

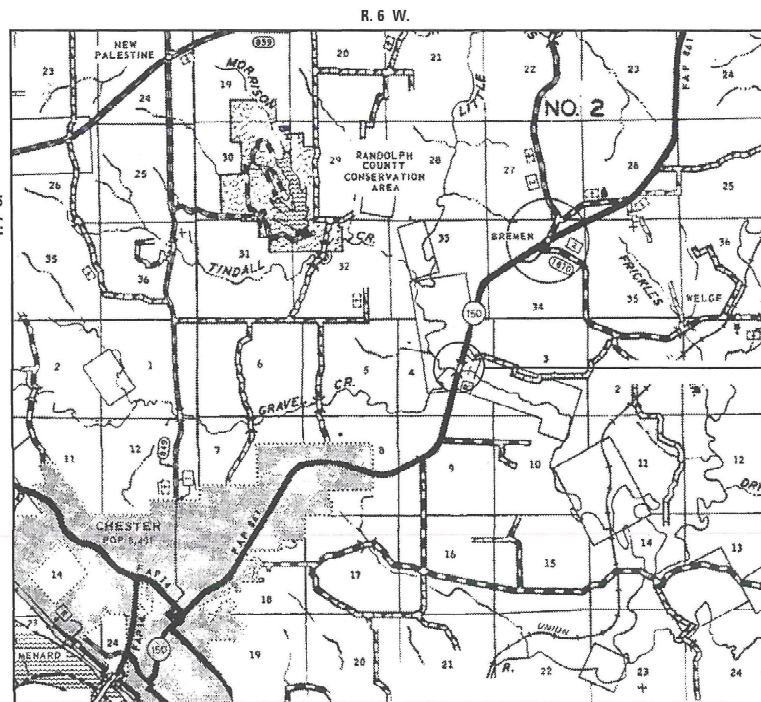
FOR INDEX OF SHEETS SEE SHEET NO. 2

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

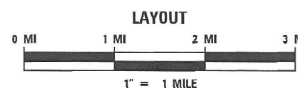
PROPOSED
HIGHWAY PLANS

UNMARKED ROUTE (IL 150)
SECTION 119-1BR-1
BRIDGE REPAIR
RANDOLPH COUNTY

C-98-049-24

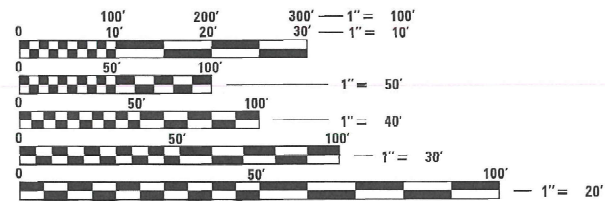


LOCATION MAP



NET LENGTH = 97.33 FT. = .01843 MILE

VK VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939



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

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

PROJECT ENGINEER: BILLIE OWEN
PROJECT MANAGER: MEIWU AN

CONTRACT NO. 76T46

FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
+	119-1BR-1	RANDOLPH	15	1
		ILLINOIS	CONTRACT NO. 76T46	

* UNMARKED

D-98-013-24



LOCATION OF SECTION INDICATED THUS: - [thick black line] -

STRUCTURE NO. 079-9000
IMPROVEMENT LOCATION
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
LATITUDE: 37.948543
LONGITUDE: -89.765931



Mark A. Henderson
Date Signed: 2/24
Expiration Date: 11/30/25

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED *February 20, 24*
Mark A. Henderson
REGIONAL FIVE ENGINEER

March 22, 2024
Steph M. Smith
ENGINEER OF DESIGN AND ENVIRONMENT

March 22, 2024
Steph M. Smith
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

- 1 - COVER SHEET
- 2 - INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES, & COMMITMENTS
- 3 - SUMMARY OF QUANTITIES
- 4-8 - STRUCTURE REPAIR PLANS
- 9 - ELECTRICAL AND FIRE PROTECTION GENERAL DATA
- 10 - ELECTRICAL DISTRIBUTION SYSTEM REPAIR I
- 11 - ELECTRICAL DISTRIBUTION SYSTEM REPAIR II
- 12 - ELECTRICAL DISTRIBUTION SYSTEM REPAIR III
- 13 - ELECTRICAL DISTRIBUTION SYSTEM REPAIR IV
- 14 - ELECTRICAL DISTRIBUTION SYSTEM REPAIR V
- 15 - FIRE PROTECTION SYSTEM REPAIR

HIGHWAY STANDARDS

- 000001-08 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 701001-02 OFF ROAD OPERATIONS, 2L, 2W, MORE THAN 15 FT. AWAY
- 701901-09 TRAFFIC CONTROL DEVICES
- 720001-01 SIGN PANEL MOUNTING DETAIL
- 821101-02 LUMINAIRE WIRING IN POLE

GENERAL NOTES

- 1) AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:

UTILITY	ABOVE GROUND	BELOW GROUND
AMEREN ILLINOIS	X	X
CLEARWAVE FIBER LLC	X	X
EGYPTIAN WATER COMPANY		X
FRONTIER COMMUNICATIONS	X	X
NEWWAVE COMMUNICATIONS	X	X

- 2) NO SURVEY WAS PERFORMED ON THIS PROJECT AND THE PLANS WERE CREATED USING MICROFILM AND FIELD MEASUREMENTS.
- 3) ALL TURF AREAS DISTURBED BY THE CONTRACTOR SHALL BE SEEDED WITH THE APPROPRIATE EROSION CONTROL, AS DIRECTED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

COMMITMENTS

EXISTING AND SALVAGED SIDING, RAFTERS, AND ROOFING NAILERS SHOULD BE RETAINED AND/OR REINSTALLED AS APPROPRIATE. ANY NEW WOOD COMPONENTS MUST MATCH THE DIMENSIONS, PROFILES, AND OVERLAPS OF THE EXISTING COMPONENTS.

IF THE BRIDGE WILL RECEIVE WHOLLY NEW ROOF SHINGLES, THEY SHOULD BE SAWN CEDAR SHINGLES AND NOT SPLIT SHAKES.

ANY REPLACEMENT WOOD VISIBLE TO THE INTERIOR MUST NOT BE PRESSURE TREATED, BECAUSE THIS WOOD IS PROTECTED FROM THE WEATHER, AND BECAUSE IT MUST MATCH IN COLOR THE EXISTING UNPAINTED, NON-PRESSURE TREATED WOOD. THE INTERIOR MUST REMAIN UNPAINTED.

REV. - MS



USER NAME = *USER*	DESIGNED - MAH	REVISED - ____
	DRAWN - JRP	REVISED - ____
PLOT SCALE = *SCALE*	CHECKED - MAH	REVISED - ____
PLOT DATE = 2/8/2024	DATE - 2-2-2024	REVISED - ____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**INDEX OF SHEETS, HIGHWAY STANDARDS,
GENERAL NOTES, & COMMITMENTS**

SCALE: _____ SHEET 1 OF 1 SHEETS STA. _____ TO STA. _____

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	119-1BR-1	RANDOLPH	15	2
			CONTRACT NO. 76T46	
ILLINOIS FED. AID PROJECT				

* UNMARKED

100% STATE
CONSTR. CODE
BRIDGE
0013
RURAL
079-9000

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	100% STATE	
				CONSTR. CODE	BRIDGE
				0013	RURAL
				079-9000	
50700205	UNTREATED TIMBER	F.B.M.	4219	4219	
50700305	HARDWARE	POUND	290	290	
67100100	MOBILIZATION	L SUM	1	1	
81100200	CONDUIT ATTACHED TO STRUCTURE, 3/4" DIA., GALVANIZED STEEL	FOOT	124	124	
81702450	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 10	FOOT	124	124	
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	254	254	
X0322283	VIDEO SURVEILLANCE SYSTEM COMPLETE	EACH	1	1	
X0323524	REMOVE EXISTING SURVEILLANCE CAMERA EQUIPMENT	EACH	1	1	
X0323607	FIRE PROTECTION SYSTEM	L. SUM	1	1	
X0324192	PAINTING TIMBER STRUCTURE	SQ. FT.	3460	3460	
X0324194	CEDAR SHINGLES	SQ. FT.	2670	2670	
X0325815	REMOVE EXISTING CABLE	FOOT	816	816	
X0326618	ADDRESSABLE FIRE ALARM SYSTEM	L SUM	1	1	
X1400238	LUMINAIRE, LED, SPECIAL	EACH	4	4	

100% STATE
CONSTR. CODE
BRIDGE
0013
RURAL
079-9000

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	100% STATE	
				CONSTR. CODE	BRIDGE
				0013	RURAL
				079-9000	
X1400403	LUMINAIRE REPLACEMENT SPECIAL	EACH	3	3	
X8250091	COMBINATION LIGHTING CONTROLLER	EACH	1	1	
X8430100	REMOVE EXISTING CONDUIT ATTACHED TO STRUCTURE	FOOT	238	238	
X8950080	REMOVE EXISTING LIGHTING CONTROLLER	EACH	1	1	

MODEL: D:\info\... FILE NAME: 210_V and K Jobs\527 - DDOT - BBS\5272 - PTB 181-17_Vir_Vor\5272-025_BBS_PTB 181-17_WD-25_Marys River Covered Bridge Repair\CADD\CADD Structures\5272-025_rth-sec.dgn



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PLOT SCALE = \$SCALE\$	DRAWN - _____	REVISED - _____
PLOT DATE = 2/5/2024	CHECKED - _____	REVISED - _____
	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

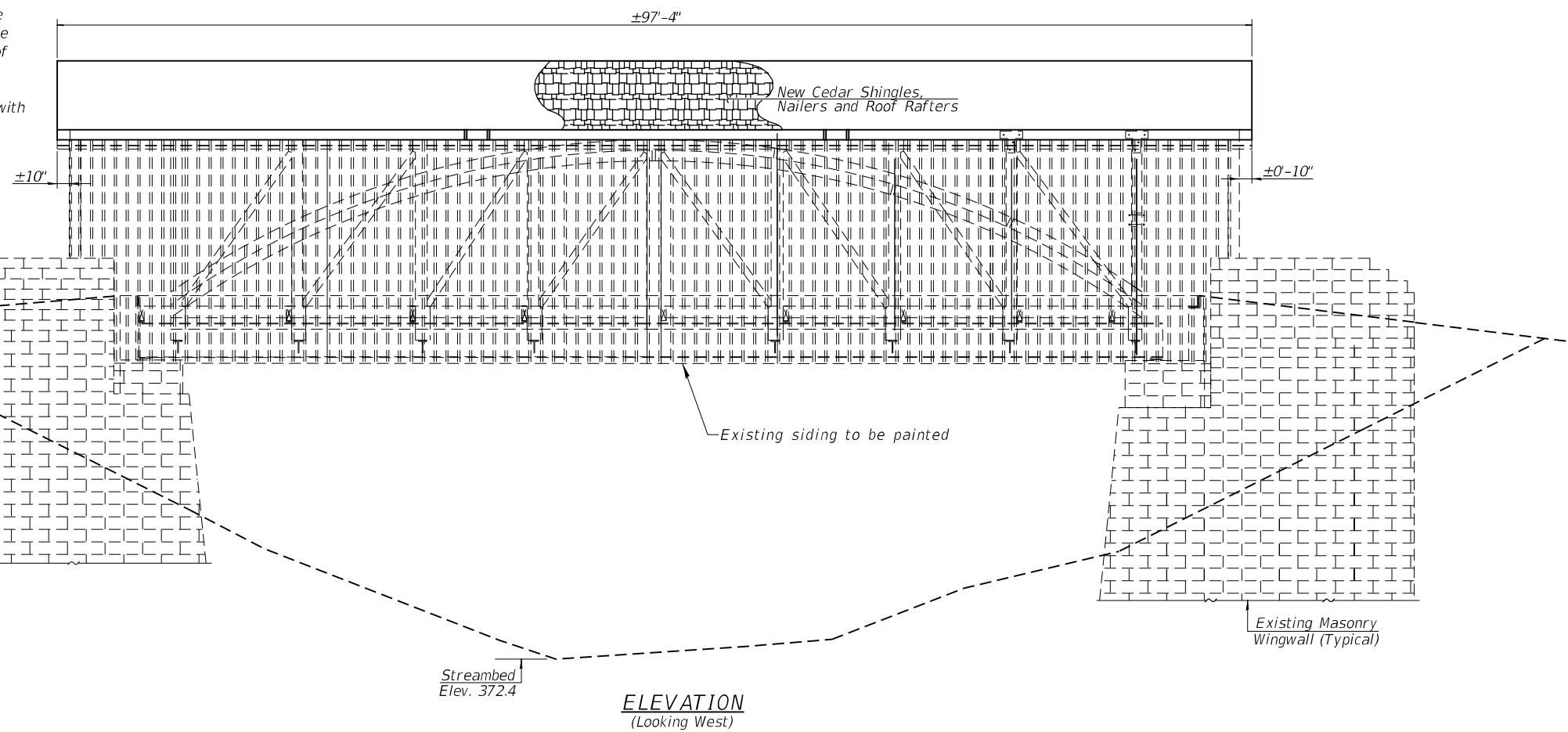
SUMMARY OF QUANTITIES

SCALE: _____ SHEET 1 OF 1 SHEETS STA. _____ TO STA. _____

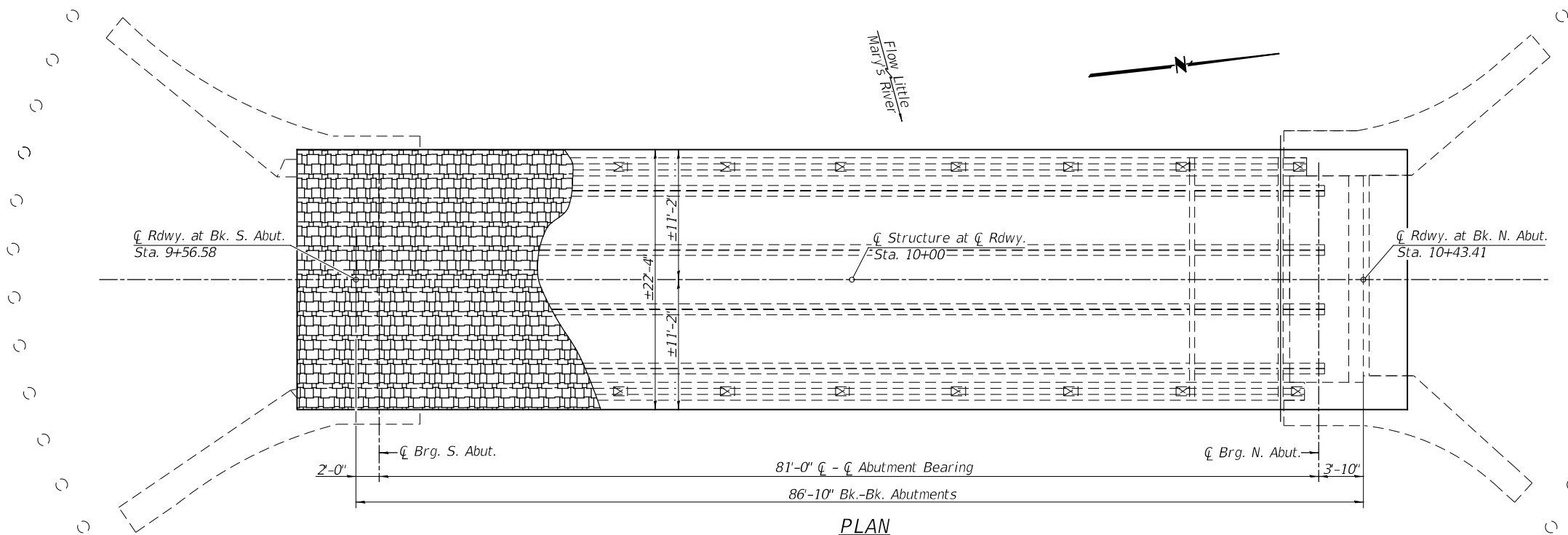
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*	119-1BR-1	RANDOLPH	15	3
			CONTRACT NO. 76T46	
			ILLINOIS FED. AID PROJECT	

* UNMARKED

Existing Structure: Wood Covered Truss Bridge consisting of an Arch Assisted Howe Truss. The trusses have 9 panel points and a total span of ±77 feet. Clear bridge deck width is ±15'-7". Timber bridge is supported by structural steel superstructure. Abutments are stone masonry with poured concrete caps.



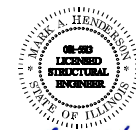
ELEVATION
(Looking West)



PLAN

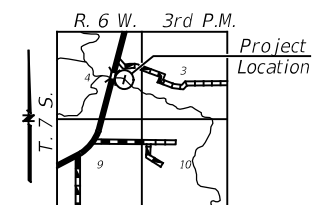
INDEX OF SHEETS

- 1 - General Plan & Elevation
- 2 - General Data
- 3 - West Truss Repair Details
- 4 - End Gable Details
- 5 - Roof Framing Details



Mark A. Henderson

Date Signed: 2/2/24
Expiration Date: 11/30/24



LOCATION SKETCH

**GENERAL PLAN & ELEVATION
UNMARKED ROUTE OVER
LITTLE MARY'S RIVER
SECTION 19-1BR-1
S.N. 079-9000
STA. 10+00
RANDOLPH COUNTY**

MODEL: 001
FILE NAME: Z:\10 V and K Jobs\527 - IDOT - BBS\5272-025 - PTB - 181-17 - WO-25 - Marys River Covered Bridge - Repair\CADD\CADD_Sheets\5272-025 - sh-structure.dgn
2/2/2024 11:45:56 AM

VEENSTRA & KIMM INC.
Springfield, IL. Phone: (217)544-8033
IL. Design Firm No. 184-001939

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PLOT DATE =	DRAWN -	REVISED -
	CHECKED -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN & ELEVATION
STRUCTURE NO. 079-9000**

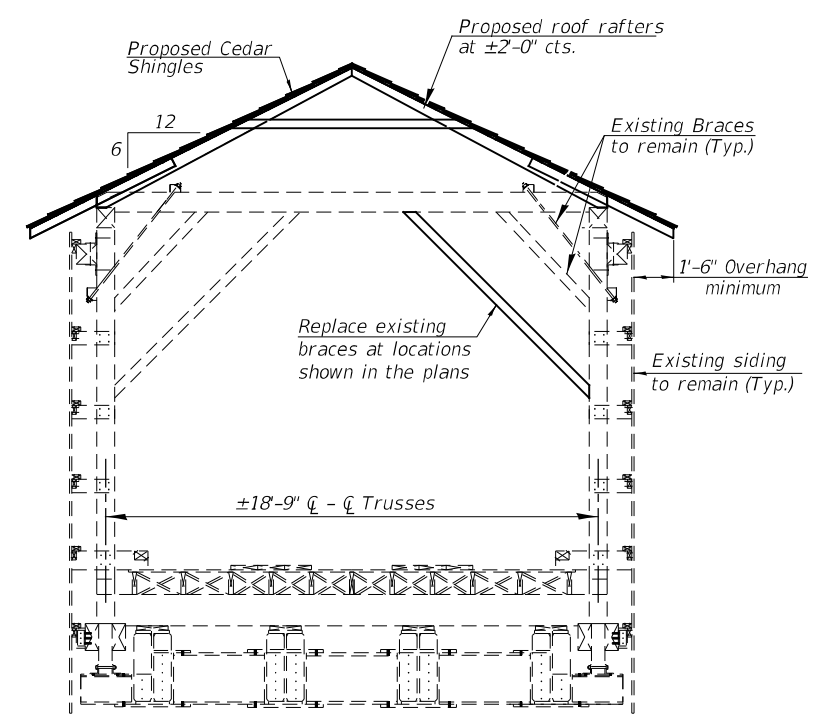
SHEET 1 OF 5 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	119-1BR-1	RANDOLPH	15	4
			CONTRACT NO. 76T46	

ILLINOIS FED. AID PROJECT

* UNMARKED

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SECTION THROUGH REHABILITATED BRIDGE
(Near Midspan)

SCOPE OF WORK

1. Remove any existing skip sheathing, rafters, shingles, and portions of the existing end gables as shown and required to facilitate construction.
2. Provide new roof rafters, new skip sheathing, and new shingles.
3. Remove and replace gable end walls at each end of the bridge.
4. Replace existing braces at locations shown in plans.
5. Paint all existing and new siding.
6. Other miscellaneous repairs as shown in the plans.

GENERAL NOTES

The cost of removal and disposal of portions of the existing structure as required to facilitate construction shall be included with "Untreated Timber". (See Special Provisions)

Plan dimensions and details relative to the existing structure have been taken from the existing plans and are subject to nominal construction variances. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

The contractor shall pre-drill holes where required for driving nails, screws and lag bolts. The cost of pre-drilling holes will be included with "Hardware".

The contractor shall be fully responsible for all temporary bracing required to maintain the structure in a stable condition during construction.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Total
Cedar Shingles	Sq. Ft.	2670	2670
Untreated Timber	F.B.M.	4219	4219
Hardware	Pound	290	290
Painting Timber Structure	Sq. Ft.	3460	3460

DESIGN SPECIFICATIONS

2002 A.A.S.H.T.O. Specifications with 2003 Interim Specifications.

LOADING

Roof Snow Load: 20 p.s.f.
 Roof Live Load: 20 p.s.f.
 Wind Speed: 107 m.p.h. (ultimate), 85 m.p.h. (service)

DESIGN STRESSES

Fy = 36,000 p.s.i. (Structural Steel M270 Gr. 36)
 Fb = 800 p.s.i. (Red Oak No. 2)
 Fv = 170 p.s.i. (Red Oak No. 2)
 Fc(par) = 625 p.s.i. (Red Oak No. 2)
 Fc(perp) = 820 p.s.i. (Red Oak No. 2)

SEISMIC DATA

Seismic Performance Category = B
 Bedrock Acceleration Coefficient = 13%g
 Site Coefficient = 1.0

VEENSTRA & KIMM INC.
 Springfield, IL. Phone: (217)544-8033
 IL. Design Firm No. 184-001939

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PLOT DATE =	DRAWN - JRP	REVISED -
	CHECKED - MAH	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

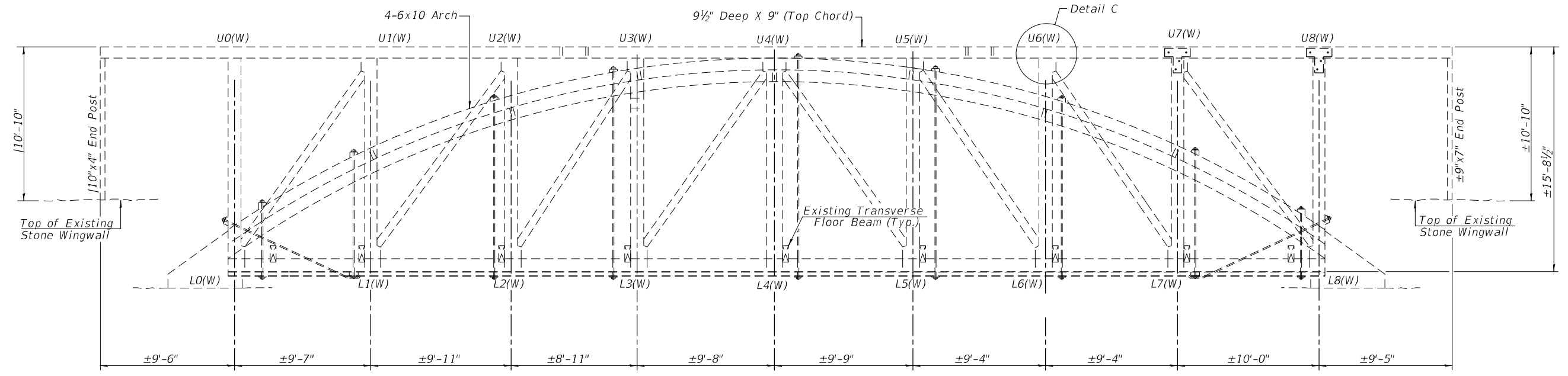
**GENERAL DATA
 STRUCTURE NO. 079-9000**

SHEET 2 OF 5 SHEETS

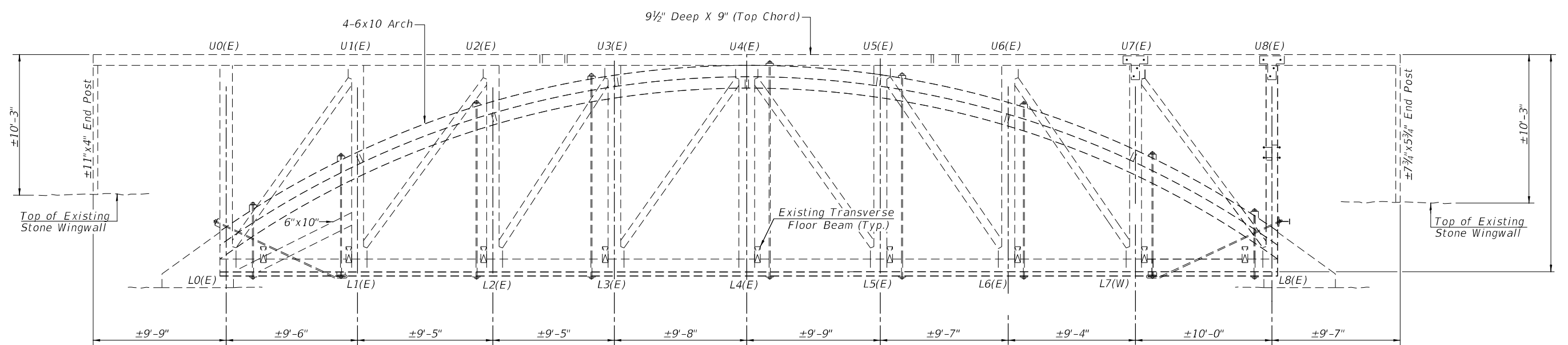
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*	119-1BR-1	RANDOLPH	15	5
			CONTRACT NO. 76T46	
ILLINOIS FED. AID PROJECT				

* UNMARKED

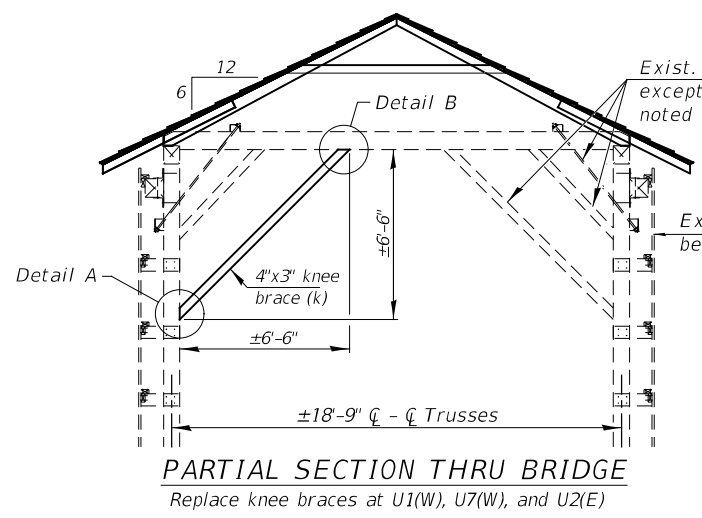
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WEST TRUSS ELEVATION
 (Looking West)



EAST TRUSS ELEVATION
 (Looking West)



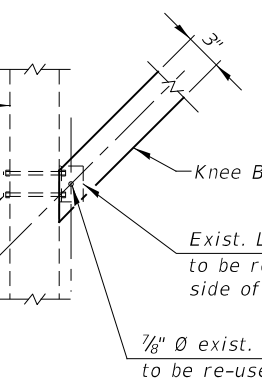
PARTIAL SECTION THRU BRIDGE
 Replace knee braces at U1(W), U7(W), and U2(E)

Exist. braces to remain except at locations noted below.

Exist. Siding to be re-used

Exist. Truss Vert.

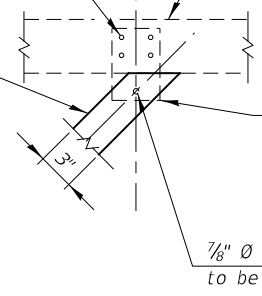
4-5/8" Ø exist. bolts to be re-used



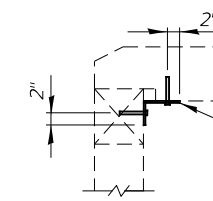
DETAIL A

4-5/8" Ø exist. bolts to be re-used

Exist. roof beam



DETAIL B



DETAIL C

Notes:

1. Timber and hardware material required for truss repair are included in the Bill of Material on sheet 4 of 5.
2. Dimensions shown are actual sizes of members to be used. Nominal sizes will not be allowed.
3. Timber members must be cut to fit as needed.
4. Structural timber must be rough sawn.
5. Holes in timber members shall be field drilled according to Article 507.08 of the Standard Specifications.

VEENSTRA & KIMM INC.
 Springfield, IL. Phone: (217)544-8033
 IL. Design Firm No. 184-001939

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PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE =	DRAWN -	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

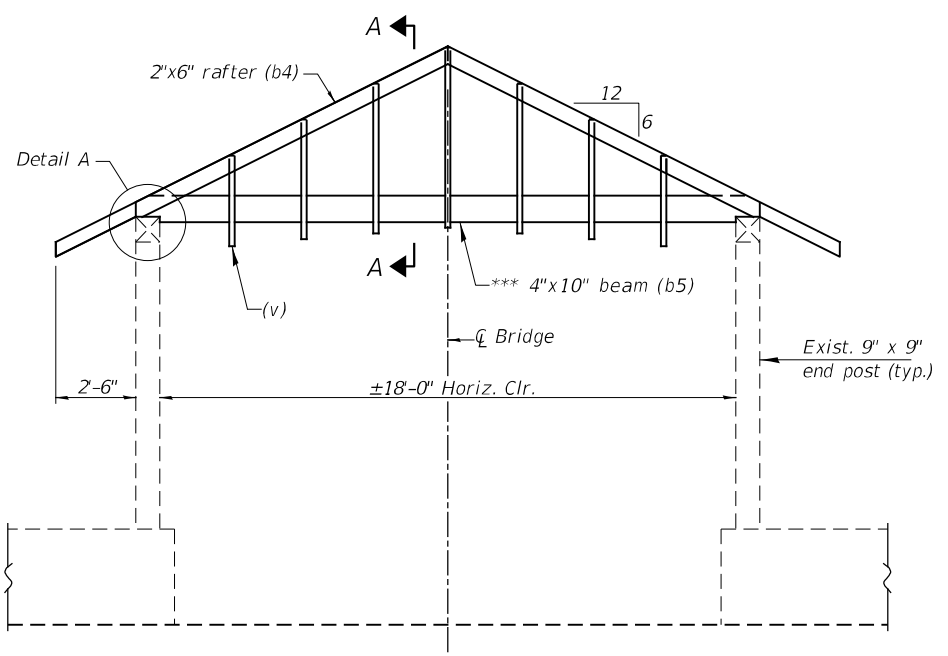
KNEE BRACE REPLACEMENT DETAILS
STRUCTURE NO. 079-9000

SHEET 3 OF 5 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	119-1BR-1	RANDOLPH	15	6
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76T46	

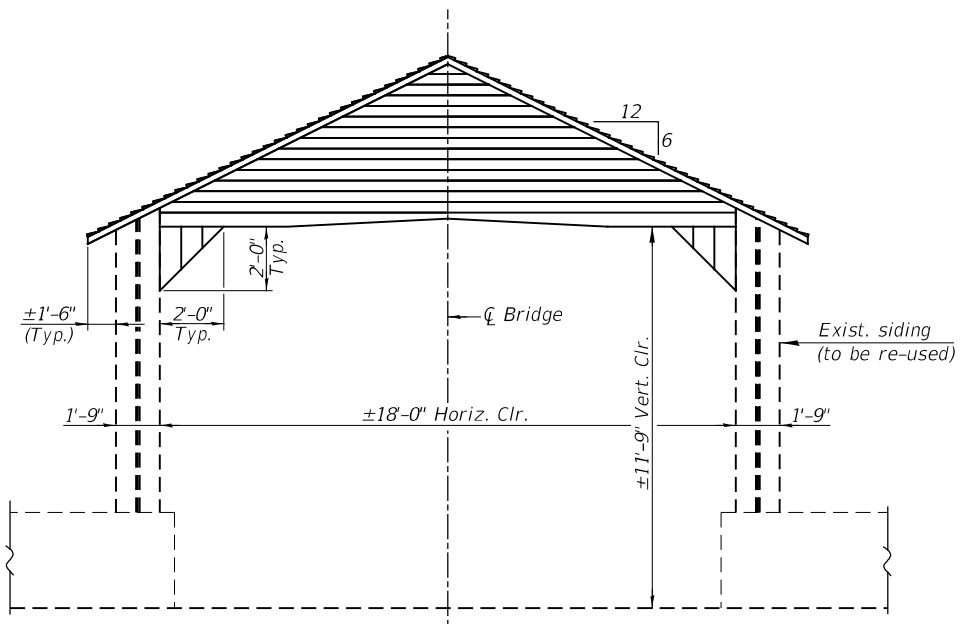
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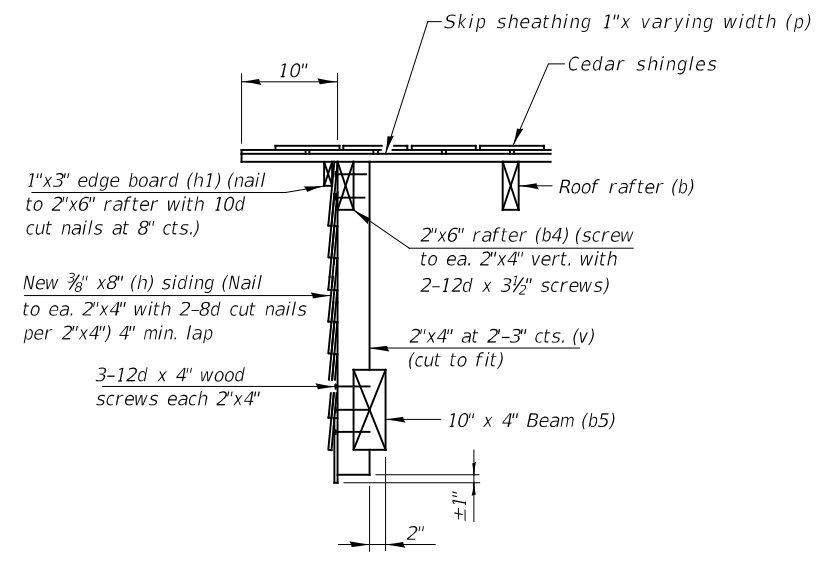


GABLE END ELEVATION
(Showing framing members)

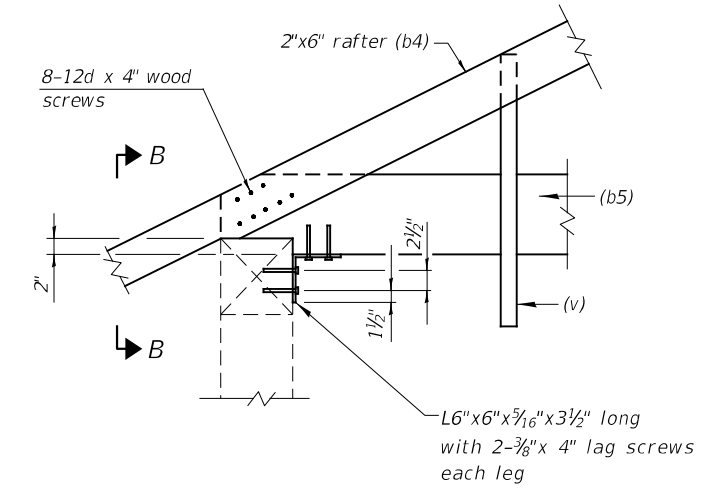
*** Existing bracing in the plane of the top chord of the trusses shall be removed and re-attached as required to facilitate construction of the gable end. Cost included with "Untreated Timber."



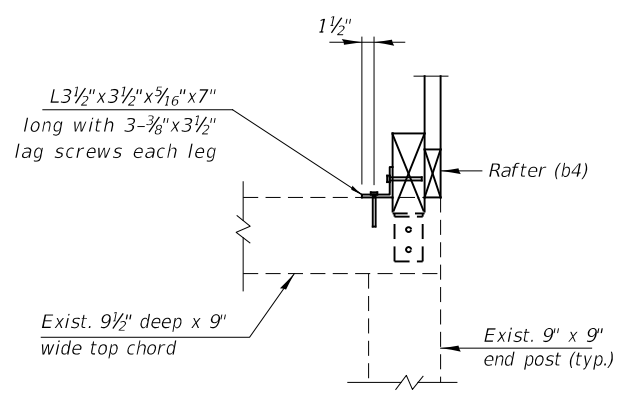
GABLE END ELEVATION
(Showing limits of existing and proposed siding)



SECTION A-A



DETAIL A
(Shingles and nailers not shown for clarity)



SECTION B-B
(Siding not shown for clarity)

BILL OF MATERIAL - ROOF AND END GABLE

MEMBER	DESCRIPTION	NUMBER	SIZE	MATERIAL
* b	Roof Rafter	94	2" x Varies x 11'-6"	Red Oak No. 2
b1	Rafter Extension	94	2" x 4" x 6'-0"	Red Oak No. 2
b2	Rafter Tie	47	2" x 4" x 9'-3"	Red Oak No. 2
b3	Ridge Connector Plate	47	2" x Varies x 2'-0"	Red Oak No. 2
b4	Gable Roof Rafter	4	2" x 6" x 14'-0"	Red Oak No. 2
b5	Gable End Beam	2	4" x 10" x 19'-6"	Red Oak No. 2
h	Gable Horizontal Siding	30	8" x 3/8" x 12'-0"	Red Oak No. 2
h1	Gable Edge Board	4	1" x 3" x 14'-0"	Red Oak No. 2
k	Knee Brace	3	4" x 3" x 9'-4"	Red Oak No. 2
** p	Skip Sheathing	182	1" x Varies x 16'-0"	Red Oak No. 2
v	Gable Verticals	14	2" x 4" x 5'-9"	Red Oak No. 2

* Height of roof rafters varies from 7" at outside of top chord of truss to 3 1/2" at ridge. Height is measured perpendicular to top edge of rafter.

** Skip sheathing width shall vary between 6" and 12" and shall be nailed to each roof rafter in a random order with the end joints staggered from rafter to rafter. Distance between skip sheathing shall vary from 2" to 4". Fasten skip sheathing to each rafter using 3 -12d cut nails.

Notes:

- Dimensions shown are actual sizes of members to be used. Nominal sizes will not be allowed.
- Timber members must be cut to fit as needed.
- Structural timber must be rough sawn.
- Holes in timber members shall be field drilled according to Article 507.08 of the Standard Specifications.
- See sheet 5 of 5 for roof framing details.
- See sheet 3 of 5 for knee brace details.



USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE =	DRAWN -	REVISED -
	CHECKED -	REVISED -

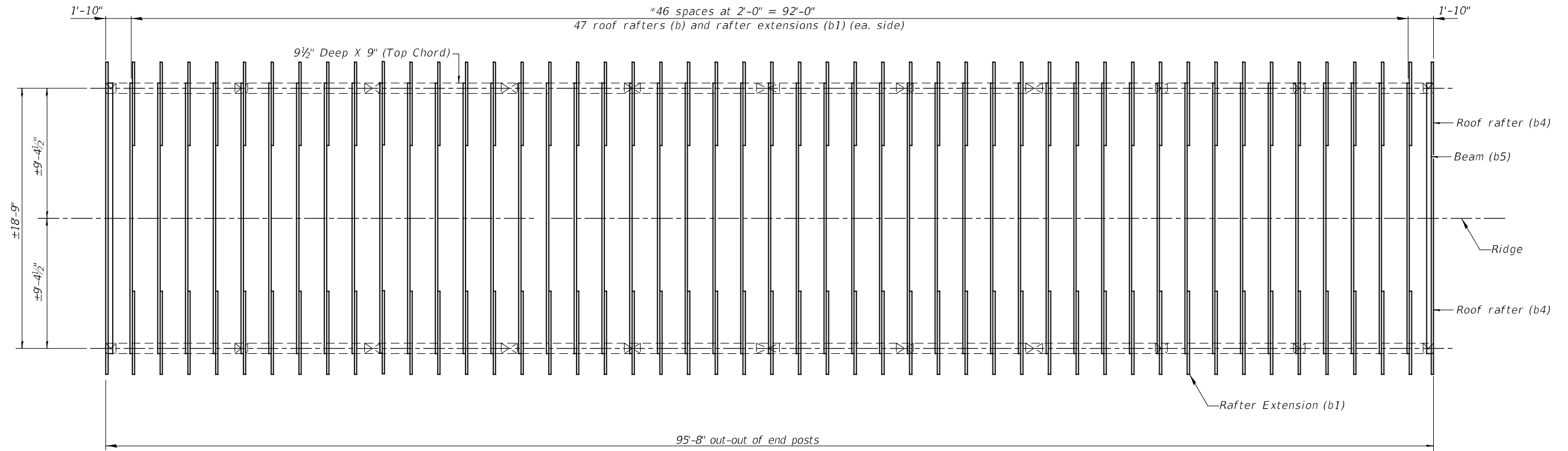
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

END GABLE REPAIR DETAILS
STRUCTURE NO. 079-9000

SHEET 4 OF 5 SHEETS

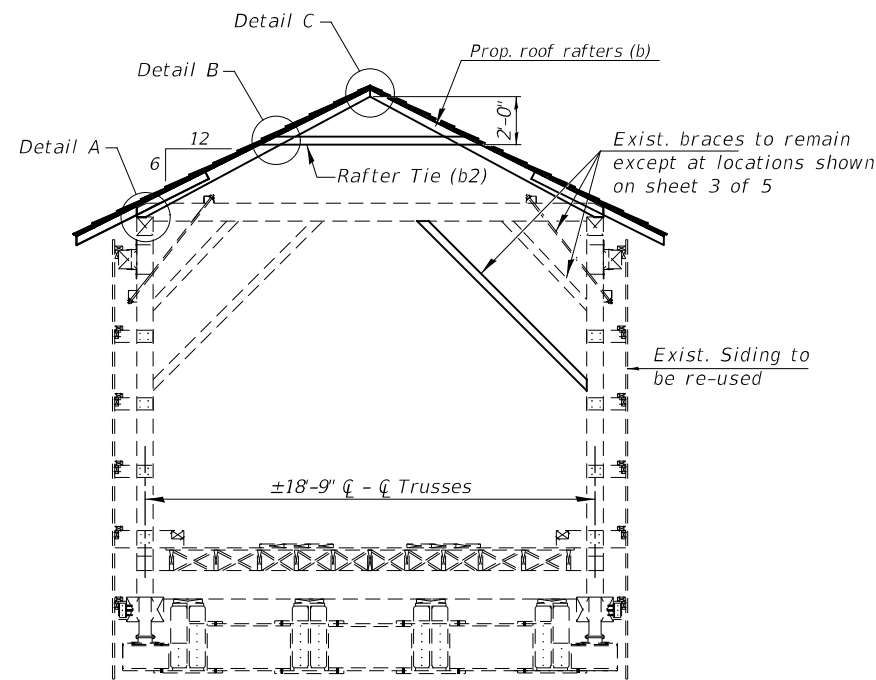
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	119-1BR-1	RANDOLPH	15	7
			CONTRACT NO. 76T46	
		ILLINOIS	FED. AID PROJECT	

* UNMARKED

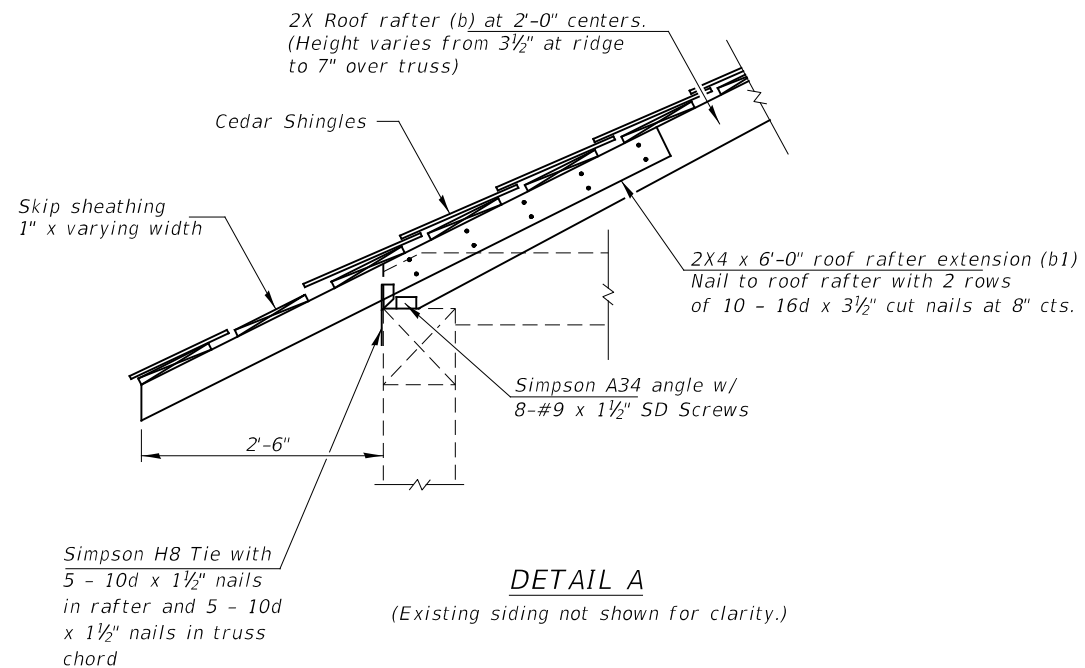


FRAMING PLAN

* Roof rafters may be shifted slightly to avoid conflict with existing roof beams

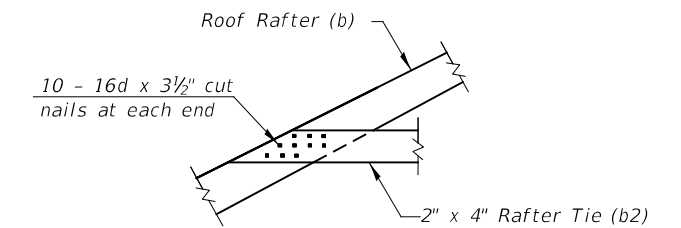


SECTION THROUGH BRIDGE



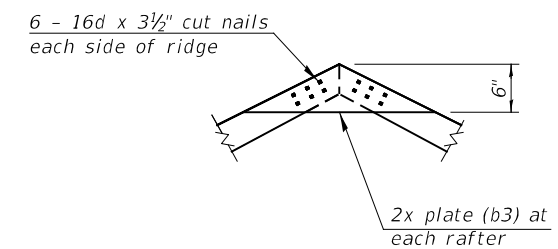
DETAIL A

(Existing siding not shown for clarity.)



DETAIL B

(Proposed shingles and skip sheathing not shown for clarity.)



DETAIL C

(Proposed shingles and skip sheathing not shown for clarity.)

NOTES
 For Bill of Material, see sheet 4 of 5.
 For details of end gables, see sheet 4 of 5.

MODEL: 005
 FILE NAME: Z:\10 V and K Jobs\527 - IDOT - BBS\5272-025 - PTB - 181-17 - Var-Var\5272-025 - BBS - PTB - 181-17 - WO-25 - Marys River Covered Bridge - Repair\CADD\CADD_Sheets\5272-025 - sh-structure.dgn
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PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE =	DRAWN -	REVISED -
	CHECKED -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**ROOF FRAMING DETAILS
 STRUCTURE NO. 079-9000**

SHEET 5 OF 5 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	119-1BR-1	RANDOLPH	15	8
			CONTRACT NO. 76T46	
ILLINOIS FED. AID PROJECT				

* UNMARKED

ELECTRICAL GENERAL NOTES

- CONTRACTOR SHALL VISIT SITE AND VERIFY QUANTITIES, LOCATIONS, TYPES, AND ACCESS TO ALL AREAS OF WORK FOR THIS PROJECT. CONTRACTOR SHALL INCLUDE ALL INCIDENTAL CONDUIT, BOXES, SUPPORTS, ETC. AND LABOR FOR A COMPLETE INSTALLATION.
- FINAL LOCATION OF ALL WALL MOUNTED DEVICES SHALL BE COORDINATED WITH ALL OTHER TRADES AND VERIFIED WITH THE ENGINEER PRIOR TO INSTALLATION.
- ALL CONDUITS AND DEVICES SHALL BE CONCEALED AS BRACKETS AND VISIBLE DEVICE HOUSINGS SAME COLOR AS THE STRUCTURAL STEEL.
- COORDINATE ALL DEVICE AND EQUIPMENT LOCATIONS WITH OTHER TRADES. ANY LABOR AND MATERIAL REQUIRED TO ALTER A LOCATION(S) DUE TO LACK OF COORDINATION SHALL BE INCLUDED IN THE CONTRACT.

FIRE PROTECTION SYSTEM GENERAL NOTES

- SPRINKLER CONTRACTOR IS RESPONSIBLE FOR THE EXECUTION OF THIS WORK AND SHALL BECOME THOROUGHLY FAMILIAR WITH THE PROJECT SPECIFICATIONS BEFORE COMMENCING ANY WORK. THE PROJECT SPECIFICATIONS AND DRAWINGS FORM THE BASIS OF THE CONTRACT REQUIREMENTS AND INCLUDE THE TYPE AND GRADE OF MATERIALS TO BE INSTALLED, EQUIPMENT TO BE FURNISHED, THE MANNER BY WHICH TO BE INSTALLED AND WHERE TO BE LOCATED.
- SPRINKLER CONTRACTOR SHALL COORDINATE LOCATION OF ALL SPRINKLER HEADS AND PIPING WITH STRUCTURAL ELEMENTS, MECHANICAL, PLUMBING, ELECTRICAL EQUIPMENT AND CONFIGURATION INDICATED ON DRAWINGS. WHERE NECESSARY SPRINKLER CONTRACTOR SHALL PROVIDE ADDITIONAL SPRINKLERS TO ASSURE REQUIRED DISCHARGE PATTERNS AROUND OBSTRUCTIONS AND DIFFERENT ELEVATIONS TO YIELD A PROPER DENSITY FOR THE DESIGNED HAZARD.
- SPRINKLER LOCATIONS SHOWN ON THESE PLANS ARE SUGGESTED LOCATIONS FOR COORDINATION PURPOSES AND DO NOT RELIEVE THE SPRINKLER CONTRACTOR FROM PROVIDING NECESSARY SPRINKLER QUANTITIES AND LOCATIONS FOR A FULLY SPRINKLED BUILDING. LOCATIONS INDICATED SHALL BE FOLLOWED, AND SPRINKLER CONTRACTOR SHALL PROVIDE ADDITIONAL SPRINKLER LOCATIONS, QUANTITIES AND SPACING AS REQUIRED TO PROVIDE A FULLY SPRINKLED STRUCTURE ACCORDING TO REQUIREMENTS OF NFPA 13, STATE FIRE MARSHAL AND OTHER APPLICABLE CODES.
- ALL PIPING, FITTINGS AND JOINTS IN SPRINKLER AND STANDPIPE SYSTEMS SHALL CONFORM TO NFPA 13, NON-METALLIC PIPE AND FITTINGS ARE UNACCEPTABLE.
- VALVES WILL BE READILY ACCESSIBLE FROM A SAFE HEIGHT AND ARE TO BE CLEAR OF ALL OBSTRUCTIONS AND THEIR OPERATION SHALL NOT BE ENCUMBERED BY ANY DEVICE OR EQUIPMENT.
- THE SPRINKLER CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THEIR WORK WITH THE CONSTRUCTION THE STRUCTURAL SYSTEM, LIGHTING FIXTURES, SPRINKLER HEADS/MAINS AND OTHER OBSTRUCTIONS. ROUTE PIPING AS HIGH AS POSSIBLE. MAINTAIN PROPER SERVICE ACCESS CLEARANCES.
- ACCURATE SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO FIELD INSTALLATION.
- THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND MAY NOT SHOW EXACT ROUTING OR ALL REQUIRED OFFSETS, ACCESSORIES OR APPURTENANCES. CONTRACTOR SHALL PROVIDE AS REQUIRED TO INSTALL A COMPLETE AND COORDINATED JOB, INCLUDING ANY ADDITIONAL ITEMS REQUIRED TO MEET ACTUAL FIELD CONDITIONS AND EQUIPMENT SELECTED.
- SPRINKLER CONTRACTOR SHALL HYDROSTATICALLY TEST ALL SPRINKLER AND STANDPIPE PIPING IN ACCORDANCE WITH NFPA 13 REQUIREMENTS.
- FIRE SUPPRESSION DESIGN SHALL BE IN ACCORDANCE WITH NFPA 13, 0.2 GMP/SF AT 1,500 SF, ORDINARY HAZARD GROUP 1.

TOTAL BILL OF MATERIAL

CODE NO.	ITEM	UNIT	TOTAL
81100200	CONDUIT ATTACHED TO STRUCTURE, 3/4" DIA., GALVANIZED STEEL	FOOT	124
81702450	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 10	FOOT	124
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	254
X0322283	VIDEO SURVEILLANCE SYSTEM COMPLETE	EACH	1
X0323524	REMOVE EXISTING SURVEILLANCE CAMERA EQUIPMENT	EACH	1
X0323607	FIRE PROTECTION SYSTEM	L SUM	1
X0326618	ADDRESSABLE FIRE ALARM SYSTEM	L SUM	1
X0325815	REMOVE EXISTING CABLE	FOOT	816
X1400238	LUMINAIRE, LED, SPECIAL	EACH	4
X1400403	LUMINAIRE REPLACEMENT SPECIAL	EACH	3
X8250091	COMBINATION LIGHTING CONTROLLER	EACH	1
X8430100	REMOVE EXISTING CONDUIT ATTACHED TO STRUCTURE	FOOT	238
X8950080	REMOVE EXISTING LIGHTING CONTROLLER	EACH	1



MODEL: \$MODELNAME\$
FILE NAME: \$FILEL\$

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PLOT DATE = _____	CHECKED - D.J.K./J.R.G.	REVISED - _____

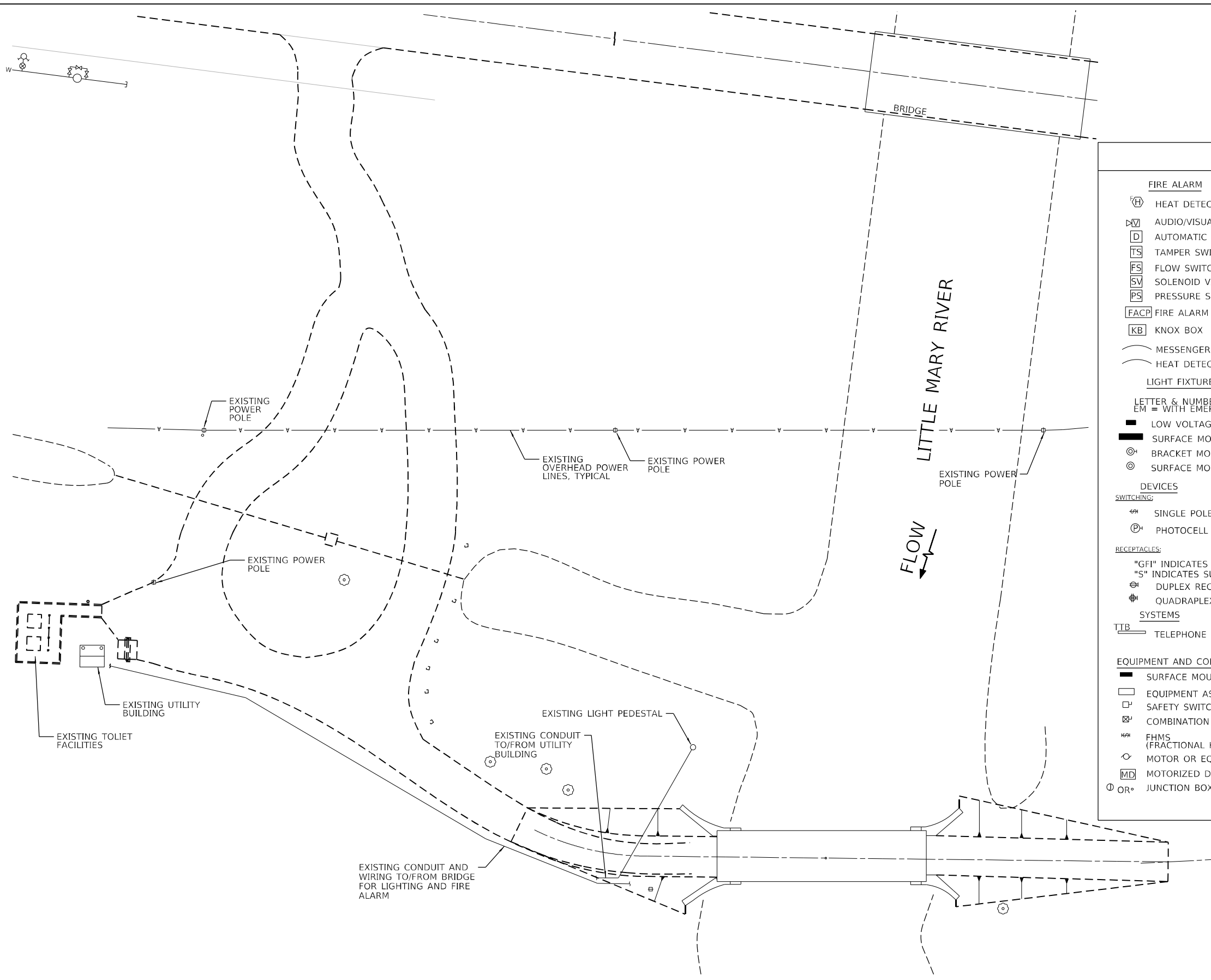
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELECTRICAL AND FIRE PROTECTION GENERAL DATA
SN 079-9000

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N/A	119-1BR-1	RANDOLPH	15	9
CONTRACT NO. 76T46				
ILLINOIS FED. AID PROJECT				

SHEET 1 OF 7 SHEETS

\$DATE\$ \$TIME\$



ELECTRICAL SYMBOLS

FIRE ALARM		SITE	
	HEAT DETECTOR - 190 ³ / ₄ FIXED TEMPERATURE		UTILITY POLE
	AUDIO/VISUAL ALARM HORN		UNDERGROUND ELECTRIC
	AUTOMATIC DIALER		OVERHEAD ELECTRIC
	TAMPER SWITCH CONNECTION		UNDERGROUND TELEPHONE
	FLOW SWITCH CONNECTION	ABBREVIATIONS	
	SOLENOID VALVE	C	CONDUIT
	PRESSURE SWITCH	EC	ELECTRICAL CONTRACTOR
	FIRE ALARM CONTROL PANEL	EM	WITH EMERGENCY BATTERY BACKUP
	KNOX BOX	ETR	EXISTING TO REMAIN
	MESSENGER WIRE	EX	EXISTING
	HEAT DETECTION WIRING	FACP	FIRE ALARM CONTROL PANEL
LIGHT FIXTURES		GC	GENERAL CONTRACTOR
LETTER & NUMBER = FIXTURE TYPE		GRD	GROUND
EM = WITH EMERGENCY BATTERY PACK		GRS	GALV. RIGID STEEL
	LOW VOLTAGE FIXTURE	kcml	THOUSAND CIRCULAR MILLS
	SURFACE MOUNTED FIXTURE	LT	LIQUID TIGHT CONDUIT
	BRACKET MOUNTED LIGHT FIXTURE	MC	MECHANICAL CONTRACTOR
	SURFACE MOUNTED FIXTURE	NEC	NATIONAL ELECTRICAL CODE
DEVICES		PC	PLUMBING CONTRACTOR
SWITCHING:		WP	WEATHERPROOF
	SINGLE POLE LIGHT SWITCH	CONDUIT AND WIRE	
	PHOTOCELL		HOME RUN: DOT=GRD, SHORT=PHASE, LONG=NEUT, DASHED=ISOLATED GRD
RECEPTACLES:			HOME RUN CIRCUIT DESIGNATION LETTER(S) = PANEL SERVING CIRCUIT NUMERAL(S) = CIRCUIT NUMBER
	"GFI" INDICATES GROUND FAULT INTERRUPTER TYPE		CONDUIT AND WIRING CONCEALED WALL
	"S" INDICATES SURGE SUPPRESSION		CONDUIT AND WIRING CONCEALED
	DUPLEX RECEPTACLE		CONDUIT AND WIRING UNDERGROUND
	QUADRUPLEX RECEPTACLE	SECURITY	
SYSTEMS			CAMERA
	TELEPHONE TERMINAL BOARD		WALL MOUNTED MOTION SENSOR
EQUIPMENT AND CONNECTIONS			CEILING MOUNTED MOTION SENSOR
	SURFACE MOUNTED PANEL		DOOR CONTACTS
	EQUIPMENT AS NOTED		ELECTRIC LOCK
	SAFETY SWITCH - NON FUSED		PROXIMITY CARD READER
	COMBINATION STARTER - FUSED TYPE		KEYPAD
	FHMS (FRACTIONAL HORSEPOWER MOTOR STARTER)		SECURITY CABINET
	MOTOR OR EQUIPMENT CONNECTION		
	MOTORIZED DAMPER		
	JUNCTION BOX OR CONDUIT CONNECTION		

SITE PLAN

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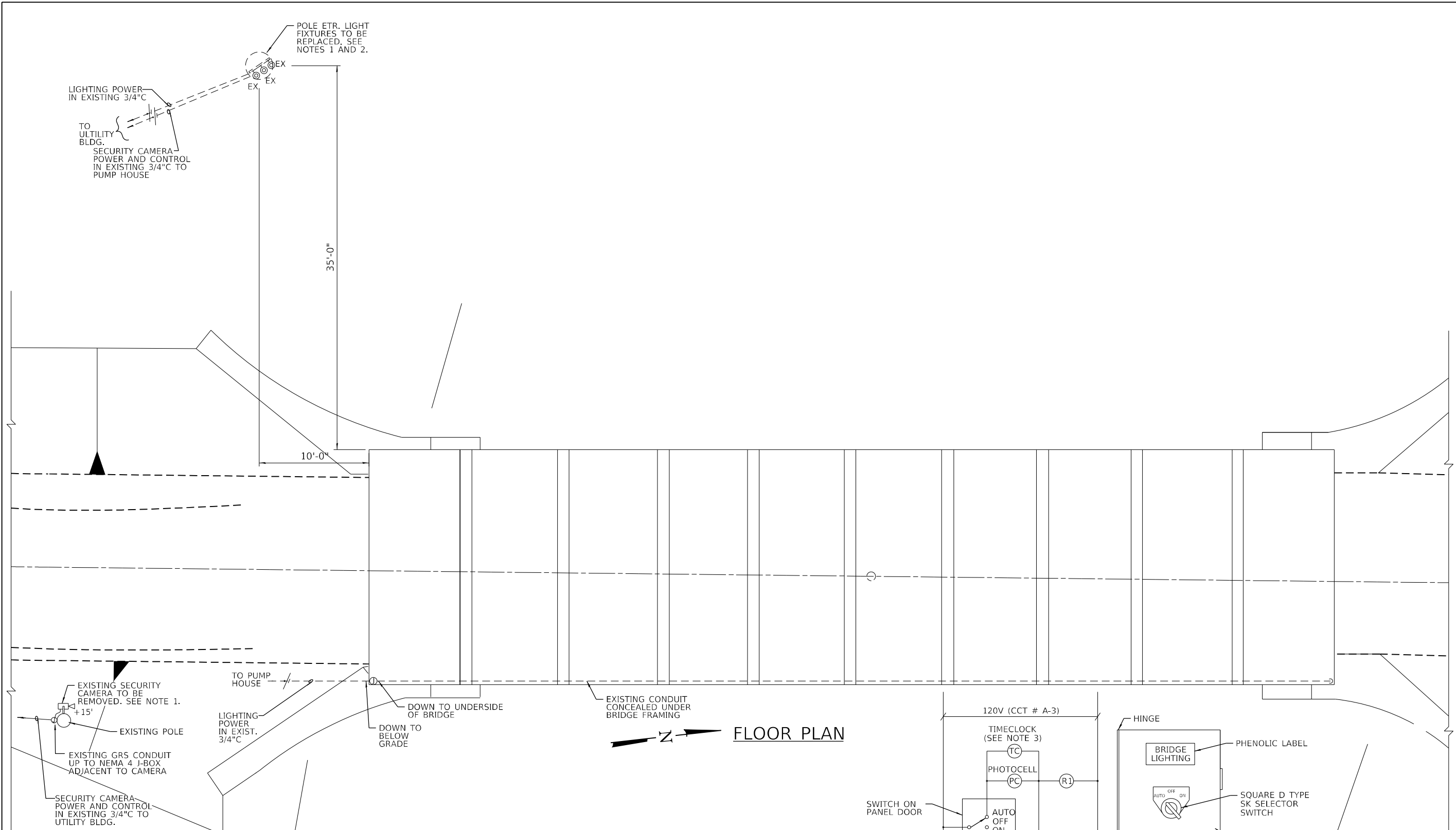
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**ELECTRICAL DISTRIBUTION SYSTEM REPAIR I
 SN 079-9000**

SHEET 2 OF 7 SHEETS

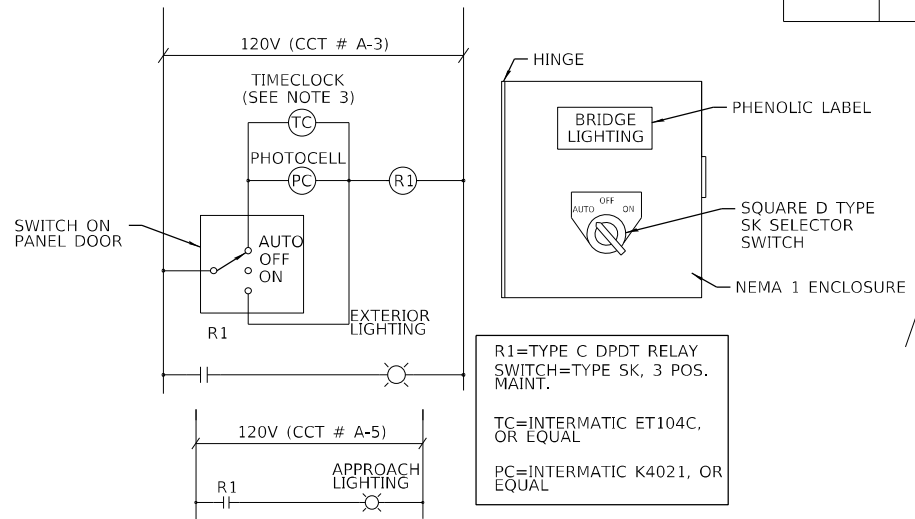
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N/A	119-1BR-1	RANDOLPH	15	10
CONTRACT NO. 76T46				
ILLINOIS FED. AID PROJECT				



FLOOR PLAN

NOTES:

1. REMOVE EXISTING CAMERA AND ASSOCIATED CABLING.
2. REMOVE EXISTING LIGHT FIXTURES.
3. REMOVE EXISTING TIMECLOCK FOR REPLACEMENT.



EXISTING LIGHTING CONTROL PANEL

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	CHECKED -	D.J.K.	REVISED -

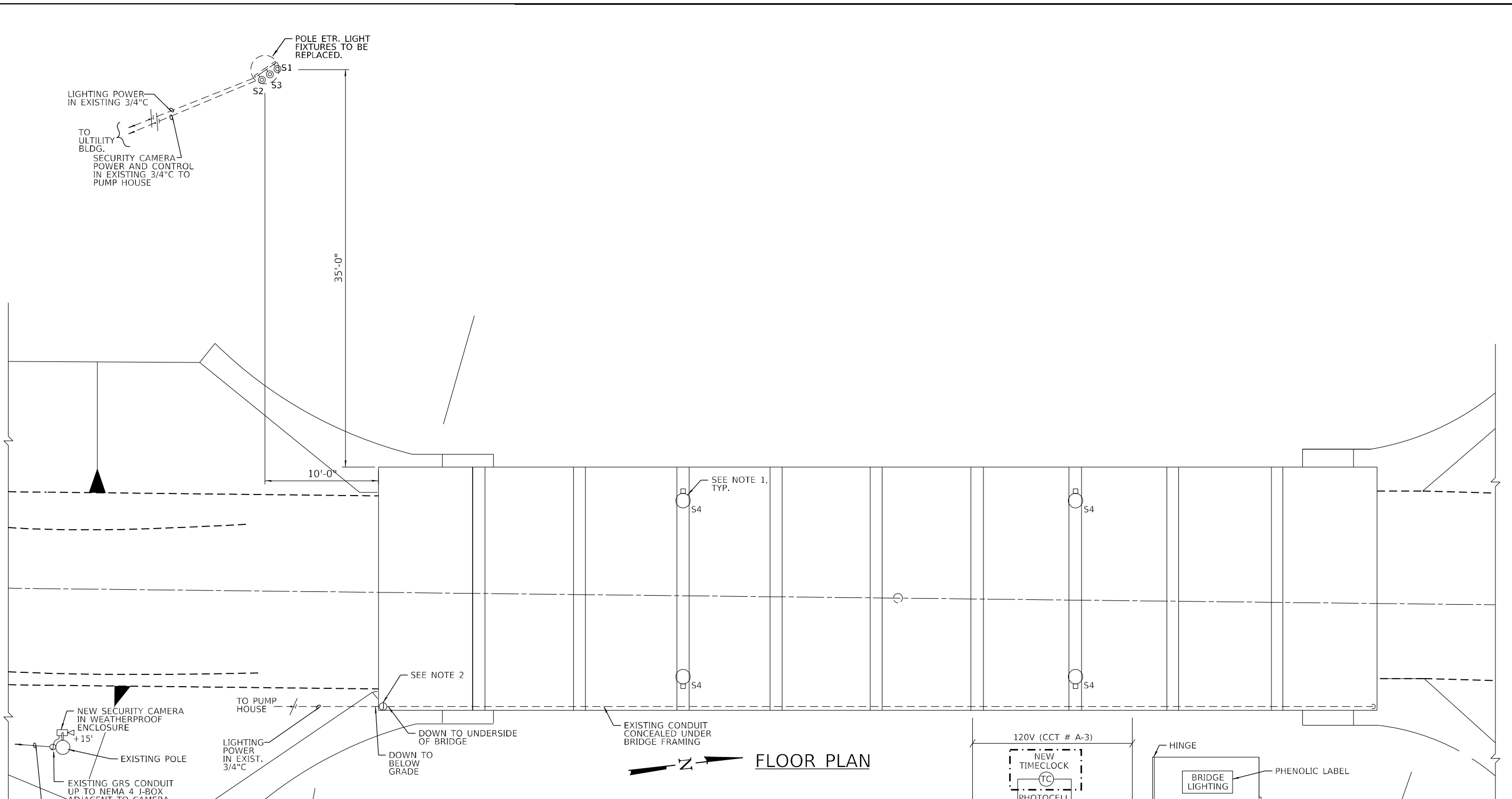
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ELECTRICAL DISTRIBUTION SYSTEM REPAIR II
 SN 079-9000

SHEET 3 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N/A	119-1BR-1	RANDOLPH	15	11
CONTRACT NO. 76T46				
ILLINOIS FED. AID PROJECT				

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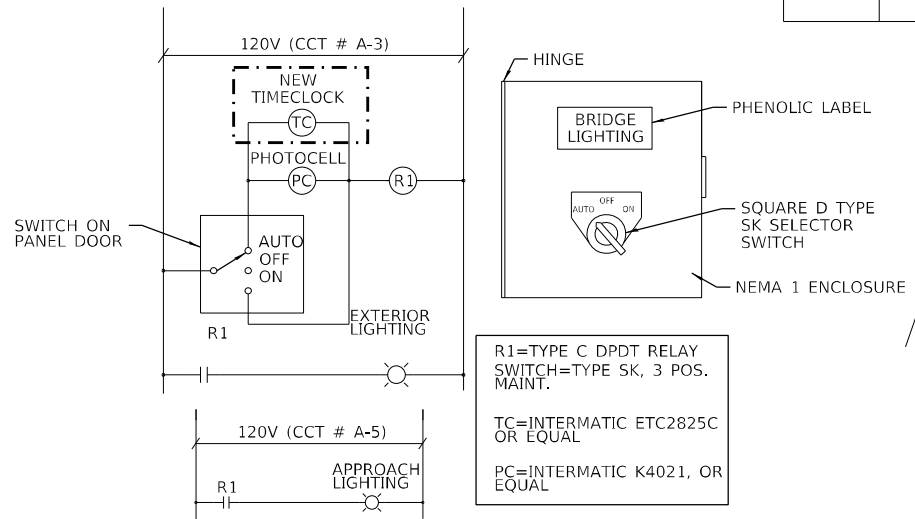


FLOOR PLAN

LIGHTING SCHEDULE	
S1	ARCHITECTURAL FLOODLIGHT, LED, 10000 LUMENS NOMINAL, 3000K, 80 CRI, DIE CAST HOUSING, BLACK FINISH, 2" TENON MOUNTED VIA SLIPFITTER KNUCKLE
S2	HEAVY DUTY SWIVEL. FIXTURES MOUNTED ON COMMON CROSSBAR. WET LOCATION LISTED.
S3	FIXED HOOD. S1=MEDIUM, S2 & S4=MEDIUM FLOOD, S3=NARROW
S4	S1 = KIM #KFL3 40L-90 3K8 M UNV S BLT. OR APPROVED EQUAL S2 = KIM #KFL3 40L-90 3K8 MF UNV S BLT. OR APPROVED EQUAL S3 = KIM #KFL3 40L-90 3K8 N UNV S BLT. OR APPROVED EQUAL S4 = KIM #KFL1 8L-20 3K8 MF UNV R DBT (KNUCKLE MOUNT, BRONZE FINISH)

NOTES:

1. MOUNT NEW FIXTURE ABOVE HORIZONTAL BEAM AND ORIENT AT OPPOSITE CEILING AT 30 DEG. BACK FROM VERTICAL.
2. INTERCEPT EXISTING UNDERGROUND LIGHTING BRANCH CIRCUIT (A-5) WIRING AT JUNCTION BOX NEAR TRANSITION FROM UNDERGROUND TO ABOVE GROUND INSIDE BRIDGE. EXTEND EXISTING WIRING VIA (2) #12 THWN & #12 GROUND IN 3/4 IN. GALVANIZED CONDUIT, TO LIGHT FIXTURES, TYPE S4.



EXISTING LIGHTING CONTROL PANEL

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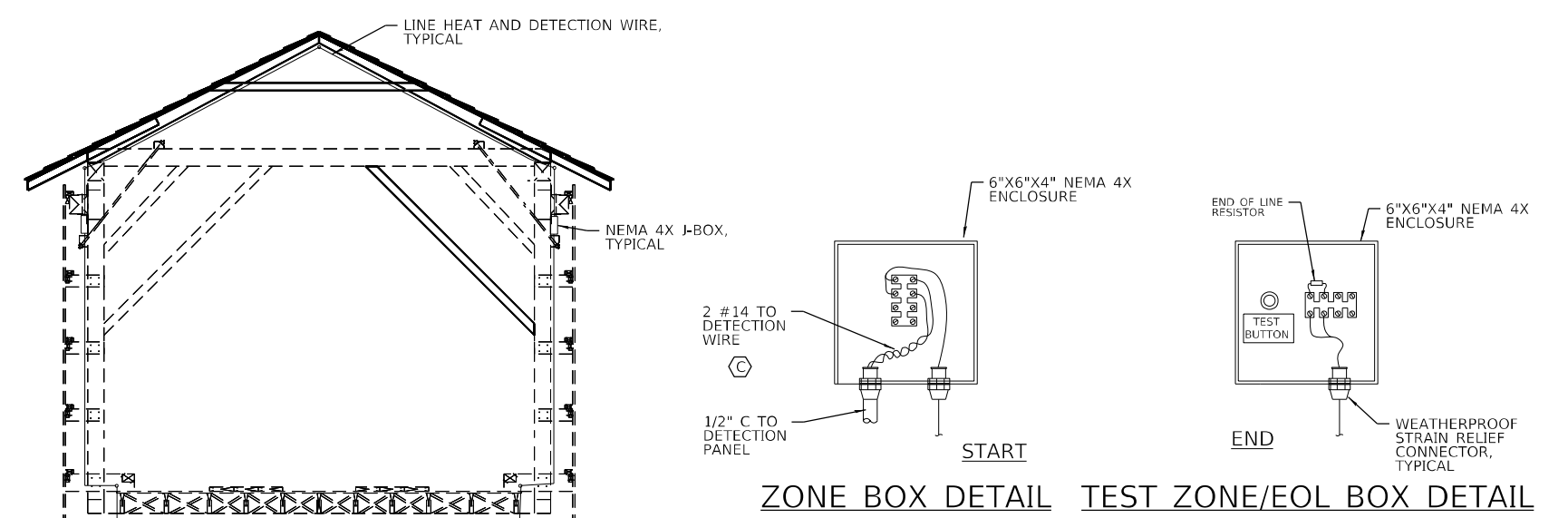
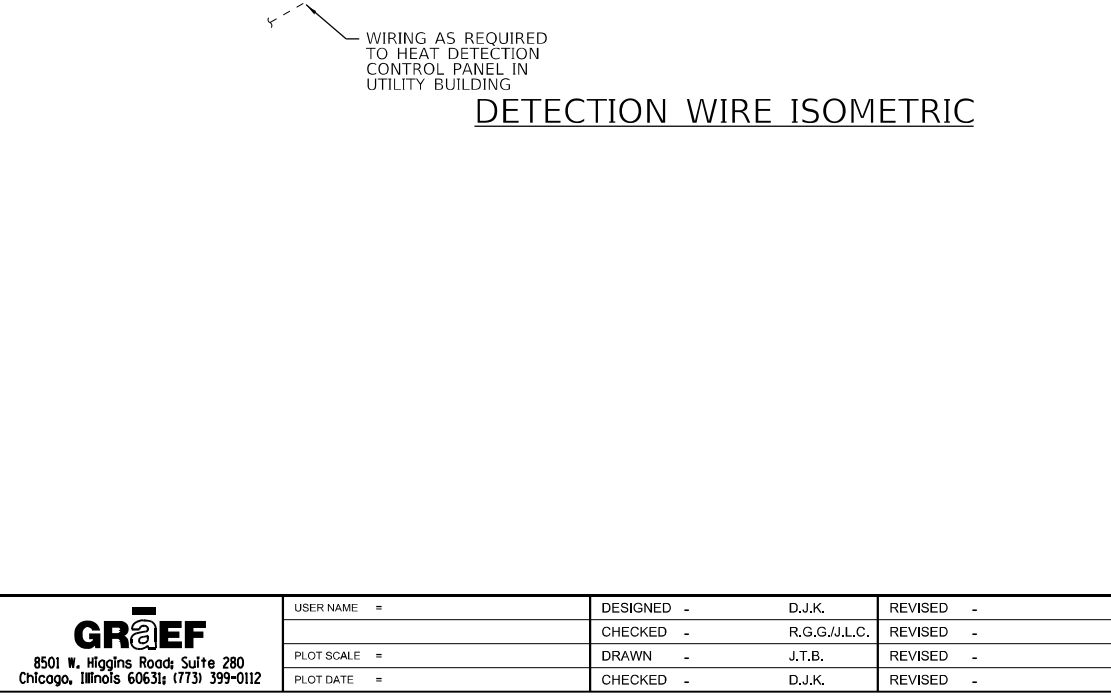
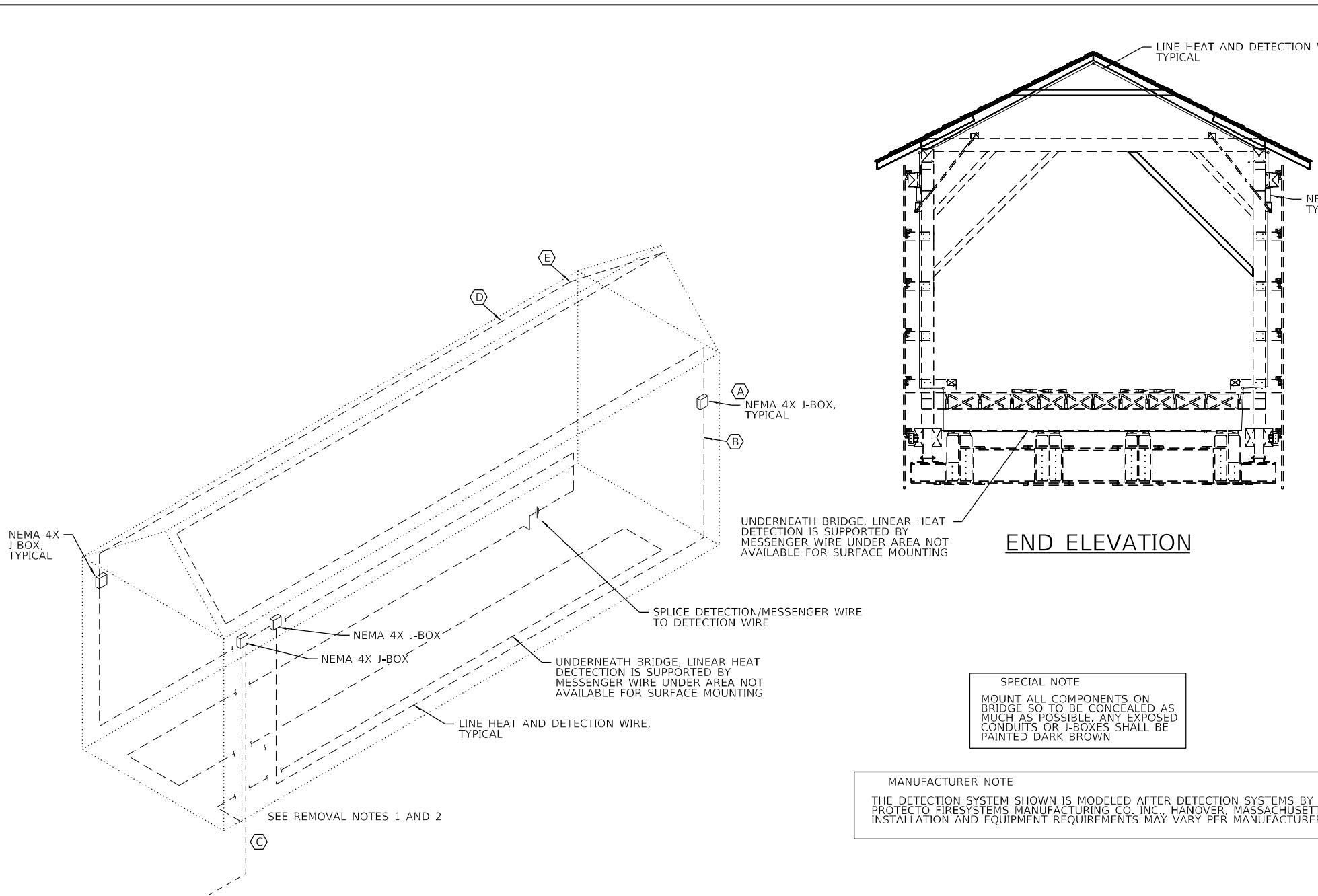
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 DEPARTMENT OF TRANSPORTATION

ELECTRICAL DISTRIBUTION SYSTEM REPAIR III
 SN 079-9000

SHEET 4 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N/A	119-1BR-1	RANDOLPH	15	12
CONTRACT NO. 76T46				
ILLINOIS FED. AID PROJECT				

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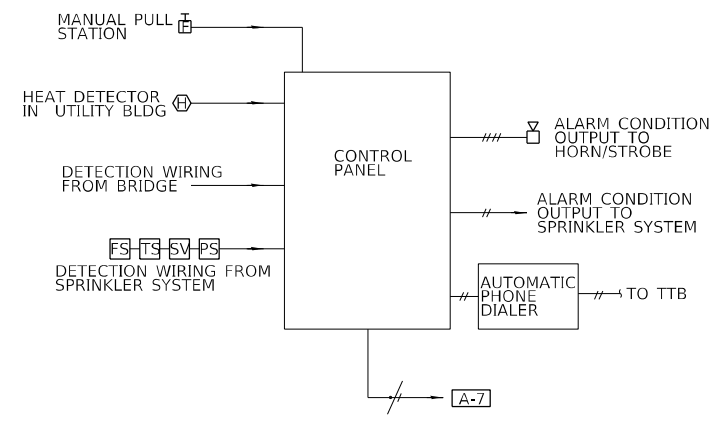
END ELEVATION

SPECIAL NOTE
 MOUNT ALL COMPONENTS ON BRIDGE SO TO BE CONCEALED AS MUCH AS POSSIBLE. ANY EXPOSED CONDUITS OR J-BOXES SHALL BE PAINTED DARK BROWN

MANUFACTURER NOTE
 THE DETECTION SYSTEM SHOWN IS MODELED AFTER DETECTION SYSTEMS BY PROTECTO FIRESYSTEMS MANUFACTURING CO., INC., HANOVER, MASSACHUSETTS. INSTALLATION AND EQUIPMENT REQUIREMENTS MAY VARY PER MANUFACTURER.

- KEYED NOTES**
- (A) PROVIDE WEATHERPROOF NEMA 4 ENCLOSURE TO PROTECT DETECTION WIRING FROM MOISTURE. PIPE 1/2" C WITH DETECTION WIRE INTO THE NEMA 4 ENCLOSURE. USE WATERTIGHT STRAIN RELIEF CONNECTOR TO ENSURE A WATERTIGHT CONNECTION FOR DETECTION WIRE TO EXIT THE NEMA 4 ENCLOSURE
 - (B) PROVIDE 1/2" C TO PROTECT DETECTION WIRE FROM BEING TAMPERED WITH. EXTEND CONDUIT DOWN TO NEMA 4 ENCLOSURE LOCATED ON THE UNDERSIDE OF THE WOOD CURB
 - (C) PROVIDE 2#14 WIRING IN 1/2" C FROM DETECTION PANEL TERMINALS TO PROTECTIVE ZONE BOX. SEE DETAILS THIS SHEET
 - (D) INSTALL STAINLESS STEEL OHS LINE CLIPS AT 15' AND 20' INTERVALS AS THE INTERMEDIATE FASTENERS BETWEEN CORNER MOUNTED WAW CLIPS, WHICH PROVIDE MAIN SUPPORT
 - (E) INSTALL WALL CLIP FASTENERS AT CORNERS (TURNS) OF DETECTION CABLE

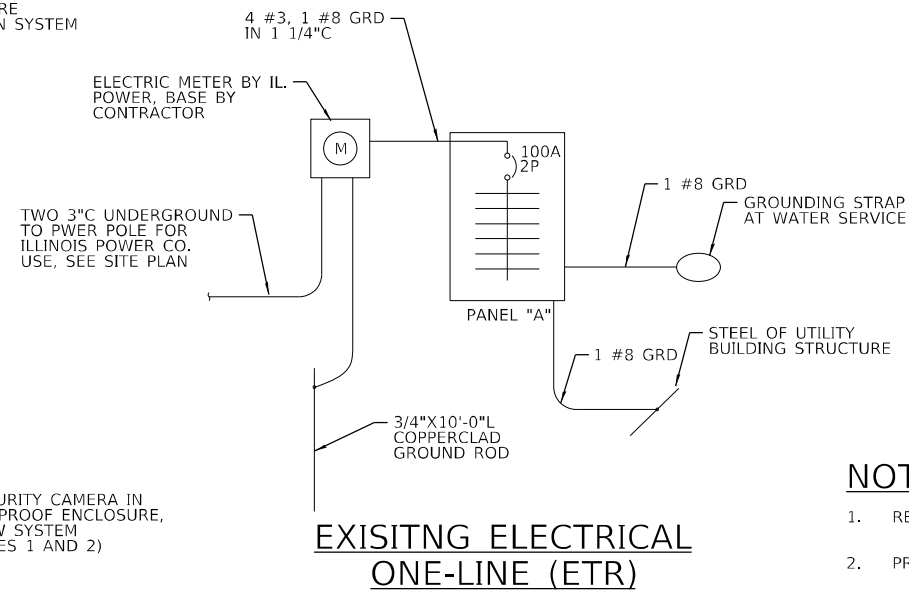
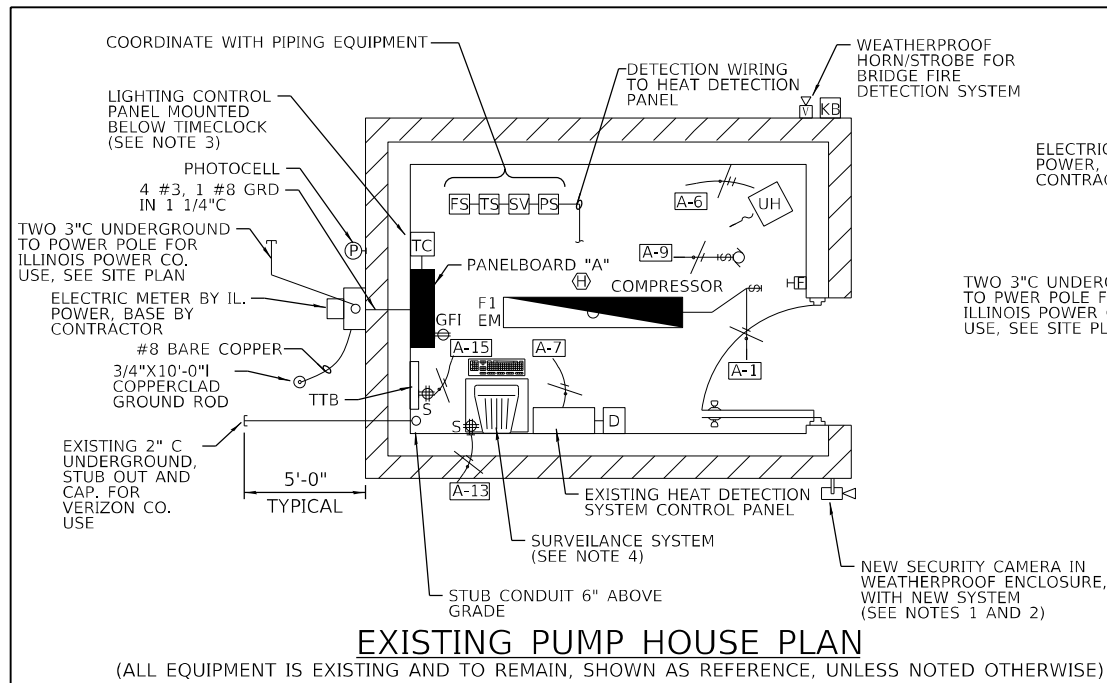
- REMOVAL NOTES:**
1. REMOVE EXISTING HEAT DETECTION SYSTEM CABLING FROM CONDUIT AND ALONG EXISTING BRIDGE ROOF STRUCTURE DURING DEMOLITION PHASE.
 2. REMOVE EXISTING HEAT DETECTION SYSTEM CONDUIT ATTACHED TO STRUCTURE INSIDE OF BRIDGE WALL DURING DEMOLITION PHASE.



EXISTING HEAT DETECTION SYSTEM TO REMAIN

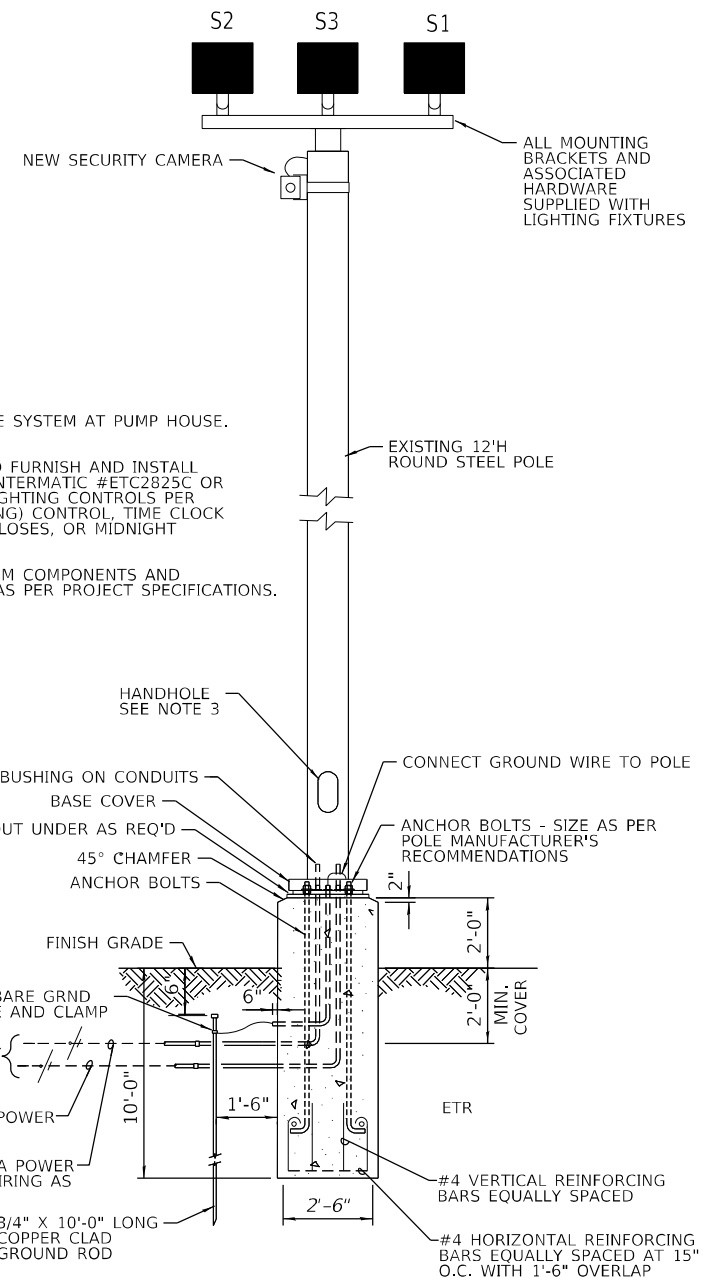
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N/A	119-1BR-1	RANDOLPH	15	13
CONTRACT NO. 76T46				
ILLINOIS FED. AID PROJECT				



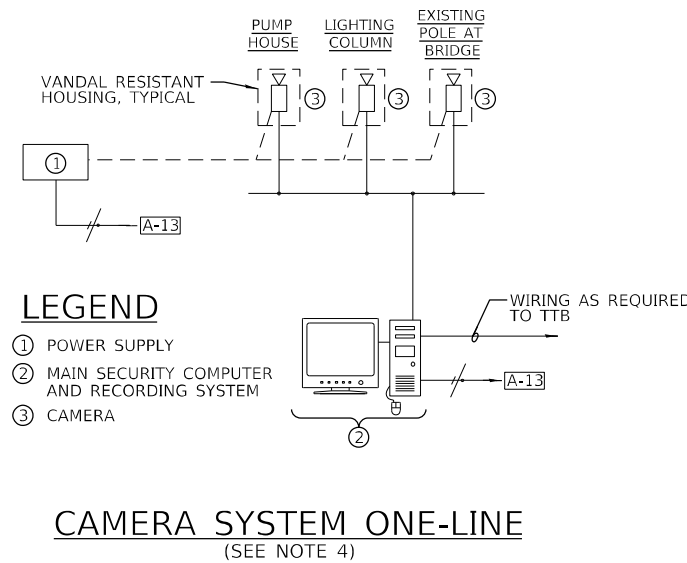
NOTES:

1. REMOVE EXISTING CAMERA AND ASSOCIATED CABLING.
2. PROVIDE NEW CAMERA WITH NEW VIDEO SURVEILLANCE SYSTEM AT PUMP HOUSE.
3. REMOVE EXISTING LIGHTING CONTROL TIME CLOCK AND FURNISH AND INSTALL NEW TIME CLOCK PER ENERGY CODE REQUIREMENTS, INTERMATIC #ETC2B25C OR EQUIVALENT. PROGRAM AS REQUIRED FOR EXTERIOR LIGHTING CONTROLS PER ILLINOIS IECC 2021; FOR USE WITH PHOTOCELL (EXISTING) CONTROL, TIME CLOCK TURNS EXTERIOR LIGHTING OFF 1 HOUR AFTER AREA CLOSURE, OR MIDNIGHT (WHICHEVER IS EARLIER).
4. REMOVE EXISTING VIDEO CAMERA SURVEILLANCE SYSTEM COMPONENTS AND FURNISH AND INSTALL NEW SYSTEM WITH NEW CAMERAS PER PROJECT SPECIFICATIONS.



FIXTURE NOTES:

1. POLE, CONCRETE BASE, AND ACCESSORIES SHOWN ABOVE ARE EXISTING AND TO REMAIN.
2. PROVIDE NEW LIGHT FIXTURES AND CAMERA, INCLUDING NEW LIGHTING POWER CONDUCTORS SPLICED IN POLE, AND WIRING/CABLE TO CAMERA PER SYSTEM REQUIREMENTS.
3. ALL WIRING CONNECTIONS SHALL BE SEALED AND SUITABLE FOR DIRECT IMMERSION.



PANEL: A EXIST. PANELBOARD SCHEDULE (ETR)												OPTIONS:			
MAINS: 100 AMPS VOLTAGE: 120 / 240 VOLTS, 1 PHASE 3 WIRE												— TWO SECTION			
MCB 100 MLO												— FEED-THRU LUGS			
ENCLOSURE: NEMA 1												— GROUND BUS			
												— ISOLATED GRND. BUS			
												— SERVICE ENTRANCE LISTED			
												— X EXTERNAL TVSS			
BRANCH BREAKERS															
WIRE SIZE	GRD SIZE	C.	ITEM	POLE	AMP RAT.	CKT NO.	LEFT PHASE	RIGHT PHASE	CKT NO.	AMP RAT.	POLE	ITEM	C.	GRD SIZE	WIRE SIZE
#12	#12	3/4"	PUMP HOUSE LIGHTING	1	20	1	0.84	0.10	2	30	2	TVSS	3/4"	#12	#10
#12	#12	3/4"	BRIDGE EXTERIOR LIGHTING	1	20	3	0.83	0.10	4	-	-	-	-	-	-
#12	#12	3/4"	BRIDGE INTERIOR LIGHTING	1	20	5	0.68	1.30	6	30	2	UNIT HEATER	3/4"	#12	#10
#12	#12	3/4"	HEAT DETECTION CONTROL PANEL	1	20	7	0.50	1.30	8	-	-	-	-	-	-
#12	#12	3/4"	COMPRESSOR	1	20	9	0.70	-	10	20	1	EXISTING	-	-	-
#12	#12	3/4"	RECEPTACLES	1	20	11	0.20	-	12	20-	-1	EXISTING	-	-	-
#12	#12	3/4"	SECURITY COMPUTER	1	20	13	1.00	-	14	-	-	SPACE	-	-	-
#12	#12	3/4"	RECEPTACLES	1	20	15	0.50	-	16	-	-	SPACE	-	-	-
#12	#12	3/4"	FIRE SUPPRESSION CONTROL PANEL	1	20	17	0.50	-	18	-	-	SPACE	-	-	-
#12	#12	3/4"	SPACE	-	-	19	-	-	20	-	-	SPACE	-	-	-
							3.52	2.03	1.40	1.40					
							4.92	3.43	KVA PER PHASE						
							41	29	AMPS PER PHASE						
FEEDER												— X SURFACE MOUNTED			
TOP FEED X												— FLUSH MOUNTED			
BOTTOM FEED															
TOTAL CONNECTED VA: 8,350 VA															
INTEGRAL EQUIPMENT INTERRUPTING RATING: 22,000 AMPS RMS SYMMETRICAL															

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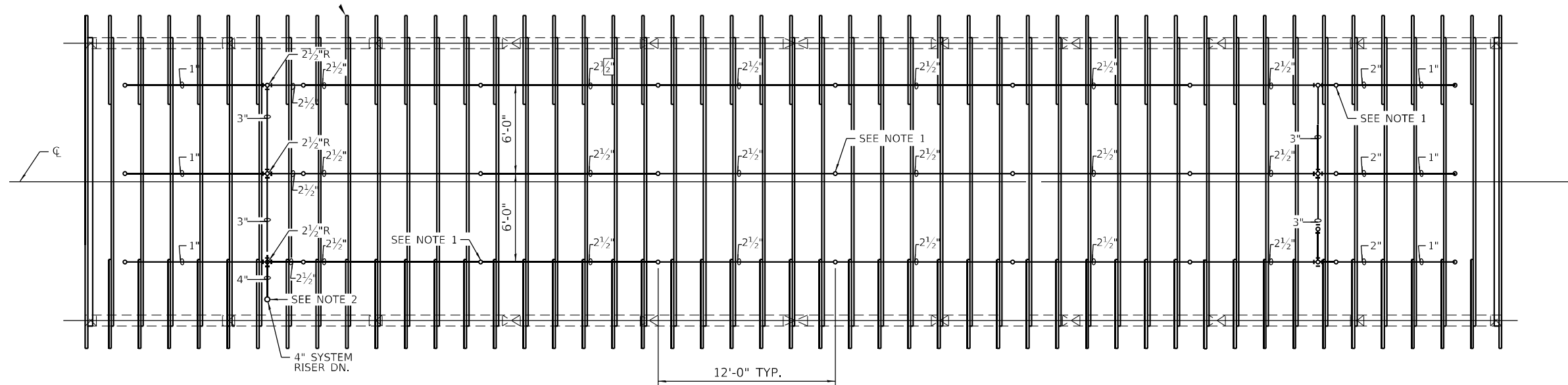
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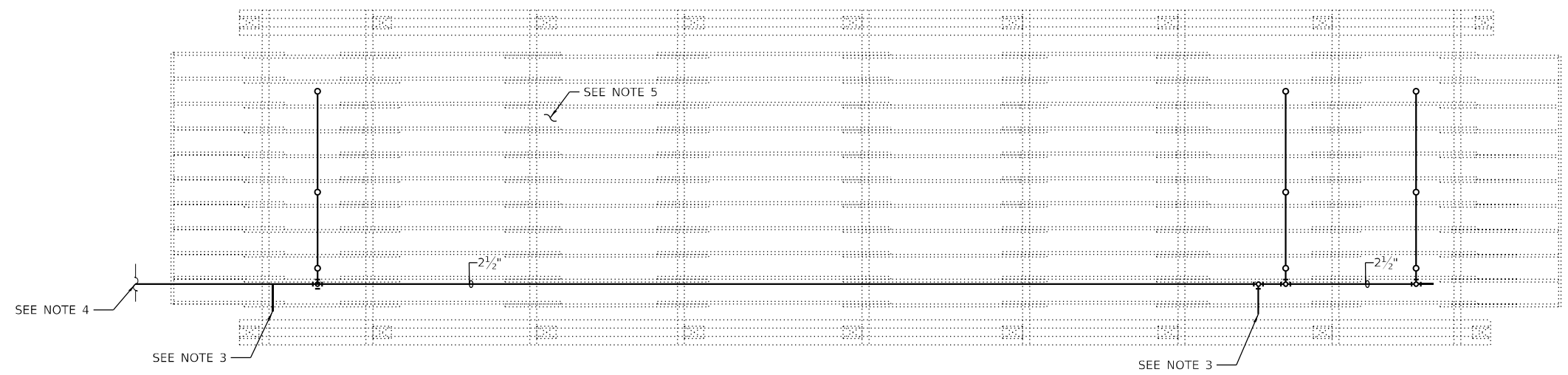
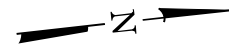
**ELECTRICAL DISTRIBUTION SYSTEM REPAIR V
SN 079-9000**

SHEET 6 OF 7 SHEETS

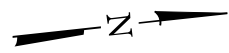
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N/A	119-1BR-1	RANDOLPH	15	14
CONTRACT NO. 76T46				
ILLINOIS FED. AID PROJECT				



ROOF FRAMING PLAN



FLOOR FRAMING PLAN



NOTES:

1. BRANCH PIPING UP TO SPRINKLER HEAD LOCATED NEAR ROOF STRUCTURE, TYP.
2. EXTEND MAIN FROM EXISTING TEE LOCATED BELOW BRIDGE DECK.
3. EXTEND MAIN FROM EXISTING TEE UP TO ROOF STRUCTURE.
4. EXISTING FIRE SUPPRESSION PIPING BACK TO UTILITY BUILDING TO REMAIN.
5. ALL EXISTING PIPING UNDER THE BRIDGE DECK TO REMAIN.

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**FIRE PROTECTION SYSTEM REPAIR
 SN 079-9000**

SHEET 7 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N/A	119-1BR-1	RANDOLPH	15	15
CONTRACT NO. 76T46				
ILLINOIS FED. AID PROJECT				