TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	17	1
FED. ROAD DIST. NO. 1	ILLINOIS	CONTRACT NO. 63666		

FOR INDEX OF SHEETS, SEE SHEET NO. 2

FOR INDEX OF HIGHWAY STANDARDS, SEE SHEET NO. 2

PROJECT LOCATED IN RICHMOND TOWNSHIP.

STATE OF ILLINOIS 11-9-12 LETTING ITEM 082

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

HILL ROAD OVER NORTH BRANCH NIPPERSINK CREEK
SECTION: 08–00356–00–BR
PROJECT NO: BROS–0111 (053)
BRIDGE REPLACEMENT
MCHENRY COUNTY
JOB NO: C–91–099–09

LOCATION OF SECTION INDICATED THUS: –

STRAND ASSOCIATES®

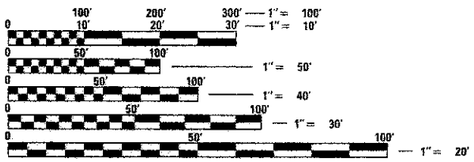
1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200

TRAFFIC DATA

HILL ROAD
POSTED SPEED LIMIT = 45 MPH
DESIGN SPEED LIMIT = 50 MPH
2005 ADT = 1200
2030 ADT = 6000

DESIGN DESIGNATION:

HILL ROAD: 3585(12) URBAN LOCAL 0.27 (FD–20)

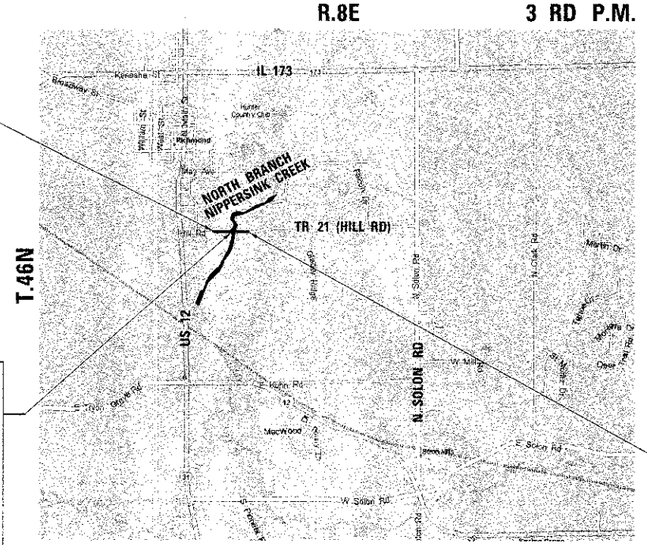


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1–800–892–0123
OR 811

HILL ROAD IMPROVEMENT BEGIN STA. 103 + 00

STRUCTURE REMOVAL AND REPLACEMENT STA. 109 + 89.00 (EXISTING S.N. 056–3045) (PROPOSED S.N. 056–3192) HILL ROAD OVER NORTH BRANCH OF NIPPERSINK CREEK



LOCATION MAP
NOT TO SCALE

HILL ROAD IMPROVEMENT END STA. 113 + 35

RICHMOND TOWNSHIP

GROSS LENGTH OF IMPROVEMENT = 1035 LF OR (0.20 MILES)

NET LENGTH OF IMPROVEMENT = 1035 LF OR (0.20 MILES)

STRAND ASSOCIATES, INC.
ANTHONY J. STANDISH, P.E. S.E.
THIS STAMP APPLIES TO DRAWINGS:

ANTHONY J. STANDISH
No. 062-056084
STATE OF ILLINOIS

DATE: 12-30-2011 EXP: 11-30-13

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Approved December 22, 2011
Joseph R. Trapolski, Jr.
County of McHenry, County Engineer

Passed January 4, 2012
District 1 Engineer of Local Roads & Streets

Releasing for Bid Based on Limited Review JANUARY 4, 2012
Deputy Director of Highways, Region 1 Engineer

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

CONTRACT NO. 63666

PROGRAM AND OFFICE ENGINEER: CHARLES F. RIDDLE, P.E. 847–705–4406 SCHAUMBURG, IL

HIGHWAY STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
280001-06	TEMPORARY EROSION CONTROL SYSTEMS
420401-08	BRIDGE APPROACH PAVEMENT CONNECTOR
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
515001-03	NAME PLATE FOR BRIDGES
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
601001-04	SUB-SURFACE DRAINS
601101-01	CONCRETE HEADWALL FOR PIPE DRAINS
602011-02	CATCH BASIN TYPE C
604091-02	FRAME AND GRATE TYPE 24
606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
630001-10	STEEL PLATE BEAM GUARDRAIL
630201-06	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-05	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 4.5M (15') AWAY
701006-03	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 4.5M (15') FROM PAVEMENT EDGE
701011-02	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701901-02	TRAFFIC CONTROL DEVICES
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
BLR24-2	MAILBOX TURNOUT-LOCAL ROADS

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DISTRICT ONE STANDARD DETAILS

BD-01	DRIVEWAY DETAILS-DISTANCE BETWEEN R.O.W. AND FACE OF CURB AND EDGE OF SHOULDER >= 15' (4.5 m)
BD-34	DETAILS FOR DEPRESSED CURB AND GUTTER AND SHOULDER TREATMENT AT TBT TY 1 SPL.
BD-51	BENCHING DETAIL FOR EMBANKMENT WIDENING
TC-10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
TC-11	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
TC-13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
TC-22	ARTERIAL ROAD INFORMATION SIGN
TC-26	DRIVEWAY ENTRANCE SIGNING

MCHENRY COUNTY DIVISION OF TRANSPORTATION STANDARD DETAILS

URETHANE FOAM/GEOTEXTILE DITCH CHECKS

SHOULDER DETAIL

TRAFFIC BARRIER TERMINAL TYPE 6A (SPECIAL)

FILE NAME = s:\pw\68000-68999\68942\001\micros\indx sheets\01_63666_shts_index.dgn

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

USER NAME = dennisw	DESIGNED - VLM	REVISED -
	DRAWN - DJW	REVISED -
PLOT SCALE = 50.0000 ' / IN.	CHECKED - AJS	REVISED -
PLOT DATE = 8/23/2012	DATE - 4-23-12	REVISED -

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

INDEX OF SHEETS, HIGHWAY STANDARDS, AND DISTRICT ONE STANDARD DETAILS

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

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	2
		CONTRACT NO. 63666		

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

1. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE DETAILS IN THE PLANS. THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS AND THE LATEST EDITION OF THE FOLLOWING STATE OF ILLINOIS SPECIFICATIONS: "THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION." THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS" , THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS". THE "MANUAL OF TEST PROCEDURES FOR MATERIALS" AND THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS".

2. THE LOCATIONS OF PUBLIC OR PRIVATE UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND THE COUNTY DOES NOT GUARANTEE THEIR ACCURACY. THE CONTRACTOR SHALL HAVE THE RESPECTIVE UTILITY COMPANIES FIELD LOCATE ALL THEIR FACILITIES PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL ALSO VERIFY THE DEPTHS OF THE EXISTING UTILITIES IF NECESSARY. THE CONTRACTOR SHALL NOTIFY J.U.L.I.E. AT (800) 892-0123 AND ALL PUBLIC AND PRIVATE UTILITIES BEFORE STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND PRESERVATIONS OF THESE FACILITIES. ANY RELOCATION OR LOWERING OF UTILITIES SHALL BE COORDINATED BY THE CONTRACTOR.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THROUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE ENGINEER, IN ACCORDANCE WITH LR105.

4. THE CONTRACTOR SHALL NOTIFY THE COUNTY AT LEAST 48 HOURS IN ADVANCE OF BEGINNING WORK TO OBTAIN COUNTY UTILITY LOCATIONS AND SHALL COORDINATE ALL CONSTRUCTION OPERATIONS WITH THE ENGINEER. OSHA-CRANES AND DERRICKS IN CONSTRUCTION (29 CFR 1926). THE CONTRACTOR SHALL COMPLY WITH PROVISIONS OF 29 CFR 1926 WHEN WORKING NEAR POWER LINES. ALL COSTS OF COMPLYING WITH 29 CFR 1926 SHALL BE CONSIDERED INCLUDED IN THE COST OF THE CONTRACT.

5. MATERIALS RESULTING FROM THE REMOVAL OF PAVEMENT, DRIVEWAYS, CURB AND CUTTER, HOT-MIX ASPHALT SURFACE, ETC. SHALL BE REMOVED AT THE END OF EACH DAY TO AN APPROVED SITE. IN THE JUDGMENT OF THE ENGINEER, SHOULD IT BE NECESSARY TO REMOVE SUCH MATERIALS, THE COUNTY WILL HAVE THE MATERIAL REMOVED AND THE CONTRACTOR WILL BE BILLED (CHARGED) ACCORDINGLY.

6. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY RESIDENTS AND THE COUNTY WHEN ACCESS TO THEIR DRIVEWAY WILL BE TEMPORARILY CLOSED DUE TO RECONSTRUCTION AND/OR DRIVEWAY REPLACEMENT. THE CONTRACTOR SHALL DISTRIBUTE NOTICES PROVIDED BY THE COUNTY TO RESIDENTS.

7. PROCUREMENT OF ALL NECESSARY PERMITS AND PAYMENTS THEREOF, SHALL BE THE CONTRACTOR'S RESPONSIBILITY, IN ACCORDANCE WITH ARTICLE 107.04.

8. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL SECTION OR SUBSECTION MONUMENTS OR PROPERTY OR REFERENCE MARKERS UNTIL THE COUNTY, HIS AGENT OR AN AUTHORIZED SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCE THEIR LOCATION.

9. ANY MAILBOXES THAT ARE IN CONFLICT WITH THE PROPOSED CONSTRUCTION SHALL BE REMOVED AND REPLACED IN ACCORDANCE WITH THE MOST CURRENT VERSIONS OF IDOT HIGHWAY STANDARDS AND U.S.P.S. STANDARDS AND SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION. MAIL SERVICE SHALL BE MAINTAINED AT ALL TIMES.

10. STORM STRUCTURE OFFSET LOCATIONS ARE TO THE EDGE OF PAVEMENT IF THE STRUCTURE IS IN THE CURB LINE OR TO THE CENTER OF STRUCTURE IF THE STRUCTURE IS NOT IN THE CURB LINE.

11. CHANNEL EXCAVATION OPERATIONS SHALL BE DONE WHEN WATER LEVEL IS AT OR BELOW NORMAL WATER SURFACE ELEVATION OR AS APPROVED BY THE ENGINEER.

12. FRAME ELEVATIONS GIVEN ON THE PLANS ARE ONLY TO ASSIST THE CONTRACTOR IN DETERMINING THE APPROXIMATE OVERALL HEIGHT OF THE STRUCTURE. FRAMES ON ALL NEW STRUCTURES SHALL BE ADJUSTED TO THE FINAL ELEVATION OF THE AREA IN WHICH THEY ARE LOCATED AS A PART OF THE COST OF THE STRUCTURE.

13. STORM SEWER SHALL BE BACKFILLED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR THE ROAD AND BRIDGE CONSTRUCTION ARTICLE 550.07, METHOD I ONLY.

14. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE TO ALL EXISTING AND PROPOSED DRAINAGE STRUCTURES AT ALL TIMES DURING CONSTRUCTION. METHODS USED BY THE CONTRACTOR SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER. THIS WORK IS INCLUDED IN THE COST OF THE CONTRACT.

15. THE PRIME COAT APPLICATION RATE SHALL BE 0.1 GAL/SY. THE AGGREGATE PRIME COAT APPLICATION RATE SHALL BE 4 LB/SY. THE AGGREGATE CONVERSION RATE USED IN THE PLANS SHALL BE 2.05 TONS/CY.

16. ALL SAW CUTTING SHALL BE INCLUDED IN THE COST OF THE ITEM BEING REMOVED.

17. DAMAGE TO PAVEMENT OR ANY OTHER PORTION OF THE ROADWAY NOT SPECIFIED TO BE REMOVED AND REPLACED SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL CHARGE.

18. THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) WEIGHTED SANDBAGS ON EACH TYPE I OR TYPE II BARRICADE USED. ONE (1) WEIGHTED SANDBAG SHALL BE PLACED ACROSS EACH BOTTOM RAIL.

19. PAVEMENT MARKINGS ON CONCRETE SHALL BE POLYUREA. ALL OTHER PAVEMENTS MARKINGS SHALL BE THERMOPLASTIC.

20. FOR STEEL BAR CERTIFICATION. PLEASE CONTACT IDOT BUREAU OF MATERIALS AT 847-705-4363.

21. CHANGEABLE MESSAGE SIGNS SHALL BE PLACED IN ADVANCE OF THE TEMPORARY DETOUR ROUTE AT LEAST ONE WEEK PRIOR TO THE CLOSURE OF HILL ROAD.

22. THE CONTRACTOR SHALL CONTACT THE MCHENRY COUNTY SOIL AND WATER CONSERVATION DISTRICT (MCSWCD) AT LEAST ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE; AND ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITIES AND ONE WEEK PRIOR TO THE FINAL INSPECTION. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING BUT NOT LIMITED TO; ADDITIONAL PHASES OF DEVELOPMENT AND OFF-SITE BORROW OR WASTE AREAS) A SUPPLEMENTARY EROSION CONTROL PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW BY THE MCSWCD.

23. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE MCSWCD. THIS WORK SHALL BE PAID FOR IN ACCORDANCE WITH ARTICLE 280.08.

24. THE SURVEY DATUM USED FOR THIS PROJECT IS NAVD88.

25. ALL POSTS, RAILROAD TIES AND DECORATIVE TIMBER/FENCE IN CONFLICT WITH THE PROPOSED IMPROVEMENTS SHALL BE REMOVED AND RELOCATED AS DETERMINED BY THE ENGINEER AND SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION. EVERY EFFORT SHALL BE MADE BY THE CONTRACTOR WHEN REMOVING THESE ITEMS TO PRESERVE THEM FROM HARM. ITEMS NOT RELOCATED SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR.

26. DRAIN TILE SYSTEMS DISTURBED DURING DEVELOPMENT MUST BE RECONNECTED BY THOSE RESPONSIBLE FOR THEIR DISTURBANCE UNLESS THE APPROVED ENGINEERING PLANS INDICATE HOW THE DRAIN TILE SYSTEM IS TO BE CONNECTED TO THE PROPOSED STORM WATER MANAGEMENT SYSTEM. ALL ABANDONED DRAIN TILES SHALL BE REMOVED IN THEIR ENTIRETY.

27. THE CONTRACTOR SHALL OBTAIN A CONSTRUCTION PERMIT FROM THE ILLINOIS DEPARTMENT OF NATURAL RESOURCES, OFFICE OF WATER RESOURCES FOR ANY TEMPORARY CONSTRUCTION ACTIVITY PLACED IN THE WATER EXCEPT COFFERDAMS. THIS SHALL INCLUDE THE PLACEMENT OF MATERIALS FOR RUN-AROUNDS, CAUSEWAYS, ETC. ANY PERMIT APPLICATION BY THE CONTRACTOR SHALL REFER TO THE IDNR 3704 FLOODWAY CONSTRUCTION PERMIT NUMBER ALLOWING PERMANENT CONSTRUCTION AS SHOWN IN THE CONTRACT PLANS.

28. FOR WORK OUTSIDE THE LIMITS OF BRIDGE APPROACH PAVEMENT, ALL REFERENCES IN THE HIGHWAY STANDARDS AND STANDARD SPECIFICATIONS FOR REINFORCEMENT, DOWEL BARS AND TIE BARS IN PAVEMENT, SHOULDERS, CURB, GUTTER, COMBINATION CURB AND GUTTER AND MEDIAN, AND CHAIR SUPPORTS FOR CRC PAVEMENT, SHALL BE EPOXY COATED, UNLESS NOTED ON THE PLAN.

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

USER NAME = dennisw	DESIGNED - VLM	REVISED -
	DRAWN - DJW	REVISED -
PLOT SCALE = 20.0000 ' / IN.	CHECKED - AJS	REVISED -
PLOT DATE = 8/23/2012	DATE - 4-23-12	REVISED -

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

GENERAL NOTES

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

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	3
		CONTRACT NO. 63666		

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

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE HBP/TBP FUNDS 80% FED 20% LOCAL ROADWAY 0004 URBAN	80% FED 20% LOCAL BRIDGE 0011 URBAN	80% FED 20% LOCAL TRAINEES 0042 URBAN
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	509	509		
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	551	551		
20101000	TEMPORARY FENCE	FOOT	256	256		
20101100	TREE TRUNK PROTECTION	EACH	8	8		
20101200	TREE ROOT PRUNING	EACH	19	19		
20101300	TREE PRUNING (1 TO 10 INCH DIAMETER)	EACH	11	11		
20101350	TREE PRUNING (OVER 10 INCH DIAMETER)	EACH	8	8		
20200100	EARTH EXCAVATION	CU YD	2,965	2,965		
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	1,355	1,355		
20400800	FURNISHED EXCAVATION	CU YD	960	960		
20800150	TRENCH BACKFILL	CU YD	98	98		
21101625	TOPSOIL FURNISH AND PLACE, 6"	SQ YD	4,840	4,840		
21400100	GRADING AND SHAPING DITCHES	FOOT	1,693	1,693		
25000210	SEEDING, CLASS 2A	ACRE	.25	.25		
25000310	SEEDING, CLASS 4	ACRE	1.25	1.25		
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	135	135		
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	135	135		
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	135	135		
25100635	HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	7,260	7,260		
28000200	EARTH EXCAVATION FOR EROSION CONTROL	CU YD	72	72		
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	128	128		
28000400	PERIMETER EROSION BARRIER	FOOT	2,264	2,264		
28000500	INLET AND PIPE PROTECTION	EACH	2	2		
28000510	INLET FILTERS	EACH	2	2		
28001000	AGGREGATE (EROSION CONTROL)	TON	34	34		
28100107	STONE RIPRAP, CLASS A4	SQ.YD.	86	16	70	

⚠ SPECIALTY ITEMS

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

USER NAME = dennisw	DESIGNED - VLM	REVISED -
	DRAWN - DJW	REVISED -
PLOT SCALE = 1.0000 ' / IN.	CHECKED - AJS	REVISED -
PLOT DATE = 9/23/2013	DATE 4-23-13	REVISED -

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	4
		CONTRACT NO. 63666		

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

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE HBP/TBP FUNDS 80% FED 20% LOCAL ROADWAY 0004 URBAN	80% FED 20% LOCAL BRIDGE 0011 URBAN	80% FED 20% LOCAL TRAINEES 0042 URBAN
28200200	FILTER FABRIC	SQ YD	86	16	70	
30300124	AGGREGATE SUBGRADE IMPROVEMENT 24"	SQ YD	1,775	1,775		
31101400	SUBBASE GRANULAR MATERIAL, TYPE B 6"	SQ YD	1,120	1,120		
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	259	259		
40600300	AGGREGATE (PRIME COAT)	TON	4	4		
40600895	CONSTRUCTING TEST STRIP	EACH	2	2		
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	160	160		
40701801	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 6"	SQ YD	1,775	1,775		
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	534	534		
44000100	PAVEMENT REMOVAL	SQ YD	2,556	2,556		
48101500	AGGREGATE SHOULDERS, TYPE B 6"	SQ YD	144	144		
48203021	HOT-MIX ASPHALT SHOULDERS, 6"	SQ YD	974	974		
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1	
50105220	PIPE CULVERT REMOVAL	FOOT	94	94		
50200100	STRUCTURE EXCAVATION	CU YD	75		75	
50200300	COFFERDAM EXCAVATION	CU YD	43		43	
50201101	COFFERDAM (TYPE 1) (LOCATION - 1)	EACH	1		1	
50201102	COFFERDAM (TYPE 1) (LOCATION - 2)	EACH	1		1	
50300225	CONCRETE STRUCTURES	CU YD	70		70	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	107		107	
50300260	BRIDGE DECK GROOVING	SQ YD	583		583	
50300280	CONCRETE ENCASEMENT	CU YD	19		19	
50300300	PROTECTIVE COAT	SQ YD	683		683	
50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	3,981		3,981	
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	40,810		40,810	

⚠ SPECIALTY ITEMS

FILE NAME = S:\IDOL\63666-689\689x2\207-Misnsx\0400 Sheets\IDI-63666-smt-900.dgn

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

USER NAME = dennisw	DESIGNED - VLM	REVISED -
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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	5
		CONTRACT NO. 63666		

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

				CONSTRUCTION CODE		
				HBP/TBP FUNDS		
				80% FED 20% LOCAL	80% FED 20% LOCAL	80% FED 20% LOCAL
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY	BRIDGE	TRAINEES
				0004	0011	0042
				URBAN	URBAN	URBAN
51200959	FURNISHING METAL SHELL PILES 14" X 0.312"	FOOT	196		196	
51201800	FURNISHING STEEL PILES HP14X73	FOOT	425		425	
51202305	DRIVING PILES	FOOT	621		621	
51203200	TEST PILE METAL SHELLS	EACH	1		1	
51203800	TEST PILE STEEL HP14X73	EACH	3		3	
51204650	PILE SHOES	EACH	20		20	
51500100	NAME PLATES	EACH	1		1	
54213657	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"	EACH	2	2		
54213663	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 18"	EACH	2	2		
542A1057	PIPE CULVERTS, CLASS A, TYPE 2 12"	FOOT	35	35		
542A1063	PIPE CULVERTS, CLASS A, TYPE 2 18"	FOOT	46	46		
550A0340	STORM SEWERS, CLASS A, TYPE 2 12"	FOOT	10	10		
58700300	CONCRETE SEALER	SQ FT	739		739	
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	37		37	
60208240	CATCH BASINS, TYPE C, TYPE 24 FRAME AND GRATE	EACH	2	2		
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	20	20		
⚠ 63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	862.5	862.5		
⚠ 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	2	2		
⚠ 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2	2		
63200310	GUARDRAIL REMOVAL	FOOT	58	58		
66600105	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	11	11		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	5	5		
67100100	MOBILIZATION	L SUM	1	1		
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	16	16		
⚠ 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	3,460	3,460		
⚠ 78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	685	685		

⚠ SPECIALTY ITEMS

FILE NAME = S:\DOL\16808--68991\68942\Z07\Micro\1600 Sheets\01-63666-sht-S00.dgn

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

USER NAME = dennisw | PLOT SCALE = 1.0000 ' / IN. | PLOT DATE = 6/27/2013

DESIGNED - VLM | DRAWN - DJW | CHECKED - AJS | DATE - 6-27-13

REVISED - | REVISED - | REVISED - | REVISED -

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	6
		CONTRACT NO. 63666		

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

				CONSTRUCTION CODE		
				HBP/TBP FUNDS		
				80% FED 20% LOCAL	80% FED 20% LOCAL	80% FED 20% LOCAL
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	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	18,475		18,475	
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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STRAND ASSOCIATES
1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200

USER NAME = brianf	DESIGNED - VLM	REVISED -
	DRAWN - DJW	REVISED -
PLOT SCALE = 1.0000 ' / in.	CHECKED - AJS	REVISED -
PLOT DATE = 9/4/2013	DATE - 4-22-13	REVISED -

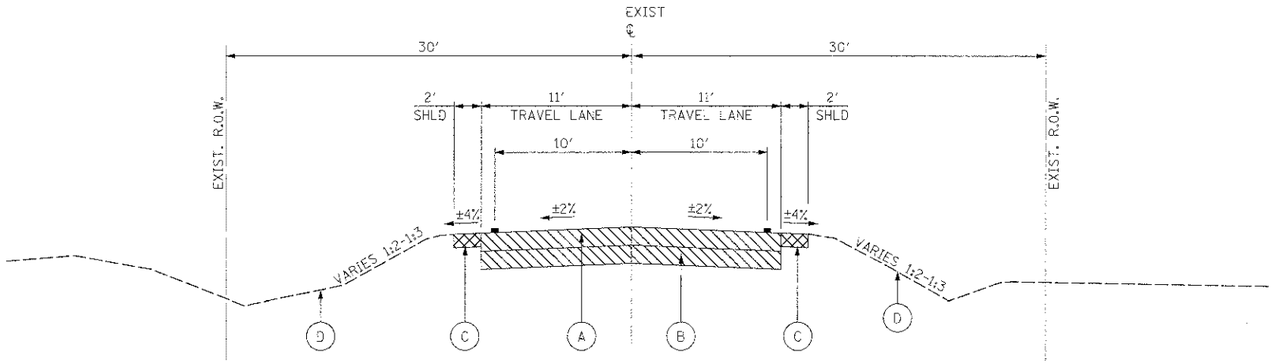
MCHENRY COUNTY DIVISION OF TRANSPORTATION
HILL ROAD BRIDGE OVER
NORTH BRANCH NIPPERSINK CREEK

SUMMARY OF QUANTITIES

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

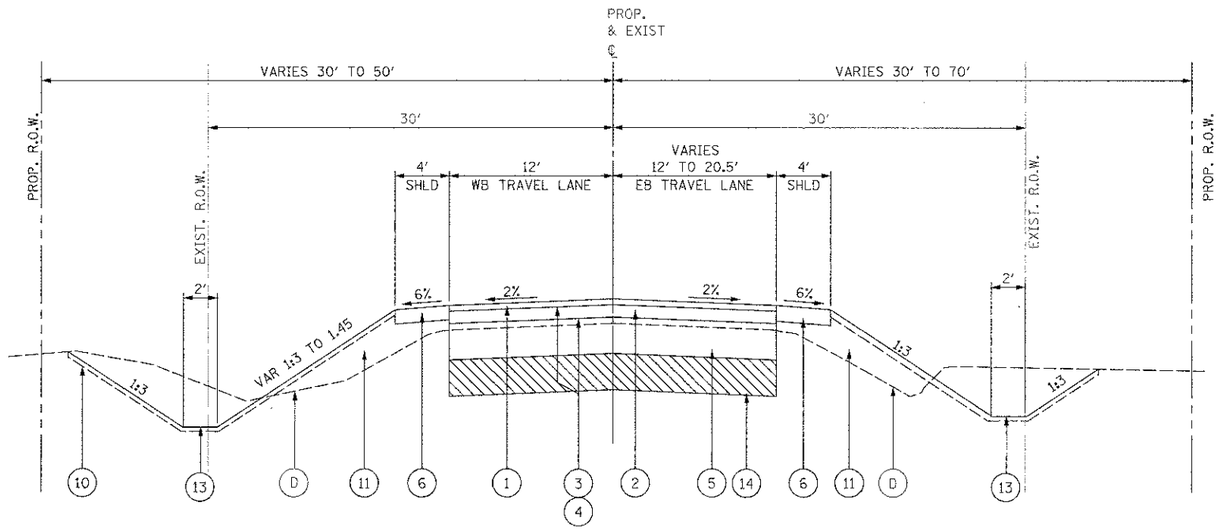
TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	7
		CONTRACT NO. 63666		

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



EXISTING TYPICAL SECTION

STA. 103+00 TO STA. 109+59
STA 110+28 TO STA 113+35



PROPOSED TYPICAL SECTION

LEFT

STA. 103+00.00 TO STA. 106+00.00
STA. 112+74.50 TO STA. 113+35.00

RIGHT

STA. 103+00.00 TO STA. 103+67.67

STRUCTURAL DESIGN DATA

STREET	STRUCTURAL DESIGN TRAFFIC			STREET CLASS	TRAFFIC FACTOR	SSR	TEMP	STRAIN	AC	EAC	REQ'D BIT THICKNESS	MECHANISTIC PAVEMENT DESIGN
	PV	SU	MU									
HILL ROAD	3477	54	54	II	0.274	POOR	76°	214	PG 64-28	650	6.0 IN	2" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 AGGREGATE SUBGRADE IMPROVEMENT 24"

EXISTING LEGEND

- (A) HOT MIX ASPHALT SURFACE AND BINDER COURSE, ±10"
- (B) AGGREGATE SUBBASE
- (C) AGGREGATE SHOULDER
- (D) EXISTING GROUND
- REMOVAL ITEMS
- SHOULDER REMOVAL (INCLUDED IN COST OF EARTH EXCAVATION)

PROPOSED LEGEND

- (1) HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 2"
- (2) HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 4"
- (3) BITUMINOUS MATERIALS (PRIME COAT)
- (4) AGGREGATE (PRIME COAT)
- (5) AGGREGATE SUBGRADE IMPROVEMENT
- (6) AGGREGATE SHOULDERS, TYPE B, 6"
- (7) HOT-MIX ASPHALT SHOULDERS, 6"
- (8) STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- (9) SUBBASE GRANULAR MATERIAL, TYPE B 6"
- (10) TOPSOIL FURNISH AND PLACE, 6"
- (11) EMBANKMENT
- (12) PERMANENT STEEL SHEET PILING
- (13) GRADING AND SHAPING DITCHES
- (14) REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL AND AGGREGATE SUBGRADE IMPROVEMENT
- (15) COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24

NOTES:

1. (1) + (2) = HOT-MIX ASPHALT (FULL DEPTH), 6"
2. BRIDGE OMISSION: STA. 109+03.70 TO STA. 110+74.30 RT/LT
3. PAVEMENT STRUCTURE SHALL BE PAID FOR AS BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE) FROM STA. 108+03.70 TO STA. 109+03.70 AND FROM STA. 110+74.30 TO STA. 111+74.30
4. (5) + (14) = AGGREGATE SUBGRADE IMPROVEMENT 24"

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE TYPE	AIR VOIDS @ Ndes
HOT-MIX ASPHALT PAVEMENT (FULL DEPTH), 6"	
HOT-MIX ASPHALT SURFACE COURSE, "D", N50 (IL 9.5mm); 2"	4% @ 50 GYR
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50; 4"	4% @ 50 GYR
DRIVEWAYS	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5mm); 2"	4% @ 50 GYR
HOT-MIX ASPHALT BASE COURSE (HMA BINDER IL-19 mm) N50; PE-4", CE-6" (IN 2 LIFTS)	4% @ 50 GYR
SHOULDER RECONSTRUCTION	
HOT-MIX ASPHALT SHOULDER, 6" (HMA BINDER IL-19mm) (IN 2 LIFTS)	4% @ 50 GYR
BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5mm); 2"	4% @ 50 GYR
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50; 4"	4% @ 50 GYR

1. THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.
2. THE "AC TYPE" FOR POLYMERIZED HOT-MIX ASPHALT MIXES SHALL BE "SBS/SBR PG76-22" AND FOR NON-POLYMERIZED HOT-MIX ASPALT THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROFISIONS." FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

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

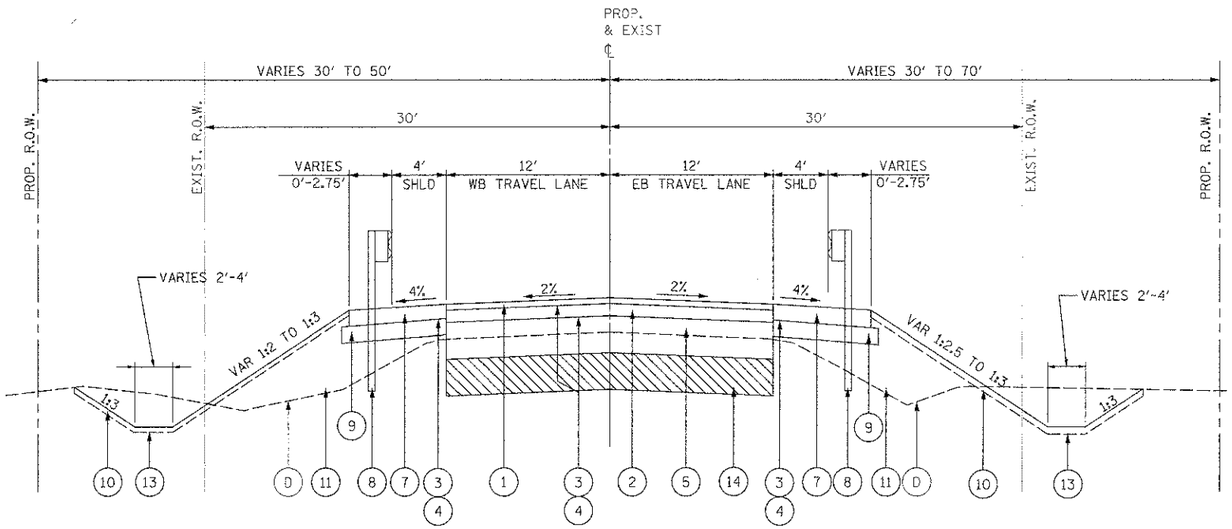
USER NAME = dsmrzaw	DESIGNED - VLM	REVISED -	
	DRAWN - DJW	REVISED -	
PLOT SCALE = 20.0000 ' / IN.	CHECKED - AJS	REVISED -	
PLOT DATE = 8/23/2012	DATE - 4-23-12	REVISED -	

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

TYPICAL SECTIONS

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

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	8
		CONTRACT NO. 63666		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



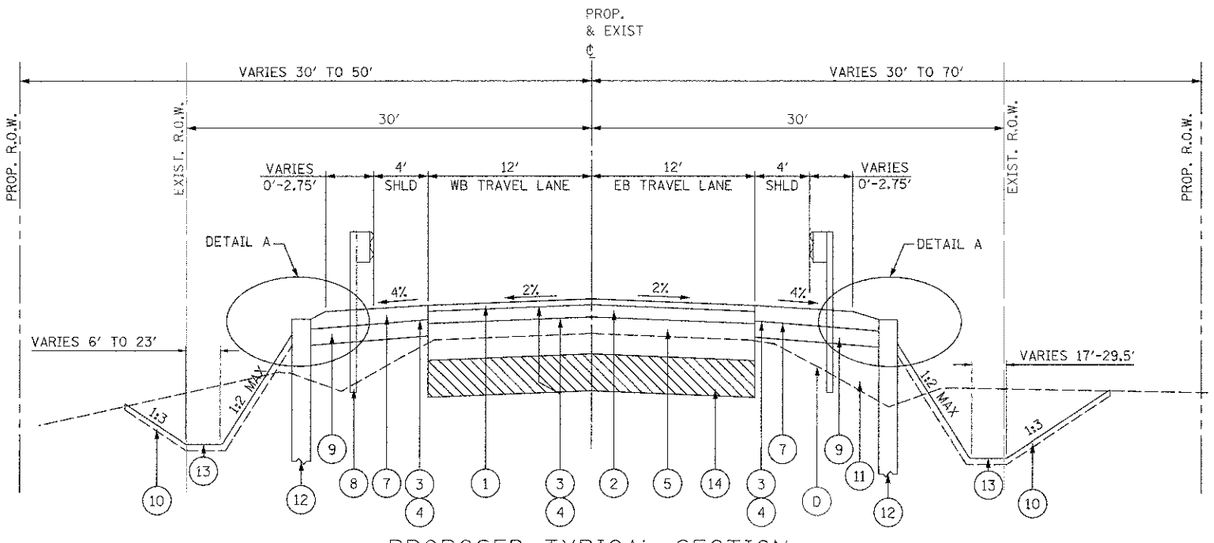
PROPOSED TYPICAL SECTION

LEFT

STA. 106+00.00 TO STA. 108+00.00
STA. 110+74.30 TO STA. 112+74.50

RIGHT

STA. 103+67.67 TO STA. 107+00.00
STA. 111+75.00 TO STA. 113+35.00



PROPOSED TYPICAL SECTION

LEFT

STA. 108+00.00 TO STA. 109+03.70

RIGHT

STA. 107+00.00 TO 109+03.70
STA. 110+74.30 TO 111+75.00

EXISTING LEGEND

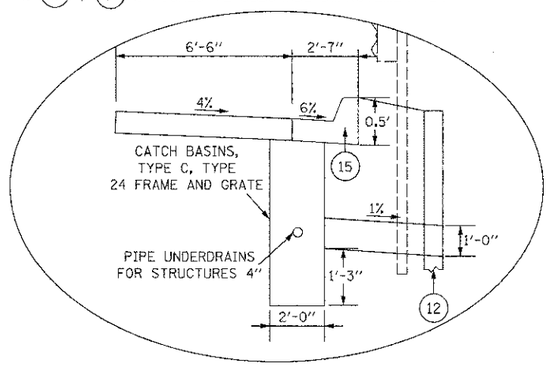
- (A) HOT MIX ASPHALT SURFACE AND BINDER COURSE, #10"
- (B) AGGREGATE SUBBASE
- (C) AGGREGATE SHOULDER
- (D) EXISTING GROUND
- REMOVAL ITEMS
- SHOULDER REMOVAL (INCLUDED IN COST OF EARTH EXCAVATION)

PROPOSED LEGEND

- (1) HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 2"
- (2) HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 4"
- (3) BITUMINOUS MATERIALS (PRIME COAT)
- (4) AGGREGATE (PRIME COAT)
- (5) AGGREGATE SUBGRADE IMPROVEMENT
- (6) AGGREGATE SHOULDERS, TYPE B, 6"
- (7) HOT-MIX ASPHALT SHOULDERS, 6"
- (8) STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
- (9) SUBBASE GRANULAR MATERIAL, TYPE B 6"
- (10) TOPSOIL FURNISH AND PLACE, 6"
- (11) EMBANKMENT
- (12) PERMANENT STEEL SHEET PILING
- (13) GRADING AND SHAPING DITCHES
- (14) REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL & AGGREGATE SUBGRADE IMPROVEMENT
- (15) COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24

NOTES:

1. (1) + (2) = HOT-MIX ASPHALT (FULL DEPTH), 6"
2. BRIDGE OMISSION: STA. 109+03.70 TO STA. 110+74.30 RT/LT
3. PAVEMENT STRUCTURE SHALL BE PAID FOR AS BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE) FROM STA. 108+03.70 TO STA. 109+03.70 AND FROM STA. 110+74.30 TO STA. 111+74.30
4. (5) + (14) = AGGREGATE SUBGRADE IMPROVEMENT 24"



DETAIL A: CURB AND GUTTER AND CATCH BASIN DETAIL

STA. 108+93.65 TO STA. 109+03.67 LT
STA. 108+93.67 TO STA. 109+03.66 RT

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STRAND ASSOCIATES® 1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200	USER NAME = dennisw	DESIGNED - VLM	REVISED -	MCHENRY COUNTY DIVISION OF TRANSPORTATION HILL ROAD BRIDGE OVER NORTH BRANCH NIPPERSINK CREEK
		DRAWN - DJW	REVISED -	
	PLOT SCALE = 20.0000 ' / IN.	CHECKED - AJS	REVISED -	
	PLOT DATE = 8/23/2012	DATE - 4-23-12	REVISED -	

TYPICAL SECTIONS

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

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	9
		CONTRACT NO. 63666		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

HILL ROAD

EARTHWORK COMPUTATION

		20200100			20400800		21101625		20201200
LOCATION		EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (25%)	EMBANKMENT	FURNISHED EXCAVATION EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)	TOPSOIL EXCAVATION	TOPSOIL FURNISH AND PLACE, 6"	UNDERCUT	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL
STATION	STATION	CU YD	CU YD	CU YD	CU YD	CU YD	SQ YD	CU YD	CU YD
103+00	103+50	35.59	26.69	6.65	20.04	12.67	69.81	51.57	64.25
103+50	104+00	35.77	26.83	19.88	6.95	15.93	100.06	51.85	67.79
104+00	104+50	55.23	41.42	24.20	17.22	18.10	171.01	44.44	62.55
104+50	105+00	73.67	55.25	31.44	23.81	20.17	188.80	44.44	64.61
105+00	105+50	80.13	60.10	37.76	22.34	21.22	204.86	44.44	65.66
105+50	106+00	72.38	54.28	43.60	10.69	22.14	215.21	44.44	66.59
106+00	106+50	76.50	57.38	67.28	-9.90	25.54	245.33	44.44	69.98
106+50	107+00	85.79	64.34	117.04	-52.70	29.46	279.93	44.44	73.90
107+00	107+50	145.95	109.46	138.79	-29.33	32.85	318.68	44.44	77.30
107+50	108+00	234.67	176.00	143.93	32.07	36.74	361.75	44.44	81.19
108+00	108+50	354.13	265.60	125.27	140.33	39.53	391.42	44.42	83.95
108+50	109+00	466.31	349.73	68.92	280.81	53.66	417.05	44.42	98.08
109+00	109+50	422.36	316.77	26.60	290.17	41.86	341.25	14.22	56.08
BRIDGE									
110+00	110+50	155.06	116.30	67.13	49.17	33.92	218.43	0.00	33.92
110+50	111+00	278.67	209.00	119.38	89.62	51.93	412.62	22.22	74.16
111+00	111+50	185.85	139.39	103.95	35.44	42.26	346.88	44.44	86.70
111+50	112+00	76.74	57.55	83.78	-26.23	34.15	240.90	44.44	78.59
112+00	112+50	55.91	41.94	34.18	7.75	18.49	167.15	44.44	62.93
112+50	113+00	55.77	41.82	3.46	38.36	13.72	113.28	44.44	58.17
113+00	113+50	14.35	10.76	1.37	9.39	5.14	34.34	22.22	27.37
Totals		2965	2225	1265	960	570	4840	785	1355

NOTES:

1. 25% SHRINKAGE FACTOR USED
2. ASSUMED 6' TOPSOIL REMOVAL
3. ASSUMED 12" DEPTH FOR UNDERCUT AREA
4. REMOVAL AND DISPOSAL OF UNSUITABLE MATERIALS = TOPSOIL REMOVAL + UNDERCUT

20100110	TREE REMOVAL (6 TO 15 UNITS)		
STATION	OFFSET	LT/RT	UNITS
111+89.66	25.84	LT	10
111+79.83	28.13	LT	12
111+64.28	28.38	LT	10
111+32.42	28.08	LT	8
110+85.22	20.88	LT	10
109+31.00	25.96	LT	12
108+75.32	27.78	LT	11
108+65.82	29.82	LT	8
108+46.34	30.02	LT	12
106+52.43	31.05	LT	12
107+42.07	49.24	LT	8
108+45.12	35.91	LT	14
108+50.83	32.46	LT	8
108+54.57	41.96	LT	6
108+54.90	45.82	LT	10
108+99.42	46.03	LT	12
109+21.56	39.49	LT	7
109+36.20	43.81	LT	7
109+42.67	45.03	LT	7
109+88.17	47.46	LT	10
109+91.22	50.25	LT	12
110+46.70	37.13	LT	6
111+25.33	33.71	LT	8
111+21.16	36.31	LT	12
111+23.18	45.86	LT	12
111+22.60	46.45	LT	8
111+17.60	47.54	LT	10
111+50.04	28.00	LT	10
112+43.27	26.67	LT	12
111+64.05	25.42	RT	12
111+31.39	20.34	RT	6
111+18.25	20.48	RT	12
110+94.37	19.6	RT	14
109+59.46	29.06	RT	12
109+11.44	25.64	RT	11
109+06.03	23.86	RT	11
108+80.43	21.45	RT	12
108+80.16	21.53	RT	12
108+80.66	21.58	RT	8
108+44.58	25.9	RT	12
104+46.67	19.21	RT	7
108+59.38	44.07	RT	6
109+02.16	57.23	RT	6
109+05.07	55.48	RT	8
109+04.13	50.8	RT	12
109+08.98	50.62	RT	8
109+14.68	45.03	RT	12
109+20.54	37.07	RT	10
109+34.76	36.01	RT	6
109+67.52	39.83	RT	10
110+28.92	16.34	RT	6
110+52.43	32.77	RT	12
TOTAL AMOUNT OF TREES			52
TOTAL UNITS			509

20100210	TREE REMOVAL (OVER 15 UNITS)		
STATION	OFFSET	LT/RT	UNITS
104+98.80	32.65	LT	52
106+00.67	35.43	LT	28
106+15.15	31.98	LT	19
107+28.84	30	LT	24
107+54.55	34.41	LT	30
107+65.95	25.97	LT	18
108+04.44	33.06	LT	20
108+82.76	31.57	LT	20
109+17.31	33.44	LT	24
109+42.09	45.52	LT	18
110+08.25	51.61	LT	30
110+13.22	29	LT	20
110+16.42	40.59	LT	30
110+34.73	29.11	LT	24
110+56.44	30.07	LT	20
111+41.09	25.56	LT	16
111+68.61	29.32	LT	20
108+42.66	43.91	RT	20
108+48.36	29	RT	18
109+29.19	25.94	RT	18
109+53.91	43.92	RT	24
110+32.00	48.8	RT	40
110+80.08	50.32	RT	18
TOTAL AMOUNT OF TREES			23
TOTAL UNITS			551

TREE ROOT PRUNING
20101200

STATION	OFFSET	LT/RT	EACH
108+62	56	LT	1
108+69	56	LT	1
109+13	54	LT	1
111+02	48	LT	1
111+13	48	LT	1
111+28	47	LT	1
111+47	45	LT	1
112+60	31	LT	1
112+71	30	LT	1
112+78	32	LT	1
112+89	29	LT	1
112+95	29	LT	1
113+14	21	LT	1
113+17	29	LT	1
113+20	30	LT	1
113+23	30	LT	1
113+27	30	LT	1
113+04	32	RT	1
113+17	31	RT	1
TOTAL			19

TREE PRUNING (1 TO 10 INCH DIAMETER)
20101300

STATION	OFFSET	LT/RT	EACH
108+62	56	LT	1
108+69	56	LT	1
109+13	54	LT	1
111+02	48	LT	1
111+28	47	LT	1
111+47	45	LT	1
112+60	31	LT	1
113+14	21	LT	1
113+17	29	LT	1
113+20	30	LT	1
113+23	30	LT	1
TOTAL			11

TREE PRUNING (OVER 10 INCH DIAMETER)
20101350

STATION	OFFSET	LT/RT	EACH
111+13	48	LT	1
112+71	30	LT	1
112+78	32	LT	1
112+89	29	LT	1
112+95	29	LT	1
113+27	30	LT	1
113+04	32	RT	1
113+17	31	RT	1
TOTAL			8

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

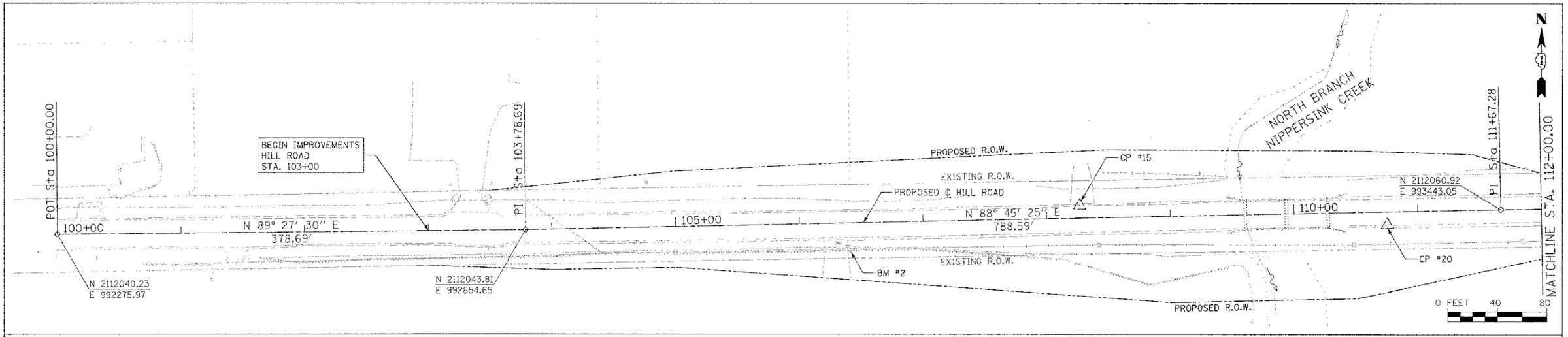
USER NAME = dennisw	DESIGNED - VLM	REVISED -	
	DRAWN - DJW	REVISED -	
PLOT SCALE = 50.2000 ' / IN.	CHECKED - AJS	REVISED -	
PLOT DATE = 8/23/2012	DATE - 4-23-12	REVISED -	

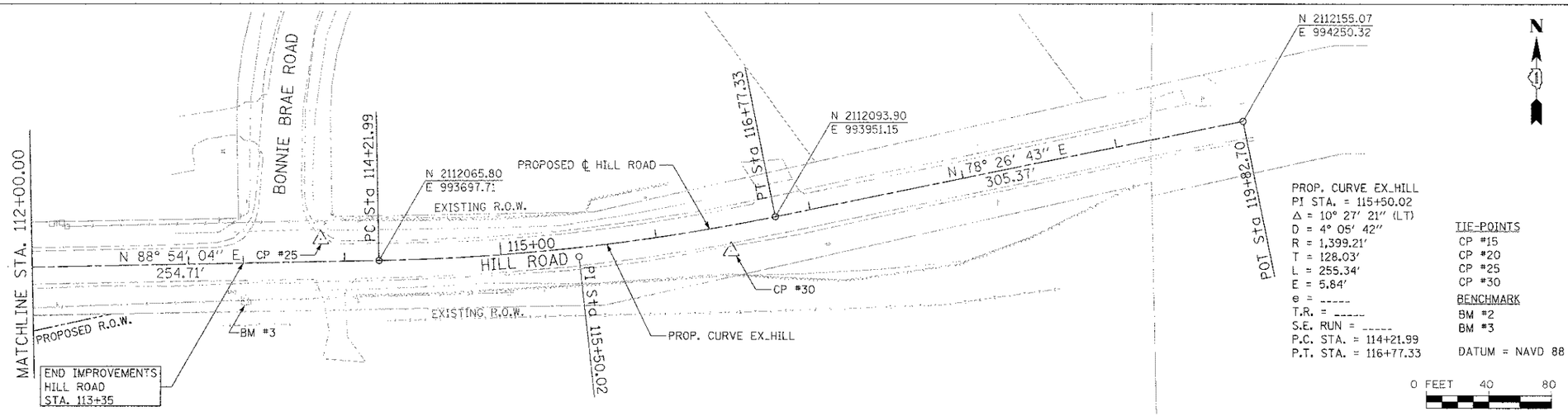
MCHENRY COUNTY DIVISION OF TRANSPORTATION
HILL ROAD BRIDGE OVER
NORTH BRANCH NIPPERSINK CREEK

SCHEDULE 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	10
		CONTRACT NO. 63666		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



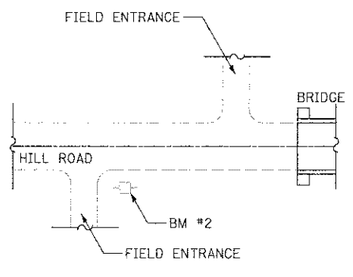


BM #1

CHISELED SQUARE ON EAST CURB AT EAST END OF CURB ON THE EAST SIDE OF THE ENTRANCE TO NIPPERSINK PUBLIC LIBRARY. APPROXIMATELY 890 FEET WEST OF THE STRUCTURE. ELEV. 793.44

BM #2

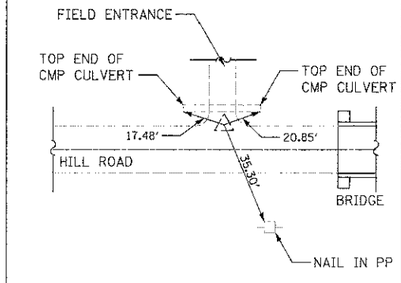
RR SPIKE IN PP
NORTHING: 2112028.96
EASTING: 992916.99
ELEV: 784.78
STA. 106+40.66
OFFSET: 20.51



SCALE: NTS

CP #15

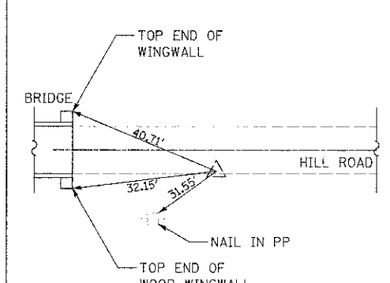
MAG NAIL
NORTHING: 2112063.78
EASTING: 993102.59
ELEV: 786.71
STA. 108+26.57
OFFSET: 10.25



SCALE: NTS

CP #20

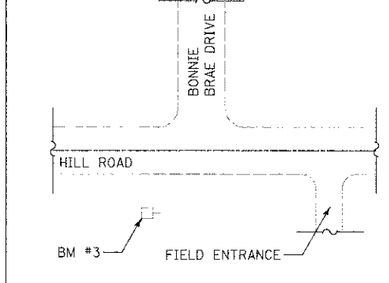
MAG NAIL
NORTHING: 2112048.31
EASTING: 993351.27
ELEV: 790.00
STA. 110+75.25
OFFSET: 10.61



SCALE: NTS

BM #3

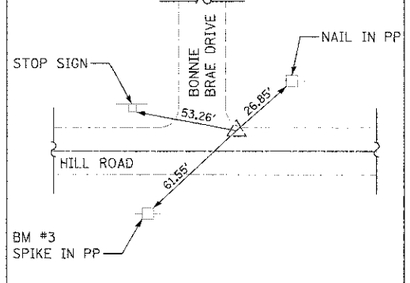
RR SPIKE IN PP
NORTHING: 2112041.42
EASTING: 993611.78
ELEV: 795.67
STA. 113+35.61
OFFSET: 22.72



SCALE: NTS

CP #25

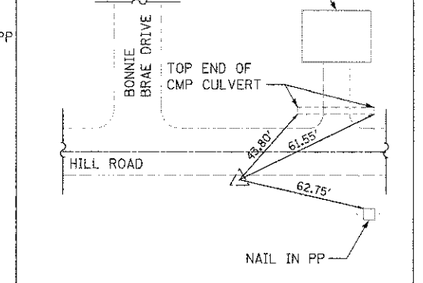
MAG NAIL
NORTHING: 2112079.48
EASTING: 993660.38
ELEV: 793.30
STA. 113+84.92
OFFSET: 14.39



SCALE: NTS

CP #30

REBAR W/ CAP
NORTHING: 2112071.92
EASTING: 993923.05
ELEV: 797.20
STA. 116+45.72
OFFSET: 16.27



SCALE: NTS

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

USER NAME = dennisw	DESIGNED - VLM	REVISED -	
	DRAWN - DJW	REVISED -	
PLOT SCALE = 40.0000 ' / IN.	CHECKED - AJS	REVISED -	
PLOT DATE = 9/23/2012	DATE - 4-23-12	REVISED -	

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

ALIGNMENT, TIES AND BENCHMARKS

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

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2:	08-00356-00-BR	MCHENRY	77	11
		CONTRACT NO. 63666		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

BEGIN PAVEMENT REMOVAL
SAW CUT FULL DEPTH INCLUDED
IN PAVEMENT REMOVAL COST

PIPE CULVERT REMOVAL
CMP 18" 30.91 FT

POWER POLE TO BE
RELOCATED BY OTHERS

TELEPHONE SPLICE BOX
TO REMAIN IN PLACE

FIRM FLOODPLAIN

WETLAND BOUNDARY

UNDERGROUND TELEPHONE
CABLE TO REMAIN IN PLACE

PROPOSED R.O.W.

EXISTING R.O.W.

HILL ROAD

BEGIN IMPROVEMENTS
HILL ROAD
STA. 103+00

103 | 104 | 105+00 | 106 | 107

MATCHLINE STA. 108+00.00

LEGEND

- PAVEMENT REMOVAL
- AGG. SHOULDER AND AGG. ENTRANCE REMOVAL TO BE PAID FOR AS EARTH EXCAVATION
- X_1 TREE REMOVAL (6 TO 15 UNITS DIAMETER)
- X_2 TREE REMOVAL (OVER 15 UNITS DIAMETER)
- TREE TRUNK PROTECTION AND TEMPORARY FENCE
- WETLAND
- REMOVAL ITEMS
- TREE AND TREE ROOT PRUNING (ALL SIZES)

POWER POLE TO BE
RELOCATED BY OTHERS

FENCE REMOVAL
STA. 104+50.56 TO 106+19.04

EXISTING R.O.W.

PROPOSED R.O.W.

POWER POLE TO BE
RELOCATED BY OTHERS

FENCE REMOVAL
STA. 106+74.92 TO 108+80.21

PIPE CULVERT CMP 18"
REMOVAL 21.7 FT

FIELD ENTRANCE TO BE ABANDONED.
EXISTING FIELD ENTRANCE AT
STA. 101+50 TO BE UTILIZED.

FIRM FLOODPLAIN

WETLAND BOUNDARY

N

0 FEET 20 40

WETLAND BOUNDARY

FIRM
FLOODWAY

PIPE CULVERT REMOVAL
CMP 24" 26.6 FT

GUARDRAIL REMOVAL
STA. 109+46.19 - 109+60.18

FENCE REMOVAL
STA. 108+46.00 - 109+48.62

NORTH
BRANCH
NIPPERSINK
CREEK

REMOVAL OF EXISTING
STRUCTURES (S.N. 056-3045)

GUARDRAIL REMOVAL
STA. 110+29.55-110+44.03

PROPOSED R.O.W.

UNDERGROUND TELEPHONE
CABLE TO REMAIN IN PLACE

COMBINATION FIRM
FLOODPLAIN AND FLOODWAY

WETLAND BOUNDARY

SPLICE BOX TO BE
RELOCATED BY OTHERS

POWER POLE TO BE
RELOCATED BY OTHERS

END PAVEMENT REMOVAL
SAW CUT FULL DEPTH
INCLUDED IN THE COST
OF PAVEMENT REMOVAL

BONNIE BRAE ROAD

EXISTING R.O.W.

MATCHLINE STA. 108+00.00

F.E.

108 | HILL ROAD | 109 | 110+00 | 111 | 112 | 113

STA. 109+59.69

STA. 110+28.58

POWER POLE TO BE
RELOCATED BY OTHERS

POWER POLE TO BE
RELOCATED BY OTHERS

EXISTING R.O.W.

SHOULDER REMOVAL
TO BE PAID FOR AS
EARTH EXCAVATION

END IMPROVEMENTS
HILL ROAD
STA. 113+35

GUARDRAIL REMOVAL
STA. 109+45.69 - 109+60.27

POWER POLE
TO BE
RELOCATED
BY OTHERS

PIPE CULVERT REMOVAL
CMP 24" 14.0 FT

FENCE REMOVAL
STA. 112+48.74 TO 113+01.50

WETLAND BOUNDARY

PROPOSED R.O.W.

GUARDRAIL REMOVAL
STA.110+28.28 TO STA. 110+41.08

N

0 FEET 20 40

FILE NAME = s:\jobs\6800-6899\6842\08\structural\cadd sheets\01-63666-sht-removal.dgn

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

USER NAME = dennisw	DESIGNED - VLM	REVISED -	
	DRAWN - DJW	REVISED -	
PLOT SCALE = 20.0000 ' / IN.	CHECKED - AJS	REVISED -	
PLOT DATE = 8/23/2012	DATE - 4-23-12	REVISED -	

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

REMOVAL PLAN

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

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	12
		CONTRACT NO. 63666		

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

PROPERTY LINES (TYP.)

AGGREGATE SHOULDERS, TYPE B, 6" 105+00.00 45.00' LT

HOT-MIX ASPHALT SURFACE REMOVAL, (BUTT JOINT)

103+12.53 12.88' LT
103+25.68 31.82' LT
103+25.73 26.35' LT
103+43.96 31.97' LT
103+44.00 26.58' LT
103+50.00 32.02' LT
103+00.00 13.01' LT

STABILIZED DRIVEWAY, 6"

BEGIN IMPROVEMENTS HILL ROAD STA. 103+00

18'
20'
P.E.
103+55.09 15.71' LT
4"
103+59.13 11.76' LT
12"

PROPOSED R.O.W.
EXISTING R.O.W.
WETLAND BOUNDARY (TYP.)

STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS STA. 106+48.92 TO STA. 108+00.00

TRAFFIC BARRIER TERMINAL, TYPE 2 STA. 106+36.42 TO STA. 106+48.92

106+27.46 18.75' LT
105+99.43 12.00' LT
6.8'
2.8'
108+00.00 18.75' LT

HILL ROAD

102 103 104 105+00 106 107

31' 2' 10' 10' 29' 1'

103+30.00
103+77.7 12.00' RT
104+48.91 17.00' RT
104+98.91 16.00' RT
6.75'
12"
12"
12"
4"
8.6'
1:3
1:2.5

103+05.72 10.30' RT
103+00.00 28.40' RT
103+37.85 20.50' RT
103+67.67 16.14' RT
103+57.85 20.26' RT
104+38.91 20.00' RT
104+00.00 32.84' RT
104+73.91 20.00' RT
104+98.91 18.75' RT
105+00.12 33.26' RT

EXISTING R.O.W.
PROPOSED R.O.W.

PERMANENT SHEET PILING STA 107+00.00 TO STA 108+00.00

108+00.00 18.75' RT

STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS STA. 104+98.81 TO STA. 108+00.00

TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT) STA. 104+48.91 TO STA. 104+98.91

HOT-MIX ASPHALT RECONSTRUCTION
AGGREGATE SUBGRADE IMPROVEMENT 24"
HMA BINDER COURSE, IL-19.0, N50, 4"
HMA SURFACE COURSE, MIX "D", N50, 2"

HOT-MIX ASPHALT SHOULDERS, 6"

MATCHLINE STA. 108+00.00

5 VERT SCALE 0
0 20 HORIZ SCALE SCALE IN FEET

N

PROJECT BEGINS STA. 103+00.00 ELEVATION 787.13

BUTT JOINT

PROPOSED ROADWAY PROFILE

EXISTING ROADWAY PROFILE

K = 136
210.80' V.C.

+21.02 EL. 786.47

VPI STA. 106+26.42 ELEVATION 786.15

+31.82 EL. 787.47

-0.30% +1.25%

EXISTING ROADWAY ELEVATION
PROPOSED ROADWAY ELEVATION

102+00	102+50	103+00	103+50	104+00	104+50	105+00	105+50	106+00	106+50	107+00	107+50	108+00
787.61	787.39	787.13 / 787.13	786.84 / 786.98	786.76 / 786.83	786.67 / 786.68	786.37 / 786.53	786.18 / 786.41	786.11 / 786.46	786.11 / 786.69	786.27 / 787.11	786.44 / 787.70	786.75 / 788.32

PLAN: SURVEYED ... DATE; PLOTTED ... BY; CHECKED ... BY; R.O.W. CHECKED ... BY; NOTE BOOK ... PLOT NAME; NO. ...

PROFILE: SURVEYED ... DATE; PLOTTED ... BY; CHECKED ... BY; R.O.W. CHECKED ... BY; NOTE BOOK ... PLOT NAME; NO. ... STRUCTURE NO. NAME CHKD

FILE NAME = sn_pl\68886-68999\68942.007\micro\road sheets\DI-63666 plnprfl.dgn

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

USER NAME = dennisk	DESIGNED - VLM	REVISED -
	DRAWN - DJW	REVISED -
PLOT SCALE = 20.0000 ' / IN.	CHECKED - AJS	REVISED -
PLOT DATE = 8/23/2012	DATE - 4-23-12	REVISED -

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

PLAN AND PLOT

SCALE: AS SHOWN | SHEET NO. OF SHEETS | STA. 102+00.00 TO STA. 108+00.00

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	13
		CONTRACT NO. 63666		

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

BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE) STA. 108+03.7 TO STA. 109+03.70

PERMANENT STEEL SHEET PILING STA. 108+00.00 TO STA. 109+37.75

NORTH BRANCH NIPPERSINK CREEK

108+50.11 55.00' LT

STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS STA. 108+00.00 TO STA. 108+73.92
TRAFFIC BARRIER TERMINAL, TYPE 6A (SPECIAL) STA. 108+73.92 TO STA. 109+19.13

HOT-MIX ASPHALT SHOULDERS, 6"

PROPOSED STRUCTURE (S.N. 056-3192) STA. 109+89.00
SINGLE PPC DECK BEAMS, 90° SKEW
112'-8" BK. TO BK. ABUTMENTS

BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE) STA. 110+74.30 TO STA. 111+74.30

TRAFFIC BARRIER TERMINAL, TYPE 6A (SPECIAL) STA. 110+58.87 TO STA. 111+04.08
STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS STA. 111+04.08 TO STA. 111+66.58
TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT) STA. 111+66.58 TO STA. 112+16.58

HOT-MIX ASPHALT SHOULDERS, 6"

111+45.00 45.00' LT

111+91.49 20.00' LT

AGG. SHOULDERS TYPE B, 6"

111+99.93 29.00' LT

112+74.49 12.00' LT

113+34.96 16.00' LT

BONNIE BRAE DRIVE

PROPOSED R.O.W.

108+93.67 14.35' LT

COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24 STA. 108+93.67 TO STA. 109+03.67

108+00.00 18.75' LT

110+74.33 16.84' LT

110+60.34 18.00' LT

110+74.33 12.00' LT

EXISTING R.O.W.

111+66.59 18.75' LT

112+26.49 20.00' LT

112+50.49 16.00' LT

113+25.05 12.00' LT

113+34.96 15.74' LT

111+99.93 19.10' LT

MATCH LINE STA. 108+00.00

108 12' 100' 109 30' 110+00 30' 111 100' 112 113

109+03.67 12.00' LT

111+99.93 18.00' LT

111+74.30 12.00' LT

HILL ROAD

HOT-MIX ASPHALT SURFACE REMOVAL, (BUTT JOINT)

109+03.66 12.00' RT

HOT-MIX ASPHALT SHOULDERS, 6"

111+74.30 12.00' RT

113+05.00

END IMPROVEMENTS HILL ROAD STA. 113+35

113+35.03 11.08' RT

113+16.58 18.75' RT

113+35.00 13.05' RT

HOT-MIX ASPHALT SHOULDERS, 6"

BRIDGE APPROACH SLAB STA. 110+44.30 TO STA. 110+74.30

BRIDGE APPROACH SLAB STA. 109+03.70 TO STA. 109+33.70

WETLAND BOUNDARY (TYP.)

108+00.00 18.75' RT

108+93.66 14.33' RT

110+60.34 18.00' RT

110+74.33 16.84' RT

111+04.11 19.08' RT

EXISTING R.O.W.

111+54.11 18.72' RT

112+50.00 31.06' RT

TRAFFIC BARRIER TERMINAL, TYPE 2 STA. 113+04.08 TO STA. 113+16.58

COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24 STA. 108+93.66 TO STA. 109+37.75

109+17.67 19.08' RT

109+17.67 18.00' RT

110+60.34 19.08' RT

110+74.33 12.00' RT

HOT-MIX ASPHALT SHOULDERS TYPE B, 6"

PERMANENT STEEL SHEET PILING STA 108+00.00 TO STA 109+03.70

TRAFFIC BARRIER TERMINAL, TYPE 6A (SPECIAL) STA. 108+73.91 TO STA. 109+19.12

TRAFFIC BARRIER TERMINAL, TYPE 6A (SPECIAL) STA. 110+58.87 TO STA. 111+04.08

HOT-MIX ASPHALT RECONSTRUCTION
AGGREGATE SUBGRADE IMPROVEMENT 24"
HMA BINDER COURSE, IL-19.0, N50, 4"
HMA SURFACE COURSE, MIX "D", N50, 2"

109+00.00 70.00' RT

PROPOSED R.O.W.

110+50.00 70.00' RT

STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS STA. 108+00.00 TO STA. 108+73.91

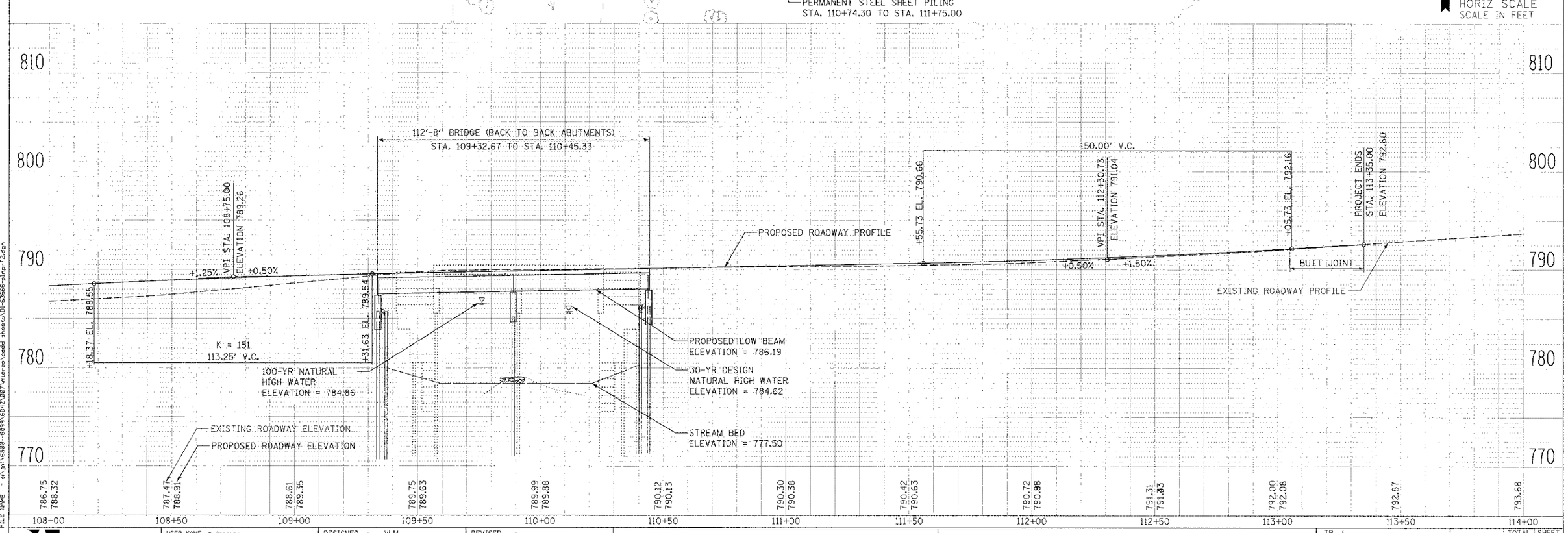
PERMANENT STEEL SHEET PILING STA. 110+74.30 TO STA. 111+75.00

STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS STA. 111+04.08 TO STA. 113+04.08

N

VERT SCALE 5 0

HORIZ SCALE 0 20
SCALE IN FEET



PLAN — SURVEYED; PLOTTED; DRAWN; CHECKED; NOTE BOOK; NO.; R.O.W. AGENT; LAND. OWNER; CADD FILE NAME; DATE; BY

PROFILE — SURVEYED; PLOTTED; DRAWN; CHECKED; NOTE BOOK; NO.; STRUCTURE NOTATNS CHKD; FILE NAME = s:\pr\63666 - 8999\63642\007\micros\cadd sheets\01-63666-plnprf2.dgn

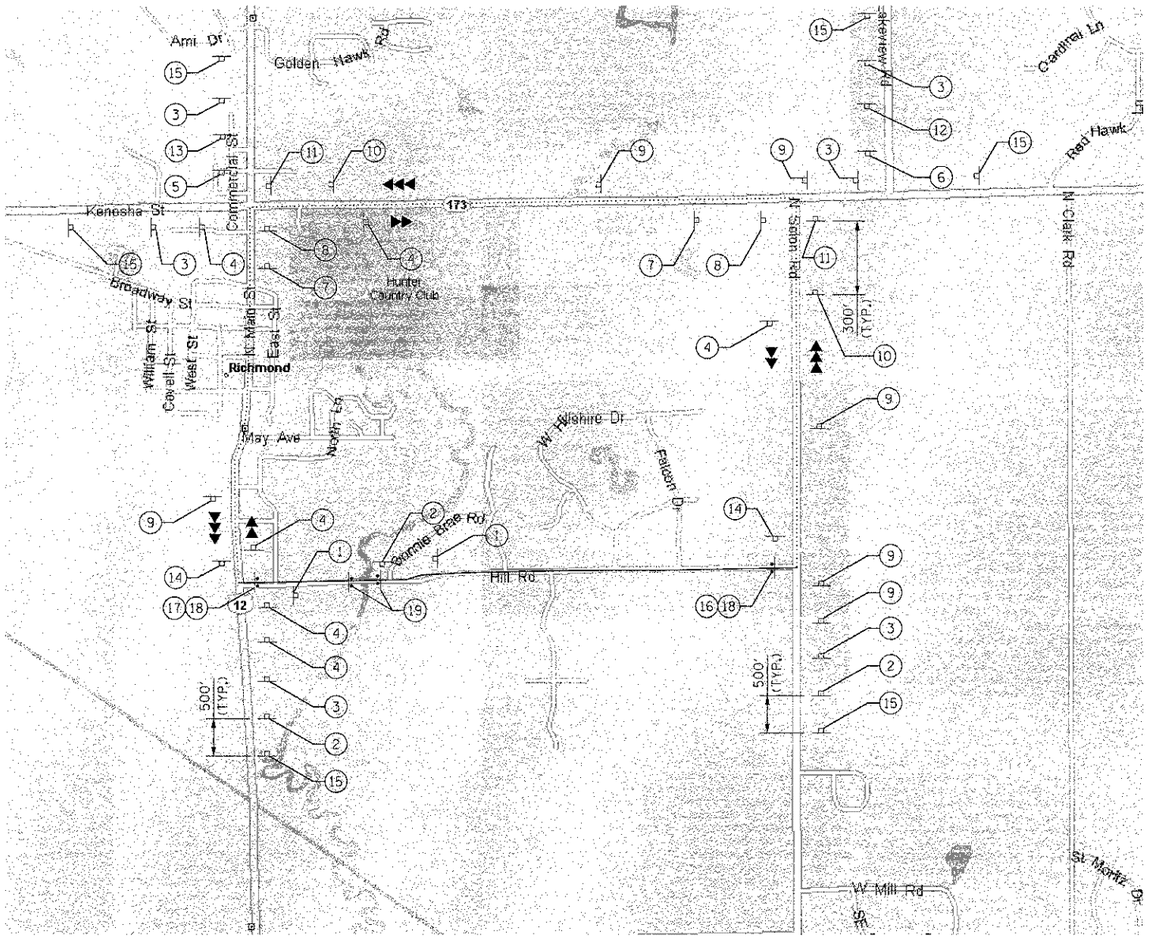
STRAND ASSOCIATES® 1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200	USER NAME = dennisx	DESIGNED - VLM	REVISED -
		DRAWN - DJW	REVISED -
	PLOT SCALE = 20.0000 ' / IN.	CHECKED - AJS	REVISED -
	PLOT DATE = 8/23/2012	DATE - 4-23-12	REVISED -

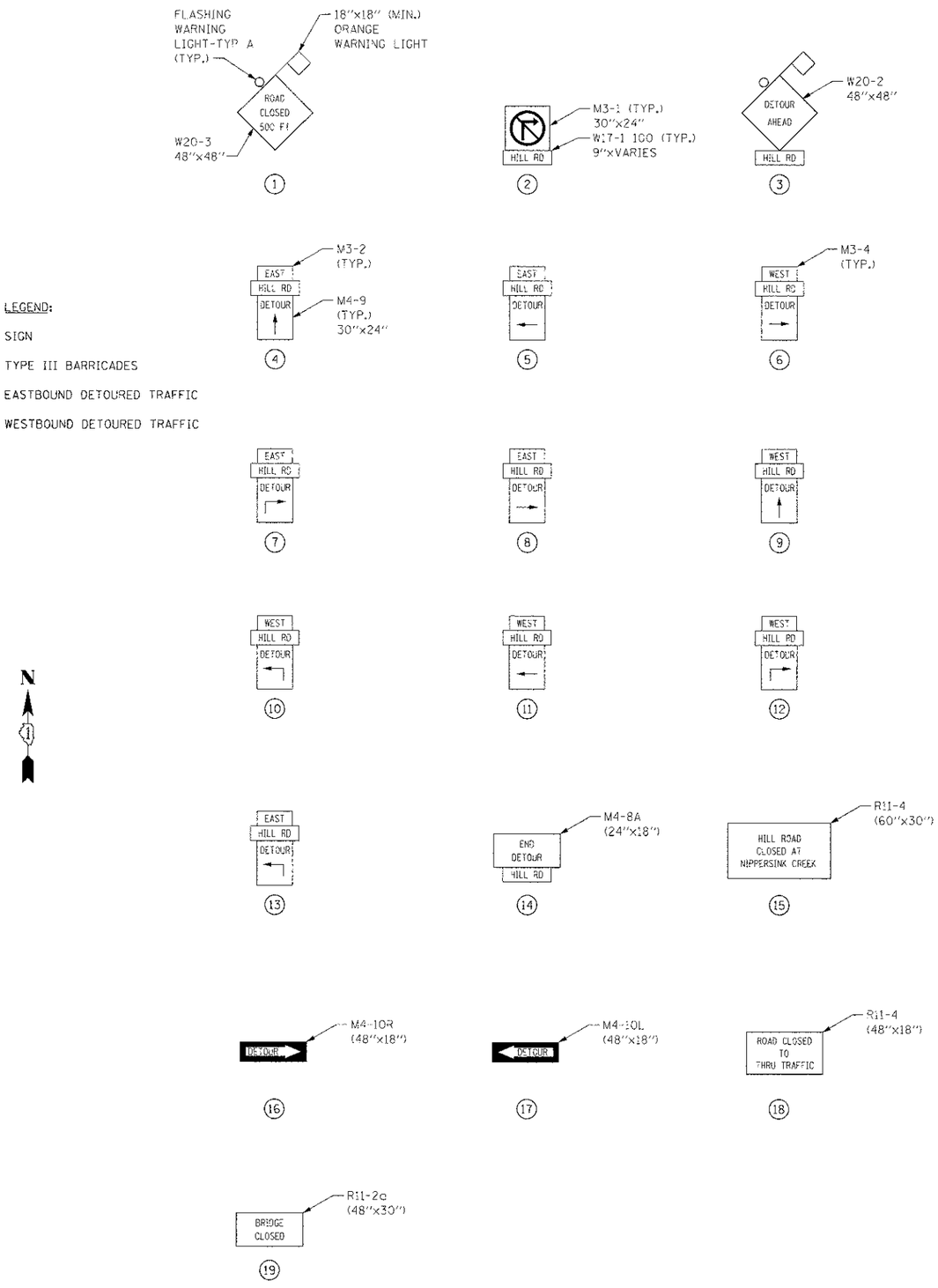
MCHENRY COUNTY DIVISION OF TRANSPORTATION
HILL ROAD BRIDGE OVER
NORTH BRANCH NIPPERSINK CREEK

PLAN AND PROFILE

SCALE: AS SHOWN | SHEET NO. OF SHEETS | STA. 108+00.00 TO STA. 114+00.00

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		





LEGEND:

- SIGN
- TYPE III BARRICADES
- EASTBOUND DETOURED TRAFFIC
- WESTBOUND DETOURED TRAFFIC

N

MAINTENANCE OF TRAFFIC NOTES:

1. DURING CONSTRUCTION STAGING OPERATIONS, THE RICHMOND POLICE, FIRE, AND PUBLIC WORKS DEPARTMENT, RICHMOND TOWNSHIP, NIPPERSINK LIBRARY AND THE COUNTY SHERIFF SHALL BE NOTIFIED IN WRITING 48 HOURS PRIOR TO STREET CLOSURES ON HILL ROAD:
   RICHMOND POLICE: 5600 HUNTER DRIVE, RICHMOND IL 60071
   RICHMOND FIRE: 5601 HUNTER DRIVE, RICHMOND IL 60071
   RICHMOND PUBLIC WORKS: 5600 HUNTER DRIVE, RICHMOND IL 60071
   RICHMOND TOWNSHIP: 7812 S. ROUTE 31, RICHMOND IL 60071
   NIPPERSINK LIBRARY: 5418 HILL ROAD, RICHMOND IL 60071
   MCHENRY COUNTY SHERIFF: 2200 N. SEMINARY AVE., WOODSTOCK IL 60098
2. THE ENGINEER SHALL BE INFORMED 48 HOURS IN ADVANCE OF ANY CHANGE IN CONSTRUCTION STAGING.
3. THE FURNISHING, INSTALLING, AND RELOCATION OF ALL TRAFFIC SIGNS SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR. ALL CONFLICTING TRAFFIC SIGNS SHALL BE COVERED AS DIRECTED BY THE ENGINEER. THIS SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR.
4. EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED PRIOR TO START OF CONSTRUCTION WITH CONTINUED MAINTENANCE FOR THE DURATION OF CONSTRUCTION. SEE EROSION CONTROL SHEETS FOR ADDITIONAL INFORMATION.
5. THE CONTRACTOR SHALL MAINTAIN EMERGENCY VEHICLE AND LOCAL TRAFFIC DURING THE CONSTRUCTION OF HILL ROAD AND HILL BRIDGE OVER THE N. BRANCH OF NIPPERSINK CREEK. THE COST FOR MAINTAINING ACCESS ON HILL ROAD SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR.
6. THE CONTRACTOR SHALL PROVIDE TEMPORARY ACCESS TO ALL ENTRANCES DURING THE CONSTRUCTION OF HILL ROAD AND HILL BRIDGE OVER THE N. BRANCH OF NIPPERSINK CREEK. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR TEMPORARY ACCESS (PRIVATE ENTRANCE).
7. CHANGEABLE MESSAGE SIGNS AND TEMPORARY INFORMATION SIGNING WILL BE PAID FOR SEPARATELY.

FILE NAME = s:\jal\68680-68999\68692-0897\micros\cadd sheets\01-63666-sht-detour.dgn

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

USER NAME = dennisk	DESIGNED - VLM	REVISED -	
	DRAWN - DJW	REVISED -	
PLOT SCALE = 50.0000 ' / IN.	CHECKED - AJS	REVISED -	
PLOT DATE = 8/23/2012	DATE - 4-23-12	REVISED -	

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

TEMPORARY DETOUR PLAN

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

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	15
		CONTRACT NO. 63666		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

IN-STREAM SEDIMENT AND EROSION CONTROL

THE CONTRACTOR SHALL CONTACT THE U.S. ARMY CORPS OF ENGINEERS, CHICAGO DISTRICT, WITH A PROPOSED COFFERDAM PLAN MEETING THE STANDARDS LISTED BELOW. MEANS AND METHODS FOR COMPLETING WORK WITHIN A WATERWAY MUST BE APPROVED BY THE CORPS PRIOR TO THE COMMENCEMENT OF WORK, THE CORPS WILL APPROVE THE COFFERDAM PLAN TO ENSURE IT MEETS EROSION AND SEDIMENT CONTROL STANDARDS. HOWEVER, IT IS INCUMBENT UPON THE CONTRACTOR TO ENSURE THAT ALL COFFERDAMS ARE CONSTRUCTED TO WITHSTAND EXPECTED FLOWS. ALL WORK NEEDED TO SATISFY ACOE REQUIREMENTS SHALL BE INCLUDED IN THE COST FOR REMOVAL OF EXISTING STRUCTURES.

WORK WITHIN A WATERWAY MUST MEET THE FOLLOWING STANDARDS:

1. WORK IN THE WATERWAY SHALL BE TIMED TO TAKE PLACE DURING LOW OR NO-FLOW CONDITIONS.
2. WATER SHALL BE ISOLATED FROM THE IN-STREAM WORK AREA USING A NON-ERODIBLE PROPOSED COFFERDAM (STEEL SHEETS, AQUA BARRIERS, ETC.). EARTHEN COFFERDAMS ARE NOT PERMISSIBLE.
3. WORK MAY NOT BE PERFORMED IN THE WATER, EXCEPT FOR THE PLACEMENT OF THE MATERIALS NECESSARY FOR THE CONSTRUCTION OF THE COFFERDAM. THE COFFERDAM MUST BE CONSTRUCTED FROM THE UPLAND AREA AND NO EQUIPMENT MAY ENTER THE WATER AT ANY TIME. ONCE THE COFFERDAM IS IN PLACE AND THE ISOLATED AREA IS DEWATERED, EQUIPMENT MAY ENTER THE COFFERED AREA TO PERFORM THE REQUIRED WORK.
4. IF BYPASS PUMPING IS NECESSARY, THE PUMP SHALL BE PLACED ON A STABLE SURFACE OR FLOATED TO PREVENT SEDIMENT FROM BEING SUCKED INTO THE HOSE. THE BYPASS DISCHARGE SHALL BE PLACED ON A NON-ERODIBLE, ENERGY DISSIPATING SURFACE PRIOR TO REJOINING THE STREAM FLOW AND SHALL NOT CAUSE EROSION OF DOWNSTREAM AREAS. BYPASS WATER WILL BE FILTERED USING BMP TO MINIMIZE SEDIMENT TO DOWNSTREAM AREAS UNLESS OTHERWISE APPROVED BY ENGINEER.
5. DURING DEWATERING OF THE COFFERED AREA, ALL WATER MUST BE FILTERED TO REMOVE SEDIMENT, POSSIBLE OPTIONS FOR SEDIMENT REMOVAL INCLUDING BAFFLE SYSTEMS, ANIONIC POLYMERS, DEWATERING BAGS OR OTHER APPROPRIATE METHODS. WATER SHALL HAVE SEDIMENT REMOVED PRIOR TO BEING REINTRODUCED TO THE DOWNSTREAM WATERWAY. DISCHARGE WATER IS CONSIDERED CLEAN IF IT DOES NOT RESULT IN A VISUALLY IDENTIFIABLE DEGRADATION OF WATER CLARITY. THIS WORK SHALL BE PAID FOR IN ACCORDANCE WITH ARTICLE 502.13.
6. THE SIDE SLOPES SHALL BE RESEEDED AND STABILIZED WITH AN APPROPRIATE EROSION CONTROL BLANKET PRIOR TO ACCEPTING FLOWS. THE SUBSTRATE SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS AND STABLE ENOUGH TO ACCEPT FLOWS.
7. WHERE STREAM DISTURBANCE IS NECESSARY, THE STREAM BED AND BANKS SHALL BE STABILIZED WITHIN FORTY-EIGHT (48) HOURS AFTER DISTURBANCE IS COMPLETED OR INTERRUPTED.

EROSION AND SEDIMENT CONTROL

1. ALL AREAS OF BARE GROUND WILL BE TEMPORARILY SEEDED EVERY SEVEN (7) DAYS UNTIL PERMANENT EROSION CONTROL IS IN PLACE.
2. ALL AREAS WITHIN RIGHT OF WAY WILL BE RESTORED WITH 6" TOPSOIL, EROSION CONTROL BLANKET AND SEEDING, CLASS 2A OR CLASS 4.
3. DITCH CHECKS SHALL BE EITHER ROLLED EXCELSIOR OR TRIANGULAR SILT DIKES.
4. ENGINEER TO STAKE LOCATIONS FOR PROPOSED TREES AS SHOWN IN LANDSCAPING PLANS AND SHALL BE APPROVED BY MCHENRY COUNTY PRIOR TO INSTALLATION.
5. NO WORK SHALL BE PERFORMED IN FLOWING WATER. WORK IN OR NEAR THE CRITICAL AREAS SHOULD BE ISOLATED FROM CONCENTRATED FLOWS OR STREAM FLOW, ONCE WORK IN THIS AREA BEGINS, PRIORITY SHALL BE GIVEN TO THE COMPLETION OF THE WORK AND FINAL STABILIZATION OF ALL DISTURBED AREAS.
6. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. AREAS OF THE PROJECT SITE THAT ARE NOT TO BE GRADED SHALL BE PROTECTED FROM CONSTRUCTION TRAFFIC OR OTHER DISTURBANCE UNTIL FINAL SEEDING IS PERFORMED.
7. PROPERTIES AND CHANNELS ADJOINING THE PROJECT SITE SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION.
8. SOIL EROSION AND SEDIMENT CONTROL FEATURES SHALL BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF HYDROLOGIC DISTURBANCE OF UPLAND AREAS.
9. PLACEMENT OF TOPSOIL SHALL BE COMPLETED WITHIN 10-15 DAYS AFTER THE COMPLETION OF PAVING UNLESS OTHERWISE DIRECTED BY THE ENGINEER. SEEDING SHALL BE PLACED EITHER PRIOR TO JUNE 15 OR AFTER SEPTEMBER 15.
10. DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) CALENDAR DAYS FOLLOWING THE END OF ACTIVE HYDROLOGIC DISTURBANCE.
11. ALL STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY AN APPROPRIATE SEDIMENT CONTROL MEASURE.
12. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION. DISCHARGES SHALL BE ROUTED THROUGH AN EFFECTIVE SEDIMENT CONTROL MEASURE (E.G., SEDIMENT TRAP, SEDIMENT BASIN, OR OTHER APPROPRIATE MEASURES). THIS WORK SHALL BE PAID FOR IN ACCORDANCE WITH ARTICLE 502.13.
13. ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS SHALL BE PERMANENTLY STABILIZED.
14. SOIL STOCKPILES SHALL NOT BE LOCATED IN A FLOOD-PRONE AREA OR A DESIGNATED BUFFER PROTECTING WATERS OF THE UNITED STATES OR ISOLATED WATERS OF MCHENRY COUNTY.
15. THE CONTRACTOR SHALL PROVIDE ADEQUATE RECEPTACLES FOR THE DISPOSAL OF ALL CONSTRUCTION MATERIAL DEBRIS GENERATED DURING THE DEVELOPMENT PROCESS. THE CONTRACTOR SHALL NOT CAUSE OR PERMIT THE DUMPING, DEPOSITING, DROPPING, THROWING, DISCARDING OR LEAVING OF CONSTRUCTION MATERIALS DEBRIS UPON OR INTO ANY DEVELOPMENT SITE, CHANNEL, WATERS OF THE U.S. OR ISOLATED WATERS OF MCHENRY COUNTY. THE CONTRACTOR SHALL MAINTAIN THE DEVELOPMENT SITE FREE OF CONSTRUCTION MATERIAL DEBRIS.
16. ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN AN EFFECTIVE WORKING CONDITION.
17. HEAVY DUTY EROSION CONTROL BLANKET SHALL BE USED ON ALL AREAS OF PERMANENT SEEDING AND SHALL BE IN ACCORDANCE WITH THE "ILLINOIS URBAN MANUAL", LATEST EDITION AND "IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" SECTIONS. LATEST EDITION SECTION 251.04.
18. WHERE STREAM BED DISTURBANCE IS NECESSARY, THE STREAM INCLUDING BED AND BANKS SHALL BE RESTABILIZED WITHIN FORTY-EIGHT (48) HOURS AFTER DISTURBANCE IS COMPLETE OR INTERRUPTED.
19. STRAW AND SILT FENCE BARRIERS SHALL NOT BE USED IN ACCORDANCE WITH THE "ILLINOIS URBAN MANUAL" FOR INLET AND PIPE PROTECTION.

EROSION AND SEDIMENT CONTROL MAINTENANCE

1. TEMPORARY EROSION BARRIER: AT A MINIMUM, THE CONTRACTOR SHALL INSPECT ALL SILT FENCE WEEKLY OR AFTER EACH ONE-HALF INCH OR GREATER RAINFALL EVENT. ANY REQUIRED REPAIRS SHALL BE MADE BY THE CONTRACTOR TO KEEP THE SILT FENCE FUNCTIONAL AS DESIGNED.
2. HEAVY DUTY EROSION CONTROL BLANKET: AT A MINIMUM, THE CONTRACTOR SHALL INSPECT ALL HEAVY DUTY EROSION CONTROL BLANKETS WEEKLY OR AFTER EACH ONE-HALF INCH OR GREATER RAINFALL EVENT. ANY REQUIRED REPAIRS SHALL BE MADE BY THE CONTRACTOR TO KEEP THE EROSION CONTROL BLANKET FUNCTIONAL AS DESIGNED.
3. INLET AND PIPE PROTECTION: AT A MINIMUM, THE CONTRACTOR SHALL INSPECT ALL INLET AND PIPE PROTECTION WEEKLY OR AFTER EACH ONE-HALF INCH OR GREATER RAINFALL EVENT. ANY REQUIRED REPAIRS SHALL BE MADE BY THE CONTRACTOR TO KEEP THE INLET AND PIPE PROTECTION FUNCTIONAL AS DESIGNED.
4. PER ARTICLE 280.08 EARTH EXCAVATION FOR SEDIMENT BASINS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION FOR EROSION CONTROL.

   AGGREGATE USED FOR SEDIMENT BASINS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR AGGREGATE (EROSION CONTROL).

CONSTRUCTION SEQUENCE

1. INSTALL SEDIMENT AND EROSION CONTROL SYSTEMS
2. COMPLETE TREE REMOVAL, CLEARING, AND GRUBBING
3. STRIP AND STOCKPILE TOPSOIL AND BEGIN MASS GRADING. TEMPORARY SEED AS REQUIRED.
4. DEMOLISH EXISTING STRUCTURE WITHOUT IMPACT OR DEBRIS ENTERING THE EXISTING WATERWAY.
5. CONSTRUCT UNDERWATER STRUCTURE EXCAVATION PROTECTION AND INSTALL PILES AND STRUCTURE.
6. COMPLETE ROADWAY REPLACEMENT INCLUDING BINDER AND GRADING.
7. COMPLETE FINAL SURFACE, PAVEMENT MARKINGS, AND RESTORATION.
8. REMOVE EROSION CONTROL MEASURES AND RESTORE.

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

USER NAME = dennisw	DESIGNED - VLM	REVISED -
	DRAWN - DJW	REVISED -
PLOT SCALE = 20.0000 ' / IN.	CHECKED - AJS	REVISED -
PLOT DATE = 8/23/2012	DATE - 4-23-12	REVISED -

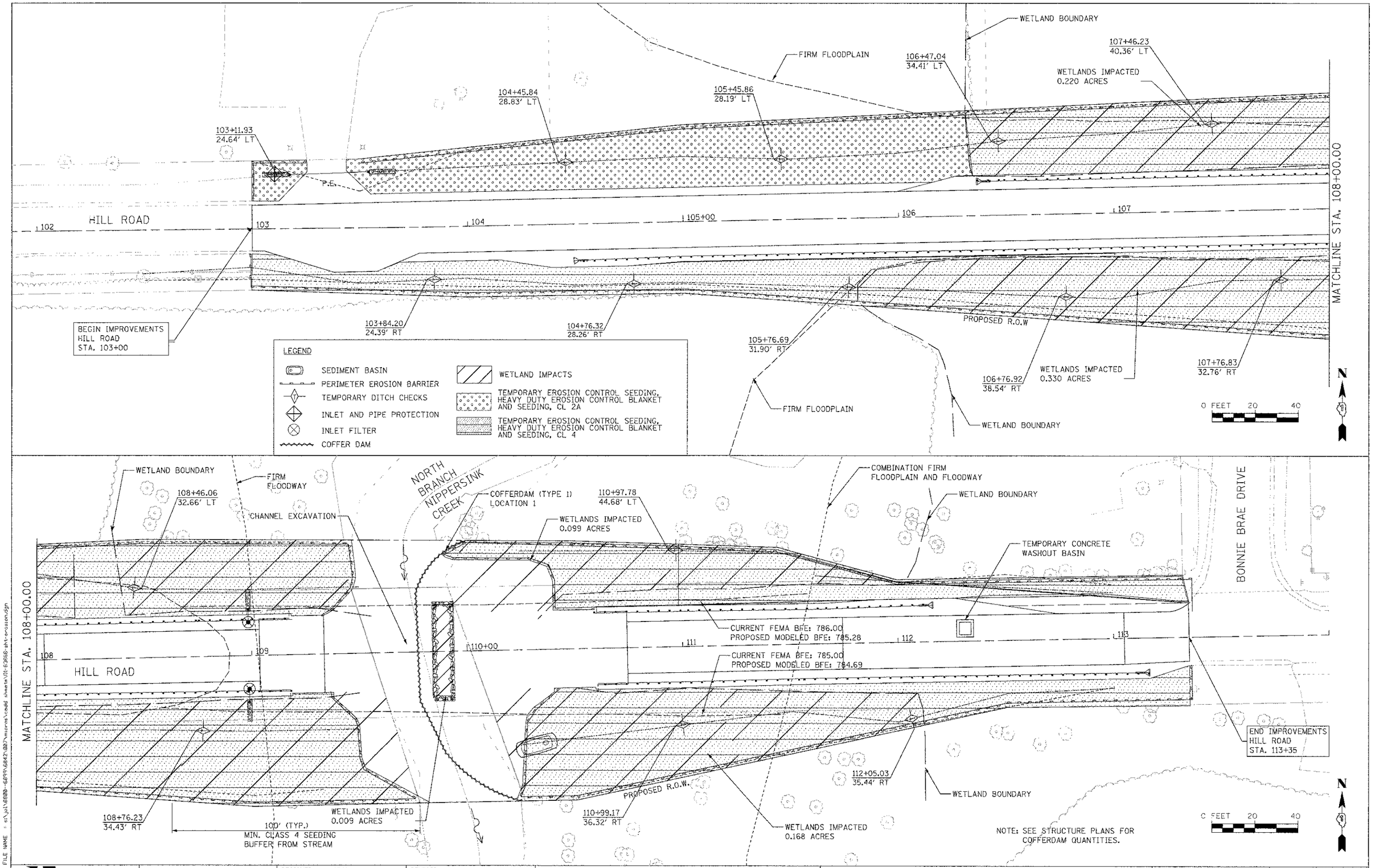
MCHENRY COUNTY DIVISION OF TRANSPORTATION
HILL ROAD BRIDGE OVER
NORTH BRANCH NIPPERSINK CREEK

EROSION CONTROL PLAN

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

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	16
		CONTRACT NO. 63666		

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



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	DRAWN - DJW	REVISED -	
PLOT SCALE = 20.0000 ' / IN.	CHECKED - AJS	REVISED -	
PLOT DATE = 8/23/2012	DATE - 4-23-12	REVISED -	

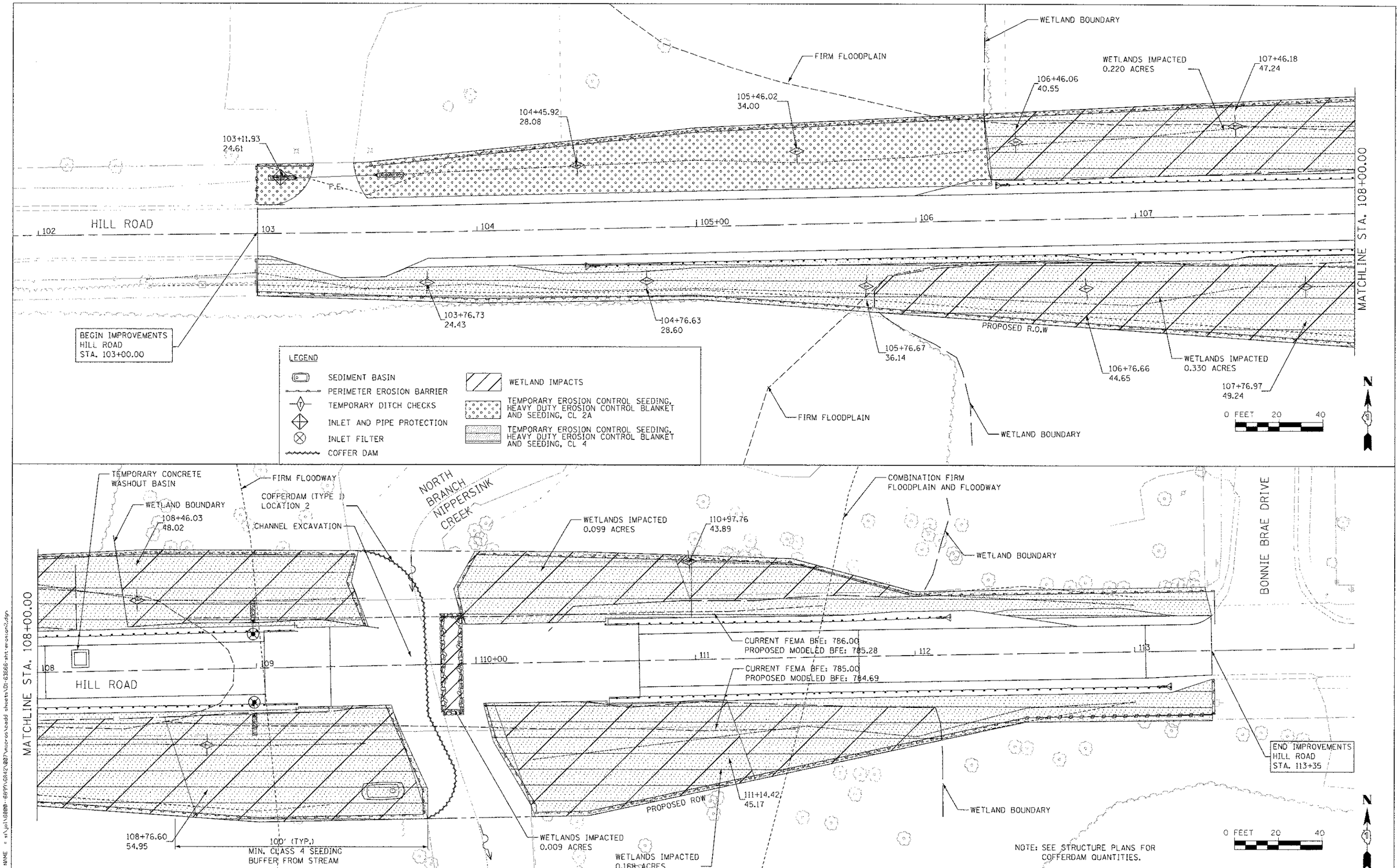
MCHENRY COUNTY DIVISION OF TRANSPORTATION
HILL ROAD BRIDGE OVER
NORTH BRANCH NIPPERSINK CREEK

EROSION CONTROL PLAN
STAGE 1

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

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	17
		CONTRACT NO. 63666		

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



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JOLIET, ILLINOIS 60431
(815) 744-4200

USER NAME = dennisw	DESIGNED - VLM	REVISED -
	DRAWN - DJW	REVISED -
PLOT SCALE = 20.0000 ' / IN.	CHECKED - AJS	REVISED -
PLOT DATE = 8/23/2012	DATE - 4-23-12	REVISED -

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

EROSION CONTROL PLAN
STAGE 2

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

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	18
		CONTRACT NO. 63666		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

STONE RIPRAP, CLASS A4 (TYP.)

PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"
STA. 103+59.26, 24.95' LT
INV.=783.75

PIPE CULVERTS, CLASS A, TYPE 2 12"
35' @ 0.30%
TBF=5 CU YD

PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"
STA. 103+12.63, 25.12' LT
INV.=784.39

PROPERTY LINES (TYP.)

FIRM FLOODPLAIN

℄ PR DITCH

WETLAND BOUNDARY

PROPOSED R.O.W.

EXISTING R.O.W.

BEGIN IMPROVEMENTS
HILL ROAD
STA. 103+00

HILL ROAD

MATCH LINE STA. 108+00.00

START PROPOSED DITCH, RT
STA. 102+50, 20.33' RT
EL. 785.51

WETLAND BOUNDARY (TYP.)

VERT SCALE 5 0
HORIZ SCALE 0 20
SCALE IN FEET

N

EXISTING RT DITCH PROFILE
EXISTING LT DITCH PROFILE
PROPOSED ROADWAY PROFILE
EXISTING ROADWAY PROFILE
PROPOSED LT DITCH PROFILE
PROPOSED RT DITCH PROFILE
PROPOSED LT DITCH ELEVATION
PROPOSED RT DITCH ELEVATION
EXISTING ROADWAY ELEVATION
PROPOSED ROADWAY ELEVATION

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USER NAME = dennisw	DESIGNED - VLM
	DRAWN - DJW
PLOT SCALE = 20.0000 ' / IN.	CHECKED - AJS
PLOT DATE = 8/23/2012	DATE - 4-23-12

REVISED -

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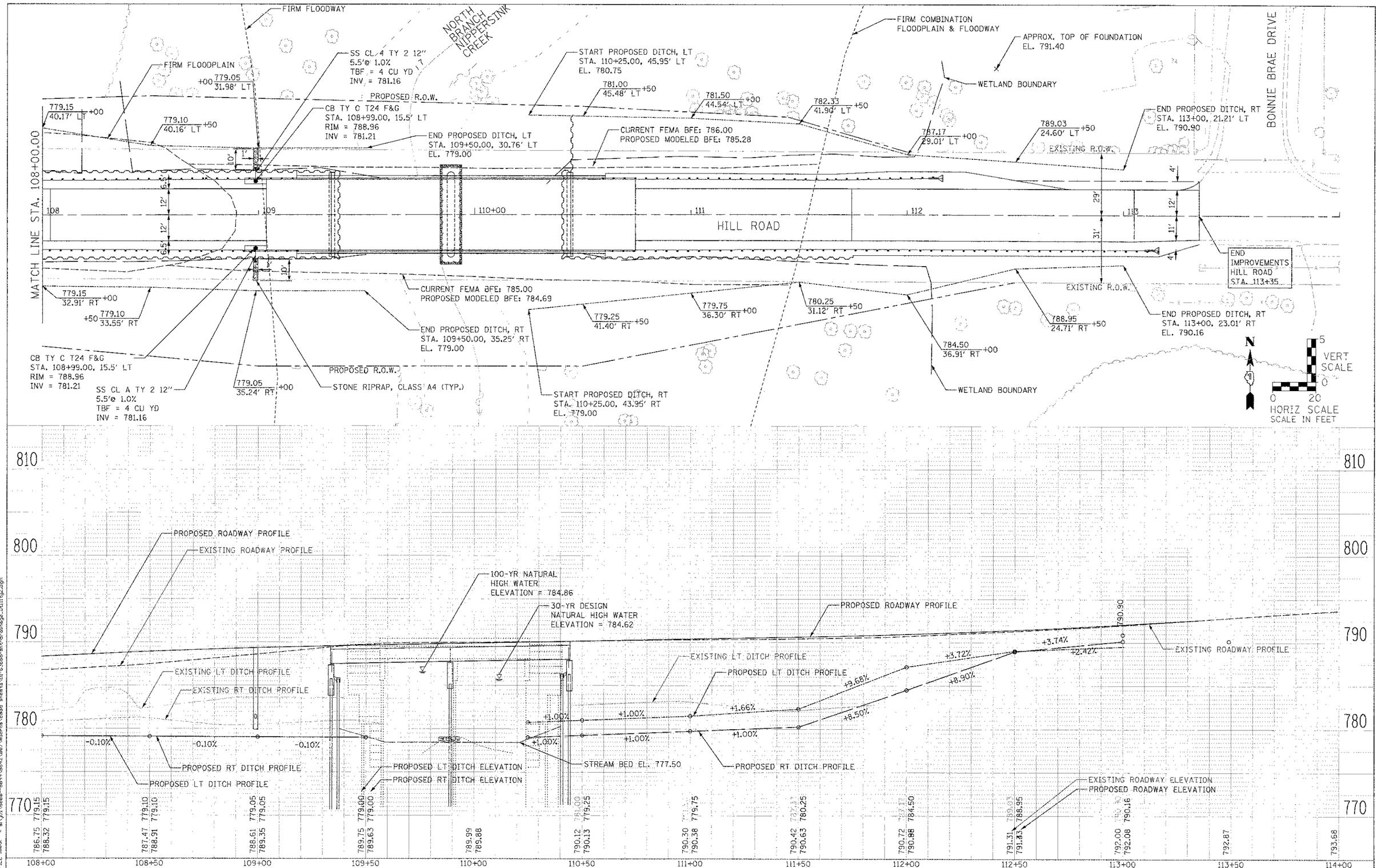
JOLIET, ILLINOIS 60431
(815) 744-4200

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

DRAINAGE AND UTILITY PLAN

SCALE: AS SHOWN | SHEET NO. OF SHEETS | STA. 102+00.00 TO STA. 108+00.00

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	19
		CONTRACT NO. 63666		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



PLAN	BY	DATE
SURVEYED		
PLOTTED		
PLOTTED AT SCALE		
NOTE BOOK		
NO.		

PROFILE	BY	DATE
SURVEYED		
PLOTTED		
PLOTTED AT SCALE		
NOTE BOOK		
NO.		

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	CHECKED AJS	REVISED -	
PLOT SCALE = 20.0000 ' / IN.	DRAWN SMH	REVISED -	
PLOT DATE = 8/23/2012	CHECKED VLM	REVISED -	

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

DRAINAGE AND UTILITY PLAN

SCALE: AS SHOWN | SHEET NO. OF SHEETS | STA. 108+00.00 TO STA. 114+00.00

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	67	20
		CONTRACT NO. 63666		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

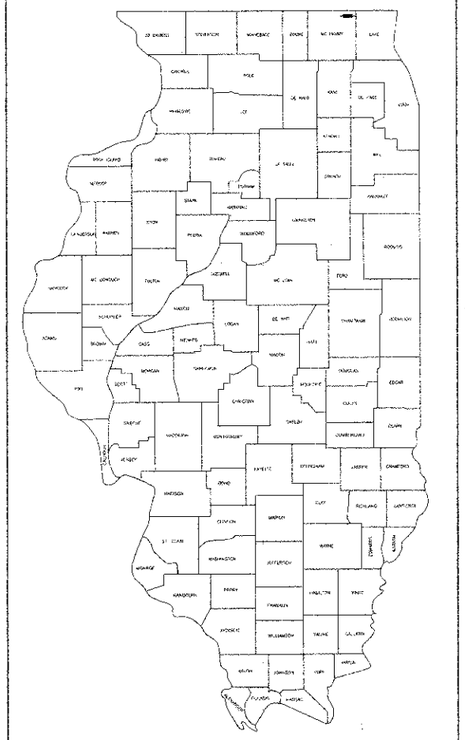
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	**	McHENRY	7	1
F.H.W.A. REG.	ILLINOIS	PROJECT		

* T.R. 21 (HILL ROAD)

** 08-00356-00-BR
R-91-003-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY PLANS
FOR PROPOSED
FEDERAL AID HIGHWAY

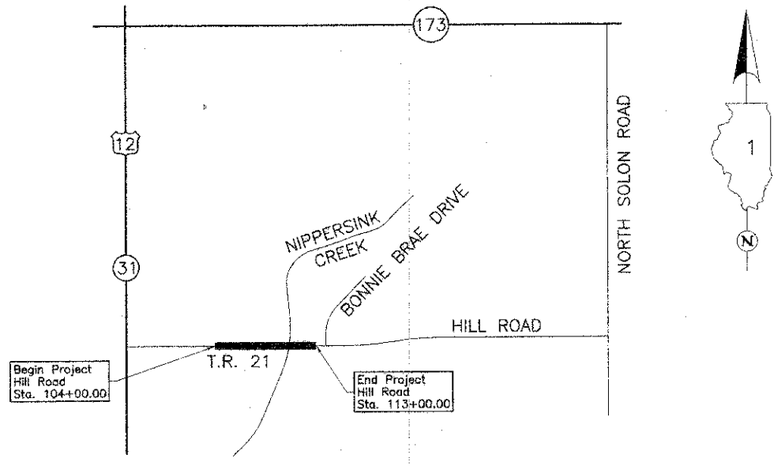
ROUTE: T.R. 21 (HILL ROAD)
SECTION: 08-00356-00-BR
PROJECT NO.: BROS-0111(051)
JOB NO.: R-91-003-09
COUNTY: McHENRY
LIMITS: @ NORTH BRANCH NIPPERSINK CREEK



LOCATION OF SECTION INDICATED THUS:

RANGE 8 EAST

TOWNSHIP 46 NORTH



PROJECT LENGTH = 900 LIN. FT. = 0.170 MILE, HILL ROAD

APPROVED _____ 20____
LOCAL AGENCY OFFICIAL

APPROVED _____ 20____
ENGINEER OF LAND ACQUISITION

APPROVED _____ 20____
ENGINEER OF LOCAL ROADS & STREETS

APPROVED _____ 20____
DISTRICT ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PART OF THE EAST 1/2 OF SEC. 16, TWP. 46 N., R. 8 E. OF THE 3RD. P.M., IN McHENRY COUNTY, ILLINOIS.

PARCEL NUMBER	OWNER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA ACRES	EASEMENT PURPOSE	PERMANENT INDEX NUMBER	PROPERTY ACQUIRED BY
0001	Pioneer Trust & Savings Bank as Trustee under Trust Agreement dated May 20, 1966 known as Trust No. 15520	99.224	1.163	0.654	98.061	N/A	N/A	04-16-400-007	

Schedule of Ties		
Point Number □	Tie to point	Tie Distance (feet)
1	T1	15.48
	T2	11.68
	T3	15.66
2	BT1	12.07
	BT2	6.45
	BT3	11.82
3	BT1	14.37
	BT2	9.69
	BT3	14.14
4	T1	28.74
	T2	16.13
	T3	26.70
5	T1	28.63
	T2	20.15
	T3	25.37
6	T1	24.90
	T2	18.44
	T3	24.66

EXISTING R.O.W. RECORDED INFORMATION		
Parcel	Document No.	Date Recorded
0001	559366	January 21, 1972
----	559366	January 21, 1972

Note: Surface Coordinates are Shown

COORDINATE TABLE			
STATION	OFFSET	NORTH	EAST
102+99.82	5.57' Lt.	2,112,048.632	992,575.721
103+00.00	24.43' Rt.	2,112,018.636	992,576.188
104+00.00	32.84' Rt.	2,112,011.444	992,676.861
105+00.12	33.26' Rt.	2,112,013.188	992,776.768
109+00.00	70.00' Rt.	2,111,985.133	993,177.350
110+50.00	70.00' Rt.	2,111,988.387	993,327.314
112+50.00	29.07' Rt.	2,112,033.439	993,526.310
112+50.11	0.93' Lt.	2,112,063.436	993,525.843
113+32.11	30.64' Lt.	2,112,094.708	993,607.262
113+92.11	30.42' Lt.	2,112,095.642	993,667.255
115+61.43	37.33' Rt.	2,112,038.345	993,841.187
115+61.60	7.19' Rt.	2,112,068.296	993,837.781
115+61.77	22.96' Lt.	2,112,098.246	993,834.376

Existing & Proposed
℄ Pavement
Hill Road
Curve #1

P.I. = Sta. 115+50.02
Δ = 10°27'21"
R = 1399.21'
T = 128.03'
L = 255.34'
E = 5.84'
P.C. = Sta. 114+21.99
P.T. = Sta. 116+77.33

LEGEND

SECTION CORNER (9 10 16 15) — 16 — 15 QUARTER SECTION CORNER

- SECTION LINE
- QUARTER SECTION LINE
- QUARTER, QUARTER SECTION LINE
- PLATTED LOT LINE
- PROPERTY (DEED) LINE
- APL — APPARENT PROPERTY LINE
- CENTER LINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED EASEMENT
- 120.32' MEASURED DIMENSION
- 129.32'(Comp.) COMPUTED DIMENSION
- ( ) RECORD DATA
- EXISTING BUILDING

N

0 60' 120'
SCALE: 1"=60'

Bearings and Coordinates are referenced to the Illinois Coordinate System NAD 83(2007) East Zone.

- ○ IRON PIPE OR ROD FOUND
- ⊕ "MAG" NAIL SET
- + CUT CROSS FOUND OR SET
- ● 5/8" REBAR SET
- ● T1, T2, T3 ***THESE STAKES REFERENCE FOUND OR SET MONUMENTATION.*** SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ● BT1, BT2, BT3 ***THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION.*** BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ■ ***STAKING OF PROPOSED RIGHT OF WAY.*** SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- ■ M ***STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS.*** BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ◓ PERMANENT SURVEY MARKER, I.D.O.T STD 2135 (TO BE SET BY OTHERS)
- □ RIGHT OF WAY STAKING PROPOSED TO BE SET.

STATE OF ILLINOIS)
)SS
COUNTY OF LAKE)

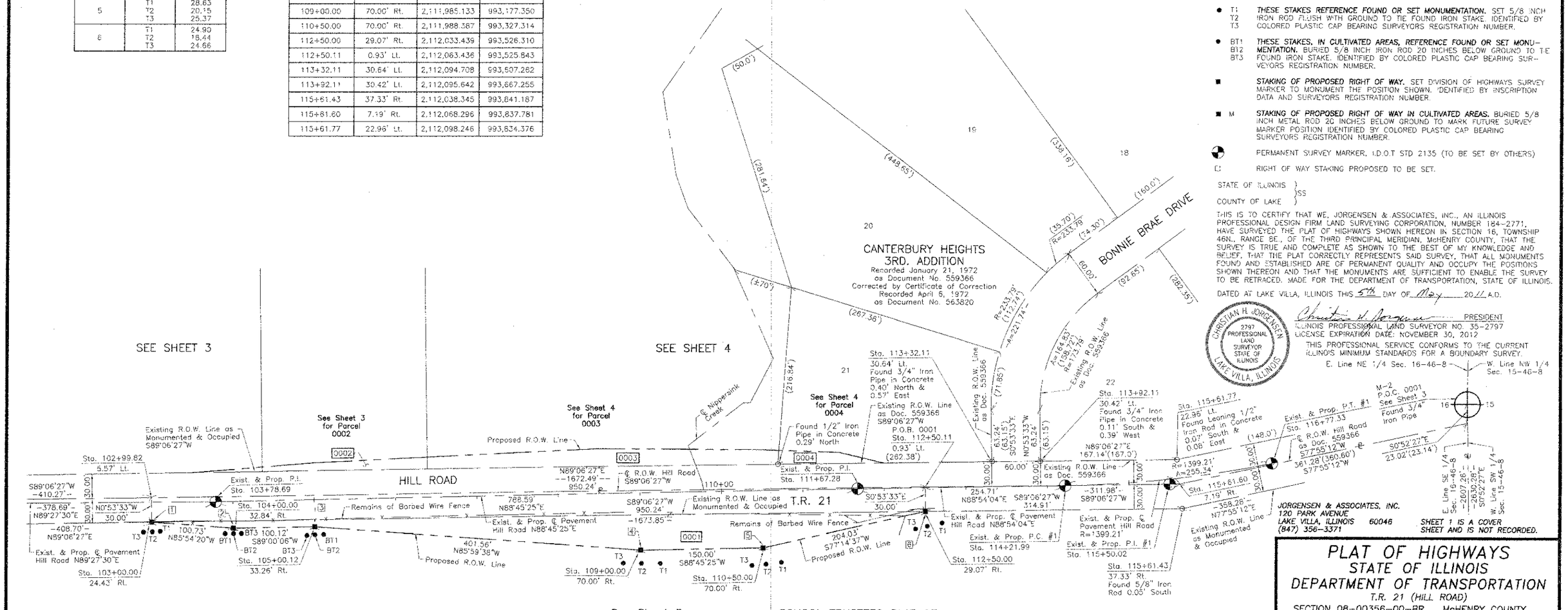
THIS IS TO CERTIFY THAT WE, JORGENSEN & ASSOCIATES, INC., AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-2771, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 16, TOWNSHIP 46N., RANGE 8E., OF THE THIRD PRINCIPAL MERIDIAN, McHENRY COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT LAKE VILLA, ILLINOIS THIS 5th DAY OF May 20 11 A.D.

CHRISTIAN H. JORGENSEN 2797 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS LAKE VILLA, ILLINOIS

Christian H. Jorgensen PRESIDENT
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-2797
LICENSE EXPIRATION DATE: NOVEMBER 30, 2012

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.



See Sheet 5 for Total Holdings Parcel 0001

SCHOOL TRUSTEES PLAT OF SECTION 16, TOWNSHIP 46 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN

LOT 8

JORGENSEN & ASSOCIATES, INC.
120 PARK AVENUE
LAKE VILLA, ILLINOIS 60046
(847) 356-3371

SHEET 1 IS A COVER SHEET AND IS NOT RECORDED.

PLAT OF HIGHWAYS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
T.R. 21 (HILL ROAD)

SECTION 08-00356-00-BR McHENRY COUNTY
PROJECT BROS-0111(051) JOB NO. R-91-003-09
STATION 102+00 TO STATION 116+77.33
SCALE: 1"=60' SHEET 2 OF 7

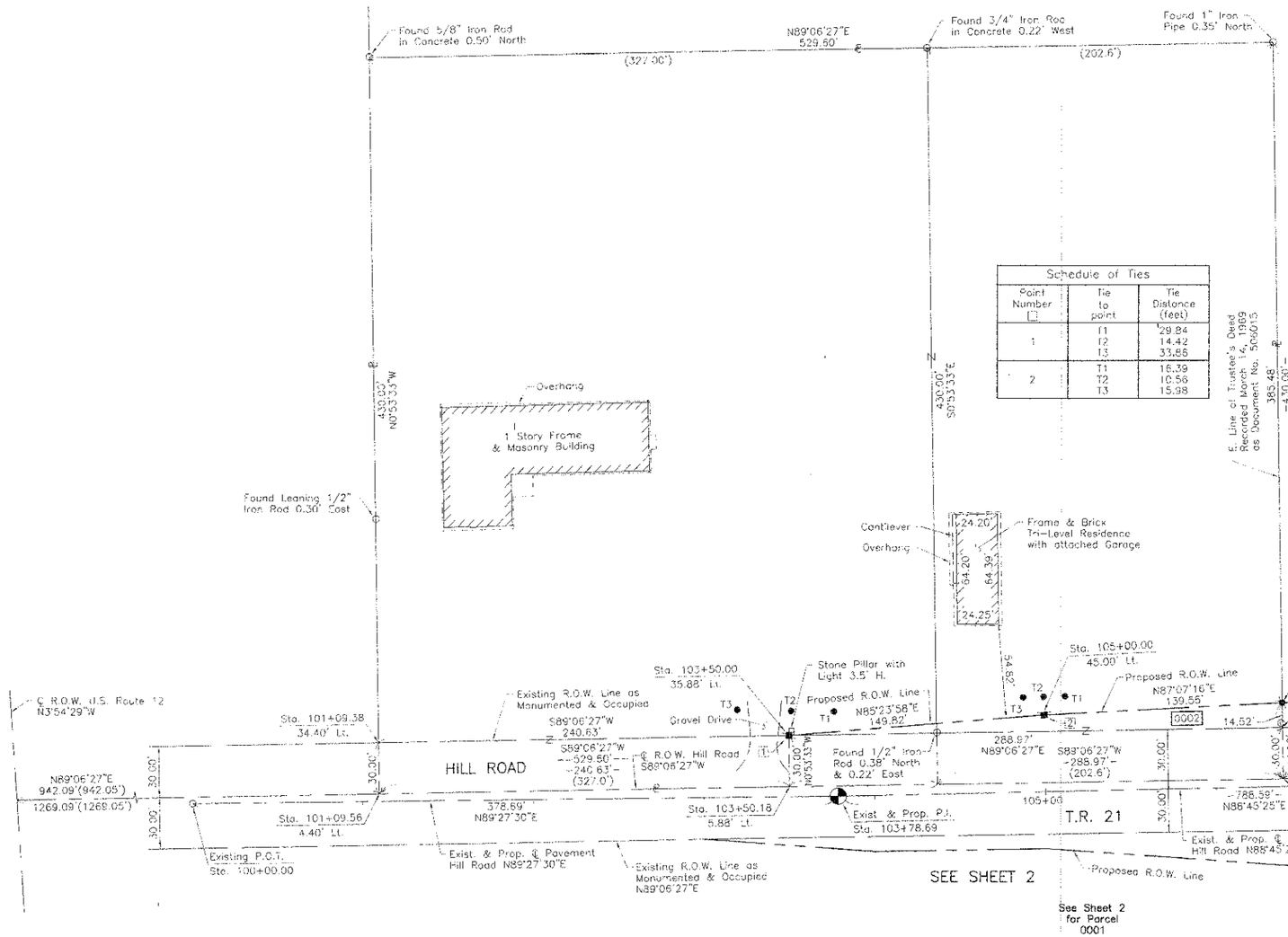
BUREAU OF LAND ACQUISITION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196

REVISION DATE | REVISION | MADE BY

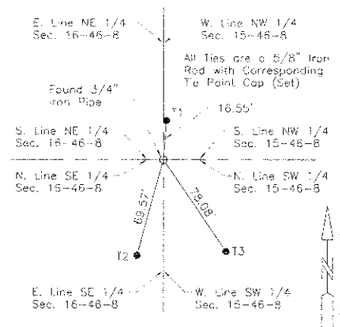
ROUTE T.R. 21 (HILL ROAD) | SECTION 08-00356-00-BR | COUNTY McHENRY | JOB NO. R-91-003-09 | RECORDING: RECORDED ON | AS DOCUMENT NO.

PART OF THE EAST 1/2 OF SEC. 16, TWP. 46 N., R. 8 E. OF THE 3RD. P.M., IN McHENRY COUNTY, ILLINOIS.

EXISTING R.O.W. RECORDED INFORMATION		
Parcel	Document No.	Date Recorded
------	559366	January 21, 1972



Schedule of Ties		
Point Number	Tie to point	Tie Distance (feet)
1	T1	29.84
	T2	14.42
	T3	33.86
2	T1	16.39
	T2	16.56
	T3	15.98



M-2
"Monument Record"
East 1/4 Corner of Section 16-46-8
N.2,112,166.917-E.994,190.711'
Recorded May 5, 2011
Document No. 2011R0019438

LEGEND

(9110) (6615) SECTION CORNER — 16 — 15 QUARTER SECTION CORNER

- SECTION LINE
- QUARTER SECTION LINE
- QUARTER, QUARTER SECTION LINE
- PLATTED LOT LINE
- PROPERTY (DEED) LINE
- AE'L — APPARENT PROPERTY LINE
- CENTER LINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED EASEMENT
- 120.32' MEASURED DIMENSION
- 129.32'(Comp.) COMPUTED DIMENSION
- ( ) RECORD DATA
- EXISTING BUILDING

N

0 40' 80'

SCALE: 1"=40'

Bearings and Coordinates are referenced to the Illinois Coordinate System NAD 83(2007) East Zone.

- ○ IRON PIPE OR ROD FOUND
- ⊕ "MAG" NAIL SET
- \+ CUT CROSS FOUND OR SET
- ● 5/8" REBAR SET
- ● T1, T2, T3 ***THESE STAKES REFERENCE FOUND OR SET MONUMENTATION.*** SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE, IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ● BT1, BT2, BT3 ***THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION.*** BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE, IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ■ ***STAKING OF PROPOSED RIGHT OF WAY.*** SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- ■ M ***STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS.*** BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ◔ PERMANENT SURVEY MARKER, I.D.O.T STD 2135 (TO BE SET BY OTHERS)
- ℄ RIGHT OF WAY STAKING PROPOSED TO BE SET.

STATE OF ILLINOIS }
COUNTY OF LAKE } SS

THIS IS TO CERTIFY THAT WE, JORGENSEN & ASSOCIATES, INC., AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-2771, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 15, TOWNSHIP 46N., RANGE 8E., OF THE THIRD PRINCIPAL MERIDIAN, McHENRY COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT LAKE VILLA, ILLINOIS THIS 5th DAY OF May 20 11 A.D.

Christian H. Jorgensen PRESIDENT
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-2797
LICENSE EXPIRATION DATE: NOVEMBER 30, 2012
THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.
Note: Surface Coordinates are Shown

CHRISTIAN H. JORGENSEN 2797 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS LAKE VILLA, ILLINOIS

COORDINATE TABLE			
STATION	OFFSET	NORTH	EAST
101+09.38	34.40' Lt.	2,112,075.865	992,385.016
101+09.56	4.40' Lt.	2,112,045.668	992,385.484
103+50.00	35.88' Lt.	2,112,079.413	992,625.616
103+50.18	5.88' Lt.	2,112,049.417	992,626.083
105+00.00	45.00' Lt.	2,112,091.430	992,774.949
106+39.22	4.46' Lt.	2,112,053.919	992,915.020
106+39.41	34.46' Lt.	2,112,083.915	992,914.552
106+39.50	48.98' Lt.	2,112,098.438	992,914.326

JORGENSEN & ASSOCIATES, INC.
120 PARK AVENUE
LAKE VILLA, ILLINOIS 60046
(847) 356-3371

SHEET 1 IS A COVER SHEET AND IS NOT RECORDED.

SEE SHEET 4

SCHOOL TRUSTEES PLAT OF
SECTION 16, TOWNSHIP 46 NORTH,
RANGE 8 EAST OF THE THIRD
PRINCIPAL MERIDIAN

LOT 6

PARCEL NUMBER	OWNER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA ACRES	EASEMENT PURPOSE	PERMANENT INDEX NUMBER	PROPERTY ACQUIRED BY
0002	Ben Hur Lodge #870 of the Independent Order of Oddfellows	5.228	0.254	0.199	4.974	N/A	N/A	04-16-252-002 04-16-252-003	

PLAT OF HIGHWAYS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
T.R. 21 (HILL ROAD)

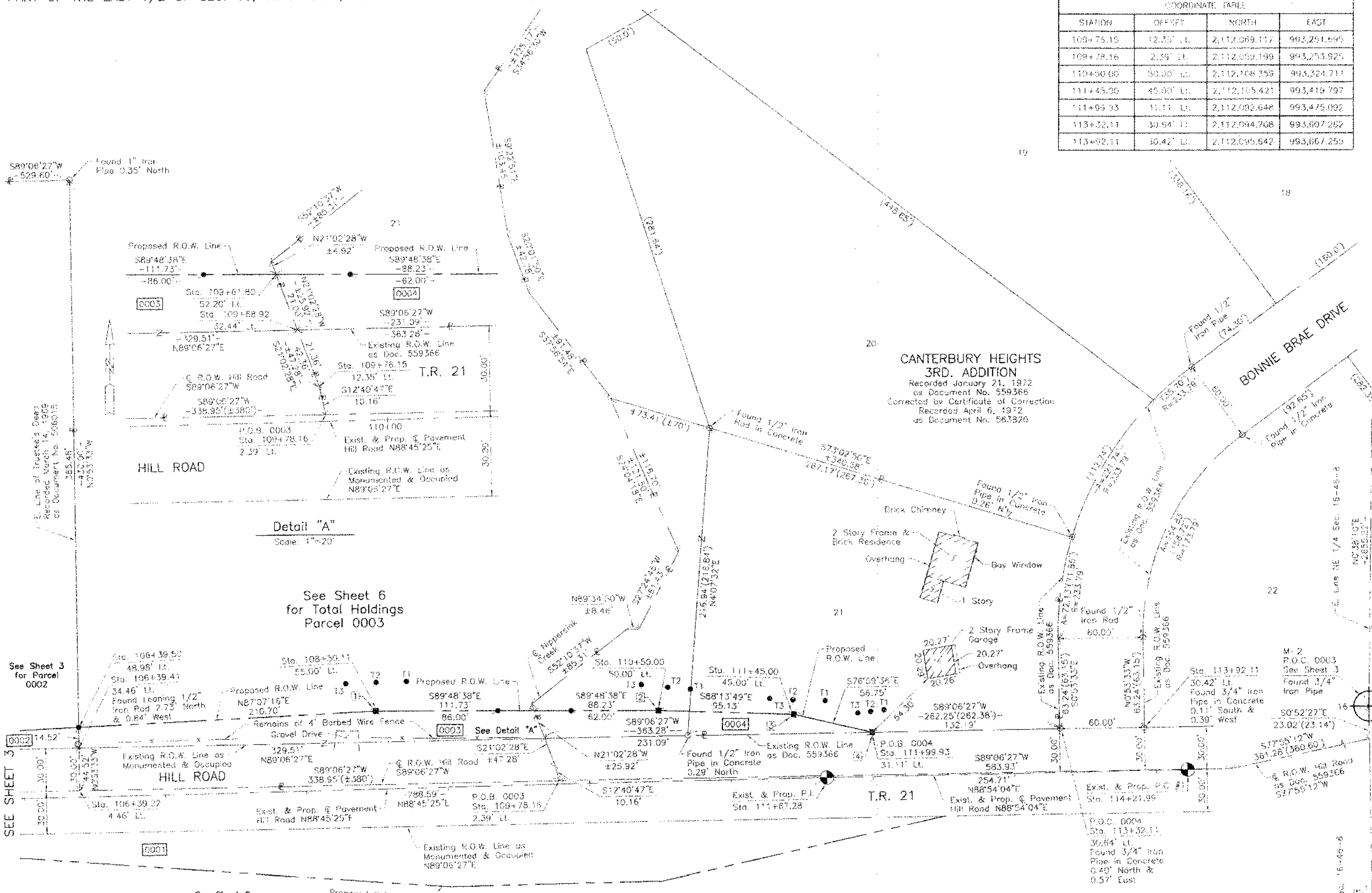
SECTION 08-00356-00-BR McHENRY COUNTY
PROJECT BROS-0111(051) JOB NO. R-91-003-09
STATION 100+00.00 TO STATION 107+00
SCALE: 1"=40' SHEET 3 OF 7

BUREAU OF LAND ACQUISITION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196

REVISION DATE | REVISION | MADE BY

ROUTE T.R. 21 (HILL ROAD) | SECTION 08-00356-00-BR | COUNTY McHENRY | JOB NO. R-91-003-09 | RECORDING: RECORDED ON | AS DOCUMENT NO.

PART OF THE EAST 1/2 OF SEC. 16, TWP. 46 N., R. 8 E. OF THE 3RD. P.M., IN McHENRY COUNTY, ILLINOIS.



COORDINATE TABLE			
STATION	OFFSET	NORTH	EAST
109+76.15	12.35' Lt.	2,112,069.117	993,251.695
109+78.16	2.39' Lt.	2,112,059.199	993,253.925
110+50.00	50.00' Lt.	2,112,108.359	993,324.711
111+45.00	45.00' Lt.	2,112,105.421	993,419.797
111+99.93	31.11' Lt.	2,112,092.648	993,475.092
113+32.11	30.64' Lt.	2,112,094.708	993,607.292
113+92.11	30.42' Lt.	2,112,095.642	993,667.255

SCHOOL TRUSTEES PLAT OF SECTION 16, TOWNSHIP 46 NORTH, RANGE 8 EAST OF THE THIRD PRINCIPAL MERIDIAN

1 OF 8

LEGEND

SECTION CORNER — QUARTER SECTION CORNER

SECTION LINE
QUARTER SECTION LINE
QUARTER, QUARTER SECTION LINE
PLATTED LOT LINE
PROPERTY (DEED) LINE
APPARENT PROPERTY LINE
CENTER LINE
EXISTING RIGHT OF WAY LINE
PROPOSED RIGHT OF WAY LINE
PROPOSED EASEMENT
126.32' MEASURED DIMENSION
129.32'(Comp.) COMPUTED DIMENSION
( ) RECORD DATA
EXISTING BUILDING

N

0 40' 80'
SCALE: 1"=40'

Bearings and Coordinates are referenced to the Illinois Coordinate System NAD 83(2007) East Zone.

○ IRON PIPE OR ROD FOUND — ⊕ "MAG" NAIL SET

\+ CUT CROSS FOUND OR SET — ● 5/8" REBAR SET

● T1 T2 T3 *THESE STAKES REFERENCE FOUND OR SET MONUMENTATION.* SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.

● BT1 BT2 BT3 *THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION.* BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.

■ *STAKING OF PROPOSED RIGHT OF WAY.* SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.

■ M *STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS.* BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.

PERMANENT SURVEY MARKER, I.D.O.T STD 2135 (TO BE SET BY OTHERS)

□ RIGHT OF WAY STAKING PROPOSED TO BE SET.

STATE OF ILLINOIS)
)SS
COUNTY OF LAKE)

THIS IS TO CERTIFY THAT WE, JORGENSEN & ASSOCIATES, INC., AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-2771, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 16, TOWNSHIP 46N., RANGE 8E., OF THE THIRD PRINCIPAL MERIDIAN, McHENRY COUNTY; THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED, MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT LAKE VILLA, ILLINOIS THIS 5th DAY OF May 2011 A.D.

[signature] PRESIDENT
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-2797
LICENSE EXPIRATION DATE: NOVEMBER 30, 2012

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

CHRISTIAN H. JORGENSEN 2797 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS LAKE VILLA, ILLINOIS

Note: Surface Coordinates are Shown

COORDINATE TABLE			
STATION	OFFSET	NORTH	EAST
106+39.22	4.46' Lt.	2,112,053.919	992,915.020
106+39.41	34.46' Lt.	2,112,083.915	992,914.552
106+39.50	48.98' Lt.	2,112,098.438	992,914.326
108+50.11	55.00' Lt.	2,112,109.020	993,124.758
109+61.80	52.20' Lt.	2,112,108.651	993,235.485
109+68.92	32.44' Lt.	2,112,089.048	993,244.026

JORGENSEN & ASSOCIATES, INC.
120 PARK AVENUE
LAKE VILLA, ILLINOIS 60046
(847) 356-3371

SHEET 1 IS A COVER SHEET AND IS NOT RECORDED.

PARCEL NUMBER	OWNER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA ACRES	EASEMENT PURPOSE	PERMANENT INDEX NUMBER	PROPERTY ACQUIRED BY
0003	American Community Bank & Trust	56.047**	0.373	0.231	55.674**	N/A	N/A	04-16-252-017	
0004	Jon Hansen and Ellen B. Hansen, formerly known as Ellen B. Tilton, in joint tenancy	1.321*	0.080	N/A	1.241*	N/A	N/A	04-16-276-001	

* Riparian Boundary, Area Subject to Change.
** Area based on that part lying in the East 1/2 of Section 16 Only and Riparian Boundary, Area Subject to Change.

Schedule of Ties		
Point Number □	Tie to point	Tie Distance (feet)
1	T1 T2 T3	29.79 20.02 28.76
2	T1 T2 T3	26.73 17.49 22.00
3	T1 T2 T3	24.07 10.22 20.29
4	T1 T2 T3	17.85 14.70 16.89

EXISTING R.O.W. RECORDED INFORMATION		
Parcel	Document No.	Date Recorded
0004	559366	January 21, 1972
----	559366	January 21, 1972

PLAT OF HIGHWAYS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
T.R. 21 (HILL ROAD)

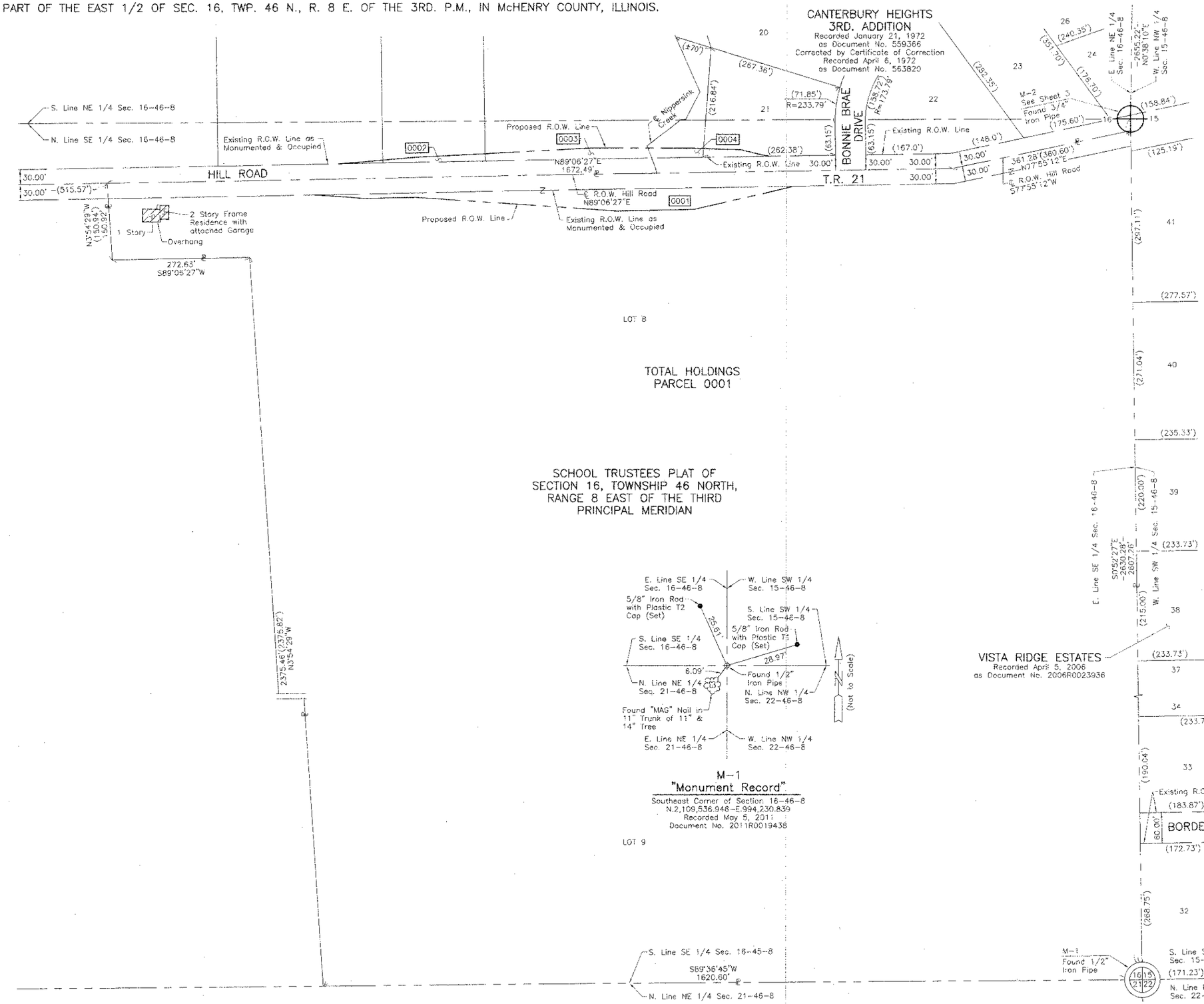
SECTION 08-00356-00-BR McHENRY COUNTY
PROJECT BROS-0111(051) JOB NO. R-91-003-09
STATION 106+00 TO STATION 114+21.99
SCALE: 1"=40' SHEET 4 OF 7

BUREAU OF LAND ACQUISITION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196

REVISION DATE May 21, 2011 REVISION Ownership & Total Holdings Parcel 0003 MADE BY

ROUTE T.R. 21 (HILL ROAD) SECTION 08-00356-00-BR COUNTY McHENRY JOB NO. R-91-003-09 RECORDING: RECORDED ON AS DOCUMENT NO.

PART OF THE EAST 1/2 OF SEC. 16, TWP. 46 N., R. 8 E. OF THE 3RD. P.M., IN McHENRY COUNTY, ILLINOIS.



M-1
"Monument Record"
Southeast Corner of Section 16-46-8
N.2,109,536.948 - E.994,230.839
Recorded May 5, 2011
Document No. 2011R0019438

LEGEND

SECTION CORNER 9|10 16|15 — QUARTER SECTION CORNER 16 15

- SECTION LINE
- QUARTER SECTION LINE
- QUARTER, QUARTER SECTION LINE
- PLATTED LOT LINE
- ℄ PROPERTY (DEED) LINE
- APPARENT PROPERTY LINE
- ℄ CENTER LINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED EASEMENT
- 120.32' MEASURED DIMENSION
- 129.32'(Comp.) COMPUTED DIMENSION
- ( ) RECORD DATA
- EXISTING BUILDING

N

0 100' 200'

SCALE: 1"=100'

Bearings and Coordinates are referenced to the Illinois Coordinate System NAD 83(2007) East Zone.

C	IRON PIPE OR ROD FOUND	⊖	"MAG" NAIL SET
+	CUT CROSS FOUND OR SET	●	5/8" REBAR SET

- ● T1 T2 T3 ***THESE STAKES REFERENCE FOUND OR SET MONUMENTATION.*** SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
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- ☐ RIGHT OF WAY STAKING PROPOSED TO BE SET.

STATE OF ILLINOIS } SS
COUNTY OF LAKE }

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DATED AT LAKE VILLA, ILLINOIS THIS 5th DAY OF May 2011 A.D.

CHRISTIAN H. JORGENSEN 2797 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS LAKE VILLA, ILLINOIS

Christian H. Jorgensen PRESIDENT
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-2797
LICENSE EXPIRATION DATE: NOVEMBER 30, 2012

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

Note: Surface Coordinates are Shown

JORGENSEN & ASSOCIATES, INC.
120 PARK AVENUE
LAKE VILLA, ILLINOIS 60046
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SHEET 1 IS A COVER SHEET AND IS NOT RECORDED.

PLAT OF HIGHWAYS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
T.R. 21 (HILL ROAD)

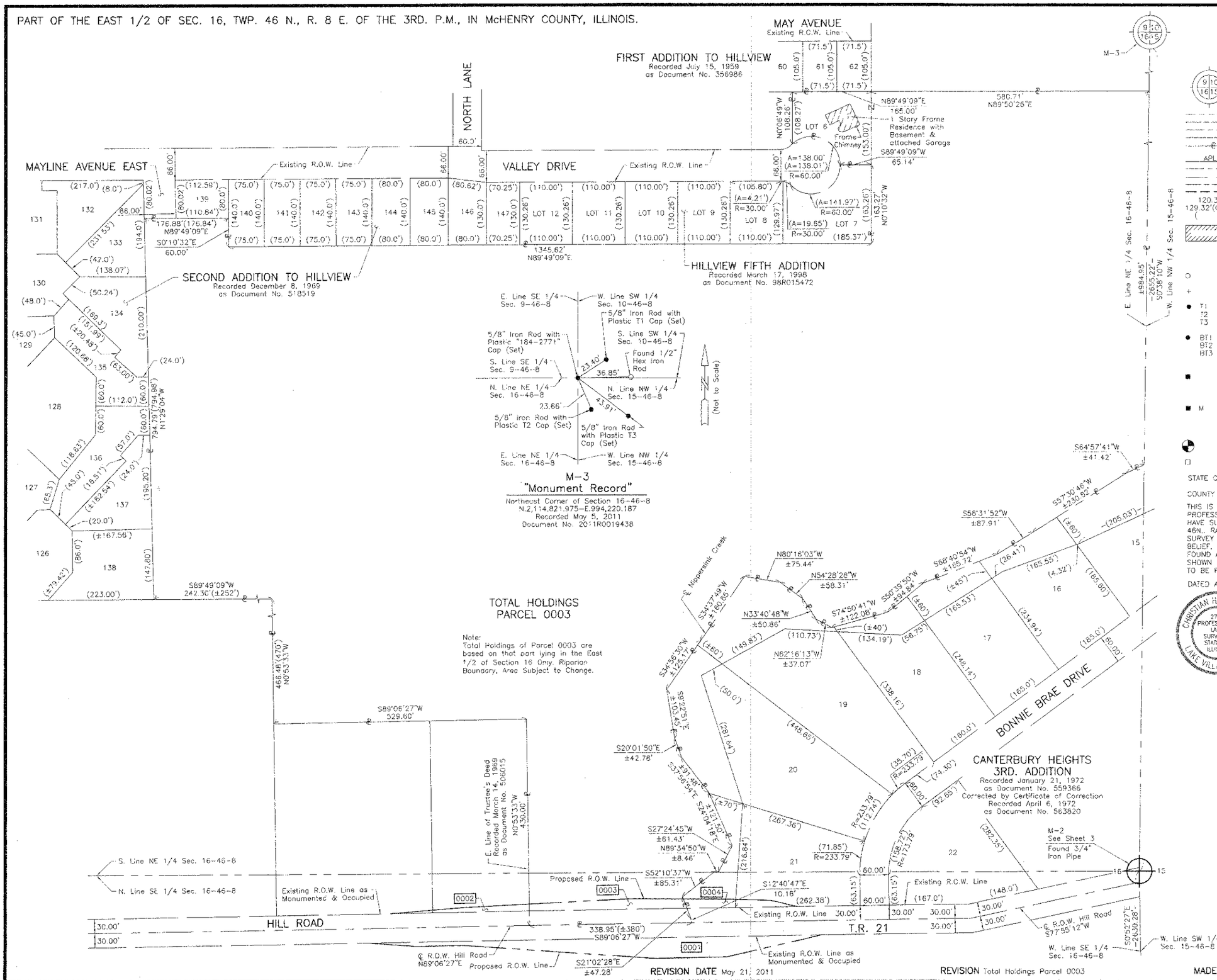
SECTION 08-00356-00-BR McHENRY COUNTY
PROJECT BROS-0111(051) JOB NO. R-91-003-09
STATION NONE TO STATION
SCALE: 1"=100' SHEET 5 OF 7

BUREAU OF LAND ACQUISITION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196

REVISION DATE	REVISION	MADE BY

ROUTE T.R. 21 (HILL ROAD) SECTION 08-00356-00-BR COUNTY McHENRY JOB NO. R-91-003-09 RECORDING: RECORDED ON AS DOCUMENT NO.

PART OF THE EAST 1/2 OF SEC. 16, TWP. 46 N., R. 8 E. OF THE 3RD. P.M., IN McHENRY COUNTY, ILLINOIS.



LEGEND

- SECTION CORNER
- QUARTER SECTION CORNER
- SECTION LINE
- QUARTER SECTION LINE
- QUARTER, QUARTER SECTION LINE
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- PROPERTY (DEED) LINE
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- ( ) RECORD DATA
- EXISTING BUILDING

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0 100' 200'

SCALE: 1"=100'

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STATE OF ILLINOIS }
COUNTY OF LAKE } SS

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DATED AT LAKE VILLA, ILLINOIS THIS 5th DAY OF May 20 11 A.D.

CHRISTIAN R. JORGENSEN 2797 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS LAKE VILLA, ILLINOIS

Christian R. Jorgensen PRESIDENT
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-2797
LICENSE EXPIRATION DATE: NOVEMBER 30, 2012
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Note: Surface Coordinates are Shown

JORGENSEN & ASSOCIATES, INC.
120 PARK AVENUE
LAKE VILLA, ILLINOIS 60046
(847) 356-3371

SHEET 1 IS A COVER SHEET AND IS NOT RECORDED.

PLAT OF HIGHWAYS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

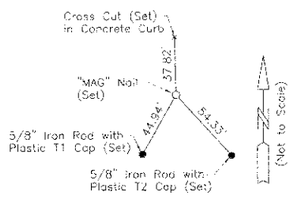
T.R. 21 (HILL ROAD)
SECTION 08-00356-00-BR McHENRY COUNTY
PROJECT BROS-0111(051) JOB NO. R-91-003-09
STATION NONE TO STATION
SCALE: 1"=100' SHEET 6 OF 7

BUREAU OF LAND ACQUISITION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196

REVISION DATE May 21, 2011 REVISION Total Holdings Parcel 0003 MADE BY

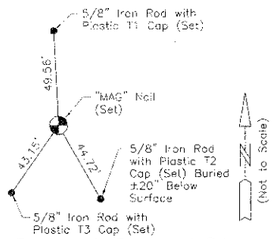
ROUTE T.R. 21 (HILL ROAD) SECTION 08-00356-00-BR COUNTY McHENRY JOB NO. R-91-003-09 RECORDING: RECORDED ON AS DOCUMENT NO.

PART OF THE SW 1/4 OF SEC. 15 AND PART OF THE SE 1/4 OF SEC. 16, TWP. 46 N., R. 8 E. OF THE 3RD. P.M., IN McHENRY COUNTY, ILLINOIS.



Existing P.O.T.
Hill Road

Sta. 100+00.00
N.2,112,040.228–E.992,275.971



Existing & Proposed P.I.
Hill Road

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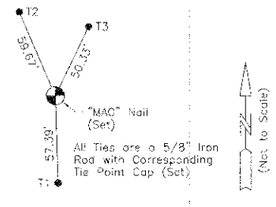
N.2,112,043.609–E.992,654.846



Existing & Proposed P.I.
Hill Road

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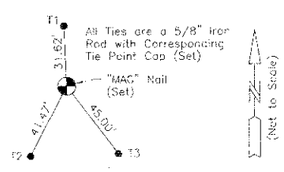

Existing & Proposed P.C. #1
Hill Road

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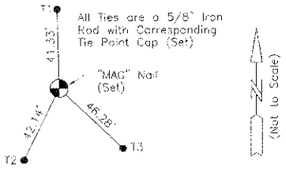
N.2,112,065.800–E.993,697.718



Existing & Proposed P.I. #1
Hill Road

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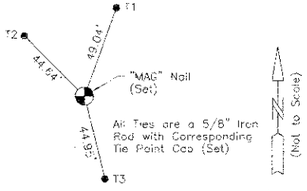
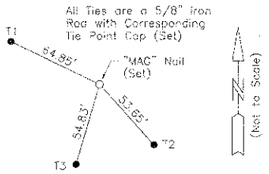


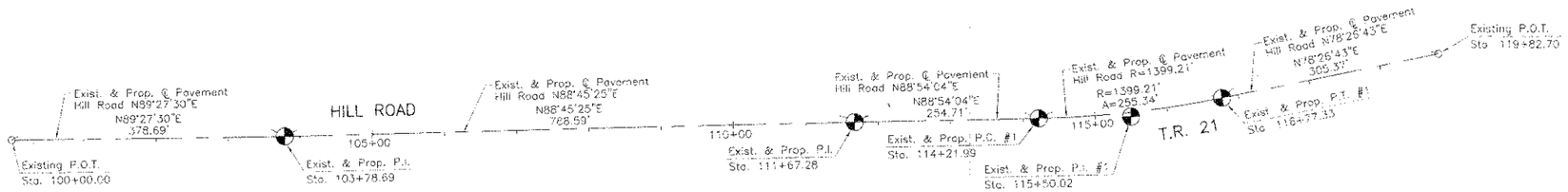
Existing & Proposed P.T. #1
Hill Road

Sta. 116+77.33
N.2,112,093.699–E.993,951.145



Existing P.O.T.
Hill Road

Sta. 119+82.70
N.2,112,158.665–E.994,250.323



Existing & Proposed
℄ Pavement
Hill Road
Curve #1

P.I. = Sta. 115+50.02
Δ = 10°27'21"
R = 1399.21'
T = 128.03'
L = 255.34'
E = 5.84'
P.C. = Sta. 114+21.99
P.T. = Sta. 116+77.33

LEGEND

SECTION CORNER (9 10 16 15) — QUARTER SECTION CORNER (16 — 15)

- SECTION LINE
- QUARTER SECTION LINE
- QUARTER, QUARTER SECTION LINE
- PLATTED LOT LINE
- PROPERTY (DEED) LINE
- APPARENT PROPERTY LINE
- CENTER LINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED EASEMENT
- 120.32' MEASURED DIMENSION
- 128.32'(Comp.) COMPUTED DIMENSION
- ( ) RECORD DATA
- EXISTING BUILDING

N

0 100' 200'

SCALE: 1"=100'

Bearings and Coordinates are referenced to the Illinois Coordinate System NAD 83(2007) East Zone.

- ○ IRON PIPE OR ROD FOUND
- ⊕ "MAG" NAIL SET
- + CUT CROSS FOUND OR SET
- ● 5/8" REBAR SET
- ● T1, T2, T3 *THESE STAKES REFERENCE FOUND OR SET MONUMENTATION.* SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE, IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ● BT1, BT2, BT3 *THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION.* BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE, IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ■ *STAKING OF PROPOSED RIGHT OF WAY.* SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- ■ M *STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS.* BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ◕ PERMANENT SURVEY MARKER, I.D.O.T. STD 2135 (TO BE SET BY OTHERS)
- □ RIGHT OF WAY STAKING PROPOSED TO BE SET.

STATE OF ILLINOIS }
} SS
COUNTY OF LAKE }

THIS IS TO CERTIFY THAT WE, JORGENSEN & ASSOCIATES, INC., AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION, NUMBER 184-2771, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON BETWEEN SECTION 15, TOWNSHIP 46N., RANGE 8E. AND SECTION 16, TOWNSHIP 46N., RANGE 8E., OF THE THIRD PRINCIPAL MERIDIAN, McHENRY COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT LAKE VILLA, ILLINOIS THIS 5th DAY OF May 20 11 A.D.

CHRISTIAN H. JORGENSEN 2797 PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS LAKE VILLA, ILLINOIS

Christian H. Jorgensen PRESIDENT
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 35-2797
LICENSE EXPIRATION DATE: NOVEMBER 30, 2012

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

Note: Surface Coordinates are Shown

JORGENSEN & ASSOCIATES, INC.
120 PARK AVENUE
LAKE VILLA, ILLINOIS 60046
(847) 356-3371

SHEET 1 IS A COVER SHEET AND IS NOT RECORDED.

PLAT OF HIGHWAYS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

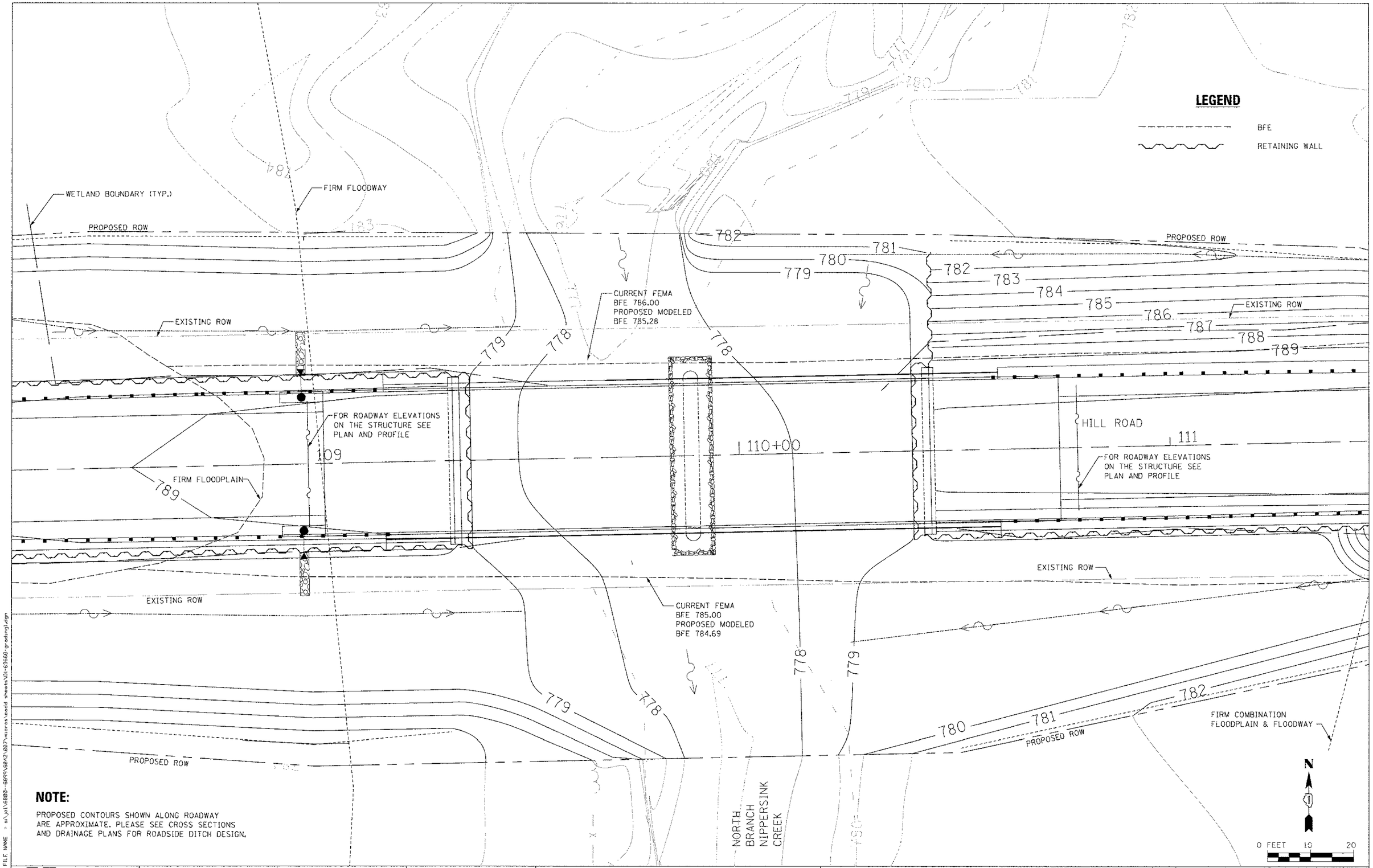
T.R. 21 (HILL ROAD)

SECTION 08-00356-00-BR McHENRY COUNTY
PROJECT BROS-0111(051) JOB NO. R-91-003-09
STATION 100+00.00 TO STATION 119+82.70
SCALE: 1"=100' SHEET 7 OF 7

BUREAU OF LAND ACQUISITION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196

REVISION DATE | REVISION | MADE BY

ROUTE T.R. 21 (HILL ROAD) | SECTION 08-00356-00-BR | COUNTY McHENRY | JOB NO. R-91-003-09 | RECORDING: RECORDED ON | AS DOCUMENT NO.



NOTE:

PROPOSED CONTOURS SHOWN ALONG ROADWAY
ARE APPROXIMATE. PLEASE SEE CROSS SECTIONS
AND DRAINAGE PLANS FOR ROADSIDE DITCH DESIGN.

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

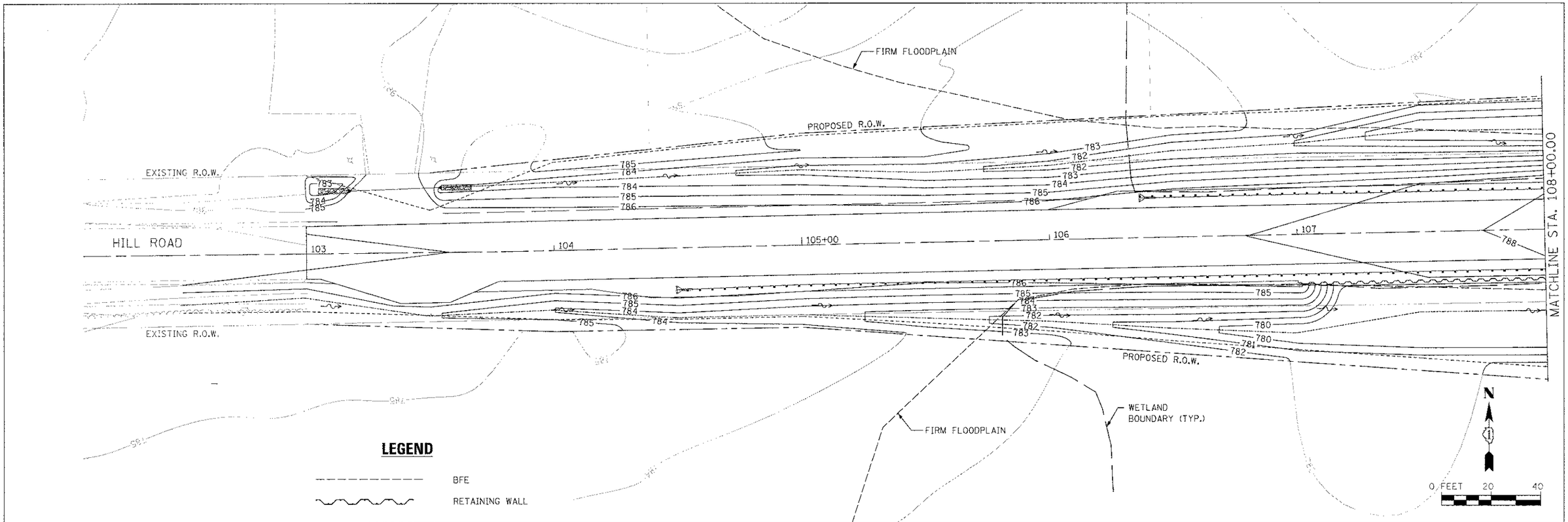
USER NAME = dennisw	DESIGNED - VLM	REVISED -	
	DRAWN - DJW	REVISED -	
PLOT SCALE = 20.0000 ' / IN.	CHECKED - AJS	REVISED -	
PLOT DATE = 8/23/2012	DATE - 4-23-12	REVISED -	

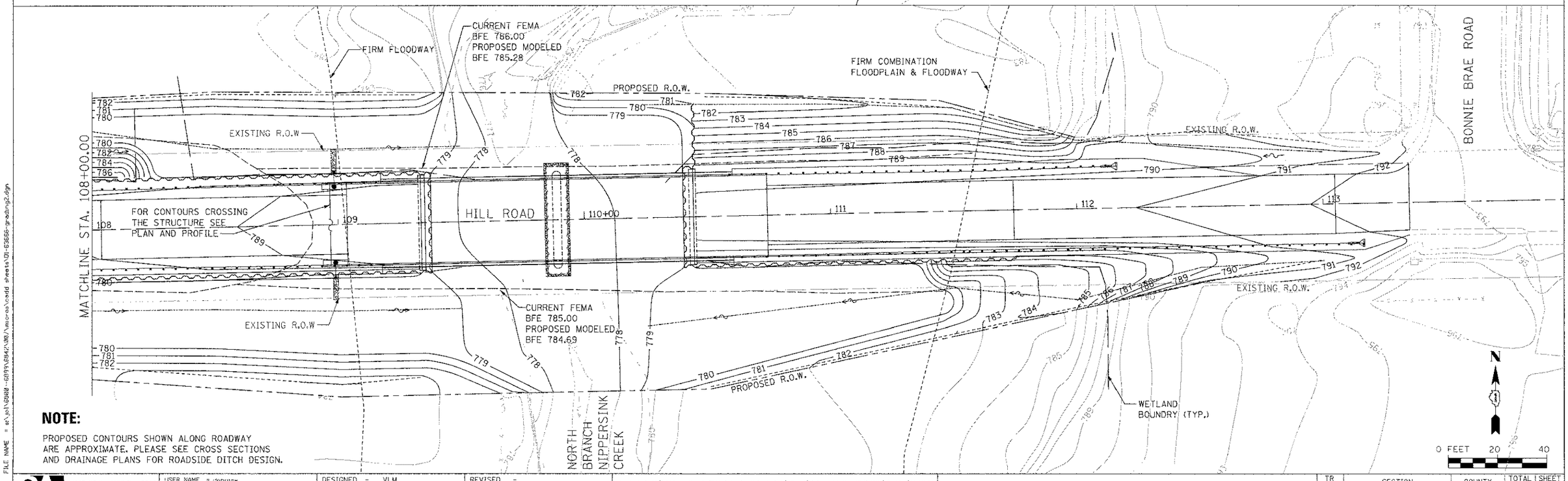
MCHENRY COUNTY DIVISION OF TRANSPORTATION
HILL ROAD BRIDGE OVER
NORTH BRANCH NIPPERSINK CREEK

GRADING PLAN

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

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	28
		CONTRACT NO. 63666		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		





NOTE:

PROPOSED CONTOURS SHOWN ALONG ROADWAY
ARE APPROXIMATE. PLEASE SEE CROSS SECTIONS
AND DRAINAGE PLANS FOR ROADSIDE DITCH DESIGN.

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

USER NAME = Johnsw	DESIGNED - VLM	REVISED -	
	DRAWN - DJW	REVISED -	
PLOT SCALE = 20.0000 ' / IN.	CHECKED - AJS	REVISED -	
PLOT DATE = 8/23/2012	DATE - 4-23-12	REVISED -	

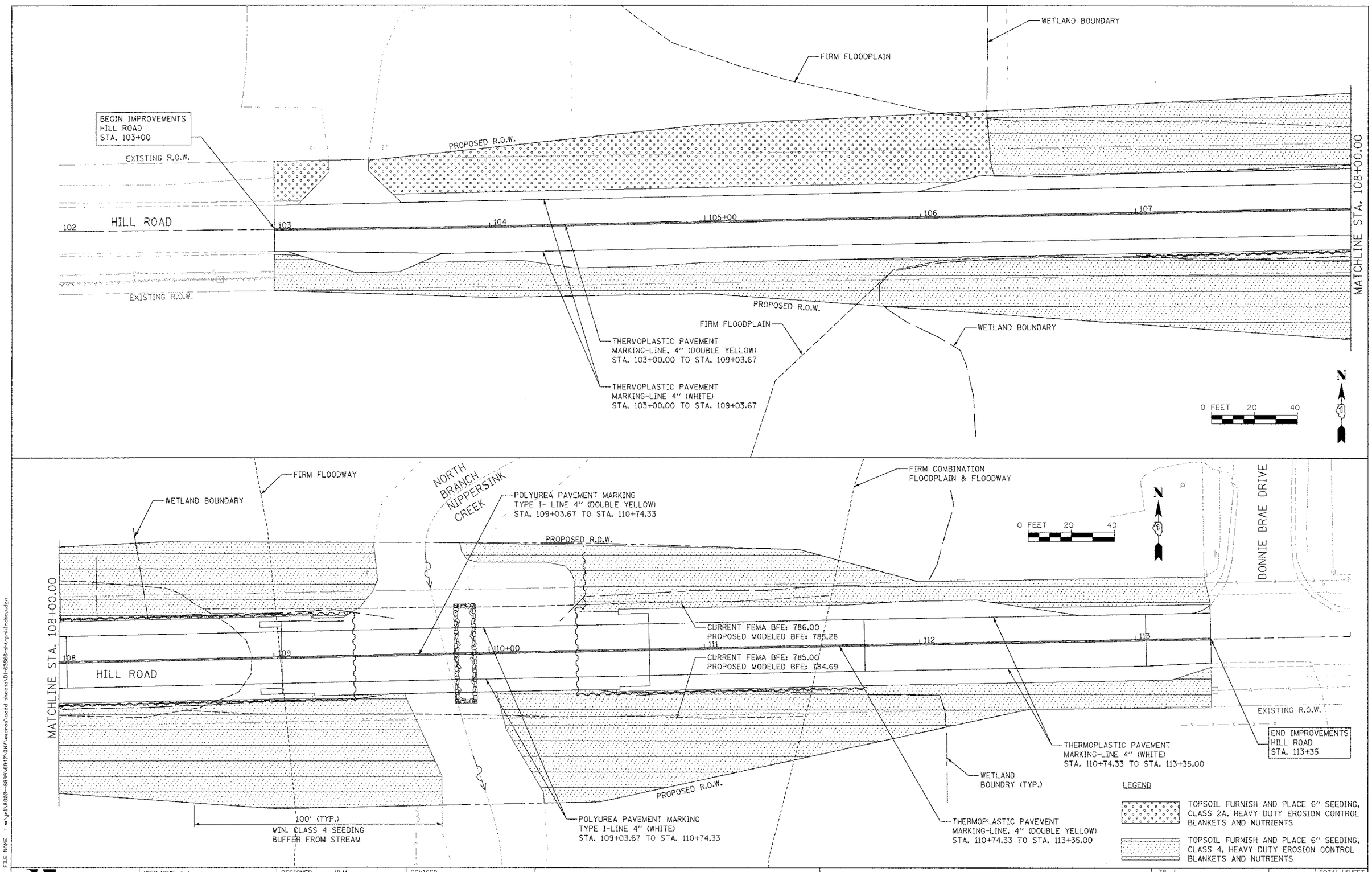
MCHENRY COUNTY DIVISION OF TRANSPORTATION
HILL ROAD BRIDGE OVER
NORTH BRANCH NIPPERSINK CREEK

GRADING PLAN

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

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	29
		CONTRACT NO. 63666		

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



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

USER NAME = dennisw	DESIGNED - VLM	REVISED -	
	DRAWN - DJW	REVISED -	
PLOT SCALE = 20.0000 ' / IN.	CHECKED - AJS	REVISED -	
PLOT DATE = 8/23/2012	DATE - 4-23-12	REVISED -	

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

PAVEMENT MARKING, SIGNING AND LANDSCAPING PLAN

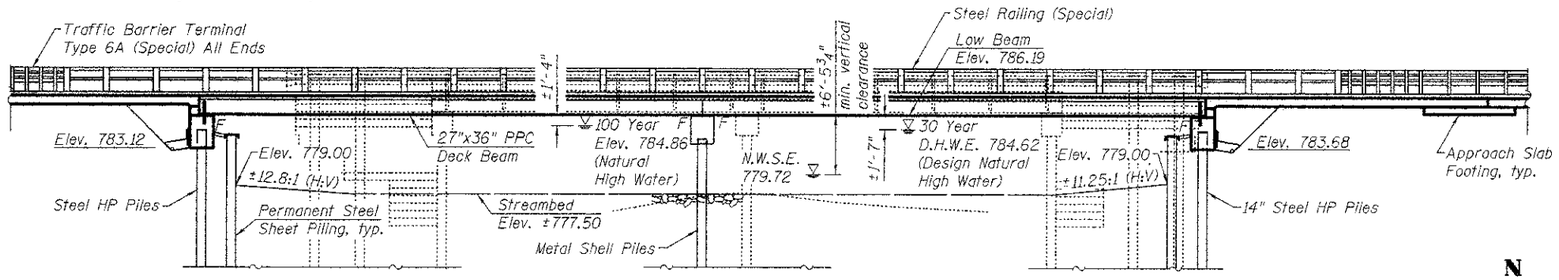
SCALE: AS SHOWN | SHEET NO. OF SHEETS | STA. TO STA.

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	30
		CONTRACT NO. 63666		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

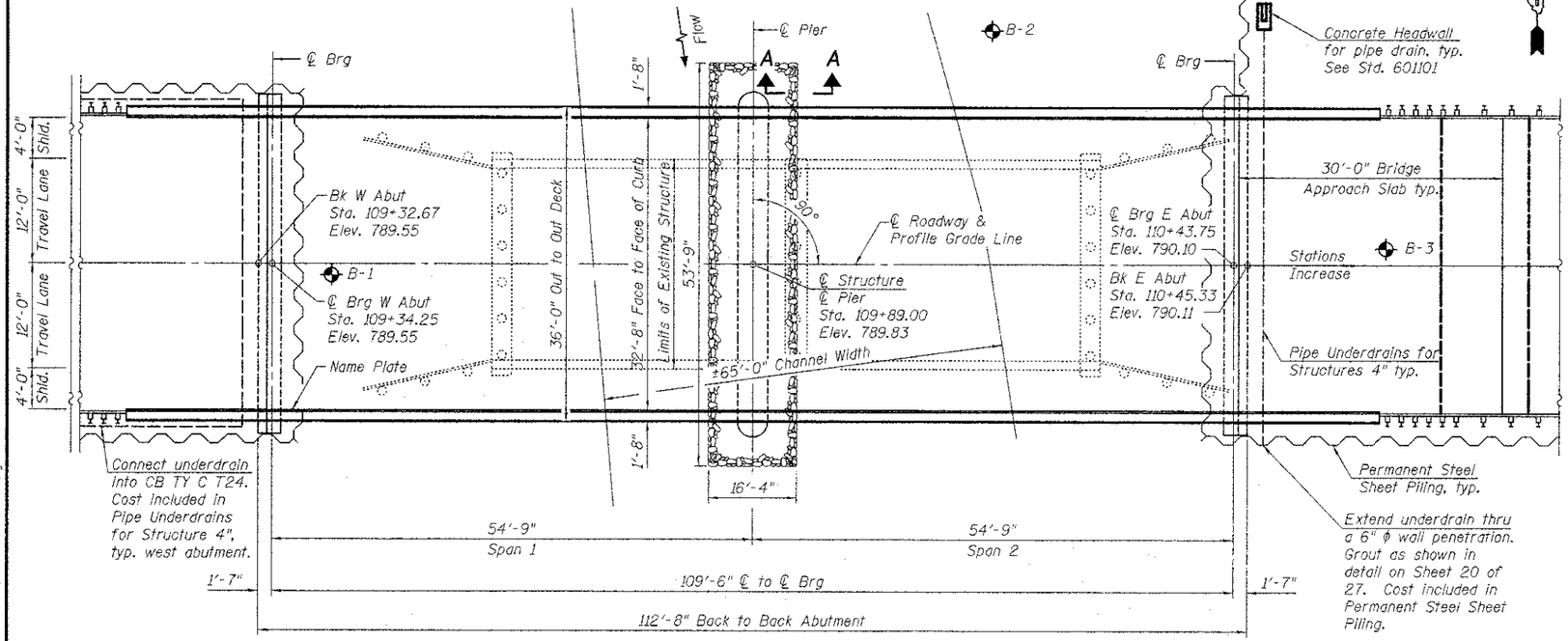
Benchmark: Chiseled square on east curb at east end of curb on the east side of the entrance to Nippersink Public Library. Approximately 890 feet west of the Structure. Elev. 793.44

Existing Structure: S.N. 056-3045 built in 1958. The superstructure consists of two spans of eight 17"x36" prestressed precast deck beams with side mounted railing and a HMA overlay. The substructure consists of R.C. closed abutments on creosoted timber piles with timber lagging and a R.C. pile bent pier with metal shell piles. Structure measures 69'-3" bk to bk abutments and 24'-0" out to out. Existing structure is to be removed Traffic will be detoured.

Existing Name Plate to be salvaged. See Roadway General Notes.



ELEVATION



PLAN

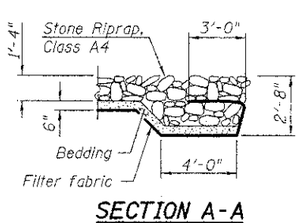
DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	West Abut.	Pier	East Abut.
	770.41	764.41	770.41

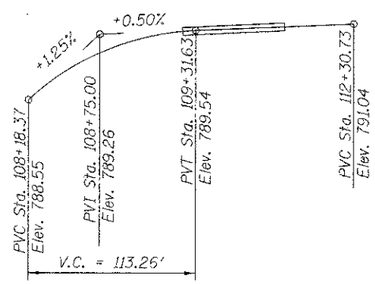
WATERWAY INFORMATION

Drainage Area = 68.7 square miles Low Grade Elev. 786.20 @ Sta. 105+50

Flood Freq. Yr.	Freq. Yr.	Q Ft³/s.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	1610	324.47	591.68	784.02	0.64	0.27	784.66	784.29
Design	30	2294	362.39	654.93	784.62	1.08	0.50	785.70	785.12
Base	100	2735	382.67	689.44	784.86	1.44	0.71	786.30	785.57
Overtop Existing	101	2780	384.61	-	784.89	1.48	-	788.00	-
Overtop Proposed	405	3920	-	778.88	785.55	-	1.24	-	788.20
Max. Calc.	500	4521	446.39	806.52	785.75	2.55	1.51	788.30	787.26

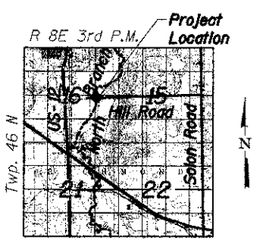


SECTION A-A



PROFILE GRADE

(T.R. 21 along ℄ of Roadway)



LOCATION SKETCH

GENERAL NOTES

The Illinois Department of Transportation is not the owner of record for this bridge. Those seeking historic, as-built, or other existing documents and plans must contact the owner of record to make arrangements for access to this information.

Calculated weight of Structural Steel = 55,560 pounds.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

Concrete Sealer shall be applied to the designated areas of the abutment.

Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

The Contractor is advised that the existing structure contains members that are in deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the existing structure when developing construction procedures for removal.

See Erosion Control sheet for locations of Cofferdams.

INDEX OF SHEETS

1	General Plan and Elevation
2	General Data
3	Top of Approach Slab Elevations
4	Superstructure
5	Superstructure Details
6-7	Bridge Approach Slab Details
8-9	Wyoming 2-Tube Bridge Railing Details
10	27"x36" PPC Deck Beam
11	27"x36" PPC Deck Beam Details
12	Abutment Details
13	Pier Details
14	HP Pile Details
15	Metal Shell Pile Details
16-20	Retaining Wall Details
21-26	Soil Boring Log
27	Existing General Plan and Elevation

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M202 Grade 50)

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi
f'ci = 5,000 psi
fpu = 270,000 psi (1/2" low lax. strands)
fpbt = 201,960 psi (1/2" low lax. strands)

DESIGN SPECIFICATIONS

2010 AASHTO LRFD Bridge Design Specifications with 2010 Interims

NIPPERSINK CREEK
BUILT 20__ BY
McHENRY COUNTY
DIVISION OF TRANSPORTATION
SEC 08-00356-00-BR
TWP. RT. 21 STA. 109+89.00
STRUCTURE NO. 056-3192
LOADING HL-93

NAME PLATE

See Std. 515001

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S D1) = 0.077
Design Spectral Acceleration at 0.2 sec. (S DS) = 0.127
Soil Site Class = D

ANTHONY J. STAMBUSH
061-005619
LICENSED STRUCTURAL ENGINEER
STATE OF ILLINOIS
exp 11/2012

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with the requirements of the current AASHTO LRFD Bridge Design Specifications.

GENERAL PLAN
T.R. 21 (HILL ROAD)
OVER N. BRANCH NIPPERSINK CREEK
McHENRY COUNTY
STA. 109+89.00
S.N. 056-3192

FILE NAME = S:\JOs\68BOO--68991\6842\027\Marcon\CADD Sheets\Structure\056-3192-63666-R01-GPE.dgn

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

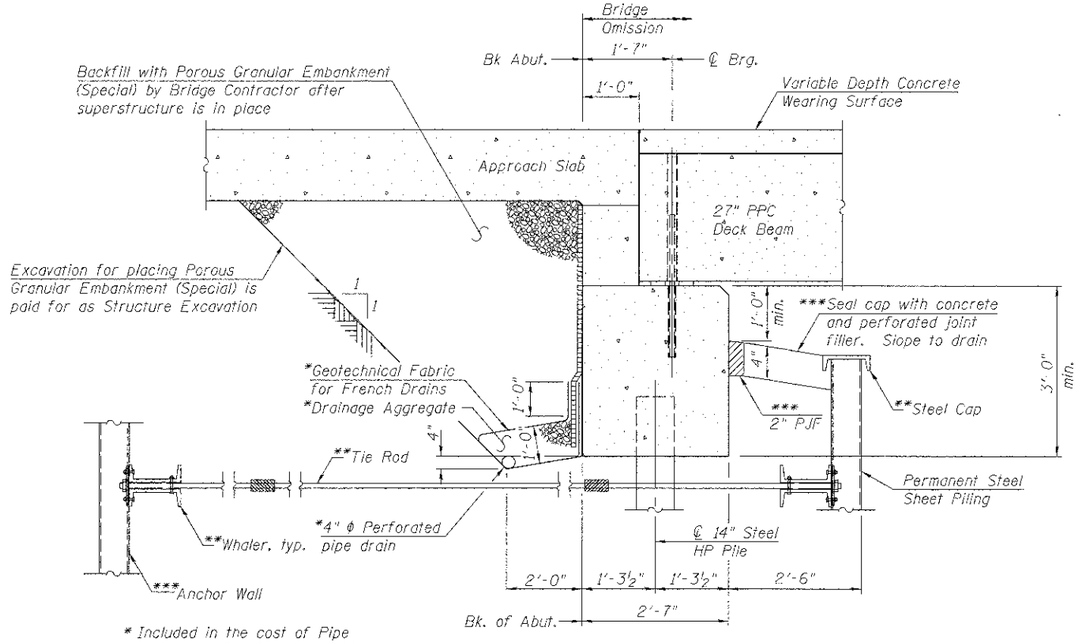
USER NAME = brianf	DESIGNED RRD	REVISED -	
	CHECKED AJS	REVISED -	
PLOT SCALE =	DRAWN BJF	REVISED -	
PLOT DATE = 5/22/2012	CHECKED RRD	REVISED -	

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

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 056-3192
SHEET NO. 1 OF 2 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	31
		CONTRACT NO. 63666		

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

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		18,475	18,475
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.

FILE NAME = s:\pw\6800-699\6842\007\micro\cadd sheets\structural\95-3192-63666-002-GD.dgn

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

USER NAME = brianf	DESIGNED RRD	REVISED -	
	CHECKED AJS	REVISED -	
PLOT SCALE =	DRAWN BJF	REVISED -	
PLOT DATE = 8/23/2012	CHECKED RRD	REVISED -	

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

GENERAL DATA
STRUCTURE NO. 056-3192
SHEET NO. 2 OF 27 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	32
		CONTRACT NO. 63666		
	ILLINOIS FED. AID PROJECT			

NORTH EDGE OF SHOULDER

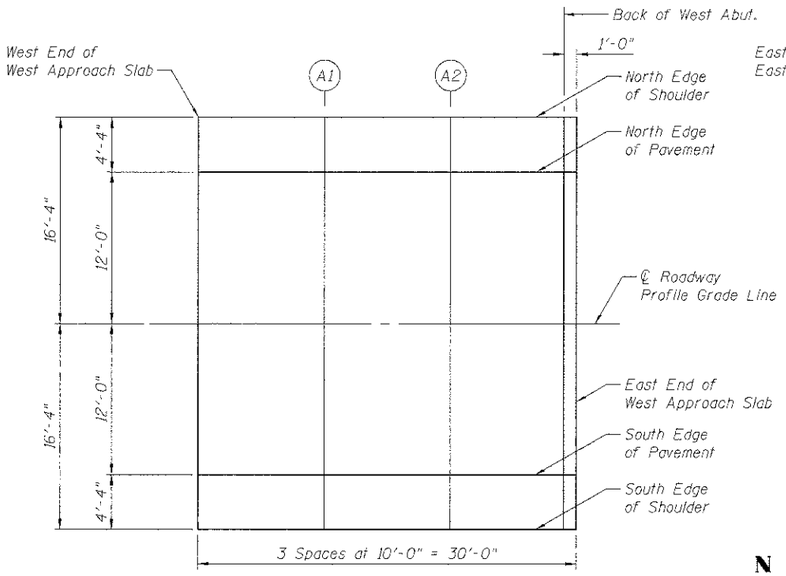
Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	109+03.67	16.33	789.05
A1	109+13.67	16.33	789.11
A2	109+23.67	16.33	789.17
E. End West Appr. Pav't.	109+33.67	16.33	489.22
W. End East Appr. Pav't.	110+44.33	16.33	789.78
A3	110+54.33	16.33	789.83
A4	110+64.33	16.33	789.88
E. End East Appr. Pav't.	110+74.33	16.33	789.93

NORTH EDGE OF PAVEMENT

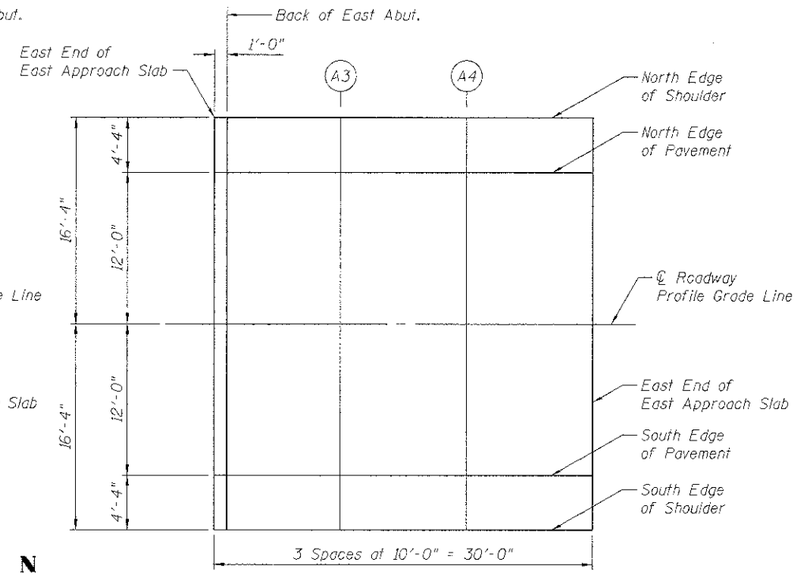
Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	109+03.67	12.00	789.14
A1	109+13.67	12.00	789.20
A2	109+23.67	12.00	789.26
E. End West Appr. Pav't.	109+33.67	12.00	489.31
W. End East Appr. Pav't.	110+44.33	12.00	789.86
A3	110+54.33	12.00	789.91
A4	110+64.33	12.00	789.96
E. End East Appr. Pav't.	110+74.33	12.00	790.01

PROFILE GRADE LINE/CENTERLINE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	109+03.67	0.00	789.38
A1	109+13.67	0.00	789.44
A2	109+23.67	0.00	789.50
E. End West Appr. Pav't.	109+33.67	0.00	489.55
W. End East Appr. Pav't.	110+44.33	0.00	790.10
A3	110+54.33	0.00	790.15
A4	110+64.33	0.00	790.20
E. End East Appr. Pav't.	110+74.33	0.00	790.25



PLAN
West Approach



PLAN
East Approach

SOUTH EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	109+03.67	-12.00	789.14
A1	109+13.67	-12.00	789.20
A2	109+23.67	-12.00	789.26
E. End West Appr. Pav't.	109+33.67	-12.00	489.31
W. End East Appr. Pav't.	110+44.33	-12.00	789.86
A3	110+54.33	-12.00	789.91
A4	110+64.33	-12.00	789.96
E. End East Appr. Pav't.	110+74.33	-12.00	790.01

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	109+03.67	-16.33	789.05
A1	109+13.67	-16.33	789.11
A2	109+23.67	-16.33	789.17
E. End West Appr. Pav't.	109+33.67	-16.33	489.22
W. End East Appr. Pav't.	110+44.33	-16.33	789.78
A3	110+54.33	-16.33	789.83
A4	110+64.33	-16.33	789.88
E. End East Appr. Pav't.	110+74.33	-16.33	789.93

FILE NAME = s:\jol\6888-6899\6892\007\micro\sheets\structural\N056-3192-63666-003-T00.dgn

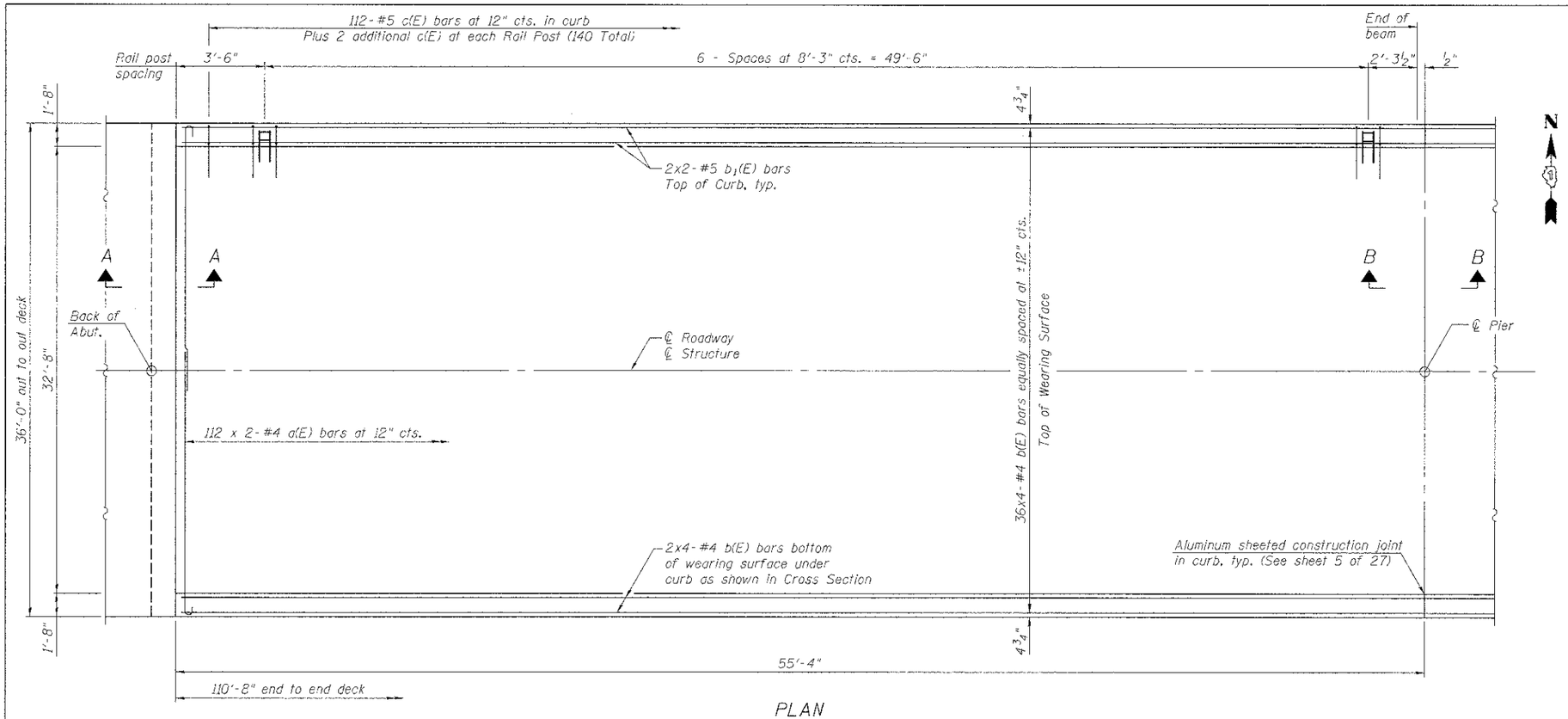
STRAND ASSOCIATES® (815) 744-4200
1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
IDFPR NO. 184-001273

USER NAME = brianf	DESIGNED RRD	REVISED -
	CHECKED AJS	REVISED -
PLOT SCALE =	DRAWN BJF	REVISED -
PLOT DATE = 8/23/2012	CHECKED RRD	REVISED -

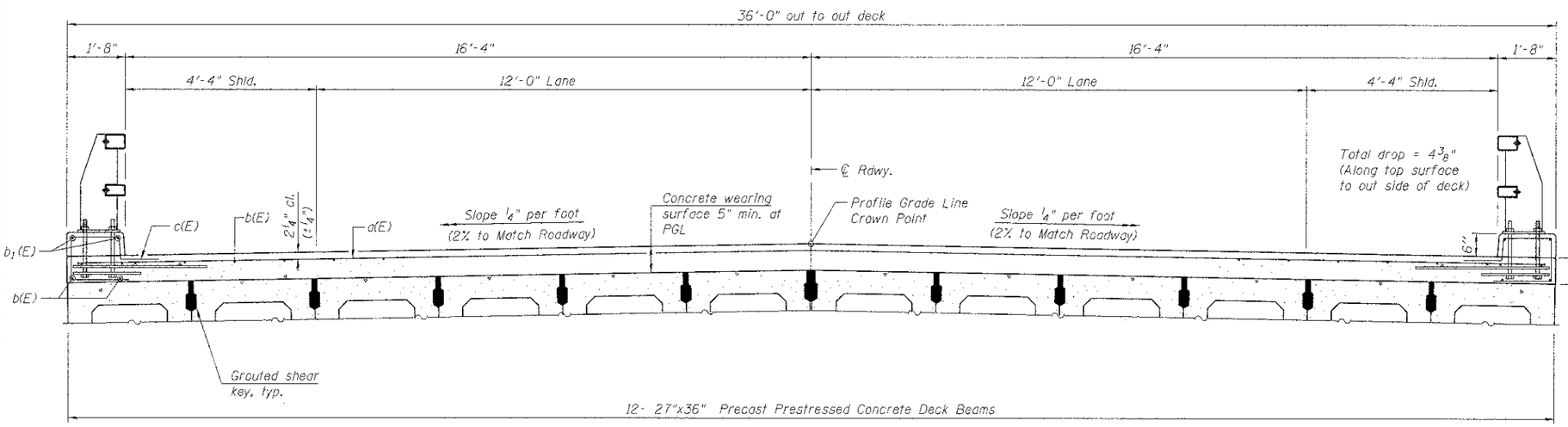
MCHENRY COUNTY DIVISION OF TRANSPORTATION
HILL ROAD BRIDGE OVER
NORTH BRANCH NIPPERSINK CREEK

TOP OF APPROACH SLAB ELEVATIONS
STRUCTURE NO. 056-3192
SHEET NO. 3 OF 27 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	33
		CONTRACT NO. 63666		
		ILLINOIS FED. AID PROJECT		

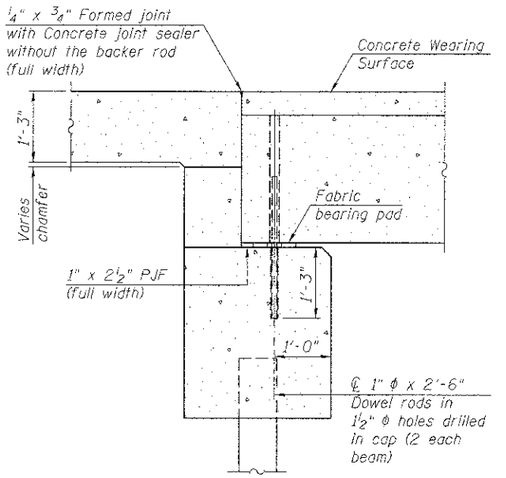


PLAN



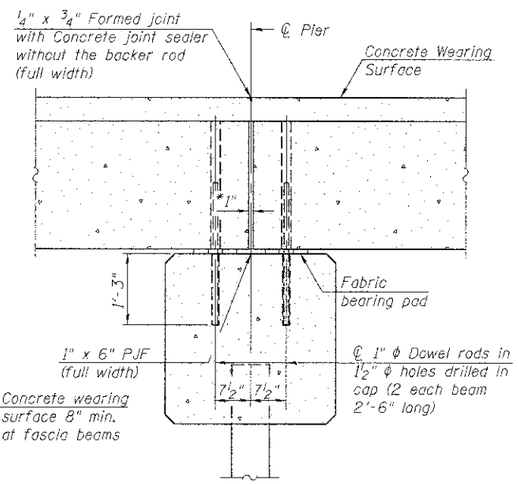
CROSS SECTION
(Looking East)

Notes:
See sheet 5 of 27 for Superstructure Details and Bill of Material.
Bars indicated thus 20 x 2 - #4 etc. indicates 20 lines of bars with 2 lengths per line.



SECTION A-A

Notes:
All concrete wearing surfaces shall be placed prior to casting a backwall and/or approach slab.
See sheet 11 of 27 for fabric bearing pad details.



SECTION B-B

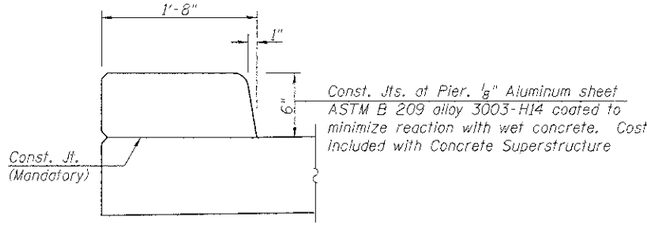
*1" Jt. shall be filled with non-shrink grout. 1" dimension may vary to accommodate tolerance in beam lengths.

MINIMUM BAR LAP
#4 bar = 2'-7"
#5 bar = 3'-3"

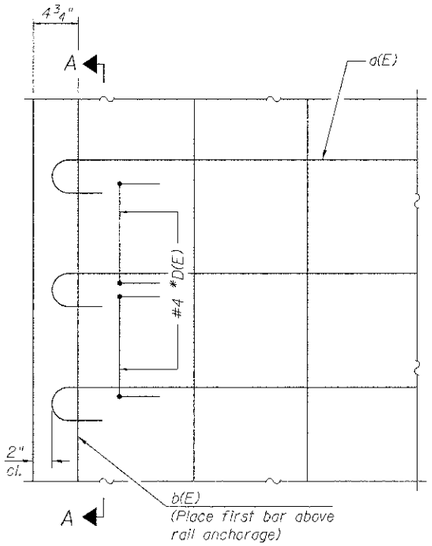
FILE NAME = e:\pw\16000-16999\16842-007\sources\cadd sheets\structural\W95-3192-03666-004-SUPER.dgn

STRAND ASSOCIATES® 1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200 IDFPR NO. 184-001273	USER NAME = brianf	DESIGNED RRD	REVISED -	MCHENRY COUNTY DIVISION OF TRANSPORTATION HILL ROAD BRIDGE OVER NORTH BRANCH NIPPERSINK CREEK	SUPERSTRUCTURE STRUCTURE NO. 056-3192 SHEET NO. 4 OF 27 SHEETS
		CHECKED AJS	REVISED -		
	PLOT SCALE =	DRAWN BJF	REVISED -		
	PLOT DATE = 8/23/2012	CHECKED RRD	REVISED -		

TR	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
21	08-00356-00-BR	MCHENRY	77 | 34
		CONTRACT NO. 63666	
	ILLINOIS FED. AID PROJECT		

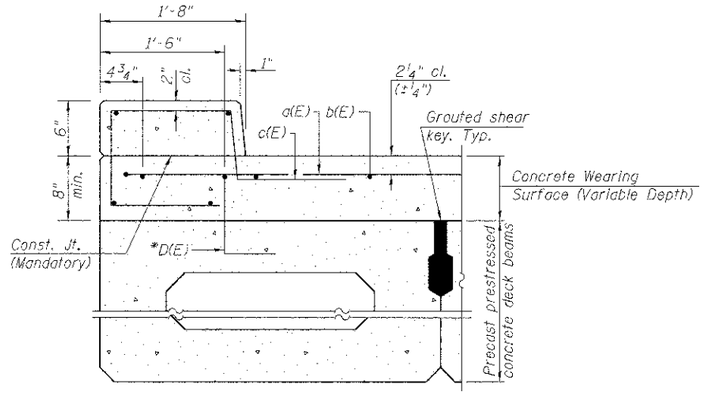


CURB JOINT DETAILS

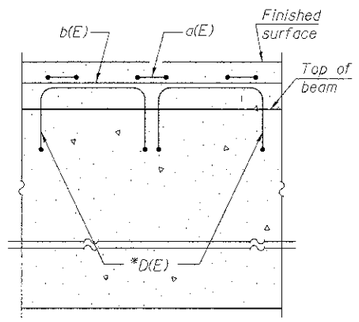


PLAN
At Curb

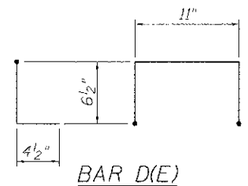
Notes:
Form work necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam.



SECTION THRU FASCIA BEAM
Rail Post anchorage not shown for clarity

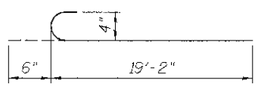


SECTION A-A

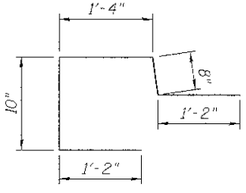


BAR D(E)

* Place 2-#4 D(E) bars in beam at each post location as shown. D(E) bar included in cost of beam.

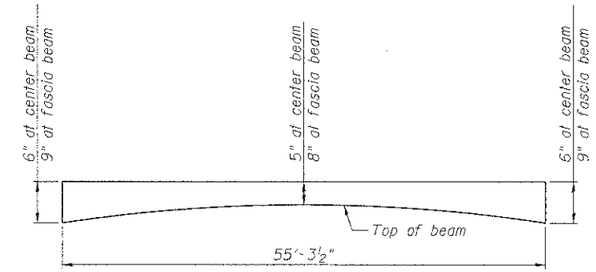


BAR a(E)



BAR c(E)

MINIMUM BAR LAP
#4 bar = 2'-7"
#5 bar = 3'-3"



ANTICIPATED CONCRETE WEARING SURFACE PROFILE
(For information only)

Estimated Final Beam Camber = 1"

SUPERSTRUCTURE
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	224	#4	19'-8"	C
b(E)	160	#4	29'-9"	—
b_1(E)	16	#5	29'-4"	—
c(E)	280	#5	5'-2"	L
Reinforcement Bars, Epoxy Coated			Pound	8,120
Concrete Wearing Surface, (Variable Depth)			Cu. Yd.	83
Concrete Superstructure			Cu. Yd.	7
Bridge Deck Grooving			Sq. Yd.	378
Protective Coat			Sq. Yd.	455

Bars indicated thus 20 x 2 - #4 etc. indicates 20 line of bars with 2 lengths per line.

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

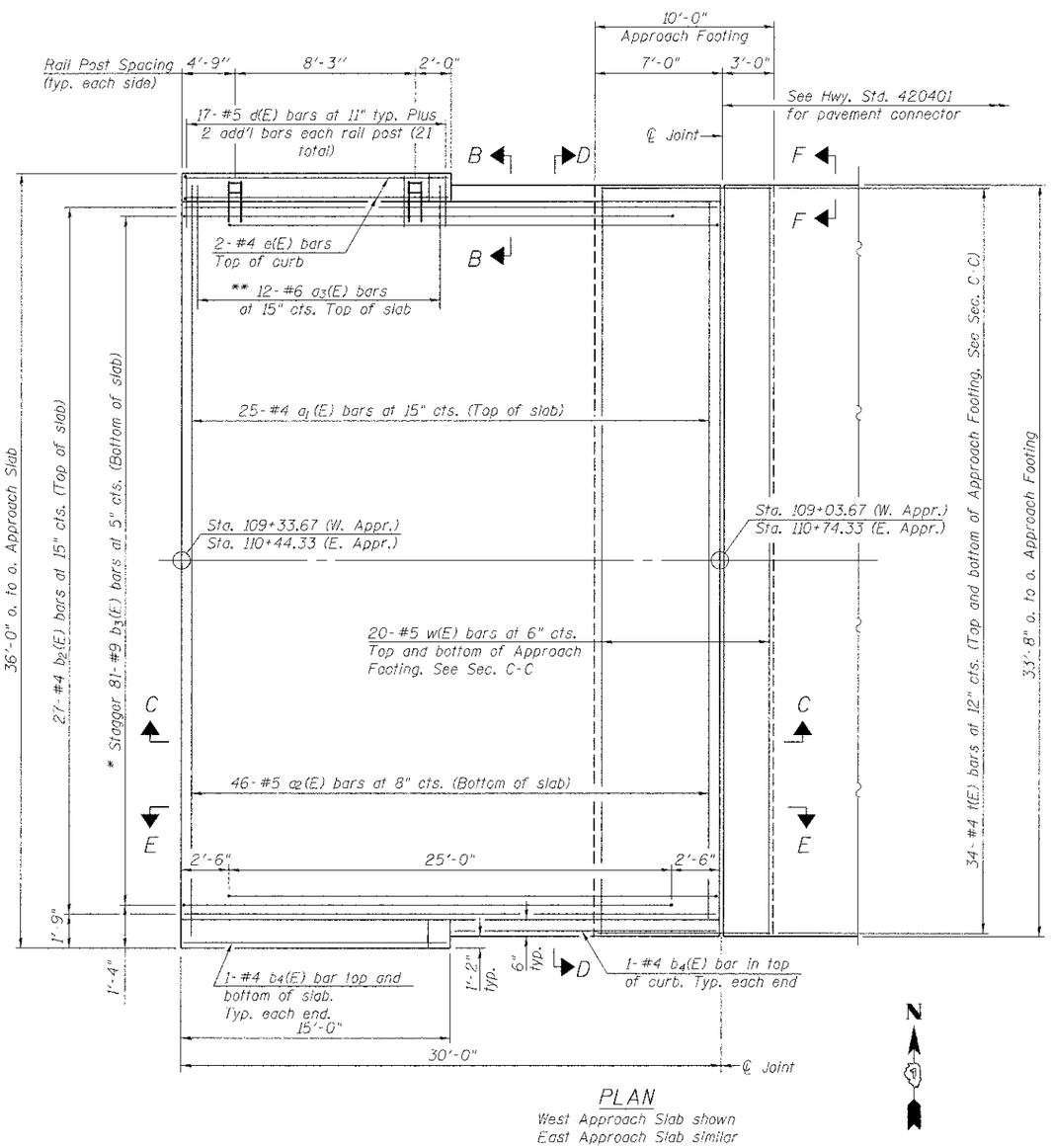
USER NAME = brianf	DESIGNED RRD	REVISED -	
	CHECKED AJS	REVISED -	
PLOT SCALE =	DRAWN BJF	REVISED -	
PLOT DATE = 6/23/2012	CHECKED RRD	REVISED -	

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

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 056-3192
SHEET NO. 5 OF 27 SHEETS

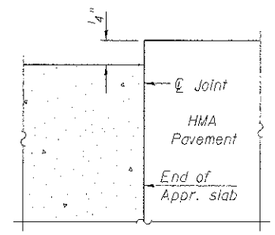
TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	35
		CONTRACT NO. 63666		
	ILLINOIS FED. AID PROJECT			

Notes:
See Sheet 7 of 27 for Sections C-C & D-D and View E-E.
d(E) and a_1(E) bar spacings measured along ℄ Rdwy.
See Sheet 5 of 27 for Curb Details.
See Sheets 8 and 9 of 27 for Railing Details.
See Sheet 7 of 27 for location of Detail A.



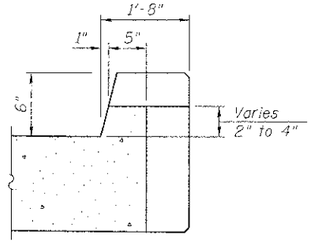
PLAN
West Approach Slab shown
East Approach Slab similar

* Tilt #9 b_3(E) bars as required to maintain clearance.
** Space between a_1(E) bars, typ. ea. curb.



FLEXIBLE PAVEMENT

DETAIL A



VIEW B-B

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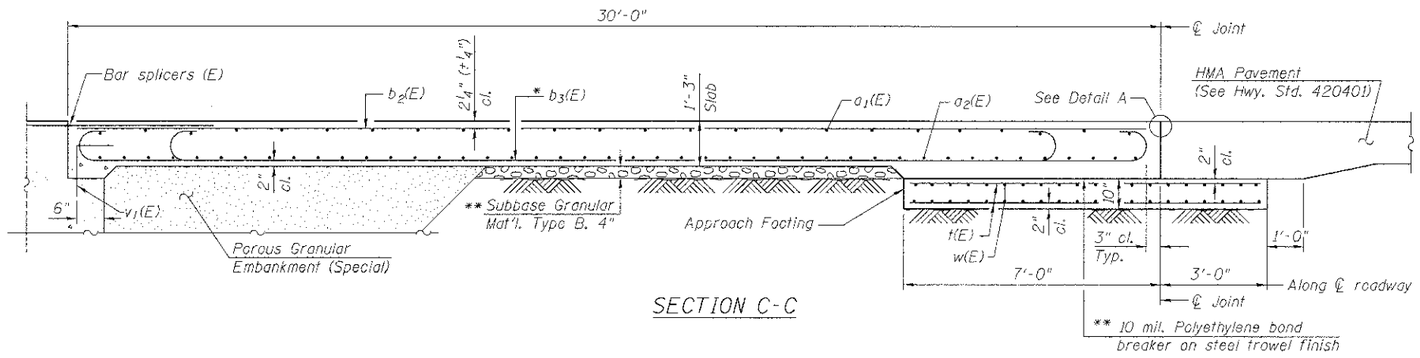
STRAND ASSOCIATES
1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
ILDFPR NO. 184-001273

USER NAME = brianf	DESIGNED RRD	REVISED -	
	CHECKED AJS	REVISED -	
PLOT SCALE =	DRAWN BJF	REVISED -	
PLOT DATE = 8/23/2012	CHECKED RRD	REVISED -	

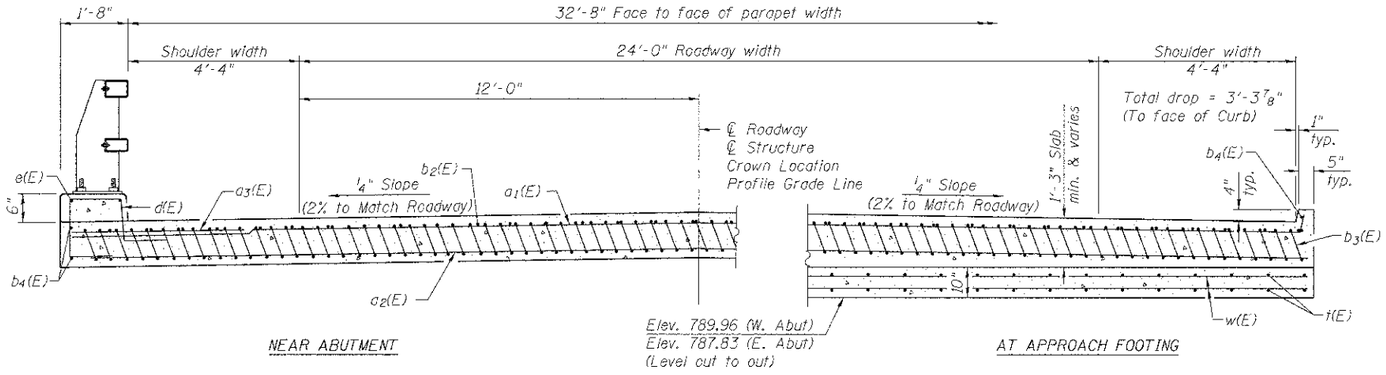
MCHENRY COUNTY DIVISION OF TRANSPORTATION
HILL ROAD BRIDGE OVER
NORTH BRANCH NIPPERSINK CREEK

BRIDGE APPROACH SLAB DETAILS (1 OF 2)
STRUCTURE NO. 056-3192
SHEET NO. 6 OF 27 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	36
		CONTRACT NO. 63666		
	ILLINOIS FED. AID PROJECT			



SECTION C-C



NEAR ABUTMENT

AT APPROACH FOOTING

SECTION D-D

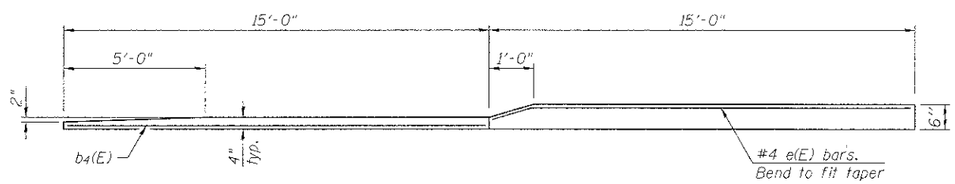
(See Plan for dimensions not shown)

Notes:

See Sheet 6 of 27 for Detail A and View B-B.
Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For $v_1(E)$ bar details, see Sheet 12 of 27.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see Sheet 2 of 27.
For additional parapet details, see Sheet 8 and 9 of 27.

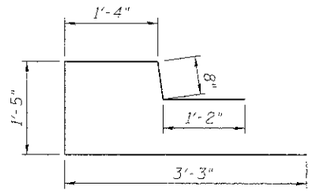
* Tilt #9 $b_1(E)$ bars as required to maintain clearance.

** Cost included with Concrete Superstructure.

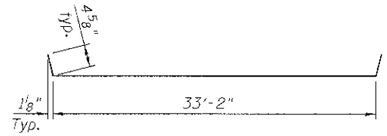


VIEW E-E

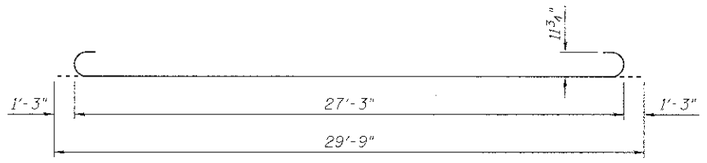
At Curb



BAR d(E)



BAR $a_1(E)$



BAR $b_3(E)$

TWO APPROACHES

BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
$a_1(E)$	50	#4	34'-0"		
$a_2(E)$	92	#5	33'-4"		
$a_3(E)$	48	#6	6'-6"		
$b_2(E)$	54	#4	29'-8"		
$b_3(E)$	162	#9	29'-9"		
$b_4(E)$	12	#4	14'-8"		
d(E)	84	#5	7'-10"		
e(E)	8	#4	14'-8"		
f(E)	136	#4	9'-8"		
w(E)	80	#5	33'-4"		
Concrete Superstructure			Cu. Yd.	100	
Concrete Structures			Cu. Yd.	21	
Reinforcement Bars, Epoxy Coated			Pound	23,040	***
Reinforcement Bars, Epoxy Coated			Pound	3,660	****
Bridge Deck Grooving			Sq. Yd.	205	
Protective Coat			Sq. Yd.	228	

*** Included in Superstructure
**** Included in Substructure

FILE NAME = e:\pw\60680-689\60642\00\micros\cad sheets\structural\056-3192-63666-006-SAP.dgn

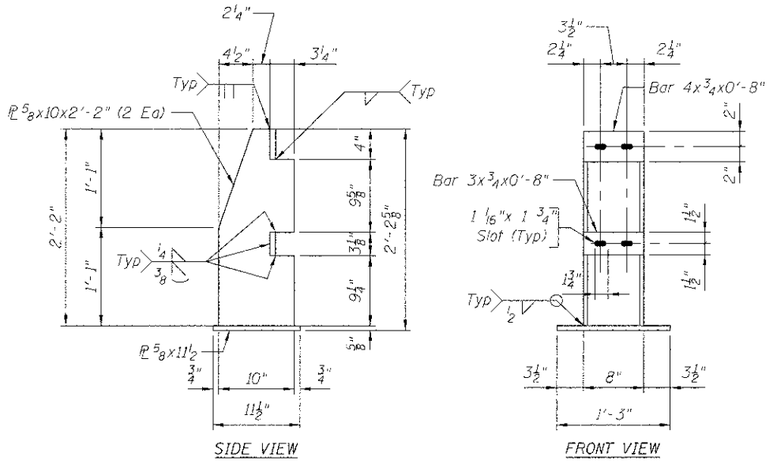
STRAND ASSOCIATES® 1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200 IDFPR NO. 184-001273

USER NAME = brianf	DESIGNED RRD	REVISED -	
	CHECKED AJS	REVISED -	
PLOT SCALE =	DRAWN BJF	REVISED -	
PLOT DATE = 6/23/2012	CHECKED RRD	REVISED -	

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

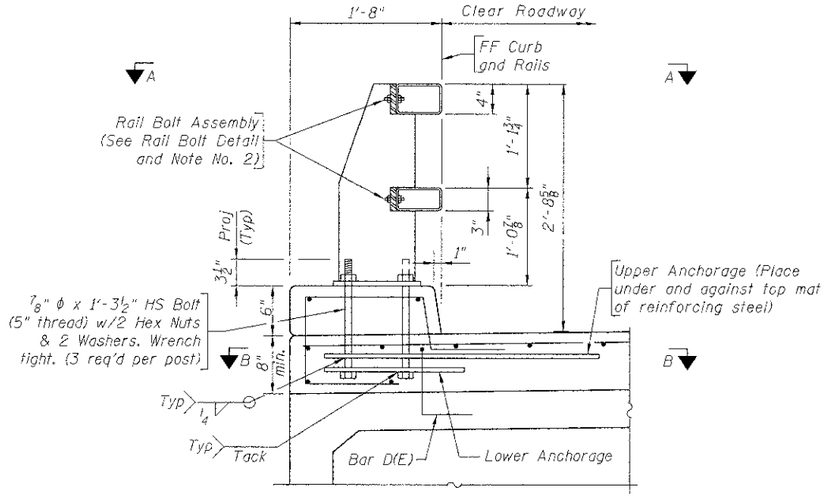
BRIDGE APPROACH SLAB DETAILS (2 OF 2)
STRUCTURE NO. 056-3192
SHEET NO. 7 OF 27 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	37
		CONTRACT NO. 63666		
	ILLINOIS FED. AID PROJECT			



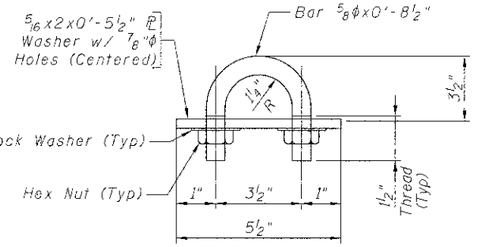
POST DETAILS

(See View A-A for anchor bolt hole spacing)

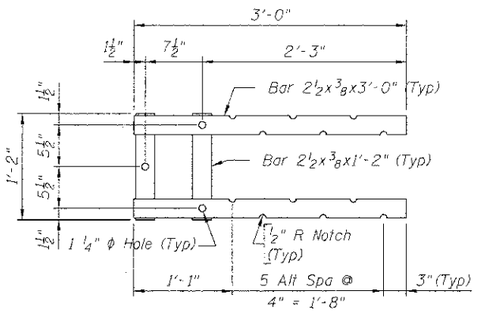


ASSEMBLY DETAIL

(Shown near ℄ Post)
(Bridge slab shown, approach slab similar)

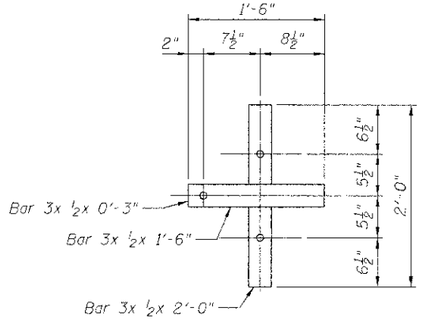


RAIL BOLT DETAIL



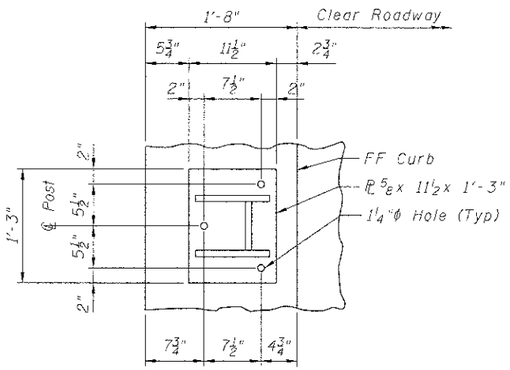
SECTION B-B

(Showing upper anchorage)
(Anchor Bolts and slab not shown)



SECTION B-B

(Showing lower anchorage)
(Anchor Bolts and slab not shown)



VIEW A-A

(anchor bolts, rails and rail bolts not shown)

Note:
1) Anchor bolts may be tack welded to lower anchorage (Shop or field).
2) At post locations, drill two 1 1/16" ϕ holes in the rails to receive rails bolts (Shop or field). See Post Details for hole spacing
3) Before installing rails, paint all cut, drilled or otherwise damaged surface areas of the railing components with two coats of zinc rich paint conforming to the requirements of ASTM A 780
4) After installing the rails, paint all exposed bolt threads with two coats of zinc rich paint conforming to the requirements of ASTM A 780.
5) Steel components shall be galvanized according to AASHTO M111, unless noted otherwise.
6) Shim Plates shall be provided in accordance with Article 509.05(a) of the Standard Specifications.

BILL OF MATERIAL

Item	Unit	Total
Steel Railing (Special)	Foot	282

FILE NAME = s:\pw\56800-69999\68412-0087\microstation\sheets\structural\056-3192 63666-999-WRAIL.dgn

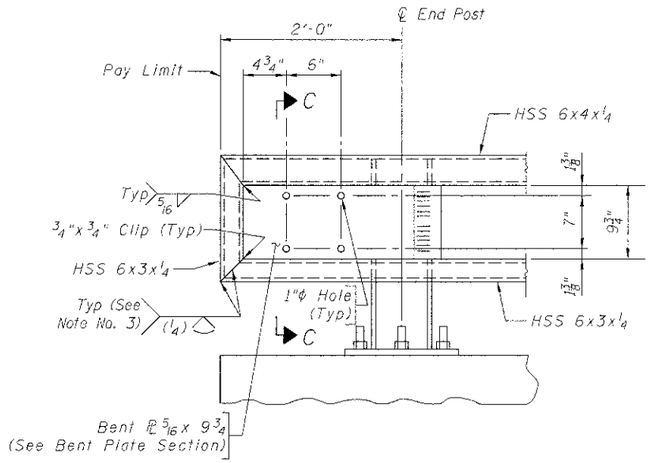
SA STRAND ASSOCIATES® IDFPR NO. 184-001273
1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200

USER NAME = brianf	DESIGNED RRD	REVISED -
	CHECKED AJS	REVISED -
PLOT SCALE =	DRAWN BJF	REVISED -
PLOT DATE = 8/23/2012	CHECKED RRD	REVISED -

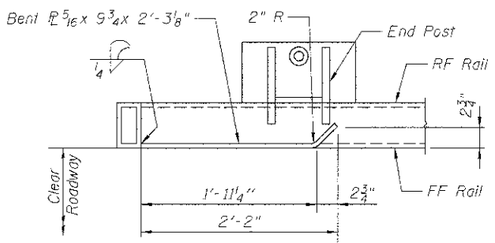
MCHENRY COUNTY DIVISION OF TRANSPORTATION
HILL ROAD BRIDGE OVER
NORTH BRANCH NIPPERSINK CREEK

WYOMING 2-TUBE BRIDGE RAILING DETAILS (1 OF 2)
STRUCTURE NO. 056-3192
SHEET NO. 8 OF 27 SHEETS

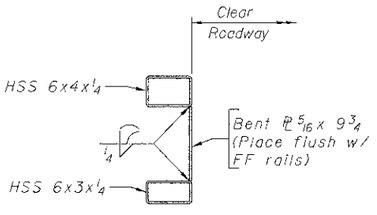
TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	38
		CONTRACT NO. 63666		
	ILLINOIS FED. AID PROJECT			



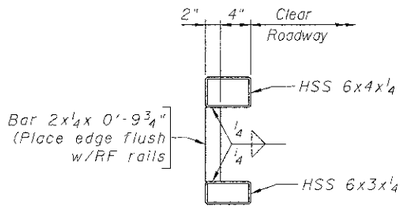
ELEVATION AT TRAFFIC BARRIER TERMINAL (SPECIAL) (DEPARTURE ENDS)



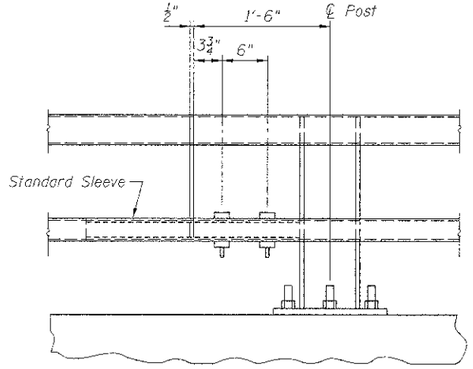
BENT PLATE SECTION
(Top rail not shown)



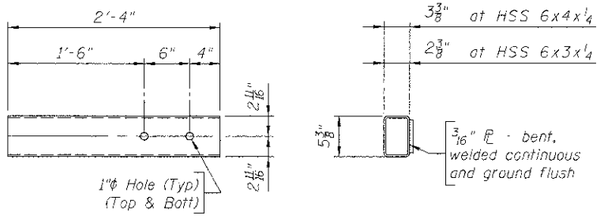
SECTION C-C



BRACE BAR DETAIL
(See Note No. 4)

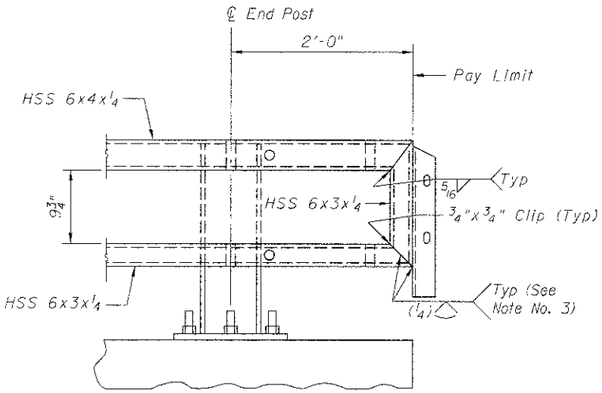


STANDARD SPLICE
(Top or bottom rail)

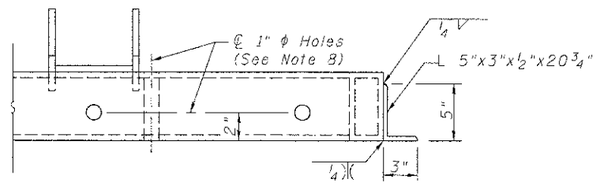


TOP VIEW END VIEW

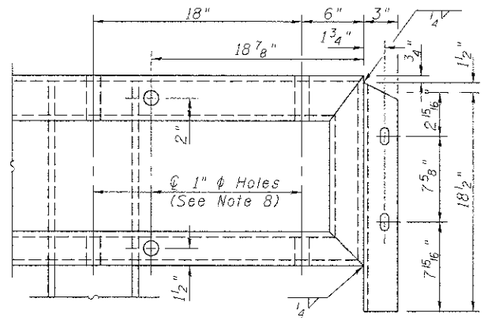
STANDARD SLEEVE DETAILS



ELEVATION AT TERMINAL TYPE 6A (SPECIAL) (APPROACH ENDS)



TOP VIEW



FRONT VIEW

END CONNECTION ANGLES (APPROACH ENDS ONLY)

NOTES

1) Either top or bottom rail in terminal section may be the longer rail.
2) Ensure each rail length is continuous over a minimum of two posts. Railing that is part of a Traffic Barrier Terminal is continuous if either the top or bottom rail in the terminal is continuous over a minimum of two posts.
3) Ensure the fabricator prepares a sample of the indicated joint and it is macro etched to demonstrate that the required effective throat is achieved.
4) Ensure a Brace Bar is placed 2'-0" from the splice end of the shorter tube at Traffic Barrier Terminals.
5) Splices may be located on either side of post.
6) Not more than one splice is permitted per side of post.
7) Do not shop splice rails.
8) Holes in steel railing may be field drilled for connection to Traffic Barrier Terminals. Any galvanized steel exposed or damaged by drilling operation shall be painted with two coats of a zinc-rich paint conforming to ASTM A 780.

FILE NAME = m:\pl\16869 - 0899\6842\087\micro\load sheets\structural\056-3192-63666-009-WRAIL.dgn

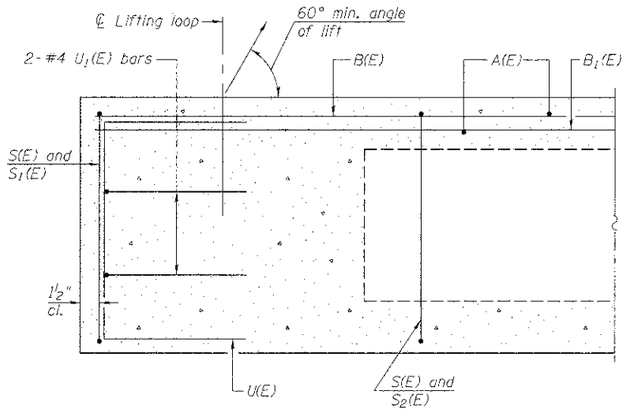
STRAND ASSOCIATES
1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
IDFPR NO. 184-001273

USER NAME = brienf	DESIGNED RRD	REVISED -	
	CHECKED AJS	REVISED -	
PLOT SCALE =	DRAWN BJF	REVISED -	
PLOT DATE = 8/23/2012	CHECKED RRD	REVISED -	

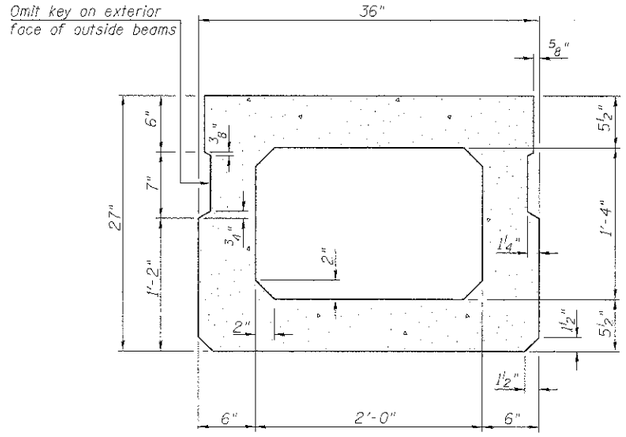
MCHENRY COUNTY DIVISION OF TRANSPORTATION
HILL ROAD BRIDGE OVER
NORTH BRANCH NIPPERSINK CREEK

WYOMING 2-TUBE BRIDGE RAILING DETAILS (2 OF 2)
STRUCTURE NO. 056-3192
SHEET NO. 9 OF 27 SHEETS

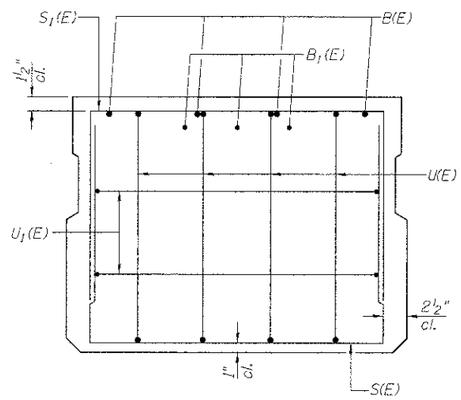
TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	39
		CONTRACT NO. 63666		
		ILLINOIS FED. AID PROJECT		



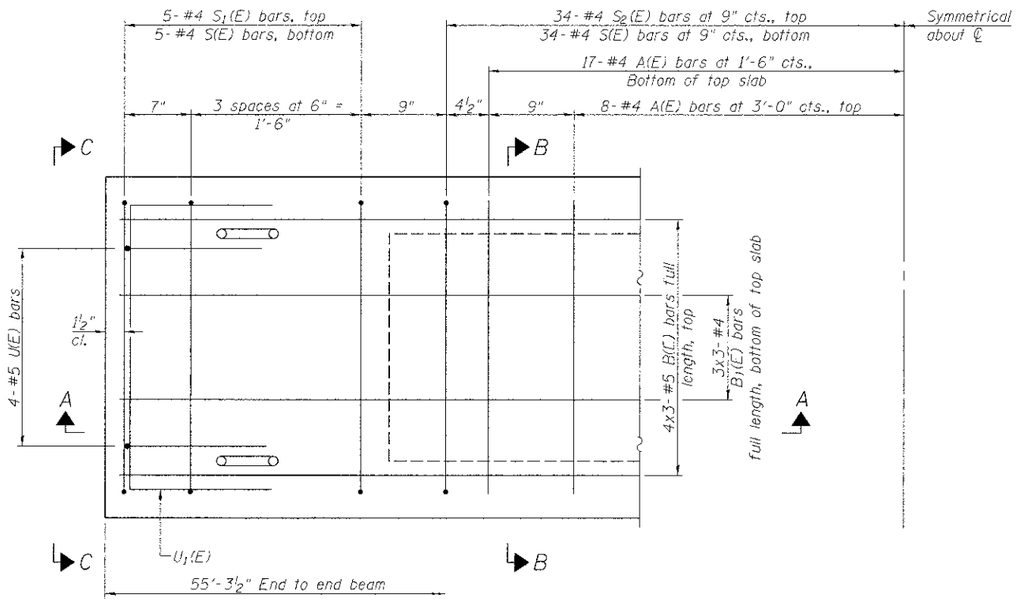
SECTION A-A



SECTION B-B
(Showing dimensions)

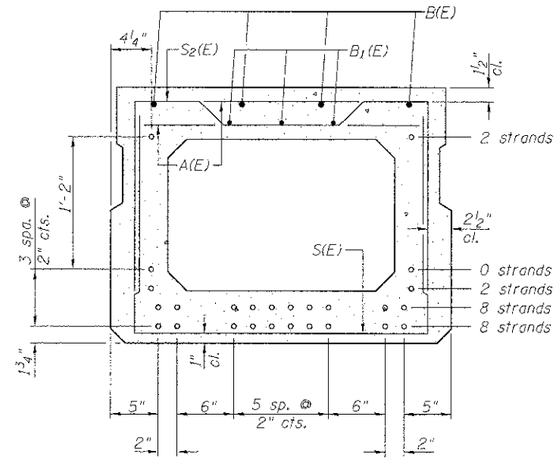


VIEW C-C



PLAN VIEW

Note: Spacing of S(E) and $S_2(E)$ bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.



SECTION B-B
(Showing reinforcement and permissible strand locations)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

MINIMUM BAR LAP

#4 bar = 2'-0"
#5 bar = 2'-6"

DESIGN STRESSES

f'c = 6,000 psi
f'ci = 5,000 psi
fpu = 270,000 psi (1/2"ϕ low lax. strands)
fpbt = 201,960 psi (1/2"ϕ low lax. strands)

BAR LIST

ONE BEAM ONLY

(For information only)

Bar	No.	Size	Length	Shape
A(E)	50	#4	2'-7"	—
B(E)	12	#5	20'-2"	—
$B_1(E)$	9	#4	19'-10"	—
D(E)	14	#4	2'-9"	⌊⌋
S(E)	78	#4	6'-5"	⌊⌋
$S_1(E)$	10	#4	5'-11"	⌐¬
$S_2(E)$	68	#4	6'-2"	⌐¬
U(E)	8	#5	4'-6"	⊏
$U_1(E)$	4	#4	5'-0"	⌐¬

Note:
See Sheet 11 of 27 for additional details and Bill of Material.
Bars indicated thus 4x3-#5 ect. indicates 4 lines of bars with 3 lengths per line.
See Sheet 5 of 27 for D(E) bar bend diagram.

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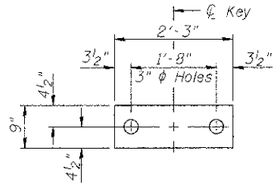
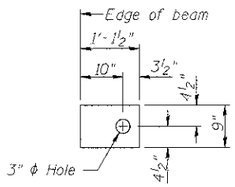
PD-2736-0 7-1-10

STRAND ASSOCIATES® 1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200 IDFPR NO. 184-001273	USER NAME = brianf	DESIGNED RRD	REVISED -	MCHENRY COUNTY DIVISION OF TRANSPORTATION HILL ROAD BRIDGE OVER NORTH BRANCH NIPPERSINK CREEK	27" x 36" PPC DECK BEAM STRUCTURE NO. 056-3192	TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED AJS	REVISED -			21	08-00356-00-BR	MCHENRY	77	40
	PLOT SCALE =	DRAWN BJF	REVISED -						CONTRACT NO. 63666	
	PLOT DATE = 8/23/2012	CHECKED RRD	REVISED -		SHEET NO. 10 OF 27 SHEETS			ILLINOIS FED. AID PROJECT		



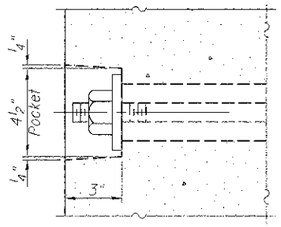
FABRIC BEARING PAD
(Interior)



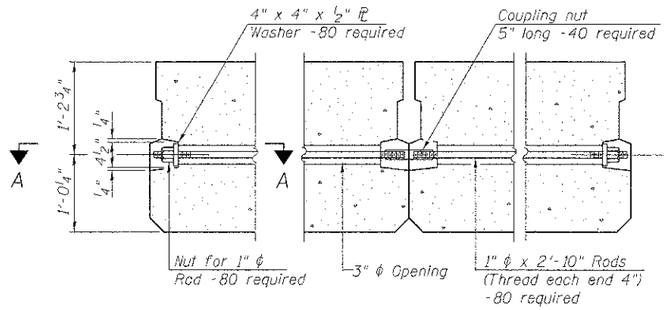
FABRIC BEARING PAD
(Exterior)

FIXED

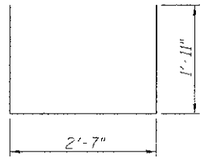
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



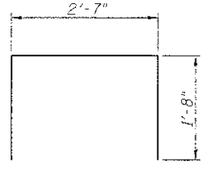
SECTION A-A



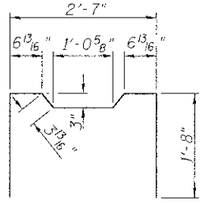
TYPICAL TRANSVERSE TIE ASSEMBLY



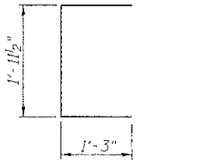
BAR S(E)



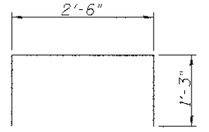
BAR S_1(E)



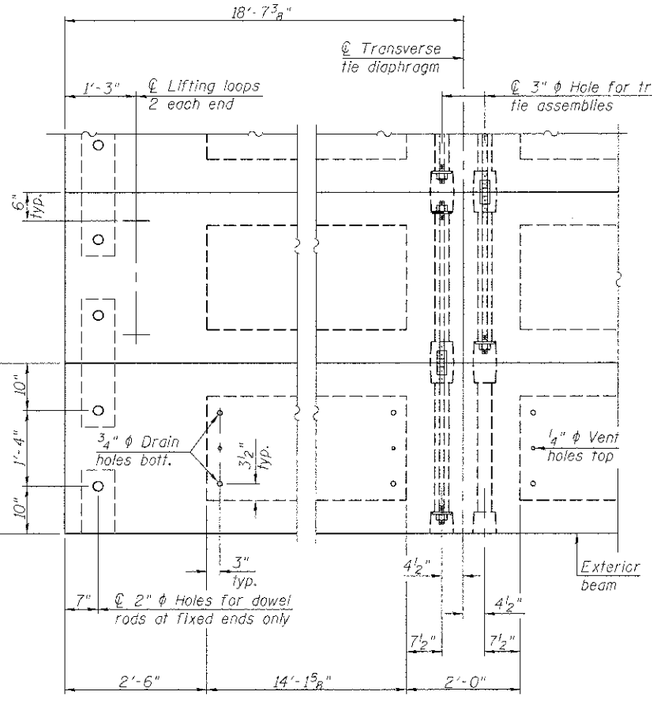
BAR S_2(E)



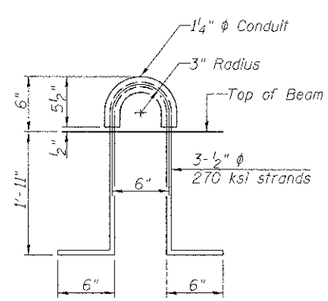
BAR U(E)



BAR U_1(E)



PLAN VIEW



LIFTING LOOP DETAIL

Note: Connect beams in pairs with the transverse tie configuration shown.

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.

The 1" ϕ rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).

Two ⅛" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 2½" ϕ lifting pin shall be used to engage the lifting loops during handling.

Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (27" depth)	Sq. Ft.	3,981

PD-2736-0D 7-1-10

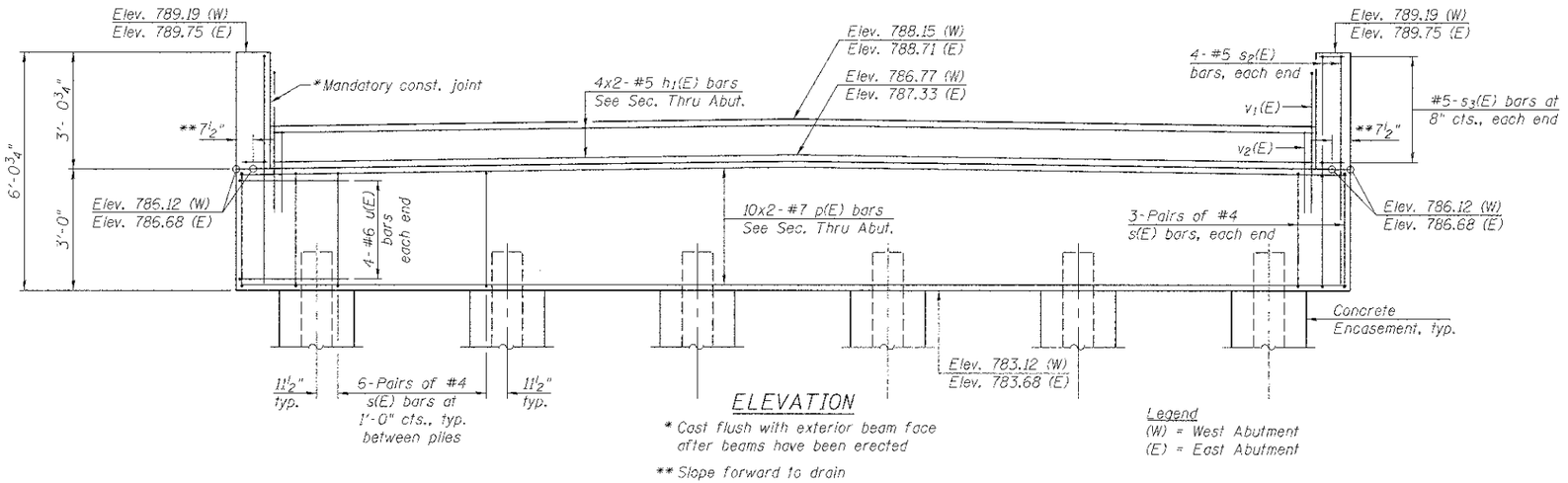
SA STRAND ASSOCIATES® 1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200 IDFPR NO. 184-001273

USER NAME = brianf	DESIGNED RRD	REVISED -	
	CHECKED AJS	REVISED -	
PLOT SCALE =	DRAWN BJF	REVISED -	
PLOT DATE = 8/23/2012	CHECKED RRD	REVISED -	

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

27" x 36" PPC DECK BEAM DETAILS
STRUCTURE NO. 056-3192
SHEET NO. 11 OF 27 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	41
		CONTRACT NO. 63666		
	ILLINOIS	FED. AID PROJECT		

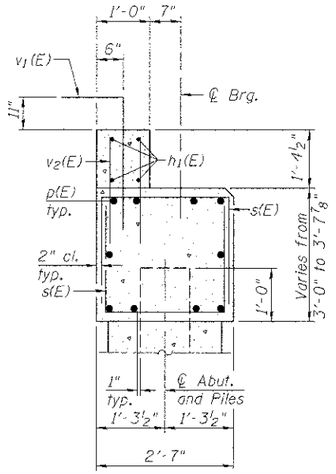


ELEVATION

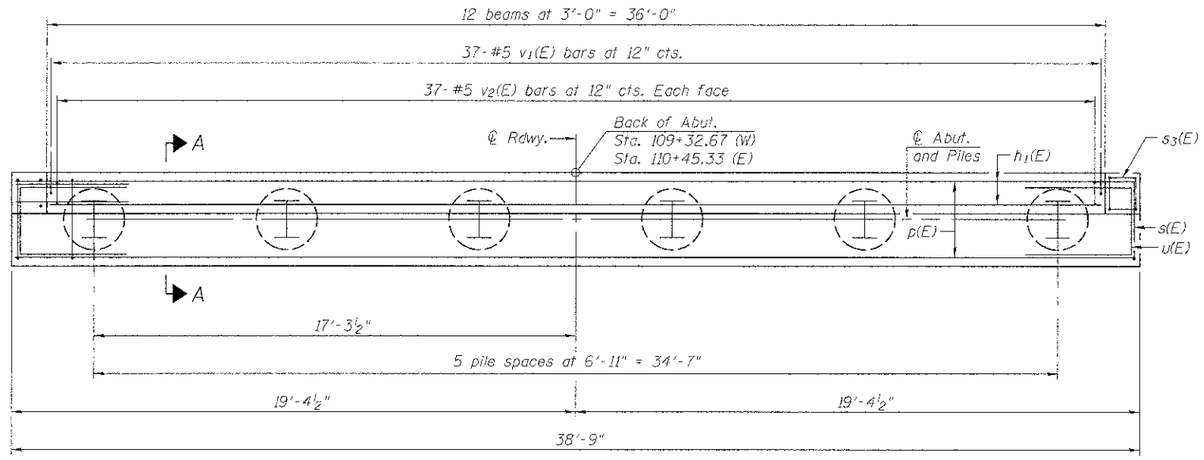
* Cast flush with exterior beam face after beams have been erected

** Slope forward to drain

Legend
(W) = West Abutment
(E) = East Abutment



SECTION A-A



PLAN

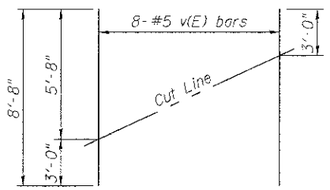
West Abutment shown
East Abutment similar

PILE DATA

West Abutment
Type: HP 14x73 with Pile Shoes
Nominal Required Bearing: 360 kips
Factored Resistance Available: 180 kips
Est. Length: 40 feet
No. Production Piles: 4
No. Test Piles: 2

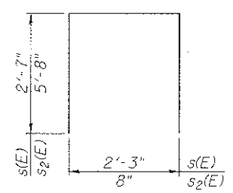
East Abutment
Type: HP 14x73 with Pile Shoes
Nominal Required Bearing: 360 kips
Factored Resistance Available: 180 kips
Est. Length: 53 feet
No. Production Piles: 5
No. Test Piles: 1

Notes:
Contractor shall drive a total of three (3) test piles in a permanent location, one at the East Abutment and two at the West Abutment as directed by the engineer, before ordering the remainder of piles.
An abandoned railroad embankment may be encountered behind the existing west abutment. Piles shall be driven through embankment.



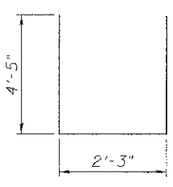
FIELD CUTTING DIAGRAM

Order v(E) bars full length. Cut as shown and use remainder of bars in opposite face.

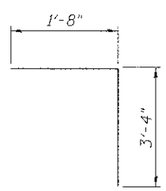


BAR s(E) & s2(E)

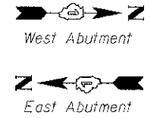
Vary lap length in pair to maintain a 2" clearance.



BAR u(E)

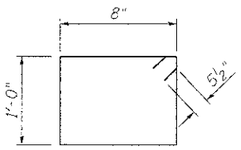


BAR v1(E)



MINIMUM BAR LAP

#5 bar = 3'-3"
#7 bar = 5'-10"



BAR s3(E)

BILL OF MATERIAL

Two Abutments

Bar	No.	Size	Length	Shape
h1(E)	16	#5	19'-7"	
p(E)	40	#7	22'-2"	
s(E)	152	#4	7'-5"	
s2(E)	16	#5	12'-0"	
s3(E)	20	#5	4'-3"	
u(E)	4	#6	11'-1"	
v1(E)	74	#5	5'-0"	
v2(E)	74	#5	4'-2"	

Structure Excavation	Cu. Yd.	75
Concrete Structures	Cu. Yd.	32
Reinforcement Bars, Epoxy Coated	Pound	4,160
Furnishing Steel Piles, HP 14x73	Foot	425
Driving Piles	Foot	425
Test Pile, Steel HP 14x73	Each	3
Concrete Encasement	Cu. Yd.	7
Pile Shoes	Each	12
Concrete Sealer	Sq. Ft.	328

Notes:
For details of piles and Concrete Encasement, see Sheet 14 of 27.
Cast backwall after beams and concrete wearing surface have been erected.
Bar indicated thus 1x2-#5 ect. indicates 1 line of bars with 2 lengths per line.
Apply Concrete Sealer to abutment seats, backwall, and exposed faces of the wingwalls.

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

USER NAME = briant	DESIGNED RRD	REVISED -	
	CHECKED AJS	REVISED -	
PLOT SCALE =	DRAWN BJF	REVISED -	
PLOT DATE = 8/23/2012	CHECKED RRD	REVISED -	

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

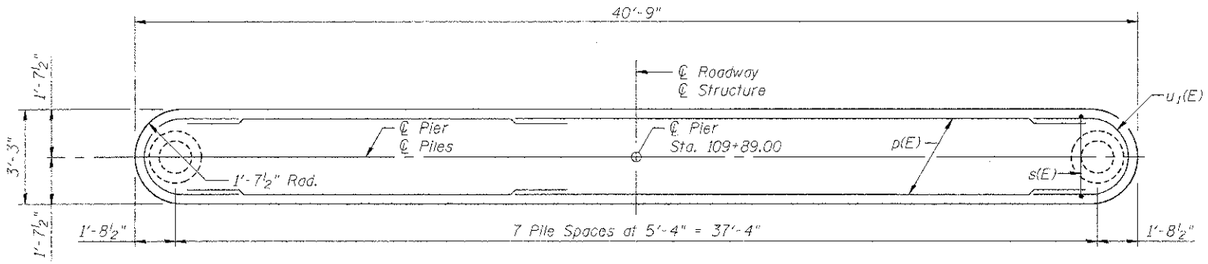
ABUTMENTS DETAILS
STRUCTURE NO. 056-3192
SHEET NO. 12 OF 27 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	42
		CONTRACT NO. 63666		
		ILLINOIS FED. AID PROJECT		

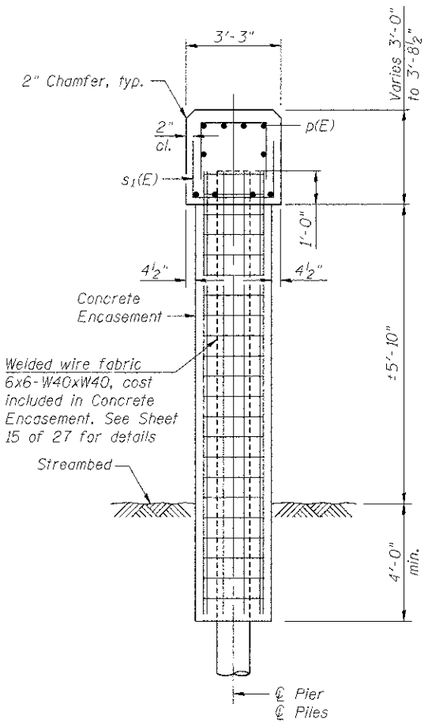
FILE NAME = s:\plot\56200-699\56421007\micros\cadd sheets\structural\056-3192-56855-812-whbdf.dgn

PILE DATA

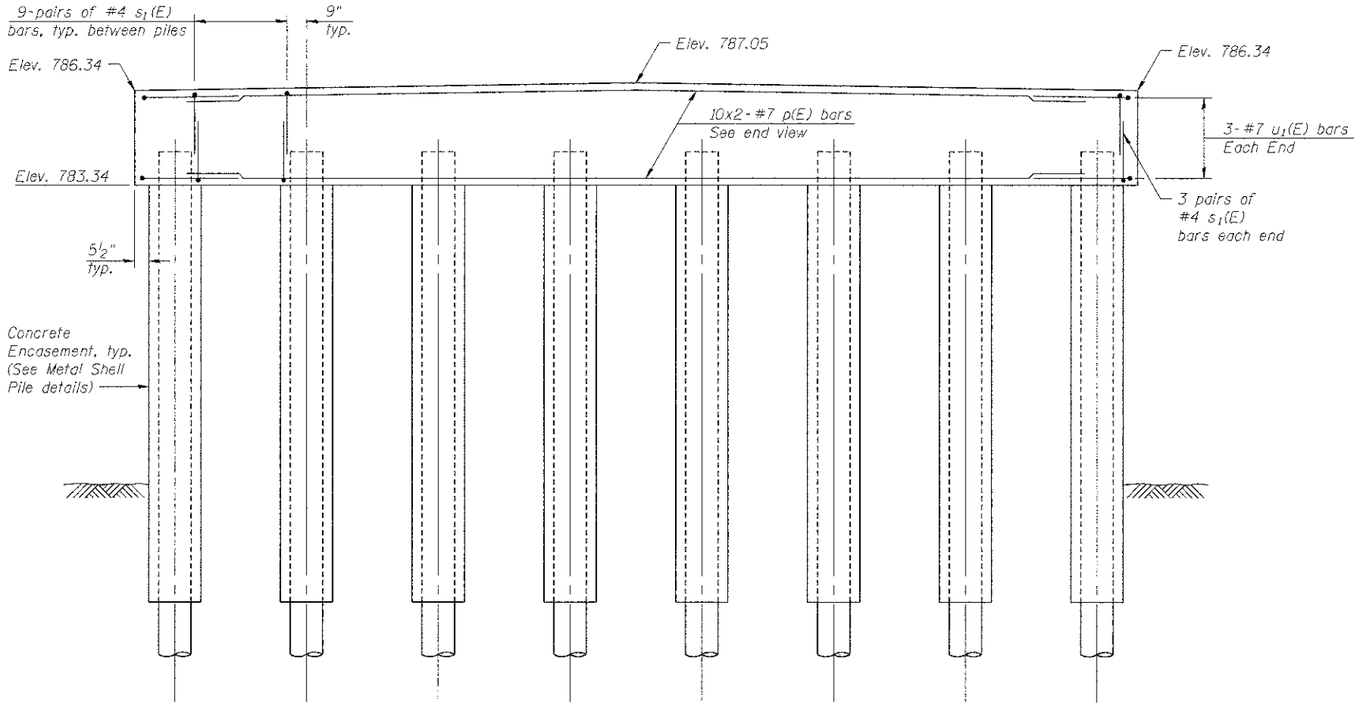
Type: Metal Shell-14"ϕx0.312" walls with Pile Shoes
Nominal Required Bearing: 360 kips
Factored Resistance Available: 180 kips
Est. Length: 28'-0"
No. Production Piles: 7
No. Test Piles: 1



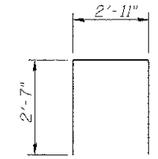
TOP PLAN



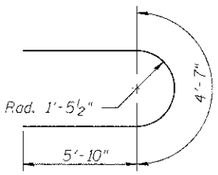
END VIEW



ELEVATION
(Looking East)



BAR s1(E)



BARS u1(E)

MINIMUM BAR LAP

#7 bar = 5'-10"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
p(E)	20	#7	21'-8"	
s1(E)	138	#4	8'-1"	
u1(E)	6	#7	16'-3"	
Cofferdam Excavation			Cu. Yd.	43
Cofferdam (Type 1) (Location-1)			Each	1
Concrete Structures			Cu. Yd.	17
Reinforcement Bars, Epoxy Coated			Pound	1,830
Furnishing Metal Shell Piles, 14"x0.312"			Foot	196
Driving Piles			Foot	196
Test Pile Metal Shells			Each	1
Concrete Encasement			Cu. Yd.	12
Pile Shoes			Each	8
Concrete Sealer			Sq. Ft.	411

Notes:
Space reinforcement in cap to miss anchor dowel rods.
For details of piles and concrete encasement, see Sheet 15 of 27.
Bar indicated thus 10x2-#5 ect. indicates 10 lines of bars with 2 lengths per line.
Apply Concrete Sealer to top and sides of pier cap.
See Sheet 15 of 27 for Concrete Encasement details.
See Erosion Control sheet for location of cofferdam.

FILE NAME = s:\pw\d0888-68999\08426\RW7\micros\send sheets\structural\056-3192-53666-913-PIER.dgn

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

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	CHECKED AJS	REVISED -
PLOT SCALE =	DRAWN BJF	REVISED -
PLOT DATE = 8/23/2012	CHECKED RRD	REVISED -

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

PIER DETAILS
STRUCTURE NO. 056-3192
SHEET NO. 13 OF 27 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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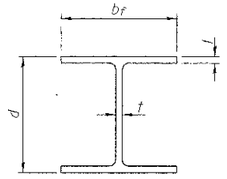
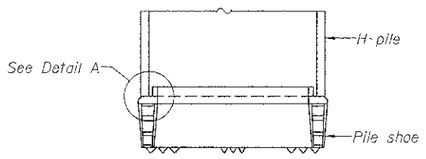
		CONTRACT NO. 63666		
	ILLINOIS FED. AID PROJECT			

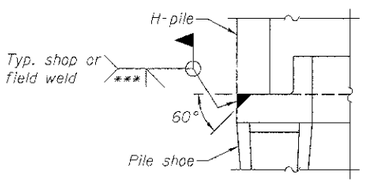


STEEL PILE TABLE

Designation	Depth d	Flange width b_f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"

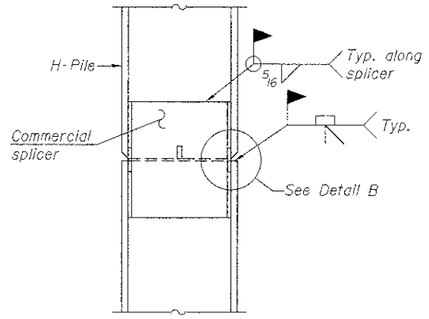


ELEVATION



DETAIL A

H-PILE SHOE ATTACHMENT



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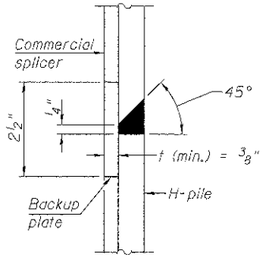
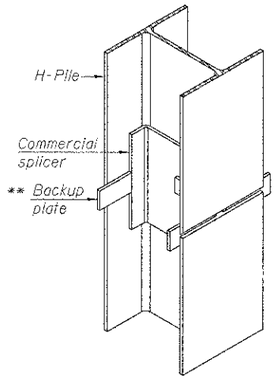
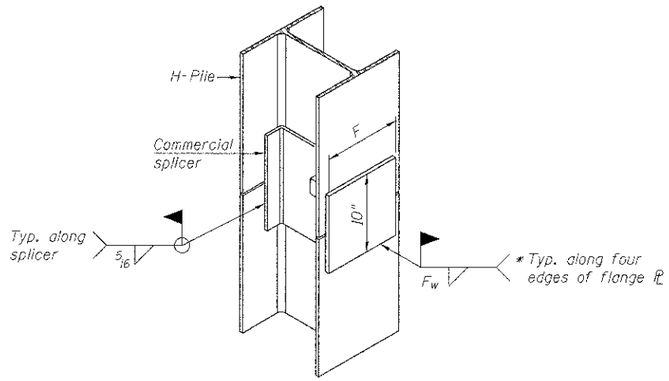


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



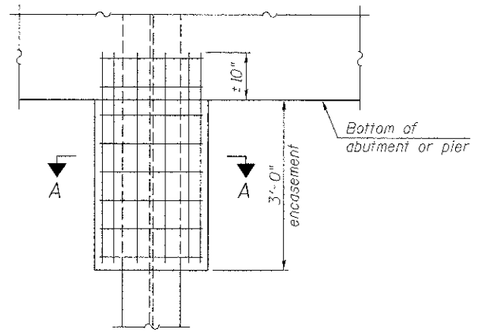
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

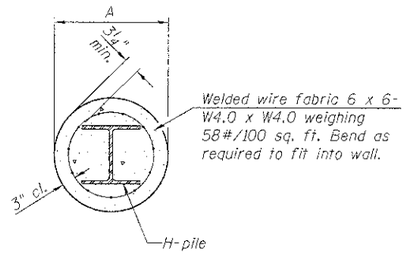
* Interrupt welds 1/4" from end of web and/or each flange.

** Remove portions of backup plates that extend outside the flanges.

*** Weld size per pile shoe manufacturer (5/16" min.).



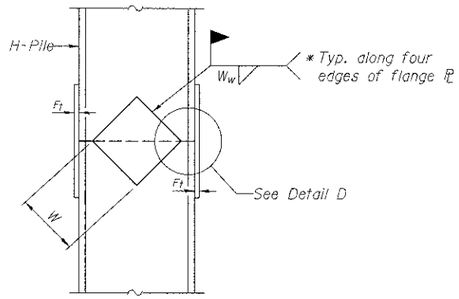
ELEVATION



Note:
Forms for encasement may be omitted when soil conditions permit.

SECTION A-A

PILE ENCASEMENT



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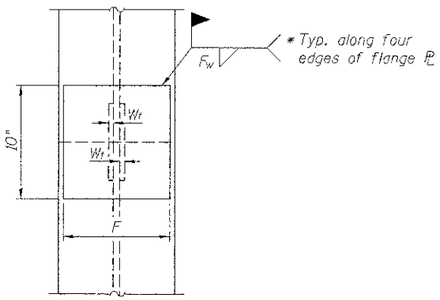
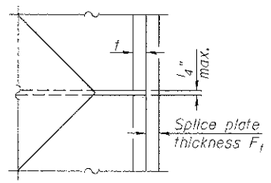


END VIEW



DETAIL D

Designation	F	F_t	F_w	W	W_t	W_w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

WELDED PLATE FIELD SPLICE

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

F-HP 7-1-10

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PLOT DATE = 8/23/2012	CHECKED RRD	REVISED -	

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

HP PILE DETAILS
STRUCTURE NO. 056-3192
SHEET NO. 14 OF 27 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	44
		CONTRACT NO. 63666		
	ILLINOIS FED. AID PROJECT			

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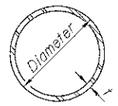
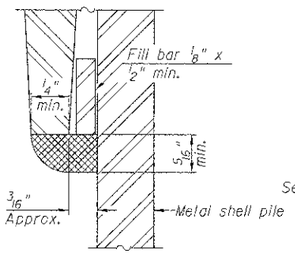
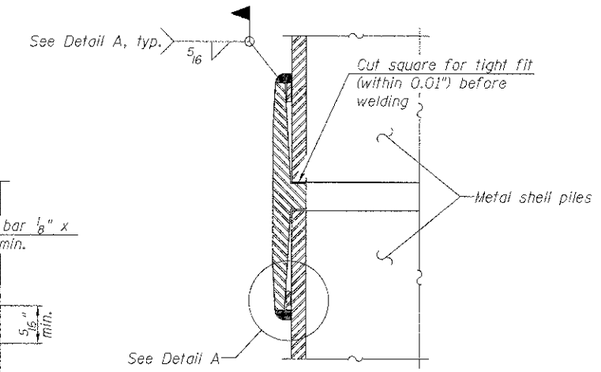


METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd.³/ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361

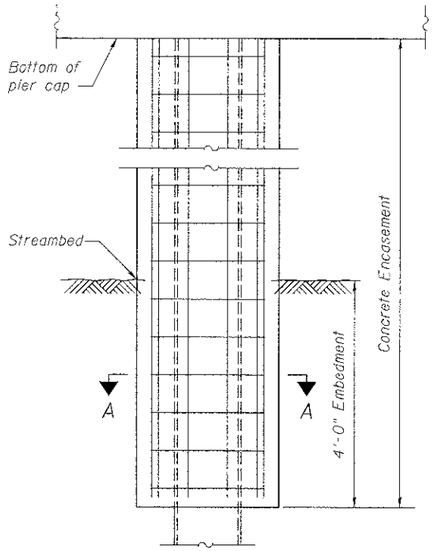


DETAIL A



Notes:
The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
Pile segments shall be driven to solid contact with spilcer before welding.

WELDED COMMERCIAL SPLICE



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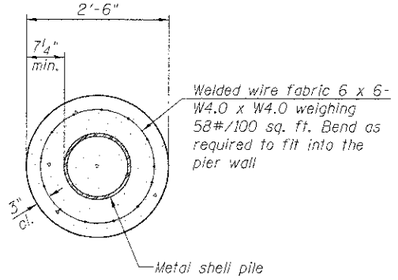
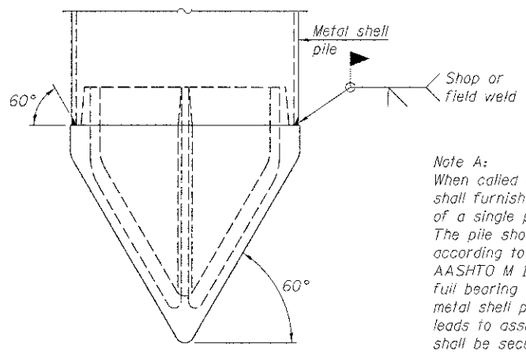


SECTION A-A

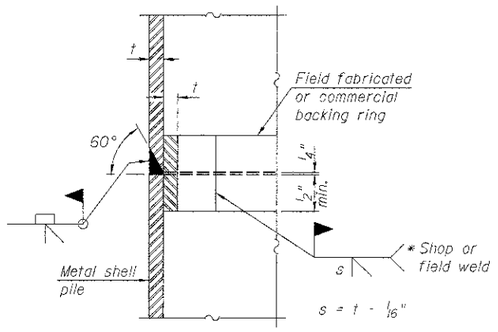
CONCRETE ENCASEMENT AT PIERS

Welded Wire Fabric shall be included with the cost of Concrete Encasement.



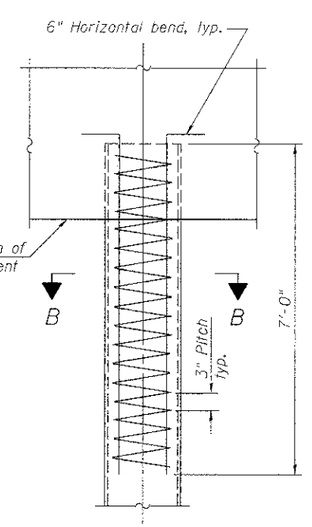
Note A:
When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.

METAL SHELL PILE SHOE ATTACHMENT
(See Note A)



COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



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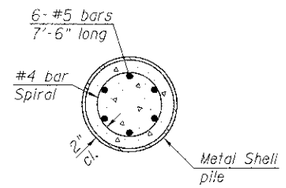

SECTION B-B

METAL SHELL REINFORCEMENT AT ABUTMENTS

Metal Shell reinforcement at abutments shall be included with the cost of Furnishing Metal Shell Piles.

Note:
The metal shell piles shall be according to ASTM A 252 Grade 3.

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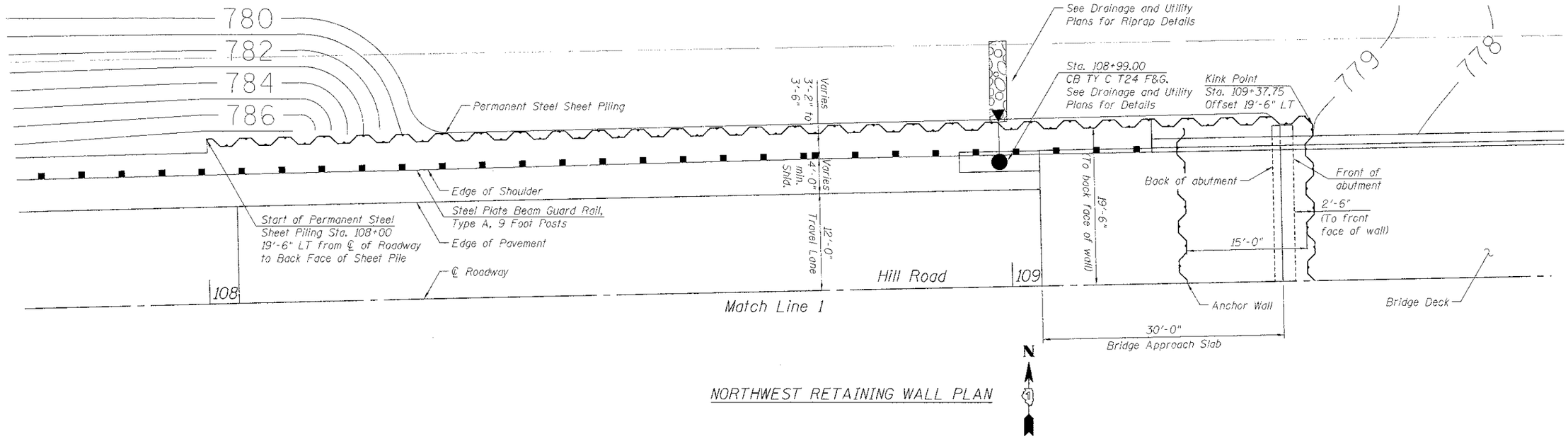
PLOT DATE = 8/23/2012	CHECKED RRD	REVISED -	

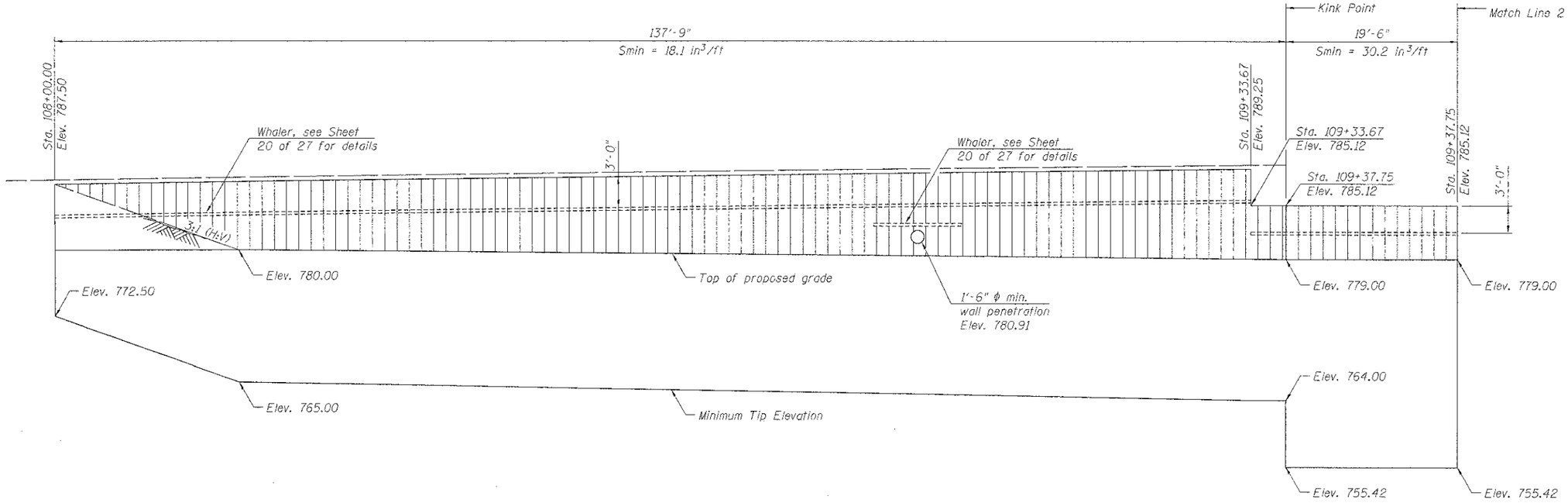
MCHENRY COUNTY DIVISION OF TRANSPORTATION
HILL ROAD BRIDGE OVER
NORTH BRANCH NIPPERSINK CREEK

METAL SHELL PILE DETAILS
STRUCTURE NO. 056-3192
SHEET NO. 15 OF 27 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	45
		CONTRACT NO. 63666		
		ILLINOIS FED. AID PROJECT		



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
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PLOT DATE = 8/23/2012	CHECKED RRD	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	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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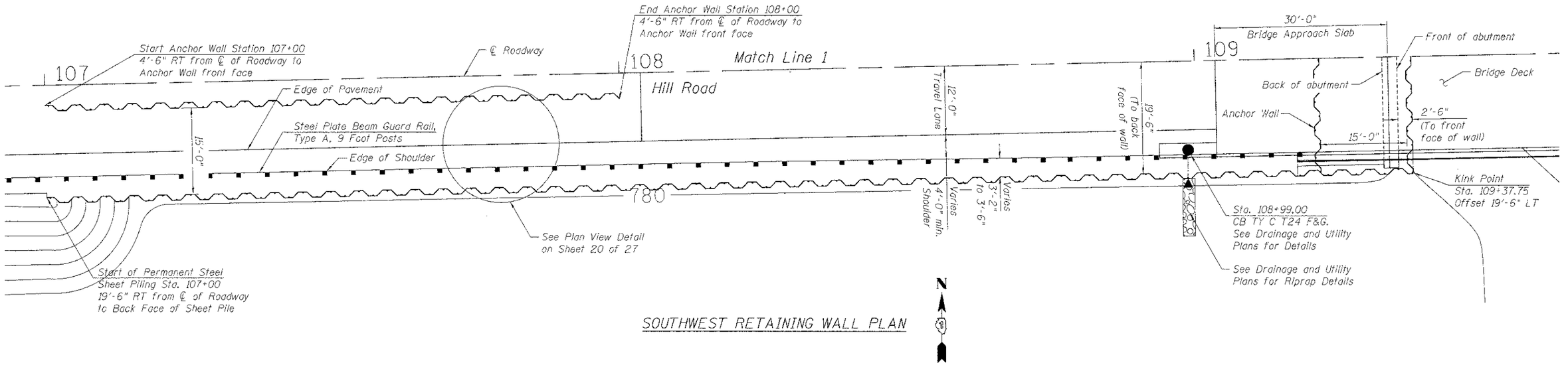
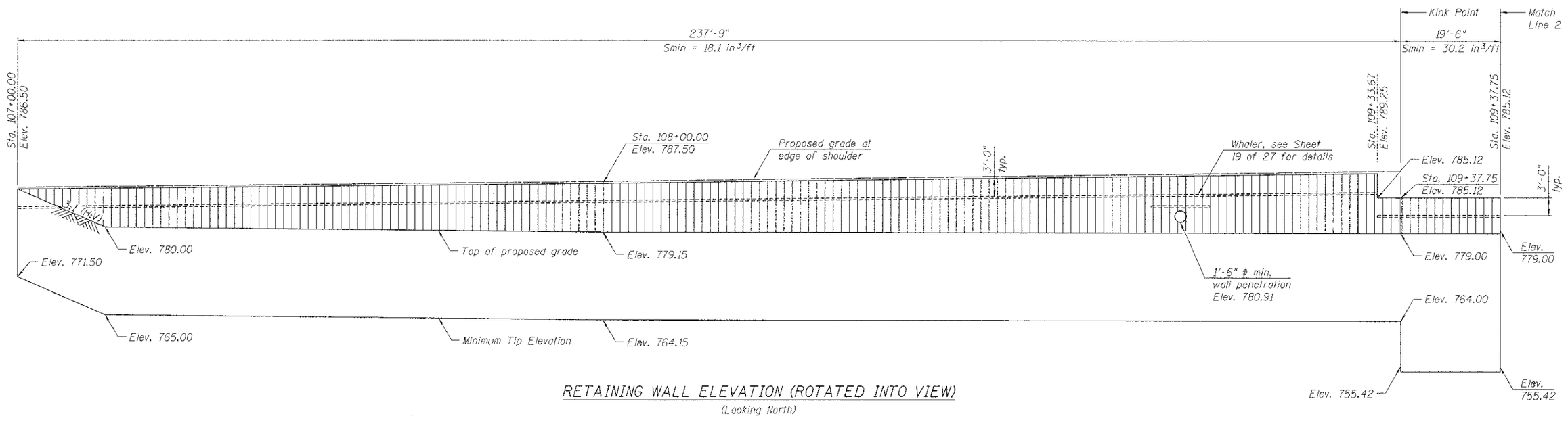
		CONTRACT NO. 63666		
		ILLINOIS FED. AID PROJECT		



SOUTHWEST RETAINING WALL PLAN



RETAINING WALL ELEVATION (ROTATED INTO VIEW)

(Looking North)

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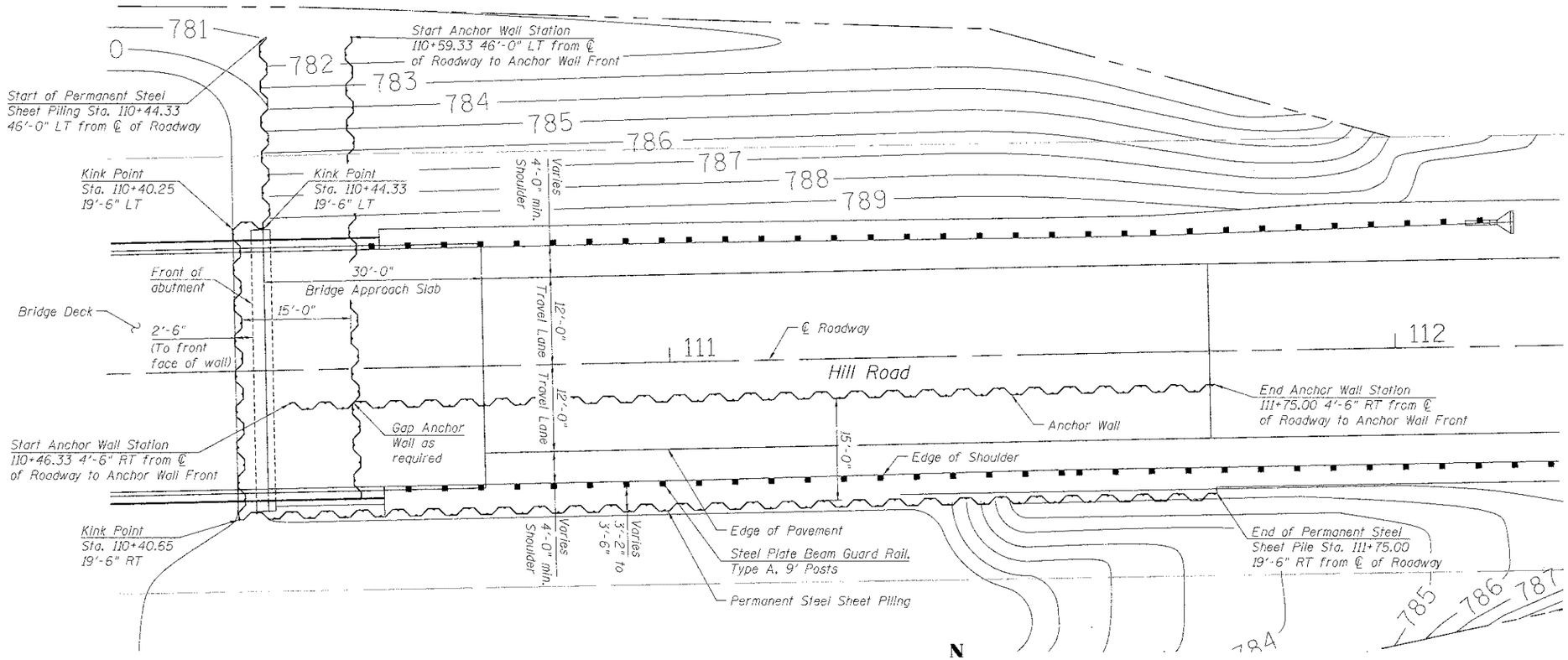
	CHECKED AJS	REVISED -	
PLOT SCALE =	DRAWN BJF	REVISED -	
PLOT DATE = 8/23/2012	CHECKED RRD	REVISED -	

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

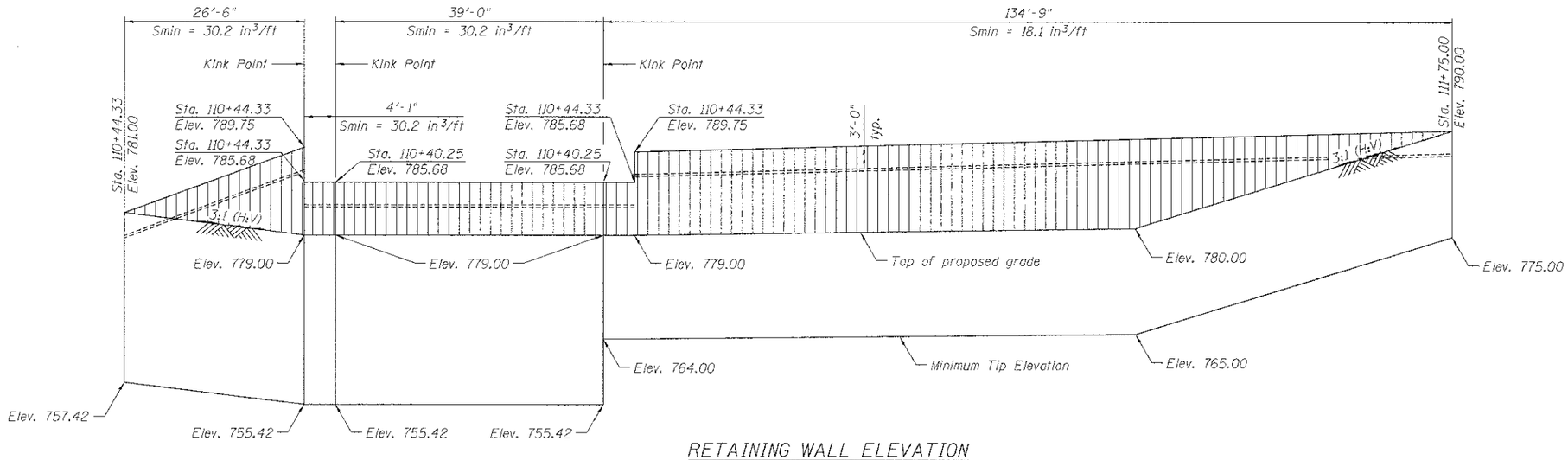
RETAINING WALL DETAILS (2 OF 5)
STRUCTURE NO. 056-3192

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			



EAST RETAINING WALL PLAN



RETAINING WALL ELEVATION

(Rotated into view)

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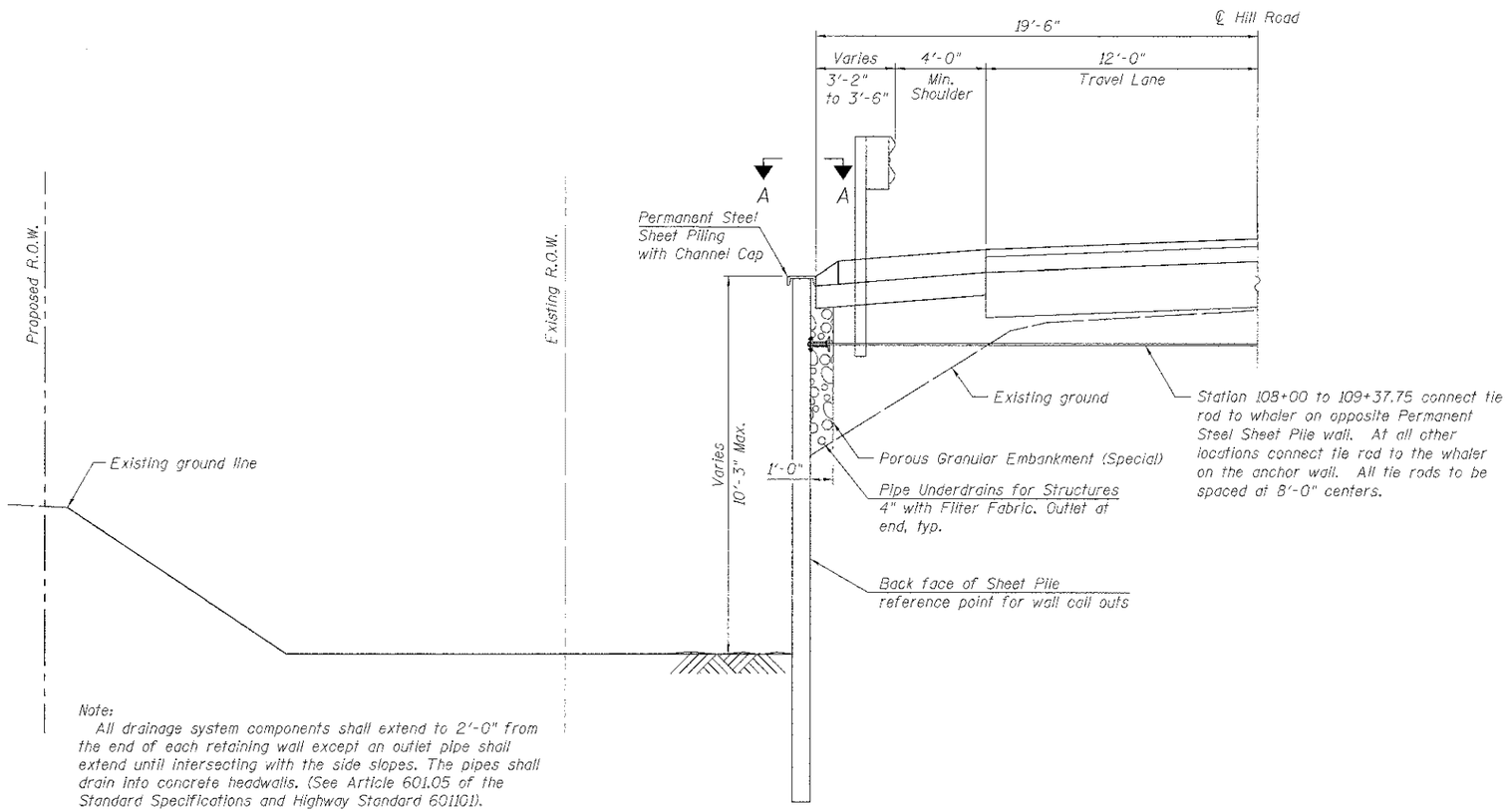
	CHECKED AJS	REVISED -	
PLOT SCALE =	DRAWN BJF	REVISED -	
PLOT DATE = 8/23/2012	CHECKED RRD	REVISED -	

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

RETAINING WALL DETAILS (3 OF 5)
STRUCTURE NO. 056-3192
SHEET NO. 18 OF 27 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	48
		CONTRACT NO. 63666		
	ILLINOIS FED. AID PROJECT			



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).

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)

GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts $\frac{3}{4}$" ϕ, holes $\frac{7}{8}$" ϕ, unless otherwise noted.

Contractor shall submit, for review and approval, shop drawings that detail fabrication, erection, installation, etc. of Permanent Steel Sheet Pilings 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. Use of an alternative section is subject to approval of the engineer. See Social Provisions for additional information.

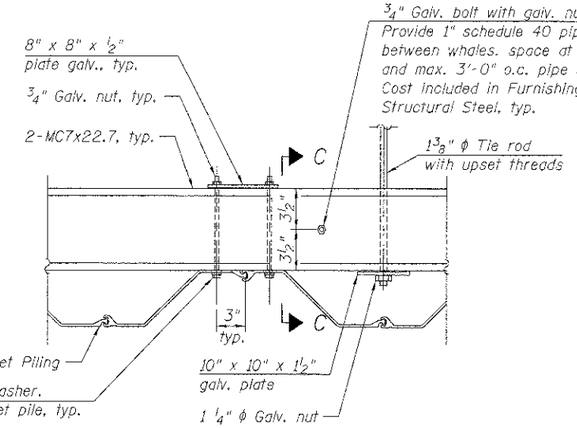
For backfilling and embankment, see Roadway Plans.

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.

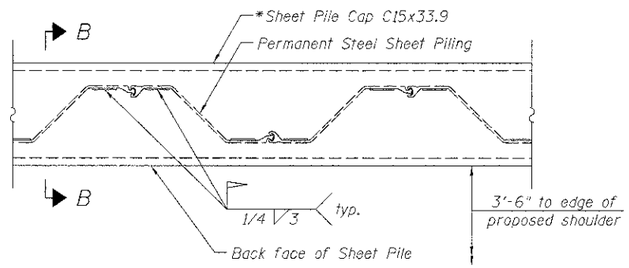
All steel and associated hardware required for the installation of the whaler and tie rods shall be paid for as Furnishing and Erecting Structural Steel. These items include, but are not limited to turn buckle, tie rods, plates, nuts, MC sections, spacer and washers.

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

See Sheet 2 of 27 for Section thru Abutment.



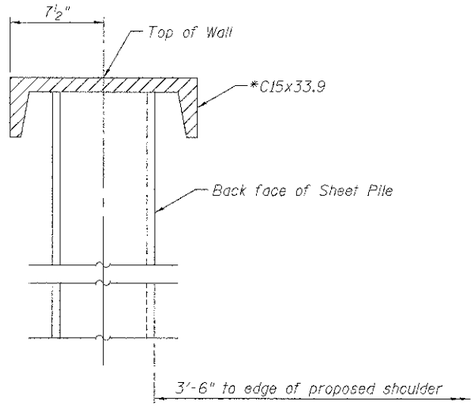
WHALER PLAN DETAIL



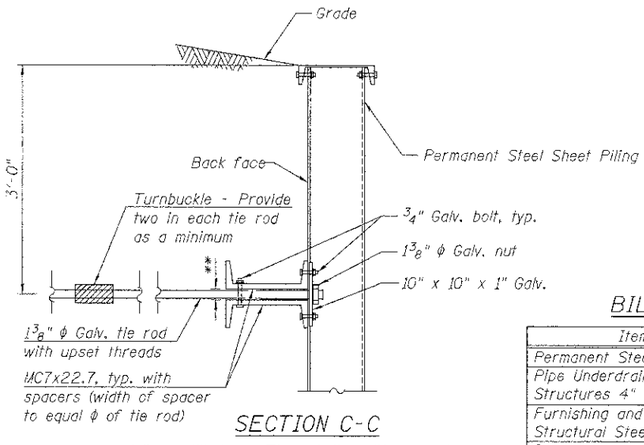
SECTION A-A

Cap Weld Detail

*Paid for as Furnishing and Erecting Structural Steel



SECTION B-B



SECTION C-C

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

BILL OF MATERIAL

Item	Unit	Total
Permanent Steel Sheet Piling	Sq Ft	18,450
Pipe Underdrains for Structures 4"	Foot	710
Furnishing and Erecting Structural Steel	L Sum	1
Porous Granular Embankment (Special)	Cu Yd	75

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

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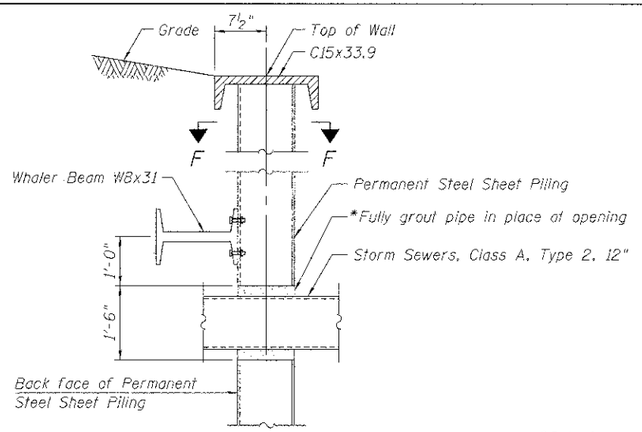
	CHECKED AJS	REVISED -	
PLOT SCALE =	DRAWN BJF	REVISED -	
PLOT DATE = 8/23/2012	CHECKED RRD	REVISED -	

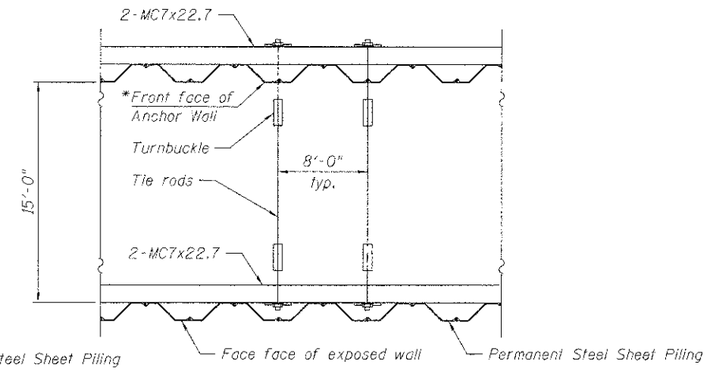
MCHENRY COUNTY DIVISION OF TRANSPORTATION
HILL ROAD BRIDGE OVER
NORTH BRANCH NIPPERSINK CREEK

RETAINING WALL DETAILS (4 OF 5)
STRUCTURE NO. 056-3192
SHEET NO. 19 OF 27 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	49
		CONTRACT NO. 63666		
		ILLINOIS FED. AID PROJECT		

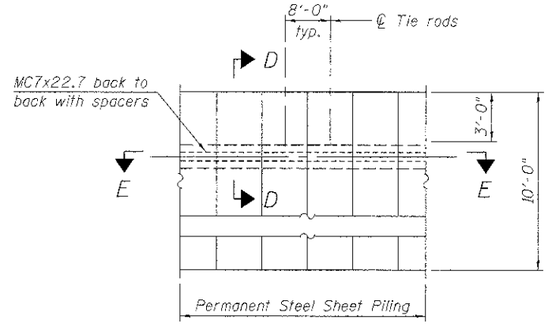


WALL PENETRATION WHALER DETAIL

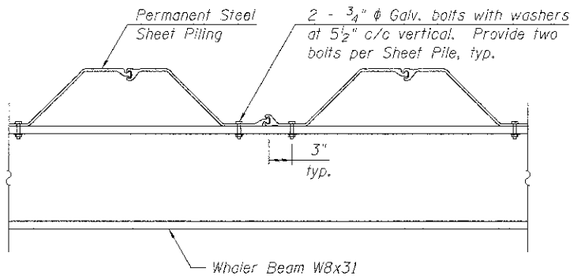


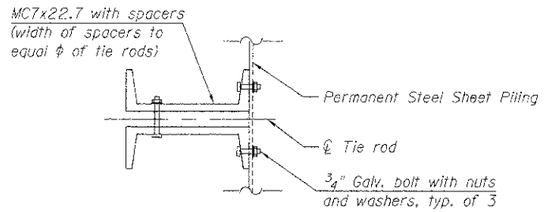
*Paid for as Permanent Steel Sheet Piling

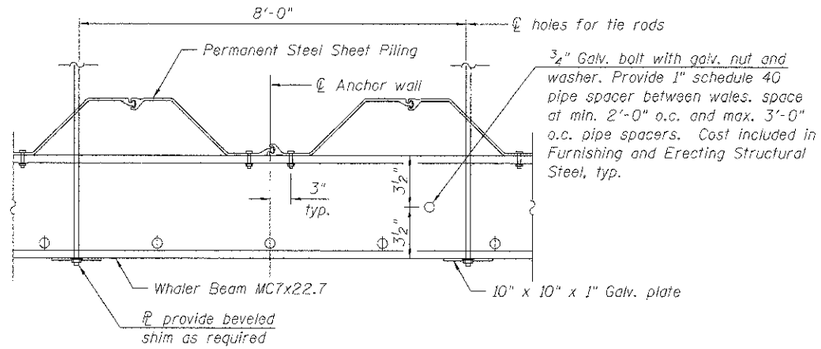
PLAN VIEW DETAIL



ANCHOR WALL ELEVATION



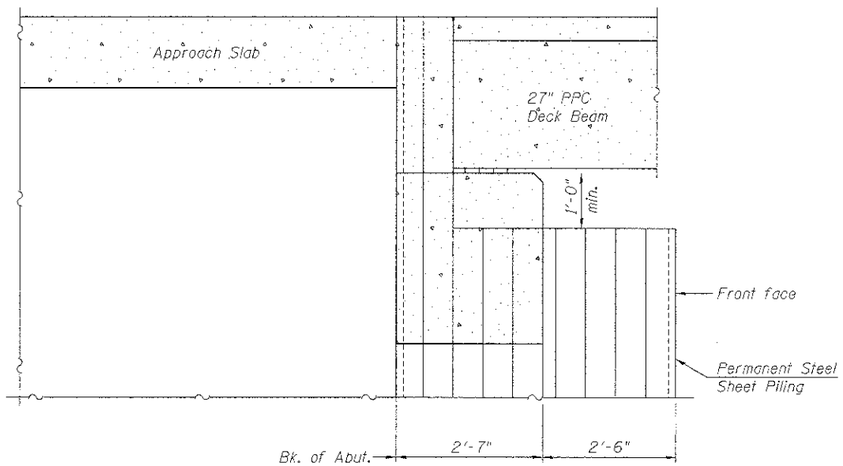




SECTION F-F

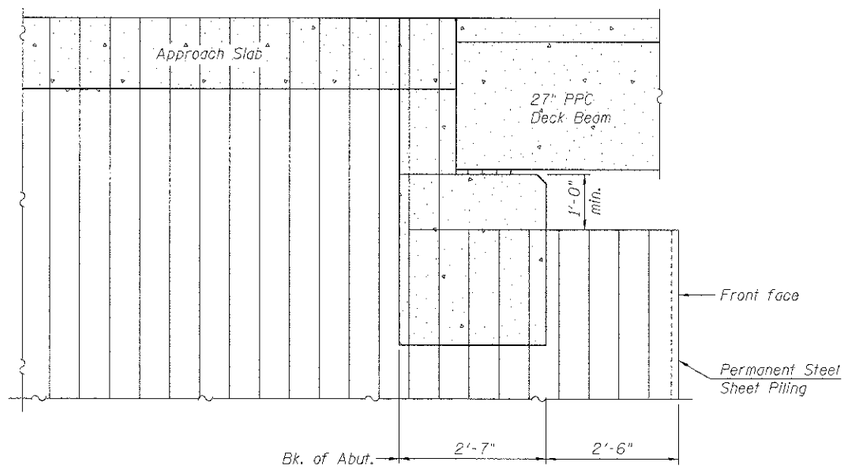
SECTION D-D

SECTION E-E



SHEET PILE ELEVATION AT NORTH END OF EAST ABUTMENT

(North End of East Abutment)



SHEET PILE WALL ELEVATION AT ABUTMENT

(Typical at West Abutment and South End of East Abutment)

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	CHECKED AJS	REVISED -	
PLOT SCALE =	DRAWN BJF	REVISED -	
PLOT DATE = 8/23/2012	CHECKED RRD	REVISED -	

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

RETAINING WALL DETAILS (5 OF 5)
STRUCTURE NO. 056-3192
SHEET NO. 20 OF 27 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	50
		CONTRACT NO. 63666		
	ILLINOIS FED. AID PROJECT			

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 10/13/09
Date Completed 10/13/09

ROUTE TR21 DESCRIPTION Hill Rd. Over N. Branch Nippersink Creek
SECT. 08-00356-00-BR STRUCT. NO. 056-3192 DRILLED BY TSC - L-72,480
COUNTY McHenry LOCATION S. End West Abutment S. 16E1/2, TWP. 46N, RNG. 8E

Boring No. 1
Station 109+41
Offset 6.00ft Rt.
Surface Elev. 789.50 ft

Surface Water Elev. —
Groundwater Elev.: when drilling 779.0
at Completion —
after — Hrs. —

DEPTH	BLOWS	Qu tsf	W %	DEPTH	BLOWS	Qu tsf	W %
8.0" Asphaltic Concrete 788.80				764.00			
FILL - Brown SAND, little to some Gravel, moist A-1-b	12 17 21		3.7	Medium dense gray SAND and GRAVEL, saturated A-1-a	7 7 8		
786.50				761.80			
FILL - Dark brown and black CLAY, trace gravel, little organic, moist to very moist A-6/A-7-6	6 8 8	P 1.75	22.0	Dense gray fine to medium SAND, trace gravel, saturated A-3	9 12 22		
	3 4 6	P 0.75	17.1	756.60			
781.50				Very dense gray SAND and GRAVEL, occasional Cobbles, saturated A-1-a	12 42 20		
FILL - Dark brown and brown SANDY LOAM, trace gravel, little organic, very moist A-4	4 5 6		23.0	751.50			
779.00				Loose gray SILTY LOAM, very moist A-4/A-6	4 3 4		15.6
Medium dense gray SANDY LOAM, trace to little gravel, wet A-2-4	13 12 8		12.5				
	14 11 12		19.2				
774.00				Gus Pech GP-750 Truck Rig (#217) Rope and Cathead Hammer			
Medium dense gray SILTY LOAM, occasional silt and sand seams, very moist A-4	5 7 8		19.2	746.50			
				Very dense gray SAND and GRAVEL, saturated A-1-a	52 50/4"		
	5 6 11		23.2	744.00			
769.00				BOULDER 743.50	100/0"		
Medium dense gray SAND, trace to little gravel, wet to saturated A-1-b	10 11 16			End of Boring at 46.0'			
				Auger Refusal on Apparent Large Boulder			
	5 6 8			Rotary Wash Drill Below 17.5'			

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

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 10/13/09
Date Completed 10/13/09

ROUTE TR21 DESCRIPTION Hill Rd. Over N. Branch Nippersink Creek
SECT. 08-00356-00-BR STRUCT. NO. 056-3192 DRILLED BY TSC - L-72,480
COUNTY McHenry LOCATION N. End Center Pier S. 16E1/2, TWP. 46N, RNG. 8E

Boring No. 2
Station 109+97
Offset 27.00ft Lt.
Surface Elev. 781.20 ft

Surface Water Elev. —
Groundwater Elev.: when drilling 778.2
at Completion 780.2
after — Hrs. —

DEPTH	BLOWS	Qu tsf	W %	DEPTH	BLOWS	Qu tsf	W %
Very soft dark brown ORGANIC CLAY, very moist A-8	0 0 1	P <0.25	64.9	Medium dense to dense brownish-gray to brown SAND, little gravel, saturated A-1-b	13 18 24		
778.20							
Loose dark brown to black silty SAND and GRAVEL, little organic, saturated A-2-4	3 3 4		16.6		8 13 15		
775.70							
Medium dense brown fine to medium SAND, trace to little gravel, saturated A-3	4 6 6		22.9				
773.20				749.20			
Medium stiff brown SILTY LOAM, occasional silt seams, very moist A-4	4 6 8	P 0.75	18.8	Medium stiff to stiff brown CLAY LOAM, very moist A-4/A-6	3 5 5	P 1.0	10.7
770.70							
Medium dense brown fine to medium SAND, trace gravel, saturated A-3	19 12 14						
768.20							
Stiff gray SILTY CLAY LOAM, occasional silt seams, very moist A-4/A-6	3 4 5	P 1.0	25.2		3 5 9	B 0.8	10.7 15%
765.70							
Medium dense to dense brownish-gray to brown SAND, little gravel, saturated A-1-b	9 10 10			739.20			
				Medium dense SANDY LOAM, trace gravel, occasional sand layers, very moist A-4			
	12 16 20				10 13 15		11.2
				734.20			
	6 9 15			Hard brown CLAY LOAM, trace gravel, damp to moist A-4			
					25 35 49	B 11.21 15%	8.3
	11 19 22						

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

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 10/13/09
Date Completed 10/13/09

STRUCTURE NO. 056-3192
ROUTE TR21
SECTION 08-00356-00-BR
COUNTY McHenry

Boring No. 2
Station 109+97
Offset 27.00ft Lt.
Elevation 731.20 ft

DEPTH	BLOWS	Qu tsf	W %
Hard brown CLAY LOAM, trace gravel, damp to moist A-4			
	31 42 46	B 10.4 15%	8.3
726.70			
Very dense brown SAND and GRAVEL, saturated A-1-a			
726.20			
End of Boring at 55.0'			
Diedrich D-50 ATV Drill Rig (#314)			
CME Automatic Hammer			
3.25" (83 mm) ID HSA			

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

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STRAND ASSOCIATES®	1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200 IDFPR NO. 184-001273	USER NAME = brianf	DESIGNED RRD	REVISED -	MCHENRY COUNTY DIVISION OF TRANSPORTATION HILL ROAD BRIDGE OVER NORTH BRANCH NIPPERSINK CREEK	SOIL BORING LOG (1 OF 6) STRUCTURE NO. 056-3192 SHEET NO. 16 OF 27 SHEETS	
			CHECKED AJS	REVISED -			
		PLOT SCALE =	DRAWN BJF	REVISED -			
		PLOT DATE = 8/23/2012	CHECKED RRD	REVISED -			

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	51
		CONTRACT NO. 63666		
		ILLINOIS FED. AID PROJECT		

Testing Service Corporation

STRUCTURE BORING LOG

Date Started 10/12/09

Date Completed 10/12/09

ROUTE TR21 DESCRIPTION Hill Rd. Over N. Branch Nippersink Creek

SECT. 08-00356-00-BR STRUCT. NO. 056-3192 DRILLED BY TSC - L-72,490

COUNTY McHenry LOCATION S. End East Abutment S. 16E1/2 , TWP. 46N , RNG. 8E

Boring No. 3
Station 110+44
Offset 6.00ft Lt.
Surface Elev. 790.10 ft

Surface Water Elev. —
Groundwater Elev.:
when drilling 779.6
at Completion —
after — Hrs. —

DEPTH	BLOWS	Qu tsf	W %	Material
790.10				6" Asphaltic Concrete 4" Sand and Gravel Subbase
	16 24 27		4.0	FILL - Brown SAND and GRAVEL, damp A-1-a
	16 22 17		3.9	
-8 784.60				
	4 4 3	P 1.0	13.5	FILL - Dark brown CLAY LOAM, trace gravel, trace organic, moist A-6
782.10				
	1 1 3	P 0.75	24.2	FILL - Brown SILTY CLAY, trace gravel, trace roots, very moist A-6
-10 779.60				
	4 2 3	P 0.25	40.8	Very soft dark brown ORGANIC CLAY, very moist A-8
777.10				
	5 6 7			Medium dense brown SAND and GRAVEL, saturated A-1-a
-15 774.60				
	11 15 7	P 1.0	17.1	Stiff light-brown SILTY CLAY, little sand, occasional silt and sand seams, very moist A-6/A-7-6
	7 8 10	B 1.49 15%	21.8	
-20				
	5 7 16	B 1.23 15%	23.9	
767.10				
	9 9 12			Medium dense to dense brown SAND, little to some gravel, saturated A-1-b
-25				

DEPTH	BLOWS	Qu tsf	W %	Material
				Medium dense to dense brown SAND, little to some gravel, saturated A-1-b
	8 9 11			
	10 15 19			
-30				
	15 20 21			
-35				
752.10				
	4 7 6	B 0.7 15%	12.0	Medium stiff brown CLAY LOAM, trace to little gravel, very moist A-6
-40				
	5 7 7	P 0.75	13.9	
-45				
742.10				
	5 7 13		11.5	Medium dense brown SANDY LOAM, little gravel, wet A-2-4
-50				

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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Testing Service Corporation

STRUCTURE BORING LOG

Date Started 10/12/09

Date Completed 10/12/09

STRUCTURE NO. 056-3192
ROUTE TR21
SECTION 08-00356-00-BR
COUNTY McHenry

STRUCTURE NO. 056-3192
ROUTE TR21
SECTION 08-00356-00-BR
COUNTY McHenry

Boring No. 3
Station 110+44
Offset 6.00ft Lt.
Elevation 740.10 ft

Elevation 715.10 ft

DEPTH	BLOWS	Qu tsf	W %	Material
	9 10 16		13.2	Medium dense brown SANDY LOAM, little gravel, wet A-2-4
737.10				
	21 14 18	P 2.75	10.8	Very stiff brown CLAY LOAM, trace to little gravel, moist A-4
-55				
	21 14 14	P 2.25	11.5	
732.10				
	19 32 46			Very dense brown SANDY GRAVEL, trace clay, saturated A-1-a
-60 729.60				
	34 48 50/5"	B 0.4 16%	9.0	Hard brown CLAY LOAM, little gravel, damp A-4
	46 50/5"	P 4.5+	7.7	
-65				
723.10				
	34 50/5"	B 4.96	12.0 17.7	Hard brown SILTY CLAY LOAM, trace sand, moist A-4/A-6
721.10				
-70				Very dense brown SILT, trace gravel, moist A-4
	46 50/5"		14.0	
715.10				
-75				
-80				
-85				
-90				
-95				
-100				

Gus Pech GP-750 Truck Rig (#217)
Rope and Cathead Hammer

Rotary Wash Drill Below 12.5'

End of Boring at 75.0'

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

USER NAME = brianf	DESIGNED RRD	REVISED -	
	CHECKED AJS	REVISED -	
PLOT SCALE =	DRAWN BJF	REVISED -	
PLOT DATE = 8/23/2012	CHECKED RRD	REVISED -	

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

SOIL BORING LOG (2 OF 6)
STRUCTURE NO. 056-3192

SHEET NO. 22 OF 27 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	52
		CONTRACT NO. 63666		
	ILLINOIS FED. AID PROJECT			

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(815) 744-4200
IDFPR NO. 184-001273

USER NAME = brianf	DESIGNED RRD	REVISED -
	CHECKED AJS	REVISED -
PLOT SCALE =	DRAWN BJF	REVISED -
PLOT DATE = 8/23/2012	CHECKED RRD	REVISED -

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

SOIL BORING LOG (3 OF 6)
STRUCTURE NO. 056-3192
SHEET NO. 23 OF 27 SHEETS

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	53
		CONTRACT NO. 63666		
	ILLINOIS FED. AID PROJECT			

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PLOT DATE = 8/23/2012	CHECKED RRD	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			

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JOLIET, ILLINOIS 60431
(815) 744-4200
IDFPR NO. 184-001273

USER NAME = brianf	DESIGNED RRD	REVISED -
	CHECKED AJS	REVISED -
PLOT SCALE =	DRAWN BJF	REVISED -
PLOT DATE = 8/23/2012	CHECKED RRD	REVISED -

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			

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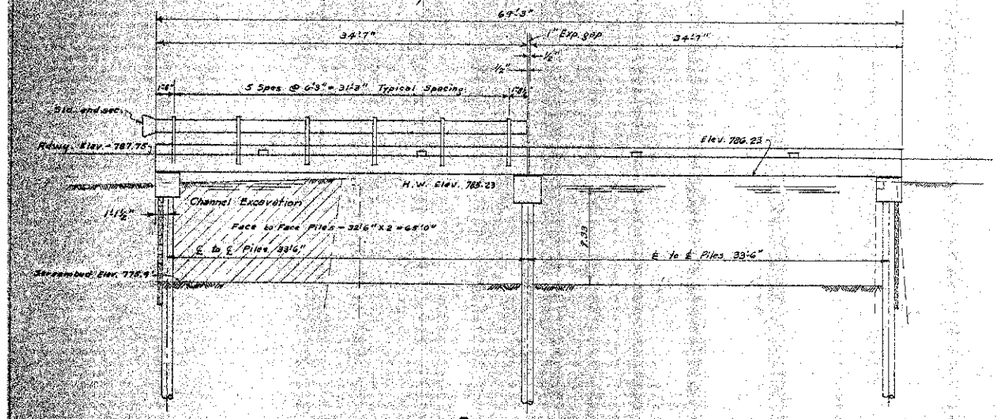
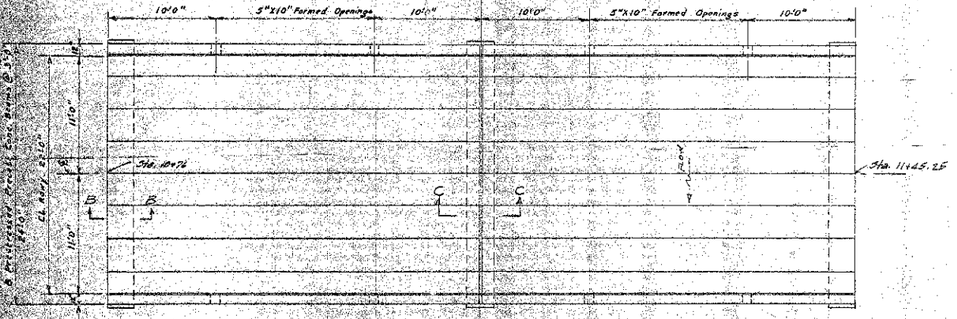
B.M. Concrete base of wood fence post south side of road Sta. 7+40 Elev. 791.77

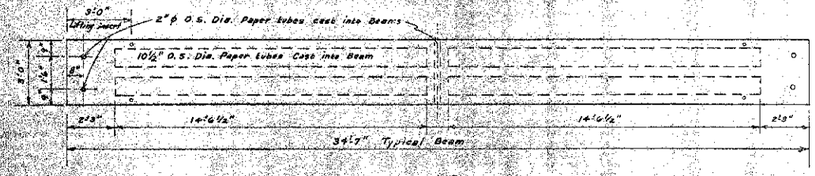
Existing Structure: Steel pin connected truss (in creek) 1 span @ 50' 18' roadway, wood floor. Concrete abutments, field stone wings



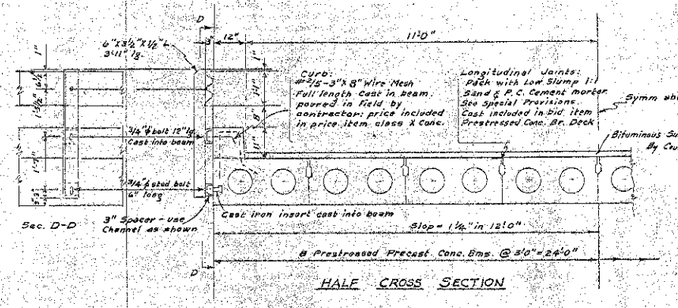
ELEVATION



PLAN

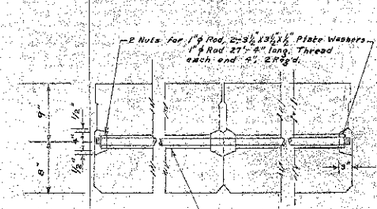


PLAN OF TYPICAL BEAM

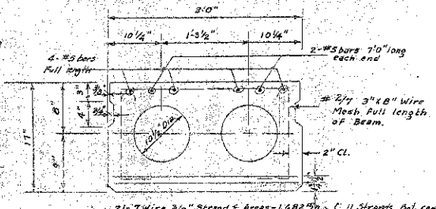


Sec. D-D

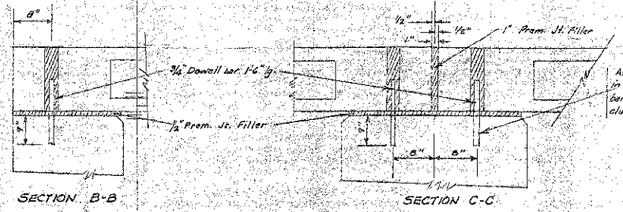
HALF CROSS SECTION



TYPICAL TRANSVERSE TIE ASSEMBLY



TYPICAL SECTION THRU BEAM



SECTION B-B

SECTION C-C

GENERAL NOTES

Class X Concrete, shall be used in pile caps and curbs.

For Item "Precast Prestressed Concrete Bridge Deck" see Special Provisions. Handrail shall be paid for as "Metal Plate Bridge Rail" and shall include all posts, shims, channels, bolts, nuts, and washers required for splicing and fastening to bridge. Handrail shall receive one shop coat of red lead paint and two field coats of aluminum paint. Paint shall be furnished and applied by the contractor.

Metal Plate Bridge Rail shall be in accordance with Section 94A of the Supplemental Specifications.

Excavation for backing shall be made before driving piles.

The contractor shall drive one test pile as part of the permanent pile group before ordering the remainder of the piles.

For backfill behind abutments, see Article 5010 of the Standard Specs.

All Timber and Hardware shall conform to Sections 58 and 125 of the Standard Specifications.

Quantities of lumber are based on sizes and lengths shown. No additional compensation shall be allowed for waste.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Precast Prestressed Concrete Bridge Deck	Sq. Ft.	1760
Class X Concrete (14.8 Caps + 4.6 Curbs)	Cu. Yds.	19.4
Reinforcement Bars	Lbs.	2290
Metal Plate Bridge Rail	Lin. Ft.	44.5
Hardware	Lbs.	200
Treated Timber	F.B.M.	800
Furnishing Creosoted Piles 20' to 36'	Lin. Ft.	1080
Driving Timber Piles (25' lg)	Lin. Ft.	1080
Furnishing Metal Pile Shells	Lin. Ft.	1080
Driving and Filling Shells (30' lg)	Lin. Ft.	1080
Test Piles (Creosoted Timber)	Each	4
Removal of Existing Structures	Each	1
Name Plates	Each	2
Channel Excavation	Cu. Yds.	1100

WATERWAY INFORMATION

Drainage Area	42,500 Acres
Character	Level, rolling, wooded, cultivated
Present Opening	492 Sq. Ft.
Proposed Opening	606 Sq. Ft.

LOADING H15-S12

15 HILL BRIDGE
RICHMOND TOWNSHIP
McHENRY COUNTY

For Information only

FILE NAME = s:\pl\68666--68999\68921\dgn\micros\cadd sheets\structural\056-3192-63666-827-EOPE.dgn

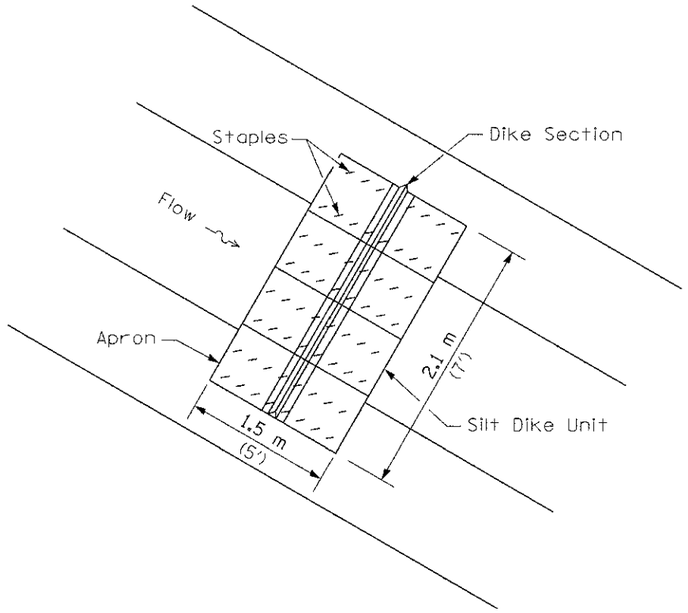
SA STRAND ASSOCIATES
1170 SOUTH HOLBOLT ROAD
JOLIET, ILLINOIS 60433
(815) 740-4200
JDFPR NO. 184-001273

USER NAME = brianf	DESIGNED RRD	REVISED -	
	CHECKED AJS	REVISED -	
PLOT SCALE =	DRAWN BJF	REVISED -	
PLOT DATE = 8/23/2012	CHECKED RRD	REVISED -	

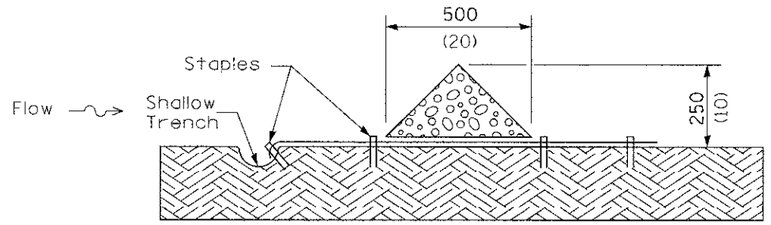
MCHENRY COUNTY DIVISION OF TRANSPORTATION
HILL ROAD BRIDGE OVER
NORTH BRANCH NIPPERSINK CREEK

EXISTING GENERAL PLAN AND ELEVATION
STRUCTURE NO. 056-3192
SHEET NO. 27 OF 27 SHEETS

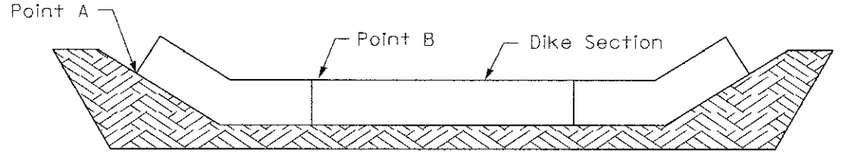
TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	57
		CONTRACT NO. 63666		
	ILLINOIS FED. AID PROJECT			



PLAN



SIDE ELEVATION



Point A must be higher than Point B to ensure that water flows over the dike and not around the ends.

FRONT ELEVATION

URETHANE FOAM/GEOTEXTILE DITCH CHECK

NOTES

All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME = *FILEL*	USER NAME = *USER*	DESIGNED -	REVISED -	McHENRY COUNTY DIVISION OF TRANSPORTATION	URETHANE FOAM/GEOTEXTILE DITCH CHECK DETAIL	TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -			21	08-00356-00-BR	McHENRY	77	58
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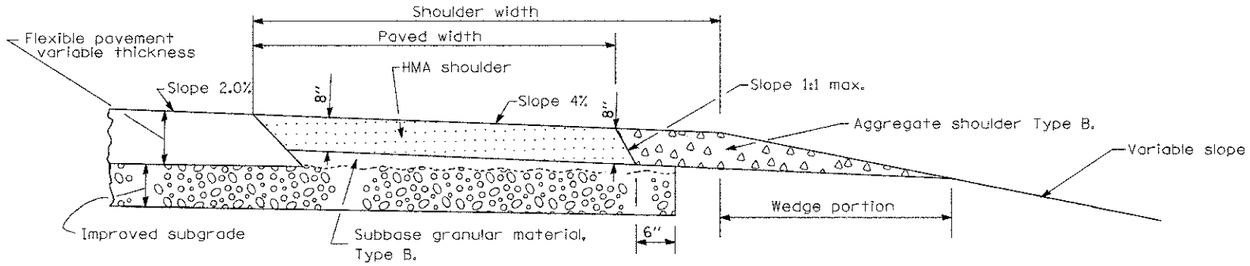
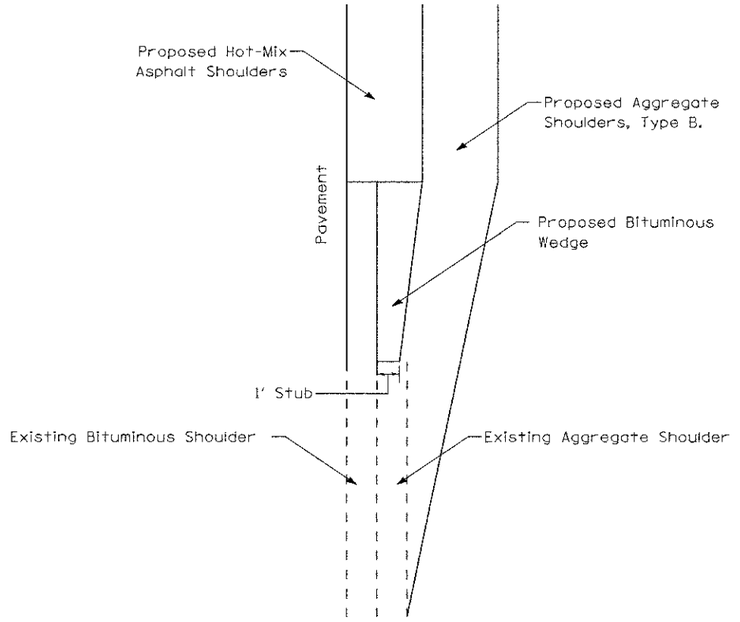
	PLOT DATE = *DATE*	DATE -	REVISED -		SCALE: NTS SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



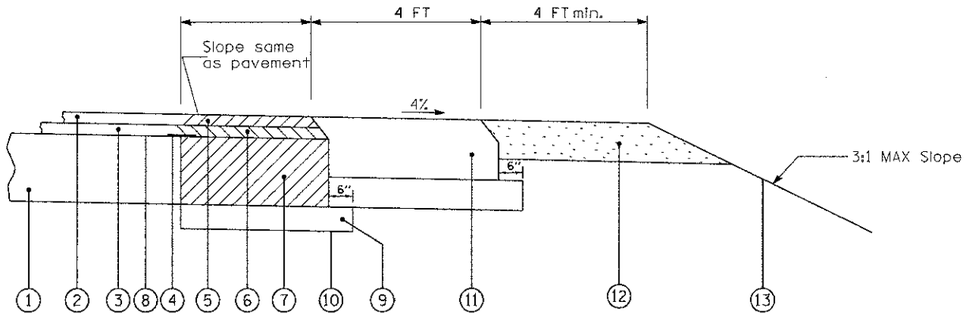
SHOULDER FOR TANGENT PAVEMENT W/ WEDGE



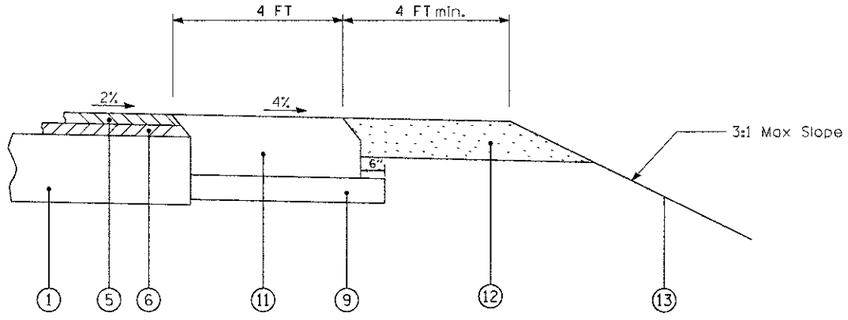
SHOULDER TAPER DETAIL

PLAN VIEW

NOTE:
TAPER THE HOT-MIX ASPHALT SHOULDERS DOWN TO THE EXISTING AGGREGATE SHOULDER WITH 1' STUB.
(TAPER RATE SHALL BE 1:SPEED)



HMA AND AGGREGATE
SHOULDERS WITH WIDENING & RESURFACING



HMA AND AGGREGATE SHOULDERS
WITH RESURFACING

LEGEND

1. EXISTING PAVEMENT
2. EXISTING HMA SURFACE COURSE
3. EXISTING HMA BINDER COURSE
4. SAWCUT EXISTING PAVEMENT & INSTALL 24" WIDE STRIP REFLECTIVE CRACK CONTROL TREATMENT, TYPE A
5. PROPOSED HMA SURFACE COURSE, MIX "D", N70, 1½"
6. PROPOSED HMA BINDER COURSE, IL-19, N70, 2½"
7. PROPOSED HMA BASE COURSE, 9"
8. PRIME COAT
9. PROPOSED SUB-BASE GRANULAR MATERIAL, TYPE B, 6"
10. PROPOSED AGGREGATE SUBGRADE
11. PROPOSED HMA SHOULDERS, 8"
12. PROPOSED AGGREGATE SHOULDERS, TYPE B, 6"
13. PROPOSED TOPSOIL, SEEDING, CL 2A & EROSION CONTROL BLANKET

FILE NAME = *FILEL*	USER NAME = *USER*	DESIGNED -	REVISED - 11-5-2010	McHENRY COUNTY DIVISION OF TRANSPORTATION	SHOULDER DETAIL	TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -			21	08-00356-00-BR	McHENRY	77	59
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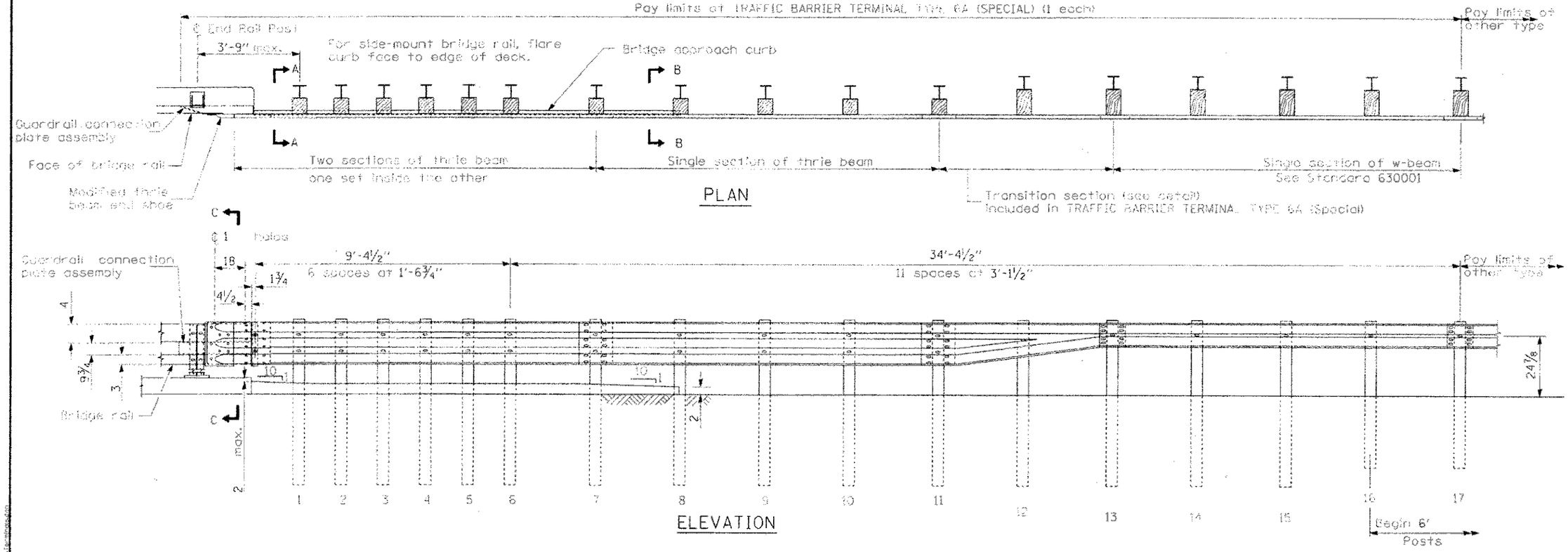
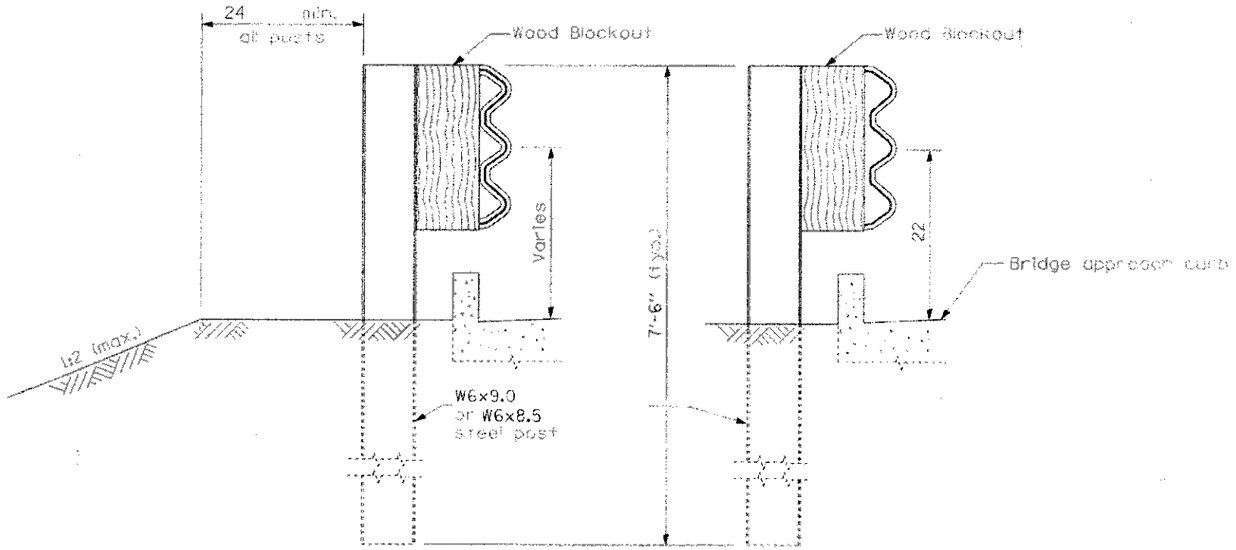
	PLOT DATE = *DATE*	DATE -	REVISED -		SCALE: NTS SHEET NO. OF SHEETS STA. TO STA.		FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

MCHENRY COUNTY
DIVISION OF TRANSPORTATION





GENERAL NOTES

See Standard 630001 for details of guardrail not shown.

Thrie beam rail shall be bolted to back out at all posts.

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

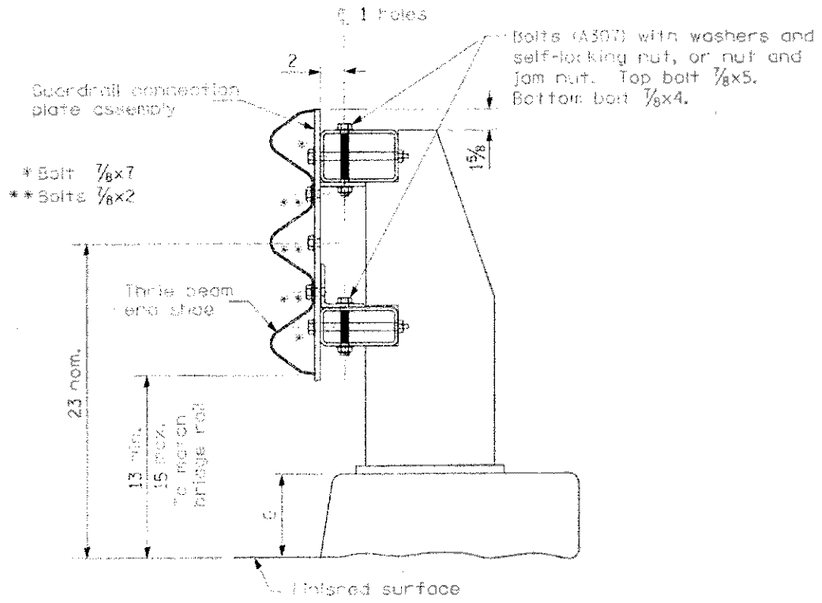
All dimensions are in inches unless otherwise shown.

TRAFFIC BARRIER TERMINAL TYPE 6A (SPECIAL) STRUCTURE NO. 056-3192

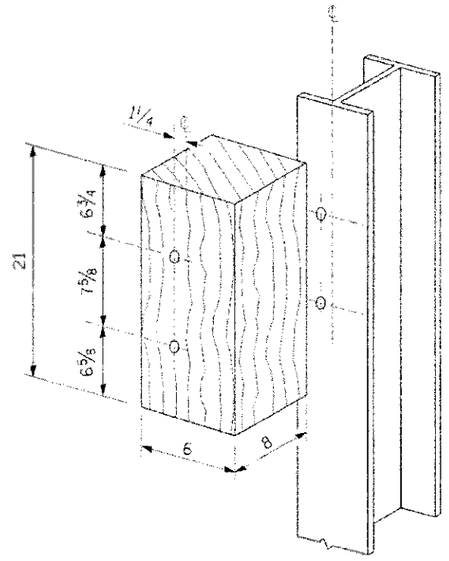
DESIGNED	BLB
CHECKED	AS
DRAWN	BCD
CHECKED	BLB

SHEET NO. 1	TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3 SHEETS	21	08-00356-00-BR	MCHENRY	77	60
			CONTRACT NO.	63666	
	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	BROS-00D1(683)	

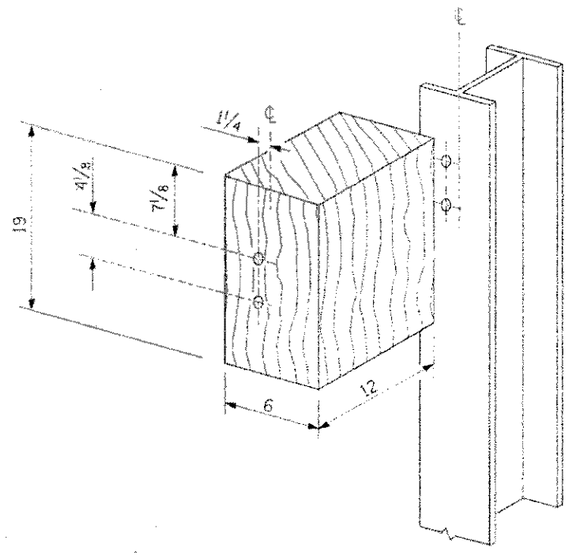
MCHENRY COUNTY
DIVISION OF TRANSPORTATION



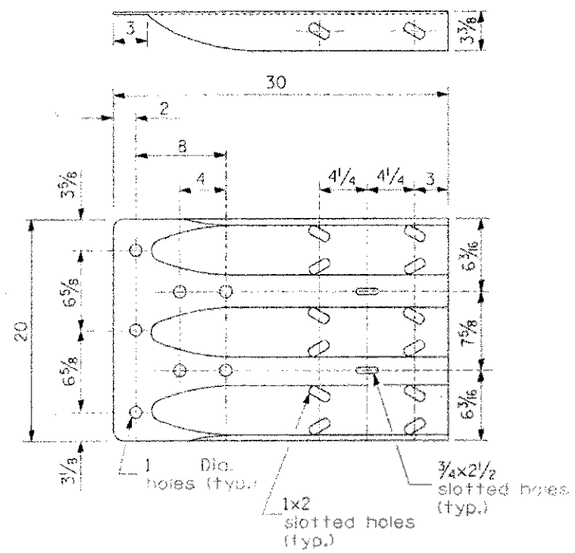
SECTION C-C



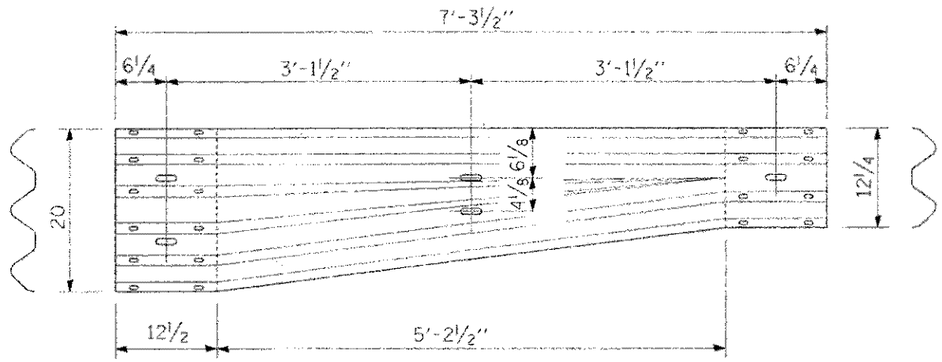
POSTS 1-11 WOOD BLOCKOUT DETAIL



POST 12 WOOD BLOCKOUT DETAIL
(See Standard 630001 for post 13-17 blockouts.)



MODIFIED THRIE BEAM END SHOE DETAIL



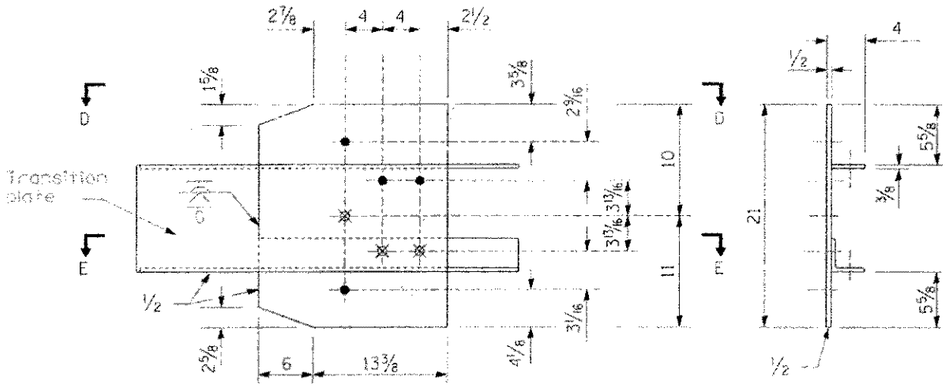
TRANSITION SECTION
(10 gauge rail element)

TRAFFIC BARRIER TERMINAL
TYPE 6A (SPECIAL)
STRUCTURE NO. 056-3192

DESIGNED	BLB
CHECKED	AS
DRAWN	BCD
CHECKED	BLB

SHEET NO. 2	TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3 SHEETS	21	08-00356-00-BR	MCHENRY	77	61
			CONTRACT NO. 63666		
	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT BRGS 00D(683)		

MCHENRY COUNTY
DIVISION OF TRANSPORTATION

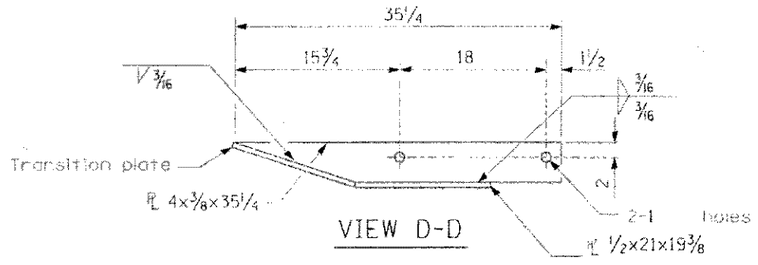


- ● ℄ 4-1 holes for ⅞ H.S. bolts and nuts
- ⊠ Drill and tap 3 holes for ⅞ H.S. bolts.

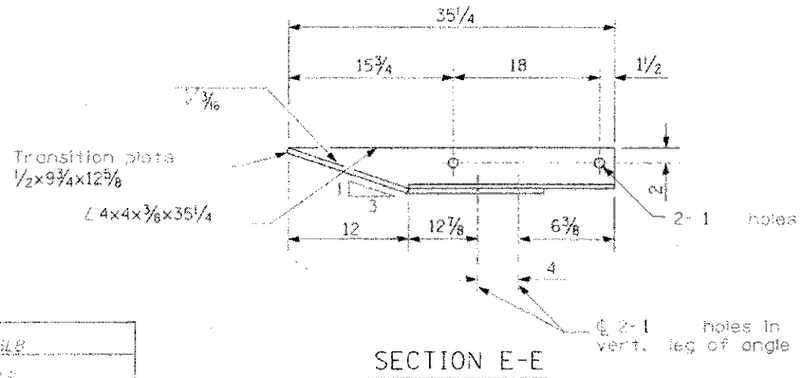
LEGEND

GUARDRAIL CONNECTION PLATE ASSEMBLY DETAILS

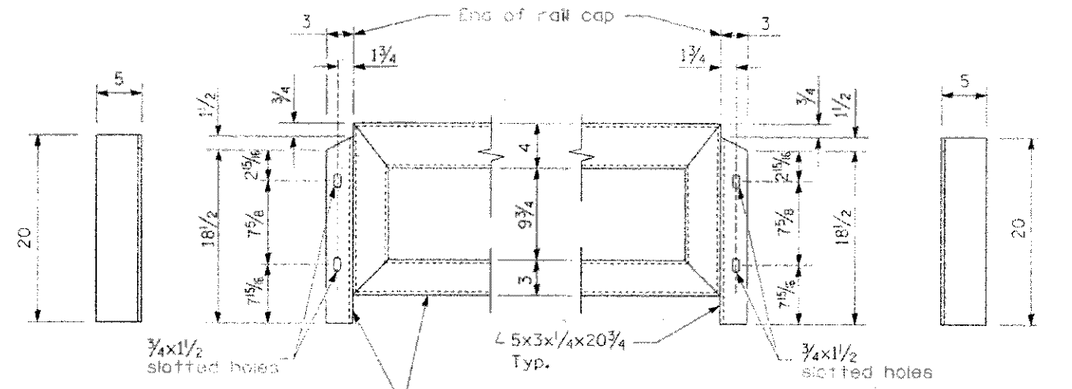
(Mirror for opposite end)



VIEW D-D



SECTION E-E



DEPARTURE END VIEW

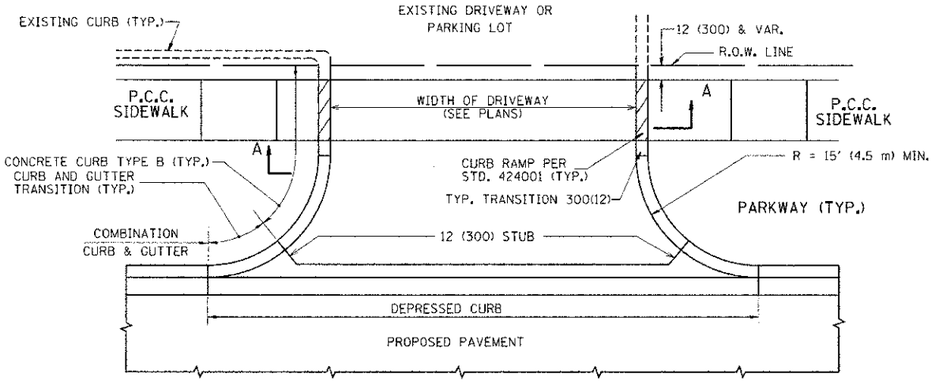
APPROACH END VIEW

CONNECTION ANGLES

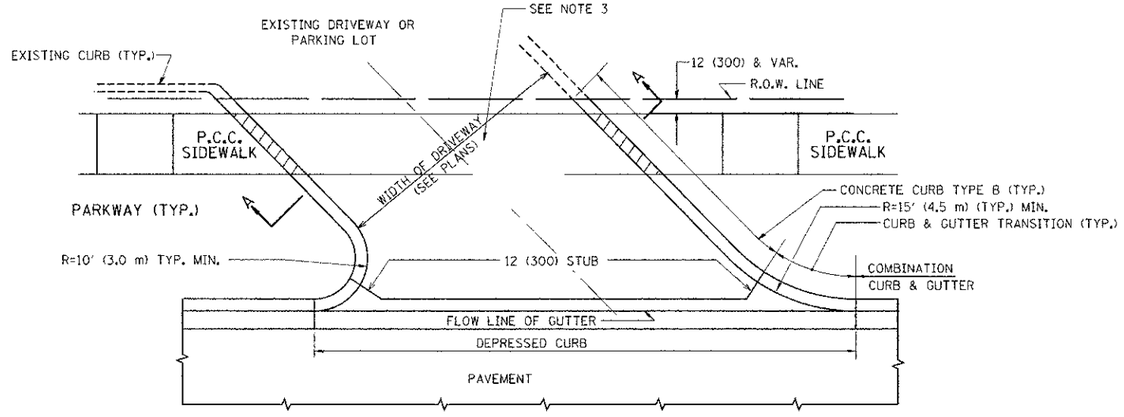
DESIGNED	BLB
CHECKED	AS
DRAWN	DCD
CHECKED	BLB

TRAFFIC BARRIER TERMINAL
TYPE 6A (SPECIAL)
STRUCTURE NO. 056-3192

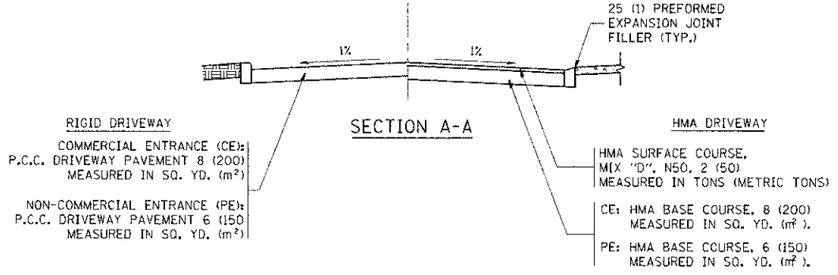
SHEET NO. 3	TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3 SHEETS	21	08-00356-00-BR	MCHENRY	77	62
			CONTRACT NO.	63666	
	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	BRS-0001(683)	

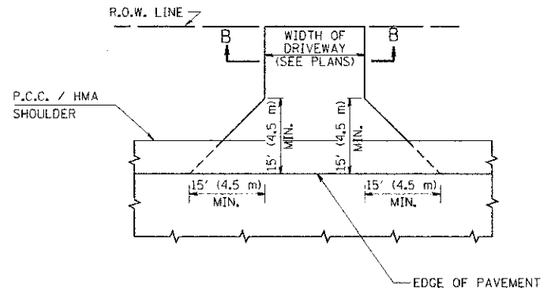


WITH CONCRETE CURB, TYPE B

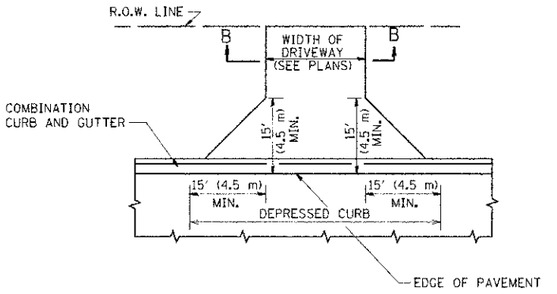


WITH CONCRETE CURB, TYPE B

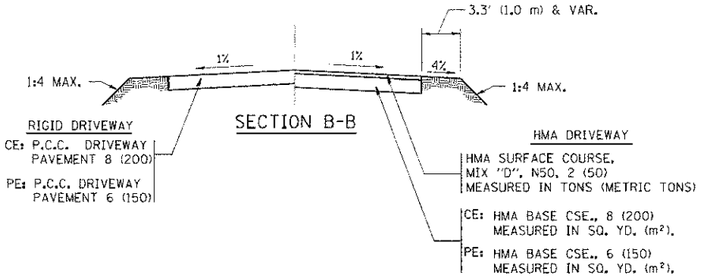




ADJACENT TO P.C.C. / HMA SHOULDER



ADJACENT TO CURB AND GUTTER



RURAL FIELD ENTRANCE (FE)

HMA SURFACE COURSE, MIX "D", N50, 2 (50) MEASURED IN TONS (METRIC TONS)

AGGREGATE BASE CSE., TYPE B, 8 (200) MEASURED IN SQ. YD. (m²).

GENERAL NOTES:

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK. DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.

COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

WHEN THE P.C.C. SIDEWALK EXTENDS THROUGH THE DRIVEWAY, THE THICKNESS OF THE SIDEWALK IN THE DRIVEWAY AREA SHALL BE THE SAME AS THE DRIVEWAY THICKNESS. SIDEWALK WILL BE PAID FOR AS P.C.C. SIDEWALK OF THE THICKNESS SPECIFIED. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

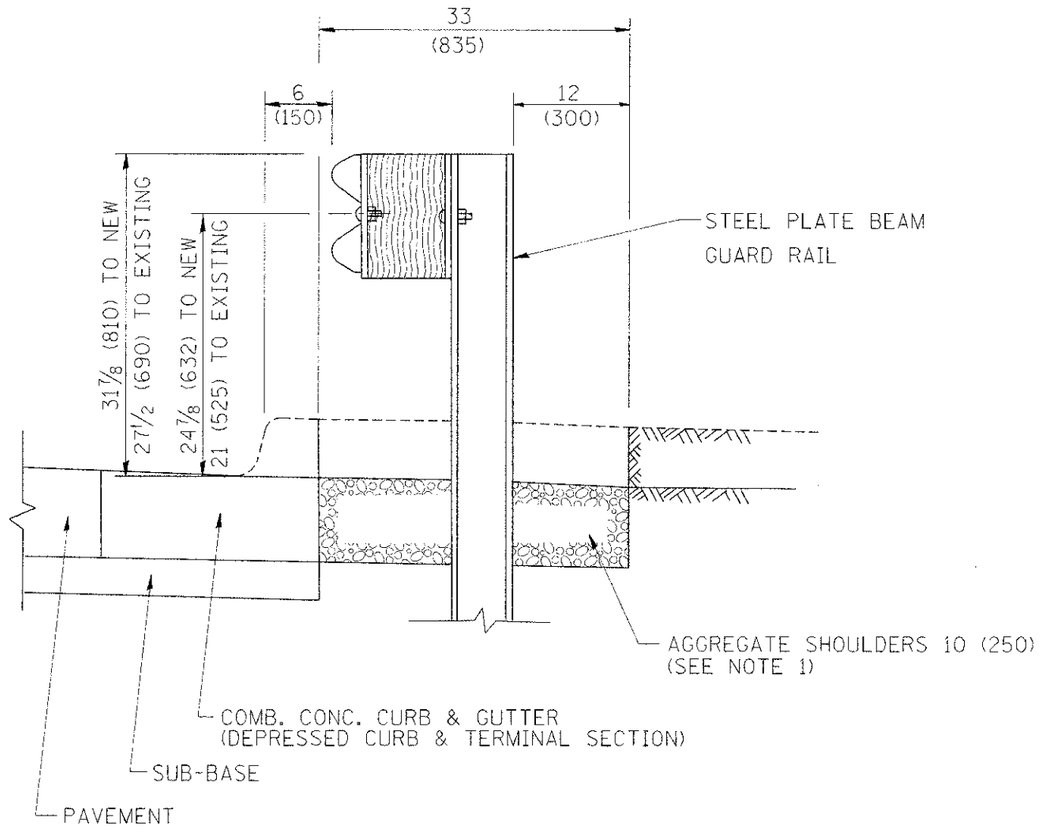
FILE NAME = c:\pw_work\pwidot\leyse\d0180315\bd01.dgn	USER NAME = leyse	DESIGNED - R. SHAH	REVISED - P. LaFLUER 04-15-03
		DRAWN -	REVISED - R. BORO 01-01-07
	PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED - R. BORO 06-11-08
	PLOT DATE = 9/6/2011	DATE - 11-04-95	REVISED - R. BORO 09-06-11

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W. AND FACE OF CURB & EDGE OF SHOULDER >= 15' (4.5 m)

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	63
	BD0156-07 (BD-01)	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

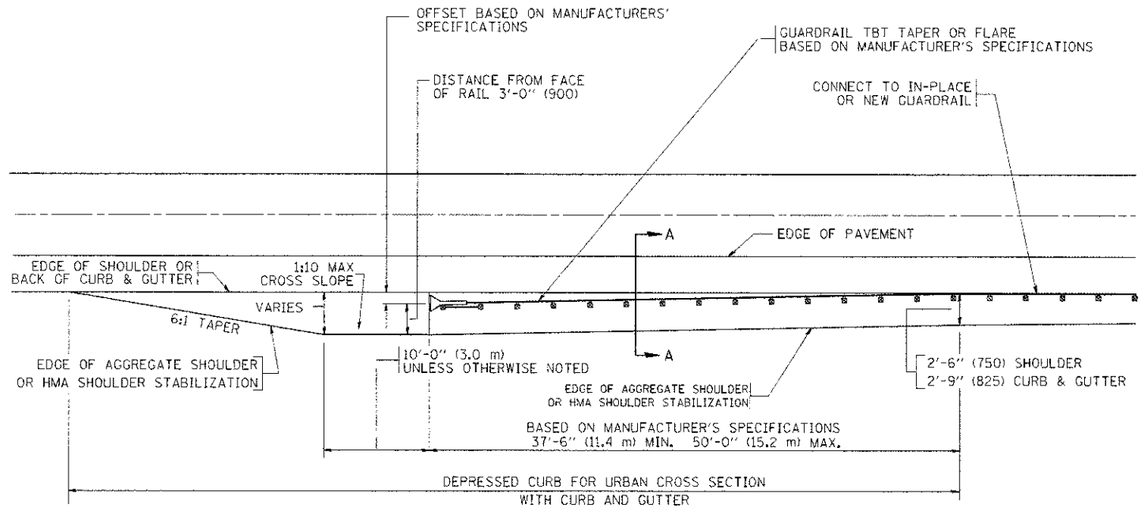


SECTION A-A

NOTES:
1. THE AGGREGATE SHOULDER, 10" OR HMA SHOULDER, 6" (IF REQUIRED) SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL.
2. "EXISTING" GUARDRAIL REFERS TO CONNECTING TERMINAL SECTION TO GUARD RAILING PRIOR TO THE MIDWEST GUARDRAIL SYSTEM.
3. THE CONTRACTOR SHALL VERIFY THE TYPE/HEIGHT OF GUARDRAIL IN-PLACE BEFORE ORDERING THE NEW TERMINAL SECTION. COST INCLUDED WITH THE COST OF THE TERMINAL. THE TERMINAL SECTION HEIGHT TO BE PLACED MUST MATCH THE HEIGHT OF THE IN-PLACE GUARDRAIL.

DETAILS FOR STEEL PLATE BEAM GUARD RAIL ADJACENT TO CURB AND GUTTER

[FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]



DEPRESSED CURB AND GUTTER AND SHOULDER TREATMENT AT TBT TY. 1 SPL.

BASIS OF PAYMENT: HMA SHOULDERS 6 (150) (IF REQUIRED) WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SHOULDERS 6" (150 mm)".

STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

TBT = TRAFFIC BARRIER TERMINAL

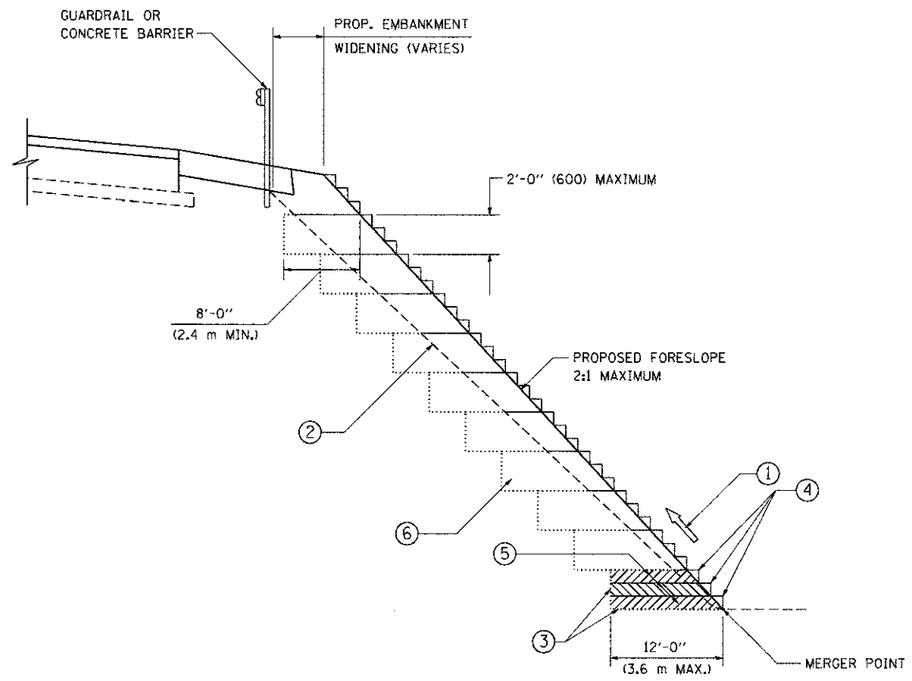
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = c:\pw_work\PWIDOT\DRIVAKOSCA\d0186315\bd34.dgn	USER NAME = drivakosgn	DESIGNED - M. DE YONG	REVISED - E. GOMEZ 08-28-00	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN -	REVISED - R. BORO 01-01-07	
	PLOT SCALE = 49.9999 '/ IN.	CHECKED -	REVISED - R. BORO 12-08-2008	
	PLOT DATE = 9/21/2009	DATE - 09-22-90	REVISED - R. BORO 09-14-2009	

DETAILS FOR DEPRESSED CURB & GUTTER AND SHOULDER TREATMENT AT TBT TY 1 SPL.

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	64
	BD600-10 (BD 34)	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



TYPICAL BENCHING DETAIL FOR EMBANKMENT

NOTES:

1. CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
2. EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
3. BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
4. TRIM TO FINAL SLOPE.
5. EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
6. EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
7. SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

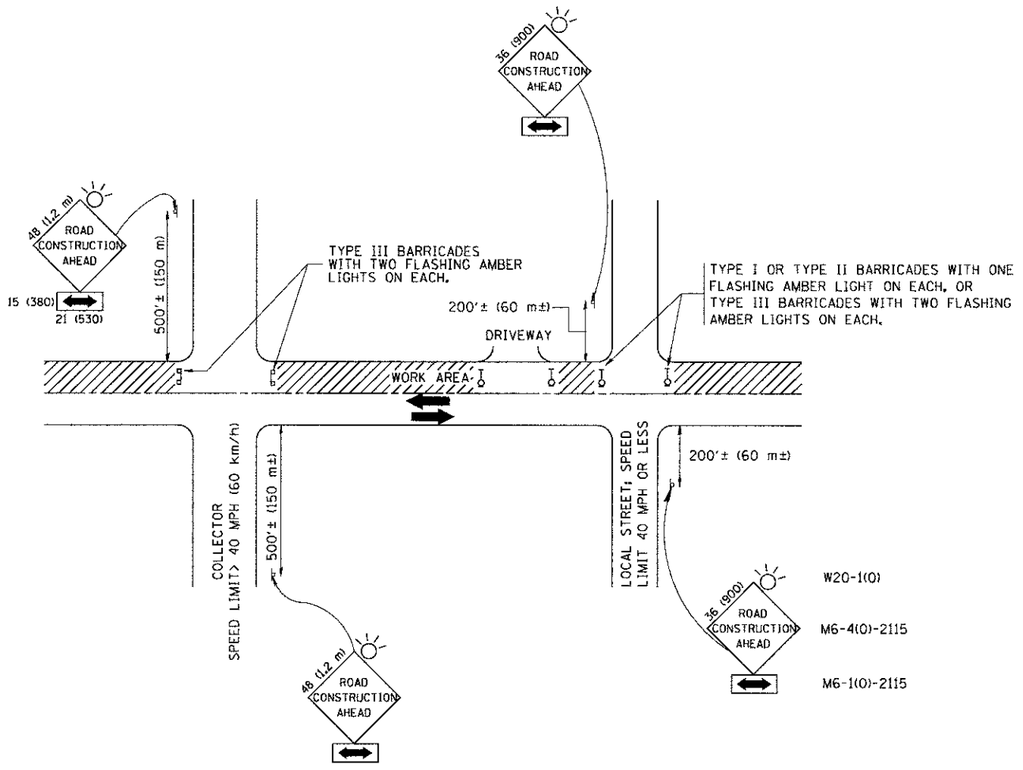
FILE NAME = W:\diststd\22x34\bd51.dgn	USER NAME = gegliensbt	DESIGNED -	REVISED -
		DRAWN - CADD	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED - S.E.B.	REVISED -
	PLOT DATE = 1/4/2008	DATE - 06-16-04	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BENCHING DETAIL
FOR EMBANKMENT WIDENING

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	65
	BD-51	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
   a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
   a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in millimeters (inches) unless otherwise shown.

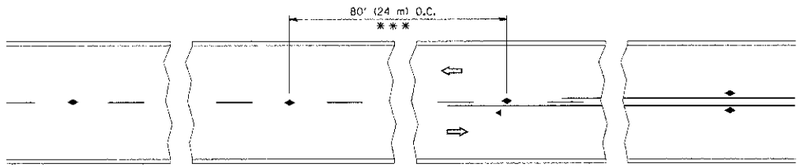
FILE NAME = W:\dists1d\22x34\tc10.dgn	USER NAME = gaglionobt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED -T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

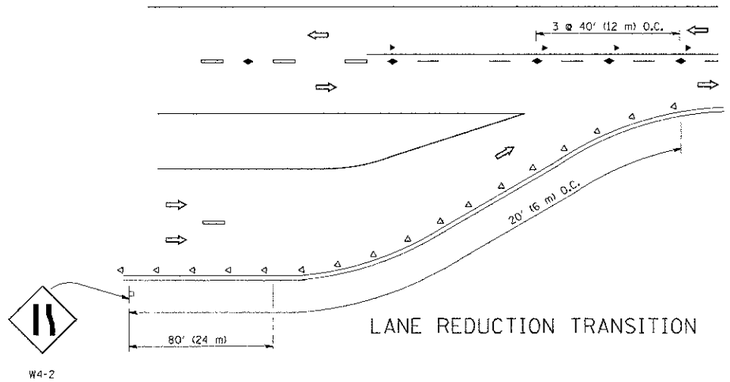
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	66
	TC-10	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

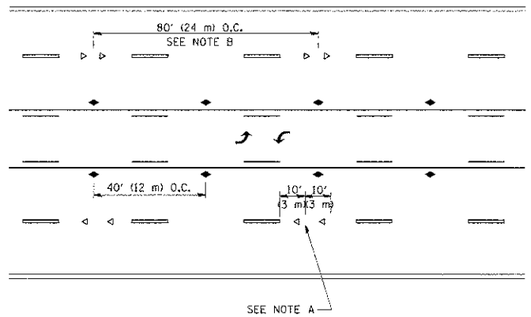


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

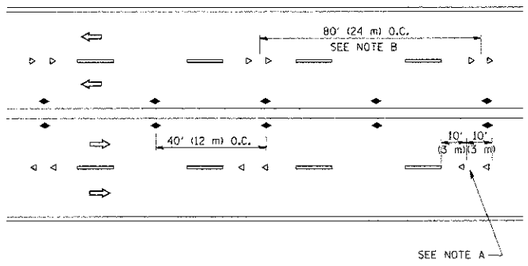
TWO-LANE/TWO-WAY



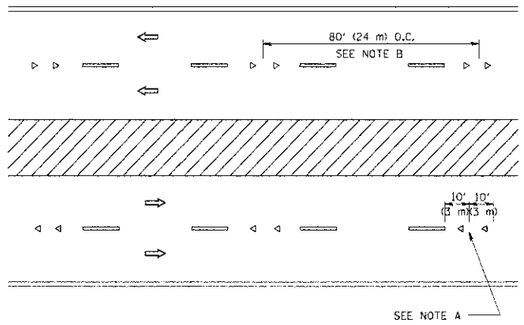
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

- YELLOW STRIPE
- WHITE STRIPE
- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (W/O)
- TWO-WAY AMBER MARKER

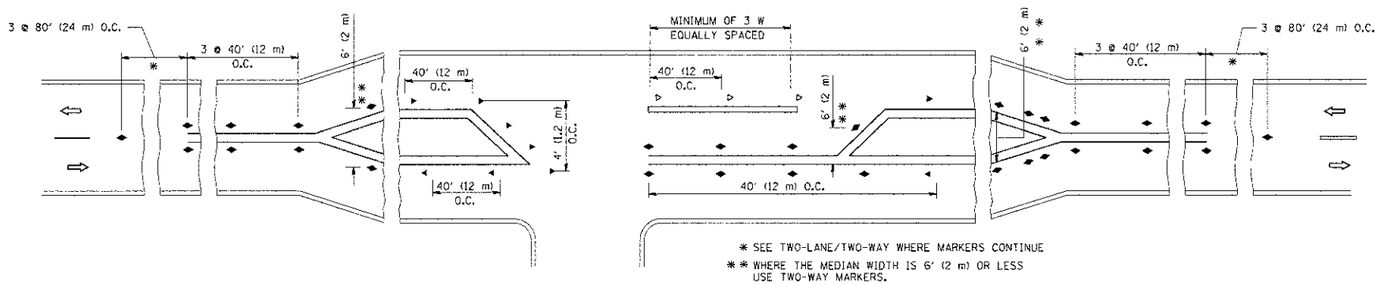
LANE MARKER NOTES

A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE

** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

LEFT TURN

All dimensions are in inches (millimeters) unless otherwise shown.

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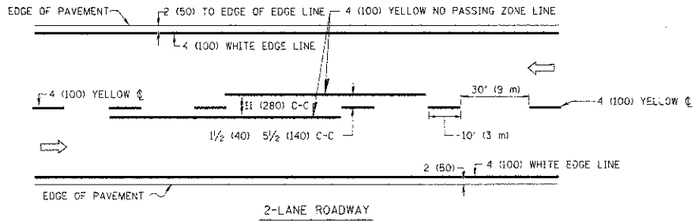
		DRAWN -	REVISED - T. RAMMACHER 03-12-99
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - T. RAMMACHER 01-06-00
	PLOT DATE = 3/2/2011	DATE -	REVISED - C. JUCIUS 09-09-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

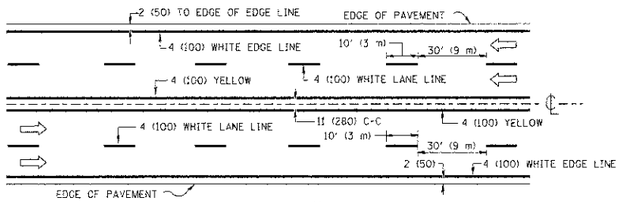
TYPICAL APPLICATIONS
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

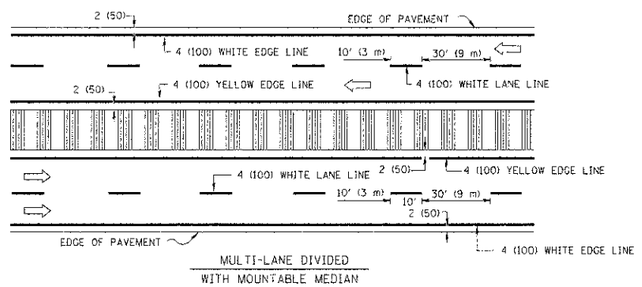
TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	67
	TC-11	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



2-LANE ROADWAY



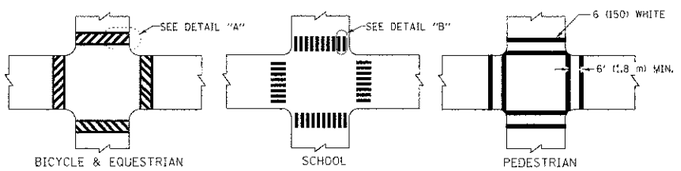
MULTI-LANE UNDIVIDED



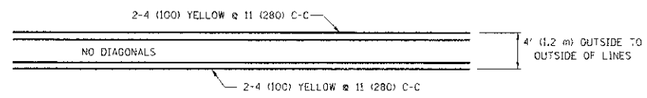
MULTI-LANE DIVIDED
WITH MOUNTABLE MEDIAN

NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

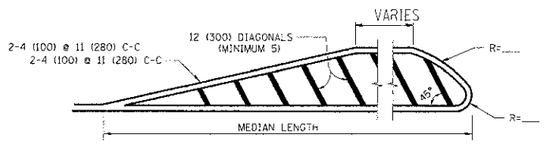
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING



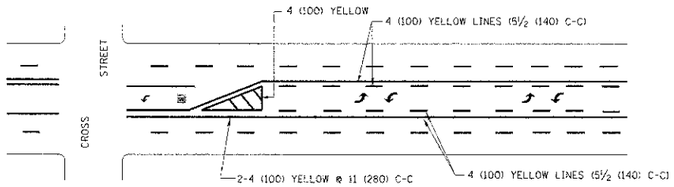
4' (1.2 m) WIDE MEDIANS ONLY



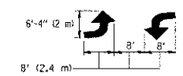
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h);
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

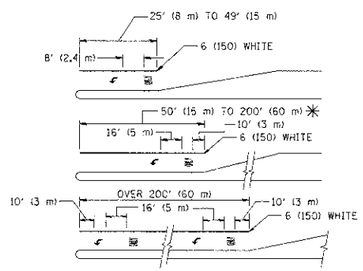


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

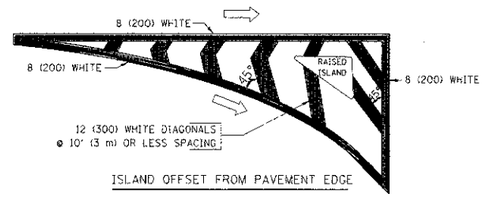


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m^2) **ONLY** AREA = 20.8 SQ. FT. (1.9 m^2)

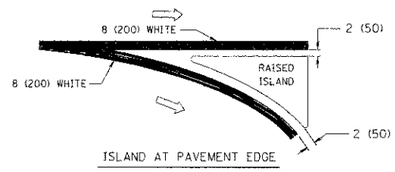
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h); 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m^2) EACH "X"=54.0 SQ. FT. (5.0 m^2)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

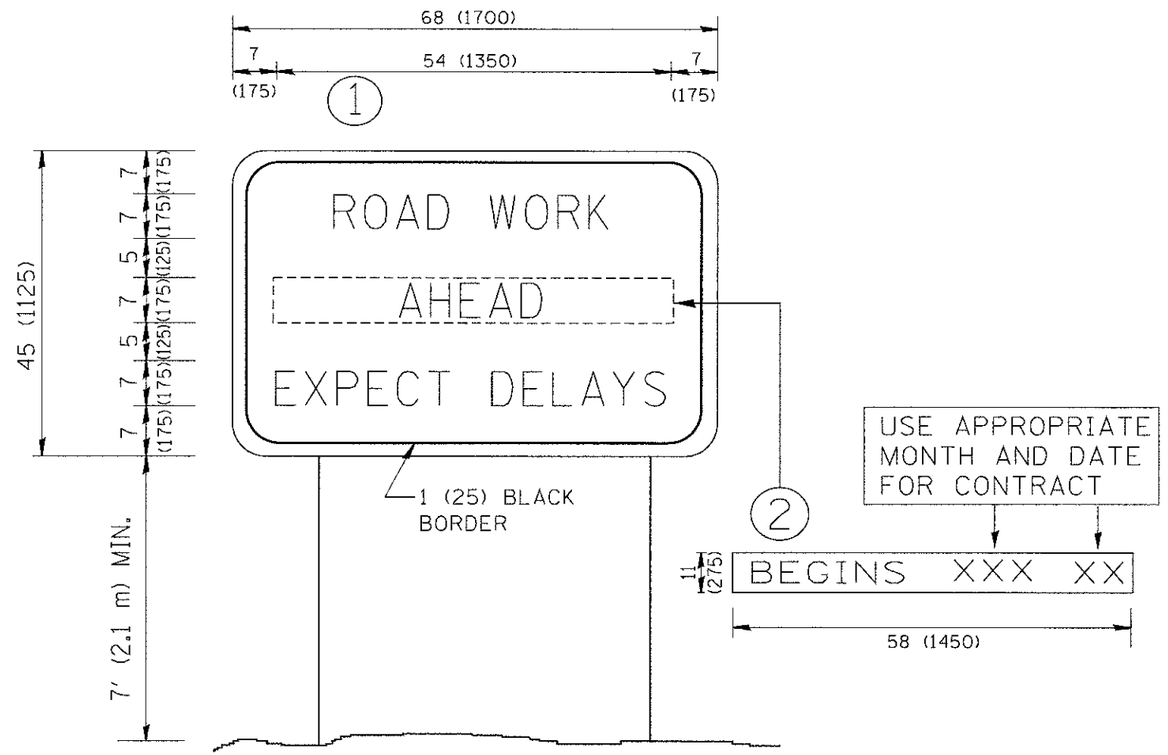
FILE NAME = c:\pw_work\pwidot\drivekosgn\d0128835\tc13.dgn	USER NAME = drivekosgn	DESIGNED - EVERS	REVISED -T. RAMMACHER 10-27-94
		DRAWN -	REVISED -C. JUCIUS 09-09-09
	PLOT SCALE = 50.000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 9/9/2009	DATE - 03-19-90	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	68
	TC-13	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN (1) WITH INSTALLED PANEL (2) ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL (2) SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

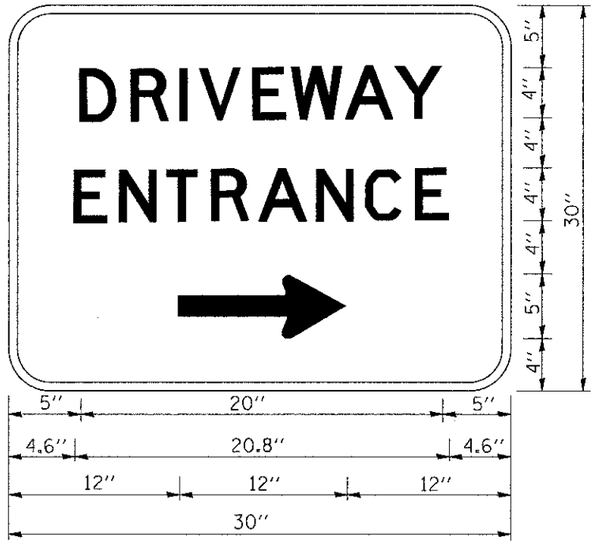
FILE NAME = W:\diststd\22x34\tc22.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	69
	TC-22	CONTRACT NO. 63666		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



3.0'' RADIUS, 0.5'' BORDER, WHITE ON GREEN; REFLECTORIZED
''DRIVEWAY'' D; ''ENTRANCE'' D; STANDARD ARROW CUSTOM 12.0'' x 5.0''

NOTES:

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK: ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM ''TEMPORARY INFORMATION SIGNING''.

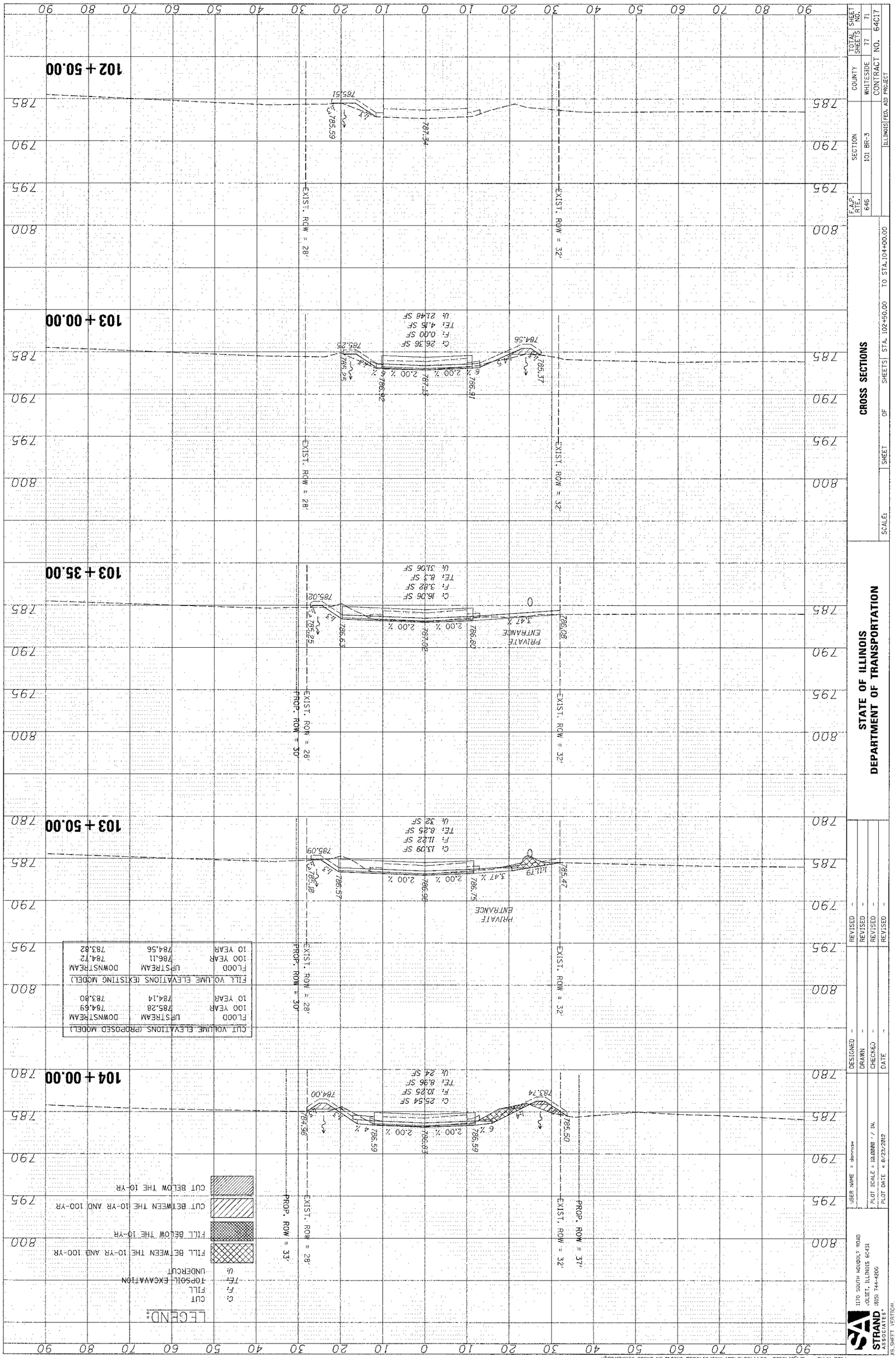
FILE NAME = W:\diststd\22x34\tc26.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED - C. JUCIUS 02-15-07
		DRAWN -	REVISED -
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 1/4/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRIVEWAY ENTRANCE SIGNING

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

TR	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
21	08-00356-00-BR	MCHENRY	77	70
	TC-26	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



CROSS SECTIONS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SECTION	COUNTY	TOTAL SHEET NO.
101 BR-3	WHITESIDE	71
F.A.P. RTE. 646	CONTRACT NO. 64C17	
	ILLINOIS FED. AID PROJECT	

SCALE: | SHEET OF SHEETS | STA. 102+50.00 TO STA. 104+00.00

	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
	DATE -	REVISED -

USER NAME = dmonroe
PLOT SCALE = 10.0000 ' / IN.
PLOT DATE = 8/23/2012

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

XS_SHEET VERTICAL

FILE NAME = s:\Jobs\6800-6899\6842\07\Microstation\sheets\01-6366-xsvertical.dgn

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		
NOTE BOOK		
NO.		

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		
NOTE BOOK		
NO.		

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		

106+50.00

106+00.00

105+50.00

105+00.00

104+50.00

LEGEND:

C: CUT
F: FILL
TE: TOPSOIL EXCAVATION
U: UNDERCUT

FILL BETWEEN THE 10-YR AND 100-YR
FILL BELOW THE 10-YR
CUT BETWEEN THE 10-YR AND 100-YR
CUT BELOW THE 10-YR

CUT VOLUME ELEVATIONS (PROPOSED MODEL)	UPSTREAM	DOWNSTREAM
FLOOD	785.28	784.68
100 YEAR	784.14	783.80
10 YEAR		

FILL VOLUME ELEVATIONS (EXISTING MODEL)	UPSTREAM	DOWNSTREAM
FLOOD	786.11	784.72
100 YEAR	784.56	783.82
10 YEAR		

PROP. ROW = 47'
EXIST. ROW = 29'
PROP. ROW = 42'
EXIST. ROW = 29'
PROP. ROW = 38'
EXIST. ROW = 28'
PROP. ROW = 33'
EXIST. ROW = 28'
PROP. ROW = 33'
EXIST. ROW = 28'
WETLAND BNDRY
EXIST. ROW = 31'
EXIST. ROW = 32'
EXIST. ROW = 32'
PROP. ROW = 49'
PROP. ROW = 48'
PROP. ROW = 46'
PROP. ROW = 45'
PROP. ROW = 41'

File Name = s:\pl\60000-69999\69423\807\micro\xsdd sheets\D1-63866-xsmain.dgn

XS SHEET VERTICAL

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USER NAME = dennisw	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 10.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = 8/23/2012	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE: | SHEET OF SHEETS | STA. 104+50.00 TO STA. 106+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	101 BR-3	WHITESIDE	77	72
		CONTRACT NO. 64C17		
	ILLINOIS FED. AID PROJECT			

FINAL SURVEY NOTE BOOK	SURVEYED	BY	DATE
	PLOTTED		
	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

ORIGINAL SURVEY NOTE BOOK	SURVEYED	BY	DATE
	PLOTTED		
	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

FILE NAME = a:\pl\6800-6899\6842-007\micro\xsdd sheets\01-63666-xssmain.dgn

LEGEND

- C: CUT
- F: FILL
- TE: TOPSOIL EXCAVATION
- U: UNDERCUT
- FILL BETWEEN THE 10-YR AND 100-YR
- FILL BELOW THE 10-YR
- CUT BETWEEN THE 10-YR AND 100-YR
- CUT BELOW THE 10-YR

CUT VOLUME ELEVATIONS (PROPOSED MODEL)

	UPSTREAM	DOWNSTREAM
FLOOD	785.28	784.69
100 YEAR	784.14	783.80
10 YEAR		

FILL VOLUME ELEVATIONS (EXISTING MODEL)

	UPSTREAM	DOWNSTREAM
FLOOD	786.11	784.72
100 YEAR	784.56	783.82
10 YEAR		

108+00.00

PROP. ROW = 61'
EXIST. ROW = 29'
WETLAND BNDRY
782.62
779.15
787.49
786.08
2.00 %
4 %
788.32
C: 142.92 SF
F: 83.65 SF
TE: 20.63 SF
U: 24 SF
787.29
EXIST. ROW = 31'
PROP. ROW = 54'
782.39

107+50.00

PROP. ROW = 56'
EXIST. ROW = 29'
WETLAND BNDRY
784.40
779.20
787.46
786.86
2.00 %
4 %
C: 101.52 SF
F: 71.79 SF
TE: 19.06 SF
U: 24 SF
787.20
EXIST. ROW = 31'
PROP. ROW = 52'
782.07
792.24

107+00.00

PROP. ROW = 52'
EXIST. ROW = 29'
WETLAND BNDRY
781.93
779.25
786.27
786.87
2.00 %
4 %
C: 47.1 SF
F: 78.1 SF
TE: 16.43 SF
U: 24 SF
787.11
EXIST. ROW = 31'
PROP. ROW = 51'
782.59
780.99

STRAND ASSOCIATES®	1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200	USER NAME = dennis	DESIGNED -
			DRAWN -
		PLOT SCALE = 10.0000 ' / IN.	CHECKED -
		PLOT DATE = 8/23/2012	DATE -

XS_SHEET VERTICAL

REVISED	-
REVISED	-
REVISED	-
REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE: | SHEET OF SHEETS | STA. 107+00.00 TO STA. 108+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	101 BR-3	WHITESIDE	77	73
		CONTRACT NO. 64C17		
	ILLINOIS FED. AID PROJECT			

CUT VOLUME ELEVATIONS (PROPOSED MODEL)		
FLOOD	UPSTREAM	DOWNSTREAM
100 YEAR	785.28	784.69
10 YEAR	784.14	783.80

FILL VOLUME ELEVATIONS (EXISTING MODEL)		
FLOOD	UPSTREAM	DOWNSTREAM
100 YEAR	786.11	784.72
10 YEAR	784.56	783.82

108 + 50.00

109 + 00.00

109 + 32.00

LEGEND

C: CUT
F: FILL
TE: TOPSOIL EXCAVATION
U: UNDERCUT

FILL BETWEEN THE 10-YR AND 100-YR
FILL BELOW THE 10-YR
CUT BETWEEN THE 10-YR AND 100-YR
CUT BELOW THE 10-YR

FINAL SURVEY
NOTE BOOK

NO.	BY	DATE
	SURVEYED	
	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

ORIGINAL SURVEY
NOTE BOOK

NO.	BY	DATE
	SURVEYED	
	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

FILE NAME = a:\01\68B02-6899\G942\V07\micro\cadd sheets\D1-63668-xsdetail.dgn

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

USER NAME = dennisw	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 10.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = 8/23/2012	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE: | SHEET OF SHEETS | STA. 108+50.00 | TO STA. 109+32.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	101 SR-3	WHITESIDE	77	74
		CONTRACT NO. 64C17		
	ILLINOIS FED. AID PROJECT			

VS SHEET VERTICAL

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		

LEGEND:

- C: CUT
- F: FILL
- TE: TOPSOIL EXCAVATION
- U: UNDERCUT

- FILL BETWEEN THE 10-YR AND 100-YR
- FILL BELOW THE 10-YR
- CUT BETWEEN THE 10-YR AND 100-YR
- CUT BELOW THE 10-YR

CUT VOLUME ELEVATIONS (PROPOSED MODEL)		
FLOOD	UPSTREAM	DOWNSTREAM
100 YEAR	785.28	784.69
10 YEAR	784.14	783.80

FILL VOLUME ELEVATIONS (EXISTING MODEL)		
FLOOD	UPSTREAM	DOWNSTREAM
100 YEAR	786.11	784.72
10 YEAR	784.56	783.82

110 + 50.00

PROP. ROW = 70'
781.48
779.25
EXIST. ROW = 30'
789.30
WETLAND BNDRY
C: 167.47 SF
F: 72.15 SF
TE: 36.63 SF
U: 0.00 SF
3:1
3:1
761.79
PROP. ROW = 50'

110 + 00.00

PROP. ROW = 70'
EXIST. ROW = 30'
BRIDGE OMISSION
PROP. ROW = 51'

109 + 50.00

PROP. ROW = 70'
EXIST. ROW = 30'
BRIDGE OMISSION
WETLAND BNDRY
PROP. ROW = 52'

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		

FILE NAME = s:\jol\6800-6899\6842\dgn\micros\cadd sheets\01-63866-xsmain.dgn

XS SHEET VERTICAL

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JOLIET, ILLINOIS 60431
(815) 744-4200

USER NAME = dennisw	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 10.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = 8/23/2012	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE: | SHEET OF SHEETS | STA. 109+50.00 TO STA. 110+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	101 BR-3	WHITESIDE	77	75
		CONTRACT NO. 64C17		
		ILLINOIS FED. AID PROJECT		

LEGEND:

C: CUT
F: FILL
TE: TOPSOIL EXCAVATION
U: UNDERCUT

FILL BETWEEN THE 10-YR AND 100-YR
FILL BELOW THE 10-YR
CUT BETWEEN THE 10-YR AND 100-YR
CUT BELOW THE 10-YR

CUT VOLUME ELEVATIONS (PROPOSED MODEL)		
	UPSTREAM	DOWNSTREAM
FLOOD	785.28	784.69
100 YEAR	784.14	783.80
10 YEAR		

FILL VOLUME ELEVATIONS (EXISTING MODEL)		
	UPSTREAM	DOWNSTREAM
FLOOD	786.11	784.72
100 YEAR	784.56	783.82
10 YEAR		

112 + 00.00

EXIST. ROW = 31'
PROP. ROW = 41'
WETLAND BNDRY
EXIST. ROW = 29'
PROP. ROW = 44'
785.23
784.50
790.71
790.95
C: 1555 SF
F: 3466 SF
TE: 107 SF
U: 24 SF

111 + 50.00

EXIST. ROW = 31'
PROP. ROW = 51'
WETLAND BNDRY
EXIST. ROW = 29'
PROP. ROW = 44'
782.85
780.25
790.39
790.63
C: 6722 SF
F: 5583 SF
TE: 2618 SF
U: 24 SF

111 + 00.00

EXIST. ROW = 31'
PROP. ROW = 60'
WETLAND BNDRY
EXIST. ROW = 29'
PROP. ROW = 47'
782.75
779.75
789.54
790.14
790.38
C: 1315 SF
F: 5644 SF
TE: 1945 SF
U: 24 SF
782.48
781.50

FINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
	PLOTTED	
	TEMPLATE	
	AREAS	
NO.	AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
	PLOTTED	
	TEMPLATE	
	AREAS	
NO.	AREAS CHECKED	

FILE NAME = s:\pl\68000\68995\GD42\X007\xmicro\xcadd sheets\D1-63666-xsemain.dgn

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

USER NAME = dennisw	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 10.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = 8/23/2012	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE: | SHEET OF SHEETS | STA. 111+00.00 TO STA. 112+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	101 BR-3	WHITESIDE	77	76
		CONTRACT NO. 64C17		
	ILLINOIS FED. AID PROJECT			

XS SHEET VERTICAL

LEGEND:

C: CUT
F: FILL
TE: TOPSOIL EXCAVATION
UC: UNDERCUT

FILL BETWEEN THE 10-YR AND 100-YR

FILL BELOW THE 10-YR

CUT BETWEEN THE 10-YR AND 100-YR

CUT BELOW THE 10-YR

CUT VOLUME	ELEVATIONS (PROPOSED MODEL)	
	UPSTREAM	DOWNSTREAM
FLOOD	785.28	784.69
100 YEAR	784.14	783.80
10 YEAR		

FILL VOLUME	ELEVATIONS (EXISTING MODEL)	
	UPSTREAM	DOWNSTREAM
FLOOD	786.11	784.72
100 YEAR	784.56	783.82
10 YEAR		

113+50.00

113+00.00

112+50.00

EXIST. ROW = 31'

EXIST. ROW = 29'

796.87

790.16

791.84

792.08

2.00 %

4 %

6 %

791.95

790.90

792.76

791.19

791.43

788.95

789.03

790.84

C: 15.5 SF
F: 1.48 SF
TE: 5.56 SF
UC: 24 SF

C: 44.73 SF
F: 2.26 SF
TE: 9.27 SF
UC: 24 SF

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

FILE NAME = #:\plt\6800-6899\6842\007\xscross\cadd sheets\01-6356 xsmainupgr

1:10 SHEET VERTICAL

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JOLIET, ILLINOIS 60431
(815) 744-4200

USER NAME = dennisw	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 10.0200 ' / IN.	CHECKED -	REVISED -
PLOT DATE = 8/23/2012	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE: | SHEET OF SHEETS | STA. 112+50.00 TO STA. 113+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	101 BR-3	WHITESIDE	77	77
		CONTRACT NO. 64C17		
		ILLINOIS FED. AID PROJECT		