

SITE IMPROVEMENT PLANS FOR ILLINOIS STREET BRIDGE REHABILITATION

**CITY OF ST. CHARLES
ST. CHARLES, ILLINOIS 60174**

WBK PROJECT NO. 15-0257

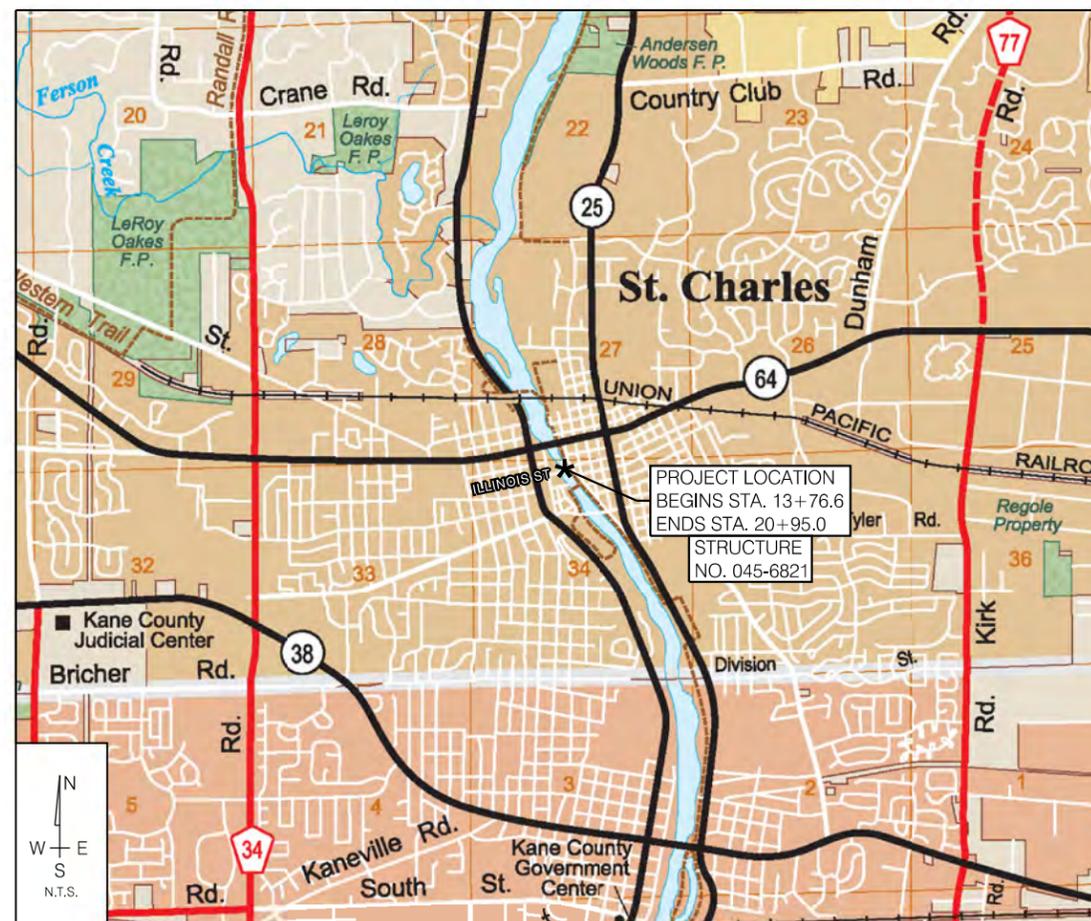
PLAN LEGEND

EXISTING	LINETYPES	PROPOSED
	--- DRAIN TILE ---	
	--- STORM SEWER ---	
	--- SANITARY SEWER ---	
	--- WATER MAIN (W/ SIZE) ---	
	--- PIPE TRENCH BACKFILL ---	
	--- GAS MAIN ---	
	--- TELEPHONE LINES ---	
	--- ELECTRIC LINE ---	
	--- FENCE ---	
	--- RIGHT-OF-WAY ---	
	--- EASEMENT ---	
	--- PROPERTY LINE ---	
	--- SETBACK LINE ---	
	--- CENTERLINE ---	
	--- CONTOUR ---	
	--- GUARDRAIL ---	
	○ SANITARY MANHOLE ○	
	○ STORM MANHOLE ○	
	○ CATCH BASIN ○	
	○ INLET ○	
	○ SUMP STRUCTURE ○	
	○ FIRE HYDRANT ○	
	○ PRESSURE CONNECTION ○	
	○ VALVE & VAULT, VALVE ○	
	○ FLARED END SECTION ○	
	○ STREET LIGHT ○	
	○ UTILITY POLE ○	
	○ CONTROL POINT ○	
	○ SIGN ○	
	XXX.XX SPOT ELEVATION	
	--- OVERLAND FLOW ROUTE ---	
	--- DRAINAGE SLOPE ---	
	○ TREE, EVERGREEN, SHRUB & PROPOSED TREE TO REMOVE ○	

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LOCATION MAP



WBK ENGINEERING, LLC IS TO BE NOTIFIED AT LEAST THREE (3) DAYS PRIOR TO STARTING CONSTRUCTION AND SHALL BE INCLUDED IN THE PRE-CONSTRUCTION MEETINGS.



CALL J.U.L.I.E. 1-800-892-0123
48 HOURS BEFORE YOU DIG
ST. CHARLES, IL KANE COUNTY
NW ¼ OF SECTION 34



WBK ENGINEERING, LLC
116 WEST MAIN STREET, SUITE 201, ST. CHARLES, ILLINOIS 60174
P: 630.443.7755 F: 630.443.0533 WWW.WBKENGINEERING.COM
PROFESSIONAL DESIGN FIRM NO. 184-007317
EXPIRATION DATE: 04/30/2017

CLIENT

CITY OF ST. CHARLES
2 E. MAIN STREET
ST. CHARLES, IL 60174
630.377.4405



CIVIL ENGINEER

ANDREW E. UNDERWAGER P.E.
WBK ENGINEERING, LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174



Andrew E. Underwager 3/18/2016
ENGINEER DATE

ILLINOIS REGISTRATION NO.: 062-053211
EXPIRATION DATE: 11/30/2017
THESE PLANS OR ANY PART THEREOF SHALL BE CONSIDERED VOID WITHOUT THE SIGNATURE, SEAL AND EXPIRATION DATE OF SEAL OF THE ENGINEER

STRUCTURAL ENGINEER

ANDREW E. UNDERWAGER S.E.
WBK ENGINEERING, LLC
116 WEST MAIN STREET, SUITE 201
ST. CHARLES, ILLINOIS 60174



Andrew E. Underwager 3/18/2016
ENGINEER DATE

ILLINOIS REGISTRATION NO.: 081-006218
EXPIRATION DATE: 11/30/2016
THESE PLANS OR ANY PART THEREOF SHALL BE CONSIDERED VOID WITHOUT THE SIGNATURE, SEAL AND EXPIRATION DATE OF SEAL OF THE ENGINEER

102 – ADVERTISEMENT, BIDDING, AWARD, AND CONTRACT EXECUTION

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN EXISTING FIELD CONDITIONS BEFORE BIDDING ON THE PROJECT.

104 – SCOPE OF WORK

- REMOVAL OF PAVEMENT, SIDEWALK, CURB AND GUTTER, ETC. SHALL BE DISPOSED OF OFF SITE AT LOCATIONS PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- THERE WAS NO GEOTECHNICAL INVESTIGATION COMPLETED FOR THIS PROJECT. THE PLANS WERE DEVELOPED UTILIZING EXISTING RECORD DRAWINGS AND FIELD OBSERVATIONS. THE CONTRACTOR SHALL PLAN HIS/HER WORK BASED ON THEIR OWN FIELD EXPLORATIONS, AND OBSERVATIONS TO DETERMINE FIELD CONDITIONS AND THE EXTENT OF EQUIPMENT, MANPOWER AND MEANS AND METHODS REQUIRED TO COMPLETE THE WORK AS DETAILED IN THE PLANS.

105 – CONTROL OF WORK

- ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED APRIL 1, 2016, AND THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS"; ADOPTED APRIL 1, 2016, WITH THE DETAILS IN THESE PLANS, THE REFERENCED STANDARDS, AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.
- WHEN THE PLANS OR SPECIAL PROVISIONS INCLUDE INFORMATION PERTAINING TO THE LOCATION OF EXISTING UTILITY FACILITIES, SUCH INFORMATION ONLY REPRESENTS THE OPINION OF THE ENGINEER AS TO THE LOCATION OF SUCH FACILITIES AND IS ONLY INCLUDED FOR THE CONTRACTOR'S CONVENIENCE. THE ENGINEER AND THE OWNER ASSUME NO RESPONSIBILITY FOR THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN IN THE PLAN RELATING TO THE LOCATION OF EXISTING FACILITIES OR THE MANNER IN WHICH THEY ARE TO BE REMOVED OR ADJUSTED.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM OR ESTABLISH THE EXISTENCE OF ALL UTILITY FACILITIES RELEVANT TO THEIR EXACT LOCATIONS, AND TO SCHEDULE ALL NECESSARY UTILITY RELOCATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE NATURE AND STATUS OF ALL UTILITY RELOCATION WORK PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO ENSURE THAT CONSTRUCTION ACTIVITIES DO NOT INTERFERE WITH UTILITY FACILITIES AND RELOCATION WORK. THE CONTRACTOR'S SCHEDULE SHOULD REFLECT CONSTRUCTION SEQUENCING WHICH COORDINATES WITH ALL UTILITY RELOCATION WORK. THE CONTRACTOR SHALL BE REQUIRED TO ADJUST THE SEQUENCE SCHEDULE OF WORK TO COORDINATE WITH THE RELOCATION SCHEDULE OF CONFLICTING UTILITY COMPANIES.
- COORDINATION OF ALL UTILITY WORK INVOLVED IN THE CONSTRUCTION AREA WILL BE DISCUSSED AT THE PRECONSTRUCTION MEETING.

UTILITY COMPANY CONTACT INFORMATION

<u>AT&T/DISTRIBUTION</u>	<u>NICOR GAS</u>	<u>WIDE OPEN WEST</u>
JANET AHERN	BRUCE KOPPANG	KEVIN RHODES
AT&T LEGAL MANDATE	630-388-3046	630-536-3139
630-573-6414	REF# SC12565	
REF# GN1110		
<u>COMCAST CABLE</u>	<u>CITY OF ST. CHARLES</u>	
TED WYMAN	KAREN YOUNG, ASSIST. DIRECTOR	
630-600-6349	PUBLIC WORKS - ENGINEERING	
	630-377-4405	

- THE CONTRACTOR SHALL USE ALL NECESSARY PRECAUTIONARY AND PROTECTIVE MEASURES REQUIRED TO MAINTAIN AND PROTECT EXISTING UTILITIES, SEWERS, AND APPURTENANCES THAT MUST BE KEPT IN OPERATION; IN PARTICULAR, THE CONTRACTOR WILL TAKE ADEQUATE MEASURES TO PREVENT THE UNDERMINING OF UTILITIES AND SEWERS, WHICH ARE STILL IN SERVICE. THE CONTRACTOR SHALL PROTECT THE EXISTING OR NEW UTILITIES WHEN CONSIDERED NECESSARY BY METHODS APPROVED BY THE ENGINEER, AND SHALL BRACE AND SUPPORT THE UTILITIES PROPERLY TO PREVENT SETTLEMENT, DISPLACEMENT OR DAMAGE TO THE UTILITIES. THE PROTECTION OF THE UTILITIES AS SPECIFIED HEREIN WILL NOT BE PAID FOR SEPARATELY, BUT THE COST THEREOF SHALL BE INCLUDED IN THE COST OF THE CONTRACT.

106 – CONTROL OF MATERIALS

- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE ANY AND ALL MATERIALS AND DEBRIS FROM THE SITE THAT RESULT FROM CONSTRUCTION OPERATIONS AT NO ADDITIONAL COST TO THE CITY. REMOVED PAVEMENT, SIDEWALK, CURB AND GUTTER, ETC., SHALL BE DISPOSED OF OUTSIDE THE RIGHT-OF-WAY ACCORDING TO ARTICLE 202.03 OF THE "STANDARD SPECIFICATIONS" AT LOCATIONS PROVIDED BY THE CONTRACTOR.

107 – LEGAL REGULATIONS AND RESPONSIBILITY TO THE PUBLIC

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR RETURNING ALL EXISTING AREAS (TO REMAIN) AFFECTED BY CONSTRUCTION ACTIVITIES, EQUIPMENT, OR LABORERS TO THE ORIGINAL UNDISTURBED CONDITIONS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR PROTECTING ALL NEW WORK UNTIL THE COMPLETION OF THE CONTRACT.
- WHEN EXISTING DRAINAGE FACILITIES ARE DISTURBED, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY OUTLETS AND CONNECTIONS FOR ALL PROVIATE OR PUBLIC DRAINS, SEWERS, OR CATCH BASINS. THE CONTRACTOR SHALL PROVIDE FACILITIES TO TAKE IN ALL STORM WATER WHICH WILL BE RECEIVED BY THESE DRAINS AND SEWERS. THE CONTRACTOR SHALL BE PREPARED AT ALL TIMES TO DISPOSE OF THE WATER RECEIVED FROM THESE TEMPORARY CONNECTIONS UNTIL PERMANENT CONNECTIONS WITH THE SEWERS ARE BUILT AND IN SERVICE. THIS WORK SHALL NOT BE PAID FOR DIRECTLY, BUT WILL BE INCLUDED IN THE COST OF DRAINAGE ITEMS BEING INSTALLED.
- THE CONTRACTOR SHALL USE CARE IN GRADING OR EXCAVATION NEAR ANY AND ALL EXISTING ITEMS, WHICH WILL NOT BE REMOVED. ANY DAMAGE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- ALL WORK AREAS, EXCEPT WHERE NOTED OTHERWISE, SHALL BE FULLY RESTORED BY THE CONTRACTOR AS INDICATED ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL PROVIDE ACCESS TO ABUTTING PROPERTIES AT ALL TIMES DURING CONSTRUCTION OF THIS PROJECT. ANY COST INCURRED BY THE CONTRACTOR TO MEET THIS REQUIREMENT THAT IS NOT COVERED BY A SPECIFIC PAY ITEM WILL BE INCLUDED IN THE COST OF THE CONTRACT.
- THE CONTRACTOR IS REQUIRED TO COMPLY WITH ALL STATE REGULATIONS REGARDING, AIR, WATER AND NOISE POLLUTION.

109 – MEASUREMENT AND PAYMENT

- BEFORE ACCEPTANCE BY THE CITY AND FINAL PAYMENT, ALL WORK SHALL BE INSPECTED AND APPROVED BY THE ENGINEER. FINAL PAYMENT WILL BE MADE AFTER ALL THE CONTRACTOR'S WORK HAS BEEN APPROVED AND ACCEPTED.
- THE ENGINEER WILL ONLY ACCEPT VERIFICATION FOR ALL ITEMS BASED UPON FIELD MEASUREMENTS AND CALCULATIONS. NO COMPUTER PROGRAMS WILL BE ACCEPTED FOR THE QUANTITY MEASUREMENT. THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING (PRIOR TO ANY WORK AT THE SITE) AS TO ANY DISCREPANCY FOUND WITH THE EXISTING TOPOGRAPHY, DETAILS OR WORK CALCULATIONS.

NORTHERN LONG-EARED BAT – SPECIAL USACOE PERMIT CONSIDERATIONS

- THE BRIDGE SHALL BE INSPECTED FOR THE PRESENCE OF THE NORTHERN LONG-EARED BAT NO MORE THAN SEVEN (7) DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITY TO ENSURE BATS HAVE NOT STARTED TO USE THE AREA OF BRIDGE PROPOSED FOR REMOVAL.

THE CONTRACTOR IS NOT RESPONSIBLE FOR THE INSPECTION BUT WILL NEED TO COORDINATE HIS SCHEDULE AND WORK ACTIVITIES WITH THE ENGINEER TO ASSURE THAT THE INSPECTION IS COMPLETED AS SPECIFIED
- IF THAT SPECIES IS FOUND TO BE USING THE STRUCTURE, THE PERMITTEE SHALL IMMEDIATELY CONTACT THE U.S.. FISH AND WILDLIFE SERVICE, (847) 381-2253 AND KIMBERLY KUBIAK OF THE U.S. ARMY CORPS OF ENGINEERS AT (312) 846-5541 FOR FURTHER GUIDANCE. WORK SHALL NOT COMMENCE UNTIL CONSULTATION WITH THESE TWO AGENCIES HAS BEEN SATISFIED.

STRUCTURAL PAVEMENT DESIGN DATA

ILLINOIS STREET
 2010 ADT - 5,100
 PV - 4,947 (97%), SU - 102 (2%), MU - 51 (1%)
 CLASS II

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

ITEM	AIR VOIDS @ Ndes
ILLINOIS STREET - HMA PATCHES	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 mm), 1 1/2"	4% @ 50 GYR.
HOT-MIX ASPHALT BASE COURSE (HMA BINDER IL-19 mm), 2 1/4" MAX.	4% @ 50 GYR.

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LB/50 YD/IN. THE AC TYPE FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

PLOT DATE : 3/19/2016
 PLOT TIME : 10:00:00 AM
 FILE NAME : I:\Projects\2015\150257_ILBrdgeRehab\Acadd\Civil\Draw\Sht\Illinois Streets-002-GN-01.dwg
 USER : WYMAN

TITLE : ILLINOIS STREET
 BRIDGE REHABILITATION
 GENERAL NOTES

1	2	3	4	5	6	7	8	NO.	DATE	NATURE OF REVISION

CLIENT : CITY OF ST. CHARLES
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DIVISION
 2 E. MAIN STREET
 ST. CHARLES, IL 60174

WBK ENGINEERING, LLC
 116 West Main Street, Suite 201
 St. Charles, Illinois 60174
 (630) 443-7755

PROJECT NO. 15-0257
 DATE : 03/18/2016
 SHEET 2 OF 39
 DRAWING NO.
GN1

SUMMARY OF QUANTITIES

BID ITEM	ITEM	UNIT	TOTAL QUANTITY
1	TEMPORARY FENCE	FOOT	200
•••	2 PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	230
•••	3 SIDEWALK REMOVAL	SQ FT	230
	4 HOT-MIX ASPHALT PATCHES, 3 INCH	SQ YD	95
•	5 CONCRETE REMOVAL	CU YD	63.4
	6 STRUCTURE EXCAVATION	CU YD	60
•	7 CONCRETE STRUCTURES	CU YD	15.7
•	8 CONCRETE SUPERSTRUCTURE	CU YD	47.8
	9 PROTECTIVE COAT	SQ YD	65
	10 FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	10,000
	11 REINFORCEMENT BARS, EPOXY COATED	POUND	10,880
	12 BAR SPLICERS	EACH	94
	13 PREFORMED JOINT STRIP SEAL	FOOT	245
	14 MOBILIZATION	L SUM	1
	15 PAVEMENT MARKING TAPE, TYPE III - LETTERS AND SYMBOLS	SQ FT	177
	16 PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	4,025
	17 PAVEMENT MARKING TAPE, TYPE III 6"	FOOT	272
	18 PAVEMENT MARKING TAPE, TYPE III 12"	FOOT	86
	19 PAVEMENT MARKING TAPE, TYPE III 24"	FOOT	109
	20 WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1,728
	21 TEMPORARY CONCRETE BARRIER	FOOT	264
	22 RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	224
	23 IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE, NARROW), TEST LEVEL 2	EACH	2
	24 IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 2	EACH	1
	25 EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	182
	26 EPOXY PAVEMENT MARKING - LINE 4"	FOOT	2,371
	27 EPOXY PAVEMENT MARKING - LINE 6"	FOOT	1,193
	28 EPOXY PAVEMENT MARKING - LINE 24"	FOOT	139
	29 BARRIER WALL MARKERS, TYPE C	EACH	15
	30 PAVEMENT MARKING REMOVAL	SQ FT	1,602
	31 MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
	32 DETECTOR LOOP REPLACEMENT	FOOT	220

NOTE: THE ITEMS REPRESENTED WITH AN ASTERISK (*) ARE ITEMS THAT INCLUDE A PLAN ALLOWANCE TO COVER UNKNOWN FIELD CONDITIONS THAT MAY BE ENCOUNTERED DURING CONSTRUCTION. THESE QUANTITIES HAVE BEEN INCREASED BY AN INCREMENTAL PERCENTAGE (%) AS INDICATED. FINAL QUANTITIES WILL BE BASED ON ACTUAL FIELD MEASUREMENTS. THERE WILL BE NO ADJUSTMENT TO THE CONTRACT UNIT COST FOR THESE ITEMS IF THE QUANTITY DIFFERS FROM ESTIMATED PLAN QUANTITIES.

- 10%
- 15%
- 20%

BID ITEM	ITEM	UNIT	TOTAL QUANTITY
33	TEMPORARY CONCRETE WASHOUT FACILITY	LSUM	1
34	GRANULAR BACKFILL FOR STRUCTURES	CU YD	60
35	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1
36	CHANGEABLE MESSAGE SIGN	CAL DA	28
37	REMOVE AND REPLACE CURB AND GUTTER (SPECIAL)	FOOT	24
38	STRUCTURAL STEEL REMOVAL	POUND	10,000
39	HOT-MIX ASPHALT REMOVAL (SPECIAL)	SQ YD	95
40	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES	LSUM	1
41	CLEANING AND PAINTING STEEL BRIDGE NO. 1	LSUM	1
••	42 STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	110
••	43 STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	17.6
	44 CONSTRUCTION LAYOUT	L SUM	1
	45 TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

PLOT DATE : 3/19/2016
 FILE NAME : I:\Projects\2015\150257_ILBrdgRehab\cadd\Civil\Dgn\Sht\Illinois Streets-003-S00-01.dgn

ILLINOIS STREET BRIDGE REHABILITATION	
SUMMARY OF QUANTITIES	
CLIENT : CITY OF ST. CHARLES PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION 2 E. MAIN STREET ST. CHARLES, IL 60174	TITLE : ILLINOIS STREET BRIDGE REHABILITATION
DSGN. DWN. CHKO.	SBP NDP MNB
SCALE :	NATURE OF REVISION
NO.	DATE
WBK ENGINEERING, LLC 116 West Main Street, Suite 201 St. Charles, Illinois 60174 (630) 443-7755	
PROJECT NO. 15-0257 DATE : 03/18/2016 SHEET 3 OF 39 DRAWING NO.	
SOQ1	

MAINTENANCE OF TRAFFIC GENERAL NOTES:

1. ALL CONSTRUCTION SIGNING SHALL CONFORM TO THE LATEST STANDARDS IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), APPLICABLE PORTIONS OF SECTION 700 OF THE STANDARD SPECIFICATIONS AND THE REQUIREMENTS OF THE CITY OF ST. CHARLES UNLESS OTHERWISE NOTED ON THE PLANS.
2. THE TRAFFIC CONTROL DEPICTED HEREIN IS THE MINIMUM REQUIREMENT. ADDITIONAL TRAFFIC CONTROL DEVICES, AS SPECIFIED BY THE SPECIAL PROVISIONS, SHALL BE PLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER. ALL TRAFFIC CONTROL DEVICES, UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIAL PROVISIONS, SHALL BE INCLUDED IN THE COST OF THE PAY ITEM "TRAFFIC CONTROL AND PROTECTION, (SPECIAL)."
3. LOCATIONS OF TEMPORARY SIGNS ARE APPROXIMATE AND SHALL BE ADJUSTED AS DIRECTED BY THE ENGINEER SO AS NOT TO CONFLICT WITH EXISTING PERMANENT SIGNS. EXISTING SIGNS IN CONFLICT WITH TEMPORARY SIGNS SHALL BE COVERED AS DIRECTED BY THE ENGINEER.
4. UPON COMPLETION OF PROJECT, ALL EXISTING SIGNS AND PAVEMENT MARKINGS WHICH ARE COVERED OR REMOVED IN ADVANCE OF CONSTRUCTION SHALL BE RE-ESTABLISHED AS DETAILED IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
5. PORTABLE TEMPORARY SIGNS AND OTHER TEMPORARY TRAFFIC PROTECTIVE DEVICES SHALL REMAIN IN PLACE DURING ALL CONSTRUCTION ACTIVITIES.
6. THE CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION EQUIPMENT, MATERIALS AND DEBRIS ARE REMOVED FROM THE ACCESSWAY AND ROADWAY PRIOR TO THE REMOVAL OF THE SIGNAGE.

CHANGEABLE MESSAGE SIGN

THE CONTRACTOR SHALL PLACE ELECTRONIC CHANGEABLE MESSAGE SIGNS ON THE EAST AND WEST SIDES OF THE PROJECT TO WARN THE PUBLIC OF THE PENDING LANE CLOSURE. THE MESSAGE BOARDS WILL NEED TO BE PLACED AND SET OUT FOR SEVEN (7) DAYS IN ADVANCE OF THE ANTICIPATED FIRST DAY OF CONSTRUCTION. THE SIGNS SHALL REMAIN IN PLACE FOR AN ADDITIONAL SEVEN (7) AFTER THE FIRST DAY OF CONSTRUCTION. THE CONTRACTOR WILL COORDINATE WITH THE ENGINEER ON THE EXACT PLACEMENT OF THE MESSAGE BOARDS AND THE MESSAGE THAT IS TO BE DISPLAYED. THE MESSAGE MAY PERIODICALLY BE CHANGED BY THE CITY AND/OR ENGINEER. THERE WILL BE NO ADDITIONAL COMPENSATION FOR CHANGING OF THE MESSAGE(S). THE MESSAGE BOARDS WILL BE PAID FOR AS "CHANGEABLE MESSAGE SIGN, SPECIAL" PER CALENDAR DAY FOR EACH MESSAGE SIGN UTILIZED.

TRAFFIC SIGNAL MAINTENANCE AND OPERATION

THE REALIGNMENT OF TRAFFIC PATTERNS TO COMPLETE THE WORK AND LOOP DETECTOR INSTALLATION IN THIS CONTRACT WILL REQUIRE MODIFICATIONS TO THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF ILLINOIS STREET AND RIVERSIDE AVENUE AND WILL REQUIRE THE TRANSFER OF TRAFFIC SIGNAL MAINTENANCE AT THIS LOCATION FROM THE CITY OF ST. CHARLES TO THIS CONTRACT'S CONTRACTOR. SEE ADDITIONAL REQUIREMENTS FOR "MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION" AND "TEMPORARY TRAFFIC SIGNAL TIMINGS" IN THE SPECIAL PROVISIONS.

TRAFFIC CONTROL STANDARDS

ALL TRAFFIC CONTROL STANDARDS REFERENCED IN THE PLANS OR DIRECTED BY THE ENGINEER REQUIRED TO COMPLETE THE VARIOUS STAGES OF WORK WILL NOT BE MEASURED SEPARATELY FOR PAYMENT BUT SHALL BE INCLUDED IN THE CONTRACT LUMP SUM FOR "TRAFFIC CONTROL AND PROTECTION".

CONTACTS

THE CONTRACTOR WILL BE REQUIRED TO COORDINATE ALL MAINTENANCE OF TRAFFIC OPERATIONS WITH ALL MUNICIPALITIES AND COUNTY ENTITIES WITHIN THE PROJECT LIMITS. THE FOLLOWING IS THE APPLICABLE LIST OF CONTACTS:

KANE CO. OFFICE OF EMERGENCY MANAGEMENT	DONALD BRYANT, DIRECTOR	630-232-5985
CITY OF ST. CHARLES PUBLIC WORKS - ENGINEERING	KAREN YOUNG, ASSIST. DIRECTOR	630-377-4405
CITY OF ST. CHARLES POLICE DEPARTMENT	JAMES KEEGAN, CHIEF OF POLICE	630-377-4435
CITY OF ST. CHARLES FIRE DEPARTMENT	JOE SCHELSTREET, FIRE CHIEF	630-762-6984

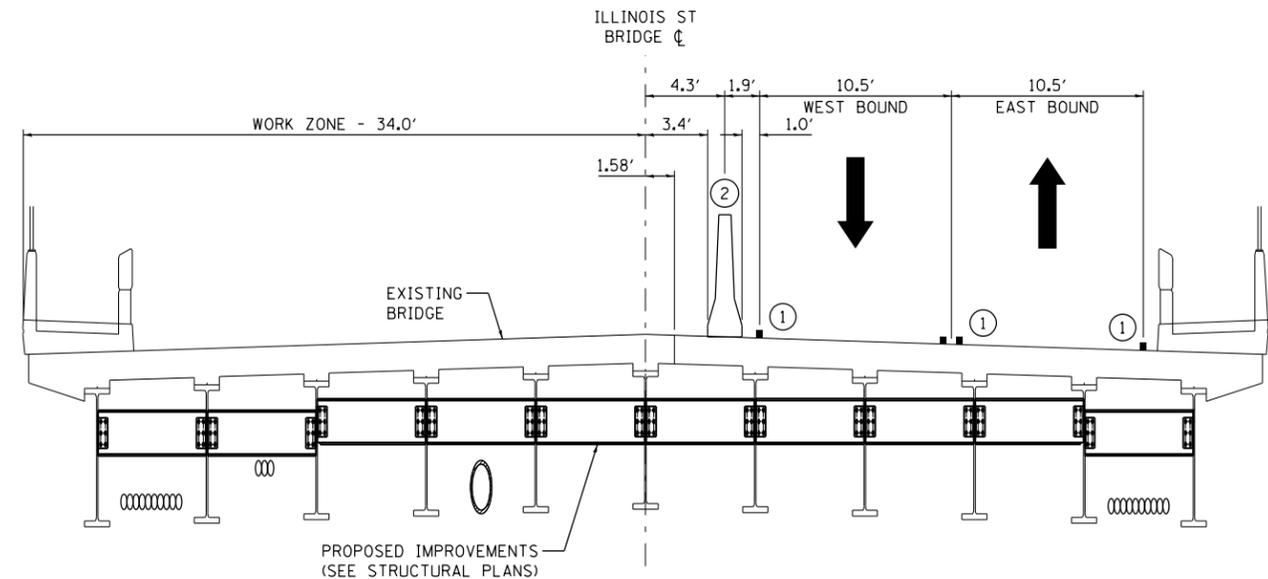
LIMITATIONS OF CONSTRUCTION

THE CONTRACTOR SHALL COORDINATE THE ITEMS OF WORK IN ORDER TO KEEP HAZARDS AND TRAFFIC INCONVENIENCES TO A MINIMUM, AS SPECIFIED BELOW:

1. IF THERE ARE CONSTRUCTION OPERATIONS COMPLETED OUTSIDE OF THE DURATION OF THE ROADWAY CLOSURE, THOSE CONSTRUCTION OPERATIONS WILL BE CONDUCTED SO ONE LANE IN EACH DIRECTION ON ILLINOIS STREET REMAIN OPEN AT ALL TIMES.
2. THE CONTRACTOR SHALL PROVIDE, ERECT, AND MAINTAIN ALL THE NECESSARY SIGNS, BARRICADES, CONES, DRUMS, AND LIGHTS FOR THE WARNING AND PROTECTION OF TRAFFIC, AS REQUIRED BY SECTIONS 107 AND 701 THROUGH 703 OF THE STANDARD SPECIFICATIONS, AND AS MODIFIED. THE COST OF PROVIDING THESE WARNING DEVICES WILL BE PAID FOR PER LUMP SUM FOR "TRAFFIC CONTROL AND PROTECTION, SPECIAL".
3. THE CONTRACTOR SHALL FURNISH AND ERECT "ROAD CONSTRUCTION AHEAD" SIGNS (W20-1 (0)-36) AT BOTH ENDS OF THE PROJECT AND AT ALL SIDE ROADS WITHIN THE LIMITS OF THIS SECTION WHEN WORKING IN THE VICINITY OF THE SIDE ROAD INTERSECTION, AS DETAILED IN TC-10.

WORK HOURS

THE NORMAL WORK HOURS FOR THIS PROJECT WILL BE FROM 7:00 A.M. TO 8:00 P.M. MONDAY THROUGH FRIDAY AND 8:00 A.M. TO 5:00 P.M. ON SATURDAY EXCEPT IN THE CASE OF URGENT NECESSITY IN THE INTEREST OF PUBLIC HEALTH AND SAFETY, AND THEN ONLY WITH A PERMISSION FROM THE CITY OF ST. CHARLES. NO WORK WILL BE ALLOWED ON SUNDAYS OR LEGAL HOLIDAYS WITHOUT THE PERMISSION OF THE ENGINEER. THE CONTRACTOR WILL BE ALLOWED TO UNDERTAKE MAINTENANCE AND FUELING OPERATION PRIOR TO THE BEGINNING TIMES STATED AS LONG AS THESE OPERATIONS DO NOT REQUIRE STARTING OF THE EQUIPMENT ENGINES.

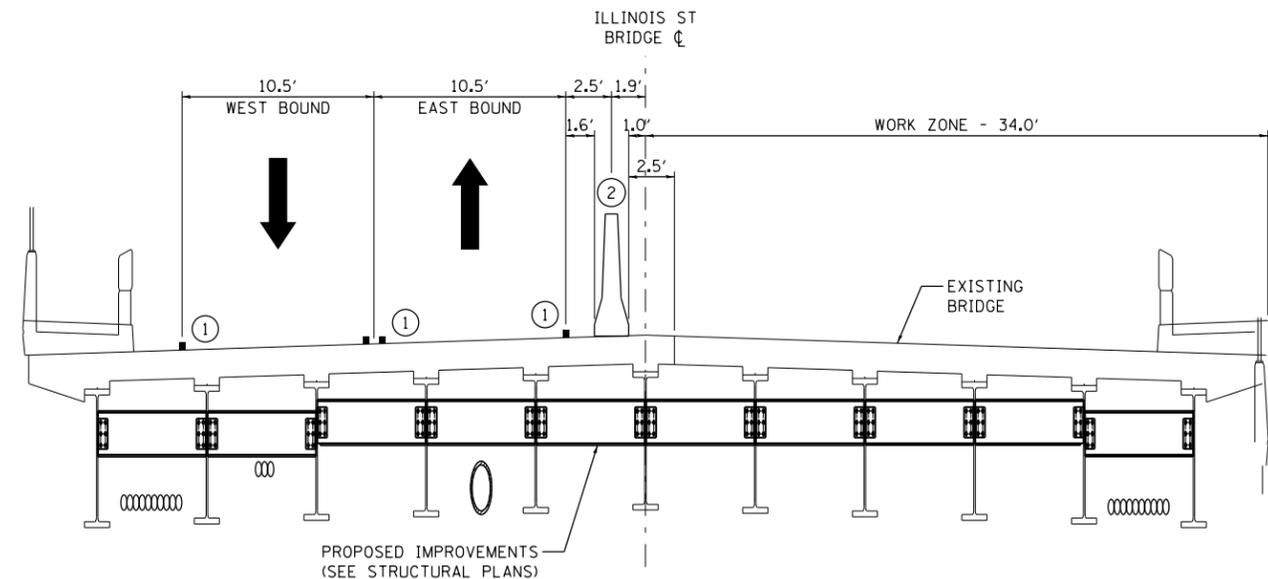


**MAINTENANCE OF TRAFFIC
TYPICAL SECTION – STAGE 1**

LEGEND

- ① PAVEMENT MARKINGS (TAPE)
- ② TEMPORARY CONCRETE BARRIER WALL

NOTE: THE TEMPORARY CONCRETE BARRIER WALL SHALL BE ANCHORED TO THE BRIDGE DECK. SEE STRUCTURAL PLANS FOR DETAILS.



**MAINTENANCE OF TRAFFIC
TYPICAL SECTION – STAGE 2**

KEEPING ROADS OPEN TO TRAFFIC

THE CONTRACTOR SHALL SCHEDULE HIS SEQUENCE OF OPERATIONS TO PERMIT THE CONSTRUCTION OF THIS SECTION WITH THE LEAST INCONVENIENCE TO THE TRAVELING PUBLIC. THE CONTRACTOR'S SCHEDULE SHALL REFLECT THE FOLLOWING REQUIREMENTS AND SEQUENCE OF CONSTRUCTION. THESE REQUIREMENTS FOLLOW THE SUGGESTED TRAFFIC CONTROL PLAN INCLUDED IN THE DRAWINGS.

1. ILLINOIS STREET WILL BE STAGED CONSTRUCTION, COMPLETING WORK ON ONE HALF OF THE BRIDGE AT A TIME. TWO LANES OF TRAFFIC, ONE IN EACH DIRECTION WILL BE MAINTAINED AT ALL TIMES.
2. ACCESS TO PRIVATE AND COMMERCIAL ENTRANCES SHALL REMAIN OPEN AT ALL TIMES.

PLOT DATE: 3/19/2016
 FILE NAME: C:\Users\jacob\Documents\Projects\2015\150257_ILBrdgRehab\Acadd\Civil\Drawings\Illinois Street\004-MOT-01.dwg

TITLE: ILLINOIS STREET
 BRIDGE REHABILITATION
 MAINTENANCE OF TRAFFIC
 TYPICAL SECTIONS

NO.	DATE	NATURE OF REVISION
1		
2		
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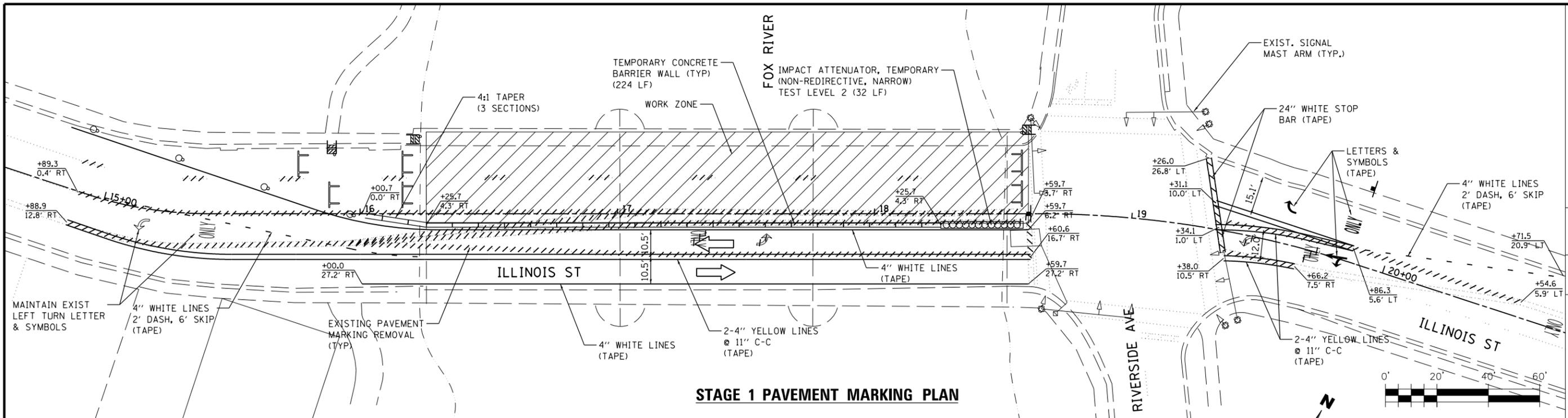
CLIENT: CITY OF ST. CHARLES
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DIVISION
 2 E. MAIN STREET
 ST. CHARLES, IL 60174

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 116 West Main Street, Suite 201
 St. Charles, Illinois 60174
 (630) 443-7755



PROJECT NO. 15-0257
 DATE: 03/18/2016
 SHEET 4 OF 39
 DRAWING NO.

TP1

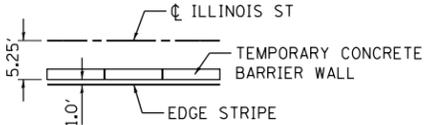


STAGE 1 PAVEMENT MARKING PLAN

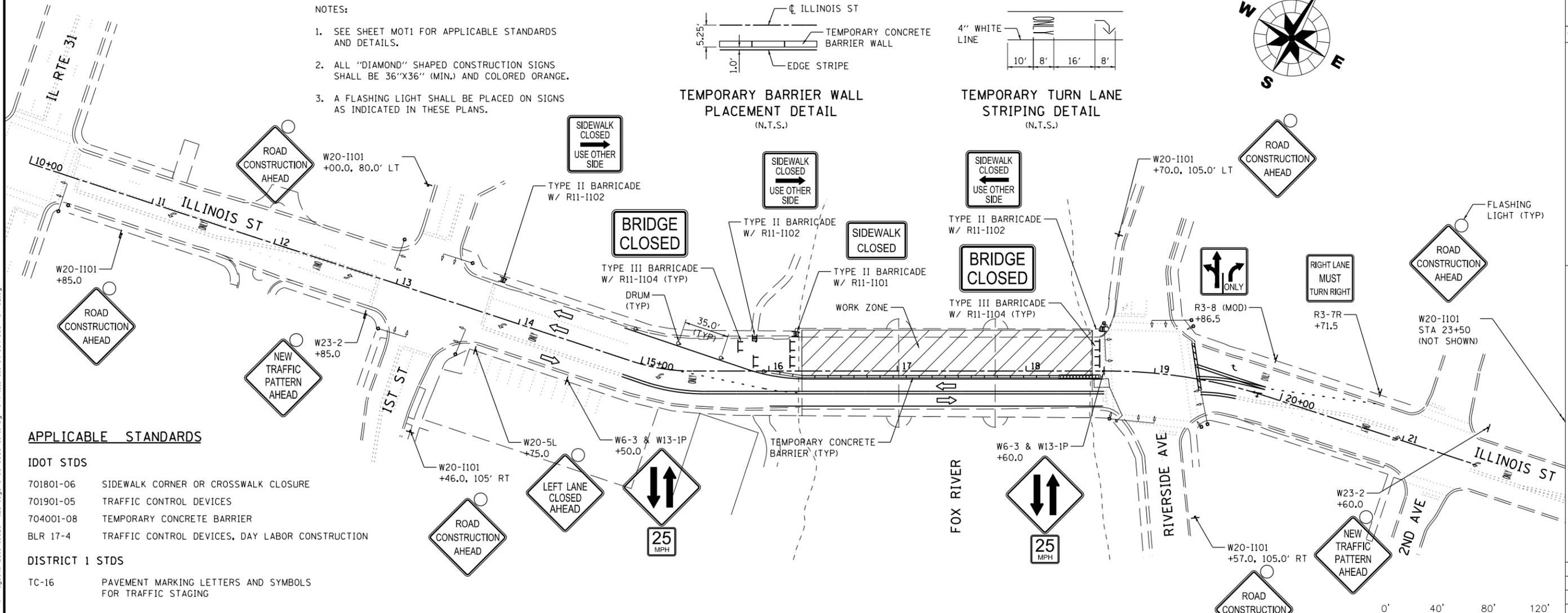
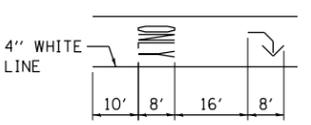
NOTES:

1. SEE SHEET MOT1 FOR APPLICABLE STANDARDS AND DETAILS.
2. ALL "DIAMOND" SHAPED CONSTRUCTION SIGNS SHALL BE 36"X36" (MIN.) AND COLORED ORANGE.
3. A FLASHING LIGHT SHALL BE PLACED ON SIGNS AS INDICATED IN THESE PLANS.

TEMPORARY BARRIER WALL PLACEMENT DETAIL (N.T.S.)



TEMPORARY TURN LANE STRIPING DETAIL (N.T.S.)



STAGE 1 SIGNING PLAN

APPLICABLE STANDARDS

- IDOT STDS**
- 701801-06 SIDEWALK CORNER OR CROSSWALK CLOSURE
 - 701901-05 TRAFFIC CONTROL DEVICES
 - 704001-08 TEMPORARY CONCRETE BARRIER
 - BLR 17-4 TRAFFIC CONTROL DEVICES, DAY LABOR CONSTRUCTION
- DISTRICT 1 STDS**
- TC-16 PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING

BASIS OF PAYMENT: ALL STANDARDS UTILIZED ON THIS PROJECT WILL NOT BE MEASURED SEPARATELY FOR PAYMENT BUT SHALL BE INCLUDED IN THE CONTRACT COST FOR "TRAFFIC CONTROL AND PROTECTION (SPECIAL)".

TITLE: **ILLINOIS STREET BRIDGE REHABILITATION MAINTENANCE OF TRAFFIC STAGE 1 PLAN**

NO.	DATE	NATURE OF REVISION
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CLIENT: **CITY OF ST. CHARLES DEPARTMENT PUBLIC WORKS DIVISION ENGINEERING DIVISION 2 E. MAIN STREET ST. CHARLES, IL 60174**

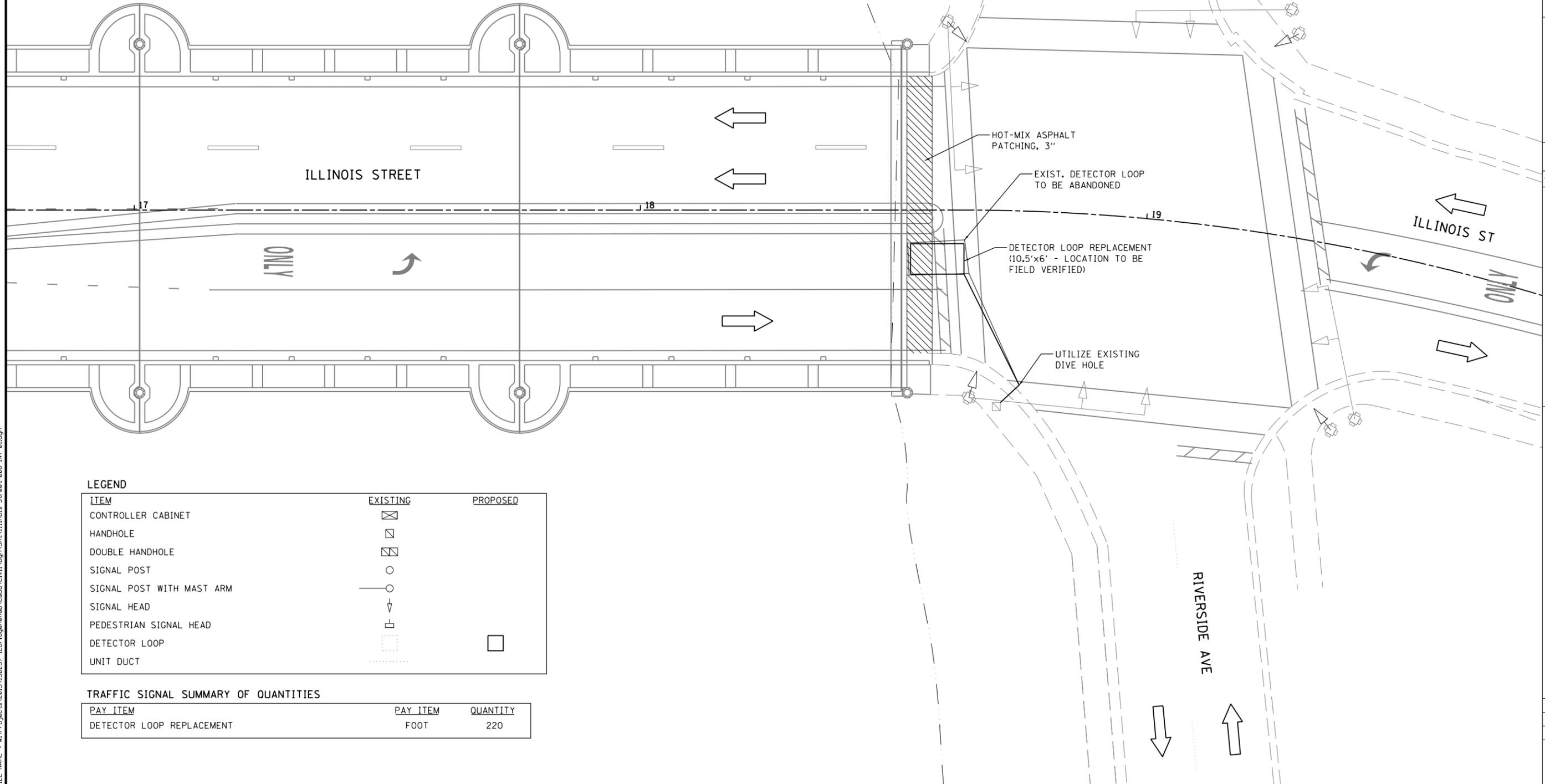
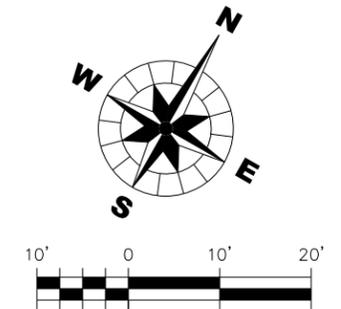
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PROJECT NO. 15-0257
 DATE: 03/18/2016
 SHEET 5 OF 39
 DRAWING NO. **MOT1**

PLOT DATE: 3/19/2016
 FILE NAME: C:\Users\jacob\Documents\Projects\2015\150257_ILBrdgeRehab\Cadd\Civil\Draw\Sht\Illinois Street-005-MOT-02.dgn

NOTES

1. DETECTOR LOOPS SHALL BE PLACED IN THE EXISTING SURFACE COURSE AND CENTERED IN THE LANE AS BEST POSSIBLE. IT MAY BE NECESSARY TO "OFFSET" THE LOOP TO MISS THE EXISTING LOOP.
2. THE PROPOSED DETECTOR LOOP SHALL UTILIZE THE EXISTING DROP HOLE AND CONDUIT AND BE CONNECTED TO THE EXISTING LEAD IN CABLE.
3. THE DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF THE PAVEMENT DROP HOLE.
4. SEE DISTRICT DETAILS TS-05, TS-07 AND STATE STANDARDS 886001, 886006 FOR ADDITIONAL DETAILS.
5. LOCATION OF THE PROPOSED DETECTOR LOOPS IS APPROXIMATE. FINAL LOCATIONS OF THE DETECTOR LOOPS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER AND APPROVED BY THE CITY OF ST. CHARLES.
6. THE EXISTING DETECTOR LOOP SPLICE SHALL BE DISCONNECTED PRIOR TO THE REMOVAL OF THE BRIDGE OPERATIONS ON THE EAST END OF THE BRIDGE.



LEGEND

ITEM	EXISTING	PROPOSED
CONTROLLER CABINET		
HANDHOLE		
DOUBLE HANDHOLE		
SIGNAL POST		
SIGNAL POST WITH MAST ARM		
SIGNAL HEAD		
PEDESTRIAN SIGNAL HEAD		
DETECTOR LOOP		
UNIT DUCT		

TRAFFIC SIGNAL SUMMARY OF QUANTITIES

PAY ITEM	PAY ITEM	QUANTITY
DETECTOR LOOP REPLACEMENT	FOOT	220

PLOT DATE : 3/19/2016
 FILE NAME : I:\Projects\2015\150257_ILBrdgeRehab\Acadd\Civil\Drawn\Shst\Illinois Streets-008-INT-01.dgn

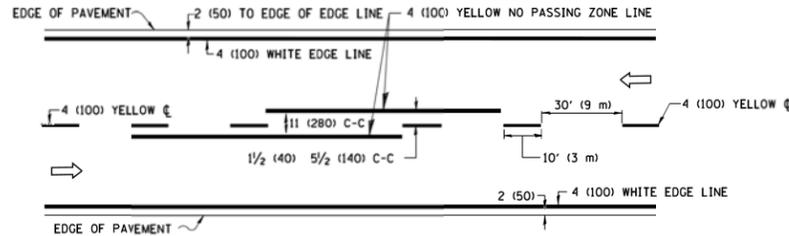
TITLE: **ILLINOIS STREET BRIDGE REHABILITATION**

NO.	DATE	NATURE OF REVISION
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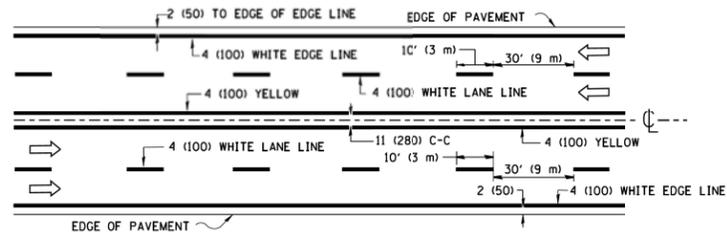
CLIENT : **CITY OF ST. CHARLES
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
2 E. MAIN STREET
ST. CHARLES, IL 60174**

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 116 West Main Street, Suite 201
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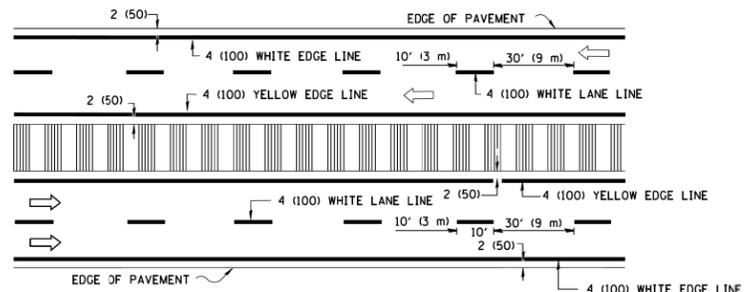
PROJECT NO. 15-0257
 DATE : 03/18/2016
 SHEET 8 OF 39
 DRAWING NO. **INT1**



2-LANE ROADWAY

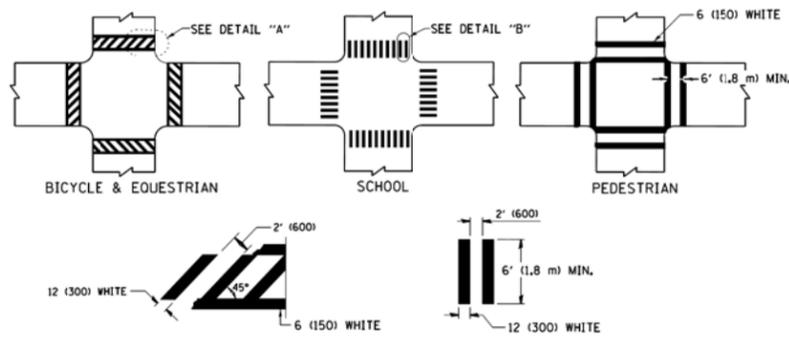


MULTI-LANE UNDIVIDED



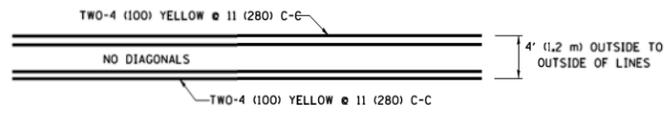
MULTI-LANE DIVIDED WITH MEDIAN

TYPICAL LANE AND EDGE LINE MARKING

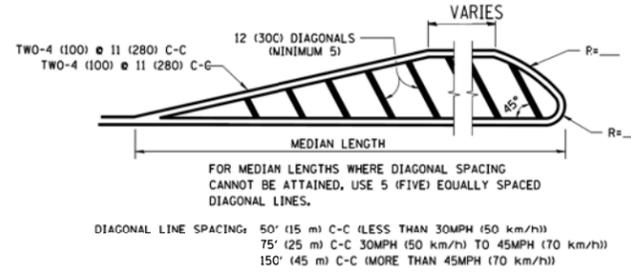


TYPICAL CROSSWALK MARKING

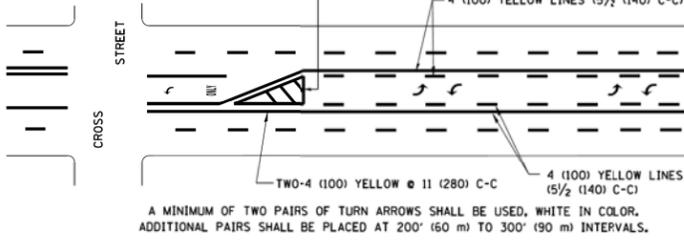
* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES



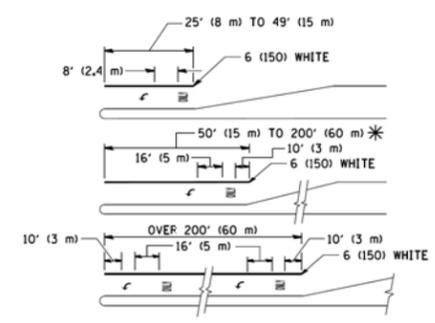
4' (1.2 m) WIDE MEDIANS ONLY



MEDIANS OVER 4' (1.2 m) WIDE



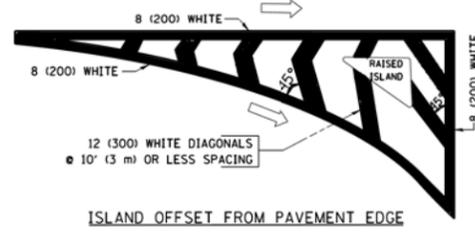
**MEDIAN WITH TWO-WAY LEFT TURN LANE
TYPICAL PAINTED MEDIAN MARKING**



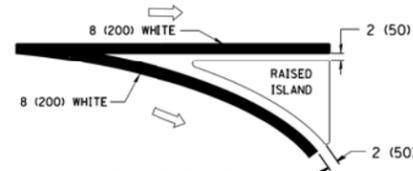
TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

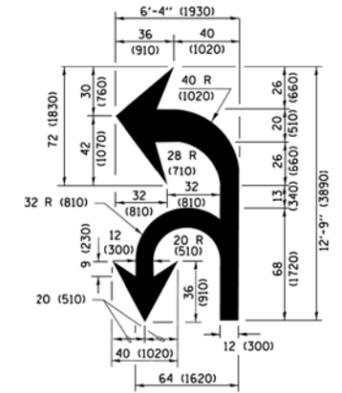
FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)
* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".



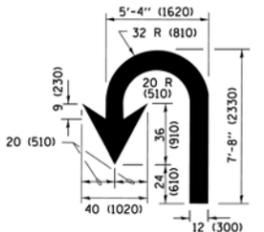
ISLAND OFFSET FROM PAVEMENT EDGE



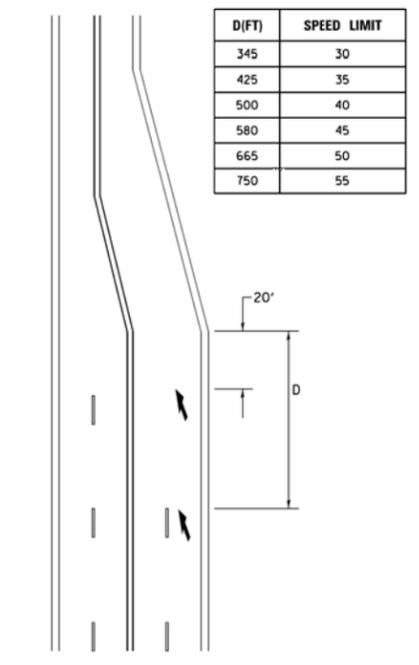
**ISLAND AT PAVEMENT EDGE
TYPICAL ISLAND MARKING**



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

TITLE: ILLINOIS STREET BRIDGE REHABILITATION
DISTRICT ONE STANDARD TC-13

NO.	DATE	NATURE OF REVISION
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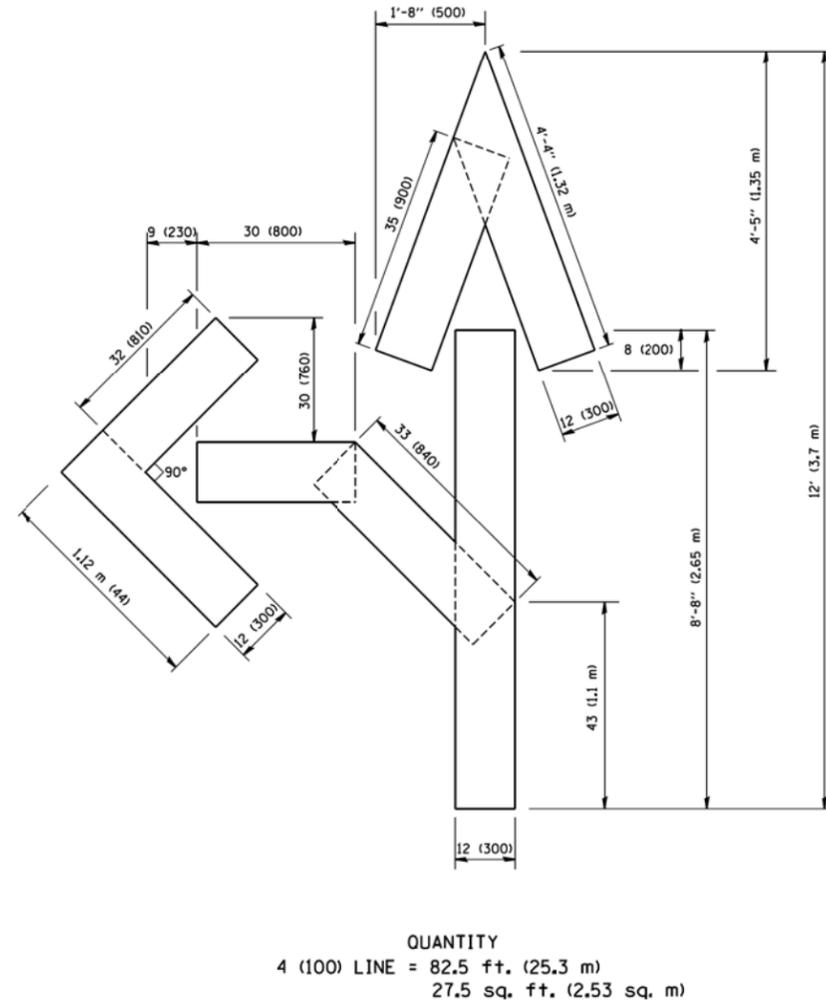
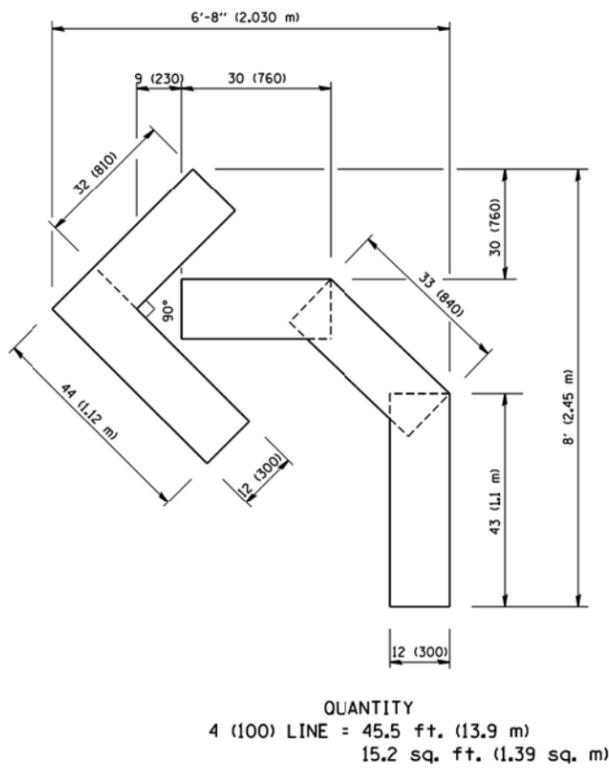
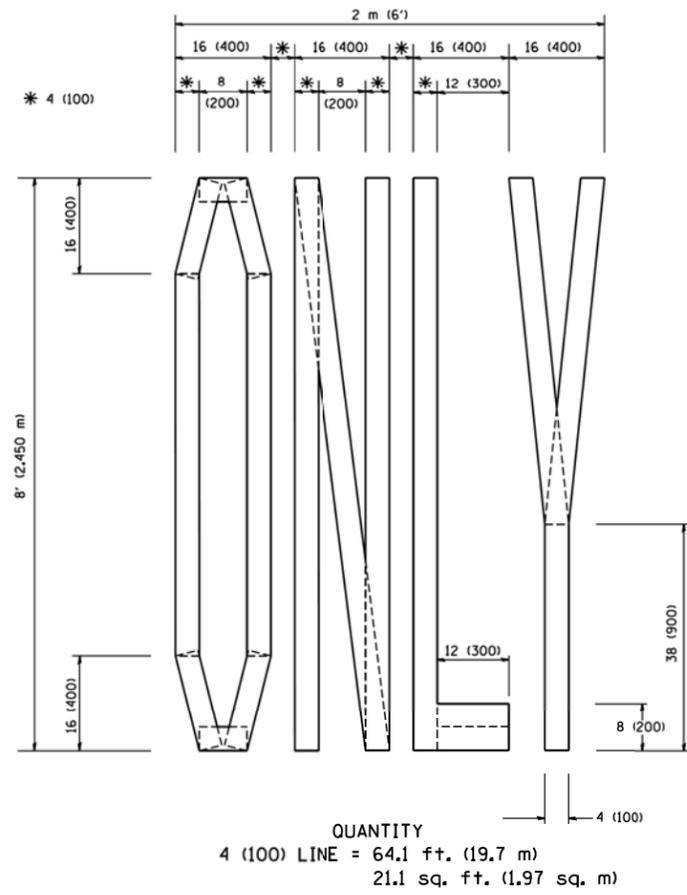
CITY OF ST. CHARLES DEPARTMENT PUBLIC WORKS
ENGINEERING DIVISION
2 E. MAIN STREET
ST. CHARLES, IL 60174

WBK ENGINEERING, LLC
116 West Main Street, Suite 201
St. Charles, Illinois 60174
(630) 443-7755

PROJECT NO. 15-0257
DATE: 03/18/2016
SHEET 9 OF 39
DRAWING NO.
DT1

PLOT DATE: 3/18/2016
FILE NAME: I:\Projects\2015\150257_ILBridgRehab\cadd\Civil\Dgn\Sht\Illinois Streets-009-TC13.dgn

PLOT DATE : 3/18/2016
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All dimensions are in inches (millimeters) unless otherwise shown.

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PROJECT NO. 15-0257
 DATE: 03/18/2016
 SHEET 10 OF 39
 DRAWING NO.

DT2

CLIENT :
CITY OF ST. CHARLES
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
2 E. MAIN STREET
ST. CHARLES, IL 60174

NO.	DATE	NATURE OF REVISION
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DSGN.
 DWN.
 CHKO.
 SCALE:

SBP
 NDP
 MNB

TITLE :
ILLINOIS STREET
BRIDGE REHABILITATION
DISTRICT ONE
STANDARD TC-16



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

NOTES:

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

PLOT DATE : 3/18/2016
 USER : perry
 FILE NAME : W:\Projects\2015\150257_ILBridgeRehab\cadd\Civil\Sign\Illinois Streets-01-TC26.dgn

TITLE : **ILLINOIS STREET
 BRIDGE REHABILITATION**

SBP :
 NDP :
 MNB :

DSGN. :
 DWN. :
 CHKO. :
 SCALE :
 NO. | DATE | NATURE OF REVISION

CLIENT : **CITY OF ST. CHARLES
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DIVISION
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 ST. CHARLES, IL 60174**

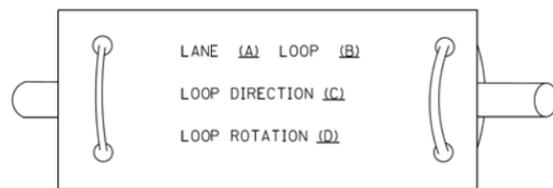
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PROJECT NO. 15-0257
 DATE : 03/18/2016
 SHEET 11 OF 39
 DRAWING NO.
DT3

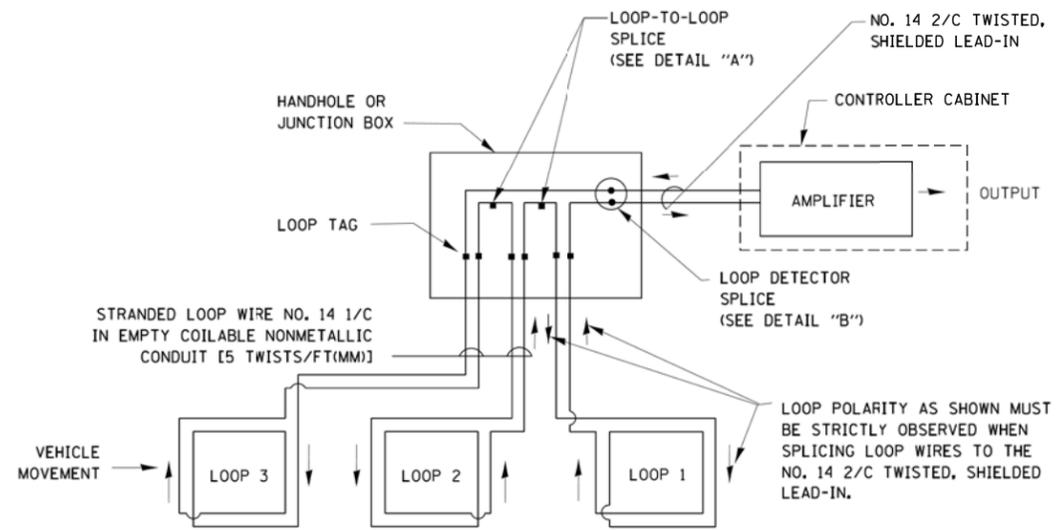
LOOP DETECTOR NOTES

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 DIVESHOLES 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

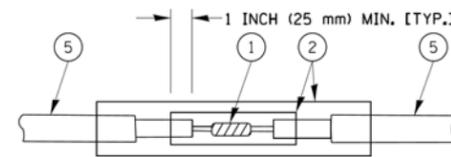


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

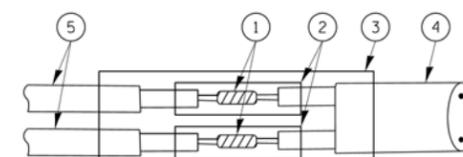


DETECTOR LOOP WIRING SCHEMATIC

- 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.

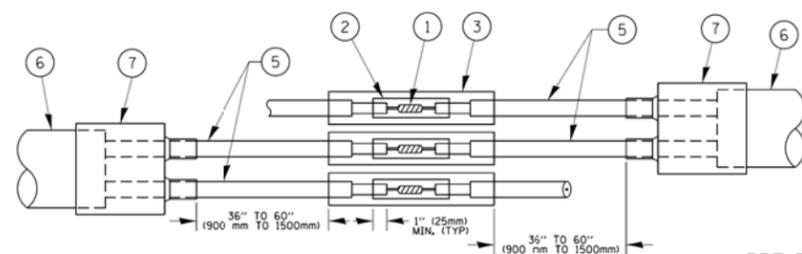


DETAIL "A"
LOOP-TO-LOOP SPLICE

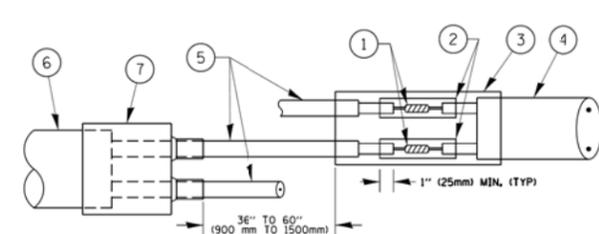


DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

PREFORMED LOOP

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 LENGTH 6" (150 mm), UNDERWATER GRADE.
- 4 NO. 14 2/C TWISTED, SHIELDED CABLE.
- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- 6 PREFORMED LOOP
- 7 XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS, TYCO CBR-2 OR APPROVED EQUAL

PLOT DATE: 3/18/2016
FILE NAME: C:\Users\jrb\Documents\2015\150257_ILB\bridgeRehab\cadd\Civil\Drawings\Illinois Streets-012-TS05b.dwg

TITLE: **ILLINOIS STREET
BRIDGE REHABILITATION**

SBP: _____
NDP: _____
MNB: _____

DSGN: _____
DWN: _____
CHKD: _____
SCALE: _____

NO. | DATE

CLIENT: **CITY OF ST. CHARLES
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
2 E. MAIN STREET
ST. CHARLES, IL 60174**

WBK ENGINEERING, LLC
116 West Main Street, Suite 201
St. Charles, Illinois 60174
(630) 443-7755

WBK

PROJECT NO. 15-0257

DATE: 03/18/2016

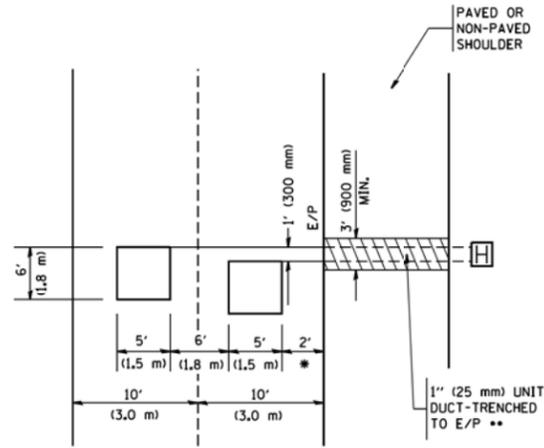
SHEET 12 OF 39

DRAWING NO.

DT4

LOOPS NEXT TO SHOULDERS

PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER.

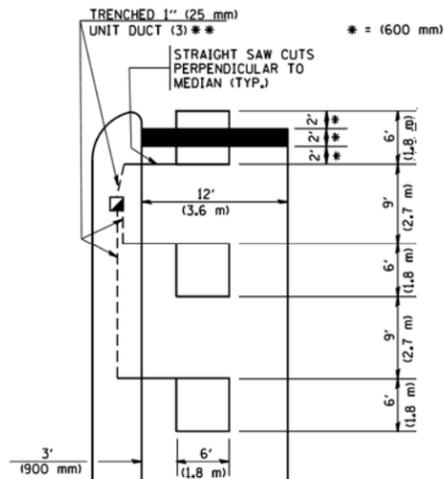


* = (600 mm)

** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

**LEFT TURN LANES WITH MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH
(PROTECTED / PERMITTED LEFT TURN PHASING)**

HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.

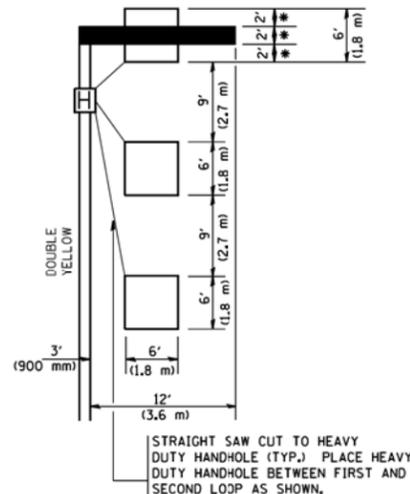


** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

**LEFT TURN LANES WITHOUT MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH
(PROTECTED / PERMITTED LEFT TURN PHASING)**

* = (600 mm)



NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

NOTES:

VEHICLES LOOP DETECTORS

- * ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
- * EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
- * EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATELY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- * ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
- * EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
- * WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (i.e. 1-1/2, 1-3/4, 2).
- * WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

PLACEMENT OF DETECTORS

THE FOLLOWING FIGURES REPRESENT THE MOST COMMON DETECTOR LOOP LOCATIONS AND SIZES. ADJUSTMENTS WILL BE NECESSARY FOR SPECIFIC GEOMETRIC CONSIDERATIONS.

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON ALL SIGNAL LAYOUT PLAN SHEETS.

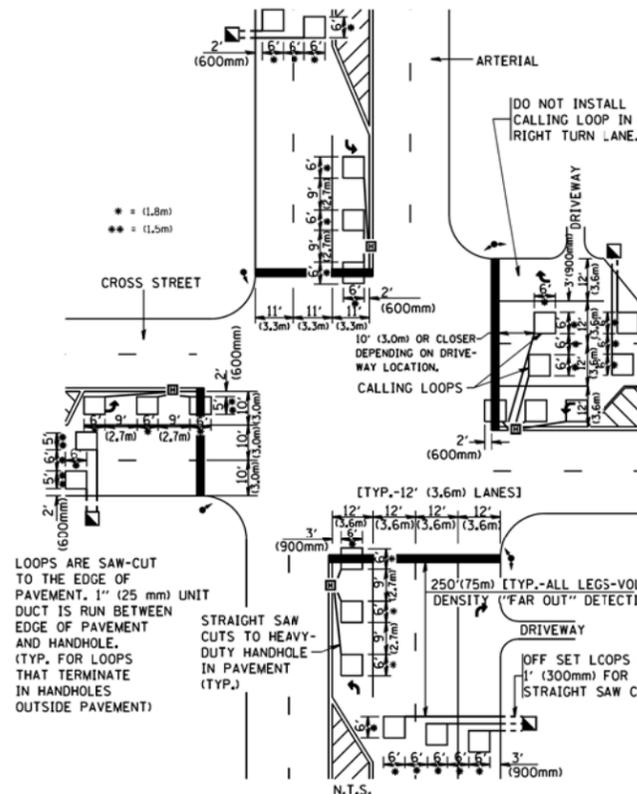
"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF PAVEMENT EXTENDED.

NOTE:

ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1 TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

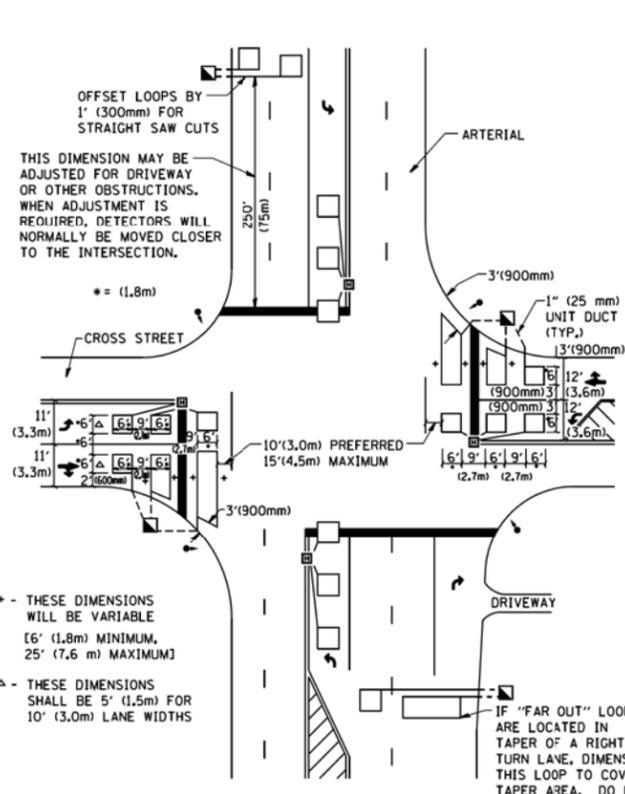
THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

**ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)
CROSS STREET-VOLUME DENSITY ("FAR OUT" DETECTION)**



**DETAIL 1
N.T.S.**

**ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)
CROSS STREET-NON VOLUME DENSITY ("UPTIGHT" PRESENCE DETECTION)**



**DETAIL 2
N.T.S.**

- + - THESE DIMENSIONS WILL BE VARIABLE [6' (1.8m) MINIMUM, 25' (7.6 m) MAXIMUM]
- Δ - THESE DIMENSIONS SHALL BE 5' (1.5m) FOR 10' (3.0m) LANE WIDTHS

PLOT DATE: 3/18/2016
FILE NAME: C:\Users\jacob\Documents\Projects\2015\150257_ILBrdgRehab\Accd\Civil\Dgn\Sht\Illinois Streets-013-TS07.dgn

TITLE: **ILLINOIS STREET
BRIDGE REHABILITATION**

DESIGNER: SBP, NDP, MNB
CHECKER: SCALE:

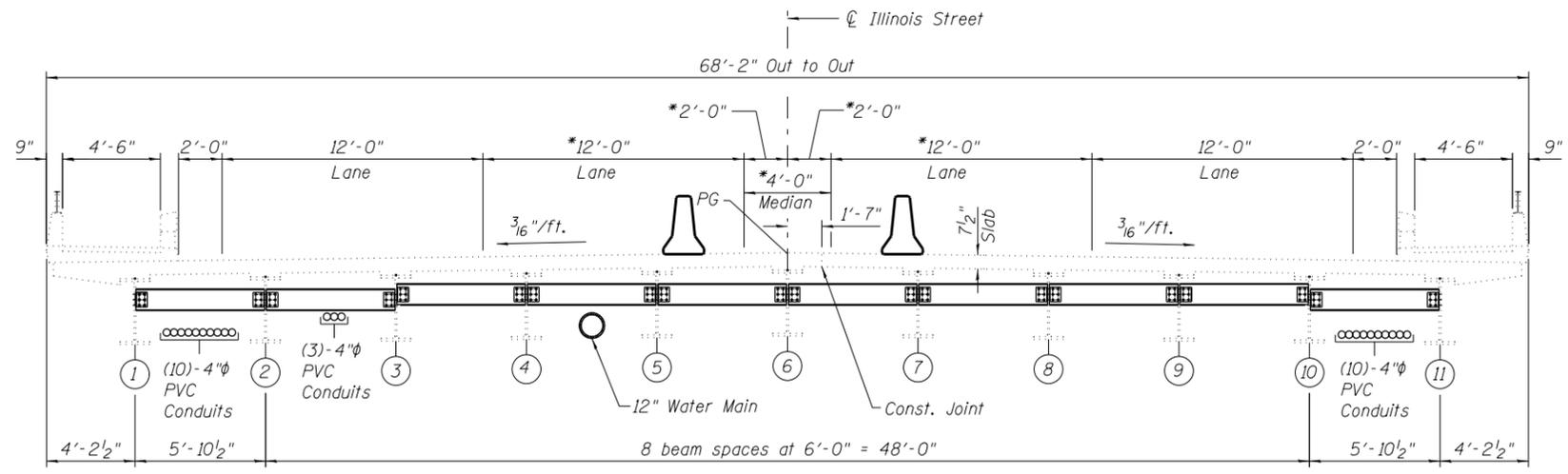
NO.	DATE	NATURE OF REVISION
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CLIENT: **CITY OF ST. CHARLES
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
2 E. MAIN STREET
ST. CHARLES, IL 60174**

WBK ENGINEERING, LLC
116 West Main Street, Suite 201
St. Charles, Illinois 60174
(630) 443-7765

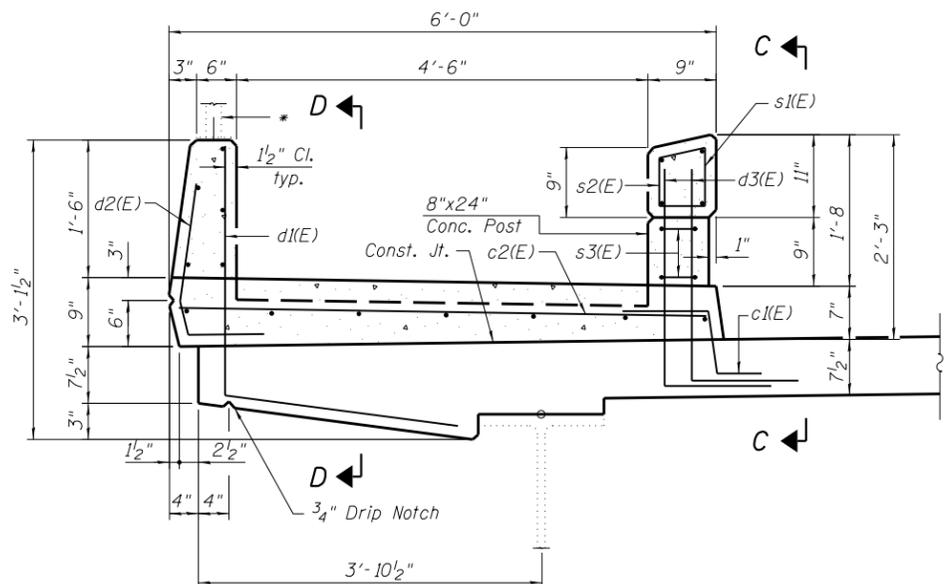
PROJECT NO. 15-0257
DATE: 03/18/2016
SHEET 13 OF 39
DRAWING NO.

DT5



*Varies at West End of Bridge
TYPICAL CROSS SECTION
 (Looking East - Near E. Abut.)
 (West Abut. Similar)

Notes:
 Utility locations are approximate. Contractor shall confirm locations and coordinate with the appropriate utility owners. Existing sleeves through the abutment backwalls are to be re-used or replaced as directed by the Engineer. Cost to be included in the pay item Concrete Structures.



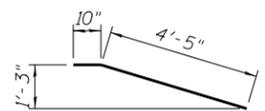
SIDEWALK SECTION

*Remove and reconnect posts as necessary to facilitate parapet reconstruction. Cost included in the pay item Concrete Superstructure.

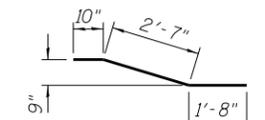
Notes:
 Work this Dwg. with Dwg.'s S5 & S6.

For Bill of Material see Dwg. S6.

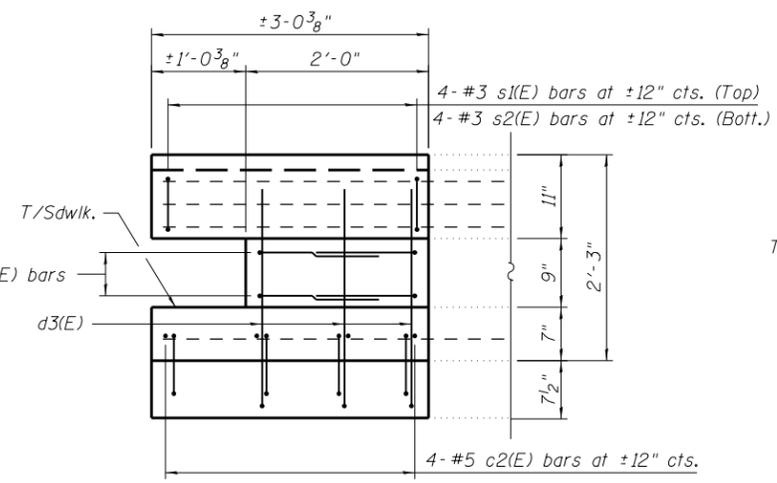
Existing longitudinal reinforcement bars shall be cleaned, straightened and incorporated into the new construction.



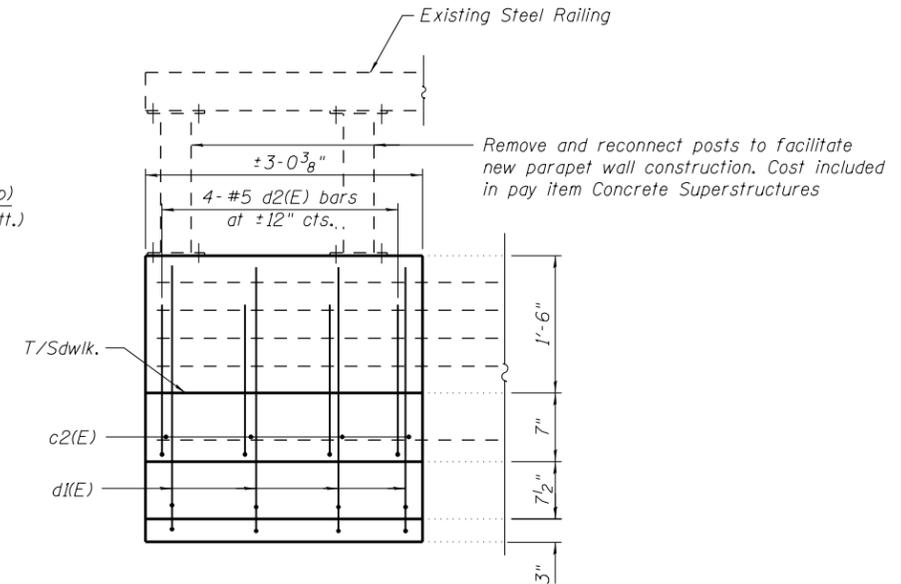
BAR e1(E)



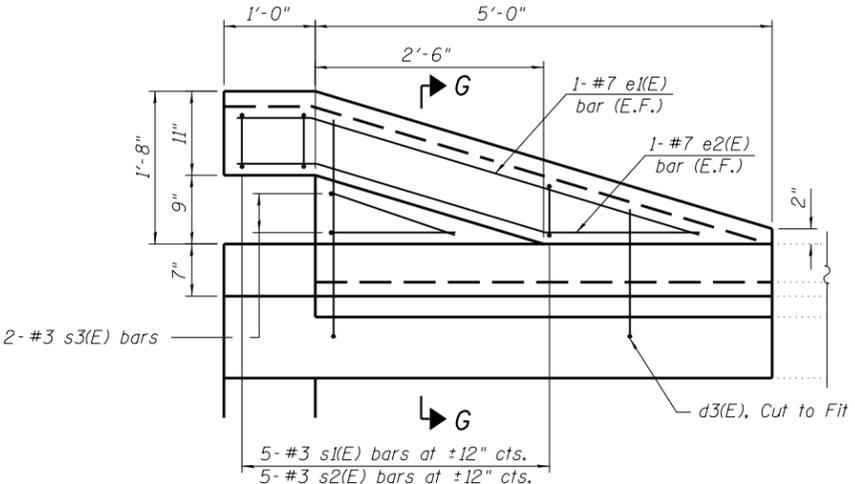
BAR e2(E)



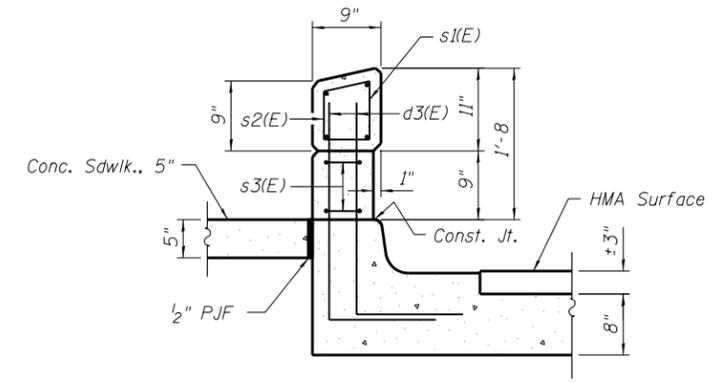
SECTION C-C



SECTION D-D



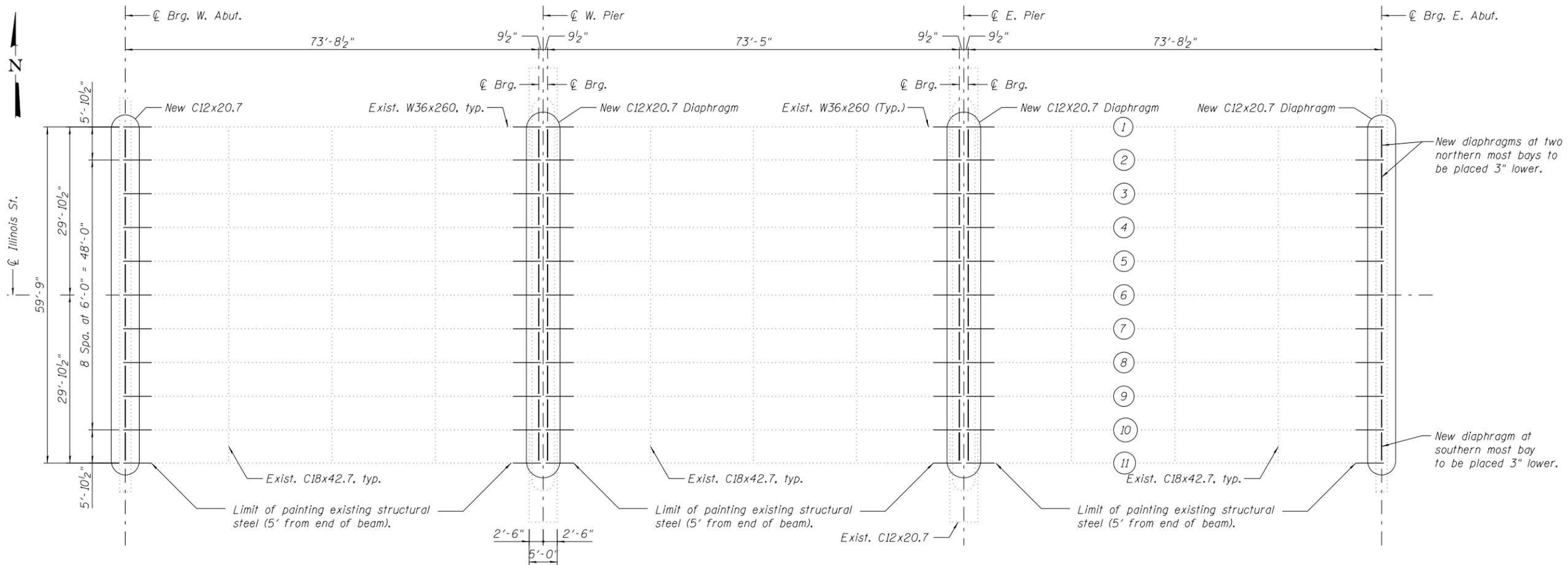
SECTION F-F



SECTION G-G

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PLOT DATE: 3/18/2016
 PLOT TIME: 10:00:00
 FILE NAME: W:\Projects\2015\150257_ILBridgeRehab\Accdb\Structural\Draw\Illinois Street-015-CrossSec.dwg
 USER: WBE



FRAMING PLAN

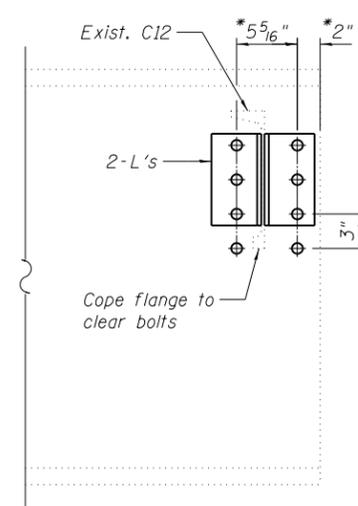
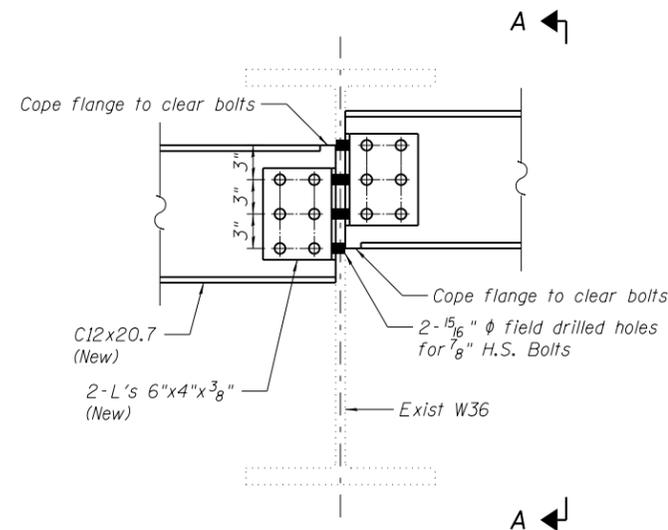
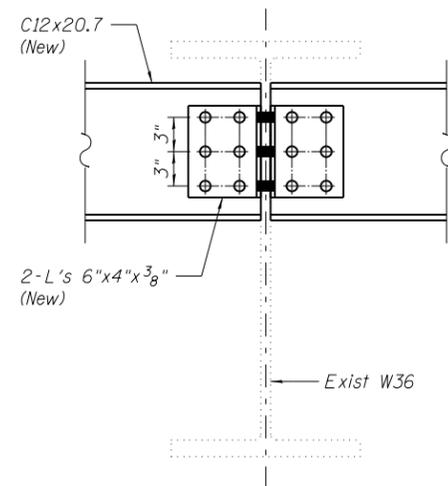
Existing C12x20.7 Diaphragms at Piers and Abutments to be removed and replaced with new C12x20.7 members, clip angles and 7/8" φ H.S. Bolts.

NOTES:

The Organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception of the masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat for all steel surfaces shall be Reddish Brown, Munsell No. 2.5YR 3/4. Cost included in the pay item Furnishing & Erecting Structural Steel. See Special Provision.

Cleaning and painting of the existing structural steel shall be as specified in the special provision for "Cleaning and Painting Steel Bridge No. 1". All beams, bearings and other structural steel within 5 ft (measured along the beam) of either side of the deck joints shall be cleaned per Near White Blast Cleaning - SSPC-SP10.

The designated areas cleaned per Near White Blast Cleaning shall be painted according to the requirements of Paint System 1 - OZ/E/U. The color of the final finish coat for all steel surfaces shall be Reddish Brown, Munsell No. 2.5YR 3/4.



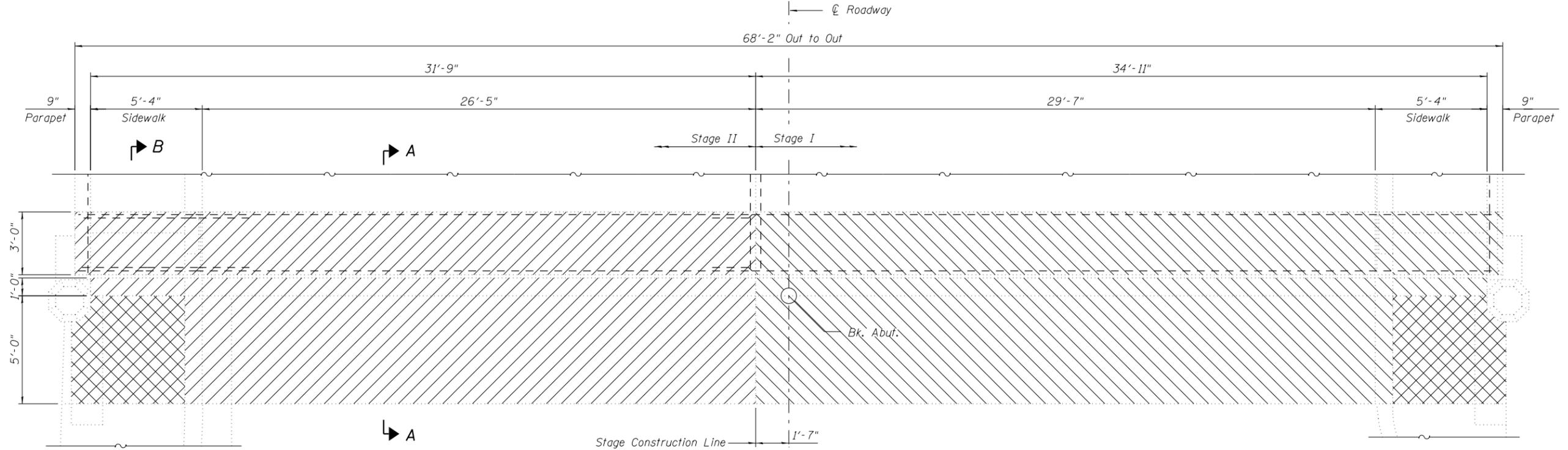
* Denotes dimensions taken from original plans and are to be checked by the contractor prior to steel fabrication

PLOT DATE: 3/18/2016
 FILE NAME: I:\Projects\2015\150257_ILBridgRehab\Accd\Structural\Draw\Illinois Street\07-Framing Plan.dgn
 FILE NAME: I:\Projects\2015\150257_ILBridgRehab\Accd\Structural\Draw\Illinois Street\07-Framing Plan.dgn

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CITY OF ST. CHARLES
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
2 E. MAIN STREET
ST. CHARLES, IL 60174

WBK ENGINEERING, LLC
116 West Main Street, Suite 201
St. Charles, Illinois 60174
(630) 443-7755



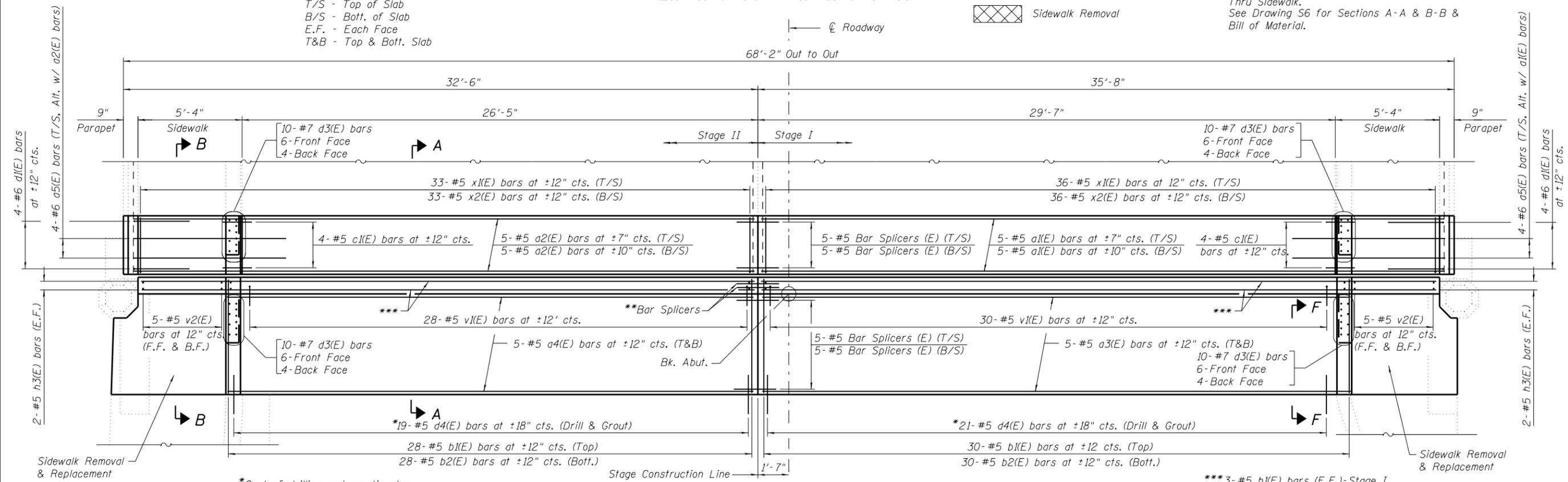
EXISTING PLAN
(East Abutment Shown - West Abutment Similar)

- Concrete Removal - Stage I
- Concrete Removal - Stage II
- Sidewalk Removal

Notes:
See Drawing S2 for Section F-F & Section Thru Sidewalk.
See Drawing S6 for Sections A-A & B-B & Bill of Material.

LEGEND

- T/S - Top of Slab
- B/S - Bott. of Slab
- E.F. - Each Face
- T&B - Top & Bott. Slab



PROPOSED PLAN
(East Abutment Shown - West Abutment Similar)

*Cost of drilling and grouting bars included in the pay item Concrete Superstructure

- ***3-#5 h1(E) bars (E.F.)-Stage I
- 3-#5 h2(E) bars (E.F.)-Stage II
- 5-#5 a3(E) bars Stage I
- 5-#5 a4(E) bars Stage II

PLOT DATE: 3/18/2016
 FILE NAME: I:\Projects\2015\150257_ILBridgRehab\Accadd\Structural\Dgn\Illinois Street\018-Abut.Recon.dgn

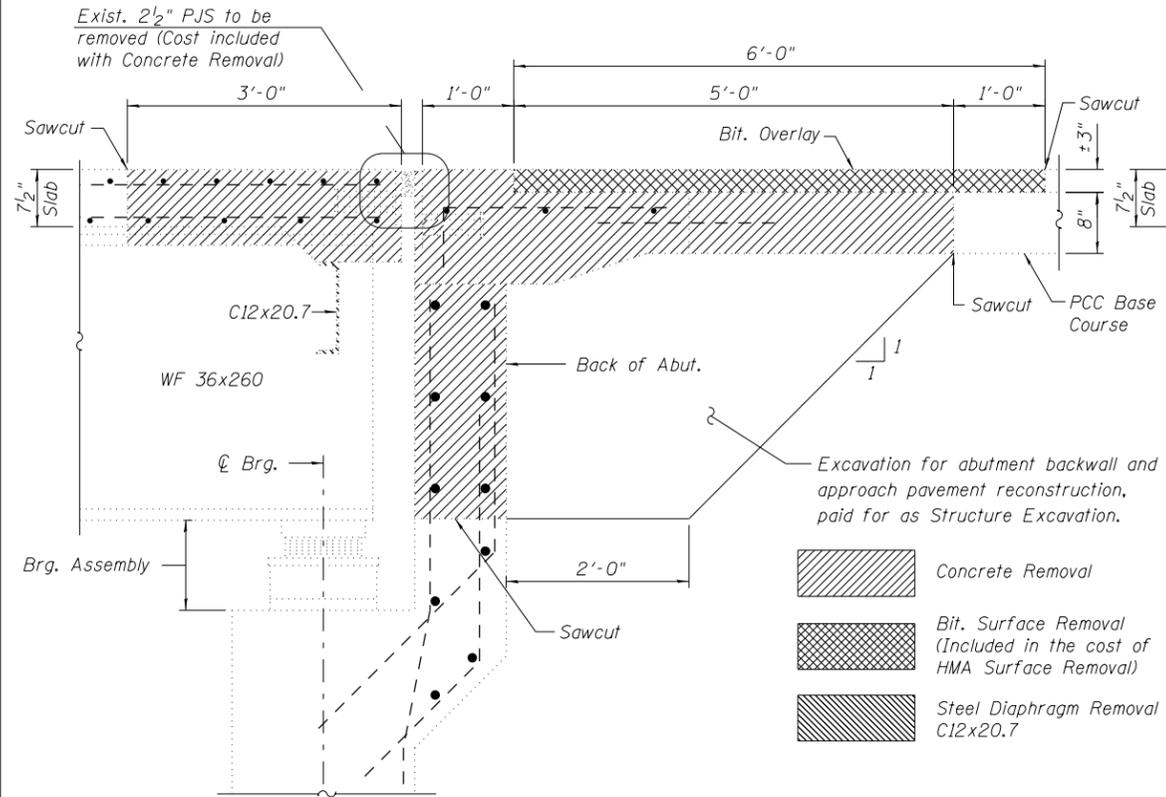
TITLE: **ILLINOIS STREET BRIDGE REHABILITATION**
 ABUTMENT JOINT PLAN & DETAILS

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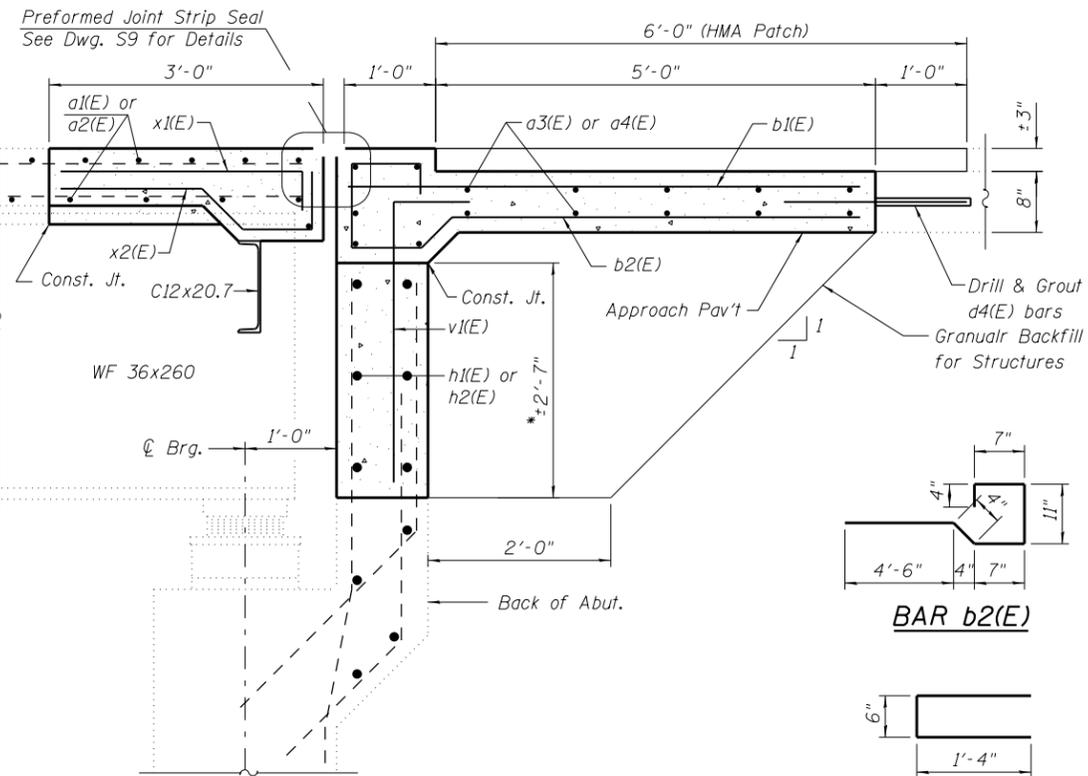
CLIENT: **CITY OF ST. CHARLES DEPARTMENT PUBLIC WORKS**
ENGINEERING DIVISION
 2 E. MAIN STREET
 ST. CHARLES, IL 60174

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 116 West Main Street, Suite 201
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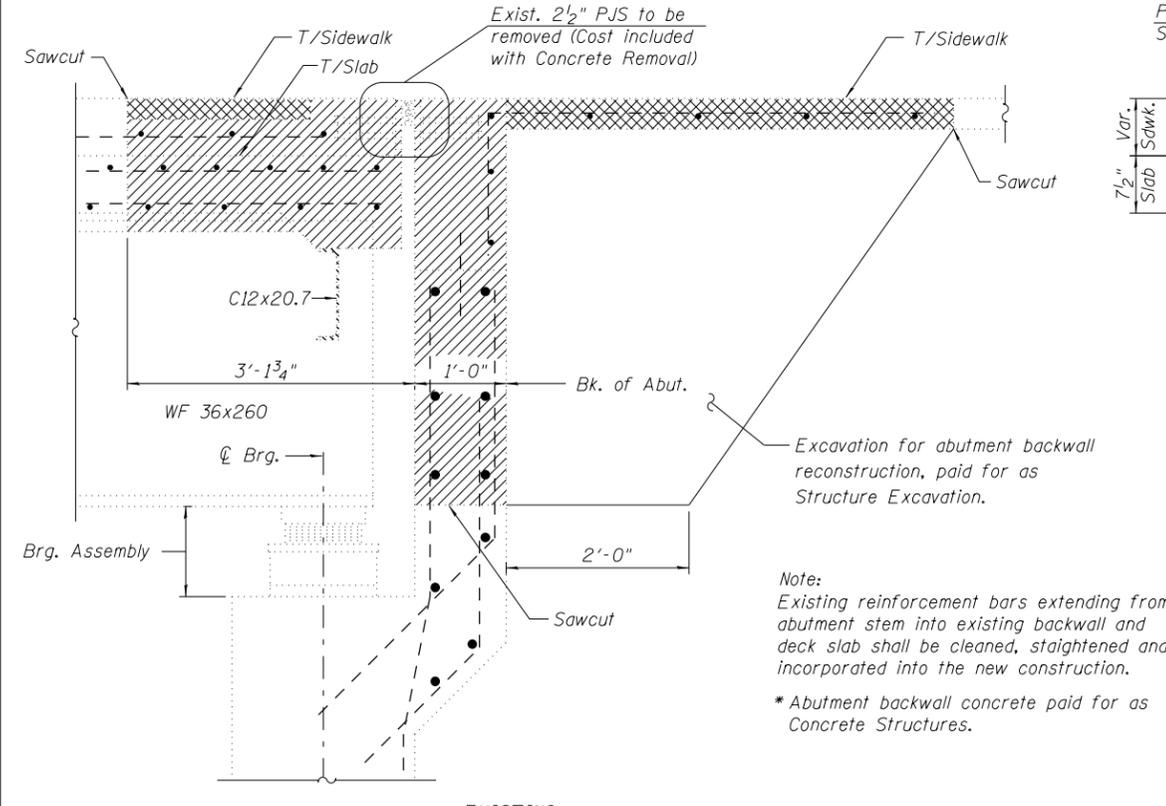
PROJECT NO. 15-0257
 DATE: 03/18/2016
 SHEET 18 OF 39
 DRAWING NO. **55**



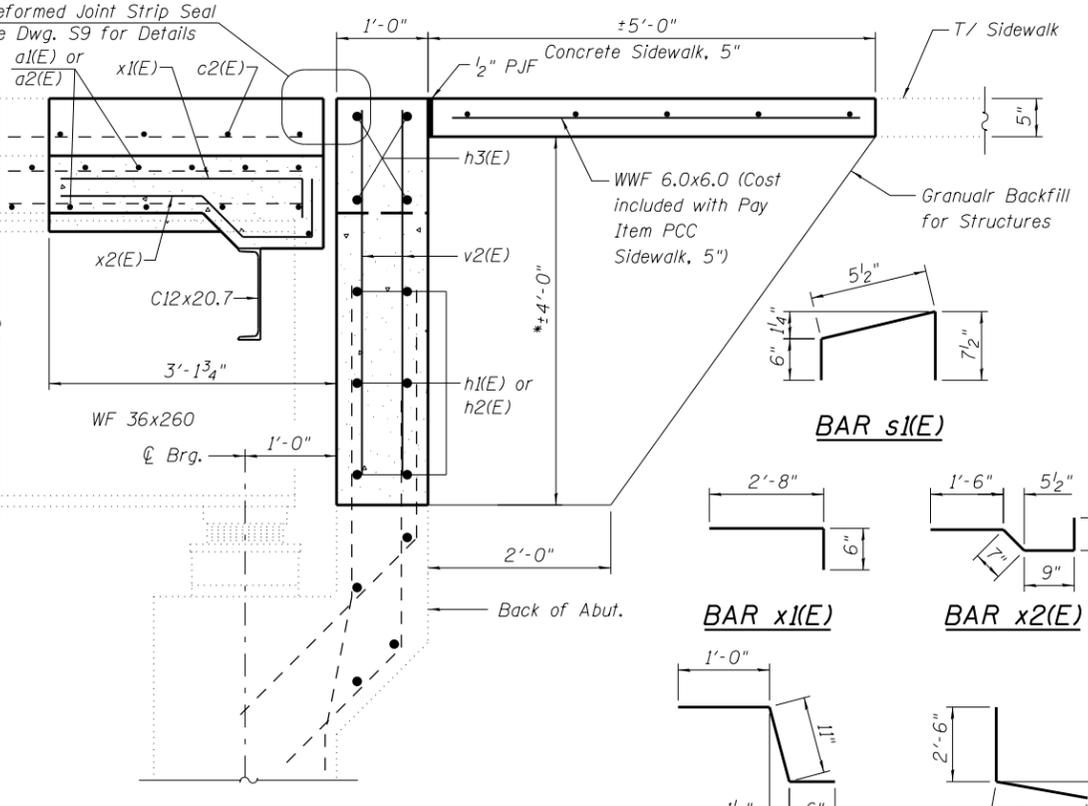
EXISTING



PROPOSED



EXISTING



PROPOSED

**ABUTMENT
BILL OF MATERIAL**

(2 Abutments)

Bar	No.	Size	Length	Shape
a1(E)	20	#5	35'-1"	—
a2(E)	20	#5	31'-11"	—
a3(E)	30	#5	30'-2"	—
a4(E)	30	#5	27'-0"	—
a5(E)	16	#6	8'-0"	—
b1(E)	116	#5	5'-8"	—
b2(E)	116	#5	7'-3"	—
c1(E)	16	#5	2'-5"	—
c2(E)	16	#5	5'-9"	—
d1(E)	16	#6	5'-2"	—
d2(E)	16	#5	2'-10"	—
d3(E)	80	#7	3'-7"	—
d4(E)	80	#5	2'-0"	—
e1(E)	8	#7	5'-3"	—
e2(E)	8	#7	5'-1"	—
h1(E)	12	#5	34'-8"	—
h2(E)	12	#5	31'-6"	—
h3(E)	16	#5	4'-2"	—
s1(E)	36	#3	1'-7"	—
s2(E)	36	#3	1'-6"	—
s3(E)	24	#3	3'-2"	—
v1(E)	116	#5	4'-1"	—
v2(E)	40	#5	4'-2"	—
x1(E)	138	#5	3'-2"	—
x2(E)	138	#5	3'-6"	—
Structure Excavation		Cu. Yd.	60	
Concrete Superstructure		Cu. Yd.	30.7	
Concrete Structures		Cu. Yd.	14.2	
Protective Coat		Sq. Yd.	40	
Reinforcement Bars, Epoxy Coated		Pound	7,810	

For details of Bar Splicers, see Drawing S11.

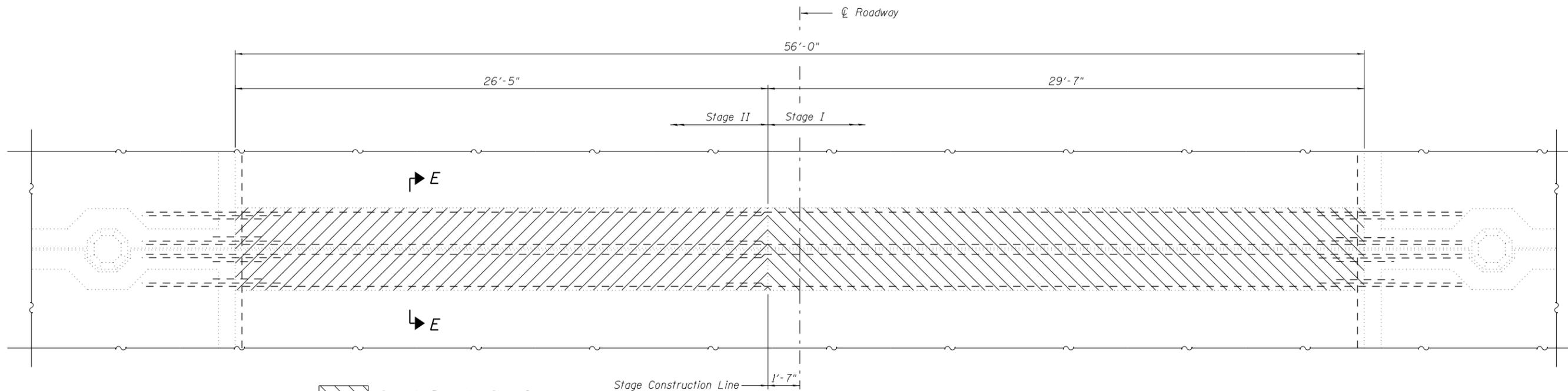
The existing abutment bearing seats are to be inspected by the Engineer as part of the abutment rehabilitation. The deteriorated concrete areas shall be repaired if deemed necessary using Structural Repair of Concrete (Depth Equal To Or Less Than 5 Inches) or Structural Repair of Concrete (Depth Equal Greater Than 5 Inches).

- Concrete Removal
- Bit. Surface Removal (Included in the cost of HMA Surface Removal)
- Steel Diaphragm Removal C12x20.7

Note:
Existing reinforcement bars extending from abutment stem into existing backwall and deck slab shall be cleaned, straightened and incorporated into the new construction.
* Abutment backwall concrete paid for as Concrete Structures.

PLOT DATE: 3/18/2016
FILE NAME: I:\Projects\2015\150257_ILBridgRehab\Accadd\Structural\Dgn\Illinois Street-815-Abut-Details.dgn

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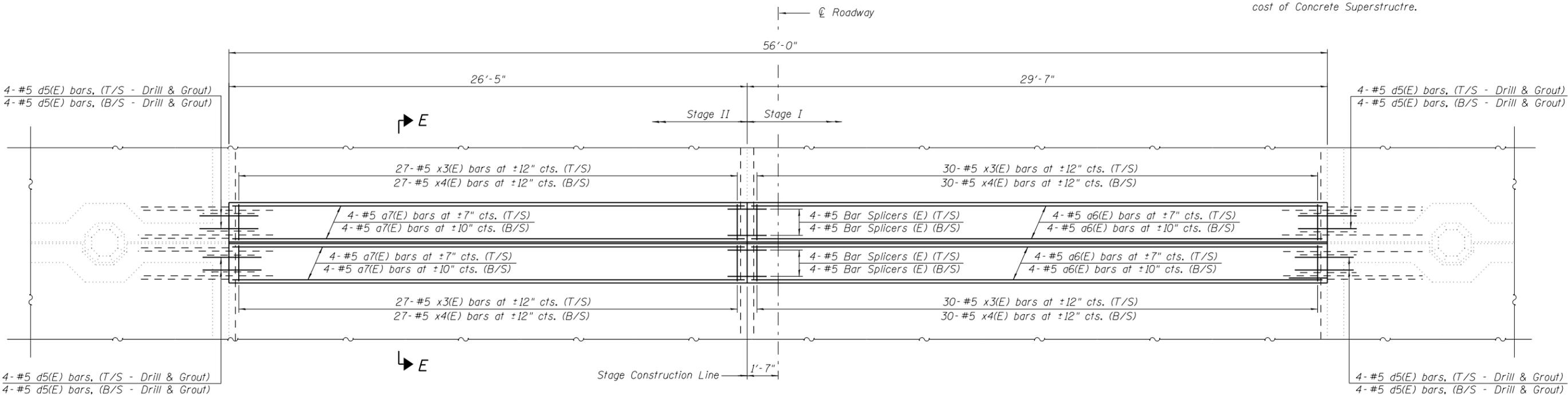


- Concrete Removal - Stage I
- Concrete Removal - Stage II

EXISTING PLAN

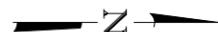
(East Pier Shown - West Pier Similar)

Notes:
See Drawing S8 for Section E-E, Sidewalk Section & Bill of Material.
The cost of drilling & grouting bars is included in the cost of Concrete Superstructure.



PROPOSED PLAN

(East Abutment Shown - West Abutment Similar)



PLOT DATE: 3/18/2016
 USER: jberri
 FILE NAME: W:\Projects\2015\150257_ILBridgeRehab\Acadd\Structural\Draw\Illinois Street-020-Pier_Recon.dgn

TITLE: **ILLINOIS STREET
BRIDGE REHABILITATION**

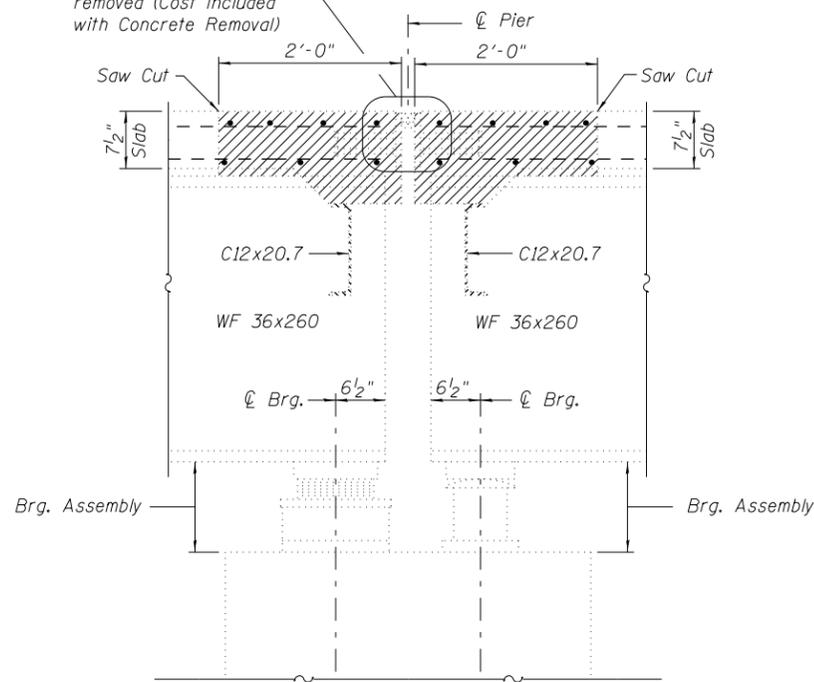
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CLIENT: **CITY OF ST. CHARLES
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
2 E. MAIN STREET
ST. CHARLES, IL 60174**

WBK ENGINEERING, LLC
 116 West Main Street, Suite 201
 St. Charles, Illinois 60174
 (630) 443-7755

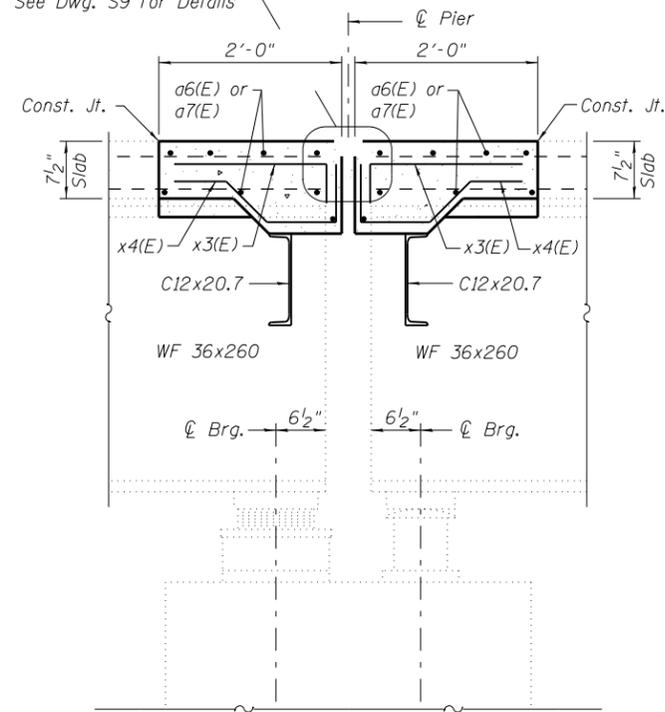
PROJECT NO. 15-0257
 DATE: 03/18/2016
 SHEET 20 OF 39
 DRAWING NO.
57

Exist. 1 3/4" PJS to be removed (Cost included with Concrete Removal)



EXISTING

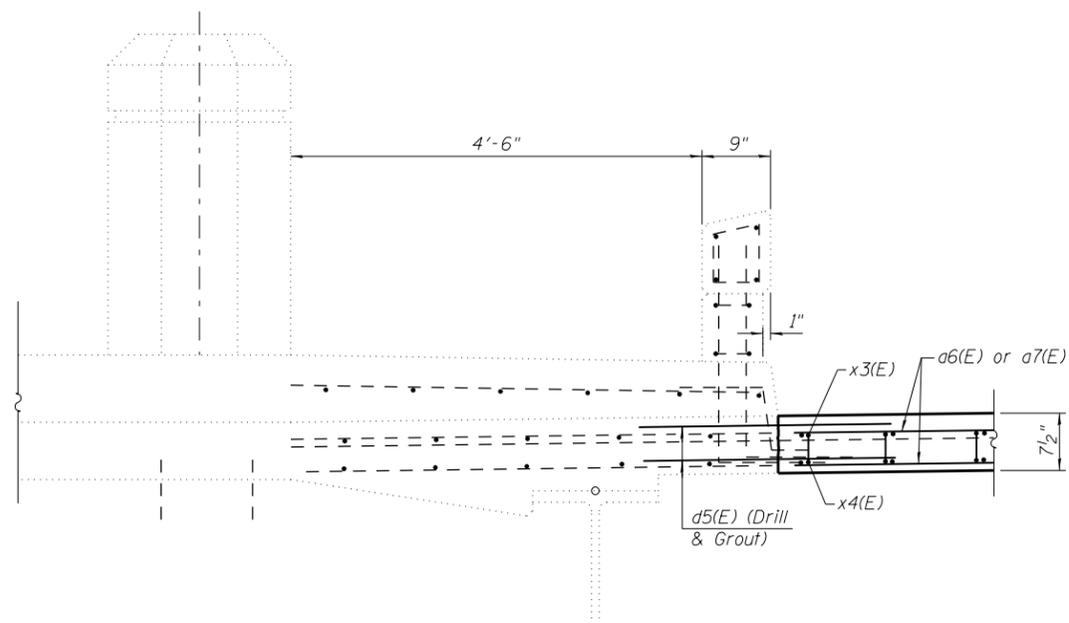
Preformed Joint Strip Seal See Dwg. S9 for Details



PROPOSED

**SECTION E-E
JOINT RECONSTRUCTION AT PIERS**

Note: Existing reinforcement bars extending from deck slab, sidewalk or traffic barrier shall be cleaned, straightened and incorporated into the new construction.



SIDEWALK SECTION

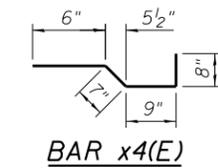
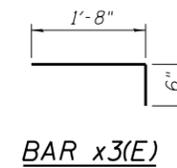
**PIER
BILL OF MATERIAL**

(2 Piers)

Bar	No.	Size	Length	Shape
a6(E)	32	#5	29'-4"	—
a7(E)	32	#5	26'-2"	—
d5(E)	32	#5	3'-0"	—
x3(E)	228	#5	2'-2"	—
x4(E)	228	#5	2'-6"	—
Concrete Superstructure		Cu. Yd.	12.7	
Protective Coat		Sq. Yd.	25	
Reinforcement Bars, Epoxy Coated		Pound	3,070	

For details of Bar Splicers, see Dwg. S11.

The existing bearing seats are to be inspected by the Engineer as part of the pier rehabilitation. The deteriorated concrete areas shall be repaired if deemed necessary using Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches) or Structural Repair of Concrete (Depth Equal Greater Than 5 Inches).



PLOT DATE: 3/18/2016
 FILE NAME: C:\Projects\2015\150257_ILBridgeRehab\Accd\Structural\Draw\Illinois Street-021-Pier-Details.dwg

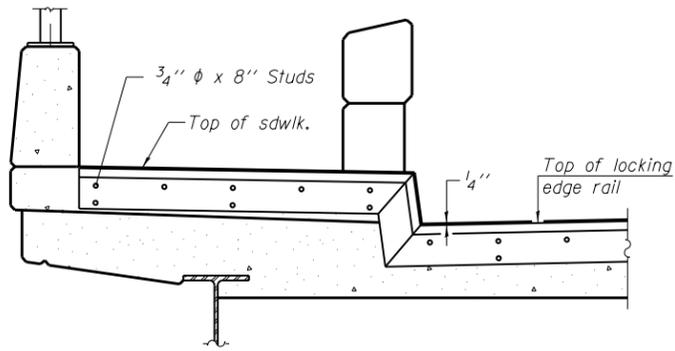
TITLE: **ILLINOIS STREET
BRIDGE REHABILITATION**

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CLIENT: **CITY OF ST. CHARLES
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
2 E. MAIN STREET
ST. CHARLES, IL 60174**

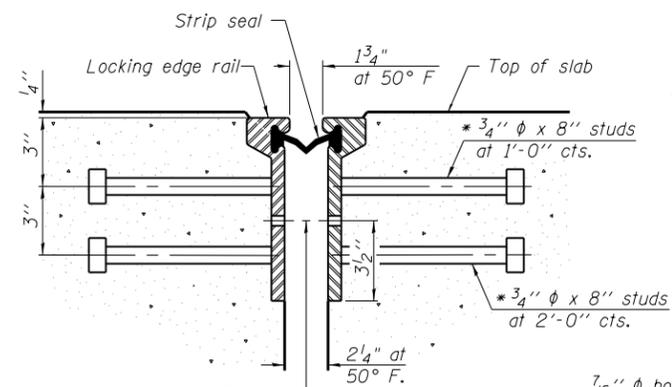
WBK ENGINEERING, LLC
 116 West Main Street, Suite 201
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 (630) 443-7755

PROJECT NO. 15-0257
 DATE: 03/18/2016
 SHEET 21 OF 39
 DRAWING NO.



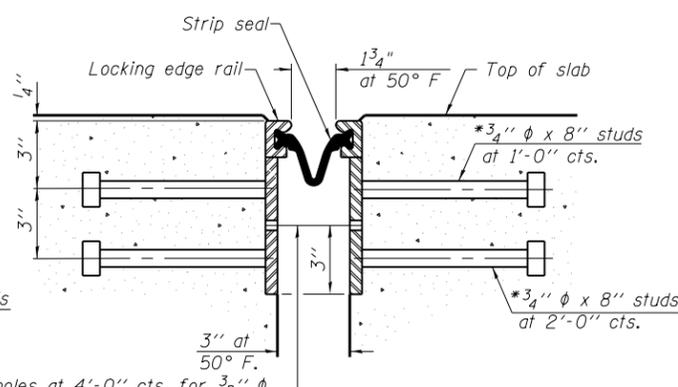
**TYPICAL END TREATMENT
AT SIDEWALK**

Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



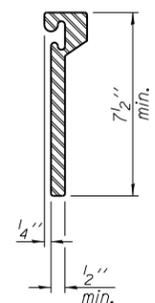
7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

**SECTION THRU
ROLLED RAIL JOINT**

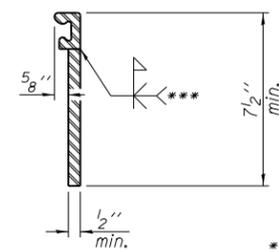


7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

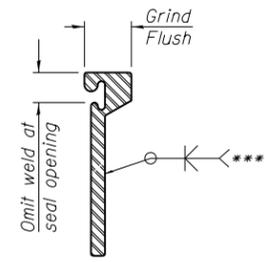
**SECTION THRU
WELDED RAIL JOINT**



**ROLLED
EXTRUDED RAIL**



WELDED RAIL



*** 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.

LOCKING EDGE RAILS

Notes:
The strip seal shall be made continuous and shall have a minimum thickness of 1/4". 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 conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.
The manufacturer's recommended installation methods shall be followed.
The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications. Maximum space between rail segments shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	

PLOT DATE: 3/18/2016 11:00:00 AM FILE NAME: I:\Projects\2015\150257_ILBridgRehab\cadd\Structural\Draw\Illinois Street-022-PL1.dgn

CLIENT :
**CITY OF ST. CHARLES
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
2 E. MAIN STREET
ST. CHARLES, IL 60174**

WBK ENGINEERING, LLC
116 West Main Street, Suite 201
St. Charles, Illinois 60174
(630) 443-7755

PROJECT NO. 15-0257
DATE: 03/18/2016
SHEET 22 OF 39
DRAWING NO.

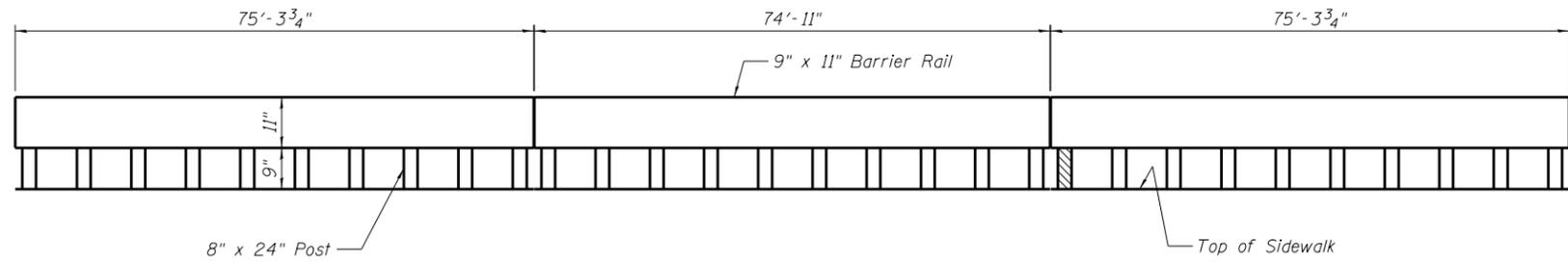
99

1	DLS	DLS	DLS	DLS	AEU	SCALE:	NATURE OF REVISION
2	DWN.	CHKD.	SCALE:				
3							
4							
5							
6							
7							
8							

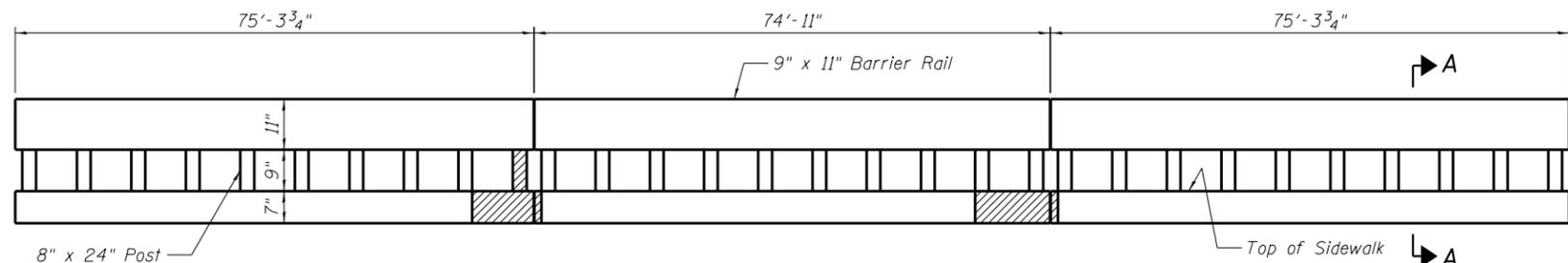
TITLE :
**ILLINOIS STREET
BRIDGE REHABILITATION**

**PREFORMED JOINT
STRIP SEAL**

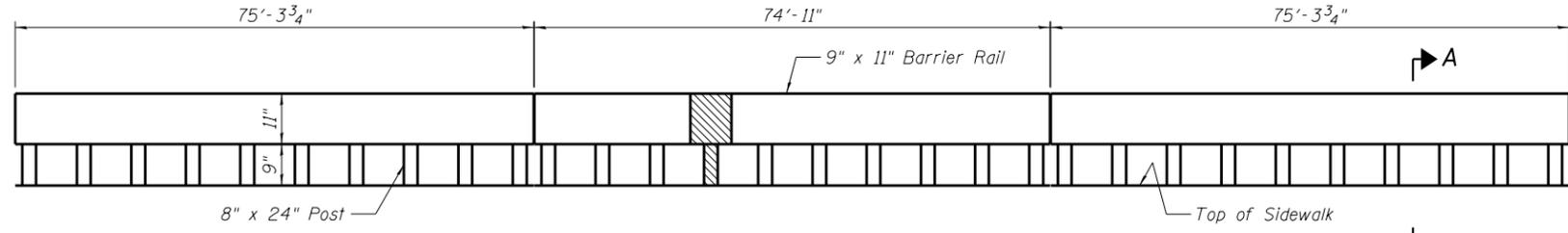
PLOT DATE : 3/18/2016
 FILE NAME : C:\Users\2015\150257_ILBridgRehab\Acadd\Structural\Draw\Illinois Street-023-TrafficBarrierRepairs.dgn
 FILE NAME : W:\Projects\2015\150257_ILBridgRehab\Acadd\Structural\Draw\Illinois Street-023-TrafficBarrierRepairs.dgn



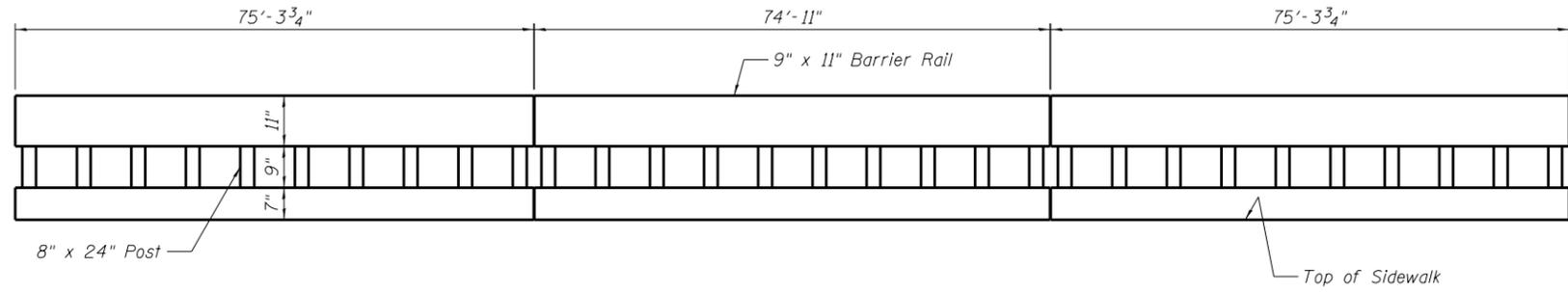
ELEVATION - NORTH TRAFFIC BARRIER
View from sidewalk side - Looking South



ELEVATION - NORTH TRAFFIC BARRIER
View from roadway side - Looking North



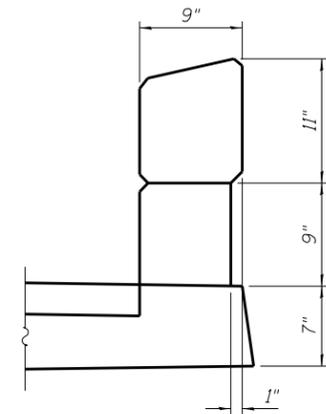
ELEVATION - SOUTH TRAFFIC BARRIER
View from sidewalk side - Looking North



ELEVATION - SOUTH TRAFFIC BARRIER
View from roadway side - Looking South

NOTES

- All work shall conform to the special provision "Structural Repair of Concrete."
- Repair areas are based on visual field observations and have been estimated. Actual repair area quantities shall be determined by the Engineer in the field.



SECTION A - A

LEGEND

- Structural Repair of Concrete (Depth Equal To Or Less Than 5 Inches)
- Structural Repair of Concrete (Depth Greater Than 5 Inches)

BILL OF MATERIAL

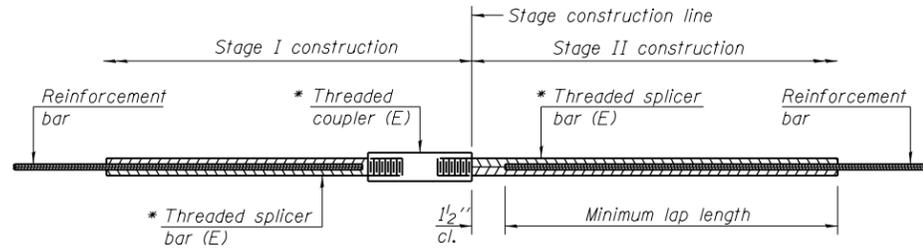
Item	Unit	Quantity
Structural Repair of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq. Ft.	6.7
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	16.0

ILLINOIS STREET BRIDGE REHABILITATION		TRAFFIC BARRIER REPAIRS
DLS	DLS	
DSGN.	DWN.	AEU
CHKD.	SCALE:	
NO.	DATE	NATURE OF REVISION
1		
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**CITY OF ST. CHARLES
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
2 E. MAIN STREET
ST. CHARLES, IL 60174**

WBK ENGINEERING, LLC
116 West Main Street, Suite 201
St. Charles, Illinois 60174
(630) 443-7755

PROJECT NO. 15-0257
DATE: 03/18/2016
SHEET 23 OF 39
DRAWING NO.
510

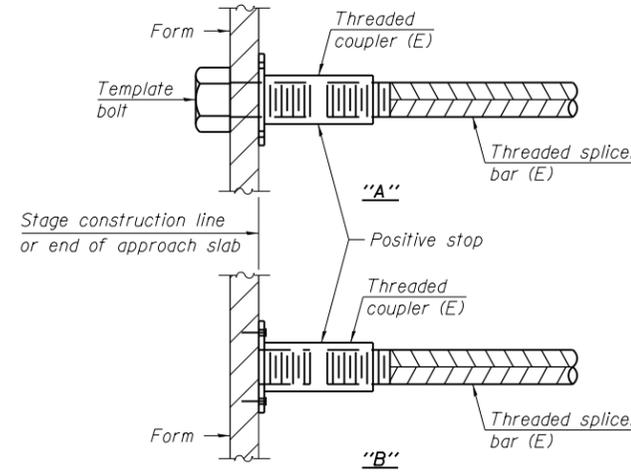


STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + 1 1/2" + thread length

* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Deck Slab	#5	52	3'-4"
Approach Slab	#5	20	3'-4"
Abutment Backwall	#5	22	3'-4"



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.

"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

PLOT DATE : 3/18/2016
 FILE NAME : W:\Projects\2015\150257_ILBridgeRehab\cadd\Structural\Dgn\Illinois Street\24-Bar_Splicer.dgn

TITLE : **ILLINOIS STREET
 BRIDGE REHABILITATION**

DLS
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 AEU
 CHKO.
 SCALE :

NO.	DATE	NATURE OF REVISION
1		
2		
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CLIENT : **CITY OF ST. CHARLES
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DIVISION
 2 E. MAIN STREET
 ST. CHARLES, IL 60174**

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 116 West Main Street, Suite 201
 St. Charles, Illinois 60174
 (630) 443-7755

PROJECT NO. 15-0257

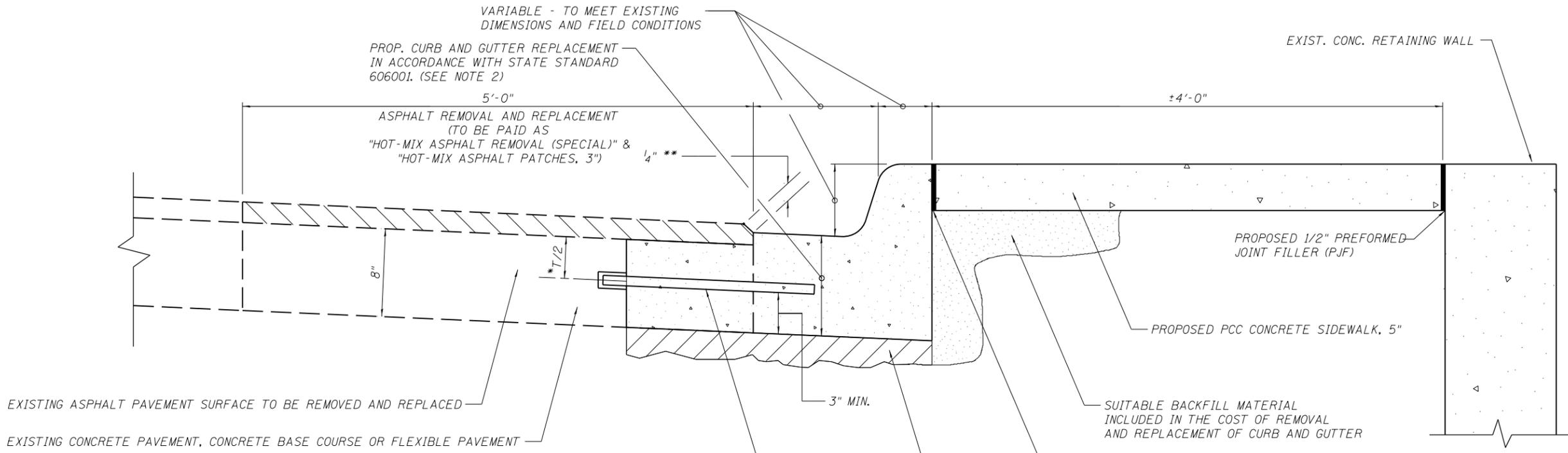
DATE : 03/18/2016

SHEET 24 OF 39

DRAWING NO.

S11

PLOT DATE: 3/18/2016
 USER: perry
 FILE NAME: \\projects\2015\150257_ILBridgeRehab\cadd\Structural\Drawn\Illinois Street-025-C&G_R&R.dgn



EXISTING ASPHALT PAVEMENT SURFACE TO BE REMOVED AND REPLACED
 EXISTING CONCRETE PAVEMENT, CONCRETE BASE COURSE OR FLEXIBLE PAVEMENT
 * 3" MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.
 ** IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

NOTES:

1. CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER AND SHALL MATCH THE THICKNESS OF THE GUTTER UNLESS OTHERWISE SPECIFIED.
2. FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.
3. LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF REMOVE AND REPLACE CURB AND GUTTER (SPECIAL).
4. THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.
5. THE FINAL LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB AND GUTTER SHALL BE DETERMINED BY THE ENGINEER AT THE TIME OF CONSTRUCTION.

UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.
 REMOVAL AND REPLACEMENT IS INCLUDED IN THE COST OF CURB AND GUTTER REMOVAL AND REPLACEMENT.

PROPOSED #6 EPOXY COATED TIE BARS 24" LONG AT 24" CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE 2).

REMOVE AND REPLACE CURB AND GUTTER (SPECIAL)

TITLE: **ILLINOIS STREET BRIDGE REHABILITATION**
CURB & GUTTER REMOVAL & REPLACEMENT

NO.	DATE	NATURE OF REVISION
1		
2		
3		
4		
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CLIENT: **CITY OF ST. CHARLES PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION 2 E. MAIN STREET ST. CHARLES, IL 60174**

WBK ENGINEERING, LLC
 116 West Main Street, Suite 201
 St. Charles, Illinois 60174
 (630) 443-7765

PROJECT NO. 15-0257
 DATE: 03/18/2016
 SHEET 25 OF 39
 DRAWING NO. **91**

Run for 4/3/87 Setting

2/25/87

12-11B

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
PLANS FOR
PROPOSED LOCAL AGENCY IMPROVEMENT
FEDERAL-AID URBAN PROJECT

F.A. PROJECT NO.	SECTION	COUNTY	DATE	BY
FAL1639	1984-165B	KANE	19	V

INDEX OF SHEETS

- COVER SHEET, LOCATION MAP, LEGEND, LIST OF STATE STANDARDS
- GENERAL NOTES, ALIGNMENT AND TIES, TYPICAL SECTION
- SUMMARY OF QUANTITIES
- MAINTENANCE OF TRAFFIC
- PLAN AND PROFILE, STA 15+76 TO STA 18+78
- CONSTRUCTION AND ELECTRICAL DETAILS
- BRIDGE GENERAL PLAN AND ELEVATIONS
- CONSTRUCTION STAGING
- DECK ELEVATIONS
- DECK ELEVATIONS
- DECK PLAN AND SECTIONS
- SIDEWALK AND RAILINGS DETAILS
- ALCOVES
- STEEL FRAMING AND DETAILS
- ALCOVE SUPPORT DETAILS
- JOINT PLANS AND DETAILS
- DETAILS AT ABUTMENTS
- BEARINGS
- ANCHOR BOLT DETAILS FOR BEARINGS

SCALES

PLAN	1 INCH = 20 FEET	
PROFILE HOR	1 INCH = 20 FEET	
PROFILE VERT	1 INCH = 5 FEET	
CROSS SECTIONS	1 INCH = 10 FEET	
	1 INCH = 5 FEET	

F.A.U. ROUTE 1639 SECTION MFT 84-00071-00-BR KANE COUNTY
 PROJECT ACBHM-5292(46)
 STATE SECTION 1984-165 B
ILLINOIS STREET OVER THE FOX RIVER
 CITY OF ST. CHARLES

LEGEND

- EXISTING WATER VALVE
- PROPOSED WATER VALVE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- SHADED AREA DENOTES SIDEWALK REMOVAL AND REPLACEMENT
- DRIVEWAY REMOVAL AND REPLACEMENT MATERIAL AS SHOWN ON THE PLANS
- PAVEMENT REMOVAL AND P.C.C. REPLACEMENT
- A DENOTES EXIST. STRUCTURE TO BE ADJUSTED
- R DENOTES EXIST. STRUCTURE TO BE RECONSTRUCTED
- TIFCL DENOTES NEW TYPE I FRAME AND CLOSED LID

THE PROJECT NUMBER THROUGHOUT THE PLANS SHOULD BE READ AS "ACBHM-5292 (46)".



PROJECT BHM-5292(46) BEGINS STA. 15+76

PROJECT BHM-5292(46) ENDS STA. 18+78

REMOVE AND REPLACE EXISTING CONC. BRIDGE DECK.

LOCATION MAP

NET LENGTH OF IMPROVEMENT = 302 LIN. FT. (0.057 MILES)

PREPARED BY HOWARD, NEEDLES, TAMMEN & BERGENDOFF CHICAGO, ILLINOIS

Robert P. Bergendoff
 ROBERT P. BERGENDOFF
 PROJECT MANAGER

APPROVED	<i>Mark V. Hagan</i>	19 86
	LOCAL AGENCY OFFICIAL	
PASSED	<i>October 18, 1986</i>	
	DISTRICT ENGINEER	
APPROVED	<i>October 1, 1986</i>	19 86
	DISTRICT ENGINEER	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CITY OF ST. CHARLES
 UTILITY LOCATIONS
 TEL. 377-4405

FOR UNDERGROUND UTILITY LOCATIONS, CALL
 JULIE
 TOLL FREE
 TEL. 1-800-892-0123

JOB NO. C-91-607-84
 CONTRACT NO. 41565

TITLE: ILLINOIS STREET
 BRIDGE REHABILITATION
 1986 BRIDGE REHAB PLANS
 FOR REFERENCE ONLY

NO.	DATE	NATURE OF REVISION
1		
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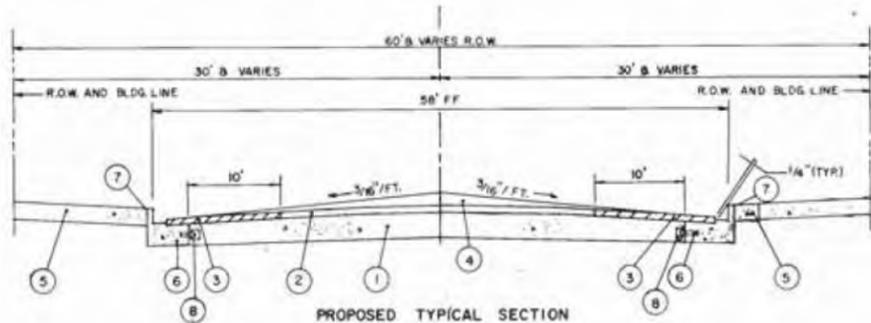
CLIENT:
 CITY OF ST. CHARLES
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DIVISION
 2 E. MAIN STREET
 ST. CHARLES, IL 60174

WBK ENGINEERING, LLC
 116 West Main Street, Suite 201
 St. Charles, Illinois 60174
 (630) 443-7755

PROJECT NO. 15-0257
 DATE: 03/18/2016
 SHEET 26 OF 39
 DRAWING NO.

PLOT DATE: 3/18/2016
 FILE NAME: W:\Projects\2015\180257_ILBridgeRehab\Coord\Structural\Draw\Exist\Plans\Street-026-Exist_Plans_01.dwg

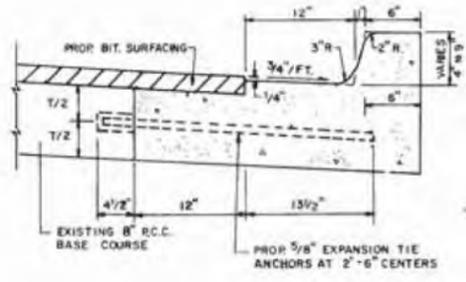
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1530	1584-1654	KANE	19	2
STATION		TO STATION		
FED. ROAD DIST. NO.		ILLINOIS PROJECT (SMM-5292(46))		



PROPOSED TYPICAL SECTION
ILLINOIS STREET
STA. 15+76 TO STA. 18+78

LEGEND

- ① EXISTING P.C.C. BASE
- ② EXISTING BITUMINOUS CONCRETE
- ③ BITUMINOUS CONCRETE SURFACE REMOVAL, SPECIAL
- ④ BITUMINOUS CONCRETE SURFACE COURSE MIXTURE D, CLASS I, VARIABLE DEPTH
- ⑤ PROPOSED P.C. CONCRETE SIDEWALK, 4"
- ⑥ COMBINATION CONCRETE CURB AND GUTTER TYPE B-6.12 (SPECIAL)
- ⑦ PREFORMED EXPANSION JOINT FILLER (INCIDENTAL TO COST OF SIDEWALK)
- ⑧ EXPANSION TIE ANCHORS - 5/8"



COMBINATION CONCRETE CURB
AND GUTTER TYPE B-6.12
(SPECIAL)

NOTES

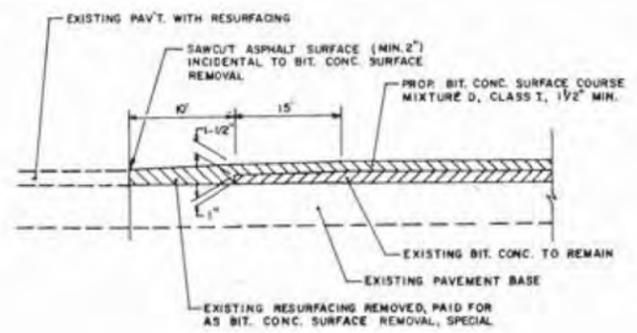
1. 1/4" THICKNESS OF EXISTING AND PROPOSED PAVEMENT OR BASE COURSE
2. THE COST OF EXPANSION JOINTS SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAL FOOT FOR COMBINATION CONCRETE CURB AND GUTTER TYPE B-6.12 (SPECIAL).

GENERAL NOTES

1. PROTECTIVE COATING SHALL BE APPLIED TO ALL EXPOSED NEW CONCRETE SURFACE AREAS SUCH AS SIDEWALKS, DRIVEWAYS, GUTTER FLAGS, FACES AND TOPS OF CURBS.
2. ALL INFORMATION PERTAINING TO THE SUBSURFACE WORK AND/OR EXISTING CONDITIONS IN THE TYPICAL SECTIONS IS REPRESENTATIVE OF LIMITED CORE SAMPLING. ALL TYPICAL SECTIONS ARE INTENDED TO BE USED AS A BIDDING AND CONSTRUCTION GUIDE. THE CHARACTER, LOCATION AND QUANTITY OF SUBSURFACE MATERIAL WILL BE DETERMINED IN THE FIELD AFTER THE EXISTING BITUMINOUS CONCRETE SURFACE IS REMOVED.
3. WHEN DURING CONSTRUCTION OPERATIONS, IF ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF THE GUTTERS OR DRAINAGE STRUCTURES SO THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, IT SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF THE CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES SO AFFECTED ARE TO BE FREE FROM ALL DIRT AND DEBRIS. THE WORK SPECIFIED ABOVE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT.
4. THE LIMITS OF P.C. CONCRETE SIDEWALK, CURB AND GUTTER AND DRIVEWAY REMOVAL SHALL BE SAWCUT AS DIRECTED BY THE ENGINEER. THE COST OF THE SAWCUTTING SHALL BE CONSIDERED AS INCIDENTAL TO THE ITEM BEING REMOVED.
5. WHEN REMOVING CURB & GUTTER, OR ANY OTHER STRUCTURES, THE USE OF ANY CONCRETE BREAKERS WHICH MIGHT DAMAGE THE UNDERGROUND PUBLIC OR PRIVATE UTILITIES WILL NOT BE PERMITTED.
6. THE THICKNESS OF BITUMINOUS MIXTURE FOR RESURFACING, AS SHOWN ON THE PLANS, IS ALSO THE NOMINAL THICKNESS. DEVIATIONS FROM THIS NORMAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE UPON WHICH THE BITUMINOUS MIXTURE IS PLACED. THIS WILL BE AT THE DISCRETION OF THE ENGINEER.
7. THE ELEVATIONS SHOWN ON THE PLANS ARE FINISHED GRADES OF PROPOSED PAVEMENT OR SURFACE COURSE, UNLESS OTHERWISE INDICATED. BEFORE SETTING THE TOP OF CURB ELEVATIONS, THE ENGINEER SHALL CHECK THE EXISTING ELEVATIONS AT THE ADJACENT PROPERTY LINE AND IF NECESSARY, REQUIRE THE CONTRACTOR TO VARY THE CURB EXPOSURE AND/OR GUTTER ELEVATIONS IN ORDER TO MORE CLOSELY FOLLOW THE PROPERTY LINE GRADES.
8. ANY REFERENCE TO "STANDARDS" THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO BE THE LATEST STANDARD OF THE DEPARTMENT AS SHOWN ON THE INDEX OF SHEETS IN THE PLANS.
9. ALL CONSTRUCTION PERSONNEL WILL BE REQUIRED TO WEAR A FLOURESCENT ORANGE VEST AT ALL TIMES WHILE ON THE CONSTRUCTION SITE. COMPLIANCE WITH THIS REQUIREMENT SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT.
10. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AS MUCH AS POSSIBLE DURING CONSTRUCTION OF THIS PROJECT. INTERFERENCE WITH TRAFFIC MOVEMENT AND INCONVENIENCE TO ABUTTING OWNERS AND THE PUBLIC SHALL BE KEPT TO A MINIMUM.
11. ALL WASTE MATERIAL SHALL BE DISPOSED OF IN A PROPER MANNER OUTSIDE OF THE RIGHT OF WAY AT THE CONTRACTOR'S EXPENSE.

STATE STANDARDS

2130-9	CONCRETE CURB AND GUTTER AND COMBINATION CONCRETE CURB AND GUTTER
1526-7	VALVE VAULT, TYPE A
2213-4	FRAME AND LIDS, TYPE 1
2113-2	DETAIL OF NAME PLATE FOR BRIDGES
2298-7	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES - HIGHWAY CONSTRUCTION AND CONTRACT MAINTENANCE
2299-10	DESIGN OF TRAFFIC CONTROL DEVICES FOR HIGHWAY CONSTRUCTION AND CONTRACT MAINTENANCE
2300-3	FLAGGER TRAFFIC CONTROL SIGN
2381	TEMPORARY EROSION CONTROL SYSTEMS
CASE U-1	
CASE U-2	
1686-4	STANDARD SYMBOLS



BUTT JOINT DETAIL

GENERAL NOTES & TYPICAL SECTIONS	
CITY OF ST. CHARLES, ILLINOIS ILLINOIS STREET BRIDGE OVER THE FOX RIVER	
SCALE NONE	DATE 10/14/85

HOWARD NEEDLES TAMMEN & BERGENDOFF
HNTB
MADE DAJ DATE 9/27/85 CHECKED NNH DATE 10-13-85

TITLE: **ILLINOIS STREET
BRIDGE REHABILITATION
1986 BRIDGE REHAB PLANS
FOR REFERENCE ONLY**

1	2	3	4	5	6	7	8
NO.	DATE	NATURE OF REVISION					

CLIENT: **CITY OF ST. CHARLES
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
2 E. MAIN STREET
ST. CHARLES, IL 60174**

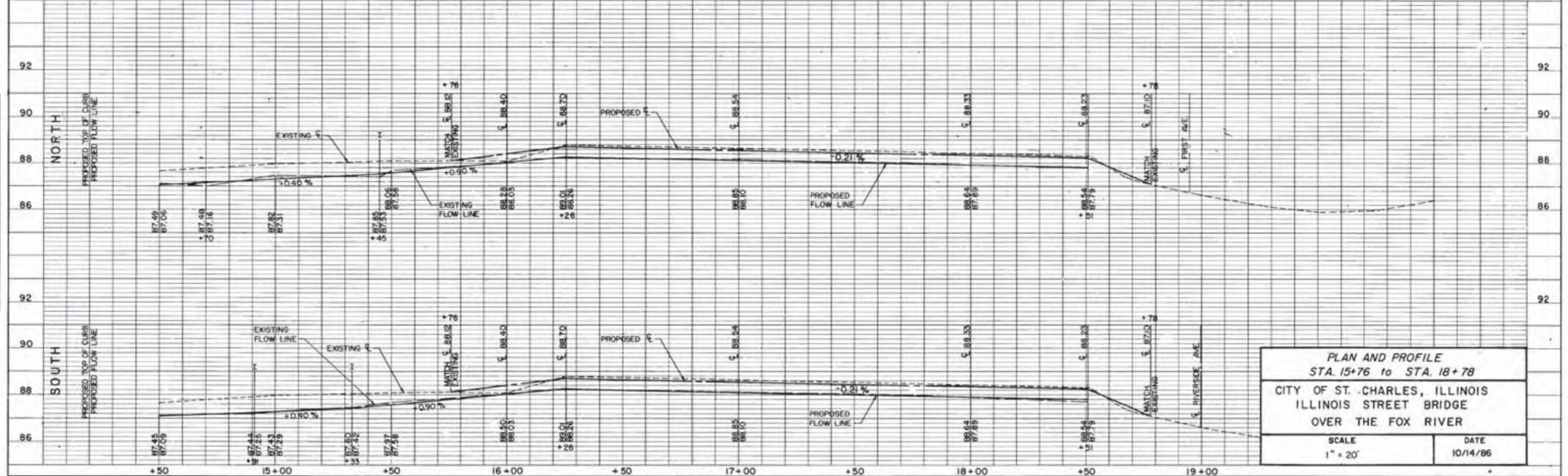
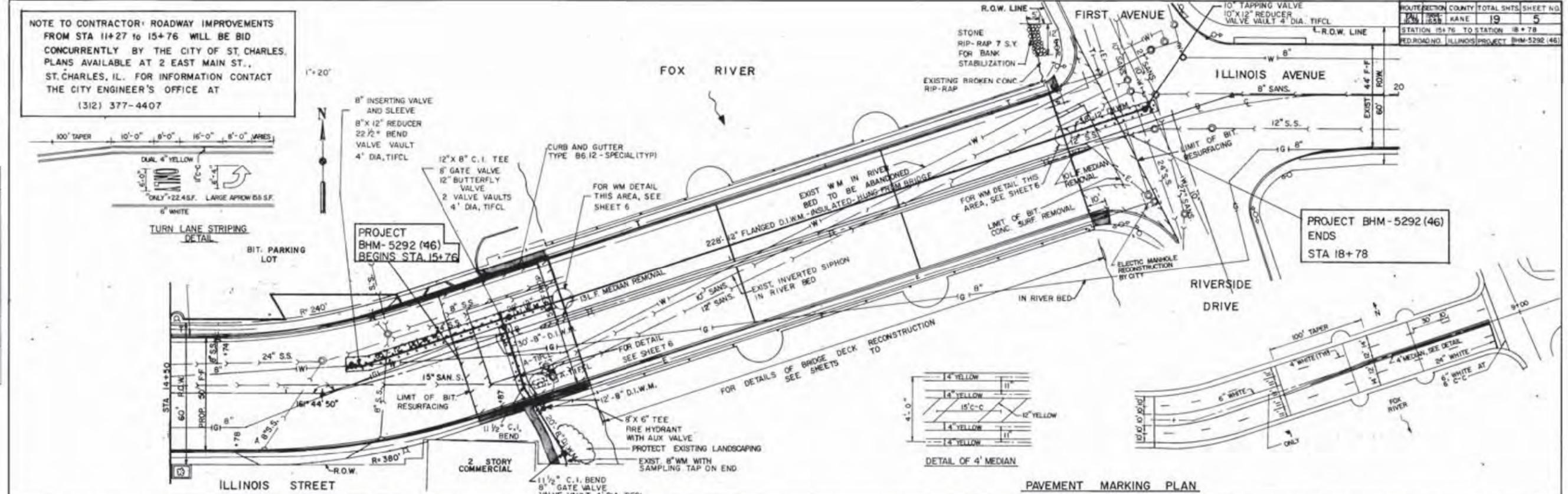
WBK ENGINEERING, LLC
116 West Main Street, Suite 201
St. Charles, Illinois 60174
(630) 443-7765

PROJECT NO. 15-0257
DATE: 03/18/2016
SHEET 27 OF 39
DRAWING NO.

PLOT DATE: 3/18/2016
FILE NAME: W:\Projects\2015\150257_ILBrdgeRehab\Acadd\Structural\Drawings\Illinois Street-027-Exist Plans 02.dgn

NOTE TO CONTRACTOR: ROADWAY IMPROVEMENTS FROM STA 11+27 TO 15+76 WILL BE BID CONCURRENTLY BY THE CITY OF ST. CHARLES, PLANS AVAILABLE AT 2 EAST MAIN ST., ST. CHARLES, IL. FOR INFORMATION CONTACT THE CITY ENGINEER'S OFFICE AT (312) 377-4407

ROUTE	SECTION	COUNTY	TOTAL SHTS	SHEET NO.
19	155	KANE	19	5
STATION 15+76 TO STATION 18+78				
FED. ROAD NO. ILLINOIS PROJECT BHM-5292 (46)				



**PLAN AND PROFILE
STA. 15+76 TO STA. 18+78
CITY OF ST. CHARLES, ILLINOIS
ILLINOIS STREET BRIDGE
OVER THE FOX RIVER**

SCALE: 1" = 20'
DATE: 10/14/86

Keuffel & Esser Company PLATE I, PLAN-PROFILE

PLOT DATE: 3/18/2016
FILE NAME: C:\Users\j2015\150257_ILBridgRehab\Acadd\Structural\Draw\Illinois Street-02B-Exist Plans 03.dgn

TITLE: ILLINOIS STREET BRIDGE REHABILITATION 1986 BRIDGE REHAB PLANS FOR REFERENCE ONLY

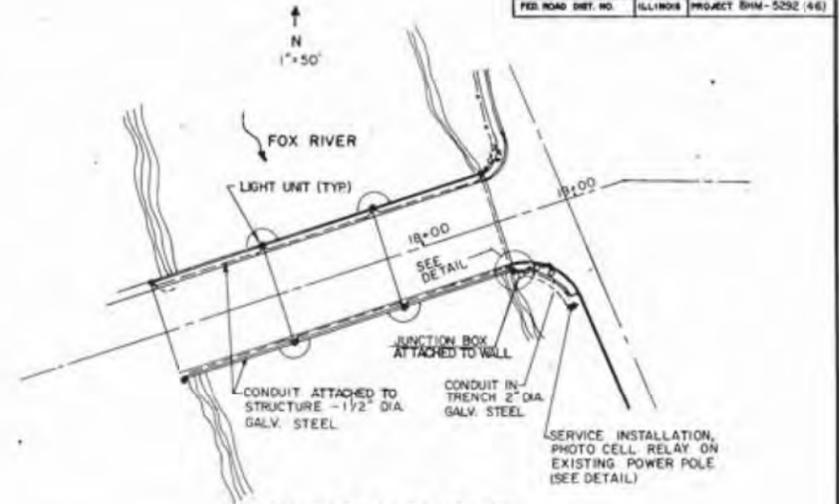
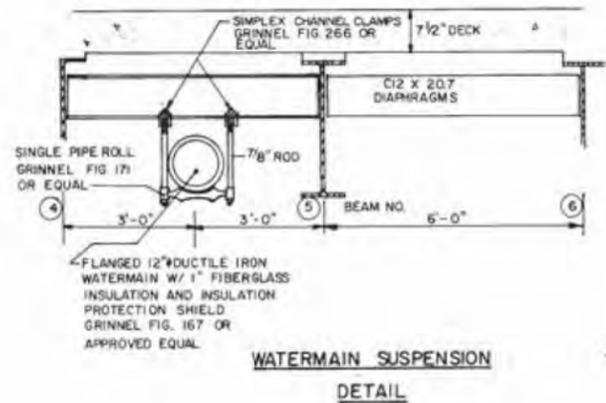
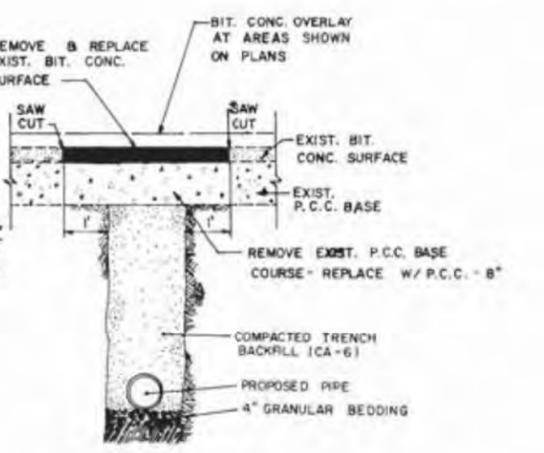
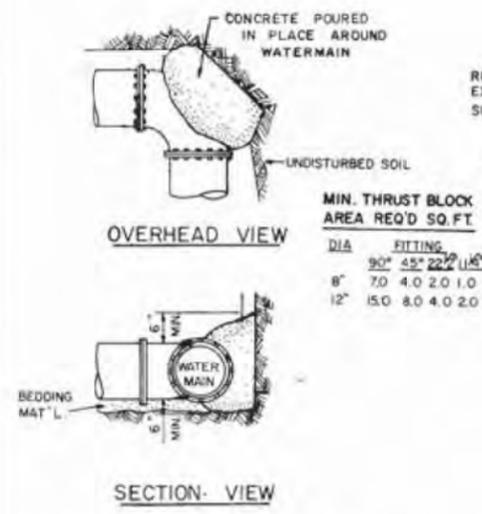
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NO.	DATE	NATURE OF REVISION	SCALE:	CHKD.	DWN.	DSGN.	DLS

CLIENT: CITY OF ST. CHARLES DEPARTMENT PUBLIC WORKS DIVISION ENGINEERING DIVISION 2 E. MAIN STREET ST. CHARLES, IL 60174

WBK ENGINEERING, LLC
116 West Main Street, Suite 201
St. Charles, Illinois 60174
(630) 443-7755

PROJECT NO. 15-0257
DATE: 03/18/2016
SHEET 28 OF 39
DRAWING NO. **E3**

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1630	1984-1986	KANE	19	6
STATION		TO STATION		
FED. ROAD DIST. NO.		ILLINOIS PROJECT BHM-5292 (46)		

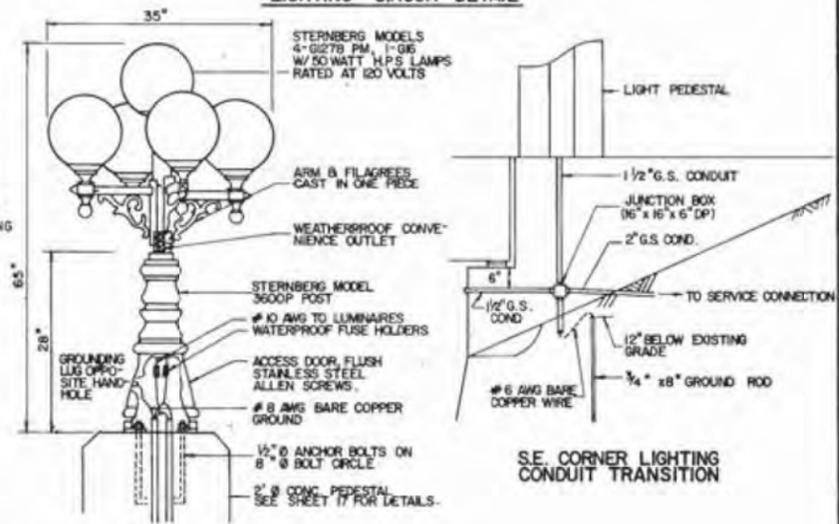
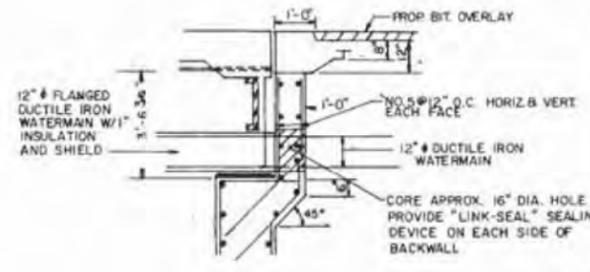


THRUST BLOCK DETAILS

WATERMAIN TRENCH AND PAVEMENT REPLACEMENT DETAIL

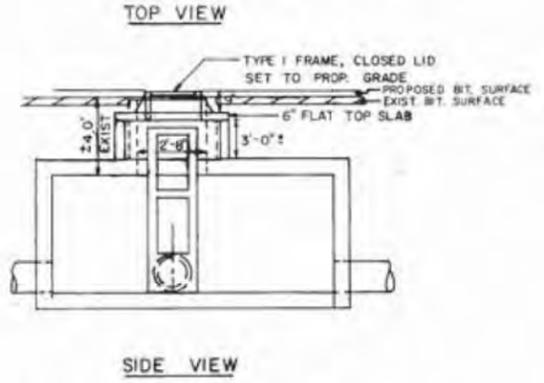
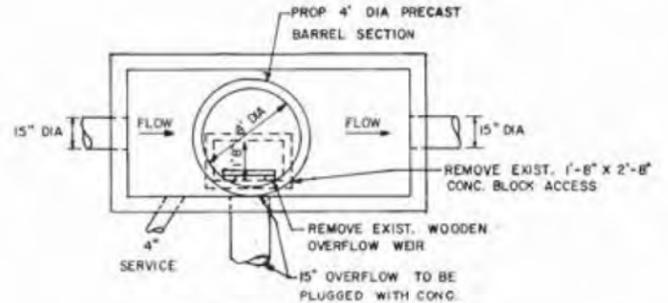
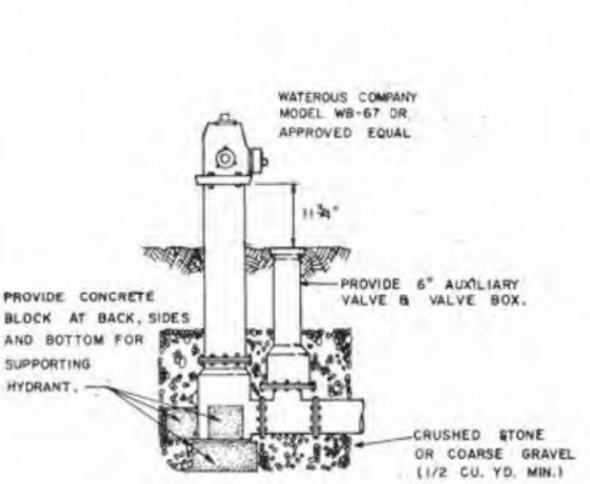
WATERMAIN SUSPENSION DETAIL

LIGHTING CIRCUIT DETAIL

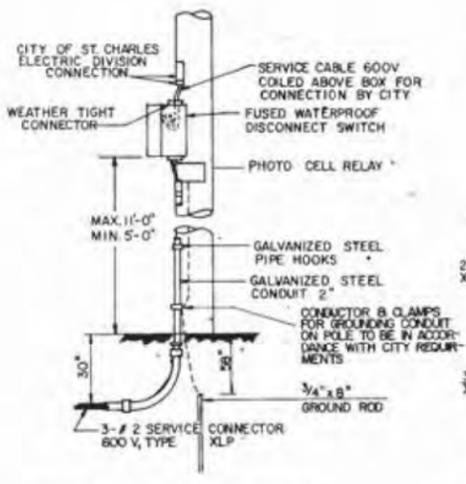


CORING EXISTING ABUTMENT DETAIL

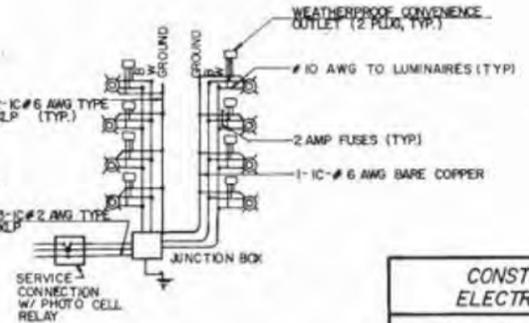
LIGHT UNIT COMPLETE



DETAIL MANHOLE TO BE RECONSTRUCTED - SPECIAL



SERVICE CONNECTION DETAIL



STREET LIGHTING CIRCUIT & WIRING DIAGRAM N.T.S.

CONSTRUCTION AND ELECTRICAL DETAILS	
CITY OF ST. CHARLES, ILLINOIS ILLINOIS STREET BRIDGE OVER THE FOX RIVER	
SCALE	DATE
NONE	10/14/85

HOWARD NEEDLES TAMMEN & BERGENCOOPF		HNTB	
MADE DAJ	DATE 8-7-85	CHECKED NNH	DATE 10-13-85

PLOT DATE: 3/18/2016
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TITLE: ILLINOIS STREET
 BRIDGE REHABILITATION
 1986 BRIDGE REHAB PLANS
 FOR REFERENCE ONLY

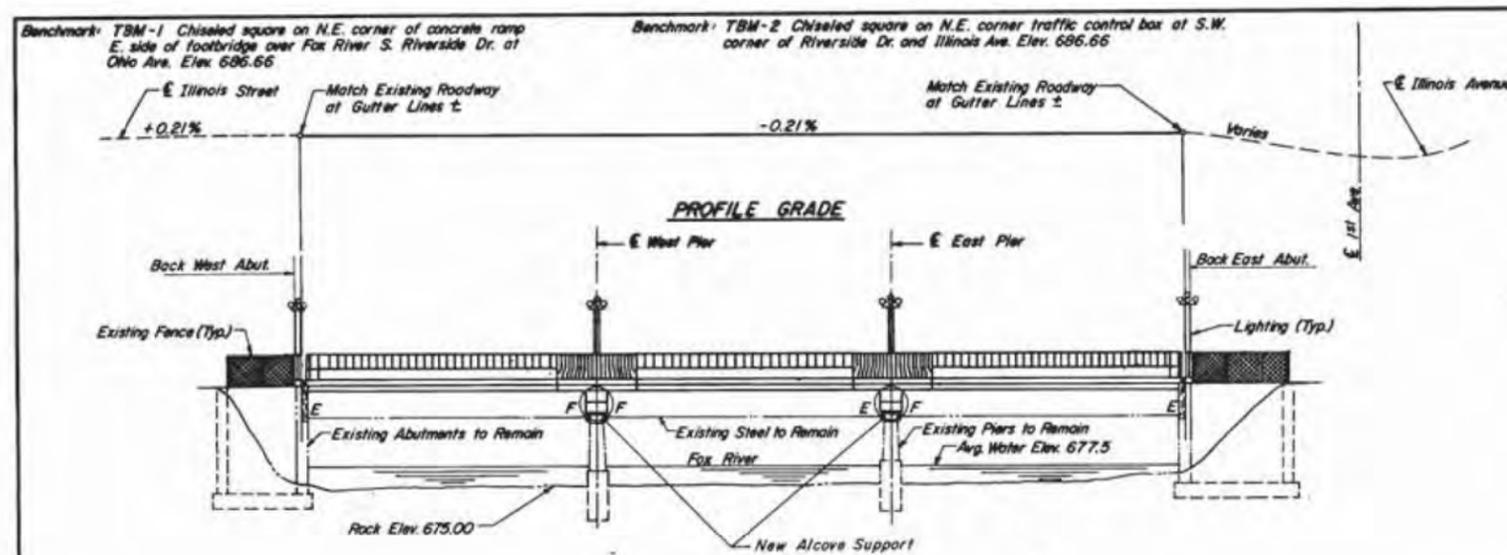
NO.	DATE	NATURE OF REVISION
1		
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CLIENT: CITY OF ST. CHARLES
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DIVISION
 2 E. MAIN STREET
 ST. CHARLES, IL 60174

WBK ENGINEERING, LLC
 116 West Main Street, Suite 201
 St. Charles, Illinois 60174
 (630) 443-7755

PROJECT NO. 15-0257
 DATE: 03/18/2016
 SHEET 29 OF 39
 DRAWING NO. **E4**

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PAV1639	1004-SUB	KAIS	18	7
SHEET TITLE		TO STATION		
FED. ROAD DIST. NO. 1		ILLINOIS PROJECT BHM-888(46)		



EXISTING STRUCTURE

THE EXISTING 3 SPAN STRUCTURE CARRIES 2 WESTBOUND AND 2 EASTBOUND LANES OF TRAFFIC OVER ILLINOIS STREET OVER THE FOX RIVER. THE SUPERSTRUCTURE CONSISTS OF REINFORCED CONCRETE DECK SUPPORTED BY SIMPLE SPAN NON-COMPOSITE WIDE FLANGE STEEL BEAMS. THE SUBSTRUCTURE CONSISTS OF REINFORCED CONCRETE PIERS AND ABUTMENTS SUPPORTED ON ROCK. STRUCTURE NO. 045 - 6851.

GENERAL NOTES

DESIGN SPECIFICATIONS: AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1983, WITH INTERIM SPECIFICATIONS 1984.

CONSTRUCTION SPECIFICATIONS: ILLINOIS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED OCTOBER 1ST, 1985.

DESIGN STRESSES: (NEW CONSTRUCTION)
 CONCRETE: FC = 3,500 PSI
 REINFORCING STEEL: FY = 60,000 PSI
 STRUCTURAL STEEL: FS = 20,000 PSI

DESIGN LOADING: LIVE LOAD IS AASHTO HS20-44. DEAD LOAD IS CALCULATED WEIGHT OF STRUCTURE.

STRUCTURAL STEEL: NEW STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M183.

BOLTED CONNECTIONS: FASTENERS FOR STRUCTURAL STEEL SHALL BE HIGH STRENGTH BOLTS. BOLTS 7/8" DIA., OPEN HOLES 15/16" DIA., UNLESS OTHERWISE NOTED.

EXISTING STRUCTURE DIMENSIONS: PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATION SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

ANCHOR BOLTS: ANCHOR BOLTS SHALL BE SET BEFORE BOLTING DIAPHRAGMS OVER SUPPORTS.

FIELD WELDING: FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM FLANGE OF GIRDERS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

CLEANING EXISTING STEEL: ALL STRUCTURAL STEEL SHALL BE CLEANED BY METHOD 1.

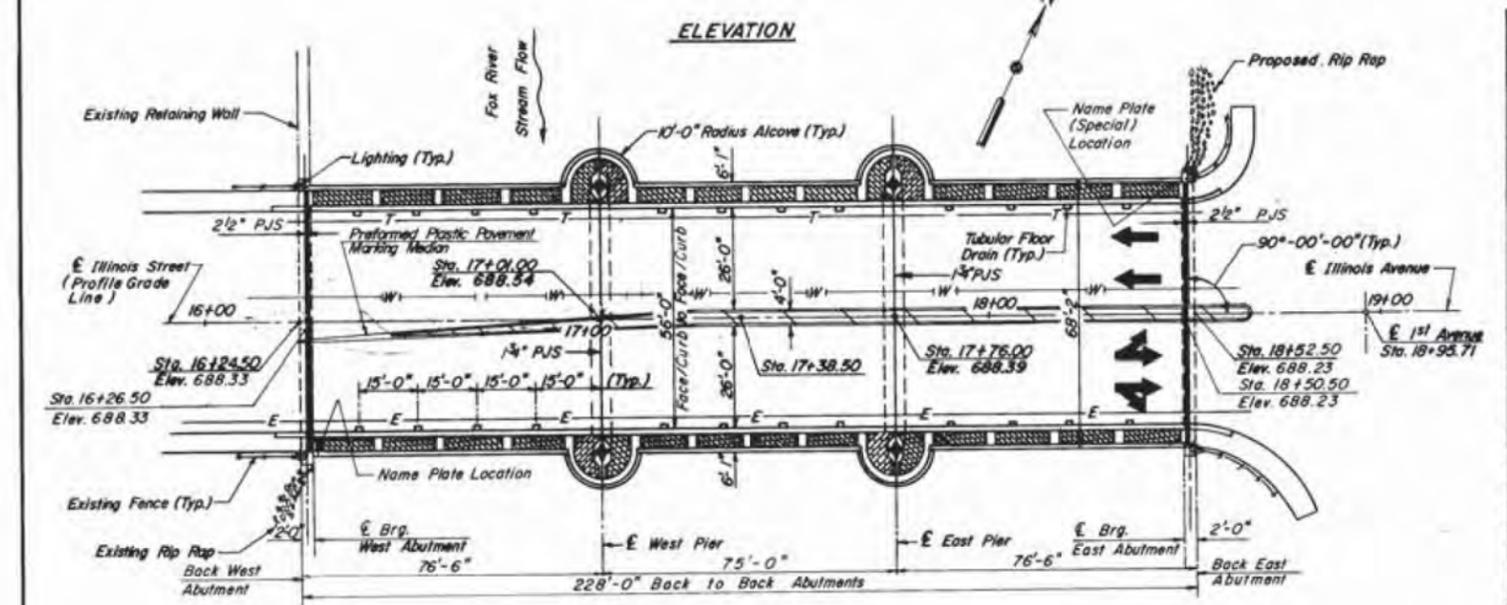
PAINTING STRUCTURAL STEEL: THE ZINC-SILICATE AND VINYL PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL.

REINFORCEMENT BARS: REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M31 OR M53 GRADE 60.

CONCRETE CHAMFERS: ALL EXPOSED CONCRETE CORNERS SHALL HAVE 3/4 INCH CHAMFERS UNLESS OTHERWISE SHOWN IN THE PLANS.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
CONCRETE REMOVAL	CU. YD.	16.6
REMOVAL OF EXISTING BEARINGS	EACH	66
REMOVAL OF EXISTING CONCRETE DECK	L. SUM	1
FLOOR DRAINS	EACH	24
PREFORMED JOINT SEAL - 1 3/4"	LIN. FT.	173
PREFORMED JOINT SEAL - 2 1/2"	LIN. FT.	136
PROTECTIVE COAT	SQ. YD.	1712
ELASTOMETRIC BEARING ASSEMBLY - TYPE I	EACH	33
CLASS X CONCRETE (PARTICIPATING)	CU. YD.	483.2
CLASS X CONCRETE (NON PARTICIPATING)	CU. YD.	23.1
MASONRY SIDEWALK	SQ. FT.	1983
REPAIR CONCRETE STRUCTURES	SQ. FT.	5.3
DRILL AND GROUT DOWEL BARS	EACH	142
FURNISHING AND ERECTING STRUCTURAL STEEL (PARTICIPATING)	LBS.	32920
FURNISHING AND ERECTING STRUCTURAL STEEL (NON-PARTICIPATING)	LBS.	9000
STUD SHEAR CONNECTORS	EACH	1947
STRUCTURAL STEEL REMOVAL	LBS.	7420
STEEL RAILING	LIN. FT.	486
CLEANING AND PAINTING	L. SUM	1
REINFORCEMENT BARS	POUND	1700
REINFORCEMENT BARS, (EPOXY COATED) (PARTICIPATING)	POUND	108,640
REINFORCEMENT BARS, (EPOXY COATED) (NONPARTICIPATING)	POUND	4840
NAME PLATE	EACH	1
NAME PLATE (SPECIAL)	EACH	1
BRIDGE SEAT SEALER	L. SUM	1



PLAN

- LEGEND**
- E— Electric Utilities
 - T— Telephone Utilities
 - W— Water Main
 - E— Expansion Bearing
 - F— Fixed Bearing
 - Direction of Traffic
 - Brick Pavers

STATION 17+38
 REBUILT 1987 BY
 CITY OF ST. CHARLES
 SEC. 84-00071-00 BR
 F.A.U. RT. 1639
 F.A.U. PROJ. BHM 5292 (46)
 STR. NO. 045-6851 LOADING HS20

NAME PLATE
 See Standard 2113

ILLINOIS BRIDGE, STR. NO. 045-6851
 REBUILT 1987 BY
 CITY OF ST. CHARLES/STATE OF ILLINOIS
 SECTION NO. 84-00071-00 BR
 STATION 17+38, LOADING HS20
 CONSULTANT- HOWARD, NEEDLES, TAMMEN & BERGENDOFF
 CHICAGO, ILLINOIS

CONTRACTOR-
 MAYOR FRED T. NORRIS
 CITY ENGINEER MARK W. KOENEN

NAME PLATE (SPECIAL)

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 requirements of the current "AASHTO Standard Specifications for Highway Bridges."



GENERAL PLAN AND ELEVATION

CITY OF ST. CHARLES, ILLINOIS
 ILLINOIS STREET BRIDGE
 OVER THE FOX RIVER

SCALE: DATE: 10/14/86

MADE BY: DATE: 8/25/86 CHECKED BY: DATE: 9/23/86

TITLE: ILLINOIS STREET BRIDGE REHABILITATION
 1986 BRIDGE REHAB PLANS FOR REFERENCE ONLY

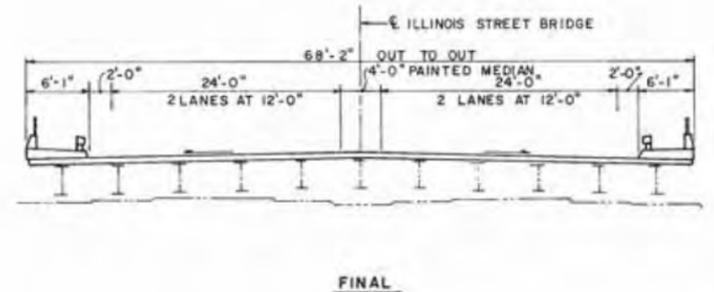
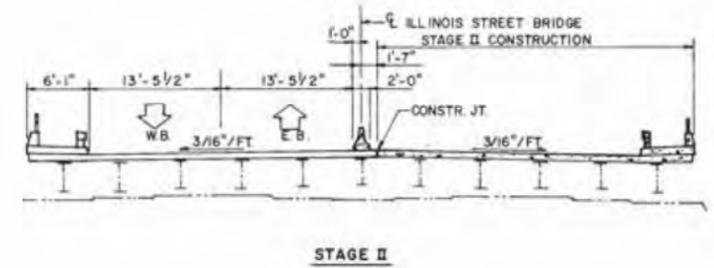
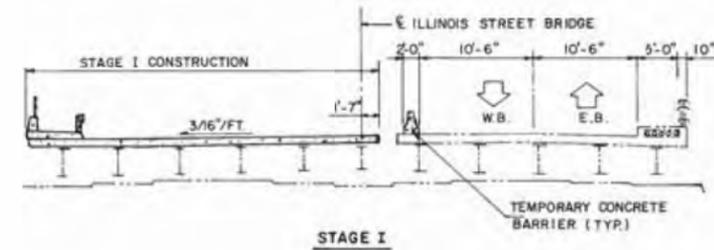
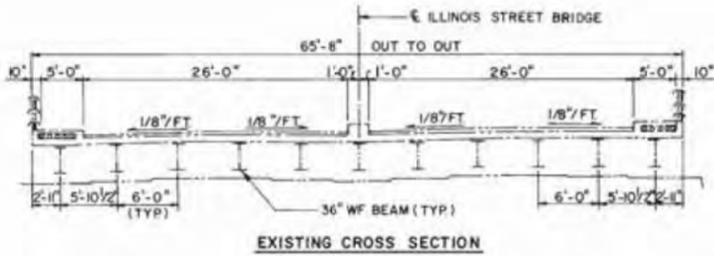
1	2	3	4	5	6	7	8	NO.	DATE	NATURE OF REVISION

CLIENT: CITY OF ST. CHARLES
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DIVISION
 2 E. MAIN STREET
 ST. CHARLES, IL 60174

WBK ENGINEERING, LLC
 116 West Main Street, Suite 201
 St. Charles, Illinois 60174
 (630) 443-7755

PROJECT NO. 15-0257
 DATE: 03/18/2016
 SHEET 30 OF 39
 DRAWING NO.
E5

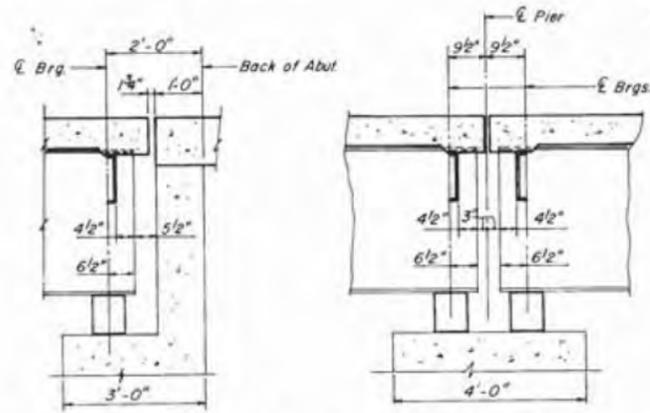
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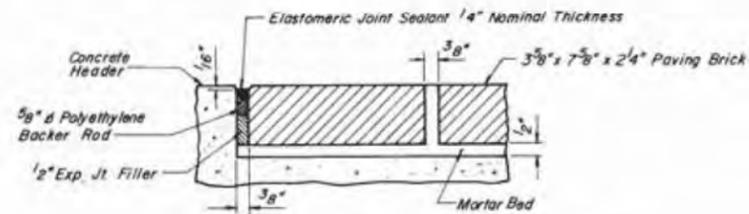
SEQUENCE OF CONSTRUCTION
(LOOKING EAST)

SEQUENCE OF CONSTRUCTION

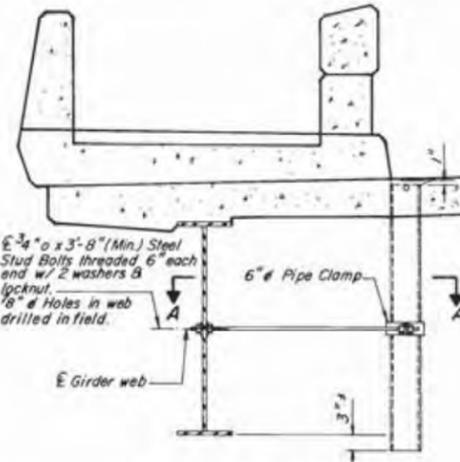
- STAGE I**
1. REROUTE WESTBOUND AND EASTBOUND TRAFFIC ONTO SOUTH HALF OF BRIDGE.
 2. REMOVE NORTH HALF EXISTING CONCRETE DECK AND SIDEWALK.
 3. PLACE STEEL FRAMING AND BEARINGS ON NORTH HALF.
 4. RELOCATE UTILITIES FROM EXISTING SIDEWALK.
 5. CONSTRUCT NORTH HALF OF BRIDGE DECK AND SIDEWALK.
- STAGE II**
1. REROUTE WESTBOUND AND EASTBOUND TRAFFIC ONTO NORTH HALF OF BRIDGE.
 2. REMOVE SOUTH HALF EXISTING CONCRETE DECK AND SIDEWALK.
 3. PLACE STEEL FRAMING AND BEARINGS ON SOUTH HALF.
 4. RELOCATE UTILITIES FROM EXISTING SIDEWALK.
 5. CONSTRUCT SOUTH HALF OF BRIDGE DECK AND SIDEWALK.
 6. REMOVE TEMPORARY BARRIERS AND REROUTE EASTBOUND TRAFFIC ONTO SOUTH HALF OF BRIDGE.
 7. OPEN ALL LANES TO TRAFFIC.



PROPOSED SECTION AT ABUT. PROPOSED SECTION AT PIERS



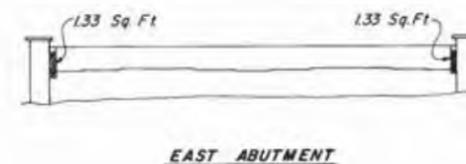
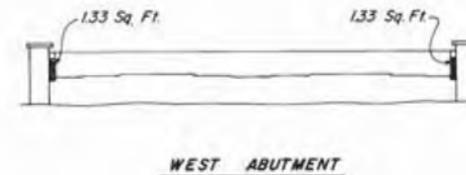
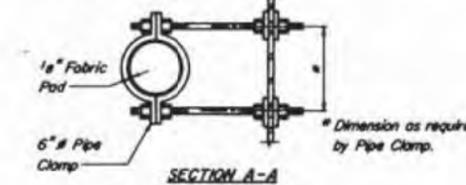
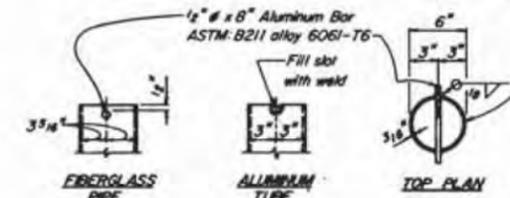
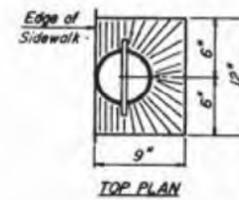
BRICK AREA PERIMETER JOINT DETAIL



SECTION AT PARAPET FLOOR DRAIN DETAIL

NOTE: Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum

The exterior surfaces of the Floor Drain shall be painted with the vinyl enamel coat painting specified for Structural Steel. The exterior surfaces of the Aluminum tube shall be cleaned and given a washcoat pretreatment in accordance with Steel Structures Painting Council's Spec. SSPC-SPI & SSPC-Paint 27 prior to painting.



CONCRETE REPAIR

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
Floor Drains	Each	24
Concrete Repair	Sq. Ft.	5.3

CONSTRUCTION STAGING MISCELLANEOUS DETAILS

CITY OF ST. CHARLES, ILLINOIS
ILLINOIS STREET BRIDGE
OVER THE FOX RIVER

SCALE: DATE: 10/14/86

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU185B	1984-1986	HAKE	19	8
STATION		TO STATION		
FED. ROAD DIST. NO. 1		ILLINOIS PROJECT NUM-5292148		

TITLE: **ILLINOIS STREET BRIDGE REHABILITATION**
1986 BRIDGE REHAB PLANS FOR REFERENCE ONLY

NO.	DATE	NATURE OF REVISION
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CLIENT: **CITY OF ST. CHARLES PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION**
2 E. MAIN STREET
ST. CHARLES, IL 60174

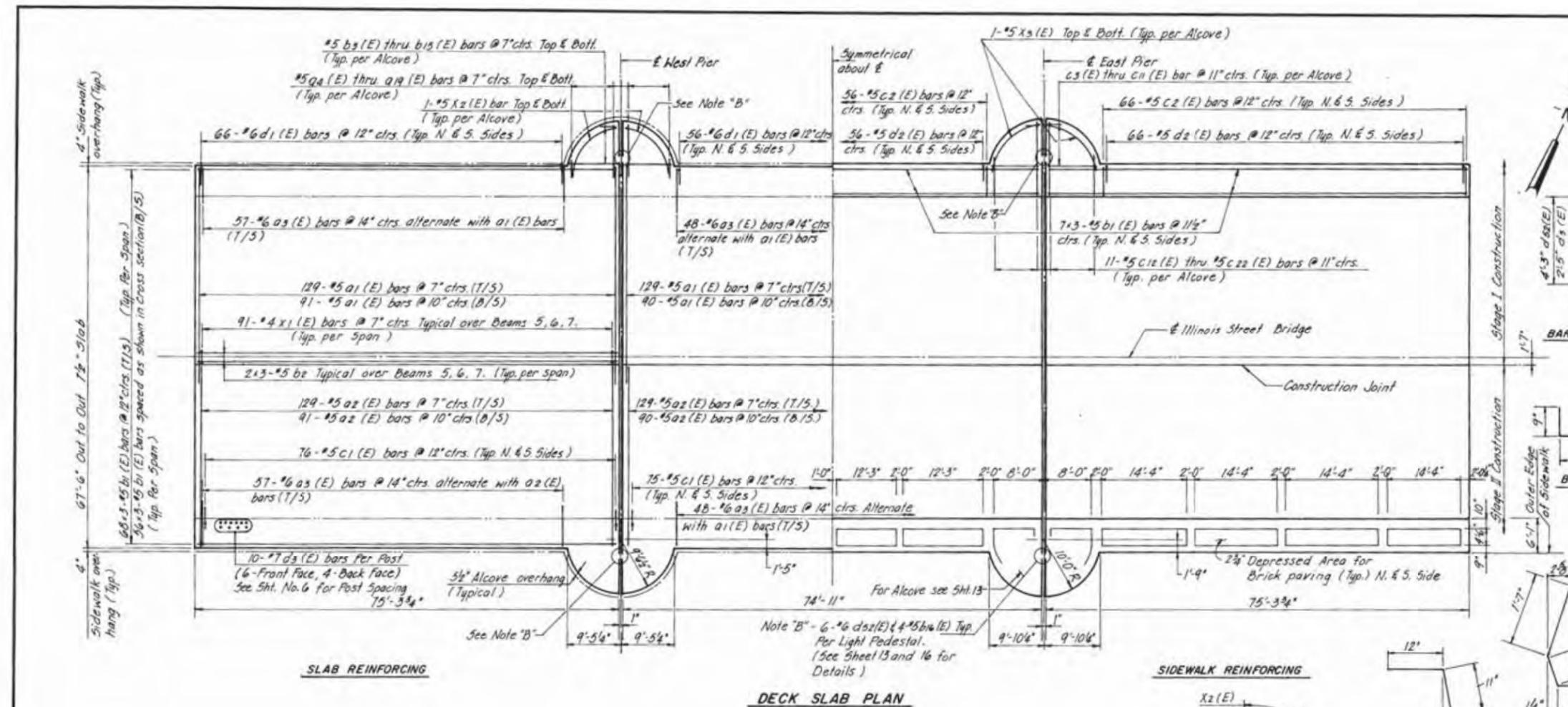
WBK ENGINEERING, LLC
116 West Main Street, Suite 201
St. Charles, Illinois 60174
(630) 443-7765

WBK
PROJECT NO. 15-0257
DATE: 03/18/2016
SHEET 31 OF 39
DRAWING NO. **E6**

PLOT DATE: 3/18/2016
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HEAVARD NEEDLES TAMMEN & BERENSON
HNTB
MADE BY: DATE: 8/23/86 CHECKED: DW DATE: 9/23/86

PLOT DATE: 3/18/2016
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SLAB REINFORCING

DECK SLAB PLAN

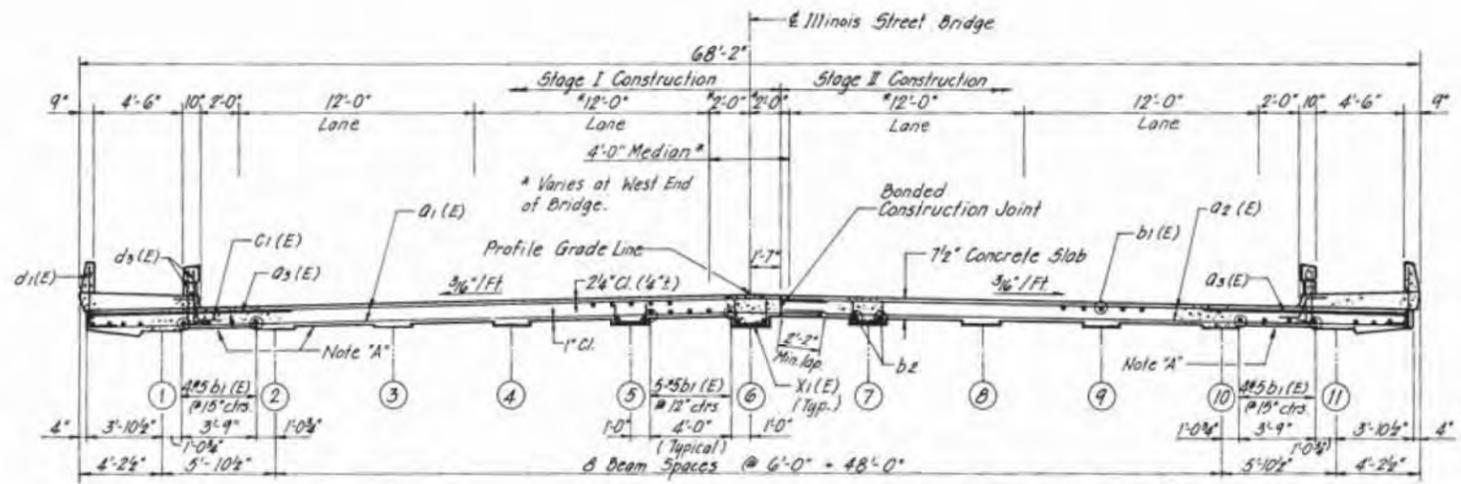
SIDEWALK REINFORCING

BAR C1 (E)

BAR d2 (E)

BAR X2 (E), X3 (E)

BAR d1 (E)



DECK CROSS SECTION (LOOKING EAST)

Note 'A' - Contractor to place concrete inserts as req'd. by telephone and electrical utilities. Utilities are to supply inserts to contractor and the cost of placing inserts shall be incidental to "Class X Concrete".

Notes:
 For parapet and railing elevations & details, see Sheet 12.
 X1 (E) bars to be placed over existing beams 5, 6 & 7. Bars shall be lifted as required to provide clearance in deck slab.
 T/S denotes Top of Slab, B/S denotes Bottom of Slab.
 Bars designated (E) shall be epoxy coated.
 Bars indicated thus "A" "B" etc. indicates "A" lines of bars with "B" lengths per line.
 See Sheet 8 for Brick Area Perimeter Joint Detail.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PAU1439	1984-088	KANE	19	11
STATION	TO STATION			
FED. ROAD DIST. NO. 3	ILLINOIS	PROJECT BHM-5252(146)		

BILL OF MATERIALS

BAR	NO.	SIZE	LENGTH	SHAPE
a1 (E)	659	#5	37'-5"	—
a2 (E)	659	#5	32'-0"	—
a3 (E)	324	#6	8'-0"	—
a4 (E)	16	#5	10'-5"	—
a5 (E)	16	#5	10'-4"	—
a6 (E)	16	#5	10'-3"	—
a7 (E)	16	#5	10'-2"	—
a8 (E)	16	#5	10'-1"	—
a9 (E)	16	#5	9'-11"	—
a10 (E)	16	#5	9'-10"	—
a11 (E)	16	#5	9'-5"	—
a12 (E)	16	#5	9'-1"	—
a13 (E)	16	#5	8'-0"	—
a14 (E)	16	#5	8'-3"	—
a15 (E)	16	#5	7'-9"	—
a16 (E)	16	#5	7'-1"	—
a17 (E)	16	#5	6'-4"	—
a18 (E)	16	#5	5'-4"	—
a19 (E)	16	#5	3'-11"	—
b1 (E)	1842	#5	26'-6"	—
b2	54	#5	26'-6"	—
b3 (E)	16	#5	9'-0"	—
b4 (E)	16	#5	8'-10"	—
b5 (E)	16	#5	8'-8"	—
b6 (E)	16	#5	8'-5"	—
b7 (E)	16	#5	8'-2"	—
b8 (E)	16	#5	7'-10"	—
b9 (E)	16	#5	7'-6"	—
b10 (E)	16	#5	7'-1"	—
b11 (E)	16	#5	6'-7"	—
b12 (E)	16	#5	5'-11"	—
b13 (E)	16	#5	5'-2"	—
b14 (E)	16	#5	4'-3"	—
b15 (E)	16	#5	3'-0"	—
b16 (E)	32	#5	3'-6"	—
c1 (E)	454	#5	2'-5"	—
c2 (E)	376	#5	5'-8"	—
c3 (E)	8	#5	9'-4"	—
c4 (E)	8	#5	9'-0"	—
c5 (E)	8	#5	8'-8"	—
c6 (E)	8	#5	8'-2"	—
c7 (E)	8	#5	7'-6"	—
c8 (E)	8	#5	6'-8"	—
c9 (E)	8	#5	5'-7"	—
c10 (E)	8	#5	4'-1"	—
c11 (E)	8	#5	1'-1"	—
c12 (E)	8	#5	15'-10"	—
c13 (E)	8	#5	15'-9"	—
c14 (E)	8	#5	15'-8"	—
c15 (E)	8	#5	15'-5"	—
c16 (E)	8	#5	15'-1"	—
c17 (E)	8	#5	12'-7"	—
c18 (E)	8	#5	12'-0"	—
c19 (E)	8	#5	11'-3"	—
c20 (E)	8	#5	10'-4"	—
c21 (E)	8	#5	9'-1"	—
c22 (E)	8	#5	7'-1"	—
ITEM UNIT QUANTITY				
Reinforcing Bars Epoxy Coated (Nonparticipating)	Lbs.	4,840		
Class X Concrete (Participating)	Cu. Yds.	4,573		
Class X Concrete (Nonparticipating)	Cu. Yds.	20.0		
Reinforcing Bars Epoxy Coated (Partic.)	Lbs.	101,630		
Protective Coat	Sq. Yds.	1903		
Brick Paving	Sq. Ft.	1983		

DECK PLAN AND SECTION

CITY OF ST. CHARLES, ILLINOIS
ILLINOIS STREET BRIDGE
OVER THE FOX RIVER

SCALE: _____ DATE: 10/14/86

HOWARD NEEDLES TAMMEN & BERENDSON
HNTB
 MADE BRT DATE 8/25/86 CHECKED DIV DATE 9/23/86

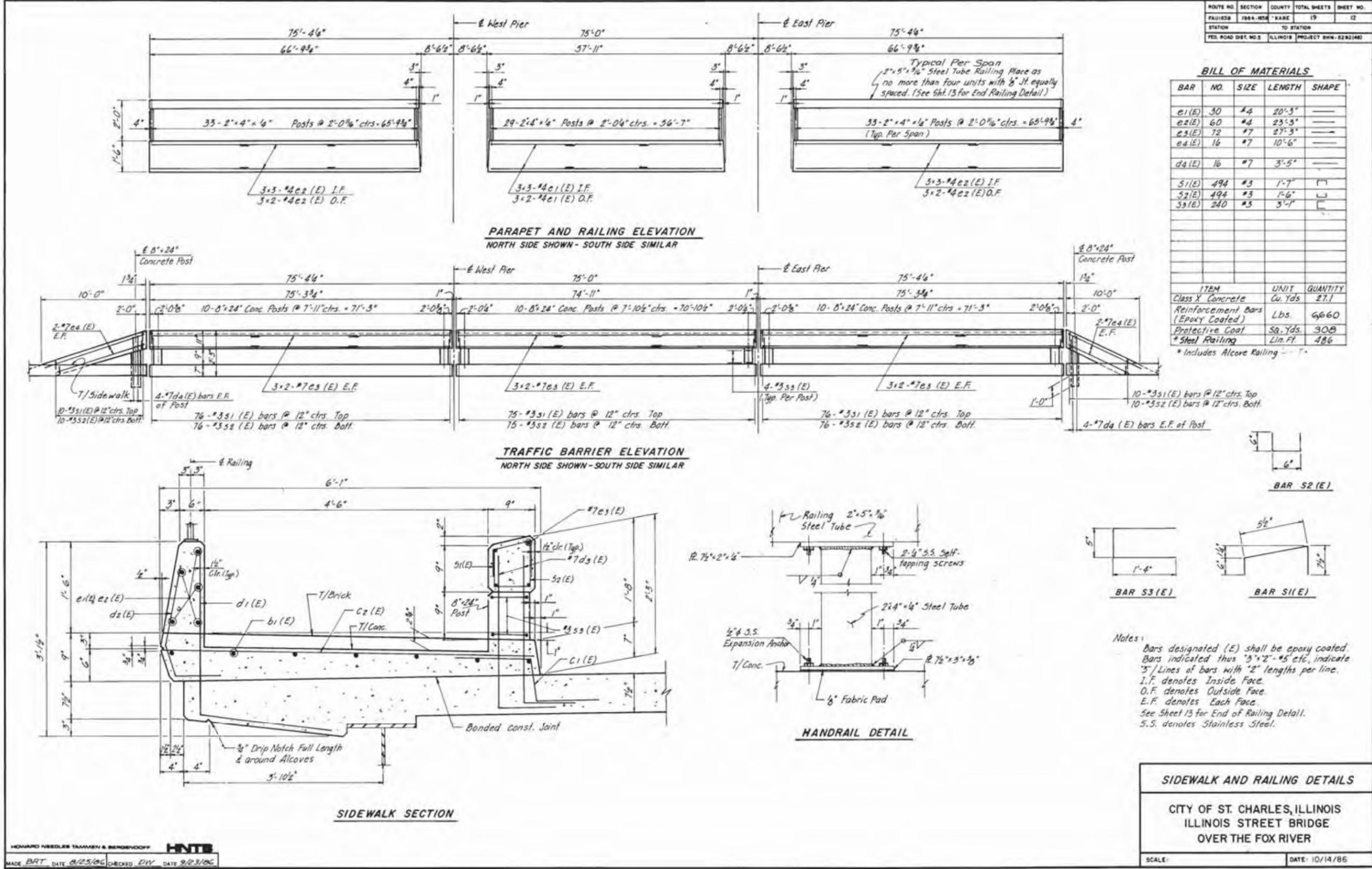
ILLINOIS STREET BRIDGE REHABILITATION
1986 BRIDGE REHAB PLANS FOR REFERENCE ONLY

CITY OF ST. CHARLES DEPARTMENT PUBLIC WORKS DIVISION ENGINEERING DIVISION 2 E. MAIN STREET ST. CHARLES, IL 60174

WBK ENGINEERING, LLC
 116 West Main Street, Suite 201
 St. Charles, Illinois 60174
 (630) 443-7755

PROJECT NO. 15-0257
 DATE: 03/18/2016
 SHEET 32 OF 39
 DRAWING NO. **E7**

PLOT DATE: 3/18/2016
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Notes:
 Bars designated (E) shall be epoxy coated.
 Bars indicated thus "3'-2"-#5 etc, indicate "3" / Lines of bars with "2" lengths per line.
 I.F. denotes Inside Face.
 O.F. denotes Outside Face.
 E.F. denotes Each Face.
 See Sheet 13 for End of Railing Detail.
 S.S. denotes Stainless Steel.

SIDEWALK AND RAILING DETAILS

CITY OF ST. CHARLES, ILLINOIS
ILLINOIS STREET BRIDGE
OVER THE FOX RIVER

SCALE: _____ DATE: 10/14/86

HOWARD NEEDLES TAMMEN & BERENSON
HNTB
 MADE BRT DATE 8/25/86 CHECKED DW DATE 9/23/86

TITLE: ILLINOIS STREET
 BRIDGE REHABILITATION
 1986 BRIDGE REHAB PLANS
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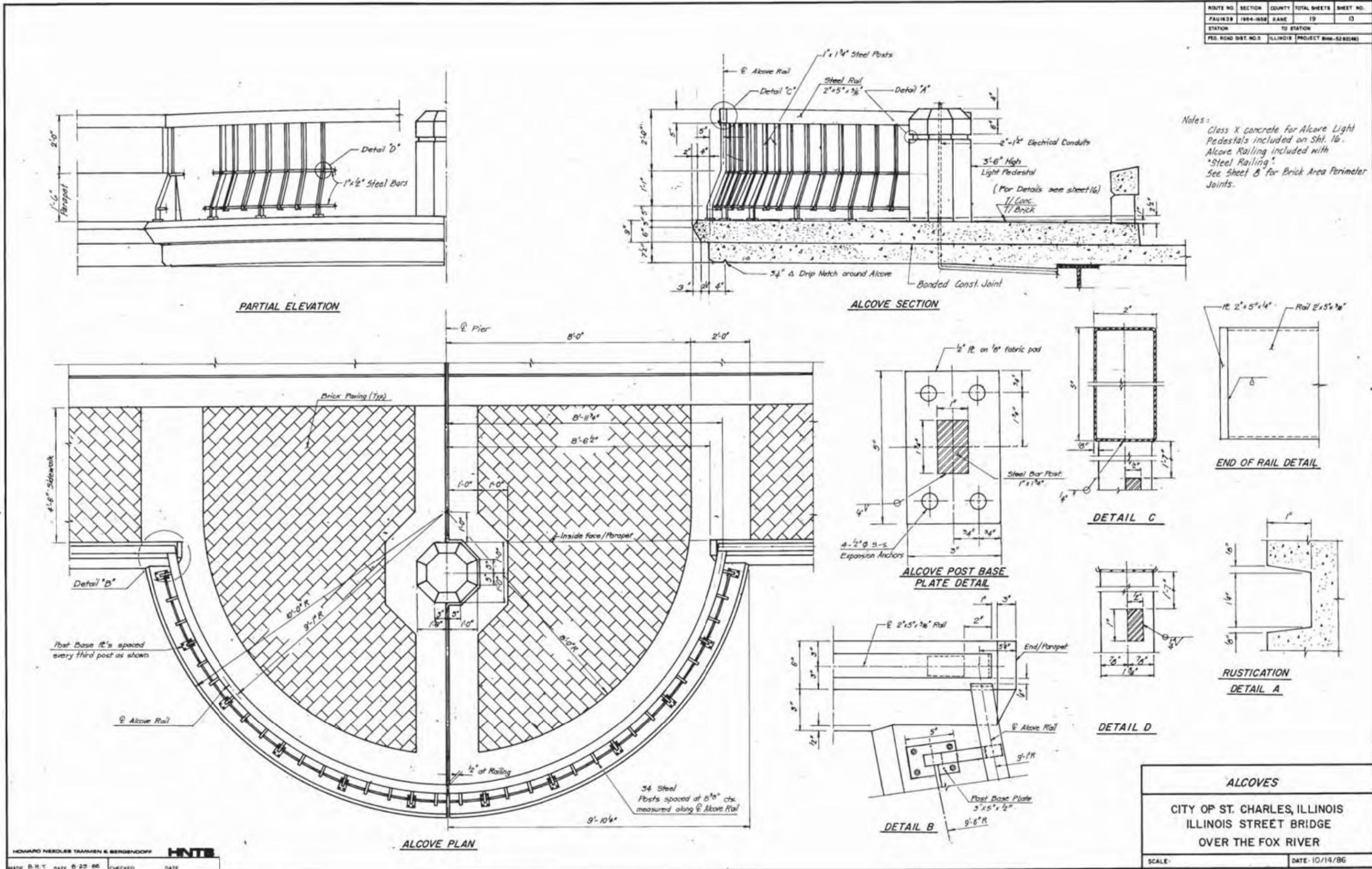
NO.	DATE	NATURE OF REVISION
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CLIENT: CITY OF ST. CHARLES DEPARTMENT
 PUBLIC WORKS DIVISION
 ENGINEERING DIVISION
 2 E. MAIN STREET
 ST. CHARLES, IL 60174

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 116 West Main Street, Suite 201
 St. Charles, Illinois 60174
 (630) 443-7755

PROJECT NO. 15-0257
 DATE: 03/18/2016
 SHEET 33 OF 39
 DRAWING NO. **E8**

PLOT DATE: 3/18/2016
 FILE NAME: C:\Users\150257\Documents\Projects\2015\150257_ILBridgeRehab\cadd\Structural\Drawings\Illinois Street-034-Exst-Plans_09.dwg
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU152R	1804-1838	JEAN	19	13
STATION		TO STATION		
FED. ROAD DIST. NO. 5		ILLINOIS PROJECT BHM-628246		

Notes:
 Class X concrete for Alcove Light Pedestals included on Sht. 16.
 Alcove Railing included with "Steel Railing".
 See Sheet B for Brick Area Perimeter Joints.

ALCOVES	
CITY OF ST. CHARLES, ILLINOIS ILLINOIS STREET BRIDGE OVER THE FOX RIVER	
SCALE:	DATE: 10/14/86

ILLINOIS STREET
BRIDGE REHABILITATION
1986 BRIDGE REHAB PLANS
FOR REFERENCE ONLY

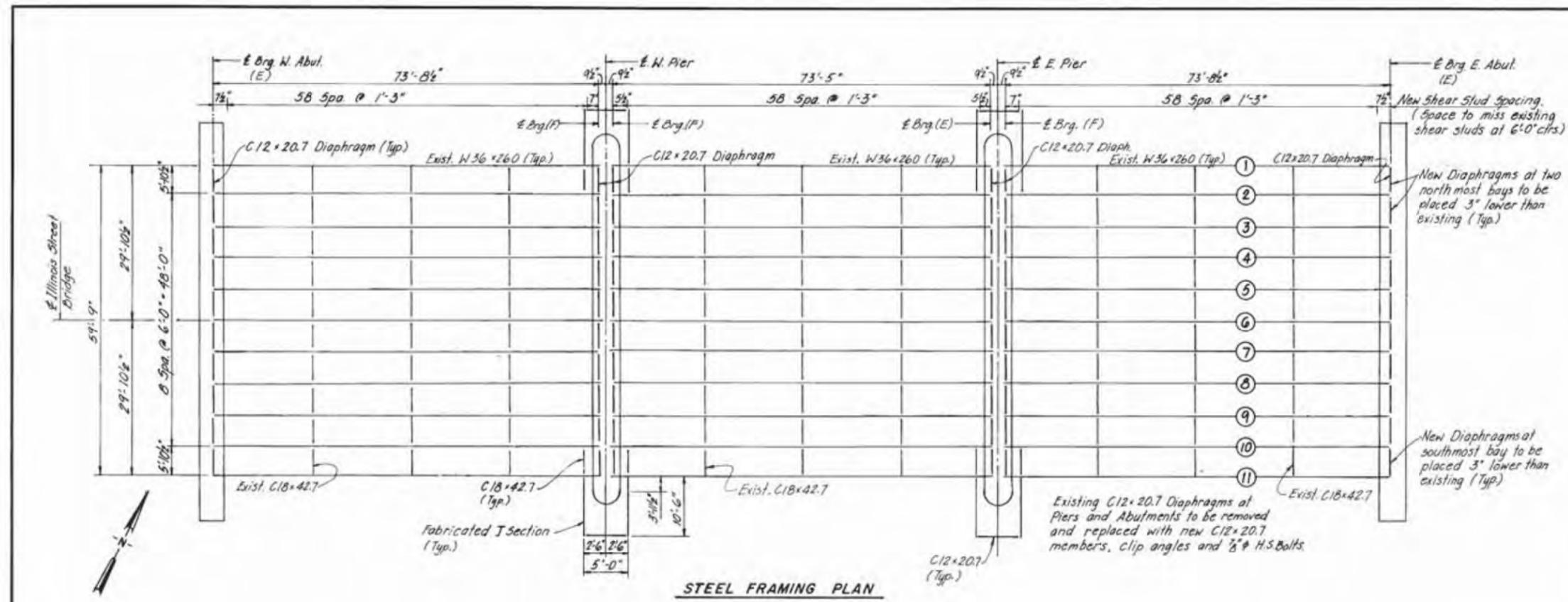
NO.	DATE	NATURE OF REVISION
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CLIENT: **CITY OF ST. CHARLES**
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
2 E. MAIN STREET
ST. CHARLES, IL 60174

WBK ENGINEERING, LLC
 116 West Main Street, Suite 201
 St. Charles, Illinois 60174
 (630) 443-7755

PROJECT NO. 15-0257
 DATE: 03/18/2016
 SHEET 34 OF 39
 DRAWING NO. **E9**

PLOT DATE: 3/18/2016
 FILE NAME: I:\Projects\2015\150257_IL\Bridges\Rehab\Accd\Structural\Draw\Exist_Plans\035-Exist_Plans_10.dwg
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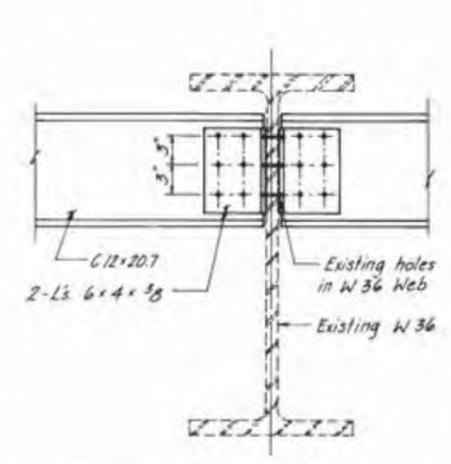
STEEL FRAMING PLAN

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU1532	1534-1536	KANE	13	14
STATION		TO STATION		
FED. ROAD DIST. NO. 5		ILLINOIS PROJECT ERM-522(14E)		

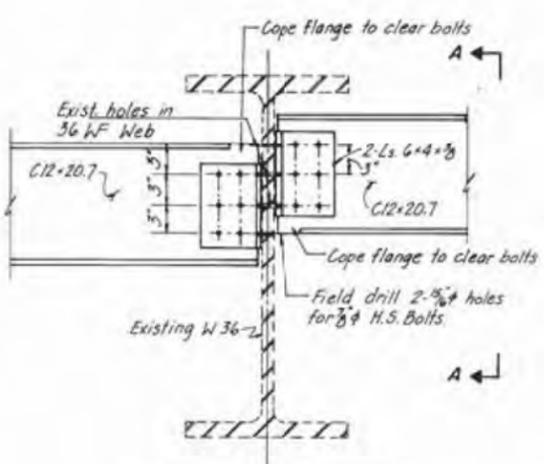
BILL OF MATERIALS
INCLUDES ALCOVE SUPPORT AND PIER MODIFICATION

BAR NO.	SIZE	LENGTH	SHAPE
d11	44 #6	1'-9"	—
d12	28 #6	6'-3"	—
d13	12 #6	7'-2"	—
U10	28 #4	4'-6"	—
U11	16 #4	4'-0"	—
U12	32 #4	3'-0"	—

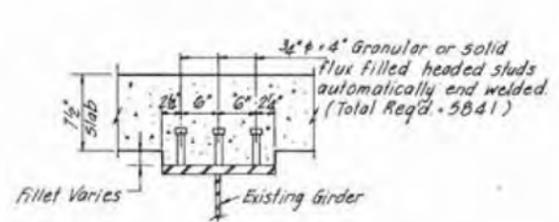
ITEM	UNIT	QUANTITY
Reinforcement Bars	Lbs.	700
Drill & Grout Dowels	Each	44
Furnish & Erecting Structural Steel (Participating)	Lbs.	32,920
Furnish & Erecting Structural Steel (Non-Participating)	Lbs.	8,000
Class X Concrete (Non-Participating)	Cu. Yds.	3.1
Structural Steel Removal	Lbs.	7420
Shear Studs	Each	1947



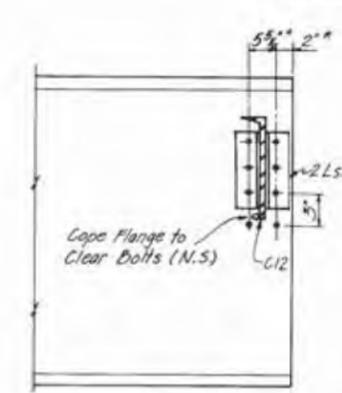
TYPICAL DIAPHRAGM CONNECTION



TYPICAL CONNECTION AT LOWERED DIAPHRAGM



TYPICAL DETAIL OF NEW SHEAR CONNECTORS



SECTION A-A

Notes: Work this Sheet with Sheet 15.
 Concrete removal at top flange of existing beams to be carefully executed to avoid damage to existing beams.
 All bolts 3/8" A325 High Strength bolts unless noted otherwise.
 Field drilling all holes to be incidental to "Furnish and Erect Structural Steel."
 Existing Diaphragm connections between Beams 6 & 7 to be loosened if bearings are to be replaced in two stages. Connections shall be tightened after all new bearings are in place.
 (E) - Expansion Brg., (F) - Fixed Brg.

* Denotes dimensions taken from original plans and are to be checked by the contractor prior to steel fabrication.

HOWARD NEEDLES TAMMEN & BERGENCOFF
HNTB
 MADE BY: BRT DATE: 8/15/16 CHECKED BY: DW DATE: 9/23/16

STEEL FRAMING AND DETAILS

CITY OF ST. CHARLES, ILLINOIS
 ILLINOIS STREET BRIDGE
 OVER THE FOX RIVER

SCALE: DATE: 10/14/86

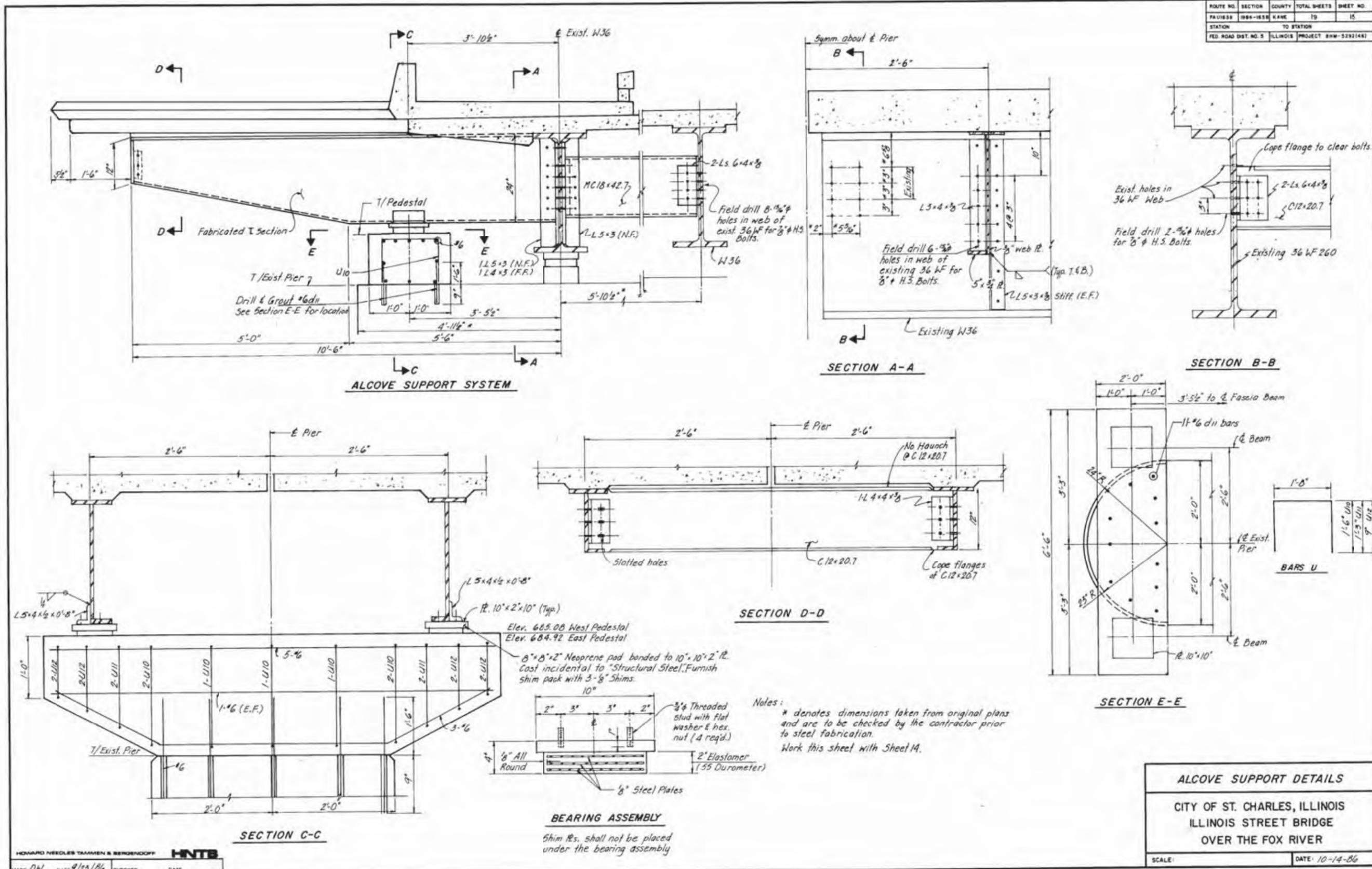
CLIENT: CITY OF ST. CHARLES, ILLINOIS
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DIVISION
 2 E. MAIN STREET
 ST. CHARLES, IL 60174

TITLE: ILLINOIS STREET BRIDGE REHABILITATION
 1986 BRIDGE REHAB PLANS FOR REFERENCE ONLY

NO.	DATE	NATURE OF REVISION
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PROJECT NO. 15-0257
 DATE: 03/18/2016
 SHEET 35 OF 39
 DRAWING NO. **E10**

PLOT DATE: 3/18/2016
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ALCOVE SUPPORT DETAILS

CITY OF ST. CHARLES, ILLINOIS
ILLINOIS STREET BRIDGE
OVER THE FOX RIVER

SCALE: _____ DATE: 10-14-86

**ILLINOIS STREET
BRIDGE REHABILITATION
1986 BRIDGE REHAB PLANS
FOR REFERENCE ONLY**

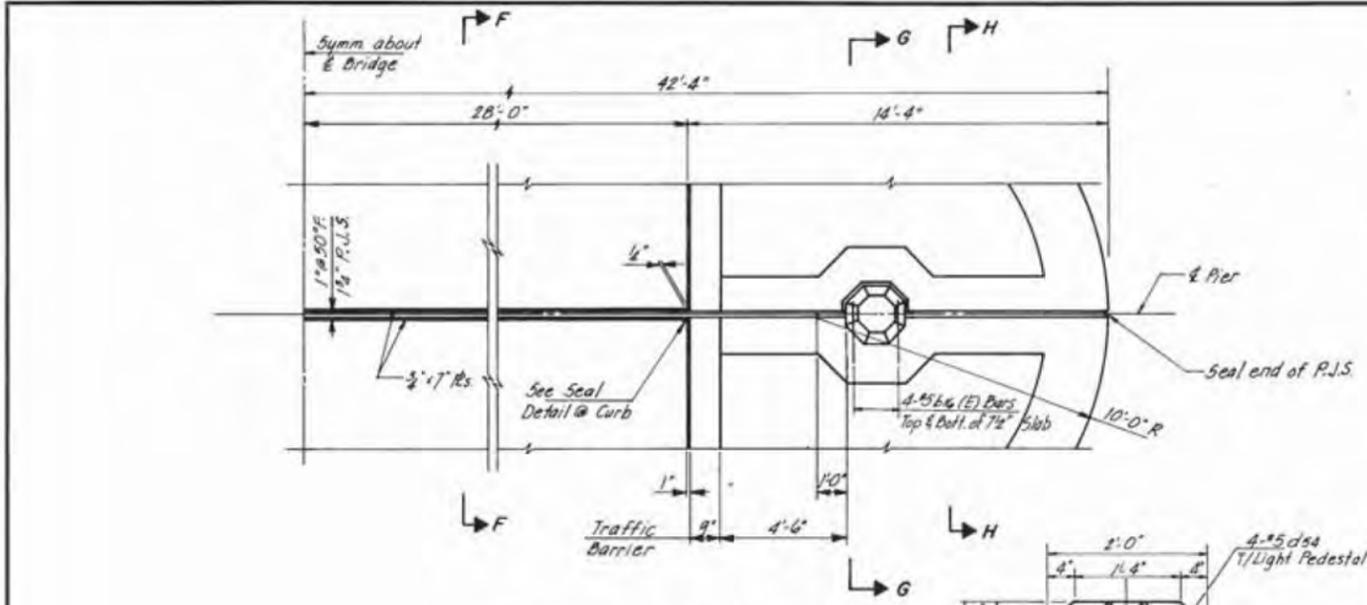
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**CITY OF ST. CHARLES DEPARTMENT
PUBLIC WORKS DIVISION
ENGINEERING DIVISION
2 E. MAIN STREET
ST. CHARLES, IL 60174**

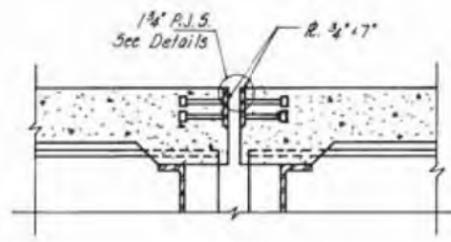
WBK ENGINEERING, LLC
 116 West Main Street, Suite 201
 St. Charles, Illinois 60174
 (630) 443-7755

PROJECT NO. 15-0257
 DATE: 03/18/2016
 SHEET 36 OF 39
 DRAWING NO.
E11

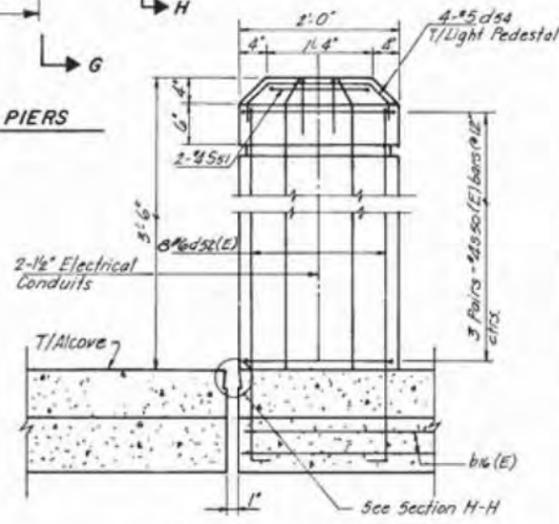
PLOT DATE: 3/18/2016
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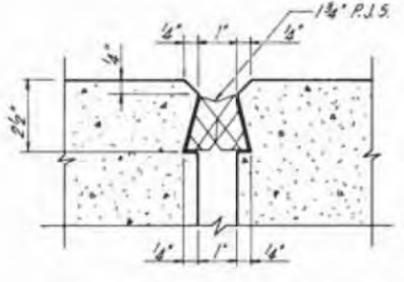
PROPOSED JOINT PLAN AT PIERS



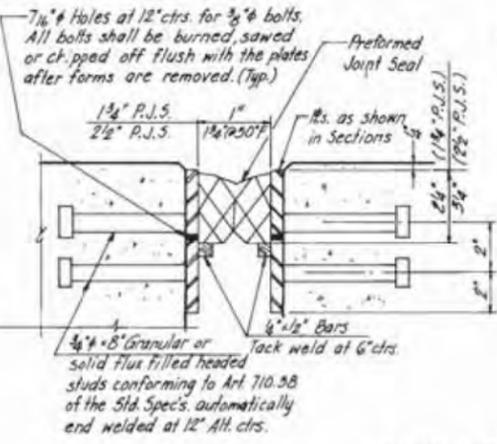
SECTION F-F AT DECK



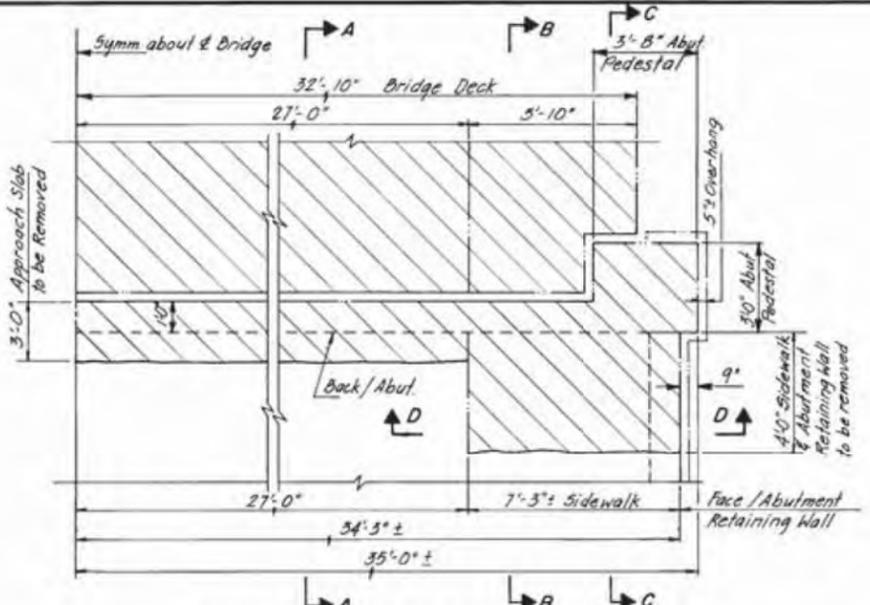
SECTION G-G LIGHT PEDESTAL



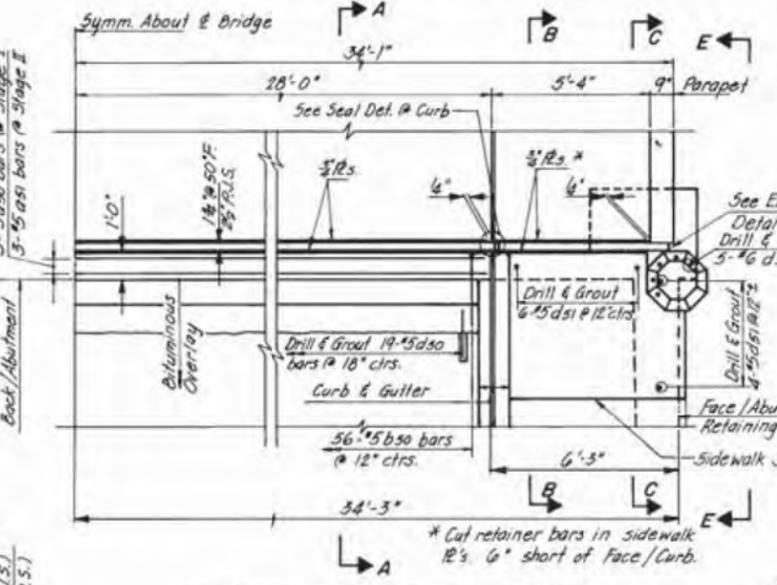
SECTION H-H AT ALCOVE



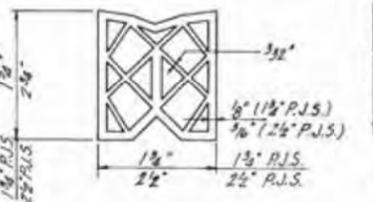
PREFORMED JOINT SEAL DETAIL



EXISTING JOINT PLAN AT ABUTMENT



PROPOSED JOINT PLAN AT ABUTMENT

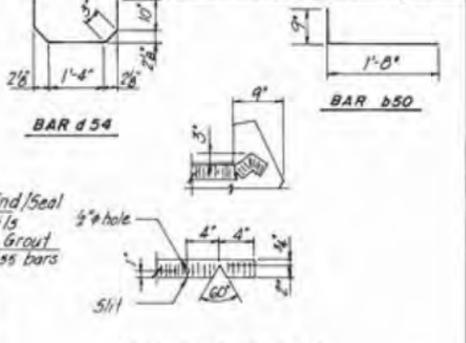


134" B 2 1/2" P.J.S.

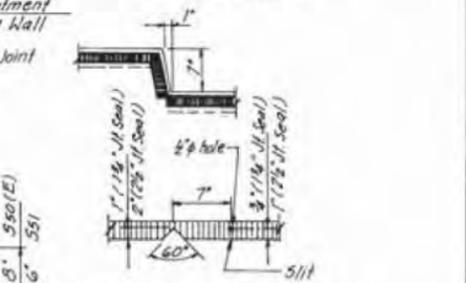
Notes: Work this sheet with Sheet 17.
 See civil sheets for limits of sidewalk removal and replacement of approaches. 5" sidewalk to be paid for as "P.C.G. Sidewalk 5".

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU1839	1884-1886	KANE	19	16
STATION		TO STATION		
FED. ROAD DIST. NO. 6 ILLINOIS PROJECT BRW-8232(4E)				

BILL OF MATERIALS				
BAR NO.	SIZE	LENGTH	SHAPE	
q50	#5	31'-6"	—	
q51	#5	26'-3"	—	
b50	#5	2'-5"	┌	
d50	#5	2'-0"	—	
d51	#5	1'-3"	—	
d53(E)	#6	4'-6"	—	
d54	#5	3'-6"	┌	
d55	#6	2'-6"	—	
s50(S)	#4	3'-4"	┌	
s51	#4	2'-8"	┌	
Item	Unit	Quantity		
Reinforcing Bars Epoxy Coated	Lbs	360		
Reinforcing Bars	Lbs	1000		
Concrete Removal	Cu. Yds.	16.6		
Class X Concrete	Cu. Yds.	18.8		
Preformed Jt Seal 1 1/2"	Lin. Ft.	173		
Preformed Jt Seal 2 1/2"	Lin. Ft.	136		
Drill & Grout Dome Bars	Each	98		



END/SEAL DETAIL AT ABUTMENTS



SEAL DETAIL AT CURB

JOINT PLANS AND DETAILS

CITY OF ST. CHARLES, ILLINOIS
 ILLINOIS STREET BRIDGE
 OVER THE FOX RIVER

SCALE: _____ DATE: 10/14/86

TITLE: ILLINOIS STREET
 BRIDGE REHABILITATION
 1986 BRIDGE REHAB PLANS
 FOR REFERENCE ONLY

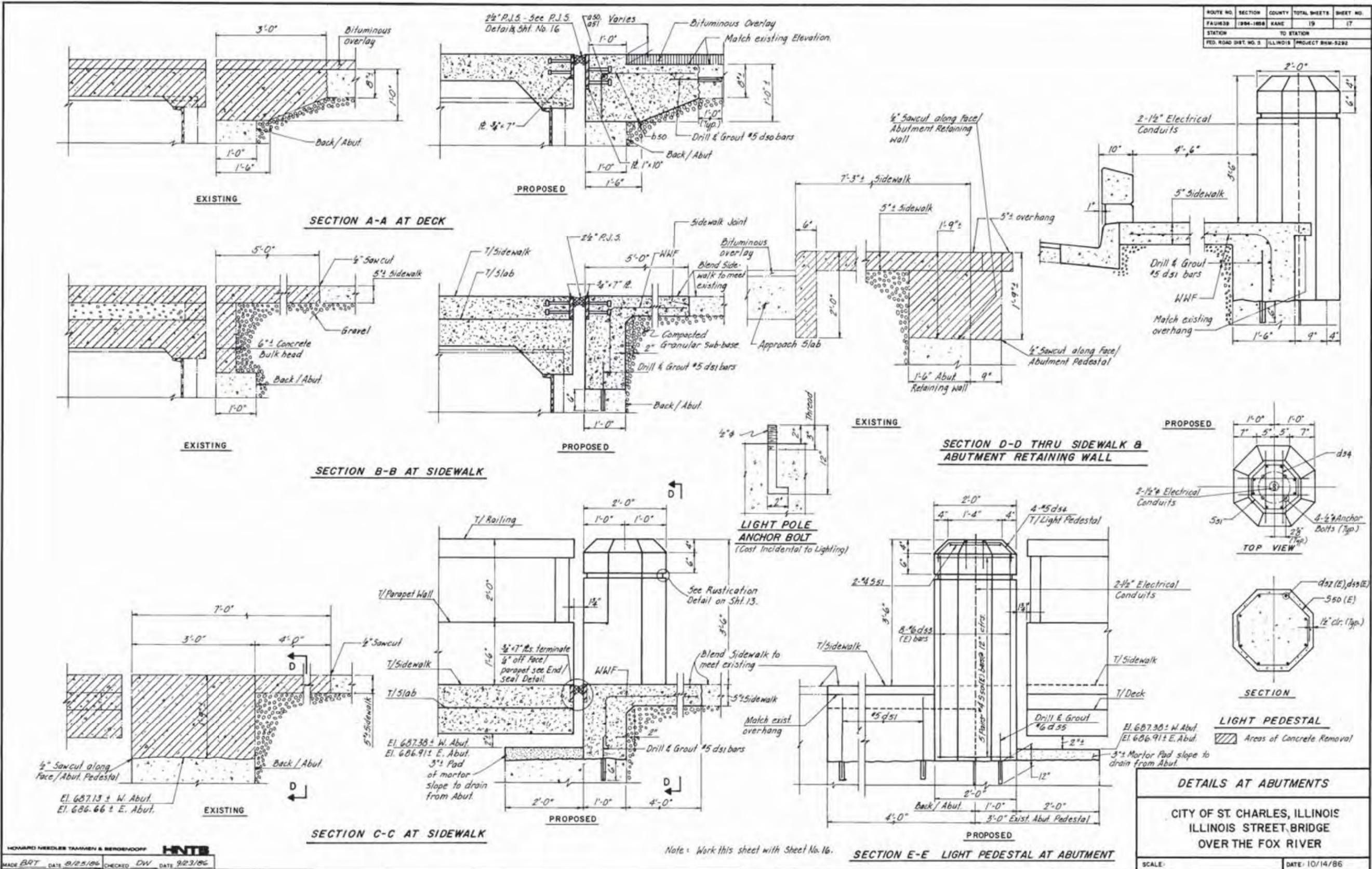
NO.	DATE	NATURE OF REVISION
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CLIENT: CITY OF ST. CHARLES DEPARTMENT
 PUBLIC WORKS DIVISION
 ENGINEERING DIVISION
 2 E. MAIN STREET
 ST. CHARLES, IL 60174

WBK ENGINEERING, LLC
 116 West Main Street, Suite 201
 St. Charles, Illinois 60174
 (630) 443-7765

PROJECT NO. 15-0257
 DATE: 03/18/2016
 SHEET 37 OF 39
 DRAWING NO.
E12

PLOT DATE: 3/18/2016
 FILE NAME: I:\Projects\2015\150257_ILBridgRehab\Coord\Structural\Draw\Illinois Street-038-Exist_Plans_13.dwg
 USER: JWB



HOWARD NEEDLES TAMMEN & BERENSON
HNTB
 MADE BRT DATE 8/25/86 CHECKED DW DATE 9/23/86

Note: Work this sheet with Sheet No. 16.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAUR39	1804-1808	KANE	19	17
STATION		TO STATION		
FED. ROAD DIST. NO. 3		ILLINOIS PROJECT BRM-5292		

ILLINOIS STREET
BRIDGE REHABILITATION
1986 BRIDGE REHAB PLANS
FOR REFERENCE ONLY

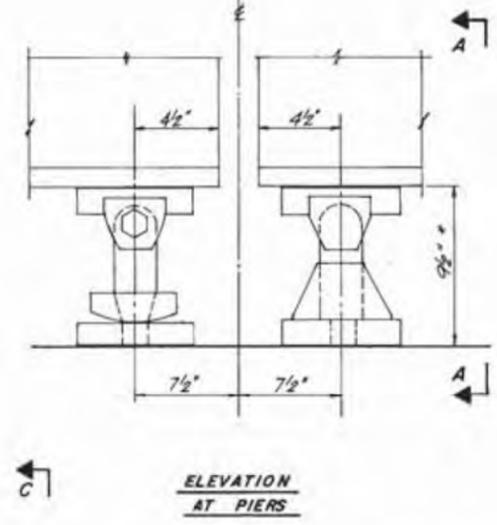
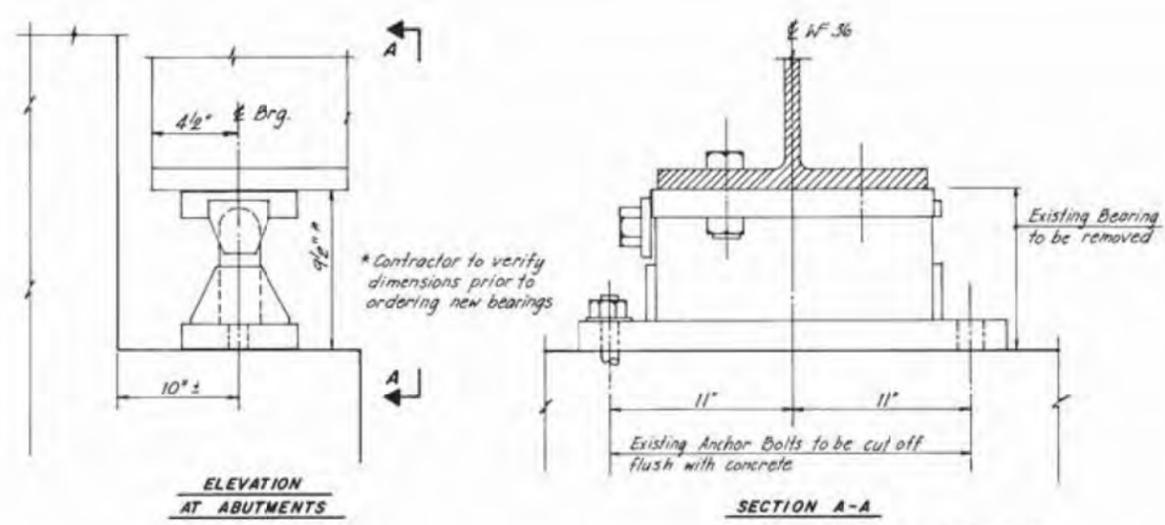
NO.	DATE	NATURE OF REVISION
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CLIENT: **CITY OF ST. CHARLES**
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
2 E. MAIN STREET
ST. CHARLES, IL 60174

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 116 West Main Street, Suite 201
 St. Charles, Illinois 60174
 (630) 443-7765

PROJECT NO. 15-0257
 DATE: 03/18/2016
 SHEET 38 OF 39
 DRAWING NO.
E13

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 1539	1984-1538	KANE	19	18
STATION		TO STATION		
FED. ROAD DIST. NO. 5		ILLINOIS PROJECT RHM-5292 (46)		



BEARING NOTES

ALL STRUCTURAL STEEL SHALL BE AASHTO M-183

ALL COMPONENTS OF EXPANSION BEARING ASSEMBLIES ARE INCLUDED IN THE UNIT BID PRICE FOR "ELASTOMERIC BEARING ASSEMBLY, TYPE 1."

ALL COMPONENTS OF FIXED BEARINGS ARE INCLUDED IN THE UNIT BID PRICE FOR "FURNISHING AND ERECTING STRUCTURAL STEEL."

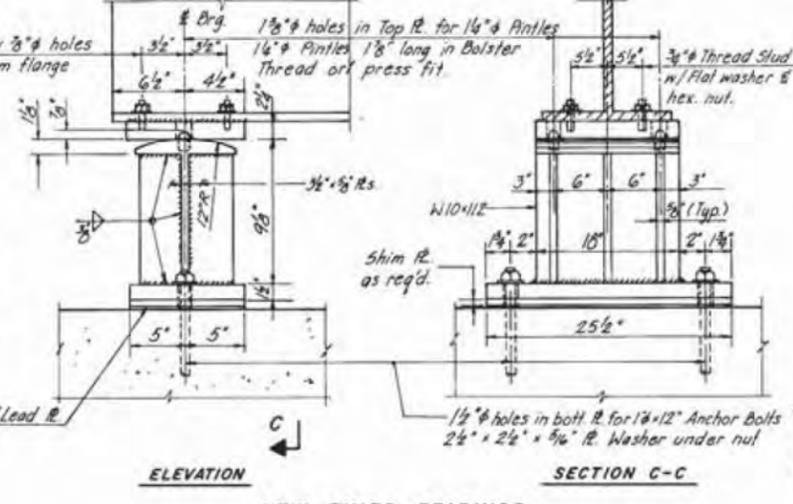
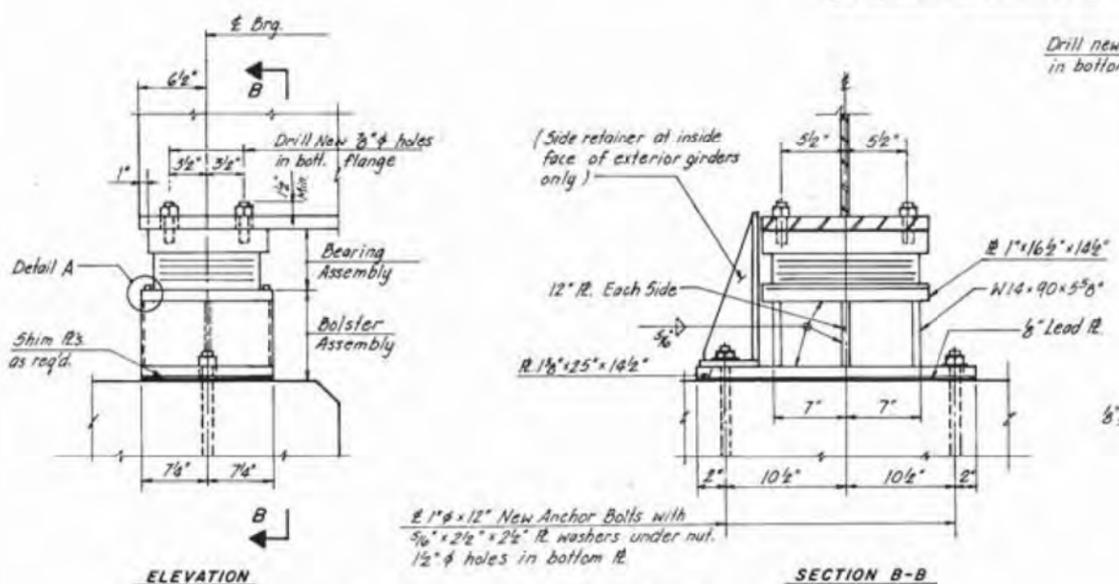
EQUIVALENT WELDED PLATES WILL BE ALLOWED FOR THE BOLSTER ASSEMBLY IN LIEU OF THE ROLLED BEAM AND PLATES.

CONTACT SURFACE OF BOLSTER ASSEMBLY BETWEEN PLATE AND ELASTOMER SHALL BE LEFT UNPAINTED AND SHALL BE BLAST CLEANED BEFORE PLACING BEARING-ASSEMBLY.

CONTRACTOR SHALL VERIFY DIMENSIONS OF EXISTING BEARINGS BEFORE REMOVING AND ORDERING NEW BEARINGS.

FOR ANCHOR BOLT DETAILS AND INSTALLATION PROCEDURES, SEE SHEET NO. 13.

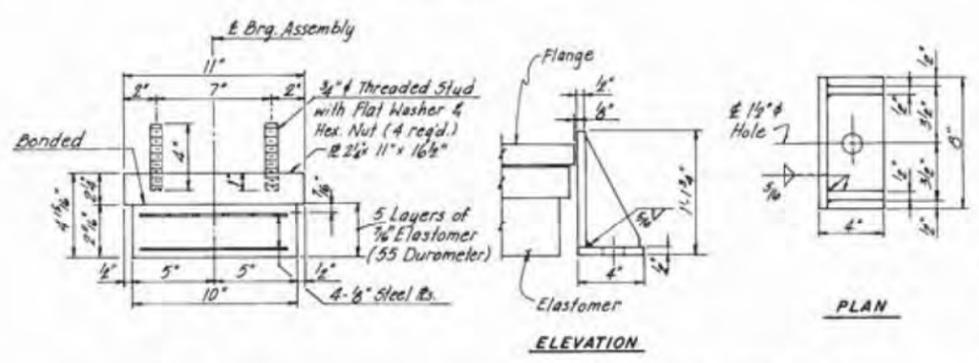
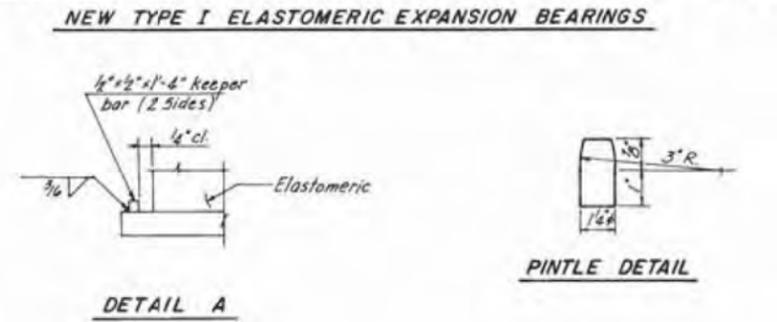
EACH BEARING ASSEMBLY IS TO INCLUDE A SHIM PACK CONSISTING OF 3 - 1/8" AND 2 1/4" SHIMS.



PROPOSED ELEVATION TOP OF BEAMS *

BEAM	W. ABUT	W. PIER	E. PIER	E-ABUT
1	687.56	687.41	687.25	687.09
2	687.63	687.47	687.31	687.15
3	687.69	687.53	687.37	687.22
4	687.69	687.53	687.37	687.22
5	687.63	687.47	687.31	687.15
6	687.56	687.40	687.25	687.09
7	687.63	687.47	687.31	687.15
8	687.69	687.53	687.37	687.22
9	687.69	687.53	687.37	687.22
10	687.63	687.47	687.31	687.15
11	687.56	687.41	687.25	687.09

* THESE ELEVATIONS ARE BASED ON THE PROPOSED GRADE, MINIMUM HAUNCH OF 1/2", AND RELATIVE BEAM ELEVATIONS TAKEN FROM ORIGINAL PLANS. THE ENGINEER SHALL MAKE ADJUSTMENTS IF REQUIRED TO MAINTAIN THE EXISTING RELATIVE BEAM ELEVATIONS AND MINIMUM HAUNCH.



BILL OF MATERIALS

ITEM	UNIT	QUANTITY
Elastomeric Bearing Assembly Type 1	Each	33
Removal of Existing Bearings	Each	66

BEARINGS

CITY OF ST. CHARLES, ILLINOIS
ILLINOIS STREET BRIDGE
OVER THE FOX RIVER

SCALE: DATE: 10/4/86

HOWARD NEEDLES TAMMEN & BERENDHOFF
HNTB
MADE B.T. DATE 8/25/86 CHECKED DN DATE 9/18/86

ILLINOIS STREET
BRIDGE REHABILITATION
1986 BRIDGE REHAB PLANS
FOR REFERENCE ONLY

1	2	3	4	5	6	7	8	NO.	DATE	NATURE OF REVISION

CITY OF ST. CHARLES
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
2 E. MAIN STREET
ST. CHARLES, IL 60174

WBK ENGINEERING, LLC
116 West Main Street, Suite 201
St. Charles, Illinois 60174
(630) 443-7765

PROJECT NO. 15-0257
DATE: 03/18/2016
SHEET 39 OF 39
DRAWING NO.