

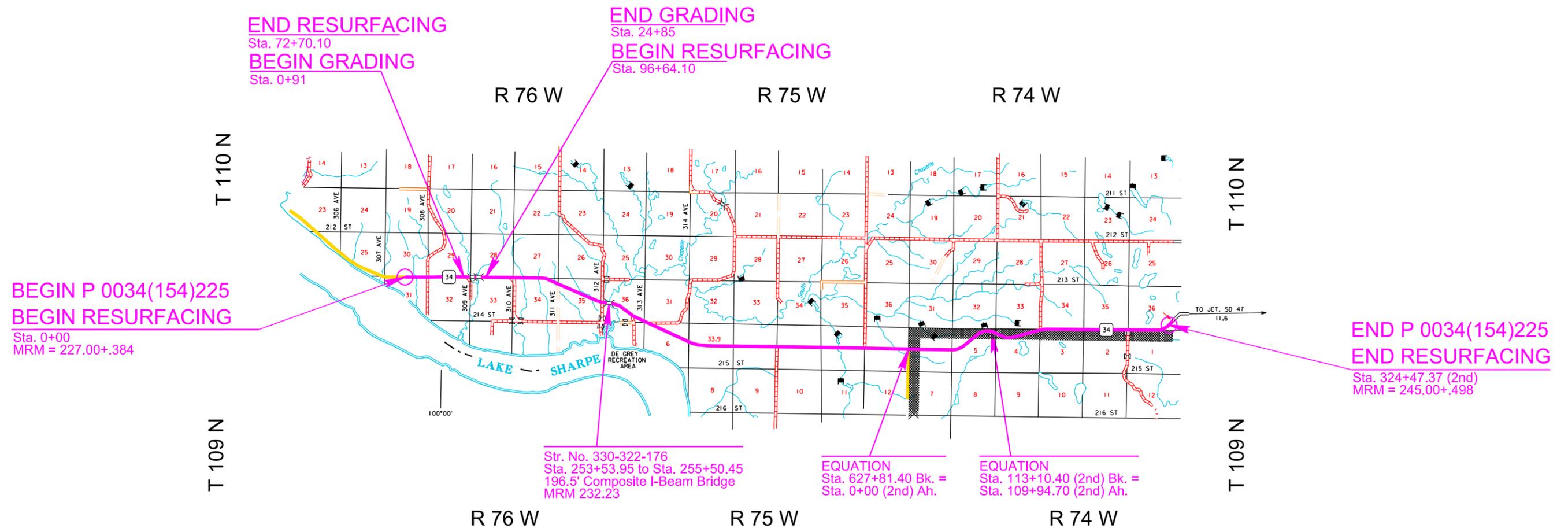
# Section B: Grading Plans

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 0034(154)225	B1	B21

Plotting Date: 12/19/2014

## INDEX OF SECTIONS

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Plot Scale - 1:200

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**SECTION B ESTIMATE OF QUANTITIES**

Bid Item Number	Item	Quantity	Unit
004E0030	Maintenance of Traffic Diversion(s)	Lump Sum	LS
009E0010	Mobilization	Lump Sum	LS
009E4200	Construction Schedule, Category II	Lump Sum	LS
100E0100	Clearing	Lump Sum	LS
110E0600	Remove Fence	1,916	Ft
110E0700	Remove 3 Cable Guardrail	1,227	Ft
110E4290	Salvage Beam Guardrail	220.0	Ft
120E0010	Unclassified Excavation	39,157	CuYd
120E0600	Contractor Furnished Borrow	46,487	CuYd
120E2000	Undercutting	17,017	CuYd
120E6100	Water for Embankment	696.3	MGal
240E0010	Obliterate Old Road	4	Sta
250E0020	Incidental Work, Grading	Lump Sum	LS
270E0040	Salvage and Stockpile Asphalt Mix and Granular Base Material	6,706.0	Ton
450E4759	18" CMP 16 Gauge, Furnish	78	Ft
450E4760	18" CMP, Install	78	Ft
450E5406	18" CMP Safety End, Furnish	2	Each
450E5407	18" CMP Safety End, Install	2	Each
600E0300	Type III Field Laboratory	1	Each
620E0020	Type 2 Right-of-Way Fence	1,916	Ft
620E0515	Type 1A Temporary Fence	1,840	Ft
620E1020	2 Post Panel	13	Each
620E1030	3 Post Panel	3	Each
900E0010	Refurbish Single Mailbox	1	Each
900E0012	Refurbish Double Mailbox	1	Each

**GRADING OPERATIONS**

Estimated application rate of water for compaction is 15 gallons per cubic yard of embankment.

The estimated cubic yards of excavation and/or embankment required to construct outlet ditches, ditch blocks, and approaches are included in the earthwork balance notes on the profile sheets.

Special ditch grades and other sections of the roadway different than the typical section(s) shall be constructed to the limits shown on the cross sections. If significant changes to the cross sections are necessary during construction, the Engineer shall contact the Designer for the proposed change.

Generally, all shallow inlet and outlet ditches as noted on the plan sheets shall be cut with a 10-foot wide bottom with 5:1 backslopes. However, the Engineer may direct the Contractor to adjust the ditch width for proper alignment with the drainage structure.

There is approximately 6 inches of topsoil available and considered suitable for topping inslopes, ditches and backslopes. This thickness of topsoil is considered to hold true for the right-of-way area outside the backslopes and inslopes of the present grade

Temporary fence and/or permanent fence shall be placed ahead of the grading operation unless otherwise directed by the Engineer.

**TRAFFIC DIVERSION**

The traffic diversion is located at Sta's 1+25 to 18+60 (Diversion). The traffic diversion shall be constructed according to Section 4.4.A. of the Standard Specifications. Installation and removal of the traffic diversion shall meet all requirements as set forth in the South Dakota Surface Water Quality Standards.

The traffic diversion located at Stations 1+25 to 18+60 (Diversion) shall be constructed according to the geometric layouts shown in the plans with the temporary drainage structure(s) provided in the following table. The temporary structure sizes are designed to pass the design flood frequency flows without overtopping the traffic diversion grade, to minimize potential upstream flooding, and are sized to meet FEMA (Federal Emergency Management Agency) requirements where applicable. The structure(s) shall be placed at the flowline elevation and location as stated in the "Table of Temporary Drainage Structures in Traffic Diversions". If the Contractor proposes to use a different size drainage structure and/or a different geometric layout for the temporary diversion, the proposal must be submitted to the Engineer during the project preconstruction meeting. This information shall be forwarded to the DOT Hydraulics Office for review. Construction of the traffic diversion(s) will not be allowed until approval of the proposal is obtained from the Hydraulics Office.

**Table of Temporary Drainage Structures in Traffic Diversions**

Traffic Diversion Structure Location	Design Flood Frequency	* Flowline Elevation	Temporary Structure
9+82.76	2 year	1474.30	1-60" CMP
18+15.18	2 year	1484.00	1-60" CMP

\* The flowline elevation is at the centerline of the traffic diversion.

Costs to provide temporary drainage structures shall be incidental to the contract lump sum price for "Maintenance of Traffic Diversion(s)".

Traffic diversions in waterways shall be constructed such that any material placed below the ordinary high water elevation (estimated as elevation 1477.30' at Sta. 9+82.76 and 1485.40' at Sta 18+15.18 in the 404 application) shall conform to the requirements of Class C Riprap. The quantity of riprap used in the traffic diversion is included in the quantity for "Class C Riprap" in Section E-Structures estimate of quantities. The quantity of riprap used for the traffic diversion shall be reused as riprap for the structure and all costs incurred to place and remove the riprap at the traffic diversion and subsequently place the riprap at the structure shall be incidental to the contract unit price per ton for "Class C Riprap". The traffic diversions shall be built in close conformity to the plan gradeline. Unless otherwise shown in the plans, the traffic diversions shall be removed such that the original ground surface is restored and the hydraulic capacity of the waterway is maintained. The removal shall be done in such a manner that there is minimal disturbance to the riverbed.

The removed traffic diversion embankment shall be used in the mainline embankment unless otherwise approved by the Engineer.

Traffic Diversion Borrow as shown on the plans profile sheets is obtained from the Contractor Furnished Borrow. The Traffic Diversion Borrow quantity is included in the Contractor Furnished Borrow Quantity in the Table of Excavation Quantities by Balances and in the Table of Unclassified Excavation.

**TRAFFIC DIVERSION (CONTINUED)**

Added Traffic Diversion Excavation as shown on the plans profile sheets is the excavation required to construct the traffic diversion portion that is located outside the mainline cross section work limits. The Added Traffic Diversion Excavation quantity is added to the unclassified excavation quantity in the Table of Unclassified Excavation.

**TYPE III FIELD LABORATORY**

A Type III Field Lab will be required for the duration of the project, not just for the asphalt paving. The Lab may be set up near the box culvert sites during the construction of that area, however it shall be set up at the asphalt plant site when asphalt paving starts. No additional payment will be made for moving the Lab from site to site. The Storage Unit will only be required during the asphalt paving portion of the project.

The lab shall be equipped with an internet connection such as DSL, cable modem, or other approved service. The internet connection shall be provided with a multi-port wireless router. The internet connection shall be a minimum speed of 512 Kb unless limited by job location and approved by the DOT. Prior to installing the wireless router the Contractor shall submit the wireless router's technical data to the Area Office to check for compatibility with the state's computer equipment. The internet connection is intended for state personnel usage only. The Contractor's personnel are prohibited from using the internet connection unless pre-approved by the Project Engineer.

The Contractor shall submit a copy of each monthly bill for calls charged to this phone at the end of each month. The Project Engineer will then audit the bills to ensure all calls are legitimate and then initiate a Construction Change Order (CCO) to reimburse the Contractor for the actual phone calls made, including local and long distance calls. Reimbursement will not be made for fees associated with the purchase, installation, disconnection, monthly line charges, and incidentals involved in the installation, maintenance, and disconnection of the phone (including attachments). These items shall be incidental to the contract unit price per each for "Type III Field Laboratory".

**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.

**CLEARING**

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

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**SHRINKAGE FACTOR:** Mainline Embankment +40%  
 Diversion Embankment +45%

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**TABLE OF EXCAVATION QUANTITIES BY BALANCES**

Station to	Station	Excavation (CuYd)	Added Traffic Diversion Excavation (CuYd)	* Undercut (CuYd)	* Contractor Furnished Borrow (CuYd)	Total Excavation (CuYd)	** Waste (CuYd)	** Haul (CuYdSta)
0+91	24+85	2568		17017	14195	33780		1483
Diversion	1+25		39		13390	13429	13390	774
Totals:		2568	39	17017	27585	47209	13390	2258

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

Earthwork quantities for xr9, xr1475L and xr1475R are included in Mainline earthwork quantities.

**TABLE OF UNCLASSIFIED EXCAVATION**

Slide Repair Area	265	(See Section F – Surfacing Section for limits)
Superelevated Sections	532	(See Section F – Surfacing Section for limits)
Excavation	2568	
Undercut	17017	
Topsoil	2238	
Exc. for Deep RCBC Removal	12950	
Added Traffic Diversion Excavation	39	
Salvaged Asphalt Mix and Granular Base Material (from cut sections)	3548	
<b>Total</b>	<b>39157</b>	

The Unclassified Excavation Waste Material may be used as Contractor Furnished Borrow for inslope widening and flattening (See Section F).

**PROCEDURES FOR DETERMINING UNCLASSIFIED EXCAVATION QUANTITY**

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

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

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

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

**HAUL**

Included in the Table of Excavation Quantities by Balances is Haul. They are not pay items and are for informational purposes only. Haul was not estimated for moving Contractor Furnished Borrow.

Haul: Estimated quantity (CuYdSta) for moving unclassified excavation material to the locations where it is needed throughout the earthwork balance.

For Purpose of Extra Haul Computations:

Average Haul = Haul/Unclassified Excavation = 2258/38360 = 0.06 Sta.

**UNDERCUTTING**

In all cut sections, the earthen subgrade shall be undercut 4 feet below the finished subgrade. The undercut material or other suitable material, as directed by the engineer, shall then be replaced and recompacted to the density specified for the section being constructed.

Shallow embankment sections, fills less than 4 feet in height measured at the finished subgrade shoulders, shall be undercut to assure a minimum 4 foot height of earth embankment for the entire width of the roadbed. The upper 6 inches of undercut material that consists of topsoil with a high humus content shall be used as topsoil, placed in the fillslopes outside the shoulders of the earthen subgrade, or placed in the lower portion (below 4 feet) of fills which are over 4 feet in height. The remaining undercut soil and soil obtained from adjacent excavation (excluding the upper 6 inches) shall then be replaced and compacted to the density specified for the section being constructed.

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

**TABLE OF UNDERCUTTING**

Station to	Station	Quantity (CuYd)
0+91	24+85	17017
Total:		17017

**SALVAGE AND STOCKPILE ASPHALT MIX AND GRANULAR BASE MATERIAL**

An estimated 6706 tons (3548 Cubic Yards) of asphalt mix and granular base material shall be salvaged from the entire length of the existing highway and stockpiled at a site furnished by the Contractor and satisfactory to the Engineer.

The quantity of salvage asphalt mix and granular base material may vary from the plans. No adjustment will be made to the contract unit price for variations of the quantity of "Salvage and Stockpile Asphalt Mix and Granular Base Material."

It is estimated that there are 148 cubic yards of salvageable material per station. This rate was used to compute the unclassified excavation quantities. The rate of salvageable material is based on a 24 foot width.

**CONTRACTOR FURNISHED BORROW**

The Contractor shall provide a suitable site for Contractor furnished borrow material. The Contractor is responsible for obtaining all required permits and clearances for the borrow site. The borrow material shall be approved by the Engineer. The plans quantity for "Contractor Furnished Borrow" as shown in the Estimate of Quantities will be the basis of payment for this item.

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

**Resurfacing Section:**

The Unclassified Excavation Waste Material may be used as Contractor Furnished borrow for inslope widening and flattening as required (See Section F Surfacing Sections). The shoulder inslopes shall be at a 4:1 or flatter. All slopes for ditch blocks entrances and intersecting roads shall be a 10:1 or flatter. Care shall be taken so that a minimum 4" depth of topsoil shall be placed over the entire disturbed area while proper drainage is maintained. Final acceptance of the inslopes will be at the discretion of the Engineer.

**TABLE OF CONTRACTOR FURNISHED BORROW**

Location	Contractor Furnished Borrow CuYd
<b>Resurfacing Section</b>	
<b>Mainline – Inslope Widening/Flattening</b>	
Sta. 161+59.80 to Sta. 179+48.70	148
Sta. 257+52.80 to Sta. 274+12.80	78
Sta. 279+28.40 to Sta. 292+77	64
Throughout the Project	17,600
<b>5 Cattle Passes</b>	812
<b>Pipe Work</b>	200
<b>*Grading Section</b>	
<b>Mainline</b>	
Sta. 0+91 to Sta. 24+85	14,195
<b>Diversion</b>	
Sta. 1+25 to 18+60	13,390
<b>Totals:</b>	<b>46,487</b>

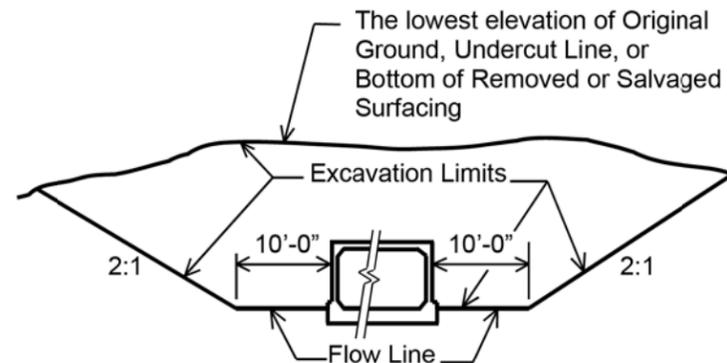
\* Also included in "Table of Excavation Quantities By Balances".

**EXCAVATION FOR DEEP BOX CULVERT REMOVAL**

Included in the quantity of "Unclassified Excavation" are 12950 cubic yards of excavation for removal of deep box culverts. Deep box culverts are existing mainline box culverts at depths of 10 feet or greater (measured from the flow line to the lowest elevation of either the existing ground line, undercut line, or bottom of removed or salvaged surfacing).

All work necessary to excavate and backfill the deep box culverts including labor, equipment, and incidentals shall be incidental to the contract unit price per cubic yard for "Unclassified Excavation". Payment for deep box culvert excavation shall be based only on plans quantity and measurement of these excavation quantities during construction shall not be performed.

The excavation quantities for deep box culverts are not included with the earthwork balance quantities on the plans profile sheets. The quantities computed for excavation of the deep box culverts are based on the limits shown in the drawing below. The drawing shows a box culvert for illustration purposes only;



**TABLE OF EXCAVATION FOR DEEP BOX CULVERT REMOVAL**

Station	Type	Quantity (CuYd)
* 9+78	RCBC	5756
* 18+15	RCBC	7194
<b>Total:</b>		<b>12950</b>

\* The excavation quantity includes excavation for the installation of the new RCBC at Station 9+78 and 18+15.

**STATION 18+15.18 (STR. NO. 33-292-170)**

After the minimum testing requirements of M.S.T.R Section 4.1.E.3.a.1 have been met, the frequency of compaction tests will be increased from 1 per 3 ft of embankment to 1 per 2 feet of embankment. This requirement will be in force from 2 feet above the top of the new RCBC culvert to the bottom of the reinforced subgrade.

The new embankment shall be continuously benched into the existing embankment as required by Section 120.3.B.1 of the Standard Specifications for Roads and Bridges, 2004 Edition.

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**INCIDENTAL WORK, GRADING**

Station	L/R	Remarks
9+00	75' L	Plug Well
15+41	44' L	Take Out 80' Pipe & 2 Safety Ends
24+00	40' R	Take Out 52' Pipe & 2 Safety Ends
MRM 232.6	R	Salvage and Take Out Pipe & Ends

**PLUG WELL**

The well at Sta. 9+00 75' L shall be plugged by a South Dakota Licensed Water Well Driller and shall be in conformance with Administrative Rule of South Dakota (ARSD) 74:02:04, Sections 67-70. The Contractor and the South Dakota Licensed Water Well Driller shall inspect the site prior to the bid letting in order to determine the material and labor necessary to complete the work. All costs involved in plugging the well shall be incidental to the contract lump sum price for "Incidental Work, Grading".

**ADDITIONAL ELIMINATE ENTRANCE AT MRM 232.6**

An entrance located on the surfacing portion of this project will be eliminated. At MRM 232.6 R there are currently two entrances. Eliminate the west entrance and salvage the pipe.

**SALVAGED ITEMS AT MRM 232.6**

All salvaged items noted on the plans shall be salvaged for future highway use and hauled to the Department of Transportation's Pierre Region Office located at 104 S. Garfield, Pierre, SD, as directed by the Engineer. Care shall be taken not to damage the structural properties of the items during dismantling and transporting. All broken concrete and materials not salvaged shall be disposed of in accordance with the Standard Specifications. All costs for salvaging and transporting the items shall be incidental to the contract lump sum price for "Incidental Work, Grading". Before preparing his/her bid, the Contractor shall make a visual inspection of the project to verify the extent of the work and material involved.

**CORRUGATED METAL PIPE**

The soils within the project area are highly corrosive to steel. All CMP shall be 14 gauge steel. Connection bands shall be 24" wide. All CMP, CMP elbows, transitions, and bands shall be Polymer Coated and shall conform to AASHTO M 245 and AASHTO M 36. The costs associated for gauge, coating and connections shall be incidental to the corresponding CMP bid items.

All damage to the Polymer Coating shall be repaired according to the manufacturer's recommendations prior to installation.

All metal pipe end sections must have an Aluminized Type 2 Coating. All CMP end sections shall conform to AASHTO M 36, Aluminum Type 2. All costs associated for gauge, coating and connections shall be incidental to the corresponding CMP End Section bid items.

**PIPE FOR APPROACHES**

Class II reinforced concrete pipe and high density polyethylene pipe may be substituted for corrugated metal pipe at approaches and intersecting roads at no additional cost to the State.

Acceptance of high density polyethylene pipe will be by certification.

The end sections for the high density polyethylene pipe shall be metal, conform to the type of end section as shown in the plans, and be compatible with the high density polyethylene pipe.

**REINFORCED CONCRETE PIPE**

High sulfate levels are likely to be encountered on this project. The type of cement shall be either a type V or a type II with 20% Class F Modified Fly Ash substituted for cement in accordance with section 605. The Water/Cementitious material ratio shall not exceed 0.45 as defined in section 460.3.C. The Mix shall be as per fabricator's design, however minimum compressive strength shall not be less than 4500 psi at 28 days. The pipe must be marked in an acceptable way to designate meeting the requirements for sulfate resistance.

**TABLE OF RIPRAP**

Location	L/R	Class C Riprap (Ton)
Diversion	L/R	140
Totals:		140

\*Riprap included in Section E

**TABLE OF PIPE QUANTITIES**

Location	L/R	18" CMP 16 Ga. (ft)	18" CMP Safety (each)
14+75	45' L	78	2
Totals:		78	2

**BRACE PANELS FOR ROW FENCE**

The E-Z Brace or an approved equal may be utilized as an alternate horizontal brace in the brace panels if approved by the Engineer. The E-Z Brace shall be attached to each wood post utilizing two 5/16" x 3" lag screws. Holes of appropriate diameter, based on wood post condition, shall be drilled before placement of lag screws. The following are contacts regarding the E-Z Brace:

Roger Papka  
E-Z Brace  
1160 Karen St.  
Watertown, SD 57201  
605-881-6142

Dennis Mack  
E-Z Brace  
108 18<sup>th</sup> St. NE  
Watertown, SD 57201  
605-881-4990

**OBLITERATING OLD ROAD**

The Contractor shall obliterate the existing roadway at the locations listed in the Table of Obliterating Old Road.

The earthwork necessary for obliterating the existing road shall be accomplished to such an extent that placing topsoil and seeding can be done in a satisfactory manner. Quantities of topsoil, fertilizing, mulching, and seeding for the obliterated section of the old road are included in the Section D - Erosion and Sediment Control Plans Estimate of Quantities.

**TABLE OF OBLITERATING OLD ROAD**

Station	to Station	L/R	Length (Sta)
11+66-33'	13+65-50'	L	4
Total:			4

**MAILBOXES**

The Contractor shall reset the existing mailboxes on new posts with the necessary support hardware for single or double mailbox assemblies. 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.

If large mailboxes are located at the double mailbox installation, a single post may need to be used for the large mailbox.

All costs for removing existing mailboxes, providing temporary mailboxes, and resetting mailboxes with new posts and necessary support hardware shall be incidental to the contract unit price per each for "Refurbish Single Mailbox" or "Refurbish Double Mailbox".

One single mailbox shall be refurbished at Sta. 15+33-74' L and one double mailbox shall be refurbished at Sta. 9+27-41.50' R.

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**TABLE OF GUARDRAIL**

Location	Remove 3 Cable Guardrail (Ft)	Salvage Beam Guardrail (Ft)
Structure No. 33-289-170		
Sta. 8+07-18' L to Sta. 11+30 - 18' L	323	
Sta. 9+27 - 59' R to Sta. 11+47 - 20' R		220
Structure No. 33-292-170		
Sta. 15+33 - 19' R to Sta. 19+85 - 19' R	452	
Sta. 16+45 - 18' L to Sta. 20+97 - 19' L	452	
Totals:	1227	220

**SALVAGE BEAM GUARDRAIL**

Steel beam rail, end terminals, and hardware items shall become the property of the State and shall be removed, hauled, and neatly stacked at a location approved by the Engineer at the Pierre Region Office located at 104 S. Garfield, Pierre, SD. Posts and blocks shall become the property of the Contractor and shall be removed from the project limits.

Payment for removing, hauling, and stacking the guardrail items shall be incidental to the contract unit price per foot for "Salvage Beam Guardrail".

# TABLE OF FENCE QUANTITIES

Station to Station		Side (L/R)	Right-of-Way Fence				Post Panels		Temporary Fence			Remove Fence		
			Type 2 (Ft)				2 Post Panel (Each)	3 Post Panel (Each)	Type 1A (Ft)			(Ft)		
6+43	10+55	L	661				5		480			661		
10+28	12+50	R	253				1	2	250			253		
15+52	20+55	L	502				2		500			502		
17+10	20+85	R	375				2		560			375		
23+43	24+51	L	125				3	1	50			125		
<b>TOTALS:</b>			1916				13	3	1840			1916		

**Post Type and Sequence:**  
Right-of-way fence shall be constructed using alternate wood and steel posts.

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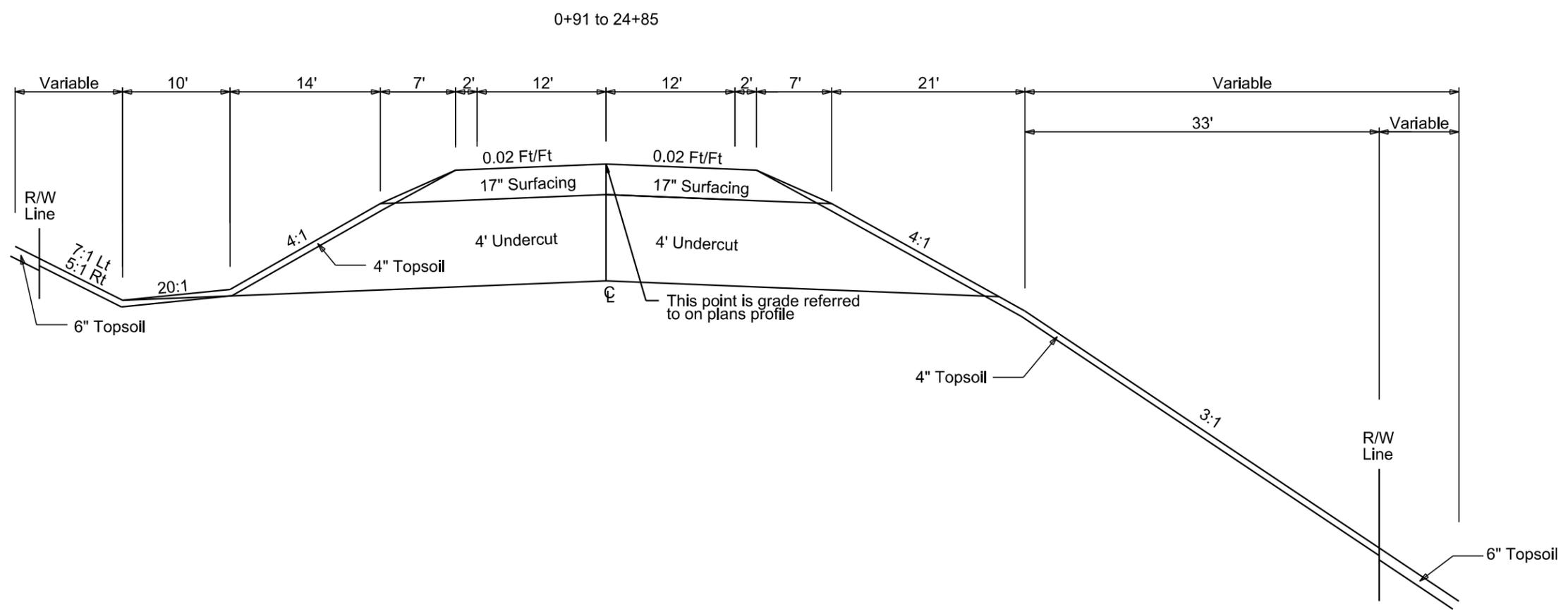
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# TYPICAL GRADING SECTIONS



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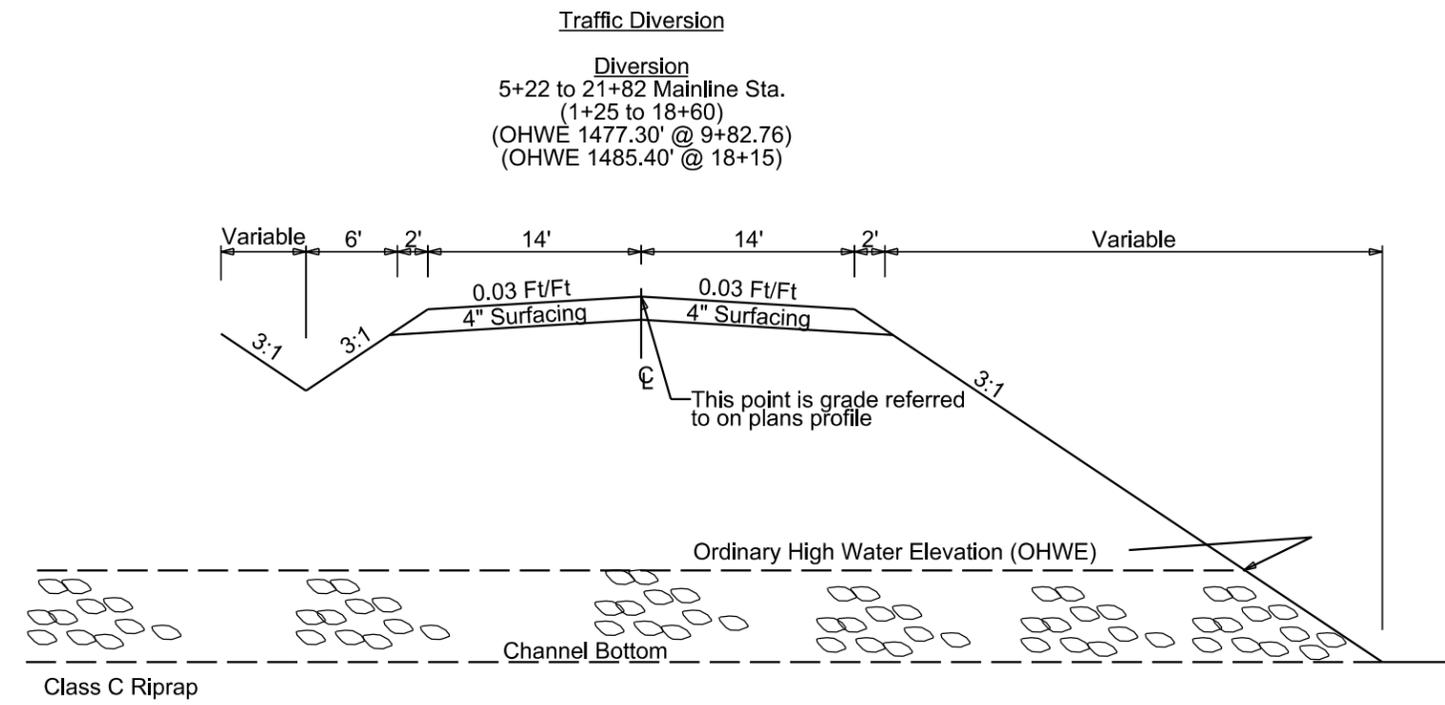
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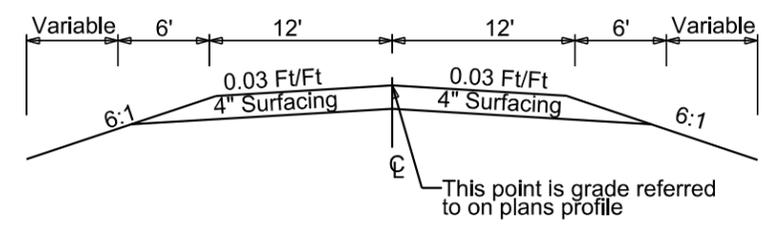
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# TYPICAL GRADING SECTIONS

Plot Scale - 1:200



xr9 4+77.72 to 7+75.15  
xr1475L 0+00 to 6+32.65  
xr1475R 0+00 to 3+33.34



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# HORIZONTAL ALIGNMENT DATA

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## MAINLINE

Type	Station	Northing	Easting
POB	0+00.00	715211.061	2058138.797
		TL= 1399.15	N 89°31'54" E
PI	13+99.15	715222.498	2059537.896
		TL= 1125.70	N 89°20'39" E
POE	25+24.85	715235.381	2060663.526

## xr9

Type	Station	Northing	Easting
PC	0+00.00	714454.492	2059162.656
PI	0+92.11	R = 460.00	Delta = 22°38'50" L
PT	1+81.82	714631.463	2059126.418
		TL= 70.73	N 22°53'46" W
PC	2+52.55	714696.620	2059098.899
PI	3+28.26	R = 410.00	Delta = 20°55'21" R
PT	4+02.27	714842.016	2059066.840
		TL= 84.17	N 1°58'24" W
PC	4+86.45	714926.140	2059063.941
PI	5+48.39	R = 333.00	Delta = 21°04'24" L
PT	6+08.92	715045.036	2059037.560
		TL= 0.01	N 23°02'49" W
PC	6+08.93	715045.043	2059037.557
PI	6+75.41	R = 333.00	Delta = 22°34'42" R
PT	7+40.16	715172.685	2059010.990
		TL= 45.50	N 0°28'06" W
POE	7+85.66	715218.188	2059010.618

## xr1475L

Type	Station	Northing	Easting
POB	0+00.00	715223.364	2059613.566
		TL= 165.11	N 0°39'20" W
PC	1+65.11	715388.460	2059611.677
PI	2+36.74	R = 231.00	Delta = 34°27'29" L
PT	3+04.03	715518.688	2059569.653
		TL= 12.42	N 35°06'49" W
PC	3+16.46	715528.851	2059562.507
PI	3+89.79	R = 231.00	Delta = 35°13'26" R
PT	4+58.47	715662.167	2059520.468
		TL= 224.29	N 0°06'37" E
POE	6+82.76	715886.456	2059520.900

## xr1475R

Type	Station	Northing	Easting
POB	0+00.00	715223.364	2059613.566
		TL= 53.44	N 0°39'21" W
PC	0+53.44	715276.805	2059612.954
PI	1+67.66	R = 231.00	Delta = 52°37'05" R
PRC	2+65.58	715461.385	2059701.602
PI	3+07.62	R = 231.00	Delta = 20°37'30" L
PT	3+48.74	715523.185	2059756.566
		TL= 54.30	N 31°20'15" E
POE	4+03.04	715569.564	2059784.807

## DIVERSION

Type	Station	Northing	Easting
POB	0+00.00	715215.832	2058535.826
		TL= 125.00	S 90°00'00" E
PC	1+25.00	715215.832	2058660.826
PI	2+50.15	R = 350.00	Delta = 39°21'06" L
PRC	3+65.39	715295.188	2058882.753
PI	4+94.52	R = 350.00	Delta = 40°30'16" R
PT	6+12.81	715374.473	2059111.721
		TL= 801.08	S 88°50'50" E
PC	14+13.90	715358.357	2059912.643
PI	15+20.63	R = 350.00	Delta = 33°55'08" R
PRC	16+21.09	715294.880	2060106.711
PI	17+33.90	R = 350.00	Delta = 35°43'38" L
PT	18+39.34	715231.356	2060311.826
		TL= 100.00	N 89°20'39" E
POE	19+39.34	715232.500	2060411.820

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. South Zone (NAD 83/2011) SF = 0.9999759214

Plot Scale - 1:200

Plotted From - TRSF12139

Plotted From -

File - ...rd\proj\hugh038E\Data\Horiz.dgn

# CONTROL DATA

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 0034(154)225	B10	B21

Plotting Date: 12/19/2014

HORIZONTAL AND VERTICAL CONTROL POINTS						
POINT	STATION	OFFSET	DESCRIPTION	NORTHING	EASTING	ELEVATION
CP1	11+03.	80.76' L	Reference Mark – Overhead Utility Pole	715300.839	2059241.612	1488.44
CP2	17+14	77.35 R	Reference Mark	715148.754	2059853.575	1485.68

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System.  
South Zone (NAD 83/2011) SF = 0.9999759214  
The elevations shown on this sheet are based on NAVD 88.

Plot Scale - 1:200

Plotted From - TRSF12139

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# EXISTING TOPOGRAPHY SYMBOLOGY AND LEGEND

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

Plot Scale - 1:200

Plotted From - TRSF12139

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 0034(154)225		
Plotting Date: 12/19/2014		Revised 1-07-14 JWF	

Remove 3 Cable Guardrail at the following locations:  
 8+07-18' L to 11+30-18' L  
 15+33-19' R to 19+85-19' R  
 16+45-18' L to 20+97-19' L

9+83  
 Take Out 2-12' X 12' RCBC  
 (Incidental Work, Structure)

18+15  
 Take Out 2-10' X 6' RCBC  
 with Drop Structure  
 (Incidental Work, Structure)

15+41-44' L  
 Take Out 80' Pipe  
 & 2 Safety Ends  
 (Incidental Work, Grading)

24+00-40' R  
 Take Out 52' Pipe  
 & 2 Safety Ends  
 (Incidental Work, Grading)

Salvage W Beam Guardrail at the following location:  
 9+27-59' R to 11+47-20' R

9+78 (5.56 Sq. Mi)  
 Install 2-12' X 11' RCBC  
 (See Section E)

18+15 (1.72 Sq. Mi)  
 Install 2-10' X 7' RCBC  
 (See Section E)

14+75-45' L  
 Install 18"-78" CMP  
 & 2 Safety Ends

9+27-41.50' R  
 Refurbish Double  
 Mailbox

15+33-74' L  
 Refurbish Single  
 Mailbox

Sec. 29 - T110N - R76W

Sec. 28 - T110N - R76W

Paul B. Bonhorst & Shirley A. Bonhorst

Paul B. Bonhorst & Shirley A. Bonhorst

Diversion

PI 15+20.63  
 N 715356.21  
 E 2060019.36  
 Del 33°55'08"R  
 Dc 16°22'13"  
 T 106.73'  
 L 207.20'  
 R 350.00'

Diversion  
 PI 17+33.90  
 N 715230.06  
 E 2060199.03  
 Del 35°43'38" L  
 Dc 16°22'13"  
 T 112.80'  
 L 218.25'  
 R 350.00'

Brad L. Bonhorst

Parcel A2

Parcel 1

Diversion  
 PI 2+50.15  
 N 715215.83  
 E 2058785.98  
 Del 39°21'06" L  
 Dc 16°22'13"  
 T 125.15'  
 L 240.39'  
 R 350.00'

Diversion  
 PI 4+94.52  
 N 715377.07  
 E 2058982.61  
 Del 40°30'16"R  
 Dc 16°22'13"  
 T 129.14'  
 L 247.43'  
 R 350.00'

10+55-217' L  
 End type 2

Brad L. Bonhorst & Barbara A. Bonhorst

Parcel 3

11+66-33' L to 13+65-500' L  
 Obliterate Old Road  
 (4 Sta)

Parcel A1  
 xr1475L  
 PI 3+89.79  
 N 715588.84  
 E 2059520.33  
 Del 35°13'26"R  
 Dc 24°48'12"  
 T 73.33'  
 L 142.01'  
 R 231.00'

xr1475R  
 PI 1+67.66  
 N 715391.01  
 E 2059611.65  
 Del 52°37'05"R  
 Dc 24°48'12"  
 T 114.21'  
 L 212.14'  
 R 231.00'

xr1475R  
 PI 3+07.62  
 N 715487.28  
 E 2059734.71  
 Del 20°37'30" L  
 Dc 24°48'12"  
 T 42.03'  
 L 83.15'  
 R 231.00'

21+82 (Mainline)=  
 18+60 (Diversion)

23+43-78' L  
 Begin type 2

End Grading  
 Station 24+85

24+51-78' L  
 End type 2

Begin Grading  
 Station 0+91

Section Line

Present SD Hwy. 34

Dakota Lakes Research Farm

Parcel 2 & 2A

Do Not Disturb Power Poles  
 at the following locations:  
 10+95-76' R  
 10+97-81' L  
 17+08-75' R  
 20+14-76' R

Sec. 32 - T110N - R76W

Sec. 33 - T110N - R76W

Parcel 1  
 6+45 to 10+17.87 L  
 Temporary Easement for  
 Cut & Fill containing  
 0.8 ac, more or less

Parcel 2  
 8+00 to 8+90.63 R  
 Temporary Easement for  
 Cut & Fill containing  
 0.2 ac, more or less

Parcel 2  
 9+06.37 to 10+18.60 R  
 Temporary Easement for  
 Cut & Fill containing  
 0.2 ac, more or less

Parcel 3  
 10+16.20 to 15+38.85 L  
 Temporary Easement for  
 Cut & Fill containing  
 4.1 ac, more or less

Parcel 4  
 10+18.55 to 12+50 R  
 Temporary Easement for  
 Cut & Fill containing  
 0.1 ac, more or less

Parcel A1  
 15+36.84 to 20+55 L  
 Temporary Easement for  
 Cut & Fill containing  
 1.6 ac, more or less

Parcel 4  
 17+10 to 20+85 R  
 Temporary Easement for  
 Cut & Fill containing  
 0.2 ac, more or less

Parcel A2  
 23+40.98 to 24+50 L  
 Temporary Easement for  
 Cut & Fill containing  
 0.1 ac, more or less

Parcel 4  
 23+40 to 24+50 R  
 Temporary Easement for  
 Cut & Fill containing  
 0.1 ac, more or less

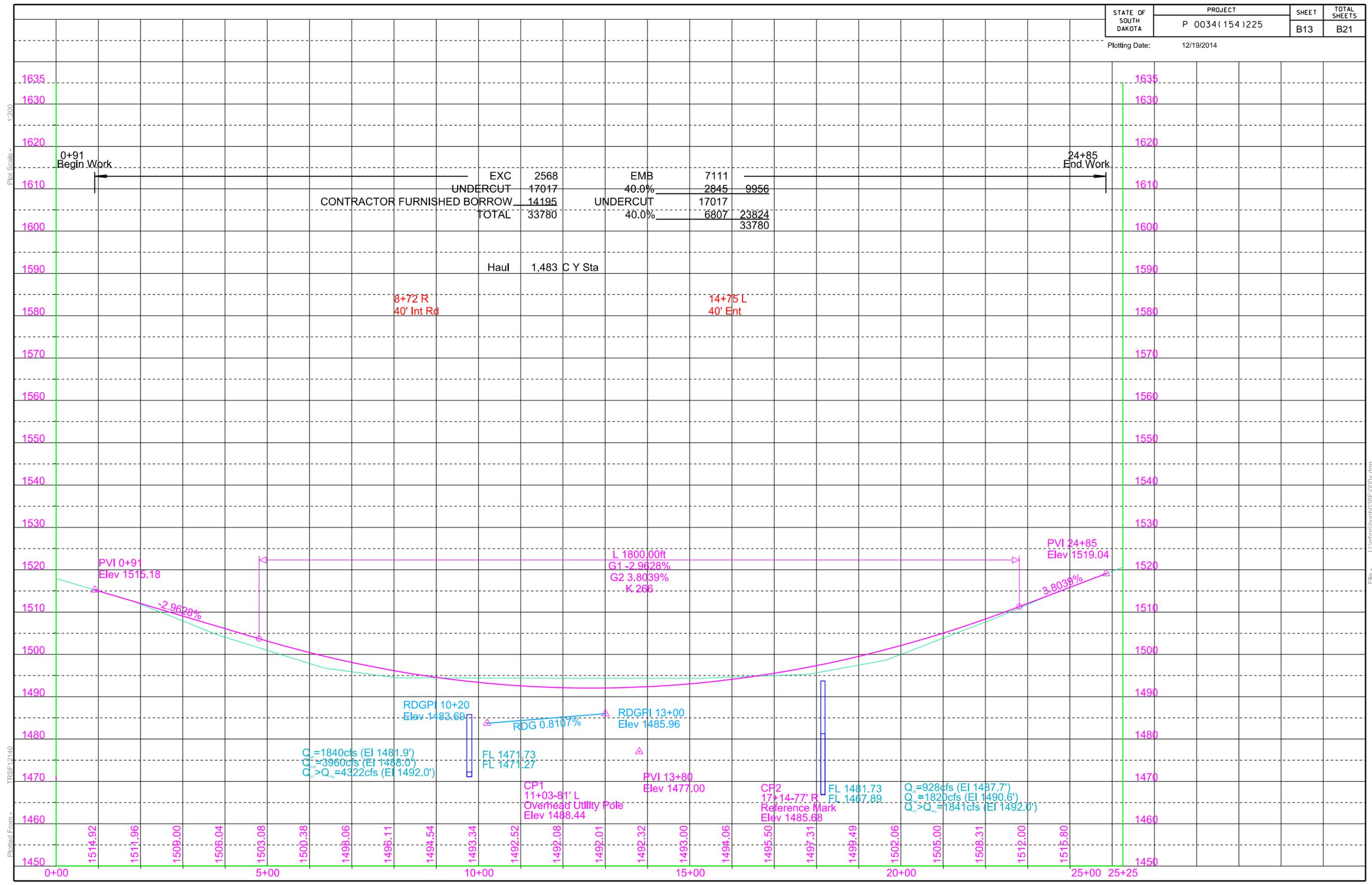
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Plotting Date: 12/19/2014



EXC	2568	EMB	7111
UNDERCUT	17017	40.0%	2845
CONTRACTOR FURNISHED BORROW	14195	UNDERCUT	17017
TOTAL	33780	40.0%	6807
			23824
			33780

Haul 1,483 C Y Sta

8+72 R  
40' Int Rd

14+75 L  
40' Ent

PVI 0+91  
Elev 1515.18

-2.9628%

L 1800.00ft  
G1 -2.9628%  
G2 3.8039%  
K 266

PVI 24+85  
Elev 1519.04

3.8039%

RDGPI 10+20  
Elev 1483.69

RDGFI 13+00  
Elev 1485.96

RDG 0.8107%

Q<sub>1</sub> = 1840cfs (EI 1481.9')  
Q<sub>2</sub> = 3960cfs (EI 1488.0')  
Q<sub>3</sub> > Q<sub>2</sub> = 4322cfs (EI 1492.0')

FL 1471.73  
FL 1471.27

PVI 13+80  
Elev 1477.00

CP1  
11+03-81' L  
Overhead Utility Pole  
Elev 1488.44

CP2  
17+14-77' R  
Reference Mark  
Elev 1485.68

FL 1481.73  
FL 1467.89

Q<sub>1</sub> = 928cfs (EI 1487.7')  
Q<sub>2</sub> = 1820cfs (EI 1490.6')  
Q<sub>3</sub> > Q<sub>2</sub> = 1841cfs (EI 1492.0')

Plot Scale - 1:200

Plotted From - TRSF12140

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Plotting Date: 12/19/2014

# DIVERSION

1+25 Begin Work      18+60 End Work

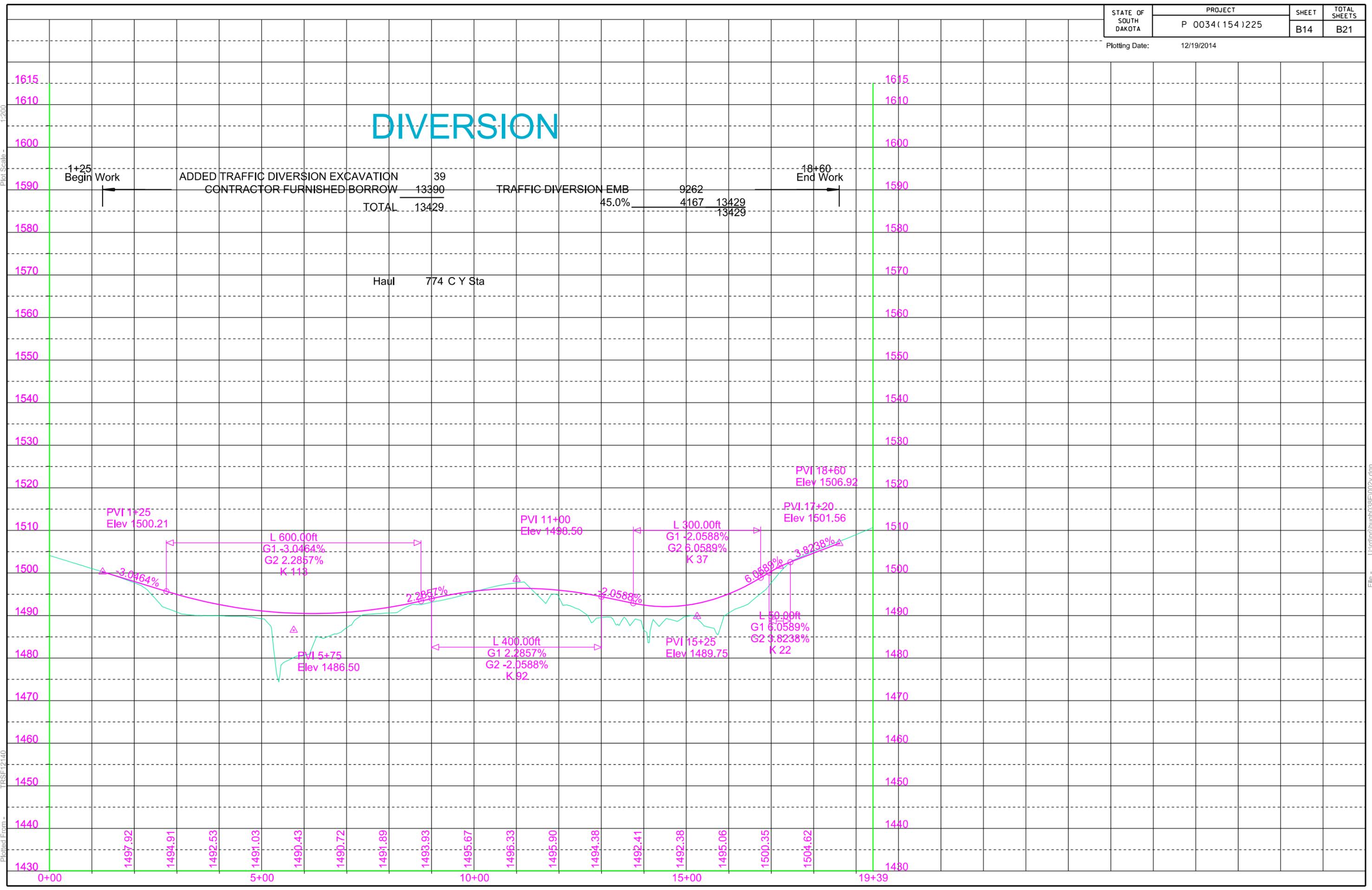
ADDED TRAFFIC DIVERSION EXCAVATION	39	TRAFFIC DIVERSION EMB	9262
CONTRACTOR FURNISHED BORROW	13390	45.0%	4167
TOTAL	13429		13429

Haul 774 C Y Sta

Plot Scale - 1:200

Plotted From - TRSF12140

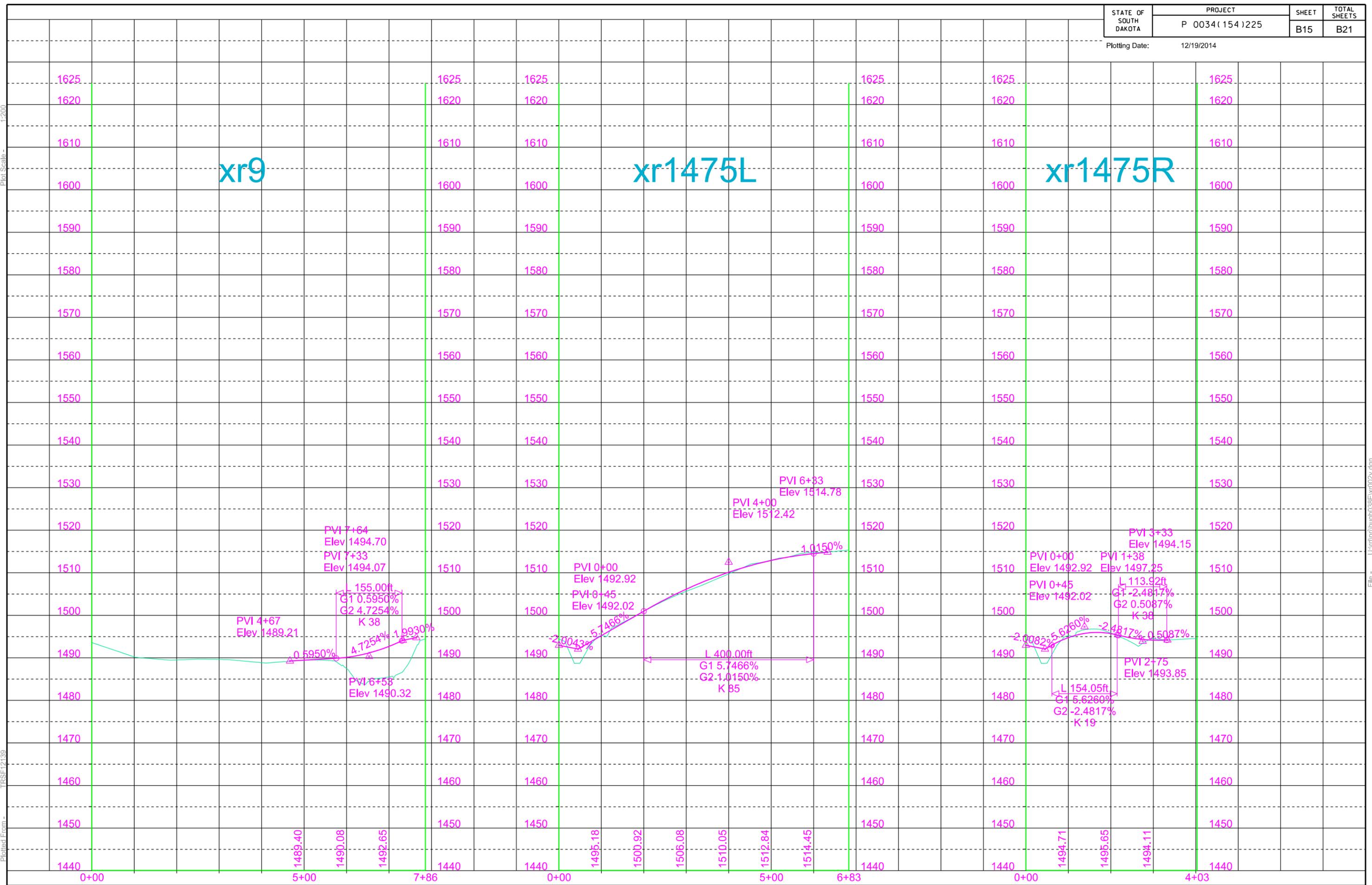
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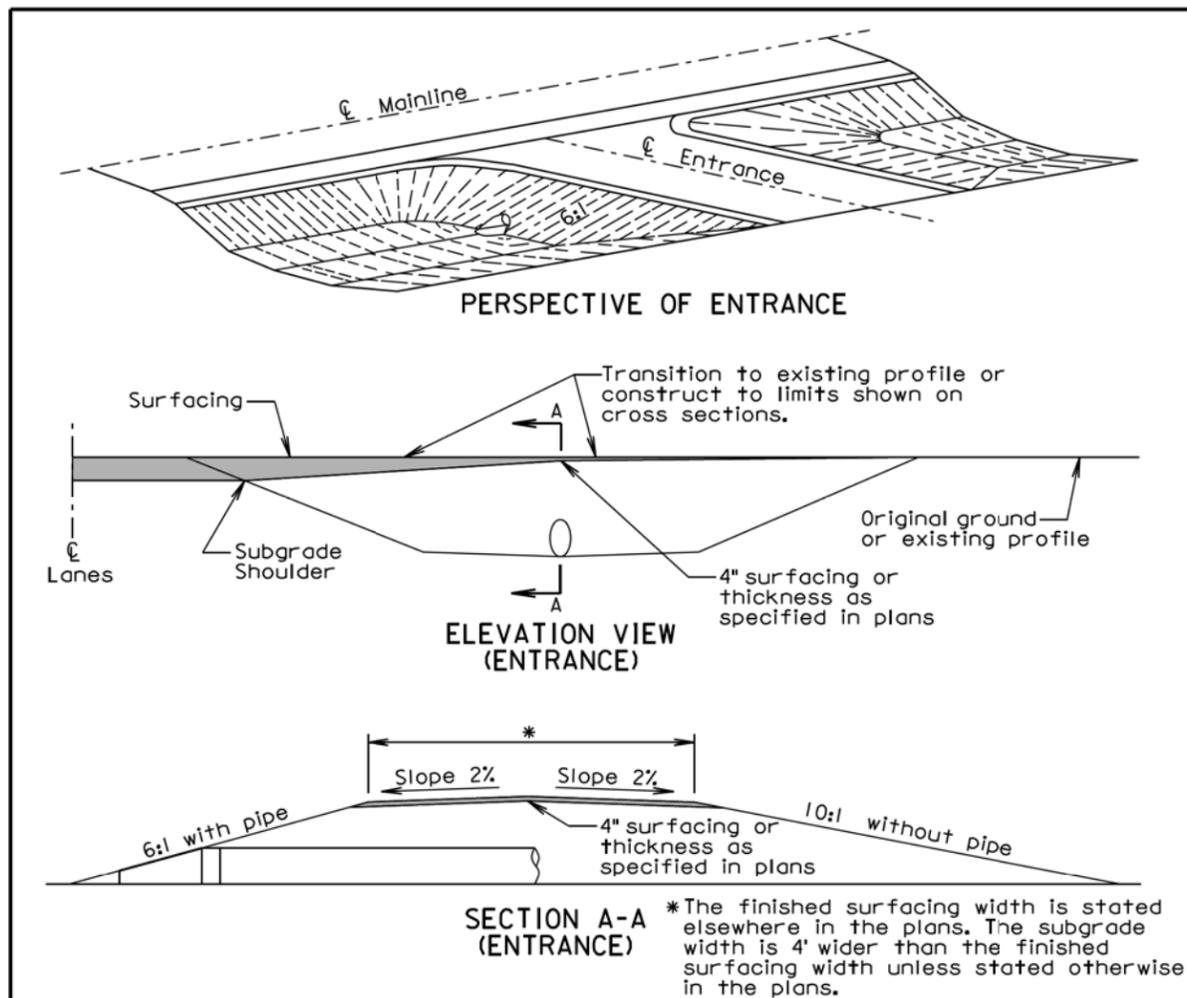
Plot Scale - 1:200

Plotted From - TRSF12139

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Plot Scale - 1:200


**GENERAL NOTES:**

The ditch section shown above in the perspective and elevation view is only for illustrative purposes.

A 6:1 inslope shall be constructed for an entrance when a pipe is required. A 10:1 inslope shall be constructed when a pipe is not required.

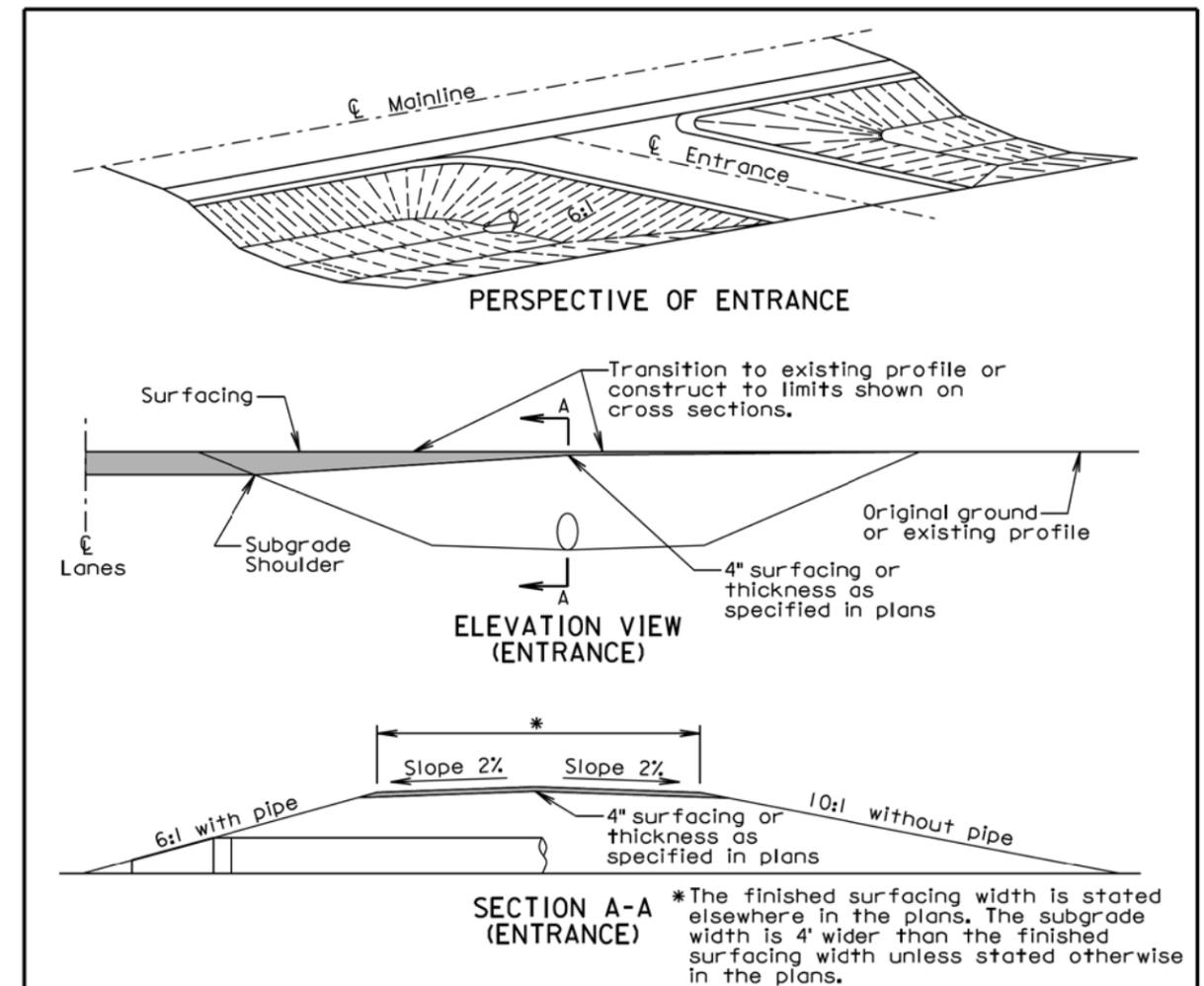
Pipe lengths shall be adjusted if necessary during construction to obtain the 6:1 slopes. For grading projects, the pipe lengths are estimated typically using a 4" thickness of surfacing directly over the subgrade above the pipe.

The transition area between the mainline inslope and the approach inslope for entrances shall be rounded to eliminate an abrupt transition.

The turning radii shall be 35' for intersecting roads and entrances unless stated otherwise in the plans.

September 6, 2013

Published Date: 4th Qtr. 2014	S D D O T	INTERSECTING ROADS AND ENTRANCES	PLATE NUMBER 120.01
			Sheet 1 of 2


**GENERAL NOTES:**

The ditch section shown above in the perspective and elevation view is only for illustrative purposes.

A 6:1 inslope shall be constructed for an entrance when a pipe is required. A 10:1 inslope shall be constructed when a pipe is not required.

Pipe lengths shall be adjusted if necessary during construction to obtain the 6:1 slopes. For grading projects, the pipe lengths are estimated typically using a 4" thickness of surfacing directly over the subgrade above the pipe.

The transition area between the mainline inslope and the approach inslope for entrances shall be rounded to eliminate an abrupt transition.

The turning radii shall be 35' for intersecting roads and entrances unless stated otherwise in the plans.

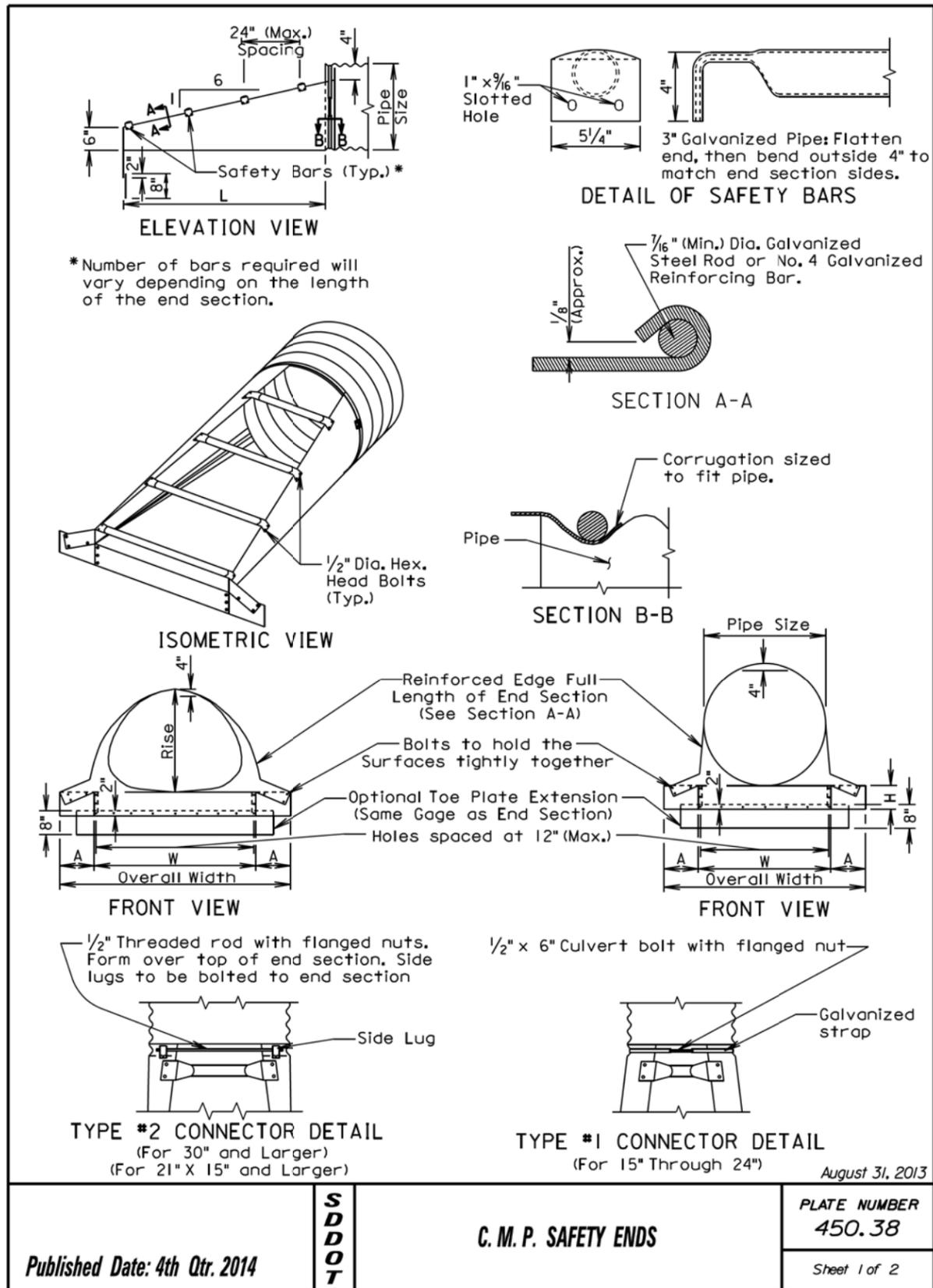
September 6, 2013

Published Date: 4th Qtr. 2014	S D D O T	INTERSECTING ROADS AND ENTRANCES	PLATE NUMBER 120.01
			Sheet 1 of 2

- Plotted From - TRSE12139

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Plot Scale - 1:200



ARCH C.M.P. SAFETY ENDS										
Equv. Dia. (Inch)	(Inches)		Min. Thick. Inch	Gage	Dimensions (Inches)			L Dimensions		
	Span	Rise			A	H	W	Overall Width	Slope	Length (Inch)
18	21	15	.064	16	8	6	27	43	6:1	30
21	24	18	.064	16	8	6	30	46	6:1	48
24	28	20	.064	16	8	6	34	50	6:1	60
30	35	24	.079	14	12	9	41	65	6:1	84
36	42	29	.109	12	12	9	48	72	6:1	114
42	49	33	.109	12	16	12	55	87	6:1	138
48	57	38	.109	12	16	12	63	95	6:1	168
54	64	43	.109	12	16	12	70	102	6:1	198
60	71	47	.109	12	16	12	77	109	6:1	222
72	83	57	.109	12	16	12	89	121	6:1	282

CIRCULAR C.M.P. SAFETY ENDS									
Pipe Dia. (Inch)	Min. Thick. Inch	Dimensions (Inches)					L Dimensions		
		Gage	A	H	W	Overall Width	Slope	Length (Inch)	
15	.064	16	8	6	21	37	6:1	30	
18	.064	16	8	6	24	40	6:1	48	
21	.064	16	8	6	27	43	6:1	66	
24	.064	16	8	6	30	46	6:1	84	
30	.109	12	12	9	36	60	6:1	120	
36	.109	12	12	9	42	66	6:1	156	
42	.109	12	16	12	48	80	6:1	192	
48	.109	12	16	12	54	86	6:1	228	
54	.109	12	16	12	60	92	6:1	264	
60	.109	12	16	12	66	98	6:1	300	

**GENERAL NOTES:**

Safety ends shall be fabricated from galvanized steel conforming to the requirements of the Standard Specifications.

Safety bars shall be fabricated from steel schedule 40 pipe in conformance with ASTM A53, grade B or HSS 3.5X.216 in conformance with ASTM A500, grade B.

Slotted holes for safety bar attachment shall be provided for all end sections.

Attachment to circular pipes 15" through 24" diameter shall be made with Type #1 straps. All other sizes shall be attached with Type #2 rods and lugs.

When stated in the plans, optional toe plate extension shall be punched and bolted to end section apron lip with 3/8" diameter galvanized bolts. Steel for toe plate extension shall be same gauge as end section. Dimensions shall be overall width less 6" by 8" high.

Installation shall be performed in accordance with the Standard Specifications.

Cost of all work and materials required for fabrication and installation of safety ends shall be incidental to the bid items for the various sizes of safety ends.

August 31, 2013

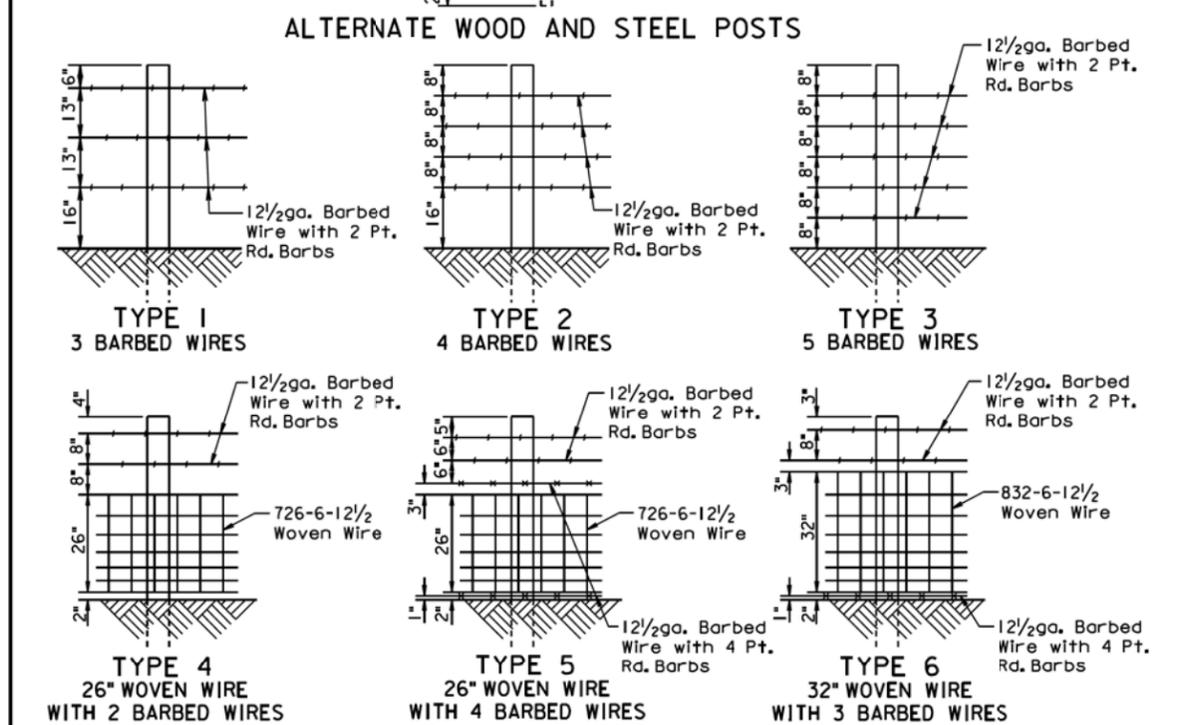
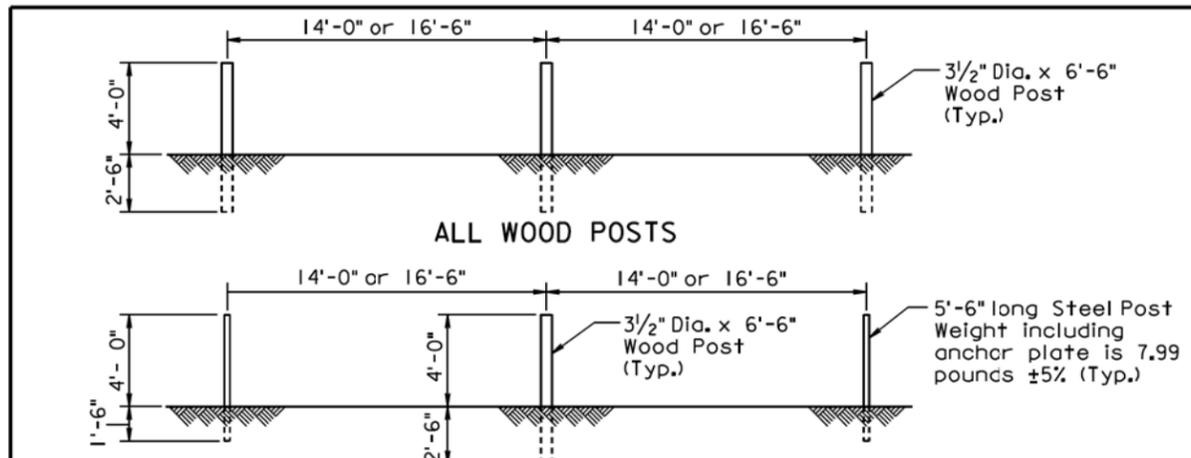
<b>S D D O T</b>	<b>C. M. P. SAFETY ENDS</b>	PLATE NUMBER <b>450.38</b>
	Published Date: 4th Qtr. 2014	Sheet 1 of 2

<b>S D D O T</b>	<b>C. M. P. SAFETY ENDS</b>	PLATE NUMBER <b>450.38</b>
	Published Date: 4th Qtr. 2014	Sheet 2 of 2

- Plotted From - TRSF12139

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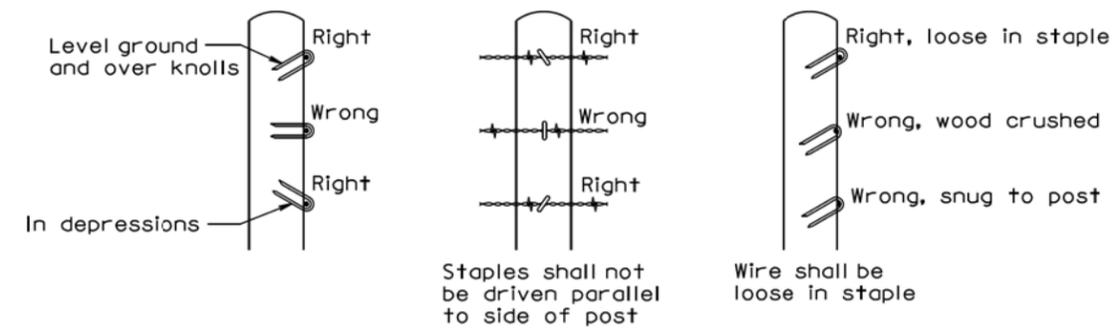
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TYPE	DESCRIPTION	LINE POST SPACING	BARBED WIRE		WOVEN WIRE
			WIRE GAGE	NUMBER AND SHAPE OF BARBS	STYLE OR DESIGN NO.
1	3 Barbed Wires	16'-6"	12/2	2 Point Round	---
2	4 Barbed Wires	16'-6"	12/2	2 Point Round	---
3	5 Barbed Wires	16'-6"	12/2	2 Point Round	---
4	26" Woven Wire with 2 Barbed Wires	14'-0"	12/2	2 Point Round	726-6-12/2
5	26" Woven Wire with 4 Barbed Wires	14'-0"	12/2	2 wires with 2 Pt. Rd., 2 wires with 4 Pt. Rd.	726-6-12/2
6	32" Woven Wire with 3 Barbed Wires	14'-0"	12/2	2 wires with 2 Pt. Rd., 1 wire with 4 Pt. Rd.	832-6-12/2

**GENERAL NOTES:**  
 Fence types designated on the plans that are followed by the letter S shall have smooth (barbless) wires.  
 When type 5S or 6S is designated the bottom wire may be barbed, smooth, or left off.  
 All degrees of curvature stated for fence are at centerline of roadway.  
 September 14, 2009

<b>S D D O T</b>	<b>RIGHT-OF-WAY FENCE</b>	PLATE NUMBER <b>620.01</b>
	Published Date: 4th Qtr. 2014	Sheet 1 of 1



**STAPLE INSTALLATION**

**GENERAL NOTES:**

The Right-of-Way fence shall consist of barbed wire or a combination of woven wire and barbed wire. The barbed wire and/or woven wire shall be fastened to all wood posts or fastened to alternating wood and steel posts. Only wood posts shall be used for brace panels. Gates shall be of the type designated in the plans or as otherwise directed by the Engineer. Fence shall be constructed conforming to the details on the standard plates and in the plans unless otherwise directed by the Engineer.

Right-of-Way fence on Interstate Projects shall be constructed one foot within the Interstate Right-of-Way lines except at bridge openings, cattle passes, and as otherwise directed by the Engineer.

Right-of-Way fence other than on Interstate Projects shall be constructed within one foot of the Right-of-Way on the Landowner's side except at bridge openings, cattle passes, and as otherwise directed by the Engineer.

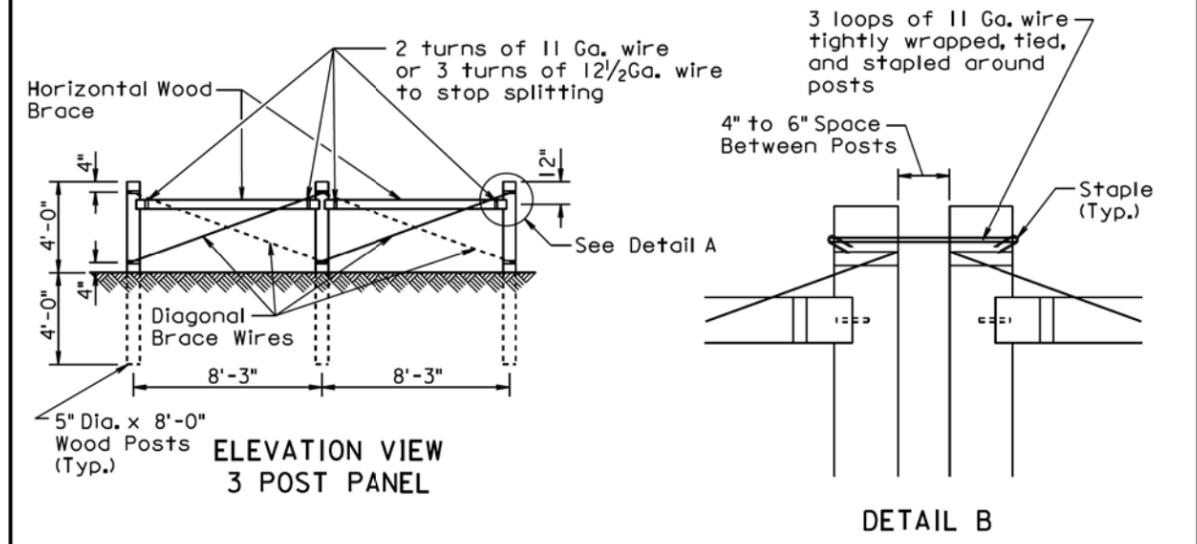
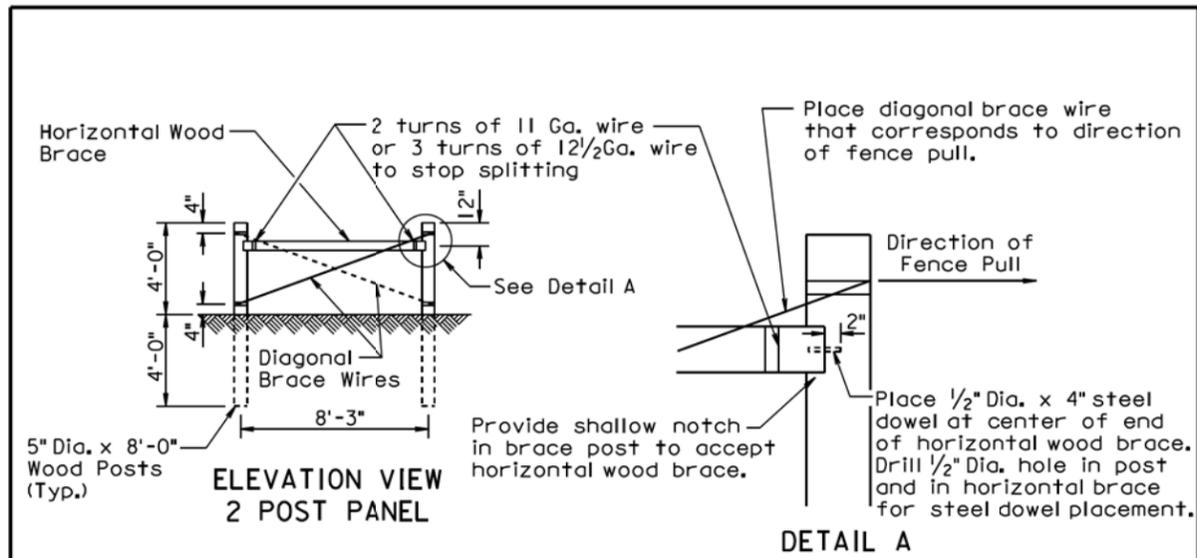
Barbs shall be fabricated from zinc coated 14 ga. wire. Two point barbs shall be wrapped twice around one main strand at 4" spacings and the four point barbs shall be interlocked and wrapped around both main strands at 5" spacings.

The gages of wire and wood post lengths and sizes are the minimum acceptable unless otherwise specified in the plans. The tolerances for steel posts shall be as stated in AASHTO M281. Woven wire shall conform to design and specifications of ASTM A116 and barbed wire shall conform to ASTM A121.

<b>S D D O T</b>	<b>STAPLE INSTALLATION AND GENERAL RIGHT-OF-WAY FENCE NOTES</b>	PLATE NUMBER <b>620.02</b>
	Published Date: 4th Qtr. 2014	Sheet 1 of 1

- Plotted From - TRSF12139

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**GENERAL NOTES:**

- Two Post Panels shall be installed at least every 1320' between corners.
- Two Post Panels shall be installed at any sharp vertical angle crest points and as directed by the Engineer.
- Horizontal wood braces shall consist of 4" dia. x 8' wood posts or rough 4" x 4" x 8' timbers.
- Diagonal brace wires shall be fabricated with 4 strands of 9 Ga. galvanized wire twisted tight. The diagonal brace wires shall be installed in accordance with the direction of the fence pull. Two diagonal brace wires are required if fence pull is in both directions.

December 23, 2004

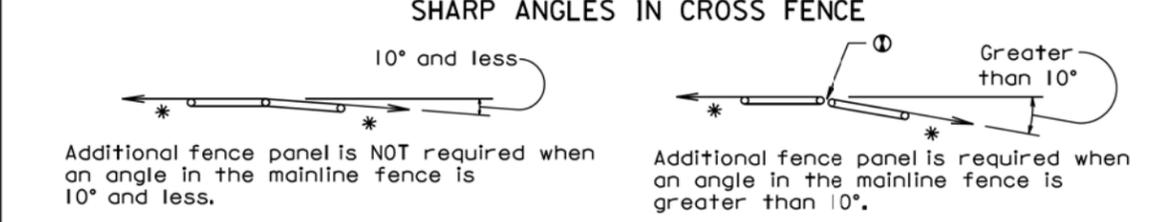
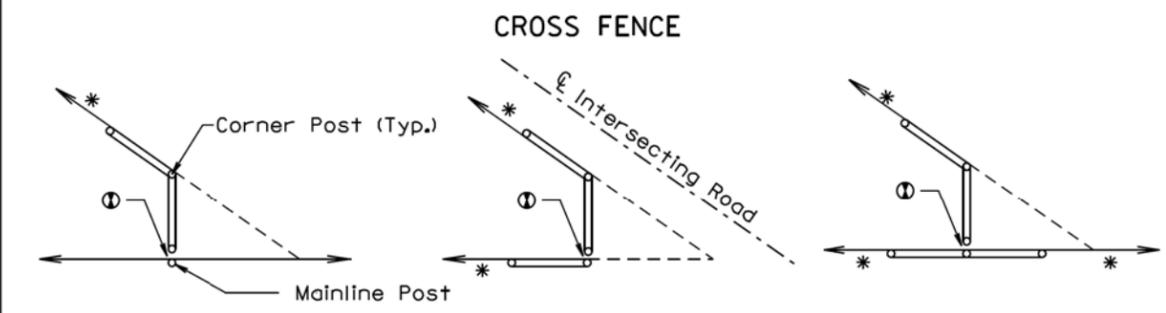
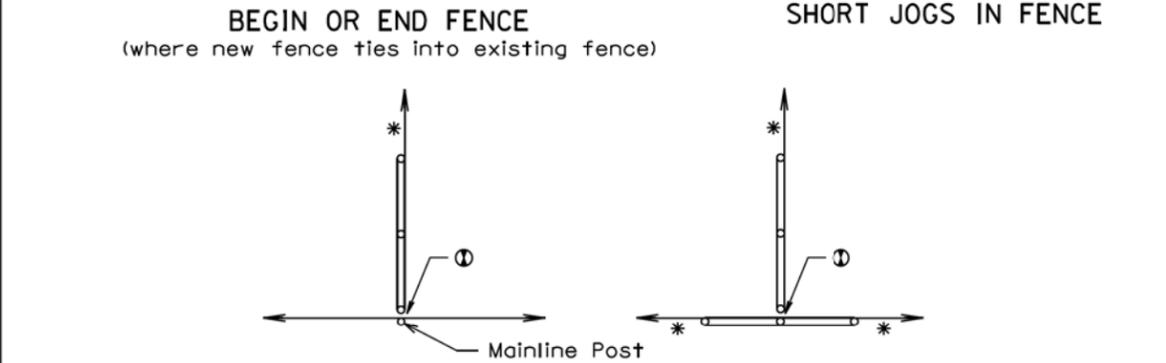
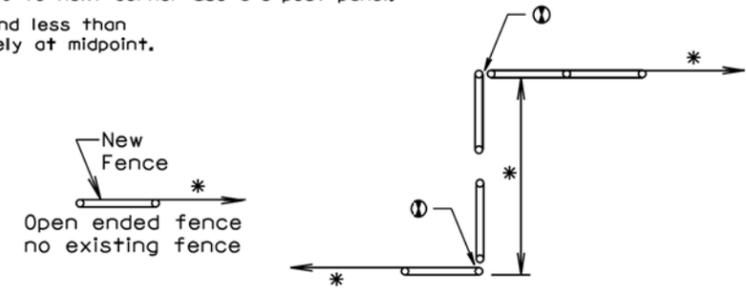
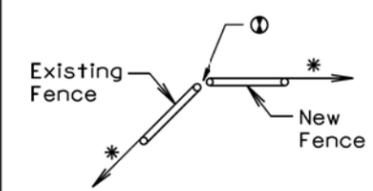
<b>S D D O T</b>	<b>BRACE PANELS AND APPLICATIONS OF BRACE PANELS</b>	PLATE NUMBER <b>620.03</b>
	Published Date: 4th Qtr. 2014	Sheet 1 of 3

SPACING OF 2 POST PANELS WITHIN CURVES	
DEGREE OF CURVE	SPACING OF 2 POST PANEL
less than 3°15'	** 1320'
3°15' and greater	**At P.C., P.T., and at every 1320' between P.C. and P.T.

**GENERAL NOTE:**

All degrees of curvature stated for fence are at centerline of roadway.

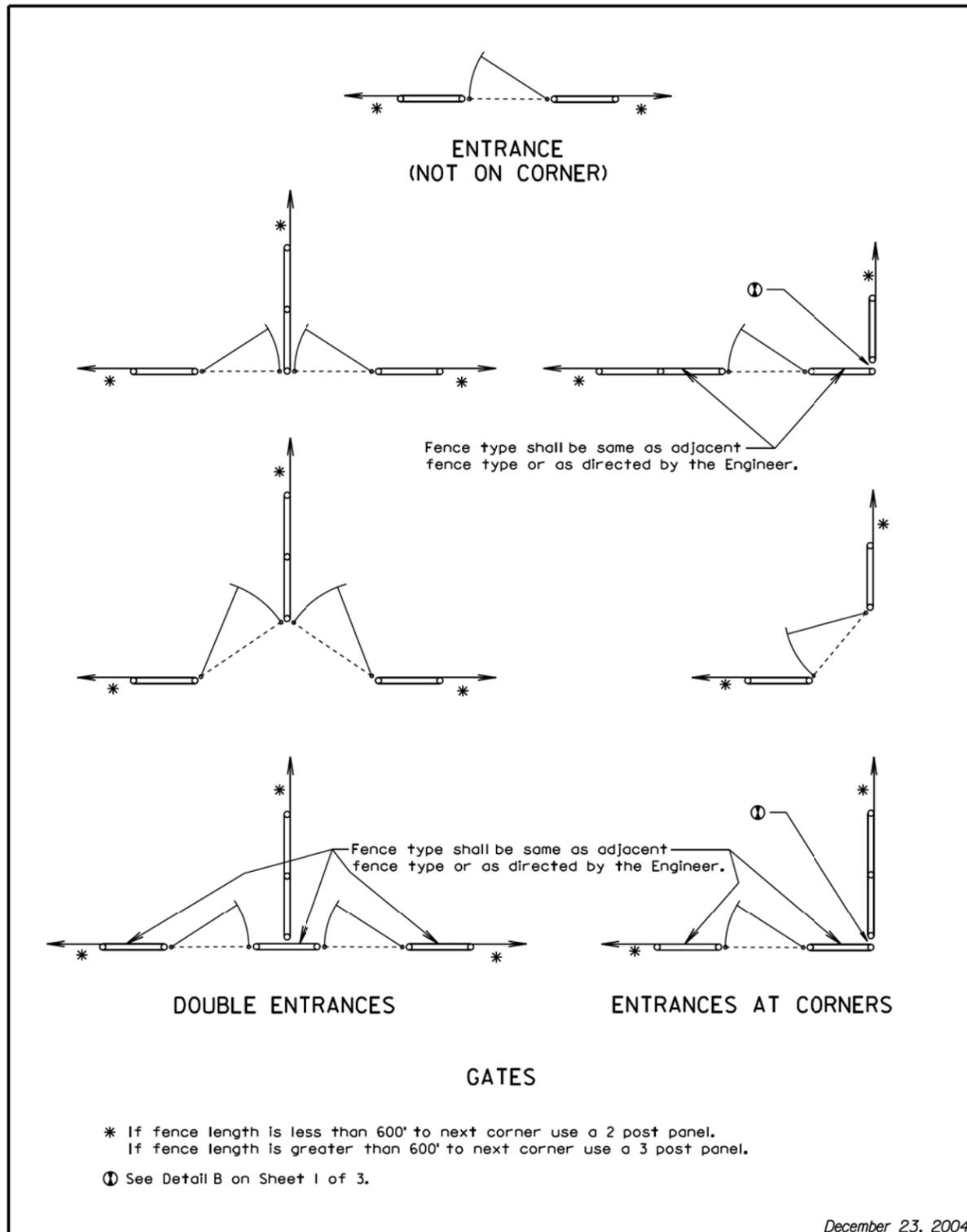
- \* If fence length is less than 600' to next corner use a 2 post panel. If fence length is greater than 600' to next corner use a 3 post panel.
- \*\* Fence lengths greater than 1320' and less than 2640' place 2 Post Panel approximately at midpoint.
- ① See Detail B on Sheet 1 of 3.



December 23, 2004

<b>S D D O T</b>	<b>BRACE PANELS AND APPLICATIONS OF BRACE PANELS</b>	PLATE NUMBER <b>620.03</b>
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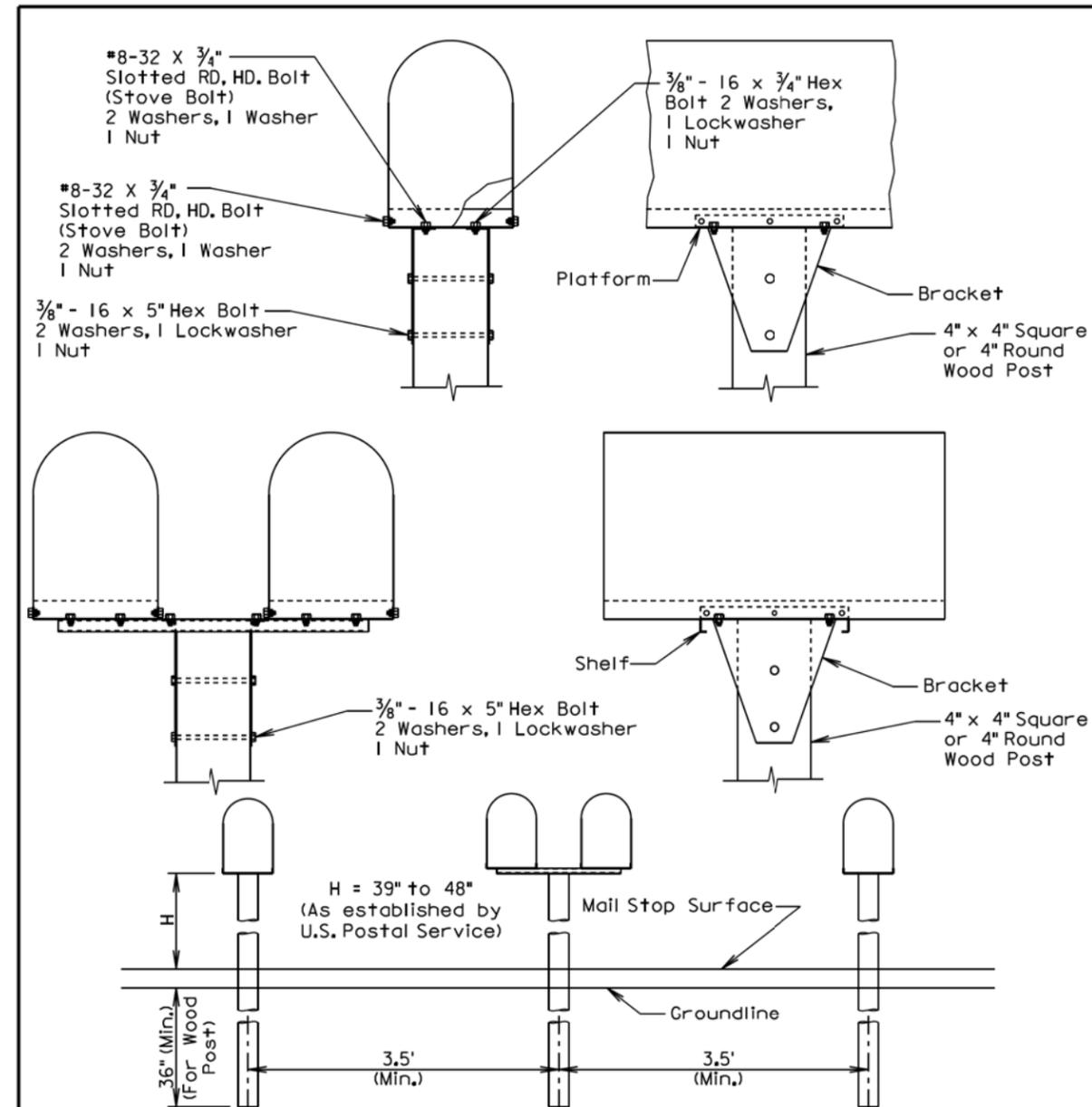
Plot Scale - 1:200



December 23, 2004

<b>S D D O T</b>	<b>BRACE PANELS AND APPLICATIONS OF BRACE PANELS</b>	PLATE NUMBER <b>620.03</b>
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-Plotted From- TRSF12139



**GENERAL NOTES:**

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.

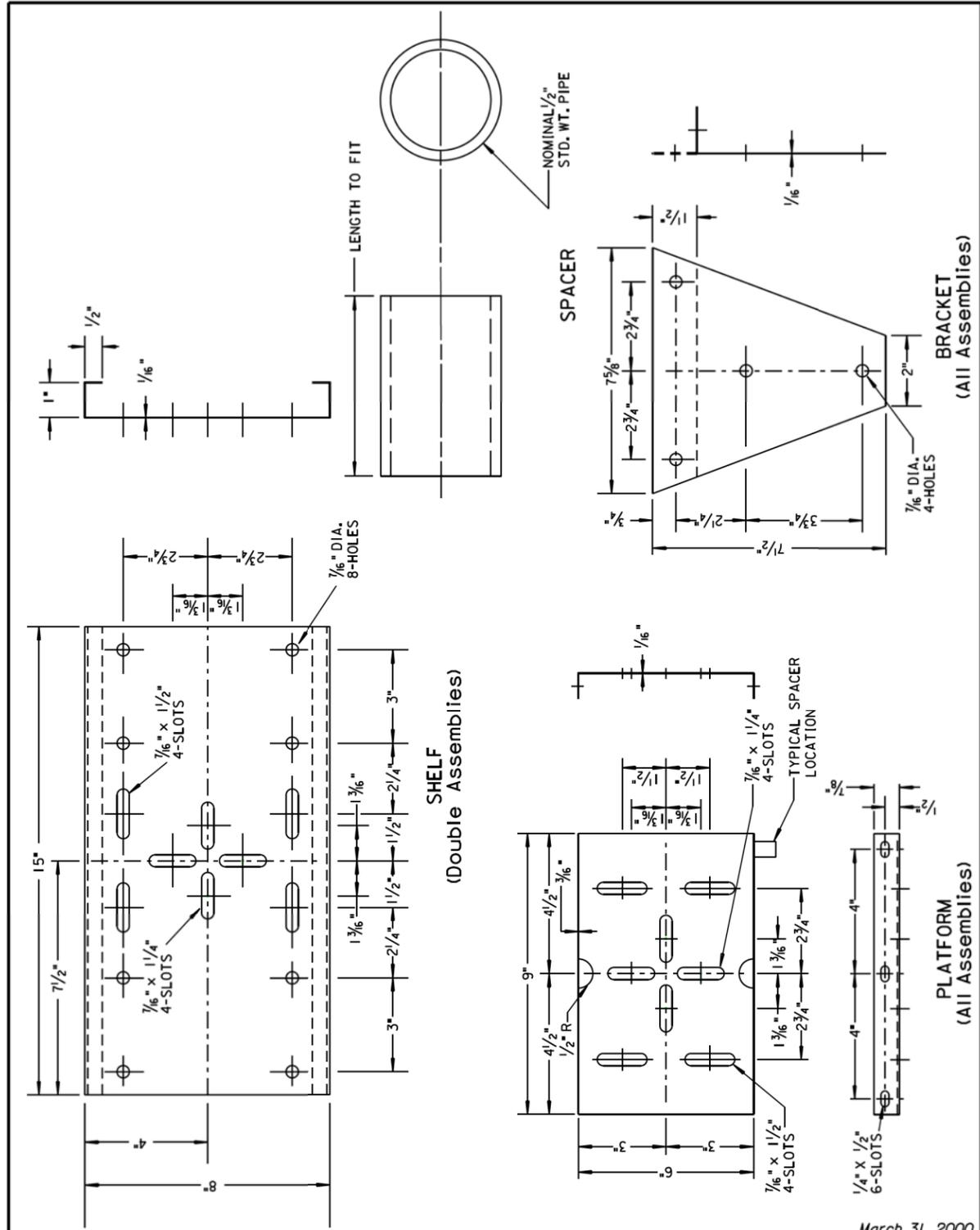
September 6, 2013

<b>S D D O T</b>	<b>SINGLE AND DOUBLE MAILBOX ASSEMBLIES</b>	PLATE NUMBER <b>900.02</b>
	Published Date: 4th Qtr. 2014	Sheet 1 of 1

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 0034(154)225	B21	B21

Plotting Date: 12/19/2014



March 31, 2000

<b>S D D O T</b>	<b>MAILBOX SUPPORT HARDWARE</b>	PLATE NUMBER <b>900.03</b>
		Sheet 1 of 1

Published Date: 4th Qtr. 2014