03-11-11 LETTING ITEM 029

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136 ¥	1
	ILLINOIS	CONTRACT NO. 60K64		

¥136+2 = 138

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

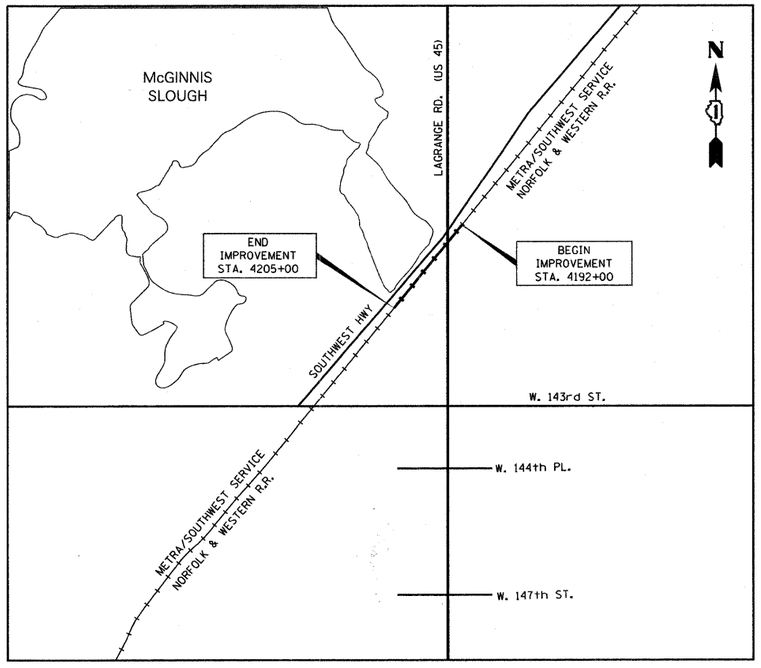
PROPOSED
HIGHWAY PLANS

FAP ROUTE 330: US 45 (LAGRANGE ROAD)
SECTION: 73 R-B
PROJECT: ACCMF-ACNHF-0330(064)
RAILROAD BRIDGE REPLACEMENT
COOK COUNTY
C-91-538-10

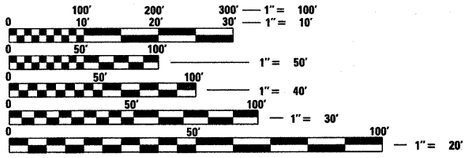
FOR INDEX OF SHEETS, SEE SHEET NO. 2

D-91-569-08

LOCATION OF SECTION INDICATED THUS: – ■ –



GROSS LENGTH = 1,300 FT. = 0.25 MILE
NET LENGTH = 1,300 FT. = 0.25 MILE



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

PROJECT ENGINEER: MICHELLE AQUINO
PROJECT MANAGER: RAJI [illegible]KA SHAH

CONTRACT NO. 60K64

LICENSED STRUCTURAL ENGINEER
GERALD E. KOYLASS
081-005284
STATE OF ILLINOIS

NAME: GERALD E. KOYLASS
EXP. 11/30/2012
DATE: 11/15/2010
SHT NO. 53-112

RICHARD J. YOUNG
062-045713
LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

NAME: RICHARD J. YOUNG
EXP. 11/30/2011
DATE: 11/15/2010
SHT NO. 1-36, 113-136

KAMIL M. YENICE
062-054005
LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

NAME: KAMIL M. YENICE
EXP. 11/30/2011
DATE: 11/15/2010
SHT NO. 37-52

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED December 15 20 10
Diane M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
February 4 20 11
Scott E. Stitt, P.E. /bs
acting ENGINEER OF DESIGN AND ENVIRONMENT
February 4 20 11
Christine M. Reed /bs
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

DESIGN DESIGNATION:
US 45 (LAGRANGE ROAD): 3800 (20) OTHER PRINCIPAL ARTERIAL AND STRATEGIC REGIONAL ARTERIAL (SRA) - CLASS II TRUCK ROUTE 11.55 (JPCP-20)

DESIGN SPEED:
US 45 (LAGRANGE ROAD) = 45 MPH

INDEX OF SHEETS

SHEET NO.	DRAWING NO.	DESCRIPTION
1	CV-01	COVER SHEET
2	IS-01	INDEX OF SHEETS AND HIGHWAY STANDARDS
3	GN-01	GENERAL NOTES
4-7	SQ-01 to SQ-04	SUMMARY OF QUANTITIES
8-9	TS-01 to TS-02	TYPICAL SECTIONS
10	SC-01	SCHEDULES OF QUANTITIES
11-12	AT-01 to AT-02	ALIGNMENTS, TIES, AND BENCHMARKS
13-14	EX-01 to EX-02	EXISTING PLAN AND REMOVALS
15-19	PF-01 to PF-05	PROPOSED PLAN AND PROFILE
20-21	MN-01 to MN-02	SUGGESTED STAGES OF CONSTRUCTION TYPICAL SECTIONS
22	MN-03 to MN-03	SUGGESTED STAGES OF CONSTRUCTION TEMPORARY DETOUR PLAN FOR ERECTING GIRDERS AND PEDESTRIAN BRIDGE
23-26	MT-01 to MT-04	SUGGESTED STAGES OF CONSTRUCTION PLAN
27-28	EN-01 to EN-02	EROSION AND SEDIMENT CONTROL GENERAL NOTES AND LEGEND
29-30	EC-01 to EC-02	EROSION AND SEDIMENT CONTROL PLAN
31	ED-01	EROSION AND SEDIMENT CONTROL DETAILS
32	DR-01	DRAINAGE AND UTILITIES PLAN AND PROFILE
33	PD-01	PAVEMENT DETAILS AND ELEVATIONS
34	GP-01	GRADING PLAN
35-36	LA-01 to LA-02	LANDSCAPE, PAVEMENT MARKING AND SIGNING PLAN
37-52A		LIGHTING PLANS
53-77		STRUCTURAL PLANS - RAILROAD BRIDGE OVER US 45 (S.N. 016-6201)
78-89		STRUCTURAL PLANS - PEDESTRIAN BRIDGE OVER US 45 (S.N. 016-7702)
90-112		STRUCTURAL PLANS - RETAINING WALL•
113	TC-11	TYPICAL APPLICATIONS RAISED PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
114	TC-13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
115	TC-14	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)
116	TC-16	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
117	TC-21	TYPICAL MARKING FOR CLOSING STATE HIGHWAYS
118	TC-22	ARTERIAL ROAD INFORMATION SIGN
119-128	XS-R-01 to XS-R-10	METRA RAILROAD CROSS SECTIONS
129-136	XS-P-01 to XS-P-08	PEDESTRIAN PATH CROSS SECTIONS

• INCLUDES PLANS FOR "REMOVE AND RE-ERECT WATER FEATURE"

HIGHWAY STANDARDS

STANDARD NO.	TITLE
000001-06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
280001-05	TEMPORARY EROSION CONTROL SYSTEMS
515001-03	NAME PLATE FOR BRIDGES
601001-04	SUB-SURFACE DRAINS
602001-02	CATCH BASIN, TYPE A
602701-02	MANHOLE STEPS
604001-03	FRAME AND LIDS, TYPE 1
604041-02	FRAME AND GRATE, TYPE 9
606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
606201-02	TYPE B GUTTER (INLET, OUTLET, AND ENTRANCE)
664001-02	CHAIN LINK FENCE
701101-02	OFF-ROAD OPERATIONS, MULTILANE, LESS THAN 15' (4.5 M) TO 24" (600 MM) FROM PAVEMENT EDGE
701606-07	LANE CLOSURE, MULTILANE, 2W, WITH MOUNTABLE MEDIAN
701901-01	TRAFFIC CONTROL DEVICES
704001-06	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720006-02	SIGN PANEL ERECTION DETAILS
780001-02	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

FILE NAME = DI60K64-SHT-INDEX01.dgn	USER NAME = MTomasze	DESIGNED - MJT	REVISED -
		DRAWN - MJT	REVISED -
	PLOT SCALE = 1:1	CHECKED - RJY	REVISED -
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS AND HIGHWAY STANDARDS

SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	2
	IS-01	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			

GENERAL NOTES:

1. THE THICKNESS OF HMA SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA IS PLACED.

2. TEN (10) FOOT TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURBS AND GUTTER AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.

3. BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.

4. EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.

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

6. THE ENGINEER WILL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.

7. SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.

8. ONLY THOSE TREES DESIGNATED BY THE ENGINEER, LISTED IN THE TREE REMOVAL SCHEDULE, OR SHOWN IN THE PLANS SHALL BE REMOVED. THE CONTRACTOR SHALL PROTECT ALL REMAINING TREES FROM DAMAGE DUE TO HIS OPERATIONS.

9. THE LOCATION OF EXISTING DRAINAGE STRUCTURES, STORM SEWERS, WATER MAINS, SANITARY SEWERS, AND ANY OTHER PUBLIC OR PRIVATE UTILITIES AS SHOWN ON THE PLANS IS APPROXIMATE, AND THEIR EXACT LOCATION IS TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR. THIS WORK SHALL BE PAID FOR PER ART. 105.07 OF THE STANDARD SPECIFICATIONS. LOCATING UTILITIES SHALL BE PAID PER ART. 109.04.

10. WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.

11. THE WORK REQUIRED TO CONNECT ANY SEWER TO AN EXISTING DRAINAGE STRUCTURE OR PIPE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICE BID FOR THE SEWER ITEMS.

12. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

13. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL SECTION OR SUBSECTION MONUMENTS, PROPERTY CORNERS, AND REFERENCE MARKERS UNTIL THE OWNER, HIS AGENT, OR ANY AUTHORIZED SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATIONS.

14. ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

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

16. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

17. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH METRA AND VILLAGE OF ORLAND PARK.

18. ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS OR THE COPY INCLUDED IN THESE PLANS.

19. THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

GRANULAR MATERIALS	2.05	TONS/CU YD
BITUMINOUS MAT PRIME COAT	0.05	GAL/SQ YD - BETWEEN LIFTS
	0.5	GAL/SQ YD - AGGREGATE
	0.1	GAL/SQ YD - ABOVE PCC BASE
AGGREGATE (PRIME COAT)	0.002	TONS/SQ YD
HMA RESURFACING	112	LBS/SQ YD/IN
LEVEL BINDER (HAND METHOD)	112	LBS/SQ YD/IN
SUPPLEMENTAL WATERING	3	GAL/SQ YD/APPLICATION

20. ALL DAMAGE TO DEPARTMENT OWNED UNDERGROUND FACILITIES, CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTION OF THE DEPARTMENT AT THE CONTRACTOR'S EXPENSE. THIS SHALL INCLUDE ALL TEMPORARY REPAIRS REQUIRED TO KEEP THE FACILITY OPERATIONAL WHILE MATERIAL IS BEING OBTAINED TO MAKE PERMANENT REPAIRS. SPLICING OF ELECTRIC CABLE SHALL NOT BE ALLOWED. ELECTRIC CABLE SHALL BE REPLACED FROM POLE TO POLE OR CONTROLLER.

21. THE CONTRACTOR SHALL CONTACT JULIE AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.

22. THE CONTRACTOR SHALL MAINTAIN EXISTING STREET ACCESS, EXISTING DRIVEWAY ACCESS, AND PEDESTRIAN ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING CONSTRUCTION OF THE PROJECT, UNLESS OTHERWISE NOTED IN THE PLANS OR DIRECTED BY THE ENGINEER.

23. SAWING OF REMOVAL ITEMS AS NOTED ON THE PLANS, SPECIFIED IN THE STANDARD SPECIFICATIONS, OR AS REQUIRED BY THE ENGINEER SHALL BE INCLUDED IN THE COST OF THE ITEM BEING REMOVED

24. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN EXISTING FIELD CONDITIONS BEFORE BIDDING ON THIS CONTRACT

25. DOUBLE LANE MARKERS ARE TO BE USED AS SHOWN ON THE DISTRICT ONE DETAIL 'TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)' SHOWN IN THE PLANS.

26. UNDERBRUSH OR DEBRIS AT PLANTING LOCATIONS SHALL BE REMOVED AND DISPOSED OF ACCORDING TO SECTION 201 OF THE STANDARD SPECIFICATIONS. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT THE COSTS SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICES FOR THE CONSTRUCTION ITEMS INVOLVED, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

27. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION OF EXISTING PLANT MATERIAL FOR WHICH THE CONTRACT DOES NOT PROVIDE REMOVAL. THE PROTECTION OF EXISTING PLANT MATERIAL AND THE REPAIR OR REPLACEMENT OF EXISTING PLANT MATERIAL DAMAGED BY THE CONTRACTOR SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 201 OF THE STANDARD SPECIFICATIONS.

28. SITE ACCESS MUST BE FROM US 45. TRUCK ACCESS WILL NOT BE ALLOWED FROM LOCAL RESIDENTIAL STREETS.

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

FILE NAME = DI60K64-SHT-GENNOTE.dgn	USER NAME = jlatour	DESIGNED - BA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES			F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - BA	REVISED -					330	73 R-B	COOK	136	3
	PLOT SCALE = 1:10	CHECKED - MJT	REVISED -						GN-01	CONTRACT NO. 60K64		
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -		SCALE:	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.		ILLINOIS	FED. AID PROJECT		

CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	ACNHF ROADWAY US 45 80% FED 20% STATE 0003	ACCMF ROADWAY PED PATH 80% FED 20% STATE 0028	CONSTRUCTION CODE ACNHF SN 016-6201 80% FED 20% STATE 0010	ACCMF SN 016-7702 80% FED 20% STATE 0008	ACNHF RETAINING WALL 80% FED 20% STATE 0040
20100500	TREE REMOVAL, ACRES	ACRE	0.50	0.50				
20200100	EARTH EXCAVATION	CU YD	~~598~~	~~555~~	43			
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	1,552	1,313	239			
20400800	FURNISHED EXCAVATION	CU YD	20,069	18,883	1,986			
20700220	POROUS GRANULAR EMBANKMENT	CU YD	625			625		
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	2,687	2,687				
25000210	SEEDING, CLASS 2A	ACRE	0.50	0.50				
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	65	65				
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	65	65				
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	65	65				
25100115	MULCH, METHOD 2	ACRE	3	3				
25100630	EROSION CONTROL BLANKET	SQ YD	1,810	1,810				
25200110	SODDING, SALT TOLERANT	SQ YD	1,455	1,455				
25200200	SUPPLEMENTAL WATERING	UNIT	27	27				
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	265	265				
28000305	TEMPORARY DITCH CHECKS	FOOT	155	155				
28000400	PERIMETER EROSION BARRIER	FOOT	930	930				
28000510	INLET FILTERS	EACH	4	4		1		
35101800	AGGREGATE BASE COURSE, TYPE B 6"	SQ YD	1,454		1,454			
40600300	AGGREGATE (PRIME COAT)	TON	3		3			
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	120		120			
42001300	PROTECTIVE COAT	SQ YD	509	509				
42400300	PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH	SQ FT	1,285		1,285			
44000100	PAVEMENT REMOVAL	SQ YD	2,048	2,048				
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	1,275	1,275				
50102400	CONCRETE REMOVAL	CU YD	225			114		111
50200100	STRUCTURE EXCAVATION	CU YD	6,200			2,531	493	3,176
50300225	CONCRETE STRUCTURES	CU YD	2,902.9			1,643.3	354.7	904.9
50300254	RUBBED FINISH	SQ FT	337				337	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	7.3				7.3	
50300285	FORM LINER TEXTURED SURFACE	SQ FT	3,200					3,200
50500305	ERECTING STRUCTURAL STEEL	L SUM	1			1		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	236,480			115,200	34,500	86,780
50900805	PEDESTRIAN RAILING	FOOT	280					280

• DENOTES SPECIALTY ITEM

VOP = VILLAGE OF ORLAND PARK

McDonough Associates Inc.
Engineers / Architects
150 East Randolph Street Chicago, Illinois 60601

Rev.

FILE NAME = D160K64-SHT-S0001.dgn	USER NAME = TKl.eg	DESIGNED - MJT	REVISED -
		DRAWN - MJT	REVISED -
	PLOT SCALE = 1.50	CHECKED - TRK	REVISED -
	PLOT DATE = 12/	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N.T.S. | SHEET NO. 1 OF 4 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	4
	S0-01	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			

			URBAN	CONSTRUCTION CODE				
				ACNHE	ACCME	ACNHE	ACCME	ACNHF
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY US 45	ROADWAY PED PATH	SN 016-6201	SN 016-7702	RETAINING WALL
				80% FED	80% FED	80% FED	80% FED	80% FED
				20% STATE	20% STATE	20% STATE	20% STATE	20% STATE
				0003	0028	0010	0008	0040
50901760	PIPE HANDRAIL	FOOT	505			441		64
51201600	FURNISHING STEEL PILES HP12X53	FOOT	10,708				4343	6,365.0
51202100	FURNISHING STEEL PILES HP14X117	FOOT	17,196.0			17,196.0		
51202305	DRIVING PILES	FOOT	27,904			17,196.0	4343	6,365.0
51203600	TEST PILE STEEL HP12X53	EACH	9				3	6
51204100	TEST PILE STEEL HP14X117	EACH	3			3		
51204650	PILE SHOES	EACH	88				88	
51500100	NAME PLATES	EACH	2			1	1	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	46.5				46.5	
52100530	ANCHOR BOLTS, 1 1/4"	EACH	32			32		
550A0340	STORM SEWERS, CLASS A, TYPE 2 12"	FOOT	25	25				
52100540	ANCHOR BOLTS, 1 1/2"	EACH	16			16		
58700300	CONCRETE SEALER	SQ FT	10,600			7,266	3,334	
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	1,469			474	186	809
60100905	PIPE DRAINS 4"	FOOT	130			30		100
60200905	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 9 FRAME AND GRATE	EACH	1	1				
60255500	MANHOLES TO BE ADJUSTED	EACH	1	1				
60257900	MANHOLES TO BE RECONSTRUCTED	EACH	5	5				
66400105	CHAIN LINK FENCE, 4'	FOOT	137	137				
60602800	CONCRETE GUTTER, TYPE B	FOOT	415	415				
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	2,500	2,500				
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	1,275	1,275				
* 66900450	SPECIAL WASTE PLANS AND REPORTS	L SUM	1	1				
63200310	GUARDRAIL REMOVAL	FOOT	690	690				
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	1	1				
X6700410	ENGINEER'S FIELD OFFICE, TYPE A (SPECIAL)	CAL MO	8	8				
67100100	MOBILIZATION	L SUM	1	1				
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	8	8				
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	2,056	2,056				
70400600	RELOCATE TEMPORARY CONCRETE BARRIER, STATE OWNED	FOOT	2,000.0	2,000.0				
~~70400200~~	~~RELOCATE TEMPORARY CONCRETE BARRIER~~	~~FOOT~~	~~1,000.0~~	~~1,000.0~~				
* 72000200	SIGN PANEL - TYPE 2	SQ FT	31			31		
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	4,100	4,100				
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	70	70				
* 78200530	BARRIER WALL MARKERS, TYPE C	EACH	98	98				
• 80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1		1			
* 81012500	CONDUIT IN TRENCH, 1 1/2" DIA., PVC	FOOT	31		31			
• 81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	16		16			
* 81012700	CONDUIT IN TRENCH, 2 1/2" DIA., PVC	FOOT	28		28			
• 81017505	CONDUIT IN TRENCH, 3/4" DIA., COILABLE NONMETALLIC CONDUIT	FOOT	59		59			
* 81012800	CONDUIT IN TRENCH, 3" DIA., PVC	FOOT	80	80				
• 81017515	CONDUIT IN TRENCH, 1 1/4" DIA., COILABLE NONMETALLIC CONDUIT	FOOT	524		524			
* 81017535	CONDUIT IN TRENCH, 3" DIA., COILABLE NONMETALLIC CONDUIT	FOOT	314		314			
• 81017525	CONDUIT IN TRENCH, 2" DIA., COILABLE NONMETALLIC CONDUIT	FOOT	122		122			

• DENOTES SPECIALTY ITEM

VOP = VILLAGE OF ORLAND PARK

Rev.

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

FILE NAME = 0160K64-SHT-SQ002.dgn	USER NAME = TKluegel	DESIGNED - MJT	REVISED -
		DRAWN - MJT	REVISED -
	PLOT SCALE = 1:50	CHECKED - TRK	REVISED -
	PLOT DATE = 12/16/10	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N.T.S. | SHEET NO. 2 OF 4 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	5
	SQ-02	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			

	CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	ACNHF ROADWAY US 45 80% FED 20% STATE 0003	ACCMF ROADWAY PED PATH 80% FED 20% STATE 0028	CONSTRUCTION CODE ACNHF SN 016-6201 80% FED 20% STATE 0010	ACCMF SN 016-7702 80% FED 20% STATE 0008	ACNHF RETAINING WALL 80% FED 20% STATE 0040
•	~~81017530~~	~~CONDUIT IN TRENCH, 3 1/2" DIA., COILABLE NONMETALLIC CONDUIT~~	~~FOOT~~	~~38~~	~~38~~	~~38~~			
	81100320	CONDUIT ATTACHED TO STRUCTURE, 1"DIA, PVC COATED GALVANIZED STEEL	FOOT	594	594				
•	81100510	CONDUIT ATTACHED TO STRUCTURE, 1 1/2" DIA., PVC COATED GALVANIZED STEEL	FOOT	223		223			
	81100805	CONDUIT ATTACHED TO STRUCTURE, 3"DIA., PVC COATED GALVANIZED STEEL	FOOT	118	118				
•	81100605	CONDUIT ATTACHED TO STRUCTURE, 2" DIA., PVC COATED GALVANIZED STEEL	FOOT	198		198			
	81200250	CONDUIT EMBEDDED IN STRUCTURE, 3"DIA., PVC	FOOT	213	213				
•	81200220	CONDUIT EMBEDDED IN STRUCTURE, 1 1/2" DIA., PVC	FOOT	355		355			
	81300220	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6" X 6" X 4"	EACH	8	8				
•	~~81300720~~	~~JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 16" X 12" X 8"~~	~~EACH~~	~~1~~	~~1~~	~~1~~			
	81300530	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 10"X 6"	EACH	8	8				
•	81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	3,408	3213	195			
	81300945	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 24" X 24" X 8"	EACH	8	8				
•	81702130	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	8,943		8,943			
•	81702150	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 2	FOOT	46		46			
•	81702170	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 2/0	FOOT	184		184			
•	81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1,459		1,459			
•	83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	48		48			
•	84200804	REMOVAL OF POLE FOUNDATION	EACH	2		2			
•	84400105	RELOCATE EXISTING LIGHTING UNIT	EACH	2		2			
•	84500130	REMOVAL OF LIGHTING CONTROLLER FOUNDATION	EACH	1		1			
•	~~89502300~~	~~REMOVE EXISTING HANDHOLE~~	~~EACH~~	~~1~~		~~1~~			
	X0322400	PILE EXTRACTION	EACH	27			27		
	X0322508	PEDESTRIAN TRUSS SUPERSTRUCTURE	SQ FT	2,010				2,010	
	~~X0324045~~	~~SEDIMENT CONTROL, STABILIZED CONSTRUCTION ENTRANCE REMOVAL~~	~~EACH~~	~~3~~	~~3~~				
•	X0324397	RELOCATE ELECTRIC SERVICE	EACH	1		1			
	X0324431	TEMPORARY SOIL RETENTION SYSTEM (TO REMAIN IN PLACE)	SQ FT	1015			272	743	
	~~X0324775~~	~~SEDIMENT CONTROL, STABILIZED CONSTRUCTION ENTRANCE MAINTENANCE~~	~~SQ YD~~	~~1,190~~	~~1,190~~				
	X0325444	TEMPORARY CONCRETE BARRIER (INSTALL ONLY)	FOOT	1000	1000				
	X0326542	METAL GRATING	L SUM	1			1		
	X2020502	BRACED EXCAVATION	CU YD	84			84		
	X2070304	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	1,722				273	1,449
	X5150110	NAME PLATES (SPECIAL)	EACH	1			1		
A	X5539700	STORM SEWERS TO BE CLEANED	FOOT	200	200				
	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1				
	X7030030	WET REFLECTIVE TEMPORARY TAPE TYPE III, 4 INCH	FOOT	6,205	6,205				
	~~X8140230~~	~~HANDHOLE, COMPOSITE CONCRETE (SPECIAL)~~	~~EACH~~	~~1~~		~~1~~			
•	X8950090	RELOCATE EXISTING LIGHTING CONTROLLER	EACH	1		1			
•	X8950215	RELOCATE EXISTING HANDHOLE	EACH	1		1			
	XX008438	TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR	EACH	1	1				
	XZ127900	RETAINING WALL REMOVAL	FOOT	83		83			
	Z0002400	BALLAST	TON	186			186		

• DENOTES SPECIALTY ITEM A = Non-participating

VOP = VILLAGE OF ORLAND PARK

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

FILE NAME	USER NAME = TKlueg	DESIGNED - MJT	REVISED -
D160K64-SHT-SQ003.dgn		DRAWN - MJT	REVISED -
	PLOT SCALE = 1:50	CHECKED - TRK	REVISED -
	PLOT DATE = 12/16/10	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N.T.S. | SHEET NO. 3 OF 4 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	TOTAL SHEETS	SHEET NO.
330	73 R-8	136	6
	SQ-03	CONTRACT NO. 60K64	
	ILLINOIS FED. AID PROJECT		

CODE NO.	ITEM	UNIT	URBAN TOTAL QUANTITY	CONSTRUCTION CODE: ACNHE ROADWAY US 45 80% FED 20% STATE 0003	ACCME ROADWAY PED PATH 80% FED 20% STATE 0028	ACNHE SN 016-6201 80% FED 20% STATE 0010	ACCME SN 016-7702 80% FED 20% STATE 0008	ACNHE RETAINING WALL 80% FED 20% STATE 0040
Z0007122	REMOVING AND RE-ERECTING EXISTING RAILING	FOOT	382					382
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1				
~~Z0013796~~	~~SEDIMENT CONTROL, STABILIZED CONSTRUCTION ENTRANCE~~	~~SQ YD~~	~~595~~	~~595~~				
Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	6	6				
~~Z0023202~~	~~SEDIMENT CONTROL, DRAINAGE STRUCTURE INLET FILTER CLEANING~~	~~EACH~~	~~17~~	~~17~~				
~~Z0023206~~	~~SEDIMENT CONTROL, SILT FENCE MAINTENANCE~~	~~FOOT~~	~~175~~	~~175~~				
Z0026407	TEMPORARY SHEET PILING	SQ FT	3,212					3,212
Z0030030	IMPACT ATTENUATORS (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2				
Z0030260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2				
Z0030330	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE), TEST LEVEL 3	EACH	2	2				
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	51.4	51.4				
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	772			187	99	486
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1				
Z0061100	SANITARY SEWER, TYPE 3 12"	FOOT	42	42				
Z0062456	TEMPORARY PAVEMENT	SQ YD	711	711				
Z0073002	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	3,058			2,822	236	
~~Z0076600~~	~~TRAINEES~~	~~HOUR~~						
X6026058	MANHOLES SANITARY WITH SPECIAL FRAME AND CLOSED LID	EACH	2	2				
X0327136	ERECTING HIGH LOAD MULTI-ROTATIONAL BEARINGS, FIXED, 1500K	EACH	4			4		
X0327134	ERECTING HIGH LOAD MULTI-ROTATIONAL BEARINGS, GUIDED EXPANSION, 1500K	EACH	4			4		
X0327135	ERECTING HIGH LOAD MULTI-ROTATIONAL BEARINGS, NON-GUIDED EXPANSION, 500K	EACH	8			8		
X0327137	DECK WATERPROOFING	SQ FT	6,994			6,994		
X0327138	PRECAST ORNAMENTAL FIXTURES	EACH	6				6	
~~Z0046304~~	~~PIPE UNDERDRAINS FOR STRUCTURES 4"~~	~~FOOT~~	~~486~~					~~486~~
Z0064560	SEGMENTAL BLOCK RETAINING WALL	SQ FT	2,850					2,850
X0327139	AGGREGATE COLUMN GROUND IMPROVEMENT	L SUM	1					1
X0327140	REMOVE AND RE-ERECT WATER FEATURE	L SUM	1					1
• X0327141	LIGHTING STANDARD, TYPE 4A	EACH	6		6			
• X0327142	LIGHTING STANDARD, TYPE 4B	EACH	5		5			
• X0327143	RELOCATE EXISTING FOUNTAIN CONTROLLER	L SUM	1		1			
52100580	ANCHOR BOLTS, 2 1/2"	EACH	16			16		
82107200	UNDERPASS LUMINAIRE, 100 WATT, HIGH PRESSURE SODIUM VAPOR	EACH	8	8				

• DENOTES SPECIALTY ITEM △ = Non-participating

VOP = VILLAGE OF ORLAND PARK

Rev.

McDonough Associates Inc.
Engineers / Architects
330 East Randolph Street Chicago, Illinois 60601

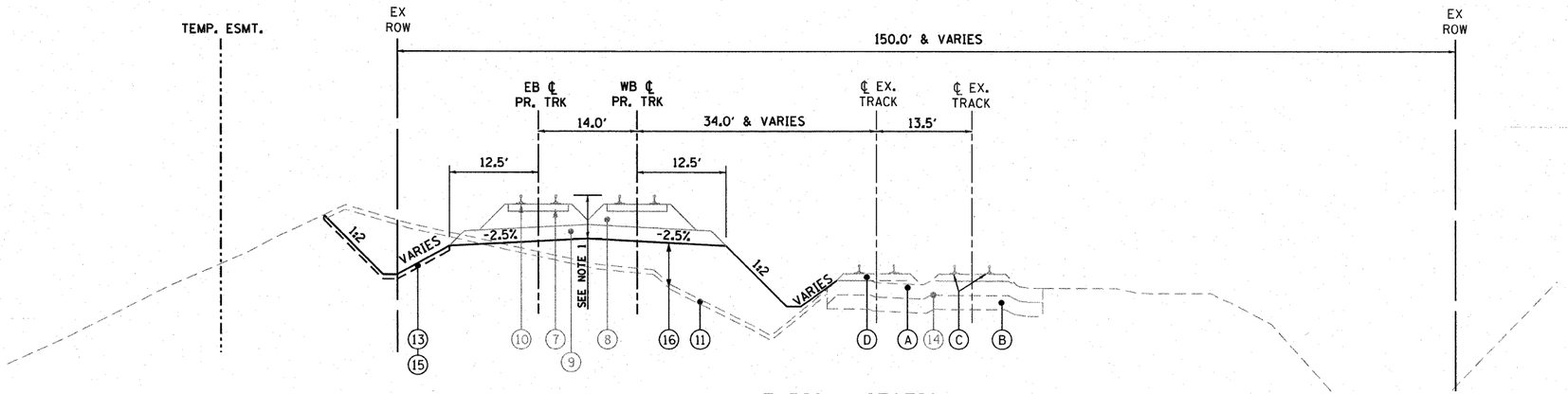
FILE NAME = D160K64-SHT-S0004.dgn	USER NAME = TKluegel	DESIGNED - MJT	REVISED -
		DRAWN - MJT	REVISED -
	PLOT SCALE = 1:50	CHECKED - TRK	REVISED -
	PLOT DATE = 12/16/10	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

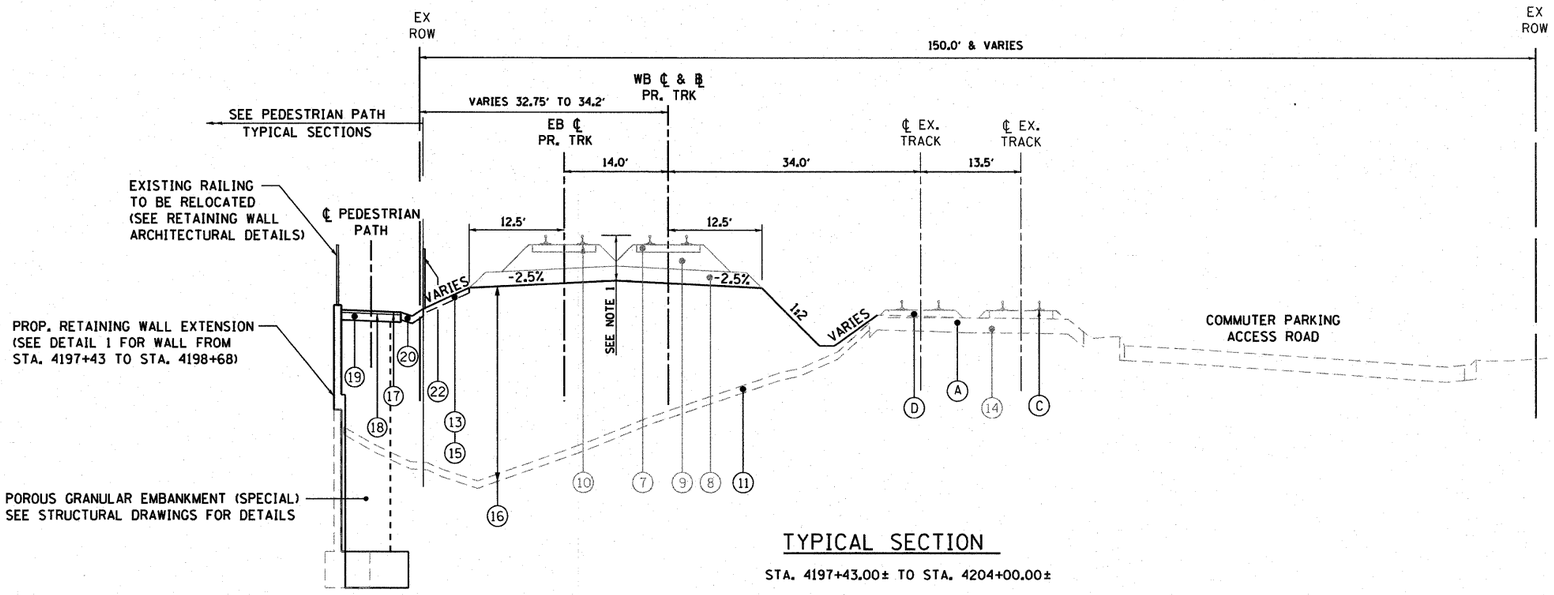
SCALE: N.T.S. | SHEET NO. 4 OF 4 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION
330	73 R-B
	SQ-04
	ILLINOIS FED. AID PROJECT



TYPICAL SECTION

STA. 4192+50± TO STA. 4194+50±
(STA. 4194+50 TO STA. 4197+43 - SEE STRUCTURAL DRAWINGS)



TYPICAL SECTION

STA. 4197+43.00± TO STA. 4204+00.00±

EXISTING LEGEND

- (A) 12" BALLAST
- (B) 12" SUB-BALLAST
- (C) RAILS
- (D) TIMBER CROSS TIE
- (E) SIDEWALK
- (F) PLATFORM
- (G) PEDESTRIAN PATH

PROPOSED LEGEND

- • (1) HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 1 1/2"
- • (2) BITUMINOUS MATERIALS (PRIME COAT)
- • (3) HOT-MIX ASPHALT BINDER COURSE, IL-19.0 N50 2 1/4"
- • (4) PORTLAND CEMENT CONCRETE BASE COURSE 9"
- • (5) AGGREGATE SUBGRADE 12"
- • (6) CONCRETE MEDIAN
- • (7) CROSS TIES
- • (8) 12" BALLAST
- • (9) 12" SUB-BALLAST
- • (10) RAILS
- (11) TOPSOIL STRIPPING, 4"
- (12) TIERED SEGMENTAL BLOCK WALL
- (13) TOPSOIL FURNISH AND PLACE, 4"
- • (14) GEOTECHNICAL FABRIC FOR GROUND STABILIZATION
- (15) SEEDING OR SODDING, SALT TOLERANT, SEE LANDSCAPING PLANS
- (16) EMBANKMENT
- (17) HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 2"
- (18) AGGREGATE (PRIME COAT)
- (19) AGGREGATE BASE COURSE, TYPE B 6"
- (20) CONCRETE GUTTER, TYPE B
- (21) PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH
- (22) ORNAMENTAL FENCE (BY OTHERS)

NOTE:

1. PROFILE GRADE LINE IS AT THE TOP OF RAIL. DISTANCE FROM TOP OF RAIL TO THE CROWN IN EMBANKMENT IS 3.06'.

• NOT INCLUDED IN THIS CONTRACT - BY OTHERS

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

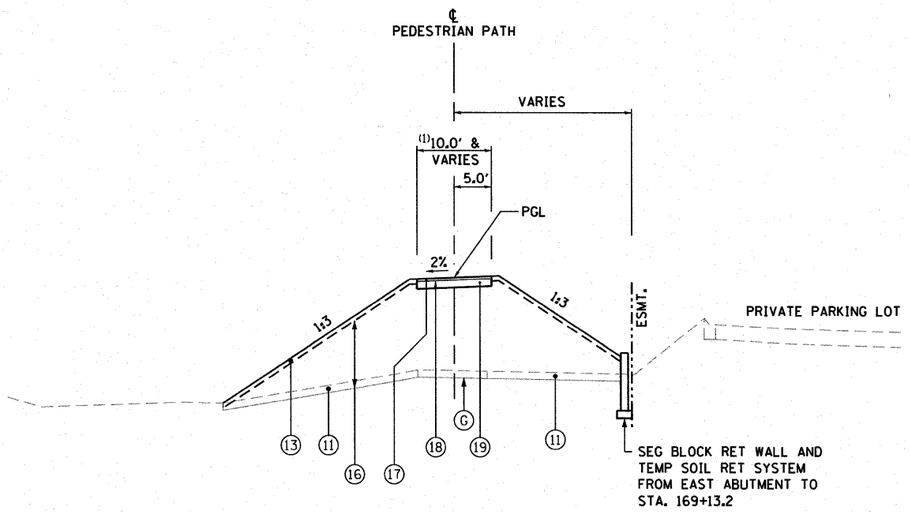
FILE NAME = D160K64-SHT-TYPICAL01.dgn	USER NAME = jlatour	DESIGNED - JPW	REVISED -
		DRAWN - JPW	REVISED -
	PLOT SCALE = 1:10	CHECKED - MJT	REVISED -
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE: N.T.S. | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

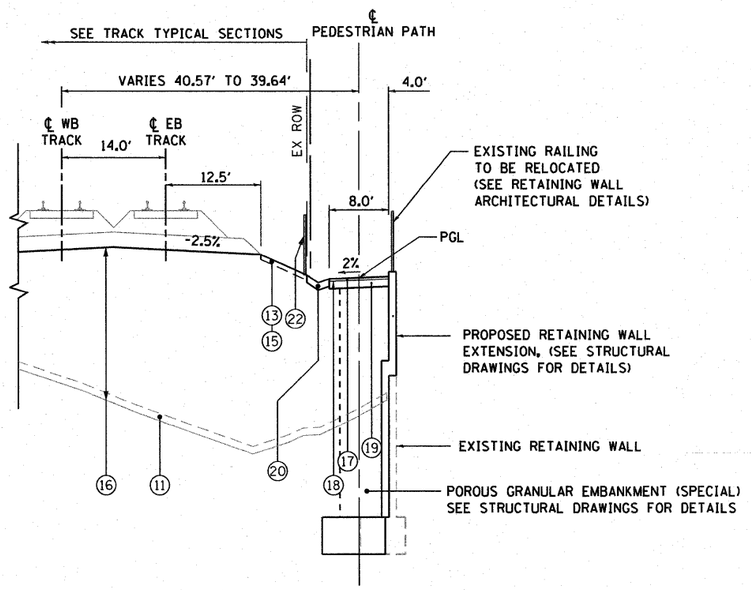
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	8
	TS-01	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			



TYPICAL SECTION

PEDESTRIAN PATH

(1) 5' WIDE @ CONNECTOR FROM STAIRS TO PROPOSED SIDEWALK (BY OTHERS)



TYPICAL SECTION

PEDESTRIAN PATH ADJACENT TO RAILROAD AND PROPOSED RETAINING WALL

EXISTING LEGEND

- (A) 12" BALLAST
- (B) 12" SUB-BALLAST
- (C) RAILS
- (D) TIMBER CROSS TIE
- (E) SIDEWALK
- (F) PLATFORM
- (G) PEDESTRIAN PATH

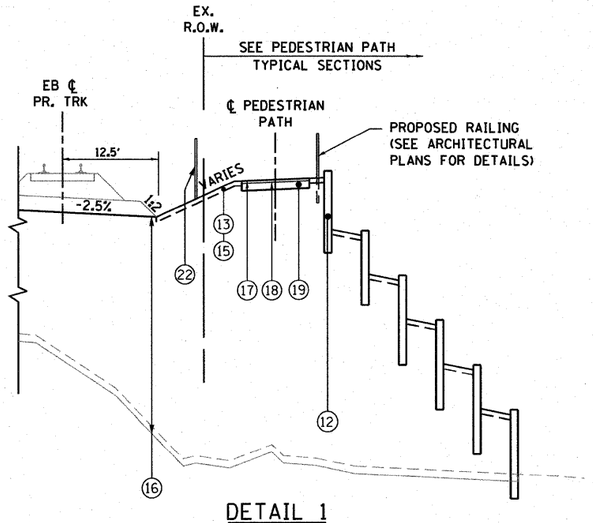
PROPOSED LEGEND

- • (1) HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 1 1/2"
- • (2) BITUMINOUS MATERIALS (PRIME COAT)
- • (3) HOT-MIX ASPHALT BINDER COURSE, IL-19.0 N50 2 1/4"
- • (4) PORTLAND CEMENT CONCRETE BASE COURSE 9"
- • (5) AGGREGATE SUBGRADE 12"
- • (6) CONCRETE MEDIAN
- • (7) CROSS TIES
- • (8) 12" BALLAST
- • (9) 12" SUB-BALLAST
- • (10) RAILS
- (11) TOPSOIL STRIPPING, 4"
- (12) TIERED SEGMENTAL BLOCK WALL
- (13) TOPSOIL FURNISH AND PLACE, 4"
- • (14) GEOTECHNICAL FABRIC FOR GROUND STABILIZATION
- (15) SEEDING OR SODDING, SALT TOLERANT, SEE LANDSCAPING PLANS
- (16) EMBANKMENT
- (17) HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 2"
- (18) AGGREGATE (PRIME COAT)
- (19) AGGREGATE BASE COURSE, TYPE B 6"
- (20) CONCRETE GUTTER, TYPE B
- (21) PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH
- (22) ORNAMENTAL FENCE (BY OTHERS)

NOTE:

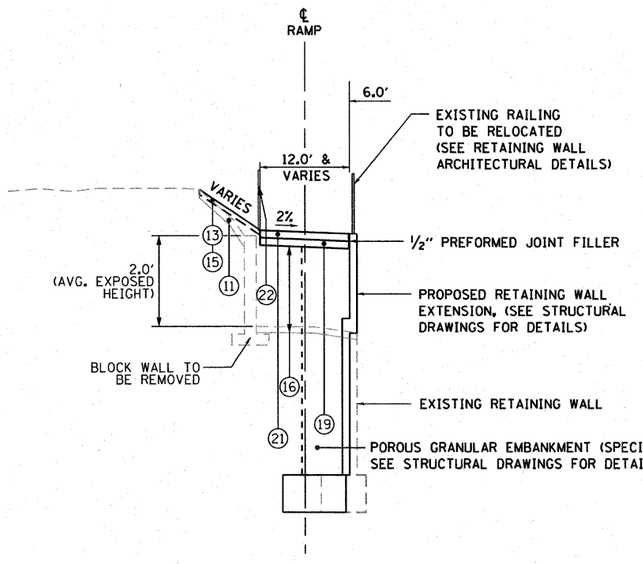
1. PROFILE GRADE LINE IS AT THE TOP OF RAIL. DISTANCE FROM TOP OF RAIL TO THE CROWN IN EMBANKMENT IS 3.06'.

• NOT INCLUDED IN THIS CONTRACT - BY OTHERS



DETAIL 1

STA. 4197+43.00 TO STA. 4198+68.00



TYPICAL SECTION

RAMP ON WEST SIDE OF DETENTION POND

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE TYPE	AIR VOIDS
TEMPORARY PAVEMENT (12")	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 mm) 1 1/2"	4% @ 50 Gyr.
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 10 1/2" (IN 4 LIFTS)	4% @ 50 Gyr.
PEDESTRIAN PATH	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 mm) 2"	4% @ 50 Gyr.

NOTE 1: THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.

NOTE 2: THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.

NOTE 3: FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

FILE NAME = DI60K64-SHT-TYPICAL02.dgn	USER NAME = jlatour	DESIGNED - JPW	REVISED -
		DRAWN - JPW	REVISED -
	PLOT SCALE = 1:10	CHECKED - MJT	REVISED -
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE: N.T.S. | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	9
	TS-02	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			

EARTHWORK SCHEDULE WESTBOUND TRACK

BEGIN STATION	END STATION	EARTH EXCAVATION	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	EXCAVATION TO BE USED IN EMBANKMENT ADJUSTED FOR SHRINKAGE*	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
		CU. YD.	CU. YD.	CU. YD.	CU. YD.	CU. YD.
EAST OF BRIDGE						
4192+00.00	4196+00.00	0	78	0	156	-156
WEST OF BRIDGE						
4197+00.00	4205+00.00	50	949	43	15,015	-14,972
SUB TOTAL		50	1,027	43	15,171	-15,128

EARTHWORK SCHEDULE PED PATH

BEGIN STATION	END STATION	EARTH EXCAVATION	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	EXCAVATION TO BE USED IN EMBANKMENT ADJUSTED FOR SHRINKAGE*	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
		CU. YD.	CU. YD.	CU. YD.	CU. YD.	CU. YD.
PAID FOR UNDER CONSTRUCTION CODE 0003						
158+00.00	168+00.00	0	249	0	4,016	-4,016
PAID FOR UNDER CONSTRUCTION CODE 0021						
168+00.00	171+00.00	43	239	37	2,023	-1,986
SUB TOTAL		43	488	37	6,039	-6,002

EARTHWORK SCHEDULE - TEMPORARY PAVEMENT EXTRACTION

BEGIN STATION	END STATION	EARTH EXCAVATION	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	EXCAVATION TO BE USED IN EMBANKMENT ADJUSTED FOR SHRINKAGE*	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
		CU. YD.	CU. YD.	CU. YD.	CU. YD.	CU. YD.
290+00.00	295+00.00	242	0	206	0	206
295+00.00	298+50.00	251	0	213	0	213
SUB TOTAL		493	0	419	0	419

EARTHWORK SUMMARY BY LOCATION

LOCATION	EARTH EXCAVATION	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	EXCAVATION TO BE USED IN EMBANKMENT ADJUSTED FOR SHRINKAGE*	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CU. YD.	CU. YD.	CU. YD.	CU. YD.	CU. YD.
WB TRACK	50	1,027	43	15,171	-15,128
PED PATH	43	488	37	6,039	-6,002
APPROACH TO PED PATH (SEE XS-P08)	12	37	10	168	-158
MAINTENANCE OF TRAFFIC	493	0	419	0	419
TOTAL	598	1,552	509	21,378	-20,869

EARTHWORK SUMMARY

DESRIPTION	QUANTITY	UNIT
EARTH EXCAVATION	598	CU YD
REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	1,552	CU YD
FURNISHED EXCAVATION	20,869	CU YD

EROSION CONTROL SCHEDULE

	TEMPORARY EROSION CONTROL SEEDING	TEMPORARY DITCH CHECKS	PERIMETER EROSION BARRIER	INLET FILTERS
	POUND	FOOT	FOOT	EACH
SHEET				
EC-01 (Top)	-	-	-	-
EC-01 (Bottom)	155	80	185	2
EC-02 (Top)	85	60	660	1
EC-02 (Bottom)	-	-	-	-
SUB-TOTAL	240	140	845	3
AT THE ENGINEER'S DISCRETION	25	15	85	1
GRAND TOTAL	265	155	930	4

• ASSUME 15% FOR SHRINKAGE

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

FILE NAME = DI60K64-SHT-SCHEDULE01.dgn	USER NAME = jlatour	DESIGNED - JCL	REVISED -
		DRAWN - JCL	REVISED -
	PLOT SCALE = 1:50	CHECKED - MTJ	REVISED -
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

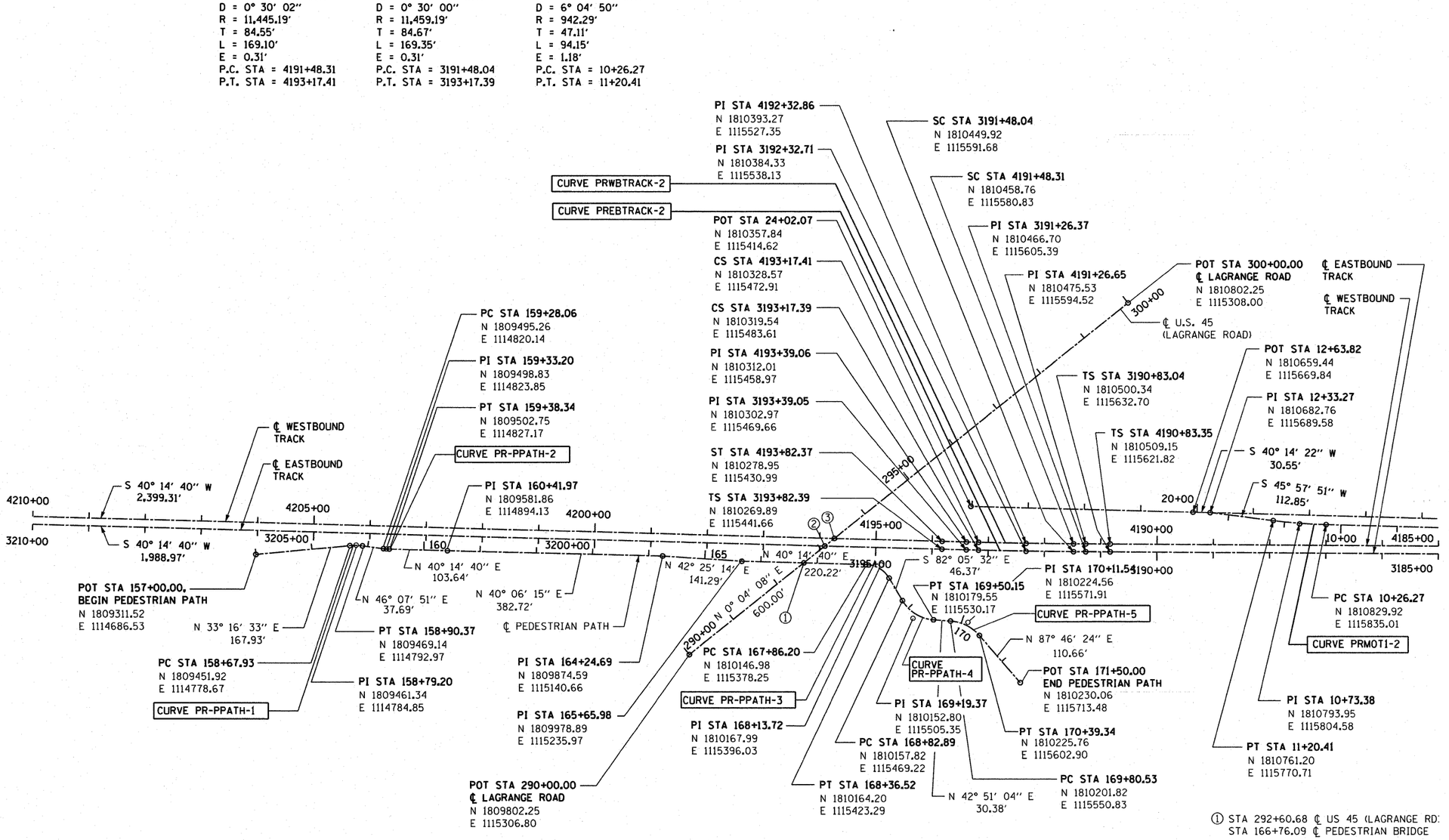
SCALE: | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	10
	SC-01	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			

PROP. CURVE PRWBTRACK-2
PI STA. = 4192+32.86
Δ = 0° 50′ 48″ (RT)
D = 0° 30′ 02″
R = 11,445.19′
T = 84.55′
L = 169.10′
E = 0.31′
P.C. STA = 4191+48.31
P.T. STA = 4193+17.41

PROP. CURVE PREBTRACK-2
PI STA. = 3192+32.71
Δ = 0° 50′ 48″ (RT)
D = 0° 30′ 00″
R = 11,459.19′
T = 84.67′
L = 169.35′
E = 0.31′
P.C. STA = 3191+48.04
P.T. STA = 3193+17.39

PROP. CURVE PRMOT1-2
PI STA. = 10+73.38
Δ = 5° 43′ 29″ (RT)
D = 6° 04′ 50″
R = 942.29′
T = 47.11′
L = 94.15′
E = 1.18′
P.C. STA = 10+26.27
P.T. STA = 11+20.41



PROP. CURVE PR-PPATH-1
PI STA. = 158+79.20
Δ = 12° 51′ 17″ (RT)
D = 57° 17′ 45″
R = 100.00′
T = 11.27′
L = 22.44′
E = 0.63′
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA = 158+67.93
P.T. STA = 158+90.37

PROP. CURVE PR-PPATH-2
PI STA. = 159+33.20
Δ = 5° 53′ 11″ (LT)
D = 57° 17′ 45″
R = 100.00′
T = 5.14′
L = 10.27′
E = 0.13′
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA = 159+28.06
P.T. STA = 159+38.34

PROP. CURVE PR-PPATH-3
PI STA. = 168+13.72
Δ = 57° 39′ 48″ (RT)
D = 114° 35′ 30″
R = 50.00′
T = 27.52′
L = 50.32′
E = 7.08′
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA = 167+86.20
P.T. STA = 168+36.52

PROP. CURVE PR-PPATH-4
PI STA. = 169+19.37
Δ = 55° 03′ 24″ (LT)
D = 81° 51′ 04″
R = 70.00′
T = 36.48′
L = 67.26′
E = 8.94′
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA = 168+82.89
P.T. STA = 169+50.15

PROP. CURVE PR-PPATH-5
PI STA. = 170+11.54
Δ = 44° 55′ 20″ (RT)
D = 76° 23′ 40″
R = 75.00′
T = 31.01′
L = 58.80′
E = 6.16′
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA = 169+80.53
P.T. STA = 170+39.34

① STA 292+60.68 ℄ US 45 (LAGRANGE RD)
STA 166+76.09 ℄ PEDESTRIAN BRIDGE

② STA 293+08.73 ℄ US 45 (LAGRANGE RD)
STA 3195+90.57 ℄ EB TRACK (METRA)

③ STA 293+30.43 ℄ US 45 (LAGRANGE RD)
STA 4195+73.99 ℄ WB TRACK (METRA)

NOTE:
PR-PPATH = PROPOSED PEDESTRIAN PATH

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Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

FILE NAME = D160K64-SHT-ATB01.dgn	USER NAME = jlatour	DESIGNED - BA	REVISED -
		DRAWN - BA	REVISED -
	PLOT SCALE = 1:100	CHECKED - MJT	REVISED -
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALIGNMENT TIES AND BENCHMARKS

SCALE: 1"=100′ | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	11
	TB-01	CONTRACT NO. 60K64		
	ILLINOIS	FED. AID PROJECT		

TEMPORARY BENCHMARK "D"

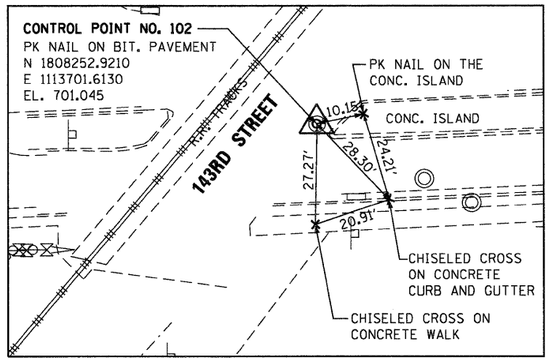
CHISELED CROSS ON THE NE'LY ANCHOR BOLT OF THE ELECTRIC BILLBOARD SIGN, ±50' NW'LY OF SW'LY PLATFORM OF METRA STATION.
N 1808925.7770
E 1114323.0220
EL. 699.845

TEMPORARY BENCHMARK "2"

CHISELED CROSS ON THE NE'LY BOLT OF W'LY LIGHT POLE ±60 FT. NORTH OF N'LY EDGE OF SOUTHWEST HIGHWAY BRIDGE.
N 1810394.3530
E 1115239.3170
EL. 678.745

TEMPORARY BENCHMARK "F"

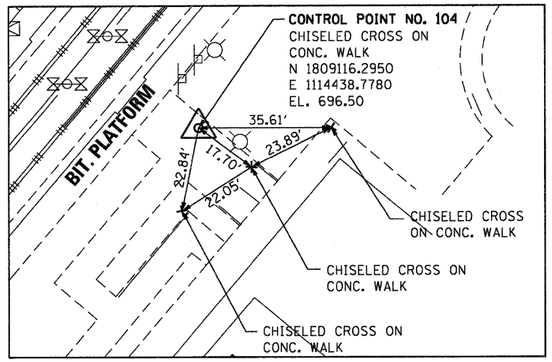
SET RR SPIKE ON NE SIDE OF POWER POLE LOCATED WEST OF BITUMINOUS/GRAVEL DRIVEWAY. ±900 FT. E. OF LAGRANGE ROAD ±45 FT. SOUTH OF ℄ SOUTHWEST HIGHWAY.
N 1810949.7535
E 1115793.8830
EL. 682.63



LOCATION DESCRIPTION: STA. 4220+46.13, 22.89' EAST OF ℄ RAILROAD TRACKS. 0.18 MILES SOUTH OF THE WEST EDGE OF METRA STATION BUILDING.

CONTROL POINT NO. 102

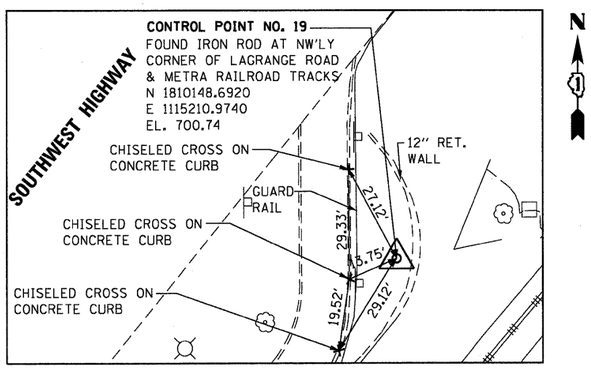
SCALE: 1" = 20'



LOCATION DESCRIPTION: STA. 4209+10.83, 27.86' EAST OF ℄ EASTBOUND RAILROAD TRACKS. 25.69' NORTH OF EAST EDGE OF METRA STATION BUILDING.

CONTROL POINT NO. 104

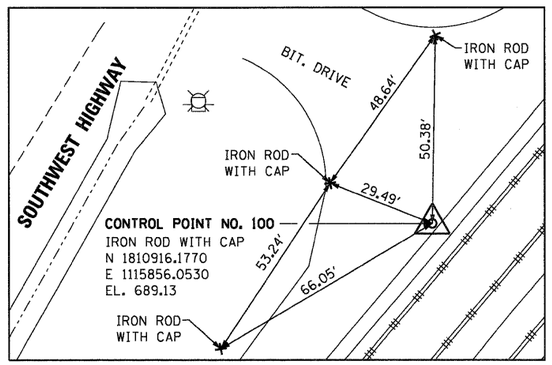
SCALE: 1" = 20'



LOCATION DESCRIPTION: STA. 4196+23.93, 36.11' WEST OF ℄ WESTBOUND RAILROAD TRACKS. 66.21' FROM INTERSECTION OF LAGRANGE ROAD AND ℄ EASTBOUND RR TRACKS.

CONTROL POINT NO. 19

SCALE: 1" = 20'



LOCATION DESCRIPTION: STA. 4186+21.36, 9.66' WEST OF ℄ WESTBOUND RAILROAD TRACKS. 83.00' EAST OF THE SOUTH END OF THE DRAINAGE CULVERT.

CONTROL POINT NO. 100

SCALE: 1" = 20'

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130 East Randolph Street Chicago, Illinois 60601

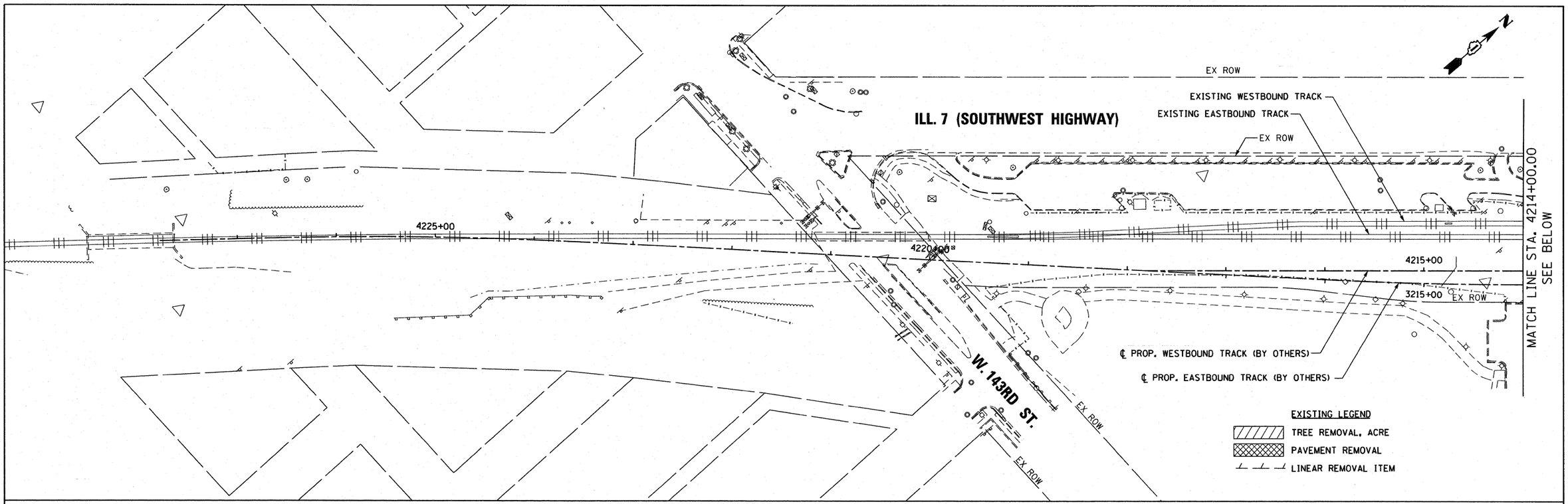
FILE NAME = D160K64-SHT-ATB02.dgn	USER NAME = MTomasze	DESIGNED - JPW	REVISED -
		DRAWN - JPW	REVISED -
	PLOT SCALE = 1:100	CHECKED - BA	REVISED -
	PLOT DATE = 12/16/10	DATE - 12/17/10	REVISED -

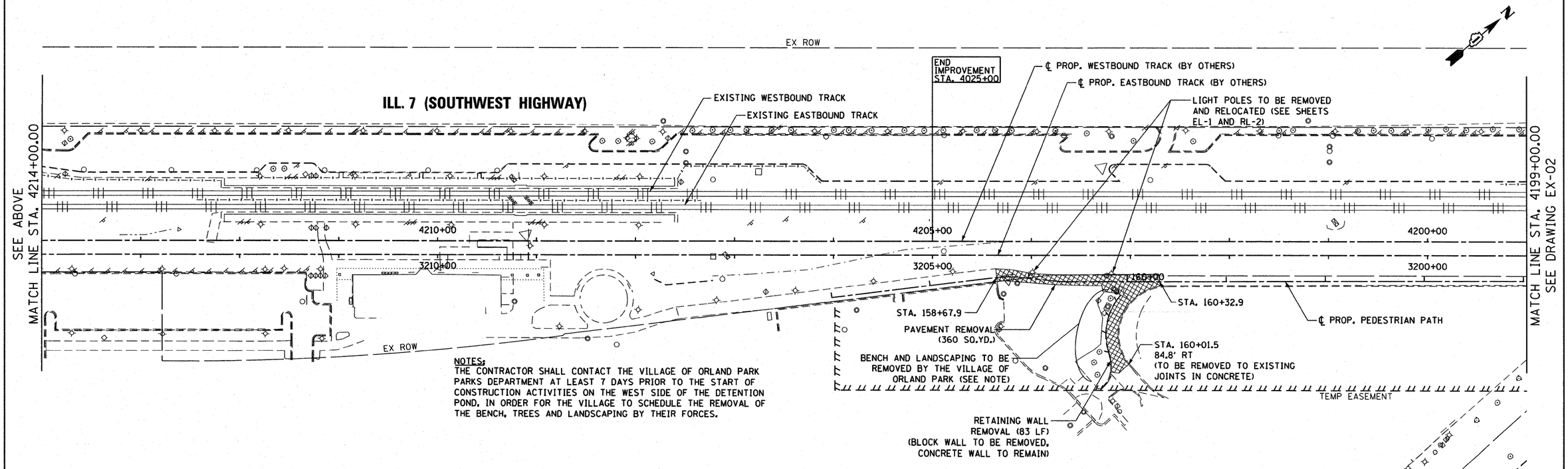
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALIGNMENT TIES AND BENCHMARKS

SCALE: 1"=20' | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	12
	TB-02	CONTRACT NO. 60K64		
	ILLINOIS	FED. AID PROJECT		





NOTES:
THE CONTRACTOR SHALL CONTACT THE VILLAGE OF ORLAND PARK PARKS DEPARTMENT AT LEAST 7 DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES ON THE WEST SIDE OF THE DETENTION POND, IN ORDER FOR THE VILLAGE TO SCHEDULE THE REMOVAL OF THE BENCH, TREES AND LANDSCAPING BY THEIR FORCES.

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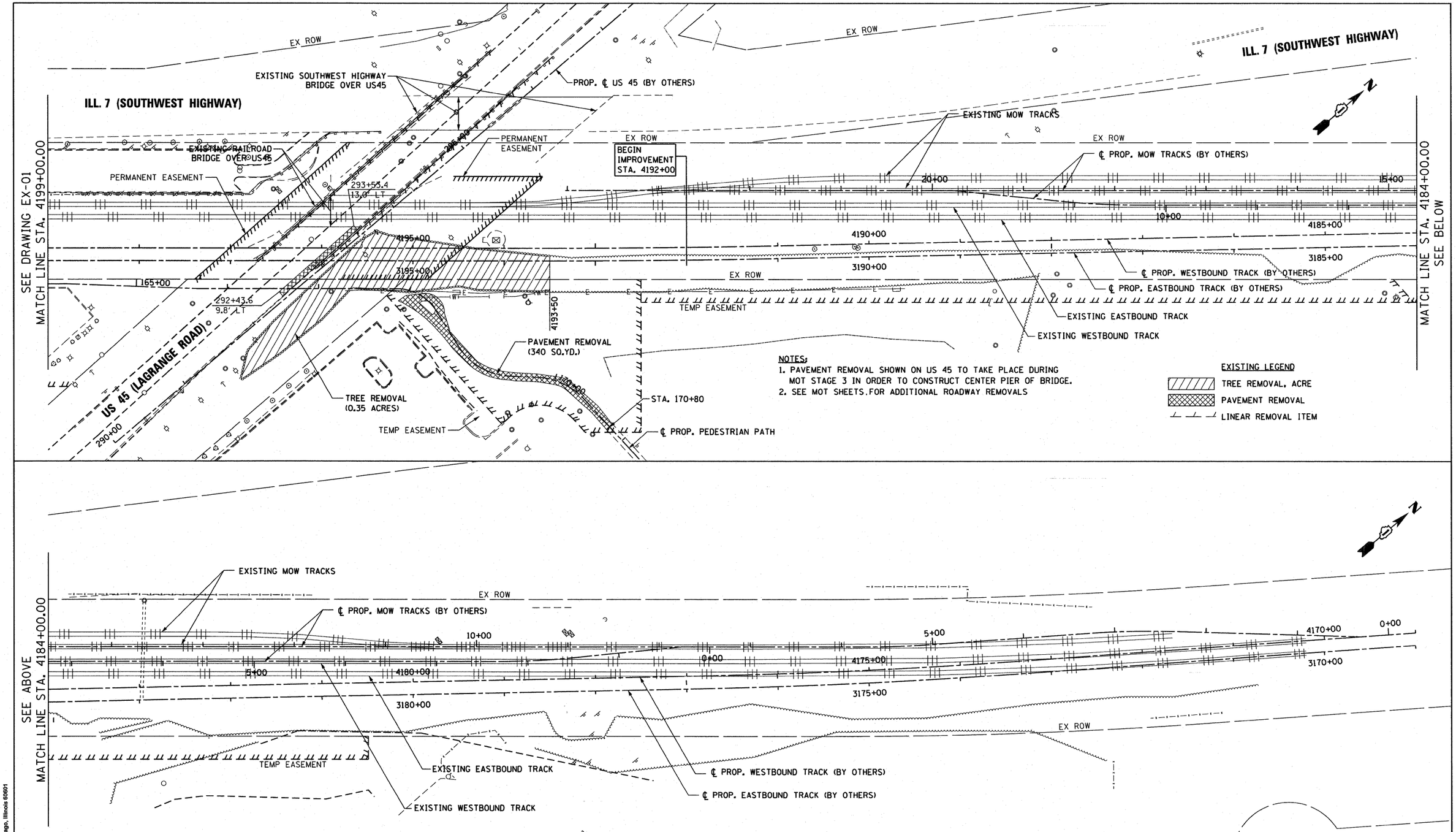
FILE NAME = D160K64-SHT-REM01.dgn	USER NAME = jlatour	DESIGNED - BA	REVISED -
		DRAWN - BA	REVISED -
	PLOT SCALE = 1:50	CHECKED - MJT	REVISED -
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLAN AND REMOVALS

SCALE: 1"=50' | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	13
	EX-01	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			



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FILE NAME = DI60K64-SHT-REM02.dgn	USER NAME = jlatour	DESIGNED - BA	REVISED -
		DRAWN - BA	REVISED -
	PLOT SCALE = 1:50	CHECKED - MJT	REVISED -
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

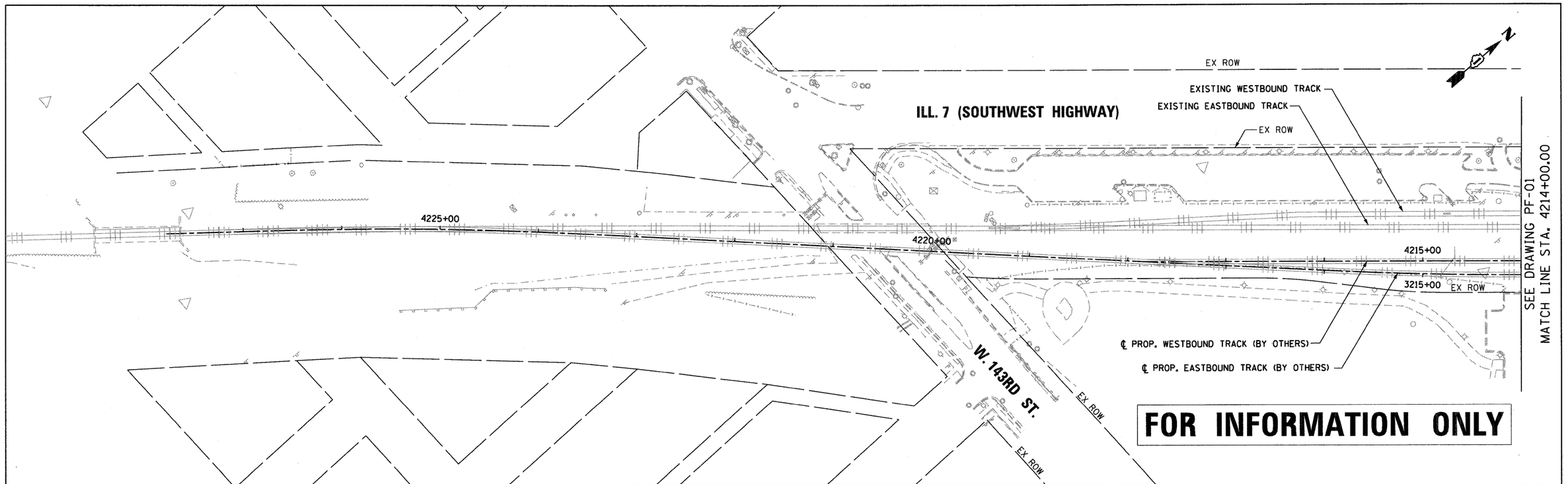
EXISTING PLAN AND REMOVALS

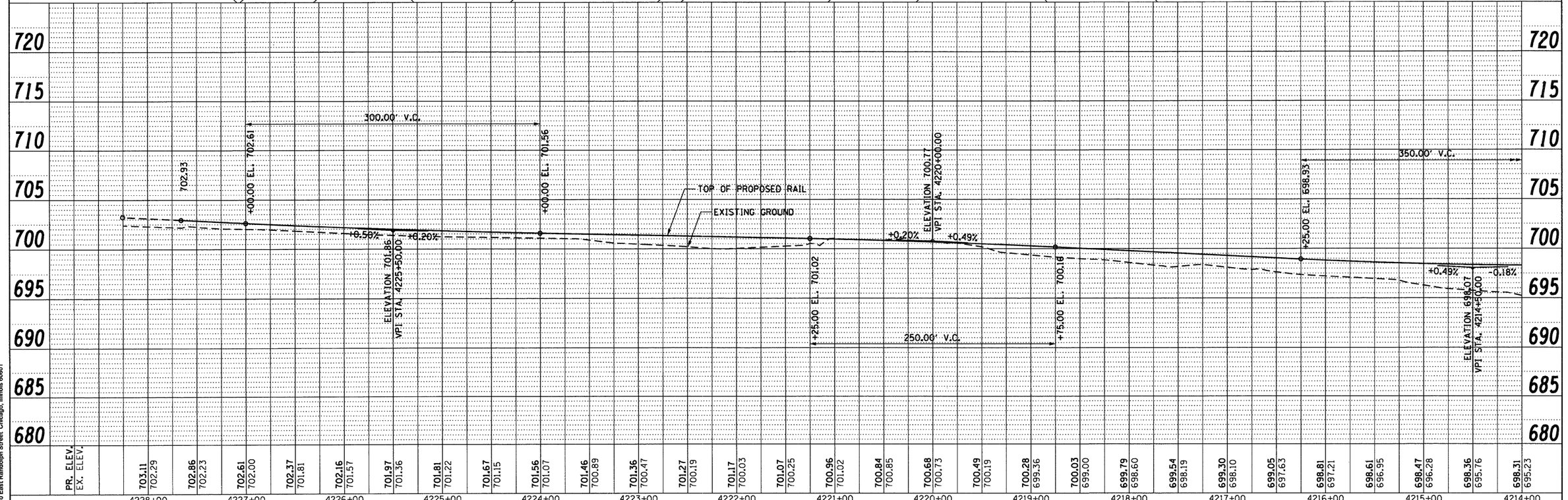
SCALE: 1"=50' | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	14
	EX-02	CONTRACT NO. 60K64		
	ILLINOIS	FED. AID PROJECT		

PLAN
SURVEYED
ALIGNMENT
RT. OF WAY
ADD'D FILE NAME
NOTE BOOK
NO.
CHECKED
CHECKED
DATE
BY

PROFILE
SURVEYED
PLOTTED
CHECKED
CHECKED
B.M. NOTED
STRUCTURE NOTATIONS CHKD
NOTE BOOK
NO.
DATE
BY





PR. ELEV. / EX. ELEV.	4228+00	4227+00	4226+00	4225+00	4224+00	4223+00	4222+00	4221+00	4220+00	4219+00	4218+00	4217+00	4216+00	4215+00	4214+00
PR. ELEV.	703.11	702.86	702.61	702.37	702.16	701.97	701.81	701.67	701.56	701.46	701.36	701.27	701.17	701.07	700.96	700.84	700.68	700.49	700.28	700.03	699.79	699.54	699.30	699.05	698.81	698.61	698.47	698.36	698.31
EX. ELEV.	702.29	702.23	702.00	701.81	701.57	701.36	701.22	701.15	701.07	700.89	700.47	700.19	700.03	700.25	701.02	700.85	700.73	700.19	699.36	699.00	698.60	698.19	698.10	697.63	697.21	696.95	696.28	695.76	695.23

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130 East Randolph Street Chicago, Illinois 60601

FILE NAME = D160K64-SHT-PLNPRF01.dgn	USER NAME = MTomasze	DESIGNED - JTF	REVISED -
		DRAWN - JTF	REVISED -
	PLOT SCALE = 1:50	CHECKED - MJT	REVISED -
	PLOT DATE = 12/16/10	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED PLAN AND PROFILE

SCALE: 1"=50' | SHEET NO. 1 OF 5 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	15
	PF-01	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			

FOR INFORMATION ONLY

EX ROW

SEE DRAWING PF-01
MATCH LINE STA. 4214+00.00

EXISTING WESTBOUND TRACK
EXISTING EASTBOUND TRACK

ILL. 7 (SOUTHWEST HIGHWAY)

℄ PROP. WESTBOUND TRACK (BY OTHERS)
℄ PROP. EASTBOUND TRACK (BY OTHERS)

4210+00
3210+00
4205+00
3205+00
4200+00
3200+00
160+00

℄ PEDESTRIAN PATH
SEE SHEETS PF-05
FOR DETAILS

END
IMPROVEMENT
STA. 4205+00

EX ROW

TEMP EASEMENT

EXISTING RETAINING WALL TO BE MODIFIED
SEE STRUCTURAL SHEETS FOR DETAILS

SEE DRAWING PF-03
MATCH LINE STA. 4199+00.00

PT	STATION	OFFSET
1	4205+98.6	60.5' LT
2	4205+98.6	151.7' LT

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

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
B.M. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
BY
DATE

350.00' V.C.

+75.00 EL. 698.39

TOP OF PROPOSED RAIL
EXISTING GROUND

720 715 710 705 700 695 690 685 680

4214+00	4213+00	4212+00	4211+00	4210+00	4209+00	4208+00	4207+00	4206+00	4205+00	4204+00	4203+00	4202+00	4201+00	4200+00	4199+00
698.31	698.35	698.43	698.52	698.61	698.70	698.79	698.88	698.98	699.07	699.16	699.25	699.34	699.43	699.52	699.61	699.70	699.79	699.88	699.97	700.06	700.15	700.24	700.33	700.42	700.51	700.61	700.70	700.79	700.88
695.23	693.90	694.75	696.26	696.87	697.77	698.12	698.63	697.99	697.01	696.80	696.09	693.98	693.22	693.16	693.27	693.64	692.61	691.73	691.42	690.20	690.17	689.33	689.33	689.28	689.18	688.93	688.94	688.93	689.09
EX. ELEV.																													
PR. ELEV.																													
698.31																													
694.64																													

McDonough Associates Inc.
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130 East Randolph Street Chicago, Illinois 60601

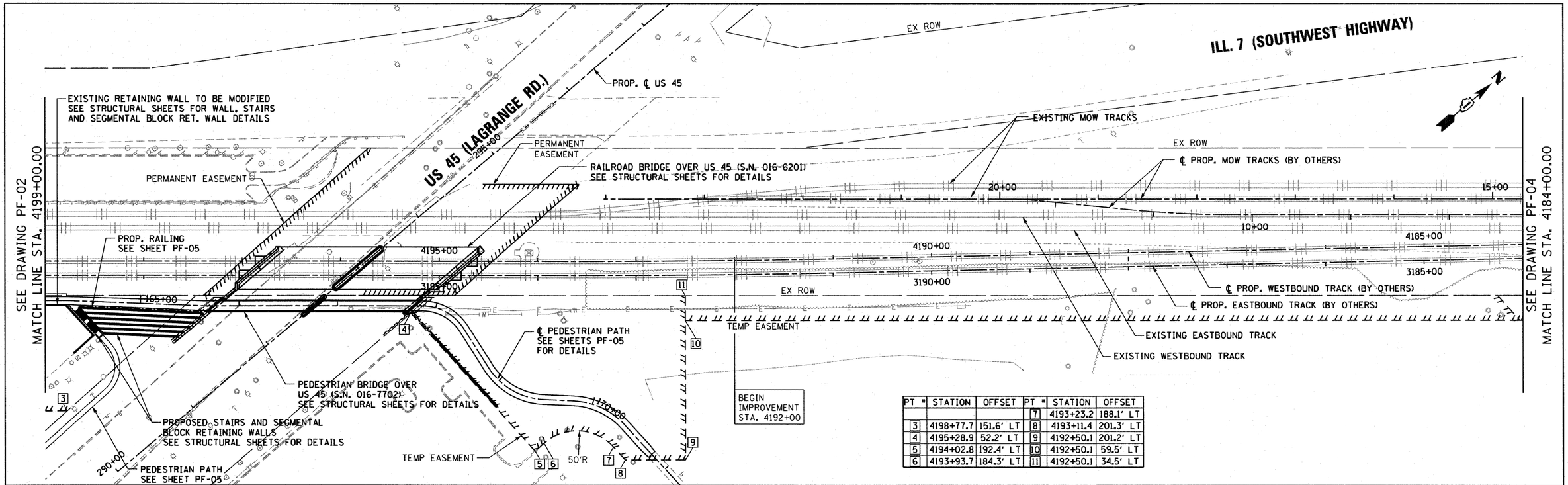
FILE NAME = D160K64-SHT-PLNPRF02.dgn	USER NAME = jlatour	DESIGNED - JTF	REVISED -
		DRAWN - JTF	REVISED -
	PLOT SCALE = 1:50	CHECKED - MJT	REVISED -
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

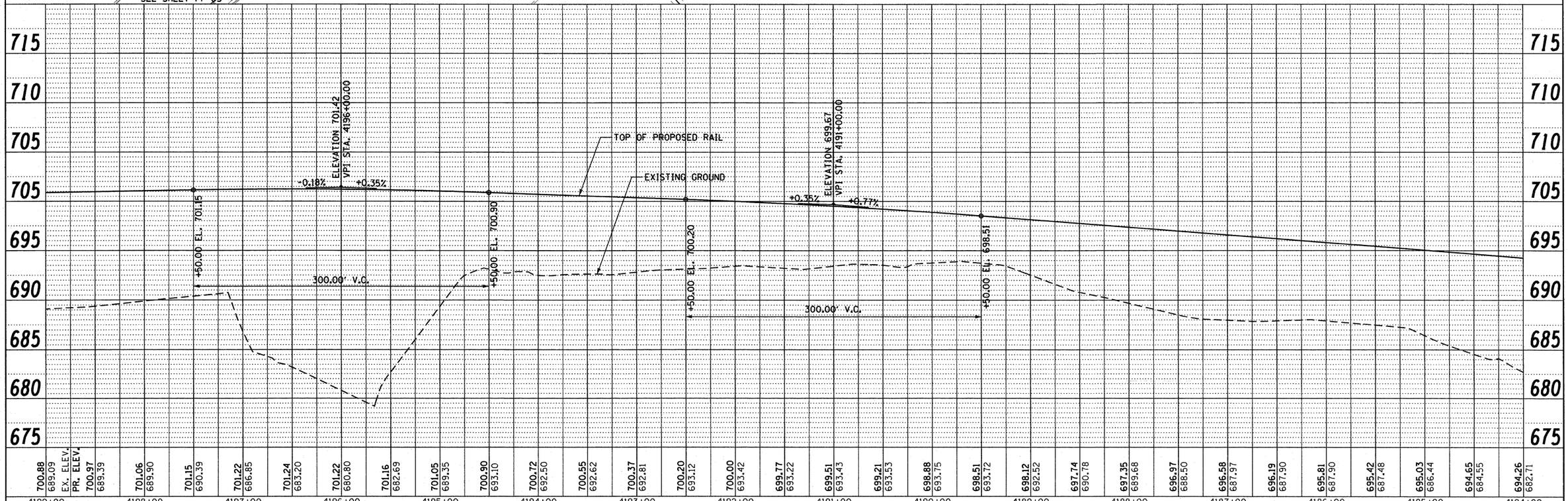
PROPOSED PLAN AND PROFILE

SCALE: 1"=50' | SHEET NO. 2 OF 5 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	16
	PF-02	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			



PT #	STATION	OFFSET	PT #	STATION	OFFSET
			7	4193+23.2	188.1' LT
3	4198+77.7	151.6' LT	8	4193+11.4	201.3' LT
4	4195+28.9	52.2' LT	9	4192+50.1	201.2' LT
5	4194+02.8	192.4' LT	10	4192+50.1	59.5' LT
6	4193+93.7	184.3' LT	11	4192+50.1	34.5' LT



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

PROFILE: SURVEYED | PLOTTED | DRAWN | CHECKED | H.W. NOTED | STRUCTURE NOTATNS CHKD | NOTE BOOK | NO. | BY | DATE

McDonough Associates Inc.
Engineers / Architects
180 East Randolph Street Chicago, Illinois 60601

FILE NAME = D160K64-SHT-PLNPRF03.dgn	USER NAME = jletour	DESIGNED - JTF	REVISED -
		DRAWN - JTF	REVISED -
	PLOT SCALE = 1:50	CHECKED - MJT	REVISED -
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED PLAN AND PROFILE

SCALE: 1"=50' | SHEET NO. 3 OF 5 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	17
	PF-03	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			

FOR INFORMATION ONLY

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

SEE DRAWING PF-03
MATCH LINE STA. 4184+00.00

EXISTING MOW TRACKS
EX ROW
℄ PROP. MOW TRACKS (BY OTHERS)
10+00
5+00
0+00
4180+00
3180+00
4175+00
3175+00
5+00
4170+00
3170+00
0+00
EX ROW
TEMP EASEMENT
13
12
EXISTING EASTBOUND TRACK
EXISTING WESTBOUND TRACK
℄ PROP. WESTBOUND TRACK (BY OTHERS)
℄ PROP. EASTBOUND TRACK (BY OTHERS)

PT #	STATION	OFFSET
12	4180+51.1	62.1' LT
13	4180+50.4	37.1' LT

PROFILE
SURVEYED | BY
PLOTTED | DATE
ALIGNMENT CHECKED
RT. OF WAY NOTED
NOTE BOOK | STRUCTURE NOTATNS CHKD
NO.

705
700
695
690
685
680
675
670
665

TOP OF PROPOSED RAIL
EXISTING GROUND
300.00' V.C.
+50.00 EL. 689.24
+50.00 EL. 687.71
ELEVATION 688.08
VPI STA. 4176+00.00
ELEVATION 687.24
VPI STA. 4172+58.61
+0.77%
+0.25%
+0.25%
+0.25%
686.77

	694.26	693.88	693.49	693.10	692.72	692.33	691.94	691.56	691.17	690.78	690.40	690.01	689.63	689.24	688.87	688.55	688.28	688.04	687.86	687.71	687.59	687.46	687.34	687.22	687.10	686.97	686.85
EX. ELEV.	682.71																										
PR. ELEV.		680.26	677.17	677.54	678.53	678.81	679.26	679.56	680.33	681.12	681.64	682.33	683.21	684.21	685.11	685.78	687.50	687.47	687.39	687.24	687.05	686.75	686.53	686.40	686.26	686.24	686.13

4184+00 4183+00 4182+00 4181+00 4180+00 4179+00 4178+00 4177+00 4176+00 4175+00 4174+00 4173+00 4172+00 4171+00

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130 East Randolph Street Chicago, Illinois 60601

FILE NAME = D160K64-SHT-PLNPRF04.dgn	USER NAME = jlatour	DESIGNED - JTF	REVISED -
		DRAWN - JTF	REVISED -
	PLOT SCALE = 1:50	CHECKED - MJT	REVISED -
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED PLAN AND PROFILE

SCALE: 1"=50' | SHEET NO. 4 OF 5 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	18
	PF-04	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			

EX ROW

℄ PROP. WESTBOUND TRACK (BY OTHERS)

℄ PROP. EASTBOUND TRACK (BY OTHERS)

EXISTING RETAINING WALL TO BE MODIFIED
SEE STRUCTURAL SHEETS FOR WALL, STAIRS
AND SEGMENTAL BLOCK RET. WALL DETAILS

BEGIN PEDESTRIAN PATH
STA. 158+68
MATCH EXISTING

CONCRETE GUTTER, TYPE B

160+10.0 GUTTER TYPE B

164+38.19 RAILING

PROP. RAILING (131 LF)
SEE STRUCTURAL SHEETS
FOR DETAILS

PERMANENT EASEMENT

US 45 (LAGRANGE RD.)

PERMANENT EASEMENT

RAILROAD BRIDGE OVER US 45 (S.N. 016-6201)
SEE STRUCTURAL SHEETS FOR DETAILS

167+86.58 END APPROACH SLAB

4205+00 · 4200+00 · 4195+00 · 3205+00 · 3200+00 · 3195+00 · 290+00 · 295+00

+90.0 · 150+00 · 165+00

4' · 13' · 8' · 4' · 8' · 4' · 10' · 5'

℄ PEDESTRIAN PATH

PCC SIDEWALK, 6 INCH

PEDESTRIAN PATH
SEE TYPICAL SECTIONS
FOR DETAILS

SEE SHEET PD-01
FOR DETAILS

+24.69 GUTTER

+65.98

12.8'

51.1'

35' R

PEDESTRIAN PATH
SEE TYPICAL SECTIONS
(TS-02) FOR MATERIALS

106.1'

5' TYP.

TEMP EASEMENT

CONNECT TO PROPOSED SIDEWALK (BY OTHERS)
APPROX. 170' LF FROM STAIRS

FOR CURVE DATA
SEE SHEET ATB-01

165+68.38 RAILING

165+65.61 END APPROACH SLAB

167+69.48
BEGIN FENCE

168+06.26
BEGIN WALL

SEGMENTAL BLOCK
RETAINING WALL (260 SQ FT)

CHAIN LINK FENCE, 4'
(137 LF)

EX ROW

TEMP EASEMENT

PROPOSED PEDESTRIAN BRIDGE OVER
US 45 (S.N. 016-7702)
SEE STRUCTURAL SHEETS FOR DETAILS

169+13.22 END WALL

FENCE

TEMP EASEMENT

110+00 · 170+00 · 170+10

END PEDESTRIAN PATH
STA. 170+80
MATCH EXISTING

PROPOSED STAIRS AND SEGMENTAL
BLOCK RETAINING WALLS
SEE STRUCTURAL SHEETS FOR DETAILS

PROFILE

PROPOSED PROFILE

EXISTING GROUND

715 · 710 · 705 · 695 · 690 · 685 · 680 · 675

696.52

+56.54 EL. 695.39 · 60.00' V.C. · +16.54 EL. 695.08 · -0.23% · +0.18%

VPI STA. 159+86.54
ELEVATION 695.02

+56.10 EL. 695.69 · 110.00' V.C. · +56.10 EL. 698.41 · +4.75% · +0.50%

VPI STA. 164+11.10
ELEVATION 695.79

VPI STA. 165+25.98
ELEVATION 701.25

+75.98 EL. 698.88 · 100.00' V.C. · +75.98 EL. 701.50

VPI STA. 166+76.09
ELEVATION 702.00

+0.50% · -0.50%

+76.20 EL. 701.50 · 100.00' V.C. · +76.20 EL. 698.87

VPI STA. 168+76.20
ELEVATION 701.25

-4.75% · +59.46 EL. 694.92 · 100.00' V.C. · +59.46 EL. 692.30

VPI STA. 170+09.46
ELEVATION 692.59

692.19

	157+00	158+00	159+00	160+00	161+00	162+00	163+00	164+00	165+00	166+00	167+00	168+00	169+00	170+00	171+00
EX. ELEV.		696.36	697.02	697.12	696.64	694.96	692.39	689.91	687.63	687.44	687.22	687.16	686.92	686.77	686.95	685.94	684.29	681.87	679.33	678.70	679.02	684.31	688.38	690.96	691.00	691.48	691.42	691.44	691.75	692.11	692.08
PR. ELEV.		696.36	697.02	697.12	696.64	696.09	695.47	695.08	695.14	695.23	695.32	695.41	695.50	695.59	695.68	696.17	697.69	699.89	701.23	701.62	701.87	701.88	701.63	701.26	699.97	697.74	695.37	693.34	692.36		

PLAN

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

PROFILE

SURVEYED · PLOTTED · GRADES CHECKED · BM. NOTED · STRUCTURE NOTATNS CHKD · NOTE BOOK · NO. · BY · DATE

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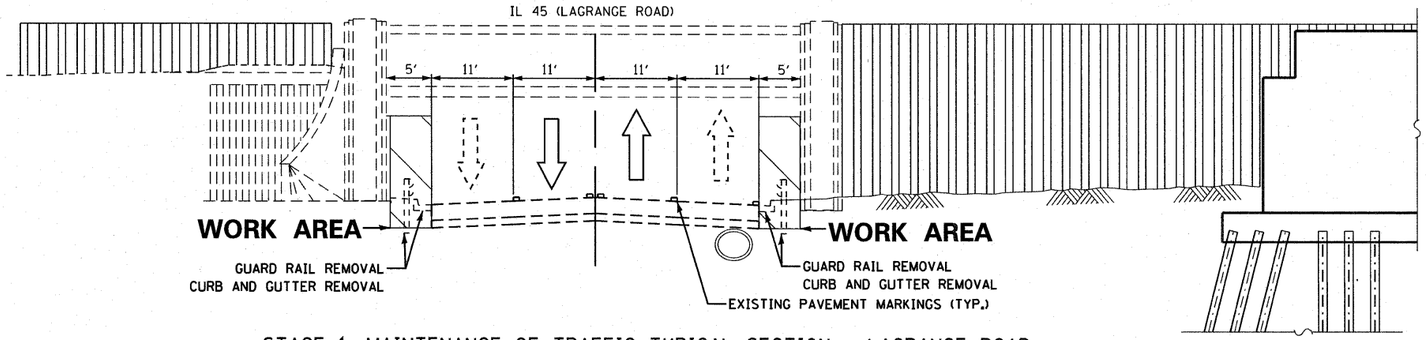
FILE NAME = D160K64-SHT-PLNPRF05.dgn	USER NAME = jlatour	DESIGNED - JTF	REVISED -	
		DRAWN - JTF	REVISED -	
	PLOT SCALE = 1:50	CHECKED - MJT	REVISED -	
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

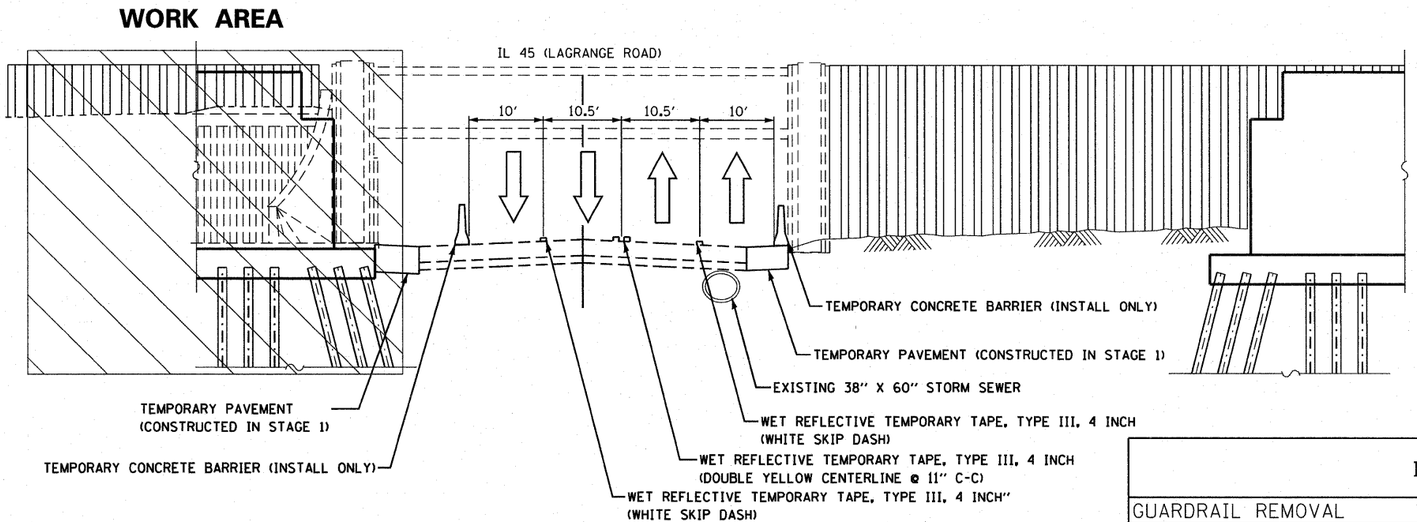
PEDESTRIAN PATH PROPOSED PLAN AND PROFILE

SCALE: 1"=50' | SHEET NO. 5 OF 5 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	19
	PF-05	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			



STAGE 1: MAINTENANCE OF TRAFFIC TYPICAL SECTION - LAGRANGE ROAD
STA. 291+00 TO STA. 297+00 (OFF-PEAK LANE CLOSURE)



STAGE 2: MAINTENANCE OF TRAFFIC TYPICAL SECTION - LAGRANGE ROAD
STA. 291+00 TO STA. 297+00

M.O.T. GENERAL NOTES

1. REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE PAID FOR AS "PAVEMENT MARKING REMOVAL." REMOVAL OF SHORT TERM OR TEMPORARY PAVEMENT MARKINGS SHALL BE PAID FOR AS "WORK ZONE PAVEMENT MARKING REMOVAL."
2. OPPOSING LANES OF TRAFFIC ON LAGRANGE ROAD WILL BE DELIMITED AT ALL TIMES THROUGHOUT CONSTRUCTION BY TWO 4-INCH YELLOW TEMPORARY PAVEMENT MARKING LINES AT 11-INCH CENTERS.
3. ACCESS TO DRIVEWAYS AND SIDE ROADS IS TO BE MAINTAINED DURING CONSTRUCTION.
4. CONSTRUCTION OF THE AT-GRADE CROSSING OF THE RAILROAD AND 143RD STREET WILL TAKE PLACE DURING A COMPLETE CLOSURE OF 143RD STREET. THE DATE AND DURATION SHALL BE DETERMINED BY THE RESIDENT ENGINEER AND METRA.
5. COORDINATE MAINTENANCE OF TRAFFIC WITH ADJACENT 143RD STREET AND LAGRANGE INTERSECTION IMPROVEMENTS.
6. ADJUST DRAINAGE STRUCTURES AND REINFORCE FOR TRAFFIC LOAD USING A 1" STEEL PLATE WITH HOLES CUT FOR DRAINAGE. TACK WELD PLATE TO STRUCTURE.
7. LOCATION OF THE STORM SEWER IS APPROXIMATE.
   A. CONTRACTOR TO LOCATE AND DEVISE A PLAN TO SUPPORT THE SEWER DURING EXCAVATION FOR THE CENTER PIER FOUNDATION.
   B. CONTRACTOR TO VISIT SITE PRIOR TO BIDDING.
   ANY WORK TO INVESTIGATE THE LOCATION OF THE SEWER SHALL BE PERFORMED DURING OFF PEAK HOURS.

   RECOMMENDED SEQUENCE:
   1. DETERMINE LOCATION OF THE STORM SEWER.
   2. FORMULATE A PLAN TO SUPPORT/BYPASS THE SEWER DURING CENTER PIER CONSTRUCTION.
   3. PLACE TEMPORARY PAVEMENT ALONG EAST SIDE OF LAGRANGE ROAD.
   4. SHIFT TRAFFIC ONTO TEMPORARY PAVEMENT.
   5. CONSTRUCT WEST ABUTMENT.
   6. PLACE TEMPORARY PAVEMENT ALONG WEST SIDE OF LAGRANGE ROAD.
   7. SHIFT TRAFFIC TO NEWLY PLACED TEMPORARY PAVEMENT.
   8. CONSTRUCT CENTER PIER WHILE IMPLEMENTING CONTRACTOR DESIGNED PLAN TO MAINTAIN EXISTING STORM SEWER/DRAINAGE SYSTEM DURING CONSTRUCTION.

ITEM	UNIT	STAGE 1	STAGE 2	STAGE 3	STAGE 4	TOTALS
GUARDRAIL REMOVAL	FOOT	690				690
PAVEMENT REMOVAL	SQ YD	637		348	289	1274
COMBINATION CURB AND GUTTER REMOVAL	FOOT	1275				1275
TEMPORARY PAVEMENT	SQ YD	637		74*		711
TEMPORARY CONCRETE BARRIER (INSTALL ONLY)	FOOT		1000			1000
WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4 INCH	FOOT		3024	3181		6205
IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE)	EACH		2			2
IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE)	EACH			2		2
IMPACT ATTENUATORS (FULLY REDIRECTIVE)	EACH				2	2
RELOCATE TEMPORARY CONCRETE BARRIER, STATE OWNED	FOOT			1000	1000	2000
COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT			625	650	1275

*QUANTITY USED BETWEEN STAGES 3 AND 4.

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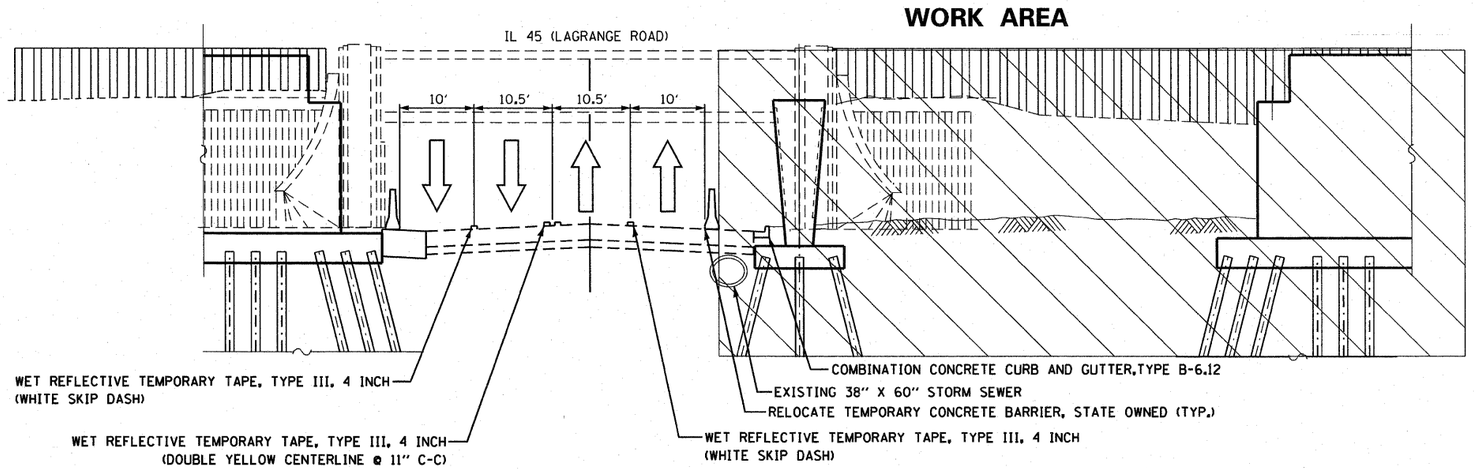
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

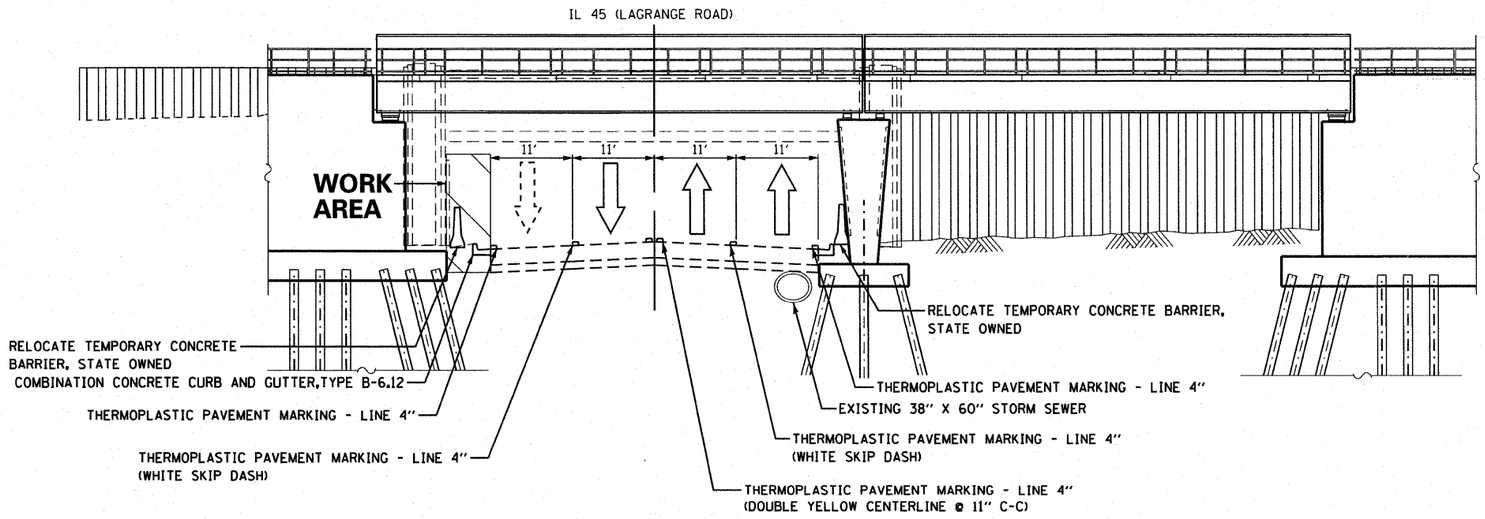
SUGGESTED STAGES OF CONSTRUCTION TYPICAL SECTIONS

SCALE: N.T.S. | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	20
	MN-01	CONTRACT NO. 60K64		
	ILLINOIS	FED. AID PROJECT		



STAGE 3: MAINTENANCE OF TRAFFIC TYPICAL SECTION - LAGRANGE ROAD
STA. 291+00 TO STA. 297+00



STAGE 4: MAINTENANCE OF TRAFFIC TYPICAL SECTION - LAGRANGE ROAD
STA. 291+00 TO STA. 297+00 (OFF-PEAK LANE CLOSURE)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGES OF CONSTRUCTION TYPICAL SECTIONS

SCALE: N.T.S. | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	21
	MN-02	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			

LEGEND

SIGN

TYPE III BARRICADE

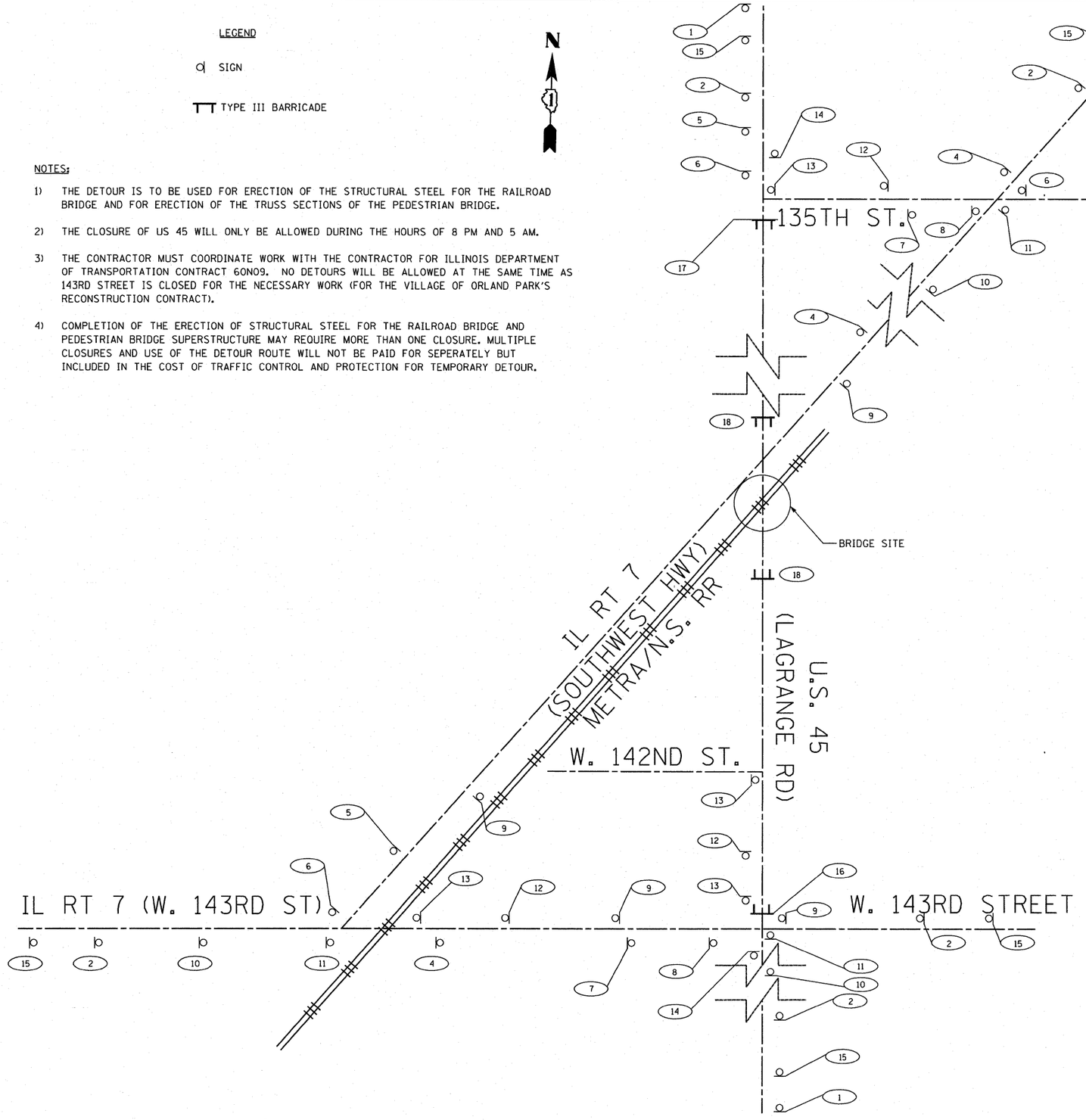
NOTES;

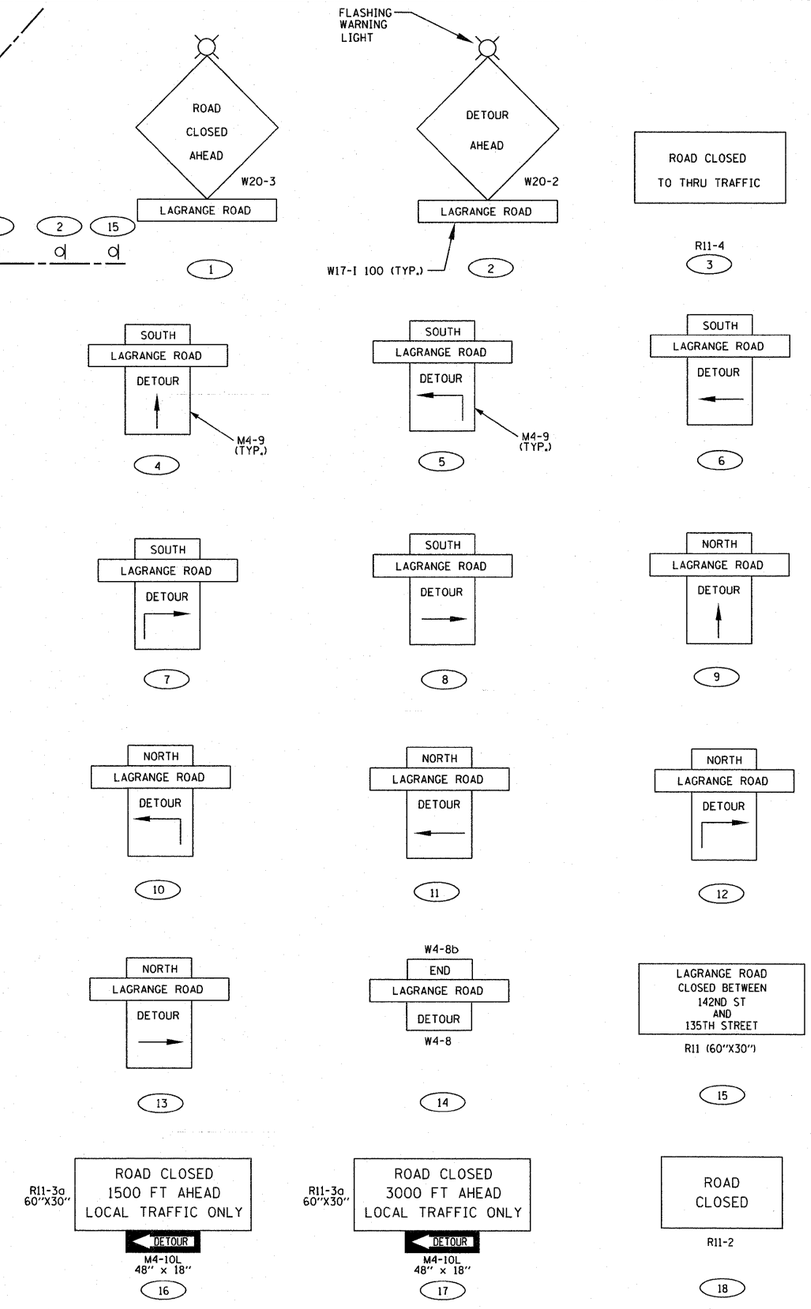
1) THE DETOUR IS TO BE USED FOR ERECTION OF THE STRUCTURAL STEEL FOR THE RAILROAD BRIDGE AND FOR ERECTION OF THE TRUSS SECTIONS OF THE PEDESTRIAN BRIDGE.

2) THE CLOSURE OF US 45 WILL ONLY BE ALLOWED DURING THE HOURS OF 8 PM AND 5 AM.

3) THE CONTRACTOR MUST COORDINATE WORK WITH THE CONTRACTOR FOR ILLINOIS DEPARTMENT OF TRANSPORTATION CONTRACT 60N09. NO DETOURS WILL BE ALLOWED AT THE SAME TIME AS 143RD STREET IS CLOSED FOR THE NECESSARY WORK (FOR THE VILLAGE OF ORLAND PARK'S RECONSTRUCTION CONTRACT).

4) COMPLETION OF THE ERECTION OF STRUCTURAL STEEL FOR THE RAILROAD BRIDGE AND PEDESTRIAN BRIDGE SUPERSTRUCTURE MAY REQUIRE MORE THAN ONE CLOSURE. MULTIPLE CLOSURES AND USE OF THE DETOUR ROUTE WILL NOT BE PAID FOR SEPERATELY BUT INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR.





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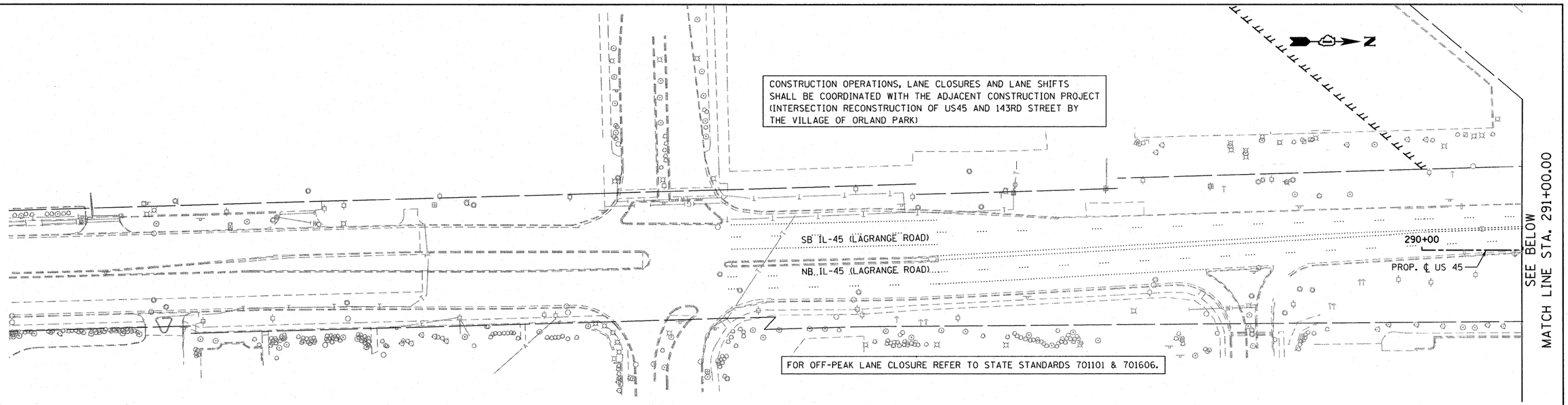
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

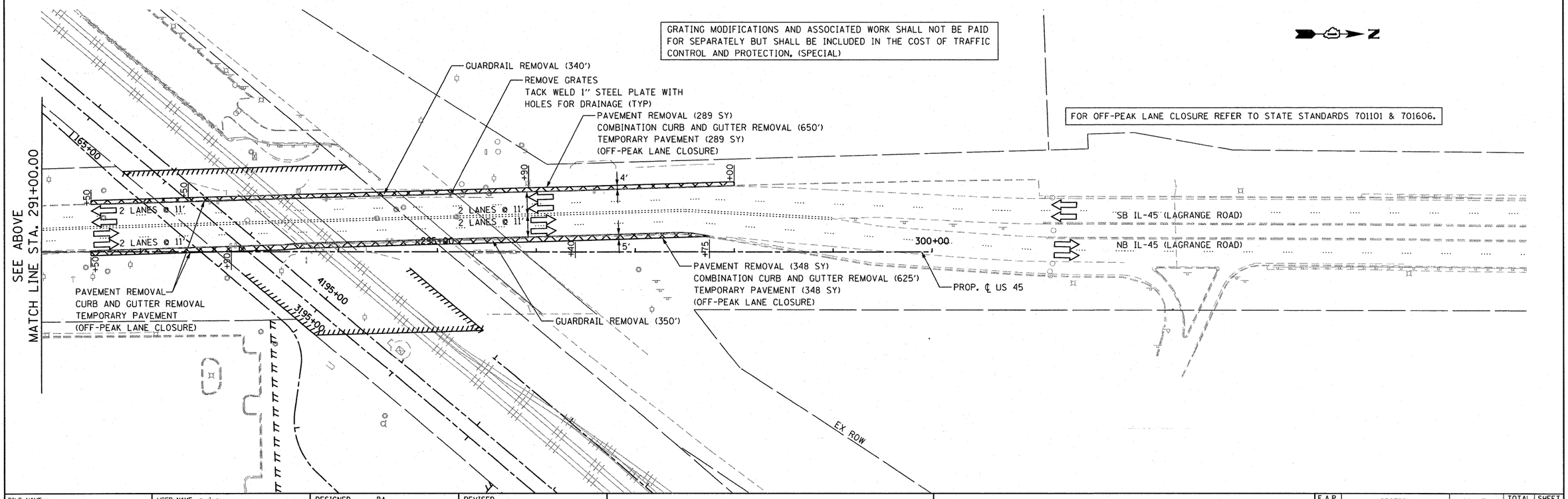
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGES OF CONSTRUCTION – TEMPORARY DETOUR PLAN FOR ERECTING GIRDERS AND PEDESTRIAN BRIDGE

SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	22
	MN-03	CONTRACT NO. 60K64		
	ILLINOIS	FED. AID PROJECT		





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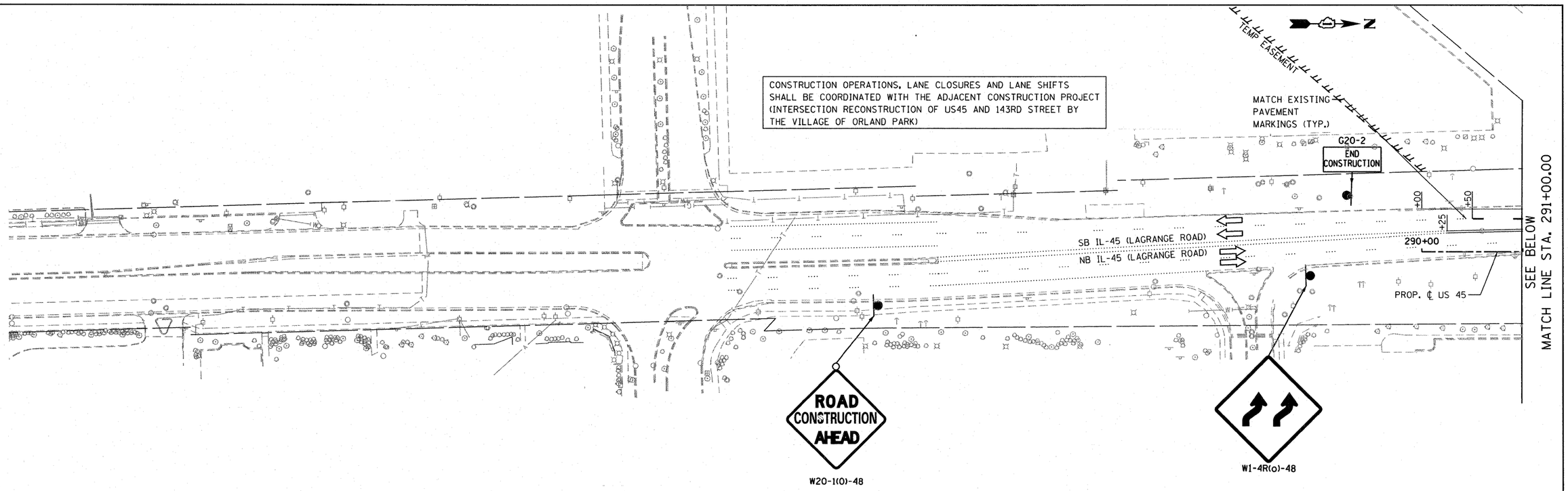
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGES OF CONSTRUCTION STAGE 1

SCALE: 1"=50' | SHEET NO. 1 OF 4 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	23
	MT-01	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			



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	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGES OF CONSTRUCTION STAGE 2

SCALE: 1"=50' | SHEET NO. 2 OF 4 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	24
	MT-02	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			

CONSTRUCTION OPERATIONS, LANE CLOSURES AND LANE SHIFTS SHALL BE COORDINATED WITH THE ADJACENT CONSTRUCTION PROJECT (INTERSECTION RECONSTRUCTION OF US45 AND 143RD STREET BY THE VILLAGE OF ORLAND PARK)

N

G20-2
END CONSTRUCTION

SB IL-45 (LAGRANGE ROAD)

NB IL-45 (LAGRANGE ROAD)

290+00

+25

MATCH EXISTING PAVEMENT MARKINGS (TYP.)

PROP. ℄ US 45

SEE BELOW
MATCH LINE STA. 291+00.00

ROAD CONSTRUCTION AHEAD

W20-1(0)-48

W1-4L(o)-48

SEE ABOVE
MATCH LINE STA. 291+00.00

165+00

RELOCATE TEMPORARY CONCRETE BARRIER, STATE OWNED (500')

WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4 INCH (WHITE SKIP DASH)

WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4 INCH (DOUBLE YELLOW CENTERLINE @ 11" C-C)

IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE), TEST LEVEL 3

WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4 INCH (WHITE)

MATCH EXISTING PAVEMENT MARKINGS (TYP.)

ROAD CONSTRUCTION AHEAD

W20-1(0)-48

12:1

10'
10.5'
10.5'
10'

+50
+00
+75
+25

5'

PROPOSED PIER

WORK ZONE

IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE), TEST LEVEL 3

285+00

4195+00

3195+00

PAVEMENT REMOVAL (348 SY)

SB IL-45 (LAGRANGE ROAD)

NB IL-45 (LAGRANGE ROAD)

300+00

END CONSTRUCTION

G20-2

PROP. ℄ US 45

RELOCATE TEMPORARY CONCRETE BARRIER, STATE OWNED (500')

WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4 INCH (WHITE)

WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4 INCH (WHITE SKIP DASH)

MATCH EXISTING CURB AND GUTTER

COMBINATION CONCRETE CURB AND GUTTER,TYPE B-6.12 (625')

EX ROW

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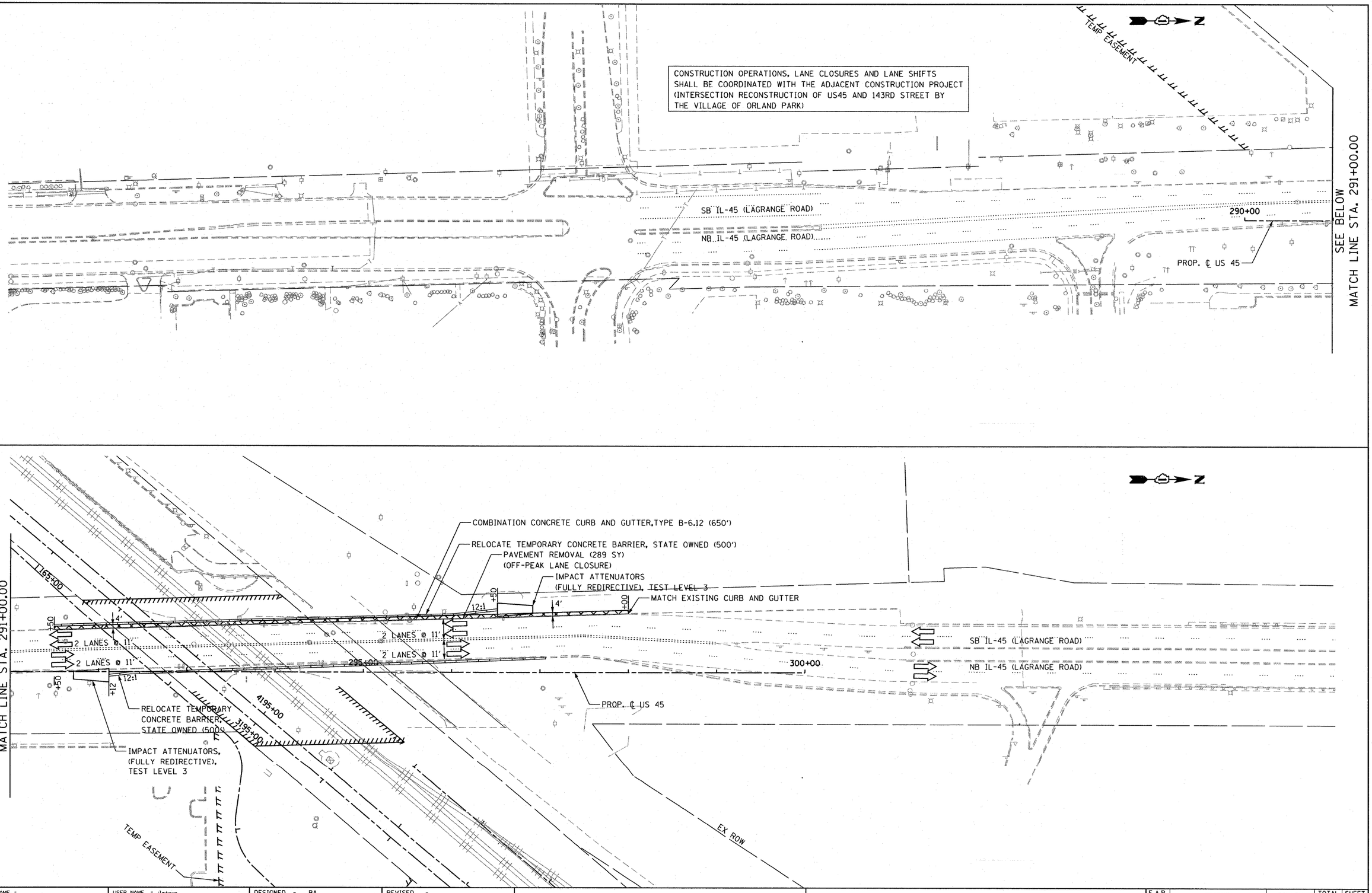
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGES OF CONSTRUCTION STAGE 3

SCALE: 1"=50' | SHEET NO. 3 OF 4 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	25
	MT-03	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			



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	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGES OF CONSTRUCTION STAGE 4

SCALE: 1"=50' | SHEET NO. 4 OF 4 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	26
	MT-04	CONTRACT NO. 60K64		
	ILLINOIS	FED. AID PROJECT		

EROSION AND SEDIMENT CONTROL GENERAL NOTES

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 IEPA FOR THE CONSTRUCTION OF THIS 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 ON DOWNSTREAM 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 SCHEDULE BEING IMPLEMENTED BY THE CONTRACTOR WILL BE ON THE CONSTRUCTION SITE AT ALL TIMES.

4. TO THE MAXIMUM EXTENT POSSIBLE, ALL FLOWS ORIGINATING OFF THE CONSTRUCTION SITE WILL BE DIVERTED AROUND DISTURBED AREAS OR WILL BE CONVEYED THROUGH THE SITE IN A MANNER THAT UNTREATED ON-SITE RUNOFF DOES NOT MIX WITH THE OFF-SITE RUNOFF.

5. ALL RUNOFF ORIGINATING ON DISTURBED AREAS ASSOCIATED WITH THIS PROJECT WILL PASS THROUGH ONE OR MORE MEASURES THAT WILL MINIMIZE THE OFF-SITE SEDIMENT IMPACTS OF THE CONSTRUCTION ACTIVITY.

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

7. A MAXIMUM OF 10 ACRES MAY BE IN SOME STAGE OF GRADING AT A SINGLE TIME. ADDITIONAL AREAS (UP TO 10 ACRES) MAY BE CLEARED BUT WILL NOT BE STRIPPED OF VEGETATION UNTIL THE GRADED AREAS HAVE BEEN PROTECTED FROM EROSION THROUGH INSTALLATION OF EITHER TEMPORARY OR PERMANENT MEASURES. WHENEVER POSSIBLE, THE GRADING WILL BE COMPLETED TO THE DESIGN GRADE AND THE PERMANENT VEGETATION PLAN IMPLEMENTED PRIOR TO STARTING GRADING ACTIVITIES ON THE NEXT SITE.

   (A) WHEN BALANCING EARTHWORK (BORROW FROM A CUT USED AS FILL AT A LOCATION DISTANT FROM THE CUT) THE ENGINEER WILL CONSIDER ALLOWING MORE THAN 10 ACRES OF GRADING AT A TIME. THE 10 ACRE LIMITATION DOES NOT INCLUDE HAUL ROADS, BRIDGE CONSTRUCTION WORK AREAS AND STORAGE AREAS.

   (B) VARIATIONS TO THE ABOVE MAY BE CONSIDERED BY THE ENGINEER UNDER ALL THE FOLLOWING CONDITIONS:

   - IF THE CONTRACTOR FALLS BEHIND SCHEDULE THROUGH NO FAULT OF HIS OWN.
   - THE CONTRACTOR MUST PRESENT A SCHEDULE DEMONSTRATING THE NEED FOR SUCH VARIATION IN ORDER TO COMPLETE THE WORK ON TIME.
   - THE CONTRACTOR MUST COMPLY WITH ALL OTHER CONTRACT REQUIREMENTS.

8. DISTURBED AREAS ARE TO BE PROTECTED FROM EROSION IN A TIMELY MANNER. UPON COMPLETION OF GRADING OR CONSTRUCTION, THE AREA WILL BE STABILIZED (USING PERMANENT MEASURES WHEN POSSIBLE) WITHIN 7 CALENDAR DAYS. TEMPORARY STABILIZATION THROUGH USE OF GROUND COVER, MULCHING, OR OTHER APPROVED MEASURES WILL BE INSTALLED WITHIN 7 DAYS WHENEVER SITE DEVELOPMENT WORK, GRADING OR OTHER EARTH DISTURBING ACTIVITIES CEASE TO BE CONTINUOUS FOR A PERIOD EXCEEDING 14 CALENDAR DAYS. THE 7/14 DAY REQUIREMENT IS TAKEN TO MEAN THAT THE STABILIZATION OPERATION IS COMPLETE OR NEARING COMPLETION IN THE DEFINED TIME.

9. STABILIZATION OF CUT OR FILL SLOPES WITH TEMPORARY OR PERMANENT EROSION CONTROL MEASURES IS REQUIRED WHENEVER THE CUT OR FILL ACTIVITY REACHES 10 FEET VERTICALLY OR THE FINISHED SLOPE EQUALS 30 FEET, WHICHEVER IS MORE RESTRICTIVE. ONCE THE STABILIZATION MEASURES ARE INSTALLED, THE PLACEMENT OF FILL EXCAVATION ACTIVITIES ARE ALLOWED TO PROCEED.

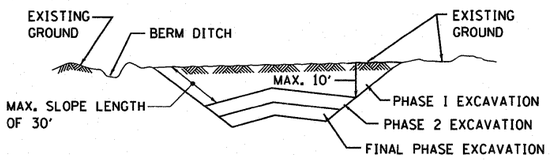
10. THE CONTRACTOR SHALL DESIGNATE ONE OF HIS EMPLOYEES AS RESPONSIBLE FOR IMPLEMENTATION OF THE EROSION AND SEDIMENT CONTROL PLAN ON ALL DISTURBED AREAS. THIS PERSON IS TO BE KNOWLEDGEABLE ABOUT INSTALLATION AND MAINTENANCE OF THE REQUIRED MEASURES AND IS TO HAVE TAKEN AN APPROVED EROSION AND SEDIMENT CONTROL COURSE. 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 RAINFALL EVENTS GREATER THAN 0.5 INCH OR EQUIVALENT SNOWFALL.

SEE NEXT SHEET FOR CONTINUATION

EROSION AND SEDIMENT CONTROL LEGEND

TEMPORARY DITCH CHECK	IF INLET FILTER
PERIMETER EROSION BARRIER	DITCH FLOW
DRAINAGE SUMMIT	SWALE

EXCAVATION PHASING PLAN-CUT SECTION



NOTES:

1. ALL CUT SLOPES SHALL BE EXCAVATED AND STABILIZED (PLACE TOPSOIL, PREPARE SEEDBED, APPLY SEED, PROTECT SLOPE WITH MULCH OR EROSION BLANKET) AS THE WORK PROGRESSES.

2. CONSTRUCTION SEQUENCE FOR EXCAVATION:
   (A) EXCAVATE AND STABILIZE BERM, SIDE AND OUTLET DITCHES, PROVIDE SEDIMENT TRAPS FOR DITCHES.

   (B) PERFORM PHASE 1 EXCAVATION AND STABILIZE SLOPES WITH PERMANENT SEEDING.

   (C) PERFORM PHASE 2 EXCAVATION AND STABILIZE SLOPES WITH PERMANENT SEEDING. OVERSEED PHASE 1 SLOPES, IF REQUIRED.

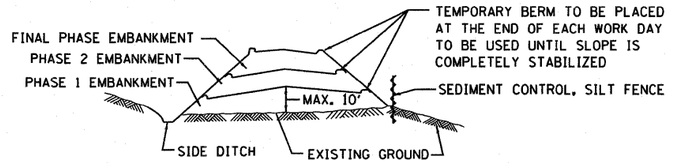
   (D) PERFORM FINAL PHASE EXCAVATION, AND STABILIZE WITH PERMANENT VEGETATIVE PLAN ON THE ENTIRE SLOPE. STABILIZE SURFACE DRAIN DITCHES. OVERSEED PHASE 1 & 2 SLOPES, IF REQUIRED, AS DETERMINED BY THE ENGINEER.

3. IF PERMANENT SEEDING CANNOT BE PLACED DUE TO CONTRACT REQUIREMENTS REGARDING PLANTING SEASONS, THE CUT SLOPE IS TO HAVE TOPSOIL PLACED AND SEEDBED PREPARED PRIOR TO USING TEMPORARY STABILIZATION WITH STRAW MULCH OR TEMPORARY SEEDING WITH EROSION BLANKET.

4. THE CONTRACTOR HAS THE OPTION OF DELAYING TOPSOIL AND/OR SEEDING BEYOND THE 10 FOOT VERTICAL LIMITATION. (SEE GENERAL NOTE 9) IF SO THE CUT SLOPE MUST BE TEMPORARILY STABILIZED AT NO COST TO THE DEPARTMENT.

5. ONCE THE EXCAVATION WITHIN A SPECIFIC AREA HAS BEGUN, THE OPERATION SHALL BE CONTINUOUS FROM STRIPPING THROUGH THE COMPLETION OF THE GRADING AND PLACEMENT OF SLOPE STABILIZATION MEASURES. ANY INTERRUPTIONS IN THE OPERATION 14 DAYS OR MORE MUST BE APPROVED BY THE ENGINEER. ANY VIOLATIONS OF THIS REQUIREMENT WILL RESULT IN THE CONTRACTOR ASSUMING THE RESPONSIBILITY OF PLACING TEMPORARY STABILIZATION AT HIS OWN COST AND EXPENSE AS DIRECTED BY THE ENGINEER.

EMBANKMENT PHASING PLAN-FILL SECTION



NOTES:

1. THE EMBANKMENT WILL BE MADE IN STAGES NOT TO EXCEED 10'. THE EMBANKMENT SLOPES WILL BE STABILIZED USING TEMPORARY MEASURES BEFORE BEGINNING NEXT STAGE.

2. AT THE END OF EACH WORK DAY TEMPORARY BERMS (EARTH) AND TEMPORARY PIPE SLOPE DRAINS WILL BE CONSTRUCTED ALONG THE TOP EDGE(S) OF THE EMBANKMENT TO INTERCEPT SURFACE RUNOFF.

3. CONSTRUCTION SEQUENCE FOR EMBANKMENT

   (A) EXCAVATE AND STABILIZE SIDE DITCH AND/OR INSTALL PROPOSED PERIMETER CONTROLS AT THE TOE OF SLOPE.
   (B) PLACE PHASE 1 EMBANKMENT AND STABILIZE WITH TEMPORARY SEEDING AND MULCH.
   (C) PLACE PHASE 2 EMBANKMENT AND STABILIZE WITH TEMPORARY SEEDING AND MULCH.
   (D) PLACE FINAL PHASE EMBANKMENT AND STABILIZE WITH PERMANENT VEGETATIVE PLAN ON THE ENTIRE SLOPE.

4. ONCE THE PLACEMENT OF FILL WITHIN A SPECIFIC AREA HAS BEGUN, THE OPERATION SHALL BE CONTINUOUS FROM STRIPPING THROUGH THE COMPLETION OF THE GRADING AND PLACEMENT OF PERMANENT VEGETATIVE PLAN. ANY INTERRUPTIONS IN THE OPERATION OF 14 DAYS OR MORE MUST BE APPROVED BY THE ENGINEER. ANY VIOLATION OF THIS REQUIREMENT WILL RESULT IN THE CONTRACTOR ASSUMING THE RESPONSIBILITY OF PLACING TEMPORARY STABILIZATION AT HIS OWN COST AND EXPENSE AS DIRECTED BY THE ENGINEER.

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	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL GENERAL NOTES AND LEGEND

SCALE: N.T.S. | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	27
	EN-01	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			

EROSION AND SEDIMENT CONTROLS GENERAL NOTES (CONTD.)

11. SEDIMENT TRAPS, SEDIMENT BASINS, DITCHES, SEDIMENT CONTROL, SILT FENCE, 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 & 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.

12. SALVAGED TOPSOIL SHALL BE PLACED ON WELL DRAINED LAND AWAY FROM INTERMITTENT AND LIVE STREAMS OR WETLANDS WITH THE APPROPRIATE RUNOFF CONTROL AND SEDIMENT CONTROL MEASURES INSTALLED AROUND THE STORAGE SITE, AND STABILIZED IMMEDIATELY AFTER FINAL SHAPING OF THE PILE IN ACCORDANCE WITH MULCH, METHOD 2. THE CONTRACTOR WILL PROVIDE AN ADEQUATE QUANTITY OF SILT FENCE TO CONTROL THE PERIMETER OF THE STOCKPILE.

13. MATERIALS EXCAVATED FOR THE CONSTRUCTION OR CLEANOUT OF SEDIMENT TRAPS OR SEDIMENT BASINS SHALL NOT BE STOCKPILED IN THE VICINITY OF THE TRAP OR BASIN. IT WILL EITHER BE PLACED IN AN EMBANKMENT OR WASTED AS DIRECTED BY THE ENGINEER.

14. 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 THE CONTROLS ARE BORNE BY THE CONTRACTOR. IF THE MATERIAL IS STOCKPILED AT THE DIRECTION OF THE ENGINEER THE DEPARTMENT WILL ASSUME THE COSTS OF THE CONTROLS.

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

16. 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 3:1 SLOPES OR FLATTER.

    (B) THE CONTRACTOR BEARS THE COST OF PREPARING THE SEED BED AND STABILIZING THE AREA WITH TEMPORARY STABILIZATION WITH STRAW MULCH.

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

17. SEEDING USAGE

    CLASS 2A SALT TOLERANT ROADSIDE MIX USED FOR NEW CONSTRUCTION OF LIMITED ACCESS ROUTES INTENDED TO BE MOWED BY IDOT.

    TEMPORARY EROSION CONTROL SEEDING : USED IN AREAS REQUIRING SHORT TERM TEMPORARY SEEDING DURING CONSTRUCTION.

18. TOP SOIL PLACEMENT:
    TOPSOIL WILL BE PLACED ON FINAL SLOPES WHICH WILL NOT BE DISTURBED BY FUTURE CONSTRUCTION. TOPSOIL WILL NOT BE PLACED ON SURFACES WHICH WILL BE PAVED IN THE FUTURE NOR ON TEMPORARILY STEEP SLOPES.

19. IN AREAS WHERE A PERMANENT VEGETATIVE COVER IS PRACTICABLE AND INCLUDED IN THE CONTRACT DOCUMENTS, A SPECIAL EFFORT SHOULD BE MADE TO ESTABLISH A COVER AS SOON AS A DISTURBED AREA IS BROUGHT TO FINAL GRADE.

20. EXISTING TRACK DITCHES SHALL BE MAINTAINED AT ALL TIMES THROUGHOUT THE CONSTRUCTION PERIOD. AFTER THE CONSTRUCTION HAS BEEN COMPLETED, ALL EROSION CONTROL DEVICES MUST BE REMOVED, ALL DEPOSITS OF SILT REMOVED, AND THE DITCHES MUST BE RESTORED.

EROSION AND SEDIMENT CONTROL (ESC) STRATEGY

DISTURBED AREA: 2.5 ACRES
RECEIVING WATERS: McGINNIS SLOUGH

- ERECT PERIMETER EROSION BARRIER AS SHOWN ON THE PLANS, ESTABLISH STABILIZED CONSTRUCTION ENTRANCES, CLEAR AND GRUB, REMOVE EXISTING TREES AS NECESSARY.
- INSTALL INLET FILTERS AT EXISTING CATCH BASINS AND OPEN LID MANHOLES SOUTHEAST OF THE EXISTING TRACKS.
- EXCAVATE FOR PROPOSED RAILROAD BRIDGE (STRUCTURE) AND PEDESTRIAN BRIDGE. DEWATER AS NECESSARY, STABILIZE EMBANKMENT.
- ESTABLISH PROPOSED DITCHES, STABILIZE WITH EROSION CONTROL BLANKET AND SEEDING. INSTALL TEMPORARY DITCH CHECKS AT 18" VERTICAL INTERVALS.
- INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES FOR THE DURATION OF CONSTRUCTION.
- WHEN FINAL STABILIZATION IS ESTABLISHED, REMOVE ALL TEMPORARY MEASURES.

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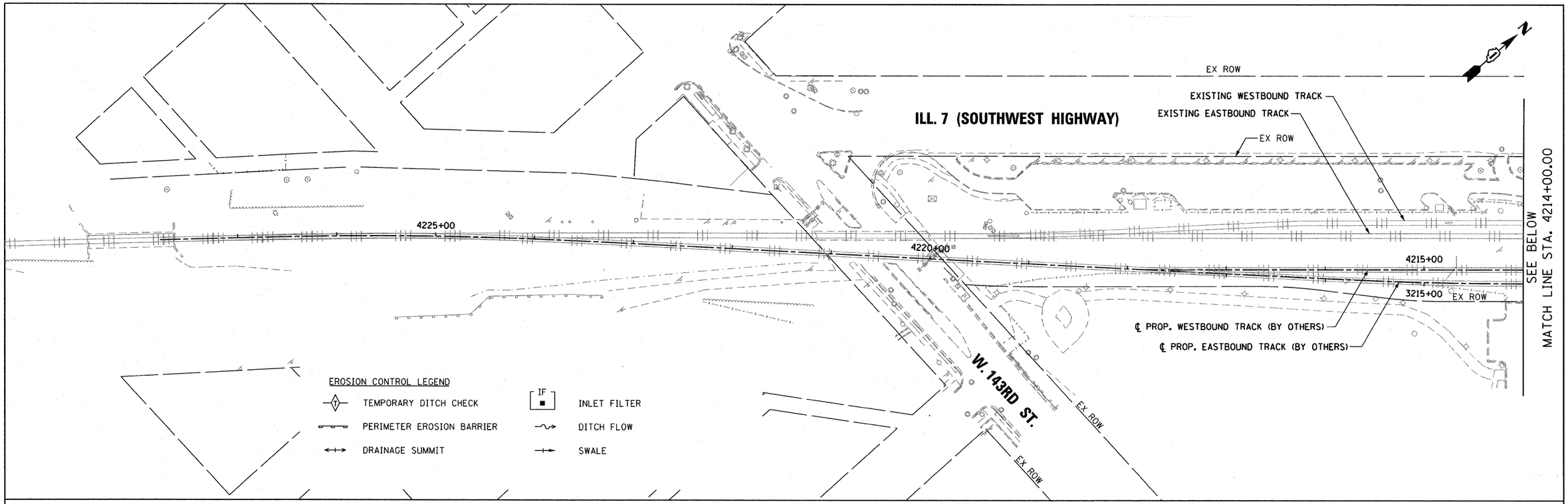
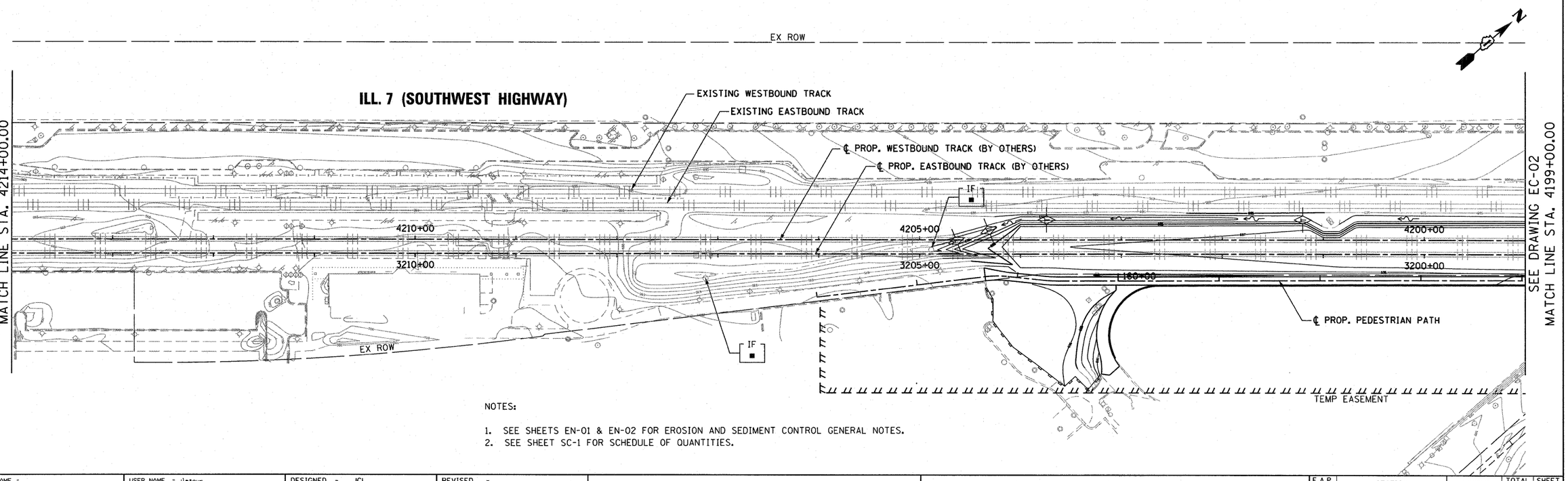
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL GENERAL NOTES AND STRATEGY

SCALE: NONE | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	28
	EN-02	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			





NOTES:

1. SEE SHEETS EN-01 & EN-02 FOR EROSION AND SEDIMENT CONTROL GENERAL NOTES.
2. SEE SHEET SC-1 FOR SCHEDULE OF QUANTITIES.

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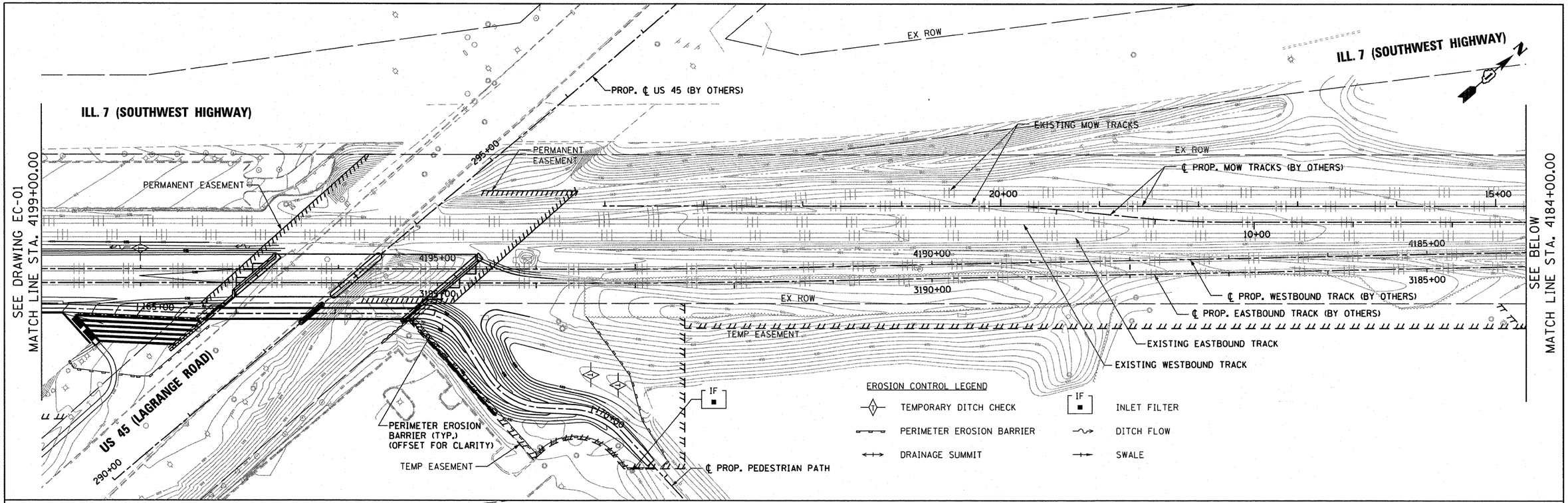
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1"=50' | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	29
	EC-01	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			



NOTES:

1. SEE SHEETS EN-01 & EN-02 FOR EROSION AND SEDIMENT CONTROL GENERAL NOTES.
2. SEE SHEET SC-1 FOR SCHEDULE OF QUANTITIES.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1"=50' | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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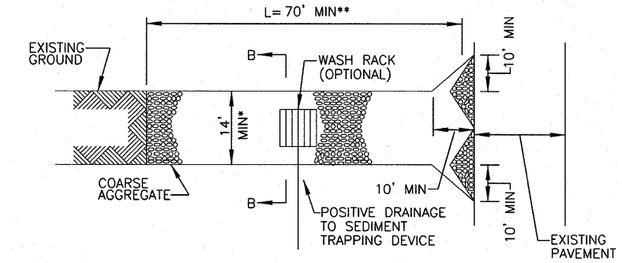
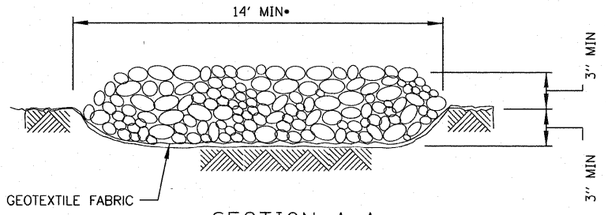
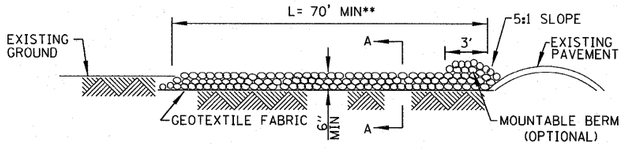
	EC-02	CONTRACT NO. 60K64		
	ILLINOIS	FED. AID PROJECT		



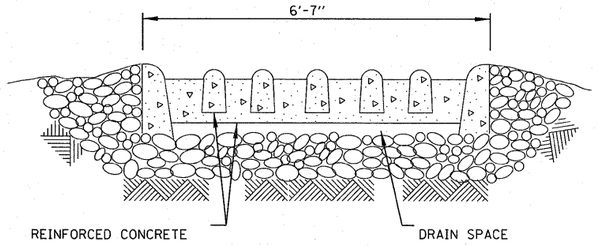
PLAN VIEW



SECTION A-A



SIDE ELEVATION



SECTION B-B

•24' MIN FOR TWO WAY TRAFFIC. MUST EXTEND FULL WIDTH OF INGRESS AND EGRESS OPERATION

••UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STABILIZED CONSTRUCTION ENTRANCE

NOTES:

1. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF ARTICLE 1080.02: "GEOTEXTILE FABRIC FOR GROUND STABILIZATION" AND SHALL BE PLACED ACCORDING TO ARTICLE 210.03: "INSTALLATION REQUIREMENTS."

2. THE COARSE AGGREGATE SHALL MEET EITHER IDOT COARSE AGGREGATE GRADATION CA-2 OR CA-4 (UNLESS OTHERWISE DIRECTED BY THE ENGINEER) AND BE PLACED ACCORDING TO ARTICLE 402.10: "FOR TEMPORARY ACCESS."

3. ANY DRAINAGE FACILITIES REQUIRED BECAUSE OF WASHING SHALL BE CONSTRUCTED ACCORDING TO MANUFACTURERS SPECIFICATIONS.

4. IF WASH RACKS ARE USED THEY SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.

5. EXISTING DITCH DRAINAGE TO BE MAINTAINED.

6. THE CONTRACTOR SHALL PLACE ENTRANCES AT LOCATIONS AS APPROVED BY THE ENGINEER.

7. THE INSTALLATION, MAINTENANCE, AND REMOVAL OF THE ENTRANCES WILL NOT BE PAID FOR SEPARATELY BUT WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

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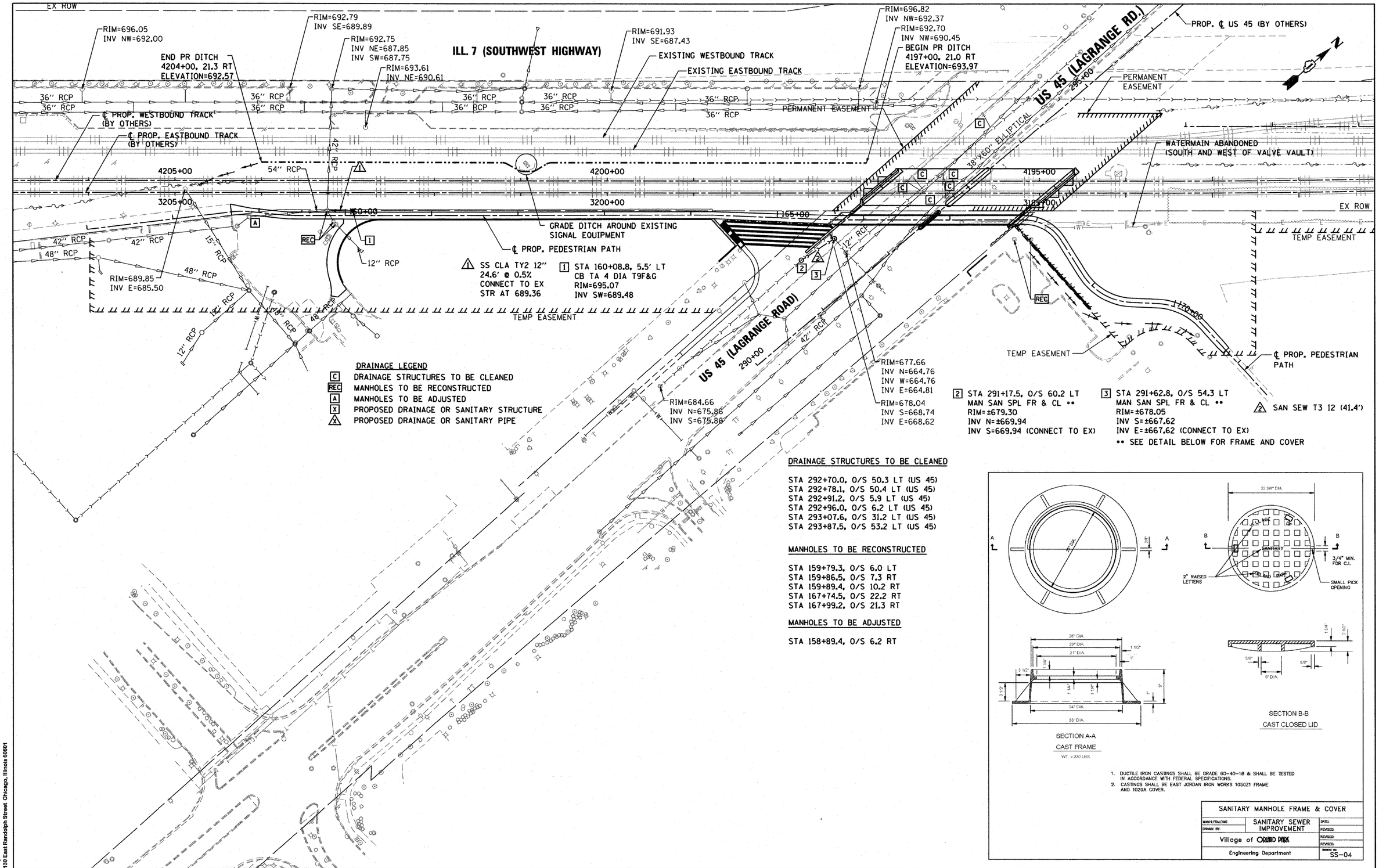
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION AND SEDIMENT CONTROL DETAILS

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	31
	ED-01	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			



DRAINAGE LEGEND

- C — DRAINAGE STRUCTURES TO BE CLEANED
- REC — MANHOLES TO BE RECONSTRUCTED
- A — MANHOLES TO BE ADJUSTED
- X — PROPOSED DRAINAGE OR SANITARY STRUCTURE
- ⚠X — PROPOSED DRAINAGE OR SANITARY PIPE

DRAINAGE STRUCTURES TO BE CLEANED

STA 292+70.0, O/S 50.3 LT (US 45)
STA 292+78.1, O/S 50.4 LT (US 45)
STA 292+91.2, O/S 5.9 LT (US 45)
STA 292+96.0, O/S 6.2 LT (US 45)
STA 293+07.6, O/S 31.2 LT (US 45)
STA 293+87.5, O/S 53.2 LT (US 45)

MANHOLES TO BE RECONSTRUCTED

STA 159+79.3, O/S 6.0 LT
STA 159+86.5, O/S 7.3 RT
STA 159+89.4, O/S 10.2 RT
STA 167+74.5, O/S 22.2 RT
STA 167+99.2, O/S 21.3 RT

MANHOLES TO BE ADJUSTED

STA 158+89.4, O/S 6.2 RT

1. DUCTILE IRON CASTINGS SHALL BE GRADE 60-40-18 & SHALL BE TESTED IN ACCORDANCE WITH FEDERAL SPECIFICATIONS.
2. CASTINGS SHALL BE EAST JORDAN IRON WORKS 1050Z1 FRAME AND 1020A COVER.

SANITARY MANHOLE FRAME & COVER

MANUFACTURING DRAWN BY:	SANITARY SEWER IMPROVEMENT	DATE: REVISED:
Village of Orland Park		REVISED: REVISED:
Engineering Department		DRAWING NO. SS-04

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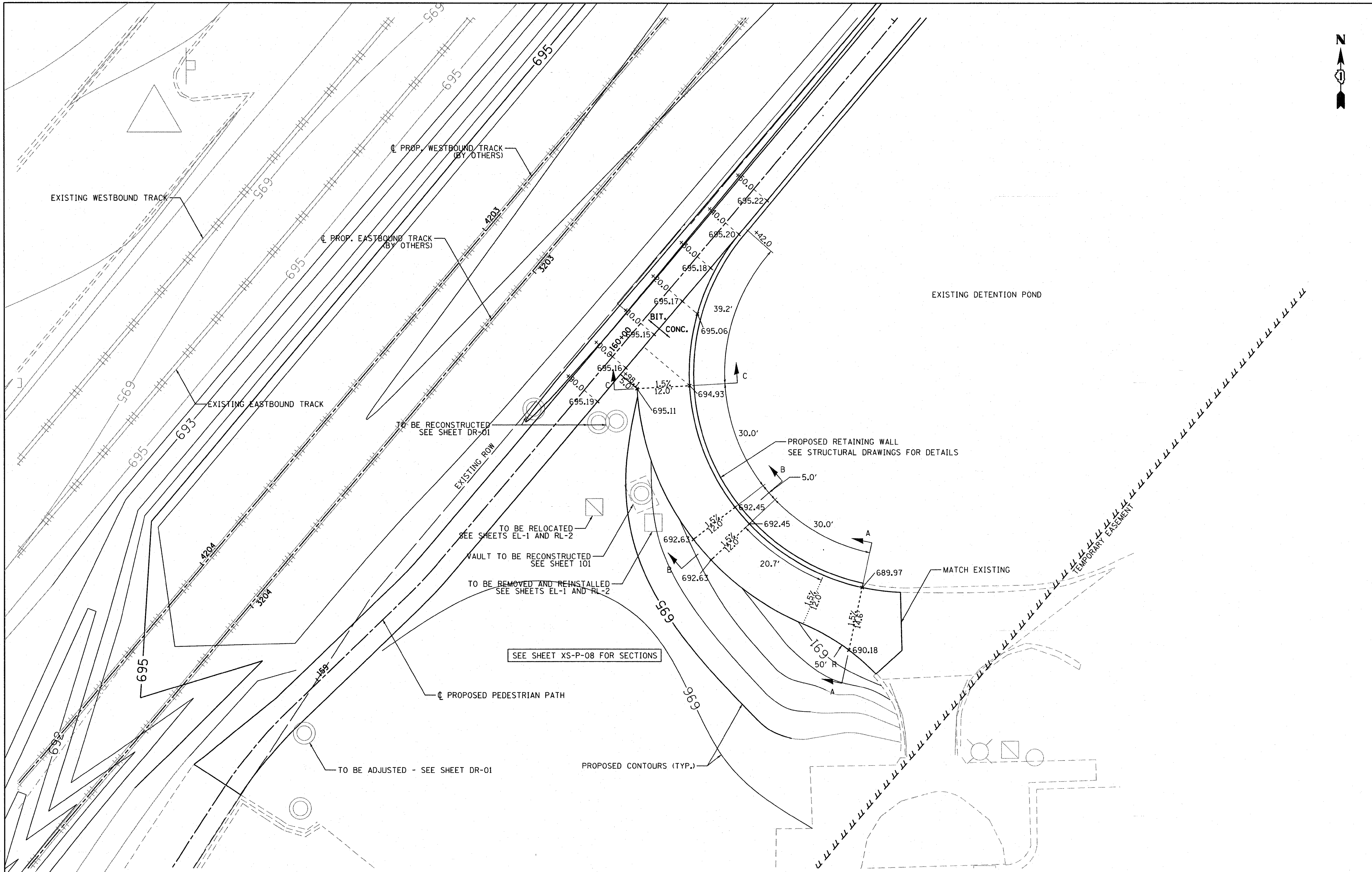
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AND PROPOSED DRAINAGE PLAN

SCALE: 1"=50' | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	32
	DR-01	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			



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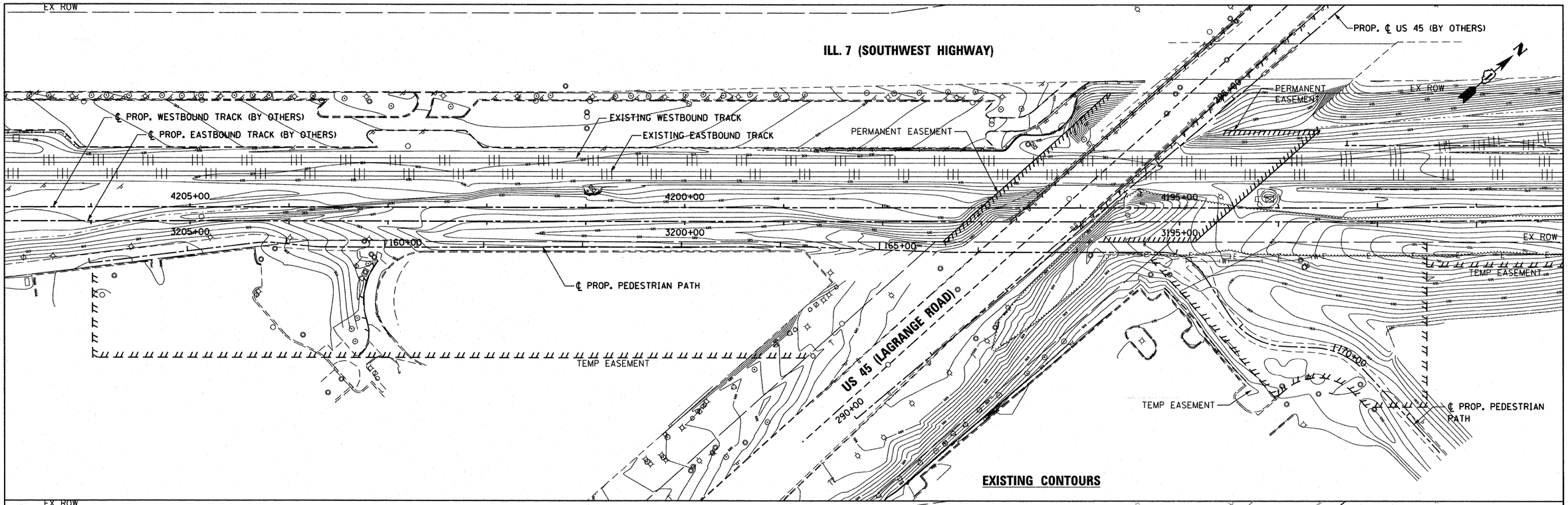
FILE NAME = D160K64-SHT-PD01.dgn	USER NAME = jlatour	DESIGNED - BA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT DETAILS AND ELEVATIONS	F.A.P RTE. 330 / SECTION 73 R-B / COUNTY COOK / TOTAL SHEETS 136 / SHEET NO. 33
		DRAWN - BA	REVISED -			PD-01 / CONTRACT NO. 60K64
	PLOT SCALE = 1:10	CHECKED - MJT	REVISED -		SCALE: 1"=10' / SHEET NO. 1 OF 1 SHEETS / STA. / TO STA.	ILLINOIS FED. AID PROJECT
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -			



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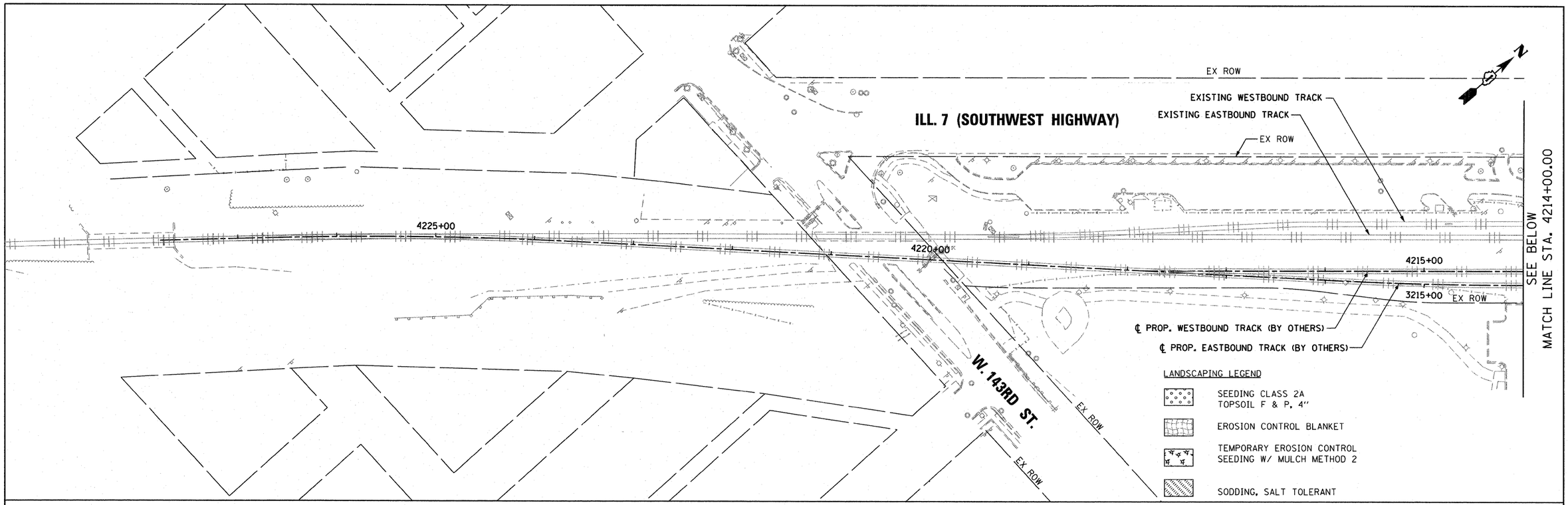
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GRADING PLAN

SCALE: 1"=50' | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	34
	GP-01	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			



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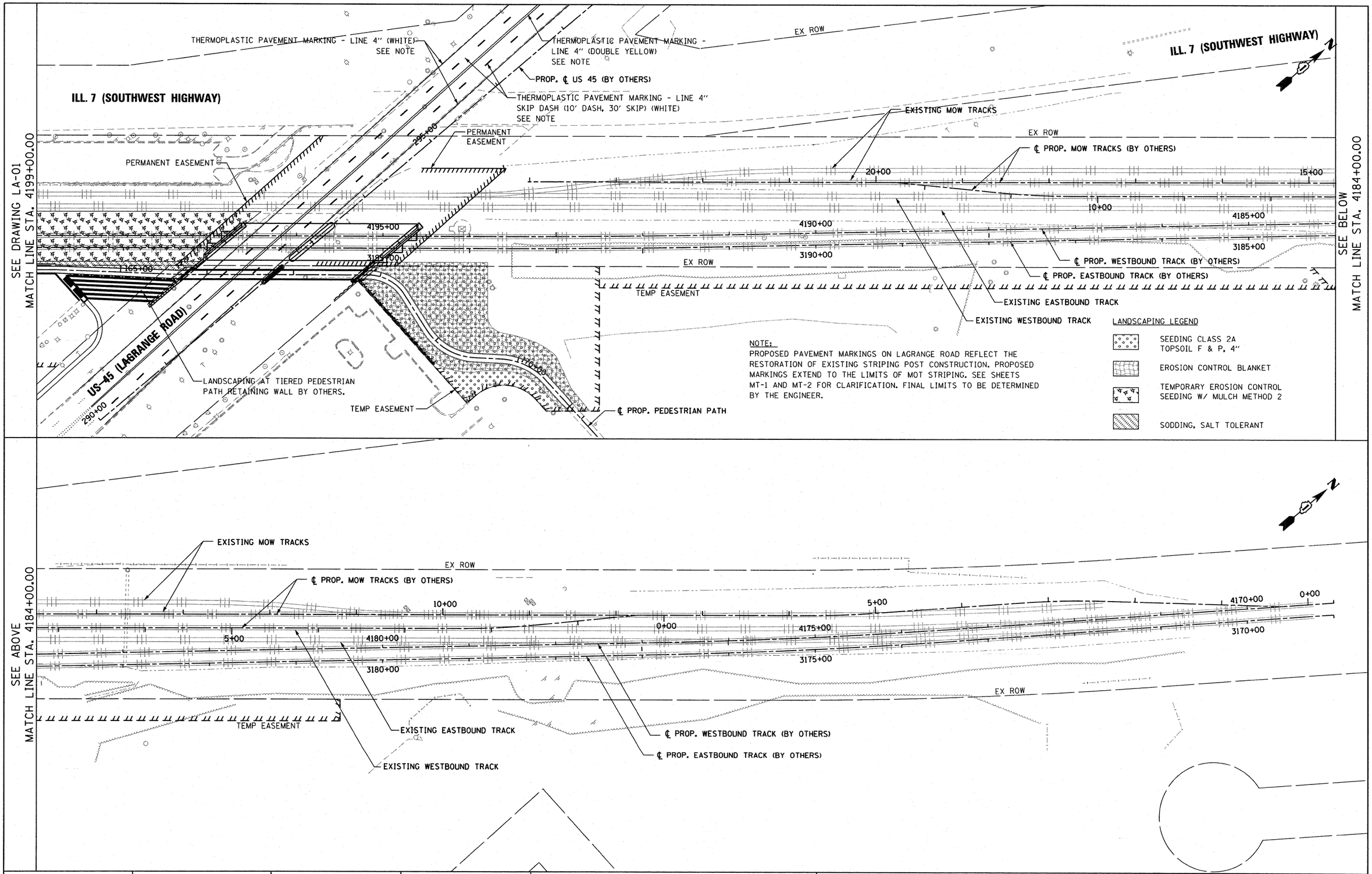
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LANDSCAPE, PAVEMENT MARKING AND SIGNING PLAN

SCALE: 1"=50' | SHEET NO. 1 OF 2 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	35
	LA-01	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			



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	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LANDSCAPE, PAVEMENT MARKING AND SIGNING PLAN

SCALE: 1"=50' | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	36
	LA-02	CONTRACT NO. 60K64		
	ILLINOIS	FED. AID PROJECT		

ROADWAY ELECTRICAL SYMBOLS

SYMBOL	DESCRIPTION
	70W METAL HALIDE TEARDROP TYPE LUMINAIRE MOUNTED 12'-0" ABOVE GRADE ON AN ORNAMENTAL LIGHT POLE
4A	TYPE 4A, VILLAGE OF ORLAND PARK STANDARD LIGHTING UNIT; REFER TO DRAWING ED-1 FOR DETAILS
4B	TYPE 4B, VILLAGE OF ORLAND PARK STANDARD LIGHTING UNIT; REFER TO DRAWING ED-2 FOR DETAILS
E	EXISTING LIGHTING UNIT
R	EXISTING LIGHTING UNIT TO BE REMOVED
	UNDERPASS LUMINAIRE, 100 WATT HPS
	EXPOSED CONDUIT
	UNIT DUCT
-E-	EXISTING UNDERGROUND WIRING TO REMAIN
- -E- -	EXISTING CONDUIT EXPOSED
-R-	EXISTING UNIT DUCT TO BE REMOVED
	CONCEALED CONDUIT IN STRUCTURE
	CONCEALED CONDUIT UNDERGROUND, TRENCHED OR PUSHED
	RACEWAY OR DIRECT BURIAL CABLE UNDERGROUND, WITHOUT ENCASEMENT
	CONDUIT TURNED UP
	CONDUIT TURNED DOWN
J	ELECTRIC JUNCTION BOX, TYPE AND SIZE AS INDICATED
H	COMPOSITE CONCRETE HANDHOLE
P	ELECTRIC PULLBOX
R	GROUND RECEPTACLE
	EXISTING LIGHTING CONTROLLER
	EXISTING UTILITY SERVICE CONNECTION, POLE MOUNTED
	EXISTING UTILITY SERVICE CONNECTION, PAD MOUNTED
	CONTROLLER CABINET
	PROPOSED UTILITY SERVICE CONNECTION, POLE MOUNTED
	PROPOSED UTILITY SERVICE CONNECTION, PAD MOUNTED
	EXISTING WOOD POLE
	ELECTRIC UTILITY POLE
	ELECTRIC GROUND ROD
	ELECTRIC SERVICE WEATHERHEAD

ABBREVIATIONS

ABBREVIATION	DESCRIPTION
AC	ALTERNATING CURRENT
A/C	AERIAL CABLE
AFG	ABOVE FINISHED GRADE
A/R	AERIAL CABLE TO BE REMOVED
ATS	ATTACHED TO STRUCTURE
℄	BASELINE
BOE	IDOT BUREAU OF ELECTRICITY
CB	CIRCUIT BREAKER
CKT	CIRCUIT
℄	CENTERLINE
CM	CENTIMETER
CNC	COILABLE NONMETALLIC CONDUIT
CP	CONTROL PANEL
CT	CURRENT TRANSFORMER
DA	DAVIT ARM
DC	DIRECT CURRENT
DIA	DIAMETER
DP	DISTRIBUTION PANEL
E	EXISTING UNIT TO REMAIN
ECA	ELECTRIC CABLE ASSEMBLY
EM	EXISTING UNIT TO BE MODIFIED (e.g. NEW LUMINAIRE, BALLAST OR MAST ARM)
EOP	EDGE OF PAVEMENT
ER	EXISTING RELOCATED UNIT
ET	EXISTING TEMPORARY UNIT TO REMAIN
ETR	EXISTING TEMPORARY RELOCATED UNIT
FT	FEET OR FOOT
FND BW	FOUNDATION BARRIER WALL
FND BW OS	FOUNDATION BARRIER WALL OFFSET
FND CON	FOUNDATION CONCRETE
FND CON OS	FOUNDATION CONCRETE OFFSET
FND MET	FOUNDATION METAL
FND PW	FOUNDATION PARAPET WALL
FU	FUSE
GND	GROUND
HID	HIGH INTENSITY DISCHARGE
HPS	HIGH PRESSURE SODIUM
IDOT	ILLINOIS DEPARTMENT OF TRANSPORTATION
JB	JUNCTION BOX
KVA	KILOVOLT-AMPERE
KW	KILOWATTS
LTFMC	LIQUIDTIGHT FLEXIBLE METAL CONDUIT
M	METER
MA	MAST ARM
MM	MILLIMETER
MTG HT	MOUNTING HEIGHT
MW	MESSENGER WIRE
NO. #	NUMBER
P	PROPOSED
PB	PUSH BUTTON
PNL	PANEL
PVC	POLYVINYL CHLORIDE
PVCC RGC	PVC COATED RIGID GALVANIZED STEEL CONDUIT
PT	POTENTIAL TRANSFORMER
R	EXISTING UNIT TO BE REMOVED (OWNER SALVAGED U.N.O.)
RR	EXISTING UNIT TO BE REMOVED AND REINSTALLED
RECP	RECEPTACLE
RGC	RIGID GALVANIZED CONDUIT
SEL SW	SELECTOR SWITCH
SPARE	SPARE
SPACE	SPACE
SS	STAINLESS STEEL
STA	STATION
STRUCT	STRUCTURE
T	TEMPORARY LIGHTING UNIT
TMP	TEMPORARY
TR	TEMPORARY UNIT TO BE REMOVED, SALVAGE EQUIPMENT AS SPECIFIED
TRR	TEMPORARY UNIT TO BE REMOVED AND RELOCATED
TUR	TEMPORARY UNIT ON UTILITY POLE TO BE REMOVED
TYP.	TYPICAL
UD	UNIT DUCT
U.N.O.	UNLESS NOTED OTHERWISE
WP	WOOD POLE
XFMR	TRANSFORMER

CALL-OUT SAMPLES

DEFINITION	EXAMPLE
WIRES, CONDUIT LENGTH CONDUIT SIZE, MOUNTING	4-1/C #6 & 1/C #6 GND, 82' 1-1¼" CNC TRENCHED
LIGHTING UNIT TYPE 4A POLE #-PANEL # (CKT #) (RECEPTACLE CKT #) STA. #, OFFSET	4A P85-LP4 (CKT 11,13) (RECP CKT 15) STA. 164+60, 5.25 RT

GENERAL NOTES:

1. THE OWNER, VILLAGE OF ORLAND PARK, SHALL BE NOTIFIED IN WRITING AT LEAST TWO (2) FULL WORKING DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. UTILITIES MAY EXIST IN THE AREA WHERE WORK IS PROPOSED. ACTUAL DEPTH OF UTILITIES ARE UNKNOWN. SHOULD ANY GIVEN UTILITY INTERFERE WITH THE PROPOSED WORK, PIPE ROUTING, ETC., THE CONTRACTOR SHALL, AT NO EXTRA COST TO THE OWNER, RESOLVE ANY AND ALL INTERFERENCE PROBLEMS.
3. ALL UTILITY COMPANIES SHALL BE CONTACTED AND THEIR FACILITIES SHALL BE LOCATED PRIOR TO ANY WORK IN ANY EASEMENT, RIGHT-OF-WAY, OR SUSPECTED UTILITY LOCATION.
4. ALL EXISTING AREAS THAT ARE DAMAGED AS PART OF THIS WORK, INCLUDING BUT NOT LIMITED TO FENCING, CURB AND GUTTER, SIDEWALKS, AND WHERE RESTORATION IS NOT COVERED BY APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS, SHALL BE RESTORED TO THE SATISFACTION OF THE ENGINEER. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THIS CONTRACT. NO SEPARATE PAYMENT WILL BE MADE.
5. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING SPECIFICATIONS, WHICH ARE HEREBY MADE A PART HEREOF:
   - A. "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS", AS PREPARED BY IDOT.
   - B. "THE NATIONAL ELECTRICAL CODE", 2005 EDITION OF ORLAND PARK ELECTRICAL CODE (TITLE 5 CHAPTER 3) AMENDMENTS.
   - C. VILLAGE OF ORLAND PARK LAND DEVELOPMENT CODE.
6. FOR LOCATION OF EXISTING UNDERGROUND ELECTRICAL CABLE, CALL COMED.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A PERMIT FROM THE VILLAGE BEFORE THE START OF WORK.
8. THE CONTRACT DRAWINGS AND SPECIFICATIONS ARE NOT INTENDED TO SHOW EVERY AND ALL DETAILS OF WORK TO BE PERFORMED OR EQUIPMENT TO BE SUPPLIED. THE INTENT OF THE CONTRACT DRAWINGS AND SPECIFICATIONS IS TO ILLUSTRATE THE CONCEPTUAL DESIGN AND LAYOUT. THE CONTRACTOR SHALL BE KNOWLEDGEABLE AND REGULARLY ENGAGED IN THE TYPE OF WORK DESCRIBED BY THESE CONTRACT DRAWINGS AND SPECIFICATIONS AND SHALL BE RESPONSIBLE FOR UNDERSTANDING THEIR INTENT. ANY WORK TO BE PERFORMED OR ITEM OF EQUIPMENT TO BE SUPPLIED WHICH IS NOT SPECIFICALLY CALLED FOR BY THESE CONTRACT DRAWINGS AND SPECIFICATIONS, BUT WHICH IS NECESSARY TO PROVIDE A COMPLETE AND SUCCESSFUL WORKING SYSTEM SHALL BE INCLUDED IN THE CONTRACTOR'S SCOPE OF WORK AT NO ADDITIONAL COST TO THE OWNER.
9. THE WORK PERFORMED UNDER THIS CONTRACT SHALL IN NO WAY INTERFERE WITH THE NORMAL OPERATION OF ANY EXISTING UTILITY SERVICE. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ITEMS OF EQUIPMENT REQUIRED TO MAINTAIN SUCH NORMAL OPERATION AT NO ADDITIONAL COST TO THE OWNER. THE COST ASSOCIATED FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE CONTRACT.
10. CONDUIT SHALL BE INSTALLED AT A MINIMUM DEPTH OF 30 INCHES BELOW GRADE AND POSITIONED IN THE FIELD TO AVOID CONFLICT WITH ROADWAY UNDERDRAINS AND OTHER EXISTING AND PROPOSED UTILITIES. THE CONTRACTOR SHALL INCREASE DEPTH OF UNIT DUCTS AND CONDUIT AS REQUIRED AT NO ADDITIONAL COST TO THE VILLAGE. COORDINATE RACEWAY DEPTHS WITH THE DETAILS AND THE ENGINEER.
11. ALL CONDUCTORS SHALL RUN CONTINUOUS WITHOUT ANY UNDERGROUND SPLICES. SPLICING OF CONDUCTORS WILL BE PERMITTED ONLY IN THE BASE OF THE LIGHTING UNITS UNLESS NOTED OTHERWISE.
12. GROUNDING CONDUCTORS AT ALL EQUIPMENT FOUNDATIONS SHALL BE EXOTHERMICALLY WELDED, UNLESS NOTED OTHERWISE AND SHALL BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO POURING CONCRETE OR BACKFILLING, AS APPLICABLE.
13. NO POLES SHALL BE ERECTED UNTIL THE RESPECTIVE FOUNDATIONS HAVE CURED, AS REVIEWED BY THE ENGINEER.
14. TO MAINTAIN THE STRUCTURAL INTEGRITY OF LIGHT POLES, THEY SHALL NOT BE ERECTED AND LEFT TO STAND WITHOUT LUMINAIRES. NOTE THAT THE CONTRACTOR SHALL NOT BE PAID FOR POLES UNTIL THE LUMINAIRES HAVE BEEN INSTALLED.
15. ALL POLE HANDHOLES SHALL FACE AWAY FROM TRAFFIC, UNLESS NOTED OTHERWISE.
16. THE CONTRACTOR SHALL COORDINATE PLACEMENT OF ALL UNDERGROUND DUCT AND CONDUITS PRIOR TO CONSTRUCTION OF PROPOSED PAVEMENT, DRIVEWAYS, AND SIDEWALKS.
17. CONTRACTOR SHALL SUBMIT SPECIFICATIONS, DRAWINGS AND CATALOG CUTS FOR ALL MATERIALS TO THE OWNER'S REPRESENTATIVE FOR REVIEW BEFORE ORDERING ANY MATERIALS FOR PROJECT.

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

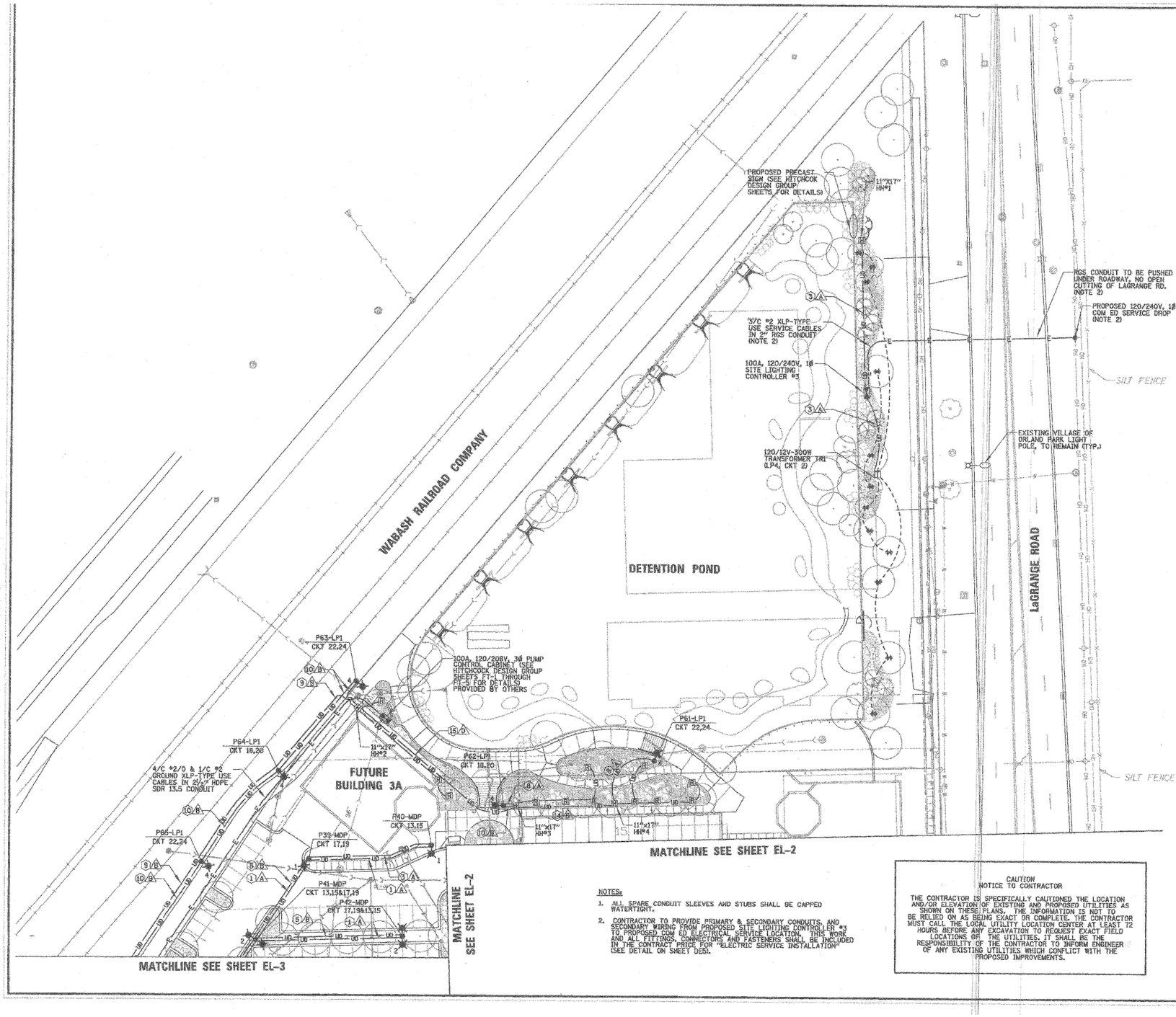
FILE NAME = DI60K64-SHT-GE1.dgn	USER NAME = jlatour	DESIGNED - JLW	REVISED -
		DRAWN - CJM	REVISED -
	PLOT SCALE = 1:1	CHECKED - KMY	REVISED -
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MULTI-USE PATH LIGHTING
ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	37
	GE-1	CONTRACT NO. 60K64		
	ILLINOIS	FED. AID PROJECT		



CONDUIT SCHEDULE

- (A) 1" UNIT DUCT IN TRENCH
- (B) 1¼" UNIT DUCT IN TRENCH
- (C) 1½" UNIT DUCT IN TRENCH
- (D) 2" UNIT DUCT IN TRENCH
- (E) 2½" UNIT DUCT IN TRENCH

UNLESS OTHERWISE NOTED THE CONDUIT TO GROUND MOUNTED RECEPTACLES, ARBOR'S COLUMN MOUNTED RECEPTACLES & LIGHTS AND GROUND MOUNTED FLOODLIGHTS SHALL BE ¾" UNIT DUCT IN TRENCH

ALL LOW VOLTAGE CABLE SHALL BE INSTALLED IN ¾" UNIT DUCT.

ALL CONDUIT FOR MUZAK SOUND SYSTEM EQUIPMENT SHALL BE ¾" EMPTY UNIT DUCT WITH PULL ROPE

WIRE AND CABLE SCHEDULE

- 2/C #10 AWG LOW VOLTAGE CABLE
- (1) EMPTY WITH PULL ROPE
- (2) 1/C #8, 1/C #8 NEUTRAL & 1/C #8 GROUND
- (3) 2/C #8 & 1/C #8 GROUND
- (4) 2/C #8, 1/C #8 NEUTRAL & 1/C #8 GROUND
- (5) 4/C #8 & 1/C #8 GROUND
- (6) 3/C #8, 1/C #8 NEUTRAL & 1/C #8 GROUND
- (7) 1/C #6, 1/C #6 NEUTRAL & 1/C #6 GROUND
- (8) 2/C #6 & 1/C #6 GROUND
- (9) 2/C #6, 1/C #6 NEUTRAL & 1/C #6 GROUND
- (10) 4/C #6 & 1/C #6 GROUND
- (11) NOT USED
- (12) 2/C #8, 1/C #6 NEUTRAL (FLAG POLE LIGHT CKT), 1/C #8, 1/C #8 NEUTRAL (GROUND MTD. RECEPT CKT) & 1/C #6 GROUND
- (13) 2/C #8 (LIGHT CKT), 1/C #8, 1/C #8 NEUTRAL (RECEPTACLE CKT) & 1/C #8 GROUND
- (14) 2/C #6 (LIGHT CKT), 1/C #6, 1/C #6 NEUTRAL (RECEPTACLE CKT) & 1/C #6 GROUND
- (15) 4/C #6 (LIGHT CKT), 2/C #6, 1/C #6 NEUTRAL (RECEPTACLE CKT) & 1/C #6 GROUND
- (16) 1/C #8, 1/C #8 NEUTRAL (TRANSFORMER CKT), 1/C #6, 1/C #6 NEUTRAL (GROUND MTD. RECEPT CKT) & 1/C #6 GROUND
- (17) 4/C #6 (LIGHT CKT), 1/C #6, 1/C #6 NEUTRAL (TRANSFORMER CKT), & 1/C #6 GROUND
- (18) 2/C #6 (LIGHT CKT), 1/C #6, 1/C #6 NEUTRAL (POLE RECEPT CKT), 1/C #6, 1/C #6 NEUTRAL (GROUND MTD. RECEPT CKT) & 1/C #6 GROUND
- (19) 2/C #6 (LIGHT CKT), 1/C #6, 1/C #6 NEUTRAL (POLE RECEPT CKT), 2/C #6, 1/C #6 NEUTRAL (GROUND MTD. RECEPT CKT) & 1/C #6 GROUND
- (20) 4/C #6 (LIGHT CKT), 2/C #6, 1/C #6 NEUTRAL (POLE RECEPT CKT), 4/C #6, 2/C #6 NEUTRAL (GROUND MTD. RECEPT CKT) & 1/C #6 GROUND
- (21) 4/C #6 (LIGHT CKT), 2/C #6, 1/C #6 NEUTRAL (POLE RECEPT CKT), 6/C #6, 3/C #6 NEUTRAL (GROUND MTD. RECEPT CKT) & 1/C #6 GROUND
- (22) 2/C #8 (LIGHT CKT), 1/C# 8, 1/C #8 NEUTRAL (POLE MTD. RECEPT. CKT), 1/C #8, 1/C #8 NEUTRAL (GROUND MTD. RECEPT. CKT) & 1/C #8 GROUND
- (23) 2/C #8 (LIGHT CKT), 1/C #8, 1/C #8 NEUTRAL (UPPER POLE RECEPTACLE CKT), 1/C #4, 1/C #4 NEUTRAL (LOWER POLE RECEPTACLE CKT) & 1/C #4 GROUND
- (24) 2/C #8 (LIGHT CKT), 1/C #8, 1/C #8 NEUTRAL (UPPER POLE RECEPTACLE CKT), 2/C #4, 2/C #4 NEUTRAL (LOWER POLE RECEPTACLE CKT) & 1/C #4 GROUND
- (25) 4/C #8 (LIGHT CKT), 2/C #8, 1/C #8 NEUTRAL (UPPER POLE RECEPTACLE CKT), 2/C #4, 2/C #4 NEUTRAL (LOWER POLE RECEPTACLE CKT) & 1/C #4 GROUND
- (26) 4/C #8 (LIGHT CKT), 2/C #8, 1/C #8 NEUTRAL (UPPER POLE RECEPTACLE CKT), 3/C #4, 3/C #4 NEUTRAL (LOWER POLE RECEPTACLE CKT) & 1/C #4 GROUND
- (27) 4/C #8 (LIGHT CKT), 2/C #8, 1/C #8 NEUTRAL (UPPER POLE RECEPTACLE CKT), 4/C #4, 4/C #4 NEUTRAL (LOWER POLE RECEPTACLE CKT) & 1/C #4 GROUND
- (28) 4/C #8 (LIGHT CKT), 2/C #8, 1/C #8 NEUTRAL (UPPER POLE RECEPTACLE CKT), 5/C #4, 5/C #4 NEUTRAL (LOWER POLE RECEPTACLE CKT) & 1/C #4 GROUND

UNLESS OTHERWISE NOTED THE WIRES TO GROUND MOUNTED RECEPTACLES, ARBOR COLUMN MOUNTED LIGHTS & RECEPTACLES AND GROUND MOUNTED FLOODLIGHTS SHALL BE 1/C #10, 1/C #10 NEUTRAL & 1/C #10 GROUND

NOTES:
1. ALL SPARE CONDUIT SLEEVES AND STUBS SHALL BE CAPPED WATERTIGHT.
2. CONTRACTOR TO PROVIDE PRIMARY & SECONDARY CONDUITS, AND SECONDARY WIRING FROM PROPOSED SITE LIGHTING CONTROLLER #3 TO PROPOSED COM ED ELECTRICAL SERVICE LOCATION. THIS WORK AND ALL FITTINGS, CONNECTORS AND FASTENERS SHALL BE INCLUDED IN THE CONTRACT PRICE FOR "ELECTRIC SERVICE INSTALLATION" (SEE DETAIL ON SHEET DE3).

CAUTION
NOTICE TO CONTRACTOR
THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATION AND/OR ELEVATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THESE PLANS. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM ENGINEER OF ANY EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS.

NO.	DATE	REMARKS

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 West Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

PROPOSED LIGHTING PLAN - 1

MAIN STREET TRIANGLE - PHASE 1
ORLAND PARK, ILLINOIS

9575 W. Higgins Road, Suite 700
Rosemont, Illinois 60018
Phone: (847) 696-4000 FAX: (847) 696-4006

FILENAME: 07027Llte.LLGT
DATE: 4/16/07
JOB NO. 4218.02
SHEET EL1 OF

FOR INFORMATION ONLY

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

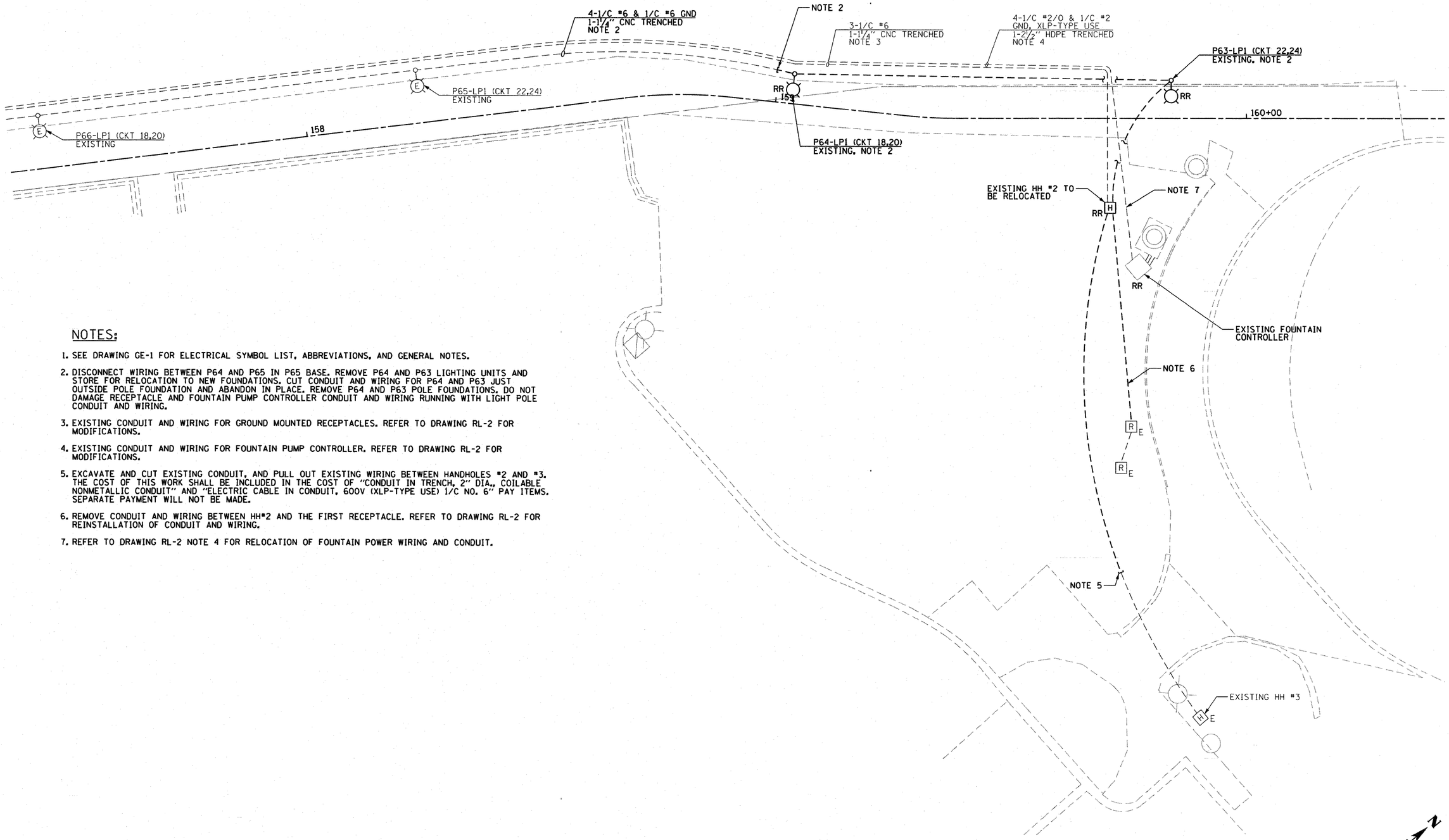
FILE NAME = D160K64-SHT-GE2.dgn	USER NAME = MTomasze	DESIGNED - JLW	REVISED -
		DRAWN - CJM	REVISED -
	PLOT SCALE = 1:1	CHECKED - KMY	REVISED -
	PLOT DATE = 12/16/10	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MULTI-USE PATH LIGHTING
EXISTING LIGHTING PLAN - TRIANGLE

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	38
	GE-2	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			



NOTES:

1. SEE DRAWING GE-1 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. DISCONNECT WIRING BETWEEN P64 AND P65 IN P65 BASE. REMOVE P64 AND P63 LIGHTING UNITS AND STORE FOR RELOCATION TO NEW FOUNDATIONS. CUT CONDUIT AND WIRING FOR P64 AND P63 JUST OUTSIDE POLE FOUNDATION AND ABANDON IN PLACE. REMOVE P64 AND P63 POLE FOUNDATIONS. DO NOT DAMAGE RECEPTACLE AND FOUNTAIN PUMP CONTROLLER CONDUIT AND WIRING RUNNING WITH LIGHT POLE CONDUIT AND WIRING.
3. EXISTING CONDUIT AND WIRING FOR GROUND MOUNTED RECEPTACLES. REFER TO DRAWING RL-2 FOR MODIFICATIONS.
4. EXISTING CONDUIT AND WIRING FOR FOUNTAIN PUMP CONTROLLER. REFER TO DRAWING RL-2 FOR MODIFICATIONS.
5. EXCAVATE AND CUT EXISTING CONDUIT, AND PULL OUT EXISTING WIRING BETWEEN HANDHOLES #2 AND #3. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF "CONDUIT IN TRENCH, 2" DIA., COILABLE NONMETALLIC CONDUIT" AND "ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6" PAY ITEMS. SEPARATE PAYMENT WILL NOT BE MADE.
6. REMOVE CONDUIT AND WIRING BETWEEN HH#2 AND THE FIRST RECEPTACLE. REFER TO DRAWING RL-2 FOR REINSTALLATION OF CONDUIT AND WIRING.
7. REFER TO DRAWING RL-2 NOTE 4 FOR RELOCATION OF FOUNTAIN POWER WIRING AND CONDUIT.

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Engineers / Architects
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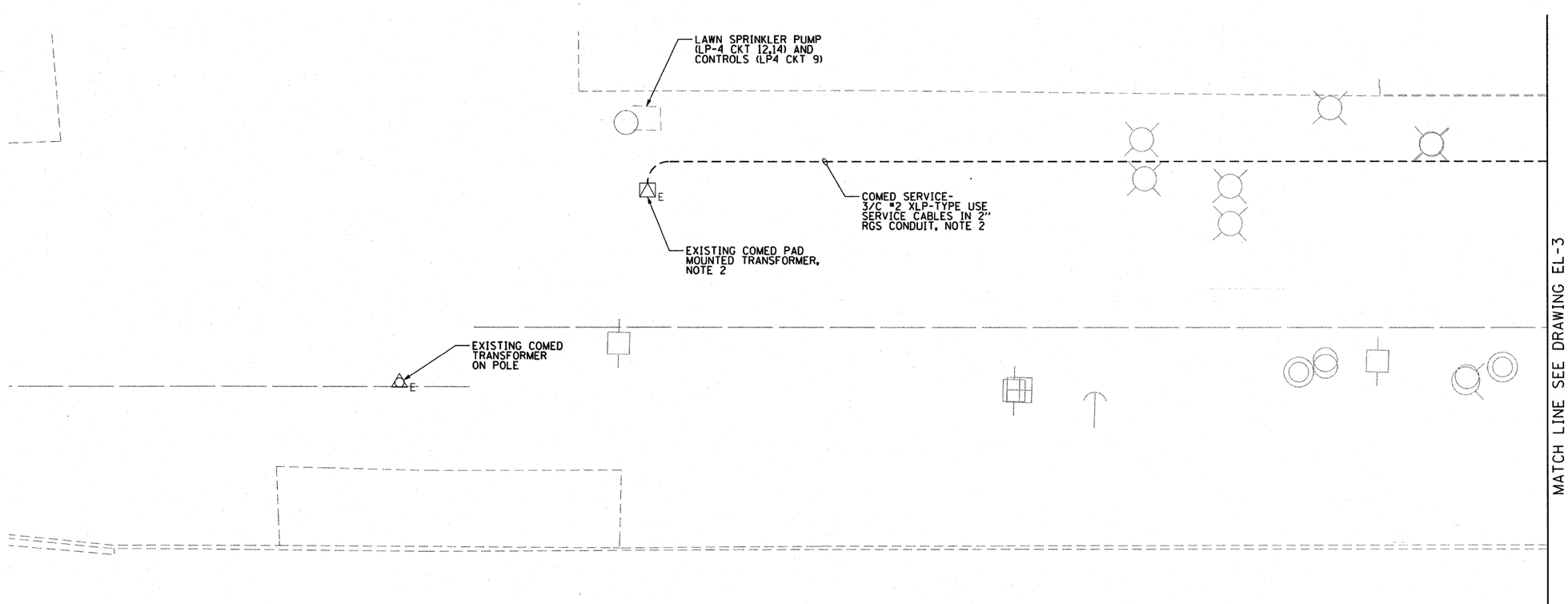
FILE NAME = D160K64-SHT-EL1.dgn	USER NAME = jlatour	DESIGNED - JLW	REVISED -
		DRAWN - CJM	REVISED -
	PLOT SCALE = 1:10	CHECKED - KMY	REVISED -
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MULTI-USE PATH ELECTRICAL DEMOLITION PLAN

SCALE: 1" = 10' | SHEET NO. 1 OF 1 SHEETS | STA. 157+38 TO STA. 160+42

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	39
	EL-1	CONTRACT NO. 60K64		
	ILLINOIS	FED. AID PROJECT		



US–45 (LAGRANGE ROAD)

NOTES:

1. SEE DRAWING GE-1 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. CONTRACTOR SHALL HAVE COMED DISCONNECT SERVICE WIRES FOR CONTROLLER #3 AT SERVICE TRANSFORMER. PULL BACK COMED SERVICE WIRES TO SERVICE TRANSFORMER. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF "RELOCATE ELECTRIC SERVICE" PAY ITEM.

N

10 0 10 20 30 40 50

SCALE IN FEET

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

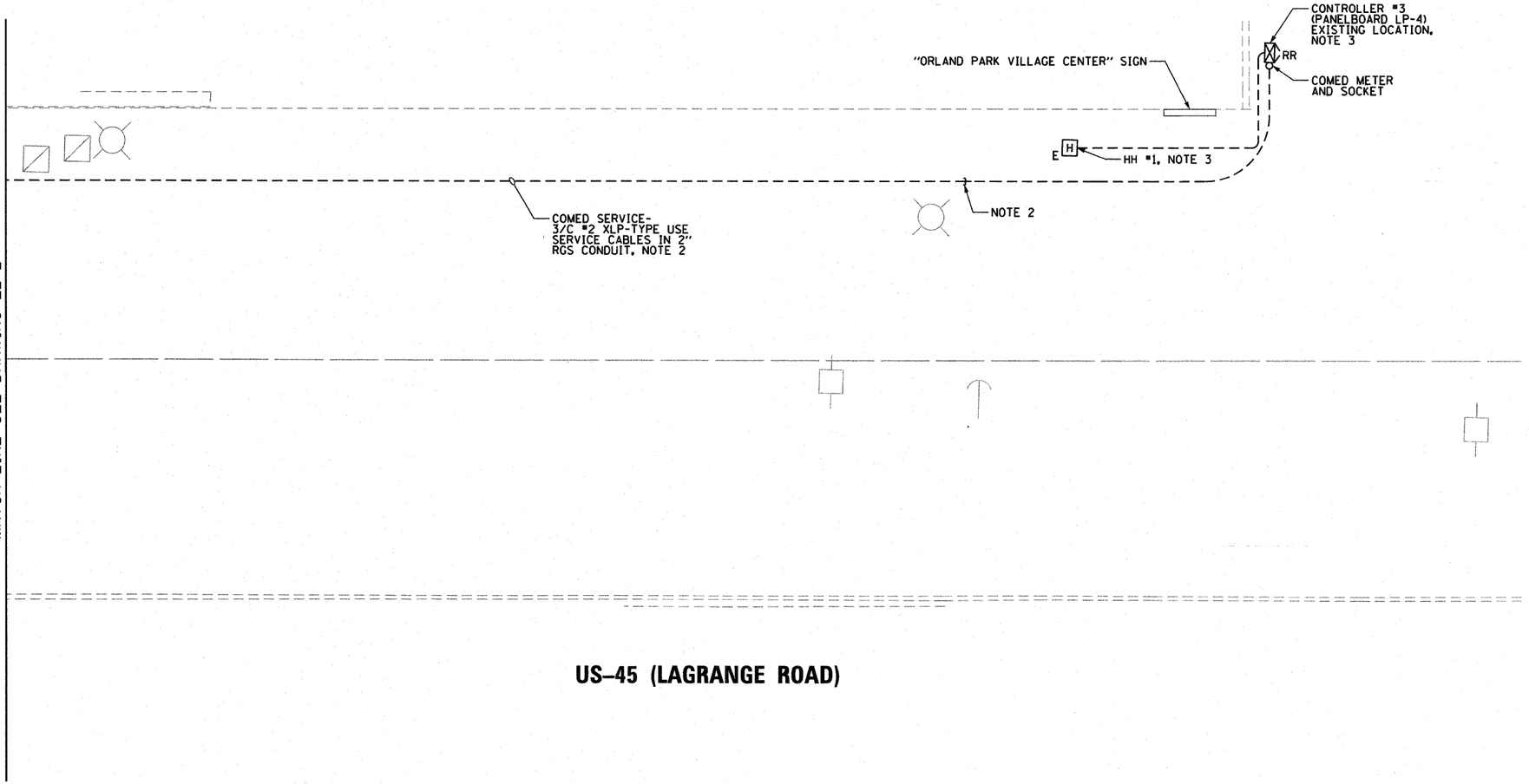
FILE NAME = D160K64-SHT-EL2.dgn	USER NAME = jletour	DESIGNED - JLW	REVISED -
		DRAWN - CJM	REVISED -
	PLOT SCALE = 1:10	CHECKED - KMY	REVISED -
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MULTI–USE PATH LIGHTING
CONTROLLER #3 ELECTRICAL DEMOLITION PLAN

SCALE: 1" = 10' | SHEET NO. 1 OF 2 SHEETS | STA. 164+23 | TO STA. 167+50

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	40
	EL–2	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			



NOTES:

1. SEE DRAWING GE-1 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. CONTRACTOR SHALL HAVE COMED DISCONNECT SERVICE WIRES FOR CONTROLLER #3 AT SERVICE TRANSFORMER IDENTIFIED ON DRAWING EL-2. PULL BACK COMED SERVICE WIRES TO SERVICE TRANSFORMER. CUT 2" CONDUIT, AND REMOVE TO EXISTING CONTROLLER #3 LOCATION. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF "RELOCATE ELECTRIC SERVICE" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
3. CONTRACTOR SHALL REMOVE EXISTING FOUNDATION FOR LIGHTING CONTROLLER #3, UNDER THE "REMOVAL OF LIGHTING CONTROLLER FOUNDATION" PAY ITEM. TAG LOAD WIRES AND PULL LOAD WIRES BACK TO HH #1. REMOVE 2½" PVC CONDUIT BETWEEN EXISTING CONTROLLER LOCATION AND HH #1. ALL WORK SHALL BE INCLUDED IN THE "RELOCATE EXISTING LIGHTING CONTROLLER" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.

N

10 0 10 20 30 40 50
SCALE IN FEET

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

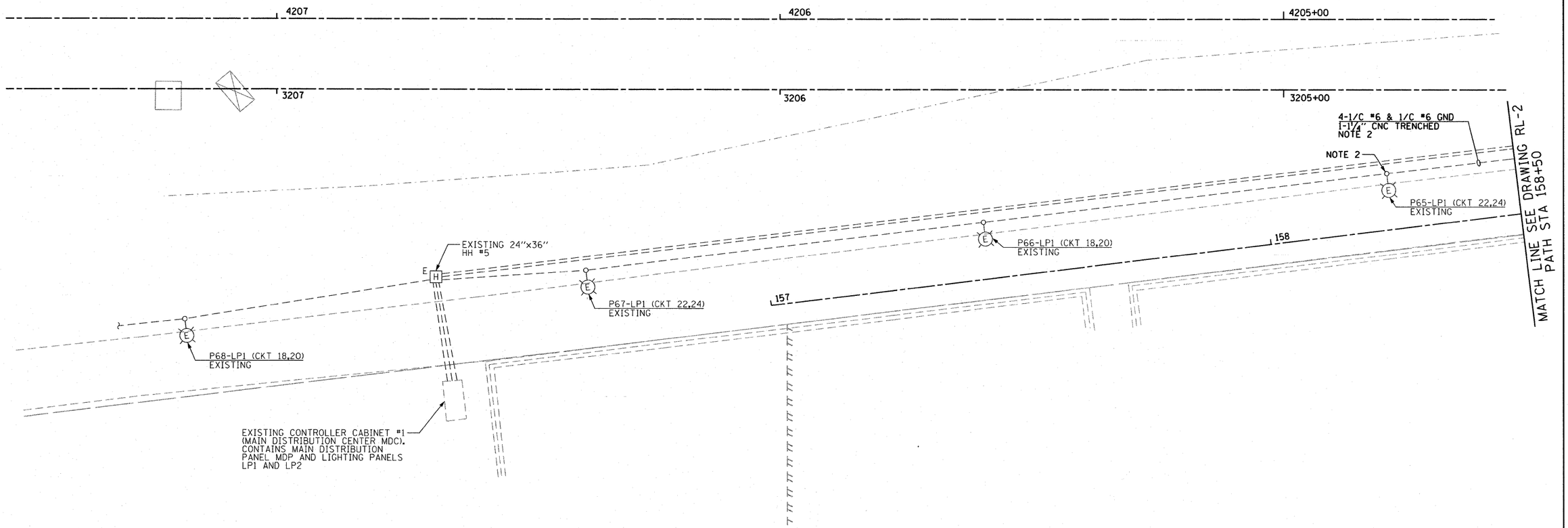
FILE NAME = D160K64-SHT-EL3.dgn	USER NAME = jlatour	DESIGNED - JLW	REVISED -
		DRAWN - CJM	REVISED -
	PLOT SCALE = 1:10	CHECKED - KMY	REVISED -
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MULTI-USE PATH LIGHTING
CONTROLLER #3 ELECTRICAL DEMOLITION PLAN

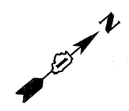
SCALE: 1" = 10' | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

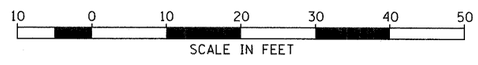
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	41
	EL-3	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			



NOTES:

1. SEE DRAWING GE-1 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW WIRING FROM RELOCATED POLE P64 TO POLE P65, AND SPLICE TO EXISTING CIRCUIT IN LIGHT POLE P65 HANDHOLE. CHANGE OVER SHALL BE DONE DURING DAYLIGHT HOURS AFTER ALL OTHER WORK IS DONE. MAINTAIN EXISTING LIGHTING DURING HOURS OF DARKNESS. ALL MATERIALS AND LABOR FOR CONNECTING NEW WIRING TO EXISTING LIGHT POLE (LIGHTING STANDARD) SHALL BE INCLUDED IN THE "1¼" DIA. COILABLE NONMETALLIC CONDUIT IN TRENCH" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.





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130 East Randolph Street Chicago, Illinois 60601

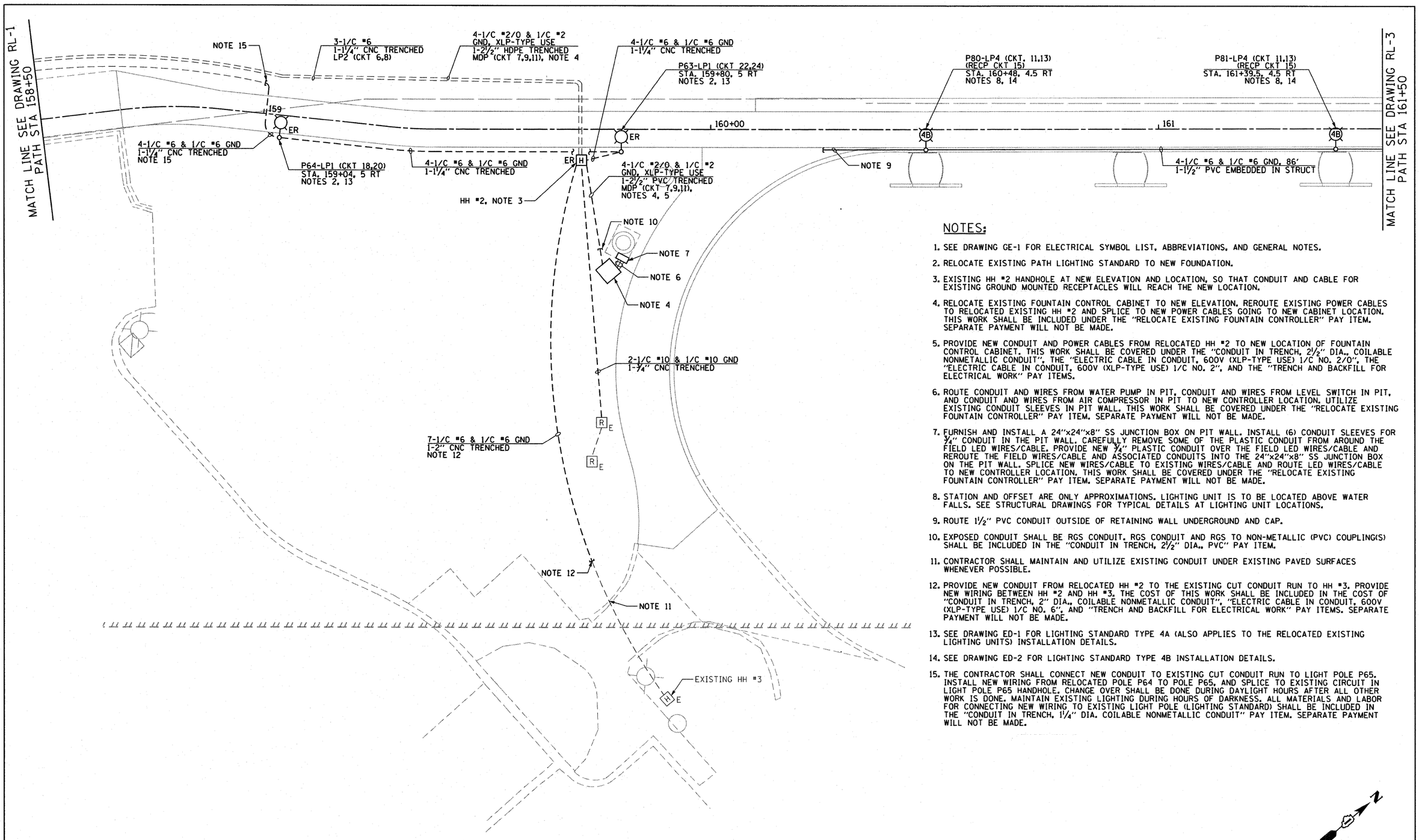
FILE NAME = D160K64-SHT-RL1.dgn	USER NAME = jlatour	DESIGNED - JLW	REVISED -
		DRAWN - CJM	REVISED -
	PLOT SCALE = 1:10	CHECKED - KMY	REVISED -
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MULTI-USE PATH PROPOSED LIGHTING PLAN

SCALE: 1" = 10' | SHEET NO. 1 OF 5 SHEETS | STA. 155+50 | TO STA. 158+50

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	42
	RL-1	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			



NOTES:

1. SEE DRAWING GE-1 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. RELOCATE EXISTING PATH LIGHTING STANDARD TO NEW FOUNDATION.
3. EXISTING HH #2 HANDHOLE AT NEW ELEVATION AND LOCATION, SO THAT CONDUIT AND CABLE FOR EXISTING GROUND MOUNTED RECEPTACLES WILL REACH THE NEW LOCATION.
4. RELOCATE EXISTING FOUNTAIN CONTROL CABINET TO NEW ELEVATION. REROUTE EXISTING POWER CABLES TO RELOCATED EXISTING HH #2 AND SPLICE TO NEW POWER CABLES GOING TO NEW CABINET LOCATION. THIS WORK SHALL BE INCLUDED UNDER THE "RELOCATE EXISTING FOUNTAIN CONTROLLER" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
5. PROVIDE NEW CONDUIT AND POWER CABLES FROM RELOCATED HH #2 TO NEW LOCATION OF FOUNTAIN CONTROL CABINET. THIS WORK SHALL BE COVERED UNDER THE "CONDUIT IN TRENCH, 2½" DIA., COILABLE NONMETALLIC CONDUIT", THE "ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 2/0", THE "ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 2", AND THE "TRENCH AND BACKFILL FOR ELECTRICAL WORK" PAY ITEMS.
6. ROUTE CONDUIT AND WIRES FROM WATER PUMP IN PIT, CONDUIT AND WIRES FROM LEVEL SWITCH IN PIT, AND CONDUIT AND WIRES FROM AIR COMPRESSOR IN PIT TO NEW CONTROLLER LOCATION. UTILIZE EXISTING CONDUIT SLEEVES IN PIT WALL. THIS WORK SHALL BE COVERED UNDER THE "RELOCATE EXISTING FOUNTAIN CONTROLLER" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
7. FURNISH AND INSTALL A 24"x24"x8" SS JUNCTION BOX ON PIT WALL. INSTALL (6) CONDUIT SLEEVES FOR ¾" CONDUIT IN THE PIT WALL. CAREFULLY REMOVE SOME OF THE PLASTIC CONDUIT FROM AROUND THE FIELD LED WIRES/CABLE. PROVIDE NEW ¾" PLASTIC CONDUIT OVER THE FIELD LED WIRES/CABLE AND REROUTE THE FIELD WIRES/CABLE AND ASSOCIATED CONDUITS INTO THE 24"x24"x8" SS JUNCTION BOX ON THE PIT WALL. SPLICE NEW WIRES/CABLE TO EXISTING WIRES/CABLE AND ROUTE LED WIRES/CABLE TO NEW CONTROLLER LOCATION. THIS WORK SHALL BE COVERED UNDER THE "RELOCATE EXISTING FOUNTAIN CONTROLLER" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
8. STATION AND OFFSET ARE ONLY APPROXIMATIONS. LIGHTING UNIT IS TO BE LOCATED ABOVE WATER FALLS. SEE STRUCTURAL DRAWINGS FOR TYPICAL DETAILS AT LIGHTING UNIT LOCATIONS.
9. ROUTE 1½" PVC CONDUIT OUTSIDE OF RETAINING WALL UNDERGROUND AND CAP.
10. EXPOSED CONDUIT SHALL BE RGS CONDUIT. RGS CONDUIT AND RGS TO NON-METALLIC (PVC) COUPLING(S) SHALL BE INCLUDED IN THE "CONDUIT IN TRENCH, 2½" DIA., PVC" PAY ITEM.
11. CONTRACTOR SHALL MAINTAIN AND UTILIZE EXISTING CONDUIT UNDER EXISTING PAVED SURFACES WHENEVER POSSIBLE.
12. PROVIDE NEW CONDUIT FROM RELOCATED HH #2 TO THE EXISTING CUT CONDUIT RUN TO HH #3. PROVIDE NEW WIRING BETWEEN HH #2 AND HH #3. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF "CONDUIT IN TRENCH, 2" DIA., COILABLE NONMETALLIC CONDUIT", "ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6", AND "TRENCH AND BACKFILL FOR ELECTRICAL WORK" PAY ITEMS. SEPARATE PAYMENT WILL NOT BE MADE.
13. SEE DRAWING ED-1 FOR LIGHTING STANDARD TYPE 4A (ALSO APPLIES TO THE RELOCATED EXISTING LIGHTING UNITS) INSTALLATION DETAILS.
14. SEE DRAWING ED-2 FOR LIGHTING STANDARD TYPE 4B INSTALLATION DETAILS.
15. THE CONTRACTOR SHALL CONNECT NEW CONDUIT TO EXISTING CUT CONDUIT RUN TO LIGHT POLE P65. INSTALL NEW WIRING FROM RELOCATED POLE P64 TO POLE P65, AND SPLICE TO EXISTING CIRCUIT IN LIGHT POLE P65 HANDHOLE. CHANGE OVER SHALL BE DONE DURING DAYLIGHT HOURS AFTER ALL OTHER WORK IS DONE. MAINTAIN EXISTING LIGHTING DURING HOURS OF DARKNESS. ALL MATERIALS AND LABOR FOR CONNECTING NEW WIRING TO EXISTING LIGHT POLE (LIGHTING STANDARD) SHALL BE INCLUDED IN THE "CONDUIT IN TRENCH, 1¼" DIA. COILABLE NONMETALLIC CONDUIT" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.

10 0 10 20 30 40 50
SCALE IN FEET

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FILE NAME = D160K64-SHT-RL2.dgn	USER NAME = jlatour	DESIGNED - JLW	REVISED -
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STATE OF ILLINOIS
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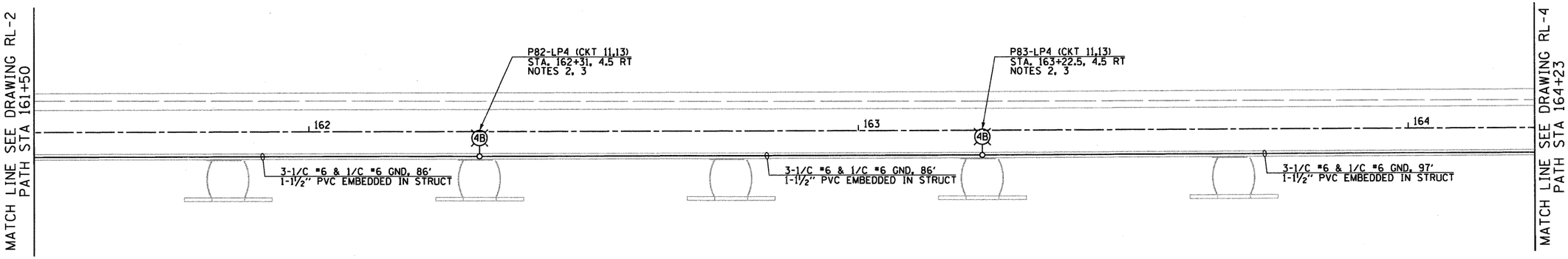
MULTI-USE PATH PROPOSED LIGHTING PLAN

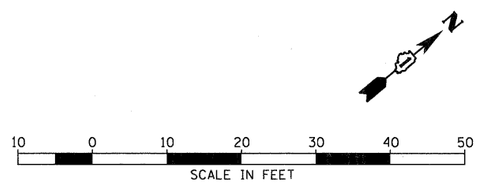
SCALE: 1" = 10' | SHEET NO. 2 OF 5 SHEETS | STA. 158+50 TO STA. 161+50

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	43
	RL-2	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			



NOTES:

1. SEE DRAWING GE-1 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. STATION AND OFFSET ARE ONLY APPROXIMATIONS. LIGHTING UNIT IS TO BE LOCATED ABOVE WATER FALLS. SEE STRUCTURAL DRAWINGS FOR TYPICAL DETAILS AT LIGHTING UNIT LOCATIONS.
3. SEE DRAWING ED-2 FOR LIGHTING STANDARD, TYPE 4B INSTALLATION DETAILS.



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	PLOT DATE = 12/16/10	DATE - 12/17/10	REVISED -

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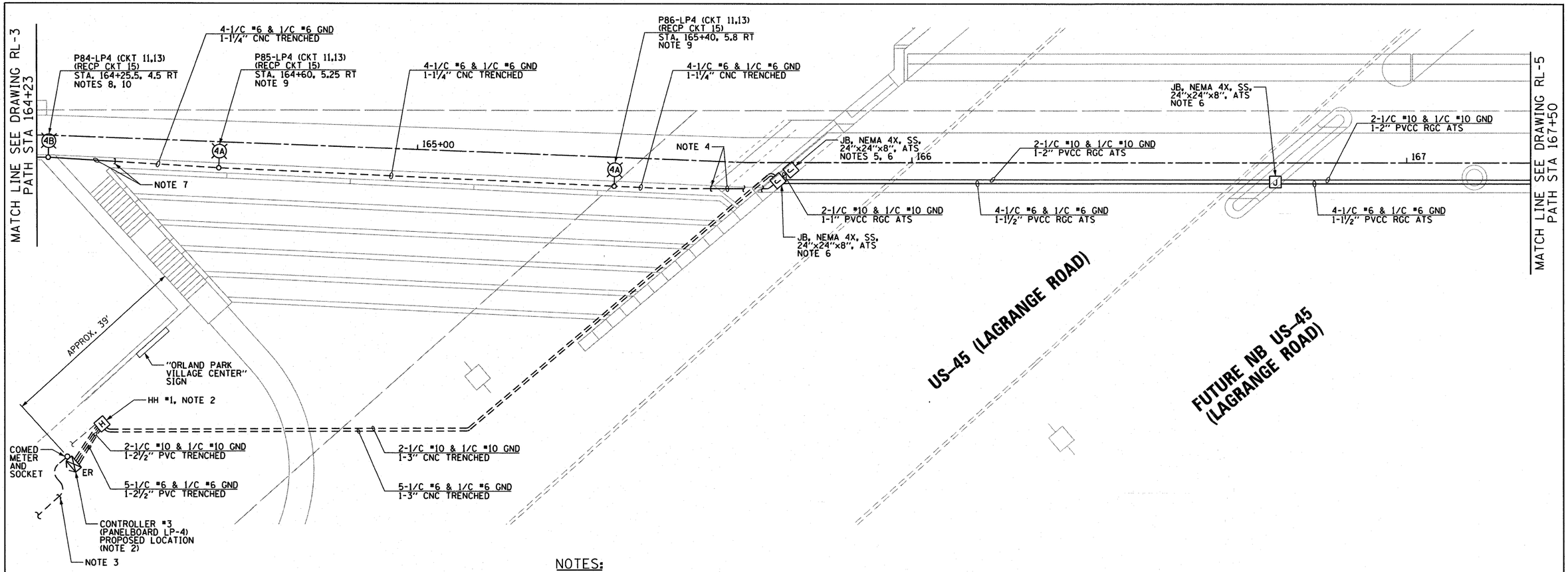
MULTI-USE PATH PROPOSED LIGHTING PLAN

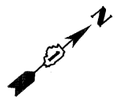
SCALE: 1" = 10' | SHEET NO. 3 OF 5 SHEETS | STA. 161+50 TO STA. 164+23

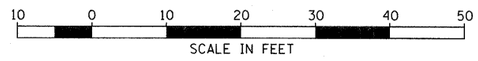
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	44
	RL-3	CONTRACT NO. 60K64		
	ILLINOIS	FED. AID PROJECT		



NOTES:

1. SEE DRAWING GE-1 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. CONTRACTOR SHALL CONSTRUCT NEW CONTROLLER #3 FOUNDATION AND RELOCATE CONTROLLER #3 AND COMED METER TO NEW FOUNDATION LOCATION. CONTRACTOR MUST LOCATE CONTROLLER FOUNDATION TO AVOID EXISTING CONDUITS AND WIRING. CONTRACTOR SHALL RECONNECT EXISTING LOADS TO RELOCATED CONTROLLER. ROUTE (4) 2½" PVC CONDUITS FROM NEW CONTROLLER LOCATION TO HH #1. PULL EXISTING LOAD WIRES IN (1) 2½" PVC CONDUIT TO NEW CONTROLLER LOCATION AND TERMINATE WIRES. CONTRACTOR SHALL CUT DOWN ANY PLANT GROWTH AROUND AND BLOCKING CLEAR ACCESS TO NEW CONTROLLER LOCATION. ALL WORK SHALL BE INCLUDED IN "RELOCATE EXISTING LIGHTING CONTROLLER" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
3. FURNISH AND INSTALL NEW 2" RGC CONDUIT TO NEW CONTROLLER LOCATION. REINSTALL COMED SERVICE WIRES FROM UTILITY PAD MOUNTED TRANSFORMER IDENTIFIED ON DRAWING EL-2. CONTRACTOR SHALL HAVE COMED RECONNECT CABLES TO EXISTING SERVICE TRANSFORMER. THIS WORK SHALL BE INCLUDED IN THE "RELOCATE ELECTRIC SERVICE" PAY ITEM. THE UTILITY COMPANY CHARGES WILL BE PAID UNDER "ELECTRIC UTILITY SERVICE CONNECTION" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
4. CONDUIT FROM JUNCTION BOX THROUGH ABUTMENT SHALL BE 1½" PVCC RGC WITHIN A 2" CONDUIT SLEEVE CAST INTO ABUTMENT. TRANSITION TO 1¼" CNC UNDERGROUND BEYOND LIMITS OF APPROACH SLAB.
5. JUNCTION BOX CONTAINS 30A FUSES FOR UNDERPASS LIGHTING CONDUCTORS. SEE DRAWING RL-6 FOR PEDESTRIAN BRIDGE AND METRA BRIDGE UNDERPASS LIGHTING PLAN AND TYPICAL UNDERPASS LIGHTING UNIT WIRING DIAGRAM. THIS WORK SHALL BE INCLUDED IN THE "JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 24"x24"x8" " PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
6. CONTRACTOR SHALL USE LIQUID-TIGHT FLEXIBLE METAL CONDUIT, 3'-0" LENGTH MAXIMUM, TO CONNECT CONDUITS ATTACHED TO STRUCTURE TO JUNCTION BOX. SEE DRAWING ED-5 FOR CONDUIT INSTALLATION DETAILS. THE COST OF FLEXIBLE METAL CONDUITS SHALL BE INCLUDED IN THE COST OF "JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 24"x24"x8" " PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
7. CONTRACTOR SHALL PROVIDE 1½" PVC CONDUIT IN TRENCH UNDERNEATH CONCRETE STAIRCASE LANDING. TRANSITION FROM 1½" PVC EMBEDDED IN WALL TO 1¼" CNC UNDERGROUND ONE FOOT PAST PROPOSED LANDING.
8. SEE STRUCTURAL DRAWINGS FOR TYPICAL DETAILS AT LIGHTING UNIT LOCATIONS.
9. SEE DRAWING ED-1 FOR LIGHTING STANDARD TYPE 4A INSTALLATION DETAILS.
10. SEE DRAWING ED-2 FOR LIGHTING STANDARD TYPE 4B INSTALLATION DETAILS.





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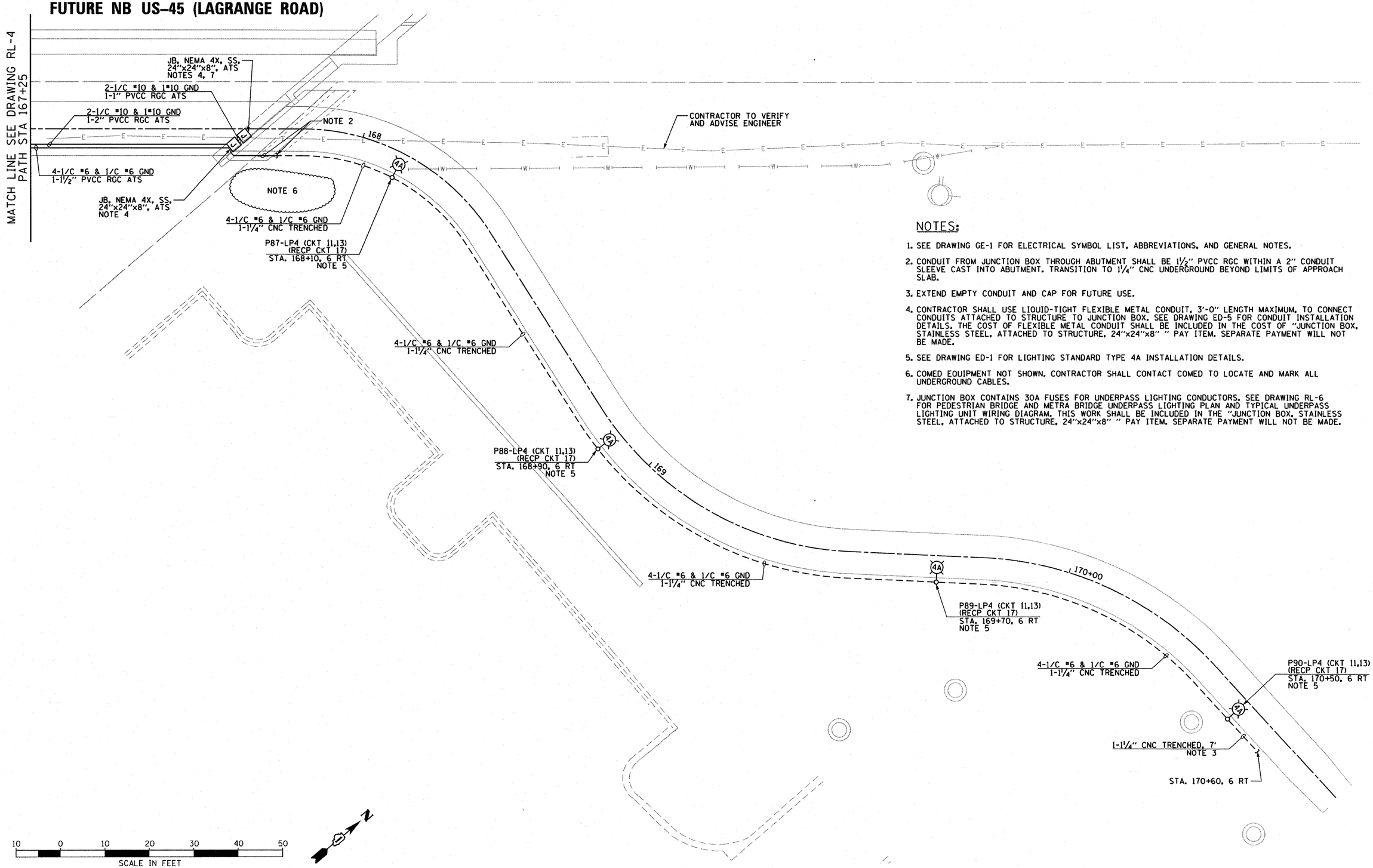
MULTI-USE PATH PROPOSED LIGHTING PLAN

SCALE: 1" = 10' | SHEET NO. 4 OF 5 SHEETS | STA. 164+23 | TO STA. 167+50

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	45
	RL-4	CONTRACT NO. 60K64		
	ILLINOIS	FED. AID PROJECT		

FUTURE NB US-45 (LAGRANGE ROAD)



NOTES:

1. SEE DRAWING GE-1 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. CONDUIT FROM JUNCTION BOX THROUGH ABUTMENT SHALL BE 1½" PVCC RGC WITHIN A 2" CONDUIT SLEEVE CAST INTO ABUTMENT. TRANSITION TO 1¼" CNC UNDERGROUND BEYOND LIMITS OF APPROACH SLAB.
3. EXTEND EMPTY CONDUIT AND CAP FOR FUTURE USE.
4. CONTRACTOR SHALL USE LIQUID-TIGHT FLEXIBLE METAL CONDUIT, 3'-0" LENGTH MAXIMUM, TO CONNECT CONDUITS ATTACHED TO STRUCTURE TO JUNCTION BOX. SEE DRAWING ED-5 FOR CONDUIT INSTALLATION DETAILS. THE COST OF FLEXIBLE METAL CONDUIT SHALL BE INCLUDED IN THE COST OF "JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 24"x24"x8" " PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
5. SEE DRAWING ED-1 FOR LIGHTING STANDARD TYPE 4A INSTALLATION DETAILS.
6. COMED EQUIPMENT NOT SHOWN. CONTRACTOR SHALL CONTACT COMED TO LOCATE AND MARK ALL UNDERGROUND CABLES.
7. JUNCTION BOX CONTAINS 30A FUSES FOR UNDERPASS LIGHTING CONDUCTORS. SEE DRAWING RL-6 FOR PEDESTRIAN BRIDGE AND METRA BRIDGE UNDERPASS LIGHTING PLAN AND TYPICAL UNDERPASS LIGHTING UNIT WIRING DIAGRAM. THIS WORK SHALL BE INCLUDED IN THE "JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 24"x24"x8" " PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.

10 0 10 20 30 40 50
SCALE IN FEET

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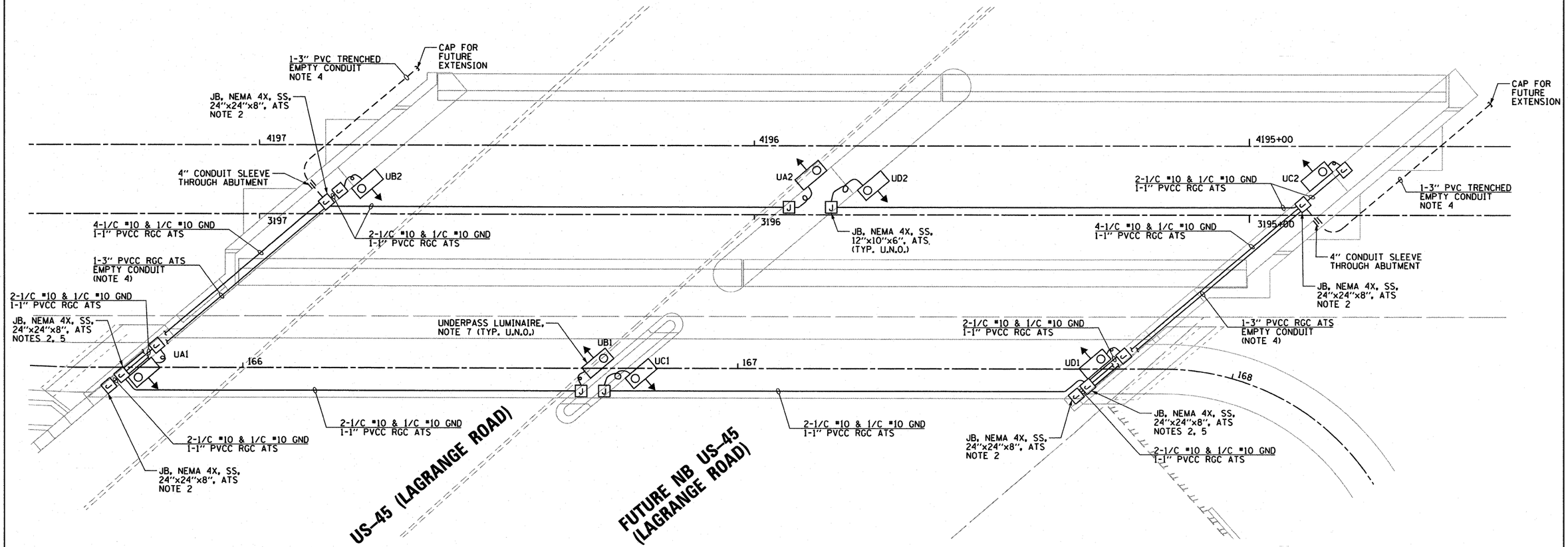
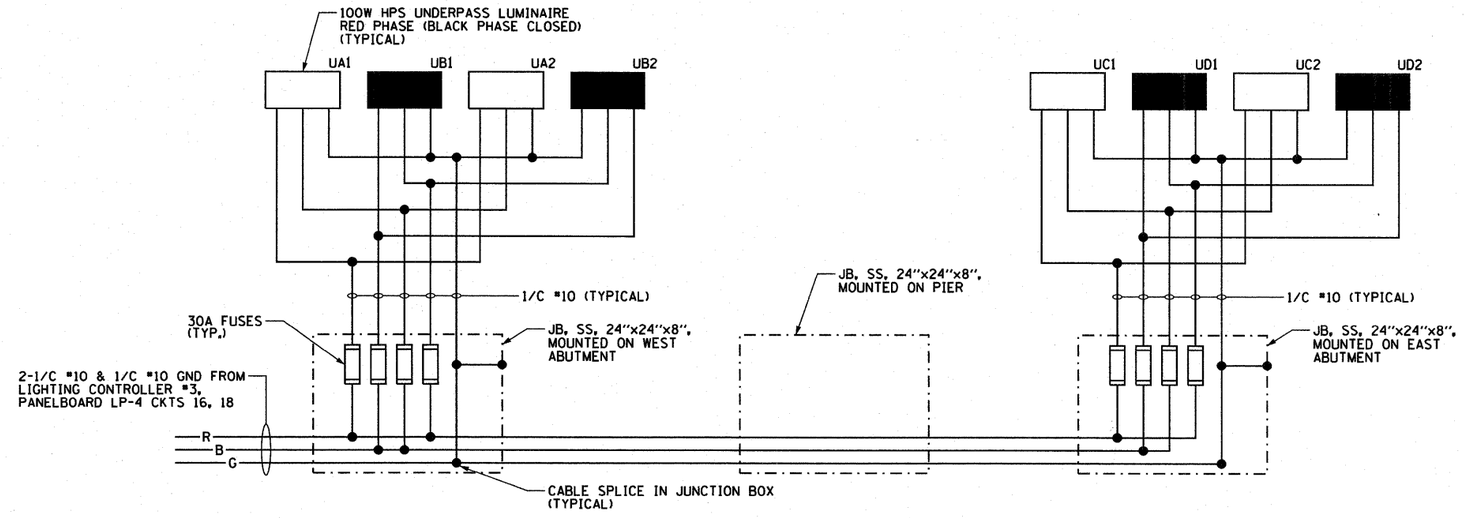
DEPARTMENT OF TRANSPORTATION

MULTI-USE PATH PROPOSED LIGHTING PLAN

SCALE: 1" = 10' | SHEET NO. 5 OF 5 SHEETS | STA. 167+25 TO STA. 170+80

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	46
	RL-5	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			

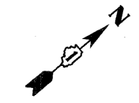




TYPICAL UNDERPASS LIGHTING UNIT WIRING DIAGRAM
N.T.S., NOTE 6

NOTES:

1. SEE DRAWING GE-1 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. CONTRACTOR SHALL USE LIQUID-TIGHT FLEXIBLE METAL CONDUIT, 3'-0" LENGTH MAXIMUM, TO CONNECT CONDUITS ATTACHED TO STRUCTURE TO JUNCTION BOX. SEE DRAWING ED-5 FOR CONDUIT INSTALLATION DETAILS. THE COST OF FLEXIBLE METAL CONDUIT SHALL BE INCLUDED IN THE COST OF "JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 24"x24"x8" " PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
3. ALL UNDERPASS LIGHTS SHALL BE SUPPORTED FROM BRIDGE OVERHEAD. SEE DRAWING ED-6 FOR INSTALLATION DETAILS.
4. CONTRACTOR TO PROVIDE PULL STRINGS IN EMPTY CONDUITS FOR FUTURE USE.
5. JUNCTION BOX CONTAINS 30A FUSES FOR UNDERPASS LIGHTING CONDUCTORS. THIS WORK SHALL BE INCLUDED IN THE "JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 24"x24"x8" " PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
6. CONTRACTOR MUST INSTALL WIRING FOR UNDERPASS LIGHTING EXACTLY AS SHOWN ON THE UNDERPASS LIGHTING PLAN AND IN THE UNDERPASS LIGHTING WIRING DIAGRAM. THE PROVISIONS INDICATED ON TYPICAL UNDERPASS LIGHTING WIRING DIAGRAM ARE REQUIRED TO TRANSFER UNDERPASS LIGHTING TO FUTURE LAGRANGE ROAD LIGHTING SYSTEM (240/480V, 1ø, 3W) IN SUBSEQUENT CONTRACT FOR LAGRANGE ROAD RECONSTRUCTION PROJECT.
7. CONTRACTOR SHALL FURNISH AND INSTALL A 6"x6"x4" STAINLESS STEEL JUNCTION BOX ATTACHED TO STRUCTURE ABOVE EACH UNDERPASS LUMINAIRE. SEE DRAWING ED-6 FOR INSTALLATION DETAILS.



10 0 10 20 30 40 50
SCALE IN FEET

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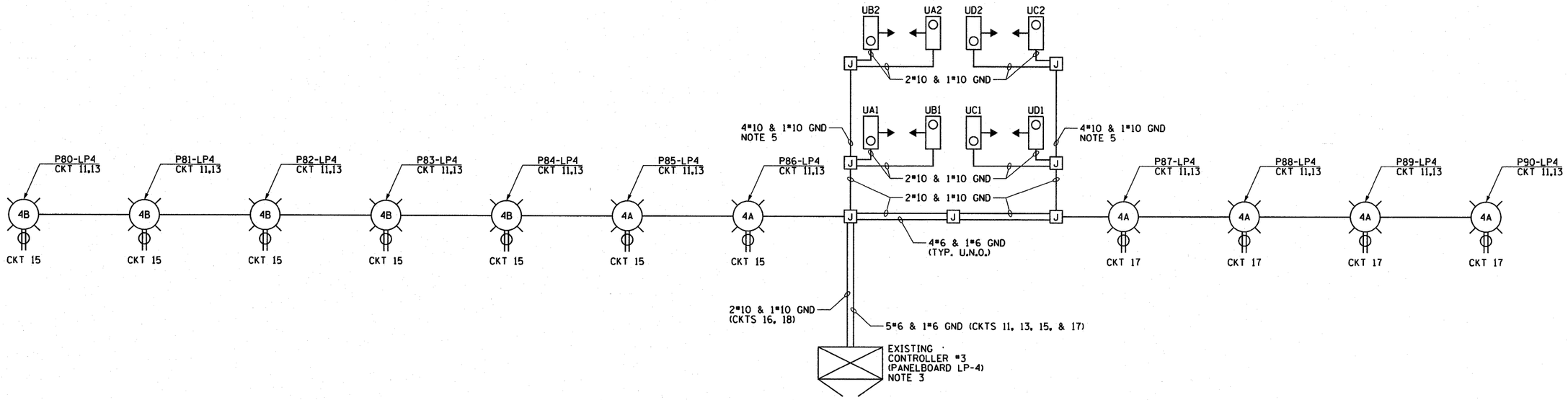
UNDERPASS LIGHTING PLAN
MULTI-USE PATH BRIDGE & METRA BRIDGE

SCALE: 1" = 10' | SHEET NO. 1 OF 1 SHEETS | STA. 164+23 TO STA. 167+50

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	46A
	RL-6	CONTRACT NO. 60K64		
	ILLINOIS	FED. AID PROJECT		



EXISTING LIGHTING CONTROLLER #3 WIRING DIAGRAM FOR NEW WORK ONLY

N.T.S.

NOTES:

1. SEE DRAWING GE-1 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE PROPOSED LIGHTING PLANS FOR CONDUIT AND WIRE INFORMATION.
3. ROUTE CIRCUITS 11,13 THROUGH THE TWO SPARE CONTACTS ON LIGHTING CONTACTOR.
4. SEE DRAWING ED-3 FOR PATH LIGHTING WIRING DIAGRAM AND TYPICAL LIGHT POLE BASE WIRING DETAIL.
5. SEE DRAWING ED-6 FOR TYPICAL UNDERPASS LIGHTING UNIT WIRING DIAGRAM.

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MULTI-USE PATH LIGHTING
EXISTING LIGHTING CONTROLLER #3 WIRING DIAGRAM

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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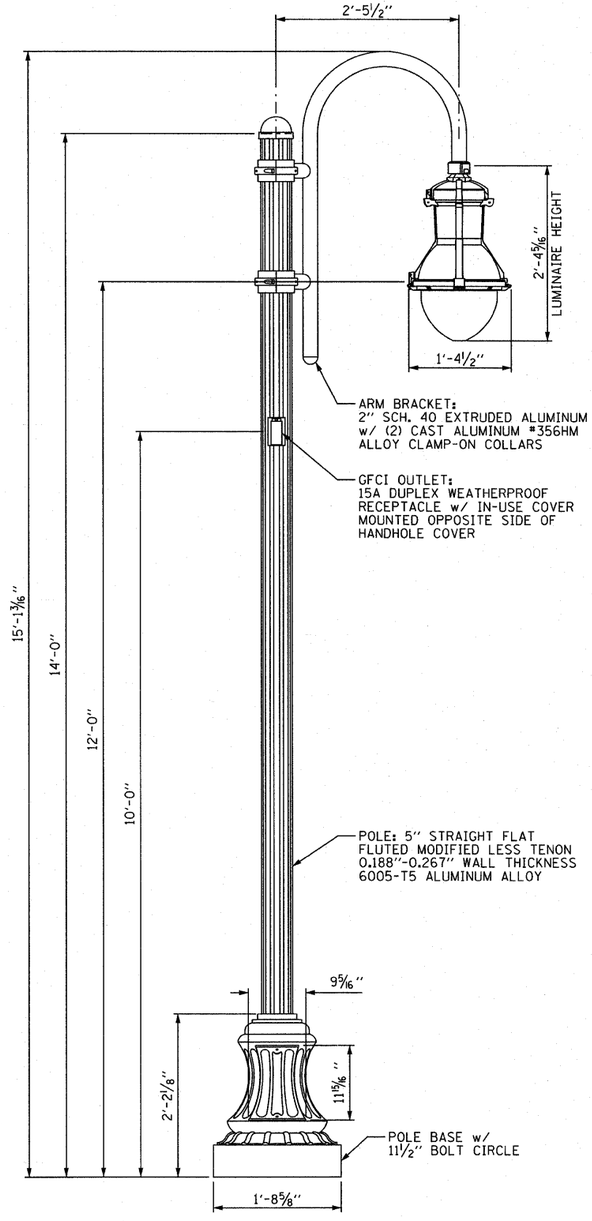
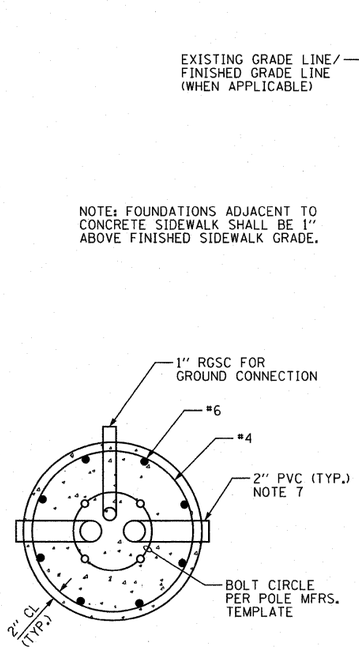
	EW-1	CONTRACT NO. 60K64		
	ILLINOIS	FED. AID PROJECT		



LIGHT POLE TYPE 4A DETAIL
N.T.S.



TOP VIEW

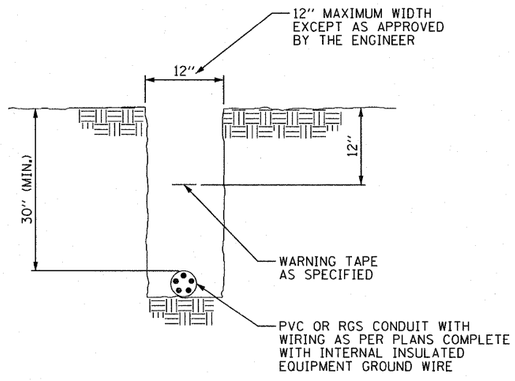
NOTE: FOUNDATIONS ADJACENT TO CONCRETE SIDEWALK SHALL BE 1" ABOVE FINISHED SIDEWALK GRADE.

ELEVATION

LIGHT POLE TYPE 4A FOUNDATION DETAIL
N.T.S. (SEE NOTES 1 THROUGH 7)

LIGHT POLE FOUNDATION NOTES:

1. MINIMUM UNCONFINED COMPRESSIVE STRENGTH FOR COHESIVE SOILS Qu = .8 TONS PER SQ. FT. MINIMUM STANDARD PENETRATION TEST VALUE FOR GRANULAR SOILS N = 10 BLOWS PER FOOT.
2. MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 3500 PSI AT THE END OF 28 DAYS.
3. ALL REINFORCEMENT SHALL BE EPOXY COATED WITH A MINIMUM YIELD POINT OF 60000 PSI.
4. THE ANCHOR BOLTS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED IN FORMS.
5. EXCAVATION FOR THE POLE FOUNDATION SHALL BE WITH AN AUGER 24 INCHES IN DIAMETER.
6. THE COST OF GROUND ROD, ASSOCIATED WIRING, AND TERMINATIONS SHALL BE INCLUDED IN "LIGHT POLE FOUNDATION" PAY ITEM. NO SEPARATE PAYMENT WILL BE MADE.
7. TRANSITION TO 1¼" CNC AT END OF PVC CONDUIT ELBOW.



TYPICAL WIRING IN TRENCH DETAIL
N.T.S.

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	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

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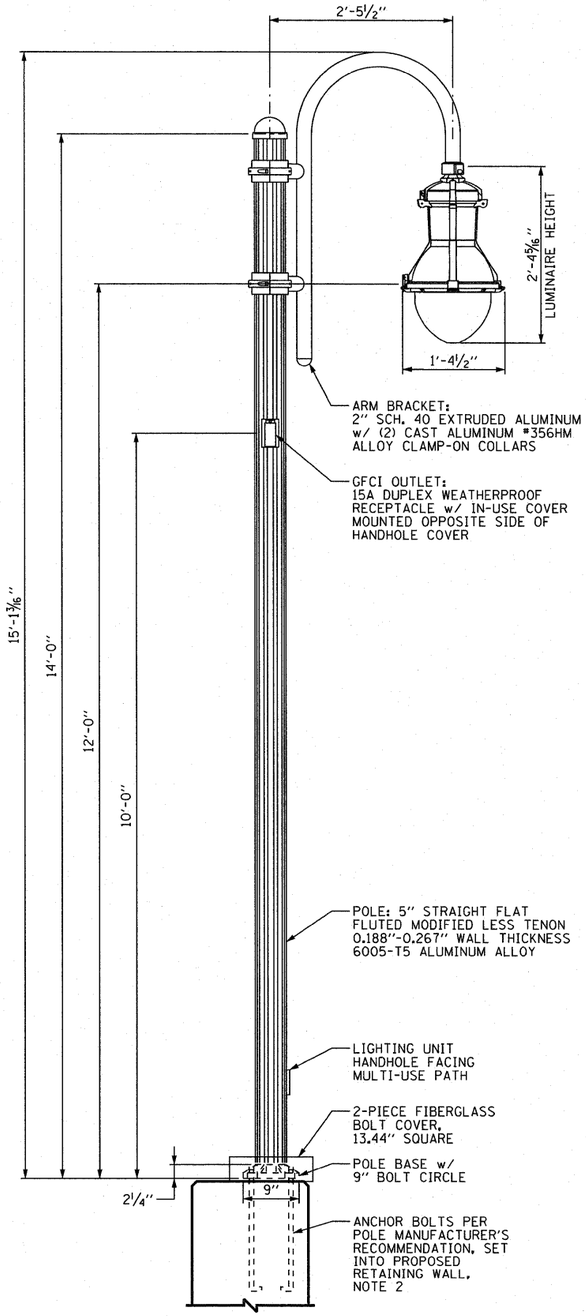
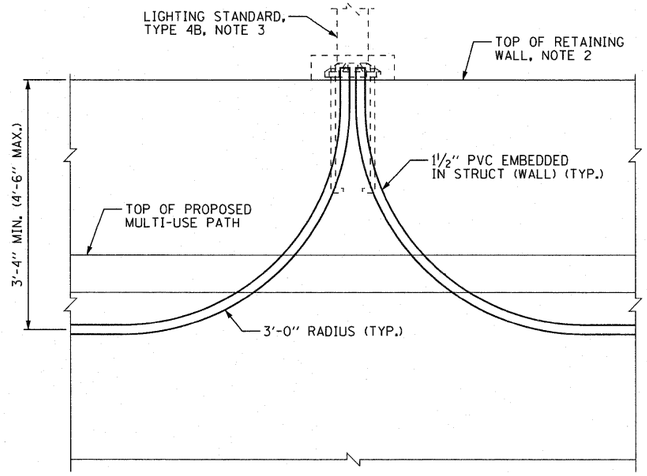
MULTI-USE PATH LIGHTING
LIGHTING STANDARD, TYPE 4A & ELECTRICAL DETAILS

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

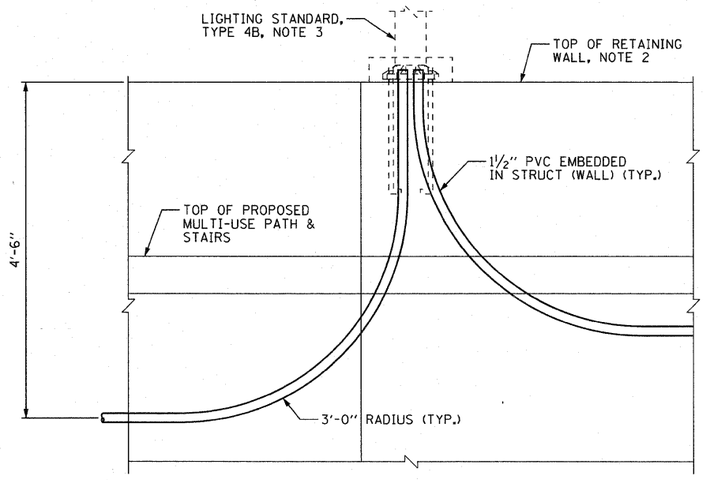
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	48
	ED-1	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			



LIGHT POLE TYPE 4B DETAIL
N.T.S.



LIGHT POLE TYPE 4B FOUNDATION DETAIL
N.T.S. (VIEW FROM PATH, NOTE 2)



LIGHT POLE TYPE 4B FOUNDATION DETAIL
N.T.S. (AT END OF WALL-VIEW FROM PATH, NOTE 2)

NOTES:

1. SEE DRAWING GE-1 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. SEE STRUCTURAL DRAWINGS FOR TYPICAL DETAILS AT LIGHTING UNIT LOCATIONS.
3. SEE LIGHT POLE DETAIL AT LEFT.

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Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

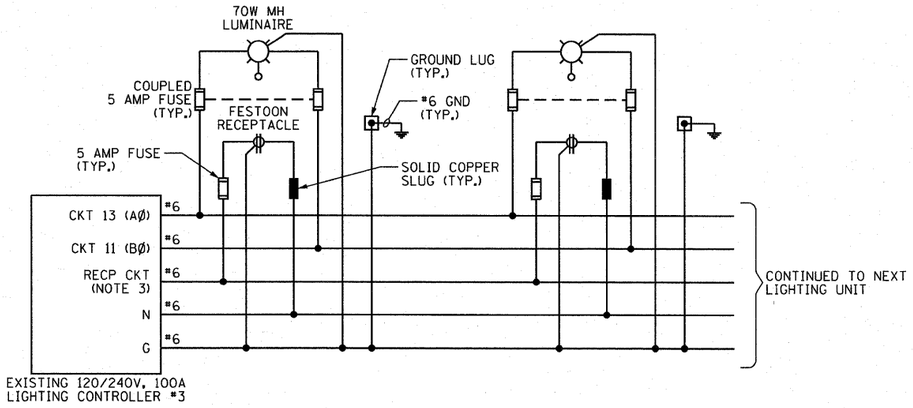
FILE NAME = D160K64-SHT-ED2.dgn	USER NAME = jletour	DESIGNED - JLW	REVISED -
		DRAWN - CJM	REVISED -
	PLOT SCALE = 1:1	CHECKED - KMY	REVISED -
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

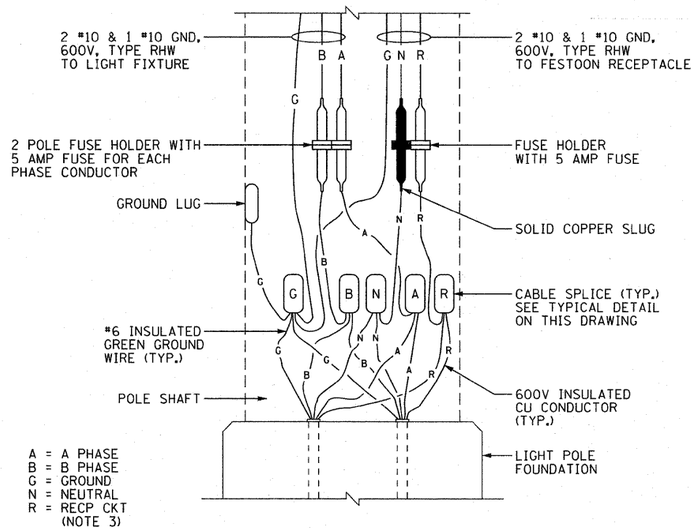
MULTI-USE PATH LIGHTING
LIGHTING STANDARD, TYPE 4B & ELECTRICAL DETAILS

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	49
	ED-2	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			



TYPICAL PATH LIGHTING WIRING DIAGRAM
N.T.S.



TYPICAL POLE BASE WIRING DETAIL
N.T.S. (TYP. FOR TYPE 4A & 4B UNITS)

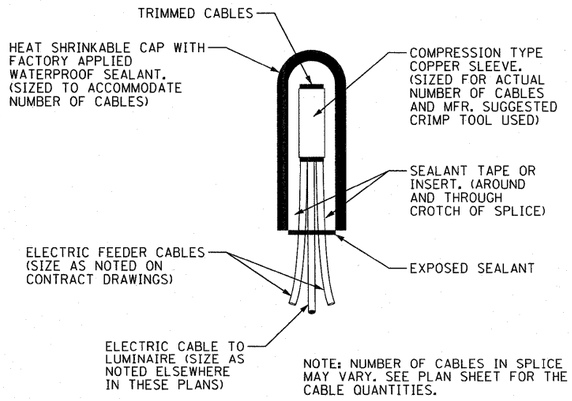
NOTES:

1. SEE DRAWING GE-1 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. FURNISH AND INSTALL NEW CIRCUIT BREAKERS IN EXISTING SPACES AS SHOWN ON LP-4 SCHEDULE. THE RATING OF NEW BREAKERS SHALL MATCH THE SHORT CIRCUIT RATING OF EXISTING CIRCUIT BREAKERS IN PANEL LP-4. THE COST OF ALL NEW CIRCUIT BREAKERS IN PANELBOARD LP4 SHALL BE INCLUDED IN THE "RELOCATE EXISTING LIGHTING CONTROLLER" PAY ITEM.
3. "RECEPTACLE CIRCUIT" REFERS TO PANELBOARD LP-4, CIRCUITS 15 OR 17. REFER TO DRAWINGS RL-2 THRU RL-5 FOR RECEPTACLE CIRCUITING INFORMATION.

PANEL DESIGNATION: LP-4 **NOTE 2** LOCATION: NORTH WALL OF POND MTG. SURFACE
☐ M.L.O. ☒ MAIN 100A BUS. 100A VOLTS: 120/240 PHASE: 1 WIRE 3 CONN.
FEEDER: ____ CONDUIT: ____ CONNECTOR. FEEDER ENTERING CABINET AT: ____

EQUIPMENT DESCRIPTION	VOLT-AMPS AØ	VOLT-AMPS BØ	BRKR. SIZE	☒NEUT. BAR ☒GRD. BAR	BRKR. SIZE	VOLT-AMPS AØ	VOLT-AMPS BØ	EQUIPMENT DESCRIPTION
PRECAST SIGN FLOODLIGHTS	350		20	1 2	20	300		TRANSFORMER - TR1
TWIST-LOCK RECEPTACLE		2880	30	3 4	30		2880	TWIST-LOCK RECEPTACLE
	2880		2	5 6	2	2880		
PHOTOCELL CIRCUIT		-	20	7 8	20		280	INTERIOR CABINET RECEPTACLE
LAWN SPRINKLER CONTROLS	100		20	9 10	20	-		SPARE
PATH LIGHTING		**512**	**20**	11 12	20		920	LAWN SPRINKLER PUMP
	512		**2**	13 14	2	920		
POLE RECEPTACLES		**1260**	**20**	15 16	**20**		**500**	**UNDERPASS LUMINAIRES**
POLE RECEPTACLES	**720**		**20**	17 18	**2**	**500**		
SPARE		-	**20**	19 20	-		-	SPACE
SPARE	-		**20**	21 22	-	-		SPACE
SPACE		-	-	23 24	-		-	SPACE
SPACE	-		-	25 26	-	-		SPACE
TOTAL "A"	**4562**			**9162**		4600		TOTAL "A"
TOTAL "B"		**4652**		**9232**			4580	TOTAL "B"
TOTAL "A,B"				**18394**				TOTAL "A,B"
TOTAL AMPS:				**76.6**				

NOTE:
HEAVY TONE LINEWORK AND TEXT REPRESENTS NEW WORK AND
LIGHT TONE REPRESENTS EXISTING TO REMAIN.



TYPICAL SPLICE DETAIL
N.T.S.

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	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -	

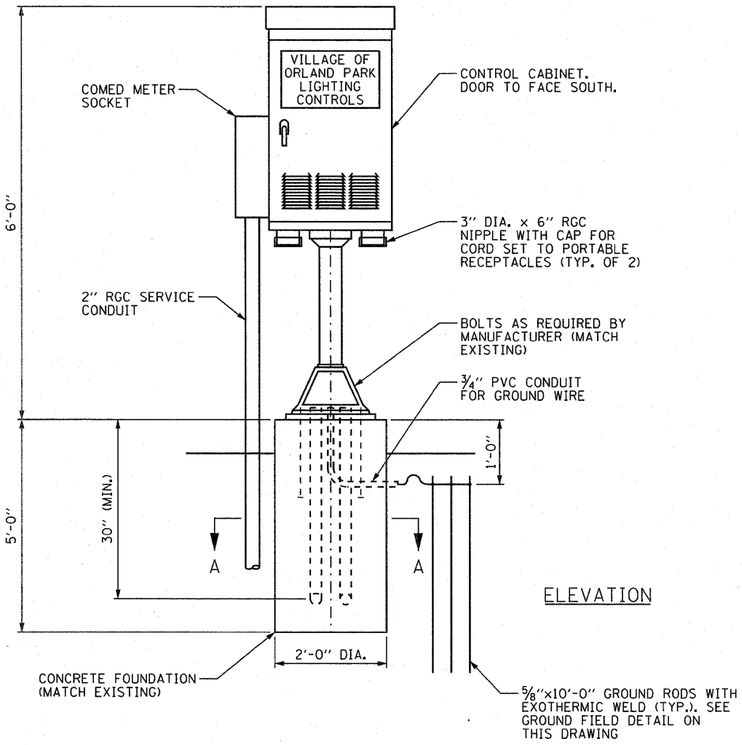
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MULTI-USE PATH LIGHTING
ELECTRICAL DIAGRAMS AND SCHEDULES
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

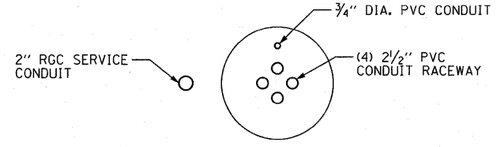
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	50
	ED-3	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			

NOTES:

1. SEE DRAWING GE-1 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. THE CONTRACTOR SHALL PROVIDE GROUND FIELD FOR THE RELOCATED LIGHTING CONTROLLER. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF "RELOCATE EXISTING LIGHTING CONTROLLER" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.

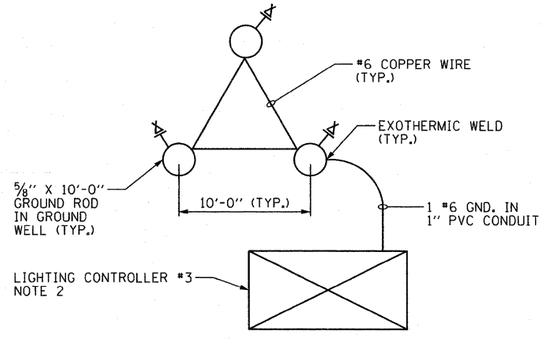


ELEVATION



SECTION A-A

CONTROLLER #3 CABINET AND FOUNDATION DETAIL
N.T.S.



GROUND FIELD DETAIL
N.T.S.

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130 East Randolph Street Chicago, Illinois 60601

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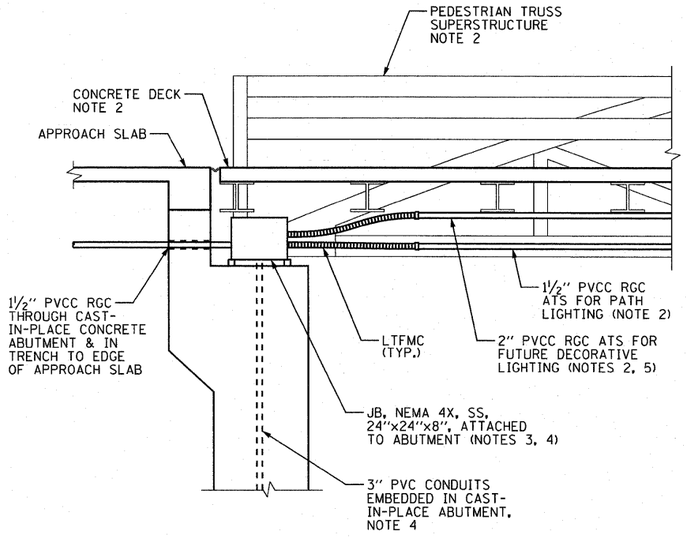
	PLOT SCALE = 1:1	CHECKED - KMY	REVISED -
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

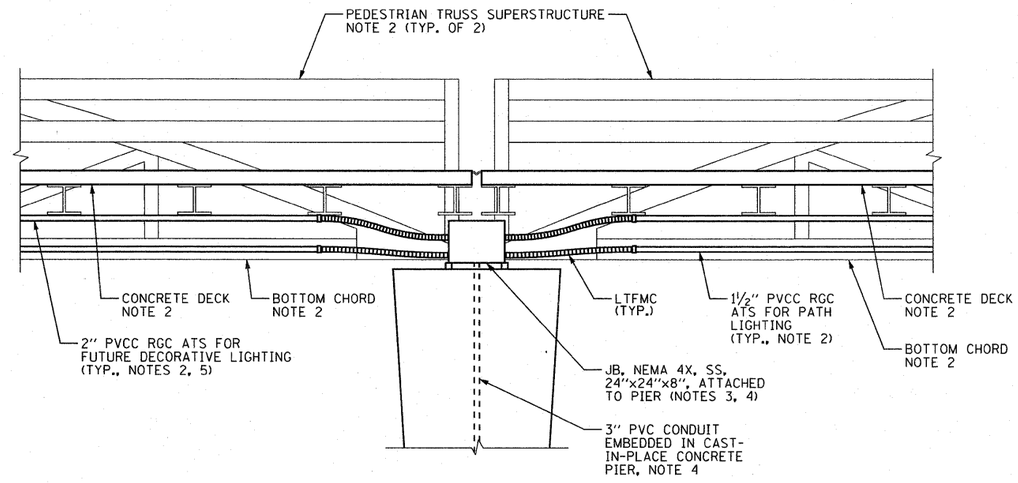
MULTI-USE PATH LIGHTING
LIGHTING CONTROLLER #3 DETAILS

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	51
	ED-4	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			



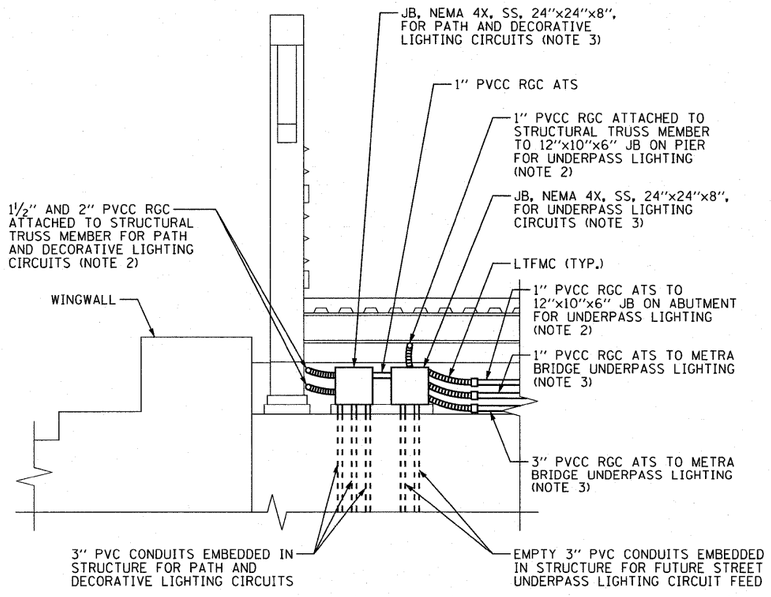
JUNCTION BOX AT ABUTMENT DETAIL
N.T.S.



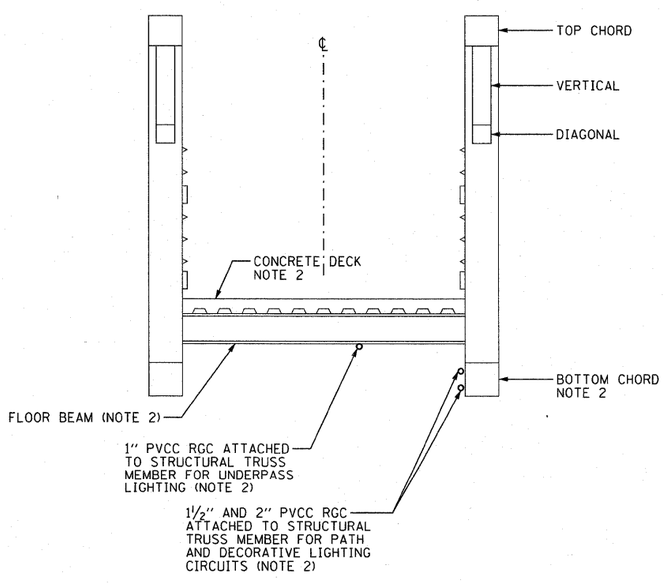
JUNCTION BOX AT PIER DETAIL
N.T.S.

NOTES:

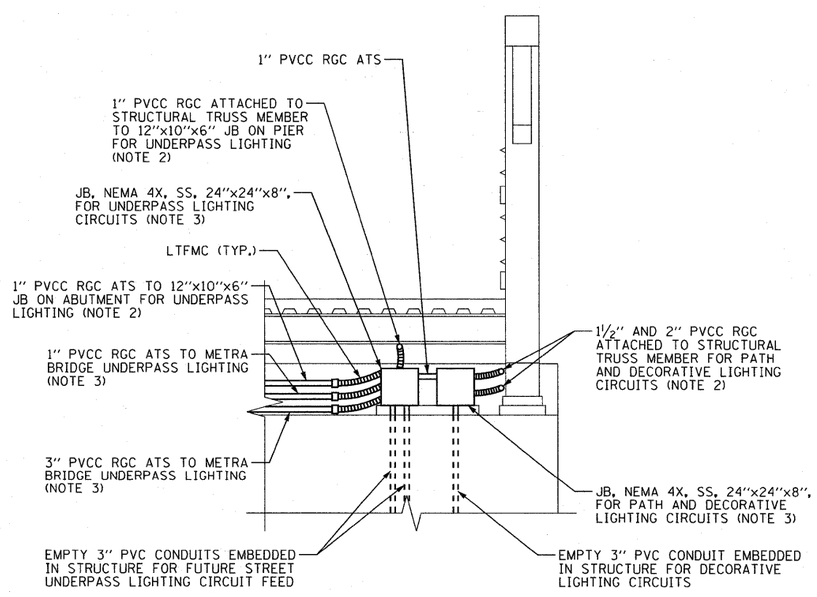
1. SEE DRAWING GE-1 FOR ELECTRICAL SYMBOL LIST, ABBREVIATIONS, AND GENERAL NOTES.
2. CONDUITS ATTACHED TO BRIDGE SUPERSTRUCTURE SHALL BE CONCEALED BELOW CONCRETE DECK AND BETWEEN BOTTOM CHORDS AS MUCH AS POSSIBLE. CONTRACTOR SHALL COORDINATE CONDUIT INSTALLATION WITH TRUSS SUPERSTRUCTURE MANUFACTURER.
3. JUNCTION BOXES SHALL BE SUPPORTED FROM SS CHANNELS ATTACHED TO CONCRETE ABUTMENT OR PIER. CONTRACTOR SHALL USE LIQUID-TIGHT FLEXIBLE METAL CONDUIT, 3'-0" LENGTH MAXIMUM, TO CONNECT CONDUITS ATTACHED TO STRUCTURE TO JUNCTION BOX. COST OF FLEXIBLE METAL CONDUIT AND SS CHANNEL SUPPORT SHALL BE INCLUDED IN THE COST OF "JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 24"x24"x 8" " PAY ITEM.
4. REFER TO STRUCTURE NO. 016-7702 DRAWINGS FOR CONDUITS EMBEDDED WITHIN ABUTMENTS AND PIER. COORDINATE JUNCTION BOX INSTALLATIONS WITH THE STRUCTURAL WORK.
5. CONDUIT SHALL CONTAIN 2-1/C #10 AND 1/C #10 GND FOR TEMPORARY POWER FEED TO UNDERPASS LIGHTING UNTIL THE UNDERPASS LIGHTING IS TRANSFERRED TO FUTURE LAGRANGE ROAD LIGHTING SYSTEM INSTALLED IN SUBSEQUENT CONTRACT FOR LAGRANGE ROAD RECONSTRUCTION PROJECT.



PEDESTRIAN BRIDGE WEST ABUTMENT ELEVATION
N.T.S. (LOOKING WEST)



TRUSS SUPERSTRUCTURE SECTION
N.T.S. (LOOKING EAST)



PEDESTRIAN BRIDGE EAST ABUTMENT ELEVATION
N.T.S. (LOOKING EAST)

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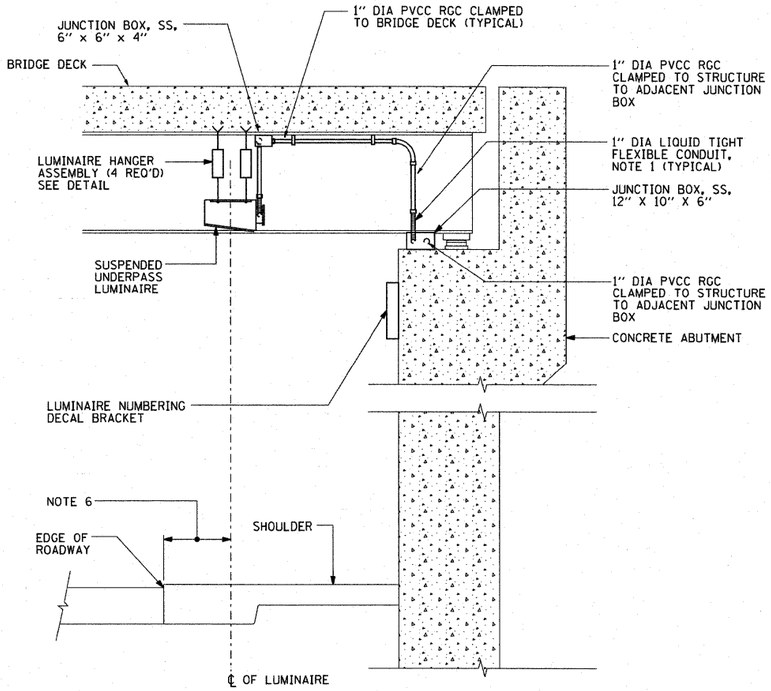
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

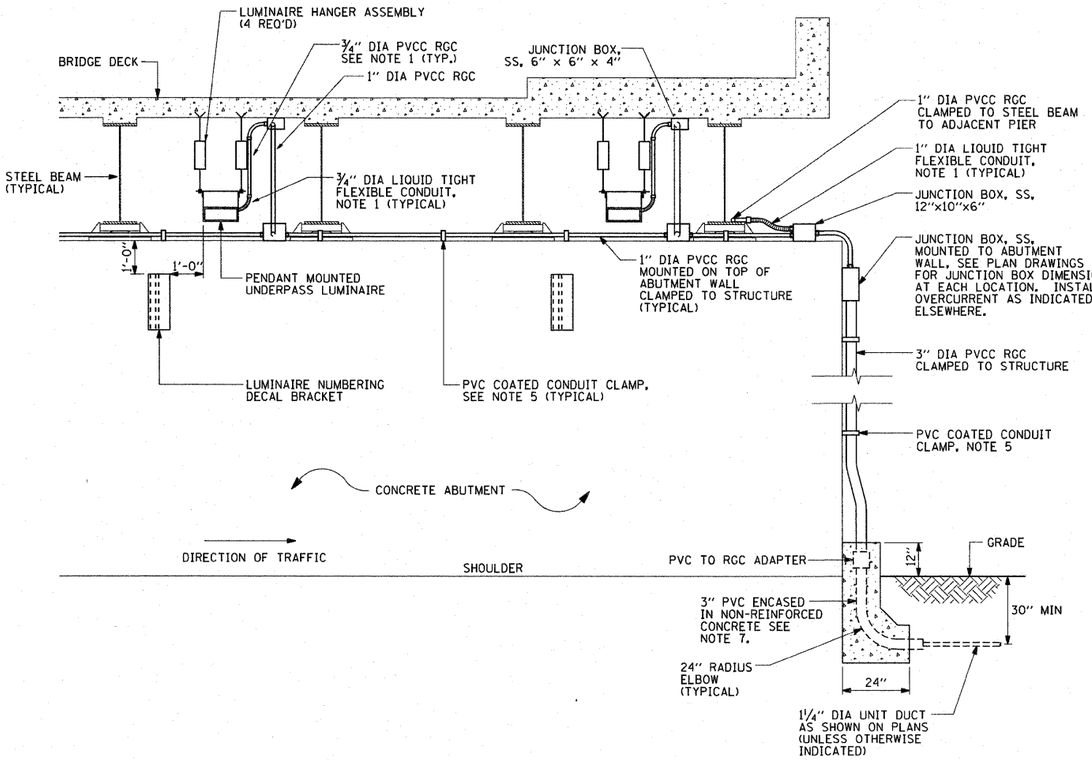
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MULTI-USE PATH LIGHTING
CONDUIT INSTALLATION DETAILS

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

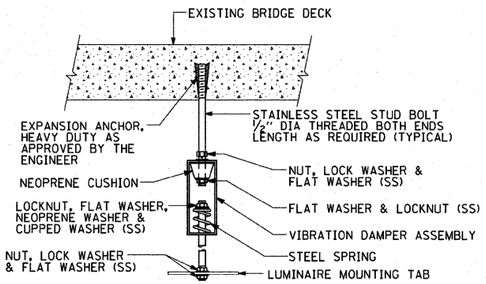
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	52
	ED-5	CONTRACT NO. 60K64		
	ILLINOIS FED. AID PROJECT			



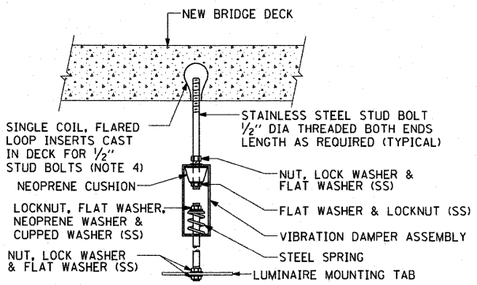


NOTES:

1. LIQUID TIGHT FLEXIBLE METAL CONDUIT, MAXIMUM LENGTH 6'-0", TYPICAL FOR EACH INSTANCE AS SHOWN. PROVIDE PVC COATED RIGID GALVANIZED STEEL CONDUIT AS REQUIRED NOT TO EXCEED 6'-0" OF FLEXIBLE LIQUID TIGHT METAL CONDUIT. LIQUID TIGHT FLEXIBLE METAL CONDUIT WILL BE INCLUDED IN THE COST OF THE CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA., GALVANIZED STEEL, PVC COATED PAY ITEM EXCEPT THAT 3/4" DIA. CONDUIT AND 3/4" DIA. FLEXIBLE CONDUIT SHALL BE INCLUDED IN THE COST OF UNDERPASS LUMINAIRE INSTALLATION.
2. SEE UNDERPASS LIGHTING PLANS FOR INSTALLATION LOCATION OF UNDERPASS LIGHTING LUMINAIRES.
3. THE CONTRACTOR SHALL USE APPROVED SINGLE COIL FLARED LOOP INSERTS WHEN SUSPENDED MOUNTING AN UNDERPASS LUMINAIRE TO A NEW BRIDGE DECK. THE FLARED LOOP INSERTS MUST BE CAST INTO THE CONCRETE DECK. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND COORDINATING THE INSERT LOCATIONS FOR MOUNTING THE UNDERPASS LIGHTING SYSTEM AS SHOWN ON THE PLANS WITH THE BRIDGE DECK CONTRACTOR. SEE DETAIL.
4. THE UNDERPASS LUMINAIRE HANGER ASSEMBLY COMPLETE WITH HEAVY DUTY ANCHORS/INSERTS AND ALL APPLICABLE HARDWARE SHALL BE INCLUDED IN THE COST OF THE UNDERPASS LUMINAIRE PAY ITEM.
5. SECURE THE CONDUIT WITH PVC COATED CONDUIT CLAMPS OR CONDUIT BEAM CLAMPS AS SHOWN AT 5'-0" INTERVALS FOR LATERALS AND WITHIN 2'-0" MAXIMUM FROM ANY JUNCTION BOX, FLEXIBLE CONDUIT, OR CHANGE IN DIRECTION. ALL PVC COATED CONDUIT CLAMPS OR BEAM CLAMPS SHALL BE INCLUDED WITH THE COST OF THE "CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA., GALVANIZED STEEL, PVC COATED" PAY ITEM.
6. ALL UNDERPASS LUMINAIRES MUST BE CENTERED IN THE BEAM SPACE AS INDICATED ON THE PLANS UNLESS OTHERWISE DIRECTED BY THE ENGR. LUMINAIRE SETBACK SHALL BE AS INDICATED IN PLANS FOR EACH SPECIFIC UNDERPASS
7. THE CONCRETE ENCASED CONDUIT TRANSITION SHALL BE INCLUDED IN THE COST OF THE GALVANIZED RIGID STEEL CONDUIT PAY ITEMS.
8. ALL CONDUIT ATTACHED TO STRUCTURE SHALL BE PVC COATED RIGID STEEL CONDUIT (PVCC RGC) TYPICAL.

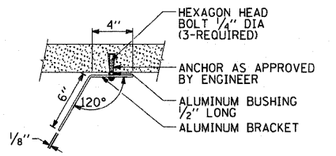


EXISTING BRIDGE DECK INSTALLATION



NEW BRIDGE DECK INSTALLATION

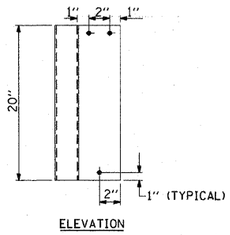
TYPICAL LUMINAIRE HANGER ASSEMBLY DETAILS



TOP VIEW

LUMINAIRE NUMBERING DECAL BRACKET

NOT TO SCALE



ELEVATION

PVC COATED CONDUIT BEAM CLAMP

NOT TO SCALE

PVC COATED CONDUIT CLAMP

NOT TO SCALE

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	PLOT SCALE = 1:1	CHECKED - IDOT	REVISED -
	PLOT DATE = 1/27/2011	DATE - 12/17/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUSPENDED MOUNT UNDERPASS LUMINAIRE INSTALLATION DETAILS (BE-900)

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

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	52A
	ED-6	CONTRACT NO. 60K64		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

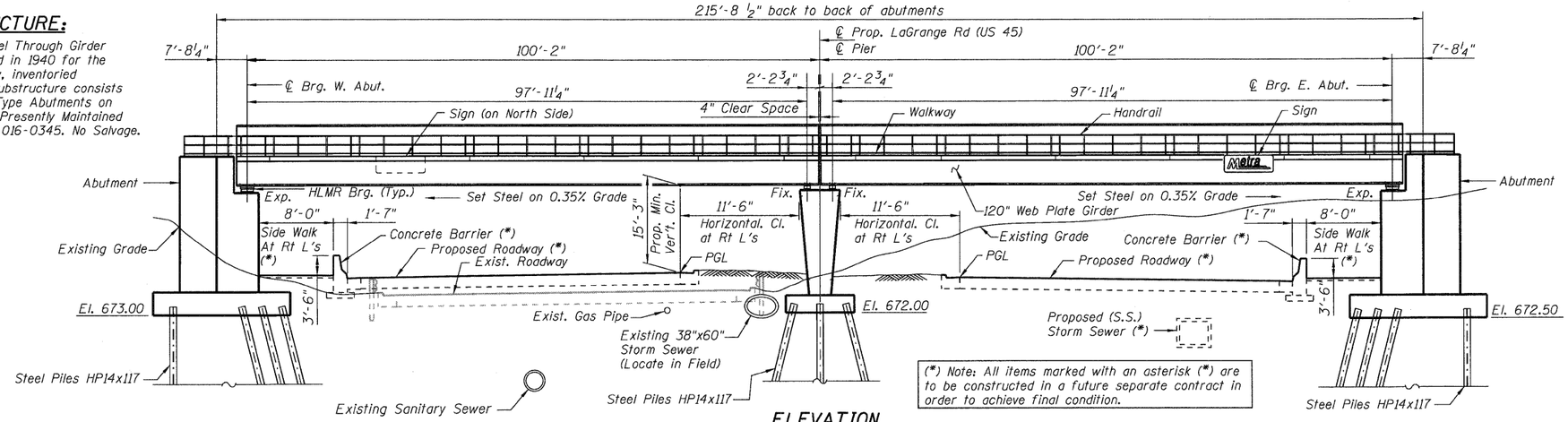
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BENCH MARK:

TBM #2 - Elev. 678.745. Chiseled cross on the northeast bolt of west light pole ±60 north of north edge of Southwest Highway Bridge.

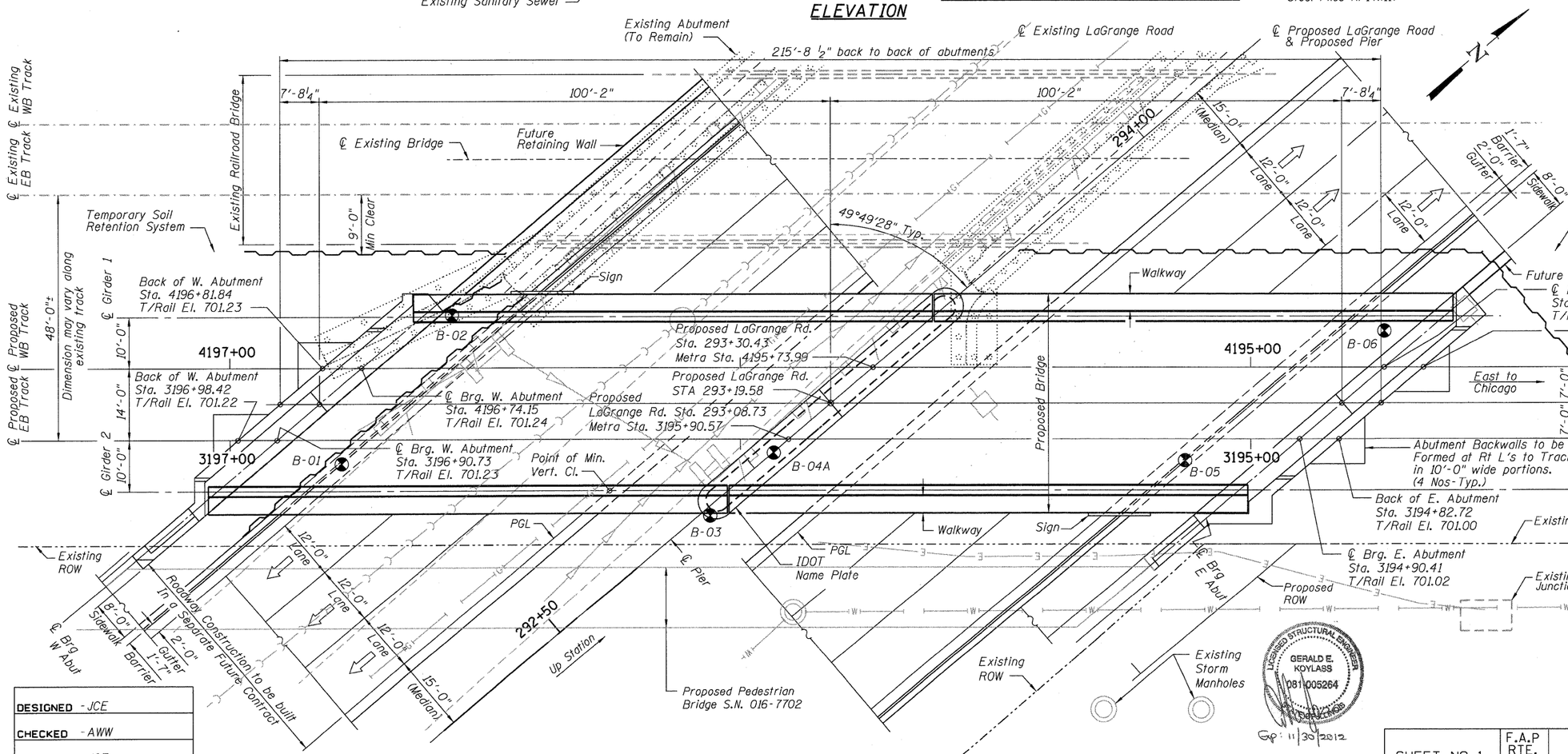
EXISTING STRUCTURE:

89'-3" Simple Span Steel Through Girder R.R. Bridge, Constructed in 1940 for the Wabash Railway Company, inventoried as Bridge No. 1043A. Substructure consists of Concrete Cantilever Type Abutments on Timber Piles. Bridge is Presently Maintained by Metra. Structure No. 016-0345. No Salvage.



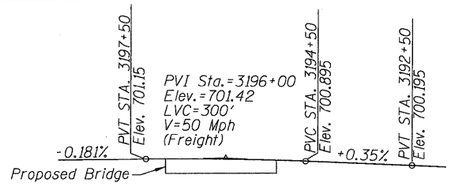
(*) Note: All items marked with an asterisk (*) are to be constructed in a future separate contract in order to achieve final condition.

ELEVATION

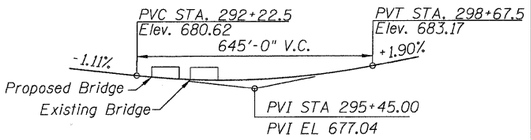


DESIGNED	- JCE
CHECKED	- AWW
DRAWN	- JCE
CHECKED	- AWW

PLAN



TOP OF RAIL ELEVATIONS



PROP. PROFILE GRADE-LAGRANGE RD

DESIGN SPECIFICATIONS

Specifications for Design and Materials: A.R.E.M.A. Manual for Railway Engineering 2010.

DESIGN LOADING

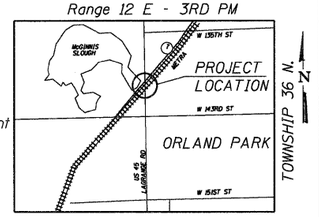
Cooper E-80 with Diesel Impact with Alternate Live Load 30" maximum design ballast.
Max. Live Load plus Impact Deflection Criteria L/640 for Railroad Super Structure.

DESIGN STRESSES

f'c = 3,500 Psi (Concrete)
fy = 60,000 Psi (Reinforcing Steel)
fy = 50,000 Psi (ASTM A709 Grade 50 Structural Steel)
fy= 42,000 Psi (ASTM A572 Grade 42 HLMR Bearings)

LEGEND

- Soil Boring
- Existing Storm Sewer
- Existing Gas Line
- Existing Sanitary
- Existing Water Line



LOCATION SKETCH

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
ENGINEER OF BRIDGES AND STRUCTURES

LICENSED STRUCTURAL ENGINEER
GERALD E. KOYLASS
081-005264
STATE OF ILLINOIS
Exp: 11/30/2012

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

GENERAL PLAN & ELEVATION
RAILROAD OVER US 45 (LaGRANGE RD.)
FAP RT. 330 - SECTION 102VB
COOK COUNTY
STA. 293+19.58
STRUCTURE NO. 016-6201

SHEET NO. 1	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	330	73 R-B	COOK	136	53
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

0166201-60K64-001-GPE.dgn

CAST IN-PLACE CONCRETE

1. All substructure concrete shall have a compressive strength of 3,500 psi @ 28 days.
2. All exposed concrete edges shall have a $\frac{3}{4}$" x 45 degree chamfer. Chamfer on vertical edges shall be continued a minimum of one foot below finished ground level.

REINFORCING STEEL

3. Reinforcement bars, including epoxy coated reinforcement bars, shall conform to the requirements of ASTM A706 Grade 60. See special provisions.
4. Cover from the face of concrete to face of reinforcement bars shall be 3". For surfaces cast against earth and 2" for all other surfaces unless shown otherwise.
5. Reinforcing bar bending dimensions are out to out.
6. Reinforcement bending details shall be in accordance with the "Manual of Standard Practice for Detailing Reinforced Concrete Structures," ACI 315 latest edition.
7. Reinforcement bars designated "(E)" shall be epoxy coated.

GENERAL NOTES

8. Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of work, however, the contractor will be paid for the quantity actually furnished or removed at the unit price.
9. Do not scale dimensions for construction.
10. No construction joints except those shown on the plans will be allowed unless ordered by the Engineer.
11. Temporary sheeting, bracing or cofferdams shall be constructed as required for the excavation to protect the adjacent areas from settling or falling into the excavated areas. This work shall be incidental to structure excavation, unless it is specifically required by the plans.
12. Concrete Sealer shall be applied to the seat area of the east and west abutments and pier cap as well as the inside face of both abutment backwalls.
13. It shall be the contractor's responsibility to verify the location of all utilities prior to starting construction. contact J.U.L.I.E. at 800-892-0123.
14. Upon completion of the bridge, the contractor shall measure the resulting horizontal and vertical clearances and submit them to the Engineer for review, and include in the as-built plans.
15. The existing bridge plans are available by contacting Metra and will be made available to the contractor upon written request.
16. In lieu of the hammer selection criteria and use of the WSDOT formula specified in the special provisions, the Contractor shall conduct a wave equation analysis to establish the driving criteria at all pile foundations which specify a nominal required bearing above 600 kips. The analysis and calculations shall be submitted to the Engineer for approval.
17. Protection of existing LaGrange Road from falling material or other objects during erection of the new structure, shall be included in the cost of "Erecting Structural Steel."

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL

19. Structural steel is to be paid for at the Contract Lump Sum Price for "Erecting Structural Steel".
Calculated Wt of A709 Grade50 steel is----------1,302,100 lbs.
Calculated Wt of A709 Grade 50W Corrosion Resistant (C.R.) steel is----------248,900 lbs.
Total weight is------1,551,000 lbs.
20. No field welding is permitted except as specified in the contract documents.
21. All shop and field connections shall be bolted with high-strength bolts except where otherwise shown or noted on the drawings to be bolted with machine bolts or welded. All high-strength bolts, nuts and washers shall conform to ASTM A325. Bolts shall be $\frac{7}{8}$" diameter unless otherwise noted. Holes shall be $\frac{1}{16}$" larger than bolt size unless otherwise noted.
22. The Organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4. See Special Provision for "Cleaning and Painting New Metal Structures".

DESIGN CRITERIA

SPECIFICATIONS:

Steel design in accordance with AREMA Specifications for steel structures, dated 2010. Concrete design in accordance with AREMA Specifications for Concrete Structures and Foundations, dated 2010. Workmanship and materials in accordance with the Standard Specifications for Road and Bridge Construction of the State of Illinois, Department of Transportation. Adopted Jan. 1, 2007. Except that wherever applicable, steel fabrication shall be in accordance with the AREMA Specifications. Welding shall be in accordance with the above AREMA Specicfications.

LIVE LOAD

Cooper E80 with diesel impact with alternate live load.

MAXIMUM LIVE LOAD PLUS IMPACT DEFLECTION

L/640 for Railroad Super Structure.

TOTAL BILL OF MATERIAL

	ITEM	UNIT	SUPER	SUB	TOTAL
	Porous Granular Embankment	Cu. Yd.	-	625	625
	Concrete Removal	Cu. Yd.	-	114.0	114.0
	Structure Excavation	Cu. Yd.	-	2,531	2,531
	Concrete Structures	Cu. Yd.	-	1643.3	1643.3
**	Erecting Structural Steel	L Sum	1	-	1
	Reinforcement Bars, Epoxy Coated	Pound	-	115,200	115,200
	Pipe Handrail	Foot	441	-	441
	Furnishing Steel Piles HP14X117	Foot	-	17,196	17,196
	Driving Piles	Foot	-	17,196	17,196
	Test Pile Steel HP14X117	Each	-	3	3
	Name Plates	Each	-	1	1
	Anchor Bolts, 1 1/4"	Each	-	32	32
	Anchor Bolts, 1 1/2"	Each	-	16	16
	Concrete Sealer	Sq. Ft.	-	7,266	7,266
	Geocomposite Wall Drain	Sq. Yd.	-	474	474
	Pipe Drains 4"	Foot	-	30	30
	Sign Panel - Type 2	Sq. Ft.	31	-	31
	Pile Extraction	Each	-	27	27
	Temporary Soil Retention System (To Remain in Place)	Sq. Ft.	-	272	272
	Metal Grating	L Sum	1	-	1
	Braced Excavation	Cu. Yd.	-	84	84
	Name Plates (Special)	Each	-	1	1
	Ballast	Ton	186	-	186
	Pipe Underdrains For Structures 4"	Foot	-	187	187
	Temporary Soil Retention System	Sq. Ft.	-	2,822	2,822
**	Erecting High Load Multi-Rotational Bearings, Fixed - 1500K	Each	4	-	4
**	Erecting High Load Multi-Rotational Bearings, Guided Expansion - 1500K	Each	4	-	4
**	Erecting High Load Multi-Rotational Bearings, Non-Guided Expansion - 500K	Each	8	-	8
	Deck Waterproofing	Sq. Ft.	6,994	-	6,994
	Anchor Bolts, 2 1/2"	Each	-	16	16

** Furnishing of structural steel and bearings paid for under a separate contract

ABBREVIATIONS:

PGL	Profile Grade Line
BF	Back Face
IF	Inside Face
OF	Outside Face
EF	Each Face
FF	Front Face
WA	West Abutment
EA	East Abutment
PJF	Preformed Joint Filler
PJS	Preformed Joint Sealer
EB	East Bound
WB	West Bound
NB	North Bound
SB	South Bound
WW	Wingwall
NE	North East
NW	North West
SE	South East
SW	South West
E	Expansion Bearings
F	Fixed Bearings
BOM	Bill of Material

INDEX OF SHEETS

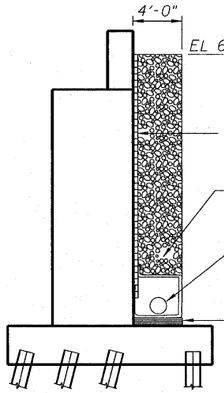
DESIGNED	JCE
CHECKED	MGB
DRAWN	JCE
CHECKED	MGB

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

GENERAL NOTES & BILL OF MATERIAL STRUCTURE NO. 016-6201

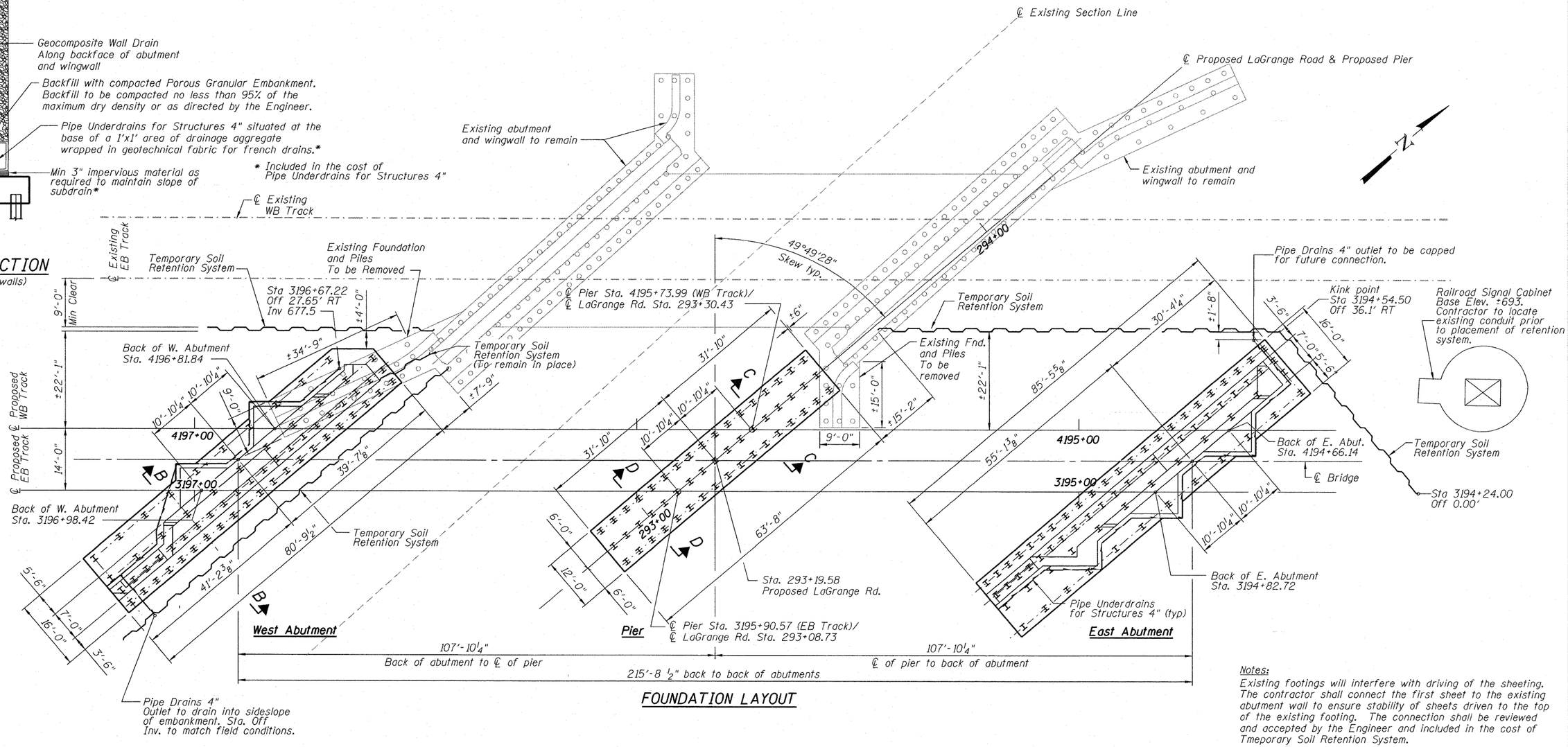
SHEET NO. 2	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	330	73 R-B	COOK	136	54
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

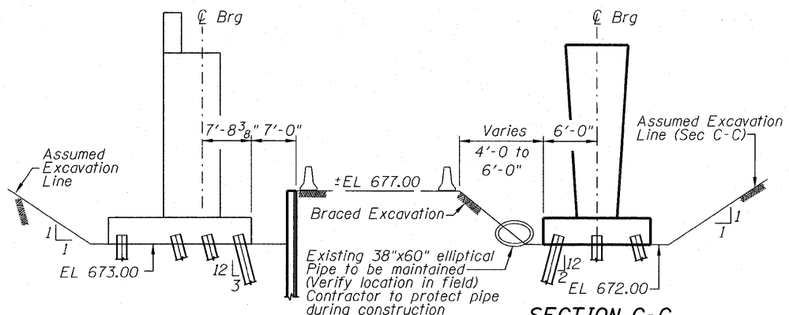


* Included in the cost of Pipe Underdrains for Structures 4"

TYPICAL DRAINAGE SECTION
(Abutments & Wingwalls)



FOUNDATION LAYOUT



SECTION B-B

SECTION C-C
SECTION D-D

Notes:

Existing footings will interfere with driving of the sheeting. The contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. The connection shall be reviewed and accepted by the Engineer and included in the cost of Tmeporary Soil Retention System.

The contractor shall submit a design for the Temporary Soil Rentention System including plan details and calculations by a licensed structural engineer in the State of Illinois for review and acceptance by the Engineer.

Existing piles to be extracted are treated timber and have an estimated length of not greater than 20'-0" according to the existing plans.

Work with Sheet 22.

DESIGNED	JCE
CHECKED	JCA
DRAWN	JCE
CHECKED	JCA

FOUNDATION PLAN
STRUCTURE NO. 016-6201

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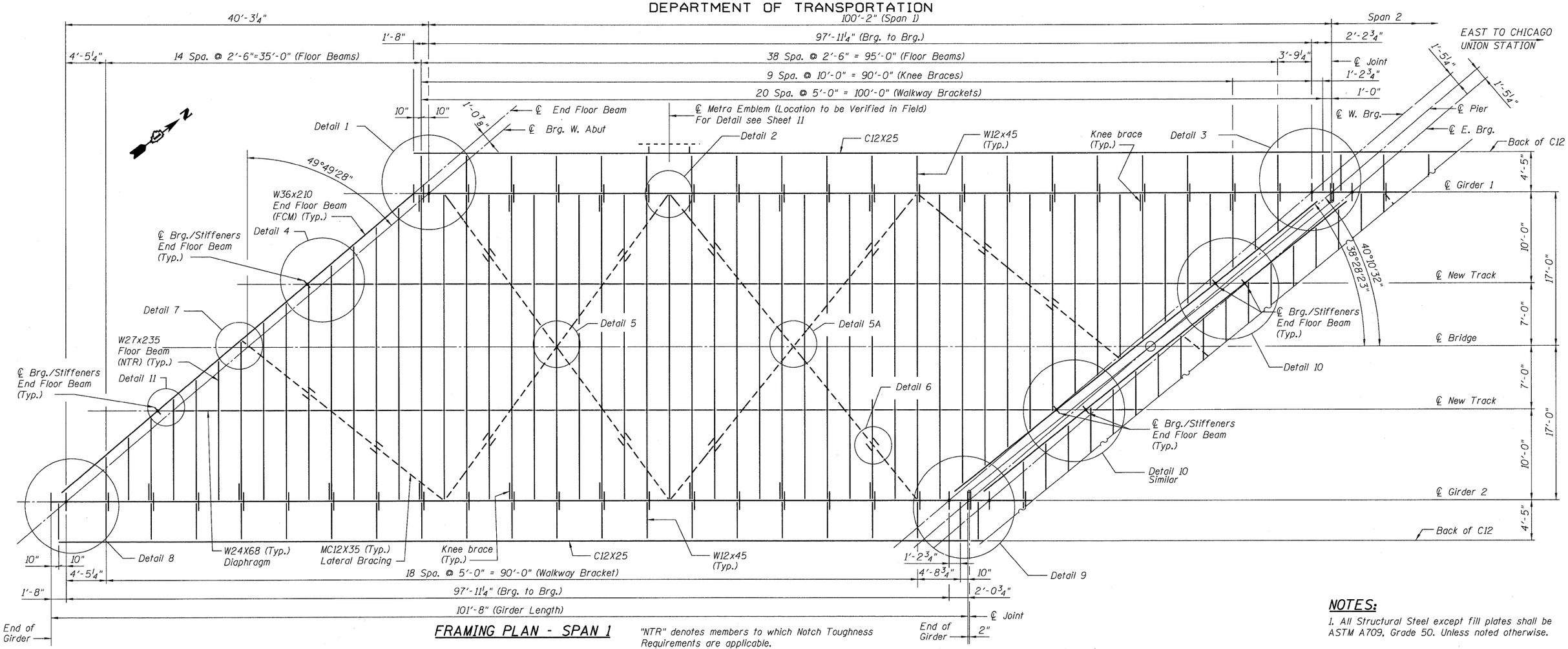
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

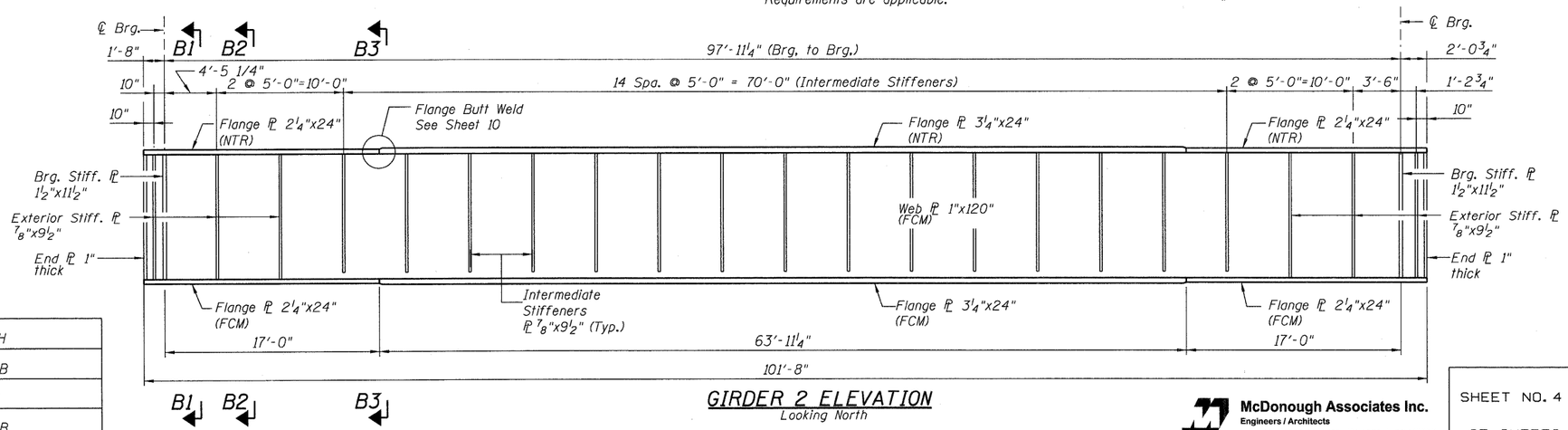
SHEET NO. 3	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	330	73_R-B	COOK	136	55
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FRAMING PLAN - SPAN 1

"NTR" denotes members to which Notch Toughness Requirements are applicable.



GIRDER 2 ELEVATION

Looking North

NOTES:

1. All Structural Steel except fill plates shall be ASTM A709, Grade 50. Unless noted otherwise.
2. "NTR" Indicates Notch Toughness Requirements.
3. All Floor Beams shall be "NTR".
4. FCM Denotes Fracture Critical Members.
5. For all FCM Members NTR, shall also be applied.
6. For Sections B1, B2 & B3 see Sheet 6.
7. For Details see Sheets 6 through 10.
8. See Sheet 7 for location of jacking stiffeners.
9. See Sheet 11 for Camber Diagram.

FRAMING PLAN AND DETAILS
SPAN 1
STRUCTURE NO. 016-6201

DESIGNED	- KJH
CHECKED	- MGB
DRAWN	- RJ
CHECKED	- MGB

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SHEET NO. 4	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	330	73 R-B	COOK	136	56
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

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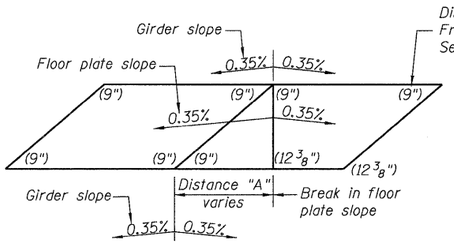
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

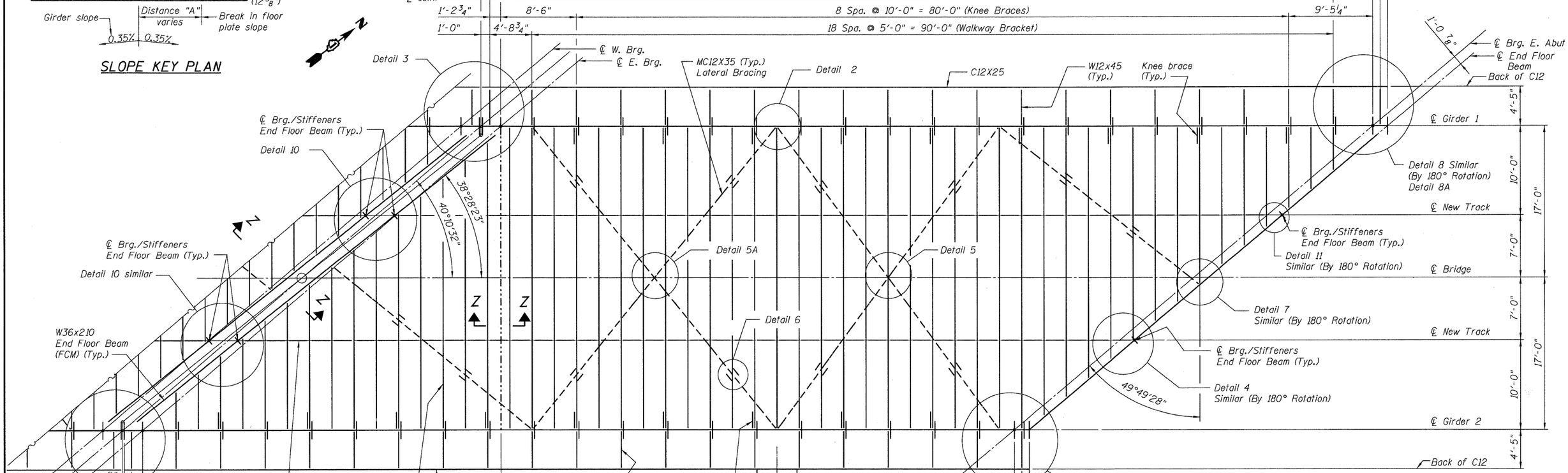


SLOPE KEY PLAN

Distance "A"
From bottom of web to bottom of floor beam
See Typical Section on Sheet 6.

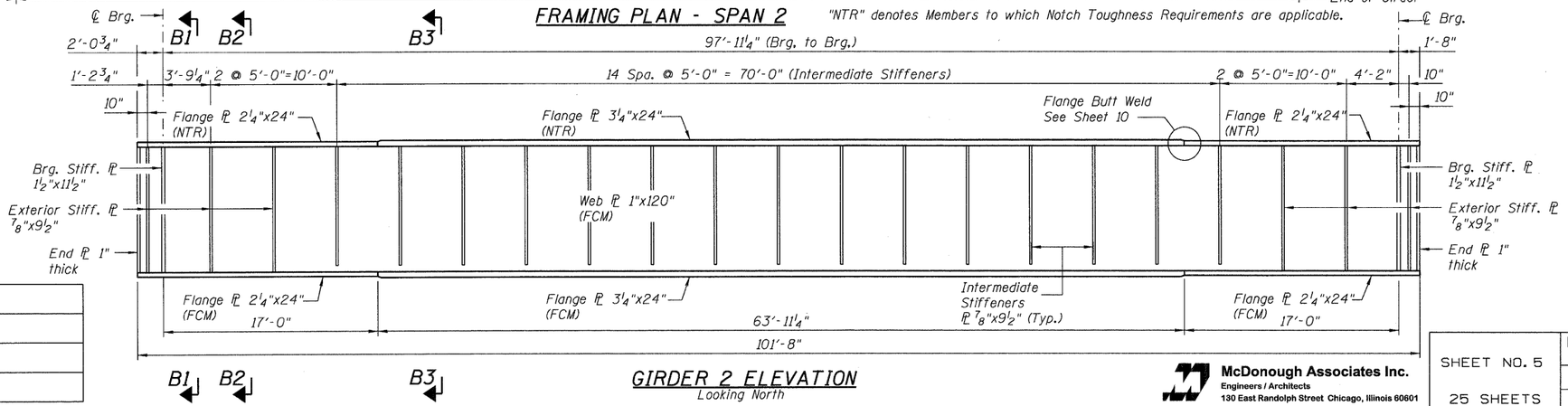
EAST TO CHICAGO
UNION STATION

Span 1 — 100'-2" (Span 2)
2'-2 3/4" — 97'-11 1/4" (Brg. to Brg.)
℄ Joint — 38 Spa. @ 2'-6" = 95'-0" (Floor Beams)
1'-2 3/4" — 8'-6" — 8 Spa. @ 10'-0" = 80'-0" (Knee Braces)
1'-0" — 4'-8 3/4" — 18 Spa. @ 5'-0" = 90'-0" (Walkway Bracket)
10" 10" 1'-8" 4'-5 1/4" 9'-5 1/4" 1'-0 7/8"



FRAMING PLAN - SPAN 2

"NTR" denotes Members to which Notch Toughness Requirements are applicable.



GIRDER 2 ELEVATION
Looking North

NOTES:

1. All Structural Steel except fill plates shall be ASTM A709, Grade 50. Unless noted otherwise.
2. "NTR" Indicates Notch Toughness Requirements.
3. All Floor Beams shall be "NTR".
4. FCM Denotes Fracture Critical Members.
5. For all FCM Members, NTR shall also be applied.
6. For Sections B1, B2, and B3 see Sheet 6.
7. For Details, see Sheets 6 through 10.
8. See Sheet 7 for location of jacking stiffeners.
9. See Sheet 11 for Camber Diagram.

FRAMING PLAN AND DETAILS
SPAN 2
STRUCTURE NO. 016-6201

DESIGNED	- KJH
CHECKED	- MGB
DRAWN	- RJ
CHECKED	- MGB

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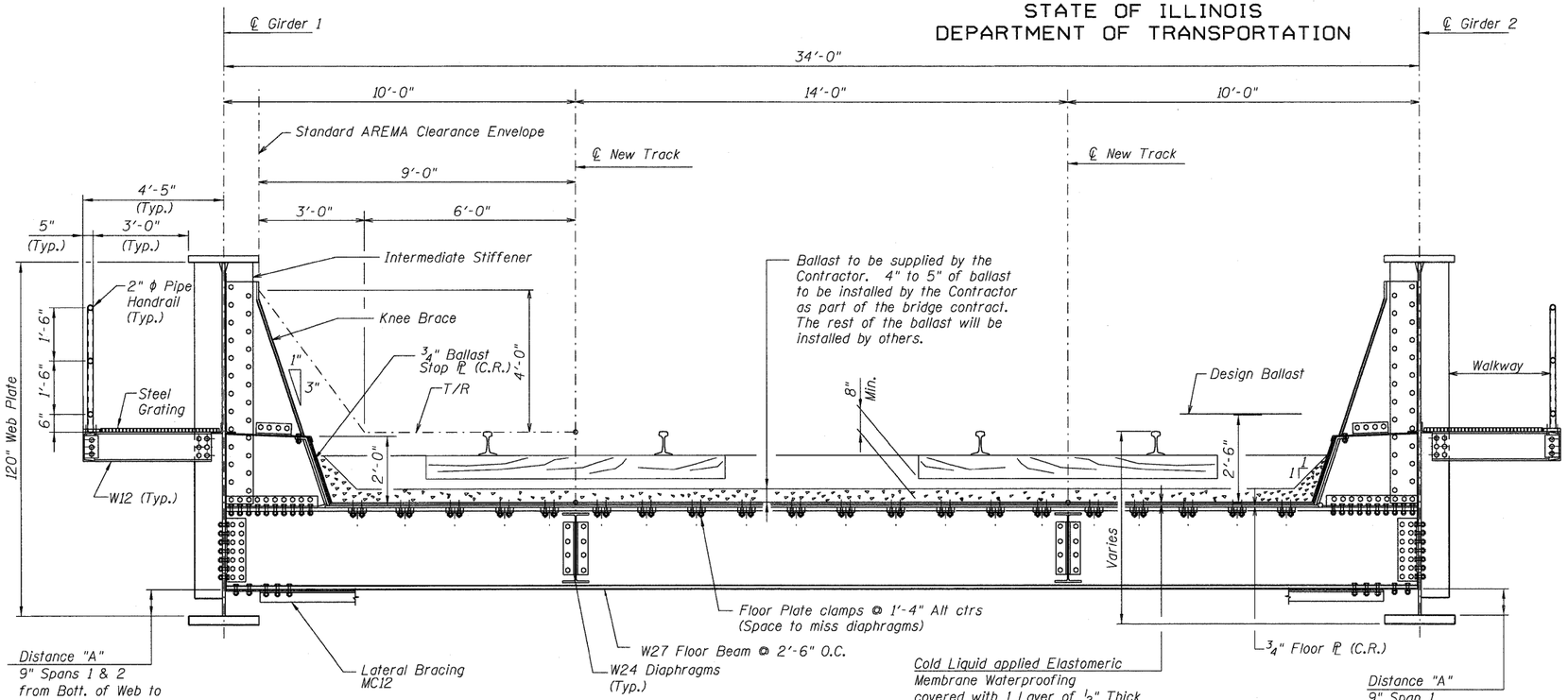
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

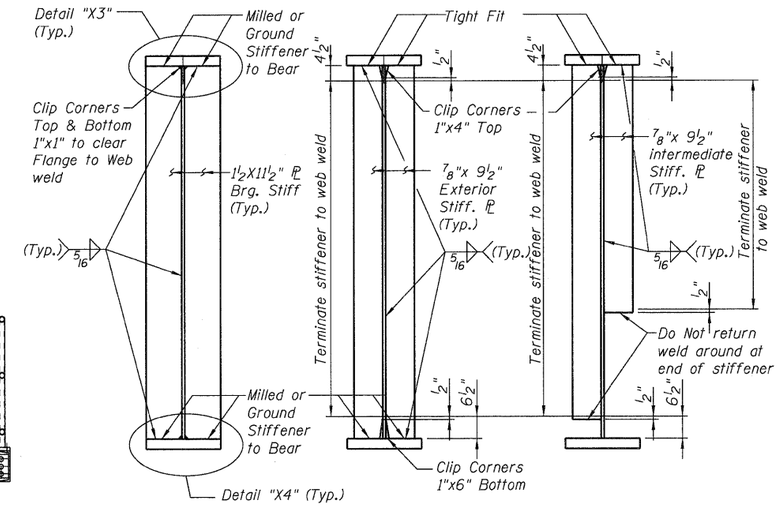
SHEET NO. 5	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	330	73 R-B	COOK	136	57
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

0166201-60K64-005-Framing.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



TYPICAL BRIDGE CROSS SECTION LOOKING EAST



SECTION B1-B1 AT BEARING | SECTION B2-B2 AT EXTERIOR | SECTION B3-B3 AT INTERMEDIATE

TYPICAL STIFFENER DETAILS

NOTES:

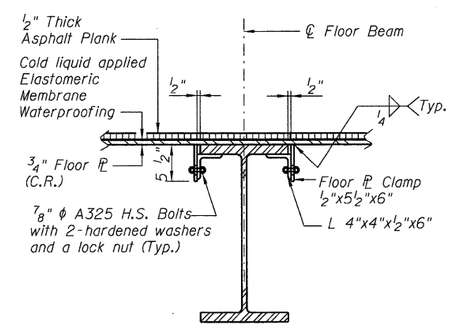
(C.R.) Denotes Corrosion Resistant.

Note "A"
1/2" Asphalt Plank over cold liquid applied Elastomeric Membrane.

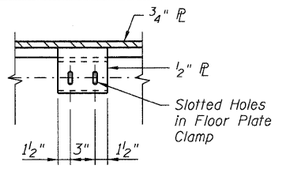
The floor plate clamp is to be installed square with the beam, any clamps that are not square shall be corrected at the Contractor's expense.

Floor beam bracket flange plate shall be flat and at right angles to the bracket web after welding has been completed.

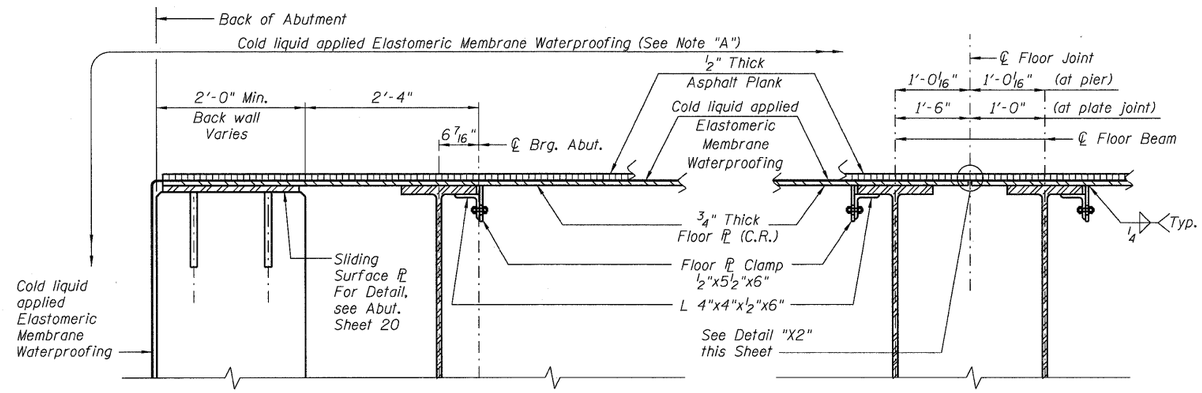
All shop and field welds on the deck shall be continuous unless otherwise shown and shall result in a watertight deck.



SECTION THRU FLOOR BEAM

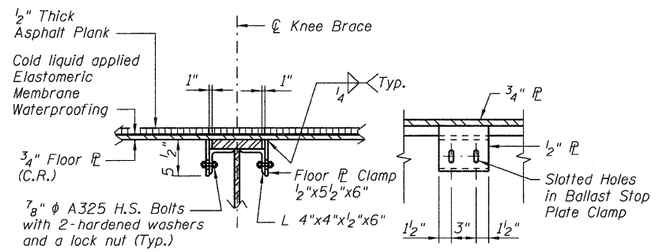


FLOOR PLATE CLAMP DETAIL

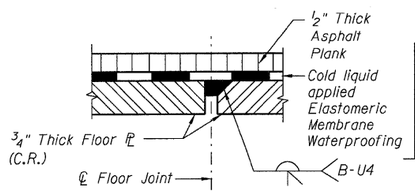


SECTION THRU ABUTMENT

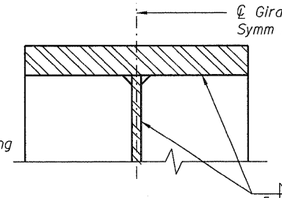
SECTION Z-Z
(thru pier and plate joint)



BALLAST STOP PLATE SECTION AND CLAMP DETAIL



DETAIL "X2"



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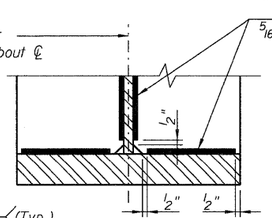


DETAIL "X4"

DESIGNED	- KJH
CHECKED	- MGB
DRAWN	- RJ
CHECKED	- MGB

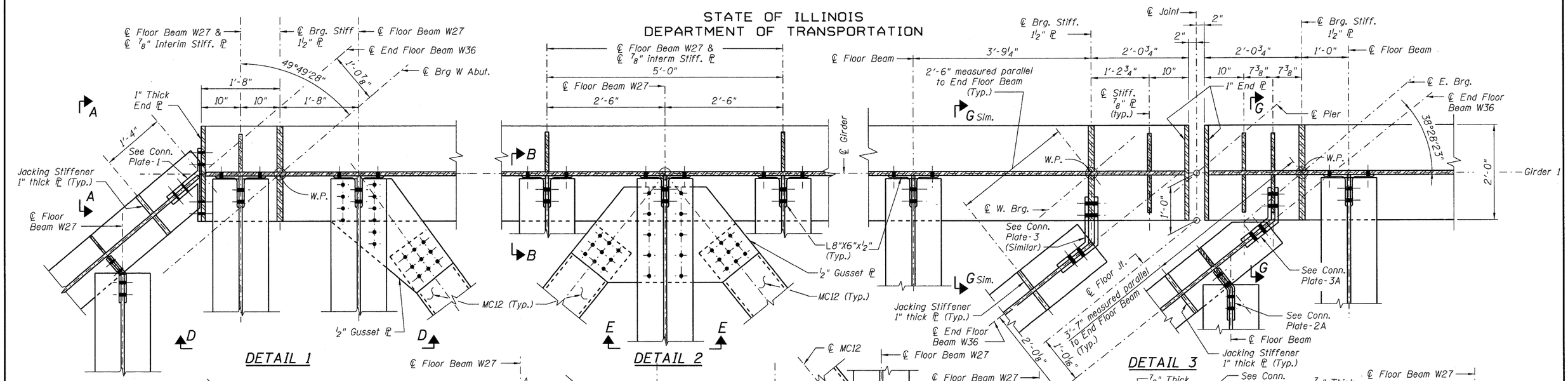
McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

TYPICAL CROSS SECTION AND STEEL DETAILS-1
STRUCTURE NO. 016-6201

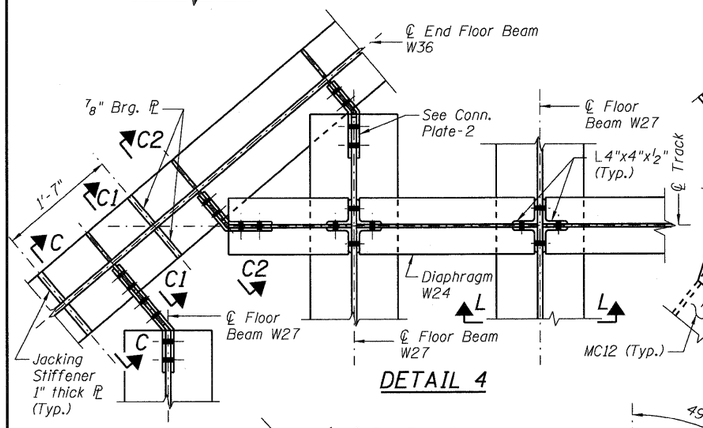
SHEET NO. 6	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	330	73 R-B	COOK	136	58
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

0166201-60K64-006-Steel.dgn

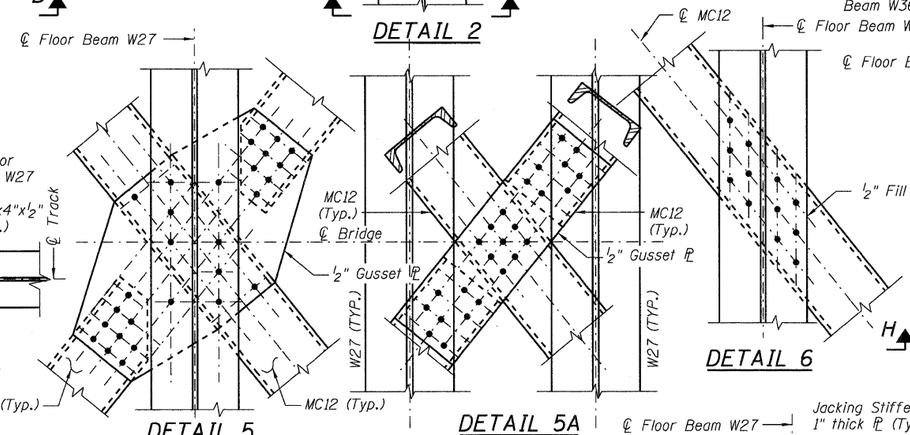
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



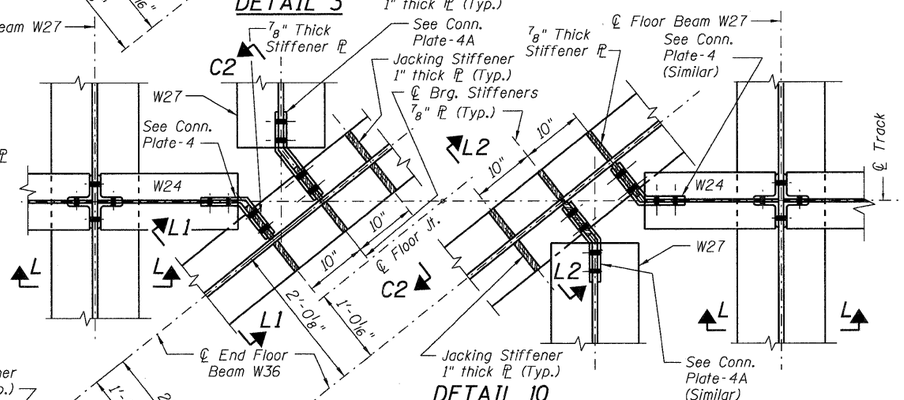
DETAIL 1



DETAIL 2



DETAIL 3



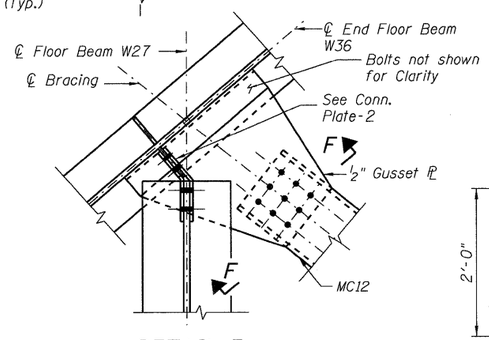
DETAIL 4

DETAIL 5

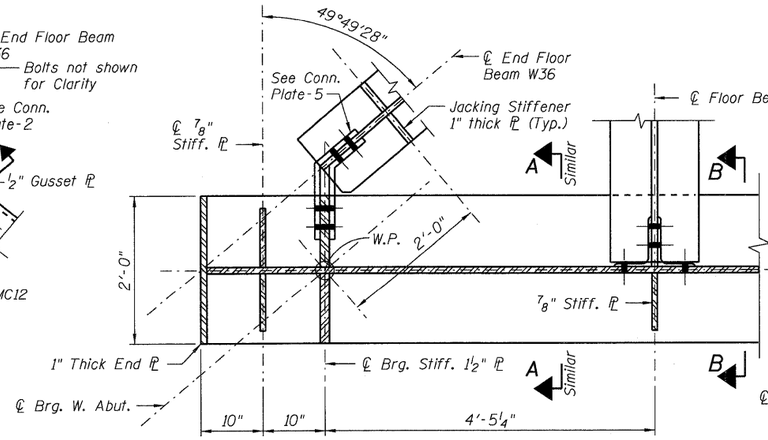
DETAIL 5A

DETAIL 6

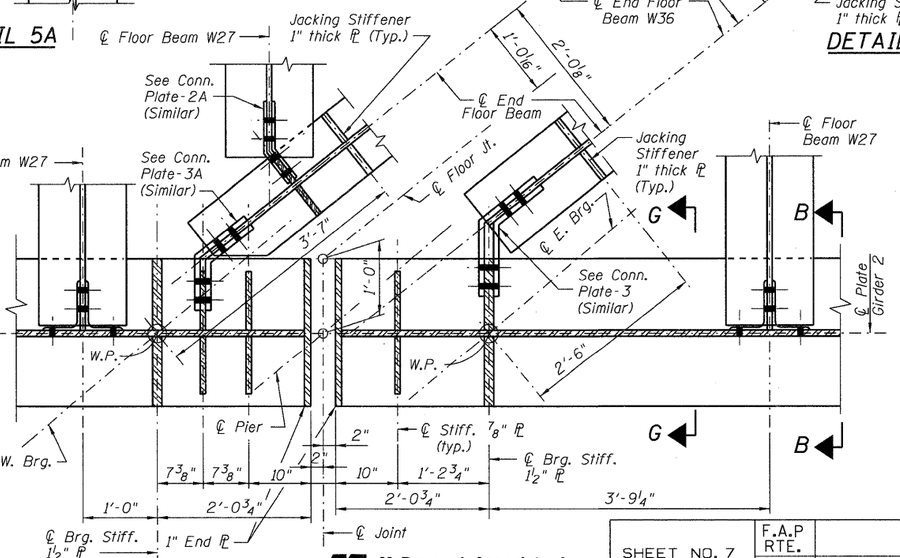
DETAIL 7



DETAIL 8

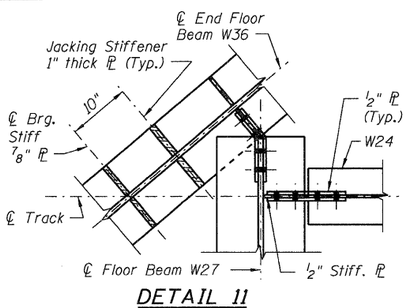


DETAIL 9



DETAIL 10

DETAIL 11



NOTES:

1. For location of Details see Sheets 4 and 5.
2. See Sheet 8 for Sections.

STEEL DETAILS-2
STRUCTURE NO. 016-6201

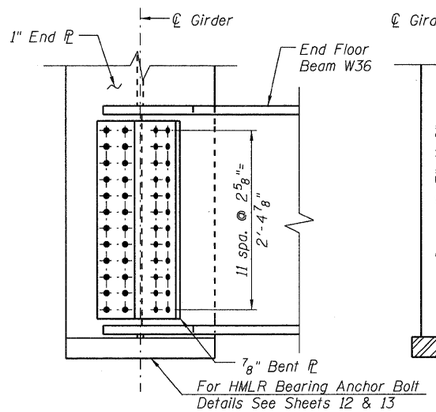
DESIGNED -	KJH
CHECKED -	MGB
DRAWN -	RJ
CHECKED -	MGB

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

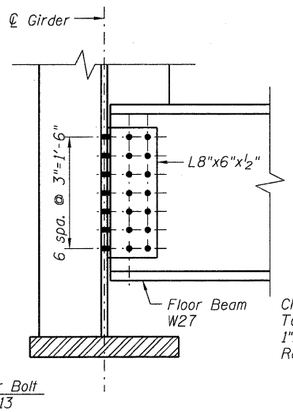
SHEET NO. 7
25 SHEETS

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	59
		CONTRACT NO. 60K64		
DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

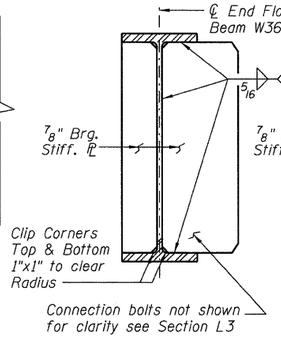
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



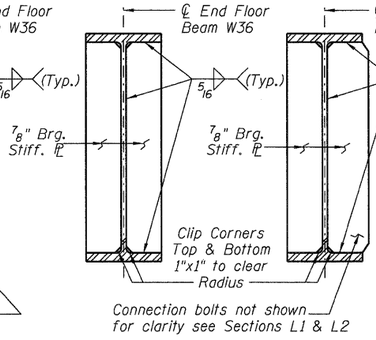
SECTION A-A



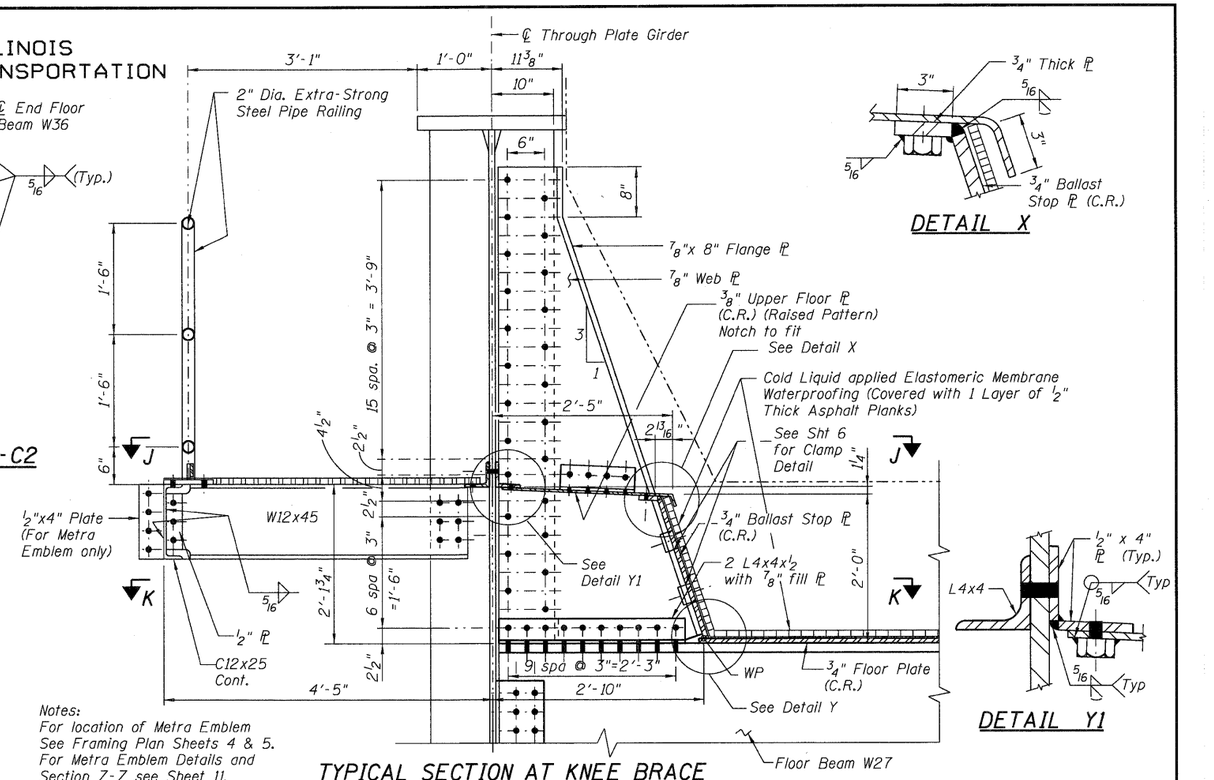
SECTION B-B



SECTION C-C



SECTION C1-C1 SECTION C2-C2

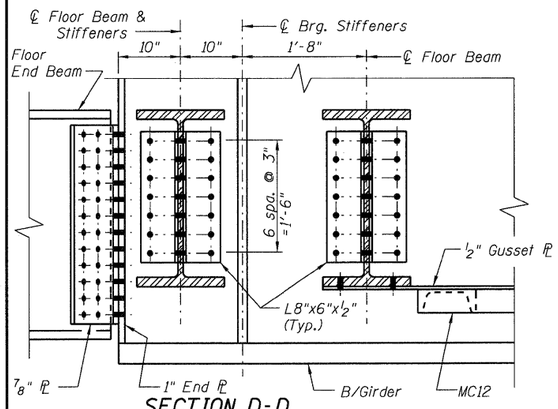


TYPICAL SECTION AT KNEE BRACE

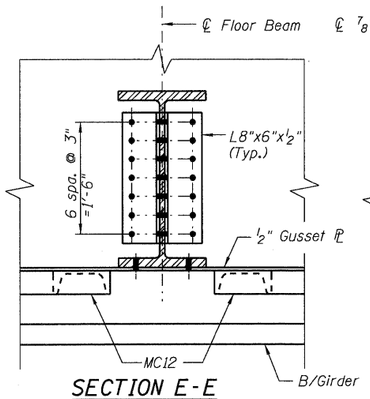
DETAIL X

DETAIL Y1

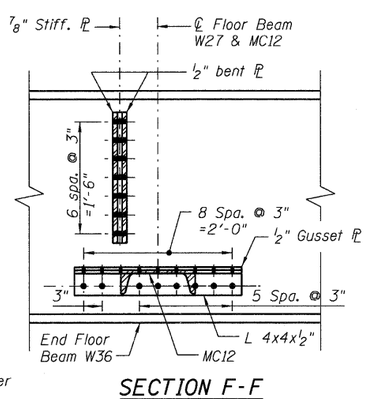
Notes:
For location of Metra Emblem See Framing Plan Sheets 4 & 5.
For Metra Emblem Details and Section Z-Z see Sheet 11.



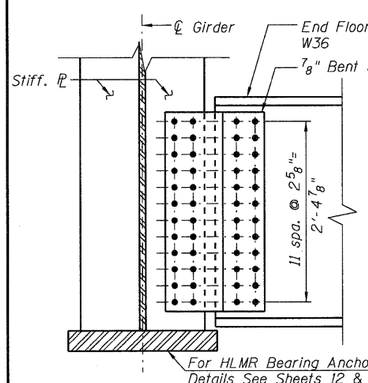
SECTION D-D



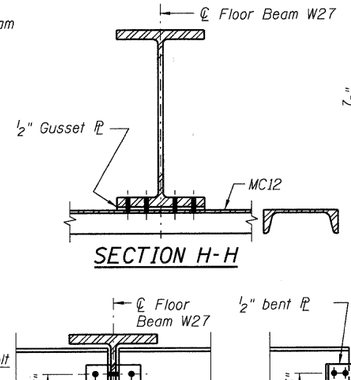
SECTION E-E



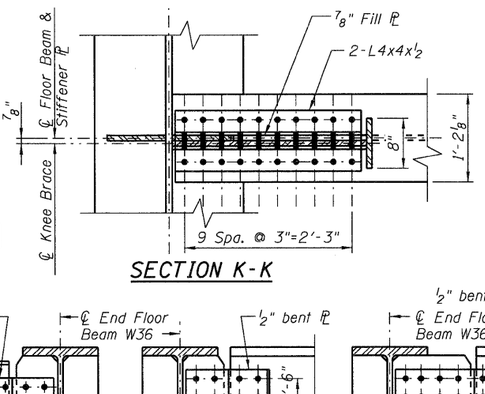
SECTION F-F



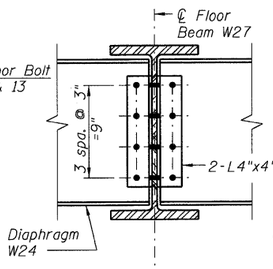
SECTION G-G



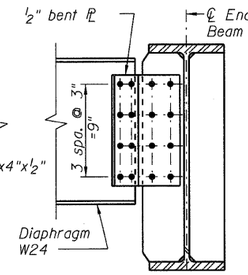
SECTION H-H



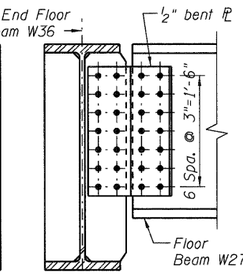
SECTION K-K



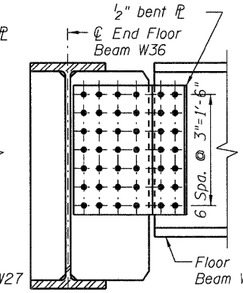
SECTION L-L



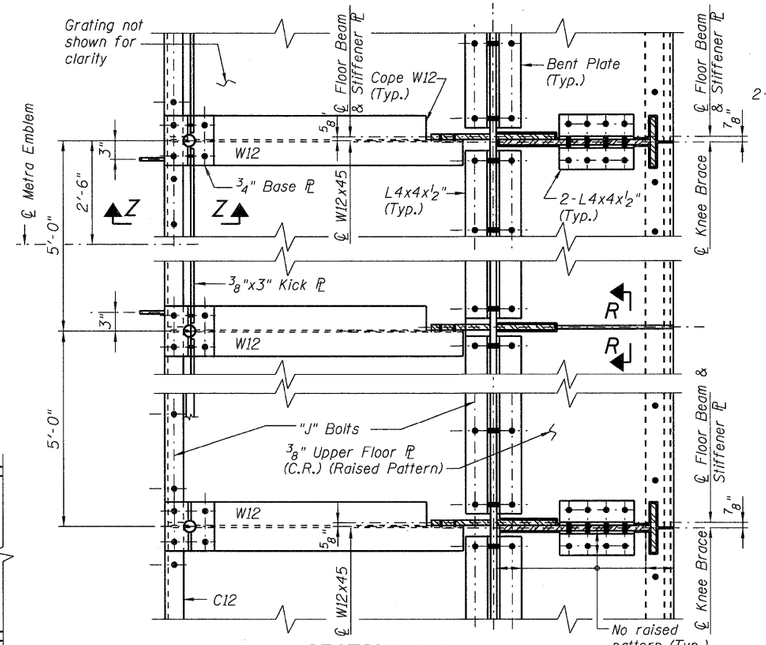
SECTION L1-L1



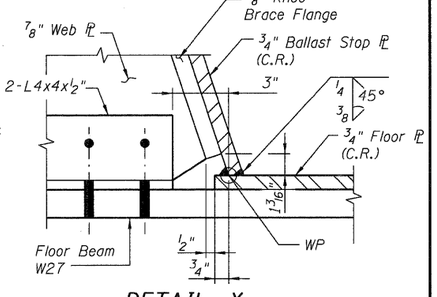
SECTION L2-L2



SECTION L3-L3



SECTION J-J



DETAIL Y

NOTES:
1. WP denotes Work Point.
2. CR Denotes Corrosion Resistant Steel.
3. FCM Denotes Fracture Critical Member.
4. Work this drawing with Sheet 7.

STEEL DETAILS-3
STRUCTURE NO. 016-6201

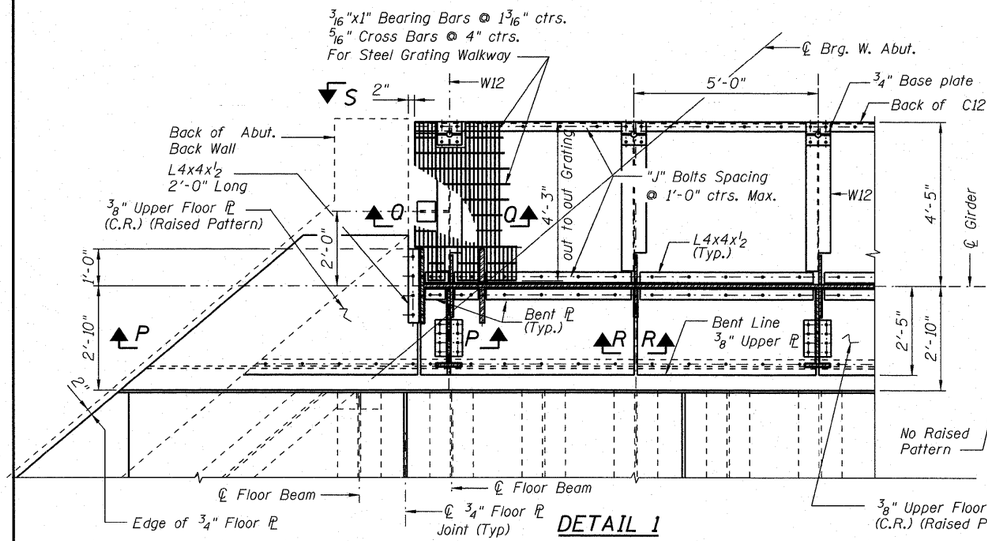
DESIGNED	- KJH
CHECKED	- MGB
DRAWN	- RJ
CHECKED	- MGB

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

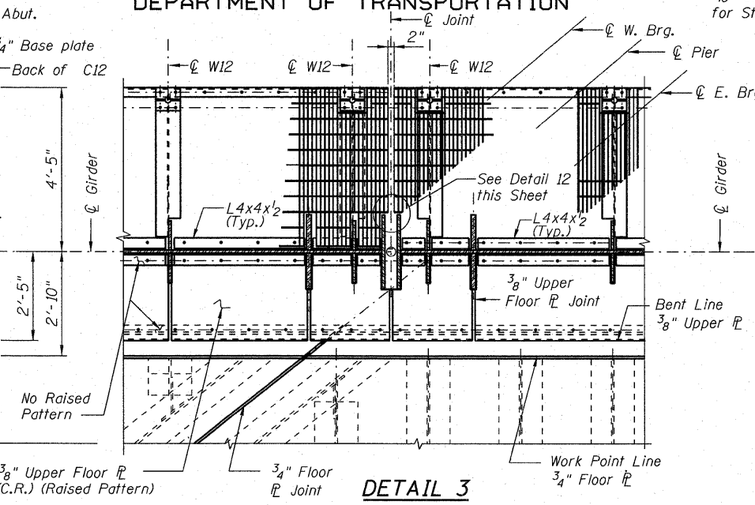
SHEET NO. 8	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	330	73 R-B	COOK	136	60
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS FED. AID PROJECT			

0166201-60K64-008-Steel.dgn

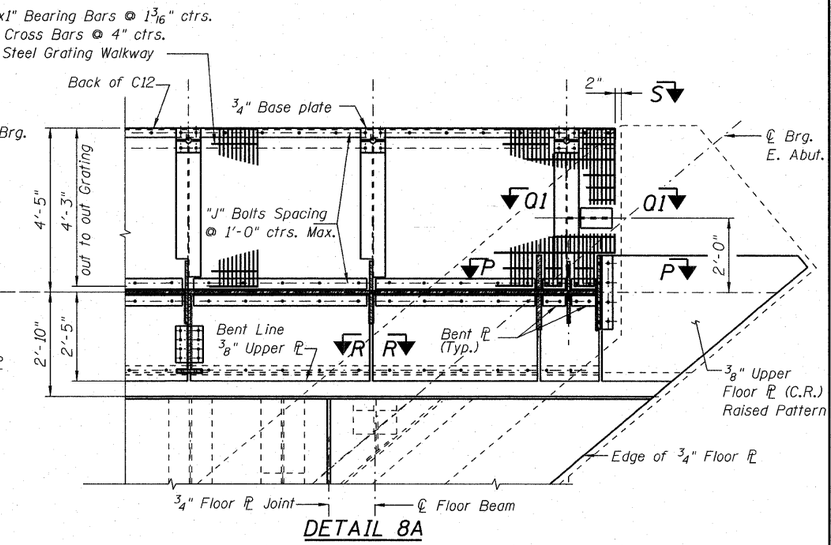
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



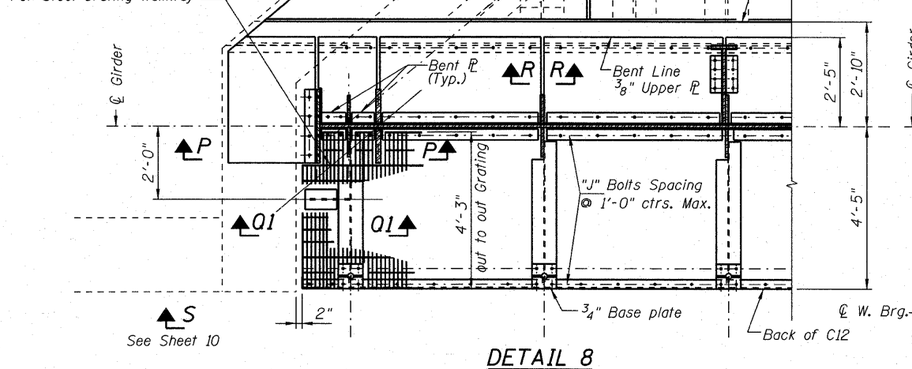
DETAIL 1



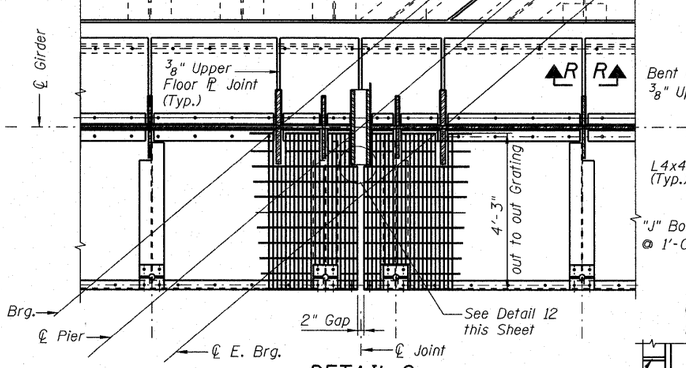
DETAIL 3



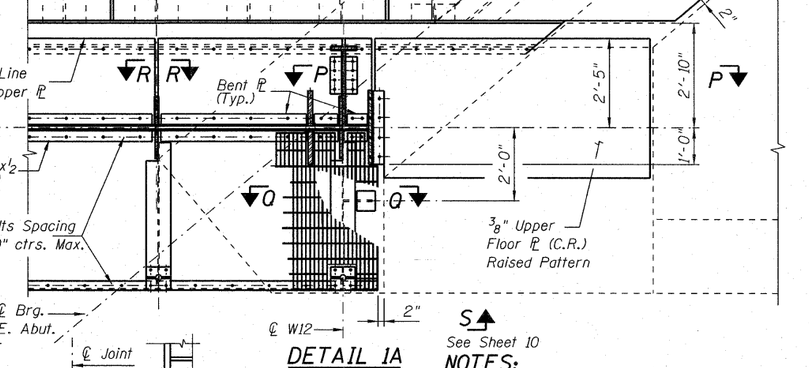
DETAIL 8A



DETAIL 8



DETAIL 9



DETAIL 1A

NOTES:

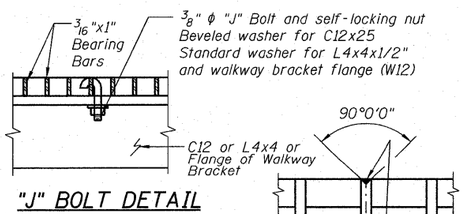
Grating plates, bars and angles shall conform to ASTM A36, galvanized in accordance with ASTM A123, or be fabricated from aluminum conforming to ASTM B361-Alloy 6061-T6. Aluminum surfaces in contact with concrete shall receive a heavy coat of bituminous paint or cold applied asphaltic mastic. Fasteners shall consist of stainless steel, type 304 or be zinc plated according to ASTM B633 for exterior use. Provide stainless steel fasteners for aluminum grating.

Grating shall be bolted to longitudinal channel and along girder and walkway bracket by means of 3/8" ϕ "J" bolts or other type of bolts Approved by the Engineer. Each panel shall have one bolt in each corner with a maximum longitudinal spacing of 1'-0" ctrs. between bolts. Drill 7/16" diameter holes for "J" bolts in field.

Joints in 3/4" floor plate and Ballast stop plate and 3/8" upper floor plate to be at 10ft max centers. Joints to be staggerred in floor plate.

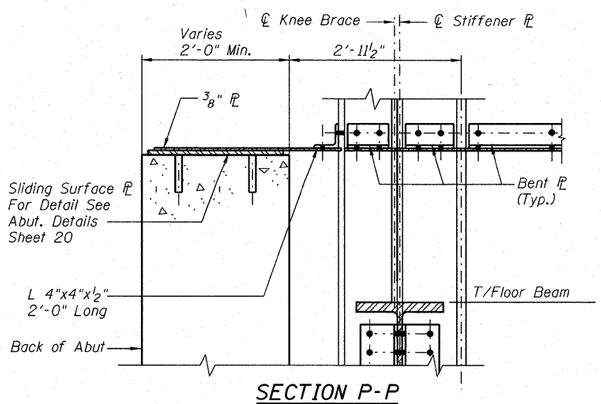
All materials and labor for fabrication and installation of grating will be paid for at the Lump Sum cost of Metal Grating

Work this Sheet with Sheet 4 and 5.

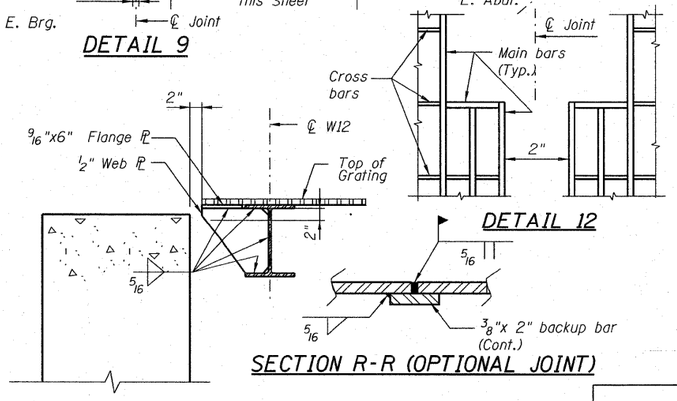


"J" BOLT DETAIL

OPTIONAL SPLICE IN GRATING



SECTION P-P



SECTION R-R (OPTIONAL JOINT)

DETAIL 12

SECTION Q-Q
SECTION Q1-Q1

STEEL DETAILS-4
STRUCTURE NO. 016-6201

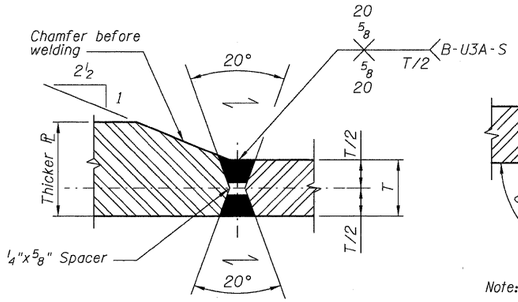
DESIGNED	-KJH
CHECKED	-MGB
DRAWN	-RJ
CHECKED	-MGB

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SHEET NO. 9	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	330	73 R-B	COOK	136	61
			CONTRACT NO. 60K64		
	DATE: 12/17/10		ILLINOIS	FED. AID PROJECT	

0166201-60K64-009-Steel.dgn

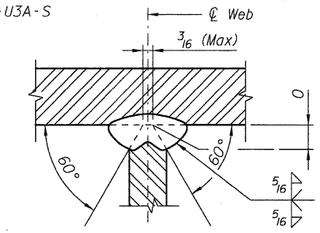
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Note: Gouge root to sound metal before welding second side. Grind flush both sides.

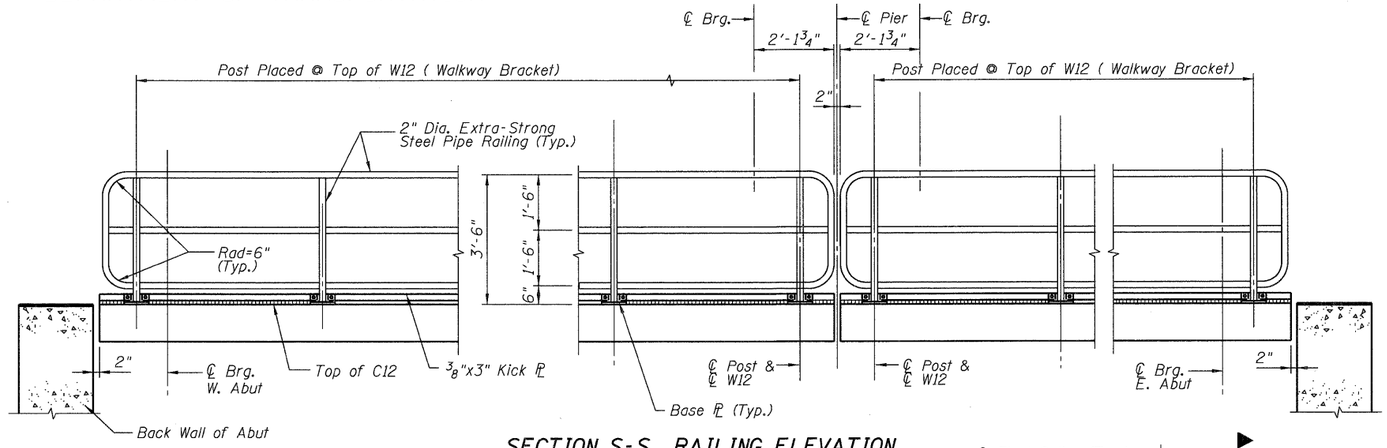
⟷ Indicates direction of Grinding.

FLANGE TO FLANGE WELD
B-U3A-S

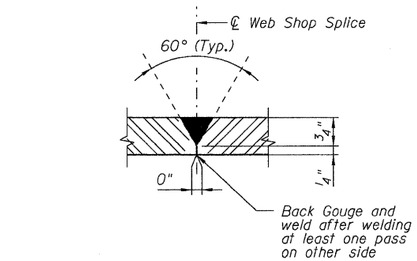


Note: Full Penetration of joint req'd. Weld to be symmetrical about ℄ web. Excessive unbalance shall be cause for rejection. See Specs. for weld qualification. Gouge root to sound metal before welding second side.

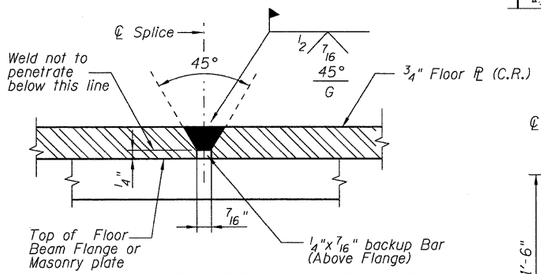
FLANGE TO WEB WELD
TC-U5-S



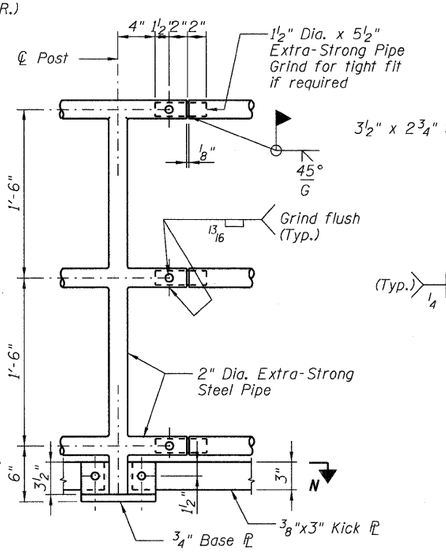
SECTION S-S RAILING ELEVATION



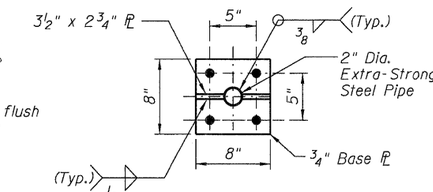
WEB TO WEB BUTT WELD
B-L2C-S



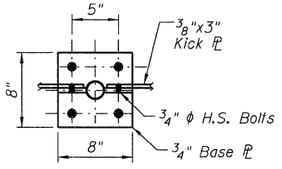
FIELD SPLICE OVER BEAM FLANGE
(If Required)



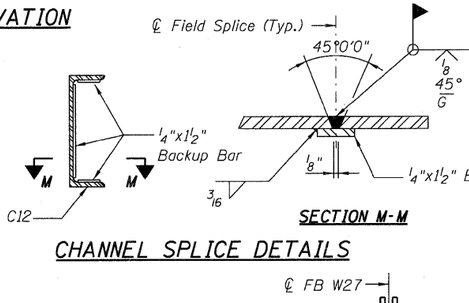
RAILING SPLICE AND POST DETAILS



BASE PLATE DETAILS



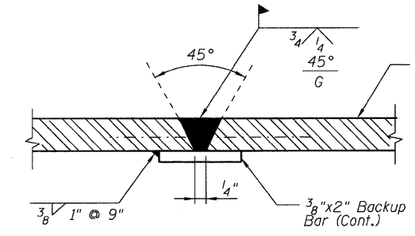
SECTION N-N



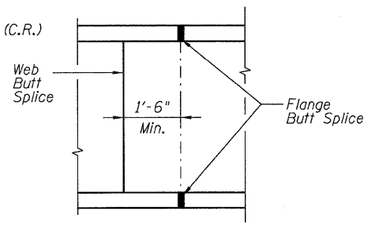
SECTION M-M

CHANNEL SPLICE DETAILS

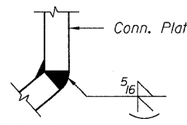
CONN. PLATE-4 CONN. PLATE-4A



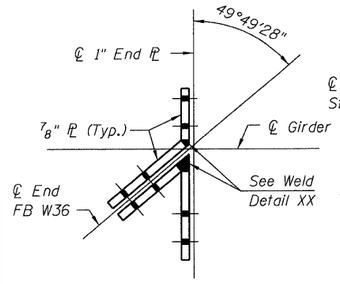
FLOOR PLATE FIELD SPLICE
BALLAST STOP PLATE SPLICE SIMILAR



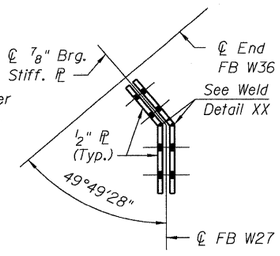
SPLICE DETAIL



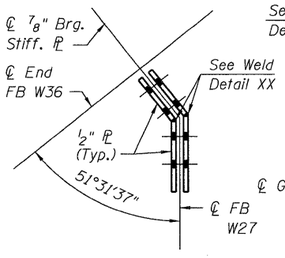
DETAIL XX
WELD DETAILS



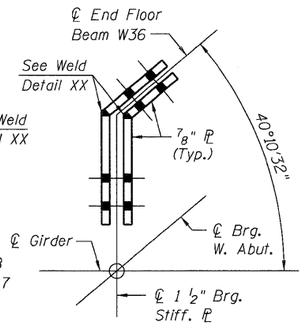
CONN. PLATE-1



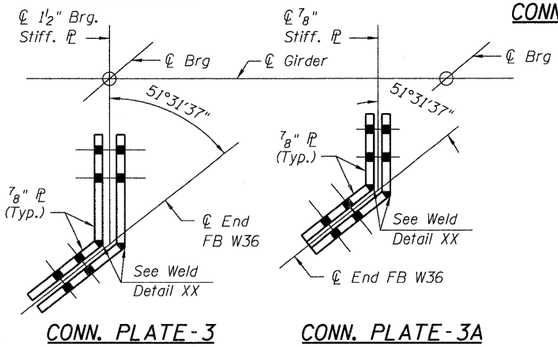
CONN. PLATE-2



CONN. PLATE-2A



CONN. PLATE-5



CONN. PLATE-3
CONN. PLATE-3A

NOTES:

All Shop and Field Welds on the deck shall be continuous unless otherwise shown.

Remove shop edges or any projections from floor plates or welds that may damage the butyl rubber membrane.

Pipe Handrail shall be in accordance with Section 510 of the "IDOT" Standard Specification.

Contractor has an option to use bent plates instead of welded plates as shown. Contractor shall get a pre-approval from the Engineer in charge.

STEEL DETAILS-5
STRUCTURE NO. 016-6201

DESIGNED	- KJH
CHECKED	- MGB
DRAWN	- RJ
CHECKED	- MGB

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SHEET NO. 10	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	330	73 R-B	COOK	136	62
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

0166201-60K64-010-Steel.dgn

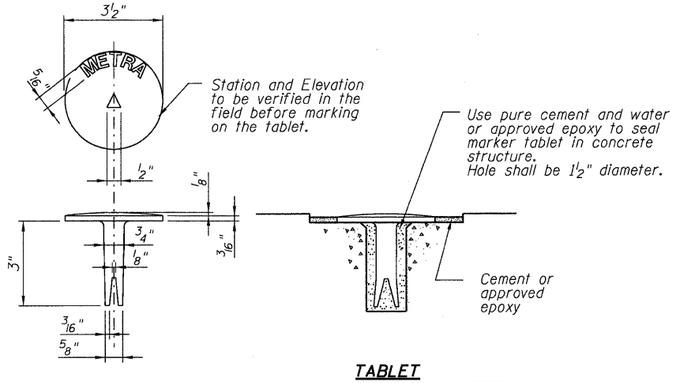
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MOMENT TABLE	
	Through Plate Girder
Description	At Mid Span
Span Length	97'-11 1/4"
Dead Load Moment (k-ft)	9625
Live Load Moment (k-ft)	12893
Impact Moment (k-ft)	3623
Total Moment (k-ft)	26141
Web Section (in)	1" X 120"
Flange Section (in)	3 1/4" X 24"
Gross I Furnished (in4)	736,569
Section Modulus (in3)	11,645
Allowable Stress fb (ksi)	27.5
Actual Stress fb (ksi)	26.9
Allowable Deflection (in)	1.84
Actual Deflection (in)	1.68

SHEAR TABLE	
	Through Plate Girder
Description	At End
Dead Load Shear (k)	385
Live Load Shear (k)	600
Impact Shear (k)	169
Total Shear (k)	1154
Web Shear Area (in2)	120
Allow. Shear Stress (ksi)	17.5
Actual Shear Stress (ksi)	9.6

MOMENT TABLE			
	Typical Floor Beam	End Floor Beam	
Description	At Mid Span	At Mid Span	At Support
Span Length	34'-0"	21'-8"	21'-8"
Dead Load Moment (k-ft)	160	91	170
Live Load Moment (k-ft)	575	253	371
Impact Moment (k-ft)	225	102	150
Total Moment (k-ft)	960	446	691
Section	W27x235	W36x210	W36x210
Gross I Furnished (in4)	9,700	13,200	13,200
Section Modulus (in3)	674	719	719
Allowable Stress (ksi)	27.5	27.5	27.5
Actual Stress (ksi)	17.0	7.4	11.5
Allowable Deflection (in)	0.64	0.41	-
Actual Deflection (in)	0.61	0.20	-

SHEAR TABLE		
	Typical Floor Beam	End Floor Beam
Description	At End	At End
Dead Load Shear (k)	16	46
Live Load Shear (k)	51	115
Impact Shear (k)	27	46
Total Shear (k)	94	207
Web Shear Area (in2)	21.7	27.0
Allowable Shear Stress (ksi)	17.5	17.5
Actual Shear Stress (ksi)	4.3	7.7

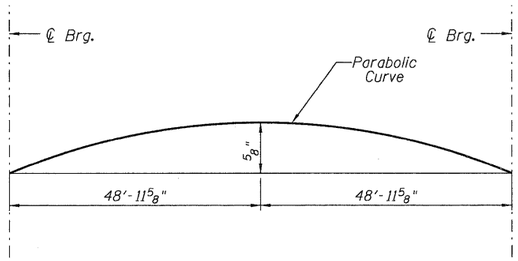


BRONZE TABLET

TABLET CONSTRUCTED IN CONCRETE

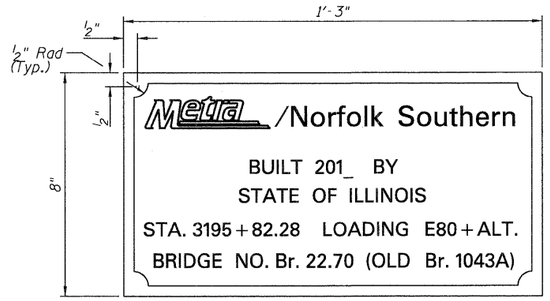
PERMANENT SURVEY MARKER

Location shall be approved by Engineer.



CAMBER DIAGRAM

For Girders G1 & G2



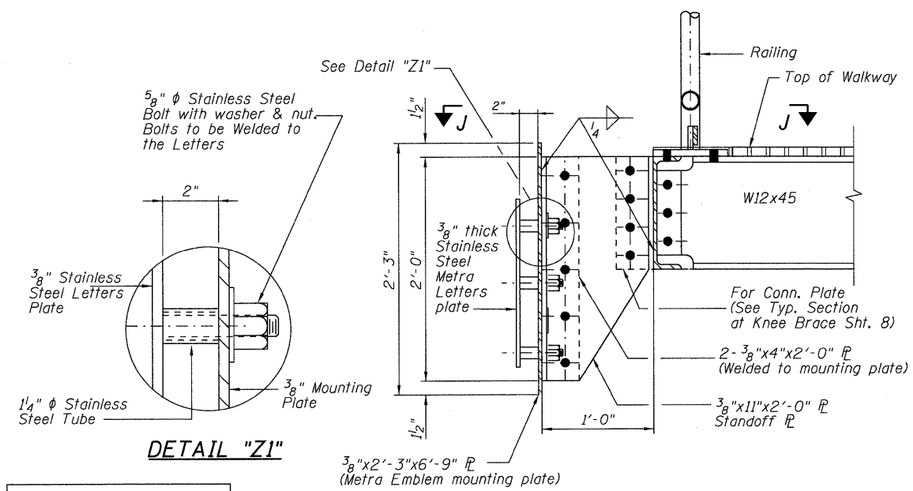
NAME PLATE - SPECIAL

Name Plate shall have four lugs at least 3" long cast on the back of the plate.
For plate location. See Sheet 21

METRA/NORFOLK SOUTHERN
BUILT 201_ BY
STATE OF ILLINOIS
F.A.P. RT. 330 SEC. 73 R-B
STA. 293+19.58 LOADING E80
STRUCTURE NO. 016-6201

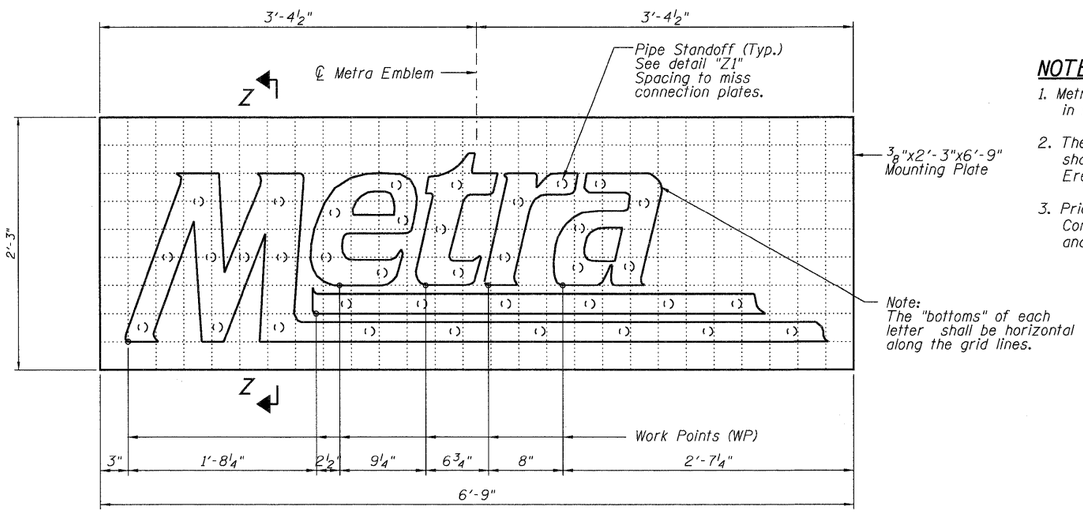
NAME PLATE

See STD 515001
For Plate Location. See Sheet 21



DETAIL "Z1"

SECTION Z-Z



METRA EMBLEM

2 Required
For Location of Metra Emblem See Framing Plans Sht. 4 & 5.

NOTES:

1. Metra Emblem is referred to as Sign Panel-Type 2 in the Total Bill Of Material.
2. The cost of connecting accessories for Metra Emblem shall be included in the Lump Sum Bid Price of Erecting Structural Steel.
3. Prior to Fabrication of Metra Emblems, the Contractor shall obtain the current Standards and Specifications of the Emblem from Metra.

DESIGNED	- KJH
CHECKED	- MGB
DRAWN	- RJ
CHECKED	- MGB

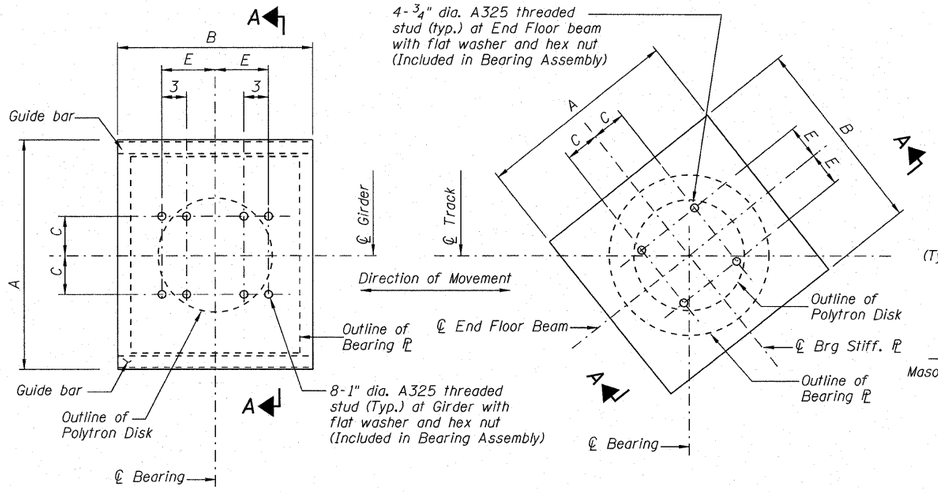
DESIGN DATA AND MISC. DETAILS
STRUCTURE NO. 016-6201

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SHEET NO. 11	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	330	73 R-B	COOK	136	63
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

0166201-60K64-011-Design_Tables.dgn

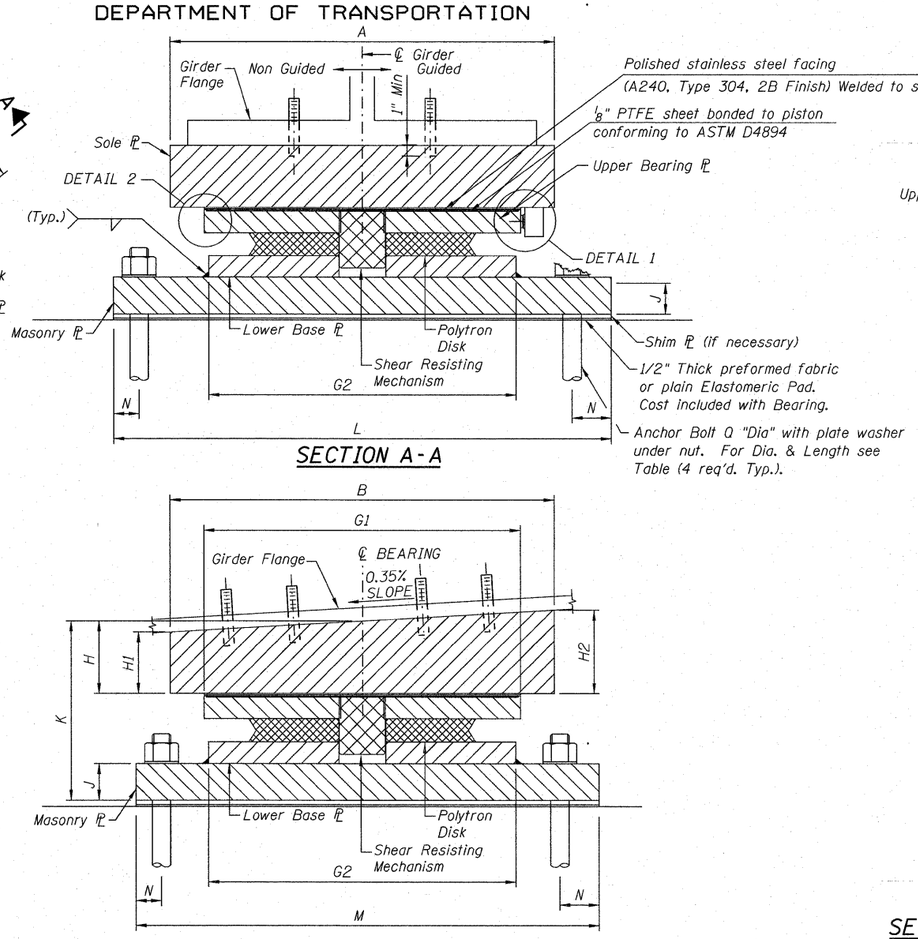
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



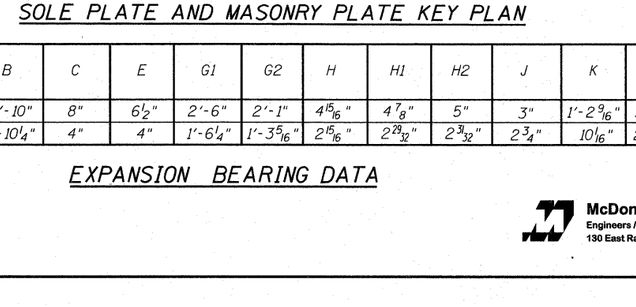
SHOWN AT GIRDER
(GUIDED EXPANSION)

SHOWN AT END FLOOR BEAM
(NON-GUIDED EXPANSION)

SOLE PLATE PLAN

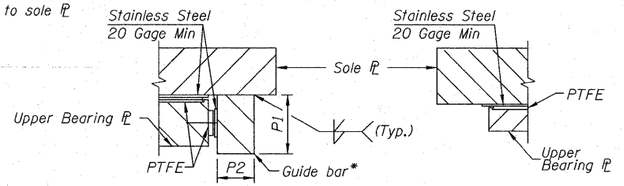


SECTION A-A



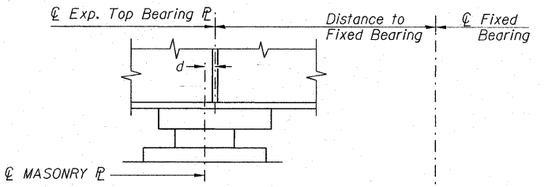
SECTION B-B

* As an alternate to the welded connection shown, the guide bars may be bolted or fabricated as a single piece.



DETAIL 1
(Guided Bearings for main Through Girders at Abutments to have guide bars)

DETAIL 2
(Non-guided Bearings for end floor beams do not have guide bars)



BELOW 50° F
(Move masonry ℄ away from fixed bearing)

ABOVE 50° F
(Move masonry ℄ toward fixed bearing)

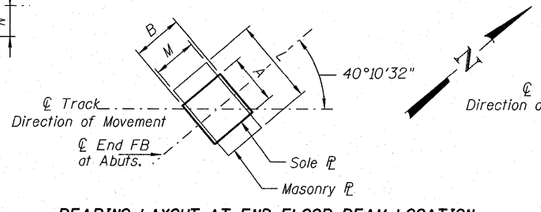
SETTING ANCHOR BOLTS AT EXPANSION BEARINGS

NOTE: d = ⅛" per each 100' of expansion for every 15°F temperature change from the normal temperature of 50°F.

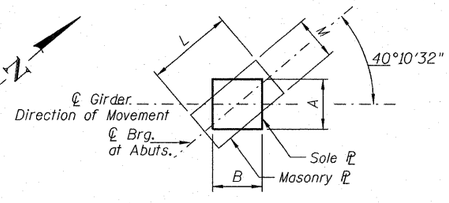
Notes:
1. See Sheet No. 14, 17 & 21 for anchor bolt installation.
2. Anchor bolts shall be ASTM F1554 Grade 36 all-thread (or an Engineer-approved alternate material) of the diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
3. All structural steel for bearings shall be ASTM A572 Grade 42.
4. Bearings shall conform to the Multi-Rotational Disc Bearing section of the 2010 AREMA Code.
5. Anchor bolts for masonry plates shall be cast into abutments.

MASONRY PLATE

HLMR BEARING, GUIDED & NON-GUIDED EXPANSION PLAN



BEARING LAYOUT AT END FLOOR BEAM LOCATION



BEARING LAYOUT AT GIRDER LOCATION

SOLE PLATE AND MASONRY PLATE KEY PLAN

BEARING LOCATION	VERT. LOAD (k)	HORZ. LOAD (k)	ROTATION (rad)	A	B	C	E	G1	G2	H	H1	H2	J	K	L	M	N	P1	P2	ANCHOR BOLT Q "DIA." x Length	PLATE WASHER
E. & W. Abuts. - Girders	1265	127	0.015	3'-0"	2'-10"	8"	6½"	2'-6"	2'-1"	4 15/16"	4 7/8"	5"	3"	1'-2 9/16"	3'- 4½"	2'-6"	2 5/8"	3"	2"	1½"x1'-6"	3"x 3"x 5/16"
E. & W. Abuts. & Pier - End Floor Beams	500	50	0.015	1'-10¼"	1'-10¼"	4"	4"	1'-6¼"	1'-3 5/16"	2 15/16"	2 29/32"	2 31/32"	2¾"	10 1/16"	2'- 5½"	1'-6"	1¾"			1¼"x1'-0"	2¾"x2¾"x 5/16"

EXPANSION BEARING DATA

DESIGNED	-KJH
CHECKED	-MGB
DRAWN	-RJ
CHECKED	-MGB

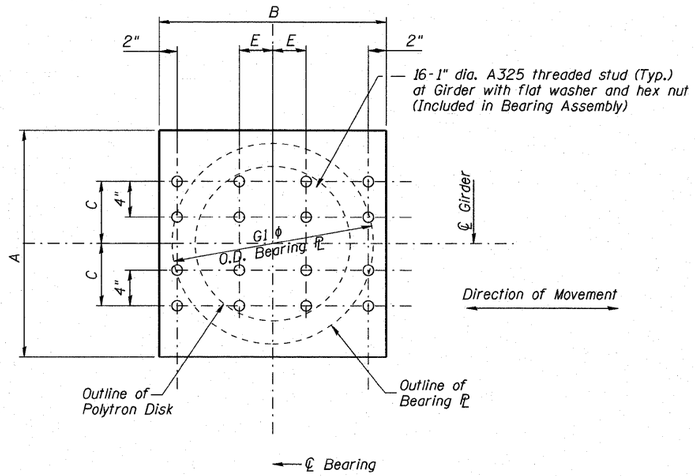
HLMR EXPANSION BEARINGS
STRUCTURE NO. 016-6201

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

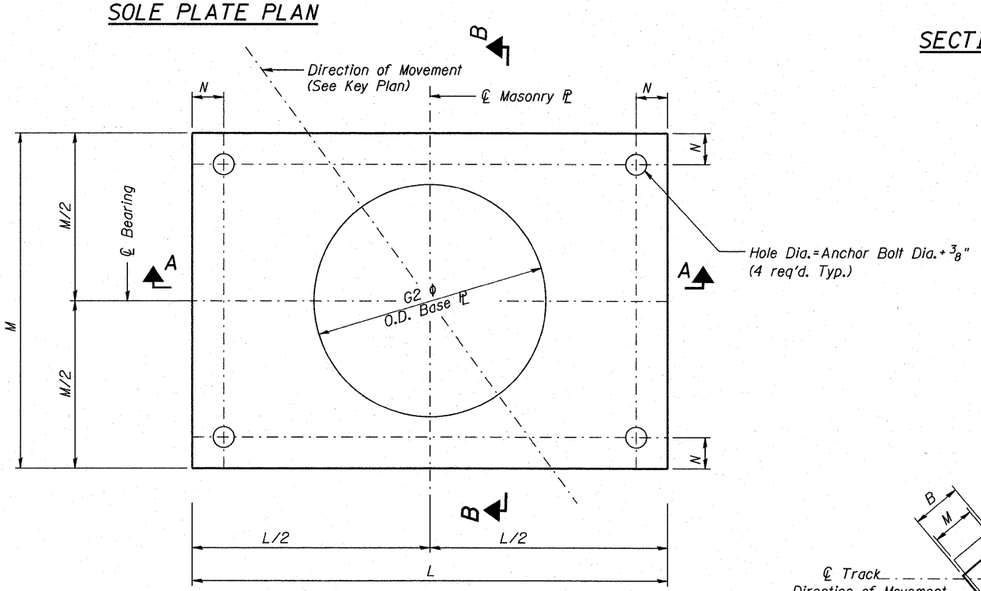
SHEET NO. 12	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	330	73 R-B	COOK	136	64
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

0166201-60K64-012-Bearings.dgn

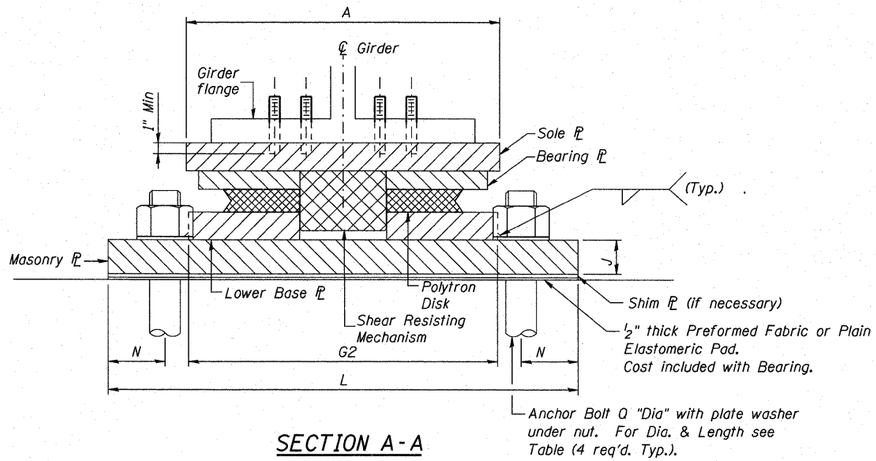
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



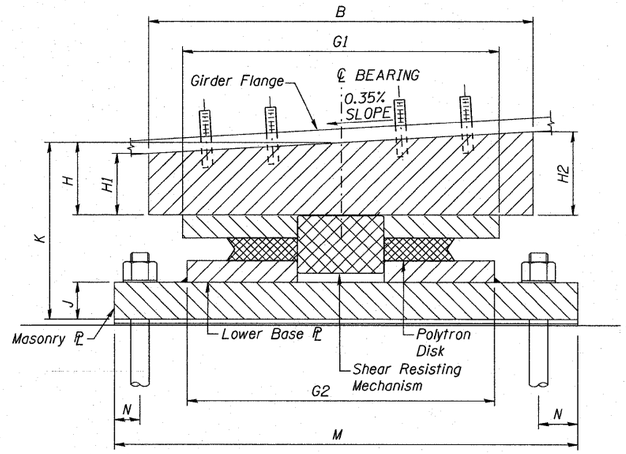
SOLE PLATE PLAN



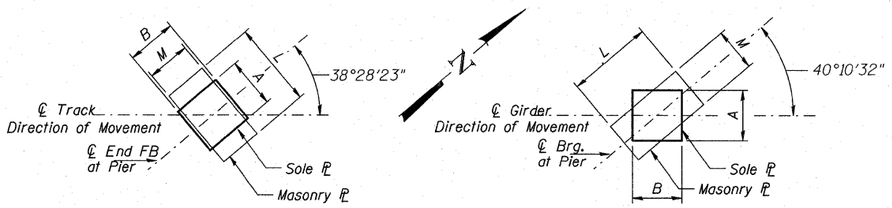
MASONRY PLATE
FIXED (F) AT PIER
PLAN



SECTION A-A



SECTION B-B



BEARING LAYOUT AT END FLOOR BEAM LOCATION

BEARING LAYOUT AT GIRDER LOCATION

SOLE PLATE AND MASONRY PLATE KEY PLAN

NOTES:

1. See Sheet No. 21 for anchor bolt installation.
2. Anchor bolts shall be ASTM F1554 Grade 36 all-thread (or an Engineer-approved alternate material) of the diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
3. All structural steel for bearings shall be ASTM A572 Grade 42.
4. Bearings shall conform to the Multi-Rotational Disc Bearing sections of the 2010 AREMA Code.
5. Anchor bolts for masonry plates shall be cast with pier.

FIXED BEARING DATA

BEARING LOCATION	VERT. LOAD (k)	HORZ. LOAD (k)	ROTATION (rad)	A	B	C	E	G1	G2	H	H1	H2	J	K	L	M	N	ANCHOR BOLT Ø "DIA." x Length	PLATE WASHER
Pier - Girders	1265	300	0.015	2'-1½"	2'-1½"	7"	3 ¾"	1'-11½"	2'-1½"	2 3/16"	2⅛"	2¼"	2¾"	11 5/16"	3'- 2¼"	2'-6¾"	4 3/8"	2½"x2'-6"	4"x4"x5/16"

DESIGNED	-KJH
CHECKED	-MGB
DRAWN	-RJ
CHECKED	-MGB

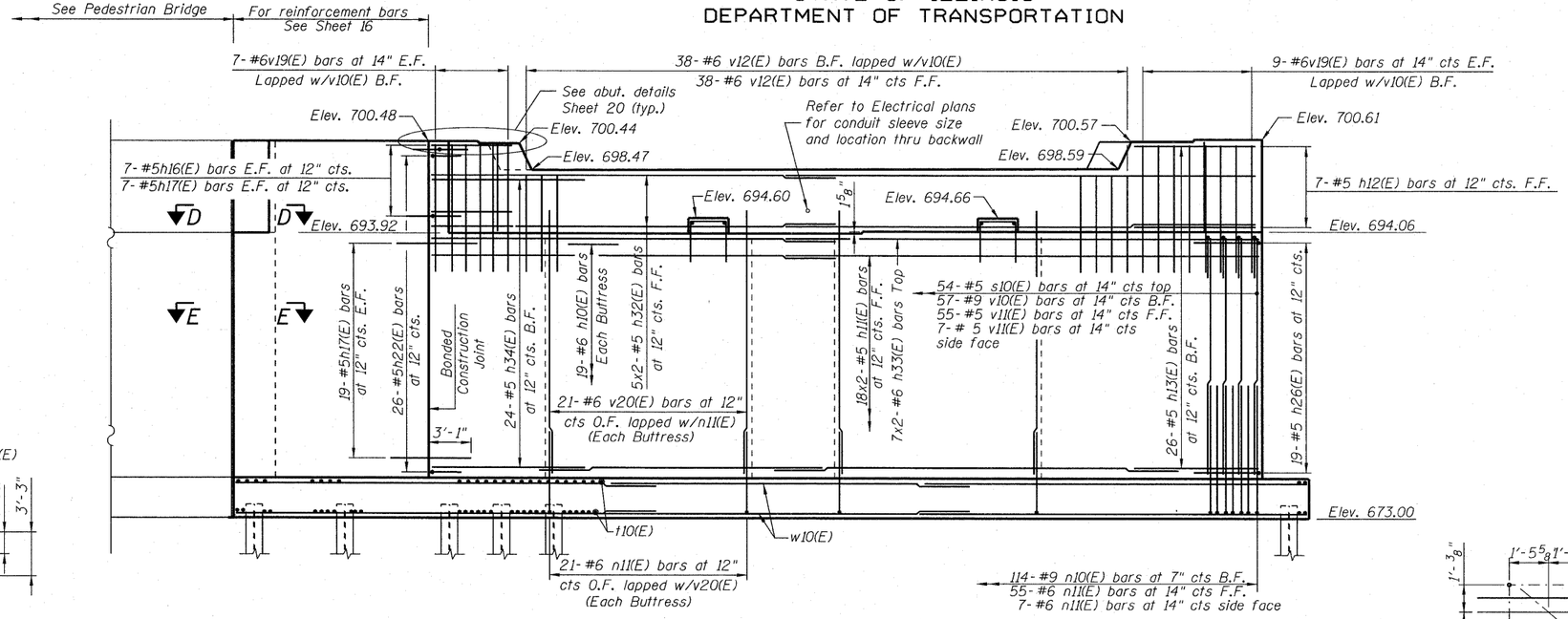
HLMR FIXED BEARINGS
STRUCTURE NO. 016-6201

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

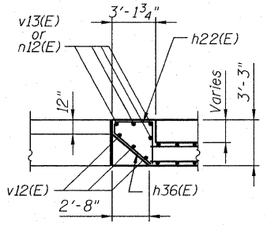
SHEET NO. 13	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	330	73 R-B	COOK	136	65
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

0166201-60K64-013-Bearings.dgn

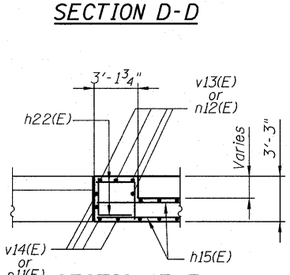
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION
(Looking West)

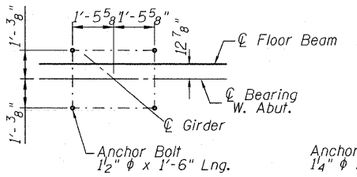


SECTION D-D

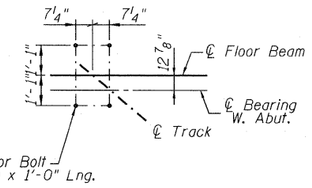


SECTION E-E

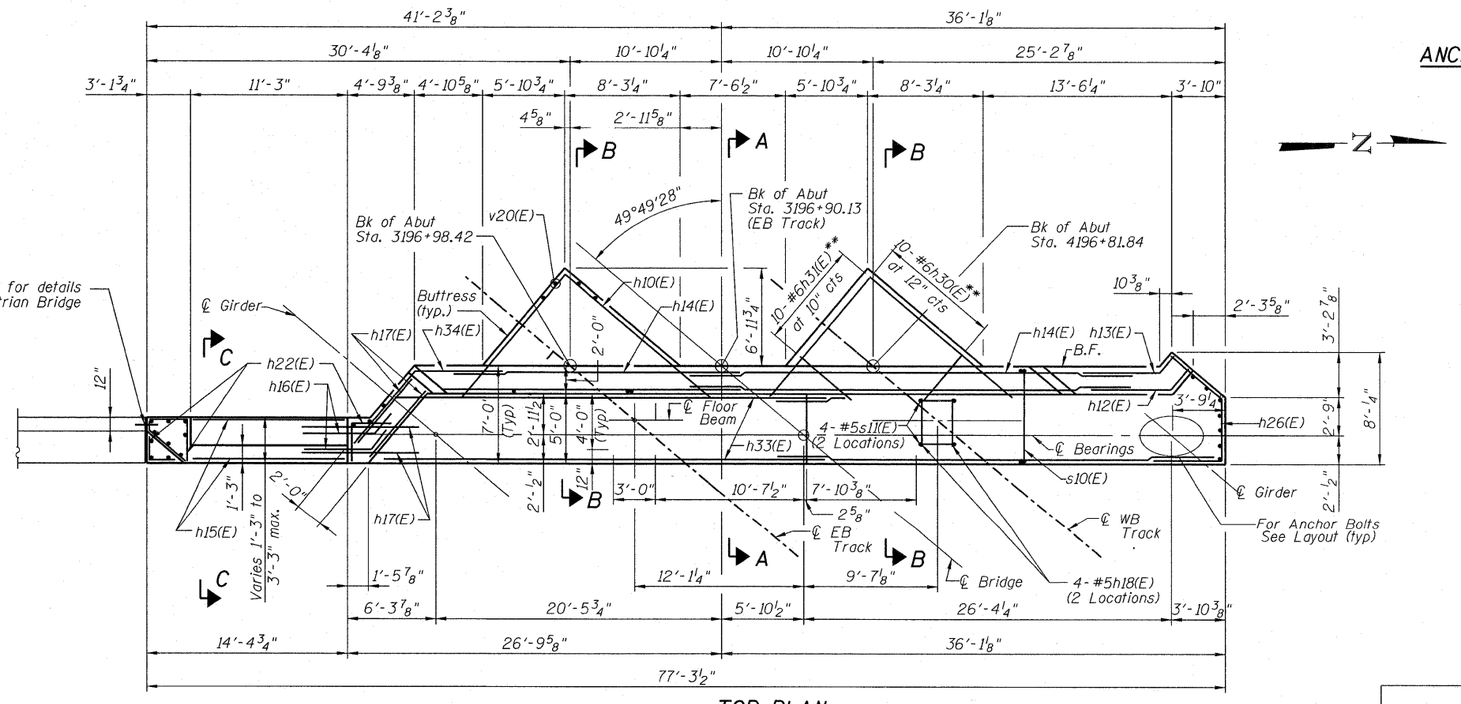
Note: Field cut 4-v14(E) bars as required.



ANCHOR BOLT LAYOUT
(At Girders)



ANCHOR BOLT LAYOUT
(At End Floor Beams)



TOP PLAN

** See cutting diagrams.

MIN. LAP

#5 Top = 2'-11"
#5 Others = 2'-7"
#6 Top = 3'-6"

Notes:
For Sections A-A, B-B & C-C, see Sheet 16.

All Elevations shown are at front face of backwall.

WEST ABUTMENT PLAN AND ELEVATION
STRUCTURE NO. 016-6201

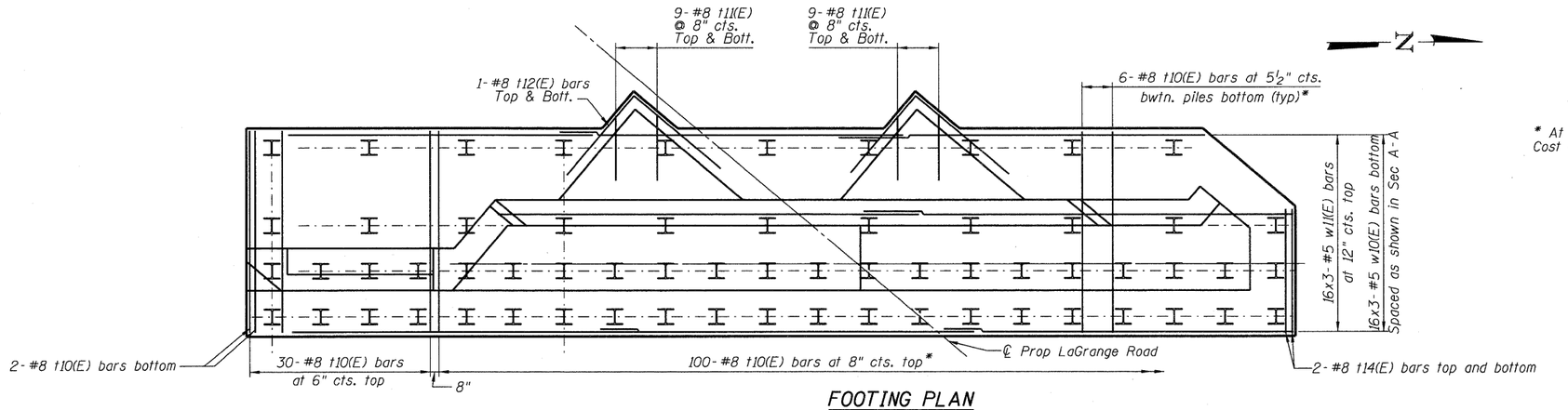
DESIGNED	JCE
CHECKED	JCA
DRAWN	JCE
CHECKED	JCA

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SHEET NO. 14	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	330	73 R-B	COOK	136	66
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

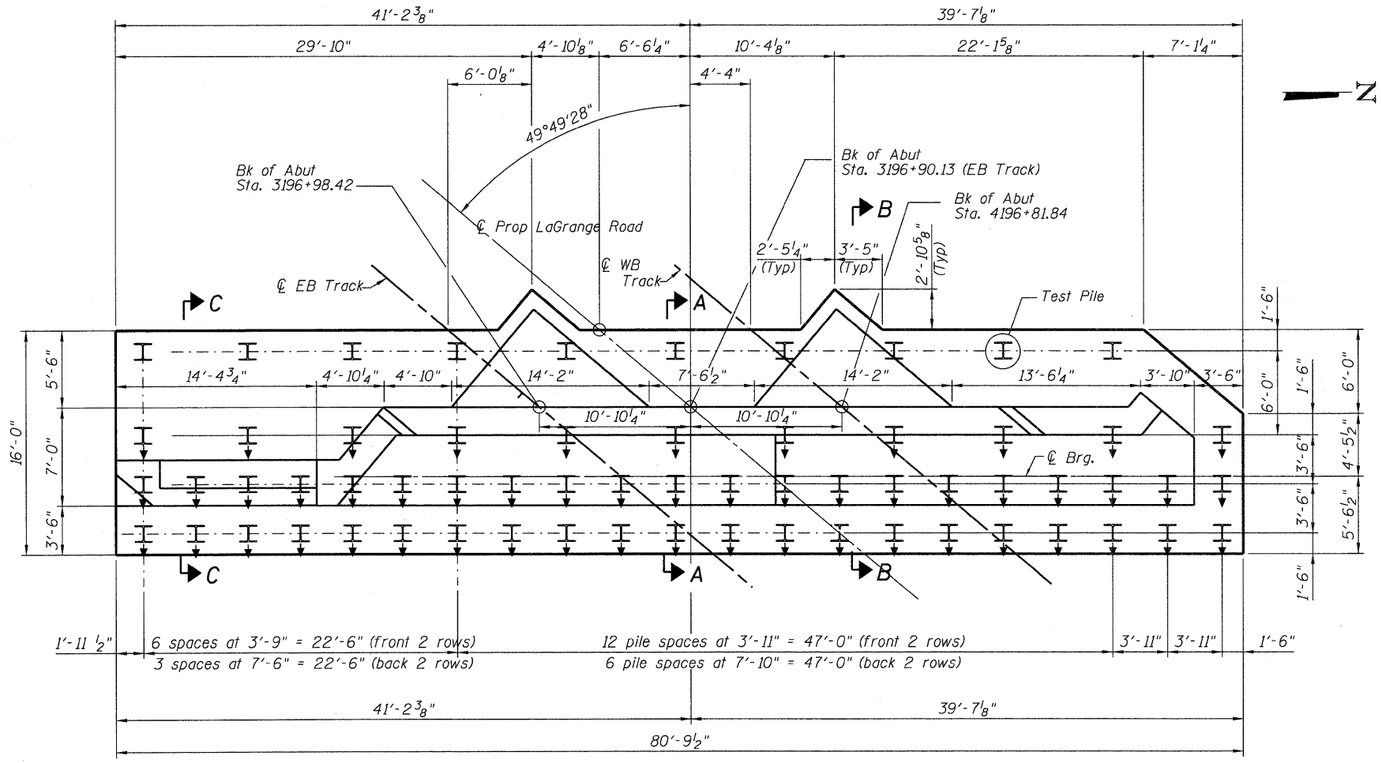
0166201-60K64-014-West.abut.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



* At the North End cut t10(E) bars in the field to fit. Cost included with Reinforcement Bars, Epoxy Coated.

FOOTING PLAN
(Showing Reinforcement)



FOOTING PLAN
(Showing Dimensions)

PILE DATA

TYPE: Steel HP14x117

Nominal Required Bearing = 929 kips
Factored Resistance Available = 310 kips

Est. Length: 104 feet (vertical)

No. Production Piles: 62

No. Test Piles: 1

Straight (no batter)

Battered Pile

For Sections A-A, B-B & C-C, see Sheet 16.

DESIGNED	- JCE
CHECKED	- JCA
DRAWN	- JCE
CHECKED	- JCA

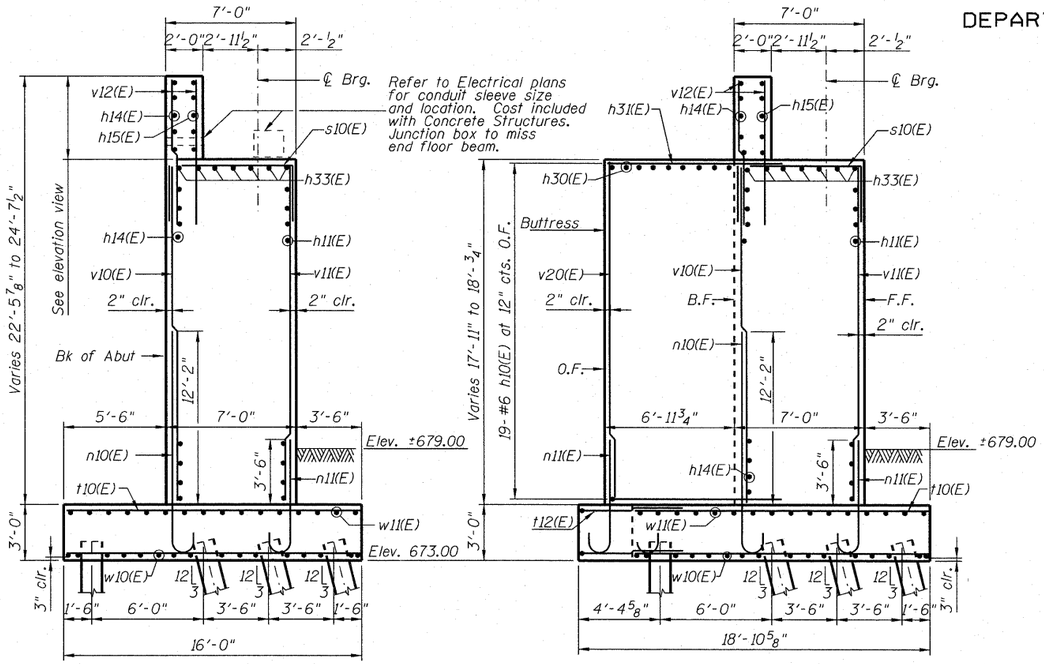
McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

WEST ABUTMENT FOOTING PLAN
STRUCTURE NO. 016-6201

SHEET NO. 15	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	330	73 R-B	COOK	136	67
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

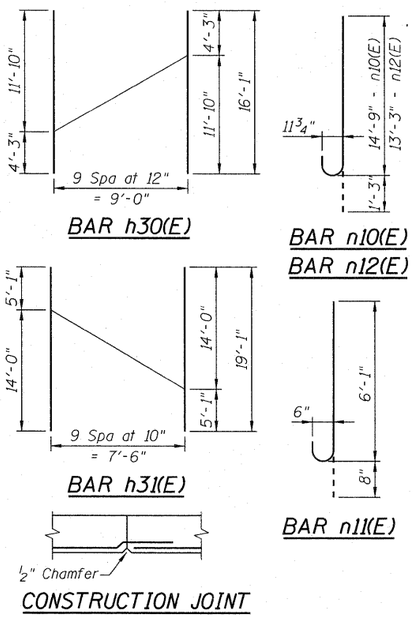
0166201-60K64-015-West_abut.dgn

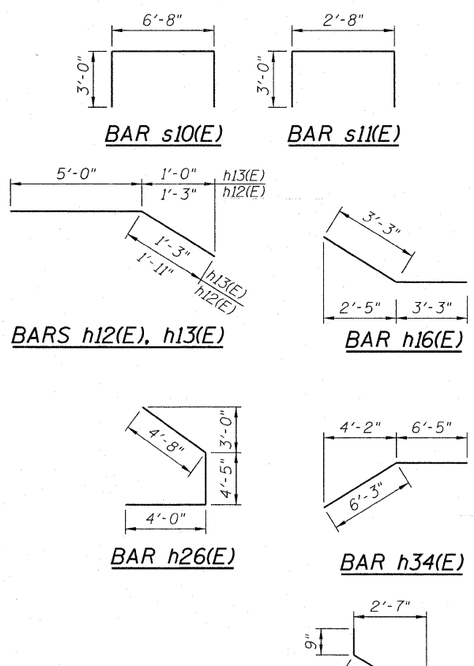
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

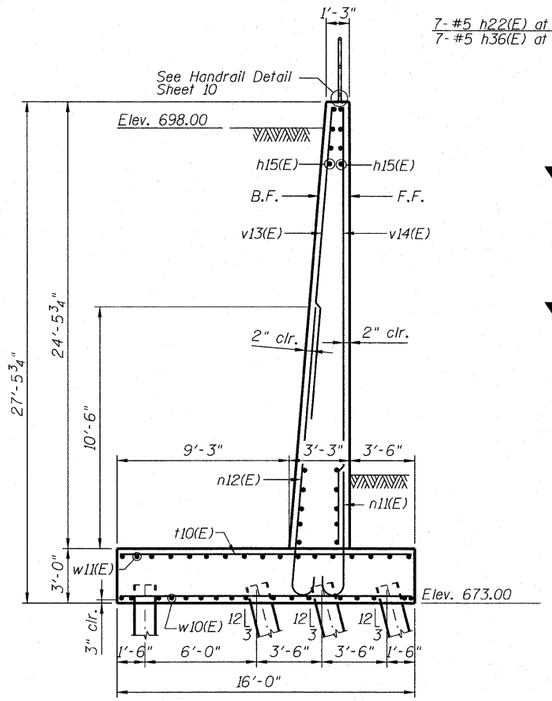


SECTION A-A

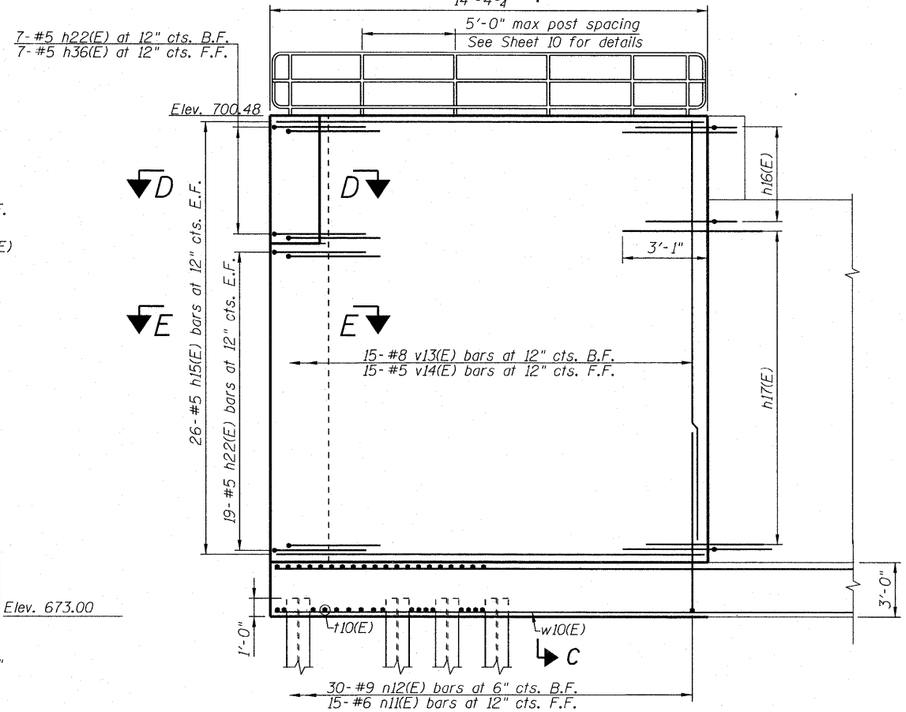
SECTION B-B



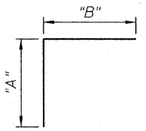




SECTION C-C



ELEVATION
(Looking West)



Bar	"A"	"B"
h10(E)	11'-10"	14'-1"
h22(E)	2'-11"	3'-0"
t12(E)	9'-0"	9'-0"

BAR h10(E),h22(E)
BAR t12(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h10(E)	38	#6	25'-11"	
h11(E)	36	#5	32'-8"	
h12(E)	7	#5	6'-11"	
h13(E)	26	#5	6'-3"	
h14(E)	48	#5	27'-6"	
h15(E)	52	#5	14'-1"	
h16(E)	14	#5	6'-6"	
h17(E)	52	#5	6'-3"	
h18(E)	8	#5	3'-6"	
h22(E)	78	#5	5'-11"	
h26(E)	19	#5	13'-1"	
h30(E)	10	#6	16'-1"	
h31(E)	10	#6	19'-1"	
h32(E)	10	#5	28'-6"	
h33(E)	14	#6	33'-3"	
h34(E)	24	#5	12'-8"	
h36(E)	7	#5	4'-1"	
n10(E)	114	#9	16'-0"	
n11(E)	120	#6	6'-9"	
n12(E)	30	#9	14'-6"	
s10(E)	54	#5	12'-8"	
s11(E)	8	#5	8'-8"	
t10(E)	252	#8	15'-8"	
t11(E)	36	#8	9'-0"	
t12(E)	4	#8	18'-0"	
t14(E)	4	#8	9'-8"	
w10(E)	48	#5	28'-7"	
w11(E)	48	#5	29'-0"	
v10(E)	57	#9	17'-6"	
v11(E)	62	#5	17'-6"	
v12(E)	80	#6	7'-6"	
v13(E)	16	#8	20'-3"	
v14(E)	16	#5	24'-1"	
v19(E)	32	#6	9'-6"	
v20(E)	42	#6	17'-8"	

Porous Granular Embankment	Cu. Yd.	301
Structure Excavation	Cu. Yd.	793
Concrete Structures	Cu. Yd.	548.7
Reinforcement Bars, Epoxy Coated	Pound	40,680
Furnishing Steel Piles, HP14x117	Foot	6,618
Driving Piles	Foot	6,618
Test Pile Steel, HP14x117	Each	1
Concrete Sealer	Sq. Ft.	2,118
Geocomposite Wall Drain	Sq. Yd.	220
Pipe Drains 4"	Foot	15
Pipe Underdrains For Structures 4"	Foot	88

Bars indicated thus 1 x 3-#5 etc. indicates 1 line of bars with 3 lengths per line.

Space reinforcement in abutment to miss anchor bolts.

For Sections D-D & E-E see sheet 14.

DESIGNED	JCE
CHECKED	JCA
DRAWN	JCE
CHECKED	JCA

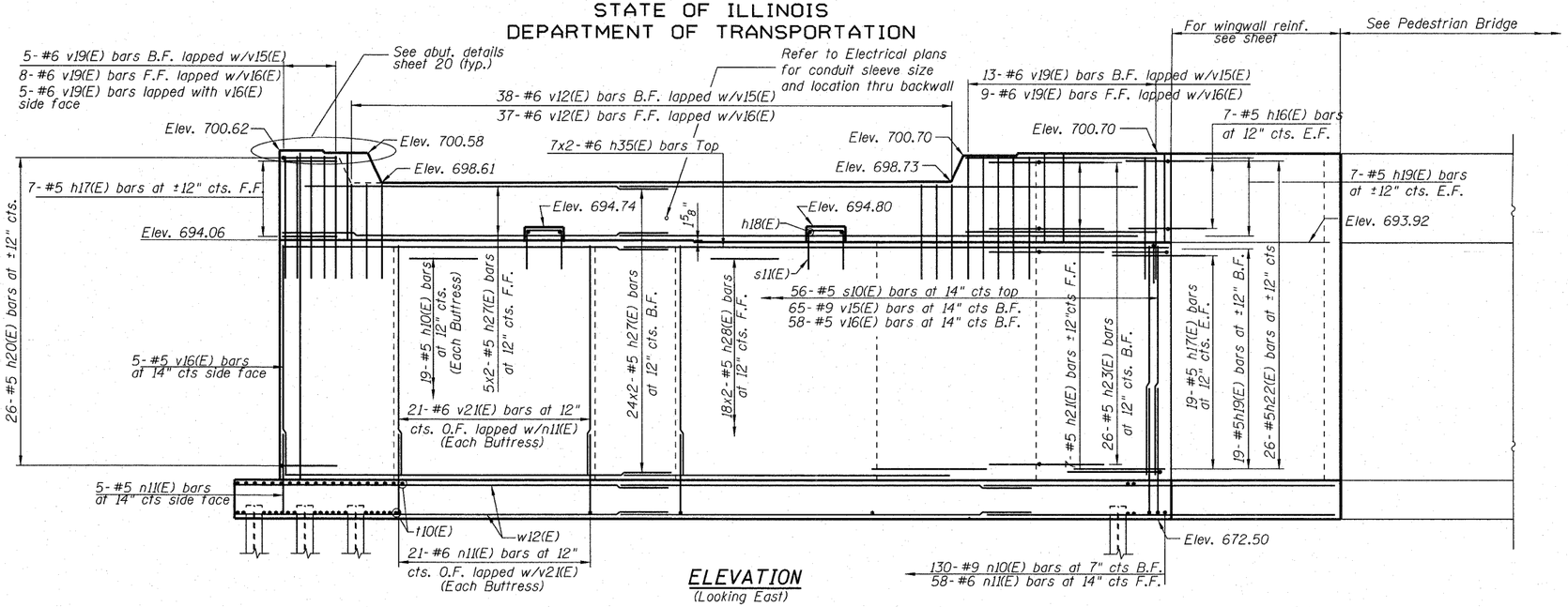
McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

WEST ABUTMENT SECTIONS AND BOM
STRUCTURE NO. 016-6201

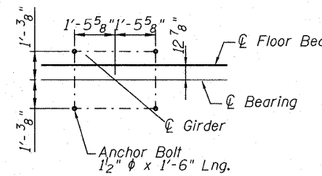
SHEET NO. 16	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	330	73 R-B	COOK	136	68
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

016201-60K64-016-West_abut.dgn

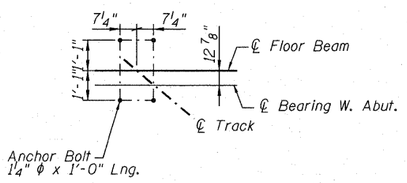
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



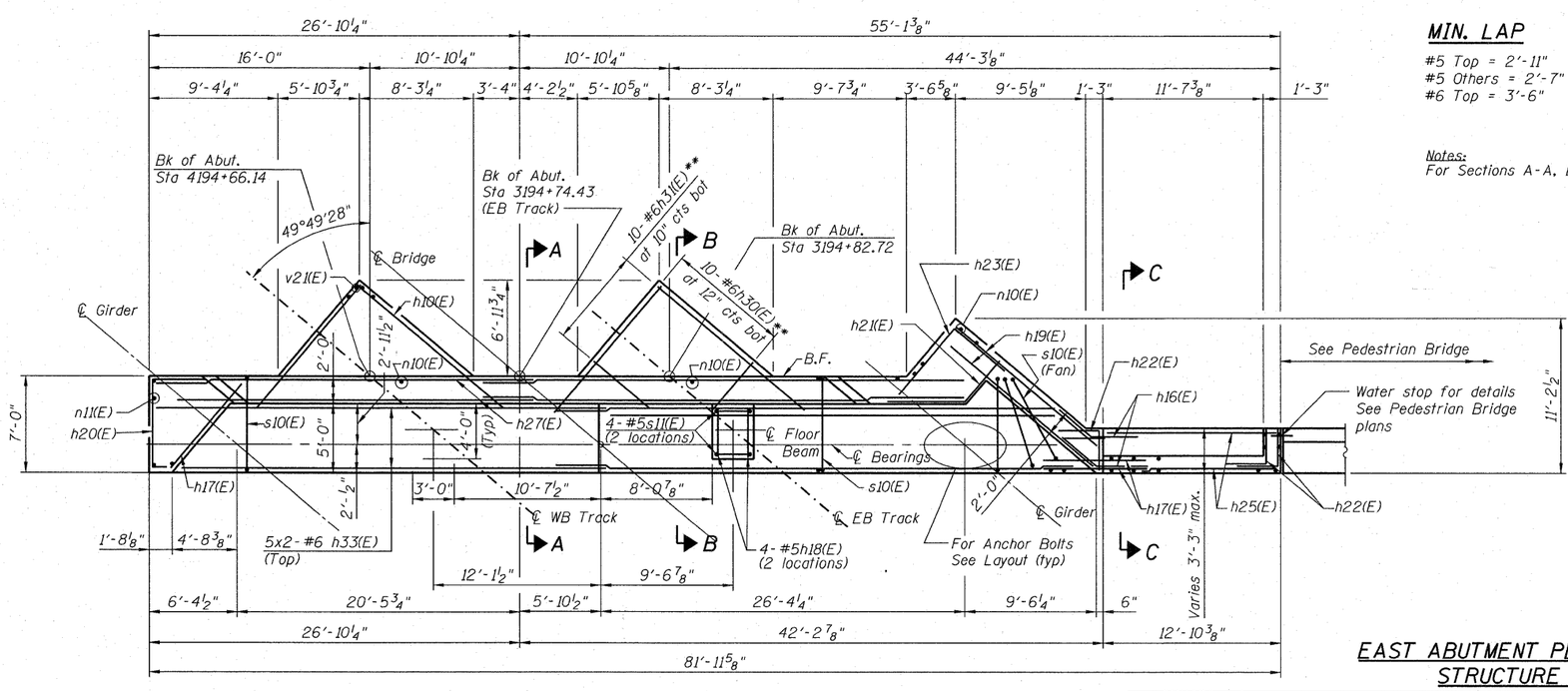
ELEVATION
(Looking East)



ANCHOR BOLT LAYOUT
(At Girders)



ANCHOR BOLT LAYOUT
(At End Floor Beams)



TOP PLAN

** See cutting duagrams.

MIN. LAP

#5 Top = 2'-11"
#5 Others = 2'-7"
#6 Top = 3'-6"

Notes:
For Sections A-A, B-B & C-C see Sheet 19.

EAST ABUTMENT PLAN AND ELEVATION
STRUCTURE NO. 016-6201

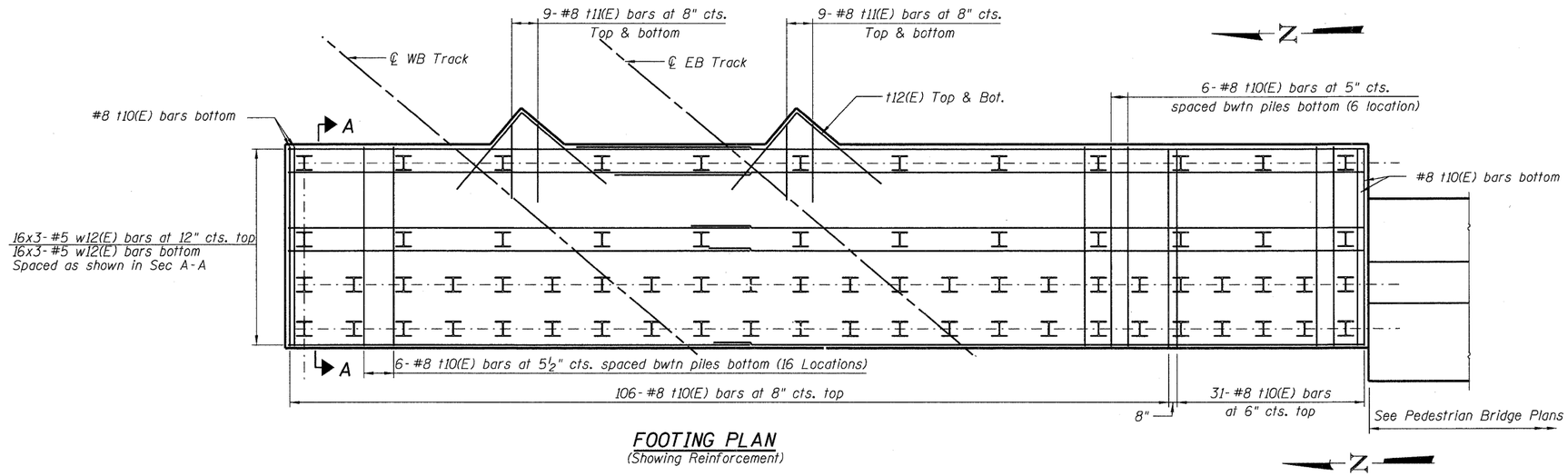
DESIGNED	JCE
CHECKED	JCA
DRAWN	JCE
CHECKED	JCA

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

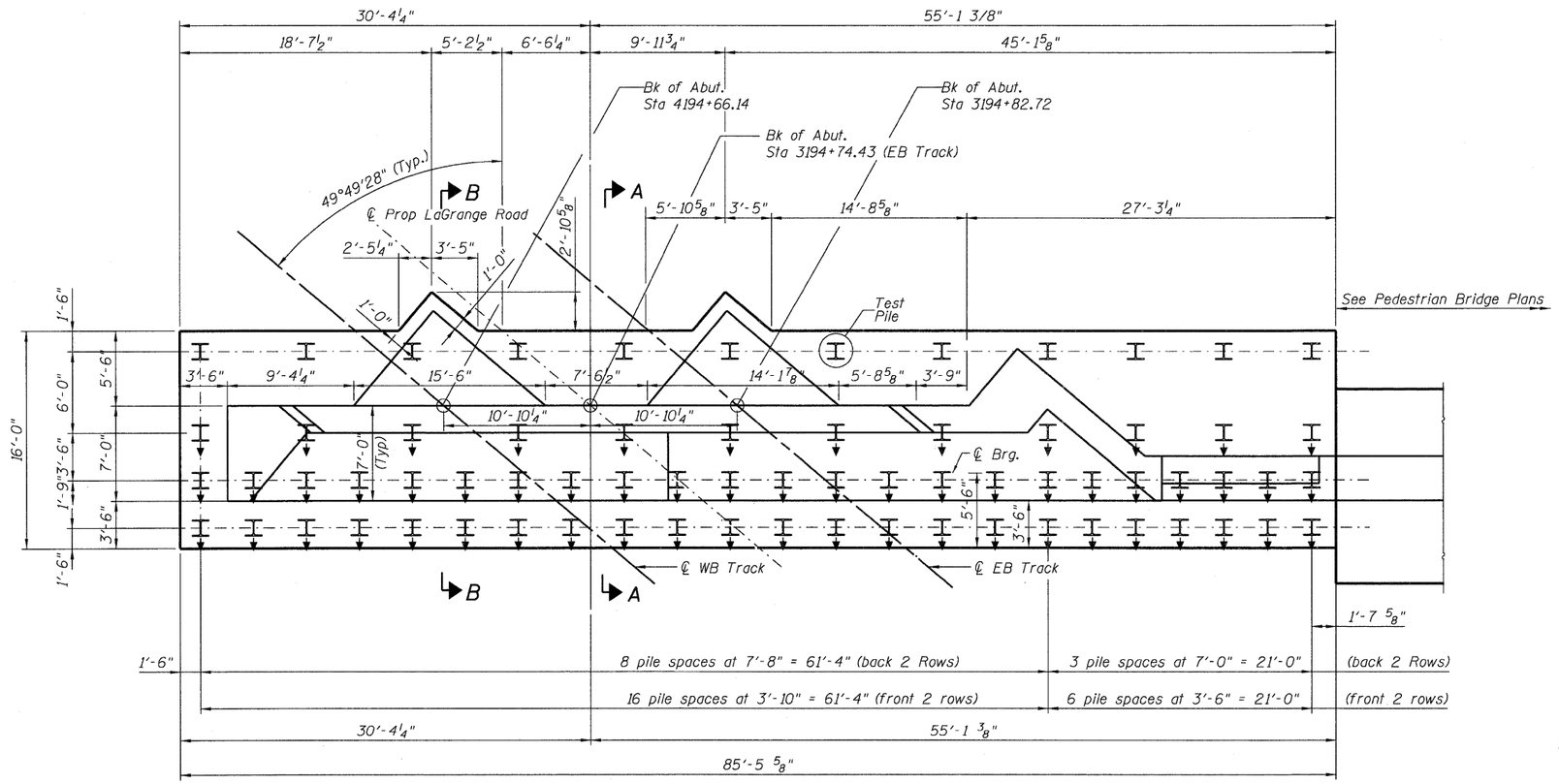
SHEET NO. 17	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	330	73 R-B	COOK	136	69
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

0166201-60K64-017-East_abut.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FOOTING PLAN
(Showing Reinforcement)



FOOTING PLAN
(Showing Dimensions)

Notes:
For Sections A-A, & B-B and C-C see Sheet 19.

PILE DATA
Type: Steel HP14x117
Nominal Required Bearing = 929 kips
Factored Resistance Available = 310 kips
Est. Length: 71 feet (vertical)
No. Production Piles: 69
No. Test Piles: 1

Straight (no batter)

Battered Pile

EAST ABUTMENT FOOTING PLAN
STRUCTURE NO. 016-6201

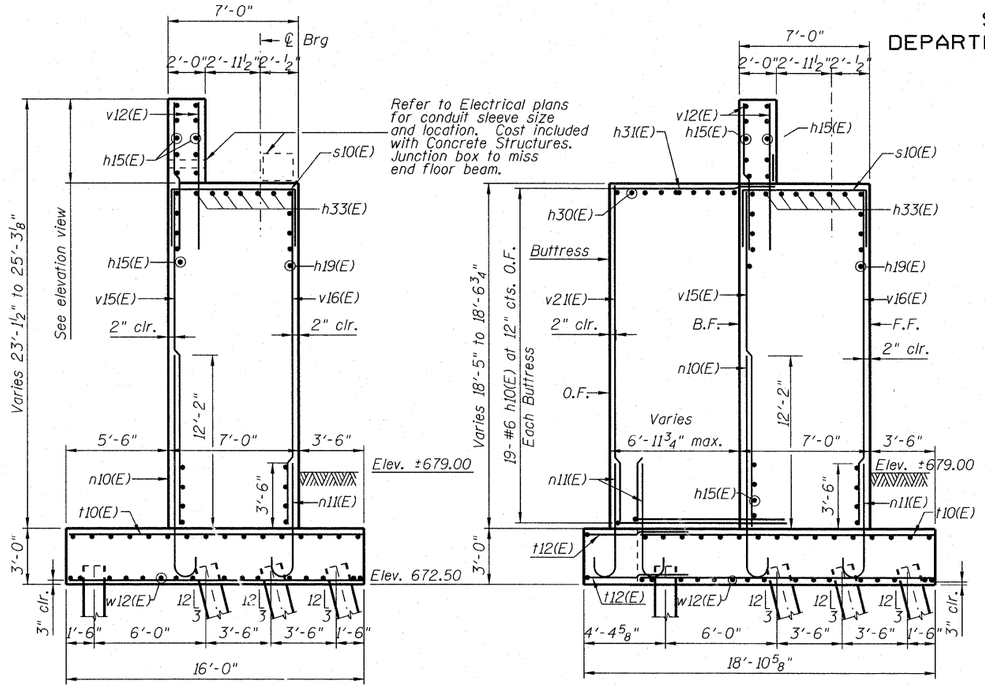
DESIGNED	JCE
CHECKED	JCA
DRAWN	JCE
CHECKED	JCA

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SHEET NO. 18	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	330	73 R-B	COOK	136	70
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

0166201-60K64-018-East_abut.dgn

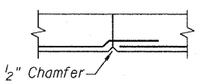
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

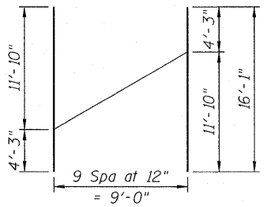


SECTION A-A

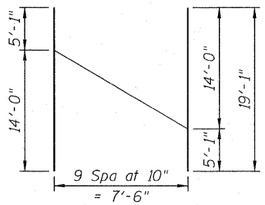
SECTION B-B

CONSTRUCTION JOINT

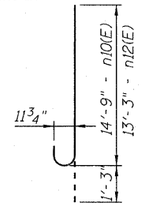




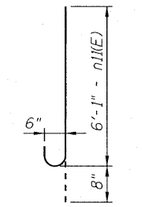
BAR h30(E)



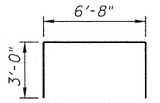
BAR h31(E)



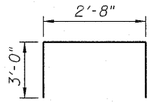
BAR n10(E)
BAR n12(E)



BAR n11(E)

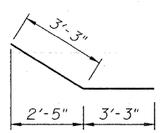


BAR s10(E)

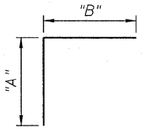


BAR s11(E)

BAR h21(E)

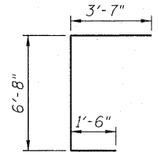


BAR h16(E)



Bar	"A"	"B"
h10(E)	11'-10"	14'-1"
h22(E)	3'-0"	2'-11"
h23(E)	6'-6"	4'-6"
t12(E)	9'-0"	9'-0"

BAR h10(E), h22(E)
h23(E) & t12(E)



BAR h20(E)

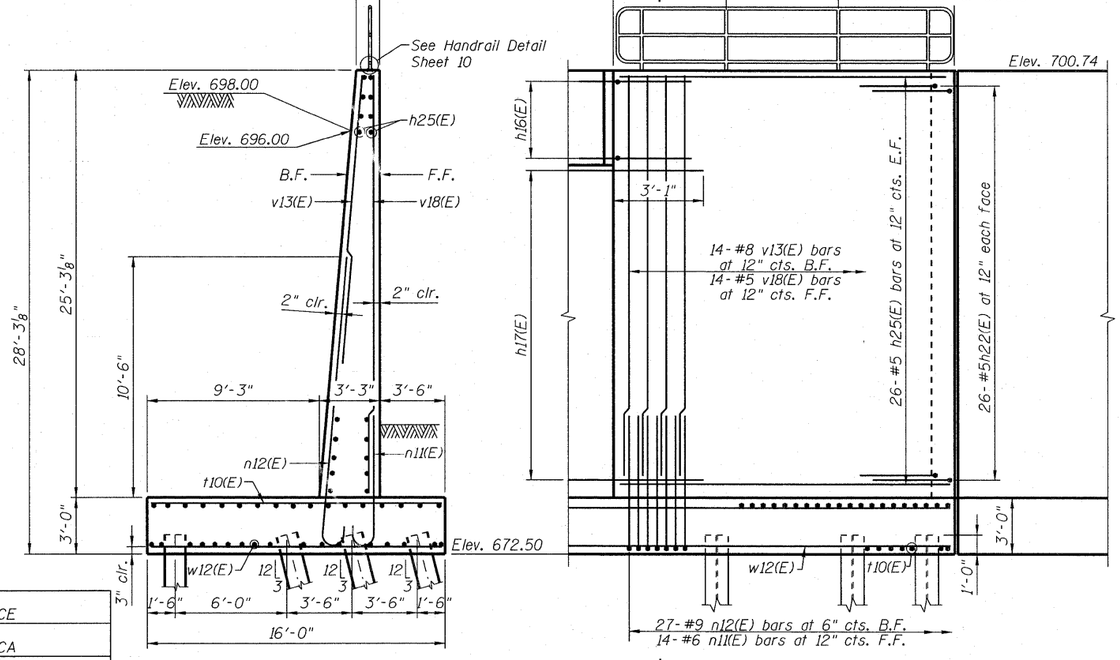
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h10(E)	38	#6	25'-11"	
h16(E)	14	#5	6'-6"	
h17(E)	45	#5	6'-3"	
h18(E)	8	#5	3'-6"	
h19(E)	33	#5	11'-3"	
h20(E)	26	#5	11'-9"	
h21(E)	7	#5	9'-7"	
h22(E)	78	#5	5'-11"	
h23(E)	26	#5	11'-0"	
h25(E)	52	#5	12'-7"	
h27(E)	58	#5	30'-7"	
h28(E)	36	#5	33'-11"	
h30(E)	10	#6	16'-1"	
h31(E)	10	#6	19'-1"	
h33(E)	10	#6	32'-9"	
h35(E)	14	#6	35'-0"	
n10(E)	130	#9	16'-0"	
n11(E)	119	#6	6'-9"	
n12(E)	27	#9	14'-6"	
s10(E)	66	#5	12'-8"	
s11(E)	8	#5	8'-8"	
t10(E)	273	#8	15'-8"	
t11(E)	36	#8	9'-0"	
t12(E)	4	#8	18'-0"	
w12(E)	96	#5	30'-4"	
v12(E)	75	#6	7'-6"	
v13(E)	14	#8	20'-3"	
v15(E)	65	#9	18'-0"	
v16(E)	63	#5	18'-0"	
v18(E)	14	#5	24'-11"	
v19(E)	40	#6	9'-6"	
v21(E)	42	#6	18'-2"	

Porous Granular Embankment	Cu. Yd.	324
Structure Excavation	Cu. Yd.	1,407
Concrete Structures	Cu. Yd.	608.9
Reinforcement Bars, Epoxy Coated	Pound	43,930
Furnishing Steel Piles, HP14x117	Foot	5,026
Driving Piles	Foot	5,026
Test Pile Steel, HP14x117	Each	1
Concrete Sealer	Sq. Ft.	2,190
Geocomposite Wall Drain	Sq. Yd.	254
Pipe Drains 4"	Foot	15
Pipe Underdrains For Structures 4"	Foot	99

Bars indicated thus 1 x 3-#5 etc. indicates 1 line of bars with 3 lengths per line.

Space reinforcement in abutment to miss anchor bolts.



SECTION C-C

ELEVATION
(Looking East)

DESIGNED - JCE	
CHECKED - JCA	
DRAWN - JCE	
CHECKED - JCA	

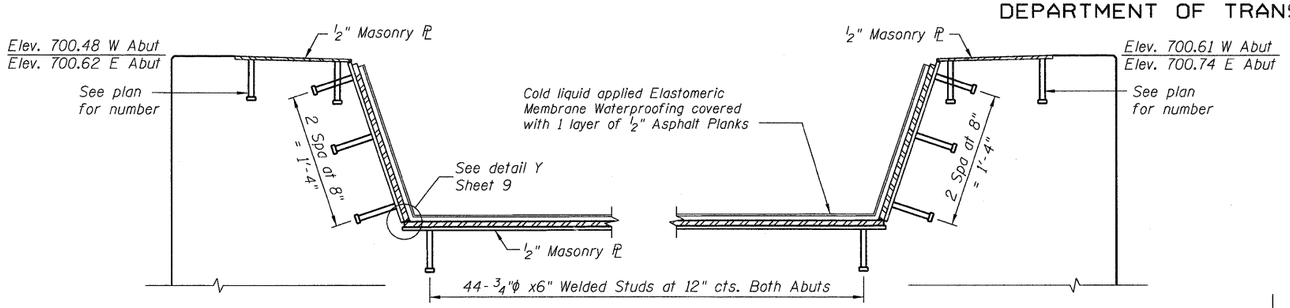
EAST ABUTMENT SECTIONS AND BOM
STRUCTURE NO. 016-6201

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SHEET NO. 19	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	330	73 R-B	COOK	136	71
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

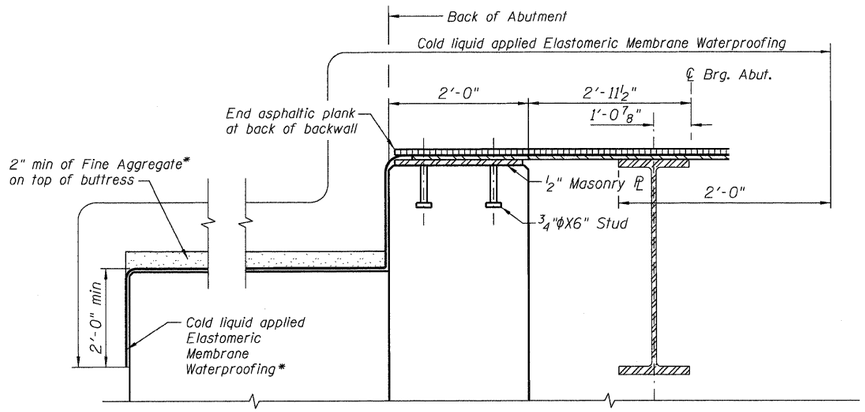
0166201-60K64-019-East_abut.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



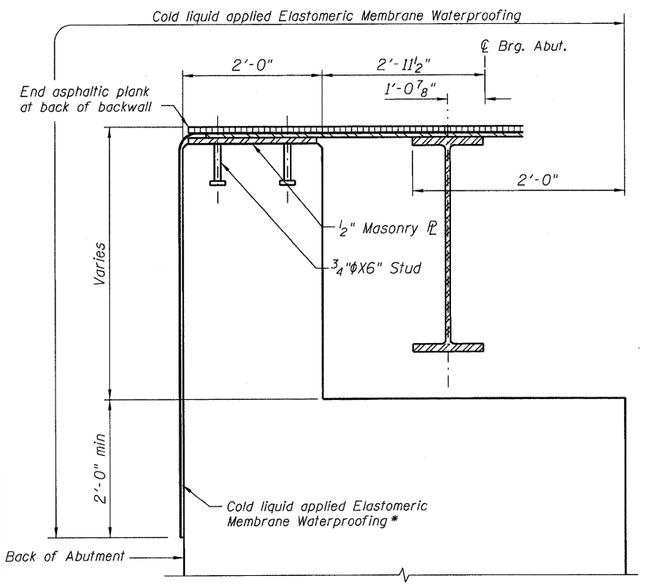
SECTION A-A WEST ABUTMENT
SECTION B-B EAST ABUTMENT

Note:
For additional details, See Typical Section at Knee brace-Sheet 8.

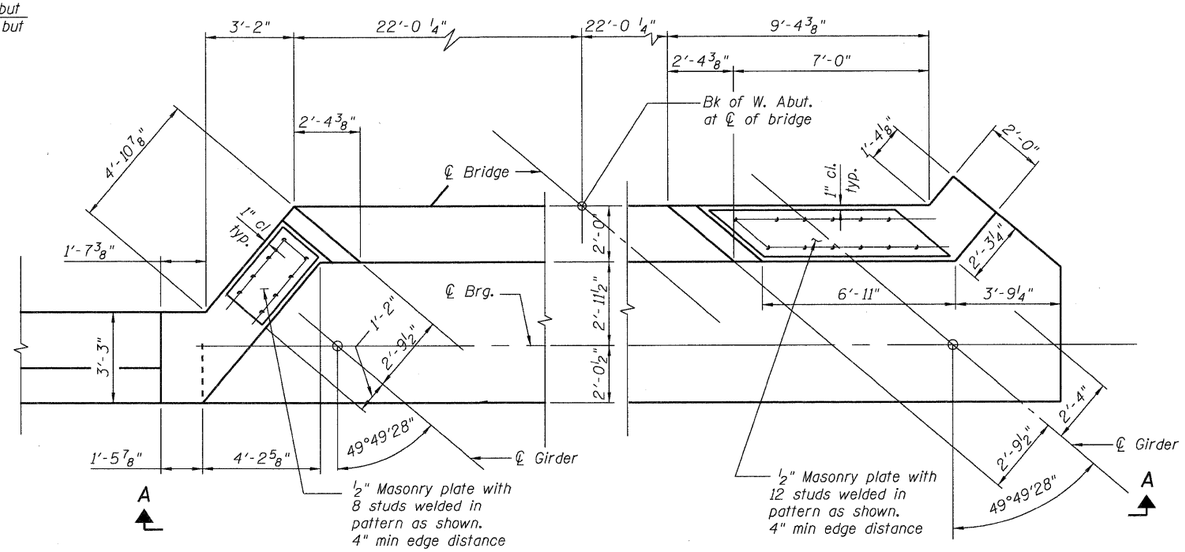


SECTION THRU ABUTMENT AT BUTTRESS

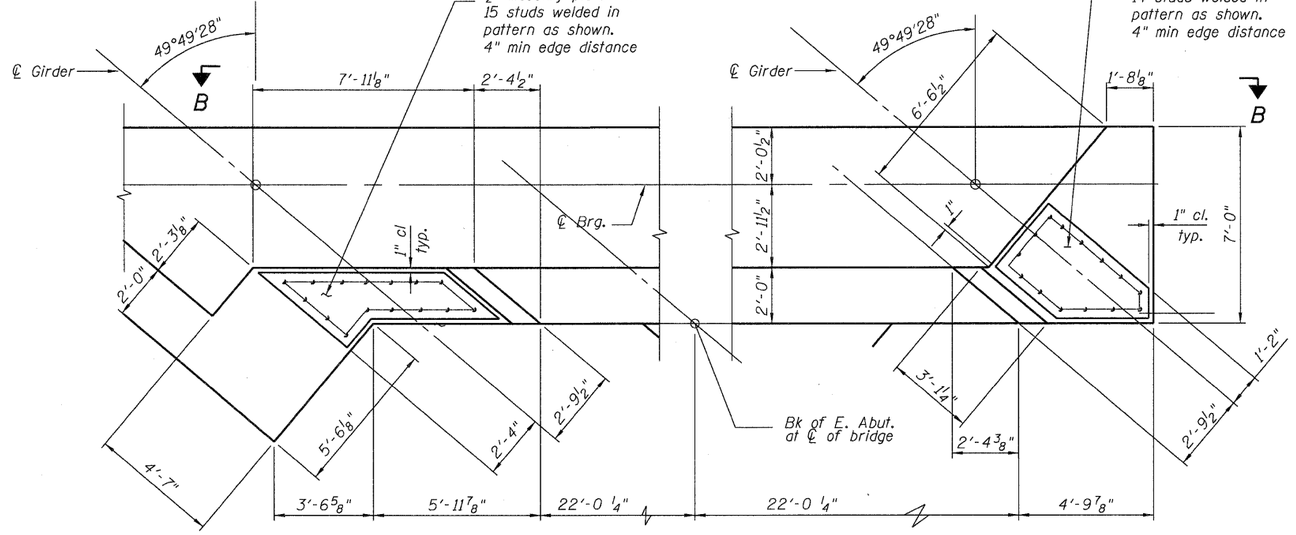
* Included in the cost of Waterproofing



SECTION THRU ABUTMENT



WEST ABUTMENT DETAILS



EAST ABUTMENT DETAILS

Note:

Cost of studs included in the cost of "Furnishing Structural Steel".

ABUTMENT DETAILS
STRUCTURE NO. 016-6201

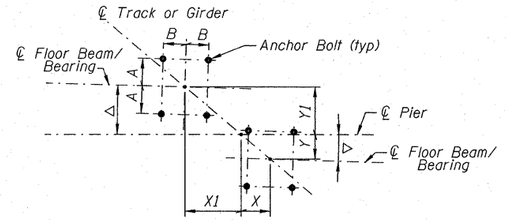
DESIGNED -	JCE
CHECKED -	JCA
DRAWN -	JCE
CHECKED -	JCA

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SHEET NO. 20	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	330	73 R-B	COOK	136	72
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

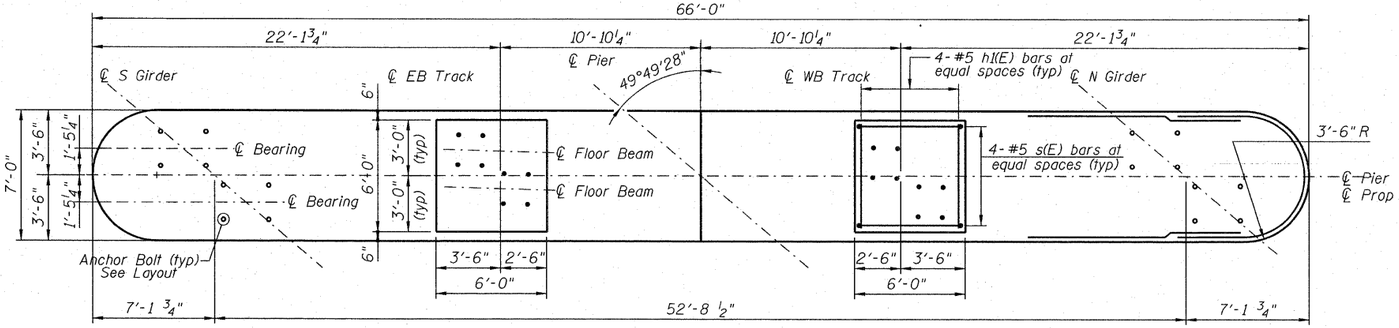
0166201-60K64-020-Abut_details.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

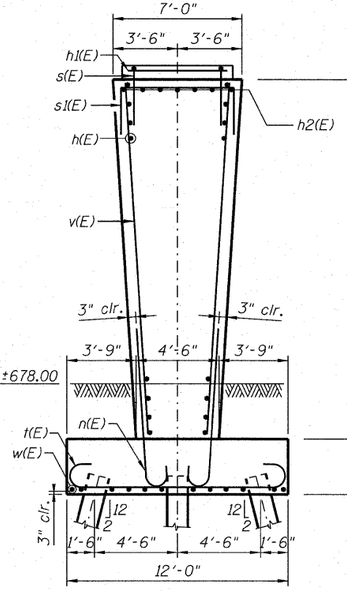


ANCHOR BOLT LAYOUT

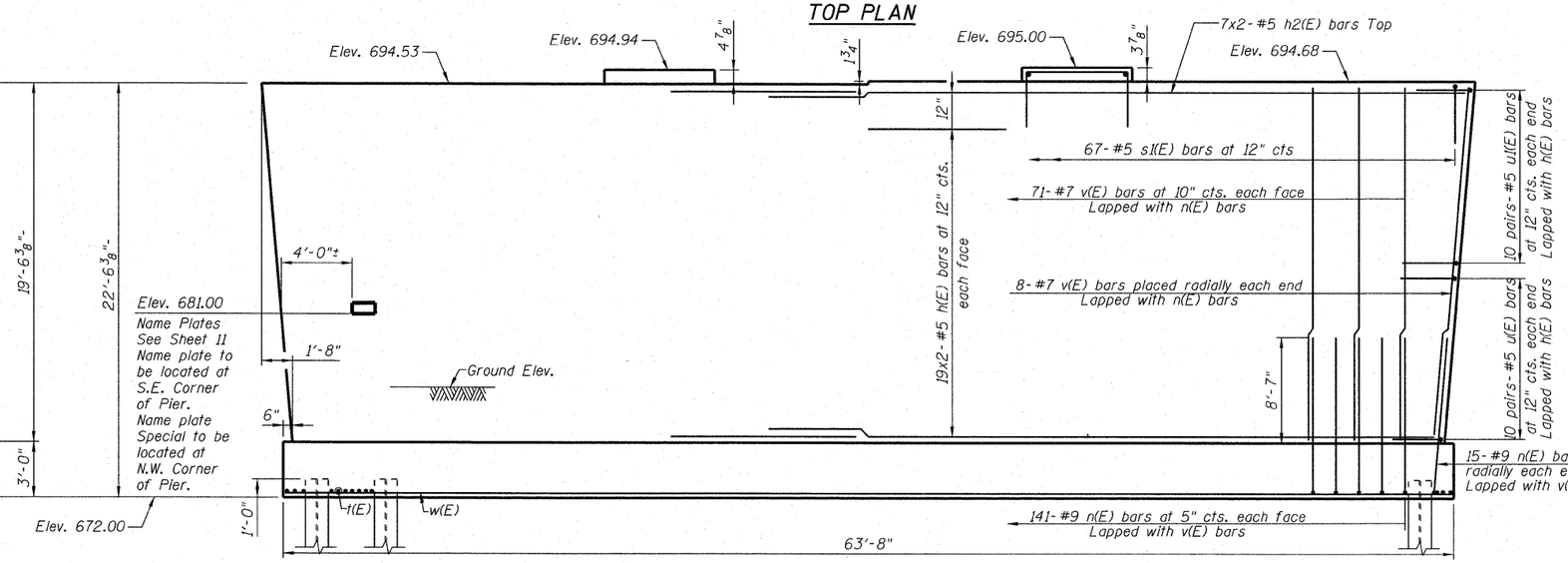
Location	Δ	X1	Y1	X	Y	A	B	Dia. x Length
S Girder	0°00'00"	1'-8 7/16"	1'-5 1/4"	1'-8 7/16"	1'-5 1/4"	11"	1'-2 3/4"	2 1/2"x2'-6"
EB Track	1°42'09"	1'-7 9/16"	1'-4 1/2"	10 1/16"	8 1/2"	1-1"	7 1/4"	1 1/4"x1'-0"
WB Track	1°42'09"	10 1/16"	8 1/2"	1'-7 9/16"	1'-4 1/2"	1'-1"	7 1/4"	1 1/4"x1'-0"
N Girder	0°00'00"	1'-8 7/16"	1'-5 1/4"	1'-8 7/16"	1'-5 1/4"	11"	1'-2 3/4"	2 1/2"x2'-6"

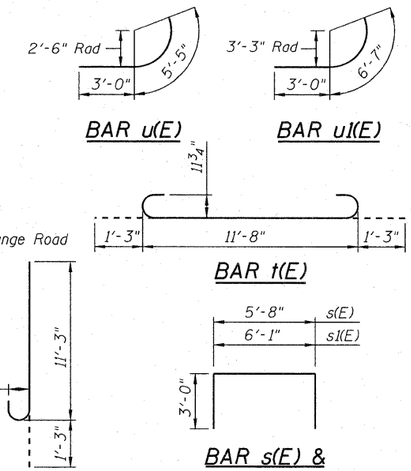


TOP PLAN



END VIEW





BILL OF MATERIAL

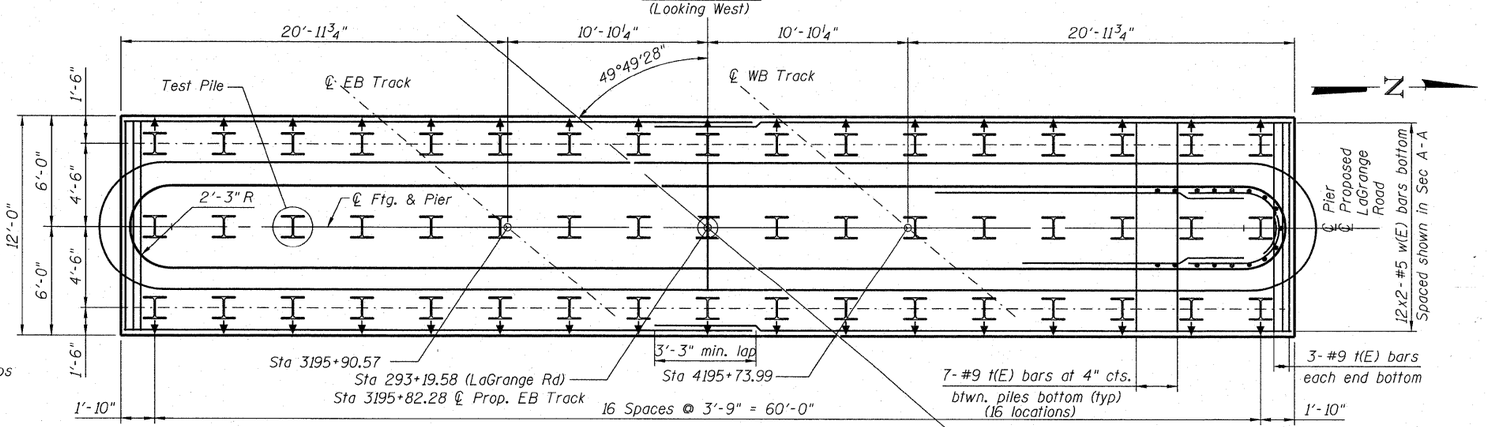
Bar	No.	Size	Length	Shape
h(E)	76	#5	31'-0"	
h1(E)	8	#5	5'-8"	
h2(E)	14	#5	34'-4"	
n(E)	312	#9	12'-6"	
s(E)	8	#5	11'-8"	
s1(E)	67	#5	12'-1"	
t(E)	118	#9	14'-2"	
u(E)	40	#5	8'-5"	
u1(E)	40	#5	9'-7"	
w(E)	24	#5	33'-4"	
v(E)	158	#7	19'-0"	

Structure Excavation	Cu. Yd.	331
Concrete Structures	Cu. Yd.	485.7
Reinforcement Bars, Epoxy Coated	Pound	30,590
Furnishing Steel Piles HP14x117	Foot	5,552
Driving Piles	Foot	5,552
Test Pile Steel HP14x117	Each	1
Concrete Sealer	Sq. Ft.	2,958

Bars indicated thus 1 x 3-#5 etc. indicates 1 line of bars with 3 lengths per line.

MIN. LAP

#5 Top = 2'-11"
#5 Others = 2'-7"
#6 Top = 3'-6"



FOOTING PLAN

PILE DATA

Type: Steel HP14x117
Nominal Required Bearing = 929 kips
Factored Resistance Available = 310 kips
Est. Length: 110 feet (vertical)
No. Production Piles: 50
No. Test Piles: 1

Straight (no batter)
Battered Pile

DESIGNED	JCE
CHECKED	JCA
DRAWN	JCE
CHECKED	JCA

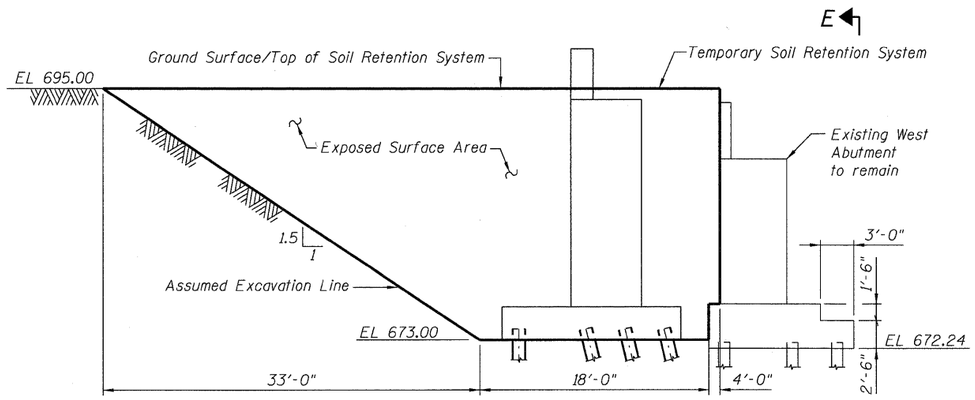
McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

PIER
STRUCTURE NO. 016-6201

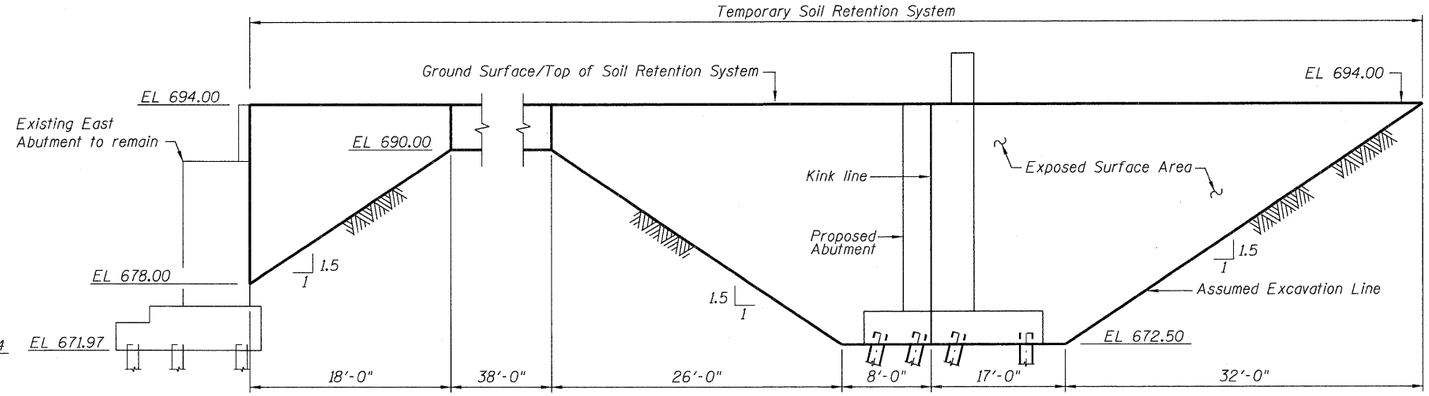
SHEET NO. 21	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	330	73_R-B	CQOK	136	73
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

0166201-60K64-021-Pier.dgn

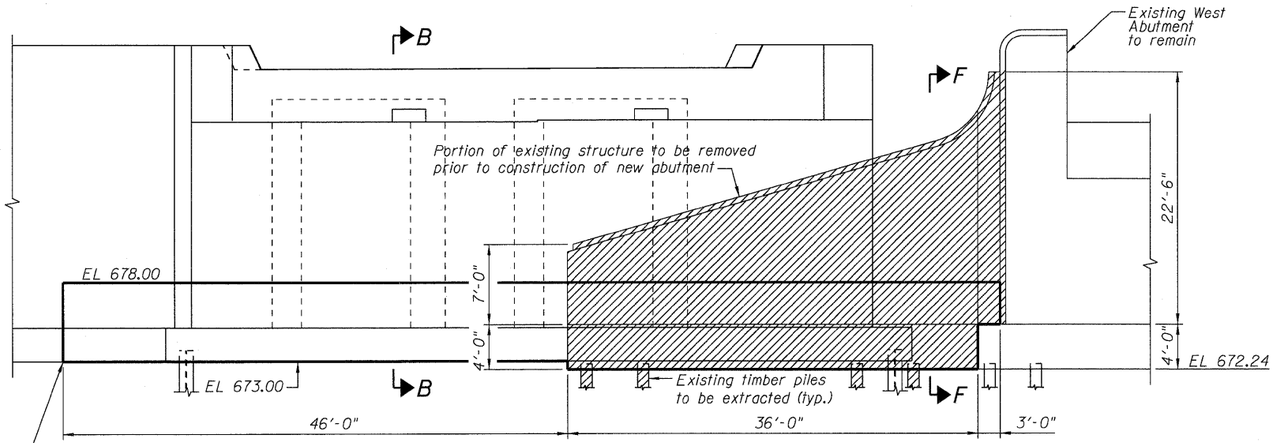
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



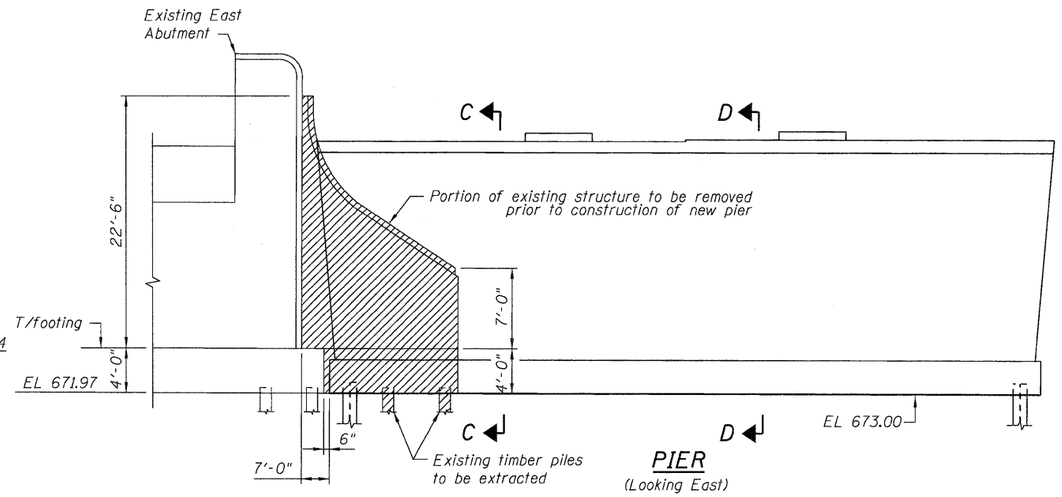
WEST ABUTMENT 1
(Looking North)



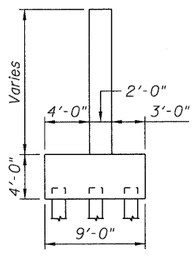
EAST ABUTMENT 1
(Looking North)



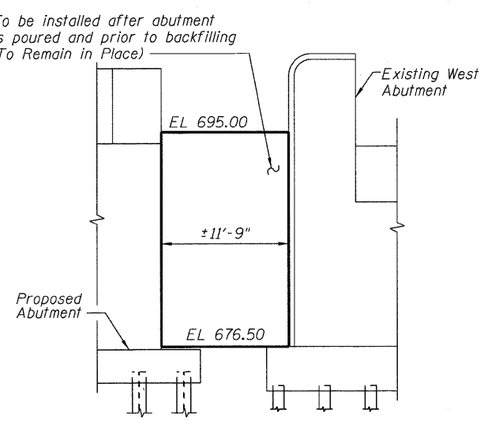
WEST ABUTMENT 2
(Looking West)



PIER
(Looking East)



SECTION F-F



SECTION E-E

Notes:
1. Work this Sheet with Sheet 3.
2. Dimensions shown are along sheeting as shown in plan view.

DESIGNED	- JCE
CHECKED	- JCA
DRAWN	- JCE
CHECKED	- JCA

TEMPORARY SOIL RETENTION SYSTEM
STRUCTURE NO. 016-6201

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SHEET NO. 22	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	330	73 R-B	COOK	136	74
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

0166201-60K64-022-Retention.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS DEPARTMENT OF TRANSPORTATION
STRUCTURE BORING LOG

Page 1 Of 1

Date 8/18/04

ROUTE _____ DESCRIPTION Metra Bridge over LaGrange Road

SECTION _____ STRUCTURE NO. _____ DRILLED BY SEECO Consultants Inc./GF

COUNTY Cook LOCATION Orland Park, IL

Boring No. B-1
Station _____
Offset _____
Surface El. +680.48+/- M.S.L.

Surf. Wat. El. N.A.
Groundwater Elev.:
When Drilling 8' (672.5)
at Completion 15' (665.5)
After _____ Hrs

DEPTH	BLOWS	QU TSF	W %	DEPTH	BLOWS	QU TSF	W %
FILL: SILTY CLAY LOAM, Gray and Black, Trace Gravel (A-5)							
1.0				42.0			
2.0	7	3.3 P	21.3	43.0			
CLAY LOAM, Brown and Gray, Trace Fine Gravel, Trace Sand, Very Stiff, Moist (A-6)				44.0	27	3.5 P	18.6
3.0				45.0			
4.0				46.0			
5.0	17	3.0 B	21.9	47.0			
6.0				48.0			
CLAY, Gray, Trace Brown, Trace Fine Gravel, Trace Sand, Very Stiff to Medium to Very Stiff, Moist (A-6)				SILT, Gray, Trace Sand, Medium Dense to Dense, Moist (A-4)			
7.0				49.0	24		17.9
8.0	13	3.8	27.7	50.0			
9.0				51.0			
10.0				52.0			
11.0	14	1.0 P	16.7	53.0			
LL = 25 PL = 14				SILT, Gray, Trace Clay, Trace Sand, Dense to Medium Dense, Moist (A-4)			
12.0				54.0	27		17.1
13.0				55.0			
14.0	13	0.5 B	13.9	56.0			
15.0				57.0			
16.0				58.0			
17.0				59.0	36		16.9
18.0				60.0			
19.0	20	3.0 B	13.6	61.0			
20.0				62.0			
21.0				63.0			
22.0				64.0	37		17.5
23.0				65.0			
24.0	22	3.0 P	13.7	66.0			
25.0				67.0			
26.0				68.0			
27.0				69.0	14		18.0
28.0				70.0			
29.0	21	3.0 P	12.6	END OF BORING @ 70 FEET			
30.0				71.0			
31.0				72.0			
32.0				73.0			
33.0				74.0			
34.0	19	2.8 P	12.5	75.0			
Silt Lense at 39 feet				76.0			
35.0				77.0			
36.0				78.0			
37.0		P		79.0			
38.0				80.0			
39.0	26	3.5	20.1	81.0			
40.0				82.0			
41.0							

N=Standard Penetration Test-Blows per foot to drive 2" O.D.
Split Spoon Sampler 12" with 140lb hammer falling 30"

(QU)B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet
Offset is from edge of traveled Pavement

SEECO Job No. 7947C

ILLINOIS DEPARTMENT OF TRANSPORTATION
STRUCTURE BORING LOG

Page 1 Of 1

Date 8/23/04

ROUTE _____ DESCRIPTION Metra Bridge over LaGrange Road

SECTION _____ STRUCTURE NO. _____ DRILLED BY SEECO Consultants Inc./GF

COUNTY Cook LOCATION Orland Park, IL

Boring No. B-2
Station _____
Offset _____
Surface El. +679.60+/- M.S.L.

Surf. Wat. El. N.A.
Groundwater Elev.:
When Drilling 14' (665.6)
at Completion 11' (678.6)
After _____ Hrs

DEPTH	BLOWS	QU TSF	W %	DEPTH	BLOWS	QU TSF	W %
FILL: SILTY CLAY LOAM, Gray and Black, Trace Gravel (A-5)				(A-4)			
1.0				42.0			
2.0	6	3.8 P	21.4	43.0			
CLAY, Brown and Gray, Trace Fine Gravel, Trace Sand, Very Stiff, Moist (A-6)				44.0	23		18.4
3.0				45.0			
4.0				46.0			
5.0	12	3.3 P	22.3	47.0			
6.0				48.0			
CLAY, Brown and Gray, Trace Black, Trace Fine Gravel, Trace Sand, Very Stiff, Moist (A-6)				49.0	26		17.5
CLAY, Gray, Trace Fine Gravel, Trace Sand, Very Stiff, Moist (A-6)				50.0			
7.0				51.0			
8.0	16	3.0 P	22.8	52.0			
9.0				53.0			
10.0				54.0	39		16.7
11.0	18	3.5 B	14.9	55.0			
DD = 120.0 pcf				56.0			
12.0				57.0			
13.0				58.0			
14.0	17	3.0 P	18.6	59.0	38		16.5
15.0				60.0			
16.0				61.0			
17.0				62.0			
SILTY CLAY, Brownish Gray, Trace Fine Gravel, Trace Sand, Medium, Moist (A-6)				63.0			
18.0				64.0	14		17.3
19.0	9	0.9 B	18.3	65.0			
DD = 118.5 pcf				66.0			
20.0				67.0			
21.0				68.0			
22.0				69.0	54		18.6
23.0				70.0			
SILTY CLAY LOAM, Gray, Trace Fine Gravel, Trace Sand, Very Stiff to Hard, Moist (A-4)				71.0			
24.0	16	2.3 P	14.0	72.0			
LL = 19 PL = 14				73.0			
25.0				74.0	61		17.4
26.0				75.0			
27.0				76.0			
28.0				77.0			
DD = 127.5 pcf				78.0			
29.0	17	2.5 P	15.6	CLAY, Gray, Trace Sand, Very Stiff, Moist (A-6)			
30.0				79.0	20	3.8 P	17.5
31.0				END OF BORING @ 80 FEET			
32.0				80.0			
33.0				81.0			
34.0	16	4.0 P	13.7	82.0			
DD = 132.5 pcf							
35.0							
36.0							
37.0							
38.0							
39.0	24	4.0	16.0				
SILT, Gray, Trace Clay, Trace Sand, Medium Dense, Moist			19.6				
40.0							
41.0							

N=Standard Penetration Test-Blows per foot to drive 2" O.D.
Split Spoon Sampler 12" with 140lb hammer falling 30"

(QU)B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet
Offset is from edge of traveled Pavement

SEECO Job No. 7947G

DESIGNED	JCE
CHECKED	JCA
DRAWN	JCE
CHECKED	JCA

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SOIL BORING LOGS
STRUCTURE NO. 016-6201

SHEET NO. 23	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	330	73 R-B	COOK	136	75
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS DEPARTMENT OF TRANSPORTATION
STRUCTURE BORING LOG

Page 1 Of 1

Date 8/24/04

ROUTE _____ DESCRIPTION Metra Bridge over LaGrange Road

SECTION _____ STRUCTURE NO. _____ DRILLED BY SEECO Consultants Inc./GF

COUNTY Cook LOCATION Orland Park, IL

Boring No. B-3
Station _____
Offset _____
Surface El. +679.21+/- M.S.L.

Surf. Wat. El. N.A.
Groundwater Elev.:
When Drilling 12' (667.2)
at Completion 16' (663.2)
After _____ Hrs

DEPTH	BLOWS	QU TSF	W %	DEPTH	BLOWS	QU TSF	W %
FILL: POORLY GRADED SAND AND FINE TO MEDIUM GRAVEL, Dark Brown to Brown, Loose (A-1-b)	14		8.2				
CLAY LOAM, Grayish Brown, Trace Fine Gravel, Trace Sand, Very Stiff, Moist (A-6)	10	2.8 P	11.2				
CLAY LOAM, Brownish Gray, Trace Fine Gravel, Trace Sand, Very Stiff to Stiff, Moist (A-6)	10	2.0 P	16.2				
DD = 120 pcf	9	1.0 B	16.3				
CLAY LOAM, Gray, Trace Fine Gravel, Trace Sand, Very Stiff, Moist (A-6)	13	1.4 B	13.1				
DD = 128.5 pcf							
DD = 127 pcf	9	1.8 B	13.5				
	15	3.8 P	15.0				
SILT, Gray, Meduim Dense to Dense, Moist (A-4)			18.6				
	19		21.7				
			23.6				
	24						
	35		18.8				
				SILTY CLAY, Gray, Trace Sand, Very Stiff to hard to Very Stiff, Moist (A-6)	38		20.0
					40		18.2
					41		
					16	3.5 P	23.8
					19	4.0 P	17.4
					14	3.0 P	17.6
					17	3.5 P	17.8
					24	3.5 P	18.1
				END OF BORING @ 80 FEET			

N=Standard Penetration Test-Blows per foot to drive 2" O.D.
Split Spoon Sampler 12" with 140lb hammer falling 30"

(QU)B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet
Offset is from edge of traveled Pavement

SEECO Job No. 7947G

ILLINOIS DEPARTMENT OF TRANSPORTATION
STRUCTURE BORING LOG

Page 1 Of 1

Date 8/25/04

ROUTE _____ DESCRIPTION Metra Bridge over LaGrange Road

SECTION _____ STRUCTURE NO. _____ DRILLED BY SEECO Consultants Inc./GF

COUNTY Cook LOCATION Orland Park, IL

Boring No. B-4A
Station _____
Offset _____
Surface El. +678.85+/- M.S.L.

Surf. Wat. El. N.A.
Groundwater Elev.:
When Drilling 27' (651.8)
at Completion 15' (663.8)
After _____ Hrs

DEPTH	BLOWS	QU TSF	W %	DEPTH	BLOWS	QU TSF	W %
4.5" BITUMINOUS CONCRETE PAVEMENT 10.5" CRUSHED STONE BASE COURSE (CA-6) CLAY LOAM, Brown and Gray, Trace Sand, Trace Fine Gravel, Very Stiff, Moist (A-4)	10	3.3 P	15.9				
	7	2.5 P	14.5				
CLAY LOAM, Gray, Trace Sand, Trace Fine Gravel, Very Stiff, Moist (A-6)	10	2.3 P	13.6				
CLAY LOAM, Brownish Gray, Trace Fine Gravel, Trace Sand, Very Stiff, Moist (A-6)	11	2.0	15.4				
	8	1.8 P	13.7				
	13	2.5 P	12.6				
CLAY LOAM, Brownish Gray, Little Fine Sand, Very Stiff, Moist (A-4) LL = 20 PL = 15	12	2.8 P	11.9				
SAND, Brownish Gray, Fine Grained, Medium, Saturated (A-1-b)	6		20.5				
SILT, Brownish Gray to Gray, Medium Dense to Dense to Very Dense, Moist (A-4)	24		20.5				
	32		19.6				
					40		17.4
					37		16.8
					42		17.7
					43		16.7
					32		16.8
					49		16.7
				END OF BORING @ 70 FEET			

N=Standard Penetration Test-Blows per foot to drive 2" O.D.
Split Spoon Sampler 12" with 140lb hammer falling 30"

(QU)B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet
Offset is from edge of traveled Pavement

SEECO Job No. 7947G

DESIGNED	JCE
CHECKED	JCA
DRAWN	JCE
CHECKED	JCA

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SOIL BORING LOGS
STRUCTURE NO. 016-6201

SHEET NO. 24	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	330	73 R-B	COOK	136	76
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

0166201-60K64-024-Boring.log.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS DEPARTMENT OF TRANSPORTATION
STRUCTURE BORING LOG

Page 1 Of 1

ROUTE _____ DESCRIPTION Metra Bridge over LaGrange Road Date 9/3/04

SECTION _____ STRUCTURE NO. _____ DRILLED BY SEECO Consultants Inc./GF

COUNTY Cook LOCATION Orland Park, IL

Boring No. B-5
Station _____
Offset _____
Surface El. +690.00+/- M.S.L.

Surf. Wat. El. N.A.
Groundwater Elev.:
When Drilling 28' (662.0)
at Completion 22' (668.0)
After _____ Hrs

DEPTH	BLOWS	QU TSF	W %	DESCRIPTION
1.0				CLAY LOAM, Brown and Gray to Brown, Trace Sand and Fine Gravel, Very Stiff to Hard, Moist (A-6)
2.0	13	3.3 P	20.2	
3.0				
4.0				
5.0	26	4.5 P	19.0	
6.0				
7.0				
8.0	15	4.0 P	19.1	
9.0				
10.0				
11.0	18	4.0 P	20.7	
12.0				
13.0				
14.0	15	2.8 P	13.5	CLAY, Gray, Trace Sand and Fine to Medium Gravel, Stiff to Very Stiff, Moist (A-6)
15.0				
16.0				
17.0				
18.0				
19.0	11	2.0 P	13.4	
20.0				
21.0				
22.0				
23.0				
24.0	8	2.0 P	14.3	
25.0				
26.0				
27.0				
28.0				
29.0	15	2.8 P	12.1	
30.0				
31.0				
32.0				
33.0				
34.0	13		23.5	SAND, Gray, Fine Coarsed, Medium Dense, Saturated (A-1-b)
35.0				
36.0				
37.0				
38.0				
39.0	19		22.5	SILT, Gray, Medium Dense to Dense, Moist, (A-4)
40.0			22.6	
41.0				
42.0				END OF BORING @ 70 FEET
43.0				
44.0	18		23.7	
45.0				
46.0				
47.0				
48.0				
49.0	23		26.7	
50.0				
51.0				
52.0				
53.0				
54.0	33		23.5	
55.0				
56.0				
57.0				
58.0				
59.0	42		22.1	
60.0				
61.0				
62.0				
63.0				
64.0	38		18.7	
65.0				
66.0				
67.0				
68.0				
69.0	52		25.6	
70.0				
71.0				
72.0				
73.0				
74.0				
75.0				
76.0				
77.0				
78.0				
79.0				
80.0				
81.0				
82.0				

N=Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140lb hammer falling 30"

(QU)B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet
Offset is from edge of traveled Pavement

SEECO Job No. 7947G

ILLINOIS DEPARTMENT OF TRANSPORTATION
STRUCTURE BORING LOG

Page 1 Of 2

ROUTE _____ DESCRIPTION Metra Bridge over LaGrange Road Date 9/9/04

SECTION _____ STRUCTURE NO. _____ DRILLED BY SEECO Consultants Inc./GF

COUNTY Cook LOCATION Orland Park, IL

Boring No. B-6
Station _____
Offset _____
Surface El. +693.25+/- M.S.L.

Surf. Wat. El. N.A.
Groundwater Elev.:
When Drilling 27' (666.3)
at Completion 19' (674.3)
After _____ Hrs

DEPTH	BLOWS	QU TSF	W %	DESCRIPTION
1.0				CLAY LOAM, Brown, Trace Sand, Trace Fine Gravel, Very Stiff to Hard, Moist (A-6)
2.0	15	4.5 P	19.0	
3.0				CLAY LOAM, Brown, Trace Gray, Trace Sand, Trace Fine Gravel, Hard, Moist (A-6)
4.0				
5.0	8	2.0 P	22.7	CLAY LOAM, Brown, Trace Gray, Trace Sand, Trace Fine Gravel, Trace Shale, Very Stiff, Moist (A-6)
6.0				
7.0				
8.0	17	4.5 P	17.3	CLAY, Brown, Trace Sand, Trace Fine Gravel, Hard to Very Stiff, Moist (A-6)
9.0				
10.0				
11.0	14	2.3 P	15.1	
12.0				
13.0				
14.0	12	2.7 B	14.1	CLAY, Gray, Trace Sand, Trace Fine Gravel, Very Stiff, Moist (A-6)
15.0				
16.0				
17.0				
18.0				
19.0	9	2.5 P	8.5	LL = 24 PL = 13
20.0				
21.0				
22.0				
23.0				
24.0	9	3.1 B	15.8	
25.0				
26.0				
27.0				
28.0				
29.0	18		23.0	SILT, Gray, Trace Fine Gravel, Trace Sand, Medium Dense, Moist (A-4)
30.0				
31.0				
32.0				
33.0				
34.0	13		19.9	SAND, Gray, Fine Grained, Trace Fine Gravel, Medium Dense to Dense, Saturated (A-1-b)
35.0				
36.0				
37.0				
38.0				
39.0	34		21.8	
40.0				
41.0				
42.0				SILT, Gray, Trace Fine Gravel, Trace Sand, Medium Dense to Dense to Very Dense to Medium Dense, Moist (A-4)
43.0				
44.0	18		19.6	
45.0				
46.0				
47.0				
48.0				
49.0	25		23.7	
50.0				
51.0				
52.0				
53.0				
54.0	37		21.1	
55.0				
56.0				
57.0				
58.0				
59.0	45		24.2	LL = 22 PL = 13
60.0				
61.0				
62.0				
63.0				
64.0	49		18.5	
65.0				
66.0				
67.0				
68.0				
69.0	53		18.3	
70.0				
71.0				
72.0				
73.0				
74.0	59		18.8	
75.0				
76.0				
77.0				
78.0				
79.0	51		17.9	
80.0				
81.0				
82.0				

N=Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140lb hammer falling 30"

(QU)B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet
Offset is from edge of traveled Pavement

SEECO Job No. 7947G

ILLINOIS DEPARTMENT OF TRANSPORTATION
STRUCTURE BORING LOG

Page 2 Of 2

ROUTE _____ DESCRIPTION Metra Bridge over LaGrange Road Date 9/9/04

SECTION _____ STRUCTURE NO. _____ DRILLED BY SEECO Consultants Inc./GF

COUNTY Cook LOCATION Orland Park, IL

Boring No. B-6
Station _____
Offset _____
Surface El. +693.25+/- M.S.L.

Surf. Wat. El. N.A.
Groundwater Elev.:
When Drilling 27' (666.3)
at Completion 19' (674.3)
After _____ Hrs

DEPTH	BLOWS	QU TSF	W %	DESCRIPTION
83.0				
84.0	56		18.2	
85.0				End of Boring at 125 feet.
86.0				
87.0				
88.0				
89.0	50		16.2	
90.0				
91.0				
92.0				
93.0				
94.0	48		19.0	
95.0				
96.0				
97.0				
98.0				
99.0	53		15.7	
00.0				
01.0				
02.0				
03.0		P		
04.0	26	3.3	19.0	6" Lense of Silty Clay with Trace Sand and Gravel
05.0				
06.0				
07.0				
08.0				
09.0	34		11.9	
10.0			9.1	MEDIUM TO COARSE GRAINED SAND WITH FINE TO MEDIUM GRAVEL, Trace Silt, Medium Dense to Dense, Saturated (A-1-b)
11.0				
12.0				
13.0				
14.0	23		9.6	
15.0				
16.0				
17.0				
18.0				
19.0	30		8.7	
20.0				
21.0				
22.0				
23.0				
24.0	43		10.6	
25.0				
26.0				
27.0				
28.0				
29.0				
30.0				
31.0				
32.0				
33.0				
34.0				
35.0				
36.0				
37.0				
38.0				
39.0				
40.0				
41.0				
42.0				
43.0				
44.0				
45.0				
46.0				
47.0				
48.0				
49.0				
50.0				
51.0				
52.0				
53.0				
54.0				
55.0				
56.0				
57.0				
58.0				
59.0				
60.0				
61.0				
62.0				
63.0				
64.0				

(QU)B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet
Offset is from edge of traveled Pavement

DESIGNED	JCE
CHECKED	JCA
DRAWN	JCE
CHECKED	JCA

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SOIL BORING LOGS
STRUCTURE NO. 016-6201

SHEET NO. 25	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
25 SHEETS	330	73 R-B	COOK	136	77
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

8166201-60K64-025-Boring_log.dgn

Bench Mark: TBM #2 - Elev. 678.745. Chiseled cross on the northeast bolt of west light pole ±60 north of north edge of Southwest Highway Bridge.

Existing Structure: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 & 2009 interims

2009 AASTHO LRFD Guide Specifications for Design of Pedestrian Bridges

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.092
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.160
Soil Site Class = D

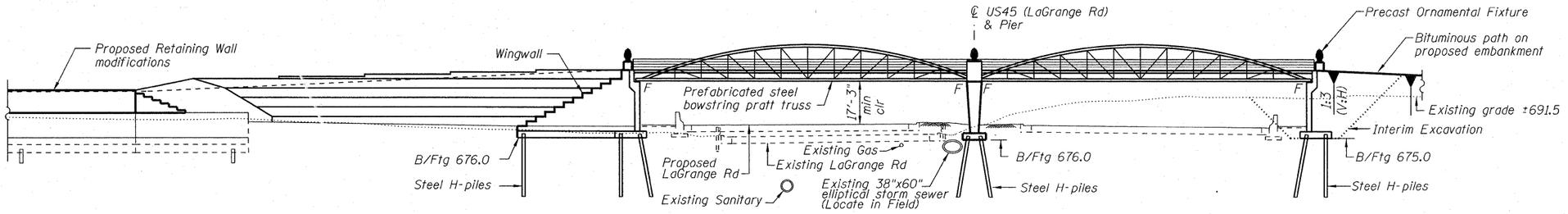
DESIGN STRESSES

FIELD UNITS

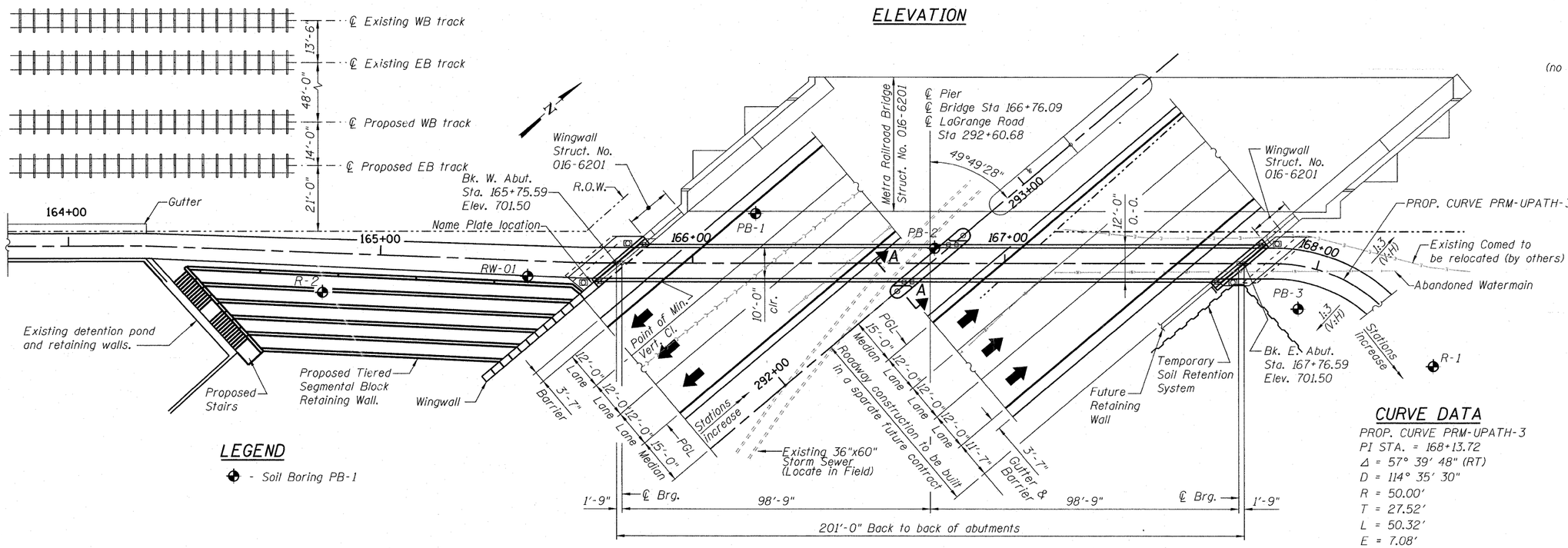
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50W) - Truss
fy = 50,000 psi (M270 Grade 50) - Piles

LOADING

Pedestrian Live Load: 90 psf
Vehicle Live Load: H-5
(no allowance for future wearing surface)



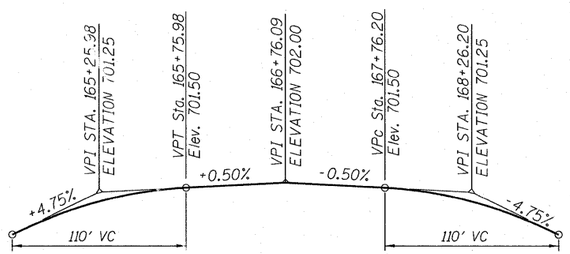
ELEVATION



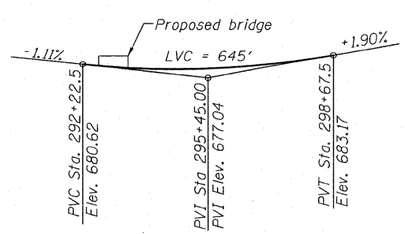
PLAN

LEGEND

- Soil Boring PB-1



PROFILE GRADE - PROPOSED PEDESTRIAN PATH



PROFILE GRADE - PROPOSED LAGRANGE RD

(along PGL roadway)

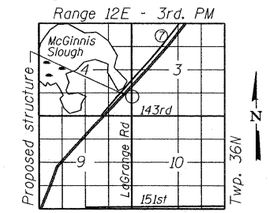
CURVE DATA

PROP. CURVE PRM-UPATH-3
PI STA. = 168+13.72
Δ = 57° 39' 48" (RT)
D = 114° 35' 30"
R = 50.00'
T = 27.52'
L = 50.32'
E = 7.08'
P.C. STA = 167+86.20
P.T. STA = 168+36.52

STATION 292+60.68
BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RTE. 330 SEC. 73R-B
LOADING 90 PSF
STRUCTURE NO. 016-7702

NAME PLATE

See Std. 515001



LOCATION SKETCH

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
ENGINEER OF BRIDGES AND STRUCTURES

LICENSED STRUCTURAL ENGINEER
GERALD E. KOYLASS
081-005264
STATE OF ILLINOIS
Exp: 11/30/2012

GENERAL PLAN AND ELEVATION
PEDESTRIAN BRIDGE OVER LAGRANGE ROAD
F.A.P. RTE. 330 SEC. 73 R-B
COOK COUNTY
STATION 166+76.09
STRUCTURE NO. 016-7702

DESIGNED	AMV
CHECKED	JCE
DRAWN	AMV
CHECKED	JCE

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SHEET NO. 1	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12 SHEETS	330	73 R-B	COOK	136	78
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

0167702-60K64-001-GPE.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

All structural steel shall be AASHTO M 270 Grade 50W (except expansion joints and piles which shall be AASHTO M 270 Grade 50). All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".

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

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

Reinforcement bars designated (E) shall be epoxy coated.

Concrete Sealer shall be applied to the designated areas of the abutments and piers: Abutments - inside face of backwall, top of bridge seat and front face of abutment stem. Pier - top of bridge seat and entire exposed surface of pier wall.

All structural steel and exposed surfaces of bearings within a distance of 4 ft. each way from the deck joints shall be painted as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".

Two $\frac{1}{8}$ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

TRUSS MANUFACTURER

The substructure is designed per AASHTO LRFD and based on the assumed truss dead loads (including deck) shown below:

Total factored superstructure dead load at east and west abutment = 86.750 pounds
Total factored superstructure dead load at center pier = 173,500 pounds

Truss manufacture shall camber the truss as necessary to provide allowance for dead load deflection.

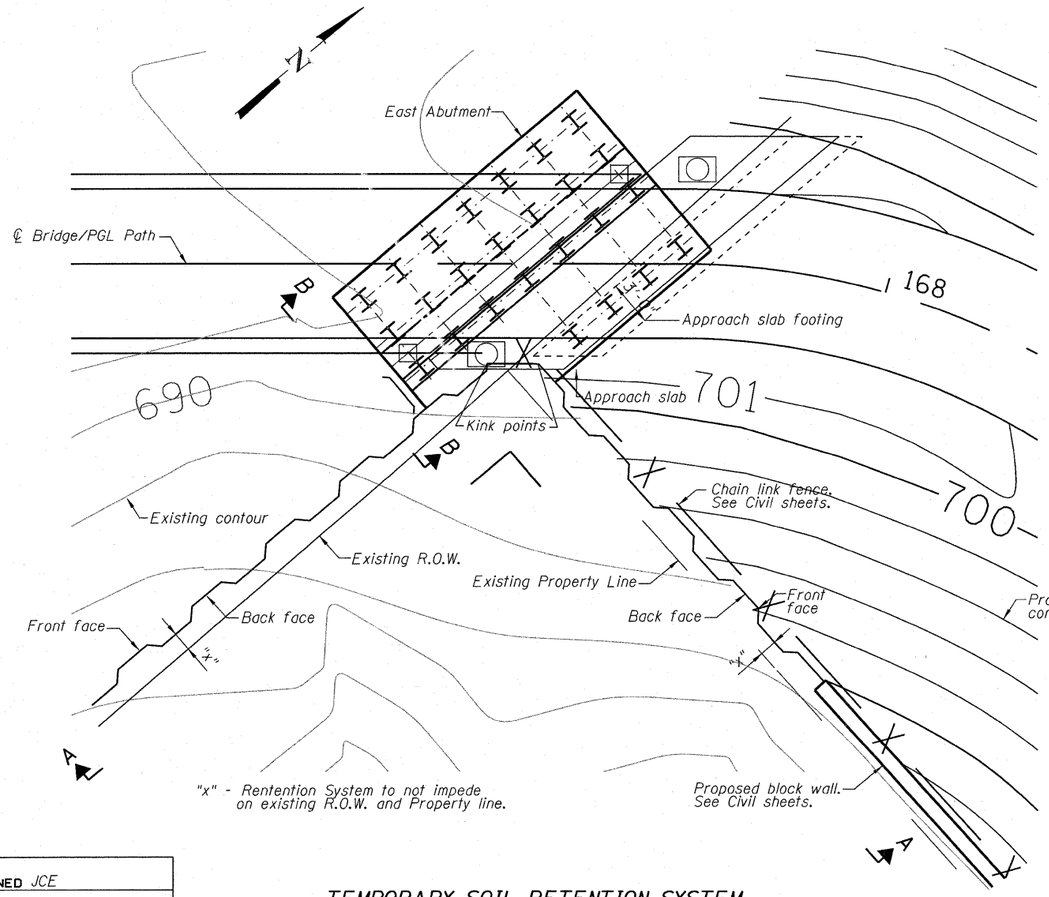
Bridge bearing seat elevations are subject to revision based on the approved pedestrian truss superstructure shop drawings. Contractor shall verify all dimensions and elevations with final approved shop drawings.

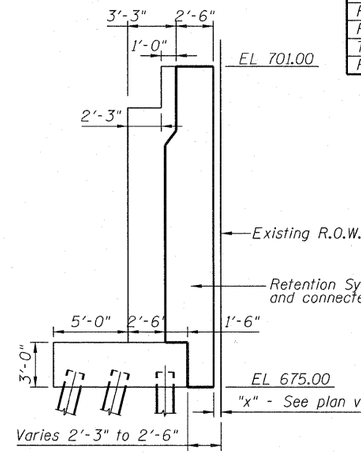
Truss manufacturer shall provide the reinforced concrete deck design. Concrete deck to utilize stay-in-place galvanized forms. Reinforcement shall be epoxy coated. Contractor shall place the concrete deck after truss is set. Cost included with Pedestrian Truss Superstructure.

TOTAL BILL OF MATERIAL

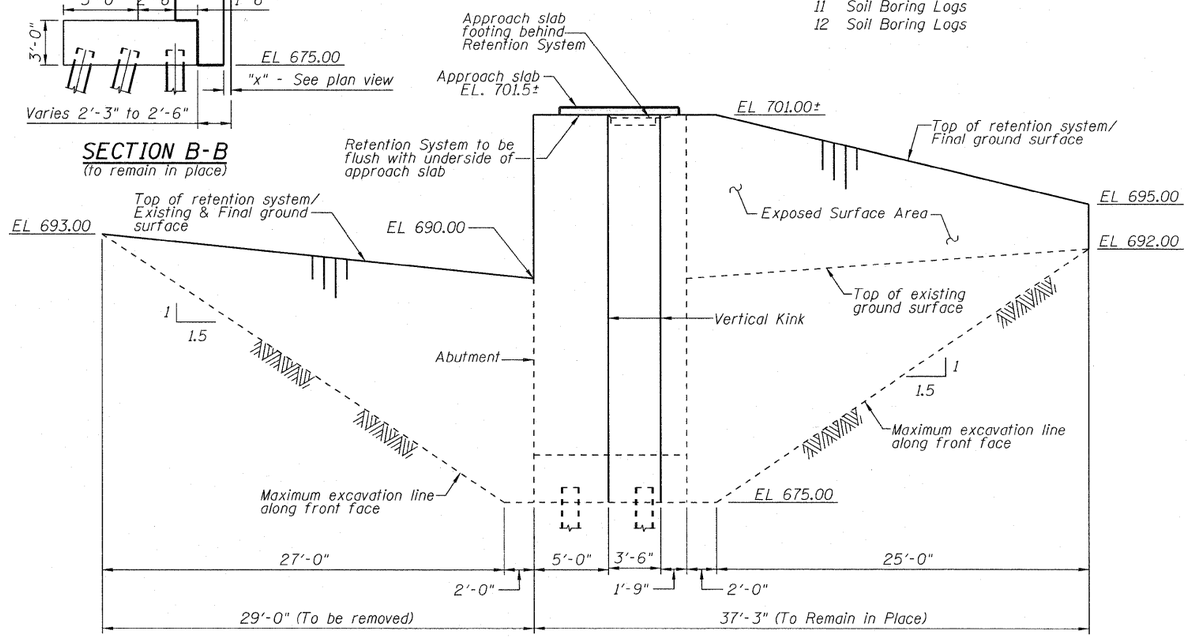
ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu. Yd.	-	493	493
Concrete Structures	Cu. Yd.	-	354.6	354.6
Rubbed Finish	Sq. Ft.		337	337
Concrete Superstructure	Cu. Yd.	7.3	-	7.3
Reinforcement Bars, Epoxy Coated	Pound	-	34,500	34,500
Furnishing Steel Piles HP12X53	Foot	-	4,343.0	4,343.0
Driving Piles	Foot	-	4,343.0	4,343.0
Test Pile Steel HP12X53	Each	-	3	3
Pile Shoes	Each	-	88	88
Name Plates	Each	1	-	1
Preformed Joint Strip Seal	Foot	46.5	-	46.5
Concrete Sealer	Sq. Ft.	-	3,334	3,334
Geocomposite Wall Drain	Sq. Yd.	-	186	186
Pedestrian Truss Superstructure	Sq. Ft.	2,010	-	2,010
Temporary Soil Retention System (To Remain In Place)	Sq. Ft.		743	743
Porous Granular Embankment, Special	Cu. Yd.	-	273	273
Pipe Underdrains For Structures 4"	Foot	-	99	99
Temporary Soil Retention System	Sq. Ft.		236	236
Precast Ornamental Fixtures	Each	6	-	6

INDEX OF SHEETS





SECTION B-B
(to remain in place)



SECTION A-A
(unfolded view looking at back face)

GENERAL NOTES AND BILL OF MATERIAL
STRUCTURE NO. 016-7702

DESIGNED	JCE
CHECKED	GEK
DRAWN	JCE
CHECKED	GEK

TEMPORARY SOIL RETENTION SYSTEM

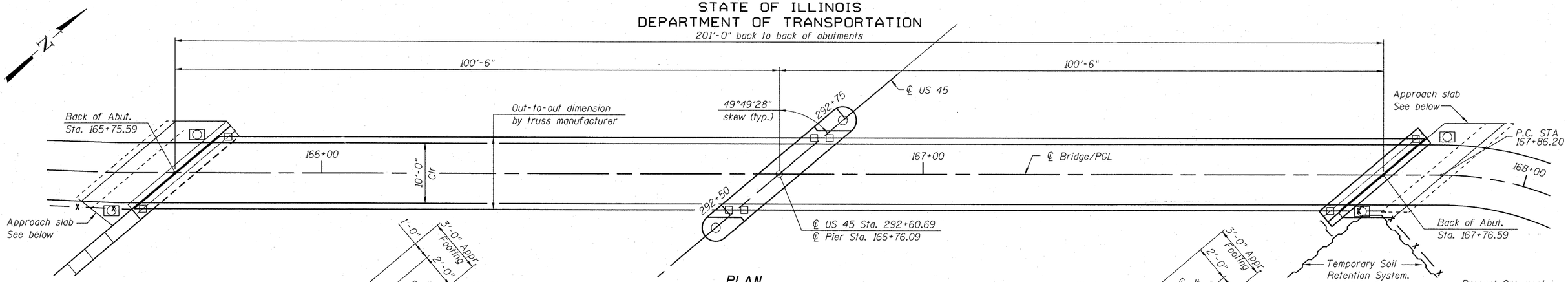
A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

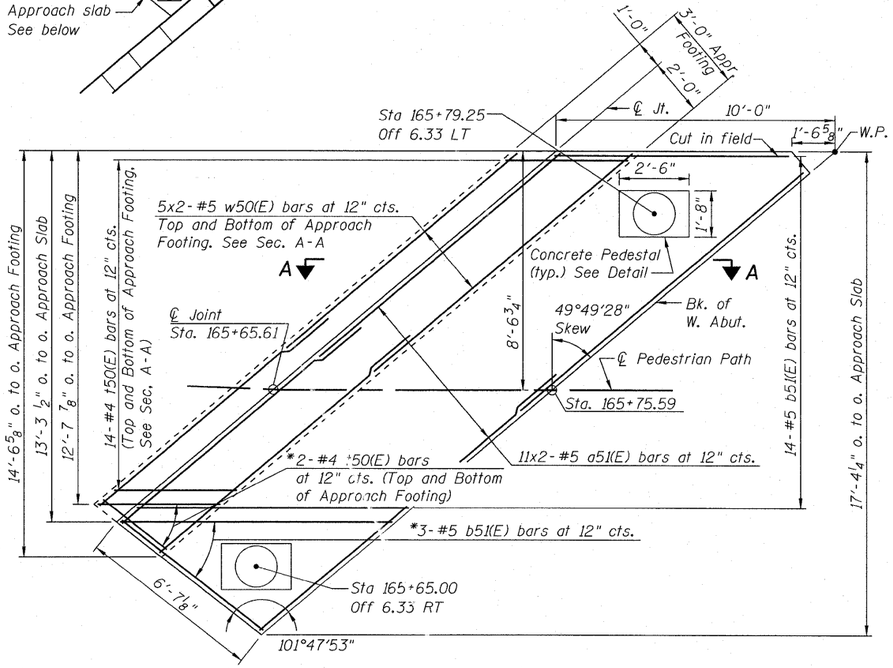
SHEET NO. 2	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12 SHEETS	330	73 R-B	COOK	136	79
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

0167702-60K64-002-Gennote.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

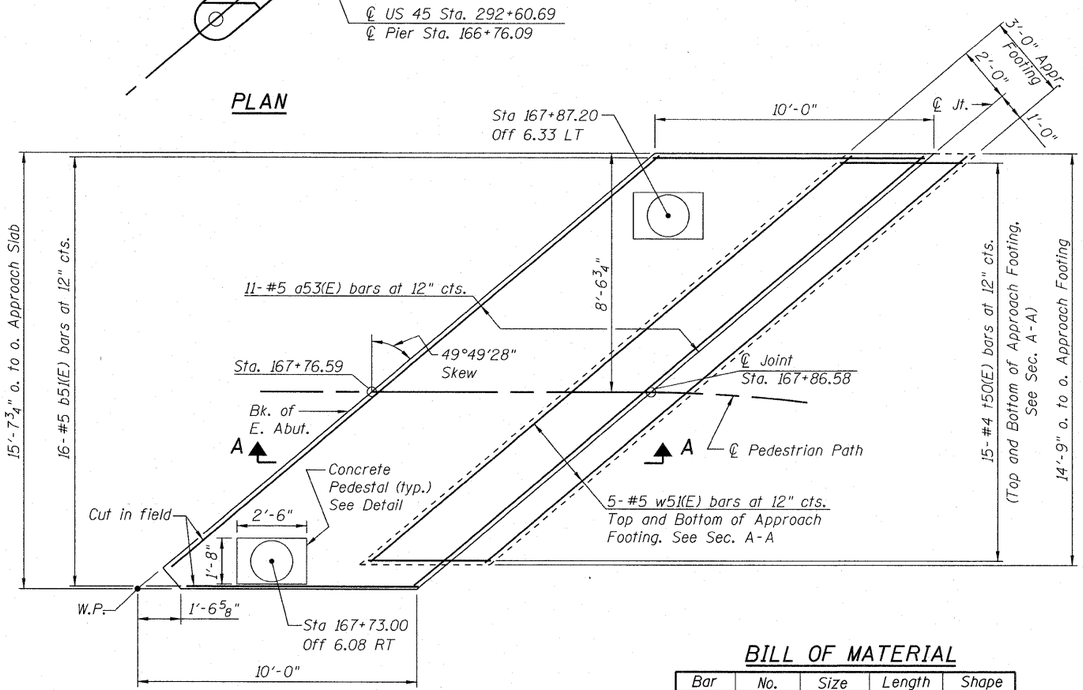


PLAN

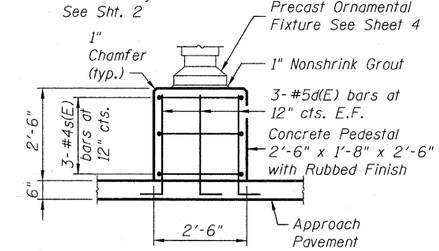


WEST APPROACH

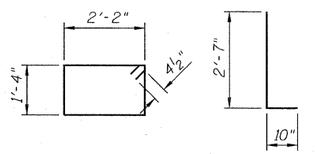
* Fan bars and cut in field to maintain clearance



EAST APPROACH



CONCRETE PEDESTAL DETAIL



BAR s(E) BAR d(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a51(E)	22	#5	14'-8"	——
a53(E)	11	#5	26'-2"	——
b51(E)	33	#5	9'-8"	——
d(E)	24	#5	3'-5"	⌟
s(E)	12	#4	7'-9"	□
t50(E)	62	#4	4'-3"	——
w50(E)	20	#5	12'-6"	——
w51(E)	10	#5	22'-6"	——
Concrete Structures			Cu. Yd.	4.1
Concrete Superstructure			Cu. Yd.	7.3
Reinforcement Bars, Epoxy Coated			Pound	1,790

Notes:

Approach slab and concrete pedestal shall be paid for as Concrete Superstructure.

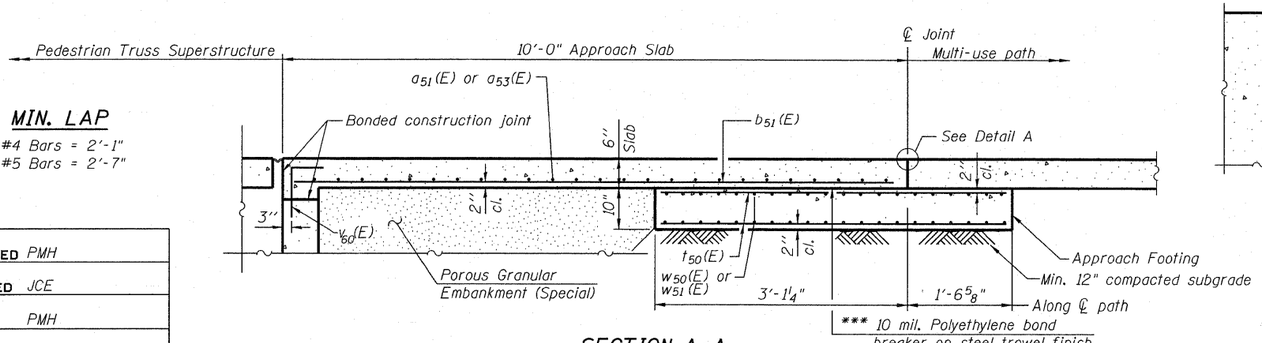
Approach footing concrete shall be paid for as Concrete Structures.

For w(E) bar details, see sheet 6.

The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.

Cost of excavation for approach footing included with Concrete Structures.

For Porous Granular Embankment (Special) and drainage treatment details, see sheet 7.



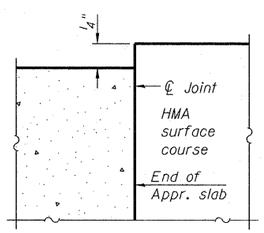
MIN. LAP

#4 Bars = 2'-1"
#5 Bars = 2'-7"

*** 10 mil. Polyethylene bond breaker on steel trowel finish

SECTION A-A

*** Cost included with Concrete Superstructure.



DETAIL A

DESIGNED	PMH
CHECKED	JCE
DRAWN	PMH
CHECKED	JCE

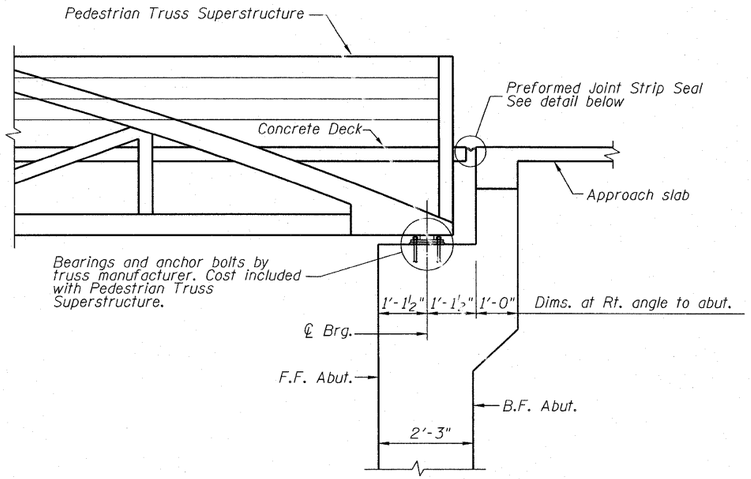
McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SUPERSTRUCTURE AND APPROACH PLAN
STRUCTURE NO. 016-7702

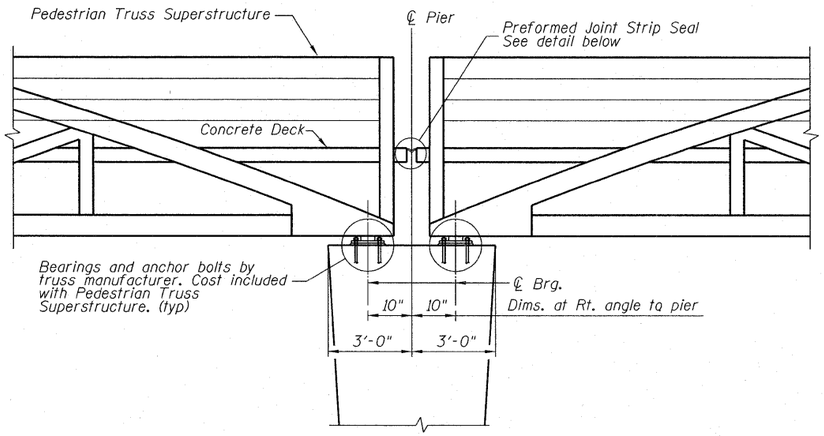
SHEET NO. 3	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12 SHEETS	330	73 R-B	COOK	136	80
			CONTRACT NO. 60K64		
DATE: 12/17/10	ILLINOIS	FED. AID PROJECT			

0167702-60K64-003-Super.dgn

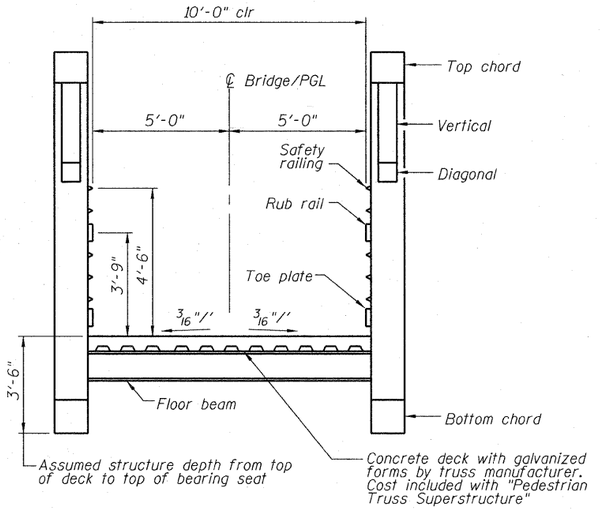
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



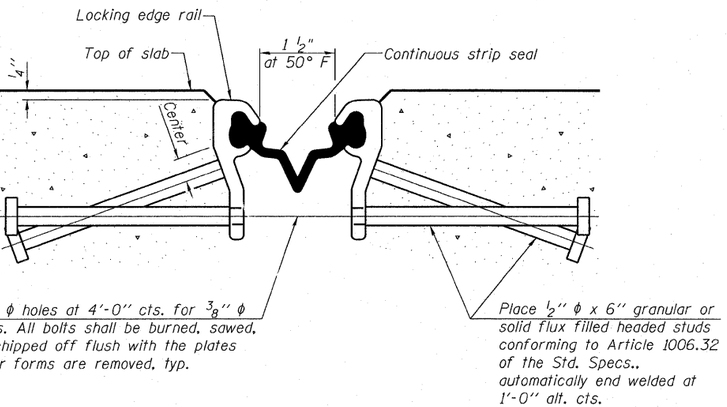
SECTION THRU ABUTMENT JOINT



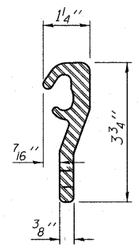
SECTION THRU PIER JOINT



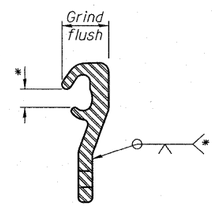
SECTION THRU TRUSS



SECTION THRU EXPANSION STRIP SEAL JOINT



LOCKING EDGE RAIL



*Omit weld at seal opening.

LOCKING EDGE RAIL SPLICE

Notes:

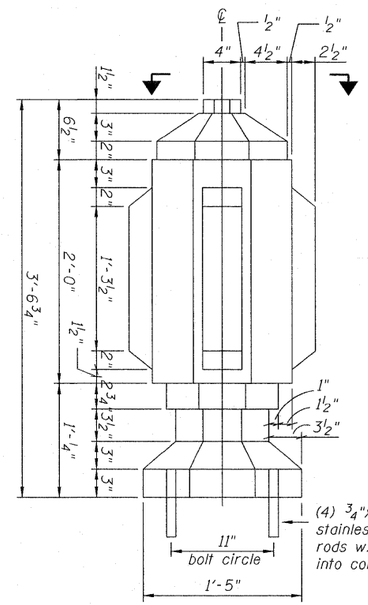
The strip seal shall be made continuous and shall have a minimum thickness of ¼". The configuration of the strip seal shall match the configuration of the Locking Edge Rails.

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.

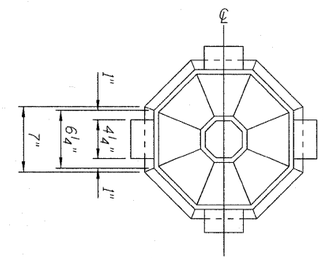
The inside of the Locking Edge Rail groove shall be free of weld residue.

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

The manufacturer's recommended installation methods shall be followed.



ELEVATION



PLAN

PRECAST ORNAMENTAL FIXTURE

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	46.5'

DESIGNED	JCE
CHECKED	GEK
DRAWN	JCE
CHECKED	GEK

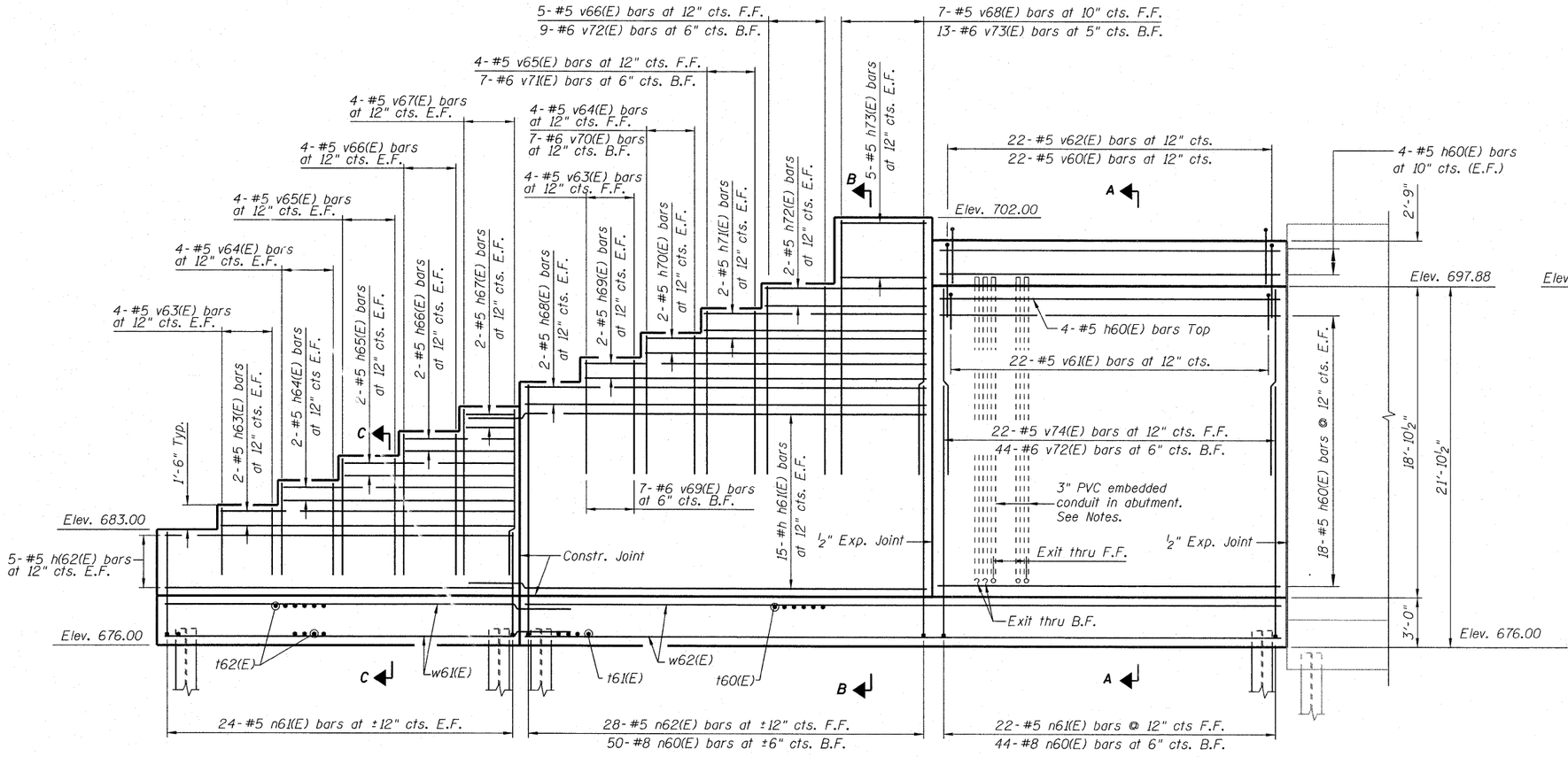
McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 016-7702

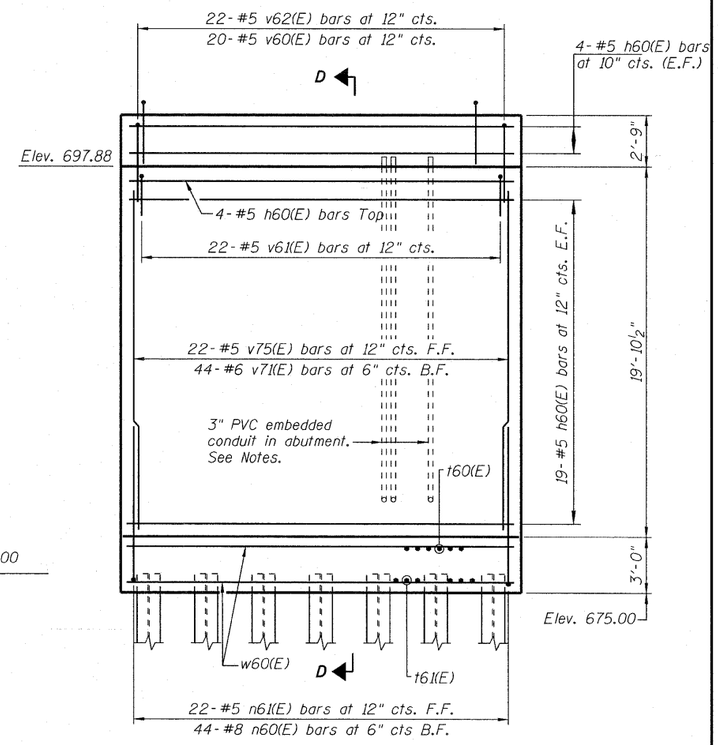
SHEET NO. 4	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12 SHEETS	330	73 R-B	COOK	136	81
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

0167702-60K64-004-Super_details.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



WEST ABUTMENT ELEVATION



EAST ABUTMENT ELEVATION

Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 9.
For footing plan, shee sheet 6.
For details of reinforcement and Bill of Material, see sheet 7.
Final truss, ℄ brg. bearings and anchor bolt sizes, embedment, and layout to be determined by truss manufacturer. Pre-engineered truss shop drawings shall be approved prior to construction of the piers. Contractor shall verify all dimensions and elevations with final approved shop drawings. See special provisions.
3" PVC conduit to extend out from abutment and be capped for future connection.

MINIMUM LAP

#5 Top =2'-11"
#5 Others = 2'-7"
#8 Bars = 5'-5"

DESIGNED	MJL
CHECKED	MGB
DRAWN	MJL
CHECKED	MGB

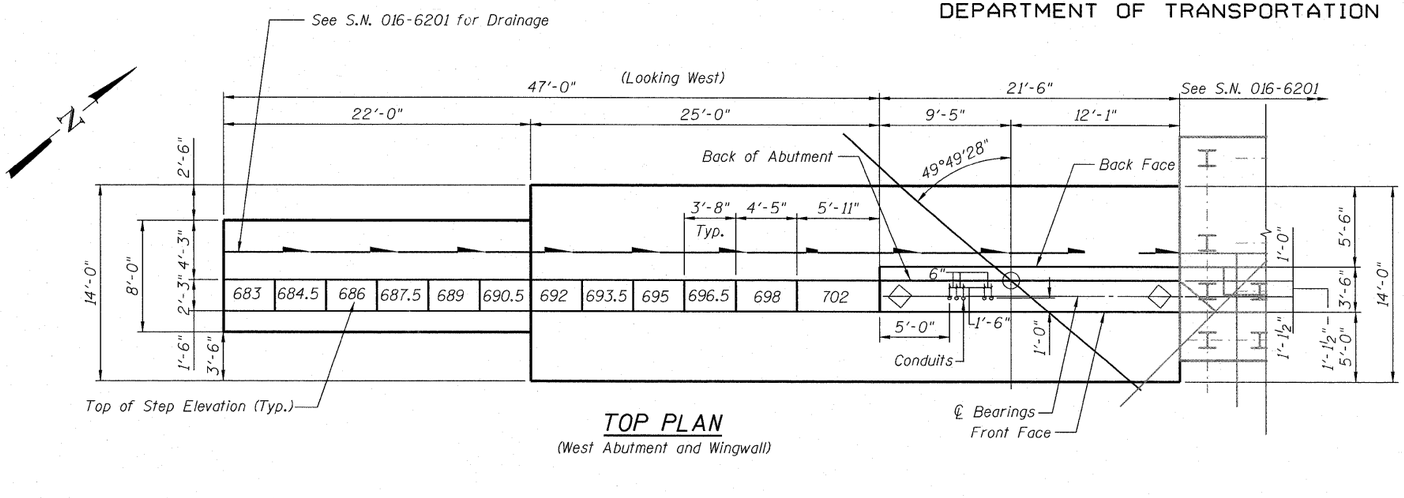
ABUTMENT ELEVATIONS
STRUCTURE NO. 016-7702

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

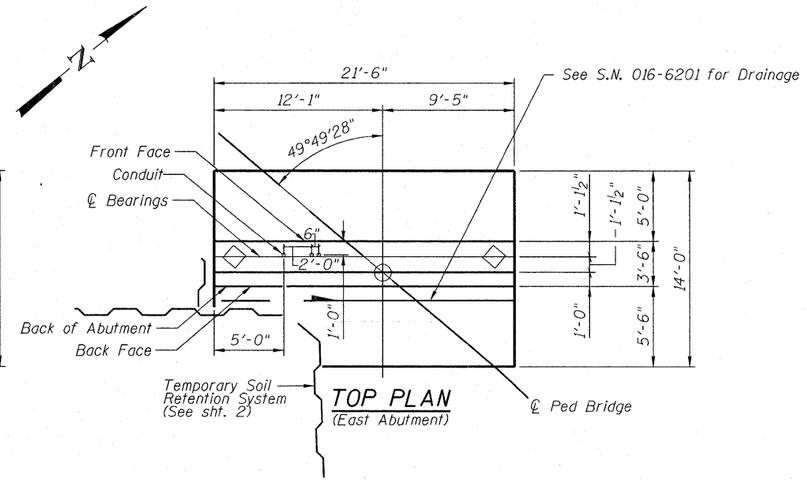
SHEET NO. 5	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12 SHEETS	330	73 R-B	COOK	136	82
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

0167702-60K64-005-Abut.dgn

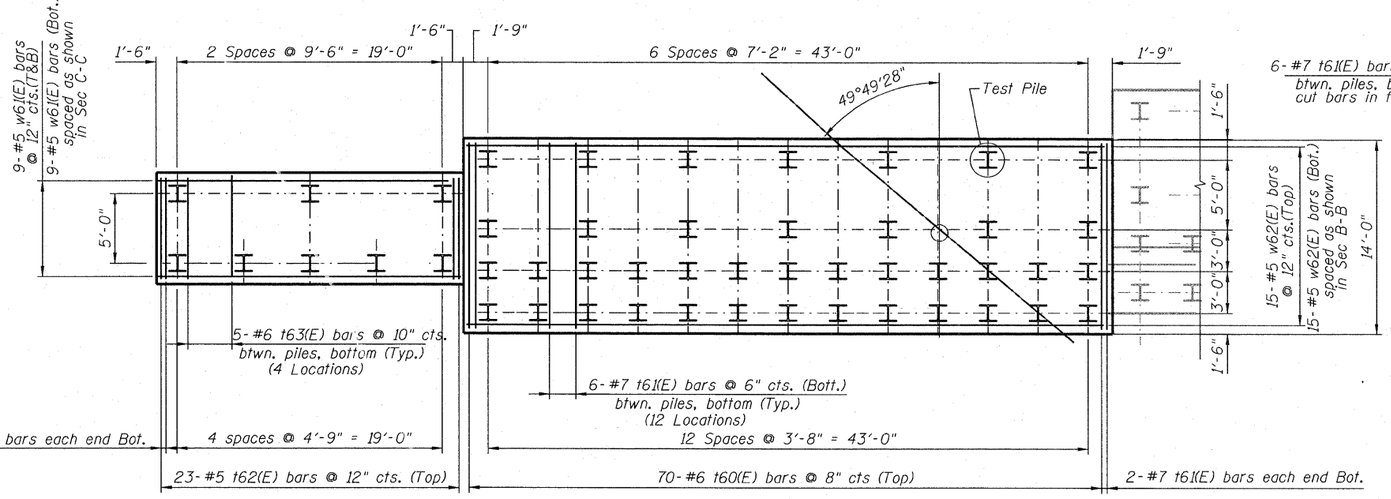
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



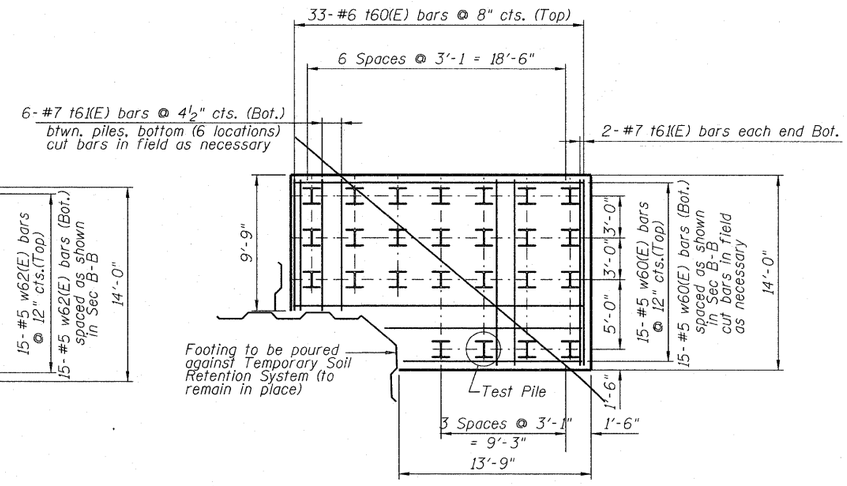
TOP PLAN
(West Abutment and Wingwall)



TOP PLAN
(East Abutment)



FOOTING PLAN
(West Abutment and Wingwall)



FOOTING PLAN
(East Abutment)

WEST ABUTMENT- PILE DATA

Type: HP12x53 w/Pile Shoes
Nominal Required Bearing: 260 kips
Factored Resistance Available: 96 kips
Est. Length: 38
No. Production Piles: 47
No. Test Piles: 1

EAST ABUTMENT- PILE DATA

Type: HP12x53 w/Pile Shoes
Nominal Required Bearing: 180 kips
Factored Resistance Available: 99 kips
Est. Length: 64
No. Production Piles: 24
No. Test Piles: 1

DESIGNED	MJL
CHECKED	MGB
DRAWN	MJL
CHECKED	MGB

ABUTMENT FOOTING PLAN
STRUCTURE NO. 016-7702

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SHEET NO. 6	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12 SHEETS	330	73 R-B	COOK	136	83
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

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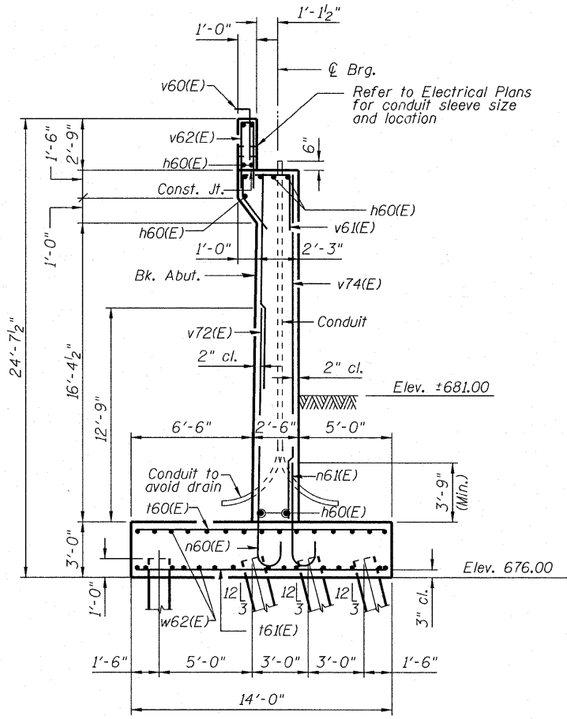
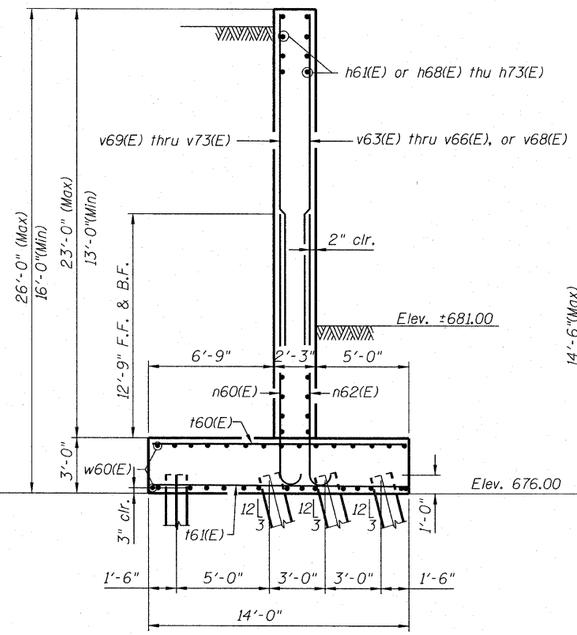
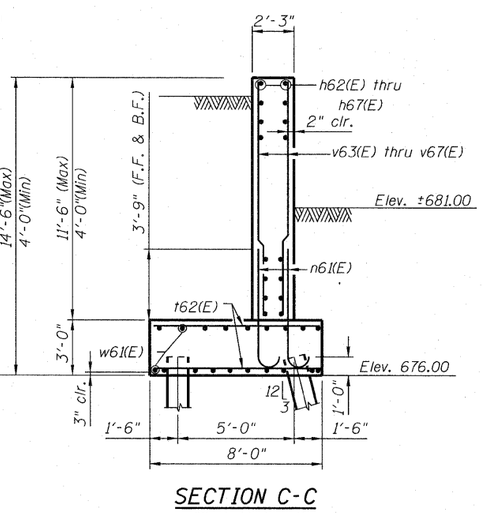
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION A-A
(West Abutment)



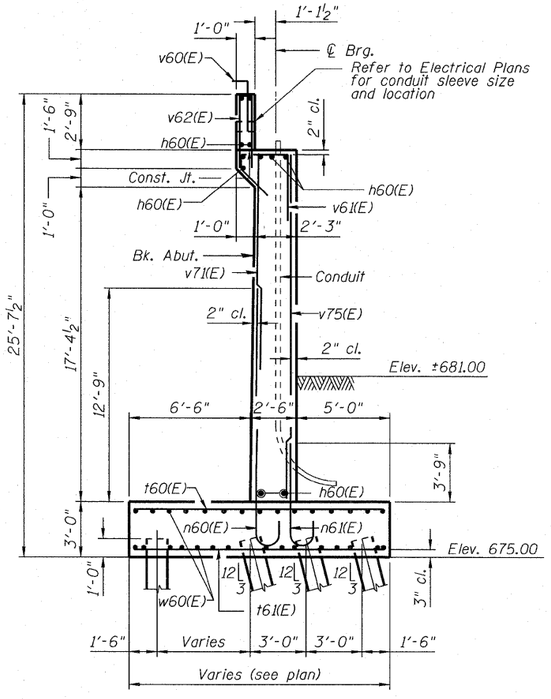
SECTION B-B
(West Abutment)



SECTION C-C
(West Abutment)

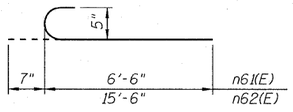
TYPICAL SECTION THRU ABUTMENT

* Included in the cost of "Pipe underdrains for structures"

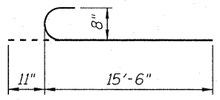


SECTION D-D
(East Abutment)

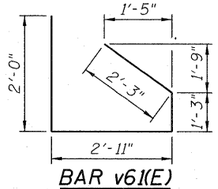
Section thru sheeting not shown but similar to Sec D-D.



BARS n61(E), n62(E)



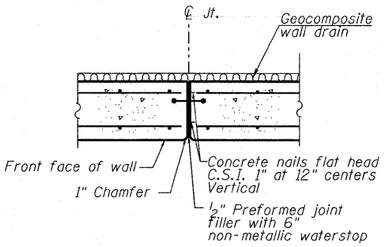
BAR n60(E)



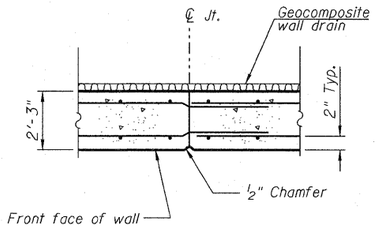
BAR v61(E)

BILL OF MATERIAL
EAST ABUTMENT

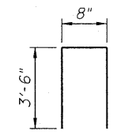
Bar	No.	Size	Length	Shape
h60(E)	50	#5	21'-2"	——
n60(E)	44	#8	16'-5"	⊔
n61(E)	22	#5	6'-11"	⊔
t60(E)	33	#6	13'-8"	——
t61(E)	34	#7	13'-8"	——
w60(E)	30	#5	21'-2"	——
v60(E)	20	#5	2'-8"	⊔⊔
v61(E)	22	#5	8'-5"	⊔⊔
v62(E)	22	#5	7'-8"	⊔⊔
v71(E)	44	#6	10'-0"	——
v75(E)	22	#5	19'-0"	——
Structure Excavation			Cu. Yd.	284
Concrete Structures			Cu. Yd.	70.9
Reinforcement Bars, Epoxy Coated			Pound	7,010
Furnishing Steel Piles HP12x53			Foot	1,642
Driving Piles			Foot	1,642
Test Pile Steel HP12x53			Each	1
Pile Shoes			Each	26
Concrete Sealer			Sq. Ft.	535



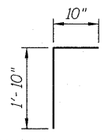
EXPANSION JOINT DETAILS



CONSTRUCTION JOINT DETAILS



BAR v62(E)



BAR v60(E)

BILL OF MATERIAL
WEST ABUTMENT

Bar	No.	Size	Length	Shape
h60(E)	48	#5	21'-2"	——
h61(E)	30	#5	28'-4"	——
h62(E)	10	#5	21'-8"	——
h63(E)	4	#5	18'-0"	——
h64(E)	4	#5	14'-4"	——
h65(E)	4	#5	10'-8"	——
h66(E)	4	#5	7'-0"	——
h67(E)	4	#5	3'-4"	——
h68(E)	4	#5	24'-8"	——
h69(E)	4	#5	21'-0"	——
h70(E)	4	#5	17'-4"	——
h71(E)	4	#5	13'-8"	——
h72(E)	4	#5	10'-0"	——
h73(E)	10	#5	5'-7"	——
n60(E)	50	#8	16'-5"	⊔⊔
n61(E)	46	#5	6'-11"	⊔⊔
n62(E)	72	#5	15'-11"	⊔⊔
t60(E)	70	#6	13'-8"	——
t61(E)	76	#7	13'-8"	——
t62(E)	23	#5	7'-8"	——
t63(E)	24	#6	8'-8"	——
w61(E)	18	#5	21'-8"	——
w62(E)	30	#5	46'-2"	——
v60(E)	22	#5	2'-8"	⊔⊔
v61(E)	22	#5	8'-5"	⊔⊔
v62(E)	22	#5	7'-8"	⊔⊔
v63(E)	12	#5	4'-5"	——
v64(E)	12	#5	5'-11"	——
v65(E)	12	#5	7'-5"	——
v66(E)	13	#5	8'-11"	——
v67(E)	8	#5	10'-5"	——
v68(E)	7	#5	12'-11"	——
v69(E)	7	#6	7'-0"	——
v70(E)	7	#6	8'-6"	——
v71(E)	7	#6	10'-0"	——
v72(E)	53	#6	11'-6"	——
v73(E)	13	#6	15'-6"	——
v74(E)	22	#5	17'-6"	——
Structure Excavation			Cu. Yd.	166
Concrete Structures			Cu. Yd.	182.3
Reinforcement Bars, Epoxy Coated			Pound	15,150
Furnishing Steel Piles HP12x53			Foot	1,831
Driving Piles			Foot	1,831
Test Pile Steel HP12x53			Each	1
Pile Shoes			Each	48
Concrete Sealer			Sq. Ft.	1,254

Bars indicated thus 1 x 3-#5 etc. indicates 1 line of bars with 3 lengths per line.

DESIGNED	MJL
CHECKED	MGB
DRAWN	MJL
CHECKED	MGB

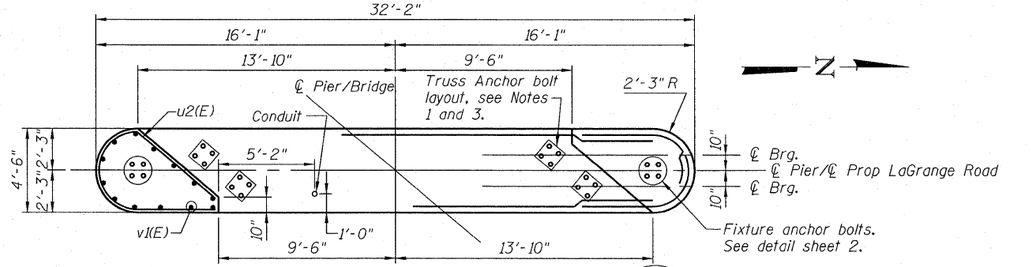
ABUTMENT DETAILS
STRUCTURE NO. 016-7702

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

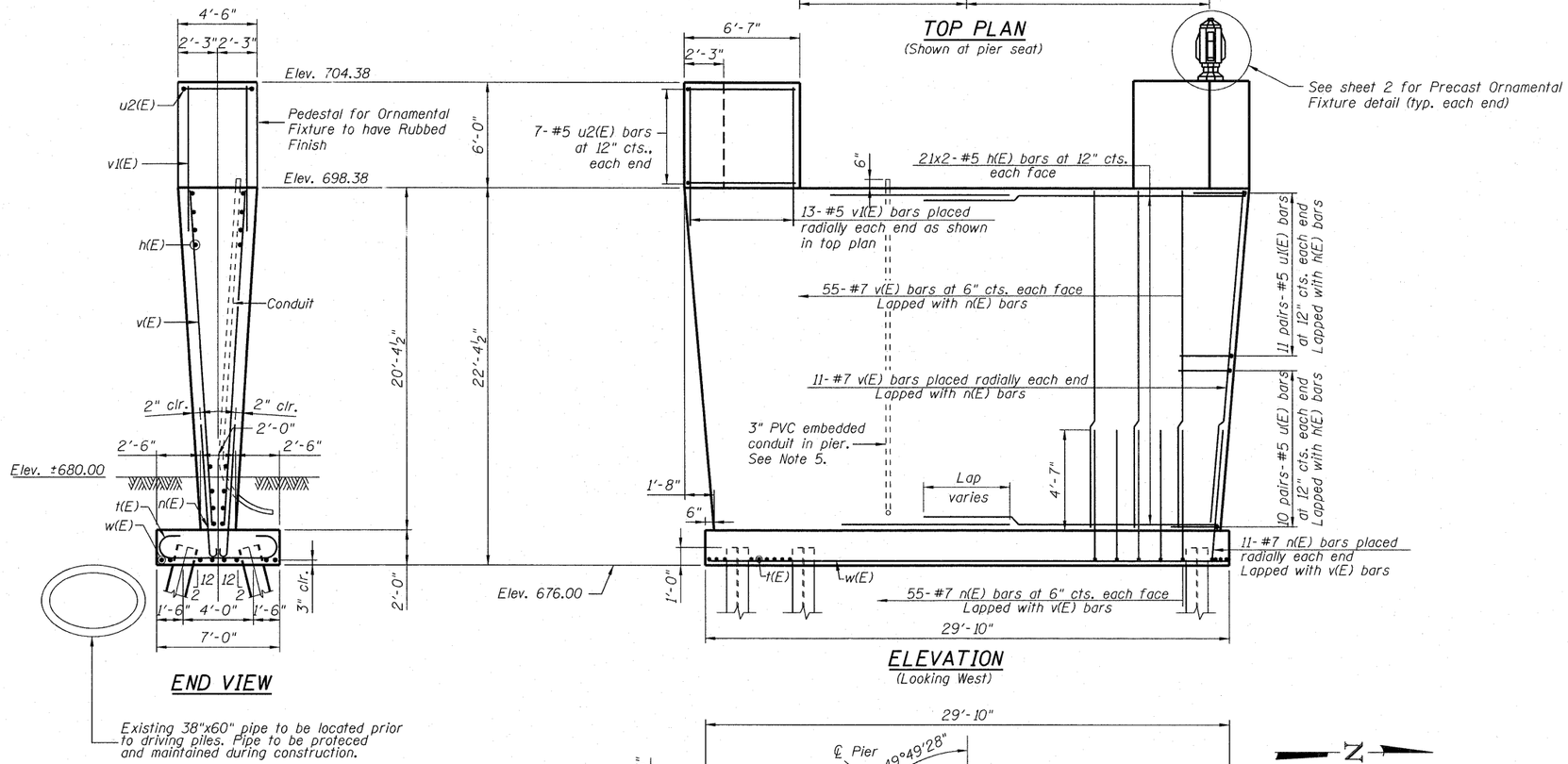
SHEET NO. 7	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12 SHEETS	330	73 R-B	COOK	136	84
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

0167702-60K64-007-Abut_details.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



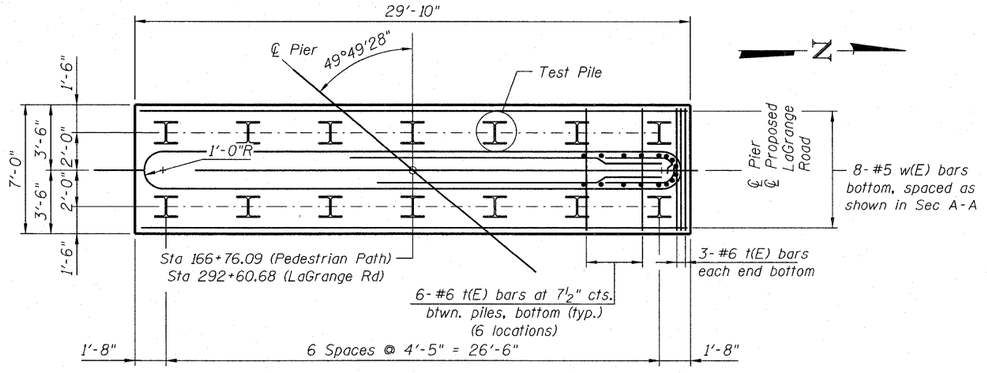
TOP PLAN
(Shown at pier seat)



END VIEW

ELEVATION
(Looking West)

Existing 38"x60" pipe to be located prior to driving piles. Pipe to be proteced and maintained during construction.



FOOTING PLAN

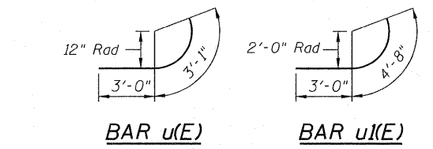
MIN. LAP

#5 Top = 2'-11"
#7 Others = 4'-2"

PILE DATA

Type: Steel HP12x53 w/ Pile Shoes
Nominal Required Bearing: 200 kips
Factored Resistance Available: 110 kips
Est. Length: 65 feet
No. Production Piles: 13
No. Test Piles: 1

DESIGNED	PMH
CHECKED	MGB
DRAWN	PMH
CHECKED	MGB



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	84	#5	17'-4"	
n(E)	132	#7	7'-2"	
t(E)	36	#6	8'-0"	
u(E)	40	#5	6'-1"	
u1(E)	44	#5	7'-8"	
u2(E)	14	#5	16'-2"	
w(E)	8	#5	29'-6"	
v(E)	132	#7	19'-10"	
v1(E)	26	#5	8'-0"	

Structure Excavation	Cu. Yd.	43
Concrete Structures	Cu. Yd.	97.3
Reinforcement Bars, Epoxy Coated	Pound	10,550
Furnishing Steel Piles HP12x53	Foot	870
Driving Piles	Foot	870
Test Pile Steel HP12x53	Each	1
Pile Shoes	Each	14
Concrete Sealer	Sq. Ft.	1,545

Bars indicated thus 1 x 3-#5 etc. indicates 1 line of bars with 3 lengths per line.

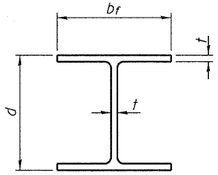
Notes:
1. Space reinforcement in cap to miss anchor bolts.
2. For details of piles, see sheet 9.
3. Final truss, ℄ brg. bearings and anchor bolt sizes, embedment, and layout to be determined by truss manufacturer. Pre-engineered truss shop drawings shall be approved prior to construction of the pier. Contractor shall verify all dimensions and elevations with final approved shop drawings. See special provisions. E.F. denotes each face.
4. Test pile shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information.
5. 3" PVC conduit to extend out from Pier and be capped for future connection.

PIER PLAN AND DETAILS
STRUCTURE NO. 016-7702

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SHEET NO. 8	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12 SHEETS	330	73 R-B	COOK	136	85
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



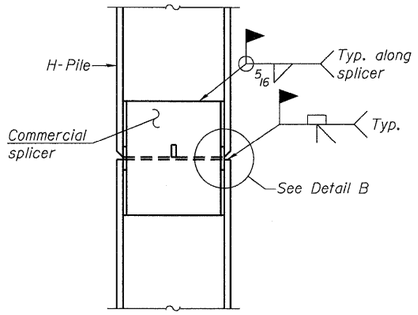
STEEL PILE TABLE

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

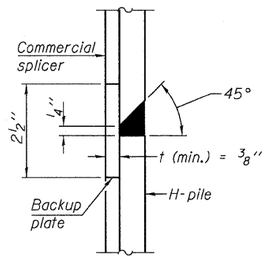
ELEVATION

DETAIL A

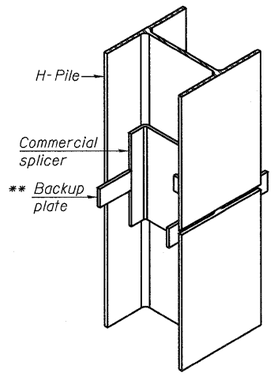
H-PILE SHOE ATTACHMENT



ELEVATION

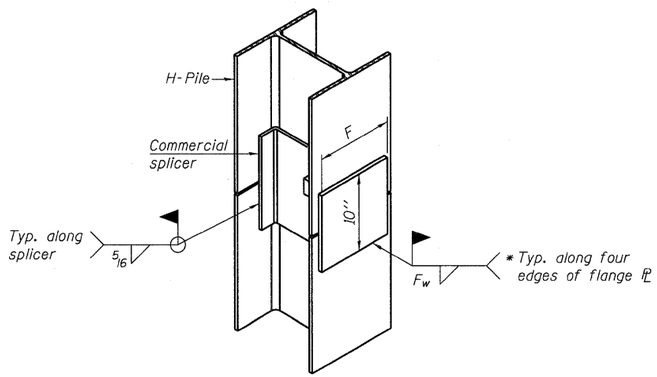


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



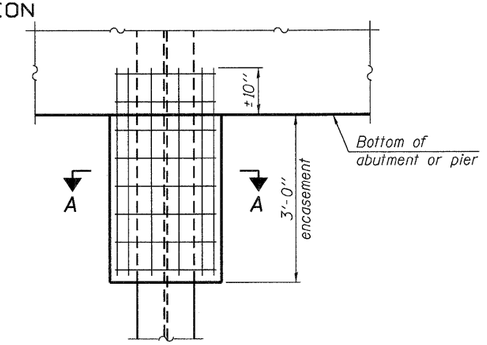
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

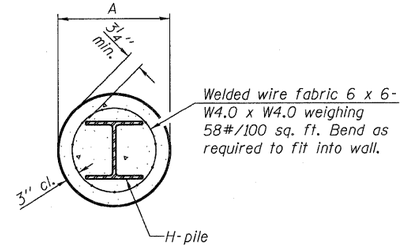
* Interrupt welds 1/4" from end of web and/or each flange.

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

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



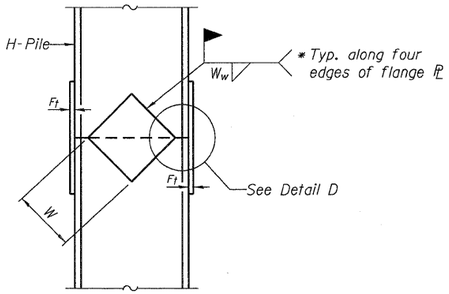
ELEVATION



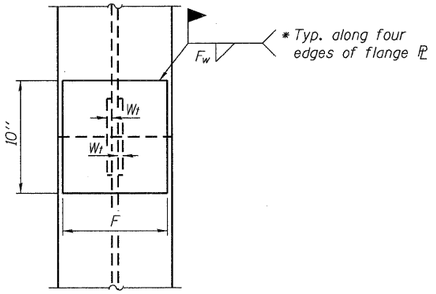
Note:
Forms for encasement may be omitted when soil conditions permit.

SECTION A-A

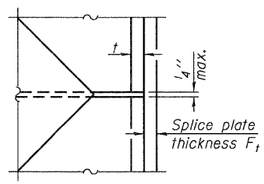
PILE ENCASEMENT



ELEVATION



END VIEW



DETAIL D

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

WELDED PLATE FIELD SPLICE

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

HP PILE DETAILS
STRUCTURE NO. 016-7702

DESIGNED	JCE
CHECKED	GEK
DRAWN	JCE
CHECKED	GEK

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SHEET NO. 9	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12 SHEETS	330	73 R-B	COOK	136	86
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

0167702-60K64-009-Pile_details.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Wang Engineering
wangeng@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG RW-01

WEI Job No.: 201-40-01

Client: McDonough Associates
Project: US 45 Metra Wall
Location: Orland Park, IL

Datum: NGVD
Elevation: 678.71 ft
North: 1809964.17 ft
East: 1115229.75 ft
Station:
Offset:

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	678.4	4-inch thick, dark brown CLAY LOAM --TOPSOIL--							
	677.1	14-inch thick, stiff gray CLAY --FILL--							
		Stiff, brown and gray CLAY, with little to some gravel --NATURAL--				1	3 5 5	1.56 B	12
			5			2	3 5 6	1.72 B	27
	673.2	Medium stiff, gray SANDY CLAY				3	1 3 4	0.98 B	19
	670.0	Stiff to hard, gray SILTY CLAY, with little to some gravel	10			4	3 5 7	4.02 B	18
						5	2 4 6	1.23 B	22
		--LL=45%, PL=20%--	15			6	2 3 4	1.15 B	25
		--WET SAND LAYER--				7	3 5 6	1.31 B	18
	661.0	Loose, gray, medium SAND to SANDY LOAM --DAMP--	20			8	0 0 6	NP	11
	658.2	Stiff to very stiff, gray SILTY CLAY, with gravel				9	3 4 10	1.00 P	14
			25			10	4 6 9	2.21 B	13
		--HARD DRILLING-- --POSSIBLE BOULDER--	30			11	2 4 6	1.00 P	15
	647.7					12	50/3	2.00 P	18
			35			13	10 6 9	NA	
			40			14	4 7 11	3.20 B	13
	632.9	Medium dense to dense, gray SILTY LOAM	45			15	7 9 11	2.30 S	11
			50			16	5 8 11	NP	22

GENERAL NOTES

Begin Drilling: 03-29-2010 Complete Drilling: 03-29-2010
Drilling Contractor: WTS Drill Rig: D 50 ATV
Driller: K&J Logger: H. Suhail Checked by:
Drilling Method: 3.25 IDA HSA; Boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 15.50 ft
At Completion of Drilling: 15.00 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 2014501.GPJ WANGENG.GDT 5/6/10

Wang Engineering
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1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG RW-01

WEI Job No.: 201-40-01

Client: McDonough Associates
Project: US 45 Metra Wall
Location: Orland Park, IL

Datum: NGVD
Elevation: 678.71 ft
North: 1809964.17 ft
East: 1115229.75 ft
Station:
Offset:

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		--GRAVEL=0.0%-- --SAND=18.7%-- --SILT=79.8%-- --CLAY=1.5%--	55			17	7 9 15	NP	23
			60			18	7 12 14	NP	24
			65			19	9 14 18	NP	20
	608.7	Boring terminated at 70.00 ft	70			20	14 19 27	NP	19
			75						

GENERAL NOTES

Begin Drilling: 03-29-2010 Complete Drilling: 03-29-2010
Drilling Contractor: WTS Drill Rig: D 50 ATV
Driller: K&J Logger: H. Suhail Checked by:
Drilling Method: 3.25 IDA HSA; Boring backfilled upon completion

WATER LEVEL DATA

While Drilling: 15.50 ft
At Completion of Drilling: 15.00 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 2014501.GPJ WANGENG.GDT 5/6/10

DESIGNED	AMV
CHECKED	JCE
DRAWN	AMV
CHECKED	JCE

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SOIL BORING LOGS
STRUCTURE NO. 016-7702

SHEET NO. 10	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12 SHEETS	330	73 R-B	COOK	136	87
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

0167702-60K64-010-Boring_log.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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Consulting Geotechnical and Environmental Engineers
wangeng@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG R-1

WEI Job No.: 201-35-01

Client: **McDonough Associates**
Project: **Pedestrian Bridge Over US 45**
Location: **Orland Park, IL**

Datum: NGVD
Elevation: 691.50 ft
North: ft
East: ft
Station:
Offset:

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type (recovery)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	690.3	7-inch thick, black CLAY LOAM --TOPSOIL--						
		Stiff to hard, brown and gray CLAY --FILL--			1	1 3 4 3	1.75 P	26
					2	2 2 4 4	1.80 B	22
			5		3	2 3 4 7	1.64 B	26
					4	4 6 7 8	3.28 B	21
	681.5		10		5	3 7 9 10	4.51 B	21
		Boring terminated at 10.00 ft						
			15					
			20					
			25					

GENERAL NOTES

Begin Drilling: **04-23-2009** Complete Drilling: **04-23-2009**
Drilling Contractor: **WTS** Drill Rig: **Mobile B-57 TMR**
Driller: **J & K** Logger: **F. Bozga** Checked by: **S. Sugiarto**
Drilling Method: **4.25 IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling: **DRY**
At Completion of Drilling: **DRY**
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 201350.GPJ WANGENG.GDT 5/29/09

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Consulting Geotechnical and Environmental Engineers
wangeng@wangeng.com
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Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG R-2

WEI Job No.: 201-35-01

Client: **McDonough Associates**
Project: **Pedestrian Bridge Over US 45**
Location: **Orland Park, IL**

Datum: NGVD
Elevation: 678.50 ft
North: ft
East: ft
Station:
Offset:

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type (recovery)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	678.0	6-inch thick, black CLAY LOAM --TOPSOIL--						
	677.0	Stiff, brown CLAY LOAM --FILL--			1	7 10 7 6	1.75 P	21
		Loose, black and brown SANDY LOAM, little gravel --FILL--			2	3 3 3 3	NP	30
	674.5	Stiff, dark gray CLAY, trace sand and cinder --FILL--	5		3	2 3 4 5	1.75 P	16
					4	2 3 4 5	1.00 P	27
	671.0	Medium stiff to stiff, black SILTY CLAY --BURIED TOPSOIL--						
	669.5	Stiff, dark gray CLAY LOAM, trace sand interbeds	10		5	2 2 3 3	0.50 P	33
					6	0 2 3	1.25 P	19
	665.5	Loose to medium dense, gray GRAVELLY SAND	15		7	2 4 3	NP	16
					8	2 4 6	NP	17
	660.5	Stiff to very stiff, gray SILTY CLAY	20		9	3 5 6	2.21 B	20
					10	2 4 6	1.97 B	21
	654.5	Loose to medium dense, gray SANDY LOAM	25		11	3 4 5	2.00 P	17
	648.5	Boring terminated at 30.00 ft	30		12	5 5 5	NP	13
					13	3 4 4	NP	17
			35					
			40					
			45					
			50					

GENERAL NOTES

Begin Drilling: **05-26-2009** Complete Drilling: **05-26-2009**
Drilling Contractor: **WTS** Drill Rig: **Mobile B-57 TMR**
Driller: **J & K** Logger: **F. Bozga** Checked by: **S. Sugiarto**
Drilling Method: **4.25 IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling: **14.00 ft**
At Completion of Drilling: **11.00 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 201350.GPJ WANGENG.GDT 5/29/09

DESIGNED	AMV
CHECKED	JCE
DRAWN	AMV
CHECKED	JCE

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SHEET NO. 11
12 SHEETS

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	73 R-B	COOK	136	88
		CONTRACT NO. 60K64		
DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

SOIL BORING LOGS
STRUCTURE NO. 016-7702

0167702-60K64-011-Boring_log.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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Consulting Geotechnical and Environmental Engineers
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1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG PB-1

WEI Job No.: 201-35-01

Client: **McDonough Associates**
Project: **Pedestrian Bridge Over US 45**
Location: **Orland Park, IL**

Datum: NGVD
Elevation: 677.50 ft
North: ft
East: ft
Station:
Offset:

Elevation (ft)	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	SOIL AND ROCK DESCRIPTION
676.5							12-inch thick ASPHALT --PAVEMENT--
675.5			1	7 5 5	NP	3	Medium dense, brown GRAVELLY SAND --BASE COURSE--
	5		2	6 5 6	3.25 P	15	Very stiff, brown and gray CLAY --FILL--
672.0			3	5 4 18	NP	15	Medium dense, brown SANDY LOAM, some gravel --FILL--
669.5	10		4	26 16 4	2.50 P	14	Very stiff, brown CLAY LOAM, little gravel
667.0			5	12 3 4	0.25 P	16	Soft to stiff, gray, gravelly CLAY LOAM
	15		6	39 20 7	--	15	--HARD DRILLING-- --ROCK FRAGMENTS IN THE TIP OF SPOON--
			7	18 5 4	0.75 P	16	
	20		8	21 9 7	--		--ROCK FRAGMENTS IN THE TIP OF SPOON--
			9	23 14 5	1.00 P	12	
	25		10	24 10 5	1.75 P	13	
652.0							Very stiff, gray SILTY CLAY, trace gravel
645.5	30		11	35 8 8	2.05 B	11	Medium dense, gray SILT
			12	22 9 9	2.25 P	12	
	35		13	22 15 8	2.50 P	16	
	40		14	19 8 8	NP	23	
	45		15	13 7 8	NP	17	
627.5	50		16	15 8 8	NP	19	

GENERAL NOTES

Begin Drilling: **05-26-2009** Complete Drilling: **05-26-2009**
Drilling Contractor: **WTS** Drill Rig: **Mobile B-57 TMR**
Driller: **J & K** Logger: **F. Bozga** Checked by: **S. Sugiarto**
Drilling Method: **4.25 IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling: **DRY**
At Completion of Drilling: **DRY**
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 201350.GPJ WANGENG.GDT 5/29/09

Wang Engineering, Inc.
Consulting Geotechnical and Environmental Engineers
wangeng@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG PB-2

WEI Job No.: 201-35-01

Client: **McDonough Associates**
Project: **Pedestrian Bridge Over US 45**
Location: **Orland Park, IL**

Datum: NGVD
Elevation: 677.50 ft
North: ft
East: ft
Station:
Offset:

Elevation (ft)	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	SOIL AND ROCK DESCRIPTION
677.5							4-inch thick, brown CLAY LOAM --TOPSOIL--
			1	6 5 7	2.00 P	13	Very stiff, brown and gray CLAY, trace sand and gravel --FILL--
674.5							Medium stiff to stiff, brown and gray SILTY CLAY
	5		2	4 4 3	0.74 B	14	
			3	10 5 7	0.75 P	14	
	10		4	7 3 5	1.00 P	14	
			5	5 2 5	1.23 B	13	
	15		6	3 3 5	1.75 P	13	
			7	8 9 11	--		
659.5							Medium dense, gray SILT
	20		8	4 5 4	NP	13	
657.0							Medium stiff, gray SILTY CLAY LOAM
			9	2 3 4	0.82 B	13	
654.5							Medium dense, gray SANDY LOAM --ROCK FRAGMENTS IN THE TIP OF SPOON--
	25		10	19 14 5	NP		
652.0							--HARD DRILLING-- Loose to medium dense, gray SANDY LOAM, little gravel
	30		11	14 13 6	NP	24	
			12	8 4 5	NP	20	
640.5							Medium dense, gray SILT
	35		13	6 9 7	NP	23	
	40		14	7 9 11	NP	19	
	45		15	7 7 8	NP	20	
627.5	50		16	6 6 7	NP	24	

GENERAL NOTES

Begin Drilling: **05-19-2009** Complete Drilling: **05-26-2009**
Drilling Contractor: **WTS** Drill Rig: **Mobile B-57 TMR**
Driller: **J & K** Logger: **S. Sugiarto** Checked by: **S. Sugiarto**
Drilling Method: **4.25 IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling: **23.00 ft**
At Completion of Drilling: **WASH**
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 201350.GPJ WANGENG.GDT 5/29/09

Wang Engineering, Inc.
Consulting Geotechnical and Environmental Engineers
wangeng@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG PB-3

WEI Job No.: 201-35-01

Client: **McDonough Associates**
Project: **Pedestrian Bridge Over US 45**
Location: **Orland Park, IL**

Datum: NGVD
Elevation: 691.00 ft
North: ft
East: ft
Station:
Offset:

Elevation (ft)	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	SOIL AND ROCK DESCRIPTION
690.5							12-inch thick ASPHALT --PAVEMENT--
			1	3 6 10	4.51 S	19	Very stiff to hard, brown and gray CLAY --FILL--
	5		2	4 6 9	5.66 B	22	
			3	3 3 6	2.30 B	22	
	10		4	2 5 8	4.02 B	18	
680.5							Stiff, gray, gravelly CLAY LOAM
			5	3 4 5	--		
	15		6	2 3 4	1.80 B	13	
			7	50/3"	--	16	Possible cobbles and boulders --HARD DRILLING--
	20		8	46 22 8	--		--ROCK FRAGMENTS IN THE TIP OF SPOON--
			9	15 5 5	1.64 B	13	
668.0							Medium dense, gray SANDY LOAM
	25		10	7 6 7	NP	19	
665.5							Medium dense, gray SILT to SILTY LOAM
	30		11	3 4 6	NP	11	
			12	4 4 6	NP	13	
659.0							Loose to dense, gray SANDY LOAM, trace gravel
	35		13	11 5 5	NP	20	
	40		14	7 3 3	NP		
	45		15	12 6 9	NP	25	
641.0	50		16	12 17 13	NP	23	

GENERAL NOTES

Begin Drilling: **04-23-2009** Complete Drilling: **04-23-2009**
Drilling Contractor: **WTS** Drill Rig: **Mobile B-57 TMR**
Driller: **J & K** Logger: **F. Bozga** Checked by: **S. Sugiarto**
Drilling Method: **4.25 IDA HSA; Boring backfilled upon completion**

WATER LEVEL DATA

While Drilling: **24.00 ft**
At Completion of Drilling: **20.00 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 201350.GPJ WANGENG.GDT 5/29/09

DESIGNED	AMV
CHECKED	JCE
DRAWN	AMV
CHECKED	JCE

SOIL BORING LOGS
STRUCTURE NO. 016-7702

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

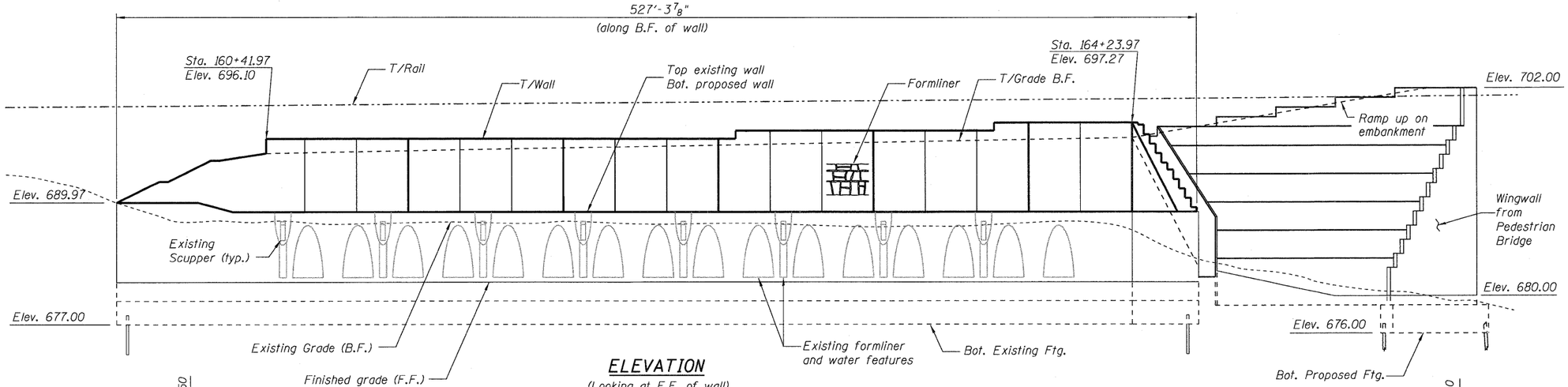
SHEET NO. 12	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
12 SHEETS	330	73 R-B	COOK	136	89
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

0167702-60K64-012-Boring_log.dgn

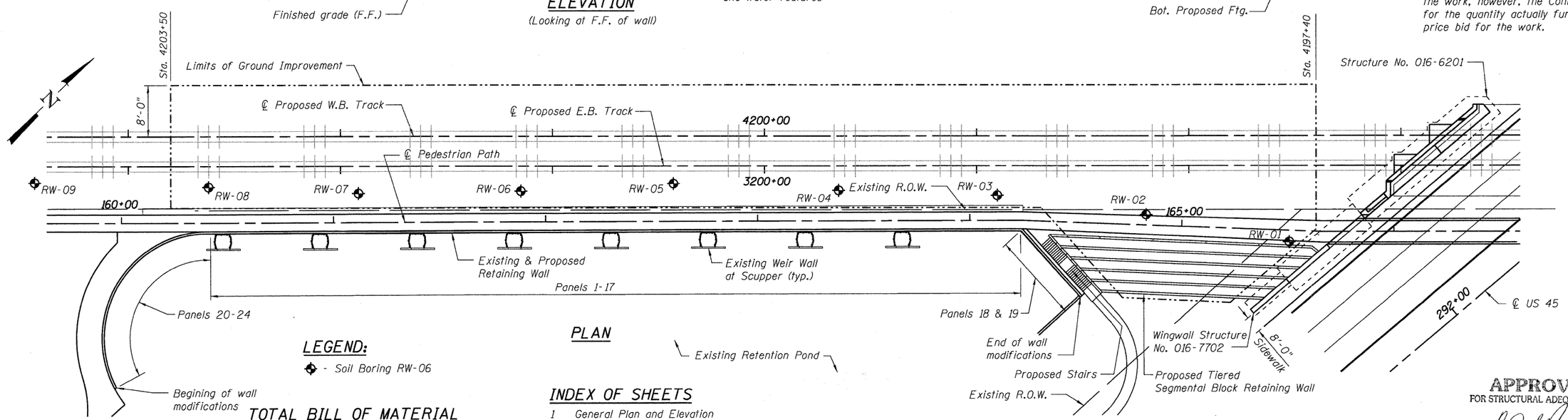
Bench Mark: TBM #2 - Elev. 678.745. Chiseled cross on the northeast bolt of west light pole ±60 north of north edge of Southwest Highway Bridge.

Existing Structure: Existing concrete retaining wall on a pile foundation to be incorporated into proposed wall

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION
(Looking at F.F. of wall)



PLAN

LEGEND:
- Soil Boring RW-06

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	111
Structure Excavation	Cu. Yd.	3,176
Concrete Structures	Cu. Yd.	904.9
Form Liner Textured Surface	Sq. Ft.	3200
Reinforcement Bars, Epoxy Coated	Pound	86,780
Pedestrian Railing	Foot	280
Pipe Handrail	Foot	64
Furnishing Steel Piles HP12X53	Foot	6,365.0
Driving Piles	Foot	6,365.0
Test Pile Steel HP12X53	Each	6
Geocomposite Wall Drain	Sq. Yd.	809
Pipe Drains 4"	Foot	100
Porous Granular Embankment, Special	Cu. Yd.	1,449
Removing And Re-Erecting Existing Railing	Foot	382
Temporary Sheet Piling	Sq. Ft.	3,212
Pipe Underdrains For Structures 4"	Foot	486
Segmental Block Retaining Wall	Sq. Ft.	2,590
Aggregate Column Ground Improvement	L Sum	1
Remove and Re-Erect Water Feature	L Sum	1

DESIGNED	PMH
CHECKED	JCE
DRAWN	AMV
CHECKED	JCE

INDEX OF SHEETS

DESIGN SPECIFICATIONS
2002 AASHTO Standard Specifications for Highway Bridges

DESIGN STRESSES
FIELD UNITS
f'c = 4,000 psi
fy = 60,000 psi (Reinforcement)
fy = 36,000 psi (M270 Grade 36)

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

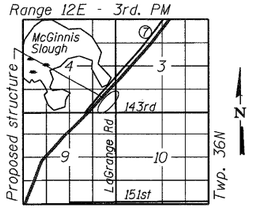
Reinforcement bars designated (E) shall be epoxy coated.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
ENGINEER OF BRIDGES AND STRUCTURES

LICENSED STRUCTURAL ENGINEER
GERALD E. KOYLASS
081005264
STATE OF ILLINOIS
Exp: 11/30/2012

I certify that to the best of knowledge, information and belief, this retaining wall design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO Standard Specifications for Highway Bridges.



LOCATION SKETCH

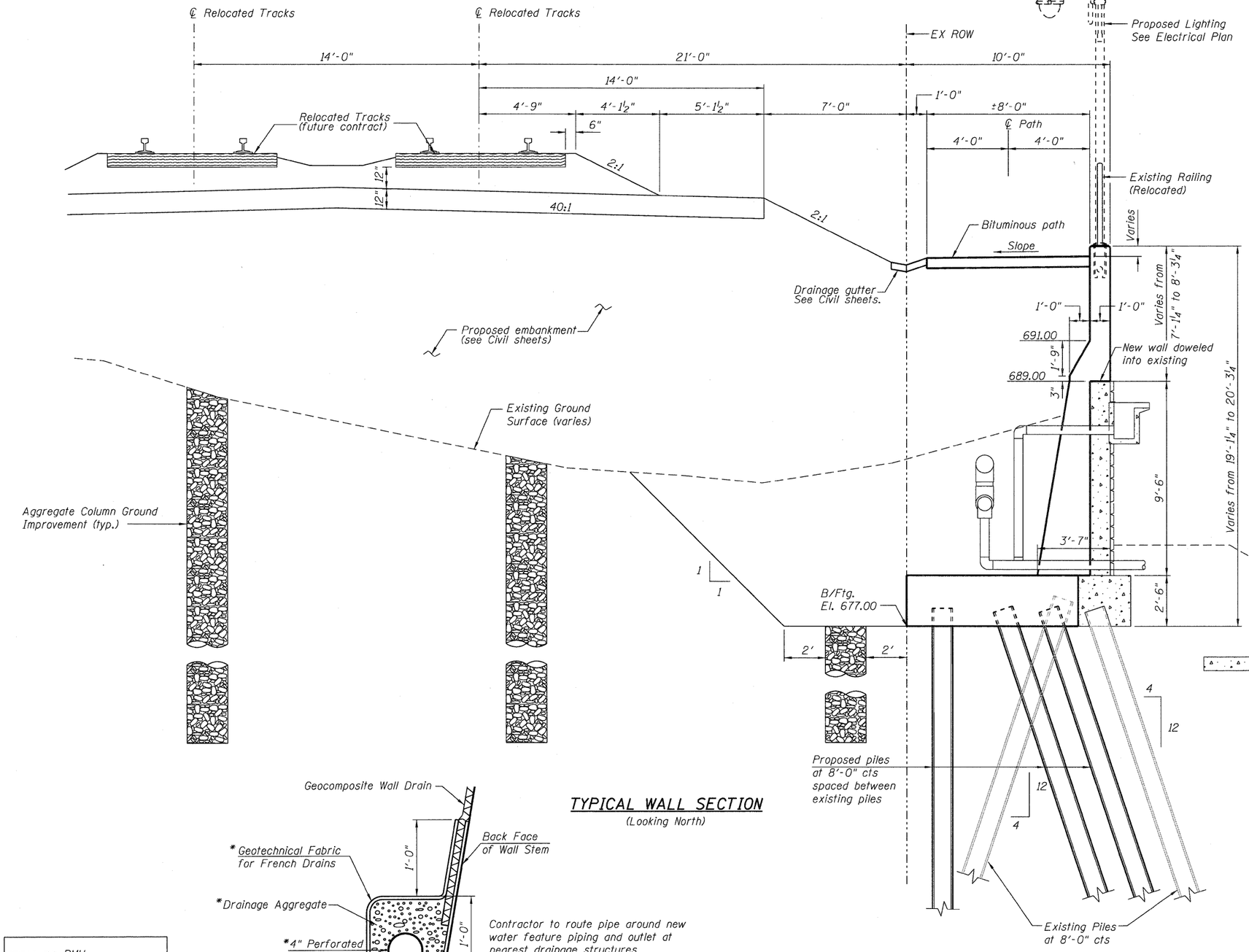
GENERAL PLAN & ELEVATION
U.S. ROUTE 45 - LaGRANGE ROAD
F.A.P. RTE. 330 SEC. 73 R-B
COOK COUNTY
STATION 159+91.90 TO 165+64.24

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

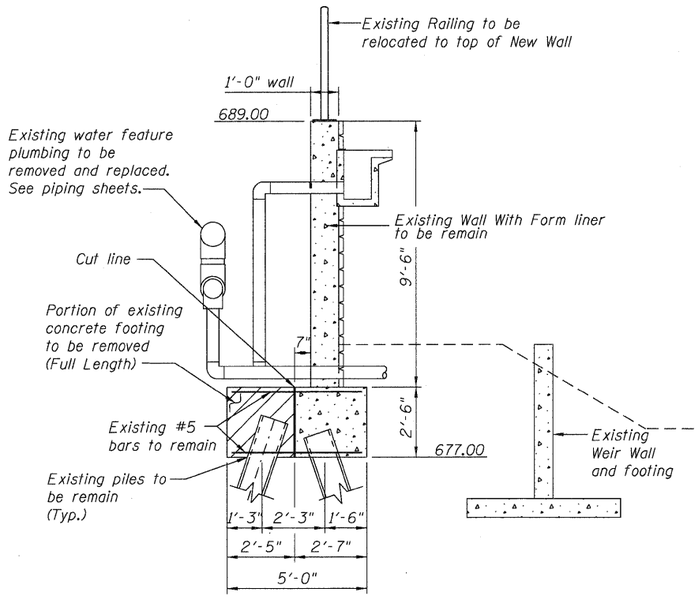
SHEET NO. 1	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	330	73 R-B	COOK	136	90
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

016W991-60K64-001-GPE.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

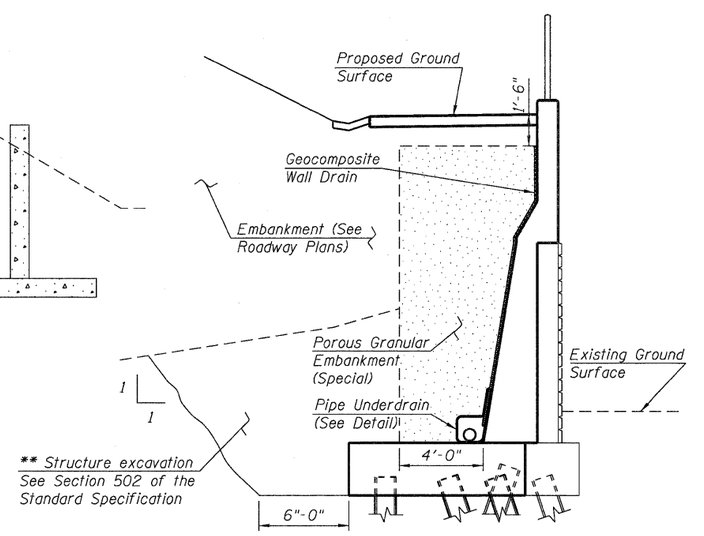


TYPICAL WALL SECTION
(Looking North)



TYPICAL EXISTING WALL SECTION - REMOVAL

PIPE UNDERDRAIN DETAIL
*Included in the cost of "Pipe Underdrains for Structures 4""



TYPICAL SECTION - UNDERDRAIN
**Backfill remainder of structure excavation and over excavation with same material specified for roadway embankment.

TYPICAL SECTION

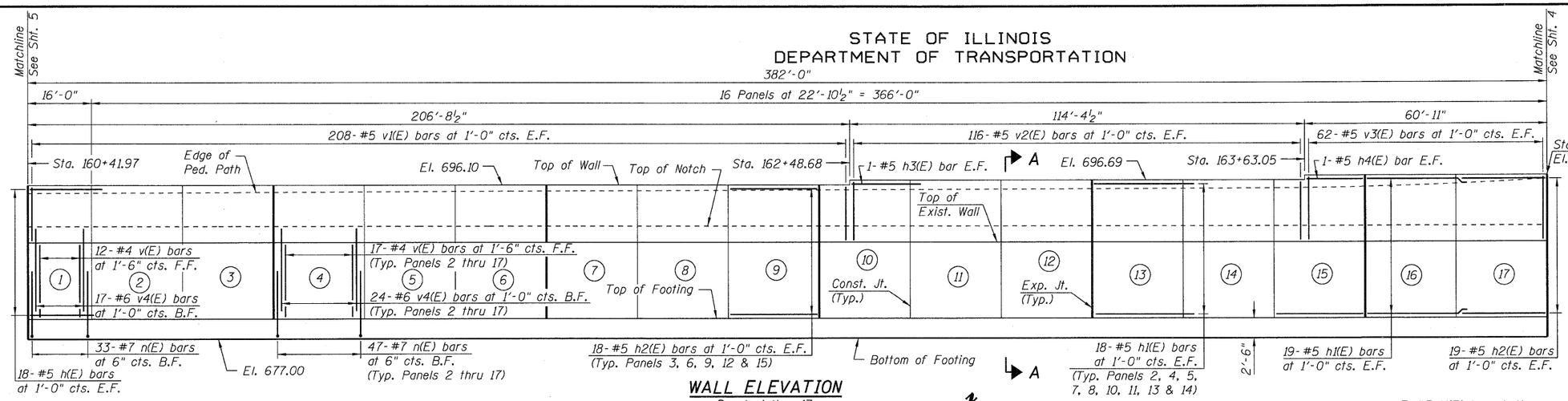
DESIGNED	PMH
CHECKED	JCE
DRAWN	PMH
CHECKED	JCE

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SHEET NO. 2	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	330	73 R-B	COOK	136	91
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

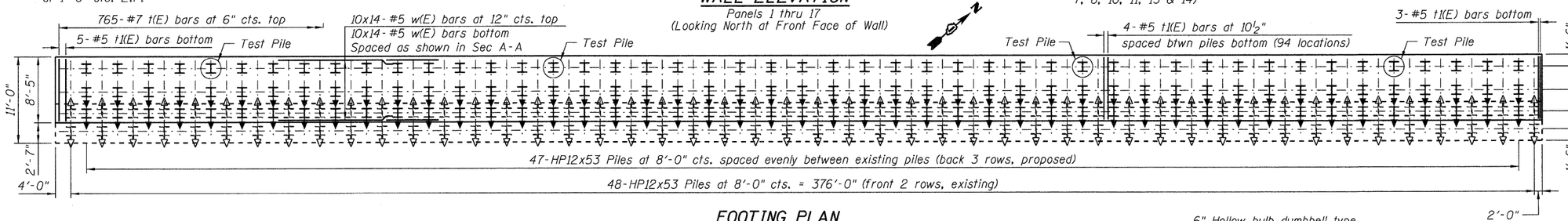
016W991-60K64-002-Typ_section.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



WALL ELEVATION

Panels 1 thru 17
(Looking North at Front Face of Wall)



FOOTING PLAN

PILE DATA

TYPE: Steel HP12x53

Nominal required bearing = 391 kips
Allowable resistance available = 110 kips

EST. LENGTH: 38 feet (vertical)

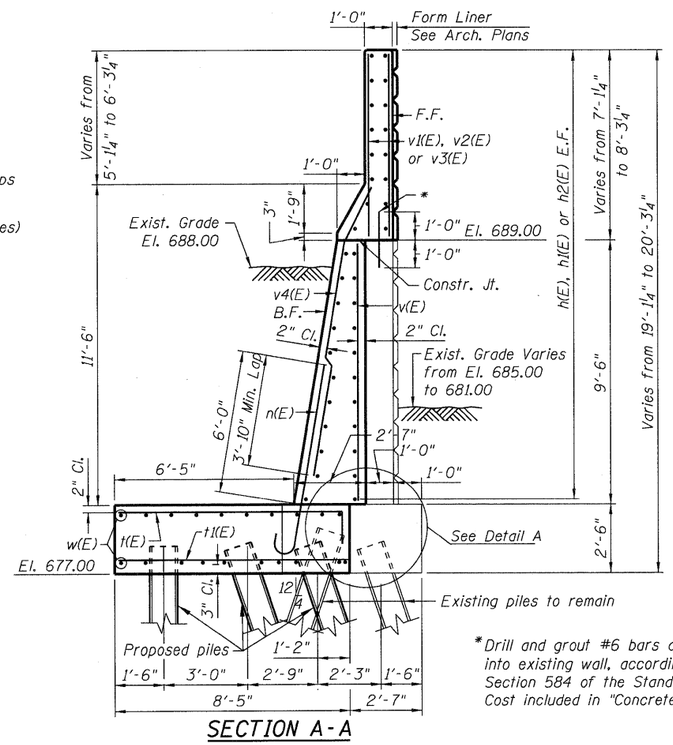
No. REQ'D: 141 (Includes four test piles)

New Straight Pile (no batter)

New Battered Pile

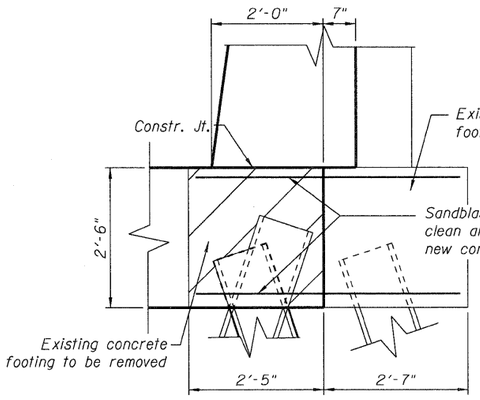
Existing Straight Pile (no batter)

Existing Battered Pile

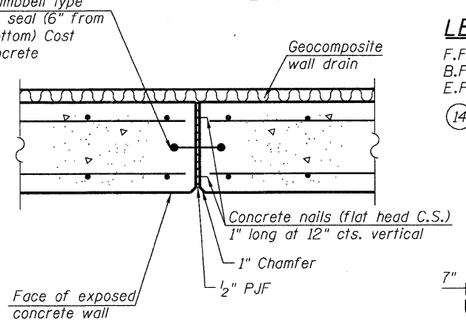


SECTION A-A

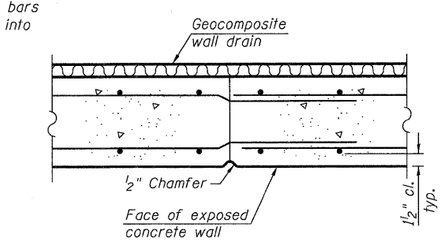
*Drill and grout #6 bars at 1'-0" cts. into existing wall, according to Section 584 of the Standard Specifications. Cost included in "Concrete Structures."



DETAIL A



EXPANSION JOINT DETAIL



CONSTRUCTION JOINT DETAIL

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	36	#5	18'-9"	
h1(E)	362	#5	25'-7"	
h2(E)	218	#5	22'-7"	
h3(E)	2	#5	17'-11"	
h4(E)	2	#5	14'-10"	
n(E)	785	#7	8'-5"	
t(E)	765	#7	9'-3"	
t1(E)	384	#5	8'-1"	
v(E)	284	#4	9'-2"	
v1(E)	416	#5	6'-9"	
v2(E)	232	#5	7'-4"	
v3(E)	124	#5	7'-11"	
v4(E)	401	#6	10'-7"	
w(E)	280	#5	30'-0"	

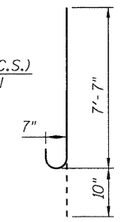
Concrete Removal	Cu. Yd.	86
Structure Excavation	Cu. Yd.	2,646
Concrete Structures	Cu. Yd.	660.1
Reinforcement Bars, Epoxy Coated	Pound	69,380
Furnishing Steel Piles HP12x53	Foot	5,400
Driving Piles	Foot	5,400
Test Pile Steel HP12x53	Each	4

NOTES:

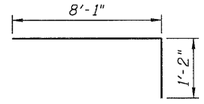
Bars indicated thus 1 x 3-#5 etc. indicates 1 line of bars with 3 lengths per line.

LEGEND:

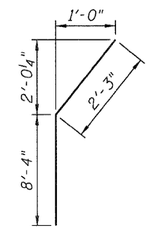
F.F. = Front Face of Wall
B.F. = Back Face of Wall
E.F. = Each Face of Wall
(14) = Panel No.



BAR n(E)



BAR t(E)



BAR v4(E)

PLAN & ELEVATION PANELS 1-17

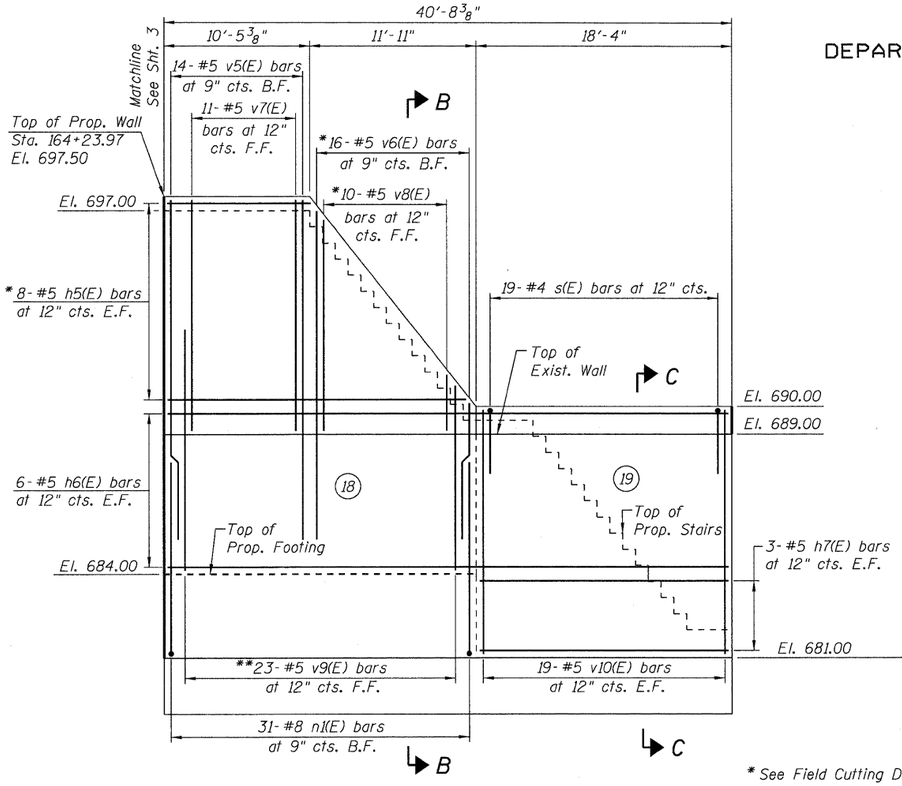
DESIGNED	PMH
CHECKED	KJH
DRAWN	PMH
CHECKED	KJH

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SHEET NO. 3	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	330	73 R-B	COOK	136	92
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

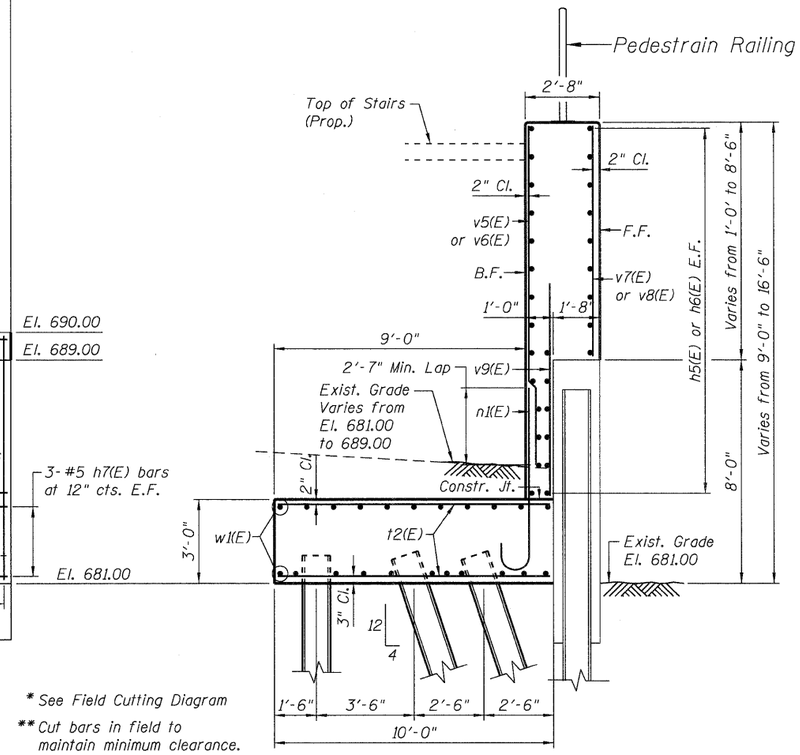
016W991-60K64-003-PE.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



WALL ELEVATION

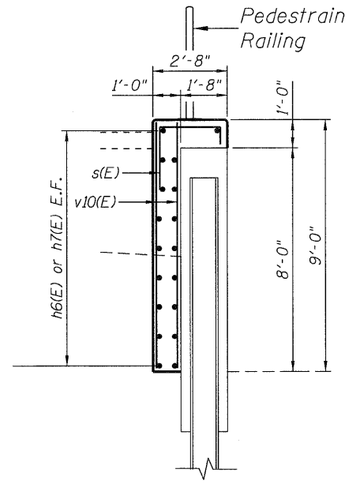
Panels 18 & 19
(Looking North at Front Face of Wall)



* See Field Cutting Diagram
** Cut bars in field to maintain minimum clearance.

SECTION B-B

Panel 18



SECTION C-C

Panel 20

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h5(E)	8	#5	32'-0"	
h6(E)	12	#5	40'-4"	
h7(E)	6	#5	18'-0"	
n1(E)	31	#8	7'-8"	
s(E)	19	#4	5'-3"	
t2(E)	46	#8	9'-8"	
v5(E)	14	#5	12'-1"	
v6(E)	8	#5	16'-9"	
v7(E)	11	#5	8'-2"	
v8(E)	5	#5	9'-8"	
v9(E)	23	#5	8'-9"	
v10(E)	38	#5	8'-8"	
w1(E)	22	#5	22'-0"	

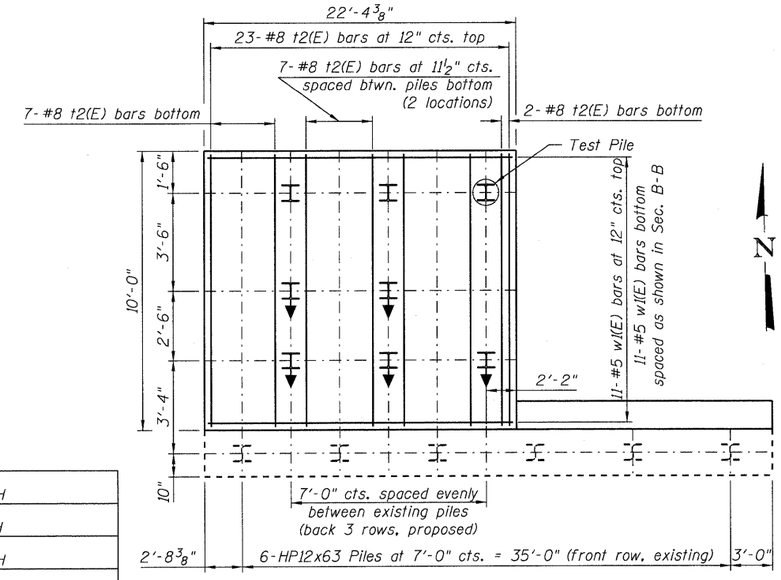
Structure Excavation	Cu. Yd.	169
Concrete Structures	Cu. Yd.	50.1
Reinforcement Bars, Epoxy Coated	Pound	4,300
Furnishing Steel Piles HP12x53	Foot	226
Driving Piles	Foot	226
Test Pile Steel HP12x53	Each	1

NOTES:

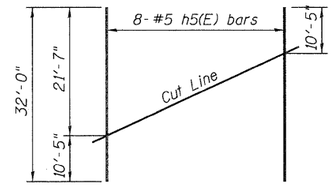
Bars indicated thus 1 x 3-#5 etc. indicates 1 line of bars with 3 lengths per line.

LEGEND:

F.F. = Front Face of Wall
B.F. = Back Face of Wall
E.F. = Each Face of Wall
(14) = Panel No.

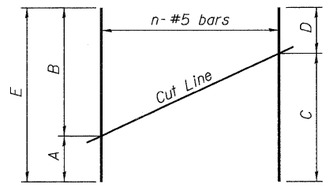


FOOTING PLAN



h5(E) BAR FIELD CUTTING DIAGRAM

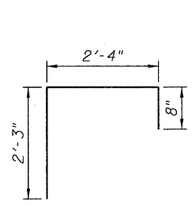
Order h5(E) bars full length. Cut as shown and use remainder of bars in opposite face.



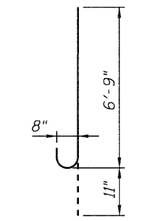
v6(E) & v8(E) BAR FIELD CUTTING DIAGRAM

Order bars full length and cut as shown.

Bar	A	B	C	D	E	n
v6(E)	4'-10"	11'-11"	8'-7"	8'-2"	16'-9"	8
v8(E)	2'-0"	7'-8"	5'-2"	4'-6"	9'-8"	5



BAR s(E)



BAR n1(E)

PILE DATA

TYPE: Steel HP12x53
Nominal required bearing = 322 kips
Allowable resistance available = 100 kips
EST. LENGTH: 31 feet (vertical)
No. REQ'D: 8 (Includes one test pile)

Straight Pile (no batter)
Battered Pile
Existing Straight Pile (no batter)

DESIGNED	PMH
CHECKED	KJH
DRAWN	PMH
CHECKED	KJH

PLAN & ELEVATION PANELS 18-19

McDonough Associates Inc.
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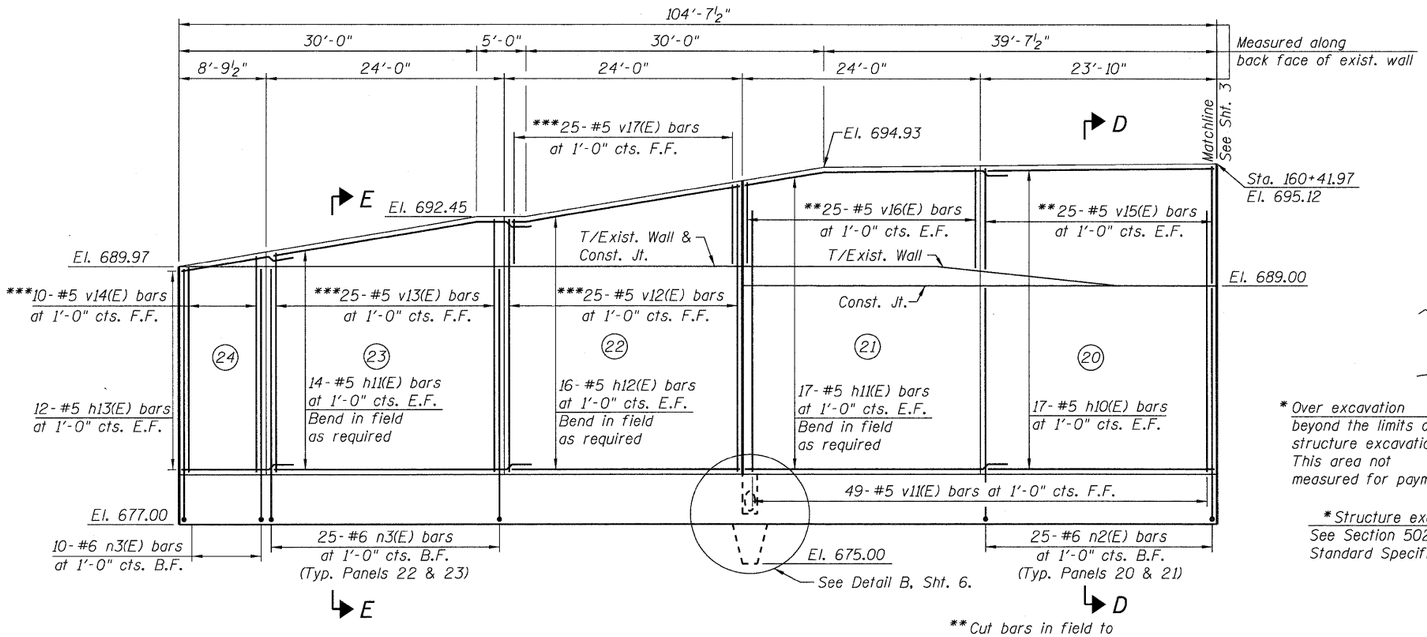
SHEET NO. 4	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	330	73 R-B	COOK	136	93
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

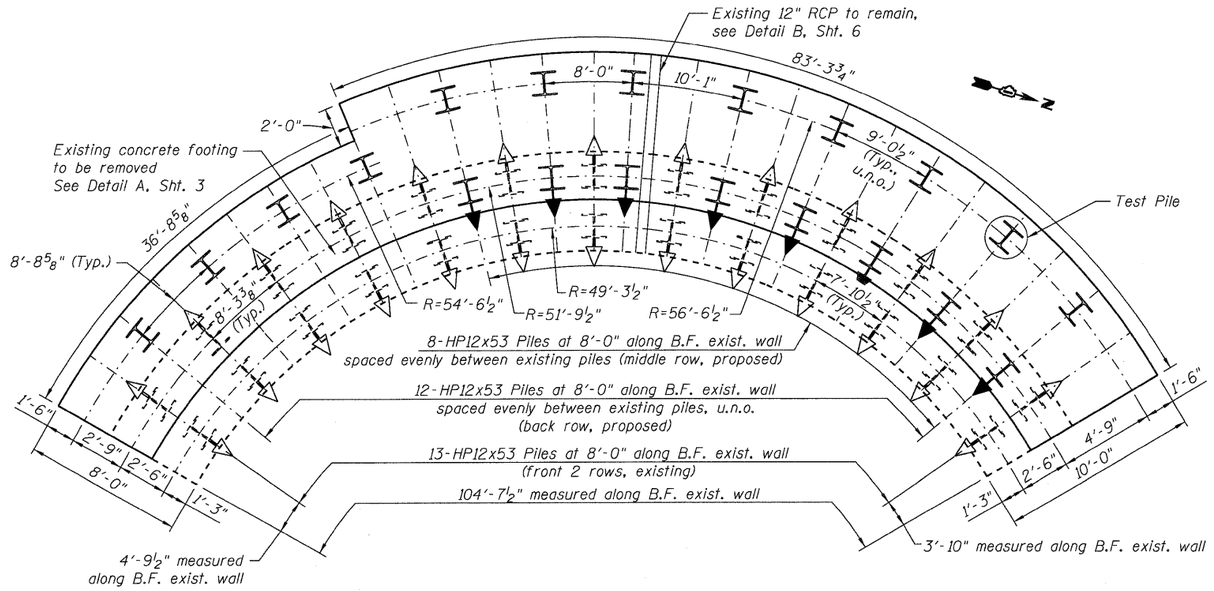
016W991-60K64-004-PE.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

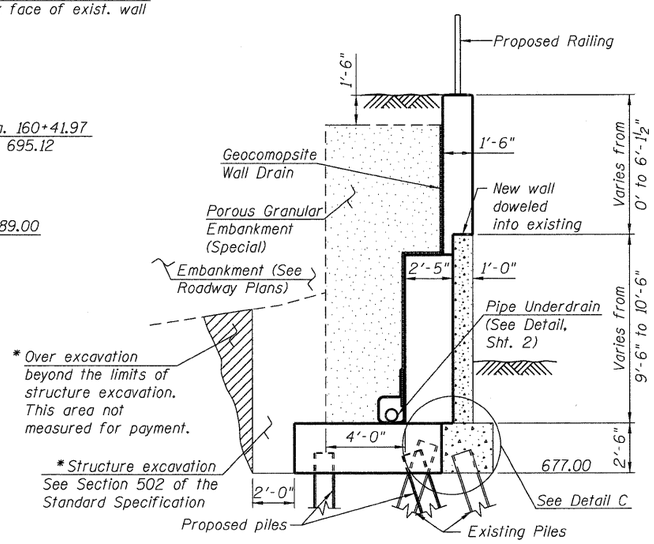


**Cut bars in field to maintain minimum clearance.
***See field cutting diagram, sht. 6.

WALL ELEVATION
Panels 20 thru 24
(Looking North at Front Face of Wall)

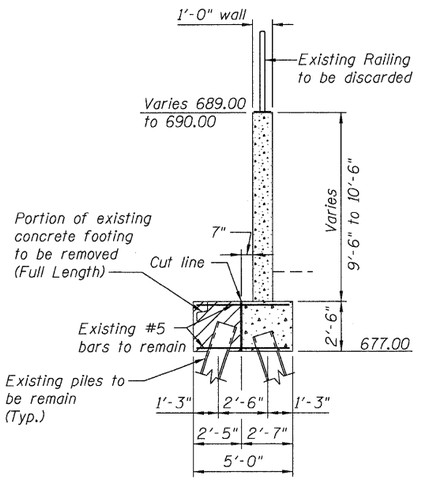


FOOTING PLAN
(Pile Layout)
For Reinforcement Layout, see Sheet 6.



TYPICAL SECTION
For Reinforcement Layout, see Sheet 6.

*Backfill remainder of structure excavation and over excavation with same material specified for roadway embankment.



TYPICAL EXISTING WALL SECTION - REMOVAL

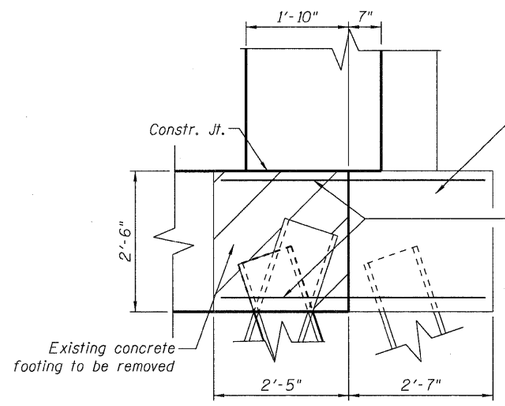
PILE DATA
TYPE: Steel HP12x53
Nominal required bearing = 391 kips
Allowable resistance available = 110 kips
EST. LENGTH: 38 feet (vertical)
No. REQ'D: 20 (Includes one test pile)

New Straight Pile (no batter)
New Battered Pile
Existing Battered Pile

NOTES:
Bars indicated thus 1 x 3-#5 etc. indicates 1 line of bars with 3 lengths per line.

For Sections D-D and E-E see Sheet 6.

For Bill of Material see Sheet 6.



DETAIL C

PLAN & ELEVATION PANELS 20-24

DESIGNED	PMH
CHECKED	KJH
DRAWN	PMH
CHECKED	KJH

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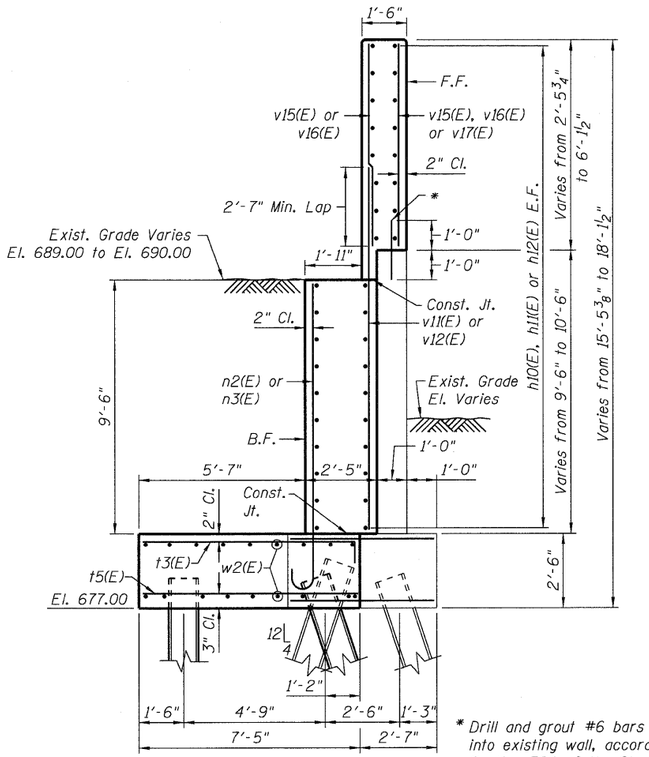
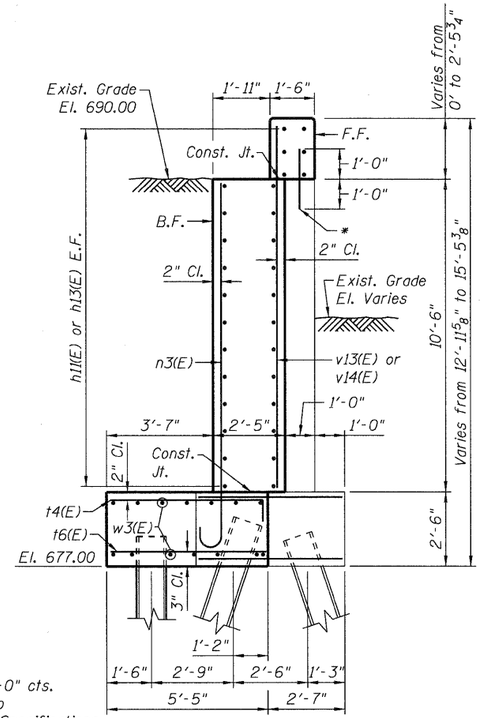
SHEET NO. 5	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	330	73 R-B	COOK	136	94
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

016W991-60K64-005-PE.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

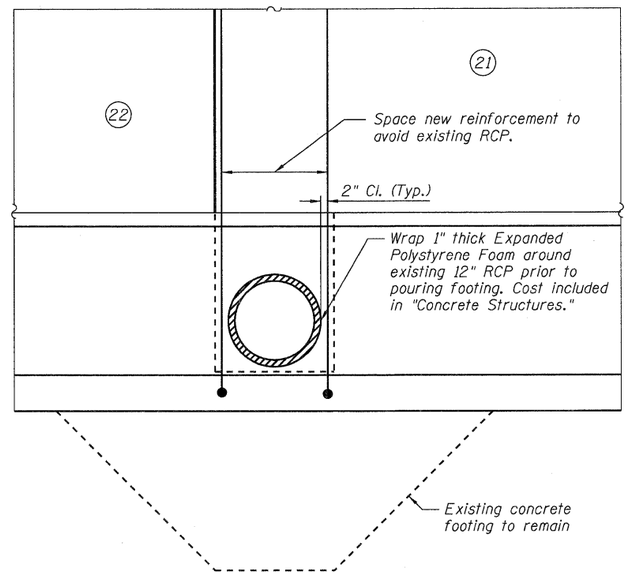


SECTION D-D
Panels 20 thru 22



SECTION E-E
Panels 23 & 24

* Drill and grout #6 bars at 1'-0" cts. into existing wall, according to Section 584 of the Standard Specifications. Cost included in "Concrete Structures."



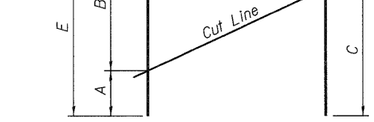
DETAIL B

Note: Location estimated, Contractor to verify in field.

BILL OF MATERIAL

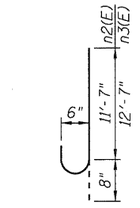
Bar	No.	Size	Length	Shape
h10(E)	34	#5	23'-6"	
h11(E)	62	#5	26'-9"	
h12(E)	32	#5	23'-8"	
h13(E)	24	#5	11'-7"	
n2(E)	50	#6	12'-3"	
n3(E)	60	#6	13'-3"	
t3(E)	112	#6	8'-1"	
t4(E)	38	#6	6'-1"	
t5(E)	90	#5	7'-1"	
t6(E)	41	#5	5'-1"	
v11(E)	49	#5	13'-3"	
v12(E)	13	#5	26'-10"	
v13(E)	13	#5	23'-4"	
v14(E)	5	#5	20'-10"	
v15(E)	50	#5	5'-9"	
v16(E)	50	#5	5'-2"	
v17(E)	13	#5	6'-0"	
w2(E)	54	#5	29'-7"	
w3(E)	14	#5	39'-6"	

Concrete Removal	Cu. Yd.	25
Structure Excavation	Cu. Yd.	361
Concrete Structures	Cu. Yd.	190.1
Reinforcement Bars, Epoxy Coated	Pound	12,710
Furnishing Steel Piles HP12x53	Foot	739
Driving Piles	Foot	739
Test Pile Steel HP12x53	Each	1

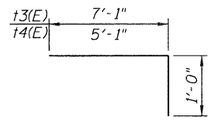


v12(E), v13(E), v14(E) & v17(E) BARS
FIELD CUTTING DIAGRAM
Order bars full length and cut as shown.

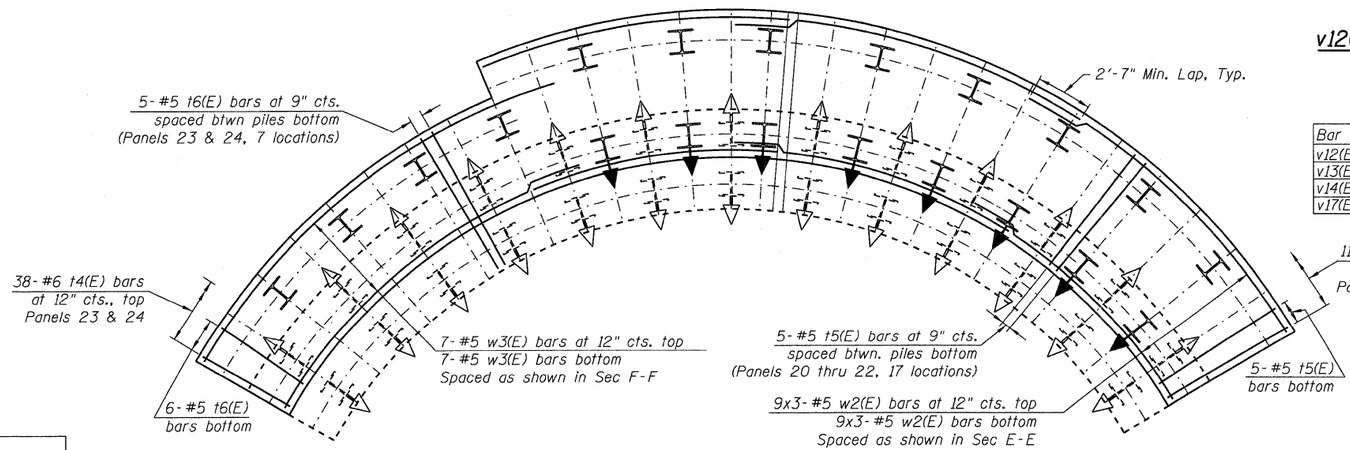
Bar	A	B	C	D	E	n
v12(E)	12'-6"	14'-4"	13'-5"	13'-5"	26'-10"	13
v13(E)	10'-10"	12'-6"	11'-8"	11'-8"	23'-4"	13
v14(E)	10'-0"	10'-10"	10'-5"	10'-5"	20'-10"	5
v17(E)	2'-1"	3'-11"	3'-0"	3'-0"	6'-0"	13



BARS n2(E) & n3(E)



BARS t3(E) & t4(E)



FOOTING PLAN
(Reinforcement Layout)

PLAN & DETAILS
PANELS 20-24

DESIGNED	PMH
CHECKED	KJH
DRAWN	PMH
CHECKED	KJH

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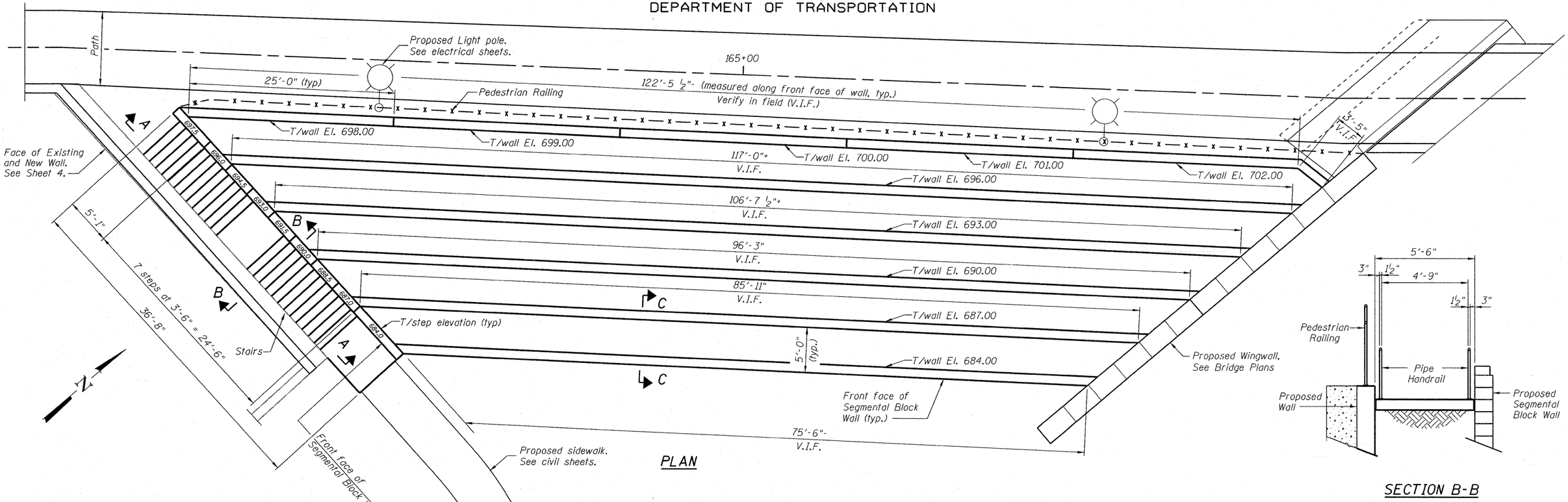
130 East Randolph Street Chicago, Illinois 60601

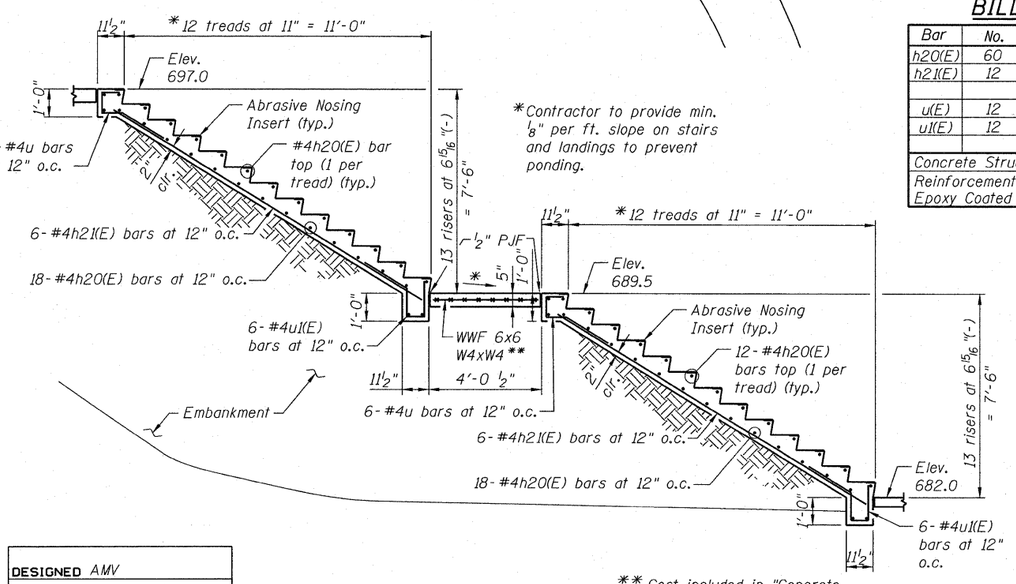
SHEET NO. 6	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	330	73 R-B	COOK	136	95
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

016W991-60K64-006-PE.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



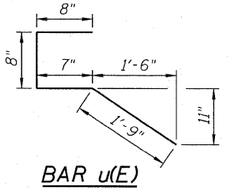
SECTION B-B



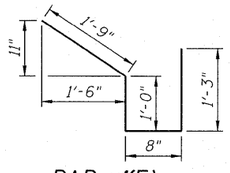
SECTION A-A

BILL OF MATERIAL

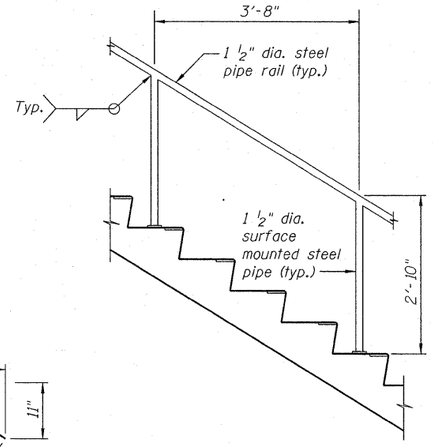
Bar	No.	Size	Length	Shape
h20(E)	60	#4	5'-2"	
h21(E)	12	#4	13'-3"	
u(E)	12	#4	3'-8"	
u1(E)	12	#4	4'-8"	
Concrete Structures			Cu. Yd.	4.6
Reinforcement Bars, Epoxy Coated			Pound	390



BAR u(E)



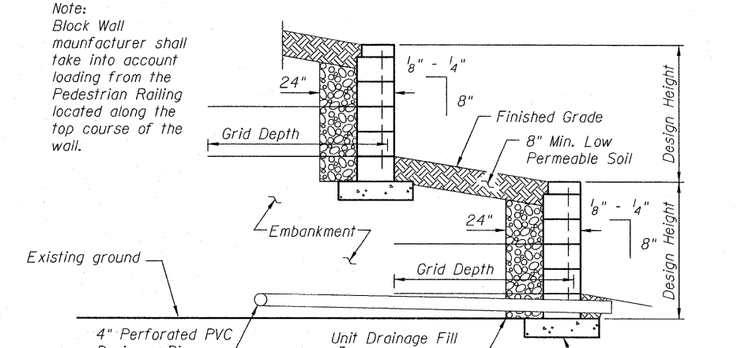
BAR u1(E)



TYPICAL PIPE HANDRAIL DETAIL

Note:
Handrail to be painted to match existing railing color. Details for base connection and end returns similar to Details E & F on Sht. 10.

Note:
Block Wall maunfacturer shall take into account loading from the Pedestrian Railing located along the top course of the wall.



SECTION C-C

TIERED WALL & STAIR DETAILS

DESIGNED	AMV
CHECKED	JCE
DRAWN	AMV
CHECKED	JCE

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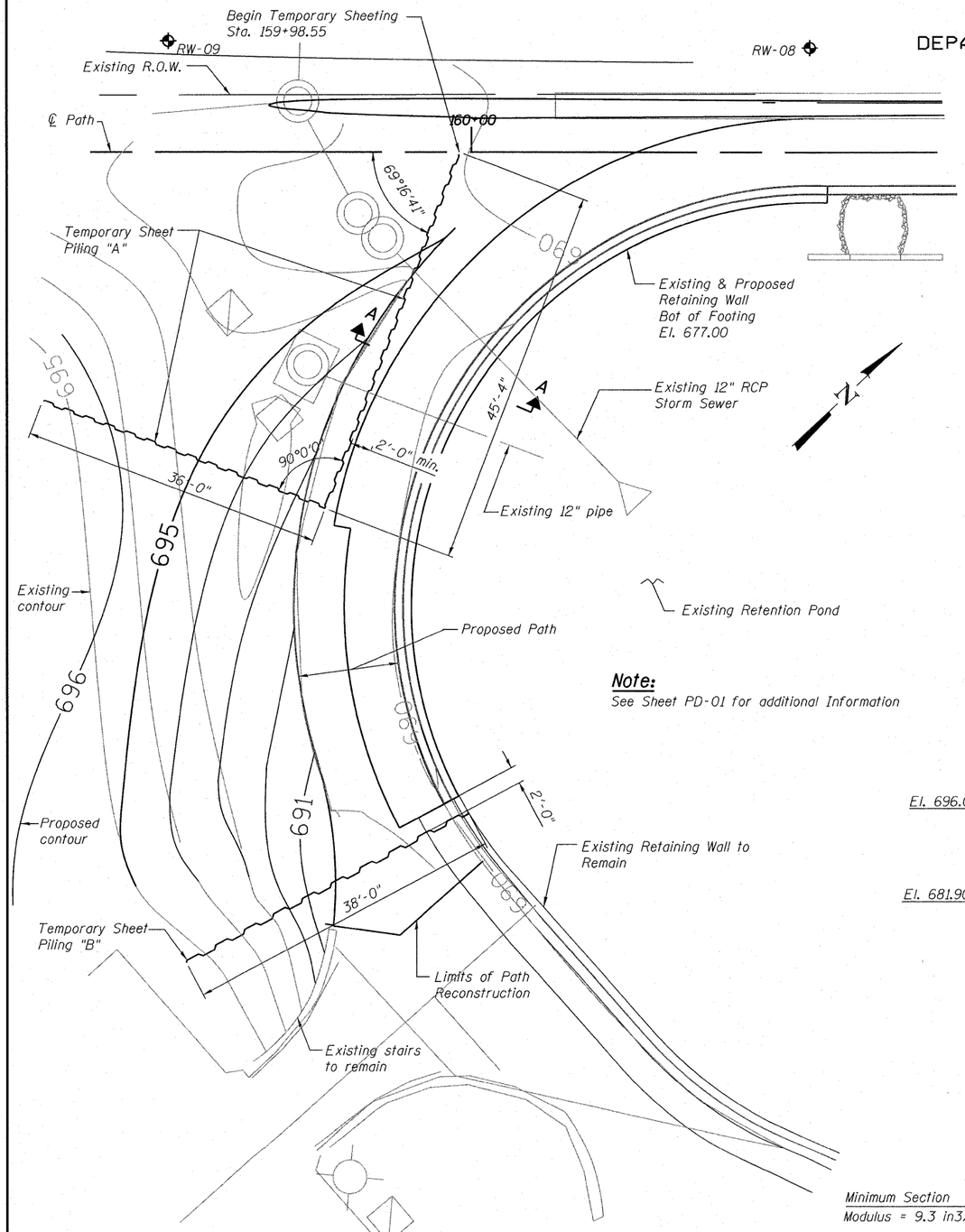
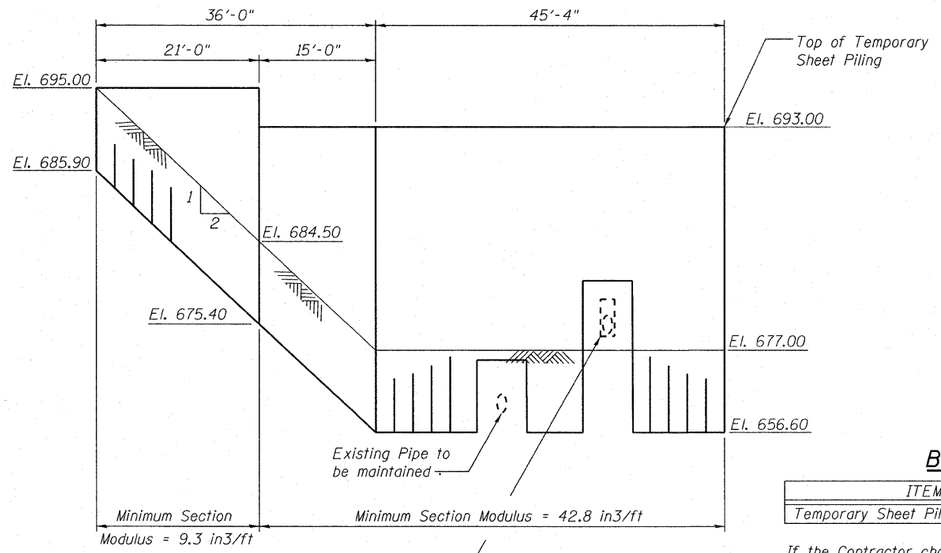
SHEET NO. 7	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	330	73 R-B	COOK	136	96
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

016W991-60K64-007-Wall_details.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Note:
See Sheet PD-01 for additional Information



Contractor to maintain existing 12" RCP storm sewer during construction and provide temporary support as needed. Verify location in field.

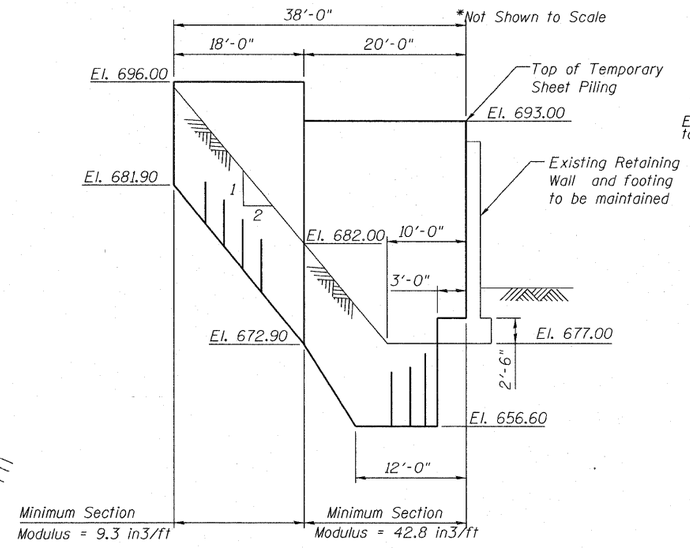
ELEVATION OF TEMPORAY SHEET PILING "A"

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Temporary Sheet Piling	Sq. Ft.	2,822

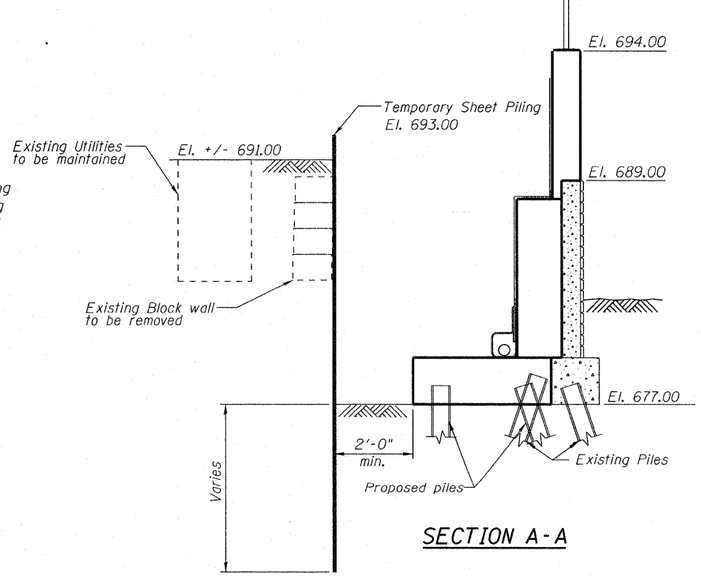
If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.

The Contractor shall connect the first sheet to the existing wall stem to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.



ELEVATION OF TEMPORAY SHEET PILING "B"

*Not Shown to Scale



SECTION A-A

SHEET PILING

DESIGNED	MJL
CHECKED	JCE
DRAWN	MJL
CHECKED	JCE

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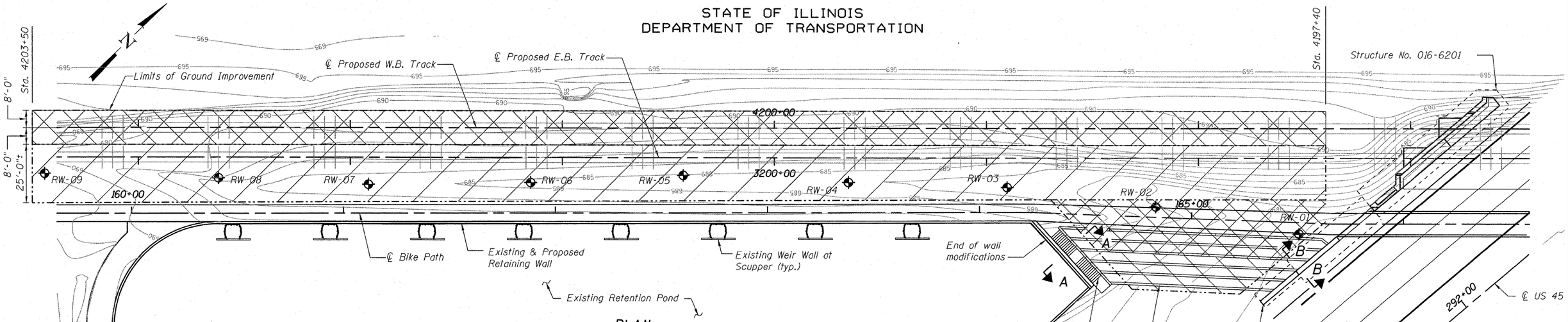
SHEET NO. 8	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	330	73 R-B	COOK	136	97
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

016W991-60K64-008-sheeting.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

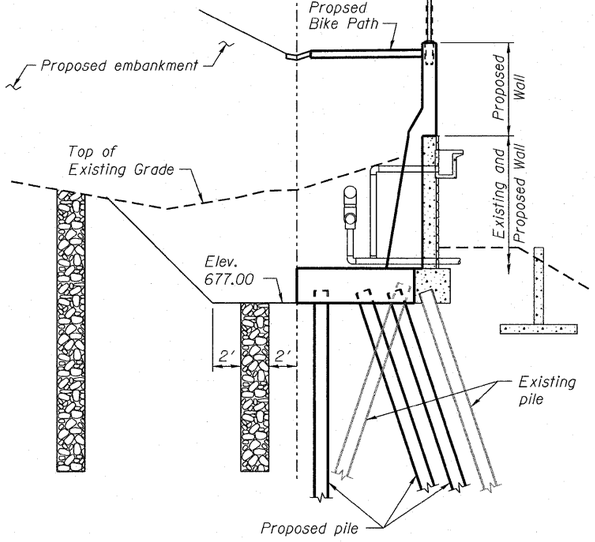


PLAN

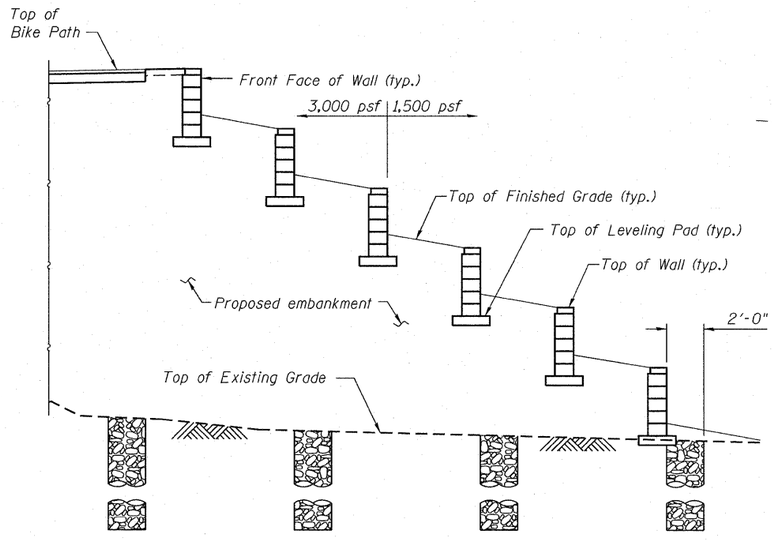
EQUIVALENT UNIFORM SERVICE BEARING PRESSURE

(at top of ground improvement)

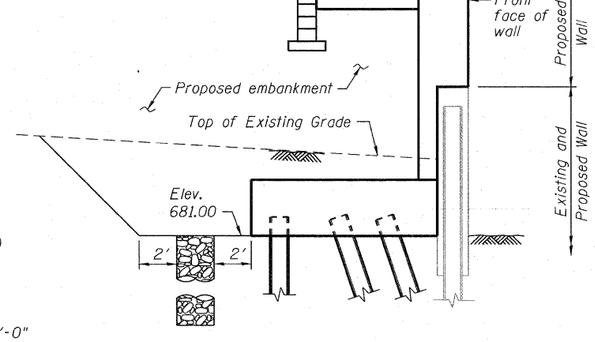
- Aggregate Column Ground Improvement - 3,500 psf
- Aggregate Column Ground Improvement - 3,000 psf
- Aggregate Column Ground Improvement - 1,500 psf



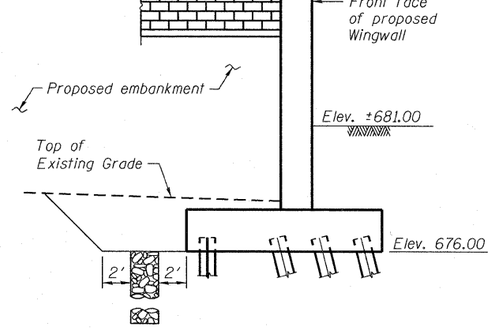
TYPICAL SECTION THROUGH EXISTING AND PROPOSED WALL



TYPICAL SECTION THROUGH TIERED WALL



SECTION A-A



SECTION B-B

Notes:
Aggregate column ground improvement shall be designed and installed by the Contractor in accordance with special provision for Aggregate Column Ground Improvement. Existing contours are shown to aid in determining top of improvement elevations.

Vibrator compacted aggregate columns shall be constructed by the bottom feed method. Top feed will only be allowed if the columns are pre-bored the entire length and the Engineer determines that the open columns do not collapse during backfilling and vibration.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Aggregate Column Ground Improvement	L Sum	1

GROUND IMPROVEMENT PERFORMANCE REQUIREMENTS

1. Post-construction settlement of MSE wall shall not exceed 1.0 inch.
2. Minimum factor of safety for Global Stability shall be 1.5.
3. Minimum factor of safety for Equivalent Uniform Service Bearing Pressure shall be 2.5.
4. Total settlement shall not exceed 4 inches.

GROUND IMPROVEMENT

DESIGNED	JCE
CHECKED	GEK
DRAWN	JCE
CHECKED	GEK

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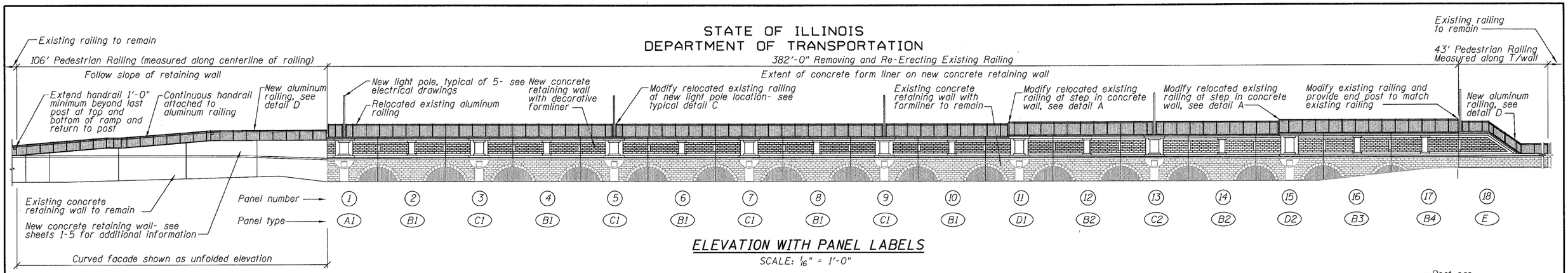
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SHEET NO. 9	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	330	73 R-B	COOK	136	98
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

016W991-60K64-009-Ground.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION WITH PANEL LABELS

SCALE: 1/16" = 1'-0"

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removing and Re-Erecting Existing Railing	Foot	382
Pedestrian Railing	Foot	280
Form Liner Textured Surface	Sq. Ft.	3200

Pedestrian Railing Notes:

1. Provide concrete foundation per Detail G at railings not located on top of concrete walls. This is included in the Pedestrian Railing pay item and will not be paid for separately.

2. Provide continuous handrails mounted to rail post where indicated. This is included in the Pedestrian Railing pay item and will not be paid for saperately.

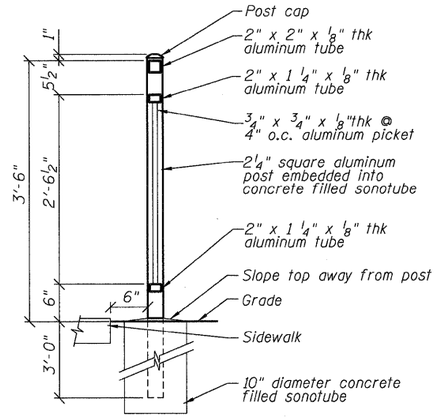
Removing and Re-Erecting Existing Railing notes:
(All items listed below to be included in this pay item)

1. Provide 4 new 1/2" diameter stainless steel expansion anchors with minimum 3 1/2" embedment depth at each railing post.

2. Modify existing railing segments to conform with new configuration.

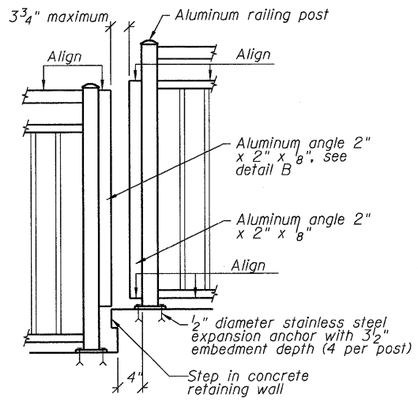
3. Provide additional posts to match existing and to accommodate new configuration.

Note:
See sheets 1 through 6 for additional structural information.



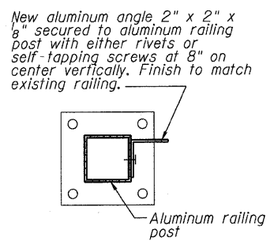
DETAIL G
TYPICAL PEDESTRIAN RAILING DETAIL NEXT TO WALKWAY

SCALE: 1" = 1'-0"



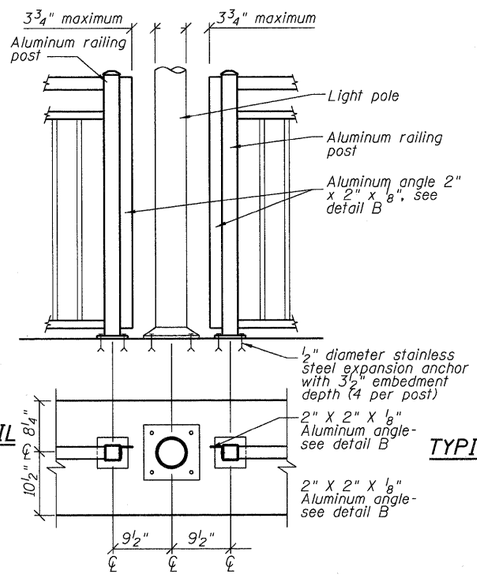
DETAIL A
TYPICAL DETAIL AT STEP IN WALL

SCALE: 1" = 1'-0"



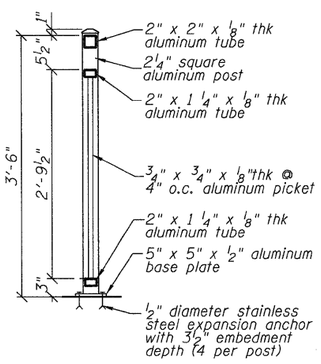
DETAIL B
TYPICAL CLOSURE ANGLE DETAIL

SCALE: 3" = 1'-0"



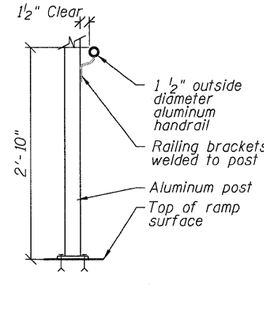
DETAIL C
TYPICAL DETAIL AT LIGHT POST

SCALE: 1" = 1'-0"



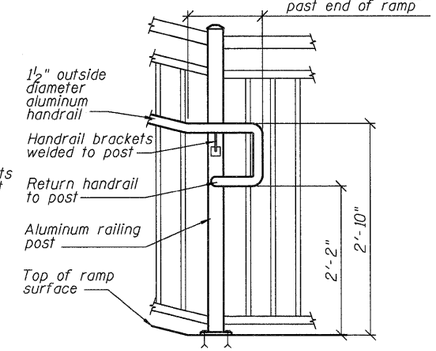
DETAIL D
TYPICAL PEDESTRIAN RAILING DETAIL

SCALE: 1" = 1'-0"



DETAIL E
TYPICAL NEW HANDRAIL DETAIL

SCALE: 1" = 1'-0"



DETAIL F
TYPICAL HANDRAIL EXTENSION DETAIL

SCALE: 1" = 1'-0" TOP CONDITION AND OPPOSITE HAND SIMILAR

ARCHITECTURAL DETAILS

DESIGNED	PS
CHECKED	FTH
DRAWN	PS
CHECKED	SCS

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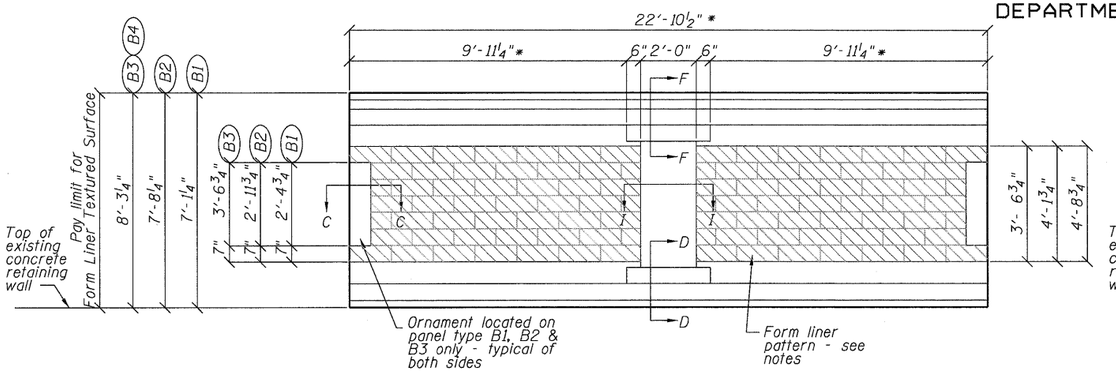
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SHEET NO. 10	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	330	73 R-B	COOK	136	99
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

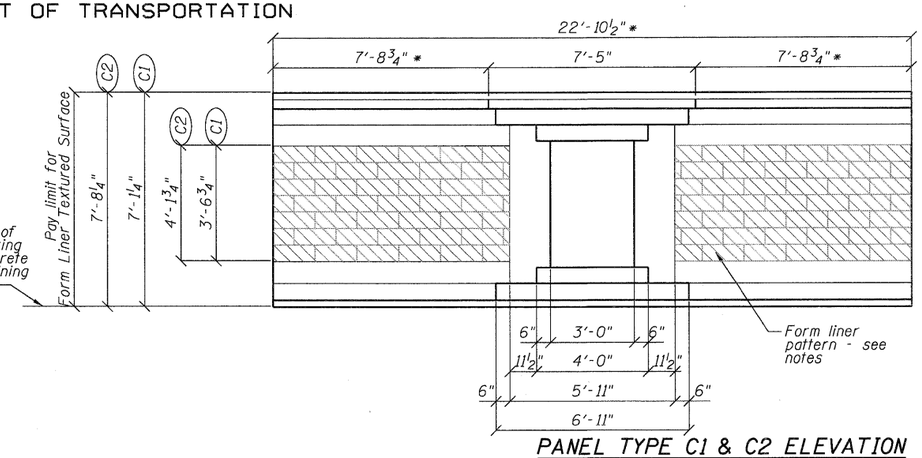
016W991-60K64-012-Arch.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PANEL TYPE B1, B2, B3 & B4 ELEVATION

SCALE: ⅜" = 1'-0"



PANEL TYPE C1 & C2 ELEVATION

SCALE: ⅜" = 1'-0"

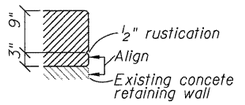
Note:

*Panel dimensions are given from centerline of joint to centerline of joint- coordinate joint type with sheets 1-6 and adjust panel ends accordingly.

Form liner pattern to match Customrock Formliner pattern number 12008 with 7 ⅛" coursing and 1'-6" length blocks.

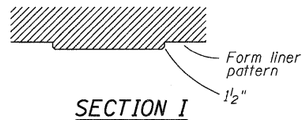
New concrete wall color to match existing concrete wall color.

Outside corners of Form Liner Textured Surface to be chamfered ½" at 45 degrees unless noted otherwise



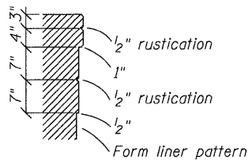
SECTION J

SCALE: ¾" = 1'-0"



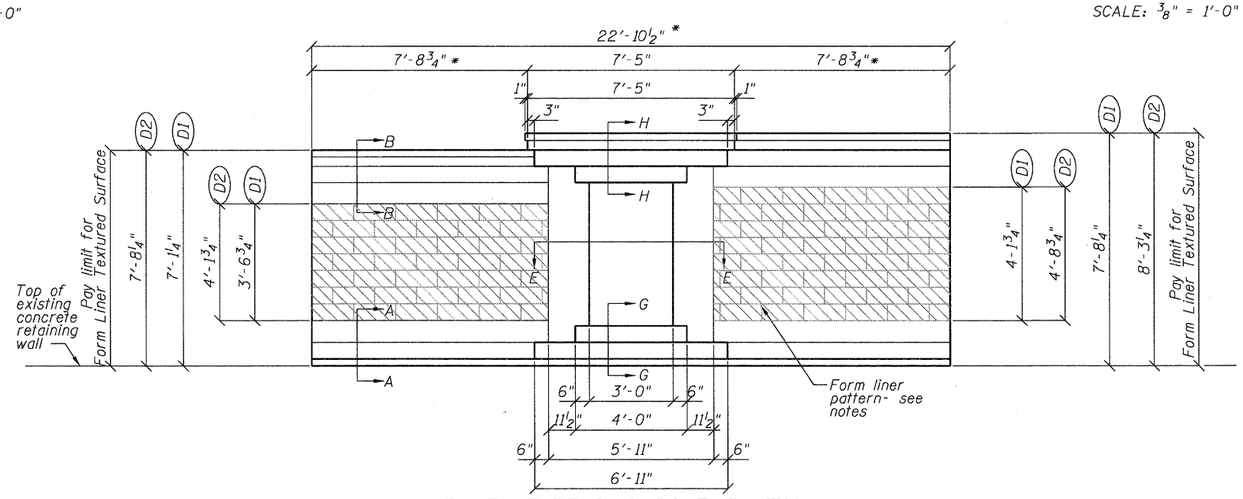
SECTION I

SCALE: ¾" = 1'-0"



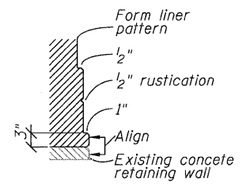
SECTION H

SCALE: ¾" = 1'-0"



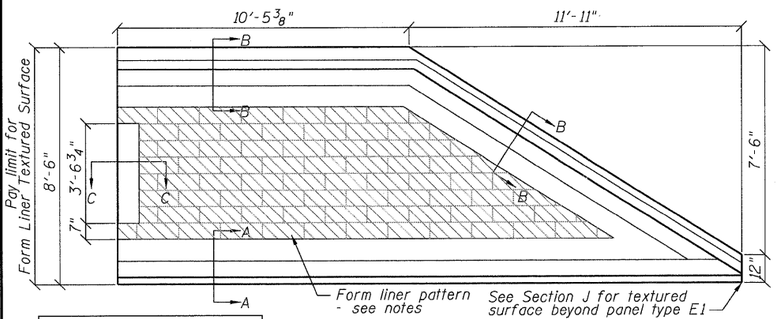
PANEL TYPE D1 & D2 ELEVATION

SCALE: ⅜" = 1'-0"



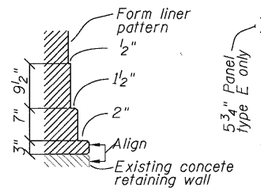
SECTION G

SCALE: ¾" = 1'-0"



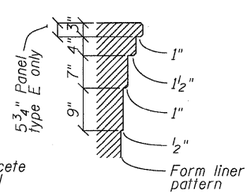
PANEL TYPE E1 ELEVATION

SCALE: ⅜" = 1'-0"



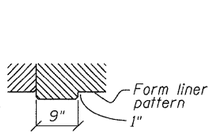
SECTION A

SCALE: ¾" = 1'-0"



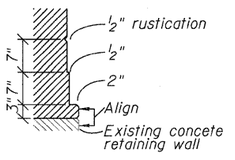
SECTION B

SCALE: ¾" = 1'-0"



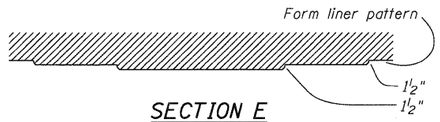
SECTION C

(OPPOSITE HAND SIMILAR)
SCALE: ¾" = 1'-0"



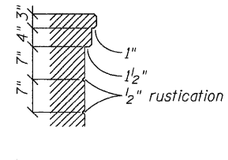
SECTION D

SCALE: ¾" = 1'-0"



SECTION E

SCALE: ¾" = 1'-0"



SECTION F

SCALE: ¾" = 1'-0"

ARCHITECTURAL DETAILS

DESIGNED	PS
CHECKED	FTH
DRAWN	PS
CHECKED	SCS

McDonough Associates Inc.
Engineers / Architects
130 East Randolph Street Chicago, Illinois 60601

SHEET NO. 11	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
23 SHEETS	330	73 R-B	COOK	136	100
			CONTRACT NO. 60K64		
	DATE: 12/17/10	ILLINOIS	FED. AID PROJECT		

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