

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				HBP/TBP FUNDS		
				80% FED 20% LOCAL	80% FED 20% LOCAL	80% FED 20% LOCAL
				ROADWAY	BRIDGE	TRAINEES
				0004	0011	0042
				URBAN	URBAN	URBAN
78200410	GUARDRAIL MARKERS, TYPE A	EACH	15	15		
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4		
X2070304	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	150		150	
X2800302	TEMPORARY DITCH CHECKS (SPECIAL)	FOOT	98	98		
X4021000	TEMPORARY ACCESS (PRIVATE ENTRANCE)	EACH	1	1		
X5121800	PERMANENT STEEL SHEET PILING	SQ FT	17,233		17,233	
X6310088	TRAFFIC BARRIER TERMINAL TYPE 6A (SPECIAL)	EACH	4	4		
XX008438	TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR	EACH	1	1		
XX008458	CONCRETE WEARING SURFACE, (VARIABLE DEPTH)	CU YD	83		83	
Z0007124	STEEL RAILING (SPECIAL)	FOOT	282		282	
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1		
Z0022800	FENCE REMOVAL	FOOT	530	530		
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	26	26		
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	873		873	
Z0066400	STABILIZED DRIVEWAYS 6"	SQ YD	66	66		
Z0076600	TRAINEES	HOUR	500			500
Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500			500



SPECIALTY ITEMS

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SA
STRAND
ASSOCIATES

1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200

DESIGNED - VLM
DRAWN - DJW
CHECKED - AJS
DATE - 4-23-12

REVISIONS
12-26-2012 VLM
REVISIONS

MCHENRY COUNTY DIVISION OF TRANSPORTATION
HILL ROAD BRIDGE OVER
NORTH BRANCH NIPPERSINK CREEK

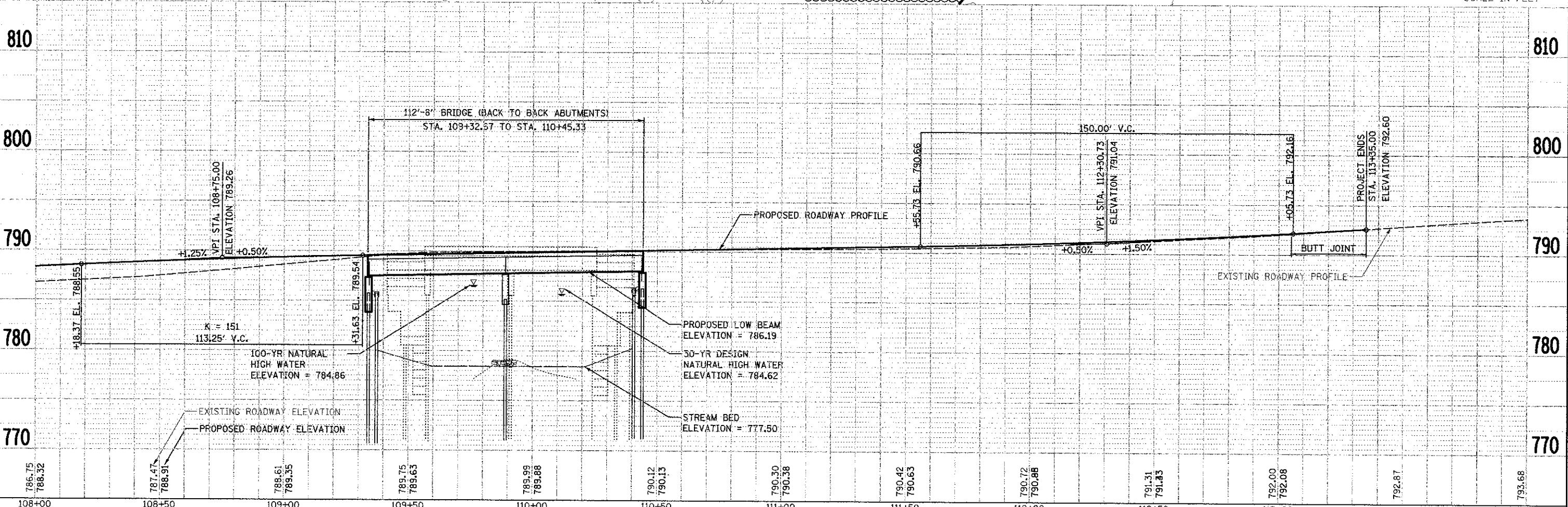
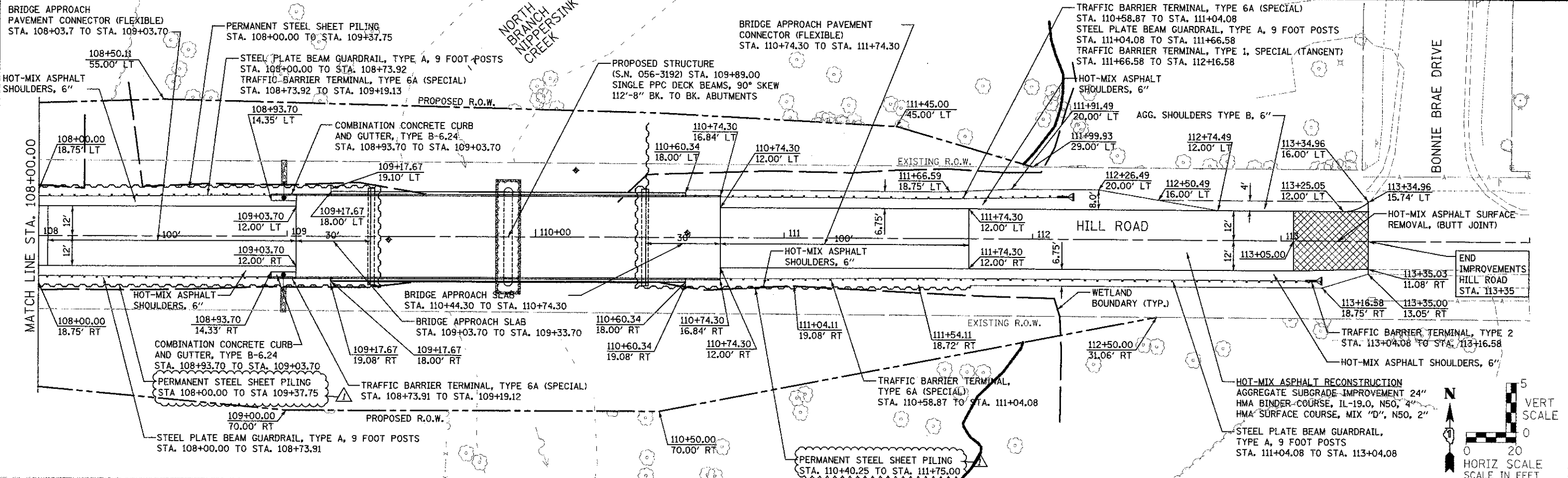
SUMMARY OF QUANTITIES

SCALE: AS SHOWN SHEET NO. OF SHEETS STA. TO STA.

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	7

CONTRACT NO. 63666

FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT



DATE	
BY	
REVIEWED	
PLANNED	
NOTED	
NO.	

DATE	
BY	
REVIEWED	
PLANNED	
NOTED	
NO.	

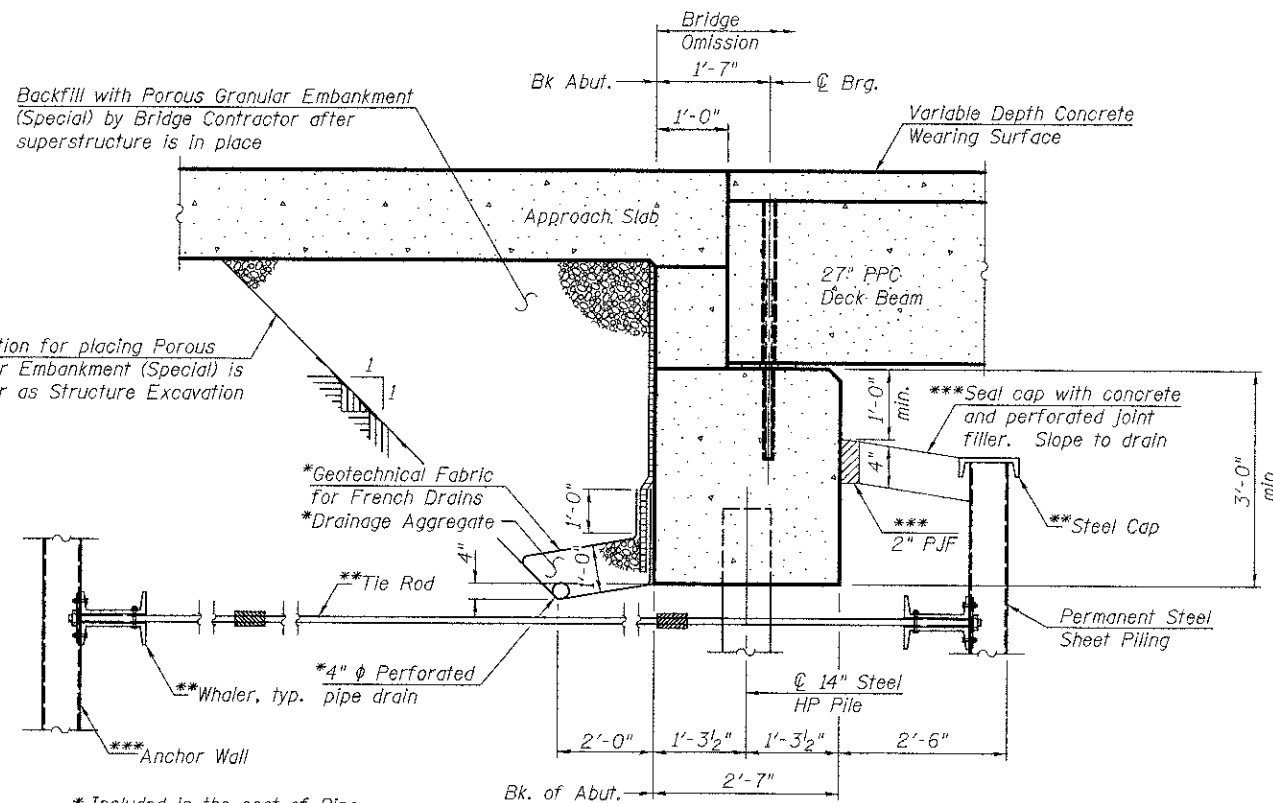
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 1170 SOUTH HOLSOLT ROAD
 JOLIET, ILLINOIS 60431
 (815) 744-4200
STRAND ASSOCIATES

USER NAME = vaneason	DESIGNED - VLM	REVISED - VLM 10/26/12
PLOT SCALE = 20.0000' / IN.	DRAWN - DJW	REVISED -
PLOT DATE = 10/26/2012	CHECKED - AJG	REVISED -
	DATE - 4-23-12	REVISED -

MCHENRY COUNTY DIVISION OF TRANSPORTATION
HILL ROAD BRIDGE OVER
NORTH BRANCH NIPPERSINK CREEK

SCALE: AS SHOWN		SHEET NO. OF SHEETS	STA. 108+00.00 TO STA. 114+00.00
PLAN AND PROFILE			

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	14
CONTRACT NO. 63666			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	



* Included in the cost of Pipe Underdrain for Structures 4"

** Paid for Furnishing and Erecting Structural Steel

*** Cost included in Permanent Steel Sheet Piling. Quantity of Permanent Steel Sheet Piling includes Anchor Wall area.

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

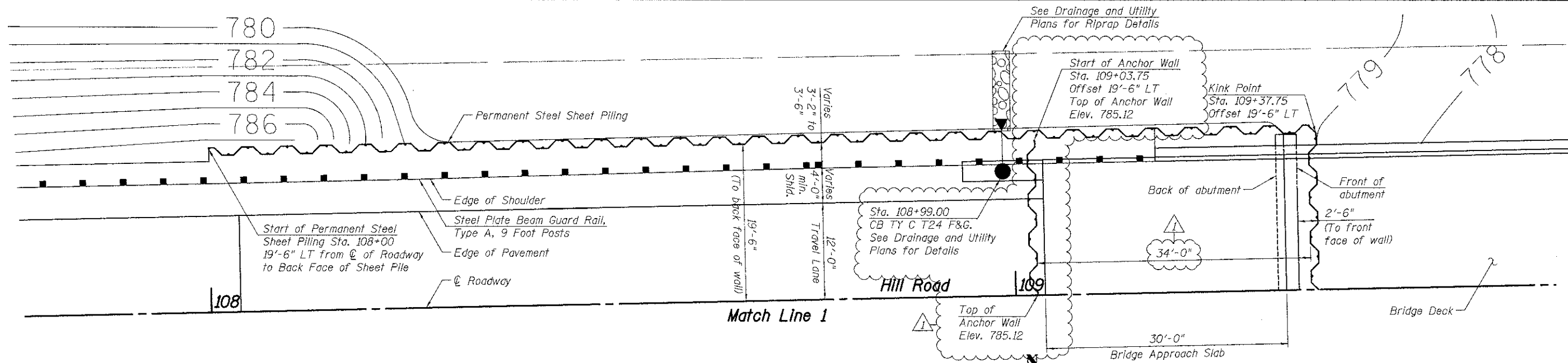
SECTION THRU ABUTMENT

TOTAL BILL OF MATERIAL

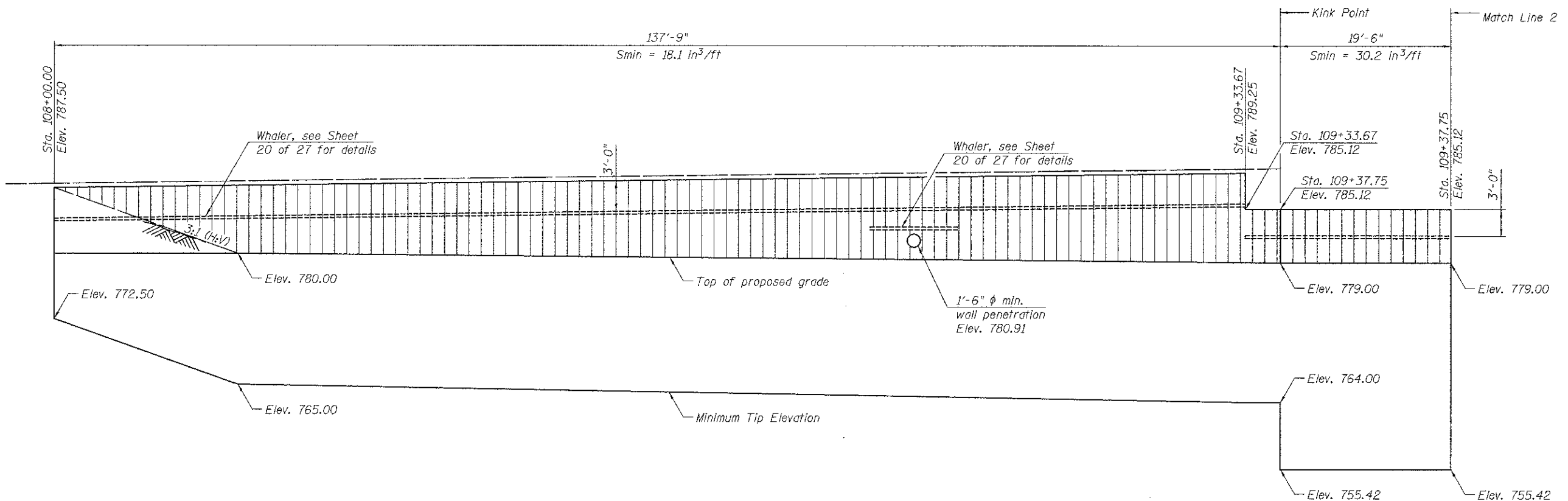
ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Sq Yd		70	70
Filter Fabric	Sq Yd		70	70
Removal Of Existing Structures	Each	1		1
Structure Excavation	Cu Yd		75	75
Cofferdam Excavation	Cu Yd		43	43
Cofferdam (Type 1) (Location - 1)	Each		1	1
Cofferdam (Type 1) (Location - 2)	Each		1	1
Concrete Structures	Cu Yd		70	70
Concrete Superstructure	Cu Yd	107		107
Bridge Deck Grooving	Sq Yd	583		583
Concrete Encasement	Cu Yd		19	19
Protective Coat	Sq Yd	683		683
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq Ft	3,981		3,981
Furnishing And Erecting Structural Steel	L Sum		1	1
Reinforcement Bars, Epoxy Coated	Pound	31,160	9,650	40,810
Furnishing Metal Shell Piles 14" x 0.312"	Foot		196	196
Furnishing Steel Piles HP14x73	Foot		425	425
Driving Piles	Foot		621	621
Test Pile Metal Shells	Each		1	1
Test Pile Steel HP14x73	Each		3	3
Pile Shoes	Each		20	20
Name Plate	Each	1		1
Concrete Sealer	Sq Ft		739	739
Geocomposite Wall Drain	Sq Yd		37	37
Porous Granular Embankment, Special	Cu Yd		150	150
Permanent Steel Sheet Piling	Sq Ft		17,233	17,233
Concrete Wearing Surface, (Variable Depth)	Cu Yd	83		83
Steel Railing (Special)	Foot	282		282
Pipe Underdrains For Structures 4"	Foot		873	873

Note:
Cofferdam (Type 1) (Location-1) to be used for the removal and replacement of the pier and east abutment. Cofferdam (Type 1) (Location-2) to be used for the removal and replacement the west abutment. All earthwork, including placement of riprap, shall be done in a dry environment behind the cofferdam.
Two test piles are required for the west abutment. See Sheet 12 of 27 for details.

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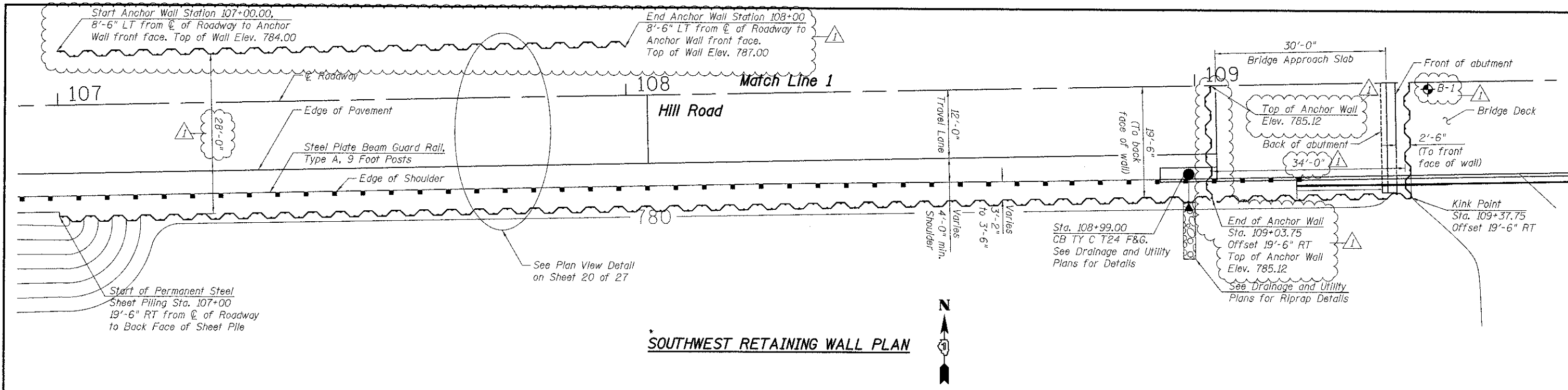
NORTHWEST RETAINING WALL PLAN



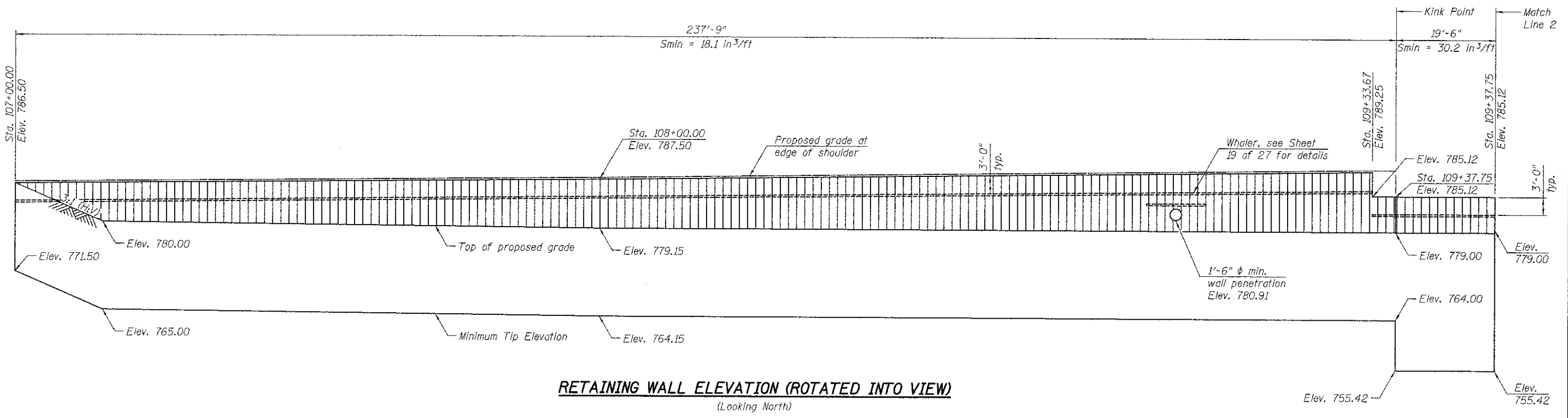
RETAINING WALL ELEVATION (ROTATED INTO VIEW)
(Looking North)

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1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200 IDFPR NO. 184-001273	USER NAME = vaneasom PLOT SCALE = PLOT DATE = 18/26/2012	DESIGNED <i>RRD</i> CHECKED <i>AJS</i> DRAWN <i>BJF</i> CHECKED <i>RRD</i>	REVISED - Δ 10-26-2012 <i>RRD</i> REVISED - REVISED - REVISED -	MCHENRY COUNTY DIVISION OF TRANSPORTATION HILL ROAD BRIDGE OVER NORTH BRANCH NIPPERSINK CREEK	RETAINING WALL DETAILS (1 OF 5) STRUCTURE NO. 056-3192 SHEET NO. 16 OF 27 SHEETS	TR 21	SECTION 08-00356-00-BR	COUNTY MCHENRY	TOTAL SHEETS 77	SHEET NO. 46	CONTRACT NO. 63666 ILLINOIS FED. AID PROJECT
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SOUTHWEST RETAINING WALL PLAN



RETAINING WALL ELEVATION (ROTATED INTO VIEW)
(Looking North)

FILE NAME = SA\JUL16800-6897\6862\207\Work\A\CADD Sheets\Structural\866-3192-63666-017-RET2.dgn

SA STRAND ASSOCIATES
1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
IDFPR NO. 184-001273

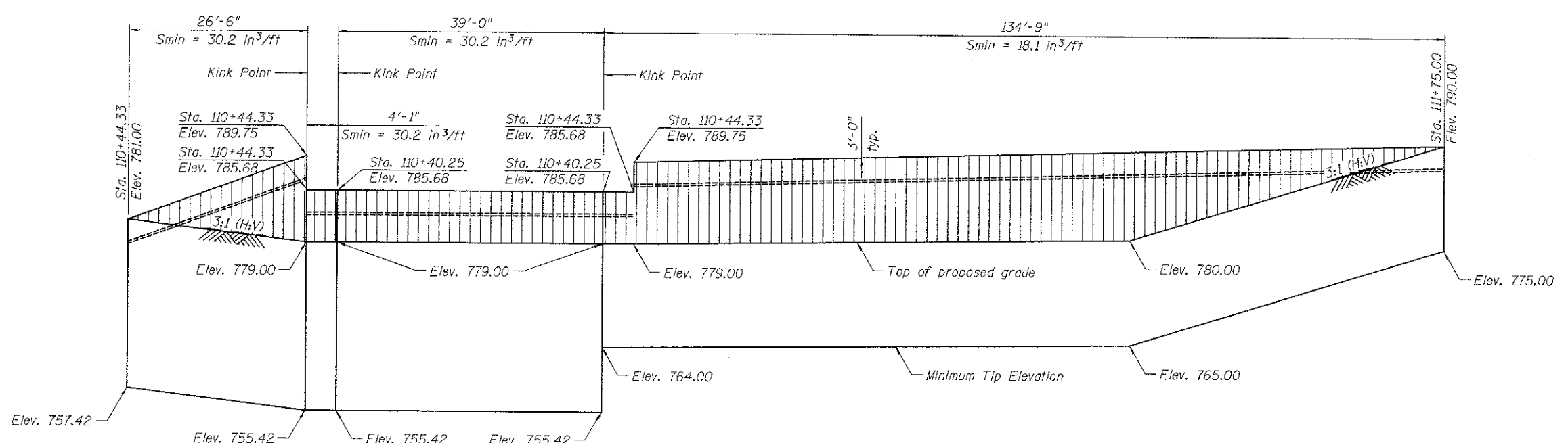
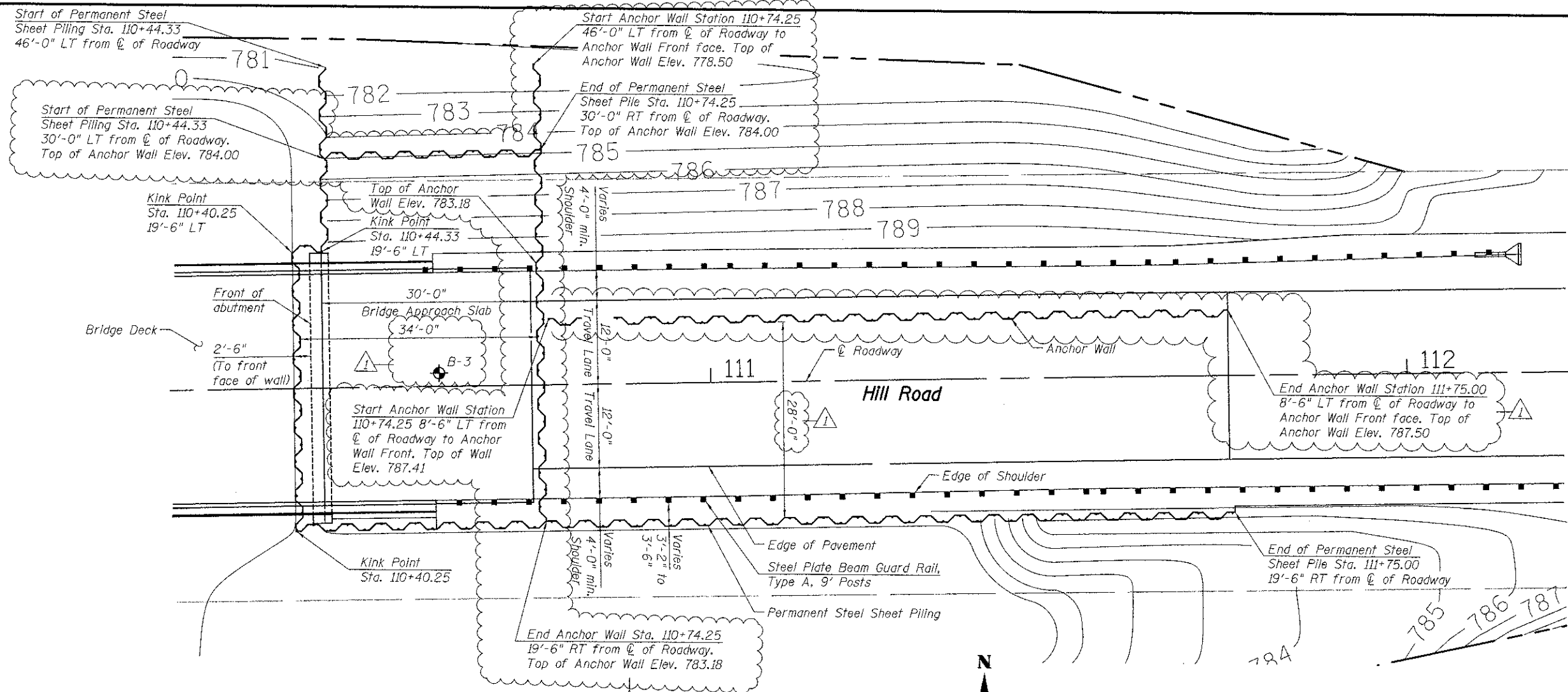
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PLOT DATE = 10/26/2012

DESIGNED *RRD*
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REVISED - Δ 10-26-2012 RRD
REVISED -
REVISED -
REVISED -

MCHENRY COUNTY DIVISION OF TRANSPORTATION
HILL ROAD BRIDGE OVER
NORTH BRANCH NIPPERSINK CREEK

RETAINING WALL DETAILS (2 OF 5)
STRUCTURE NO. 056-3192
SHEET NO. 17 OF 27 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	47
CONTRACT NO. 63666				
ILLINOIS FED. AID PROJECT				



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<p>1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200 IDFPR NO. 184-001273</p>	USER NAME = venessan	DESIGNED RRD	REVISED - 10-26-2012 RRD	MCHENRY COUNTY DIVISION OF TRANSPORTATION HILL ROAD BRIDGE OVER NORTH BRANCH NIPPERSINK CREEK	RETAINING WALL DETAILS (3 OF 5) STRUCTURE NO. 056-3192		TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	DRAWN B/JF	REVISED -		21	08-00356-00-BR	MCHENRY	77	48		
	PLOT DATE = 10/26/2012	CHECKED RRD	REVISED -		CONTRACT NO. 63666		ILLINOIS FED. AID PROJECT				

GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts 3/4" φ, holes 7/8" φ, unless otherwise noted.
 Contractor shall submit, for review and approval, shop drawings that detail fabrication, erection, installation, etc. of Permanent Steel Sheet Piling and Pile Caps.
 Permanent Sheet Pile shall meet requirements of ASTM A328. Sheet pile shall have an effective section modulus meeting or exceeding the values indicated on the elevations view on Sheet 16 thru 18 of 27 with a C15x33.9 cap or a cap that will provide proper cover. Use of an alternative section is subject to approval of the Engineer. See Special Provisions for additional information.
 For backfilling and embankment, see Roadway Plans.
 If Contractor elects to use larger Permanent Steel Sheet Pile size, sheet pile cap size shall increase as required to fit wall. New size shall be approved by Engineer and provided at no additional cost to contract.
 All steel and associated hardware required for the installation of the whaler and tie rods shall be paid for as Furnishing and Erecting Structural Steel. These items include, but are not limited to turn buckle, tie rods, plates, nuts, MC sections, spacer and washers.
 All excavation and backfill associated with the installation of the anchor rod and whalers shall be included in the cost of Permanent Steel Sheet Piling.
 See Sheet 2 of 27 for Section thru Abutment.
 Smin of Anchor Wall = 18.1 in³/ft
 Tie rod shall be Fy = 50,000 psi
 All whalers supporting tie rods shall be spliced using a full moment splice. Location of the splice shall be determined by the Contractor. The contractor shall submit shop drawings of the splice detail to the Engineer for approval. The shop drawings shall be sealed by an Illinois Licensed Structural Engineer. The splice shall conform the AASHTO LRFD requirements.

If Contractor elects to use larger Permanent Steel Sheet Pile size, sheet pile cap size shall increase as required to fit wall. New size shall be approved by Engineer and provided at no additional cost to contract.

All steel and associated hardware required for the installation of the whaler and tie rods shall be paid for as Furnishing and Erecting Structural Steel. These items include, but are not limited to turn buckle, tie rods, plates, nuts, MC sections, spacer and washers.

All excavation and backfill associated with the installation of the anchor rod and whalers shall be included in the cost of Permanent Steel Sheet Piling.

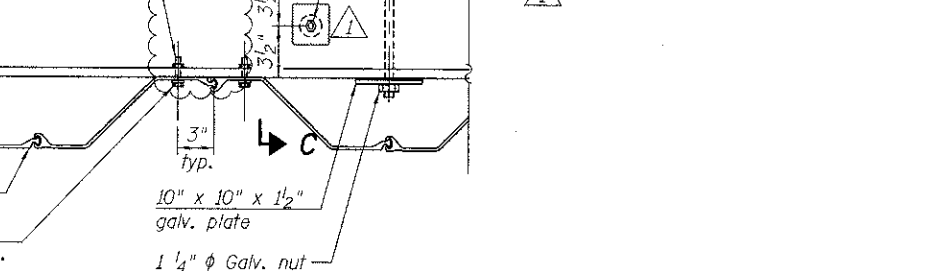
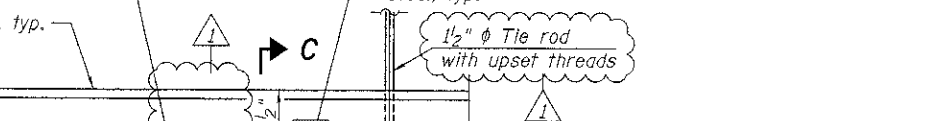
See Sheet 2 of 27 for Section thru Abutment.

Smin of Anchor Wall = 18.1 in³/ft

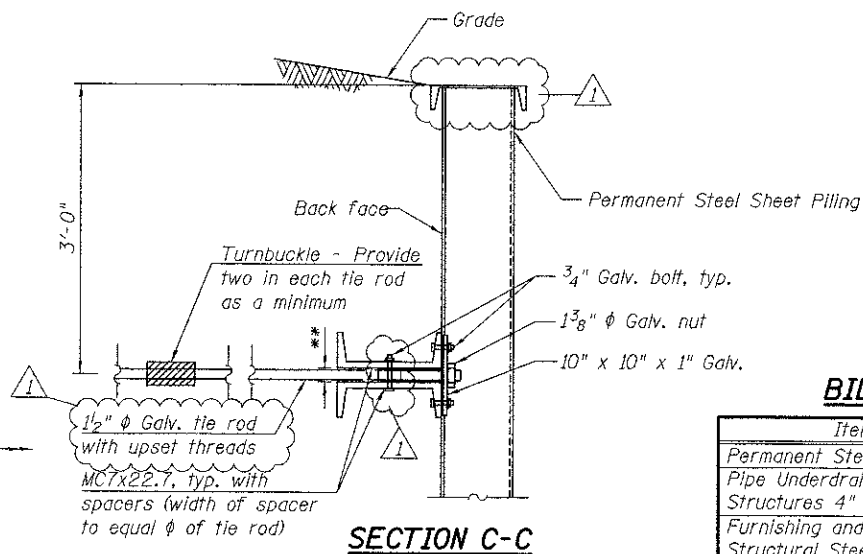
Tie rod shall be Fy = 50,000 psi

All whalers supporting tie rods shall be spliced using a full moment splice. Location of the splice shall be determined by the Contractor. The contractor shall submit shop drawings of the splice detail to the Engineer for approval. The shop drawings shall be sealed by an Illinois Licensed Structural Engineer. The splice shall conform the AASHTO LRFD requirements.

3/4" Galv. bolt with galv. nut and washer. Provide 1" schedule 40 pipe spacer between whalers, space at min. 2'-0" o.c. and max. 3'-0" o.c. pipe spacers. Cost included in Furnishing and Erecting Structural Steel, typ.



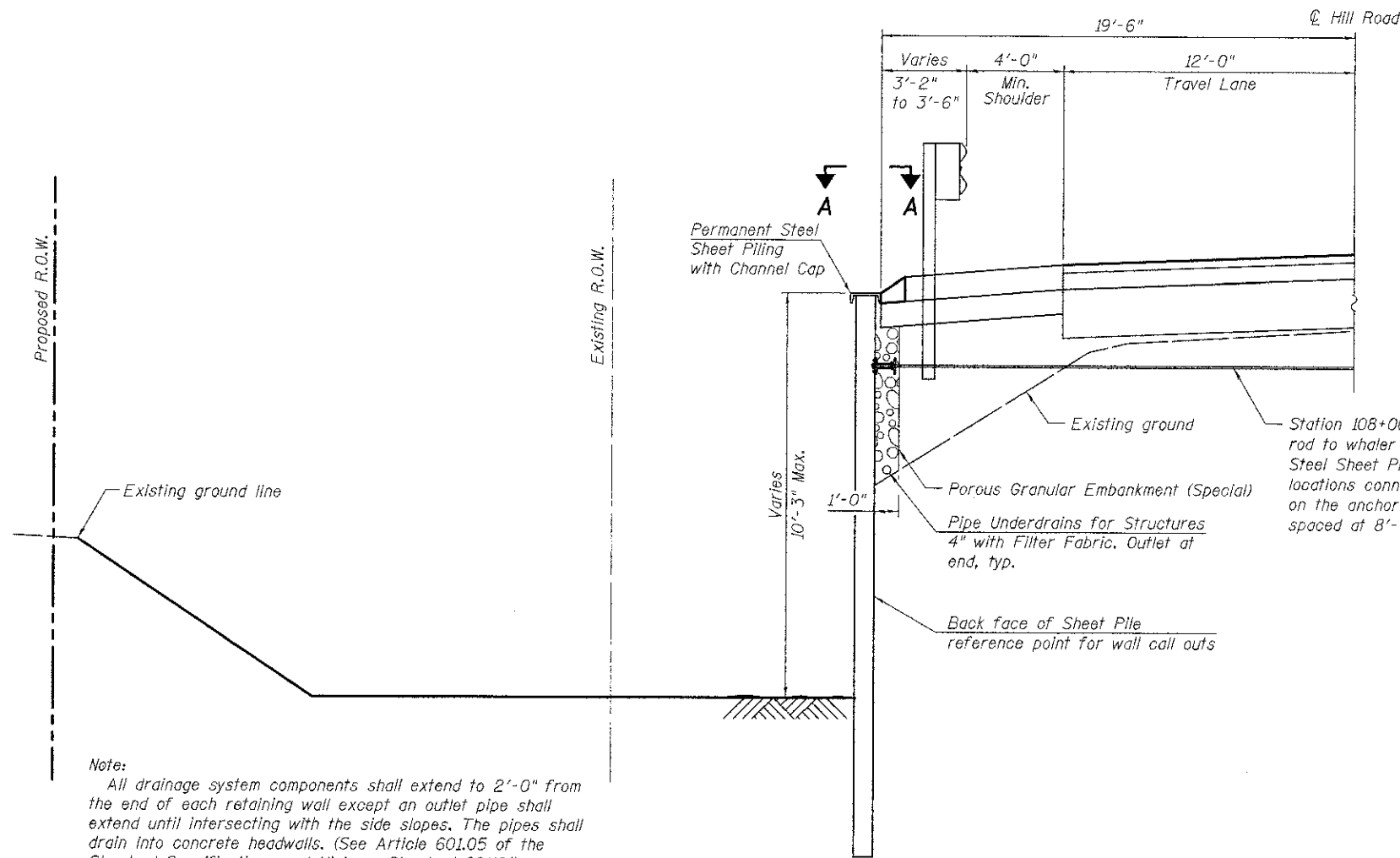
WHALER PLAN DETAIL



**Space Whalers = Tie rod dia. with upset threads.

BILL OF MATERIAL

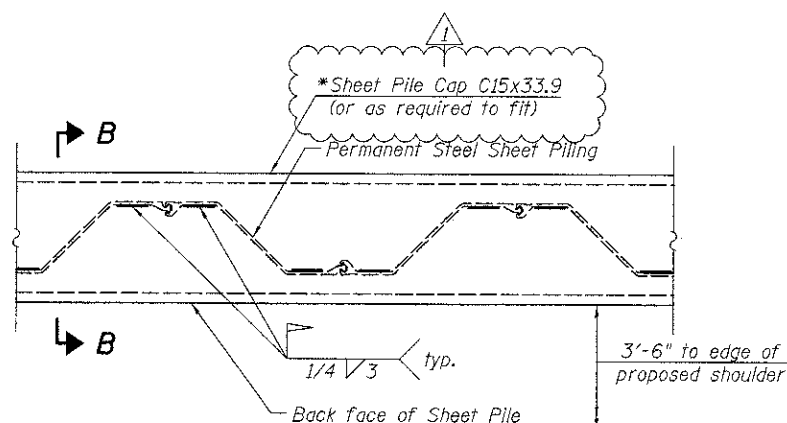
Item	Unit	Total
Permanent Steel Sheet Piling	Sq Ft	17,233
Pipe Underdrains for Structures 4"	Foot	710
Furnishing and Erecting Structural Steel	L Sum	1
Porous Granular Embankment (Special)	Cu Yd	75



TYPICAL SHEET PILE WALL SECTION

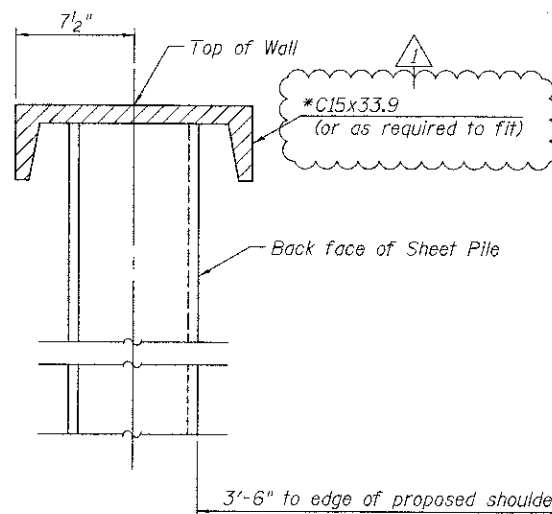
Sta. 108+00.00 to Sta. 109+37.75 (Northwest)
 Sta. 107+00.00 to Sta. 109+37.75 (Southwest)
 Sta. 110+40.65 to Sta. 111+75.00 (Southeast)

Note:
 All drainage system components shall extend to 2'-0" from the end of each retaining wall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



SECTION A-A
 Cap Weld Detail

*Paid for as Furnishing and Erecting Structural Steel



SECTION B-B

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Testing Service Corporation

STRUCTURE BORING LOG

Page 1 of 1

Date Started 10/11/12

Date Completed 10/11/12

ROUTE IR21 DESCRIPTION Retaining Walls
 SECT. 08-000356-00-BR STRUCT. NO. 056-3192 DRILLED BY TSC L-79.206
 COUNTY McHenry LOCATION Hill Road Bridge S. 16E½, TWP. 46N, RNG. 8E

Boring No.	Station	Offset	Surface Elev.	D E P T H	B L O W S	Q u t s f	W %	Surface Water Elev.	D E P T H	B L O W S	Q u t s f	W %
104	108+08	11.00ft RT	785.40									
5" Bituminous Concrete 8" Sand and Gravel Subbase				785.30								
FILL - Black, brown and gray CLAY LOAM, trace to little gravel, trace organic, moist to very moist A-6					3 6 7	P 2.25	18.9			7 11 16		11.1
Medium dense to dense gray fine to medium SAND, trace gravel, saturated A-3												
FILL - Black silty CLAY (topsoil), moist A-7-6					4 7	P 4.5+	20.5			8 11 20		17.3
FILL - Black and brown CLAY LOAM, trace gravel, trace organic, moist A-6					5 10	P 1.5	13.5					
Soft black sandy ORGANIC CLAY, very moist A-8					3 5 6	P 0.5	47.3					
Medium dense gray clayey SAND and GRAVEL, moist A-2-4					5 6 9		12.5					
Medium dense gray fine to medium SAND, trace gravel, saturated A-3					5 7 12		11.6					
Medium dense gray fine to medium SAND and GRAVEL, saturated A-1-b					4 8 11		10.4					
Medium dense gray fine to medium SAND, trace gravel, saturated A-3					5 9 9		11.5					
Medium dense to dense gray fine to medium SAND, trace gravel, saturated A-3					6 11 13		16.5					

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

STRUCTURE BORING LOG

Page 1 of 1

Date Started 10/11/12

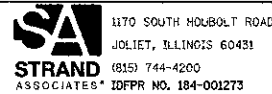
Date Completed 10/11/12

ROUTE IR21 DESCRIPTION Retaining Walls
 SECT. 08-000356-00-BR STRUCT. NO. 056-3192 DRILLED BY TSC L-79.206
 COUNTY McHenry LOCATION Hill Road Bridge S. 16E½, TWP. 46N, RNG. 8E

Boring No.	Station	Offset	Surface Elev.	D E P T H	B L O W S	Q u t s f	W %	Surface Water Elev.	D E P T H	B L O W S	Q u t s f	W %
105	109+11	12.00ft RT	788.60									
6" Bituminous Concrete 8" Sand and Gravel Subbase				787.40								
FILL - Brown and black CLAY LOAM, trace gravel, trace organic, moist A-6					3 6	P 1.75	10.8			7 10 17		15.3
FILL - Black silty CLAY (topsoil), moist A-7-6					4 7	P 4.5+	20.5			8 11 20		17.3
FILL - Black and brown CLAY LOAM, trace gravel, trace organic, moist A-6					5 10	P 1.5	13.5					
Soft black sandy ORGANIC CLAY, very moist A-8					3 5 6	P 0.5	47.3					
Medium dense gray clayey SAND and GRAVEL, moist A-2-4					5 6 9		12.5					
Medium dense gray fine to medium SAND, trace gravel, saturated A-3					5 9 12		15.4					
Medium dense gray SANDY LOAM, very moist A-2-4					6 7 11		17.4					
Stiff gray CLAY LOAM, occasional silt seams, very moist A-6					3 5 6	P 1.5	21.3					
Medium dense gray SANDY LOAM, very moist A-2-4					9 11 18		20.0					
Medium dense to dense gray fine to medium SAND, trace gravel, saturated A-3					5 9 9		11.1					

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
 Stations, Depths, Offset, and Elevations are in Feet

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1170 SOUTH HOUWOLT ROAD
 JOLIET, ILLINOIS 60431
 (815) 744-4200
 IDPFR NO. 184-001273

USER NAME = vancosam
 DESIGNED RRD
 CHECKED AJS
 DRAWN BJF
 CHECKED RRD
 REVISED - 10-26-2012 RRD
 REVISED -
 REVISED -
 REVISED -

MCHENRY COUNTY DIVISION OF TRANSPORTATION
 HILL ROAD BRIDGE OVER
 NORTH BRANCH NIPPERSINK CREEK

SOIL BORING LOG (4 OF 6)
 STRUCTURE NO. 056-3192
 SHEET NO. 24 OF 27 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	54

CONTRACT NO. 63666
 ILLINOIS FED. AID PROJECT

Testing Service Corporation

Page 1 of 1

STRUCTURE BORING LOG

Date Started 10/11/12
Date Completed 10/11/12

ROUTE TR21 DESCRIPTION Retaining Walls
SECT. 08-000356-00-BR STRUCT. NO. 056-3192 DRILLED BY TSC L-79,206
COUNTY McHenry LOCATION Hill Road Bridge S. 16E 1/4, TWP. 48N, RNG. 8E

Boring No.	Station	Offset	Surface Elev.	DEPTH	SOIL	Qu	W %	Surface Water Elev.	Groundwater Elev.	DEPTH	SOIL	Qu	W %
106	110+43	32.00ft LT	781.80 ft										
				2	FILL - Black CLAY (Topsoil), very moist A-7-6	<0.25	48.4			7	Medium dense gray fine to medium SAND, trace gravel, saturated A-3	6	16.3
			778.80	6	Medium dense gray SAND and GRAVEL, saturated A-1-a		6.3			5		7	18.1
			751.80	11						9		10	
				12						14		9.8	
				7						10		9.7	
				10						11			
			771.30	6	Stiff gray SILTY CLAY LOAM, occasional silt seams, very moist A-4/A-6	1.5	20.5			7			
				8						5			
				6						8		1.5	20.8
			766.30	7	Medium dense gray SAND and GRAVEL, saturated A-1-a		14.2			10			
				10						10			
			763.80	6	Medium dense gray SAND, trace gravel, saturated A-1-b		11.5			7			
				7						9			
				5						8			10.2
				6						7			11.5
				7						9			

SPT: (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation

Page 1 of 1

STRUCTURE BORING LOG

Date Started 10/11/12
Date Completed 10/11/12

ROUTE TR21 DESCRIPTION Retaining Walls
SECT. 08-000356-00-BR STRUCT. NO. 056-3192 DRILLED BY TSC L-79,206
COUNTY McHenry LOCATION Hill Road Bridge S. 16E 1/4, TWP. 48N, RNG. 8E

Boring No.	Station	Offset	Surface Elev.	DEPTH	SOIL	Qu	W %	Surface Water Elev.	Groundwater Elev.	DEPTH	SOIL	Qu	W %
106	110+43	32.00ft LT	781.80 ft										
				2	FILL - Black CLAY (Topsoil), very moist A-7-6	<0.25	48.4			7	Medium dense gray fine to medium SAND, trace gravel, saturated A-3	6	16.3
			778.80	6	Loose to medium dense gray SAND and GRAVEL, saturated A-1-a		6.3			5		7	18.1
			751.80	11						9		10	
				12						14		9.8	
				7						10		9.7	
				10						11			
			771.30	6	Stiff gray SILTY CLAY LOAM, occasional silt seams, very moist A-4/A-6	1.5	20.5			7			
				8						5			
				6						8		1.5	20.8
			766.30	7	Medium dense gray SAND and GRAVEL, saturated A-1-a		14.2			10			
				10						10			
			763.80	6	Medium dense gray SAND, trace gravel, saturated A-1-b		11.5			7			
				7						9			
				5						8			10.2
				6						7			11.5
				7						9			

SPT: (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

FILE NAME: S:\JULY6800-6899\08-000356-00-BR\Structure\08-000356-00-BR-02-56L.dgn



STRAND ASSOCIATES
1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
IDFPR NO. 184-001273

USER NAME: vaneesan
DESIGNED: RRD
CHECKED: AJS
DRAWN: BJB
CHECKED: RRD

REVISIONS:
10-26-2012 RRD
REVISOR: -
REVISOR: -
REVISOR: -
REVISOR: -

MCHENRY COUNTY DIVISION OF TRANSPORTATION
HILL ROAD BRIDGE OVER
NORTH BRANCH NIPPERSINK CREEK

SOIL BORING LOG (5 OF 6)
STRUCTURE NO. 056-3192
SHEET NO. 25 OF 27 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	55

CONTRACT NO. 63666
ILLINOIS FED. AID PROJECT

Testing Service Corporation
STRUCTURE BORING LOG

Page 1 of 1
Date Started 10/11/12
Date Completed 10/11/12

ROUTE TR21 DESCRIPTION Retaining Walls
SECT. 08-000356-00-BR STRUCT. NO. 056-3192 DRILLED BY TSC L-79,206
COUNTY McHenry LOCATION Hill Road Bridge S 18E 1/2, TWP. 46N, RNG. 8E

Boring No.	Station	Offset	DEPTH	BL	LO	WS	Qu	W	Surface Water Elev.	Groundwater Elev.	DEPTH	BL	LO	WS	Qu	W
107	110+78	12.00ft RT	H	S	S	tsf	%	Hrs.			H	S	S	tsf	%	
			789.30						784.80							
FILL - Black silty CLAY (Topsoil)																
FILL - Brown to brown and gray CLAY LOAM, little gravel and crushed stone, moist A-6																
FILL - Dark brown and gray clayey SAND and GRAVEL, moist A-2-4																
Soft black sandy ORGANIC CLAY, very moist A-7-6																
Medium dense black and gray SANDY CLAY LOAM, little organic, very moist A-4																
Medium dense gray SAND and GRAVEL, saturated A-1-b																
Medium dense gray clayey SAND and GRAVEL, little organic, very moist A-2-4																
Medium stiff to stiff gray SILTY CLAY LOAM, occasional silt seams, very moist A-6/A-4																
Medium dense gray SILTY LOAM, trace gravel, little sand seams, very moist A-4																

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

Testing Service Corporation
STRUCTURE BORING LOG

Page 1 of 1
Date Started 10/11/12
Date Completed 10/11/12

ROUTE TR21 DESCRIPTION Retaining Walls
SECT. 08-000356-00-BR STRUCT. NO. 056-3192 DRILLED BY TSC L-79,206
COUNTY McHenry LOCATION Hill Road Bridge S 18E 1/2, TWP. 46N, RNG. 8E

Boring No.	Station	Offset	DEPTH	BL	LO	WS	Qu	W	Surface Water Elev.	Groundwater Elev.	DEPTH	BL	LO	WS	Qu	W
108	111+57	8.00ft RT	H	S	S	tsf	%	Hrs.			H	S	S	tsf	%	
			790.30						784.80							
7" Bituminous Concrete 7" Sand and Gravel Subbase																
FILL - Brown and gray CLAY LOAM, trace gravel, moist A-6																
FILL - Brown and gray SANDY CLAY LOAM, trace gravel, very moist A-2-4																
FILL - Brown and gray CLAY LOAM, trace gravel, moist A-4																
Black PEAT, very moist Pt																
Medium dense dark gray SAND and GRAVEL, trace clay, sand and gravel, saturated A-1-b																
Stiff gray SILTY CLAY LOAM, occasional silt seams, moist A-6																
Medium dense gray fine to medium SAND, trace gravel, saturated A-3																

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test Stations, Depths, Offset, and Elevations are in Feet

FILE NAME = S:\JULIEN\68000-0899\0842\807\Micro\Structure\056-3192-63666-021-5BL.dgn

