F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	1
	ILLINOIS	CONTRACT NO. 60R95		

FOR INDEX OF SHEETS, SEE SHEET NO. 2

09-18-2015 LETTING ITEM 003

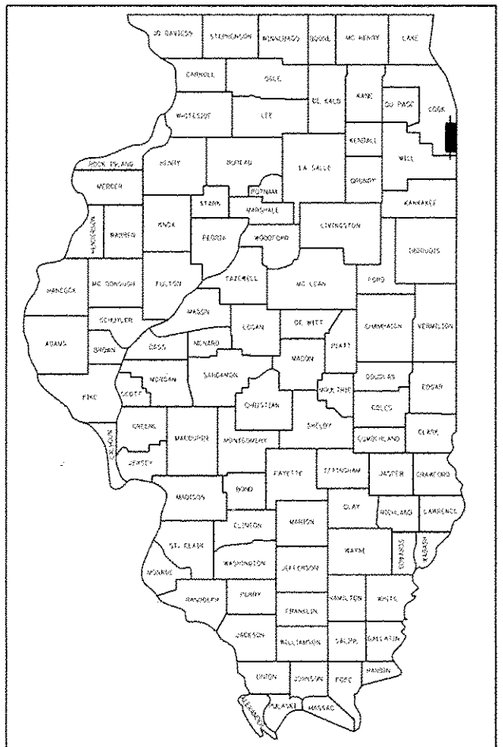
PROJECT LOCATED IN THE CITY OF CHICAGO AND VILLAGE OF BURNHAM.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

F.A.P. ROUTE 358 (TORRENCE AVE) OVER GRAND CALUMET RIVER
SECTION 1112.1B–R
PROJECT NO. ACNHPP - 0358 (008)
BRIDGE REPLACEMENT
COOK COUNTY
C–91–269–12

D–91–269–12



LOCATION OF SECTION INDICATED THUS:–

DESCRIPTION OF PROJECT

THE PROJECT CONSISTS OF BRIDGE REPLACEMENT OVER THE GRAND CALUMET RIVER (EX. S.N. 016–0934 PR. S.N. # 016–2089), ROADWAY WIDENING, AND RETAINING WALLS.

DESIGN DESIGNATION:

OTHER PRINCIPAL ARTERIAL

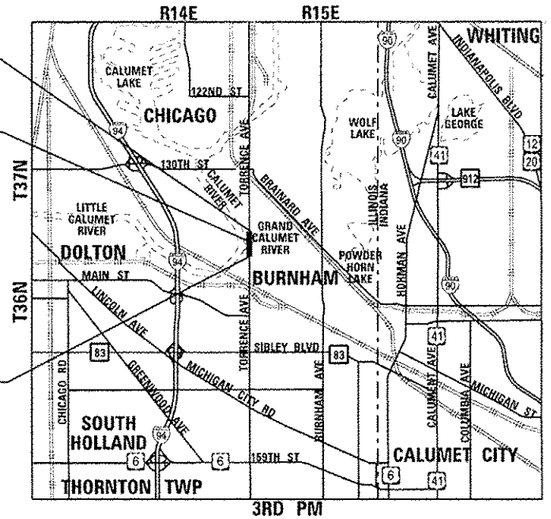
TRAFFIC DATA:

ADT = 12,700 (2010); 22,000 (2040)
SU /MU = 510 (2010); 890 (2040)
POSTED SPEED = 40 MPH
DESIGN SPEED = 40 MPH

PROJECT ENDS
STA. 27+44.19

EX SN # 016–0934
PR SN # 016–2089
STA. 21+10.06

PROJECT BEGINS
STA. 14+78.54



LOCATION MAP
0 1320 2640
GRAPHIC SCALE IN FEET

100' 200' 300' — 1" = 100'
0 10' 20' 30' — 1" = 10'
0 50' 100' — 1" = 50'
0 50' 100' — 1" = 40'
0 50' 100' — 1" = 30'
0 50' 100' — 1" = 20'

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

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

DIGGER
CHICAGO UTILITY ALERT NETWORK
(312) 744–7000 24 HOURS /DAY

JOHN A. CLARK
062-55684
REGISTERED PROFESSIONAL ENGINEER
OF ILLINOIS
John A Clark
EXPIRES: 11/30/2015
SEALED: 6/16/2015
SHEETS: 1 – 19, 37 – 39
63 – 69, 121 – 152

STEVEN M. SCHUESSLER
062-060218
LICENSED PROFESSIONAL ENGINEER
OF ILLINOIS
Steven M. Schuessler
EXPIRES: 11/30/2015
SEALED: 6/15/2015
SHEETS: 20 – 36

MOHAMMED K. RASHED
062-063645
LICENSED PROFESSIONAL ENGINEER
OF ILLINOIS
Mohammed Rashed
EXPIRES: 11/30/2015
SEALED: 6/15/2015
SHEETS: 40 – 62

LICENSED STRUCTURAL ENGINEER
ROGER D. WINKELMANN
5824
CHICAGO ILLINOIS
STATE OF ILLINOIS
Roger Winkelmann
EXPIRES: 11-30-2016
SEALED: 6-15-15
SHEETS: 70 – 120

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED June 14 20 15
DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER
Aug 14 20 15
John D. Baranzelli P.E. for
ENGINEER OF DESIGN AND ENVIRONMENT
Aug 14 20 15
Amer Osman P.E. for
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

DESIGN CONSULTANT
STV INCORPORATED
PHONE: 312–553–0655; CHICAGO, IL

PLANS PREPARED BY
STV Incorporated
engineers/architects/scientists/construction managers
Chicago, Illinois (312)553-0655

PROJECT MANAGER: HELEN PAZON, PE (847)705–4523

CONTRACT NO. 60R95

GROSS LENGTH OF PROJECT = 1266 FT = 0.240 MILES
NET LENGTH OF PROJECT = 1266 FT = 0.240 MILES

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

HIGHWAY STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420001-08	PAVEMENT JOINTS
420101-05	24' (7.2 m) JOINTED PCC PAVEMENT
420106-05	36' (10.8 m) JOINTED PCC PAVEMENT
420111-03	PCC PAVEMENT ROUNDOUTS
420401-11	BRIDGE APPROACH PAVEMENT CONNECTOR
424001-08	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
424016-02	MID-BLOCK CURB RAMPS FOR SIDEWALKS
515001-03	NAME PLATE FOR BRIDGES
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTIONS
601001-04	SUB-SURFACE DRAINS
601101-01	CONCRETE HEADWALL FOR PIPE DRAIN
602001-02	CATCH BASIN TYPE A

HIGHWAY STANDARDS CONTINUED

602011-02	CATCH BASIN TYPE C
602301-04	INLET TYPE A
602401-03	MANHOLE TYPE A
602701-02	MANHOLE STEPS
604001-04	FRAMES AND LIDS TYPE 1
604091-03	FRAME AND GRATE TYPE 24
606001-06	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
630001-10	STEEL PLATE BEAM GUARDRAIL
631011-09	TRAFFIC BARRIER TERMINAL, TYPE 2
631031-13	TRAFFIC BARRIER TERMINAL, TYPE 6
631033-06	TRAFFIC BARRIER TERMINAL, TYPE 6B
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
664001-02	CHAIN LINK FENCE
701427-03	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS <= 40 MPH
701606-10	URBAN SINGLE LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701801-05	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-04	TRAFFIC CONTROL DEVICES
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
728001-01	TELESCOPING STEEL SIGN SUPPORT
729001-01	APPLICATION OF TYPES A & B METAL POSTS
780001-05	TYPICAL PAVEMENT MARKINGS
830001-03	LIGHT POLE ALUMINUM MAST ARM
836001-02	LIGHT POLE FOUNDATION

STRUCTURAL DESIGN TRAFFIC: YEAR: 2040

PV = 22,000 SU = 571 MU = 537

ROAD/STREET CLASSIFICATION: CLASS I

PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE:

P = 32% S = 45% M = 45%

TRAFFIC FACTOR: ACTUAL TF = 4.12 AC TYPE =
MINIMUM TF = N/A

PG GRADE: BINDER = SURFACE =

SUBGRADE SUPPORT RATING:

SSR = POOR

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, OR GAS UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED. IN ADDITION, THE CONTRACTOR SHALL CONTACT THE VILLAGE OF BURNHAM, THE CITY OF CHICAGO, AND THE METROPOLITAN WATER RECLAIMATION DISTRICT OF GREATER CHICAGO FOR FIELD LOCATIONS OF WATER MAIN, SANITARY, COMBINED SEWERS, AND ANY MUNICIPAL UTILITIES.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, THE VILLAGE OF BURNHAM, THE CITY OF CHICAGO, AND METROPOLITAN WATER RECLAIMATION DISTRICT OF GREATER CHICAGO.

PEOPLES GAS HIGH PRESSURE GAS MAIN IS PRESENT WITHIN AREA OF CONSTRUCTION. USE EXTREME CAUTION NEAR ALL GAS FACILITIES. HAND EXCAVATION IS REQUIRED TO LOCATE AND EXPOSE GAS MAINS PRIOR TO CROSSING AND WORKING WITHIN 3 FEET OF ALL GAS FACILITIES. CONTRACTOR SHALL CONTACT SOUTH SHOP SUPERVISORY ENGINEER, ANNIE-BERYL AKUAMOAH, 773-672-6319, A MINIMUM OF 3 BUSINESS DAYS PRIOR TO EXCAVATION TO SET UP ON SITE INSPECTION. PEOPLES GAS TO BE ON SITE TO MONITOR CONSTRUCTION ACTIVITIES WHEN WITHIN 3 FEET AND WHENEVER CROSSING HIGH PRESSURE GAS FACILITIES.

THE CONTRACTOR SHALL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN CONSENT FROM THE DEPARTMENT.

10 FOOT TRANSITIONS SHALL BE USED TO MATCH PROPOSED ITEMS OF WORK TO THE EXISTING ITEMS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEM OF WORK SPECIFIED.

BEFORE ORDERING STORM SEWERS, CATCH BASINS, PIPE CULVERTS, PIPE DRAINS, MANHOLES, INLETS, AND SCUPPERS, THE CONTRACTOR SHALL REVIEW THE EXISTING FIELD CONDITIONS AND THE DRAINAGE SCHEDULES FOUND IN THE PLANS FOR THE EXACT LENGTH AND QUANTITY REQUIRED.

ALL ELEVATIONS REFER TO U.S.G.S. MEAN SEA LEVEL DATUM.

PAVEMENT ROUND-OUTS FOR DRAINAGE AND UTILITY STRUCTURES LOCATED WITHIN THE PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS SHOWN ON HIGHWAY STANDARD 420111. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST FOR PORTLAND CEMENT CONCRETE (JOINTED) OF THE THICKNESS SPECIFIED.

DURING CONSTRUCTION OPERATIONS, IF ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES SUCH THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, THE MATERIAL SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL UTILITY STRUCTURES SHALL BE FREE FROM DUST AND DEBRIS. THE WORK SPECIFIED ABOVE WILL NOT BE PAID SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE CONTRACT.

THE RESIDENT ENGINEER SHALL CONTACT THE AREA TRAFFIC FIELD TECHNICIAN, MS. PATRICE HARRIS, AT (708) 597-9800 A MINIMUM OF TWO (2) WEEKS PRIOR TO PLACING PERMANENT PAVEMENT MARKINGS.

THE CONTRACTOR SHALL USE CARE IN GRADING OR EXCAVATING NEAR ANY AND ALL EXISTING ITEMS THAT WILL NOT BE REMOVED. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S OWN EXPENSE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S OWN EXPENSE.

ANY EXISTING OR PROPOSED STORM SEWER DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S OWN EXPENSE.

ALL PAVEMENT MARKING REMOVAL AND RAISED REFLECTOR PAVEMENT MARKER REMOVAL SHALL BE INCLUDED IN THE COST OF PAVEMENT REMOVAL.

THIS PROJECT REQUIRES A U.S. ARMY CORPS OF ENGINEERS (USACE) 404 PERMIT THAT WILL BE SECURED BY THE DEPARTMENT. AS A CONDITION OF THIS PERMIT, THE CONTRACTOR WILL NEED TO SUBMIT AN IN-STREAM WORK PLAN (INCLUDING WORK IN WETLANDS) TO THE DEPARTMENT FOR APPROVAL. GUIDELINES ON ACCEPTABLE IN-STREAM WORK TECHNIQUES (INCLUDING WORK IN WETLANDS) CAN BE FOUND ON THE USACE WEBSITE. THE USACE DEFINES AND DETERMINES IN-STREAM WORK (WHICH INCLUDES WORK WITHIN WETLANDS). THE COST OF ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH THE ABOVE PROVISIONS TO PREPARE AND IMPLEMENT AN IN-STREAM WORK PLAN (INCLUDING WORK WITHIN WETLANDS) WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

DUE TO THE COMPLEXITY INVOLVED WITH THE HYDRAULIC MODELING AT THIS LOCATION, THE 2-YEAR WATER SURFACE ELEVATION OF THE RIVER IS NOT AVAILABLE. A CONDITION OF THE PERMIT WITH THE USACE WILL REQUIRE A MAXIMUM BLOCKAGE OF 25% OF THE GRAND CALUMET RIVER WATERWAY FOR TEMPORARY CAUSEWAY CONSTRUCTION.

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

THE CONTRACTOR SHALL NOTIFY THE PACE'S TRANSPORTATION ENGINEER AT (847) 228-3584 AT LEAST 10 DAYS IN ADVANCE OF BEGINING WORK.

THE DEPARTMENT HAS NOT OBTAINED ANY PERMITS FOR OFFSITE BORROW, WASTE, USE (BWU) AREAS. PRIOR TO WORKING IN BWU AREAS, IF THE CONTRACTOR CHOOSES TO USE ACTIVITIES REQUIRING PERMITS IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE THE PROPER PERMITS. IN ADDITION TO THE BORROW REVIEW (BDE 2289) AND USE/WASTE REVIEW (BDE 2290) SUBMITTALS, THE CONTRACTOR SHALL SUBMIT AN EROSION AND SEDIMENT CONTROL (ESC) PLAN FOR EVERY BWU SITE TO THE DEPARTMENT FOR ACCEPTANCE. GUIDELINES FOR ACCEPTABLE BWU PRACTICES CAN BE FOUND IN SECTION II.G.1 AND 2 OF THE SWPPP. THE COST OF ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH THE ABOVE PROVISIONS TO PREPARE AND IMPLEMENT ESC PLANS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES FOR THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

THE CONTRACTOR SHALL TAKE EXTRA CARE IN GRADING AND EXCAVATING NEAR TREES WHICH ARE NOT MARKED FOR REMOVAL SO AS NOT TO CAUSE INJURY TO THE ROOT SYSTEM OR TRUNKS. MAJOR ROOTS OF A TREE THAT ARE TO REMAIN IN PLACE EXTENDING INTO THE EXCAVATION AREAS AT AN ELEVATION THAT WOULD INTERFERE WITH ANY PORTION OF THE PLANNED CONSTRUCTION SHALL BE SEVERED AT A POINT IMMEDIATELY OUTSIDE OF THE EXCAVATION AREA IN A MANNER THAT WILL CAUSE THE LEAST AMOUNT OF SYSTEMIC TO THE REMAINING TREE STRUCTURE. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE.

TREE ROOT PRUNING IS TO BE USED ON EXISTING TREES TO PREVENT THE RIPPING UP OF ROOTS WHEN TRENCHING OR EXCAVATION IS WITHIN THE ROOT ZONE OF ADJACENT TREES TO REMAIN. SUPPLEMENTAL WATERING OF TREES SHOULD BEGIN IMMEDIATELY AFTER ROOT PRUNING OF THE TREES HAS OCCURRED.

THE CONTRACTOR SHALL ERECT A TEMPORARY FENCE AROUND ALL TREES WITHIN THE CONSTRUCTION AREA TO ESTABLISH A "TREE PROTECTION ZONE" AND AROUND EXISTING WETLANDS TO ESTABLISH A "WETLAND PROTECTION ZONE" BEFORE ANY WORK BEGINS OR ANY MATERIAL IS DELIVERED TO THE JOBSITE. NO WORK IS TO BE PERFORMED (OTHER THAN ROOT PRUNING), MATERIALS STORED OR VEHICLES DRIVEN OR PARKED WITHIN THE "TREE PROTECTION ZONE" AND "WETLAND PROTECTION ZONE." REMOVE PROTECTIVE TEMPORARY FENCE ONLY AFTER ALL CONSTRUCTION WORK HAS BEEN COMPLETED.

SUMMARY OF QUANTITIES

	ITEM *	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	① ROADWAY 0004 80% FEDERAL 20% STATE	② BRIDGE 0011 80% FEDERAL 20% STATE	③ SAFETY 0021 80% FEDERAL 20% STATE	⑥ SAFETY 0021 100% CITY OF CHICAGO LIGHT	④ SAFETY 0021 20% CITY OF CHICAGO, 80% FEDERAL	⑦ SAFETY 0021 100% VILLAGE OF BURNHAM LIGHT	⑤ SAFETY 0021 20% VILLAGE OF BURNHAM, 80% FEDERAL
	20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	1,630	1,630						
	20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	352	352						
	20101000	TEMPORARY FENCE	FOOT	982	982						
	20101300	TREE PRUNING (1 TO 10 INCH DIAMETER)	EACH	15	15						
	20101350	TREE PRUNING (OVER 10 INCH DIAMETER)	EACH	15	15						
	20101700	SUPPLEMENTAL WATERING	UNIT	50	50						
	20200100	EARTH EXCAVATION	CU YD	3,595	3,595						
	20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	295	295						
	20300100	CHANNEL EXCAVATION	CU YD	320	320						
	20400800	FURNISHED EXCAVATION	CU YD	11,825	11,825						
	20800150	TRENCH BACKFILL	CU YD	138	138						
	21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	5,405	5,405						
	21400100	GRADING AND SHAPING DITCHES	FOOT	8	8						
*	25000210	SEEDING, CLASS 2A	ACRE	0.58	0.58						
*	25000314	SEEDING, CLASS 4B	ACRE	0.23	0.23						
☐	25000750	MOWING	ACRE	10	10						
*	25100115	MULCH, METHOD 2	ACRE	2.54	2.54						
	28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	763	763						
	28000305	TEMPORARY DITCH CHECKS	FOOT	10	10						
	28000400	PERIMETER EROSION BARRIER	FOOT	3,073	3,073						
	28000500	INLET AND PIPE PROTECTION	EACH	15	15						
	28001200	TEMPORARY HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	12,276	12,276						
	28100105	STONE RIPRAP, CLASS A3	SQ YD	8	8						
	28100107	STONE RIPRAP, CLASS A4	SQ YD	1,415		1,415					
	28200200	FILTER FABRIC	SQ YD	1,425	10	1,415					
	30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	100	100						
	30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	4,220	4,220						
	42000316	PORTLAND CEMENT CONCRETE PAVEMENT 8 3/4" (JOINTED)	SQ YD	2,673	2,673						
	42001300	PROTECTIVE COAT	SQ YD	5,990	5,990						
	42001420	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)	SQ YD	1,254	1,254						
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	5,861					2,674		3,187
	42400410	PORTLAND CEMENT CONCRETE SIDEWALK 8 INCH	SQ FT	8,121			8,121				
	42400800	DETECTABLE WARNINGS	SQ FT	51			51				
	44000100	PAVEMENT REMOVAL	SQ YD	3,451	3,451						
	44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	1,574	1,574						
	44000600	SIDEWALK REMOVAL	SQ FT	4,161	4,161						
	48101620	AGGREGATE SHOULDERS, TYPE B 10"	SQ YD	771			771				
	50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1					
	50104400	CONCRETE HEADWALL REMOVAL	EACH	1	1						
	50200100	STRUCTURE EXCAVATION	CU YD	447	43	404					
	50300225	CONCRETE STRUCTURES	CU YD	518.8	29	489.8					
	50300255	CONCRETE SUPERSTRUCTURE	CU YD	1,426.6		1,426.6					
	50300260	BRIDGE DECK GROOVING	SQ YD	3,446		3,446					
	50300300	PROTECTIVE COAT	SQ YD	5,262		5,262					

☐ NON-PART. (100% STATE)

* SPECIALTY ITEM

USER NAME = PattisJM	DESIGNED - RDT/GC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - RDT	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - MT	REVISED -	
PLOT DATE = 6/29/2015	DATE - 6-15-2015	REVISED -	

TORRENCE AVENUE
SUMMARY OF QUANTITIES 1

SCALE: NTS | SHEET NO. 3 OF 152 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	3
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			

SUMMARY OF QUANTITIES CONTINUED

	ITEM *	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	ROADWAY 0004 80% FEDERAL 20% STATE	BRIDGE 0011 80% FEDERAL 20% STATE	SAFETY 0021 80% FEDERAL 20% STATE	SAFETY 0021 100% CITY OF CHICAGO LIGHT	SAFETY 0021 20% CITY OF CHICAGO, 80% FEDERAL	SAFETY 0021 100% VILLAGE OF BURNHAM LIGHT	SAFETY 0021 20% VILLAGE OF BURNHAM, 80% FEDERAL
	50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1					
	50500505	STUD SHEAR CONNECTORS	EACH	11,790		11,790					
	50800105	REINFORCEMENT BARS	POUND	63,390		63,390					
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	507,010	990	506,020					
	50800530	MECHANICAL SPLICERS	EACH	560		560					
	50901720	BICYCLE RAILING	FOOT	526		526					
	50901730	BRIDGE FENCE RAILING	FOOT	495		495					
	50901750	PARAPET RAILING	FOOT	527		527					
	51201400	FURNISHING STEEL PILES HP10X42	FOOT	424		424					
	51202000	FURNISHING STEEL PILES HP14X102	FOOT	2,171		2,171					
	51202305	DRIVING PILES	FOOT	2,595		2,595					
	51204000	TEST PILE STEEL HP14X102	EACH	2		2					
	51500100	NAME PLATES	EACH	1		1					
	51603000	DRILLED SHAFT IN SOIL	CU YD	542		542					
	51604000	DRILLED SHAFT IN ROCK	CU YD	26		26					
	52000110	PREFORMED JOINT STRIP SEAL	FOOT	202		202					
	52100520	ANCHOR BOLTS, 1"	EACH	40		40					
	52100540	ANCHOR BOLTS, 1 1/2"	EACH	40		40					
	54213657	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"	EACH	1	1						
	550A0050	STORM SEWERS, CLASS A, TYPE 1 12"	FOOT	47	47						
	550A0340	STORM SEWERS, CLASS A, TYPE 2 12"	FOOT	794	794						
	55100300	STORM SEWER REMOVAL 8"	FOOT	176	176						
	55100400	STORM SEWER REMOVAL 10"	FOOT	165	165						
	55100700	STORM SEWER REMOVAL 15"	FOOT	15	15						
	55100900	STORM SEWER REMOVAL 18"	FOOT	16	16						
	55101600	STORM SEWER REMOVAL 36"	FOOT	89	89						
	59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	241		241					
	60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	4	4						
	60107600	PIPE UNDERDRAINS 4"	FOOT	94	94						
	60201340	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 24 FRAME AND GRATE	EACH	3	3						
	60218400	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	3	3						
	60237470	INLETS, TYPE A, TYPE 24 FRAME AND GRATE	EACH	4	4						
	60255500	MANHOLES TO BE ADJUSTED	EACH	1	1						
	60500040	REMOVING MANHOLES	EACH	4	4						
	60500050	REMOVING CATCH BASINS	EACH	9	9						
	60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	91.5	91.5						
	60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	1,477.0	1,477.0						
*	63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	1,225.0			1,225.0				
*	63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	2			2				
*	63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	2			2				
*	63100089	TRAFFIC BARRIER TERMINAL, TYPE 6B	EACH	2			2				
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2			2				
	63200310	GUARDRAIL REMOVAL	FOOT	2,327	2,327						

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* SPECIALTY ITEM

SUMMARY OF QUANTITIES CONTINUED

	ITEM *	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	ROADWAY 0004 80% FEDERAL 20% STATE	BRIDGE 0011 80% FEDERAL 20% STATE	SAFETY 0021 80% FEDERAL 20% STATE	SAFETY 0021 100% CITY OF CHICAGO LIGHT	SAFETY 0021 20% CITY OF CHICAGO, 80% FEDERAL	SAFETY 0021 100% VILLAGE OF BURNHAM LIGHT	SAFETY 0021 20% VILLAGE OF BURNHAM, 80% FEDERAL
	66400105	CHAIN LINK FENCE, 4'	FOOT	1,023	1,023						
*	66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	5,000	5,000						
*	66900450	SPECIAL WASTE PLANS AND REPORTS	L SUM	1	1						
*	66900530	SOIL DISPOSAL ANALYSIS	EACH	1	1						
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	22	22						
	67100100	MOBILIZATION	L SUM	1	1						
*	72000100	SIGN PANEL - TYPE 1	SQ FT	8		8					
*	72400100	REMOVE SIGN PANEL ASSEMBLY - TYPE A	EACH	3	3						
*	72400310	REMOVE SIGN PANEL - TYPE 1	SQ FT	12	12						
*	72900100	METAL POST - TYPE A	FOOT	13		13					
*	78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	5,529		5,529					
*	78009012	MODIFIED URETHANE PAVEMENT MARKING - LINE 12"	FOOT	189		189					
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	76		76					
*	78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	52		52					
*	78200410	GUARDRAIL MARKERS, TYPE A	EACH	15		15					
*	78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	2		2					
*	81603090	UNIT DUCT, 600V, 3-1C NO.4, 1/C NO.6 GROUND, (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE	FOOT	305						305	
*	82102400	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT	EACH	2						2	
*	83050800	LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 12 FT. MAST ARM	EACH	1						1	
*	83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	20						20	
*	83800205	BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE	EACH	2						2	
	84200804	REMOVAL OF POLE FOUNDATION	EACH	1						1	
*	84400105	RELOCATE EXISTING LIGHTING UNIT	EACH	1						1	
*	89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	840						840	
*	A2002566	TREE, CARPINUS CAROLINIANA (AMERICAN HORNBEAM), 6' HEIGHT, SHRUB FORM, BALLED AND BURLAPPED	EACH	4	4						
*	A2002916	TREE, CELTIS OCCIDENTALIS (COMMON HACKBERRY), 2" CALIPER, BALLED AND BURLAPPED	EACH	6	6						
*	A2004716	TREE, GLEDITSIA TRIACANTHOS INERMIS SHADEMASTER (SHADEMASTER THORNLESS COMMON HONEYLOCUST), 2" CALIPER, BALLED & BURLAPPED	EACH	5	5						
*	A2005020	TREE, GYMNOCLADUS DIOICUS (KENTUCKY COFFEETREE), 2-1/2" CALIPER, BALLED AND BURLAPPED	EACH	7	7						
*	A2005116	TREE, JUGLANS NIGRA (BLACK WALNUT), 2" CALIPER, BALLED AND BURLAPPED	EACH	5	5						
*	A2005416	TREE, LIRIODENDRON TULIPIFERA (TULIP TREE), 2" CALIPER, BALLED AND BURLAPPED	EACH	6	6						
*	A2006516	TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 2" CALIPER, BALLED AND BURLAPPED	EACH	1	1						
*	A2006716	TREE, QUERCUS MACROCARPA (BUR OAK), 2" CALIPER, BALLED AND BURLAPPED	EACH	6	6						
*	A2008468	TREE, ULMUS AMERICANA PRINCETON (PRINCETON AMERICAN ELM), 2" CALIPER, BALLED AND BURLAPPED	EACH	1	1						
*	B2001664	TREE, CRATAEGUS CRUSGALLI INERMIS (THORNLESS COCKSPUR HAWTHORN), 5' HEIGHT, SHRUB FORM, BALLED AND BURLAPPED	EACH	11	11						
*	C2000524	SHRUB, ARONIA MELANOCARPA (BLACK CHOKE BERRY), 2' HEIGHT, BALLED AND BURLAPPED	EACH	90	90						
*	C2002048	SHRUB, CORYLUS AMERICANA (AMERICAN FILBERT), 4' HEIGHT, BALLED AND BURLAPPED	EACH	55	55						
*	D2002472	EVERGREEN, PINUS FLEXILIS VANDERWOLF'S PYRAMID (VANDERWOLF'S PYRAMID LIMBER PINE), 6' HEIGHT, BALLED AND BURLAPPED	EACH	15	15						
	K0029614	WEED CONTROL, AQUATIC	GALLON	15	15						
	K1005863	TREE ROOT PRUNING	EACH	5	5						

* SPECIALTY ITEM

USER NAME = PattisJM	DESIGNED - RDT/GC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - RDT	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - MT	REVISED -	
PLOT DATE = 6/29/2015	DATE - 6-15-2015	REVISED -	

TORRENCE AVENUE
SUMMARY OF QUANTITIES 3

SCALE: NTS | SHEET NO. 5 OF 152 SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	5

CONTRACT NO. 60R95

ILLINOIS FED. AID PROJECT

SUMMARY OF QUANTITIES CONTINUED

		ITEM *	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	ROADWAY 0004 80% FEDERAL 20% STATE	BRIDGE 0011 80% FEDERAL 20% STATE	SAFETY 0021 80% FEDERAL 20% STATE	SAFETY 0021 100% CITY OF CHICAGO LIGHT	SAFETY 0021 20% CITY OF CHICAGO, 80% FEDERAL	SAFETY 0021 100% VILLAGE OF BURNHAM LIGHT	SAFETY 0021 20% VILLAGE OF BURNHAM, 80% FEDERAL
		X0326935	CROSSHOLE SONIC LOGGING	EACH	2		2					
	•	X0370048	SERVICE INSTALLATION 200 AMP (CDOT)	EACH	1				1			
	•	X0370140	REMOVE EXISTING STREET LIGHTING EQUIPMENT (CDOT)	L SUM	1				1			
	*	X2501700	SEEDING, CLASS 3 (MODIFIED)	ACRE	1.86	1.86						
□		X2503112	MOWING (SPECIAL)	SQ YD	2,500	2,500						
	*	X2510635	HEAVY DUTY EROSION CONTROL BLANKET, SPECIAL	SQ YD	10,093	10,093						
		X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	460		460					
		X5040100	PRECAST BRIDGE APPROACH SLAB	SQ FT	4,140		4,140					
		X5121800	PERMANENT STEEL SHEET PILING	SQ FT	8,141	5,000	3,141					
		X5509900	ABANDON AND FILL EXISTING STORM SEWER	FOOT	155	155						
□		X5537800	STORM SEWERS TO BE CLEANED 12"	FOOT	40	40						
		X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	1,261	358	903					
		X7010216	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1	1						
		X7010240	TRAFFIC CONTROL SURVEILLANCE (SPECIAL)	CAL DA	763	763						
		X0370222	PAVEMENT REMOVAL AND REPLACEMENT (CDOT)	SQ YD	19				19			
		X0370001	TRENCH AND BACKFILL WITH SCREENINGS (CDOT)	FOOT	2,116				2,116			
		Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	160		160					
		Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1						
		Z0015550	DEBRIS REMOVAL	CU YD	30	30						
		Z0018004	DRAINAGE SCUPPERS, DS-12	EACH	15		15					
	•	Z0033028	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	6				3		3	
Ø		Z0076600	TRAINEES	HOUR	2500	2500						
		Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	567	210	357					
Ø		Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	2500	2500						
	•	X0370223	ELECTRICAL HANDHOLE, 36" 24" FRAME AND LID (CDOT)	EACH	2				2			
	•	X0370224	PVC CONDUIT IN TRENCH 2" (CDOT)	FOOT	1,946				1,946			
	•	X0370225	PVC CONDUIT IN TRENCH 2" (SCHEDULE #80) (CDOT)	FOOT	106				106			
	•	X0370226	PVC CONDUIT IN TRENCH 3" (CDOT)	FOOT	60				60			
	•	X0370228	PVC CONDUIT IN TRENCH 3" (SCHEDULE #80) (CDOT)	FOOT	120				120			
	•	X0370229	CONCRETE FOUNDATION FOR BASE MOUNTED STREET LIGHTING CONTROLLER CABINET (CDOT)	EACH	1				1			
	•	X0370230	ELECTRIC CABLE IN CONDUIT, TRIPLEX 2 1/C NO. 6, 1/C NO. 8 (CDOT)	FOOT	2,378				2,378			
	•	X0370231	ELECTRIC CABLE IN CONDUIT, 1/C NO. 2/0 (CDOT)	FOOT	156				156			
	•	X0370232	CONTROLLER, STREET LIGHT, BASE MOUNTED, 1 PHASE, 200 AMP (CDOT)	EACH	1				1			
	•	X0370233	HELIX FOUNDATION, 7 FOOT, 15 INCH BOLT CIRCLE, 4 ANCHORS BOLTS (CDOT)	EACH	14				14			
	•	X0370234	LUMINAIRE, STREET LIGHT, LED (CDOT)	EACH	14				14			
	•	X0370235	POLE, ALUMINUM, ARTERIAL, DAVIT, 15" BOLT CIRCLE, 35FT MH (CDOT)	EACH	14				14			
33	•	X0370236	MAST ARM, ALUMINUM, DAVIT, ARTERIAL, 8 FOOT (CDOT)	EACH	14				14			

Ø 0042
□ NON-PART. (100% STATE)
* SPECIALTY ITEM

USER NAME = PattisJM	DESIGNED - RDT/GC	REVISED -	
	DRAWN - RDT	REVISED -	
PLOT SCALE = 22.2222 ' / in.	CHECKED - MT	REVISED -	
PLOT DATE = 6/29/2015	DATE - 6-15-2015	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
SUMMARY OF QUANTITIES 4

SCALE: | SHEET NO. OF 152 SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	6

CONTRACT NO. 60R95
ILLINOIS FED. AID PROJECT

20100110 - TREE REMOVAL (6 TO 15 UNITS DIAMETER)

LOCATION	SIZE (INCH)	QTY (UNIT)
TORRENCE AVE		
15+13.60 39.43 LT	6	6
15+15.20 43.90 LT	8	8
15+36.44 43.26 LT	7	7
15+55.45 44.08 LT	6	6
15+44.38 38.82 LT	6	6
15+46.40 39.44 LT	10	10
15+83.37 38.66 LT	12	12
16+06.33 58.58 RT	6	6
16+08.70 41.65 LT	9	9
16+09.77 37.25 LT	12	12
16+15.09 44.31 RT	14	14
16+24.03 44.55 LT	10	10
16+34.94 47.64 LT	6	6
16+42.99 42.29 LT	6	6
16+54.99 43.68 LT	10	10
16+57.76 66.16 RT	10	10
16+66.35 40.96 LT	7	7
16+70.93 42.08 LT	6	6
16+72.56 64.30 LT	11	11
16+78.44 45.06 LT	6	6
16+79.04 66.34 RT	6	6
16+81.56 43.10 LT	8	8
16+85.60 40.39 LT	6	6
16+91.81 42.86 LT	6	6
16+92.15 39.40 LT	6	6
17+01.98 36.10 LT	13	13
17+03.93 71.33 RT	6	6
17+17.75 40.28 LT	7	7
17+18.77 62.75 RT	6	6
17+20.38 48.12 LT	6	6
17+21.14 61.44 LT	12	12
17+23.24 74.30 RT	7	7
17+35.48 48.31 LT	10	10
17+40.53 61.78 RT	9	9
17+46.75 42.24 LT	15	15
17+47.52 47.11 LT	13	13
17+69.75 90.00 RT	9	9
17+69.98 78.10 LT	6	6
17+70.48 79.35 LT	10	10
17+73.87 65.85 LT	7	7
17+88.98 46.92 LT	15	15
17+93.04 81.32 RT	8	8
18+11.37 78.16 LT	13	13
18+11.57 48.07 RT	6	6
18+26.50 48.16 RT	6	6
18+26.98 83.77 RT	6	6
18+27.45 77.54 LT	7	7
18+30.33 54.72 RT	6	6
18+33.20 46.18 RT	6	6
18+37.87 69.40 LT	8	8
18+41.90 59.79 RT	15	15
18+52.30 79.70 LT	6	6
18+57.44 41.72 RT	8	8
18+58.37 50.67 RT	6	6
18+59.50 61.20 RT	6	6
18+68.13 39.83 RT	8	8
18+70.54 46.43 RT	7	7
18+80.28 75.89 LT	7	7
18+81.26 39.92 LT	7	7
18+82.90 35.29 LT	8	8
19+06.40 82.75 RT	6	6
23+50.92 71.97 RT	10	10
23+50.95 65.20 RT	9	9
23+54.77 42.16 LT	10	10
23+72.70 41.05 LT	6	6
23+76.31 56.80 RT	12	12
23+89.15 71.99 LT	10	10
23+90.93 39.81 LT	8	8
23+93.29 69.64 LT	6	6
23+96.30 52.44 RT	8	8
23+96.55 75.70 LT	6	6
23+96.81 55.88 LT	8	8
24+03.19 46.21 LT	6	6
24+06.59 46.14 RT	12	12
24+10.31 46.20 LT	6	6
24+24.07 36.39 LT	8	8
24+24.58 74.54 LT	8	8
24+38.78 83.54 LT	10	10
24+44.20 54.41 RT	15	15
24+44.48 70.82 LT	10	10
24+46.14 33.68 LT	10	10
24+48.35 59.63 LT	6	6
24+48.44 52.25 LT	8	8
24+52.02 76.24 RT	8	8
24+54.52 36.62 LT	8	8
24+60.32 39.97 LT	12	12
24+67.75 37.85 LT	12	12
24+70.05 66.76 RT	12	12

20100110 - TREE REMOVAL (6 TO 15 UNITS DIAMETER) CONT'D

LOCATION	SIZE (INCH)	QTY (UNIT)
TORRENCE AVE		
24+70.38 77.15 LT	12	12
24+75.07 69.21 RT	6	6
24+86.88 49.80 LT	10	10
24+89.96 47.40 LT	12	12
24+98.37 37.59 LT	14	14
24+98.53 43.39 LT	6	6
25+02.94 46.92 LT	10	10
25+09.94 33.94 LT	10	10
25+12.40 37.45 LT	8	8
25+16.74 85.42 LT	10	10
25+20.73 45.94 LT	6	6
25+20.86 51.79 LT	6	6
25+22.98 80.99 RT	7	7
25+24.15 33.16 LT	10	10
25+25.05 84.00 LT	10	10
25+27.34 81.18 RT	6	6
25+28.55 57.22 LT	10	10
25+29.50 34.78 LT	12	12
25+32.16 48.34 LT	6	6
25+33.92 36.47 LT	8	8
25+34.39 38.35 LT	7	7
25+35.79 44.93 LT	7	7
25+36.76 49.36 RT	9	9
25+37.82 49.05 LT	7	7
25+42.38 44.60 LT	15	15
25+45.86 77.08 LT	14	14
25+48.57 49.46 LT	10	10
25+48.75 57.01 LT	10	10
25+54.44 38.48 LT	9	9
25+56.14 80.19 LT	12	12
25+59.74 78.87 LT	10	10
25+59.83 52.00 LT	8	8
25+62.08 84.69 LT	7	7
25+66.47 55.49 LT	15	15
25+67.62 32.99 LT	10	10
25+71.82 35.61 LT	10	10
25+71.87 51.58 LT	14	14
25+77.35 64.85 LT	12	12
25+78.20 40.61 LT	12	12
25+84.18 73.67 RT	6	6
25+88.98 36.10 LT	10	10
25+96.48 36.89 LT	6	6
25+96.88 42.04 LT	8	8
25+97.39 43.25 LT	8	8
25+98.17 82.41 LT	8	8
26+02.03 60.57 LT	7	7
26+02.60 50.40 LT	7	7
26+02.61 56.40 LT	8	8
26+06.79 39.46 LT	10	10
26+11.59 59.36 LT	12	12
26+15.09 51.03 LT	8	8
26+15.28 47.00 LT	10	10
26+15.98 64.90 RT	7	7
26+16.75 37.24 LT	7	7
26+21.94 38.99 LT	8	8
26+22.87 35.15 LT	8	8
26+23.45 47.88 LT	12	12
26+23.98 69.09 LT	15	15
26+28.98 64.90 RT	7	7
26+31.79 37.16 LT	12	12
26+31.95 47.25 LT	10	10
26+31.98 56.01 LT	6	6
26+34.07 40.41 LT	7	7
26+41.91 65.77 RT	8	8
26+43.83 57.42 LT	8	8
26+44.73 40.35 LT	8	8
26+47.42 55.77 LT	7	7
26+48.66 61.66 RT	12	12
26+49.98 37.01 LT	9	9
26+52.73 56.27 LT	8	8
26+53.22 51.32 LT	8	8
26+55.98 38.10 LT	7	7
26+56.92 36.37 LT	7	7
26+60.74 43.33 LT	6	6
26+61.09 40.22 LT	6	6
26+64.89 52.53 LT	8	8
26+68.91 50.00 LT	10	10
26+71.17 64.60 RT	6	6
26+77.81 40.16 LT	8	8
26+81.53 59.95 RT	6	6
26+82.96 36.37 LT	10	10
26+83.14 47.87 RT	6	6
26+89.60 48.30 RT	6	6
26+93.32 41.11 LT	6	6
27+21.67 72.67 RT	8	8
27+28.98 71.10 LT	7	7
27+28.98 74.01 LT	7	7
27+29.50 83.48 LT	6	6

20100110 - TREE REMOVAL (6 TO 15 UNITS DIAMETER) CONT'D

LOCATION	SIZE (INCH)	QTY (UNIT)
TORRENCE AVE		
27+32.36 41.62 LT	10	10
27+39.01 59.73 RT	6	6
27+45.54 64.67 LT	7	7
27+48.44 68.93 LT	8	8
27+48.67 50.00 RT	6	6
27+66.00 48.00 RT	7	7
27+74.68 42.14 LT	10	10
27+82.81 39.80 LT	6	6
27+88.20 40.46 LT	6	6
28+10.18 43.47 LT	10	10
28+45.88 43.02 LT	15	15
28+75.25 41.43 LT	10	10
28+89.36 39.36 LT	12	12

TREE REMOVAL (6 TO 15 UNITS DIAMETER),
TOTAL= 1,630 UNIT

NOTE: STUMP REMOVAL IS QUANTIFIED AS A TREE REMOVAL.

20100210 TREE REMOVAL (OVER 15 UNITS DIAMETER)

LOCATION	SIZE (INCH)	QTY (UNIT)
TORRENCE AVE		
17+23.98 65.67 LT	30	30
17+72.28 50.93 LT	28	28
17+98.98 78.01 LT	32	32
18+74.18 37.80 LT	28	28
18+95.25 43.87 RT	36	36
24+03.82 52.49 RT	30	30
24+28.50 71.05 LT	20	20
24+41.24 48.57 LT	16	16
24+94.42 72.11 LT	24	24
25+36.35 34.22 LT	18	18
25+37.05 85.15 LT	30	30
25+60.52 54.36 RT	18	18
27+09.52 40.56 LT	18	18
27+50.59 42.68 LT	24	24

TREE REMOVAL (OVER 15 UNITS DIAMETER), TOTAL= 352 UNIT

EARTHWORK

STATION	DISTANCE BETWEEN STA	CUT	FILL	TOPSOIL EX. ***	AVG. CUT	AVG. FILL	AVG. TOPSOIL EX.	EARTH EX.	EMB.	TOPSOIL EX.	EARTH EX ADJ. FOR SHRINKAGE *	BALANCE ((+) FOR EXCESS (-) FOR SHORTAGE)	CUM. BALANCE	TOPSOIL WIDTH RIGHT	TOPSOIL AREA RIGHT	TOPSOIL WIDTH LEFT	TOPSOIL AREA LEFT
		SQ FT	SQ FT	SQ FT	SQ FT	SQ FT	SQ FT	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	FOOT	SQ YD	FOOT	SQ YD
14+00		2	9	24										0		12	
14+50	50	5	121	83	3.5	65	53.5	6	120	99	6	-115	-115	40	110	16	78
15+00	50	9	227	99	7	174	91	13	322	169	11	-311	-426	49	247	12	77
15+50	50	10	262	101	9.5	244.5	100	18	453	185	15	-438	-864	53	284	7	52
16+00	50	14	297	112	12	279.5	106.5	22	518	197	19	-499	-1363	59	310	5	34
16+50	50	38	225	109	26	261	110.5	48	483	205	41	-442	-1805	48	296	13	52
17+00	50	72	412	138	55	318.5	123.5	102	590	229	87	-503	-2308	49	270	28	116
17+50	50	122	399	159	97	405.5	148.5	180	751	275	153	-598	-2906	55	290	47	209
18+00	50	193	353	156	157.5	376	157.5	292	696	292	248	-448	-3355	45	277	50	268
18+50	50	313	170	127	253	261.5	141.5	469	484	262	398	-86	-3441	51	267	2	143
19+00	50	356	357	206	334.5	263.5	166.5	619	488	308	527	39	-3402	36	242	42	123
19+50	50	56	135	79	206	246	142.5	381	456	264	324	-131	-3534	87	341	50	257
20+00	50	12	0	0	34	67.5	39.5	63	125	73	54	-71	-3605	20	297	4	150
BRIDGE OMISSION																	
22+50		59	3	7										35		77	
23+00	50	22	333	104	40.5	168	55.5	75	311	103	64	-247	-3852	50	236	19	267
23+25	25	0	943	151	11	638	127.5	10	591	118	9	-582	-4435	5	76	17	50
23+50	25	0	847	177	0	895	164	0	829	152	0	-829	-5263	31	50	19	50
24+00	50	275	222	136	137.5	534.5	156.5	255	990	290	216	-773	-6037	23	150	56	207
24+50	50	192	300	135	233.5	261	135.5	432	483	251	368	-116	-6152	33	156	50	294
25+00	50	119	375	147	155.5	337.5	141	288	625	261	245	-380	-6533	45	218	47	272
25+50	50	70	525	149	94.5	450	148	175	833	274	149	-685	-7217	40	238	54	282
26+00	50	16	619	152	43	572	150.5	80	1059	279	68	-992	-8209	48	246	54	300
26+50	50	15	528	140	15.5	573.5	146	29	1062	270	24	-1038	-9246	43	253	49	285
27+00	50	12	537	146	13.5	532.5	143	25	986	265	21	-965	-10211	46	247	54	286
27+50	50	0	250	112	6	393.5	129	11	729	239	9	-719	-10931	42	245	42	267
28+00	50	0	90	39	0	170	75.5	0	315	140	0	-315	-11245	0	116	30	200
28+50	50	0	100	45	0	95	42	0	176	78	0	-176	-11421	0	0	33	176
29+00	50	0	28	18	0	64	31.5	0	119	58	0	-119	-11540	0	0	22	152
29+50	50	0	3	4	0	15.5	11	0	29	20	0	-29	-11569	0	0	3	69
30+00	50	0	19	17	0	11	10.5	0	20	19	0	-20	-11589	0	0	15	51
30+50	50	0	14	13	0	16.5	15	0	31	28	0	-31	-11619	0	0	11	73
						TOTALS		3,593	14,673	5,402	3,054	-11,619			5,462		4,838

20200100 EARTH EXCAVATION	3,595	CU. YD
20400800 FURNISHED EXCAVATION *****	11,825	CU. YD
21101505 TOPSOIL EXCAVATION AND PLACEMENT ***	5,405	CU. YD
TOPSOIL PLACEMENT AREA, 6"	10,300	SQ. YD
20201200 REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL ****	295	CU. YD.

*ADJUSTMENT FACTOR EQUALS 0.15

**EARTH EX AND FURNISHED EX ROUNDED UP TO NEAREST 5 CU YD

***ESTIMATED DEPTH 14 INCHES OF TOPSOIL REMOVAL IS USED FOR QUANTITY CALCULATIONS. THE ACTUAL DEPTH OF TOPSOIL REMOVAL SHOULD BE DETERMINED IN THE FIELD DURING CONSTRUCTION.

**** ESTIMATED DEPTH 18 INCHES OF UNSUITABLE MATERIAL REMOVAL IS USED FOR QUANTITY CALCULATIONS. ENTIRE WETLAND ADJACENT TO NORTH ABUTMENT IS ASSUMED TO BE REOMOVED AS UNSUILTABLE

***** FURNISHED EXCAVATION QUANTITY IS GREATER THAN EARTHWORK SCHEDULE WOULD SUGGEST DUE TO ADDITIONAL FILL REQUIRED IN AREAS OF UNSUITABLE MATERIAL IN THE WETLAND.

30300112 - AGGREGATE SUBGRADE IMPROVEMENT 12"

LOCATION			PAVEMENT AREA AREA (SQ. FT)	CURB AND GUTTER AREA (SQ. FT)	TOTAL AREA (SQ. FT)	TOTAL AREA (SQ. YD)
TORRENCE AVE						
14+78.54	TO	17+46.24	12,004	825	12,829	1,425
17+46.24	TO	18+42.79	5,642	392	6,034	670
23+78.31	TO	24+74.85	5,640	595	6,235	693
24+74.85	TO	25+50.00	3,714	232	3,946	438
25+50.00	TO	27+44.19	8,336	599	8,935	993

AGGREGATE SUBGRADE IMPROVEMENT 12", TOTAL= 4,220 SQ. YD.

42000316 - PORTLAND CEMENT CONCRETE PAVEMENT 8 3/4" (JOINTED)

LOCATION			PAVEMENT AREA (SQ. FT)	PAVEMENT AREA (SQ. YD)
TORRENCE AVE				
14+78.54	TO	17+46.24	12,004	1,334
24+74.85	TO	25+50.00	3,714	413
25+50.00	TO	27+44.19	8,336	926

PORTLAND CEMENT CONCRETE PAVEMENT 8 3/4" (JOINTED), TOTAL= 2,673 SQ. YD

42001300 - PROTECTIVE COAT

SURFACE TYPE	AMOUNT		TOTAL (SQ. YD)
PORTLAND CEMENT CONCRETE 8 3/4" (JOINTED)	2,673	SQ. YD	2,673
BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)	1,220	SQ. YD	1,220
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	5,841	SQ. FT	649
PORTLAND CEMENT CONCRETE SIDEWALK, 8 INCH	8,293	SQ. FT	921
COMBINATION CONC. CURB AND GUTTER TYPE B-6.12	91.5	L.F.	21
COMBINATION CONC. CURB AND GUTTER TYPE B-6.24	1,477.0	L.F.	506

PROTECTIVE COAT, TOTAL= 5,990 SQ. YD

42001400 - BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)

LOCATION			AREA (SQ. FT)	AREA (SQ. YD)
TORRENCE AVE				
17+46.24	TO	18+46.24	5,642	627
23+74.85	TO	24+74.85	5,640	627

BRIDGE APPROACH PAVEMENT CONNECTOR (PCC), TOTAL= 1,254 SQ. YD

42400200 - PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH

LOCATION				AREA (SQ. FT)
TORRENCE AVE				
13+70.34	TO	17+50.00	LT	2,695
17+50.00	TO	18+29.23	LT	492
23+65.99	TO	25+50.00	LT	1,317
25+50.00	TO	27+44.19	LT	1,357

PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH, TOTAL= 5,861 SQ. FT

42400410 - PORTLAND CEMENT CONCRETE SIDEWALK 8 INCH

LOCATION				AREA (SQ. FT)
TORRENCE AVE				
14+12.97	TO	17+50.00	RT	3,319
17+50.00	TO	18+68.10	RT	1,107
24+00.16	TO	25+50.00	RT	1,422
25+50.00	TO	27+95.58	RT	2,273

PORTLAND CEMENT CONCRETE SIDEWALK 8 INCH, TOTAL= 8,121 SQ. FT

Note: Multi-Use Path is constructed as PCC Sidewalk 8".

42400800 - DETECTABLE WARNINGS

LOCATION		AREA (SQ. FT)
TORRENCE AVE		
13+73.81	LT	14
14+12.97	RT	27
14+19.70	LT	10

DETECTABLE WARNINGS, TOTAL= 51 SQ. FT

44000100 - PAVEMENT REMOVAL

LOCATION			AREA (SQ. FT)	AREA (SQ. YD)
TORRENCE AVE				
14+78.54	TO	18+64.04	15,995	1,777
23+88.93	TO	27+44.19	15,067	1,674

PAVEMENT REMOVAL, TOTAL= 3,451 SQ. YD

IT IS ASSUMED THAT BRIDGE APPROACH PAVEMENT REMOVAL IS INCLUDED IN THE PAVEMENT REMOVAL.

44000500 COMBINATION CURB AND GUTTER REMOVAL

LOCATION				LENGTH (FOOT)
TORRENCE AVE				
13+69.38	TO	13+73.74	LT	9.5
14+18.79	TO	14+26.65	LT	7.9
14+78.54	TO	18+64.71	LT	386.2
14+10.70	TO	18+63.92	RT	459.5
23+88.45	TO	27+44.19	LT	355.8
23+89.24	TO	27+44.19	RT	355.0

COMBINATION CURB AND GUTTER REMOVAL, TOTAL= 1,574 FOOT

44000600 - SIDEWALK REMOVAL

LOCATION				AREA (SQ. FT)
TORRENCE AVE				
14+27.02	TO	18+63.73	RT	2,109
23+89.24	TO	27+95.58	RT	2,052

SIDEWALK REMOVAL, TOTAL= 4,161 SQ. FT

48100900 - AGGREGATE SHOULDERS, TYPE B 10"

LOCATION				AREA (SQ. FT)	AREA (SQ. YD)
TORRENCE AVE					
13+81.51	TO	17+50.00	LT	1,391	155
17+50.00	TO	18+24.69	LT	224	25
16+35.07	TO	17+50.00	RT	795	88
17+50.00	TO	18+66.99	RT	793	88
23+53.48	TO	25+50.00	LT	626	70
23+92.17	TO	25+50.00	RT	946	105
25+50.00	TO	28+81.76	LT	985	109
25+50.00	TO	27+44.19	RT	1,178	131

AGGREGATE SHOULDERS, TYPE B 10", TOTAL= 771 SQ. YD

60603800 - COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12

LOCATION				LENGTH FOOT
TORRENCE AVE				
13+69.38	TO	13+73.74	LT	9.5
14+18.79	TO	14+26.65	LT	7.9
14+10.70	TO	14+78.54	RT	74.1

COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12, TOTAL= 91.5 FOOT

60605000 - COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24

LOCATION				LENGTH FOOT
TORRENCE AVE				
14+78.54	TO	17+50.00	LT	271.5
14+78.54	TO	17+50.00	RT	271.5
17+50.00	TO	18+30.69	LT	80.7
17+50.00	TO	18+63.30	RT	113.3
23+57.52	TO	25+50.00	LT	192.5
23+90.72	TO	25+50.00	RT	159.3
25+50.00	TO	27+44.19	LT	194.2
25+50.00	TO	27+44.19	RT	194.2

COMBINATION CONCRETE CURB AND GUTTER TYPE B-6.24, TOTAL= 1,477.0 FOOT

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	DRAWN - RDT	REVISED -	
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PLOT DATE = 6/23/2015	DATE - 6-15-2015	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
SCHEDULE OF QUANTITIES 2

SCALE: | SHEET NO. 8 OF 152 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	8
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			

63000001 - STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS

LOCATION				LENGTH (FOOT)
TORRENCE AVE				
13+94.01	TO	17+81.51	LT	387.5
16+95.19	TO	18+20.15	RT	125.0
23+97.22	TO	28+21.73	LT	425.0
24+35.36	TO	27+22.77	RT	287.5

STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS, TOTAL= 1,225.0 FOOT

63100045 - TRAFFIC BARRIER TERMINAL, TYPE 2

LOCATION		QTY (EACH)
TORRENCE AVE		
13+94.01	LT	1
27+22.77	RT	1

TRAFFIC BARRIER TERMINAL, TYPE 2, TOTAL= 2 EACH

63100085 - TRAFFIC BARRIER TERMINAL, TYPE 6

LOCATION		QTY (EACH)
TORRENCE AVE		
18+20.15	RT	1
24+35.36	RT	1

TRAFFIC BARRIER TERMINAL, TYPE 6, TOTAL= 2 EACH

63100089 - TRAFFIC BARRIER TERMINAL, TYPE 6B

LOCATION		QTY (EACH)
TORRENCE AVE		
17+81.51	LT	1
23+97.22	LT	1

TRAFFIC BARRIER TERMINAL, TYPE 6B, TOTAL= 2 EACH

63100167 - TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL, (TANGENT)

LOCATION		QTY (EACH)
TORRENCE AVE		
16+95.19	RT	1
28+21.73	LT	1

TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL, (TANGENT), TOTAL= 2 EACH

63200310 - GUARDRAIL REMOVAL

LOCATION				LENGTH (FOOT)
TORRENCE AVE				
13+77.88	TO	18+65.00	LT	490.4
14+05.39	TO	18+64.75	RT	500.1
23+88.21	TO	30+87.40	LT	699.3
23+88.57	TO	30+25.97	RT	637.4

GUARDRAIL REMOVAL, TOTAL= 2,327 FOOT

66400105 - CHAIN LINK FENCE, 4'

LOCATION				LENGTH FOOT
TORRENCE AVE				
14+70.00	TO	16+80.00	LT	210.0
15+00.00	TO	17+50.00	RT	250.0
17+50.00	TO	18+72.14	RT	122.1
23+53.48	TO	24+00.00	LT	46.5
24+01.71	TO	25+50.00	RT	148.3
25+50.00	TO	27+95.58	RT	245.6

CHAIN LINK FENCE, 4', TOTAL= 1,023 FOOT

72000100 - SIGN PANEL - TYPE 1

LOCATION			PAVEMENT AREA (IN. x IN.)	AREA (SQ. FT)
TORRENCE AVE				
15+28.85	27.30' LT	SPEED LIMIT 40 MPH	30x36	8

SIGN PANEL - TYPE 1, TOTAL= 8 SQ. FT

72400100 - REMOVE SIGN PANEL ASSEMBLY

LOCATION		QTY (EACH)
TORRENCE AVE		
15+27.70	27.30' LT	1
18+39.66	29.48' LT	1
18+61.27	33.68' RT	1

REMOVE SIGN PANEL ASSEMBLY, TOTAL= 3 EACH

72400310 - REMOVE SIGN PANEL - TYPE 1

LOCATION		DIM. (IN.x IN.)	QTY (SQ. FT)
TORRENCE AVE			
15+19.00	27.47' RT	36"x24"	6
31+71.29	24.95' LT	36"x24"	6

REMOVE SIGN PANEL, TYPE 1, TOTAL= 12 SQ. FT

72900100 METAL POST - TYPE A

LOCATION		LENGTH (FOOT)
TORRENCE AVE		
15+28.85	27.30' LT	13

METAL POST - TYPE A, TOTAL= 13 FOOT

PAVEMENT MARKINGS

LOCATION			4" WHITE SKIP-DASH	4" WHITE SOLID	4" DOUBLE YELLOW	12" WHITE DIAG.
			FOOT	FOOT	FOOT	FOOT
TORRENCE AVENUE						
14+78.54	TO	17+50.00	136	463	543	23
17+50.00	TO	25+50.00	400	1600	1600	160
25+50.00	TO	27+44.19	97	302	388	6
		TOTALS:	633	2,365	2,531	189

78009004 - MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	5,529	FOOT
78009012 - MODIFIED URETHANE PAVEMENT MARKING - LINE 12"	189	FOOT

RAISED REFLECTIVE PAVEMENT MARKERS

LOCATION			RAISED REFLECTIVE PAVEMENT MARKER		RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	
			CRYSTAL	AMBER	CRYSTAL	AMBER
			EACH	EACH	EACH	EACH
TORRENCE AVENUE						
14+78.54	TO	18+46.24	20	20		
18+46.24	TO	23+74.85			26	26
23+74.85	TO	27+44.19	18	18		
		TOTALS:	38	38	26	26

78100100 - RAISED REFLECTIVE PAVEMENT MARKER	76	EACH
78100105 - RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	52	EACH

78200410 - GUARDRAIL MARKERS, TYPE A

LOCATION				QTY (EACH)
TORRENCE AVE				
13+94.01	TO	18+25.26	LT	5
16+45.18	TO	18+63.30	RT	4
24+43.15	TO	28+67.66	LT	5

GUARDRAIL MARKERS, TYPE A, TOTAL= 15 EACH

78201000 - TERMINAL MARKER - DIRECT APPLIED

LOCATION		QTY (EACH)
TORRENCE AVE		
16+45.18	RT	1
28+71.74	LT	1

TERMINAL MARKER - DIRECT APLIED, TOTAL= 2 EACH

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	DRAWN - RDT	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - MT	REVISED -	
PLOT DATE = 6/23/2015	DATE - 6-15-2015	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

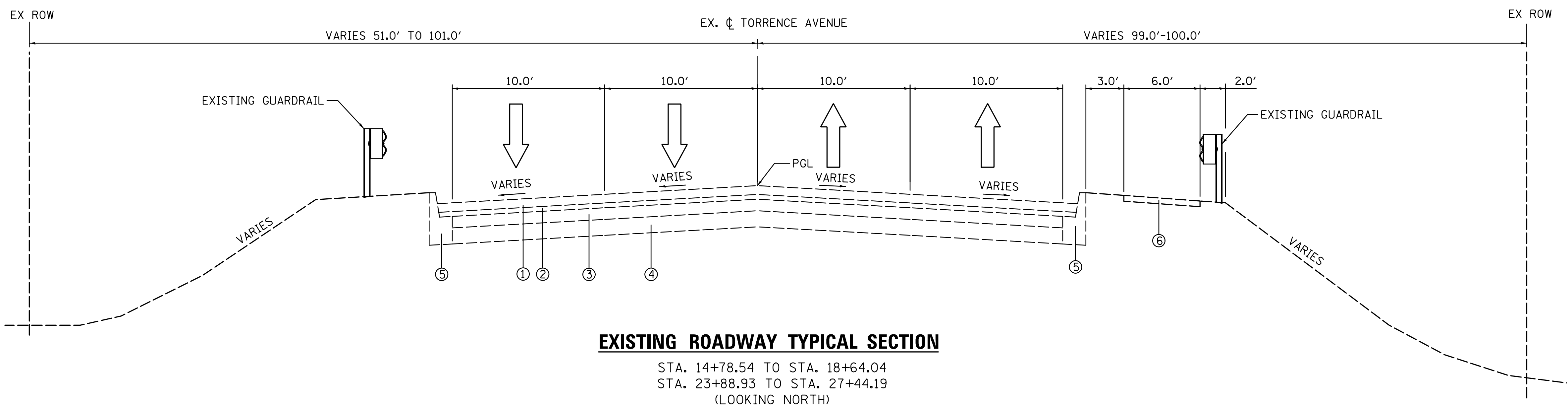
TORRENCE AVENUE
SCHEDULE OF QUANTITIES 3

SCALE: | SHEET NO. 9 OF 152 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	9
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			

LEGEND

1. EXISTING HOT-MIX ASPHALT SURFACE COURSE, 1 1/2"
2. EXISTING LEVELING BINDER, 1 3/4"
3. EXISTING HOT-MIX ASPHALT RESURFACING, +/-6"
4. EXISTING PCC PAVEMENT, 9"
5. EXISTING CURB AND GUTTER
6. EXISTING SIDEWALK



EXISTING ROADWAY TYPICAL SECTION

STA. 14+78.54 TO STA. 18+64.04
STA. 23+88.93 TO STA. 27+44.19
(LOOKING NORTH)

FILE NAME = I:\Projects\4016179\4016179_0001\90_CAD Models and Sheets\CADD_Sheets\D160R95-sht-typical01.dgn

USER NAME = waterhej	DESIGNED - RDT/GC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TORRENCE AVENUE TYPICAL SECTIONS 1
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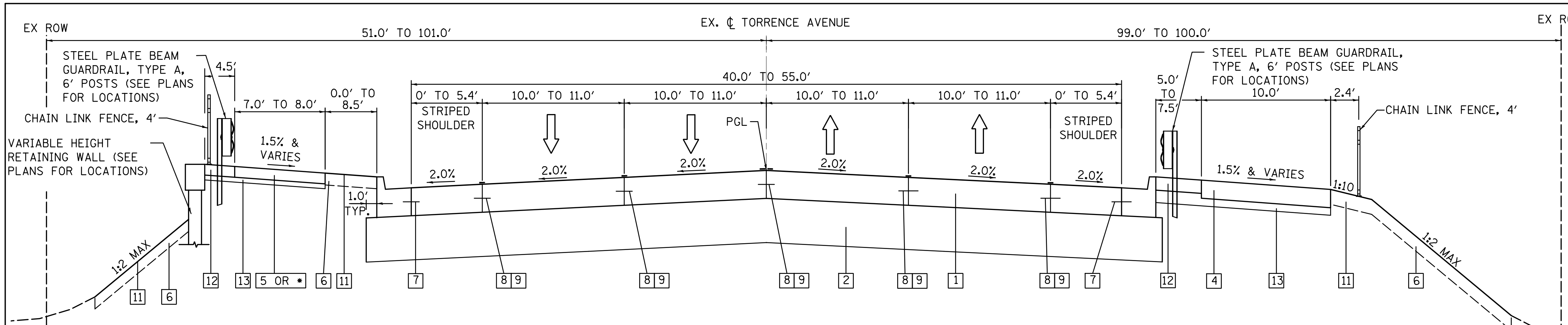
PLOT DATE = 6/23/2015	DATE - 6-15-2015	REVISED -		SCALE: NTS / SHEET NO. 10 OF 152 SHEETS / STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	10
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			



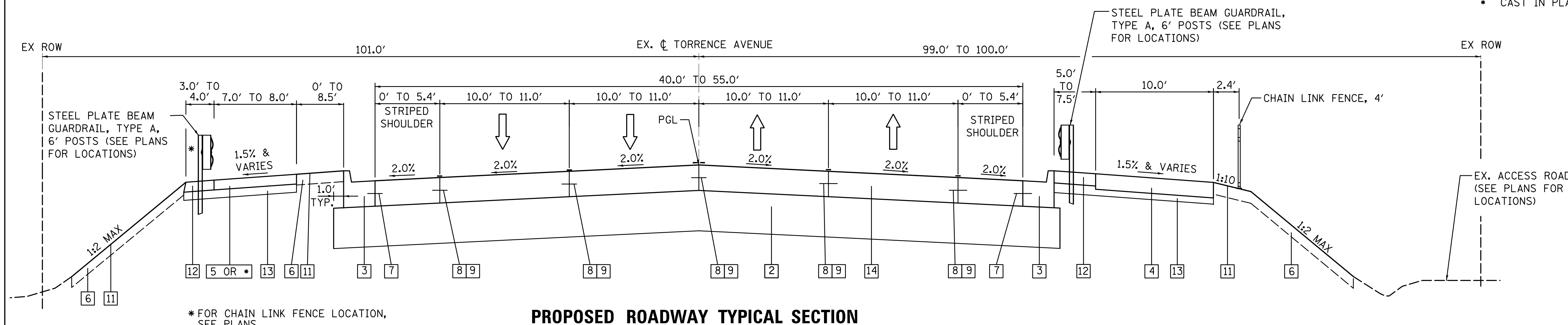
PROPOSED ROADWAY TYPICAL SECTION

STA. 14+78.54 TO STA. 17+46.24
(LOOKING NORTH)

DEPRESS CURB AT TERMINAL TYPE 1 SPECIAL.
SEE DISTRICT DETAIL BD600-10 (BD 34)

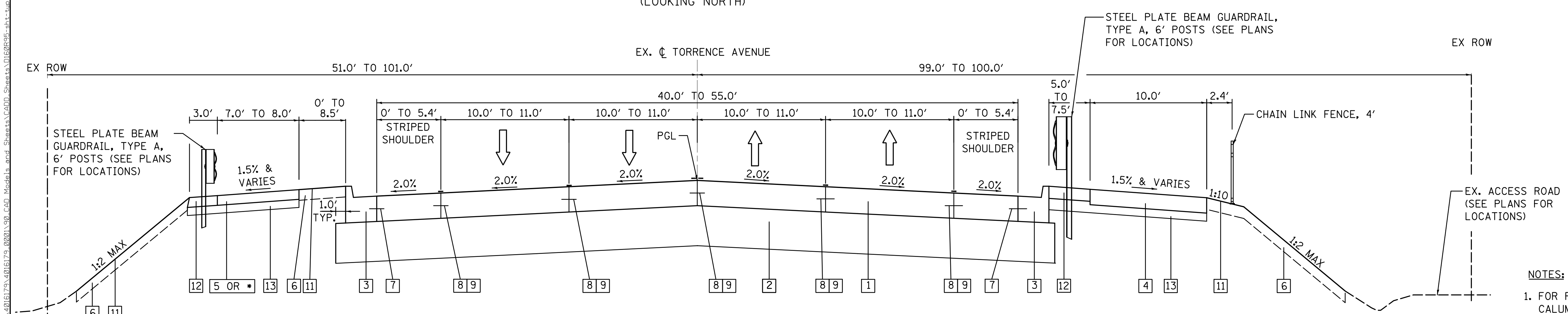
LEGEND:

1 PORTLAND CEMENT CONCRETE PAVEMENT, 8 3/4" (JOINTED)
2 AGGREGATE SUBGRADE IMPROVEMENT 12"
3 COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
4 PORTLAND CEMENT CONCRETE SIDEWALK, 8"
5 PORTLAND CEMENT CONCRETE SIDEWALK, 5"
6 TOPSOIL, 6"
7 NO. 6 x 24" TIE BARS GROUTED IN PLACE (EPOXY COATED) AT 24' CTS. INCLUDED IN COST OF COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
8 LONGITUDINAL CONSTRUCTION JOINT GROUTED-IN-PLACE TIE BAR NO. 6 x 24" LONG DEFORMED TIE BARS (EPOXY COATED) AT 24" CTS. (STANDARD 420001) (INCLUDED IN THE COST OF CONCRETE PAVEMENT)
9 AT CONTRACTORS OPTION A LONGITUDINAL SAWED JOINT 10 MAY BE USED.
10 LONGITUDINAL SAWED JOINT - NO. 6 x 30" LONG DEFORMED TIE BARS (EPOXY COATED) AT 30" CTS (STANDARD 420001) (INCLUDED IN THE COST OF PAVEMENT)
11 SEEDING, CLASS 2A, 3, OR 4B
12 AGGREGATE SHOULDERS, TYPE B 10"
13 SUB-BASE GRANULAR MATERIAL, TYPE B 4" (COST INCLUDED IN P.C.C. SIDEWALK)
14 BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)
• CAST IN PLACE ANCHORAGE SLAB (1.75' MAX THICKNESS)



PROPOSED ROADWAY TYPICAL SECTION

STA. 17+46.24 TO STA. 18+46.24
STA. 23+74.85 TO STA. 24+74.85
(LOOKING NORTH)



PROPOSED ROADWAY TYPICAL SECTION

STA. 24+74.85 TO STA. 27+44.19
(LOOKING NORTH)

NOTES:

1. FOR PROPOSED TORRENCE AVENUE OVER GRAND CALUMET RIVER BRIDGE, SEE STRUCTURAL PLANS.
2. SIDEWALK AND BICYCLE PATH CROSS SLOPES WILL TRANSITION TO MATCH CROSS SLOPES ON BRIDGE.
3. FOR STRUCTURAL DESIGN TRAFFIC, SEE SHEET 2.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

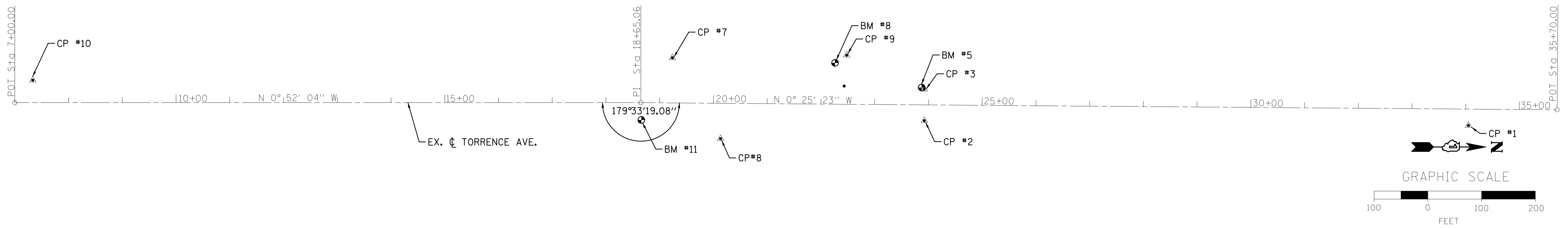
TORRENCE AVENUE
TYPICAL SECTIONS 2

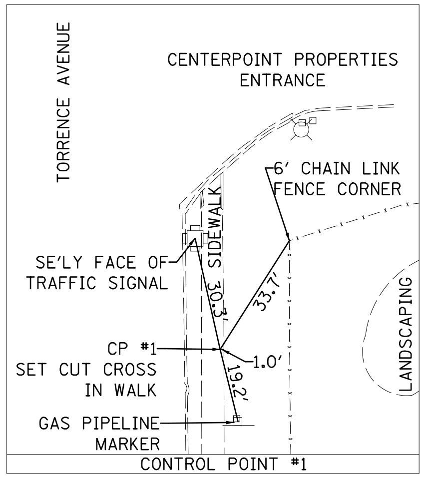
SCALE: NTS | SHEET NO. 11 OF 152 SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	11

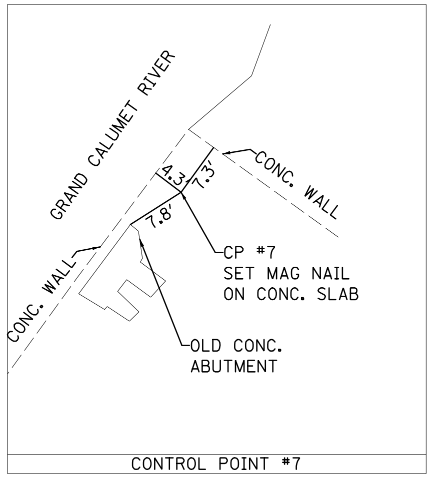
CONTRACT NO. 60R95

ILLINOIS FED. AID PROJECT

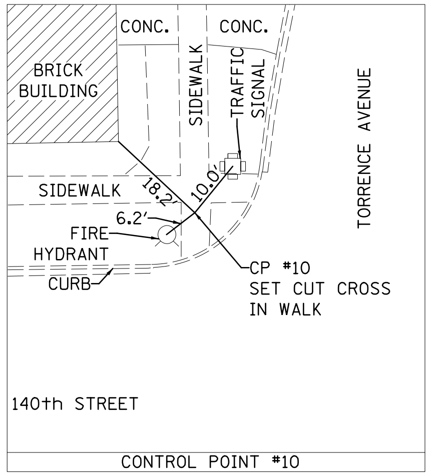




CONTROL POINT #1



CONTROL POINT #7



CONTROL POINT #10

EXISTING TORRENCE AVE CENTERLINE			
POINT NO.	NORTHING	EASTING	STATION
TORE1	1,812,657.04	1,195,824.45	7+00.00
TORE2	1,813,821.97	1,195,806.81	18+65.06
TORE3	1,815,526.86	1,195,794.22	35+70.00

BENCHMARKS & CONTROL POINTS							
POINT NO.	NORTHING	EASTING	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
CP #1	1,815,362.2304	1,195,825.9833	584.81	TOR_E7	34+05.14	30.54′ RT	CUT "X" ON EAST WALK SOUTH OF ENTRANCE.
CP #2	1,814,349.7164	1,195,832.3310	611.16	TOR_E7	23+92.60	29.42′ RT	CUT "X" ON EAST WALK NORTH OF BRIDGE.
CP #3	1,814,348.8188	1,195,773.7309	611.06	TOR_E7	23+92.14	29.19′ LT	REBAR AND CAP ON WEST SIDE OF TORRENCE AVE NORTH OF BRIDGE.
CP #7	1,813,879.1942	1,195,722.5092	586.60	TOR_E7	19+22.91	83.88′ LT	SET MAG NAIL ON CONCRETE DOCK/SLAB.
CP #8	1,813,971.0874	1,195,871.4556	580.16	TOR_E7	20+13.70	65.74′ RT	SET 5/8" REBAR WITH CAP EAST OF BRIDGE SOUTH OF RIVER.
CP #9	1,814,203.5331	1,195,712.7177	585.40	TOR_E7	22+47.31	91.27′ LT	CUT CROSS ON CONCRETE SLAB NORTHWEST OF BRIDGE.
CP #10	1,812,689.8305	1,195,782.1936	584.64	TOR_E7	7+33.42	41.76′ LT	CUT "X" ON WEST WALK NORTH OF 140TH ST.
BM #5			611.54	TOR_E7	23+87.12	32.32′ LT	CUT SQUARE BOX ON TOP WINGWALL AT NW CORNER OF BRIDGE.
BM #8			586.22	TOR_E7	22+25.64	76.83′ LT	CUT SQUARE BOX ON TOP EAST END OF CONC. HEADWALL OF BOX CULVERT NW OF BRIDGE.
BM #11			611.59	TOR_E7	18+66.04	32.11′ RT	CUT SQUARE BOX ON TOP EASTERLY WINGWALL AT SE CORNER OF BRIDGE.

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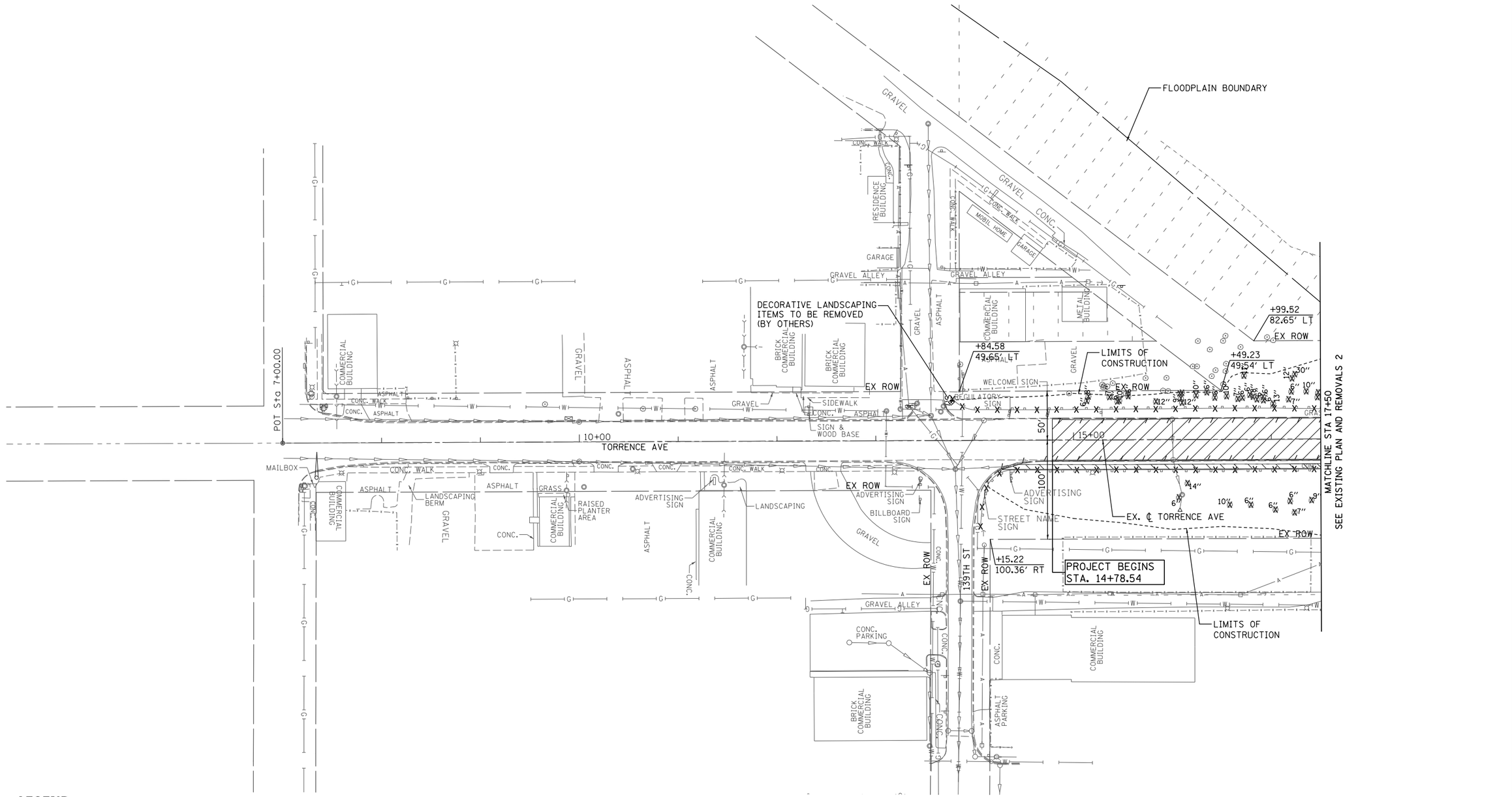
	DRAWN - RDT	REVISED -	
PLOT SCALE = 200.0000 ′ / in.	CHECKED - MT	REVISED -	
PLOT DATE = 6/23/2015	DATE - 6-15-2015	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVE
ALIGNMENT, TIES, BENCHMARKS AND CONTROL POINTS

SCALE: 1" = 100′ | SHEET NO. 12 OF 152 SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	12
		CONTRACT NO. 60R95		
		ILLINOIS FED. AID PROJECT		



LEGEND

- PAVEMENT REMOVAL
- SIDEWALK REMOVAL
- CURB AND GUTTER REMOVAL
- TREE REMOVAL
- GUARDRAIL REMOVAL

NOTES:
1. SEE DRAINAGE PLANS AND UTILITIES FOR EXISTING STORM SEWER AND STRUCTURE REMOVALS.
2. SEE LIGHTING PLANS FOR LIGHTING REMOVALS.
3. SEE PAVEMENT MARKINGS AND SIGNING FOR EXISTING SIGN RELOCATIONS AND REMOVALS

GRAPHIC SCALE
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FEET

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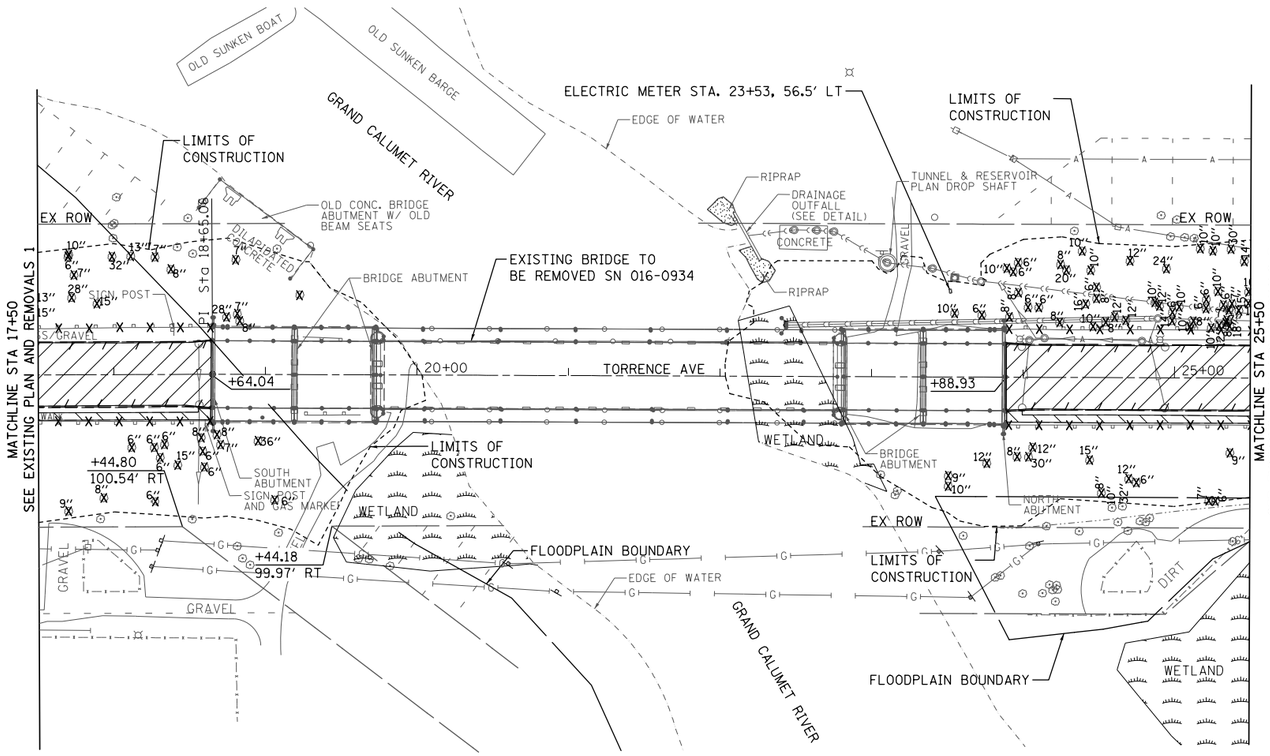
PLOT DATE = 6/23/2015	DATE - 6-15-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
EXISTING PLAN AND REMOVALS 1

SCALE: 1" = 50' | SHEET NO. 13 OF 152 SHEETS | STA. 7+00.00 TO STA. 17+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	13
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			



LEGEND

- PAVEMENT REMOVAL
- SIDEWALK REMOVAL
- CURB AND GUTTER REMOVAL
- TREE REMOVAL
- GUARDRAIL REMOVAL

NOTES:

1. SEE DRAINAGE PLANS AND UTILITIES FOR EXISTING STORM SEWER AND STRUCTURE REMOVALS.
2. SEE LIGHTING PLANS FOR LIGHTING REMOVALS.
3. SEE PAVEMENT MARKINGS AND SIGNING FOR EXISTING SIGN RELOCATIONS AND REMOVALS

GRAPHIC SCALE

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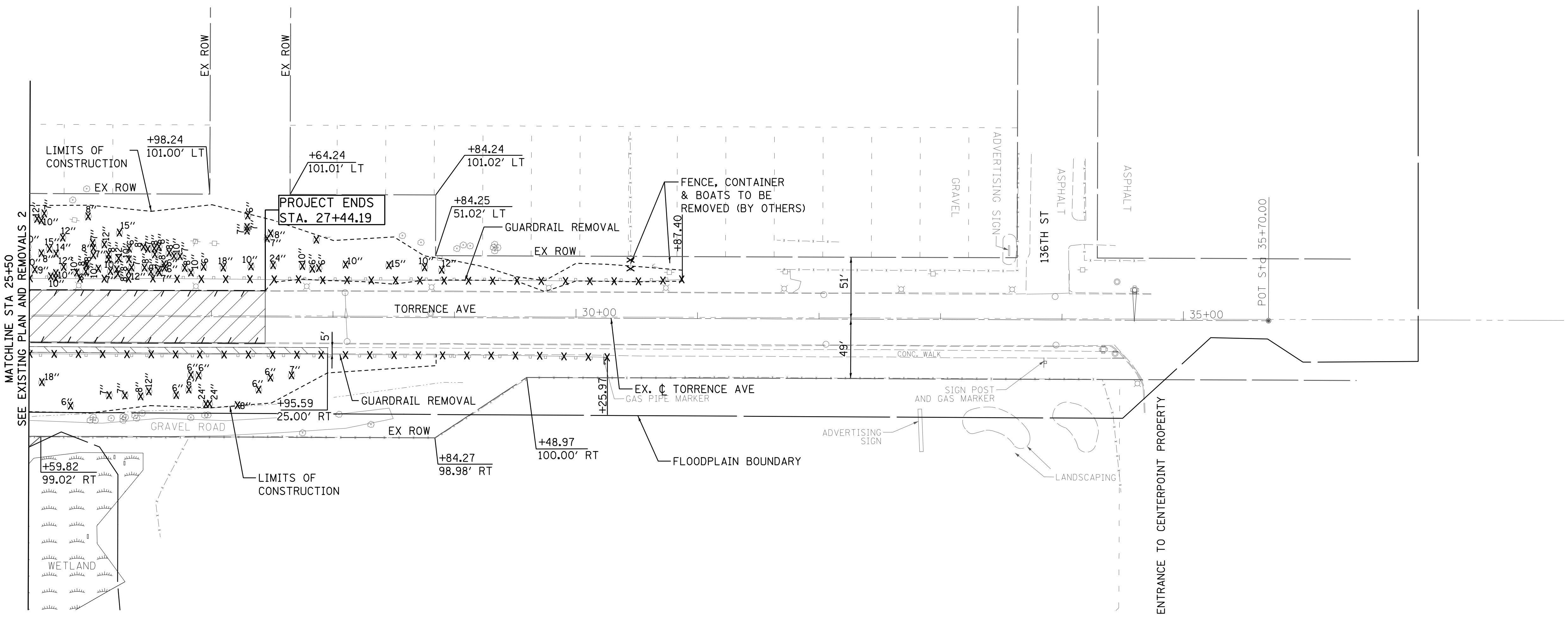
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
EXISTING PLAN AND REMOVALS 2

SCALE: 1" = 50' | SHEET NO. 14 OF 152 SHEETS | STA. 17+50.00 TO STA. 25+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	14
		CONTRACT NO. 60R95		
		ILLINOIS FED. AID PROJECT		



LEGEND

- PAVEMENT REMOVAL
- SIDEWALK REMOVAL
- CURB AND GUTTER REMOVAL
- TREE REMOVAL
- GUARDRAIL REMOVAL

NOTES:
1. SEE DRAINAGE PLANS AND UTILITIES FOR EXISTING STORM SEWER AND STRUCTURE REMOVALS.
2. SEE LIGHTING PLANS FOR LIGHTING REMOVALS.
3. SEE PAVEMENT MARKINGS AND SIGNING FOR EXISTING SIGN RELOCATIONS AND REMOVALS

GRAPHIC SCALE
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PLOT DATE = 6/23/2015	DATE - 6-15-2015	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

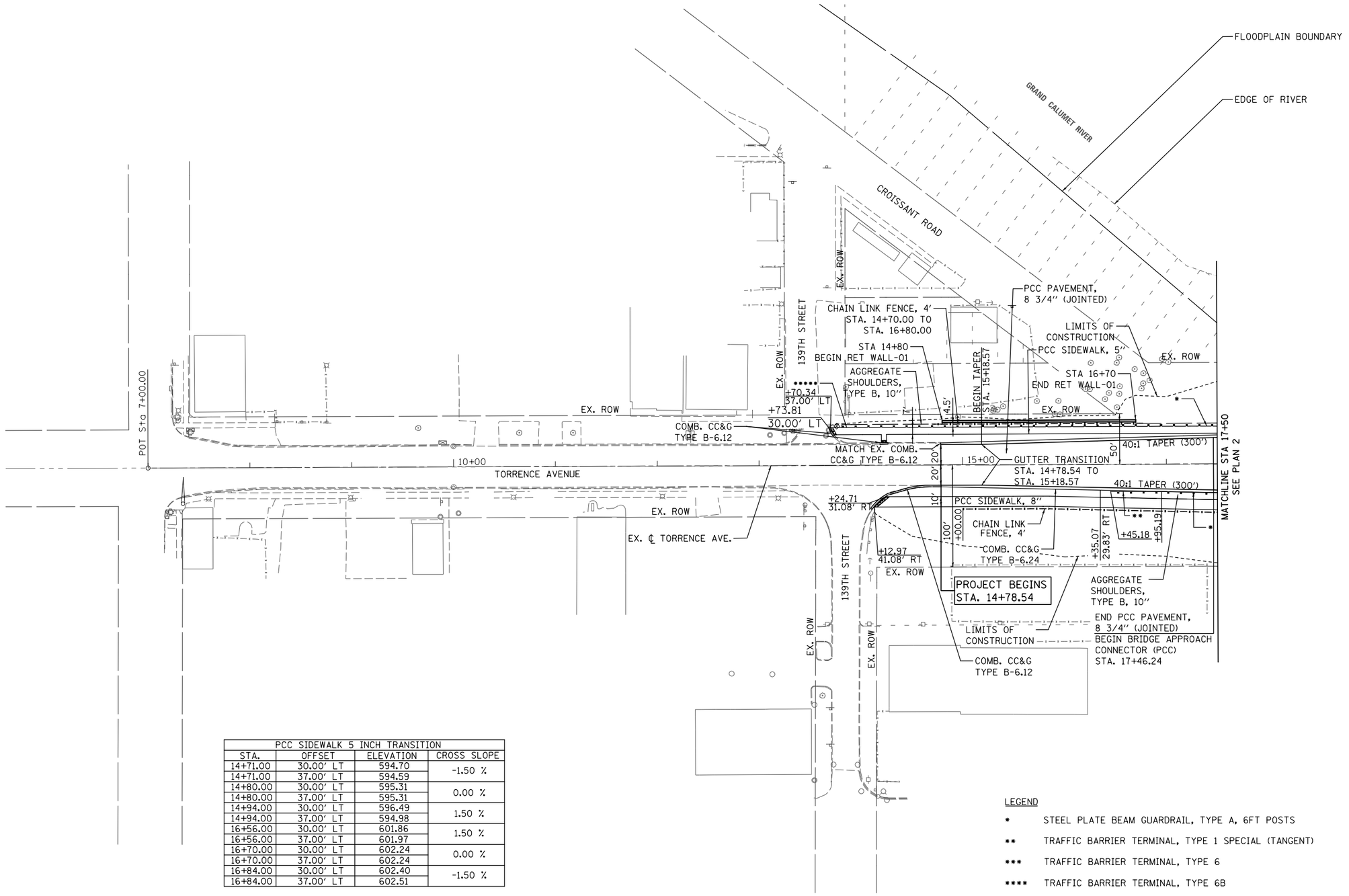
TORRENCE AVENUE
EXISTING PLAN AND REMOVALS 3

SCALE: 1" = 50' | SHEET NO. 15 OF 152 SHEETS | STA. 25+50.00 TO STA. 35+70.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	15

CONTRACT NO. 60R95

ILLINOIS FED. AID PROJECT



PCC SIDEWALK 5 INCH TRANSITION			
STA.	OFFSET	ELEVATION	CROSS SLOPE
14+71.00	30.00' LT	594.70	-1.50 %
14+71.00	37.00' LT	594.59	
14+80.00	30.00' LT	595.31	0.00 %
14+80.00	37.00' LT	595.31	
14+94.00	30.00' LT	596.49	1.50 %
14+94.00	37.00' LT	594.98	
16+56.00	30.00' LT	601.86	1.50 %
16+56.00	37.00' LT	601.97	
16+70.00	30.00' LT	602.24	0.00 %
16+70.00	37.00' LT	602.24	
16+84.00	30.00' LT	602.40	-1.50 %
16+84.00	37.00' LT	602.51	

LEGEND

* STEEL PLATE BEAM GUARDRAIL, TYPE A, 6FT POSTS

** TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (TANGENT)

*** TRAFFIC BARRIER TERMINAL, TYPE 6

**** TRAFFIC BARRIER TERMINAL, TYPE 6B

***** TRAFFIC BARRIER TERMINAL, TYPE 2

⊞ DETECTABLE WARNING

GRAPHIC SCALE

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FEET

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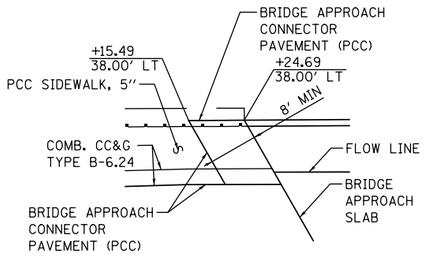
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

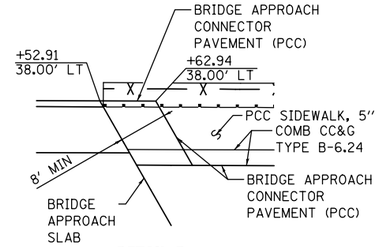
TORRENCE AVENUE
PLAN 1

SCALE: 1" = 50' | SHEET NO. 16 OF 152 SHEETS | STA. 7+00.00 TO STA. 17+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	16
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			



DETAIL A



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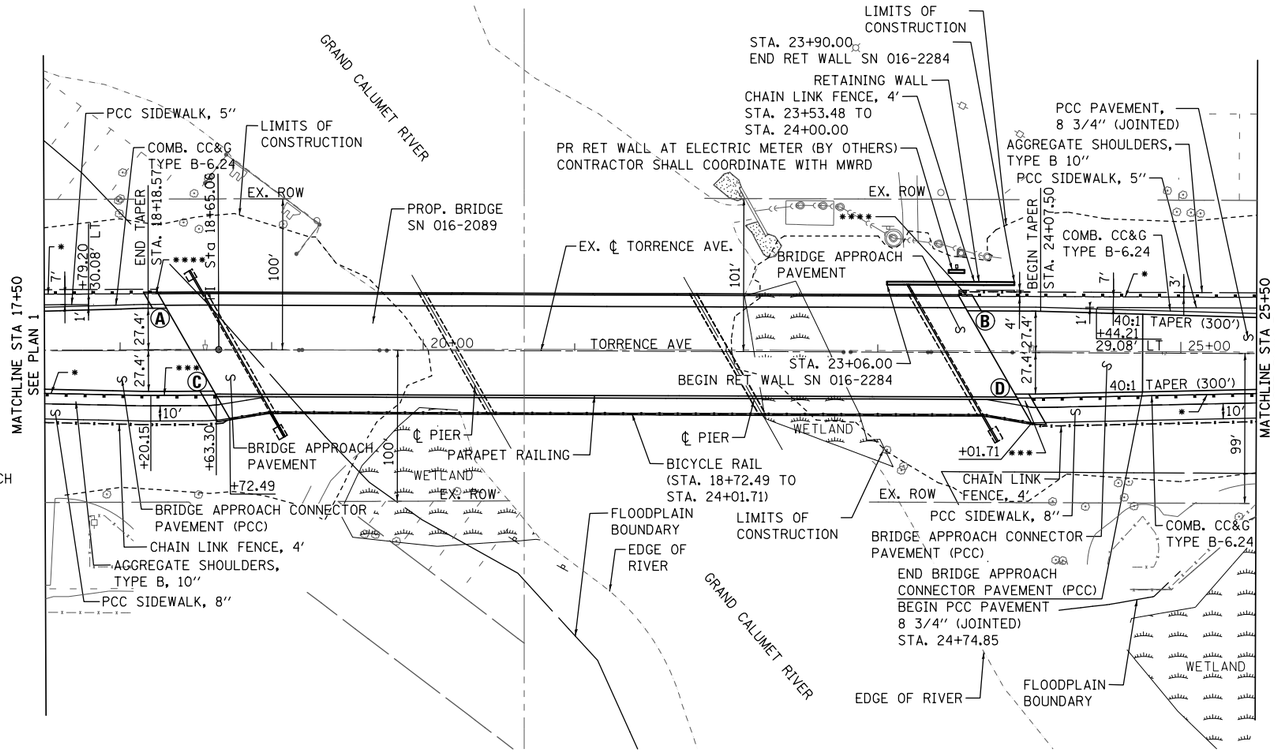
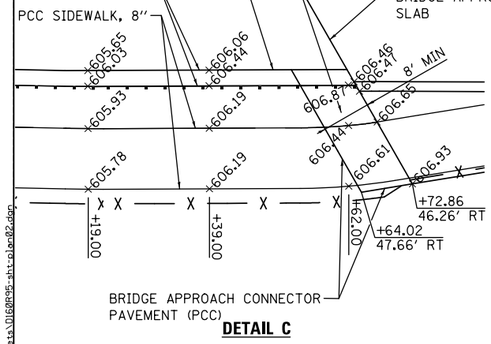
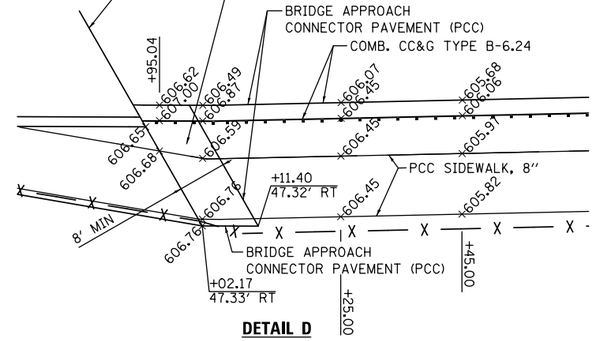




DETAIL C



DETAIL D

PCC SIDEWALK 8 INCH TRANSITION			
STA.	OFFSET	ELEVATION	CROSS SLOPE
18+19.00	37.00' RT	605.93	-1.50 %
18+19.00	47.00' RT	605.78	
18+39.00	37.00' RT	606.19	0.00 %
18+39.00	47.00' RT	606.19	
18+62.00	36.66' RT	606.44	1.70 %
18+62.00	46.66' RT	606.61	
SIDEWALK 5 INCH TRANSITION			
23+76.00	30.00' LT	607.38	1.70 %
23+76.00	37.00' LT	607.50	
23+90.00	30.00' LT	607.15	0.00 %
23+90.00	37.00' LT	607.15	
24+04.00	30.00' LT	606.90	-1.50 %
24+04.00	37.00' LT	606.80	
SIDEWALK 8 INCH TRANSITION			
24+02.17	36.15' RT	606.59	1.70 %
24+02.17	46.23' RT	606.76	
24+25.00	35.73' RT	606.28	0.00 %
24+25.00	45.73' RT	606.28	
24+45.00	35.23' RT	605.97	-1.50 %
24+45.00	45.23' RT	605.82	

LEGEND

*	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6FT POSTS
**	TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (TANGENT)
***	TRAFFIC BARRIER TERMINAL, TYPE 6
****	TRAFFIC BARRIER TERMINAL, TYPE 6B
*****	TRAFFIC BARRIER TERMINAL, TYPE 2
▦	DETECTABLE WARNING

GRAPHIC SCALE
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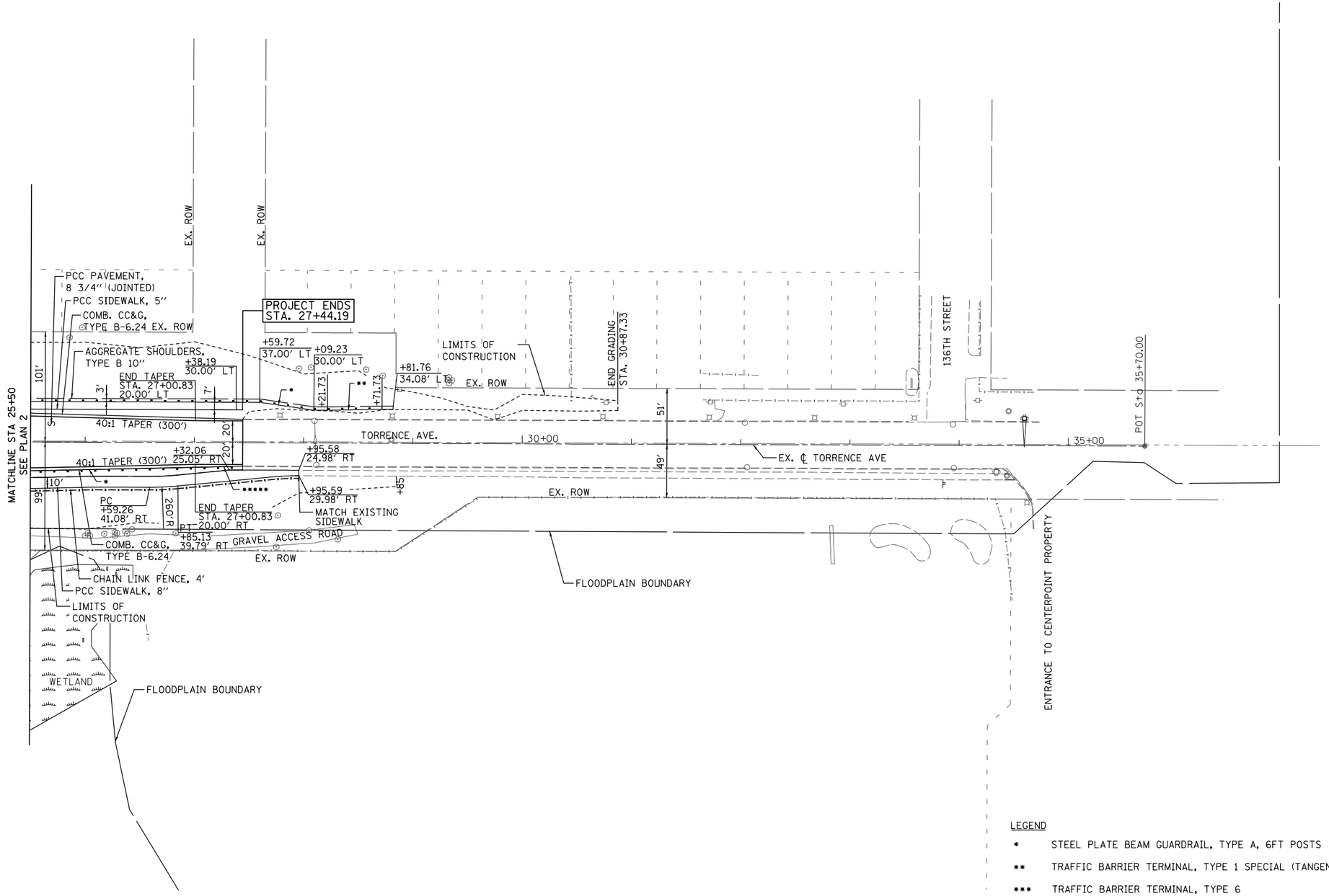
PLOT DATE = 6/29/2015	DATE - 6-15-2015	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
PLAN 2

SCALE: 1" = 50' | SHEET NO. 17 OF 152 SHEETS | STA. 17+50.00 TO STA. 25+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	17
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			



LEGEND

*	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6FT POSTS
**	TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (TANGENT)
***	TRAFFIC BARRIER TERMINAL, TYPE 6
****	TRAFFIC BARRIER TERMINAL, TYPE 6B
*****	TRAFFIC BARRIER TERMINAL, TYPE 2
▦	DETECTABLE WARNING

GRAPHIC SCALE

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PLOT DATE = 6/23/2015	DATE - 6-15-2015	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
PLAN 3

SCALE: 1" = 50' | SHEET NO. 18 OF 152 SHEETS | STA. 25+50.00 TO STA. 35+70.00

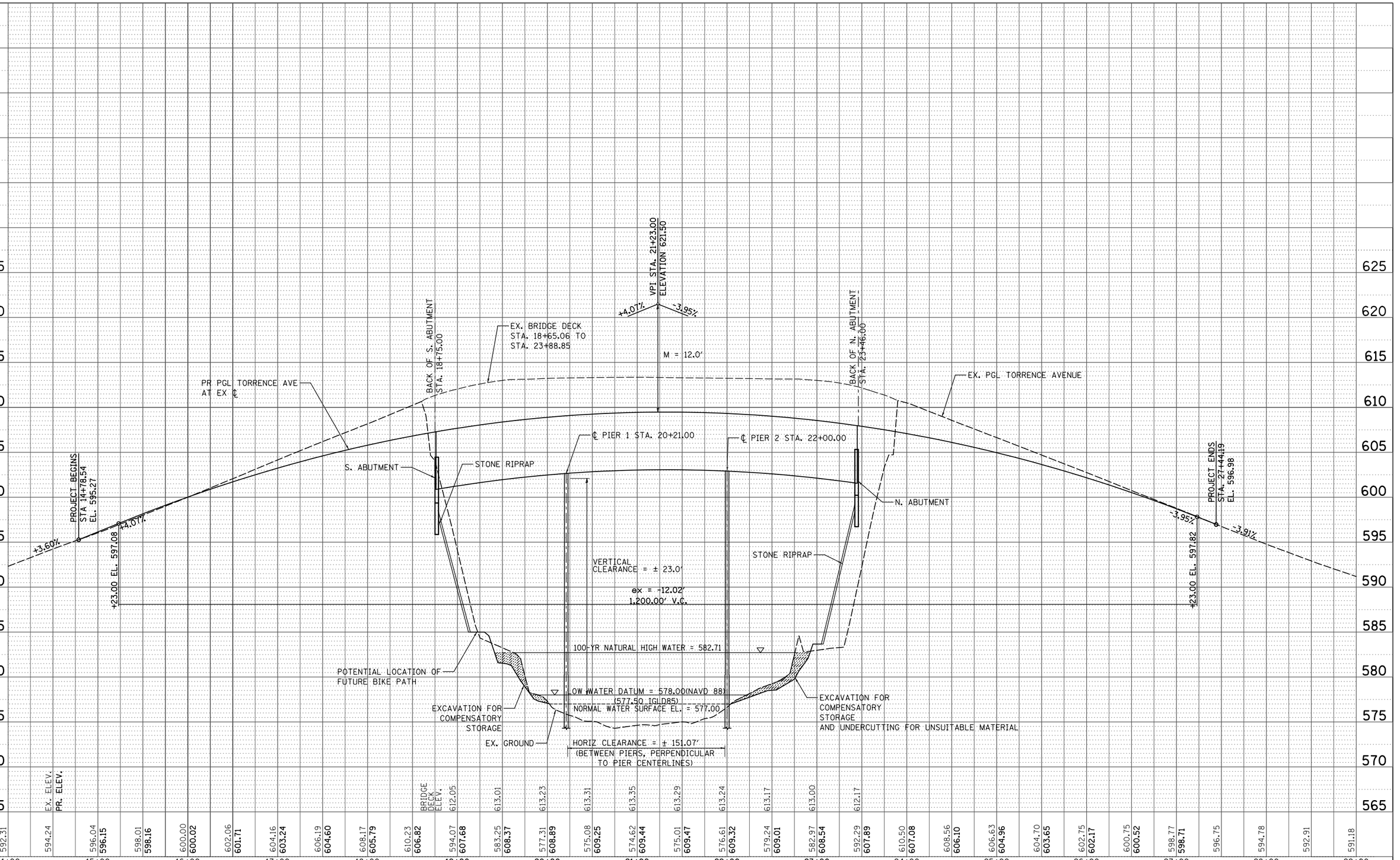
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	18
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			

PLAN

	BY	DATE
SURVEYED		
PLOTTED		
PROJECT CHECKED		
ALIGNMENT CHECKED		
RT. OF WAY CHECKED		
CADD FILE NAME		
NOTE BOOK		
NO.		

PROFILE

	BY	DATE
SURVEYED		
PLOTTED		
PROJECT CHECKED		
BM. NOTED		
STRUCTURE NOTATNS CHKD		



	14+00	15+00	16+00	17+00	18+00	19+00	20+00	21+00	22+00	23+00	24+00	25+00	26+00	27+00	28+00	29+00
EX. ELEV.	592.31	594.24	596.04	598.01	600.00	602.06	604.16	606.19	608.17	610.23	594.07	583.25	577.31	575.08	574.62	575.01
PR. ELEV.			596.15	598.16	600.02	601.71	603.24	604.60	605.79	606.82	607.68	608.37	608.89	609.25	609.44	609.47
BRIDGE DECK ELEV.											612.05	613.01	613.23	613.31	613.35	613.29
EX. ELEV.	576.61	579.24	582.97	592.29	610.50	608.56	606.63	604.70	602.75	600.75	598.77	596.75	594.78	592.91	591.18	
PR. ELEV.	609.32	609.01	608.54	607.89	607.08	606.10	604.96	603.65	602.17	600.52	598.71					
BRIDGE DECK ELEV.	613.24	613.17	613.00	612.17												

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PLOT DATE = 6/23/2015	DATE - 6-15-2015	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
PROFILE SHEET 1

SCALE: 1" = 50' | SHEET NO. 19 OF 152 SHEETS | STA. 14+00 TO STA. 29+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	19
		CONTRACT NO. 60R95		
	ILLINOIS	FED. AID PROJECT		

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108X42
"CUSTOM"

2
30X9
"CUSTOM"

3
M3-3
24X12

4
M3-1
24X12

5
M4-9L
30X24

6
M4-9
30X24

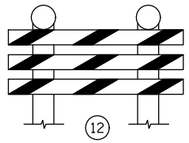
7
M4-9R
30X24

8
M4-9R
30X24

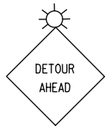
9
M4-9L
30X24

10
M4-8a
24X18

11
R11-2
48X30



12
2-TYPE III BARRICADES
WITH 2 FLASHERS EACH



13
W20-2
48X48

14
W20-3
48X48

15
60X30
R11-3b

16
M4-10L
48X18

17
60X30
R11-13b

18
M4-10R
48X18

19
W20-3
48X48

20
R9-9
24X12

TYPICAL SIGN
ASSEMBLY

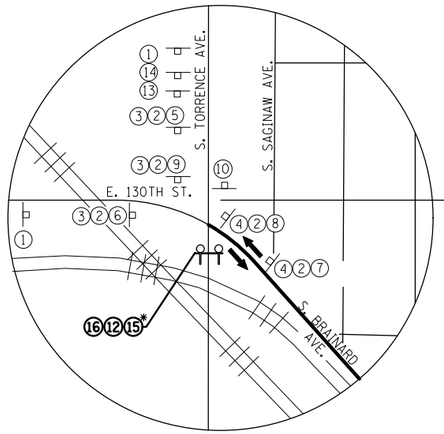
SIGNAGE LEGEND

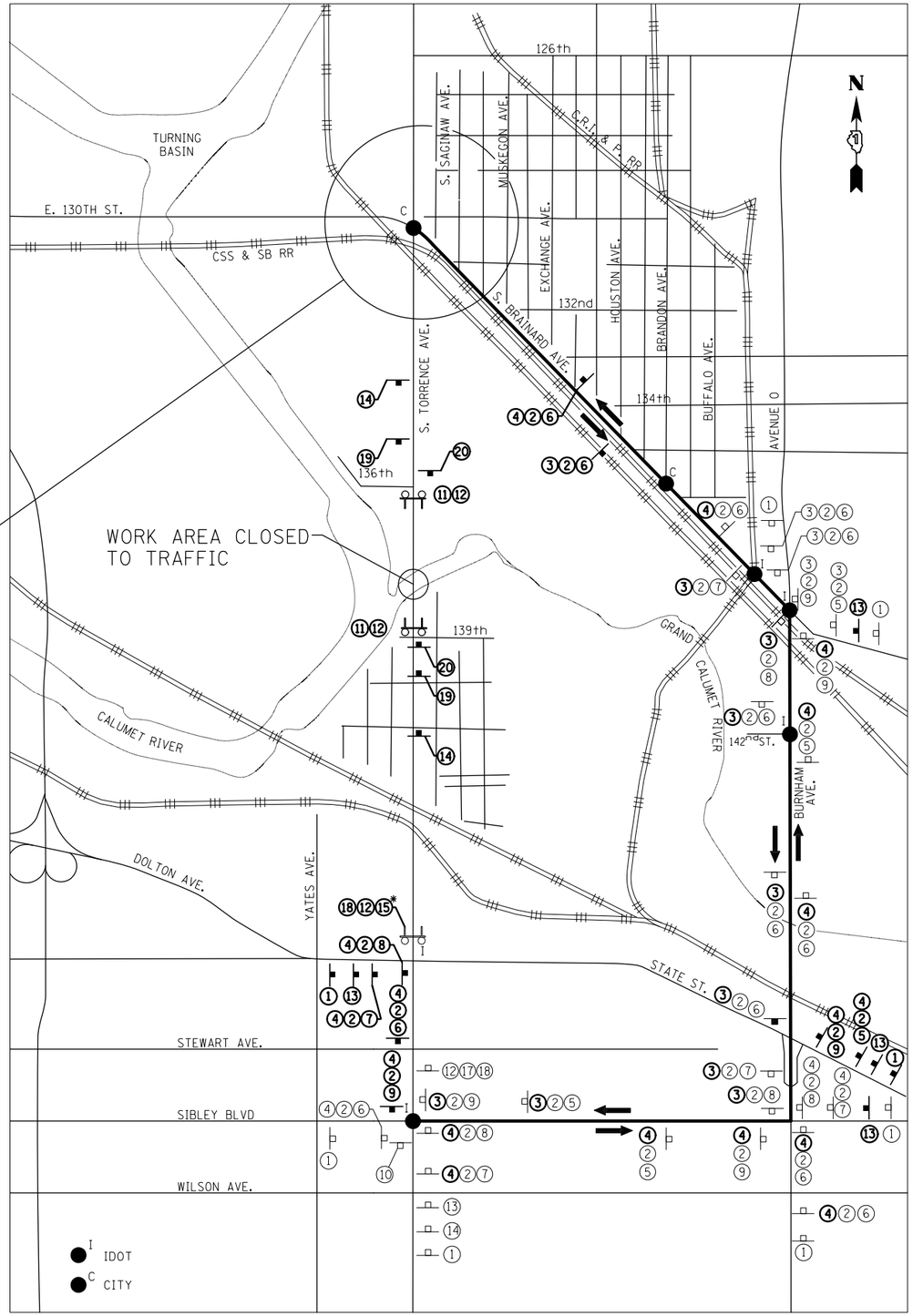
FLASHING MONO-DIRECTIONAL LIGHTS

DETOUR LEGEND

- PROPOSED DETOUR GUIDE SIGN ASSEMBLY
- EXISTING DETOUR GUIDE SIGN ASSEMBLY
- PROPOSED SIGN PLAQUE
- EXISTING SIGN PLAQUE
- TYPE III BARRICADE WITH FLASHING LIGHTS AND ROAD CLOSED SIGN
- S. TORRENCE AVE. DETOUR
- DETOUR TRAFFIC FLOW DIRECTION

* 100' STAGGER FOR TYPE III BARRICADES





DETOUR NOTES

1. THE EXISTING TRAFFIC CONTROL DEVICES ALONG THE DETOUR ROUTE HAVE BEEN PREVIOUSLY FURNISHED AND ERECTED BY THE DEPARTMENT. CONTRACTOR WILL BE REQUIRED TO INSTALL PROPOSED TRAFFIC CONTROL DEVICES SHOWN ON THIS DETOUR PLAN. THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL PROVIDE SURVEILLANCE OF THE EXISTING DETOUR (DEPARTMENT-OWNED SIGNS AND PROPOSED TRAFFIC CONTROL DEVICES SHOWN ON THIS DETOUR PLAN) IN ACCORDANCE WITH ARTICLE 701.10.
2. CDOT TRAFFIC TEL. NO 312-744-0330 MUST BE NOTIFIED IMMEDIATELY AFTER THE ROADS HAVE BEEN REOPENED.
3. THE CONTRACTOR SHALL CONTACT IDOT DISTRICT ONE TRAFFIC CONTROL SUPERVIOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
4. THE CONTRACTOR MUST MAINTAIN AND REMOVE ALL TEMPORARY SIGN SUPPORTS.
5. AFTER REMOVING THE SUPPORTS, THE CONTRACTOR MUST FILL HOLES (IF ANY) AND RESTORE THE GROUND TO ITS ORIGINAL CONDITION AND ELEVATION. THE COST OF PLACING GRAVEL, SOD OR SEED MUST BE INCLUDED IN THE UNIT BID PRICE FOR "TRAFFIC CONTROL SURVEILLANCE (SPECIAL)".
6. ALL SIGNS, SUPPORTS AND POSITIONING MUST BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
7. SIGNING SHALL BE PLACED AT LOCATIONS THAT WILL BE COMPATIBLE WITH EXISTING SIGNING.
8. ALL EXISTING SIGNS THAT CONFLICT WITH THE DETOUR MUST BE COVERED. IF THE DETOUR CONFLICTS WITH OTHER DETOUR SIGNS THEN THE CONTRACT SHALL COORDINATE SIGNAGE FOR THE DETOUR TO ELIMINATE CONFLICTING SIGNAGE.
9. DETOUR SIGNING AND SPACING SHALL FOLLOW IDOT DISTRICT ONE DETAIL TC-21.
10. CONTRACTOR SHALL COORDINATE WITH IDOT DISTRICT 1 RAILROAD UNIT IN REGARD TO ADJACENT IDOT RAILROAD SIGNAL INTERCONNECT PROJECT AT BRAINARD AVENUE AND BURNHAM AVENUE WHICH IS LOCATED ALONG THE APPROVED DETOUR ROUTE FOR THIS PROJECT.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
DETOUR PLAN

SCALE: N.T.S. | SHEET NO. 20 OF 152 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	20
		CONTRACT NO. 60R95		
	ILLINOIS	FED. AID PROJECT		

28000305 TEMPORARY DITCH CHECK

LOCATION		LENGTH (FOOT)
TORRENCE AVENUE		
19+54.50	85.25' RT	10
TOTAL		10

28000500 INLET AND PIPE PROTECTION

LOCATION		EACH
TORRENCE AVENUE		
14+09.56	20.30' LT	1
14+31.00	26.90' RT	1
14+41.45	24.29' RT	1
16+00.00	22.00' LT	1
16+00.00	22.00' RT	1
18+00.00	27.00' LT	1
18+00.00	27.00' RT	1
24+00.00	20.00' LT	1
24+00.00	20.00' RT	1
24+07.40	27.30' LT	1
24+12.00	27.20' RT	1
25+00.00	25.00' LT	1
25+00.00	25.00' RT	1
28+09.70	20.33' LT	1
28+09.70	19.83' RT	1
TOTALS		15

SCHEDULE OF EROSION CONTROL

				20101000 TEMPORARY FENCE FOOT	25100115 MULCH, METHOD 2 ACRE	28000250 TEMPORARY EROSION CONTROL SEEDING POUND	28000400 PERIMETER EROSION BARRIER FOOT	28001200 TEMPORARY HEAVY DUTY EROSION CONTROL BLANKET SQ YD
TORRENCE AVENUE								
13+70.35	TO	17+50.00	LT	40	0.09	26	395	424
14+13.00	TO	17+50.00	RT	-	0.33	100	335	1,614
17+50.00	TO	25+50.00	LT	240	0.75	225	689	3,637
17+50.00	TO	25+50.00	RT	312	0.74	225	687	3,601
25+50.00	TO	30+87.60	LT	90	0.39	117	594	1,886
25+50.00	TO	28+85.00	RT	300	0.23	69	373	1,113
TOTALS				982	2.54	763	3,073	12,276

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PLOT DATE = 6/29/2015	DATE - 6-15-2015	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
EROSION CONTROL SCHEDULE OF QUANTITIES

SCALE: | SHEET NO. 21 OF 152 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	21
		CONTRACT NO. 60R95		
	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES – EROSION AND SEDIMENT CONTROLS

1. THE WORK DESCRIBED ON THESE DRAWINGS IS AN INTEGRAL PART OF THE STORM WATER POLLUTION PREVENTION PLAN USED TO OBTAIN A NPDES PERMIT FROM THE IEPA FOR THE CONSTRUCTION OF THE PROJECT.

2. THE PURPOSE OF THE EROSION AND SEDIMENT CONTROL MEASURES INCLUDED FOR THIS PROJECT IS TO LIMIT THE SEDIMENT POLLUTION IMPACT OF ANY STORM WATER DISCHARGES THAT ORIGINATE ON THIS SITE OR OFF-SITE FLOWS THAT FLOW OVER THE DISTURBED AREAS.

3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT SEDIMENT TRANSPORT OFF THE SITE IS REDUCED BY A COMBINATION OF MINIMIZATION OF EROSION AT THE SOURCE AND INSTALLATION OF SPECIFIC MEASURES TO CONTROL OR REDUCE THE TRANSPORT OF SEDIMENT. A COPY OF THE EROSION AND SEDIMENT CONTROL PLAN, NOI, SWPPP, AND INSPECTION LOG BEING IMPLEMENTED BY THE CONTRACTOR SHALL BE ON THE CONSTRUCTION SITE AT ALL TIMES.

4. THE CONTRACTOR SHALL USE EVERY EFFORT POSSIBLE TO MINIMIZE EROSION CONTROL AT THE SOURCE. ALL FLOWS ORIGINATING OFF THE CONSTRUCTION SITE SHALL BE DIVERTED AROUND DISTURBED AREAS OR SHALL BE CONVEYED THROUGH THE SITE IN A MANNER THAT UNTREATED ON-SITE RUNOFF, SHALL BE MINIMIZED AND DOES NOT MIX WITH THE OFF-SITE RUNOFF.

5. ALL PERMANENT STORM WATER CONTROL MEASURES AND RUNOFF CONTROL MEASURES REQUIRED TO KEEP OFF-SITE RUNOFF FROM FLOWING OVER THE CONSTRUCTION AREA SHALL BE INSTALLED BEFORE CLEARING AND STRIPPING OF THE SITE PROCEEDS. PRIOR TO PROCEEDING WITH GENERAL EARTHWORK ON A PROJECT THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER OF HIS PROPOSED EARTHWORK AND STABILIZATION SCHEDULE.

6. EXCEPT AS PROVIDED BELOW IN 6A AND 6B, STABILIZATION MEASURES SHALL BE INITIATED IMMEDIATELY WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN ONE (1) DAY AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASES ON ALL DISTURBED PORTIONS OF THERE SITE WHERE CONSTRUCTION WILL NOT OCCUE FOR A PERIOD OR FOURTEEN (14) OR MORE CALENDER DAYS.

   A. WHERE THE INITIATION OF STABILIZATION MEASURES IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.

   B. ON AREAS WHERE CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED AND WILL RESUME AFTER FOURTEEN (14) DAYS, A TEMPORARY STABILIZATION METHOD CAN BE USED.

7. STABILIZATION OF CUT OR FILL SLOPES WITH TEMPORARY OR PERMANENT EROSION CONTROL MEASURES IS REQUIRED WHENEVER THE CUT OR FILL ACTIVITY REACHES 15 FEET VERTICALLY OR THE FINISHED SLOPE EQUALS 50 FEET, WHICHEVER IS MORE RESTRICTIVE. ONCE THE STABILIZATION MEASURES ARE INSTALLED, THE PLACEMENT OF FILL OR EXCAVATION ACTIVITIES ARE ALLOWED TO PROCEED.

8. THE CONTRACTOR SHALL DESIGNATE ONE OF HIS EMPLOYEES AS EROSION AND SEDIMENT CONTROL MANAGER. THIS PERSON WILL BE RESPONSIBLE FOR IMPLEMENTATION OF THE EROSION AND SEDIMENT CONTROL PLAN ON ALL DISTURBED AREAS. THIS PERSON SHALL POSSESS THE NECESSARY TRAINING AND CERTIFICATION ON EROSION AND SEDIMENT CONTROL MEASURES FOR ACCEPTANCE. THIS EMPLOYEE IS TO HAVE THE AUTHORITY TO CARRY OUT THE IMPLEMENTATION OF ANY INSTRUCTIONS CONCERNING THE EROSION AND SEDIMENT CONTROL PLAN GIVEN BY THE ENGINEER. ALL MEASURES WILL BE INSPECTED BY THIS INDIVIDUAL AND THE ENGINEER ON A REGULAR BASIS AT LEAST ONCE EVERY 7 DAYS AND AFTER EACH RAINFALL, 0.5 INCHES OR GREATER IN A 24 HOUR PERIOD, OR EQUIVALENT SNOWFALL. ADDITIONALLY DURING WINTER MONTHS, ALL MEASURES SHOULD BE CHECKED BY THE CONTRACTOR AFTER EACH SIGNIFICANT SNOWMELT.

9. SEDIMENT TRAPS, SEDIMENT BASINS, DITCHES, SILT FENCES, FENCES, STONE OUTLET STRUCTURES, EARTH BERMS, ETC. SHALL BE MAINTAINED DURING THE CONSTRUCTION SEASON AS WELL AS THE WINTER MONTHS AND OTHER TIMES WHEN THE PROJECT IS CLOSED DOWN. TRAPS WILL BE CLEANED WHEN THEY ARE 50% FILLED. SILT FENCE AND STONE OUTLET STRUCTURES SHALL HAVE SEDIMENT REMOVED WHEN IT REACHES 50% THE HEIGHT OF THE CONTROL DEVICE. THESE SPOILS WILL BE REMOVED TO AN APPROVED SITE.

10. SALVAGED TOPSOIL SHALL BE PLACED IN AN AREA OF THE SITE THAT WILL NOT BLOCK EXISTING DRAINAGE PATHS AND AWAY FROM THE RIVER AND EXISTING WETLANDS. SALVAGED TOPSOIL SHALL BE STABILIZED WITH STRAW MULCH IMMEDIATELY AFTER SHAPING OF THE PILE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. SILT FENCE SHALL BE PROVIDED AT THE PERIMETER OF THE STOCKPILE.

11. MATERIALS EXCAVATED FOR THE CONSTRUCTION OR CLEAN OUT OF SEDIMENT TRAPS SHALL BE NOT STOCKPILED IN THE VICINITY OF THE TRAP TO BLOCK RUNOFF FROM DRAINING INTO THE SEDIMENT TRAP. THESE MATERIALS SHALL BE WASTED AS DIRECTED BY THE ENGINEER. THESE MATERIALS SHALL NOT BE PLACED IN EMBANKMENTS.

12. EXCAVATION TO BE USED FOR EMBANKMENTS SHALL NOT BE STOCKPILED UNLESS PERIMETER CONTROLS ARE UTILIZED. WHEN THIS MATERIAL IS STOCKPILED FOR THE CONVENIENCE OF THE CONTRACTOR THE COST OF PROVIDING THE CONTROLS ARE THE RESPONSIBILITY OF THE CONTRACTOR.

13. SEDIMENT LADEN DEWATERING DISCHARGE MUST BE DIRECTED TO AN APPROVED SEDIMENT TRAPPING MEASURE PRIOR TO RELEASE FROM THE SITE.

14. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSIDERED TEMPORARY. THESE MEASURES WILL BE REMOVED BY THE CONTRACTOR AS DESIGNATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. DISTURBED AREAS ARE TO BE RESTORED IMMEDIATELY UPON REMOVAL.

15. WHEN THE CONTRACTOR REQUESTS A CHANGE TO POSTPONE COMPLETION OF THE EXCAVATION OF A SPECIFIC AREA AS A CONTINUOUS OPERATION AND PLACING THE TOPSOIL AS DEFINED IN THE STANDARD SPECIFICATIONS, THE ENGINEER MAY ALLOW THE CONTRACTOR TO STABILIZE THE AREA USING TEMPORARY STABILIZATION WITH STRAW MULCH PROVIDING THE FOLLOWING CONDITIONS ARE MET:

   A. ALL AREAS BEING STABILIZED ARE 1:3 (V:H) SLOPES OR FLATTER.

   B. THE COST OF PREPARING THE SEED BED AND STABILIZING THE AREA WITH TEMPORARY STABILIZATION WITH STRAW MULCH IS THE RESPONSIBILITY OF THE CONTRACTOR.

   C. ALL REQUIRED SEDIMENT CONTROL MEASURES FOR THE SECTION OF ROAD IN QUESTION HAVE BEEN INSTALLED AND ARE BEING MAINTAINED.

16. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL THE PROPOSED CONCRETE TRUCK WASHOUT LOCATIONS. RUNOFF FROM WASH AREAS SHALL BE CONTAINED IN DESIGNATED AREAS SO THAT RUNOFF DOES NOT REACH THE STORM SEWER, DITCH SYSTEMS OR BODIES OF WATER. WASHOUT WATER TO BE TAKEN TO AN APPROVED DISCHARGE LOCATION.

17. ALL SLOPES ARE EXPRESSED AS UNITS OF VERTICAL DISPLACEMENT TO UNITS OF HORIZONTAL DISPLACEMENT (V:H).

18. ALL ESC MEASURES WILL BE MAINTAINED IN ACCORDANCE WITH THE IDOT EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONSTRUCTION INSPECTION AND IDOT'S BEST MANAGEMENT PRACTICES - MAINTENANCE GUIDE: (http://www.idot.illinois.gov/transportation-system/environment/erosion-and-sediment-control)

19. THE CONTRACTOR WILL ASSUME RESPONSIBILITY FOR MAINTENANCE OF ALL SOIL EROSION CONTROL DURING CONSTRUCTION.

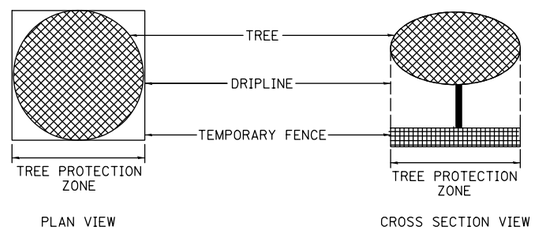
20. THE CONTRACTOR SHOULD PROVIDE TO THE ENGINEER A PLAN TO ENSURE THAT A STABILIZE FLOW LINE WILL BE PROVIDED DURING STORM SEWER CONSTRUCTION. THE USE OF A STABILIZED FLOW LINE BETWEEN INSTALLED STORM SEWER AND OPEN DISTURBANCE WILL REDUCE THE POTENTIAL FOR THE OFFSITE DISCHARGE OF SEDIMENT-BEARING WATERS, ESPECIALLY WHEN RAIN IS FORECASTED, SO THAT FLOW WILL NOT ERODE. LACK OF APPROVED PLAN OR FAILURE TO COMPLY WILL RESULT IN AN ESC DEFICIENCY DEDUCTION PER ARTICLE 105.03 OF THE STANDARD SPECIFICATIONS.

21. ANY LOOSE MATERIAL DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES, WHICH OBSTRUCTS THE NATURAL FLOW OF WATER, SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. PRIOR TO ACCEPTANCE OF THE IMPROVEMENT, ALL DRAINAGE STRUCTURES SHALL BE FREE OF DIRT AND DEBRIS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THIS WORK.

22. PERMANENT STABILIZATION SHALL BE INITIATED IMMEDIATELY UPON COMPLETION OF DISTURBANCE. IF THE WORK AREA IS TO BE LEFT UNDISTURBED FOR 14 DAYS OR MORE THEN TEMPORARY STABILIZATION SHALL BE INSTALLED.

23. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR PROLONG FINAL GRADING AND SHAPING SO THAT THE ENTIRE PROJECT CAN BE PERMANENTLY SEEDED AT ONE TIME.

24. EROSION CONTROL ITEMS ARE CONSIDERED TO BE A HIGH PRIORITY ON THIS CONTRACT. THE ENGINEER WILL IMPLEMENT ALL PROVISIONS OF THE SPECIFICATION NECESSARY TO ASSURE THAT EROSION CONTROL ITEMS ARE CONSTRUCTED AND MAINTAINED IN A TIMELY WAY. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES WHICH WILL POTENTIALLY CREATE ERODIBLE CONDITIONS. CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE ENGINEER.



TEMPORARY FENCE TREE PROTECTION DETAIL

N.T.S.

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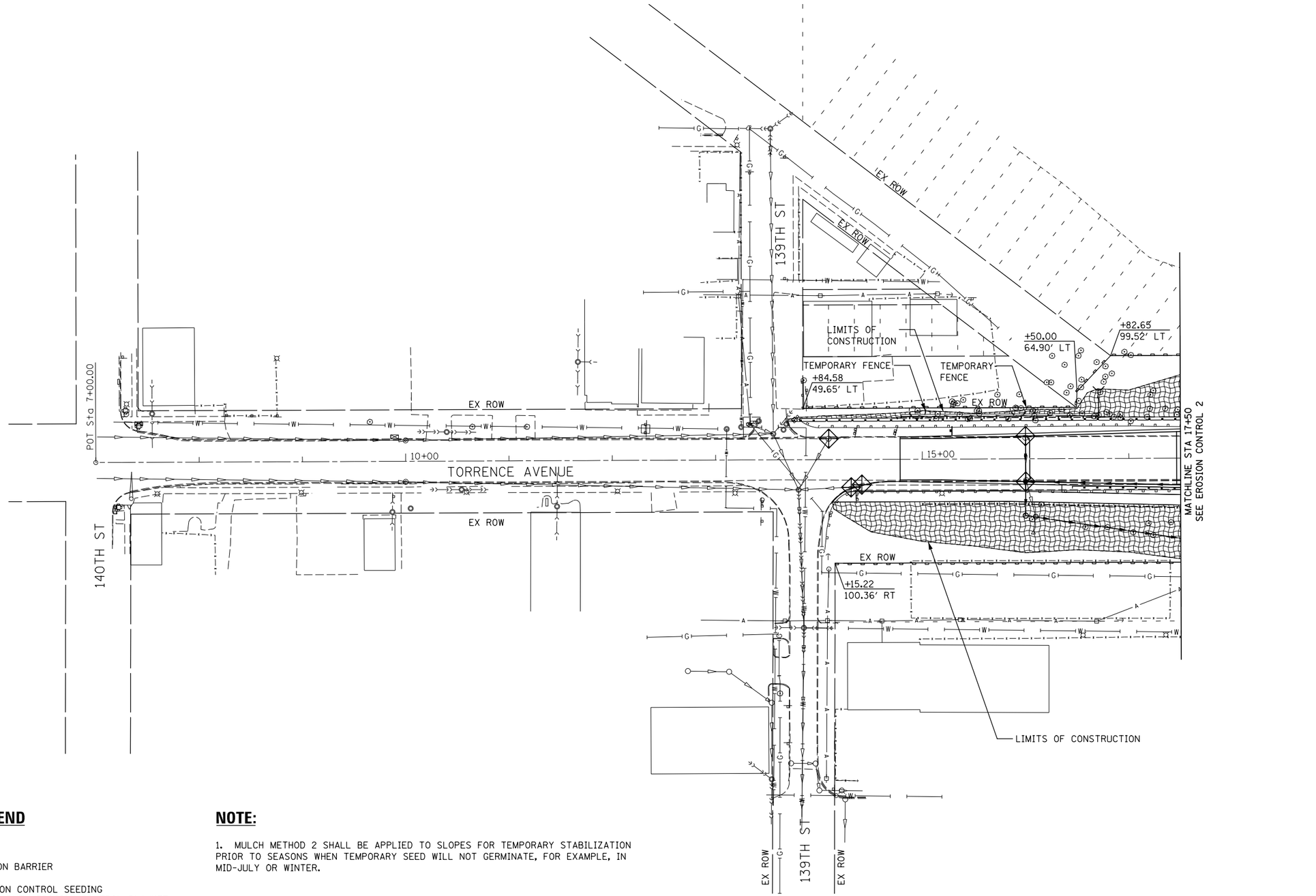
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
EROSION GENERAL NOTES

SCALE: | SHEET NO. 22 OF 152 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	22
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			



EROSION CONTROL LEGEND

- TEMPORARY FENCE
- PERIMETER EROSION BARRIER
- TEMPORARY EROSION CONTROL SEEDING
  TEMPORARY HEAVY DUTY EROSION CONTROL BLANKET
  MULCH, METHOD 2
- INLET AND PIPE PROTECTION
- TEMPORARY DITCH CHECK

NOTE:

1. MULCH METHOD 2 SHALL BE APPLIED TO SLOPES FOR TEMPORARY STABILIZATION PRIOR TO SEASONS WHEN TEMPORARY SEED WILL NOT GERMINATE, FOR EXAMPLE, IN MID-JULY OR WINTER.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
EROSION CONTROL 1

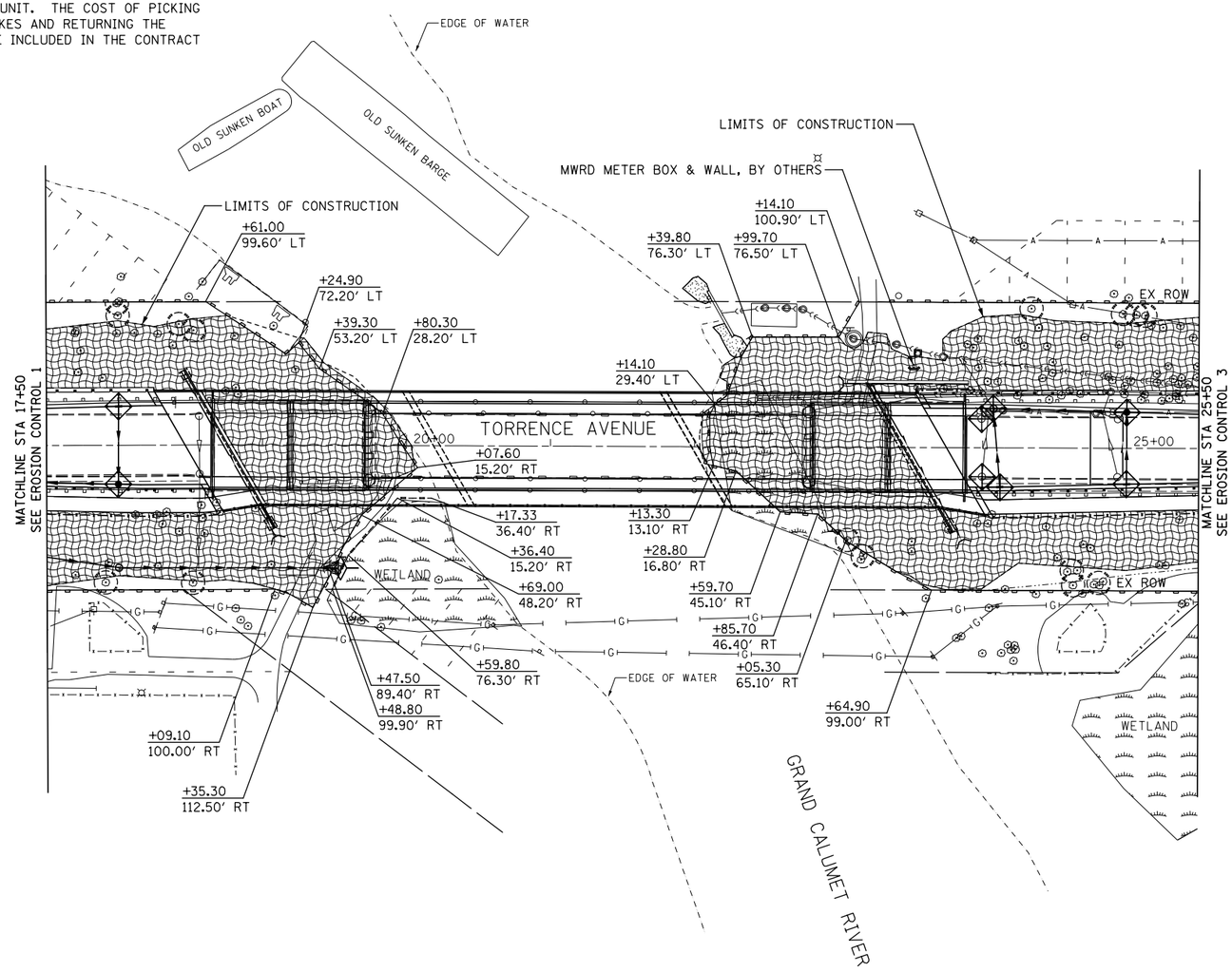
SCALE: 1" = 50' | SHEET NO. 23 OF 152 SHEETS | STA. 7+00.00 TO STA. 17+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	23
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			

NOTES:

1. MULCH METHOD 2 SHALL BE APPLIED TO SLOPES FOR TEMPORARY STABILIZATION PRIOR TO SEASONS WHEN TEMPORARY SEED WILL NOT GERMINATE, FOR EXAMPLE, IN MID-JULY OR WINTER.

2. "PROTECTED WETLANDS NO INTRUSION" SIGNAGE SHOULD BE PROVIDED AT THE BOUNDARY OF ALL UN-IMPACTED WETLANDS AND SHALL BE CONNECTED TO THE STAKES BY A METHOD APPROVED BY THE ENGINEER. THE SIGNS SHALL BE PROVIDED BY THE DEPARTMENT AND SHALL BE PICKED UP BY THE CONTRACTOR FROM THE DISTRICT ONE DEVELOPMENT ARCHITECT IN SCHAUMBURG, ILLINOIS. SCHEDULING THE PICKUP OF THE SIGNS CAN BE ARRANGED BY CONTACTING THE DISTRICT ONE ROADSIDE DEVELOPMENT UNIT AT (847) 705-4171. WHEN WORK HAS BEEN COMPLETED, THE SIGN SHALL BE RETURNED TO THE DISTRICT ONE ROADSIDE DEVELOPMENT UNIT. THE COST OF PICKING UP, ATTACHING THE SIGNS TO THE TEMPORARY FENCE STAKES AND RETURNING THE SIGNS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR TEMPORARY FENCE.



EROSION CONTROL LEGEND

- TEMPORARY FENCE
- PERIMETER EROSION BARRIER
- TEMPORARY EROSION CONTROL SEEDING
  TEMPORARY HEAVY DUTY EROSION CONTROL BLANKET
  MULCH, METHOD 2
- INLET AND PIPE PROTECTION
- TEMPORARY DITCH CHECK

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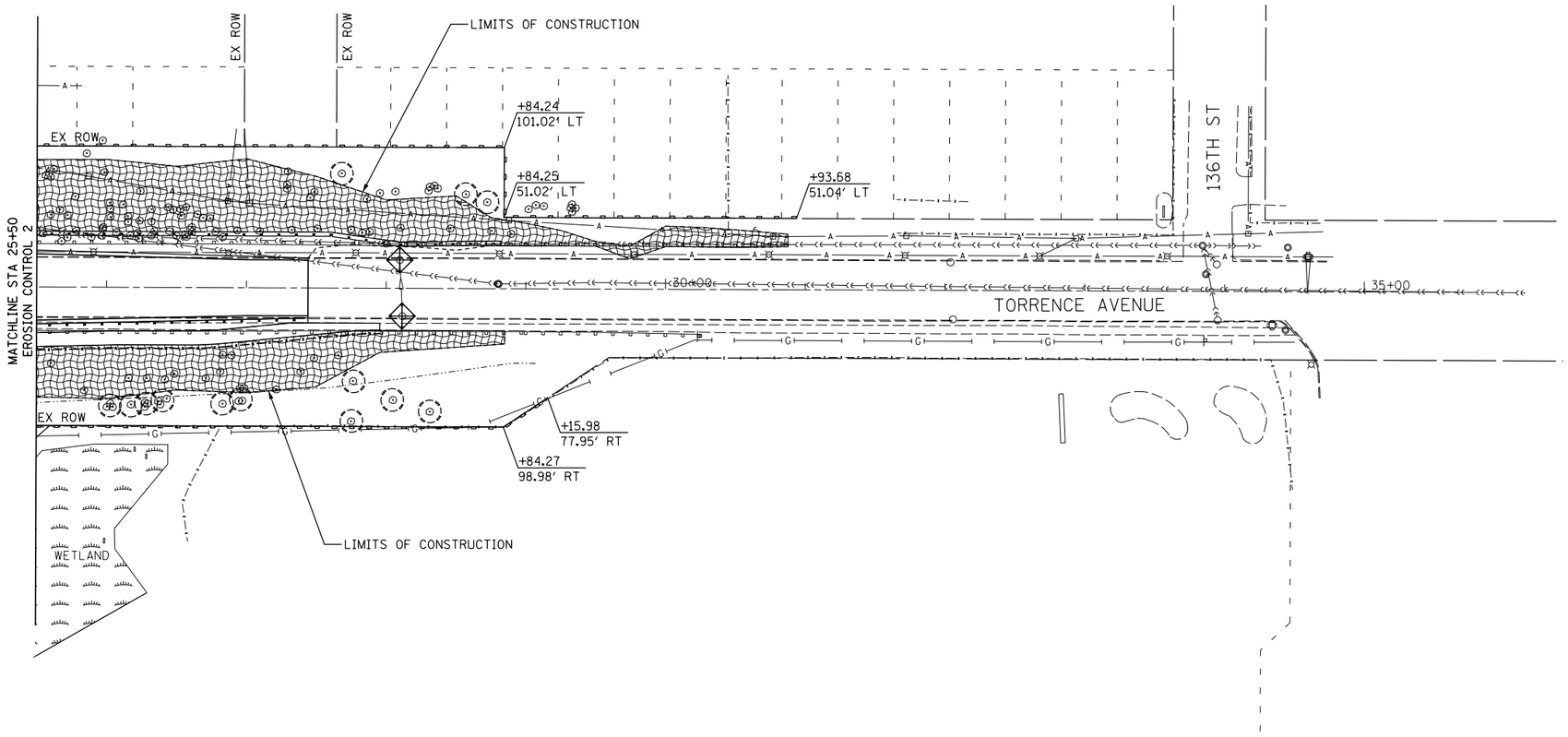
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
EROSION CONTROL 2

SCALE: 1" = 50' | SHEET NO. 24 OF 152 SHEETS | STA. 17+50.00 TO STA. 25+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	24
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			



EROSION CONTROL LEGEND

- TEMPORARY FENCE
- PERIMETER EROSION BARRIER
- TEMPORARY EROSION CONTROL SEEDING
  TEMPORARY HEAVY DUTY EROSION CONTROL BLANKET
  MULCH, METHOD 2
- INLET AND PIPE PROTECTION
- TEMPORARY DITCH CHECK

NOTE:

1. MULCH METHOD 2 SHALL BE APPLIED TO SLOPES FOR TEMPORARY STABILIZATION PRIOR TO SEASONS WHEN TEMPORARY SEED WILL NOT GERMINATE, FOR EXAMPLE, IN MID-JULY OR WINTER.

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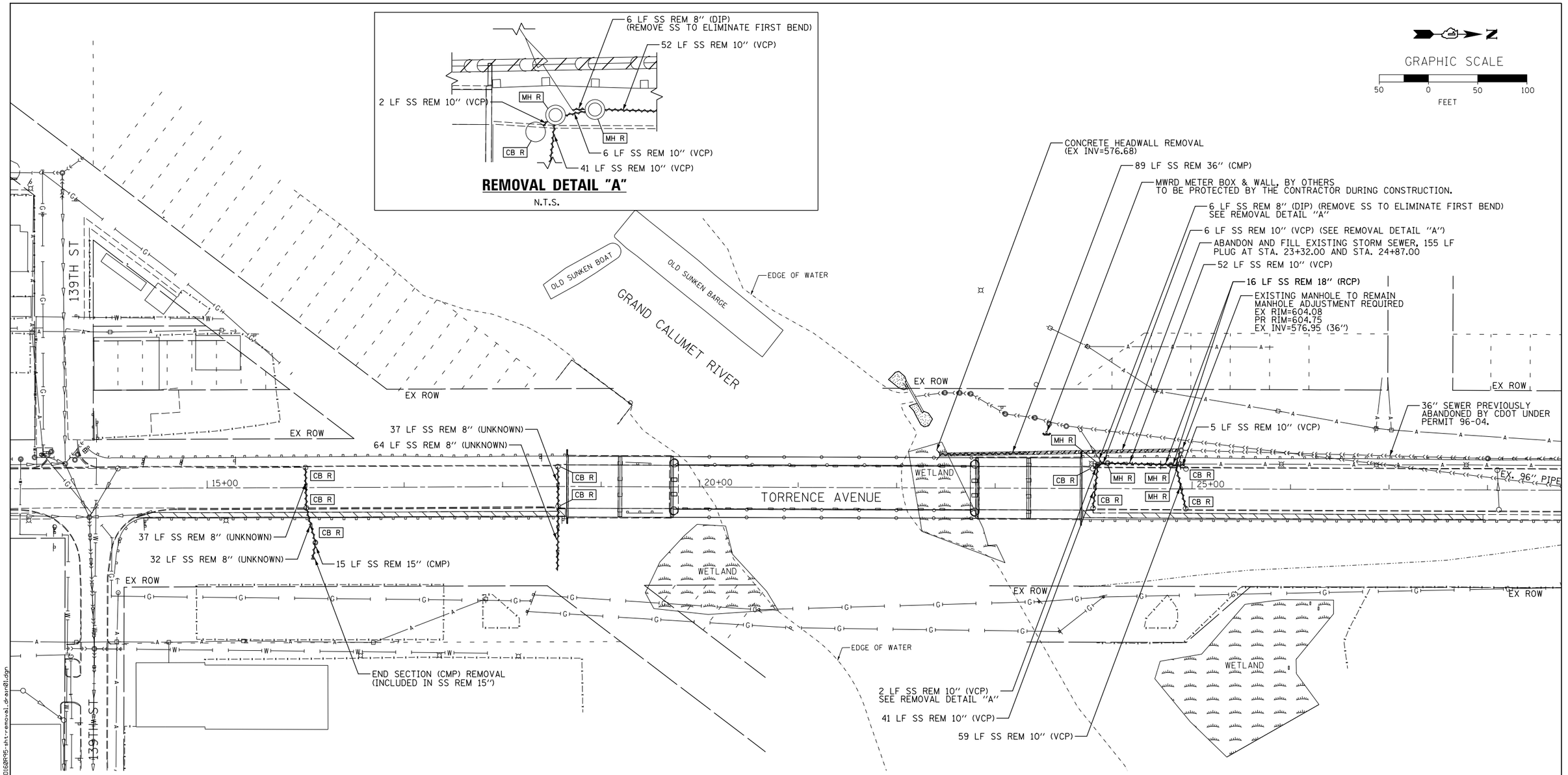
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
EROSION CONTROL 3

SCALE: 1" = 50' | SHEET NO. 25 OF 152 SHEETS | STA. 25+50.00 TO STA. 35+70.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	25
		CONTRACT NO. 60R95		
	ILLINOIS	FED. AID PROJECT		



SCHEDULE OF DRAINAGE REMOVALS

	50104400 CONCRETE HEADWALL REMOVAL EACH	55100300 STORM SEWER REMOVAL 8" FOOT	55100400 STORM SEWER REMOVAL 10" FOOT	55100700 STORM SEWER REMOVAL 15" FOOT	55100900 STORM SEWER REMOVAL 18" FOOT	55101600 STORM SEWER REMOVAL 36" FOOT	60255500 MANHOLES TO BE ADJUSTED EACH	60500040 REMOVING MANHOLES EACH	60500050 REMOVING CATCH BASINS EACH	X5509900 ABANDON AND FILL EXISTING STORM SEWER FOOT
TORRENCE AVENUE										
13+70.35 TO 28+85.00	1	176	165	15	16	89	1	4	9	155
TOTALS	1	176	165	15	16	89	1	4	9	155

DRAINAGE REMOVAL LEGEND

~~	STORM SEWER REMOVAL
/ / / / / / /	ABANDON AND FILL EXISTING STORM SEWER
R	STRUCTURE TO BE REMOVED
REM	REMOVAL
SS	STORM SEWER
VCP	VITRIFIED CLAY PIPE
CMP	CORREGATED METAL PIPE
RCP	REINFORCED CONCRETE PIPE
DIP	DUCTILE IRON PIPE

EXISTING UTILITIES LEGEND

- EXISTING UNDERGROUND COMBINED SEWER
- EXISTING UNDERGROUND STORM SEWER
- EXISTING UNDERGROUND SANITARY SEWER
- EXISTING UNDERGROUND GAS MAIN
- EXISTING UNDERGROUND WATER MAIN
- EXISTING AERIAL LINE

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
DRAINAGE REMOVAL PLAN

SCALE: 1" = 50' | SHEET NO. 26 OF 152 SHEETS | STA. 13+00.00 TO STA. 28+75.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	26
		CONTRACT NO. 60R95		
		ILLINOIS	FED. AID PROJECT	

DRAINAGE & UTILITIES SHEETS 1, 2 AND 3

STRUCTURE NUMBER	STATION	OFFSET	STRUCTURE TYPE	FRAME & GRATE	RIM ELEVATION	INVERT ELEVATIONS								
						NORTH	NORTHEAST	EAST	SOUTHEAST	SOUTH	SOUTHWEST	WEST	NORTHWEST	UNDERDRAIN
1-01	16+00.00	22.0′ LT	INLET, TYPE A	TYPE 24 FRAME AND GRATE	599.58			595.26						597.58
1-02	16+00.00	22.0′ RT	CB, TYPE A, 4′-DIAMETER	TYPE 24 FRAME AND GRATE	599.58	594.78		592.20				594.42		597.58
1-03	16+00.00	55.0′ RT	MH, TYPE A, 4′-DIAMETER	TYPE 1 FRAME, CLOSED LID	596.10	587.18						591.62		
1-04	18+00.00	85.0′ RT	MH, TYPE A, 4′-DIAMETER	TYPE 1 FRAME, CLOSED LID	588.10	582.22				583.22				
1-05	19+75.00	85.0′ RT	PRC FES 12	-	-	581.40								
1-06	18+00.00	27.0′ LT	INLET, TYPE A	TYPE 24 FRAME AND GRATE	605.25			600.93						
1-07	18+00.00	27.0′ RT	CB, TYPE A, 4′-DIAMETER	TYPE 24 FRAME AND GRATE	605.25					600.41		600.41		
2-01	25+00.00	25.0′ RT	INLET, TYPE A	TYPE 24 FRAME AND GRATE	604.46							600.55		
2-02	25+00.00	25.0′ LT	CB, TYPE A, 4′-DIAMETER	TYPE 24 FRAME AND GRATE	604.46			600.34		600.34				600.34
2-03	24+07.40	27.3′ LT	MH, TYPE A, 4′-DIAMETER	TYPE 24 FRAME AND GRATE	606.39	599.95		601.53			EX. 599.95 ••			
2-04	24+12.00	27.2′ RT	INLET, TYPE A	TYPE 24 FRAME AND GRATE	606.32							602.05		
HW-1	16+70.90	58.3′ LT	CONCRETE HEADWALL FOR PIPE DRAINS	-	-							590.00		
HW-2	19+11.00	66.8′ RT	CONCRETE HEADWALL FOR PIPE DRAINS	-	-		595.80							
HW-3	23+87.30	67.4′ RT	CONCRETE HEADWALL FOR PIPE DRAINS	-	-		596.65							
HW-4	23+00.00	44.2′ LT	CONCRETE HEADWALL FOR PIPE DRAINS	-	-					591.87				

•• VERIFY INVERT ELEVATION OF EXISTING 8″ PIPE PRIOR TO ORDERING MANHOLE STRUCTURE.

DRAINAGE & UTILITIES SHEETS 1, 2 AND 3

PIPE NUMBER	STRUCTURE FROM	STRUCTURE TO	DESCRIPTION	CLASS	TYPE	SIZE (IN)	LENGTH (FT)	SLOPE (%)	TRENCH BACKFILL (CU YD)
1-01	1-01	1-02	STORM SEWERS	A	2	12	42	2.00	10
1-02	1-02	1-03	STORM SEWERS	A	2	12	29	2.00	22
1-03	1-03	1-04	STORM SEWERS	A	2	12	198	2.00	-
1-04	1-04	1-05	STORM SEWERS	A	2	12	136	0.60	-
1-05	1-06	1-07	STORM SEWERS	A	2	12	52	1.00	12
1-06	1-07	1-02	STORM SEWERS	A	2	12	196	2.87	48
2-01	2-01	2-02	STORM SEWERS	A	1	12	47	0.44	8
2-02	2-02	2-03	STORM SEWERS	A	2	12	89	0.44	26
2-03	2-04	2-03	STORM SEWERS	A	2	12	52	1.00	12

DRAINAGE & UTILITIES SHEETS 1, 2 AND 3

PIPE NUMBER	DESCRIPTION	LENGTH (FT)
UD-1	PIPE UNDERDRAINS FOR STRUCTURES 4″	•
UD-2	PIPE UNDERDRAINS 4″	24
UD-3	PIPE UNDERDRAINS 4″	23
UD-4	PIPE UNDERDRAINS FOR STRUCTURES 4″	••
UD-5	PIPE UNDERDRAINS FOR STRUCTURES 4″	••
UD-6	PIPE UNDERDRAINS FOR STRUCTURES 4″	••
UD-7	PIPE UNDERDRAINS 4″	47

• SEE RETAINING WALL PLANS.
•• SEE BRIDGE PLANS.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
DRAINAGE AND UTILITIES TABLES

SCALE: | SHEET NO. 27 OF 152 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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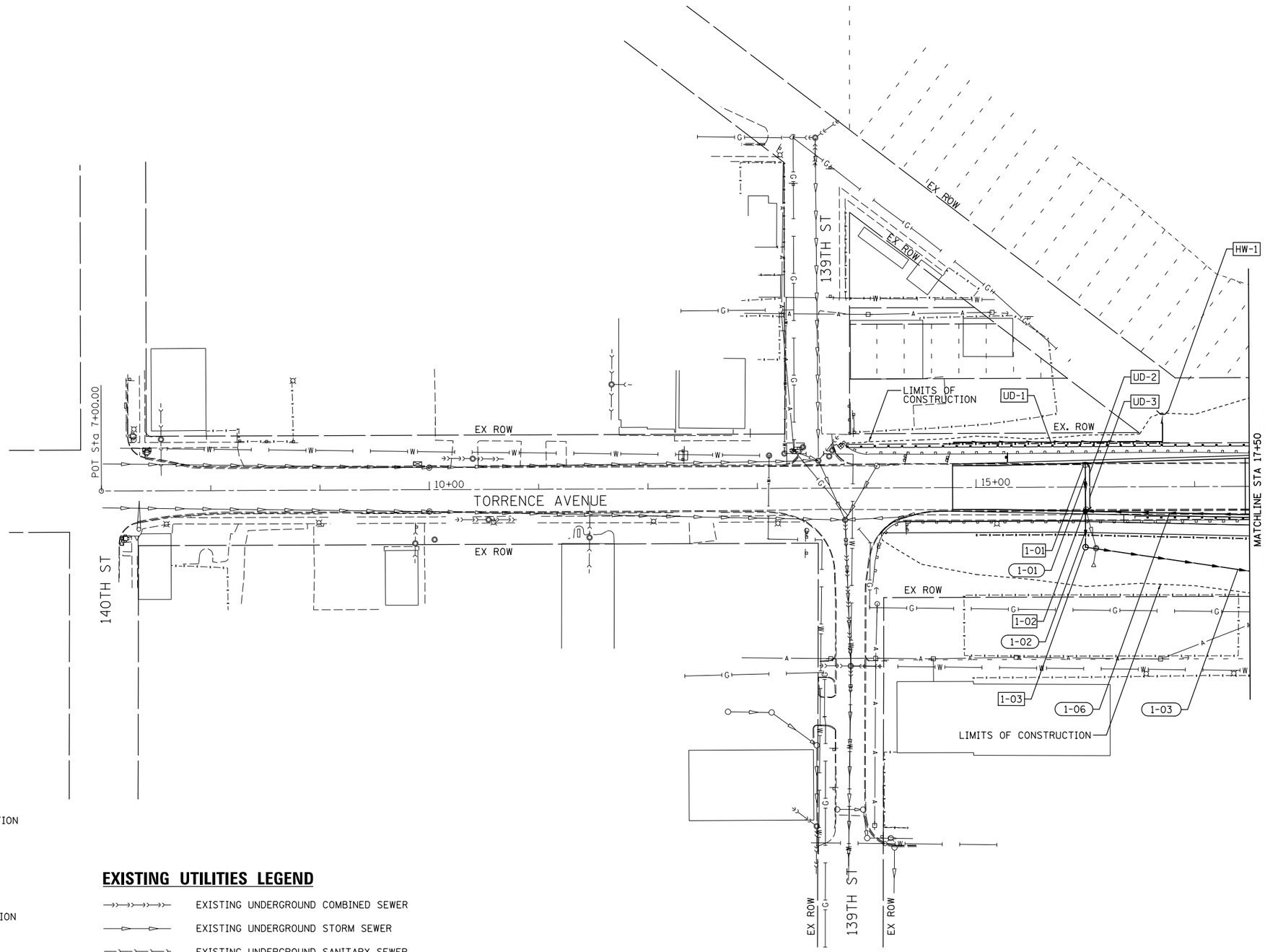
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			



DRAINAGE LEGEND

- EXISTING STORM SEWER
- EXISTING DITCH
- EXISTING CATCH BASIN
- EXISTING INLET
- EXISTING MANHOLE
- EXISTING FLARED END SECTION
- PROPOSED STORM SEWER
- PROPOSED INLET
- PROPOSED MANHOLE
- PROPOSED FLARE END SECTION
- PROPOSED CATCH BASIN
- X-XX — PROPOSED STORM SEWER PIPE NUMBER
- X-XX — PROPOSED DRAINAGE STRUCTURE NUMBER

SEE DRAINAGE SCHEDULE LOCATED ON "DRAINAGE AND UTILITIES TABLES" SHEET.

EXISTING UTILITIES LEGEND

- EXISTING UNDERGROUND COMBINED SEWER
- EXISTING UNDERGROUND STORM SEWER
- EXISTING UNDERGROUND SANITARY SEWER
- G — EXISTING UNDERGROUND GAS MAIN
- W — EXISTING UNDERGROUND WATER MAIN
- A — EXISTING AERIAL LINE

NOTE:

1. SEE STRUCTURAL PLANS FOR RETAINING WALL UNDERDRAIN DETAILS.

GRAPHIC SCALE
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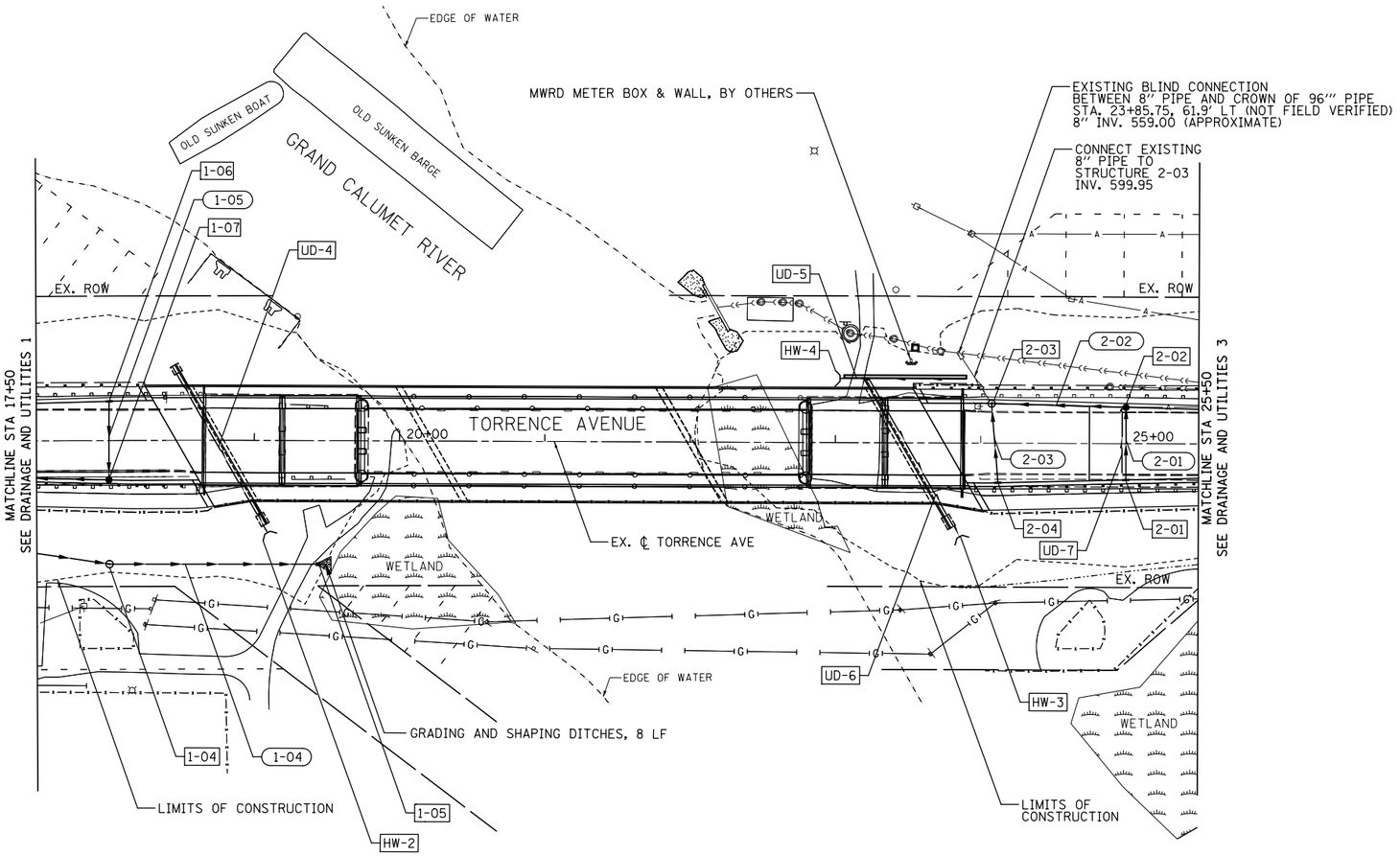
	DRAWN - SMS	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - DGW	REVISED -
PLOT DATE = 6/29/2015	DATE - 6-15-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
DRAINAGE AND UTILITIES 1

SCALE: 1" = 50' | SHEET NO. 28 OF 152 SHEETS | STA. 7+00.00 TO STA. 17+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	28
		CONTRACT NO. 60R95		
		ILLINOIS FED. AID PROJECT		



DRAINAGE LEGEND

- EXISTING STORM SEWER
- EXISTING DITCH
- EXISTING CATCH BASIN
- EXISTING INLET
- EXISTING MANHOLE
- EXISTING FLARED END SECTION
- PROPOSED STORM SEWER
- PROPOSED INLET
- PROPOSED MANHOLE
- PROPOSED FLARE END SECTION
- PROPOSED CATCH BASIN
- PROPOSED RIPRAP
- (X-XX) PROPOSED STORM SEWER PIPE NUMBER
- [X-XX] PROPOSED DRAINAGE STRUCTURE NUMBER
- SEE DRAINAGE SCHEDULE LOCATED ON "DRAINAGE AND UTILITIES TABLES" SHEET.

EXISTING UTILITIES LEGEND

- EXISTING UNDERGROUND COMBINED SEWER
- EXISTING UNDERGROUND SANITARY SEWER
- G EXISTING UNDERGROUND GAS MAIN
- W EXISTING UNDERGROUND WATER MAIN
- A EXISTING AERIAL LINE

NOTE:

1. SEE STRUCTURAL PLANS FOR BRIDGE ABUTMENT AND RETAINING WALL UNDERDRAIN DETAILS.

GRAPHIC SCALE
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
DRAINAGE AND UTILITIES 2

SCALE: 1" = 50' | SHEET NO. 29 OF 152 SHEETS | STA. 17+50.00 TO STA. 25+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	29
		CONTRACT NO. 60R95		
	ILLINOIS	FED. AID PROJECT		

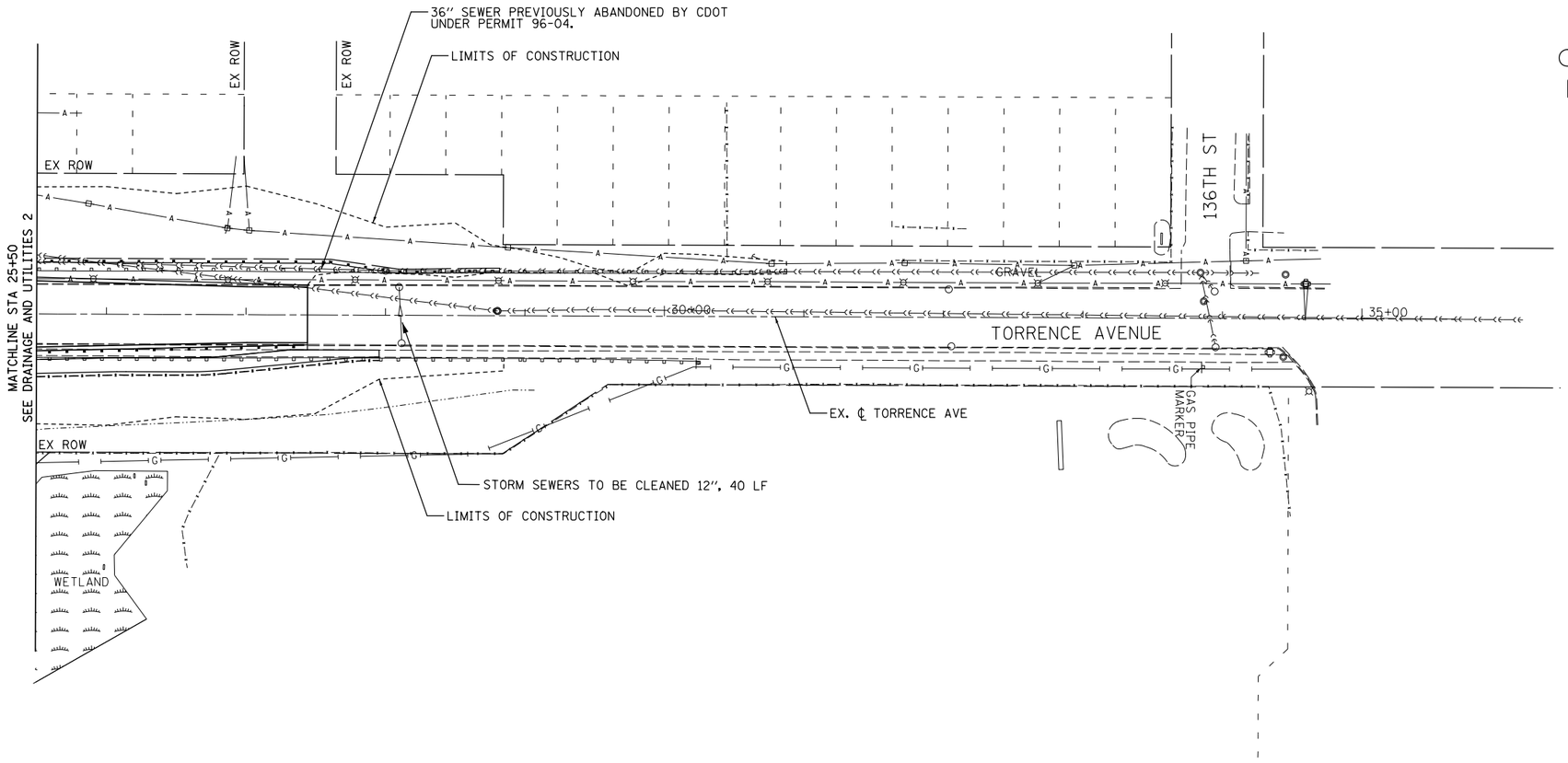
EXISTING UTILITIES LEGEND

- EXISTING UNDERGROUND COMBINED SEWER
- EXISTING UNDERGROUND SANITARY SEWER
- EXISTING UNDERGROUND GAS MAIN
- EXISTING UNDERGROUND WATER MAIN
- EXISTING AERIAL LINE

DRAINAGE LEGEND

- EXISTING STORM SEWER
- EXISTING DITCH
- EXISTING CATCH BASIN
- EXISTING INLET
- EXISTING MANHOLE
- EXISTING FLARED END SECTION
- PROPOSED STORM SEWER
- PROPOSED INLET
- PROPOSED MANHOLE
- PROPOSED FLARE END SECTION
- PROPOSED CATCH BASIN
- (X-XX) PROPOSED STORM SEWER PIPE NUMBER
- [X-XX] PROPOSED DRAINAGE STRUCTURE NUMBER

SEE DRAINAGE SCHEDULE LOCATED ON "DRAINAGE AND UTILITIES TABLES" SHEET.



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
DRAINAGE AND UTILITIES 3

SCALE: 1" = 50' | SHEET NO. 30 OF 152 SHEETS | STA. 25+50.00 TO STA. 35+70.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	30
		CONTRACT NO. 60R95		
		ILLINOIS FED. AID PROJECT		

PLAN
NOTE BOOK
NO.
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
BY
DATE

PROFILE
NOTE BOOK
NO.
SURVEYED
PLOTTED
GRADES CHECKED
B.M. NOTED
STRUCTURE NOTAT'NS CH'KD
BY
DATE

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PLOT DATE = 6/29/2015	DATE - 6-15-15	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
DRAINAGE PROFILE

SCALE: 1" = 50' | SHEET NO. 31 OF 152 SHEETS | STA. 14+00.00 TO STA. 29+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	31

CONTRACT NO. 60R95

ILLINOIS FED. AID PROJECT

SCHEDULE OF LANDSCAPING

				25000210 SEEDING, CLASS 2A ACRE	25000314 SEEDING, CLASS 4B ACRE	X2510635 HEAVY DUTY EROSION CONTROL BLANKET (SPECIAL) SQ YD	X2501700 SEEDING, CLASS 3 (MODIFIED) ACRE
TORRENCE AVENUE							
13+70.35	TO	17+50.00	LT	0.12	-	357	0.07
14+13.00	TO	17+50.00	RT	0.09	-	1,466	0.30
17+50.00	TO	25+50.00	LT	0.07	0.11	3,134	0.54
17+50.00	TO	25+50.00	RT	0.04	0.12	2,985	0.50
25+50.00	TO	30+87.60	LT	0.19	-	1,255	0.26
25+50.00	TO	28+85.00	RT	0.07	-	896	0.19
TOTALS				0.58	0.23	10,093	1.86

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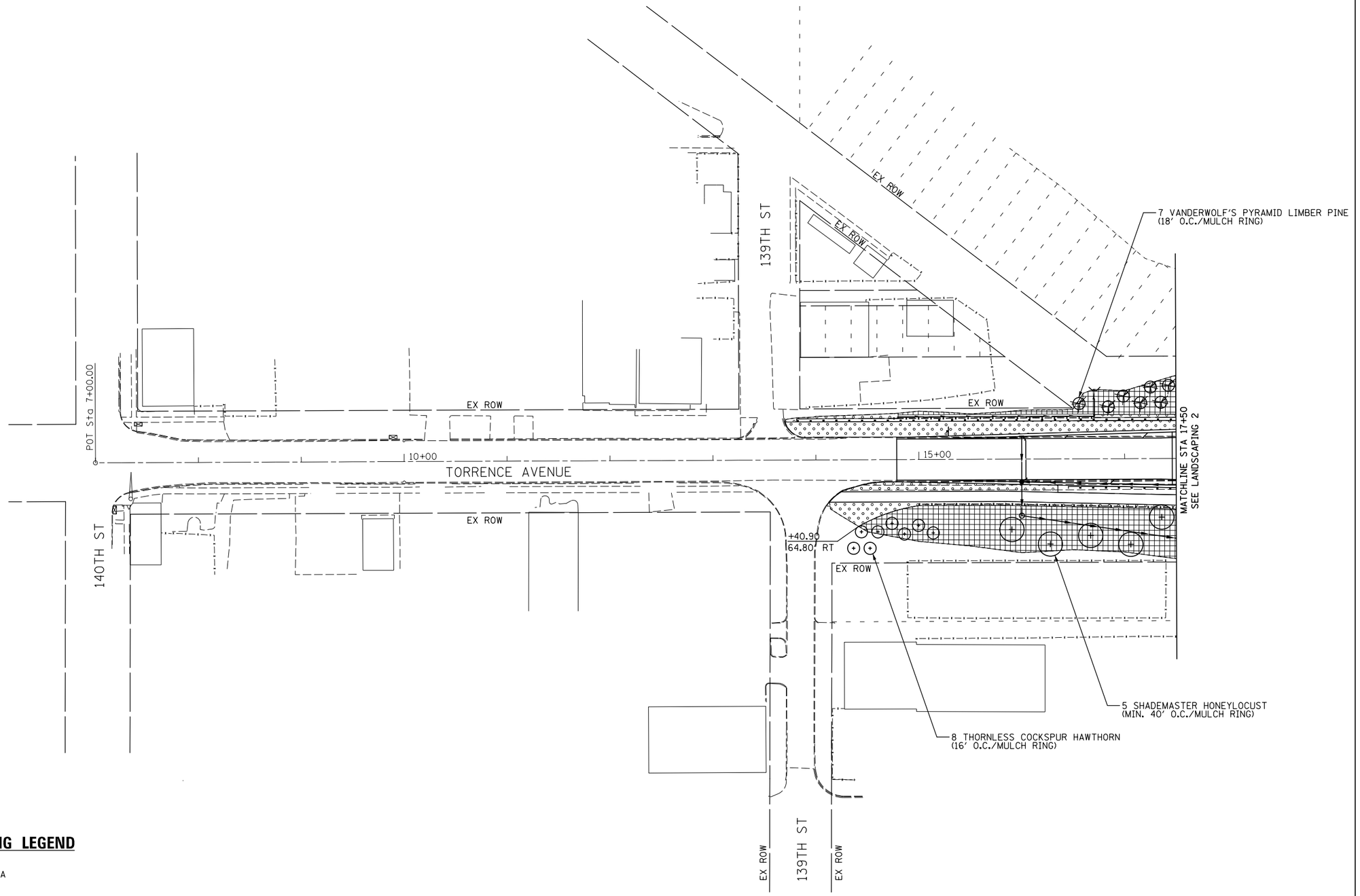
PLOT DATE = 6/29/2015	DATE - 6-15-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
LANDSCAPING SCHEDULE OF QUANTITIES

SCALE: | SHEET NO. 32 OF 152 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	32
		CONTRACT NO. 60R95		
	ILLINOIS	FED. AID PROJECT		



LANDSCAPING LEGEND

SEEDING, CLASS 2A

SEEDING, CLASS 3 (MODIFIED)
HEAVY DUTY EROSION CONTROL BLANKET (SPECIAL)

SEEDING, CLASS 4B
HEAVY DUTY EROSION CONTROL BLANKET (SPECIAL)

NOTES:

1. FOR DRAINAGE DETAILS SEE DRAINAGE AND UTILITIES PLANS.

GRAPHIC SCALE
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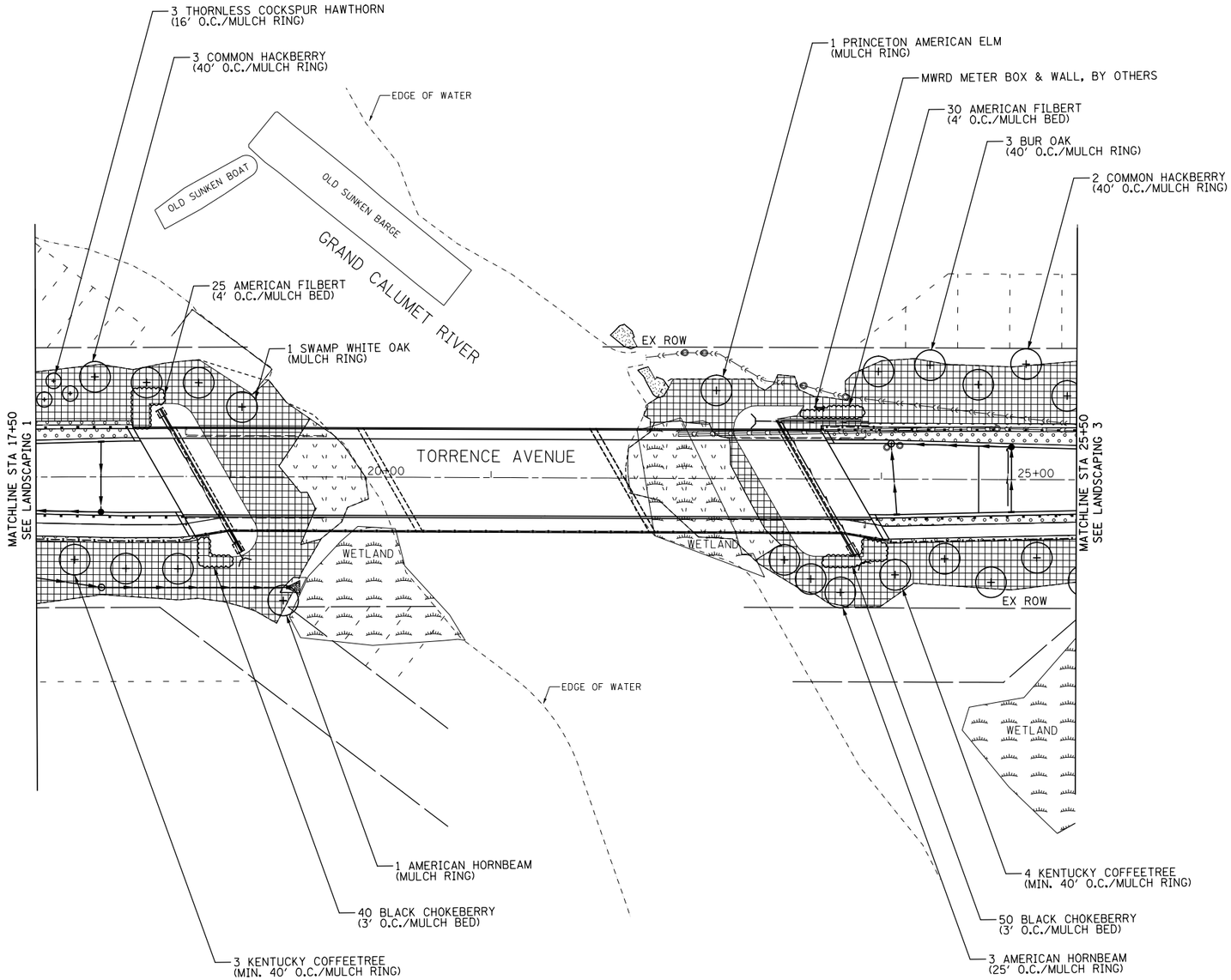
PLOT DATE = 6/29/2015	DATE - 6-15-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
LANDSCAPING 1

SCALE: 1" = 50' | SHEET NO. 33 OF 152 SHEETS | STA. 7+00.00 TO STA. 17+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	33
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			



LANDSCAPING LEGEND

SEEDING, CLASS 2A

SEEDING, CLASS 3 (MODIFIED)
HEAVY DUTY EROSION CONTROL BLANKET (SPECIAL)

SEEDING, CLASS 4B
HEAVY DUTY EROSION CONTROL BLANKET (SPECIAL)

PROPOSED RIPRAP

NOTES:

1. FOR DRAINAGE DETAILS SEE DRAINAGE AND UTILITIES PLANS.
2. FOR OUTLET PROTECTION DETAILS SEE LANDSCAPING 4 SHEET.

GRAPHIC SCALE
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FEET

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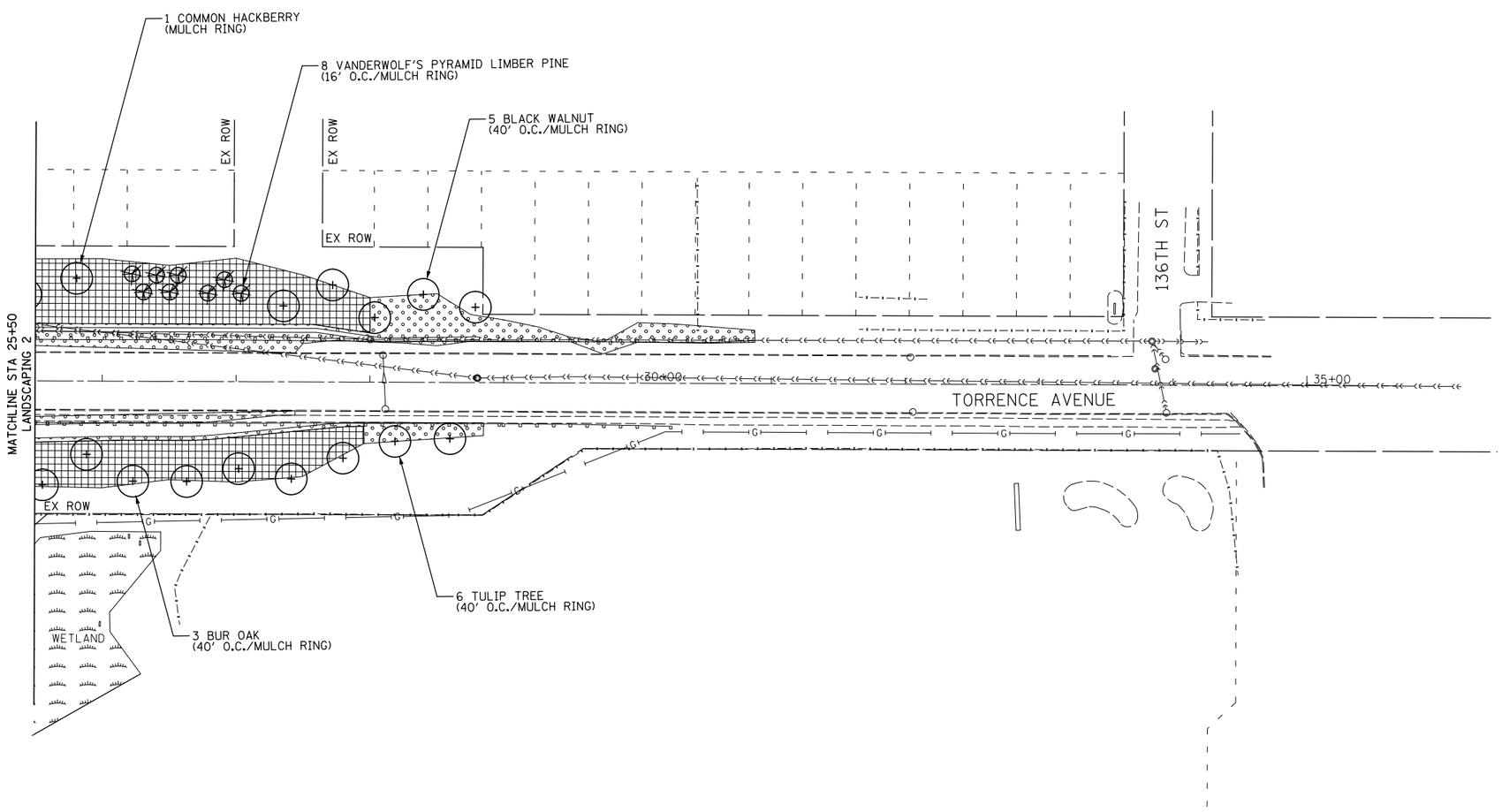
PLOT DATE = 6/29/2015	DATE - 6-15-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
LANDSCAPING 2

SCALE: 1" = 50' | SHEET NO. 34 OF 152 SHEETS | STA. 17+50.00 TO STA. 25+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	34
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			



LANDSCAPING LEGEND

SEEDING, CLASS 2A

SEEDING, CLASS 3 (MODIFIED)
HEAVY DUTY EROSION CONTROL BLANKET (SPECIAL)

SEEDING, CLASS 4B
HEAVY DUTY EROSION CONTROL BLANKET (SPECIAL)

NOTES:

1. FOR DRAINAGE DETAILS SEE DRAINAGE AND UTILITIES PLANS.

GRAPHIC SCALE
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PLOT DATE = 6/29/2015	DATE - 6-15-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

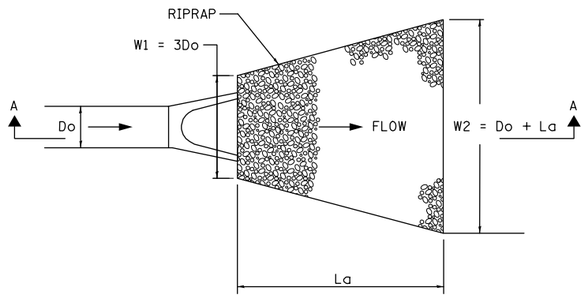
TORRENCE AVENUE
LANDSCAPING 3

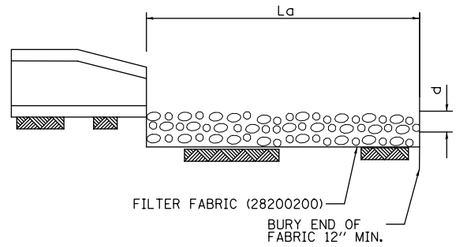
SCALE: 1" = 50' | SHEET NO. 35 OF 152 SHEETS | STA. 25+50.00 TO STA. 35+70.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	35
		CONTRACT NO. 60R95		
	ILLINOIS	FED. AID PROJECT		

ROCK OUTLET PROTECTION DETAIL

N.T.S.





SECTION A-A

RIPRAP OUTLET PROTECTION									
STRUCTURE NUMBER	RIPRAP CLASS	PIPE DIAMETER, Do (INCHES)	La (FT)	RIPRAP THICKNESS, d (INCHES)	W1 (FT)	W2 (FT)	AREA (SQ YD)	VOLUME (CU YD)	FILTER FABRIC AREA (SQ YD)
1-05	A3	12	10	15	3.00	11.00	8.0	3.24	10.0

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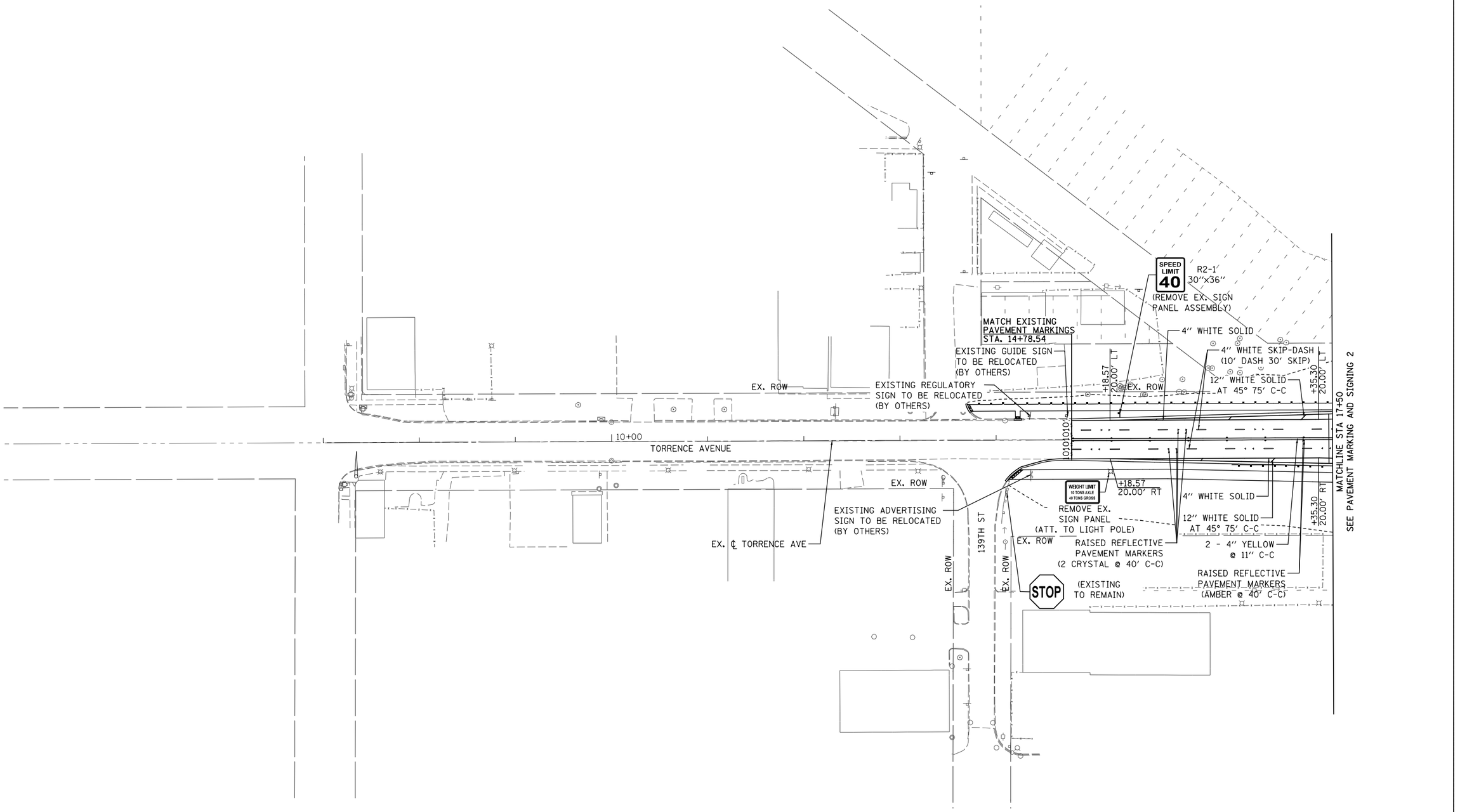
PLOT DATE = 6/29/2015	DATE - 6-15-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
LANDSCAPING 4

SCALE: | SHEET NO. 36 OF 152 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	36
		CONTRACT NO. 60R95		
	ILLINOIS	FED. AID PROJECT		



NOTES:
1. SEE LIGHTING PLANS FOR LIGHTING REMOVALS.

GRAPHIC SCALE
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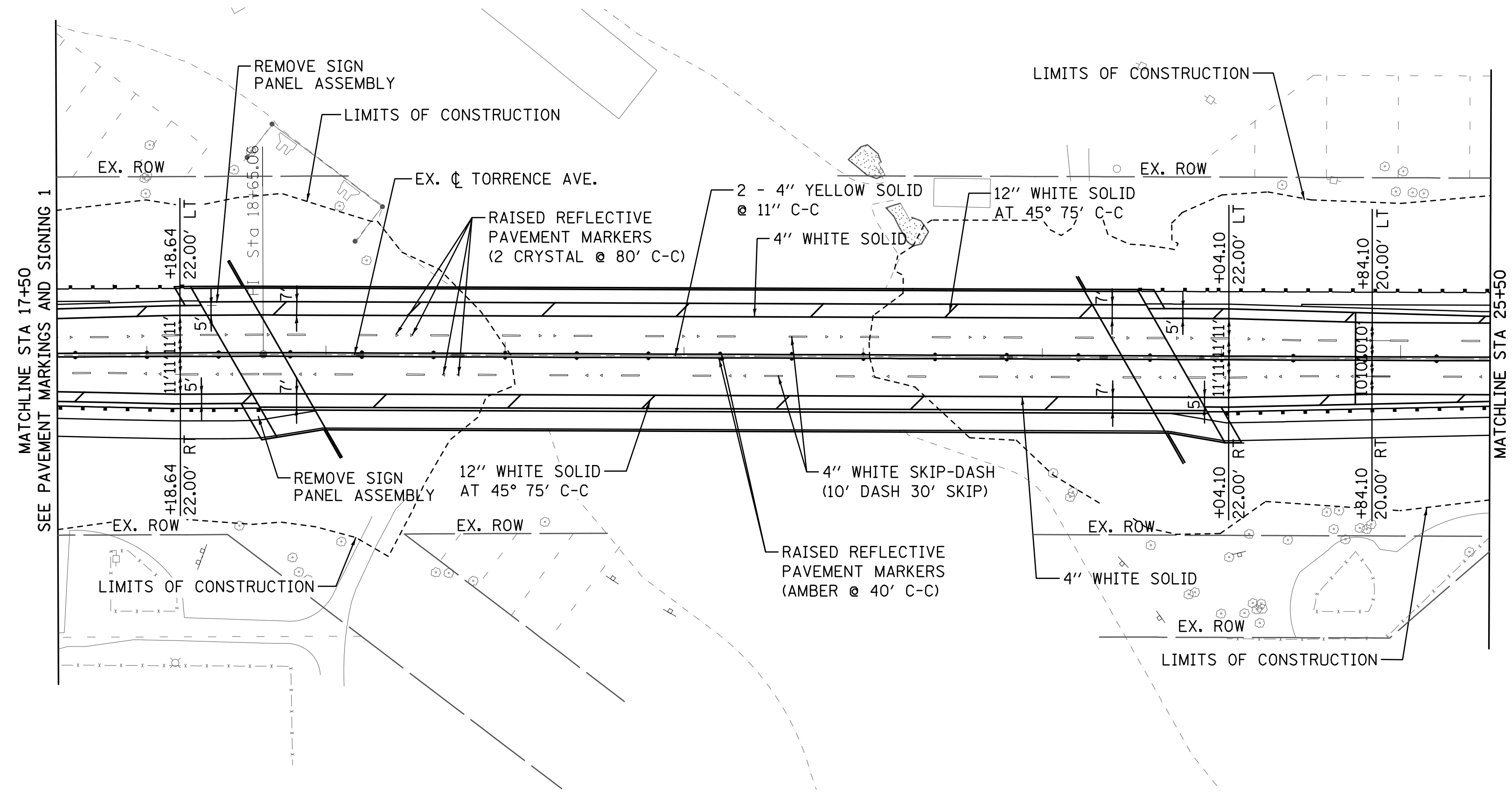
PLOT DATE = 6/23/2015	DATE - 6-15-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
PAVEMENT MARKINGS AND SIGNING 1

SCALE: 1" = 50' | SHEET NO. 37 OF 152 SHEETS | STA. 7+00.00 TO STA. 17+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	37
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			



NOTES:

1. SEE LIGHTING PLANS FOR LIGHTING REMOVALS.
2. RAISED REFLECTIVE PAVEMENT MARKERS FROM STA. 18+46.24 TO STA. 23+74.85 SHALL BE PAID FOR AS RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE).

GRAPHIC SCALE

50 0 50 100

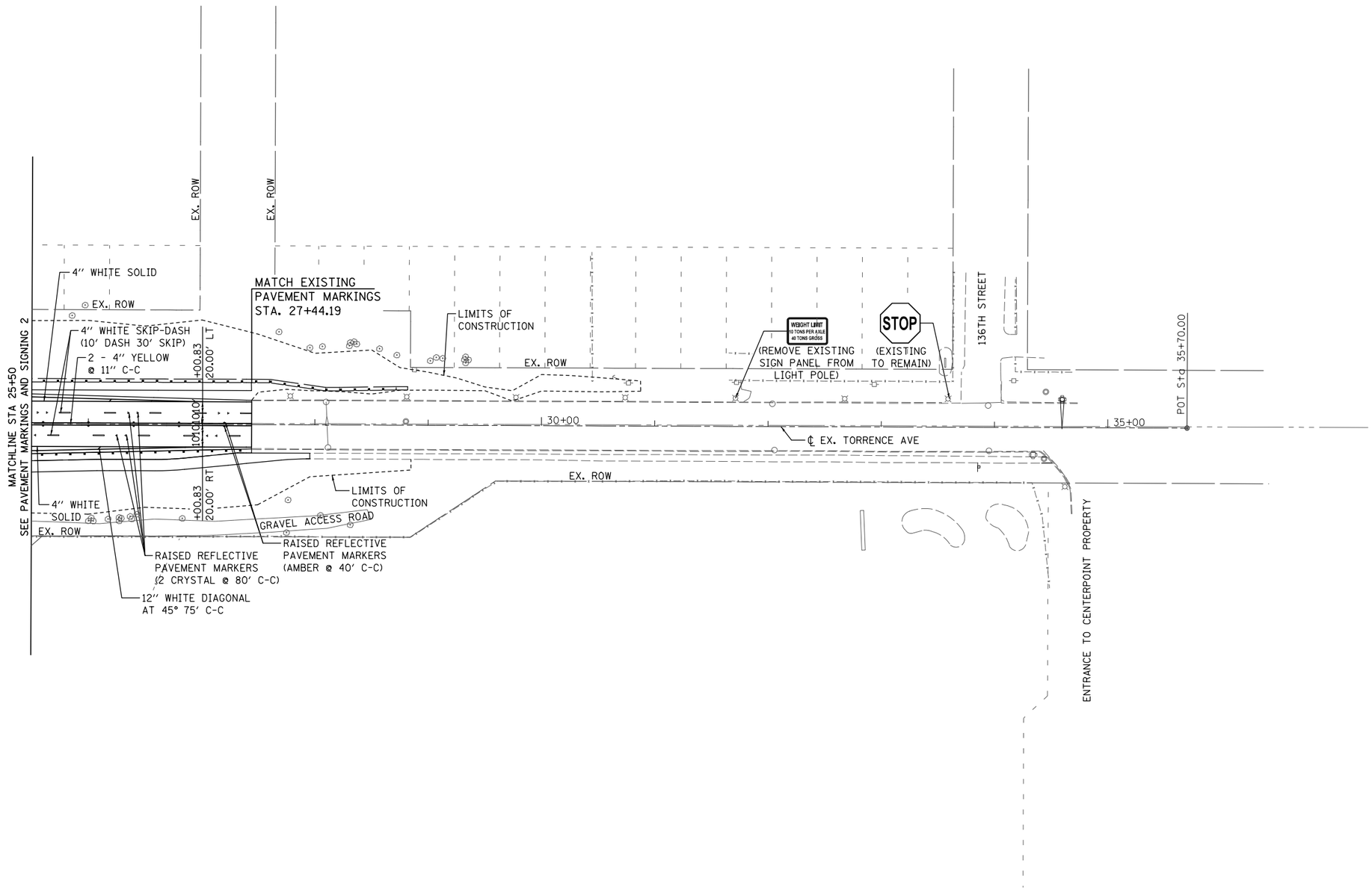
FEET

USER NAME = waterhej	DESIGNED - RDT/GC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TORRENCE AVENUE PAVEMENT MARKINGS AND SIGNING 2
	DRAWN - RDT	REVISED -		
PLOT SCALE = 100.0000 '/ in.	CHECKED - MT	REVISED -		
PLOT DATE = 6/23/2015	DATE - 6-15-2015	REVISED -		SCALE: 1" = 50' SHEET NO. 38 OF 152 SHEETS STA. 17+50.00 TO STA. 25+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	38

CONTRACT NO. 60R95

ILLINOIS FED. AID PROJECT



NOTES:
1. SEE LIGHTING PLANS FOR LIGHTING REMOVALS.

GRAPHIC SCALE
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
PAVEMENT MARKINGS AND SIGNING 3

SCALE: 1" = 50' | SHEET NO. 39 OF 152 SHEETS | STA. 25+50.00 TO STA. 35+70.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	39
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			

LIGHTING LEGEND – VILLAGE OF BURNHAM

RELOCATED VILLAGE OF BURNHAM LIGHTING UNIT
47.5' M.H., 12' M.A., WITH 400W, 240V HPS LUMINAIRE

PROPOSED VILLAGE OF BURNHAM LIGHTING UNIT
47.5' M.H., 12' M.A., WITH 400W, 240V HPS LUMINAIRE

EXISTING VILLAGE OF BURNHAM LIGHTING UNIT
47.5' M.H., 12' M.A., WITH 400W, 240V HPS LUMINAIRE

GROUND ROD

PROPOSED UNIT DUCT, 3-1/C, NO. 4 AWG AND
NO. 6 AWG GROUND WIRE 600V IN 1 1/4" DUCT

EXISTING CABLE AND CONDUIT TO REMAIN IN PLACE

LIGHTING LEGEND – CDOT

FOUNDATION, STREET LIGHT POLE, STEEL, HELIX, 7'

FOR ADDITIONAL SYMBOLS, SEE CDOT STANDARD
DRAWING *826 ON SHEET EL-8

GENERAL NOTES:

1. SETBACKS ARE MEASURED FROM BACK OF CURB TO CENTER OF POLE.
2. ALL VILLAGE OF BURNHAM PROPOSED LIGHTING UNITS SHALL BE LABELED ACCORDING TO THE STANDARD SPECIFICATIONS, WITH POLE NUMBERS ATTACHED WITH STAINLESS STEEL BANDING. LIGHTING UNIT NUMBERING SHALL BE AS DIRECTED BY THE ENGINEER.
3. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ELECTRICAL WORK WITH OTHER TRADES.
4. THE PROPOSED LIGHT POLES SHALL BE LOCATED AS NOTED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER. LIGHT POLE FOUNDATIONS SHALL BE INSTALLED PLUMB AND FLUSH WITH THE PROPOSED GRADE.
5. CONTRACTOR SHALL MAINTAIN ADEQUATE CLEARANCE FROM UTILITY LINES. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY CLEARANCES PER THE NATIONAL ELECTRICAL SAFETY CODE AND/OR THE REQUIREMENTS OF THE UTILITY COMPANIES. THE LOCATION OF BURIED AND ABOVE GROUND UTILITIES SHOWN ARE APPROXIMATE AND ARE SHOWN FOR INFORMATION ONLY. REROUTING, DISCONNECTION, RELOCATION, PROTECTION ETC., OF ANY UTILITIES MUST BE COORDINATED BETWEEN THE CONTRACTOR, UTILITY COMPANY, AND OWNER. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR IS RESPONSIBLE FOR UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY. THE COST OF THIS WORK IS TO BE INCLUDED WITH THE UNDERGROUND CONDUIT AND UNIT DUCT PAY ITEMS.
7. INSTALL HORIZONTAL MOUNT LUMINAIRES PERPENDICULAR TO THE CENTERLINE OF THE ROADWAY AS REQUIRED BY ARTICLE 821.04 OF THE STANDARD SPECIFICATIONS.
8. REMOVAL OF UNIT DUCT FROM EXISTING CONDUIT WILL BE PAID FOR AS "REMOVE ELECTRIC CABLE FROM CONDUIT." EACH CABLE IN THE UNIT DUCT SHALL BE MEASURED FOR PAYMENT SEPARATELY. EXISTING CONDUITS IMPACTED BY CONSTRUCTION SHALL BE ABANDONED IN PLACE.

BILL OF MATERIALS

SP	CODE NO.	ITEM	UNIT	QUANTITY
	81603090	UNIT DUCT, 600V, 3-1C NO.4, 1/C NO.6 GROUND, (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE	FOOT	305
*	82102400	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT	EACH	2
	83050800	LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 12 FT. MAST ARM	EACH	1
	83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	20
	83800205	BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE	EACH	2
	84200804	REMOVAL OF POLE FOUNDATION	EACH	1
	84400105	RELOCATE EXISTING LIGHTING UNIT	EACH	1
	89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	840
*	Z0033028	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	6
**	X0370048	SERVICE INSTALLATION 200 AMP (CDOT)	EACH	1
**	X0370140	REMOVE EXISTING STREET LIGHTING EQUIPMENT (CDOT)	L. SUM	1
**	XX008675	PAVEMENT REMOVAL AND REPLACEMENT (CDOT)	SQYD	19
**	XX008724	TRENCH AND BACKFILL WITH SCREENINGS (CDOT)	FOOT	2116
**		ELECTRICAL HANDHOLE, 36", 24" FRAME AND LID (CDOT)	EACH	2
**		PVC CONDUIT IN TRENCH 2" (CDOT)	FOOT	1946
**		PVC CONDUIT IN TRENCH 2" (SCHEDULE #80) (CDOT)	FOOT	106
**		PVC CONDUIT IN TRENCH 3" (CDOT)	FOOT	60
**		PVC CONDUIT IN TRENCH 3" (SCHEDULE #80) (CDOT)	FOOT	120
**		CONCRETE FOUNDATION FOR BASE MOUNTED STREET LIGHTING CONTROLLER CABINET (CDOT)	EACH	1
**		ELECTRIC CABLE IN CONDUIT, TRIPLEX 2 1/C NO.6, 1/C NO.8 (CDOT)	FOOT	2378
**		ELECTRIC CABLE IN CONDUIT, 1/C NO. 2/0 (CDOT)	FOOT	156
**		CONTROLLER, STREET LIGHT, BASE MOUNTED, 1 PHASE, 200 AMP (CDOT)	EACH	1
**		HELIX FOUNDATION, 7 FOOT, 15 INCH BOLT CIRCLE, 4 ANCHORS BOLTS (CDOT)	EACH	14
**		LUMINAIRE, STREET LIGHT, LED (CDOT)	EACH	14
**		POLE, ALUMINUM, ARTERIAL, DAVIT, 15" BOLT CIRCLE, 35FT MH (CDOT)	EACH	14
**		MAST ARM, DAVIT, ALUMINUM, ARTERIAL, 8 FOOT (CDOT)	EACH	14

* IDOT SPECIAL PROVISION
** CDOT SPECIAL PROVISION

CALL-OUT SAMPLES

DEFINITION	EXAMPLE
STATION SETBACK	STA 591+85 SETBACK 3 FT
1 — CABINET NUMBER	
A — CIRCUIT	
2 — POLE POSITION	

ABBREVIATIONS

ABBREVIATION	DESCRIPTION
AC	ALTERNATING CURRENT
A/C	AERIAL CABLE
AFG	ABOVE FINISHED GRADE
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CM	CENTIMETER
CNC	COILABLE NONMETALLIC CONDUIT
CT	CURRENT TRANSFORMER
CP	CONTROL PANEL
D.A.	DAVIT ARM
DIA.	DIAMETER
EX E	EXISTING EXISTING UNIT TO REMAIN
ECA	ELECTRIC CABLE ASSEMBLY
FT	FEET OR FOOT
FND MET	FOUNDATION METAL
FU	FUSE
GND	GROUND
HID	HIGH INTENSITY DISCHARGE
HPS	HIGH PRESSURE SODIUM
JB	JUNCTION BOX
KVA	KILOVOLT-AMPERE
KW	KILOWATTS
LP	LIGHT POLE
M	METER
M.A.	MAST ARM
M.H.	MOUNTING HEIGHT
NO. *	NUMBER
PR	PROPOSED
RGSC	RIGID GALVANIZED STEEL CONDUIT
STA	STATION
T	TEMPORARY LIGHTING UNIT
TB	TRANSFORMER BASE
TMP	TEMPORARY
UC	UNDERGROUND CONDUIT
UD	UNIT DUCT
WP	WOOD POLE
XFMR	TRANSFORMER

HIGHWAY STANDARDS

830001-03	LIGHT POLE ALUMINUM MAST ARM
836001-02	LIGHT POLE FOUNDATION

FILE NAME = S:\Projects\3216 Torrence Avenue Bridge Replace -ST\Project Work\Electrical\Sheet\D1608495-abt-plan01.dgn

EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

USER NAME = bbarr	DESIGNED - BB	REVISED -
	DRAWN - BB	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - MR	REVISED -
PLOT DATE = 6/22/2015	DATE - 6-15-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
LIGHTING GENERAL NOTES, LEGEND & BILL OF MATERIALS

SCALE: | SHEET NO. 40 OF 152 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	40
DRAWING NO. EL-1		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			

KEY;

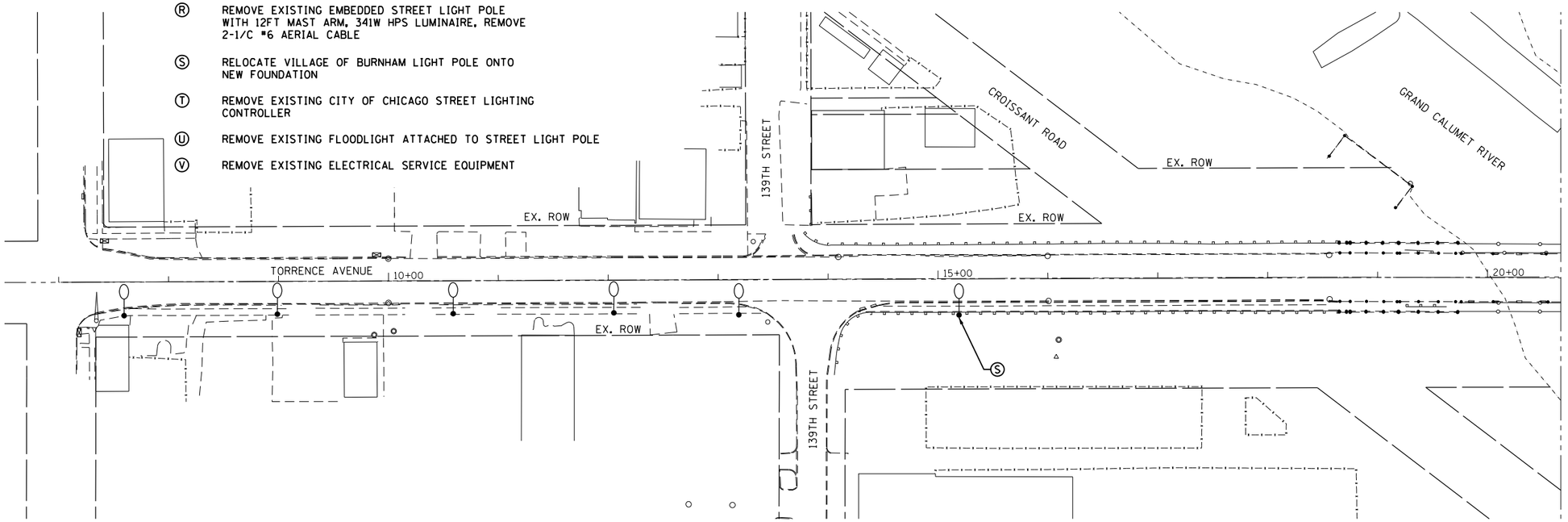
Ⓡ REMOVE EXISTING EMBEDDED STREET LIGHT POLE WITH 12FT MAST ARM, 341W HPS LUMINAIRE, REMOVE 2-1/C #6 AERIAL CABLE

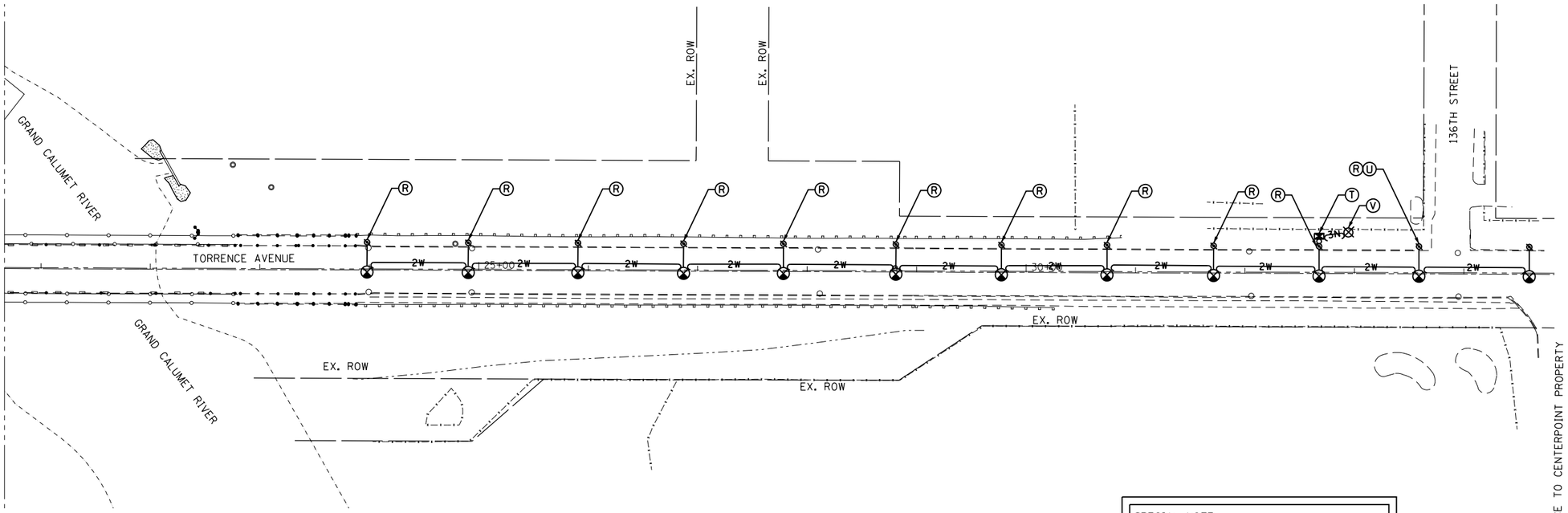
Ⓢ RELOCATE VILLAGE OF BURNHAM LIGHT POLE ONTO NEW FOUNDATION

Ⓣ REMOVE EXISTING CITY OF CHICAGO STREET LIGHTING CONTROLLER

Ⓤ REMOVE EXISTING FLOODLIGHT ATTACHED TO STREET LIGHT POLE

Ⓥ REMOVE EXISTING ELECTRICAL SERVICE EQUIPMENT





SPECIAL NOTE;
FOR LEGEND, SEE CDOT STANDARD DRAWING #826 ON SHEET EL-8.

GRAPHIC SCALE
50 0 50 100
FEET

FILE NAME = S:\Projects\2016 Torrence Avenue Bridge Replace -STA\Project Work\Electrical\Sheets\D1608935-sht-plan02.dgn

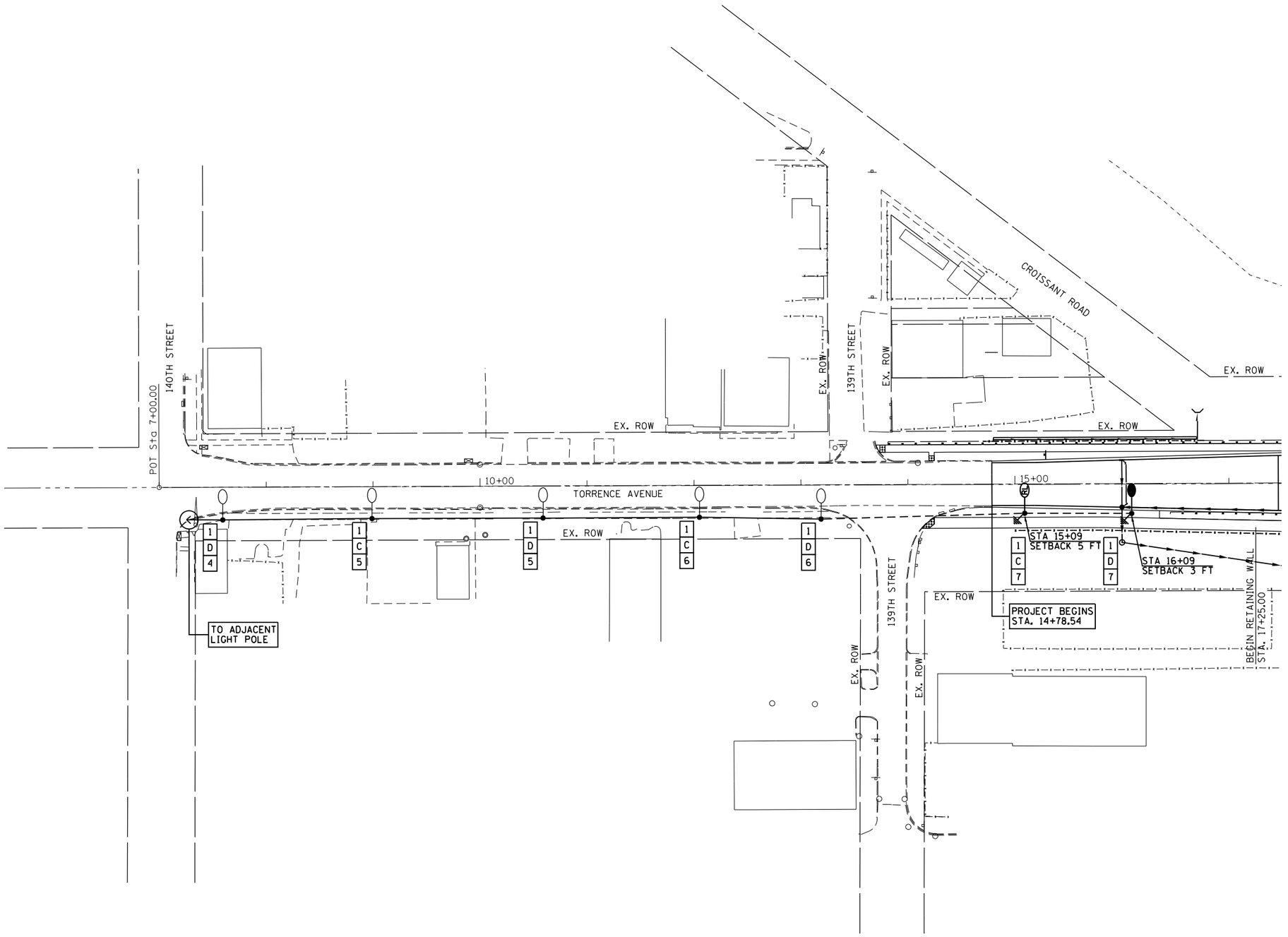
EJM ENGINEERING, INC. 411 South Wells Street Suite 1000 Chicago, Illinois 60607	USER NAME = bbarr	DESIGNED - BB	REVISED -
		DRAWN - BB	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED - MR	REVISED -
	PLOT DATE = 6/22/2015	DATE - 6-15-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
ROADWAY LIGHTING REMOVAL PLAN

SCALE: 1" = 50' | SHEET NO. 41 OF 152 SHEETS | STA. 7+00.00 TO STA. 35+70.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	41
DRAWING NO. EL-2		CONTRACT NO. 60R95		
ILLINOIS	FED. AID PROJECT			



GRAPHIC SCALE

50 0 50 100

FEET

FILE NAME = S:\Projects\3216 Torrence Avenue Bridge Replace -STV\Project Work\Electrical\Sheets\DI60R95-int-plan03.dgn

EJM ENGINEERING, INC. 411 South Wells Street Suite 1000 Chicago, Illinois 60607	USER NAME = bbarr	DESIGNED - BB	REVISED -
		DRAWN - BB	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED - MR	REVISED -
	PLOT DATE = 6/22/2015	DATE - 6-15-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
PROPOSED ROADWAY LIGHTING PLAN

SCALE: 1" = 50' | SHEET NO. 42 OF 152 SHEETS | STA. 7+00.00 TO STA. 17+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	42
DRAWING NO.	EL-3	CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			

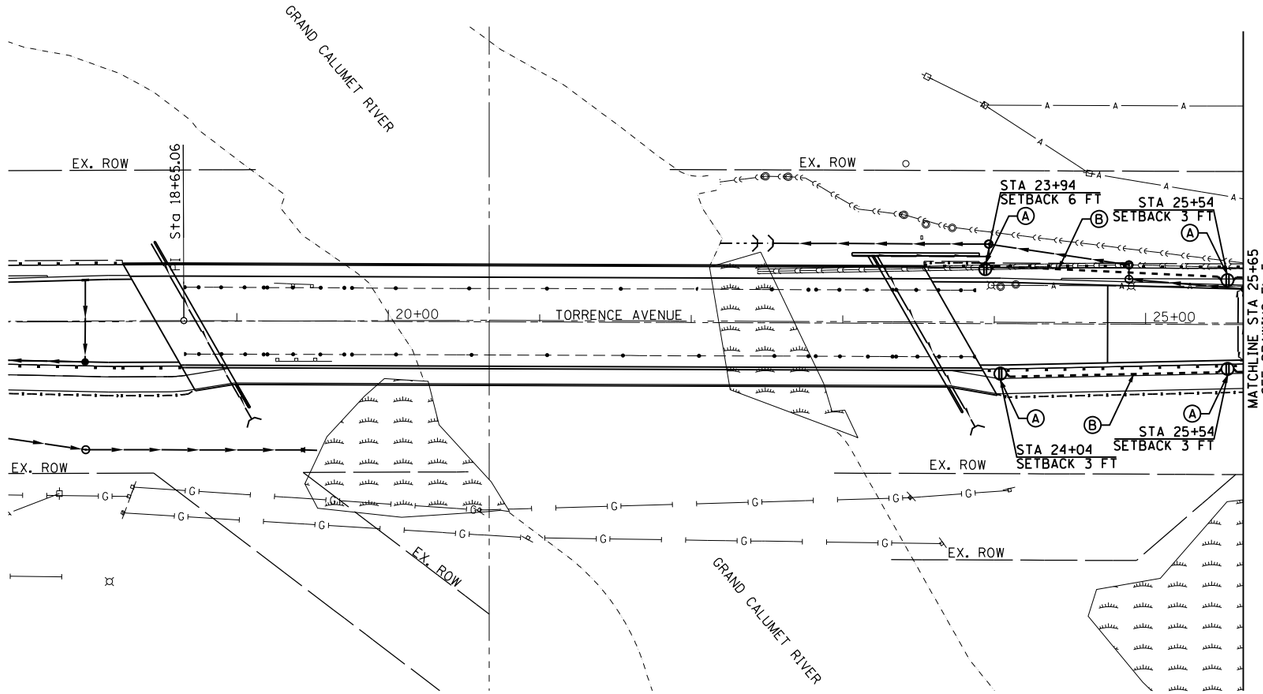
KEY:

Ⓐ INSTALL FOUNDATION, STREET LIGHT POLE, STEEL, HELIX, 7'
AS PER DRAWING NO. 936

Ⓑ INSTALL 2" PVC CONDUIT SCH. 40, UNLESS OTHERWISE NOTED

LEGEND:

◍ FOUNDATION, STREET LIGHT POLE, STEEL, HELIX, 7'
AS PER DRAWING NO. 936



SPECIAL NOTE:
FOR LEGEND, SEE CDOT STANDARD DRAWING
*826 ON SHEET EL-8.

GRAPHIC SCALE
50 0 50 100
FEET

FILE NAME = S:\Projects\3216 Torrence Avenue Bridge Replace -STV\Projects Work\Electrical\Sheet\D160795-sht-plan02.dgn

USER NAME = bbarr	DESIGNED - BB	REVISED -	
	DRAWN - BB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MR	REVISED -	
PLOT DATE = 6/22/2015	DATE - 6-15-2015	REVISED -	

EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
PROPOSED ROADWAY LIGHTING PLAN

SCALE: 1" = 50' | SHEET NO. 43 OF 152 SHEETS | STA. 17+50.00 TO STA. 25+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	43
DRAWING NO. EL-4		CONTRACT NO. 60R95		
ILLINOIS	FED. AID PROJECT			

KEY:

Ⓐ INSTALL FOUNDATION, STREET LIGHT POLE, STEEL, HELIX, 7' AS PER DRAWING NO. 936

Ⓑ INSTALL CONCRETE FOUNDATION FOR BASE MOUNTED STREET LIGHT CONTROLLER AS PER DRAWING NO. 880

Ⓒ INSTALL 2" PVC CONDUIT SCH. 40, UNLESS OTHERWISE NOTED

Ⓓ INSTALL 36" DIA. HEAVY DUTY CONCRETE ELECTRICAL HANDHOLE AS PER DRAWING NO. 866 W/ 24" F. & C.

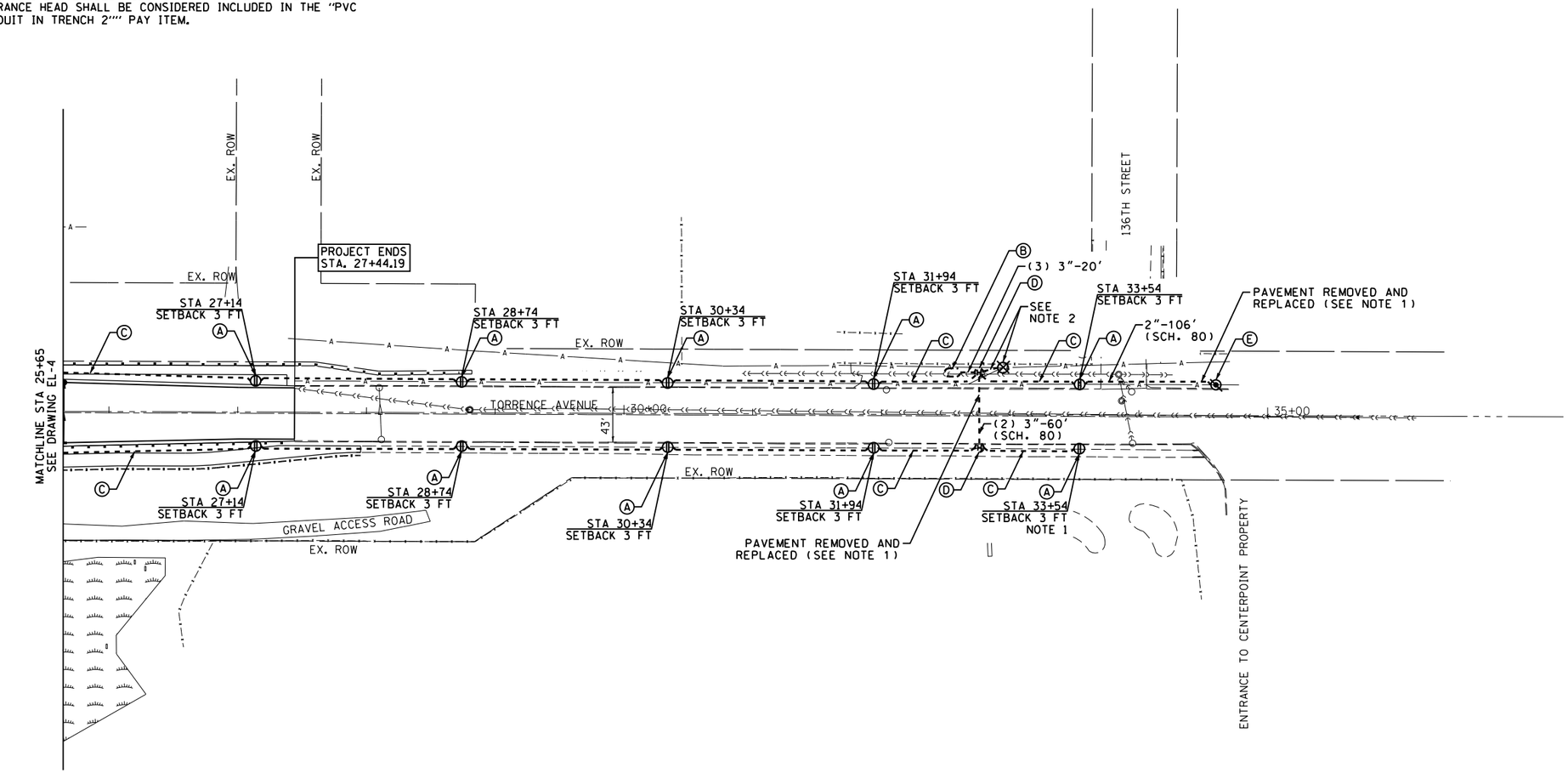
Ⓔ INSTALL 2" GRS CONDUIT LATERAL AND SERVICE ENTRANCE HEAD ON EXISTING EMBEDDED POLE. COST OF LATERAL AND SERVICE ENTRANCE HEAD SHALL BE CONSIDERED INCLUDED IN THE "PVC CONDUIT IN TRENCH 2"" PAY ITEM.

LEGEND:

◍ FOUNDATION, STREET LIGHT POLE, STEEL, HELIX, 7' AS PER DRAWING NO. 936

NOTE:

1. CONDUIT CROSSING UNDER PAVEMENT MAY BE PUSHED OR DIRECTIONALLY POURED WITH THE APPROVAL OF THE ENGINEER.
2. THE COST OF THE 3" GRS CONDUIT LATERAL ATTACHED TO COMED SERVICE POLE AND THE UNDERGROUND 3" GRS CONDUIT RUNNING BETWEEN COMED SERVICE POLE AND THE LIGHTING CONTROLLER SHALL BE CONSIDERED INCLUDED IN THE "SERVICE INSTALLATION 200 AMP (CDOT)" PAY ITEM.



SPECIAL NOTE:
FOR LEGEND, SEE CDOT STANDARD DRAWING *826 ON SHEET EL-8.

GRAPHIC SCALE
50 0 50 100
FEET

FILE NAME = S:\Projects\3216 Torrence Avenue Bridge Replace -ST\Project Work\Electrical\Sheets\D1608495-sht-plan05.dgn

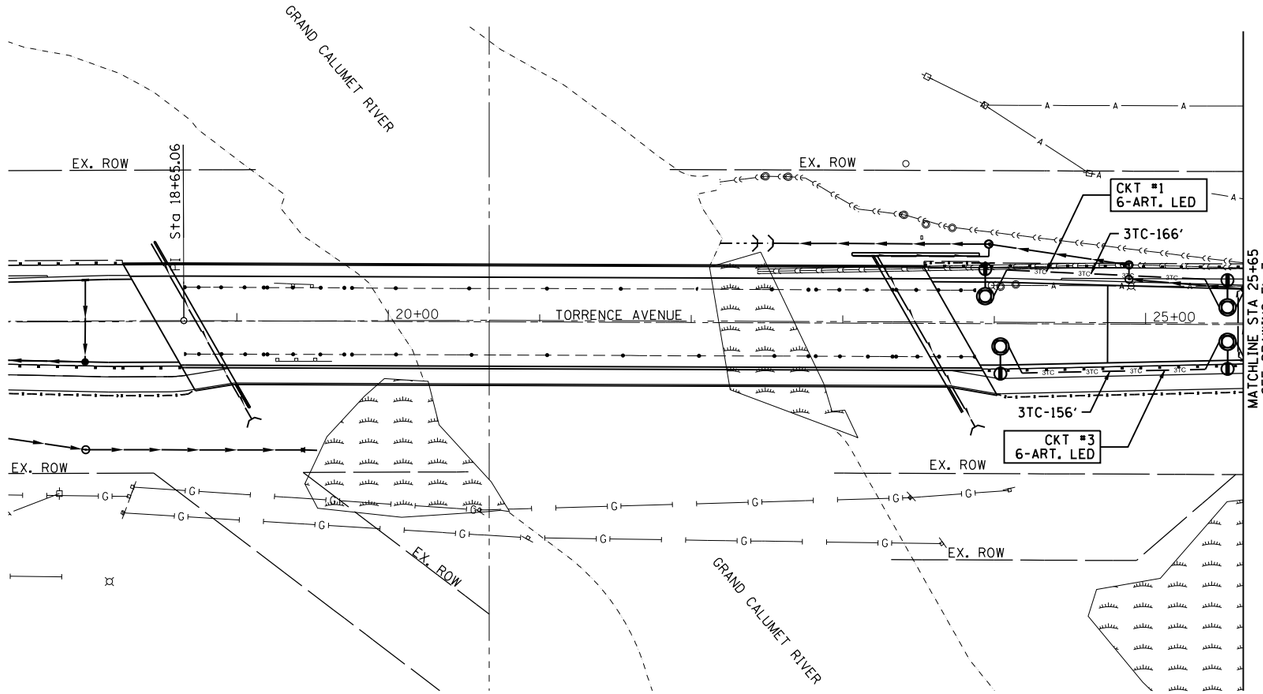
EJM ENGINEERING, INC. 411 South Wells Street Suite 1000 Chicago, Illinois 60607	USER NAME = bbarr	DESIGNED - BB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TORRENCE AVENUE PROPOSED ROADWAY LIGHTING PLAN
		DRAWN - BB	REVISED -		
	PLOT SCALE = 100.0000 ' / in.	CHECKED - MR	REVISED -		SCALE: 1" = 50' | SHEET NO. 44 OF 152 SHEETS | STA. 25+50.00 TO STA. 35+70.00
	PLOT DATE = 6/22/2015	DATE - 6-15-2015	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	44
DRAWING NO. EL-5		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			

LEGEND:

POLE, STREET LIGHTING, 35' ALUMINUM, WITH 8' DAVIT ARM AND LED COBRA HEAD LUMINAIRE

—3TC— CABLE, STREET LIGHTING, 2-1/C #6 & 1/C #8



SPECIAL NOTE:
FOR LEGEND, SEE CDOT STANDARD DRAWING #826 ON SHEET EL-8.

GRAPHIC SCALE
50 0 50 100
FEET

FILE NAME = S:\Projects\3216 Torrence Avenue Bridge Replace -STV\Project Work\Electrical\Sheet\D1608495-sht-plan06.dgn

EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

USER NAME = bbarr	DESIGNED - BB	REVISED -	
	DRAWN - BB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MR	REVISED -	
PLOT DATE = 6/22/2015	DATE - 6-15-2015	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
PROPOSED ROADWAY LIGHTING PLAN

SCALE: 1" = 50' | SHEET NO. 45 OF 152 SHEETS | STA. 17+50.00 TO STA. 25+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	45
DRAWING NO. EL-6		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			

LEGEND:

POLE, STREET LIGHTING, 35' ALUMINUM, WITH 8' DAVIT ARM AND LED COBRA HEAD LUMINAIRE

EXISTING TRAFFIC SIGNAL WITH 12' MAST ARM AND 341W HPS LUMINAIRE

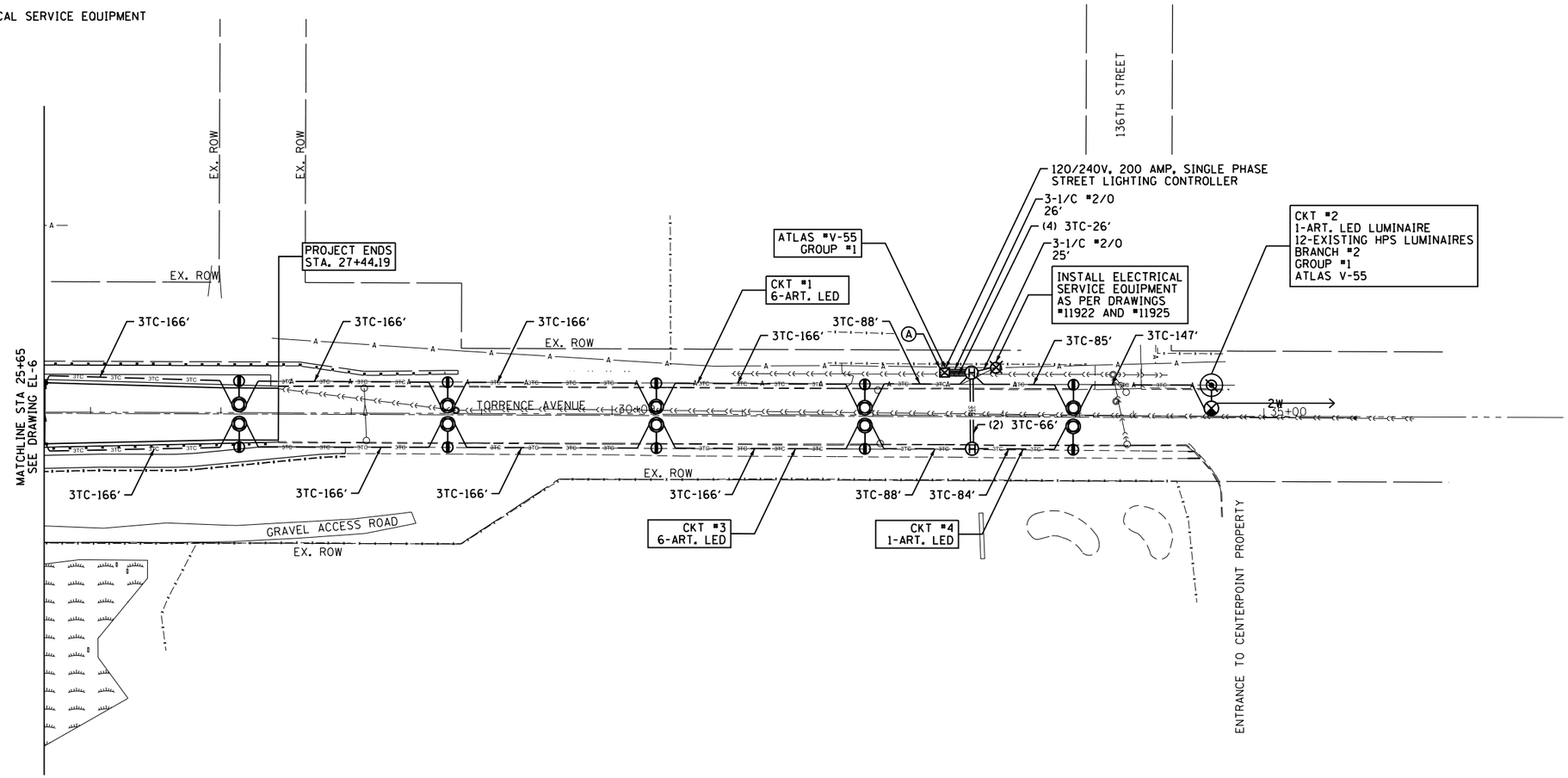
—3TC— CABLE, STREET LIGHTING, 2-1/C #6 & 1/C #8

CONTROLLER, STREET LIGHTING, 120/240V, AS INDICATED ON THE DRAWING

ELECTRICAL SERVICE EQUIPMENT

KEY:

(A) INSTALL CONTROLLER, STREET LIGHTING, 120/240V, AS PER DRAWING NO. 880



SPECIAL NOTE:
FOR LEGEND, SEE CDOT STANDARD DRAWING #826 ON SHEET EL-8.

GRAPHIC SCALE
50 0 50 100
FEET

FILE NAME = S:\Projects\3216 Torrence Avenue Bridge Replace -STV\Project Work\Electrical\Sheets\DIS8095-sht-plan07.dgn

EJM ENGINEERING, INC. 411 South Wells Street Suite 1000 Chicago, Illinois 60607	USER NAME = bbarr	DESIGNED - BB	REVISED -
		DRAWN - BB	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED - MR	REVISED -
	PLOT DATE = 6/22/2015	DATE - 6-15-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
PROPOSED ROADWAY LIGHTING PLAN

SCALE: 1" = 50' | SHEET NO. 46 OF 152 SHEETS | STA. 25+50.00 TO STA. 35+70.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	46
DRAWING NO. EL-7		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			

PROPOSED	PRESENT	
		SIGNAL, TRAFFIC 3 SECTION 1–WAY ADJUSTABLE, 12" OR AS NOTED
		SIGNAL, TRAFFIC 3 SECTION 2–WAY ADJUSTABLE, 12" OR AS NOTED
*	*	SIGNAL OPTICALLY PROGRAMMED
DW	DW	SIGNAL, PEDESTRIAN, COUNTDOWN
DW	DW	SIGNAL, PEDESTRIAN, DON'T WALK/WALK
		SIGNAL FACE ARROW, 12" COLOR AS NOTED
		SIGNAL FACE, 1 SECTION YELLOW/GREEN ARROW DUAL INDICATION
		PUSH BUTTON, PEDESTRIAN
		SIGN,ILLUMINATED, WITH MESSAGE OR SYMBOL AS INDICATED
		MAST ARM, MONOTUBE, STEEL. SIZE AS INDICATED (SEE DWG. #870)
		MAST ARM, TRUSS, ALUMINUM. SIZE AS INDICATED
		CONTROLLER, TRAFFIC SIGNAL. PEDESTAL OR BASE MOUNTED AS INDICATED
		CONTROLLER, STREET LIGHTING. PEDESTAL OR BASE MOUNTED. (DWG. 876 or 880)
		CONTROLLER,STREET LIGHTING. POLE MOUNTED (DWG. #11940)
		POLE, WOOD. COMMONWEALTH EDISON COMPANY, SERVICE
		POLE, CITY STEEL, ANCHOR BASE, 34'6",7 GA. 10" DI A. AND 15"B.C. 24"X7' FND. W/1 ¼" ANCHOR RODS DRG. #818.
		POLE, CITY STEEL, ANCHOR BASE, 34'–6", 3 GA. 10" DIA. AND 15" B.C. 24"X9' FND. W/1 ¼" ANCHOR RODS DRG. #818 (16',20'or 26'M.A.)
		POLE, CITY STEEL, ANCHOR BASE, 34"–6", 3GA., 11" DIA. AND 17 ¼" B.C. 30"X9' FND. W/1 ¼" ANCHOR RODS DRG. #816. (30' M.A.)
		POLE, CITY STEEL, ANCHOR BASE 34'–6", 3 GA. 12 ½" DIA, AND 16 ½"B.C. 30"X11' FND. W/1 ½" ANCHOR RODS DRG.#817. (35',40'or 44' M.A.)
		POLE, CITY STEEL, ANCHOR BASE, 32'–6", 3 GA. 10" DIA., WITH 3 GA. BAL. HSG. BASE AND 17 ¼" B. C. ON 30"X9' FND. W/ 11/4" ANCHOR RODS DRG. #816.
		POLE, CITY STEEL, ANCHOR BASE, 20',27'–6",29'–6", 7 GA. WITH STEEL BAL. HSG. BASE AND FND. W/10" D. B.C. AND 1" ANCHOR RODS DRG. #716.
		POLE,CITY STEEL, ANCHOR BASE, 20',27'–6",29'–6", 3 GA., WITH STEEL BAL. HSG. BASE AND FND. W/10" D. B.C. AND 1" ANCHOR RODS DWG.#719.
		POLE, CITY STEEL, ANCHOR BASE, 20',27'–6", 29'–6" 7 GA., AND ALUMINUM RESIDENTIAL DAVIT,AND FND. WITH 10" B.C. AND 1" ANCHOR RODSDWG#565 (CONCRETE) OR DWG.#936 (HELIX).
		POLE, CITY STEEL, ANCHOR BASE, 20',27'–6",29'–6" 3 GA.,AND FND. WITH 10" B.C. AND 1" ANCHOR RODS DWG. #565 (CONCRETE) OR DWG.#936 (HELIX).
		POLE , CITY STEEL, ANCHOR BASE, 32'–6", 7 GA., AND FND. WITH 11½" B.C. AND 1" ANCHOR RODS DWG. #753.
		POLE, CITY STEEL, ANCHR BASE, 32'–6", 3 GA., AND FND. WITH 11½" B.C. AND 1" ANCHOR RODS DWG. #753.
		POLE, CITY STEEL, ANCHOR BASE, 32'–6" 7 GA., ALUM. BHB AND FND. WITH 15" B.C.–24"X7' WITH 1" ANCHOR RODS DRG. #691.
		POLE, CITY STEEL, ANCHOR BASE, 32'–6", 3 GA., ALUM. BHB AND FND. WITH 15" B.C. 24"X 7' WITH 1" ANCHOR RODS DWG. #691.
		POLE, CITY ALUMINUM, WITH ROUND BAL. HSG. BASE, 25', 28', or 30' ON FND.WITH 14" B.C., ACQUIRED FROM CHICAGO PARK DISTRICT.
		POLE, CITY STEEL, EMBEDDED, 4"X 9"X 35' 7 GA., TAPERED TUBULAR. (DWG. #658)
		POLE, CITY STEEL, EMBEDDED, 4"X 9"X 35' 3 GA., TAPERED TUBULAR. (DWG. #658)
		POLE, CITY STEEL, EMBEDDED. (ACQUIRED FROM CTA)
		COLUMN,ELEVATED STRUCTURE
		POLE, WOOD. (SIZE AS NOTED)
		POLE, FOUNDATION WITH ELBOWS AS INDICATED.(SIZE AS NOTED)
		POLE, ORNAMENTAL OR OTHER, AS INDICATED ON THE PLANS
		RESIDENTIAL STREET LIGHTING CONTROLLER

PROPOSED	PRESENT	
		MANHOLE, 3'X4'X4' 24" F & C (DWG.#730) (A) 30" F & C (DWG#729) (B)
		MANHOLE, 4'X6'X6' 24" F & C (DWG.#732) (C) 30" F & C (DWG#733) (D)
		HANDHOLE, HEAVY DUTY, 36" I.D. (DWG.#866) 24" F & C (E). (DWG#871) 30" F & C (F)
		HANDHOLE, CIRCULAR WITH 24"FRAME & COVER,30"I.D. (#867) (G)
		FOUNDATION, CONTROLLER OR PEDESTAL, 13" B.C.,20"X5' (DWG. #709)
		FOUNDATION, TRAFFIC CONTROLLER DWG. #854. F.A. TERMINAL FND. DWG. #11972
		FOUNDATION, TRAFFIC TYPE "P", BASE MOUNT. (DWG. #888)
		FOUNDATION,CONTROLLER STREET LIGHT ,SPECIAL, 100A & 200A. (DWG.#876 & # 880)
		FOUNDATION, TRANSCLOSURE; TRANSCLOSURE HOUSING. (DWG.# 583 & #891)
		CONTROLLER,UNDERPASS LIGHTING 120V. & 240V. (DWG. #860 & #861)
	E	MANHOLE, UTILITY, E=COMMONWEALTH EDISON; T=ILL.BELL TEL.; G=PEOPLES GAS; W=CITY WATER; P=CHGO PARK DISTRICT; CTA=C.T.A; S= SEWER
J		JUNCTION BOX, IN PAVEMENT (DWG. #815)
		DETECTOR LOOP IN PAVEMENT
		CONDUIT or P.V.C., NUMBER,SIZE & TYPE. (AS NOTED)
2D	2D	CONDUIT or P.V.C. ENCASED IN CONCRETE. (SECTION or NUMBER OF CONDUIT INDICATED
		LUMINAIRE, H.P.S.V. 400W LAMP, 240V, SEMI–CUTOFF
		LUMINAIRE, H.P.S.V. 400W LAMP, 240V, CUTOFF
		LUMINAIRE, H.P.S.V. 310W LAMP, 240V
		LUMINAIRE, H.P.S.V. 310W LAMP 240V, CUTOFF
		LUMINAIRE, H.P.S.V. 150W LAMP, 240V
		LUMINAIRE, H.P.S.V. 150W LAMP, 120V
		LUMINAIRE, H.P.S.V. 250W LAMP, 120V, (ALLEY LIGHT)
		LUMINAIRE, H.P.S.V. 250W LAMP, 120V
		LUMINAIRE, H.P.S.V. 400W LAMP, 240V, (FLOOD LIGHT)
T	T	TERMINAL, CABINET F.A. & P.C.
F	F	FIRE ALARM BOX, MOUNTED
F	F	FIRE ALARM BOX, POLE MOUNTED
PR	PR	CABLE, TRAFFIC SIGNAL, COMMUNICATION, 1–PAIR #14 SHIELDED, IN CONDUIT
2	2	CABLE, TRAFFIC SIGNAL POWER SUPPLY, 2/C– #4, 600 V. EPR. IN CONDUIT
III	III	CABLE, TRAFFIC SIGNAL POWER SUPPLY, 2 1/C–#2 or #1/0 600V. EPR IN CONDUIT
II	II	CABLE, TRAFFIC SIGNAL POWER SUPPLY, 2/C–#10 or #6, 600V NSRI, IN CONDUIT
VII	VII	CABLE, TRAFFIC SIGNAL, 7/C–#12 or #14, 600V, EPR IN CONDUIT
X	X	CABLE, TRAFFIC SIGNAL, 10/C–#12 600V. EPR IN CONDUIT
	XIV	CABLE, TRAFFIC SIGNAL, 14/C–#14, 600V. EPR IN CONDUIT
XIX	XIX	CABLE, TRAFFIC SIGNAL, 19/C–#12 600V, EPR IN CONDUIT
2N	2N	CABLE, STREET LIGHT, 2 1/C–#6, 600V. RINS IN PARKWAY
2NC	2NC	CABLE, STREET LIGHT, 2 1/C–#6, 600V. RINS IN CONDUIT
3TC	3TC	CABLE, STREET LIGHT, 2 1/C–#6 EPRN 600V. & 1 1/C–#8 GREEN, TRIPLEXED,IN CONDUIT
3NC	3NC	CABLE, STREET LIGHT, 3 1/C–#1/0, or #2/0, or #4, 600V. EPR IN CONDUIT
2W	2W	WIRE, STREET LIGHT, 2 1/C–#6, HDNS. AERIAL
3W	3W	WIRE, STREET LIGHT, 2 1/C–#6 & 1 1/C #8, HDNS. AERIAL
III	III	CABLE, STREET LIGHT AERIAL, 3 1/C–#4 or #2 SELF SUPPORTING, 600V EPR
W FA	W FA	WIRE, F.A. & P.C. AERIAL, 1/C–#10, NUMERAL DENOTES QUANTITY
PR	PR	CABLE, F.A. & P.C. AERIAL, W/ MESSENGER #19–(NUMBER OF PAIRS AS INDICATED)
PR 6	PR 6	CABLE, F.A. & P.C. AERIAL, SELF SUPPORTING, #19–(NUMBER OF PAIRS AS INDICATED)
37 PR	37 PR	CABLE, F.A. & P.C., IN CONDUIT, #19–(NUMBER OF PAIRS AS INDICATED)
		DOWNLIGHT ASSEMBLY. (DWG. #850)
		LIGHT, TRAFFIC SAFETY ISLAND
		FLASHING BEACON & DOWNLIGHT

C.M.H. LUMINAIRES

PROPOSED	PRESENT	
		LUMINAIRE, C.M.H. 315W LAMP, 240V
		LUMINAIRE, C.M.H. 315W LAMP, 240V, (FLOOD)
		LUMINAIRE, C.M.H. 210W LAMP, 240V
		LUMINAIRE, C.M.H. 140W LAMP, 240V
		LUMINAIRE, C.M.H. 140W LAMP, 120V, (ALLEY)
		LUMINAIRE, C.M.H. 90W LAMP, 240V
		LUMINAIRE, C.M.H. 90W LAMP, 240V (ACORN)
		LUMINAIRE, C.M.H. 60W LAMP, 240V (ACORN)

H.P.S.V. ORNAMENTAL LUMINAIRES

PROPOSED	PRESENT	
		310W PENDANT (240V)
		400W PENDANT (240V)
		250W PENDANT (240V)
		150W ACORN (120V)
		150W ACORN (240V)
		50W ACORN (240V)
		100W ACORN (240V)
		150W GLOBE (240V)
		100W GLOBE (240V)
		50W GLOBE (240V)

D	02-06-04	REVISED/REDRAW R.POOL/B.I.
C	04-01-02	REVISED/REDRAW R.POOL/B.I.
B	12-4-01	ADDED ORNAMENTAL SYMBOLS
A	8-6-96	REDRAWN
DATE		REVISION

SUPERSEDES DWG. #

WORK ORDER NO. _____ DATE _____

COST ALLOCATION ACCOUNT _____

APPROPRIATION ACCOUNT { MATERIAL _____ LABOR _____

STANDARD CODE FOR TRAFFIC SIGNALS/ STREET LIGHTING

CITY OF CHICAGO
DEPT. OF STREETS AND SANITATION
BUREAU OF ELECTRICITY
DIVISION OF ELECTRICAL ENGINEERING

DRAFTSMAN:	CHIEF DRAFTSMAN:	ENGINEER:
R, IVY R.	CARTER R.	POOL/R.C/W.T.

SUPERVISING ENGINEER: ELEC. DESIGN ENGR.

ENGINEER OF ELECTRICITY:

GEN'L SUPT. OF CONSTRUCTION:

DEPUTY COMMISSIONER:

DWG. NO. 826

SIZE: 22" | 36" SCALE: DATE: 02-06-04

FILE NAME = S:\Projects\3216 Torrence Avenue Bridge Replace -ST\Project Work\Electrical\Sheets\D1608495-sht-plan08.dgn

EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

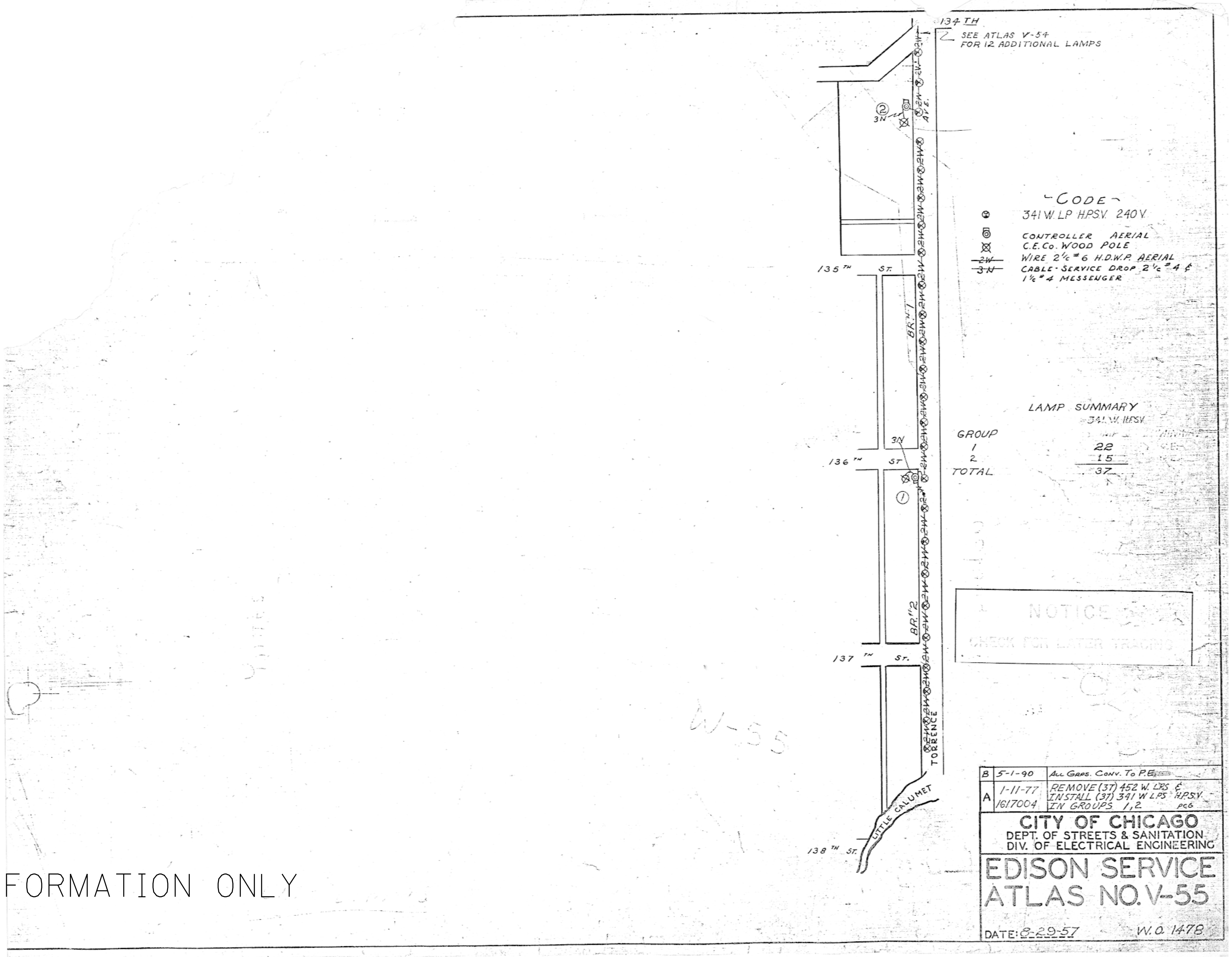
USER NAME = bbarr	DESIGNED - BB	REVISED -	
	DRAWN - BB	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - MR	REVISED -	
PLOT DATE = 6/22/2015	DATE - 6-15-2015	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
LIGHTING DETAILS

SCALE: | SHEET NO. 47 OF 152 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	47
DRAWING NO. EL-8		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			

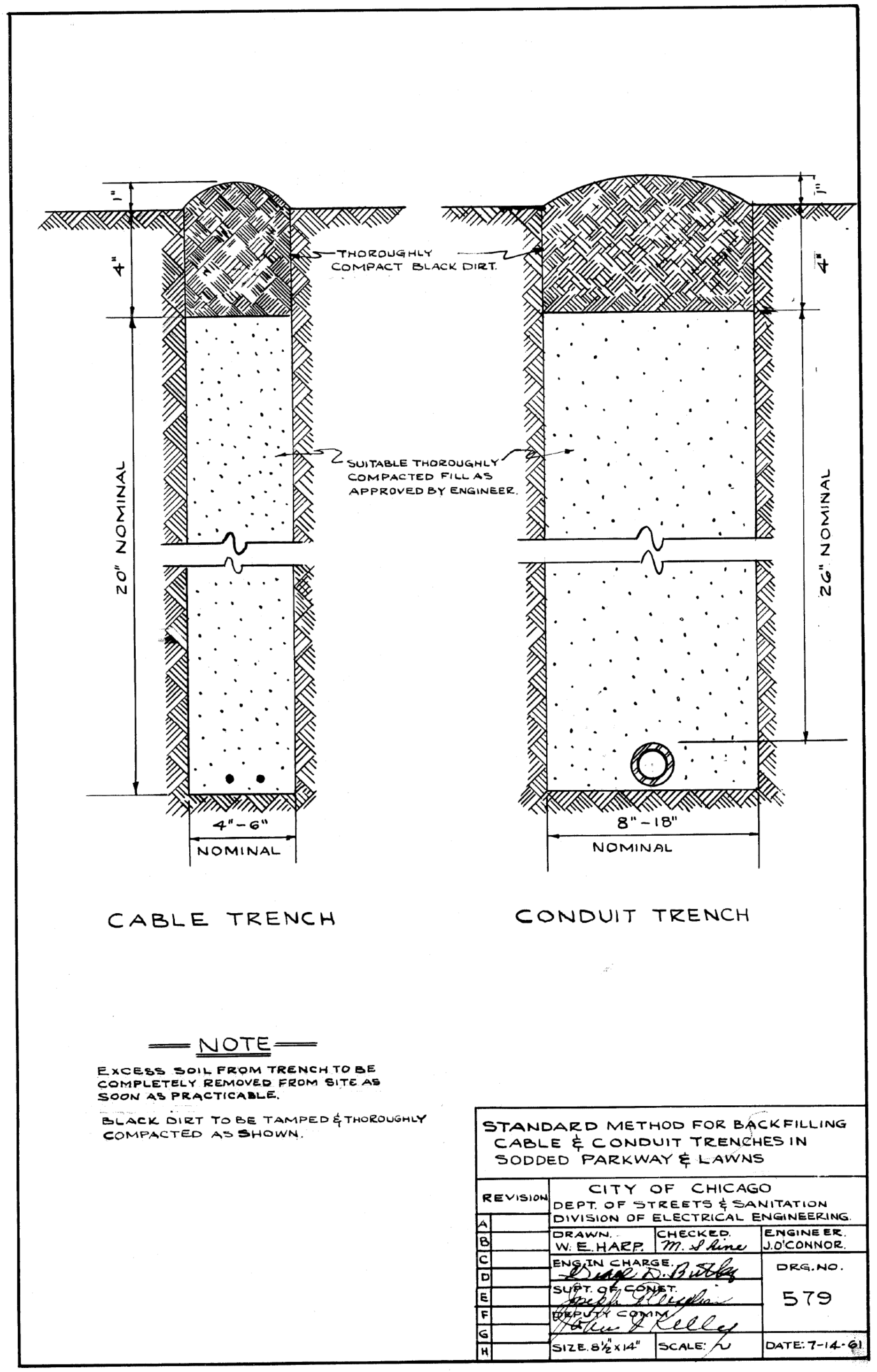


FOR INFORMATION ONLY

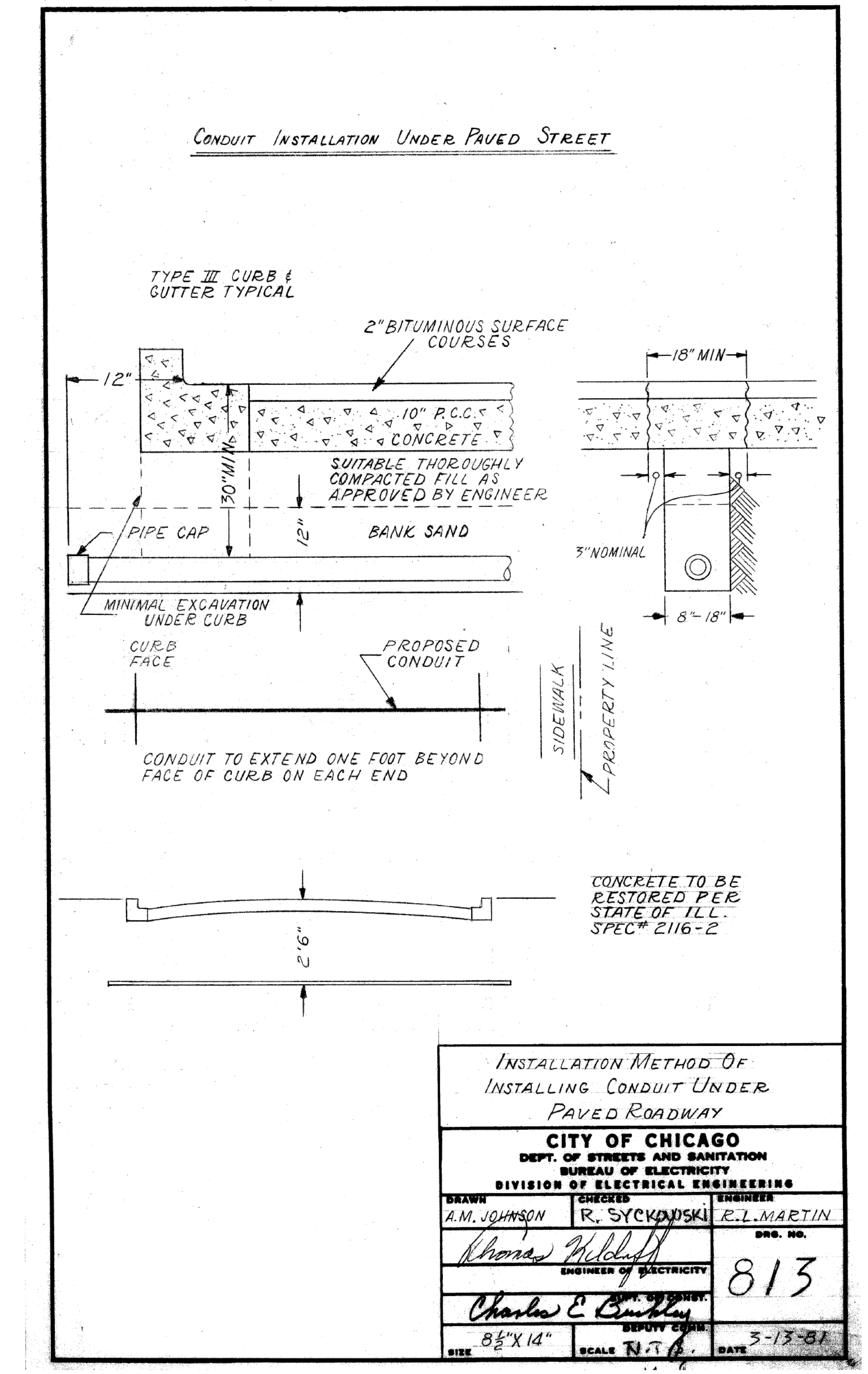
FILE NAME = S:\Projects\3216 Torrence Avenue Bridge Replace -STY\Project Work\Electrical\Sheet\D160R95-sht-plan09.dgn

EJM ENGINEERING, INC. 411 South Wells Street Suite 1000 Chicago, Illinois 60607	USER NAME = bbarr	DESIGNED - BB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TORRENCE AVENUE LIGHTING DETAILS
		DRAWN - BB	REVISED -		
	PLOT SCALE = 100.0000 ' / in.	CHECKED - MR	REVISED -		
	PLOT DATE = 6/22/2015	DATE - 6-15-2015	REVISED -		SCALE: SHEET NO. 48 OF 152 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	48
DRAWING NO. EL-9		CONTRACT NO. 60R95		
		ILLINOIS FED. AID PROJECT		



THOROUGHLY COMPACT BLACK DIRT.
SUITABLE THOROUGHLY COMPACTED FILL AS APPROVED BY ENGINEER.
1"
4"
20" NOMINAL
26" NOMINAL
4"-6"
NOMINAL
8"-18"
NOMINAL
CABLE TRENCH
CONDUIT TRENCH
NOTE
EXCESS SOIL FROM TRENCH TO BE COMPLETELY REMOVED FROM SITE AS SOON AS PRACTICABLE.
BLACK DIRT TO BE TAMPED & THOROUGHLY COMPACTED AS SHOWN.
STANDARD METHOD FOR BACKFILLING CABLE & CONDUIT TRENCHES IN SODDED PARKWAY & LAWNS
REVISION
A B C D E F G H
CITY OF CHICAGO
DEPT. OF STREETS & SANITATION
DIVISION OF ELECTRICAL ENGINEERING.
DRAWN. W. E. HARP.
CHECKED.
ENGINEER. J.O'CONNOR.
ENG. IN CHARGE.
SUPT. OF CONST.
DEPUTY COMM.
DRG. NO. 579
SIZE. 8½"x14"
SCALE:
DATE: 7-14-61



CONDUIT INSTALLATION UNDER PAVED STREET
TYPE III CURB & GUTTER TYPICAL
2" BITUMINOUS SURFACE COURSES
12"
10" P.C.C. CONCRETE
30" MIN.
SUITABLE THOROUGHLY COMPACTED FILL AS APPROVED BY ENGINEER
12"
BANK SAND
PIPE CAP
MINIMAL EXCAVATION UNDER CURB
18" MIN
3" NOMINAL
8"-18"
CURB FACE
PROPOSED CONDUIT
SIDEWALK
PROPERTY LINE
CONDUIT TO EXTEND ONE FOOT BEYOND FACE OF CURB ON EACH END
CONCRETE TO BE RESTORED PER STATE OF ILL. SPEC# 2116-2
2'6"
INSTALLATION METHOD OF INSTALLING CONDUIT UNDER PAVED ROADWAY
CITY OF CHICAGO
DEPT. OF STREETS AND SANITATION
BUREAU OF ELECTRICITY
DIVISION OF ELECTRICAL ENGINEERING
DRAWN A.M. JOHNSON
CHECKED R. SYCKOWSKI
ENGINEER R.L. MARTIN
DRG. NO. 813
ENGINEER OF ELECTRICITY
SUPT. OF CONST.
DEPUTY COMM.
SIZE 8½"X14"
SCALE N.T.S.
DATE 3-13-81

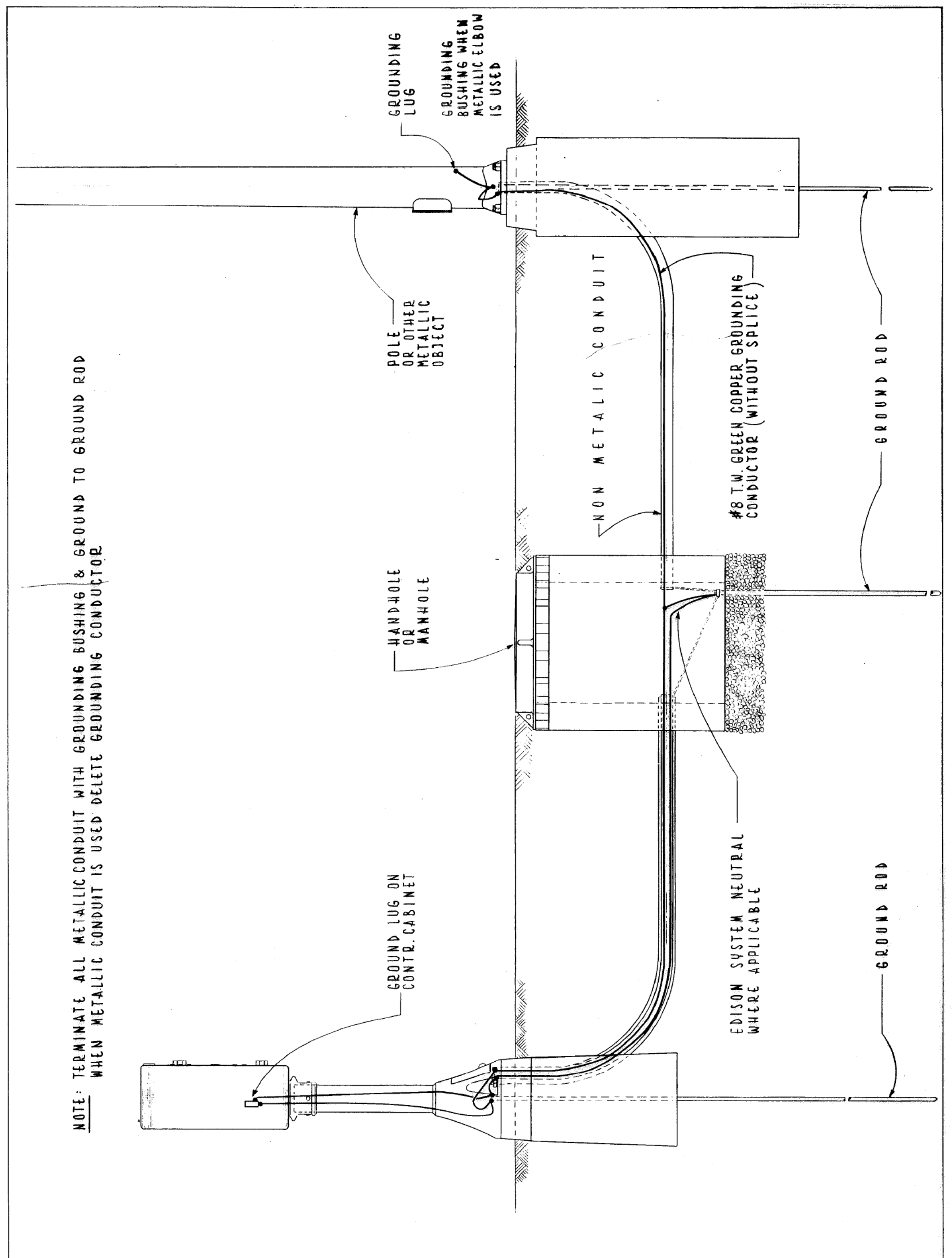
FILE NAME = S:\Projects\3216 Torrence Avenue Bridge Replace -STV\Project Work\Electrical\Sheet\D160R95-sht-plan10.dgn

EJM ENGINEERING, INC. 411 South Wells Street Suite 1000 Chicago, Illinois 60607	USER NAME = bbarr	DESIGNED - BB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - BB	REVISED -	
	PLOT SCALE = 100.0000 ' / in.	CHECKED - MR	REVISED -	
	PLOT DATE = 6/22/2015	DATE - 6-15-2015	REVISED -	

TORRENCE AVENUE LIGHTING DETAILS

SCALE: | SHEET NO. 49 OF 152 SHEETS | STA. | TO STA.

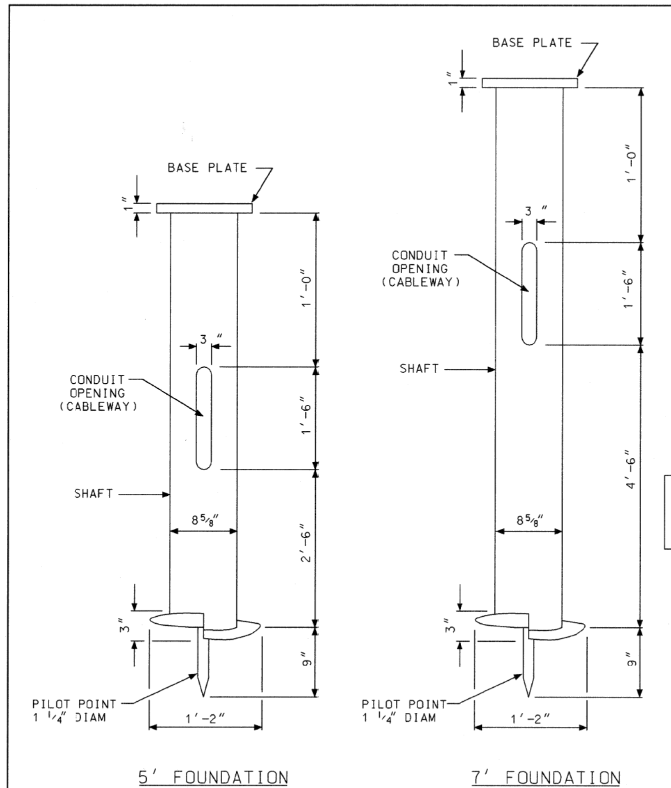
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	49
DRAWING NO. EL-10		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			



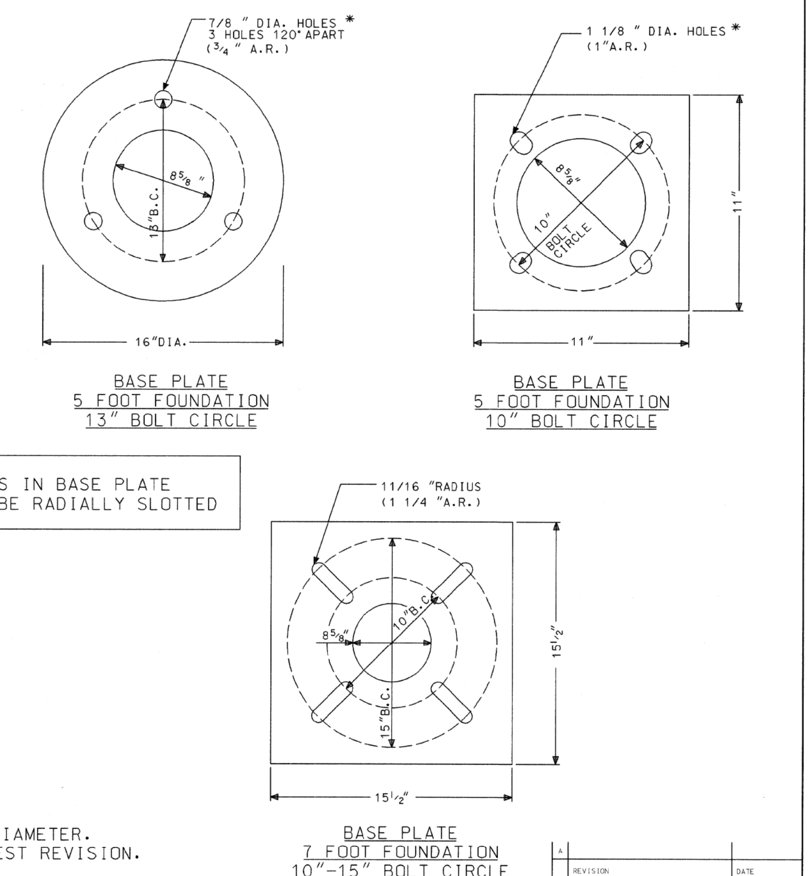
TYPICAL GROUNDING METHODS FOR BUREAU OF ELECTRICITY EQUIPMENT

CITY OF CHICAGO
DEPT. OF STREETS & SANITATION
BUREAU OF ELECTRICITY
DIVISION OF ELEC. ENGINEERING

REVISED	DRAWN: E. GERULIS	CHECKED: M. SHINE	ENGINEER: J. O'CONNOR
A	ENG. OF ELEC.		DWG. NO.
B	SUPT. OF CONST.		736
C			
D	DEPUTY COMM.:		
E			
F	SIZE: 8½" x 14"	SCALE: 1" = 1'	DATE: 5-12-76



* HOLES IN BASE PLATE MAY BE RADIALLY SLOTTED



NOTES:

1. SHAFT MUST HAVE 1/4 " WALL AND HAVE 8 5/8 " OUTSIDE DIAMETER.
2. SHAFT MATERIAL MUST BE ASTM A53B STEEL PIPE OR LATEST REVISION.
3. HELIX MUST BE FORMED BY MATCHING METAL DIE.
4. HELIX MATERIAL MUST BE ASTM A709 GR 36 OR LATEST REVISION.
5. HELIX MUST HAVE 3 INCH PITCH.
6. PILOT POINT MATERIAL WILL BE ASTM A36 STEEL OR LATEST REVISION.
7. BASE PLATE MATERIAL WILL BE ASTM A36 STEEL.
8. ENTIRE STEEL FOUNDATION TO BE HOT DIP GALVANIZED PER ASTM A123 OR LATEST REVISION .
9. BASE PLATE MUST BE PERMANENTLY STAMPED WITH MANUFACTURER'S NAME, MANUFACTURING DATE, AND PRODUCT IDENTIFICATION.
10. BASE PLATE MUST BE PERMANENTLY MARKED ON TOP INDICATING CONDUIT OPENING ORIENTATION.

A	REVISION	DATE

HELIX LIGHT POLE FOUNDATIONS

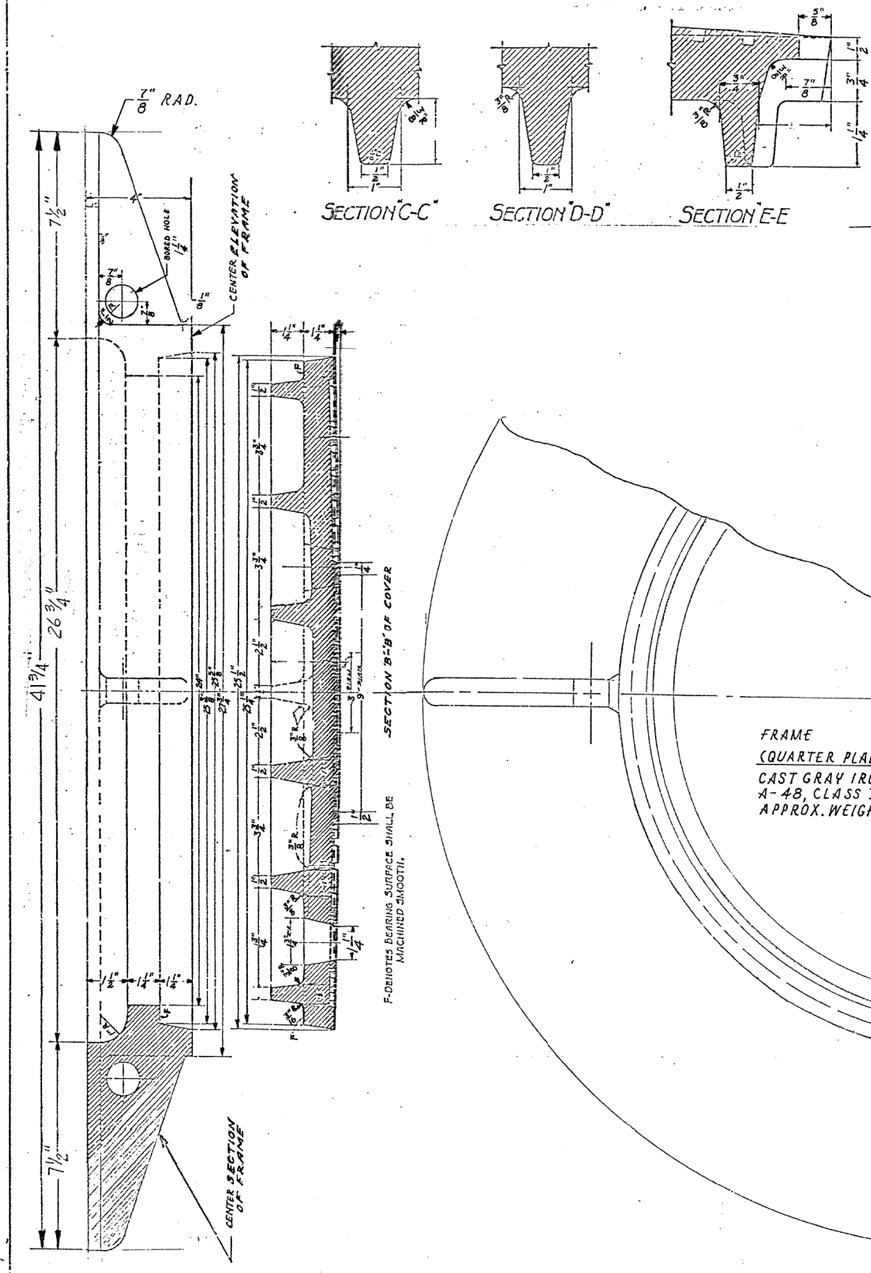
CITY OF CHICAGO

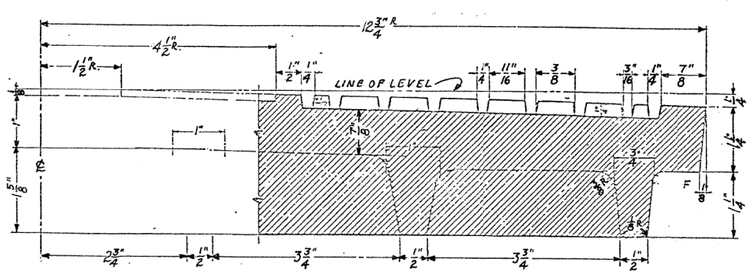
DRAFTSMAN: I. ABABNEH	CHIEF DRAFTSMAN: R. CABRER	ENGINEER: R. POOL
		DWG. NO. 936

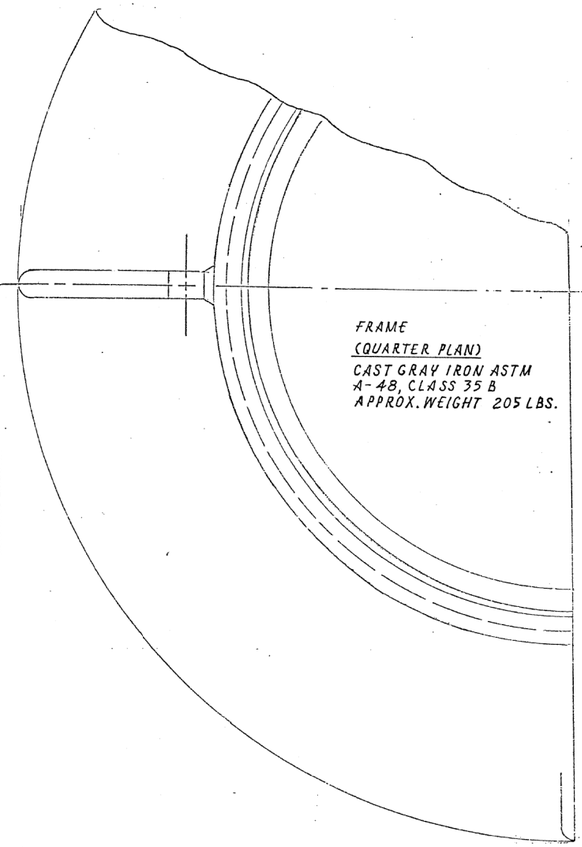
FILE NAME = S:\Projects\3216 Torrence Avenue Bridge Replace -STV\Project Work\Electrical\Sheets\D160R95-sht-plan11.dgn

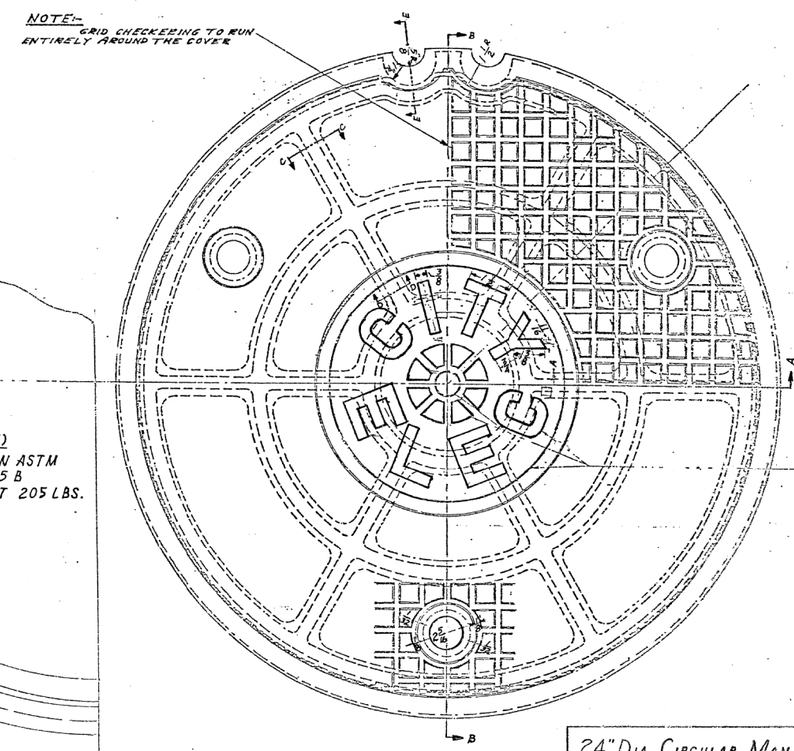
EJM ENGINEERING, INC. 411 South Wells Street Suite 1000 Chicago, Illinois 60607	USER NAME = bbarr	DESIGNED - BB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TORRENCE AVENUE LIGHTING DETAILS
		DRAWN - BB	REVISED -		
	PLOT SCALE = 100.0000 ' / in.	CHECKED - MR	REVISED -		
	PLOT DATE = 6/22/2015	DATE - 6-15-2015	REVISED -		SCALE: SHEET NO. 50 OF 152 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	50
DRAWING NO. EL-11		CONTRACT NO. 60R95		
		ILLINOIS FED. AID PROJECT		









COMMODITY CODE
FRAME
COVER - 02 4574-5040

SUPERSEDES DWG # 10797
DATED 2-10-35

24" DIA. CIRCULAR MANHOLE FRAME & COVER WITH 41¾" O.D. FRAME

CITY OF CHICAGO
DEPT. OF STREETS AND SANITATION
BUREAU OF ELECTRICITY
DIVISION OF ELECTRICAL ENGINEERING

DRAFTSMAN	CHIEF DRAFTSMAN	ENGINEER
A. JOHNSON	C. RESPINO	M. DE BARTOLO
SUPERVISING ENGINEER:	ELEC. DESIGN ENGR.	DWG. NO.
ENGINEER OF ELECTRICITY:		872
GEN'L SUPT. OF ELECTRICITY		
DEPUTY COMMISSIONER:		
SIZE:	SCALE: 4"	DATE: 4-24-92

FILE NAME = S:\Projects\3216 Torrence Avenue Bridge Replace -STV\Project Work\Electrical\Sheets\DI60R95-sht-elec12.dgn

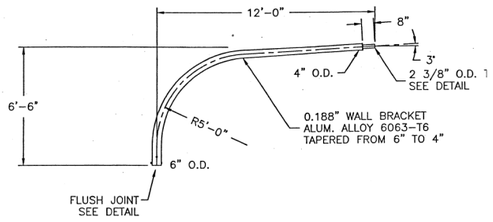
EJM ENGINEERING, INC. 411 South Wells Street Suite 1000 Chicago, Illinois 60607	USER NAME = bbarr	DESIGNED - BB	REVISED -
		DRAWN - BB	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED - MR	REVISED -
	PLOT DATE = 6/22/2015	DATE - 6-15-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

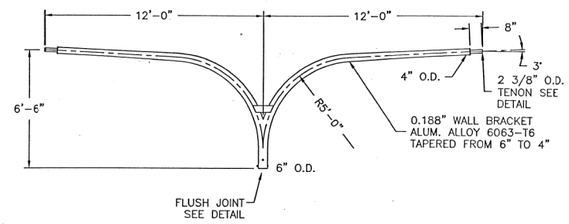
TORRENCE AVENUE
LIGHTING DETAILS

SCALE: | SHEET NO. 51 OF 152 SHEETS | STA. | TO STA.

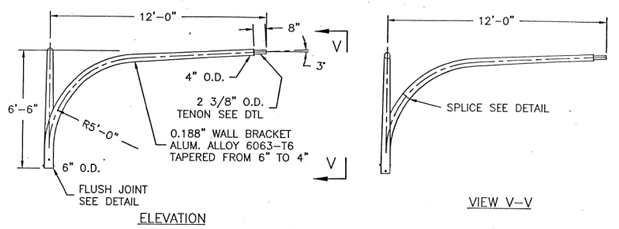
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	51
DRAWING NO. EL-12		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			



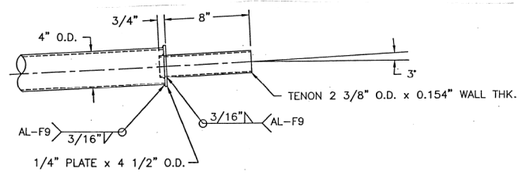
SINGLE DAVIT ARM



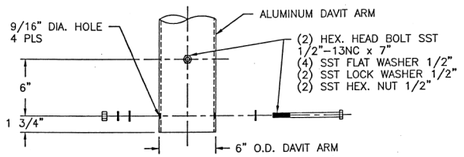
TWIN DAVIT ARM AT 180°



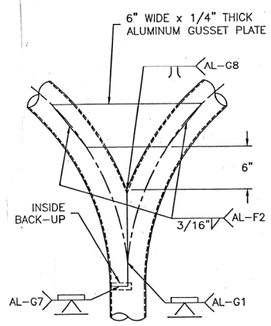
TWIN DAVIT ARM AT 90°



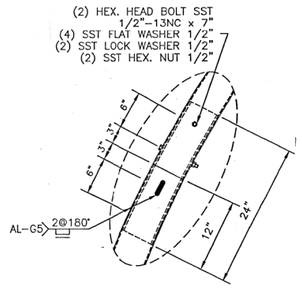
DETAIL OF TENON



DETAIL OF FLUSH JOINT



TWIN ARM (180°) WELD DETAIL



SPLICE DETAIL

ALUMINUM DAVIT ARM
6" x 12'-0"

CITY OF CHICAGO
DEPT. OF STREETS AND SANITATION
BUREAU OF ELECTRICITY
DIVISION OF ELECTRICAL ENGINEERING

DRAFTSMAN:	CHIEF DRAFTSMAN:	ENGINEER:
SUPERVISING ENGINEER:	ELEC. DESIGN ENGR:	DWG. NO. 949
ENGINEER OF ELECTRICITY:		
DEPT. SUPT. OF CONSTRUCTION:		
DEPUTY COMMISSIONER:		
SIZE:	SCALE:	DATE: 1-29-02

SPECIAL NOTE:
DRAWING NUMBER 941 IS PENDING REVISION BY DOEO FOR 35' MOUNTING HEIGHT.

FILE NAME = S:\Projects\3216 Torrence Avenue Bridge Replace -STV\Project Work\Electrical\Sheets\D160R95-sht-elec13.dgn

EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

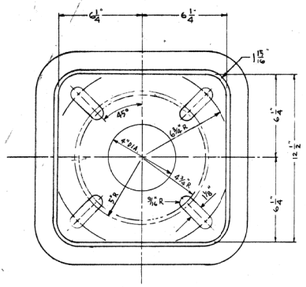
USER NAME = bbarr	DESIGNED - BB	REVISED -
	DRAWN - BB	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - MR	REVISED -
PLOT DATE = 6/22/2015	DATE - 6-15-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

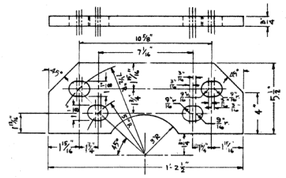
TORRENCE AVENUE
LIGHTING DETAILS

SCALE: | SHEET NO. 52 OF 152 SHEETS | STA. | TO STA.

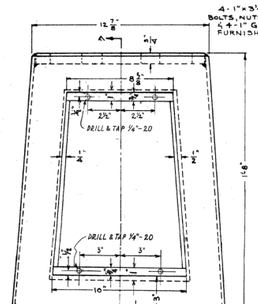
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	52
DRAWING NO. EL-13		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			



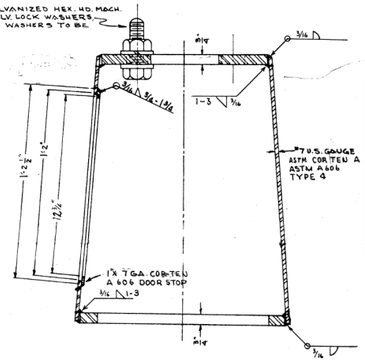
TOP VIEW



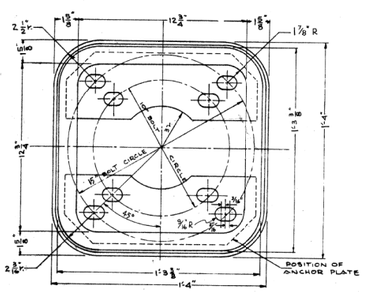
ANCHOR PLATE
2-REQUIRED.
FABRICATED FROM 3/4" ASTM A-36 STEEL



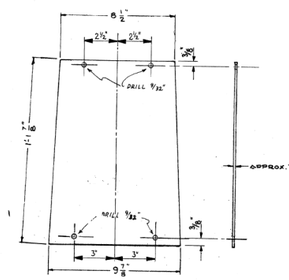
FRONT VIEW



SECTION A-A



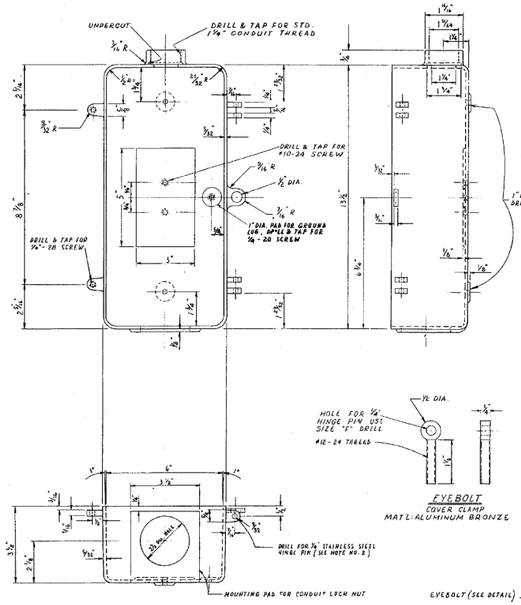
BOTTOM VIEW
WITH ANCHOR PLATE IN PLACE

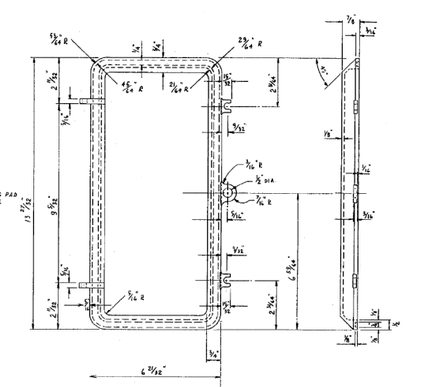


D O O R

NOTE
THIS DRAWING REPLACES 11872

BALLAST HOUSING BASE WITH ANCHOR PLATES FOR 10" & 15" BOLT CIRCLE			
REVISED	CITY OF CHICAGO DEPT. OF STREETS & ELECTRICITY DIVISION OF ELECTRICAL ENGINEERING		
A ADD 4 HOLES.	DESIGNED E. GERULIS	CHECKED M. J. SHINE	ENGINEER M. R. GREEN
B OCT. 19, 1981			DWG. NO. 785
C			
D			
E			
F		DEPUTY CHIEF	
G	SIZE 14"x25"	SCALE 3"=1'-0"	DATE MARCH 25, 1977





A	5-7-1979	ADDED LUG & LAG BOLT HOLE ALLOCATED	J.D.C.
	DATE	REVISION	

WORK ORDER NO. ..... DATE .....
COST ALLOCATION ACCOUNT .....
APPROPRIATION ACCOUNT { MATERIAL ..... LABOR .....

JUNCTION BOX FOR ARTERIAL STREET LIGHTING SERVICE ON C. E. CO. POLE

CITY OF CHICAGO
DEPARTMENT OF STREETS AND SANITATION
BUREAU OF ELECTRICITY
DIVISION OF ELECTRICAL ENGINEERING

DRAFTSMAN: E. GERULIS | CHIEF DRAFTSMAN: [illegible] | ENGINEER: J. BOSKE
SUPERVISING ENGINEER: [illegible]
ENGINEER OF ELECTRICAL ILLUSTRATION: [illegible]
ASSISTANT COMMISSIONER: [illegible]
DEPUTY COMMISSIONER: [illegible]
DWG. NO. 11922
SIZE: 22" | 34" | SCALE: NONE = 1" | DATE: AUG. 30, 1978

FILE NAME = S:\Projects\3216 Torrence Avenue Bridge Replace -STV\Project Work\Electrical\Sheets\D1608495-sht-plan14.dgn

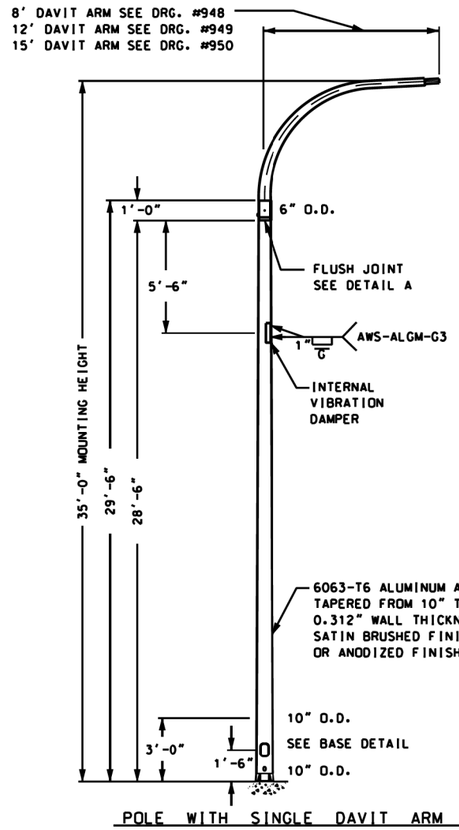
EJM ENGINEERING, INC. 411 South Wells Street Suite 1000 Chicago, Illinois 60607	USER NAME = bbarr	DESIGNED - BB	REVISED -
		DRAWN - BB	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED - MR	REVISED -
	PLOT DATE = 6/22/2015	DATE - 6-15-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

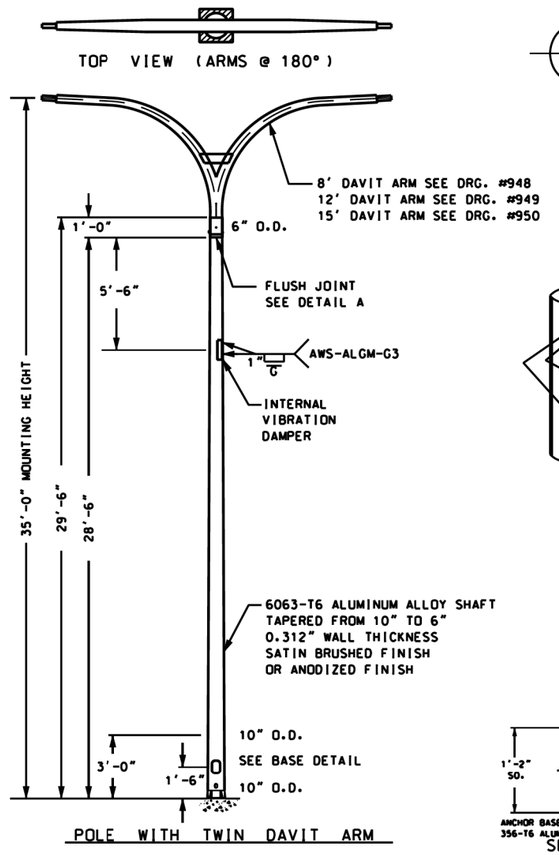
TORRENCE AVENUE LIGHTING DETAILS

SCALE: | SHEET NO. 53 OF 152 SHEETS | STA. | TO STA.

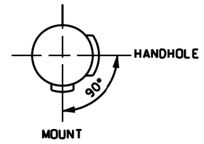
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	53
DRAWING NO. EL-14		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			

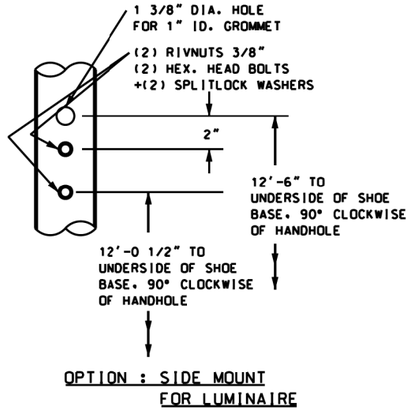


POLE WITH SINGLE DAVIT ARM

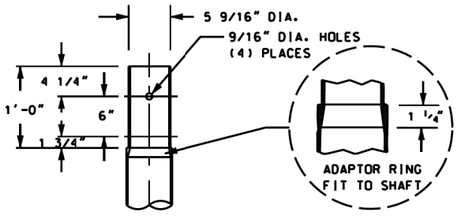


POLE WITH TWIN DAVIT ARM





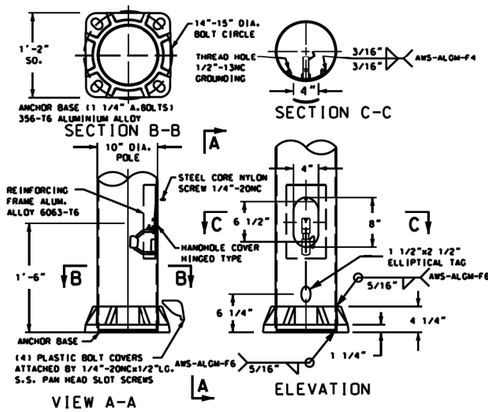
OPTION : SIDE MOUNT
FOR LUMINAIRE



DETAIL A

GENERAL NOTES:

- UNITS SHALL BE MANUFACTURED IN ACCORDANCE WITH THE 1994 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS.
- DESIGN WIND VELOCITY SHALL BE 80 MILES PER HOUR WITH 1.3 GUST FACTOR.
- LIGHT POLE SHALL BE DESIGNED TO SUPPORT (1) 40 POUNDS LUMINAIRE WITH AN EFFECTIVE PROJECTED AREA OF 1.2 SQUARE FEET MOUNTED ON A 35'-0" SINGLE DAVIT ARM.



A	DATE	REVISION	

ALUMINUM DAVIT POLE
10" x 6" x 35'
FOR ARTERIAL STREETS

CITY OF CHICAGO
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING-ELECTRICAL SECTION

DRAWN: G.M.PADIYAR	CHIEF DRAFTSMAN:	ENGINEER: R.POOL
SUPERVISING ENGINEER:		
ENGINEER OF ELECTRICITY:		
ASST. SUPT. OF ELECTRICITY:		
DEPUTY COMMISSIONER:		

DWG. NO. 971

SIZE: | SCALE: NONE | DATE: 04/15/13

...\971 & 972_DavitArmPole35%27&40 1/9/2014 8:11:36 AM

FILE NAME = S:\Projects\3216 Torrence Avenue Bridge Replace -STV\Project Work\Electrical\Sheets\D1608495-sht-plan15.dgn

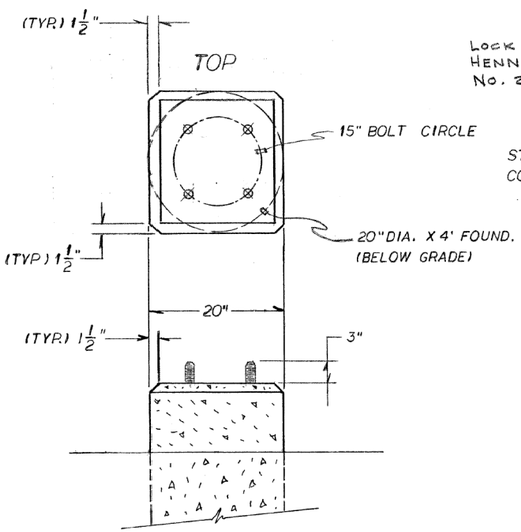
EJM ENGINEERING, INC. 411 South Wells Street Suite 1000 Chicago, Illinois 60607	USER NAME = bbarr	DESIGNED - BB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TORRENCE AVENUE LIGHTING DETAILS
		DRAWN - BB	REVISED -		
	PLOT SCALE = 100.0000 ' / in.	CHECKED - MR	REVISED -		
	PLOT DATE = 6/22/2015	DATE - 6-15-2015	REVISED -		SCALE: / SHEET NO. 54 OF 152 SHEETS / STA. / TO STA.

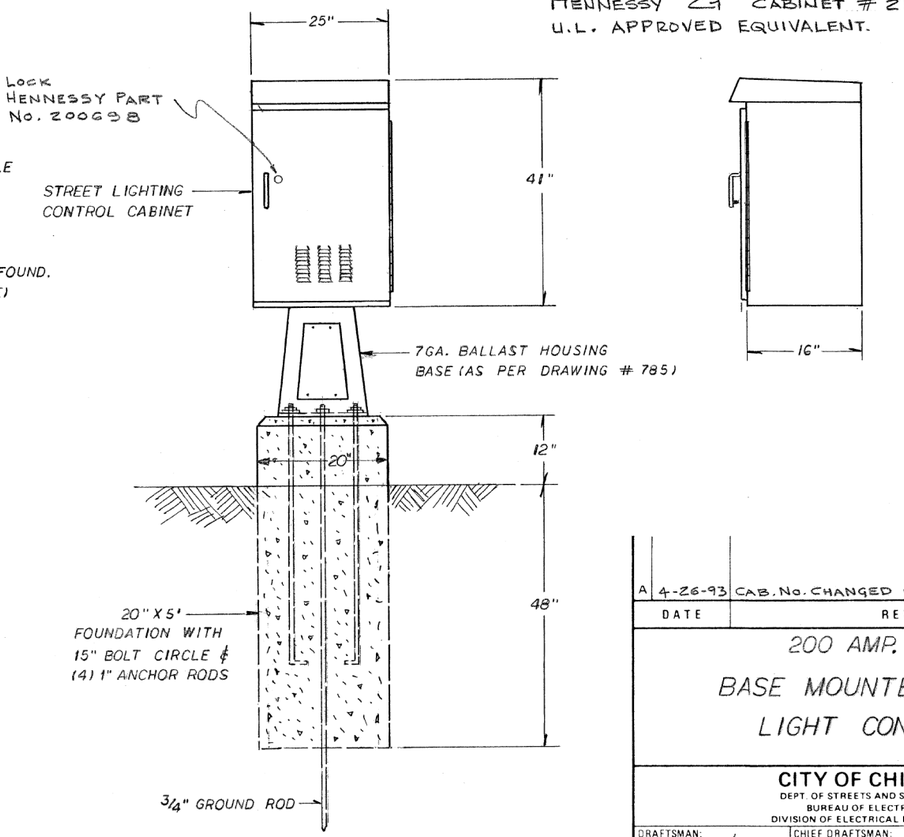
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	54
DRAWING NO. EL-15		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			

- DRILL (4) 1/2" DIA. HOLES IN BOTTOM OF CABINET & TOP OF BALLAST HOUSING BASE. BOLT CABINET TO B.H.B. USING (4) 3/8" X 2 1/2" BOLTS.
- OPENINGS IN BOTTOM OF CABINET & TOP OF B.H.B. MAY BE ENLARGED TO A MAX. OF 5" X 10" TO FACILITATE ADDITIONAL CABLE.
- NUMBER & SIZE OF CONDUITS TO BE SHOWN ON CONSTRUCTION DRAWINGS.
- SEE DRAWING # 884 FOR ELECTRICAL PANEL DETAILS.
- SEE DRAWINGS # 862 & 864 FOR WIRING DIAGRAM.

CODE	DRWG.	MATERIAL	SIZE	QUANT.
05-5082-5324	—	FIBER FORM	20" ø	4'
05-3267-2940	—	CONCRETE	CU. YD.	0.7
37-8180-0236	811	ANCHOR ROD	1" X 60"	4
09-7796-9200	—	GROUND ROD	3/4" X 10'	1
09-2636-3240	—	CLAMP, GROUND ROD	3/4"	1
09-3392-7850		CABINET ALUMINUM	41"X25"X16"	1
37-2130-4280	785	BALLAST HOUSING BS	1'-4" X 1'-8"	1

NOTE:
HENNESSY "G" CABINET # 212374 OR U.L. APPROVED EQUIVALENT.





DATE	REVISION
A 4-26-93	CAB. No. CHANGED CITY NAME REMOVED

200 AMP. BASE MOUNTED STREET LIGHT CONTROLLER

CITY OF CHICAGO
DEPT. OF STREETS AND SANITATION
BUREAU OF ELECTRICITY
DIVISION OF ELECTRICAL ENGINEERING

DRAFTSMAN:	CHIEF DRAFTSMAN:	ENGINEER:
ARMANDO VIVANCO	CARMEN ESPINO	M. DEBARTOLO
SUPERVISING ENGINEER: D. Carlson	ELEC. DESIGN ENGR.	DWG. NO. 880
ENGINEER OF ELECTRICITY: A. Dubelsky		
GEN'L. SUPT. OF ELECTRICITY		
DEPUTY COMMISSIONER:		
SIZE: 16 | 21	SCALE:	DATE:

644717
CENTURY BLUE PRINT 90280 1/87

FILE NAME = s:\Projects\3216 Torrence Avenue Bridge Replace -STV\Project Work\Electrical\Sheet\D160795-sht-plan&dgn

EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

USER NAME = bbarr	DESIGNED - BB	REVISED -
	DRAWN - BB	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - MR	REVISED -
PLOT DATE = 6/22/2015	DATE - 6-15-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

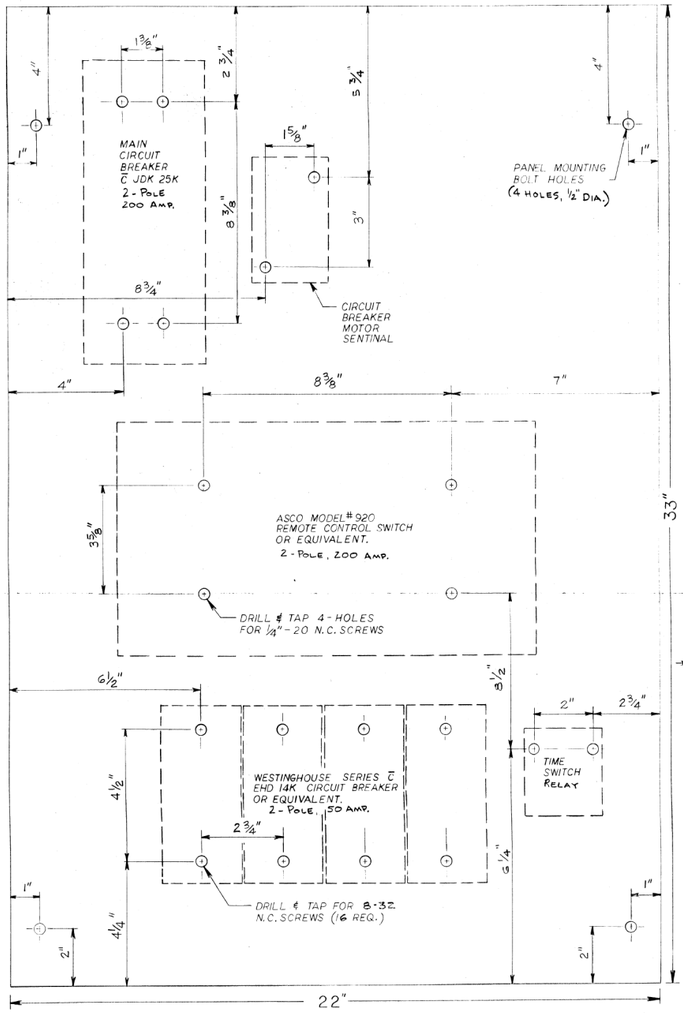
TORRENCE AVENUE
LIGHTING DETAILS

SCALE: | SHEET NO. 55 OF 152 SHEETS | STA. | TO STA.

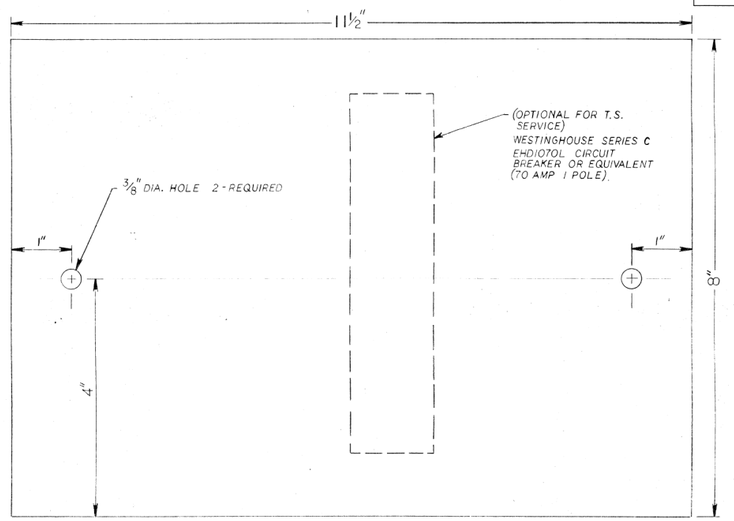
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	55
DRAWING NO. EL-16		CONTRACT NO. 60R95		
ILLINOIS FED. AID PROJECT				

APPROVED AS WORKING PLAN
BY
REVISIONS OF WORKING PLAN

FEDERAL AID ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FHWA REG. NO.	ILLINOIS PROJECT			

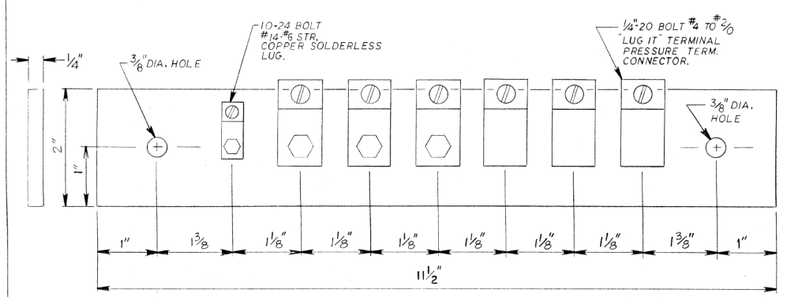


BACK PANEL
½" THICK PHENOLIC LINEN BASE



(OPTIONAL) PANEL FOR TRAFFIC SIGNAL SERVICE
½" THICK PHENOLIC LINEN BASE PANEL
TO BE MOUNTED ON UPPER LEFT SIDE OF CABINET

- SEE DRG. # 880 FOR CABINET DETAILS.
- SEE DRG. # 862 FOR WIRING DIAGRAM.



¼" THICK COPPER BUS BAR
TO BE MOUNTED ON LOWER LEFT SIDE OF CABINET.

A	
DATE	REVISION

WORK ORDER NO. _____ DATE _____
COST ALLOCATION ACCOUNT _____
APPROPRIATION ACCOUNT { MATERIAL _____ LABOR _____

PANELS FOR 200 AMPERE 2-POLE SWITCHING EQUIPMENT IN STREET LIGHT CONTROL CABINET

CITY OF CHICAGO
DEPT. OF STREETS AND SANITATION
BUREAU OF ELECTRICITY
DIVISION OF ELECTRICAL ENGINEERING

DRAFTSMAN: B. IVY	CHIEF DRAFTSMAN: C. RESPINO	ENGINEER: M. DEBARTOLO
SUPERVISING ENGINEER: D. Carlson	ELEC. DESIGN ENGR.	DWG. NO.
ENGINEER OF ELECTRICITY:		
GEN'L. SUPT. OF ELECTRICITY: A. Dukelsky		884
DEPUTY COMMISSIONER:		
SIZE: 22" | 36"	SCALE: NONE	DATE: 01/01/90

FILE NAME = S:\Projects\3216 Torrence Avenue Bridge Replace -ST\Project Work\Electrical\Sheets\D1608955-sht-plan17.dgn

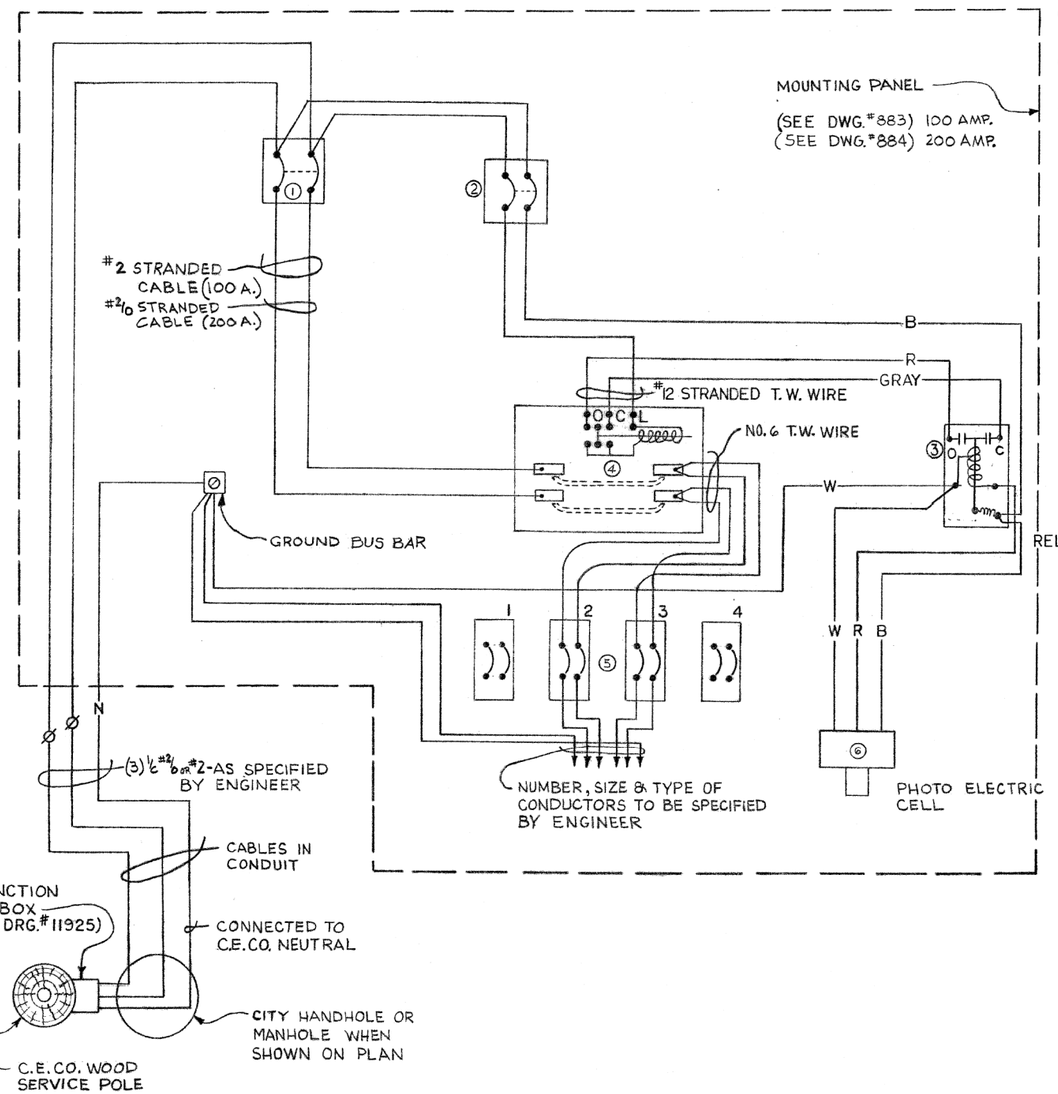
EJM ENGINEERING, INC. 411 South Wells Street Suite 1000 Chicago, Illinois 60607	USER NAME = bbarr	DESIGNED - BB	REVISED -
		DRAWN - BB	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED - MR	REVISED -
	PLOT DATE = 6/22/2015	DATE - 6-15-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
LIGHTING DETAILS

SCALE: | SHEET NO. 56 OF 152 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	56
DRAWING NO. EL-17		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			



① – CIRCUIT BREAKER - 2 POLE, 100A "FDB" FRAME OR 2 POLE, 200A. "JDB" FRAME (WESTINGHOUSE CO.)
② – MANUAL STARTER - 2 POLE, 5.3A. THERMAL OVERLOAD (SQUARE D, CLASS 2510, TYPE FO-2)
③ – RELAY (POTTER-BRUMFIELD PRD 5AY0-120)
④ – REMOTE CONTROL SWITCH - 2 POLE, 100A. OR 2 POLE, 200A. 240 V. A.C. COIL (AUTOMATIC SWITCH CO.)
⑤ – BRANCH CIRCUIT BREAKER - 2 POLE, 50A., OR 70A. "EHD" FRAME. (WESTINGHOUSE CO.)
⑥ – PHOTO ELECTRIC CELL (FISHER PIERCE "NIGHTLIGHTER", MODEL FA105, 1000 WATT.)

SEE DRG# 876 FOR CABINET ASSEMBLY (100 AMP.).
SEE DRG.# 880 FOR CABINET ASSEMBLY (200 AMP.).

NOTES

1. MOUNT PHOTOCELL IN BOTTOM OF CABINET AT RIGHT SIDE. BOTTOM OF PHOTOCELL TO BE FLUSH OR SLIGHTLY ABOVE OUTSIDE EDGE OF CABINET.
2. GROUND BUS TO BE MOUNTED ON LEFT SIDE WALL OF CABINET (SEE DETAIL DRG. NO. 883 AND 884.)
3. SEE DRG. NO. 883 FOR DETAIL OF MOUNTING PANEL. (100 AMP)
4. SEE DRG. NO. 884 FOR DETAIL OF MOUNTING PANEL. (200 AMP)

DATE	REVISION
A	

WIRING DIAGRAM FOR 100/200 AMP. SINGLE PHASE 240V. STREET LIGHTING CONTROLLER WITH PHOTO CELL (120V.)

CITY OF CHICAGO
DEPT. OF STREETS AND SANITATION
BUREAU OF ELECTRICITY
DIVISION OF ELECTRICAL ENGINEERING

DRAFTSMAN: BOB IVY	CHIEF DRAFTSMAN: C. RESPINO	ENGINEER: W. TROMPKA
SUPERVISING ENGINEER: D. Carlson		DWG. NO. 862
ENGINEER OF ELECTRICITY: A. Dukelsky		
SUPT. OF CONSTRUCTION:		
DEPUTY COMMISSIONER:		
SIZE: 16x21	SCALE: NONE	DATE: 10-07-90

58002
CENTURY BLUEPRINT 1000H

FILE NAME = S:\Projects\3216 Torrence Avenue Bridge Replace -STV\Projects Work\Electrical\Sheet\D1680795-sht-plan18.dgn

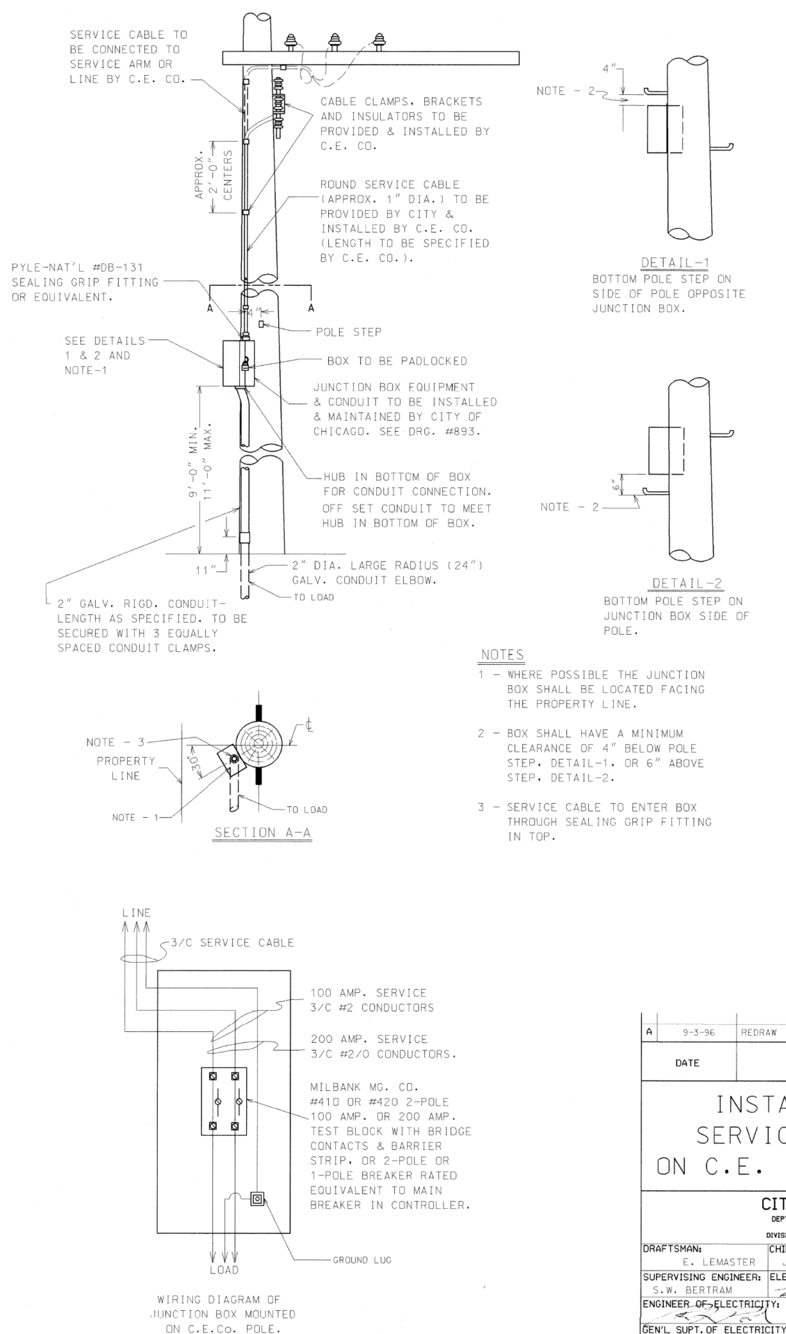
EJM ENGINEERING, INC. 411 South Wells Street Suite 1000 Chicago, Illinois 60607	USER NAME = bbarr	DESIGNED - BB	REVISED -
		DRAWN - BB	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED - MR	REVISED -
	PLOT DATE = 6/22/2015	DATE - 6-15-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
LIGHTING DETAILS

SCALE: | SHEET NO. 57 OF 152 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	57
DRAWING NO. EL-18		CONTRACT NO. 60R95		
ILLINOIS FED. AID PROJECT				



NOTES

1 - WHERE POSSIBLE THE JUNCTION BOX SHALL BE LOCATED FACING THE PROPERTY LINE.

2 - BOX SHALL HAVE A MINIMUM CLEARANCE OF 4" BELOW POLE STEP. DETAIL-1. OR 6" ABOVE STEP. DETAIL-2.

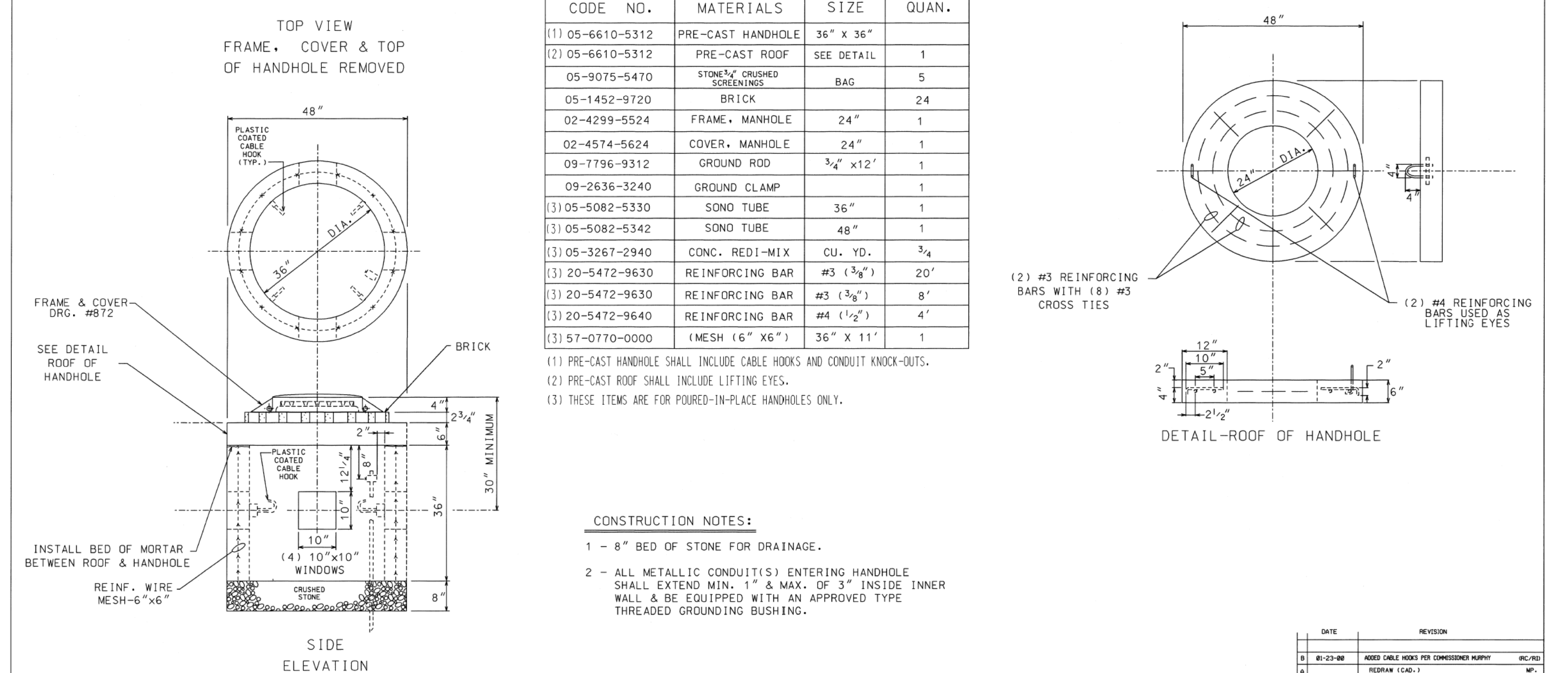
3 - SERVICE CABLE TO ENTER BOX THROUGH SEALING GRIP FITTING IN TOP.

A	9-3-96	REDRAW	MP.
	DATE	REVISION	

INSTALLATION OF SERVICE EQUIPMENT ON C.E. CO. WOOD POLES

CITY OF CHICAGO
DEPT. OF STREETS AND SANITATION
BUREAU OF ELECTRICITY
DIVISION OF ELECTRICAL ENGINEERING

DRAFTSMAN: E. LEMASTER | CHIEF DRAFTSMAN: J. BORE | ENGINEER: J. BORE
SUPERVISING ENGINEER: S.W. BERTRAM | ELEC. DESIGN ENGR.
ENGINEER OF ELECTRICITY:
GEN'L SUPT. OF ELECTRICITY:
DEPUTY COMMISSIONER:
SIZE: | SCALE:
DWG. NO. 11925
DATE: 12-26-56



COMPLETE COMMODITY CODE NO. 05-6610-5310M			
CODE NO.	MATERIALS	SIZE	QUAN.
(1) 05-6610-5312	PRE-CAST HANDHOLE	36" X 36"	
(2) 05-6610-5312	PRE-CAST ROOF	SEE DETAIL	1
05-9075-5470	STONE 3/4" CRUSHED SCREENINGS	BAG	5
05-1452-9720	BRICK		24
02-4299-5524	FRAME, MANHOLE	24"	1
02-4574-5624	COVER, MANHOLE	24"	1
09-7796-9312	GROUND ROD	3/4" x12'	1
09-2636-3240	GROUND CLAMP		1
(3) 05-5082-5330	SONO TUBE	36"	1
(3) 05-5082-5342	SONO TUBE	48"	1
(3) 05-3267-2940	CONC. REDI-MIX	CU. YD.	3/4
(3) 20-5472-9630	REINFORCING BAR	#3 (3/8")	20'
(3) 20-5472-9630	REINFORCING BAR	#3 (3/8")	8'
(3) 20-5472-9640	REINFORCING BAR	#4 (1/2")	4'
(3) 57-0770-0000	(MESH (6" X6")	36" X 11'	1

(1) PRE-CAST HANDHOLE SHALL INCLUDE CABLE HOOKS AND CONDUIT KNOCK-OUTS.
(2) PRE-CAST ROOF SHALL INCLUDE LIFTING EYES.
(3) THESE ITEMS ARE FOR POURED-IN-PLACE HANDHOLES ONLY.

CONSTRUCTION NOTES:

1 - 8" BED OF STONE FOR DRAINAGE.

2 - ALL METALLIC CONDUIT(S) ENTERING HANDHOLE SHALL EXTEND MIN. 1" & MAX. OF 3" INSIDE INNER WALL & BE EQUIPPED WITH AN APPROVED TYPE THREADED GROUNDING BUSHING.

DATE	REVISION	
B 01-23-98	ADDED CABLE HOOKS PER COMMISSIONER MURPHY	MC/RD
A	REDRAW (CAD.)	MP.

36" DIA. HEAVY DUTY CONCRETE HANDHOLE WITH 24" FRAME & COVER

CITY OF CHICAGO
DEPT. OF STREETS AND SANITATION
BUREAU OF ELECTRICITY
DIVISION OF ELECTRICAL ENGINEERING

DRAFTSMAN: M. PATTON | CHIEF DRAFTSMAN: B. CARTER | ENGINEER: W. TROMPKA / W. DEBARTOLO
SUPERVISING ENGINEER | ELEC. DESIGN ENGR.
ENGINEER OF ELECTRICITY:
GEN'L SUPT. OF ELECTRICITY:
DEPUTY COMMISSIONER:
DWG. NO. 866
SIZE: 17" 22" | SCALE: NONE | DATE: 1-12-96

FILE NAME = S:\Projects\3216 Torrence Avenue Bridge Replace -STV\Project Work\Electrical\Sheets\IL60R95-sht-plan19.dgn

EJM ENGINEERING, INC. 411 South Wells Street Suite 1000 Chicago, Illinois 60607	USER NAME = bbarr	DESIGNED - BB	REVISED -
		DRAWN - BB	REVISED -
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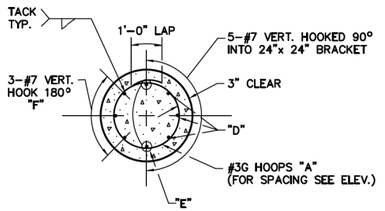
	PLOT DATE = 6/22/2015	DATE - 6-15-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

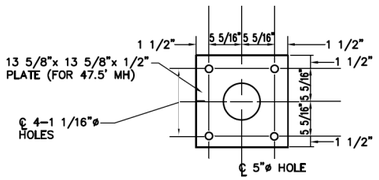
TORRENCE AVENUE
LIGHTING DETAILS

SCALE: | SHEET NO. 58 OF 152 SHEETS | STA. | TO STA.

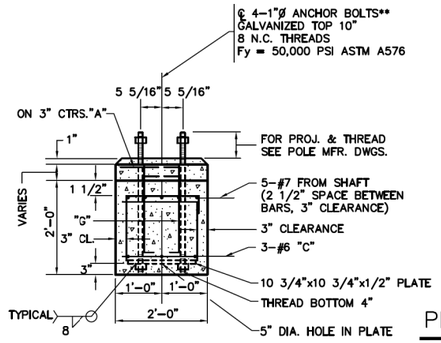
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	58
DRAWING NO. EL-19		CONTRACT NO. 60R95		
		ILLINOIS FED. AID PROJECT		



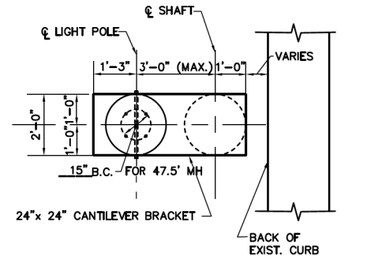
SECTION A–A



ANCHOR BOLT PLATE



SECTION B–B



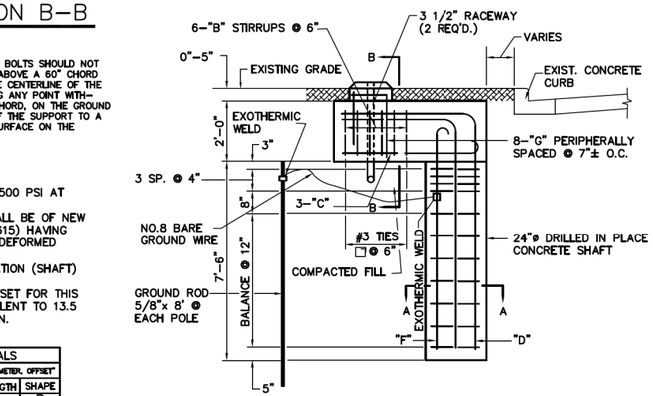
PLAN – CANTILEVERED BRACKET

** NOTE
THE TOP OF THE ANCHOR BOLTS SHOULD NOT PROJECT MORE THAN 4" ABOVE A 60" CHORD ALIGNED RADIALLY TO THE CENTERLINE OF THE HIGHWAY AND CONNECTING ANY POINT WITHIN THE LENGTH OF THE CHORD, ON THE GROUND SURFACE ON ONE SIDE OF THE SUPPORT TO A POINT ON THE GROUND SURFACE ON THE OTHER SIDE.

NOTE :

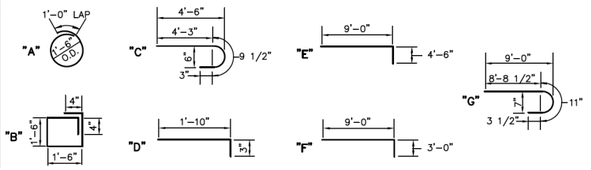
1. CONCRETE SHALL BE 3500 PSI AT 14 DAYS. (CLASS X).
2. REINFORCING BARS SHALL BE OF NEW BILLET STEEL (ASTM A615) HAVING Fy = 60,000 PSI AND DEFORMED (ASTM A307).
3. HOLE FOR THE FOUNDATION (SHAFT) SHALL BE AUGERED.
4. POLE FOUNDATION, OFFSET FOR THIS APPLICATION IS EQUIVALENT TO 13.5 LIN.FT. PER FOUNDATION.

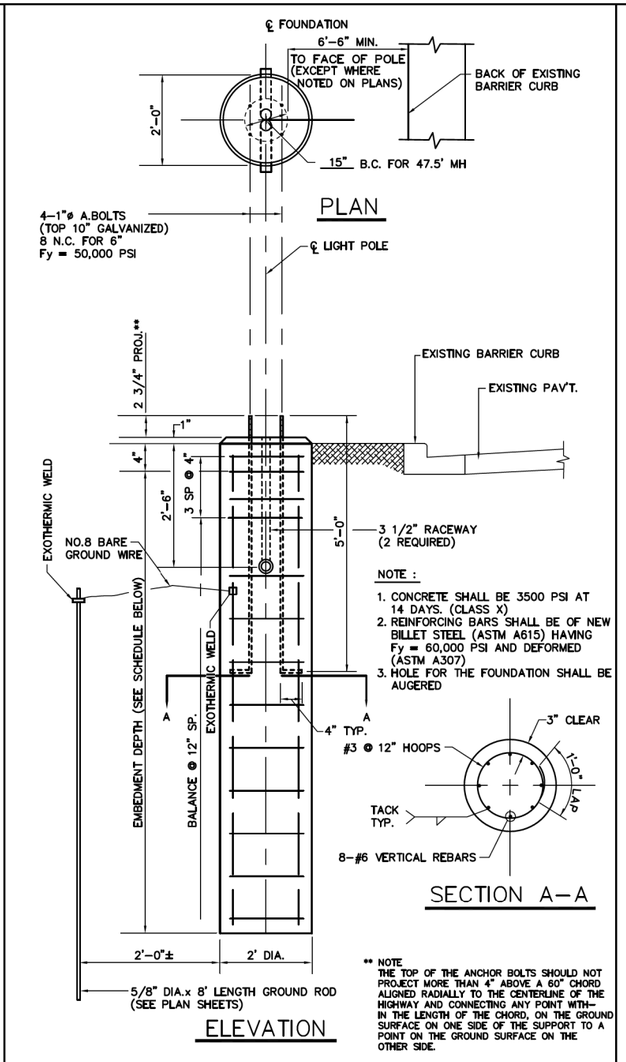
BILL OF MATERIALS "LIGHT POLE FOUNDATION, 24" DIAMETER, OFFSET"				
QUAN.	MARK	SIZE	LENGTH	SHAPE
11	A	NO.3	5'-9"	
6	B	NO.3	6'-8"	
3	C	NO.6	5'-31/2"	
8	G	NO.6	2'-1"	
3	D	NO.7	13'-6"	
2	E	NO.7	12'-0"	
3	F	NO.7	9'-11"	
REINFORCING BARS LBS.				285
CLASS X CONCRETE CU.YDS.				1.7
ANCHOR BOLTS NO.				4
ANCHOR BOLT PLATE NO.				1



ELEVATION

POLE FOUNDATION, OFFSET – DETAILS





LIGHT POLE FOUNDATION (TYPICAL)

FOUNDATION SCHEDULE

TYPE OF SOILS		EMBEDMENT MOUNTING HEIGHT			
DESCRIPTION	STANDARDS	30 FT.	35 FT.	40 FT.	50 FT.
SOFT CLAY	Qu= .25–.50 T/FT.²	9'–0"	9'–8"	10'–6"	14'–0"
MEDIUM CLAY	Qu= .50–1.0 T/FT.²	6'–6"	7'–0"	7'–6"	10'–0"
DENSE CLAY	Qu= 1.0–2.0 T/FT.²	5'–6"	6'–0"	6'–6"	8'–6"
LOOSE SAND	N= 4–10	7'–0"	7'–8"	8'–4"	11'–0"
MEDIUM SAND	N= 10–30	6'–0"	6'–6"	7'–3"	9'–6"
DENSE SAND	N= 30–50	5'–6"	6'–0"	6'–6"	8'–6"

F. A. U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
2937	93–00029–00–LT	COOK	13	9
ILLINOIS PROJECT	STPM – 7003 (156)			

ROBINSON ENGINEERING, LTD.
CONSULTING REGISTERED PROFESSIONAL ENGINEERS
357 EAST 170TH STREET – P.O. BOX 386 – SOUTH HOLLAND, ILLINOIS 60473–0386
(708) 331–6700 CHICAGO (312) 468–1955 FAX (708) 331–3626

TORRENCE AVE. LIGHTING
FOUNDATION DETAILS
POLE INSTALLATION DETAIL
BURNHAM, ILLINOIS

Drawn By L.T.L.	Date 2/22/94
Checked By P.A.P.	Scale 1=1
SHEET OF	PROJECT NO. 93–163

REVISIONS		
NO	DATE	

1=1 93163D01

93163D01

FILE NAME = S:\Projects\3216 Torrence Avenue Bridge Replace -STV\Project Work\Electrical\Sheets\D160895-sht-plan20.dgn

EJM ENGINEERING, INC. 411 South Wells Street Suite 1000 Chicago, Illinois 60607	USER NAME = bbarr	DESIGNED - BB	REVISED -
		DRAWN - BB	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED - MR	REVISED -
	PLOT DATE = 6/22/2015	DATE - 6-15-2015	REVISED -

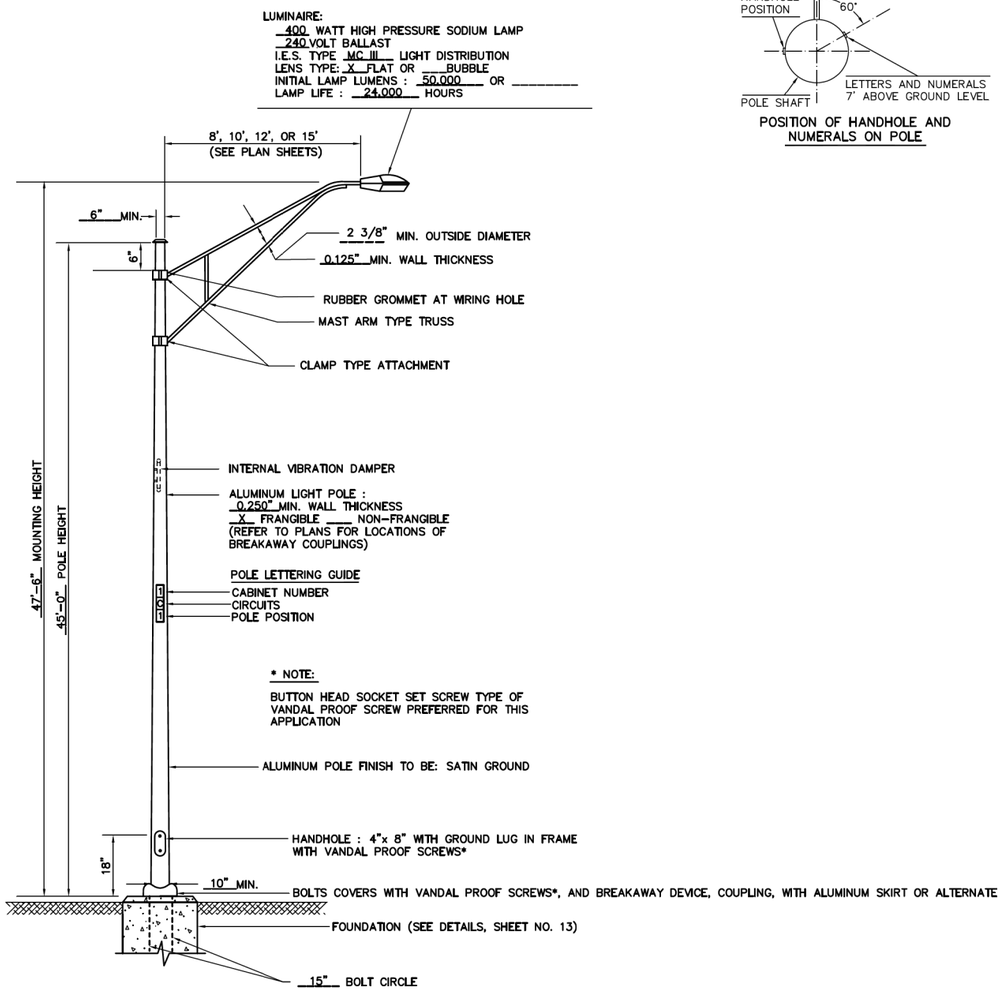
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
LIGHTING DETAILS

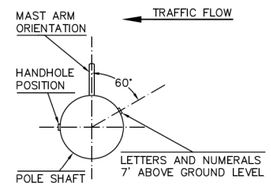
SCALE: | SHEET NO. 59 OF 152 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	59
DRAWING NO.	EL-20	CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			

F. A. P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
2937	93-00029-00-LT	COOK	13	10
ILLINOIS PROJECT		STPM - 7003 (156)		



TYPICAL POLE INSTALLATION



POSITION OF HANDHOLE AND NUMERALS ON POLE

NOTES:

1.) THE LIGHTING UNITS SHALL MEET AASHTO DESIGN CRITERIA. DESIGN FOR 80 M.P.H. WIND WITH 30% GUST AND 75 POUND LUMINAIRE HAVING AN E.P.A. OF 1.6 SQ. FT. AND PROPER ICE LOADING.

2.) ALUMINUM ALLOY 6063-T6 SHALL BE USED.

ROBINSON ENGINEERING, LTD.
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357 EAST 170TH STREET - P.O. BOX 386 - SOUTH HOLLAND, ILLINOIS 60473-0386
(708) 331-6700 CHICAGO (312) 468-1955 FAX (708) 331-3826

TORRENCE AVE. LIGHTING

POLE INSTALLATION DETAIL

BURNHAM, ILLINOIS

Drawn By L.T.L.	Date 2/22/94
Checked By P.A.P.	Scale 1=1
SHEET OF	PROJECT NO. 93-163

REVISIONS		
NO	DATE	

93163D02

1=1 93163D02

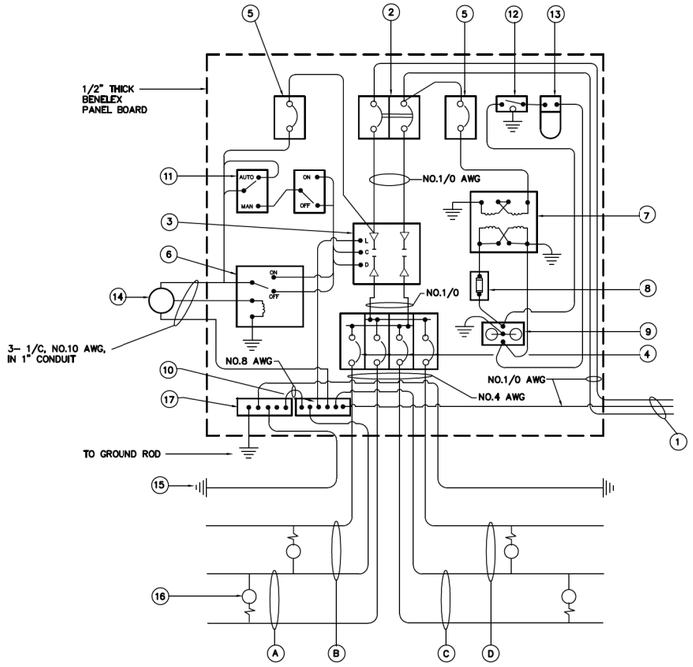
FILE NAME = S:\Projects\3216 Torrence Avenue Bridge Replace - STV\Project Work\Electrical\Sheets\DI60R95-sht-plan2.dgn

EJM ENGINEERING, INC. 411 South Wells Street Suite 1000 Chicago, Illinois 60607	USER NAME = bbarr	DESIGNED - BB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TORRENCE AVENUE LIGHTING DETAILS
		DRAWN - BB	REVISED -		
	PLOT SCALE = 100.0000 ' / in.	CHECKED - MR	REVISED -		
	PLOT DATE = 6/22/2015	DATE - 6-15-2015	REVISED -		

SCALE: | SHEET NO. 60 OF 152 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	60
DRAWING NO.	EL-21	CONTRACT NO. 60R95		
ILLINOIS	FED. AID PROJECT			

F. A. U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2937	93-00029-00-LT	COOK	13	11
ILLINOIS PROJECT		STPM - 7003 (156)		



CONTROLLER WIRING DIAGRAM LEGEND

1. 3-1/C, NO.1/0, 600V SERVICE WIRE IN 2 1/2" GALVANIZED STEEL CONDUIT FOR 240/480 VOLT, 10, 3 WIRE, 60HZ. SERVICE.
2. 100 AMP MAIN CIRCUIT BREAKER, 2 POLE, 600 VOLT, 100 AMP BASE, NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA - 14000 AMP AT 480 V.
3. 100 AMP REMOTE CONTROL SWITCH, ELECTRICALLY OPERATED, MECHANICALLY HELD, 2 POLE, SINGLE THROW, 600 V CONTROL CIRCUIT, 240 V ASCO 920.
4. 40 AMP CIRCUIT BREAKER, 1 POLE, 480 VOLT, 100 AMP BASE, NON-INTER-CHANGEABLE TRIP RATING NEMA - 14000 AMP AT 277 VOLTS.
5. 20 AMP CONTROL CIRCUIT-CIRCUIT BREAKER, 1 POLE, 240 VOLT, 100 AMP BASE, NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA 14000 AMP AT 240 V.
6. 20 AMP, 1 POLE DOUBLE THROW, 120 VOLT RELAY
7. 1.0 KVA, SINGLE PHASE, ENCAPSULATED TRANSFORMER 240x480/120x240 VOLT, 60 HZ.
8. 20 AMP, 120 VOLT FUSE.
9. 20 AMP, 120 VOLT DUPLEX RECEPTACLE.
10. NEUTRAL BUS BAR, 1/4"x1"x12" LONG MOUNTED ON PANEL WITH TAPS.
11. TOGGLE SWITCHES MOUNTED IN 4"x4" BOX.
12. SWITCH FOR LIGHTING FIXTURE MOUNTED IN BOX.
13. WEATHER-PROOF INCANDESCENT LIGHTING FIXTURE WITH 60 WATT, 120 V LAMP.
14. PHOTOCELL MOUNTED TO TOP OF NEAREST LIGHT POLE, 240 V.
15. NO.6 AWG INSULATED GROUND WIRE
16. IN-LINE FUSEHOLDER WITH 5 AMP FUSE
17. GROUND BUS BAR 1/4"x1"x12" LONG MOUNTED ON PANEL WITH TAPS.

A. CIRCUIT

CONTROLLER WIRING DIAGRAM

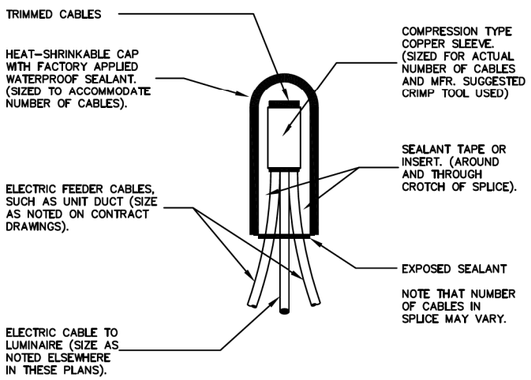
GENERAL NOTES :

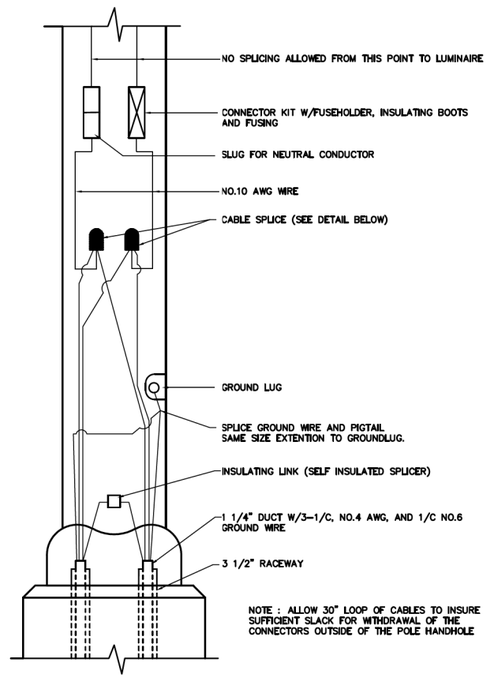
1. ENTIRE CONTROL CABINET SHALL BE GROUNDED.
2. ALL WIRING SHALL BE TAGGED WITH SELF-STICKING WIRE MARKERS.
3. GROUND BUS TO BE COLOR CODED GREEN, NEUTRAL BUS WHITE, AND BONDED TO CABINET. ENCLOSURE, BY LISTED PRESSURE CONNECTORS OR LISTED CLAMPS.
4. ALL INTERNAL CONTROLLER WIRING TO BE NO.10 AWG UNLESS OTHERWISE SPECIFIED.
5. CABINET WIRING INSULATION TO BE TYPE XHHW OR APPROVED EQUAL.

GENERAL NOTES :

1. ALL WORK TO CONFORM TO THE NATIONAL ELECTRICAL CODE AND ANY APPLICABLE LOCAL CODES.
2. CONTRACTOR TO VERIFY LOCATION OF ALL UNDERGROUND UTILITIES BEFORE TRENCHING OR AUGERING.
3. BEFORE INSTALLING STANDARDS NEAR OVERHEAD FACILITIES CALL CE Co. FOR APPROVAL OF LOCATION.
4. FOR LOCATION OF EXISTING UNDERGROUND ELECTRICAL CABLE CALL CE Co.
5. ALL PUSHED CONDUIT TO BE 2" DIAMETER UNLESS OTHERWISE SPECIFIED.
6. ANY TREE TRIMMING REQUIRED AS DIRECTED BY THE ENGINEER SHALL BE PERFORMED BY THE CONTRACTOR, AND THE COST OF THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
7. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO RESTORE ANY SPECIALIZED LANDSCAPING, (i.e. DECORATIVE ROCKS, SHRUBS, PLANTS, ECT.) OR SHALL REPLACE IT, THE COST OF WHICH SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

SPLICING ELECTRIC CABLES BASIC MATERIALS AND METHODS





POLE HANDHOLE WIRING DIAGRAM

(TYPICAL FOR SINGLE LUMINAIRE INSTALLATION)

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(708) 331-6700 CHICAGO (312) 468-1955 FAX (708) 331-3826

REVISIONS		
NO	DATE	
1	9-6-94	P.A.P.

DETAILS
LIGHTING DETAILS
TORRENCE AVE. LIGHTING
BURNHAM, ILLINOIS

Drawn By L.T.L.	Date 2/22/93
Checked By P.A.P.	Scale 1=1
SHEET OF	PROJECT NO. 93-163

93163D03

1=1 93163D03

FILE NAME = S:\Projects\3216 Torrence Avenue Bridge Replace -SIV\Project Work\Electrical\Sheets\D168995-sht-plan22.dgn

EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

USER NAME = bbarr	DESIGNED - BB	REVISED -
	DRAWN - BB	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - MR	REVISED -
PLOT DATE = 6/22/2015	DATE - 6-15-2015	REVISED -

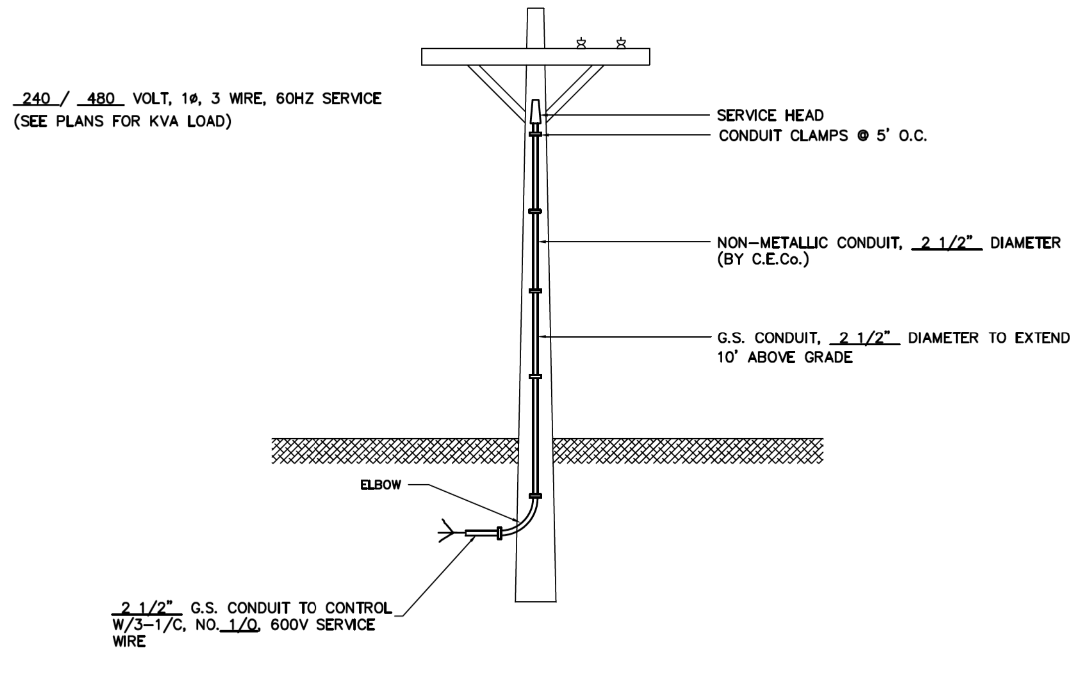
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
LIGHTING DETAILS

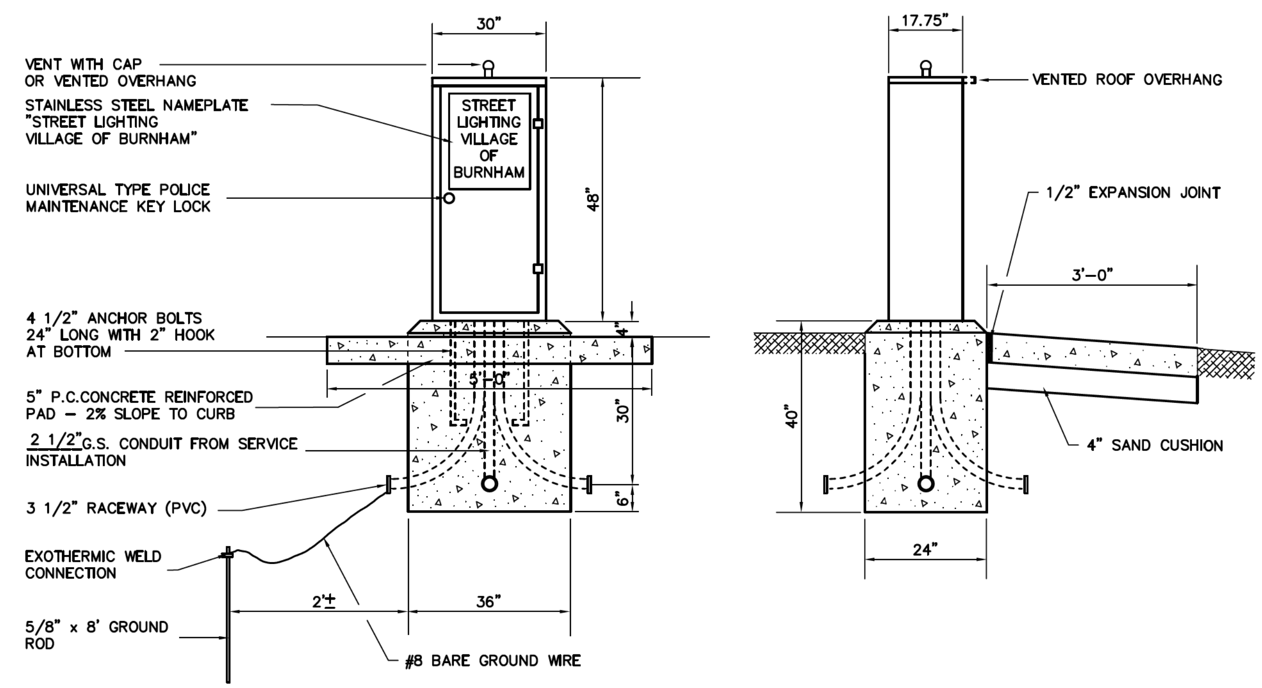
SCALE: | SHEET NO. 61 OF 152 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	61
DRAWING NO. EL-22		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			

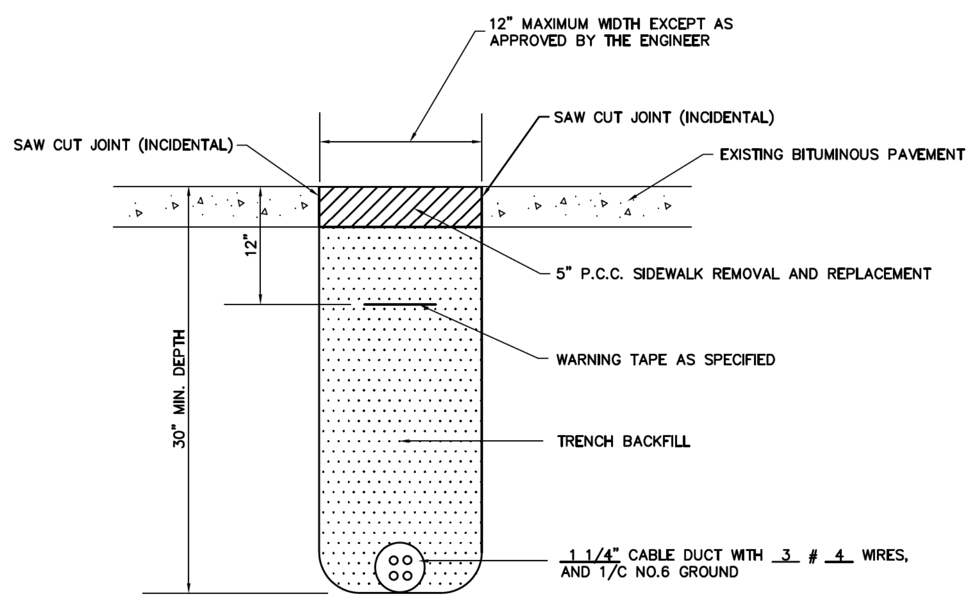
F. A. U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
2937	93-00029-00-LT	COOK	13	12
ILLINOIS PROJECT	STPM ~ 7003 (156)			



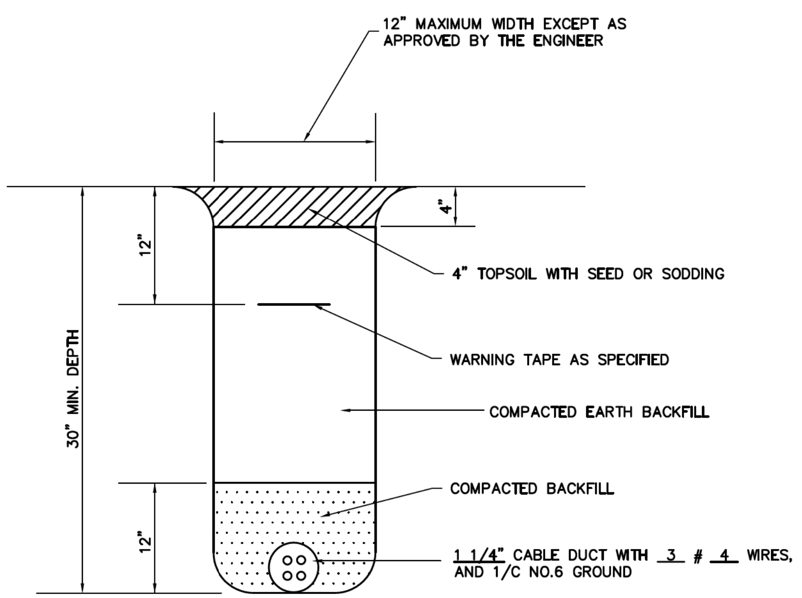
SERVICE CONNECTION



CONTROL INSTALLATION



SIDEWALK REMOVAL
AND REPLACEMENT



TRENCH DETAIL

ROBINSON ENGINEERING, LTD.
CONSULTING REGISTERED PROFESSIONAL ENGINEERS
357 EAST 170TH STREET – P.O. BOX 386 – SOUTH HOLLAND, ILLINOIS 60473-0386
(312) 331-6700 CHICAGO (312) 468-1955 FAX (312) 331-3826

DETAILS
LIGHTING DETAILS
TORRENCE AVE. LIGHTING

BURNHAM, ILLINOIS

Drawn By L.T.L.	Date 2/22/94
Checked By P.A.P.	Scale 1=1
SHEET OF	PROJECT NO. 93-163

REVISIONS		
NO	DATE	
1	9-6-94	P.A.P.

93163D04

FILE NAME = S:\Projects\3216 Torrence Avenue Bridge Replace -STV\Project Work\Electrical\Sheet\D160R95-sht-plan23.dgn

EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

USER NAME = bbarr	DESIGNED - BB	REVISED -
	DRAWN - BB	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - MR	REVISED -
PLOT DATE = 6/22/2015	DATE - 6-15-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
LIGHTING DETAILS

SCALE: SHEET NO. 62 OF 152 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	62
DRAWING NO. EL-23		CONTRACT NO. 60R95		
ILLINOIS FED. AID PROJECT				

GRAND CALUMET RIVER

FLOW

11+00

12+00

13+00

14+00

15+00

20+00

TORRENCE AVE

LIMITS OF PR. GRADING

+25.13
46.12' LT

+42.19
57.34' LT

+63.35
47.74' LT

+27.41
40.23' LT

+32.06
27.18' LT

+33.02
18.29' LT

+36.69
8.35' LT

+50.01
15.61' RT

+52.51
24.63' RT

+56.69
46.54' RT

+54.45
60.79' RT

+56.62
61.51' RT

+86.02
24.69' LT

+03.25
0.00' RT

+05.72
16.79' RT

+89.66
23.26' RT

+84.99
34.69' RT

+69.38
47.47' RT

+37.92
73.02' LT

EX ROW

+52.39
71.49' LT

+66.10
64.87' LT

+30.78
64.67' LT

+22.18
56.15' LT

+18.54
48.17' LT

+22.13
45.44' LT

+22.12
35.41' LT

+05.43
22.97' LT

+03.30
7.94' LT

+06.64
11.51' RT

+28.92
16.86' RT

+85.67
46.42' RT

+59.88
45.02' RT

+06.03
65.59' RT

FRONT FACE OF
PR. RETAINING WALL

+68.58
47.00' LT

+72.89
36.52' LT

+75.01
29.35' LT

+76.46
26.02' LT

+82.93
15.79' LT

+97.45
8.18' RT

+04.27
21.25' RT

+18.38
44.10' RT

+18.21
48.86' RT

+20.05
73.32' RT

CONCRETE CAP
FOR RETAINING WALL

BACK FACE OF
PR. RETAINING WALL

WATER EDGE

WATER EDGE

EX ROW

EX ROW

EX ROW

FLOODPLAIN BOUNDARY

FLOODPLAIN BOUNDARY

GRAND CALUMET RIVER

1 2 3 4 5 6 7 8 9 10 11 12

LEGEND

585 EXISTING CONTOUR

585 PROPOSED CONTOUR

COMPENSATORY STORAGE AREA

5 RIVER CROSS SECTION
(SEE COMPENSATORY STORAGE CROSS SECTIONS)

GRAPHIC SCALE

20 0 20 40

FEET

FILE NAME = i:\Projects\4016179\4016179_0001\3D_CAD Models and Sheets\CADD Sheets\D1608095_sht_gradingplan

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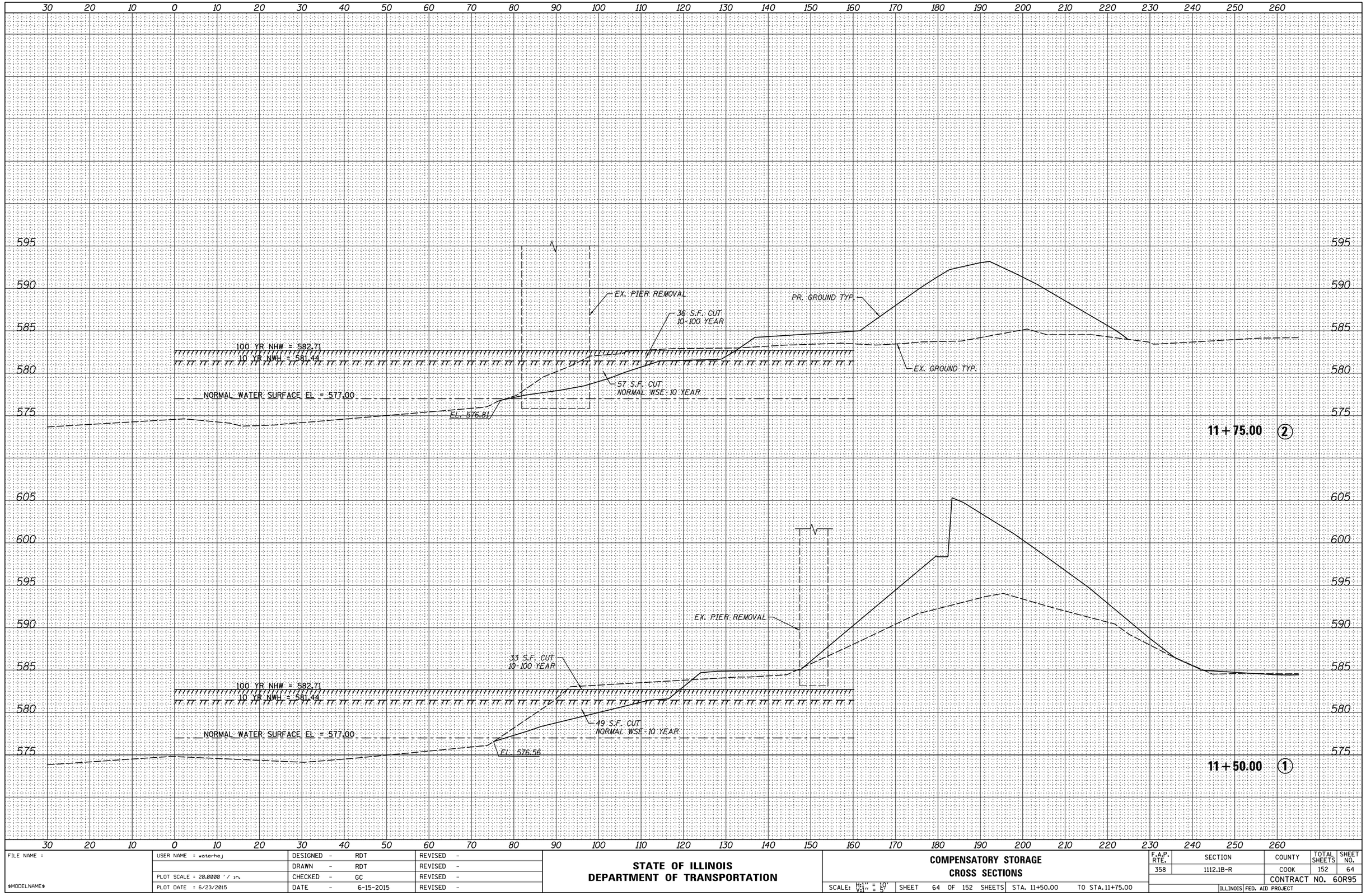
	DRAWN - RDT	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - MT	REVISED -
PLOT DATE = 6/23/2015	DATE - 6-15-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE
GRADING PLAN

SCALE: 1" = 20' | SHEET NO. 63 OF 152 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	63
		CONTRACT NO. 60R95		
	ILLINOIS	FED. AID PROJECT		



FINAL SURVEY

NO.	NOTE BOOK	BY	DATE

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

ORIGINAL SURVEY

NO.	NOTE BOOK	BY	DATE

SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

FILE NAME =	USER NAME = waterhej	DESIGNED - RDT	REVISED -
		DRAWN - RDT	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED - GC	REVISED -
$MODELNAME$	PLOT DATE = 6/23/2015	DATE - 6-15-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

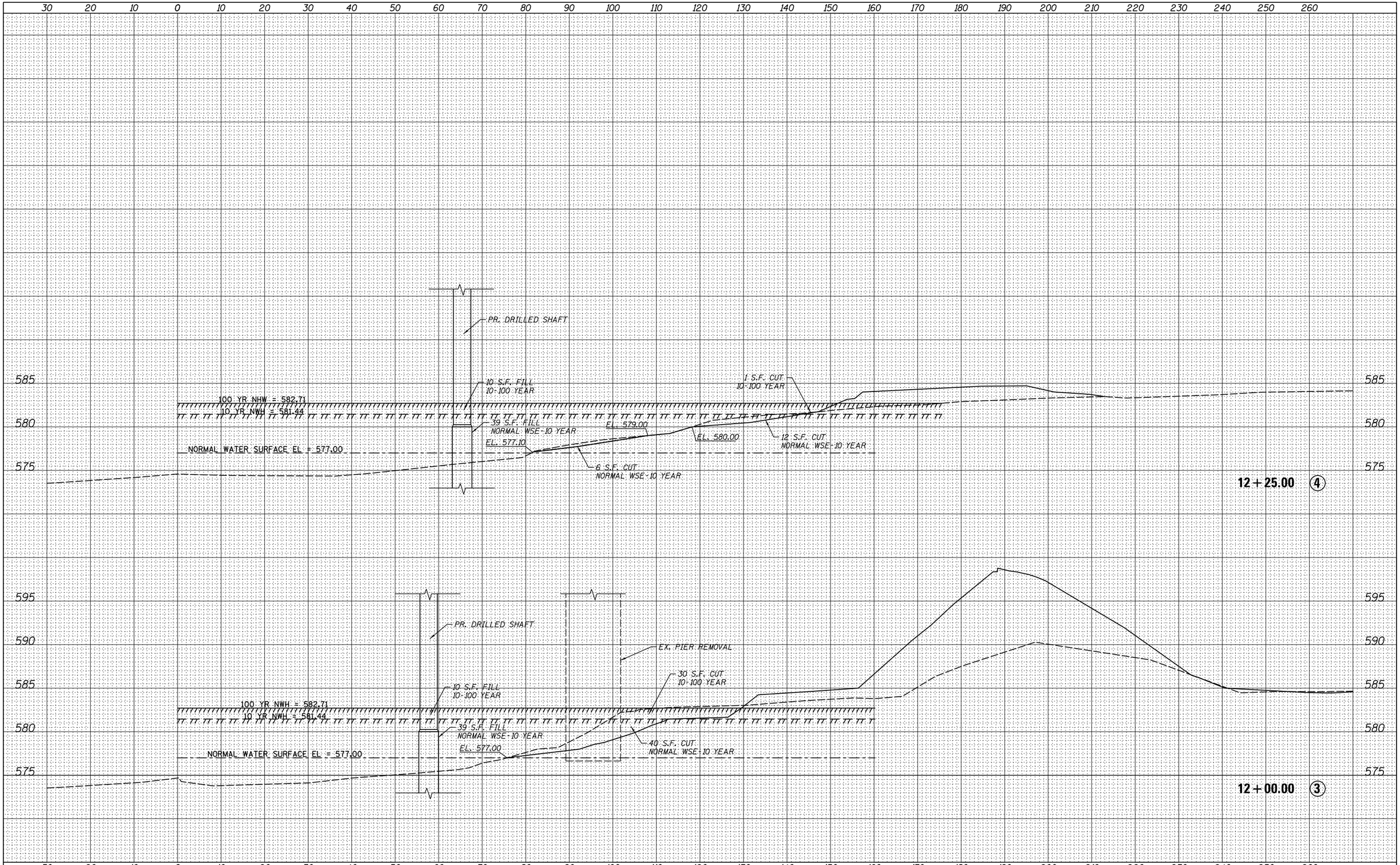
COMPENSATORY STORAGE
CROSS SECTIONS

SCALE: H:1" = 10'
V:1" = 5'
SHEET 64 OF 152 SHEETS STA. 11+50.00 TO STA.11+75.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	64
		CONTRACT NO. 60R95		
		ILLINOIS FED. AID PROJECT		

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

BY	DATE



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

BY	DATE

FILE NAME =	USER NAME = waterhej	DESIGNED - RDT	REVISED -
		DRAWN - RDT	REVISED -
$MODELNAME$	PLOT SCALE = 20.0000 ' / in.	CHECKED - GC	REVISED -
	PLOT DATE = 6/23/2015	DATE - 6-15-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

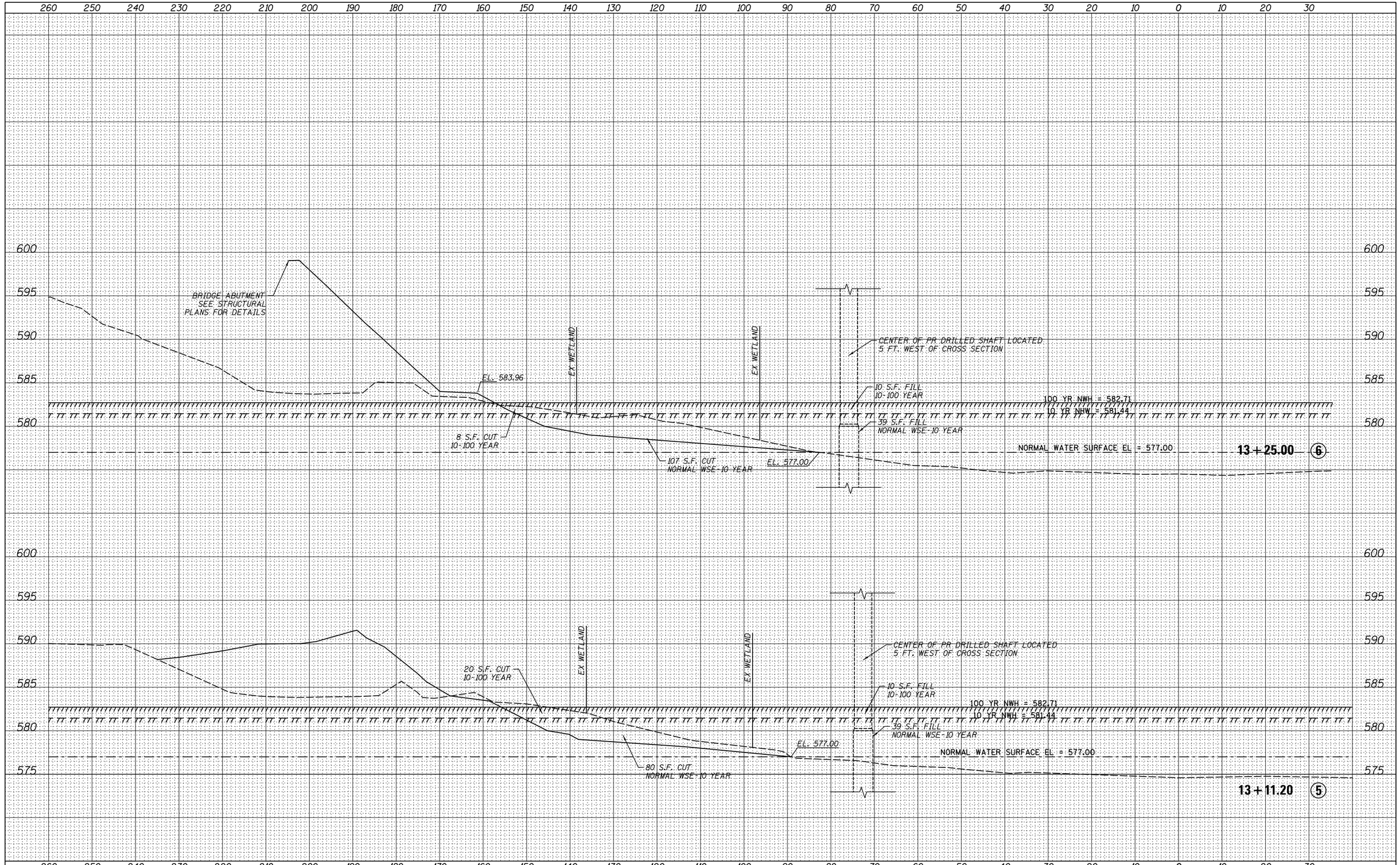
COMPENSATORY STORAGE
CROSS SECTIONS

SCALE: H:1" = 10' V:1" = 5' | SHEET 65 OF 152 SHEETS | STA. 12+00.00 | TO STA. 12+25.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	65
		CONTRACT NO. 60R95		
	ILLINOIS	FED. AID PROJECT		

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

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



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		DRAWN - RDT	REVISED -	**DEPARTMENT OF TRANSPORTATION**	**CROSS SECTIONS**
	PLOT SCALE = 20.0000 ' / in.	CHECKED - GC	REVISED -		SCALE: H:1" = 10' V:1" = 5' | SHEET 66 OF 152 SHEETS | STA. 13+11.20 TO STA.13+25.00
$MODELNAME$	PLOT DATE = 6/23/2015	DATE - 6-15-2015	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	66
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			

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

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30

600 595 590 585 580 575

BRIDGE ABUTMENT
SEE STRUCTURAL
PLANS FOR DETAILS

EX. PIER REMOVAL

EL. 583.86

EX WETLAND

14 S.F. CUT
10-100 YEAR

EL. 578.00

41 S.F. CUT
NORMAL WSE-10 YEAR

EX WETLAND

CENTER OF PR DRILLED SHAFT LOCATED
4 FT. EAST OF CROSS SECTION

10 S.F. FILL
10-100 YEAR

100 YR NHW = 582.71
10 YR NHW = 581.44

39 S.F. FILL
NORMAL WSE-10 YEAR

NORMAL WATER SURFACE EL = 577.00

14+00.00 (8)

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

600 595 590 585 580 575

BRIDGE ABUTMENT
SEE STRUCTURAL
PLANS FOR DETAILS

EX. PIER REMOVAL

10 S.F. CUT
10-100 YEAR

EL. 583.86

EX WETLAND

49 S.F. CUT
NORMAL WSE-10 YEAR

EL. 577.00

EX WETLAND

CENTER OF PR DRILLED SHAFT LOCATED
3 FT. EAST OF CROSS SECTION

10 S.F. FILL
10-100 YEAR

100 YR NHW = 582.71
10 YR NHW = 581.44

39 S.F. FILL
NORMAL WSE-10 YEAR

NORMAL WATER SURFACE EL = 577.00

13+50.00 (7)

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30

FILE NAME =	USER NAME = waterhej	DESIGNED - RDT	REVISED -	**STATE OF ILLINOIS**	**COMPENSATORY STORAGE**
		DRAWN - RDT	REVISED -	**DEPARTMENT OF TRANSPORTATION**	**CROSS SECTIONS**
$MODELNAME$	PLOT SCALE = 20.0000 ' / in.	CHECKED - GC	REVISED -		SCALE: H 1" = 10' V 1" = 5' | SHEET 67 OF 152 SHEETS | STA. 13+50.00 TO STA. 14+00.00
	PLOT DATE = 6/23/2015	DATE - 6-15-2015	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	67
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			

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

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30

600 595 590 585 580 575

BRIDGE ABUTMENT
SEE STRUCTURAL
PLANS FOR DETAILS

29 S.F. CUT
10-100 YEAR
EL. 583.69

EX. WETLAND

EX. PIER REMOVAL

EX. WETLAND

100 YR NHW = 582.71
10 YR NHW = 581.44

EL. 578.00

NORMAL WATER SURFACE EL = 577.00

24 S.F. CUT
NORMAL WSE-10 YEAR

14+40.00 (10)

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

600 595 590 585 580 575

BRIDGE ABUTMENT
SEE STRUCTURAL
PLANS FOR DETAILS

EX. PIER REMOVAL

EX. WETLAND

EL. 583.81

21 S.F. CUT
10-100 YEAR

EX. WETLAND

100 YR NHW = 582.71
10 YR NHW = 581.44

EL. 578.00

NORMAL WATER SURFACE EL = 577.00

45 S.F. CUT
NORMAL WSE-10 YEAR

14+25.00 (9)

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30

FILE NAME =	USER NAME = waterhej	DESIGNED - RDT	REVISED -	**STATE OF ILLINOIS**	**COMPENSATORY STORAGE**	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - RDT	REVISED -	**DEPARTMENT OF TRANSPORTATION**	**CROSS SECTIONS**	358	1112.1B-R	COOK	152	68
	PLOT SCALE = 20.0000 ' / in.	CHECKED - GC	REVISED -					CONTRACT NO. 60R95		
$MODELNAME$	PLOT DATE = 6/23/2015	DATE - 6-15-2015	REVISED -		SCALE: H:1" = 10' V:1" = 5' SHEET 68 OF 152 SHEETS STA. 14+25.00 TO STA.14+40.00			ILLINOIS FED. AID PROJECT		

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30

600 595 590 585 580 575

BRIDGE ABUTMENT
SEE STRUCTURAL
PLANS FOR DETAILS

9 S.F. CUT
10-100 YEAR

EL. 584.13

1 S.F. CUT
NORMAL WSE-10 YEAR

EL. 581.12

100 YR NHW = 582.71
10 YR NHW = 581.44

NORMAL WATER SURFACE EL = 577.00

14+60.00 (12)

BRIDGE ABUTMENT
SEE STRUCTURAL
PLANS FOR DETAILS

15 S.F. CUT
10-100 YEAR

EL. 583.46

1 S.F. CUT
NORMAL WSE-10 YEAR

EL. 580.46

EX WETLAND

EX WETLAND

100 YR NHW = 582.71
10 YR NHW = 581.44

NORMAL WATER SURFACE EL = 577.00

14+45.00 (11)

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30

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

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

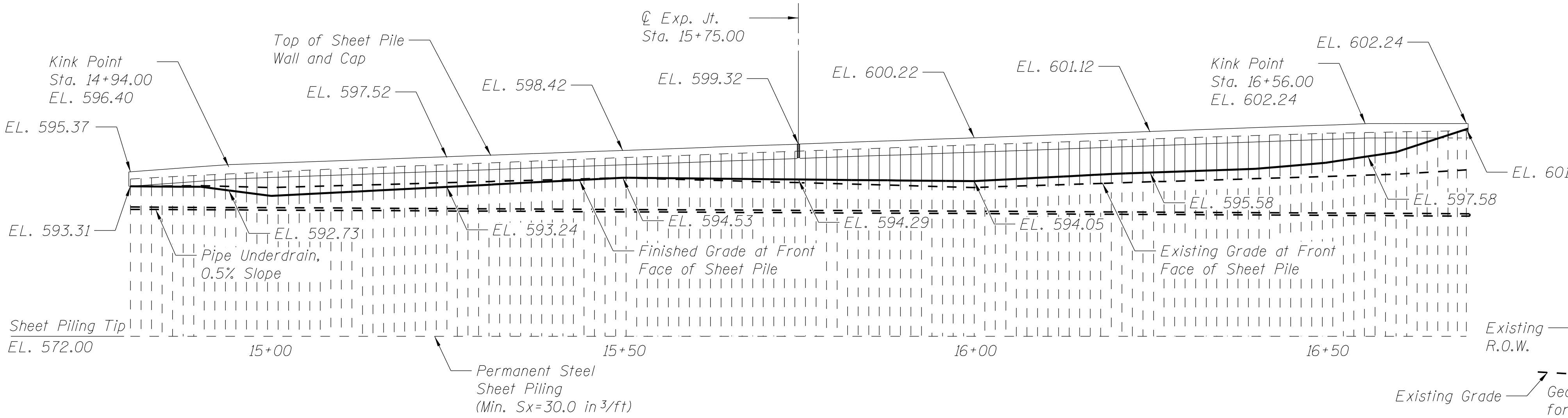
FILE NAME =	USER NAME = waterhej	DESIGNED - RDT	REVISED -
		DRAWN - RDT	REVISED -
$MODELNAME$	PLOT SCALE = 20.0000 ' / in.	CHECKED - GC	REVISED -
	PLOT DATE = 6/23/2015	DATE - 6-15-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

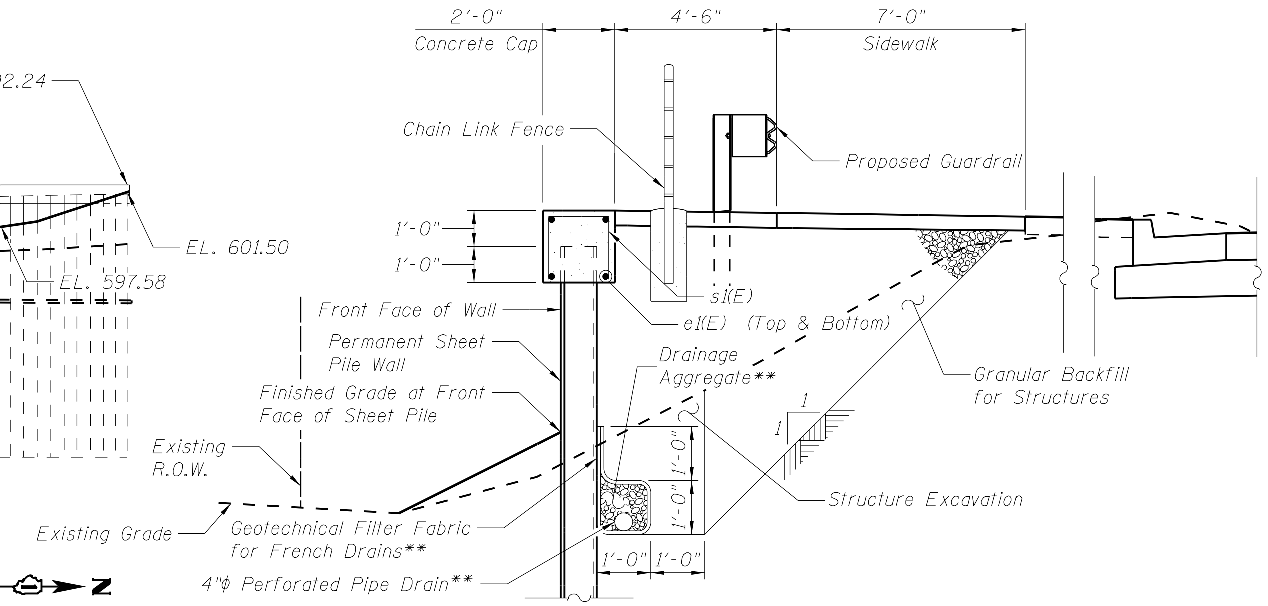
COMPENSATORY STORAGE
CROSS SECTIONS

SCALE: H:1" = 10' V:1" = 5' | SHEET 69 OF 152 SHEETS | STA. 14+45.00 | TO STA.14+60.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	69
		CONTRACT NO. 60R95		
		ILLINOIS	FED. AID PROJECT	

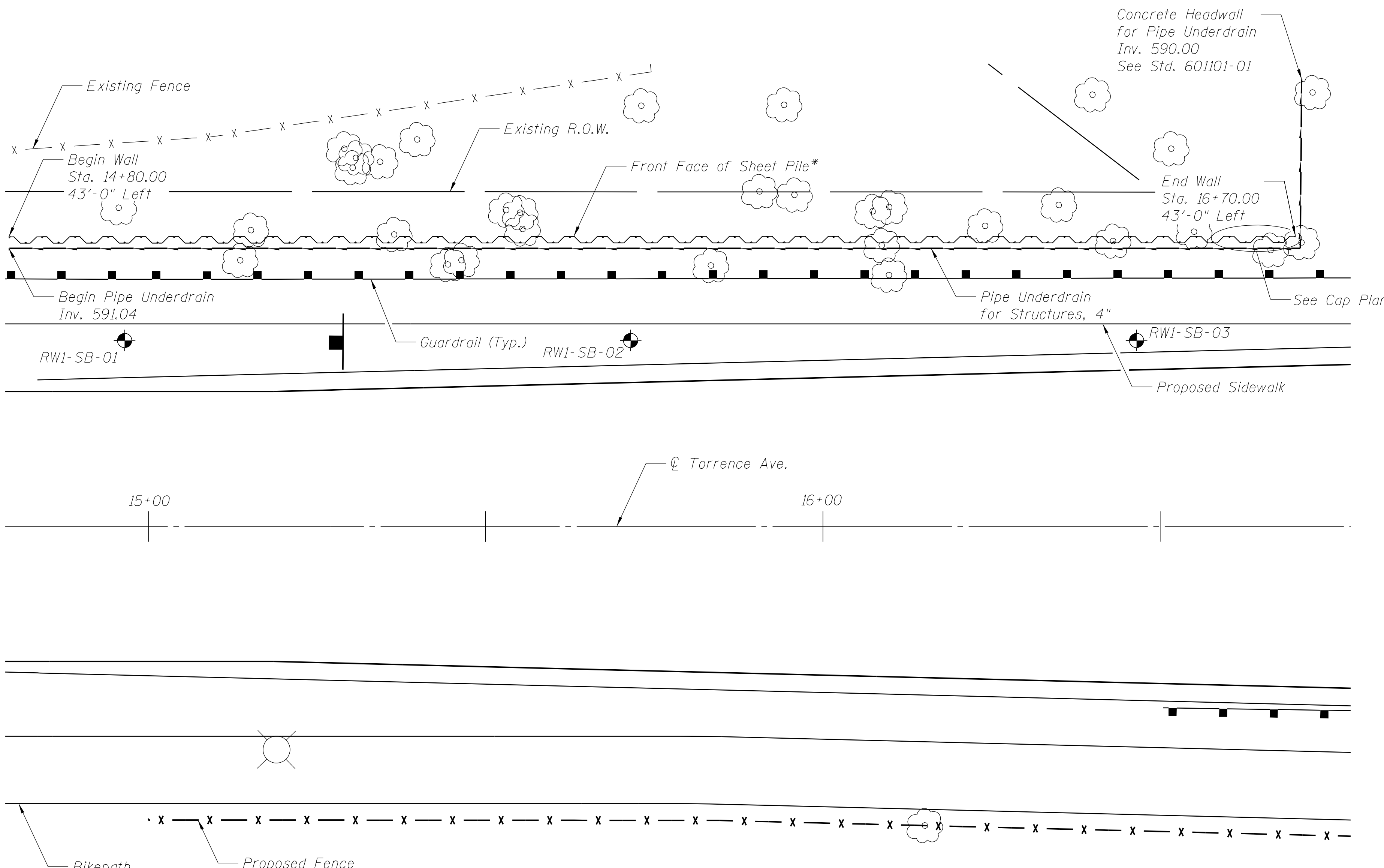


ELEVATION - RETAINING WALL



TYPICAL SECTION THRU WALL

**Cost included with pipe underdrain

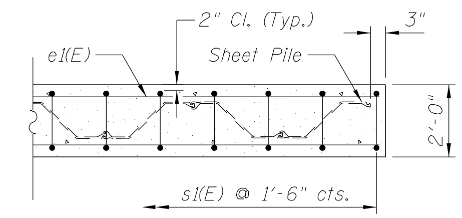


PLAN

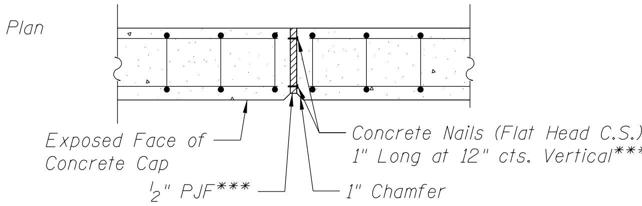
*Concrete cap not shown for clarity

LEGEND

Soil Boring



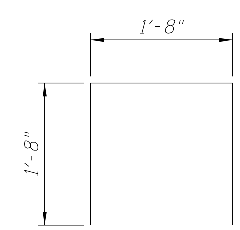
CAP PLAN



EXPANSION JOINT PLAN

(Sta. 15+75.00)

***Cost included with concrete structures



BAR s1(E)

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi

fy = 50,000 psi ASTM A572 (Sheet Piles)

fy = 60,000 psi (Reinf.)

DESIGN SPECIFICATIONS

AASHTO LRFD Bridge Design Specifications, 6th Edition with 2013 Interim Revision

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
e1(E)	32	#4	25'-8"	———
s1(E)	130	#4	5'-0"	⊓
Permanent Steel Sheet Piling			Sq. Ft.	5000
Concrete Structures			Cu. Yd.	29.0
Reinforced Bars, Epoxy Coated			Pound	990
Pipe Underdrain for Structures, 4"			Foot	210
Structure Excavation			Cu. Yd.	43
Granular Backfill for Structures			Cu. Yd.	358

NOTES:

1. All dimensions and grades shown on the plans shall be field verified by the Contractor prior to construction. The Contractor shall notify the Engineer of any variations. Such variations shall not be cause for additional compensation for a change in scope of work.

2. The sheeting must be cut in a workman like manner to conform to the stated top of sheet pile elevations.

3. Offsets given are to front face of sheet pile. Elevations are shown at 25' intervals

BORING LOG RW1-SB-01

wangeng@wangeng.com
1145 North Main Street
Lombard, IL 60148
Telephone: (630) 953-9928
Fax: (630) 953-9938

WEI Job No.: 272-18-01
Client: STV, Inc.
Project: Torrence Ave over Grand Calumet River - Phase II
Location: Cook County, Illinois

Datum: NAVD88
Elevation: 595.89 ft
North: 1813454.66 ft
East: 1195786.56 ft
Station: 14+94.28
Offset: 27.33 LT

Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	12-inch thick brown LOAM, trace gravel --TOPSOIL--					
594.9	Hard, brown SILTY CLAY LOAM, trace gravel, shells, and roots --FILL--		1	9 9 9	> 4.50 P	13
592.6						
591.4	Medium dense, black SANDY GRAVEL, trace slag and cinders --FILL--	5	2	7 7 5	NP	14
	Stiff to hard, brown and gray SILTY CLAY to SILTY CLY LOAM, trace gravel and roots --FILL--		3	2 3 7	2.62 B	18
		10	4	3 3 5	3.36 B	18
			5	5 5 5	4.00 P	16
		15	6	3 3 5	1.48 B	24
			7	5 50/0	2.00 P	18
577.3	Loose, brown and gray medium sand, trace shells	20	8	3 2 3	NP	34
			9	2 2 3	NP	30
571.6	Medium stiff to stiff, gray SILTY CLAY, trace gravel	25	10	2 2 3	1.80 B	24
			11	2 3 4	0.57 B	22
		30	12	3 4 3	0.98 B	24
560.9		35	13	3 5 6	1.23 B	13
	Boring terminated at 35.00 ft					

GENERAL NOTES

Begin Drilling 09-12-2013 Complete Drilling 09-12-2013
Drilling Contractor Wang Testing Services Drill Rig CME-55 TMR
Driller R&J Logger A. Tomaras Checked by C. Marin
Drilling Method 3.25" HSA to 30' mud rotary thereafter, boring grouted upon completion

WATER LEVEL DATA

While Drilling 20.50 ft
At Completion of Drilling NA
Time After Drilling NA
Depth to Water NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 2721801.GPJ WANGENG.GDT 12/5/14

BORING LOG RW1-SB-02

wangeng@wangeng.com
1145 North Main Street
Lombard, IL 60148
Telephone: (630) 953-9928
Fax: (630) 953-9938

WEI Job No.: 272-18-01
Client: STV, Inc.
Project: Torrence Ave over Grand Calumet River - Phase II
Location: Cook County, Illinois

Datum: NAVD88
Elevation: 599.10 ft
North: 1813528.47 ft
East: 1195786.90 ft
Station: 15+71.89
Offset: 24.36 LT

Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	14-inch thick, brown LOAM, trace gravel and roots --TOPSOIL--					
597.9	Hard, brown SILTY CLAY LOAM, trace gravel, slag, and roots --FILL--		1	9 8 8	> 4.50 P	10
594.6	Black SANDY GRAVEL, trace slag --FILL--	5	2	5 9 9	3.50 P	17
593.6	Stiff to very stiff, brown and gray SILTY CLAY, trace gravel, with seams of slag and cinders --FILL--		3	1 3 4	1.25 P	18
		10	4	2 7 4	2.25 P	14
			5	3 3 7	2.50 P	14
		15	6	3 4 6	2.79 S	19
			7	2 1 3	1.31 B	36
		20	8	2 4 5	1.23 B	63
578.6	Loose, gray SAND to SANDY LOAM, trace gravel, roots, and shells		9	2 2 3	NP	22
		25	10	2 1 3	NP	23
573.6	Stiff, gray SILTY CLAY LOAM, travel gravel		11	3 4 5	1.97 B	15
569.6	Gray SILT	30	12	3 5 7	1.15 B	15
568.1	Soft, pinkish gray SILTY CLAY LOAM, trace gravel	35	13	3 3 4	0.41 B	13
562.3	Very stiff, gray CLAY, trace gravel	40	14	5 5 8	2.13 B	22
559.1	Boring terminated at 40.00 ft					

GENERAL NOTES

Begin Drilling 09-12-2013 Complete Drilling 09-12-2013
Drilling Contractor Wang Testing Services Drill Rig CME-55 TMR
Driller R&J Logger A. Tomaras Checked by C. Marin
Drilling Method 3.25" HSA to 30' mud rotary thereafter, boring grouted upon completion

WATER LEVEL DATA

While Drilling 21.25 ft
At Completion of Drilling 21.80 ft
Time After Drilling NA
Depth to Water NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 2721801.GPJ WANGENG.GDT 12/5/14

BORING LOG RW1-SB-03

wangeng@wangeng.com
1145 North Main Street
Lombard, IL 60148
Telephone: (630) 953-9928
Fax: (630) 953-9938

WEI Job No.: 272-18-01
Client: STV, Inc.
Project: Torrence Ave over Grand Calumet River - Phase II
Location: Cook County, Illinois

Datum: NAVD88
Elevation: 602.10 ft
North: 1813603.69 ft
East: 1195786.42 ft
Station: 16+47.11
Offset: 23.69 LT

Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	12-inch thick, brown LOAM, trace gravel and roots --TOPSOIL--					
601.1	Hard, brown SILTY LOAM, trace brick, gravel and roots --FILL--		1	6 8 8	5.82 S	11
597.8	Black SANDY GRAVEL, trace cinders and slag --FILL--	5	2	5 8 7	4.00 P	16
596.6	Very stiff, gray SILTY CLAY, trace gravel and roots --2" thick black sandy gravel--> --FILL--		3	2 5 5	2.62 B	14
594.1	Very stiff, brown SANDY CLAY LOAM, trace gravel and shells --FILL--	10	4	2 3 3	3.00 P	18
591.6	Very stiff, brown SILTY CLAY, trace gravel, shells, glass, and slag --FILL--		5	3 4 5	2.54 B	17
		15	6	4 4 3	2.00 P	18
586.6	Very loose, black SANDY GRAVEL, trace slag and cinders --FILL--		7	2 1 1	NP	24
582.8	Stiff, gray SILTY CLAY, trace gravel	20	8	1 1 2	NP	23
			9	2 3 5	1.31 B	31
580.0	Very loose, tan and gray, medium SANDY LOAM, trace shells	25	10	2 2 2	NP	28
575.6	Very loose, gray SANDY GRAVEL, little shells		11	0 2 1	NP	24
574.1	Loose, gray, medium SAND, little gravel and shells	30	12	3 4 4	NP	22
570.4	Stiff to very stiff, gray CLAY, trace gravel	35	13	2 2 3	1.72 B	31
		40	14	4 7 7	2.13 B	22
562.1	Boring terminated at 40.00 ft					

GENERAL NOTES

Begin Drilling 09-11-2013 Complete Drilling 09-11-2013
Drilling Contractor Wang Testing Services Drill Rig CME-55 TMR
Driller R&J Logger A. Tomaras Checked by C. Marin
Drilling Method 3.25" HSA to 30', mud rotary thereafter, boring grouted upon completion

WATER LEVEL DATA

While Drilling 26.50 ft
At Completion of Drilling 38.00 ft
Time After Drilling NA
Depth to Water NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 2721801.GPJ WANGENG.GDT 12/5/14

Bench Mark: BM #5 Station 23+87.12 Offset 32.32' LT. Cut square box on top of wingwall. Elev. 611.539

BM #11 Station 18+66.04 Offset 32.11' RT. Cut square box on top easterly wingwall. Elev. 611.589

Existing Structure: Structure No. 016-0934, built in 1938, consists of a Pennsylvania (Petit) Through Truss main span and four simply supported precast prestressed concrete (PPC) box beam approach spans. The substructure consists of cast-in-place concrete spill through abutments founded on timber piles with wingwalls supported by and inline with the abutment. The four cast-in-place concrete piers are founded on timber piles. The back to back of abutments dimension measures 523'-3⅝" and the out-to-out width of the approach spans is 63'-7" and the out-to-out width of the main span is 62'-1". The reinforced concrete approach slabs on each end of the bridge are 40'-0" long by 40'-0" wide.

Traffic is to be detoured during removal and replacement of the existing structure.

Salvage: Steel supporting box beams in approach spans. Paid under Removal of Existing Structures. See Special Provisions.

DESIGN SCOUR ELEVATION TABLE

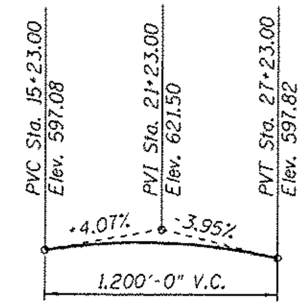
Design Scour Elevation (ft.)	South Abut.	Pier 1	Pier 2	North Abut.
Q100	595.88	558.10	557.90	596.66
Q500	595.88	558.10	557.90	596.66

WATERWAY INFORMATION

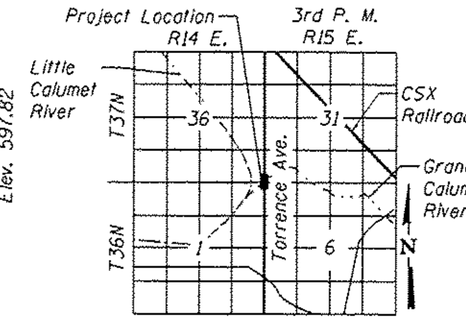
Drainage Area =Unknown, >7.3 sq. mi. Exist. Low Grade Elev. 610.79 @ Sta. - 23+88; Prop. Low Grade Elev. 606.68 @ Sta. - 18+70

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	N/A	1,248	1,282	581.44	*	*	*	*
Design	50	N/A	1,521	1,590	582.57	-	-	-	-
Base	100	N/A	1,556	1,629	582.71	-	-	-	-
Overtop	>500	N/A	-	-	-	-	-	-	-
Max. Calc.	500	N/A	1,669	1,752	583.15	-	-	-	-

* Hydraulics based on conveyance requirements



PROFILE GRADE
(Along ℄ Roadway)



LOCATION SKETCH

DESIGN SPECIFICATIONS

AASHTO LRFD Bridge Design Specifications, 6th Edition with 2013 Interim Revision

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi (Concrete)
fy = 60,000 psi (Reinforcement)
Fy = 50,000 psi (M270 Grade 50W)

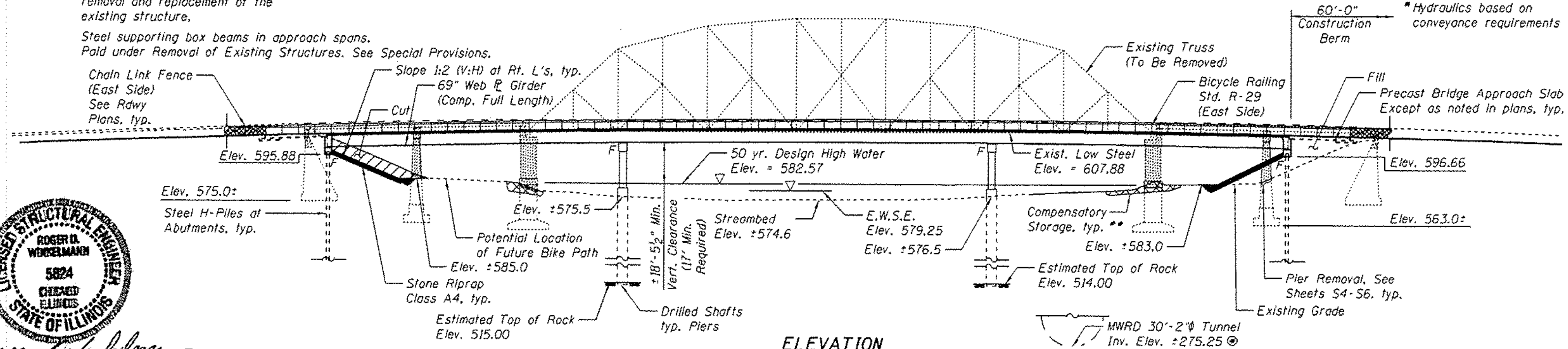
LOADING HL-93

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

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.064g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.112g
Soil Site Class = C

APPROVED
For Structural Adequacy Only
D. Carl Puzey, S.E.
Engineer of Bridges & Structures



LICENSED STRUCTURAL ENGINEER
ROGER D. WOKELMANN
5824
CHICAGO ILLINOIS
STATE OF ILLINOIS

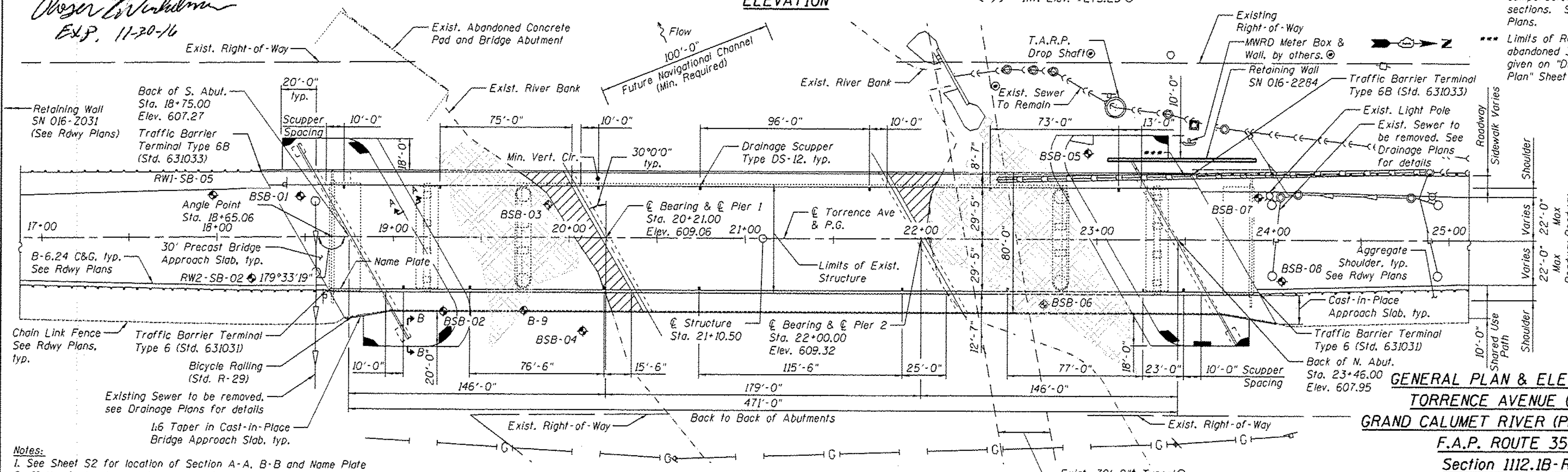
Roger Wokelmann
EXP. 11-30-16

ELEVATION

⊙ Coordinate with MWRD for more information.

** Limits are shown on Compensatory Storage cross sections. See Roadway Plans.

*** Limits of Removal for abandoned 36" pipe are given on "Drainage Removal Plan" Sheet



Notes:

1. See Sheet S2 for location of Section A-A, B-B and Name Plate
2. If the Contractor requires any additional temporary causeway it shall be the Contractor's responsibility to obtain all necessary permits.
3. The cost of temporary causeway work will not be paid for separately but shall be considered as included in the unit bid prices of the contract and no additional compensation will be allowed.

PLAN

Limits of Temporary Causeway. Limits shown are the allowable limits covered by the awarded IDNR Permits #3700 & #3704. See Note 2 (Approximate Depth = 4'-0", based on E.W.S.E.)

Proposed Excavation (Compensatory Storage) See Roadway Plans

GENERAL PLAN & ELEVATION
TORRENCE AVENUE OVER GRAND CALUMET RIVER (Public Water)

F.A.P. ROUTE 358
Section 1112.1B-R
COOK COUNTY
STATION 21+10.50
SN 016-2089

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STV

USER NAME = pattisym	DESIGNED - KDH	REVISED	
PLOT SCALE =	CHECKED - RDW	REVISED	
PLOT DATE = 8/20/2015	DRAWN - JMP	REVISED	
	CHECKED - RDW	REVISED	

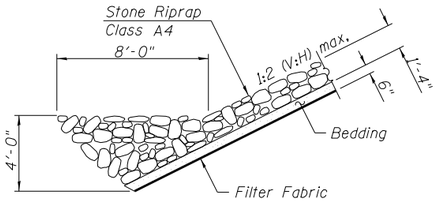
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. S1 OF S48 SHEETS

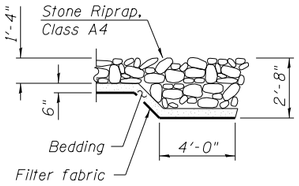
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	72

CONTRACT NO. 60R95

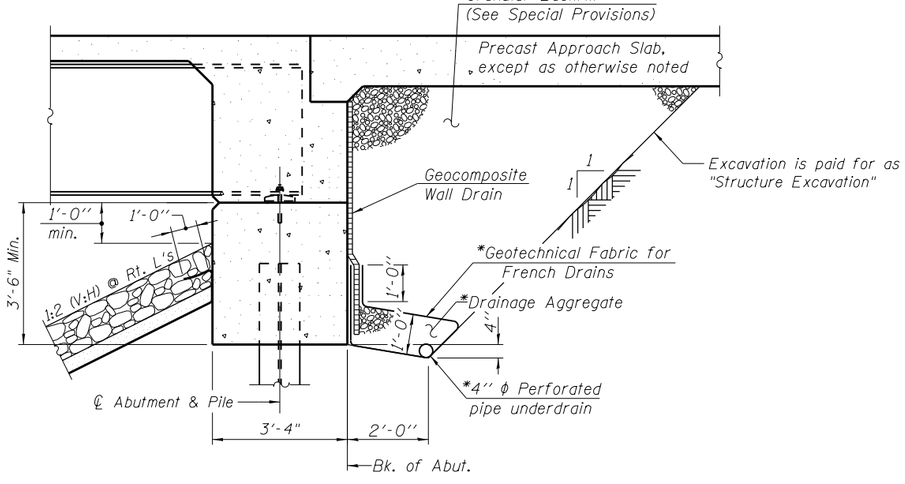
ILLINOIS FED. AID PROJECT



SECTION A-A



SECTION B-B



SECTION THRU INTEGRAL ABUTMENT

(Horiz. dim. @ Rt. L's)

*Included in the cost of Pipe Underdrains for Structures. (See Special Provisions)

Note:

All drainage system outlet pipes shall extend until intersecting with the east side slopes. The pipes shall drain, at 0.5% slope, into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
STONE RIPRAP, CLASS A4	SQ YD	-	1,373	1,373
FILTER FABRIC	SQ YD	-	1,373	1,373
REMOVAL OF EXISTING STRUCTURES	EACH	1	-	1
STRUCTURE EXCAVATION	CU YD	-	390	390
CONCRETE STRUCTURES	CU YD	-	476.8	476.8
CONCRETE SUPERSTRUCTURE	CU YD	1,426.6	-	1,426.6
BRIDGE DECK GROOVING	SQ YD	3,446	-	3,446
PROTECTIVE COAT	SQ YD	5,262	-	5,262
FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1	-	1
STUD SHEAR CONNECTORS	EACH	11,790	-	11,790
REINFORCEMENT BARS	POUND	-	63,390	63,390
REINFORCEMENT BARS, EPOXY COATED	POUND	320,550	185,020	505,570
MECHANICAL SPLICERS	EACH	-	560	560
BICYCLE RAILING	FOOT	526	-	526
BRIDGE FENCE RAILING	FOOT	495	-	495
PARAPET RAILING	FOOT	527	-	527
FURNISHING STEEL PILES HP10X42	FOOT	-	424	424
FURNISHING STEEL PILES HP14X102	FOOT	-	2,171	2,171
DRIVING PILES	FOOT	-	2,595	2,595
TEST PILE STEEL HP14X102	EACH	-	2	2
NAME PLATES	EACH	1	-	1
DRILLED SHAFT IN SOIL	CU YD	-	542	542
DRILLED SHAFT IN ROCK	CU YD	-	26	26
PREFORMED JOINT STRIP SEAL	FOOT	202	-	202
ANCHOR BOLTS, 1"	EACH	-	40	40
ANCHOR BOLTS, 1 1/2"	EACH	-	40	40
GEOCOMPOSITE WALL DRAIN	SQ YD	-	241	241
CONCRETE WEARING SURFACE, 5"	SQ YD	460	-	460
PRECAST BRIDGE APPROACH SLAB	SQ FT	4,140	-	4,140
CROSSHOLE SONIC LOGGING	EACH	-	2	2
GRANULAR BACKFILL FOR STRUCTURES	CU YD	-	513	513
DRAINAGE SCUPPERS, DS-12	EACH	15	-	15
PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	-	267	267
ASBESTOS BEARING PAD REMOVAL	EACH	-	160	160

STATION 21+10.50
BUILT BY
STATE OF ILLINOIS
F.A.P. RT. 358 Sec. 1112.1B-R
LOADING HL-93
STRUCTURE NO. 016-2089

NAME PLATE

See Std. 515001

INDEX OF SHEETS

GENERAL NOTES

Fasteners shall be ASTM A325 Type 3 bolts. Bolts $\frac{7}{8}$in. ϕ, holes $\frac{15}{16}$in. ϕ, unless otherwise noted.

Calculated weight of Structural Steel = 1,762,570 lbs.

All structural steel shall be AASHTO M 270 Grade 50W.

No field welding is permitted except as specified in the contract documents.

Reinforcement bars designated (E) shall be epoxy coated.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

Structural Steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 1'-6". Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.

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

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

The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, causeways, etc. outside of what is shown on Sheet S1. Any permit application by the Contractor shall refer to the IDNR 3704 (Regulation of Public Waters) and 3700 (Construction in Floodplains) permit numbers allowing permanent construction as shown in the contract plans.

Slipforming of Parapets is not allowed.

Contractor shall coordinate with the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) prior to construction. The Contractor shall take extra caution to protect the integrity of the MWRDGC facilities. MWRDGC shall have 24 hour-a-day, unrestricted access to all MWRDGC structures/sewers/facilities.

In-stream work shall be kept to a minimum with no in-stream work to occur from May 15th to July 31st.

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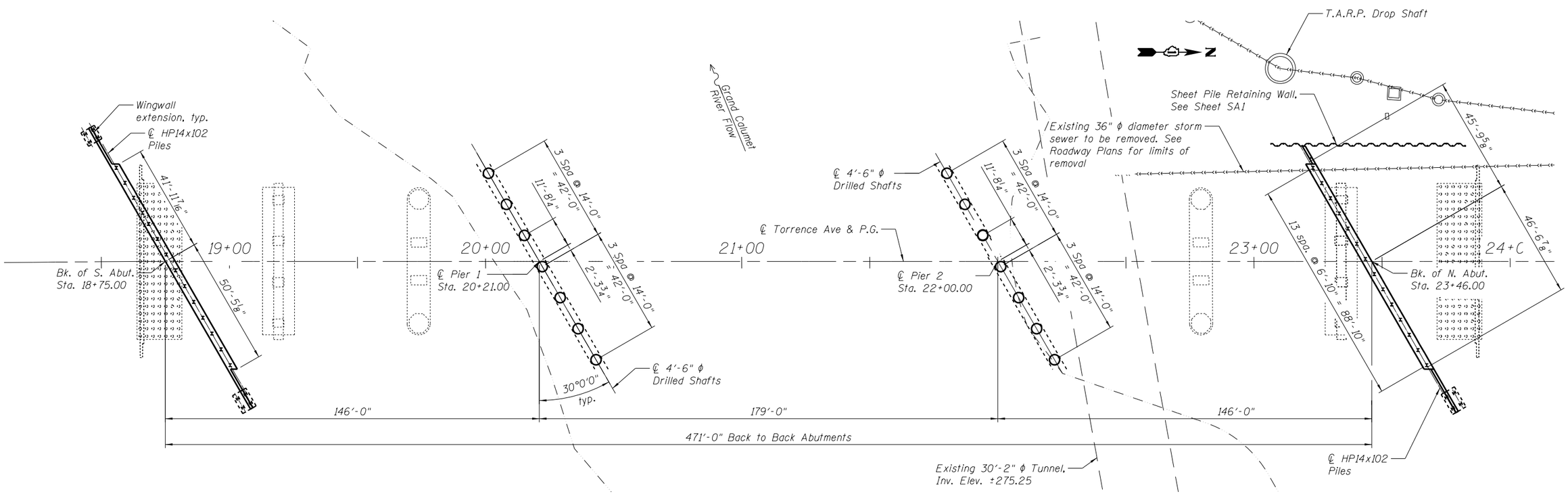
STV

USER NAME = pattisjm	DESIGNED - JMP	REVISED
	CHECKED - RDW	REVISED
PLOT SCALE =	DRAWN - JMP	REVISED
PLOT DATE = 7/29/2015	CHECKED - RDW	REVISED

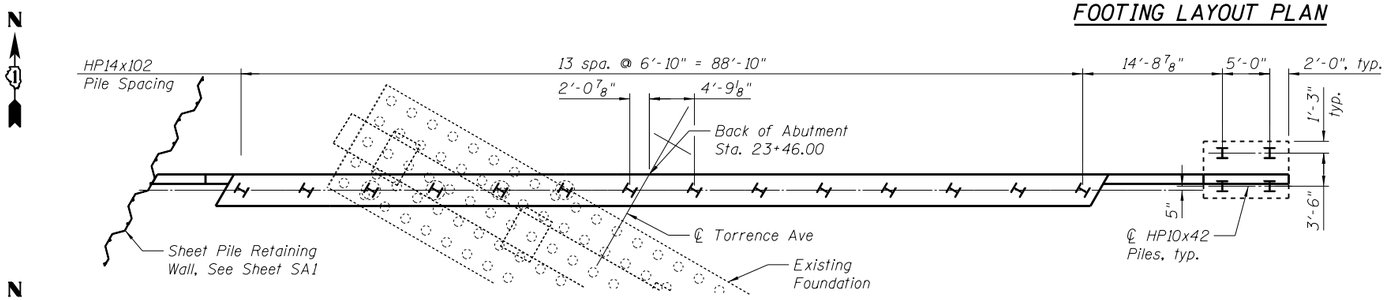
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, B.O.M. & INDEX OF SHEETS
STRUCTURE NO. 016-2089
SHEET NO. S2 OF S48 SHEETS

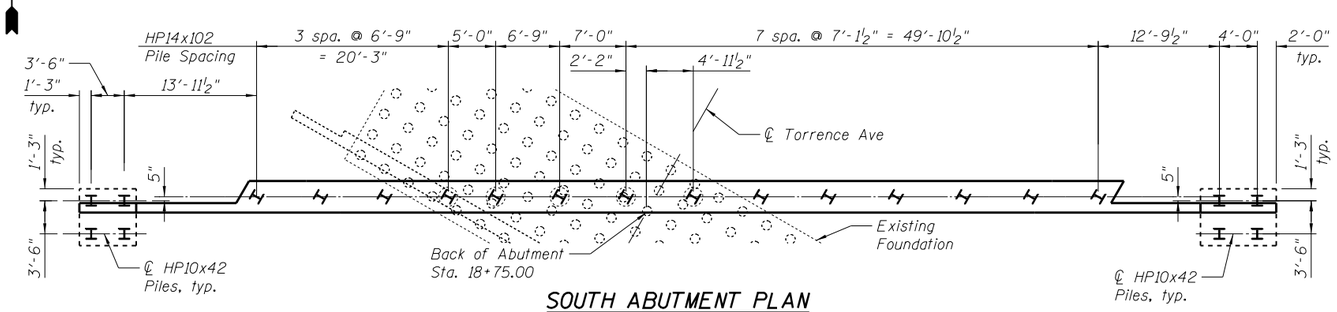
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	73
		CONTRACT NO. 60R95		
	ILLINOIS	FED. AID PROJECT		



FOOTING LAYOUT PLAN



NORTH ABUTMENT PLAN



SOUTH ABUTMENT PLAN

Notes:

1. *Abutment piles may be relocated, 1'-0" Max. along centerline of piles to miss existing counterforts. Driving proposed piles through existing timber piles is acceptable.*
2. *See sheets S4 thru S6 for structure removal details.*
3. *See Sheets S28 through S31 for more information with respect to Abutment Pile layout*

FILE NAME = i:\Projects\4016179\4016179.0001\90.CAD Models and Sheets\CADD Sheets\0162089-60R95-03-FndPlan.dgn

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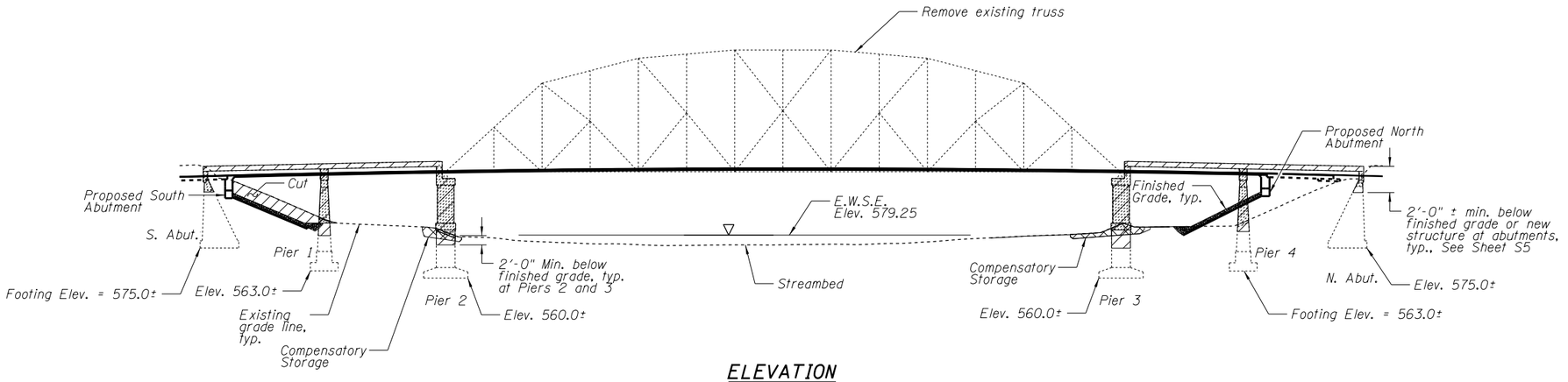
PLOT SCALE =	DRAWN - JMP	REVISED
PLOT DATE = 8/4/2015	CHECKED - RDW	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

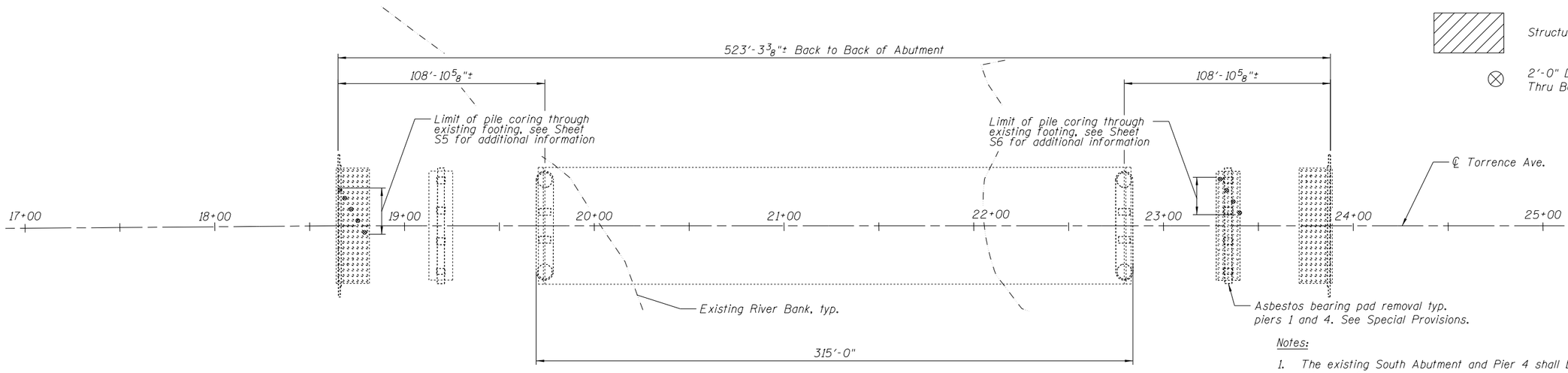
FOUNDATION PLAN
STRUCTURE NO. 016–2089
SHEET NO. S3 OF S48 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	74
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			



ELEVATION

Proposed piles and piers not shown for clarity



PLAN

LEGEND

Structure Removal

⊗ 2'-0" Dia. Core for New Pile Thru Bottom of Existing Footing

BILL OF MATERIAL

Item	Unit	Total
Removal of Existing Structures	Each	1
Asbestos Bearing Pad Removal	Each	160

Notes:

1. The existing South Abutment and Pier 4 shall be partially removed as shown. After all fill has been placed, and prior to driving of piles for new South and North Abutments, 2'-0" diameter holes shall be cored through new fill and existing footing where new piles are to be located. See sheets S5, S6, S28, and S30 for more details.

2. The Contractor shall submit a demolition plan as stipulated in Section 501 of the General Specifications. Each phase of the truss removal operation shall be accounted for. Existing concrete such as deck etc. shall not be dropped into the water.

3. "Removal of Existing Structures" shall include all excavation, backfill, dewatering etc. necessary to remove the existing foundations as stipulated on the drawings and shall follow Section 502 of the Standard Specifications for Road and Bridge Construction, unless noted otherwise

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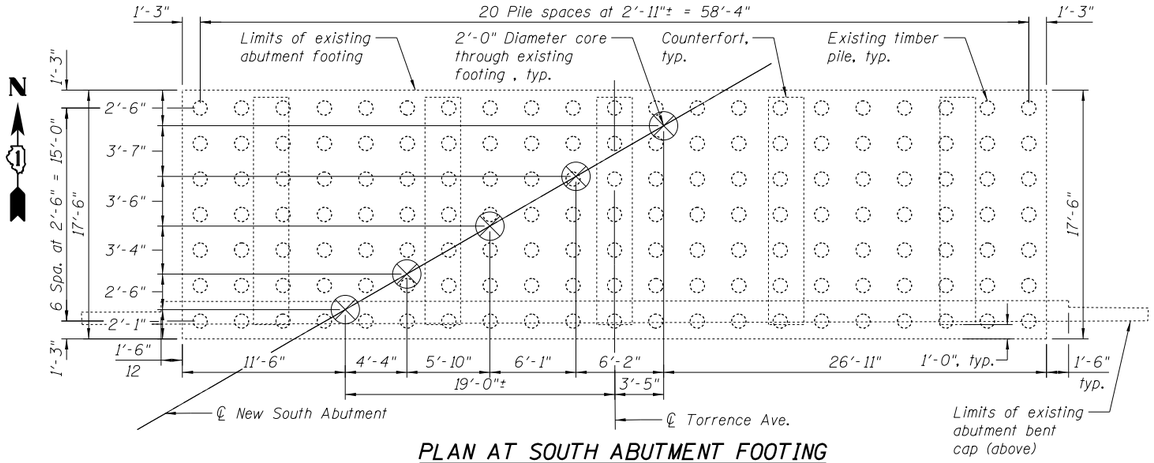
PLOT DATE = 6/29/2015	CHECKED - RDW	REVISED

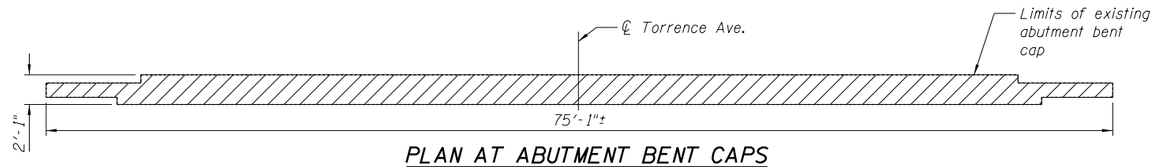
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSTRUCTURE REMOVAL PLAN & ELEVATION
STRUCTURE NO. 016–2089
SHEET NO. S4 OF S48 SHEETS

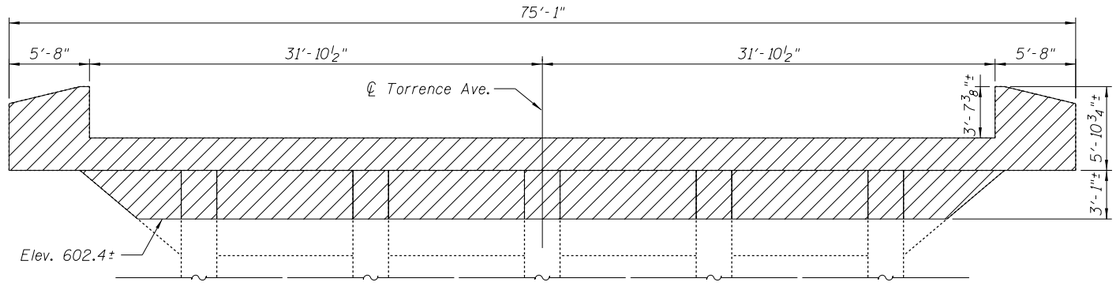
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	75
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			



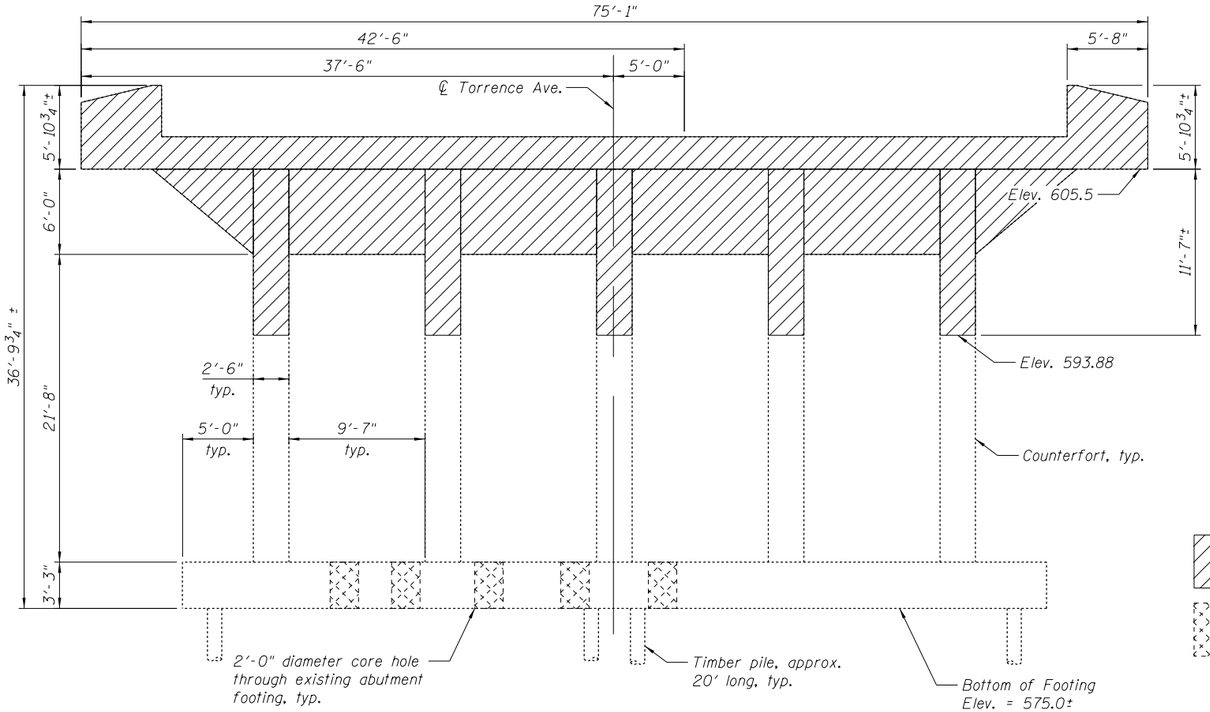
PLAN AT SOUTH ABUTMENT FOOTING



PLAN AT ABUTMENT BENT CAPS



NORTH ABUTMENT PARTIAL ELEVATION



SOUTH ABUTMENT ELEVATION

LEGEND

- Structure Removal
- Pre-Cored Holes (beyond view), see Note 4
- Existing Timber Pile
- 2'-0" Diameter Core Through Existing Footing & Soil, see Note 4

Notes:

1. The existing abutments shall be partially removed as shown.
2. Dimensions given are based on existing construction and bridge rehab plans and are subject to routine variations. The Contractor shall field verify existing dimensions affecting removal and new construction and make necessary adjustments prior to demolition. Adjustments shall be subject to approval by the Engineer. Such variations shall not be cause for additional compensation.
3. HP14 piles may be shifted to miss the existing counterforts if necessary. Maximum variation from Plan dimensions is 1'-0" along centerline of piles. Driving proposed piles through existing timber piles is acceptable.
4. Cost of 2'-0" diameter pre-cored holes to be included in Driving Piles.

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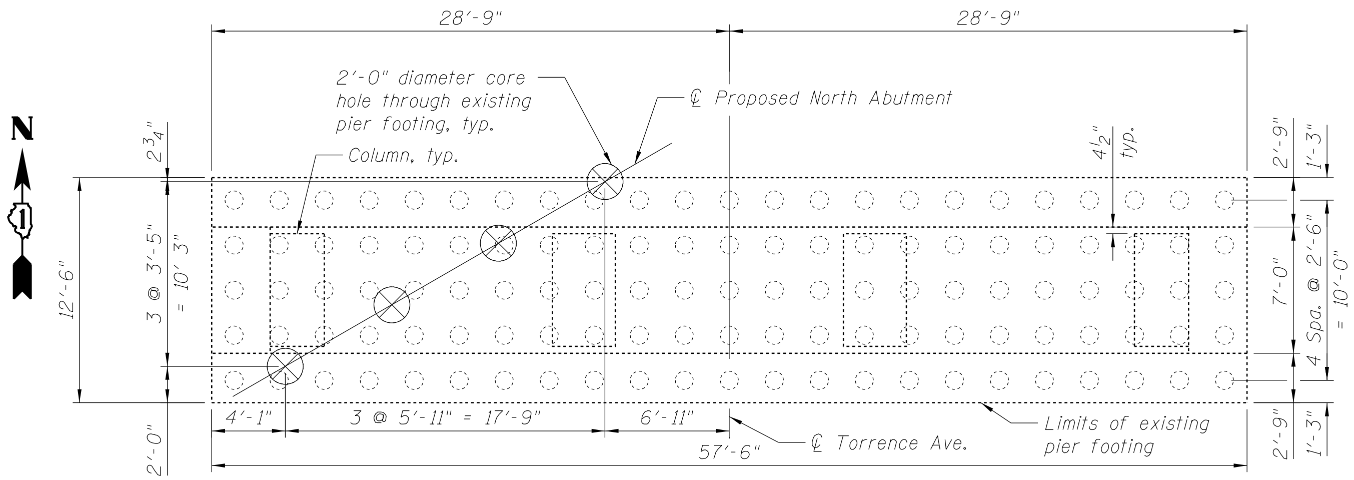
	CHECKED - STB	REVISED
PLOT SCALE =	DRAWN - STB	REVISED
PLOT DATE = 6/29/2015	CHECKED - RDW	REVISED

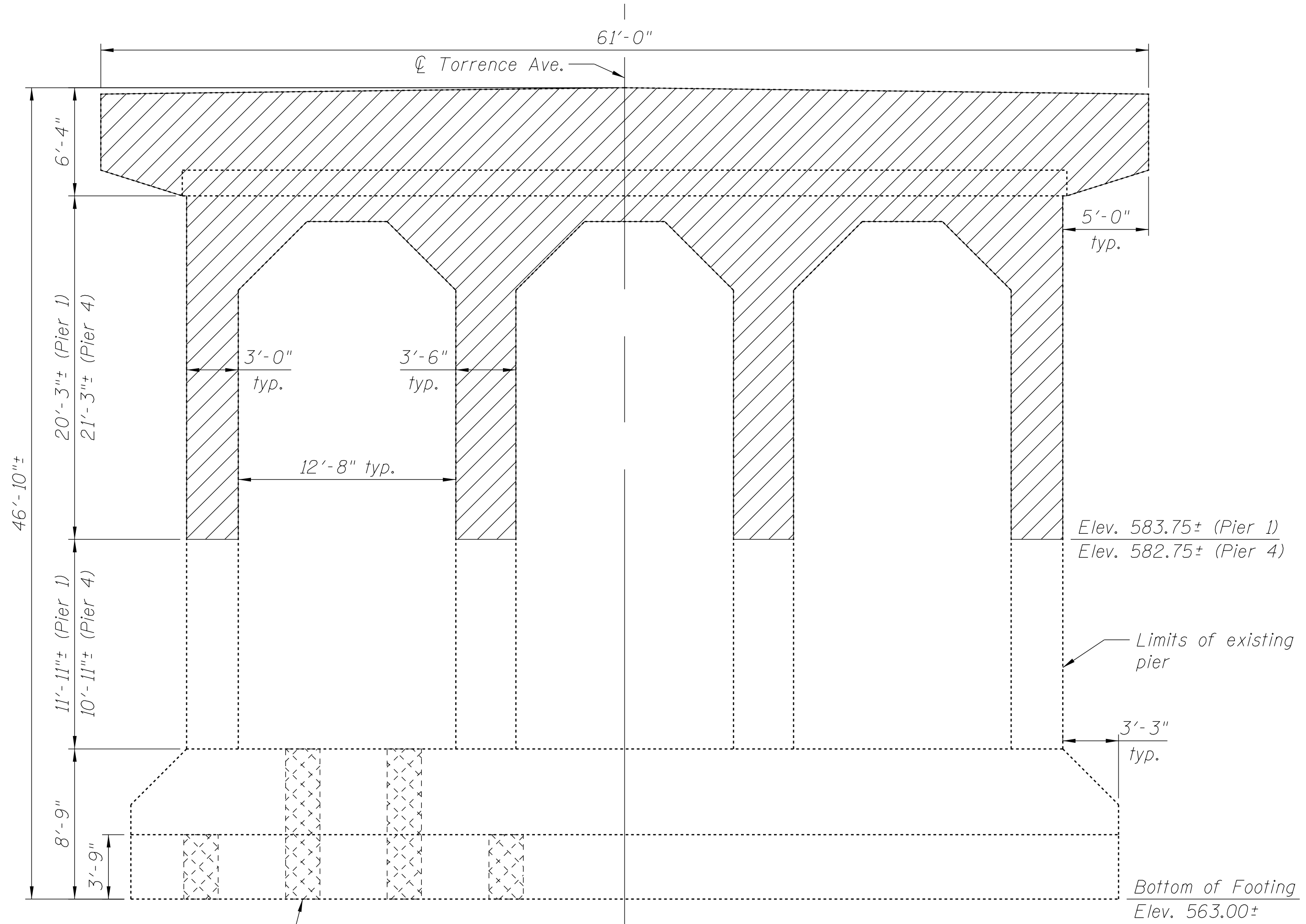
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSTRUCTURE REMOVAL DETAILS 1
STRUCTURE NO. 016-2089
SHEET NO. S5 OF S48 SHEETS

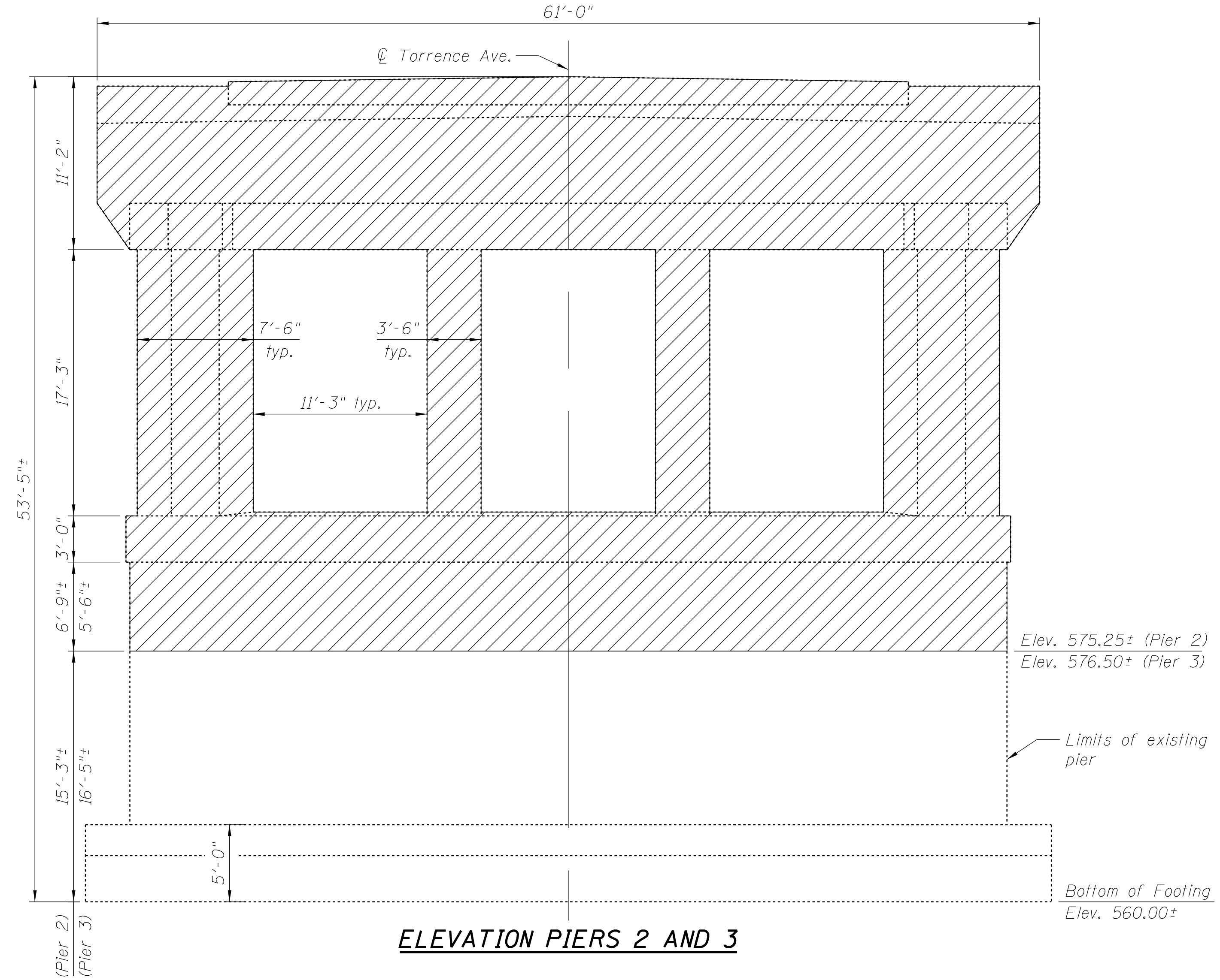
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	76
		CONTRACT NO. 60R95		
ILLINOIS	FED. AID PROJECT			



PLAN AT PIER 4 FOOTING



ELEVATION PIERS 1 AND 4



ELEVATION PIERS 2 AND 3

LEGEND

Symbol	Description
Hatched	Structure Removal
Cross-hatched	Pre-Cored Hole (beyond view), see Note 4
◌	Existing Timber Pile
⊗	2'-0" Diameter core for new pile, see note 4

Notes:

1. The existing piers shall be partially removed as shown.
2. Dimensions given are based on existing construction and bridge rehab plans and are subject to routine variations. The Contractor shall field verify existing dimensions affecting removal and new construction and make necessary adjustments prior to demolition. Adjustments shall be subject to approval by the Engineer. Such variations shall not be cause for additional compensation.
3. HP 14 piles may be shifted to miss the existing columns if necessary. Maximum variation from Plan dimension is 1'-0" along centerline of piles. Driving proposed piles through existing timber piles is acceptable.
4. Cost of 2'-0" diameter pre-cored holes to be included in Driving Piles.

FILE NAME = I:\Projects\4016179\4016179.0001\90_CAD Models and Sheets\CADD_Sheets\0162089-60R95-06-SubDemo Details 2.dgn

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		CHECKED - RDW	REVISED		
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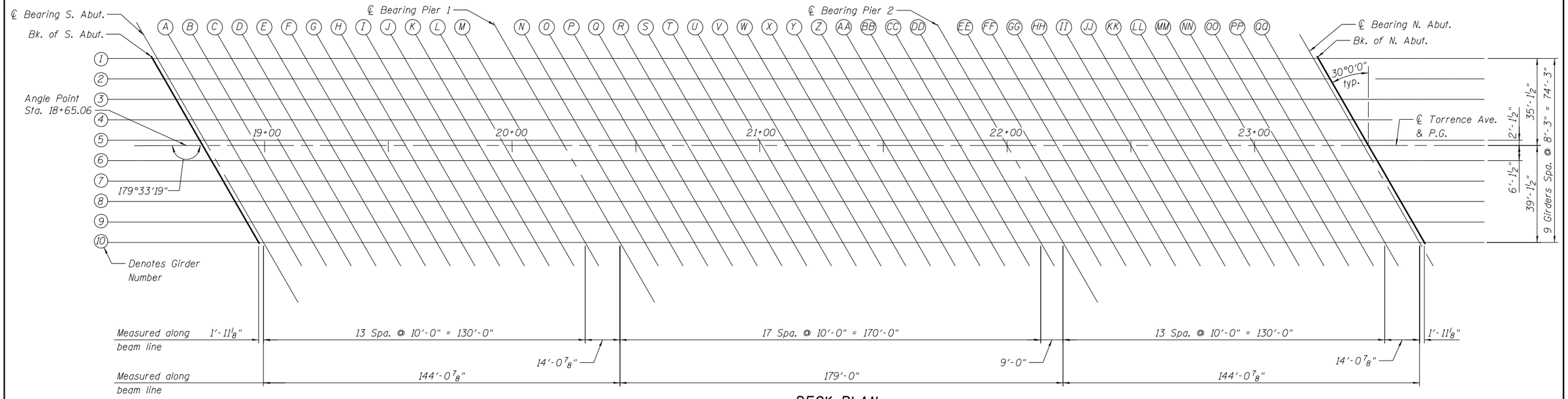
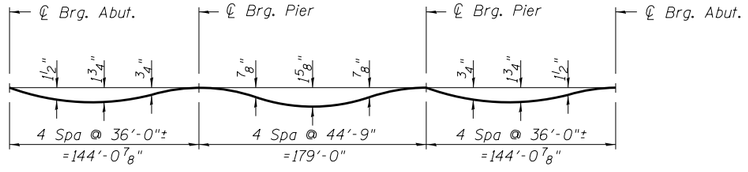
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	77
		CONTRACT NO. 60R95		
		ILLINOIS FED. AID PROJECT		



DECK PLAN

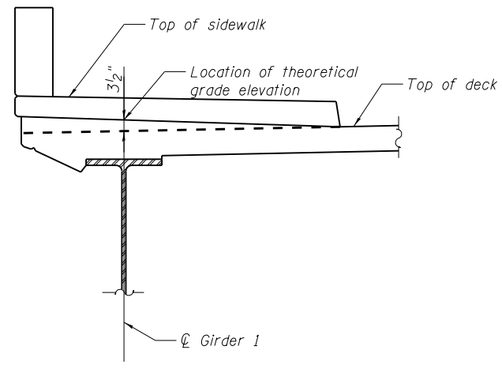


DEAD LOAD DEFLECTION DIAGRAM

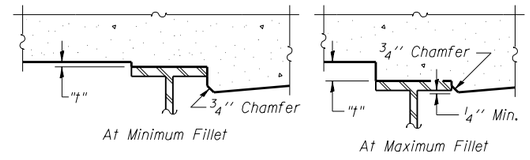
(Includes weight of concrete only.)

Note:

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheets S8 thru S11.



SECTION THRU WEST SIDEWALK



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on the plans. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown in Tables on following sheets, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

FILE NAME = i:\Projects\4016179\4016179_2001\90_CAD Models and Sheets\CADD Sheets\016208S-60R95-07 Deck.dgn

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATION – LAYOUT
STRUCTURE NO. 016–2089
SHEET NO. S7 OF S48 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	78
		CONTRACT NO. 60R95		
	ILLINOIS	FED. AID PROJECT		

GIRDER 1

Location	Station	Offset *	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk S Abutment	18+54.99	-35.20	606.51	606.51
CL Brg. S Abut	18+56.92	-35.19	606.54	606.54
A	18+66.65	-35.13	606.71	606.76
B	18+76.65	-35.13	606.89	606.97
C	18+86.65	-35.13	607.06	607.17
D	18+96.65	-35.13	607.22	607.36
E	19+06.65	-35.13	607.37	607.52
F	19+16.65	-35.13	607.52	607.68
G	19+26.65	-35.13	607.66	607.81
H	19+36.65	-35.13	607.79	607.93
I	19+46.65	-35.13	607.92	608.03
J	19+56.65	-35.13	608.04	608.13
K	19+66.65	-35.13	608.15	608.21
L	19+76.65	-35.13	608.26	608.30
M	19+86.65	-35.13	608.36	608.38
CL Brg. Pier 1	20+00.72	-35.13	608.49	608.49
N	20+10.72	-35.13	608.58	608.58
O	20+20.72	-35.13	608.65	608.67
P	20+30.72	-35.13	608.73	608.76
Q	20+40.72	-35.13	608.79	608.85
R	20+50.72	-35.13	608.85	608.93
S	20+60.72	-35.13	608.90	609.00
T	20+70.72	-35.13	608.94	609.06
U	20+80.72	-35.13	608.98	609.11
V	20+90.72	-35.13	609.01	609.15
W	21+00.72	-35.13	609.04	609.17
X	21+10.72	-35.13	609.05	609.17
Y	21+20.72	-35.13	609.07	609.17
Z	21+30.72	-35.13	609.07	609.15
AA	21+40.72	-35.13	609.07	609.12
BB	21+50.72	-35.13	609.06	609.09
CC	21+60.72	-35.13	609.04	609.06
DD	21+70.72	-35.13	609.02	609.03
CL Brg. Pier 2	21+79.72	-35.13	608.99	608.99
EE	21+89.72	-35.13	608.96	608.97
FF	21+99.72	-35.13	608.92	608.94
GG	22+09.72	-35.13	608.87	608.92
HH	22+19.72	-35.13	608.81	608.89
II	22+29.72	-35.13	608.75	608.85
JJ	22+39.72	-35.13	608.68	608.81
KK	22+49.72	-35.13	608.61	608.75
LL	22+59.72	-35.13	608.53	608.68
MM	22+69.72	-35.13	608.44	608.59
NN	22+79.72	-35.13	608.34	608.49
OO	22+89.72	-35.13	608.24	608.37
PP	22+99.72	-35.13	608.13	608.23
QQ	23+09.72	-35.13	608.02	608.08
CL Brg. N Abut	23+23.80	-35.13	607.84	607.84
Bk N Abutment	23+25.72	-35.13	607.82	607.82

GIRDER 2

Location	Station	Offset *	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk S Abutment	18+59.69	-26.92	606.46	606.46
CL Brg. S Abut	18+61.62	-26.90	606.50	606.50
A	18+71.41	-26.88	606.67	606.71
B	18+81.41	-26.88	606.84	606.92
C	18+91.41	-26.88	607.00	607.12
D	19+01.41	-26.88	607.16	607.30
E	19+11.41	-26.88	607.31	607.46
F	19+21.41	-26.88	607.46	607.61
G	19+31.41	-26.88	607.59	607.74
H	19+41.41	-26.88	607.73	607.86
I	19+51.41	-26.88	607.85	607.96
J	19+61.41	-26.88	607.97	608.05
K	19+71.41	-26.88	608.08	608.14
L	19+81.41	-26.88	608.18	608.22
M	19+91.41	-26.88	608.28	608.29
CL Brg. Pier 1	20+05.48	-26.88	608.40	608.40
N	20+15.48	-26.88	608.49	608.49
O	20+25.48	-26.88	608.56	608.58
P	20+35.48	-26.88	608.63	608.66
Q	20+45.48	-26.88	608.69	608.75
R	20+55.48	-26.88	608.74	608.82
S	20+65.48	-26.88	608.79	608.89
T	20+75.48	-26.88	608.83	608.95
U	20+85.48	-26.88	608.87	609.00
V	20+95.48	-26.88	608.90	609.03
W	21+05.48	-26.88	608.92	609.04
X	21+15.48	-26.88	608.93	609.05
Y	21+25.48	-26.88	608.94	609.04
Z	21+35.48	-26.88	608.94	609.02
AA	21+45.48	-26.88	608.94	608.99
BB	21+55.48	-26.88	608.92	608.96
CC	21+65.48	-26.88	608.90	608.92
DD	21+75.48	-26.88	608.88	608.88
CL Brg. Pier 2	21+84.48	-26.88	608.85	608.85
EE	21+94.48	-26.88	608.81	608.82
FF	22+04.48	-26.88	608.77	608.79
GG	22+14.48	-26.88	608.71	608.76
HH	22+24.48	-26.88	608.66	608.73
II	22+34.48	-26.88	608.59	608.69
JJ	22+44.48	-26.88	608.52	608.64
KK	22+54.48	-26.88	608.44	608.58
LL	22+64.48	-26.88	608.36	608.51
MM	22+74.48	-26.88	608.26	608.42
NN	22+84.48	-26.88	608.17	608.31
OO	22+94.48	-26.88	608.06	608.18
PP	23+04.48	-26.88	607.95	608.04
QQ	23+14.48	-26.88	607.83	607.89
CL Brg. N Abut	23+28.56	-26.88	607.65	607.65
Bk N Abutment	23+30.48	-26.88	607.63	607.63

GIRDER 3

Location	Station	Offset *	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk S Abutment	18+64.25	-18.63	606.71	606.71
CL Brg. S Abut	18+66.17	-18.63	606.74	606.74
A	18+76.17	-18.63	606.92	606.96
B	18+86.17	-18.63	607.08	607.16
C	18+96.17	-18.63	607.25	607.36
D	19+06.17	-18.63	607.40	607.53
E	19+16.17	-18.63	607.55	607.70
F	19+26.17	-18.63	607.69	607.84
G	19+36.17	-18.63	607.82	607.97
H	19+46.17	-18.63	607.95	608.08
I	19+56.17	-18.63	608.07	608.18
J	19+66.17	-18.63	608.19	608.27
K	19+76.17	-18.63	608.29	608.35
L	19+86.17	-18.63	608.39	608.43
M	19+96.17	-18.63	608.49	608.50
CL Brg. Pier 1	20+10.25	-18.63	608.61	608.61
N	20+20.25	-18.63	608.69	608.69
O	20+30.25	-18.63	608.76	608.77
P	20+40.25	-18.63	608.82	608.86
Q	20+50.25	-18.63	608.88	608.94
R	20+60.25	-18.63	608.93	609.01
S	20+70.25	-18.63	608.98	609.08
T	20+80.25	-18.63	609.02	609.13
U	20+90.25	-18.63	609.05	609.17
V	21+00.25	-18.63	609.07	609.21
W	21+10.25	-18.63	609.09	609.22
X	21+20.25	-18.63	609.10	609.22
Y	21+30.25	-18.63	609.11	609.20
Z	21+40.25	-18.63	609.10	609.18
AA	21+50.25	-18.63	609.10	609.15
BB	21+60.25	-18.63	609.08	609.11
CC	21+70.25	-18.63	609.06	609.07
DD	21+80.25	-18.63	609.03	609.03
CL Brg. Pier 2	21+89.25	-18.63	609.00	609.00
EE	21+99.25	-18.63	608.96	608.97
FF	22+09.25	-18.63	608.91	608.93
GG	22+19.25	-18.63	608.85	608.90
HH	22+29.25	-18.63	608.79	608.87
II	22+39.25	-18.63	608.72	608.82
JJ	22+49.25	-18.63	608.65	608.77
KK	22+59.25	-18.63	608.57	608.71
LL	22+69.25	-18.63	608.48	608.63
MM	22+79.25	-18.63	608.38	608.53
NN	22+89.25	-18.63	608.28	608.42
OO	22+99.25	-18.63	608.17	608.30
PP	23+09.25	-18.63	608.06	608.15
QQ	23+19.25	-18.63	607.94	608.00
CL Brg. N Abut	23+33.32	-18.63	607.75	607.75
Bk N Abutment	23+35.25	-18.63	607.73	607.73

* Negative value indicates a left offset and a positive value indicates a right offset.

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PLOT DATE = 6/29/2015	CHECKED - RDW	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATIONS - 1
STRUCTURE NO. 016-2089
SHEET NO. S8 OF S48 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	79
		CONTRACT NO. 60R95		
		ILLINOIS FED. AID PROJECT		

GIRDER 4

Location	Station	Offset *	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk S Abutment	18+69.01	-10.38	606.96	606.96
CL Brg. S Abut	18+70.93	-10.38	606.99	606.99
A	18+80.93	-10.38	607.16	607.20
B	18+90.93	-10.38	607.33	607.41
C	19+00.93	-10.38	607.48	607.60
D	19+10.93	-10.38	607.64	607.77
E	19+20.93	-10.38	607.78	607.93
F	19+30.93	-10.38	607.92	608.07
G	19+40.93	-10.38	608.05	608.20
H	19+50.93	-10.38	608.17	608.30
I	19+60.93	-10.38	608.29	608.40
J	19+70.93	-10.38	608.40	608.49
K	19+80.93	-10.38	608.51	608.57
L	19+90.93	-10.38	608.60	608.64
M	20+00.93	-10.38	608.70	608.71
CL Brg. Pier 1	20+15.01	-10.38	608.81	608.81
N	20+25.01	-10.38	608.89	608.89
O	20+35.01	-10.38	608.96	608.97
P	20+45.01	-10.38	609.02	609.05
Q	20+55.01	-10.38	609.07	609.13
R	20+65.01	-10.38	609.12	609.20
S	20+75.01	-10.38	609.16	609.26
T	20+85.01	-10.38	609.20	609.31
U	20+95.01	-10.38	609.22	609.35
V	21+05.01	-10.38	609.25	609.38
W	21+15.01	-10.38	609.26	609.39
X	21+25.01	-10.38	609.27	609.39
Y	21+35.01	-10.38	609.27	609.37
Z	21+45.01	-10.38	609.27	609.34
AA	21+55.01	-10.38	609.25	609.31
BB	21+65.01	-10.38	609.24	609.27
CC	21+75.01	-10.38	609.21	609.22
DD	21+85.01	-10.38	609.18	609.18
CL Brg. Pier 2	21+94.01	-10.38	609.14	609.14
EE	22+04.01	-10.38	609.10	609.11
FF	22+14.01	-10.38	609.05	609.07
GG	22+24.01	-10.38	608.99	609.04
HH	22+34.01	-10.38	608.92	609.00
II	22+44.01	-10.38	608.85	608.95
JJ	22+54.01	-10.38	608.78	608.90
KK	22+64.01	-10.38	608.69	608.83
LL	22+74.01	-10.38	608.60	608.75
MM	22+84.01	-10.38	608.50	608.65
NN	22+94.01	-10.38	608.40	608.54
OO	23+04.01	-10.38	608.29	608.41
PP	23+14.01	-10.38	608.17	608.26
QQ	23+24.01	-10.38	608.04	608.10
CL Brg. N Abut	23+38.09	-10.38	607.86	607.86
Bk N Abutment	23+40.01	-10.38	607.83	607.83

GIRDER 5

Location	Station	Offset *	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk S Abutment	18+73.77	-2.13	607.21	607.21
CL Brg. S Abut	18+75.70	-2.13	607.24	607.24
A	18+85.70	-2.13	607.41	607.45
B	18+95.70	-2.13	607.57	607.65
C	19+05.70	-2.13	607.72	607.83
D	19+15.70	-2.13	607.87	608.01
E	19+25.70	-2.13	608.01	608.16
F	19+35.70	-2.13	608.15	608.30
G	19+45.70	-2.13	608.27	608.42
H	19+55.70	-2.13	608.40	608.53
I	19+65.70	-2.13	608.51	608.62
J	19+75.70	-2.13	608.62	608.70
K	19+85.70	-2.13	608.72	608.78
L	19+95.70	-2.13	608.81	608.85
M	20+05.70	-2.13	608.90	608.92
CL Brg. Pier 1	20+19.77	-2.13	609.01	609.01
N	20+29.77	-2.13	609.09	609.09
O	20+39.77	-2.13	609.15	609.17
P	20+49.77	-2.13	609.21	609.24
Q	20+59.77	-2.13	609.26	609.32
R	20+69.77	-2.13	609.31	609.38
S	20+79.77	-2.13	609.34	609.44
T	20+89.77	-2.13	609.38	609.49
U	20+99.77	-2.13	609.40	609.53
V	21+09.77	-2.13	609.42	609.55
W	21+19.77	-2.13	609.43	609.56
X	21+29.77	-2.13	609.44	609.55
Y	21+39.77	-2.13	609.43	609.53
Z	21+49.77	-2.13	609.43	609.50
AA	21+59.77	-2.13	609.41	609.46
BB	21+69.77	-2.13	609.39	609.42
CC	21+79.77	-2.13	609.36	609.37
DD	21+89.77	-2.13	609.33	609.33
CL Brg. Pier 2	21+98.77	-2.13	609.29	609.29
EE	22+08.77	-2.13	609.24	609.25
FF	22+18.77	-2.13	609.19	609.21
GG	22+28.77	-2.13	609.12	609.17
HH	22+38.77	-2.13	609.06	609.13
II	22+48.77	-2.13	608.98	609.08
JJ	22+58.77	-2.13	608.90	609.02
KK	22+68.77	-2.13	608.81	608.95
LL	22+78.77	-2.13	608.72	608.87
MM	22+88.77	-2.13	608.62	608.77
NN	22+98.77	-2.13	608.51	608.65
OO	23+08.77	-2.13	608.39	608.52
PP	23+18.77	-2.13	608.27	608.37
QQ	23+28.77	-2.13	608.15	608.20
CL Brg. N Abut	23+42.85	-2.13	607.95	607.95
Bk N Abutment	23+44.77	-2.13	607.93	607.93

PGL

Location	Station	Offset *	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk S Abutment	18+75.00	0.00	607.27	607.27
CL Brg. S Abut	18+76.92	0.00	607.30	607.30
A	18+86.92	0.00	607.47	607.51
B	18+96.92	0.00	607.63	607.71
C	19+06.92	0.00	607.78	607.89
D	19+16.92	0.00	607.93	608.06
E	19+26.92	0.00	608.07	608.22
F	19+36.92	0.00	608.21	608.36
G	19+46.92	0.00	608.33	608.48
H	19+56.92	0.00	608.45	608.58
I	19+66.92	0.00	608.57	608.68
J	19+76.92	0.00	608.67	608.76
K	19+86.92	0.00	608.77	608.83
L	19+96.92	0.00	608.87	608.90
M	20+06.92	0.00	608.95	608.97
CL Brg. Pier 1	20+21.00	0.00	609.07	609.07
N	20+31.00	0.00	609.14	609.14
O	20+41.00	0.00	609.20	609.22
P	20+51.00	0.00	609.26	609.29
Q	20+61.00	0.00	609.31	609.36
R	20+71.00	0.00	609.35	609.43
S	20+81.00	0.00	609.39	609.49
T	20+91.00	0.00	609.42	609.54
U	21+01.00	0.00	609.45	609.57
V	21+11.00	0.00	609.46	609.59
W	21+21.00	0.00	609.47	609.60
X	21+31.00	0.00	609.48	609.59
Y	21+41.00	0.00	609.48	609.57
Z	21+51.00	0.00	609.47	609.54
AA	21+61.00	0.00	609.45	609.50
BB	21+71.00	0.00	609.43	609.46
CC	21+81.00	0.00	609.40	609.41
DD	21+91.00	0.00	609.36	609.37
CL Brg. Pier 2	22+00.00	0.00	609.33	609.33
EE	22+10.00	0.00	609.28	609.29
FF	22+20.00	0.00	609.22	609.25
GG	22+30.00	0.00	609.16	609.21
HH	22+40.00	0.00	609.09	609.16
II	22+50.00	0.00	609.02	609.11
JJ	22+60.00	0.00	608.93	609.05
KK	22+70.00	0.00	608.84	608.98
LL	22+80.00	0.00	608.75	608.90
MM	22+90.00	0.00	608.65	608.80
NN	23+00.00	0.00	608.54	608.68
OO	23+10.00	0.00	608.42	608.54
PP	23+20.00	0.00	608.30	608.39
QQ	23+30.00	0.00	608.17	608.23
CL Brg. N Abut	23+44.08	0.00	607.98	607.98
Bk N Abutment	23+46.00	0.00	607.95	607.95

* Negative value indicates a left offset and a positive value indicates a right offset.

GIRDER 6

Location	Station	Offset *	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk S Abutment	18+78.54	6.13	607.21	607.21
CL Brg. S Abut	18+80.46	6.13	607.24	607.24
A	18+90.46	6.13	607.40	607.44
B	19+00.46	6.13	607.56	607.64
C	19+10.46	6.13	607.71	607.82
D	19+20.46	6.13	607.86	607.99
E	19+30.46	6.13	608.00	608.14
F	19+40.46	6.13	608.13	608.27
G	19+50.46	6.13	608.25	608.39
H	19+60.46	6.13	608.37	608.49
I	19+70.46	6.13	608.48	608.59
J	19+80.46	6.13	608.59	608.67
K	19+90.46	6.13	608.69	608.74
L	20+00.46	6.13	608.78	608.81
M	20+10.46	6.13	608.86	608.87
CL Brg. Pier 1	20+24.54	6.13	608.97	608.97
N	20+34.54	6.13	609.04	609.04
O	20+44.54	6.13	609.10	609.11
P	20+54.54	6.13	609.15	609.19
Q	20+64.54	6.13	609.20	609.25
R	20+74.54	6.13	609.25	609.32
S	20+84.54	6.13	609.28	609.37
T	20+94.54	6.13	609.31	609.42
U	21+04.54	6.13	609.33	609.45
V	21+14.54	6.13	609.35	609.47
W	21+24.54	6.13	609.35	609.47
X	21+34.54	6.13	609.36	609.46
Y	21+44.54	6.13	609.35	609.44
Z	21+54.54	6.13	609.34	609.41
AA	21+64.54	6.13	609.32	609.37
BB	21+74.54	6.13	609.30	609.33
CC	21+84.54	6.13	609.26	609.28
DD	21+94.54	6.13	609.23	609.23
CL Brg. Pier 2	22+03.54	6.13	609.19	609.19
EE	22+13.54	6.13	609.14	609.14
FF	22+23.54	6.13	609.08	609.10
GG	22+33.54	6.13	609.01	609.06
HH	22+43.54	6.13	608.94	609.01
II	22+53.54	6.13	608.86	608.96
JJ	22+63.54	6.13	608.78	608.90
KK	22+73.54	6.13	608.69	608.82
LL	22+83.54	6.13	608.59	608.73
MM	22+93.54	6.13	608.49	608.63
NN	23+03.54	6.13	608.38	608.51
OO	23+13.54	6.13	608.26	608.37
PP	23+23.54	6.13	608.13	608.22
QQ	23+33.54	6.13	608.00	608.06
CL Brg. N Abut	23+47.61	6.13	607.81	607.81
Bk N Abutment	23+49.54	6.13	607.78	607.78

GIRDER 7

Location	Station	Offset *	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk S Abutment	18+83.30	14.38	607.12	607.12
CL Brg. S Abut	18+85.22	14.38	607.15	607.15
A	18+95.22	14.38	607.32	607.35
B	19+05.22	14.38	607.47	607.54
C	19+15.22	14.38	607.62	607.72
D	19+25.22	14.38	607.76	607.89
E	19+35.22	14.38	607.90	608.03
F	19+45.22	14.38	608.02	608.17
G	19+55.22	14.38	608.15	608.28
H	19+65.22	14.38	608.26	608.38
I	19+75.22	14.38	608.37	608.47
J	19+85.22	14.38	608.47	608.55
K	19+95.22	14.38	608.56	608.62
L	20+05.22	14.38	608.65	608.68
M	20+15.22	14.38	608.73	608.75
CL Brg. Pier 1	20+29.30	14.38	608.84	608.84
N	20+39.30	14.38	608.90	608.91
O	20+49.30	14.38	608.96	608.98
P	20+59.30	14.38	609.01	609.05
Q	20+69.30	14.38	609.06	609.11
R	20+79.30	14.38	609.10	609.17
S	20+89.30	14.38	609.13	609.22
T	20+99.30	14.38	609.15	609.27
U	21+09.30	14.38	609.17	609.29
V	21+19.30	14.38	609.19	609.31
W	21+29.30	14.38	609.19	609.31
X	21+39.30	14.38	609.19	609.30
Y	21+49.30	14.38	609.18	609.27
Z	21+59.30	14.38	609.17	609.24
AA	21+69.30	14.38	609.15	609.19
BB	21+79.30	14.38	609.12	609.15
CC	21+89.30	14.38	609.08	609.09
DD	21+99.30	14.38	609.04	609.05
CL Brg. Pier 2	22+08.30	14.38	609.00	609.00
EE	22+18.30	14.38	608.94	608.95
FF	22+28.30	14.38	608.88	608.91
GG	22+38.30	14.38	608.82	608.86
HH	22+48.30	14.38	608.74	608.81
II	22+58.30	14.38	608.66	608.75
JJ	22+68.30	14.38	608.57	608.69
KK	22+78.30	14.38	608.48	608.61
LL	22+88.30	14.38	608.38	608.52
MM	22+98.30	14.38	608.27	608.41
NN	23+08.30	14.38	608.16	608.29
OO	23+18.30	14.38	608.03	608.15
PP	23+28.30	14.38	607.91	607.99
QQ	23+38.30	14.38	607.77	607.83
CL Brg. N Abut	23+52.37	14.38	607.57	607.57
Bk N Abutment	23+54.30	14.38	607.54	607.54

GIRDER 8

Location	Station	Offset *	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk S Abutment	18+88.06	22.63	607.04	607.04
CL Brg. S Abut	18+89.99	22.63	607.07	607.07
A	18+99.99	22.63	607.23	607.26
B	19+09.99	22.63	607.38	607.45
C	19+19.99	22.63	607.52	607.63
D	19+29.99	22.63	607.66	607.79
E	19+39.99	22.63	607.79	607.93
F	19+49.99	22.63	607.92	608.06
G	19+59.99	22.63	608.04	608.17
H	19+69.99	22.63	608.15	608.27
I	19+79.99	22.63	608.25	608.36
J	19+89.99	22.63	608.35	608.43
K	19+99.99	22.63	608.44	608.50
L	20+09.99	22.63	608.53	608.56
M	20+19.99	22.63	608.61	608.62
CL Brg. Pier 1	20+34.06	22.63	608.70	608.70
N	20+44.06	22.63	608.77	608.77
O	20+54.06	22.63	608.82	608.84
P	20+64.06	22.63	608.87	608.90
Q	20+74.06	22.63	608.91	608.96
R	20+84.06	22.63	608.95	609.02
S	20+94.06	22.63	608.98	609.07
T	21+04.06	22.63	609.00	609.11
U	21+14.06	22.63	609.02	609.13
V	21+24.06	22.63	609.02	609.15
W	21+34.06	22.63	609.03	609.14
X	21+44.06	22.63	609.02	609.13
Y	21+54.06	22.63	609.01	609.10
Z	21+64.06	22.63	608.99	609.06
AA	21+74.06	22.63	608.97	609.02
BB	21+84.06	22.63	608.94	608.97
CC	21+94.06	22.63	608.90	608.91
DD	22+04.06	22.63	608.85	608.86
CL Brg. Pier 2	22+13.06	22.63	608.81	608.81
EE	22+23.06	22.63	608.75	608.76
FF	22+33.06	22.63	608.69	608.71
GG	22+43.06	22.63	608.62	608.66
HH	22+53.06	22.63	608.54	608.61
II	22+63.06	22.63	608.45	608.55
JJ	22+73.06	22.63	608.36	608.48
KK	22+83.06	22.63	608.27	608.40
LL	22+93.06	22.63	608.16	608.30
MM	23+03.06	22.63	608.05	608.19
NN	23+13.06	22.63	607.93	608.07
OO	23+23.06	22.63	607.81	607.92
PP	23+33.06	22.63	607.68	607.77
QQ	23+43.06	22.63	607.54	607.60
CL Brg. N Abut	23+57.14	22.63	607.34	607.34
Bk N Abutment	23+59.06	22.63	607.31	607.31

* Negative value indicates a left offset and a positive value indicates a right offset.

FILE NAME = L:\Projects\4016179\4016179_0001\90_CAD Models and Sheets\CADD Sheets\016208R-60R95-10 Deck.dgn

STV

USER NAME = PattisJM	DESIGNED - EJW	REVISED
	CHECKED - RDW	REVISED
PLOT SCALE =	DRAWN - EJW	REVISED
PLOT DATE = 6/29/2015	CHECKED - RDW	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATIONS - 3
STRUCTURE NO. 016-2089
SHEET NO. 510 OF 548 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	81
		CONTRACT NO. 60R95		
	ILLINOIS	FED. AID PROJECT		

GIRDER 9

Location	Station	Offset *	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk S Abutment	18+92.83	30.88	607.00	607.00
CL Brg. S Abut	18+94.75	30.88	607.03	607.03
A	19+04.75	30.88	607.19	607.23
B	19+14.75	30.88	607.34	607.41
C	19+24.75	30.88	607.48	607.58
D	19+34.75	30.88	607.61	607.74
E	19+44.75	30.88	607.74	607.88
F	19+54.75	30.88	607.86	608.01
G	19+64.75	30.88	607.98	608.12
H	19+74.75	30.88	608.09	608.21
I	19+84.75	30.88	608.19	608.29
J	19+94.75	30.88	608.28	608.36
K	20+04.75	30.88	608.37	608.43
L	20+14.75	30.88	608.45	608.49
M	20+24.75	30.88	608.53	608.54
CL Brg. Pier 1	20+38.83	30.88	608.62	608.62
N	20+48.83	30.88	608.68	608.69
O	20+58.83	30.88	608.74	608.75
P	20+68.83	30.88	608.78	608.81
Q	20+78.83	30.88	608.82	608.87
R	20+88.83	30.88	608.85	608.93
S	20+98.83	30.88	608.88	608.97
T	21+08.83	30.88	608.90	609.01
U	21+18.83	30.88	608.91	609.03
V	21+28.83	30.88	608.91	609.04
W	21+38.83	30.88	608.91	609.03
X	21+48.83	30.88	608.91	609.01
Y	21+58.83	30.88	608.89	608.98
Z	21+68.83	30.88	608.87	608.94
AA	21+78.83	30.88	608.84	608.89
BB	21+88.83	30.88	608.81	608.84
CC	21+98.83	30.88	608.77	608.78
DD	22+08.83	30.88	608.72	608.72
CL Brg. Pier 2	22+17.83	30.88	608.67	608.67
EE	22+27.83	30.88	608.61	608.62
FF	22+37.83	30.88	608.54	608.57
GG	22+47.83	30.88	608.47	608.51
HH	22+57.83	30.88	608.39	608.46
II	22+67.83	30.88	608.30	608.39
JJ	22+77.83	30.88	608.21	608.32
KK	22+87.83	30.88	608.11	608.24
LL	22+97.83	30.88	608.00	608.14
MM	23+07.83	30.88	607.88	608.03
NN	23+17.83	30.88	607.76	607.90
OO	23+27.83	30.88	607.64	607.75
PP	23+37.83	30.88	607.50	607.59
QQ	23+47.83	30.88	607.36	607.42
CL Brg. N Abut	23+61.90	30.88	607.15	607.15
Bk N Abutment	23+63.83	30.88	607.12	607.12

GIRDER 10

Location	Station	Offset *	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk S Abutment	18+97.59	39.13	607.22	607.22
CL Brg. S Abut	18+99.51	39.13	607.25	607.25
A	19+09.51	39.13	607.40	607.44
B	19+19.51	39.13	607.54	607.62
C	19+29.51	39.13	607.68	607.79
D	19+39.51	39.13	607.82	607.95
E	19+49.51	39.13	607.94	608.08
F	19+59.51	39.13	608.06	608.21
G	19+69.51	39.13	608.17	608.31
H	19+79.51	39.13	608.28	608.40
I	19+89.51	39.13	608.38	608.48
J	19+99.51	39.13	608.47	608.55
K	20+09.51	39.13	608.55	608.61
L	20+19.51	39.13	608.63	608.66
M	20+29.51	39.13	608.70	608.72
CL Brg. Pier 1	20+43.59	39.13	608.79	608.79
N	20+53.59	39.13	608.85	608.86
O	20+63.59	39.13	608.90	608.91
P	20+73.59	39.13	608.94	608.97
Q	20+83.59	39.13	608.98	609.03
R	20+93.59	39.13	609.01	609.08
S	21+03.59	39.13	609.03	609.12
T	21+13.59	39.13	609.04	609.16
U	21+23.59	39.13	609.05	609.17
V	21+33.59	39.13	609.06	609.18
W	21+43.59	39.13	609.05	609.17
X	21+53.59	39.13	609.04	609.15
Y	21+63.59	39.13	609.02	609.12
Z	21+73.59	39.13	609.00	609.07
AA	21+83.59	39.13	608.97	609.02
BB	21+93.59	39.13	608.93	608.96
CC	22+03.59	39.13	608.89	608.90
DD	22+13.59	39.13	608.83	608.84
	22+22.59	39.13	608.78	608.78
CL Brg. Pier 2	22+32.59	39.13	608.72	608.73
EE				
FF	22+42.59	39.13	608.65	608.67
GG	22+52.59	39.13	608.57	608.62
HH	22+62.59	39.13	608.49	608.56
II	22+72.59	39.13	608.40	608.49
JJ	22+82.59	39.13	608.30	608.42
KK	22+92.59	39.13	608.20	608.33
LL	23+02.59	39.13	608.09	608.23
MM	23+12.59	39.13	607.97	608.11
NN	23+22.59	39.13	607.84	607.98
OO	23+32.59	39.13	607.71	607.83
PP	23+42.59	39.13	607.58	607.67
QQ	23+52.59	39.13	607.43	607.49
CL Brg. N Abut	23+66.66	39.13	607.22	607.22
Bk N Abutment	23+68.59	39.13	607.19	607.19

* Negative value indicates a left offset and a positive value indicates a right offset.

FILE NAME = i:\Projects\4016179.4016179.20001\90_CAD Models and Sheets\CADD_Sheets\016089-60R95-11-Deck.dgn

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PLOT SCALE =	DRAWN - EJW	REVISED
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATIONS – 4
STRUCTURE NO. 016–2089
SHEET NO. S11 OF S48 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	82
		CONTRACT NO. 60R95		
	ILLINOIS	FED. AID PROJECT		

WEST EDGE OF SLAB

Location	Station	Offset*	Theoretical Grade Elevations
SOUTH END OF S. APPROACH PAVEMENT	18+24.69	-38.00	606.00
A1	18+34.63	-38.03	606.20
A2	18+44.57	-38.06	606.39
NORTH END OF S. APPROACH PAVEMENT	18+54.51	-38.08	606.59

EAST EDGE OF SIDEWALK

Location	Station	Offset*	Theoretical Grade Elevations
SOUTH END OF S. APPROACH PAVEMENT	18+29.56	-29.42	605.83
A1	18+39.51	-29.42	606.03
A2	18+49.47	-29.42	606.22
NORTH END OF S. APPROACH PAVEMENT	18+59.43	-29.37	606.40

PROFILE GRADE

Location	Station	Offset*	Theoretical Grade Elevations
SOUTH END OF S. APPROACH PAVEMENT	18+46.24	0.00	606.75
A1	18+56.19	0.00	606.93
A2	18+66.15	0.00	607.11
NORTH END OF S. APPROACH PAVEMENT	18+76.15	0.00	607.29

INSIDE FACE OF CONCRETE BARRIER

Location	Station	Offset*	Theoretical Grade Elevations
SOUTH END OF S. APPROACH PAVEMENT	18+62.92	29.42	606.47
A1	18+73.15	29.42	606.65
A2	18+83.14	29.42	606.82
NORTH END OF S. APPROACH PAVEMENT	18+93.14	29.42	606.98

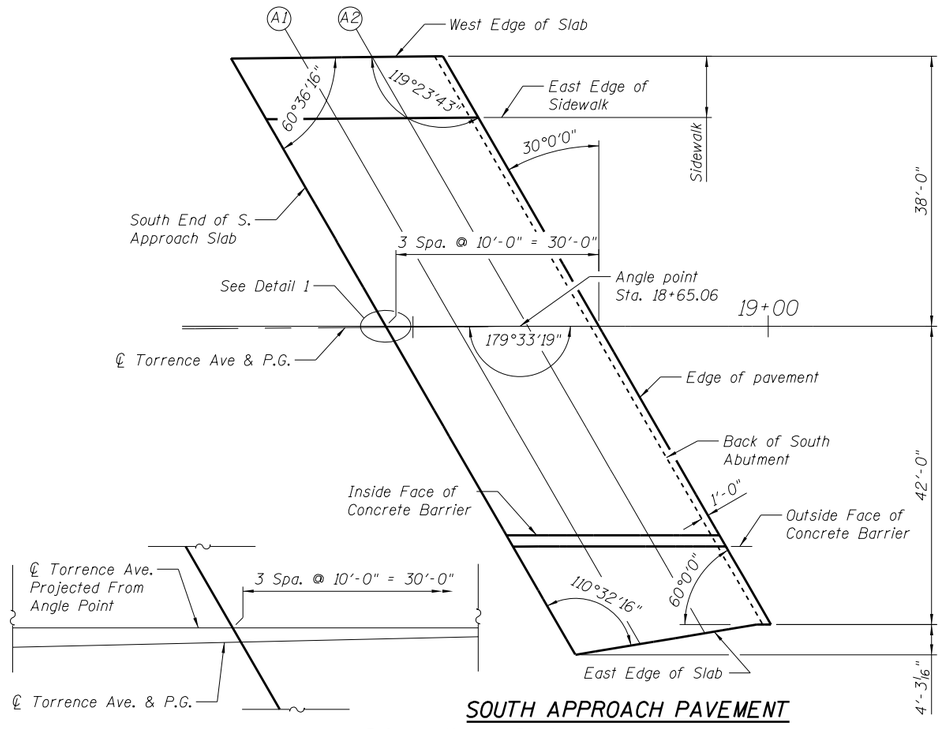
OUTSIDE FACE OF CONCRETE BARRIER

Location	Station	Offset*	Theoretical Grade Elevations
SOUTH END OF S. APPROACH PAVEMENT	18+63.82	31.01	606.51
A1	18+74.06	31.01	606.69
A2	18+84.06	31.01	606.86
NORTH END OF S. APPROACH PAVEMENT	18+94.05	31.00	607.02

EAST EDGE OF SLAB

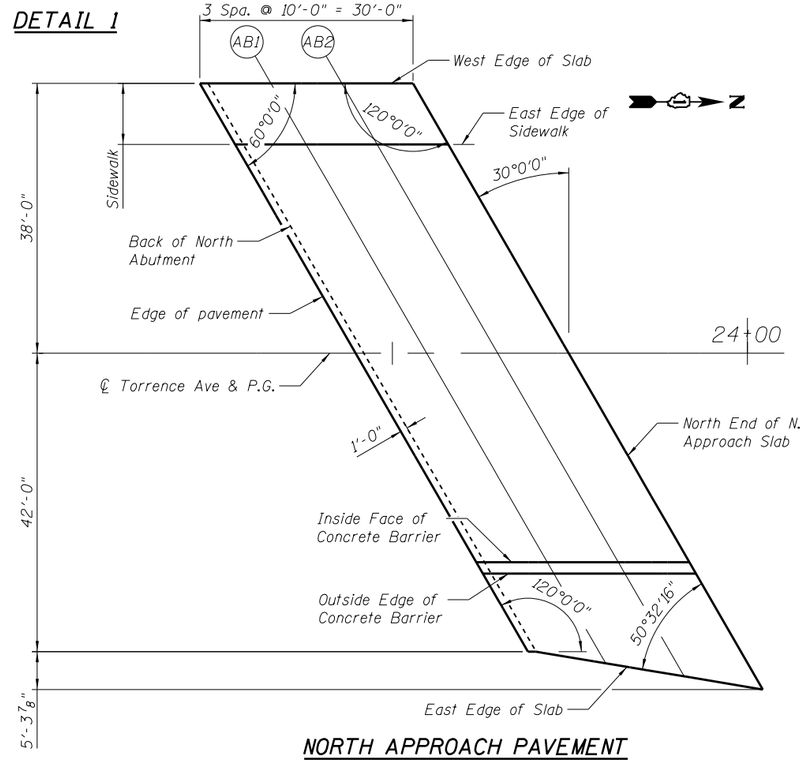
Location	Station	Offset*	Theoretical Grade Elevations
SOUTH END OF S. APPROACH PAVEMENT	18+72.86	46.26	606.93
A1	18+81.98	44.74	607.06
A2	18+91.11	43.22	607.19
NORTH END OF S. APPROACH PAVEMENT	19+00.40	42.00	607.31

* Negative value indicates a left offset and a positive value indicates a right offset.



SOUTH APPROACH PAVEMENT

DETAIL 1



NORTH APPROACH PAVEMENT

WEST EDGE OF SLAB

Location	Station	Offset*	Theoretical Grade Elevations
SOUTH END OF N. APPROACH PAVEMENT	23+22.91	-38.00	607.94
AB1	23+32.91	-38.00	607.81
AB2	23+42.91	-38.00	607.67
NORTH END OF N. APPROACH PAVEMENT	23+52.91	-38.00	607.53

EAST EDGE OF SIDEWALK

Location	Station	Offset*	Theoretical Grade Elevations
SOUTH END OF N. APPROACH PAVEMENT	23+27.86	-29.42	607.61
AB1	23+37.86	-29.42	607.47
AB2	23+47.86	-29.42	607.33
NORTH END OF N. APPROACH PAVEMENT	23+57.86	-29.42	607.19

PROFILE GRADE

Location	Station	Offset*	Theoretical Grade Elevations
SOUTH END OF N. APPROACH PAVEMENT	23+44.85	0.00	607.97
AB1	23+54.85	0.00	607.82
AB2	23+64.85	0.00	607.67
NORTH END OF N. APPROACH PAVEMENT	23+74.85	0.00	607.51

INSIDE FACE OF CONCRETE BARRIER

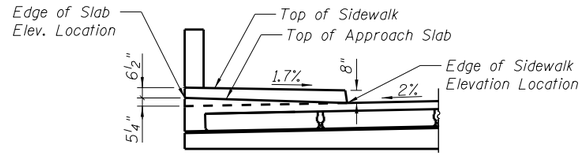
Location	Station	Offset*	Theoretical Grade Elevations
SOUTH END OF N. APPROACH PAVEMENT	23+61.83	29.42	607.13
AB1	23+71.83	29.42	606.97
AB2	23+81.83	29.42	606.81
NORTH END OF N. APPROACH PAVEMENT	23+91.83	29.42	606.64

OUTSIDE FACE OF CONCRETE BARRIER

Location	Station	Offset*	Theoretical Grade Elevations
SOUTH END OF N. APPROACH PAVEMENT	23+62.74	31.00	607.14
AB1	23+72.74	31.00	606.98
AB2	23+82.74	31.00	606.82
NORTH END OF N. APPROACH PAVEMENT	23+92.74	31.00	606.65

EAST EDGE OF SLAB

Location	Station	Offset*	Theoretical Grade Elevations
SOUTH END OF N. APPROACH PAVEMENT	23+69.09	42.00	607.23
AB1	23+80.04	43.64	607.08
AB2	23+91.10	45.48	606.92
NORTH END OF N. APPROACH PAVEMENT	24+02.17	47.33	606.76



SECTION THRU WEST SIDEWALK

(Looking North)

STV

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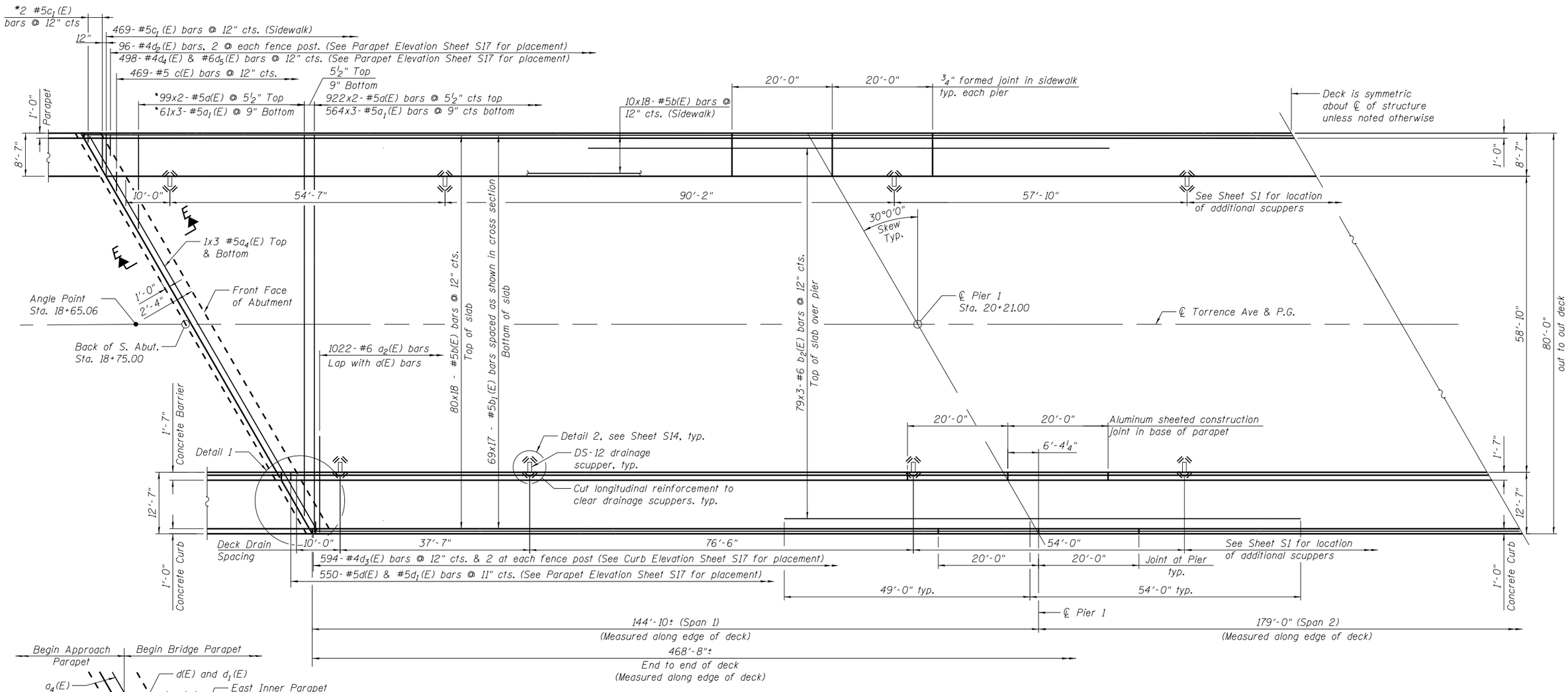
PLOT DATE = 6/29/2015	CHECKED - RDW	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

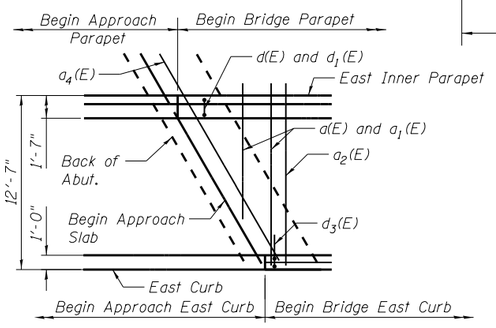
TOP OF APPROACH SLAB ELEVATIONS
STRUCTURE NO. 016-2089
SHEET NO. S12 OF S48 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	83
		CONTRACT NO. 60R95		
	ILLINOIS	FED. AID PROJECT		

*$a(E)$, $a_1(E)$, $c_1(E)$, bars full length cut to fit skew and use remainder of bars in opposite end.



HALF PLAN



DETAIL 1

Min. Bar Lap
#5 bar = 2'-7"
#6 bar = 3'-10"

Notes:
1. Bars indicated thus 79X3-#6 etc. indicates 79 lines of bars with 3 lengths per line.
2. For section E-E, see Sheet S16.

FILE NAME = i:\Projects\4016179\4016179_2001\90 CAD Models and Sheets\CADD Sheets\0162089-60R95-13-DeckPlan.dgn

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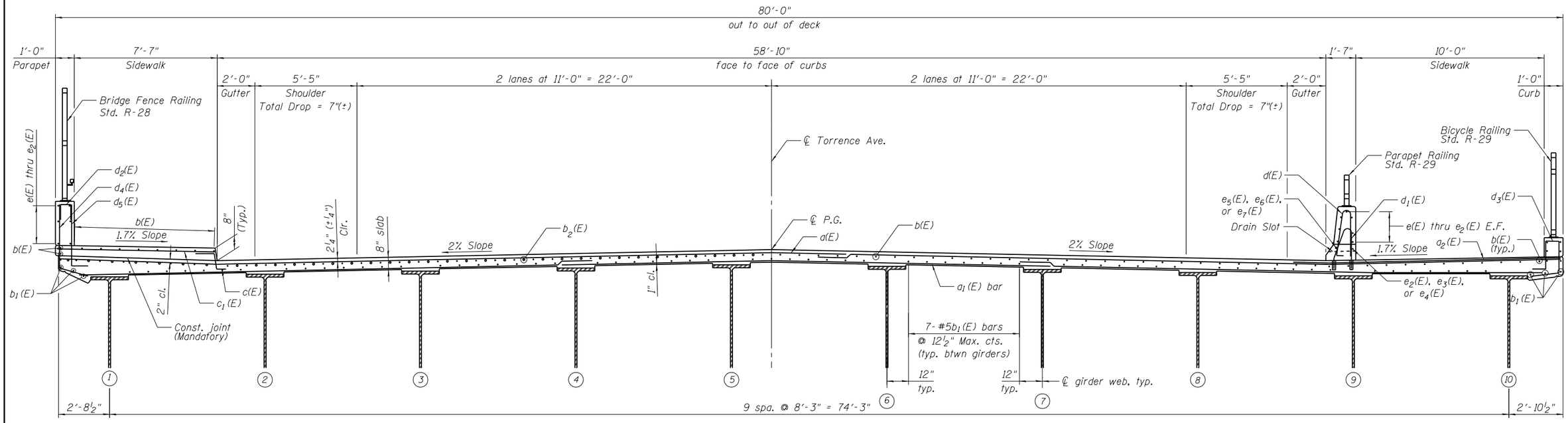
PLOT SCALE =	DRAWN - JMP	REVISED
PLOT DATE = 6/29/2015	CHECKED - RDW	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK PLAN
STRUCTURE NO. 016-2089
SHEET NO. S13 OF S48 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	84
		CONTRACT NO. 60R95		
ILLINOIS	FED. AID PROJECT			



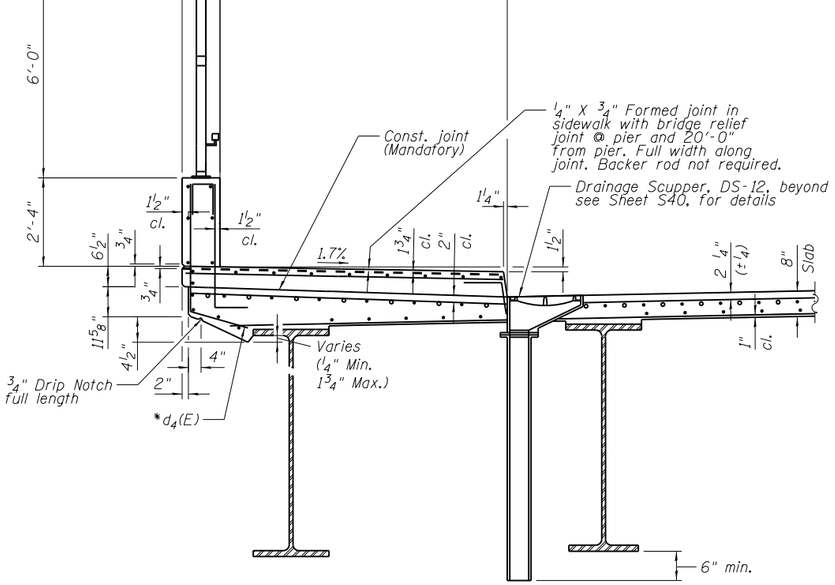
NEAR PIER **NEAR MIDSPAN**

CROSS SECTION

(N.T.S. Looking North)

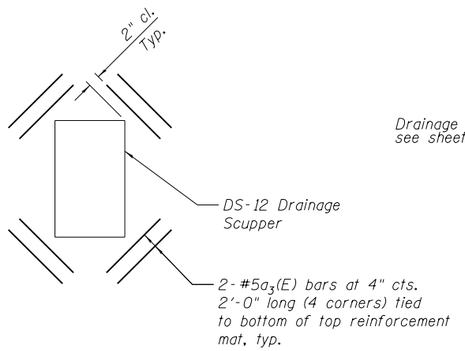
Notes:

See Sheet S15 for additional details and bill of material.
See Sheet S38 for Bridge Fence Railing and Sheet S39 for Parapet and Bicycle Railing.

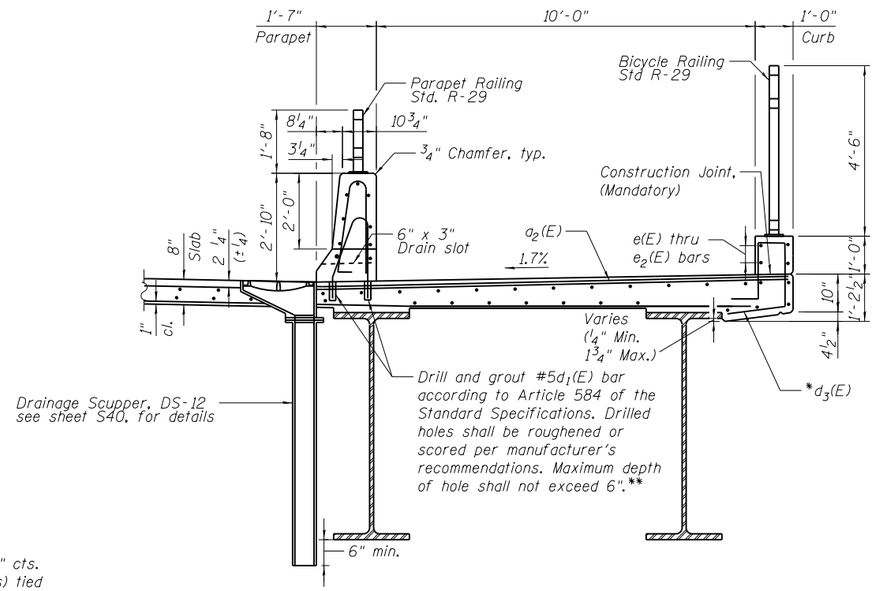


SECTION THRU WEST SIDEWALK AT PIER

*Cut bars as necessary to provide clearance to girder top flange



DETAIL 2



SECTION THRU EAST SIDEWALK

*Cut bars as necessary to provide clearance to girder top flange
**Space to miss deck reinforcement and stud connectors. Cost is included with Reinforcement Bars, Epoxy Coated.

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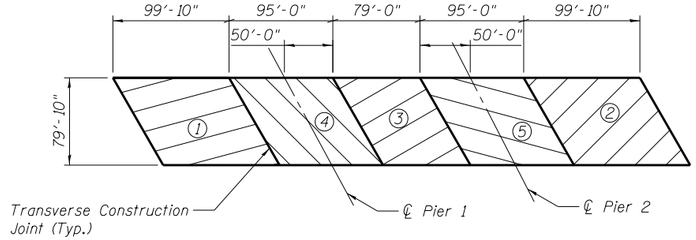
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK CROSS SECTION
STRUCTURE NO. 016–2089
SHEET NO. S14 OF S48 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	85
		CONTRACT NO. 60R95		
	ILLINOIS	FED. AID PROJECT		

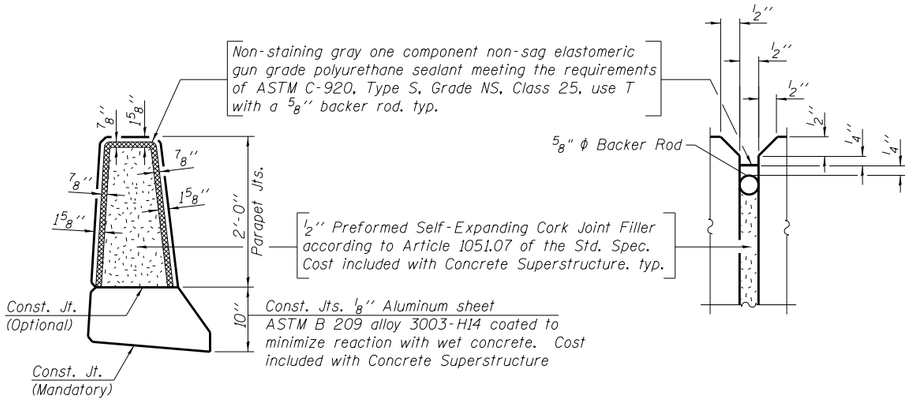


DECK POURING SEQUENCE

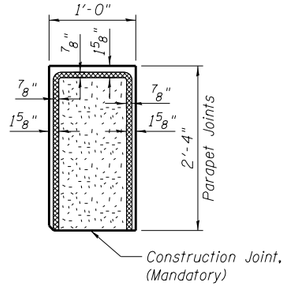
Notes:

When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:

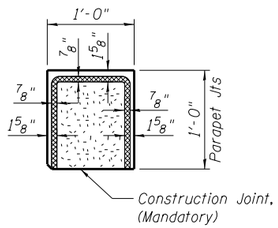
1) At least 72 hours shall have elapsed from the end of the previous pour.
2) The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.



EAST INNER PARAPET

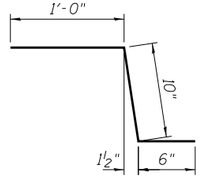


WEST PARAPET

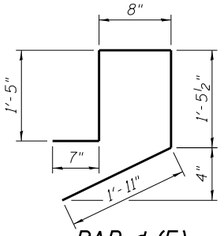


EAST CURB

PARAPET JOINT DETAILS

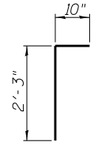


BAR c(E)

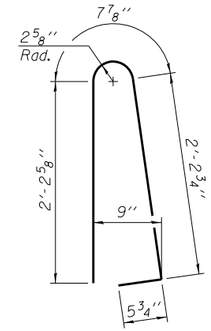


BAR d_3(E)

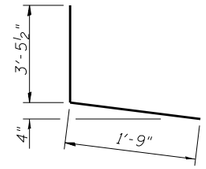
See Note 2



BAR v(E)

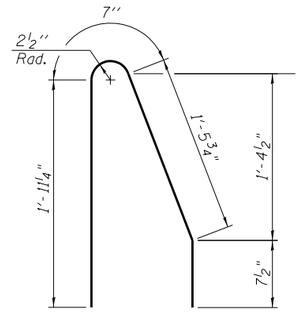


BAR d(E)

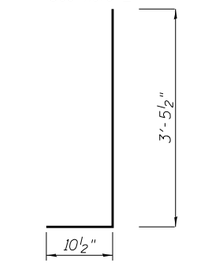


BAR d_4(E)

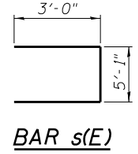
See Note 2



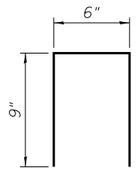
BAR d_1(E)



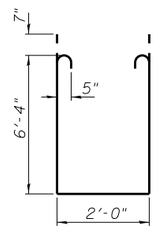
BARS d_5(E)



BAR s(E)



BARS d_2(E)



BAR s_1(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	2044	#5	41'-4"	
a_1(E)	1875	#5	28'-6"	
a_2(E)	1022	#6	16'-5"	
a_3(E)	120	#5	2'-0"	
a_4(E)	12	#5	32'-10"	
b(E)	1620	#5	28'-6"	
b_1(E)	1173	#5	30'-0"	
b_2(E)	237	#6	37'-8"	
c(E)	469	#5	2'-4"	
c_1(E)	474	#5	8'-3"	
d(E)	550	#5	5'-7"	
d_1(E)	550	#5	4'-8"	
d_2(E)	96	#4	2'-0"	
d_3(E)	594	#5	6'-0"	
d_4(E)	498	#4	5'-2"	
d_5(E)	498	#6	4'-4"	
e(E)	34	#4	15'-8"	
e_1(E)	340	#4	17'-6"	
e_2(E)	68	#4	19'-8"	
e_3(E)	10	#4	26'-6"	
e_4(E)	5	#4	29'-3"	
e_5(E)	5	#8	29'-3"	
e_6(E)	8	#8	32'-1"	
e_7(E)	4	#8	19'-8"	
m(E)	28	#6	48'-4"	
m_1(E)	108	#6	9'-1"	
m_2(E)	24	#6	2'-11"	
m_3(E)	120	#5	4'-0"	
s(E)	138	#5	11'-1"	
s_1(E)	138	#5	15'-10"	
v(E)	28	#5	3'-1"	
Reinforcement Bars, Epoxy Coated		Pound	298,870	
Concrete Superstructure		Cu. Yds.	1,341	
Bridge Fence Railing		Foot	495	
Bridge Deck Grooving		Sq. Yds.	3,446	
Bicycle Railing		Foot	526	
Parapet Railing		Foot	527	
Protective Coat		Sq. Yds.	5,262	

Notes:

1. Reinforcement bars designated (E) shall be epoxy-coated.
2. Cut bars as necessary to provide clearance to girder top flange

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 016–2089
SHEET NO. S15 OF S48 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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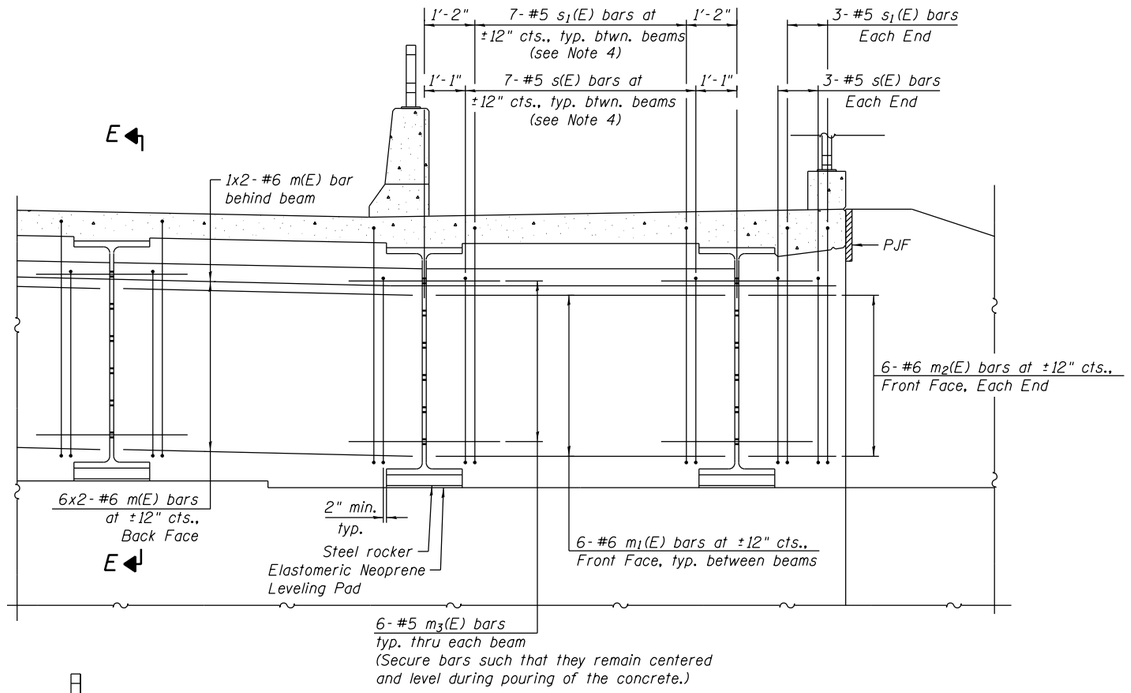
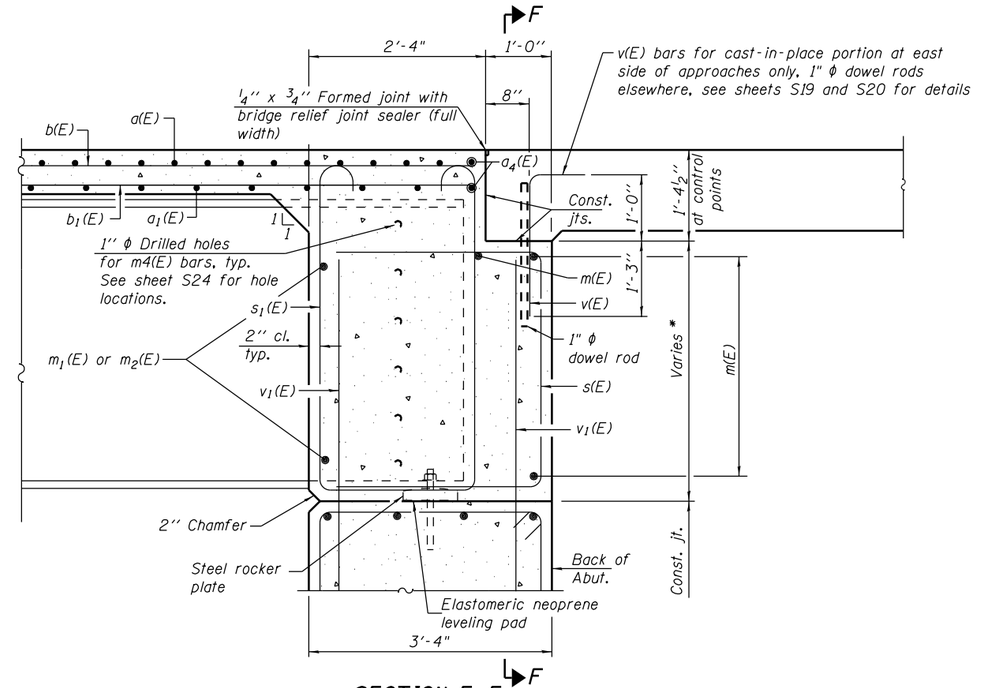
		CONTRACT NO. 60R95		
	ILLINOIS	FED. AID PROJECT		



DIAPHRAGM ELEVATION AT ABUTMENT

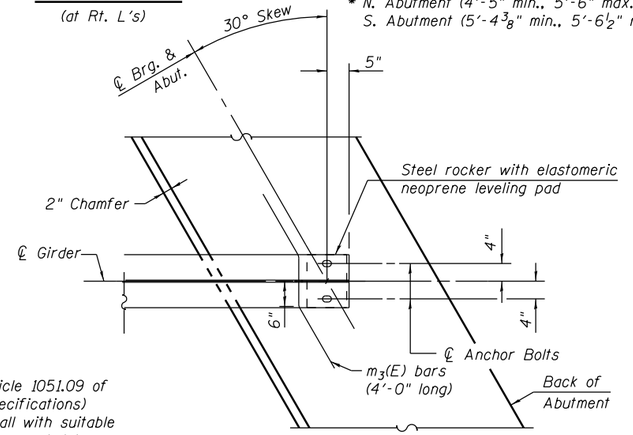
(North diaphragm shown, looking north)



SECTION E-E

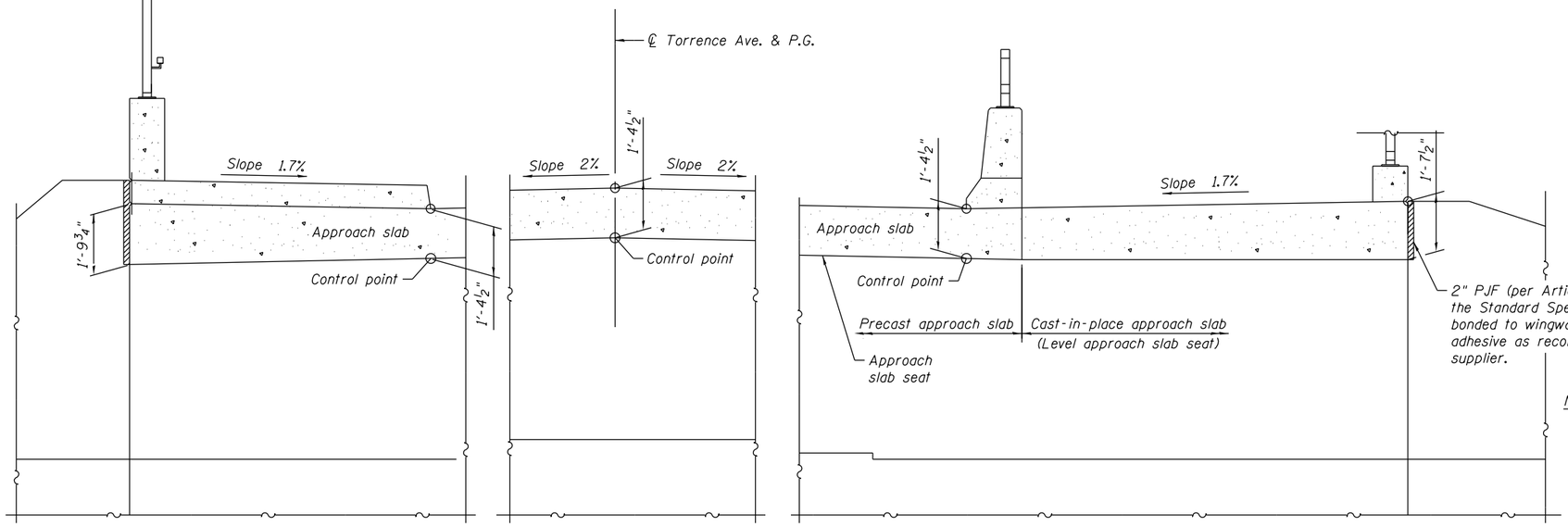
(at Rt. L's)

* N. Abutment (4'-5" min., 5'-6" max.)
S. Abutment (5'-4 3/8" min., 5'-6½" max.)



PARTIAL PLAN AT ABUTMENT

(Showing bottom flange of beam)



MIN. BAR LAP

#6 bar = 4'-5"

SECTION F-F

Notes:

1. Reinforcement bars in diaphragm are billed with superstructure on sheet S15.
2. Concrete in diaphragm is included with Concrete Superstructure on sheet S15.
3. For details of bars s(E), s1(E) and v(E) see sheet S15.
4. The s(E) and s1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
5. The approach slab seat shall have a constant slope determined from the control points shown.
6. For bearing details see sheet S27.
7. See Sheet S12 for Top of Approach Slab Elevations.
8. See Sheet S19 for v(E) bar spacing and location.
9. Bars indicated thus 6X2-#6 etc. indicates 6 lines of bars with 2 lengths per line.

FILE NAME = i:\Projects\4016179\4016179_0001\90_CAD Models and Sheets\CADD_Sheets\0162089-60R95-16-Diaphragm Details.dgn

USER NAME = pattisjm	DESIGNED - STB	REVISED	
	CHECKED - RDW	REVISED	
PLOT SCALE =	DRAWN - STB	REVISED	
PLOT DATE = 8/20/2015	CHECKED - RDW	REVISED	

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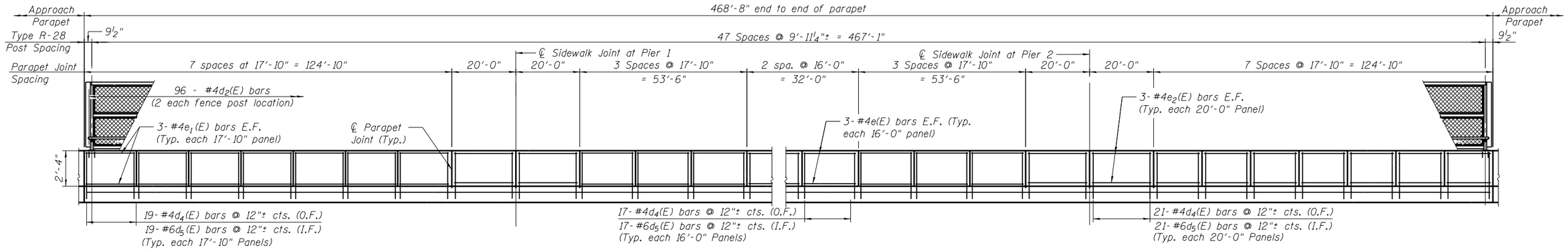
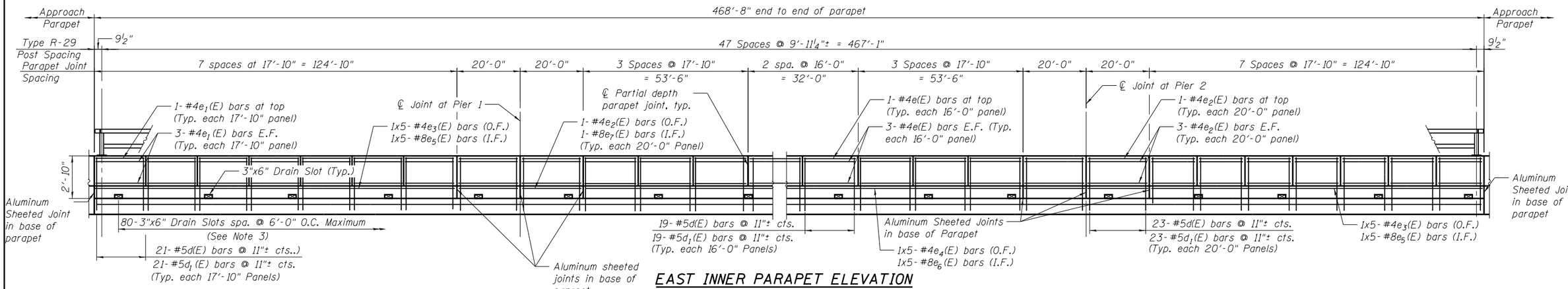
DIAPHRAGM DETAILS
STRUCTURE NO. 016-2089
SHEET NO. S16 OF S48 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	87
		CONTRACT NO. 60R95		
		ILLINOIS FED. AID PROJECT		



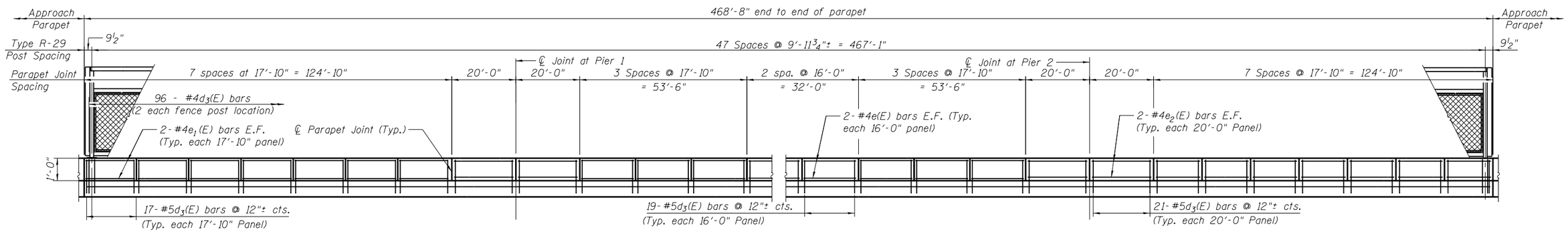
WEST PARAPET ELEVATION

(Inside face shown)
(Dimensions shown are measured along inside face)



EAST INNER PARAPET ELEVATION

(Inside face shown)
(Dimensions shown are measured along inside face)



EAST CURB ELEVATION

(Inside face shown)
(Dimensions shown are measured along inside face)

LEGEND

O.F. = Outside face
I.F. = Inside face
E.F. = Each face

MIN. BAR LAP

#4 bar = 2'-1"
#5 bar = 2'-7"
#8 bar = 5'-5"

Notes:

1. Work this sheet with sheets S12-S14.
2. See sheets S36 and S37 for railing details.
3. Space drain slots to miss Aluminum Sheets and "d" bars.
4. Bars indicated thus 1x5-#8 indicates 1 line of bars with 5 lengths.

FILE NAME = i:\Projects\4016179\4016179_20201\90_CAD Models and Sheets\CADD_Sheets\0162089-60R95-17-Parapet.dgn

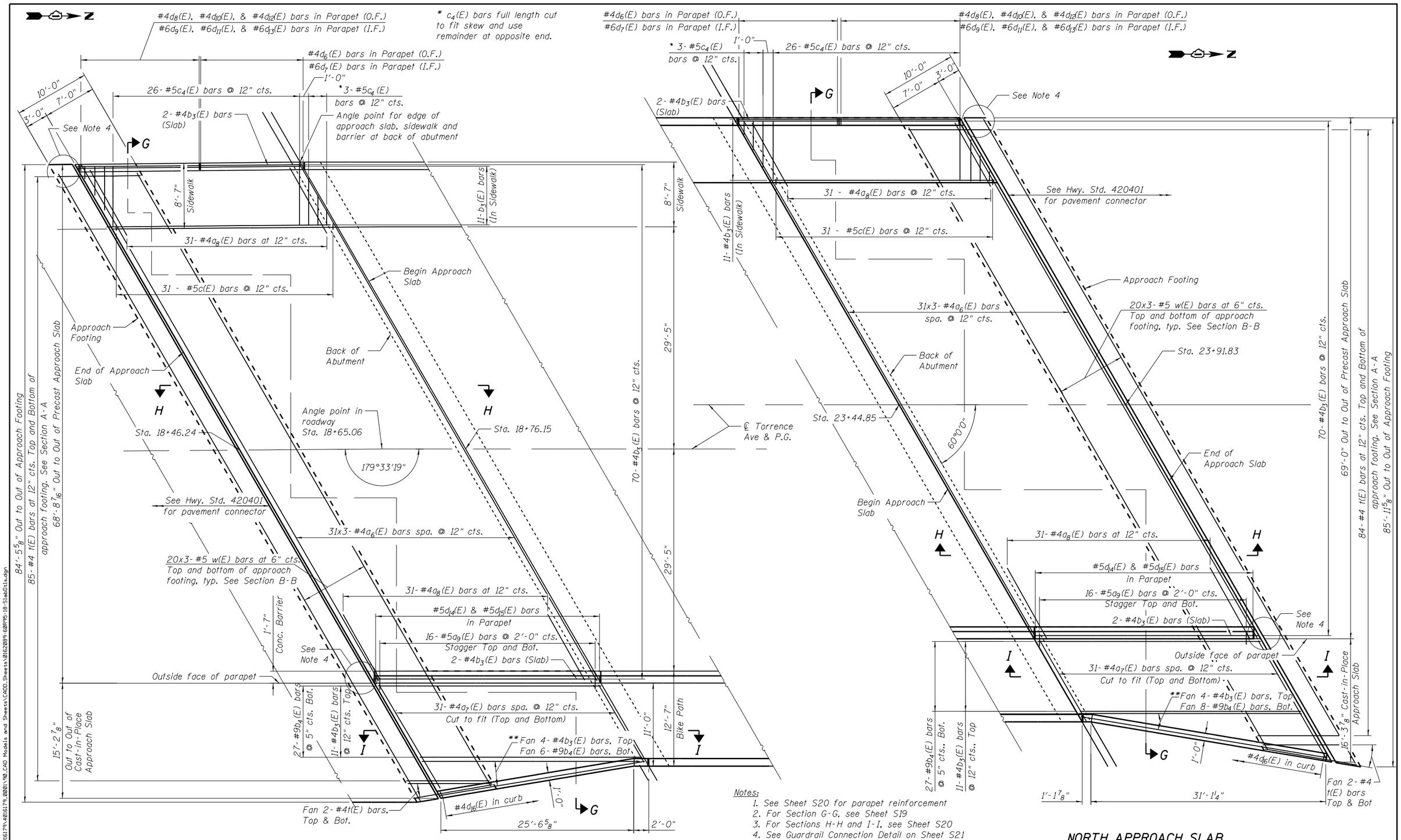
STV

USER NAME = PattisJM	DESIGNED - JMP	REVISED
	CHECKED - RDW	REVISED
PLOT SCALE =	DRAWN - JMP	REVISED
PLOT DATE = 6/29/2015	CHECKED - RDW	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET ELEVATIONS
STRUCTURE NO. 016-2089
SHEET NO. S17 OF S48 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.IB-R	COOK	152	88
		CONTRACT NO. 60R95		
	ILLINOIS	FED. AID PROJECT		



** Cut $b_3(E)$ & $b_4(E)$ bars to fit. 3" minimum clearance between bars.

SOUTH APPROACH SLAB

NORTH APPROACH SLAB

Notes:

1. See Sheet S20 for parapet reinforcement
2. For Section G-G, see Sheet S19
3. For Sections H-H and I-I, see Sheet S20
4. See Guardrail Connection Detail on Sheet S21 when guardrail posts conflict with approach slab footing.
5. Bars indicated thus 31x3-#4 etc. indicates lines of bars with 3 lengths per line.

FILE NAME = I:\Projects\4016179.2001\90.CAD Models and Sheets\CADD Sheets\B162089-60R95-18-SlabDtls.dgn

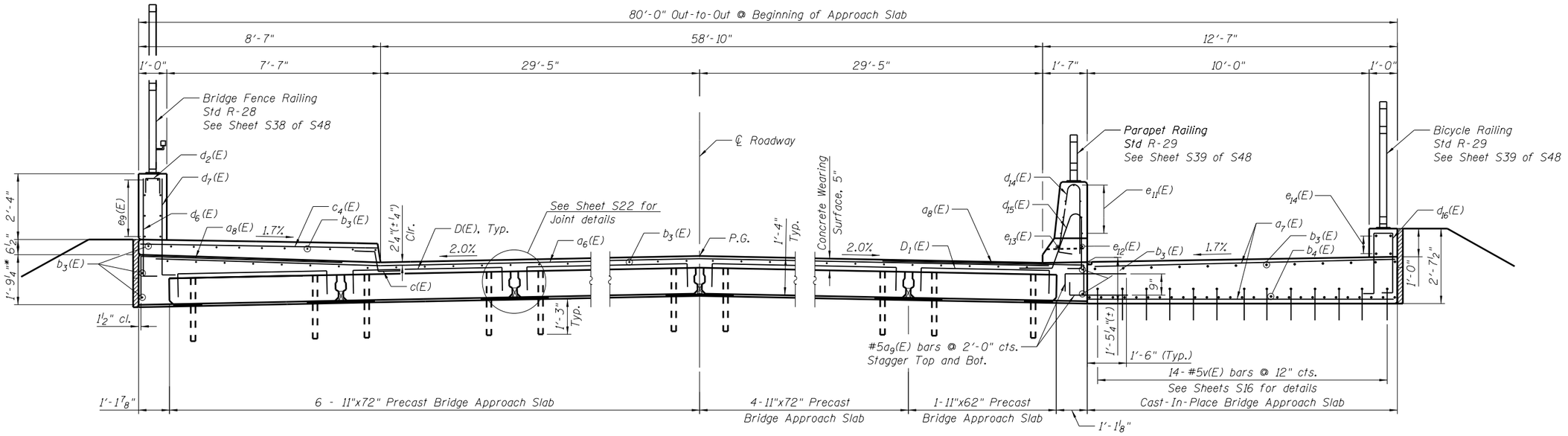
STV

USER NAME = PattsJM	DESIGNED - JMP	REVISED
	CHECKED - RDW	REVISED
PLOT SCALE =	DRAWN - JMP	REVISED
PLOT DATE = 6/29/2015	CHECKED - RDW	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

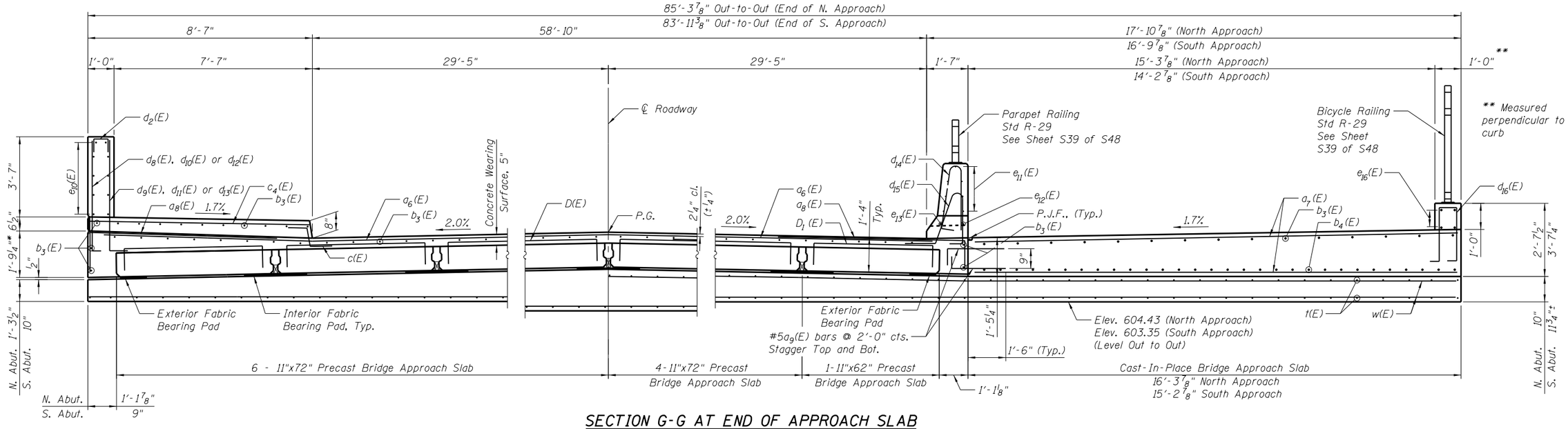
BRIDGE APPROACH SLAB
STRUCTURE NO. 016-2089
SHEET NO. S18 OF S48 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	89
		CONTRACT NO. 60R95		
		ILLINOIS FED. AID PROJECT		



SECTION G-G AT ABUTMENT

North Approach Slab shown - Looking North
(South Approach Slab similar)
Dimensions shown perpendicular to roadway



SECTION G-G AT END OF APPROACH SLAB

North Approach Slab Shown - Looking North
(South Approach Slab Similar, except as noted)
Dimensions shown perpendicular to Roadway

* Additional concrete thickness to be included with pay item Concrete Wearing Surface, 5".

Notes:
1. For Parapet Reinforcement, see Sheet S20.
2. See Plan on Sheet S18 for Slab Reinforcement.
3. Bars shown are for North Approach

FILE NAME = i:\Projects\4016179\4016179_0001\90-CAD Models and Sheets\CADD_Sheets\0162089-60R95-19-SlabDtls.dgn

USER NAME = PattisJM	DESIGNED - JMP	REVISED	
	CHECKED - RDW	REVISED	
PLOT SCALE =	DRAWN - JMP	REVISED	
PLOT DATE = 6/29/2015	CHECKED - RDW	REVISED	

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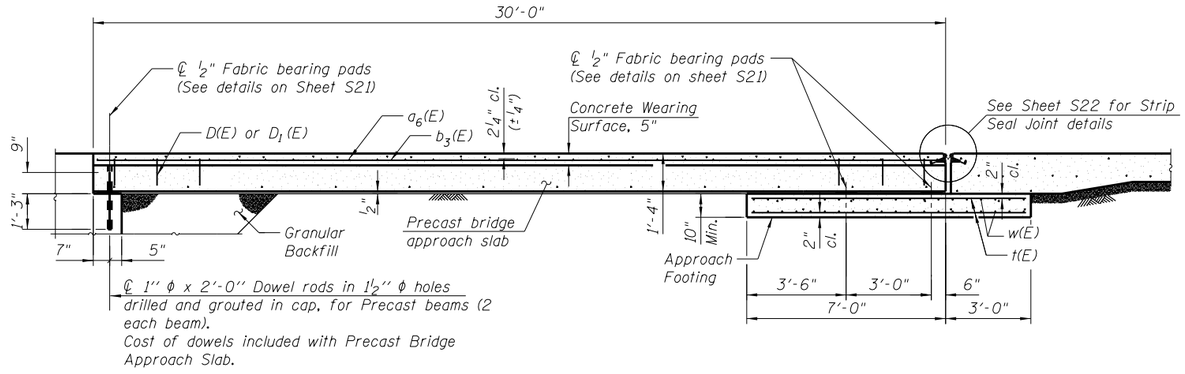
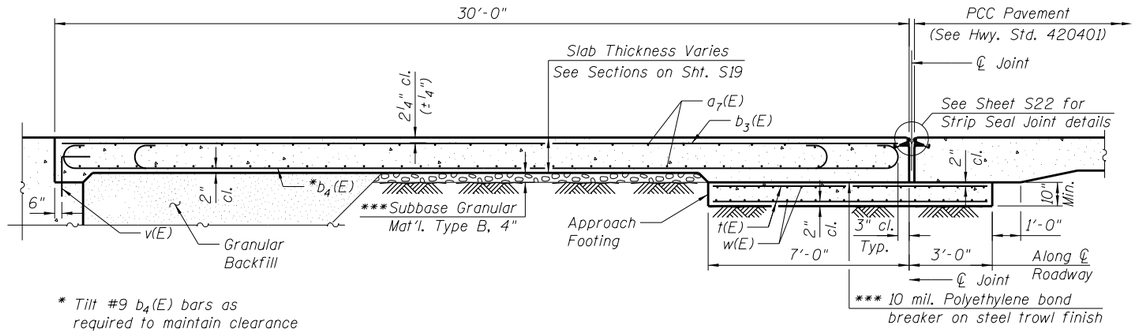
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH CROSS SECTIONS
STRUCTURE NO. 016-2089
SHEET NO. S19 OF S48 SHEETS

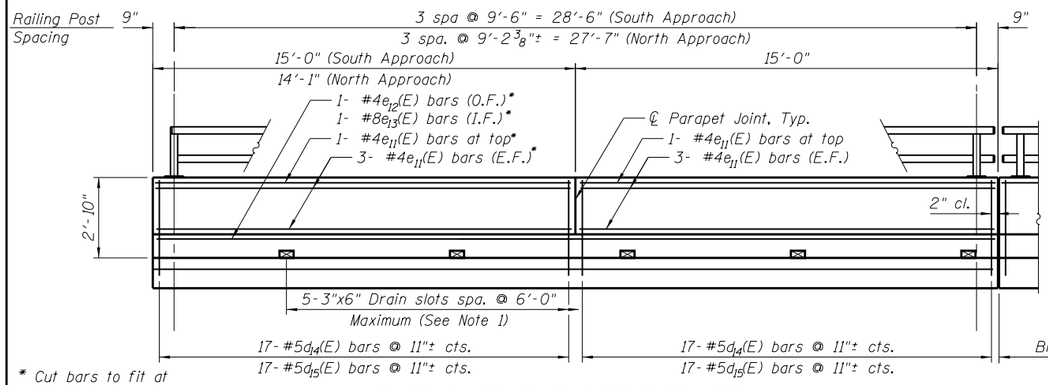
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	90
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			



SECTION H-H

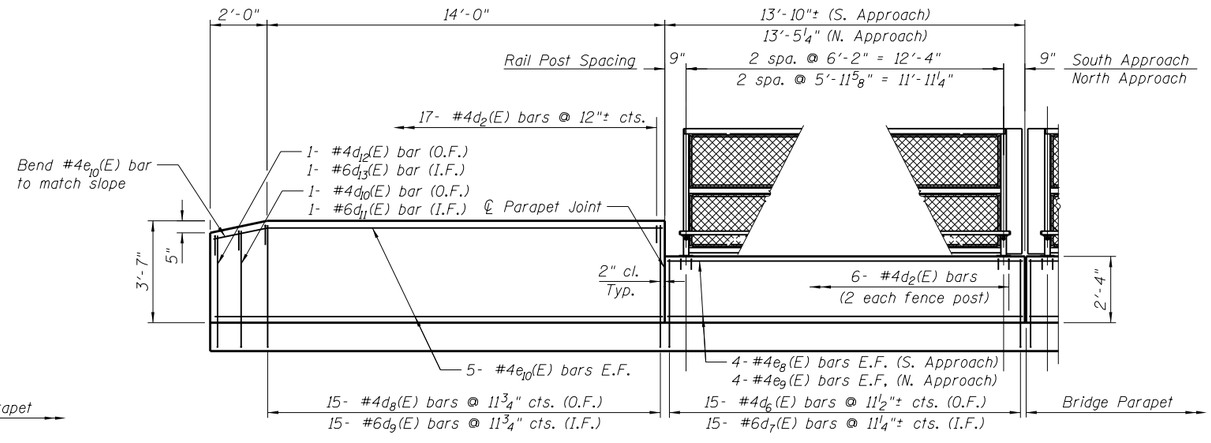


SECTION I-I



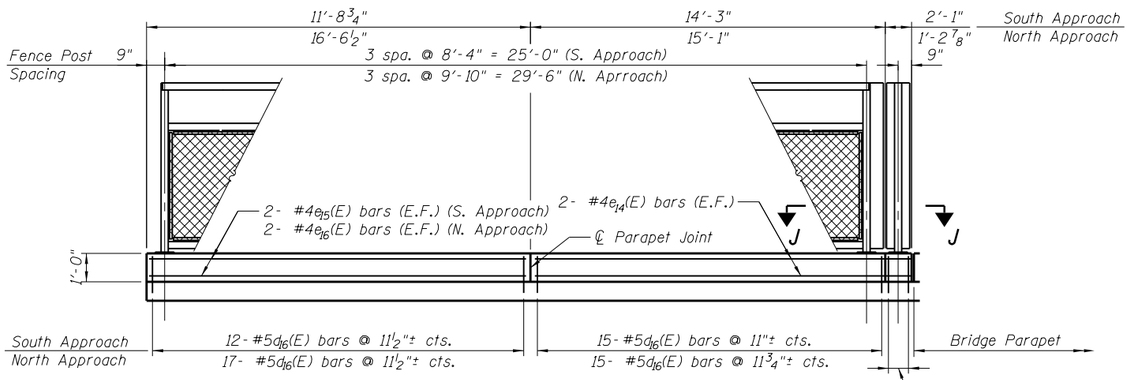
EAST INNER PARAPET ELEVATION

(Inside Face of South Approach Shown, North Approach Similar except as noted)
(Dimensions shown are measured along inside face of parapet)



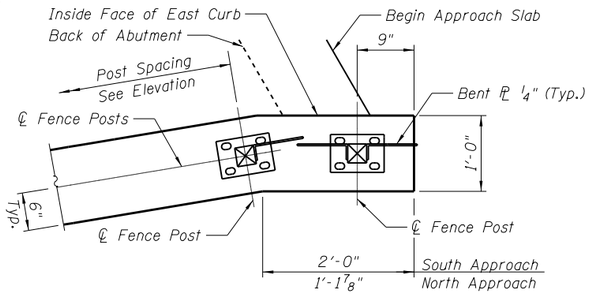
WEST PARAPET ELEVATION

(Inside Face of South Approach Shown, North Approach Similar except as noted)
(Dimensions shown are measured along inside face of parapet)



EAST CURB ELEVATION

(Inside Face of South Approach Shown, North Approach Similar except as noted)
(Dimensions shown are measured along inside face of curb)



VIEW J-J

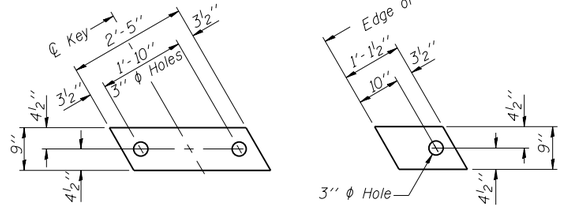
Note:
1. Space Drain Slots to miss Parapet Reinforcement.

STV	USER NAME = PattisJM	DESIGNED - JMP	REVISED
		CHECKED - RDW	REVISED
	PLOT SCALE =	DRAWN - JMP	REVISED
	PLOT DATE = 6/29/2015	CHECKED - RDW	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

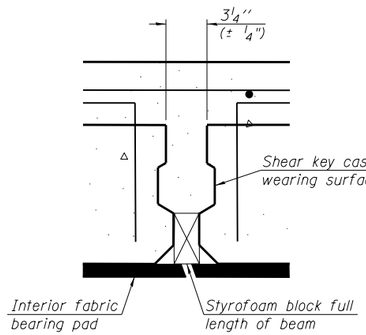
BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 016-2089
SHEET NO. S20 OF S48 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	91
		CONTRACT NO. 60R95		
	ILLINOIS	FED. AID PROJECT		

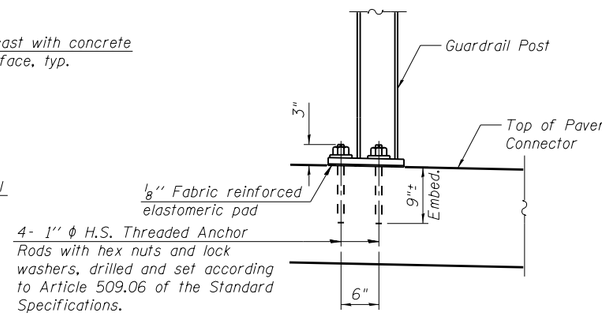


FABRIC BEARING PAD

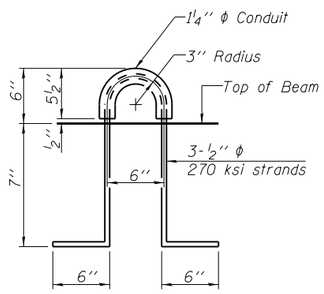
Notes:
All bearing pads shall be ½" thick.
Omit holes for fabric bearing pads at approach slab footing end of beams.
Expansion bearing pad shall be bonded to the approach slab footing.



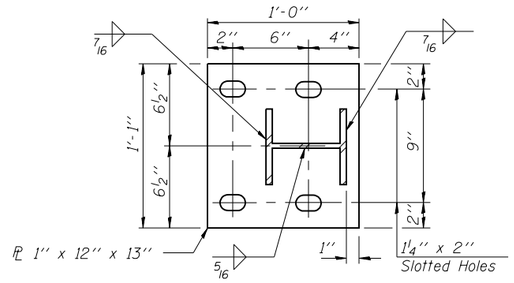
SECTION THRU SHEAR KEY JOINT



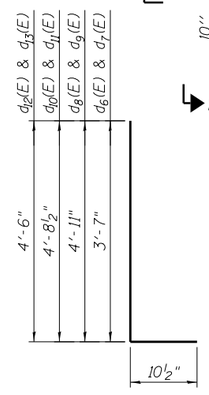
GUARDRAIL CONNECTION DETAIL



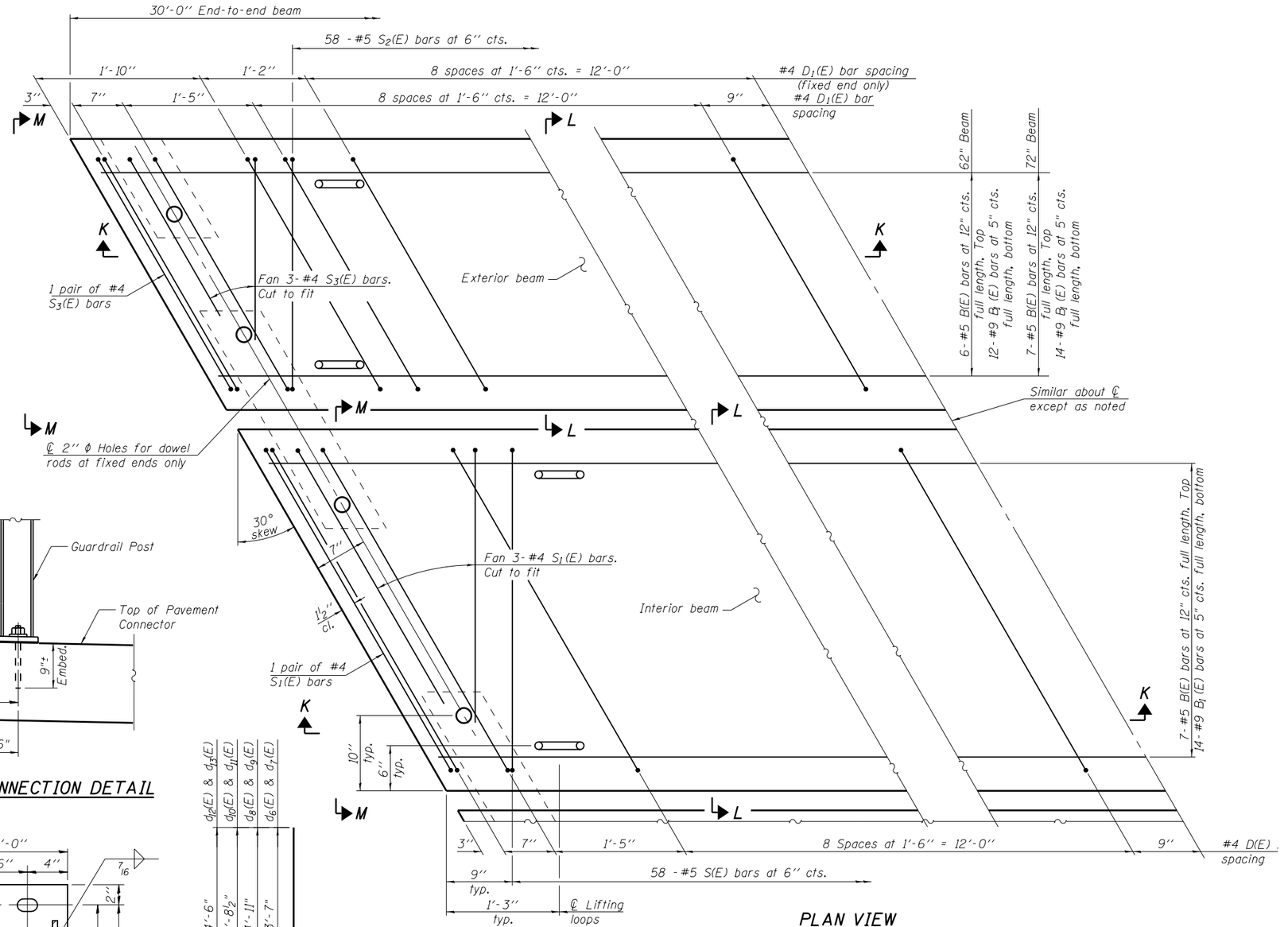
LIFTING LOOP DETAIL



BASE PLATE DETAIL

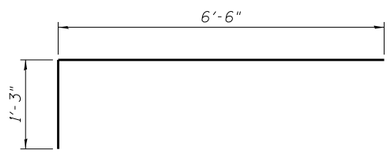


BAR $d_6(E)$ and $d_7(E)$
BAR $d_8(E)$ and $d_9(E)$
BAR $d_{10}(E)$ and $d_{11}(E)$
BAR $d_{12}(E)$ and $d_{13}(E)$

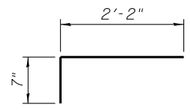


PLAN VIEW

(showing precast bridge approach beams)



BAR $a_8(E)$



BAR $a_9(E)$

FILE NAME = i:\Projects\4016179\4016179_2001\90_CAD Models and Sheets\CADD Sheets\0162089-60R95-21-SlabDtls.dgn

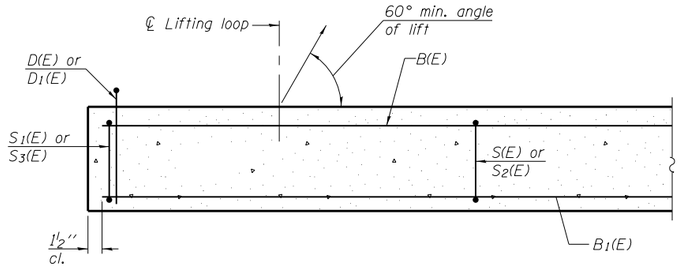
STV

USER NAME = PattsJM	DESIGNED - JMP	REVISED
	CHECKED - RDW	REVISED
PLOT SCALE =	DRAWN - JMP	REVISED
PLOT DATE = 6/29/2015	CHECKED - RDW	REVISED

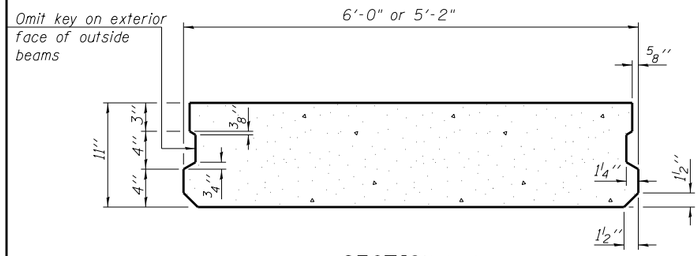
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 016-2089
SHEET NO. S21 OF S48 SHEETS

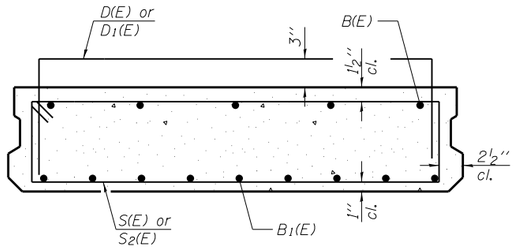
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	92
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			



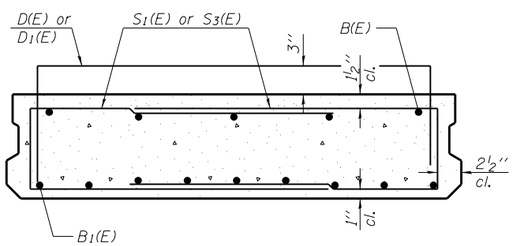
SECTION K-K



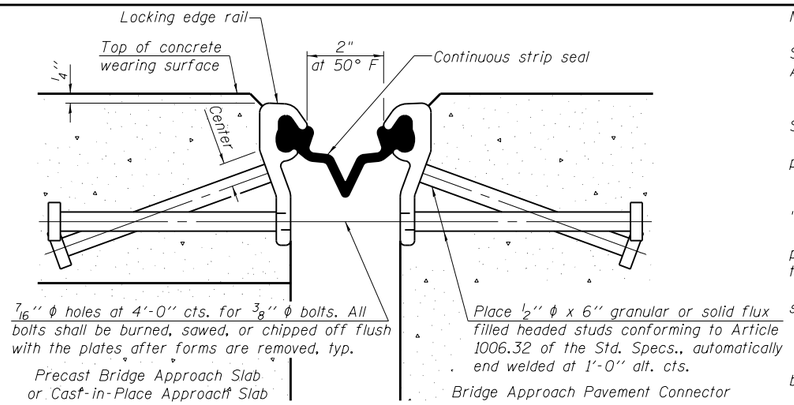
SECTION L-L
(Showing dimensions)



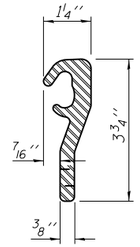
SECTION L-L
(Showing reinforcement)



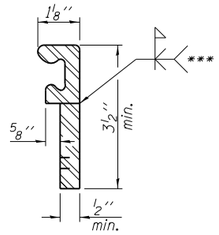
VIEW M-M
(Showing reinforcement)



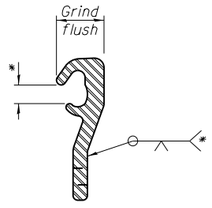
SECTION THRU STRIP SEAL JOINT
(at rt. angles)



ROLLED (EXTRUDED) RAIL



WELDED RAIL



LOCKING EDGE RAIL SPLICE

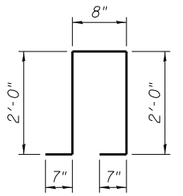
Rolled rail shown, welded rail similar.

LOCKING EDGE RAIL

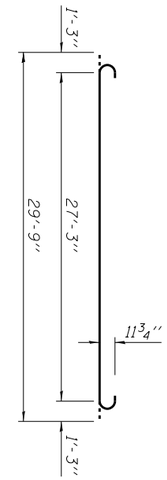
* Omit weld at seal opening.

** The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be 1½" for installation purposes.

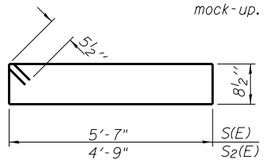
*** Back gouge not required if complete joint penetration is verified by mock-up.



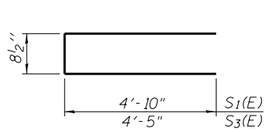
BAR $d_{16}(E)$



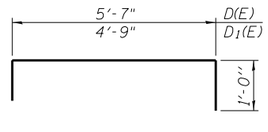
BAR $b_4(E)$



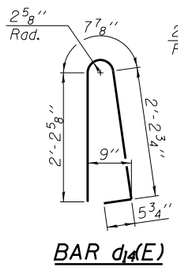
BARS S(E) & $S_2(E)$



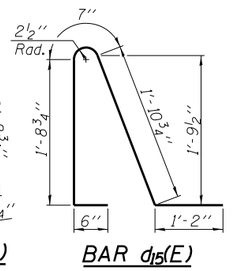
BARS $S_1(E)$ & $S_3(E)$



BARS D(E) & $D_1(E)$



BAR $d_{14}(E)$



BAR $d_{15}(E)$

BAR LIST
EACH 72" BEAM
(For information only)

Bar	No.	Size	Length	Shape
B(E)	7	#5	29'-8"	—
$B_1(E)$	14	#9	29'-8"	—
D(E)	22	#4	7'-7"	⊓
S(E)	58	#5	13'-6"	▭
$S_1(E)$	10	#5	10'-4½"	▭

BAR LIST
EACH 62" BEAM
(For information only)

Bar	No.	Size	Length	Shape
B(E)	6	#5	29'-8"	—
$B_1(E)$	12	#9	29'-8"	—
$D_1(E)$	31	#4	6'-9"	⊓
$S_2(E)$	58	#5	11'-10"	▭
$S_3(E)$	10	#5	9'-6½"	▭

Notes:

The precast bridge approach slab shall be according to Section 504 of the Standard Specifications and shall be paid for at the contract unit price per square foot for Precast Bridge Approach Slab.

Cast-in-place substitution of Precast Bridge Approach Slab is not allowed.

Cast-in-Place Approach Slab on East side, East Curb, and Parapet concrete shall be paid for as Concrete Superstructure.

Cast-in-Place Approach Slab on East side, East Curb, Parapet and wearing surface reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.

Approach footing concrete shall be paid for as Concrete Structures.

The top surface of precast bridge approach slabs shall be roughened to a depth of ¼" according to the IDOT "Manual for Fabrication of Precast Prestressed Concrete Products."

After precast bridge approach slab has been erected, holes shall be drilled into abutment and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of precast slab and allowed to cure fully prior to grouting the longitudinal shear keys.

Two ⅛" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location. Cost included with Precast Bridge Approach Slab.

A minimum 2 ½" ϕ lifting pins shall be used to engage the lifting loops during handling.

Compressive strength of precast concrete, f'c shall be 6,000 psi.

Any concrete poured monolithically with the wearing surface, such as curbs, will not be paid for separately, but will be included in the cost of Concrete Wearing Surface, 5".

The strip seal shall be made continuous and shall have a minimum thickness of ¼". The strip seal shall extend 6" beyond the edge of the approach slab on each end. The configuration of the strip seal shall match the configuration of the Locking Edge Rails.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.

The inside of the Locking Edge Rail groove shall be free of weld residue.

Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

The manufacturer's recommended installation methods shall be followed.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant

TWO APPROACHES BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$a_6(E)$	186	#4	28'-3"	—
$a_7(E)$	62	#5	18'-6"	—
$a_8(E)$	124	#5	7'-9"	⌐
$a_9(E)$	32	#5	2'-9"	⌐
$b_3(E)$	200	#4	29'-8"	—
$b_4(E)$	38	#9	29'-8"	⌐¬
c(E)	62	#5	2'-4"	—
$c_4(E)$	58	#5	8'-3"	—
$d_2(E)$	46	#4	2'-2"	⊓
$d_6(E)$	30	#4	4'-6"	L
$d_7(E)$	30	#6	4'-6"	L
$d_8(E)$	30	#4	5'-10"	L
$d_9(E)$	30	#6	5'-10"	L
$d_{10}(E)$	2	#4	5'-7"	L
$d_{11}(E)$	2	#6	5'-7"	L
$d_{12}(E)$	2	#4	5'-5"	L
$d_{13}(E)$	2	#6	5'-5"	L
$d_{14}(E)$	68	#5	5'-7"	⌐
$d_{15}(E)$	68	#5	5'-11"	⌐
$d_{16}(E)$	64	#5	5'-10"	⊓
e_8 (E)	16	#4	13'-6"	—
e_9 (E)	16	#4	13'-1"	—
e_{10}(E)	20	#4	15'-7"	—
e_{11}(E)	28	#4	14'-8"	—
e_{12}(E)	2	#4	29'-8"	—
e_{13}(E)	2	#8	29'-8"	—
e_{14}(E)	8	#4	16'-0"	—
e_{15}(E)	6	#4	11'-4"	—
e_{16}(E)	6	#4	16'-2"	—
$t_1(E)$	346	#4	9'-8"	—
$w_2(E)$	240	#5	34'-10"	—
Concrete Superstructure			Cu. Yd.	85.6
Concrete Structures			Cu. Yd.	83.0
Reinforcement Bars, Epoxy Coated			Pound	32,640
Precast Bridge Approach Slab			Sq. Ft.	4,140
Concrete Wearing Surface, 5"			Sq. Yd.	460
Preformed Joint Strip Seal			Foot	202

See Sheet S21 for additional bar bends
For $d_2(E)$ bar bend, see sheet S15.

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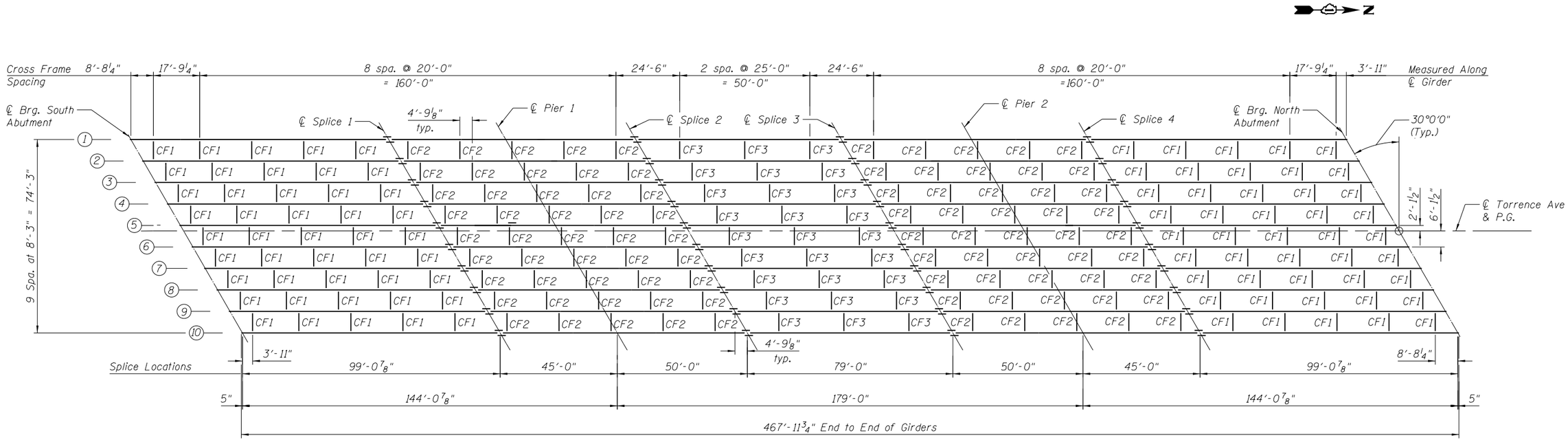
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 016-2089
SHEET NO. S22 OF S48 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	93
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			



FRAMING PLAN

Notes:

1. All structural steel shall be AASHTO M270 Grade 50W.
2. Fascia girders will have connection plates for cross frames only on the inside.
3. All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames at supports may be temporarily disconnected to install bearing anchor rods.

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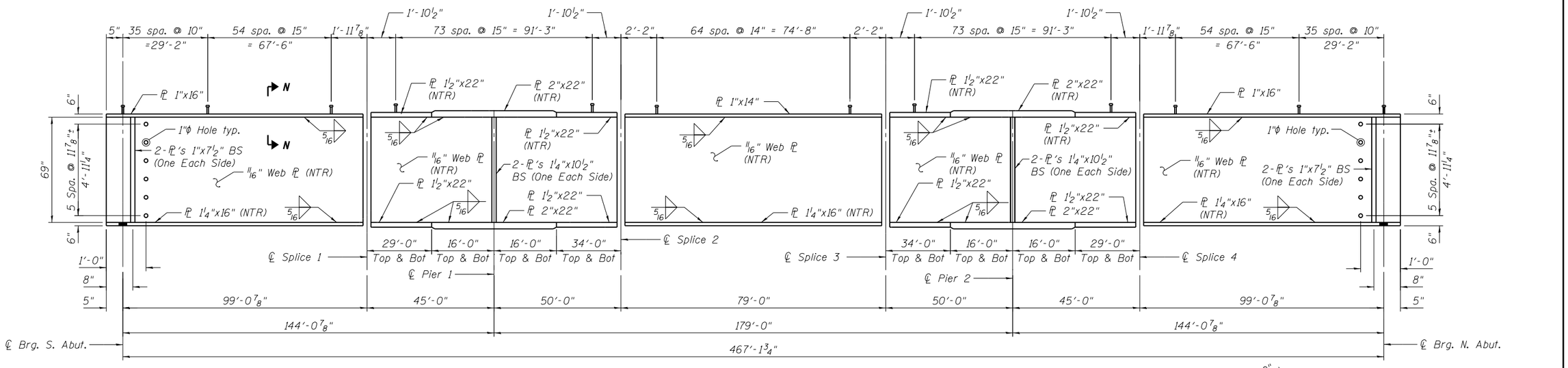
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

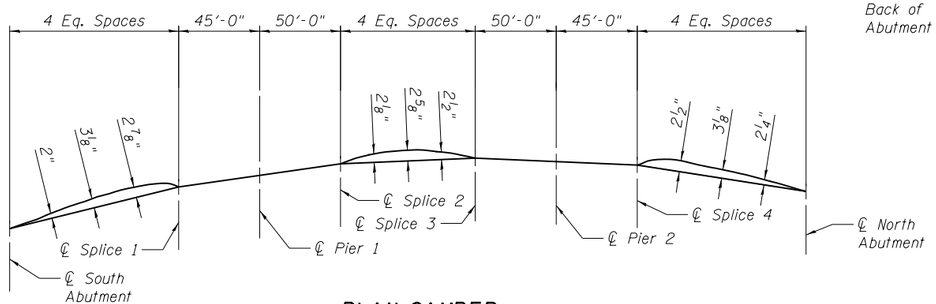
FRAMING PLAN
STRUCTURE NO. 016–2089
SHEET NO. S23 OF S48 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	94
		CONTRACT NO. 60R95		
		ILLINOIS FED. AID PROJECT		

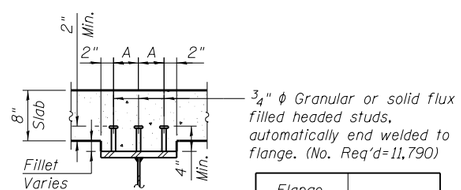


GIRDER ELEVATION

Girder Number	TOP OF WEB ELEVATIONS (For fabrication only)							
	℄ Brg. S. Abut.	℄ Splice 1	℄ Pier 1	℄ Splice 2	℄ Splice 3	℄ Pier 2	℄ Splice 4	℄ Brg. N. Abut.
1	605.41	606.90	607.28	607.71	607.92	607.78	607.66	606.72
2	605.66	607.12	607.49	607.90	608.08	607.93	607.79	606.82
3	605.91	607.33	607.69	608.09	608.25	608.08	607.93	606.92
4	606.16	607.55	607.89	608.27	608.41	608.22	608.06	607.02
5	606.41	607.77	608.10	608.46	608.57	608.37	608.19	607.12
6	606.41	607.74	608.05	608.40	608.48	608.27	608.07	606.97
7	606.32	607.62	607.92	608.25	608.31	608.08	607.87	606.74
8	606.23	607.50	607.79	608.10	608.14	607.89	607.66	606.50
9	606.15	607.38	607.65	607.95	607.96	607.70	607.46	606.26
10	606.22	607.42	607.68	607.96	607.95	607.67	607.42	606.19



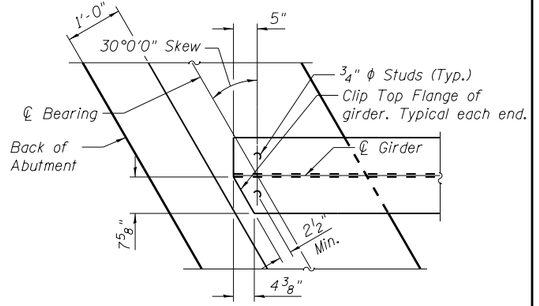
PLAN CAMBER



3/4" ϕ Granular or solid flux filled headed studs, automatically end welded to flange. (No. Req'd=11,790)

Flange Width	Dim. A
14"	5"
16"	6"
22"	9"

SECTION N-N



TOP FLANGE PLAN CLIPPED

(Bottom Flange to Remain Square. Not Shown for Clarity)

BILL OF MATERIAL

Item	Unit	Total
Stud Shear Connectors	Each	11,790

Notes:

1. Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
2. "BS" denotes bearing stiffener
3. All structural steel shall be AASHTO M270 Grade 50W weathering steel

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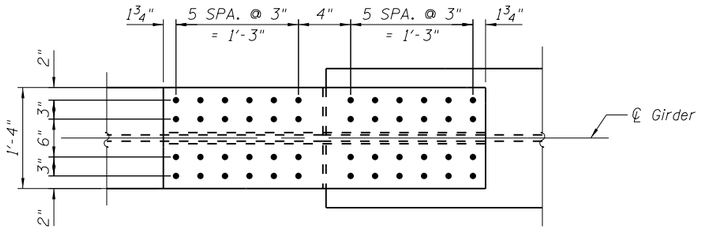
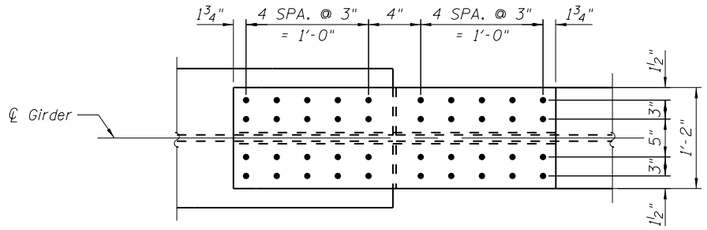
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER ELEVATION
STRUCTURE NO. 016-2089
SHEET NO. S24 OF S48 SHEETS

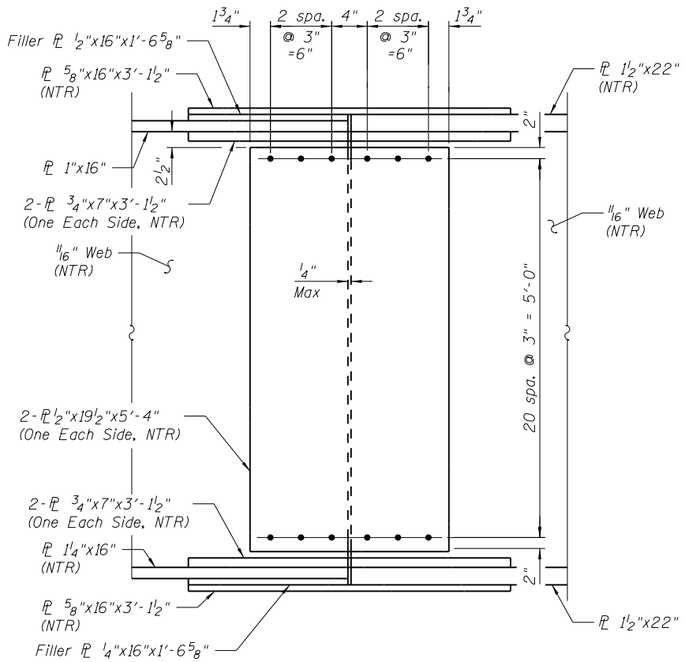
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	95
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			

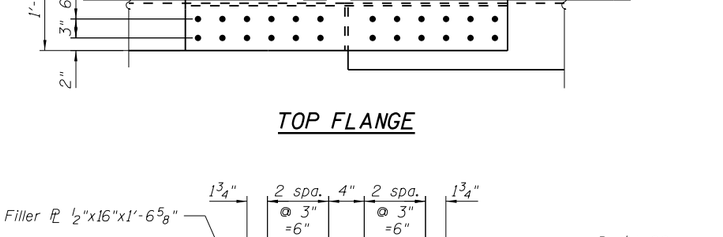


TOP FLANGE



TOP FLANGE

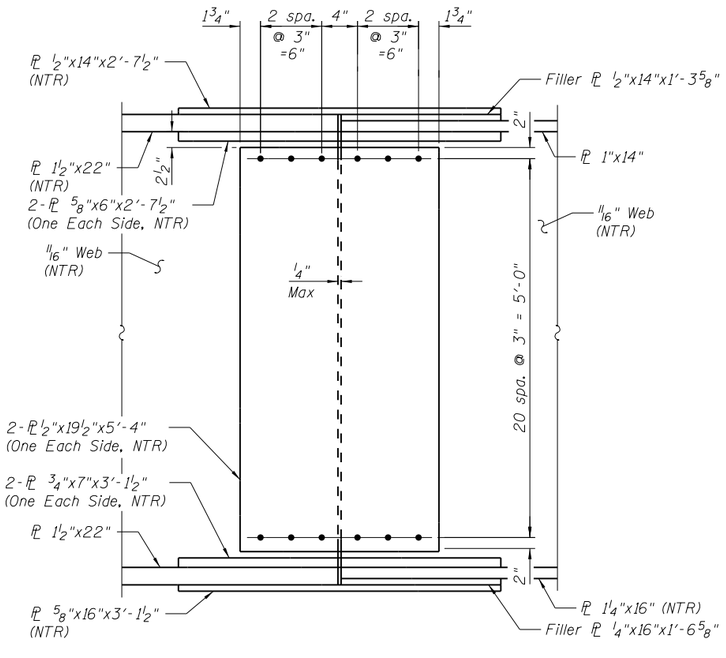


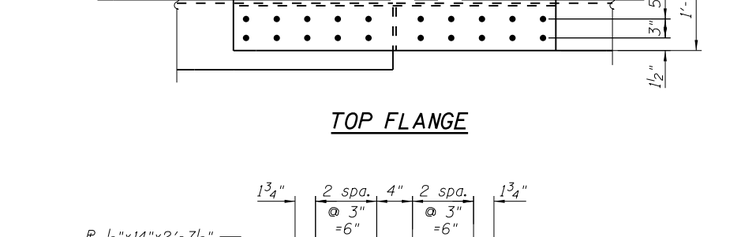


BOTTOM FLANGE

SPLICE 1 & 4

Splice 1 shown, splice 4 similar but mirrored





BOTTOM FLANGE

SPLICE 2 & 3

Splice 2 shown, splice 3 similar but mirrored

Notes:

1. Fasteners shall be ASTM A325 Type 3, bolts shall be H.S. ⅞" ϕ, holes 15/16" ϕ.
2. Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
3. Shear connectors shall not be placed on top of splice plates.
4. AASHTO M270 Grade 50W steel shall be used for all splice plates, except fill plates, which may be AASHTO M270 Grade 36W or 50W.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPLICE DETAILS
STRUCTURE NO. 016-2089
SHEET NO. S25 OF S48 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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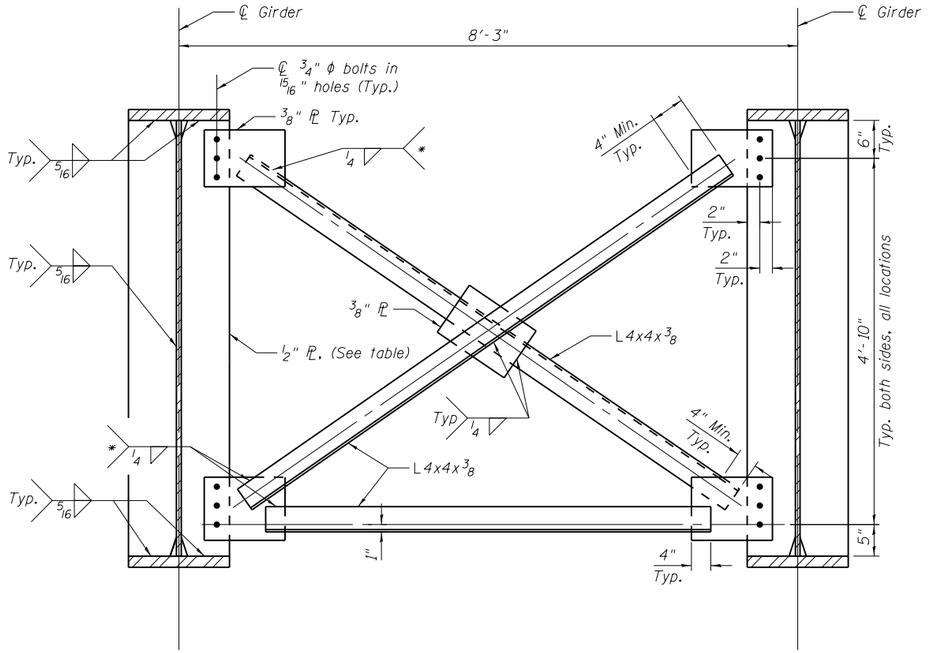
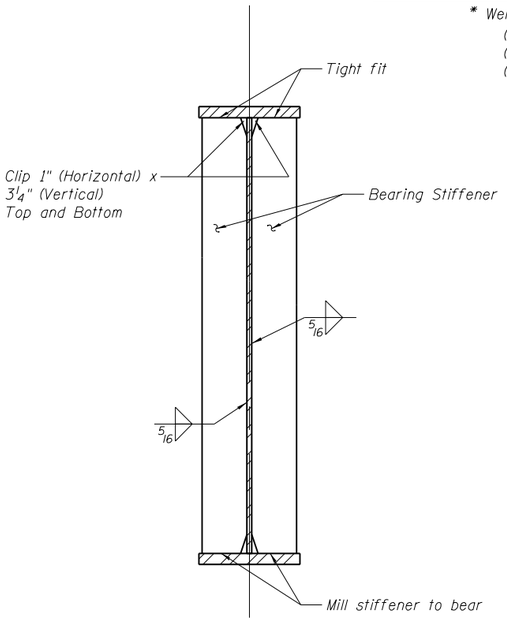
		CONTRACT NO. 60R95		
ILLINOIS	FED. AID PROJECT			



TYPICAL INTERIOR CROSS FRAME

* Weld on 3 sides, typical.
(CF1 90 Required)
(CF2 90 Required)
(CF3 27 Required)



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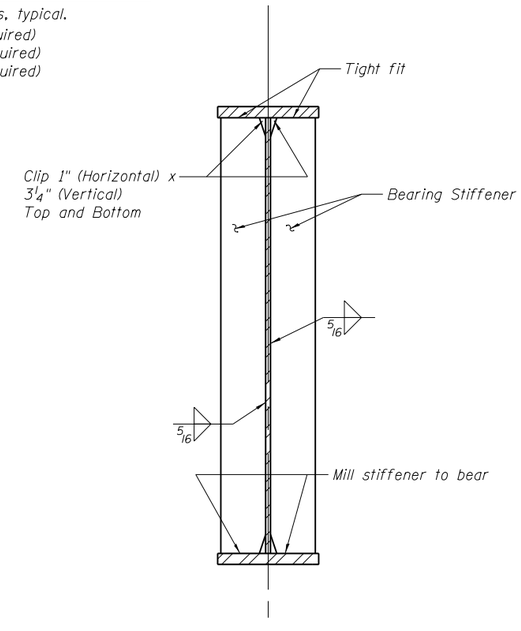

SECTION AT ABUTMENT

BEARING STIFFENERS

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1 & 0.6 Sp. 3	Pier 1 & 2	0.5 Sp. 2
I_s	(in^4)	62857	129752	60095
$I_c(n)$	(in^4)	136053	-	135564
$I_c(3n)$	(in^4)	99867	-	98492
$I_c(cr)$	(in^4)	-	141939	-
S_s	(in^3)	1846	3555	1813
$S_c(n)$	(in^3)	2465	-	2464
$S_c(3n)$	(in^3)	2231	-	2224
$S_c(cr)$	(in^3)	-	4135	-
DC1	(k/')	1.24	1.42	1.23
M_{DC1}	('k)	1620	-3794	1243
DC2	(k/')	0.43	0.43	0.43
M_{DC2}	('k)	570	-1246	472
DW	(k/')	0.3	0.3	0.3
M_{DW}	('k)	398	-872	329
M_{L+IM}	('k)	2425	-3001	2212
M_u (Strength I)	('k)	7575	-	6508
$\phi_f M_n$	('k)	12373	-	12547
f_s DC1	(ksi)	10.53	-12.81	8.23
f_s DC2	(ksi)	3.07	-4.09	2.55
f_s DW	(ksi)	2.14	-2.53	1.78
f_s (L+IM)	(ksi)	11.80	-10.10	10.77
f_s (Service II)	(ksi)	31.07	-32.56	26.55
$0.95R_hF_{yf}$	(ksi)	47.5	47.5	47.5
f_s (Total)(Strength I)	(ksi)	-	-42.6	-
$\phi_f F_n$	(ksi)	-	46.2	-
V_r	(k)	22.3	35.5	24.5

INTERIOR GIRDER REACTION TABLE			
		S. Abut. & N. Abut.	Pier 1 & 2
R_{DC1}	(k)	64.8	237.1
R_{DC2}	(k)	22.3	78.2
R_{DW}	(k)	15.5	54.6
R_{L+IM}	(k)	109.7	223.6
R_{Total}	(k)	212.3	593.5

CROSS FRAME CONNECTION PLATE SIZE

Cross Frame	Connection Plate Size
CF1	1/2" x 7"
CF2	1/2" x 10"
CF3	1/2" x 6"

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in^4 and in^3).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads (in^4 and in^3).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in^4 and in^3).

$I_c(cr)$, $S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in^4 and in^3).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_{L+IM}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
$1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{L+IM}$

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft).

f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_{nc}

f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
$M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
$M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s (L+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
$M_{L+IM} / S_c(n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s (Service II): Sum of stresses as computed below (ksi).
$f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3 f_s (L+IM)$

$0.95R_hF_yf$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
$1.25 (f_{sDC1} + f_{sDC2}) + 1.5 f_{sDW} + 1.75 f_s (L+IM)$

$\phi_f F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

V_r: Maximum factored shear range in span computed according to Article 6.10.10.

Notes:

1. Use two hardened washers for each oversized hole.
2. AASHTO M270 Grade 50W shall be used for all crossframes and connections plates.

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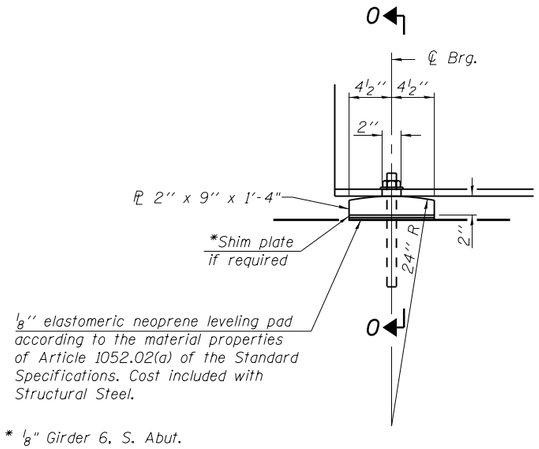
DEPARTMENT OF TRANSPORTATION

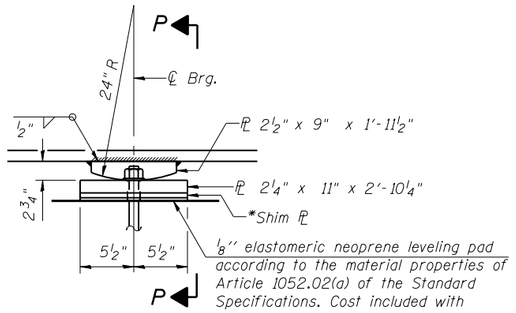
CROSS FRAME DETAILS
STRUCTURE NO. 016-2089
SHEET NO. S26 OF S48 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	97
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			



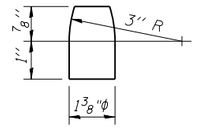
* ⅛" Girder 6, S. Abut.

ELEVATION AT ABUTMENT



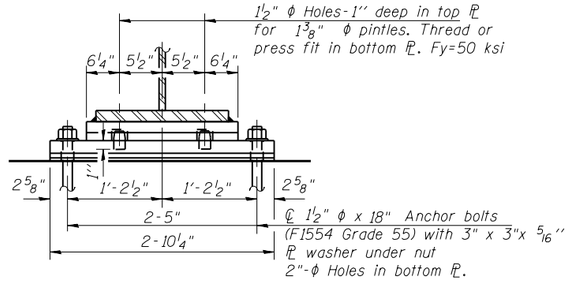
* ½" Girder 5, Pier 1
⅜" Girder 10, Pier 1
½" Girder 9, Pier 2

ELEVATION AT PIER



PINTLE

SECTION O-O



SECTION P-P

FIXED BEARING

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

The structural steel plates of the bearings, including pintles, shall conform to the requirements of AASHTO M270 Grade 50W.

Two ⅛" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1"	Each	40
Anchor Bolts, 1½"	Each	40

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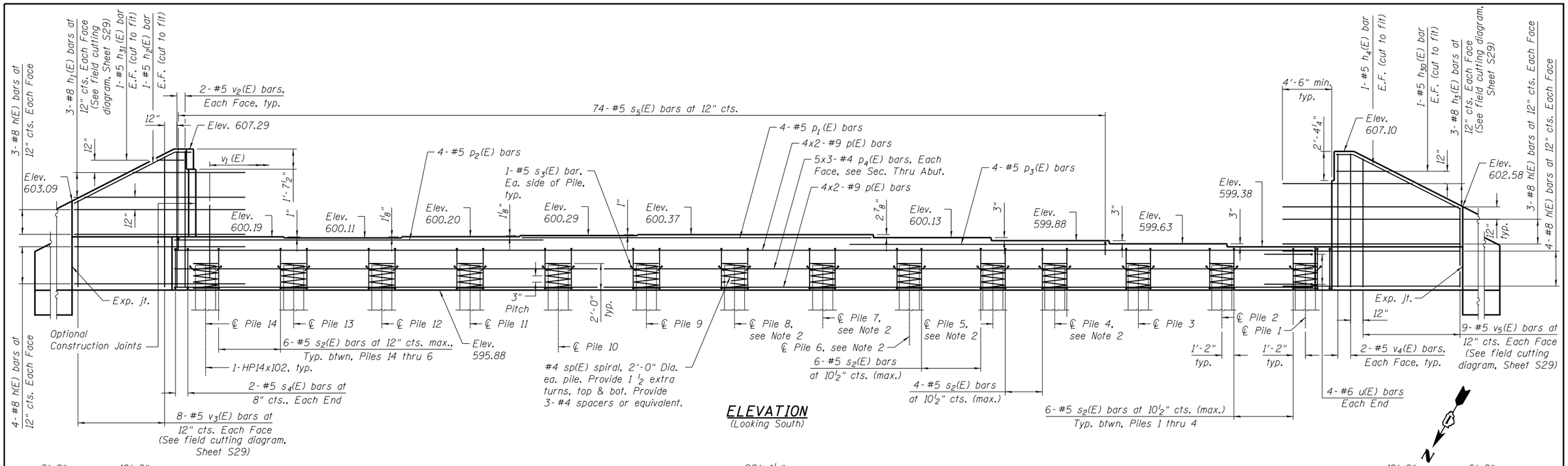
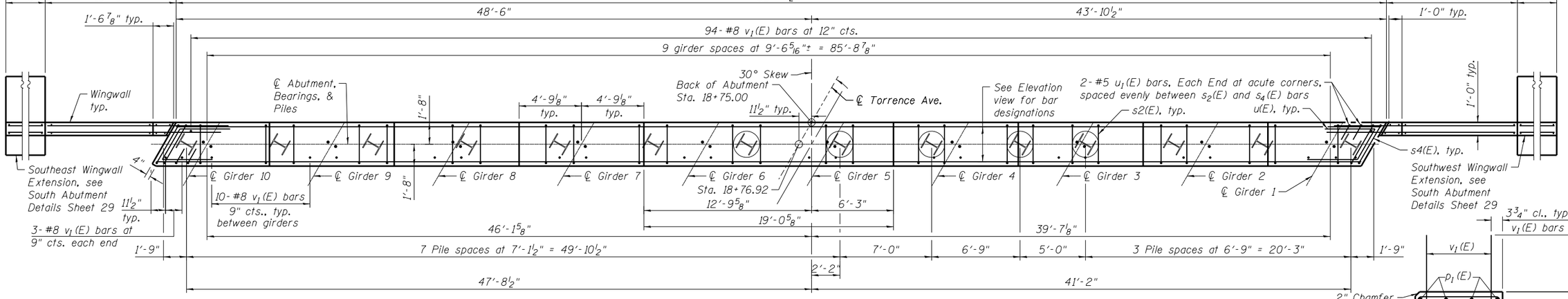
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS
STRUCTURE NO. 016-2089
SHEET NO. S27 OF S48 SHEETS

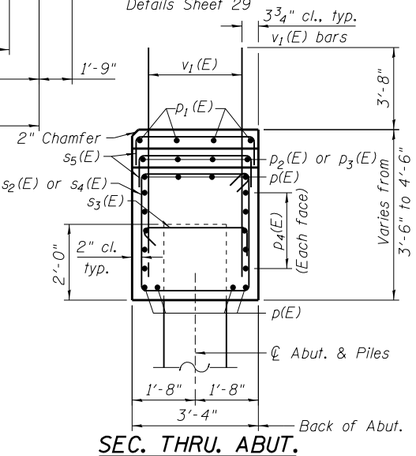
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	98
		CONTRACT NO. 60R95		
	ILLINOIS	FED. AID PROJECT		



ELEVATION
(Looking South)



PLAN



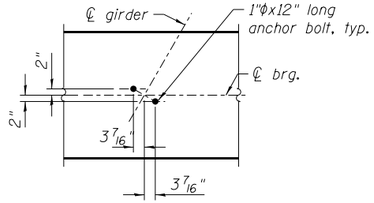
SEC. THRU. ABUT.
Dimensions at right angles to abutment

PILE DATA

Type: HP14x102
Nominal Required Bearing: 491 kips
Factored Resistance Available: 270 kips
Est. Length: 81'
No. Production Piles: 13
No. Test Piles: 1

MIN. BAR LAP

#4 bar = 2'-4"
#5 bar = 2'-11"
#9 bar = 9'-8"



TYPICAL - BEARING ANCHOR BOLT DETAIL

Notes:
1. Pour steps monolithically with abutment cap.
2. Piles noted Ⓟ shall be driven through 2'-0" ϕ pre-cored holes extending to elevation 575.0± in accordance with article 512.09c of the Standard Specifications. The precore holes shall extend through the existing concrete footing. Cost to be included in Driving Piles.
3. Bars indicated thus 4X2-#9 etc. indicates 4 lines of bars with 2 lengths per line.
4. Space stirrups and longitudinal bars to miss anchor bolts.
5. Test pile to be driven in production pile location.

FILE NAME = i:\Projects\4016179\4016179_20201\90_CAD Models and Sheets\CADD_Sheets\016289-60R95-28-South Abut.dgn

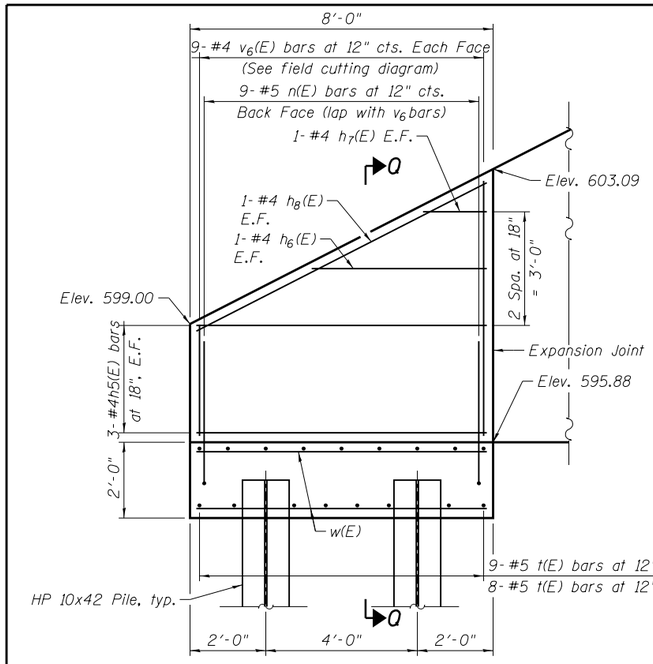
STV

USER NAME = PattisJM	DESIGNED - STB	REVISED
	CHECKED - RDW	REVISED
PLOT SCALE =	DRAWN - STB	REVISED
PLOT DATE = 6/29/2015	CHECKED - RDW	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

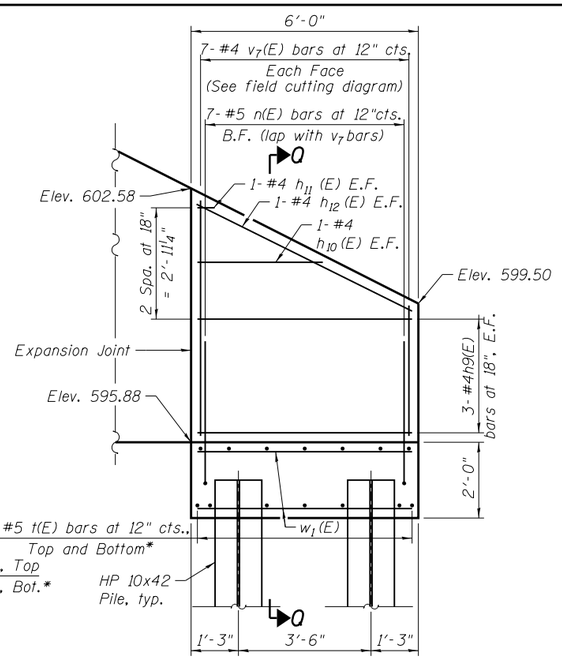
SOUTH ABUTMENT PLAN & ELEVATION
STRUCTURE NO. 016-2089
SHEET NO. S28 OF S48 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	99
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			



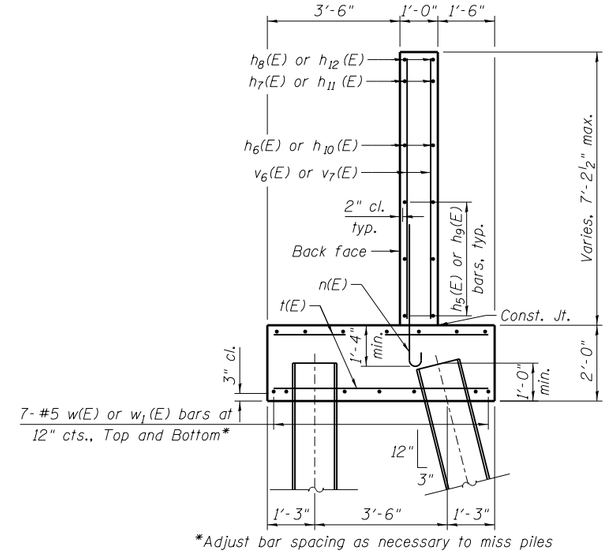
*Adjust bar spacing as necessary to miss piles

SOUTHEAST WINGWALL EXTENSION



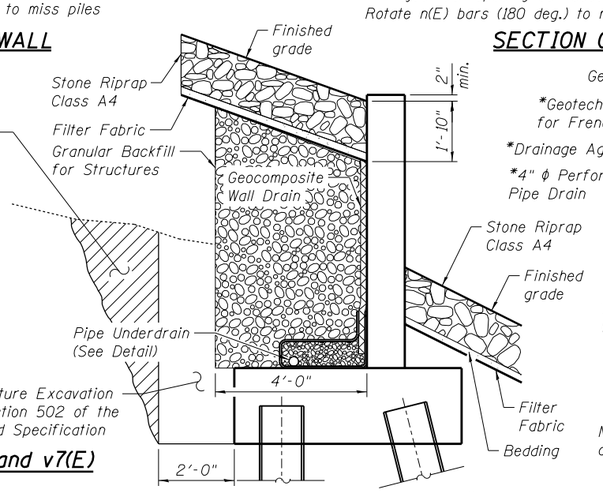
*Adjust bar spacing as necessary to miss piles

SOUTHWEST WINGWALL EXTENSION

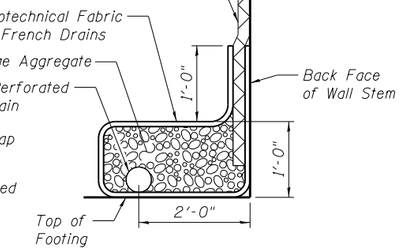


*Adjust bar spacing as necessary to miss piles
Rotate n(E) bars (180 deg.) to miss piles as required.

SECTION Q-Q



SECTION Q-Q
(showing drainage details)



PIPE UNDERDRAIN DETAIL

Note: Pipe drain for wingwall will require offset connector for connection to abutment drain

* Included in the cost of "Pipe Underdrains for Structures"
** Backfill remainder ofstructure excavation and over excavation with same material specified for roadway embankment

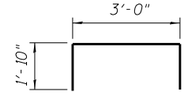
BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
	h(E)	28	#8	14'-9"	
	h_1(E)	3	#8	23'-1"	
	h_2(E)	2	#5	10'-6"	
	h_3(E)	3	#8	25'-9"	
	h_4(E)	2	#5	11'-1"	
	h_5(E)	6	#4	7'-8"	
	h_6(E)	2	#4	4'-9"	
	h_7(E)	2	#4	1'-10"	
	h_8(E)	2	#4	8'-8"	
	h_9(E)	6	#4	5'-8"	
	h_{10}(E)	2	#4	3'-6"	
	h_{11}(E)	2	#4	0'-8"	
	h_{12}(E)	2	#4	6'-5"	
	h_{30}(E)	2	#5	4'-4"	
	h_{31}(E)	2	#5	2'-10"	
	n(E)	16	#5	5'-4"	
	p(E)	16	#9	51'-0"	
	p_1(E)	4	#5	28'-2"	
	p_2(E)	4	#5	31'-9"	
	p_3(E)	4	#5	22'-8"	
	p_4(E)	30	#4	32'-8"	
	s_2(E)	76	#5	13'-3	
	s_3(E)	28	#5	4'-0"	
	s_4(E)	4	#5	14'-1"	
	s_5(E)	74	#5	6'-8"	
***	sp(E)	14	#4	2'-0"	
	t(E)	31	#5	5'-8"	
	u(E)	8	#6	11'-0"	
	u_1(E)	4	#5	5'-8"	
	v_1(E)	190	#8	8'-0"	
	v_2(E)	4	#5	11'-0"	
	v_3(E)	8	#5	17'-7"	
	v_4(E)	4	#5	10'-10"	
	v_5(E)	9	#5	16'-10"	
	v_6(E)	9	#4	9'-8"	
	v_7(E)	7	#4	9'-7"	
	w(E)	14	#5	7'-8"	
	w_1(E)	14	#5	5'-8"	

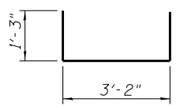
Structure Excavation	Cu. Yd.	336
Concrete Structures	Cu. Yd.	63.9
Reinforcement Bars, Epoxy Coated	Pound	13,000
Furnishing - Piles, HP10x42	Foot	320
Furnishing - Piles, HP14x102	Foot	1,053
Driving Piles	Foot	1,373
Test Pile, HP14x102	Each	1
Granular Backfill for Structures	Cu. Yd.	261
Pipe Underdains for Structures, 4"	Foot	133

*** Length is height of spiral.
For details of piles see sheet S36.
Bill of material shown is for south abutment and wingwalls

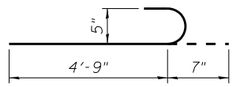
BAR s5(E)



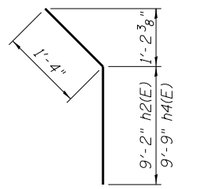
BAR u1(E)



BAR n(E)

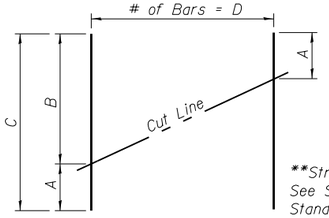


BARS h2(E) & h4(E)



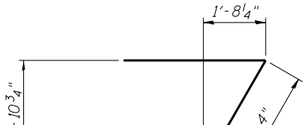
BARS h1(E), h3(E), v3(E), v5(E), v6(E), and v7(E) FIELD CUTTING DIAGRAM

Order bars full length (dim. "C"). Cut as shown and use remainder of bars in opposite face.

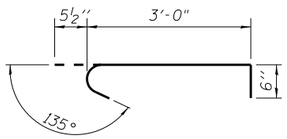


Bar Designation	A	B	C	D
h1(E)	9'-7"	13'-6"	23'-1"	3
h3(E)	11'-0"	14'-9"	25'-9"	3
v3(E)	7'-0"	10'-7"	17'-7"	8
v5(E)	6'-5"	10'-5"	16'-10"	9
v6(E)	2'-11"	6'-9"	9'-8"	9
v7(E)	3'-5"	6'-2"	9'-7"	7

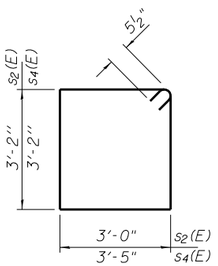
BAR u(E)



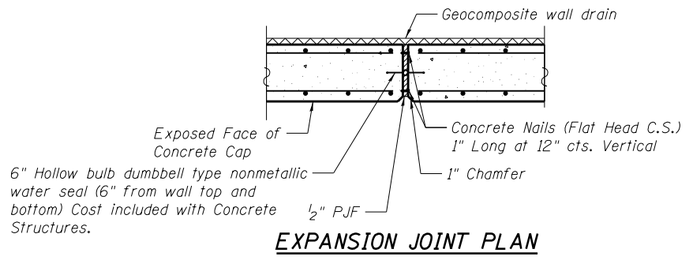
BAR s3(E)



BAR s2(E) & s4(E)



EXPANSION JOINT PLAN



PILE DATA - WINGWALL EXTENSION

Type: HP 10x42
Nominal Required Bearing: 73 kips
Factored Resistance Available: 40 kips
Est. Length: 40 ft
No. Production Piles: 8

FILE NAME = I:\Projects\4016179\4016179_20001\90_CAD Models and Sheets\CADD Sheets\016289-60R95-29-South Abut Details.dgn

STV

USER NAME = PattisJM	DESIGNED - STB	REVISED AAA	
	CHECKED - RDW	REVISED AAA	
PLOT SCALE =	DRAWN - STB	REVISED AAA	
PLOT DATE = 6/29/2015	CHECKED - RDW	REVISED AAA	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT DETAILS
STRUCTURE NO. 016-2089
SHEET NO. S29 OF S48 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	1112.1B-R	COOK	152	100
		CONTRACT NO. 60R95		
	ILLINOIS FED. AID PROJECT			