01-18-2019 LETTING ITEM 122

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	1
	PHYV(585) ILLINOIS	CONTRACT NO. 61F43		

* 3050A/3045

FOR INDEX OF SHEETS, SEE SHEET NO. 2

FOR INDEX OF HIGHWAY STANDARDS, SEE SHEET NO. 2

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

MUN 3050A (OAK STREET) OVER UNION PACIFIC RAILROAD AND MUN 3045 (CHERRY STREET) OVER UNION PACIFIC RAILROAD BRIDGE REHABILITATION

SECTION: 15–00104–00–BR
PROJECT: PHYV(585)
VILLAGE OF WINNETKA
COOK COUNTY
C–91–239–16

LOCATION OF SECTION INDICATED THUS: –

TRAFFIC DATA

OAK STREET
POSTED SPEED – 25 MPH
DESIGN SPEED – 25 MPH
2019 ADT – 1,800
LOCAL ROAD

CHERRY STREET
POSTED SPEED – 25 MPH
DESIGN SPEED – 25 MPH
2019 ADT – 1,900
LOCAL ROAD

BRIDGE REHABILITATION EXISTING
SN: 016–8257

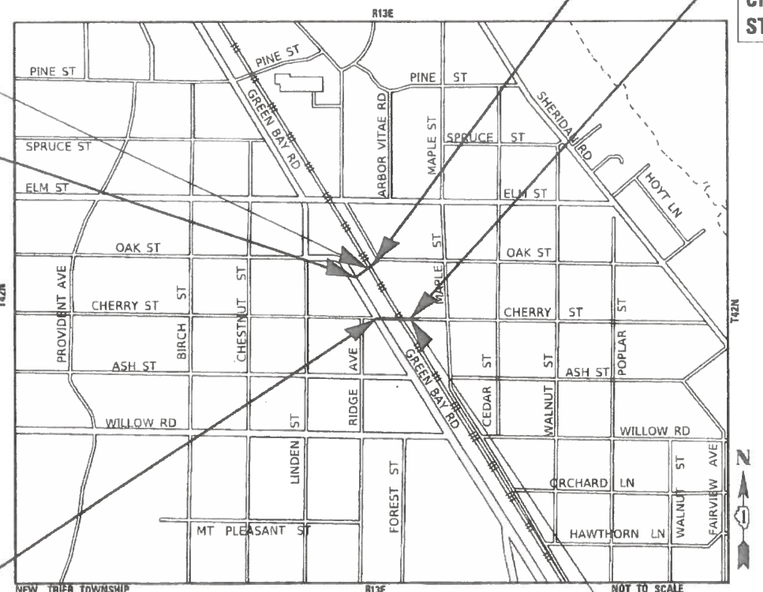
BEGIN IMPROVEMENTS
OAK STREET BRIDGE
STA 859+49

BEGIN IMPROVEMENTS
CHERRY STREET BRIDGE
STA 854+04

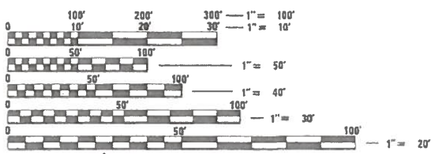
END IMPROVEMENTS
OAK STREET BRIDGE
STA 861+70

END IMPROVEMENTS
CHERRY STREET BRIDGE
STA 856+63

BRIDGE REHABILITATION EXISTING
SN: 016–8256



LOCATION MAP
SECTION 20 & 21, T42N, R13E, OF THE THIRD PRINCIPAL MERIDIAN
GROSS LENGTH = 480 FT. = 0.091 MILE
NET LENGTH = 480 FT. = 0.091 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. DESIGN STAGE REQUEST
DIG. No. A1634134 (OAK) AND A1634151 (CHERRY)

Call Before You Dig
JULIE
ILLINOIS
ONE CALL SYSTEM

CONTACT JULIE AT 811 OR 800-892-0123
WITH THE FOLLOWING:
COUNTY = COOK
CITY-TWNSHP. = WINNETKA-NEW TRIER
SEC. & 1/4 SEC. NO. = 20-NE AND 21-NW
48 HOURS (2 working days) BEFORE YOU DIG

CONTRACT NO. 61F43

MATTHEW D. WASIKOWSKI
62-052835
LICENSED PROFESSIONAL ENGINEER OF
STATE OF ILLINOIS
PROJECT MANAGER
"LICENSE EXPIRES 11-30-2019"

JONATHAN D. MILLER
62-68953
LICENSED PROFESSIONAL ENGINEER OF
STATE OF ILLINOIS
PROJECT ENGINEER
"LICENSE EXPIRES 11-30-2019"

BRANDON L. BUZZELL
081-006358
LICENSED STRUCTURAL ENGINEER OF
STATE OF ILLINOIS
PROJECT ENGINEER
"LICENSE EXPIRES 11-30-2020"

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROVED October 9th, 2018
VILLAGE OF WINNETKA

PASSED NOVEMBER 5, 2018
CHRISTOPHER HOLT
DISTRICT 1 ENGINEER OF LOCAL ROADS AND STREETS

RELEASING FOR BID BASED ON LIMITED REVIEW NOVEMBER 8, 2018
REGIONAL ENGINEER

BAXTER & WOODMAN

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

B&W PROJECT NO.: 150754 DATE: 10-09-18

10/8/2018 11:36:6 AM ...\Phase2-pdf's\150754Sheets\WINNETKA\150754-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\150754SHT_Cvr-22x34.dgn
FEDERAL AID PROGRAM ENGINEER: CARMEN E. RAMOS, P.E. SCHAUMBURG, IL
23x34

DISTRICT ONE DETAILS

TC-10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS
TC-13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
TC-16	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
TC-21	DETOUR SIGNING FOR CLOSING STATE HIGHWAYS
TC-22	ARTERIAL ROAD INFORMATION SIGN
TS-05	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS

HIGHWAY STANDARDS

000001-07	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
424001-11	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
424011-04	CORNER PARALLEL CURB RAMPS FOR SIDEWALKS
515001-03	NAME PLATE FOR BRIDGES
601101-02	CONCRETE HEADWALL FOR PIPE UNDERDRAINS
602001-02	CATCH BASIN TYPE A
602011-02	CATCH BASIN TYPE C
602301-04	INLET - TYPE A
604001-04	FRAME AND LIDS TYPE 1
606001-07	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
640001-01	SIGHT SCREEN CHAIN LINK FENCE
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE 2L, 2W MOVING OPERATIONS - DAY ONLY
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-08	TRAFFIC CONTROL DEVICES
780001-05	TYPICAL PAVEMENT MARKINGS
805001-01	ELECTRICAL SERVICE INSTALLATION DETAILS
812001	RACEWAY EMBEDDED IN STRUCTURE
825011-04	LIGHTING CONTROLLER PEDESTAL MOUNTED, 240V
886001-01	DETECTOR LOOP INSTALLATIONS
886006-01	TYPICAL LAYOUTS FOR DETECTION LOOPS

INDEX OF SHEETS

COMMITMENTS

NONE

BAXTER & WOODMAN Consulting Engineers

DESIGNED - JDM	REVISED -	
DRAWN - UKB	REVISED -	
CHECKED - DJS	REVISED -	
DATE - 10-09-18	FILE - 150754SHT_Index.dgn	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX TO SHEETS, HIGHWAY STANDARDS
DISTRICT ONE DETAILS AND COMMITMENTS

SCALE: NONE | STA. | TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	2
• 3050A/3045		CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES

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

2. UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND THE VILLAGE DOES NOT GUARANTEE THEIR ACCURACY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES, INCLUDING SPRINKLER SYSTEMS, EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL ALSO VERIFY THE DEPTHS OF THE EXISTING UTILITIES IF NECESSARY TO VERIFY THAT GRADE CONFLICTS WILL NOT OCCUR WITH ANY PROPOSED UTILITIES PRIOR TO CONSTRUCTION AND ORDERING ANY MATERIALS. ANY RELOCATION OR LOWERING OF UTILITIES SHALL BE COORDINATED BY THE CONTRACTOR.

3. THE CONTRACTOR SHALL NOTIFY THE VILLAGE PUBLIC WORKS ADMINISTRATOR AT LEAST 48 HOURS IN ADVANCE OF BEGINNING WORK TO OBTAIN VILLAGE UTILITY LOCATIONS.

4. THE ENGINEER WILL FURNISH A RESIDENT ENGINEER (RE) TO ASSIST THE ENGINEER IN PROVIDING JOB-SITE OBSERVATION OF THE CONTRACTOR'S WORK. THE RE WILL PROVIDE BASE LINES, BENCHMARKS AND REFERENCE POINTS, ASSIST THE CONTRACTOR WITH INTERPRETATION OF THE PLANS AND SPECIFICATIONS, OBSERVE IN GENERAL IF THE CONTRACTOR'S WORK IS IN CONFORMITY WITH THE CONTRACT DOCUMENTS, AND MONITOR THE CONTRACTOR'S PROGRESS AS RELATED TO THE DATE OF COMPLETION. THE LIMITATIONS ON AUTHORITY AND RESPONSIBILITY OF THE ENGINEER SHALL ALSO APPLY TO THE ENGINEER'S CONSULTANTS, RESIDENT PROJECT REPRESENTATIVE AND ASSISTANTS.

5. THE CONTRACTOR MAY OBTAIN MUNICIPAL WATER IN BULK, AT NO CHARGE, AS LONG AS THERE IS NOT A "WATERING BAN" IN EFFECT. THE INDISCRIMINATE USE OF FIRE HYDRANTS IS STRICTLY PROHIBITED. WATER FOR CONSTRUCTION SHALL BE METERED OR OTHERWISE ACCOUNTED FOR AND A DAILY LOG MAINTAINED. THE CONTRACTOR SHALL PROVIDE THE WATER TRUCK AND DRIVER REQUIRED TO OBTAIN AND TRANSPORT THIS WATER. THE VILLAGE RESERVES THE RIGHT TO RESTRICT OR REFUSE THE USE OF VILLAGE WATER IF DEEMED NECESSARY.

6. THE CONTRACTOR SHALL CONTACT THE LOCAL AGENCY MATERIAL INSPECTOR AT LEAST 48 HOURS PRIOR TO ANY CONCRETE OR HOT-MIX ASPHALT MATERIAL DELIVERIES.

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

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

9. A PORTABLE BATHROOM(S) SHALL BE PLACED ON THE JOB SITE(S) AND RELOCATED WHEN NECESSARY SO IT IS ACCESSIBLE TO WORKERS. IF WORK IS OCCURRING AT SEVERAL LOCATIONS, ONE PORTABLE BATHROOM SHALL BE PLACED AT EACH LOCATION WITHIN A REASONABLE DISTANCE FROM THE WORK AS DETERMINED BY THE ENGINEER.

10. FOR STEEL BARS CERTIFICATION, PLEASE CONTACT IDOT BUREAU OF MATERIALS AT (847) 705-4337.

11. ALL STRUCTURAL STEEL, REBAR AND DECORATIVE FENCING INCORPORATED IN THE WORK SHALL BE DOMESTICALLY MANUFACTURED OR PRODUCED AND FABRICATED.

12. FRAMES AND GRATES OR LIDS THAT ARE REMOVED AS PART OF ADJUSTMENTS OR REMOVALS SHALL BE DELIVERED TO THE VILLAGE PUBLIC WORKS FACILITY: 1390 WILLOW ROAD, WINNETKA, IL 60093.

13. SIGN PANELS THAT REQUIRE STORAGE AS PART OF RELOCATES OR REMOVALS SHALL BE DELIVERED TO THE VILLAGE PUBLIC WORKS FACILITY: 1390 WILLOW ROAD, WINNETKA, IL 60093 OR AS DIRECTED BY THE ENGINEER.

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

15. THE ILLINOIS DEPARTMENT OF TRANSPORTATION IS NOT THE OWNER OF RECORD FOR THIS BRIDGE. THOSE SEEKING HISTORIC AS-BUILT OR OTHER RECORD PLANS AND DOCUMENTS MUST CONTACT THE OWNER OF RECORD TO MAKE ARRANGEMENTS FOR ACCESS TO THIS INFORMATION.

16. DURING CONSTRUCTION, THE CONTRACTOR WILL BE PERMITTED TO LIMIT ON-STREET PARKING ALONG CHERRY ST AND OAK ST IN ORDER TO COMPLETE CONSTRUCTION OPERATIONS. NO PARKING SPACES ON LINCOLN AVE SHALL BE USED FOR CONSTRUCTION OPERATIONS. THE CONTRACTOR WILL BE REQUIRED TO COORDINATE WITH THE MUNICIPALITY A MINIMUM OF 48 HOURS IN ADVANCE. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PLACE ADVANCE SIGNS TO ALERT RESIDENTS AND COMMUTERS OF THE CONSTRUCTION WORK. THE PLACEMENT OF THESE SIGNS SHALL TAKE PLACE 48 HOURS IN ADVANCE IN ORDER TO ALLOW SUFFICIENT TIME FOR RESIDENTS AND GENERAL PUBLIC TO REVISE THEIR PARKING PATTERNS.

17. ACCESS TO PRIVATE DRIVEWAYS SHALL BE PROVIDED AT ALL TIMES EXCEPT DURING ACTUAL CONSTRUCTION ADJACENT THERE TO.

18. THE CONTRACTOR SHALL PROTECT THE EXISTING BIKE TRAIL DURING CONSTRUCTION.

19. EXTRA CAUTION SHALL BE TAKEN TO PROTECT THE SAFETY AND INTEGRITY OF MWRD FACILITIES. NO ACCESS HATCHES AND MANHOLE COVERS ON MWRD STRUCTURES AND MANHOLES WITHIN THE PROJECT AREA SHALL BE BURIED OR COVERED. NO DEBRIS SHALL ENTER MWRD STRUCTURES, SEWERS, OR FACILITIES. MWRD PERSONNEL SHALL HAVE 24 HOUR-A-DAY UNRESTRICTED ACCESS TO ALL MWRD FACILITIES.

20. MWRD MANHOLES SHALL BE LOCATED, PROTECTED AND/OR ADJUSTED TO GRADE, IF NECESSARY. PRIOR AUTHORIZATION IS REQUIRED TO MAKE ANY STRUCTURAL MODIFICATIONS, INCLUDING MANHOLE FRAME AND LID ADJUSTMENTS. AUTHORIZATION MAY BE OBTAINED BY CONTACTING MR. ED STAUDACHER, MANAGING ENGINEER, AT (847) 588-4319. IF MWRD FACILITIES ARE REQUIRED TO BE LOCATED IN THE FIELD, PLEASE CONTACT MR. STEVE WHITEHEAD, SENIOR CIVIL ENGINEER, AT (847) 568-4080. IF ANY ADDITIONAL INFORMATION IS REQUIRED, PLEASE CONTACT MR. JOE SCHUESSLER, PRINCIPAL CIVIL ENGINEER, AT (312) 751-3236.

21. THE CONTRACTOR SHALL CONTACT THE VILLAGE FORESTER, JIM STIER 847-716-3535 72 HOURS IN ADVANCE OF TREE PRUNING.

RAILROAD NOTES

1. WITHIN THESE NOTES, THE UNION PACIFIC RAILROAD SHALL BE REFERRED TO AS THE "RAILROAD".

2. A CONTRACTOR'S RIGHT-OF-ENTRY PERMIT IS REQUIRED BEFORE ANY WORK CAN COMMENCE ON RAILROAD PROPERTY. THE COST TO OBTAIN THIS PERMIT SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

3. NO DISRUPTIONS OF RAILROAD OPERATIONS WILL BE PERMITTED.

4. IT IS THE CONTRACTOR'S RESPONSIBLY TO COORDINATE WITH THE UNION PACIFIC RAILROAD WHENEVER CONSTRUCTION ACTIVITY IS WITHIN 25 FEET OF THE RAILROAD RIGHT-OF-WAY. THE CONTRACTOR SHALL RETAIN FLAGMEN EMPLOYED AND DESIGNATED BY THE UNION PACIFIC RAILROAD TO MONITOR ON-COMING TRAIN TRAFFIC, AND ADVISE CONTRACTOR PERSONNEL WHEN ACTIVITY ON OR NEAR THE RAILROAD RIGHT-OF-WAY MAY PROCEED. THIS ITEM WILL BE PAID FOR ACCORDING TO ARTICLE 107.12 AND WILL BE REIMBURSED ACCORDING TO ARTICLE 109.05.

5. ALL WORK WITHIN 25 FEET OF THE NEAREST TRACK WILL REQUIRE A RAILROAD FLAGMAN. TO SCHEDULE A FLAGMAN FOR WORK ON A COMMUTER LINE, CALL CANDICE MILLER AT (312) 496-4738, A MINIMUM 72 HOURS IN ADVANCE OF START OF WORK. TO SCHEDULE A FLAGMAN FOR WORK ON FREIGHT LINES, CALL DARYL CLARK AT (708) 649-5273, A MINIMUM OF 72 HOURS IN ADVANCE OF START OF WORK.

6. WORK WINDOWS WITHIN THE 25 FOOT ZONE ARE ONLY AVAILABLE FROM 9:00 AM - 3:00 PM, MONDAY THROUGH FRIDAY. NIGHT WORK WINDOWS ARE AVAILABLE FROM 8:00 PM - 4:00 AM. PLEASE PROVIDE AT LEAST 72 HOURS OF ADDITIONAL NOTICE WHEN REQUESTING TO WORK AT NIGHT TO ENSURE APPROPRIATE FLAGGING COVERAGE. EXTENDED WORK WINDOWS MAY BE AVAILABLE ON THE WEEKENDS. NOT WITHSTANDING THE FORGOING, DUE TO INTERSTATE FREIGHT TRAIN AND COMMUTER PASSENGER TRAIN OPERATIONS AND SCHEDULES ALL WORK WINDOWS WITHIN THE TIMES LISTED ABOVE ARE SUBJECT TO ON SITE UNILATERAL ADJUSTMENT OR DENIAL FROM THE RAILROAD'S LOCAL FIELD MANAGER AND/OR CORRIDOR MANAGER. THIS MAY RESULT IN DENIAL OR ADJUSTMENT OF ACCESS FOR ANY AND ALL CONTRACTORS, SUBCONTRACTORS AND MATERIAL MEN DURING WORK WINDOWS.

7. NO UN-USED WORK EQUIPMENT WILL BE ALLOWED TO REMAIN ON THE RAILROAD'S COMMUTER PLATFORM IF PRESENT.

8. RAILROAD UTILITIES ARE NOT INCLUDED UNDER JULIE. CALL CANDICE MILLER AT (312) 496-4738 FOR LOCATES.

9. FIBER OPTICS MAY BE PRESENT IN THS AREA. CALL (800) 336-9193 TO COORDINATE ANY REQUIRED PROTECTION OR RELOCATION, PRIOR TO CONSTRUCTION.

10. RAILROAD REVIEW AND APPROVAL OF SHORING, DEMOLITION, ERECTION, AND FALSEWORK IS REQUIRED.

11. ERECTION OVER THE RAILROAD'S RIGHT-OF-WAY SHALL BE DESIGNED TO CAUSE NO INTERRUPTIONS TO RAILROAD'S OPERATIONS. ERECTION OVER THE RAILROAD'S TRACK SHALL BE DEVELOPED SUCH THAT IT ENABLES THE TRACKS(S) TO REMAIN OPEN TO TRAIN TRAFFIC PER RAILROAD'S REQUIREMENTS.

12. FALSEWORK CLEARANCE SHALL COMPLY WITH THE RAILROAD'S MINIMUM CONSTRUCTION CLEARANCE ENVELOPE.

13. FOR RAILROAD COORDINATION PLEASE REFER TO THE RAILROAD MINIMUM REQUIREMENTS AS PART OF SPECIAL PROVISIONS.

14. THE CONTRACTOR MUST SUBMIT A PROPOSED METHOD OF EROSION AND SETTLEMENT CONTROL AND HAVE THE METHOD APPROVED BY THE RAILROAD.

15. THE ELEVATION OF THE EXISTING TOP-OF-RAIL PROFILE SHALL BE SURVEYED BEFORE BEGINNING CONSTRUCTION.

16. SIDEWALK CLOSED SIGNAGE SHALL BE INSTALLED AT THE CLOSED STAIR ENTRANCE ON THE PLATFORMS FOR THE DURATION OF OAK STREET BRIDGE CONSTRUCTION.

CONSTRUCTION STAGING NOTES

1. THE CONTRACTOR SHALL SUBMIT A PREPLANNED SEQUENCE OF WORK AT THE PRECONSTRUCTION CONFERENCE FOR REVIEW AND APPROVAL. WORK SHALL BE SCHEDULED TO MINIMIZE INCONVENIENCE TO RESIDENTS AND BUSINESSES AND TO MAINTAIN A REASONABLE LEVEL OF CONSTRUCTION EFFICIENCY. THE ENGINEER RESERVES THE RIGHT TO RESTRICT WORK ON ANY ROADWAY SEGMENT IF CONSTRUCTION OPERATIONS ON A PREVIOJS SEGMENT ARE UNACCEPTABLE; TRAFFIC CONTROL OPERATIONS BECOME UNACCEPTABLE; OR AN EROSION CONTROL DEFICIENCY EXISTS.

2. THE ENGINEER SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF ANY CHANGES TO CONSTRUCTION STAGING. ALL CHANGES TO CONSTRUCTION STAGING MUST BE APPROVED BY THE ENGINEER PRIOR TO IMPLEMENTATION.

3. PROVIDE 72 HOUR ADVANCED NOTIFICATION TO THE ENGINEER, CITY, POLICE AND FIRE PRIOR TO ROAD CLOSURE.

4. COORDINATE ALL IMPROVEMENTS WITH THE UNION PACIFIC RAILROAD AND METRA RAIL.

5. THE CHERRY STREET BRIDGE SHALL BE REOPENED TO TRAFFIC BEFORE CONSTRUCTION ON OAK STREET BRIDGE BEGINS.

6. THE EXISTING BIKE TRAIL SHALL REMAIN OPEN TO TRAFFIC ON ALL SATURDAYS AND SUNDAYS. THE EXISTING BIKE TRAIL SHALL REMAIN OPEN TO TRAFFIC ON ALL WEEKDAYS EXCEPT DURING BRIDGE DEMOLITION AND BEAM SETTING. DURING BRIDGE DEMOLITION AND BEAM SETTING THE BIKE TRAIL SHALL BE OPEN TO TRAFFIC AT THE END OF EACH DAY. SIGNS SHALL BE PLACED 1 WEEK PRIOR TO EACH DAYTIME TRAIL CLOSURE:

TRAIL CLOSED AT
Oak/Cherry St
ON
XX-XX-XX

THE SIGN SHALL BE ORANGE WITH 4 INCH BLACK LETTERS AND THE COST INCLUDED IN TRAFFIC CONTROL AND PROTECTION (SPECIAL).

THE FOLLOWING IS A SUGGESTED STAGING SEQUENCE FOR EACH BRIDGE CLOSURE:

1. ESTABLISH DETOUR ROUTE AND OTHER TRAFFIC CONTROL ITEMS.
2. ESTABLISH EROSION CONTROL MEASURES.
3. DEMOLISH AND RECONSTRUCT BRIDGE (SEE BRIDGE PLANS FOR SPECIFIC STAGING).
4. CONSTRUCT STORM SEWER.
5. REMOVE EXISTING PAVEMENT, CURB AND SIDEWALK AND GUARDRAIL.
6. CONSTRUCT AGGREGATE SUBGRADE IMPROVEMENTS AND CURB AND GUTTER.
7. CONSTRUCT HMA PAVEMENT CONNECTOR.
8. CONSTRUCT SIDEWALK.
9. COMPLETE PARKWAY RESTORATION.
10. INSTALL REQUIRED PAVEMENT MARKINGS.
11. REOPEN ROADWAY.
12. COMPLETE PUNCH LIST ITEMS.
13. REMOVE TEMPORARY EROSION CONTROL ITEMS ONCE SOD ESTABLISHES.

BAXTER & WOODMAN Consulting Engineers

DESIGNED	- JDM	REVISED	-
DRAWN	- UKB	REVISED	-7-14-14
CHECKED	- DJS	REVISED	-
DATE	- 10-09-18	FILE	- 150754SHT_GenNotes.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, RAILROAD NOTES AND CONSTRUCTION STAGING NOTES

SCALE: NONE | STA. | TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	3
•	3050A/3045	CONTRACT NO. 61F43		

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

SUMMARY OF QUANTITIES

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE: CHERRY ST 80% FED 20% LOCAL — 0013 BRIDGE / URBAN	CONSTRUCTION CODE: OAK ST 80% FED 20% LOCAL — 0013 BRIDGE / URBAN
	20101000	TEMPORARY FENCE	FOOT	60		60
	20101100	TREE TRUNK PROTECTION	EACH	4	3	1
*	20101200	TREE ROOT PRUNING	EACH	4	3	1
*	20101300	TREE PRUNING (1 TO 10 INCH DIAMETER)	EACH	5	3	2
*	20101350	TREE PRUNING (OVER 10 INCH DIAMETER)	EACH	8	5	3
	20200100	EARTH EXCAVATION	CU YD	205	102	103
	20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	184	99	85
	20800150	TRENCH BACKFILL	CU YD	31	9	22
	21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	490	259	231
	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	175	105	70
	25000400	NITROGEN FERTILIZER NUTRIENT	POUND	3	2	1
	25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	3	2	1
	25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	3	2	1
	25200110	SODDING, SALT TOLERANT	SQ YD	175	105	70
	25200200	SUPPLEMENTAL WATERING	UNIT	2	1	1

* INDICATES SPECIALTY ITEM
$ INDICATES CONSTRUCTION CODE 0042 TRAINEES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE: CHERRY ST 80% FED 20% LOCAL — 0013 BRIDGE / URBAN	CONSTRUCTION CODE: OAK ST 80% FED 20% LOCAL — 0013 BRIDGE / URBAN
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	5	3	2
28000400	PERIMETER EROSION BARRIER	FOOT	245	185	60
28000510	INLET FILTERS	EACH	10	5	5
28001100	TEMPORARY EROSION CONTROL BLANKET	SQ YD	175	105	70
30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	164	87	77
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	490	259	231
35101600	AGGREGATE BASE COURSE, TYPE B 4"	SQ YD	364	138	226
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	300	140	160
42000070	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB	SQ YD	437	202	235
42001300	PROTECTIVE COAT	SQ YD	364	138	226
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	2,120	840	1,280
42400800	DETECTABLE WARNINGS	SQ FT	121	34	87
44000100	PAVEMENT REMOVAL	SQ YD	388	268	120
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	320	140	180
44000600	SIDEWALK REMOVAL	SQ FT	1,685	655	1,030

* INDICATES SPECIALTY ITEM
$ INDICATES CONSTRUCTION CODE 0042 TRAINEES

STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM
LICENSE NO. - 184-00121 - EXPIRES 4/30/2019
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BAXTER & WOODMAN Consulting Engineers

DESIGNED	- JDM	REVISED	-
DRAWN	- UKB	REVISED	-
CHECKED	- DJS	REVISED	-
DATE	- 10-09-18	FILE	- 150754SHT_S00.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: NONE | STA. | TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	4
•	3050A/3045	CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE: CHERRY ST 80% FED 20% LOCAL 0013 BRIDGE URBAN	CONSTRUCTION CODE: OAK ST 80% FED 20% LOCAL 0013 BRIDGE URBAN
50101700	REMOVAL OF EXISTING SUPERSTRUCTURES NO. 1	EACH	1	1	
50101800	REMOVAL OF EXISTING SUPERSTRUCTURES NO. 2	EACH	1		1
50102400	CONCRETE REMOVAL	CU YD	162	70	92
50157300	PROTECTIVE SHIELD	SQ YD	1,464	626	838
50200100	STRUCTURE EXCAVATION	CU YD	482	227	255
50300225	CONCRETE STRUCTURES	CU YD	194.0	96.1	97.9
50300255	CONCRETE SUPERSTRUCTURE	CU YD	154.8	67.7	87.1
50300260	BRIDGE DECK GROOVING	SQ YD	1,435	585	850
50300300	PROTECTIVE COAT	SQ YD	2,350	1,000	1,350
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	127.6	50.2	77.4
50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SQ FT	7,550		7,550
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	5,715	5,715	
* 50606701	CLEANING AND PAINTING STRUCTURAL STEEL, LOCATION 1	L SUM	1		1
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	115,890	53,530	62,360
51500100	NAME PLATES	EACH	2	1	1

* INDICATES SPECIALTY ITEM
$ INDICATES CONSTRUCTION CODE 0042 TRAINEES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE: CHERRY ST 80% FED 20% LOCAL 0013 BRIDGE URBAN	CONSTRUCTION CODE: OAK ST 80% FED 20% LOCAL 0013 BRIDGE URBAN
52000110	PREFORMED JOINT STRIP SEAL	FOOT	144	64	80
52100520	ANCHOR BOLTS, 1"	EACH	8	4	4
55100300	STORM SEWER REMOVAL 8"	FOOT	101	17	84
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	122	50	72
60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	8	4	4
60200105	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, OPEN LID	EACH	2		2
60206905	CATCH BASINS, TYPE C, TYPE 1 FRAME, OPEN LID	EACH	1	1	
60234200	INLETS, TYPE A, TYPE 1 FRAME, OPEN LID	EACH	3	1	2
60250200	CATCH BASINS TO BE ADJUSTED	EACH	1	1	
60500050	REMOVING CATCH BASINS	EACH	4	1	3
60500060	REMOVING INLETS	EACH	3	1	2
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	248	128	120
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	188		188
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	2	1	1
* 66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	1.0	0.5	0.5

* INDICATES SPECIALTY ITEM
$ INDICATES CONSTRUCTION CODE 0042 TRAINEES

SUMMARY OF QUANTITIES

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE: CHERRY ST 80% FED 20% LOCAL 0013 BRIDGE URBAN	CONSTRUCTION CODE: OAK ST 80% FED 20% LOCAL 0013 BRIDGE URBAN
*	66901002	ON-SITE MONITORING OF REGULATED SUBSTANCES	CAL DA	28	14	14
*	66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	L SUM	1.0	0.5	0.5
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	6	6
	67100100	MOBILIZATION	L SUM	1.0	0.5	0.5
*	72400500	RELOCATE SIGN PANEL ASSEMBLY - TYPE A	EACH	7	3	4
*	72400710	RELOCATE SIGN PANEL - TYPE 1	SQ FT	16		16
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	80	64	16
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	110		110
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	582	312	270
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	71	19	52
*	78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	1,164	484	680
*	78009006	MODIFIED URETHANE PAVEMENT MARKING - LINE 6"	FOOT	78		78
*	80400100	ELECTRIC SERVICE INSTALLATION	EACH	1		1
*	80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1		1
*	81024050	CONDUIT ENCASED, CONCRETE, 5" DIA., PVC 2 WIDE X 1 HIGH	FOOT	36		36

* INDICATES SPECIALTY ITEM
$ INDICATES CONSTRUCTION CODE 0042 TRAINEES

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE: CHERRY ST 80% FED 20% LOCAL 0013 BRIDGE URBAN	CONSTRUCTION CODE: OAK ST 80% FED 20% LOCAL 0013 BRIDGE URBAN
*	81024100	CONDUIT ENCASED, CONCRETE, 4" DIA., PVC 3 WIDE X 1 HIGH	FOOT	36		36
*	81028340	UNDERGROUND CONDUIT, PVC, 1 1/2" DIA.	FOOT	25		25
*	81028390	UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	228	60	168
*	81028400	UNDERGROUND CONDUIT, PVC, 5" DIA.	FOOT	94	30	64
*	81100510	CONDUIT ATTACHED TO STRUCTURE, 1 1/2" DIA., PVC COATED GALVANIZED STEEL	FOOT	55		55
*	81200220	CONDUIT EMBEDDED IN STRUCTURE, 1 1/2" DIA., PVC	FOOT	400		400
*	81200270	CONDUIT EMBEDDED IN STRUCTURE, 4" DIA., PVC	FOOT	1,320	720	600
*	81200275	CONDUIT EMBEDDED IN STRUCTURE, 5" DIA., PVC	FOOT	660	360	300
*	81300220	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6" X 6" X 4"	EACH	2		2
*	81702100	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 12	FOOT	2,550		2,550
*	82500330	LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240VOLT, 60AMP	EACH	1		1
*	85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1		1
*	88600100	DETECTOR LOOP, TYPE I	FOOT	48		48
*	88600700	PREFORMED DETECTOR LOOP	FOOT	43		43
	87900200	DRILL EXISTING HANDHOLE	EACH	12		12

* INDICATES SPECIALTY ITEM
$ INDICATES CONSTRUCTION CODE 0042 TRAINEES

STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM
LICENSE NO. - 184-001121 - EXPIRES 4/30/2019
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BAXTER & WOODMAN Consulting Engineers

DESIGNED	- JDM	REVISED	-
DRAWN	- UKB	REVISED	-
CHECKED	- DJS	REVISED	-
DATE	- 10-09-18	FILE	- 150754SHT_S00.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: STA. TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	6
•	3050A/3045	CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE: CHERRY ST 80% FED 20% LOCAL — 0013 BRIDGE / URBAN	CONSTRUCTION CODE: OAK ST 80% FED 20% LOCAL — 0013 BRIDGE / URBAN
*	89502376	REBUILD EXISTING HANDHOLE	EACH	4	2	2
*	89502380	REMOVE EXISTING HANDHOLE	EACH	1		1
	Z0004552	APPROACH SLAB REMOVAL	SQ YD	325	150	175
	Z0010400	CLEANING BRIDGE SEATS	SQ FT	580	258	322
	Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	40		40
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1.0	0.5	0.5
	Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	104	52	52
	Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	210	60	150
	Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1.0	0.5	0.5
	Z0056608	STORM SEWER (WATER MAIN REQUIREMENTS) 12 INCH	FOOT	118	42	76
	Z0065704	BITUMINOUS COATED AGGREGATE SLOPEWALL 6"	SQ YD	105	45	60
	Z0073410	TEMPORARY SUPPORT SYSTEM, LOCATION 1	EACH	4	4	
	Z0073420	TEMPORARY SUPPORT SYSTEM, LOCATION 2	EACH	4		4
*	Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1		1
S	Z0076600	TRAINEES	HOUR	500	250	250
S	Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500	250	250
	X0323992	HELICAL GROUND ANCHORS	EACH	20	8	12
*	X0326594	FLEXIBLE LIQUID TIGHT STAINLESS STEEL CONDUIT, 1-1/2" DIAMETER, 6 FOOT LENGTH	EACH	2		2

* INDICATES SPECIALTY ITEM
S INDICATES CONSTRUCTION CODE 0042 TRAINEES

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE: CHERRY ST 80% FED 20% LOCAL — 0013 BRIDGE / URBAN	CONSTRUCTION CODE: OAK ST 80% FED 20% LOCAL — 0013 BRIDGE / URBAN
*	X0327004	TEMPORARY WOOD POLE, 60 FT., CLASS 4	EACH	2		2
	X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	927	800	127
	X1700019	SEGMENTED BLOCK WALL TO BE REMOVED AND REPLACED	SQ FT	30		30
	X4240470	PORTLAND CEMENT CONCRETE SIDEWALK 10 INCH, SPECIAL	SQ FT	633	133	500
	X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	1,500	643	857
	58600101	GRANULAR BACKFILL FOR STRUCTURES	CU YD	185	75	110
	X6026050	SANITARY MANHOLES TO BE ADJUSTED	EACH	3	2	1
*	X6640304	CHAIN LINK FENCE TO BE REMOVED AND RE-ERECTED	FOOT	56	32	24
	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1.0	0.5	0.5
*	X7830070	GROOVING FOR RECESSED PAVEMENT MARKING 5"	FOOT	1,244	548	696
*	X7830074	GROOVING FOR RECESSED PAVEMENT MARKING 7"	FOOT	188		188
*	X7830078	GROOVING FOR RECESSED PAVEMENT MARKING 13"	FOOT	582	312	270
*	X7830090	GROOVING FOR RECESSED PAVEMENT MARKING 25"	FOOT	71	19	52
*	X8250500	LIGHTING UNIT COMPLETE, SPECIAL	EACH	12		12
	XX003067	CONCRETE BRIDGE RAIL (SPECIAL)	FOOT	280		280
	XX004951	CONCRETE STAIRS	L SUM	1		1
	XX006957	CONCRETE STAIRS AND SIDEWALK REMOVAL	L SUM	1		1

* INDICATES SPECIALTY ITEM
S INDICATES CONSTRUCTION CODE 0042 TRAINEES

BAXTER & WOODMAN Consulting Engineers

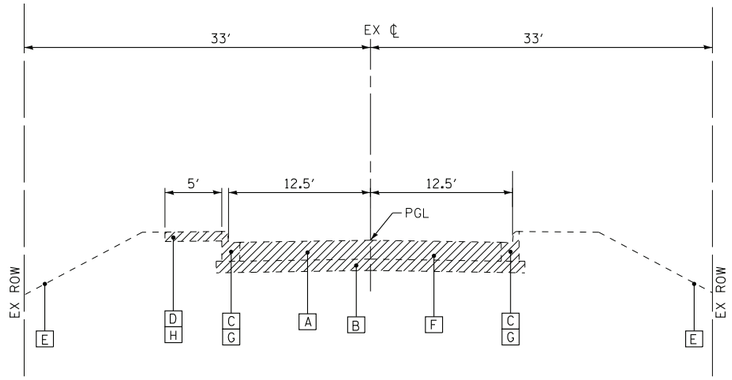
DESIGNED - JDM	REVISED -
DRAWN - UKB	REVISED -
CHECKED - DJS	REVISED -
DATE - 10-09-18	FILE - 150754SHT_S00.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

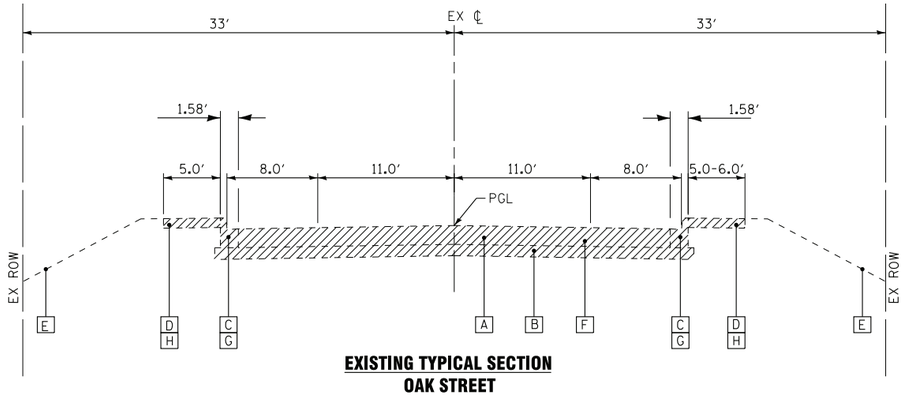
SCALE: STA. TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	7
• 3050A/3045		CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



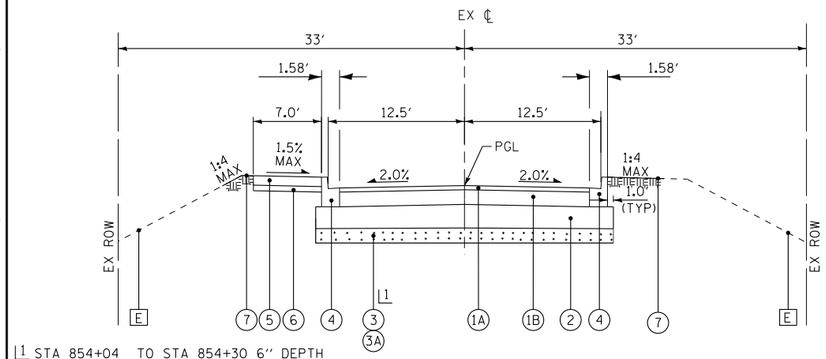
EXISTING TYPICAL SECTION
CHERRY STREET

STA 854+04 TO STA 856+63
(EXISTING BRIDGE OMISSION STA 854+22 TO STA 856+58)



EXISTING TYPICAL SECTION
OAK STREET

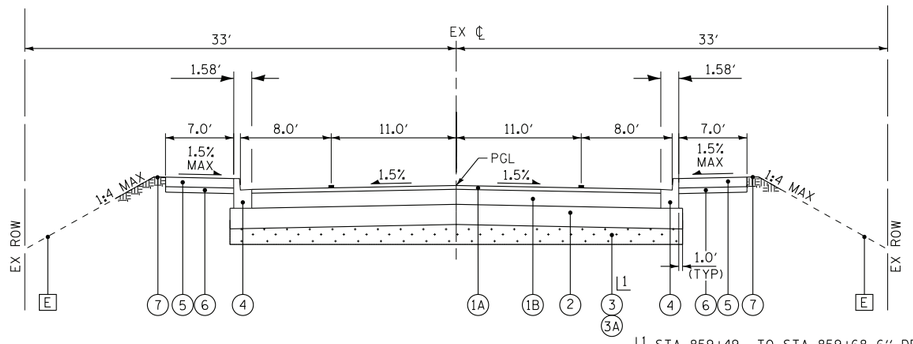
STA 859+49 TO STA 861+70
(EXISTING BRIDGE OMISSION STA 859+75 TO STA 861+53)



[1] STA 854+04 TO STA 854+30 6″ DEPTH
STA 856+45 TO STA 856+63 6″ DEPTH

PROPOSED TYPICAL SECTION
CHERRY STREET

STA 854+04 TO STA 856+63
(PROPOSED BRIDGE OMISSION STA 854+33 TO STA 856+42
SEE STRUCTURAL PLANS)



[1] STA 859+49 TO STA 859+68 6″ DEPTH
STA 861+60 TO STA 861+70 6″ DEPTH

PROPOSED TYPICAL SECTION
OAK STREET

STA 859+49 TO STA 861+70
(PROPOSED BRIDGE OMISSION STA 859+71 TO STA 861+57
SEE STRUCTURAL PLANS)

* AGGREGATE SUBGRADE IMPROVEMENT (ASI) HAS BEEN PROVIDED FOR USE AT THE LOCATIONS INDICATED FOR SOILS THAT TEND TO BE UNSUITABLE OR UNSTABLE. THE ACTUAL NEED FOR REMOVAL AND REPLACEMENT WITH ASI WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE ENGINEER. ALL POTENTIALLY UNSTABLE SOILS SHOULD BE TESTED WITH A STATIC CONE PENETROMETER AND TREATED IN ACCORDANCE WITH ARTICLE 301.04 AND THE UNDERCUT GUIDELINES IN THE IDOT SUBGRADE STABILITY MANUAL. IF UNSTABLE AND/OR UNSUITABLE MATERIAL IS ENCOUNTERED, THE SOIL SHALL BE REMOVED AND REPLACED WITH ASI OR EMBANKMENT AS DETERMINED BY THE ENGINEER. IF UNSTABLE AND/OR UNSUITABLE MATERIAL IS NOT ENCOUNTERED, THEN THE QUANTITY SHALL BE DEDUCTED AND NO ADDITIONAL COMPENSATION WILL BE DUE THE CONTRACTOR. A QUANTITY OF REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL SHALL ALSO BE DEDUCTED WITH NO ADDITIONAL COMPENSATION DUE THE CONTRACTOR. POTENTIAL UNDERCUT LOCATIONS ARE LISTED ON EACH TYPICAL SECTION.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE TYPE	AIR VOIDS @ Ndes
PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL-9.5 mm); 2"	4% @ 50 Gyr.
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50: VARIABLE DEPTH: 5"-13"	4% @ 50 Gyr.

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

EXISTING LEGEND

- A — HMA PAVEMENT 7″
- B — AGGREGATE SUBBASE 10″
- C — COMBINATION CONCRETE CURB AND GUTTER TYPE B-6.12
- D — PCC SIDEWALK
- E — GROUND SURFACE
- F — PAVEMENT REMOVAL
- G — COMBINATION CURB AND GUTTER REMOVAL
- H — SIDEWALK REMOVAL
- ▨ — ITEMS TO BE REMOVED

PROPOSED LEGEND

- (1) PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB
  - (1A) HMA SURFACE COURSE, MIX "D", N50 (IL 9.5mm) - 2″
  - (1B) HMA BINDER COURSE, IL-19.0, N50 - VARIABLE DEPTH: 5″-13″
- (2) AGGREGATE SUBGRADE IMPROVEMENT - 12″
- (3) AGGREGATE SUBGRADE IMPROVEMENT*
- (3A) GEOTECHNICAL FABRIC FOR GROUND STABILIZATION*
- (4) COMBINATION CONCRETE CURB AND GUTTER TYPE B-6.12 (FLAG VARIES 9″-15″)
- (5) PORTLAND CEMENT CONCRETE SIDEWALK - 5″
- (6) AGGREGATE BASE COURSE TYPE B - 4″
- (7) TOPSOIL FURNISH AND PLACE, 4″ AND SODDING, SALT TOLERANT

STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM
LICENSE NO. - 184-00121 - EXPIRES 4/30/2019
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BAXTER & WOODMAN Consulting Engineers

DESIGNED	- JDM	REVISED	-
DRAWN	- UKB	REVISED	-
CHECKED	- DJS	REVISED	-
DATE	- 10-09-18	FILE	- 150754SHT_TypSec.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS AND HOT-MIX ASPHALT MIXTURE REQUIREMENTS

SCALE: NONE STA. TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	8
•	3050A/3045	CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

EARTHWORK

LOCATION	UNDERCUT (CU YD)	UNSUITABLE EXCAVATION (TOPSOIL) (CU YD)	REMOVAL & DISPOSAL OF UNSUITABLE MATERIAL (CU YD)	EARTH EXCAVATION (CU YD)	UTILITY EXCAVATION (CU YD)	STRUCTURE EXCAVATION (CU YD)	TOTAL SUITABLE EXCAVATION (CU YD)	EXCAVATION TO BE USED IN EMBANKMENT (15% SHRINKAGE) (CU YD)	EMBANKMENT (CU YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)
CHERRY STREET	87	12	99	100	-	227	327	278	-	278
OAK STREET	77	8	85	96	-	255	351	299	-	299
TOTAL	164	20	184	196	-	482	678	577	-	577

BAXTER & WOODMAN Consulting Engineers

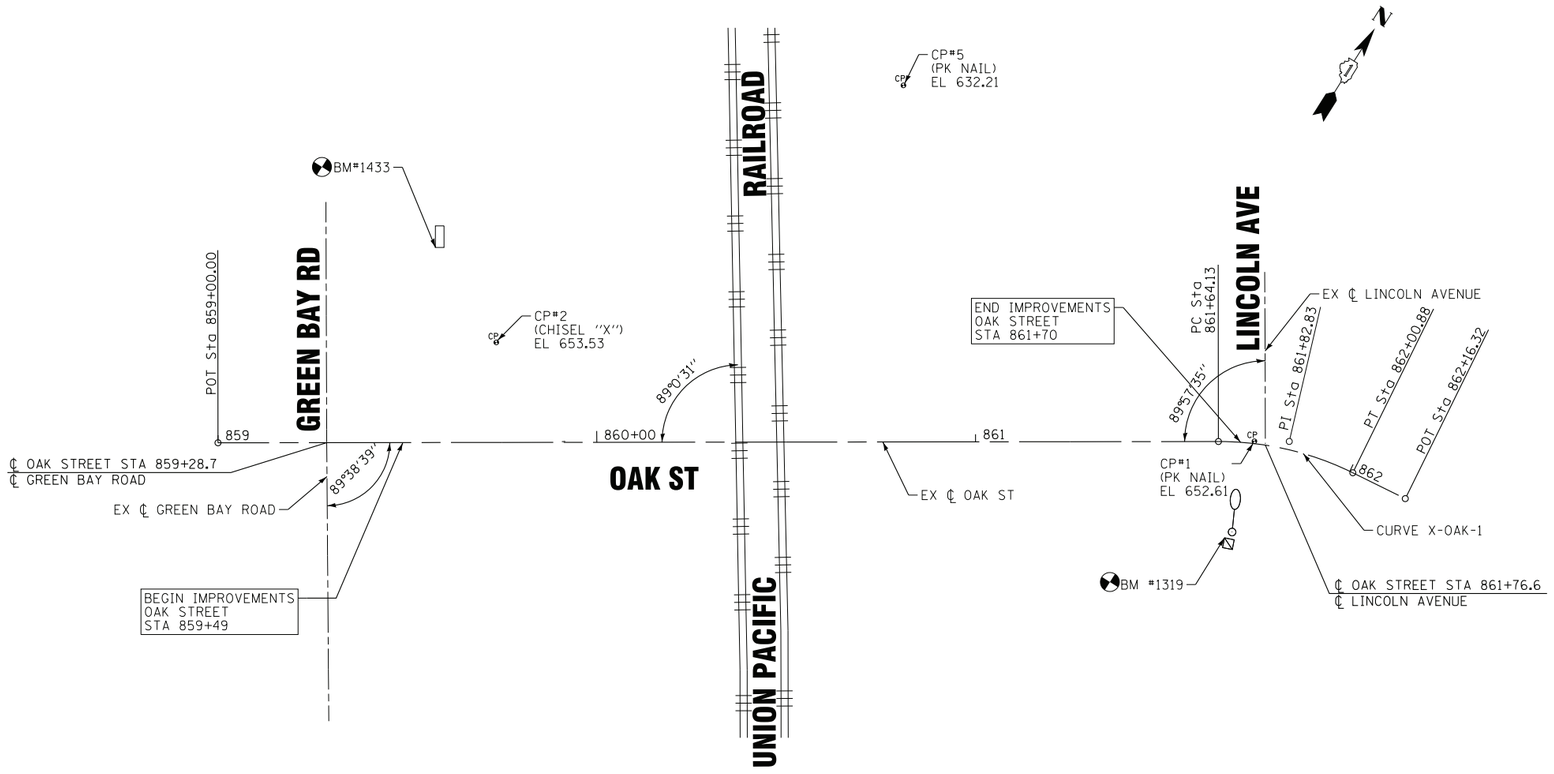
DESIGNED - JDM	REVISED -	
DRAWN - UKB	REVISED -	
CHECKED - DJS	REVISED -	
DATE - 10-09-18	FILE - 150754SHT_Schedules.dgn	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULES

SCALE: NONE | STA. | TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	9
• 3050A/3045		CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



Beginning chain X-OAK description

Point 1	N	1,981,114.03	E	1,147,331.74	Sta 859+00

Course from 1 to PC X-OAK-1 N 57° 38′ 31″ E Dist 264.13

Curve Data

Curve X-OAK-1				
P.I. Station	861+83	N 1,981,265.40	E	1,147,570.65
Delta =	26° 18′ 56″ (RT)			
Degree =	71° 37′ 11″			
Tangent =	18.70			
Length =	36.74			
Radius =	80.00			
External =	2.16			
Long Chord =	36.42			
Mid. Ord. =	2.10			
P.C. Station	861+64	N 1,981,255.40	E	1,147,554.86
P.T. Station	862+01	N 1,981,267.37	E	1,147,589.25
C.C.		N 1,981,187.82	E	1,147,597.67
Back	= N 57° 38′ 31″ E			
Ahead	= N 83° 57′ 27″ E			
Chord Bear	= N 70° 47′ 59″ E			

Course from PT X-OAK-1 to 2 N 83° 57′ 27″ E Dist 15.44

Point 2	N	1,981,269.00	E	1,147,604.61	Sta 862+16

Ending chain X-OAK description

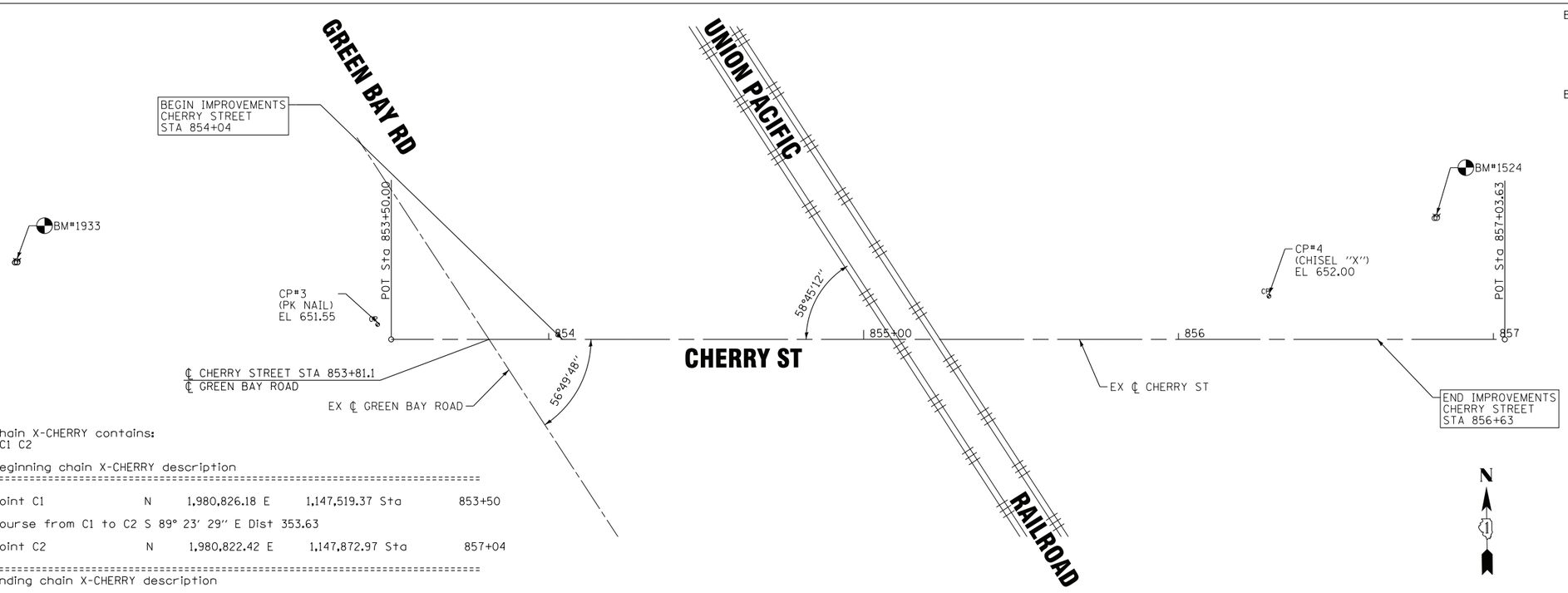
BENCHMARK LIST

BM#1319 "X" ON NORTHWEST CORNER OF STREET LIGHT HANDHOLE ON THE SOUTH SIDE OF OAK STREET AT LINCOLN AVE
ELEV 652.81
NORTHING = 1981234.963
EASTING = 1147569.706
STA 861+66.5, 25.2′ RT

BM#1433 CHISEL SQUARE ON SOUTHWEST CORNER OF CONCRETE PAD FOR TRAFFIC SIGNAL CONTROL BOX AT NORTHEAST CORNER OF OAK STREET AND GREEN BAY ROAD
ELEV 653.42
NORTHING = 1981188.284
EASTING = 1147352.748
STA 859+57.5, 51.5′ RT

BM#1524 FIRE HYDRANT WEST SOUTHWEST ARROW BONNET BOLT AT 687 CHERRY STREET.
ELEV = 650.38
NORTHING = 1980861.518
EASTING = 1147851.742
STA 856+82.0, 38.9′ LT

BM#1933 FIRE HYDRANT NORTH NORTHWEST ARROW BONNET BOLT ON NORTH SIDE OF CHERRY STREET AT RIDGE AVENUE JUST WEST OF GREEN BAY ROAD.
ELEV 653.44
NORTHING = 1980851.671
EASTING = 1147404.833



Chain X-CHERRY contains:
C1 C2

Beginning chain X-CHERRY description

Point C1	N	1,980,826.18	E	1,147,519.37	Sta 853+50

Course from C1 to C2 S 89° 23′ 29″ E Dist 353.63

Point C2	N	1,980,822.42	E	1,147,872.97	Sta 857+04

Ending chain X-CHERRY description

BAXTER & WOODMAN Consulting Engineers

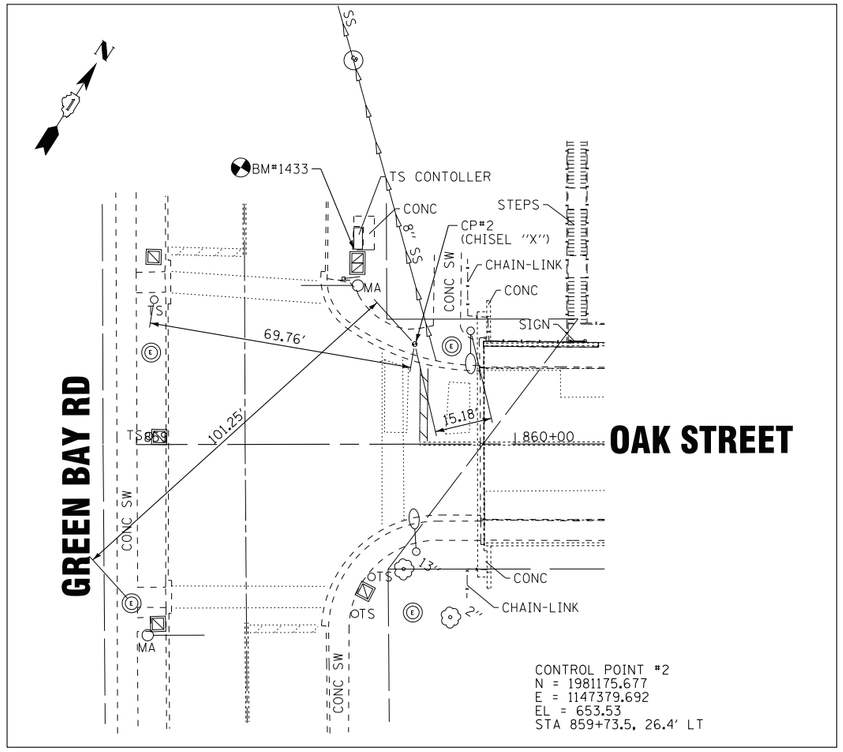
DESIGNED - DJS	REVISED -		
DRAWN - UKB	REVISED -		
CHECKED - DJS	REVISED -		
DATE - 10-09-18	FILE - 150754SHT_Align-Ties-Bm.dgn		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

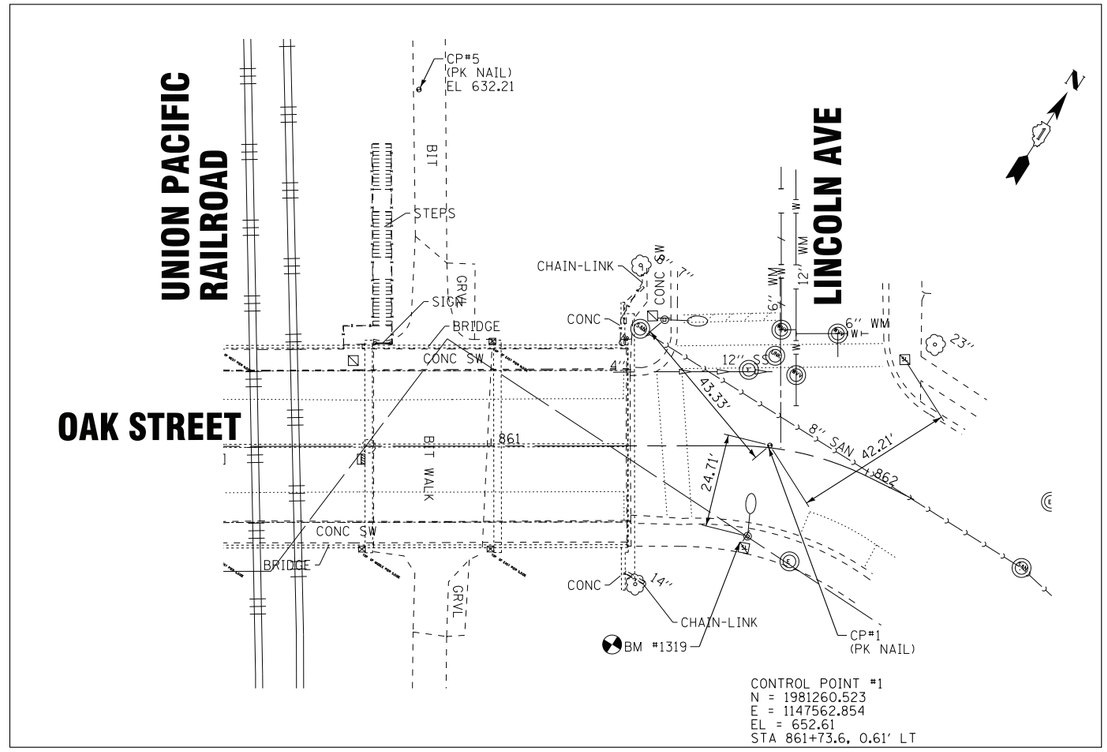
ALIGNMENT AND TIES AND BENCHMARKS

SCALE: 1″ = 20′ STA. TO STA.

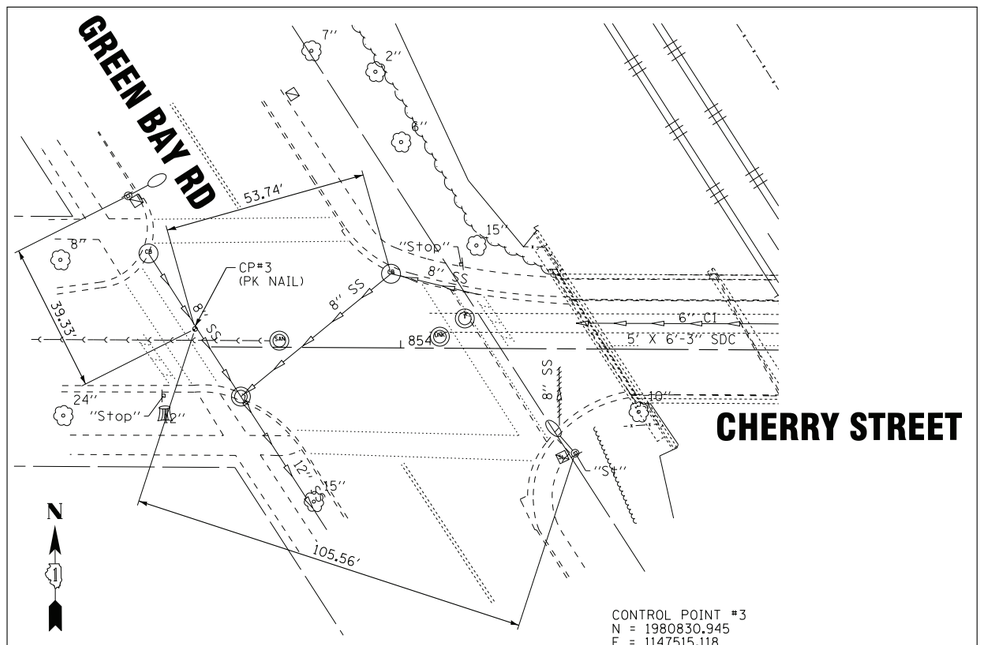
MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	10
• 3050A/3045		CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



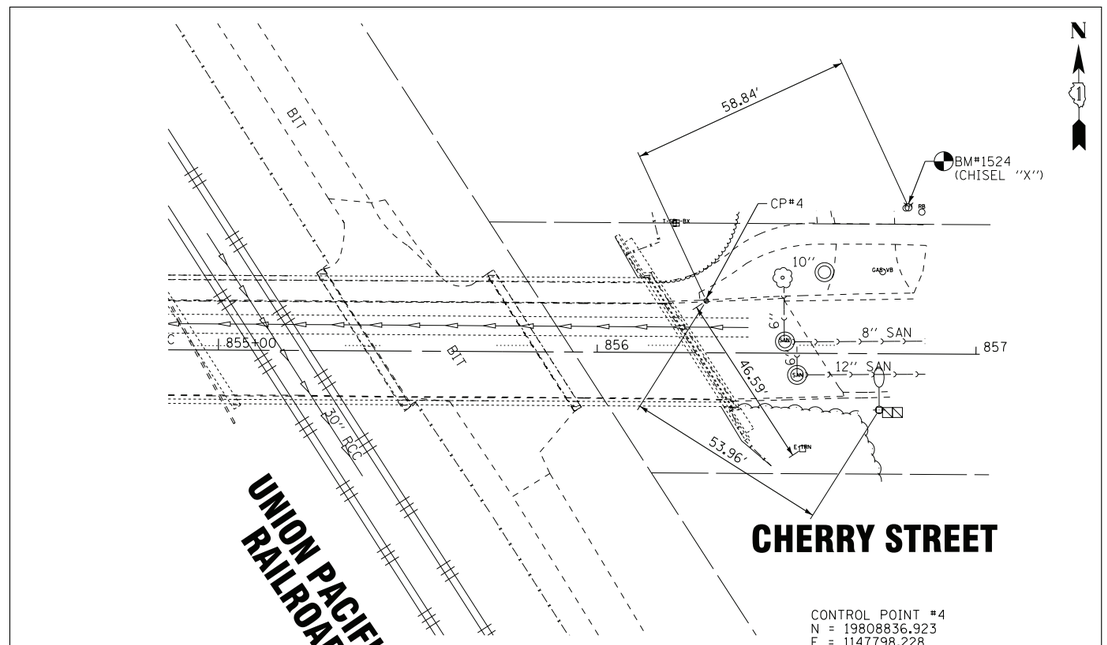
CONTROL POINT #2
N = 1981175.677
E = 1147379.692
EL = 653.53
STA 859+73.5, 26.4' LT



CONTROL POINT #1
N = 1981260.523
E = 1147562.854
EL = 652.61
STA 861+73.6, 0.61' LT



CONTROL POINT #3
N = 1980830.945
E = 1147515.118
EL = 651.55
STA 853+50.0, 4.7' LT



CONTROL POINT #4
N = 19808836.923
E = 1147798.228
EL = 652.00
STA 856+28.7, 13.7' LT

STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM
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642jdm 11/9/2018

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BAXTER & WOODMAN Consulting Engineers

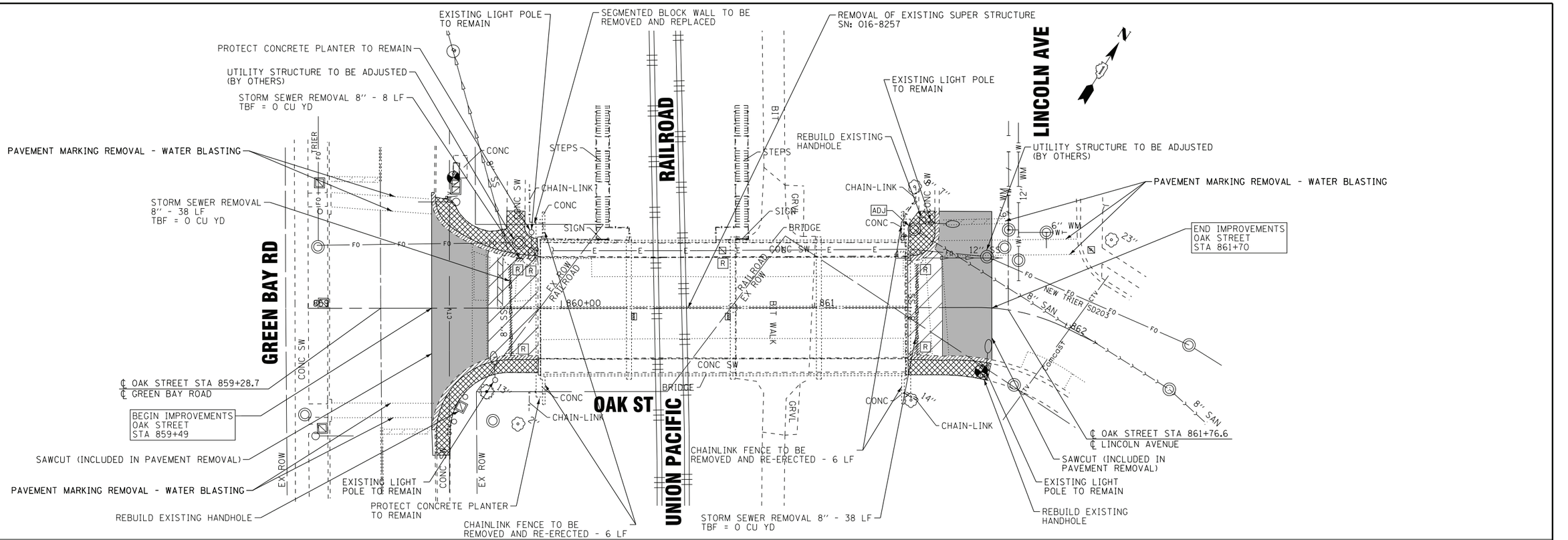
DESIGNED	- DJS	REVISED	-
DRAWN	- UKB	REVISED	-
CHECKED	- DJS	REVISED	-
DATE	- 10-09-18	FILE	- 150754SHT_Align-Ties-Bm.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALIGNMENT AND TIES AND BENCHMARKS

SCALE: 1" = 20' | STA. | TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	11
• 3050A/3045		CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



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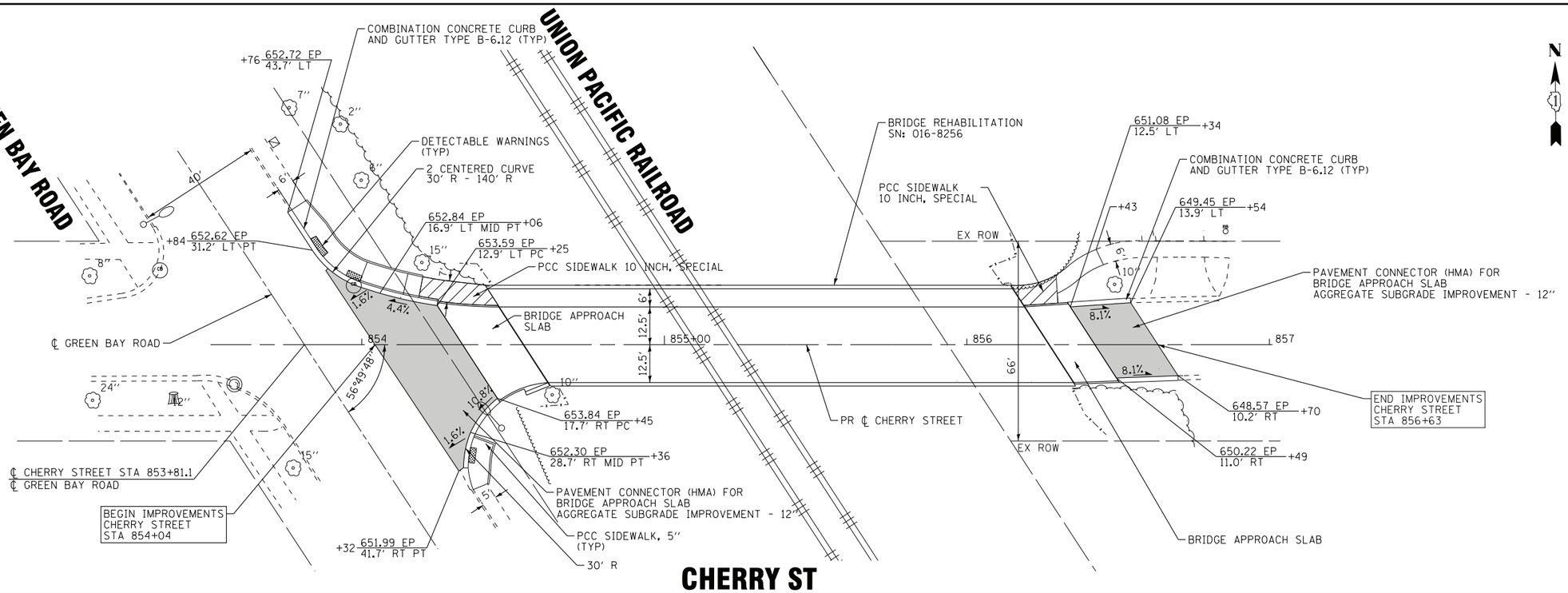
DRAWN	- UKB	REVISED	-
CHECKED	- DJS	REVISED	-
DATE	- 10-09-18	FILE	- 150754SHT_Removal.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

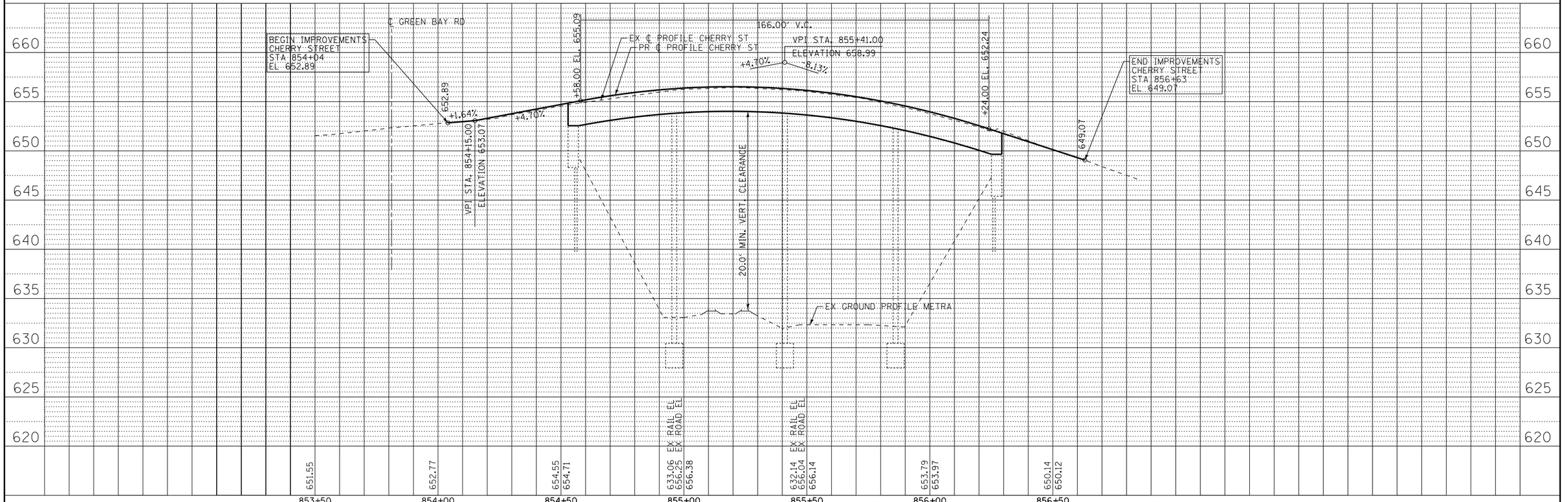
EXISTING CONDITIONS AND REMOVAL PLAN

SCALE: 1" = 20' STA. TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	12
• 3050A/3045		CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



CHERRY ST



BAXTER & WOODMAN Consulting Engineers	DESIGNED - JDM	REVISED -	
	DRAWN - UKB	REVISED -	
	CHECKED - DJS	REVISED -	
	DATE - 10-09-18	FILE - 150754SHT_PP_Cherry.dgn	

STATE OF ILLINOIS
DEPARMTENT OF TRANSPORTATION

PLAN & PROFILE
CHERRY STREET

SCALE: H: 1"=20' V: 1"=5' | STA. | TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	13
• 3050A/3045		CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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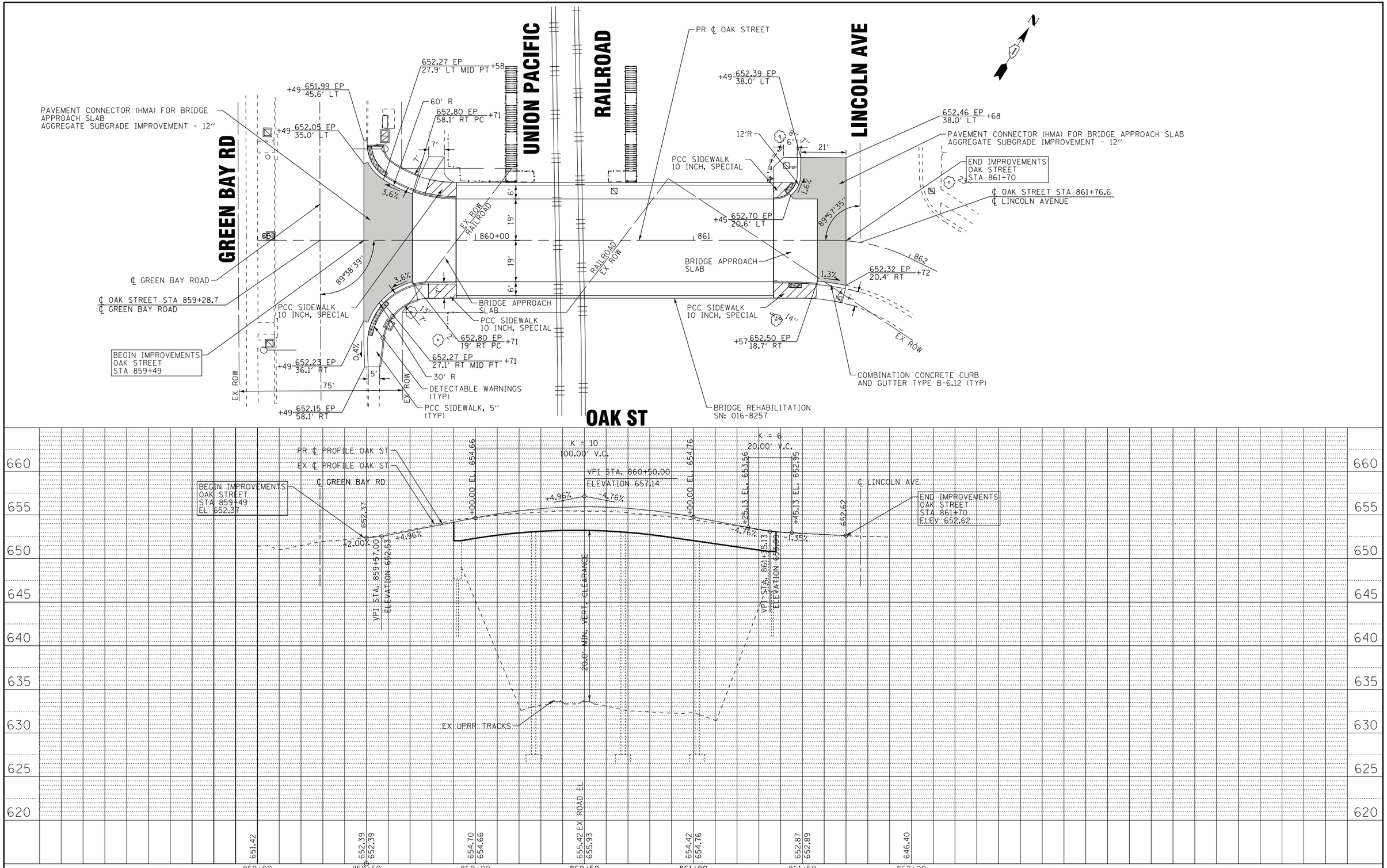

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BAXTER & WOODMAN Consulting Engineers

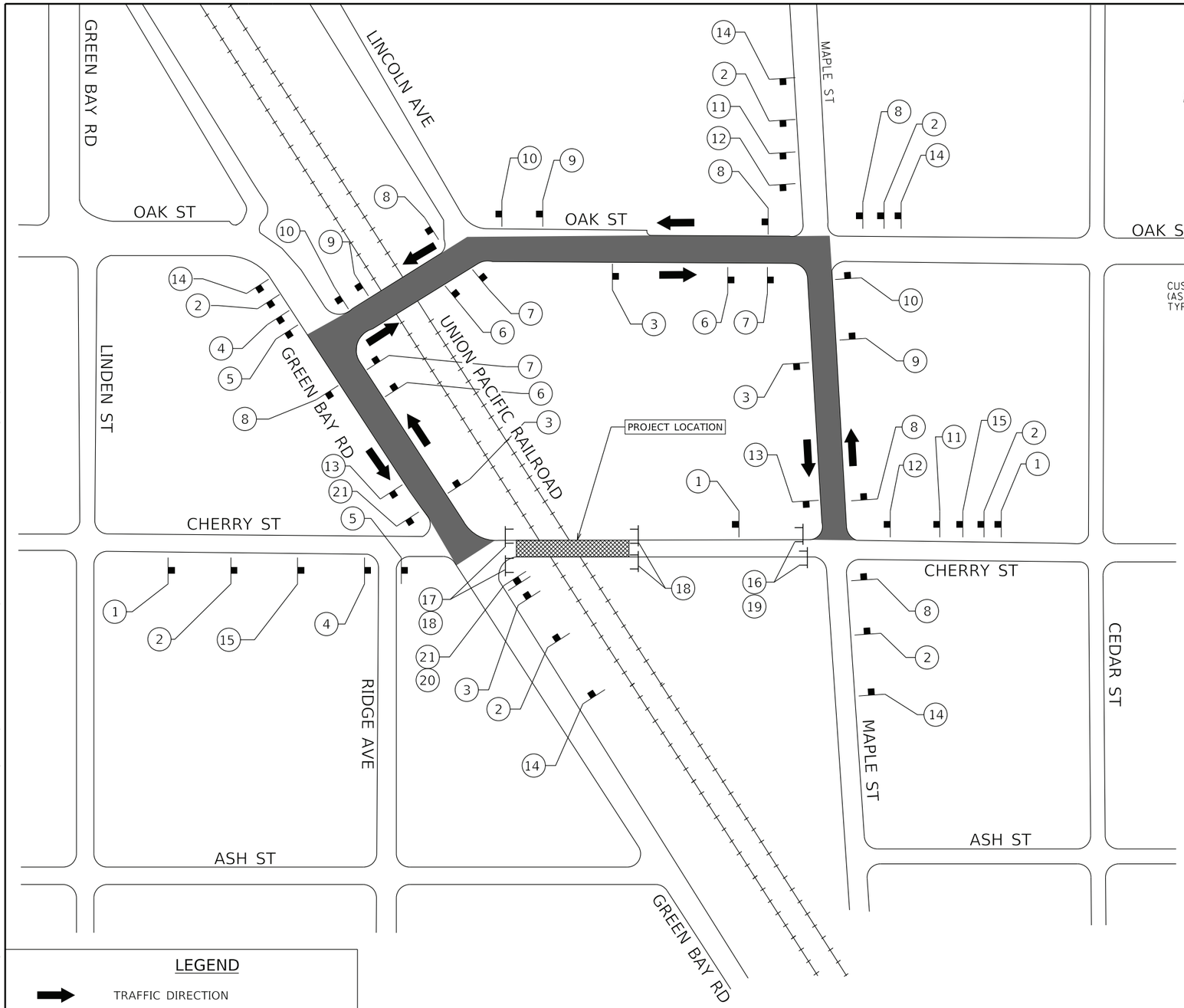
DESIGNED	- JDM	REVISED	-
DRAWN	- UKB	REVISED	-
CHECKED	- DJS	REVISED	-
DATE	- 10-09-18	FILE	- 150754SHT_PP_Oak.dgn

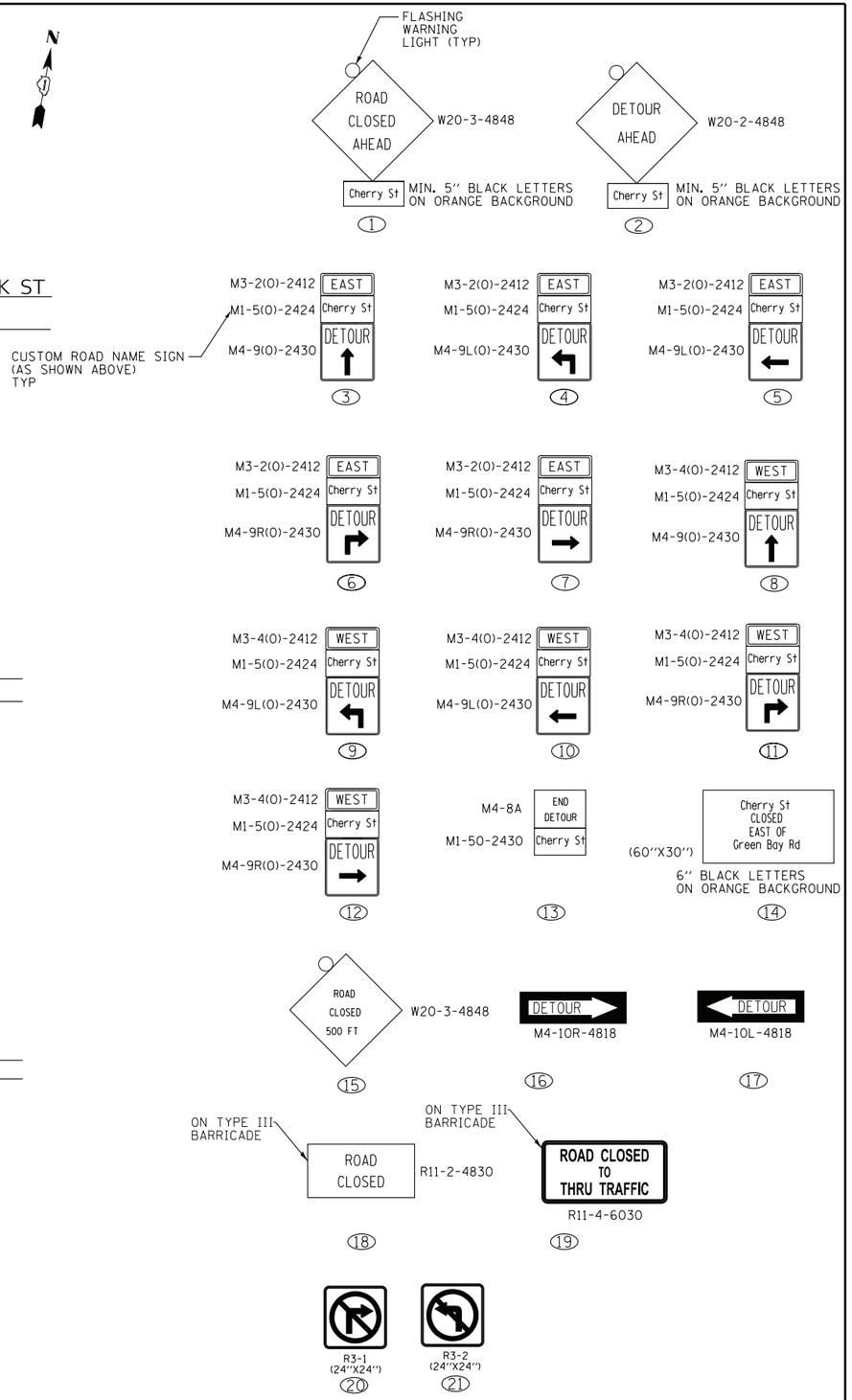
STATE OF ILLINOIS
DEPARMTENT OF TRANSPORTATION

PLAN & PROFILE
OAK STREET

SCALE: H: 1"=20' V: 1"=5' STA. TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	14
• 3050A/3045		CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		





LEGEND

- TRAFFIC DIRECTION
- DETOUR ROUTE
- SIGN
- TYPE III BARRICADE WITH HIGH INTENSITY WARNING LIGHTS
- WORK AREA/ ROAD CLOSURE

STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM
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BAXTER & WOODMAN Consulting Engineers

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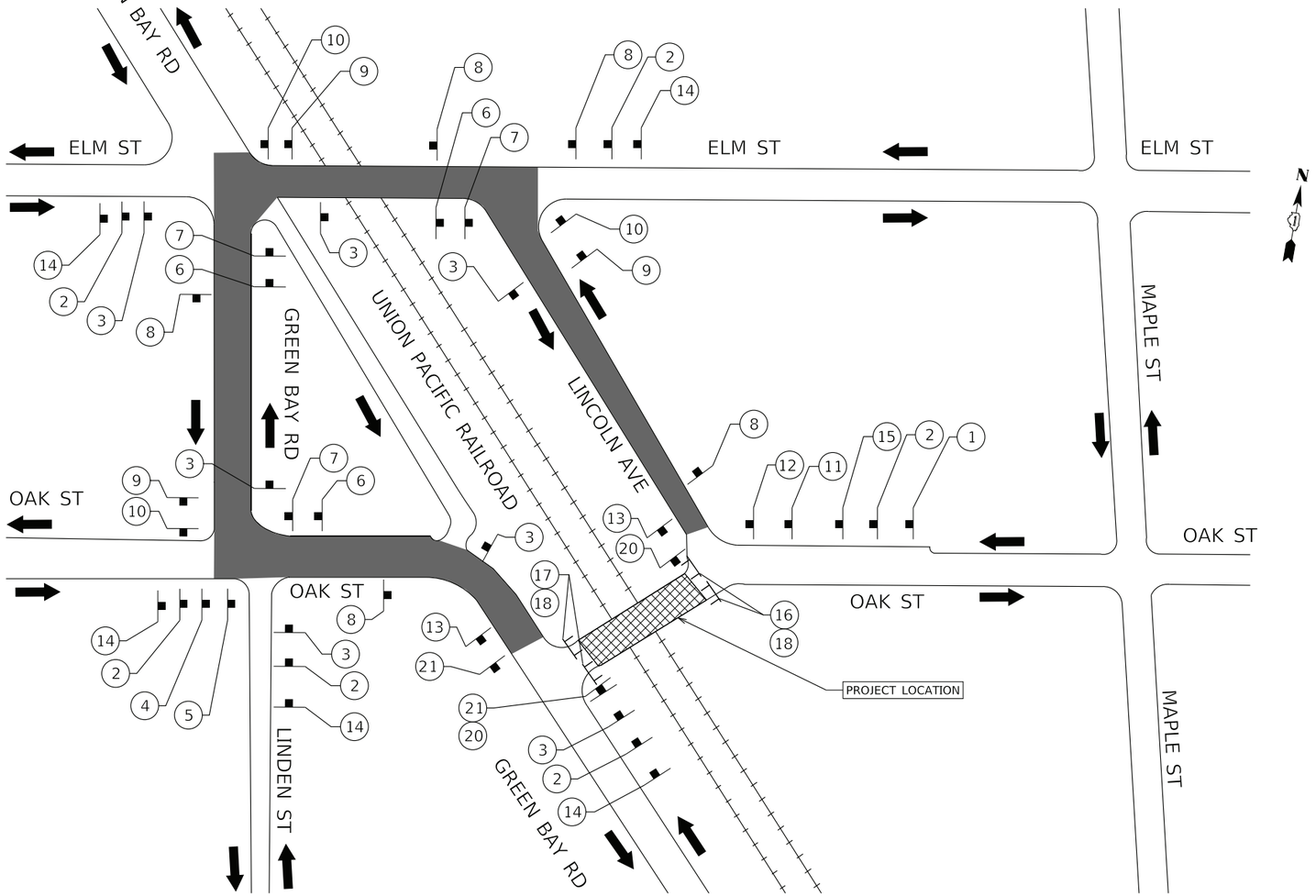
DRAWN	- UKB	REVISED	-
CHECKED	- DJS	REVISED	-
DATE	- 10-09-18	FILE	- 150754SHT_MOT_CherrySt.dgn

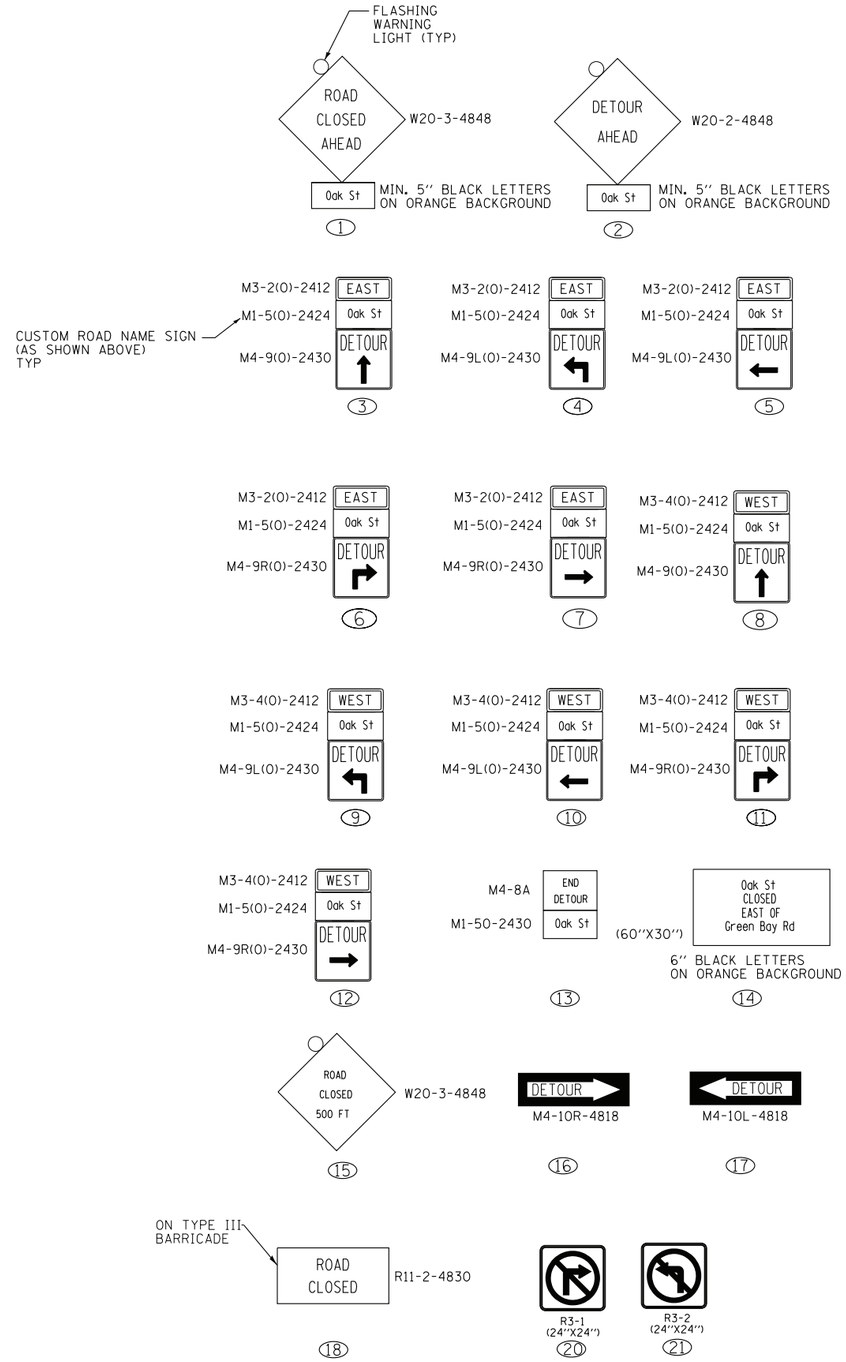
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED MAINTENANCE OF TRAFFIC AND DETOUR PLAN STAGE 1 – CHERRY STREET

SCALE: NONE | STA. | TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	15
•	3050A/3045	CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		





LEGEND

- TRAFFIC DIRECTION
- DETOUR ROUTE
- SIGN
- TYPE III BARRICADE WITH HIGH INTENSITY WARNING LIGHTS
- WORK AREA/ ROAD CLOSURE

STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM
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BAXTER & WOODMAN Consulting Engineers

DESIGNED - DJS	REVISED -	
DRAWN - UKB	REVISED -	
CHECKED - DJS	REVISED -	
DATE - 10-09-18	FILE - 150754SHT_MOT_OAK.dgn	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

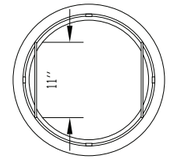
SUGGESTED MAINTENANCE OF TRAFFIC AND DETOUR PLAN STAGE 2 – OAK STREET

SCALE: NONE | STA. | TO STA.

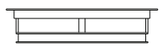
MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	16
• 3050A/3045		CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SOIL EROSION AND SEDIMENT CONTROL NOTES

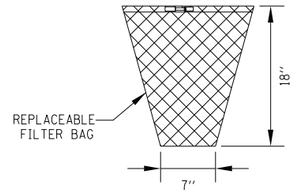
1. ALL AREAS LOCATED DOWNSTREAM FROM DISTURBED AREAS OF CONSTRUCTION SHALL BE PROTECTED FROM POTENTIAL INCREASE OF EROSION AND SEDIMENTATION RESULTING FROM UPSTREAM ACTIVITIES.
2. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. IF STRIPPING, CLEARING, GRADING, OR LANDSCAPING ARE TO BE DONE IN PHASES, THE PERMITTEE SHALL PLAN FOR APPROPRIATE SOIL EROSION AND SEDIMENT CONTROL MEASURES.
3. SOIL EROSION AND SEDIMENT CONTROL FEATURES SHALL BE CONSTRUCTED AND FUNCTIONAL PRIOR TO THE START OF DISTURBANCE.
4. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED; BUT IN NO CASE SHALL THESE MEASURES BE INSTALLED MORE THAN 7 DAYS AFTER THE CONSTRUCTION IN THIS AREA TEMPORARILY OR PERMANENTLY CEASES.
5. INLET FILTERS SHALL BE INSTALLED AND MAINTAINED AT ALL OPEN LID STORM SEWER STRUCTURES (EXISTING AND PROPOSED).
6. SLOPES STEEPER THAN 3H:1V SHALL BE STABILIZED WITH APPROPRIATE MEASURES AS APPROVED BY THE ENGINEER.
7. REPAIR, REPLACE, OR MAINTAIN EROSION AND SEDIMENT CONTROL STRUCTURES AFTER A RAINFALL EVENT OF ½ INCH OR MORE OVER A 24 HOUR PERIOD AND ON A BI-WEEKLY BASIS AS A MINIMUM.
8. ALL TEMPORARY SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.
9. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, ENFORCEMENT OFFICER, OR OTHER GOVERNING AGENCY.
10. IF THE CONTRACTOR IS NOTIFIED BY THE ENGINEER OF AN EROSION AND SEDIMENT CONTROL DEFICIENCY, THE DEFICIENCY MUST BE CORRECTED WITHIN 24 HOURS OF BEING NOTIFIED.



PLAN



SECTION



GENERAL NOTES:

FRAME: TOP RING CONSTRUCTED FROM 1 1/4'' x 1 1/4'' x 1/8'' ANGLE. BASE RING CONSTRUCTED OF 1 1/2'' x 1/2'' x 1/8'' CHANNEL. HANDLES & SUSPENSION BRACKETS CONSTRUCTED FROM 1/4'' x 1 1/4'' FLAT. ALL STEEL CONFORMING TO ASTM-A36.

REPLACEABLE BAG: CONSTRUCTED FROM 4 OZ./SQ. YD. NON-WOVEN POLYPROPYLENE GEOTEXTILE REINFORCED WITH POLYESTER MESH. CONNECTED TO BASE RING WITH STAINLESS STEEL STRAP & LOCK.

INLET FILTER

NO SCALE

BAXTER & WOODMAN Consulting Engineers

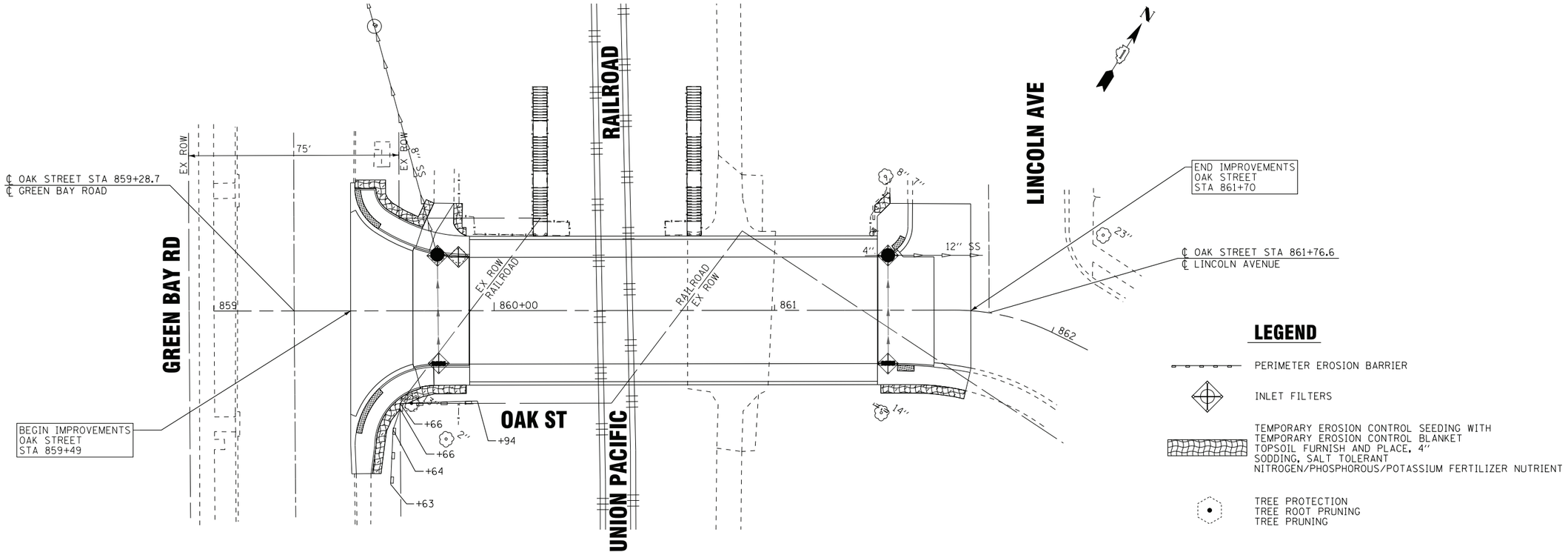
DESIGNED - JDM	REVISED -	
DRAWN - UKB	REVISED -	
CHECKED - DJS	REVISED -	
DATE - 10-09-18	FILE - 150754SHT_ErosNtes.dgn	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL NOTES AND DETAIL

SCALE: STA. TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	17
• 3050A/3045		CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM
LICENSE NO. - 184-001121 - EXPIRES 4/30/2019
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CHECKED	- DJS	REVISED	-
DATE	- 10-09-18	FILE	- 150754SHT_Erosion.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

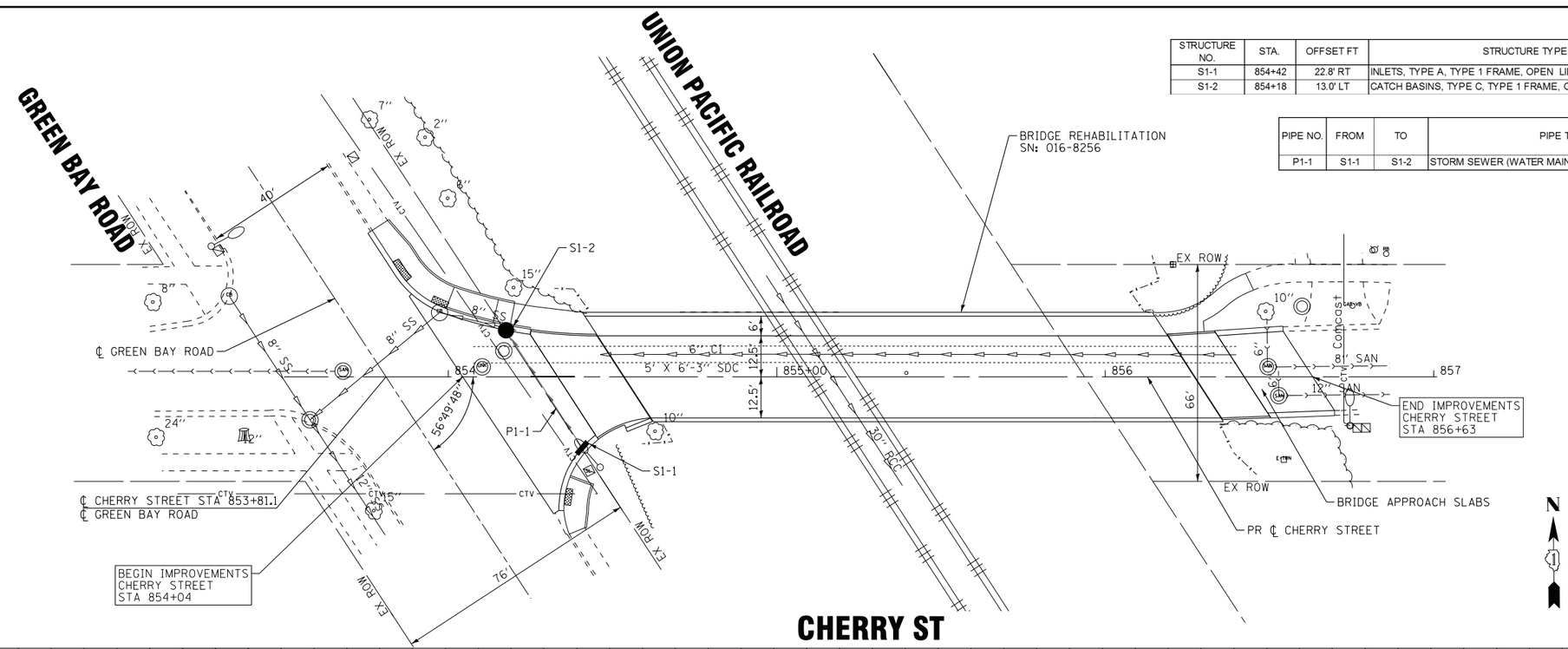
EROSION CONTROL PLAN

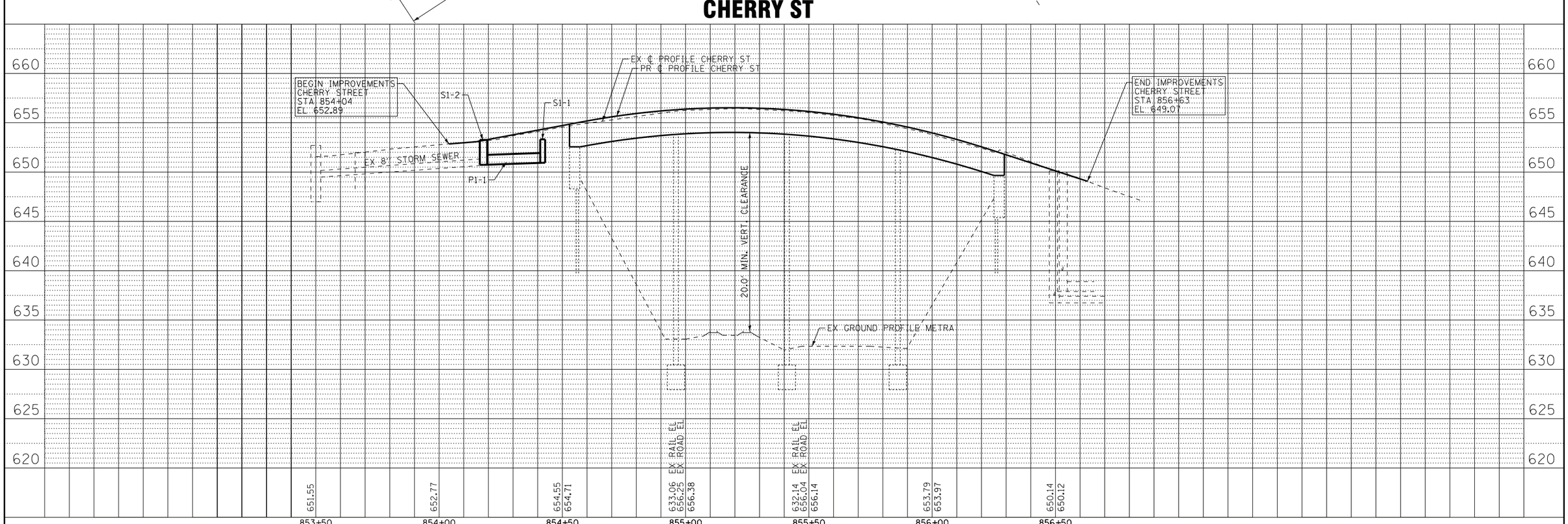
SCALE: 1" = 20' | STA. | TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	18
•	3050A/3045	CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

STRUCTURE NO.	STA.	OFFSET FT	STRUCTURE TYPE	RIM/EOP	INVERTS	
S1-1	854+42	22.8' RT	INLETS, TYPE A, TYPE 1 FRAME, OPEN LID	653.32	650.94 12" N	
S1-2	854+18	13.0' LT	CATCH BASINS, TYPE C, TYPE 1 FRAME, OPEN LID	653.26	650.73 EX 8" W	650.73 12" S

PIPE NO.	FROM	TO	PIPE TYPE	LENGTH FT	SLOPE %	TRENCH BACKFILL CU YD
P1-1	S1-1	S1-2	STORM SEWER (WATER MAIN REQUIREMENTS) 12 INCH	42	0.50%	8.4





BAXTER & WOODMAN Consulting Engineers

DESIGNED	- JDM	REVISED	-
DRAWN	- UKB	REVISED	-
CHECKED	- DJS	REVISED	-
DATE	- 10-09-18	FILE	- 150754SHT_DU_Cherry.dgn

STATE OF ILLINOIS
DEPARMTENT OF TRANSPORTATION

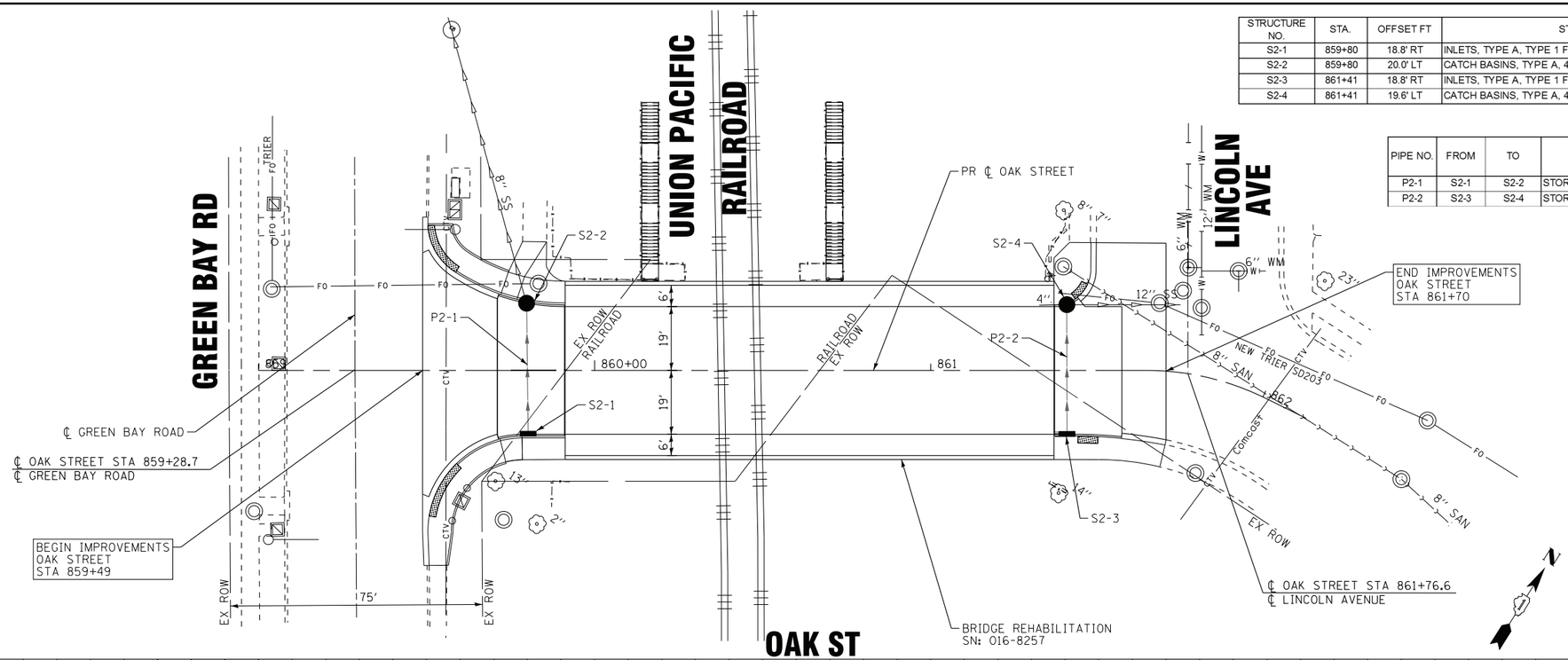
DRAINAGE AND UTILITIES
CHERRY STREET

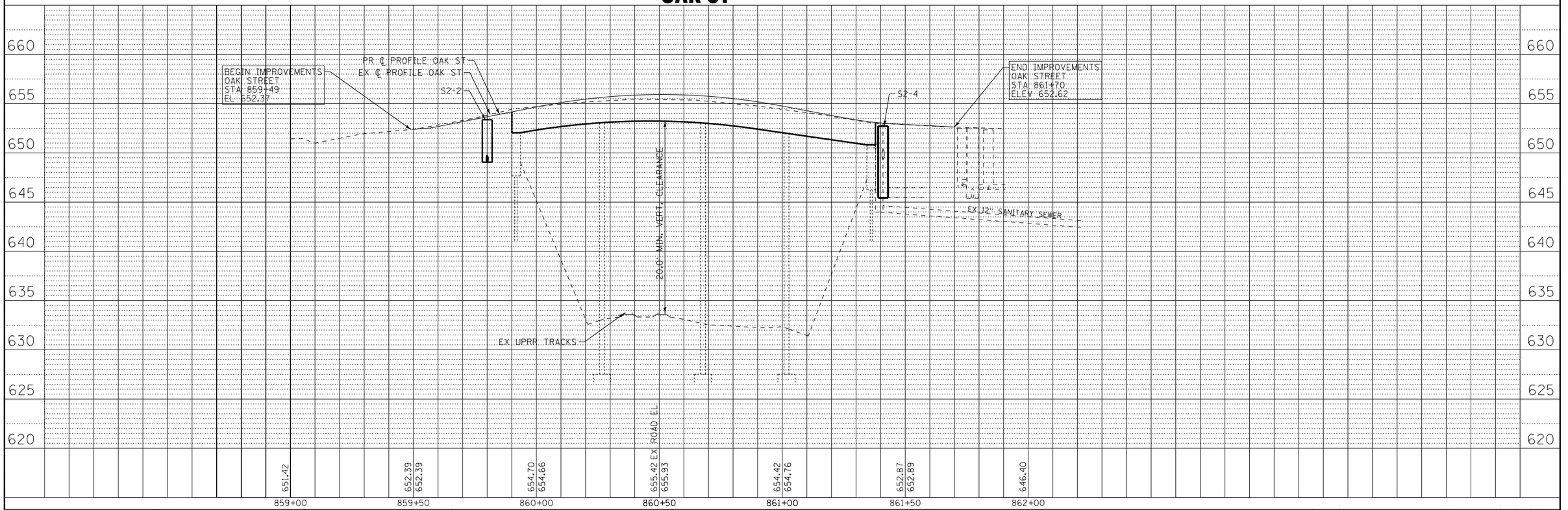
SCALE: H: 1"=20' V: 1"=5' STA. TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	19
• 3050A/3045		CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

STRUCTURE NO.	STA.	OFFSET FT	STRUCTURE TYPE	RIM/EOP	INVERTS	
S2-1	859+80	18.8' RT	INLETS, TYPE A, TYPE 1 FRAME, OPEN LID	653.39	649.52 12" NW	
S2-2	859+80	20.0' LT	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, OPEN LID	653.37	649.14 EX 8" NW	649.14 12" SE
S2-3	861+41	18.8' RT	INLETS, TYPE A, TYPE 1 FRAME, OPEN LID	652.72	649.72 12" NW	
S2-4	861+41	19.6' LT	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, OPEN LID	652.72	645.44 EX 12" NE	649.34 12" SE

PIPE NO.	FROM	TO	PIPE TYPE	LENGTH FT	SLOPE %	TRENCH BACKFILL CU YD
P2-1	S2-1	S2-2	STORM SEWER (WATER MAIN REQUIREMENTS) 12 INCH	33	1.00%	11.4
P2-2	S2-3	S2-4	STORM SEWER (WATER MAIN REQUIREMENTS) 12 INCH	33	1.00%	10.6





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LICENSE NO. - 184-00121 - EXPIRES 4/30/2017
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DRAWN - UKB	REVISED -
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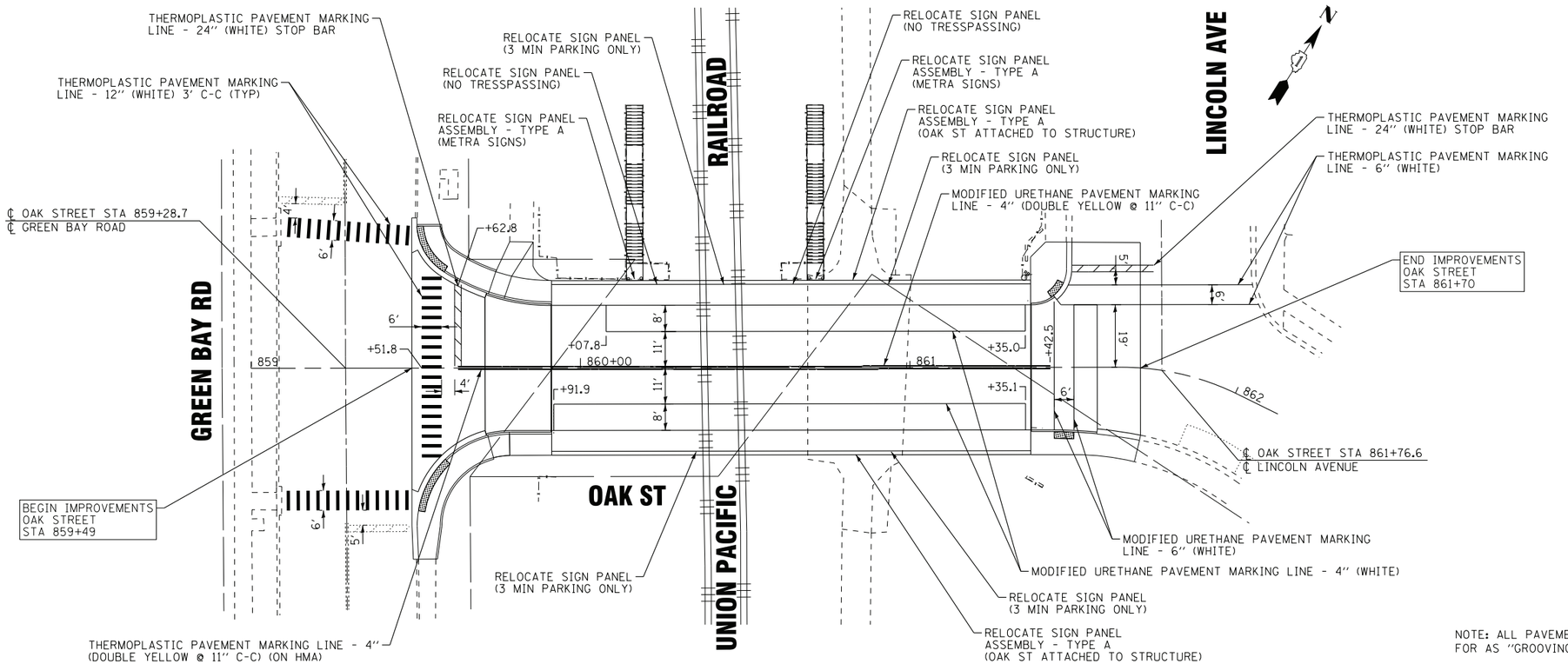
DATE - 10-09-18	FILE - 150754SHT_DU_Oak.dgn

STATE OF ILLINOIS
DEPARMTENT OF TRANSPORTATION

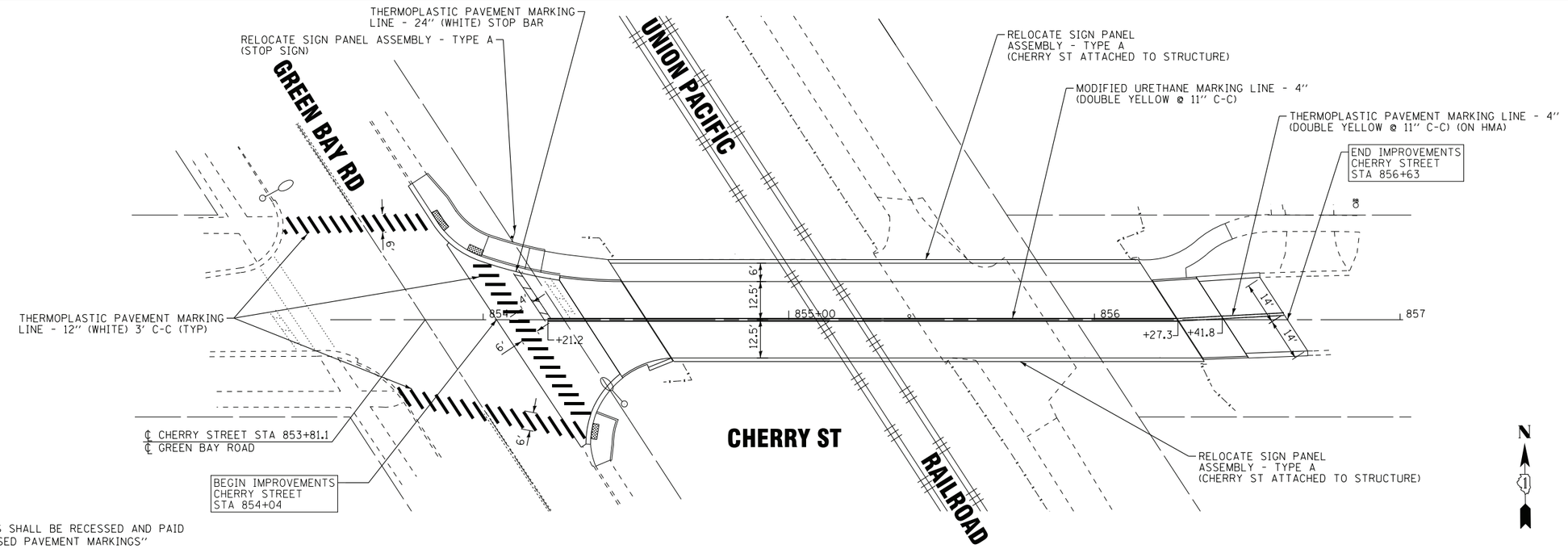
DRAINAGE AND UTILITIES
OAK STREET

SCALE: H: 1"=20' V: 1"=5' STA. TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	20
• 3050A/3045		CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



NOTE: ALL PAVEMENT MARKINGS SHALL BE RECESSED AND PAID FOR AS "GROOVING FOR RECESSED PAVEMENT MARKINGS"



NOTE: ALL PAVEMENT MARKINGS SHALL BE RECESSED AND PAID FOR AS "GROOVING FOR RECESSED PAVEMENT MARKINGS"

BAXTER & WOODMAN Consulting Engineers	DESIGNED - JDM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT MARKING AND SIGNAGE PLAN	
	DRAWN - UKB	REVISED -			
	CHECKED - DJS	REVISED -		SCALE:1" = 20'	STA. TO STA.
	DATE - 10-09-18	FILE - 150754SHT_Pmk.dgn			

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	21
• 3050A/3045		CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

TRAFFIC SIGNAL LEGEND

(NOT TO SCALE)

ITEM	EXISTING	PROPOSED
CONTROLLER CABINET		
COMMUNICATION CABINET	ECC	CC
MASTER CONTROLLER	EMC	MC
MASTER MASTER CONTROLLER	EMMC	MMC
UNINTERRUPTABLE POWER SUPPLY		
SERVICE INSTALLATION -(P) POLE MOUNTED	P	P
SERVICE INSTALLATION -(G) GROUND MOUNTED -(GM) GROUND MOUNTED METERED	G GM	G GM
TELEPHONE CONNECTION	ET	T
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE		
SIGNAL POST -(BM) BARREL MOUNTED - TEMPORARY		BM
WOOD POLE		
GUY WIRE		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED	P P	P P
FLASHER INSTALLATION -(FS) SOLAR POWERED	F FS F FS	F FS F FS
PEDESTRIAN SIGNAL HEAD		
PEDESTRIAN PUSH BUTTON -(APS) ACCESSIBLE PEDESTRIAN PUSH BUTTON	APS	APS
RADAR DETECTION SENSOR	R	R
VIDEO DETECTION CAMERA	V	V
RADAR/VIDEO DETECTION ZONE		
PAN, TILT, ZOOM (PTZ) CAMERA	PTZ	PTZ
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIMATION BEACON		
WIRELESS INTERCONNECT		
WIRELESS INTERCONNECT RADIO REPEATER	ERR	RR

ITEM	EXISTING	PROPOSED
HANDHOLE -SQUARE -ROUND		
HEAVY DUTY HANDHOLE -SQUARE -ROUND	H	H
DOUBLE HANDHOLE		
JUNCTION BOX		
RAILROAD CANTILEVER MAST ARM		
RAILROAD FLASHING SIGNAL		
RAILROAD CROSSING GATE		
RAILROAD CROSSBUCK		
RAILROAD CONTROLLER CABINET	RXR	RXR
UNDERGROUND CONDUIT (UC), GALVANIZED STEEL		
TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE		
SYSTEM ITEM	S	SP
INTERSECTION ITEM	I	IP
REMOVE ITEM		R
RELOCATE ITEM		RL
ABANDON ITEM		A
CONTROLLER CABINET AND FOUNDATION TO BE REMOVED		RCF
MAST ARM POLE AND FOUNDATION TO BE REMOVED		RMF
SIGNAL POST AND FOUNDATION TO BE REMOVED		RPF
DETECTOR LOOP, TYPE I		
PREFORMED DETECTOR LOOP	P	P
SAMPLING (SYSTEM) DETECTOR	S	S
INTERSECTION AND SAMPLING (SYSTEM) DETECTOR	IS	IS
QUEUE AND SAMPLING (SYSTEM) DETECTOR	QS	QS
WIRELESS DETECTOR SENSOR	W	W
WIRELESS ACCESS POINT		

ITEM	EXISTING	PROPOSED
SIGNAL HEAD -(P) PROGRAMMABLE SIGNAL HEAD	P	P
SIGNAL HEAD WITH BACKPLATE -(P) PROGRAMMABLE SIGNAL HEAD -(RB) RETROREFLECTIVE BACKPLATE	P RB	P RB
PEDESTRIAN SIGNAL HEAD AT RAILROAD INTERSECTIONS		
PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER	C D	C D
ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"		
NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE. ALL DETECTOR LOOP CABLE TO BE SHIELDED	5	5
GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)	1#6	1#6
ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1/C	1	1
COAXIAL CABLE	C	C
VENDOR CABLE	V	V
COPPER INTERCONNECT CABLE, NO. 18, 3 PAIR TWISTED, SHIELDED	6#18	6#18
FIBER OPTIC CABLE -NO. 62.5/125, MM12F -NO. 62.5/125, MM12F SM12F -NO. 62.5/125, MM12F SM24F	12F 24F 36F	12F 24F 36F
GROUND ROD -(C) CONTROLLER -(M) MAST ARM -(P) POST -(S) SERVICE	C M P S	C M P S

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Default	PLOT SCALE = 50.0000 ' / in.	CHECKED - LP	REVISED -
	PLOT DATE = 9/29/2016	DATE - 9/29/2016	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET 1 OF 7 SHEETS | STA. | TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	22
*3050A/3045	TS-05	CONTRACT NO. 61F43		
	ILLINOIS FED. AID PROJECT			

LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.

2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.

3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.

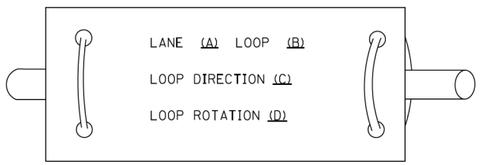
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.

6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.

7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

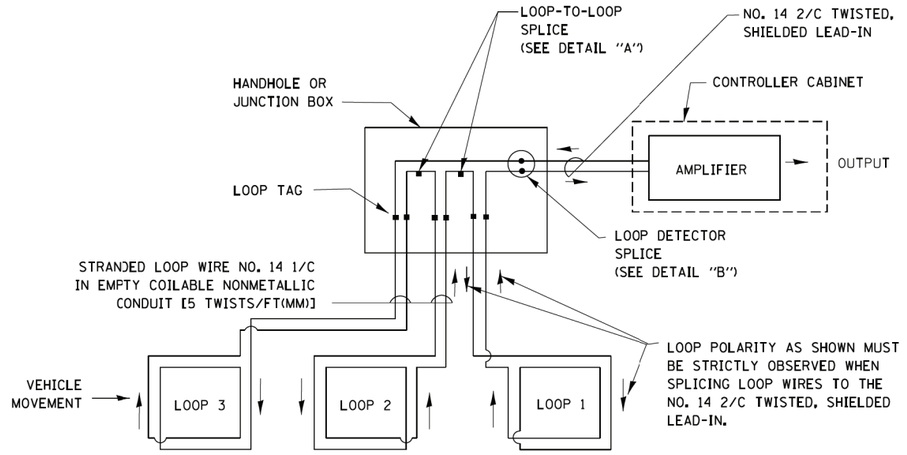


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.

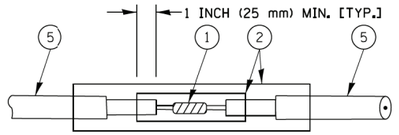
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

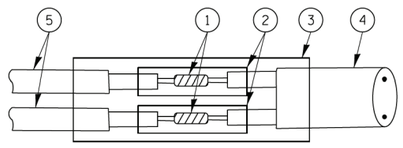


DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

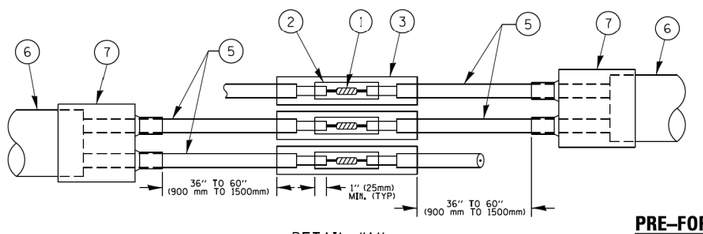


DETAIL "A"
LOOP-TO-LOOP SPLICE



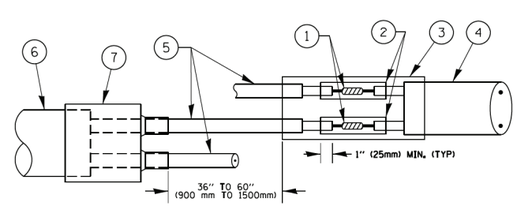
DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE

PRE-FORMED LOOP



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

(1) WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. THE WESTERN UNION SPLICES SHALL BE STAGGERED.

(2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.

(3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6" (150 mm), UNDERWATER GRADE.

(4) NO. 14 2/C TWISTED, SHIELDED CABLE.

(5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

(6) PRE-FORMED LOOP

(7) XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

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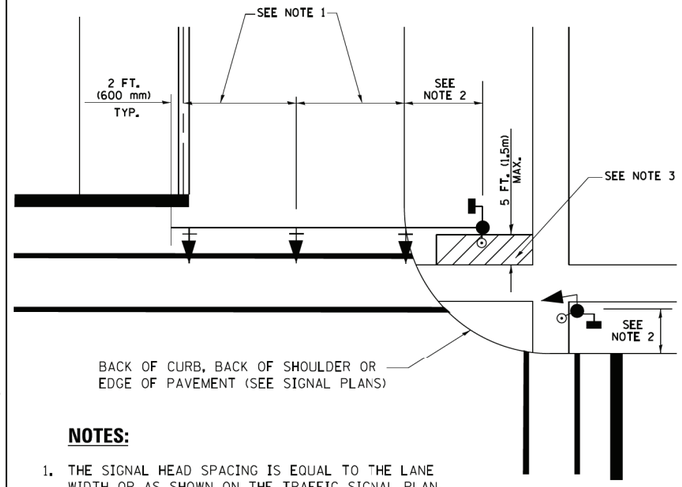
	PLOT DATE = 1/13/2014	CHECKED - DAD	REVISED -		
		DATE - 10-28-09	REVISED -		

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	23
*3050A/3045	TS-05	CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

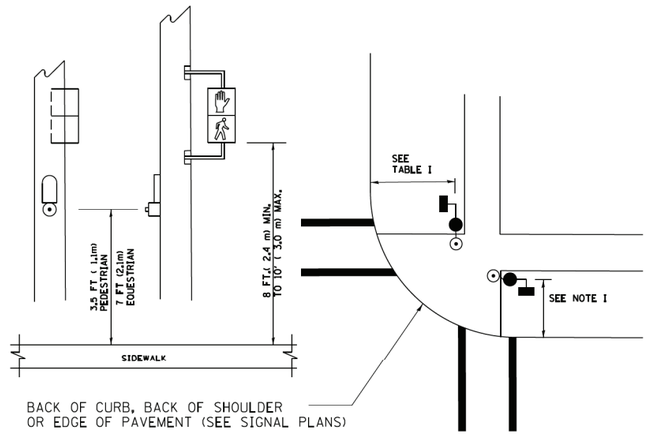
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

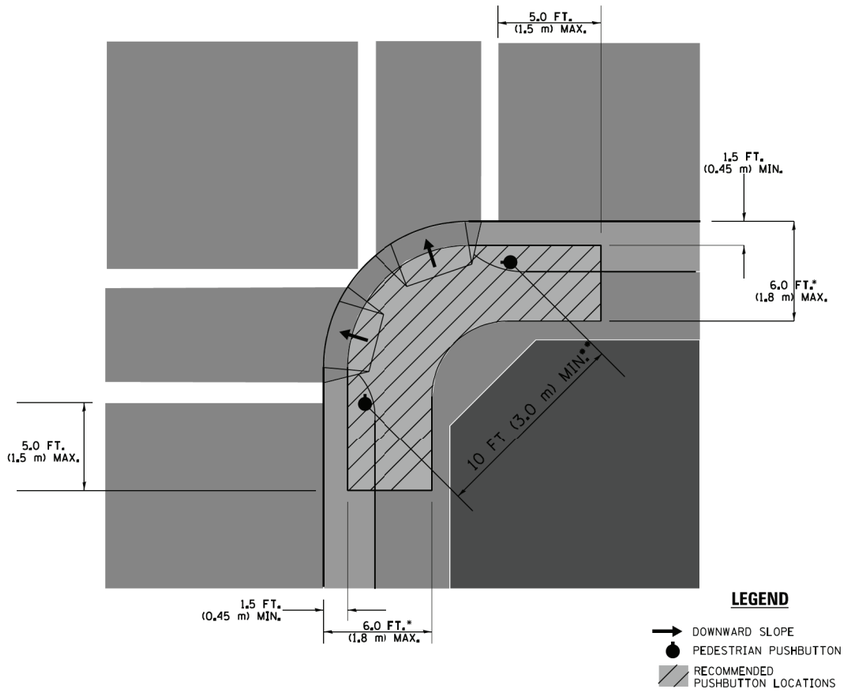
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

RECOMMENDED PUSHBUTTON LOCATIONS



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.

•• WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

TRAFFIC SIGNAL EQUIPMENT OFFSET

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

NOTES:

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TOTHE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROFOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

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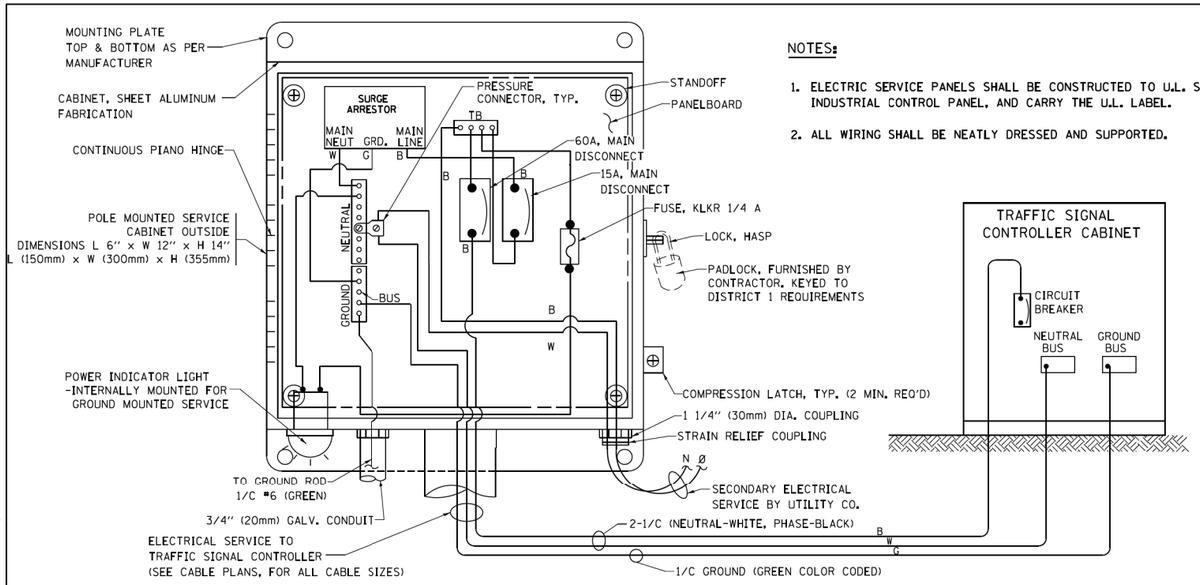
	PLOT SCALE = 50.0000 ' / in.	CHECKED - DAD	REVISED -
	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 3 OF 7 SHEETS | STA. | TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	24
*3050A/3045	**TS-05**	CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



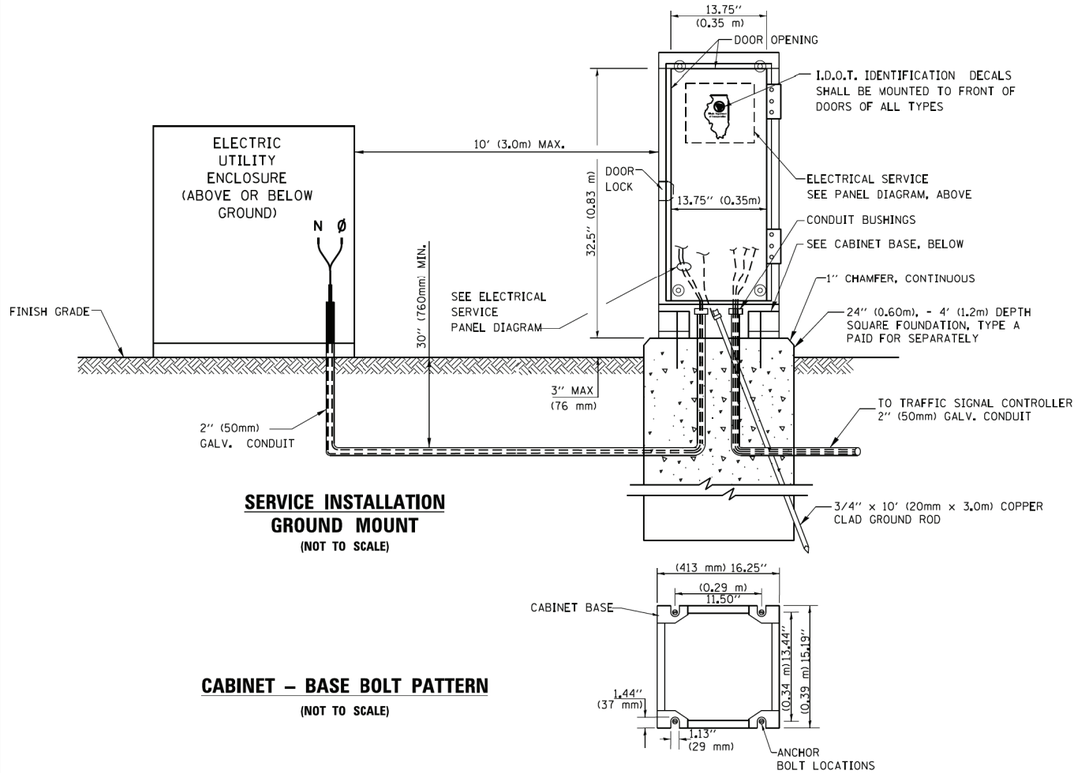
NOTES:

1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

SERVICE INSTALLATION POLE MOUNT (SHOWN)

(NOT TO SCALE)

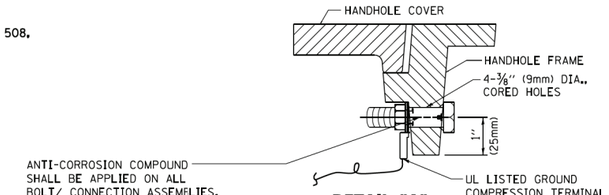


SERVICE INSTALLATION GROUND MOUNT

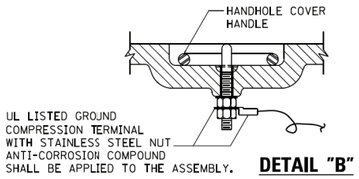
(NOT TO SCALE)

CABINET – BASE BOLT PATTERN

(NOT TO SCALE)



DETAIL "A"



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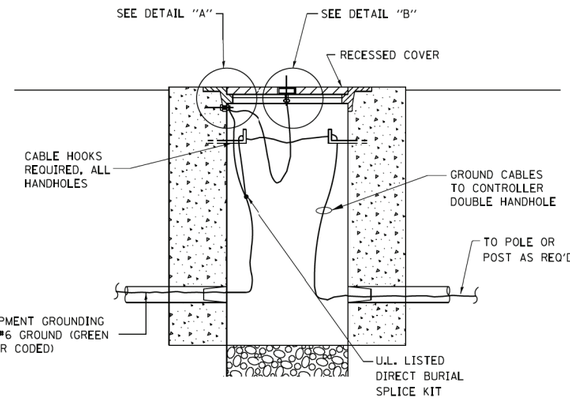
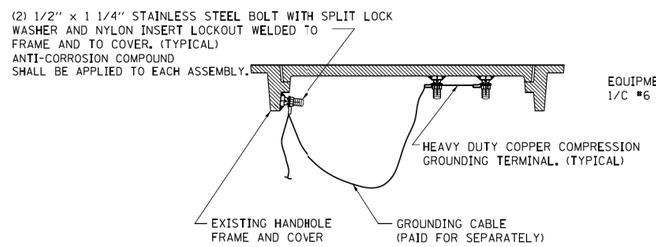


HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)



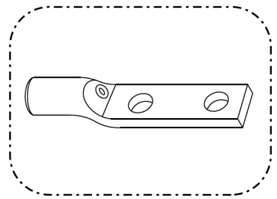
EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)

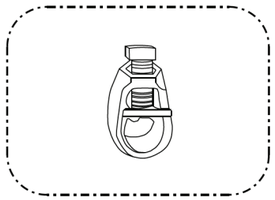
NOTES:

GROUNDING SYSTEM

1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



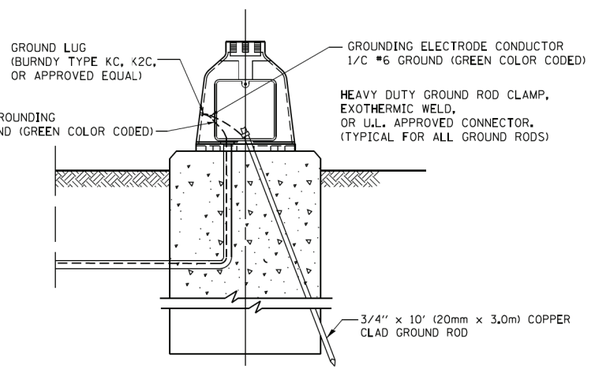
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EQUAL)

NOTES:

- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



MAST ARM POLE / POST–GROUNDING DETAIL

(NOT TO SCALE)

STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM
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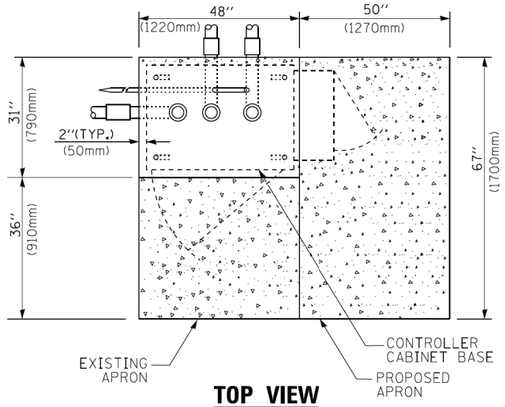
	PLOT SCALE = 50.0000 ' / in.	CHECKED - DAD	REVISED -
	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

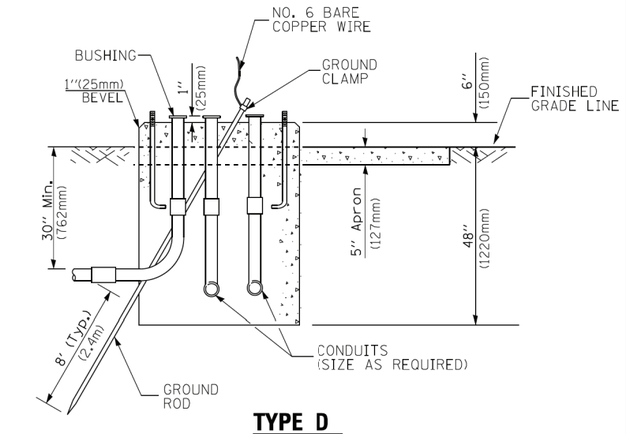
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 4 OF 7 SHEETS | STA. | TO STA.

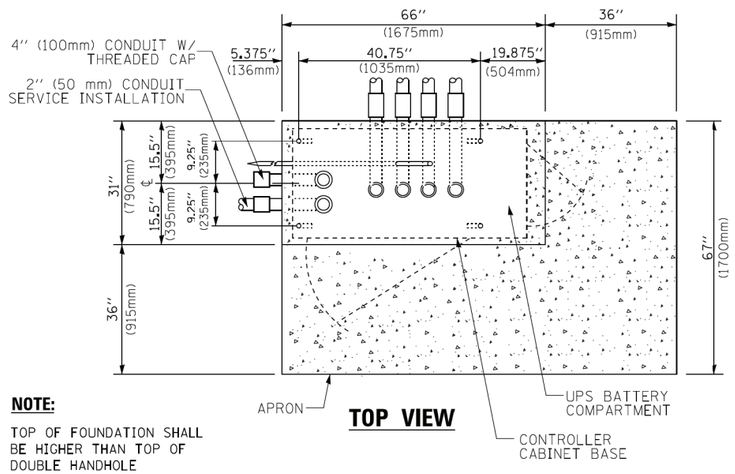
MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	25
*3050A/3045	TS-05	CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



TOP VIEW



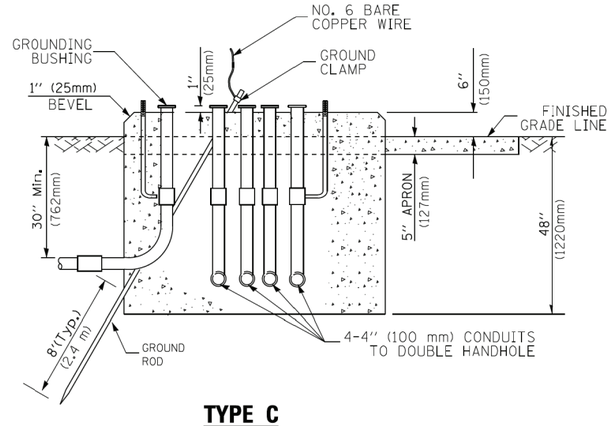
TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



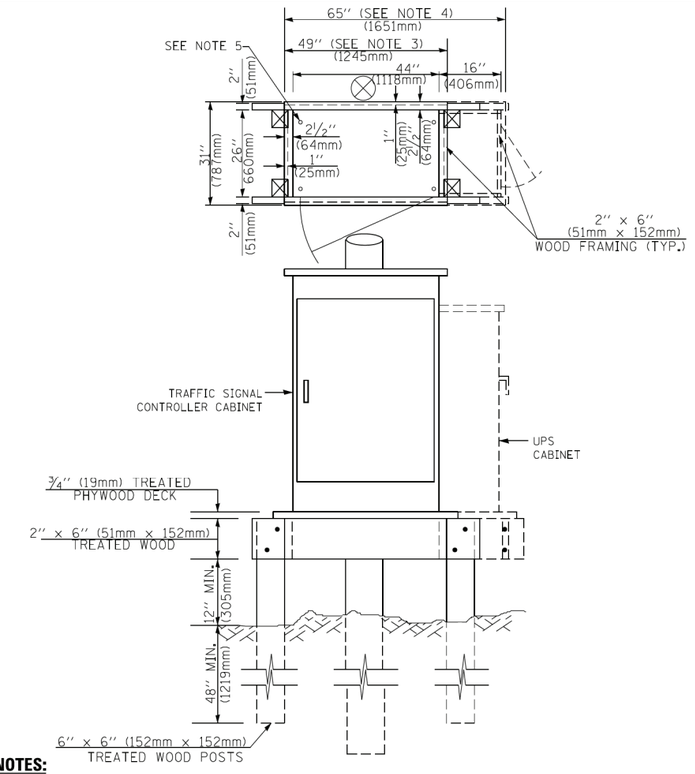
TOP VIEW

NOTE:

TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE



TYPE C
FOR GROUND MOUNTED
SUPER P (TYPE IV) AND SUPER R (TYPE V)
CONTROLLER CABINETS



NOTES:

1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED
2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION..

TEMPORARY SIGNAL CONTROLLER
WOOD SUPPORT PLATFORM

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

CABLE SLACK

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

VERTICAL CABLE LENGTH

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

DEPTH OF FOUNDATION

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

NOTES:

1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & structures should be contacted for a revised design if other conditions are encountered.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations
4. For mast arm assemblies with dual arms refer to state standard 878001..

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

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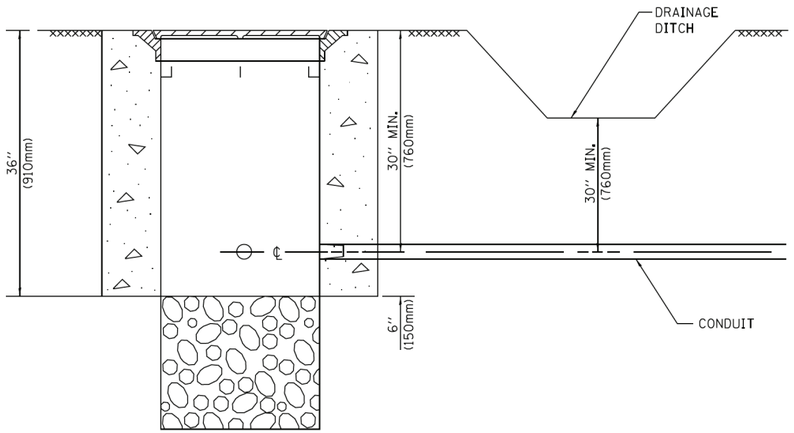
	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 5 OF 7 SHEETS | STA. | TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	26
*3050A/3045	TS-05	CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

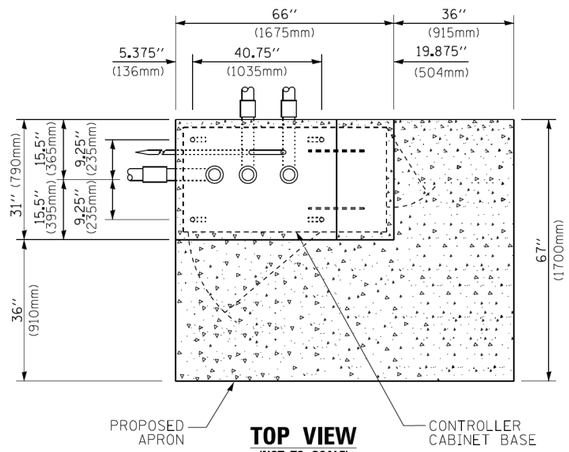


NOTES:

1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
2. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

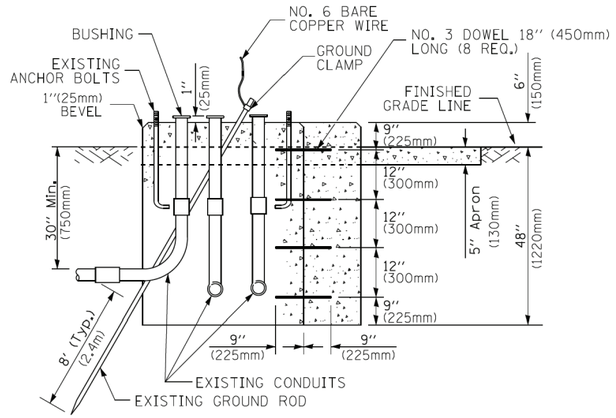
HANDHOLE WITH MINIMUM CONDUIT DEPTH

(NOT TO SCALE)



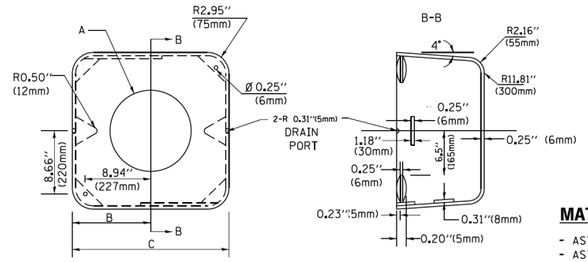
TOP VIEW

(NOT TO SCALE)



MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION

(NOT TO SCALE)



MATERIAL:

- ASTM A36 STEEL
- ASTM A-123 HOT DIPPED GALVANIZED

A	B	C	HEIGHT	WEIGHT
VARIES	9.5"(241mm)	19"(483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIES	10.75"(273mm)	21.5"(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIES	13.0"(330mm)	26"(660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIES	18.5"(470mm)	37"(940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

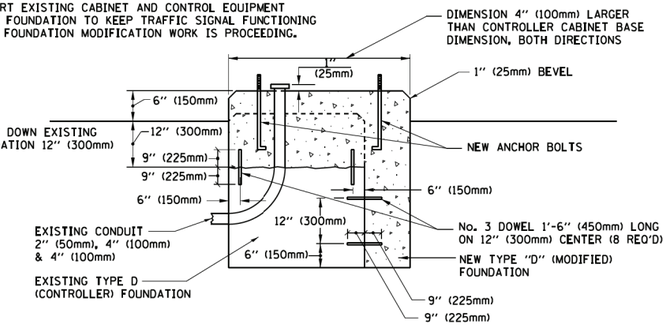
SHROUD

NOTES:

1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

NOTE:

SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



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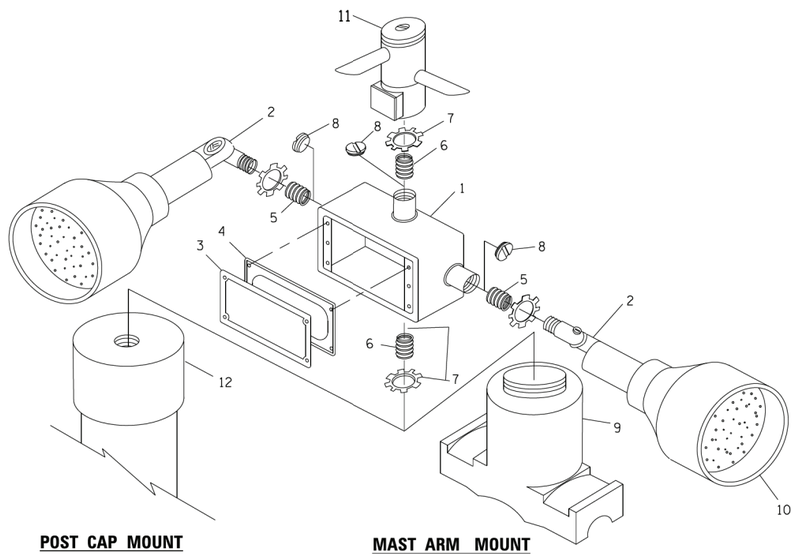


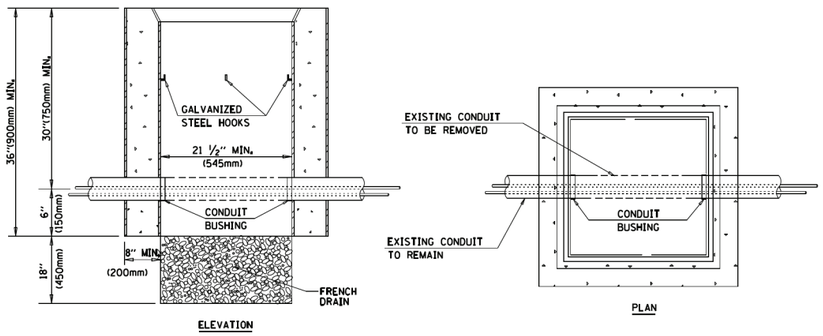
POST CAP MOUNT **MAST ARM MOUNT**

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	¾"(19 mm) CLOSE NIPPLE
7	¾"(19 mm) LOCKNUT
8	¾"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

NOTES:

1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
   ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
   ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4 "(19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL



NOTES:

1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

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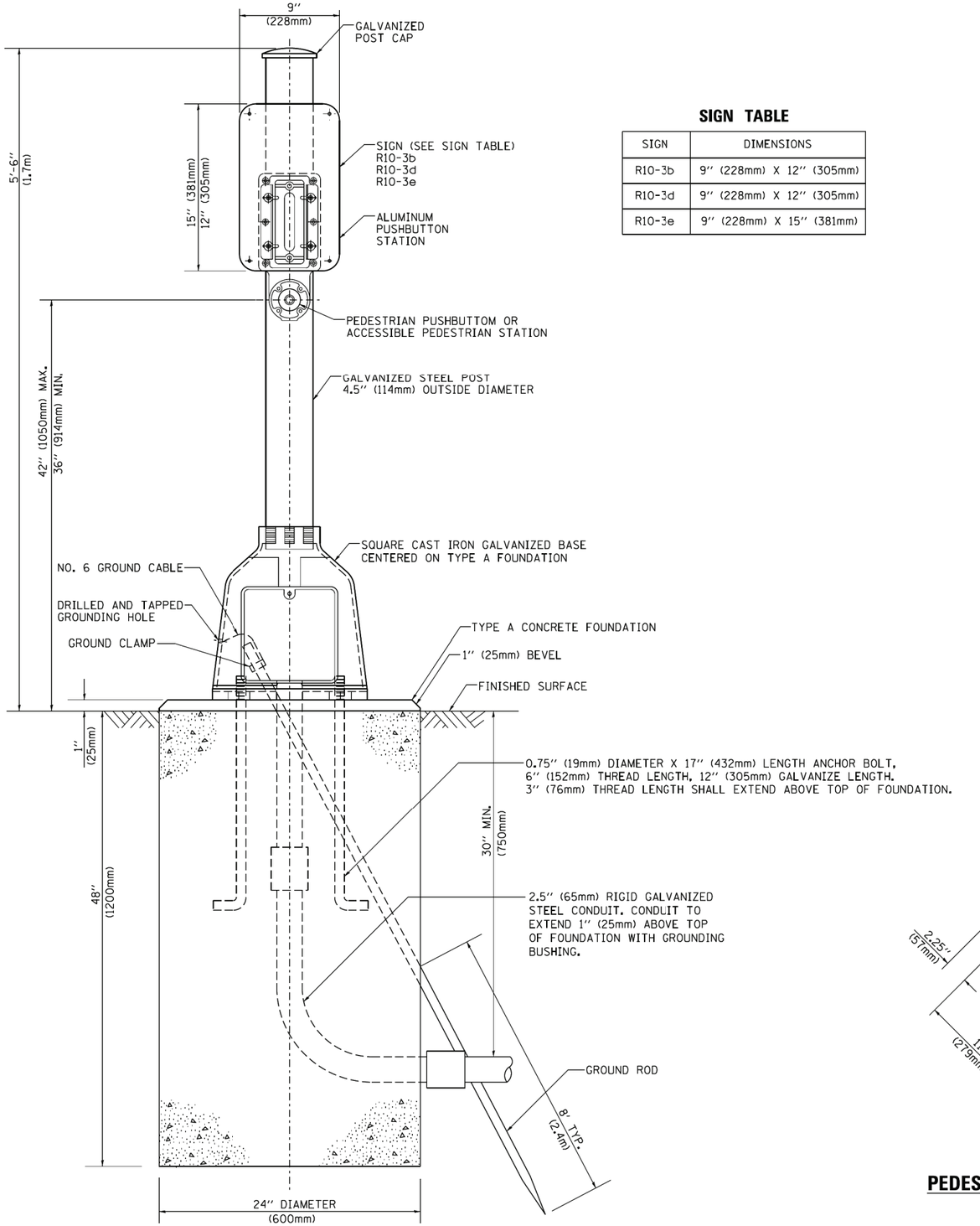
	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

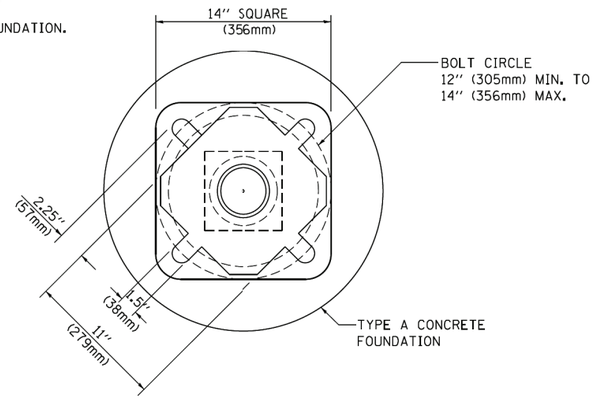
SCALE: NONE | SHEET NO. 6 OF 7 SHEETS | STA. | TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	27
*3050A/3045	**TS-05**	CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



SIGN TABLE

SIGN	DIMENSIONS
R10-3b	9'' (228mm) X 12'' (305mm)
R10-3d	9'' (228mm) X 12'' (305mm)
R10-3e	9'' (228mm) X 15'' (381mm)



BOLT PATTERN

PEDESTRIAN PUSH BUTTON POST, TYPE A

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		DRAWN - GND	REVISED -
	PLOT SCALE = 50.0000 '/ in.	CHECKED - DAD	REVISED -
	PLOT DATE = 1/13/2014	DATE - 10/1/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 7 OF 7 SHEETS | STA. | TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	28
*3050A/3045	TS-05	CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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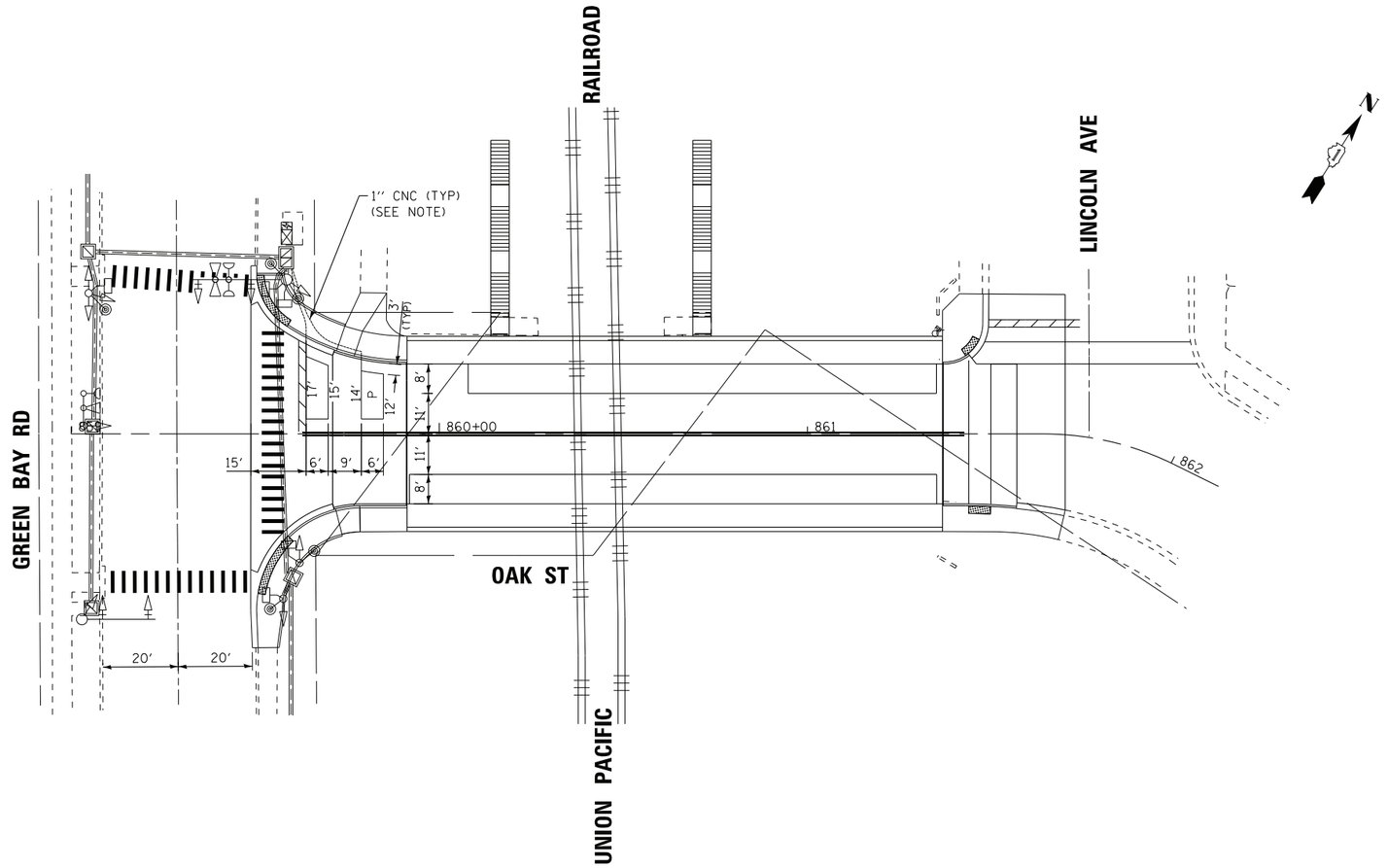
SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNITS	TOTAL QTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
DETECTOR LOOP, TYPE I	FOOT	48
PREFORMED DETECTOR LOOP	FOOT	43
SIGNAL TIMING	L SUM	1



NOTES:

1. EACH DETECTOR LOOP SHALL HAVE ITS OWN 1" COILABLE NON-METALLIC CONDUIT BETWEEN THE EDGE OF PAVEMENT AND THE ADJACENT HANDHOLE AS SHOWN ON THE PLANS AND AS STATED IN THE TRAFFIC SIGNAL SPECIFICATIONS.

BAXTER & WOODMAN Consulting Engineers

DESIGNED - RWL	REVISED -	
DRAWN - UKB	REVISED -	
CHECKED - DJS	REVISED -	
DATE - 10-09-18	FILE - 150754SHT_TS.dgn	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED DETECTOR LOOP PLAN (SHEET 1 OF 1)
OAK ST AND GREEN BAY RD

SCALE:1" = 20' | SHEET 1 OF 1 SHEETS | STA. | TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	29
• 3050A/3045		CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM
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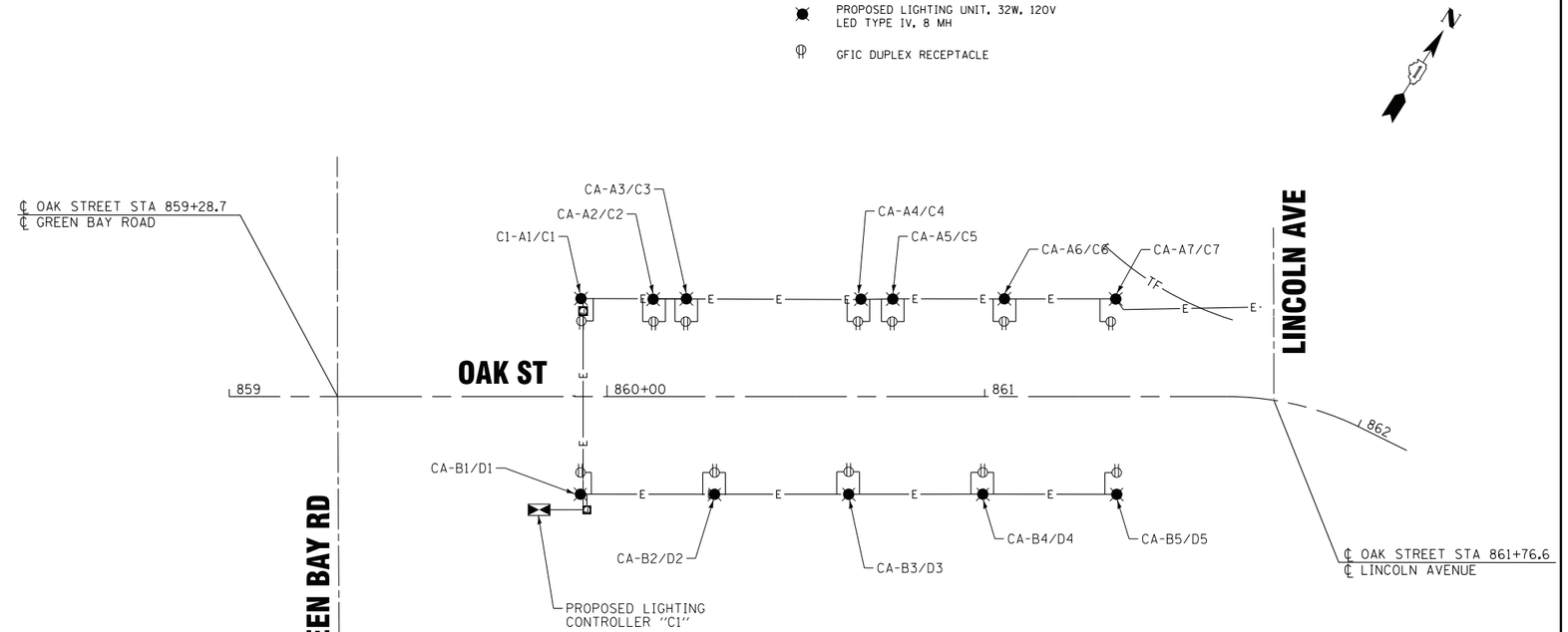
GENERAL NOTES

1. THE EXACT LOCATIONS OF ALL UTLITIES SHALL BE VERIFIED BY THE CONTRACTOR BEFORE THE INSTALLATION OF ANY COMPONENTS OF THE LIGHTING SYSTEM. FOR THE LOCATIONS OF THE UTILITIES, CALL JULIE TOLL FREE AT 1-800-892-0123. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE EXISTING TRAFFIC SIGNAL CABLES AND CONDUITS.
2. ANY DAMAGE TO EXISTING CONDUITS, CONDUCTORS, AND EQUIPMENT TO REMAIN SHALL BE REPAIRED AND/OR REPLACED AT NO COST.
3. ANY TURF AND/OR SOIL DISTURBED THAT CANNOT REMAIN OR BE RE-USED SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND INCLUDED IN THE COST OF THE ASSOCIATED PAY ITEM.
4. ALL DISTURBED AREAS SHALL BE RESTORED TO THE SATISFACTION OF THE ENGINEER AND INCLUDED IN THE COST OF THE ASSOCIATED PAY ITEM.
5. THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENTS FOR BURIED WARNING TAPE, SPECIFIED AS PART OF "UNDERGROUND RACEWAYS". THE INSTALLATION OF THE TAPE SHALL BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO BACKFILLING.
6. THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENTS FOR WIRE MARKERS AND SHALL TAG ALL WIRE ACCORDINGLY.
7. THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENTS FOR GROUNDING. GROUNDING CONNECTIONS AT THE FOUNDATION SHALL BE EXOTHERMICALLY WELDED, AS SPECIFIED, AND SHALL BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO BACKFILLING. EQUIPMENT GROUND CONDUCTORS SHALL BE SPLICED AND/OR BONDED AT EACH LIGHT POLE OR OTHER PIECE OF EQUIPMENT.
8. CONDUIT AND UNIT DUCT MUST BE POSITIONED IN THE FIELD TO AVOID CONFLICT WITH TREES, BUSHES, DRAINS, OTHER UTILITIES, AND LANDSCAPING.
9. ALL CONDUITS UNDER PROPOSED ROADWAYS AND DRIVEWAYS IN TRENCHES SHALL BE INSTALLED BEFORE PAVEMENT IS PLACED. CONDUIT LENGTHS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE ACTUAL LENGTH REQUIREMENTS IN THE FIELD.
10. ALL ELECTRICAL DEVICES AND MATERIALS SHALL BE U/L LISTED WHERE APPLICABLE.

LEGEND

- PROPPSED JUNCTION BOX
- PROPOSED LIGHTING CONTROLLER
- PROPOSED LIGHTING UNIT, 32W, 120V LED TYPE IV, 8 MH
- GFIC DUPLEX RECEPTACLE



SUMMARY OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1
80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1
81024050	CONDUIT ENCASED, CONCRETE, 5" DIA., PVC 2 WIDE X 1 HIGH	FOOT	36
81024100	CONDUIT ENCASED, CONCRETE, 4" DIA., PVC 3 WIDE X 1 HIGH	FOOT	36
81028340	UNDERGROUND CONDUIT, PVC, 1 1/2" DIA.	FOOT	25
81028390	UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	228
81028400	UNDERGROUND CONDUIT, PVC, 5" DIA.	FOOT	94
81100510	CONDUIT ATTACHED TO STRUCTURE, 1 1/2" DIA., PVC COATED GALVANIZED STEEL	FOOT	55
81200220	CONDUIT EMBEDDED IN STRUCTURE, 1 1/2" DIA., PVC	FOOT	400
81200270	CONDUIT EMBEDDED IN STRUCTURE, 4" DIA., PVC	FOOT	1,320
81200275	CONDUIT EMBEDDED IN STRUCTURE, 5" DIA., PVC	FOOT	660
81300220	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6" X 6" X 4"	EACH	2
81702100	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 12	FOOT	2550
82500330	LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240VOLT, 60AMP	EACH	1
87900200	DRILL EXISTING HANDHOLE	EACH	12
X0326594	FLEXIBLE LIQUID TIGHT STAINLESS STEEL CONDUIT, 1-1/2" DIAMETER, 6 FOOT LENGTH	EACH	2
X0327004	TEMPORARY WOOD POLE, 60 FT., CLASS 4	EACH	2
X8250500	LIGHTING UNIT COMPLETE, SPECIAL	EACH	12

LOAD TABULATION FOR LIGHTING CONTROLLER "C1"

CIRCUIT	32W	150W	AMPS
A	(7) 0.27		1.89
B	(5) 0.27		1.35
C		(7) 1.25	8.75
D		(5) 1.25	6.25
TOTAL			18.24

BAXTER & WOODMAN Consulting Engineers

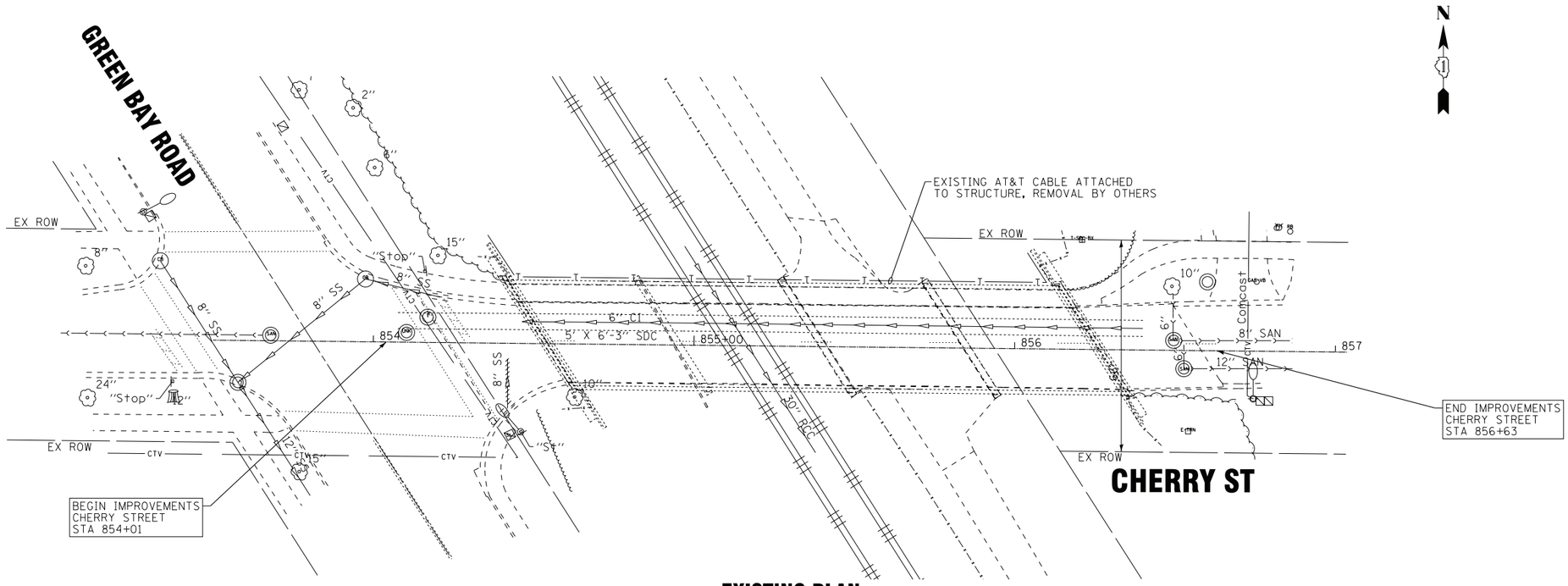
DESIGNED - MWH	REVISED -	
DRAWN - UKB	REVISED -	
CHECKED - DJS	REVISED -	
DATE - 10-09-18	FILE - 150754SHT_SL-Gntes-Soq.dgn	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

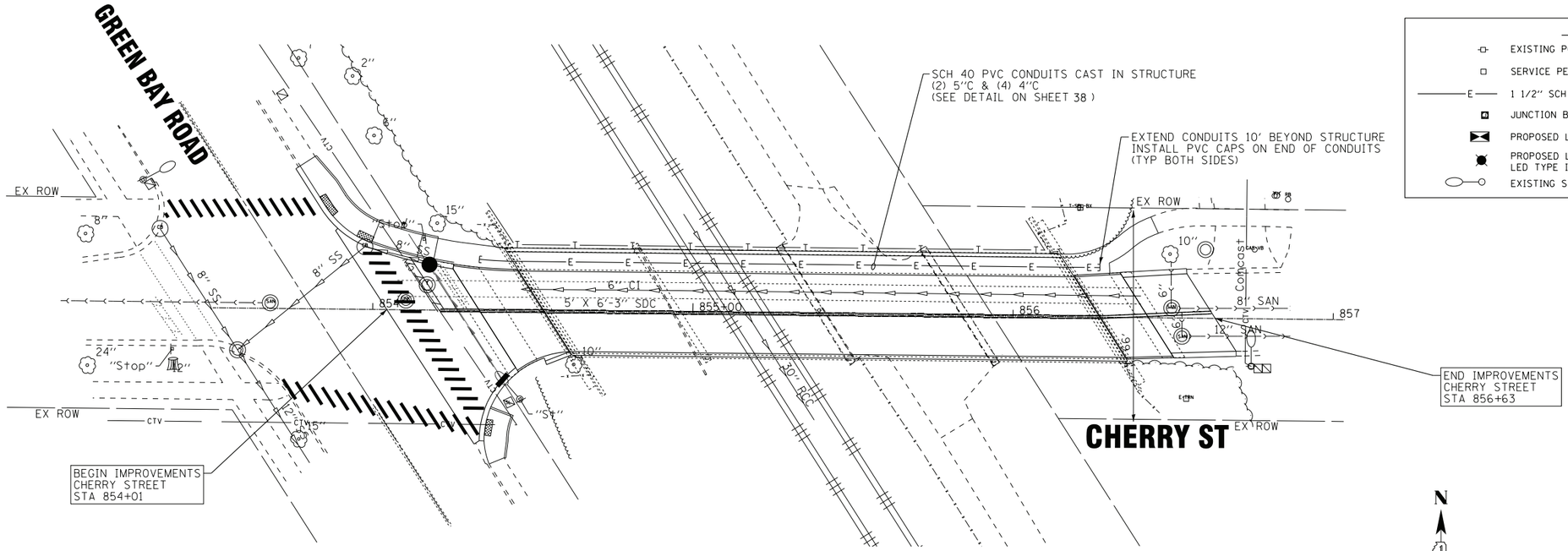
STREET LIGHTING GENERAL NOTES, QUANTITIES AND ONE-LINE DIAGRAM

SCALE: 1" = 20' STA. TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	30
•	3050A/3045	CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



EXISTING PLAN



PROPOSED PLAN

STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM
LICENSE NO. - 184-001121 - EXPIRES 4/30/2019
6421dm 11/9/2018

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BAXTER & WOODMAN Consulting Engineers

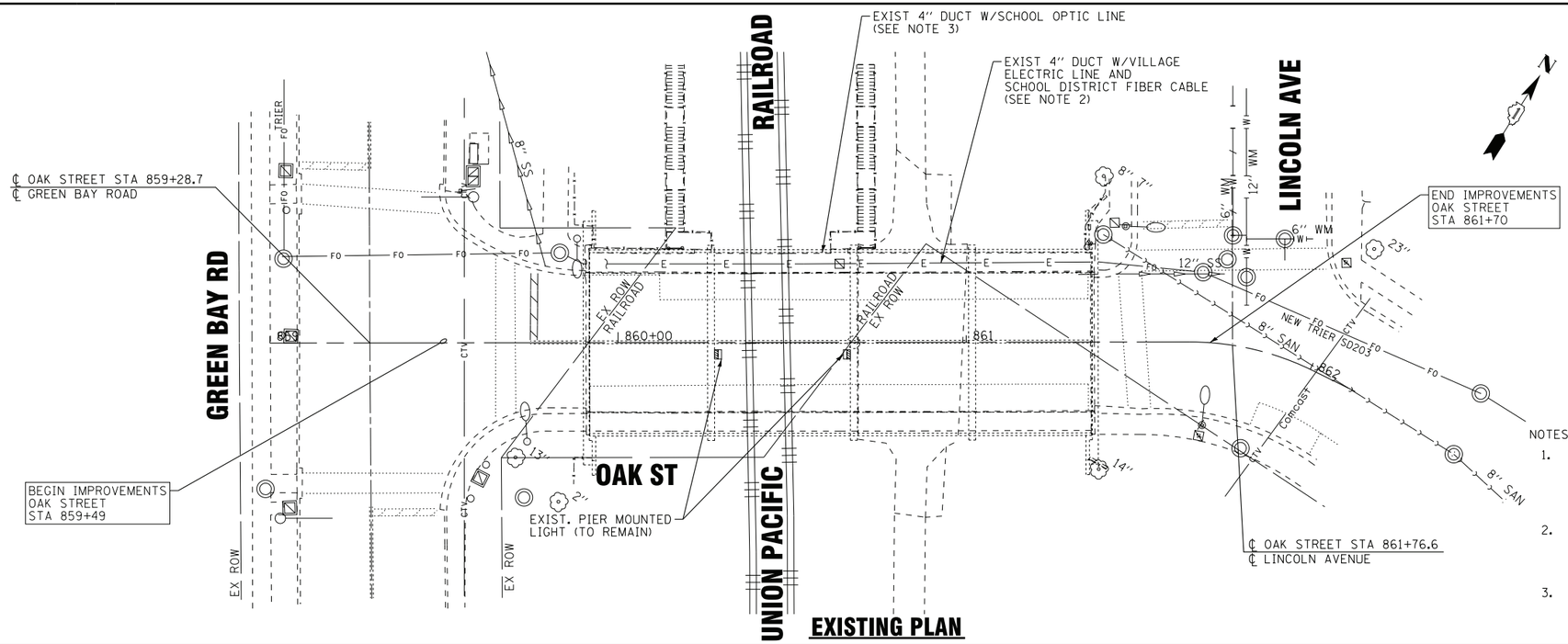
DESIGNED	- MWH	REVISED	-
DRAWN	- UKB	REVISED	-
CHECKED	- DJS	REVISED	-
DATE	- 10-09-18	FILE	- 150754SHT_SL_Cherry.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STREET LIGHTING PLAN
EXISTING CONDITIONS AND PROPOSED
CHERRY STREET

SCALE: 1" = 20' STA. TO STA.

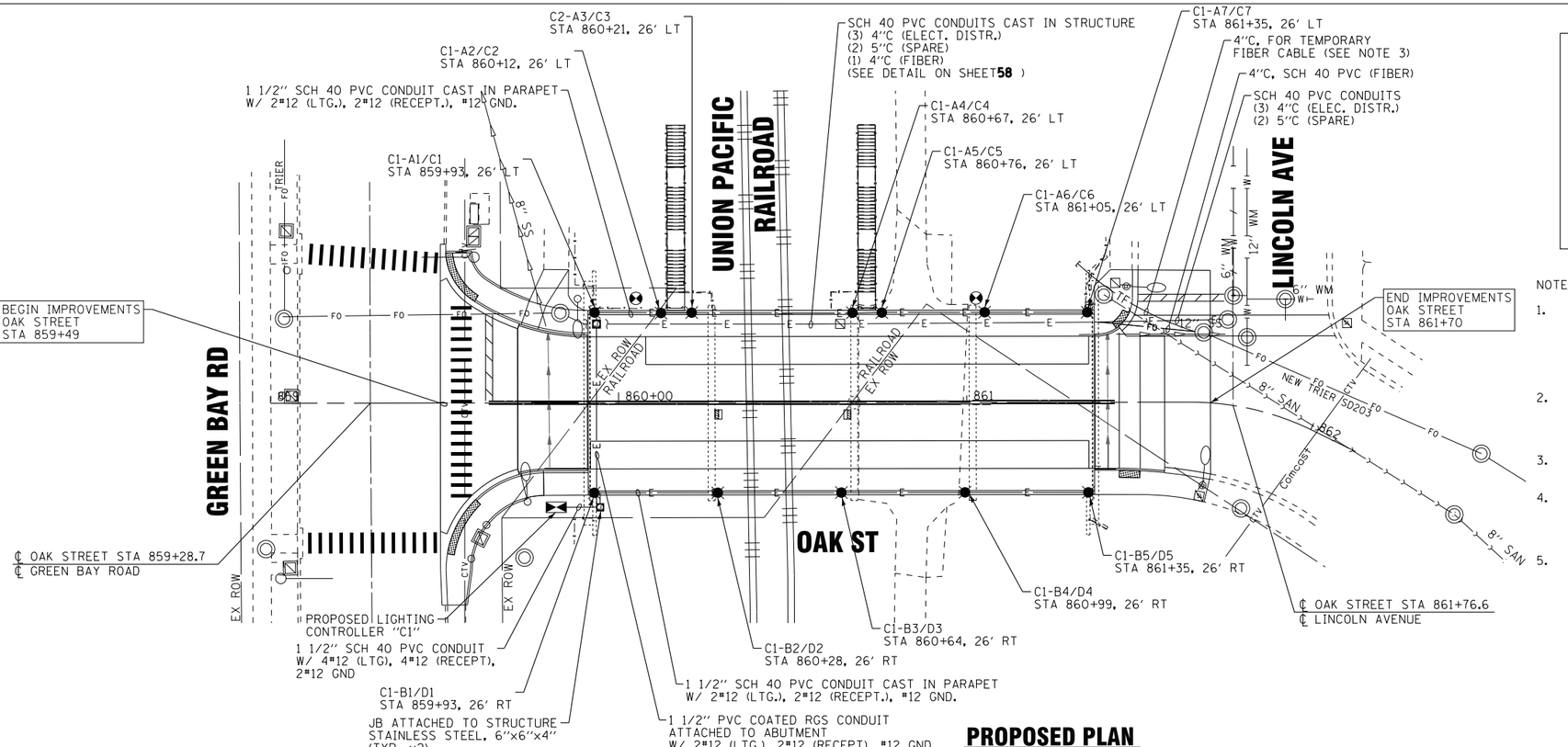
MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	31
•	3050A/3045	CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



EXISTING PLAN

NOTES:

1. CONTRACTOR TO INSTALL TEMPORARY WOOD POLES FOR USE BY NEW TRIER SD203 FIBER CONTRACTOR PRIOR TO COMMENCEMENT OF WORK ON THE STRUCTURE REMOVAL. CONTRACTOR TO COORDINATE ACTUAL LOCATION FOR TEMPORARY WOOD POLES WITH FIBER CONTRACTOR.
2. THE VILLAGE OF WINNETKA WILL TEMPORARILY REROUTE ELECTRICAL DISTRIBUTION LINES FROM THE OAK STREET BRIDGE LOCATION PRIOR TO THE CONTRACTOR COMMENCING WORK ON THE STRUCTURE REMOVAL.
3. NEW TRIER SD203 WILL TEMPORARILY REROUTE THE FIBER OPTIC LINES AT OAK STREET BRIDGE LOCATION PRIOR TO THE CONTRACTOR COMMENCING WORK ON TH STRUCTURE REMOVAL.



PROPOSED PLAN

LEGEND

- EXISTING POWER POLE
- SERVICE PEDESTAL
- E — 1 1/2" SCH 40 PVC CONDUIT, OR AS INDICATED
- JUNCTION BOX
- PROPOSED LIGHTING CONTROLLER
- PROPOSED LIGHTING UNIT 32W, 120V LED TYPE IV, 8' M.H.
- TEMPORARY WOOD POLE
- EXISTING STREET LIGHT

NOTE:

1. CONTRACTOR TO EXTEND CONDUITS FROM BRIDGE STRUCTURE TO HANDHOLES/MANHOLES AT EACH END OF PROJECT. DRILL EXISTING HANDHOLES/MANHOLES AS NEEDED TO ENTER CONDUITS AT THE SAME ELEVATION AS THE EXISTING CABLES/CONDUITS. REFER TO SPECIFICATION SECTION "CONDUIT, ENCASED, CONCRETE".
2. VILLAGE TO INSTALL THE PROPOSED ELECTRIC DISTRIBUTION LINES THROUGH CONDUITS IN THE NEW OAK STREET BRIDGE STRUCTURE. THE VILLAGE WILL MAKE CONNECTIONS OF THESE LINES TO THE ELECTRICAL DISTRIBUTION SYSTEM.
3. CONTRACTOR TO INSTALL TEMPORARY 4" PVC CONDUIT FOR USE BY NEW TRIER SD203 FOR TEMPORARY FIBER CABLE.
4. NEW TRIER SD203 WILL INSTALL THE PROPOSED FIBER OPTIC LINES THROUGH THE CONDUIT IN THE NEW OAK STREET BRIDGE STRUCTURE AND MAKE CONNECTIONS OF THESE LINES TO THE FIBER OPTIC SYSTEM.
5. AFTER NEW TRIER SD203 REMOVES THE TEMPORARY FIBER OPTIC LINES THE CONTRACTOR WILL REMOVE THE TEMPORARY WOOD POLES.

BAXTER & WOODMAN Consulting Engineers

DESIGNED	- MWH	REVISED	-
DRAWN	- UKB	REVISED	-
CHECKED	- DJS	REVISED	-
DATE	- 10-09-18	FILE	- 150754SHT_SL-PLan.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STREET LIGHTING PLAN
EXISTING CONDITIONS AND PROPOSED
OAK STREET

SCALE: 1" = 20' STA. TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	32
•	3050A/3045	CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM
LICENSE NO. - 184-00121 - EXPIRES 4/30/2019
6421dm 11/9/2018

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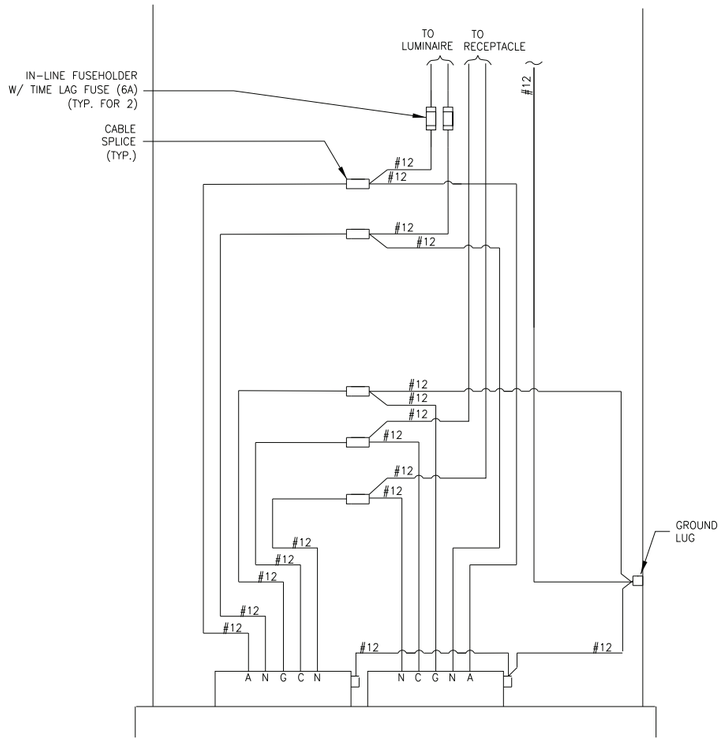
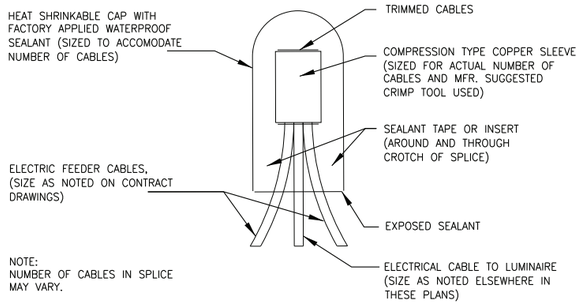
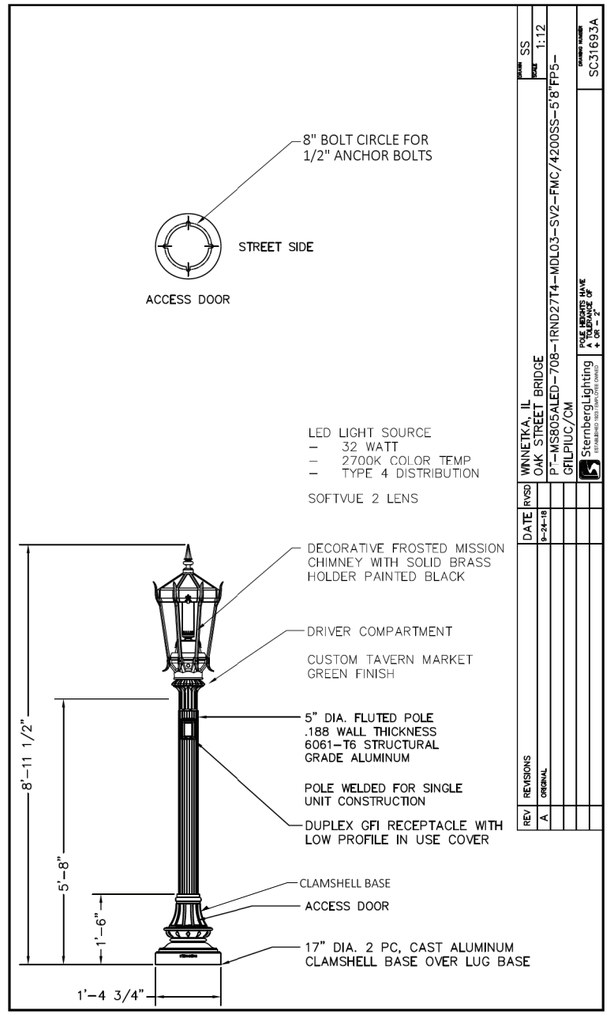


POLE BASE WIRING DETAIL



SPLICING ELECTRICAL CABLES BASIC MATERIALS AND METHODS

NO SCALE



REV	REVISIONS	DATE	BY
A	ORIGINAL	9-24-18	RVSD

WINNETKA, IL
OAK STREET BRIDGE
P7-MS805ALED-708-1RND27T4-MDL03-SV2-FMC/4200SS-5.8'FP5-
GFILPIUC/CM
SS
1:12
Sternberg Lighting
POLE ORIENTATION: STREET SIDE + OR - 2°
SC31693A

BAXTER & WOODMAN Consulting Engineers

DESIGNED	MWH	REVISED	-
DRAWN	UKB	REVISED	-
CHECKED	DJS	REVISED	-
DATE	10-09-18	FILE	150754SHT_SL-Details.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS

SCALE: NONE | STA. | TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	33
•	3050A/3045	CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

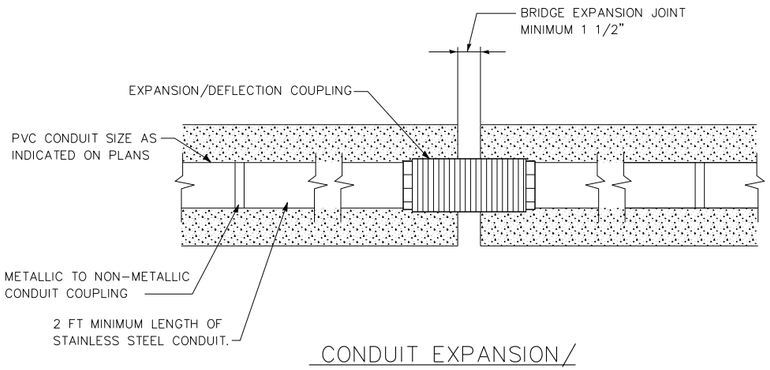
CONDUIT EXPANSION DEFLECTION COUPLING NOTES

1. THE CONTRACTOR SHALL INSTALL A CONDUIT EXPANSION/DEFLECTION COUPLING AT THE JOINTS IN THE CONCRETE ON THE BRIDGE CAPABLE OF ACCEPTING THE LONGITUDINAL MOVEMENT. ALL METALIC PARTS OF THE COUPLING SHALL BE MADE OF STAINLESS STEEL OR AS APPROVED BY THE ENGINEER. ANY NON-STAINLESS METAL SHALL BE HOT DIP GALVANIZED AND COATED TO PREVENT REACTION WITH THE CONCRETE. THE COST OF THE COUPLING SHALL BE PART OF AND INCIDENTAL TO THE CONDUIT SYSTEM.

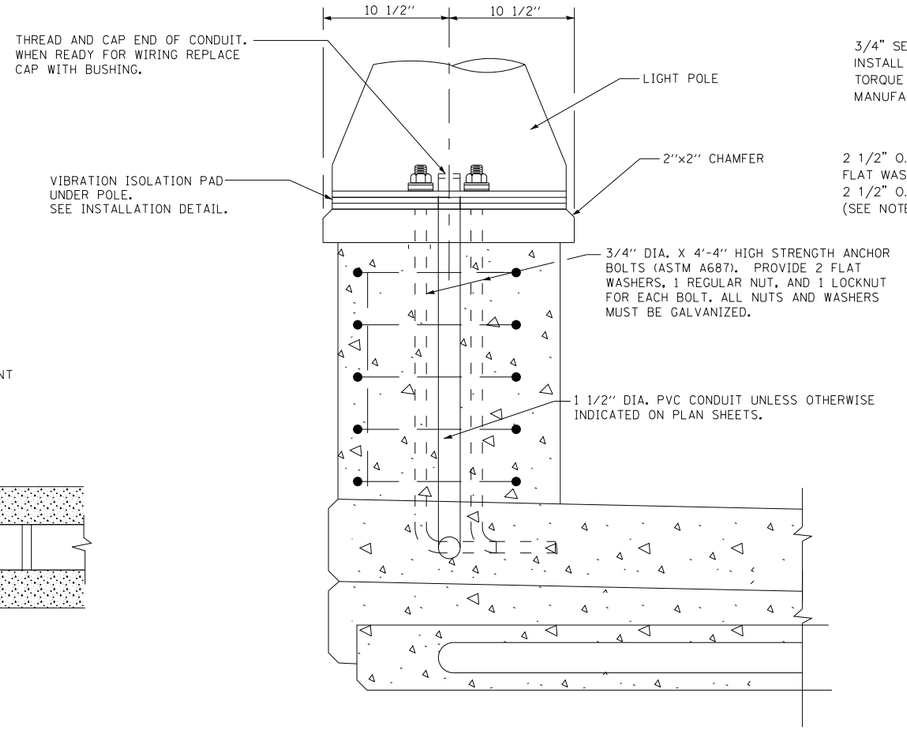
3. CAREFUL ATTENTION TO JOINT MOVEMENT OVER A RANGE OF TEMPERATURES SHALL BE COORDINATED WITH THE SELECTION AND INSTALLATION OF THE COUPLING TO ENSURE THE RANGE OF MOVEMENT OF THE COUPLING IS NOT EXCEEDED AT TEMPERATURE EXTREMES.

4. ALL MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE CAREFULLY FOLLOWED TO ENSURE OPTIMUM PERFORMANCE OF THE EXPANSION/DEFLECTION COUPLING.

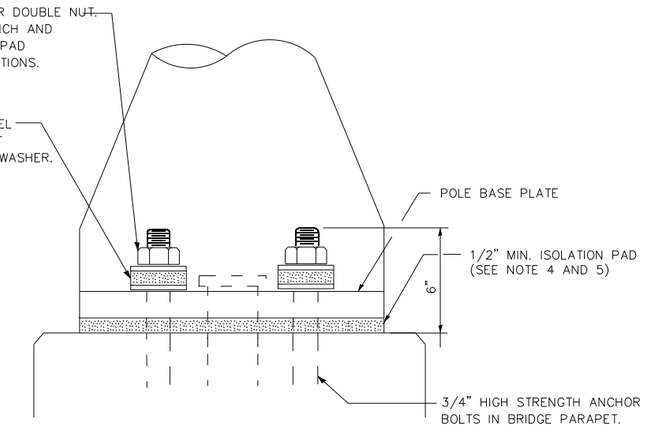
5. THE CONTRACTOR SHALL INSTALL COUPLINGS AT ALL BRIDGE EXPANSION JOINTS AND SHALL BE RESPONSIBLE TO DETERMINE THE PROPER NUMBER OF COUPLINGS REQUIRED.



CONDUIT EXPANSION/
DEFLECTION COUPLING DETAIL



SECTION A-A



POLE MOUNTED ON BRIDGE PARAPET
(INSTALLATION DETAIL)

PARAPET MOUNTED LIGHT POLE NOTES

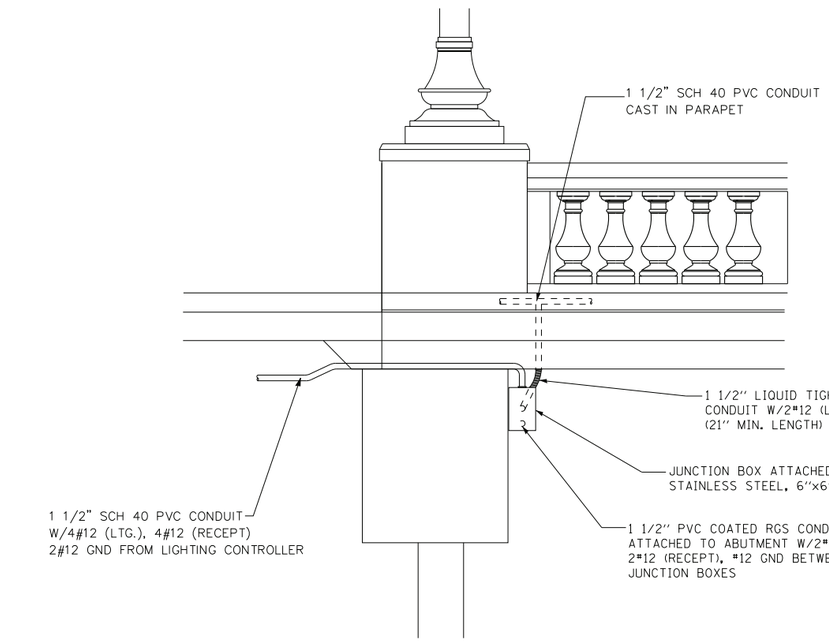
1. THE OUTLINE OF THE POLE LEVELING PLATE AND VIBRATION ISOLATION PAD SHALL MATCH THAT OF THE POLE BASE PLATE.

2. THE COST OF ANCHOR BOLTS, AND FOUNDATION IS INCLUDED WITH CONCRETE SUPERSTRUCTURE. SEE BRIDGE PLANS.

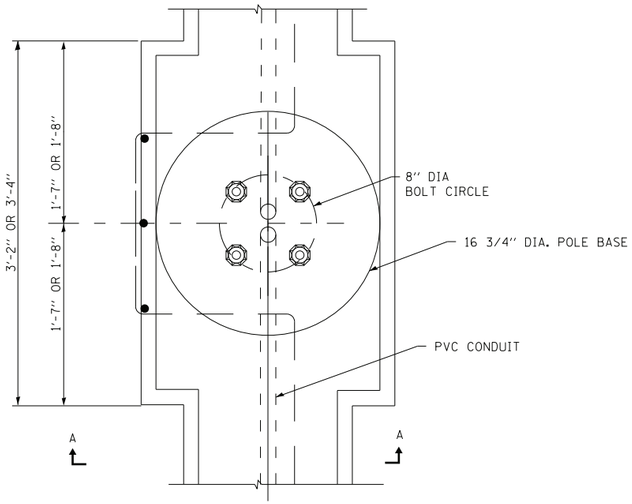
3. ANCHOR BOLTS SHALL BE THREADED A MINIMUM OF 6 INCHES WITH A MINIMUM OF 3" OF THREADED ANCHOR BOLTS EMBEDDED IN THE FOUNDATION AND PROJECT A MINIMUM OF 2 3/4" ABOVE THE TOP OF THE FOUNDATION.

4. THE VIBRATION ISOLATION PAD SHALL MATCH THE FOOTPRINT OF THE POLE BASE PLATE.

5. THICKNESS OF ISOLATION PAD AND WASHERS SHALL BE ACCORDING TO THE ISOLATION PAD MANUFACTURER'S RECOMMENDATIONS BASED UPON POLE HEIGHT AND LOADING.



JUNCTION BOX ATTACHED TO STRUCTURE



PLAN

LIGHT POLE MOUNTED
ON CONCRETE PARAPET

STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM
LICENSE NO. - 184-00121 - EXPIRES 4/30/2019
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BAXTER & WOODMAN Consulting Engineers

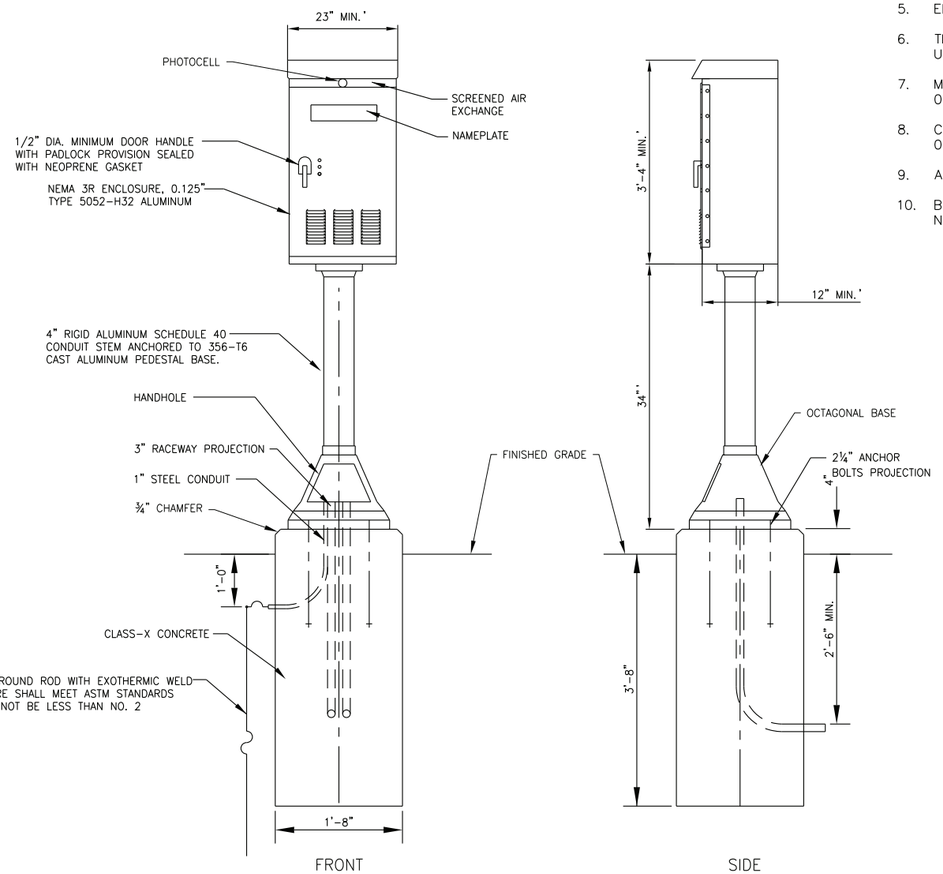
DESIGNED	- MWH	REVISED	-
DRAWN	- UKB	REVISED	-
CHECKED	- DJS	REVISED	-
DATE	- 10-09-18	FILE	- 150754SHT_SL-Details.dgn

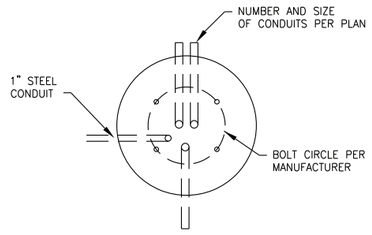
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STREET LIGHTING DETAILS

SCALE: NONE | STA. | TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	34
• 3050A/3045		CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		





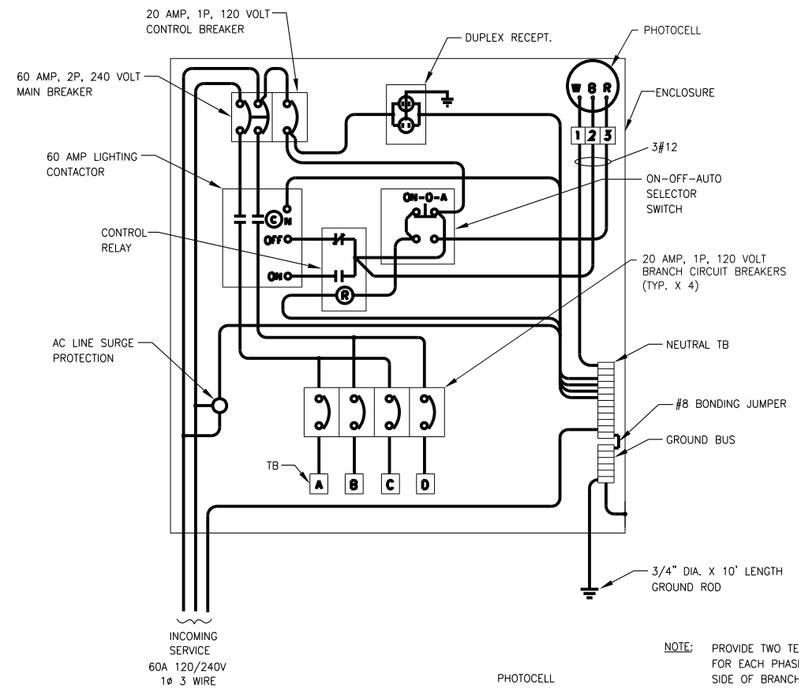
FOUNDATION PLAN

CONTROL CABINET

NO SCALE

NOTES

1. CABINET SHALL BE FABRICATED FROM 0.125-INCH SHEET ALUMINUM #3003H14, FORMED AND ARC WELDED ASSEMBLY WITH NEMA 3R RATING.
2. ALL SCREWS AND HARDWARE SHALL BE PLATED GALVANIZED, OR MADE OF BRASS, ALUMINUM OR STAINLESS STEEL.
3. NAME PLATE SHALL HAVE ENGRAVED 0.75-INCH HIGH LETTERS FILLED IN BLACK: "VILLAGE OF WINNETKA".
4. CONNECTION OF SURGE ARRESTOR TO LINE SIDE OF MAIN CIRCUIT SHALL NOT BE "DOUBLE LUGGED".
5. ELECTRIC UTILITY METER BOX SHALL BE MOUNTED ON THE SIDE OF CONTROL CABINET.
6. THE COMPLETED CONTROLLER SHALL BE U.L. LISTED AS AN INDUSTRIAL CONTROL PANEL UNDER UL508, AND SHOULD BE SERVICE ENTRANCE RATED.
7. METAL MOUNTING PANEL SHALL BE #10 GUAGE GALVANIZED SHEET STEEL FLANGED BACK 0.75-INCHS I.D. ON 4 SIDES.
8. CIRCUIT BREAKERS AND CONTRACTORS AND OTHER COMPONENTS SHALL BE MOUNTED ON 0.125-INCH THICK PLASTIC INSULATION BACK PANEL.
9. ALL DEVICES SHALL BE FRONT REMOVABLE.
10. BUS BAR SHALL HAVE 12 LUG TERMINALS SIZED TO ACCOMODATE REQUIRED WIRE SIZES. NEUTRAL BUS SHALL BE PAINTED WHITE. GROUND BUS SHALL BE PAINTED GREEN.
11. ALL LUGS SHALL BE COPPER SCREWS AND CONNECTORS, SPRING HELD.
12. ALL WIRING TERMINATIONS SHALL BE RATED NOT LESS THAN 75 DEGREE CENTIGRADE.
13. ALL CONTROL WIRING SHALL BE 600V MACHINE TOOL WIRE TYPE MTW.
14. ALL POWER WIRING SHALL BE 600V TYPE RHH/RHW.
15. A LAMINATED COPY OF THE CIRCUIT SCHEMATIC DIAGRAM SHALL BE ATTACHED TO THE INSIDE OF THE CONTROLLER.
16. ALL 120 VOLT SYSTEM AND ALL CONTROL WIRING SHALL BE #12 AWG STRANDED UNLESS OTHERWISE INDICATED.
17. ALL WIRING SHALL BE IDENTIFIED BY MANUFACTURER COLOR CODED INSULATION, NEATLY DRESSED AND SUPPORTED.
18. INCLUDE SAFETY LABELS ON MAIN BREAKER, "WARNING-THIS DISCONNECT DOES NOT REMOVE ALL POWER FROM THIS PANEL".
19. LABOR AND MATERIALS FOR CONTROLLER FOUNDATION ARE INCIDENTAL TO THE COST OF THE CONTROLLER.
20. CONSTRUCT 36"x36"x4" (MIN SIZE) CONCRETE PAD IN FRONT OF CONTROLLER. LABOR AND MATERIALS ARE INCLUDED IN THE COST OF THE CONTROLLER.



NOTE: PROVIDE TWO TERMINAL LUGS FOR EACH PHASE LEG ON LOAD SIDE OF BRANCH CIRCUIT BREAKERS.

LIGHTING CONTROLLER WIRING DIAGRAM

NO SCALE

STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM
LICENSE NO. - 184-00121 - EXPIRES 4/30/2019
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BAXTER & WOODMAN Consulting Engineers

DESIGNED - MWH	REVISED -	
DRAWN - UKB	REVISED -	
CHECKED - DJS	REVISED -	
DATE - 10-09-18	FILE - 150754SHT_SL-Details.dgn	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STREET LIGHTING DETAILS

SCALE: NONE STA. TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	35
•	3050A/3045	CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

Benchmark #1524: WSW Arrow Bonnet Bolt, fire hydrant at 687 Cherry Street Elev. 650.38

Existing Structure: S.N. 016-8256 was built in 1940 and rehabilitated in 1996. The structure is a 170'-0" long 4-span bridge with non-composite steel superstructure and reinforced concrete deck. The structure width is 33'-11" with a forward right skew of 32°58'00". Includes one 6'-9" raised concrete sidewalk, one 1'-2" raised concrete curb and two Modified Texas Type T411 bridge rails. Existing piers are supported on spread footing and both abutments are spill-thru type on concrete piles.

The existing superstructure is to be removed and replaced. Existing abutment caps are to be removed and replaced, with additional helical ground anchors installed between existing piles to increase capacity. Traffic to be detoured during construction.

No Salvage.

UNION PACIFIC RAILROAD
RE-BUILT 2019 BY
VILLAGE OF WINNETKA
SEC. 15-00104-00-BR
STA. 855+40.32
STR. NO. 016-8256 LOADING HL-93

NAME PLATE
See Std. 515001

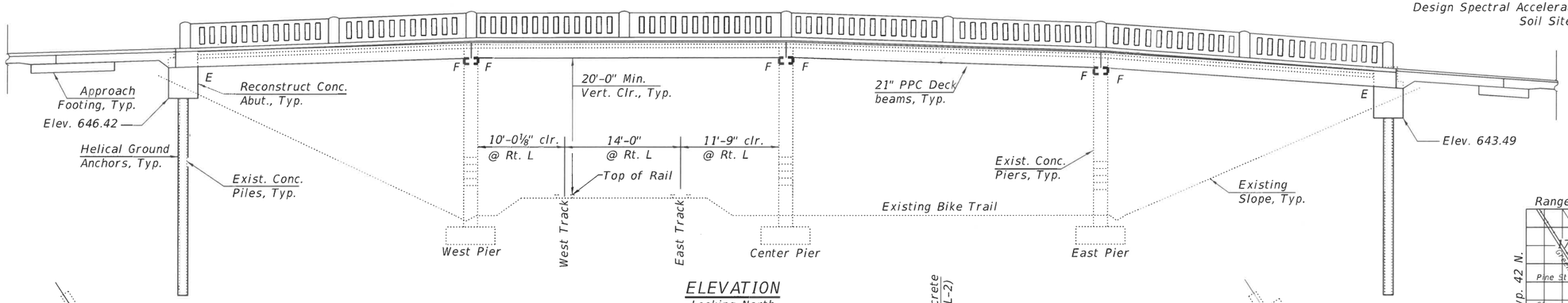
DESIGN SPECIFICATIONS
AASHTO LRFD Bridge Design Specifications,
7th Edition with 2015 Interims

DESIGN STRESSES
FIELD UNITS
f'_c = 3,500 psi
f'_c = 4,000 psi (Appr. Slabs and CWS)
f_y = 60,000 psi (Reinforcement)

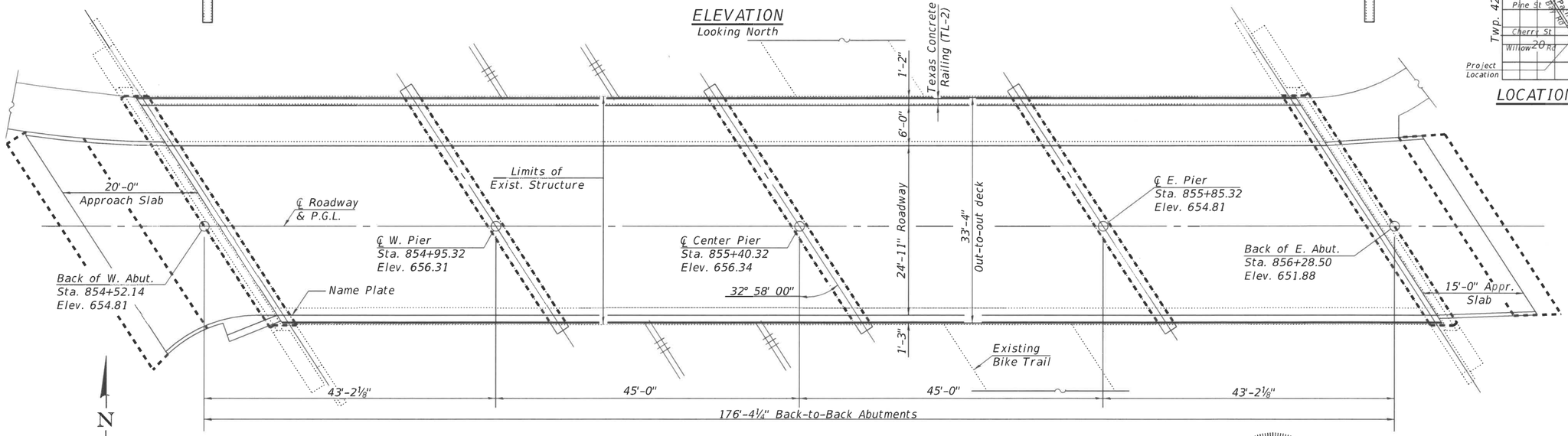
PRECAST PRESTRESSED UNITS
f'_c = 6,000 psi
f'_{ci} = 5,000 psi
f_{pu} = 270,000 psi (1/2" dia. low lax strands)
f_{pbt} = 201,960 psi (1/2" dia. low lax strands)

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

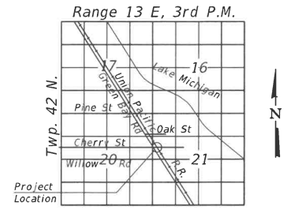
SEISMIC DATA
Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.133
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.094
Soil Site Class = D



ELEVATION
Looking North



PLAN
Span lengths given along ℄ Structure



LOCATION SKETCH

BRANDON L. BUZZELL
081-006358
LICENSED STRUCTURAL ENGINEER
OF ILLINOIS
DATE: 11/8/2018
LICENSE EXPIRES 11/30/20

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

GENERAL PLAN
CHERRY ST OVER UP RR
SEC. 15-00104-00-BR
COOK COUNTY
STATION 855+40.32
STRUCTURE NO. 016-8256

MODEL: Default
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BAXTER & WOODMAN Consulting Engineers	USER NAME =	DESIGNED - BAB	REVISED -
		CHECKED - BLB	REVISED -
	PLOT SCALE =	DRAWN - BAB	REVISED -
	PLOT DATE =	CHECKED - BLB	DATE - 10-09-18

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
STRUCTURE NO. 016-8256
CHERRY STREET SHEET 1 OF 19 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	36
*3050A/3045		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

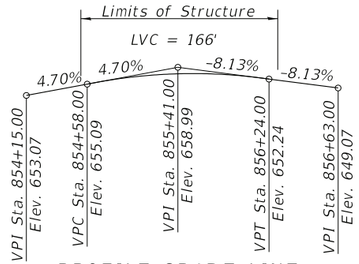
11/8/2018 11:43:18 AM

GENERAL NOTES

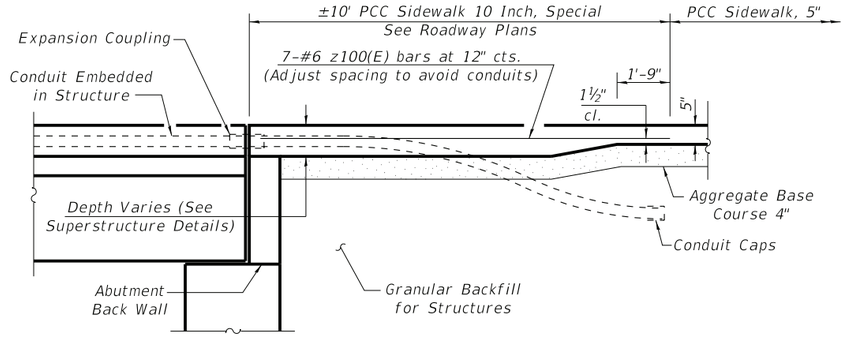
Reinforcement bars designated (E) shall be epoxy coated.

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.

See Existing Conditions & Removal Plan for existing light poles to remain in place.



PROFILE GRADE LINE
Along ℄ Roadway



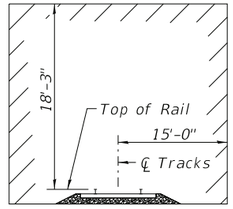
APPROACH SIDEWALK DETAIL
Typical 2 corners
outside limits of approach slabs

APPROACH SIDEWALKS BILL OF MATERIAL

Bar	No.	Size	Length	Shape
z100(E)	14	#6	9'-10"	———
Reinforcement Bars, Epoxy Coated			Pound	210

Reinforcement bars may be bent or cut to fit with the Engineer's approval.
See Roadway Plans for Sidewalk & Aggregate Base Course quantities.

INDEX OF SHEETS

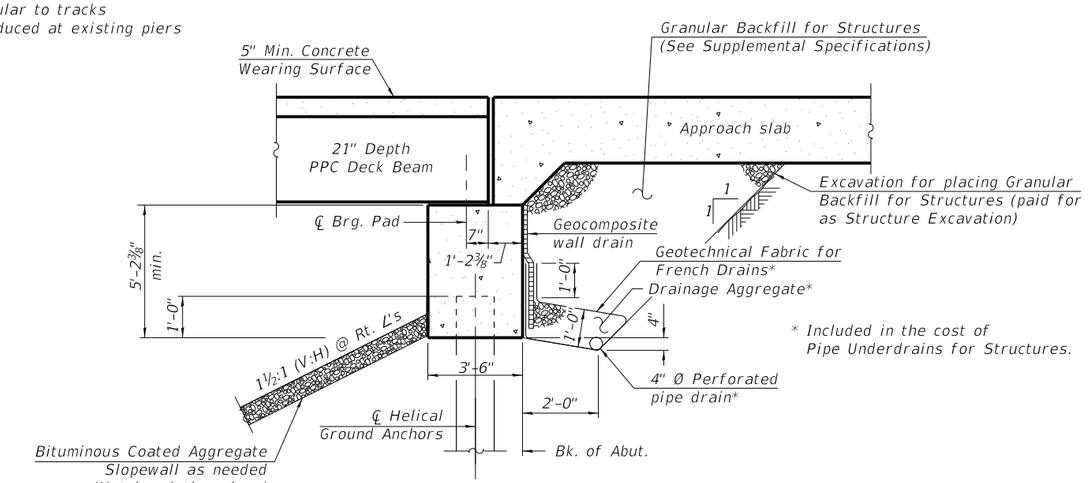


MINIMUM CONSTRUCTION CLEARANCE ENVELOPE

Dimensions perpendicular to tracks
Lateral clearance dimension reduced at existing piers

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal Of Existing Superstructures No. 1	EACH	1		1
Concrete Removal	CU YD		70	70
Protective Shield	SQ YD	626		626
Structure Excavation	CU YD		227	227
Concrete Structures	CU YD		96.1	96.1
Concrete Superstructure	CU YD	67.7		67.7
Bridge Deck Grooving	SQ YD	585		585
Protective Coat	SQ YD	1000		1000
Concrete Superstructure (Approach Slab)	CU YD	50.2		50.2
Precast Prestressed Concrete Deck Beams (21" Depth)	SQ FT	5715		5715
Reinforcement Bars, Epoxy Coated	POUND	40730	12800	53530
Name Plates	EACH	1		1
Preformed Joint Strip Seal	FOOT	64		64
Anchor Bolts, 1"	EACH	4		4
Geocomposite Wall Drain	SQ YD		50	50
Helical Ground Anchors	EACH		8	8
Concrete Wearing Surface, 5"	SQ YD	643		643
Granular Backfill For Structures	CU YD		75	75
Cleaning Bridge Seats	SQ FT		258	258
Approach Slab Removal	SQ YD	150		150
Pipe Underdrains For Structures 4"	FOOT		60	60
Bituminous Coated Aggregate Slopewall 6"	SQ YD		45	45
Temporary Support System, Location 1	EACH		4	4



* Included in the cost of Pipe Underdrains for Structures.

SECTION THRU ABUTMENT
(Horiz. dim. @ Rt. ℄s)

NOTE:
All drainage system components shall extend to 2'-0" from the end of the abutment reconstruction. An outlet pipe shall be routed under the abutment at each end and extended until intersecting with existing embankment slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101). Excavated area in front of abutments shall be restored to their original grade, with the addition of Bituminous Coated Aggregate Slopewall, including an additional 2 feet around proposed concrete headwalls.

MODEL: Default
FILE NAME: I:\Crystal Lake\WINNE\150754-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\Cherry\General.dgn

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 016-8256
CHERRY STREET SHEET 2 OF 19 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	37
*3050A/3045		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

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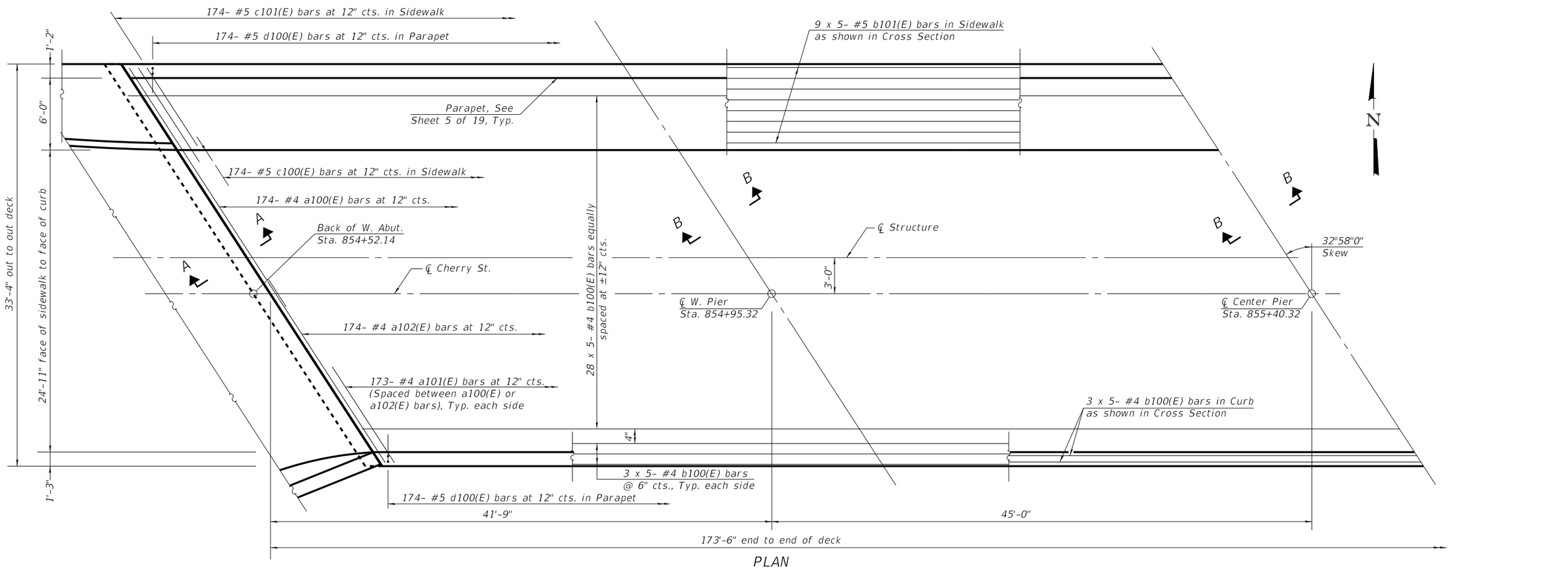
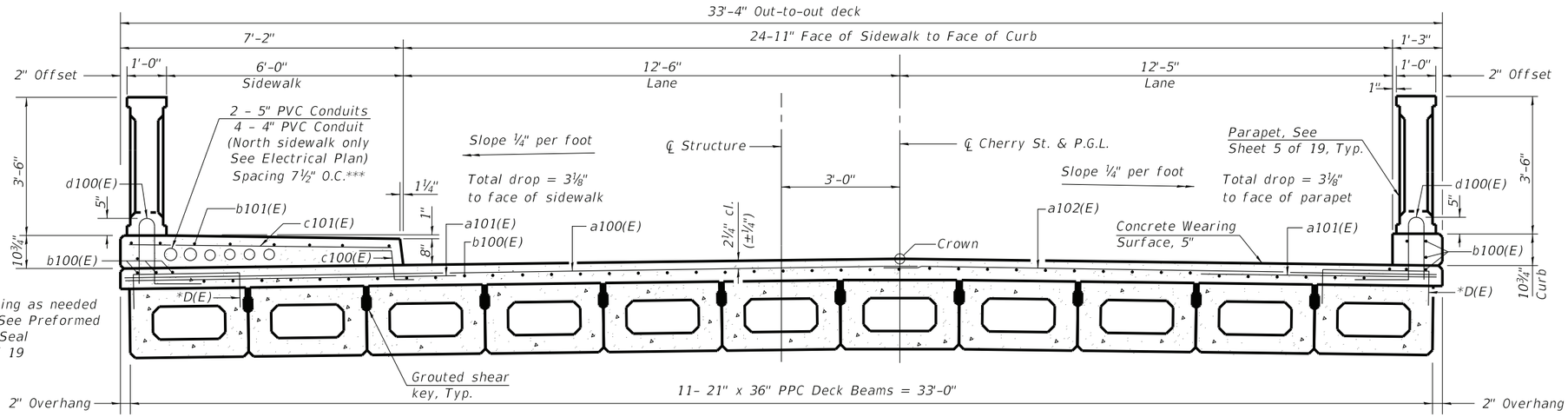


PLAN



CROSS SECTION THRU STRUCTURE

(Looking East)
All dimensions perpendicular to ℄ structure

NOTES

See sheet 4 of 19 for Superstructure Details and Bill of Material.
Bars indicated thus 1 x 4-#4 etc. indicates 1 line of bars with 4 lengths per line.
Spacing of a100(E), a101(E) and a102(E) bars shall be measured along the ℄ of structure.

MINIMUM BAR LAP

#4 bar = 2'-5"
#5 bar = 3'-0"

* Place #4 D(E) bars at 9" cts. in fascia beam, D(E) bar included in cost of beam.

MODEL: Default
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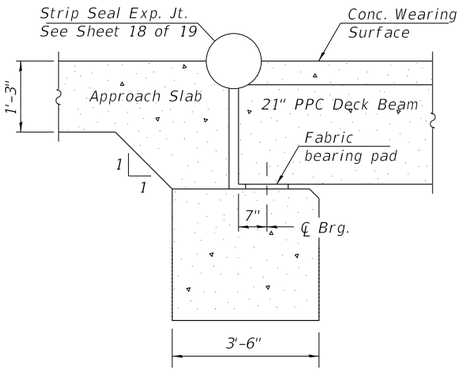
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO. 016-8256
CHERRY STREET SHEET 3 OF 19 SHEETS

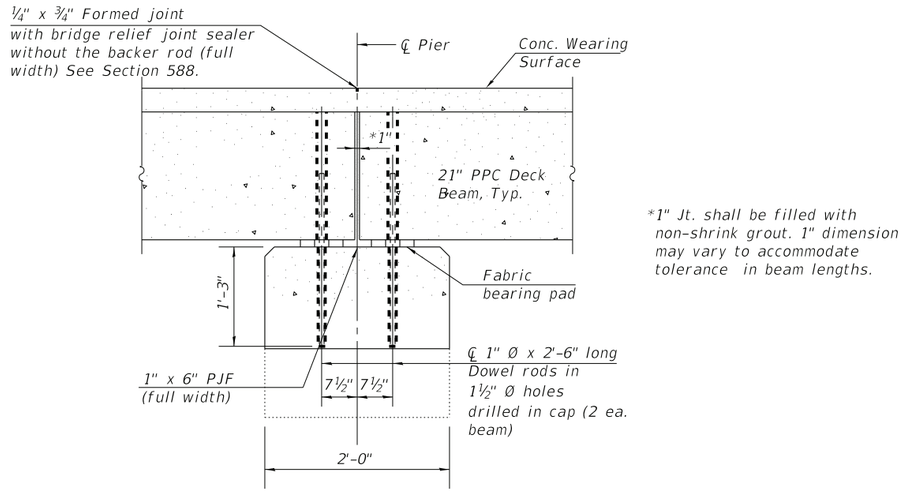
MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	38
*3050A/3045		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



SECTION A-A

(Dimensions are at Rt. ∠'s)

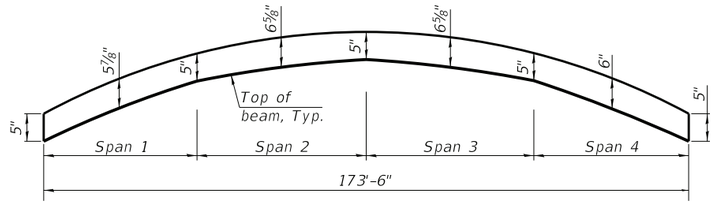
Notes:
All concrete wearing surfaces shall be placed prior to casting a backwall and/or approach slab.
See PPC Deck Beam Details for fabric bearing pad details.



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

SECTION B-B

(Dimensions are at Rt. ∠'s)

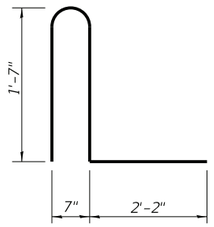


ANTICIPATED CONCRETE WEARING SURFACE PROFILE

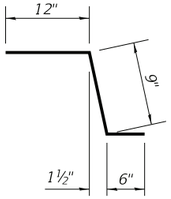
(For information only)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a100(E)	174	#4	24'-6"	———
a101(E)	346	#4	6'-0"	———
a102(E)	174	#4	17'-4"	———
b100(E)	185	#4	36'-7"	———
b101(E)	45	#5	37'-1"	———
c100(E)	174	#5	2'-3"	⌐
c101(E)	174	#5	8'-1"	———
d100(E)	348	#5	5'-11"	⌐⌐
Reinforcement Bars, Epoxy Coated			Pound	16540
Concrete Superstructure			Cu. Yd.	36
Concrete Wearing Surface, 5"			Sq. Yd.	643
Anchor Bolts, 1"			Each	4



BAR d100(E)



BAR c100(E)

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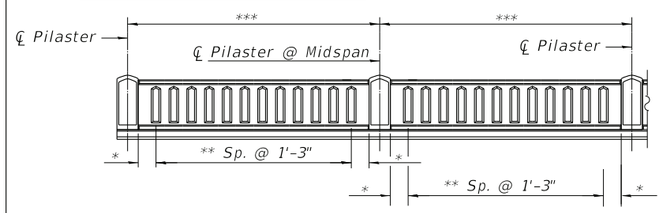
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 016-8256

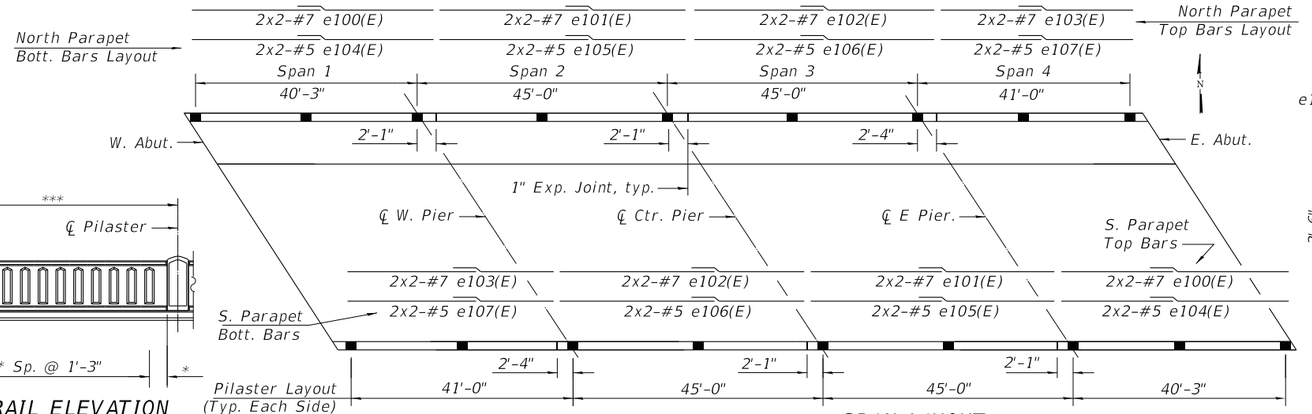
CHERRY STREET SHEET 4 OF 19 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	39
*3050A/3045		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

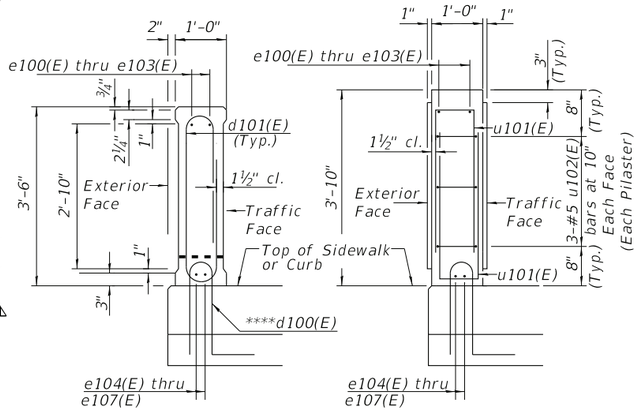
		*	**	***
North	Span 1	1'-2¼"	13	20'-1½"
	Span 2	1'-1½"	15	22'-6"
	Span 3	1'-1½"	15	22'-6"
	Span 4	1'-4½"	13	20'-6"
South	Span 1	1'-4½"	13	20'-6"
	Span 2	1'-1½"	15	22'-6"
	Span 3	1'-1½"	15	22'-6"
	Span 4	1'-2¼"	13	20'-1½"



EXTERIOR FACE OF BRIDGE RAIL ELEVATION



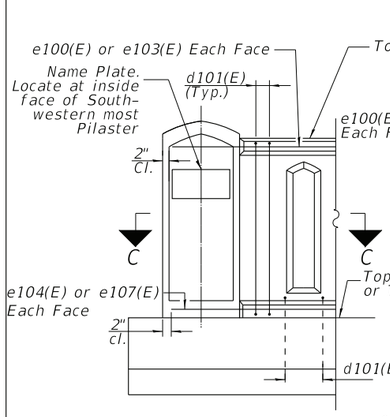
SPAN LAYOUT



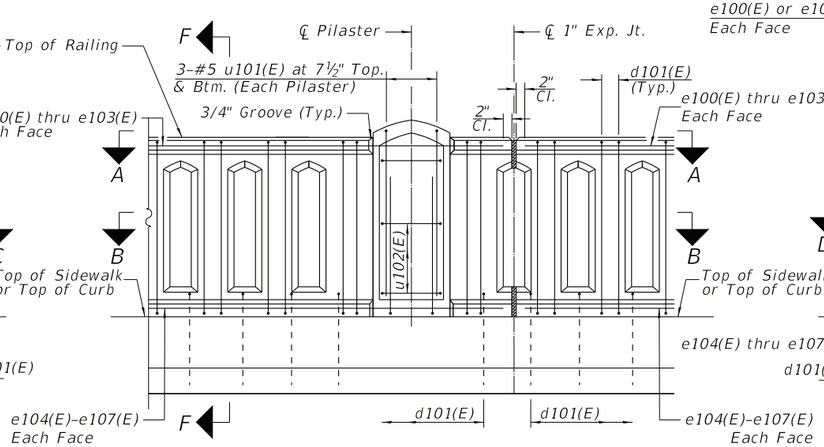
SECTION F-F
(Typ. @ Posts)

SECTION E-E
(Typ. @ Pilaster)

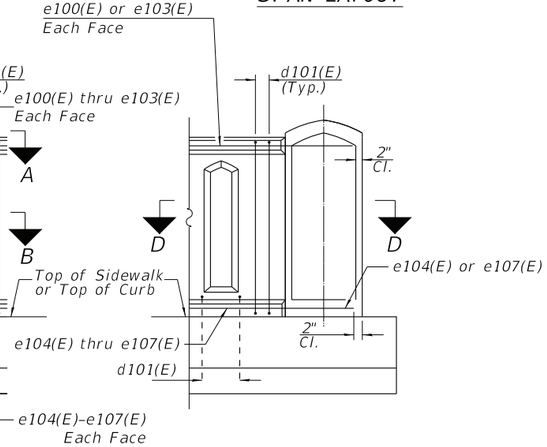
**** Place d100(E) with Concrete Wearing Surface. See Sheet 3 of 19.



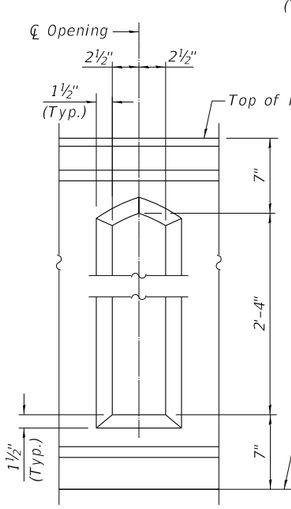
END PILASTER ELEVATION
(Typ. of Span 1)



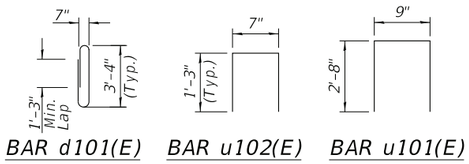
PARTIAL ELEVATION AT CENTER PILASTER
For Expansion Joint Location see span layout
Extend sidewalk and curb to edge of deck



END PILASTER ELEVATION
(Typ. of Span 4)
Note: Traffic Face Elevations

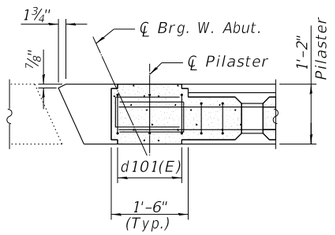


OPENING DETAIL

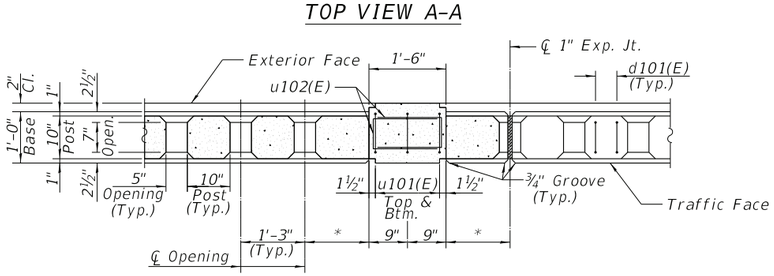


BAR d101(E) BAR u102(E) BAR u101(E)

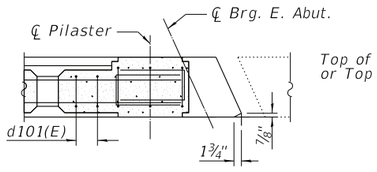
Bar	No.	Size	Length	Shape
d101(E)	512	#5	9'-1"	
e100(E)	4	#7	24'-0"	
e101(E)	4	#7	25'-0"	
e102(E)	4	#7	25'-2"	
e103(E)	4	#7	22'-3"	
e104(E)	4	#5	23'-0"	
e105(E)	4	#5	24'-0"	
e106(E)	4	#5	24'-2"	
e107(E)	4	#5	21'-3"	
u101(E)	108	#5	6'-1"	
u102(E)	108	#5	3'-1"	
Reinforcement Bars, Epoxy Coated			Pound	7060
Concrete Superstructure			Cu. Yd.	30.7



SECTION C-C

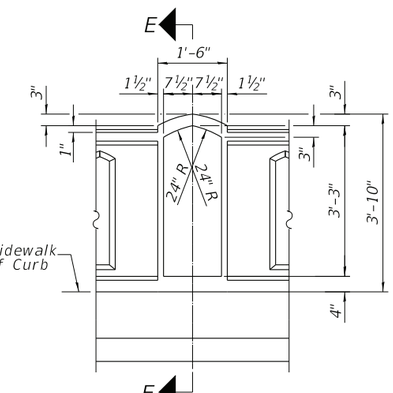


SECTION B-B



SECTION D-D

DETAIL 1
(Typ. at Piers)



DETAIL SECTION OF PILASTER

Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 1x2-#5 etc. indicated 1 line of bars with 2 lengths per line
Reinforcement bars shall not pass thru the expansion joints.

MODEL: Default
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPET DETAILS
STRUCTURE NO. 016-8256
CHERRY STREET SHEET 5 OF 19 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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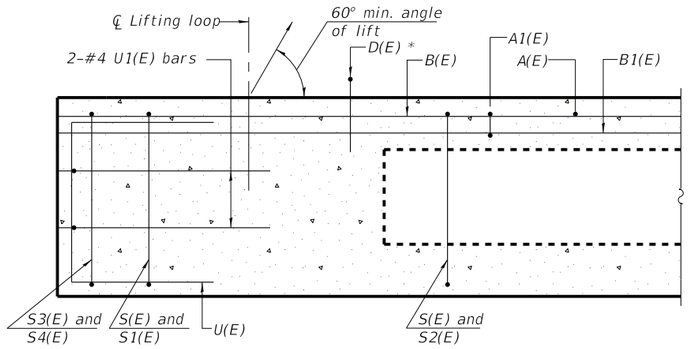
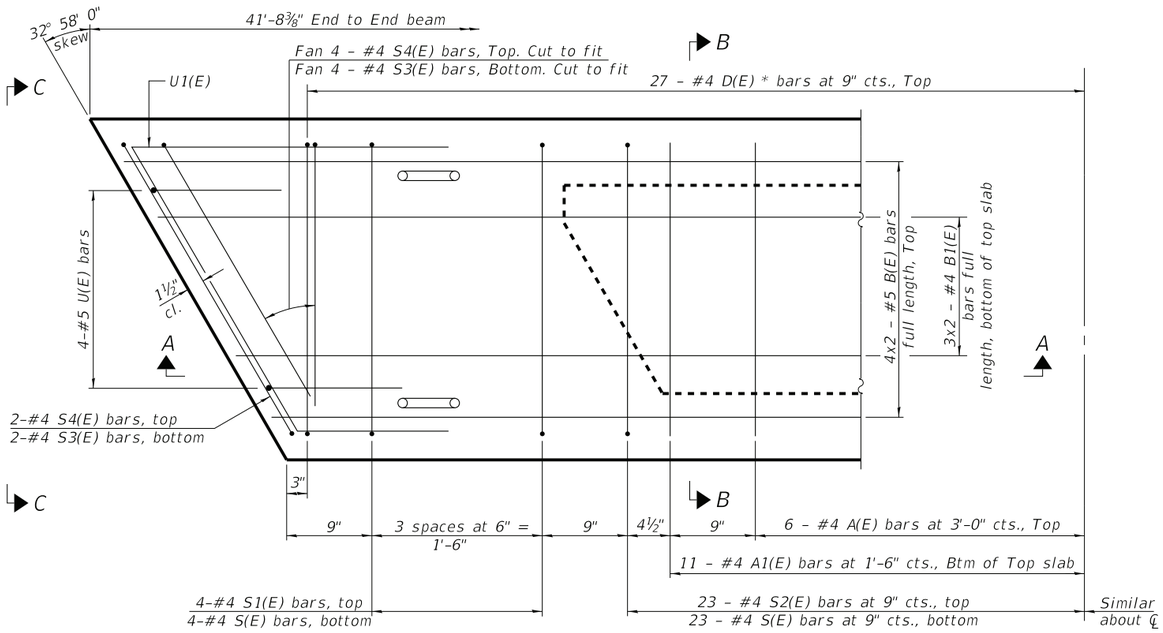
*3050A/3045		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

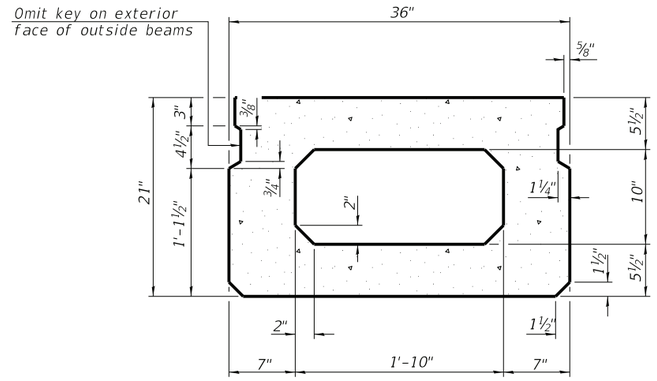


SECTION A-A



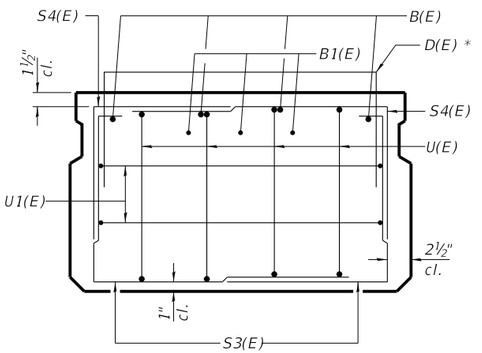
PLAN VIEW

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

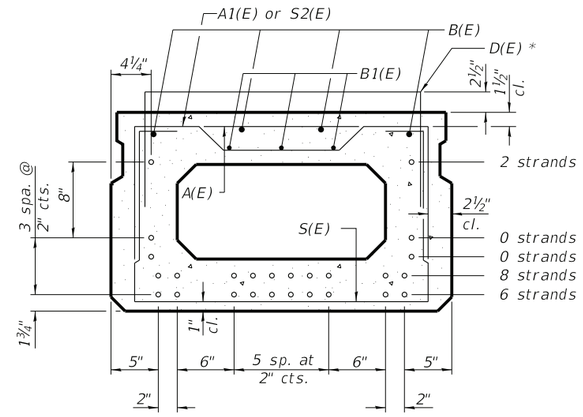


SECTION B-B

(Showing dimensions)



VIEW C-C



SECTION B-B

(Showing reinforcement and permissible strand locations)

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

MINIMUM BAR LAP

#4 bar = 1'-11"
#5 bar = 2'-6"

BAR LIST

ONE BEAM ONLY

(For information only)

	Bar	No.	Size	Length	Shape
	A(E)	12	#4	2'-7"	——
	A1(E)	22	#4	2'-10"	⌣
	B(E)	8	#5	22'-0"	——
	B1(E)	6	#4	21'-8"	——
*	D(E)	54	#4	4'-7"	⌐¬
	S(E)	54	#4	6'-5"	⌐¬
	S1(E)	8	#4	4'-11"	⌐¬
	S2(E)	46	#4	5'-2"	⌐¬
	S3(E)	12	#4	4'-7"	⌐¬
	S4(E)	12	#4	3'-10"	⌐¬
	U(E)	8	#5	4'-0"	⊏
	U1(E)	4	#4	7'-6"	⊏

Note:
See sheet 7 of 19 for additional details and Bill of Material.

* D(E) bars in fascia beams only.

MODEL: Spans 1 and 4 21x36 Beams
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PD-2136-R 2-17-2017

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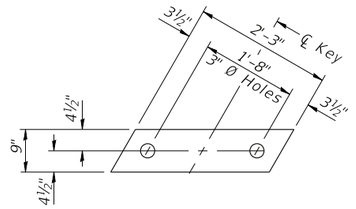
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

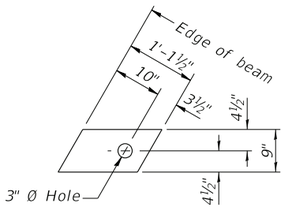
21" x 36" PPC DECK BEAM - SPANS 1 & 4
STRUCTURE NO. 016-8256

CHERRY STREET SHEET 6 OF 19 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	41
*3050A/3045		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



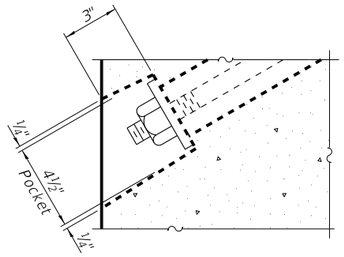
FABRIC BEARING PAD
(Interior)



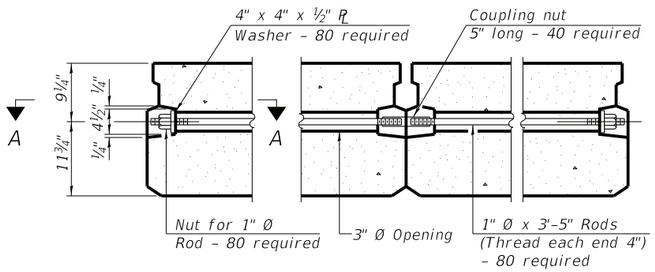
FABRIC BEARING PAD
(Exterior)

FIXED

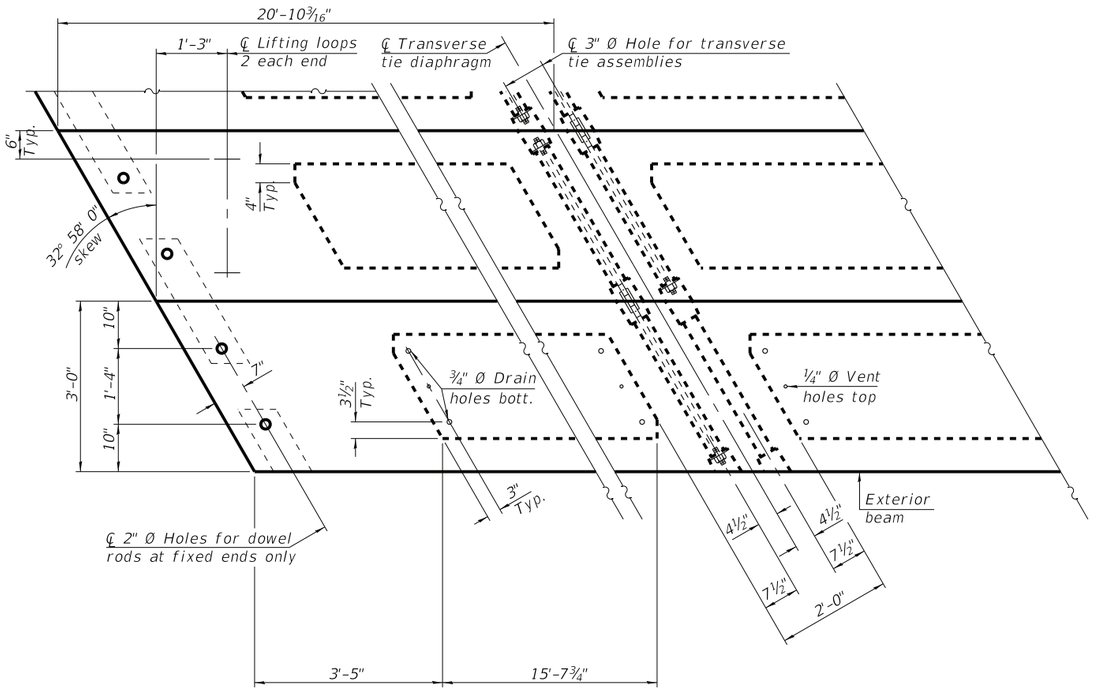
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



SECTION A-A

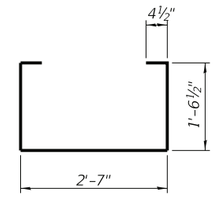


TYPICAL TRANSVERSE TIE ASSEMBLY

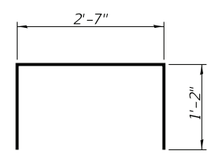


PLAN VIEW

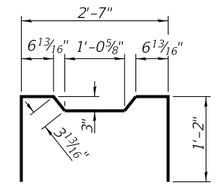
Note: Connect beams in pairs with the transverse tie configuration shown.



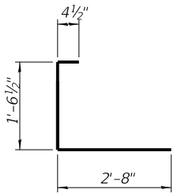
BAR S(E)



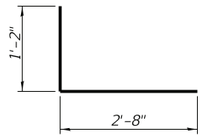
BAR S1(E)



BAR S2(E)



BAR S3(E)



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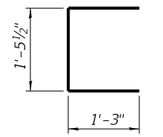
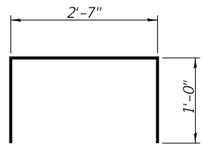
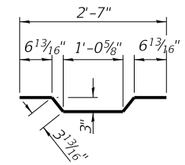


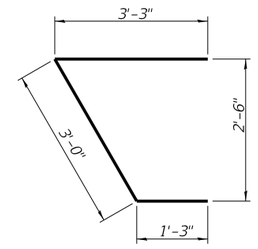
BAR U(E)



BAR D(E)
Fascia Beams Only



BAR A1(E)



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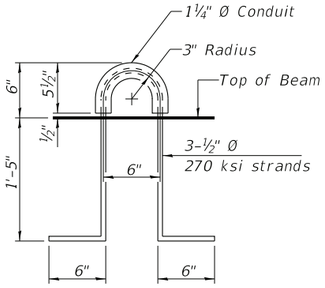

LIFTING LOOP DETAIL

NOTES

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

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

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

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

Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

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

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

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (21" depth)	Sq. Ft.	2,752

PD-2136-RD 2-17-2017

BAXTER & WOODMAN Consulting Engineers

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		CHECKED -	BLB	REVISED -	
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PLOT DATE =		CHECKED -	BLB	DATE -	10-09-18

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

21" x 36" PPC DECK BEAM DETAILS - SPANS 1 & 4
STRUCTURE NO. 016-8256

CHERRY STREET SHEET 7 OF 19 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	42
*3050A/3045		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

MODEL: Spans 1 and 4 21x36 Beams
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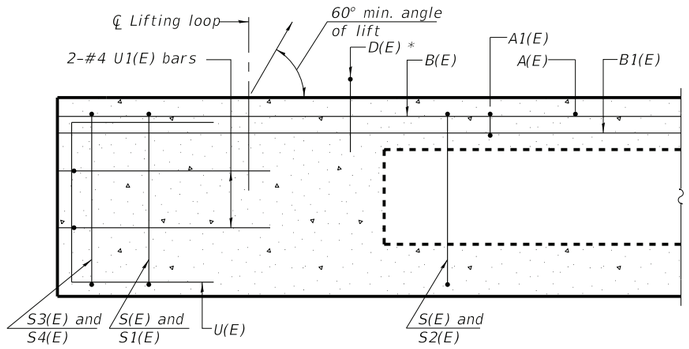
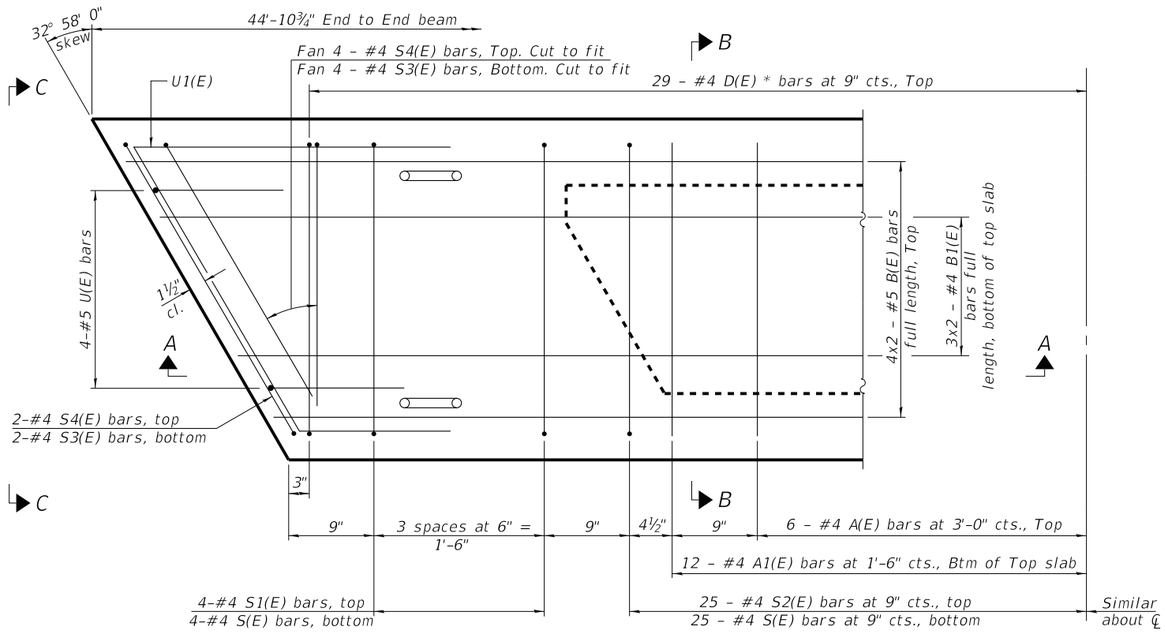
11/9/2018 9:13:36 AM

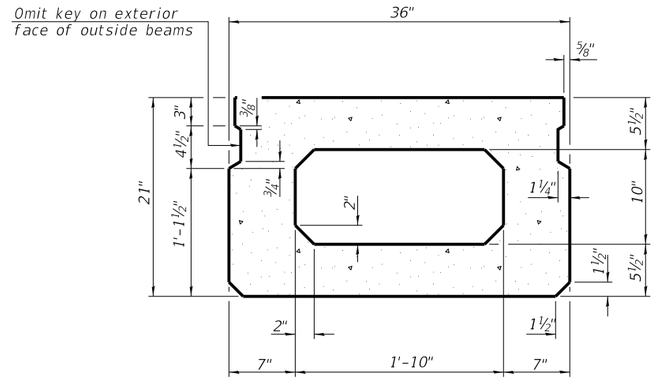


SECTION A-A



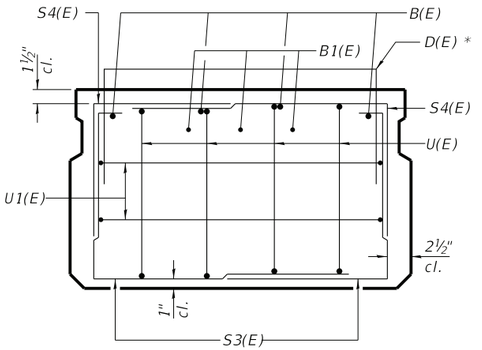
PLAN VIEW

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

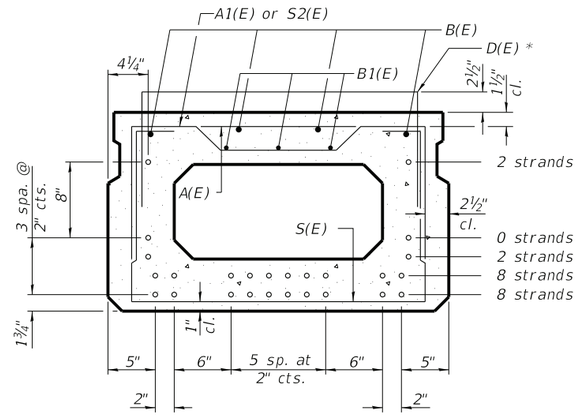


SECTION B-B

(Showing dimensions)



VIEW C-C



SECTION B-B

(Showing reinforcement and permissible strand locations)

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

MINIMUM BAR LAP

#4 bar = 1'-11"
#5 bar = 2'-6"

BAR LIST

ONE BEAM ONLY

(For information only)

	Bar	No.	Size	Length	Shape
	A(E)	12	#4	2'-7"	——
	A1(E)	24	#4	2'-10"	⌣
	B(E)	8	#5	23'-6"	——
	B1(E)	6	#4	23'-3"	——
*	D(E)	58	#4	4'-7"	⌐¬
	S(E)	58	#4	6'-5"	⌐¬
	S1(E)	8	#4	4'-11"	⌐¬
	S2(E)	50	#4	5'-2"	⌐¬
	S3(E)	12	#4	4'-7"	⌐¬
	S4(E)	12	#4	3'-10"	⌐¬
	U(E)	8	#5	4'-0"	⊏
	U1(E)	4	#4	7'-6"	⌐

Note:
See sheet 9 of 19 for additional details and Bill of Material.

* D(E) bars in fascia beam only.

MODEL: Spans 2 and 3 21x36 Beams
FILE NAME: I:\Crystal Lake\WINNE\150754-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\Cherry\Beams.dgn
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PD-2136-R 2-17-2017

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	CHECKED - BLB	REVISED -	
PLOT SCALE =	DRAWN - BAB	REVISED -	
PLOT DATE =	CHECKED - BLB	DATE - 10-09-18	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

21" x 36" PPC DECK BEAM - SPANS 2 & 3
STRUCTURE NO. 016-8256

CHERRY STREET SHEET 8 OF 19 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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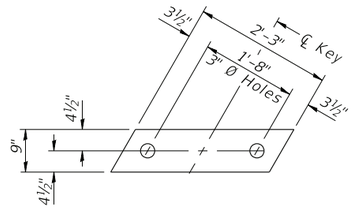
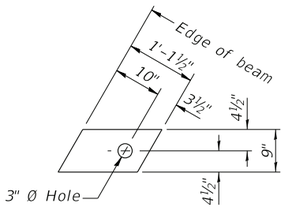
*3050A/3045		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



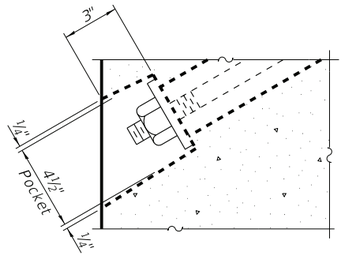
FABRIC BEARING PAD
(Interior)



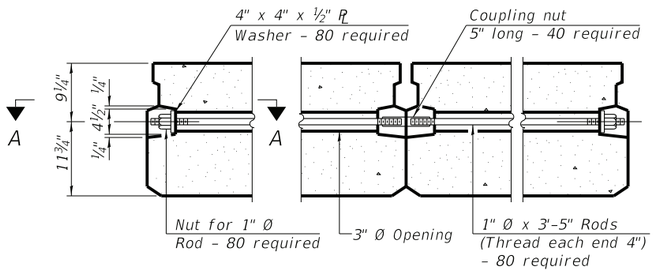
FABRIC BEARING PAD
(Exterior)

FIXED

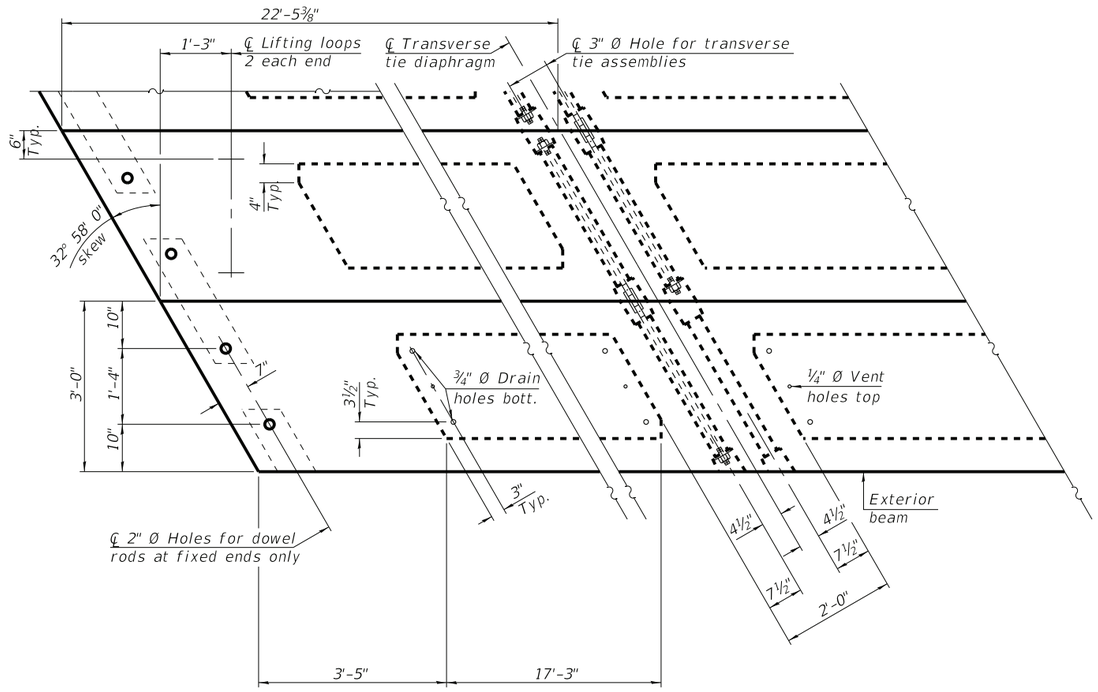
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



SECTION A-A

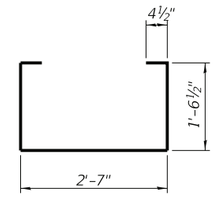


TYPICAL TRANSVERSE TIE ASSEMBLY

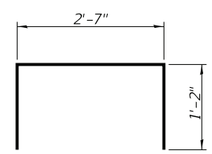


PLAN VIEW

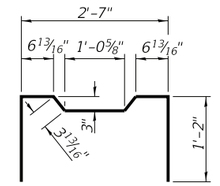
Note: Connect beams in pairs with the transverse tie configuration shown.



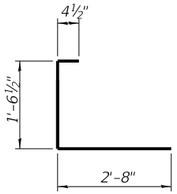
BAR S(E)



BAR S1(E)



BAR S2(E)



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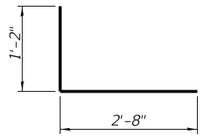
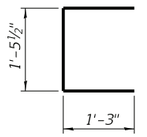
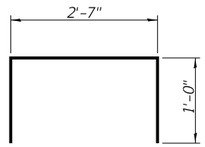


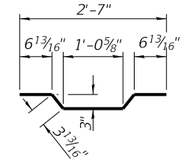
BAR S4(E)



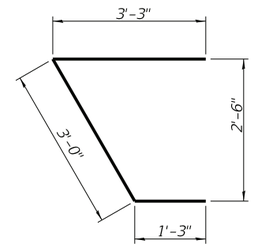
BAR U(E)



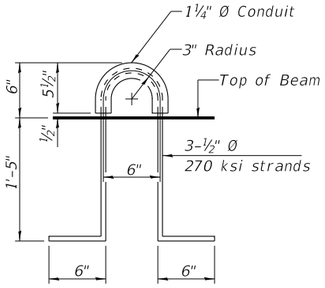
BAR D(E)
Fascia Beams Only



BAR A1(E)



BAR U1(E)



LIFTING LOOP DETAIL

NOTES

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

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

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

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

Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

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

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

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (21" depth)	Sq. Ft.	2,963

PD-2136-RD 2-17-2017

BAXTER & WOODMAN Consulting Engineers

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PLOT SCALE =		DRAWN -	BAB	REVISED -	
PLOT DATE =		CHECKED -	BLB	DATE -	10-09-18

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

21" x 36" PPC DECK BEAM DETAILS - SPANS 2 & 3
STRUCTURE NO. 016-8256

CHERRY STREET SHEET 9 OF 19 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	44
*3050A/3045		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

MODEL: Spans 2 and 3 21x36 Beams
FILE NAME: I:\Crystal Lake\WINNE150754-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\Cherry\Beams.dgn

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Notes:

The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.

Approach slab shall be paid for as Concrete Superstructure (Approach Slab).

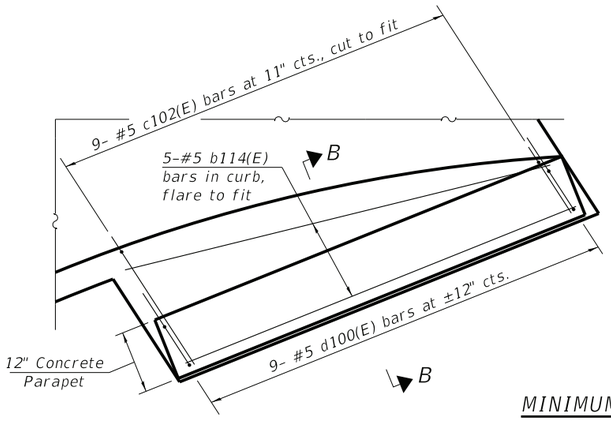
Approach footing concrete shall be paid for as Concrete Structures.

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

Cost of excavation for approach footing included with Concrete Structures.

For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 19.

See Sheet 5 of 19 for additional bar bending details.



DETAIL A

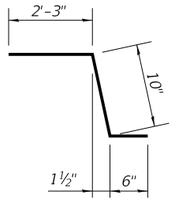
MINIMUM BAR LAP

#5 bar = 3'-4"

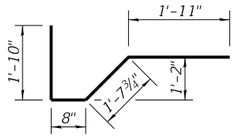
#8 bar = 4'-9"

WEST APPROACH SLAB
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a110(E)	48	#5	21'-7"	
a111(E)	64	#8	21'-9"	
a112(E)	4	#8	21'-2"	
a113(E)	2	#5	31'-4"	
a114(E)	12	#5	7'-6"	
b110(E)	51	#5	19'-8"	
b111(E)	80	#9	19'-8"	
b112(E)	2	#4	19'-8"	
b113(E)	2	#4	17'-1"	
b114(E)	10	#5	7'-11"	
c102(E)	11	#5	3'-7"	
d100(E)	9	#5	5'-11"	
d101(E)	8	#5	9'-1"	
e108(E)	2	#7	7'-8"	
e109(E)	2	#5	7'-8"	
t110(E)	84	#4	9'-8"	
t111(E)	2	#4	11'-0"	
u101(E)	12	#5	6'-1"	
u102(E)	12	#5	3'-1"	
w110(E)	80	#5	22'-0"	
x100(E)	27	#5	6'-1"	
Concrete Superstructure (Approach Slab)		Cu. Yd.	29.8	
Concrete Superstructure		Cu. Yd.	1.0	
Concrete Structures		Cu. Yd.	11.8	
Reinforcement Bars, Epoxy Coated		Pound	14610	

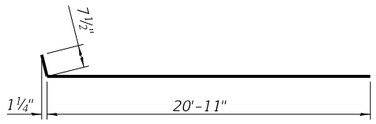


BAR c102(E)

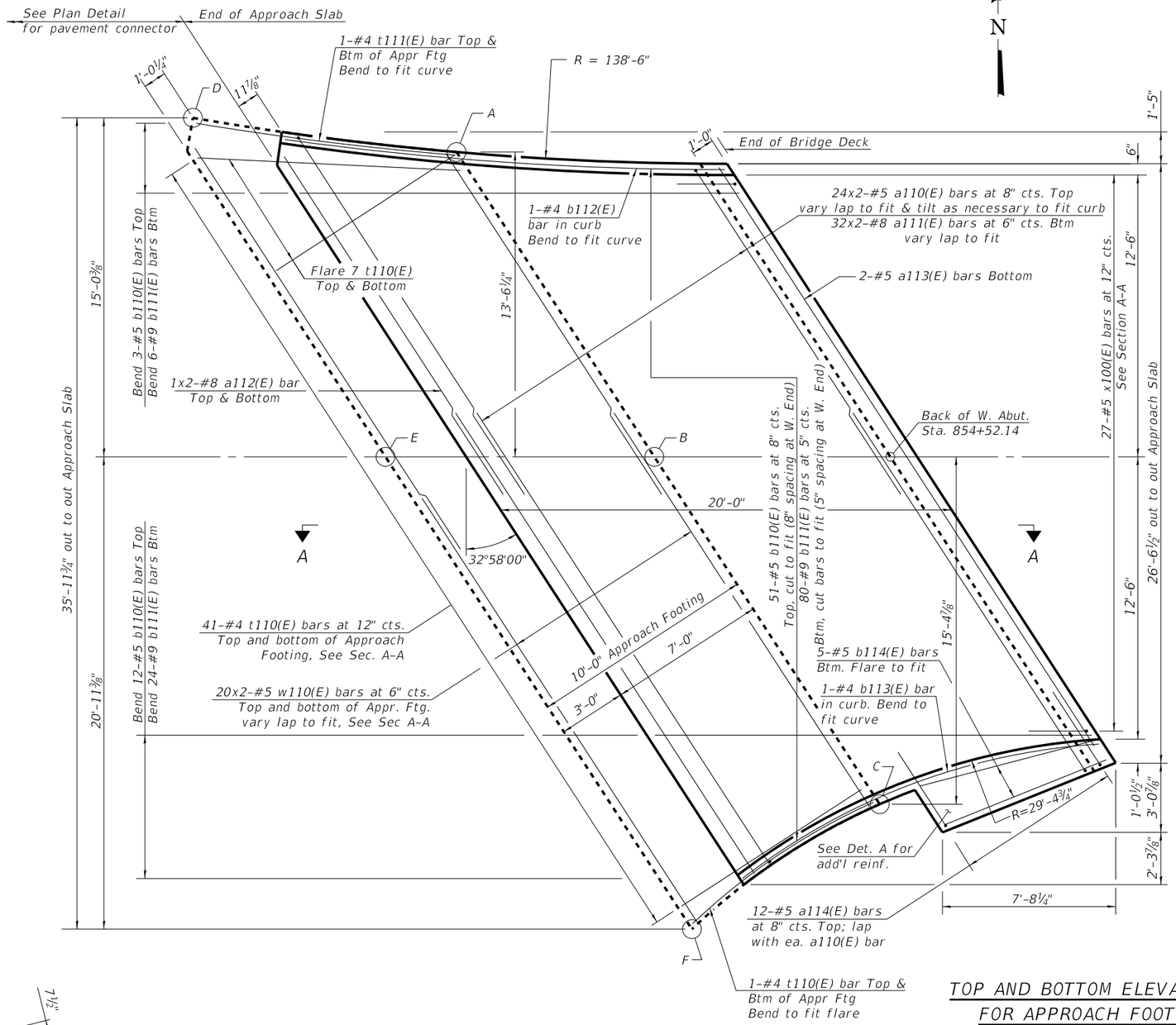


BAR x100(E)

BAR a114(E)



BAR a110(E)



Bars indicated thus 1 x 4-#4 etc. indicates 1 line of bars with 4 lengths per line.

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

	West Approach	
Point	Top	Bottom
A	652.39	651.56
B	653.07	652.24
C	653.23	652.40
D	651.81	650.98
E	652.51	651.68
F	652.73	651.90

MODEL: West Approach
FILE NAME: I:\Crystal Lake\WINNE150754-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\CherryApproach.dgn

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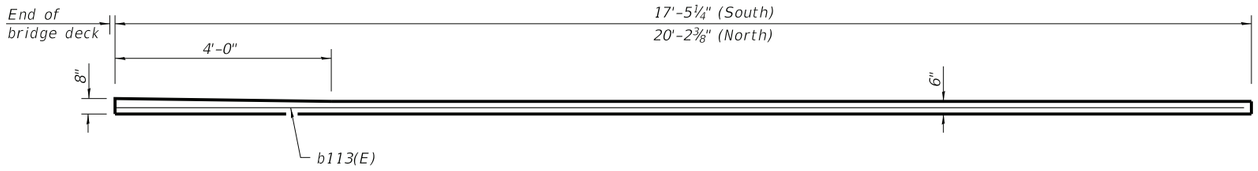
	CHECKED - BLB	REVISED -
PLOT SCALE =	DRAWN - BAB	REVISED -
PLOT DATE =	CHECKED - BLB	DATE - 10-09-18

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 016-8256

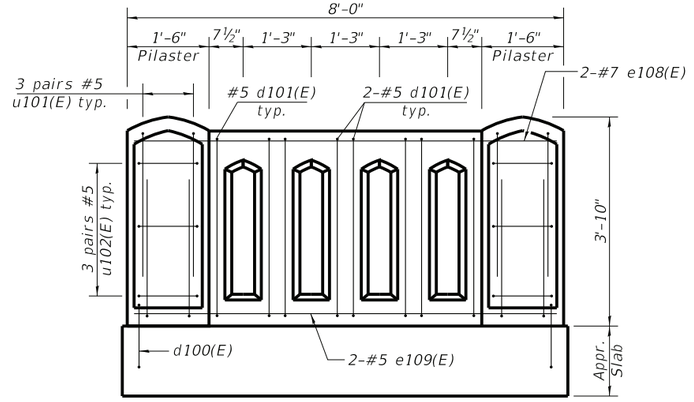
CHERRY STREET SHEET 10 OF 19 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	45
*3050A/3045		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



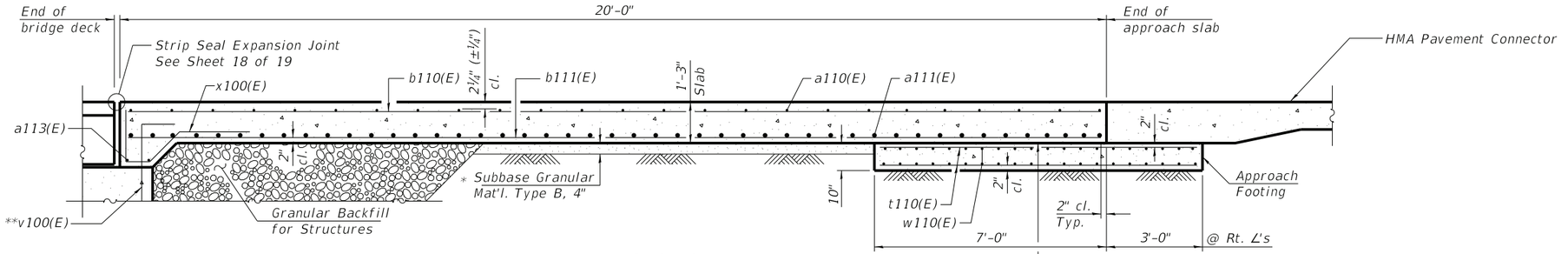
INSIDE ELEVATION OF CURB

(South curb shown; North curb similar)



APPROACH PARAPET ELEVATION

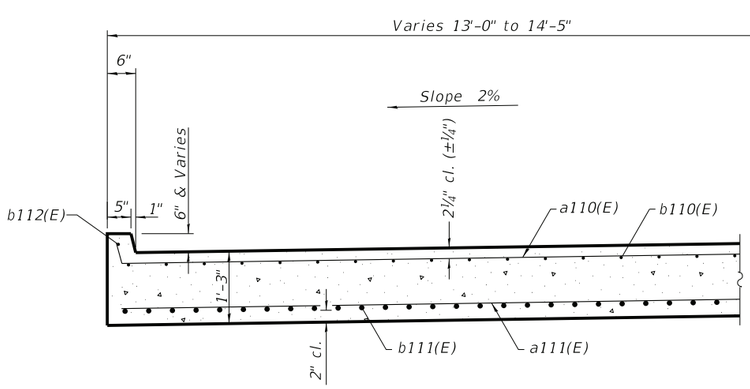
See Sheet 5 of 19 for additional details



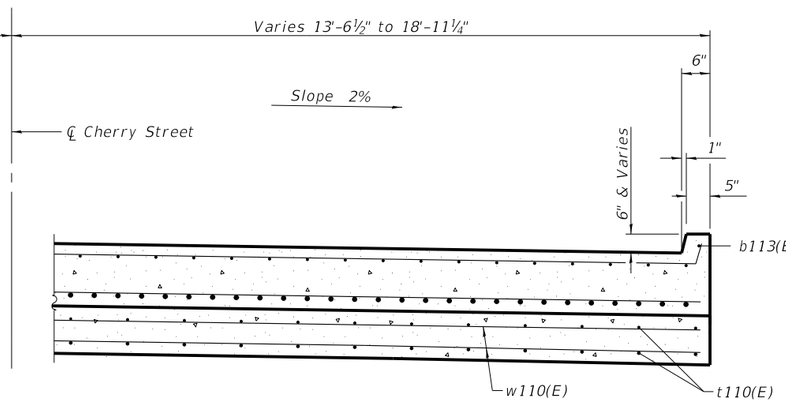
SECTION A-A

* Cost included with Concrete Superstructure (Approach Slab).

** #5 v100(E) at 12" Placed with Abutment, v100(E) bar included in cost of Abutment.



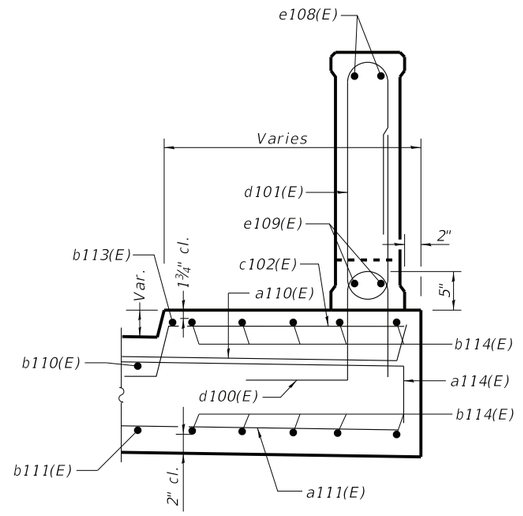
NEAR ABUTMENT



AT APPROACH FOOTING

CROSS SECTION

(Looking East)



SECTION B-B

See Sheet 5 of 19 for additional barrier details

(Sheet 2 of 2)

MODEL: West Approach
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 016-8256

CHERRY STREET SHEET 11 OF 19 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	46
*3050A/3045		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

Notes:

The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.

Approach slab shall be paid for as Concrete Superstructure (Approach Slab).

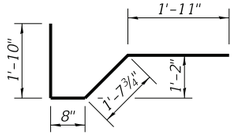
Approach footing concrete shall be paid for as Concrete Structures.

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

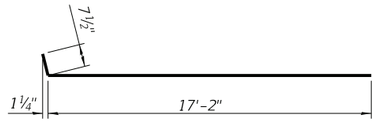
Cost of excavation for approach footing included with Concrete Structures.

For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 19.

Bars indicated thus 1 x 4-#4 etc. indicates 1 line of bars with 4 lengths per line.



BAR x100(E)



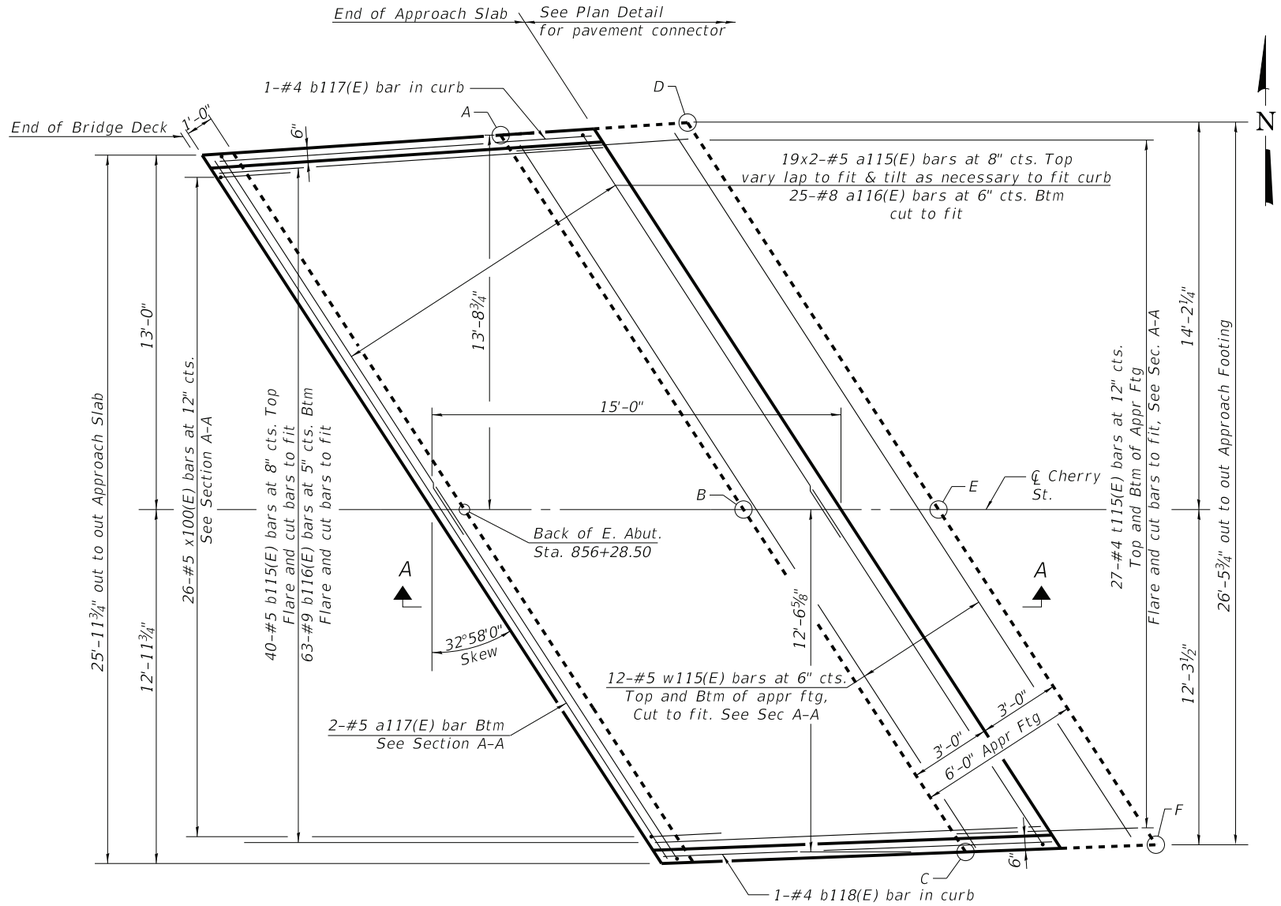
BAR a115(E)

MINIMUM BAR LAP

#5 bar = 3'-4"

EAST APPROACH SLAB BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a115(E)	38	#5	17'-10"	
a116(E)	25	#8	31'-1"	
a117(E)	2	#5	30'-7"	
b115(E)	40	#5	14'-8"	
b116(E)	63	#9	14'-8"	
b117(E)	1	#4	14'-1"	
b118(E)	1	#4	14'-4"	
t115(E)	54	#4	6'-9"	
w115(E)	24	#5	31'-1"	
x100(E)	26	#5	6'-1"	
Concrete Superstructure (Approach Slab)		Cu. Yd.	20.4	
Concrete Structures		Cu. Yd.	5.9	
Reinforcement Bars, Epoxy Coated		Pound	7810	



PLAN

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

	East Approach	
Point	Top	Bottom
A	650.25	649.42
B	649.80	648.97
C	648.89	648.06
D	649.68	648.85
E	649.22	648.39
F	648.32	647.49

MODEL: East Approach
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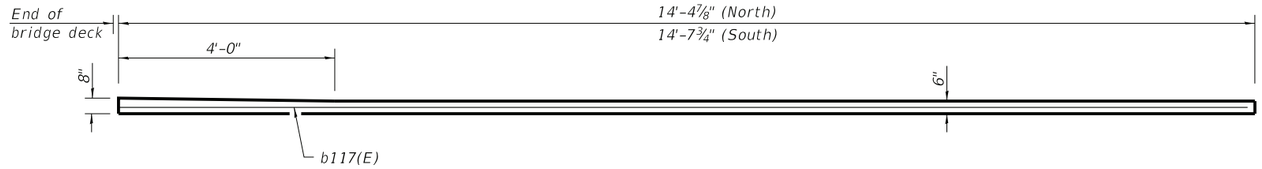
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 016-8256

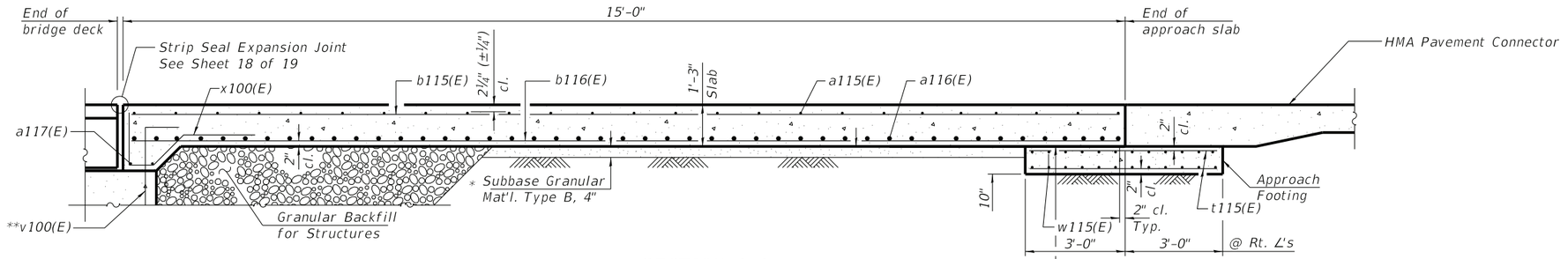
CHERRY STREET SHEET 12 OF 19 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	47
*3050A/3045		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



INSIDE ELEVATION OF CURB

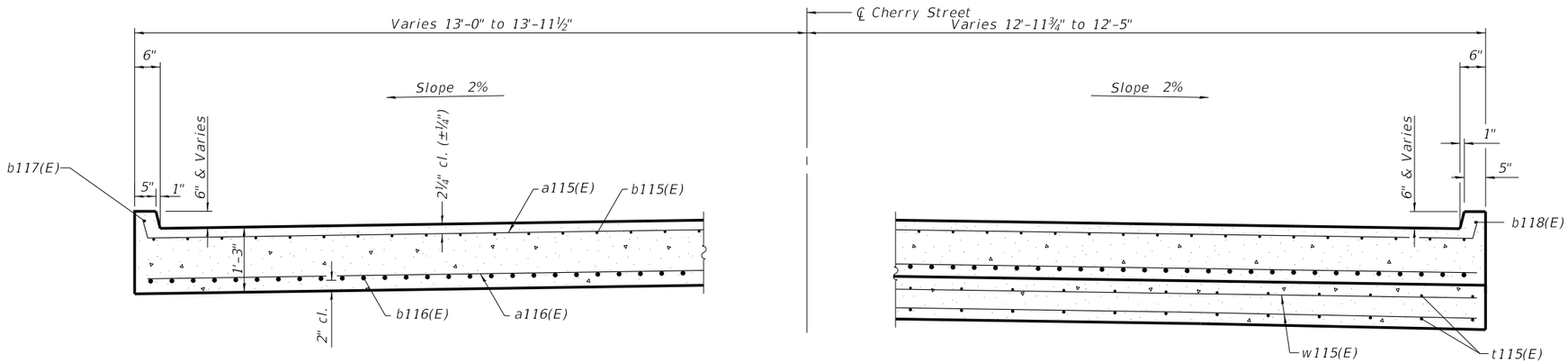
(North curb shown; South curb similar)



SECTION A-A

* Cost included with Concrete Superstructure (Approach Slab).

** #5 v100(E) at 12" Placed with Abutment, v100(E) bar included in cost of Abutment.



NEAR ABUTMENT

AT APPROACH FOOTING

CROSS SECTION

(Looking East)

MODEL: East Approach
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 016-8256

CHERRY STREET SHEET 13 OF 19 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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*3050A/3045	CONTRACT NO.			
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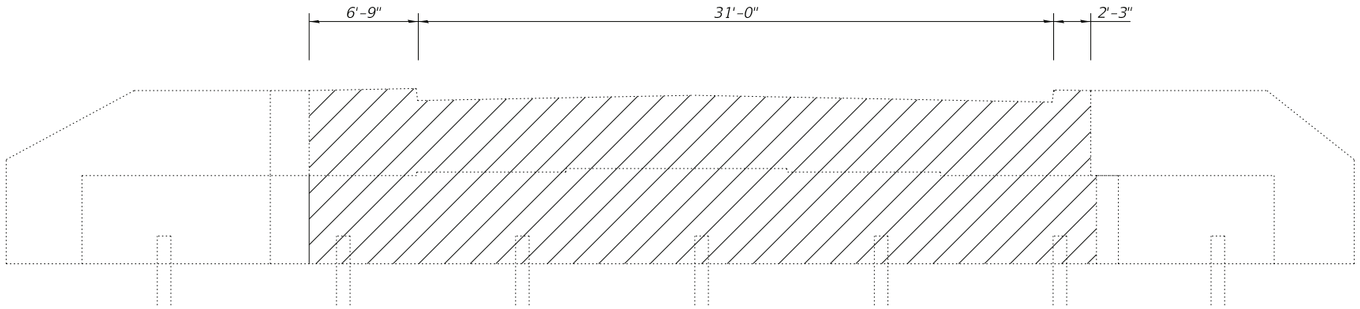
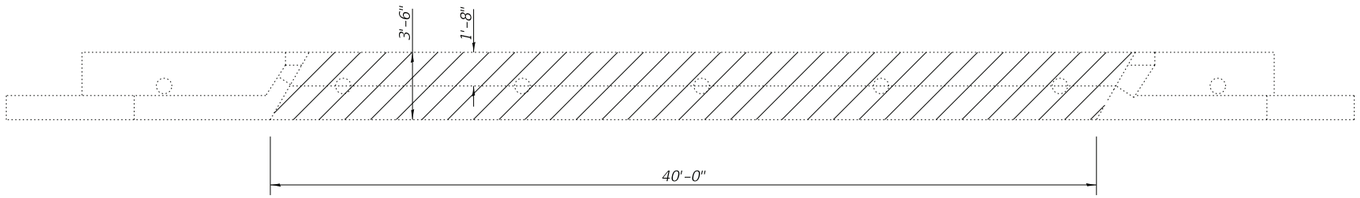


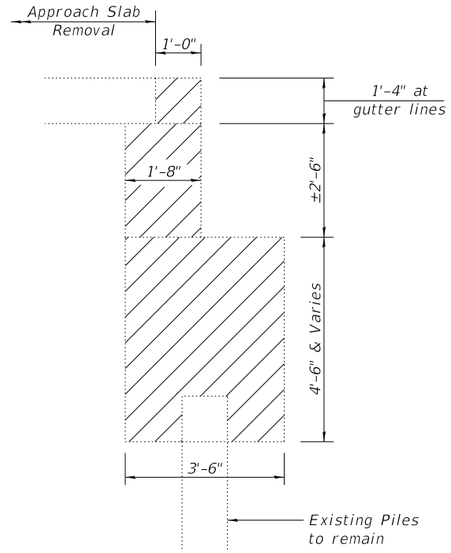
ELEVATION

Both abutments similar



PLAN

Both abutments similar



SECTION THRU ABUTMENT

Dimensions at right angles

NOTES

Removal of Existing Superstructures shall include removal of the existing expansion bearings, steel structure, concrete deck, sidewalk, parapet, and all associated or attached items. Protective Shield shall be installed prior to beginning any removal operations.

Portions of the existing abutments and wingwalls to remain in place shall be braced or supported in place as needed until new abutment concrete has cured for a minimum of 3 days. Cost included with Temporary Support System.

Existing piles are to be protected in place during removal operations, and incorporated into new construction. The Engineer shall be notified immediately if the existing piles are damaged, or are found not to be in their expected locations.

Hatched areas indicates Concrete Removal.

BILL OF MATERIAL

Item	Unit	Total
Removal of Existing Superstructures No. 1	Each	1
Protective Shield	Sq. Yd.	626
Concrete Removal	Cu. Yd.	70
Temporary Support System, Location 1	Each	4

MODEL: Removal Details
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REMOVAL DETAILS
STRUCTURE NO. 016-8256

CHERRY STREET SHEET 14 OF 19 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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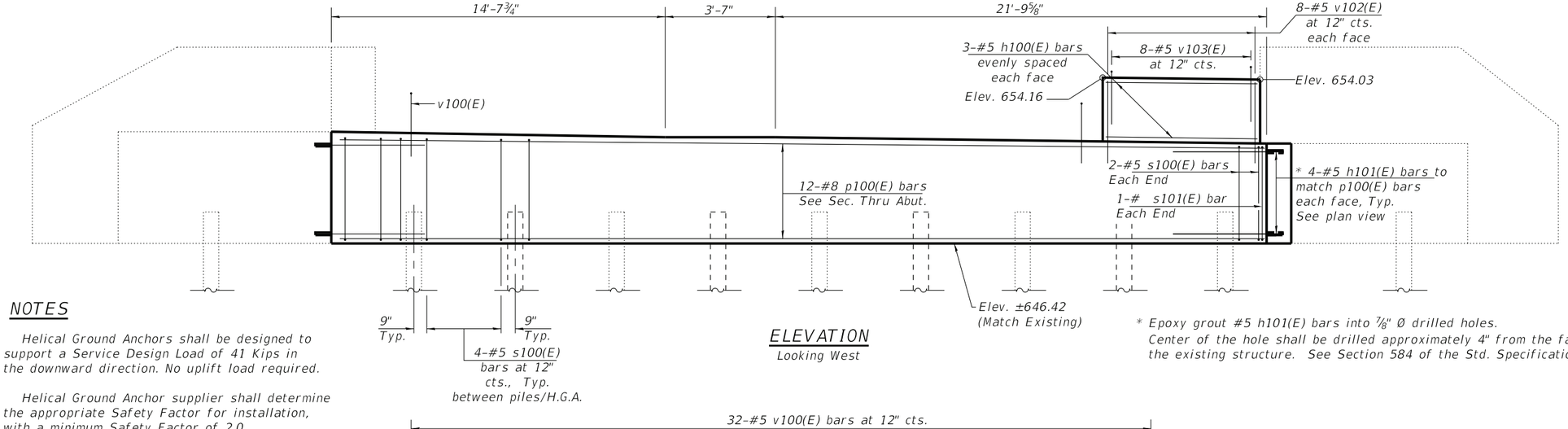
*3050A/3045		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



ELEVATION
Looking West

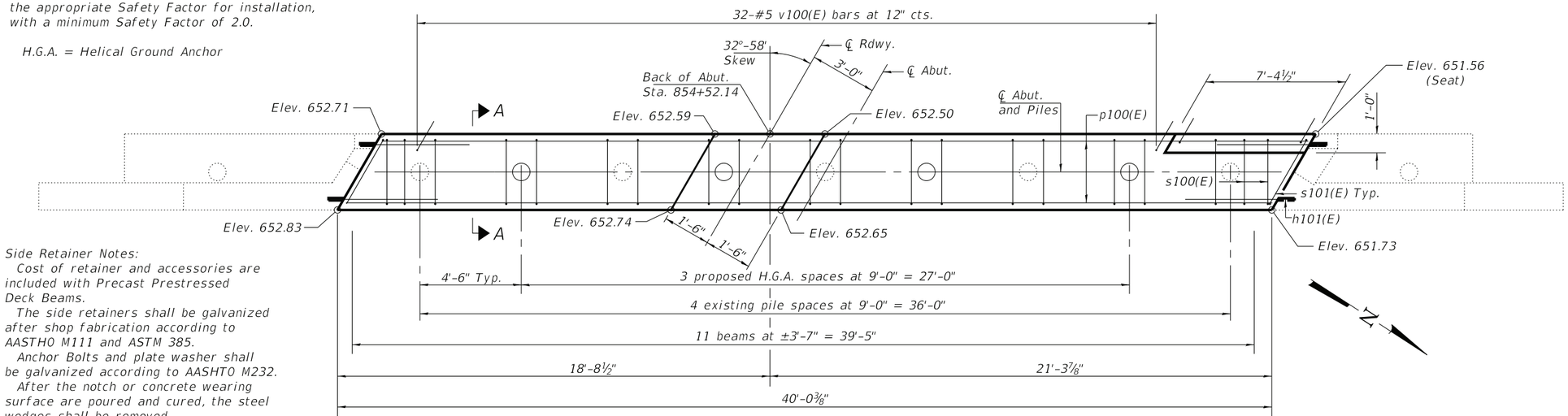
* Epoxy grout #5 h101(E) bars into ⅞" Ø drilled holes. Center of the hole shall be drilled approximately 4" from the face of the existing structure. See Section 584 of the Std. Specifications.

NOTES

Helical Ground Anchors shall be designed to support a Service Design Load of 41 Kips in the downward direction. No uplift load required.

Helical Ground Anchor supplier shall determine the appropriate Safety Factor for installation, with a minimum Safety Factor of 2.0.

H.G.A. = Helical Ground Anchor



PLAN

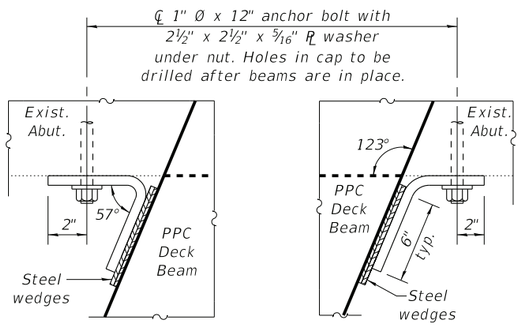
Side Retainer Notes:

Cost of retainer and accessories are included with Precast Prestressed Deck Beams.

The side retainers shall be galvanized after shop fabrication according to AASTHO M111 and ASTM 385.

Anchor Bolts and plate washer shall be galvanized according to AASHTO M232.

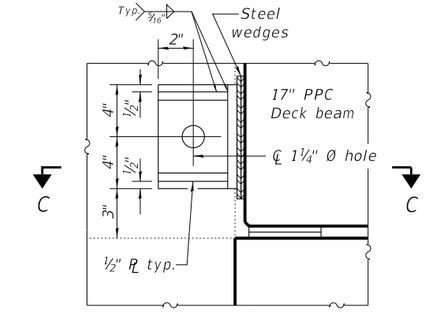
After the notch or concrete wearing surface are poured and cured, the steel wedges shall be removed.



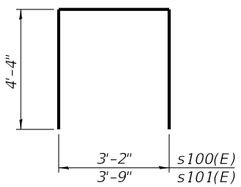
Southwest & Northeast Corners

Southeast & Northwest Corners

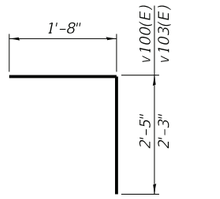
SECTION C-C (PLAN VIEW)



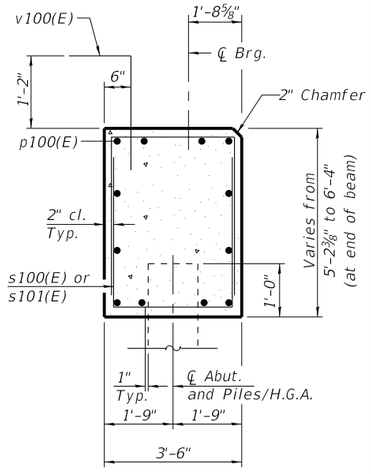
SIDE RETAINER AT ABUTMENTS (ELEVATION VIEW)
Opposite side similar



BARS s100(E) & s101(E)

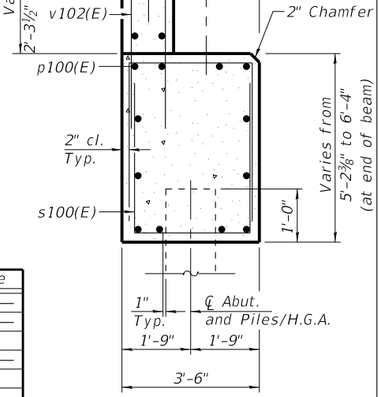


BARS v100(E) & v103(E)



SECTION A-A
(Dimensions are at Rt. ℄'s)

Note: Top of cap slope not shown.



SECTION B-B
(Dimensions are at Rt. ℄'s)

Note: Top of cap slope not shown.

WEST ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h100(E)	6	#5	7'-0"	——
h101(E)	16	#5	4'-1"	——
p100(E)	12	#8	39'-8"	——
s100(E)	72	#5	11'-10"	⊓
s101(E)	4	#5	12'-5"	⊓
v100(E)	32	#5	4'-1"	⊓
v102(E)	16	#5	3'-3"	——
v103(E)	8	#5	3'-11"	⊓
Structure Excavation			Cu. Yd.	111
Concrete Structures			Cu. Yd.	31.3
Reinforcement Bars, Epoxy Coated			Pound	2540
Helical Ground Anchors			Each	4

MODEL: Abutments
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT DETAILS
STRUCTURE NO. 016-8256
CHERRY STREET SHEET 15 OF 19 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	50
*3050A/3045	CONTRACT NO.			
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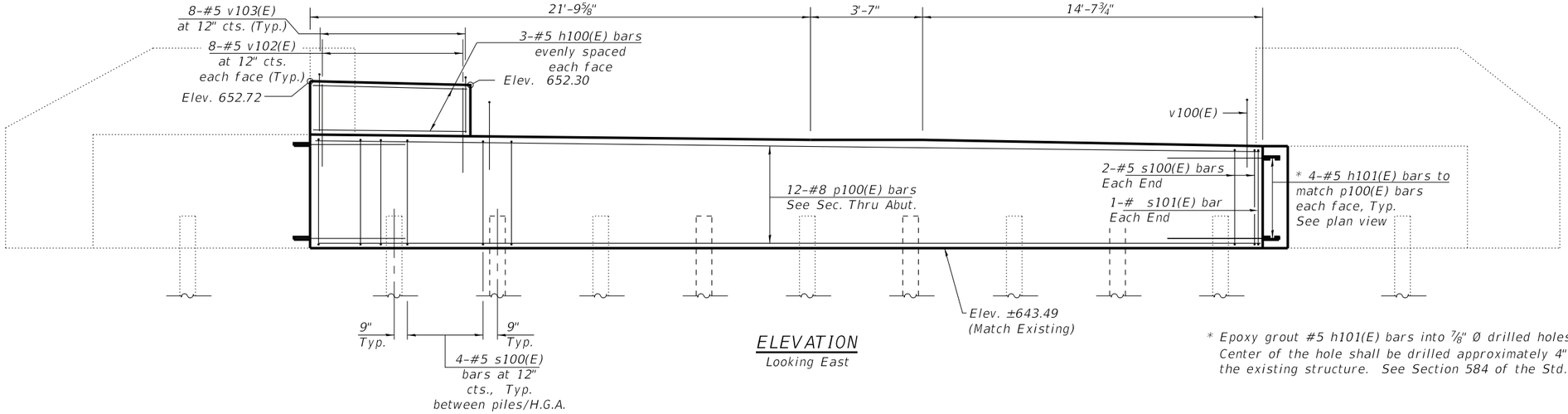
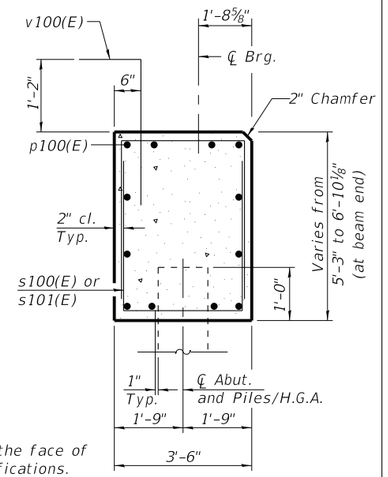


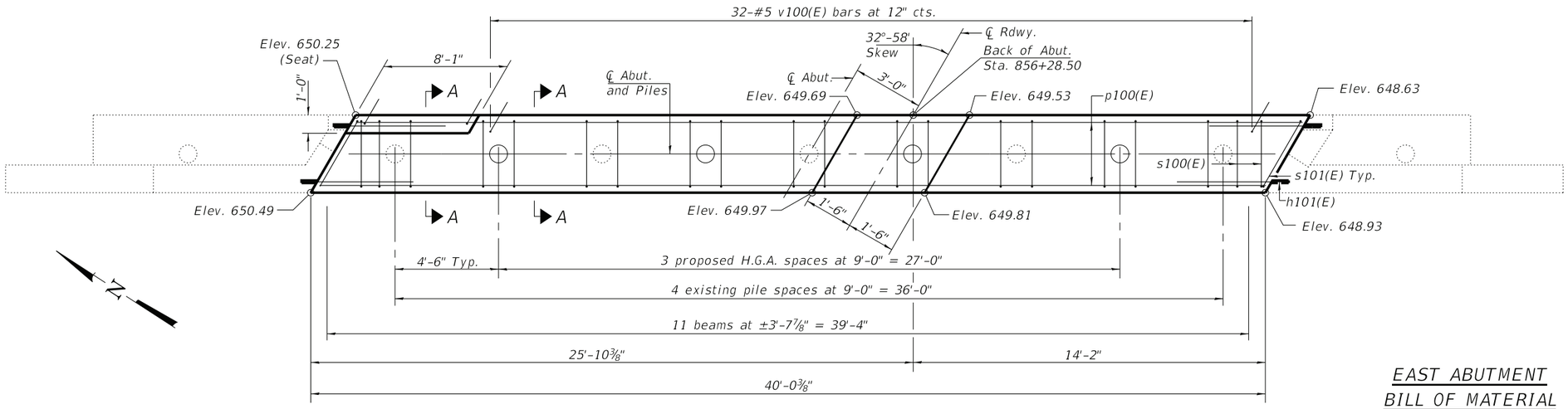
ELEVATION
Looking East

* Epoxy grout #5 h101(E) bars into ⅞" Ø drilled holes. Center of the hole shall be drilled approximately 4" from the face of the existing structure. See Section 584 of the Std. Specifications.

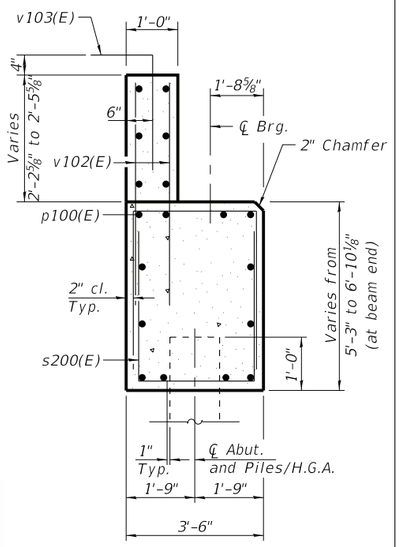


SECTION A-A
(Dimensions are at Rt. ∠'s)

Note: Top of cap slope not shown.



PLAN



SECTION B-B
(Dimensions are at Rt. ∠'s)

Note: Top of cap slope not shown.

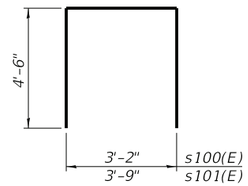
NOTES

Helical Ground Anchors shall be designed to support a Service Design Load of 41 Kips in the downward direction. No uplift load required.

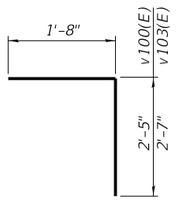
Helical Ground Anchor supplier shall determine the appropriate Safety Factor for installation, with a minimum Safety Factor of 2.0.

H.G.A. = Helical Ground Anchor

See previous sheet for side retainer details.



BARS s100(E) & s101(E)



BAR v100(E) & v103(E)

EAST ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h100(E)	6	#5	7'-9"	———
h101(E)	16	#5	4'-1"	———
p100(E)	12	#8	39'-8"	———
s100(E)	72	#5	12'-2"	⌐¬
s101(E)	4	#5	12'-9"	⌐¬
v100(E)	32	#5	4'-1"	⌐
v102(E)	16	#5	3'-4"	———
v103(E)	8	#5	4'-3"	⌐
Structure Excavation			Cu. Yd.	116
Concrete Structures			Cu. Yd.	32.8
Reinforcement Bars, Epoxy Coated			Pound	2590
Helical Ground Anchors			Each	4

MODEL: Abutments
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DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT DETAILS
STRUCTURE NO. 016-8256
CHERRY STREET SHEET 16 OF 19 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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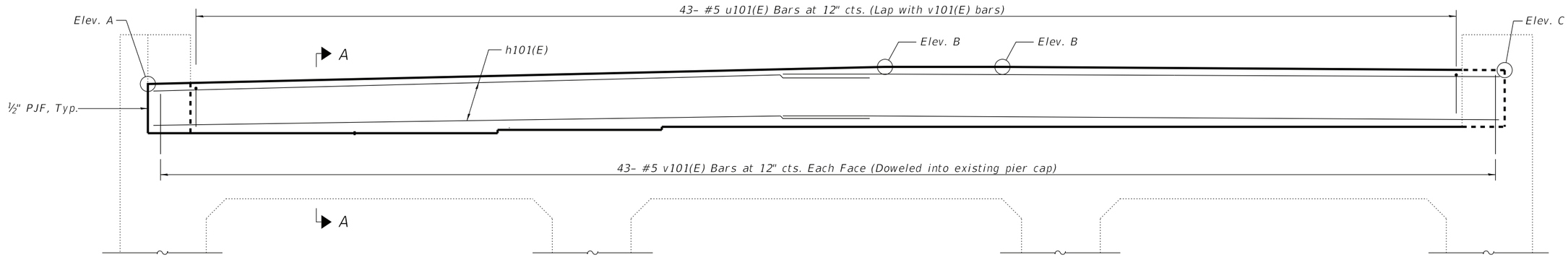
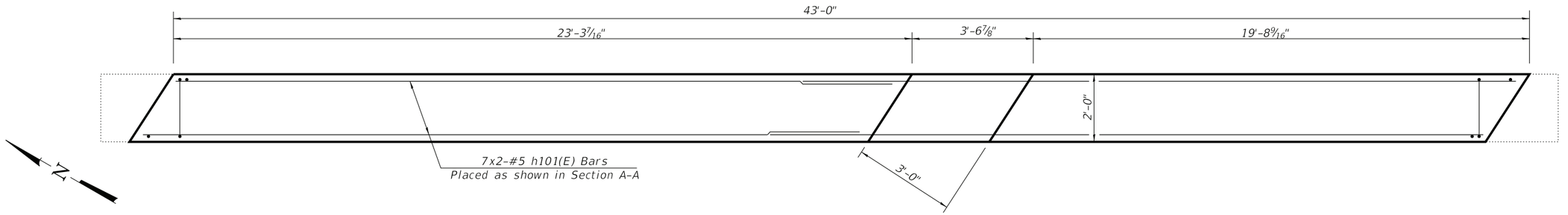
*3050A/3045		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

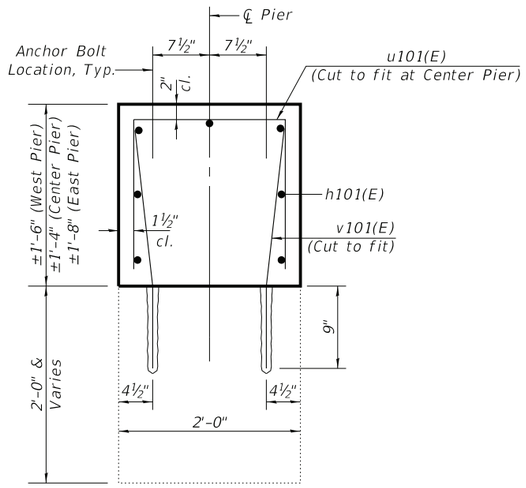


ELEVATION

Looking East



PLAN

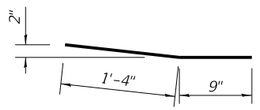


SECTION A–A

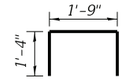
Dimensions at right angles
Space bars to miss anchor bolt locations

ELEVATIONS & DIMENSIONS

	Elev. A (North)	Elev. B	Elev. C (South)
West Pier	653.35	654.00	653.90
Center Pier	653.83	654.04	653.63
East Pier	652.74	652.48	651.79



BAR v101(E)



BAR u101(E)

NOTES

v101(E) bars shall be drilled and grouted in place in accordance with Section 584 of the Standard Specifications. Cost included with Reinforcement Bars, Epoxy Coated.
Cost of PJF is included with Concrete Structures.
Lap Length for #5 bars = 3'–7".

BILL OF MATERIAL

3 Piers

Bar	No.	Size	Length	Shape
h101(E)	42	#5	23'–1"	
u100(E)	129	#5	4'–5"	
v101(E)	258	#5	2'–1"	
Cleaning Bridge Seats			Sq. Ft.	258
Concrete Structures			Cu. Yd.	14.3
Reinforcement Bars, Epoxy Coated			Pound	2170

MODEL: Piers
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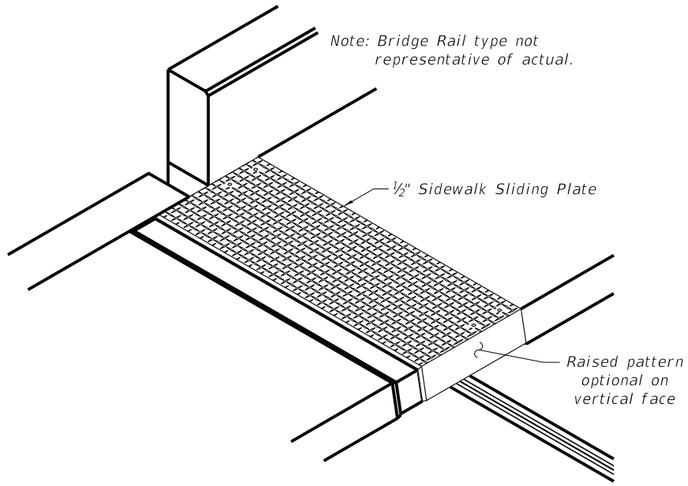
DEPARTMENT OF TRANSPORTATION

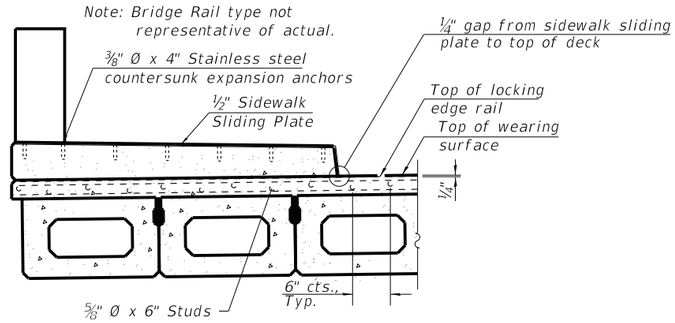
PIER DETAILS
STRUCTURE NO. 016-8256

CHERRY STREET SHEET 17 OF 19 SHEETS

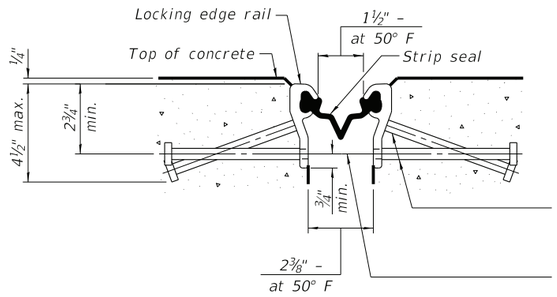
MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	52
*3050A/3045		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



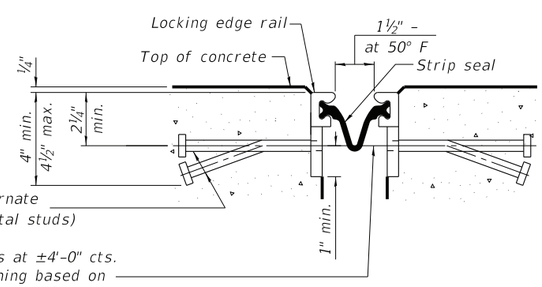
TRIMETRIC VIEW



ELEVATION AT SIDEWALK



SHOWING ROLLED RAIL JOINT



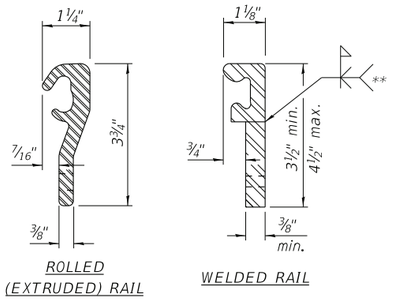
SHOWING WELDED RAIL JOINT

* ⅝" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

⅜" ϕ threaded rods in 7/16" ϕ holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION THRU JOINT

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

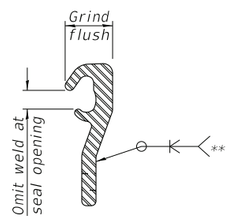


ROLLED (EXTRUDED) RAIL

WELDED RAIL

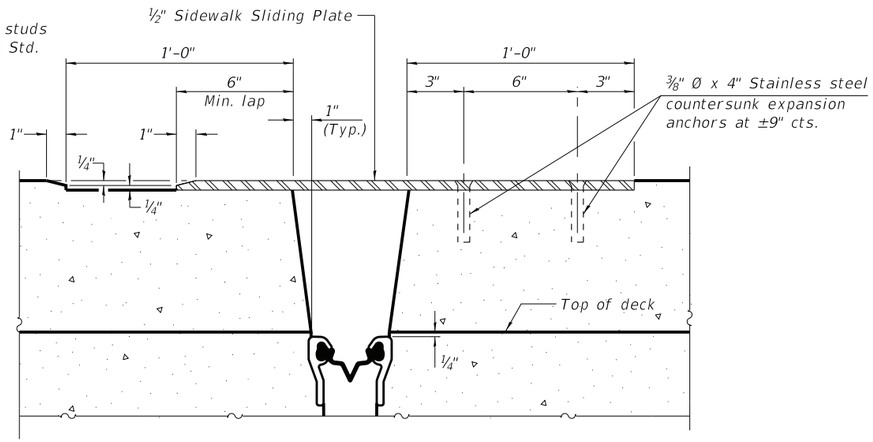
LOCKING EDGE RAILS

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



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.



SECTION THRU RAISED SIDEWALK

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. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4½" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed.

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

The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the sidewalk shall be welded as shown in the locking edge rail splice detail.

Cost of embedded plates and anchorage studs included with Preformed Joint Strip Seal.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and sidewalk lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.

Coordinate location of stainless steel countersunk expansion anchors with conduis. See Sheet 3 of 19.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	64

MODEL: Preformed joint strip seal
FILE NAME: I:\Crystal Lake\WINNE\150754-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\Cherry\Details.dgn

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BAXTER & WOODMAN Consulting Engineers

USER NAME =	DESIGNED - BAB	REVISED -	
	CHECKED - BLB	REVISED -	
PLOT SCALE =	DRAWN - BAB	REVISED -	
PLOT DATE =	CHECKED - BLB	DATE - 10-09-18	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 016-8256
CHERRY STREET SHEET 18 OF 19 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	53
*3050A/3045		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

SOIL AND MATERIAL CONSULTANTS, INC.

File No. 23155 **BORING LOG** B-4 Sheet 1 of 2

Client Baxter & Woodman, Inc.

Project Oak St. & Cherry St. Bridge Rehabilitations Date 2/28/17

Location Winnetka, IL Drilled By AC

Equipment ☒CME 45B ☐H.A. ☐Other Logged By DA

Comments

Elev., ft. 654.2 Description	Depth, ft.	S	T	R	B	N	Pen.	W	Uw	Qu
(See Core Log)	0									
653.0										
652.7 Limestone - 4.0"										
Brown-dark brown-black fine sand,trace medium-coarse sand & gravel,damp,loose - Fill		1	SS	14"	4 4 3	7		9.7		
648.7	5	2	SS	15"	2 3 3	6		8.1		
Dark brown-black cinders,damp, medium dense - Fill					5					
646.7		3	SS	14"	7 10	17		21.8		
Brown clay,some silt,trace sand & gravel,damp,hard to very hard					5 6					
	10	4	SS	18"	8	14	4.5+	15.0	115.1	5.6
					8 10					
		5	SS	18"	12	22	4.5+	17.4	110.6	5.0
					6 9					
	15	6	SS	18"	12	21	4.5+	16.4	113.1	8.8
					7 10					
636.7		7	SS	18"	13	23	4.5+	17.1	113.4	8.9
Gray clay,some silt,trace sand & gravel,damp,very tough					4 6					
634.2	20	8	SS	18"	8	14	2.75	16.7	113.6	3.5

Water Level — depth, ft. elev., ft.
- while drilling: dry ____
- after drilling: dry ____
- hrs. after drilling: ____ ____

S - sample T - type: J(Jar), SS(split-spoon), ST(shelby tube) R - recovery length, in.
B - Standard Penetration Test (SPT), blows/ 6" interval. W - water content, %.
N - SPT, blows/ foot to drive 2' O.D. split-spoon sampler with 140 lb. hammer falling 30".
Pen. - pocket penetrometer reading, tons/ sq. ft.. Uw - dry unit weight of soil, lbs./ cu.ft.
Qu - unconfined compressive strength, tons./ sq. ft..

F-111b

SOIL AND MATERIAL CONSULTANTS, INC.

File No. 23155 **BORING LOG** B-5 Sheet 1 of 1

Client Baxter & Woodman, Inc.

Project Oak St. & Cherry St. Bridge Rehabilitations Date 2/28/17

Location Winnetka, IL Drilled By AC

Equipment ☒CME 45B ☐H.A. ☐Other Logged By DA

Comments

Elev., ft. 631.6 Description	Depth, ft.	S	T	R	B	N	Pen.	W	Uw	Qu
630.4 (a & b) see below	0									
Brown clay,some silt,trace sand & gravel,damp,very tough		1	SS	8"	4 4 6	10	3.0	19.6		
628.1										
Gray clay,some silt,trace sand & gravel,damp,very tough					2 4					
	5	2	SS	18"	4	8	1.25	19.9	109.8	2.0
					3 6					
		3	SS	18"	6	12	2.25	19.8	108.5	2.8
					4 6					
	10	4	SS	18"	7	13	2.5	19.2	111.4	2.4
					4 5					
		5	SS	18"	7	12	2.0	19.1	110.7	2.3
					4 5					
616.6	15	6	SS	18"	6	11	2.5	19.1	111.7	2.3
End of Boring										
(a) Bituminous concrete - 4.0"										
(b) Dark brown sand & gravel,very damp - 10.0"	20									

Water Level — depth, ft. elev., ft.
- while drilling: dry ____
- after drilling: dry ____
- hrs. after drilling: ____ ____

S - sample T - type: J(Jar), SS(split-spoon), ST(shelby tube) R - recovery length, in.
B - Standard Penetration Test (SPT), blows/ 6" interval. W - water content, %.
N - SPT, blows/ foot to drive 2' O.D. split-spoon sampler with 140 lb. hammer falling 30".
Pen. - pocket penetrometer reading, tons/ sq. ft.. Uw - dry unit weight of soil, lbs./ cu.ft.
Qu - unconfined compressive strength, tons./ sq. ft..

F-111b

SOIL AND MATERIAL CONSULTANTS, INC.

File No. 23155 **BORING LOG** B-6 Sheet 1 of 2

Client Baxter & Woodman, Inc.

Project Oak St. & Cherry St. Bridge Rehabilitations Date 2/28/17

Location Winnetka, IL Drilled By AC

Equipment ☒CME 45B ☐H.A. ☐Other Logged By DA

Comments

Elev., ft. 651.4 Description	Depth, ft.	S	T	R	B	N	Pen.	W	Uw	Qu
(See Core Log)	0									
650.2										
Brown clay,some silt,trace sand & gravel,damp,hard - Fill		1	SS	16"	3 5 6	11	4.0	13.2	130.4	7.3
647.9										
647.4 Bituminous concrete		2			31 30			4.4		
646.4 Limestone,damp,dense	5	3	SS	15"	12	42		2.9		
Brown clay & silt,trace sand & gravel,damp,hard					3 4					
643.4		4	SS	16"	5	9	4.5+	16.5		
Brown clay,some silt,trace sand & gravel,damp,very hard					6 8					
640.9	10	5	SS	18"	12	20	4.5+	16.0	115.1	8.4
Brown-gray silt,some clay,trace fine sand,damp,medium dense					7 10			21.7		
639.4		6 7	SS	18"	12	22	4.5+	19.5	110.2	6.5
Brown clay,some silt,trace sand & gravel,damp,hard					6 10					
	15	8	SS	18"	13	23	4.5+	18.5	112.7	7.0
					5 9					
633.9		9	SS	18"	11	20	4.5+	17.8	113.4	4.7
Gray clay,some silt,trace sand & gravel,damp,hard					4 6					
631.4	20	10	SS	18"	9	15	3.5	15.8	115.9	4.1

Water Level — depth, ft. elev., ft.
- while drilling: dry ____
- after drilling: dry ____
- hrs. after drilling: ____ ____

S - sample T - type: J(Jar), SS(split-spoon), ST(shelby tube) R - recovery length, in.
B - Standard Penetration Test (SPT), blows/ 6" interval. W - water content, %.
N - SPT, blows/ foot to drive 2' O.D. split-spoon sampler with 140 lb. hammer falling 30".
Pen. - pocket penetrometer reading, tons/ sq. ft.. Uw - dry unit weight of soil, lbs./ cu.ft.
Qu - unconfined compressive strength, tons./ sq. ft..

F-111b

SOIL AND MATERIAL CONSULTANTS, INC.

File No. 23155 **BORING LOG** B-4 Sheet 2 of 2

Client Baxter & Woodman, Inc.

Project Oak St. Cherry St. Bridge Rehabilitations Date 2/28/17

Location Winnetka, IL Drilled By AC

Equipment ☒CME 45B ☐H.A. ☐Other Logged By DA

Comments

Elev., ft. Description	Depth, ft. 20	S	T	R	B	N	Pen.	W	Uw	Qu
Gray clay,some silt,trace sand & gravel,damp,very tough					5 7					
		9	SS	18"	8	15	3.25	15.9	130.1	3.0
	25	10	SS	18"	4 5 6	11	2.5	17.8	111.3	3.8
		11	SS	18"	4 5 7	12	3.0	17.9	110.9	3.3
624.2	30	12	SS	18"	4 6 8	14	3.25	17.5	112.3	2.5
End of Boring										
	35									
	40									

Water Level — depth, ft. elev., ft.
- while drilling: dry ____
- after drilling: dry ____
- hrs. after drilling: ____ ____

S - sample T - type: J(Jar), SS(split-spoon), ST(shelby tube) R - recovery length, in.
B - Standard Penetration Test (SPT), blows/ 6" interval. W - water content, %.
N - SPT, blows/ foot to drive 2' O.D. split-spoon sampler with 140 lb. hammer falling 30".
Pen. - pocket penetrometer reading, tons/ sq. ft.. Uw - dry unit weight of soil, lbs./ cu.ft.
Qu - unconfined compressive strength, tons./ sq. ft..

F-111b

SOIL AND MATERIAL CONSULTANTS, INC.

File No. 23155 **BORING LOG** B-6 Sheet 2 of 2

Client Baxter & Woodman, Inc.

Project Oak St. & Cherry St. Bridge Rehabilitations Date 2/28/17

Location Winnetka, IL Drilled By AC

Equipment ☒CME 45B ☐H.A. ☐Other Logged By DA

Comments

Elev., ft. Description	Depth, ft. 20	S	T	R	B	N	Pen.	W	Uw	Qu
Gray clay,some silt,trace sand & gravel,damp,hard					5 7					
		11	SS	18"	8	15	3.0	17.9	110.8	4.4
	25	12	SS	18"	5 7 9	16	3.5	17.2	114.4	4.0
		13	SS	18"	4 7 9	16	3.5	17.2	116.4	4.7
621.4	30	14	SS	18"	4 6 7	13	3.0	17.4	116.0	4.0
End of Boring										
	35									
	40									

Water Level — depth, ft. elev., ft.
- while drilling: dry ____
- after drilling: dry ____
- hrs. after drilling: ____ ____

S - sample T - type: J(Jar), SS(split-spoon), ST(shelby tube) R - recovery length, in.
B - Standard Penetration Test (SPT), blows/ 6" interval. W - water content, %.
N - SPT, blows/ foot to drive 2' O.D. split-spoon sampler with 140 lb. hammer falling 30".
Pen. - pocket penetrometer reading, tons/ sq. ft.. Uw - dry unit weight of soil, lbs./ cu.ft.
Qu - unconfined compressive strength, tons./ sq. ft..

F-111b

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BAXTER & WOODMAN Consulting Engineers

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	CHECKED - BLB	REVISED -	
PLOT SCALE =	DRAWN - BAB	REVISED -	
PLOT DATE =	CHECKED - BLB	DATE - 10-09-18	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS
STRUCTURE NO. 016-8256
CHERRY STREET SHEET 19 OF 19 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	54
*3050A/3045		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

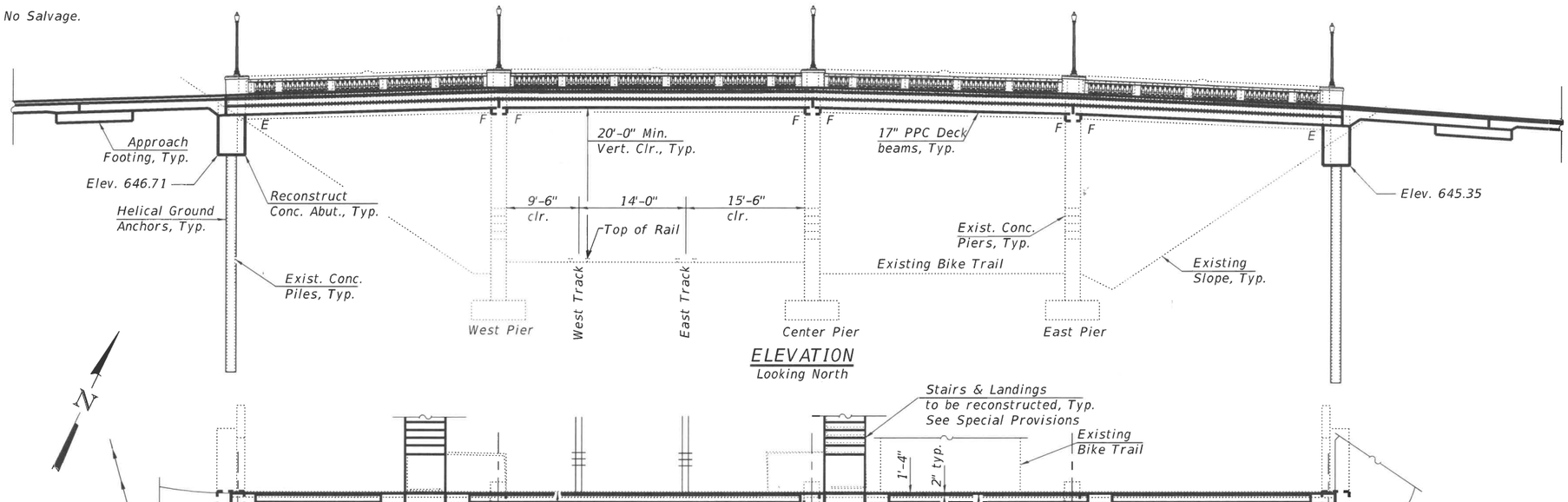
Benchmark #1433: Chiseled Square, SW corner of traffic controller pad, NE corner of Green Bay Rd and Oak St. Elev. 653.42

Existing Structure: S.N. 016-8257 was built in 1940 and rehabilitated in 1996. The structure is a 147'-10" long 4-span bridge with non-composite steel superstructure and reinforced concrete deck. The structure width is 53'-0". Includes a 5'-7" raised concrete sidewalk and Modified Texas Type T411 bridge rails on each side. Existing east and west piers are supported on spread footing and both abutments are spill-thru type on concrete piles. The existing superstructure is to be removed and replaced. Existing abutment caps are to be removed and replaced, with additional helical ground anchors installed between existing piles to increase capacity. Traffic to be detoured during construction.

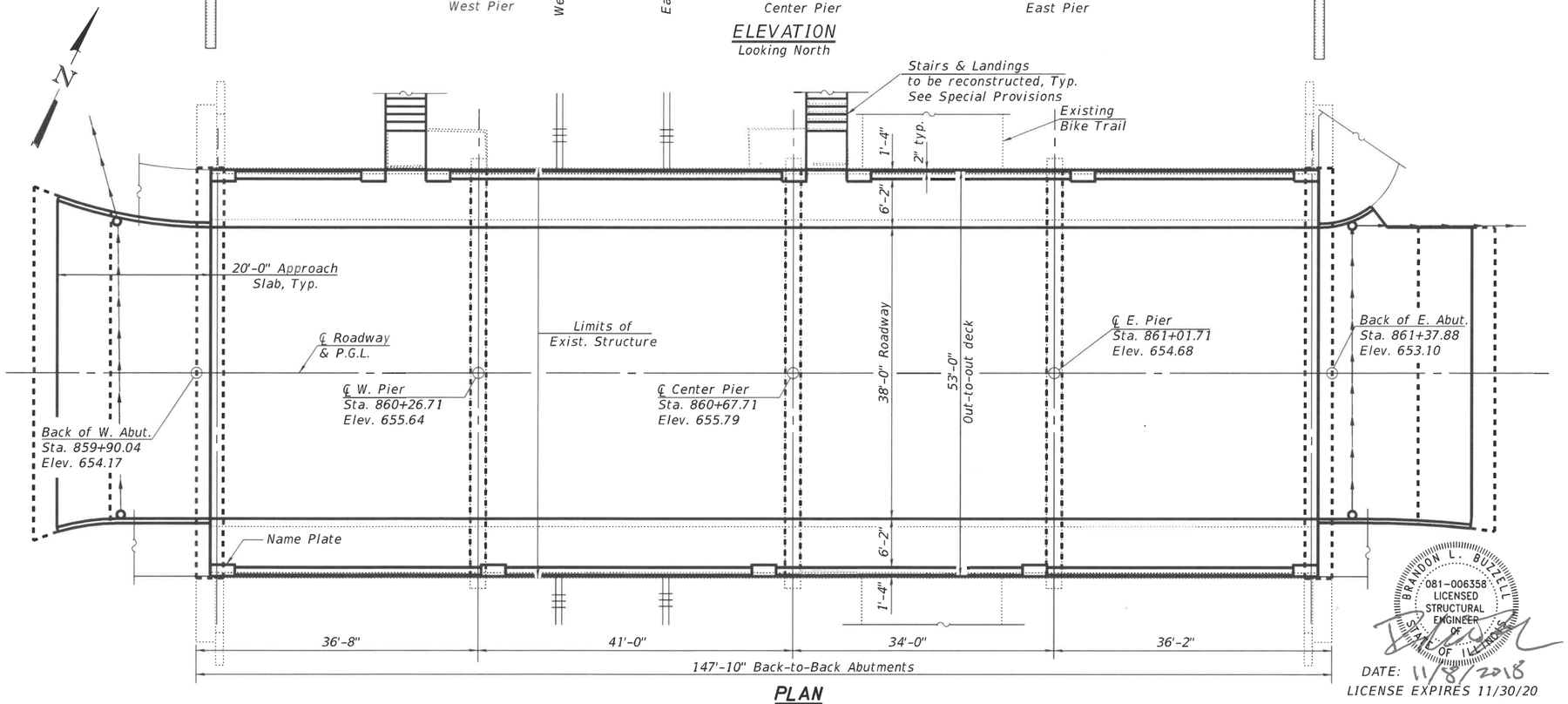
No Salvage.

UNION PACIFIC RAILROAD
RE-BUILT 2019 BY
VILLAGE OF WINNETKA
SEC. 15-00104-00-BR
STA. 860+67.71
STR. NO. 016-8257 LOADING HL-93

NAME PLATE
See Std. 515001

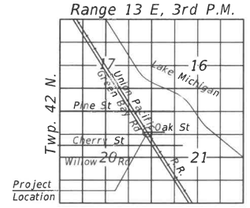


ELEVATION
Looking North



PLAN

Range 13 E, 3rd P.M.



LOCATION SKETCH

DESIGN SPECIFICATIONS

AASHTO LRFD Bridge Design Specifications, 7th Edition with 2015 Interims

DESIGN STRESSES

FIELD UNITS

$f'c$ = 3,500 psi
$f'c$ = 4,000 psi (Appr. Slabs and CWS)
fy = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

f'_c = 6,000 psi
f'_{ci} = 5,000 psi
f_{pu} = 270,000 psi (1/2" dia. low lax strands)
f_{pbt} = 201,960 psi (1/2" dia. low lax strands)

LOADING HL-93

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

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.133
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.094
Soil Site Class = D

BRANDON L. BUZZELL
081-006358
LICENSED STRUCTURAL ENGINEER
OF
STATE OF ILLINOIS

DATE: 11/8/2018
LICENSE EXPIRES 11/30/20

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

GENERAL PLAN
OAK ST OVER UP RR
SEC. 15-00104-00-BR
COOK COUNTY
STATION 860+67.71
STRUCTURE NO. 016-8257

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BAXTER & WOODMAN Consulting Engineers

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PLOT DATE =	CHECKED - BLB	DATE - 10-09-18	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
STRUCTURE NO. 016-8257
OAK STREET SHEET 1 OF 31 SHEETS

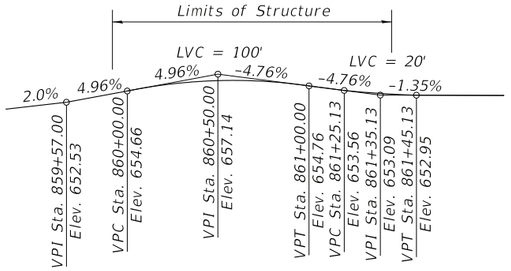
MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	55
*3050A/3045		CONTRACT NO.		
		ILLINOIS	FED. AID PROJECT	

GENERAL NOTES

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.

See Existing Conditions & Removal Plan for existing light poles to remain in place.

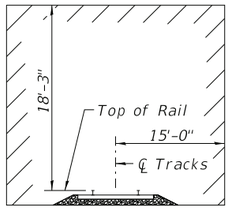


PROFILE GRADE LINE
Along ℄ Roadway

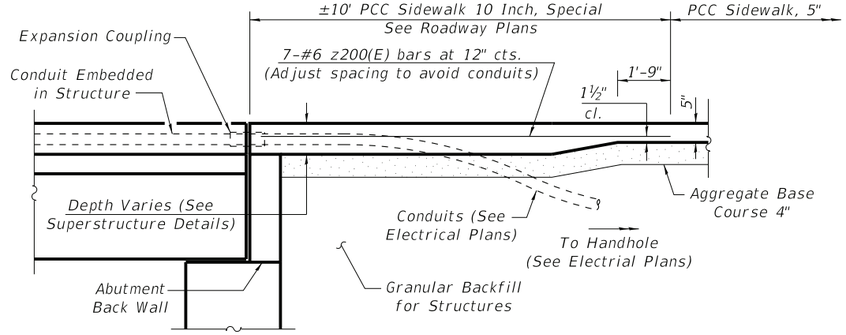
INDEX OF SHEETS

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal Of Existing Superstructures No. 2	EACH	1		1
Concrete Removal	CU YD		92	92
Protective Shield	SQ YD	838		838
Structure Excavation	CU YD		255	255
Concrete Structures	CU YD		97.9	97.9
Concrete Superstructure	CU YD	87.1		87.1
Bridge Deck Grooving	SQ YD	850		850
Protective Coat	SQ YD	1350		1350
Concrete Superstructure (Approach Slab)	CU YD	77.4		77.4
Precast Prestressed Concrete Deck Beams (17" Depth)	SQ FT	7550		7550
Reinforcement Bars, Epoxy Coated	POUND	46860	15500	62360
Name Plates	EACH	1		1
Preformed Joint Strip Seal	FOOT	80		80
Anchor Bolts, 1"	EACH	4		4
Geocomposite Wall Drain	SQ YD		72	72
Helical Ground Anchors	EACH		12	12
Concrete Wearing Surface, 5"	SQ YD	857		857
Concrete Bridge Rail (Special)	FOOT	280		280
Concrete Stairs	L SUM	1		1
Concrete Stairs and Sidewalk Removal	L SUM	1		1
Granular Backfill For Structures	CU YD		110	110
Cleaning Bridge Seats	SQ FT		322	322
Approach Slab Removal	SQ YD	175		175
Pipe Underdrains For Structures 4"	FOOT		150	150
Bituminous Coated Aggregate Slopewall 6"	SQ YD		60	60
Temporary Support System, Location 2	EACH		4	4
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	SQ FT		40	40
Cleaning and Painting Structural Steel, Location 1	L SUM		1	1



MINIMUM CONSTRUCTION CLEARANCE ENVELOPE
Dimensions perpendicular to tracks
Lateral clearance dimension reduced at existing piers

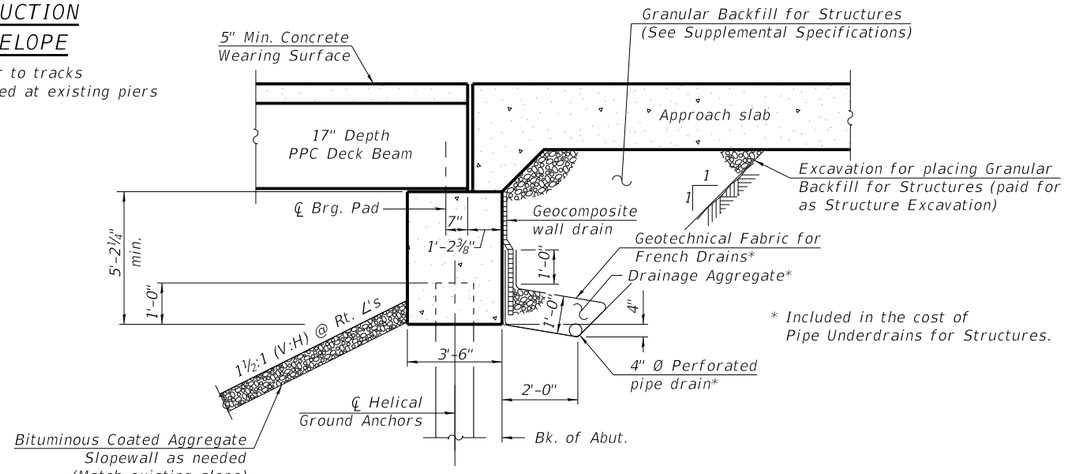


APPROACH SIDEWALK DETAIL
Typical 4 corners
outside limits of approach slabs
(Conduits N. Side only)

APPROACH SIDEWALKS BILL OF MATERIAL

Bar	No.	Size	Length	Shape
z200(E)	28	#6	9'-10"	———
Reinforcement Bars, Epoxy Coated			Pound	420

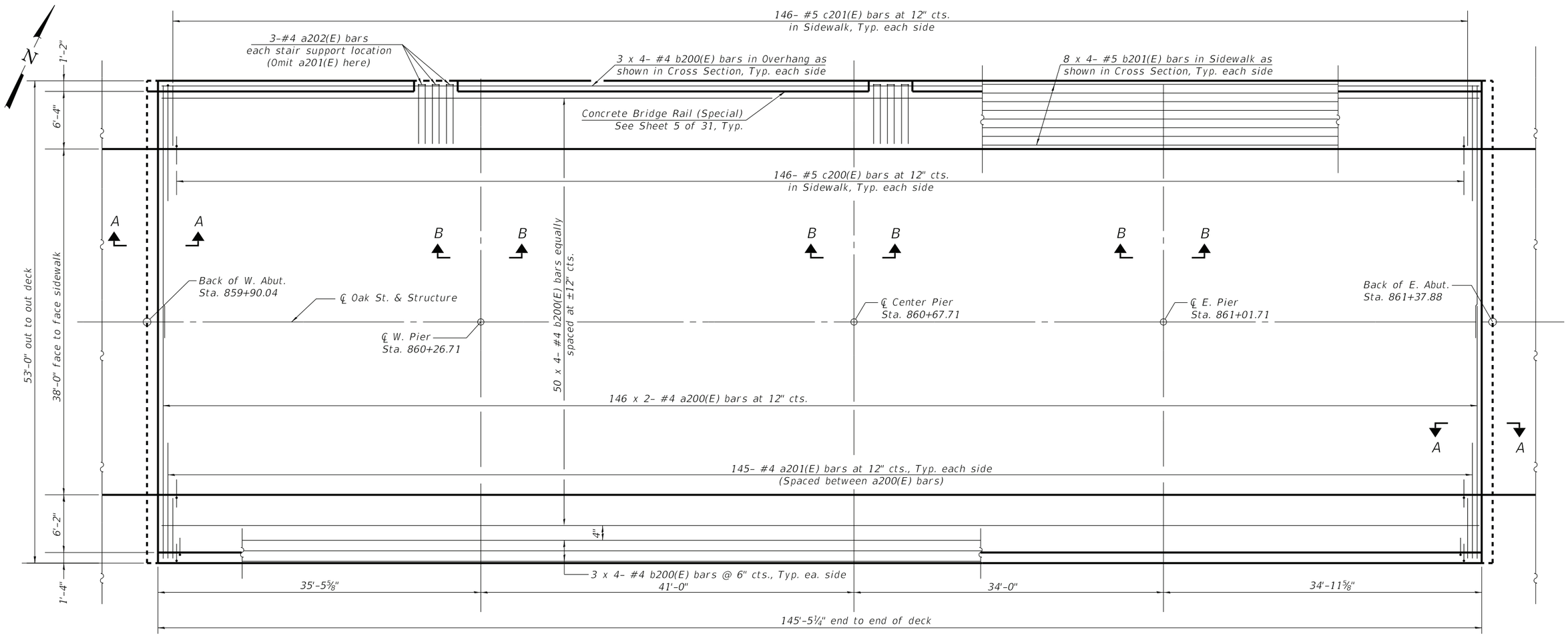
Reinforcement bars may be bent or cut to fit with the Engineer's approval.
See Roadway Plans for Sidewalk & Aggregate Base Course quantities.



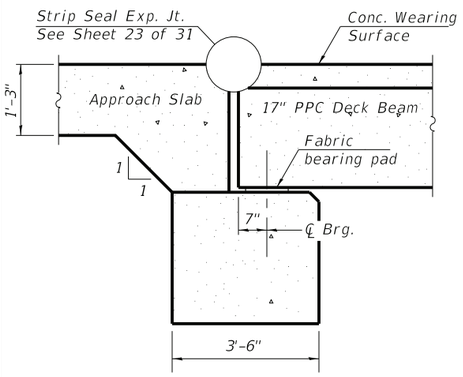
* Included in the cost of Pipe Underdrains for Structures.

SECTION THRU ABUTMENT

NOTE:
All drainage system components shall extend to 2'-0" from the end of the abutment reconstruction. An outlet pipe shall be routed under the abutment at each end and extended until intersecting with existing embankment slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101). Excavated area in front of abutments shall be restored to their original grade, with the addition of Bituminous Coated Aggregate Slopewall, including an additional 2 feet around proposed concrete headwalls.

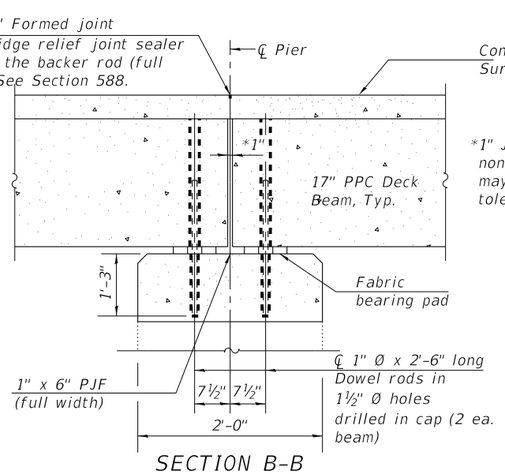


PLAN



SECTION A–A

Notes:
All concrete wearing surfaces shall be placed prior to casting a backwall and/or approach slab.
See PPC Deck Beam Details for fabric bearing pad details.



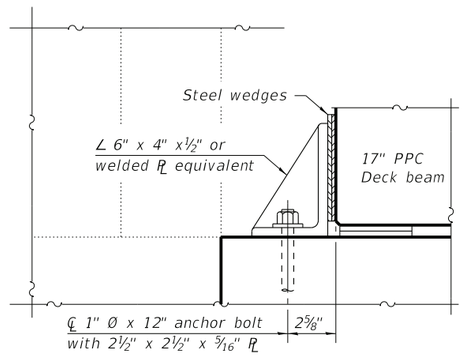
SECTION B–B

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

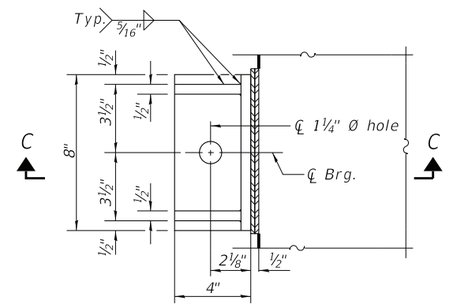
Notes:
See sheet 4 of 31 for Superstructure Details and Bill of Material.
Bars indicated thus 20 x 2–#4 etc. indicates 20 lines of bars with 2 lengths per line.

MINIMUM BAR LAP

#4 bar = 2'–5"
#5 bar = 3'–0"



SECTION C–C



SIDE RETAINER @ ABUT.

Notes:
Cost of retainer and accessories are included with Precast Prestressed Deck Beams.
The side retainers shall be galvanized after shop fabrication according to AASTHO M111 and ASTM 385.
Anchor Bolts and plate washer shall be galvanized according to AASHTO M232.
After the notch or concrete wearing surface are poured and cured, the steel wedges shall be removed.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO. 016-8257

OAK STREET SHEET 3 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	57
*3050A/3045		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

MODEL: superstructure
FILE NAME: I:\Crystal Lake\WINNE\150754-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\Oak\Superstructure.dgn
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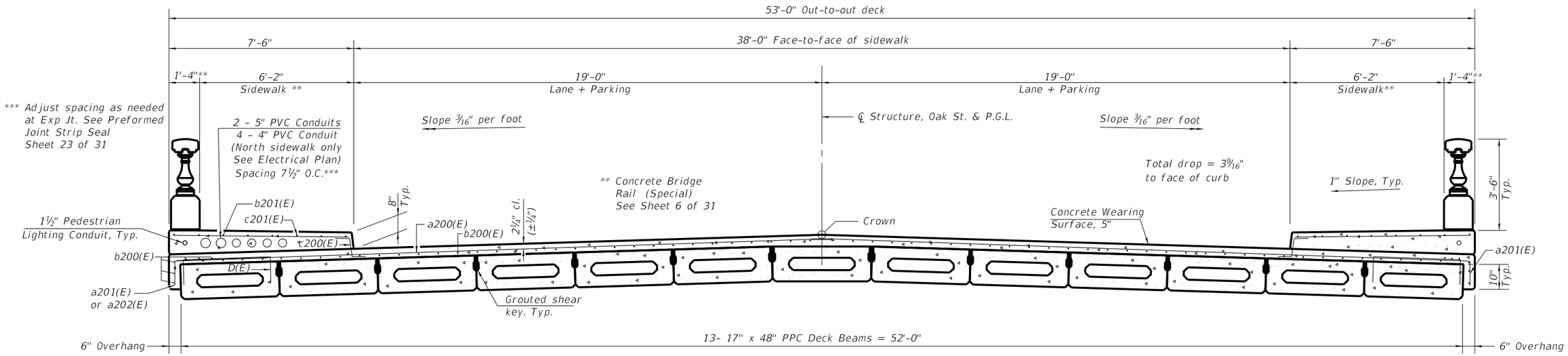
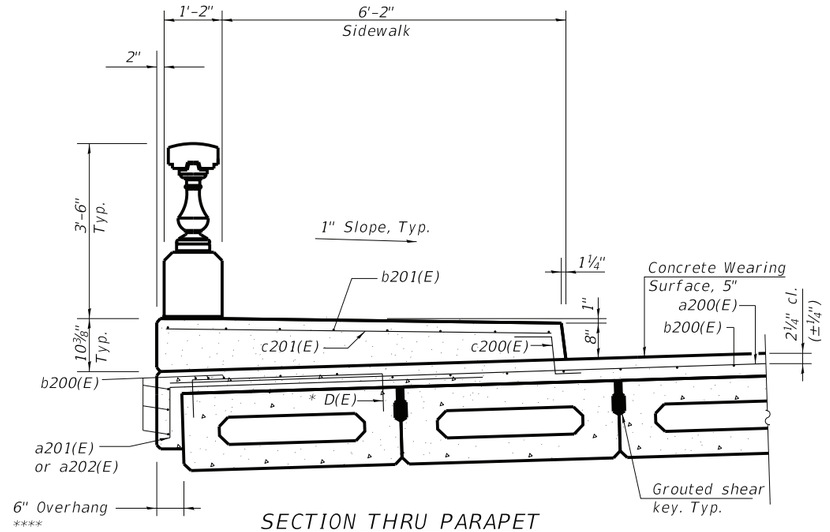


CROSS SECTION THRU STRUCTURE

(Looking East)

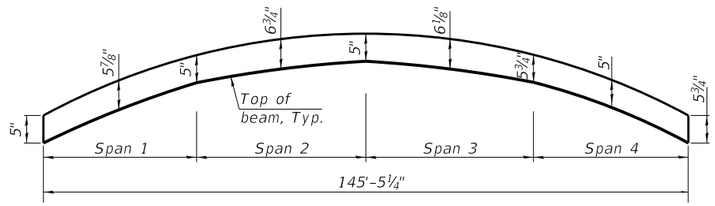


SECTION THRU PARAPET

* Place #4 D(E) bars at 9" cts. in fascia beam, D(E) bar included in cost of beam. (Conduits not shown)

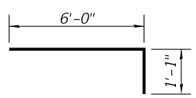
NOTES

**** Additional concrete in 6" overhang shall not be measured separately for payment, but shall be included in the cost of Concrete Wearing Surface, 5". (CWS measured out to out)

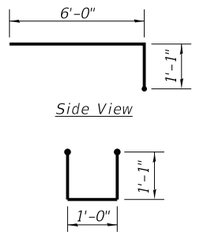


ANTICIPATED CONCRETE WEARING SURFACE PROFILE

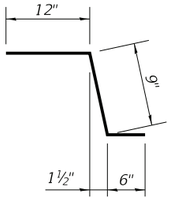
(For information only)



BAR a201(E)



BAR a202(E)



BAR c200(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a200(E)	292	#4	27'-5"	
a201(E)	290	#4	7'-2"	
a202(E)	6	#4	15'-2"	
b200(E)	248	#4	38'-1"	
b201(E)	64	#5	38'-6"	
c200(E)	292	#5	2'-3"	
c201(E)	292	#5	7'-2"	
Reinforcement Bars, Epoxy Coated		Pound	18550	
Concrete Superstructure		Cu. Yd.	61.9	
Concrete Wearing Surface, 5"		Sq. Yd.	857	
Anchor Bolts, 1"		Each	4	

MODEL: superstructure
FILE NAME: I:\Crystal Lake\WINNE\150754-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\Oak\Superstructure.dgn

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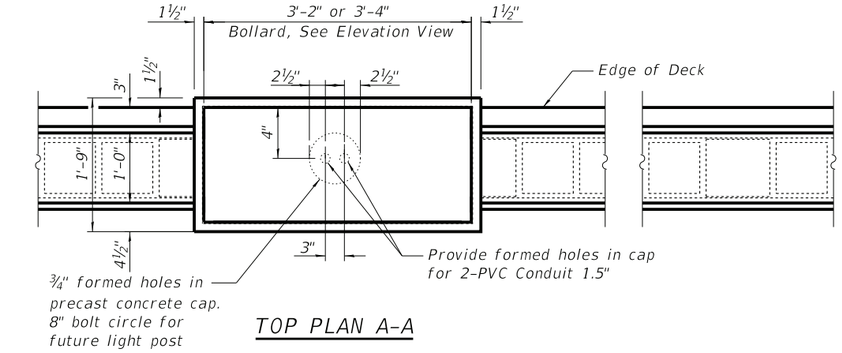
PLOT DATE =	CHECKED - BLB	DATE - 10-09-18	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

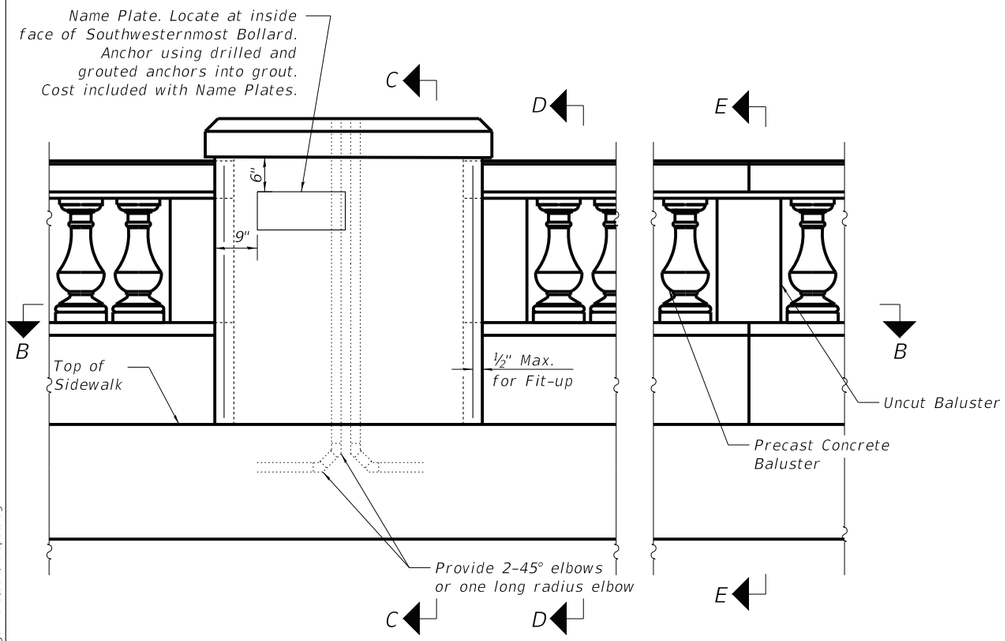
SUPERSTRUCTURE DETAILS
STRUCTURE NO. 016-8257

OAK STREET SHEET 4 OF 31 SHEETS

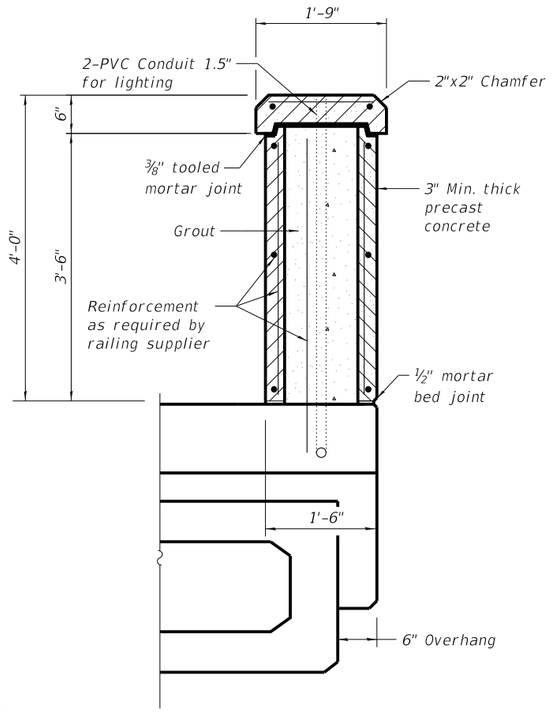
MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	58
*3050A/3045		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



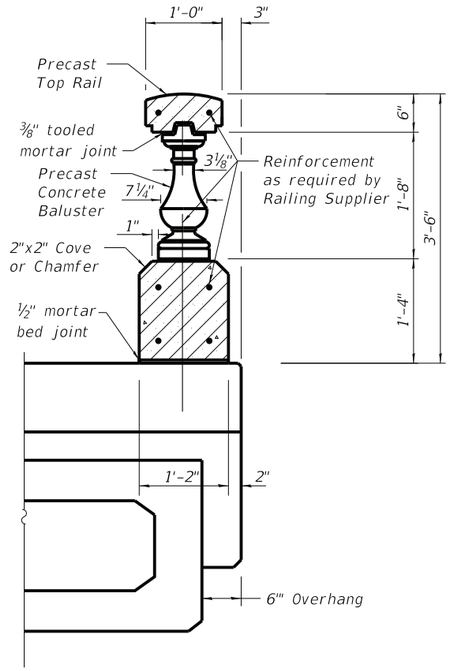
TOP PLAN A-A



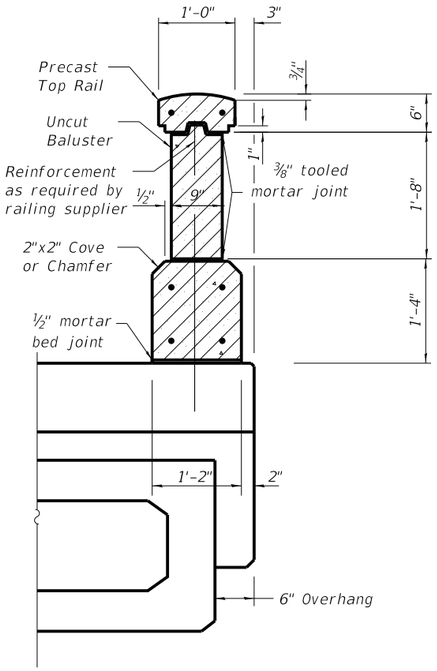
PARTIAL ELEVATION



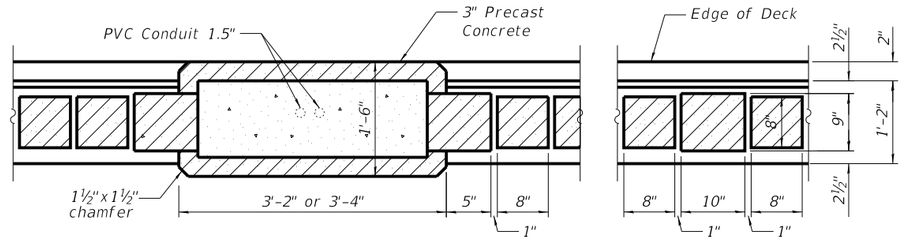
SECTION C-C



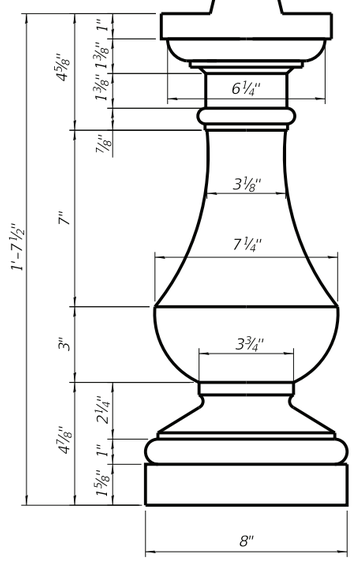
SECTION D-D



SECTION E-E



SECTION B-B



BALUSTER DETAIL

BILL OF MATERIAL

Item	Unit	Total
Concrete Bridge Rail (Special)	Foot	280

LEGEND

- Grout
- Precast Concrete

NOTES

Concrete Bridge Rail (Special) shall be designed by the Railing Supplier to resist the loads for vehicular and pedestrian railings in accordance with the AASHTO "LRFD Bridge Design Specifications" (Test Level 2).

Top 1" and Bottom 1 5/8" segments of the baluster are square. Remainder of Baluster shall have rounded surfaces.

Balusters are to be shaped as shown. Minor adjustments may be made subject to approval by the engineer. The final arrangement of the railing assembly shall not allow a 6" sphere to pass through any opening.

For concrete, grout, mortar, reinforcement bar and insert requirements, see the special provision for Concrete Bridge Rail (Special).

Railing shall be fabricated so that all bollards and balusters are vertical and all horizontal members follow the profile of the roadway.

MODEL: East Approach
FILE NAME: I:\Crystal Lake\WINNE\150754-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\Oak\Parapets.dgn

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE BRIDGE RAIL (SPECIAL)
STRUCTURE NO. 016-8257

OAK STREET SHEET 5 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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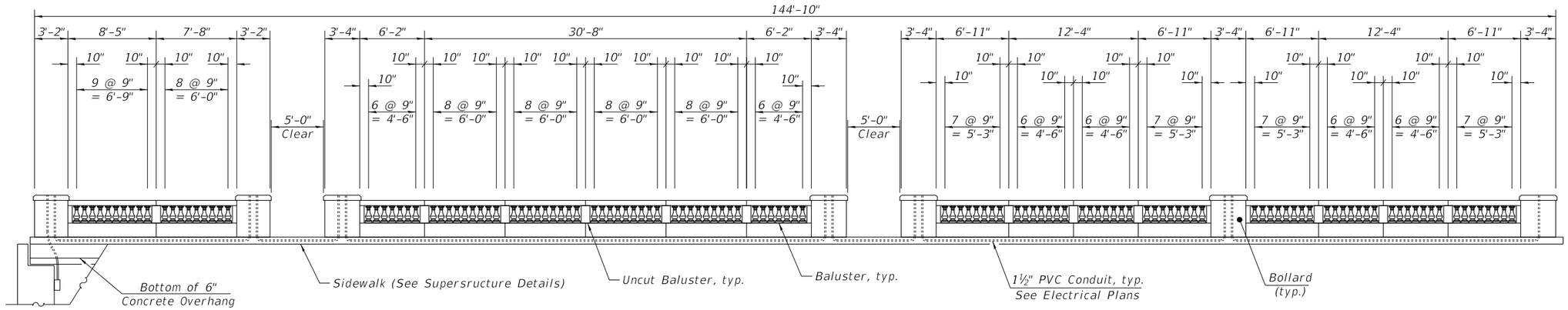
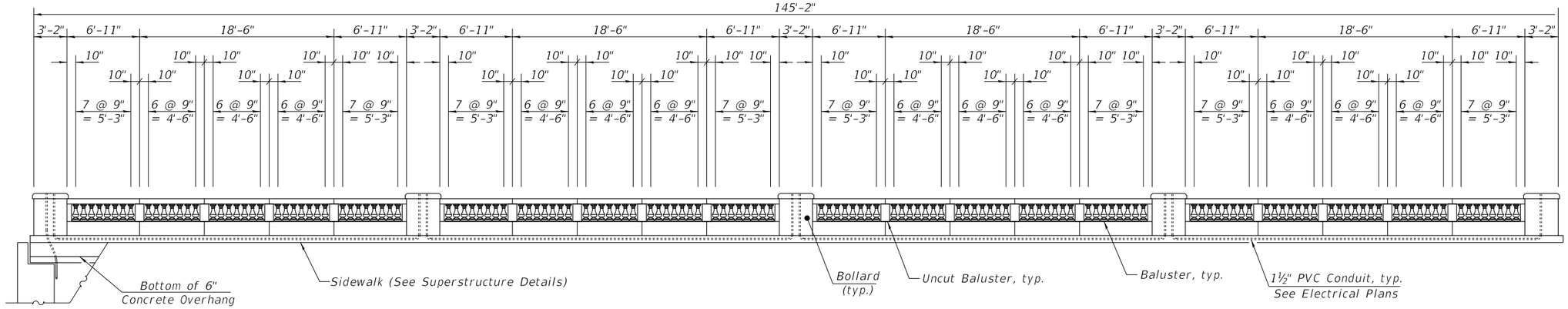
*3050A/3045		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



NORTH PARAPET ELEVATION

Looking North



SOUTH PARAPET ELEVATION

Looking North

NOTES

See Sheet 5 of 31 for Sections and Details.

Vertical curvature in bridge & railing not shown.

Contractor shall field-verify locations of openings at stairs and coordinate locations with precast suppliers.

MODEL: East Approach
FILE NAME: \\corp.baxwood.com\Projects\Crystal Lake\WINNE\150754-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\Oak\Parapets.dgn

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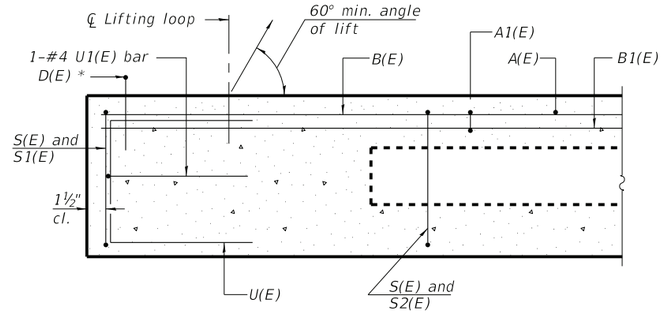
PLOT DATE =	CHECKED - BLB	DATE - 10-09-18	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

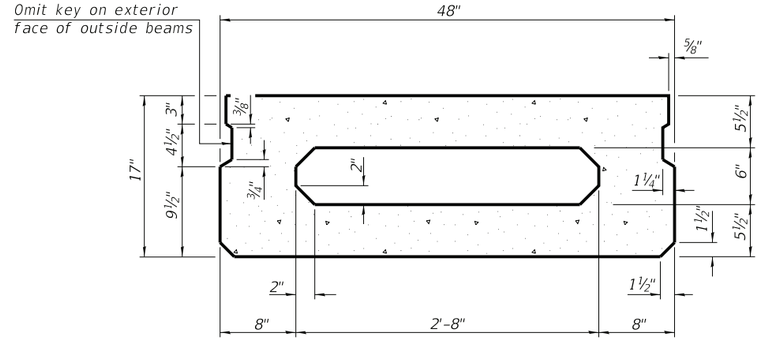
CONCRETE BRIDGE RAIL (SPECIAL)
STRUCTURE NO. 016-8257

OAK STREET SHEET 6 OF 31 SHEETS

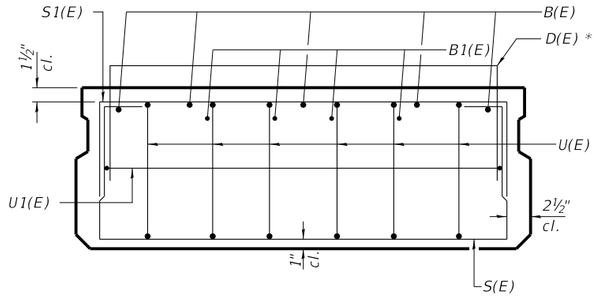
MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	60
*3050A/3045		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



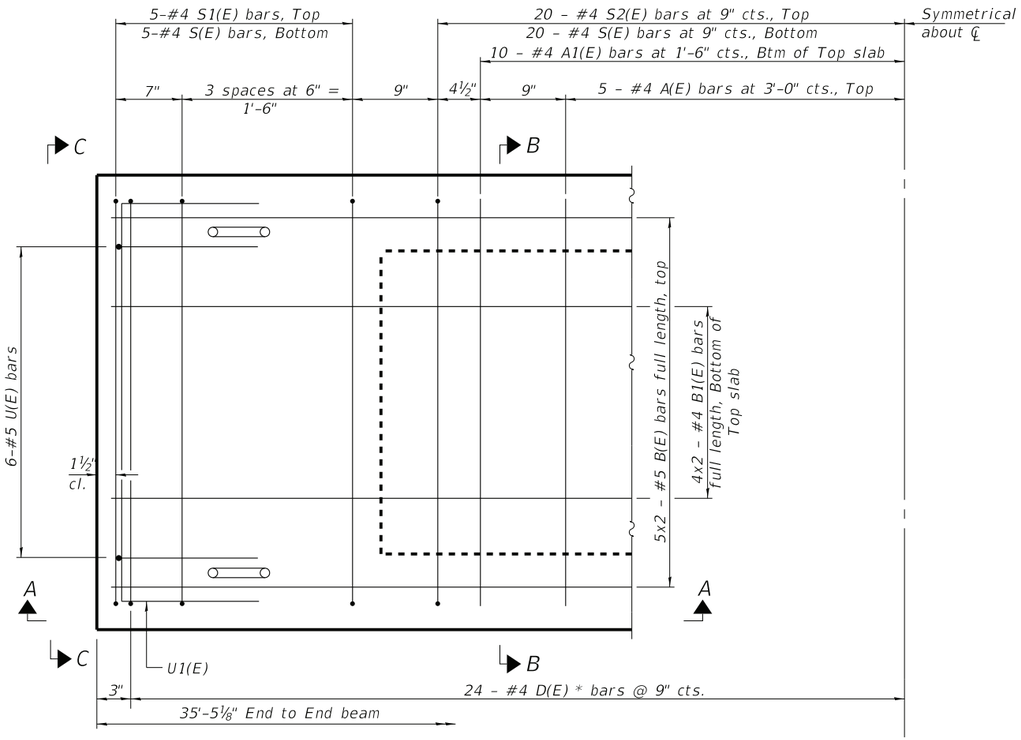
SECTION A-A



SECTION B-B
(Showing dimensions)

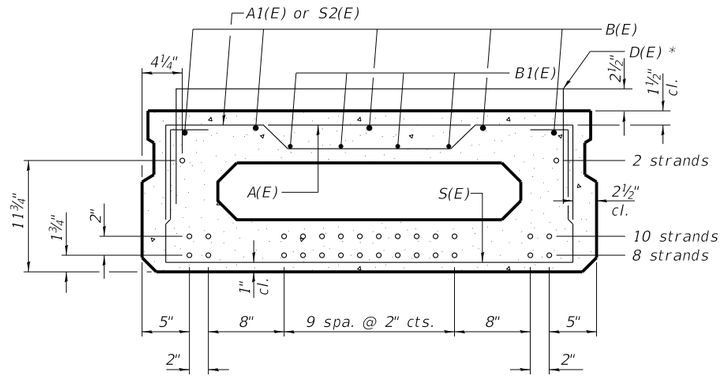


VIEW C-C



PLAN VIEW

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.



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

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

MINIMUM BAR LAP
#4 bar = 1'-11"
#5 bar = 2'-6"

BAR LIST
ONE BEAM ONLY
(For information only)

	Bar	No.	Size	Length	Shape
	A(E)	10	#4	3'-7"	——
	A1(E)	20	#4	3'-10"	~
	B(E)	10	#5	18'-10"	——
	B1(E)	8	#4	18'-7"	——
*	D(E)	48	#4	5'-7"	⌐¬
	S(E)	50	#4	6'-9"	⌐¬
	S1(E)	10	#4	5'-3"	⌐¬
	S2(E)	40	#4	5'-6"	⌐¬
	U(E)	12	#5	3'-8"	⊏
	U1(E)	2	#4	6'-0"	⌐¬

Note:
See sheet 8 of 31 for additional details and Bill of Material.

* D(E) bars in fascia beams only.

PD-1748-0 2-17-2017

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

17" X 48" PPC DECK BEAM - SPAN 1
STRUCTURE NO. 016-8257
OAK STREET SHEET 7 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	61
*3050A/3045		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

MODEL: Span 1 17x48 beams
FILE NAME: I:\Crystal Lake\WINNE\150754-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\OakIBeams.dgn
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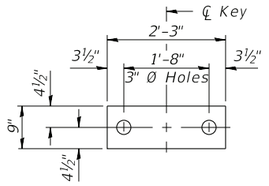
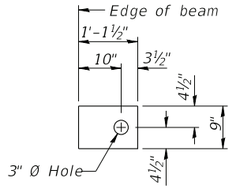


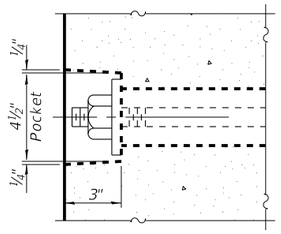
FABRIC BEARING PAD
(Interior)



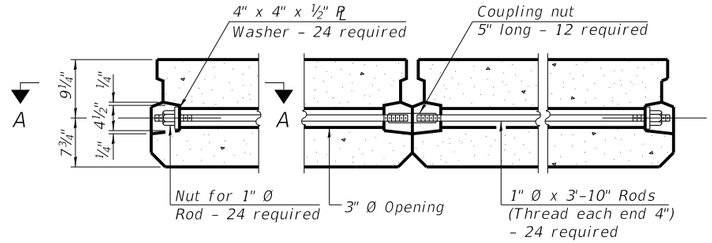
FABRIC BEARING PAD
(Exterior)

FIXED

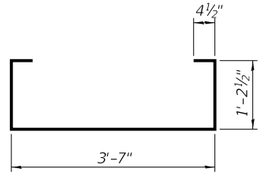
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



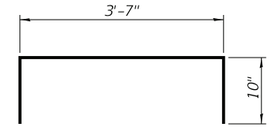
SECTION A-A



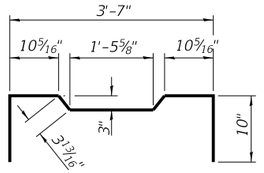
TYPICAL TRANSVERSE TIE ASSEMBLY



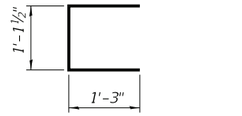
BAR S(E)



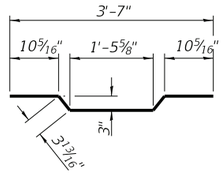
BAR S1(E)



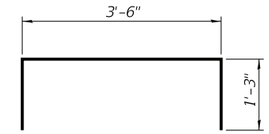
BAR S2(E)



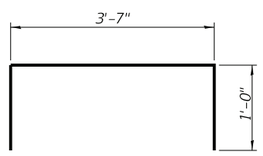
BAR U(E)



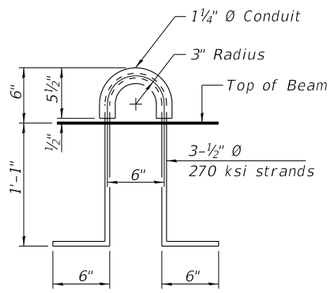
BAR A1(E)



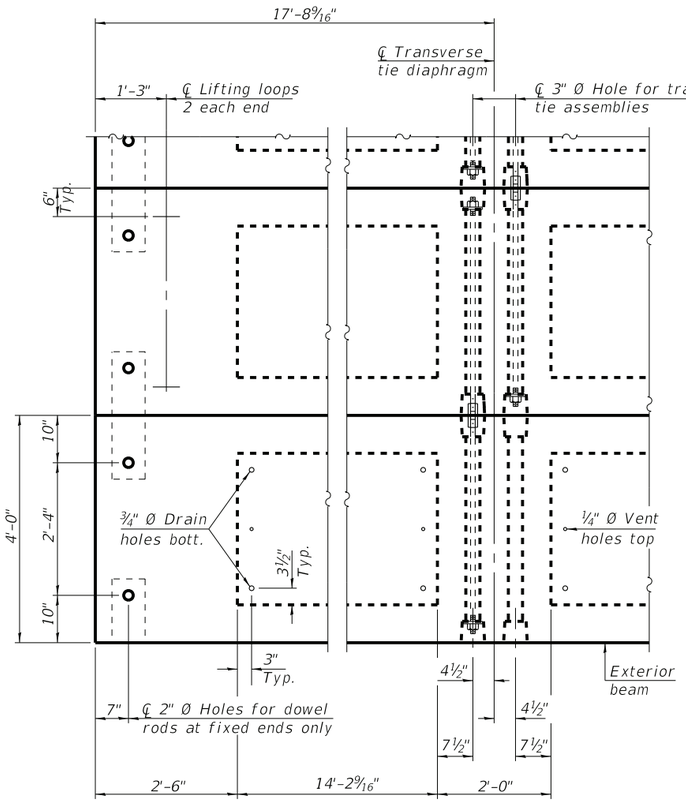
BAR U1(E)



BAR D(E)
Fascia Beams Only



LIFTING LOOP DETAIL



PLAN VIEW

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

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (17" depth)	Sq. Ft.	1842

NOTES

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

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

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

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

Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

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

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

PD-1748-0D 2-17-2017

BAXTER & WOODMAN Consulting Engineers

USER NAME =	DESIGNED - BAB	REVISED -	
	CHECKED - BLB	REVISED -	
PLOT SCALE =	DRAWN - BAB	REVISED -	
PLOT DATE =	CHECKED - BLB	DATE - 10-09-18	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

17" X 48" PPC DECK BEAM DETAILS - SPAN 1
STRUCTURE NO. 016-8257

OAK STREET SHEET 8 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	62
*3050A/3045		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

MODEL: Span 1 17x48 beams
FILE NAME: I:\Crystal Lake\WINNE\15075A-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\Oak\Beams.dgn

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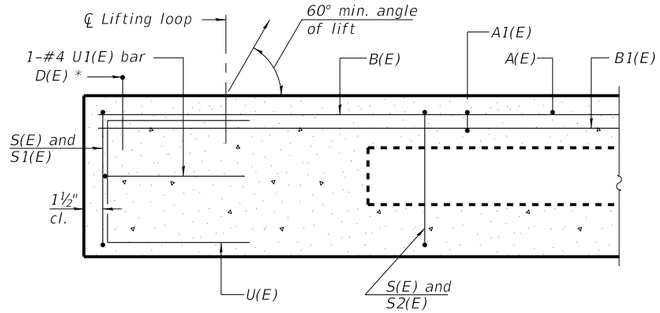
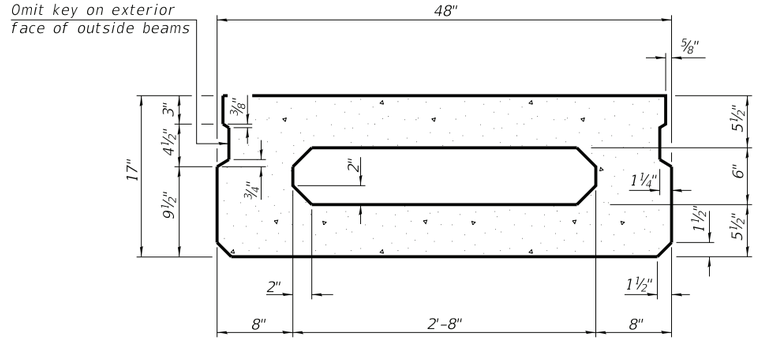
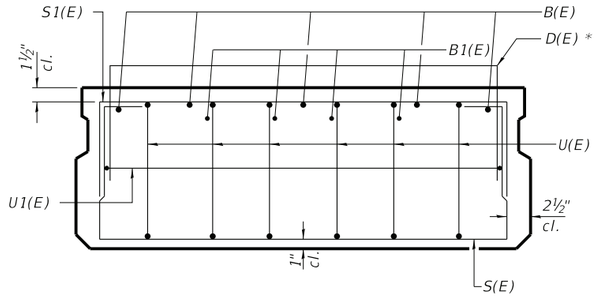


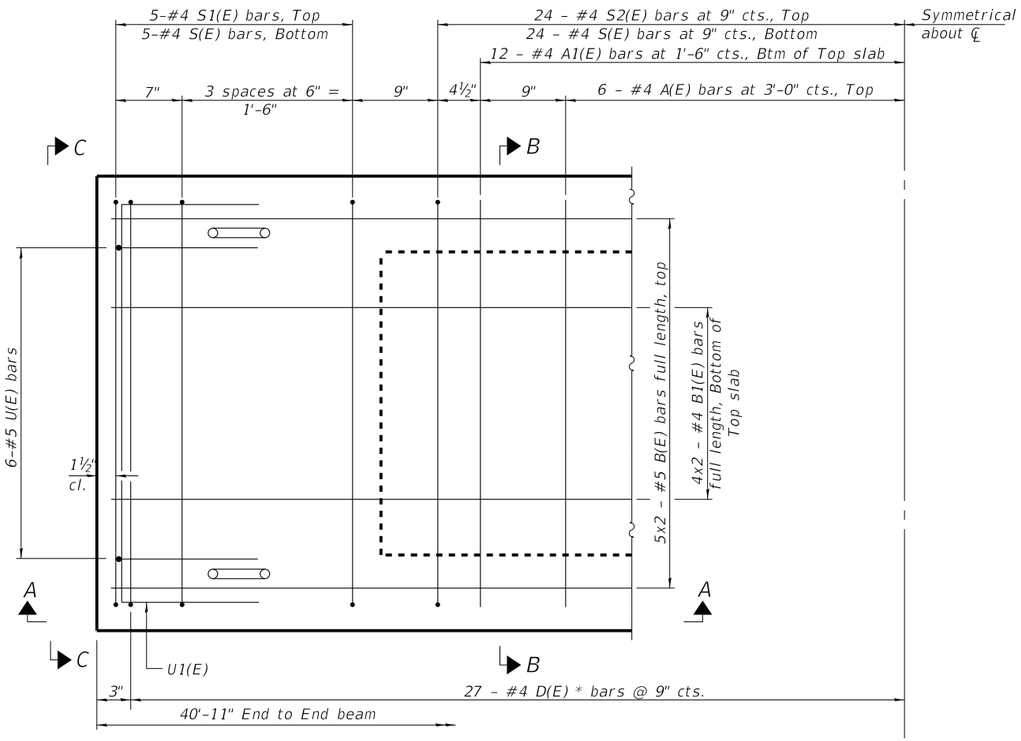
SECTION A-A



SECTION B-B
(Showing dimensions)

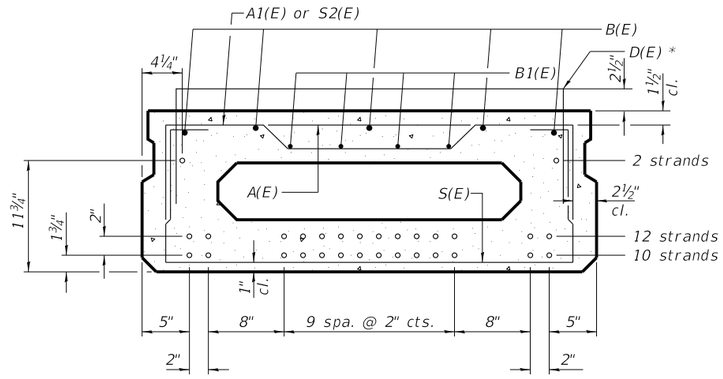


VIEW C-C



PLAN VIEW

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.



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

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

MINIMUM BAR LAP
#4 bar = 1'-11"
#5 bar = 2'-6"

BAR LIST
ONE BEAM ONLY
(For information only)

	Bar	No.	Size	Length	Shape
	A(E)	12	#4	3'-7"	—
	A1(E)	24	#4	3'-10"	⌒
	B(E)	10	#5	21'-7"	—
	B1(E)	8	#4	21'-3"	—
*	D(E)	54	#4	5'-7"	⌐¬
	S(E)	58	#4	6'-9"	⌐_¬
	S1(E)	10	#4	5'-3"	⌐¬
	S2(E)	48	#4	5'-6"	⌐¬
	U(E)	12	#5	3'-8"	⊏
	U1(E)	2	#4	6'-0"	⌐¬

Note:
See sheet 10 of 31 for additional details and Bill of Material.

* D(E) bars in fascia beams only.

PD-1748-0 2-17-2017

BAXTER & WOODMAN Consulting Engineers

USER NAME =	DESIGNED - BAB	REVISED -	
	CHECKED - BLB	REVISED -	
PLOT SCALE =	DRAWN - BAB	REVISED -	
PLOT DATE =	CHECKED - BLB	DATE - 10-09-18	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

17" X 48" PPC DECK BEAM - SPAN 2
STRUCTURE NO. 016-8257

OAK STREET SHEET 9 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	63
*3050A/3045		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

MODEL: Span 2 17x48 beams
FILE NAME: I:\Crystal Lake\WINNE\150754-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\OakIBeams.dgn
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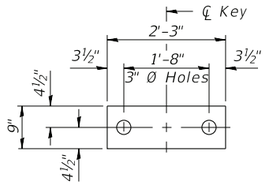
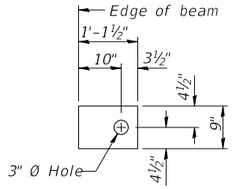


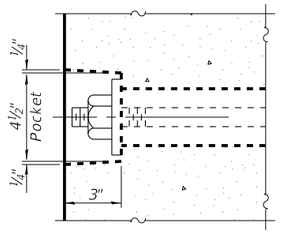
FABRIC BEARING PAD
(Interior)



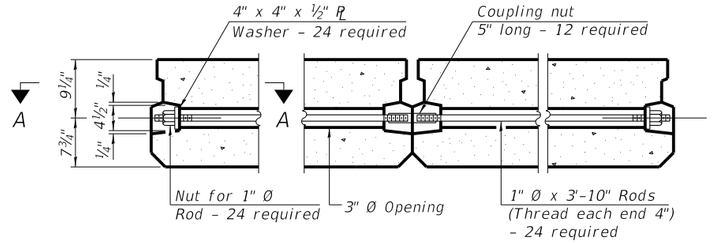
FABRIC BEARING PAD
(Exterior)

FIXED

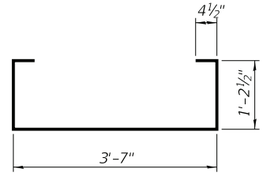
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



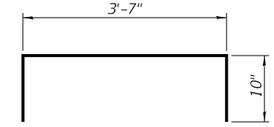
SECTION A-A



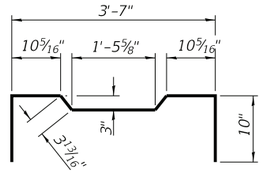
TYPICAL TRANSVERSE TIE ASSEMBLY



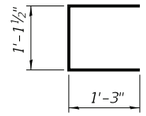
BAR S(E)



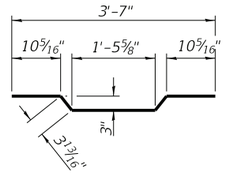
BAR S1(E)



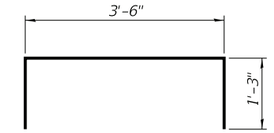
BAR S2(E)



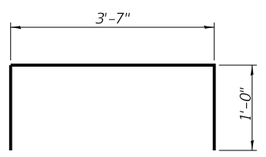
BAR U(E)



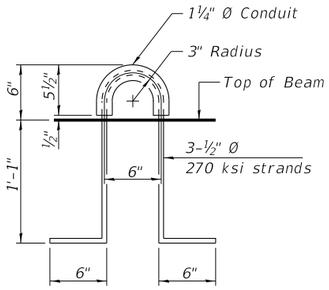
BAR A1(E)



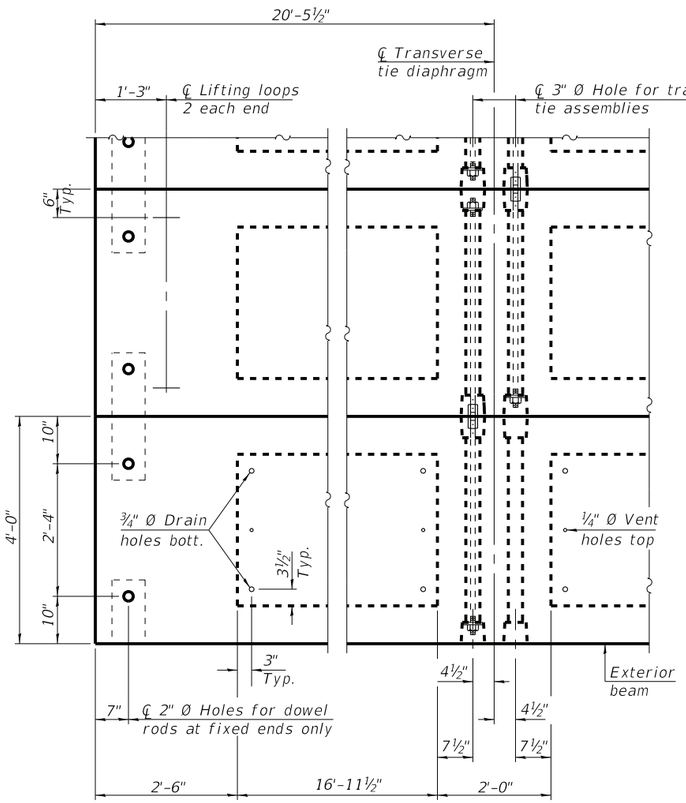
BAR U1(E)



BAR D(E)
Fascia Beams Only



LIFTING LOOP DETAIL



PLAN VIEW

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

NOTES

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

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

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

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

Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

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

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

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (17" depth)	Sq. Ft.	2128

PD-1748-0D 2-17-2017

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	PLOT DATE =	CHECKED - BLB	DATE - 10-09-18

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

17" X 48" PPC DECK BEAM DETAILS - SPAN 2
STRUCTURE NO. 016-8257

OAK STREET SHEET 10 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	64
*3050A/3045		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

MODEL: Span 2 17x48 beams
FILE NAME: I:\Crystal Lake\WINNE\15075A-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\Oak\Beams.dgn
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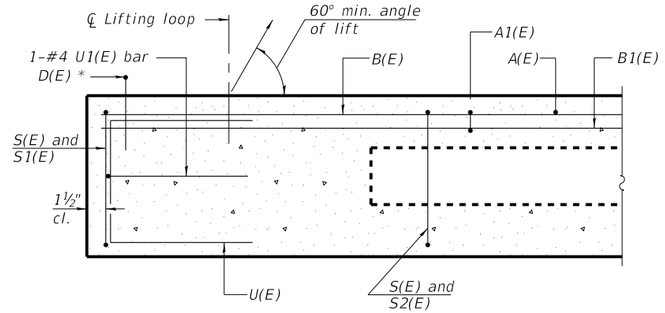
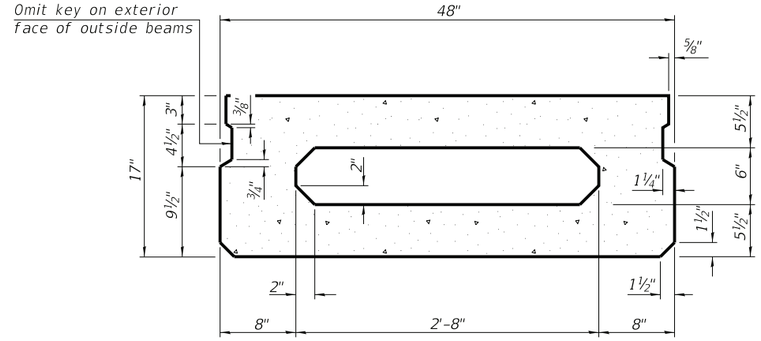
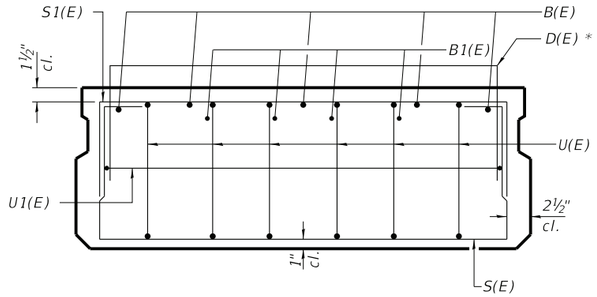


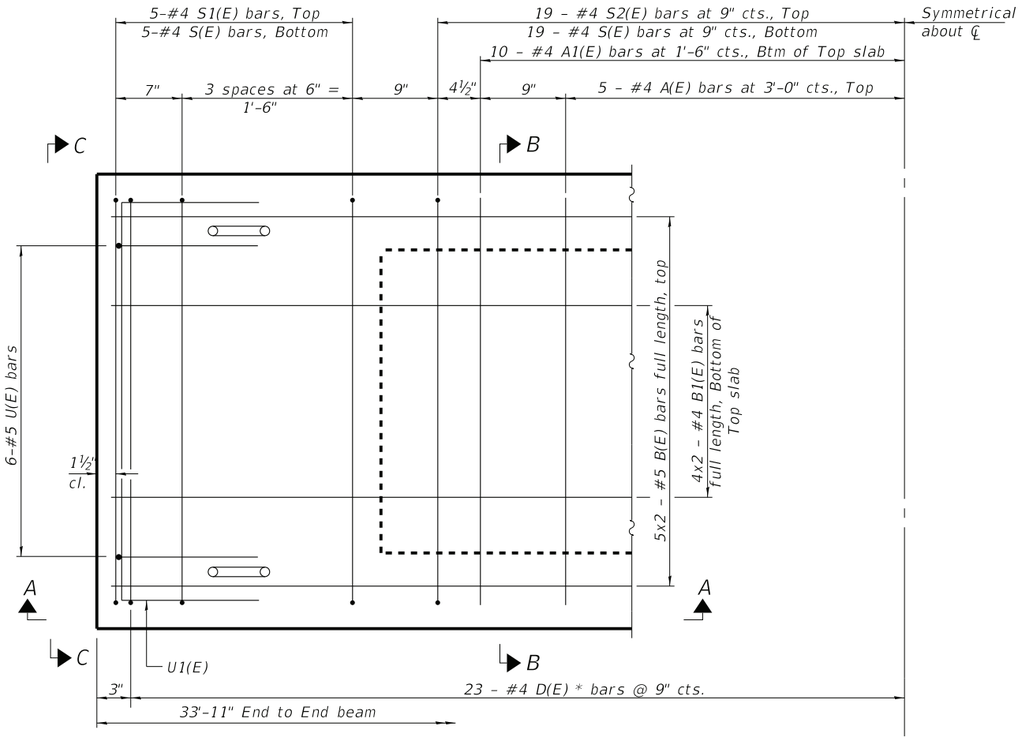
SECTION A-A



SECTION B-B
(Showing dimensions)

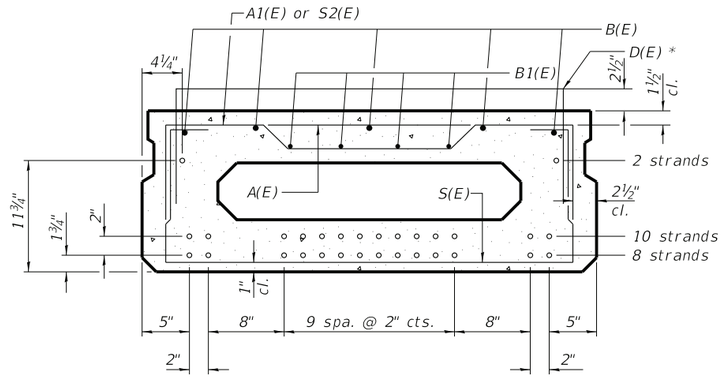


VIEW C-C



PLAN VIEW

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.



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

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

MINIMUM BAR LAP
#4 bar = 1'-11"
#5 bar = 2'-6"

BAR LIST
ONE BEAM ONLY
(For information only)

	Bar	No.	Size	Length	Shape
	A(E)	10	#4	3'-7"	——
	A1(E)	20	#4	3'-10"	~
	B(E)	10	#5	18'-1"	——
	B1(E)	8	#4	17'-9"	——
*	D(E)	46	#4	5'-7"	⌐¬
	S(E)	48	#4	6'-9"	⌐¬
	S1(E)	10	#4	5'-3"	⌐¬
	S2(E)	38	#4	5'-6"	⌐¬
	U(E)	12	#5	3'-8"	⊏
	U1(E)	2	#4	6'-0"	⌐¬

Note:
See sheet 12 of 31 for additional details and Bill of Material.

* D(E) bars in fascia beams only.

PD-1748-0 2-17-2017

BAXTER & WOODMAN Consulting Engineers

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	CHECKED - BLB	REVISED -	
PLOT SCALE =	DRAWN - BAB	REVISED -	
PLOT DATE =	CHECKED - BLB	DATE - 10-09-18	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

17" X 48" PPC DECK BEAM - SPAN 3
STRUCTURE NO. 016-8257

OAK STREET SHEET 11 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	65
*3050A/3045		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

MODEL: Span 3 17x48 beams
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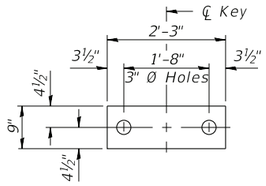
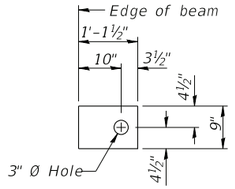


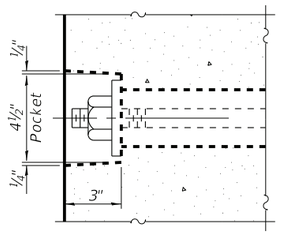
FABRIC BEARING PAD
(Interior)



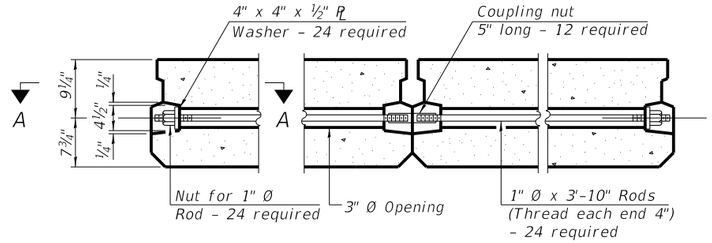
FABRIC BEARING PAD
(Exterior)

FIXED

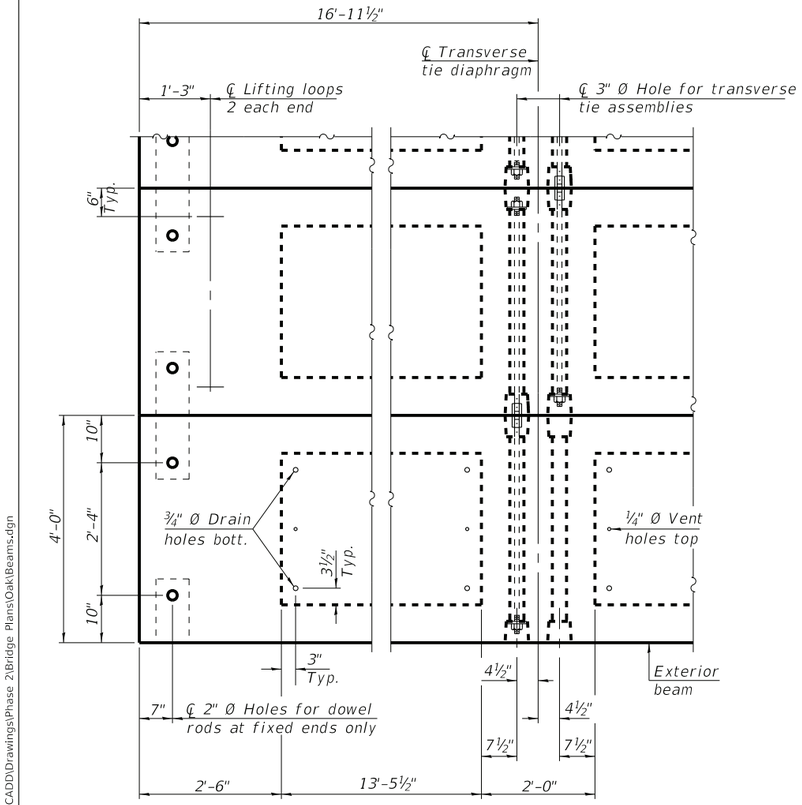
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



SECTION A-A

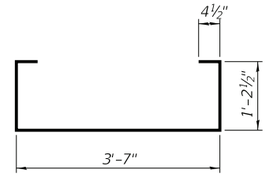


TYPICAL TRANSVERSE TIE ASSEMBLY

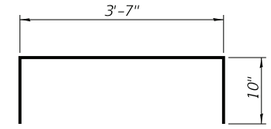


PLAN VIEW

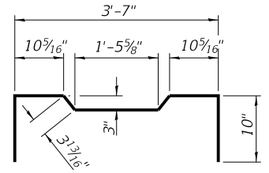
Note: Connect beams in pairs with the transverse tie configuration shown.



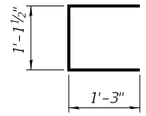
BAR S(E)



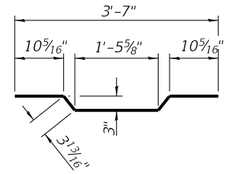
BAR S1(E)



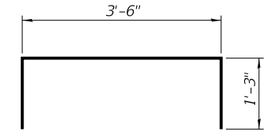
BAR S2(E)



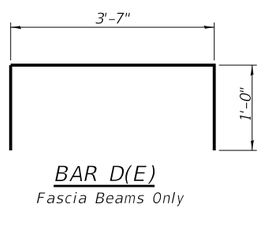
BAR U(E)



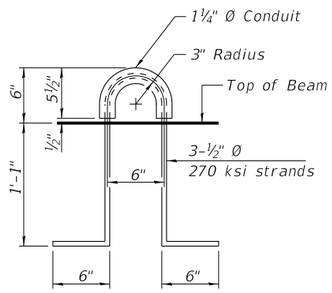
BAR A1(E)



BAR U1(E)



BAR D(E)
Fascia Beams Only



LIFTING LOOP DETAIL

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (17" depth)	Sq. Ft.	1764

NOTES

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

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

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

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

Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

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

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

PD-1748-0D 2-17-2017

BAXTER & WOODMAN Consulting Engineers

USER NAME =	DESIGNED - BAB	REVISED -	
	CHECKED - BLB	REVISED -	
PLOT SCALE =	DRAWN - BAB	REVISED -	
PLOT DATE =	CHECKED - BLB	DATE - 10-09-18	

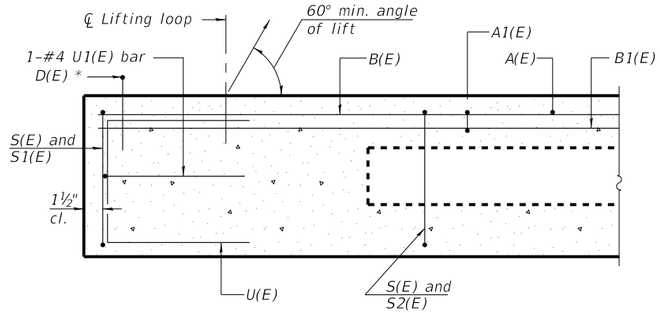
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

17" X 48" PPC DECK BEAM DETAILS - SPAN 3
STRUCTURE NO. 016-8257

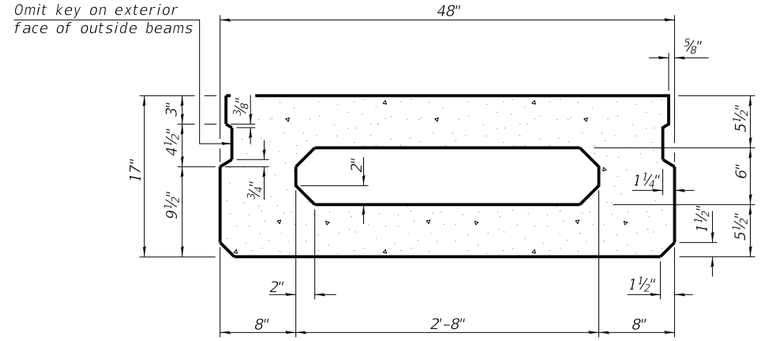
OAK STREET SHEET 12 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	66
*3050A/3045		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

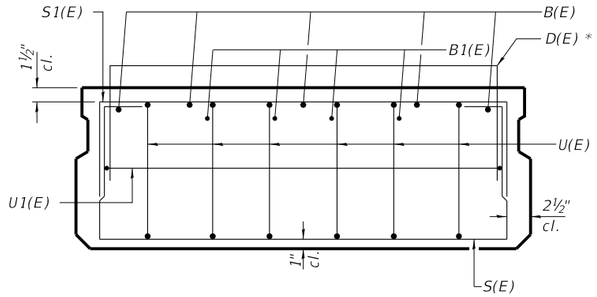
MODEL: Span 3 17x48 beams
FILE NAME: I:\Crystal Lake\WINNE150754-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\Oak\Beams.dgn
11/9/2018 9:14:05 AM



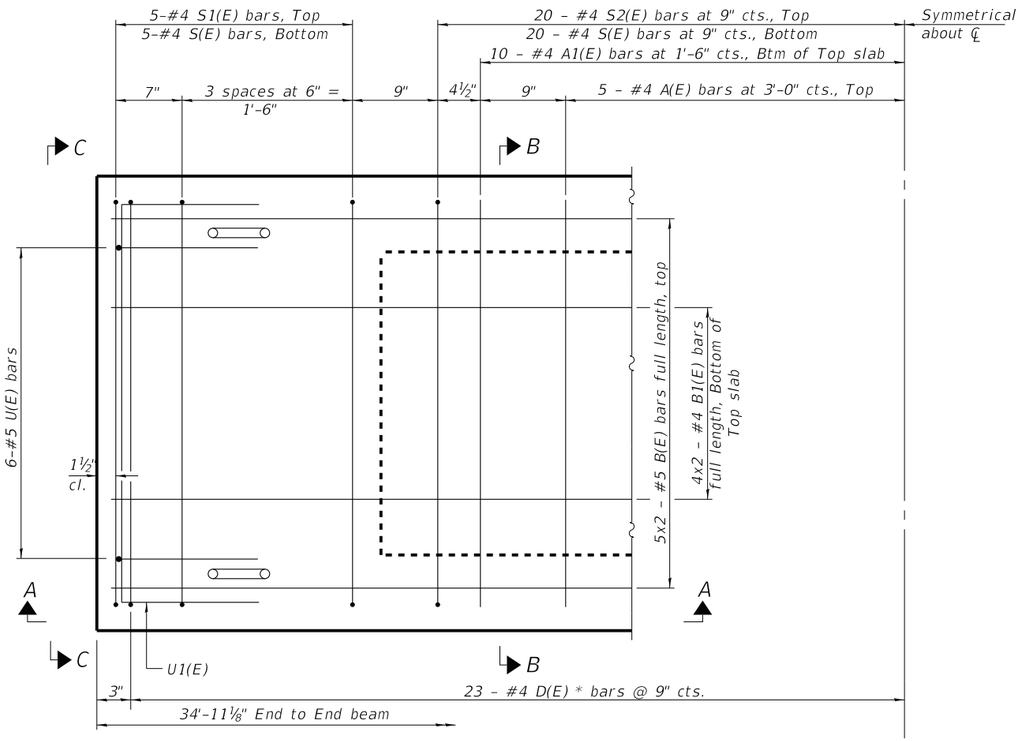
SECTION A-A



SECTION B-B
(Showing dimensions)

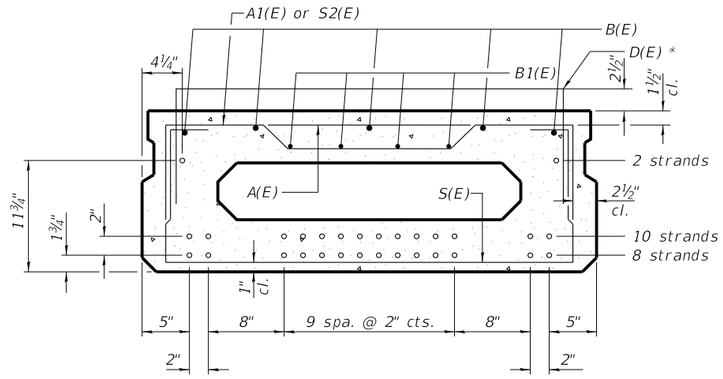


VIEW C-C



PLAN VIEW

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.



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

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

MINIMUM BAR LAP
#4 bar = 1'-11"
#5 bar = 2'-6"

BAR LIST
ONE BEAM ONLY
(For information only)

	Bar	No.	Size	Length	Shape
	A(E)	10	#4	3'-7"	—
	A1(E)	20	#4	3'-10"	⌒
	B(E)	10	#5	18'-7"	—
	B1(E)	8	#4	18'-3"	—
*	D(E)	46	#4	5'-7"	⌐¬
	S(E)	50	#4	6'-9"	⌊⌋
	S1(E)	10	#4	5'-3"	⌐¬
	S2(E)	40	#4	5'-6"	⌐¬
	U(E)	12	#5	3'-8"	⊏
	U1(E)	2	#4	6'-0"	⌐¬

Note:
See sheet 14 of 31 for additional details and Bill of Material.

* D(E) bars in fascia beams only.

PD-1748-0 2-17-2017

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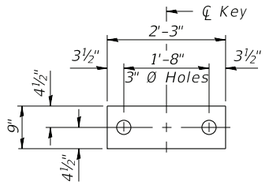
	CHECKED - BLB	REVISED -	
PLOT SCALE =	DRAWN - BAB	REVISED -	
PLOT DATE =	CHECKED - BLB	DATE - 10-09-18	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

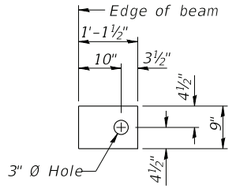
17" X 48" PPC DECK BEAM - SPAN 4
STRUCTURE NO. 016-8257
OAK STREET SHEET 13 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	67
*3050A/3045		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

MODEL: Span 4 17x48 beams
FILE NAME: I:\Crystal Lake\WINNE\150754-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\OakIBeams.dgn
11/9/2018 9:14:06 AM



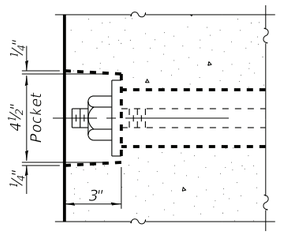
FABRIC BEARING PAD
(Interior)



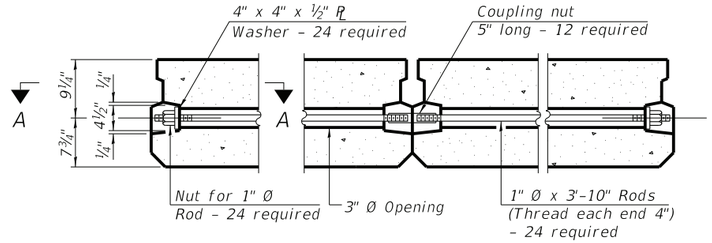
FABRIC BEARING PAD
(Exterior)

FIXED

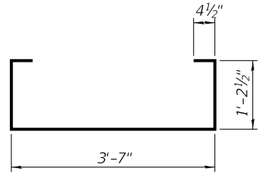
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



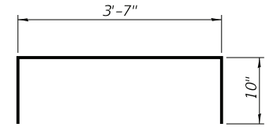
SECTION A-A



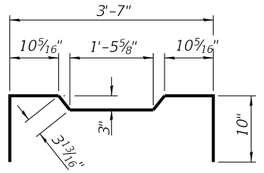
TYPICAL TRANSVERSE TIE ASSEMBLY



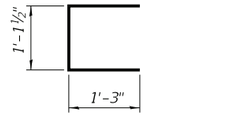
BAR S(E)



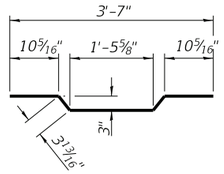
BAR S1(E)



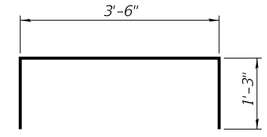
BAR S2(E)



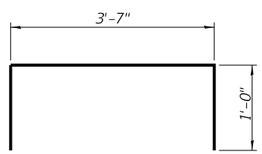
BAR U(E)



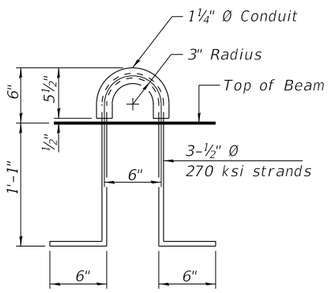
BAR A1(E)



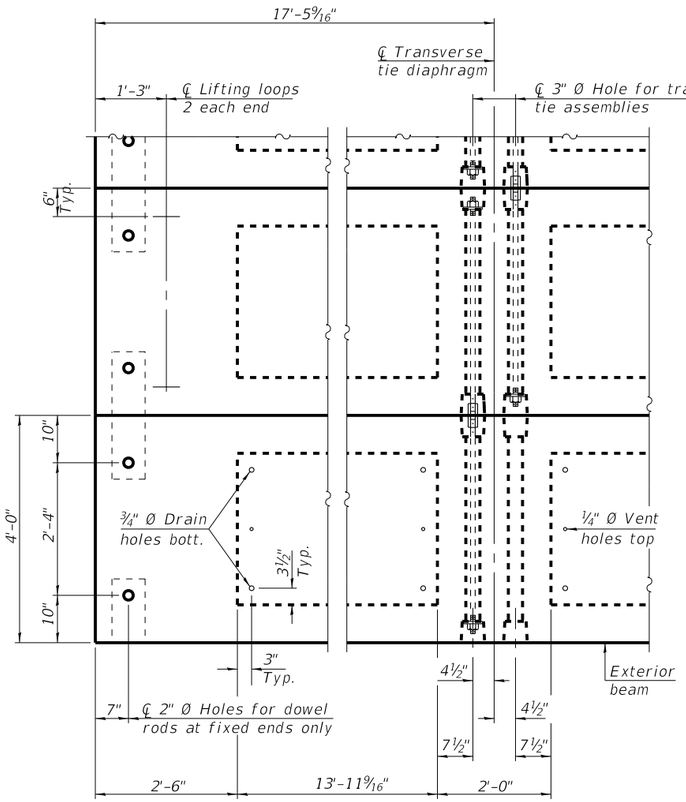
BAR U1(E)



BAR D(E)
Fascia Beams Only



LIFTING LOOP DETAIL



PLAN VIEW

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

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (17" depth)	Sq. Ft.	1816

NOTES

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

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

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

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

Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

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

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

PD-1748-0D 2-17-2017

BAXTER & WOODMAN Consulting Engineers	USER NAME =	DESIGNED - BAB	REVISED -
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	PLOT SCALE =	DRAWN - BAB	REVISED -
	PLOT DATE =	CHECKED - BLB	DATE - 10-09-18

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

17" X 48" PPC DECK BEAM DETAILS - SPAN 4
STRUCTURE NO. 016-8257

OAK STREET SHEET 14 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	68
*3050A/3045		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

MODEL: Span 4 17x48 beams
FILE NAME: I:\Crystal Lake\WINNE\15075A-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\Oak\Beams.dgn

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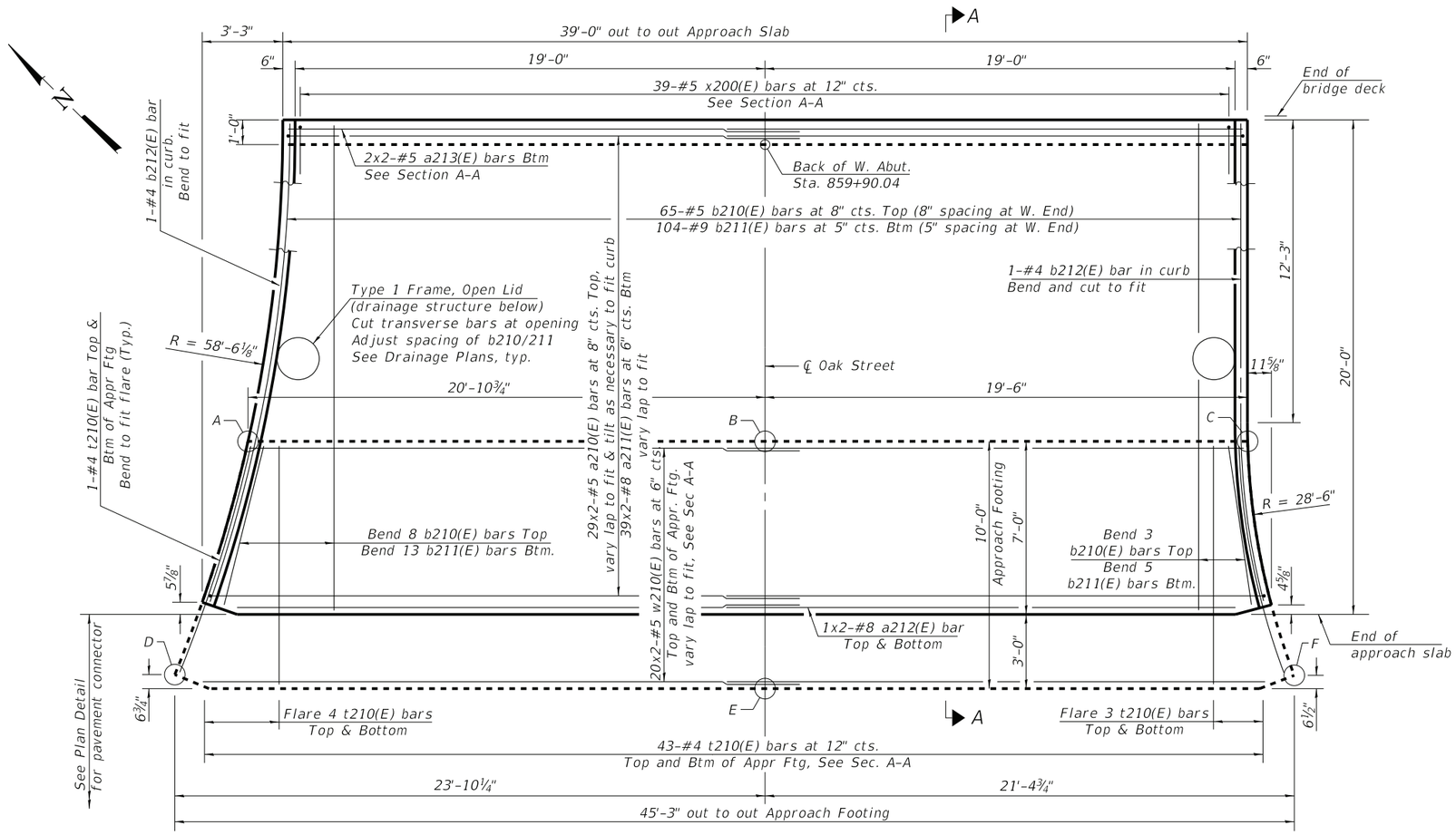


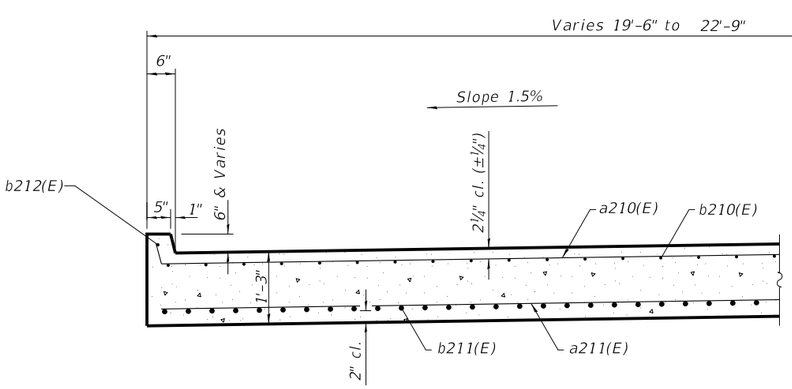
PLAN

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

	West Approach	
Point	Top	Bottom
A	652.01	651.18
B	652.32	651.49
C	652.03	651.20
D	651.50	650.67
E	651.83	651.00
F	651.53	650.70

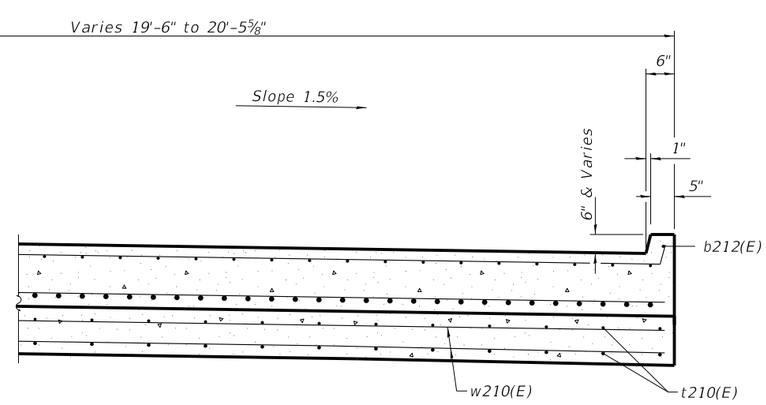
MINIMUM BAR LAP

#5 bar = 3'-4"
#8 bar = 4'-9"



NEAR ABUTMENT

℄ Oak Street



AT APPROACH FOOTING

CROSS SECTION

(Looking East)

(Sheet 1 of 2)

BAXTER & WOODMAN Consulting Engineers

USER NAME =	DESIGNED - BAB	REVISED -	
	CHECKED - BLB	REVISED -	
PLOT SCALE =	DRAWN - BAB	REVISED -	
PLOT DATE =	CHECKED - BLB	DATE - 10-09-18	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 016-8257

OAK STREET SHEET 15 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	69
*3050A/3045		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

MODEL: West Approach
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Notes:

The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.

Approach slab shall be paid for as Concrete Superstructure (Approach Slab).

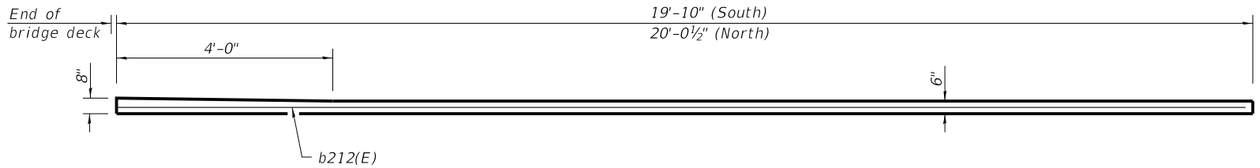
Approach footing concrete shall be paid for as Concrete Structures.

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

Cost of excavation for approach footing included with Concrete Structures.

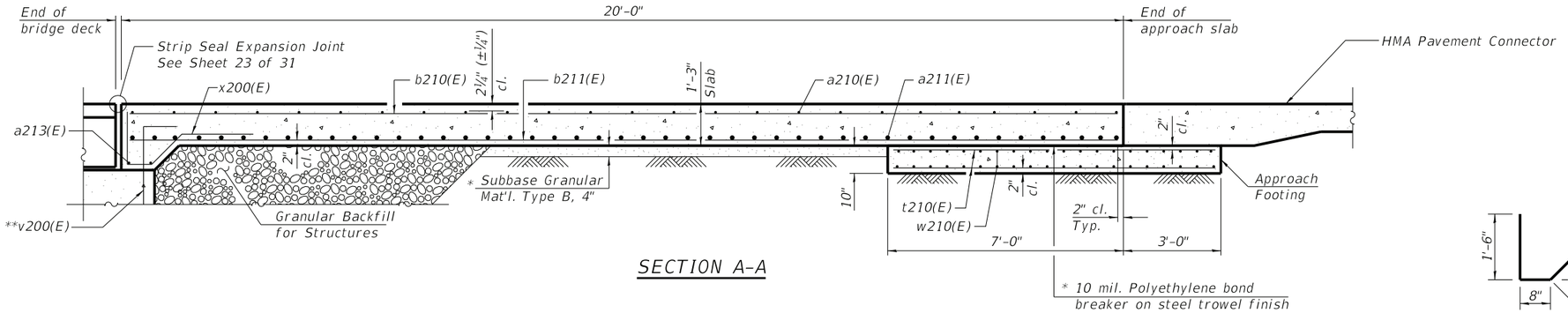
For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 31.

Bars indicated thus 1 x 4-#4 etc. indicates 1 line of bars with 4 lengths per line.

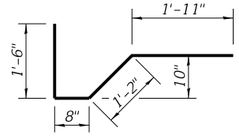


INSIDE ELEVATION OF CURB

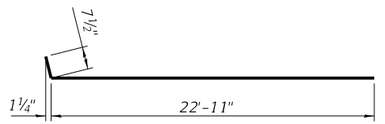
(South curb shown; North curb similar)



SECTION A-A



BAR x200(E)



BAR a210(E)

* Cost included with Concrete Superstructure (Approach Slab).

** #5 v200(E) at 12" Placed with Abutment, v200(E) bar included in cost of Abutment.

WEST APPROACH SLAB BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a210(E)	58	#5	23'-7"	———
a211(E)	78	#8	23'-9"	———
a212(E)	4	#8	22'-10"	———
a213(E)	4	#5	20'-11"	———
b210(E)	65	#5	19'-8"	———
b211(E)	104	#9	19'-8"	———
b212(E)	2	#4	19'-7"	———
t210(E)	90	#4	9'-8"	———
w210(E)	80	#5	24'-1"	———
x200(E)	39	#5	5'-3"	L
Concrete Superstructure (Approach Slab)			Cu. Yd.	39.2
Concrete Structures			Cu. Yd.	13.1
Reinforcement Bars, Epoxy Coated			Pound	17830

BAXTER & WOODMAN Consulting Engineers

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	CHECKED - BLB	REVISED -
PLOT SCALE =	DRAWN - BAB	REVISED -
PLOT DATE =	CHECKED - BLB	DATE - 10-09-18

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 016-8257

OAK STREET SHEET 16 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	70
*3050A/3045		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

MODEL: West Approach
FILE NAME: R:\Crystal Lake\WINNE\150754-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\Oak\Approach.dgn

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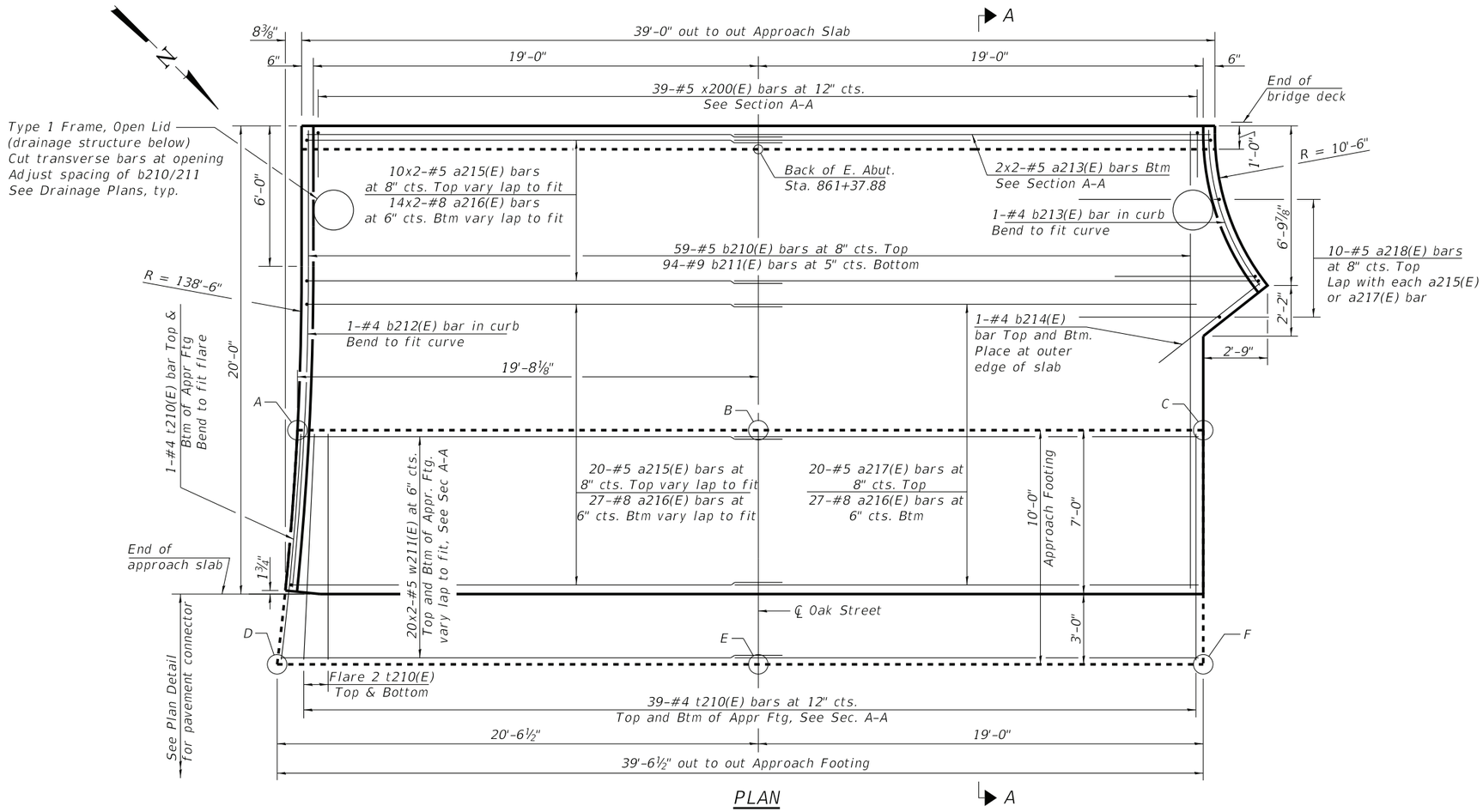


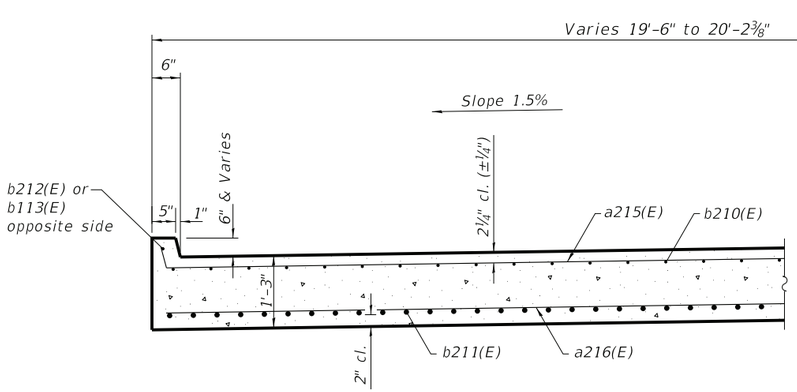
PLAN

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

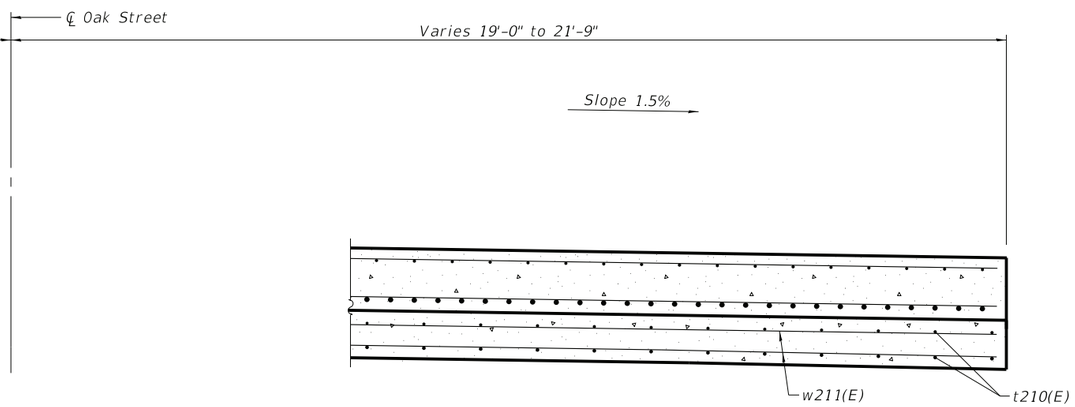
	East Approach	
Point	Top	Bottom
A	651.35	650.52
B	651.65	650.82
C	651.37	650.54
D	651.20	650.37
E	651.51	650.68
F	651.23	650.40

MINIMUM BAR LAP

#5 bar = 3'-4"
#8 bar = 4'-9"



NEAR ABUTMENT



AT APPROACH FOOTING

CROSS SECTION

(Looking West)

(Sheet 1 of 2)

MODEL: East Approach
FILE NAME: I:\Crystal Lake\WINNE150754-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\Oak\Approach.dgn

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BAXTER & WOODMAN Consulting Engineers

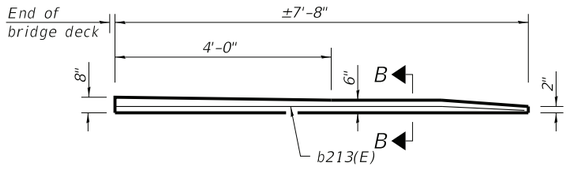
USER NAME =		DESIGNED - BAB	REVISED -		
		CHECKED - BLB	REVISED -		
PLOT SCALE =		DRAWN - BAB	REVISED -		
PLOT DATE =		CHECKED - BLB	DATE - 10-09-18		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

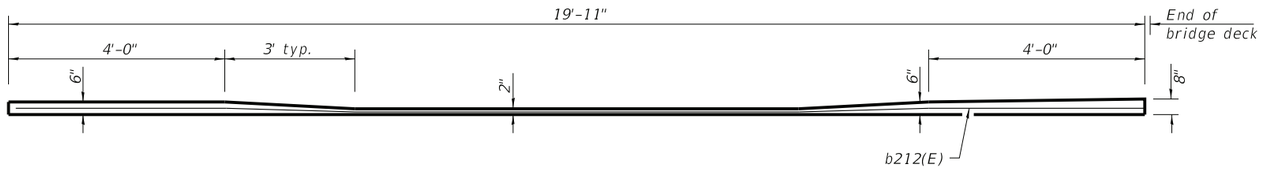
EAST BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 016-8257

OAK STREET SHEET 17 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	71
*3050A/3045		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



INSIDE ELEVATION OF NORTH CURB



INSIDE ELEVATION OF SOUTH CURB

Notes:

The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.

Approach slab shall be paid for as Concrete Superstructure (Approach Slab).

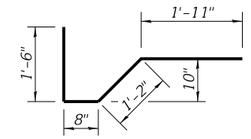
Approach footing concrete shall be paid for as Concrete Structures.

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

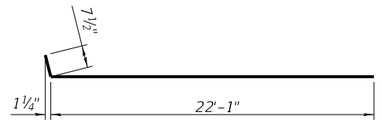
Cost of excavation for approach footing included with Concrete Structures.

For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 31.

Bars indicated thus 1 x 4-#4 etc. indicates 1 line of bars with 4 lengths per line.

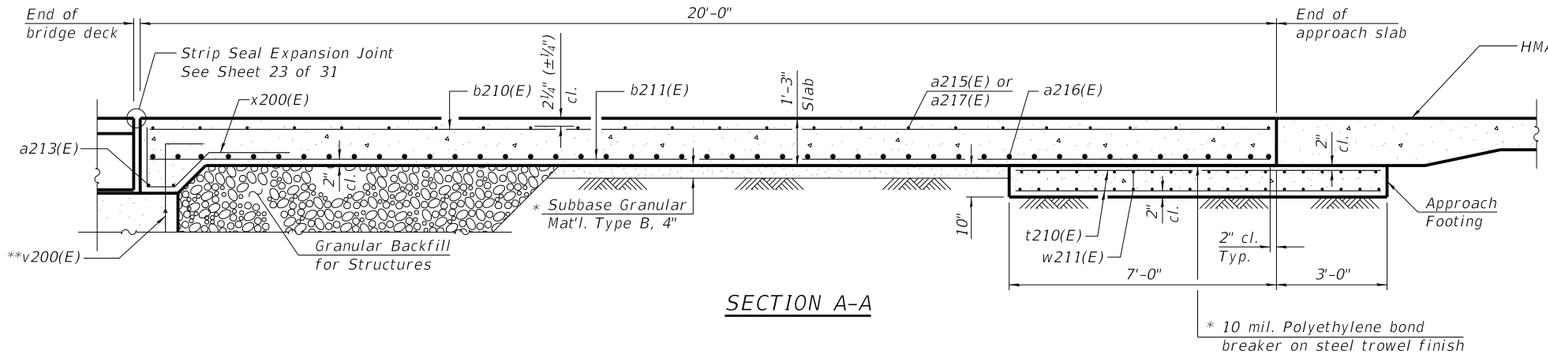


BAR x200(E)



BAR a215(E)

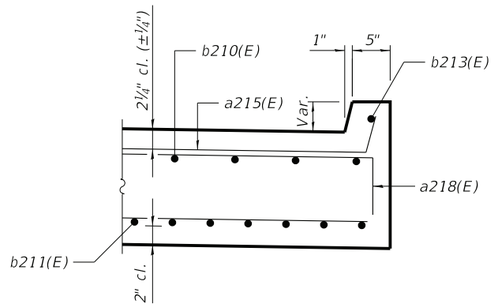
BAR a218(E)



SECTION A-A

* Cost included with Concrete Superstructure (Approach Slab).

** #5 v200(E) at 12" Placed with Abutment, v200(E) bar included in cost of Abutment.



SECTION B-B

EAST APPROACH SLAB BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a213(E)	4	#5	20'-11"	
a215(E)	40	#5	22'-9"	
a216(E)	82	#8	22'-10"	
a217(E)	20	#5	20'-0"	
a218(E)	10	#5	7'-6"	
b210(E)	59	#5	19'-8"	
b211(E)	94	#9	19'-8"	
b212(E)	1	#4	19'-7"	
b213(E)	1	#4	7'-2"	
b214(E)	2	#4	6'-0"	
t210(E)	80	#4	9'-8"	
w211(E)	80	#5	21'-3"	
x200(E)	39	#5	5'-3"	
Concrete Superstructure (Approach Slab)		Cu. Yd.	38.2	
Concrete Structures		Cu. Yd.	12.1	
Reinforcement Bars, Epoxy Coated		Pound	16490	

MODEL: East Approach
FILE NAME: I:\Crystal Lake\WINNE\150754-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\Oak\Approach.dgn
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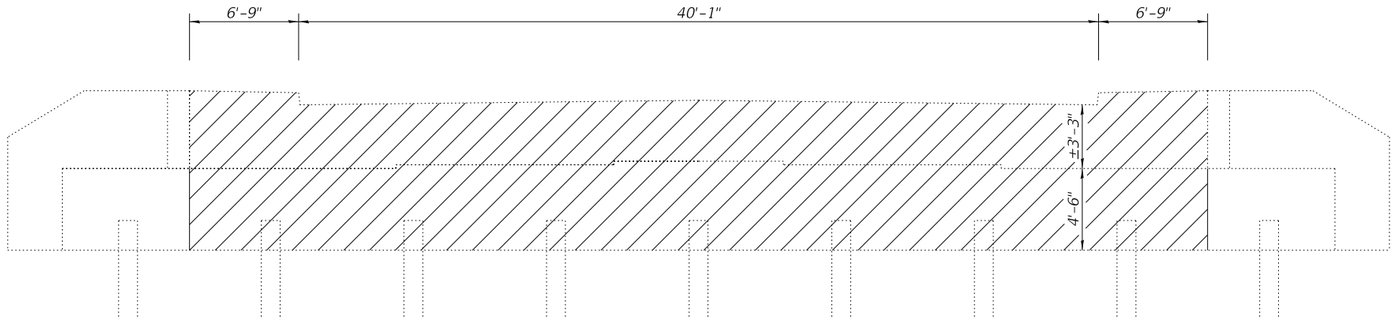
PLOT SCALE =	DRAWN - BAB	REVISED -	
PLOT DATE =	CHECKED - BLB	DATE - 10-09-18	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

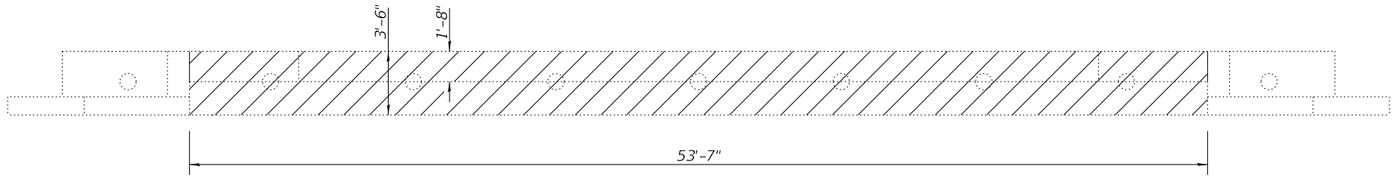
EAST BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 016-8257
OAK STREET SHEET 18 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	72
*3050A/3045		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



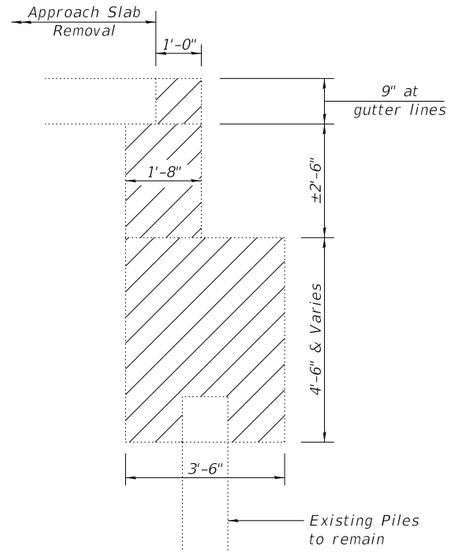
ELEVATION

Both abutments similar



PLAN

Both abutments similar



SECTION THRU ABUTMENT

NOTES

Removal of Existing Superstructures shall include removal of the existing expansion bearings, steel structure, concrete deck, sidewalk, parapet, and all associated or attached items. Protective Shield shall be installed prior to beginning any removal operations.

Portions of the existing abutments and wingwalls to remain in place shall be braced or supported in place as needed until new abutment concrete has cured for a minimum of 3 days. Cost included with Temporary Support System.

Existing piles are to be protected in place during removal operations, and incorporated into new construction. The Engineer shall be notified immediately if the existing piles are damaged, or are found not to be in their expected locations.

Hatched areas indicates Concrete Removal.

BILL OF MATERIAL

Item	Unit	Total
Removal of Existing Superstructures No. 2	Each	1
Protective Shield	Sq. Yd.	838
Concrete Removal	Cu. Yd.	92
Temporary Support System, Location 2	Each	4

MODEL: Removal Details
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PLOT DATE =	CHECKED - BLB	DATE - 10-09-18	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REMOVAL DETAILS
STRUCTURE NO. 016-8257

OAK STREET SHEET 19 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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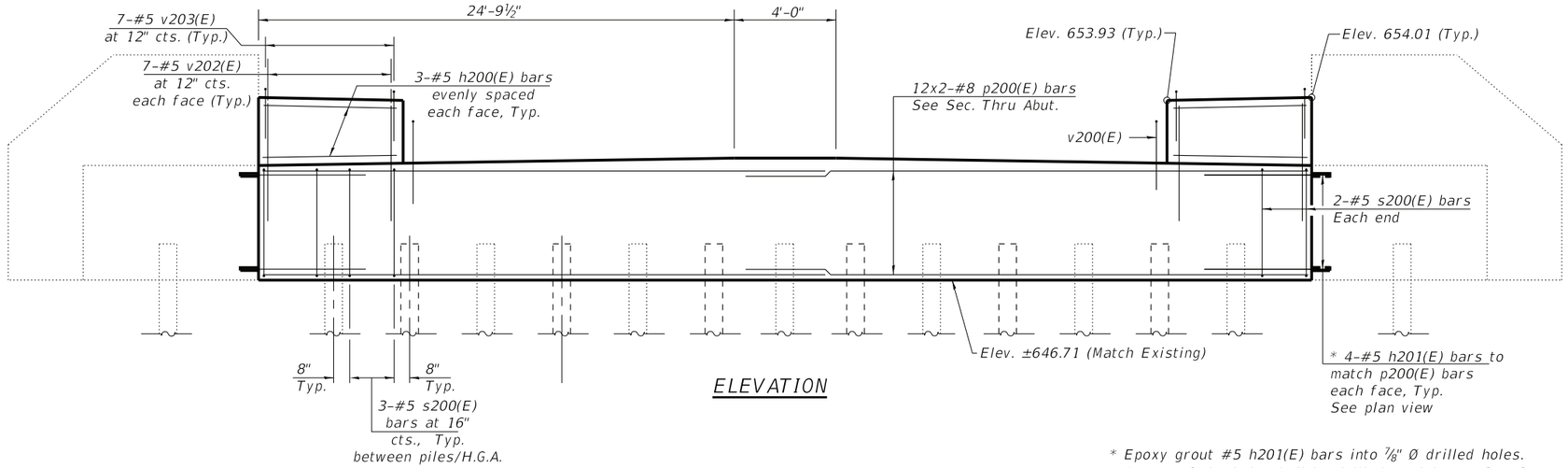
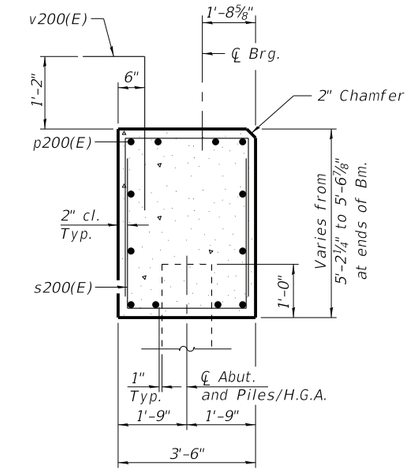
*3050A/3045		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

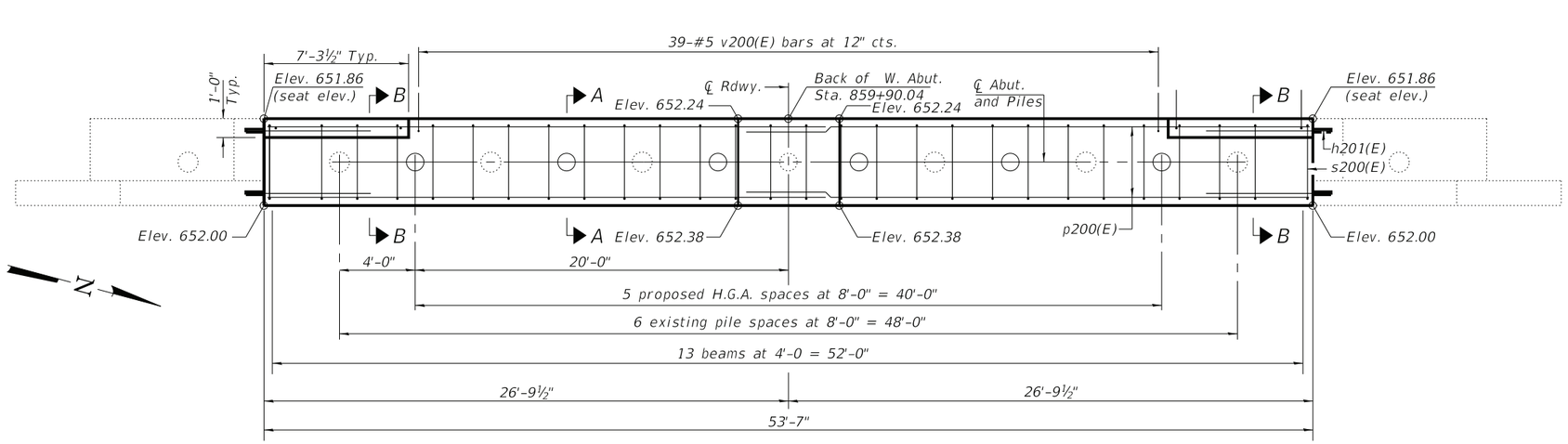


ELEVATION

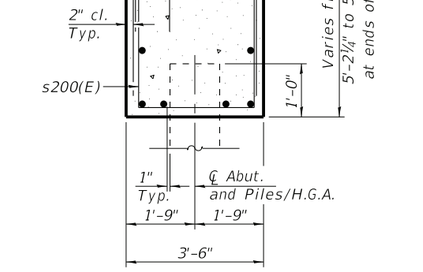
* Epoxy grout #5 h201(E) bars into ⅞" Ø drilled holes. Center of the hole shall be drilled a minimum of 4" from the face of the existing structure. See Section 584 of the Std. Specifications.



SECTION A-A



PLAN



SECTION B-B

Note: Sloped seats not shown. See plan view.

WEST ABUTMENT BILL OF MATERIAL

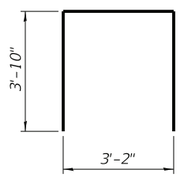
Bar	No.	Size	Length	Shape
h200(E)	12	#5	6'-11"	———
h201(E)	16	#5	4'-1"	———
p200(E)	24	#8	29'-6"	———
s200(E)	80	#5	10'-10"	⌐¬
v200(E)	39	#5	4'-1"	⌐
v202(E)	28	#5	3'-1"	———
v203(E)	14	#5	3'-10"	⌐
Structure Excavation		Cu. Yd.		126.0
Concrete Structures		Cu. Yd.		38.5
Reinforcement Bars, Epoxy Coated		Pound		3270
Helical Ground Anchors		Each		6

NOTES

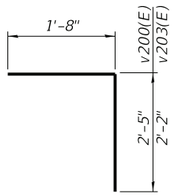
Helical Ground Anchors shall be designed to support a Service Design Load of 32 Kips in the downward direction. No uplift load required.

Helical Ground Anchor supplier shall determine the appropriate Safety Factor for installation, with a minimum Safety Factor of 2.0.

H.G.A. = Helical Ground Anchors



BAR s200(E)



BARS v200(E) & v203(E)

MODEL: Abutment Details
FILE NAME: I:\Crystal Lake\WINNE\150754-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\Oak\Substructure.dgn

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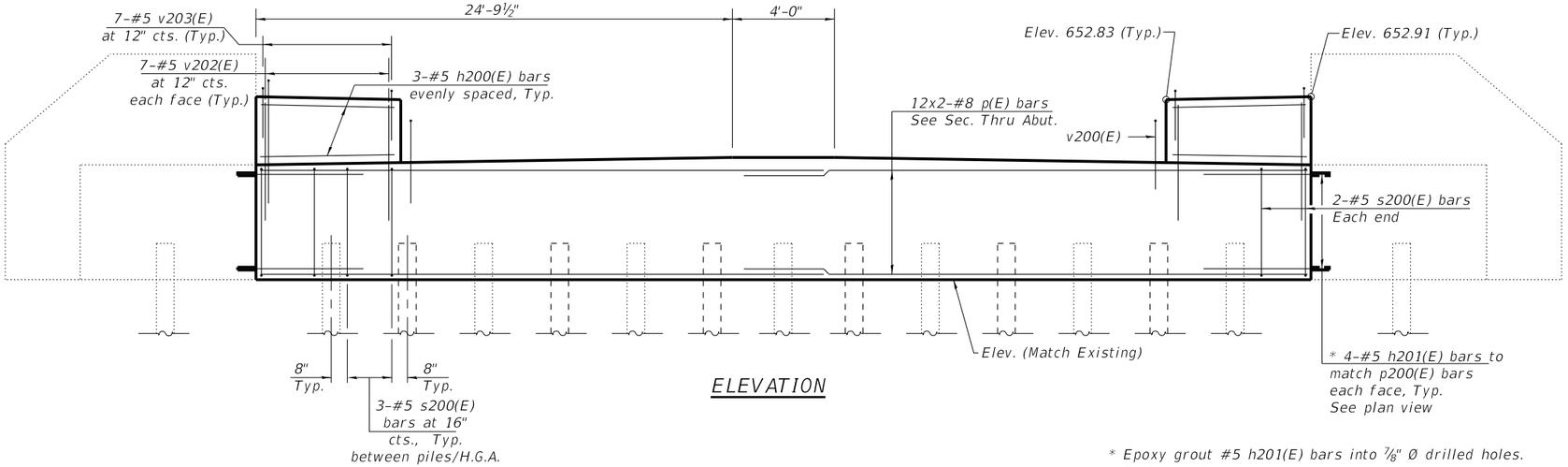
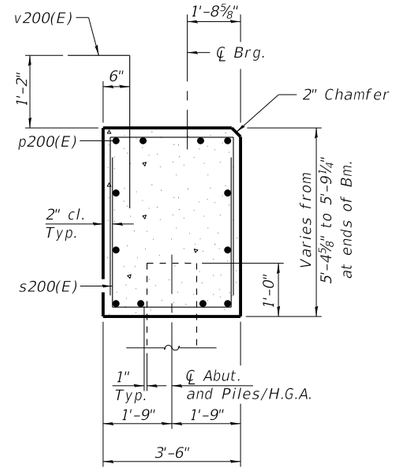
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT DETAILS
STRUCTURE NO. 016-8257
OAK STREET SHEET 20 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	74
*3050A/3045	CONTRACT NO.			
ILLINOIS	FED. AID PROJECT			

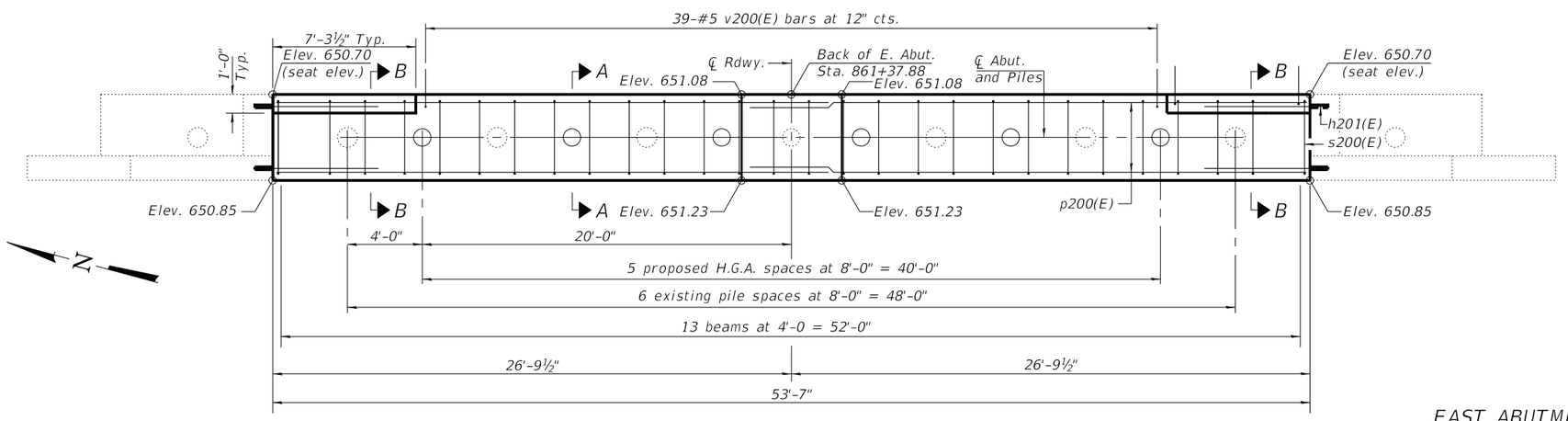


ELEVATION

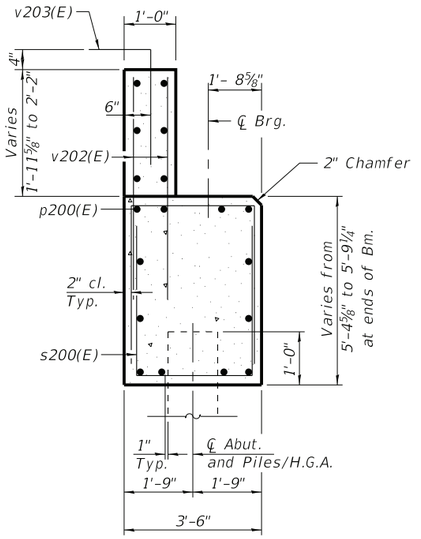


SECTION A-A

* Epoxy grout #5 h201(E) bars into ⅞" Ø drilled holes. Center of the hole shall be drilled a minimum of 4" from the face of the existing structure. See Section 584 of the Std. Specifications.



PLAN



SECTION B-B

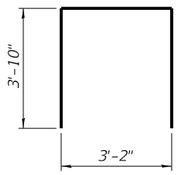
Note: Sloped seats not shown. See plan view.

NOTES

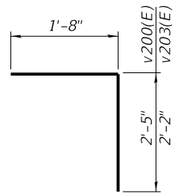
Helical Ground Anchors shall be designed to support a Service Design Load of 32 Kips in the downward direction. No uplift load required.

Helical Ground Anchor supplier shall determine the appropriate Safety Factor for installation, with a minimum Safety Factor of 2.0.

H.G.A. = Helical Ground Anchors



BAR s200(E)



BARS v200(E) & v203(E)

EAST ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h200(E)	12	#5	6'-11"	———
h201(E)	16	#5	4'-1"	———
p200(E)	24	#8	29'-6"	———
s200(E)	80	#5	10'-10"	⊓
v200(E)	39	#5	4'-1"	⌝
v202(E)	28	#5	3'-1"	———
v203(E)	14	#5	3'-10"	⌝
Structure Excavation			Cu. Yd.	129.0
Concrete Structures			Cu. Yd.	39.9
Reinforcement Bars, Epoxy Coated			Pound	3270
Helical Ground Anchors			Each	6

MODEL: Abutment Details
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT DETAILS
STRUCTURE NO. 016-8257
OAK STREET SHEET 21 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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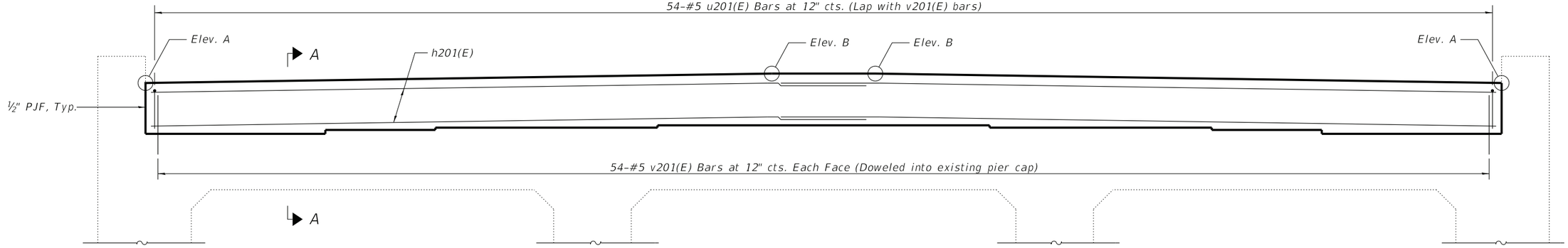
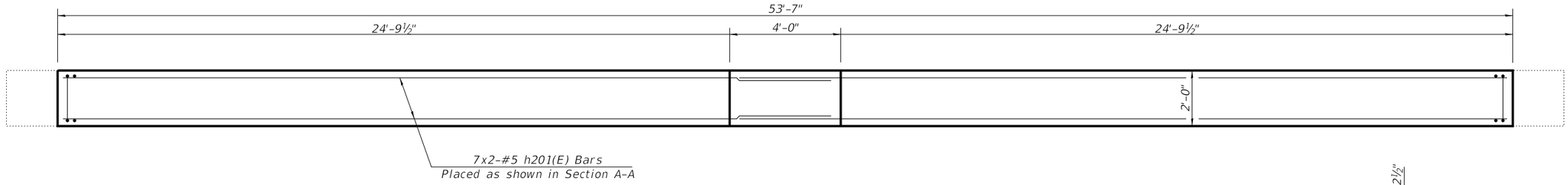
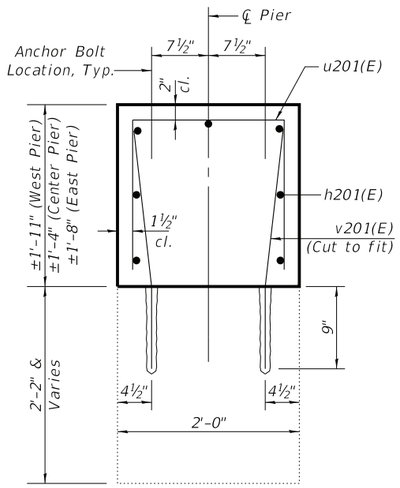
*3050A/3045		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



ELEVATION

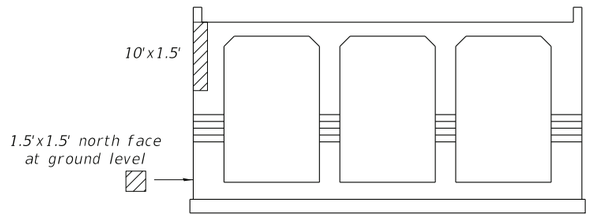


PLAN

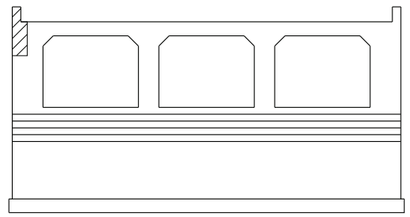


SECTION A-A

Space bars to miss anchor bolt locations



WEST PIER WEST ELEVATION



CENTER PIER WEST ELEVATION

= Structural Repair of Concrete, Depth <5"

ELEVATIONS & DIMENSIONS

	Elev. A	Elev. B
West Pier	653.31	653.69
Center Pier	653.46	653.84
East Pier	652.29	652.67

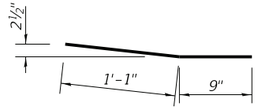
NOTES

v201(E) bars shall be drilled and grouted in place in accordance with Section 584 of the Standard Specifications. Cost included with Reinforcement Bars, Epoxy Coated.

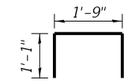
Cost of PJF is included with Concrete Structures.

Lap Length for #5 bars = 3'-7".

Structural Repair of Concrete quantity includes a nominal additional amount for additional repair areas as determined by the Engineer.



BAR v201(E)



BAR u201(E)

BILL OF MATERIAL

3 Piers

Bar	No.	Size	Length	Shape
h201(E)	42	#5	28'-5"	
u201(E)	162	#5	3'-11"	
v201(E)	324	#5	1'-10"	
Cleaning Bridge Seats		Sq. Ft.	322	
Concrete Structures		Cu. Yd.	19.5	
Reinforcement Bars, Epoxy Coated		Pound	2530	
Structural Repair of Concrete (Depth Equal to or Less Than 5")		Sq. Ft.	40	

MODEL: Piers
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DEPARTMENT OF TRANSPORTATION

PIER DETAILS
STRUCTURE NO. 016-8257
OAK STREET SHEET 22 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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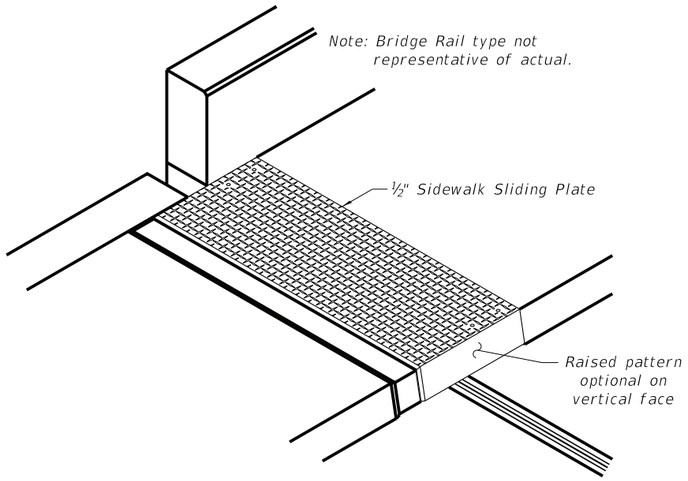
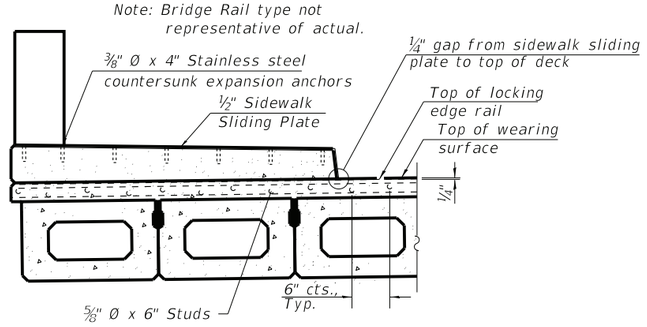
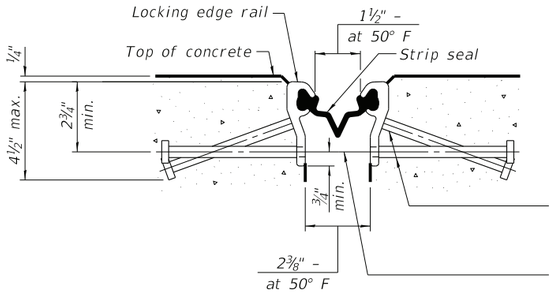
*3050A/3045	CONTRACT NO.			
	ILLINOIS FED. AID PROJECT			



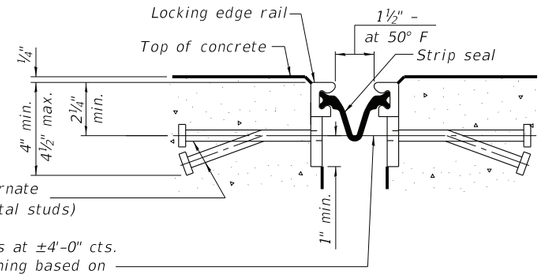
TRIMETRIC VIEW



ELEVATION AT SIDEWALK



SHOWING ROLLED RAIL JOINT



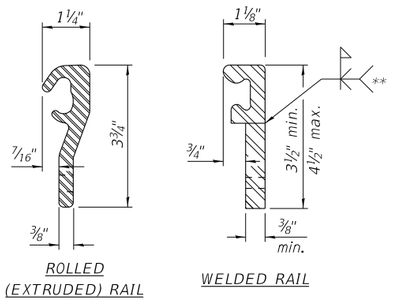
SHOWING WELDED RAIL JOINT

* ⅝" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

⅜" ϕ threaded rods in 7/16" ϕ holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION THRU JOINT

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

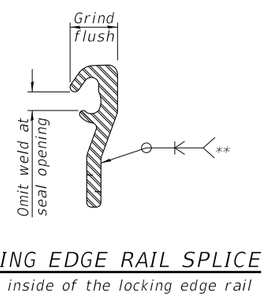


ROLLED (EXTRUDED) RAIL

WELDED RAIL

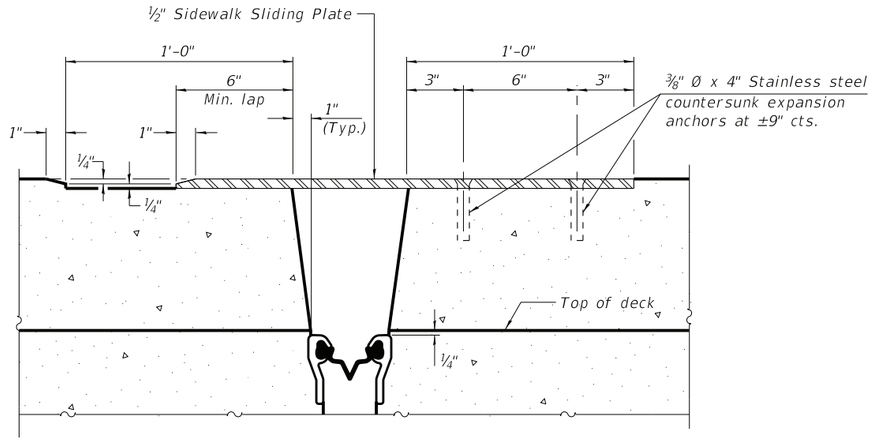
LOCKING EDGE RAILS

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



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.



SECTION THRU RAISED SIDEWALK

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. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4½" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The manufacturer's recommended installation methods shall be followed.

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

The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the sidewalk shall be welded as shown in the locking edge rail splice detail.

Cost of embedded plates and anchorage studs included with Preformed Joint Strip Seal.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the Contractor. Deck and sidewalk lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the Contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement connector length shall be adjusted, not the length of the bridge approach slab.

Coordinate location of stainless steel countersunk expansion anchors with conduis. See Sheet 4 of 31.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	80

MODEL: Preformed Joint Strip Seal
FILE NAME: I:\Crystal Lake\WINNE150754-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\Oak\Details.dgn

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 016-8257

OAK STREET SHEET 23 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	77
*3050A/3045		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

SOIL AND MATERIAL CONSULTANTS, INC.

File No. 23155 **BORING LOG** B-1

Client Baxter & Woodman, Inc. Sheet 1 of 2

Project Oak St. & Cherry St. Bridge Rehabilitations Date 3/1/17

Location Winnetka, IL Drilled By AC

Equipment ☒CME 45B ☐H.A. ☐Other Logged By DA

Comments

Elev., ft.	Description	Depth, ft.	S	T	R	B	N	Pen.	W	Uw	Qu
653.3		0									
652.1	(See Core Log)					1					
	Brown sand,clay & silt,trace gravel,damp,very loose - Fill		1	SS	11"	2	4		16.1		
649.8						3					
	Dark brown-black cinders,very damp,loose - Fill	5	2	SS	14"	4	7		19.1		
646.8						2					
	Brown-gray clay,some silt,trace sand & gravel,damp,hard		3	SS	18"	5	9	4.5+	18.3	112.0	5.8
645.3						7					
	Brown clay,some silt,trace sand & gravel,damp,hard to very hard	10	4	SS	18"	12	20	4.5+	16.5	117.7	6.2
						7					
			5	SS	18"	15	27	4.5+	15.9	118.1	8.6
639.8						4					
	Gray clay,some silt,trace sand & gravel,damp,very tough	15	6	SS	18"	8	14	2.75	17.4	119.7	3.8
						4					
			7	SS	18"	8	14	2.75	17.3	120.1	3.3
633.3		20	8	SS	18"	4	15	2.5	20.5	120.6	2.5

S - sample T - type: J(Jar), SS(split-spoon), ST(shelby tube) R - recovery length, in.
B - Standard Penetration Test (SPT), blows/ 6" interval. W - water content, %.
N - SPT, blows/ foot to drive 2" O.D. split-spoon sampler with 140 lb. hammer falling 30".
Pen. - pocket penetrometer reading, tons/ sq. ft.. Uw - dry unit weight of soil, lbs./ cu.ft.
Qu - unconfined compressive strength, tons./ sq. ft..

Water Level — depth, ft. elev., ft.
- while drilling: dry
- after drilling: dry
- hrs. after drilling:

F-111b

SOIL AND MATERIAL CONSULTANTS, INC.

File No. 23155 **BORING LOG** B-2

Client Baxter & Woodman, Inc. Sheet 1 of 1

Project Oak St. & Cherry St. Bridge Rehabilitations Date 2/28/17

Location Winnetka, IL Drilled By AC

Equipment ☒CME 45B ☐H.A. ☐Other Logged By DA

Comments

Elev., ft.	Description	Depth, ft.	S	T	R	B	N	Pen.	W	Uw	Qu
630.7		0									
629.8	(a & b) see below					7					
	Brown clay,some silt,trace sand & gravel,damp,hard		1	SS	12"	10	17	4.5+	9.3		
627.7						7					
	Gray clay,some silt,trace sand & gravel,damp,very tough	5	2	SS	18"	4	9	1.5	19.1	111.2	2.2
						5					
			3	SS	18"	4	13	2.5	18.8	112.0	3.4
						6					
						7					
						4					
		10	4	SS	18"	7	15	2.75	19.5	109.2	3.5
						8					
			5	SS	18"	5	14	3.5	20.4	111.5	3.7
						6					
615.7		15	6	SS	18"	8	13	2.5	17.4	114.6	3.1
	End of Boring					7					
	(a) Bituminous concrete - 3.5"										
	(b) Dark brown-gray sand & gravel, very damp - 6.5"										
		20									

S - sample T - type: J(Jar), SS(split-spoon), ST(shelby tube) R - recovery length, in.
B - Standard Penetration Test (SPT), blows/ 6" interval. W - water content, %.
N - SPT, blows/ foot to drive 2" O.D. split-spoon sampler with 140 lb. hammer falling 30".
Pen. - pocket penetrometer reading, tons/ sq. ft.. Uw - dry unit weight of soil, lbs./ cu.ft.
Qu - unconfined compressive strength, tons./ sq. ft..

Water Level — depth, ft. elev., ft.
- while drilling: dry
- after drilling: dry
- hrs. after drilling:

F-111b

SOIL AND MATERIAL CONSULTANTS, INC.

File No. 23155 **BORING LOG** B-3

Client Baxter & Woodman, Inc. Sheet 1 of 2

Project Oak St. & Cherry St. Bridge Rehabilitations Date 3/1/17

Location Winnetka, IL Drilled By AC

Equipment ☒CME 45B ☐H.A. ☐Other Logged By DA

Comments

Elev., ft.	Description	Depth, ft.	S	T	R	B	N	Pen.	W	Uw	Qu
652.7		0									
651.6	(See Core Log)					3					
	Brown clay,some silt,trace sand & gravel,damp,hard to very hard		1	SS	18"	4	10	4.5+	17.0	110.9	5.7
						6					
						6					
						12					
		5	2	SS	18"	16	28	4.5+	15.3	119.0	10.0+
						8					
			3	SS	18"	14	30	4.5+	16.0	115.3	8.8
						16					
644.2						7					
	Brown clay,some silt,trace sand & gravel,damp,hard	10	4	SS	18"	11	25	4.5+	17.8	114.1	7.2
						14					
641.7						5					
	Gray clay,some silt,trace sand & gravel,damp,hard		5	SS	18"	9	19	3.0	16.4	115.6	4.3
						10					
639.2						4					
	Gray clay,some silt,trace sand & gravel,damp,very tough	15	6	SS	18"	6	13	3.0	15.4	120.1	3.0
						7					
						3					
			7	SS	18"	5	12	2.25	15.9	117.6	2.5
						7					
632.7		20	8	SS	18"	3	11	2.0	16.9	114.4	2.3
						5					

S - sample T - type: J(Jar), SS(split-spoon), ST(shelby tube) R - recovery length, in.
B - Standard Penetration Test (SPT), blows/ 6" interval. W - water content, %.
N - SPT, blows/ foot to drive 2" O.D. split-spoon sampler with 140 lb. hammer falling 30".
Pen. - pocket penetrometer reading, tons/ sq. ft.. Uw - dry unit weight of soil, lbs./ cu.ft.
Qu - unconfined compressive strength, tons./ sq. ft..

Water Level — depth, ft. elev., ft.
- while drilling: dry
- after drilling: dry
- hrs. after drilling:

F-111b

SOIL AND MATERIAL CONSULTANTS, INC.

File No. 23155 **BORING LOG** B-1

Client Baxter & Woodman, Inc. Sheet 2 of 2

Project Oak St. & Cherry St. Bridge Rehabilitations Date 3/1/17

Location Winnetka, IL Drilled By AC

Equipment ☒CME 45B ☐H.A. ☐Other Logged By DA

Comments

Elev., ft.	Description	Depth, ft.	S	T	R	B	N	Pen.	W	Uw	Qu
		20									
	Gray clay,some silt,trace sand & gravel,damp,very tough		9	SS	18"	4	16	3.25	15.7	121.3	2.9
						7					
						9					
		25	10	SS	18"	5	14	2.25	17.2	120.2	2.4
						6					
						8					
627.3						5					
	Gray clay,some silt,trace sand & gravel,damp,tough to very tough		11	SS	18"	6	13	1.75	20.2	114.9	1.0
						7					
						4					
623.3		30	12	SS	18"	6	14	2.5	18.0	118.0	2.8
	End of Boring					8					
		35									
		40									

S - sample T - type: J(Jar), SS(split-spoon), ST(shelby tube) R - recovery length, in.
B - Standard Penetration Test (SPT), blows/ 6" interval. W - water content, %.
N - SPT, blows/ foot to drive 2" O.D. split-spoon sampler with 140 lb. hammer falling 30".
Pen. - pocket penetrometer reading, tons/ sq. ft.. Uw - dry unit weight of soil, lbs./ cu.ft.
Qu - unconfined compressive strength, tons./ sq. ft..

Water Level — depth, ft. elev., ft.
- while drilling: dry
- after drilling: dry
- hrs. after drilling:

F-111b

SOIL AND MATERIAL CONSULTANTS, INC.

File No. 23155 **BORING LOG** B-3

Client Baxter & Woodman, Inc. Sheet 2 of 2

Project Oak St. & Cherry St. Bridge Rehabilitations Date 3/1/17

Location Winnetka, IL Drilled By AC

Equipment ☒CME 45B ☐H.A. ☐Other Logged By DA

Comments

Elev., ft.	Description	Depth, ft.	S	T	R	B	N	Pen.	W	Uw	Qu
		20									
	Gray clay,some silt,trace sand & gravel,damp,tough to very tough		9	SS	18"	3	10	1.5	17.3	114.5	1.8
						5					
						5					
		25	10	SS	18"	3	11	1.5	17.2	113.5	1.8
						5					
						6					
			11	SS	18"	4	13	2.25	16.2	117.0	2.5
						6					
						7					
622.7		30	12	SS	18"	5	13	2.0	16.4	122.0	2.6
	End of Boring					6					
						7					
		35									
		40									

S - sample T - type: J(Jar), SS(split-spoon), ST(shelby tube) R - recovery length, in.
B - Standard Penetration Test (SPT), blows/ 6" interval. W - water content, %.
N - SPT, blows/ foot to drive 2" O.D. split-spoon sampler with 140 lb. hammer falling 30".
Pen. - pocket penetrometer reading, tons/ sq. ft.. Uw - dry unit weight of soil, lbs./ cu.ft.
Qu - unconfined compressive strength, tons./ sq. ft..

Water Level — depth, ft. elev., ft.
- while drilling: dry
- after drilling: dry
- hrs. after drilling:

F-111b

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BAXTER & WOODMAN Consulting Engineers

USER NAME =	DESIGNED - BAB	REVISED -	
	CHECKED - BLB	REVISED -	
PLOT SCALE =	DRAWN - BAB	REVISED -	
PLOT DATE =	CHECKED - BLB	DATE - 10-09-18	

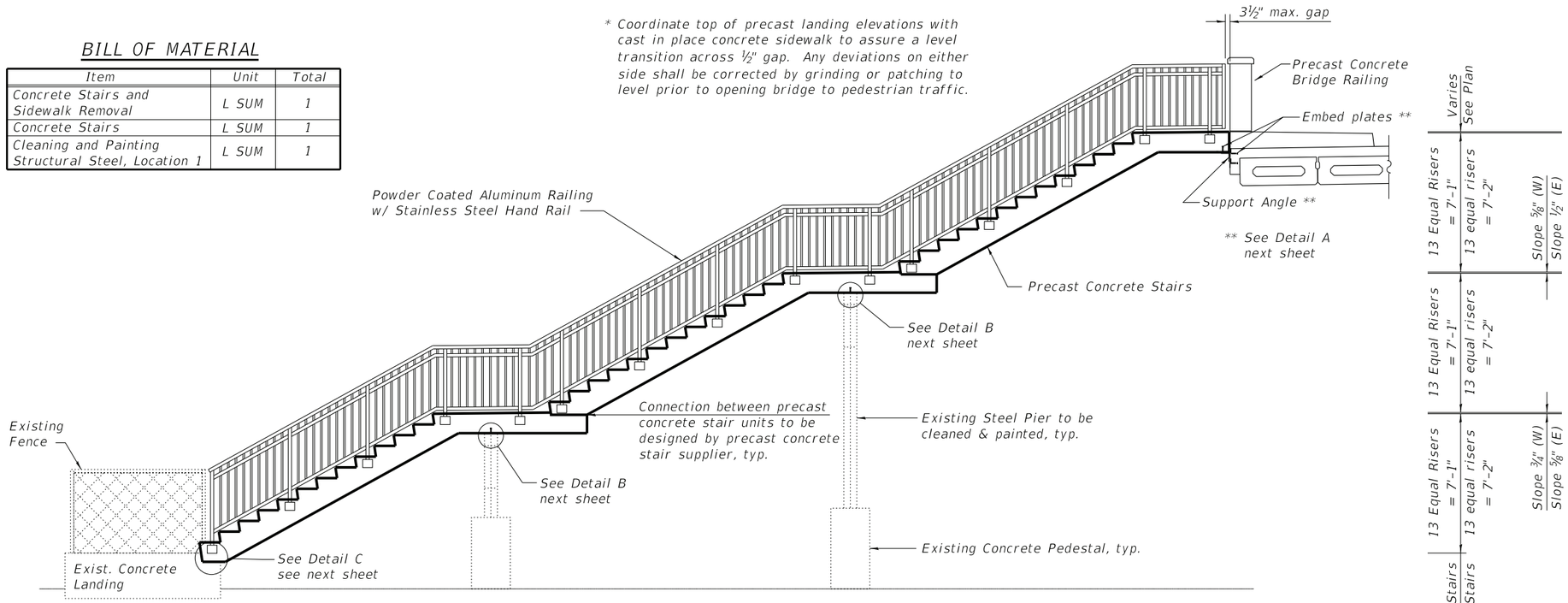
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS
STRUCTURE NO. 016-8257
OAK STREET SHEET 24 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	78
*3050A/3045		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

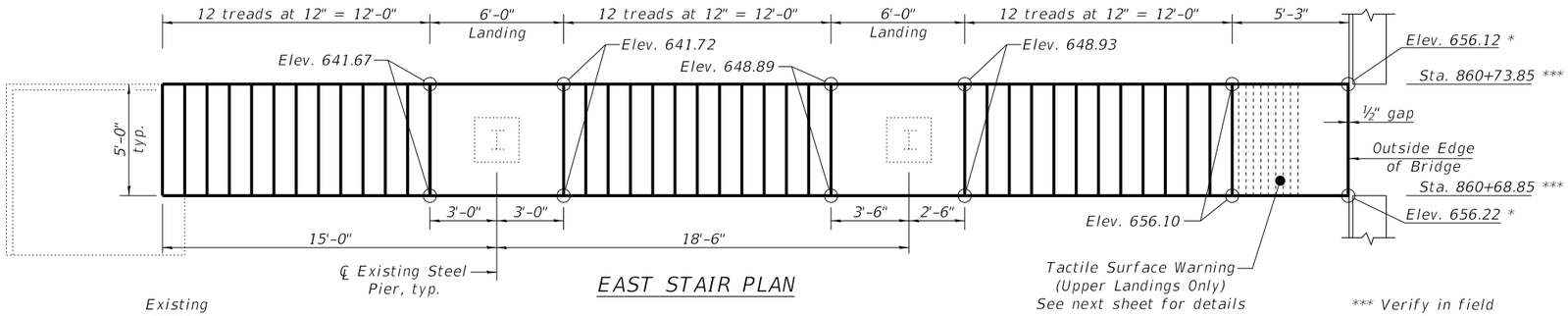
BILL OF MATERIAL

Item	Unit	Total
Concrete Stairs and Sidewalk Removal	L SUM	1
Concrete Stairs	L SUM	1
Cleaning and Painting Structural Steel, Location 1	L SUM	1

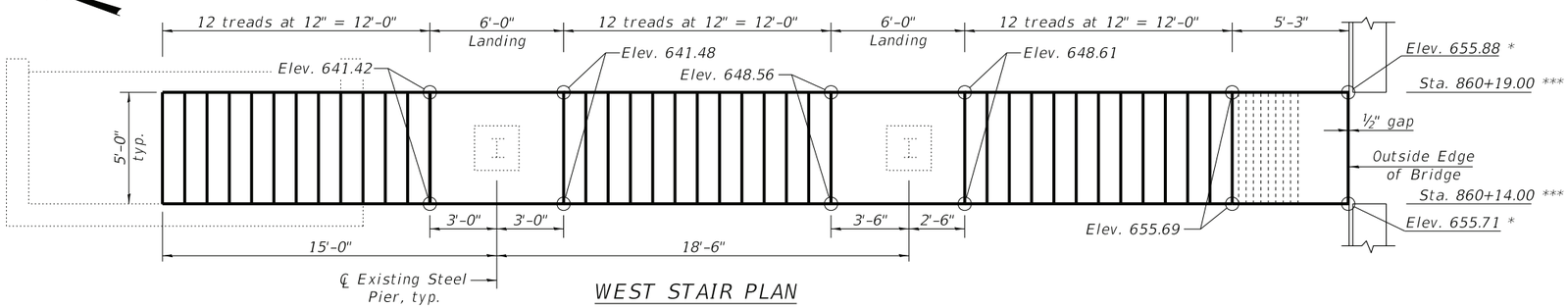


TYPICAL STAIR ELEVATION

Looking East



EAST STAIR PLAN



WEST STAIR PLAN

NOTES

See Special Provisions for materials, construction, safety, and other requirements.

Concrete Stairs shall include design, fabrication, delivery and installation of two precast stairways as shown, including aluminum railings and stainless steel handrails as shown. Connection to existing and proposed structures is also included with this work, including any necessary modifications to the details and elevations shown based on nominal field variations.

Proposed aluminum railings and stainless steel handrails shall match the existing rails in style, color, and layout as closely as possible. Rail post connections shall be determined by the railing manufacturer, and any necessary embedments or other details shall be coordinated with the precast stair manufacturer.

Contractor shall verify locations and elevations of existing landings and steel support piers prior to ordering of materials. Any proposed modifications to existing elements not shown here shall be approved by the Engineer prior to beginning construction.

Cleaning and painting of the existing structural steel support piers shall be as specified in the special provision "Cleaning and Painting Existing Steel Structures". Portions of the piers within 6" of the top plate shall be cleaned per Near White Blast Cleaning – SSPC-SP10. The remainder of the piers shall be cleaned per Commercial Grade Power Tool Cleaning – SSPC-SP15.

The piers shall be painted according to the requirements of Paint System 1 – OZ/E/U. The color of the final finish coat shall be Black, Munsell No. N-1.

MODEL: Stair Details
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	CHECKED - BLB	REVISED -
PLOT SCALE =	DRAWN - BAB	REVISED -
PLOT DATE =	CHECKED - BLB	DATE - 10-09-18

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

METRA PLATFORM STAIR DETAILS
STRUCTURE NO. 016-8257

OAK STREET SHEET 25 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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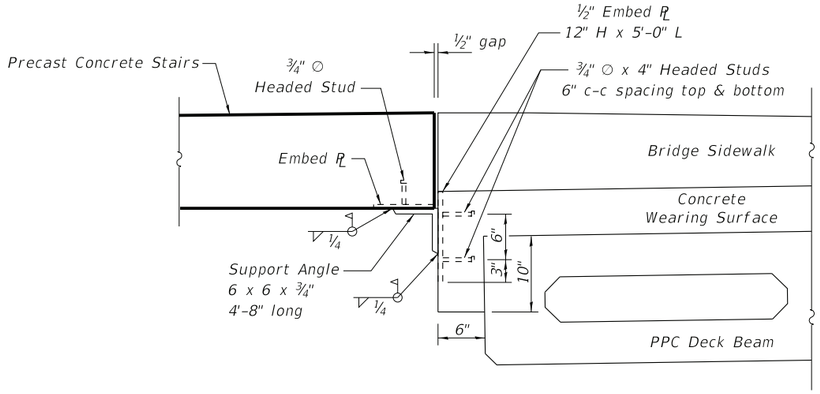
*3050A/3045		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



DETAIL A

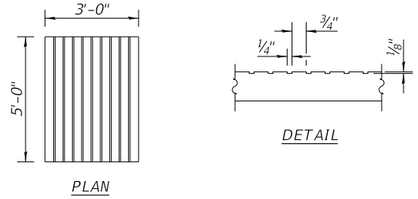
Typical 2 locations

DETAIL A NOTES

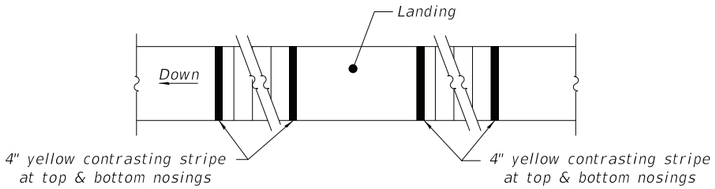
Contractor shall confirm the final position of the embed plate in concrete overhang and the vertical position of the support angle after the depth of the precast stair unit is determined and the stair shop drawings have been approved.

Size of embed plates and length of headed studs in precast units to be determined by the precast stair manufacturer.

Any proposed modifications to the connection details shall be included on shop drawings and approved by the Engineer prior to beginning fabrication.

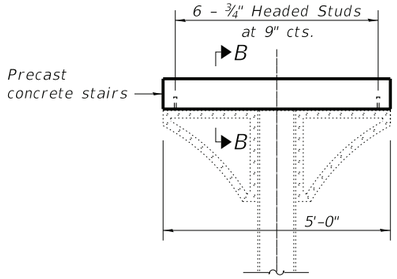


TACTILE SURFACE WARNING

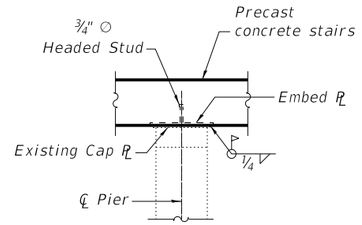


SURFACE MARKINGS

Contrasting striping shall be per ADA requirements.
See roadway plans for pavement marking material.
Cost included with Concrete Stairs.



ELEVATION AT PIER



SECTION B-B

DETAIL B

Typical 4 locations

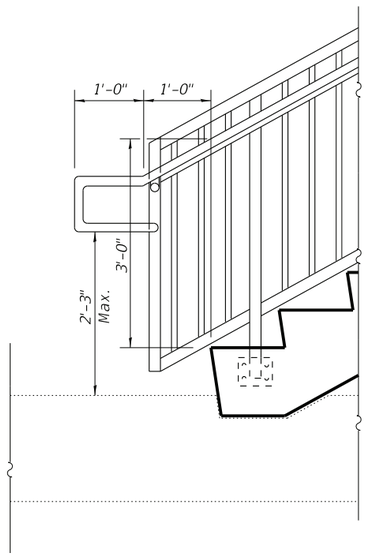
DETAIL B NOTES

Grind existing weld connection between pier top plate and embed plate in precast unit to remove. Minimize damage to existing cap plate. Repair or replace any damaged steel elements using a method approved by the Engineer prior to installation of new stair units.

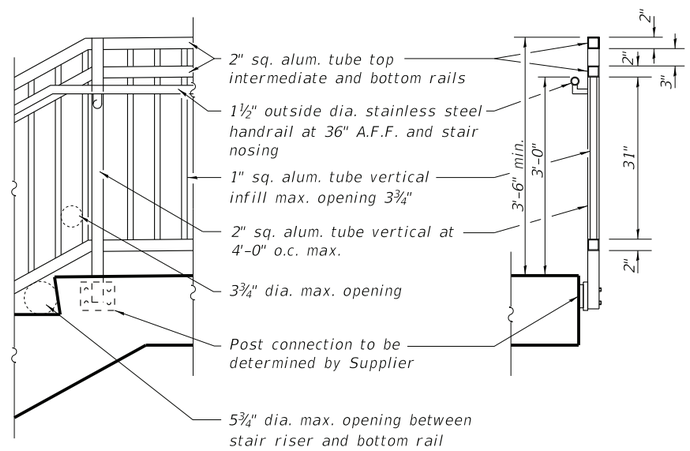
It shall be the Contractor's responsibility to coordinate the top of existing pier elevations with the depth of the proposed precast units, and to make any necessary adjustments to meet the proposed landing elevations.

Size of embed plates and length of headed studs to be determined by the precast stair manufacturer.

Any proposed modifications to connection details shall be included on shop drawings and approved by the Engineer prior to beginning fabrication.

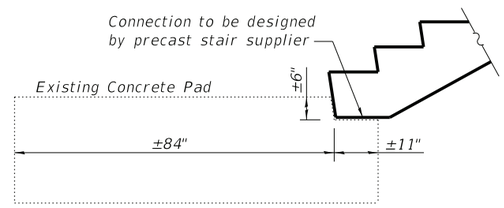


HANDRAIL AT BOT. OF STAIR



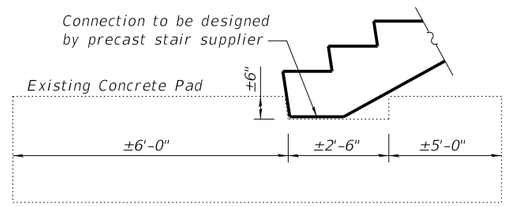
HANDRAIL AT STAIR

SECTION THRU RAIL



DETAIL C

East Stairs



DETAIL C

West Stairs

DETAIL C NOTES

Existing attachment detail unknown. Contractor shall remove existing base stair units and reconstruct any damaged concrete to provide sound and level surfaces for placement of new stairs. Cost included with Concrete Stairs and Sidewalk Removal.

Contractor shall verify existing base landing elevations and make any necessary elevation adjustments prior to shop drawing preparation.

MODEL: Stair Details
FILE NAME: I:\Crystal Lake\WINNE\150754-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\Oak\METRA Platform Stair.dgn

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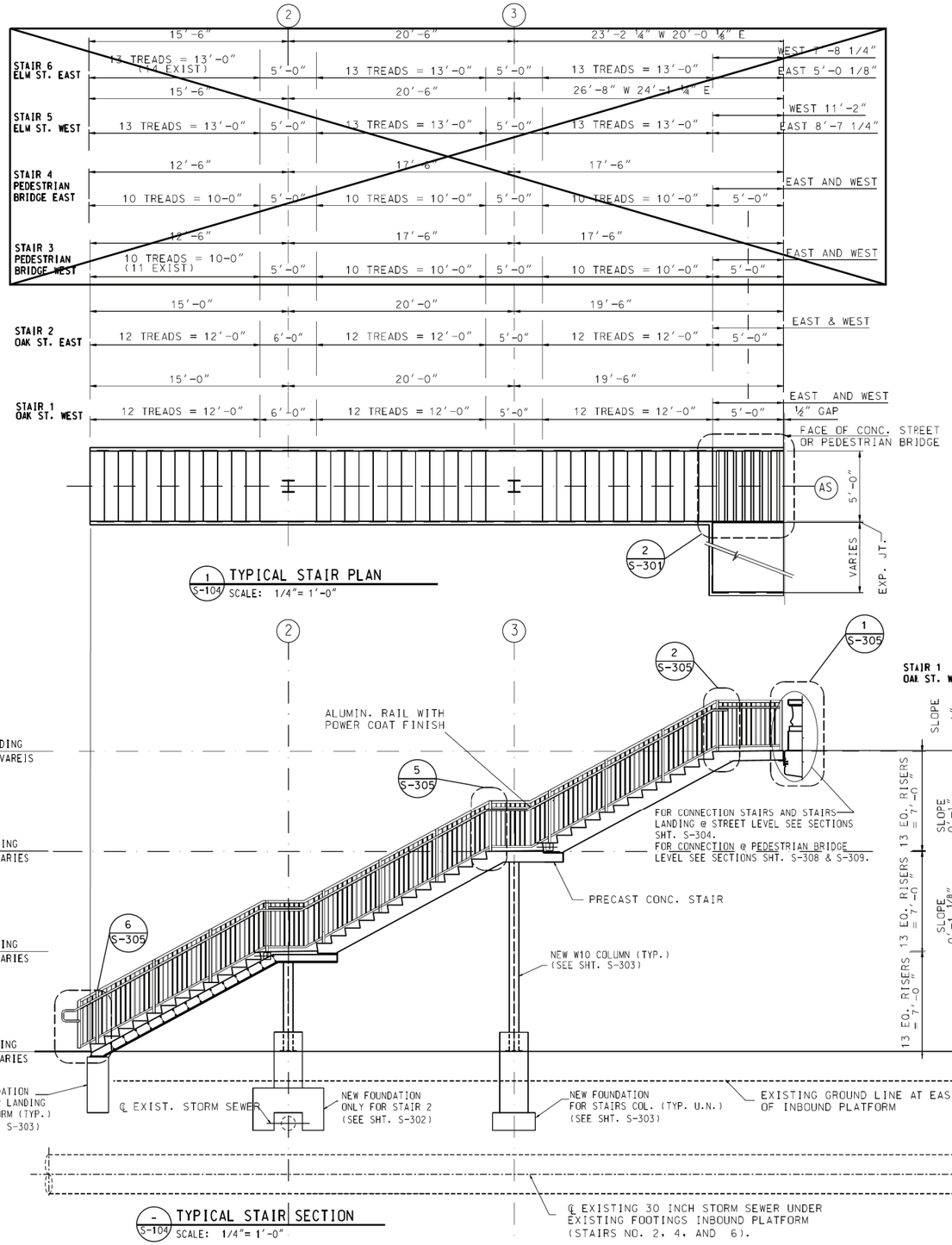
USER NAME =	DESIGNED - BAB	REVISED -	
	CHECKED - BLB	REVISED -	
PLOT SCALE =	DRAWN - BAB	REVISED -	
PLOT DATE =	CHECKED - BLB	DATE - 10-09-18	

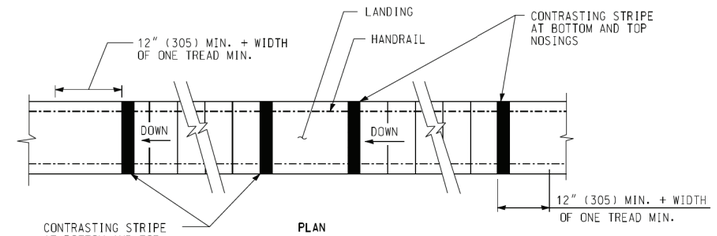
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

METRA PLATFORM STAIR DETAILS
STRUCTURE NO. 016-8257

OAK STREET SHEET 26 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	80
*3050A/3045		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

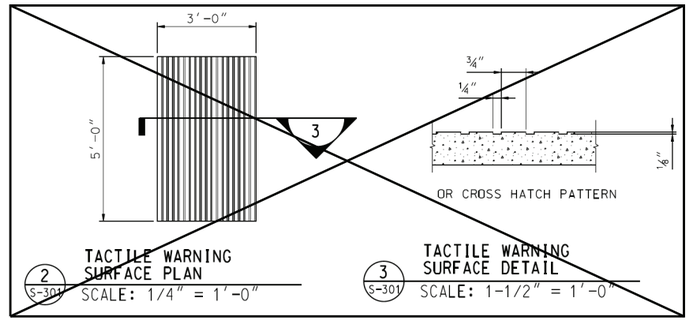


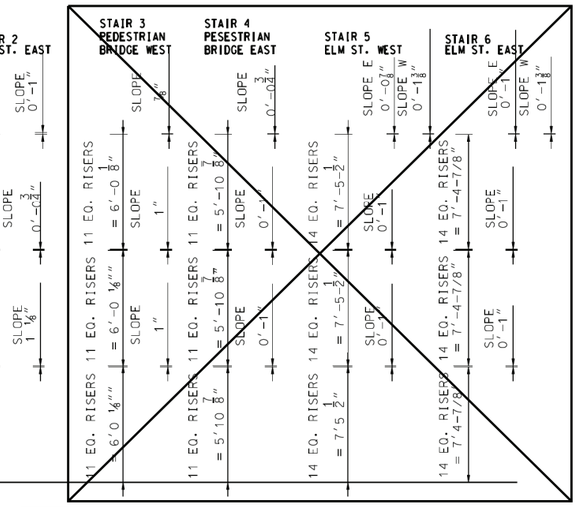


TYPICAL STAIR DETAILS
N.T.S.

NOTES:

1. ALL STAIRS AND HANDRAILS SHALL COMPLY WITH SECTION 4.9 OF THE ADA ACCESSIBILITY GUIDELINES AND THE APPLICABLE PORTIONS OF THE ILLINOIS ACCESSIBILITY CODE.
2. A 4 INCH (100) CONTRASTING STRIPE SHALL BE PLACED ON TOP AND BOTTOM NOSINGS OF EACH STAIR RUN.





EXISTING STAIS DEMOLITION:
REMOVE EXISTING STEEL SUPPORT COLUMN AND CONCRETE INCASEMENT CAP. CUT EXISTING CONC. PIER AND FOOTING 12" BELOW PLATFORM AND PROVIDE NEW STEEL COLUMN SET ON NEW FOOTING AND PIER

NOTES:

1. WORK THIS SHEET WITH SHEETS S-102, S-104, S-301, S-303 THRU S-305 AND S-307, S-308.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD PRIOR TO CONSTRUCTION.

RECORD PLANS
FOR INFORMATION
ONLY

0' 2' 4' 8'
SCALE: 1/4"= 1'-0"

MODEL: Stair Details
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BAXTER & WOODMAN Consulting Engineers

USER NAME =	DESIGNED - BAB	REVISED -	
	CHECKED - BLB	REVISED -	
PLOT SCALE =	DRAWN - BAB	REVISED -	
PLOT DATE =	CHECKED - BLB	DATE - 10-09-18	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

METRA PLATFORM STAIR DETAILS
STRUCTURE NO. 016-8257
OAK STREET SHEET 27 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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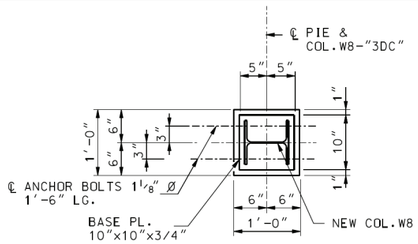
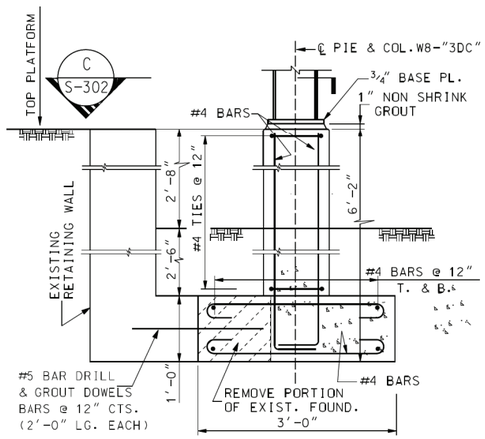
*3050A/3045		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



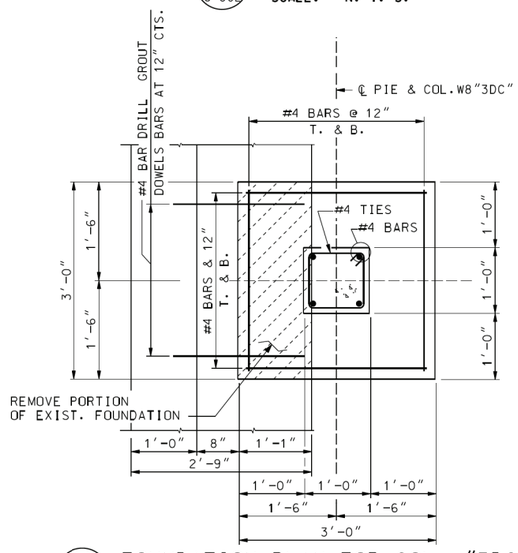
C S-302 SECTION C-C

SCALE: N.T.S.



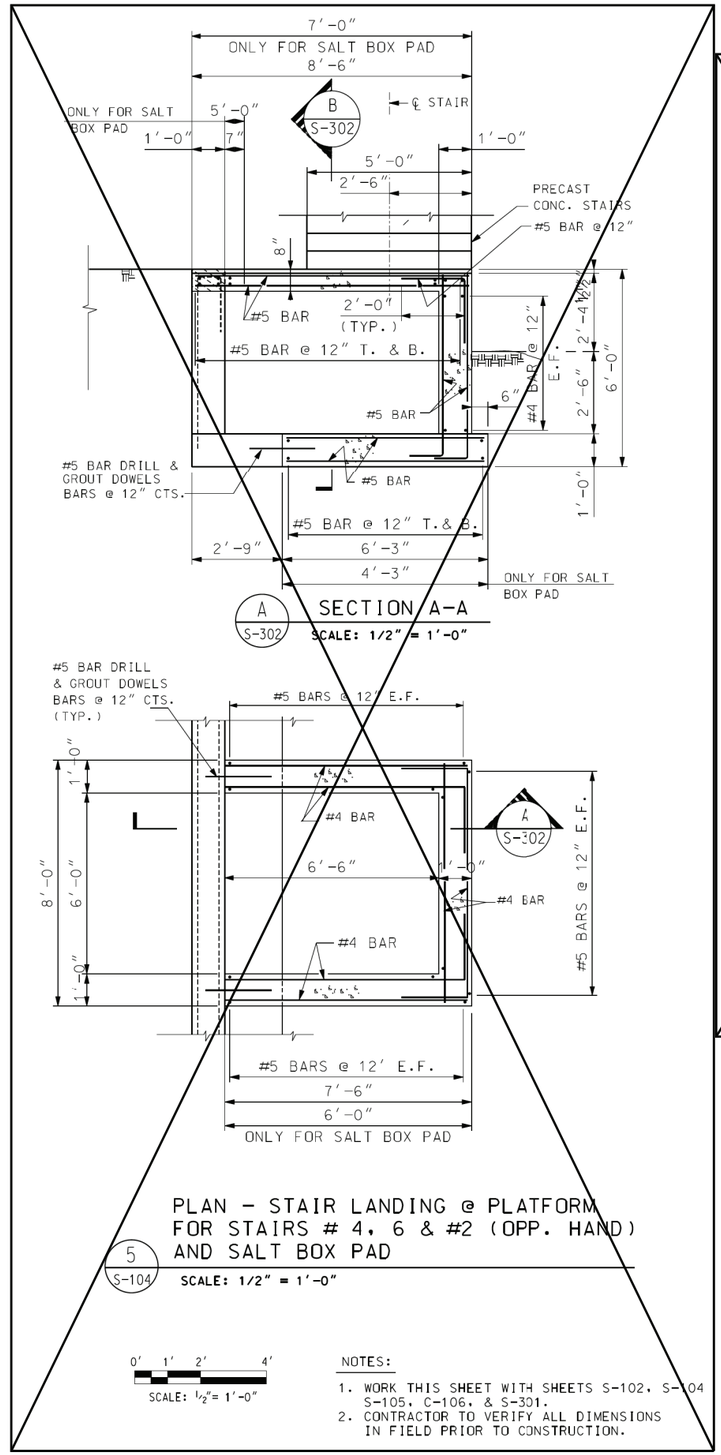
8 S-302 FOUNDATION DETAIL FOR COLUMN W8-"3DC"

SCALE: N. T. S.



– S-302 FOUNDATION PLAN FOR COL. "3DC"

SCALE: N. T. S.



5 S-104 PLAN – STAIR LANDING @ PLATFORM FOR STAIRS # 4, 6 & #2 (OPP. HAND) AND SALT BOX PAD

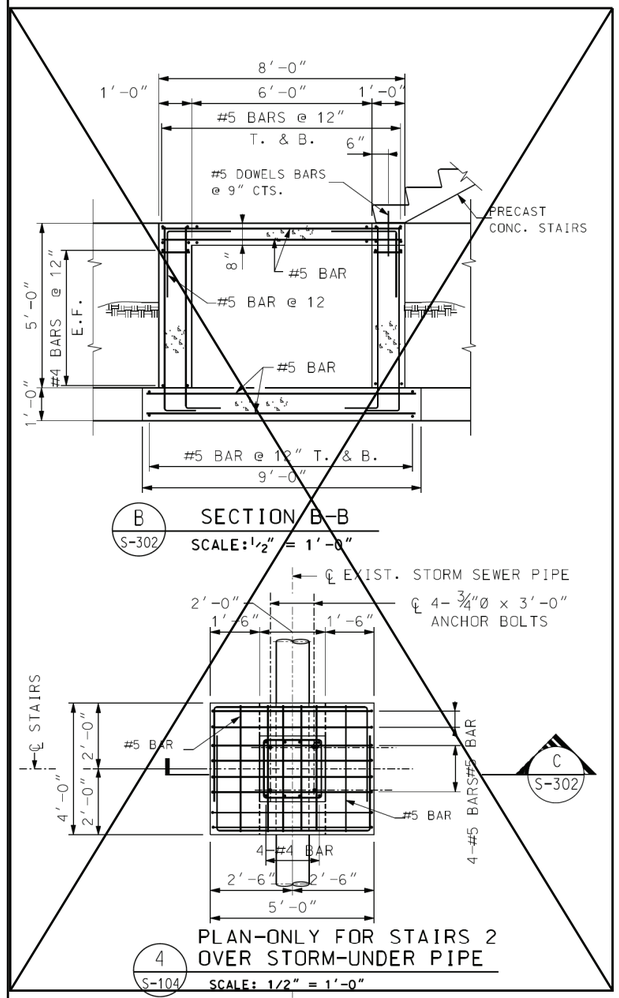
SCALE: 1/2" = 1'-0"

0' 1' 2' 4'

SCALE: 1/2"= 1'-0"

NOTES:

1. WORK THIS SHEET WITH SHEETS S-102, S-104 S-105, C-106, & S-301.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD PRIOR TO CONSTRUCTION.

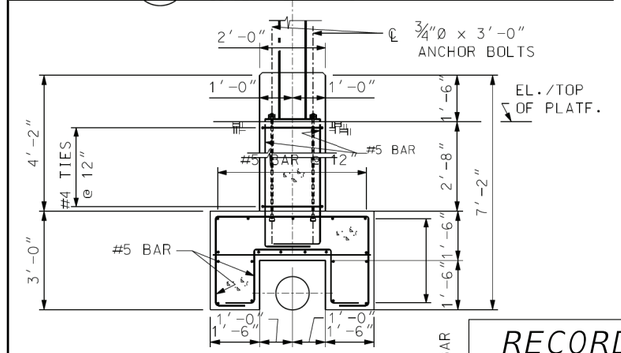


B S-302 SECTION B-B

SCALE: 1/2" = 1'-0"

4 S-104 PLAN-ONLY FOR STAIRS 2 OVER STORM-UNDER PIPE

SCALE: 1/2" = 1'-0"



C S-302 SECTION C-C

SCALE: 1/2" = 1'-0"

RECORD PLANS FOR INFORMATION ONLY

MODEL: Stair Details
FILE NAME: I:\Crystal Lake\WINNE\150754-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\Oak\METRA Platform Stair.dgn

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BAXTER & WOODMAN Consulting Engineers

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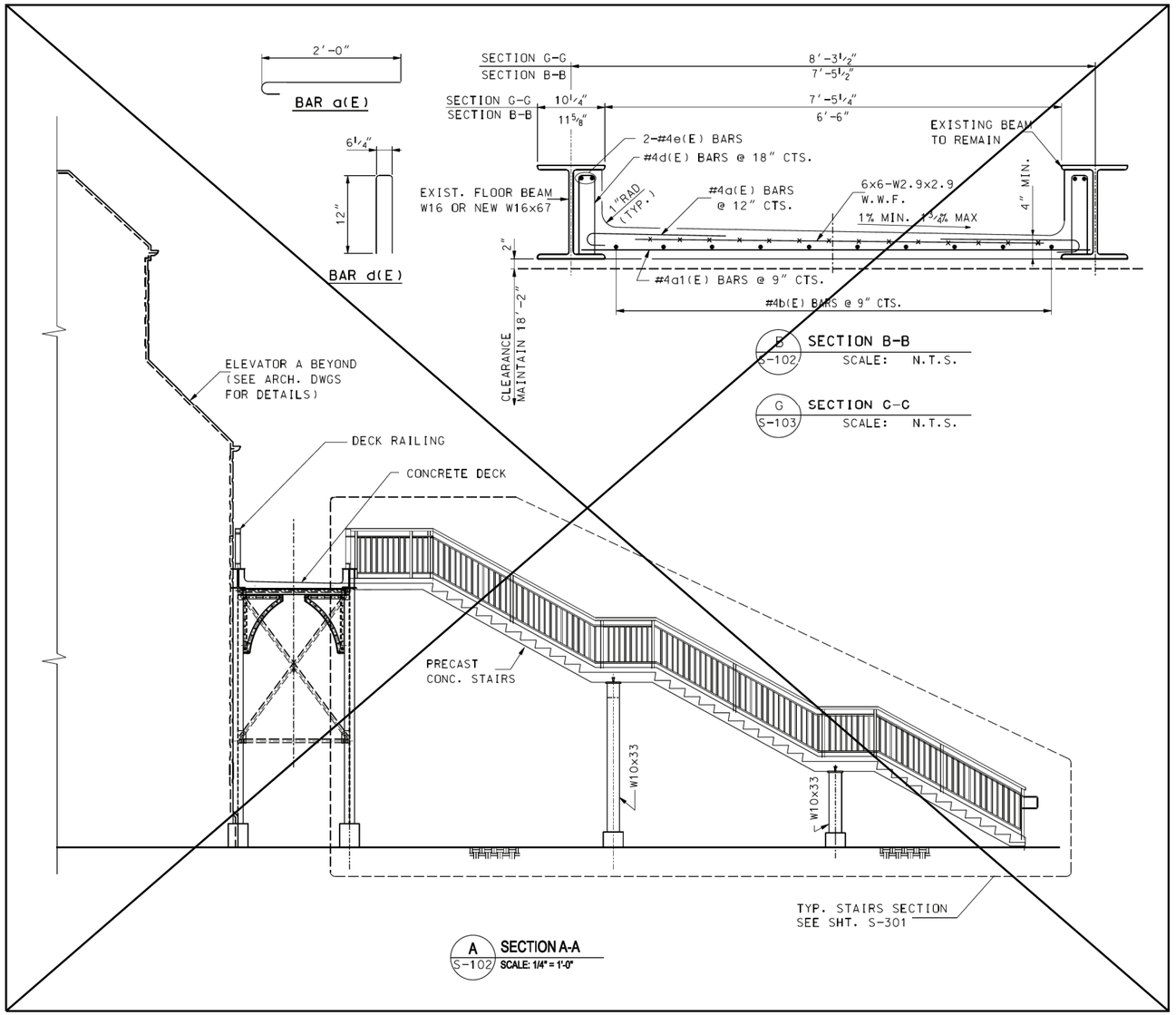
	CHECKED - BLB	REVISED -	
PLOT SCALE =	DRAWN - BAB	REVISED -	
PLOT DATE =	CHECKED - BLB	DATE - 10-09-18	

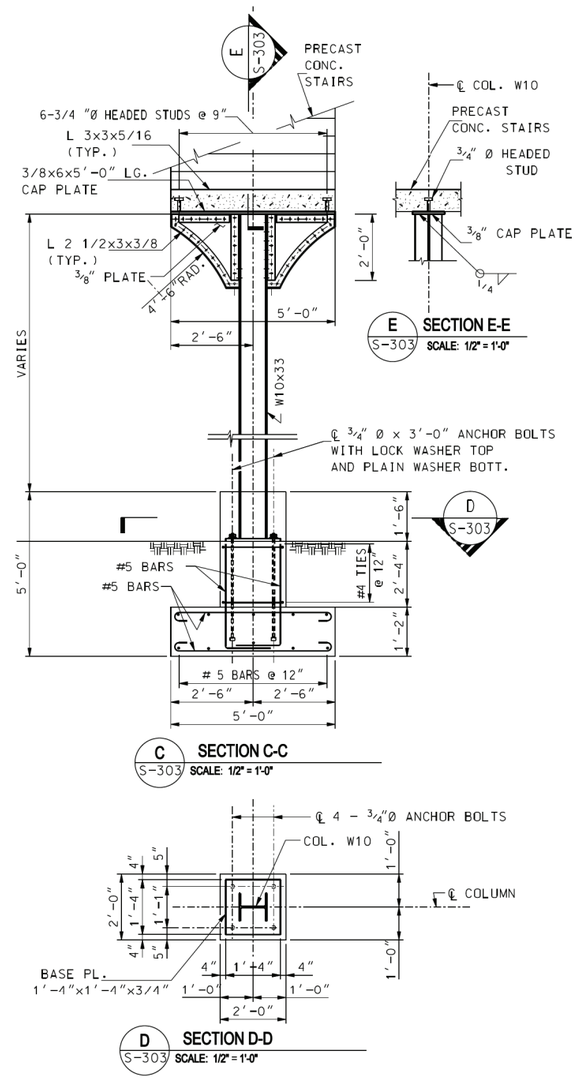
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

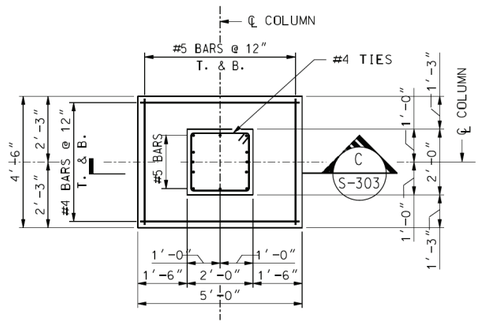
METRA PLATFORM STAIR DETAILS
STRUCTURE NO. 016-8257

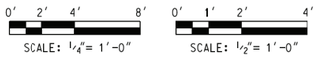
OAK STREET SHEET 28 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	82
*3050A/3045		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



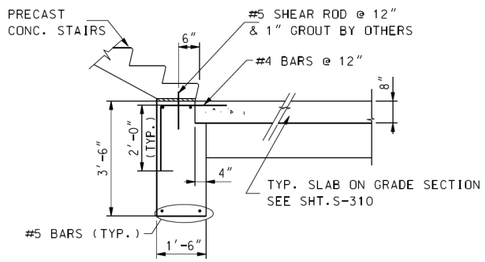






NOTES:

1. WORK THIS SHEET WITH SHEETS S-102, S-103, S-104, S-301, S-305, S-307 AND S-308.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD PRIOR TO CONSTRUCTION.



- S-102 S-104 SECTION - STAIR LANDING @ PLATFORM FOR STAIRS # 1 & #3, #5 (OPP. HAND). SCALE: 1/2" = 1'-0"

RECORD PLANS FOR INFORMATION ONLY

MODEL: Stair Details
FILE NAME: I:\Crystal Lake\WINNE\150754-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\Oak\METRA Platform Stair.dgn

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PLOT DATE =	CHECKED - BLB	DATE - 10-09-18	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

METRA PLATFORM STAIR DETAILS
STRUCTURE NO. 016-8257

OAK STREET SHEET 29 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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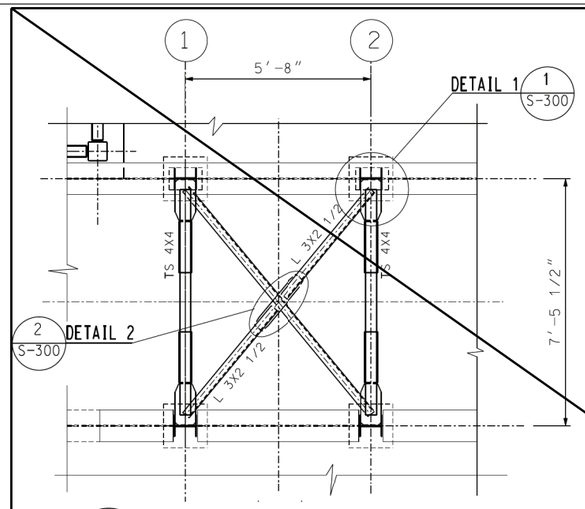
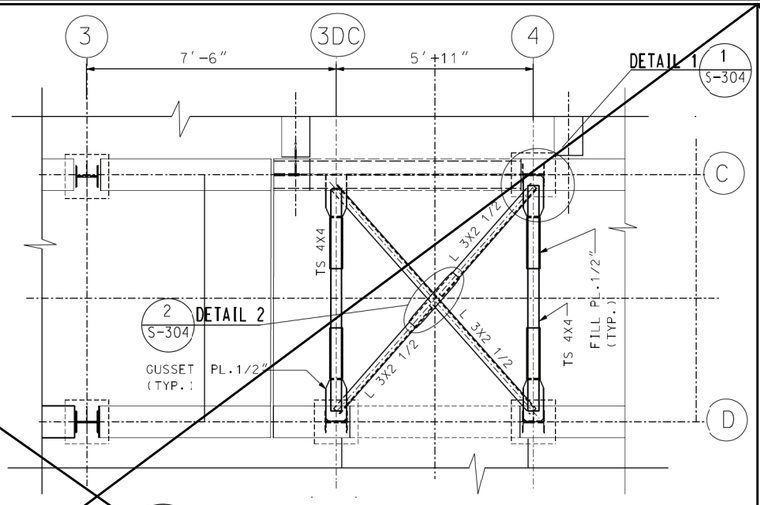
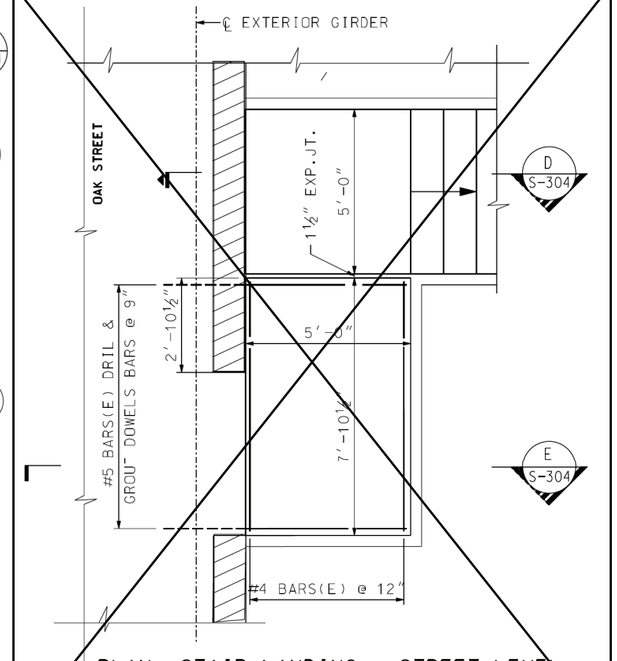
*3050A/3045	CONTRACT NO.			
ILLINOIS	FED. AID PROJECT			



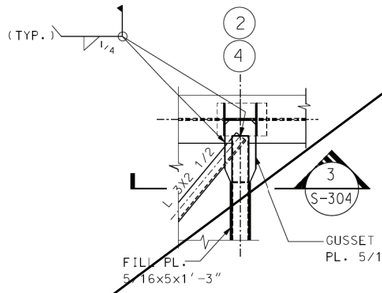
C S-304 SECTION C-C
SCALE: 3/8"=1'-0"



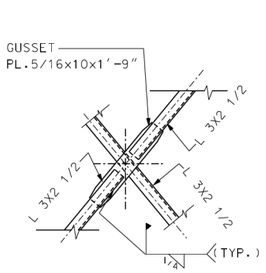
B S-304 SECTION D-D
SCALE: 3/8"=1'-0"



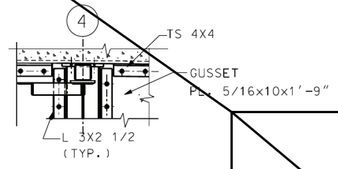
A S-104 PLAN -STAIR LANDING @ STREET LEVEL FOR STAIR 1 (OPP. HAND STAIR 2)
SCALE: 1/2" = 1'-0"



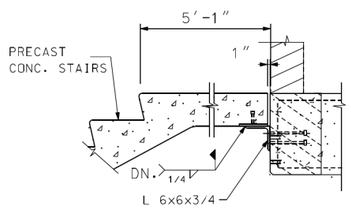
1 S-304 DETAIL 1
SCALE: 3/4"=1'-0"



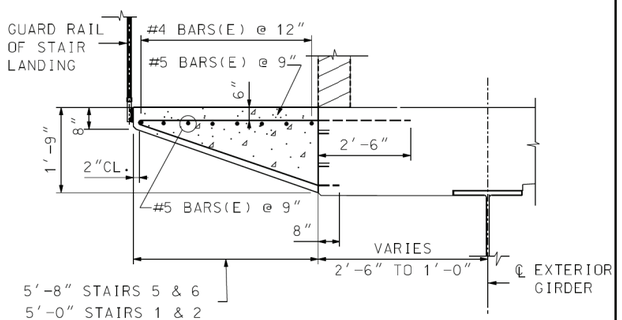
2 S-304 DETAIL 2
SCALE: 3/4"=1'-0"



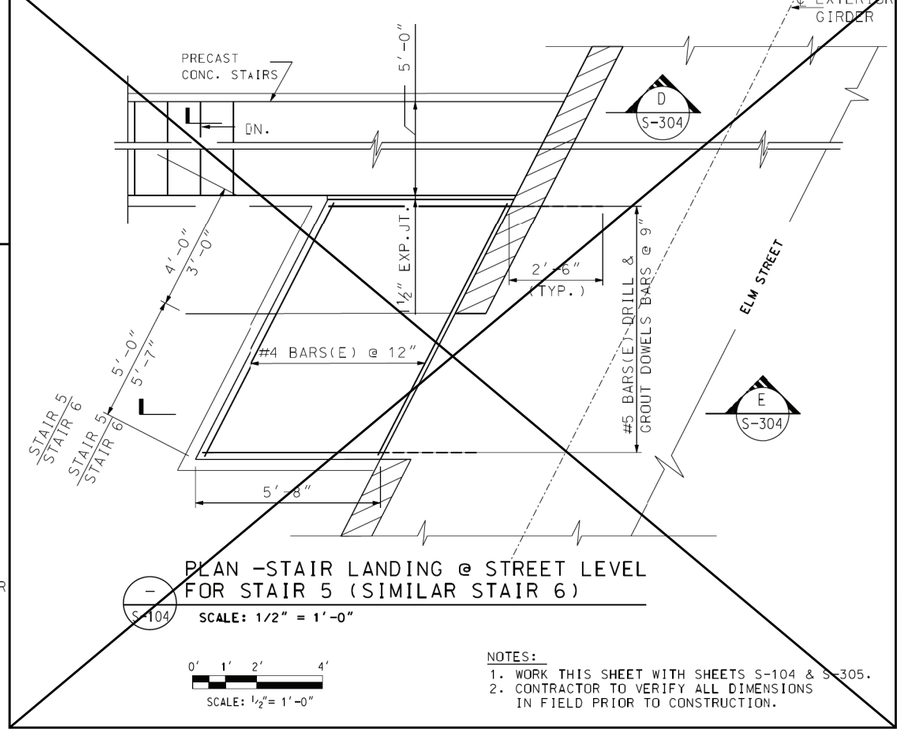
3 S-300 SECTION A-A
SCALE: 3/4"=1'-0"



D S-304 SECTION B-B
SCALE: 1/2" = 1'-0"



E S-304 SECTION A-A
SCALE: 1/2" = 1'-0"



– S-104 PLAN -STAIR LANDING @ STREET LEVEL FOR STAIR 5 (SIMILAR STAIR 6)
SCALE: 1/2" = 1'-0"

0' 1' 2' 4'
SCALE: 1/2"= 1'-0"

NOTES:
1. WORK THIS SHEET WITH SHEETS S-104 & S-305.
2. CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD PRIOR TO CONSTRUCTION.

RECORD PLANS
FOR INFORMATION
ONLY

MODEL: Stair Details
FILE NAME: I:\Crystal Lake\WINNE\150754-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\Oak\METRA Platform Stair.dgn
11/9/2018 9:15:02 AM

BAXTER & WOODMAN Consulting Engineers

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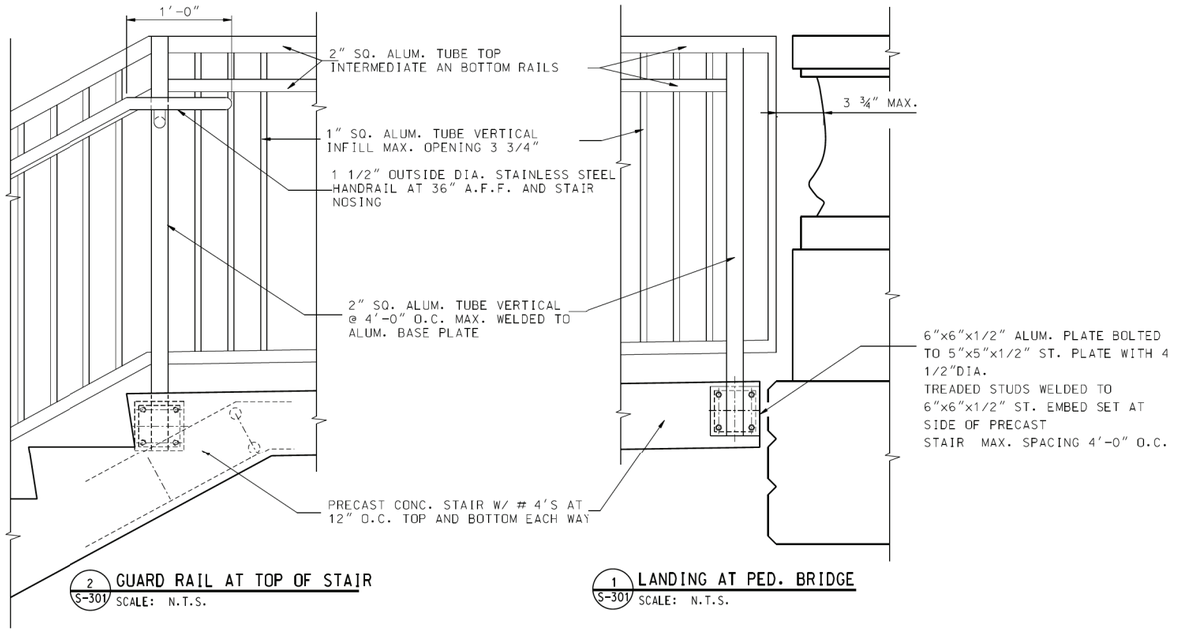
PLOT SCALE =	DRAWN - BAB	REVISED -	
PLOT DATE =	CHECKED - BLB	DATE - 10-09-18	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

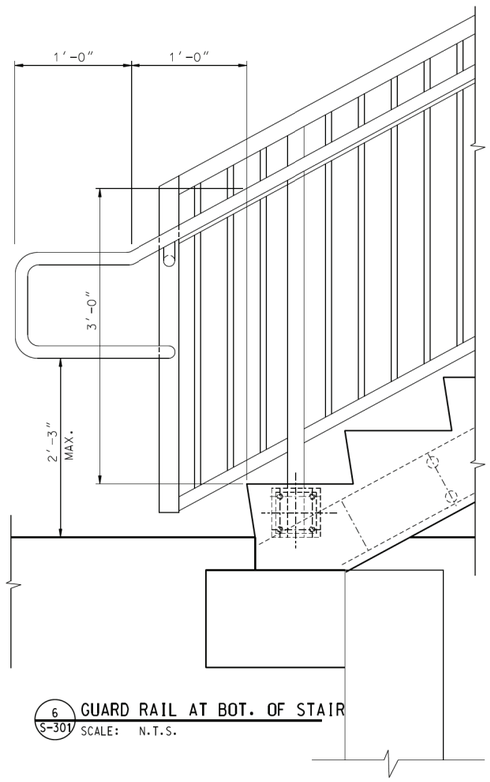
METRA PLATFORM STAIR DETAILS
STRUCTURE NO. 016-8257
OAK STREET SHEET 30 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	84
*3050A/3045	CONTRACT NO.			
ILLINOIS	FED. AID PROJECT			

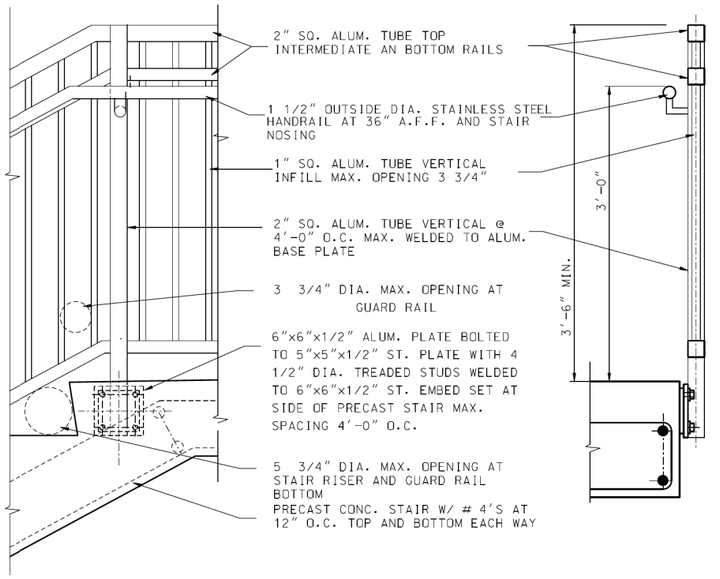


2 S-301 GUARD RAIL AT TOP OF STAIR
SCALE: N.T.S.

1 S-301 LANDING AT PED. BRIDGE
SCALE: N.T.S.

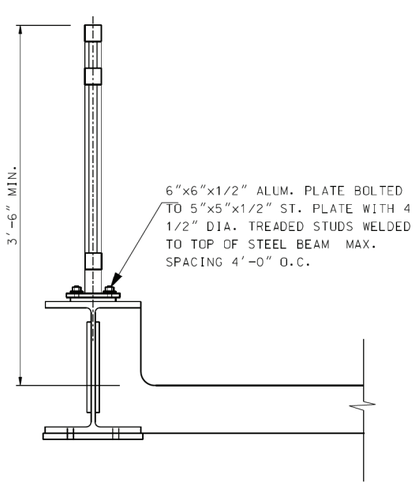


6 S-301 GUARD RAIL AT BOT. OF STAIR
SCALE: N.T.S.



5 S-301 GUARD RAIL AT STAIR
SCALE: N.T.S.

4 S-301 GUARD RAIL AT STAIR
SCALE: N.T.S.



3 S-301 GUARD RAIL AT PED. BRIDGE
SCALE: N.T.S.

NOTE:
WORK THIS SHEET WITH SHEET S-301 & S-303.

RECORD PLANS FOR INFORMATION ONLY

MODEL: Stair Details
FILE NAME: I:\Crystal Lake\WINNE\150754-Oak Cherry Bridge Rehab\CADD\Drawings\Phase 2\Bridge Plans\Oak\METRA Platform Stair.dgn
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PLOT DATE =	CHECKED - BLB	DATE - 10-09-18

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

METRA PLATFORM STAIR DETAILS
STRUCTURE NO. 016-8257
OAK STREET SHEET 31 OF 31 SHEETS

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	85
*3050A/3045		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

	STATION	OFFSET	ELEVATION
A	853+76.8	44.6' LT	(652.72)
B	853+81.5	47.6' LT	(653.10)
C	853+88.2	40.0' LT	652.73
D	853+91.1	35.5' LT	652.81
E	853+83.1	35.0' LT	652.62
F	853+87.2	29.1' LT	652.70
G	853+94.8	22.9' LT	652.62
H	853+97.8	29.3' LT	652.73
I	853+99.5	20.7' LT	652.69
J	854+01.8	27.3' LT	652.78
K	854+03.4	17.8' LT	652.72
L	853+98.4	14.5' LT	652.60
M	854+15.3	23.5' LT	653.77
MM	854+20.2	22.4' LT	653.85
N	854+13.8	17.1' LT	653.67
NN	854+18.9	16.0' LT	653.75
O	854+44.7	13.1' LT	654.74
P	854+40.4	19.7' LT	654.84
Q	854+30.5	33.8' RT	652.57
R	854+35.5	30.2' RT	652.69
S	854+35.2	40.7' RT	(652.57)
T	854+42.2	40.7' RT	652.50
U	854+35.2	38.9' RT	652.60
V	854+36.0	33.9' RT	652.68
W	854+37.0	30.5' RT	652.72
X	854+43.5	33.2' RT	652.62
Y	854+41.6	45.9' RT	(652.40)
Z	854+36.8	47.9' RT	(652.08)

LEGEND

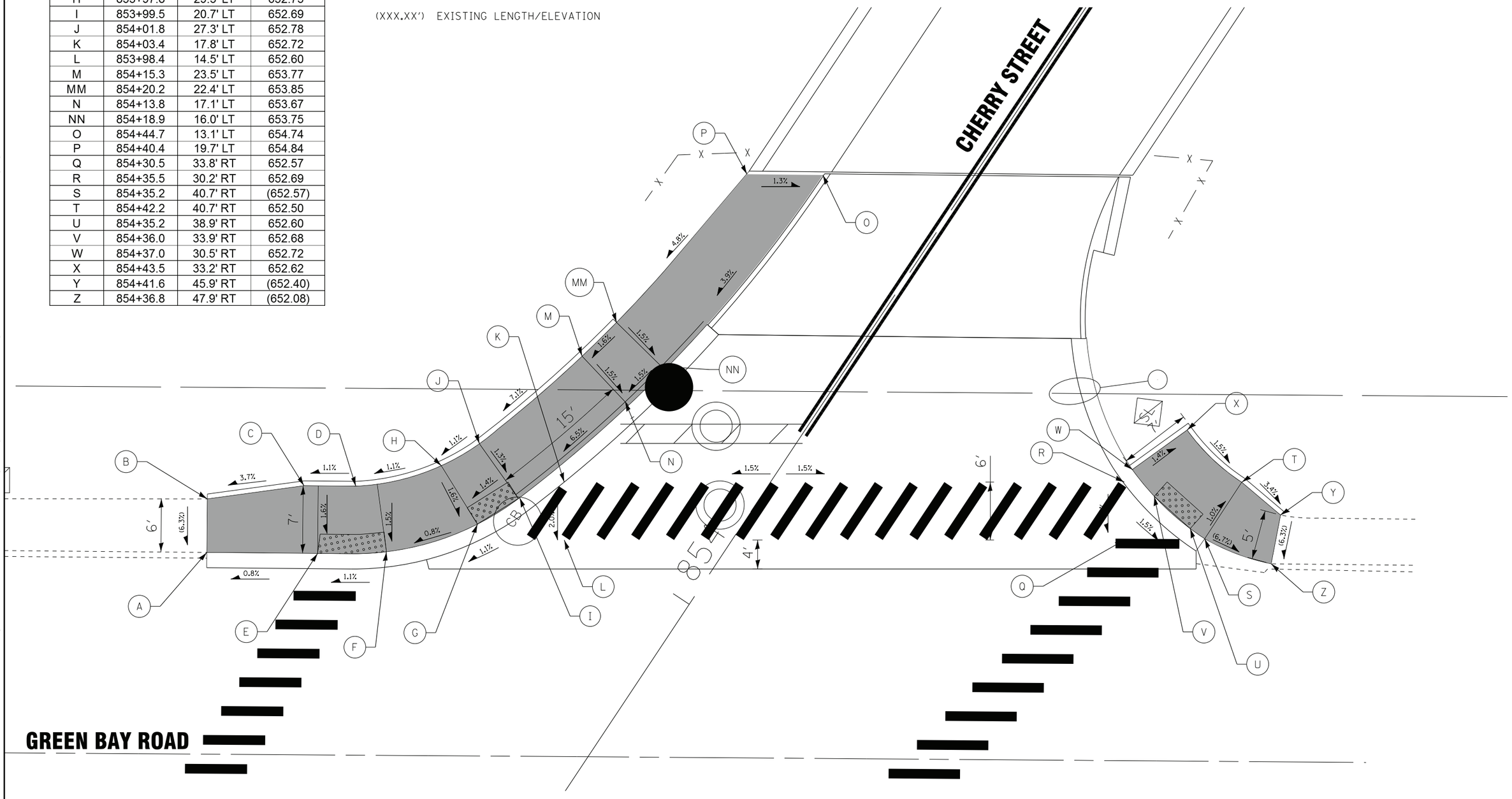
PROPOSED SIDEWALK

PROPOSED DETECTABLE WARNINGS

PROPOSED SIDE CURB

(X%) EXISTING SLOPE

(XXX.XX') EXISTING LENGTH/ELEVATION



BAXTER & WOODMAN Consulting Engineers

DESIGNED - JDM	REVISED -	
DRAWN - UKB	REVISED -	
CHECKED - DJS	REVISED -	
DATE - 10-09-18	FILE - 150754SHT_Details_Cherry.dgn	

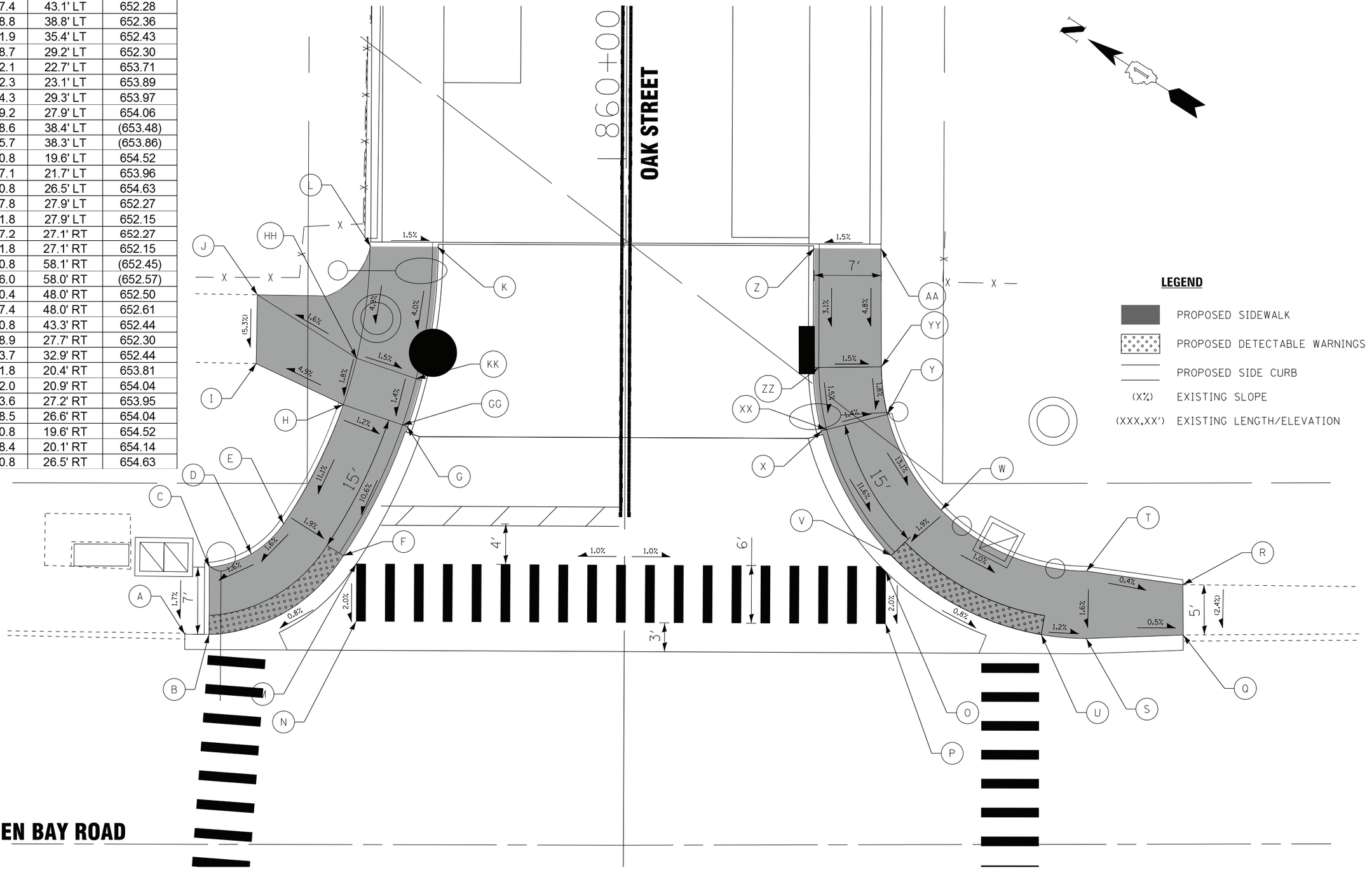
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIDEWALK DETAILS
CHERRY STREET AT GREEN BAY ROAD

SCALE: 1" = 5' STA. TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	86
• 3050A/3045		CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

	STATION	OFFSET	ELEVATION
A	859+50.4	45.6' LT	(652.29)
B	859+50.4	43.1' LT	(652.16)
C	859+57.4	43.1' LT	652.28
D	859+58.8	38.8' LT	652.36
E	859+61.9	35.4' LT	652.43
F	859+58.7	29.2' LT	652.30
G	859+72.1	22.7' LT	653.71
GG	859+72.3	23.1' LT	653.89
H	859+74.3	29.3' LT	653.97
HH	859+79.2	27.9' LT	654.06
I	859+78.6	38.4' LT	(653.48)
J	859+85.7	38.3' LT	(653.86)
K	859+90.8	19.6' LT	654.52
KK	859+77.1	21.7' LT	653.96
L	859+90.8	26.5' LT	654.63
M	859+57.8	27.9' LT	652.27
N	859+51.8	27.9' LT	652.15
O	859+57.2	27.1' RT	652.27
P	859+51.8	27.1' RT	652.15
Q	859+50.8	58.1' RT	(652.45)
R	859+56.0	58.0' RT	(652.57)
S	859+50.4	48.0' RT	652.50
T	859+57.4	48.0' RT	652.61
U	859+50.8	43.3' RT	652.44
V	859+58.9	27.7' RT	652.30
W	859+63.7	32.9' RT	652.44
X	859+71.8	20.4' RT	653.81
XX	859+72.0	20.9' RT	654.04
Y	859+73.6	27.2' RT	653.95
YY	859+78.5	26.6' RT	654.04
Z	859+90.8	19.6' RT	654.52
ZZ	859+78.4	20.1' RT	654.14
AA	859+90.8	26.5' RT	654.63



BAXTER & WOODMAN Consulting Engineers	DESIGNED - JDM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - UKB	REVISED -	
	CHECKED - DJS	REVISED -	
	DATE - 10-09-18	FILE - 150754SHT_Details_Oak.dgn	

SIDEWALK DETAILS
OAK STREET AT GREEN BAY ROAD

SCALE: 1" = 5' | STA. | TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	87
• 3050A/3045		CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM
LICENSE NO. - 184-00121 - EXPIRES 4/30/2019
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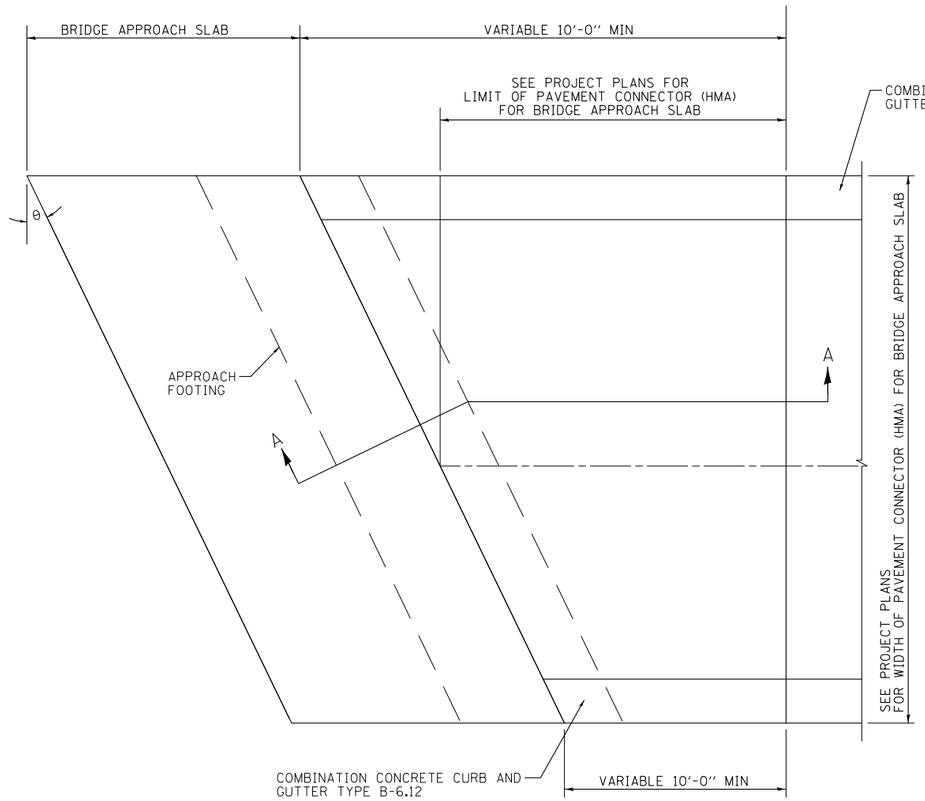
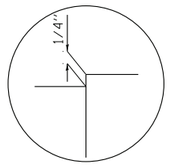
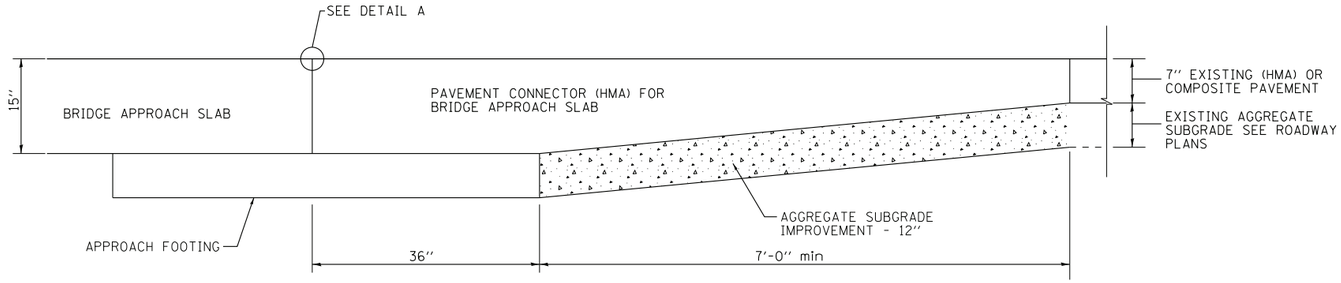


PLAN



DETAIL A



SECTION A-A

GENERAL NOTES

SEE PLANS FOR DETAILS OF BRIDGE APPROACH SLAB AND APPROACH FOOTING.

PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB

NOT TO SCALE

STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM
LICENSE NO. - 184-001121 - EXPIRES 4/30/2019
6421jdm 11/9/2018

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BAXTER & WOODMAN Consulting Engineers

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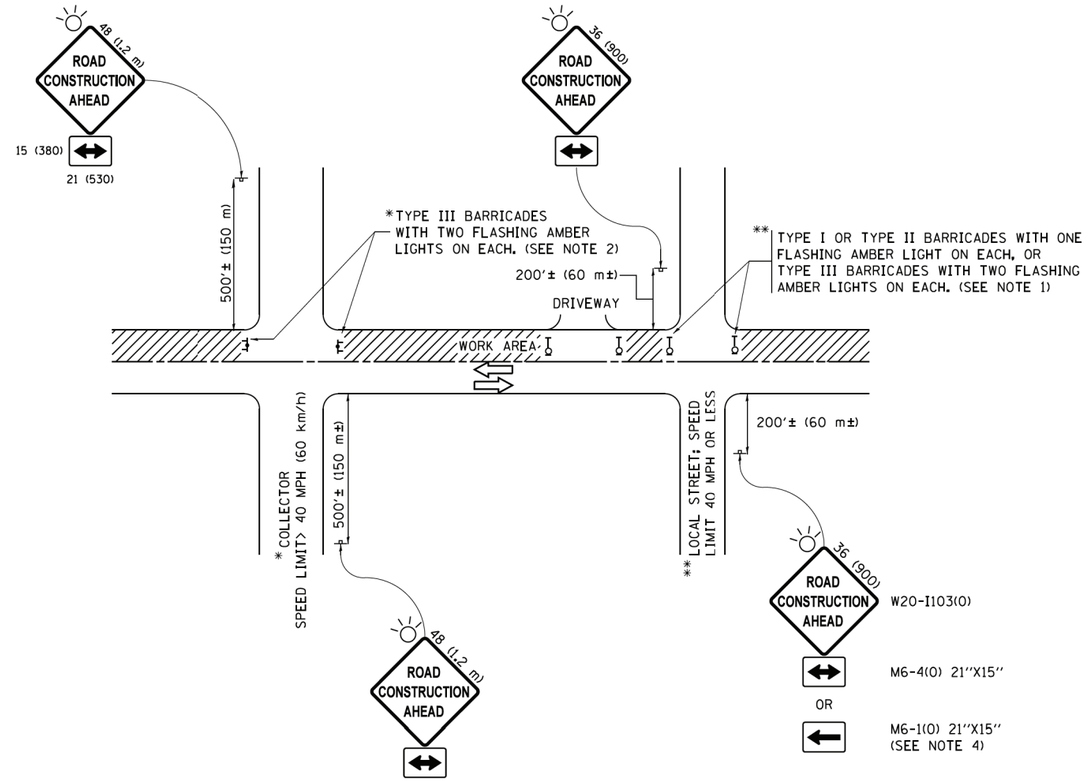
CHECKED - DJS	REVISED -	
DATE - 10-09-18	FILE - 150754SHT_MiscDetails.dgn	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS

SCALE: NONE | STA. | TO STA.

MUN RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	15-00104-00-BR	COOK	93	88
* 3050A/3045		CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



NOTES:

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
   a) ONE ''ROAD CONSTRUCTION AHEAD'' SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
   a) ONE ''ROAD CONSTRUCTION AHEAD'' SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED FORTION.
3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
4. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

• MUN 3050A/3045

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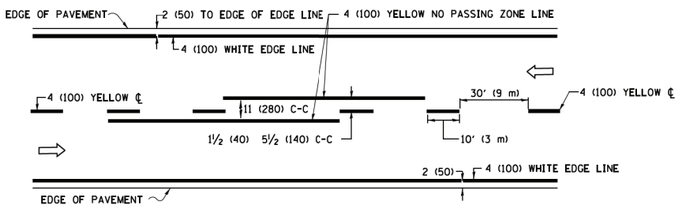
		DRAWN	REVISED -T. RAMMACHER 01-06-00
	PLOT SCALE = 50.000 ' / in.	CHECKED -	REVISED - A. SCHUETZE 07-01-13
Default	PLOT DATE = 9/15/2016	DATE - 06-89	REVISED - A. SCHUETZE 09-15-16

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

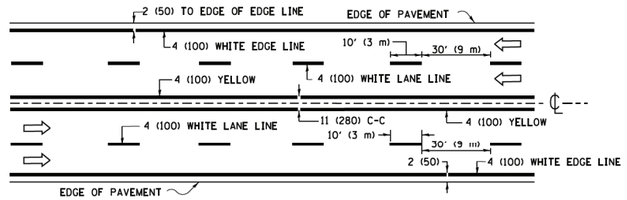
TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

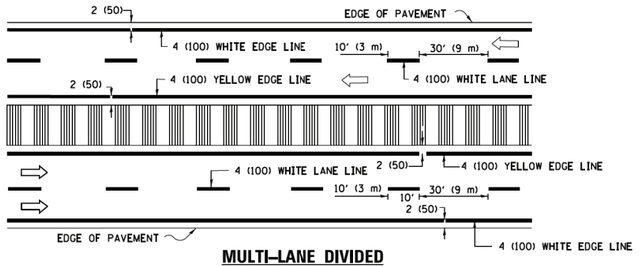
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	89
	TC-10	CONTRACT NO. 61F43		
	ILLINOIS FED. AID PROJECT PHYV(585)			



2–LANE ROADWAY

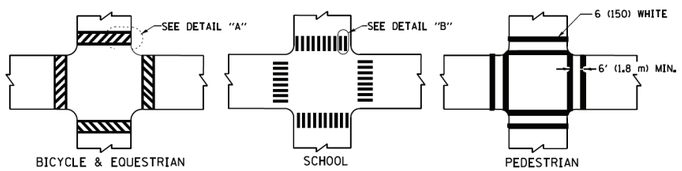


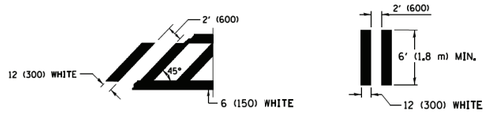
MULTI–LANE UNDIVIDED



MULTI–LANE DIVIDED
WITH MEDIAN

TYPICAL LANE AND EDGE LINE MARKING

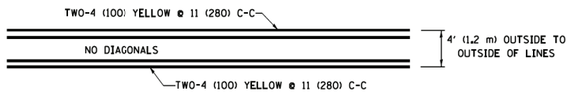




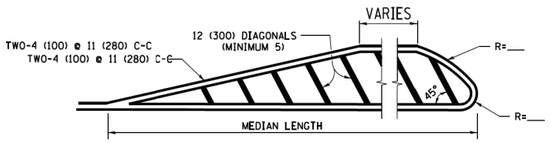
DETAIL "A" **DETAIL "B"**

TYPICAL CROSSWALK MARKING

✳ MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES



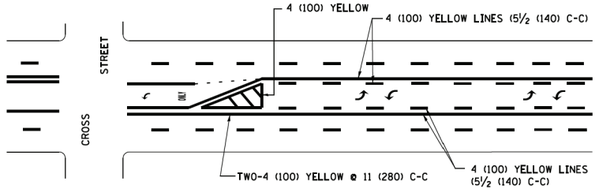
4' (1.2 m) WIDE MEDIANS ONLY



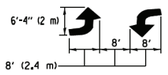
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

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

MEDIANS OVER 4' (1.2 m) WIDE

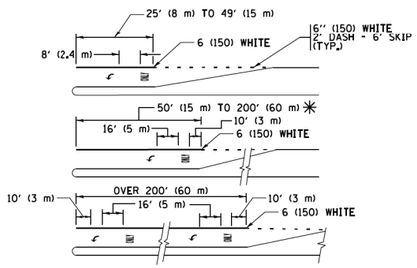


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO–WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

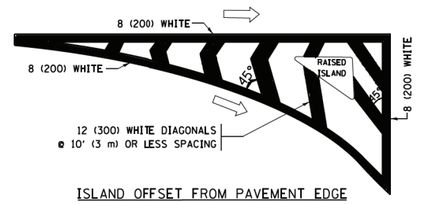


FULL SIZE LETTERS 8' (2,4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15,6 SQ. FT. (1,5 m^2) **ONLY** AREA = 20,8 SQ. FT. (1,9 m^2)

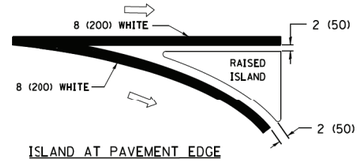
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

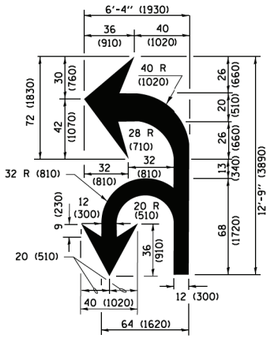


ISLAND OFFSET FROM PAVEMENT EDGE

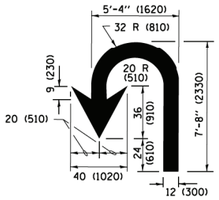


ISLAND AT PAVEMENT EDGE

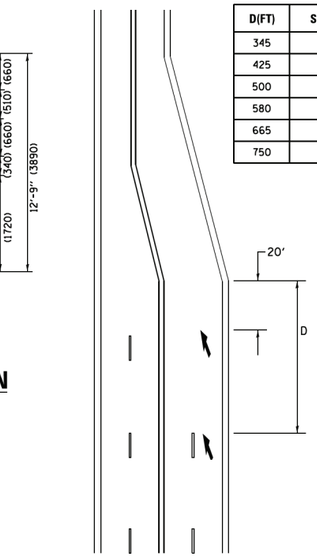
TYPICAL ISLAND MARKING



COMBINATION LEFT AND U–TURN



U–TURN



LANE REDUCTION TRANSITION

✳ LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING /REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 ⌀ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 ⌀ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1,8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 ⌀ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 ⌀ 6 (150) 12 (300) ⌀ 45° 12 (300) ⌀ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1,8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1,2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 ⌀ 4 (100) WITH 12 (300) DIAGONALS ⌀ 45° NO DIAGONALS USED FOR 4' (1,2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS ⌀ 45°	SOLID	WHITE	DIAGONALS: 15' (4,5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3,6 SQ. FT. (0,33 m^2) EACH "X"=54,0 SQ. FT. (5,0 m2)
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) ⌀ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16,3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30,4 SF

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

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

• MUN 3050A/3045

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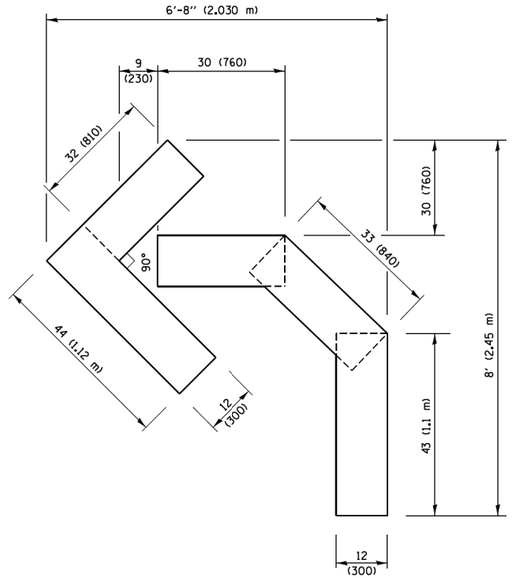
		DRAWN -	REVISED - C. JUCIUS 07-01-13	
	PLOT SCALE = 50.000 ' / in.	CHECKED -	REVISED - C. JUCIUS 12-21-15	
Default	PLOT DATE = 6/23/2017	DATE - 03-19-90	REVISED - C. JUCIUS 04-12-16	

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

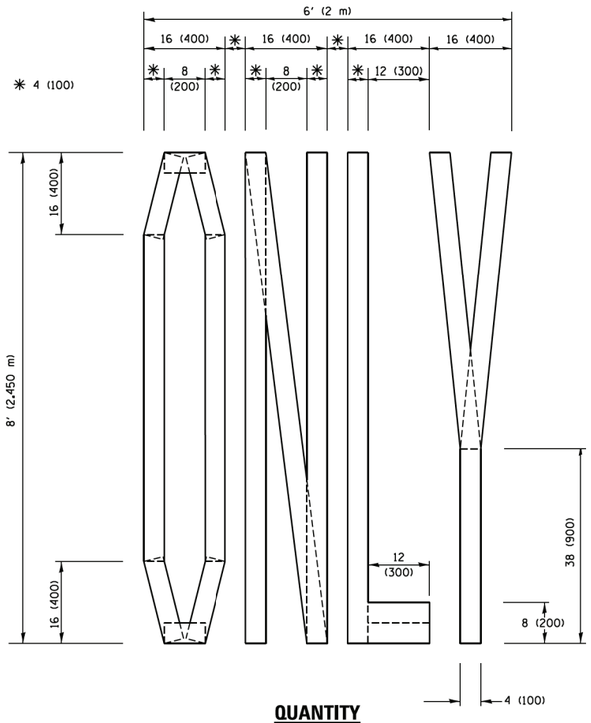
SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	90
	TC-13	CONTRACT NO. 61F43		
		ILLINOIS FED. AID PROJECT PHYV(585)		



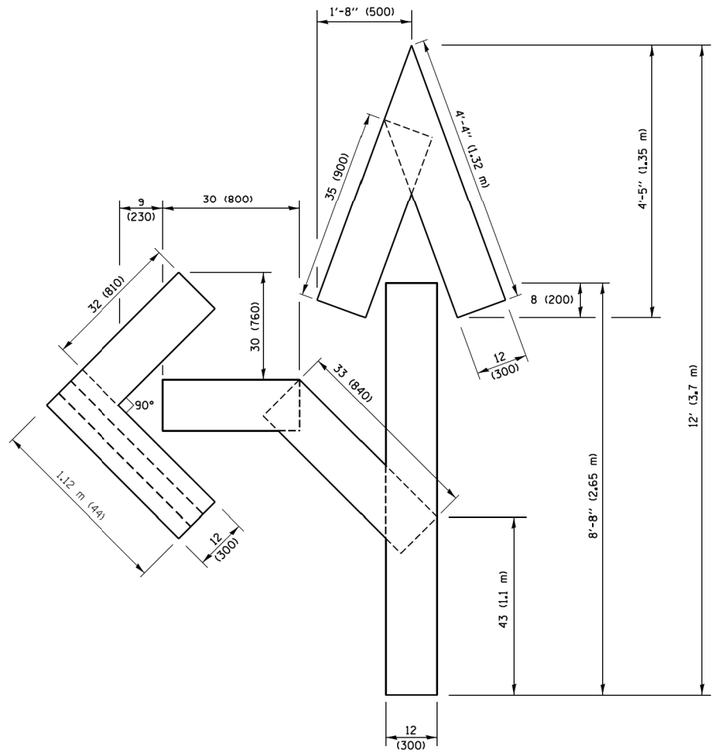
QUANTITY

4 (100) LINE = 45.5 ft. (13.9 m)
15.2 sq. ft. (1.41 sq. m)



QUANTITY

4 (100) LINE = 64.1 ft. (19.5 m)
21.4 sq. ft. (1.99 sq. m)

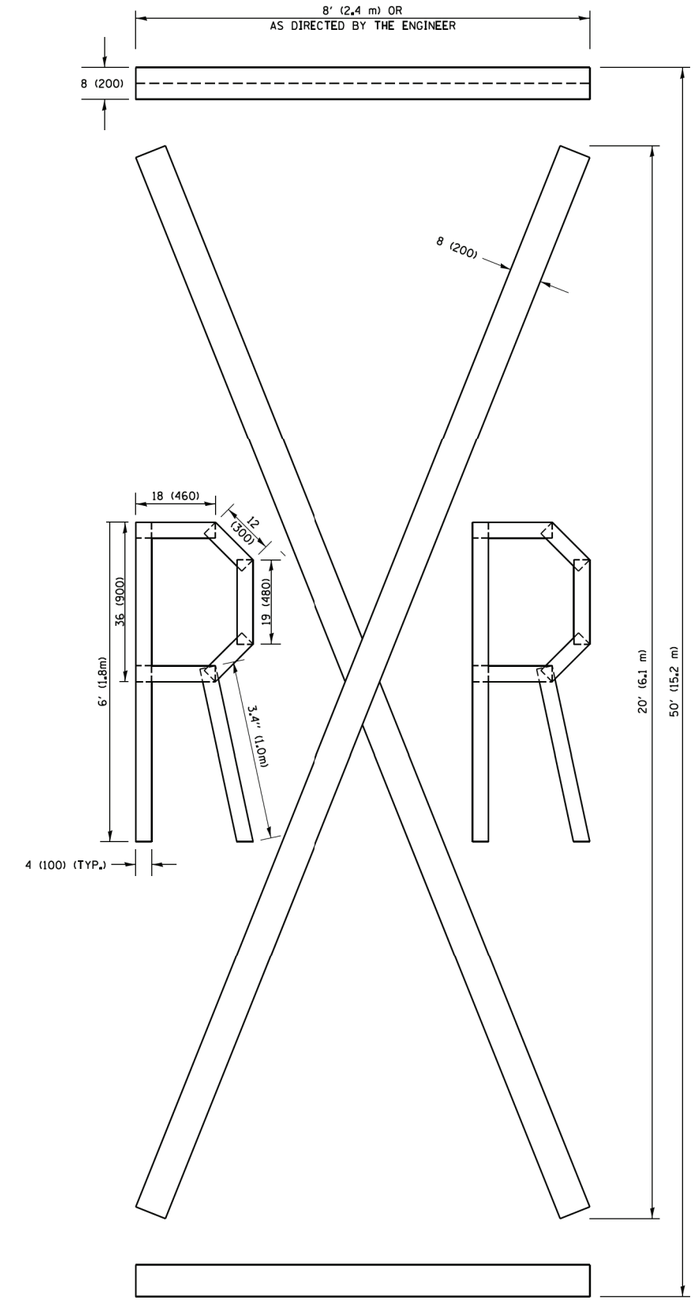


QUANTITY

4 (100) LINE = 82.5 ft. (25.1 m)
27.5 sq. ft. (2.53 sq. m)

NOTE:

ALL QUANTITIES OF PLACEMENT ARE REPRESENTED IN LINEAR FEET OF 4" LINES TO MATCH THE 4" TEMPORARY TAPE PAY ITEM AND REPRESENTS THE TOTAL QUANTITY OF 4" TAPE REQUIRED.



QUANTITY

4 (100) LINE = 225.9 ft. (68.9 m)
75.3 sq. ft. (6.99 sq. m)

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

• MUN 3050A/3045

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 1\Projects\Dist	USER NAME = footemj	DESIGNED -	REVISED -T. RAMMACHER 03-02-98
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	PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -E. GOMEZ 08-28-00
	PLOT DATE = 9/15/2016	DATE - 09-18-94	REVISED -A. SCHUETZE 09-15-16

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	91
	TC-16	CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT PHYV(585)		

ROUTE MARKERS

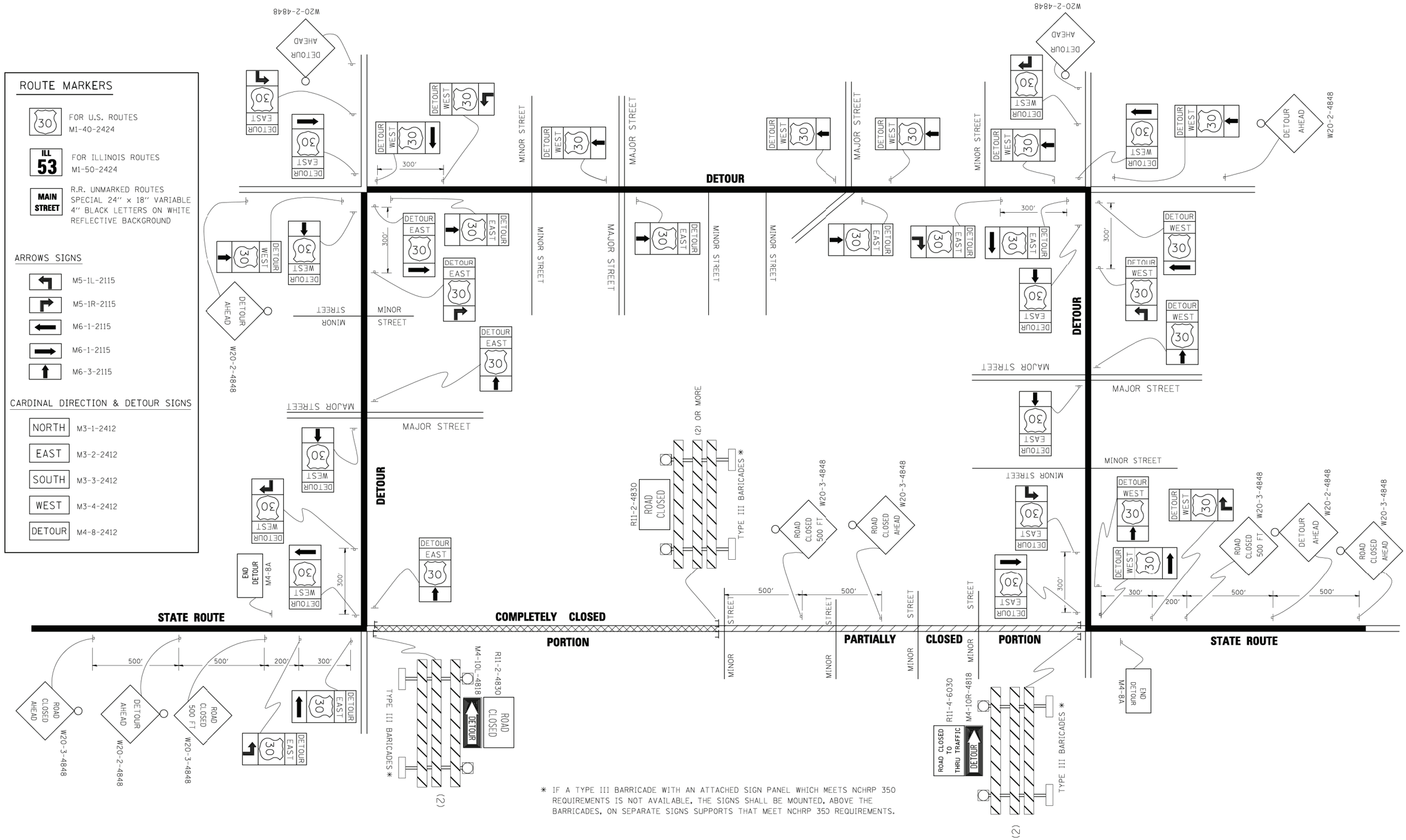
- 30 — FOR U.S. ROUTES M1-40-2424
- ILL 53 — FOR ILLINOIS ROUTES M1-50-2424
- MAIN STREET — R.R. UNMARKED ROUTES SPECIAL 24" x 18" VARIABLE 4" BLACK LETTERS ON WHITE REFLECTIVE BACKGROUND

ARROWS SIGNS

- M5-1L-2115
- M5-1R-2115
- M6-1-2115
- M6-1-2115
- M6-3-2115

CARDINAL DIRECTION & DETOUR SIGNS

- NORTH M3-1-2412
- EAST M3-2-2412
- SOUTH M3-3-2412
- WEST M3-4-2412
- DETOUR M4-8-2412



* IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 REQUIREMENTS.

• MUN 3050A/3045

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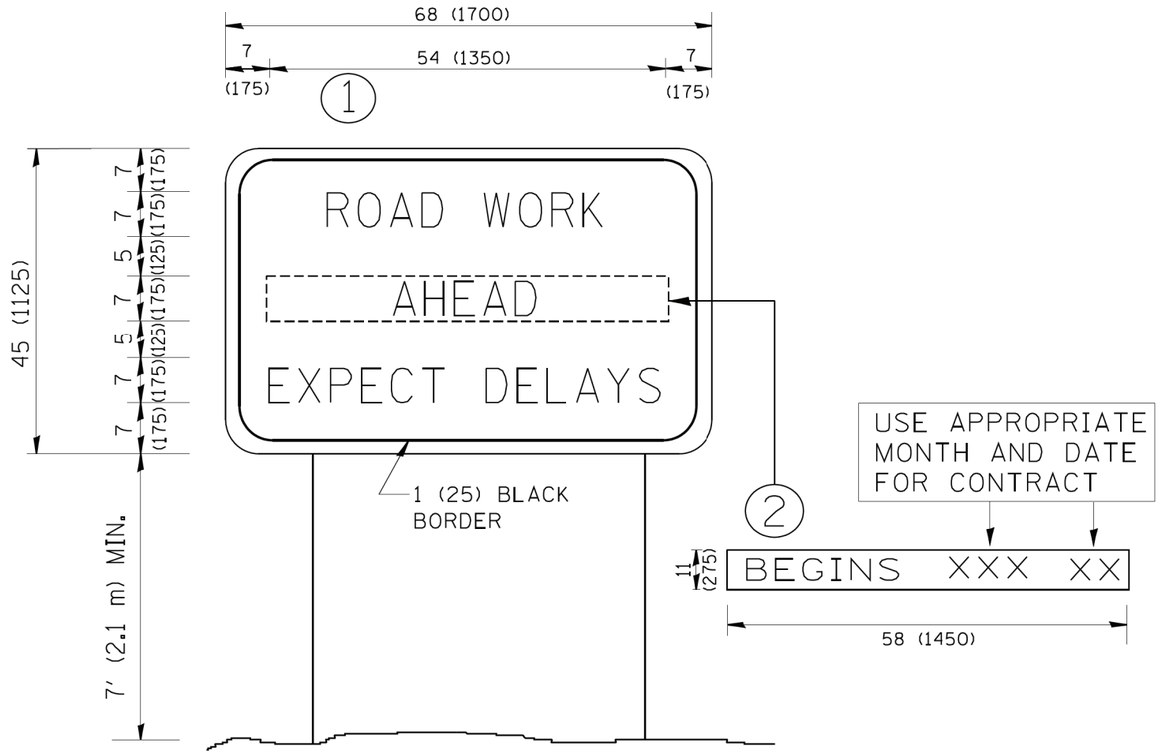
		DRAWN -	REVISED - R. BORO 09-14-09
	PLOT SCALE = 49.9999 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 9/14/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETOUR SIGNING
FOR CLOSING STATE HIGHWAYS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	92
	TC-21	CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT PHYV(585)		



NOTES:

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

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

• MUN 3050A/3045

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	15-00104-00-BR	COOK	93	93
	TC-22	CONTRACT NO. 61F43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT PHYV(585)		