Dakota County Transportation Department
14955 Galaxie Avenue · Apple Valley, MN 55124
Phone 952.891.7100 · Fax 952.891.7127 · www.dakotacounty.us

ADDENDUM NO. 1

DATE: **October 24, 2012**

TO: All Planholders of Record

FROM: Dakota County Transportation Department

SUBJECT: COUNTY PROJ. NO: 5-41
STATE PROJECT NO: 019-605-028, 179-020-031, 1901-148
MINN. PROJECT NO: HPPH-STP09-STP 1912(258)
LOCATION: TH 13/CSAH 5 Interchange Burnsville
Addendum No. **1**
Date of Letting 9:00 a.m. October 30, 2012

1. The "NOTICE TO ALL BIDDERS-SUSPENSIONS / DEBARMENT" 2 pages dated August 7, 2012 is hereby deleted from the Proposal and Attached "NOTICE TO ALL BIDDERS-SUSPENSIONS / DEBARMENT" 2 pages dated October 10, 2012 is substituted therefore.

2. The approximate quantities shown in the following table are hereby changed as indicated, and shall be considered as such in the unit bid price.

Item No.	Item Description	Unit	Existing Quantity	Revised Quantity	Schedule Of Bid Prices Sheet No.
2106.607	GRANULAR EMBANKMENT (CV)	CU YD	97,619	98,326	6 of 21
2106.607	SELECT GRANULAR EMBANKMENT (CV)	CU YD	66,549	66,973	6 of 21
2211.503	AGGREGATE BASE (CV) CLASS 6 (P)	CU YD	19,355	19,515	7 of 21
2360.501	TYPE SP 12.5 WEARING COURSE MIXTURE (3,C)	TON	6,290	6,471	7 of 21
2503.511	6" PVC PIPE SEWER ***SDR 26***	LIN FT	50	NA	9 of 21
2503.511	8" PVC PIPE SEWER ***SDR 26***	LIN FT	406	NA	9 of 21
2503.511	8" DUCTILE IRON PIPE SEWER ***CL 52***	LIN FT	130	NA	9 of 21
2503.511	10" DUCTILE IRON PIPE SEWER ***CL 52***	LIN FT	20	NA	9 of 21
2503.511	12" DUCTILE IRON PIPE SEWER ***CL 52***	LIN FT	68	NA	9 of 21
2503.511	16" DUCTILE IRON PIPE SEWER ***CL 52***	LIN FT	831	NA	9 of 21
2504.603	6" WATERMAIN DUCTILE IRON CL 52	LIN FT	472	485	12 of 21

Remove Pages 6, 7, 9, and 12 of the SCHEDULE OF BID PRICES and replace with the attached updated Pages 6, 7, 9, and 12.

3. The following Plan Sheets are hereby deleted:

Tabulation Quantities City Project Plan Sheet No.	U2 of U28
Utility Plan & Profile Greenwood Drive Plan Sheet No.	U6 of U28
Utility Plan & Profile SE Frontage Road Plan Sheet No.	U7 of U28
Utility Plan & Profile SE Frontage Road Plan Sheet No.	U9 of U28
Utility Plan & Profile SE Frontage Road Plan Sheet No.	U10 of U28
Utility Plan & Profile SE Frontage Road Plan Sheet No.	U11 of U28
Utility Plan & Profile SE Frontage Road Plan Sheet No.	U21 of U28
Utility Plan & Profile SE Frontage Road Plan Sheet No.	U23 of U28
Bridge 19036 Transverse Sect. & Sched. Of Quantities Plan Sheet No.	2 of 91
Bridge 19036 South Abutment Details Plan Sheet No.	11 of 91
Bridge 19036 North Abutment Details Plan Sheet No.	33 of 91
Bridge 19036 Superstructure Details Plan Sheet No.	61 of 91
Bridge 19036 Conduit System & Future Fiber Optics Plan Sheet No.	74 of 91
Bridge 19036 Conduit System & Future Fiber Optics Plan Sheet No.	76 of 91

and replaced with attached updated Plan Sheets:

Tabulation Quantities City Project Plan Sheet No.	U2 of U28
Utility Plan & Profile Greenwood Drive Plan Sheet No.	U6 of U28
Utility Plan & Profile SE Frontage Road Plan Sheet No.	U7 of U28
Utility Plan & Profile SE Frontage Road Plan Sheet No.	U9 of U28
Utility Plan & Profile SE Frontage Road Plan Sheet No.	U10 of U28
Utility Plan & Profile SE Frontage Road Plan Sheet No.	U11 of U28
Utility Plan & Profile SE Frontage Road Plan Sheet No.	U21 of U28
Utility Plan & Profile SE Frontage Road Plan Sheet No.	U23 of U28
Bridge 19036 Transverse Sect. & Sched. Of Quantities Plan Sheet No.	R2 of 91
Bridge 19036 South Abutment Details Plan Sheet No.	R11 of 91
Bridge 19036 North Abutment Details Plan Sheet No.	R33 of 91
Bridge 19036 Superstructure Details Plan Sheet No.	R61 of 91
Bridge 19036 Conduit System & Future Fiber Optics Plan Sheet No.	R74 of 91
Bridge 19036 Conduit System & Future Fiber Optics Plan Sheet No.	R76 of 91

4. The modifications made to **"U" BURNSVILLE WATERMAIN & SANITARY SEWER PLANS**

- **a.** Sheet U2 Identifies the 2503 6" & 8" PVC PIPE SEWER as **SDR 26** and 2503 8", 10", 12", & 16" DUCTILE IRON PIPE SEWER as **CL 52.**
- **b.** Sheets U6, U9, U10, & U23 modifies the watermain vertically to provide a minimum vertical separation of 18 inches on all watermain from storm sewer and sanitary sewer crossings.
- **c.** Sheets U7, U11, U23 modify the locations of several hydrants to meet the standard that all hydrants must be 10' away from sanitary sewer or storm sewer facilities.

  i. Sheet U6: At station 29+36 the 16" DIP was raised at 84" RCP crossing and at station 33+30 the 16" DIP was raised at Sanitary Sewer crossing

  ii. Sheet U7 Moved Hydrant 3885 8' RT at 43+28

  iii. Sheet U9 & U10: 8" DIP was lowered to go under 8" PVC crossing at station 52+74

iv. Sheet U11 Moved Hydrant 3888 to 64+80

v. Sheet U21 Moved Hydrant 3882 to 15.5' LT

vi. Sheet U23 Rotated Hydrant 9897 from west to east and lowered 12" DIP at 21" RCP storm crossing.

5. The modifications made to **Bridge No. 19036 Plan Sheets** 2, 11, 33, 61, 74, and 76

A. On Sheet 2R of 91 for Bridge No. 19036 the following changes were made:
   a. The number and configuration of suspended conduits on right side of the "Transverse Section" were modified, as well as circle note 3.

B. On Sheet 11R of 91 for Bridge No. 19036 the following changes were made:
   a. The number and configuration of pipe sleeves going through the abutment backwall were modified, as well as circle note 7.

C. On Sheet 33R of 91 for Bridge No. 19036 the following changes were made:
   a. The number and configuration of pipe sleeves going through the abutment backwall were modified, as well as circle note 7.

D. On Sheet 61R of91 for Bridge No. 19036 the following changes were made:
   a. The number and configuration of suspended conduits on right side of the "Transverse Section" were modified.

E. On Sheet 74R of91 for Bridge No. 19036 the following changes were made:
   a. The number and size of conduits for the "Conduit System (Future)" were modified.
   b. The quantities in the "Summary of Quantities for Conduit System (Future)" were modified.
   c. Some notes under "General Notes" were eliminated.

F. On Sheet 76R of91 for Bridge No. 19036 the following changes were made:
   a. The overall configuration of the "Transverse Section", including the number and size of conduits, was modified.

6. DIVISION 2 BURNSVILLE SANITARY AND WATERMAIN

a. Part B 2621 - SANITARY SEWER, STORM SEWER, AND SANITARY SEWER SERVICES A2 Bid Items 2503.511 8", 10", 12", and 16" DUCTILE IRON PIPE SEWER shall be **CL 52**. Cement mortar lining meeting the requirements of AWWA C104 for standard thickness.

TAB	SHEET No.	ITEM No.	DESCRIPTION	UNITS	TOTALS
U1	U2	2503.511	8" DUCTILE IRON PIPE SEWER **CL 52**	LIN FT	130
U1	U2	2503.511	10" DUCTILE IRON PIPE SEWER **CL 52**	LIN FT	20
U1	U2	2503.511	12" DUCTILE IRON PIPE SEWER **CL 52**	LIN FT	68
U1	U2	2503.511	16" DUCTILE IRON PIPE SEWER **CL 52**	LIN FT	831

Ductile Iron Pipe Sewer Liner ; shall be manufactured in the United States of America and in accordance with the requirements of ASA Specification A21.51 (AWWA Cl. 52.) and shall be cement lined. All pipe shall be cast and lined at the same manufacturing plant before shipping of the finished product. See City Engineers Association of Minnesota (C.E.A.M.) Standard Specifications 1999 Edition : SECTION 2621 STANDARD SPECIFICATIONS FOR SANITARY SEWER AND STORM SEWER INSTALLATION 2621.2 MATERIALS A2 Ductile Iron Pipe and Ductile Iron and Gray Iron and Fittings supplementary provisions (2) for cement mortar lining requirement.

Ductile Iron Pipe Sewer Polyethylene Encasement Material: The material shall be 8-mil low density polyethylene film. The encasing tape shall be Polyvinyl and be ten mils (10mm) thick

b. Site-Work – Special Provisions – Burnsville Sanitary Sewer and Watermain Plans
Part B: City Engineers Association of Minnesota Specification Modifications

2611 – Watermain and Services

2611.2 Materials

C3 Butterfly Valves:

Delete the following sentence from this section as it is contradictory to other specifications in this section. The specification calls for **"seat on body"** valves and not "seat on disc" valves.

Delete ~~- Seat on disc.~~

2611.3 Materials Construction Requirements

A4 Blocking and Anchoring of Pipe

Insert the following paragraph and table between the second and third paragraphs of this section. Also include the attached Watermain Blocking detail that is referenced in 2611.3 A4.

The below table shall serve as the required restrained joint distances from any direction of the type of fitting that may be encountered during the construction of the watermain distribution system. There is no additional compensation for providing the restrained joints necessary and shall be considered incidental to the cost of the fittings per section 2611.4 I. These restrained joints may be provided by retainer glands as specified in section 2611.2. Additional reaction backing may be required by the Engineer at no cost to the Owner, but no further joint restraint shall be required. Where specified below as "Reaction Blocking", the contractor can achieve thrust restraint at the fitting by providing reaction blocking, but does not prohibit the use of retainer glands.

Pipe Diameter	90 Degree Bends, Tees and Crosses	45 Degree Bends	22.5 and 11.25 Degree Bends	Dead Ends
6 inch	Reaction Blocking	Reaction Blocking	Reaction Backing	40 feet
8 inch	Reaction Blocking	Reaction Blocking	Reaction Backing	40 feet
12 inch	20 feet	10 feet	10 feet	66 feet
16 inch	25 feet	10 feet	10 feet	86 feet

S:\Details\english\Watermain Blocking.dwg

NOTES:

1) THRUST BLOCK TO BE USED FOR BENDS 22.5\179 AND OVER.

2) THRUST BLOCK SHALL ONLY BE USED WHERE WORKING PRESSURES ARE LESS THAN 150 LBS.

3) THRUST BLOCK BEARING AREA SHALL BE PLACED AGAINST SELECT MATERIAL.

4) NO TIMBER WILL BE ALLOWED FOR THRUST BLOCKING.

5) WRAP FITTINGS WITH POLYETHYLENE.

PIPE SIZE	BEARING AREA
6"	4.0 SQ. FT.
8"	6.0 SQ. FT.
10" – 12"	12.0 SQ. FT.
16"	20.0 SQ. FT.

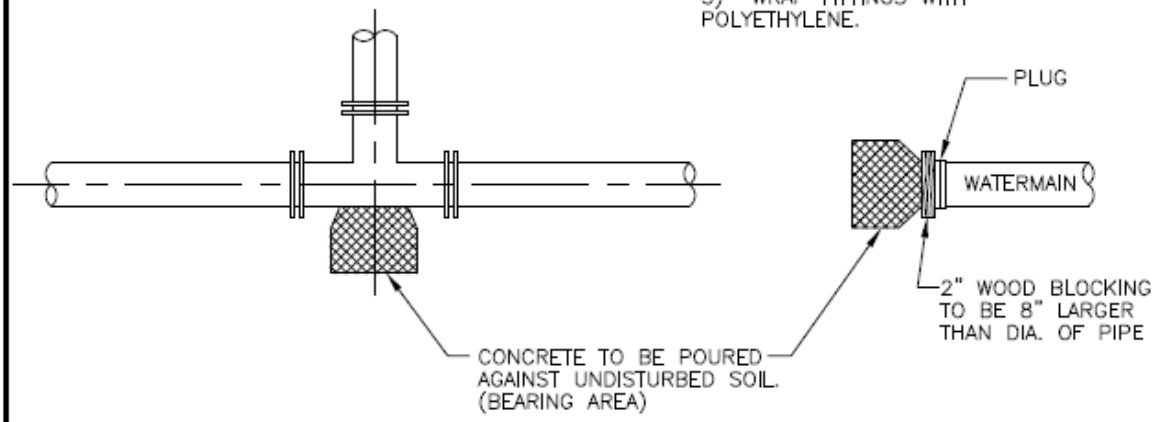

PLATE NO. WM – 1			
REVISED		06/99	

CITY OF BURNSVILLE - ENGNEERING DEPT.

WATERMAIN BLOCKING

7. Special Subgrade Treatments Treatment No. 4 on sheet 88 is hereby deleted from the Plan and replaced with;

Treatment #4 Remove a 2' strata of organic & highly organic soils 48" to 72" below the grading grade. Backfill with 24" of Select Grading Material below a Subgrade Treatment of 30" of Granular Material and 12" Select Granular with Pavement Inset E. Treatment # 4 applies to South Frontage Road turn lane at Washburn Avenue, plan sheet 210 of 442 located at 13EB Station 654+47 to 658+65 RT

a. Earthwork Summary Tab A Plan Sheet 20 is modified:
Alignment **S. Frontage RD at Washburn Ave**. is modified to include Granular Embankment (CV) 707 Cubic Yards, Select Granular Embankment (CV) Cubic Yards 424, and Total Embankment Cubic Yards 1.131
Interchange Quantity Totals is modified: Granular Embankment (CV) 81,826, Select Granular Embankment (CV) Cubic Yards 58,484 and Total Embankment Cubic Yards 235,719.
Project Totals is modified: Granular Embankment (CV) 98,326, Select Granular Embankment (CV) Cubic Yards 66,973 and Total Embankment Cubic Yards 263,441.

b. Aggregate Tab G Plan Sheet 26 is modified
13EB Station is modified: **654+47 to 658+65 RT** Aggregate Base (CV) Class 6 Cubic Yards 160,
Interchange Quantity Totals is modified: Aggregate Base (CV) Class 6 Cubic Yards 15,773.
Totals is modified: Aggregate Base (CV) Class 6 Cubic Yards 18,851.

c. Bituminous Tab I Plan Sheet 28 is modified;
13EB Station is modified: 654+47 to 658+65 Var. RT Type SP 12.5 Wearing Course Mixture (3,C) Total Area Square Yards 627, Mix Ton 181, and Depth Inches 5.
Interchange Quantity Totals Type SP 12.5 Wearing Course Mixture (3,C) is modified: Total Area Square Yards 25,113 and Mix Ton 6,167.
Project Totals Type SP 12.5 Wearing Course Mixture (3,C) is modified: Total Area Square Yards 25,113 and Mix Ton 6,167.

8. S-84 (2411) PREFABRICATED MODULAR BLOCK WALLS (PMBW) WITH AND WITHOUT EARTH REINFORCEMENT

S-84.2 G. of SUBMITTAL REQUIREMENTS AND MnDOT QUALITY ASSURANCE (QA) REVIEW is deleted and replaced with

A. Architectural details, including surface pattern and texture, joint layout and details, and surface finish and color. The architectural design theme required will be Architectural Concrete Texture (**Limestone).** Include segments of Architectural Concrete Texture on Elevation Views described in Section “C” above. Example details for Architectural Concrete Texture (**Limestone**) are Split Limestone face, LeSueur County Limestone, or Similar Limestone pattern.

Plan Sheet 346 of 442: Replace General Notes: Architectural Details:

The architectural design theme required will be Architectural Concrete Texture (**Limestone).** Include segments of Architectural Concrete Texture on Elevation Views described in Special Provisions S-84.2 Submittal Requirements and MnDOT Quality Assurance (QA).

9. S-59.6 states "The fourth paragraph of Mn/DOT 2104.5 is hereby replaced with "The removal of all bituminous surfacing, without regard to thickness, shall be paid for under Item 2104.505 Remove Bituminous Pavement.""

   The June 1, 2012 Metro Materials Memo (M1901148_MDR(FINAL).pdf) under Site History included in "Notice to Bidders (Specifications)"
   At: http://www.co.dakota.mn.us/DoingBusiness/RequestsFor/OtherInformation/CP5-41AdditionalAttachments.htm download: *** County Project 5-41 Additional Attachments (ZIP)**
   Or- County Project 5-41 Additional Attachments NEW Indicates TH 13 mainline bituminous is approximately 19" thick west of CSAH 5 and 12" thick east of CSAH 5.

10. Plan Sheet 365 of 442 **Noise Wall Cap Details** Back Elevation **Delete Noise Wall-24'-0" Spacing. Concrete Posts are 8' 0" Typical Spacing as shown on sheet 366 of 442.**

11. See attached nine (9) pages: **Addendum 1A for changes to the Special Provisions for Bridge No. 19036:**
    1) **Delete SB-6.8 (Curing Bridge Slab) in its entirety.**
    2) **Add the Attached Addendum 1A to Division SB.**

Remove Pages 6, 7, 9, and 12 of the SCHEDULE OF BID PRICES and replace with the attached updated Pages 6, 7, 9, and 12.

Note: The Contractor must acknowledge the receipt of this addendum dated October 24, 2012 on the back sheet of the proposal.

10/24/12
Date

Thomas J. Anton, P.E.
Reg. No. 20396

NOTICE TO BIDDERS

SUSPENSIONS/DEBARMENTS

October 10, 2012

DEPARTMENT OF TRANSPORTATION

NOTICE OF DEBARMENT

NOTICE IS HEREBY GIVEN that MnDOT has ordered that the following vendors be debarred for a period of three (3) years, effective February 24, 2010 until February 24, 2013:

- Joseph Edward Riley, Morris, MN
- John Thomas Riley, Morris, MN

NOTICE IS HEREBY GIVEN that MnDOT has ordered that the following vendors be debarred for a period of three (3) years, effective March 25, 2011 until March 25, 2014:

- Philip Joseph Franklin, Leesburg, VA
- Franklin Drywall, Inc. and its affiliates, Little Canada, MN
- Master Drywall, Inc. and its affiliates, Little Canada, MN

NOTICE OF SUSPENSION

NOTICE IS HEREBY GIVEN that the Department of Transportation ("MnDOT") has ordered that the following vendors be suspended for a period of sixty (60) days, effective October 3, 2012 until December 2, 2012:

- Marlon Louis Danner and his affiliates, South St. Paul, MN
- Danner, Inc. and its affiliates, South St. Paul, MN
- Bull Dog Leasing, Inc. and its affiliates, Inver Grove Heights, MN
- Danner Family Limited Partnership and its affiliates, South St. Paul, MN
- Ell-Z Trucking, Inc. and its affiliates, South St. Paul, MN
- Danner Environmental, Inc. and its affiliates, South St. Paul, MN

Minnesota Statute section 161.315 prohibits the Commissioner, counties, towns, or home rule or statutory cities from awarding or approving the award of a contract for goods or services to a person who is suspended or debarred, including:

1) any contract under which a debarred or suspended person will serve as a subcontractor or material supplier,
2) any business or affiliate which the debarred or suspended person exercises substantial influence or control, and
3) any business or entity, which is sold or transferred by a debarred person to a relative or any other party over whose actions the debarred person exercises substantial influence or control, remains ineligible during the duration of the seller's or transfer's debarment.

DEPARTMENT OF ADMINISTRATION

As of the date of this notice and in accordance with Minnesota Rules 1230.1150, the Minnesota Department of Administration has debarred and disqualified the following persons and businesses from entering into or receiving a State of Minnesota contract:

NAME	DATE OF DEBARMENT
Alternative Counseling Clinic 337 97th Lane NE Minneapolis, MN 55434	Oct. 22, 2008 through Oct. 22, 2011 (eligible for reinstatement on Oct. 22, 2012)
Bull Dog Leasing, Inc. 7854 Danner Court Inver Grove Heights, MN 55076	Aug. 30, 2011 through Aug. 30, 2014 (eligible for reinstatement on Aug. 30, 2015)
Danner Family Ltd. Ptnship. 843 Hardman Ave. S. S. St. Paul, MN 55075	Aug. 30, 2011 through Aug. 30, 2014 (eligible for reinstatement on Aug. 30, 2015)
Danner, Inc. 843 Hardman Ave. S. S. St. Paul, MN 55075	Aug. 30, 2011 through Aug. 30, 2014 (eligible for reinstatement on Aug. 30, 2015)
Ell-Z Trucking, Inc. 843 Hardman Ave. S. S. St. Paul, MN 55075	Aug. 30, 2011 through Aug. 30, 2014 (eligible for reinstatement on Aug. 30, 2015)
Excel Companies, Inc. 700 Bunker Lake Blvd. Anoka, MN 55303	April 23, 2012 through October 23, 2012
Franklin Drywall, Inc. 43279 Fieldsview Crt. Leesburg, VA 20176	March 25, 2011 through March 25, 2014 (eligible for reinstatement on March 25, 2015)
Master Drywall, Inc. 43279 Fieldsview Crt. Leesburg, VA 20176	March 25, 2011 through March 25, 2014 (eligible for reinstatement on March 25, 2015)
Riley Brothers Construction PO Box 535 Morris, MN 56267	Nov. 9, 2009 through Nov. 9, 2012

Minnesota Administrative Rule part 1230.1150, subpart 6 requires the Materials Management Division to maintain a master list of all suspensions and debarments. The master list must retain all information concerning suspensions and debarments as a public record for at least three (3) years following the end of a suspension or debarment. Refer to the following website for the master list: http://www.mmd.admin.state.mn.us/debarredreport.asp.

If the project is financed in whole or in part with federal funds, refer to the following website for vendors debarred by federal government agencies: https://www.epls.gov/.

2104.523	SALVAGE SERVICE CABINET	EACH	1		
2104.523	SALVAGE DMS	EACH	1		
2104.523	SALVAGE SIGN TYPE C	EACH	4		
2104.601	REMOVE CABLES	LUMP SUM	1		
2104.601	HAUL SALVAGED MATERIAL	LUMP SUM	1		
2104.603	ABANDON PIPE	LIN FT	1,870		
2104.618	SALVAGE CONCRETE BLOCK RETAINING WALL	SQ FT	725		
2105.601	DEWATERING	LUMP SUM	1		
2105.603	TRENCH MAINTENANCE	LIN FT	4,588		
2105.607	EXCAVATION SPECIAL	CU YD	28,958		
2105.607	HAUL & DISPOSE OF CONTAMINATED MATERIAL	CU YD	28,958		
2106.605	SUBSOILING	ACRE	24		
2106.607	EXCAVATION - COMMON (P)	CU YD	272,491		
2106.607	EXCAVATION - SUBGRADE	CU YD	147,515		
2106.607	EXCAVATION - MUCK	CU YD	5,813		
2106.607	COMMON EMBANKMENT (CV)	CU YD	54,994		
2106.607	GRANULAR EMBANKMENT (CV)	CU YD	**98,326**		
2106.607	SELECT GRANULAR EMBANKMENT (CV)	CU YD	**66,973**		
2106.607	SELECT GRANULAR EMBANKMENT MODIFIED 10% (CV) (P)	CU YD	27,597		
2112.501	SUBGRADE PREPARATION	ROAD STA	27		
2123.601	EQUIPMENT RENTAL	LUMP SUM	1	$17,500	$17,500.00
2130.501	WATER	M GALLONS	200		

2131.502	CALCIUM CHLORIDE SOLUTION	GALLON	2,000		
2211.503	AGGREGATE BASE (CV) CLASS 6 (P)	CU YD	**19,515**		
2221.503	AGGREGATE SHOULDERING (CV) CLASS 2 (P)	CU YD	825		
2221.503	AGGREGATE SHOULDERING (CV) CLASS 3 (P)	CU YD	3,769		
2231.501	BITUMINOUS PATCHING MIXTURE	TON	15		
2301.553	BRIDGE APPROACH PANELS	SQ YD	747		
2301.602	1.25" DOWEL BAR (STAINLESS STEEL)	EACH	11,271		
2301.602	1.5" DOWEL BAR (STAINLESS STEEL)	EACH	22,573		
2301.604	CONCRETE PAVEMENT 7.0"	SQ YD	9,265		
2301.604	CONCRETE PAVEMENT 8.5"	SQ YD	7,857		
2301.604	CONCRETE PAVEMENT 11.0"	SQ YD	53,606		
2301.608	SUPPLEMENTAL PAVEMENT REINFORCEMENT (EPOXY COATED)	POUND	34,675		
2360.501	TYPE SP 12.5 WEARING COURSE MIXTURE (3,C)	TON	**6,471**		
2360.501	TYPE SP 12.5 WEARING COURSE MIXTURE (5,F)	TON	10,820		
2360.502	TYPE SP 12.5 NON WEARING COURSE MIXTURE (4,B)	TON	3,854		
2401.513	TYPE P-1 (TL-2) RAILING CONCRETE (3Y46A)	LIN FT	3,991		
2402.583	ORNAMENTAL METAL RAILING	LIN FT	1,376		
2402.585	PIPE RAILING	LIN FT	10		
2411.501	STRUCTURAL CONCRETE (1A43) (P)	CU YD	2,857		
2411.501	STRUCTURAL CONCRETE (3Y43) (P)	CU YD	4,356		
2411.511	STRUCTURE EXCAVATION CLASS U (P)	CU YD	73,754		
2411.541	REINFORCEMENT BARS (P)	POUND	213,716		

2501.567	18" CS SAFETY APRON & GRATE DESIGN 3128	EACH	2		
2502.501	4" PRECAST CONCRETE HEADWALL	EACH	6		
2502.501	6" PRECAST CONCRETE HEADWALL	EACH	1		
2502.521	4" TP PIPE DRAIN	LIN FT	95		
2502.521	6" TP PIPE DRAIN	LIN FT	50		
2502.541	4" PERF TP PIPE DRAIN	LIN FT	4,119		
2502.541	6" PERF PE PIPE DRAIN	LIN FT	750		
2503.511	12" CP PIPE SEWER (SMOOTH)	LIN FT	30		
2503.511	18" CP PIPE SEWER (SMOOTH)	LIN FT	168		
2503.511	48" CP PIPE SEWER (SMOOTH)	LIN FT	110		
2503.511	6" PVC PIPE SEWER **SDR 26**	LIN FT	50		
2503.511	8" PVC PIPE SEWER **SDR 26**	LIN FT	406		
2503.511	8" DUCTILE IRON PIPE SEWER **CL 52**	LIN FT	130		
2503.511	10" DUCTILE IRON PIPE SEWER **CL 52**	LIN FT	20		
2503.511	12" DUCTILE IRON PIPE SEWER **CL 52**	LIN FT	68		
2503.511	16" DUCTILE IRON PIPE SEWER **CL 52**	LIN FT	831		
2503.521	22" SPAN RC PIPE-ARCH SEWER CLASS IIA	LIN FT	300		
2503.521	28" SPAN RC PIPE-ARCH SEWER CLASS IIA	LIN FT	598		
2503.521	36" SPAN RC PIPE-ARCH SEWER CLASS IIA	LIN FT	59		
2503.521	51" SPAN RC PIPE-ARCH SEWER CLASS IIA	LIN FT	108		
2503.521	102" SPAN RC PIPE-ARCH SEWER CLASS IIA	LIN FT	215		
2503.541	12" RC PIPE SEWER DESIGN 3006	LIN FT	790		

2504.601	TEMPORARY WATER SERVICE	LUMP SUM	1		
2504.602	RECONNECT WATER SERVICE	EACH	2		
2504.602	CONNECT TO EXISTING WATER MAIN	EACH	28		
2504.602	HYDRANT	EACH	14		
2504.602	ADJUST HYDRANT	EACH	1		
2504.602	ADJUST GATE VALVE	EACH	13		
2504.602	1.5" CORPORATION STOP	EACH	1		
2504.602	2" CORPORATION STOP	EACH	1		
2504.602	12" BUTTERFLY VALVE AND BOX	EACH	10		
2504.602	16" BUTTERFLY VALVE AND BOX	EACH	3		
2504.602	6" GATE VALVE AND BOX	EACH	20		
2504.602	8" GATE VALVE AND BOX	EACH	8		
2504.602	VALVE OPERATER EXTENSION	EACH	2		
2504.603	1.5" TYPE K COPPER PIPE	LIN FT	30		
2504.603	2" TYPE K COPPER PIPE	LIN FT	12		
2504.603	6" WATERMAIN DUCTILE IRON CL 52	LIN FT	**485**		
2504.603	8" WATERMAIN DUCTILE IRON CL 52	LIN FT	2,774		
2504.603	12" WATERMAIN DUCTILE IRON CL 52	LIN FT	2,348		
2504.603	16" WATERMAIN DUCTILE IRON CL 52	LIN FT	2,503		
2504.604	4" INSULATION	SQ YD	148		
2504.608	DUCTILE IRON FITTINGS	POUND	11,396		
2506.501	CONSTRUCT DRAINAGE STRUCTURE DESIGN F	LIN FT	118		

Addendum 1A for changes to the Special Provisions for Bridge No. 19036:

1) Delete SB-6.8 (Curing Bridge Slab) in its entirety.

2) Add the following to Division SB:

SB-18 (2401) STRUCTURAL CONCRETE: (Contractor Concrete Mix Design)

For Bridge No. 19036, the Contractor shall design a **3Y33HP** concrete mixture that will minimize cracking. The work shall be performed in accordance with the requirements of Mn/DOT 2461 and the following:

The Contractor shall be responsible for determining the appropriate concrete mix design proportions based on a volume of 1.000 cubic yard and testing the mixes in accordance with the requirements. All submittals shall be sealed by a registered Professional Engineer.

Any Mn/DOT approved admixture including water reducers, super-plasticizers, retarders, accelerators, and any Viscosity Modifying Admixture (VMA) or a combination thereof may be used at the discretion of the Contractor. The approved list is on file in the Mn/DOT Concrete Unit or can be found at the following web site:

www.dot.state.mn.us/products

The Contractor shall obtain a written statement from the manufacturer of the admixtures verifying the compatibility of the combination of materials and the sequence in which they are combined. The manufacturer will further designate a technical representative from the concrete supplier or his company to be in charge of the dispensing of the admixture products. The technical representative shall act in an advisory capacity and shall report to the Contractor any operations or procedures which are considered by the representative as being detrimental to the integrity of the placement. The manufacturer's technical representative will be present during the concrete placement unless the Engineer waives his presence.

If any adjustments are made on site they shall be done with the addition of admixtures originally incorporated into the mix. No water will be allowed to be added on site, except that required to dilute the admixture for mixing (less than 1 gallon). The load shall be mixed a minimum of 50 revolutions after an addition of the admixture.

A. Specific requirements for **3Y33HP** concrete:

1. Cement complying with ASTM C 150 Type I or I/II or ASTM C595 blended cement currently on the MN/DOT approved list shall be used. Up to a total of 30 percent replacement by mass (weight) with fly ash conforming to ASTM C618, ground granulated blast furnace slag conforming to ASTM C 989, and/or Silica Fume conforming to ASTM C 1240 may be used. Replacement with Silica Fume shall not exceed 5 percent of the total cementitious material.

2. The Contractor shall designate a 3" slump range. The slump shall be kept consistent during the entire placement. If a spread range is specified a Visual Stability Index (VSI) of 1 or less is required according to ASTM C1610.

3. The coarse aggregate shall be class A, B, or C. MnDOT 3137.2D2(h) is hereby deleted and the following is inserted: The maximum absorption of class B aggregate shall be 1.10%. If the Contractor selects to use coarse aggregate from sources identified by Mn/DOT as quartzite or gneiss and the aggregate does not comply with the 0.04 percent expansion limits of ASTM C-1293, the other cementitious material shall be:

   (a) 30% of an approved fly ash meeting the following requirements:

   Mn/DOT 3115 is modified such that fly ash used as cementitious material in the concrete mixture shall have a minimum $Si0_2 + Fe_2O_3 + Al_2O_3$ of 66.0% on a dry weight basis. In addition, it shall have a minimum $Si0_2$ content of 38.0%.

   -or-

   (b) 35% of an approved ground granulated blast furnace slag.

4. The Contractor shall use any good standard practice to develop a job mix formula and gradation working range by using procedures such as but not limited to 8-18, 8-20 gradation control, Shilstone process, FHWA 0.45 power chart or any other performance related gradation control to produce a workable and pumpable concrete mixture meeting all the requirements of this contract.

5. The mix shall meet the following aggregate Alkali Silica Reactivity (ASR) requirements:

   If the sand and cement combination have previously been tested, those results will determine what mitigation may be necessary, otherwise the higher expansion result of the two cement and sand combinations shall determine what mitigation may be necessary. A list of previously tested sand sources is available at:

   www.dot.state.mn.us/materials/concrete.html.

   Tests shall be performed according to ASTM C-1260 Mn/DOT Modified on the designated fine aggregate tested with: (1) Holcim, St. Genevieve, Type I/II portland cement **or** (2) Lafarge, Davenport, Type I/II portland cement. If the fine aggregate contains "buckshot" or "pearock" as determined by the Concrete Engineer use the standard ASTM C-1260 test procedure.

   If the proposed fine aggregate expansion results are:

(a)	≤ 0.150%	The fine aggregate is acceptable with or without a mitigator in the concrete mix.
(b)	0.151% - 0.250%	The fine aggregate shall be mitigated with 35% ground granulated blast furnace slag or a minimum of 20% fly ash.
(c)	0.251% - 0.300%	The fine aggregate shall be mitigated with 35% ground granulated blast furnace slag or 30% fly ash meeting Mn/DOT 3115 modified with a minimum $Si0_2 + Fe_2O_3 + Al_2O_3$ of 66.0% on a dry weight basis and a minimum $Si0_2$ content of 38.0%.
(d)	> 0.300%	The fine aggregate is rejected.

   Mn/DOT reserves the right to reject the fine aggregate if mortar bar specimens exhibit an indication of external or internal distress not represented by the expansion results. The Concrete Engineer shall make the final acceptance of the aggregate.

6. The mixture shall be designed and produced at a water/cementitious ratio of not greater than 0.45.

7. The air content shall be 6.5 percent plus 2.0 percent or minus 1.5 percent at the point of placement.

8. The shrinkage of the concrete when performed in accordance with ASTM C157 shall not be greater then .040 percent at 28 days.

9. The concrete shall obtain a rapid chloride permeability of not more than 2500 Coulombs at 28 days and not more than 1500 Coulombs at 56 days. The 28 day results are for preliminary approval only. Final acceptance will be based on the 56 day results.

10. The deck will obtain an anticipated strength of 4300psi at 28 days when measured in accordance with ASTM C31. The maturity method according to ASTM C1074 may be considered for subsequent strength determination.

B. Mix design submittals

The Contractor shall submit the following to the Engineer and Mn/DOT for review prior to the beginning of laboratory tests for the mix designs.

1. A completed Contractor mix design form using the Mn/DOT Contractor Mix Design Submittal package available from the Mn/DOT Concrete Engineering website. Any changes or adjustments to the material or mix design require a new Contractor mix design submittal. For mix design calculations, Mn/DOT Concrete Unit will provide specific gravity and absorption data.

2. A Job Mix Formula (JMF) containing proportions of materials and individual gradations of each material, plus a composite gradation.

   The JMF submittal shall include working ranges based on the composite gradation of the above sieves. The working range limits of the composite gradation are based on a moving average of 4-tests (N=4). The working ranges are:

Sieve Size	Working Range
4.75 mm [**# 4**] sieve or greater	+/- 5 %
2.36 mm [**# 8**] to 600 µm [**# 30**] sieve	+/- 4 %
300 µm [**# 50**] sieve	+/- 3 %
150 µm [**# 100**] sieve	+/- 2 %

The Contractor shall produce a mixture of uniform composition conforming to the approved JMF. If, during production, the Contractor determines from the moving average results of QC aggregate gradation tests that aggregate adjustments to the JMF working range gradation requirements are necessary, adjustments may be made within the limits of the table below without a new mix design providing all other requirements are met to the satisfaction of the Engineer. A JMF adjustment constitutes beginning a new lot and restarting the gradation moving average.

Allowable JMF Adjustments

Sieve Size	Allowable Adjustment
4.75 mm [**# 4**] sieve or greater	± 5 %
2.36 mm [**# 8**] to 600 µm [**# 30**] sieve	± 4 %
300 µm [**# 50**] sieve	± 3 %
150 µm [**# 100**] sieve	± 2 %

Individual proportions of aggregate may be adjusted up to 5 % by weight from the original mix design provided all other requirements are met to the satisfaction of the Engineer. Adjustments should be documented on the JMF adjustment worksheet and signed by the Contractor and the Agency's representatives. The Contractor may continue pouring, provided that the changes are documented and submitted to the Concrete Engineer. Approval of further adjustments to the JMF without a new mix design is at the discretion of the Concrete Engineer.

Compliance is determined based on the Contractor's test results as verified by department testing.

The Department's samples for gradation control acceptance are based on one lot representing the concrete bridge deck slab placement. Each sublot shall represent approximately 150 cubic yards. One complete gradation test of both coarse and fine aggregate is required per sublot. For bridge deck quantities of less than 150 cubic yards the sublot requirement shall be waived and only one complete gradation test is required per bridge.

3. The dosage and types of admixtures proposed for use and their purpose.

C. Laboratory testing requirements and submittals:

To determine the characteristics of the Contractor proposed mix design, the Contractor will be required to prepare test batches and do laboratory

testing. The following tests shall be conducted at an AMRL certified laboratory using the exact materials proposed in the mix design:

Lab testing requirements:

1. Slump and air content.

2. Compressive strength at 1, 3, 7, 28, 56 days (sets of 3).

3. Hardened air content (ASTM C457) at a minimum of 7 days.

4. Rapid chloride permeability (ASTM C1202) at 28 days and 56 days

   (2 specimens for 28 day test and 2 specimens for 56 day test) (Take 2 specimens from each batch of a 2 batch mix).

5. ASR Expansion results.

6. Concrete shrinkage (ASTM C 157) at 28 days.

7. Modulus of elasticity tests

   Tests shall be performed in accordance with the requirements of ASTM C469. Cylinders shall be tested at 3, 28, and 90 days. A set of 3 cylinders for each day of testing shall be fabricated for a total of 9 cylinders. All cylinders in a given sample shall be taken from the same batch of concrete.

8. Creep and shrinkage tests

   Testing for creep and shrinkage shall be in accordance with AASHTO Guide Specifications for Design and Construction of Segmental Concrete Bridges, 1989, Division II, Article 2.4. These tests shall be conducted within 6 months of the Engineer's review and acceptance of the concrete mixes. Superstructure concrete shall not be placed until the Engineer affirms that the test results are reasonably consistent with the design assumptions. Any delay in performing these tests in a timely manner shall not be cause for a project delay or the basis of merit in a claim.

The Contractor is required to contact the Mn/DOT Concrete Engineering Unit a minimum of 2-days prior to any mixing so that a Mn/DOT representative can observe the process. This same 2-day notification is required prior to any physical testing on hardened concrete samples. Additionally, any hardened concrete test specimens must be retained for a minimum of 90 days and be made available for Mn/DOT to examine.

All testing for plastic concrete shall be performed after admixtures have been added to the concrete mixture.

After completion of the laboratory testing specified herein and, at least 15 working days prior to the full scale test pour, the following material shall be submitted to Mn/DOT for review and approval:

1. Laboratory reports of the design mixes, including the following:

   (a) Exact batch weights and properties of all ingredients used and all aggregate gradations.
   (c) Slump and air content (at <5 minutes, 15 minutes, and 30 minutes after the completion of mixing).
   (d) Cylinder identification, including mix designation.
   (e) Date and time of cylinder preparation.
   (f) Date and time cylinder specimen was tested.
   (g) Compressive strength of each cylinder specimen at 1, 3, 7, 28, and 56 day (sets of 3).
   (h) A graphic plot of age, from 0 to 56 days, vs. strength for each mix design.

Standard Cylinder Testing: A minimum of 15 test cylinders, 4 inches x 8 inches, shall be made of each proposed mix. A set of 3 cylinders shall be broken at 1, 3, 7, 28, and 56 days. Cylinders shall be made in accordance with AASHTO T126 and tested in accordance with AASHTO T22.

The mix design used in the permanent work shall be of the same materials, same supplier, and same supplier's manufacturing plant, and proportions as were used in the approved test mix. Strength requirements specified for each mix shall also be applicable to the cylinder tests taken during the production work.

D. Trial placement

1. A minimum of two weeks prior to the actual pour, a separate trial placement utilizing a minimum of two 10 cubic yard loads shall be successfully completed prior to placement of the bridge deck slab concrete. The trial placements may be incorporated into the bridge footings, abutments or end diaphragms. Trial placements need not be incorporated into the completed project, and may be part of a residential /commercial construction in the immediate vicinity of the project, but must be mixed, transported, and placed using the same methods that will be used to construct the bridge deck. Final approval of the mixture is based on satisfactory field placement

and performance. The Contractor shall verify strength results by casting and testing strength specimens. The number of test specimens (sets of 3) required shall be mutually agreed upon by the Engineer and Contractor.

Payment for design of the concrete mixes shall be considered as incidental to the concrete furnished and placed, and no direct compensation will be made therefore.

E. Structural slab curing

A structural slab placement and curing plan for each bridge shall be submitted to the Engineer for approval at least 2 weeks prior to placement. The Contractor's plan shall include detailed information regarding the anticipated concrete delivery rates, estimated start and finish time, and material, labor and equipment that will be used to place, finish and to cure the deck segment in accordance with specifications, including placement of wet burlap and soaker hose or other system to maintain the deck in a moist condition during the curing period. Information supplied shall also include the number of "work" bridges that will be used, and the number of people responsible for the various tasks. The plan must also discuss bulkheading methods and materials that will be used if it is determined that proposed concrete placement rates cannot be maintained.

A pre-placement meeting shall be held 7 days prior to the structural slab placement to review the information and details provided in the placement and curing plan. The meeting shall be attended by the Contractor, Engineer, and if required by the Engineer, the concrete supplier and/or concrete pump supplier.

The Contractor is fully responsible for curing methods. The Contractor shall comply with the following curing method unless other methods are approved by the Engineer.

1. Structural slab curing

Delete the 13th paragraph of 2401.3G of the Standard Specifications and substitute the following:

Bridge structural slabs shall have conventional wet curing applied immediately following the finishing machine or air screed. The conventional wet curing shall consist of **pre-wetted** burlap covered with white plastic sheeting. Pre-wetting shall consist of soaking the burlap for a minimum of 24 hours prior to the placement. The burlap shall cover 100% of the deck area with no visible openings, the only exception being that area of the deck, which will be located beneath the permanent barrier. The wet curing shall be

placed **no later than 30 minutes** after the finishing machine has completed final strike-off of the concrete surface. The deck slab surface shall be kept continuously wet for an initial curing period of at least 7 days. The Contractor must provide adequate personnel to ensure the burlap is maintained in a wet condition on weekends and/or holidays. **In order to comply with the wet curing requirement a work bridge following the finish machine will be required, and a center rail may be required on wide bridges.**

F. Crack sealing

Section 2401.3J2 of the Standard Specifications is modified as follows:

Any cracks that develop in the deck surface shall be sealed with an approved methylmethacrylate or epoxy sealant just prior to opening the bridge to traffic. Sand shall be broadcast on the surface after flood coat sealant application. All work required to seal cracks prior to opening the bridge to traffic shall be included in the payment for 3Y33HP deck concrete.

U2

FEDERAL NON-PARTICIPATING, 100% LOCAL QUANTITIES			
Item No.	Description	Units	Contract Qty
2104	REMOVE CASTING	EACH	5
2105	TRENCH MAINTENANCE	LIN FT	1000
2123	EQUIPMENT RENTAL	LUMP SUM	0.15
2503	CHIMNEY SEAL	EACH	1
2503	CHIMNEY SEAL EXTENSION	EACH	1
2504	PRESSURE REDUCING STATION (8" PRV)	LUMP SUM	1
2504	CONNECT TO EXISTING WATERMAIN	EACH	2
2504	6" GATE VALVE & BOX	EACH	2
2504	8" GATE VALVE & BOX	EACH	5
2504	HYDRANT	EACH	2
2504	6" DIP WATERMAIN CL52 (2)	LIN FT	37
2504	8" DIP WATERMAIN CL52 (2)	LIN FT	1884
2504	16" DIP WATERMAIN CL 52 (2)	LIN FT	6
2504	4" INSULATION	SQ YD	148
2504	DUCTILE IRON FITTINGS	POUND	124
2506	CASTING ASSEMBLY SPECIAL (5)	EACH	5
2506	ADJUST FRAME & RING CASTING EXCESS DEPTH (3)	EACH	1
2506	RECONSTRUCT DRAINAGE STRUCTURE (3)	LIN FT	26.8

Notes:

1) Includes Temporary Water Plumbing and Fire Suppression Management
2) With Polyethylene Encasement
3) Sanitary Manhole
4) Watemain (1,825 LF) and Sanitary Sewer (45 LF) Pipe, Pipes to be blown full of sand (incidental)
5) Sanitary Manhole. Consists of 27" Diameter Manhole Casting

U1

FEDERAL PARTICIPATING, (179-020-031) QUANTITIES			
Item No.	Description	Units	Contract Qty
2103	DISCONNECT SEWER SERVICE	EACH	7
2103	DISCONNECT WATER SERVICE	EACH	7
2104	REMOVE SEWER PIPE (SANITARY)	LIN FT	948
2104	REMOVE WATERMAIN	LIN FT	3504
2104	REMOVE MANHOLE (3)	EACH	7
2104	REMOVE CASTING (3)	EACH	21
2104	REMOVE GATE VALVE TOP SECTION	EACH	9
2104	REMOVE GATE VALVE & BOX	EACH	25
2104	SALVAGE HYDRANT	EACH	16
2104	ABANDON PIPE (4)	LIN FT	1870
2105	TRENCH MAINTENANCE	LIN FT	3588
2123	EQUIPMENT RENTAL	LUMP SUM	0.85
2503	6" PVC PIPE SEWER SDR 26	LIN FT	50
2503	8" PVC PIPE SEWER SDR 26	LIN FT	406
2503	8" DUCTILE IRON PIPE SEWER CL 52 (2)	LIN FT	130
2503	10" DUCTILE IRON PIPE SEWER CL 52 (2)	LIN FT	20
2503	12" DUCTILE IRON PIPE SEWER CL 52 (2)	LIN FT	68
2503	16" DUCTILE IRON PIPE SEWER CL 52 (2)	LIN FT	831
2503	CONSTRUCT OUTSIDE DROP (3)	EACH	3
2503	CONNECT TO EXISTING SANITARY SEWER	EACH	10
2503	CONNECT TO EXISTING MANHOLES (3)	EACH	5
2503	6" PIPE PLUG	EACH	3
2503	8" PIPE PLUG	EACH	1
2503	8"X6" PVC WYE	EACH	1
2503	CHIMNEY SEAL	EACH	1
2503	CHIMNEY SEAL EXTENSION	EACH	1
2503	CONSTRUCT BULKHEAD	EACH	1
2503	AIR RELIEF MANHOLE	EACH	1
2503	27" STEEL CASING PIPE	LIN FT	80
2503	27" STEEL CASING PIPE (JACKED)	LIN FT	124
2503	DUCTILE IRON FITTINGS	POUND	65
2504	TEMPORARY WATER SERVICE (1)	LUMP SUM	1
2504	PRESSURE REDUCING STATION (16" PRV)	LUMP SUM	1
2504	RECONNECT WATER SERVICE	EACH	2
2504	CONNECT TO EXISTING WATERMAIN	EACH	26
2504	ADJUST GATE VALVE	EACH	13
2504	1.5" CORPORATION STOP	EACH	1
2504	2" CORPORATION STOP	EACH	1
2504	6" GATE VALVE & BOX	EACH	18
2504	8" GATE VALVE & BOX	EACH	3
2504	12" BUTTERFLY VALVE & BOX	EACH	10
2504	16" BUTTERFLY VALVE & BOX	EACH	3
2504	HYDRANT	EACH	12
2504	ADJUST HYDRANT	EACH	1
2504	VALVE OPERATOR EXTENSION	EACH	2
2504	1.5" TYPE K COPPER PIPE	LIN FT	30
2504	2" TYPE K COPPER PIPE	LIN FT	12
2504	6" DIP WATERMAIN CL 52 (2)	LIN FT	448
2504	8" DIP WATERMAIN CL52 (2)	LIN FT	890
2504	12" DIP WATERMAIN CL 52 (2)	LIN FT	2348
2504	16" DIP WATERMAIN CL 52 (2)	LIN FT	2497
2504	DUCTILE IRON FITTINGS	POUND	11272
2506	CASTING ASSEMBLY SPECIAL (5)	EACH	21
2506	ADJUST FRAME & RING CASTING (3)	EACH	2
2506	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 13 (3)	EACH	8
2506	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 14 (3)	LIN FT	65.8
2506	ADJUST FRAME & RING CASTING EXCESS DEPTH (3)	EACH	7
2506	RECONSTRUCT DRAINAGE STRUCTURE (3)	LIN FT	59.8

City of BURNSVILLE
ENGINEERING DEPARTMENT
100 Civic Center Parkway
Burnsville MN 55337-3817
Phone: 895-4530 <> Fax: 895-4404

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Date 6/29/12 REG. NO. 42844

Date	Revision	Design By	Checked By	Drawn By	Proj. No.
10/15/12	REVISED QUANTITIES	RDP	JAR	DDK	12-312

TABULATED QUANTITIES

Co Rd 5 / Hwy 13

CITY PROJECT 12-312

SP 1901-148
019-605-028
179-020-031

Sheet No.

U2 of U28

CONNECT TO EX. WATERMAIN
(EXISTING 12 x 12 TEE)

4 LF - 6" DIP
STA. 34+10 - 20.0' RIGHT - HYDRANT - 3883

4364
REMOVE MH CASTING
F & I MH CASTING
ADJUST EXCESS DEPTH MH

4 LF - 6" DIP
STA. 34+06.7 - 20.5' RIGHT - 6" GV - 9549

9 LF - 6" DIP
STA. 34+03.5 - 21.2' RIGHT - 6" x 6" TEE

REMOVE GV & BOX - 2288

9547

9548

6059
ADJUST EXCESS DEPTH MH

4 LF - 6" DIP
STA. 34+04 - 25' RIGHT - 6" GV - 9550
CONNECT TO EX. WATERMAIN
REMOVE GV & BOX - 9550
SALVAGE HYDRANT - 957

STA. 36+82
22 LF - 6" DIP
12.0' LEFT - 6" GV - 9553
10 LF - 6" DIP
21.5' LEFT - HYDRANT - 3884
SALVAGE HYDRANT - 959
REMOVE GV & BOX - 9553

STA. 35+94
22 LF - 8" DIP
12.0' LEFT - 8" GV - 9551
CONNECT TO EX. WATERMAIN
REMOVE GV & BOX - 2292

STA. 36+46
5 LF - 6" DIP
REMOVE GV & BOX - 2293
14.0' RIGHT - 6" GV - 9552
CONNECT TO EX. WATERMAIN

MATCH LINE STA. = 37+00.00

NOTE:
WATERMAIN SHALL BE BURIED 7.5' MINIMUM

CONSTRUCTION PRIORITY
Contractor shall verify and locate all underground utility locations and elevations prior to construction with the respective utility companies.

N

SCALE IN FEET
0 30 60

GREENWOOD DRIVE

EX. 12 x 12 TEE
29+21.50 -6.00 L

12" BUTTERFLY VALVE 9547
29+21.75 0.00

16" x 12" REDUCER
29+21.85 3.00 R

16" 45° BEND
29+22.00 8.00 R

16" 45° BEND
29+27.50 13.00 R

16" x 16" CROSS
30+16.20 10.89 R

16" BUTTERFLY VALVE 9548
30+148.96 175.76 R

16" 45° BEND
33+16.00 5.00 R

16" 45° BEND
33+94.00 14.00 R

16" x 6" TEE
34+02.00 12.00 R

16" x 8" TEE
35+94.00 10.00 R

16" x 6" TEE
36+46.00 16.00 R

16" x 16" TEE
36+82.00 10.00 R

ELEV = 791.000
STA = 29+00.000

-0.81%
-0.35%
1.52%
-0.38%

6 LF 12" DIP
3 LF 12" DIP
5 LF 16" DIP
7 LF 16" DIP
89 LF 16" DIP
161 LF 16" DIP
138 LF 16" DIP
84 LF 16" DIP
9 LF 16" DIP
194 LF 16" DIP
52 LF 16" DIP
36 LF 16" DIP

791.00 790.60 790.19 789.91 789.85 790.03 790.44 791.08 791.71 792.10 792.23 792.12 791.75 791.14 790.40 789.66 788.98

815 810 805 800 795 790 785 780 775

0+00 29+00 30+00 31+00 32+00 33+00 34+00 35+00 36+00 37+00

City of BURNSVILLE
ENGINEERING DEPARTMENT
100 Civic Center Parkway
Burnsville MN 55337-3817
Phone: 895-4530 <> Fax: 895-4404

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DATE 6/29/12 REG. NO. 42844

Date	Revision	Design By	Checked By	Drawn By	Proj. No.
10/5/12	Watermain elevations	RDP	JAR	DDK	12-312

UTILITY PLAN & PROFILE
GREENWOOD DRIVE
from Sta. 29+00 to Sta. 37+00

SP 1901-148
019-605-028
179-020-031
Sheet No.
U6 of U28

REMOVE GV & BOX - 2295

MH 4453
REMOVE MH

MH 6650
CONSTRUCT OUTSIDE DROP

9554

38 LF - 8" DIP
F & I 8" PLUG

SALVAGE HYDRANT - 961

REMOVE GV & BOX - 2297

REMOVE GV & BOX - 2297A

4417
REMOVE MH CASTING
F & I MH CASTING
RECONSTRUCT 6.6 LF MH

MH 6649
CONSTRUCT OUTSIDE DROP

MH 4456

MH 165

MH 6648
CONSTRUCT OUTSIDE DROP

SALVAGE HYDRANT - 962

REMOVE GV & BOX - 2299

MH 4444
REMOVE MH CASTING
F& I MH CASTING
RECONSTRUCT 8.2 LF MH
CONNECT TO EX. STRUCTURE
REMOVE 35 LF EX. SANITARY SEWER

STA. 43+28 35.0' RIGHT - HYDRANT - 3885
4 LF - 6" DIP
STA. 43+32 36.0' RIGHT- 6" GV - 9555
4 LF - 6" DIP

STA. 43+36
41 LF - 6" DIP
31.0' RIGHT - 6" 11.25° BEND
5 LF - 6" DIP
STA. 43+35 36.0' RIGHT - 6" x 6" TEE
4 LF - 6" DIP
STA. 43+34 - 40' RIGHT- 6" GV - 9556
CONNECT TO EX. WATERMAIN

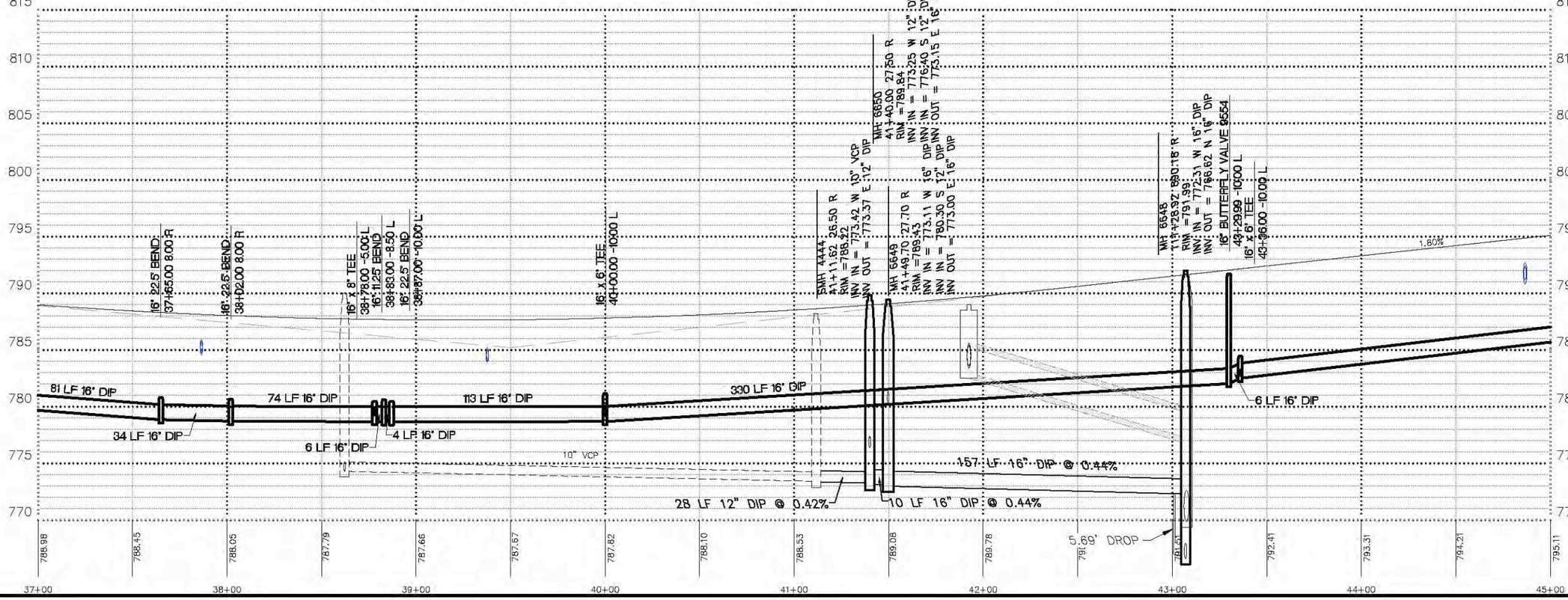
MATCH LINE STA. = 37+00.00

CONSTRUCTION PRIORITY
Contractor shall verify and locate all underground utility locations and elevations prior to construction with the respective utility companies.

NOTE:
WATERMAIN SHALL BE BURIED 7.5' MINIMUM

SCALE IN FEET 0 30 60

SOUTHEAST FRONTAGE ROAD



City of BURNSVILLE
ENGINEERING DEPARTMENT
100 Civic Center Parkway
Burnsville MN 55337-3817
Phone: 895-4530 <> Fax: 895-4404

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

DATE 6/29/12 REG. NO. 42844

Date	Revision	Proj. No.
10/5/12	MOVED HYD 3885	12-312

Design By: RDP | Checked By: JAR | Drawn By: DDK

UTILITY PLAN & PROFILE
SOUTHEAST FRONTAGE ROAD
from Sta. 37+00 to Sta. 45+00

SP 1901-148
019-605-028
179-020-031

Sheet No.
U7 of U28

10/4/2012 4:54 PM S:\Projects\2012\12-312 5 and 13 Construction\Utilities and Plans\Drawings\base.dwg

CONSTRUCTION PRIORITY
Contractor shall verify and locate all underground utility locations and elevations prior to construction with the respective utility companies.

NOTE:
WATERMAIN SHALL BE BURIED 7.5' MINIMUM

STA. 47+00
2 LF - 6" DIP
11.5' LEFT- 6" GV - 9557
9 LF - 6" DIP
20.5' LEFT - HYDRANT - 3886

FEDERAL PARTICIPATING, 179-020-031 (WATERMAIN)
FEDERAL NON-PARTICIPATING, 100% LOCAL FUNDS
(WATERMAIN)

9558

4626
REMOVE MH CASTING
F & I MH CASTING
RECONSTRUCT 7.8 LF MH

MATCH LINE STA. = 45+00.00

MATCH LINE STA. = 53+00.00

VALLEY DRIVE

SCALE IN FEET
0 30 60

SOUTHEAST FRONTAGE ROAD

16" x 8" TEE
47+00.00 -10.00 L

16" x 16" CROSS
50+46.00 -10.00 L

16" x 8" REDUCER
50+51.00 -10.00 L

8" GATE VALVE 9558
50+56.00 -10.00 L

-1.50%

LOWER WATERMAIN TO MAINTAIN 18" SEPARATION FROM EXISTING SANITARY SEWER. CONTRACTOR SHALL SUPPORT EXISTING UTILITIES. (NO ADDITIONAL COMPENSATION)

369 LF 16" DIP
346 LF 16" DIP
5 LF 8" DIP
5 LF 16" DIP
323 LF 8" DIP
8" PVC

795.11 796.01 796.91 797.78 798.44 798.87 799.07 799.02 798.75 798.23 797.51 796.76 796.13 795.86 795.97 798.44 797.28

45+00 46+00 47+00 48+00 49+00 50+00 51+00 52+00 53+00

820 815 810 805 800 795 790 785 780

City of BURNSVILLE
ENGINEERING DEPARTMENT
100 Civic Center Parkway
Burnsville MN 55337-3817
Phone: 895-4530 <> Fax: 895-4404

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
DATE 6/29/12 REG. NO. 42844

Date	Revision	Checked By	Drawn By	Proj. No.
10/5/12	WATERMAIN ELEVATIONS	JAR	DDK	12-312

Design By: RDP

UTILITY PLAN & PROFILE
SOUTHEAST FRONTAGE ROAD
from Sta. 45+00 to Sta. 53+00

SP 1901-148
019-605-028
179-020-031

Sheet No.
U9 of U28

10/5/2012 7:33 AM S:\Projects\2012\12-312 5 and 13 Construction\Utilities and Plans\drawings\base.dwg

CONSTRUCTION PRIORITY
Contractor shall verify and locate all underground utility locations and elevations prior to construction with the respective utility companies.

NOTE:
WATERMAIN SHALL BE BURIED 7.5' MINIMUM

MATCH LINE STA. = 53+00.00

MATCH LINE STA. = 61+00.00

PC: 710+46

PC: 714+56

PC: 581+4.84

PI: 589+29.07

PC: 53+19.62

PC: 54+87.68

9559

4672
REMOVE MH CASTING
F & I MH CASTING
RECONSTRUCT 5.8 LF MH

STA. 57+95
19 LF - 6" DIP
11.0' RIGHT- 6" GV - 9560
10 LF - 6" DIP
20.5' RIGHT - HYDRANT - 3887

4722
REMOVE MH CASTING
F & I MH CASTING
RECONSTRUCT 6.2 MH

WOODHILL ROAD

1406 1400 1324 1318 1312 1306 1300 1212 1206 1200 1112 1106

0 30 60
SCALE IN FEET

SOUTHEAST FRONTAGE ROAD

8" x 6" TEE
57+95.00 -8.00 L

8" GATE VALVE 9559
58+00.00 -8.00 L

3.67%

2.20%

130 LF 8" DIP

416 LF 8" DIP

5 LF 8" DIP

797.28	798.37	799.47	800.57	801.67	802.77	803.87	804.97	806.07	807.20	808.55	810.14	811.91	813.51	814.88	816.03	817.16
53+00	54+00	55+00	56+00	57+00	58+00	59+00	60+00	61+00								

825 820 815 810 805 800 795 790 785

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DATE 6/29/12 REG. NO. 42844

Date	Revision	Design By	Checked By	Drawn By	Proj. No.
10/5/12	WATERMAIN ELEVATIONS	RDP	JAR	DDK	12-312

UTILITY PLAN & PROFILE
SOUTHEAST FRONTAGE ROAD
from Sta. 53+00 to Sta. 61+00

SP 1901-148
019-605-028
179-020-031

Sheet No.
U10 of U28

CONSTRUCTION PRIORITY
Contractor shall verify and locate all underground utility locations and elevations prior to construction with the respective utility companies.

NOTE:
WATERMAIN SHALL BE BURIED 7.5' MINIMUM

N

SCALE IN FEET 0 30 60

717+00 718+00 719+00 720+00 721+00 722+00 723+00 724+00 724+30

9633

PC: 65+59.38

4765
REMOVE MH CASTING
F & I MH CASTING
ADJUST EXCESS DEPTH MH

8" PRV STATION - 9561
SEE DETAIL

STA. 64+80
4 LF - 6" DIP
42' RIGHT - 6" GV - 9562
4 LF - 6" DIP
46' RIGHT - HYDRANT - 3888

4801 (BURIED)
REMOVE MH CASTING
F & I MH CASTING
RECONSTRUCT 7.0 LF MH

CONNECT TO EX. WATERMAIN

9563

MATCH LINE STA. 61+00.00

1106 1112 1100

SOUTHEAST FRONTAGE ROAD

RAISE WATERMAIN TO MAINTAIN 18" VERTICAL SEPARATION FROM STORM SEWER. CLEARANCE OF STORM SEWER SHALL BE ACHIEVED WITHOUT THE USE OF BENDS. RAISED WATERMAIN SHALL BE INSULATED

8" 45° BEND 64+00.00 -4.00 L
8" x 8" TEE 64+00.00 -1.00 L
8" 45° BEND 64+40.00 38.00 R
PRV STATION 9561 64+53.00 38.00 R
8" x 8" TEE 64+70.00 38.00 R
64+89.00 38.00
8" 11.25° BEND 66+47.00 34.50 R
8" GATE VALVE 9563 66+52.00 3500 R

2.25% 1.78%

470 LF 8" DIP
3 LF 8" DIP
42 LF 8" DIP
13 LF 8" DIP
17 LF 8" DIP
10 LF 8" DIP
163 LF 8" DIP
5 LF 8" DIP

817.16 818.28 819.40 820.53 821.60 822.55 823.44 824.34 825.24 826.13 827.02 827.92 828.82

845 840 835 830 825 820 815 810 805

61+00 62+00 63+00 64+00 65+00 66+00 67+00

8" 45° BEND 64+32.00 -4.00 L
8" GATE VALVE 9632 64+48.00 12.00 R
8" 45° BEND 64+70.00 34.00 R
RAISED WATERMAIN SHALL BE INSULATED
4 LF 8" DIP
32 LF 8" DIP
31 LF 8" DIP
23 LF 8" DIP

63+75 64+00 65+00

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City of BURNSVILLE
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Burnsville MN 55337-3817
Phone: 895-4530 <> Fax: 895-4404

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DATE 6/29/12 REG. NO. 42844

Date	Revision	Design By	Checked By	Drawn By	Proj. No.
10/5/12	MOVED HYDRANT 3888	RDP	JAR	DDK	12-312

UTILITY PLAN & PROFILE
SOUTHEAST FRONTAGE ROAD
from Sta. 61+00 to Sta. 69+00

SP 1901-148
019-605-028
179-020-031

Sheet No.
U11 of U28

ABANDON 45 LF EX. 12" SANITARY SEWER TO BE BLOWN FULL OF SAND

STA. 4+55
20 LF - 6" DIP
7' LEFT- 6" GV - 9546
REMOVE GV & BOX - 9546
9 LF 6" DIP
15.5' LEFT - HYDRANT - 3882
SALVAGE HYDRANT - 3882

STA. 3+43
6 LF - 6" DIP
19' RIGHT- 6" GV - 9601
CONNNECT TO EX. WATERMAIN

4472
REMOVE MH CASTING
F & I MH CASTING
RECONSTRUCT 5.6 LF MH
CONNECT TO EX. STRUCTURE

PROPOSED EASEMENT

CONSTRUCTION PRIORITY
Contractor shall verify and locate all underground utility locations and elevations prior to construction with the respective utility companies.

NOTE:
WATERMAIN SHALL BE BURIED 7.5' MINIMUM

SCALE IN FEET 0 30 60

SEWER CROSSING

6" 45° EBND
3+45.00 13.00 R

6" 90° BEND
4+55.00 13.00 R

MH 6646
5+71.73 4.09 R
RIM =782.33
INV IN = 764.05 S 16" DIP
INV OUT = 763.95 NW 16" DIP

MH 4472
6+73.51 2.24 R
RIM = 774.43
INV IN = 763.50 SE 16" DIP
INV IN = 763.32 S 12" VCP
INV OUT = 763.28 N 12" VCP

MH 6648
1+28.92 890.18 R
RIM =791.99
INV IN = 772.31 W 16" DIP
INV OUT = 766.62 N 16" DIP

MH6647
2+53.67 2.50 R
RIM =786.98
INV IN = 765.56 S 16" DIP
INV OUT = 765.46 N 16" DIP

15" RCP
8" PVC
110 LF 6" DIP
40 LF 27" CARBON STEEL CASING PIPE
242 LF 16" DIP @ 0.44%
320 LF 16" DIP @ 0.44%
102 LF 16" DIP @ 0.44%
40 LF 27" CARBON STEEL CASING PIPE

-2.02%
-1.35.80%
-2.75%
-4.50%
-2.48%
-4.50%
-1.30.23%

0+00 1+00 2+00 3+00 4+00 5+00 6+00 7+00 7+50

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Date 6/29/12 Reg. No. 42844

Date	Revision
10/5/12	MOVED HYDRANT 3882

Design By: RDP | Drawn By: DDK | Checked By: JAR | Proj. No. 12-312

UTILITY PLAN & PROFILE
STORM AND SANITARY SEWER CROSSING
HIGHWAY 13

SP 1901-148
019-605-028
179-020-031
Sheet No.
U21 of U28

CONSTRUCTION PRIORITY
Contractor shall verify and locate all underground utility locations and elevations prior to construction with the respective utility companies.

NOTE:
WATERMAIN SHALL BE BURIED 7.5' MINIMUM

FIELD VERIFY CLEAN OUT
F & I MANHOLE - 6741
CONNECT TO EX SANITARY SEWER (2)

4394
REMOVE MH CASTING
F & I MH CASTING
ADJUST EXCESS DEPTH MH

SALVAGE HYDRANT - 3897
REMOVE 5 LF EX. WATERMAIN
F & I 6" PLUG (CONNECT TO TEE)

4 LF - 6" DIP
6" GV - 9603
4 LF - 6" DIP
HYDRANT- 9897

ADJUST GV - 2081

ADJUST GV - 2080

REMOVE 6" PLUG (INCIDENTAL)
CONNECT TO EX. WATERMAIN
16 LF - 6" DIP
6" x 6" TEE
4 LF - 6" DIP
6" PLUG

141
REMOVE MH CASTING
F & I MH CASTING
ADJUST EXCESS DEPTH MH

CONNECT TO EX. WATERMAIN

REMOVE GV & BOX

STA. 15+65 - 30' LEFT
FIELD VERIFY EXISTING FITTINGS (INCIDENTAL)
CONNECT TO EX. WATERMAIN
F & I 16" PCCP TO DIP ADAPTER
5 LF - 16" DIP

STA. 15+65 - 25' LEFT
16" x 12" REDUCER
5 LF - 12" DIP

HWY 13 FRONTAGE ROAD N

16" PCCP

12601

1820

N

0 30 60
SCALE IN FEET

NORTHEAST FRONTAGE ROAD

12" - 45° BEND
15+31.00 14.00 R

12" - 45° BEND
15+65.00 -20.00 L

48 LF 12" DIP

10/5/2012 8:12 AM S:\Projects\2012\12-312 5 and 13 Construction\Utilities and Plans\drawings\base.dwg

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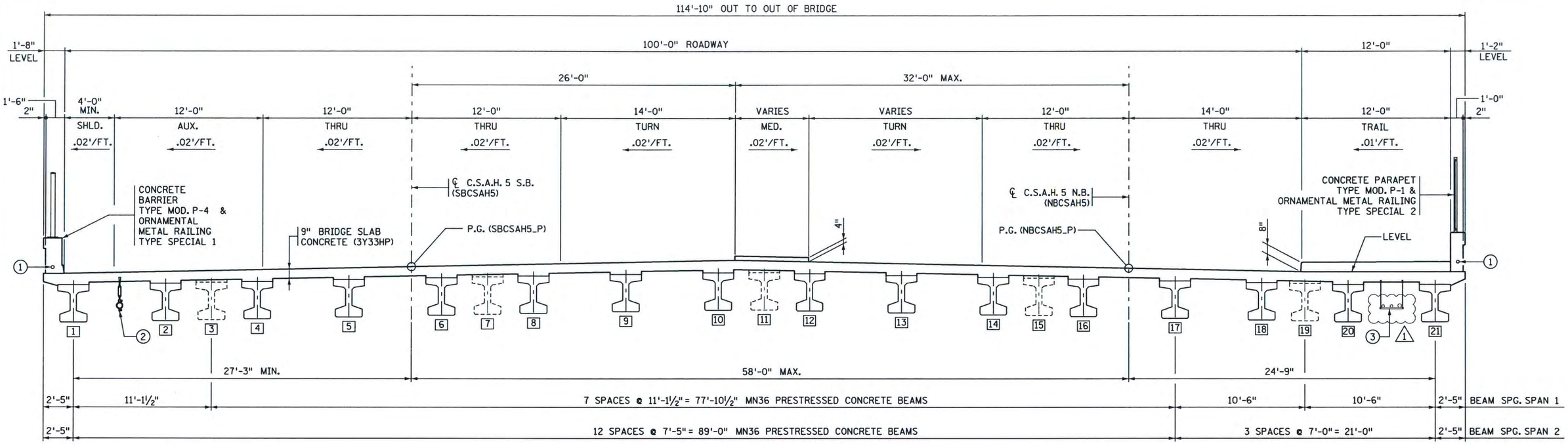
DATE 6/29/12 REG. NO. 42844

Date	Revision	Design By	Checked By	Drawn By	Proj. No.
10/5/12	MOVED HYDRANT 9867	RDP	JAR	DDK	12-312

UTILITY PLAN & PROFILE
NORTHEAST FRONTAGE ROAD
from Sta. 10+00 to Sta. 15+95

SP 1901-148
019-605-028
179-020-031

Sheet No.
U23 of U28



TRANSVERSE SECTION

SCHEDULE OF QUANTITIES FOR ENTIRE BRIDGE

ITEM NO.	ITEM	UNIT	QUANTITY
2401.501	STRUCTURAL CONCRETE (1A43)	CU. YD.	550 (P)
2401.501	STRUCTURAL CONCRETE (3Y43)	CU. YD.	894 (P)
2401.512	BRIDGE SLAB CONCRETE (3Y33HP)	SQ. FT.	18972 (P)
2401.513	TYPE MOD P-1 (TL-2) RAILING CONCRETE (3Y46)	LIN. FT.	255 (P)
2401.513	TYPE MOD P-4 (TL-4) RAILING CONCRETE (3Y46)	LIN. FT.	182 (P)
2401.515	SIDEWALK CONCRETE (3Y46)	SQ. FT.	1983 (P)
2401.516	RAISED MEDIAN CONCRETE (3Y46)	SQ. FT.	2114 (P)
2401.541	REINFORCEMENT BARS	POUND	46970 (P)
2401.541	REINFORCEMENT BARS (EPOXY COATED)	POUND	228600 (P)
2401.601	STRUCTURE EXCAVATION	LUMP SUM	1
2401.618	BRIDGE DECK PLANING	SQ. FT.	13058 (P)
2402.583	ORNAMENTAL METAL RAILING TYPE SPECIAL 1	LIN. FT.	181 (P)
2402.583	ORNAMENTAL METAL RAILING TYPE SPECIAL 2	LIN. FT.	164 (P)
2402.583	ORNAMENTAL METAL RAILING TYPE SPECIAL 3	LIN. FT.	60 (P)
2402.591	EXPANSION JOINT DEVICES TYPE 4	LIN. FT.	230 (P)
2402.595	BEARING ASSEMBLY	EACH	54 (P)
2405.502	PRESTRESSED CONCRETE BEAMS 36M	LIN. FT.	2208 (P)
2405.511	DIAPHRAGMS FOR TYPE 36M PRESTRESSED BEAMS	LIN. FT.	463 (P)
2411.602	PRECAST CONCRETE CAP	EACH	4 (P)
2411.618	ARCHITECTURAL SURFACE FINISH (SINGLE COLOR)	SQ. FT.	3760 (P)
2411.618	ARCHITECTURAL CONCRETE TEXTURE (RANDOM BATTEN)	SQ. FT.	3760 (P)
2452.510	STEEL H-PILING DRIVEN 12"	LIN. FT.	4055
2452.511	STEEL H-PILING DELIVERED 12"	LIN. FT.	4055
2452.520	STEEL H-TEST PILE 45 FT LONG 12"	EACH	3
2452.520	STEEL H-TEST PILE 55 FT LONG 12"	EACH	6
2502.502	DRAINAGE SYSTEM TYPE (B910)	LUMP SUM	1
2514.501	CONCRETE SLOPE PAVING	SQ. YD.	314 (P)
2545.509	CONDUIT SYSTEM (LIGHTING)	LUMP SUM	1
2545.509	CONDUIT SYSTEM (SIGNALS)	LUMP SUM	1
2545.509	CONDUIT SYSTEM (FUTURE)	LUMP SUM	1
2565.602	NMC LOOP DETECTOR 6'X6'	EACH	4

REVISIONS ARE INDICATED BY CLOUDED SHAPES.

REVISION		
DATE	DESCRIPTION	APPROVED BY
10-9-12	1 CONDUIT ON EAST SIDE	TRS

□ DESIGNATES BEAM NUMBERS

(1) 1½" DIA. R.S.C. (LIGHTING)

(2) 2" DIA. R.S.C. (SIGNALS)

(3) 3" DIA. & 1½" DIA. R.S.C. (FUTURE USE) 1

CONSTRUCTION NOTES

THE 2005 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

BRIDGE SEAT REINFORCEMENT SHALL BE CAREFULLY PLACED TO AVOID INTERFERENCE WITH DRILLING HOLES FOR ANCHOR RODS. THE BEAMS SHALL BE ERECTED IN FINAL POSITION PRIOR TO DRILLING HOLES FOR AND PLACING ANCHOR RODS.

THE FIRST TWO DIGITS OF EACH BAR MARK INDICATE THE BAR NUMBER WHICH APPROXIMATES THE NOMINAL DIAMETER OF THE BAR IN MILLIMETERS (mm).

BARS MARKED WITH THE SUFFIX "E" SHALL BE EPOXY COATED IN ACCORDANCE WITH SPEC. 3301.

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA".

THE PILE LOADS SHOWN IN THE PLANS AND THE CORRESPONDING NOMINAL PILE BEARING RESISTANCE WERE COMPUTED USING LRFD METHODOLOGY. PILE BEARING RESISTANCE DETERMINED IN THE FIELD SHALL INCORPORATE THE METHODS AND/OR FORMULAS DESCRIBED IN THE SPECIAL PROVISIONS.

S.P. NO. 1901-148 (T.H. 13=117), S.P. NO. 019-605-028, S.P. NO. 179-020-031

CERTIFIED BY Todd R. Stevens 10/9/12
LICENSED PROFESSIONAL ENGINEER DATE
NAME: TODD R. STEVENS LIC. NO. 21312

TITLE: TRANSVERSE SECTION & SCHEDULE OF QUANTITIES

DES: G.B.B. DR: N.A. APPROVED: 10/9/12
CHK: P.D.G. CHK: T.R.S.

SHEET NO. 2R OF 91 SHEETS

BRIDGE NO. 19036

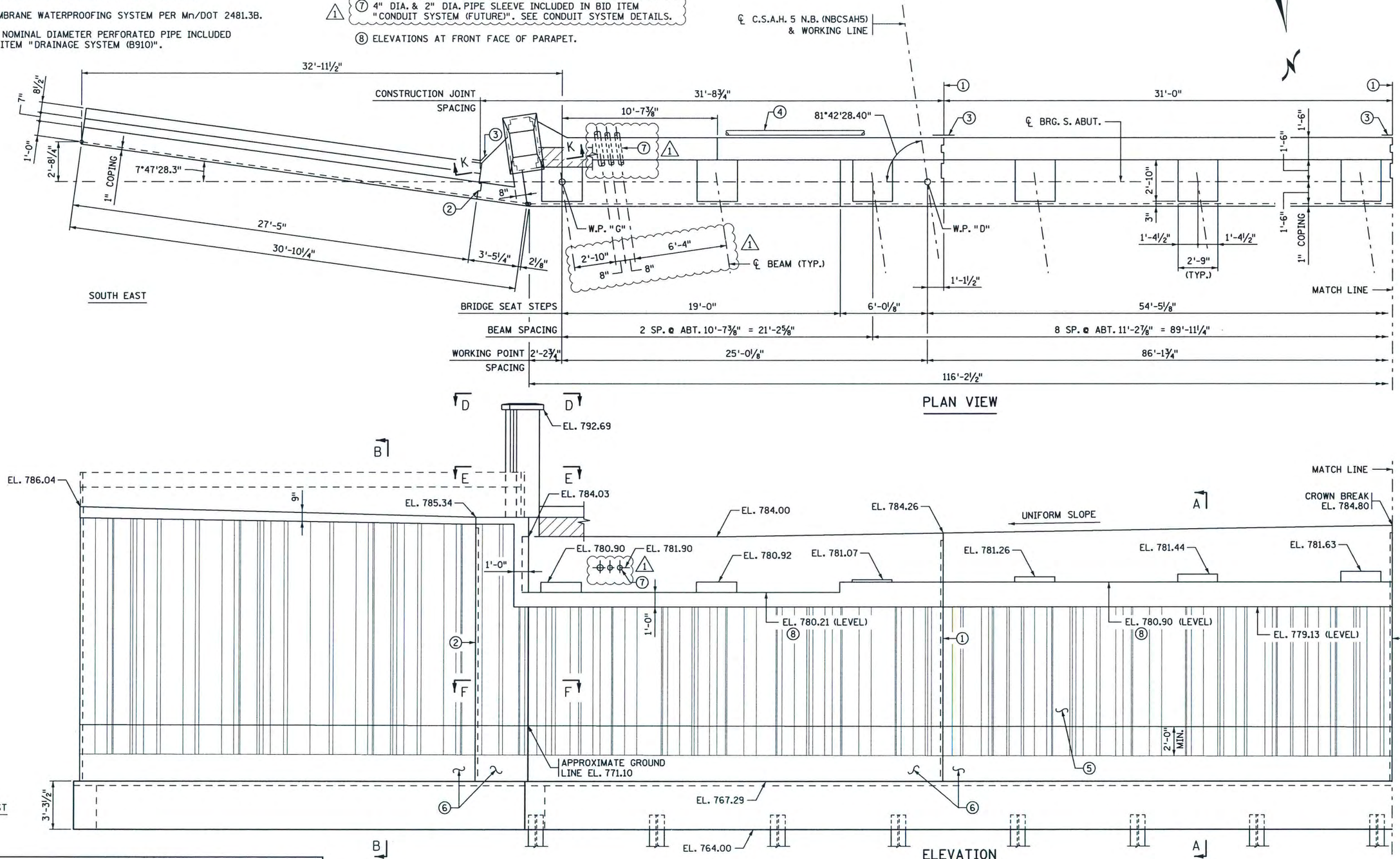
FILENAME: IP_PWP:dl453300V9036.dgn
TIME : 8:36:01 AM
PLOTTED : 09-OCT-2012
PATH & FILENAME: Bridge/Final_Design/1/19036/Cadd-Plan/19036.dgn

NOTES:

1. CONSTRUCTION JOINT AND 2" x 6" KEYWAY IN PARAPET. CONSTRUCTION JOINT AND 2" x 12" KEYWAY IN BRIDGE SEAT.
2. CONSTRUCTION JOINT AND 2" x 6" KEYWAY.
3. MEMBRANE WATERPROOFING SYSTEM PER Mn/DOT 2481.3B.
4. 4" NOMINAL DIAMETER PERFORATED PIPE INCLUDED IN ITEM "DRAINAGE SYSTEM (B910)".
5. ARCHITECTURAL CONCRETE TEXTURE (RANDOM BATTEN) & ARCHITECTURAL SURFACE FINISH (SINGLE COLOR).
6. 72 HOUR MINIMUM TIME DELAY REQUIRED BETWEEN CONCRETE POURS OF ADJACENT ABUTMENT SECTIONS THAT HAVE VERTICAL CONSTRUCTION JOINTS.
7. 4" DIA. & 2" DIA. PIPE SLEEVE INCLUDED IN BID ITEM "CONDUIT SYSTEM (FUTURE)". SEE CONDUIT SYSTEM DETAILS. (1)
8. ELEVATIONS AT FRONT FACE OF PARAPET.

END BLOCK TO BE INCLUDED IN SUPERSTRUCTURE QUANTITIES.

SEE SHEET 15 FOR SECTIONS A-A & B-B.
SEE SHEET 13 FOR SECTIONS D-D, E-E, F-F & K-K.



REVISION		
DATE	DESCRIPTION	APPROVED BY
10-9-12	1 CONDUIT ON EAST SIDE	TRS

REVISIONS ARE INDICATED BY CLOUDED SHAPES.

S.P. NO. 1901-148 (T.H. 13=117), S.P. NO. 019-605-028, S.P. NO. 179-020-031

CERTIFIED BY Todd R. Stevens 10/9/12
LICENSED PROFESSIONAL ENGINEER — DATE
NAME: TODD R. STEVENS LIC. NO. 21312

TITLE: SOUTH ABUTMENT DETAILS

DES: GBB	DR: BEP	APPROVED: 10/9/12
CHK: PDG	CHK: TRS	

SHEET NO. 11R OF 91 SHEETS

BRIDGE NO. 19036

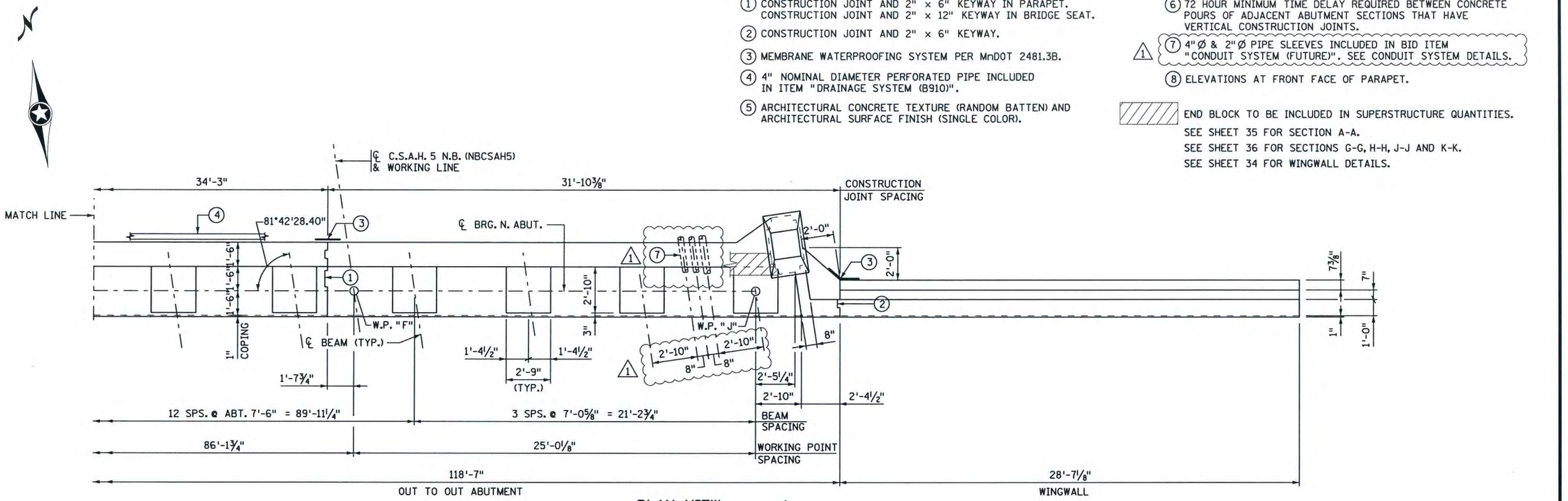
TIME : 8:41:46 AM
PLOTTED : 09-OCT-2012
PATH & FILENAME: Bridge/Final_Design/I/19036/Cadd-Plan/19036_south abt
FILENAME: IP_PWP.dl453300V9036_south abt

NOTES:

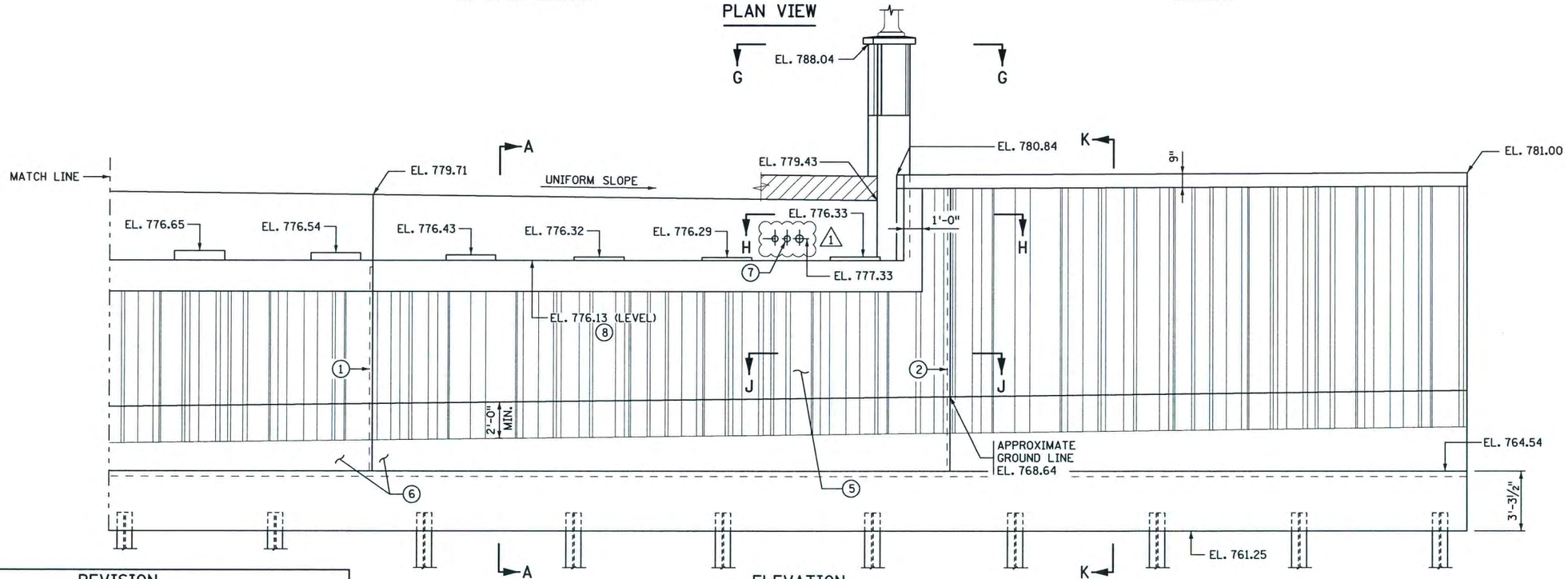
1. CONSTRUCTION JOINT AND 2" x 6" KEYWAY IN PARAPET. CONSTRUCTION JOINT AND 2" x 12" KEYWAY IN BRIDGE SEAT.
2. CONSTRUCTION JOINT AND 2" x 6" KEYWAY.
3. MEMBRANE WATERPROOFING SYSTEM PER MnDOT 2481.3B.
4. 4" NOMINAL DIAMETER PERFORATED PIPE INCLUDED IN ITEM "DRAINAGE SYSTEM (B910)".
5. ARCHITECTURAL CONCRETE TEXTURE (RANDOM BATTEN) AND ARCHITECTURAL SURFACE FINISH (SINGLE COLOR).
6. 72 HOUR MINIMUM TIME DELAY REQUIRED BETWEEN CONCRETE POURS OF ADJACENT ABUTMENT SECTIONS THAT HAVE VERTICAL CONSTRUCTION JOINTS.
7. 4"Ø & 2"Ø PIPE SLEEVES INCLUDED IN BID ITEM "CONDUIT SYSTEM (FUTURE)". SEE CONDUIT SYSTEM DETAILS. (1)
8. ELEVATIONS AT FRONT FACE OF PARAPET.

END BLOCK TO BE INCLUDED IN SUPERSTRUCTURE QUANTITIES.

SEE SHEET 35 FOR SECTION A-A.
SEE SHEET 36 FOR SECTIONS G-G, H-H, J-J AND K-K.
SEE SHEET 34 FOR WINGWALL DETAILS.



PLAN VIEW



ELEVATION

REVISION		
DATE	DESCRIPTION	APPROVED BY
10-9-12	1 CONDUIT ON EAST SIDE	TRS

REVISIONS ARE INDICATED BY CLOUDED SHAPES.

S.P. NO. 1901-148 (T.H. 13=117), S.P. NO. 019-605-028, S.P. NO. 179-020-031

CERTIFIED BY Todd R. Stevens 10/9/12
LICENSED PROFESSIONAL ENGINEER — DATE
NAME: TODD R. STEVENS LIC. NO. 21312

TITLE: NORTH ABUTMENT DETAILS

DES: GBB	DR: RLV	APPROVED: 10/9/12
CHK: PDG	CHK: TRS	

SHEET NO. 33R OF 91 SHEETS

BRIDGE NO. 19036

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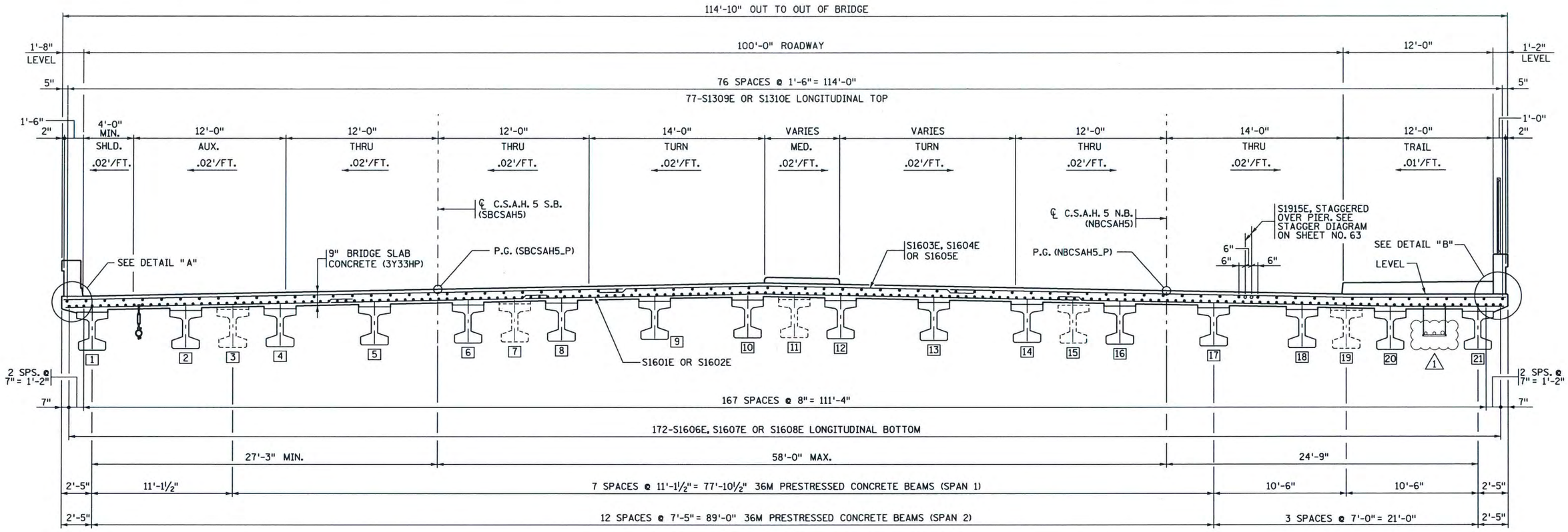
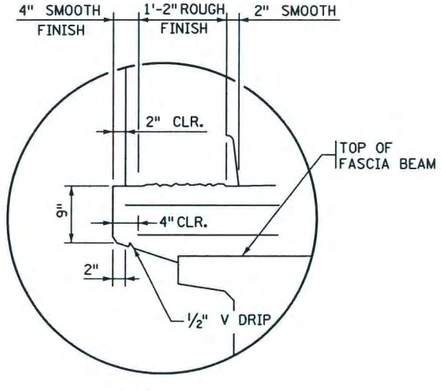
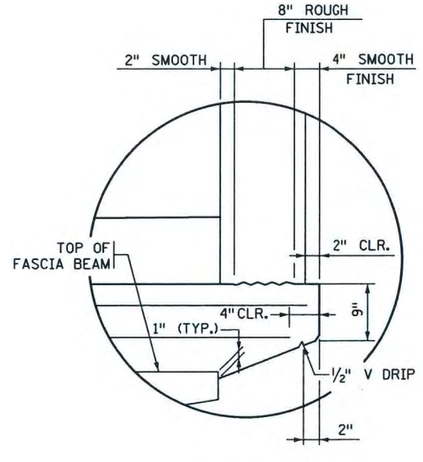
TIME : 8:44:25 AM
PLOTTED : 09-OCT-2012
PATH & FILENAME: Bridge/Final_Design/1/19036/Cadd-Plan/br19036_abt.dgn



TRANSVERSE SECTION



DETAIL "A"



DETAIL "B"

NOTES:

☐ DESIGNATES BEAM NUMBERS

DECK THICKNESS EXAGGERATED FOR CLARITY

REVISIONS ARE INDICATED BY CLOUDED SHAPES.

REVISION		
DATE	DESCRIPTION	APPROVED BY
10-9-12	1 CONDUIT ON EAST SIDE	TRS

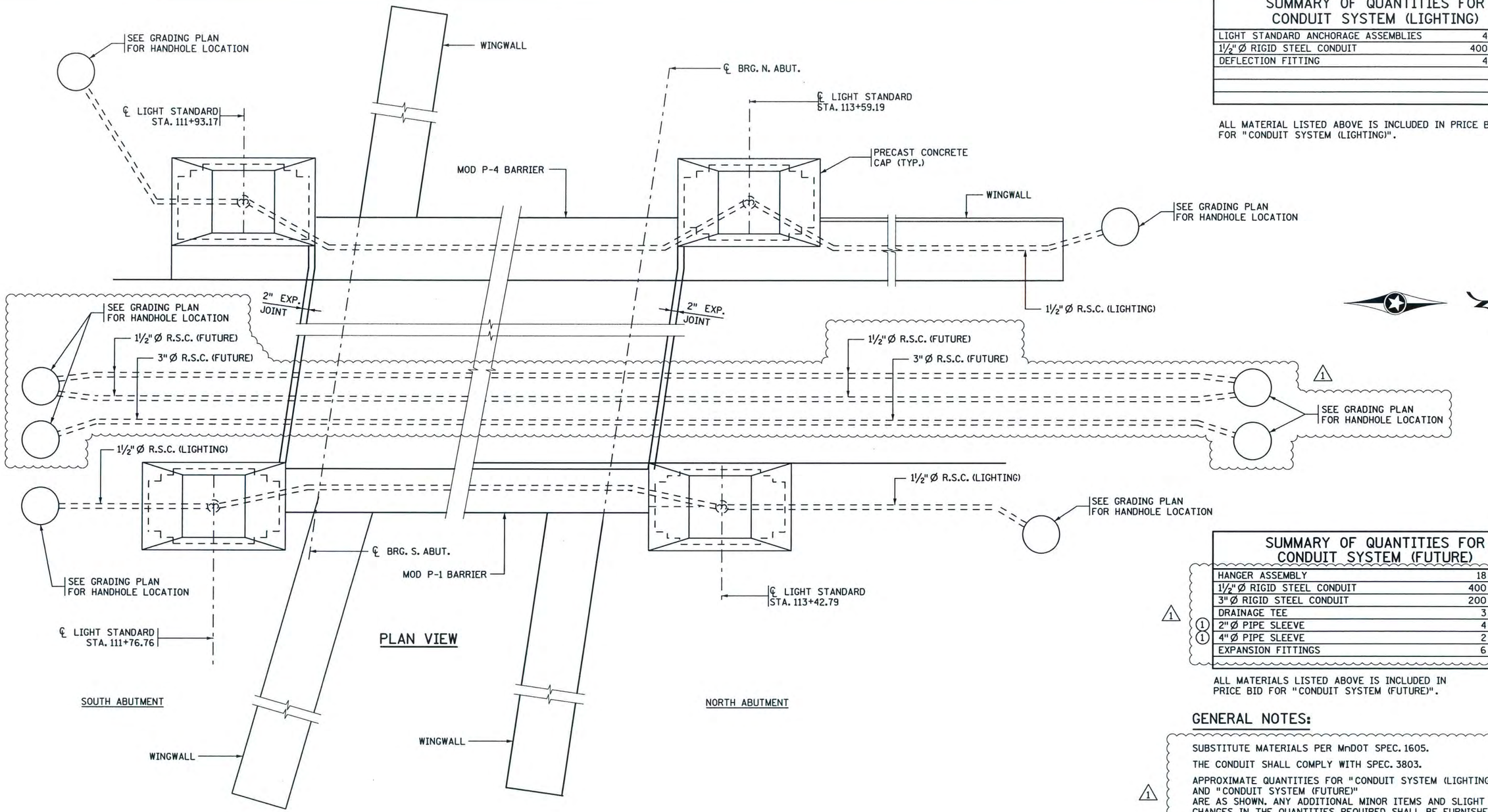
S.P. NO. 1901-148 (T.H. 13=117), S.P. NO. 019-605-028, S.P. NO. 179-020-031

CERTIFIED BY Todd R. Stevens 10/9/12
LICENSED PROFESSIONAL ENGINEER DATE
NAME: TODD R. STEVENS LIC. NO. 21312

TITLE: SUPERSTRUCTURE DETAILS

DES: P.D.G. DR: N.A. APPROVED: 10/9/12
CHK: G.B.B. CHK: T.R.S.
SHEET NO. 61R OF 91 SHEETS

BRIDGE NO. 19036



SUMMARY OF QUANTITIES FOR CONDUIT SYSTEM (LIGHTING)

LIGHT STANDARD ANCHORAGE ASSEMBLIES	4 EACH
1½"Ø RIGID STEEL CONDUIT	400 LIN. FT.
DEFLECTION FITTING	4 EACH

ALL MATERIAL LISTED ABOVE IS INCLUDED IN PRICE BID FOR "CONDUIT SYSTEM (LIGHTING)".

SUMMARY OF QUANTITIES FOR CONDUIT SYSTEM (FUTURE)

HANGER ASSEMBLY	18 EACH
1½"Ø RIGID STEEL CONDUIT	400 LIN. FT.
3"Ø RIGID STEEL CONDUIT	200 LIN. FT.
DRAINAGE TEE	3 EACH
(1) 2"Ø PIPE SLEEVE	4 EACH
(1) 4"Ø PIPE SLEEVE	2 EACH
EXPANSION FITTINGS	6 EACH

1

ALL MATERIALS LISTED ABOVE IS INCLUDED IN PRICE BID FOR "CONDUIT SYSTEM (FUTURE)".

GENERAL NOTES:

1

SUBSTITUTE MATERIALS PER MnDOT SPEC. 1605.

THE CONDUIT SHALL COMPLY WITH SPEC. 3803.

APPROXIMATE QUANTITIES FOR "CONDUIT SYSTEM (LIGHTING)" AND "CONDUIT SYSTEM (FUTURE)" ARE AS SHOWN. ANY ADDITIONAL MINOR ITEMS AND SLIGHT CHANGES IN THE QUANTITIES REQUIRED SHALL BE FURNISHED BY THE CONTRACTOR WITH NO ADDITIONAL COMPENSATION.

(1) SEE ABUTMENT SHEETS.

REVISION		
DATE	DESCRIPTION	APPROVED BY
10-9-12	1 CONDUIT ON EAST SIDE	TRS

REVISIONS ARE INDICATED BY CLOUDED SHAPES.

S.P. NO. 1901-148 (T.H. 13=117), S.P. NO. 019-605-028, S.P. NO. 179-020-031

CERTIFIED BY Todd R. Stevens 10/9/12
LICENSED PROFESSIONAL ENGINEER — DATE
NAME: TODD R. STEVENS LIC. NO. 21312

TITLE: CONDUIT SYSTEM (LIGHTING) AND FUTURE FIBER OPTICS

DES: GBB	DR: RLV	APPROVED: 10/9/12
CHK: PDG	CHK: TRS	

SHEET NO. 74R OF 91 SHEETS

BRIDGE NO. 19036

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PLOTTED : 09-OCT-2012
TIME : 8:58:54 AM
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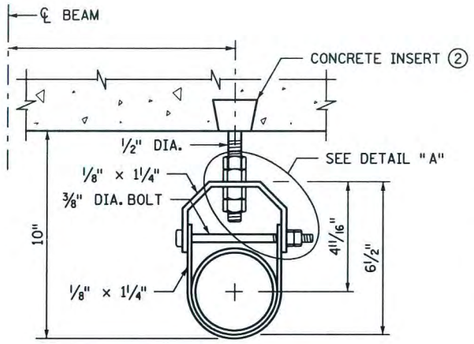
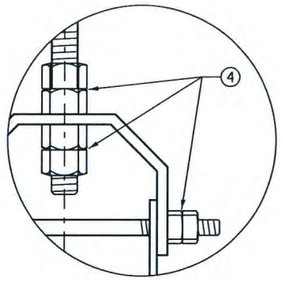
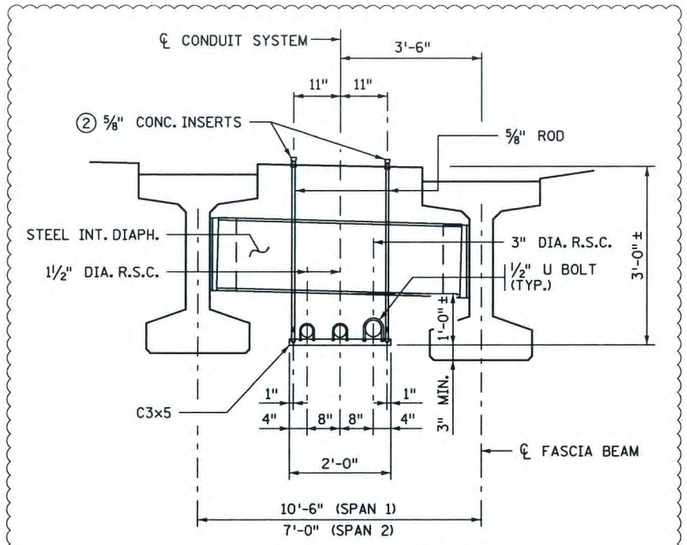


CONDUIT HANGER DETAIL

(FOR SIGNAL CONDUIT SYSTEM)

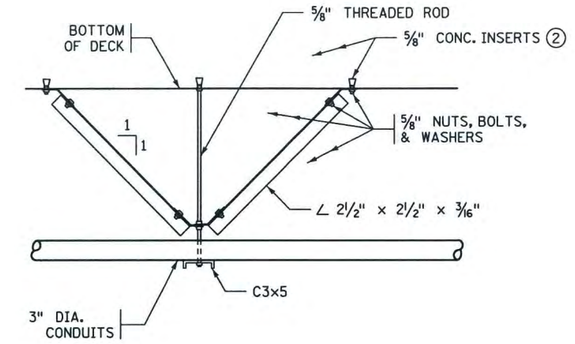


DETAIL "A"



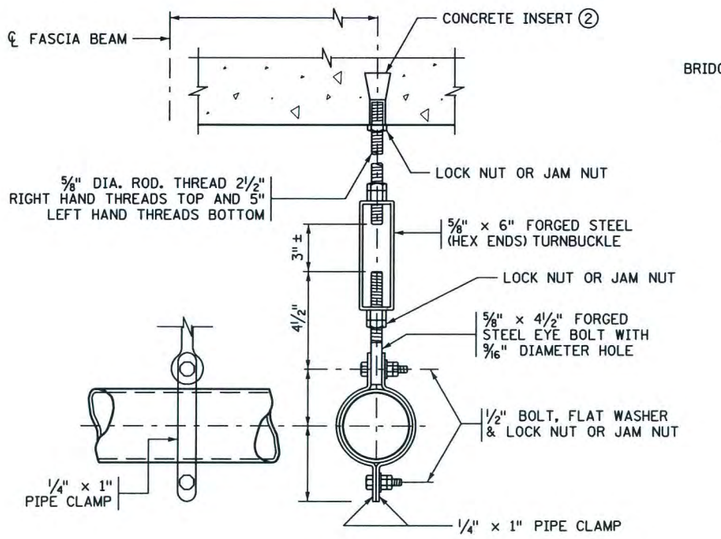
⚠1 TRANSVERSE SECTION

(FOR FUTURE CONDUIT SYSTEM)



CENTERING DEVICE DETAIL - SIDE VIEW

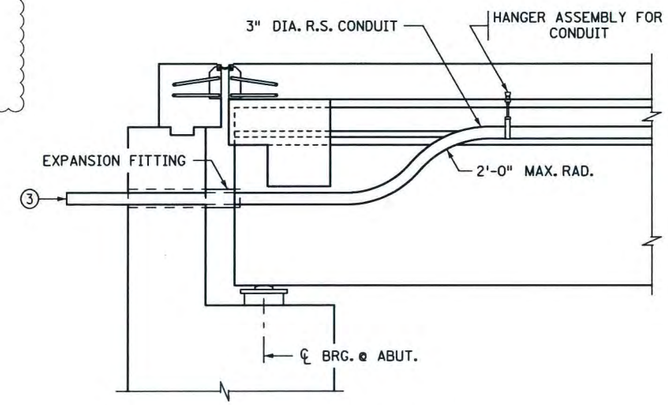
(LOCATED ONLY ON A HANGER ADJACENT TO PIER)



HANGER ASSEMBLY

EACH HANGER ASSEMBLY SHALL CONSIST OF CONCRETE INSERT, ⅝" DIA. ROD, PIPE CLAMPS, NUTS, BOLTS, WASHERS, TURNBUCKLE AND EYE BOLT

JUNCTION BOX DETAILS



LONGITUDINAL SECTION

(FOR FUTURE CONDUIT SYSTEM)

GENERAL NOTES

RODS, EYE BOLTS AND PIPE CLAMPS SHALL COMPLY WITH SPEC. 3313, TYPE I.

TURNBUCKLES AND EYE BOLTS SHALL COMPLY WITH A.S.T.M. A235 CLASS A MINIMUM REQUIREMENTS.

FLAT BARS AND ANCHORAGES SHALL COMPLY WITH SPEC. 3306.

CONCRETE INSERTS SHALL BE APPROVED TYPE MALLEABLE IRON. MATERIAL AS PER SPEC. 3324, GRADE 35018. TAP AFTER GALVANIZING.

GALVANIZE BOLTS, NUTS, WASHERS, TURNBUCKLES, RODS, EYE BOLTS, AND INSERTS AS PER SPEC. 3392. GALVANIZE OTHER MATERIAL AS PER SPEC. 3394 AFTER FABRICATION.

PIPE SLEEVES SHALL COMPLY WITH SPEC. 3362.

② SPACE INSERTS AT 10'-0" MAXIMUM CENTERS.

③ EXTEND TO HANDHOLE.

④ DOUBLE NUTS OR JAM NUTS OR LOCK NUT.

REVISIONS ARE INDICATED BY CLOUDED SHAPES.

REVISION		
DATE	DESCRIPTION	APPROVED BY
10-9-12	⚠1 CONDUIT ON EAST SIDE	TRS

REVISION: 05-24-2012

APPROVED: SEPTEMBER 26, 2003

Daniel Z. Hagyman
STATE BRIDGE ENGINEER

S.P. NO. 1901-148 (T.H. 13=117), S.P. NO. 019-605-028, S.P. NO. 179-020-031

CERTIFIED BY Todd R. Stevens 10/9/12
LICENSED PROFESSIONAL ENGINEER — DATE

NAME: TODD R. STEVENS LIC. NO. 21312

TITLE: CONDUIT SYSTEM

FIG. 5-397.402 MOD

DES: GBB	DR: RLV	APPROVED: 10/9/12
CHK: PDG	CHK: TRS	

SHEET NO. 76R OF 91 SHEETS

BRIDGE NO. 19036

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PLOTTED : 09-OCT-2012
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