

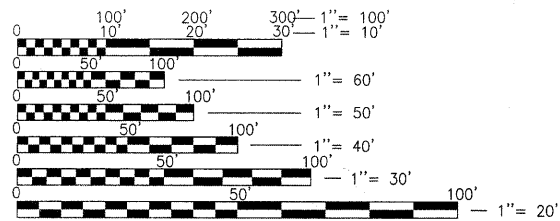
SECTION	COUNTY	TOWNSHIP	TOTAL SHEETS	SHEET NO.
03-01130-00-BR	KANE	AURORA	33	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT 63660		

INDEX OF SHEETS  
STATE STANDARDS  
SEE SHEET 02

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS  
PROPOSED PLANS FOR FEDERAL AID HIGHWAY  
**AUSTIN AVENUE  
OVER INDIAN CREEK  
BRIDGE REPLACEMENT**  
SECTION NO. 03-01130-00-BR  
PROJECT BH0S-00D1 (653)  
AURORA TOWNSHIP  
KANE COUNTY  
C-91-352-04

DESIGN FUNCTIONAL CLASSIFICATION: MINOR COLLECTOR  
DESIGN TRAFFIC: 757(2010), 1,000(2030) ADT; 38 (2010), 50(2030) DHV  
DESIGN SPEED: 30 MPH

SCALES { PLAN 1" = 10', 20', 30', 40', 60'  
PROFILE HORIZ. 1" = 20'  
PROFILE VERT. 1" = 5'  
CROSS SECTIONS 1" = 10'



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.



LOCATION OF SECTION INDICATED THUS: [Symbol]  
PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

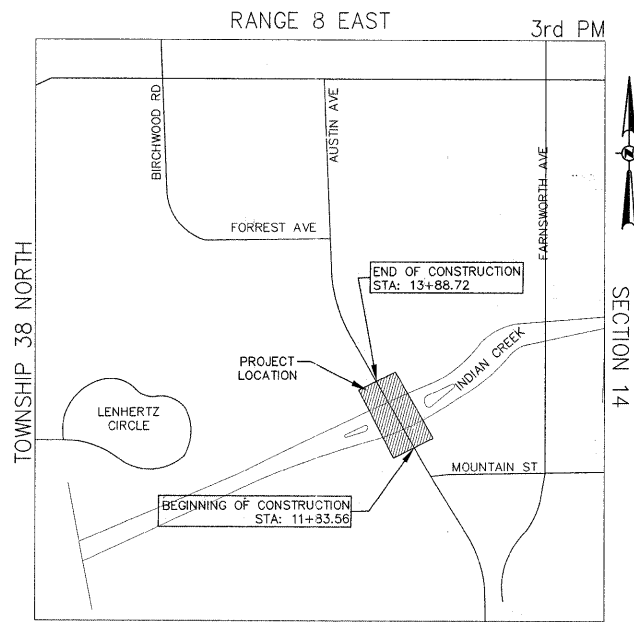
PROGRAM AND OFFICE ENGINEER: CHARLES R. RIDDLE, P.E. 847-705-4406 SCHAUMBURG, IL

**WARNING**  
IN ILLINOIS  
(OUTSIDE CHICAGO)

CALL J.U.I.E TOLL FREE  
1-800-892-0123  
or: 811  
**CALL BEFORE YOU DIG**

CONTRACT NO. 63660

**PROPOSED STRUCTURE**  
EXISTING STRUCTURE NO. 045-3087  
PROPOSED STRUCTURE NO. 045-3091



LOCATION MAP  
N.T.S.

TOTAL NET & GROSS LENGTH OF PROJECT = 205.16' = 0.039MI

ENGINEER SEALS

TEBRUGGE ENGINEERING  
Sheets 1-12, 24-33



*John J. Tebrugge*

JOHN J. TEBRUGGE, P.E.  
EXPIRES NOV 30, 2013

LONCO, INC.  
Sheets 13-23



*William Epp*

WILLIAM EPP, SE  
EXPIRES NOV 30, 2012

PLANS PREPARED BY:

**TEBRUGGE ENGINEERING**  
P.O. BOX 38, PLANO, IL 60545  
PHONE: (630) 552-4390 FAX: (630) 552-4392  
TEBRUGGEENGINEERING@COMCAST.NET  
WWW.TEBRUGGEENGINEERING.COM

**LONCO, INC.**  
CONSULTING ENGINEERS  
1560 WALL STREET SUITE 222  
NAPERVILLE, IL 60563 (630) 577-9100

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

Approved NOVEMBER 1, 2011

*Justin*  
Aurora Township, Position

Passed NOVEMBER 8, 2011

*Chris*  
District 1 Engineer of Local Roads & Streets

Releasing for Bid  
Based on Limited  
Review

NOVEMBER 8, 2011

*Diana M. O'Keefe*  
Deputy Director of Highways, Region 1 Engineer

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1.	COVER SHEET
2.	INDEX OF SHEETS AND GENERAL NOTES
3.	SUMMARY OF QUANTITIES
4.	ALIGNMENTS, TIES, & BENCHMARKS
5.	EXISTING CONDITIONS AND DEMOLITION PLAN
6.	PROPOSED PLAN AND PROFILE
7.	STORM WATER POLLUTION & PREVENTION PLAN
8.	STORM WATER POLLUTION & PREVENTION PLAN NOTES
9.	PAVEMENT MARKING PLAN
10.	NATIVE LANDSCAPE I
11.	NATIVE LANDSCAPE II
12.	TRAFFIC CONTROL
13.	BRIDGE GENERAL PLAN AND PROFILE
14.	STEEL RAILING TYPE SM
15.	SUBSTRUCTURE LAYOUT & SLOPE PROTECTION
16.	SUBSTRUCTURE DETAILS
17.	27X48 PCC DECK BEAMS I
18.	27X48 PCC DECK BEAMS II
19.	27X36 PCC DECK BEAMS I
20.	27X36PCC DECK BEAMS II
21.	SOUTH ABUTMENT & PILING DETAILS
22.	NORTH ABUTMENT & PILING DETAILS
23.	HP PILE DETAILS
24.	GUARDRAIL DETAILS
25.	APPROACH PAVEMENT
26.	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT
27.	BUTT JOINT AND HMA TAPER DETAILS
28.	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
29.	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
30.	TYPICAL ROADWAY CROSS SECTIONS
31.	INDIAN CREEK CROSS SECTIONS
32.	SOIL BORINGS
33.	MISCELLANEOUS DETAILS

LIST OF STATE STANDARDS

STANDARD NO.	DESCRIPTION
000001 - 06	STANDARD SYMBOLS, ABBREVIATION AND PATTERNS
001001 - 02	AREAS OF REINFORCEMENT BARS
280001 - 06	TEMPORARY EROSION CONTROL SYSTEMS
420401 - 08	BRIDGE APPROACH PAVEMENT CONNECTOR
515001 - 03	NAME PLATE FOR BRIDGES
631032 - 07	TRAFFIC BARRIER TERMINAL, TYPE 6A
635006 - 03	REFLECTOR & TERMINAL MARKER PLACEMENT
701901 - 02	TRAFFIC CONTROL DEVICES
720001 - 01	SIGN PANEL MOUNTING DETAILS
720008 - 03	SIGN PANEL ERECTION DETAILS
720011 - 01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
728001 - 01	TELESCOPING STEEL SIGN SUPPORT
729001 - 01	APPLICATIONS FOR TYPES A & B METAL POSTS (FOR SIGNS AND MARKERS)
780001 - 03	TYPICAL PAVEMENT MARKINGS
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
BLR 22-7	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

CONTACTS:

COMED ELECTRICAL  
TERESA DISMUKES TWO LINCOLN CENTER  
OAKBROOK TERRACE, IL 60181  
630-576-7141

NICOR GAS  
CONSTANCE LANE  
1844 FERRY ROAD  
NAPERVILLE, IL 60563  
630-388-3830

AT&T BROADBAND CABLE  
EARL FLEMMING  
1000 COMMERCE DR. 2ND FLOOR  
OAKBROOK, IL 60523  
630-573-6462

CITY OF AURORA SEWER & WATER  
RAY HULL  
649 S RIVER ST  
AURORA, IL 60506  
630-256-3710

FOX METRO RECLAMATION DISTRICT SEWER  
JEFF HUMM  
630-892-4378  
682 ILLINOIS ST  
OSWEGO, IL 60543

AURORA SCHOOL DISTRICT #131  
630-299-8340

CITY OF AURORA POLICE DEPARTMENT  
630-256-5330

CITY OF AURORA FIRE DEPARTMENT  
630-256-4000

GENERAL NOTES:

- THE CONTRACTOR WILL BE ALLOWED TO SET UP A YARD AND/OR FIELD OFFICE IN THE CONTRACTOR'S STAGING AREA.
- BEFORE STARTING ANY EXCAVATION WORK, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, CABLE AND GAS FACILITIES. (48-HOUR NOTIFICATION IS REQUIRED.)
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING MATERIALS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSURE PIPE OUTLETS FROM ALL CATCH BASINS ARE FREE OF BLOCKAGES AND DEBRIS.
- ALL EXISTING GRASS AREAS DISTURBED BY THE CONTRACTOR SHALL BE RESEED AND PROTECTED FROM EROSION WITH EROSION CONTROL BLANKETS.
- THE CONTRACTOR SHALL PROTECT ALL IDENTIFIED TREES DURING CONSTRUCTION. AT THE CONTRACTOR'S EXPENSE, ALL BROKEN TREE LIMBS OVER ONE-INCH (1") IN DIAMETER SHALL BE MADE FLUSH WITH THE NEXT LARGE BRANCH. ALL LIMBS, BRANCHES, SCRUB BRUSH, AND OTHER DEBRIS SHALL BE DISPOSED OF BY THE CONTRACTOR OUTSIDE THE LIMITS OF THE PROJECT.
- ALL TREES IN OR ADJACENT TO THE WORK AREA WITH DIAMETERS LARGER THAN TEN-INCHES (10") SHALL HAVE THEIR TRUNKS PROTECTED FROM CONSTRUCTION ACTIVITY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL STREETS USED BY CONTRACTOR, SUB-CONTRACTORS, AND SUPPLIERS CLEAN AND FREE OF ALL DIRT, MUD, AND OTHER CONSTRUCTION DEBRIS, AND WILL BE REQUIRED TO CLEAN THEM AS IS NECESSARY IN ORDER TO MAINTAIN THEM IN A SAFE CONDITION. THE CONTRACTOR SHALL BE ESPECIALLY RESPONSIVE TO REQUESTS FROM THE ENGINEER, AURORA TOWNSHIP, POLICE AND FIRE DEPARTMENTS, OR ANY OFFICIAL OF THE OWNER TO COOPERATE THROUGHOUT THE PROJECT DURATION. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE CONTRACT.
- THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL IN CONFORMANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", STATE OF ILLINOIS, AND ARTICLE 107.14 OF THE STANDARD SPECIFICATIONS. BARRICADES AND OTHER REQUIRED TRAFFIC CONTROL WILL BE PAID UNDER THE LUMP SUM PRICE FOR TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR.
- LAYOUT OF SLOPE PROTECTION SYSTEM MAY BE VARIED IN THE FIELD TO SUIT GROUND CONDITIONS AS DIRECTED BY THE ENGINEER.
- NO WORK SHALL COMMENCE UNTIL TRAFFIC CONTROL REQUIREMENTS ARE MET.
- UTILITIES, SCHOOL DISTRICTS, LOCAL POLICE AND FIRE DEPARTMENTS SHOULD BE NOTIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
- DURING THE CONSTRUCTION, THE CONTRACTOR WILL BE REQUIRED, AT HIS EXPENSE, TO HAVE AVAILABLE A WATER TRUCK OR SIMILAR EQUIPMENT TO CONTROL DUST. IF NECESSARY, THE CONTRACTOR SHALL BE REQUIRED TO CONTROL DUST DURING NON-WORKING HOURS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE CONTRACT.
- SPECIAL CARE SHALL BE TAKEN DURING EXCAVATION NEAR UTILITIES AND TREES TO BE SAVED-IN ORDER TO AVOID UNNECESSARY DAMAGE.
- ALL WORK PERFORMED SHALL COMPLY WITH ALL APPLICABLE RULES AND REGULATIONS OF THE OSHA. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A SAFE AND HEALTHFUL WORKING CONDITION THROUGHOUT THE CONSTRUCTION OF THE VARIOUS IMPROVEMENTS.
- THE CONTRACTOR SHALL PROTECT AND PRESERVE ALL SECTION/SUBSECTION MONUMENTS OR PROPERTY MONUMENTS.

17. COST OF SAWCUTS SHALL BE INCLUDED IN THE COST OF PAVEMENT REMOVAL.

18. DISPOSAL OF UNUSED AND SURPLUS EXCAVATED MATERIALS AND DEBRIS  
THIS WORK SHALL CONSIST OF THE SATISFACTORY REMOVAL AND DISPOSAL OF EXCAVATED MATERIALS, EXCAVATED UNSUITABLE MATERIALS, UNUSED MATERIALS, CONSTRUCTION DEBRIS FROM ROADWAY AND UTILITY WORK, FROM THE EXISTING BRIDGE REMOVAL, AND WORK TO ADDRESS SCOPE OF WORK ELEMENTS OF THE WATERWAY OPENING AS SHOWN ON THE PLANS, AND ANY OTHER ORGANIC WASTE MATERIALS.

THIS WORK SHALL BE PERFORMED ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS FOR REMOVAL OF UNSUITABLE MATERIAL AND ORGANIC WASTE.

UTILITY COORDINATION:

- UTILITIES IN THE VICINITY OF THE PROJECT ARE SHOWN ON SHEETS 5 OF THIS PLAN SET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS CONSTRUCTION ACTIVITIES WITH THE APPROPRIATE UTILITY.
- THE LOCATION AND ELEVATION OF EXISTING UTILITIES ARE APPROXIMATE AND ARE PROVIDED BY THE UTILITY. THE EXACT LOCATIONS AND ELEVATION ARE TO BE VERIFIED BY THE CONTRACTOR THROUGH THE UTILITY.

CONCRETE GENERAL NOTES:

- REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31, M-42, OR M-53 GRADE 60.
- REINFORCING BARS DESIGNATED (E) SHALL BE EPOXY-COATED. DAMAGE TO THE EPOXY COATING DURING HANDLING, PLACEMENT, ETC., SHALL BE REPAIRED WITH A COMPATIBLE EPOXY.
- ALL ACCESSORIES, INCLUDING BOLSTERS, CHAIRS, TIE WIRE, ETC., USED TO TIE OR SUPPORT THE EPOXY-COATED BARS SHALL BE EPOXY-COATED.
- STRUCTURAL CONCRETE: CONCRETE SHALL BE IDOT CLASS SI HAVING A MINIMUM COMPRESSIVE STRENGTH (FC) OF 3,500 PSI AT 14 DAYS. THE CONCRETE MIX SHALL HAVE AN AIR CONTENT BETWEEN 5 AND 8 PERCENT OF THE VOLUME OF THE CONCRETE. THE CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS TO THE ENGINEER FOR APPROVAL.
- THE BACK FACE OF THE ABUTMENT WINGWALLS AND RETAINING WALLS SHALL BE WATERPROOFED ACCORDING TO ARTICLE 503.18 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL MAKE ALLOWANCE FOR THE LATERAL DEFLECTION OF FORMS, SHRINKAGE AND SETTLEMENT OF FALSEWORK OR BRACES, IN ADDITION TO ALLOWANCE FOR DEADLOAD DEFLECTION, AS APPLICABLE.
- DESIGN AND CONSTRUCTION OF FORMWORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PERFORMED IN ACCORDANCE WITH ACI 347 AND THE STANDARD SPECIFICATIONS.

DEMOLITION NOTES:

- THE EXTENT OF DEMOLITION WORK IS SHOWN ON AND REASONABLY INFERRABLE FROM THE DRAWINGS.
- PROVIDE FOR OFF-SITE DISPOSAL OF ALL DEMOLISHED MATERIAL.
- THE ITEM "REMOVAL OF EXISTING STRUCTURE" SHALL INCLUDE THE ENTIRE SUPERSTRUCTURE AND PORTIONS OF THE SUBSTRUCTURE OF THE EXISTING BRIDGE AS NOTED ON THE DEMOLITION PLAN.

MOISTURE PROTECTION:

- DESIGNATED CONCRETE SURFACE SHALL BE COATED WITH A SILANE SURFACE SEALER. THE SEALER SHALL BE ISOBUTYL TRIMETHOXY SILANE IN A 40% SOLIDS SOLUTION OF ANHYDROUS ISOPROPYL ALCOHOL. SURFACES TO RECEIVE SILANE INCLUDE THE RIGID CONCRETE PAVEMENT, AND OTHER ENGINEER DESIGNATED SURFACES.
- THE SILANE SURFACE SEALER SHALL BE CONSIDERED AN ALTERNATE TO THE DEPARTMENT'S PROTECTIVE COAT REQUIREMENTS FOR CONCRETE CAST IN THE FALL.

EPOXY-GROUTED DOWELS:

- ALL DRILLED-IN REINFORCING BAR DOWELS SHALL BE SET WITH IDOT PRE-QUALIFIED EPOXY ADHESIVE GROUTING MATERIAL MEETING THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS. REINFORCING BARS TO BE EPOXY-GROUTED MAY BE EPOXY COATED, AS SHOWN ON THE PLANS.
- FOLLOWING DRILLING, ANCHOR HOLES SHALL BE THOROUGHLY CLEANED WITH OIL-FREE AND MOISTURE-FREE COMPRESSED AIR, USING A NOZZLE EXTENDED TO THE BOTTOM OF THE HOLE, AND SUPPLEMENTED WITH A PERMITTED TO DRY. CORE-DRILLED HOLES SHALL BE FLUSHED WITH CLEAN WATER IMMEDIATELY FOLLOWING DRILLING, BLOWN OUT WITH COMPRESSED AIR, AND BRUSH OR OTHER TOOL AS NECESSARY TO REMOVE ALL DUST AND LOOSE MATERIAL.
- UNLESS OTHERWISE INDICATED, ADHESIVE OR GROUT SHALL BE PLACED THROUGH A TUBE OF GUN EXTENSION, BEGINNING AT THE MAXIMUM DEPTH OF THE HOLE AND WITHDRAWN AS ADHESIVE IS PUMPED, FOLLOWED BY INSERTION OF THE ANCHOR TO THE SPECIFIED DEPTH. SPACES AROUND ANCHORS AT THE SURFACE SHALL BE SEALED AT VERTICAL AND OVERHEAD LOCATIONS WHERE NECESSARY TO PREVENT ESCAPE OF THE ADHESIVE DURING CURING.
- EPOXY-GROUTED REINFORCING BARS SHALL NOT BE BENT AFTER BEING EMBEDDED IN HARDENED, SOUND CONCRETE UNLESS PERMITTED BY THE ENGINEER.

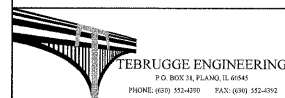
REFERENCE STANDARDS:

- ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT)
  - STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (ADOPTED JANUARY 1, 2012)
  - SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS (ADOPTED JANUARY 1, 2012)
  - HIGHWAY STANDARDS
- AMERICAN ASSOCIATION OF STATE HIGHWAYS AND TRANSPORTATION OFFICIALS (AASHTO)
  - STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES
  - STANDARD SPECIFICATIONS FOR TRANSPORTATION MATERIALS AND METHODS OF SAMPLING AND TESTING
  - BRIDGE WELDING CODE (ANSI/AASHTO/AWS D1.5)
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)
  - CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
MIXTURE TYPE	DESIGN AIR VOIDS	THICKNESS
<b>ROADWAY RESURFACING</b> HMA SURFACE COURSE, MIX "D", N50 (IL-9.5 mm) HMA BINDER COURSE, IL-19.0, N50	4% @ 50 GYR 4% @ 50 GYR	1 1/2" 2 1/4" & VARIES
<b>ROADWAY RECONSTRUCTION</b> HMA SURFACE COURSE, MIX "D", N50 (IL-9.5 mm) HMA BINDER COURSE, IL-19.0, N50	4% @ 50 GYR 4% @ 50 GYR	1 1/2" 2 1/4" & VARIES
<b>BRIDGE APPROACH PAVEMENT CONNECTOR FLEXIBLE, 15"</b> HMA SURFACE COURSE, MIX "D", N50 (IL-9.5 mm) HMA BINDER COURSE, IL-19.0, N50	4% @ 50 GYR 4% @ 50 GYR	1 1/2" 6"

NOTE:

- THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112LBS/SQ YD/IN.
- THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE SBS/SBR PG 76-22 AND FOR NON-POLYMERIZED HMA THE AC TYPE SHALL BE 64-22 UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE SPECIAL PROVISIONS.
- SEE SHEET 30 FOR TYPICAL SECTIONS



DESIGNED -- JJT	REVISED --
DRAWN -- ASK	REVISED --
CHECKED -- JJT	REVISED --
DATE -- 10/7/2011	REVISED --

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

INDEX TO SHEETS & GENERAL NOTES  
AUSTIN AVE OVER INDIAN CREEK

SCALE: NONE	SHEET NO. 1 OF 1	STA. 11+83.56 TO STA. 13+88.72	F.A.P. RTE.	SECTION 03-01130-00-BR	COUNTY KANE	TOTAL SHEETS 33	SHEET NO. 2
			D-91-352-04		CONTRACT NO. 63660		
			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES			80% FEDERAL, 20% STATE			
SP	ITEM NUMBER	DESCRIPTION	UNIT	TOTAL	ROADWAY 0004	BRIDGE 0011
	20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	39	39	
	20101100	TREE TRUNK PROTECTION	EACH	5	5	
	20200100	EARTH EXCAVATION	CU YD	30	30	
	20300100	CHANNEL EXCAVATION	CU YD	90	90	
	21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	60.0	60.0	
*	25000110	SEEDING, CLASS 1A	ACRE	0.07	0.07	
*	25000400	NITROGEN FERTILIZER NUTRIENT	POUND	10	10	
*	25000500	PHOSPHOROUS FERTILIZER NUTRIENT	POUND	10	10	
*	25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	10	10	
	28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	20	20	
	28000400	PERIMETER EROSION BARRIER	FOOT	381	381	
	28100107	STONE RIP RAP, CLASS A4	SQ YD	350		350
	28200200	FILTER FABRIC	SQ YD	350		350
	31101000	SUB-BASE GRANULAR MATERIAL, TYPE B	TON	63.0	63.0	
	40300100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	283	283	
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	21	21	
	40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19, N50	TON	62	62	
	40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	71	71	
	42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	35	35	
	44000100	PAVEMENT REMOVAL	SQ YD	201	201	
	44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	170	170	
	48101200	AGGREGATE SHOULDERS, TYPE B	TONS	46	46	
	50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
	50200100	STRUCTURE EXCAVATION	CU YD	187		187
	50300225	CONCRETE STRUCTURES	CU YD	49.8	12.8	37.0
	50300255	CONCRETE SUPERSTRUCTURE	CU YD	48.1		48.1
	50300280	CONCRETE ENCASEMENT	CU YD	3.6		3.6
	50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	1642		1642
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	19760		19760
*	50901050	STEEL RAILING, TYPE SM	FOOT	130		130

SUMMARY OF QUANTITIES			80% FEDERAL, 20% STATE			
SP	ITEM NUMBER	DESCRIPTION	UNIT	TOTAL	ROADWAY 0004	BRIDGE 0011
	51201610	FURNISHING STEEL PILES HP 12X63	FOOT	292		292
	51202305	DRIVING PILES	FOOT	292		292
	51203610	TEST PILE STEEL HP 12X63	EACH	2		2
	51204650	PILE SHOES	EACH	10		10
	51500100	NAME PLATES	EACH	1		1
	58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	443		443
	58700300	CONCRETE SEALER	SQ FT	432		432
	59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	66		66
	60300350	MANHOLE FRAMES TO BE ADJUSTED	EACH	1	1	
*	63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4	4	
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4	
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	8	8	
	67100100	MOBILIZATION	L SUM	1	1	
	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1	
*	78000200	THERMOPLASTIC PAVEMENT MARKING-LINE 4"	FOOT	820	560	260
*	78200410	GUARDRAIL MARKERS, TYPE A	EACH	4	4	
*	78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
	X0326806	WASHOUT BASIN	L SUM	1	1	
	X2070304	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	99	99	
*	X2511630	EROSION CONTROL BLANKET (SPECIAL)	SQ YD	453	453	
	X5810100	WATERPROOFING MEMBRANE SYSTEM (SPECIAL)	SQ YD	183		183
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
	Z0046304	PIPE UNDERDRAINS FOR STRUCTURES, 4"	FOOT	108		108
*	A2000170	TREE, ACER X FREEMANII AUTUMN BLAZE (AUTUMN BLAZE MAPLE), 8' HEIGHT CLUMP FORM, BALLED AND BURLAPPED	EACH	2	2	
*	K1005421	SEEDING, SPECIAL	ACRE	0.03	0.03	

\* SPECIALTY ITEMS



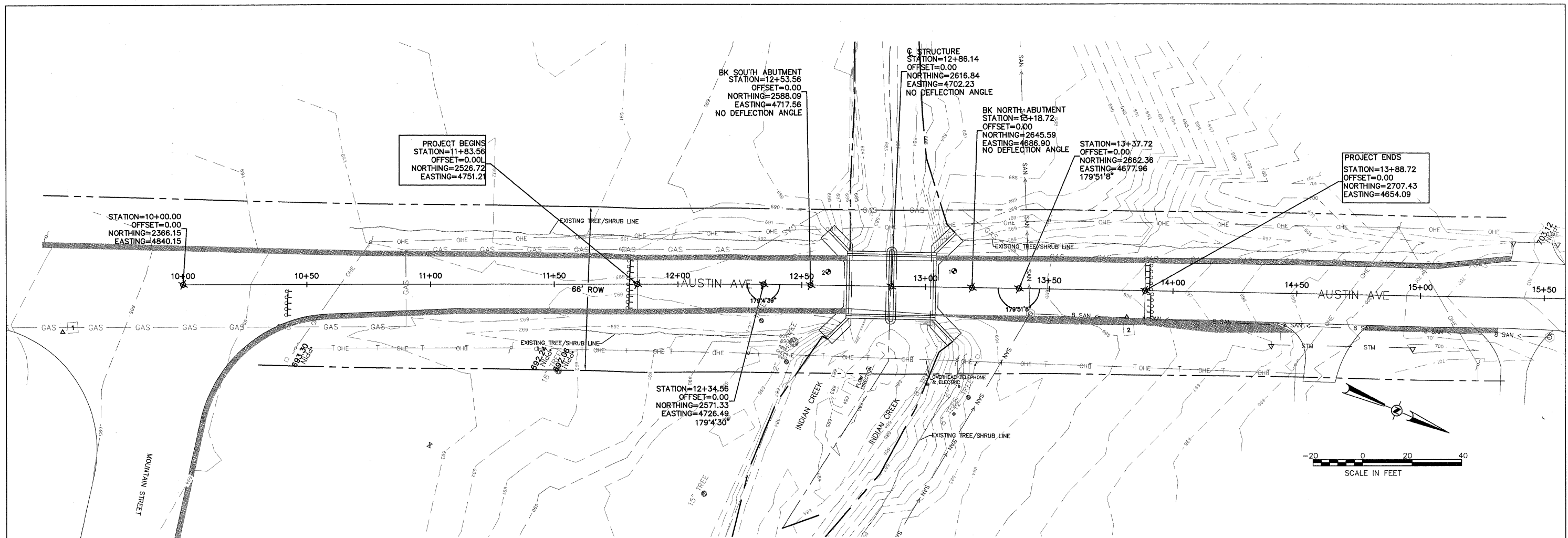
DESIGNED -- JJT	REVISED --
DRAWN -- ASK	REVISED --
CHECKED -- JJT	REVISED --
DATE -- 10/7/2011	REVISED --

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES  
AUSTIN AVE OVER INDIAN CREEK

SCALE: NONE SHEET NO. 1 OF 1 STA. 11+83.56 TO STA. 13+88.72

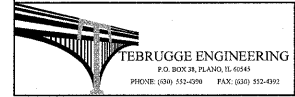
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	03-01130-00-BR	KANE	33	3
D-91-352-04			CONTRACT NO. 63660	
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				



HORIZONTAL/VERTICAL CONTROL POINTS			
1	N: 2332.6809 E: 4880.2039 LOCATED 313' SOUTH OF BRIDGE SE CORNER OF MOUNTAIN AVE AND AUSTIN AVE	695.84	
2	N: 2706.0591 E: 4666.9300 LOCATED 76' NORTH OF BRIDGE ON EAST SIDE OF AUSTIN AT STA 13+81.00	695.63	
3	N: 2974.4255 E: 4507.0072 LOCATED 388' NORTH OF BRIDGE ON WEST SIDE OF AUSTIN AVE STA 16+93 (NOT SHOWN ON THIS SHEET)	705.67	

CITY OF AURORA CONTROL POINTS			
BM #20 N	COA CONTROL MONUMENT #20 NORTH N: 1864092.657 E: 998319.873 (NOT SHOWN ON THIS SHEET)	709.80	
BM #20 S	COA CONTROL MONUMENT #20 SOUTH N: 1863244.718 E: 998250.965 (NOT SHOWN ON THIS SHEET)	709.91	

NAVD 88 DATUM

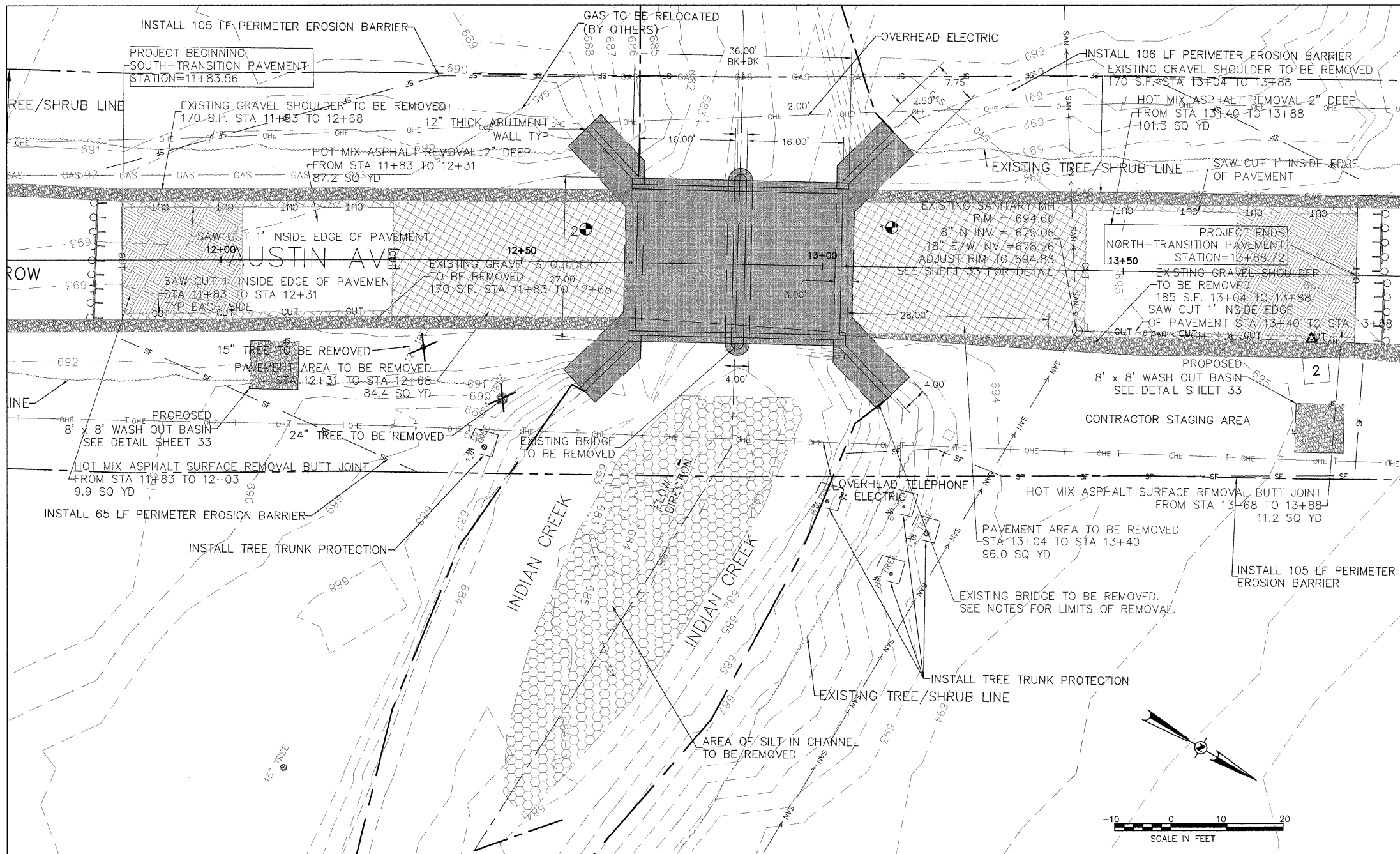


DESIGNED - JJT	REVISED -
DRAWN - ASK	REVISED -
CHECKED - JJT	REVISED -
DATE - 10/7/2011	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ALIGNMENTS, TIES, & BENCHMARKS AUSTIN AVE OVER INDIAN CREEK	
SCALE: 1" = 20'	SHEET NO. 1 OF 1
STA. 11+83.56 TO STA. 13+88.72	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	03-01130-00-BR	KANE	33	4
D-91-352-04		CONTRACT NO. 63660		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				



### LEGEND

	PROPERTY BOUNDARY
	EXISTING CONTOUR LINE
	EXISTING STORM SEWER
	EXISTING SANITARY SEWER LINE
	EXISTING WATERMAIN
	EXISTING UNDERGROUND ELECTRIC
	EXISTING OVERHEAD ELECTRIC
	EXISTING GAS SERVICE
	EXISTING TELEPHONE
	PROPOSED CONTOUR LINE
	PROPOSED WATERMAIN
	PROPOSED STORM SEWER
	PROPOSED SANITARY SEWER LINE
	EXISTING FENCELINE
	PROPOSED SILT FENCE
	PROPOSED SAWCUT
	PROPOSED CL CREEK
	EXISTING SPOT SHOT
	PROPOSED SPOT GRADE

	EXIST	PROP		
WATER:				B-BOX
				HYDRANT
				VALVE
				VALVE VAULT
STORM:				INLET-CURB
				INLET OR MANHOLE
				FLARED END SECTION
SANITARY:				CLEANOUT
				MANHOLE

	PAVEMENT REMOVAL
	CHANNEL EXCAVATION
	BRIDGE DEMOLITION
	GRAVEL SHOULDER
	HOT-MIX ASPHALT REMOVAL BUTT JOINT

	SOIL BORING
	UTILITY POLE
	GUY WIRE LOC.
	UTIL CABINET
	UTIL PEDESTAL
	LIGHT POLE
	TRAFFIC SIGNAL
	ELECTRIC VAULT
	GAS VALVE

- NOTES:**
- CONTRACTOR SHALL INSTALL ALL SOIL EROSION CONTROL & SILT CURTAIN IN THE CREEK AS REQUIRED BY KANE-DUPAGE SOIL & WATER CONSERVATION DISTRICT PRIOR TO THE START OF BRIDGE DEMOLITION.
  - REMOVAL OF EXISTING STRUCTURE SHALL INCLUDE ALL PORTIONS OF THE SUPERSTRUCTURE, PARAPETS AND PORTIONS SUBSTRUCTURE OR AS REQUIRED BY THE ENGINEER.
  - BRIDGE PIER, ABUTMENTS & WINGWALLS ARE TO BE REMOVED DOWN TO A MINIMUM OF ONE FOOT BELOW THE STREAM BED ELEVATION OR ELEVATION 681.50.
  - CONTRACTOR SHALL REMOVE ALL CONCRETE DEBRIS & REBAR DAILY FROM THE CREEK AND NOT BLOCK THE FLOW OF THE WATER.
  - WORK IN THE CREEK TO EXCAVATE FOR THE RIPRAP & CONSTRUCTION OF THE ABUTMENT BERMS SHALL BE SCHEDULED TO MINIMIZE IMPACTS TO THE CREEK.
  - DISPOSAL OF EXCAVATED MATERIAL AND DEBRIS FROM THE BRIDGE SHALL BE PERFORMED ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS FOR REMOVAL OF UNSUITABLE MATERIAL AND ORGANIC WASTE. SEE NOTE 19 OF GENERAL NOTES ON SHEET 2.
  - PAVEMENT REMOVAL SHALL INCLUDE ALL PAVEMENT AND SUB-BASE MATERIALS DOWN TO THE PROPOSED SUB-GRADE OF THE APPROACH PAVEMENT ACCORDING TO ARTICLE 440.01 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
  - SEE FOX METRO MANHOLE DETAIL FOR INSTALLATION REQUIREMENTS OF CONCRETE ADJUSTMENT RING & CHIMNEY SEAL AROUND FRAME AND GRATE. COST OF CHIMNEY SEAL INSTALLATION IS INCLUDED IN "MANHOLE FRAMES TO BE ADJUSTED". SEE SHEET 33 FOR DETAIL.
  - SEE SHEET 33 FOR EXISTING BRIDGE INFORMATION.

THE LOCATION, SIZE AND TYPE OF MATERIAL OR EXISTING UNDERGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY AURORA TOWNSHIP AND UTILITY COMPANIES OF HIS OPERATIONAL PLANS AND SHALL OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULE OF THE COMPANIES OR DEPARTMENTS FOR REMOVAL OR ADJUSTMENT WHERE REQUIRED. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION. THE ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE. WHENEVER POSSIBLE, AURORA TOWNSHIP SHALL BE NOTIFIED IN ADVANCE IF ANY SERVICE IS TO BE DISCONNECTED.

TREE REMOVAL REQUIRED ALONG SOUTH BANK OF INDIAN CREEK. TREES SHOWN TO BE REMOVED HAVE AN "X" PLACED ON THEM.

TREE REPLACEMENT (SEE SHEET 10 FOR LOCATION)

2 TREES TOTAL

15" TREE - 1  
24" TREE - 1

2 TREES TOTAL  
39 INCHES TOTAL



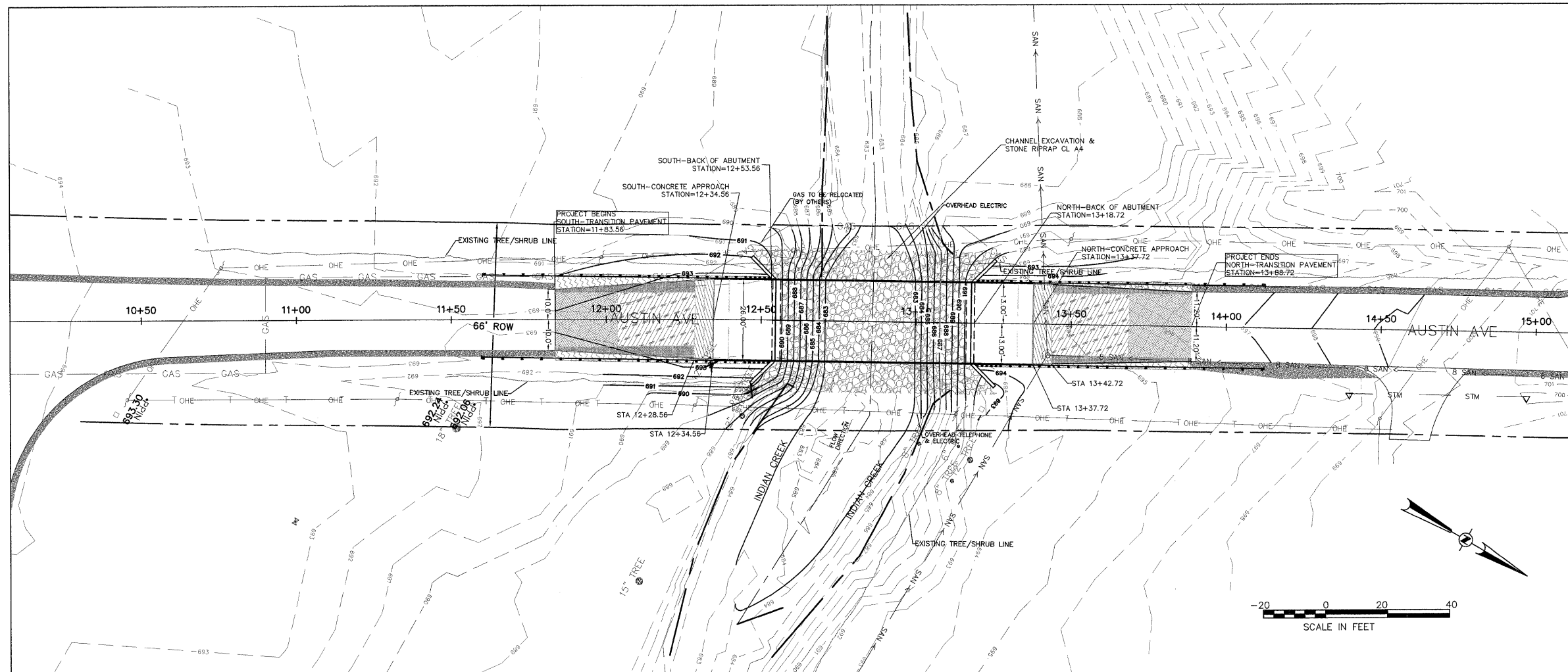
DESIGNED - JTT	REVISED -
DRAWN - ASK	REVISED -
CHECKED - JTT	REVISED -
DATE - 10/7/2011	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING CONDITIONS AND DEMOLITION PLAN  
AUSTIN AVE OVER INDIAN CREEK

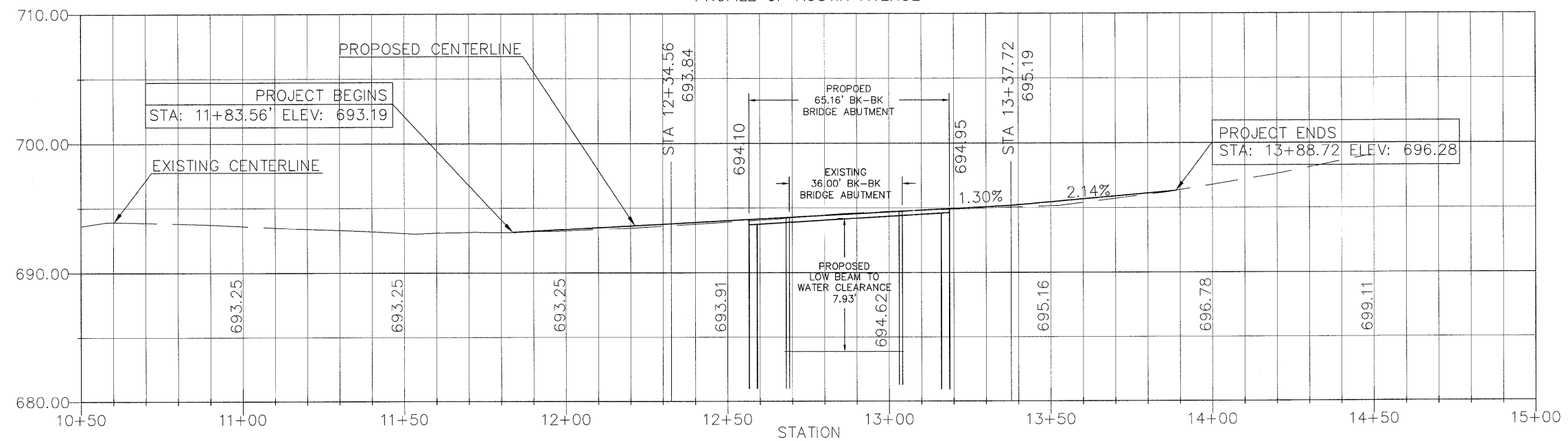
SCALE: 1" = 10' SHEET NO. 1 OF 1 STA. 11+83.56 TO STA. 13+88.72

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	03-01130-00-BR	KANE	33	5
D-91-352-04		CONTRACT NO. 63660		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				



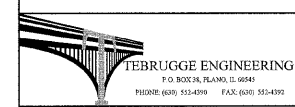
- BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)
- HMA SURFACE REMOVAL 2" REPLACED W/ HMA SC "D" N70 2" & HMA BC IL-90 N70 2"-4"
- ROADWAY WIDTH TRANSITION EARTH EXC. REPLACED W/HMA SC "D" N70 2" & HMA BC IL-19 N70 2"-4" & AGGR. SUBGRADE
- GRAVEL SHOULDER
- HOT-MIX ASPHALT BUTT JOINT

PROFILE OF AUSTIN AVENUE



PROFILE GRADE

ALONG @ ROADWAY  
LOOKING WEST  
HORIZ. SCALE: 1" = 20'  
VERT. SCALE: 1" = 5'

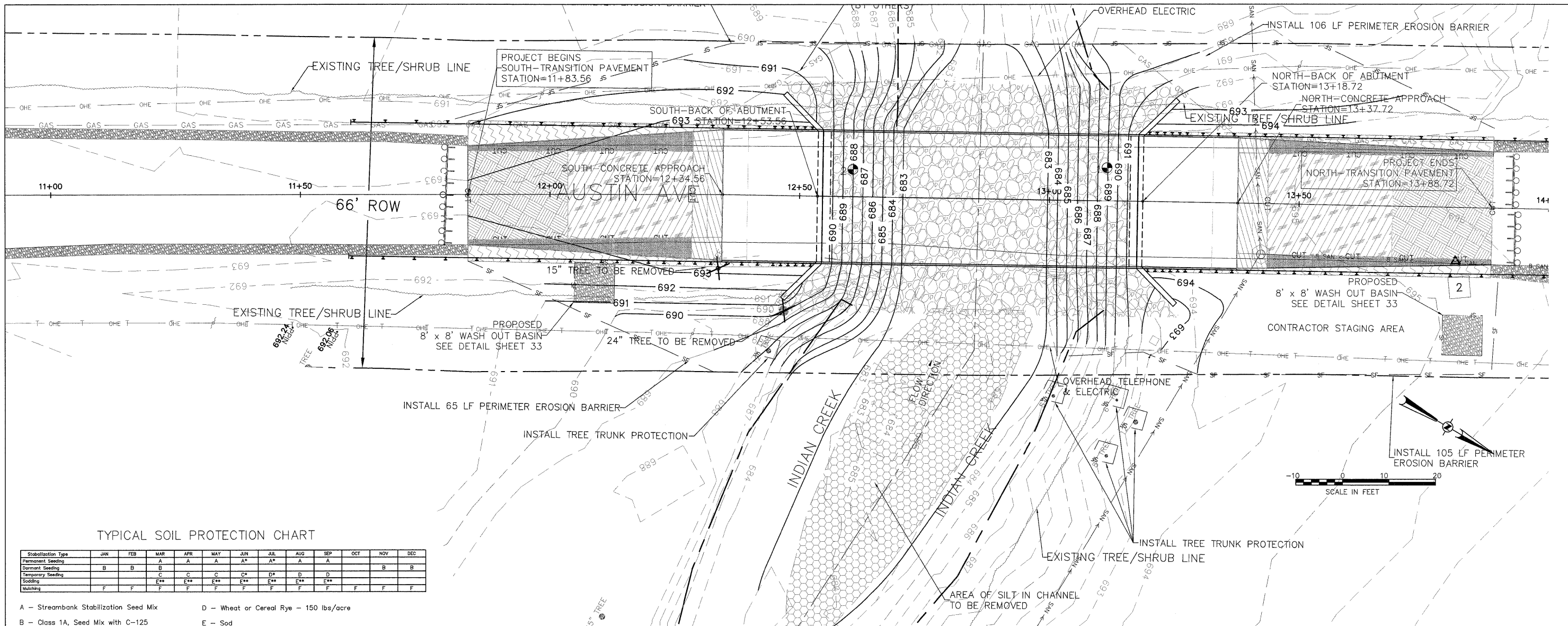


DESIGNED - JJT	REVISED -
DRAWN - ASK	REVISED -
CHECKED - JJT	REVISED -
DATE - 10/7/2011	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED PLAN AND PROFILE  
AUSTIN AVE OVER INDIAN CREEK  
SCALE: AS NOTED SHEET NO. 1 OF 1 STA. 11+83.56 TO STA. 13+88.72

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	03-01130-00-BR	KANE	33	6
D-91-352-04		CONTRACT NO. 63660		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				



TYPICAL SOIL PROTECTION CHART

Stabilization Type	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Permanent Seeding			A	A	A	A*	A*	A	A			
Dormant Seeding	B	B	B								B	B
Temporary Seeding			C	C	C	C*	D*	D	D			
Sodding			E**	E**	E**	E**	E**	E**	E**			
Mulching	F	F	F	F	F	F	F	F	F	F	F	F

- A - Streambank Stabilization Seed Mix
- B - Class 1A, Seed Mix with C-125 Erosion Control Matting  
\* Watering needed in June and July
- C - Spring Oats - 100 lbs/acre
- D - Wheat or Cereal Rye - 150 lbs/acre
- E - Sod  
\*\* Water for 2-3 weeks after sodding
- F - Mulch and/or Erosion Control Blanket

BEST MANAGEMENT PRACTICE NOTES

- NO CONSTRUCTION EXIT DETAIL IS DETAILED FOR THIS PROJECT. AUSTIN AVENUE WILL BE CLOSED WITHIN THE LIMITS OF CONSTRUCTION AS DETAILED ON THE TRAFFIC CONTROL PLAN. CONTRACTOR SHALL NOT ALLOW DIRT & DEBRIS ON THE ROADWAY OUTSIDE THE CONSTRUCTION LIMITS AND SHALL REMOVE ANY DIRT FROM THE ROADWAY ON A DAILY BASIS AT NO COST TO THE TOWNSHIP. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE RUNOFF FROM THE ROADWAY IS DIRECTED BACK TOWARD THE SITE OR THAT THE RUNOFF IS CLEAR OF SEDIMENT.
- THE CONTRACTOR MAY PERMANENTLY REMOVE ANY PORTION OF THE PERIMETER SILT FENCE AFTER ESTABLISHMENT OF FINAL GRADE AND/OR FINAL STABILIZATION. THE CONTRACTOR SHALL NOT REMOVE ANY PORTION OF THE PERIMETER SILT FENCE UPSTREAM OF A DISTURBANCE AND/OR INEFFECTIVE AS A BEST MANAGEMENT PRACTICE. ANY SUCH REMOVAL SHALL BE NOTED ON THE SWPPP SITE MAPS ALONG WITH UPSTREAM STABILIZATION AND GRADING CONDITIONS.
- NO INLET PROTECTION IS REQUIRED AS PART OF THIS PROJECT.
- PERMANENT EROSION CONTROL FABRIC NORTH AMERICAN GREEN C-125 SHALL BE APPLIED TO ALL SLOPES 4:1 OR GREATER THAN 4:1. FOLLOW MANUFACTURER SPECIFICATIONS FOR INSTALLATION. THE CONTRACTOR SHALL NOTE ALL AREAS WHERE NAG C-125 HAS BEEN INSTALLED RELATIVE TO AS-BUILT GRADES AND FURNISH THESE BOUNDARIES TO THE CIVIL ENGINEER UPON REQUEST.
- PERMANENT SEEDING SHOULD BE PLANTED AS SOON AS IT IS PRACTICAL TO ENSURE PROPER GERMINATION PRIOR TO TERMINATION OF PERMIT COVERAGE. THE CONTRACTOR SHALL PLANT PERMANENT SEEDING AS SPECIFIED ON THE LANDSCAPING PLAN AS SOON AS FINAL GRADES ARE ESTABLISHED AS SPECIFIED ON THE GRADING PLAN. SEE SITE LANDSCAPING PLAN FOR EXACT GROUND COVER TYPE AND LOCATION.

SOIL EROSION / SEDIMENT CONTROL OPERATION TIME SCHEDULE

NOTE: GENERAL CONTRACTOR TO COMPLETE TABLE WITH THEIR SPECIFIC PROJECT SCHEDULE

CONSTRUCTION SEQUENCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	
TEMPORARY CONSTRUCTION EXITS																				
TEMPORARY CONTROL MEASURES																				
SEDIMENT CONTROL BASINS																				
STRIP & STOCKPILE TOPSOIL																				
ROUGH GRADE																				
STORM FACILITIES																				
SITE CONSTRUCTION																				
PERMANENT CONTROL STRUCTURES																				
FOUNDATION / BUILDING CONSTRUCTION																				
FINISH GRADING																				
LANDSCAPING / SEED / FINAL STABILIZATION																				

- CONTRACTOR SHALL UPDATE THE TABLE BY SHADING OR DATING THE APPLICABLE ACTIVITIES AS PROJECT PROGRESSES.
- TIME SCHEDULE MUST COINCIDE WITH SEQUENCE OF CONSTRUCTION.

STORMWATER OUTFLOW CONTRIBUTING/RECEIVING WATERS

FROM SITE - INDIAN CREEK  
TO RECEIVING WATERS - FOX RIVER

- PROPOSED GRADE INFORMATION THAT IS PROVIDED ON THE SWPPP SITE MAP IS FOR THE PURPOSE OF INDICATING FINAL DRAINAGE PATTERNS ONLY. SEE GRADING PLAN FOR FINAL GRADING DETAILS.
- THE CONTRACTOR SHALL MAINTAIN ALL EXISTING ROADWAYS, SIDEWALKS, DRIVES, ETC., TO BE FREE AND CLEAR OF ANY CONSTRUCTION DEBRIS AND/OR EXCAVATED AND HAULED MATERIAL TO ENSURE EASY AND SAFE PEDESTRIAN AND VEHICULAR TRAFFIC TO AND FROM ADJACENT SITES.
- THE CONTRACTOR SHALL SUPPLY A LIST OF ALL TYPES OF EROSION CONTROL MATERIALS TO BE USED ON THIS PROJECT DURING DEMOLITION OF THE EXISTING BRIDGE AND WORK WITHIN THE WATER OF THE US DURING CONSTRUCTION OF THE PROPOSED BRIDGE. **ALL METHODS AND MATERIALS SHALL BE APPROVED BY KANE COUNTY SOIL AND WATER CONSERVATION DISTRICT PRIOR TO THE START OF CONSTRUCTION.**
- SEE SHEET 33 FOR EROSION CONTROL BLANKET DETAIL.

ACREAGE SUMMARY

OWNER AURORA TOWNSHIP 220 BUTTERFIELD RD NORTH AURORA, IL 60542 PHONE: 630-892-0246 FAX: 630-892-0266	
TOTAL SITE AREA	0.39 AC±
TOTAL DISTURBED AREA	0.28 AC±
PROPOSED IMPERVIOUS AREA	0.12 AC±
LANDSCAPED AREA	0.27 AC±
PROPOSED CN	76

CONTRACTOR'S CERTIFICATION

I, CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT (LR10) THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THE CERTIFICATION.

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_



DESIGNED - JJT	REVISED -
DRAWN - ASK	REVISED -
CHECKED - JJT	REVISED -
DATE - 10/7/2011	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

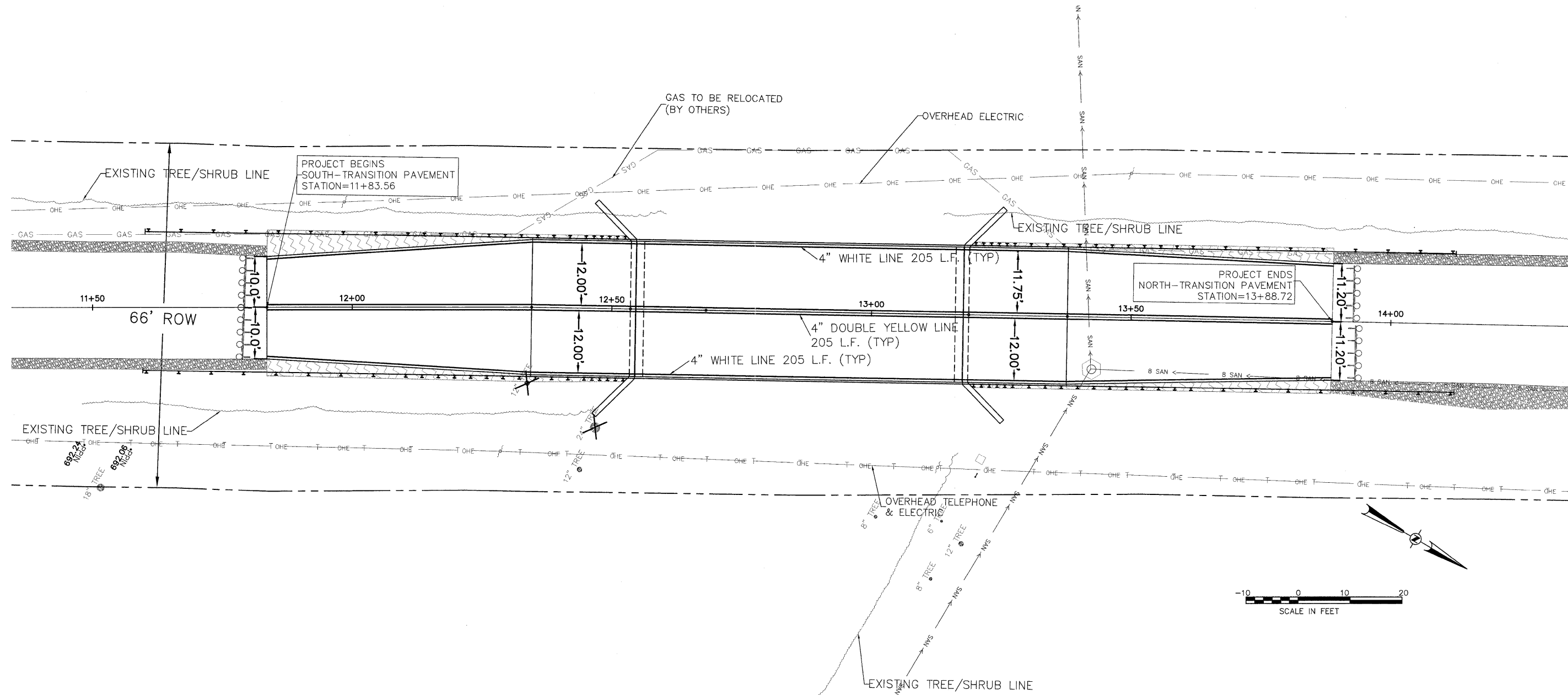
STORM WATER POLLUTION & PREVENTION PLAN  
AUSTIN AVE OVER INDIAN CREEK

SCALE: 1" = 10' SHEET NO. 1 OF 2 STA. 11+83.56 TO STA. 13+88.72

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	03-01130-00-BR	KANE	33	7
	D-91-352-04		CONTRACT NO. 63660	
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				







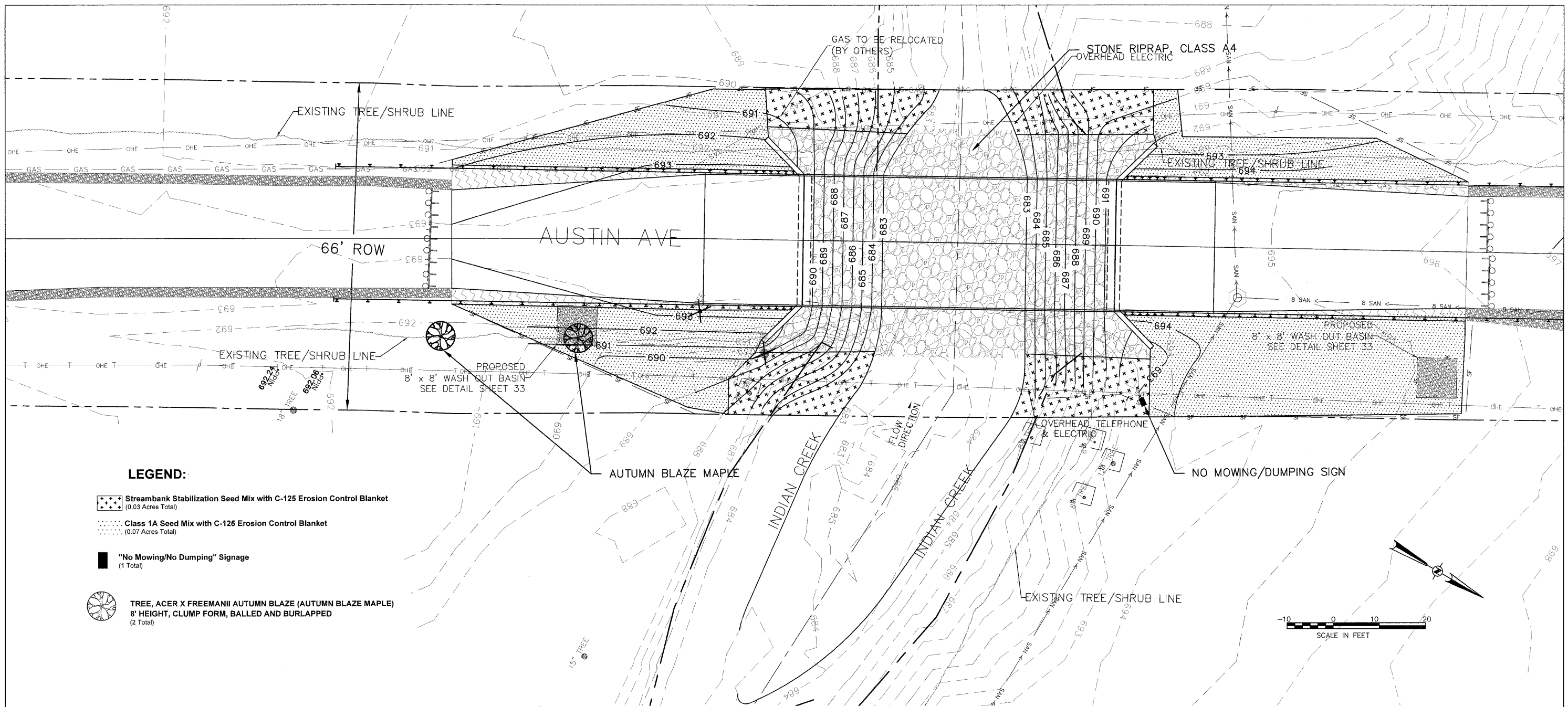
DESIGNED - JJT	REVISED -
DRAWN - ASK	REVISED -
CHECKED - JJT	REVISED -
DATE - 10/7/2011	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION





PAVEMENT MARKING PLAN  
AUSTIN AVE OVER INDIAN CREEK

SCALE: 1" = 10' SHEET NO. 1 OF 1 STA. 11+83.56 TO STA. 13+88.72

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	03-01130-00-BR	KANE	33	9
D-91-352-04		CONTRACT NO. 63660		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				



**LEGEND:**

- 
**Streambank Stabilization Seed Mix with C-125 Erosion Control Blanket**  
(0.03 Acres Total)
- 
**Class 1A Seed Mix with C-125 Erosion Control Blanket**  
(0.07 Acres Total)
- 
**"No Mowing/No Dumping" Signage**  
(1 Total)
- 
**TREE, ACER X FREEMANII AUTUMN BLAZE (AUTUMN BLAZE MAPLE)**  
**8' HEIGHT, CLUMP FORM, BALLED AND BURLAPPED**  
(2 Total)

Erosion Control Matting		
C-125	Areas seeded with Streambank Stabilization Seed Mix and Class 1A Seed Mix as called out per plan.	453 SY

DESIGNED - JJT	REVISED -
DRAWN - ASK	REVISED -
CHECKED - JJT	REVISED -
DATE - 10/7/2011	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	03-01130-00-BR	KANE	33	10
D-91-352-04			CONTRACT NO. 63660	
FED. ROAD DIST. NO. -		ILLINOIS FED. AID PROJECT		

**1.0 PURPOSE**

A native plant community shall be established within graded areas along Indian Creek. The vegetation shall provide bank stabilization as well as water quality benefits.

**2.0 CONTRACTOR QUALIFICATIONS**

The Native Landscape Contractor chosen for the establishment and enhancement of the natural area must be experienced in the restoration, installation, and management of said areas. They must have a minimum of five years experience in the field. There shall be a supervisor available at all times that can identify non-native and native plants by genus and species. The goal of installing successful native plant communities is a long-term process. Therefore, it is imperative that a qualified Native Landscape Contractor perform the initial installation and maintenance.

**3.0 QUALITY AND CONDITION**

- Native seed shall be obtained from sources east of the Mississippi River within the same EPA Level III Ecoregion as the project site (Central Corn Belt Plains).
- Native seeds shall be blended by the vendor, and the mixture and ratio shall be guaranteed in writing to be as specified. The amount of seed indicated on the specifications shall mean the total amount of pure live seed (PLS) per acre for all species listed. It is the sole responsibility of the Native Landscape Contractor to provide approved seed that meets industry-standard PLS requirements.
- Native Landscape Contractor shall provide the Aurora Township with the name and location of the seed supplier, origin of the various kinds of plants, and a statement of the purity of the seed.
- Seed shall conform to applicable State and Federal regulations as in effect on the date of letting. Unless otherwise specified, seed shall not contain in excess of 1 percent weed seeds; 0 percent is desirable.
- All storage requirements, stratification, and scarification considerations shall be the sole responsibility of the Native Landscape Contractor.
- Mycorrhizal inoculants shall be palletized and mixed at 1 lb. per acre with the fine seeds before installation. The inoculants shall contain a diverse mixture of Glomales fungal species (*Glomus* spp.) in palletized form.
- Under no circumstances shall Wheat (*Triticum aestivum*), Cereal Rye (*Secale cereale*), Perennial Rye (*Lolium perenne*), or Barley (*Hordeum vulgare*) be used as a temporary cover crop.

**4.0 HANDLING**

- Native Landscape Contractor shall be solely responsible for the proper handling and storage of the seed according to the best seed handling and storage practices, including fungicide treatments and stratification considerations. Owner shall make no compensation for damage to the seed because of improper storage, cleaning, threshing, or screening operations.
- All native seeds shall be packed and covered in such a manner as to ensure adequate protection against damage and maintain dormancy while in transit, storage, or during planting operations.
- Seed shall be kept dry and unopened until needed for use. Seed shall not be stored or temporarily stored in locations or vehicles where the temperature will be in excess of 90 degrees F.

**5.0 SITE PREPARATION**

- The General Contractor and Native Landscape Contractor shall be responsible for performing all work necessary to achieve and maintain an acceptable seedbed prior to seeding. All areas must be properly prepared before seeding begins. Underground utility location maps and plans should be reviewed prior to work. Equipment having low unit pressure ground contact shall be utilized within the planting areas.
- Unless the Aurora Township agrees to another approach, the seedbed shall be prepared by working the topsoil to a depth of 3 inches. Site preparation equipment shall be of a design that can be utilized efficiently by the Native Landscape Contractor to meet the requirements for the work specified.
- Prior to seeding, at least 6 inches of topsoil shall be present and free of all clods, stones, roots, rivulets, gullies, crusting, and cracking. The soil aggregate size will be no greater than 2 inches in the largest diameter.
- If present, compacted soils shall be disked or raked prior to seeding. Remedial measures for the access area may, at the direction of the Aurora Township, involve ripping from 12 to 18 inches of the soil horizon prior to disking. If compaction is not a concern and the seedbed needs to be loosened prior to seeding to ensure good seed-soil contact, disking or raking shall be performed using equipment and the approach recommended by the Native Landscape Contractor, subject to approval by the City of Aurora.
- If needed, cultivation shall occur within 24 hours prior to seeding. Seeding should occur immediately after the last cultivation preferably before a rain.

**6.0 PLANT MATERIALS**

Table 1. Streambank Stabilization Seed Mix

Scientific Name	Common Name	Lbs/Ac	Plugs
Allisma subcordatum	Water Plantain	0.250	100
Andropogon gerardi	Big Bluestem	5.000	
Andropogon scoparius	Little Bluestem	5.000	
Aster novae-angliae	New England Aster	0.125	
Bouteloua curtipendula	Side Oats Gramma	5.000	
Carex vulpinoidea	Fox Sedge	0.500	200
Eleocharis spp	Spike Rush	0.125	
Elymus canadensis	Canadian Wild Rye	8.000	
Elymus villosus	Silky Wild Rye	4.000	
Elymus virginicus	Virginia Wild Rye	8.000	
Glyceria striata	Fowl Manna Grass	1.000	
Helenium autumnale	Sneezeweed	0.125	
Juncus spp	Rush Species	0.125	
Leersia oryzoides	Rice Cut Grass	1.000	200
Panicum virgatum	Switch Grass	1.000	200
Scirpus validus	Great Bulrush	0.125	100
Sorghastrum nutans	Indian Grass	10.00	
Spartina pectinata	Prairie Cord Grass	0.500	200
Agrostis alba	Red Top Grass	1.000	
Avena sativa	Seed Oats	30.00	
Lolium multiflorum	Annual Rye	10.00	
<b>Total</b>		<b>90.875</b>	<b>1000</b>

**7.0 SEED INSTALLATION**

- Except where site conditions preclude their use, seeding shall be performed using a Truax drill, Truax Trillion seeder, or comparable equipment designed specifically for installation of native seed. For areas where site conditions preclude the use of specialized equipment, seed may be installed through hand broadcasting and lightly raking in the seed. **Hand broadcast seed shall be spread at twice the specified rate.** Other methods of seed installation may be used with prior approval from the City of Aurora.
- Seasonal Considerations:
  - November 1 through February 28: Less cover crop will be observed during the following spring due to frost damage.
  - March 1 through June 29: Seeding during this period is appropriate but germination of a portion of the seed may not occur until the following season due to lack of cold stratification to break seed dormancy. Cover crop generally germinates within 2-3 weeks of seeding operation.
  - June 30 through September 15: Installation of native seed should be suspended unless irrigation can be provided or unseasonably cool conditions persist. Also, any annual forbs planted with the mix during this time period may germinate but not have sufficient time to flower before fall senescence.
  - September 15 through October 31: Less cover crop will be observed during the following spring due to frost damage.
- Prior to starting work, all seeding equipment shall be calibrated and adjusted to sow seeds at the proper seeding rate. In general, the optimum seeding depth is 0.25 inch below the soil surface. Areas where the seed has not been incorporated into the soil to the proper depths will not be accepted, and no compensation for materials or labor for the rejected work will be made by the City of Aurora.
- Equipment shall be operated in a manner to ensure complete, uniform coverage of the entire area to be seeded and to avoid damage to existing woody plants. Any area inadequately covered, as solely determined by the City of Aurora, shall be retreated at no additional cost to the City.
- Seeding and soil tracking/firming shall not be done during periods of rain, severe drought, high winds, excessive moisture, frozen ground, or other conditions that preclude satisfactory results.
- To achieve best results, seed boxes should be kept more than one-quarter full at all times and ground speed should be no more than 2 to 3 mph.
- Seeding operations must occur when soil moisture is appropriate for seeding operation.
- Native plant seed shall not receive fertilizer.
- Wet seed that is moldy or otherwise damaged in transit or storage shall not be used.
- After seeding operation is completed, install erosion control blanket per manufacturer's specifications as necessary.
- Nursery packing lists indicating the species and quantities of material installed must be provided to the City of Aurora upon request.

**8.0 PLUGGING IMPLEMENTATION**

- Plugs shall be installed in the spring or other date guaranteed by the Native Landscape Contractor.
- Plugs shall be installed on one foot centers from the toe of slope to three feet up slope.
- Plugs shall be planted in a hole dug with a trowel, spade, planting bar, or suitable instrument such that the hole is of a minimum diameter and depth to accommodate the plug, with its roots, without damage.

- The soil excavated from the planting hole should be used to backfill around the plant and lightly packed to secure the roots in the soil.
- If planting is delayed more than six hours after delivery, store plugs in the shade, protect from the weather and mechanical damage, and keep them moist and cool. All plugs should be planted within 24 hours of delivery.
- Plugs shall be obtained from a reputable nursery or grown from seed. Plugs shall not be collected from wild populations of plants.

**9.0 EROSION CONTROL**

- Bank grading and stabilization shall occur during periods of low flow. All areas are recommended to be covered with erosion control blanket. North American Green C-125 or equivalent will be used at a minimum within the area seeded Class 1A seed. The area seeded with the Streambank Stabilization Mix shall be covered with North American Green C-125 or equivalent. Erosion control blanket shall be installed within 24 hours after an area is seeded and trenched in at the toe of slope (or up to the edge of water if the water level is above the toe of slope at the time of planting). See manufacturer's specifications for erosion control blanket composition and installation instructions.
- Use existing stone toe whenever possible.

**10.0 "No Mowing and/or Dumping" Signage**

- "No Mowing and/or Dumping" or other signage approved by the Aurora Township shall be installed along the perimeter of the native plantings as indicated on the plan to define the boundary of the naturalized area.

**11.0 CLEAN-UP AND PROTECTION**

- During landscape work, store materials and equipment where directed. Keep pavements clean and work areas and adjoining areas in an orderly condition.
- Protect landscape work and materials from damage due to landscape operations or operations by other trades and trespassers. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged landscape work as directed by the Aurora Township.

**12.0 INSPECTIONS AND ACCEPTANCE**

- The City of Aurora reserves the right to inspect all seeds and plants either at place of growth or at site before planting for compliance with requirements for name, variety, size, quantity, quality or mix proportion.
- Native Landscape Contractor is to keep records of the certificates of composition or invoices of seed mixtures and integrity of plant materials with respect to species, variety, and source after purchase.
- Native Landscape Contractor is to notify the Aurora Township within five days after completing initial and/or supplemental plantings in each area.

**MONITORING AND MANAGEMENT PLAN**

**1.0 MONITORING METHODOLOGY**

The planted area will be monitored annually for a one-year period to ensure successful establishment of the vegetation. The primary objective of the monitoring program is to track the success of the planted species over the 1-year period of regularly scheduled spring and fall monitoring sessions. The monitoring documents changes in plant community composition and reveals the need for management changes to improve floristic quality. Specific goals of the monitoring are to determine the vegetative species present, the percent cover by vegetation, and identify hydrology and erosion problems.

Monitoring within the planted area shall be conducted semi-annually utilizing a meander survey methodology. The monitoring shall identify 1) the dominant vegetative species, 2) the approximate percent vegetative coverage by native species and 3) water level or drainage problems. Observations shall be made during the monitoring to identify specific management strategies necessary to reach design goals. Site conditions shall be photo documented during monitoring sessions.

**2.0 PERFORMANCE CRITERIA**

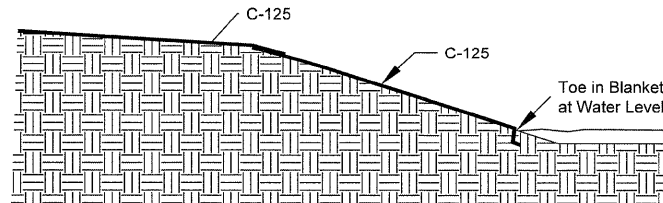
- By the end of the first full growing season, the planted area shall exhibit 90% vegetative cover, primarily by species contained in the temporary erosion control seed mix. There shall be no areas greater than 0.25 square meters devoid of vegetation and 25% of the species present as measured by aerial coverage shall be native and non-invasive.
- By the end of the second growing season, 90% of the ground as measured by aerial coverage shall be vegetated and 50% of the species present as measured by aerial coverage shall be native and non-invasive.
- By the end of the third growing season, 90% of the ground as measured by aerial coverage shall be vegetated and 75% of the species present shall be native and non-invasive. The native floristic quality index value (native FQI) must be greater than or equal to 15 as measured over the planted area. The floristic quality assessment method is described in Swink and Wilhelm, *Plants of the Chicago Region*.
- At the end of each growing season, none of the three most dominant species within the planted area shall be non-native or invasive species, including but not limited to: Purple Loosestrife (*Lythrum salicaria*), Reed Canary Grass (*Phalaris arundinacea*), White Sweet Clover (*Meililotus alba*), Common Buckthorn (*Rhamnus cathartica*), Kentucky Blue Grass (*Poa pratensis*), Canada Thistle (*Cirsium arvense*), Honeysuckle (*Lonicera* sp.), Common Reed (*Phragmites australis*), Cattails (*Typha* spp.), or Sandbar Willow (*Salix exigua*).

**3.0 REPORTING**

An annual vegetation monitoring report will be submitted to the Aurora Township and the U.S. Army Corps of Engineers by January 31st following the monitoring season each year. This report will be used to determine if the planted area is meeting performance standards. The report shall include a summary of the annual monitoring observations; a description of the management performed during the year; a list of recommendations for management during the upcoming year; and representative photographs of the planted area.

Herbicide should be applied by a trained and licensed applicator. Non-selective **4.0 MANAGEMENT PLAN**

- First Year.** Mow the planted area to a height of 6-8 inches 2-4 times during the early growing season and as needed to control non-native and invasive species. Mowing (including weed whipping) shall take place prior to or when non-native and invasive species are flowering so as to prevent seed set. Control undesirable plant species, when present in small quantities, by hand pulling prior to the development and maturity of the plant. Hand removal shall include the removal of all aboveground and belowground stems, roots and flower masses prior to development of seeds. Apply herbicide (as necessary) to non-native and invasive species within the naturalized areas with appropriate herbicide. Herbicides can be used but with utmost caution. Non-selective herbicides are absorbed through the plant tissues and work their way into the root system, effectively killing the plant. The only acceptable non-selective herbicides are glyphosate based such as RoundUp, Rodeo, or Razor. The only acceptable selective herbicides (i.e. targeting broad leaf and woody plants) are 2,4-D (2,4-Dichlorophenoxyacetic acid) based or triclopyr based such as Garlon 4.
- Second Year.** Control of undesirable plant species during the second growing season shall consist primarily of herbicide application. Mowing (including weed whipping) shall be conducted two to four times during the early growing season and as needed to a height of 6 to 8 inches to prevent annual weeds from producing seed. This work is not part of the construction contract and will be completed by Aurora Township.
- Long Term.** Undesirable plant species will be controlled (as necessary) by mowing (including weed whipping), to prevent seed set of undesirable species and spot herbicide application when and where applicable. This work is not part of the construction contract and will be completed by Aurora Township.



TYPICAL CROSS SECTION N.T.S.



DESIGNED -	JJT	REVISED -	
DRAWN -	ASK	REVISED -	
CHECKED -	JJT	REVISED -	
DATE -	10/7/2011	REVISED -	

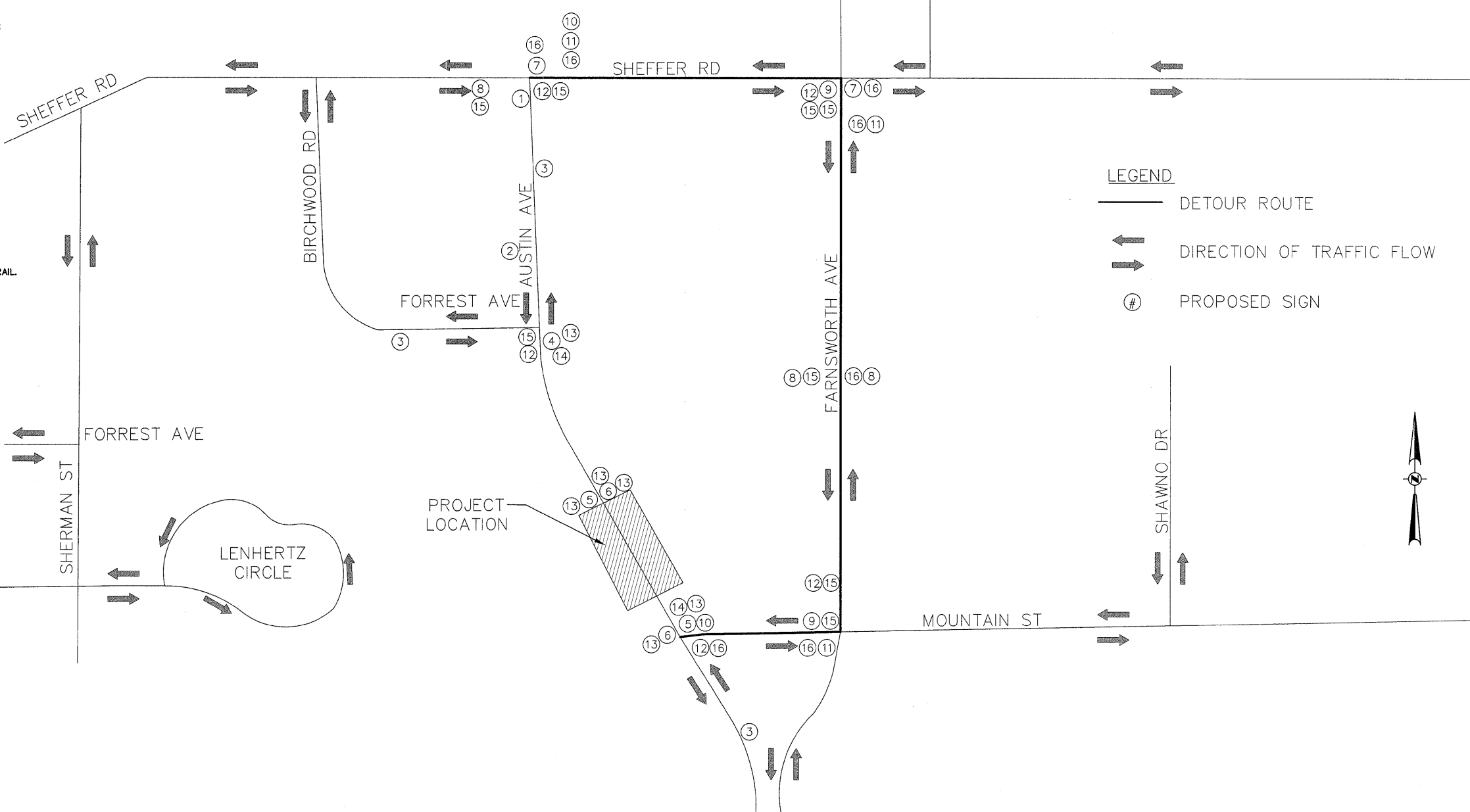
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

NATIVE LANDSCAPE II  
AUSTIN AVE OVER INDIAN CREEK

SCALE: NONE	SHEET NO. 2 OF 2	STA. 11+83.56 TO STA. 13+88.72	F.A.P. RTE.	SECTION 03-01130-00-BR	COUNTY KANE	TOTAL SHEETS 33	SHEET NO. 11
			D-91-352-04		CONTRACT NO. 63660		
			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

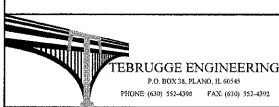
**NOTES:**

- TYPE III BARRICADES SHALL BE POSITIONED AS SHOWN IN IDOT HIGHWAY STANDARD 702001 AND AS NOTED FOR SEQUENCE OF CONSTRUCTION.
  - ALL SIGNS SHALL BE POST MOUNTED AS THE CLOSURE TIME EXCEEDS FOUR DAYS.
  - LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
  - ALL WARNING SIGNS SHALL HAVE MINIMUM DIMENSIONS OF 36" X 36" AND HAVE BLACK LETTERING ON AN ORANGE HIGH INTENSITY REFLECTORIZED BACKGROUND.
  - DURING HOURS OF DARKNESS, FLASHING LIGHTS SHALL BE USED ON EACH APPROACH. THESE SHALL BE PLACED ON ALL TYPE III BARRICADES (2 EACH) AND INSTALLED ABOVE THE FIRST TWO ADVANCE SIGNS AS DETAILED BELOW - SEE SIGNS 1 AND 2.
  - BARRICADES SHALL BE PLACED ACROSS SIDEWALKS AND AT THE FACE OF CURB, EXCEPT WHEN OTHERWISE DIRECTED BY THE ENGINEER OR SHOWN DIFFERENTLY ON THE DETAILED CONSTRUCTION PLANS.
  - ALL SIGNS SHALL BE IN ACCORDANCE WITH THE ILLINOIS SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, ADOPTED MARCH, 1990.
  - SEE SPECIAL PROVISIONS FOR TRAFFIC CONTROL PLAN AND NOTE 12.
  - ALL CONFLICTING EXISTING SIGNS SHALL BE REMOVED OR COVERED WHILE DETOUR IS IN EFFECT.
  - ALL UNBALLASTED TYPE I AND TYPE II BARRICADES SHALL HAVE TWO SANDBAGS ON THE BOTTOM RAIL.
  - THE TRAFFIC CONTROL PLAN SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS, THE SUPPLEMENTAL SPECIFICATIONS, THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", ANY SPECIAL DETAILS AND HIGHWAY STANDARDS CONTAINED IN THE PLANS, THE TRAFFIC SPECIFICATIONS AND THE SPECIAL PROVISIONS.
- SPECIAL ATTENTION IS CALLED TO ARTICLES 107.09, 107.14 AND SECTION 701 OF THE STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS FOR MAINTENANCE OF ROADWAYS RELATING TO TRAFFIC CONTROL.
- THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE BUREAU OF TRAFFIC AT LEAST 72 HOURS IN ADVANCE OF BEGINNING WORK.
- THE LUMP SUM COST FOR TRAFFIC CONTROL AND PROTECTION (SPECIAL) SHALL INCLUDE ALL WORK, EQUIPMENT AND LABOR NECESSARY TO INSTALL AND MAINTAIN THE TRAFFIC PROTECTION AND DETOUR ROUTES SIGNED IN ACCORDANCE WITH THIS DRAWING AND AS DIRECTED BY THE ENGINEER FOR THE PROJECT DURATION.
  - TYPE III BARRICADES TO BE STAGGERED BY 40 TO 60 FEET FOR CONSTRUCTION ACCESS. EACH BARRICADE SHALL HAVE TWO AMBER FLASHING LIGHTS AND ONE FLAG. BARRICADES WILL HAVE TO BE MOVED TO ACCOMMODATE SEQUENCE OF CONSTRUCTION.



**SIGN LEGEND**

<p>① W20-1(0) (48"x48") W/ AMBER FLASHING LIGHT ROAD CLOSED 0.2 MILE AHEAD W17-1 100 (VAR. x 6") AUSTIN AVE. (1 REQUIRED)</p>	<p>② W20-3(0) (48"x48") W/ AMBER FLASHING LIGHT ROAD CLOSED 0.1 MILE AHEAD W17-1 100 (VAR. x 6") AUSTIN AVE. (1 REQUIRED)</p>	<p>③ W20-2(0) (48"x48") W/ AMBER FLASHING LIGHT DETOUR AHEAD W17-1 100 (VAR. x 6") AUSTIN AVE. (3 REQUIRED)</p>	<p>④ R11-3 (60"x30") W/ AMBER FLASHING LIGHT BRIDGE OUT AHEAD LOCAL TRAFFIC ONLY (1 REQUIRED)</p>	<p>⑤ R11-3a (48"x30") W/ AMBER FLASHING LIGHT BRIDGE OUT (2 REQUIRED)</p>	<p>⑥ R11-2 (48"x30") W/ AMBER FLASHING LIGHT ROAD CLOSED (2 REQUIRED)</p>	<p>⑦ W17-1 101 (VAR. x 12") AUSTIN AVE. BRIDGE M4-9(L) (30"x24") DETOUR ← (2 REQUIRED)</p>	<p>⑧ W17-1 101 (VAR. x 12") AUSTIN AVE. BRIDGE M4-9 (30"x24") DETOUR ↑ (3 REQUIRED)</p>	<p>⑨ W17-1 101 (VAR. x 12") AUSTIN AVE. BRIDGE M4-9(R) (30"x24") DETOUR → (2 REQUIRED)</p>	<p>⑩ M4-6 (24"x12") END W17-1 101 (24"x24") AUSTIN AVE. BRIDGE M4-8 (24"x12") DETOUR (2 REQUIRED)</p>	<p>⑪ W17-1 101 (VAR. x 12") AUSTIN AVE. BRIDGE M4-9(L) (30"x24") DETOUR ← M6-2(L) (30"x30") (4 REQUIRED)</p>	<p>⑫ W17-1 101 (VAR. x 12") AUSTIN AVE. BRIDGE M4-9(R) (30"x24") DETOUR → M6-2(R) (30"x30") (4 REQUIRED)</p>
<p>⑬ TYPE III BARRICADES WITH TWO AMBER FLASHING LIGHTS EACH AND ONE FLAG (ACROSS SIDEWALK AND STREET AT ENDS OF CONSTRUCTION AREA)</p>											
<p>⑭ R11-3 (60"x36") AUSTIN AVE BRIDGE CLOSED APRIL 1, 2012 (2 REQUIRED) SIGN TO BE POSTED 21 DAYS PRIOR TO CLOSURE - VARY DATE AS REQUIRED. REMOVE WHEN BRIDGE IS CLOSED.</p>											
<p>SIGNS 15 AND 16 TO BE AT THE TOP OF MOST SIGN IN ANY ARRAY.</p>											



DESIGNED - JJT	REVISED -
DRAWN - ASK	REVISED -
CHECKED - JJT	REVISED -
DATE - 10/7/2011	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

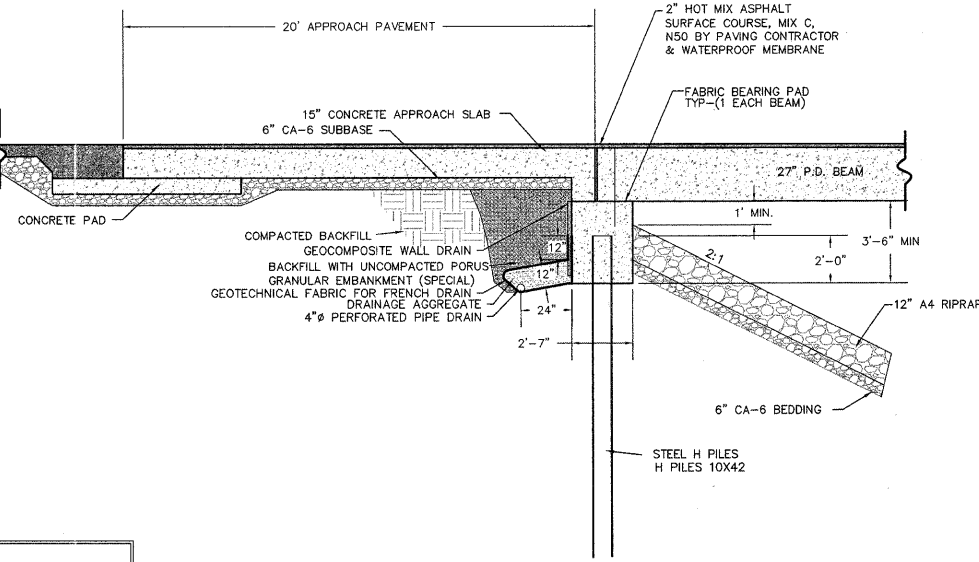
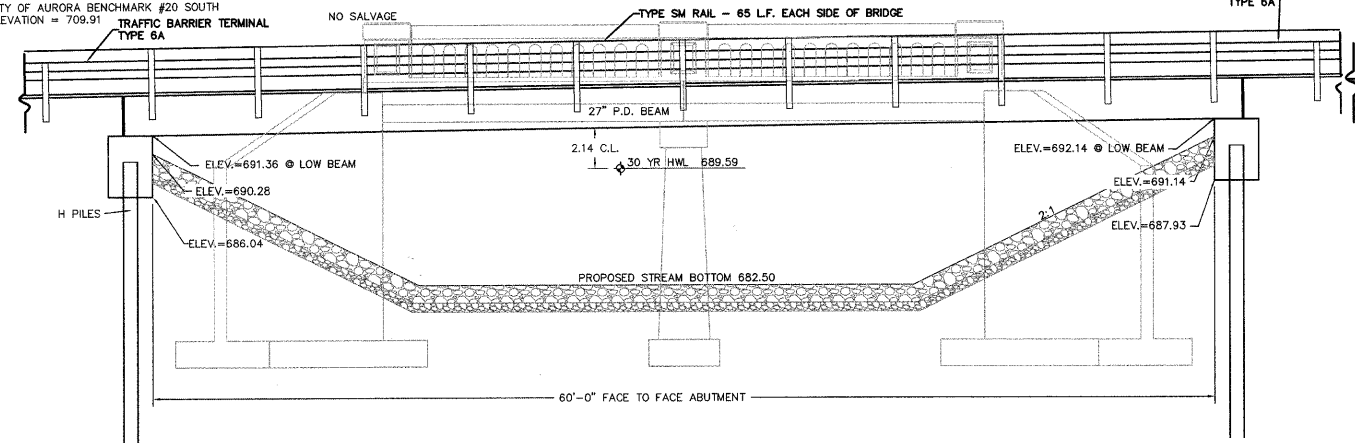
TRAFFIC CONTROL  
AUSTIN AVE OVER INDIAN CREEK  
SCALE: NONE SHEET NO. 1 OF 1 STA. 11+83.56 TO STA. 13+88.72

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	03-01130-00-BR	KANE	33	12
D-91-352-04		CONTRACT NO. 63660		
FED. ROAD DIST. NO. -		ILLINOIS FED. AID PROJECT		

- BENCHMARK:**
- 1) CITY OF AURORA BENCHMARK #20 NORTH  
ELEVATION = 709.80
  - 2) CITY OF AURORA BENCHMARK #20 SOUTH  
ELEVATION = 708.91

EXISTING STRUCTURE, 045-3087 BUILT IN 1933. THE STRUCTURE CONSISTS OF A TWO SPAN REINFORCED CONCRETE BRIDGE, 36' BACK TO BACK OF ABUTMENTS. SUPER STRUCTURE ON CLOSED ABUTMENTS WITH DECK WIDTH OF 27'-0" EXISTING STRUCTURE IS TO BE REMOVED AND REPLACED. ROAD IS TO BE CLOSED AND TRAFFIC WILL BE DETOURED DURING BRIDGE RECONSTRUCTION.

TRAFFIC BARRIER TERMINAL TYPE 6A



**HIGHWAY CLASSIFICATION**  
 F.A.P. Austin Avenue - 14  
 Functional Class: Minor Collector  
 ADT: 757 (2010) 757 (2030) 1,000  
 ADTT: 5.0%  
 DHV: 133 (2010) 133 (2030) 239  
 Design speed: 30 mph  
 Posted speed: 30 mph

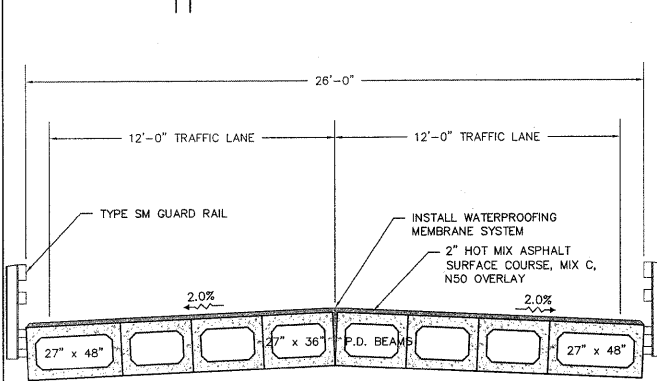
**LOADING HL-93**  
 Allow 50 #/sq ft for future wearing surface

**DESIGN SPECIFICATIONS**  
 AASHTO LRFD SPECS  
 2010 BRIDGE DESIGN SPECIFICATIONS

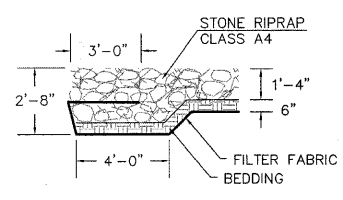
**DESIGN STRESSES**  
**FIELD UNITS**  
 $f'c = 3,500$  psi  
 $f_y = 60,000$  psi (REINFORCEMENT)

**PRECAST PRESTRESSED UNITS**  
 $f'ci = 6,000$  psi  
 $f'ci = 5,000$  psi  
 $F_{pu} = 270,000$  psi ( $\frac{1}{2}$   $\phi$  low lax. strands)  
 $F_{pbt} = 201,960$  psi ( $\frac{1}{2}$   $\phi$  low lax. strands)

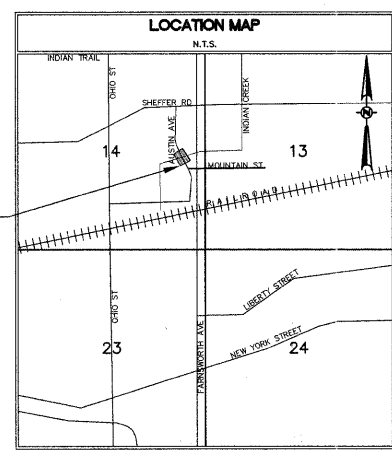
**SEISMIC DATA**  
 Seismic Performance Category (SPC) = A  
 Acceleration Coefficient (A) = 0.039g  
 SITE Coefficient (S) = 1



**ELEVATION**  
 LOOKING WEST  
 SCALE: 3/16" = 1'-0"



**SECTION A-A**  
 SCALE: 1/4" = 1'-0"



**SECTION THROUGH ABUTMENT**  
 LOOKING NORTH  
 SCALE: 1/4" = 1'-0"

**DESIGN SCOUR ELEVATION TABLE**

Design Scour Elevation (ft.)	N. Abutment	S. Abutment
	687.93	686.04

**GENERAL PLAN**  
 AUSTIN AVENUE OVER INDIAN CREEK  
 KANE COUNTY  
 STA: 12+86.14 @  $\phi$  BRIDGE  
 EXISTING STRUCTURE NO. 045-3087  
 PROPOSED STRUCTURE NO. 045-3091

**TOTAL BILL OF MATERIAL**

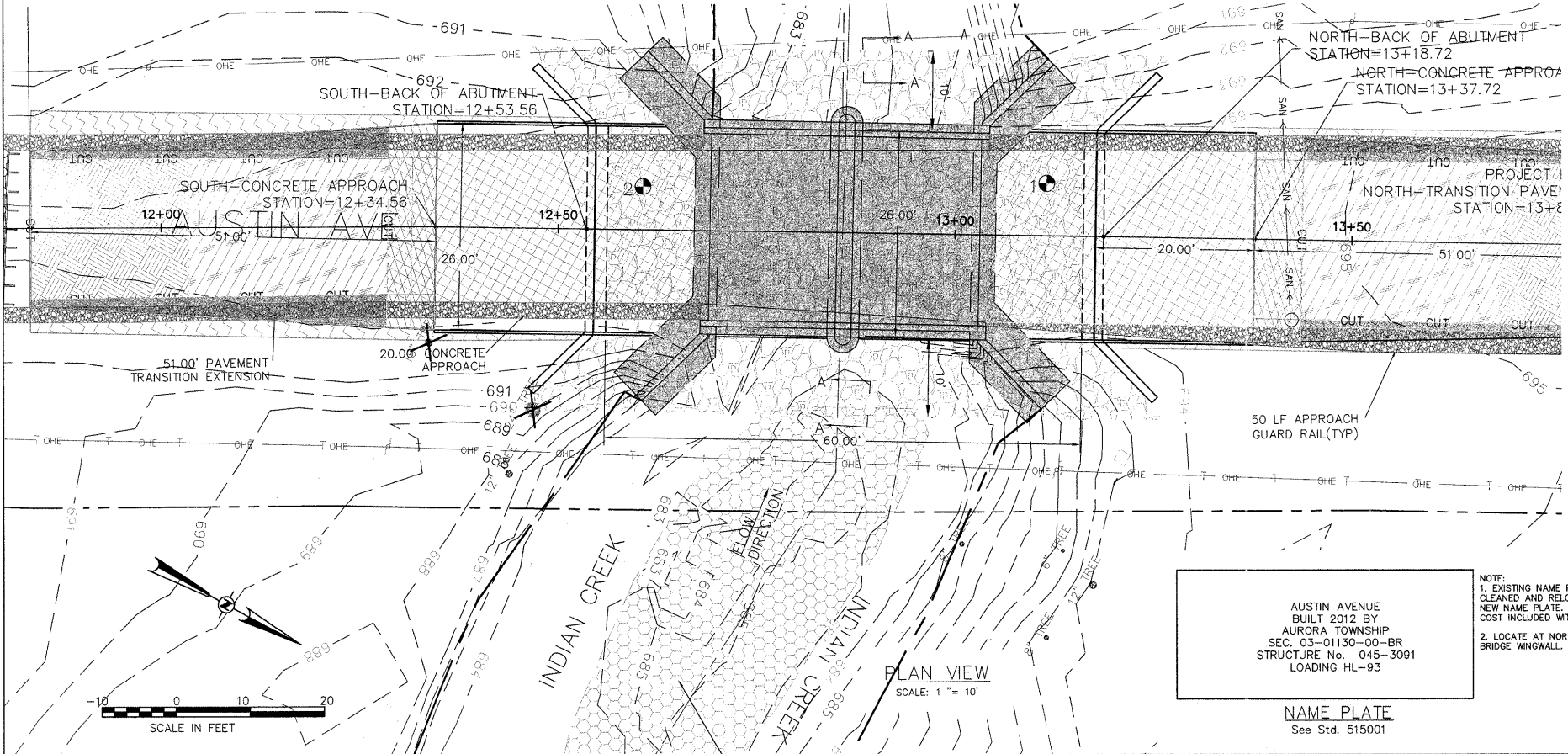
ITEM NUMBER	DESCRIPTION	UNIT	APPROACH	SUPERSTRUCTURE	SUBSTRUCTURE	TOTAL
28100107	STONE RIPRAP, CLASS A4	SQ YD			350.0	350.0
28200200	FILTER FABRIC	SQ YD			350.0	350.0
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	13.3	27.1		40.4
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	35			35
50100100	REMOVAL OF EXISTING STRUCTURE	EACH			1.0	1.0
50200100	STRUCTURE EXCAVATION	CU YD			187.0	187.0
50300225	CONCRETE STRUCTURES	CU YD	12.8		37.0	49.8
50300255	CONCRETE SUPERSTRUCTURES	CU YD	48.1			48.1
50300280	CONCRETE ENCASEMENT	CU YD			3.6	3.6
50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT			1642.0	1642.0
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	13200.0		6560.0	19760.0
50901050	STEEL RAILING, TYPE SM	FOOT		130.0		130.0
51201610	FURNISHING STEEL PILES HP 12X63	FOOT			292.0	292.0
51202305	DRIVING PILES	FOOT			292.0	292.0
51203610	TEST STEEL PILE HP 12X63	EACH			2.0	2.0
51204200	PILE SHOES	EACH			10.0	10.0
51500100	NAME PLATES	EACH		1.0		1.0
58300100	PORTLAND CEMENT MORTAR FARING COURSE	FOOT		443.0		443.0
58700300	CONCRETE SEALER	SQ FT			432.0	432.0
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD			66.0	66.0
X2070304	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD			99	99
X5810100	WATERPROOFING MEMBRANE SYSTEM, SPECIAL	SQ YD		183.0		183.0
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES, 4"	FOOT			108.0	108.0

LONCO, INC.

I CERTIFY THAT TO THE BEST OF KNOWLEDGE, INFORMATION AND BELIEF, THIS BRIDGE/BOX CULVERT DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMICAL ONE FORB THE STYLE OF STRUCTURE AND COMPLIES WITH REQUIREMENTS OF THE CURRENT AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.



WILLIAM EPP, SE  
 EXPIRES NOV 30, 2012



**NAME PLATE**  
 See Std. 515001

NOTE:  
 1. EXISTING NAME PLATE SHALL BE CLEANED AND RELOCATED NEXT TO THE NEW NAME PLATE. COST INCLUDED WITH NAME PLATES.  
 2. LOCATE AT NORTHEAST CORNER OF BRIDGE WINGWALL.

**WATERWAY INFORMATION**

DRAINAGE AREA = 10.7 SQ MI

Flood	Freq. Yr.	Q Ft <sup>3</sup> /s	Opening - ft <sup>2</sup>		Natural H.W.E.	Head - Ft		Headwater - Elev.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	714	184.34	228.31	688.59	0.09	-0.03	688.68	688.56
Base	30	1250	218.19	283.25	689.57	0.33	0.02	690.26	689.59
Overtop Exist	100	1873	250.69	341.25	690.53	0.45	0.08	690.98	690.61
Overtop Prop	n/a	---	---	---	---	---	---	---	---
2624Max Calc.	500	2624	288.26	420.24	691.67	0.66	1.08	692.33	692.75

EXISTING LOW GRADE ELEV. = 693.25  
 PROPOSED LOW GRADE ELEV. = 693.25

TEBRUGGE ENGINEERING  
 P.O. BOX 18, PLANO, IL 60145  
 PHONE: (630) 352-4390 FAX: (630) 352-4392

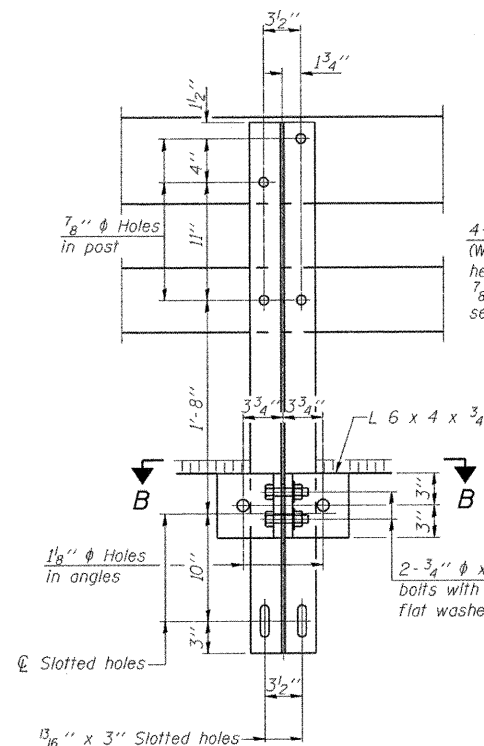
DESIGNED - JJT	REVISED -
DRAWN - ASK	REVISED -
CHECKED - JJT	REVISED -
DATE - 10/7/2011	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

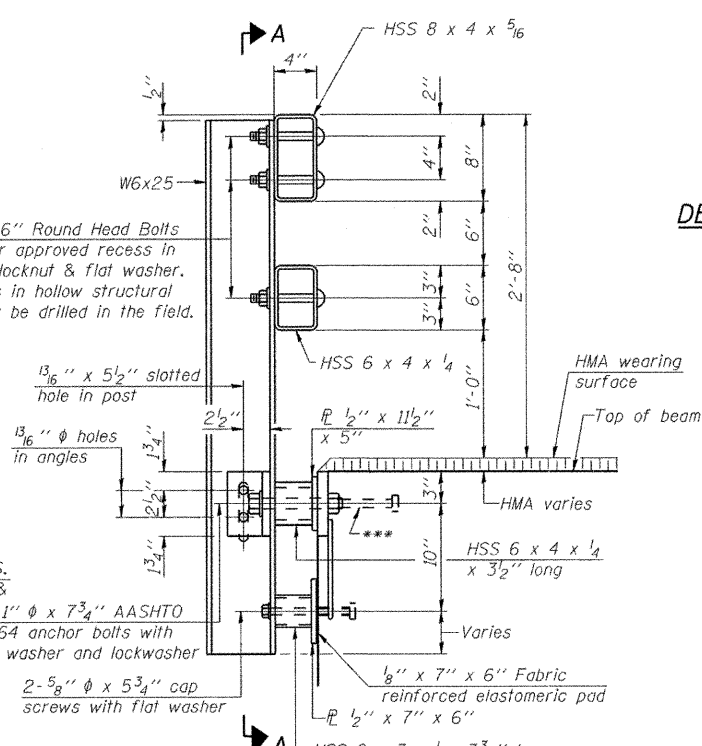
GENERAL PLAN & ELEVATION  
 AUSTIN AVE OVER INDIAN CREEK

SHEET NO. 10F 13

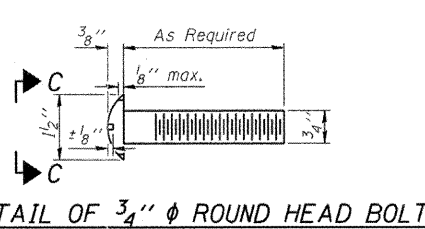
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	03-01130-00-BR	KANE	33	13
D-91-352-04		CONTRACT NO. 63660		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				



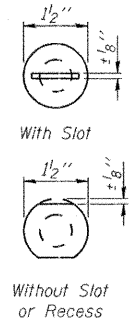
SECTION A-A



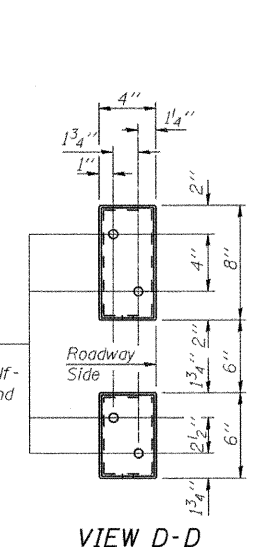
SECTION AT RAIL POST



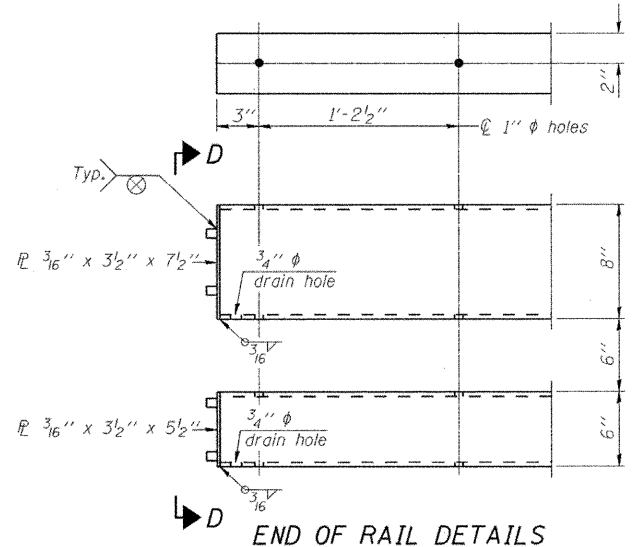
DETAIL OF 3/4"  $\phi$  ROUND HEAD BOLT



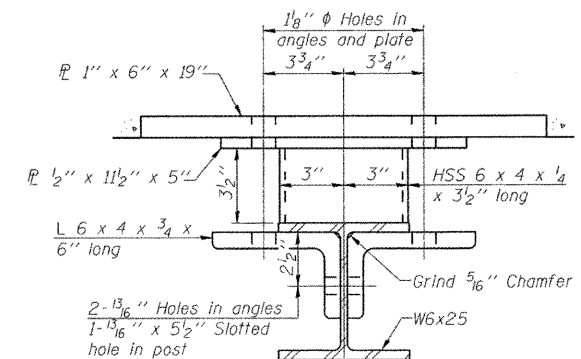
VIEW C-C



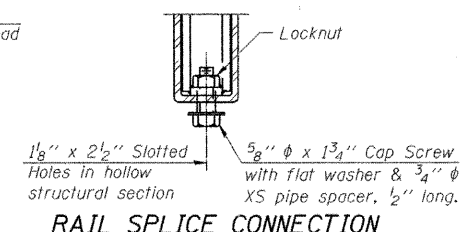
VIEW D-D



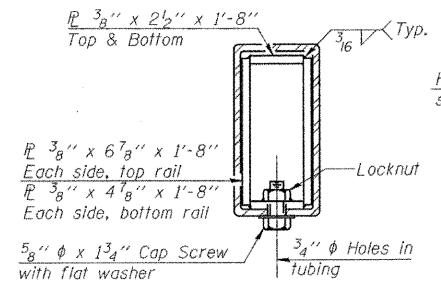
END OF RAIL DETAILS



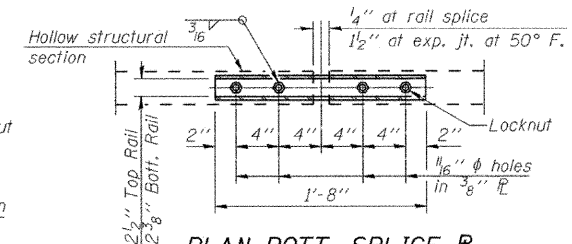
SECTION B-B



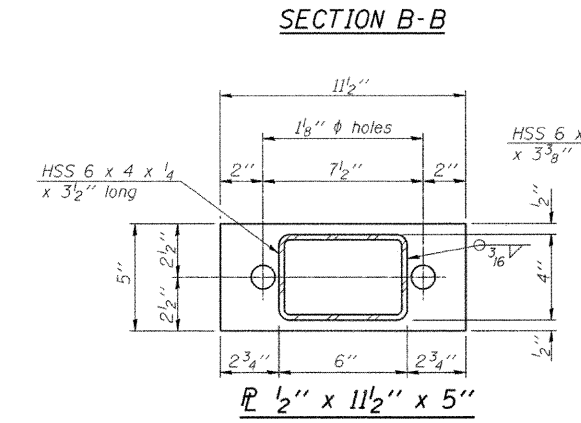
RAIL SPLICE CONNECTION AT EXPANSION JT.



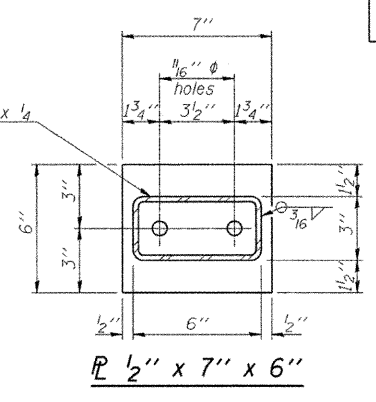
SECTION AT RAIL SPLICE



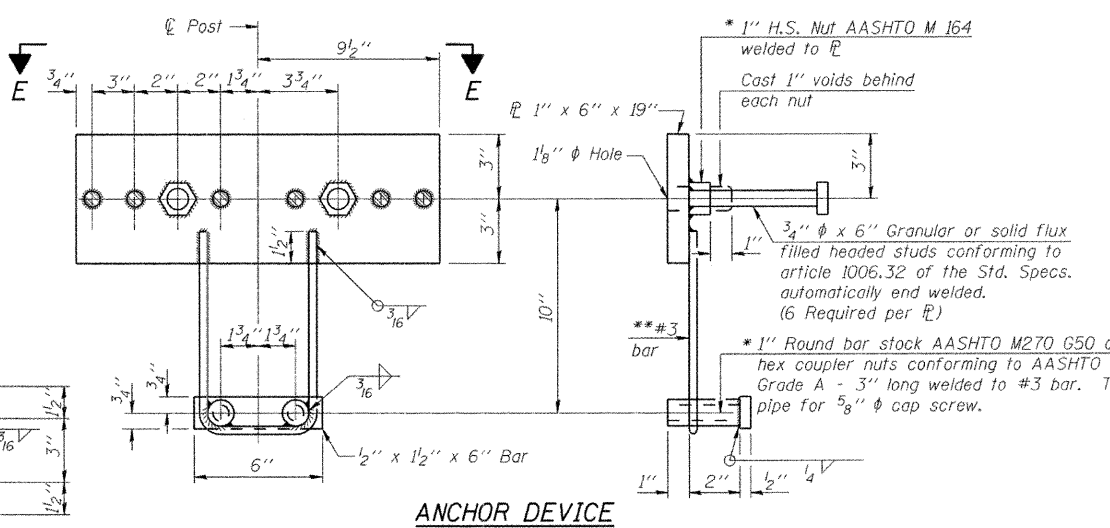
PLAN-BOTT. SPLICE P TYPICAL



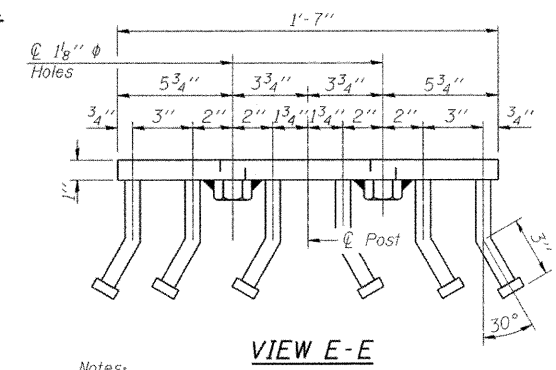
SECTION B-B (continued)



SECTION B-B (continued)



ANCHOR DEVICE



VIEW E-E

Notes:  
 All field drilled holes shall be coated with an approved zinc rich paint before erection.  
 For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type SM.  
 All steel rail members shall be galvanized according to Article 509.05 of the Standard Specifications.  
 \*\*\* The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	130

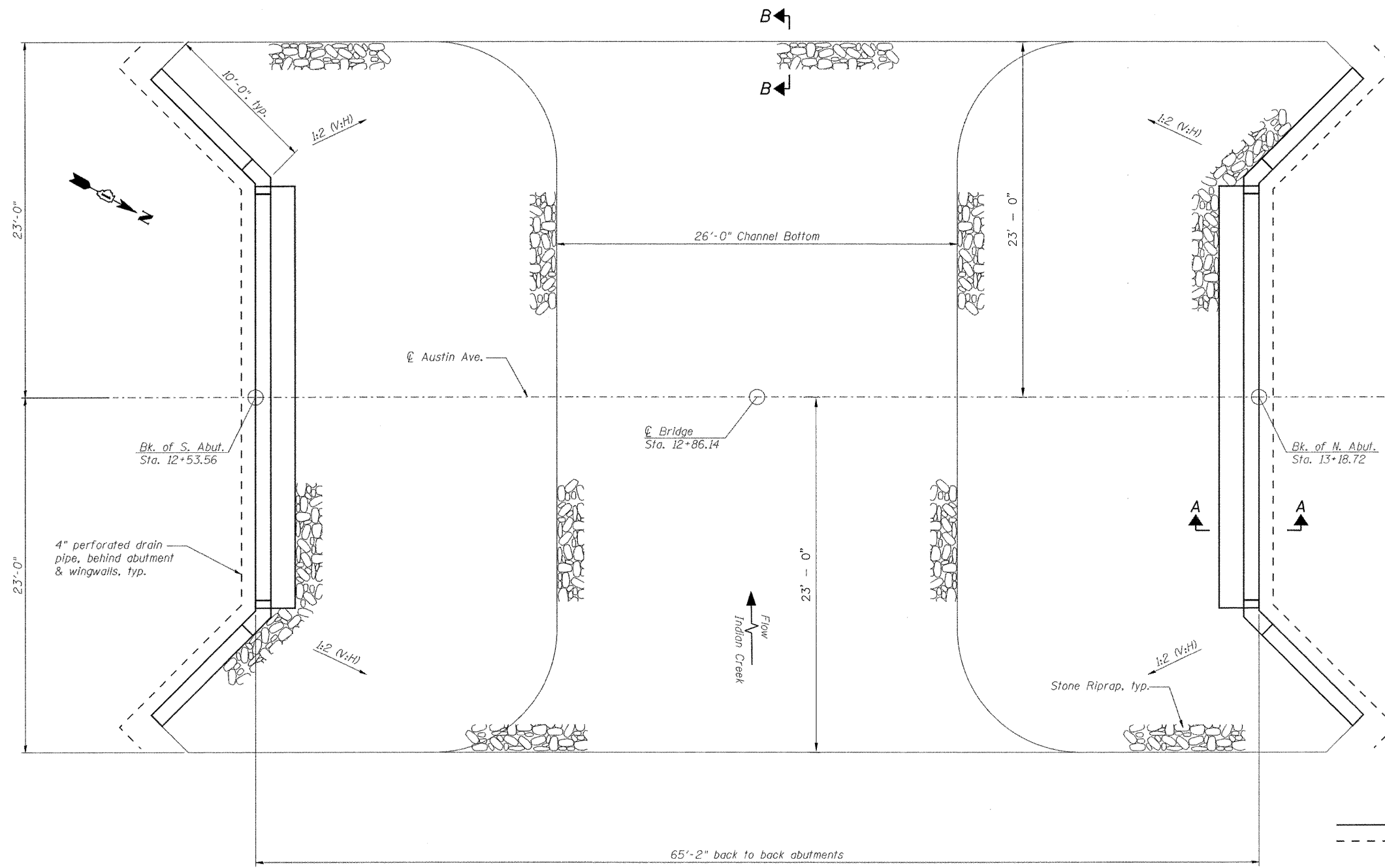
\*Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

\*\* Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".

R-34HMAWS

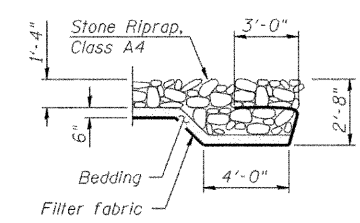
7-1-10

(6'-3" Maximum Post Spacing) (1/4" minimum to 3/8" maximum HMA thickness)

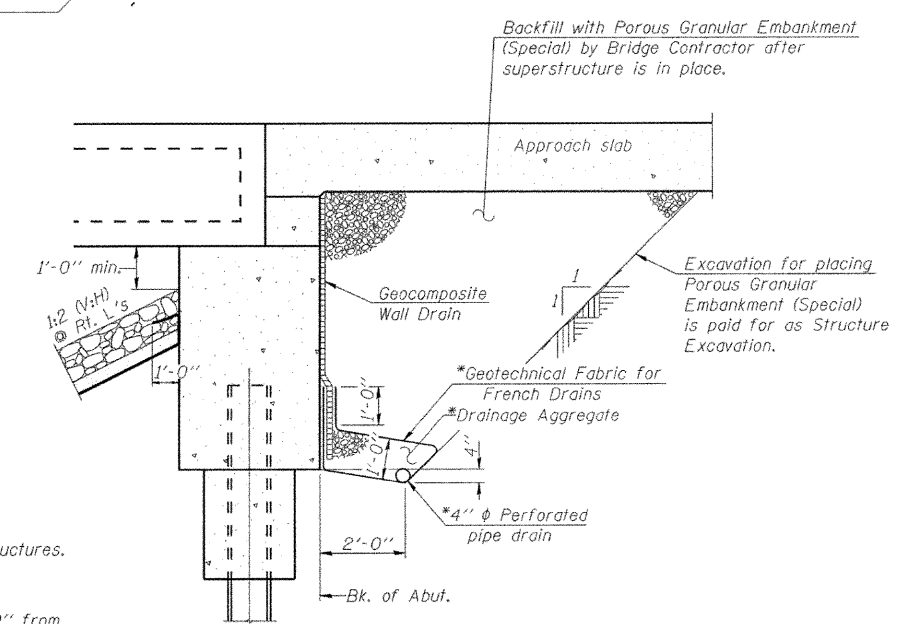


**BILL OF MATERIAL**

Item	Unit	Total
Stone Riprap, Class A4	Sq. Yd.	350
Filter Fabric	Sq. Yd.	350



**SECTION B-B**



**SECTION A-A**  
(Horiz. dim. @ Rt. L's)

\*Included in the cost of Pipe Underdrains for Structures.

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 60110).

**LOCO INC.**  
CONSULTING ENGINEERS  
1560 WALL ST., SUITE 222  
NAPERVILLE, ILLINOIS 60563 PH: 630.571-9100

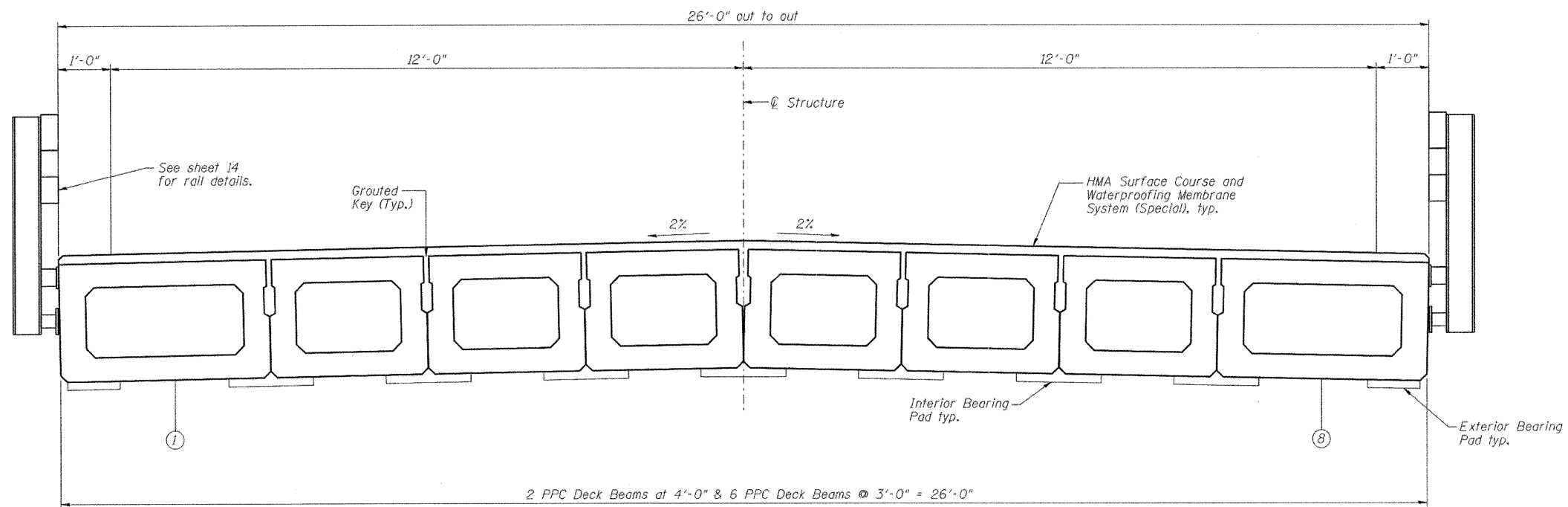
DESIGNED - SLV	REVISED -
CHECKED - SDD	REVISED -
DRAWN - SLV	REVISED -
CHECKED - WHE	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

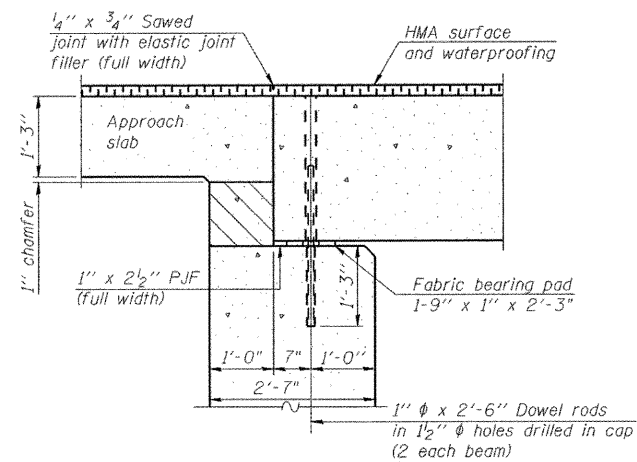
**SUBSTRUCTURE LAYOUT AND SLOPE PROTECTION**  
**STRUCTURE NO. 045-3091**

SHEET NO. 3 OF 13 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	03-01130-00-BR	KANE	33	15
D-91-352-04			CONTRACT NO. 63660	
ILLINOIS FED. AID PROJECT				

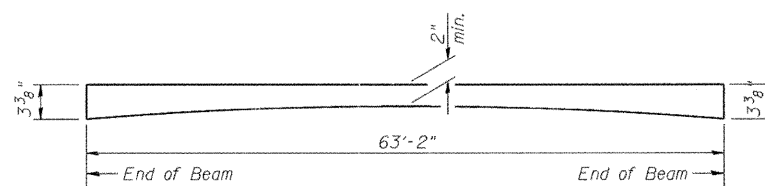


**CROSS SECTION**

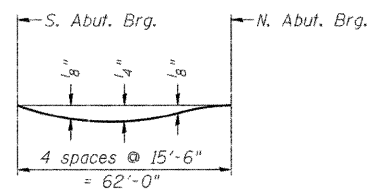


**SECTION THRU FIXED ABUTMENTS**  
(Dimensions are at Rt. L's)

Notes:  
 After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys.  
 All horizontal dimensions are at right angles to beam ends.  
 See sheet 18 and 20 For bearing pad details.  
 Hatched area to be poured after beams have been erected and shear keys grouted.



**BITUMINOUS WEARING SURFACE PROFILE**



**DEAD LOAD DEFLECTION DIAGRAM**  
(Includes weight of HMA only.)

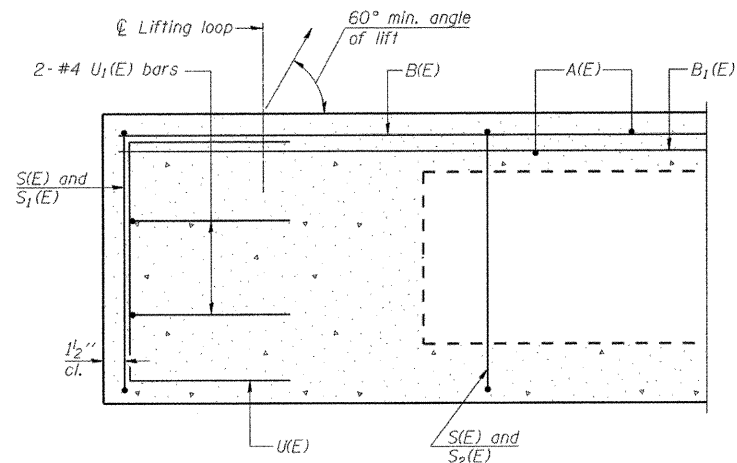
**NOTES**

Drill and Grout bars shall be installed according to Article 521.06 & 584 of the Standard Specifications.

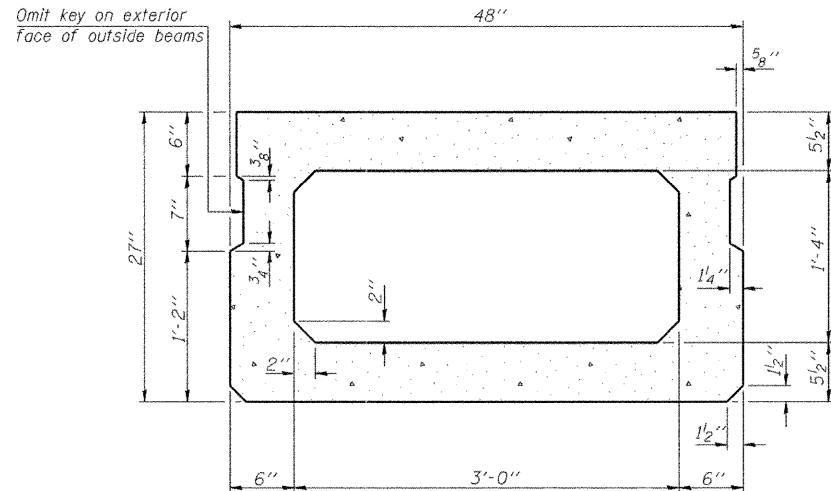
**BILL OF MATERIAL**

Item	Unit	Quantity
Waterproofing Membrane System (Special)	Sq. Yd.	183
Portland Cement Mortar Fairing Course	Foot	443

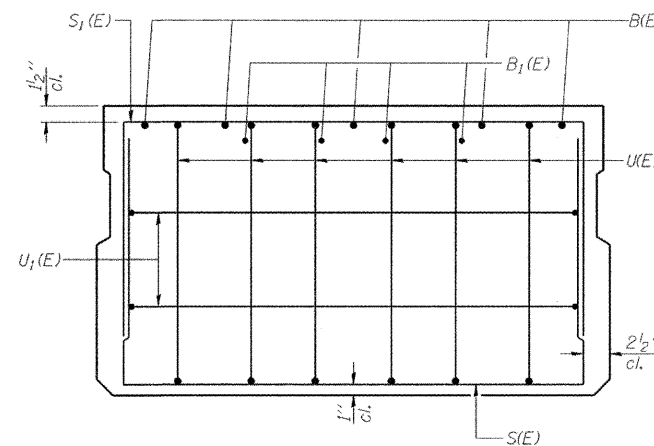




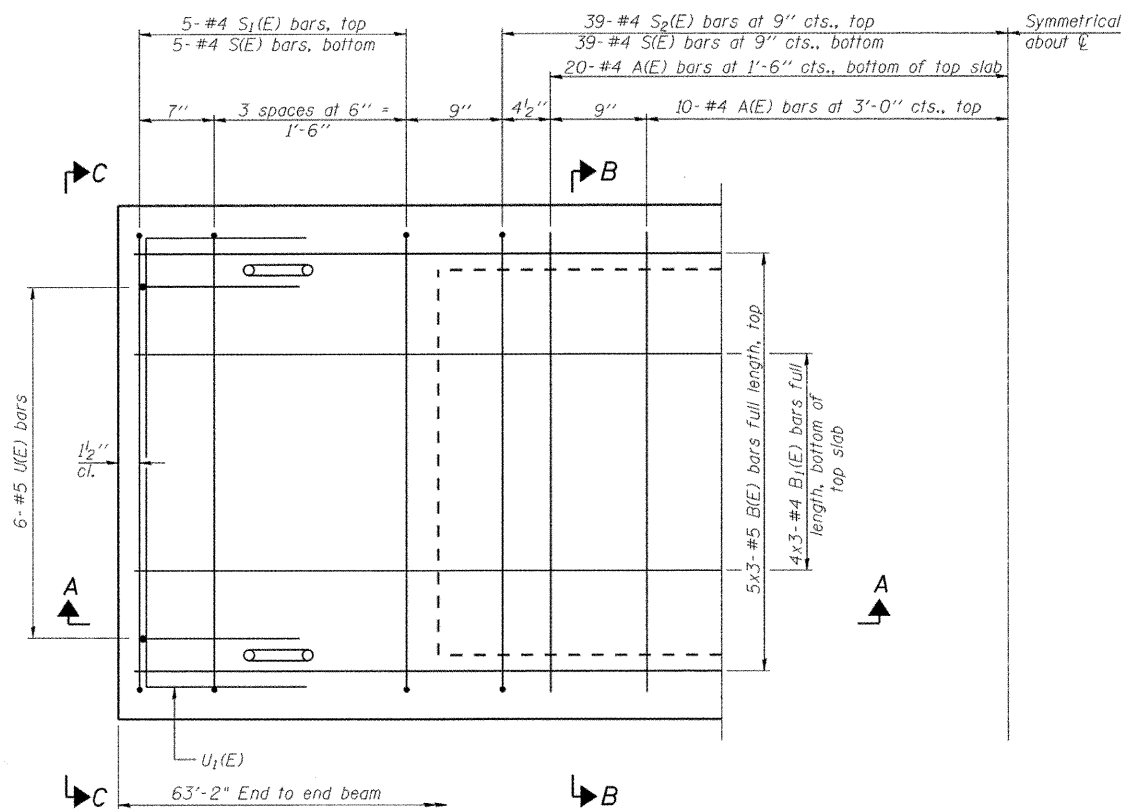
SECTION A-A



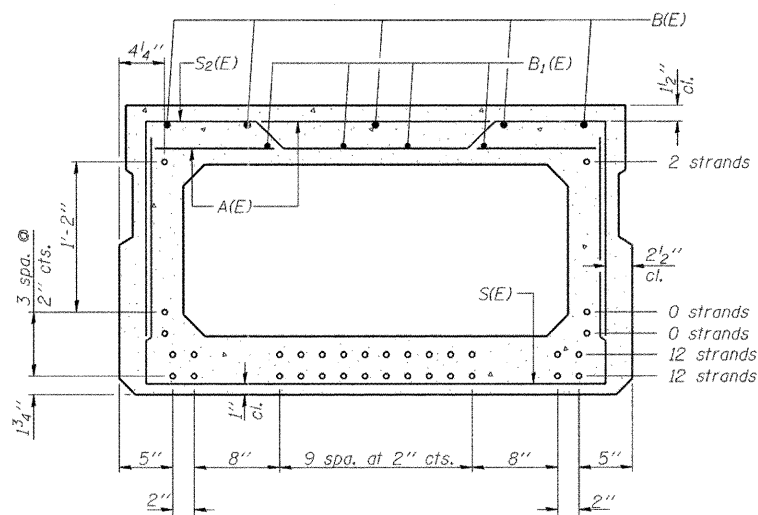
SECTION B-B  
(Showing dimensions)



VIEW C-C



PLAN VIEW



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.

**BAR LIST**  
**ONE BEAM ONLY**

(For information only)

Bar	No.	Size	Length	Shape
A(E)	60	#4	3'-7"	—
B(E)	15	#5	22'-9"	—
B1(E)	12	#4	22'-5"	—
S(E)	88	#4	7'-5"	U
S1(E)	10	#4	6'-11"	U
S2(E)	78	#4	7'-2"	U
U(E)	12	#5	4'-6"	U
U1(E)	4	#4	6'-0"	U

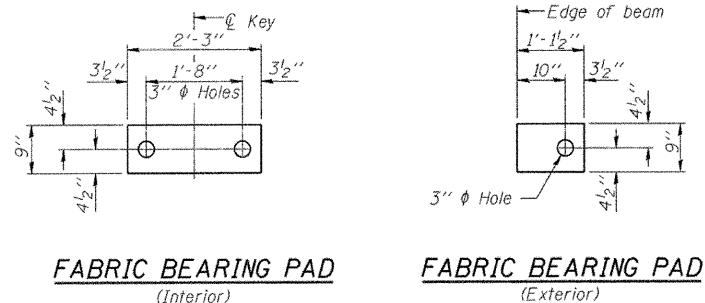
Note: See sheet 18 for additional details and Bill of Material.

Note: Spacing of S(E) and S2(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.

Bars indicated thus 5 x 3-#5 etc. indicates 5 lines of bars with 3 lengths per line.

**MINIMUM BAR LAP**

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

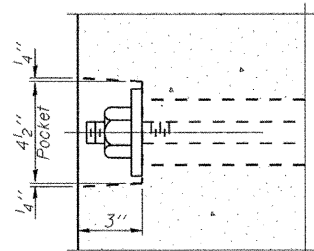


**FABRIC BEARING PAD**  
(Interior)

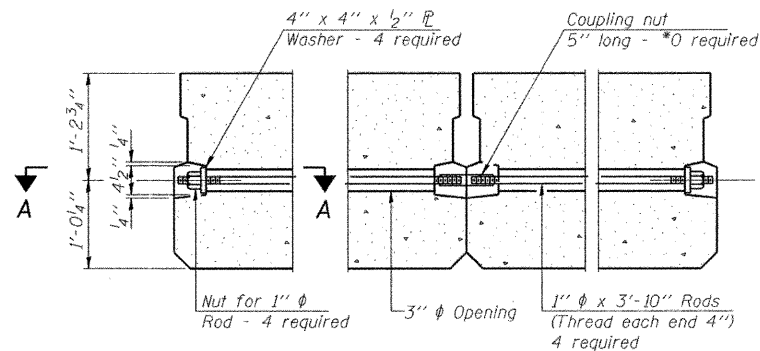
**FABRIC BEARING PAD**  
(Exterior)

**FIXED**

Notes:  
All bearing pads shall be 1" thick.

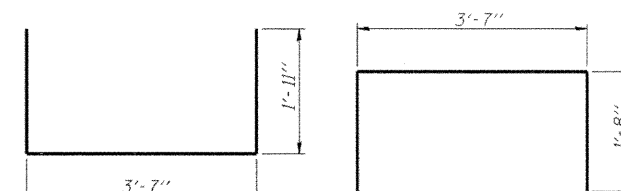


**SECTION A-A**



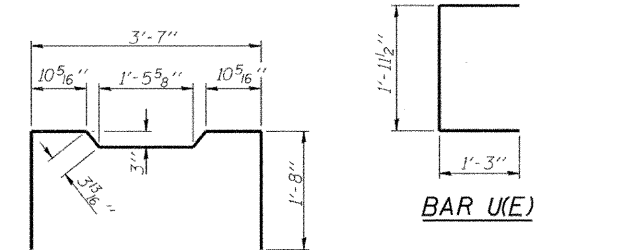
**TYPICAL TRANSVERSE TIE ASSEMBLY**

\* Couplers to connect 48" wide beam to 36" wide beam is included in the 36" wide beam total, see sht. 20 for details.



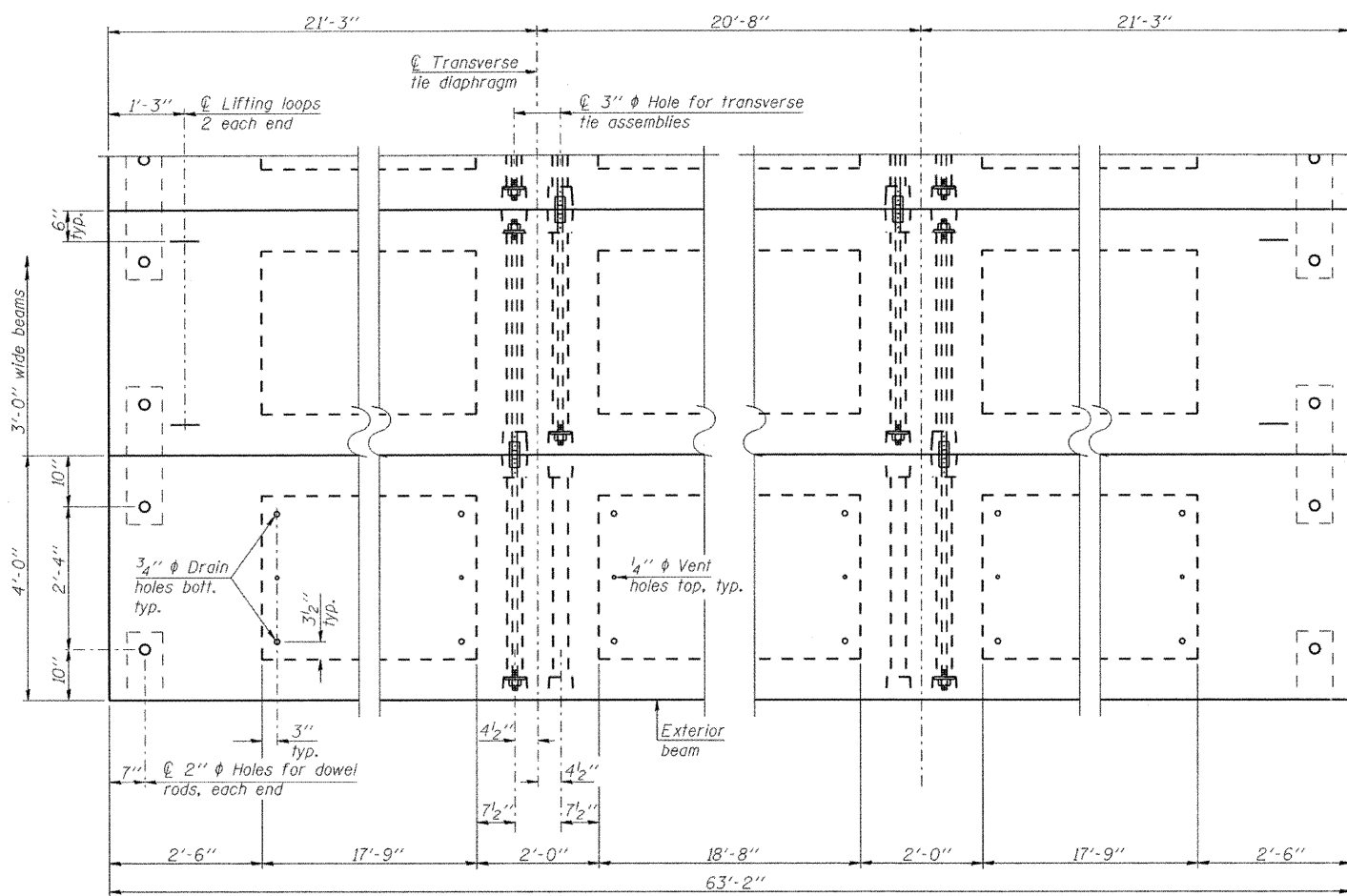
**BAR S(E)**

**BAR S<sub>1</sub>(E)**



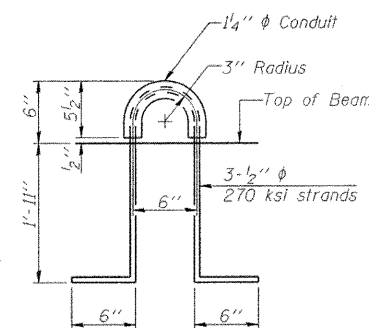
**BAR S<sub>2</sub>(E)**

**BAR U<sub>1</sub>(E)**



**PLAN VIEW**

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



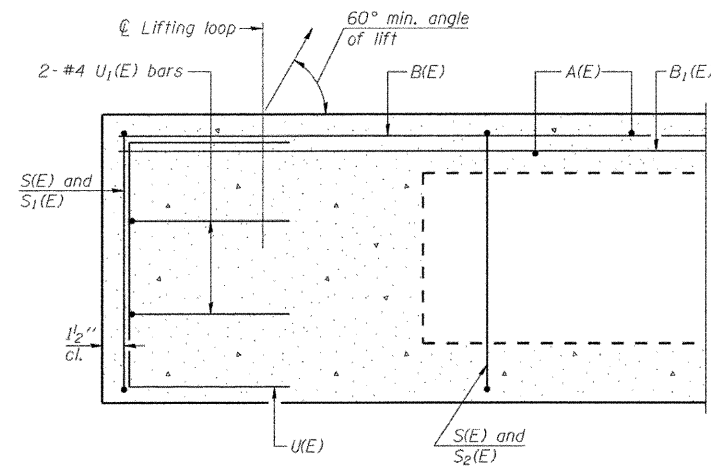
**LIFTING LOOP DETAIL**

**BILL OF MATERIAL**

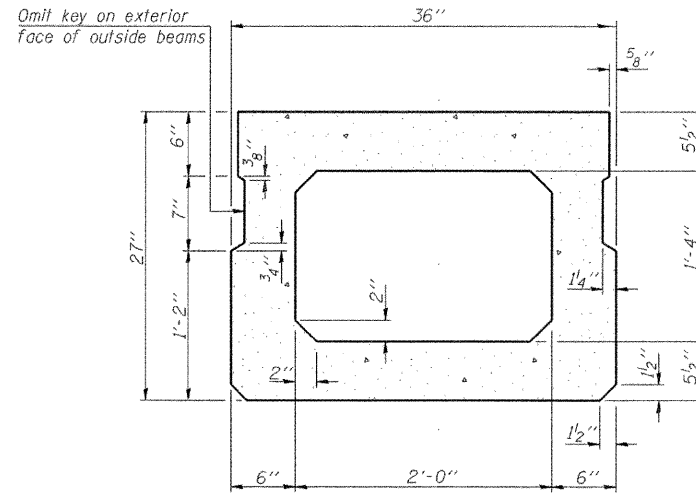
Precast Prestressed Conc. Deck Bms. (27" depth)	Sq. Ft.	505
---	---------	-----

**NOTES**

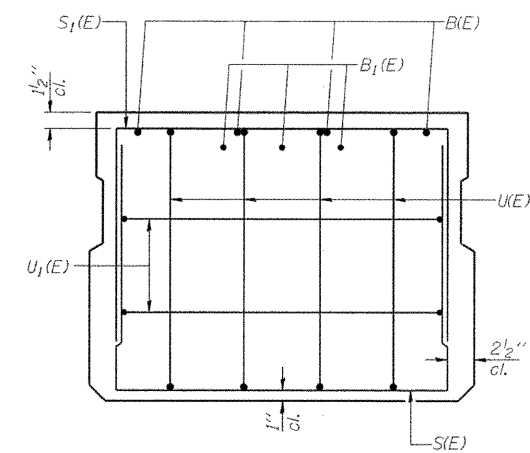
- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1" diameter rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets 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 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 2 1/2" diameter 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.



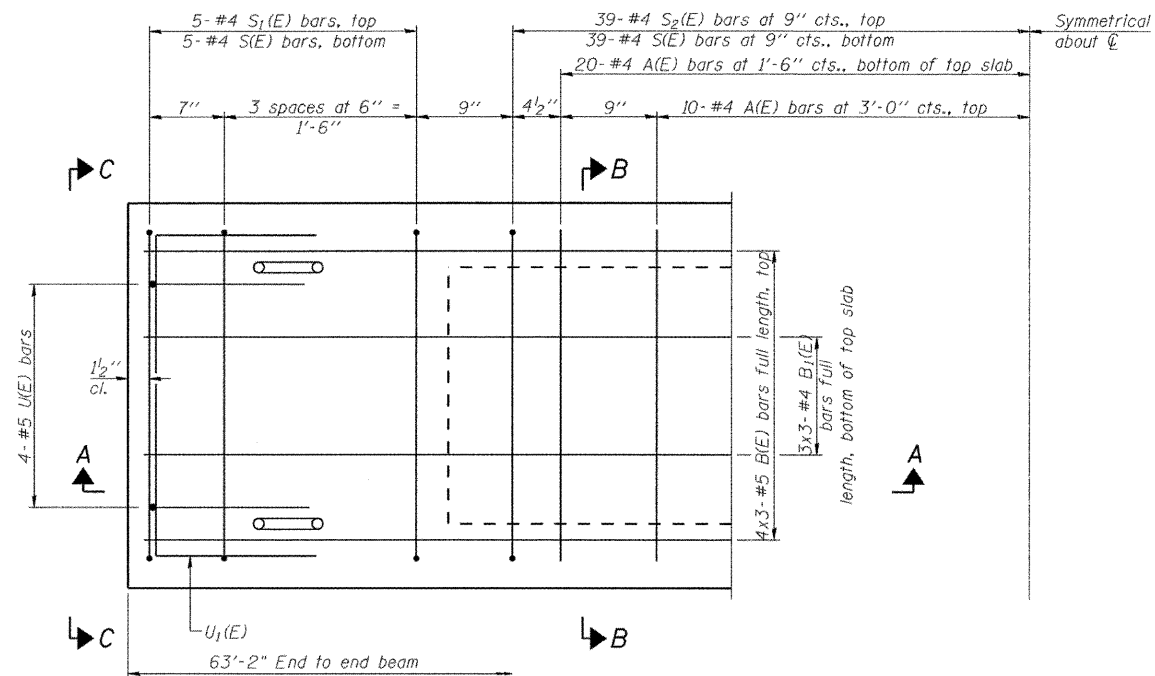
**SECTION A-A**



**SECTION B-B**  
(Showing dimensions)



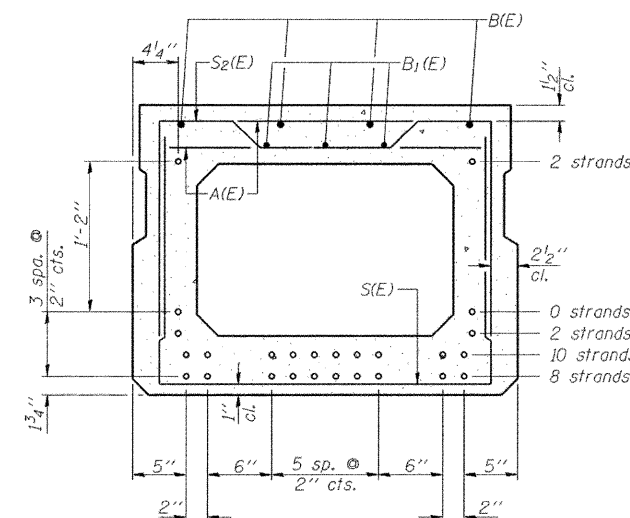
**VIEW C-C**



**PLAN VIEW**

Note: Spacing of S(E) and S2(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.

Bars indicated thus 4 x 3-#5 etc. indicates 4 lines of bars with 3 lengths per line.



**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.

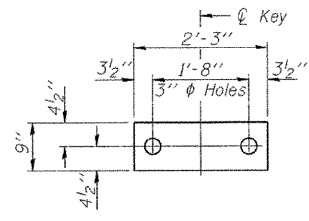
**BAR LIST**  
**ONE BEAM ONLY**  
(For information only)

Bar	No.	Size	Length	Shape
A(E)	60	#4	2'-7"	—
B(E)	12	#5	22'-9"	—
B1(E)	9	#4	22'-5"	—
S(E)	88	#4	6'-5"	□
S1(E)	10	#4	5'-11"	□
S2(E)	78	#4	6'-2"	□
U(E)	8	#5	4'-6"	□
U1(E)	4	#4	5'-0"	□

Note: See sheet 20 for additional details and Bill of Material.

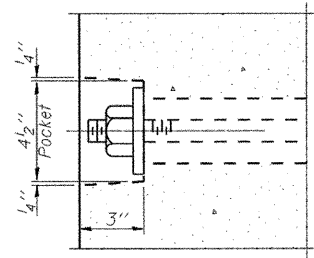
**MINIMUM BAR LAP**

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

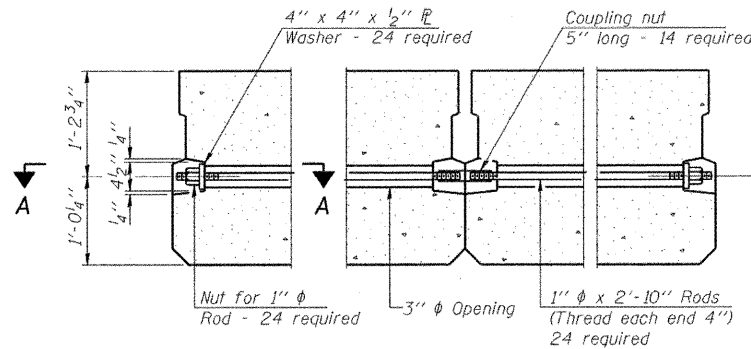


**FIXED FABRIC BEARING PAD**  
(Interior)

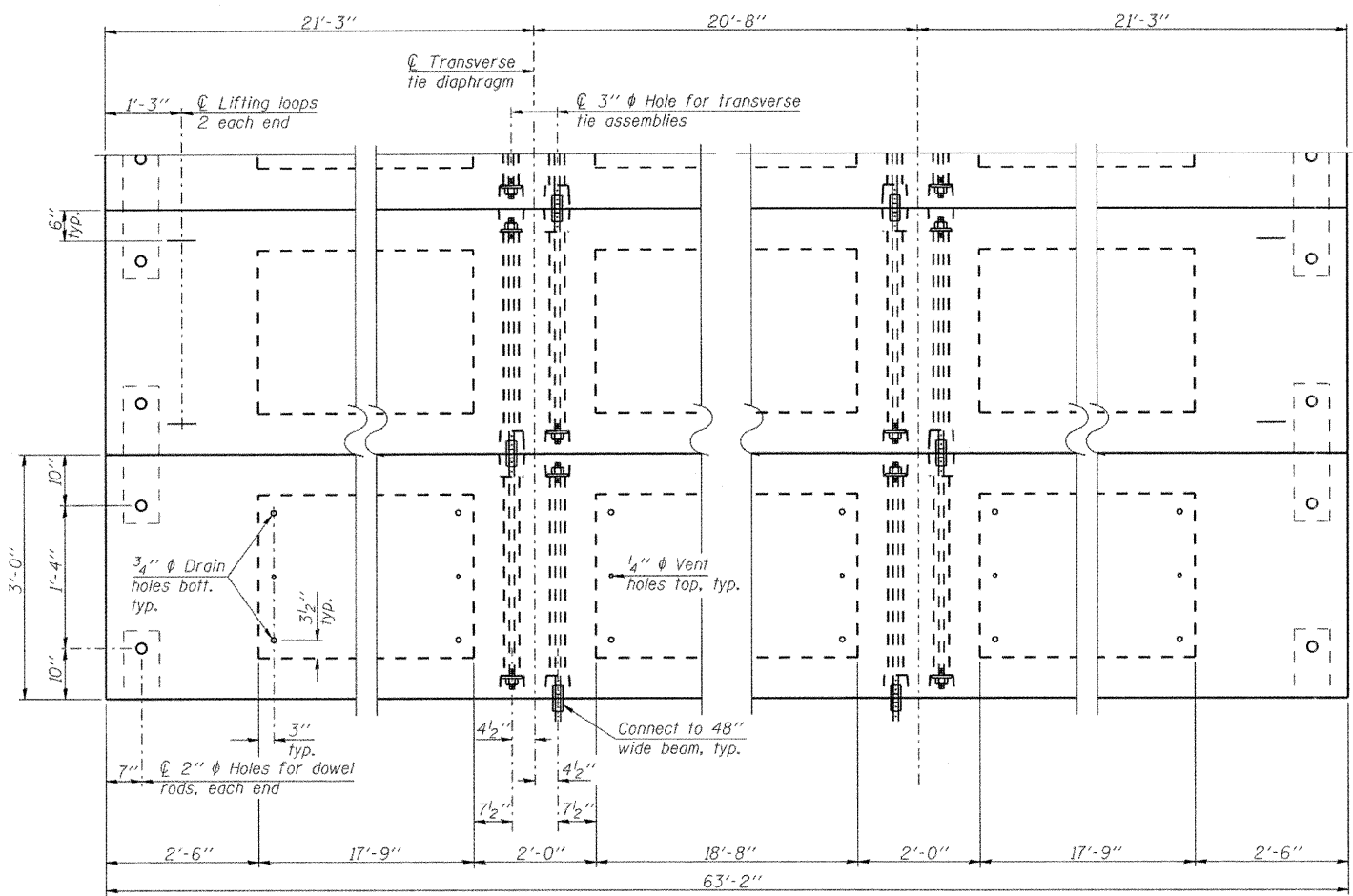
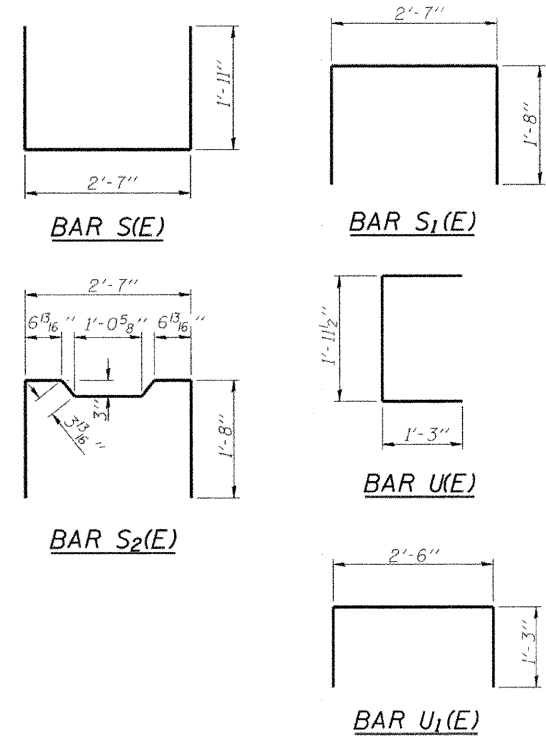
Notes:  
All bearing pads shall be 1" thick.



**SECTION A-A**

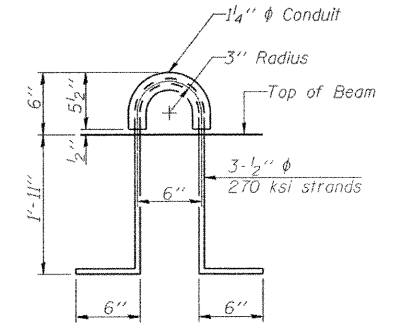


**TYPICAL TRANSVERSE TIE ASSEMBLY**



**PLAN VIEW**

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



**LIFTING LOOP DETAIL**

**BILL OF MATERIAL**

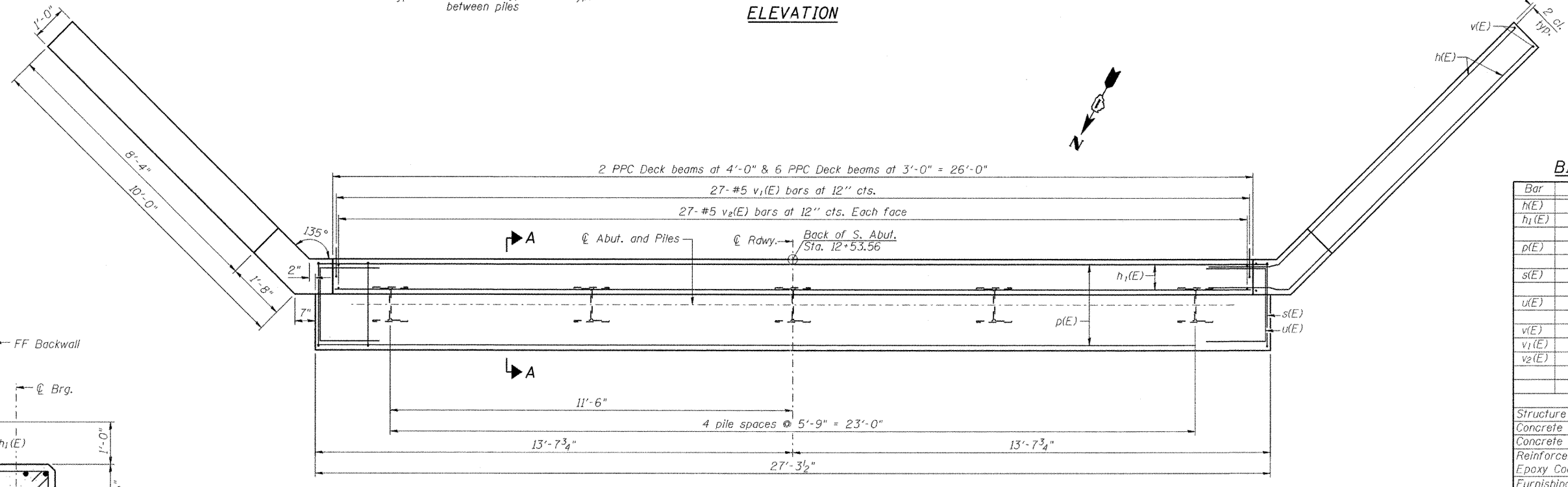
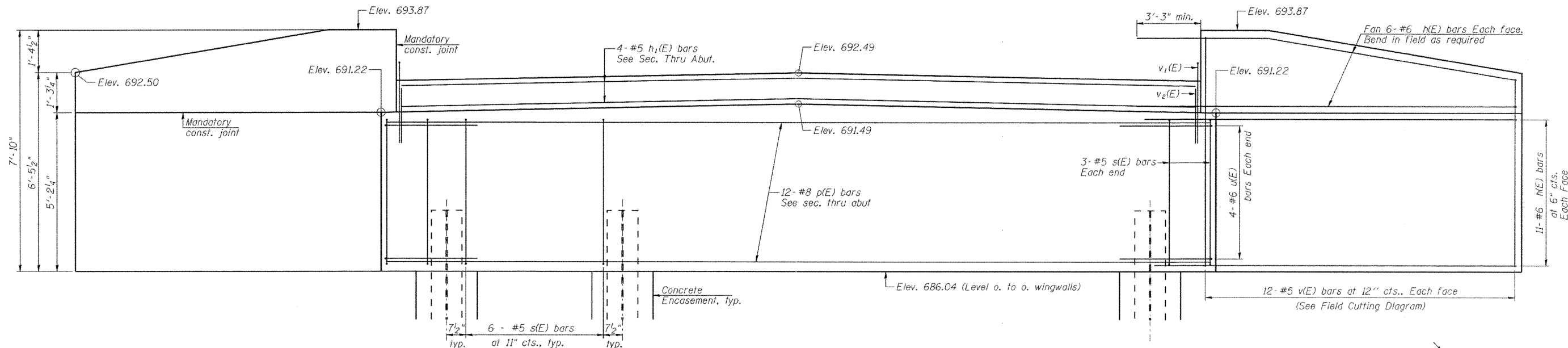
Precast Prestressed Conc. Deck Bms. (27" depth)	Sq. Ft.	1137
---	---------	------

**NOTES**

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.  
The 1" phi 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 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.  
A minimum 2 1/2" phi 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.

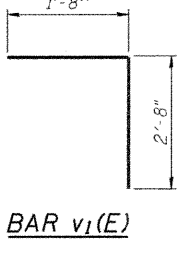
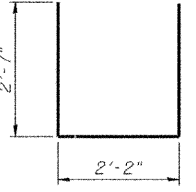
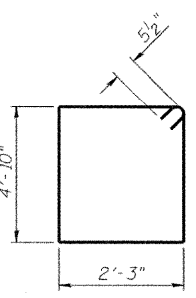
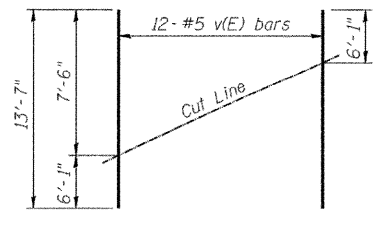
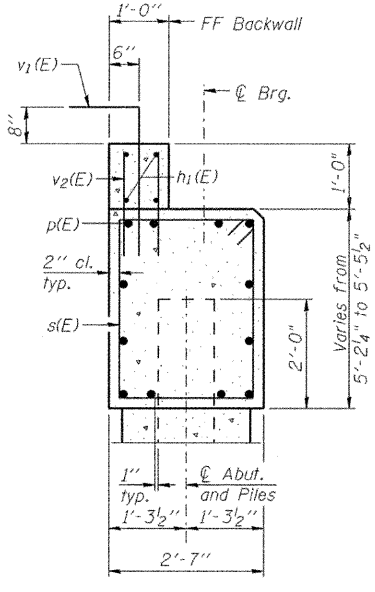
DESIGNED - SLV	REVISED -
CHECKED - SDD	REVISED -
DRAWN - SLV	REVISED -
CHECKED - WHE	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	03-01130-00-BR	KANE	33	20
D-91-352-04			CONTRACT NO. 63660	
ILLINOIS FED. AID PROJECT				



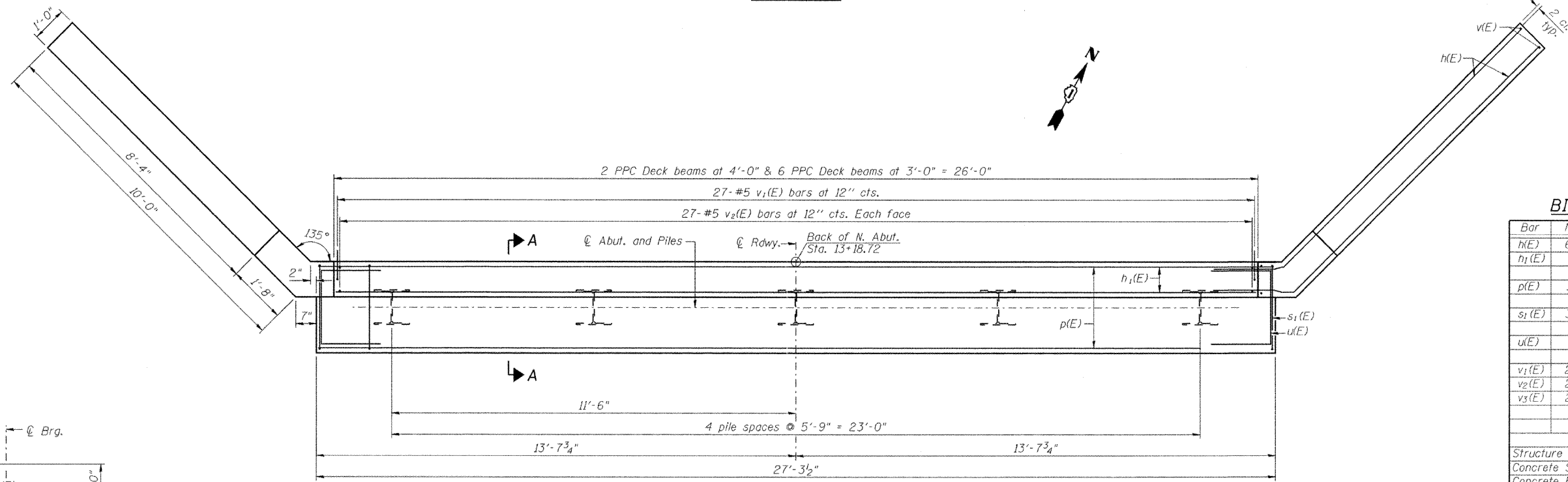
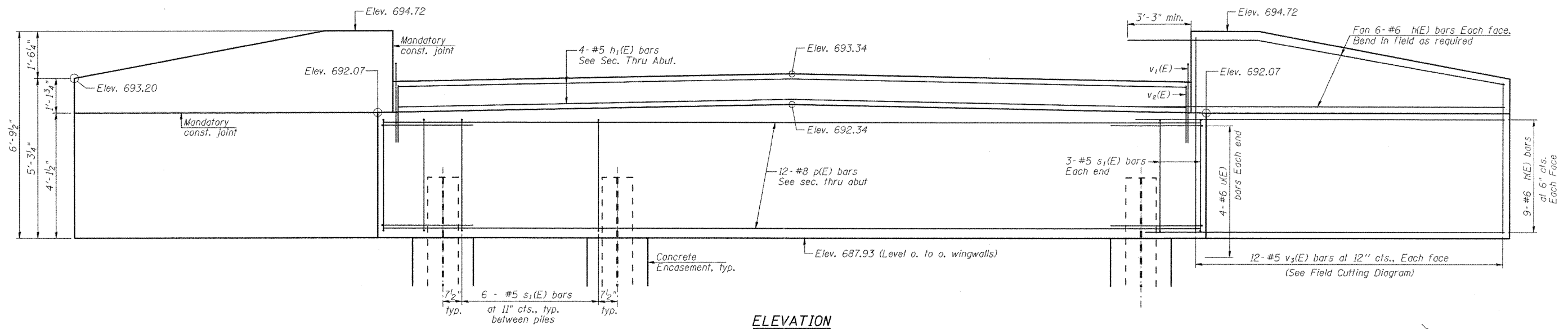
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	68	#6	13'-6"	—
h <sub>1</sub> (E)	4	#5	25'-11"	—
p(E)	12	#8	26'-11"	—
s(E)	30	#5	15'-1"	□
u(E)	8	#6	7'-4"	—
v(E)	24	#5	13'-7"	—
v <sub>1</sub> (E)	27	#5	4'-4"	┌
v <sub>2</sub> (E)	27	#5	1'-10"	—
Structure Excavation		Cu. Yd.	101	
Concrete Structures		Cu. Yd.	20.2	
Concrete Encasement		Cu. Yd.	1.8	
Reinforcement Bars, Epoxy Coated		Pound	3420	
Furnishing Steel Piles HP 12x63		Foot	156	
Driving Piles		Foot	156	
Test Pile Steel HP 12x63		Each	1	
Pile Shoes		Each	5	
Concrete Sealer		Sq Ft	216	
Geocomposite Wall Drain		Sq Yd	36	
Pipe Underdrains for Structures, 4"		Foot	54	



**PILE DATA**  
 Type: HP 12x63 w/ metal shoes  
 Nominal Required Bearing: 497 kips  
 Factored Resistance Available: 273 kips  
 Est. Length: 39 feet  
 No. Production Piles: 4  
 No. Test Piles: 1

**Notes:**  
 For details of piles and Concrete Encasement, see sheet 23.  
 Cast backwall and top portion of wingwall after beams have been erected.  
 Concrete sealer shall be applied to exposed concrete surfaces of wingwall and abutment, including bearing seat, front face and top face of backwall.



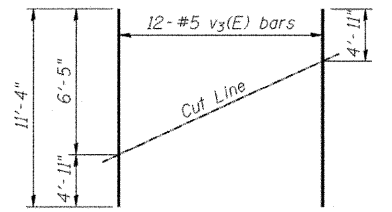
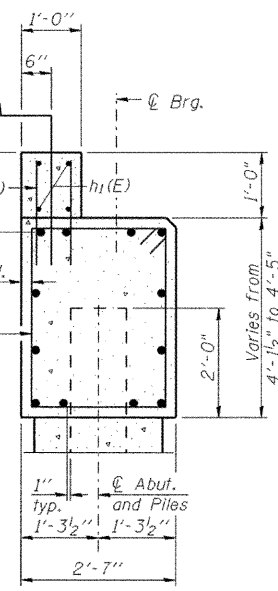
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	60	#6	13'-6"	—
h1(E)	4	#5	25'-11"	—
p(E)	12	#8	26'-11"	—
s1(E)	30	#5	12'-11"	□
u(E)	8	#6	7'-4"	□
v1(E)	27	#5	4'-4"	┌
v2(E)	27	#5	1'-10"	—
v3(E)	24	#5	11'-4"	—
Structure Excavation Cu. Yd. 86				
Concrete Structures Cu. Yd. 16.8				
Concrete Encasement Cu. Yd. 1.8				
Reinforcement Bars, Epoxy Coated Pound 3140				
Furnishing Steel Foot 136				
Piles HP 12x63 Foot 136				
Driving Piles Foot 136				
Test Pile Steel HP 12x63 Each 1				
Pile Shoes Each 5				
Concrete Sealer Sq Ft 216				
Geocomposite Wall Drain Sq Yd 30				
Pipe Underdrains for Structures, 4" Foot 54				

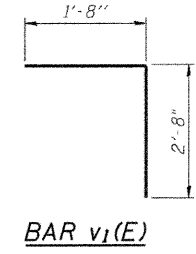
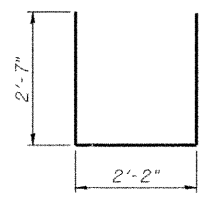
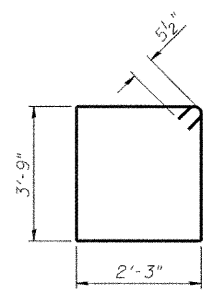
**PILE DATA**

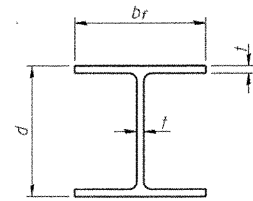
Type: HP 12x63 w/ metal shoes  
 Nominal Required Bearing: 497 kips  
 Factored Resistance Available: 273 kips  
 Est. Length: 34 feet  
 No. Production Piles: 4  
 No. Test Piles: 1

**Notes:**  
 For details of piles and Concrete Encasement, see sheet 23.  
 Cast backwall and top portion of wingwall after beams have been erected.  
 Concrete sealer shall be applied to exposed concrete surfaces of wingwall and abutment, including bearing seat, front face and top face of backwall.



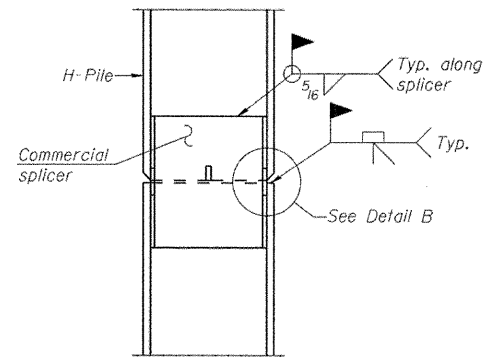
Order v3(E) bars full length. Cut as shown and use remainder of bars in opposite face.



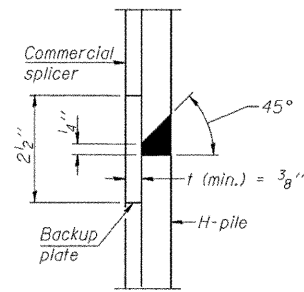


**STEEL PILE TABLE**

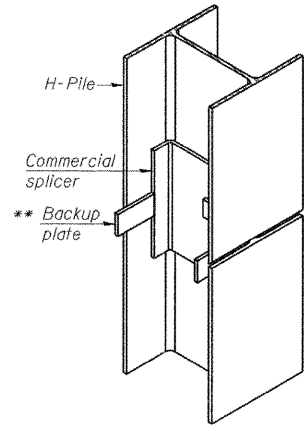
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 5/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
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**

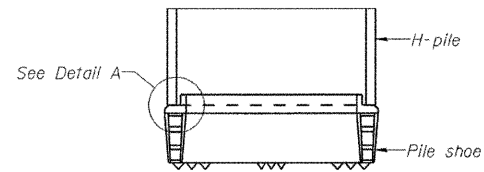


**DETAIL "B"**

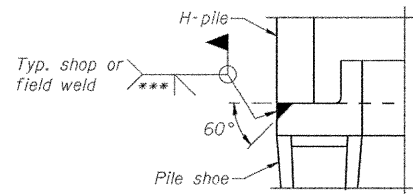


**ISOMETRIC VIEW**

**WELDED COMMERCIAL SPLICE**

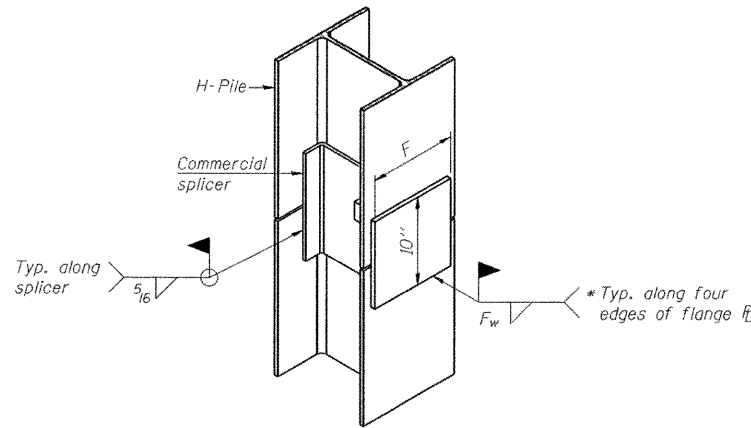


**ELEVATION**



**DETAIL A**

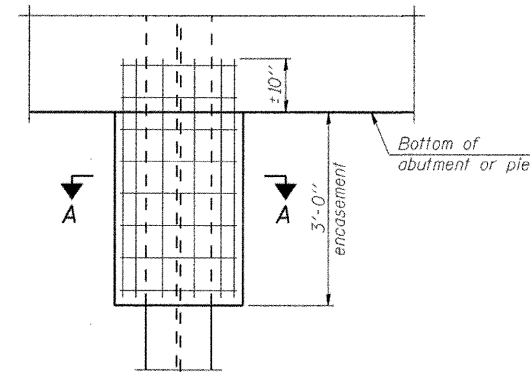
**H-PILE SHOE ATTACHMENT**



**ISOMETRIC VIEW**

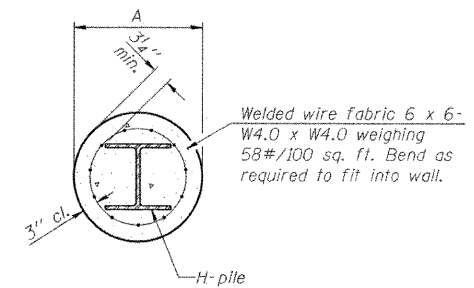
**WELDED COMMERCIAL SPLICE ALTERNATE**

- \* 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.).



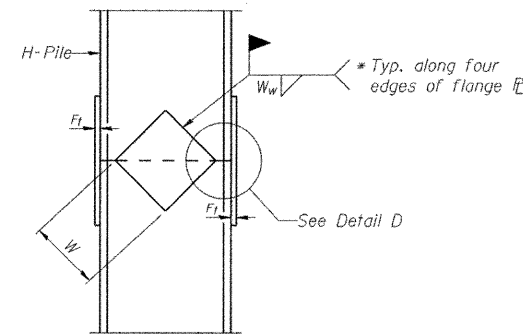
**ELEVATION**

**PILE ENCASEMENT**

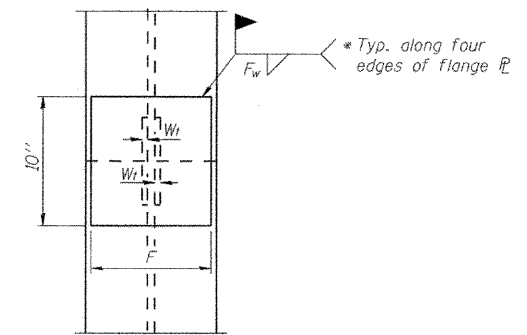


**SECTION A-A**

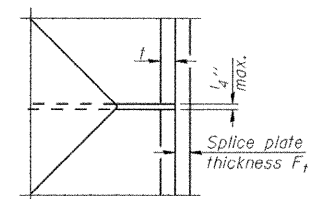
Note:  
Forms for encasement may be omitted when soil conditions permit.



**ELEVATION**



**END VIEW**



**DETAIL D**

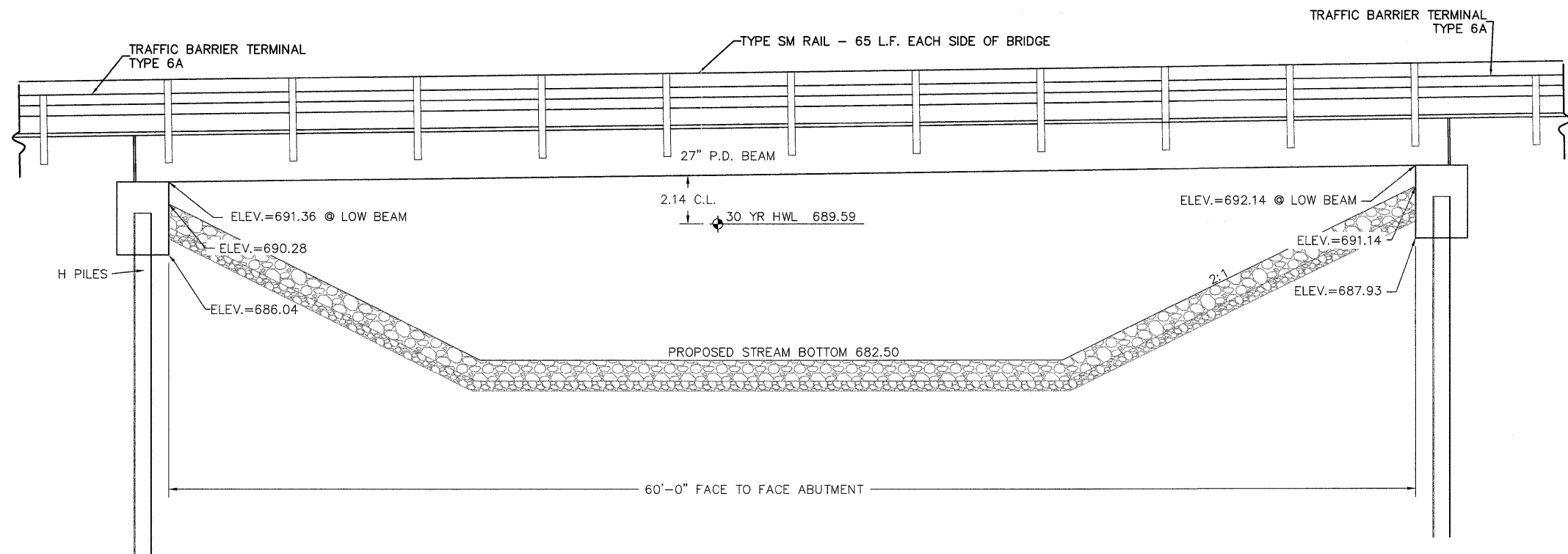
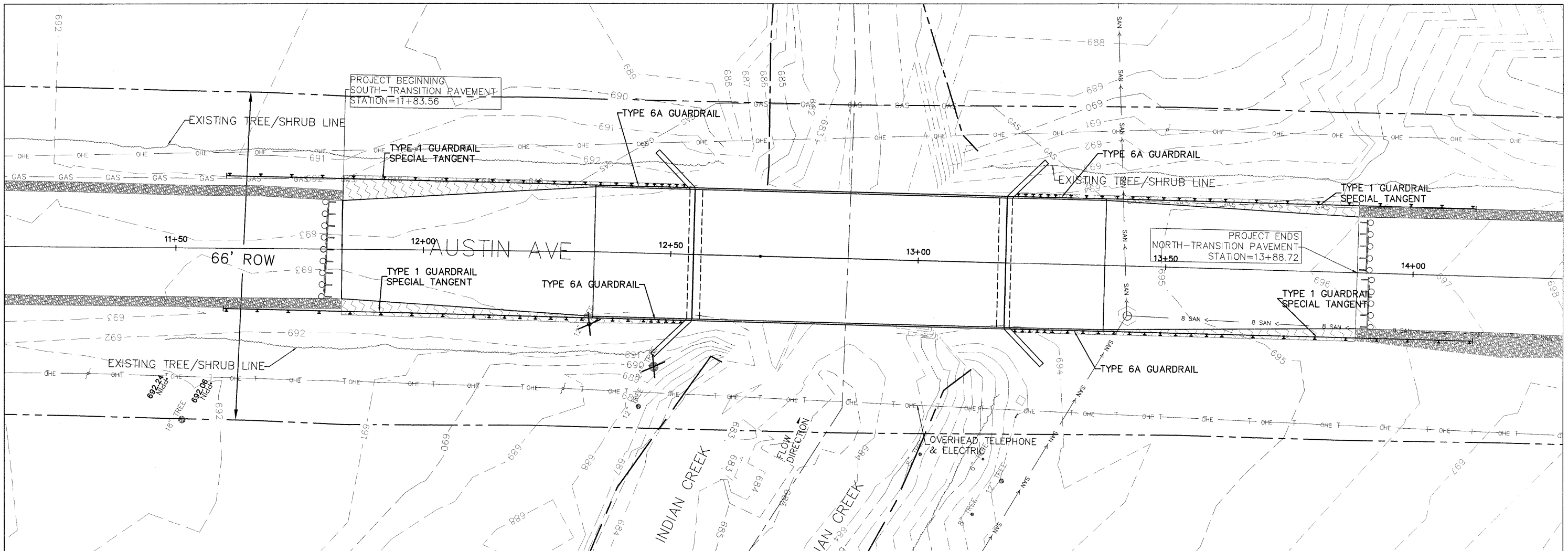
**WELDED PLATE FIELD SPLICE**

Designation	F	Ft	Fw	W	Wt	Ww
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"	1/16"	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"	1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1/16"	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"

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

F-HP

7-1-10



ELEVATION  
LOOKING WEST



DESIGNED - JJT	REVISED -
DRAWN - ASK	REVISED -
CHECKED - JJT	REVISED -
DATE - 10/7/2011	REVISED -

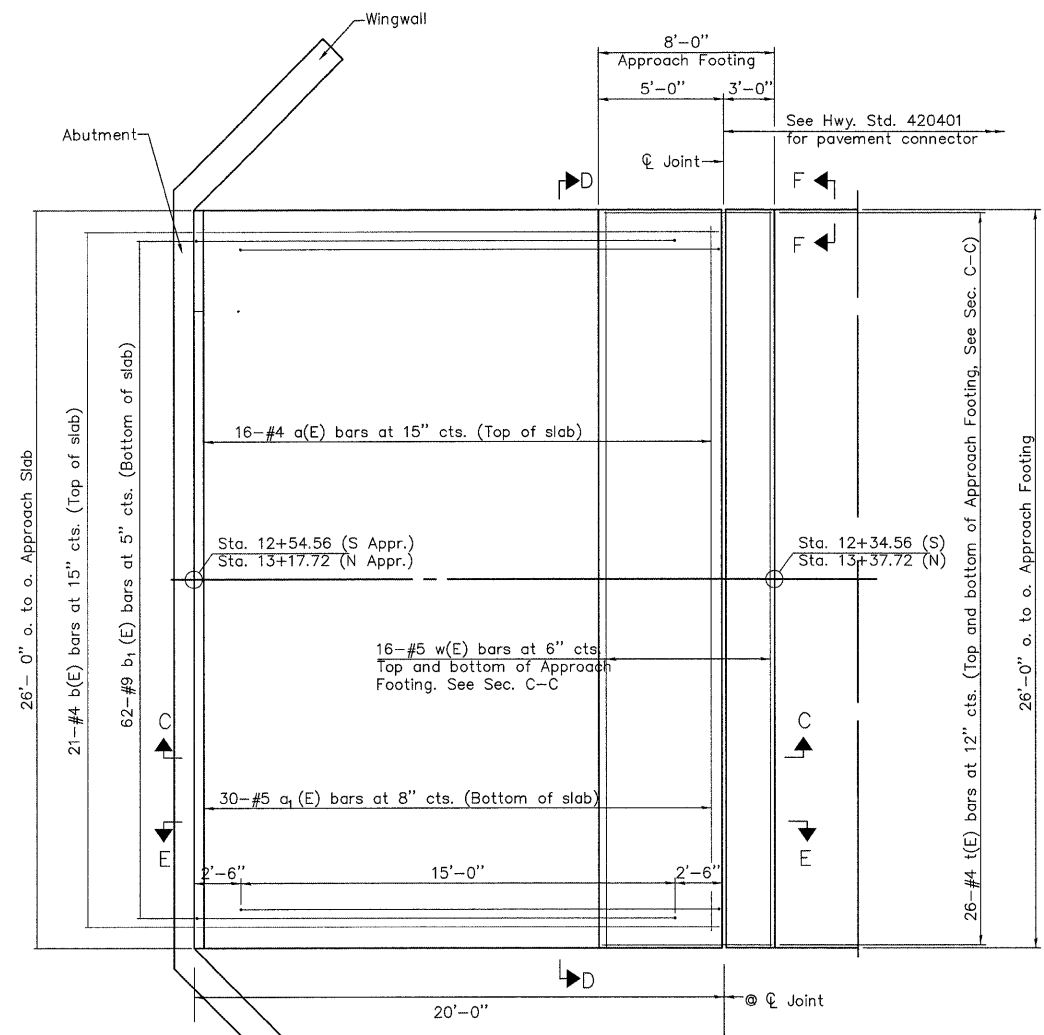
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GUARDRAIL DETAILS  
AUSTIN AVE OVER INDIAN CREEK

SHEET NO. 13 OF 12 SHEETS

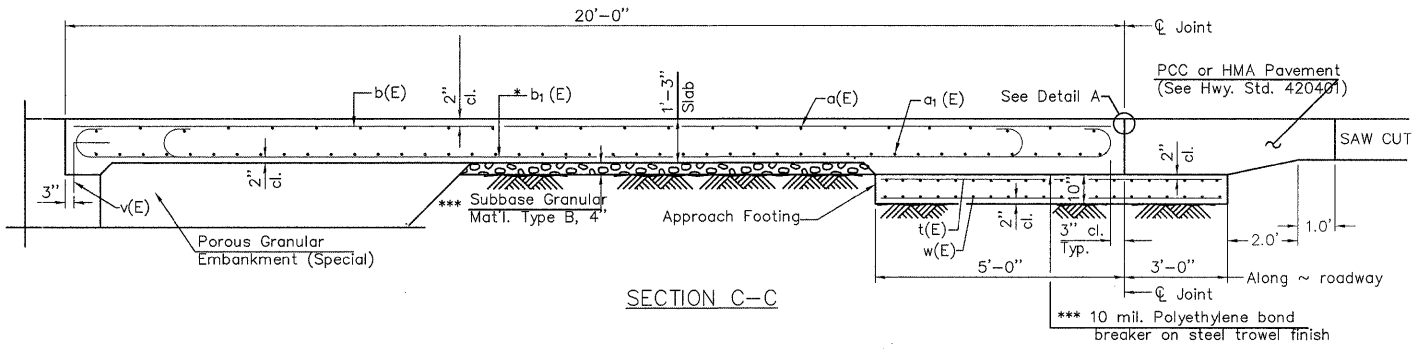
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	03-01130-00-BR	KANE	33	24
D-91-352-04		CONTRACT NO. 63660		
FED. ROAD DIST. NO. -		ILLINOIS FED. AID PROJECT		



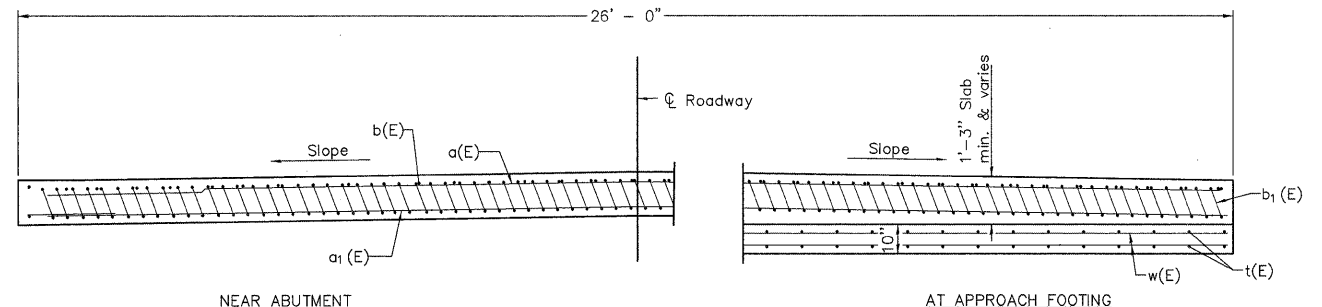


PLAN

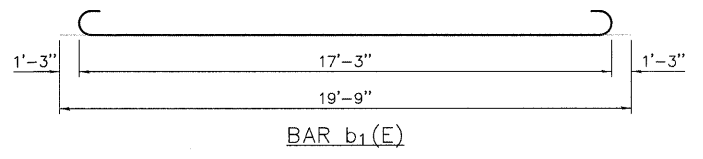
\* Tilt #9 b<sub>1</sub>(E) bars as required to maintain clearance.  
 \*\* Space between a(E) bars, typ. ea. parapet.  
 \*\*\* Cost included in cost of Concrete Superstructure.



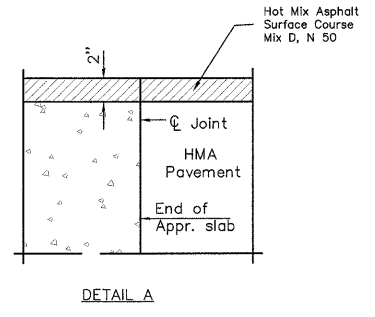
SECTION C-C



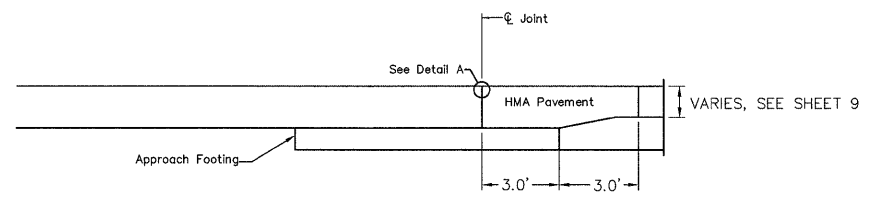
SECTION D-D  
 (See Plan for dimensions not shown)



Notes:  
 Approach slab 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.  
 The approach footing maximum applied service bearing pressure (Q<sub>max</sub>) = 2.0 ksf.  
 Cost of excavation for approach footing included with Concrete Structures.  
 For Porous Granular Embankment (Special) and drainage treatment details, see sheet 13.



DETAIL A

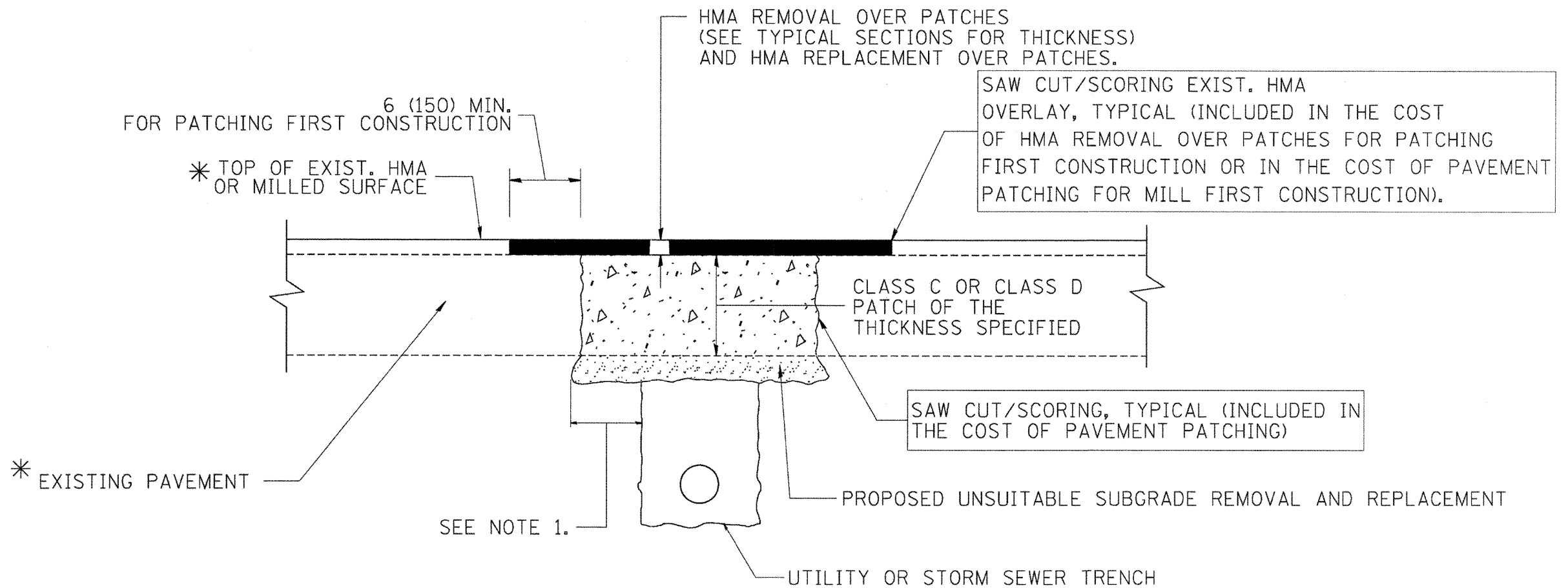


BRIDGE APPROACH PAVEMENT CONNECTOR DETAIL

GENERAL NOTES:  
 1. SEE STANDARD 421001 FOR REINFORCEMENT DETAILS  
 2. SEE STANDARD 420001 FOR JOINT DETAILS  
 3. SEE PLANS FOR DETAILS OF BRIDGE APPROACH FOOTING AND PREFORMED JOINT.

BILL OF MATERIALS

BAR	NO.	SIZE	LENGTH	SHAPE	
a (E)	32	#4	25'-8"	—	
a1(E)	60	#5	25'-8"	—	
b (E)	42	#4	19'-8"	—	
b1(E)	124	#9	19'-9"	—	
t (E)	104	#4	7'-8"	—	
w (E)	64	#5	25'-8"	—	
CONCRETE STRUCTURES				CU. YD.	12.8
REINFORCEMENT BARS, EPOXY COATED				POUND	13,200
CONCRETE SUPERSTRUCTURE				CU. YD.	48.1



\* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST 4 1/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

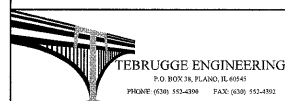
REVISIONS	
NAME	DATE
R. SHAH	01/14/95
R. SHAH	03/23/99
R. SHAH	04/24/99
A. HOUSEH	03/15/96
A. ABBAS	03/21/97
A. ABBAS	01/20/98
ART ABBAS	04/27/98
R. BORO	01/01/07
R. BORO	09/04/07
K. ENG	10/27/08

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT

SCALE: VERT. NONE  
HORIZ.

DRAWN BY  
CHECKED BY



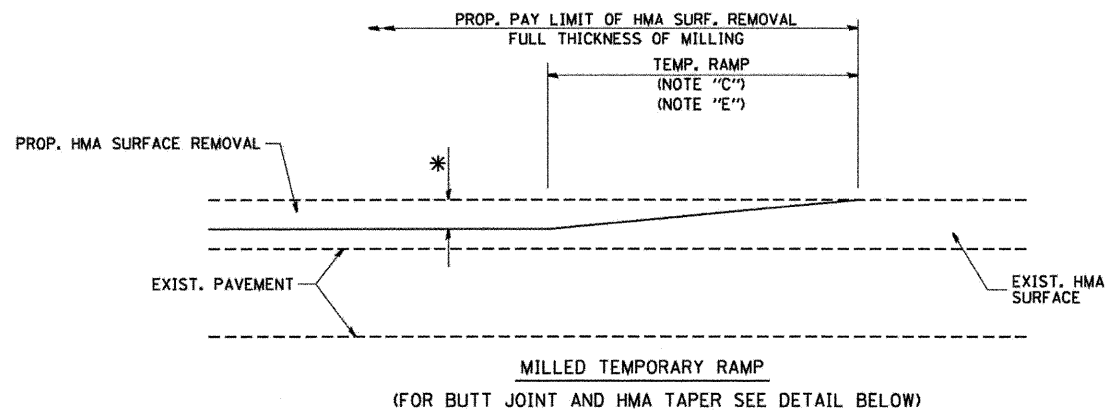
DESIGNED - JJT	REVISED -
DRAWN - ASK	REVISED -
CHECKED - JJT	REVISED -
DATE - 10/7/2011	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

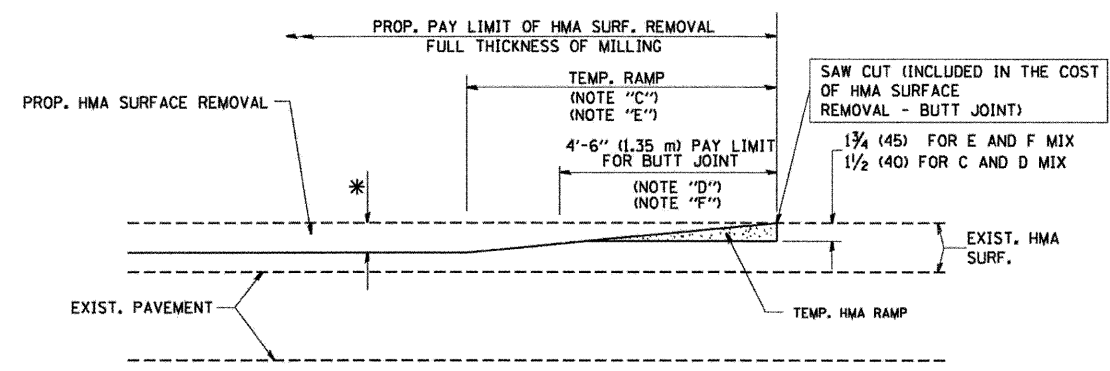
DISTRICT ONE DETAILS  
AUSTIN AVE OVER INDIAN CREEK

SHEET NO. 1 OF 4 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	03-01130-00-BR	KANE	33	26
D-91-352-04			CONTRACT NO. 63660	
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

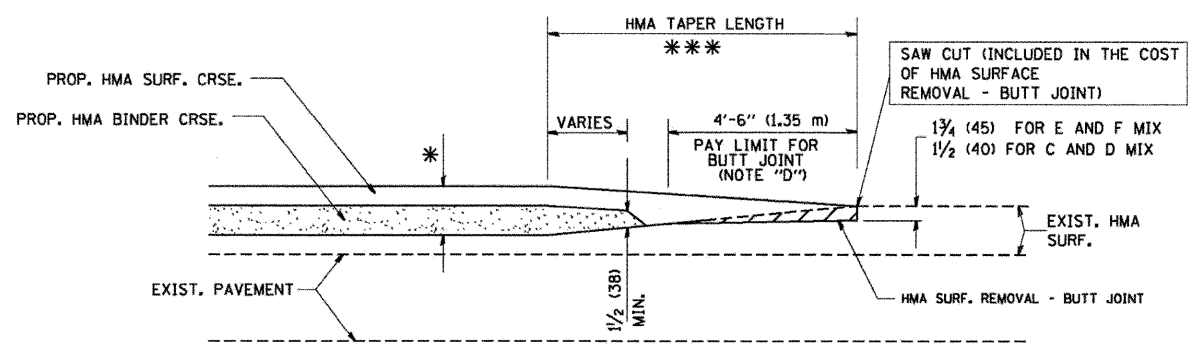


OPTION 1



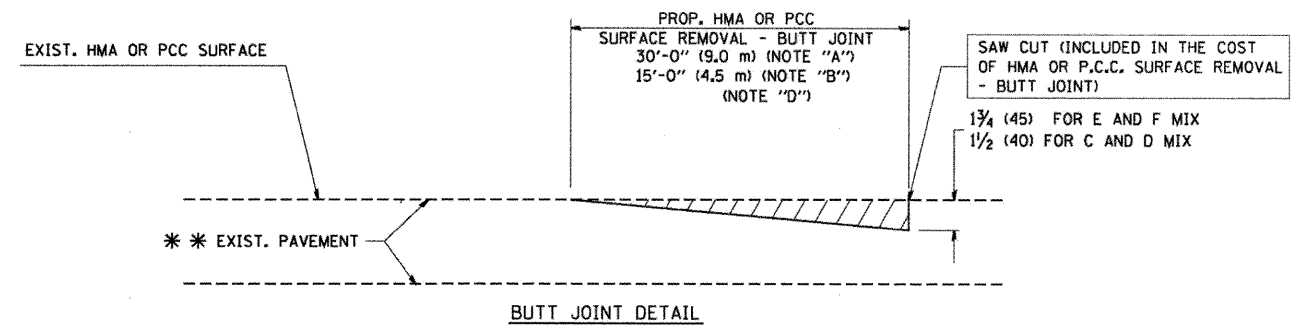
OPTION 2

TYPICAL TEMPORARY RAMP

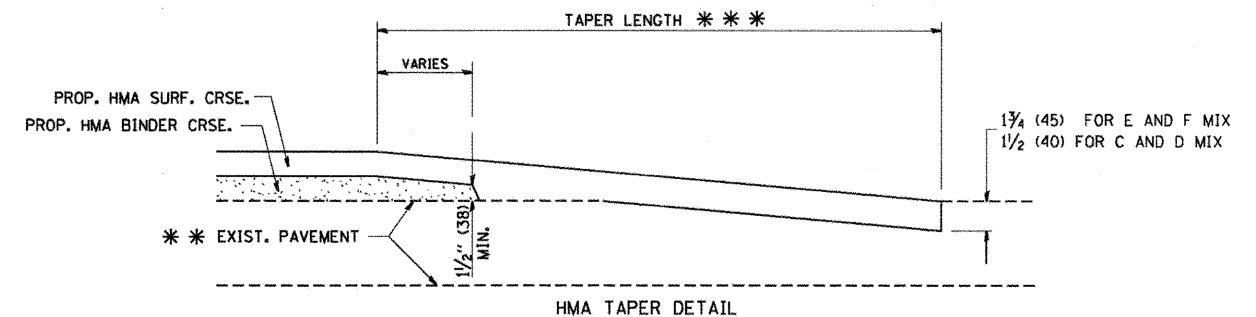


BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

\*\*\* PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B: MINOR SIDE ROADS.
- C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
- F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
- G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- \*\*\* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")  
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

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

BASIS OF PAYMENT:

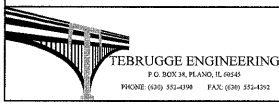
THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

REVISIONS	
NAME	DATE
M. DE YONG	6-13-90
M. DE YONG	7-3-90
M. DE YONG	3-27-92
R. SHAH	09/09/94
R. SHAH	10/25/94
A. ABBAS	03/21/97
M. GOMEZ	04/06/01
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND HMA TAPER DETAILS

SCALE: VERT. NONE  
HORIZ. NONE  
DRAWN BY  
CHECKED BY



DESIGNED - JJT	REVISED -
DRAWN - ASK	REVISED -
CHECKED - JJT	REVISED -
DATE - 10/7/2011	REVISED -

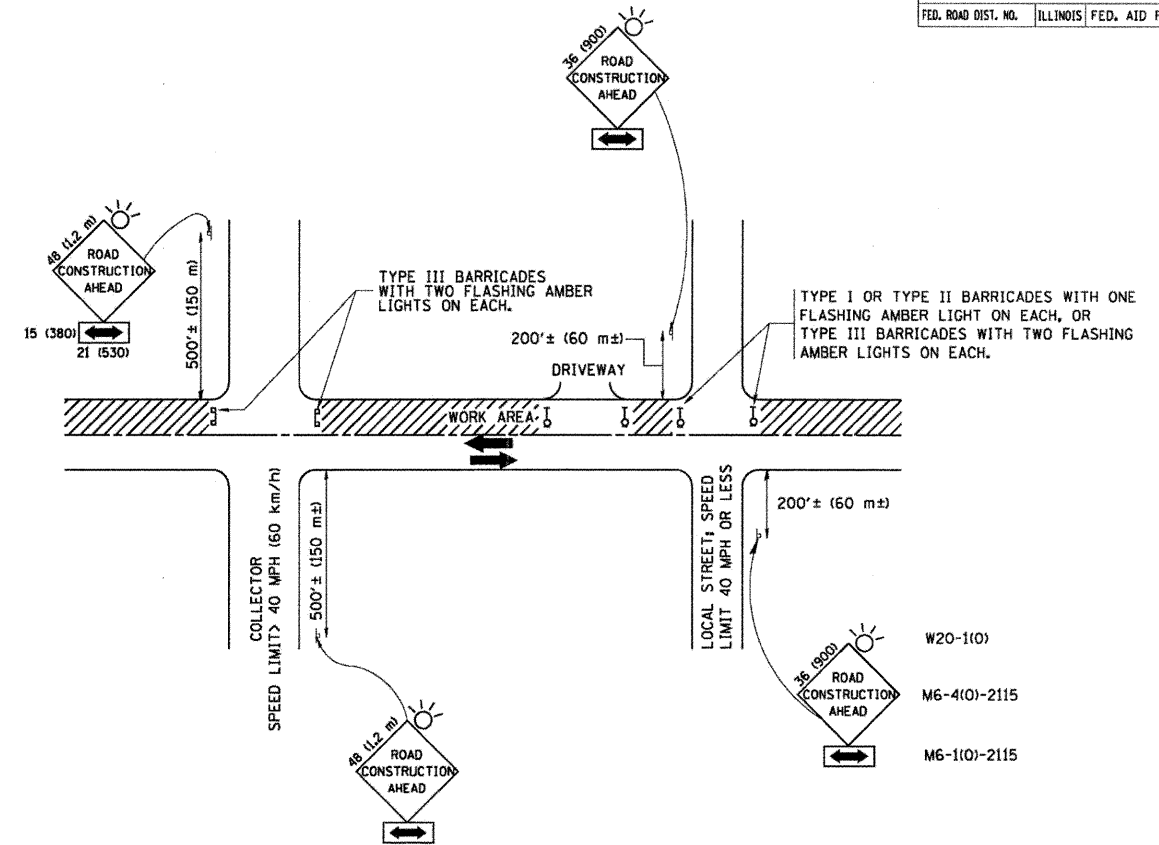
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAILS  
AUSTIN AVE OVER INDIAN CREEK

SHEET NO. 2 OF 4 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	03-01130-00-BR	KANE	33	27
D-91-352-04		CONTRACT NO. 63660		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

**NOTES:**

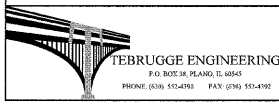
- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS**
- SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
    - 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.
  - SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - 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.
    - 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.
  - 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.

REVISIONS	
NAME	DATE
LHA	6/89
T. RAMMACHER	09/08/94
J. OBERLE	10/18/95
A. HOUSEH	03/06/96
A. HOUSEH	10/15/96
T. RAMMACHER	01/06/00

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS**

SCALE: NONE      DRAWN BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_



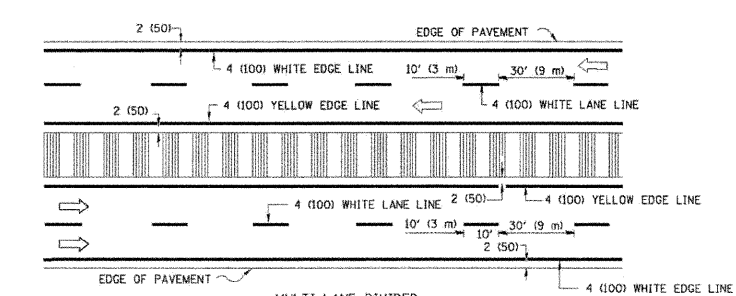
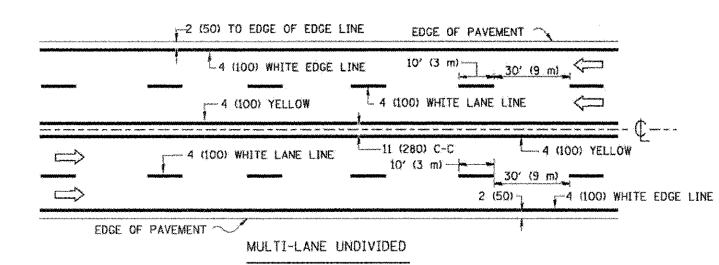
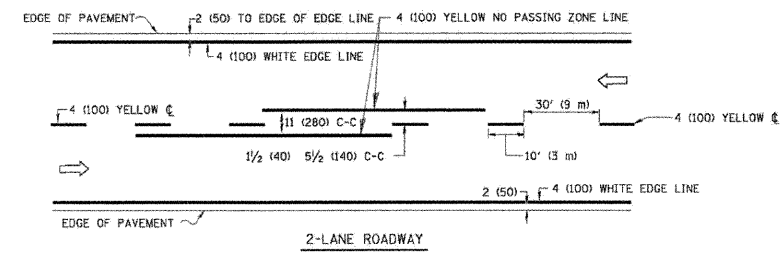
DESIGNED	- JJT	REVISED	-
DRAWN	- ASK	REVISED	-
CHECKED	- JJT	REVISED	-
DATE	- 10/7/2011	REVISED	-

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

DISTRICT ONE DETAILS  
 AUSTIN AVE OVER INDIAN CREEK

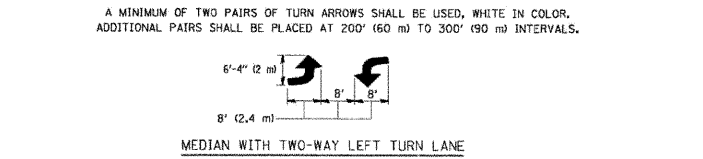
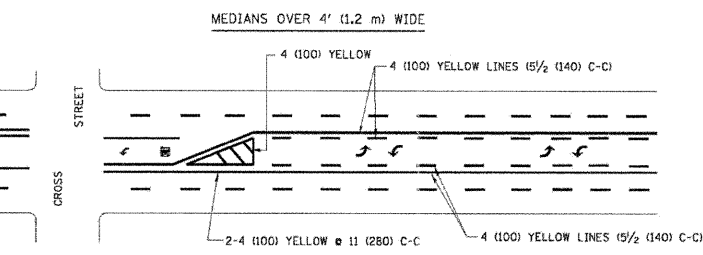
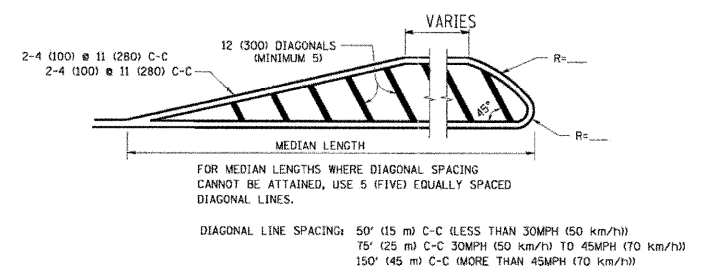
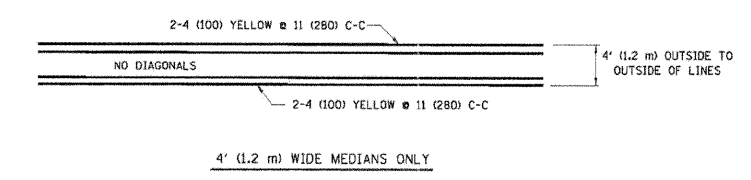
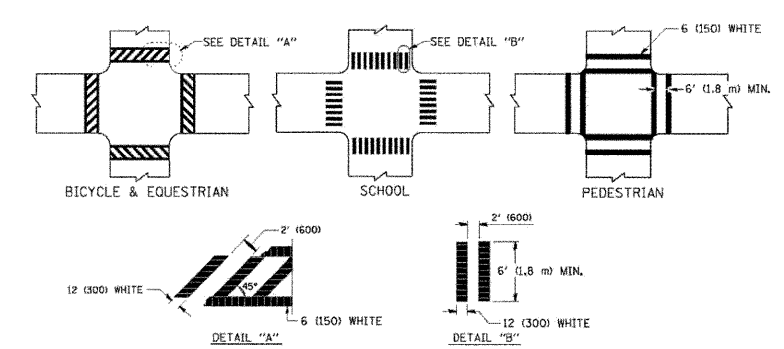
SHEET NO. 3 OF 4 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	03-01130-00-BR	KANE	33	28
	D-91-352-04		CONTRACT NO. 63660	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

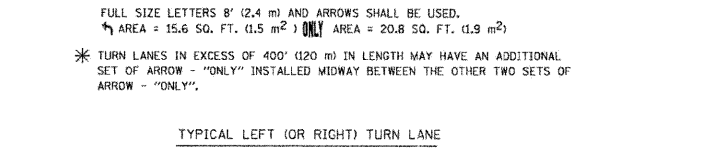
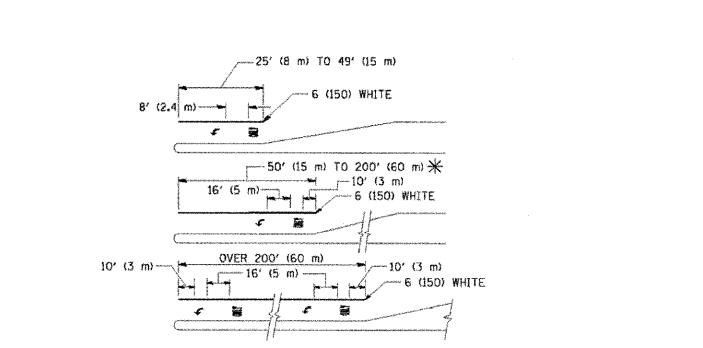


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

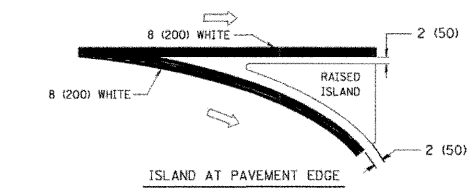
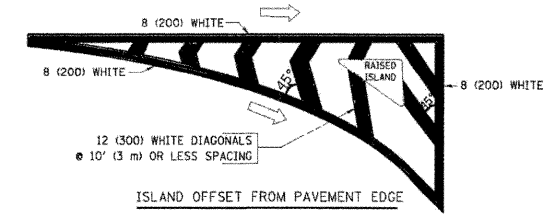
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL PAINTED MEDIAN MARKING



TYPICAL TURN LANE MARKING



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	5/2 (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; 5/2 (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 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" 15' (4.5 m) LINE FOR "X" LETTERS: 15 (400)	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
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))

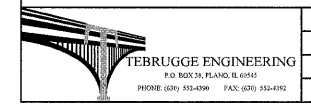
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

REVISIONS	
NAME	DATE
EVERS	03-19-90
T. RAMMACHER	10-27-94
G. JUXTUS	09-09-09

ILLINOIS DEPARTMENT OF TRANSPORTATION  
DISTRICT ONE  
TYPICAL PAVEMENT MARKINGS

SCALE: NONE  
DRAWN BY CADD  
CHECKED BY



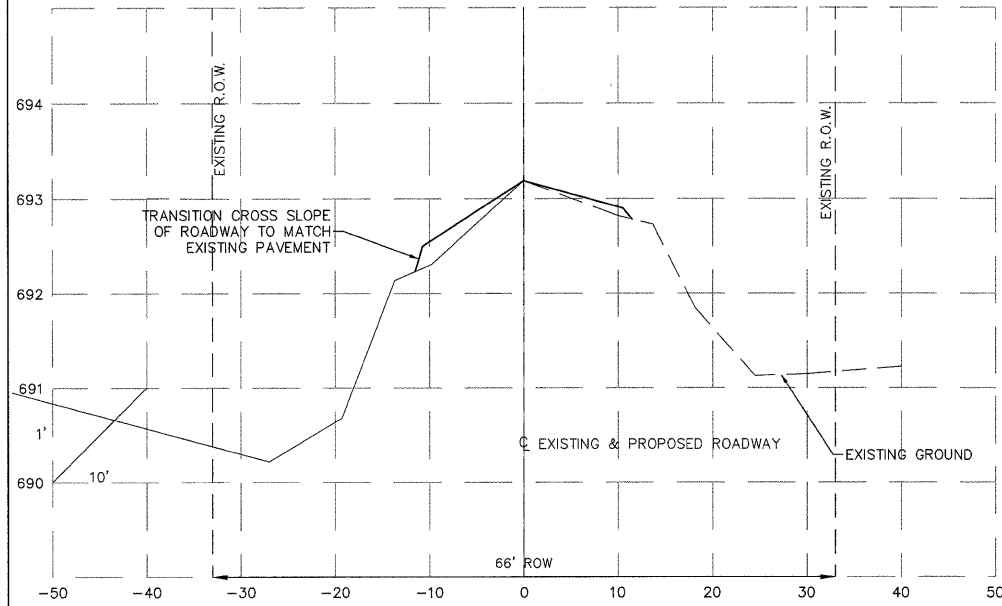
DESIGNED - JJT	REVISED -
DRAWN - ASK	REVISED -
CHECKED - JJT	REVISED -
DATE - 10/7/2011	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

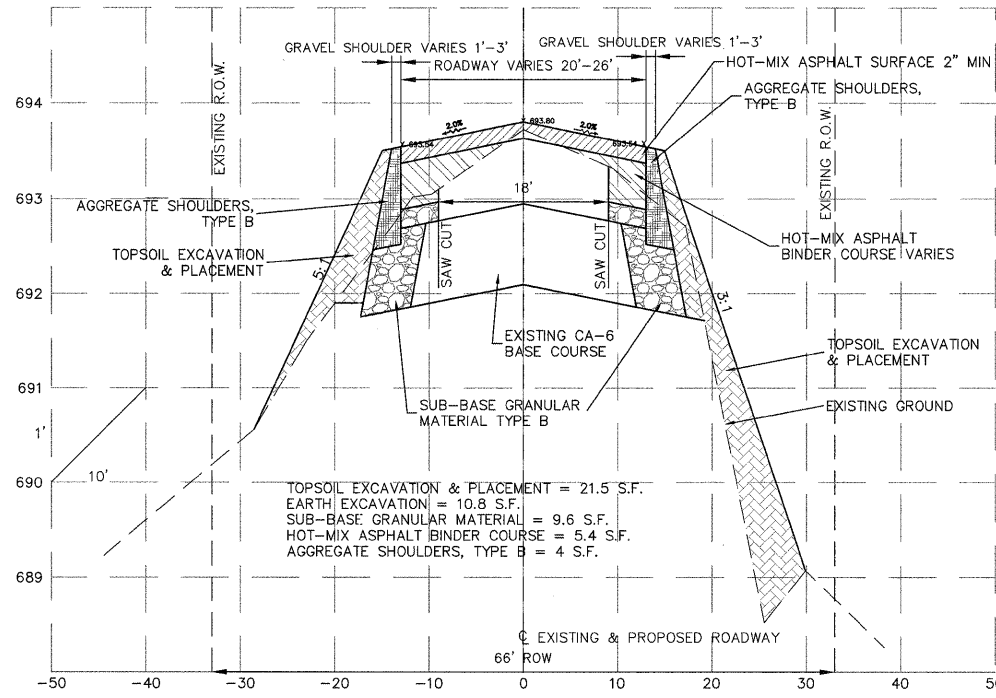
DISTRICT ONE DETAILS  
AUSTIN AVE OVER INDIAN CREEK  
SHEET NO. 4 OF 4 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	03-01130-00-BR	KANE	33	29
	D-91-352-04			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

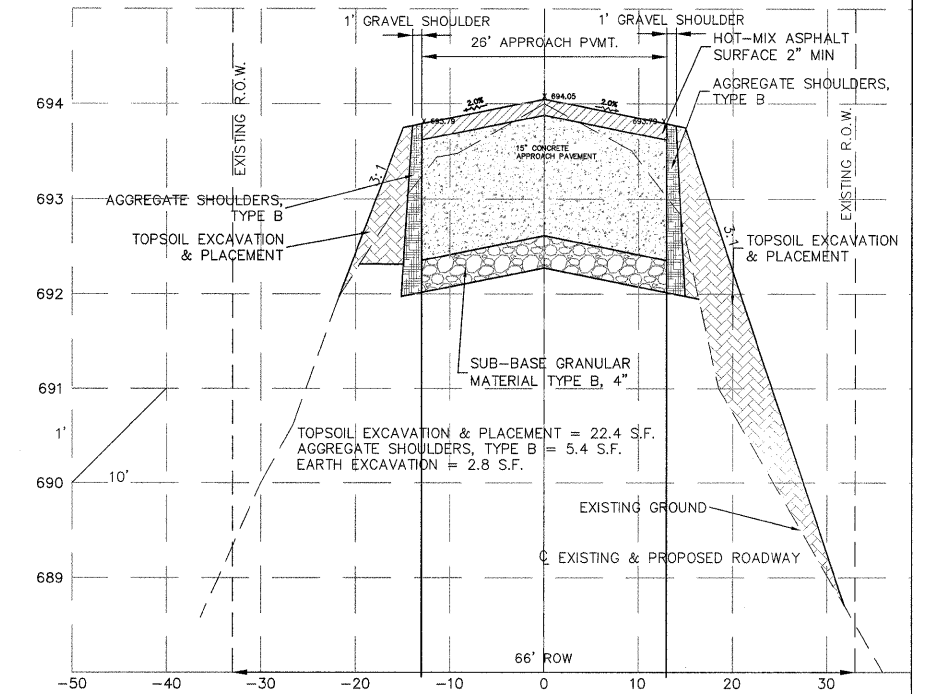
PROPOSED SECTION AT STATION 11+83.56



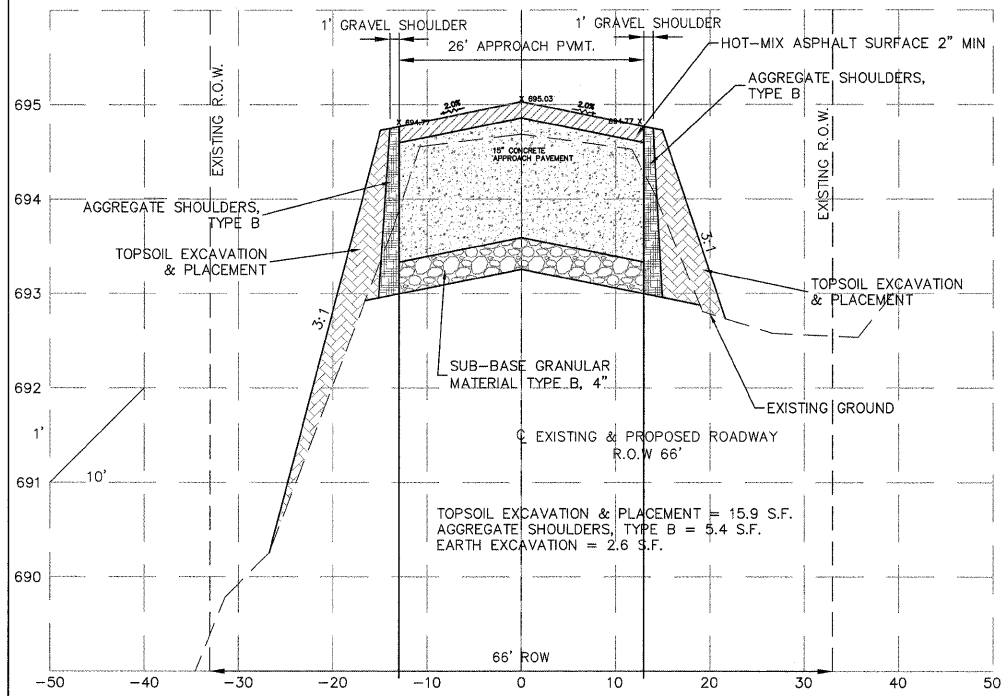
PROPOSED SECTION AT STATION 12+30



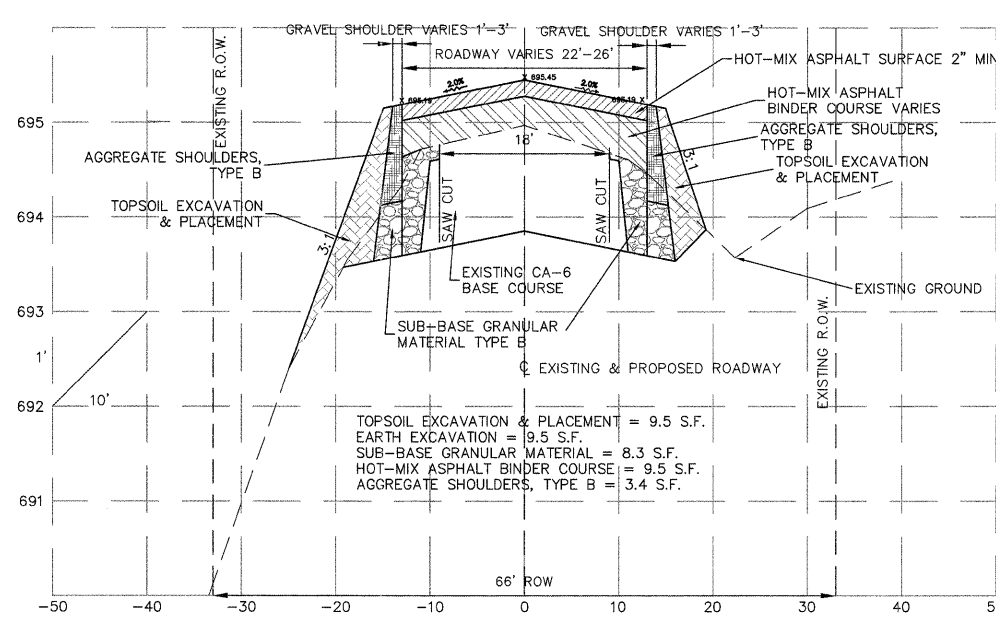
PROPOSED SECTION AT STATION 12+50



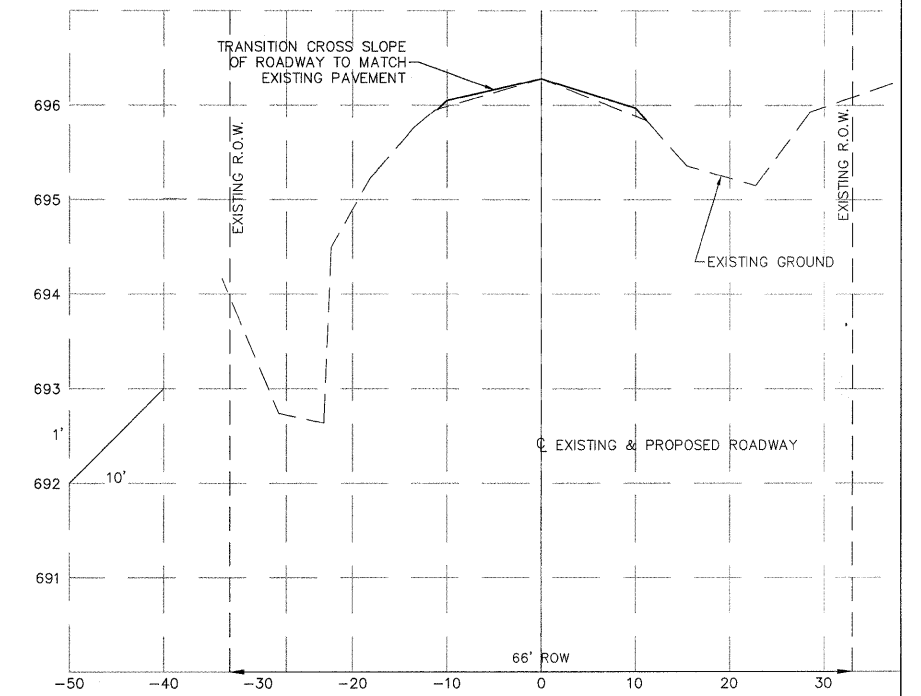
PROPOSED SECTION AT STATION 13+25



PROPOSED SECTION AT STATION 13+50



PROPOSED SECTION AT STATION 13+88.72



NOTE:  
PG 64-22 AC TYPE  
4% VOIDS @ 50 GYRATIONS  
15% MAXIMUM RECYCLED ASPHALT CONTENT

2" HMA MIX "D", N50 SURFACE COURSE  
PG 64-22, AC TYPE, 4% VOIDS @ 50 GYRATIONS  
HMA II-19, N50 BINDER COURSE  
PG 64-22, AC TYPE, 4% VOIDS @ 50 GYRATIONS  
MAXIMUM LIFT NOT TO EXCEED 6"  
12" CA-6 BASE COURSE

TYPICAL HMA PAVEMENT DETAIL  
N.T.S.

LEGEND:

--- EXISTING  
--- PROPOSED

- TOPSOIL EXCAVATION & PLACEMENT
- SUB-BASE GRANULAR MATERIAL, TYPE B
- HOT-MIX ASPHALT SURFACE COURSE
- APPROACH CONCRETE PAVEMENT
- HOT-MIX ASPHALT BINDER COURSE
- AGGREGATE SHOULDERS, TYPE B

NOTE: THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112LBS/SQ YD/IN. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.



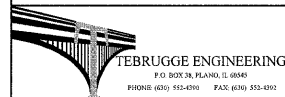
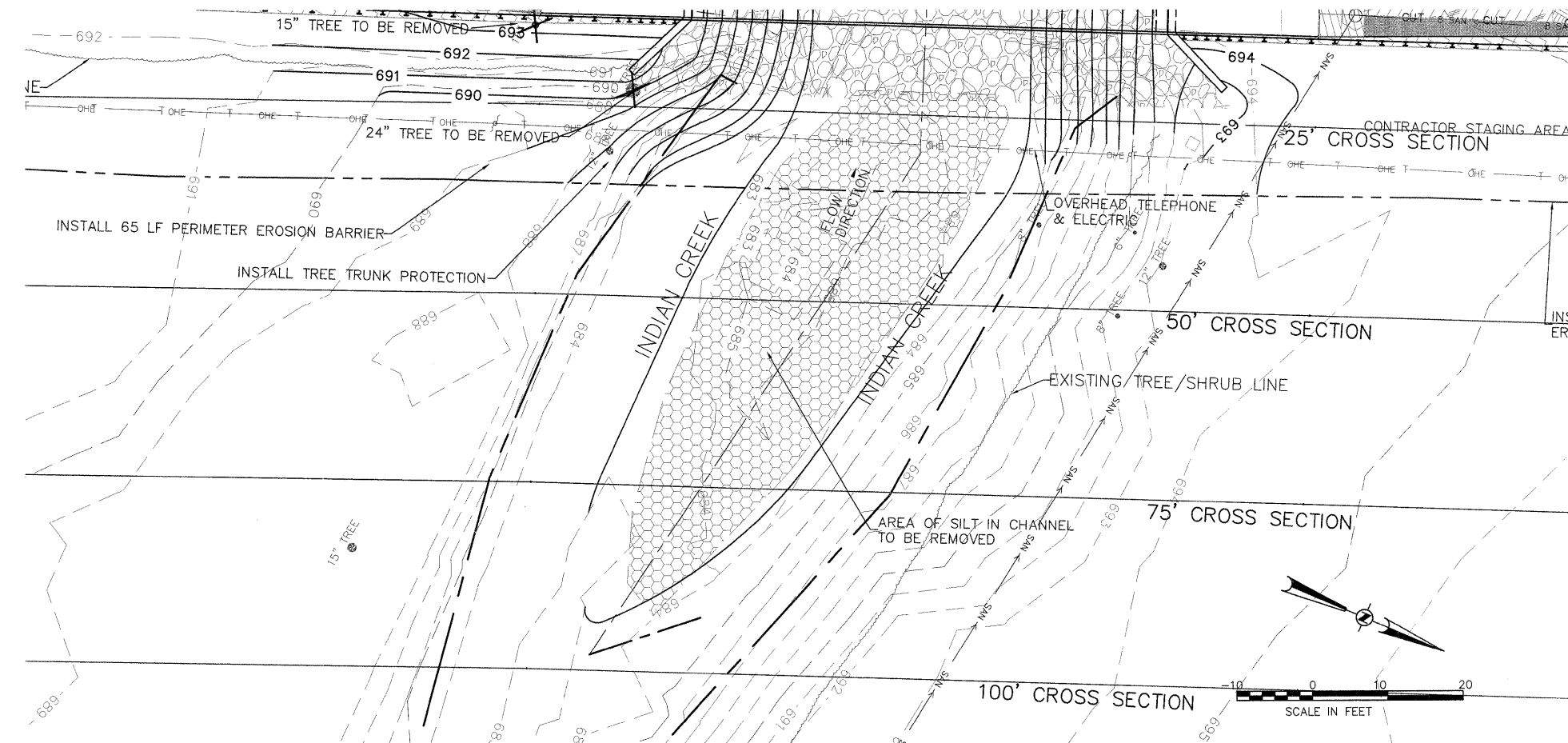
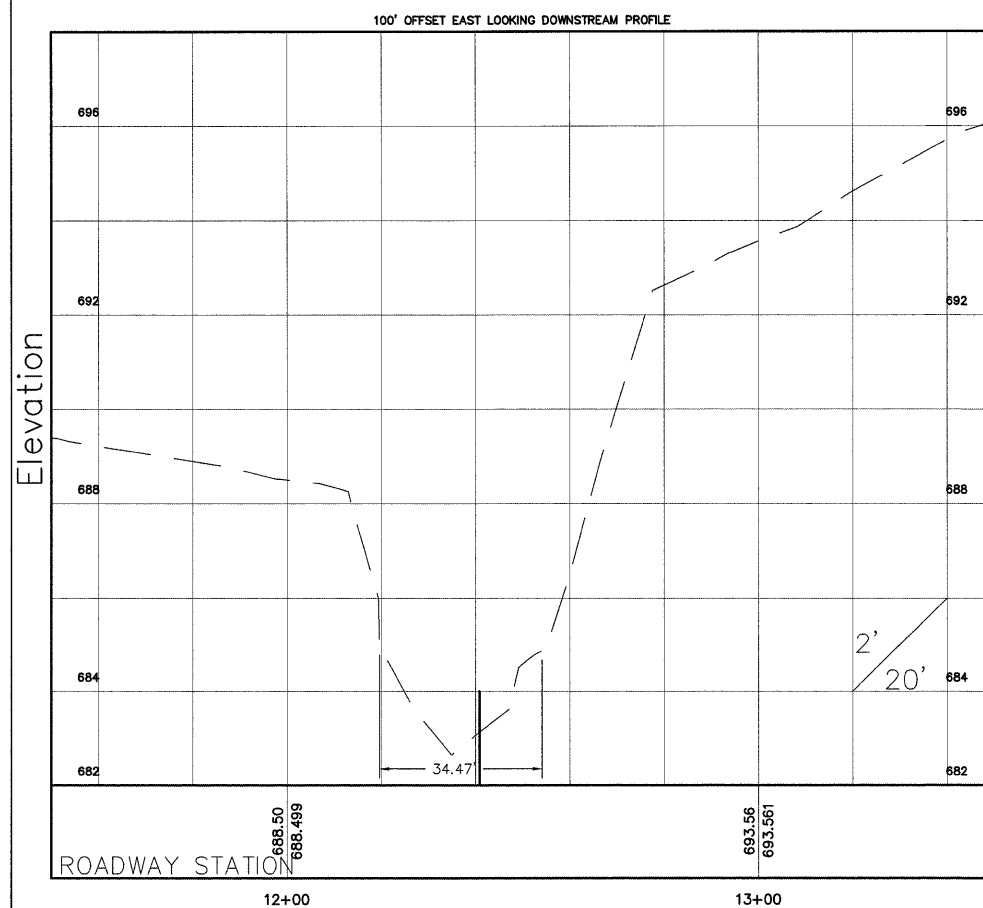
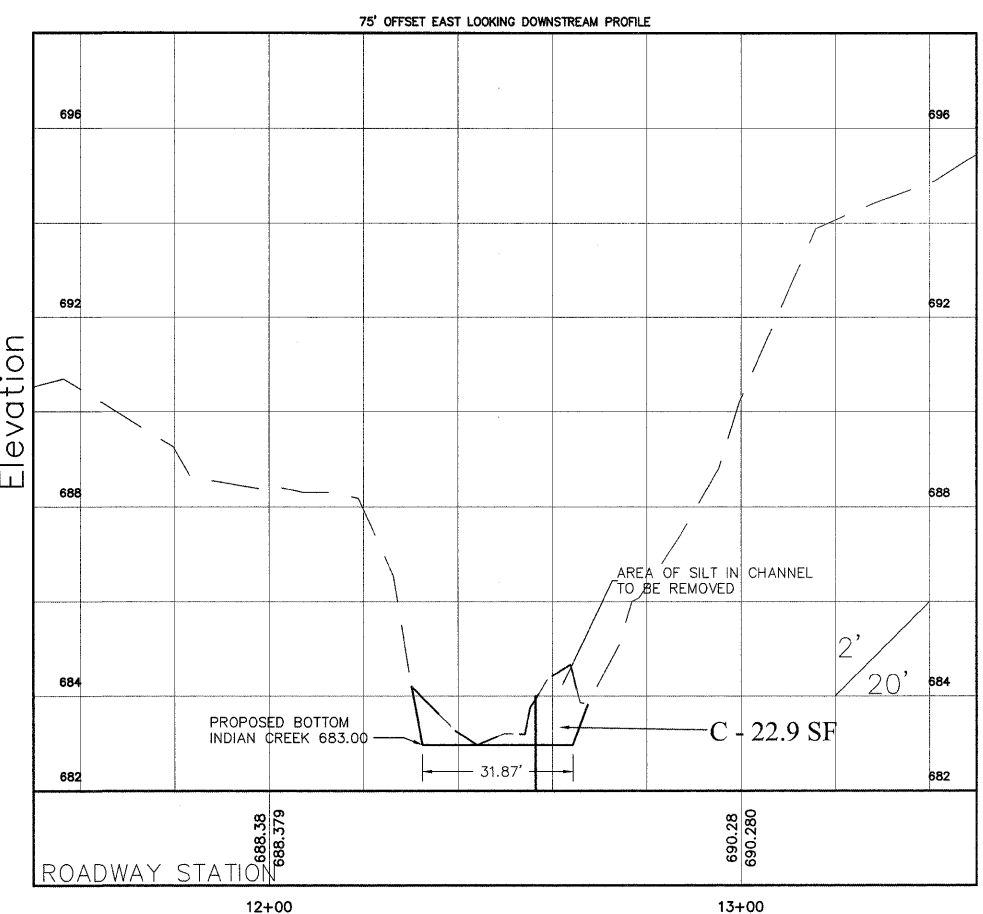
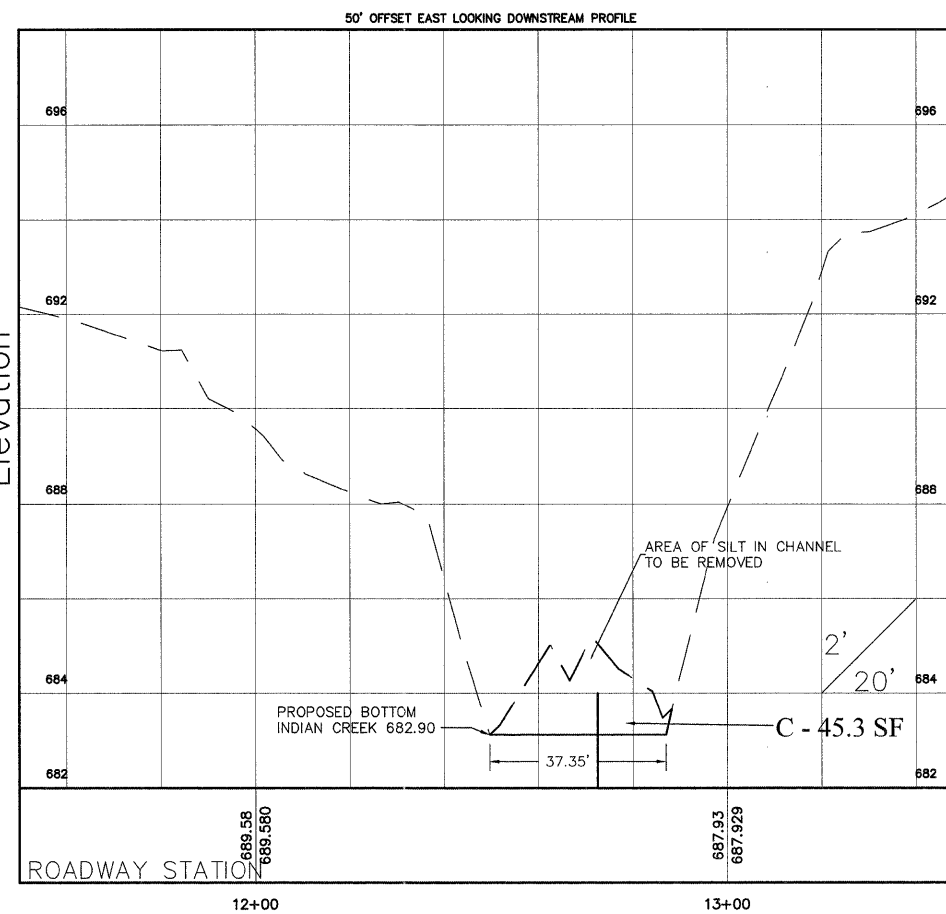
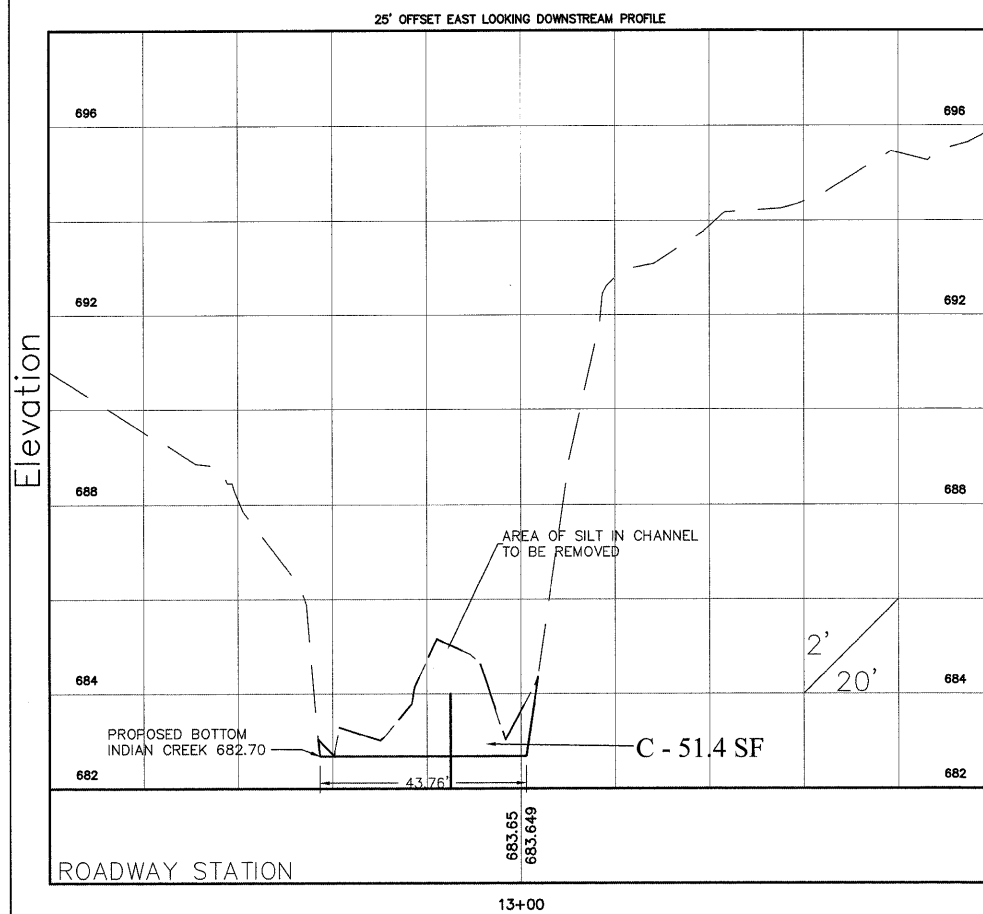
DESIGNED - JJT	REVISED -
DRAWN - ASK	REVISED -
CHECKED - JJT	REVISED -
DATE - 10/7/2011	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS  
AUSTIN AVE OVER INDIAN CREEK

SCALE: AS NOTED SHEET NO. 1 OF 1 STA. 11+83.56 TO STA. 13+88.72

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	03-01130-00-BR	KANE	33	30
	D-91-352-04		CONTRACT NO. 63660	
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				



DESIGNED - JJT	REVISED -
DRAWN - ASK	REVISED -
CHECKED - JJT	REVISED -
DATE - 10/7/2011	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

INDIAN CREEK CROSS SECTIONS  
AUSTIN AVE OVER INDIAN CREEK

SCALE: AS NOTED SHEET NO. 1 OF 1 STA. 11+83.56 TO STA. 13+88.72

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	03-01130-00-BR	KANE	33	31
D-91-352-04		CONTRACT NO. 63660		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

**SOIL AND MATERIAL CONSULTANTS, INC.**  
Arlington Heights, Illinois (847) 870-2544

**SOIL BORING LOG 1**  
Logged By: DA Page: 1 of 1

Client: Tebrugge Engineering File No. 19017 Date Drilled: 8/1/07

Reference: Austin Avenue Bridge Structure No. 045-3087 Aurora, IL

Equipment:  CME 45B  CME 55  Hand Auger  Other

Comments:

Depth, ft.	CLASSIFICATION	standard penetration	moisture content	dry unit weight	unconfined compressive strength	penetration reading, tons/sq.ft.
Elevation 694.7' Existing Surface	(a & b) see below	X	Δ	⊗	○	
5	Brown clay & silt, trace sand & gravel, damp, tough - Fill	5	21.0			1.0 2.0 3.0 4.0
4	Brown silt, some clay, trace sand, damp, very loose - Fill	4	13.5			
4	Dark gray-black silt, some clay, trace sand & gravel, damp-very damp, loose - Fill	8	28.1			
7	Brown to gray clay, some silt, trace sand & gravel, damp, hard	7	20.5			
15	Gray clay & silt, trace sand & gravel, damp, very tough	14	13.9	123.4	7.7	
16	Gray silt, some clay, trace sand & gravel, damp, medium dense	16	10.6	135.1	2.0	
18	Gray clay, some silt, trace sand & gravel, damp, hard	21	12.7	122.8	6.4	
19	Gray clay, some silt, trace sand & gravel, damp, very tough	14	18.5	115.0	3.8	
17	Brown sand, trace silt & gravel, damp-very damp, medium dense	17	9.3			
16	Brown sand, trace silt & gravel, damp-very damp, loose	6	12.9			
50+	Refusal					

(a) Bituminous concrete - 6.0" Water encountered at 36.0 feet during drilling operations (W.D.)  
 (b) Base-brown sand & gravel, damp Water recorded at 36.0 feet on completion of drilling operations (A.D.)  
 (c) Gray silt, some clay, trace sand & gravel, damp, hard Water recorded at 36.0 feet hours after completion of drilling operations (A.D.)

**SOIL AND MATERIAL CONSULTANTS, INC.**  
Arlington Heights, Illinois (847) 870-2544

**SOIL BORING LOG 2**  
Logged By: DA Page: 1 of 1

Client: Tebrugge Engineering File No. 19017 Date Drilled: 8/1/07

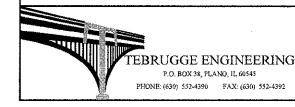
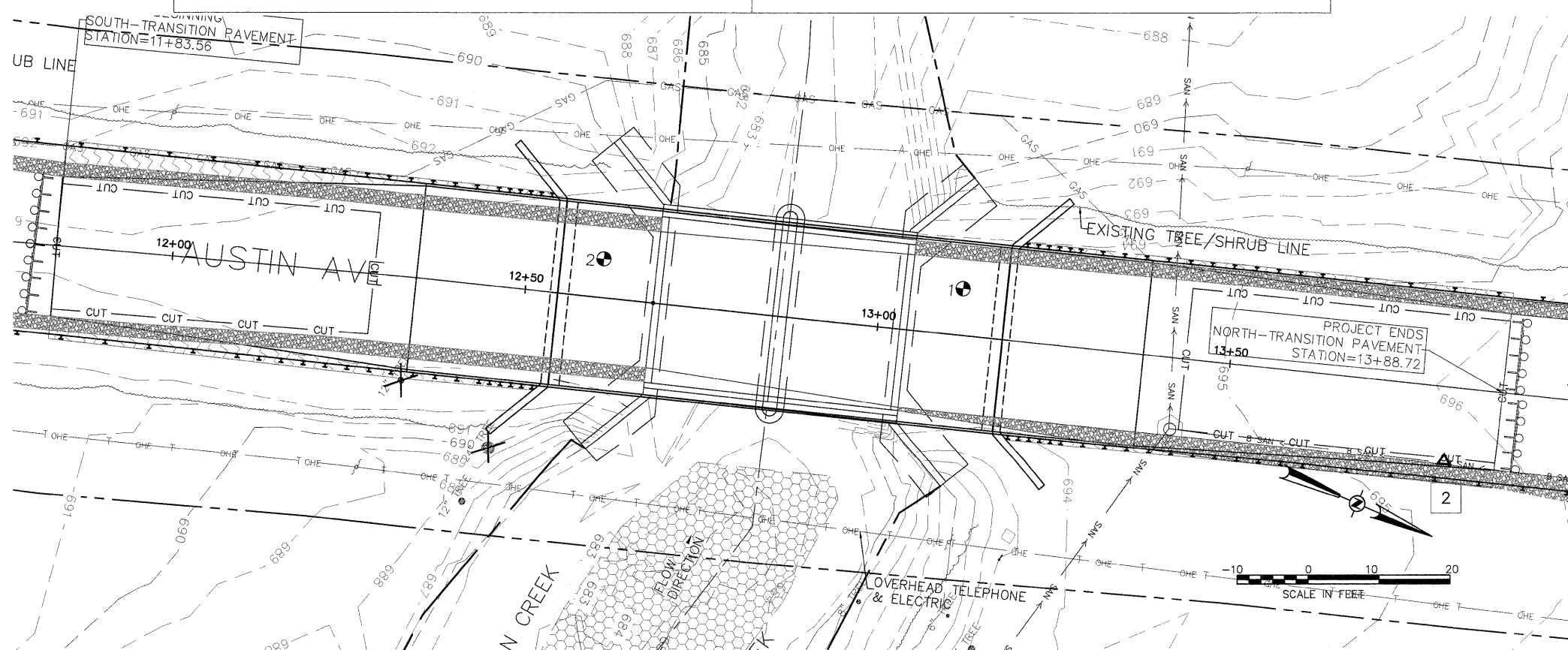
Reference: Austin Avenue Bridge Structure No. 045-3087 Aurora, IL

Equipment:  CME 45B  CME 55  Hand Auger  Other

Comments:

Depth, ft.	CLASSIFICATION	standard penetration	moisture content	dry unit weight	unconfined compressive strength	penetration reading, tons/sq.ft.
Elevation 694.0' Existing Surface	(a & b) see below	X	Δ	⊗	○	
6	Brown-gray silt, some clay, trace sand, damp-very damp, loose - Fill	6	20.3			1.0 2.0 3.0 4.0
5	Brown clay, some silt, trace sand & gravel, damp, tough	7	17.1	114.5	1.8	
7	Brown clay & silt, trace sand & gravel, damp, hard	21	14.6	118.9	6.1	
15	Gray silt, some clay, trace sand & gravel, damp, medium dense	15	10.6			
17	Gray clay, some silt, trace sand & gravel, damp, hard	17	13.7	121.1	4.7	
15	Gray clay, some silt, trace sand & gravel, damp, very tough to hard	17	18.1	114.4	2.9	
11	(c) see below	12	17.4	107.6	5.4	
12	(d) see below	12	18.9			
10	Brown sand, trace silt & gravel, very damp, medium dense	10	8.7			
12	Gray silt, some clay, trace sand & gravel, damp, medium dense	17	9.1			

(a) Bituminous concrete - 6.0" Water encountered at dry feet during drilling operations (W.D.)  
 (b) Base-brown sand & gravel, damp Water recorded at dry feet on completion of drilling operations (A.D.)  
 (c) Gray silt, some clay, trace sand & gravel, damp, hard Water recorded at dry feet hours after completion of drilling operations (A.D.)  
 (d) Gray clay, some silt, trace sand & gravel, damp, hard Water recorded at dry feet hours after completion of drilling operations (A.D.)



DESIGNED -	JJT	REVISED -	
DRAWN -	ASK	REVISED -	
CHECKED -	JJT	REVISED -	
DATE -	10/7/2011	REVISED -	

DESIGNED -	JJT	REVISED -	
DRAWN -	ASK	REVISED -	
CHECKED -	JJT	REVISED -	
DATE -	10/7/2011	REVISED -	

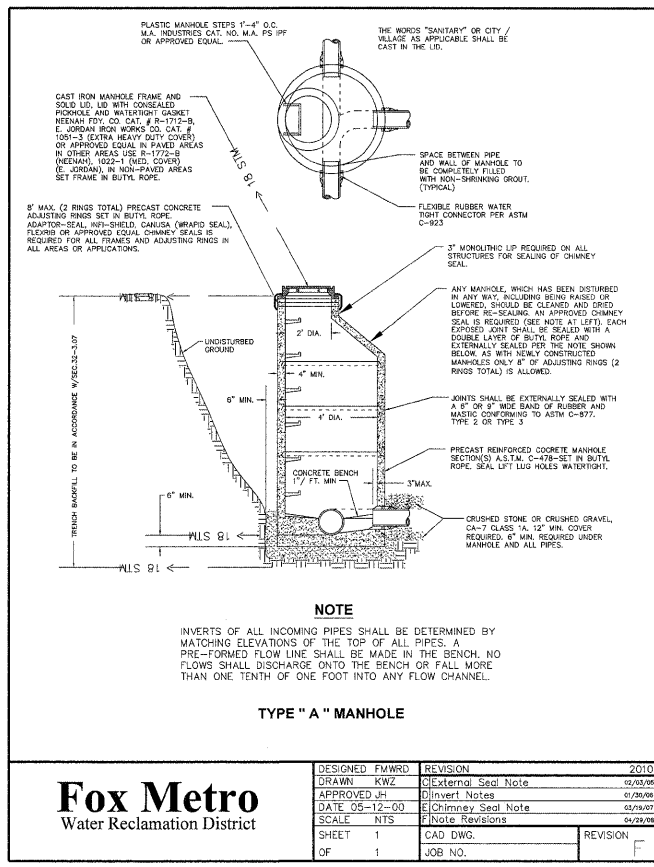
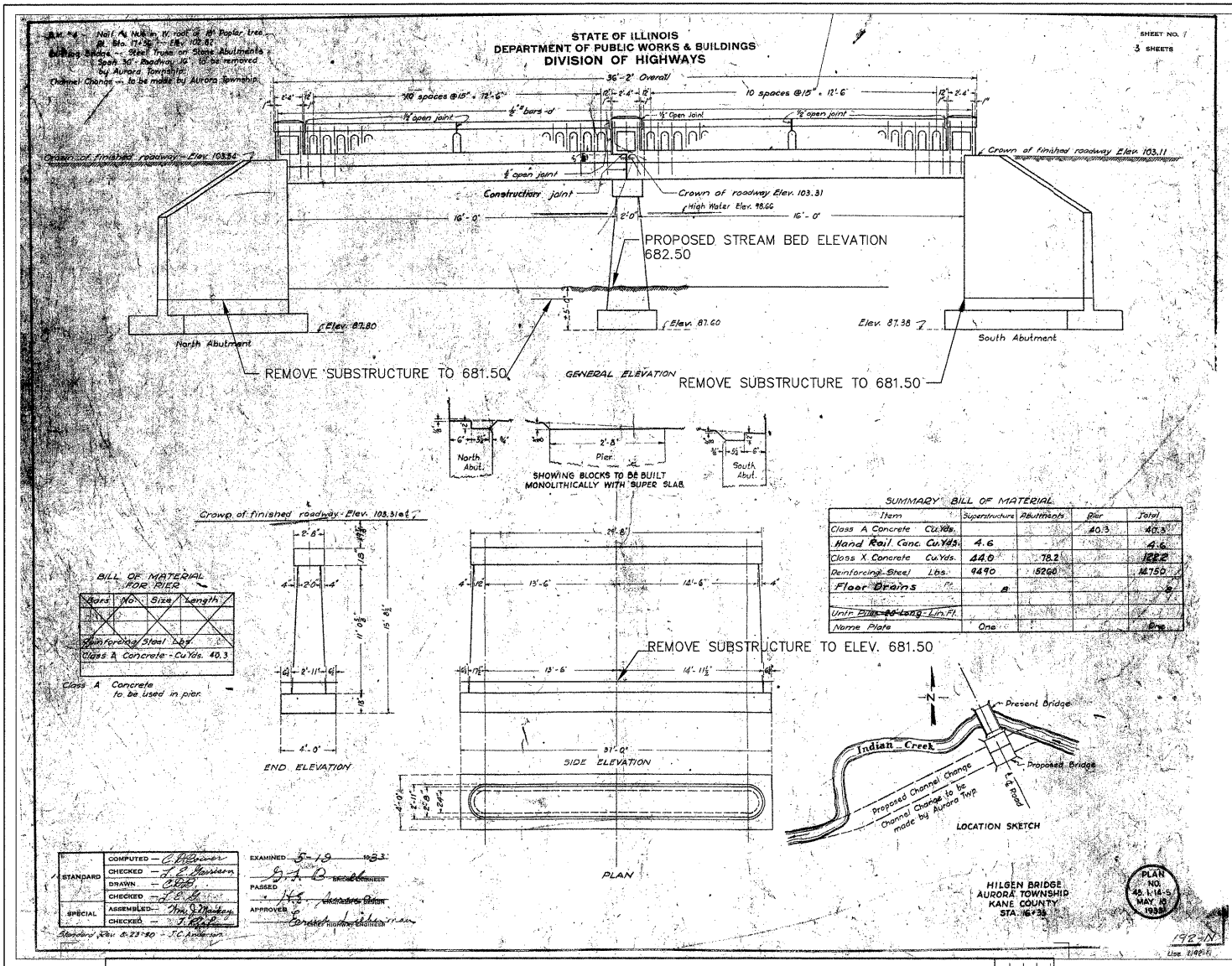
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS  
AUSTIN AVE OVER INDIAN CREEK

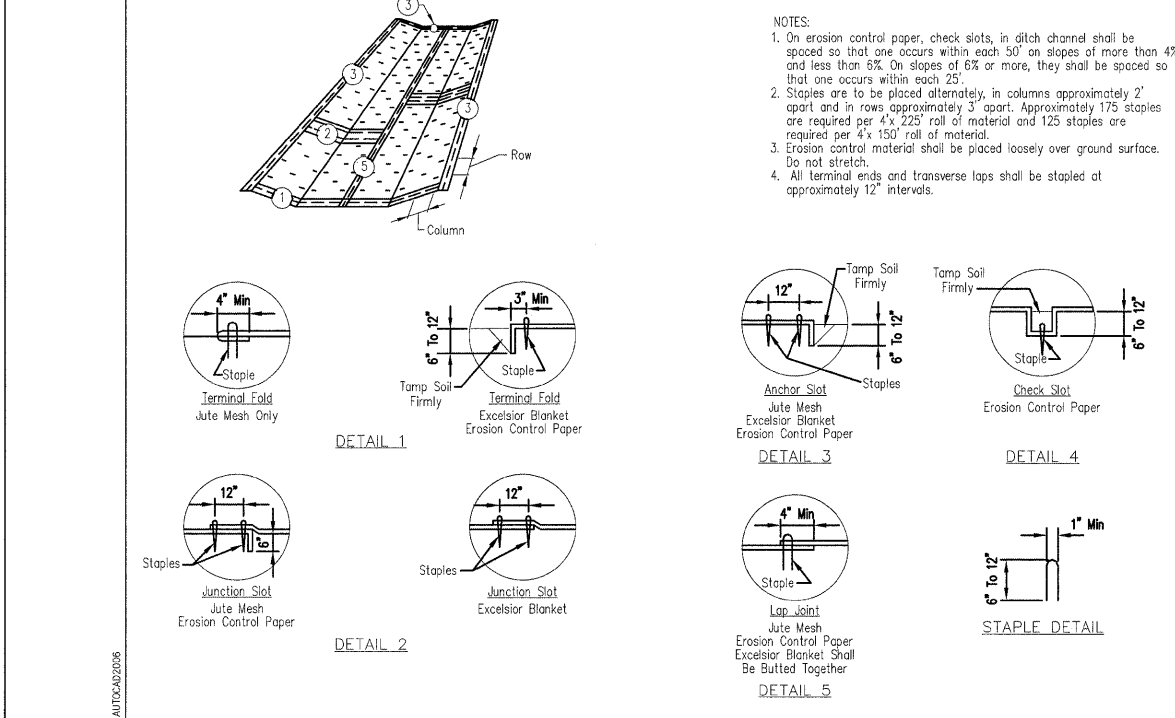
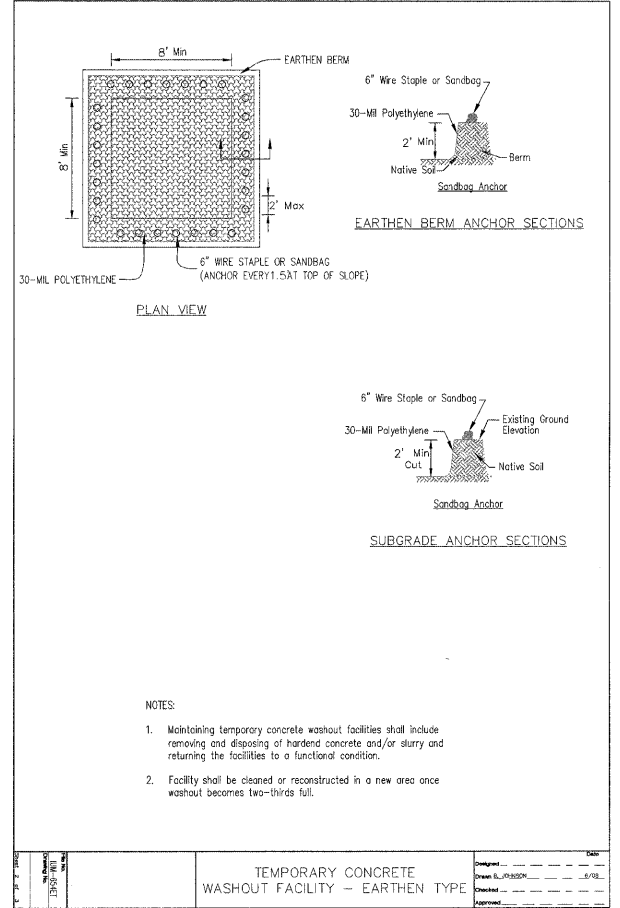
SCALE: 1" = 10' SHEET NO. 1 OF 1 STA. 11+83.56 TO STA. 13+88.72

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	03-01130-00-BR	KANE	33	32
D-91-352-04		CONTRACT NO. 63660		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				





NOTE: CONTRACTOR SHALL CONTACT FOX METRO WATER RECLAMATION DISTRICT IN ADVANCE OF WORK TO ADJUST MANHOLE FRAME & GRATE & SCHEDULE INSPECTION FOR DISTRICT PERSONNEL TO OBSERVE WORK ON DISTRICT FACILITIES.



EROSION BLANKET INSTALLATION DETAILS

NRC  
NATIONAL RESTORATION CENTER  
111-ENG-61  
Project No. \_\_\_\_\_  
Sheet 1 of 1

DESIGNED	-	JJT	REVISED	-
DRAWN	-	ASK	REVISED	-
CHECKED	-	JJT	REVISED	-
DATE	-	10/7/2011	REVISED	-

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	03-01130-00-BR	KANE	33	33
	D-91-352-04			CONTRACT NO. 63660
	FED. ROAD DIST. NO. _____	ILLINOIS	FED. AID PROJECT	