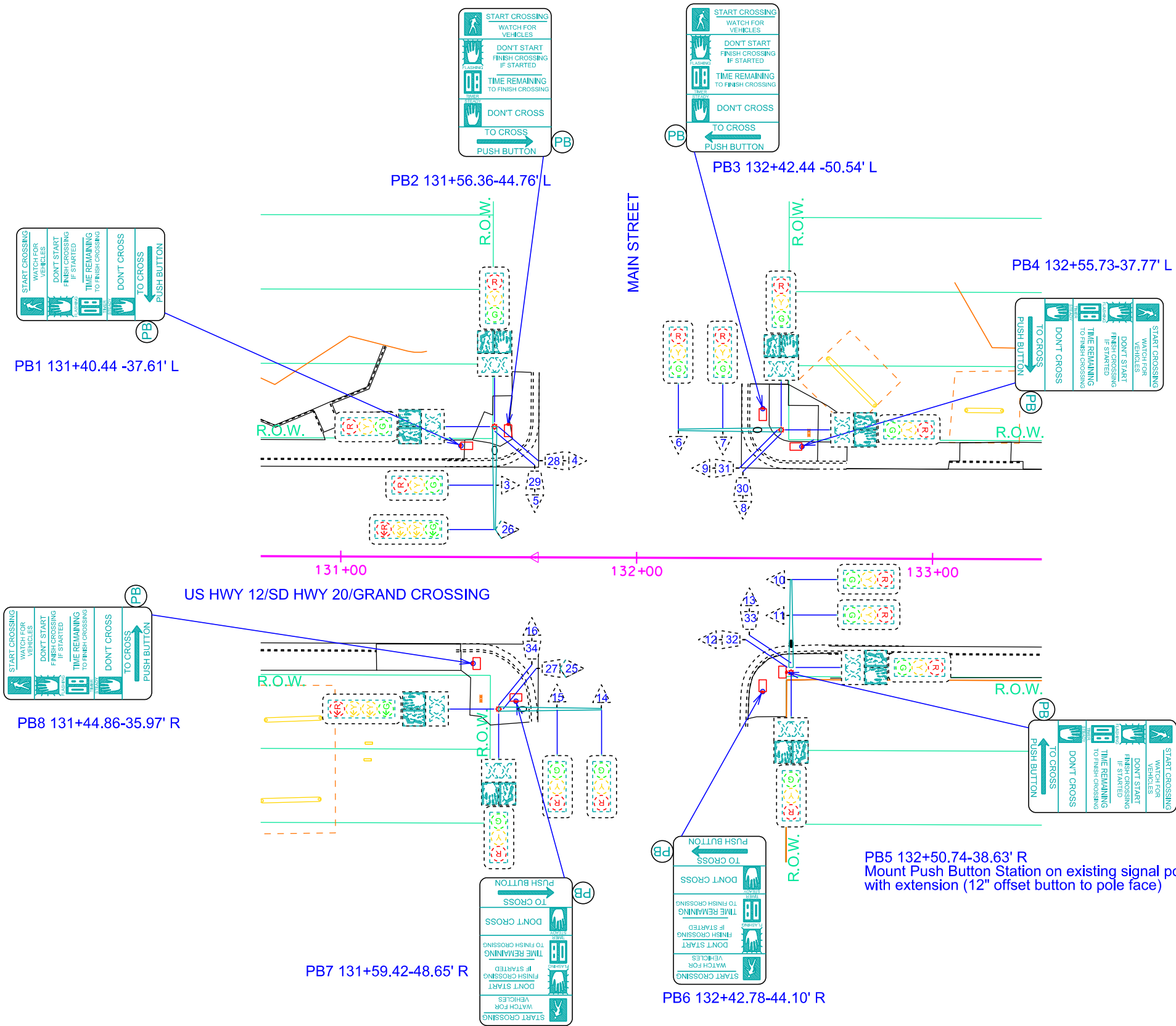
Plot Scale - 1:40  
Plotted From - lrm01n04

# SIGNAL LAYOUT

## US HWY 12/SD HWY 20/GRAND CROSSING & MAIN STREET

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	012-371and 1804-371	25	34
Plotting Date: 04/21/2016			

SCALE  
1" = 40'



EXISTING ITEMS	
KEY	ITEM
	SIGNAL POLE W/MAST ARM (EB3)
	SIGNAL POLE W/MAST ARM & LUMIN EXT 50' MT HT (EB1,EB2,EB4)
	ROADWAY LUMINAIRE, 400W WITH P.E. (EB1-EB4)
	3 SECTION VEHICLE SIGNAL HEAD (3-16)
	4 SECTION VEHICLE SIGNAL HEAD (25,26)
	PEDESTRIAN SIGNAL HEAD W/COUNTDOWN TIMER (27-34)

ESTIMATE OF QUANTITIES			
KEY	ITEM	EST QUANT	UNIT
	Pedestrian Push Button Station (PB5)	1	EACH
	Pedestrian Push Button Station Extension (PB5)	1	EACH
	Reset Pedestrian Push Button (PB1-PB4, PB6-PB8)	7	EACH
	Pedestrian Push Button Pole (PB1, PB3-PB4, PB6-PB8)	6	EACH
	Reset Pedestrian Crossing Sign (PB1-PB8) PEDESTRIAN CROSSING SIGN R10-3e (LEFT-4/RIGHT-4)	8	EACH

NOTE:  
All circuits shall be bonded in accordance  
with the NATIONAL ELECTRICAL CODE.  
Quantities for bonding conductors are not  
included in these plans.

# WIRING DIAGRAM

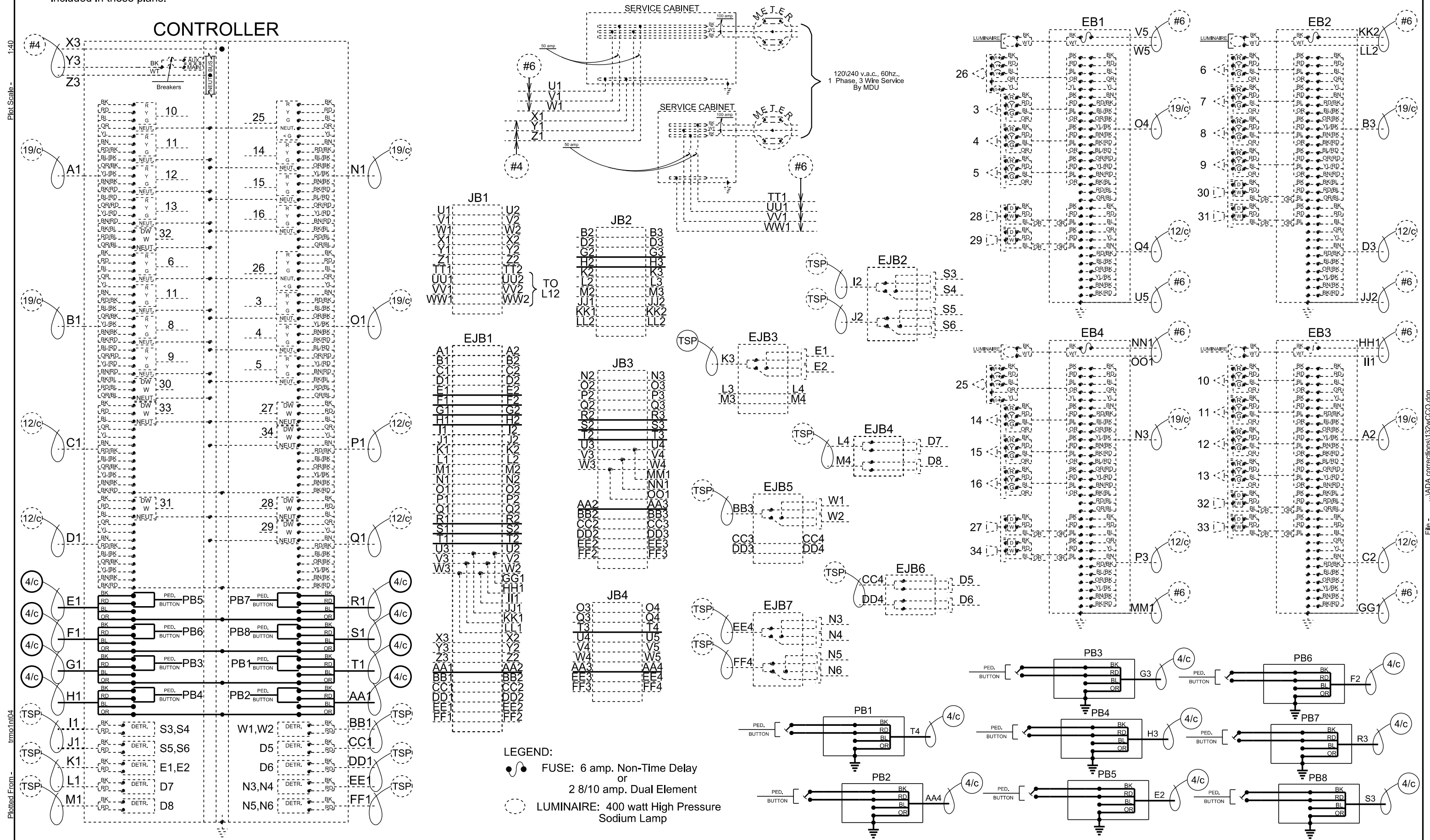
## US HWY 12/SD HWY 20/GRAND CROSSING & MAIN STREET

STATE OF SOUTH DAKOTA	PROJECT 012-371and 1804-371	SHEET 26	TOTAL SHEETS 34
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Plotting Date: 04/21/2016

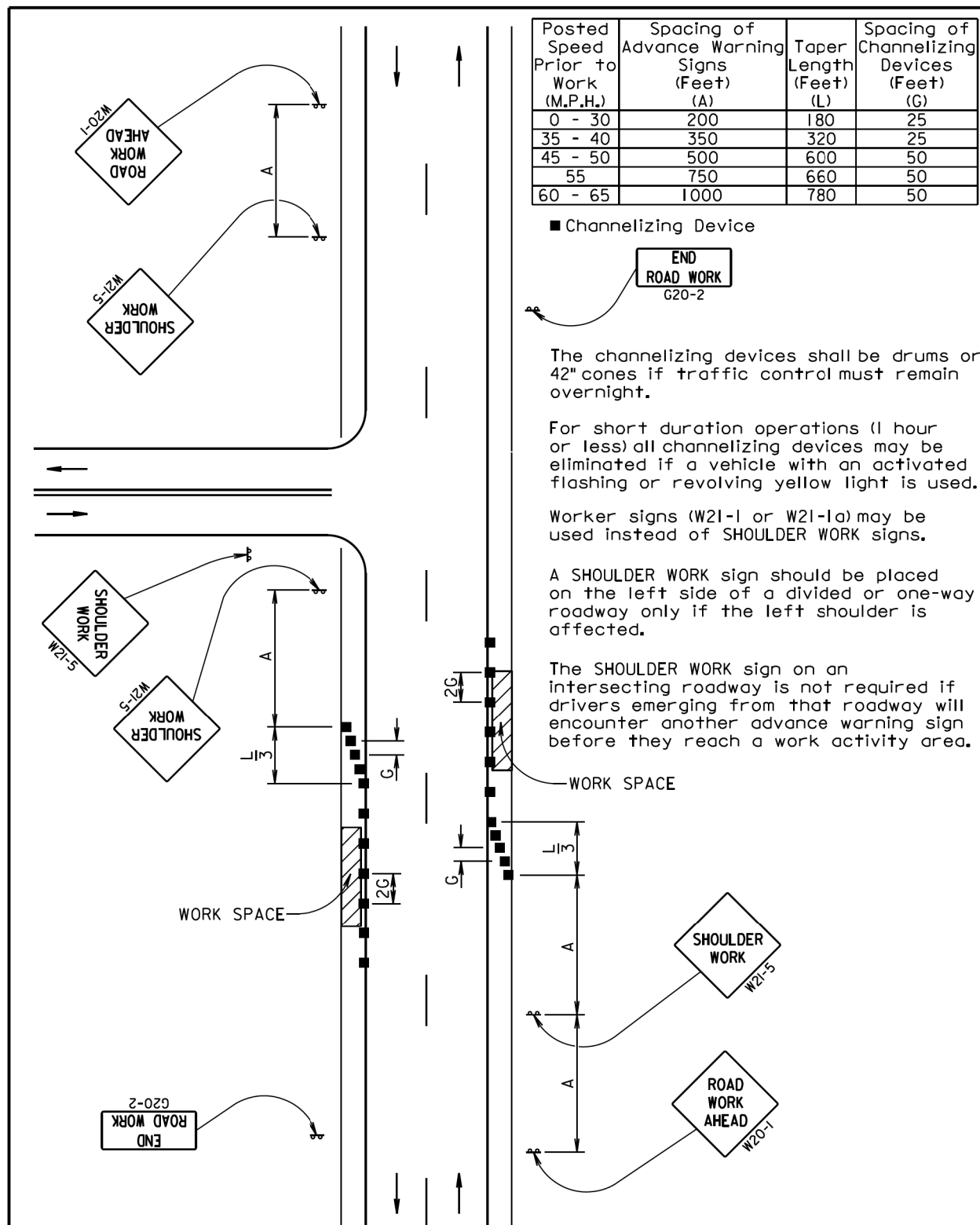
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Plotted From - tmo1n04



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	012-371and 1804-371	27	34

Plotting Date: 04/21/2016



September 22, 2014

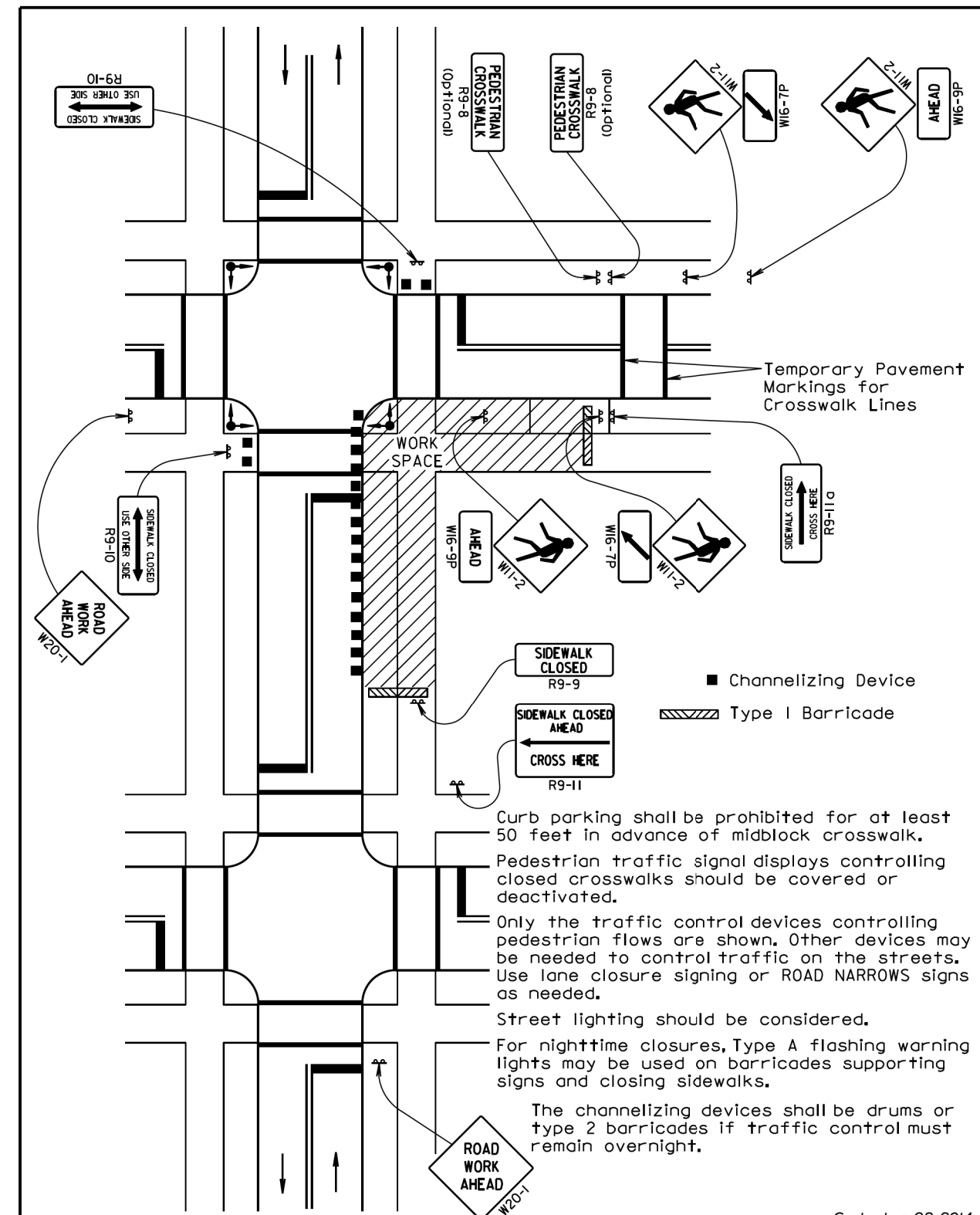
**Published Date: 2nd Qtr. 2016**

***S  
D  
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## GUIDES FOR TRAFFIC CONTROL DEVICES WORK ON SHOULDERS

PLATE NUMBER  
634.03

Sheet 1 of 1



September 22, 2014

**Published Date: 2nd Qtr. 2016**

**S  
D  
D  
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## GUIDES FOR TRAFFIC CONTROL DEVICES SIDEWALK CLOSURES AND PEDESTRIAN DETOURS

PLATE NUMBER  
634.33

Sheet 1 of 1



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.

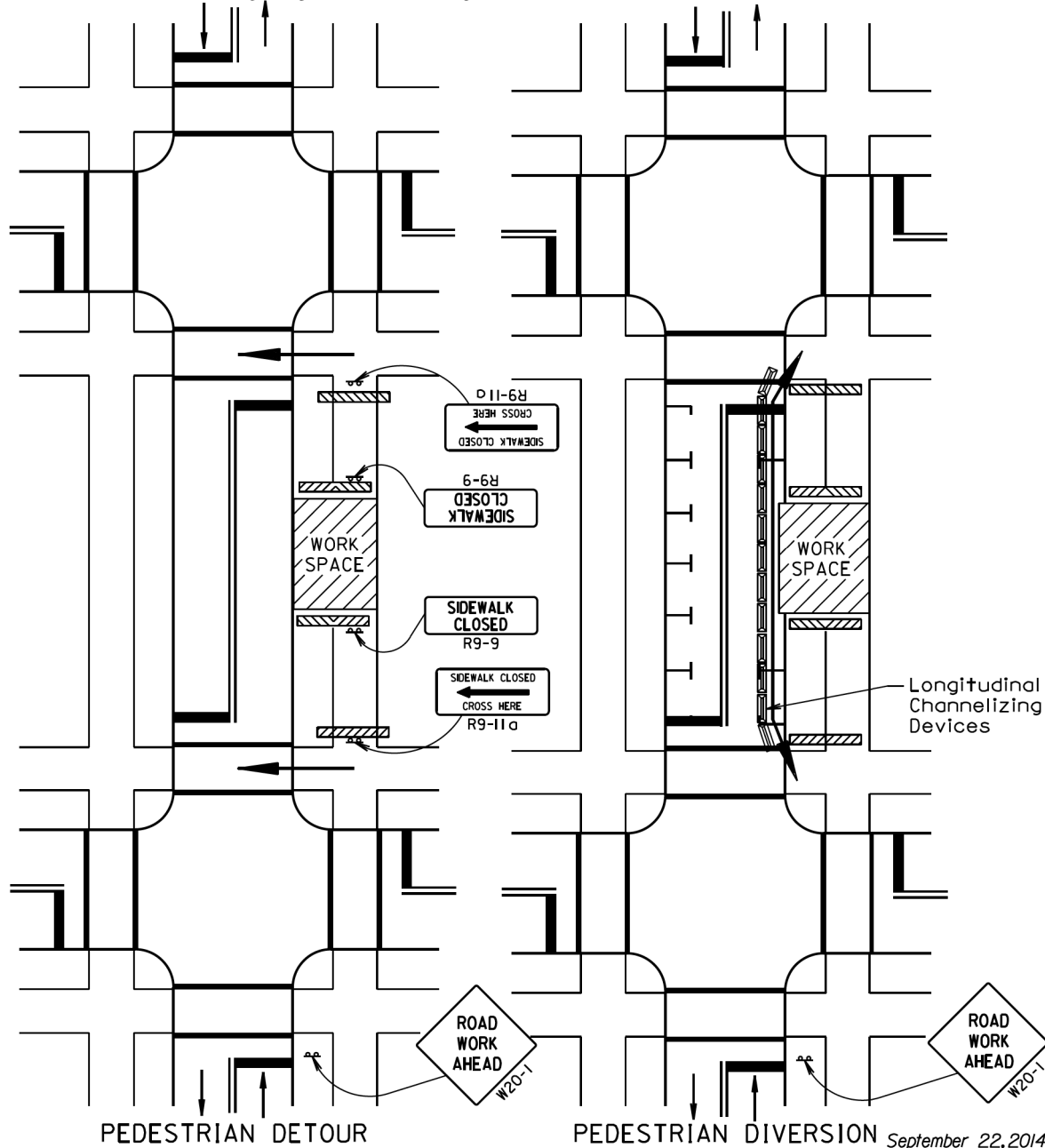
Signs may be placed along a temporary diversion to guide or direct pedestrians. Examples include KEEP RIGHT and KEEP LEFT signs.

Additional advance warning may be necessary.

For nighttime closures, Type A flashing warning lights may be used on barricades supporting signs and closing sidewalks. Type C steady-burn lights may be used on channelizing devices separating the temporary pedestrian diversion from vehicular traffic.

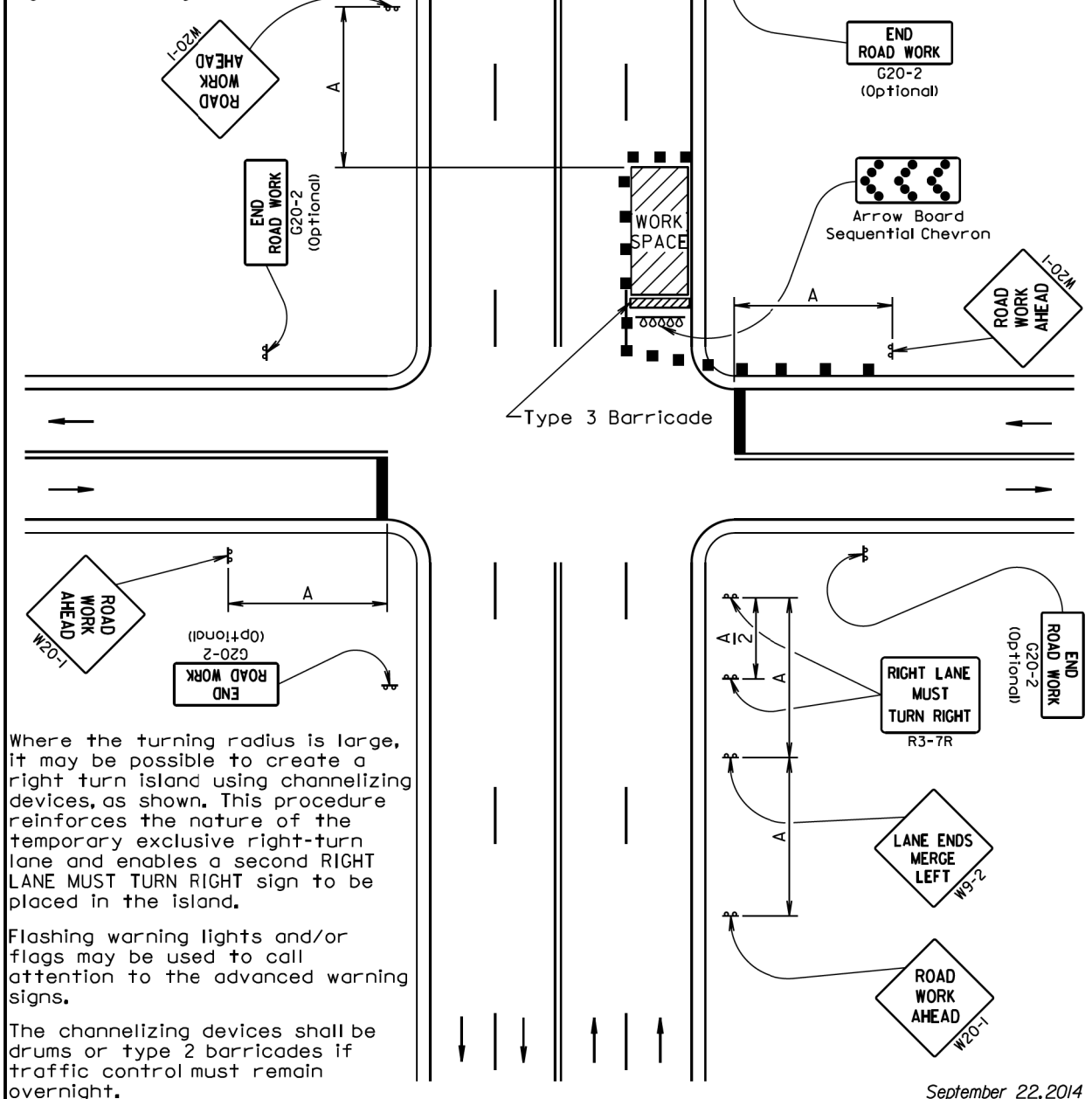
Street lighting should be considered.

 Type I Barricade  
and  




For intersection approaches reduced to a single lane, left-turning movements may be prohibited to maintain capacity for through traffic.

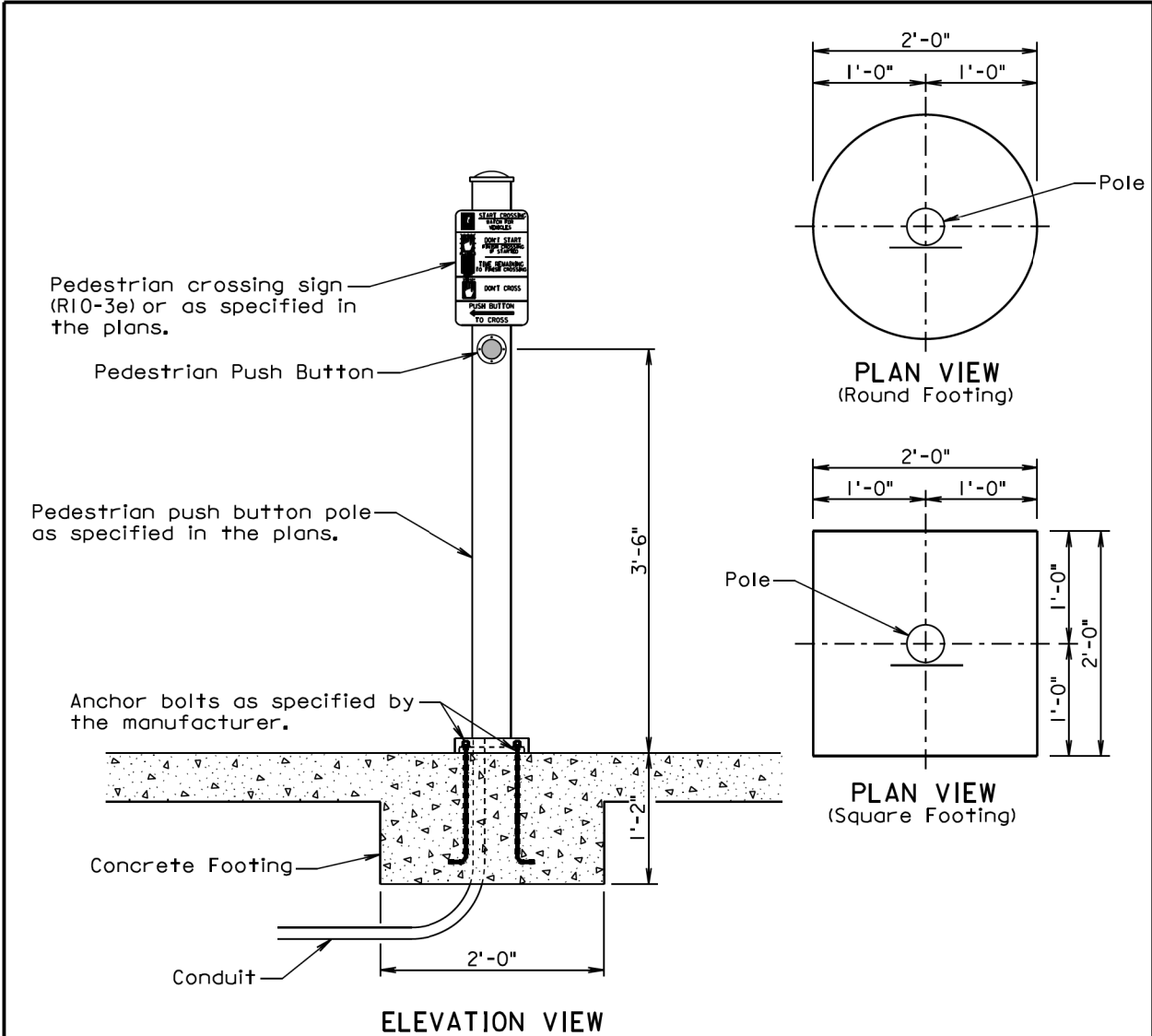
The standard procedure is to close on near side of the intersection any lane that is not carried through the intersection. However, when this results in the closing of a right lane having significant right-turning movements, then the right lane may be restricted to right turns only, as shown.



Where the turning radius is large, it may be possible to create a right turn island using channelizing devices, as shown. This procedure reinforces the nature of the temporary exclusive right-turn lane and enables a second RIGHT LANE MUST TURN RIGHT sign to be placed in the island.

Flashing warning lights and/or flags may be used to call attention to the advanced warning signs.

The channelizing devices shall be drums or type 2 barricades if traffic control must remain overnight.



**GENERAL NOTES:**

The pedestrian push button pole shall be as specified in the plans.

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.

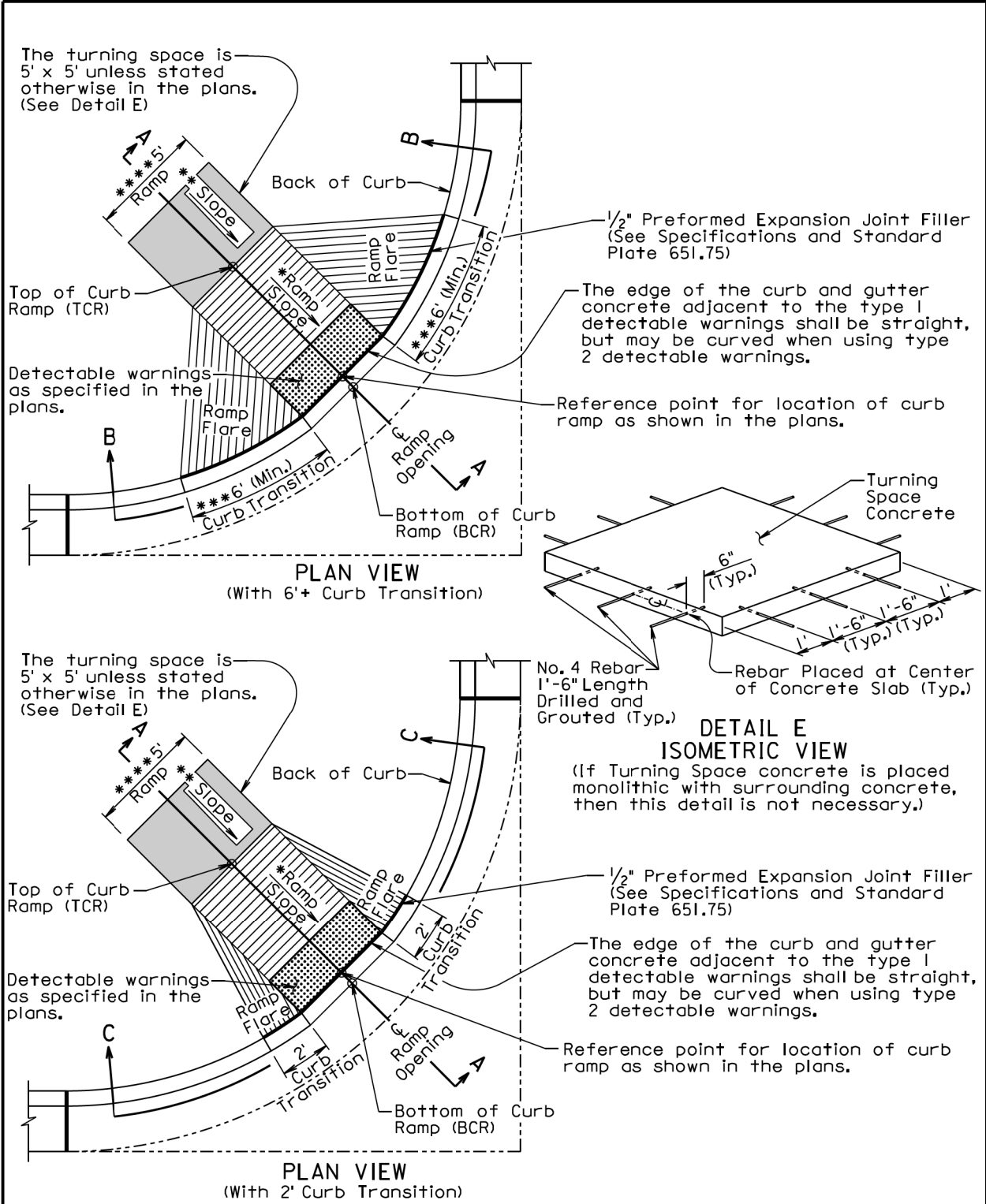
The concrete for the footing shall be class M6 concrete.

All costs for furnishing and installing the concrete footing shall be incidental to the contract unit price per square foot for the corresponding concrete sidewalk bid item.

All costs for furnishing and installing the pedestrian push button pole including labor, equipment, and materials including the pole, cap, and the conduit in the footing shall be incidental to the contract unit price per each for "Pedestrian Push Button Pole".

March 21, 2016

Published Date: 2nd Qtr. 2016	S D D O T	PEDESTRIAN PUSH BUTTON POLE	PLATE NUMBER 635.57
			Sheet 1 of 1



September 6, 2015

Published Date: 2nd Qtr. 2016	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	SHEET	TOTAL SHEETS
	012-371and 1804-371	30	34

Plotting Date: 04/21/2016

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

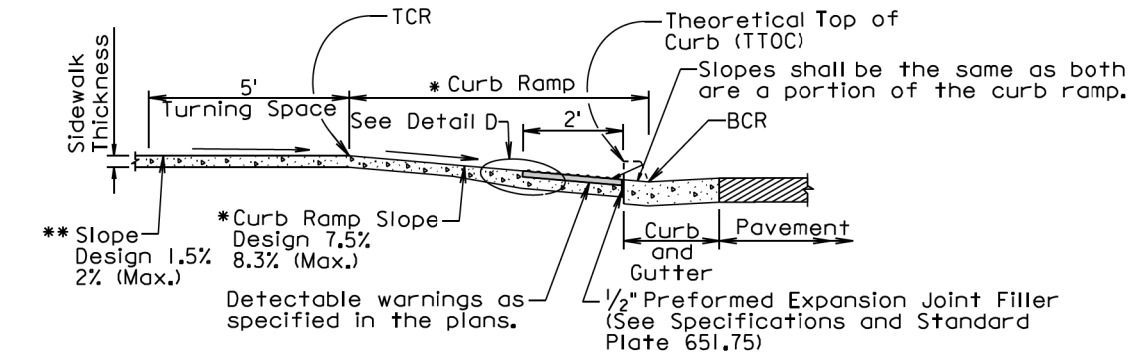
\* The curb ramp length may be computed based on the intersection of a continuous 1.5% theoretical slope from theoretical top of curb (TTOC) with the curb ramp using a continuous 7.5% curb ramp slope. The elevation of point TCR shall always be higher than the elevation of point TTOC unless specified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

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

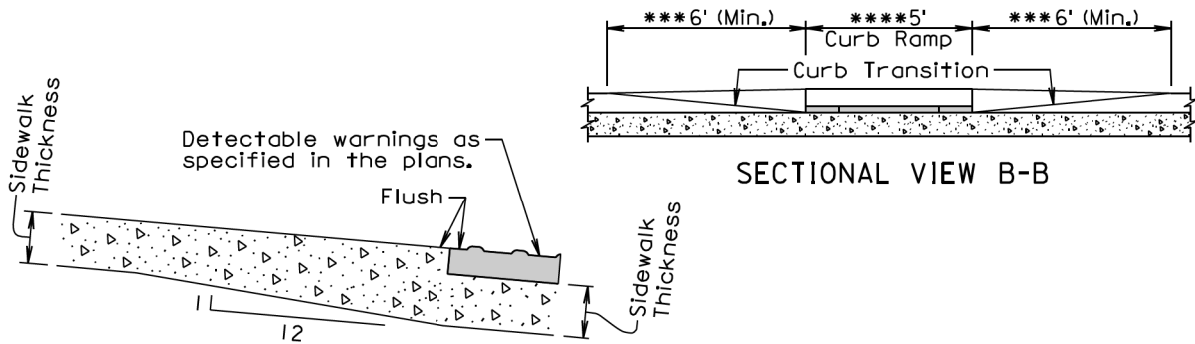
\*\* The slope in the turning space shall not be steeper than 2% in any direction of pedestrian travel. Plans are designed using a 1.5% slope unless stated otherwise in the plans.

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

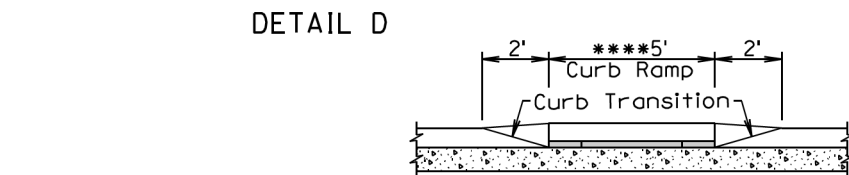
\*\*\*\* The ramp width is 5' unless stated otherwise in the plans.



SECTION A-A



SECTIONAL VIEW B-B



SECTIONAL VIEW C-C

September 6, 2015

Published Date: 2nd Qtr. 2016	S D D O T	TYPE 1 CURB RAMP (PERPENDICULAR CURB RAMP)	PLATE NUMBER 651.01
			Sheet 2 of 3

**GENERAL NOTES:**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

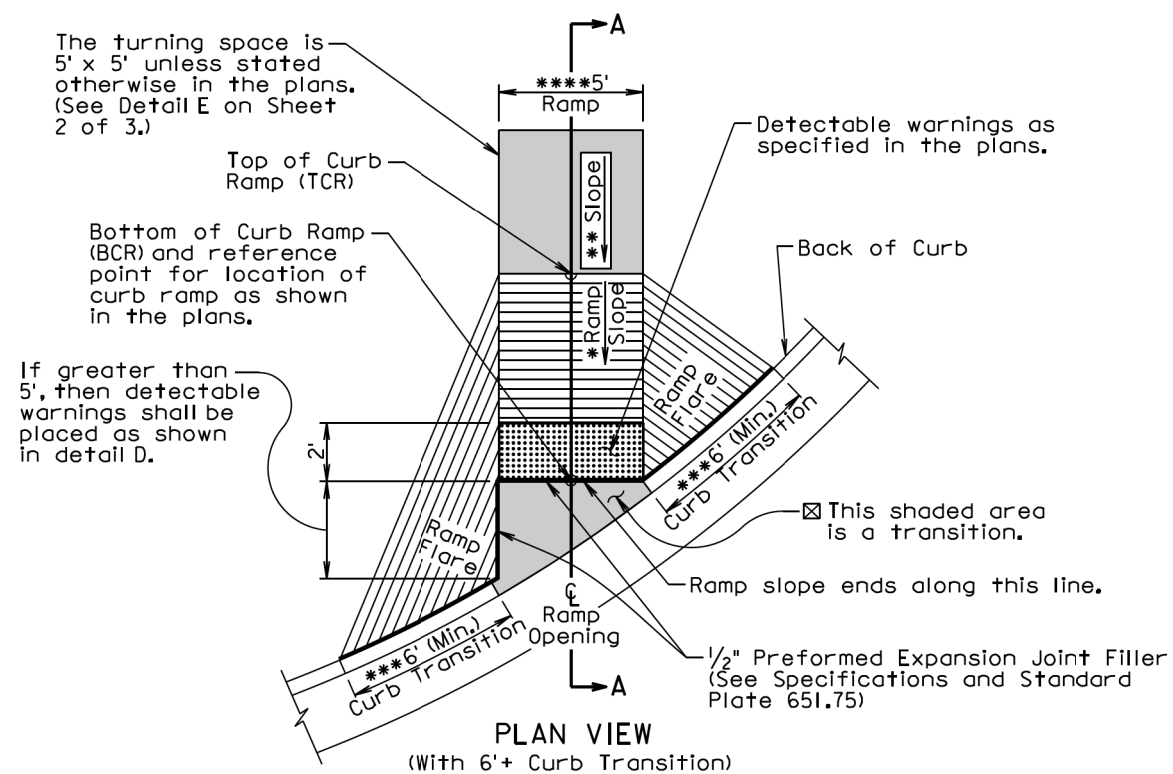
September 6, 2015

Published Date: 2nd Qtr. 2016	S D D O T	TYPE 1 CURB RAMP (PERPENDICULAR CURB RAMP)	PLATE NUMBER 651.01
			Sheet 3 of 3

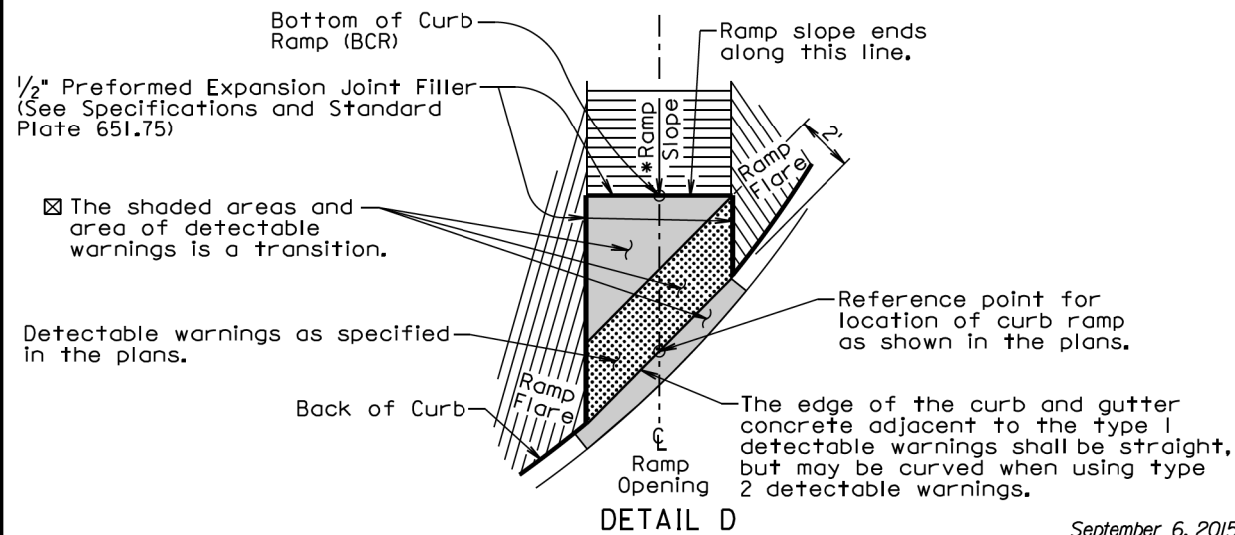


STATE OF SOUTH DAKOTA	PROJECT 012-371and 1804-371	SHEET 31	TOTAL SHEETS 34
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Plotting Date: 04/21/2016

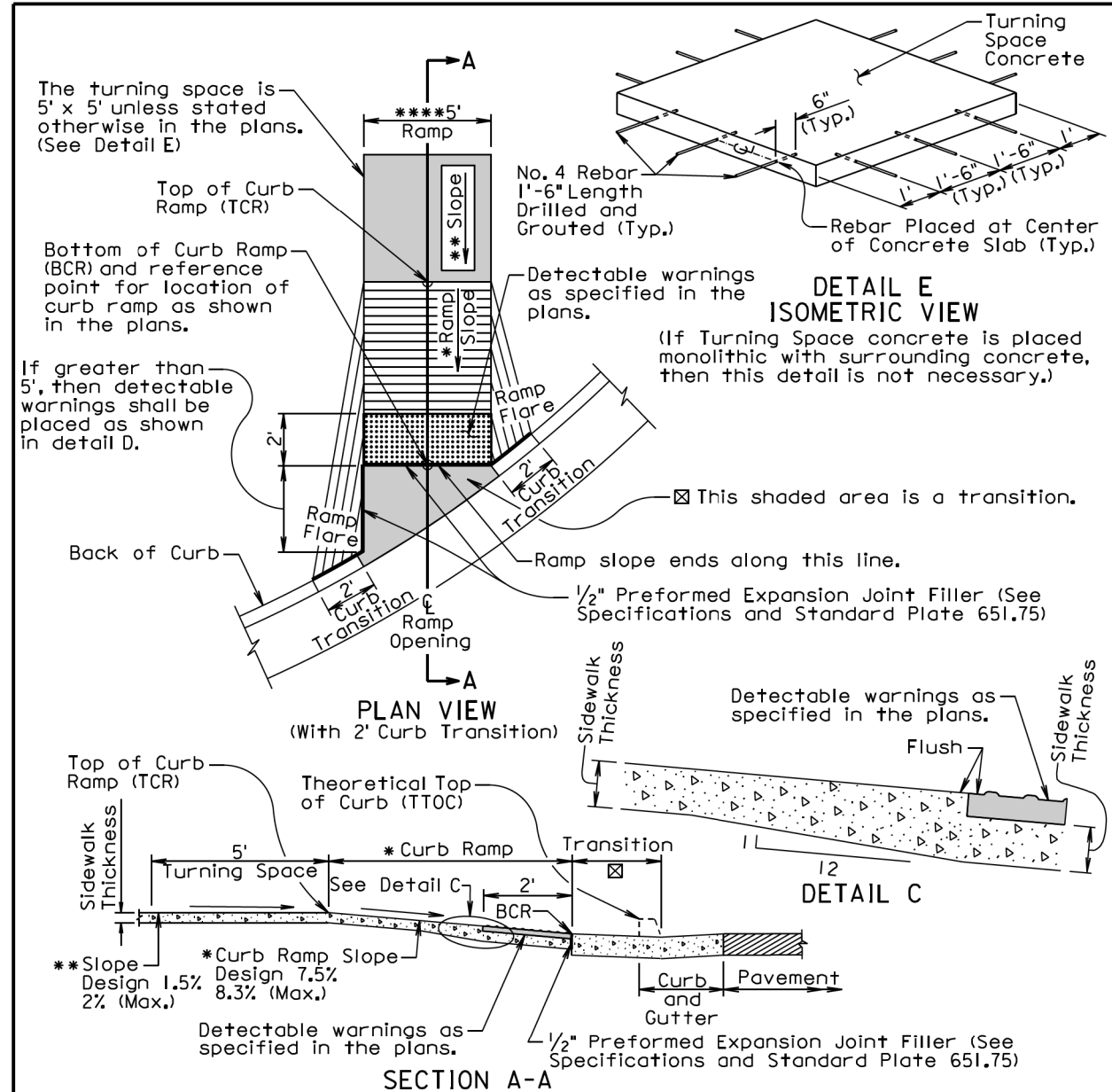


- ☑ The slope within the transition area shall not be steeper than 5%. The concrete within the transition shall be placed monolithic with the curb and gutter or fillet section concrete. The concrete thickness within the transition shall be the same as the curb and gutter or fillet section concrete thickness.
- \*\*\*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 10% unless stated otherwise in the plans. The curb transition length shall be adjusted as necessary to meet slope and length requirements based on field geometrics.



September 6, 2015

Published Date: 2nd Qtr. 2016	S D D O T	TYPE 2 CURB RAMP (DIRECTIONAL CURB RAMP)	PLATE NUMBER 651.02
			Sheet 1 of 3



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

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

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

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

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

September 6, 2015

Published Date: 2nd Qtr. 2016	S D D O T	TYPE 2 CURB RAMP (DIRECTIONAL CURB RAMP)	PLATE NUMBER 651.02
			Sheet 2 of 3

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	012-371and 1804-371	32	34

Plotting Date: 04/21/2016

GENERAL NOTES:

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

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

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

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

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

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

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

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

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

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

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

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

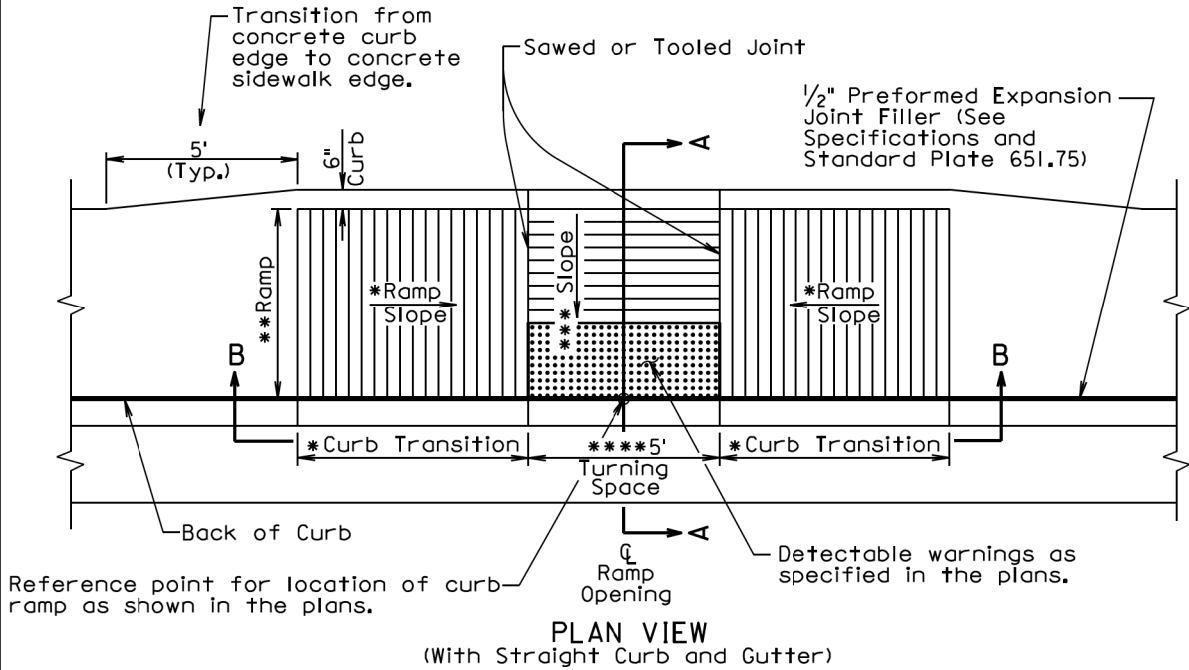
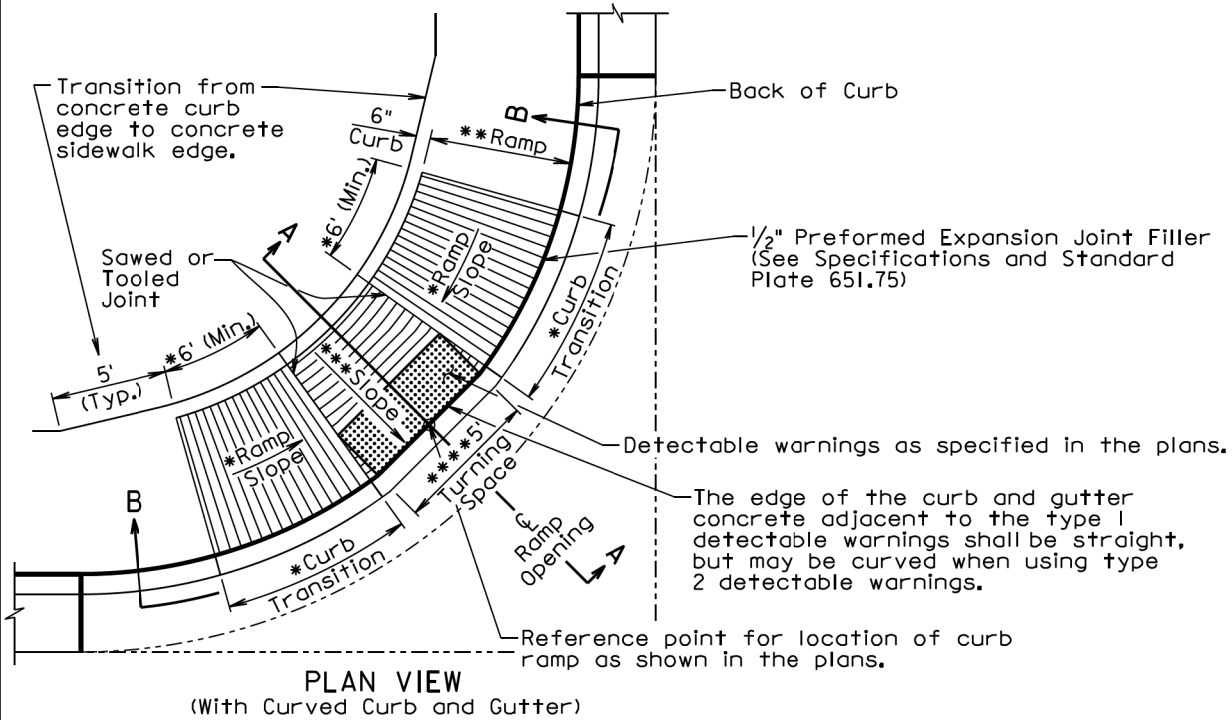
All costs for furnishing and installing the transition area at the base of the curb ramp shall be incidental to the contract unit price per foot for the corresponding curb and gutter bid item when curb and gutter is used and shall be incidental to the contract unit price per square yard for the corresponding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

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

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

September 6, 2015

Published Date: 2nd Qtr. 2016	S D D O T	TYPE 2 CURB RAMP (DIRECTIONAL CURB RAMP)	PLATE NUMBER 651.02
			Sheet 3 of 3



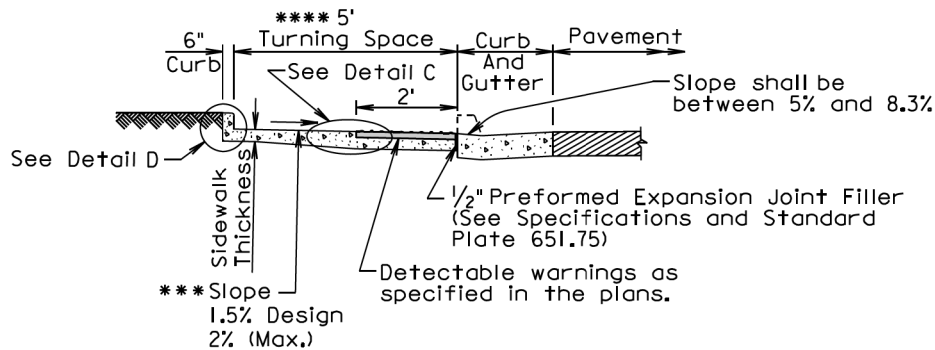
September 6, 2015

Published Date: 2nd Qtr. 2016	S D D O T	TYPE 3 CURB RAMP (PARALLEL CURB RAMP)	PLATE NUMBER 651.03
			Sheet 1 of 3

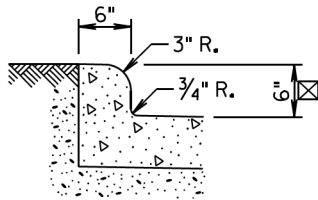
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	012-371and 1804-371	33	34

Plotting Date: 04/21/2016

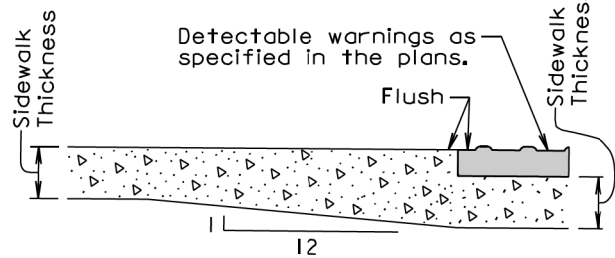
- \* The curb transition slope shall match the curb ramp slope. Curb ramp slopes are designed at 7.5% unless stated otherwise in the plans. The curb ramp may have a maximum slope of 8.3% at any location of the curb ramp and shall not exceed 15' in length unless stated otherwise in the plans. The curb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



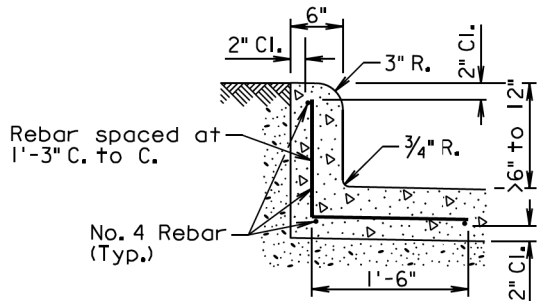
SECTION A-A



DETAIL D

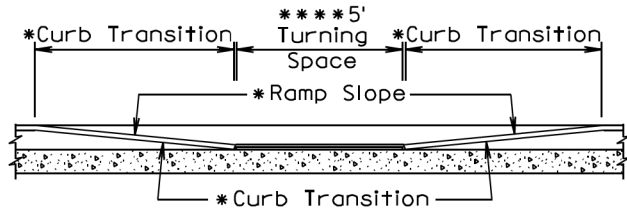


DETAIL C



DETAIL D

(Use this detail when the curb height is greater than 6" and less than 12")



SECTIONAL VIEW B-B

September 6, 2015

Published Date: 2nd Qtr. 2016	S D D O T	TYPE 3 CURB RAMP (PARALLEL CURB RAMP)	PLATE NUMBER 651.03
			Sheet 2 of 3

GENERAL NOTES:

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

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

The curb ramp 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 curb ramp, free of sags and short grade changes.

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

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

Joints shall be sawed or tooled into the concrete adjacent to the detectable warnings to alleviate possible corner cracking (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, 2015

Published Date: 2nd Qtr. 2016	S D D O T	TYPE 3 CURB RAMP (PARALLEL CURB RAMP)	PLATE NUMBER 651.03
			Sheet 3 of 3

