

SOIL RETENTION DETAILS - COOK STREET

FINAL

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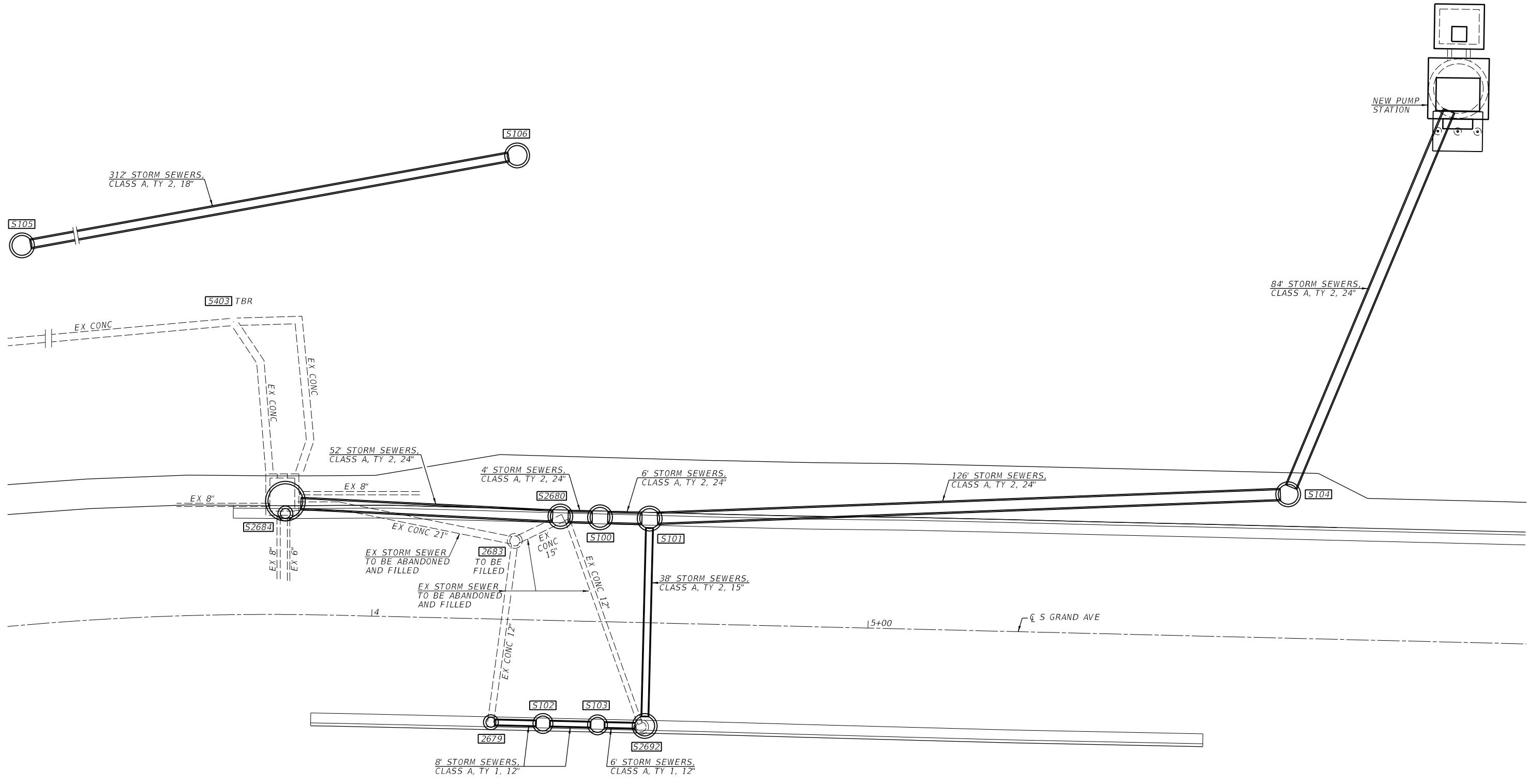
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PLOT DATE = 1/18/2021	CHECKED -	REVISED -
	DATE = 1/18/2021	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
 SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
 DRAINAGE DETAILS - COOK ST - 3

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	102
	09L0179B		CONTRACT NO.	9374
# 7985A & 8069	ILLINOIS	FED. AID PROJECT		

SCALE: SHEET 3 OF 4 SHEETS STA. TO STA.



DRAINAGE PLAN - SOUTH GRAND AVE

FINAL

MODEL: 001
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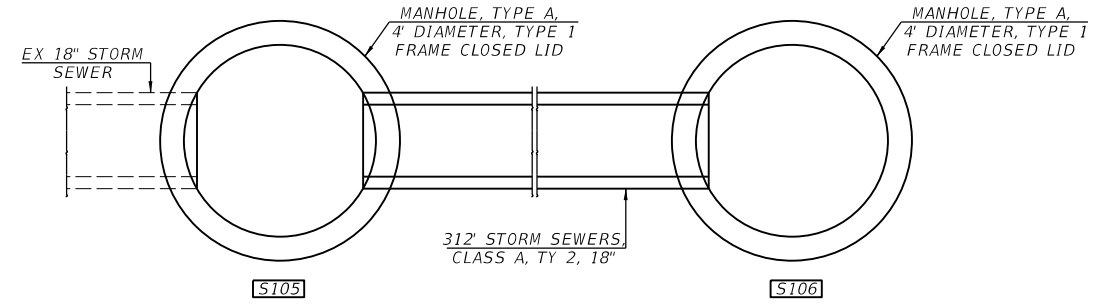
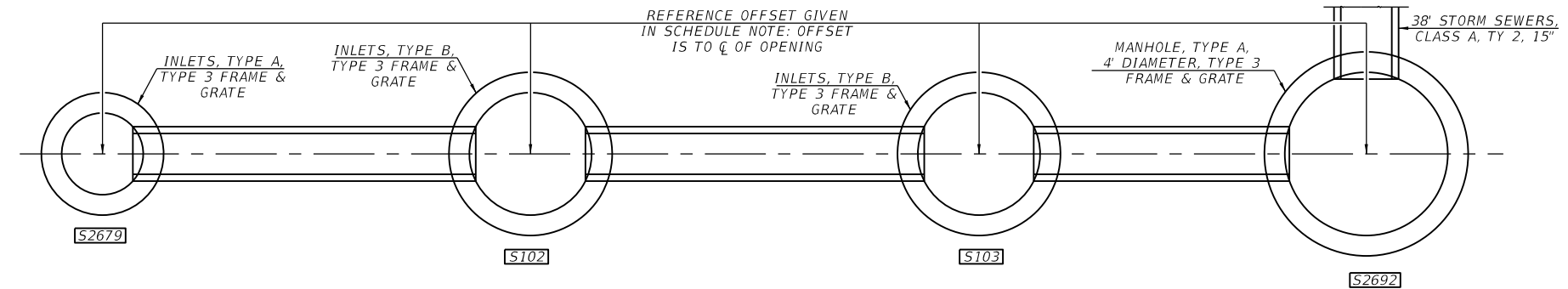
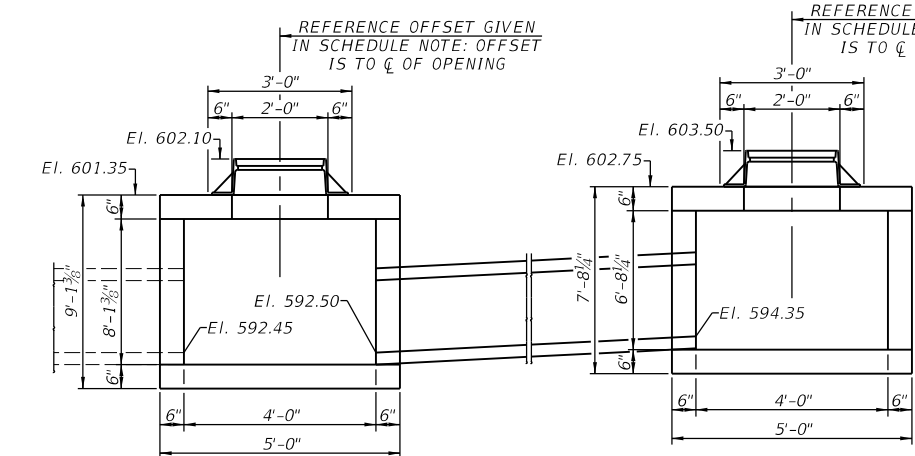
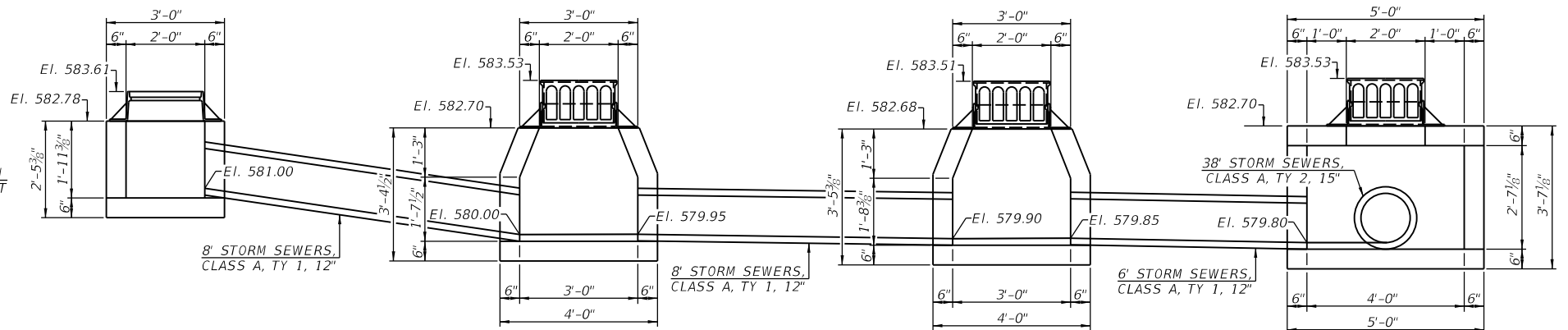
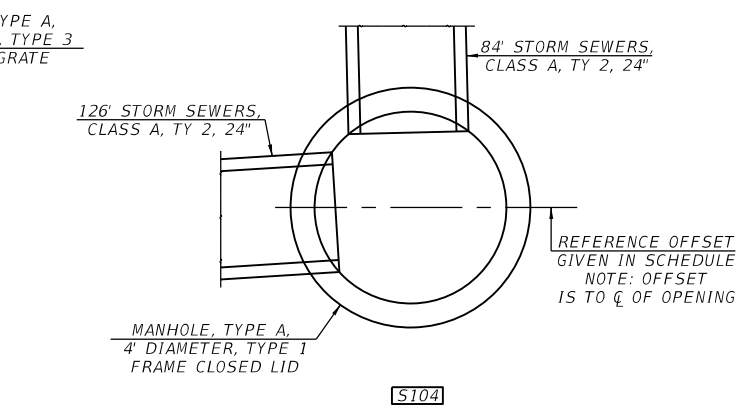
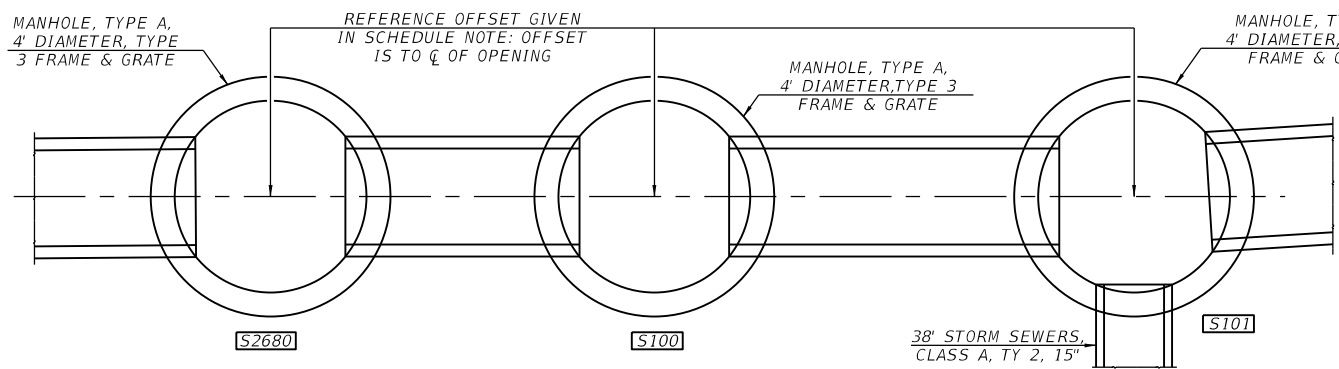
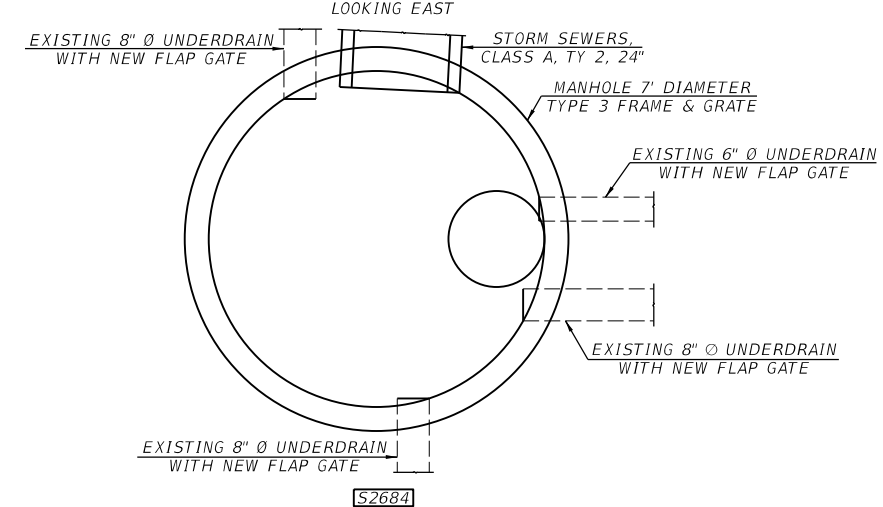
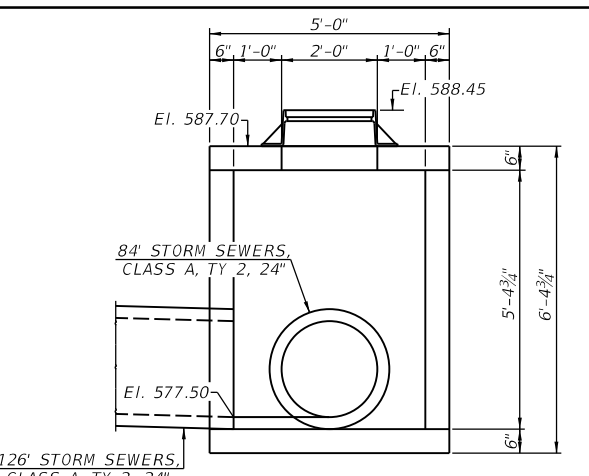
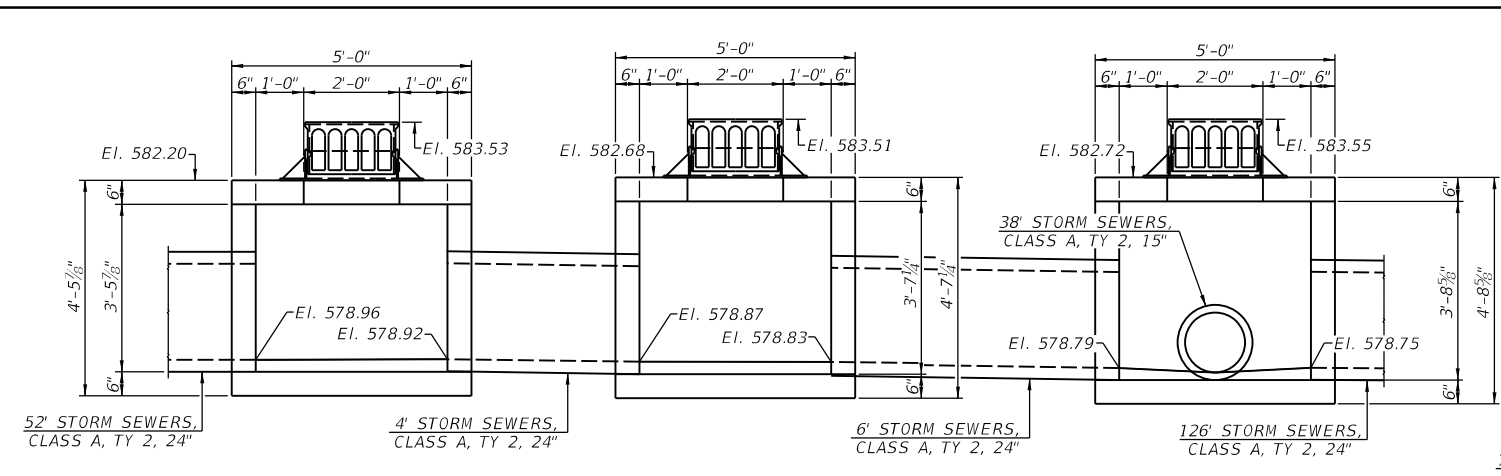
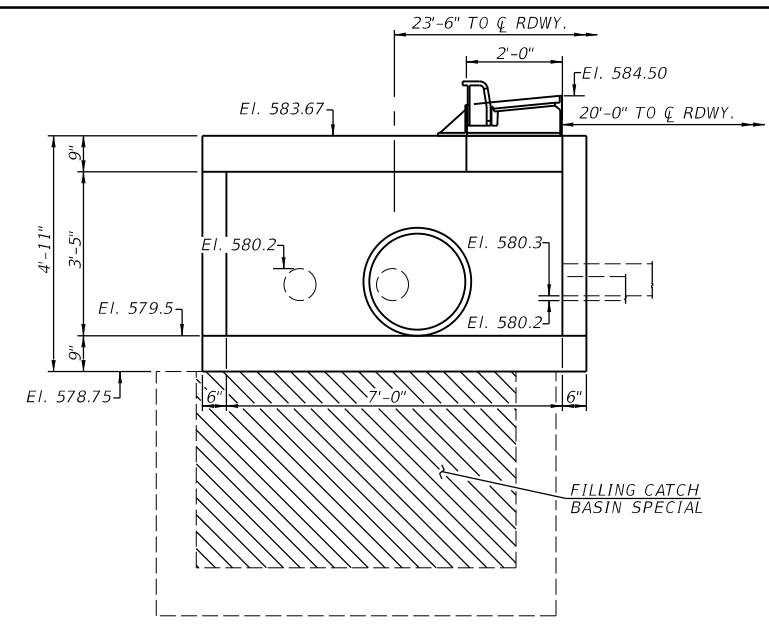
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PLOT DATE = 1/18/2021	DATE - 1/18/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
DRAINAGE DETAILS - SOUTH GRAND AVE - 1

SCALE: SHEET 1 OF 4 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	104
	09L0179B		CONTRACT NO.	9374
* 7985A & 8071	ILLINOIS	FED. AID PROJECT		



DRAINAGE DETAILS - SOUTH GRAND AVE

FINAL

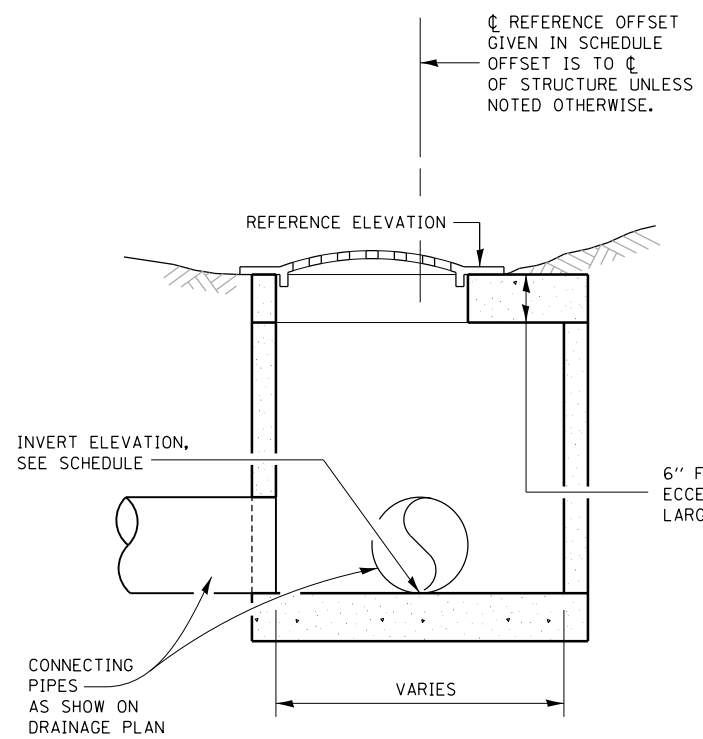


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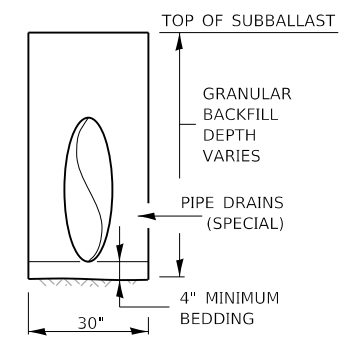
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
DRAINAGE DETAILS - SOUTH GRAND AVE - 2
SCALE: SHEET 2 OF 4 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
* 19-00488-00-BR	09L0179B	SANGAMON	347	105
* 7985A & 8072	ILLINOIS	FED. AID PROJECT		CONTRACT NO. 93747



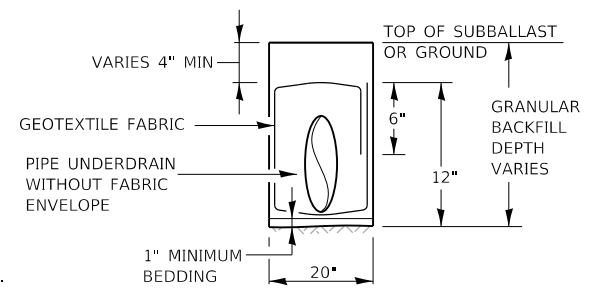
TYPICAL INLET TYPE A OR MANHOLE TYPE A WITH TYPE 8 GRATE
N.T.S.



SECTION VIEW PIPE DRAINS (SPECIAL)
N.T.S.

NOTES: PIPE DRAINS (SPECIAL)

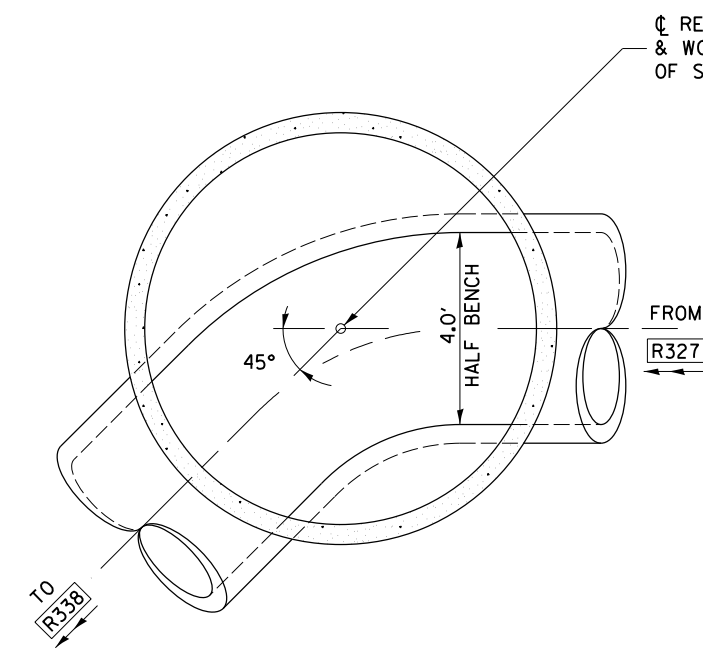
- ① BEDDING AND GRANULAR BACKFILL SHALL BE COARSE AGGREGATE MEETING ARTICLE 1004.05, EXCEPT THAT THE GRADATION SHALL BE CA-7. GRANULAR BACKFILL SHALL BE PLACED AND COMPACTED ACCORDING TO ARTICLE 542.04(C) AND 542.04(F), RESPECTIVELY.
- ② ALL MATERIALS WILL NOT BE MEASURED SEPARATELY, BUT WILL BE INCLUDED IN THE CONTRACT PRICE PER UNIT FOR PIPE DRAIN (SPECIAL) OF DIAMETER SPECIFIED.
- ③ PIPE DRAINS (SPECIAL) SHALL BE A SMOOTH STEEL PIPE ACCORDING TO PROJECT SPECIFICATIONS.



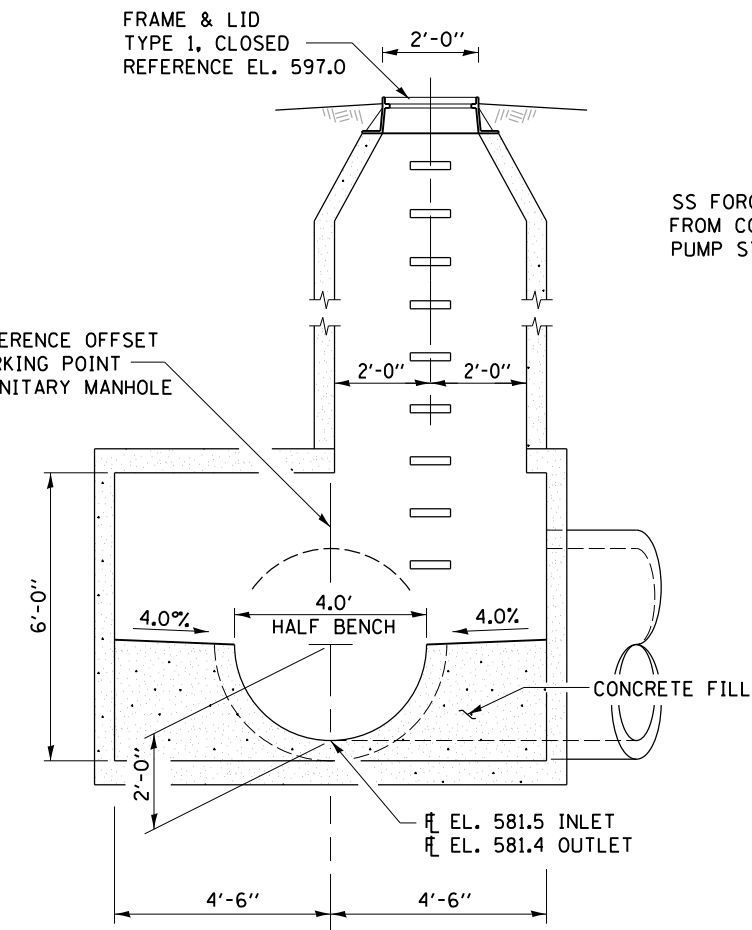
SECTION VIEW PIPE UNDERDRAINS, TYPE 2
N.T.S.

NOTES: PIPE UNDERDRAINS, TYPE 2

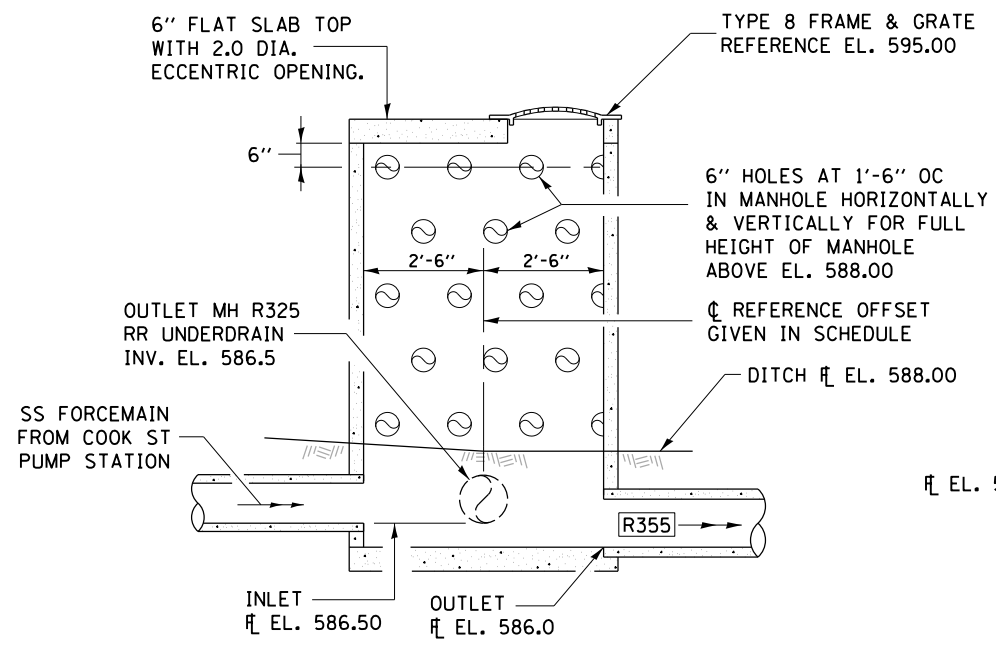
- ④ PIPE UNDERDRAIN MATERIALS AND CONSTRUCTION SHALL CONFORM TO SECTION 601 OF THE STANDARD SPECIFICATIONS. THE GRANULAR BACKFILL GRADATION SHALL BE CA-7.
- ⑤ ALL MATERIALS WILL NOT BE MEASURED SEPARATELY, BUT WILL BE INCLUDED IN THE CONTRACT PRICE PER UNIT FOR PIPE UNDERDRAINS, TYPE 2 OF THE SIZE SPECIFIED.
- ⑥ PERFORATED PIPE SHALL BE PERFORATED CORRUGATED PE PIPE WITH A SMOOTH INTERIOR MEETING ARTICLE 1040.04



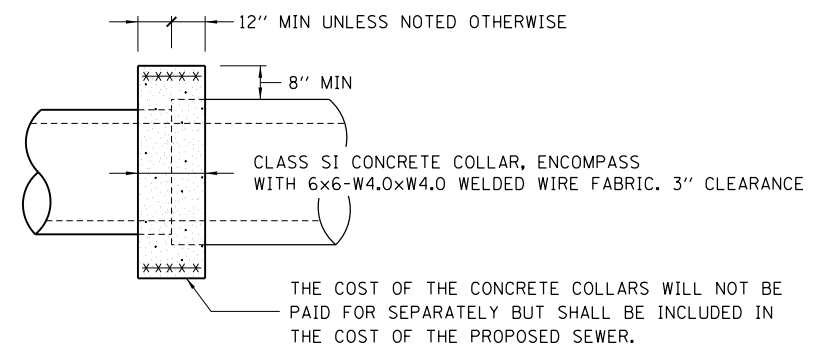
PLAN VIEW SANITARY SEWER MANHOLE R337
N.T.S.



SECTION SANITARY SEWER MANHOLE R337
N.T.S.

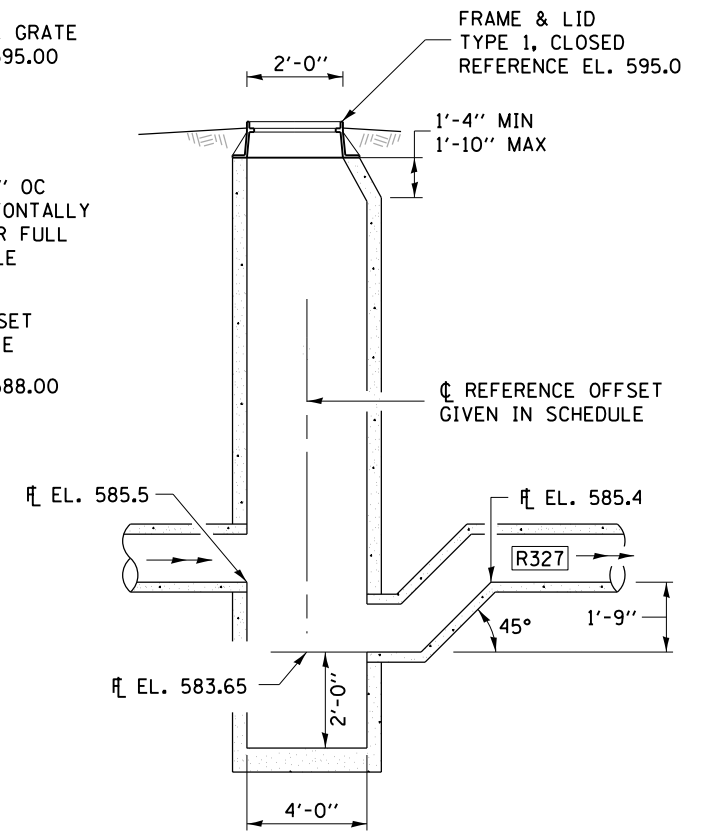


SECTION PERFORATED STORM SEWER MANHOLE R326
N.T.S.



TYPICAL CONCRETE COLLAR DETAIL
N.T.S.

NOTE: CONCRETE COLLARS SHALL BE USED TO CONNECT SEWER TO EXISTING SEWER AND JACKED-IN-PLACE SEWER.



SECTION STORM SEWER CATCH BASIN R355
N.T.S.

FINAL

MODEL: Sheet 1
FILE: hanson\csw_bentley\comshanson\pc-d1\Documents\09\09\01\798\Track-Drainage-Details\02.dgn
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USER NAME = Pop00275	DESIGNED - JWM/TMF	REVISED -
PLOT SCALE = 10.00' / in.	DRAWN - CLG	REVISED -
PLOT DATE = 1/18/2021	CHECKED - JWM	REVISED -
	DATE - 1/18/2021	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

**SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
DRAINAGE AND SEWER DETAILS - TRACK - 2**

SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.

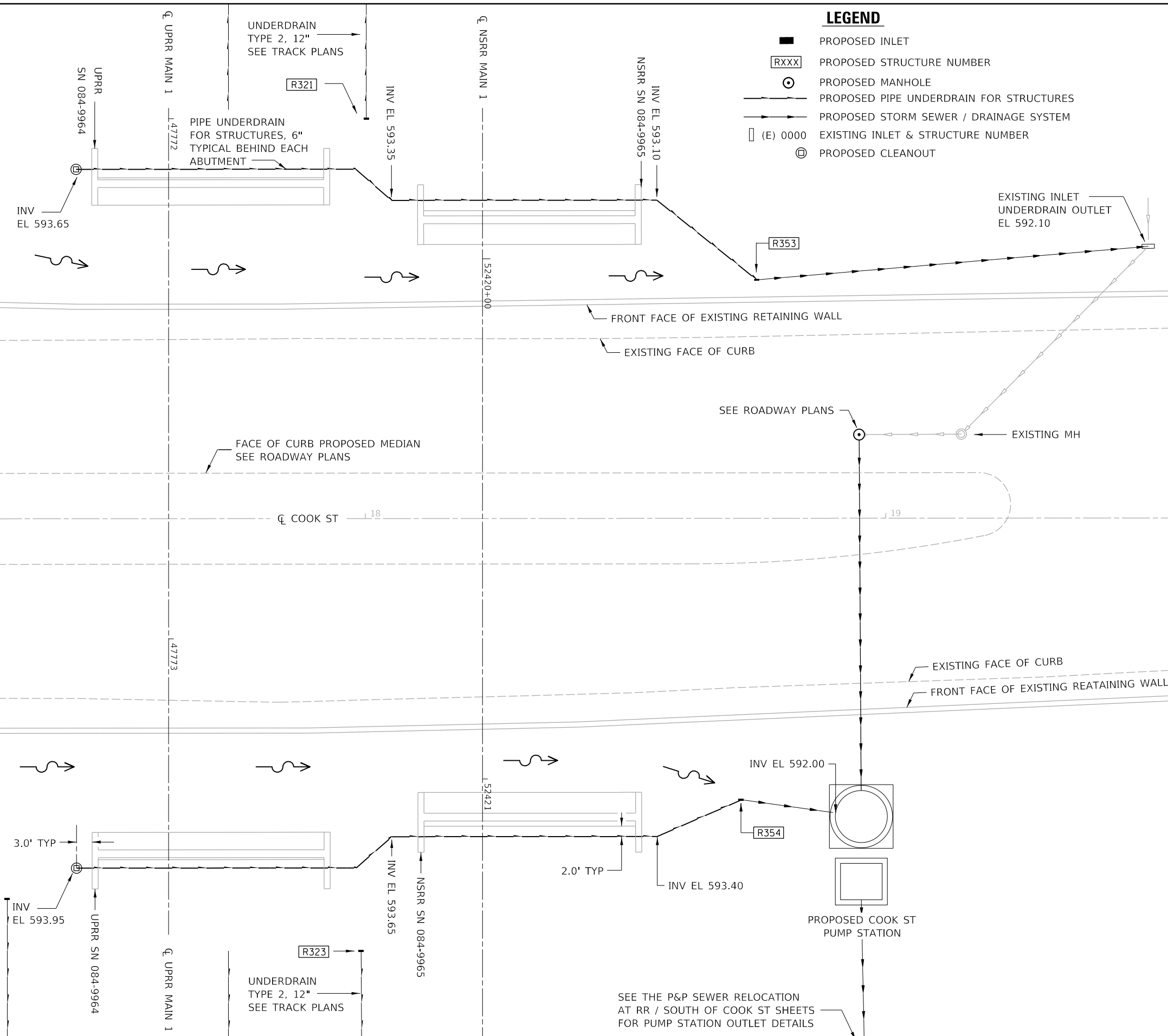
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	109
	09L0179B	CONTRACT NO.	93747	
# 7985A & 8076	ILLINOIS	FED. AID PROJECT		



EXISTING PUMP STATION TO BE RELOCATED

LEGEND

- PROPOSED INLET
- RXXX PROPOSED STRUCTURE NUMBER
- ⊙ PROPOSED MANHOLE
- PROPOSED PIPE UNDERDRAIN FOR STRUCTURES
- PROPOSED STORM SEWER / DRAINAGE SYSTEM
- (E) 0000 EXISTING INLET & STRUCTURE NUMBER
- ⊕ PROPOSED CLEANOUT



NOTES:

ALL FITTINGS, TEES, CONNECTIONS & CLEANOUTS INCLUDED IN THE CONTRACT UNIT PRICE FOR PIPE UNDERDRAIN.

FINAL



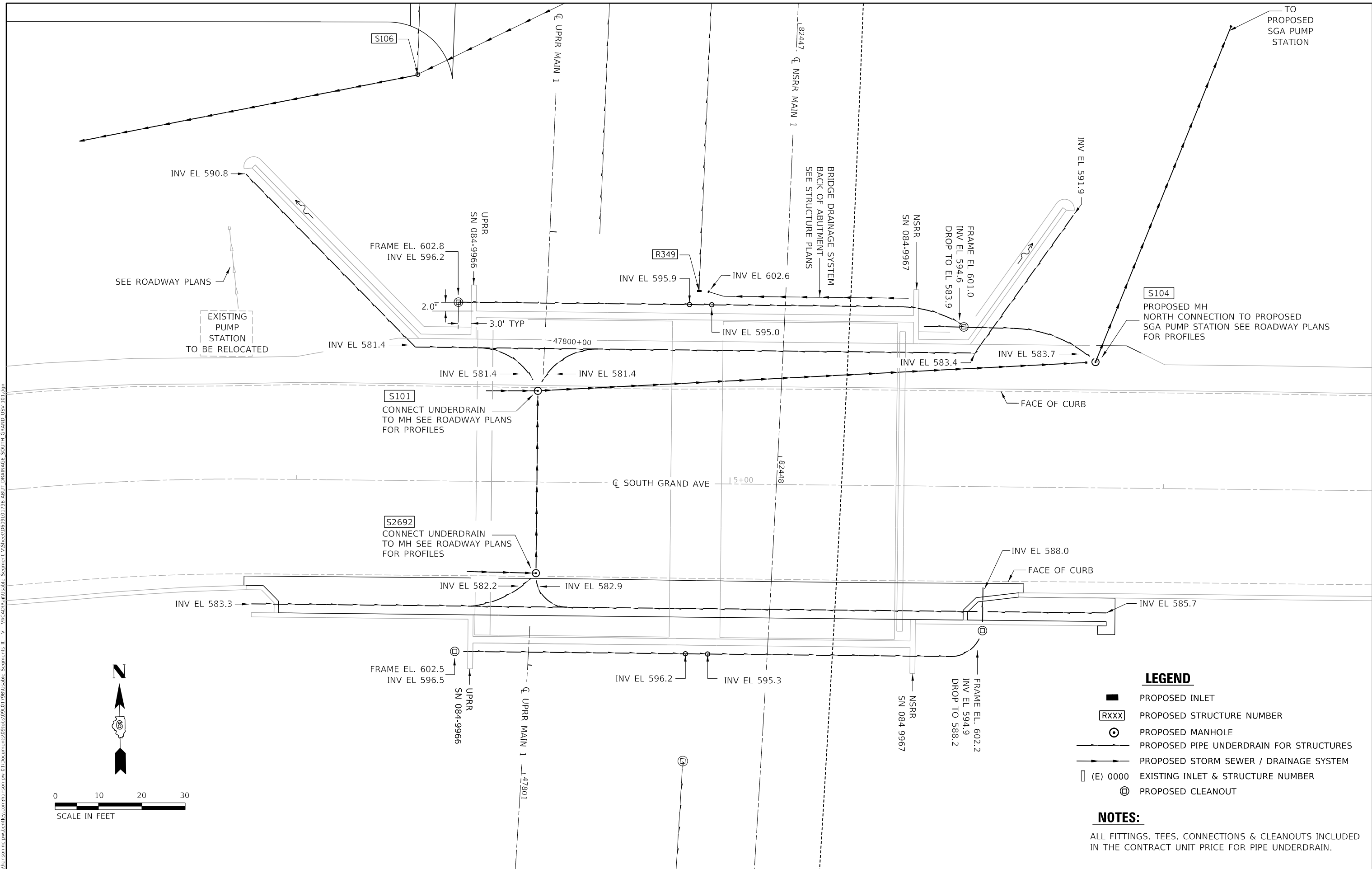
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PLOT DATE = 1/18/2021	DATE - 1/18/2021	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
ABUTMENT DRAINAGE - COOK STREET**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	110
	09L0179B		CONTRACT NO. 93747	
* 7985A & 8077	ILLINOIS	FED. AID PROJECT		



LEGEND

- PROPOSED INLET
- Ⓜ RXXX PROPOSED STRUCTURE NUMBER
- ⊕ PROPOSED MANHOLE
- PROPOSED PIPE UNDERDRAIN FOR STRUCTURES
- PROPOSED STORM SEWER / DRAINAGE SYSTEM
- Ⓜ (E) 0000 EXISTING INLET & STRUCTURE NUMBER
- ⊕ PROPOSED CLEANOUT

NOTES:

ALL FITTINGS, TEES, CONNECTIONS & CLEANOUTS INCLUDED IN THE CONTRACT UNIT PRICE FOR PIPE UNDERDRAIN.

FINAL



USER NAME = Pop00275	DESIGNED - RGC	REVISED -
DRAWN - CLG	REVISIONS -	
PLOT SCALE = 20.00' / in.	CHECKED - RGC/MNM	REVISED -
PLOT DATE = 1/18/2021	DATE - 1/18/2021	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

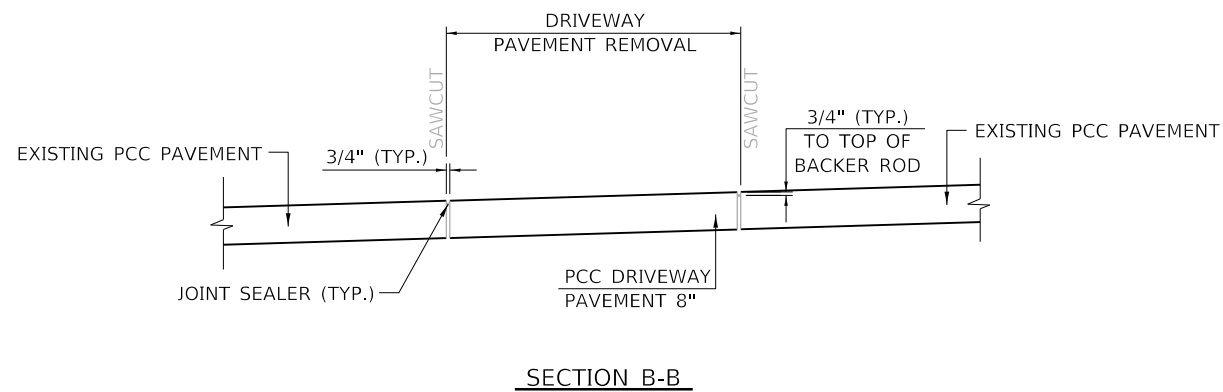
**SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
ABUTMENT DRAINAGE - SOUTH GRAND AVE**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	111
	09L0179B			CONTRACT NO. 93747
# 7985A & 8078	ILLINOIS	FED. AID PROJECT		

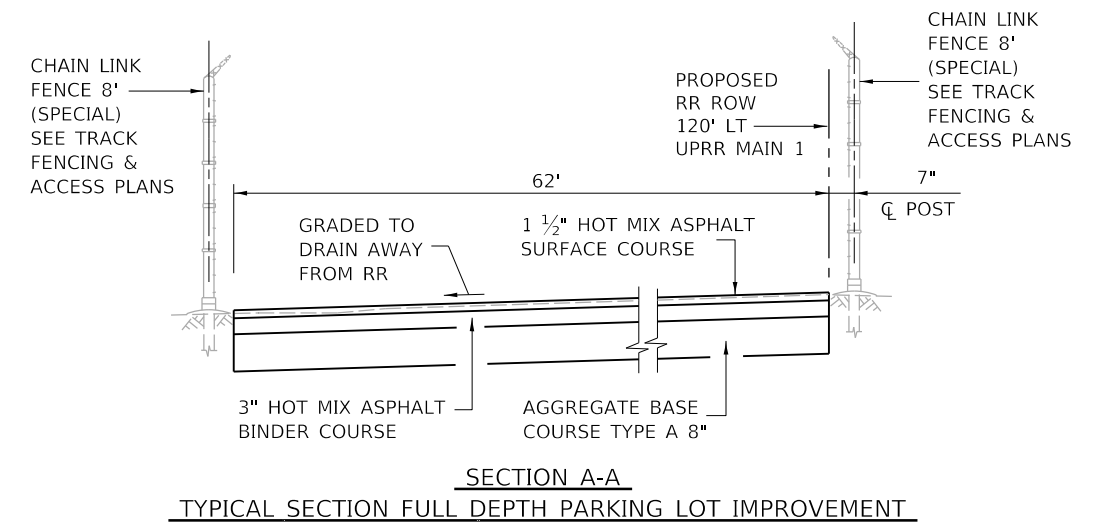
SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

CITY PARKING LOT LIGHTING NOTE

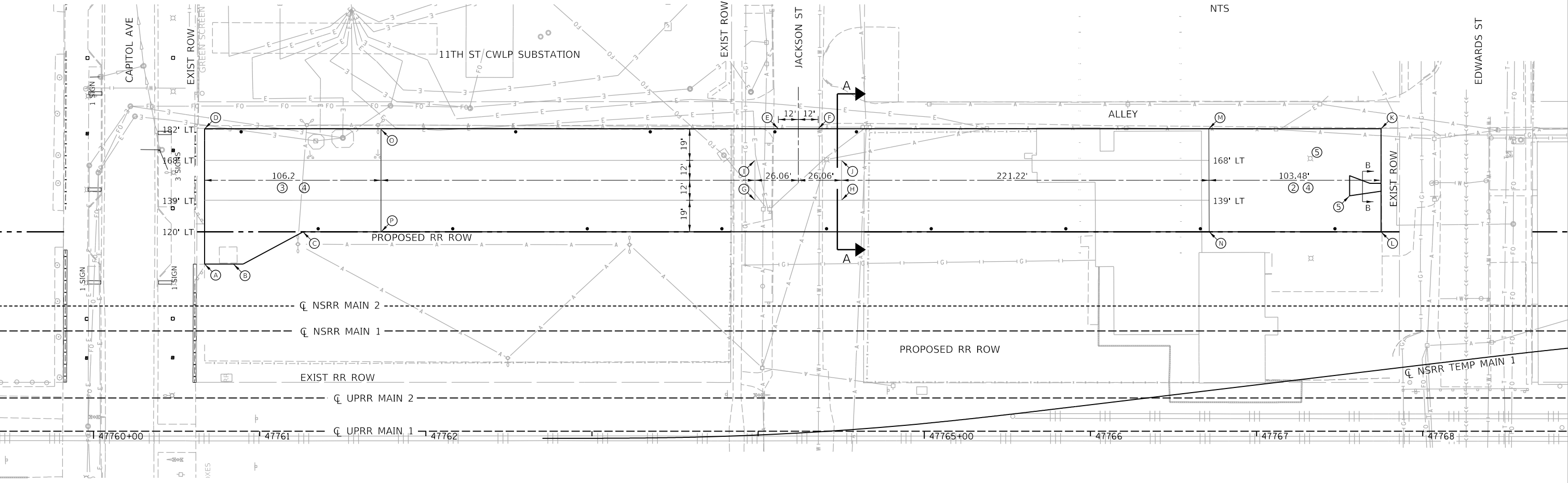
ALL EQUIPMENT, MATERIAL AND INSTALLATION ASSOCIATED WITH THE CITY PARKING LOT LIGHTING WILL BE PROVIDED BY C.W.L.P. SEE CITY PARKING LOT STRIPING PLAN FOR APPROXIMATE LIGHT POLE LOCATIONS.



PARKING LOT GRADING CONTROL POINTS				
UP MAIN 1 STATION	UP MAIN 1 OFFSET			
	120' LT	139' LT	163' LT	182' LT
47761+73	MATCH EXISTING PAVEMENT			
47761+93	600.73	600.54	600.31	600.12
47762+20	600.69	600.50	600.26	600.07
47762+50	600.52	600.36	600.14	599.96
47763+43	599.43	599.32	599.17	599.02
47763+98	598.40	598.25	598.14	597.99
47764+12	598.31	598.13	597.95	597.43
47764+24	598.36	598.25	598.07	597.92
47764+36	598.31	598.13	597.95	597.57
47764+50	598.43	598.33	598.20	598.12
47765+00	599.41	599.31	599.20	599.10
47765+50	599.86	599.76	599.65	599.55
47766+08	599.40	599.30	599.20	599.10
47766+71	MATCH EXISTING PAVEMENT			



SECTION A-A
TYPICAL SECTION FULL DEPTH PARKING LOT IMPROVEMENT
LOOKING SOUTH
NTS



CAPITOL-EDWARDS CITY PARKING LOT CONTROL POINTS

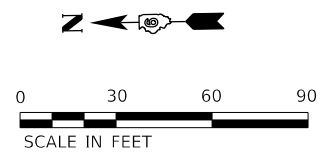
SHEET NOTES:

- SEE TRACK FENCING AND ACCESS PLAN SHEETS FOR ROW STATION AND OFFSET CALLOUTS.
- SEAL CRACKS AND JOINTS ACCORDING TO SECTION 452 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- EXISTING ASPHALT LOT TO REMAIN.
- REMOVE EXISTING PAVEMENT MARKING (WATER BLASTING)
- REMOVE EXISTING PAVEMENT AND REPLACE WITH PCC DRIVEWAY PAVEMENT 8" (LIMITS TO BE DELINEATED BY THE ENGINEER.)

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
MIXTURE USE	SURFACE 1 1/2"	BINDER 3"
PG:	PG 64-22	PG 64-22
DESIGN AIR VOIDS	4% @ N=50	4% @ N=50
MIX. COMPOSITION	IL-9.5	IL-19.0
(MIX. GRADATION)		
FRICTION AGGREGATE	MIX. C	NA

WORKING PTS	NORTHING	EASTING
(A)	1140750.380	2444028.385
(B)	1140733.026	2444028.150
(C)	1140690.771	2444047.016
(D)	1140749.285	2444109.815
(E)	1140404.021	2444105.137
(F)	1140380.023	2444104.812
(G)	1140418.666	2444062.332
(H)	1140366.543	2444061.625

WORKING PTS	NORTHING	EASTING
(I)	1140418.340	2444086.359
(J)	1140366.218	2444085.653
(K)	1140041.300	2444100.223
(L)	1140042.140	2444038.229
(M)	1140144.884	2444101.626
(N)	1140145.494	2444039.629
(O)	1140643.088	2444108.347
(P)	1140643.928	2444046.382



FINAL



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PLOT DATE = 1/18/2021	CHECKED - MNM/JAD	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
CITY PARKING LOT - CAPITOL / EDWARDS GRADING PLAN

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	112
	09L0179B			CONTRACT NO. 93747
# 7985A & 8079	ILLINOIS	FED. AID PROJECT		

SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.



COOK STREET DETOUR SIGN & BARRICADE LOCATION PLAN

- DENOTES WORK ZONE

SEE NEXT SHEET FOR SIGN DESIGNATION

FINAL

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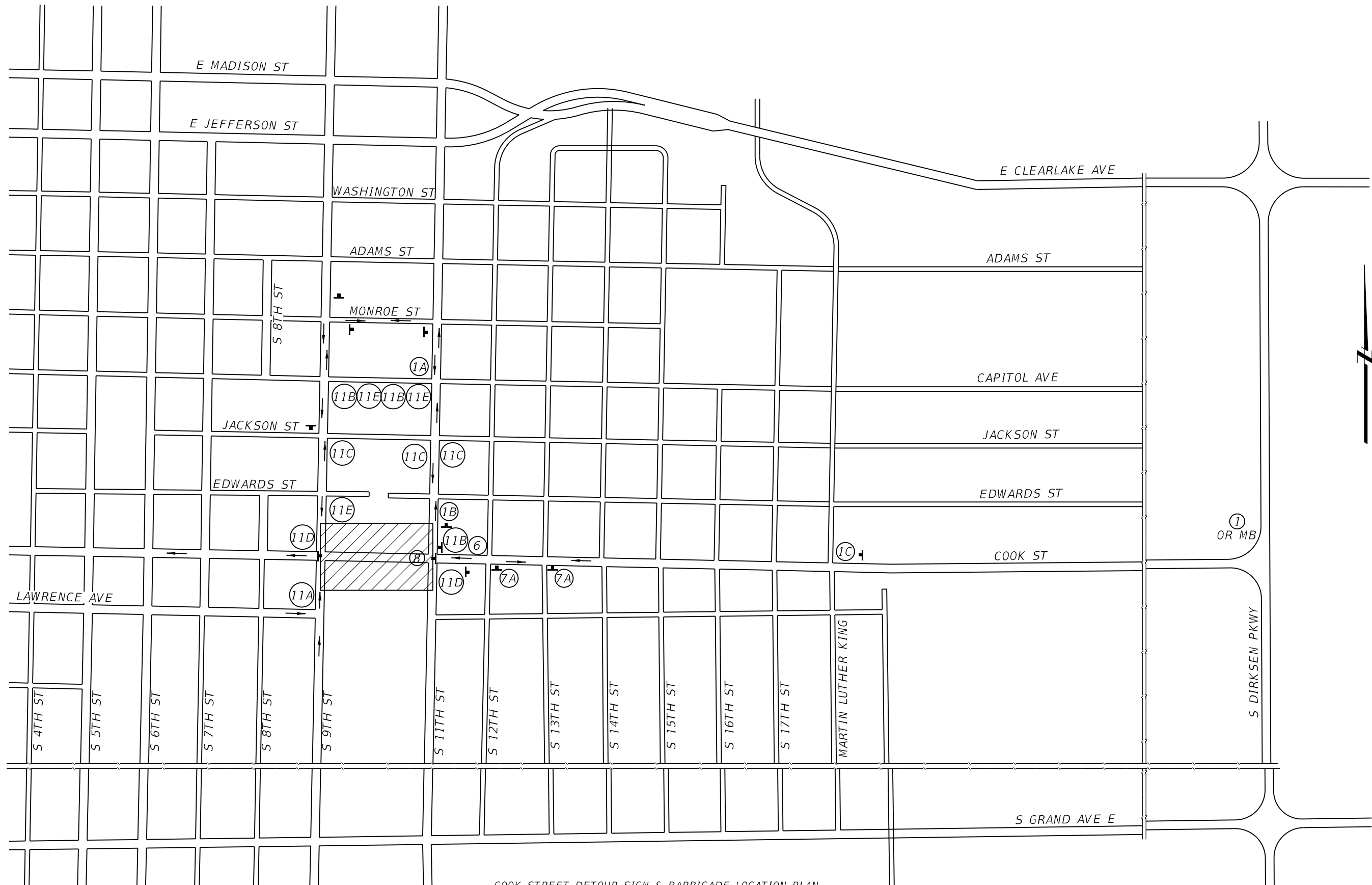
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DRAWN -	REVISED -	
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
TRAFFIC DETOUR PLAN - COOK ST - 1

SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	114
	09L0179B		CONTRACT NO.	9374
* 7985A & 8081		ILLINOIS FED. AID PROJECT		



COOK STREET DETOUR SIGN & BARRICADE LOCATION PLAN

- DENOTES WORK ZONE

SEE NEXT SHEET FOR SIGN DESIGNATION

FINAL

MODEL: 002
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PLOT DATE = 1/18/2021	DATE - 1/18/2021	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
 SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
 TRAFFIC DETOUR PLAN - COOK ST - 2

SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	115
	09L0179B	CONTRACT NO.	9374	
* 7985A & 8082		ILLINOIS FED. AID PROJECT		

S. GRAND AVE.
CLOSED AT
RAILROAD
UNDERPASS

0.5
MILES

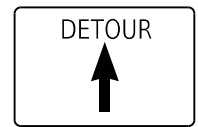
①

CUSTOM DETOUR SIGN WITH
ORANGE HI-REFLECTIVITY
FIELD 48x48 BLACK BORDER
AND LETTERING



②

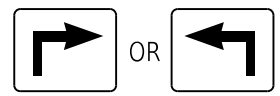
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S. GRAND AVE.

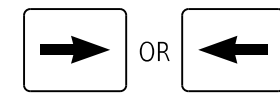
③

M4-8(0) 30x15 WITH
CUSTOM DETOUR STREET
SIGN BLACK ON ORANGE
24x12



①A

W20-3(0) 36x36 WITH
W16-6P 24X12 SIGN BLACK
ON ORANGE WITH AMBER
FLASHING LIGHT



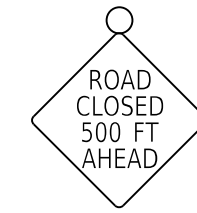
①B

W20-3(0) 36x36 WITH
W16-5P 24X12 SIGN BLACK
ON ORANGE WITH AMBER
FLASHING LIGHT



①C

W20-3(0) 36x36
SIGN BLACK ON ORANGE
WITH AMBER FLASHING LIGHT



①D

CUSTOM W20-3(0) 36x36
SIGN BLACK ON ORANGE
WITH AMBER FLASHING LIGHT

S. GRAND AVE. CLOSED
AT RAILROAD
UNDERPASS BETWEEN
9TH & 11TH STREETS

①E

CUSTOM DETOUR SIGN WITH
ORANGE HI-REFLECTIVITY
FIELD 48x48 BLACK BORDER
AND LETTERING



S. GRAND AVE.

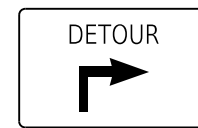
OR



S. GRAND AVE.

④

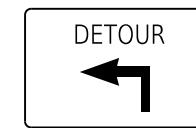
M4-10R & M4-10L 48X18
WITH CUSTOM STREET
SIGN BLACK ON
ORANGE 24X12



S. GRAND AVE.

⑤

M4-8(0) 30x15 WITH
CUSTOM DETOUR STREET
SIGN BLACK ON ORANGE
24x12



S. GRAND AVE.

⑥

M4-8(0) 30x15 WITH
CUSTOM DETOUR STREET
SIGN BLACK ON ORANGE
24x12



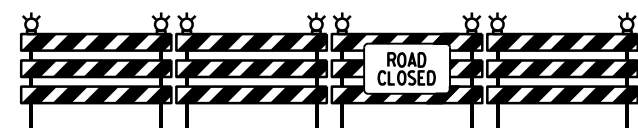
⑦

R11-2 48x30
WITH M16-1 30x18



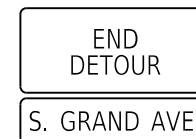
⑧

R11-2 48x30
WITH M16-1 30x18



⑨

TYPE III BARRICADE WITH R11-2 48x30



⑩

M4-8A 24x18 WITH
CUSTOM DETOUR STREET
SIGN BLACK & ORANGE
24x12



⑪A

R9-11L



⑪B

M4-9BR



⑪C

M4-9B



⑪D

R9-11R



⑪E

M4-9BL



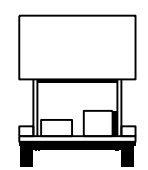
⑫

R11-1101 24x18
WITH M4-8



⑬

R11-1101 24x18



MB

PORTABLE CHANGEABLE
MESSAGE SIGN

NOTES:
ALL SIGNS AND DEVICES SHOWN SHALL BE IN ACCORDANCE WITH SECTION 701
OF THE STANDARD SPECIFICATIONS. FURNISHING, INSTALLATION, MAINTENANCE
AND REMOVAL OF ALL SIGNS AND DEVICES SHOWN SHALL BE PAID FOR AS
DETOUR SIGNING.

TRAFFIC CONTROL IS AN INTEGRAL PART OF THE CONTRACTOR'S MEANS AND
METHODS FOR COMPLETING THE WORK. THE REQUIREMENTS SET FORTH HEREIN
PRESENT THE MINIMUM REQUIREMENTS FOR THE CONTROL & PROTECTION OF
PEDESTRIAN AND VEHICULAR TRAFFIC. THE CONTRACTOR SHALL IMPLEMENT ALL
ADDITIONAL MEASURES NECESSARY TO FULLY PROTECT PEDESTRIANS, VEHICLES
AND THE CONTRACTOR'S WORK FORCE FROM THE CONTRACTOR'S WORK ACTIVITIES
AND FROM PASSING TRAFFIC. FIELD MODIFICATION OF THE TRAFFIC CONTROL
SCHEME DEPICTED IN THE TRAFFIC CONTROL PLANS SHALL BE APPROVED BY
THE CITY TRAFFIC ENGINEER.

ALL WORK SHOWN ON THIS SHEET AND INCLUDING ANY OTHER WORK REQUIRED
FOR THE DETOUR WILL BE PAID FOR AT THE CONTRACT PRICE FOR DETOUR
SIGNING.

TYPE 3 BARRICADES, ROAD CLOSED SIGNS & SIDEWALK CLOSED SIGNS WILL BE
UTILIZED AND MAINTAINED BY THE CONTRACTOR TO PROTECT THE PUBLIC.

ALL DETOUR RELATED SIGNS SHALL HAVE AN ORANGE BACKGROUND.

FINAL

MODEL 002
FILE NAME: p:\projects\springfield\documents\09101798\usable - segment 10\signs\detour-sign

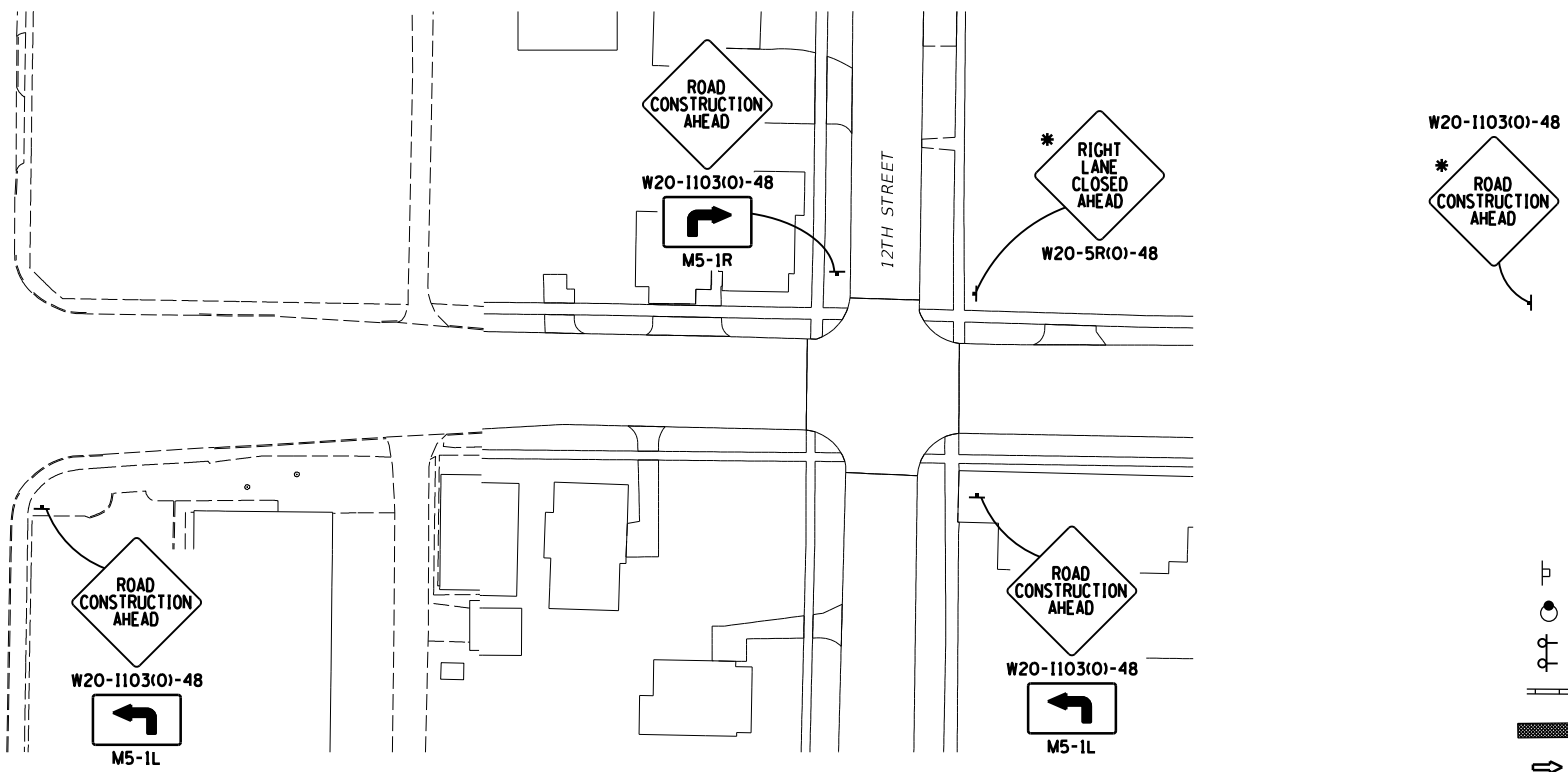
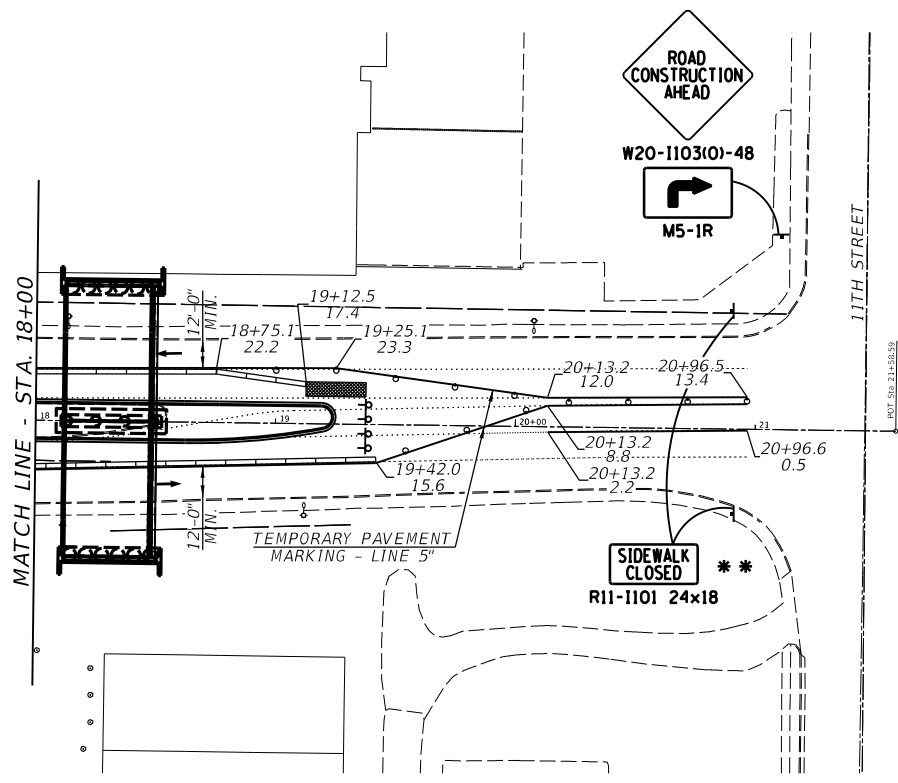
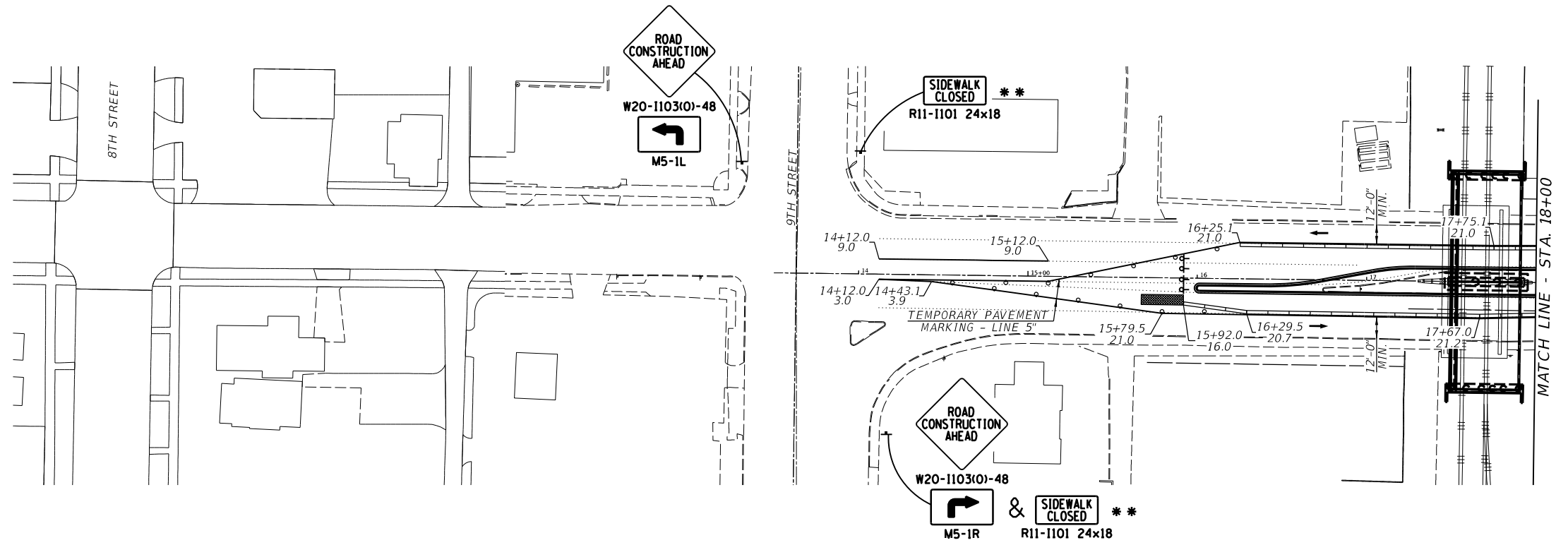


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PLOT SCALE = 2,000' / in.	DRAWN -	REVISED -
PLOT DATE = 1/18/2021	CHECKED -	REVISED -
	DATE = 1/18/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
TRAFFIC DETOUR PLAN - SOUTH GRAND AVE - 2

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	117
	09L0179B			9374
SCALE: SHEET 2 OF 2 SHEETS STA.		TO STA.		* 7985A & 8084 ILLINOIS FED. AID PROJECT

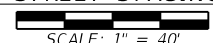


SYMBOLS

- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DRUM WITH STEADY BURNING LIGHT
- TYPE III BARRICADE WITH FLASHING LIGHTS
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- ARROW BOARD
- WORK AREA
- STEADY BURNING WARNING LIGHT

* - THESE SIGNS TO BE PLACED ON COOK STREET PRIOR TO THE INTERSECTIONS OF 15TH STREETS AND MARTIN LUTHER DRIVE ALSO. 200' SPACING BETWEEN SIGNS.
 ** - SIDEWALK DETOUR SIGN PLACEMENT IS SHOWN ON DETOUR SIGN AND BARRICADE LOCATION PLAN SHEETS.

COOK STREET STAGING PLAN



1. SIGNS TO BE SPACED AT 200'
2. CONES AT 25' CENTERS FOR 250'. ADDITIONAL CONES MAY BE PLACED AT 50' CENTERS. WHEN DRUMS OR TYPE I OR TYPE II BARRICADES ARE USED, THE INTERVAL BETWEEN DEVICES MAY BE DOUBLED.
3. CONES, DRUMS OR BARRICADES AT 20' IN TAPER.

FINAL



USER NAME = Pop00275	DESIGNED -	REVISED -
DRAWN -	REVISED -	
PLOT SCALE = 80,0000' / In.	CHECKED -	REVISED -
PLOT DATE = 1/18/2021	DATE = 1/18/2021	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

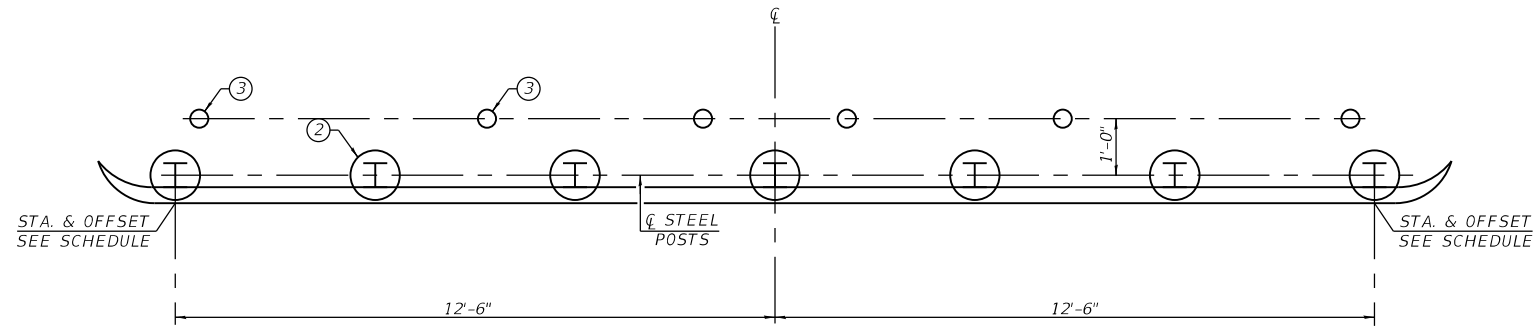
**SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
STAGING PLAN - COOK ST**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	118
	09L0179B		CONTRACT NO.	93747

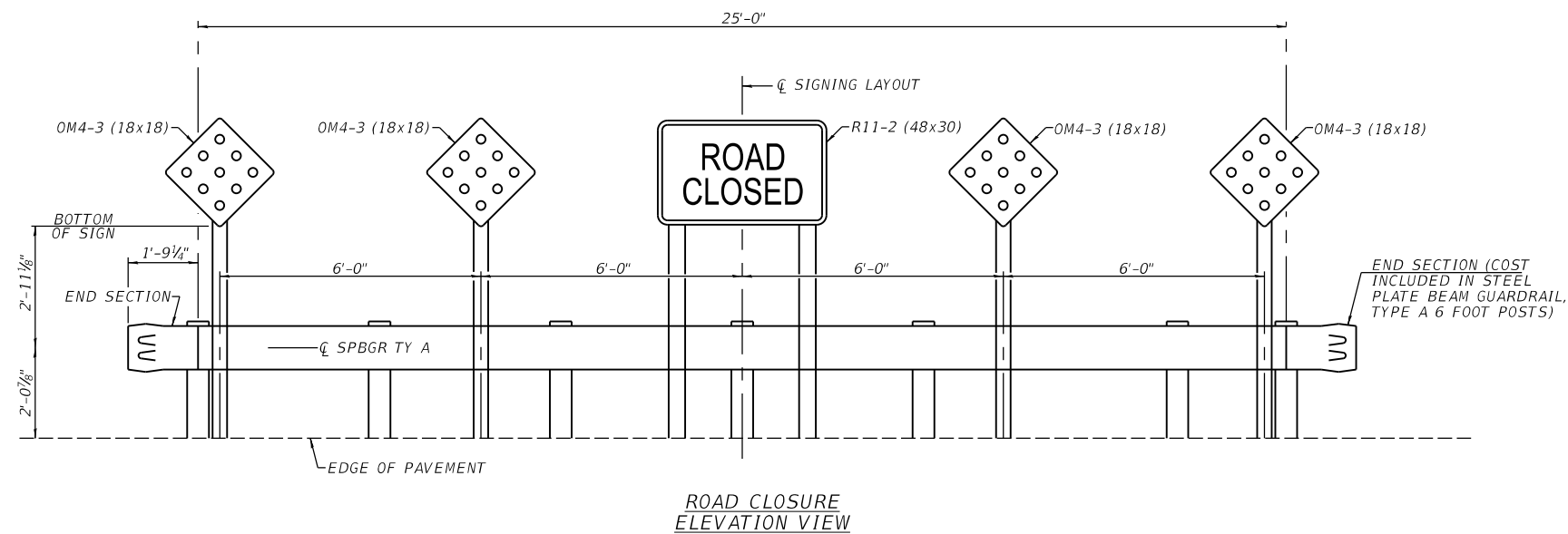
SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

* 7985A & 8085 ILLINOIS FED. AID PROJECT

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PLAN VIEW - STEEL PLATE BEAM GUARDRAIL LOCATION
(FOR ROAD CLOSURE)



ROAD CLOSURE
ELEVATION VIEW

- ① LOCATION WILL BE VERIFIED WITH FIELD ENGINEER PRIOR TO PLACEMENT.
- ② CORE 12" DIAMETER HOLE IN EXISTING PAVEMENT FOR GUARDRAIL POSTS. BACKFILL WITH AGGREGATE AND BRING FLUSH WITH EXISTING PAVEMENT WITH 2" THICK HMA MIXTURE. COST INCLUDED IN CONTRACT PRICE FOR SPBGR TYPE A.
- ③ CORE 6" DIAMETER HOLE IN EXISTING PAVEMENT FOR SIGN POSTS, BACKFILL WITH AGGREGATE AND BRING FLUSH WITH EXISTING PAVEMENT WITH 2" THICK HMA MIXTURE. COST INCLUDED IN COST OF SIGN PANEL ASSEMBLY.

FINAL

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FILE: Model - Road Closure Details.dwg
PROJECT: Springfield Rail Improvements Project - Sangamon County, Illinois
DRAWN: V. Kimm
DATE: 1/18/2021



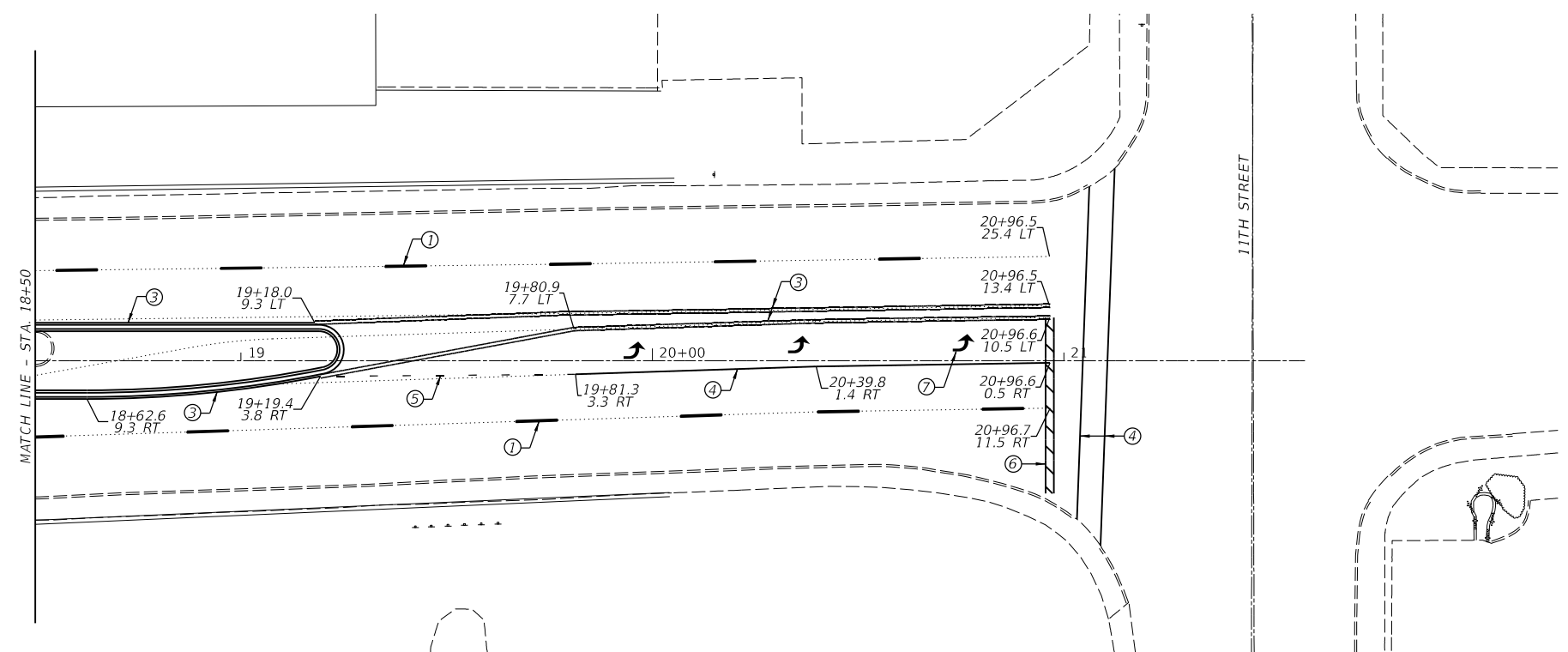
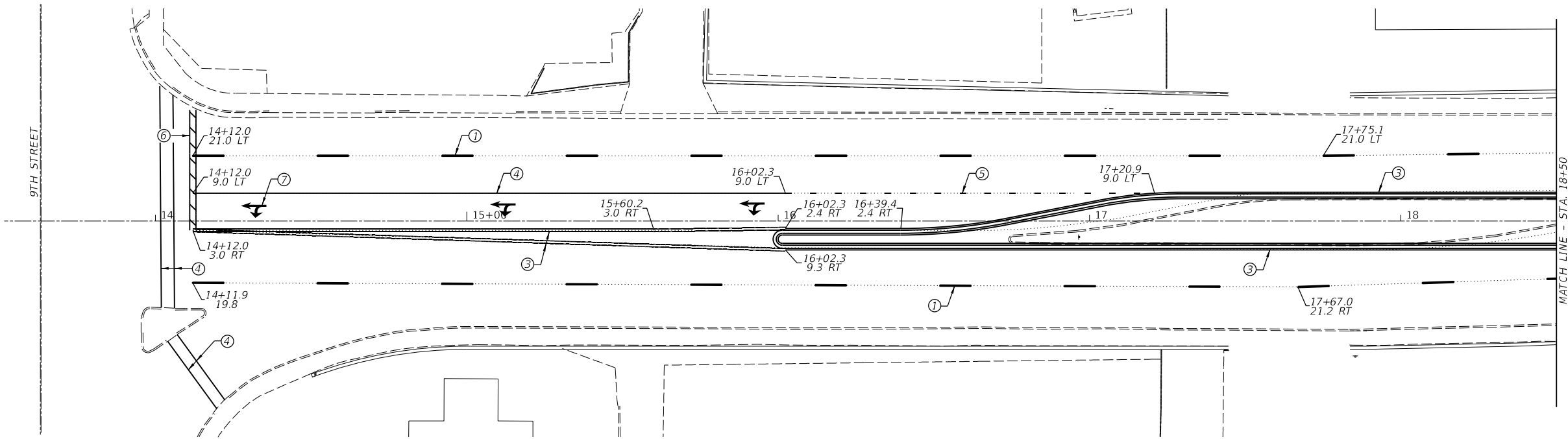
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PLOT DATE = 1/18/2021	DATE - 1/18/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

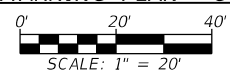
SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
ROAD CLOSURE DETAILS

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	122
	09L0179B			9374
* 7985A & 8089	ILLINOIS	FED. AID PROJECT		



PAVEMENT MARKING PLAN - COOK STREET



- LEGEND**
- ① - THERMOPLASTIC PAVEMENT MARKING LINE - 5" WHITE (SKIP DASH 10' LINES 30' DASH)
 - ② - THERMOPLASTIC PAVEMENT MARKING LINE - 5" (SOLID WHITE)
 - ③ - THERMOPLASTIC PAVEMENT MARKING LINE - 5" (SOLID YELLOW)
 - ④ - THERMOPLASTIC PAVEMENT MARKING LINE - 6" (SOLID WHITE)
 - ⑤ - THERMOPLASTIC PAVEMENT MARKING LINE - 6" WHITE (SKIP DASH 2' LINES 6' DASH)
 - ⑥ - THERMOPLASTIC PAVEMENT MARKING LINE - 24" (SOLID WHITE)
 - ⑦ - THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS (WHITE)

FINAL

MODEL: Default
 FILE: \\v-k\pub\asinc\paw\hnt\by.com\sharissa\paw-d1\Documents\09\09101798\BUsable-Segment_V\VCAD\Road\Usable-Segment_V\Cook\Sheet\0609101798\sh-01mk-c00

V&K
 Veenstra & Kimm, Inc.
 Springfield, IL Phone: (217)544-8033

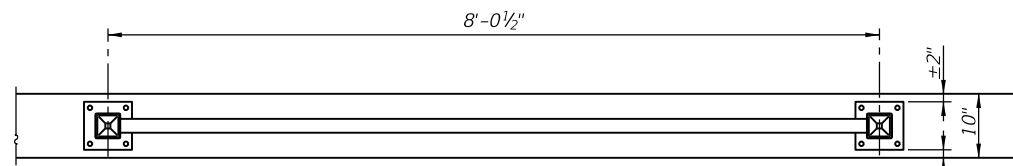
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

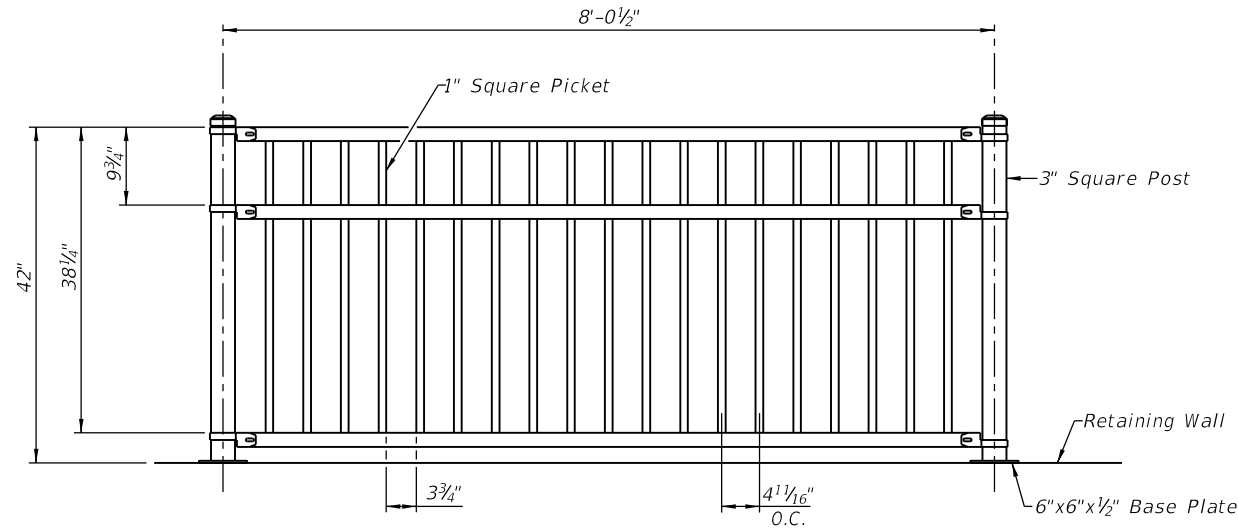
SPRINGFIELD RAIL IMPROVEMENTS PROJECT
 SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
 PAVEMENT MARKING PLAN - COOK STREET

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

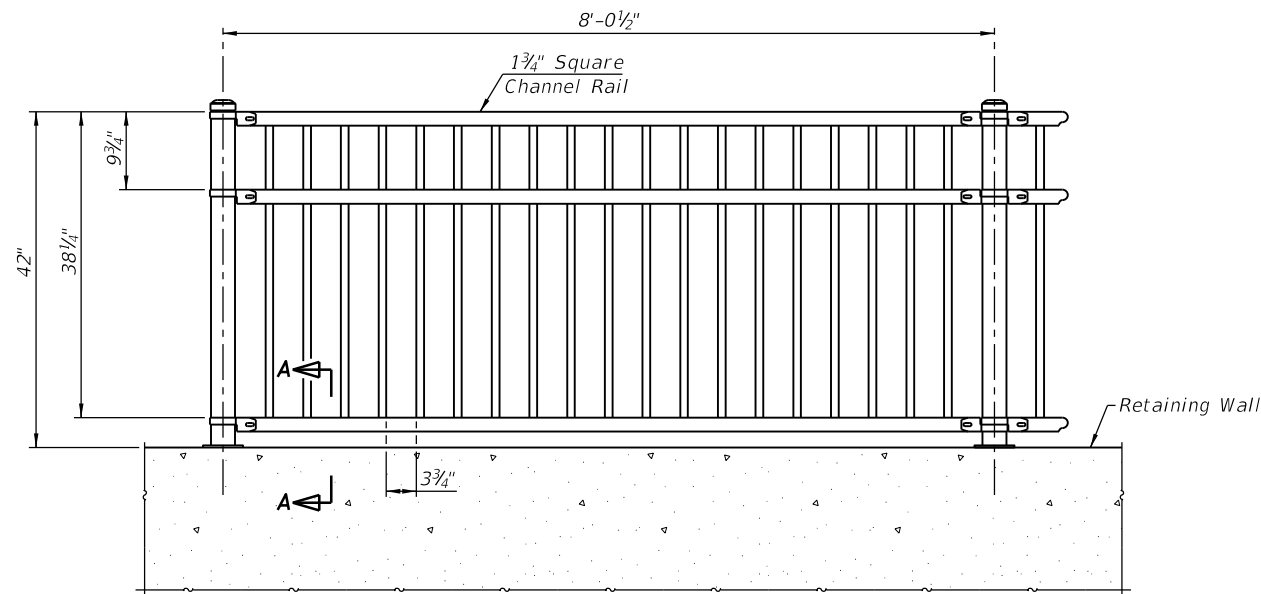
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*	19-00488-00-BR	SANGAMON	347	123
	09L0179B		CONTRACT NO.	93747
* 7985A & 8090		ILLINOIS	FED. AID PROJECT	



ORNAMENTAL FENCE PLAN VIEW



ORNAMENTAL FENCE ELEVATION VIEW



ORNAMENTAL FENCE ELEVATION VIEW

(STA. 997+55 TO STA. 1001+41 LT. & STA. 997+55 TO STA. 1001+81 RT.)

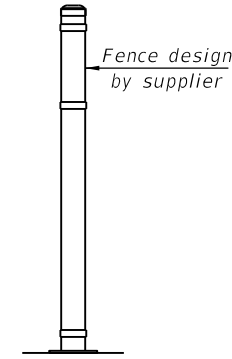
Notes:

Fence posts shall be vertical.

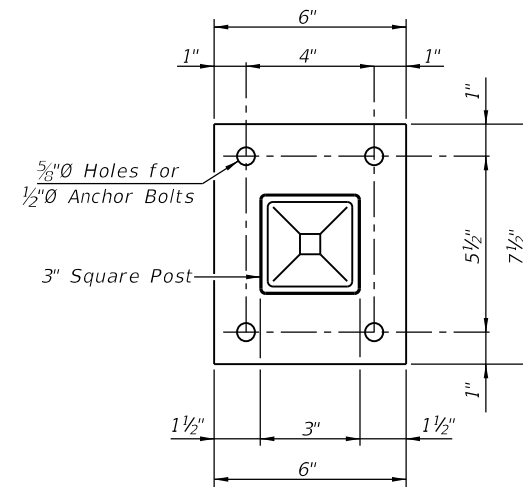
Anchor rods shall be ASTM F1554, Gr. 55, galvanized steel all-thread for an Engineer-approved alternate material of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor rods may be used in lieu of ASTM F1554. The anchor rods shall be hot-dipped galvanized according to AASHTO M232, Class C.

The anchor rods shall be installed according to Article 509.06 of the Standard Specifications. Embedment shall be 6" min. or according to the manufacturer's specifications whatever is greater.

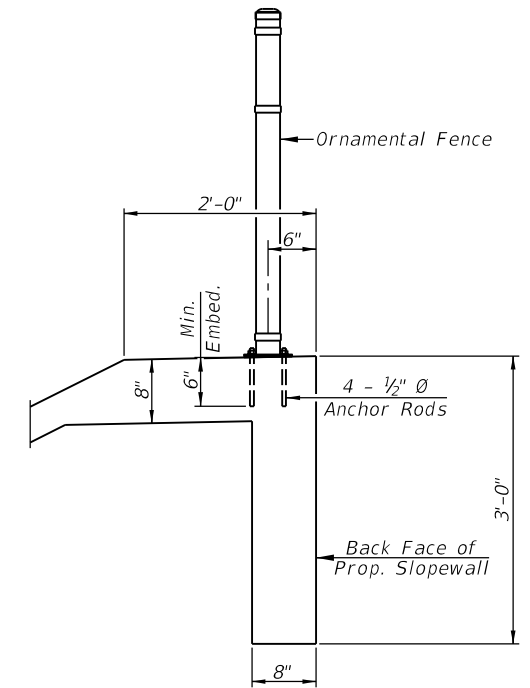
Structural steel plates and bars of the Steel Railing shall conform to the requirements of ASTM A36/36M.



SIDE VIEW



BASE PLATE DETAIL



SECTION A-A

FENCE LOADING

200 lb. concentrated load at any location and direction, or 50 lb./ft. along top rail at any location or direction.

DESIGN CODE

2012 International Building Code

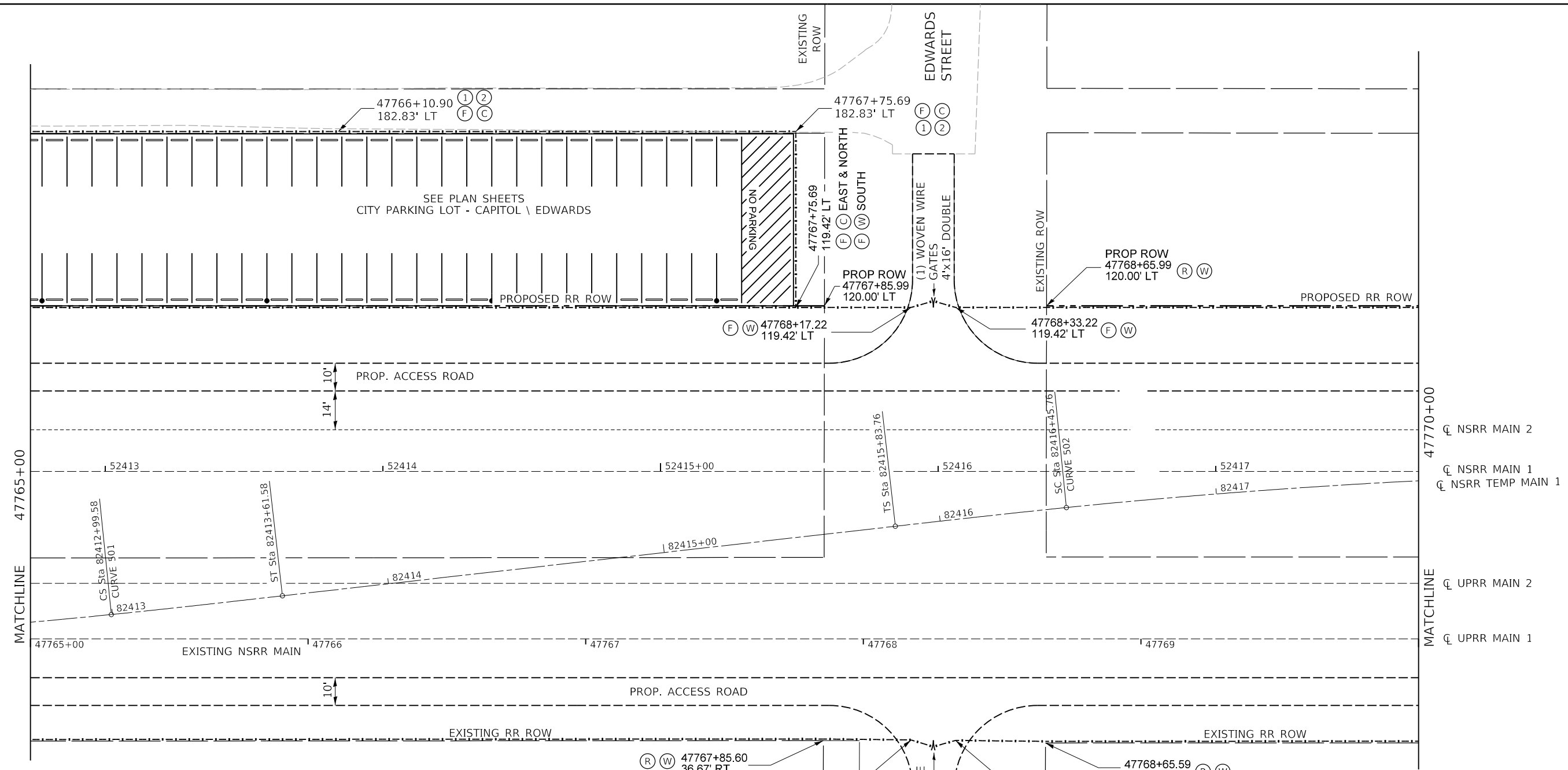
DESIGN STRESSES

f'c = 3,000 psi (Exist.)
f'c = 3,500 psi (Prop.)
fy = 36,000 psi (M270 Grade 36)

BILL OF MATERIAL

Item	Unit	Total
Ornamental Fence	Foot	261

MODEL: Sheet 2
 FILE NAME: p:\work\hanson\cpc-01\Documents\09\09\09\01\798\FENCE_Segment_VISheet\090101798\FENCE_ACCESS\JUVTRACK102.dgn



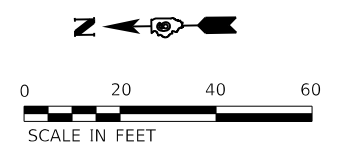
FENCING /ACCESS LEGEND:

- (R) ROW LOCATION CALLOUT. WHERE PROPOSED FENCE SHALL BE CONSTRUCTED ADJACENT TO ROW, CONSTRUCT ON RR ROW AT AN OFFSET OF 7" IN FROM ROW LINE TO CL POST UNLESS OTHERWISE NOTED WITH AN (F).
- (F) FENCE LOCATION CALLOUT.
- (T) THE PROPOSED FENCE WILL NOT REMAIN AS PERMANENT FENCE.
- (C) CHAIN LINK FENCE 8' (SPECIAL)
- (W) WOVEN WIRE FENCE 4'

SHEET NOTES:

- ① ADJUST FENCE TO ALLEY SIDE OF EXISTING UTILITY POLES.
- ② CORE PAVEMENT TO SET FENCE POSTS. COST INCLUDED IN COST OF FENCE.

- - - - - EXISTING FENCE TO REMAIN AND BE MAINTAINED.
- x - x - x - x - PROPOSED FENCE TO BE CONSTRUCTED AND MAINTAINED.
- - - - - LIMITS OF PROPOSED 10' WIDE MAINTENANCE ROAD, ACCESS ENTRANCES AND TURNAROUNDS. SEE DETAIL SHEETS FOR LAYOUT AND MATERIALS.
- - - - - PROPOSED ROW
- /// TEMPORARY EASEMENT (TE)
- //// PERMANENT EASEMENT (PE)



FINAL



USER NAME = Pop00275	DESIGNED - MNM	REVISED -
PLOT SCALE = 40.00' / in.	CHECKED - MNM	REVISED -
PLOT DATE = 1/18/2021	DATE - 1/18/2021	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
 SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
 TRACK FENCING & ACCESS PLAN - 2

SCALE: SHEET 2 OF 10 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	127
09L0179B		CONTRACT NO. 93747		
# 7985A & 8094	ILLINOIS	FED. AID PROJECT		

MODEL: Sheet 4
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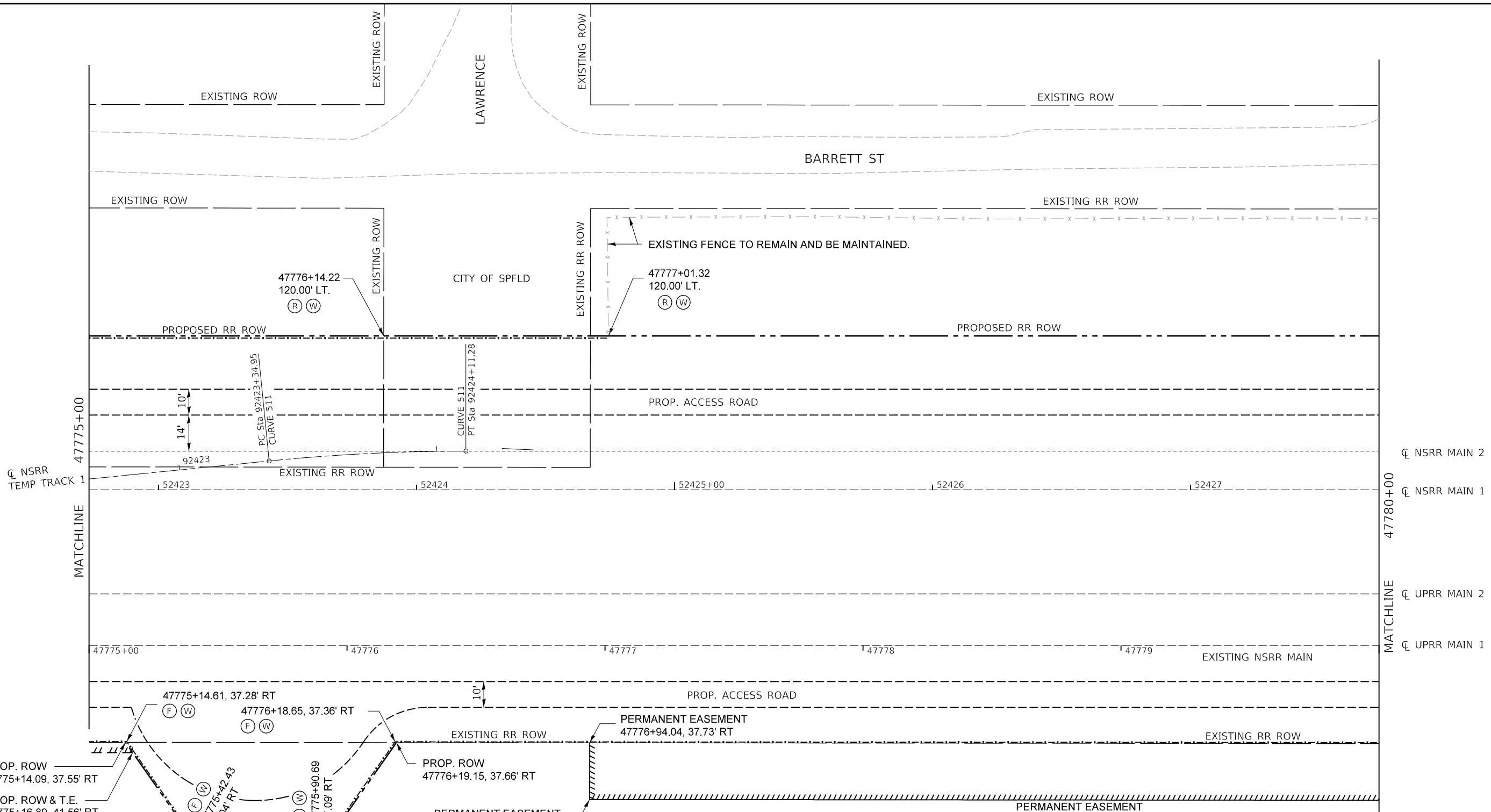
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	DATE - 1/18/2021	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

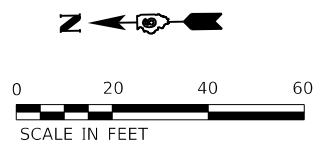
**SPRINGFIELD RAIL IMPROVEMENTS PROJECT
 SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
 TRACK FENCING & ACCESS PLAN - 4**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	129
	09L0179B		CONTRACT NO. 93747	
# 7985A & 8096	ILLINOIS	FED. AID PROJECT		

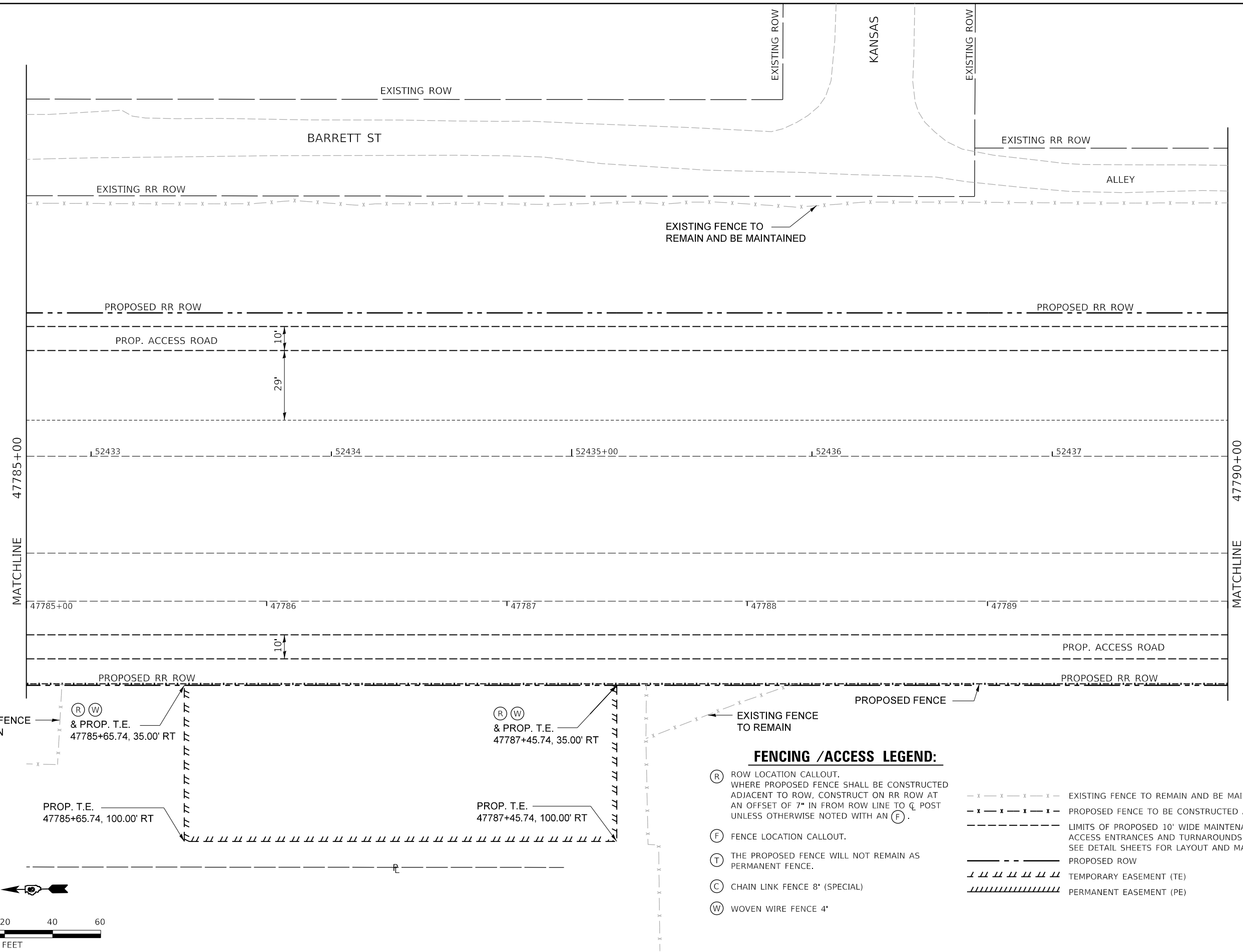
SCALE: SHEET 4 OF 10 SHEETS STA. TO STA.



- FENCING / ACCESS LEGEND:**
- (R) ROW LOCATION CALLOUT. WHERE PROPOSED FENCE SHALL BE CONSTRUCTED ADJACENT TO ROW, CONSTRUCT ON RR ROW AT AN OFFSET OF 7" IN FROM ROW LINE TO CL POST UNLESS OTHERWISE NOTED WITH AN (F).
 - (F) FENCE LOCATION CALLOUT.
 - (T) THE PROPOSED FENCE WILL NOT REMAIN AS PERMANENT FENCE.
 - (C) CHAIN LINK FENCE 8' (SPECIAL)
 - (W) WOVEN WIRE FENCE 4'
 - x - x - x - x - x - EXISTING FENCE TO REMAIN AND BE MAINTAINED.
 - x - x - x - x - x - PROPOSED FENCE TO BE CONSTRUCTED AND MAINTAINED.
 - - - - - LIMITS OF PROPOSED 10' WIDE MAINTENANCE ROAD, ACCESS ENTRANCES AND TURNAROUNDS. SEE DETAIL SHEETS FOR LAYOUT AND MATERIALS.
 - - - - - PROPOSED ROW
 - /// /// /// /// /// TEMPORARY EASEMENT (TE)
 - //// //// //// //// //// PERMANENT EASEMENT (PE)

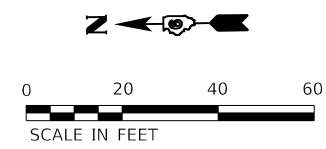


MODEL: Sheet 6
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FENCING /ACCESS LEGEND:

- (R) ROW LOCATION CALLOUT. WHERE PROPOSED FENCE SHALL BE CONSTRUCTED ADJACENT TO ROW, CONSTRUCT ON RR ROW AT AN OFFSET OF 7" IN FROM ROW LINE TO C POST UNLESS OTHERWISE NOTED WITH AN (F).
- (F) FENCE LOCATION CALLOUT.
- (T) THE PROPOSED FENCE WILL NOT REMAIN AS PERMANENT FENCE.
- (C) CHAIN LINK FENCE 8' (SPECIAL)
- (W) WOVEN WIRE FENCE 4'
- x - x - x - x - x - Existing fence to remain and be maintained.
- x - x - x - x - x - Proposed fence to be constructed and maintained.
- Limits of proposed 10' wide maintenance road, access entrances and turnarounds. See detail sheets for layout and materials.
- Proposed ROW
- ||||| Temporary Easement (TE)
- ||||| Permanent Easement (PE)



FINAL



USER NAME = Pop00275	DESIGNED - MNM	REVISED -
DRAWN - CLG	REVISIONS -	
PLOT SCALE = 40.00' / in.	CHECKED - MNM	REVISED -
PLOT DATE = 1/18/2021	DATE - 1/18/2021	REVISED -

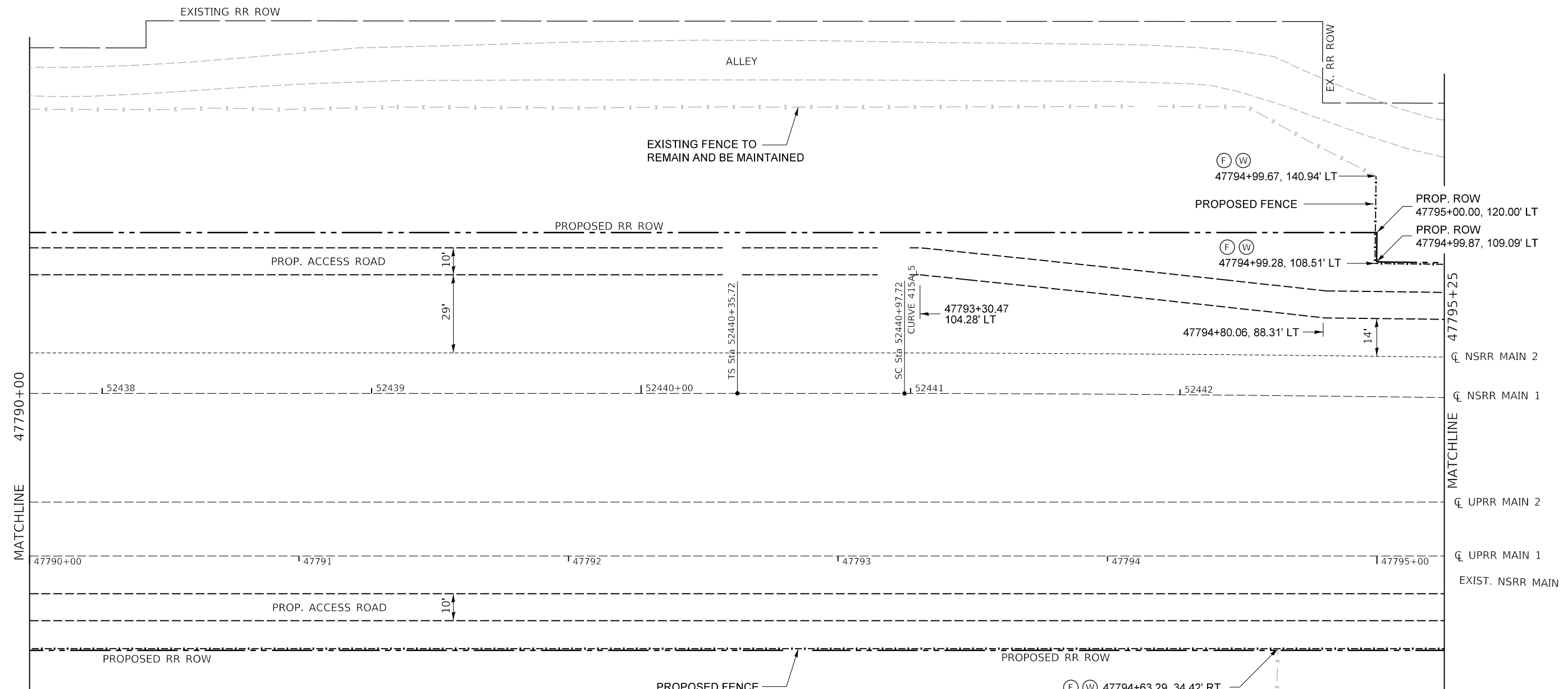
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SPRINGFIELD RAIL IMPROVEMENTS PROJECT
 SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
 TRACK FENCING & ACCESS PLAN - 6**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	09L0179B	CONTRACT NO.	93747	
* 7985A & 8098	ILLINOIS	FED. AID PROJECT		

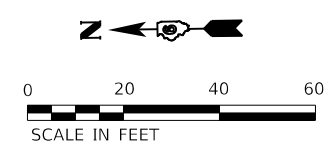
SCALE: SHEET 6 OF 10 SHEETS STA. TO STA.

MODEL: Sheet 7
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FENCING /ACCESS LEGEND:

- (R) ROW LOCATION CALLOUT. WHERE PROPOSED FENCE SHALL BE CONSTRUCTED ADJACENT TO ROW, CONSTRUCT ON RR ROW AT AN OFFSET OF 7' IN FROM ROW LINE TO CL POST UNLESS OTHERWISE NOTED WITH AN (F).
- (F) FENCE LOCATION CALLOUT.
- (T) THE PROPOSED FENCE WILL NOT REMAIN AS PERMANENT FENCE.
- (C) CHAIN LINK FENCE 8' (SPECIAL)
- (W) WOVEN WIRE FENCE 4'
- x - x - x - x - x - EXISTING FENCE TO REMAIN AND BE MAINTAINED.
- x - x - x - x - x - PROPOSED FENCE TO BE CONSTRUCTED AND MAINTAINED.
- - - - - LIMITS OF PROPOSED 10' WIDE MAINTENANCE ROAD, ACCESS ENTRANCES AND TURNAROUNDS. SEE DETAIL SHEETS FOR LAYOUT AND MATERIALS.
- - - - - PROPOSED ROW
- /// TEMPORARY EASEMENT (TE)
- //// PERMANENT EASEMENT (PE)



FINAL



USER NAME = Pop00275	DESIGNED - MNM	REVISED -
PLOT SCALE = 40.00' / in.	DRAWN - CLG	REVISED -
PLOT DATE = 1/18/2021	CHECKED - MNM	REVISED -
	DATE - 1/18/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
TRACK FENCING & ACCESS PLAN - 7

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	132
	09L0179B		CONTRACT NO. 93747	
# 7985A & 8099	ILLINOIS	FED. AID PROJECT		

SCALE: SHEET 7 OF 10 SHEETS STA. TO STA.

MODEL: Sheet 9
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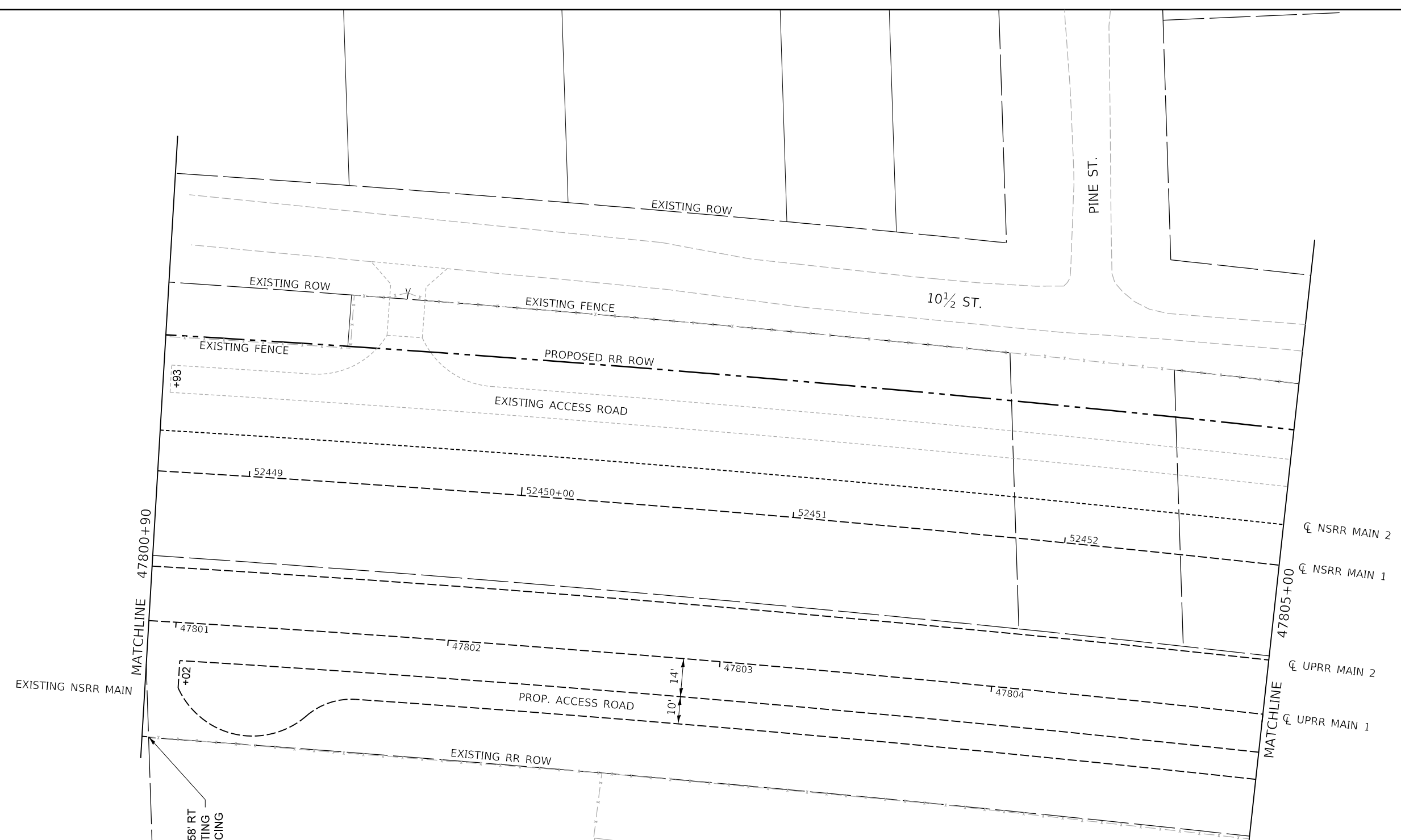
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PLOT DATE = 1/18/2021	DATE - 1/18/2021	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
TRACK FENCING & ACCESS PLAN - 9**

SCALE: SHEET 9 OF 10 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	134
09L0179B		CONTRACT NO. 93747		
* 7985A & 8101	ILLINOIS	FED. AID PROJECT		

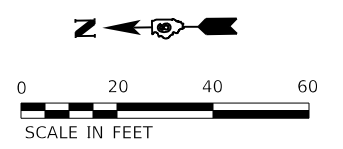


(E) (W)
47800+92.45, 42.58' RT
MATCH TO EXISTING
CHAIN LINK FENCING

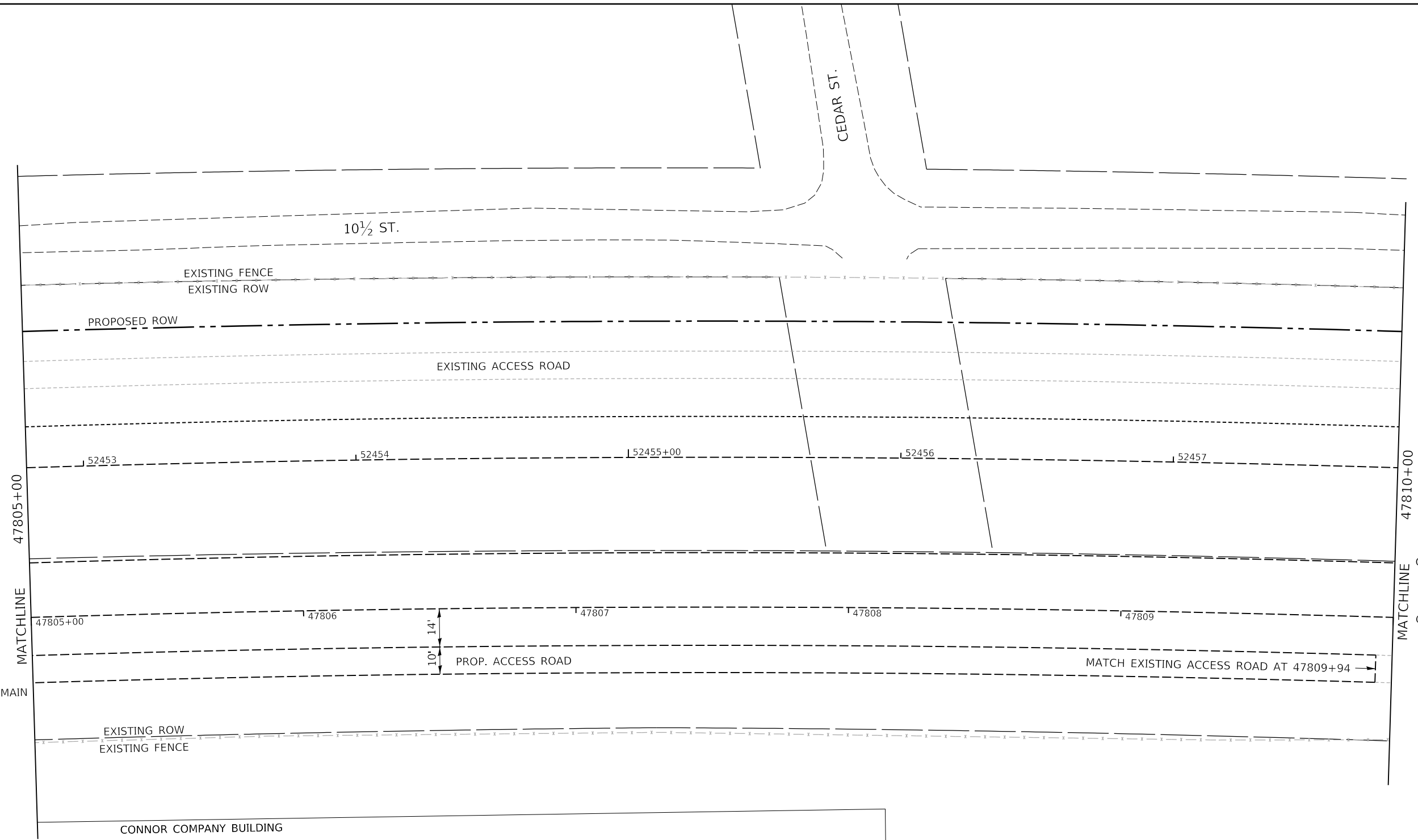
CONNOR COMPANY BUILDING

FENCING /ACCESS LEGEND:

- (R) PROPOSED ROW LOCATION CALLOUT. WHERE PROPOSED FENCE SHALL BE CONSTRUCTED ADJACENT TO ROW, CONSTRUCT ON RR ROW AT AN OFFSET OF 7" IN FROM ROW LINE TO CL POST UNLESS OTHERWISE NOTED WITH AN (R).
- (F) FENCE LOCATION CALLOUT.
- (T) THE PROPOSED FENCE WILL NOT REMAIN AS PERMANENT FENCE.
- (C) CHAIN LINK FENCE 8" (SPECIAL)
- (W) WOVEN WIRE FENCE 4'
- - - - - EXISTING FENCE TO REMAIN AND BE MAINTAINED.
- x - x - x - x - x - PROPOSED FENCE TO BE CONSTRUCTED AND MAINTAINED.
- LIMITS OF PROPOSED 10' WIDE MAINTENANCE ROAD, ACCESS ENTRANCES AND TURNAROUNDS. SEE DETAIL SHEETS FOR LAYOUT AND MATERIALS.
- EXISTING RR MAINTENANCE ROAD.
- PROPOSED ROW
- ||||| TEMPORARY EASEMENT (TE)
- ||||| PERMANENT EASEMENT (PE)

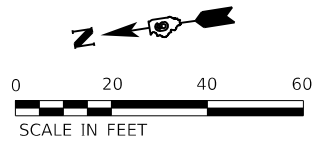


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FENCING /ACCESS LEGEND:

- (R) PROPOSED ROW LOCATION CALLOUT. WHERE PROPOSED FENCE SHALL BE CONSTRUCTED ADJACENT TO ROW, CONSTRUCT ON RR ROW AT AN OFFSET OF 7" IN FROM ROW LINE TO ϕ POST UNLESS OTHERWISE NOTED WITH AN (R).
- (F) FENCE LOCATION CALLOUT.
- (T) THE PROPOSED FENCE WILL NOT REMAIN AS PERMANENT FENCE.
- (C) CHAIN LINK FENCE 8' (SPECIAL)
- (W) WOVEN WIRE FENCE 4'
- x - x - x - x - x - EXISTING FENCE TO REMAIN AND BE MAINTAINED.
- x - x - x - x - x - PROPOSED FENCE TO BE CONSTRUCTED AND MAINTAINED.
- LIMITS OF PROPOSED 10' WIDE MAINTENANCE ROAD, ACCESS ENTRANCES AND TURNAROUNDS. SEE DETAIL SHEETS FOR LAYOUT AND MATERIALS.
- EXISTING RR MAINTENANCE ROAD.
- PROPOSED ROW
- /// /// /// /// /// TEMPORARY EASEMENT (TE)
- //// //// //// //// //// PERMANENT EASEMENT (PE)



FINAL



USER NAME = Pop00275	DESIGNED - MNM	REVISED -
	DRAWN - CLG	REVISED -
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PLOT DATE = 1/18/2021	DATE - 1/18/2021	REVISED -

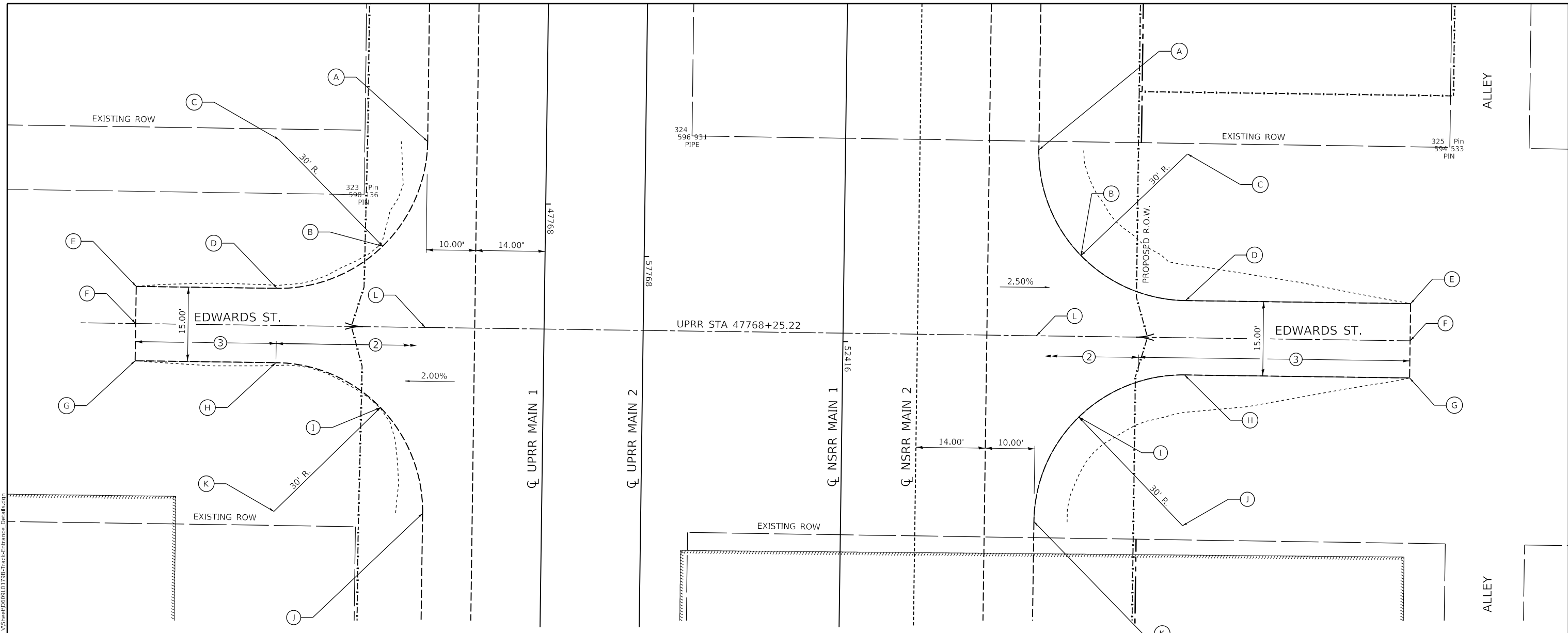
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
TRACK FENCING & ACCESS PLAN - 10**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	135
09L0179B		CONTRACT NO. 93747		
* 7985A & 8102	ILLINOIS	FED. AID PROJECT		

SCALE: SHEET 10 OF 10 SHEETS STA. TO STA.

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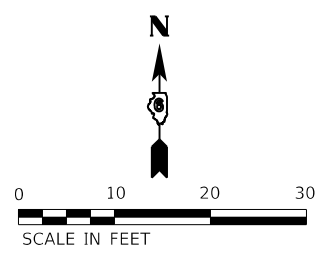


**CONTROL POINTS
& TRACK ENTRANCE AT 47768 + 25.22 RT.**

WORKING PTS	NORTHING	EASTING	ELEVATION
(A)	1,140,031.23	2,443,894.07	599.77
(B)	1,140,010.13	2,443,884.99	599.06
(C)	1,140,031.63	2,443,864.07	NA
(D)	1,140,001.63	2,443,863.66	597.56
(E)	1,140,002.02	2,443,835.26	595.23
(F)	1,139,994.52	2,443,835.16	595.71
(G)	1,139,987.02	2,443,835.06	595.52
(H)	1,139,986.64	2,443,863.46	597.74
(I)	1,139,977.56	2,443,884.55	599.26
(J)	1,139,956.23	2,443,893.05	600.15
(K)	1,139,956.64	2,443,863.05	NA
(L)	1,139,993.73	2,443,893.56	600.06

SHEET NOTES:

- ① SEE TRACK FENCING AND ACCESS PLAN SHEETS FOR ROW STATION AND OFFSET CALLOUTS.
- ② SUBBALLAST 12 INCH
- ③ PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH



**CONTROL POINTS
& TRACK ENTRANCE AT 47768 + 25.22 LT.**

WORKING PTS	NORTHING	EASTING	ELEVATION
(A)	1,140,029.55	2,444,017.39	600.05
(B)	1,140,008.22	2,444,025.89	598.69
(C)	1,140,028.72	2,444,047.38	NA
(D)	1,139,999.15	2,444,046.98	597.32
(E)	1,139,998.54	2,444,092.40	594.69
(F)	1,139,991.04	2,444,092.29	594.71
(G)	1,139,983.54	2,444,092.19	594.67
(H)	1,139,984.15	2,444,046.78	597.31
(I)	1,139,975.65	2,444,025.45	598.77
(J)	1,139,953.73	2,444,046.37	NA
(K)	1,139,954.56	2,444,016.37	600.22
(L)	1,139,992.06	2,444,016.88	600.14

FINAL



USER NAME = Pop00275	DESIGNED - DJP	REVISED -
PLOT SCALE = 20.000' / in.	DRAWN - DJP	REVISED -
PLOT DATE = 1/18/2021	CHECKED - GCN	REVISED -
	DATE - 1/18/2021	REVISED -

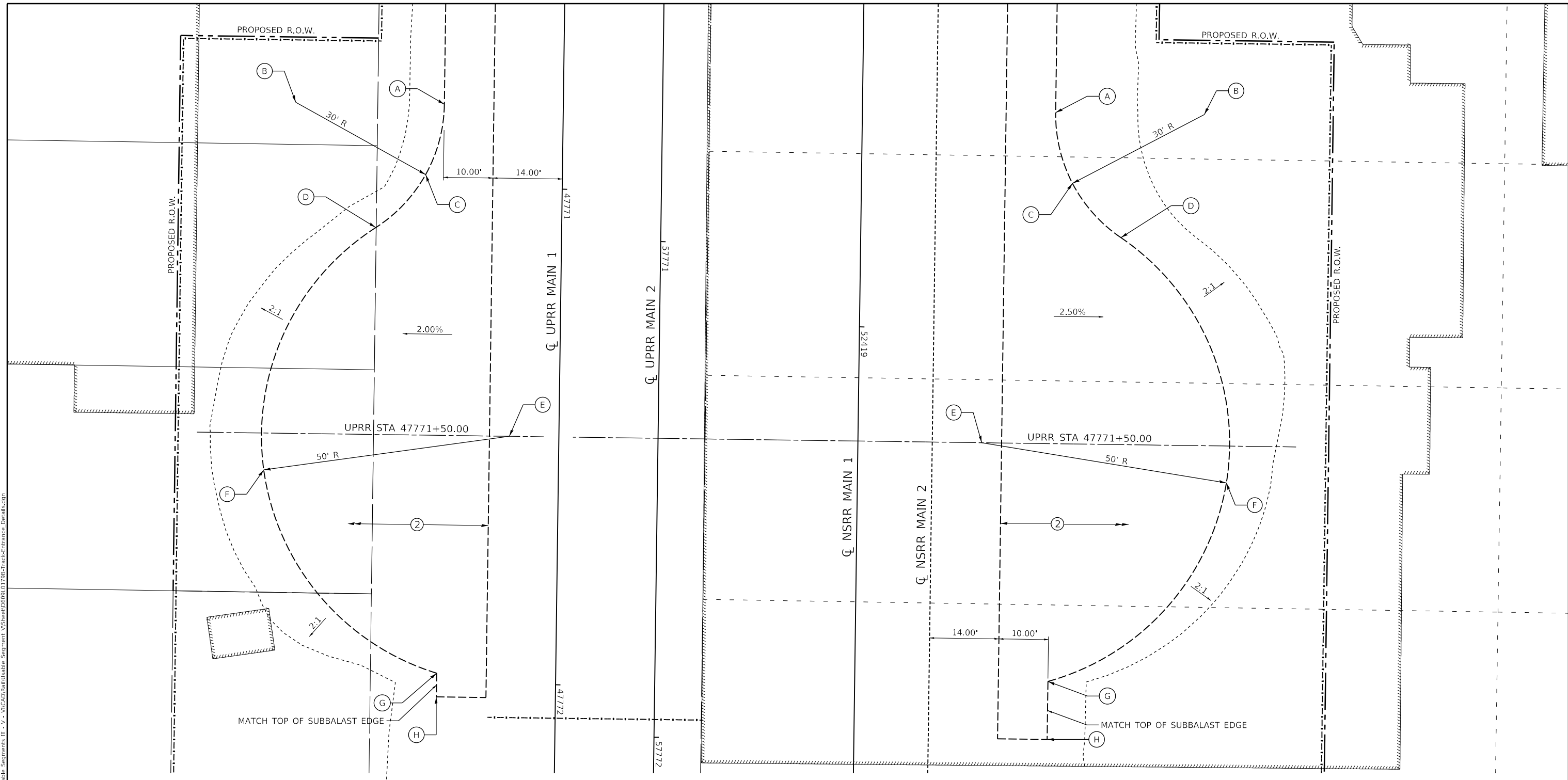
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
TRACK ENTRANCE DETAILS - 1**

SCALE: SHEET 1 OF 5 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	136
	09L0179B		CONTRACT NO. 93747	
# 7985A & 8103	ILLINOIS	FED. AID PROJECT		

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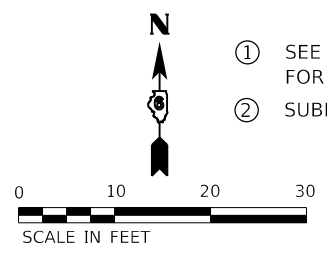
**CONTROL POINTS
& TRACK TURNAROUND AT 47771+50.00 RT.**

WORKING PTS	NORTHING	EASTING	ELEVATION
(A)	1,139,735.79	2,443,890.07	600.54
(B)	1,139,736.20	2,443,860.07	NA
(C)	1,139,721.61	2,443,886.28	600.62
(D)	1,139,710.92	2,443,876.23	600.44
(E)	1,139,668.79	2,443,903.16	NA
(F)	1,139,662.03	2,443,853.62	600.12
(G)	1,139,620.99	2,443,888.51	600.92
(H)	1,139,616.22	2,443,888.40	600.93

**CONTROL POINTS
& TRACK TURNAROUND AT 47771+50.00 LT.**

WORKING PTS	NORTHING	EASTING	ELEVATION
(A)	1,139,734.12	2,444,013.39	599.73
(B)	1,139,733.71	2,444,043.38	NA
(C)	1,139,719.84	2,444,016.78	599.67
(D)	1,139,708.88	2,444,026.55	599.45
(E)	1,139,667.50	2,443,998.48	NA
(F)	1,139,659.40	2,444,047.82	599.02
(G)	1,139,619.32	2,444,011.83	600.00
(H)	1,139,607.62	2,444,011.67	600.02

- SHEET NOTES:**
- ① SEE TRACK FENCING AND ACCESS PLAN SHEETS FOR ROW STATION AND OFFSET CALLOUTS.
 - ② SUBBALLAST 12 INCH



FINAL



USER NAME = Pop00275	DESIGNED - GCN	REVISED -
PLOT SCALE = 20.000' / in.	DRAWN - DJP	REVISED -
PLOT DATE = 1/18/2021	CHECKED - GCN	REVISED -
	DATE - 1/18/2021	REVISED -

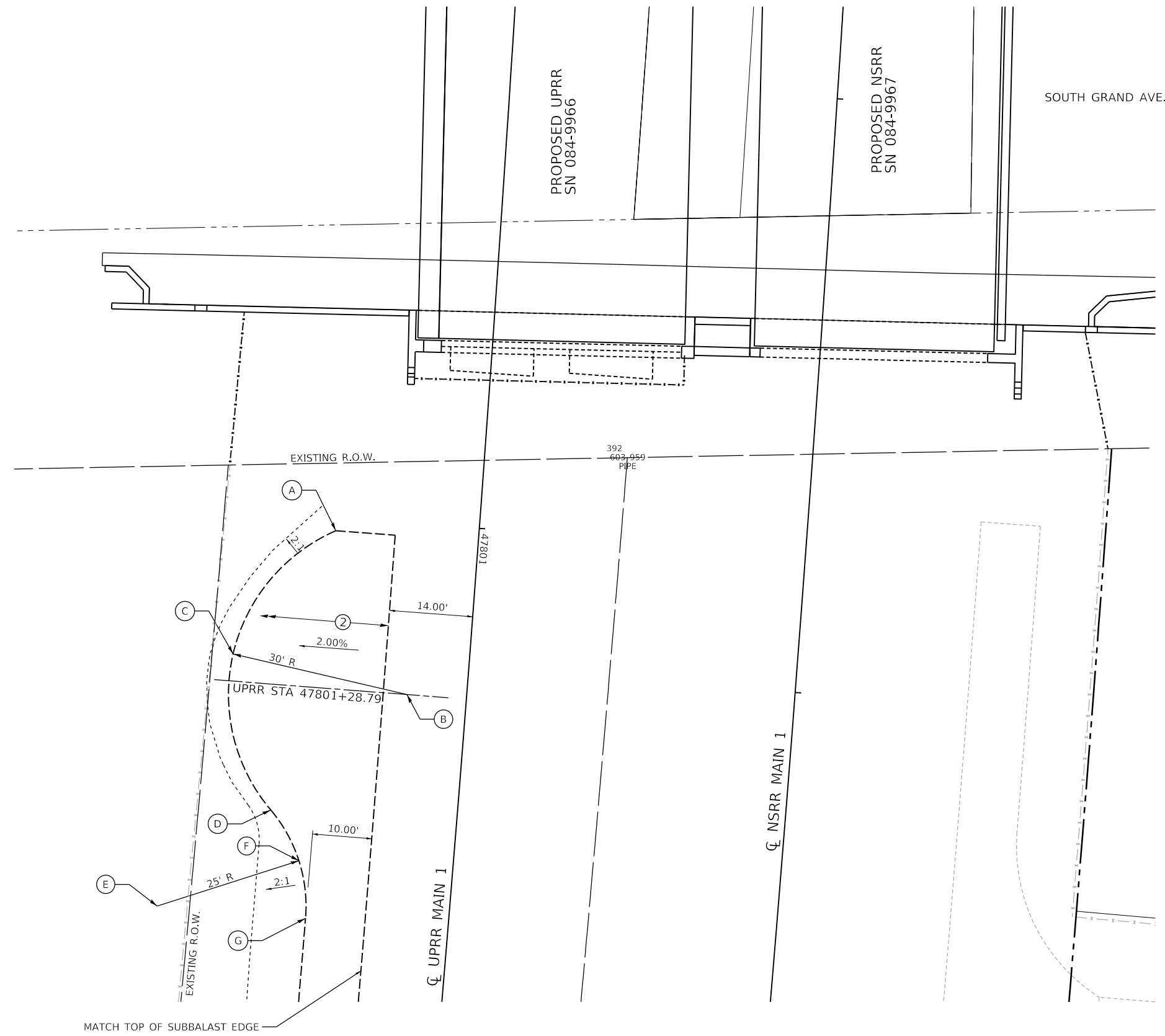
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
TRACK ENTRANCE DETAILS - 2**

SCALE: SHEET 2 OF 5 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	137
	09L0179B		CONTRACT NO. 93747	
# 7985A & 8104	ILLINOIS	FED. AID PROJECT		

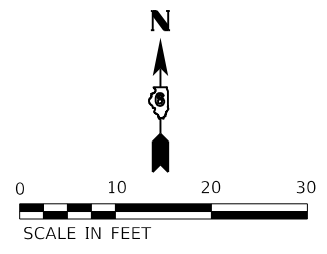
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**CONTROL POINTS
& TRACK TURNAROUND AT 47801+28.79 RT.**

WORKING PTS	NORTHING	EASTING	ELEVATION
Ⓐ	1,136,719.02	2,443,833.97	604.59
Ⓑ	1,136,691.50	2,443,845.92	NA
Ⓒ	1,136,698.32	2,443,816.70	604.29
Ⓓ	1,136,672.11	2,443,823.03	604.50
Ⓔ	1,136,655.95	2,443,803.95	NA
Ⓕ	1,136,663.59	2,443,827.76	604.61
Ⓖ	1,136,653.90	2,443,828.87	604.66

- SHEET NOTES:**
- ① SEE TRACK FENCING AND ACCESS PLAN SHEETS FOR ROW STATION AND OFFSET CALLOUTS.
 - ② SUBBALLAST 12 INCH



FINAL



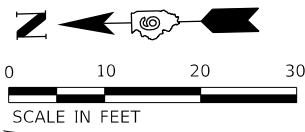
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	DRAWN - DJP	REVISED -
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PLOT DATE = 1/18/2021	DATE - 1/18/2021	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
TRACK ENTRANCE DETAILS - 5**

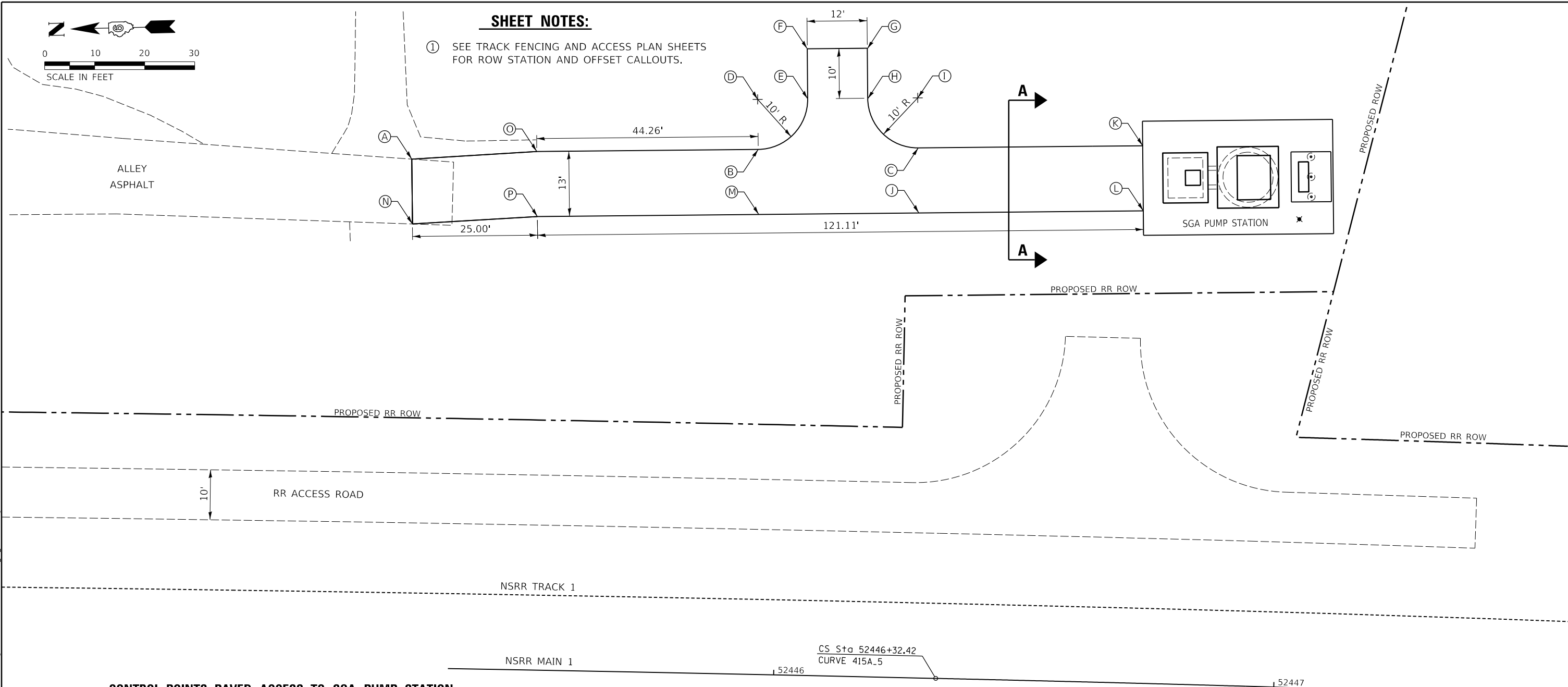
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*	19-00488-00-BR	SANGAMON	347	140
	09L0179B	CONTRACT NO.	93747	
* 7985A & 8107	ILLINOIS	FED. AID PROJECT		

SCALE: SHEET 5 OF 5 SHEETS STA. TO STA.



SHEET NOTES:

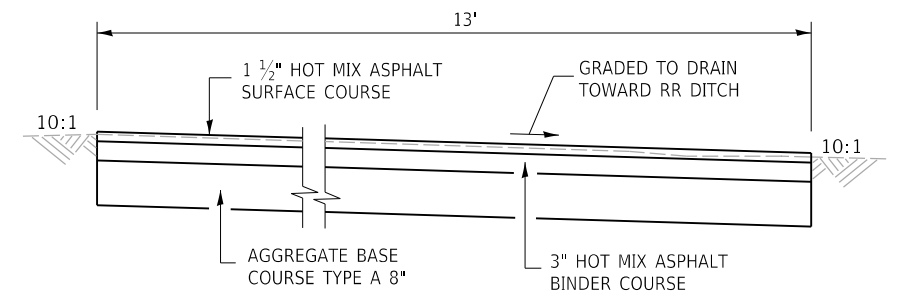
① SEE TRACK FENCING AND ACCESS PLAN SHEETS FOR ROW STATION AND OFFSET CALLOUTS.



CONTROL POINTS PAVED ACCESS TO SGA PUMP STATION

WORKING PTS	NORTHING	EASTING	ELEVATION
(A)	1137061.1743	2444033.6531	601.12
(B)	1136991.9071	2444033.9549	601.92
(C)	1136959.9104	2444033.4964	602.40
(D)	1136991.7638	2444043.9539	-
(E)	1136981.7649	2444043.8106	601.72
(F)	1136901.6216	2444053.8096	601.50
(G)	1136969.6228	2444053.6376	601.74
(H)	1136969.7661	2444043.6386	602.05
(I)	1136959.7671	2444043.4954	-
(J)	1136960.0967	2444020.4977	602.20
(K)	1136915.0578	2444032.8536	602.81
(L)	1136915.2441	2444019.8550	602.81
(M)	1136992.0934	2444020.9562	601.75
(N)	1137061.3597	2444020.7048	601.25
(O)	1137036.1583	2444034.5890	601.45
(P)	1137036.3445	2444021.5903	601.30

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
MIXTURE USE	SURFACE 1½"	BINDER 3"
PG:	PG 64-22	PG 64-22
DESIGN AIR VOIDS	4% @ N=50	4% @ N=50
MIX. COMPOSITION	IL-9.5	IL-19.0
(MIX. GRADATION)	MIX. C	NA
FRICTION AGGREGATE		



SECTION A-A
TYPICAL SECTION PAVED ACCESS TO SGA PUMP STATION
 LOOKING SOUTH
 NTS

FINAL



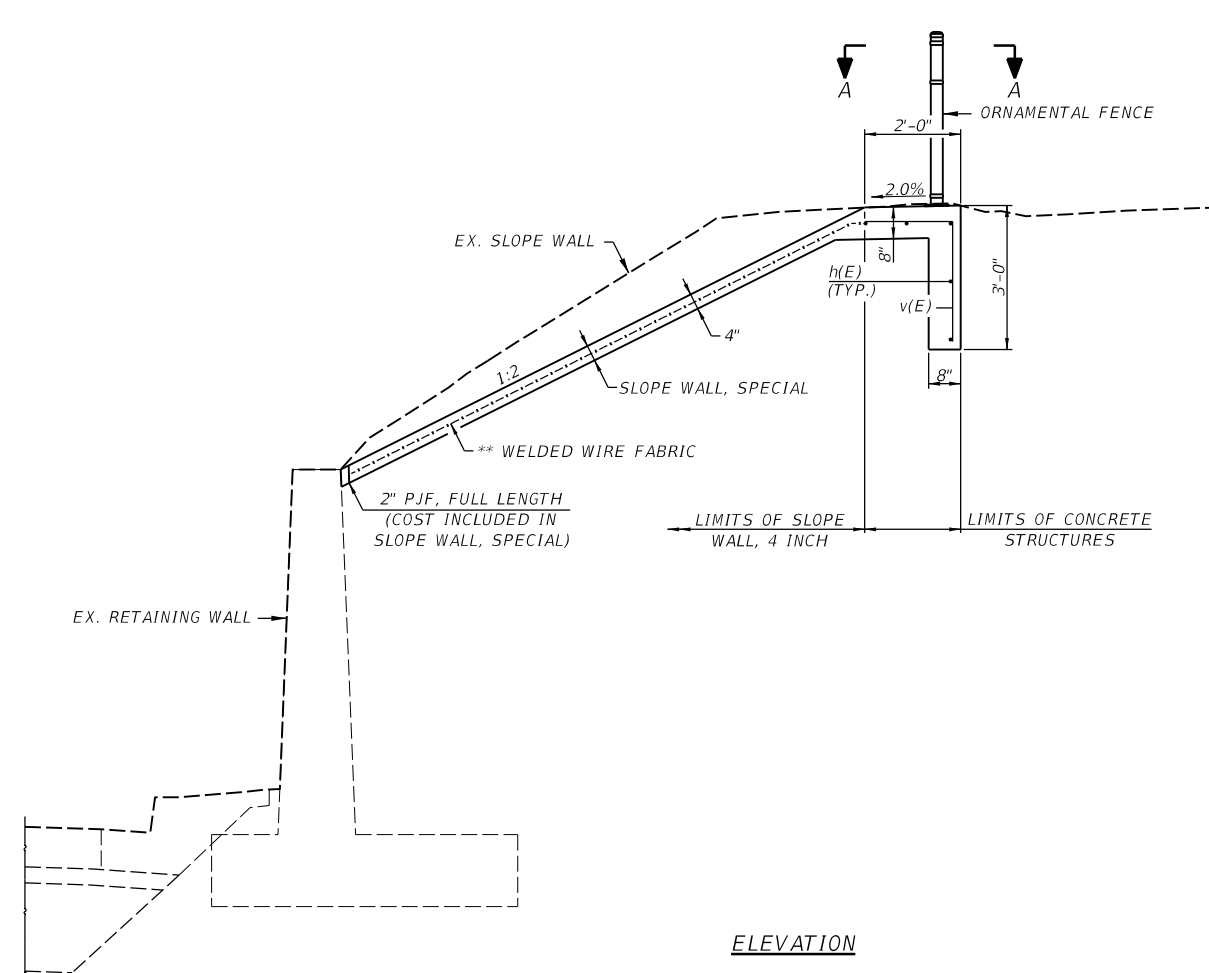
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	DATE - 1/18/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

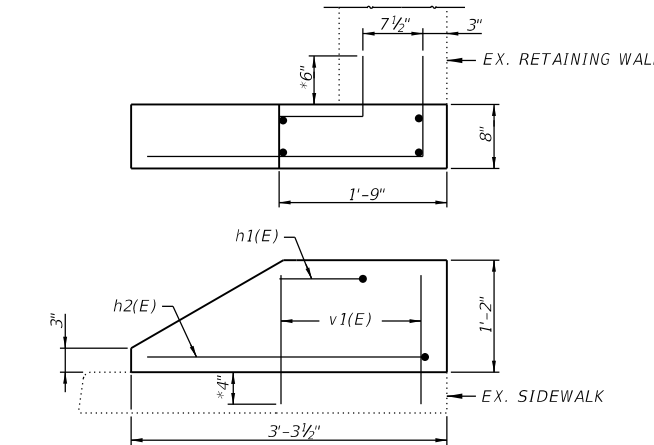
SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION ENTRANCE ROAD - SOUTH GRAND AVE

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	141
	09L0179B		CONTRACT NO. 93747	
# 7985A & 8108	ILLINOIS	FED. AID PROJECT		

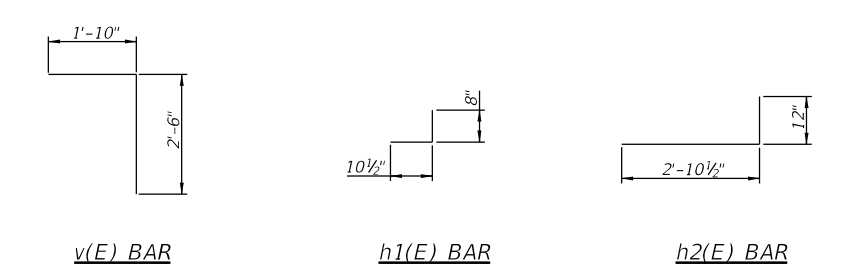


SECTION A-A



DETAIL A

* EPOXY GROUT REINFORCEMENT BARS
FULL LENGTH OF DIMENSIONS SHOWN.
COST INCLUDED IN CONCRETE STRUCTURES.

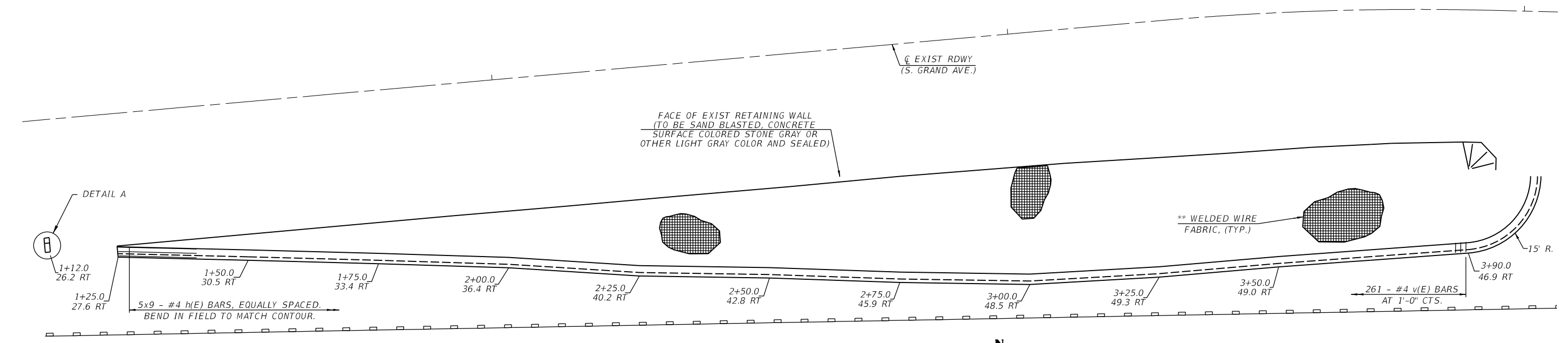


BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE	
h(E)	45	#4	31'-3"	—	
h1(E)	1	#4	1'-7"	∩	
h2(E)	1	#4	3'-11"	∩	
v(E)	261	#4	4'-4"	└	
v1(E)	4	#4	1'-4"	—	
REINFORCEMENT BARS, EPOXY COATED				POUND	1700
CONCRETE STRUCTURES				CU. YD.	28.0
SLOPE WALL, SPECIAL				SO. YD.	504

MINIMUM BAR LAP
#4 BAR = 2'-7"

** SLOPE WALL SHALL BE REINFORCED WITH WELDED WIRE FABRIC
6 IN. X 6 IN. - W4.0 X W4.0 WEIGHING 58 LBS. PER 100 SQ. FT.



SLOPE WALL PLAN - S GRAND AVE

NOTE:
BARS INDICATED THUS 5x9-#4 ETC. INDICATES
5 LINES OF BARS WITH 9 LENGTHS PER LINE.

FINAL



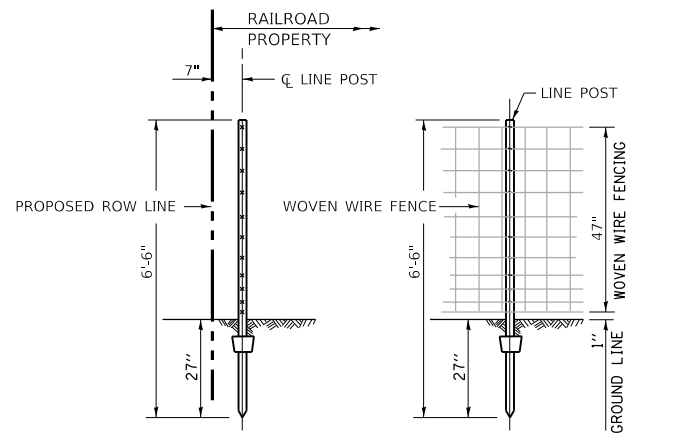
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PLOT DATE = 1/18/2021	CHECKED -	REVISED -
	DATE = 1/18/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
SLOPEWALL DETAILS - SOUTH GRAND AVE - 1

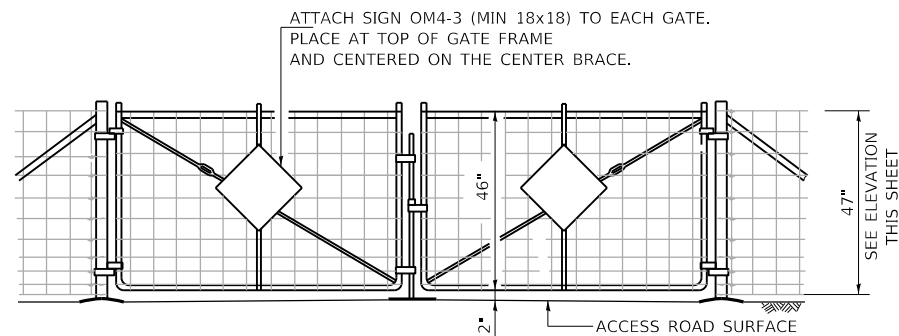
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	142
	09L0179B	CONTRACT NO.	9374	
* 7985A & 8109		ILLINOIS FED. AID PROJECT		



WOVEN WIRE FENCE 4 FT. ELEVATIONS

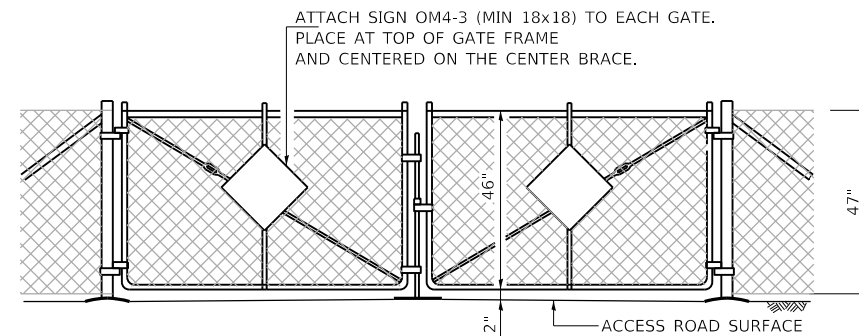
SEE STANDARD 665001-02 FOR ADDITIONAL DETAILS



RAILWAY ACCESS GATE ELEVATION

WOVEN WIRE FENCE 4 FT.

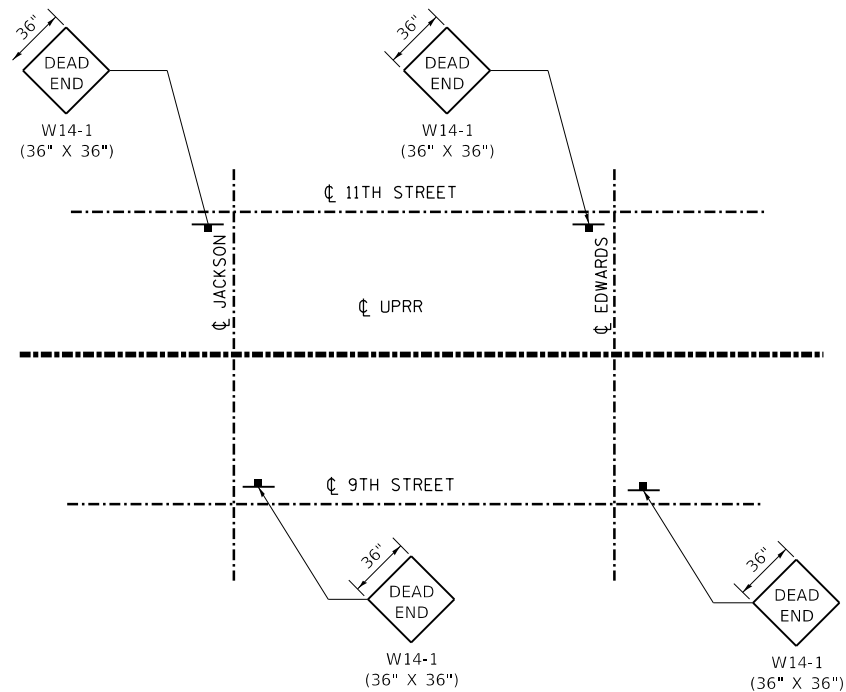
SEE STANDARD 665001-02 FOR ADDITIONAL DETAILS



RAILWAY ACCESS GATE ELEVATION

CHAIN LINK FENCE

SEE STANDARD 664001-02 FOR ADDITIONAL DETAILS



DEAD END WARNING SIGN LOCATION DETAIL

FINAL

MODEL: Sheet 1
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USER NAME = Pop00275
 PLOT SCALE = 10.00' / in.
 PLOT DATE = 1/18/2021

DESIGNED - GCN
 DRAWN - CLG
 CHECKED - GCN
 DATE - 1/18/2021

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SPRINGFIELD RAIL IMPROVEMENTS PROJECT
 SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
 MISCELLANEOUS DETAILS – TRACK**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	145
09L0179B		CONTRACT NO. 93747		
* 7985A & 8112	ILLINOIS	FED. AID PROJECT		

MODEL: Sheet 1
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11 TH STREET CWLP SUBSTATION

EXISTING FENCE TO REMAIN AND BE MAINTAINED

ALLEY

CAPTOL AVE

SEE PLAN SHEETS
 CITY PARKING LOT - CAPITOL \ EDWARDS
 CITY OF SPRINGFIELD

PROPOSED RR ROW

PROP. ACCESS ROAD

52408

52409

52410+00

52411

52412

47765+00
 C NSRR MAIN 2

C NSRR MAIN 1

MATCHLINE
 C UPRR MAIN 2

C NSRR TEMP MAIN 1
 C UPRR MAIN 1

47760+00

47761

47762

TS Sta 82410+10.51

SC Sta 82410+72.51
 CURVE 501

47763

82411

47764

82412

EXISTING NSRR MAIN

PROP. ACCESS ROAD

EXISTING RR ROW







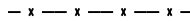
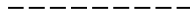
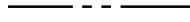
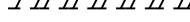
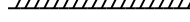
GATEHOUSE MEDIA ILLINOIS

JACKSON ST

EXISTING ROW

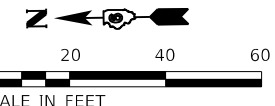
EXISTING ROW

LEGEND:

-  INLET AND PIPE PROTECTION
-  EROSION CONTROL BLANKET (ECB)
-  PERIMETER EROSION BARRIER
-  PROPOSED STORM STRUCTURE NO. R288
SEE DRAINAGE SCHEDULES
-  TEMPORARY DITCH CHECK
-  EXISTING FENCE TO REMAIN AND BE MAINTAINED.
-  PROPOSED FENCE TO BE CONSTRUCTED & MAINTAINED.
-  LIMITS OF PROPOSED 10' WIDE MAINTENANCE ROAD
-  PROPOSED ROW
-  TEMPORARY EASEMENT (TE)
-  PERMANENT EASEMENT (PE)

NOTES:

- (A) SEE EROSION AND SEDIMENT SCHEDULE FOR APPLICATION & LOCATION OF EROSION CONTROL & INLET AND PIPE PROTECTION ITEMS.
- (B) SEE EROSION CONTROL DETAILS SHEET.
- (C) SEE TRACK ROW & FENCING / ACCESS PLANS FOR COMPLETE ROW AND EASEMENTS WITH STATION & OFFSET CALLOUTS
- (D) SEE TRACK ROW & FENCING / ACCESS PLANS FOR COMPLETE LIMITS OF TRACK ACCESS ENTRANCES, MAINTENANCE ROADS AND TURNAROUNDS.
- (E) PLACE AND MAINTAIN ECB ALONG 2:1 SIDESLOPES OF TRACK ENTRANCES. SEE EROSION AND SEDIMENT SCHEDULE.



USER NAME = Pop00275	DESIGNED - CAD	REVISED -
PLOT SCALE = 40.000' / in.	DRAWN - DJP	REVISED -
PLOT DATE = 1/18/2021	CHECKED - MNM	REVISED -
	DATE - 1/18/2021	REVISED -

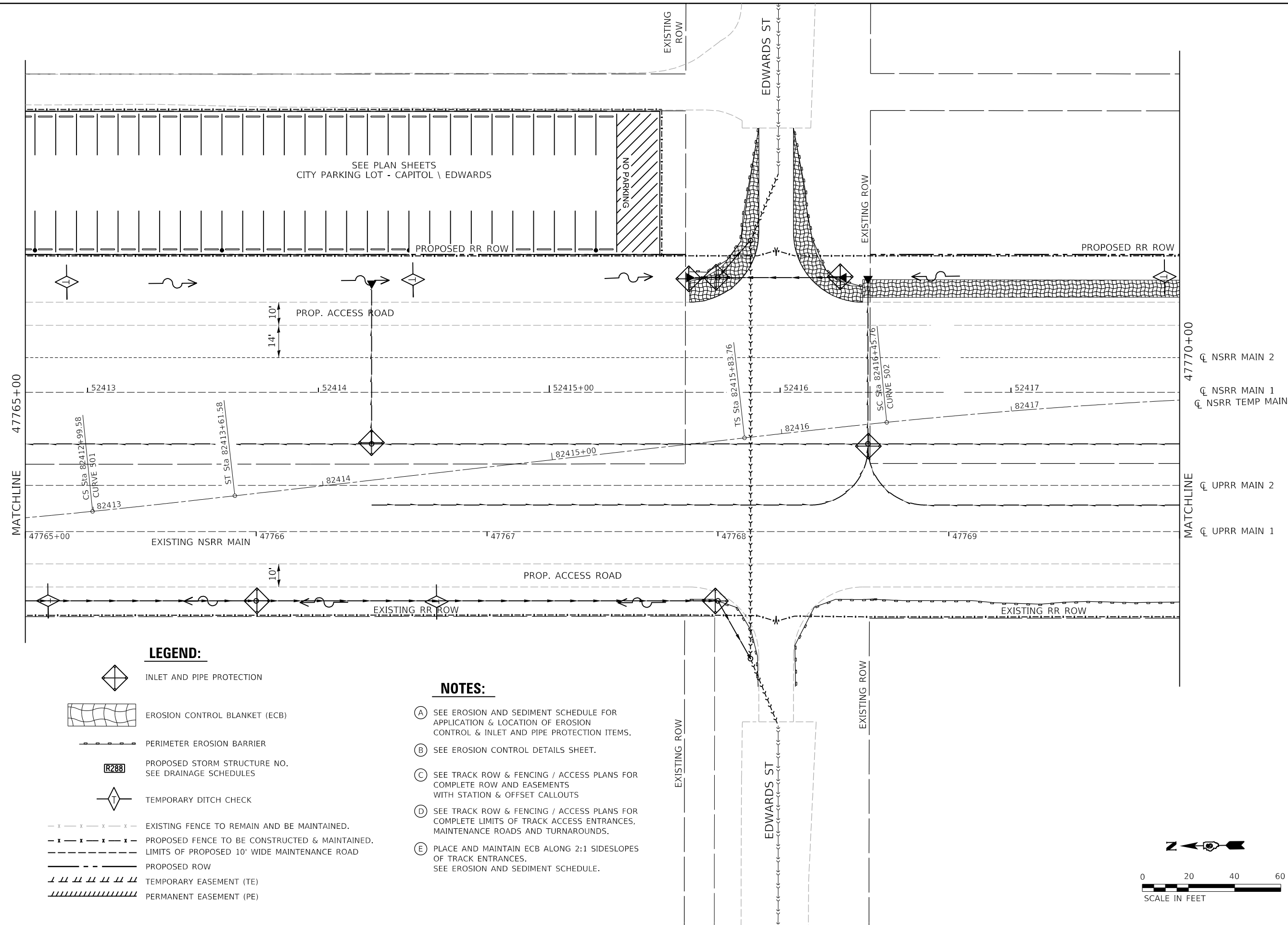
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
 SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
 EROSION CONTROL PLAN - TRACK - 1


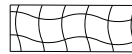



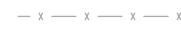
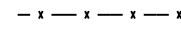
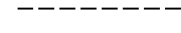
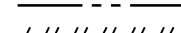
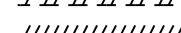
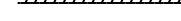
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	147
	09L0179B		CONTRACT NO. 93747	
# 7985A & 8114	ILLINOIS	FED. AID PROJECT		

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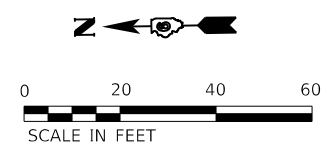


LEGEND:

-  INLET AND PIPE PROTECTION
-  EROSION CONTROL BLANKET (ECB)
-  PERIMETER EROSION BARRIER
-  PROPOSED STORM STRUCTURE NO. SEE DRAINAGE SCHEDULES
-  TEMPORARY DITCH CHECK
-  EXISTING FENCE TO REMAIN AND BE MAINTAINED.
-  PROPOSED FENCE TO BE CONSTRUCTED & MAINTAINED.
-  LIMITS OF PROPOSED 10' WIDE MAINTENANCE ROAD
-  PROPOSED ROW
-  TEMPORARY EASEMENT (TE)
-  PERMANENT EASEMENT (PE)

NOTES:

- (A) SEE EROSION AND SEDIMENT SCHEDULE FOR APPLICATION & LOCATION OF EROSION CONTROL & INLET AND PIPE PROTECTION ITEMS.
- (B) SEE EROSION CONTROL DETAILS SHEET.
- (C) SEE TRACK ROW & FENCING / ACCESS PLANS FOR COMPLETE ROW AND EASEMENTS WITH STATION & OFFSET CALLOUTS
- (D) SEE TRACK ROW & FENCING / ACCESS PLANS FOR COMPLETE LIMITS OF TRACK ACCESS ENTRANCES, MAINTENANCE ROADS AND TURNAROUNDS.
- (E) PLACE AND MAINTAIN ECB ALONG 2:1 SIDESLOPES OF TRACK ENTRANCES. SEE EROSION AND SEDIMENT SCHEDULE.



FINAL



USER NAME = Pop00275	DESIGNED - CAD	REVISED -
DRAWN - DJP	REVISED -	
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PLOT DATE = 1/18/2021	DATE - 1/18/2021	REVISED -

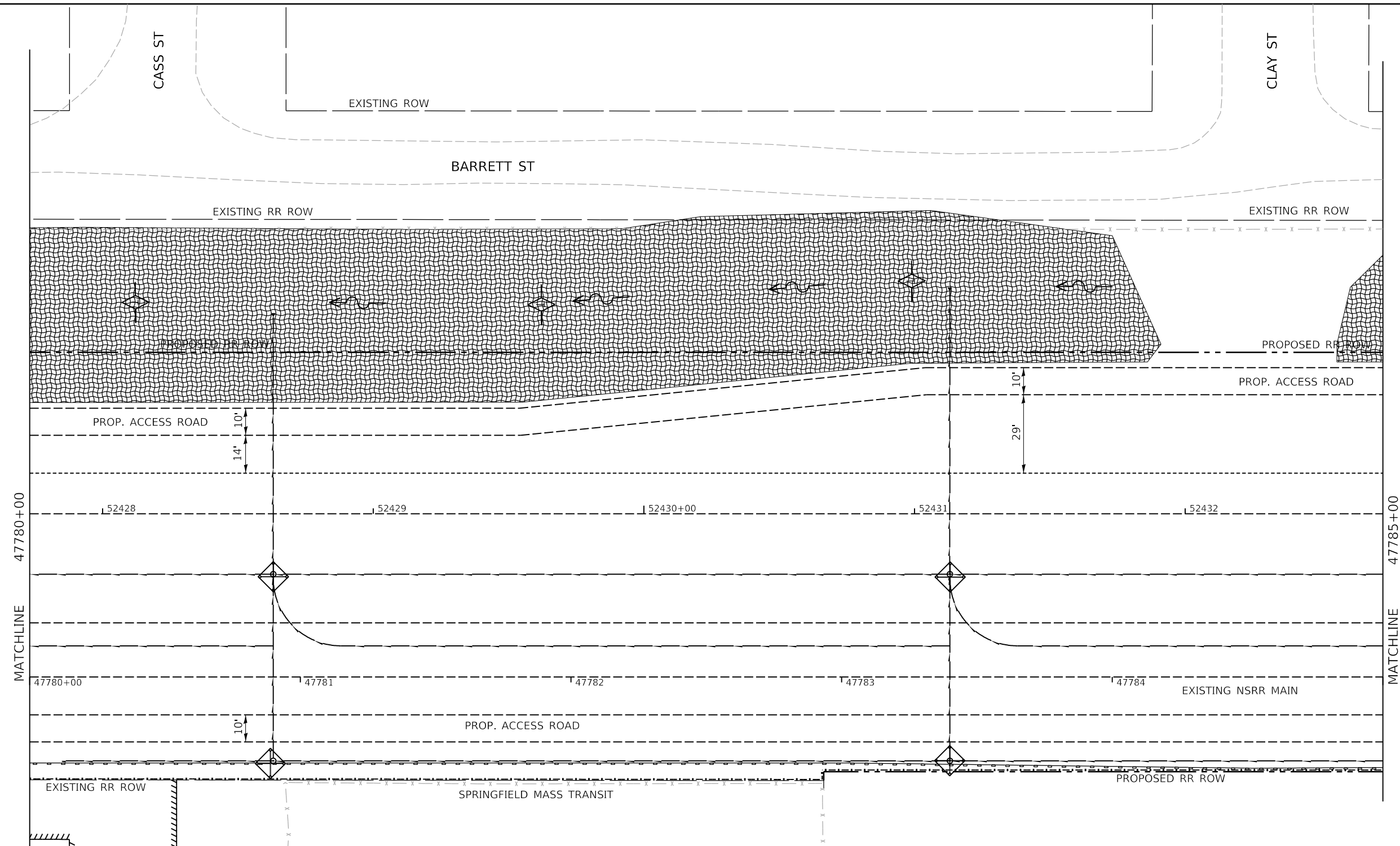
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
 SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
 EROSION CONTROL PLAN - TRACK - 2

SCALE: SHEET 2 OF 10 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	148
	09L0179B			CONTRACT NO. 93747
* 7985A & 8115	ILLINOIS	FED. AID PROJECT		

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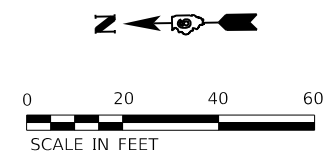


LEGEND:

- INLET AND PIPE PROTECTION
- EROSION CONTROL BLANKET (ECB)
- PERIMETER EROSION BARRIER
- PROPOSED STORM STRUCTURE NO. SEE DRAINAGE SCHEDULES
- TEMPORARY DITCH CHECK
- EXISTING FENCE TO REMAIN AND BE MAINTAINED.
- PROPOSED FENCE TO BE CONSTRUCTED & MAINTAINED.
- LIMITS OF PROPOSED 10' WIDE MAINTENANCE ROAD
- PROPOSED ROW
- TEMPORARY EASEMENT (TE)
- PERMANENT EASEMENT (PE)

NOTES:

- (A) SEE EROSION AND SEDIMENT SCHEDULE FOR APPLICATION & LOCATION OF EROSION CONTROL & INLET AND PIPE PROTECTION ITEMS.
- (B) SEE EROSION CONTROL DETAILS SHEET.
- (C) SEE TRACK ROW & FENCING / ACCESS PLANS FOR COMPLETE ROW AND EASEMENTS WITH STATION & OFFSET CALLOUTS
- (D) SEE TRACK ROW & FENCING / ACCESS PLANS FOR COMPLETE LIMITS OF TRACK ACCESS ENTRANCES, MAINTENANCE ROADS AND TURNAROUNDS.
- (E) PLACE AND MAINTAIN ECB ALONG 2:1 SIDESLOPES OF TRACK ENTRANCES. SEE EROSION AND SEDIMENT SCHEDULE.



CASS ST ACCESS

FINAL



USER NAME = Pop00275	DESIGNED - CAD	REVISED -
DRAWN - DJP	REVISIONS -	
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PLOT DATE = 1/18/2021	DATE - 1/18/2021	REVISED -

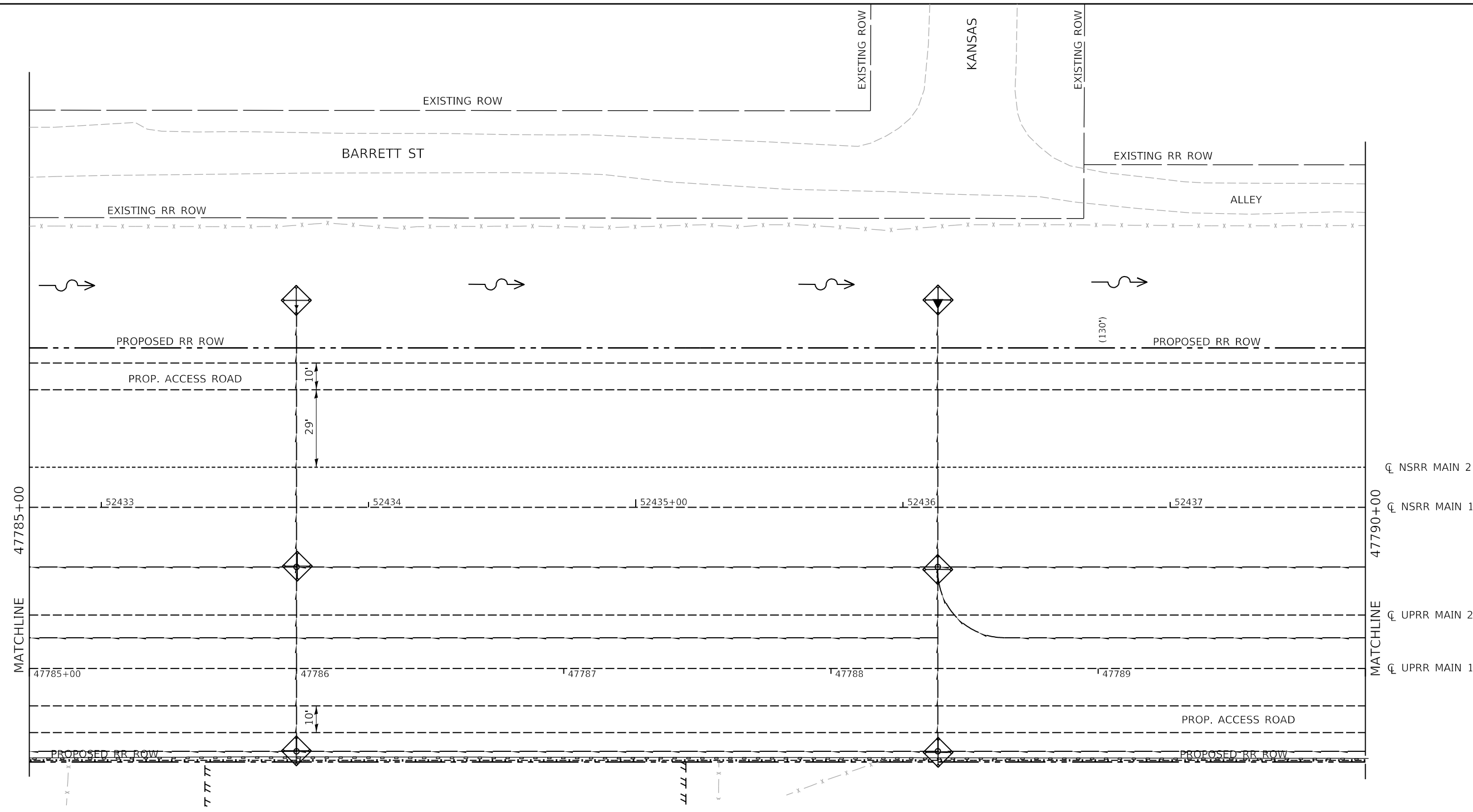
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
 SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
 EROSION CONTROL PLAN - TRACK - 5

SCALE: SHEET 5 OF 10 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	151
	09L0179B			CONTRACT NO. 93747
# 7985A & 8118	ILLINOIS	FED. AID PROJECT		

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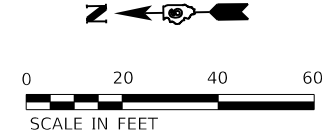


LEGEND:

- INLET AND PIPE PROTECTION
- EROSION CONTROL BLANKET (ECB)
- PERIMETER EROSION BARRIER
- PROPOSED STORM STRUCTURE NO. SEE DRAINAGE SCHEDULES
- TEMPORARY DITCH CHECK
- EXISTING FENCE TO REMAIN AND BE MAINTAINED.
- PROPOSED FENCE TO BE CONSTRUCTED & MAINTAINED.
- LIMITS OF PROPOSED 10' WIDE MAINTENANCE ROAD
- PROPOSED ROW
- TEMPORARY EASEMENT (TE)
- PERMANENT EASEMENT (PE)

NOTES:

- (A) SEE EROSION AND SEDIMENT SCHEDULE FOR APPLICATION & LOCATION OF EROSION CONTROL & INLET AND PIPE PROTECTION ITEMS.
- (B) SEE EROSION CONTROL DETAILS SHEET.
- (C) SEE TRACK ROW & FENCING / ACCESS PLANS FOR COMPLETE ROW AND EASEMENTS WITH STATION & OFFSET CALLOUTS
- (D) SEE TRACK ROW & FENCING / ACCESS PLANS FOR COMPLETE LIMITS OF TRACK ACCESS ENTRANCES, MAINTENANCE ROADS AND TURNAROUNDS.
- (E) PLACE AND MAINTAIN ECB ALONG 2:1 SIDESLOPES OF TRACK ENTRANCES. SEE EROSION AND SEDIMENT SCHEDULE.



FINAL



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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

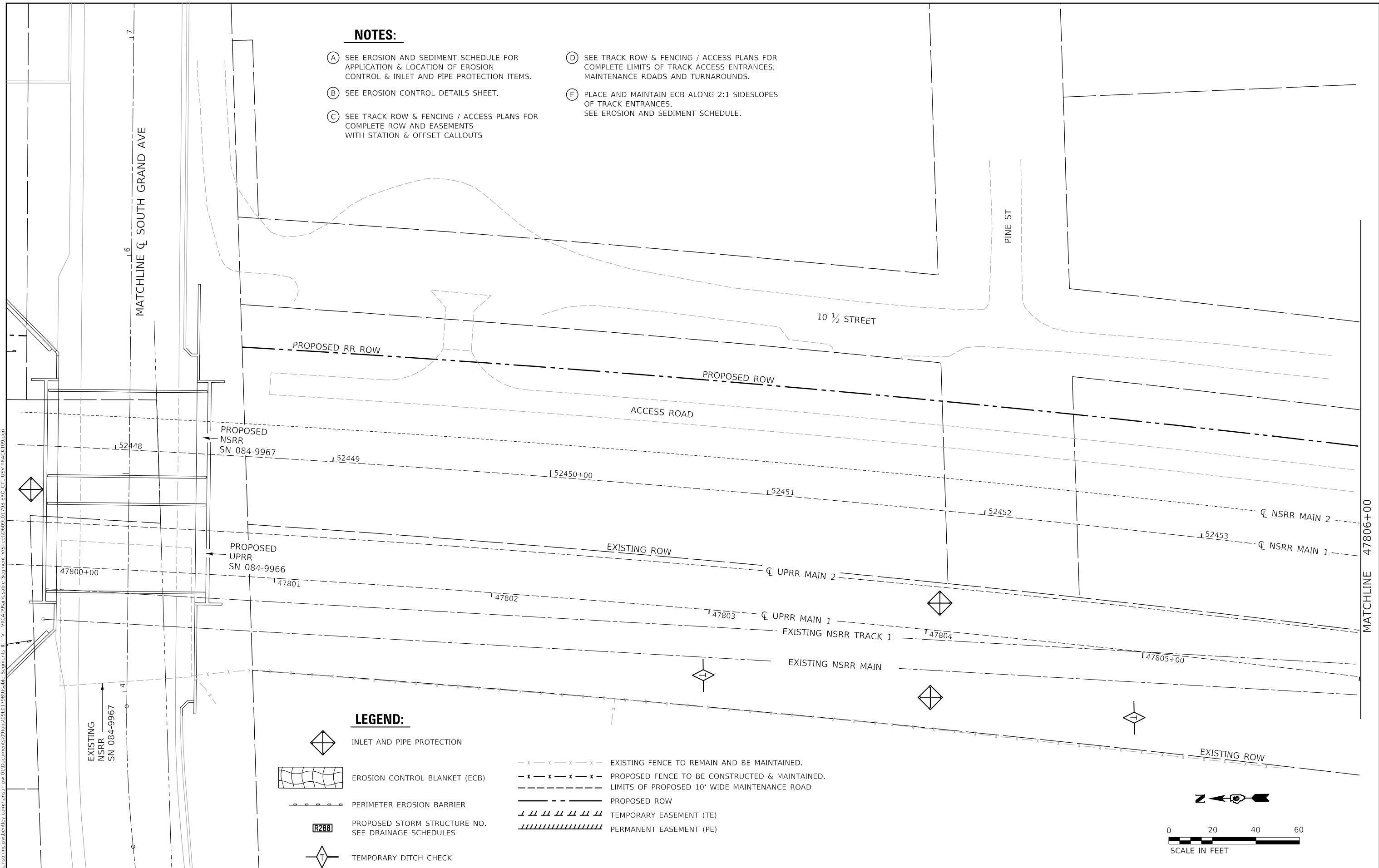
SPRINGFIELD RAIL IMPROVEMENTS PROJECT
 SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
 EROSION CONTROL PLAN - TRACK - 6

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	152
	09L0179B			CONTRACT NO. 93747
# 7985A & 8119	ILLINOIS	FED. AID PROJECT		

SCALE: SHEET 6 OF 10 SHEETS STA. TO STA.

NOTES:

- (A) SEE EROSION AND SEDIMENT SCHEDULE FOR APPLICATION & LOCATION OF EROSION CONTROL & INLET AND PIPE PROTECTION ITEMS.
- (B) SEE EROSION CONTROL DETAILS SHEET.
- (C) SEE TRACK ROW & FENCING / ACCESS PLANS FOR COMPLETE ROW AND EASEMENTS WITH STATION & OFFSET CALLOUTS
- (D) SEE TRACK ROW & FENCING / ACCESS PLANS FOR COMPLETE LIMITS OF TRACK ACCESS ENTRANCES, MAINTENANCE ROADS AND TURNAROUNDS.
- (E) PLACE AND MAINTAIN ECB ALONG 2:1 SIDESLOPES OF TRACK ENTRANCES. SEE EROSION AND SEDIMENT SCHEDULE.



LEGEND:

- INLET AND PIPE PROTECTION
- EROSION CONTROL BLANKET (ECB)
- PERIMETER EROSION BARRIER
- PROPOSED STORM STRUCTURE NO. SEE DRAINAGE SCHEDULES
- TEMPORARY DITCH CHECK
- EXISTING FENCE TO REMAIN AND BE MAINTAINED.
- PROPOSED FENCE TO BE CONSTRUCTED & MAINTAINED.
- LIMITS OF PROPOSED 10' WIDE MAINTENANCE ROAD
- PROPOSED ROW
- TEMPORARY EASEMENT (TE)
- PERMANENT EASEMENT (PE)



FINAL

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USER NAME = Pop00275	DESIGNED - CAD	REVISED -
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	DATE - 1/18/2021	REVISED -

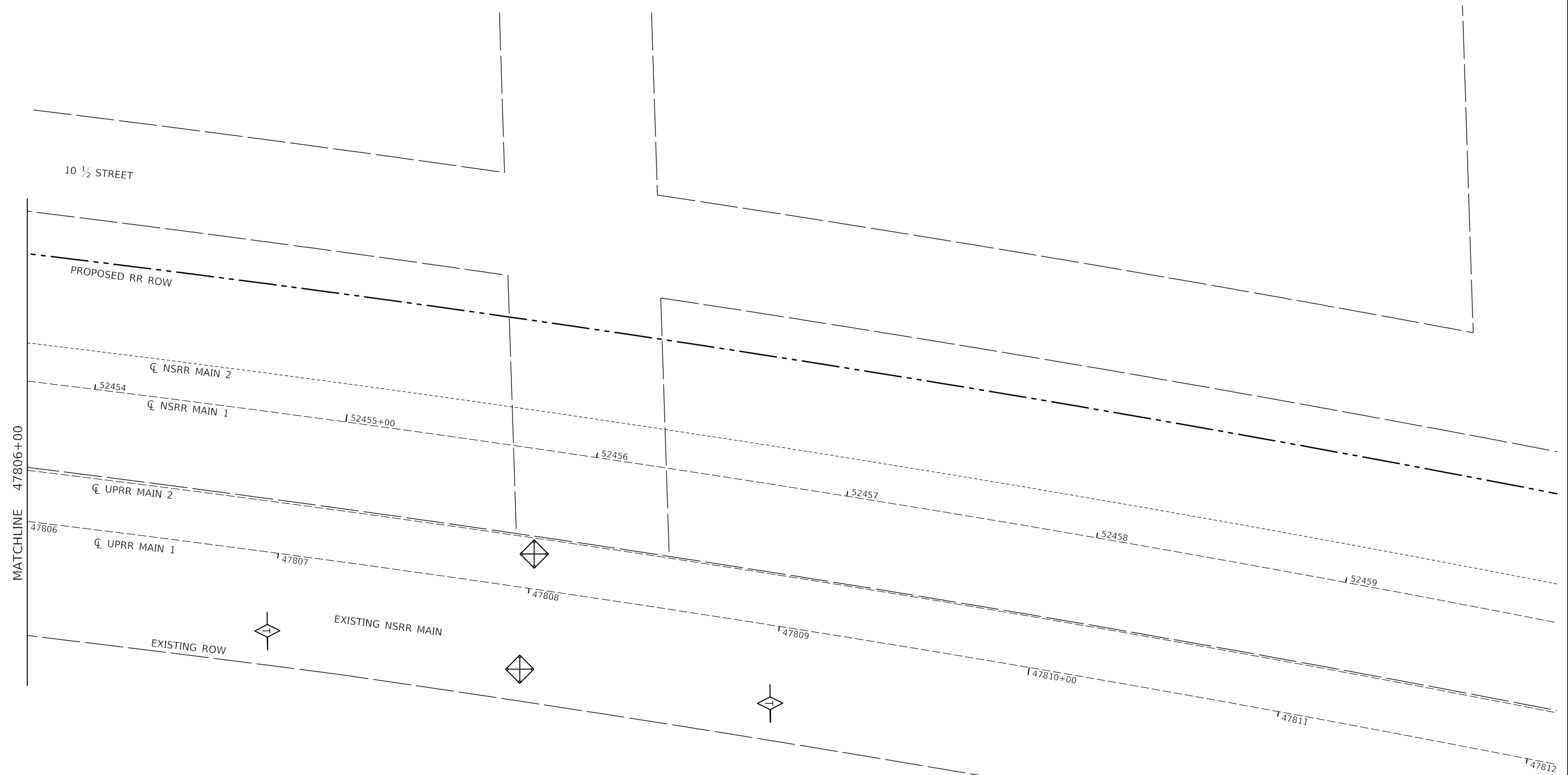
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
EROSION CONTROL PLAN - TRACK - 9**


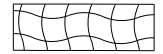




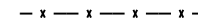
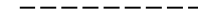

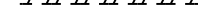
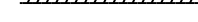
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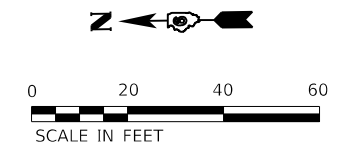
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*	19-00488-00-BR	SANGAMON	347	155
	09L0179B		CONTRACT NO. 93747	
* 7985A & 8122	ILLINOIS	FED. AID PROJECT		

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LEGEND:

-  INLET AND PIPE PROTECTION
-  EROSION CONTROL BLANKET (ECB)
-  PERIMETER EROSION BARRIER
-  PROPOSED STORM STRUCTURE NO. SEE DRAINAGE SCHEDULES
-  TEMPORARY DITCH CHECK
-  EXISTING FENCE TO REMAIN AND BE MAINTAINED.
-  PROPOSED FENCE TO BE CONSTRUCTED & MAINTAINED.
-  LIMITS OF PROPOSED 10' WIDE MAINTENANCE ROAD
-  PROPOSED ROW
-  TEMPORARY EASEMENT (TE)
-  PERMANENT EASEMENT (PE)



FINAL



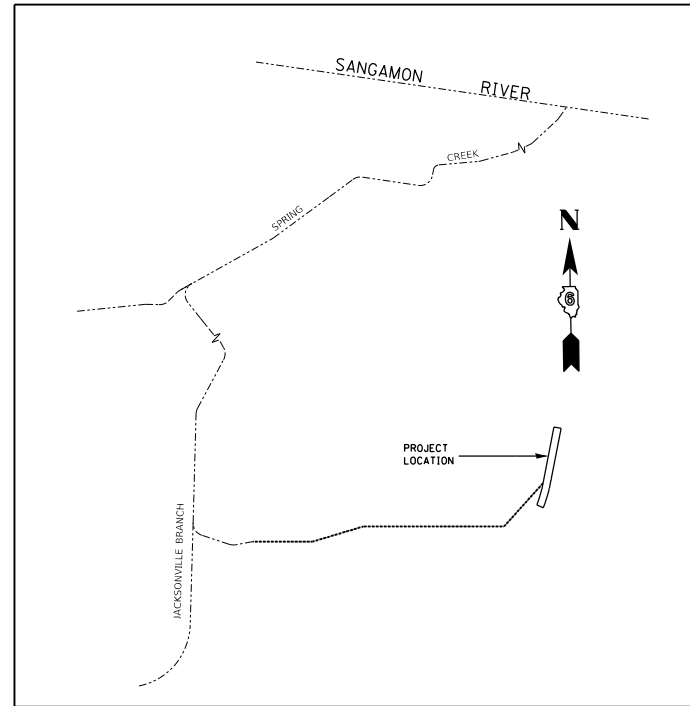
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	DRAWN - DJP	REVISED -
PLOT SCALE = 40,000' / In.	CHECKED - MNM	REVISED -
PLOT DATE = 1/18/2021	DATE - 1/18/2021	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SPRINGFIELD RAIL IMPROVEMENTS PROJECT
 SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
 EROSION CONTROL PLAN - TRACK - 10**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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09L0179B		CONTRACT NO. 93747		
* 7985A & 8123		ILLINOIS FED. AID PROJECT		

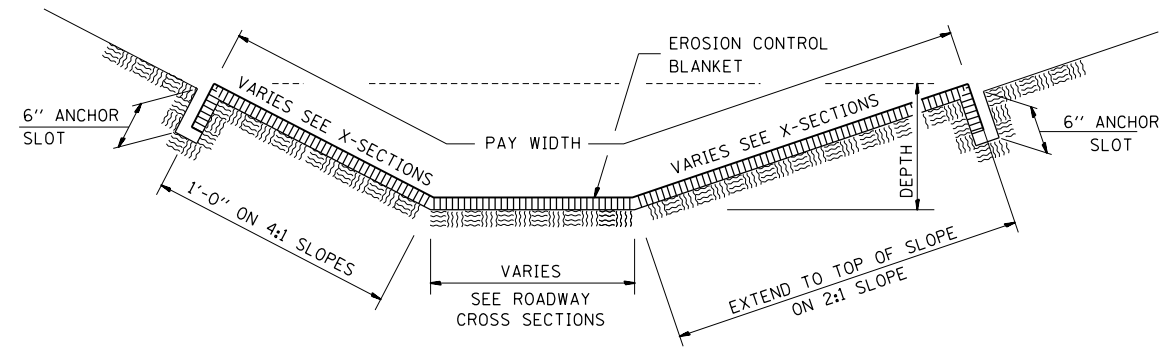
SCALE: SHEET 10 OF 10 SHEETS STA. TO STA.



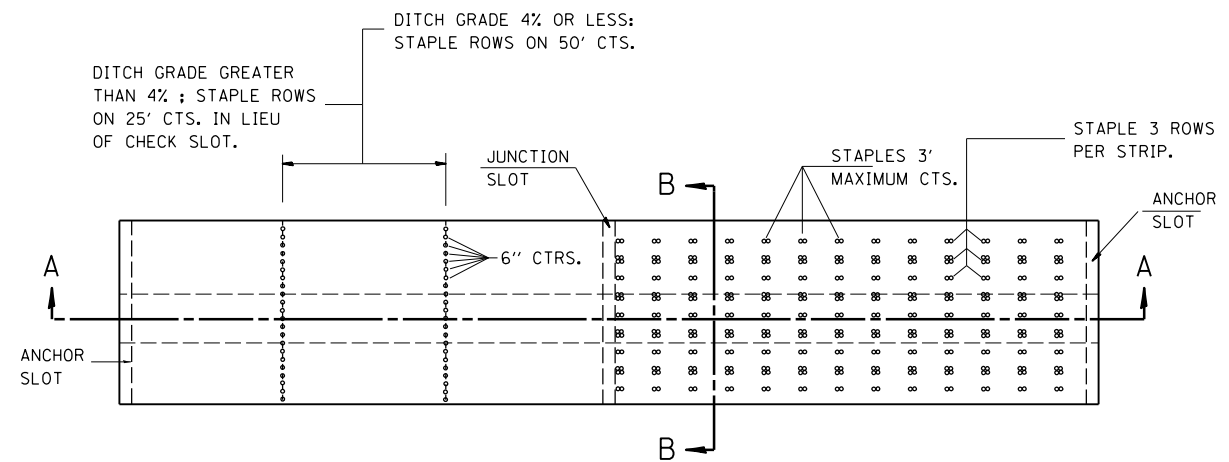
STORM WATER DISCHARGE SCHEMATIC

INTENDED SEQUENCE

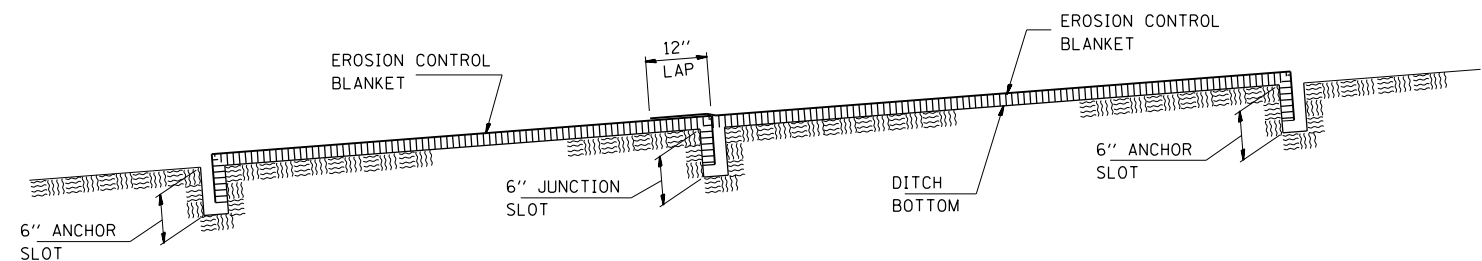
- 1 PLACEMENT OF THE PERIMETER EROSION BARRIER PRIOR TO ANY COMMENCEMENT OF OTHER WORK. SEE STANDARD 280001.
- 2 PLACEMENT OF INLET AND PIPE PROTECTION ON EXISTING STRUCTURES PRIOR TO COMMENCEMENT OF ANY WORK. PLACEMENT OF INLET AND PIPE PROTECTION AFTER CONSTRUCTION OF PROPOSED STRUCTURES. SEE STANDARD 280001
- 3 PLACEMENT OF TEMPORARY SEEDING ON GRADED SURFACES NOT HAVING PERMANENT SEEDING APPLIED.
- 4 PLACEMENT OF EROSION CONTROL BLANKET AFTER FINAL GRADING OF AREAS REQUIRING SUCH PROTECTION.
- 5 ONGOING MAINTENANCE OF EROSION CONTROL ELEMENTS PER SWPPP AND CITY OF SPRINGFIELD'S EROSION CONTROL ORDINANCE.
- 6 REMOVE TEMPORARY EROSION CONTROL ELEMENTS AFTER FINAL GRADING AND PERMANENT SEEDING IS ESTABLISHED AS PER THE SWPPP AND APPROVED BY THE ENGINEER.



EROSION CONTROL BLANKET SECTION B-B



PLAN VIEW & STAPLING LAYOUT FOR EROSION CONTROL BLANKET PLACEMENT IN DITCH



EROSION CONTROL BLANKET SECTION A-A

FINAL

MODEL: Default; FILE: h:\a\m\c\p\hanson\c\p\c\1\Documents\09\09\01\09\01\798\Erosion_Segment_VisSheet\090101798-Erosion_Control-Details.dgn



USER NAME = Pop00275	DESIGNED - DJP	REVISED -
PLOT SCALE = 60.00' / in.	DRAWN - DJP	REVISED -
PLOT DATE = 1/18/2021	CHECKED - MNM	REVISED -
	DATE - 1/18/2021	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
EROSION CONTROL DETAILS - TRACK**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	157
	09L0179B		CONTRACT NO. 93747	
# 7985A & 8124	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE WITH THE RAILROAD IF CONSTRUCTION ACTIVITIES ENCROACH WITHIN 25 FT OF THE ADJACENT RAIL.
2. FINAL SITE GRADING SHALL OCCUR ONLY AFTER ALL IMPROVEMENTS HAVE BEEN COMPLETED.
3. THERE IS ONE (1) DRAINAGE STRUCTURE NO. 2. THIS DRAINAGE STRUCTURE WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH.
4. THE COOK STREET PUMP STATION IS REFERRED TO AS PUMP STATION NO. 1

EXCAVATION AND BACKFILL NOTES:

1. DRAINAGE STRUCTURE NO. 2 SHALL BE EXCAVATED USING A VERTICAL SHAFT BORING MACHINE.
2. THE CONTRACTOR SHALL SUBMIT A DETAILED EXCAVATION PLAN AND DETAILED GROUT INSTALLATION AND DRAINAGE STRUCTURE INSTALLATION PLAN SEALED BY A PROFESSIONAL ENGINEER TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCING WORK. THE EXCAVATION PLAN SHALL INCLUDE DRAWINGS AND DESIGN CALCULATIONS FOR TEMPORARY OR PERMANENT CASING. THE CALCULATIONS SHALL BE PREPARED AND SEALED BY AN ILLINOIS LICENSED STRUCTURAL ENGINEER. THIS APPROVAL WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR THE SAFETY OF THE EXCAVATION.
3. ALL EXCAVATION, SHORING, TEMPORARY OR PERMANENT CASING, AGGREGATE OR CONCRETE BASE, CONCRETE PRECAST MANHOLE SECTIONS, FLAT SLAB TOP, ACCESS HATCHES, LOCKING MECHANISM, MASTIC SEALANT, WATERPROOFING GROUT, AND BACKFILL SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR DRAINAGE STRUCTURE NO. 2.
4. TEMPORARY OR PERMANENT CASING SHALL BE ACCORDING TO SECTION 516 OF THE STANDARD SPECIFICATIONS. GALVANIZED CMP MAY ALSO BE USED AS PERMANENT CASING. IF CMP IS USED AS A PERMANENT CASING, THE ANNULAR SPACE BETWEEN THE CMP AND THE EDGE OF THE BORING SHALL BE FILLED WITH NON-SHRINK GROUT FROM THE BASE TO ELEVATION 588.00.
5. THE STRUCTURES SHALL BE EXCAVATED AND INSTALLED ONE AT A TIME WITH EACH BEING GROUTED AND BACKFILLED COMPLETELY BEFORE COMMENCING CONSTRUCTION ON THE NEXT.
6. THE ANNULAR SPACE BETWEEN THE DRAINAGE STRUCTURE WALL AND THE EDGE OF THE BORING WITH A TEMPORARY CASING OR BETWEEN THE DRAINAGE STRUCTURE AND PERMANENT CASING SHALL BE FILLED WITH NON-SHRINK GROUT FROM THE BASE TO ELEVATION 588.00.
7. FROM ELEVATION 588.00 TO THE SURFACE, THE ANNULAR SPACE BETWEEN THE MANHOLE SECTION AND THE EDGE OF THE BORING WITH A TEMPORARY CASING OR BOTH SIDES OF THE PERMANENT CASING SHALL BE FILLED WITH NON-SHRINK GROUT OR CONTROLLED LOW STRENGTH MATERIAL, MIX 2.
8. THE DRAINAGE STRUCTURE SHALL BE CHECKED AFTER THE INSTALLATION OF EACH SECTION TO ENSURE A TRUE VERTICAL INSTALLATION. IF THE ALIGNMENT IS OFF, THE CONTRACTOR SHALL TAKE CORRECTIVE ACTION TO SHIM THE STRUCTURE BACK INTO LEVEL.
9. MATERIAL REMOVED FROM THE EXCAVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH SECTION 202.03 OF THE STANDARD SPECIFICATIONS.

DRAINAGE STRUCTURE PIPE CONNECTION NOTES:

1. ALL STORM PIPE INFORMATION IS SHOWN ON DRAINAGE SCHEDULES AND DRAINAGE DETAILS.

PUMPING STATION NOTES:

1. THE VALVE VAULT, PUMPS, PUMP BASES, RAILS AND LIFTING CHAINS SHALL ALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR PUMPING STATION.
2. ALL PIPING, FITTINGS, VALVES AND PIPE SUPPORT BRACKETS FROM THE PUMP BASE, THROUGH THE VALVE VAULT TO TWO FEET OUTSIDE THE VALVE VAULT SHALL BE PAID FOR UNDER PUMP STATION MECHANICAL WORK.
3. ALL VALVES AND FITTINGS IN THE VALVE VAULT SHALL BE SUPPORTED ON STEEL PIPE SUPPORTS.
4. THE 2" SCHEDULE 40 DRAIN AND CHECK VALVE SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR PUMP STATION MECHANICAL WORK.

DRAINAGE STRUCTURE AND VALVE VAULT NOTES:

1. THE ACCESS HATCHES CAST INTO THE LID OF DRAINAGE STRUCTURE NO. 2 SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR DRAINAGE STRUCTURE NO. 2.
2. THE VALVE VAULT AND ASSOCIATED EXCAVATION AND BACKFILL SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR PUMPING STATION.
3. THE VALVE VAULT SHALL CONFORM TO ASTM C-913. THE STRUCTURE SHALL BE DESIGNED FOR EARTH LOADS AND HS-20 LIVE LOAD FOR VEHICULAR TRAFFIC.
4. THE PRECAST CONCRETE LID FOR DRAINAGE STRUCTURES, NO. 2 SHALL BE SEALED TO THE TOP BARREL SECTION WITH TWO ROWS OF BUTYL MASTIC. THE LID SHALL HAVE A FABRICATED GALVANIZED STEEL FRAME AND HATCH SYSTEM PER THE PLANS. ORIENTATION OF THE HATCH SYSTEM SHALL BE COORDINATED WITH THE PUMP MANUFACTURER.
5. AFTER INSTALLATION IS COMPLETE, IF THERE ARE WATER LEAKS AT JOINTS, THE CONTRACTOR SHALL WATERPROOF THE LEAKS USING DRILLED PORTS AROUND THE LEAK AND A HYDROPHILIC GROUT. IF REQUIRED, IT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR DRAINAGE STRUCTURE NO. 2.
6. ALL PENETRATIONS THROUGH THE WALLS OF THE DRAINAGE STRUCTURES SHALL BE SEALED WITH NON-SHRINK GROUT.
7. THE DRAINAGE STRUCTURE SHALL BE CHECKED DURING INSTALLATION AND GROUTING TO ENSURE A TRUE VERTICAL INSTALLATION. IF THE ALIGNMENT IS OFF, THE CONTRACTOR SHALL TAKE CORRECTIVE MEASURES TO SHIM THE STRUCTURE BACK TO LEVEL.
8. THE EXTERIOR AND BOTTOM OF THE VALVE VAULT SHALL RECEIVE TWO COATS OF ASPHALT EMULSION WATERPROOFING IN ACCORDANCE WITH SECTION 503.18 OF THE STANDARD SPECIFICATIONS.

DRAINAGE STRUCTURE PRECAST CONCRETE MANHOLE:

1. DRAINAGE STRUCTURES SHALL BE PRECAST REINFORCED CONCRETE MANHOLES CONFORMING TO SECTION 1042 OF THE STANDARD SPECIFICATIONS. STRUCTURES SHALL BE WATER TIGHT. THE PRECAST CONCRETE MANHOLE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
2. THE EXTERIOR AND BOTTOM OF THE BASE OF THE STRUCTURES SHALL RECEIVE TWO COATS OF ASPHALT EMULSION WATERPROOFING IN ACCORDANCE WITH SECTION 503.18 OF THE STANDARD SPECIFICATIONS.
3. THE DRAINAGE STRUCTURE SECTIONS SHALL BE A MINIMUM OF 4-FT TALL WITH THE EXCEPTION OF THE FINAL SECTION. EACH SECTION SHALL BE SEALED WITH TWO (2) STRIPS OF BUTYL RUBBER SEALANT. JOINTS IN THE BUTYL RUBBER SEALANT SHALL BE OVERLAPPED TO PREVENT GAPS.
4. THE ANNULAR SPACE BETWEEN THE STRUCTURE AND THE DRILLED SHAFT SHALL BE FILLED WITH NON-SHRINK GROUT. THE GROUT SHALL BE INSTALLED AFTER EACH BARREL SECTION IS INSTALLED FROM ELEVATION 562.37 TO 588.00. FROM ELEVATION 588.00 TO THE SURFACE, THE ANNULAR SPACE BETWEEN THE MANHOLE AND DRILLED SHAFT SHALL BE FILLED WITH CONTROLLED LOW STRENGTH MATERIAL OR NON-SHRINK GROUT.
5. THE CONTRACTOR SHALL SUBMIT A DETAILED PLAN FOR INSTALLING THE GROUT AND DRAINAGE STRUCTURES TO THE ENGINEER FOR APPROVAL BEFORE COMMENCING THE WORK. THE PLAN SHALL ADDRESS THE INSTALLATION METHOD AND BUOYANCY ISSUES DURING INSTALLATION. THIS APPROVAL WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR GROUTING AND INSTALLING THE DRAINAGE STRUCTURE.
6. IF GROUNDWATER IS PRESENT BETWEEN THE STRUCTURE AND THE DRILLED SHAFT, THE CONTRACTOR SHALL USE A GROUT FORMULATED FOR CURING UNDER WATER AND SHALL INSTALL THE GROUT FROM THE BOTTOM-UP USING A TREMIE OR PUMP.
7. THE NON-SHRINK GROUT SHALL CONFORM TO ASTM C-1107 AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI AFTER 28 DAYS. THE ADDITION OF AGGREGATE TO THE PREPACKAGED PRODUCT WILL BE PERMITTED AND SHALL BE ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS. IN LIEU OF NON-SHRINK GROUT AROUND THE DRAINAGE STRUCTURE, THE CONTRACTOR MAY USE CLASS DS CONCRETE WITH 8-10 INCH SLUMP AT POINT OF PLACEMENT.

FINAL

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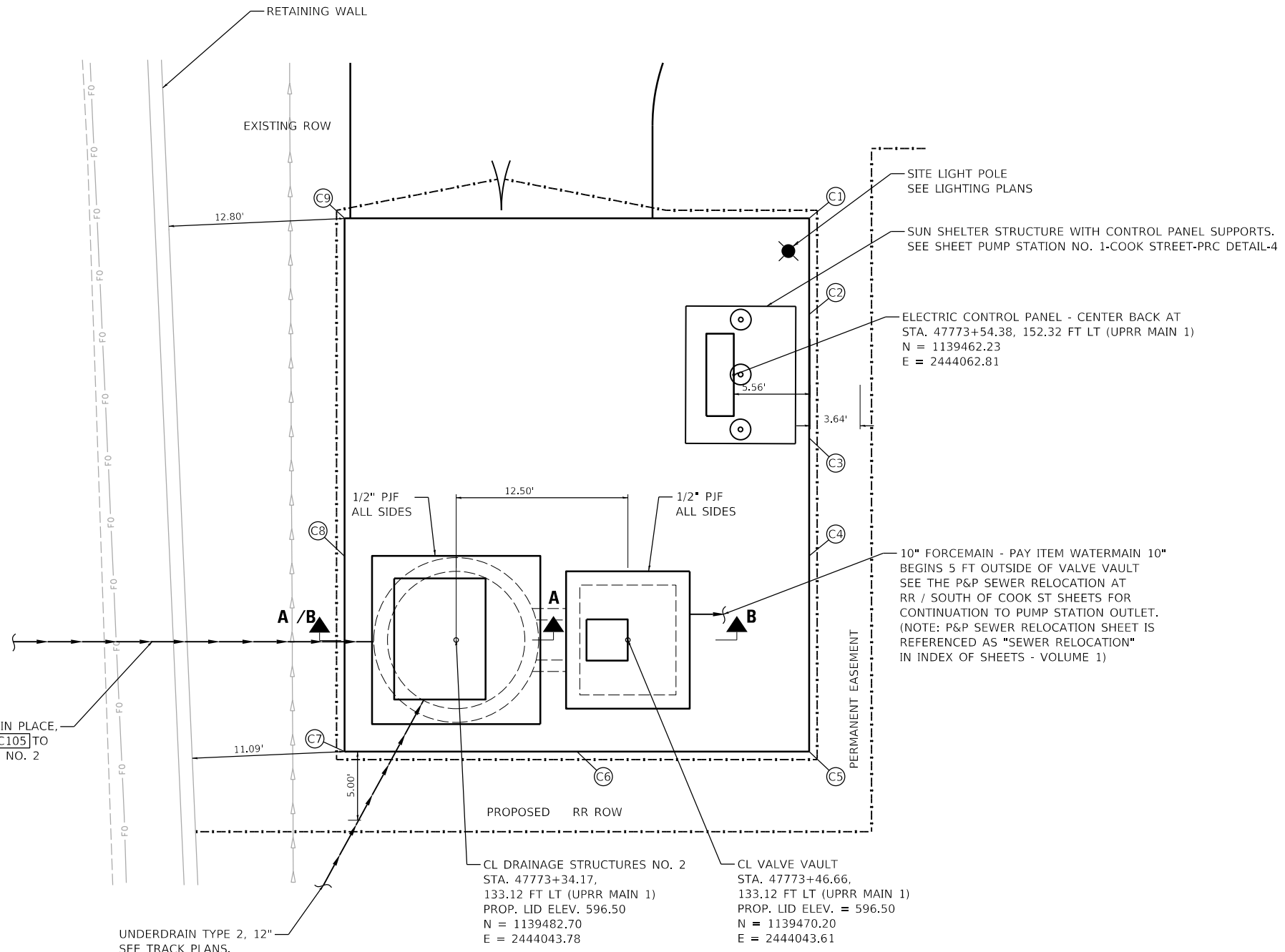
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SPRINGFIELD RAIL IMPROVEMENTS PROJECT
 SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
 PUMP STATION NO.1 – COOK STREET – GENERAL NOTES – 1**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	158
09L0179B		CONTRACT NO. 93747		
# 7985A & 8125	ILLINOIS	FED. AID PROJECT		

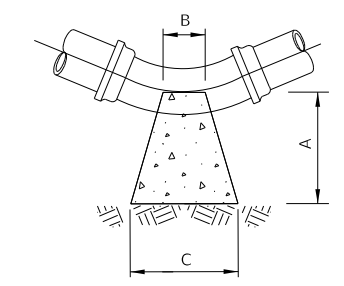
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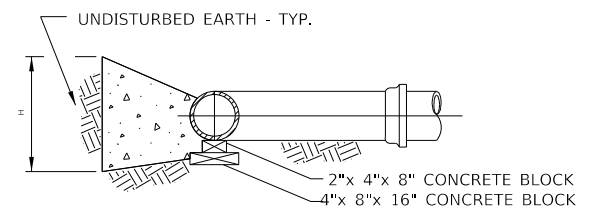
STORM SEWER JACKED IN PLACE, 24" FROM STRUCTURE (C105) TO DRAINAGE STRUCTURES NO. 2

UNDERDRAIN TYPE 2, 12" SEE TRACK PLANS.

PUMP STATION NO.1 - SITE PLAN



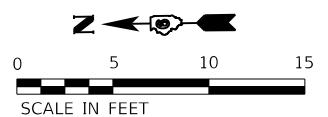
BENDS
PLAN - NOT TO SCALE
HORIZONTAL THRUST BLOCKING



TYPICAL SECTION
NOT TO SCALE

NOTES:

- SEE SHEET PUMP STATION NO. 1-COOK STREET-PRC DETAIL-4 FOR SECTION A-A. SEE SHEET PUMP STATION NO. 1-COOK STREET-MECHANICAL LAYOUT-3 FOR SECTION B-B.
- CONTRACTOR SHALL VERIFY THE DEPTH OF THE DISCHARGE PIPE.
- PROVIDE THRUST BLOCKING AT ALL BENDS IN FORCE MAIN. THE COST OF PROVIDING THRUST BLOCKS INCLUDED WITH THE FORCE MAIN PAY ITEM WATER MAIN 10".
- TRENCH BACKFILL SHALL BE USED FOR THE 10" FORCE MAIN WHERE THERE IS PAVEMENT.
- SEE SHEET TRACK FENCING & ACCESS PLAN-3.
- THE DRIVEWAY ACCESS TO SITE PLAN SHOULD NOT INTERFERE/AFFECT R/R ACCESS.



PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6"

POINT	NORTHING	EASTING	ELEVATION
(C1)	1139456.58	2444074.13	596.16
(C2)	1139456.68	2444067.13	596.23
(C3)	1139456.80	2444058.13	596.32
(C4)	1139456.92	2444049.55	596.41
(C5)	1139457.11	2444035.30	596.60
(C6)	1139474.02	2444035.53	596.55
(C7)	1139490.94	2444035.76	596.55
(C8)	1139490.74	2444050.01	596.41
(C9)	1139490.41	2444074.59	596.16

THRUST BLOCK DIMENSIONS (INCHES)

PIPE DIAMETER INCHES	ALL FTGS.		90 DEGREE BEND		45 DEGREE BEND		22-1/2 DEGREE BEND		11-1/4 DEGREE BEND	
	A	B	C	H	C	H	C	H	C	H
10	20	20	21	18	20	14	12	12	10	10

DIMENSIONS (INCHES) BASED ON 60 PSI WORKING PRESSURE AND 1500 PSF ALLOWABLE SOIL BEARING PRESSURE. DIMENSIONS MAY BE REDUCED IF CONTRACTOR FURNISHES SOIL TESTING RESULTS DEMONSTRATING HIGHER ALLOWABLE SOIL BEARING PRESSURE.

FINAL



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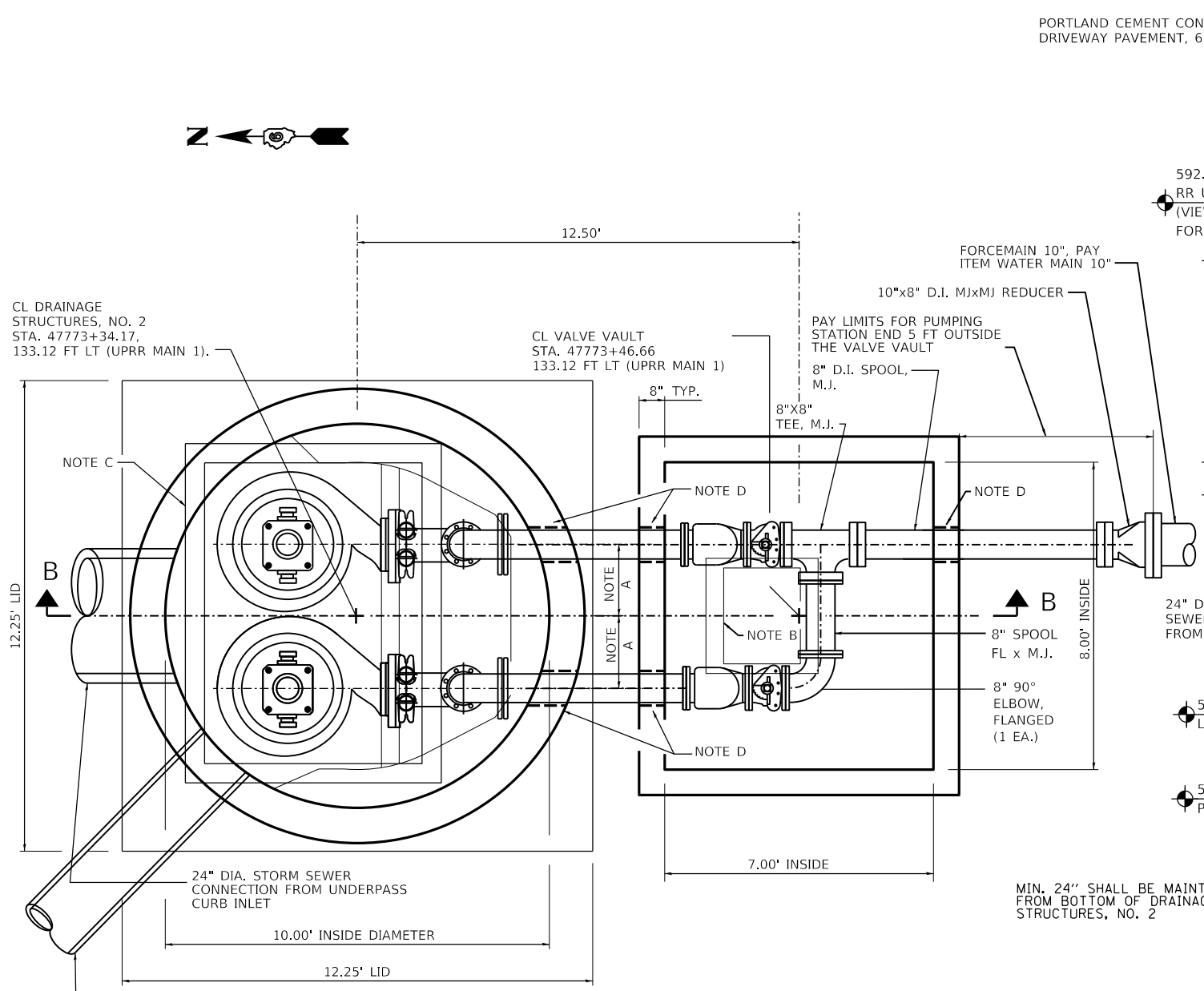
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION NO.1 - COOK STREET - SITE PLAN - 2

SCALE: SHEET 2 OF 7 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	159
	09L0179B			CONTRACT NO. 93747
# 7985A & 8126	ILLINOIS	FED. AID PROJECT		

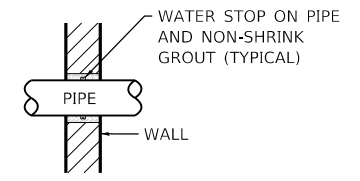
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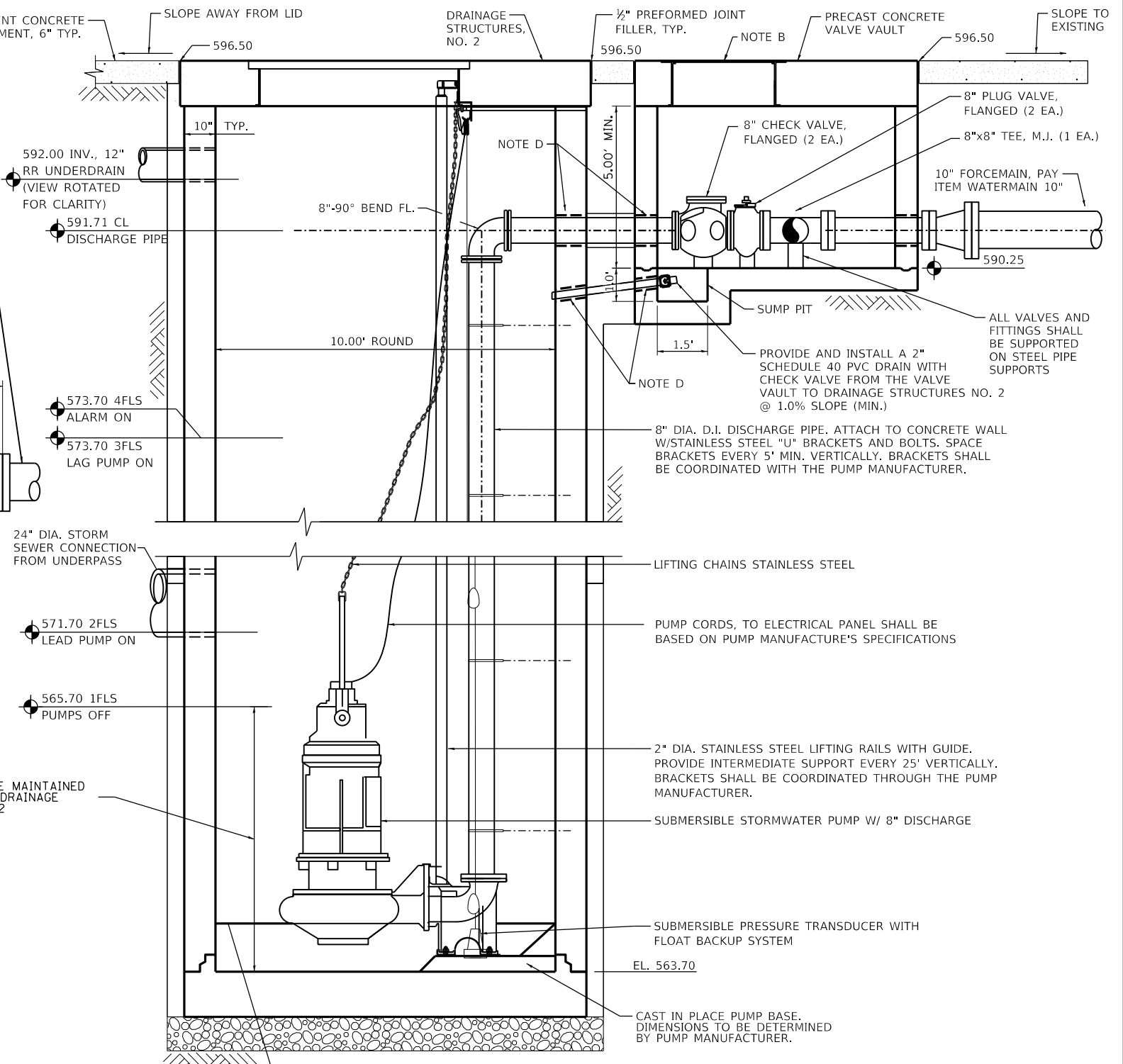
MECHANICAL LAYOUT
DRAINAGE STRUCTURES, NO. 2 AND VALVE VAULT PLAN
 NOT TO SCALE

NOTES

- A. MINIMUM 1.083' - CONTRACTOR TO VERIFY DIMENSION WITH PUMP MANUFACTURE FOR MINIMUM PUMP SPACING
- B. 36" X 36" ALUMINUM ACCESS FRAME AND HATCH.
- C. CUSTOM HATCH SYSTEM. SEE MISCELLANEOUS PUMP STATION DETAILS.
- D. GROUT TYP. (SEE DETAIL THIS SHEET)



GROUT DETAIL
 NOT TO SCALE



MECHANICAL LAYOUT
SECTION B-B
 NOT TO SCALE

FINAL

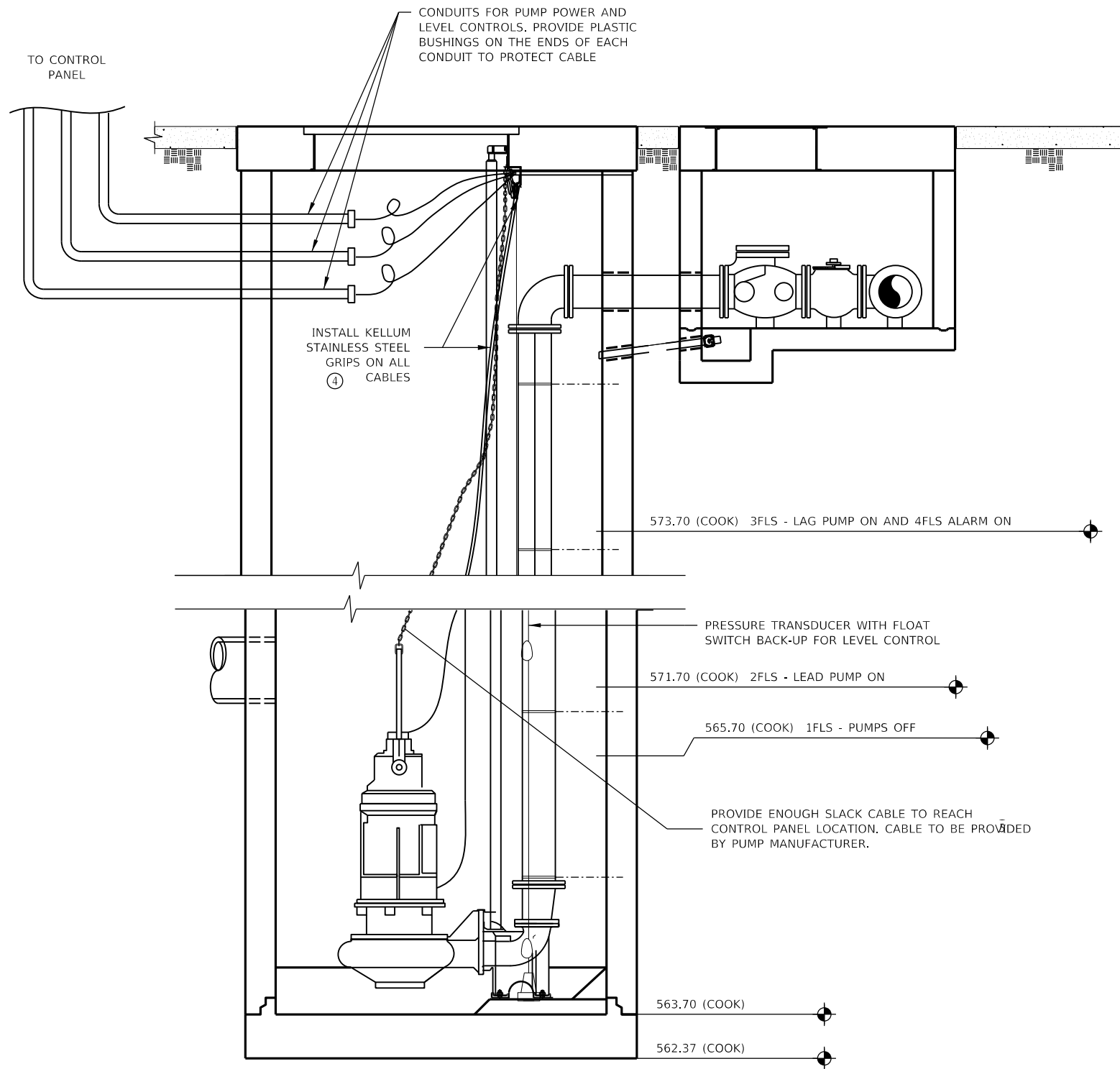


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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION NO.1 - COOK STREET - MECHANICAL LAYOUT - 3
 SCALE: SHEET 3 OF 7 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	160
	09L0179B			CONTRACT NO. 93747
* 79854 & 8127	ILLINOIS	FED. AID PROJECT		



ELECTRICAL ELEVATION
NOT TO SCALE

NOTES:

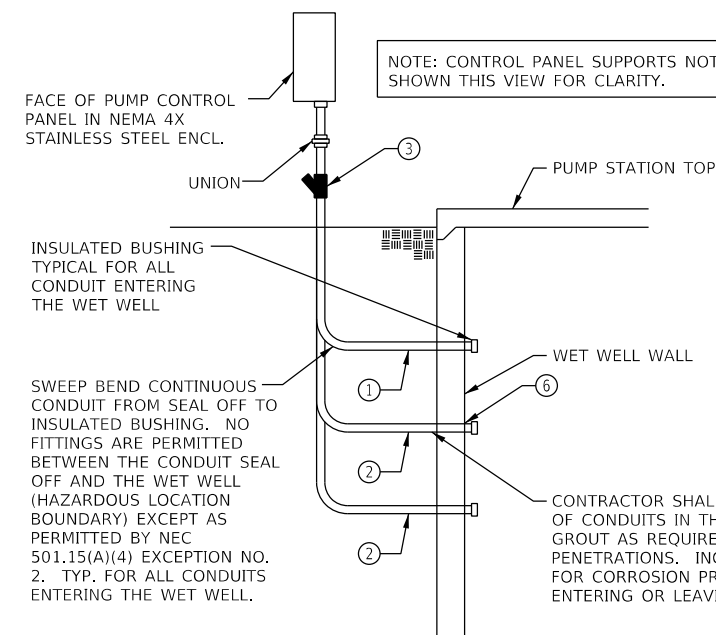
1. SHAFT SEAL FAILURE INSPECTION SHALL BE PART OF THE PUMPS ROUTINE MAINTENANCE.
2. THE PUMP CONTROLS SHALL INCORPORATE AN ALTERNATING RELAY TO EQUALIZE PUMP WEAR AND AUTOMATICALLY PROVIDE A STAND-BY.
3. VERIFY LEVEL SWITCH ELEVATIONS AND CABLE HANGAR LOCATIONS WITH ENGINEER AND PUMP MANUFACTURER REPRESENTATIVE.

GENERAL NOTES:

1. ALL ELECTRICAL EQUIPMENT INSTALLED IN THE WET WELL SHALL BE SUITABLE FOR USE IN CLASS 1, DIV. 1, GROUP D HAZARDOUS LOCATION AND SHALL CONFORM TO THE APPLICABLE SECTIONS OF NEC ARTICLES 500, 501, & 504 AS WELL AS ALL LOCAL CODES, ORDINANCES AND REQUIREMENTS.
2. ALL ELECTRICAL EQUIPMENT INSTALLED IN THE VALVE VAULT SHALL BE SUITABLE FOR USE IN CLASS 1, DIVISION 2, GROUP D HAZARDOUS LOCATION AND SHALL CONFORM TO THE APPLICABLE SECTIONS OF NEC ARTICLES 500, 501, & 504 AS WELL AS ALL LOCAL CODES, ORDINANCES, AND REQUIREMENTS.
3. CONTRACTOR SHALL COORDINATE INSTALLATION OF ELECTRICAL EQUIPMENT, AND WORK WITH RESPECT TO PLUMBING, MECHANICAL, CONCRETE, EXCAVATION AND ALL OTHER WORK. COORDINATE THE INSTALLATION OF CONDUITS INTO THE WET WELL. USE NON-SHRINK GROUT AS REQUIRED TO SEAL CONDUIT PENETRATIONS.
4. ALL CONDUIT TERMINATIONS & OPENINGS IN ENCLOSURES SHALL BE SEALED WITH DUCT SEAL OR EQUAL.
5. LEVEL SENSING PRESSURE TRANSDUCER & BACK-UP FLOATS SHALL HAVE AN FM LISTED OR UL LISTED INTRINSICALLY SAFE BARRIER (SWITCHING AMPLIFIER) SUPPLIED FOR UNIT. INTRINSICALLY SAFE WIRING SHALL HAVE LIGHT BLUE COLORED INSULATION AND KEPT PHYSICALLY ISOLATED FROM OTHER CONDUCTORS. INTRINSICALLY SAFE WIRING AND EQUIPMENT SHALL BE INSTALLED PER ANSI/ISA RP12.6, UL 698A, AND NEC 504. CONDUITS WITH INTRINSICALLY SAFE WIRING SHALL TERMINATE IN THE CONTROL PANEL AT THE INTRINSICALLY SAFE WIRING SECTION.
6. METAL CONDUIT IN DIRECT CONTACT WITH EARTH OR CONCRETE SHALL BE PVC COATED FOR CORROSION PROTECTION.
7. ALL CONDUIT ENTRANCES INTO THE SERVICE BREAKER, PUMP CONTROL PANEL AND ANY OTHER NEMA 4 ENCLOSURES SHALL HAVE WATER TIGHT THREADED HUBS, UL LISTED NEMA 4, 4X FOR RESPECTIVE ENCLOSURE.
8. ALL BUSHINGS, HUBS, & FITTINGS BETWEEN CONDUITS OF DISSIMILAR METALS AND/OR BETWEEN CONDUITS AND ENCLOSURES OF A DISSIMILAR METAL SHALL BE SUITABLE FOR SUCH APPLICATIONS TO ELIMINATE THE POSSIBILITY OF GALVANIC ACTION.

SHEET LEGEND:

- ① MULTI-CONDUCTOR LIQUID LEVEL SENSING CABLE (WITH MAXIMUM DIAMETER OF 5/8") IN 2" PVC COATED RIGID ALUMINUM CONDUIT. CONDUIT SHALL BE SIZED FOR 25% MAXIMUM FILL TO CONFORM TO EXPLOSION PROOF CONDUIT SEAL REQUIREMENTS. ADJUST (ENLARGE) AS REQUIRED.
- ② SUBMERSIBLE PUMP MOTOR CABLE IN 3" PVC COATED RIGID ALUMINUM CONDUIT. CONDUIT SHALL BE SIZED FOR 25% MAXIMUM FILL TO CONFORM TO EXPLOSION PROOF CONDUIT SEAL REQUIREMENTS. ADJUST (ENLARGE) AS REQUIRED.
- ③ EXPLOSION PROOF CONDUIT SEAL SUITABLE FOR CLASS 1, DIVISION 1, GROUP D HAZARDOUS LOCATION, REQUIRED FOR ALL CONDUITS ENTERING OR LEAVING THE WET WELL OR VALVE VAULT INSTALLED IN CONFORMANCE WITH NEC 501 & MANUFACTURER'S DIRECTIONS. NOTE CONDUIT SEALS SHALL BE SIZED AS REQUIRED FOR THE RESPECTIVE CABLE FILL. CABLE FILL SHALL NOT EXCEED 25% FOR CONDUIT SEAL APPLICATION. CONDUIT SEALS SHALL BE THE FIRST FITTING AFTER THE CONDUIT LEAVES THE WET WELL AND EMERGES FROM GRADE & THE FIRST FITTING AFTER CONDUIT ENTERS THE VALVE VAULT.
- ④ HEAVY DUTY STAINLESS STEEL CABLE RACK ADEQUATELY SIZED FOR THE RESPECTIVE PUMP & LEVEL CABLES OR HEAVY DUTY NYLON SADDLE RACKS (CABLE HANGAR WITH 3" THROAT OPENING), UNDERGROUND DEVICES CAT. NO. 3SR1. MOUNT AT IMMEDIATELY INSIDE ACCESS HATCH WITH STAINLESS STEEL STRUT SUPPORT & STAINLESS STEEL HARDWARE. PROVIDE SUFFICIENT RACKS FOR EACH PUMP CABLE & LEVEL CABLES. EACH PUMP MOTOR SHALL HAVE 10' MINIMUM SLACK CABLE TO ALLOW FOR FUTURE REMOVAL AND REINSTALLATION. LOOP SLACK CABLES AROUND SADDLE RACK AND SECURE WITH CABLE TIES.
- ⑤ SUBMERSIBLE PUMP CABLE BY PUMP MANUFACTURER. VERIFY EACH PUMP MOTOR HAS A MINIMUM OF 10 FEET OF SLACK CABLE. (2 TYP.)
- ⑥ CONDUIT HOLES SHALL BE CORED THROUGH THE STRUCTURE WALLS OR PREFORMED DURING CASTING.



CONDUIT ENTRANCE TO PUMP STATION
NOT TO SCALE

FINAL

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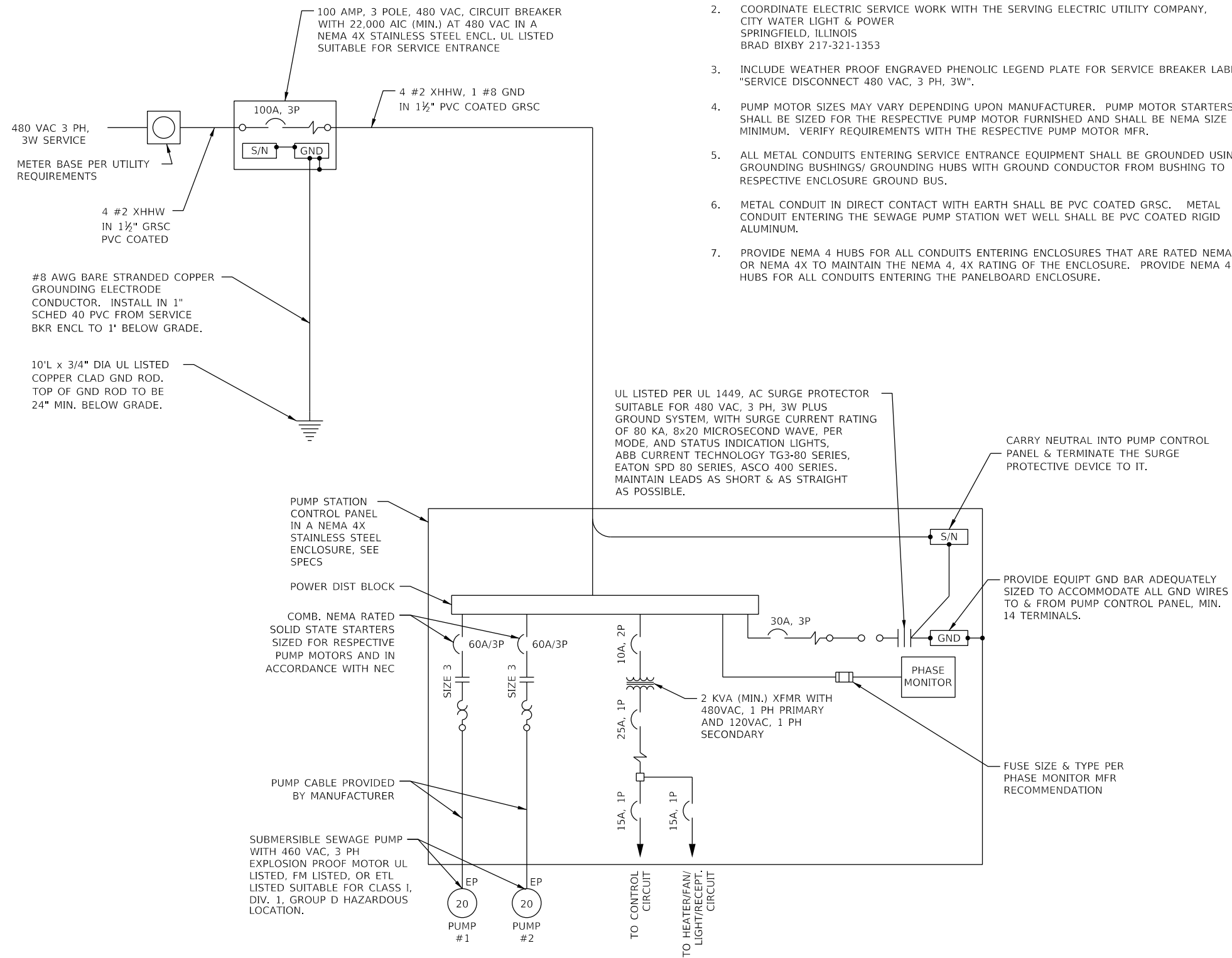
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION NO.1 - COOK STREET - ELECTRICAL DETAILS - 5
SCALE: SHEET 5 OF 7 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	162
	09L0179B	CONTRACT NO.	93747	
# 7985A & 8129	ILLINOIS	FED. AID PROJECT		

NOTES:

1. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 (NEC MOST CURRENT ISSUE IN FORCE), THE RESPECTIVE EQUIPMENT MANUFACTURER'S DIRECTIONS AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES AND REQUIREMENTS IN FORCE. ANY INSTALLATIONS WHICH VOID THE U.L. LISTING, FM LISTING, ETL LISTING (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE SHALL NOT BE PERMITTED.
2. COORDINATE ELECTRIC SERVICE WORK WITH THE SERVING ELECTRIC UTILITY COMPANY, CITY WATER LIGHT & POWER, SPRINGFIELD, ILLINOIS, BRAD BIXBY 217-321-1353
3. INCLUDE WEATHER PROOF ENGRAVED PHENOLIC LEGEND PLATE FOR SERVICE BREAKER LABELED "SERVICE DISCONNECT 480 VAC, 3 PH, 3W".
4. PUMP MOTOR SIZES MAY VARY DEPENDING UPON MANUFACTURER. PUMP MOTOR STARTERS SHALL BE SIZED FOR THE RESPECTIVE PUMP MOTOR FURNISHED AND SHALL BE NEMA SIZE 3 MINIMUM. VERIFY REQUIREMENTS WITH THE RESPECTIVE PUMP MOTOR MFR.
5. ALL METAL CONDUITS ENTERING SERVICE ENTRANCE EQUIPMENT SHALL BE GROUNDED USING GROUNDING BUSHINGS/ GROUNDING HUBS WITH GROUND CONDUCTOR FROM BUSHING TO RESPECTIVE ENCLOSURE GROUND BUS.
6. METAL CONDUIT IN DIRECT CONTACT WITH EARTH SHALL BE PVC COATED GRSC. METAL CONDUIT ENTERING THE SEWAGE PUMP STATION WET WELL SHALL BE PVC COATED RIGID ALUMINUM.
7. PROVIDE NEMA 4 HUBS FOR ALL CONDUITS ENTERING ENCLOSURES THAT ARE RATED NEMA 4 OR NEMA 4X TO MAINTAIN THE NEMA 4, 4X RATING OF THE ENCLOSURE. PROVIDE NEMA 4 HUBS FOR ALL CONDUITS ENTERING THE PANELBOARD ENCLOSURE.



ONE-LINE LEGEND

- SURGE PROTECTOR/TVSS DEVICE
- ELECTRIC UTILITY SERVICE METER AND BASE
- CAPACITOR
- TRANSFORMER
- CABLE TERMINAL OR LUGS
- GENERATOR
- COMBINATION CIRCUIT BREAKER/STARTER WITH OVERLOAD PROTECTION. # = NEMA SIZE NO.
- GROUND - GROUND ROD, CHASSIS, BUS, OR AT EARTH POTENTIAL
- MOTOR
- EXPLOSION PROOF MOTOR
- MOTOR, # = HORSEPOWER
- CIRCUIT BREAKER
- ADJUSTABLE MOTOR CIRCUIT PROTECTOR TYPE BREAKER
- THERMAL-MAGNETIC CIRCUIT BREAKER
- FUSE
- DISCONNECT SWITCH
- FUSIBLE DISCONNECT SWITCH
- THERMAL OVERLOAD PROTECTION
- EXPLOSION PROOF CONDUIT SEAL-OFF FITTING
- TRANSFER SWITCH
- JUNCTION BOX WITH SPLICE
- GROUND BUS OR LUG
- NEUTRAL BUS
- PANELBOARD WITH MAIN BREAKER
- PANELBOARD WITH MAIN MAIN LUGS

PUMP STATION ELECTRICAL ONE LINE
NO SCALE

FINAL

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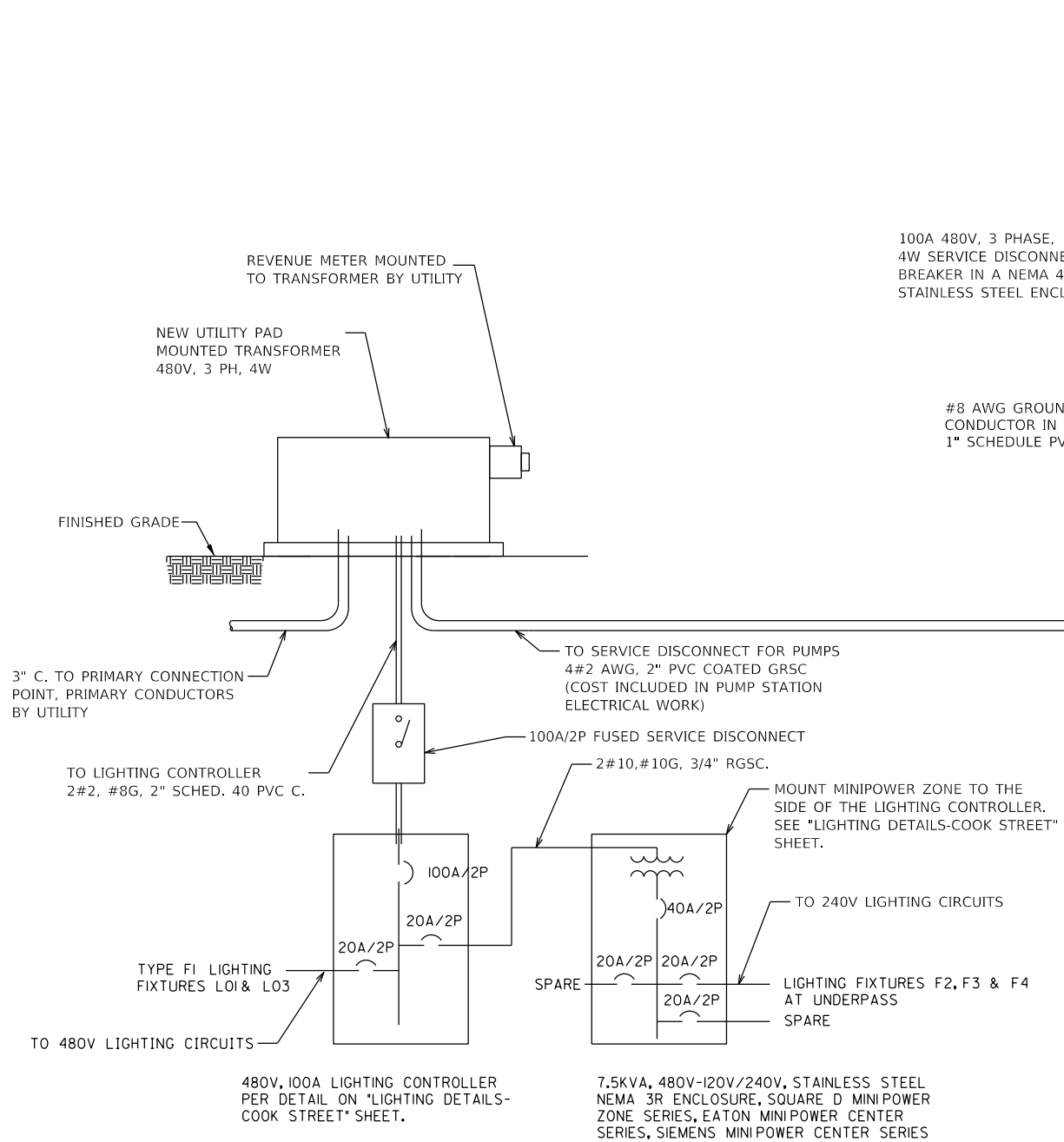


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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION NO.1 - COOK STREET - ELECTRICAL DETAILS - 6
SCALE: SHEET 6 OF 7 SHEETS STA. TO STA.

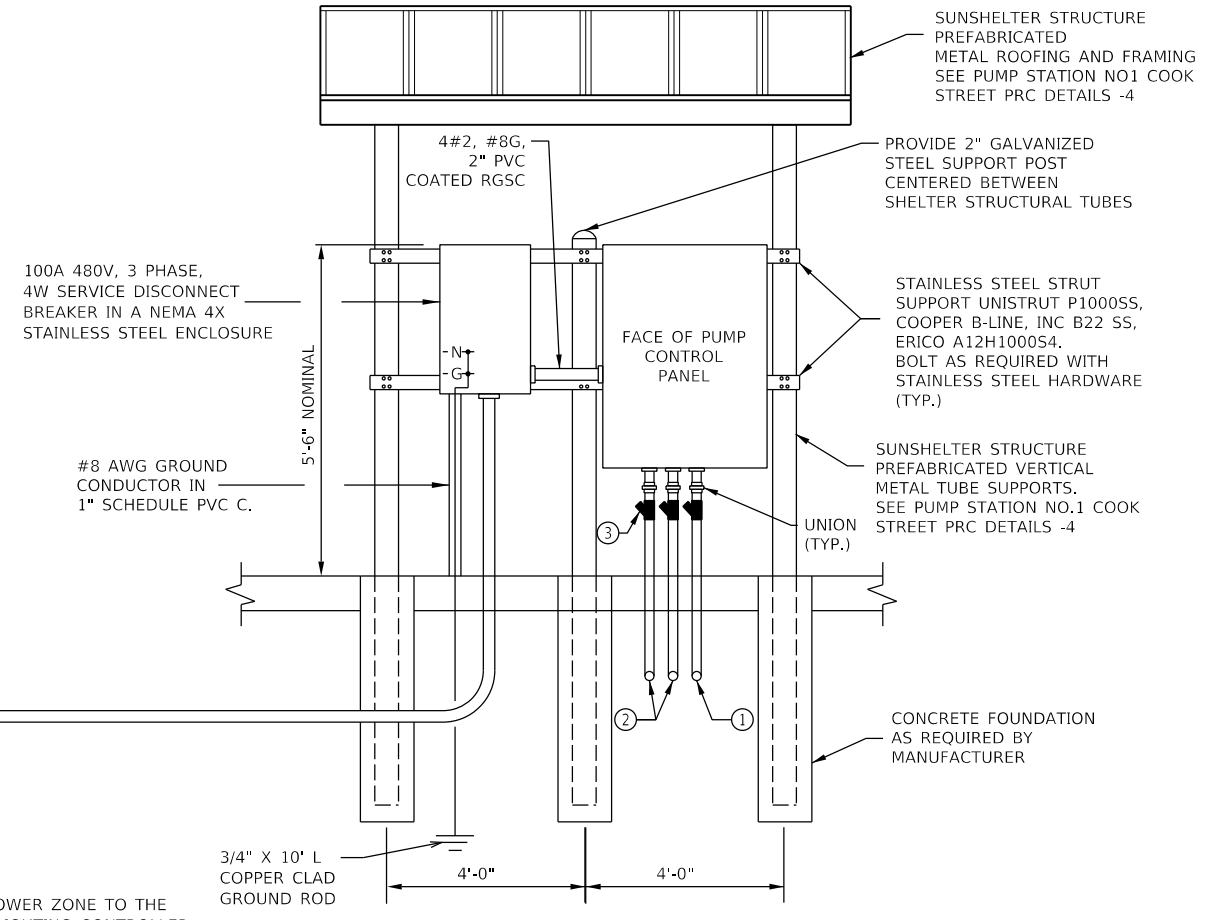
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	163
	09L0179B			CONTRACT NO. 93747
# 7985A & 8130	ILLINOIS	FED. AID PROJECT		



ELECTRIC SERVICE INSTALLATION DETAIL
NOT TO SCALE

SERVICE NOTES:

1. CONTRACTOR SHALL VERIFY AND COORDINATE SERVICE ENTRANCE WORK WITH THE SERVING ELECTRIC UTILITY COMPANY.
2. ALL METAL CONDUITS TERMINATING IN SERVICE EQUIPMENT (METER BASE & SERVICE BREAKER) SHALL HAVE GROUND BUSHING TYPE HUBS WITH BONDING JUMPERS TO THE RESPECTIVE GND BUS.
3. SEE ELECTRICAL ONE-LINE DIAGRAM FOR CONDUIT & WIRE SIZES & TYPES.
4. UNLESS OTHERWISE NOTED, WORK SHOWN ON ELECTRIC SERVICE INSTALLATION DETAIL, INCLUDING COORDINATION WITH UTILITY COMPANY, SHALL BE PAID FOR AS ELECTRIC SERVICE INSTALLATION.



PUMP CONTROL PANEL NOTES:

1. PROVIDE NEMA 4 HUBS AT ALL CONDUIT ENTRIES TO PUMP CONTROL PANEL, AND SERVICE DISCONNECT SWITCH.
2. SEE ELECTRICAL ONE LINE DIAGRAM FOR INFORMATION ON SERVICE CONDUCTOR, FEEDER CONDUCTOR, CONDUIT SIZES, AND CONDUIT TYPES
3. ALL ELECTRICAL PANEL WORK, PANEL SUPPORTS, CONDUITS, FOUNDATION PIERS, AND FITTINGS SHALL BE PAID FOR AS PART OF PUMP STATION ELECTRICAL WORK.

PUMP CONTROL PANEL ELEVATION

NOT TO SCALE

LEGEND PLATE SCHEDULE		
DEVICE	LEGEND PLATE LABELING	LETTER HEIGHT/COLOR
100A SERVICE BREAKER	SERVICE DISCONNECT 480 VAC, 3 PH, 4 W	1/4" BLACK LETTERING ON A WHITE BACKGROUND
PUMP CONTROL PANEL ENCLOSURE	PUMP STATION CONTROL PANEL 480 VAC, 3 PH, 4 W	1/4" WHITE LETTERING ON A RED BACKGROUND

LEGEND PLATE SCHEDULE NOTES:

1. LEGEND PLATES SHALL BE WEATHERPROOF, ABRASION RESISTANT, PHENOLIC ENGRAVED MATERIAL. LETTERING SHALL BE SIZED AS NOTED ABOVE. SECURE LEGNED PLATES TO EQUIPMENT WITH MACHINE SCREWS AND/OR RIVETS. CONTRACTOR SHALL FIELD VERIFY THAT THE RESPECTIVE LETTERING HEIGHT AND LEGENDS WILL FIT ON THE RESPECTIVE EQUIPMENT AND ADJUST LETTERING HEIGHT WHERE APPLICABLE. SEE SPECIFICATIONS FOR THE PUMP CONTROL PANEL FOR ADDITIONAL LEGEND PLATES REQUIRED FOR THAT PANEL.
2. FURNISH & INSTALL A WEATHERPROOF WARNING LABEL FOR EACH METER SOCKET, SERVICE DISCONNECT, PANELBOARD & CONTROL PANEL TO WARN PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS, PER THE REQUIREMENTS OF NEC 110.16 "FLASH PROTECTION". LABELS SHALL BE HAZARD COMMUNICATION SYSTEMS, LLC (190 OLD MILFORD RD., P.O. BOX 1174, MILFORD, PA 18337 PHONE: 1-887-748-0244) PART NO. H6010-9VWHBJ OR APPROVED EQUAL.

SHEET LEGEND:

- ① MULTI-CONDUCTOR LEVEL PROBE CABLE (WITH MAXIMUM DIAMETER OF 5/8") IN 2" PVC COATED RIGID ALUMINUM. CONDUIT SHALL BE SIZED FOR 25% MAXIMUM FILL TO CONFORM TO EXPLOSION PROOF CONDUIT SEAL REQUIREMENTS. ADJUST (ENLARGE) AS REQUIRED.
- ② SUBMERSIBLE PUMP MOTOR CABLE IN 3" PVC COATED RIGID ALUMINUM. CONDUIT SHALL BE SIZED FOR 25% MAXIMUM FILL TO CONFORM TO EXPLOSION PROOF CONDUIT SEAL REQUIREMENTS. ADJUST (ENLARGE) AS REQUIRED.
- ③ EXPLOSION PROOF CONDUIT SUITABLE FOR CLASS I, DIVISION 1, GROUP D HAZARDOUS LOCATION, REQUIRED FOR ALL CONDUITS ENTERING OR LEAVING THE WET WELL OR VALVE VAULT INSTALLED IN CONFORMANCE WITH NEC 501 & MANUFACTURER'S DIRECTIONS. NOTE CONDUIT SEALS SHALL BE SIZED AS REQUIRED FOR THE RESPECTIVE CABLE FILL. CABLE FILL SHALL NOT EXCEED 25% FOR CONDUIT SEAL APPLICATION. CONDUIT SEALS SHALL BE THE FIRST FITTING AFTER THE CONDUIT LEAVES THE WET WELL AND EMERGES FROM GRADE & THE FIRST FITTING AFTER CONDUIT ENTERS THE VALVE VAULT.

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	DATE - 1/18/2021	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	164
	09L0179B	CONTRACT NO.	93747	
# 7985A & 8131	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE WITH THE RAILROAD IF CONSTRUCTION ACTIVITIES ENCR OACH WITHIN 25 FT OF THE ADJACENT RAIL.
2. FINAL SITE GRADING SHALL OCCUR ONLY AFTER ALL IMPROVEMENTS HAVE BEEN COMPLETED.
3. THERE IS ONE (1) DRAINAGE STRUCTURE NO. 2. THIS DRAINAGE STRUCTURE WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH.
4. THERE ARE OVERHEAD UTILITY LINES NEAR THE PUMP STATION AND ASSOCIATED STRUCTURES.
5. THE SOUTH GRAND PUMP STATION IS REFERRED TO AS PUMP STATION NO. 2

EXCAVATION AND BACKFILL NOTES:

1. DRAINAGE STRUCTURE NO. 2 SHALL BE EXCAVATED USING A VERTICAL SHAFT BORING MACHINE.
2. THE CONTRACTOR SHALL SUBMIT A DETAILED EXCAVATION PLAN AND DETAILED GROUT INSTALLATION AND DRAINAGE STRUCTURE INSTALLATION PLAN SEALED BY A PROFESSIONAL ENGINEER TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCING WORK. THE EXCAVATION PLAN SHALL INCLUDE DRAWINGS AND DESIGN CALCULATIONS FOR TEMPORARY OR PERMANENT CASING. THE CALCULATIONS SHALL BE PREPARED AND SEALED BY AN ILLINOIS LICENSED STRUCTURAL ENGINEER. THIS APPROVAL WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR THE SAFETY OF THE EXCAVATION.
3. ALL EXCAVATION, SHORING, TEMPORARY OR PERMANENT CASING, AGGREGATE OR CONCRETE BASE, CONCRETE PRECAST MANHOLE SECTIONS, FLAT SLAB TOP, ACCESS HATCHES, LOCKING MECHANISM, MASTIC, SEALANT, WATERPROOFING GROUT, AND BACKFILL SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR DRAINAGE STRUCTURE NO. 2.
4. TEMPORARY OR PERMANENT CASING SHALL BE ACCORDING TO SECTION 516 OF THE STANDARD SPECIFICATIONS. GALVANIZED CMP MAY ALSO BE USED AS PERMANENT CASING. IF CMP IS USED AS A PERMANENT CASING, THE ANNULAR SPACE BETWEEN THE CMP AND THE EDGE OF THE BORING SHALL BE FILLED WITH NON-SHRINK GROUT FROM THE BASE TO ELEVATION 593.60.
5. THE STRUCTURES SHALL BE EXCAVATED AND INSTALLED ONE AT A TIME WITH EACH BEING GROUTED AND BACKFILLED COMPLETELY BEFORE COMMENCING CONSTRUCTION ON THE NEXT.
6. THE ANNULAR SPACE BETWEEN THE DRAINAGE STRUCTURE WALL AND THE EDGE OF THE BORING WITH A TEMPORARY CASING OR BETWEEN THE DRAINAGE STRUCTURE AND PERMANENT CASING SHALL BE FILLED WITH NON-SHRINK GROUT FROM THE BASE TO ELEVATION 593.60.
7. FROM ELEVATION 593.60 TO THE SURFACE, THE ANNULAR SPACE BETWEEN THE MANHOLE SECTION AND THE EDGE OF THE BORING WITH A TEMPORARY CASING OR BOTH SIDES OF THE PERMANENT CASING SHALL BE FILLED WITH NON-SHRINK GROUT OR CONTROLLED LOW STRENGTH MATERIAL, MIX 2.
8. THE DRAINAGE STRUCTURE SHALL BE CHECKED AFTER THE INSTALLATION OF EACH SECTION TO ENSURE A TRUE VERTICAL INSTALLATION. IF THE ALIGNMENT IS OFF, THE CONTRACTOR SHALL TAKE CORRECTIVE ACTION TO SHIM THE STRUCTURE BACK INTO LEVEL.
9. MATERIAL REMOVED FROM THE EXCAVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH SECTION 202.03 OF THE STANDARD SPECIFICATIONS.

DRAINAGE STRUCTURE PIPE CONNECTION NOTES:

1. ALL STORM PIPE INFORMATION IS SHOWN ON DRAINAGE SCHEDULES AND DRAINAGE DETAILS.

PUMPING STATION NOTES:

1. THE VALVE VAULT, PUMPS, PUMP BASES, RAILS AND LIFTING CHAINS SHALL ALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR PUMPING STATION.
2. ALL PIPING, FITTINGS, VALVES AND PIPE SUPPORT BRACKETS FROM THE PUMP BASE, THROUGH THE VALVE VAULT TO TWO FEET OUTSIDE THE VALVE VAULT SHALL BE PAID FOR UNDER PUMP STATION MECHANICAL WORK.
3. ALL VALVES AND FITTINGS IN THE VALVE VAULT SHALL BE SUPPORTED ON STEEL PIPE SUPPORTS.
4. THE 2" SCHEDULE 40 DRAIN AND CHECK VALVE SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR PUMP STATION MECHANICAL WORK.

DRAINAGE STRUCTURE AND VALVE VAULT NOTES:

1. THE ACCESS HATCHES CAST INTO THE LID OF DRAINAGE STRUCTURE NO. 2 SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR DRAINAGE STRUCTURE NO. 2.
2. THE VALVE VAULT AND ASSOCIATED EXCAVATION AND BACKFILL SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR PUMPING STATION.
3. THE VALVE VAULT SHALL CONFORM TO ASTM C-913. THE STRUCTURE SHALL BE DESIGNED FOR EARTH LOADS AND HS-20 LIVE LOAD FOR VEHICULAR TRAFFIC..
4. THE PRECAST CONCRETE LID FOR DRAINAGE STRUCTURE, NO. 2 SHALL BE SEALED TO THE TOP BARREL SECTION WITH TWO ROWS OF BUTYL MASTIC. THE LID SHALL HAVE A FABRICATED GALVANIZED STEEL FRAME AND HATCH SYSTEM PER THE PLANS. ORIENTATION OF THE HATCH SYSTEM SHALL BE COORDINATED WITH THE PUMP MANUFACTURER.
5. AFTER INSTALLATION IS COMPLETE, IF THERE ARE WATER LEAKS AT JOINTS, THE CONTRACTOR SHALL WATERPROOF THE LEAKS USING DRILLED PORTS AROUND THE LEAK AND A HYDROPHILIC GROUT. IF REQUIRED, IT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR DRAINAGE STRUCTURE NO. 2.
6. ALL PENETRATIONS THROUGH THE WALLS OF THE DRAINAGE STRUCTURES SHALL BE SEALED WITH NON-SHRINK GROUT.
7. THE DRAINAGE STRUCTURE SHALL BE CHECKED DURING INSTALLATION AND GROUTING TO ENSURE A TRUE VERTICAL INSTALLATION. IF THE ALIGNMENT IS OFF, THE CONTRACTOR SHALL TAKE CORRECTIVE MEASURES TO SHIM THE STRUCTURE BACK TO LEVEL.
8. THE EXTERIOR AND BOTTOM OF THE VALVE VAULT SHALL RECEIVE TWO COATS OF ASPHALT EMULSION WATERPROOFING IN ACCORDANCE WITH SECTION 503.18 OF THE STANDARD SPECIFICATIONS.

DRAINAGE STRUCTURE PRECAST CONCRETE MANHOLE:

1. DRAINAGE STRUCTURES SHALL BE PRECAST REINFORCED CONCRETE MANHOLES CONFORMING TO SECTION 1042 OF THE STANDARD SPECIFICATIONS. STRUCTURES SHALL BE WATER TIGHT. THE PRECAST CONCRETE MANHOLE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
2. THE EXTERIOR AND BOTTOM OF THE BASE OF THE STRUCTURES SHALL RECEIVE TWO COATS OF ASPHALT EMULSION WATERPROOFING IN ACCORDANCE WITH SECTION 503.18 OF THE STANDARD SPECIFICATIONS.
3. THE DRAINAGE STRUCTURE SECTIONS SHALL BE A MINIMUM OF 4-FT TALL WITH THE EXCEPTION OF THE FINAL SECTION. EACH SECTION SHALL BE SEALED WITH TWO (2) STRIPS OF BUTYL RUBBER SEALANT. JOINTS IN THE BUTYL RUBBER SEALANT SHALL BE OVERLAPPED TO PREVENT GAPS.
4. THE ANNULAR SPACE BETWEEN THE STRUCTURE AND THE DRILLED SHAFT SHALL BE FILLED WITH NON-SHRINK GROUT. THE GROUT SHALL BE INSTALLED AFTER EACH BARREL SECTION IS INSTALLED FROM ELEVATION 566.77 TO 593.60. FROM ELEVATION 593.60 TO THE SURFACE, THE ANNULAR SPACE BETWEEN THE MANHOLE AND DRILLED SHAFT SHALL BE FILLED WITH CONTROLLED LOW STRENGTH MATERIAL OR NON-SHRINK GROUT.
5. THE CONTRACTOR SHALL SUBMIT A DETAILED PLAN FOR INSTALLING THE GROUT AND DRAINAGE STRUCTURES TO THE ENGINEER FOR APPROVAL BEFORE COMMENCING THE WORK. THE PLAN SHALL ADDRESS THE INSTALLATION METHOD AND BOUYANCY ISSUES DURING INSTALLATION. THIS APPROVAL WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR GROUTING AND INSTALLING THE DRAINAGE STRUCTURE.
6. IF GROUNDWATER IS PRESENT BETWEEN THE STRUCTURE AND THE DRILLED SHAFT, THE CONTRACTOR SHALL USE A GROUT FORMULATED FOR CURING UNDER WATER AND SHALL INSTALL THE GROUT FROM THE BOTTOM-UP USING A TREMIE OR PUMP.
7. THE NON-SHRINK GROUT SHALL CONFORM TO ASTM C-1107 AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI AFTER 28 DAYS. THE ADDITION OF AGGREGATE TO THE PREPACKAGED PRODUCT WILL BE PERMITTED AND SHALL BE ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS. IN LIEU OF NON-SHRINK GROUT AROUND THE DRAINAGE STRUCTURE, THE CONTRACTOR MAY USE CLASS DS CONCRETE WITH 8-10 INCH SLUMP AT POINT OF PLACEMENT.

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

SPRINGFIELD RAIL IMPROVEMENTS PROJECT SPRINGFIELD, SANGAMON COUNTY, ILLINOIS PUMP STATION NO.2 - SOUTH GRAND - GENERAL NOTES - 1			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			*	19-00488-00-BR	SANGAMON	347	165
			09L0179B		CONTRACT NO. 93747		
SCALE:	SHEET 1 OF 7 SHEETS	STA.	TO STA.		* 7985A & 8132	ILLINOIS	FED. AID PROJECT

CL VALVE VAULT
 STA. 47799+04.54, 156.22 FT LT (UPRR MAIN 1)
 PROPOSED LID ELEV. = 603.30
 N = 1136906.6477
 E = 2444026.2342

CL DRAINAGE STRUCTURES, NO. 2
 STA. 47799+16.80, 156.68 FT LT (UPRR MAIN 1)
 PROPOSED LID ELEV. = 603.30
 N = 1136894.1531
 E = 2444026.0551

ELECTRIC PANEL, CENTER BACK AT
 STA. 47799+28.69, 157.12 FT LT (UPRR MAIN 1)
 N = 1136882.0252
 E = 2444025.8557

STORM SEWER, CLASS A, TY 2,
 24" FROM STRUCTURE [S104]
 TO DRAINAGE STRUCTURES, NO. 2

SUNSHIELD SHELTER WITH CONTROL PANEL SUPPORTS, SEE
 DETAIL ON SHEET PUMP STATION NO.2-SOUTH GRAND-PRC DETAIL-4

SITE LIGHT POLE,
 SEE LIGHTING PLANS

PUMP STATION ACCESS ROAD
 SEE PAVED ACCESS TO
 SGA PUMP STATION

10" FORCEMAIN - PAY ITEM WATERMAIN 10",
 BEGINS 5 FT OUTSIDE OF VALVE VAULT.
 SEE PLAN AND PROFILE - TRACK 3, FOR
 CONTINUATION (NOTE: PLAN AND PROFILE -
 TRACK 3 IS REFERENCED AS "PLAN AND
 PROFILE TRACK" IN INDEX OF SHEETS -
 VOLUME 1)

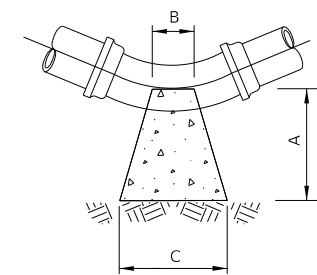
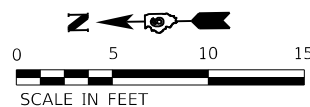
1/2" PJF
 ALL SIDES

NOTE 6

RAILROAD ACCESS ROAD

PROPOSED ROW

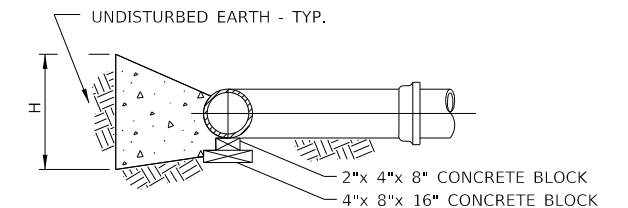
PUMP STATION NO. 2 – SITE PLAN



BENDS

PLAN - NOT TO SCALE

HORIZONTAL THRUST BLOCKING



TYPICAL SECTION

NOT TO SCALE

NOTES:

- SEE SHEET PUMP STATION NO.2-SOUTH GRAND-PRC DETAIL-4 FOR SECTION A-A.
SEE SHEET PUMP STATION NO. 2-SOUTH GRAND-MECHANICAL LAYOUT-3 FOR SECTION B-B.
- CONTRACTOR SHALL VERIFY THE DEPTH OF THE DISCHARGE PIPE.
- PROVIDE THRUST BLOCKING AT ALL BENDS IN FORCE MAIN.
THE COST OF PROVIDING THRUST BLOCKS INCLUDED WITH
THE FORCE MAIN PAY ITEM WATER MAIN 10".
- TRENCH BACKFILL SHALL BE USED FOR THE 10" FORCE MAIN
WHERE THERE IS PAVEMENT.
- EXISTING UTILITY CONFLICTS - SEE GENERAL NOTES & REMOVAL
PLANS FOR INFORMATION REGARDING ADJUSTMENTS AND REMOVAL LIMITS.
- SEE SHEET TRACK FENCING & ACCESS PLAN-8.

PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6"

POINT	NORTHING	EASTING	ELEVATION
(S1)	1136914.9874	2444037.7681	602.81
(S2)	1136876.9913	2444037.2237	603.27
(S3)	1136877.3184	2444014.3960	603.27
(S4)	1136915.3145	2444014.9405	602.81

THRUST BLOCK DIMENSIONS (INCHES)

PIPE DIAMETER INCHES	ALL FTGS.		90 DEGREE BEND		45 DEGREE BEND		22-1/2 DEGREE BEND		11-1/4 DEGREE BEND	
	A	B	C	H	C	H	C	H	C	H
10	20	10	21	18	20	14	12	12	10	10

DIMENSIONS (INCHES) BASED ON 60 PSI WORKING PRESSURE
 AND 1500 PSF ALLOWABLE SOIL BEARING PRESSURE.
 DIMENSIONS MAY BE REDUCED IF CONTRACTOR FURNISHES
 SOIL TESTING RESULTS DEMONSTRATING HIGHER ALLOWABLE
 SOIL BEARING PRESSURE.

FINAL

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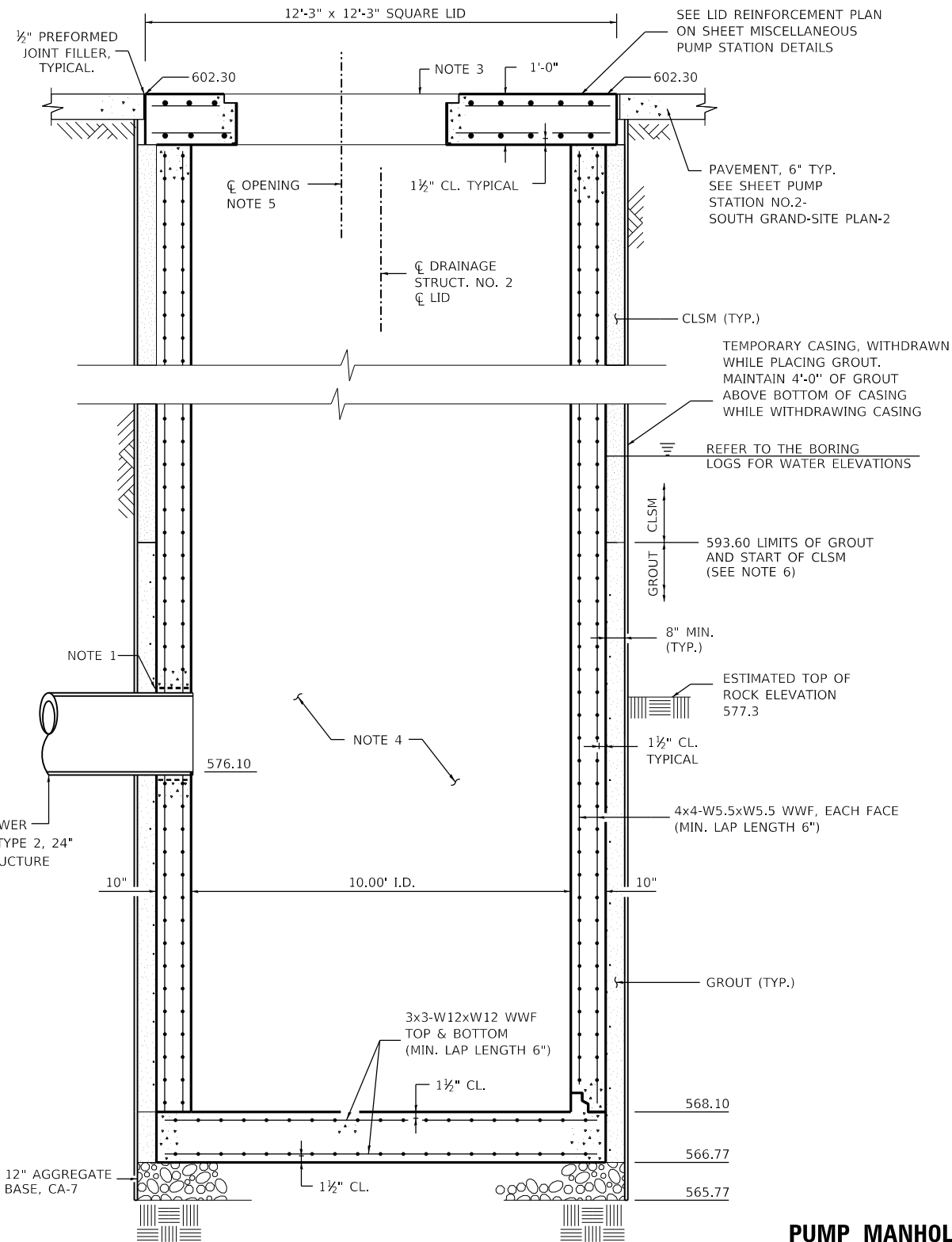
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
 SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
 PUMP STATION NO.2 – SOUTH GRAND – SITE PLAN – 2

SCALE: SHEET 2 OF 7 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	166
	09L0179B			CONTRACT NO. 93747
# 7985A & 8133	ILLINOIS	FED. AID PROJECT		

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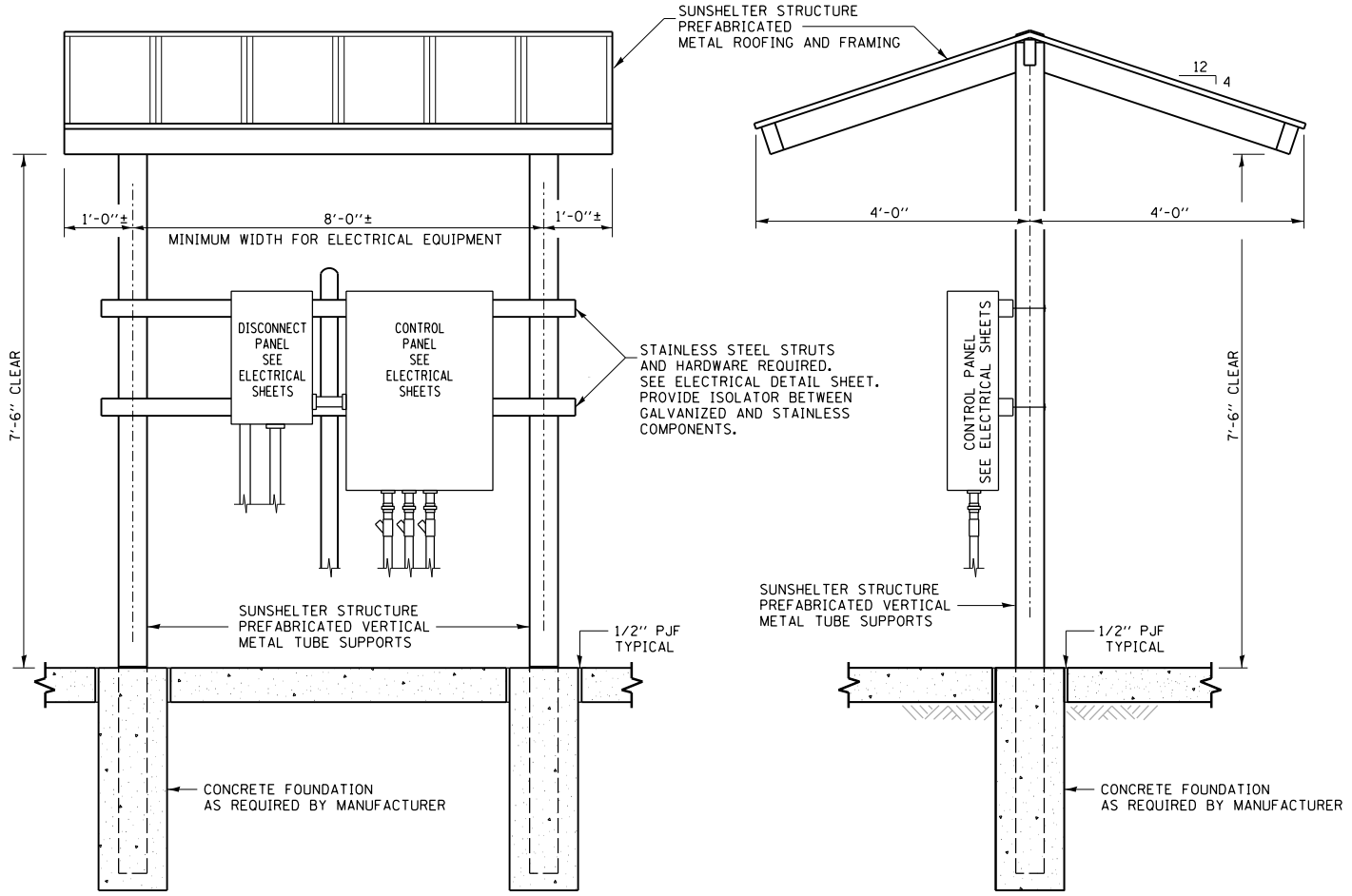


SECTION A-A

NOT TO SCALE

**PUMP MANHOLE
DRAINAGE STRUCTURES, NO. 2**

PRECAST REINFORCED CONCRETE MANHOLE SECTIONS



FRONT VIEW ELEVATION

SIDE VIEW ELEVATION

NOTE:
 ALL FABRICATED STEEL COMPONENTS SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION
 UNLESS NOTED OTHERWISE. ALL FASTENERS SHALL BE GALVANIZED STEEL.

TYPICAL SUNSHELTER STRUCTURE WITH CONTROL PANEL SUPPORTS

NOT TO SCALE

PUMP MANHOLE NOTES

1. GROUT TYPICAL, SEE DETAIL ON SHEET PUMP STATION NO. 2-SOUTH GRAND-MECHANICAL LAYOUT-3.
2. NOT USED.
3. CUSTOM HATCH SYSTEM. SEE MISCELLANEOUS PUMP STATION DETAILS SHEET.
4. PUMPS AND PIPING REMOVED FOR CLARITY.
5. LOCATION OF THE HATCH & HINGED SIDE OF THE HATCH TO BE COORDINATED WITH THE PUMP MANUFACTURER.
6. GROUT SHALL BE PLACED BETWEEN DRAINAGE STRUCTURES, NO. 2 AND THE TEMPORARY CASING.

FINAL



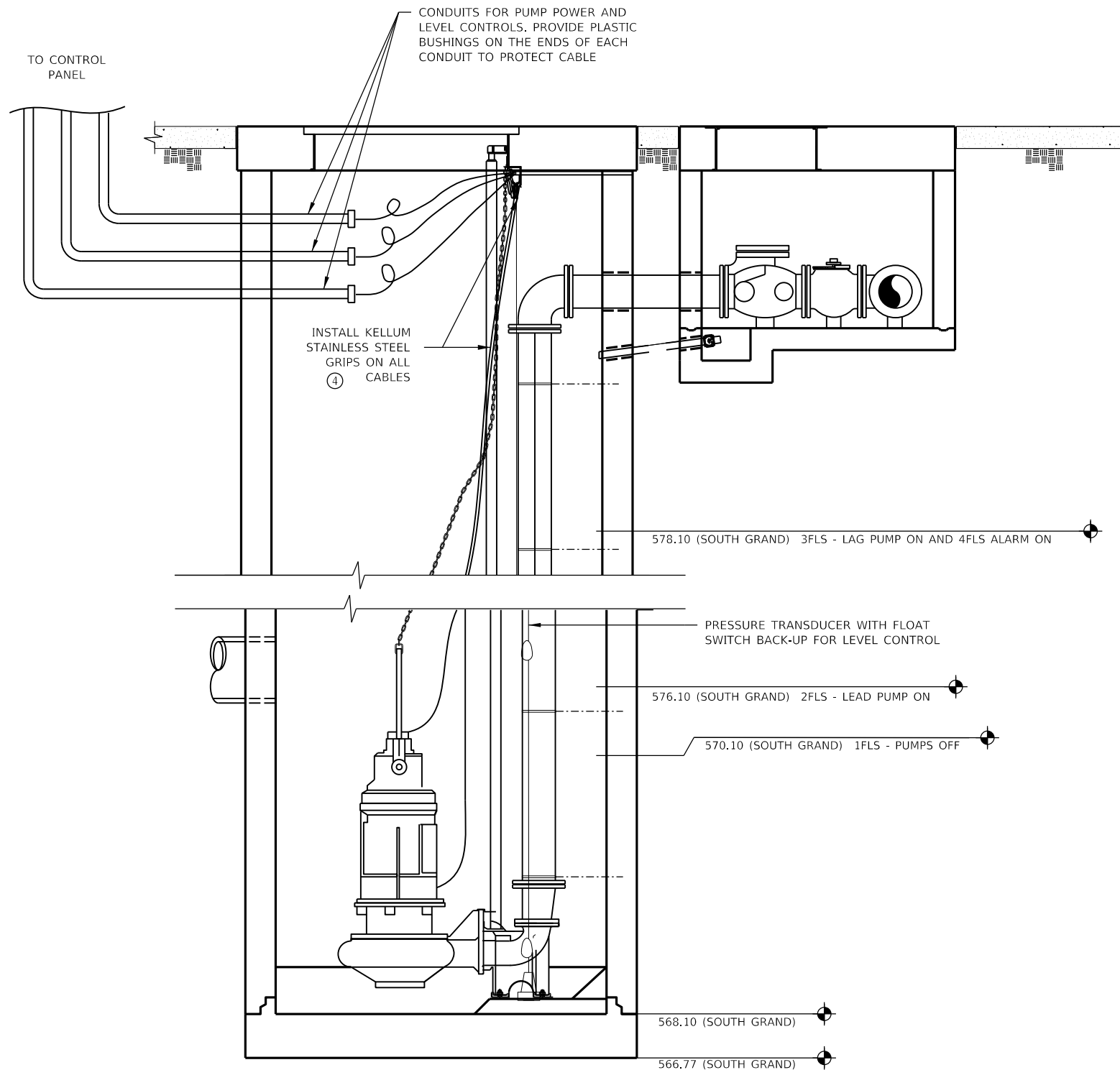
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION NO.2 - SOUTH GRAND - PRC DETAIL - 4**

SCALE: SHEET 4 OF 7 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	168
	09L0179B			CONTRACT NO. 93747
# 7985A & 8135	ILLINOIS	FED. AID PROJECT		



ELECTRICAL ELEVATION
NOT TO SCALE

NOTES:

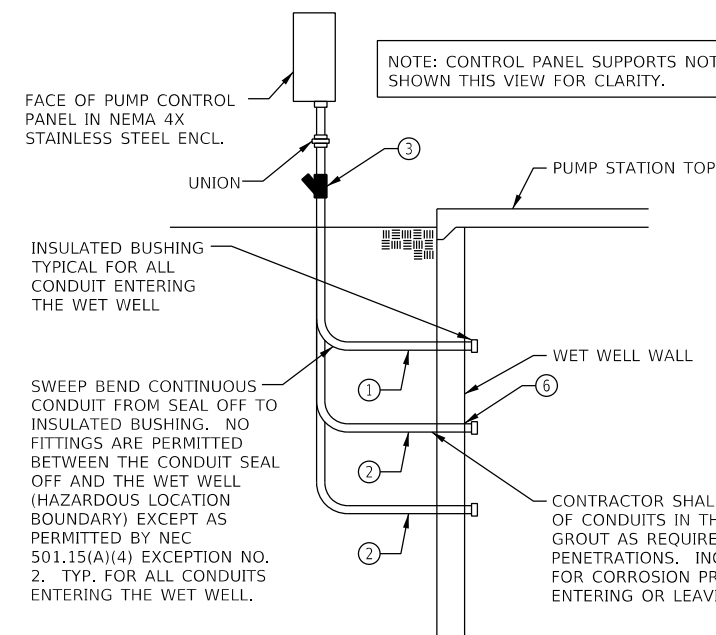
1. SHAFT SEAL FAILURE INSPECTION SHALL BE PART OF THE PUMPS ROUTINE MAINTENANCE.
2. THE PUMP CONTROLS SHALL INCORPORATE AN ALTERNATING RELAY TO EQUALIZE PUMP WEAR AND AUTOMATICALLY PROVIDE A STAND-BY.
3. VERIFY LEVEL SWITCH ELEVATIONS AND CABLE HANGAR LOCATIONS WITH ENGINEER AND PUMP MANUFACTURER REPRESENTATIVE.

GENERAL NOTES:

1. ALL ELECTRICAL EQUIPMENT INSTALLED IN THE WET WELL SHALL BE SUITABLE FOR USE IN CLASS I, DIV. 1, GROUP D HAZARDOUS LOCATION AND SHALL CONFORM TO THE APPLICABLE SECTIONS OF NEC ARTICLES 500, 501, & 504 AS WELL AS ALL LOCAL CODES, ORDINANCES AND REQUIREMENTS.
2. ALL ELECTRICAL EQUIPMENT INSTALLED IN THE VALVE VAULT SHALL BE SUITABLE FOR USE IN CLASS I, DIVISION 2, GROUP D HAZARDOUS LOCATION AND SHALL CONFORM TO THE APPLICABLE SECTIONS OF NEC ARTICLES 500, 501, & 504 AS WELL AS ALL LOCAL CODES, ORDINANCES, AND REQUIREMENTS.
3. CONTRACTOR SHALL COORDINATE INSTALLATION OF ELECTRICAL EQUIPMENT, AND WORK WITH RESPECT TO PLUMBING, MECHANICAL, CONCRETE, EXCAVATION AND ALL OTHER WORK. COORDINATE THE INSTALLATION OF CONDUITS INTO THE WET WELL. USE NON-SHRINK GROUT AS REQUIRED TO SEAL CONDUIT PENETRATIONS.
4. ALL CONDUIT TERMINATIONS & OPENINGS IN ENCLOSURES SHALL BE SEALED WITH DUCT SEAL OR EQUAL.
5. LEVEL SENSING PRESSURE TRANSDUCER & BACK-UP FLOATS SHALL HAVE AN FM LISTED OR UL LISTED INTRINSICALLY SAFE BARRIER (SWITCHING AMPLIFIER) SUPPLIED FOR UNIT. INTRINSICALLY SAFE WIRING SHALL HAVE LIGHT BLUE COLORED INSULATION AND KEPT PHYSICALLY ISOLATED FROM OTHER CONDUCTORS. INTRINSICALLY SAFE WIRING AND EQUIPMENT SHALL BE INSTALLED PER ANS/ISA RP12.6, UL 698A, AND NEC 504. CONDUITS WITH INTRINSICALLY SAFE WIRING SHALL TERMINATE IN THE CONTROL PANEL AT THE INTRINSICALLY SAFE WIRING SECTION.
6. METAL CONDUIT IN DIRECT CONTACT WITH EARTH OR CONCRETE SHALL BE PVC COATED FOR CORROSION PROTECTION.
7. ALL CONDUIT ENTRANCES INTO THE SERVICE BREAKER, PUMP CONTROL PANEL AND ANY OTHER NEMA 4 ENCLOSURES SHALL HAVE WATER TIGHT THREADED HUBS, UL LISTED NEMA 4, 4X FOR RESPECTIVE ENCLOSURE.
8. ALL BUSHINGS, HUBS, & FITTINGS BETWEEN CONDUITS OF DISSIMILAR METALS AND/OR BETWEEN CONDUITS AND ENCLOSURES OF A DISSIMILAR METAL SHALL BE SUITABLE FOR SUCH APPLICATIONS TO ELIMINATE THE POSSIBILITY OF GALVANIC ACTION.

SHEET LEGEND:

- ① MULTI-CONDUCTOR LIQUID LEVEL SENSING CABLE (WITH MAXIMUM DIAMETER OF 5/8") IN 2" PVC COATED RIGID ALUMINUM CONDUIT. CONDUIT SHALL BE SIZED FOR 25% MAXIMUM FILL TO CONFORM TO EXPLOSION PROOF CONDUIT SEAL REQUIREMENTS. ADJUST (ENLARGE) AS REQUIRED.
- ② SUBMERSIBLE PUMP MOTOR CABLE IN 3" PVC COATED RIGID ALUMINUM CONDUIT. CONDUIT SHALL BE SIZED FOR 25% MAXIMUM FILL TO CONFORM TO EXPLOSION PROOF CONDUIT SEAL REQUIREMENTS. ADJUST (ENLARGE) AS REQUIRED.
- ③ EXPLOSION PROOF CONDUIT SEAL SUITABLE FOR CLASS I, DIVISION 1, GROUP D HAZARDOUS LOCATION, REQUIRED FOR ALL CONDUITS ENTERING OR LEAVING THE WET WELL OR VALVE VAULT INSTALLED IN CONFORMANCE WITH NEC 501 & MANUFACTURER'S DIRECTIONS. NOTE CONDUIT SEALS SHALL BE SIZED AS REQUIRED FOR THE RESPECTIVE CABLE FILL. CABLE FILL SHALL NOT EXCEED 25% FOR CONDUIT SEAL APPLICATION. CONDUIT SEALS SHALL BE THE FIRST FITTING AFTER THE CONDUIT LEAVES THE WET WELL AND EMERGES FROM GRADE & THE FIRST FITTING AFTER CONDUIT ENTERS THE VALVE VAULT.
- ④ HEAVY DUTY STAINLESS STEEL CABLE RACK ADEQUATELY SIZED FOR THE RESPECTIVE PUMP & LEVEL CABLES OR HEAVY DUTY NYLON SADDLE RACKS (CABLE HANGAR WITH 3" THROAT OPENING), UNDERGROUND DEVICES CAT. NO. 3SR1. MOUNT AT IMMEDIATELY INSIDE ACCESS HATCH WITH STAINLESS STEEL STRUT SUPPORT & STAINLESS STEEL HARDWARE. PROVIDE SUFFICIENT RACKS FOR EACH PUMP CABLE & LEVEL CABLES. EACH PUMP MOTOR SHALL HAVE 10' MINIMUM SLACK CABLE TO ALLOW FOR FUTURE REMOVAL AND REINSTALLATION. LOOP SLACK CABLES AROUND SADDLE RACK AND SECURE WITH CABLE TIES.
- ⑤ SUBMERSIBLE PUMP CABLE BY PUMP MANUFACTURER. VERIFY EACH PUMP MOTOR HAS A MINIMUM OF 10 FEET OF SLACK CABLE. (2 TYP.)
- ⑥ CONDUIT HOLES SHALL BE CORED THROUGH THE STRUCTURE WALLS OR PREFORMED DURING CASTING.



CONDUIT ENTRANCE TO PUMP STATION
NOT TO SCALE

FINAL

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	DATE - 1/18/2021	REVISED -

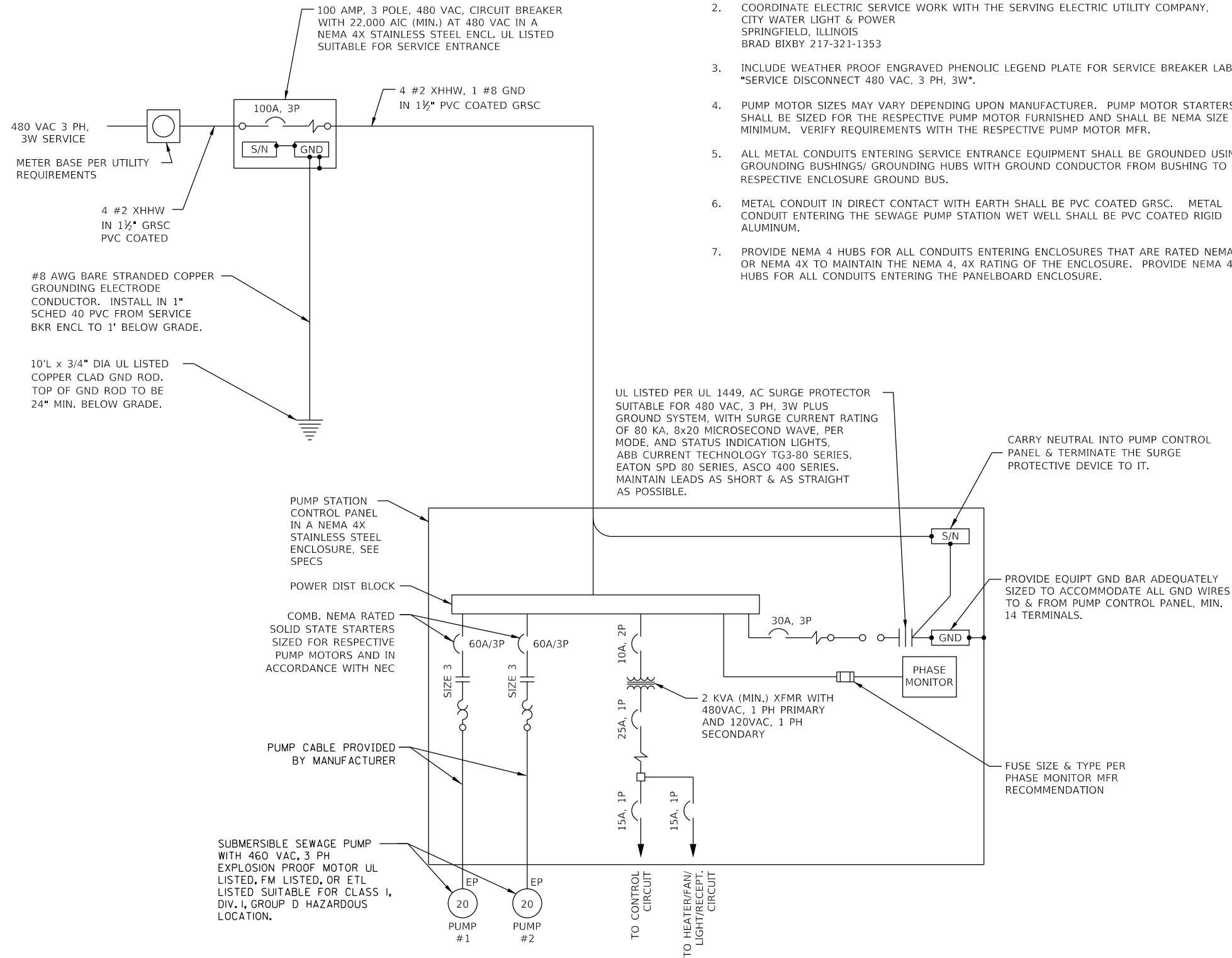
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION NO.2 - SOUTH GRAND - ELECTRICAL DETAILS - 5
SCALE: SHEET 5 OF 7 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	169
	09L0179B	CONTRACT NO.	93747	
* 7985A & 8136	ILLINOIS	FED. AID PROJECT		

NOTES:

- ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 (NEC MOST CURRENT ISSUE IN FORCE), THE RESPECTIVE EQUIPMENT MANUFACTURER'S DIRECTIONS AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES AND REQUIREMENTS IN FORCE. ANY INSTALLATIONS WHICH VOID THE U.L. LISTING, FM LISTING, ETL LISTING (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE SHALL NOT BE PERMITTED.
- COORDINATE ELECTRIC SERVICE WORK WITH THE SERVING ELECTRIC UTILITY COMPANY, CITY WATER LIGHT & POWER, SPRINGFIELD, ILLINOIS, BRAD BIXBY 217-321-1353
- INCLUDE WEATHER PROOF ENGRAVED PHENOLIC LEGEND PLATE FOR SERVICE BREAKER LABELED "SERVICE DISCONNECT 480 VAC, 3 PH, 3W".
- PUMP MOTOR SIZES MAY VARY DEPENDING UPON MANUFACTURER. PUMP MOTOR STARTERS SHALL BE SIZED FOR THE RESPECTIVE PUMP MOTOR FURNISHED AND SHALL BE NEMA SIZE 3 MINIMUM. VERIFY REQUIREMENTS WITH THE RESPECTIVE PUMP MOTOR MFR.
- ALL METAL CONDUITS ENTERING SERVICE ENTRANCE EQUIPMENT SHALL BE GROUNDED USING GROUNDING BUSHINGS/ GROUNDING HUBS WITH GROUND CONDUCTOR FROM BUSHING TO RESPECTIVE ENCLOSURE GROUND BUS.
- METAL CONDUIT IN DIRECT CONTACT WITH EARTH SHALL BE PVC COATED GRSC. METAL CONDUIT ENTERING THE SEWAGE PUMP STATION WET WELL SHALL BE PVC COATED RIGID ALUMINUM.
- PROVIDE NEMA 4 HUBS FOR ALL CONDUITS ENTERING ENCLOSURES THAT ARE RATED NEMA 4 OR NEMA 4X TO MAINTAIN THE NEMA 4, 4X RATING OF THE ENCLOSURE. PROVIDE NEMA 4 HUBS FOR ALL CONDUITS ENTERING THE PANELBOARD ENCLOSURE.



ONE-LINE LEGEND

- SURGE PROTECTOR/TVSS DEVICE
- ELECTRIC UTILITY SERVICE METER AND BASE
- CAPACITOR
- TRANSFORMER
- CABLE TERMINAL OR LUGS
- GENERATOR
- COMBINATION CIRCUIT BREAKER/STARTER WITH OVERLOAD PROTECTION. # = NEMA SIZE NO.
- GROUND - GROUND ROD, CHASSIS, BUS, OR AT EARTH POTENTIAL
- MOTOR
- EXPLOSION PROOF MOTOR
- MOTOR, # = HORSEPOWER
- CIRCUIT BREAKER
- ADJUSTABLE MOTOR CIRCUIT PROTECTOR TYPE BREAKER
- THERMAL-MAGNETIC CIRCUIT BREAKER
- FUSE
- DISCONNECT SWITCH
- FUSIBLE DISCONNECT SWITCH
- THERMAL OVERLOAD PROTECTION
- EXPLOSION PROOF CONDUIT SEAL-OFF FITTING
- TRANSFER SWITCH
- JUNCTION BOX WITH SPLICE
- GROUND BUS OR LUG
- NEUTRAL BUS
- PANELBOARD WITH MAIN BREAKER
- PANELBOARD WITH MAIN MAIN LUGS

PUMP STATION ELECTRICAL ONE LINE
NO SCALE

FINAL

MODEL: Sheet 1
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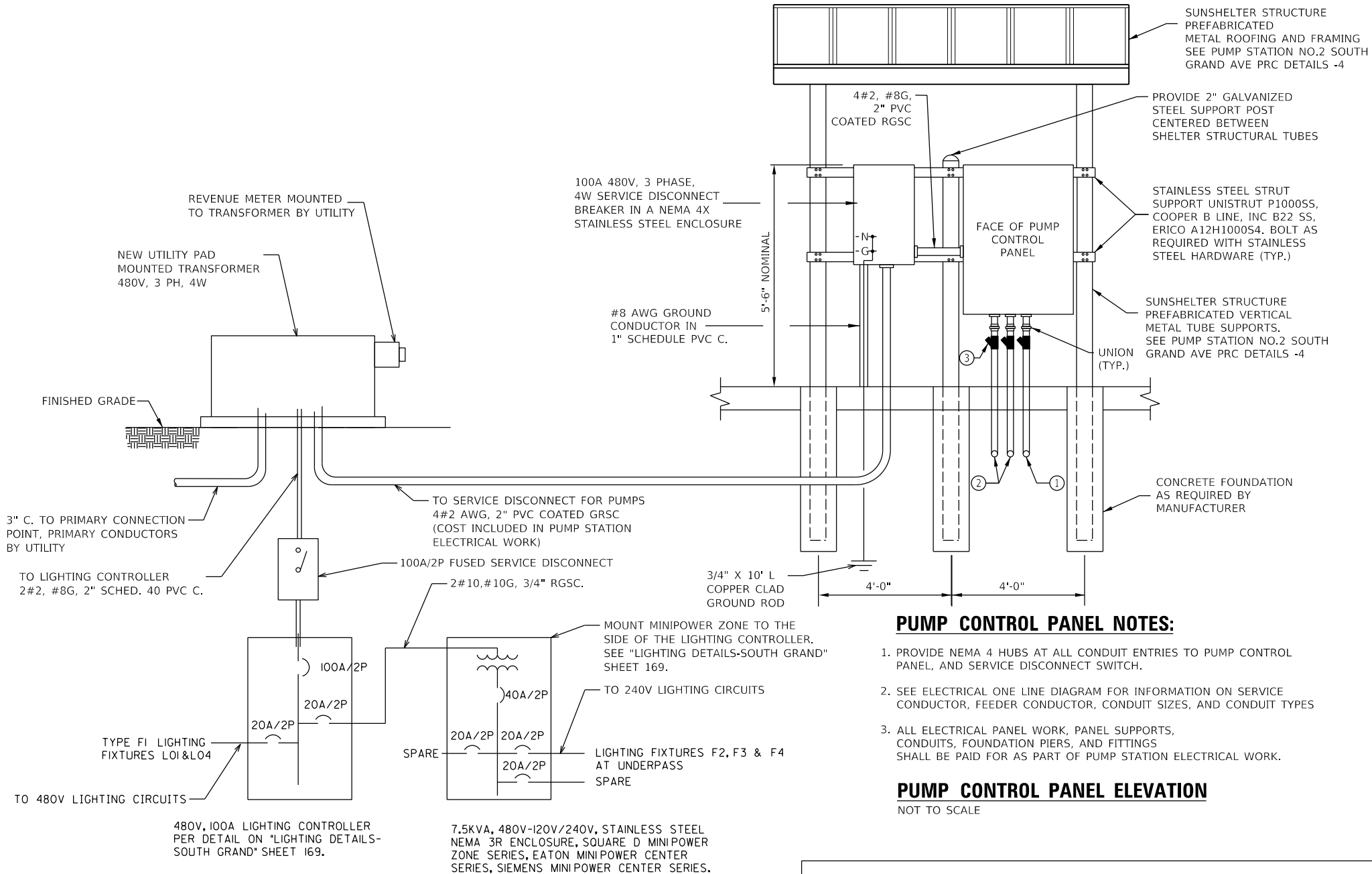
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION NO.2 - SOUTH GRAND - ELECTRICAL DETAILS - 6

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	170
	09L0179B			CONTRACT NO. 93747

SCALE: SHEET 6 OF 7 SHEETS STA. TO STA. # 7985A & 8137 ILLINOIS FED. AID PROJECT



SHEET LEGEND:

- ① MULTI-CONDUCTOR LEVEL PROBE CABLE (WITH MAXIMUM DIAMETER OF 5/8") IN 2" PVC COATED RIGID ALUMINUM. CONDUIT SHALL BE SIZED FOR 25% MAXIMUM FILL TO CONFORM TO EXPLOSION PROOF CONDUIT SEAL REQUIREMENTS. ADJUST (ENLARGE) AS REQUIRED.
- ② SUBMERSIBLE PUMP MOTOR CABLE IN 3" PVC COATED RIGID ALUMINUM. CONDUIT SHALL BE SIZED FOR 25% MAXIMUM FILL TO CONFORM TO EXPLOSION PROOF CONDUIT SEAL REQUIREMENTS. ADJUST (ENLARGE) AS REQUIRED.
- ③ EXPLOSION PROOF CONDUIT SEAL SUITABLE FOR CLASS I, DIVISION 1, GROUP D HAZARDOUS LOCATION, REQUIRED FOR ALL CONDUITS ENTERING OR LEAVING THE WET WELL OR VALVE VAULT INSTALLED IN CONFORMANCE WITH NEC 501 & MANUFACTURER'S DIRECTIONS. NOTE CONDUIT SEALS SHALL BE SIZED AS REQUIRED FOR THE RESPECTIVE CABLE FILL. CABLE FILL SHALL NOT EXCEED 25% FOR CONDUIT SEAL APPLICATION. CONDUIT SEALS SHALL BE THE FIRST FITTING AFTER THE CONDUIT LEAVES THE WET WELL AND EMERGES FROM GRADE & THE FIRST FITTING AFTER CONDUIT ENTERS THE VALVE VAULT.

PUMP CONTROL PANEL NOTES:

1. PROVIDE NEMA 4 HUBS AT ALL CONDUIT ENTRIES TO PUMP CONTROL PANEL, AND SERVICE DISCONNECT SWITCH.
2. SEE ELECTRICAL ONE LINE DIAGRAM FOR INFORMATION ON SERVICE CONDUCTOR, FEEDER CONDUCTOR, CONDUIT SIZES, AND CONDUIT TYPES
3. ALL ELECTRICAL PANEL WORK, PANEL SUPPORTS, CONDUITS, FOUNDATION PIERS, AND FITTINGS SHALL BE PAID FOR AS PART OF PUMP STATION ELECTRICAL WORK.

PUMP CONTROL PANEL ELEVATION

NOT TO SCALE

DEVICE	LEGEND PLATE LABELING	LETTER HEIGHT/COLOR
100A SERVICE BREAKER	SERVICE DISCONNECT 480 VAC, 3 PH, 4 W	1/4" BLACK LETTERING ON A WHITE BACKGROUND
PUMP CONTROL PANEL ENCLOSURE	PUMP STATION CONTROL PANEL 480 VAC, 3 PH, 4 W	1/4" WHITE LETTERING ON A RED BACKGROUND

LEGEND PLATE SCHEDULE NOTES:

1. LEGEND PLATES SHALL BE WEATHERPROOF, ABRASION RESISTANT, PHENOLIC ENGRAVED MATERIAL. LETTERING SHALL BE SIZED AS NOTED ABOVE. SECURE LEGNED PLATES TO EQUIPMENT WITH MACHINE SCREWS AND/OR RIVETS. CONTRACTOR SHALL FIELD VERIFY THAT THE RESPECTIVE LETTERING HEIGHT AND LEGENDS WILL FIT ON THE RESPECTIVE EQUIPMENT AND ADJUST LETTERING HEIGHT WHERE APPLICABLE. SEE SPECIFICATIONS FOR THE PUMP CONTROL PANEL FOR ADDITIONAL LEGEND PLATES REQUIRED FOR THAT PANEL.
2. FURNISH & INSTALL A WEATHERPROOF WARNING LABEL FOR EACH METER SOCKET, SERVICE DISCONNECT, PANELBOARD & CONTROL PANEL TO WARN PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS, PER THE REQUIREMENTS OF NEC 110.16 "FLASH PROTECTION". LABELS SHALL BE HAZARD COMMUNICATION SYSTEMS, LLC (190 OLD MILFORD RD., P.O. BOX 1174, MILFORD, PA 18337 PHONE: 1-887-748-0244) PART NO. H6010-9VWHBJ OR APPROVED EQUAL.

SERVICE NOTES:

1. CONTRACTOR SHALL VERIFY AND COORDINATE SERVICE ENTRANCE WORK WITH THE SERVING ELECTRIC UTILITY COMPANY.
2. ALL METAL CONDUITS TERMINATING IN SERVICE EQUIPMENT (METER BASE & SERVICE BREAKER) SHALL HAVE GROUND BUSHING TYPE HUBS WITH BONDING JUMPERS TO THE RESPECTIVE GND BUS.
3. SEE ELECTRICAL ONE-LINE DIAGRAM FOR CONDUIT & WIRE SIZES & TYPES.
4. UNLESS OTHERWISE NOTED, WORK SHOWN ON ELECTRIC SERVICE INSTALLATION DETAIL, INCLUDING COORDINATION WITH UTILITY COMPANY, SHALL BE PAID FOR AS ELECTRIC SERVICE INSTALLATION.

ELECTRIC SERVICE INSTALLATION DETAIL

NOT TO SCALE

FINAL

MODEL: Sheet 1
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	DRAWN - MQC	REVISED -
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PLOT DATE = 1/18/2021	DATE - 1/18/2021	REVISED -

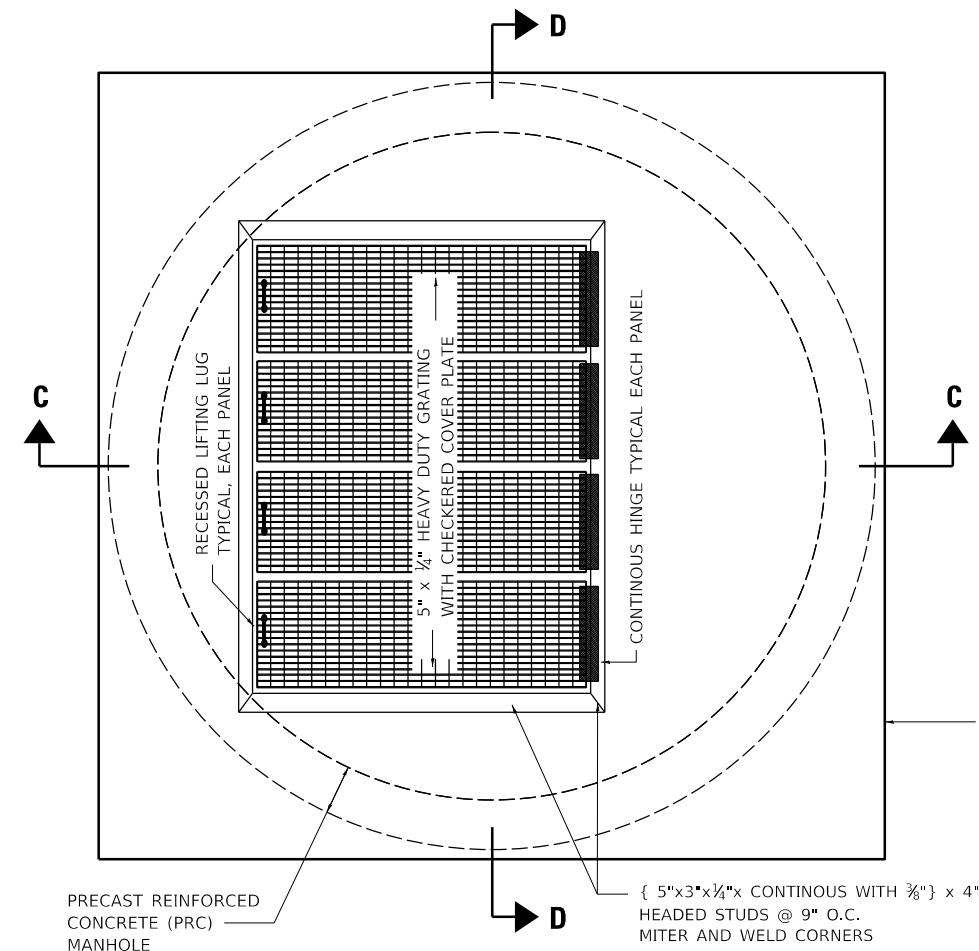
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION NO.2 - SOUTH GRAND - ELECTRICAL DETAILS - 7

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	171
	09L0179B			CONTRACT NO. 93747
# 7985A & 8138	ILLINOIS	FED. AID PROJECT		

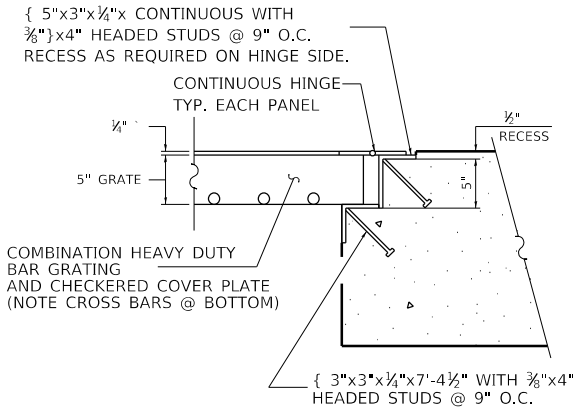
SCALE: SHEET 7 OF 7 SHEETS STA. TO STA.

MODEL: Sheet 1
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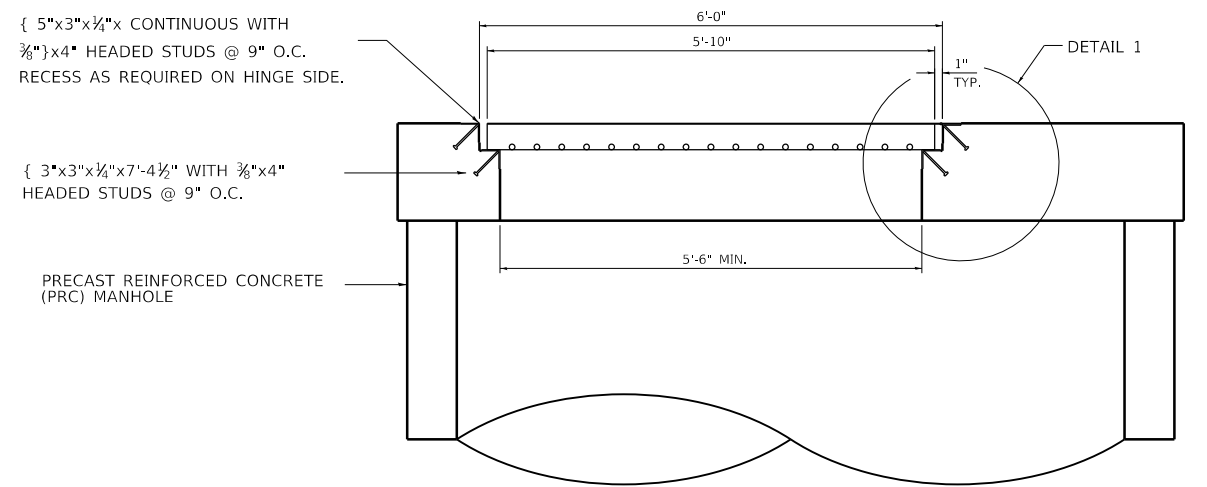


DRAINAGE STRUCTURES, NO. 2

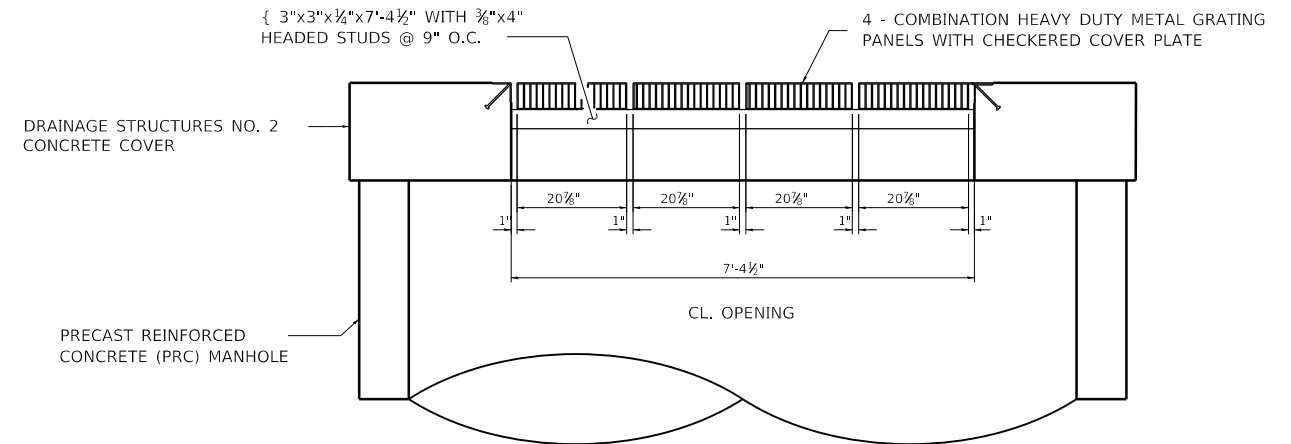
PLAN
 NOT TO SCALE
 SEE SITE PLANS FOR ORIENTATION



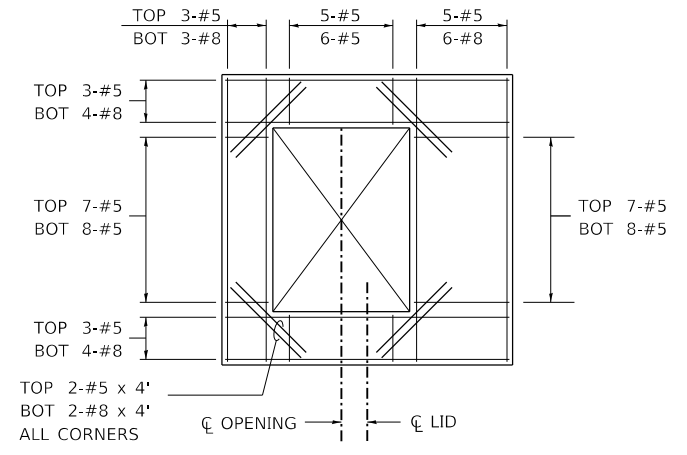
DETAIL 1



SECTION C-C
 NOT TO SCALE



SECTION D-D
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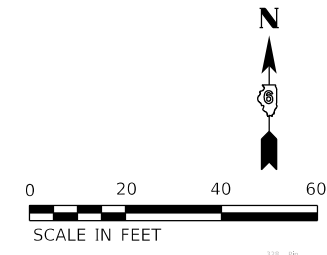
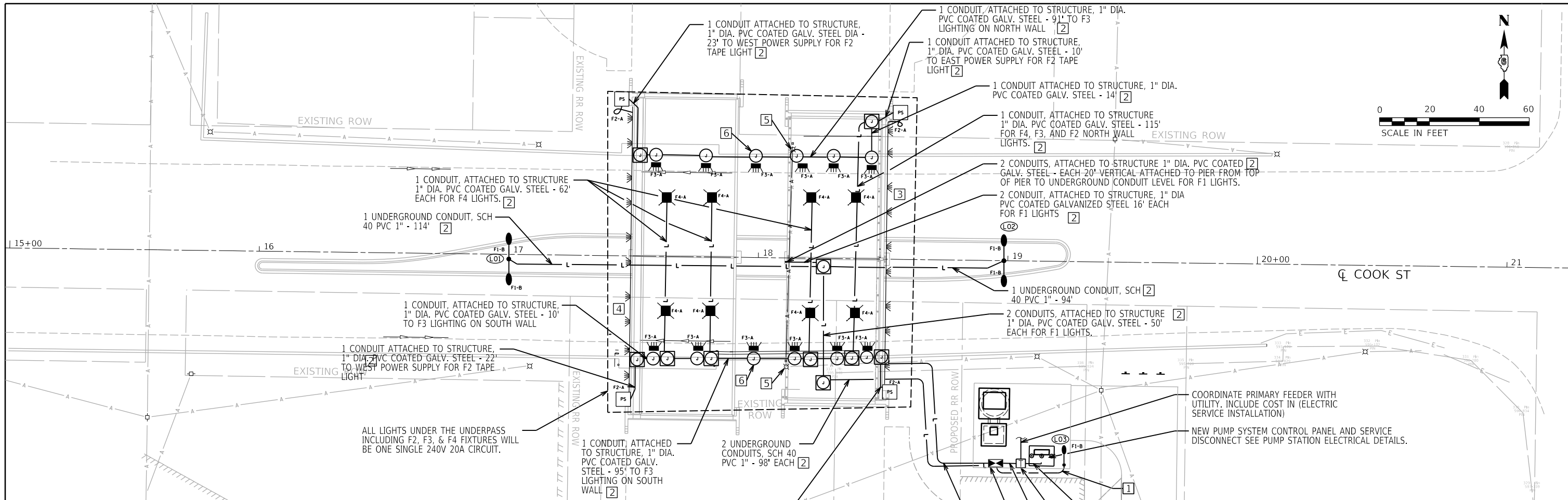


NOTE: 1 1/2" CLEAR COVER ON ALL REINFORCEMENT
DRAINAGE STRUCTURES, NO. 2
LID REINFORCING PLAN
 NOT TO SCALE

DRAINAGE STRUCTURES, NO. 2 GRATING COVER NOTES:

1. LOADING: LIVE LOAD= AASHTO HL-93 TRUCK LOAD AND ALTERNATE TANDEM LOAD.
2. COMBINATION HEAVY DUTY WELDED STEEL W-SERIES GRATING AND WELDED 1/4" CHECKERED COVERED PLATE.
3. 22-W-4 GRATING; 5" X 1/4" PLAIN BEARING BARS @ 1 3/8" O.C. AND CROSS BARS @ 4" O.C.
4. GALVANIZED FINISH FOR GRATING, PLATE, ANGLES AND ACCESSORIES.
5. STEEL PLATE, BAR, AND ANGLES: AASHTO M270/ASTM A709, GRADE 36.
6. HEADED STUDS: AASHTO M169/ASTM A108, GRADE 1015, 1018, OR 1020 AUTOMATIC END WELDED TO BASE METAL.
7. WELD METAL: AWS D1.5
8. PROVIDE LIFTING LUG AND HINGE CONNECTION AT OPPOSITE ENDS OF EACH PANEL PER GRATING MANUFACTURERS STANDARD DETAILS CAPABLE OF SUPPORTING THE WEIGHT OF THE COMBINATION GRATING AND COVER PLATE, AND CAPABLE OF OPENING 180°.
9. LOCATION AND ARRANGEMENT OF THE HATCH TO BE COORDINATED WITH THE PUMP MANUFACTURER

	USER NAME = Pop00275	DESIGNED - LJU	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SPRINGFIELD RAIL IMPROVEMENTS PROJECT SPRINGFIELD, SANGAMON COUNTY, ILLINOIS MISCELLANEOUS PUMP STATION DETAILS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE = 1/18/2021	DATE - 1/18/2021	REVISED -			09L0179B	CONTRACT NO. 93747			
					SCALE:	SHEET 1 OF 1 SHEETS	STA. TO STA.	# 7985A & 8139 ILLINOIS FED. AID PROJECT		



KEYED NOTES

- 1 UNIT DUCT, 600V, 2-1C NO. 10 1/C NO. 10 GROUND, (XLP-TYPE USE), 3/4" DIA POLYETHYLENE PAY ITEM #81603010
- 2 ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE), 3-1/C NO. 10 (TYP. WITHIN CONDUIT EMBEDDED IN STRUCTURE UNDERGROUND CONDUIT OR CONDUIT ATTACHED TO STRUCTURE) PAY ITEM #81702450
- 3 ELECTROLUMINESCENT LIGHT TAPE, MOUNTED ON FRONT SIDE OF STEEL SACRIFICIAL BEAM, SEE DETAILS. TYPE F2, TYPICAL.
- 4 ELECTROLUMINESCENT LIGHT TAPE, MOUNTED ON FRONT SIDE OF PRECAST FASCIA BEAM, SEE DETAILS, TYPE F2.
- 5 EXISTING LIGHT POLE, WIRE, AND CONDUIT TO BE REMOVED.
- 6 SEE COOK STREET RETAINING WALL PLANS FOR LOCATION OF F3 LIGHTS

FIXTURE REF. NO.	STATION	OFFSET
COOK ST		
L01	17+00.0	1.9' RT
L02	18+98.4	0.0' RT
L03	19+23.6	81.6' RT

- TO SERVICE DISCONNECT FOR PUMPS, 4-#4/0 AWG, 2 1/2" PVC COATED GRSC
- UTILITY TRANSFORMER WITH METER (ELECTRICAL SERVICE INSTALLATION)
- 2#2, #8 GND, IN 2" SCHEDULE 40 PVC.
- LIGHTING CONTROLLER 100 AMP, BASE MOUNTED, 480V WITH 7.5 KVA 480-240V MINI-POWER ZONE.
- 1 UNDERGROUND CONDUITS, SCH. 40 PVC, 1" DIA - 90'

LEGEND

- (L01) FIXTURE REFERENCE NUMBER
- ☛ LIGHT POLE
- ☛ LUMINAIRE, LED, UNDERPASS, WALLMOUNT, OUTPUT DESIGNATION C
- ☛ LUMINAIRE, LED, UNDERPASS, SUSPENDED, OUTPUT DESIGNATION B
- ☛ LUMINAIRE, DECORATIVE ELECTROLUMINESCENT LIGHT TAPE
- ⊙ JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6"x6"x4" (COST INCLUDED WITH LUMINAIRE). JUNCTION BOXES AT F-4 FIXTURES NOT SHOWN.
- ⊙ JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6"x6"x4" (COST INCLUDES VERTICAL CONDUIT TRANSITION FROM WALL OR ABUTMENT TO BEAM).
- PS POWER SUPPLY FOR ELECTROLUMINESCENT LIGHTING & 8"x4"x1 1/2" JUNCTION BOX, SEE LIGHTING DETAILS
- HH HANDHOLE
- F1-A FIXTURE TYPE FOLLOWED BY THE CIRCUIT THE LIGHTING FIXTURE IS CONNECTED TO ON THE LIGHTING CONTROLLER.

FIXT. TYPE	DESCRIPTION	MANUFACTURER & CATALOG NO.	LAMPS/ WATTS	VOLTS	MOUNTING	REMARKS
F1	LED COBRA HEAD, SINGLE HEAD LIGHT FIXTURE, HEAVY DUTY CAST ALUMINUM HOUSING, DIE CAST ALUMINUM DOOR FRAME, TYPE II CUTOFF OPTICS, GRAY POLYESTER POWDER COAT FINISH, FUSED.	LUMARK RC LED ROADWAY SERIES OR APPROVED EQUIVALENT.	95 WATTS	480	POLE MOUNTED, MATCH IDOT STANDARD SHEET 830008-05.	FOR LUMARK FIXTURE PROVIDE 604 OPTION ON LIGHT BARS.
F2	CONTINUOUS ELECTROLUMINESCENT LIGHT TAPE - STANDARD DIMMING CAPABILITY, UV AND MOISTURE RESISTANT LENGTHS AS NOTED ON THE PLANS. HIGHLY VISIBLE THROUGH SMOKE AND FOG, PROFILE TO BE THINNER THAN A CREDIT CARD, 0.25" CLEAR BARRIER ENCAPSULATED ENVELOPING ALL 4 SIDES OF THE LIGHT ENGINE, 40,000 HOUR EXPECTED LIFE, 3 BRIGHTNESS SETTINGS.	ELECTRO-LUMINIX LIGHTING LT-200- EXTERIOR-CLASSIC NATURAL BLUE-LENGTH AS SHOWN ON THE PLANS OR APPROVED EQUIVALENT	8 WATTS PER FOOT	240	MOUNT TO THE FRONT EDGE OF THE OVERPASS ON BOTH THE EAST AND WEST SIDES. SEE LIGHTING DETAILS FOR SPECIFIC LOCATIONS.	PROVIDE ALL REQUIRED POWER SUPPLIES IN A NEMA 4X JUNCTION BOX. PROVIDE ALL REQUIRED END CAPS AND SPLICE KITS AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
F3	LED SURFACE LIGHTING FIXTURE, BACK BOX ALUMINUM HOUSING WITH CONTOURED EDGES, IMPACT RESISTANT, TEMPERED GLASS LENS FULLY GASKETED WITH ONEPIECE TUBULAR SILICONE, 530mA SOLID STATE DRIVER, 4000K COLOR, WITH A LIGHT ENGINE CONTAINING 20 LEDES AND TYPE 3 DISTRIBUTION.	LITHONIA DS5XW1-20C-530, 4000K COLOR, R3 OR APPROVED EQUIVALENT	35 WATT LEDES	240	SURFACE MOUNT TO RETAINING WALL	SEE LIGHTING PLAN DETAILS FOR INSTALLATION DETAILS
F4	LED SURFACE LIGHTING FIXTURE, ALUMINUM HOUSING WITH CONTOURED EDGES, IMPACT RESISTANT, TEMPERED GLASS LENS FULLY GASKETED WITH ONEPIECE TUBULAR SILICONE, 530mA SOLID STATE DRIVER, 4000K COLOR, WITH A LIGHT ENGINE CONTAINING 20 LEDES AND TYPE 5 DISTRIBUTION.	LITHONIA DS5XPG LED, 4000K COLOR, 20C 350, 40K T5W MV0H	25 WATT LEDES	240	SUSPENDED MOUNTING, SEE LIGHTING PLAN DETAILS	SEE LIGHTING PLAN DETAILS FOR INSTALLATION DETAILS

FINAL

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DRAWN - JFC	REVISIONS -	
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PLOT DATE = 1/18/2021	DATE - 1/18/2021	REVISIONS -

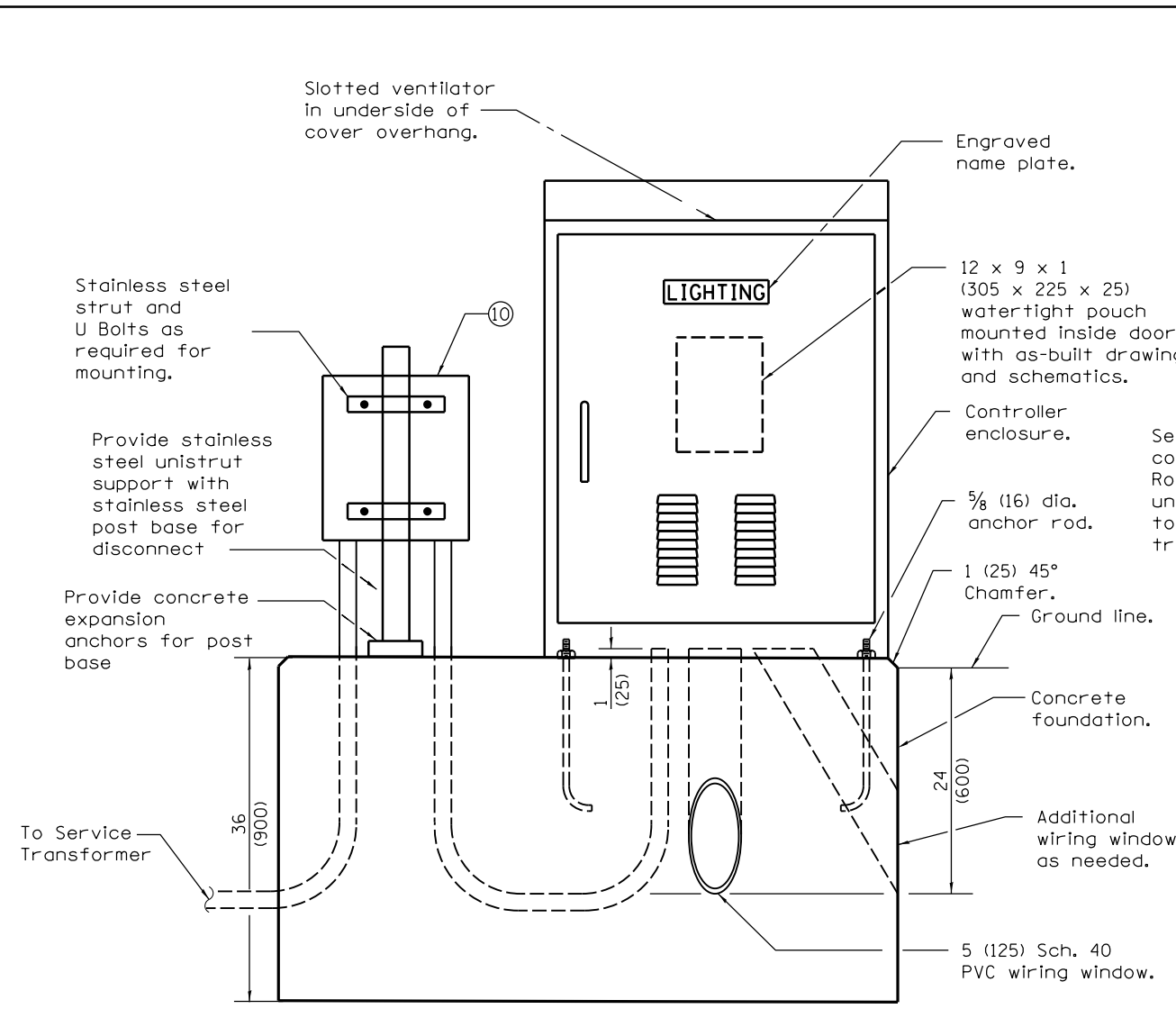
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
LIGHTING PLAN - COOK STREET**

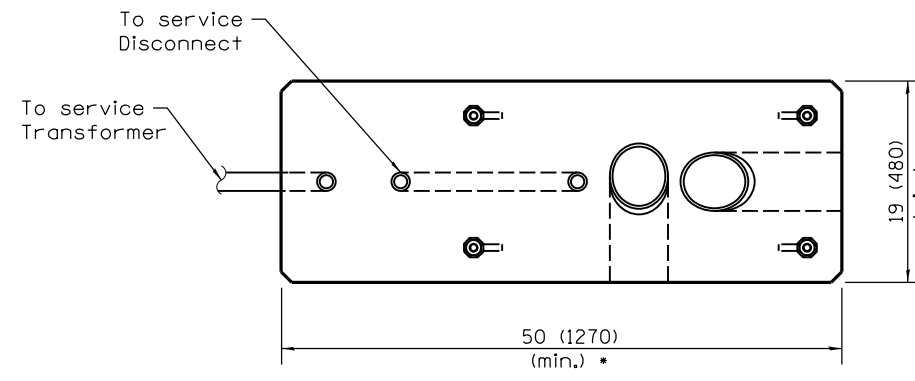
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	173
	09L0179B	CONTRACT NO.	93747	
# 7985A & 8140	ILLINOIS	FED. AID PROJECT		

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

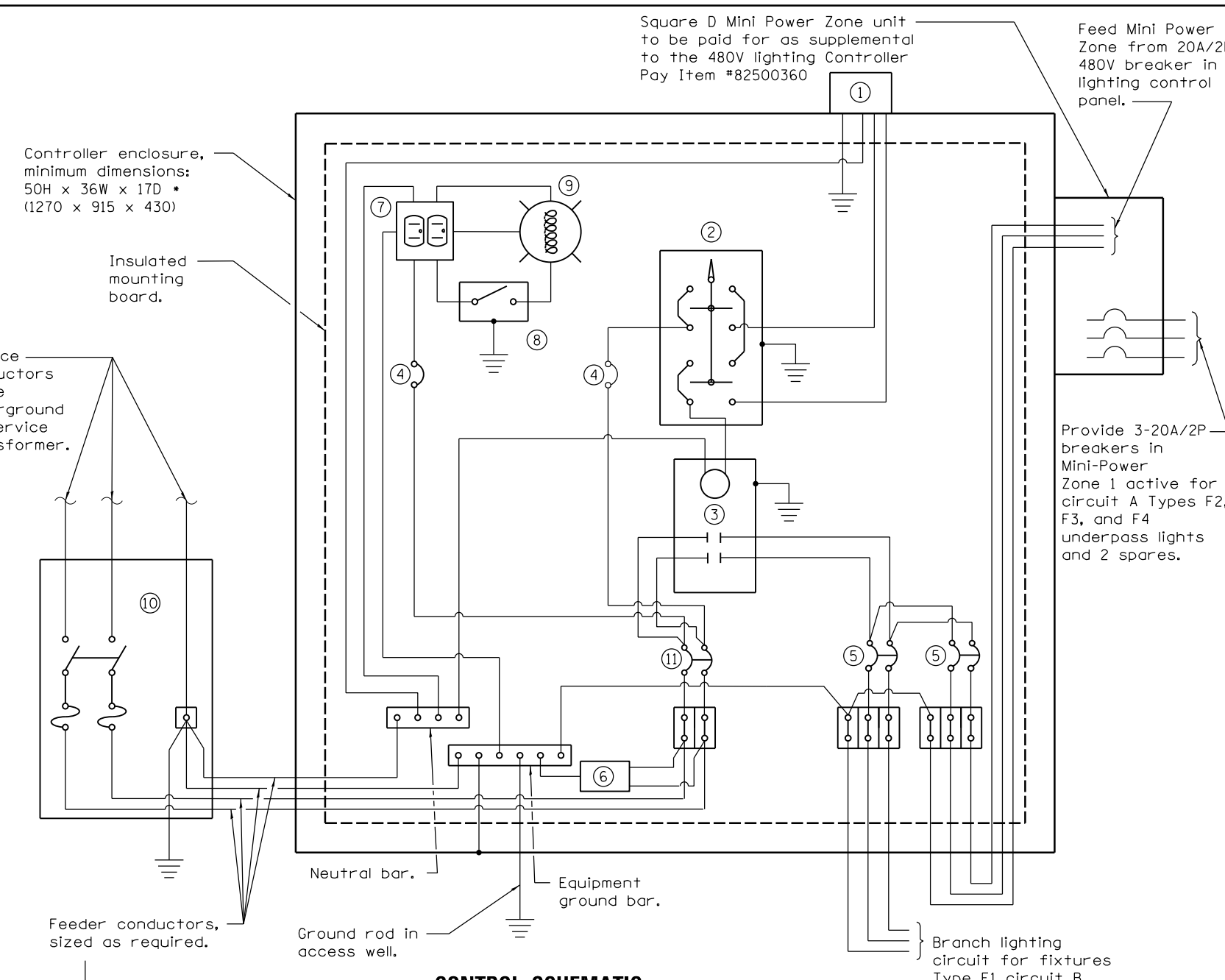
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LIGHTING CONTROLLER



FOUNDATION (PLAN)
(Work pad not shown.)

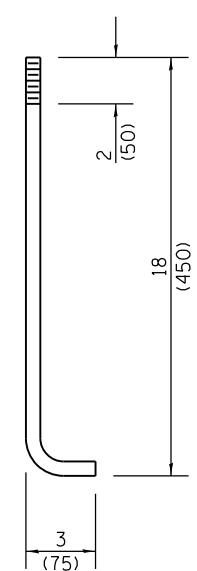


CONTROL SCHEMATIC

- ① Photocell with integral surge arrester.
- ② HAND-OFF-AUTO selector switch.
- ③ 100 amp*, electrically held contactor.
- ④ 15 amp, 1-pole circuit breaker.
- ⑤ 20 amp*, 2-pole circuit breaker (two spares required but not shown).
- ⑥ Surge arrester.
- ⑦ GFCI duplex receptacle.
- ⑧ Single-pole, single-throw switch.
- ⑨ Incandescent luminaire, enclosed and gasketed with 100 watt lamp.
- ⑩ Service disconnect switch - 2-pole, 3-wire, 100 amp*, fused at 100 amp*, solid neutral in NEMA 4X enclosure having lockable external handle.
- ⑪ 100 amp*, 2-pole circuit breaker.
- ⑫ Terminal block sized for conductors as shown on plans.

* Size larger as needed.

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



ANCHOR ROD DETAIL

FINAL



USER NAME = Pop00275	DESIGNED - JFC	REVISED -
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PLOT SCALE = 0.17' / 1in.	CHECKED - RDN	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

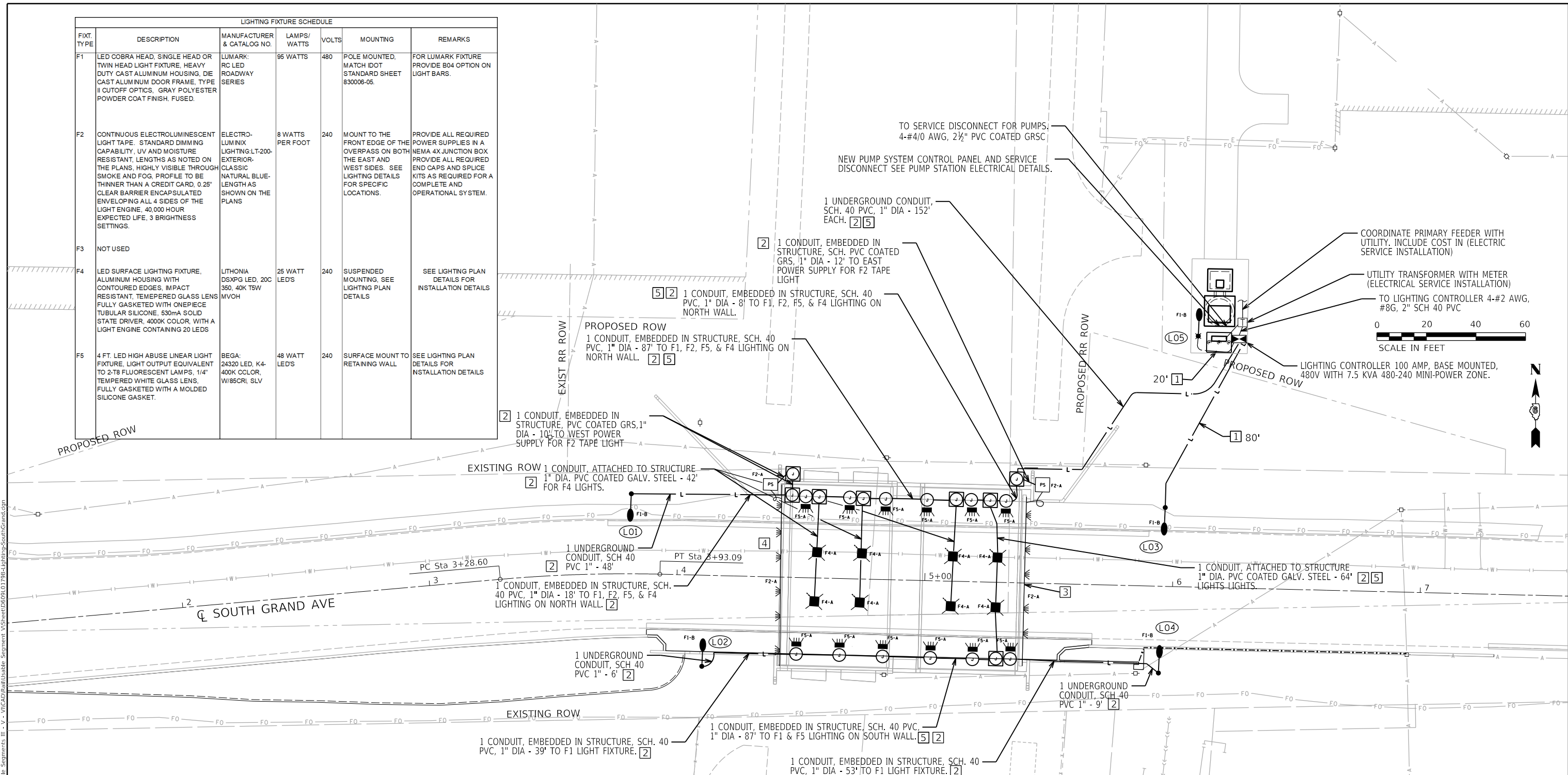
SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
LIGHTING DETAILS - COOK STREET - 2

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	175
	09L0179B			CONTRACT NO. 93747

SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.

* 7985A & 8142 ILLINOIS FED. AID PROJECT

LIGHTING FIXTURE SCHEDULE						
FIXT. TYPE	DESCRIPTION	MANUFACTURER & CATALOG NO.	LAMPS/WATTS	VOLTS	MOUNTING	REMARKS
F1	LED COBRA HEAD, SINGLE HEAD OR TWIN HEAD LIGHT FIXTURE, HEAVY DUTY CAST ALUMINUM HOUSING, DIE CAST ALUMINUM DOOR FRAME, TYPE II CUTOFF OPTICS, GRAY POLYESTER POWDER COAT FINISH, FUSED.	LUMARK: RC LED ROADWAY SERIES	95 WATTS	480	POLE MOUNTED, MATCH IDOT STANDARD SHEET 830008-05.	FOR LUMARK FIXTURE PROVIDE B04 OPTION ON LIGHT BARS.
F2	CONTINUOUS ELECTROLUMINESCENT LIGHT TAPE STANDARD DIMMING CAPABILITY, UV AND MOISTURE RESISTANT, LENGTHS AS NOTED ON THE PLANS, HIGHLY VISIBLE THROUGH SMOKE AND FOG, PROFILE TO BE THINNER THAN A CREDIT CARD, 0.25" CLEAR BARRIER ENCAPSULATED ENVELOPING ALL 4 SIDES OF THE LIGHT ENGINE, 40,000 HOUR EXPECTED LIFE, 3 BRIGHTNESS SETTINGS.	ELECTRO-LUMINIX LIGHTING-LT-200-EXTERIOR-CLASSIC NATURAL BLUE-LENGTH AS SHOWN ON THE PLANS	8 WATTS PER FOOT	240	MOUNT TO THE FRONT EDGE OF THE OVERPASS ON BOTH THE EAST AND WEST SIDES. SEE LIGHTING DETAILS FOR SPECIFIC LOCATIONS.	PROVIDE ALL REQUIRED POWER SUPPLIES IN A NEMA 4X JUNCTION BOX PROVIDE ALL REQUIRED END CAPS AND SPICE KITS AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
F3	NOT USED					
F4	LED SURFACE LIGHTING FIXTURE, ALUMINUM HOUSING WITH CONTOURED EDGES, IMPACT RESISTANT, TEMPERED GLASS LENS FULLY GASKETED WITH ONEPIECE TUBULAR SILICONE, 530mA SOLID STATE DRIVER, 4000K COLOR, WITH A LIGHT ENGINE CONTAINING 20 LEDES	LITHONIA DSXPG LED, 20C 350, 40K TSW MVOH	25 WATT LEDES	240	SUSPENDED MOUNTING, SEE LIGHTING PLAN DETAILS	SEE LIGHTING PLAN DETAILS FOR INSTALLATION DETAILS
F5	4 FT. LED HIGH ABUSE LINEAR LIGHT FIXTURE, LIGHT OUTPUT EQUIVALENT TO 2-T8 FLUORESCENT LAMPS, 1/4" TEMPERED WHITE GLASS LENS, FULLY GASKETED WITH A MOLDED SILICONE GASKET.	BEGA: 24320 LED, K4-4000K COLOR, W/85CRI, SLV	48 WATT LEDES	240	SURFACE MOUNT TO RETAINING WALL	SEE LIGHTING PLAN DETAILS FOR INSTALLATION DETAILS



LEGEND

- (L01) FIXTURE REFERENCE NUMBER
- LIGHT POLE
- ☀ LUMINAIRE, LED, UNDERPASS, WALLMOUNT, OUTPUT DESIGNATION C
- ☀ LUMINAIRE, LED, UNDERPASS, SUSPENDED, OUTPUT DESIGNATION B
- ☀ LUMINAIRE, DECORATIVE ELECTROLUMINESCENT LIGHT TAPE
- JUNCTION BOX, STAINLESS STEEL, EMBEDDED IN STRUCTURE, 4"x4"x3" (COST INCLUDED WITH LUMINAIRE). JUNCTION BOXES AT F-4 FIXTURES NOT SHOWN.
- JUNCTION BOX, STAINLESS STEEL, EMBEDDED IN STRUCTURE, 4"x4"x3" (COST INCLUDES VERTICAL CONDUIT TRANSITION FROM CONCRETE SUBSTRUCTURE TO BEAM).
- PS POWER SUPPLY FOR ELECTROLUMINESCENT LIGHTING & 8"x4"x1 1/2" JUNCTION BOX, SEE LIGHTING DETAILS
- HH HANDHOLE
- F1-A FIXTURE TYPE FOLLOWED BY THE CIRCUIT THE LIGHTING FIXTURE IS CONNECTED TO ON THE LIGHTING CONTROLLER

KEYED NOTES

- [1] UNIT DUCT, 600V, 2-1C NO. 10 1/C NO. 10 GROUND, (XLP-TYPE USE), 3/4" DIA POLYETHYLENE PAY ITEM #81603010
- [2] ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE), 3-1/C NO. 10 (TYP. WITHIN CONDUIT EMBEDDED IN STRUCTURE UNDERGROUND CONDUIT OR CONDUIT ATTACHED TO STRUCTURE) PAY ITEM #81702450
- [3] ELECTROLUMINESCENT LIGHT TAPE, MOUNTED ON FRONT SIDE OF STEEL SACRIFICIAL BEAM, SEE DETAILS. TYPE F2, TYPICAL.
- [4] ELECTROLUMINESCENT LIGHT TAPE, MOUNTED ON FRONT SIDE OF PRECAST FASCIA BEAM, SEE DETAILS, TYPE F2.
- [5] 2 - ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE), 1/C NO. 10 (TYP. WITHIN CONDUIT EMBEDDED IN STRUCTURE UNDERGROUND CONDUIT OR CONDUIT ATTACHED TO STRUCTURE) PAY ITEM #81702110

FIXTURE REF. NO.	STATION	OFFSET
SOUTH GRAND AVE		
L01	3+81.5	32.3' LT
L02	4+10.9	36.8' RT
L03	5+96.3	31.8' LT
L04	5+96.3	35.0' RT
L05	6+08.0	101.3' LT

FINAL



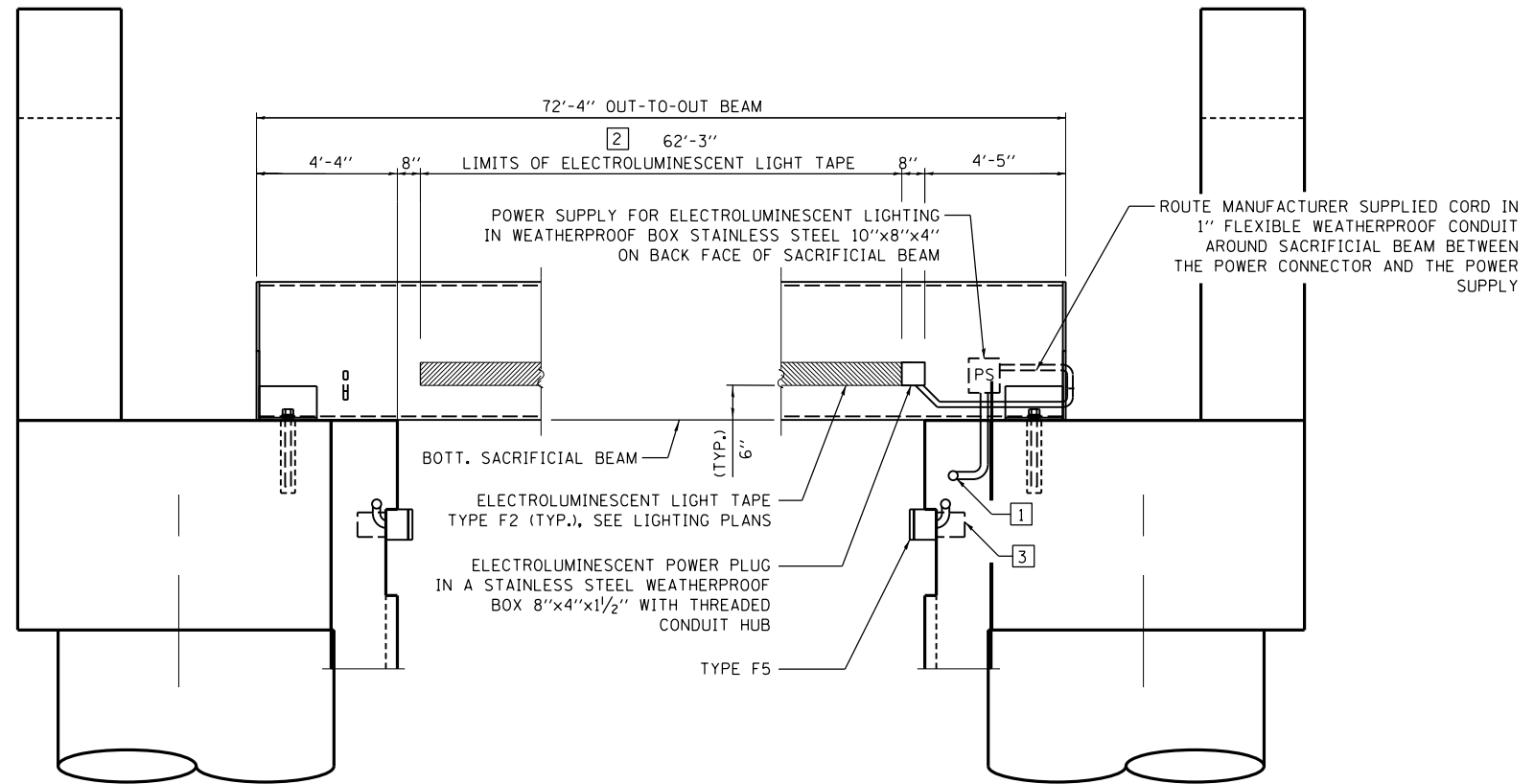
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
LIGHTING PLAN - SOUTH GRAND AVE.

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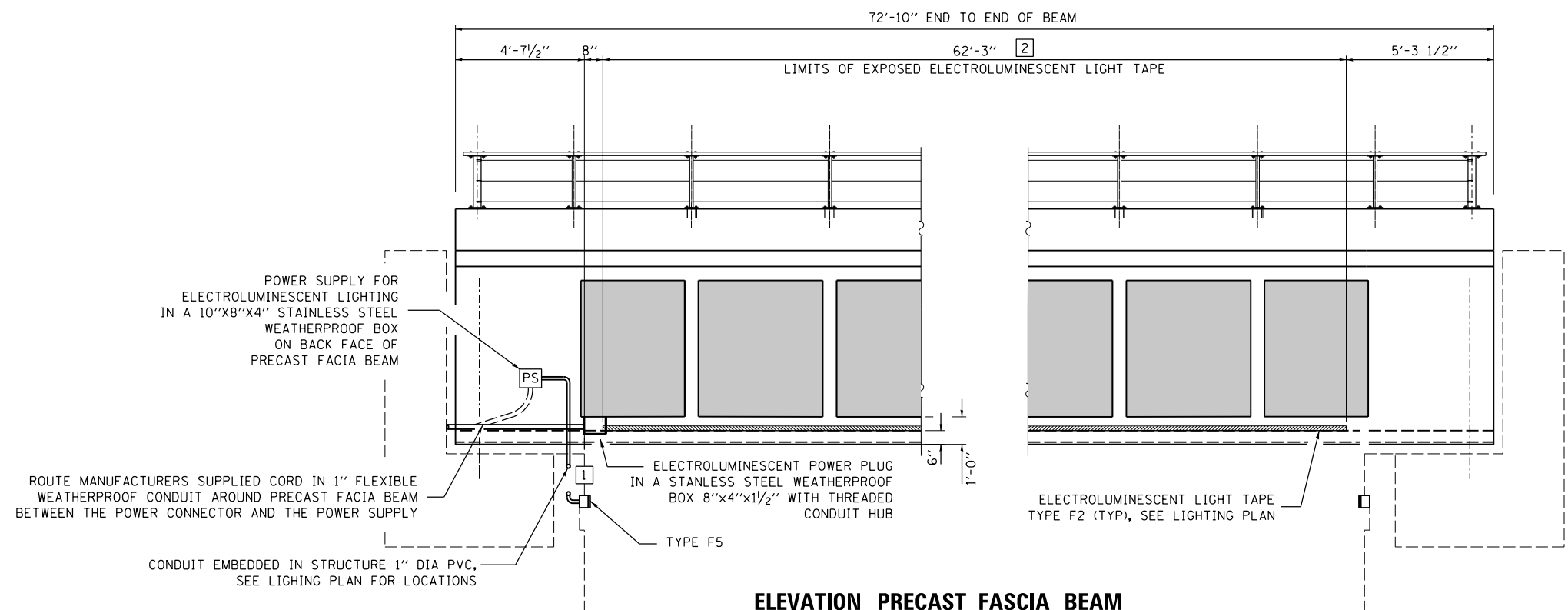
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*	19-00488-00-BR	SANGAMON	347	176
	09L0179B			CONTRACT NO. 93747
* 7985A & 8143	ILLINOIS	FED. AID PROJECT		



ELEVATION – STEEL SACRIFICIAL BEAM
(LOOKING WEST, NSRR BRIDGE)

KEYED NOTES:

- 1 TYPICAL ELECTRICAL CONDUITS EMBEDDED IN STRUCTURE 1" DIA. PVC. SEE LIGHTING PLAN FOR LOCATIONS AND NUMBER OF CONDUITS REQUIRED.
- 2 COORDINATE EXACT LENGTH OF LIGHT TAPE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS AND EXACT SIZE OF WEATHERPROOF J-BOX PROTECTING LIGHT TAPE POWER CONNECTOR
- 3 JUNCTION BOX - STAINLESS STEEL EMBEDDED IN STRUCTURE, 4"x4"x3". COST INCLUDED WITH CONDUIT EMBEDDED IN STRUCTURE.



ELEVATION PRECAST FASCIA BEAM
(LOOKING EAST, UPRR BRIDGE)

FINAL

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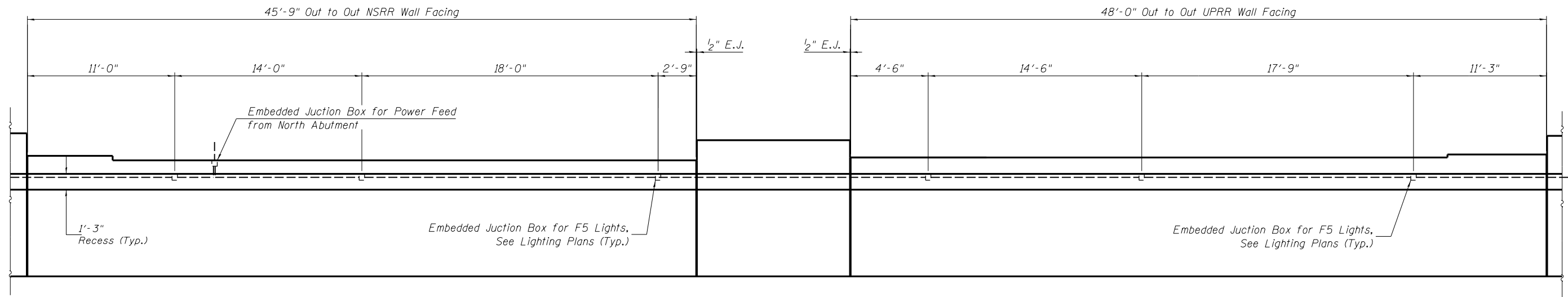
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

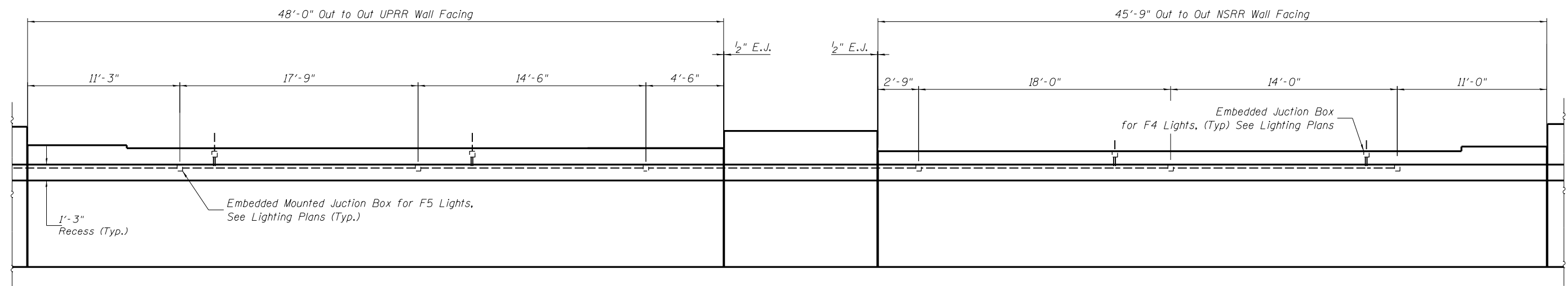
**SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
LIGHTING DETAILS – SOUTH GRAND AVE. – 1**

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	09L0179B		CONTRACT NO. 93747	
# 7985A & 8144	ILLINOIS	FED. AID PROJECT		



ELEVATION - SOUTH ABUTMENT WALL FACINGS
(Looking South)



ELEVATION - NORTH ABUTMENT WALL FACINGS
(Looking North)

FINAL

MODEL Default
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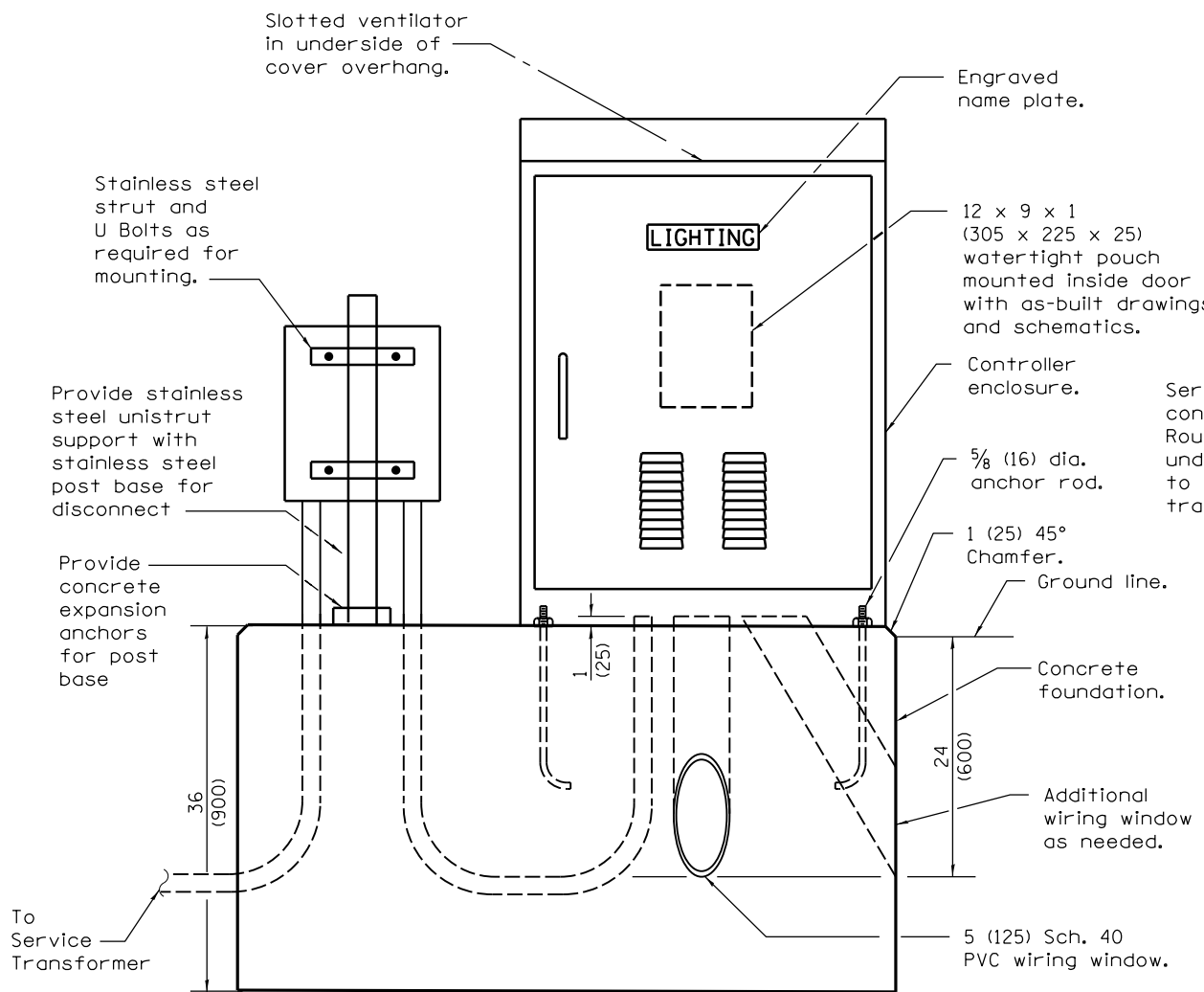
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
LIGHTING DETAILS - SOUTH GRAND AVE. - 2**

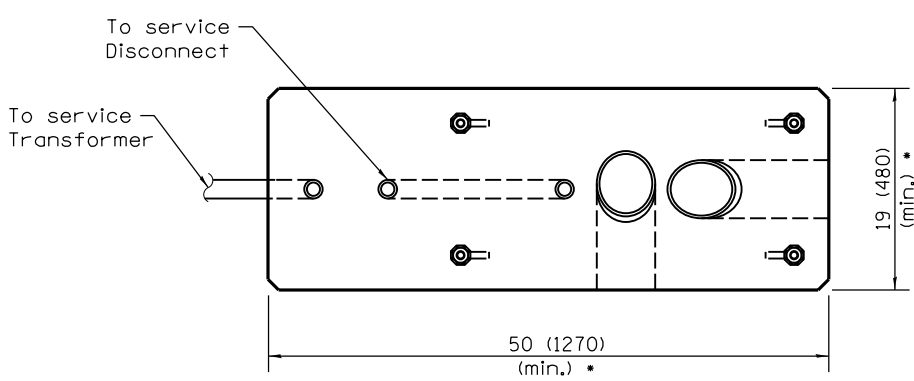
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	09L0179B			CONTRACT NO. 93747
# 7985A & 8145	ILLINOIS	FED. AID PROJECT		

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LIGHTING CONTROLLER

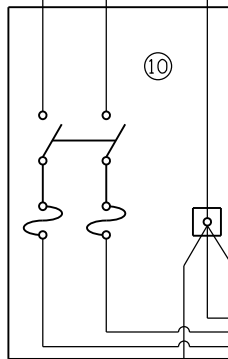


FOUNDATION (PLAN)
(Work pad not shown.)

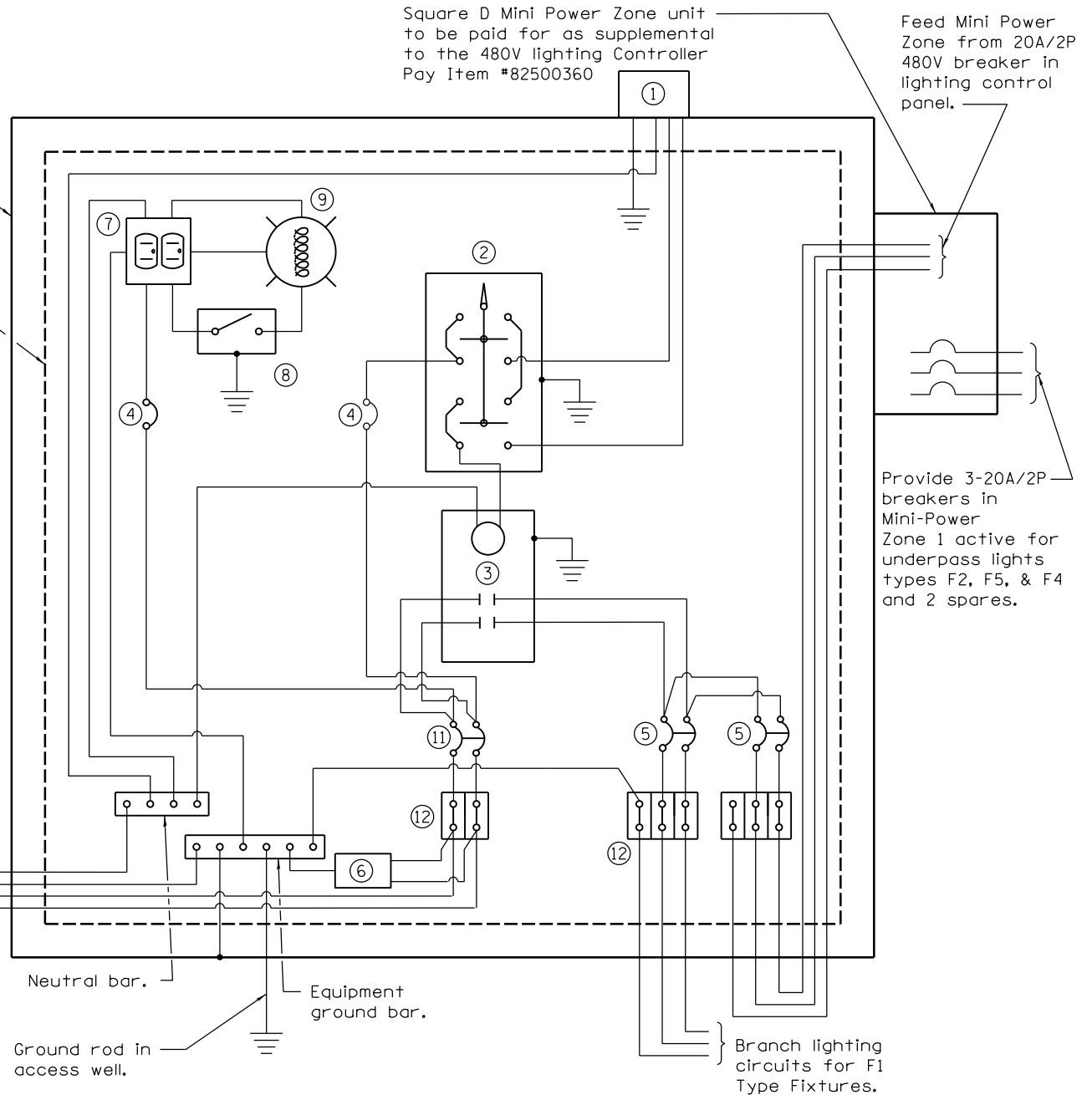
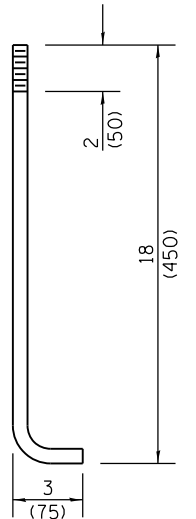
Controller enclosure, minimum dimensions: 50H x 36W x 17D • (1270 x 915 x 430)

Insulated mounting board.

Service conductors Route underground to service transformer.



ANCHOR ROD DETAIL



CONTROL SCHEMATIC

- ① Photocell with integral surge arrester.
- ② HAND-OFF-AUTO selector switch.
- ③ 100 amp*, electrically held contactor.
- ④ 15 amp, 1-pole circuit breaker.
- ⑤ 20 amp*, 2-pole circuit breaker (two spares required but not shown).
- ⑥ Surge arrester.
- ⑦ GFCI duplex receptacle.
- ⑧ Single-pole, single-throw switch.
- ⑨ Incandescent luminaire, enclosed and gasketed with 100 watt lamp.
- ⑩ Service disconnect switch - 2-pole, 3-wire, 100 amp*, fused at 100 amp*, solid neutral in NEMA 4X enclosure having lockable external handle.
- ⑪ 100 amp*, 2-pole circuit breaker.
- ⑫ Terminal block sized for conductors as shown on plans.

* Size larger as needed.

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

FINAL



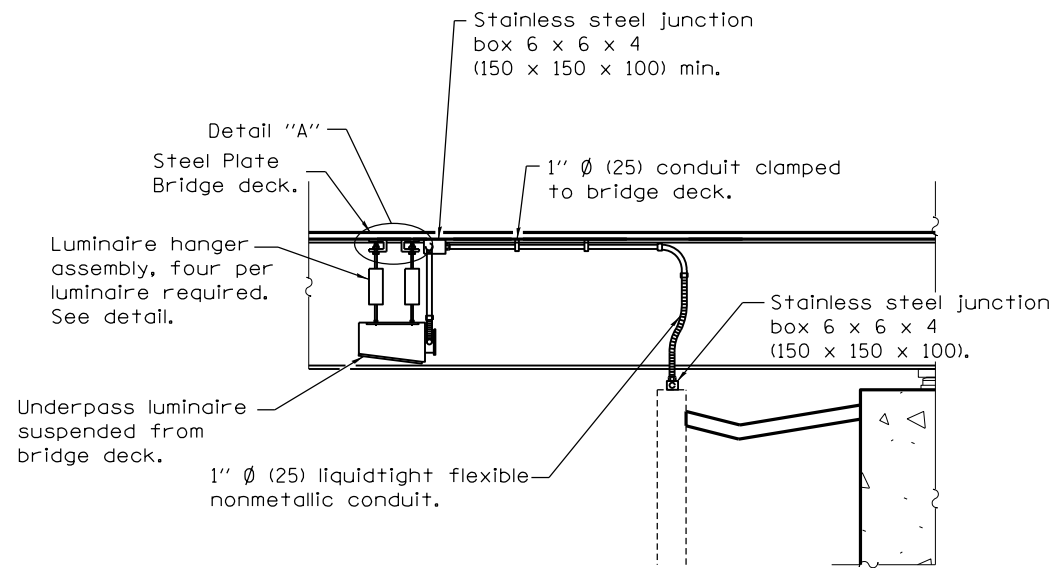
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

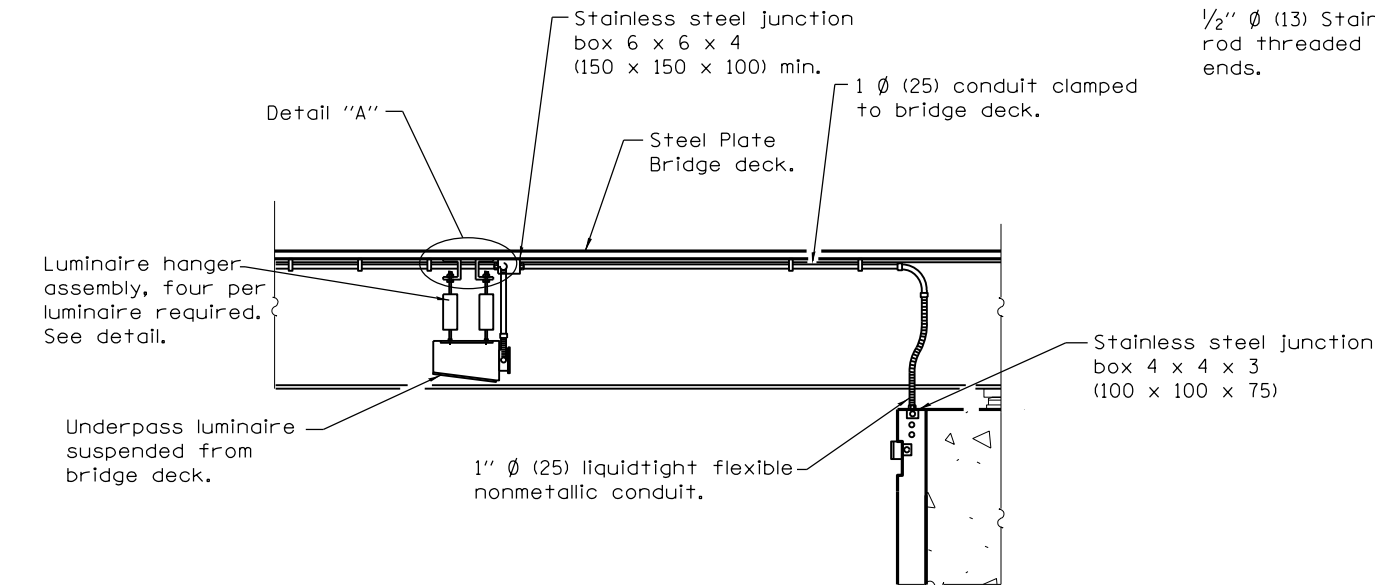
SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
LIGHTING DETAILS - SOUTH GRAND AVE. - 3

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	09L0179B			CONTRACT NO. 93747
* 7985A & 8146	ILLINOIS	FED. AID PROJECT		

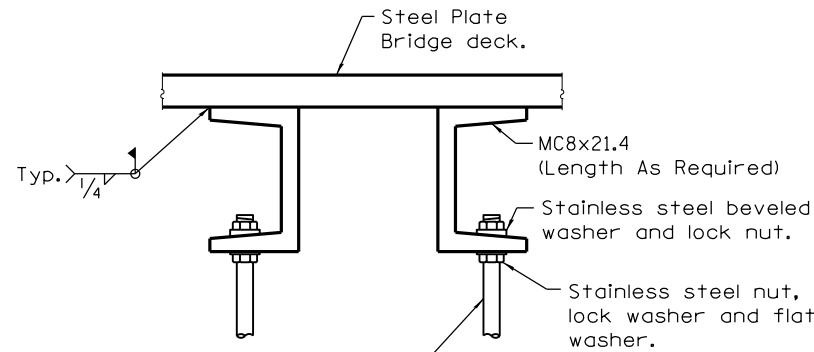
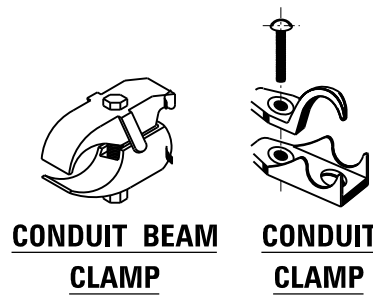
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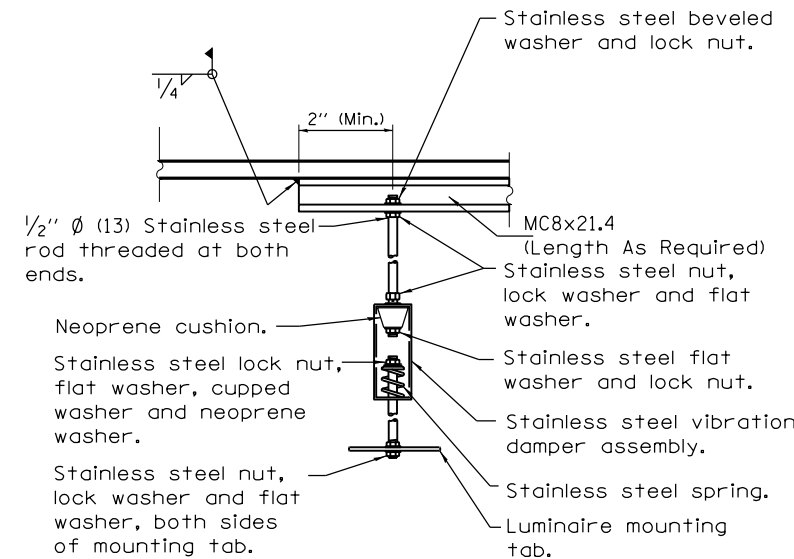
SECTION A-A
(COOK ST.)



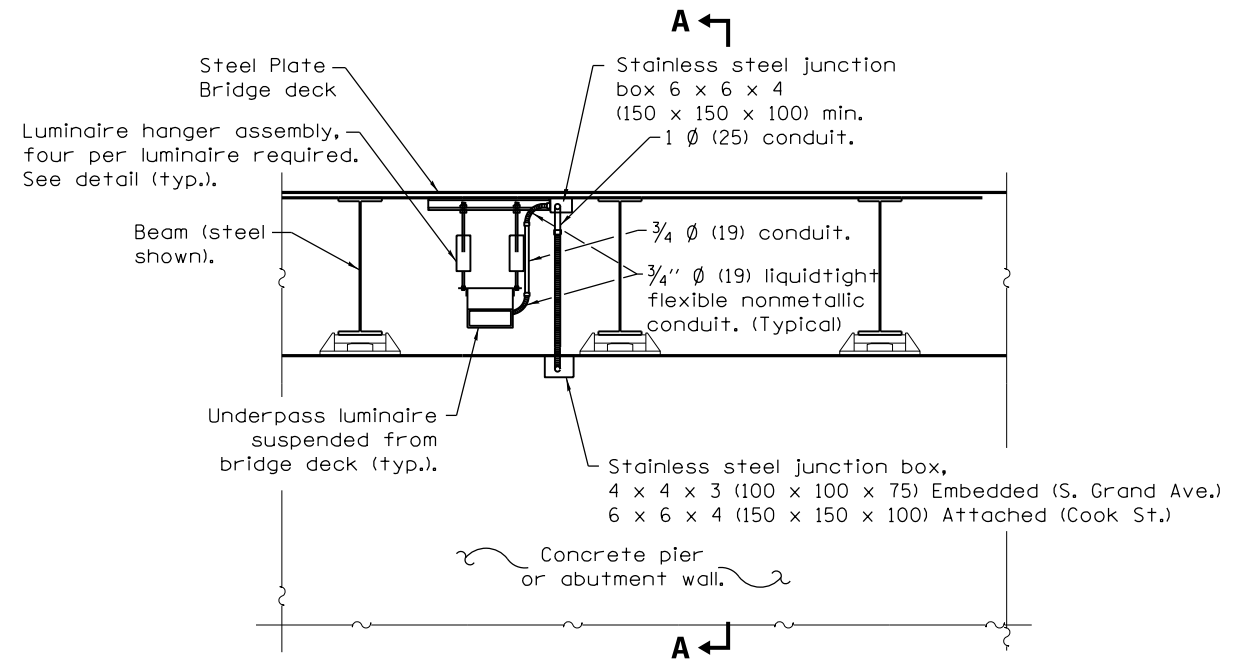
SECTION A-A
(SOUTH GRAND AVE)



DETAIL "A"



LUMINAIRE HANGER ASSEMBLY DETAIL



PIER / ABUTMENT WALL ELEVATION

GENERAL NOTES

- No field drilling of the steel plate bridge deck will be allowed.
- See plans for underpass luminaire locations.
- Underpass luminaires shall be centered between beams unless otherwise directed by the Engineer.
- Optics of underpass luminaires shall be installed 1 inch above the bottom of the beams with no parts of the luminaire or attached conduit below the beams.
- Rigid conduit may be used in lieu of flexible conduit except at abutments.
- Stainless steel conduit shall be used beneath any openings in the bridge deck.
- Branch circuits to luminaires shown routed from underground. Branch circuits may also be routed from bridge parapet above.
- All dimensions are in inches (millimeters) unless otherwise shown.
- Clamps should no be fastened to steel bridge deck directly. Contractor shall weld small plates to deck where clamps necessary and attach the clamp to the small plate. Cost included with conduit attached to structure.

UPRR BRIDGE DETAILS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
LIGHTING DETAILS - 1

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	09L0179B			CONTRACT NO. 93747

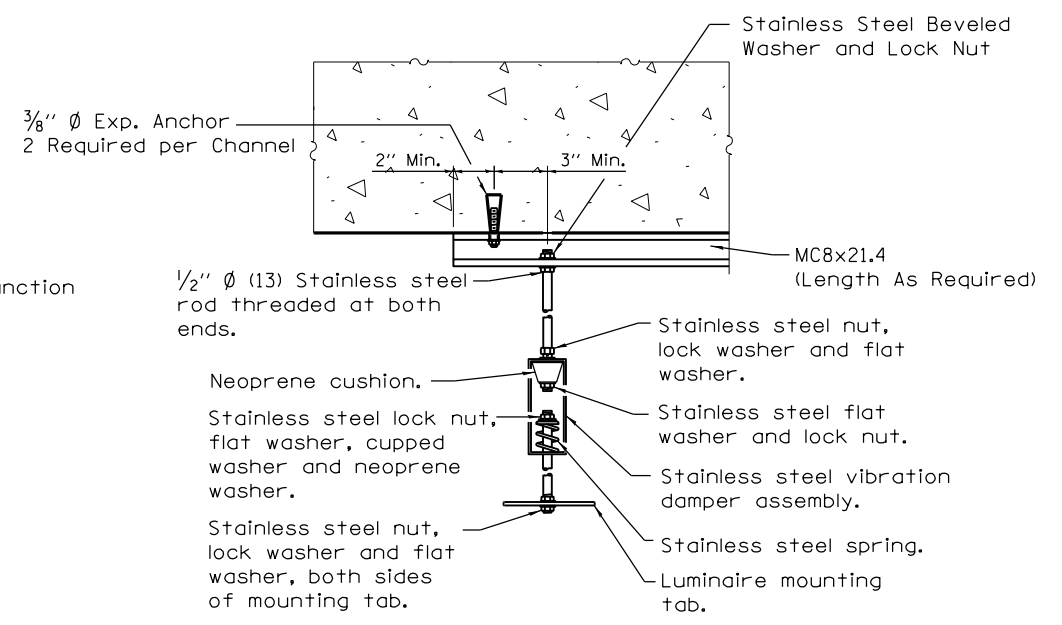
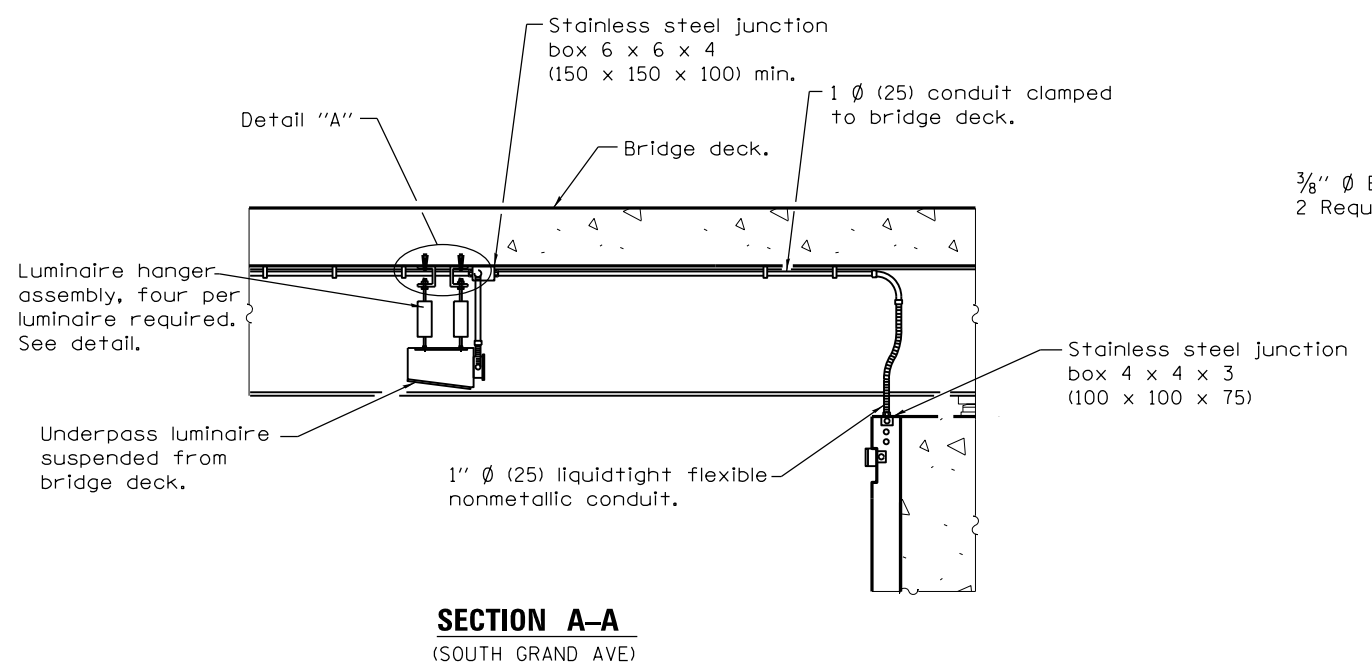
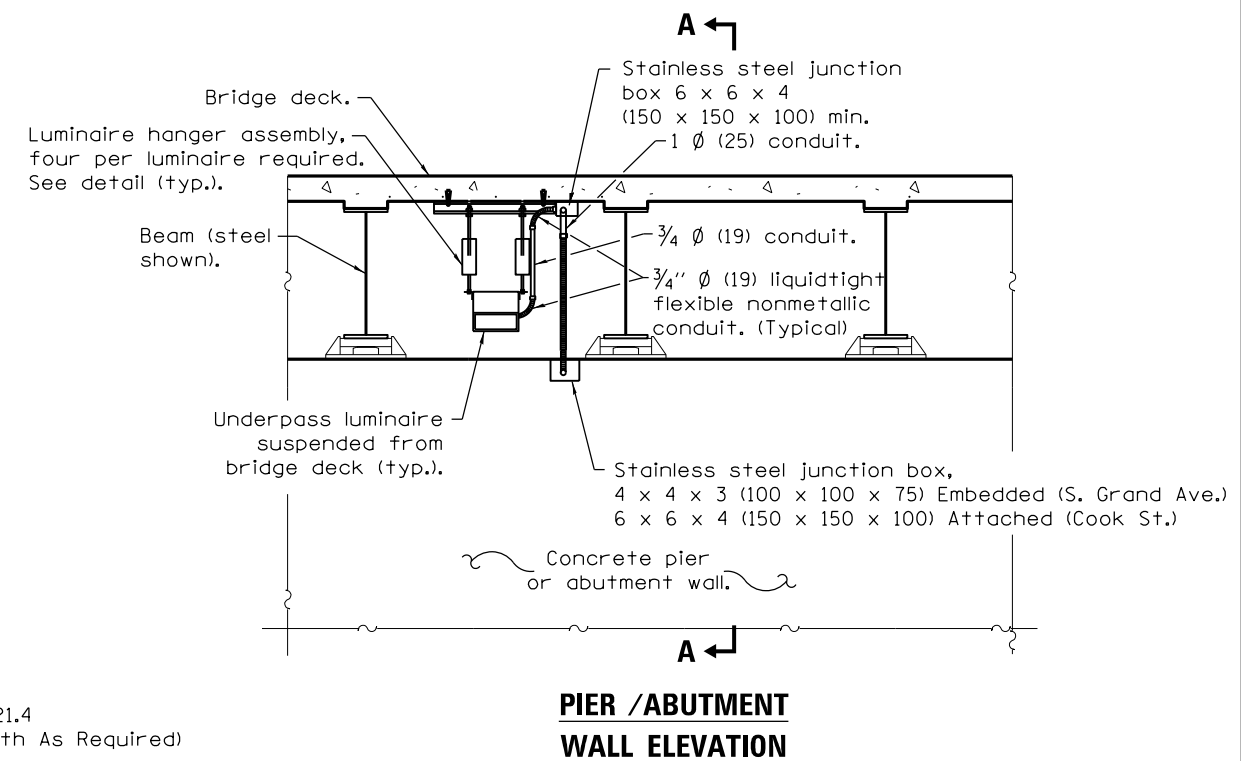
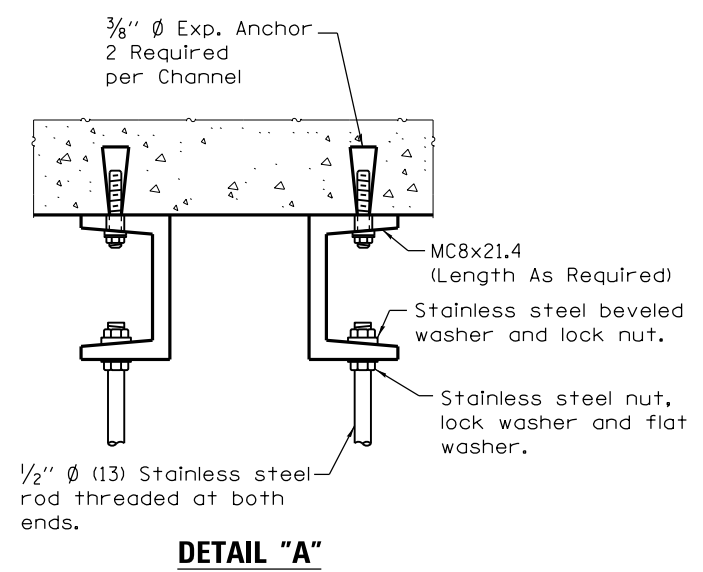
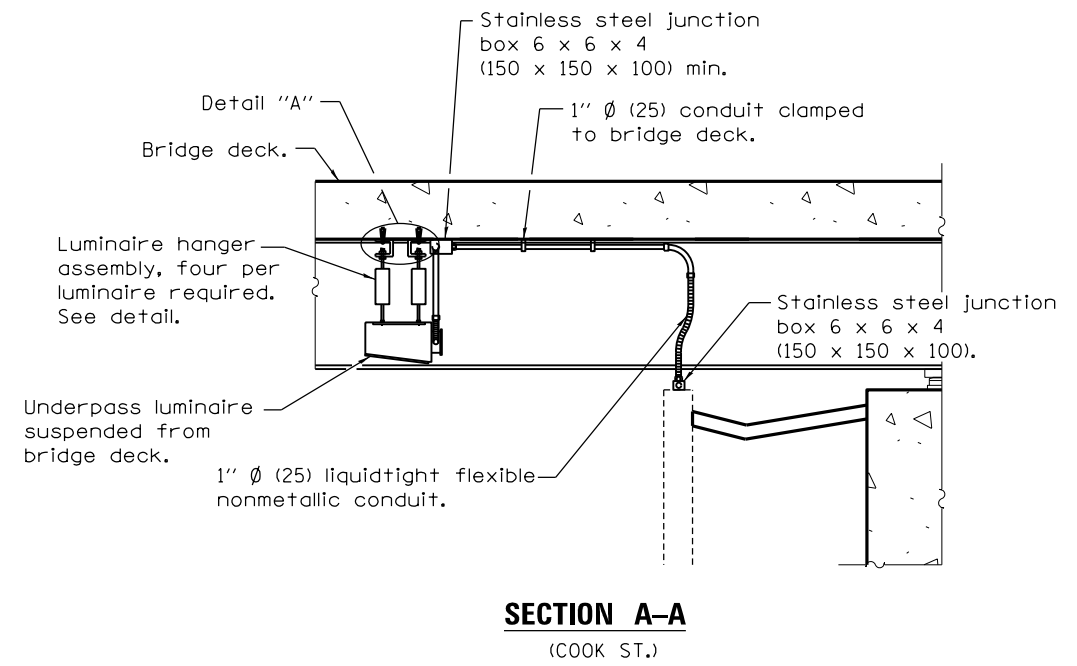
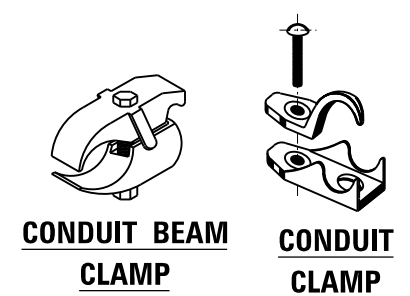
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PLOT DATE = 1/18/2021	CHECKED - RDN	REVISED -
	DATE - 1/18/2021	REVISED -



GENERAL NOTES

See plans for underpass luminaire locations.

Underpass luminaires shall be centered between beams unless otherwise directed by the Engineer.

Optics of underpass luminaires shall be installed 1 inch above the bottom of the beams with no parts of the luminaire or attached conduit below the beams.

Rigid conduit may be used in lieu of flexible conduit except at abutments.

Stainless steel conduit shall be used beneath any openings in the bridge deck.

Branch circuits to luminaires shown routed from underground. Branch circuits may also be routed from bridge parapet above.

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

NSRR BRIDGE DETAILS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
LIGHTING DETAILS - 2

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	09L0179B	CONTRACT NO.	93747	
# 7985A & 8148	ILLINOIS	FED. AID PROJECT		

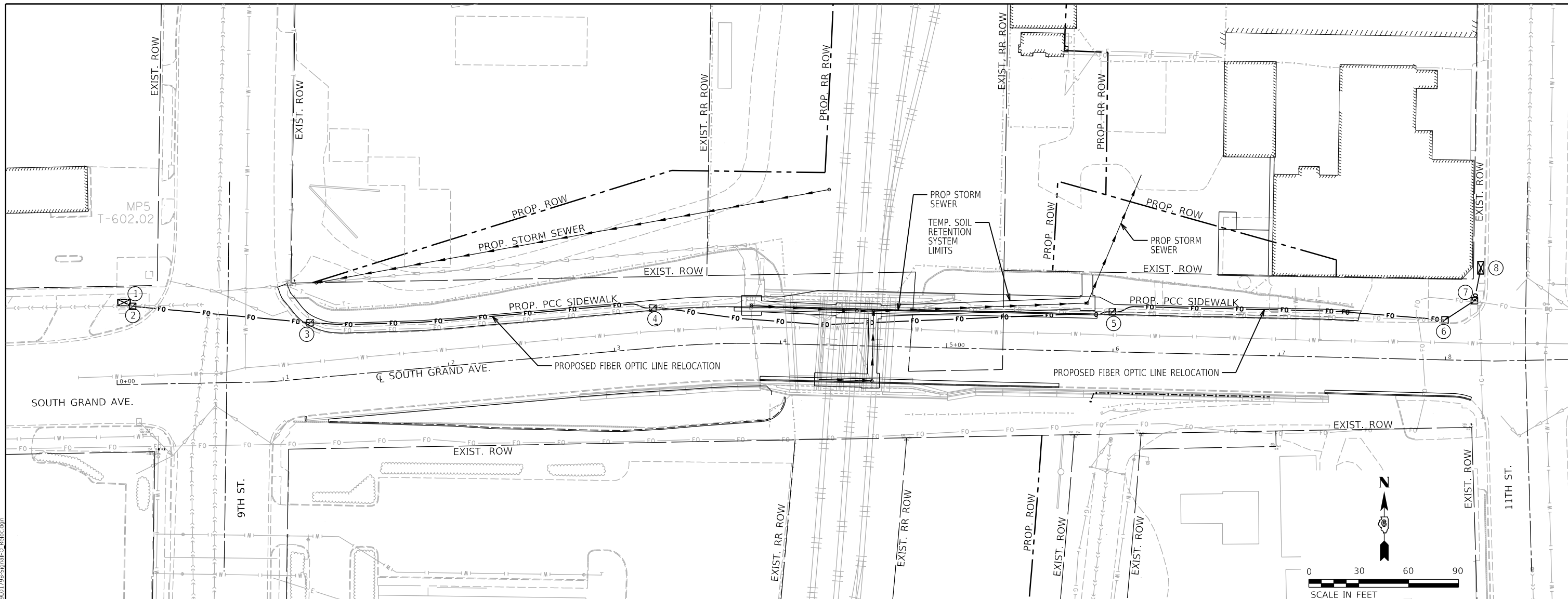
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PLOT DATE = 1/18/2021	CHECKED - RDN	REVISED -
	DATE - 1/18/2021	REVISED -



LEGEND

⊙ PROPOSED FIBER OPTIC STRUCTURE NUMBER

STRUCTURE NUMBER	STATION	OFFSET	DESCRIPTION	NA	89502210	81028740	X0326266	X8710029	XX004913	COBALT CONTROLLER
				EXISTING HANDHOLE TO REMAIN	MODIFY EXISTING CONTROLLER CABINET	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/2" DIA	ETHERNET SWITCH	FIBER OPTIC CABLE 24 FIBERS, SINGLE MODE	REMOVE FIBER OPTIC CABLE FROM CONDUIT	
1	0+05	49 L	EXISTING CONTROLLER CABINET	EACH	1			3.0	3.0	1
1-2			PULL NEW CABLE THROUGH EXISTING CONDUIT					5.6	5.6	
2	0+10	47 L	EXISTING HANDHOLE TO REMAIN	1				6.5	6.5	
2-3			PULL NEW CABLE THROUGH EXISTING CONDUIT					107.2	107.2	
3	1+19	33 L	EXISTING HANDHOLE TO REMAIN (NOTE 1)	1				6.5		
3-4			NEW CABLE IN NEW CONDUIT			207		207.1		
4	3+25	24 L	EXISTING HANDHOLE TO REMAIN (NOTE 1)	1				6.5		
4-5			NEW CABLE IN NEW CONDUIT (NOTE 2)			277		277.0		
5	5+99	24 L	EXISTING HANDHOLE TO REMAIN (NOTE 1)	1				6.5		
5-6			NEW CABLE IN NEW CONDUIT			218		218.2		
6	7+99	24 L	EXISTING HANDHOLE TO REMAIN (NOTE 1)	1				6.5		
6-7			PULL NEW CABLE THROUGH EXISTING CONDUIT					21.1	21.1	
7	8+17	36 L	EXISTING HANDHOLE TO REMAIN	1				6.5	6.5	
7-8			PULL NEW CABLE THROUGH EXISTING CONDUIT					20.1	20.1	
8	8+20	56 L	EXISTING CONTROLLER CABINET		1			3.0	3.0	1
			DELIVER TO IDOT				2			
			TOTAL	NA	2	702	2	901	173	2

NOTES:

- INCLUDE COST OF CONNECTING NEW CONDUIT TO EXISTING HANDHOLE IN COST OF NEW CONDUIT.
- BORE UNDER EXISTING PAVEMENT.
- SEE REMOVAL PLAN-SOUTH GRAND FOR REMOVAL ITEMS ALONG FIBER OPTIC ROUTE.

FINAL

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

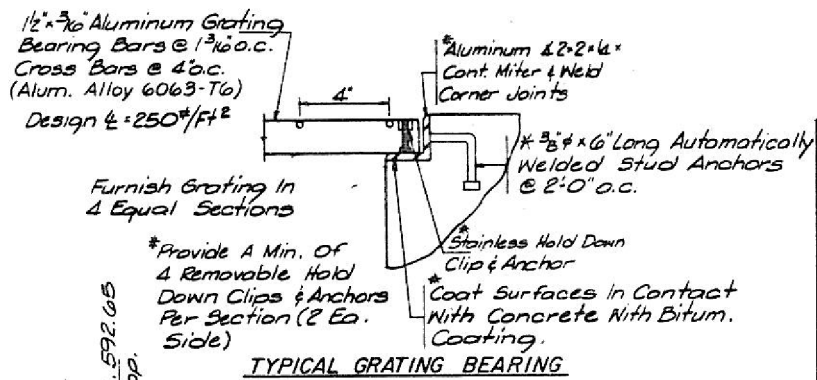
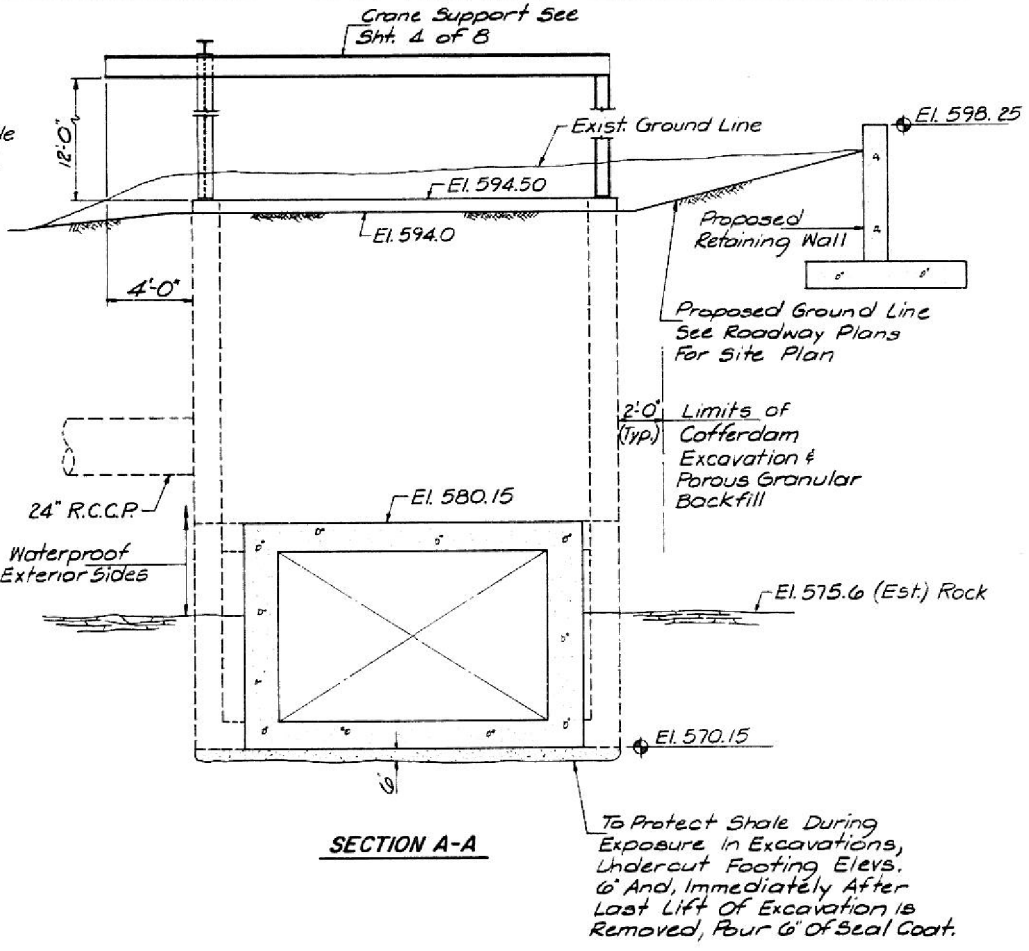
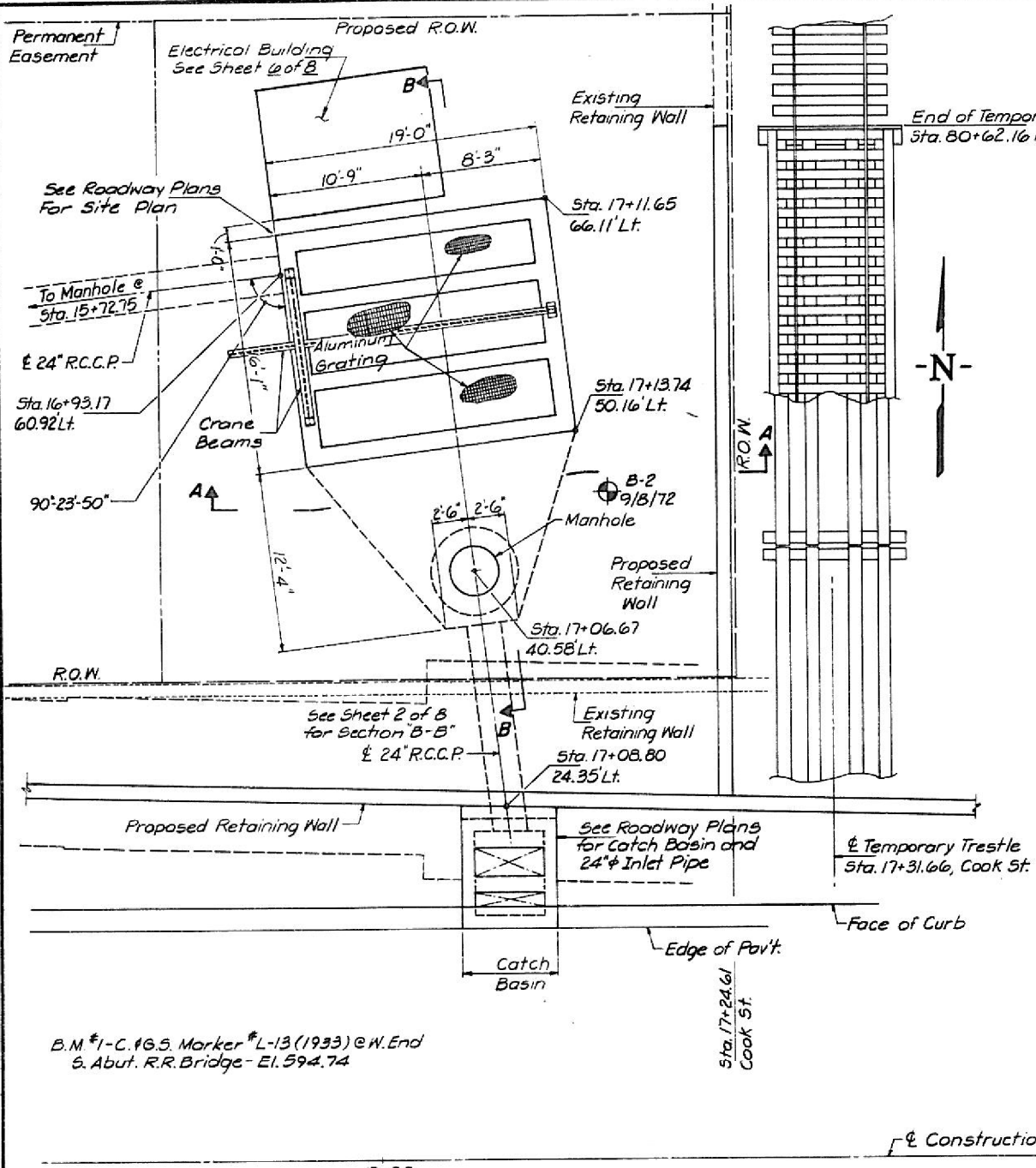
**SPRINGFIELD RAIL IMPROVEMENTS PROJECT
 SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
 FIBER OPTIC RELOCATION - SOUTH GRAND AVE.**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	182
	09L0179B	CONTRACT NO.	93747	
* 7985A & 8149	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES

- REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31, M-42 OR M-53 GRADE 60.
- SEE PROPOSAL FOR BORING DATA FOR BORING B-2.
- THE CONTRACTOR SHALL MAKE ALLOWANCE FOR THE DEFLECTION OF FORMS, SHRINKAGE AND SETTLEMENT OF FALSEWORK.
- THE BACK FACE OF EXTERIOR CONCRETE WALLS SHALL BE WATERPROOFED BELOW GRADE IN ACCORDANCE WITH SECTION 503.11 OF THE STANDARD SPECIFICATIONS, USING ONE COAT OF ASPHALT PRIMER: RC-70 AND TWO COATS OF PETROLEUM ASPHALT: RVP TYPE A.
- ALL ANCHOR BOLTS SHALL CONFORM TO ASTM A307.
- ALL BOLTS, NUTS, WASHERS AND ANCHOR BOLTS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M-232.
- ALUMINUM GRATING AND ANGLES SHALL CONFORM TO THE REQUIREMENTS OF ASTM B221, ALLOY 6063-T6 WITH A MINIMUM YIELD OF 35,000 PSI.
- PROTECTIVE COVERING FOR REINFORCEMENT BARS SHALL BE AS FOLLOWS:
FOOTINGS: 3" (ON FACES CAST AGAINST EARTH OR ROCK)
SLABS: 2" (UNLESS OTHERWISE SHOWN)
WALLS: 2"
BEAMS: 1 1/2"
- EXPOSED EDGES SHALL BE BEVELED 3/4"
- THE ZINC-SILICATE AND VINYL PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL.
- FASTENERS SHALL BE HIGH STRENGTH BOLTS; BOLTS 3/4" Ø OPEN HOLES 1 1/16" Ø UNLESS OTHERWISE NOTED.
- ALL HIGH STRENGTH BOLTED CONNECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST ISSUE OF THE SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 (M164) OR A490 (M253) BOLTS FOR SLIP-CRITICAL CONNECTIONS. EXCEPT TIGHTENING METHODS USING EITHER THE LOAD INDICATING WASHERS OR THE CALIBRATED WRENCH ARE NOT ALLOWED.
- WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENT OF AASHTO M55.



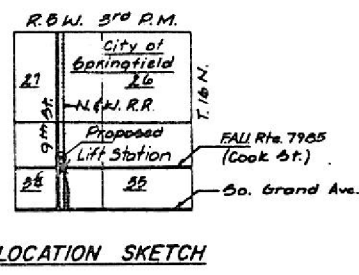
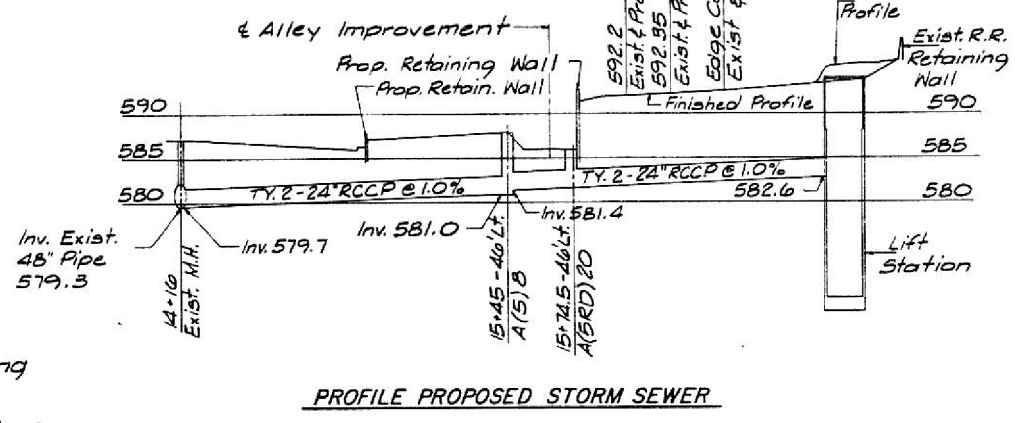
TOTAL BILL OF MATERIAL - LIFT STATION

ITEM	UNIT	QUANTITY
Reinforcement Bars	Lbs.	25,240
Class X Concrete	Cu. Yds.	119.2
Seal Coat	Cu. Yds.	6.9
Cofferdam Excavation	Cu. Yds.	420
Rock Excavation for Structures	Cu. Yds.	83
1/2" Aluminum Grating	Sq. Ft.	196
Manhole - Type A - 5' Dia. - Type 1 Frame & Closed Lid	Ea.	1
Electrical Work	L. Sum	1
Mechanical Work	L. Sum	1
Porous Granular Backfill	Cu. Yds.	139
Structural Steel	Lbs.	2,600
Cofferdams	Each	1

DESIGN DATA

DESIGN STRESSES
 $f_c = 3,500$ p.s.i.
 $f_t = 1,400$ p.s.i.
 $V_c = 56$ p.s.i.
 $f_s = 24,000$ psi. M-31, M-42, M-53
 $f_s = 20,000$ psi. MIB3 (Crane Beam)
 $n = 9$
 40° Equivalent Fluid Pressure
 2' Surcharge
 Ground Water Elev. 588.0
 1983 AASHTO Standard Specifications
 w/1984 & 1985 Interim Specifications

DRAINAGE DATA
 Drainage Area = 3.8 Acres
 Runoff Factor = 0.65
 Storm Frequency 50 Years
 Pumping = 8,400 G.P.M.
 Maximum Soil Bearing Pressure 1.25 T.S.F.
 Maximum Hoist Load = 2 Tons



LIFT STATION
 F.A.U. ROUTE 7985
 STATE SECTION 22, SB-1
 CITY SECTION 71-00217-00-RP
 PROJECT M-MG
 SANGAMON COUNTY

DESIGNED: T.R.G.
 CHECKED: D.A.B.
 CHECKED: T.R.G.

HANSON ENGINEERS
 INCORPORATED
 SPRINGFIELD, PEORIA & ROCKFORD, ILLINOIS

FILE NO. 8451081
 DATE Dec. 1986

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
 SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
 EXISTING PLANS - COOK STREET - 2

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	19-00488-00-BR	SANGAMON	347	184
09L0179B			CONTRACT NO.	9374
7985A & 8151			ILLINOIS FED. AID PROJECT	

FINAL

V&K
 Veenstra & Kimm, Inc.
 Springfield, IL Phone: (217)544-8033

USER NAME = Pop00275	DESIGNED -	REVISED -
PLOT SCALE = 2,000' / In.	DRAWN -	REVISED -
PLOT DATE = 1/18/2021	CHECKED -	REVISED -
	DATE = 1/18/2021	REVISED -

SCALE: SHEET 2 OF 8 SHEETS STA. TO STA.

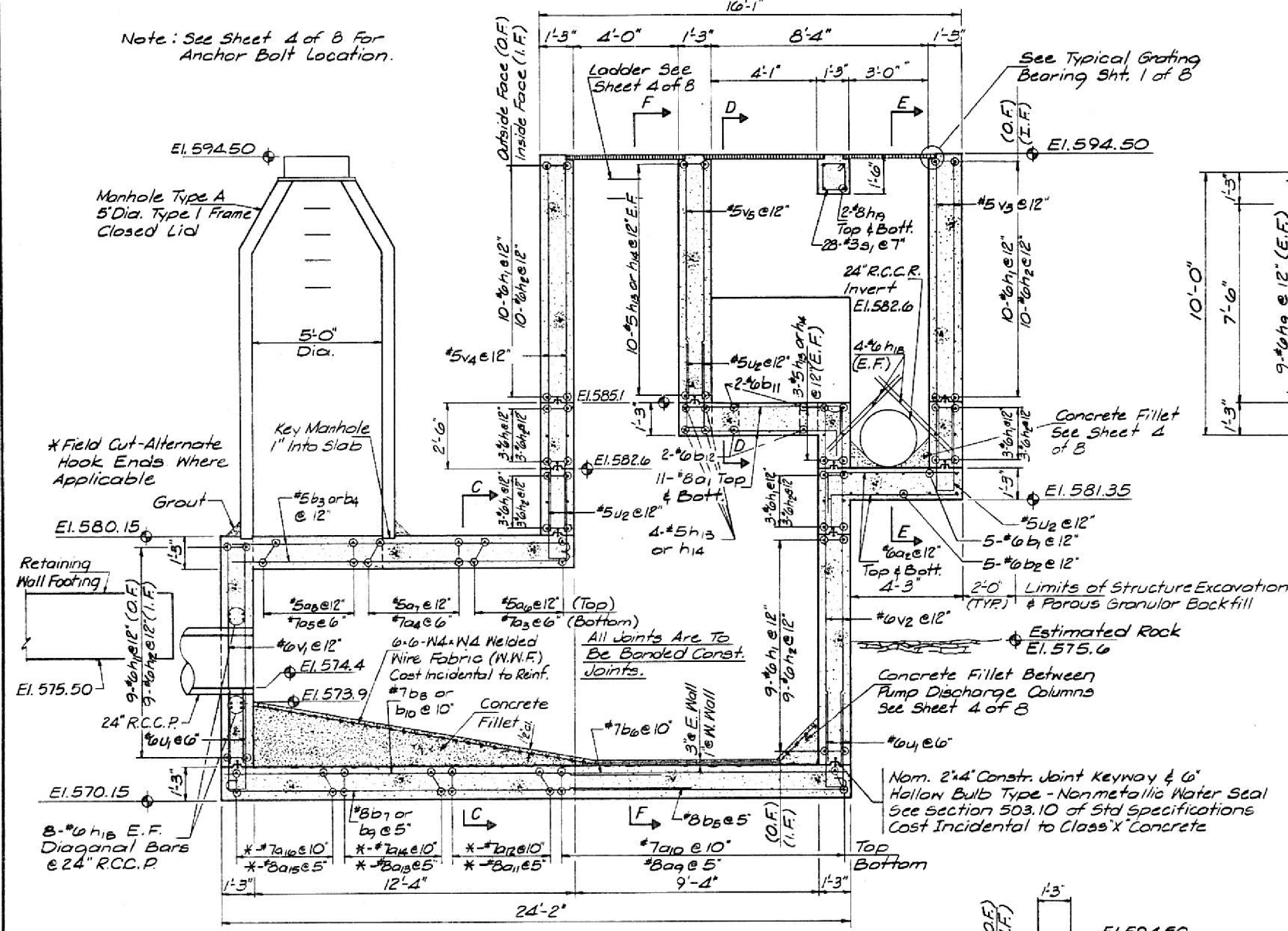
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1	22	#8	7'-6"	
a2	36	#6	6'-1"	
b1	5	#6	20'-0"	
b2	5	#6	18'-8"	
b11	2	#6	16'-3"	
b12	2	#6	14'-11"	
h1	41	#6	18'-8"	
h2	41	#6	20'-8"	
h3	26	#6	21'-9"	
h4	26	#6	17'-9"	
h5	6	#6	17'-6"	
h6	6	#6	13'-6"	
h7	18	#6	14'-6"	
h8	18	#6	12'-6"	
h9	18	#6	17'-6"	
h10	18	#6	16'-3"	
h11	9	#6	10'-9"	
h12	9	#6	9'-9"	
h13	60	#5	3'-10"	
h14	30	#5	16'-0"	
h15	20	#4	3'-0"	
h16	10	#4	5'-2"	
h18	24	#6	4'-0"	
h19	4	#8	19'-8"	
s1	28	#3	4'-10"	

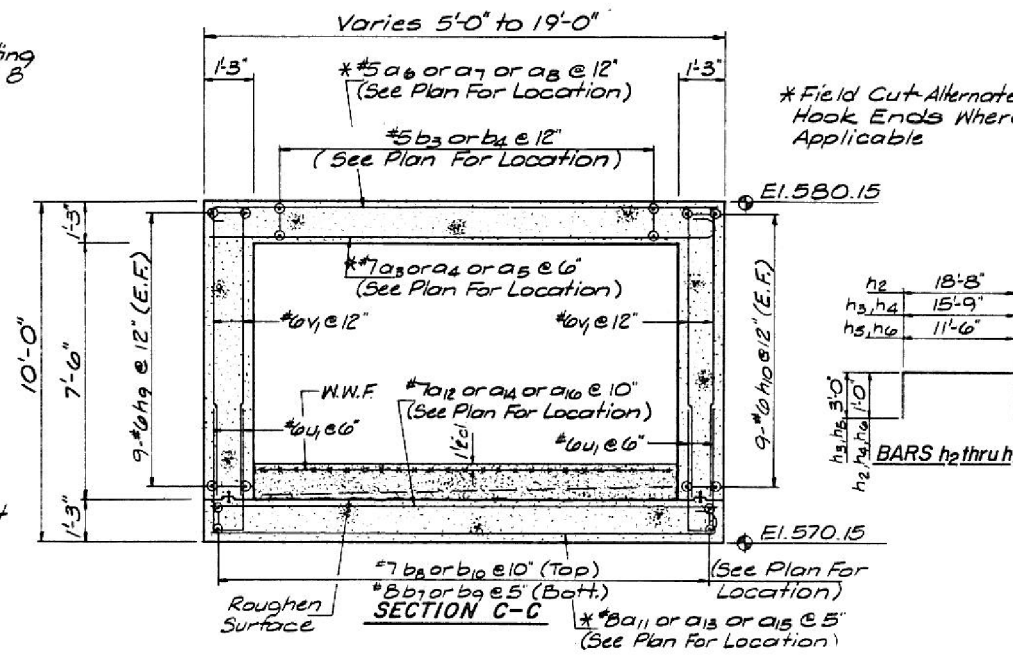
Bars Interrupted By Pipes Or Openings May Be Either Cut In Field Or Prefabricated Prior To Shipment.

a1	6'-2"
a2	5'-1"
h7	11'-6"
h8	11'-6"
h13	3'-0"
h15	2'-4"
h15	8'
h16	10'
h17	1'-0"
h18	1'-4"
h19	3'-0"

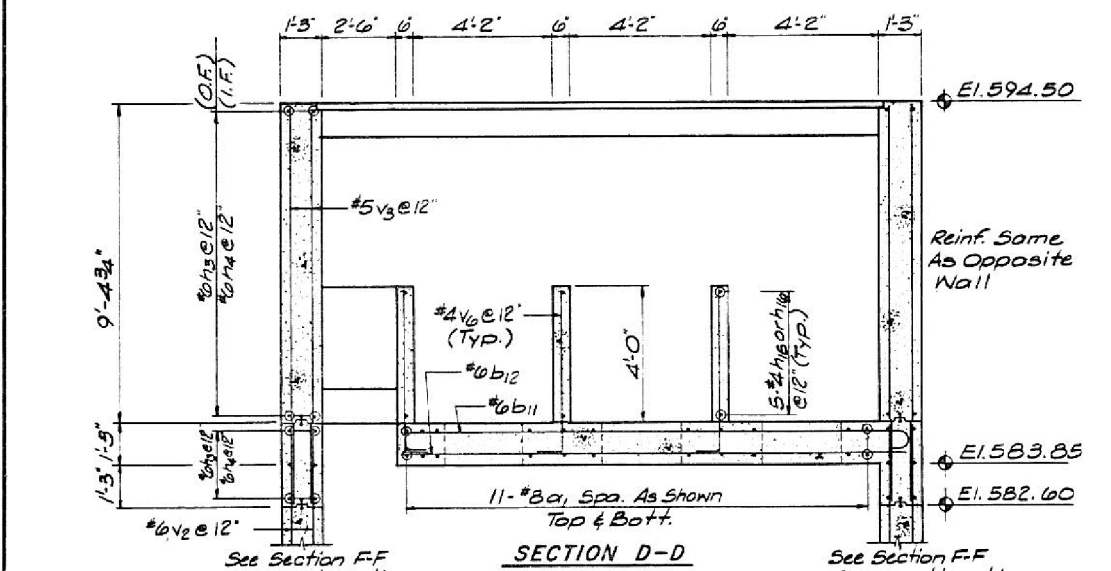
Note: See Sheet 4 of 8 For Anchor Bolt Location.



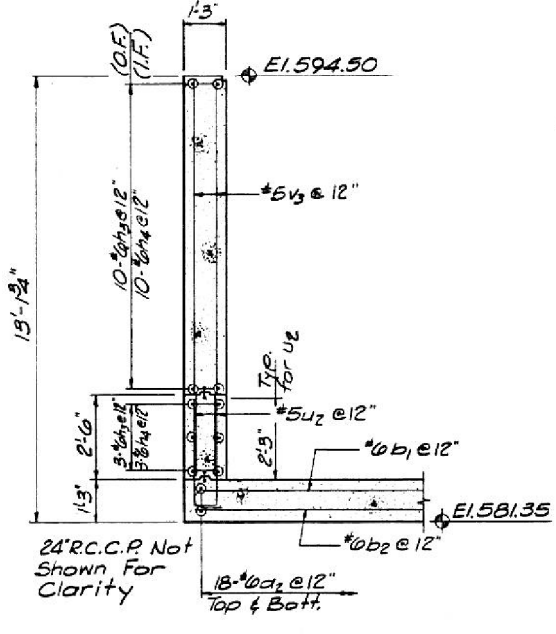
SECTION B-B



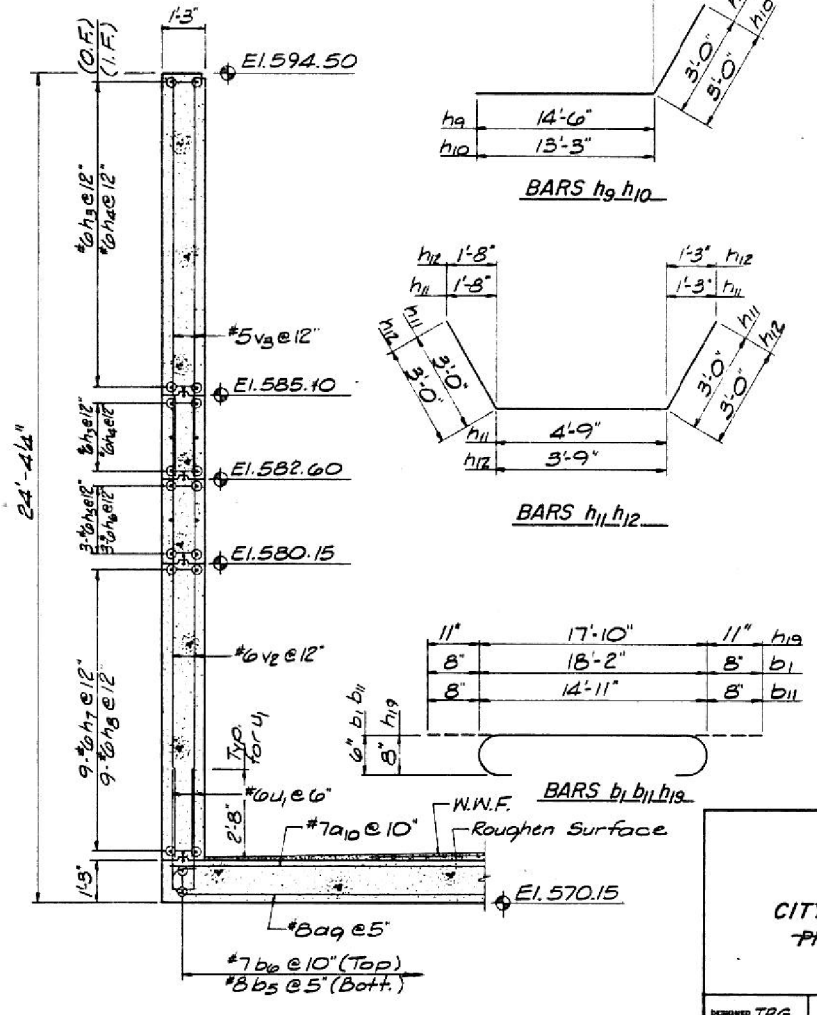
SECTION C-C



SECTION D-D



SECTION E-E



SECTION F-F

LIFT STATION
F.A.U. ROUTE 7985
STATE SECTION 22, SB-1
CITY SECTION 71-00217-00-RP
PROJECT M-MS
SANGAMON COUNTY

DESIGNED TRG
CHECKED PHM
DATE Dec. 1986

HANSON ENGINEERS
INCORPORATED
SPRINGFIELD, PEORIA & ROCKFORD, ILLINOIS

FILE NO. 8431081

FINAL



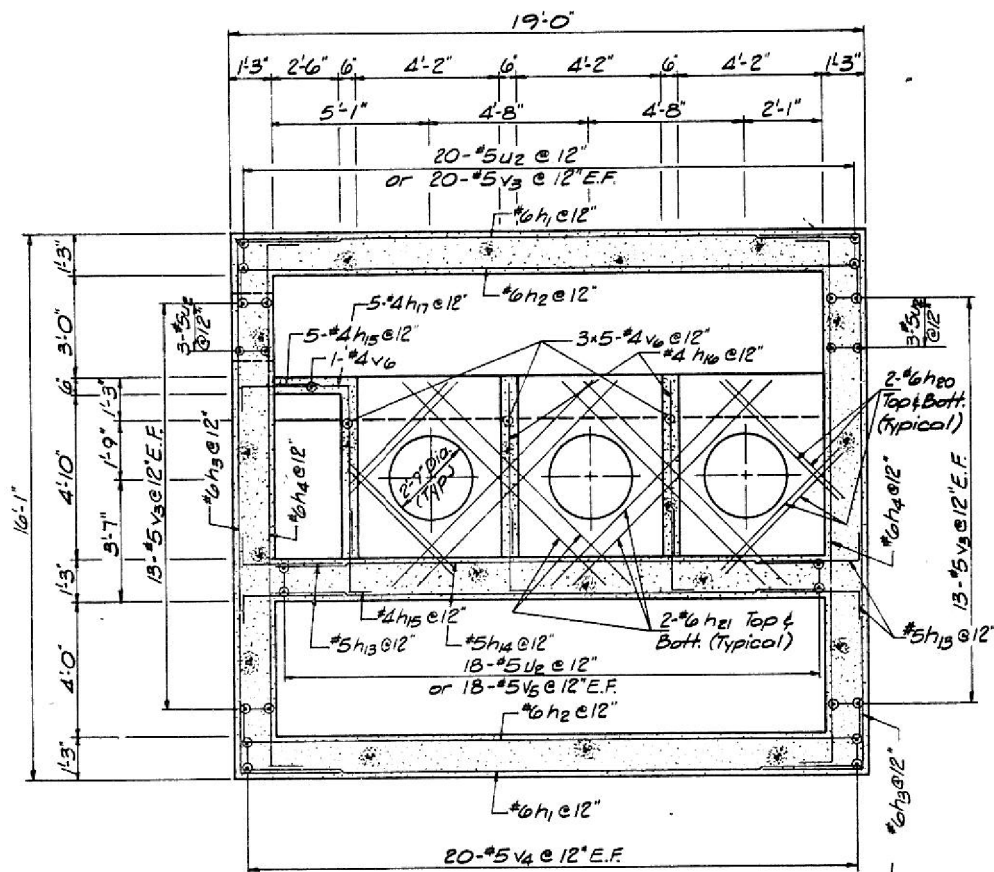
USER NAME = Pop00275	DESIGNED -	REVISIONS -
PLOT SCALE = 2,000' / 1"	DRAWN -	REVISIONS -
PLOT DATE = 1/18/2021	CHECKED -	REVISIONS -
	DATE = 1/18/2021	REVISIONS -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
EXISTING PLANS - COOK STREET - 3

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7985	19-00488-00-BR	SANGAMON	347	185
0910179B		CONTRACT NO.	93747	
7985A & 8152		ILLINOIS FED. AID PROJECT		

SCALE: SHEET 3 OF 8 SHEETS STA. TO STA.



PLAN AT ELEV. 585.1

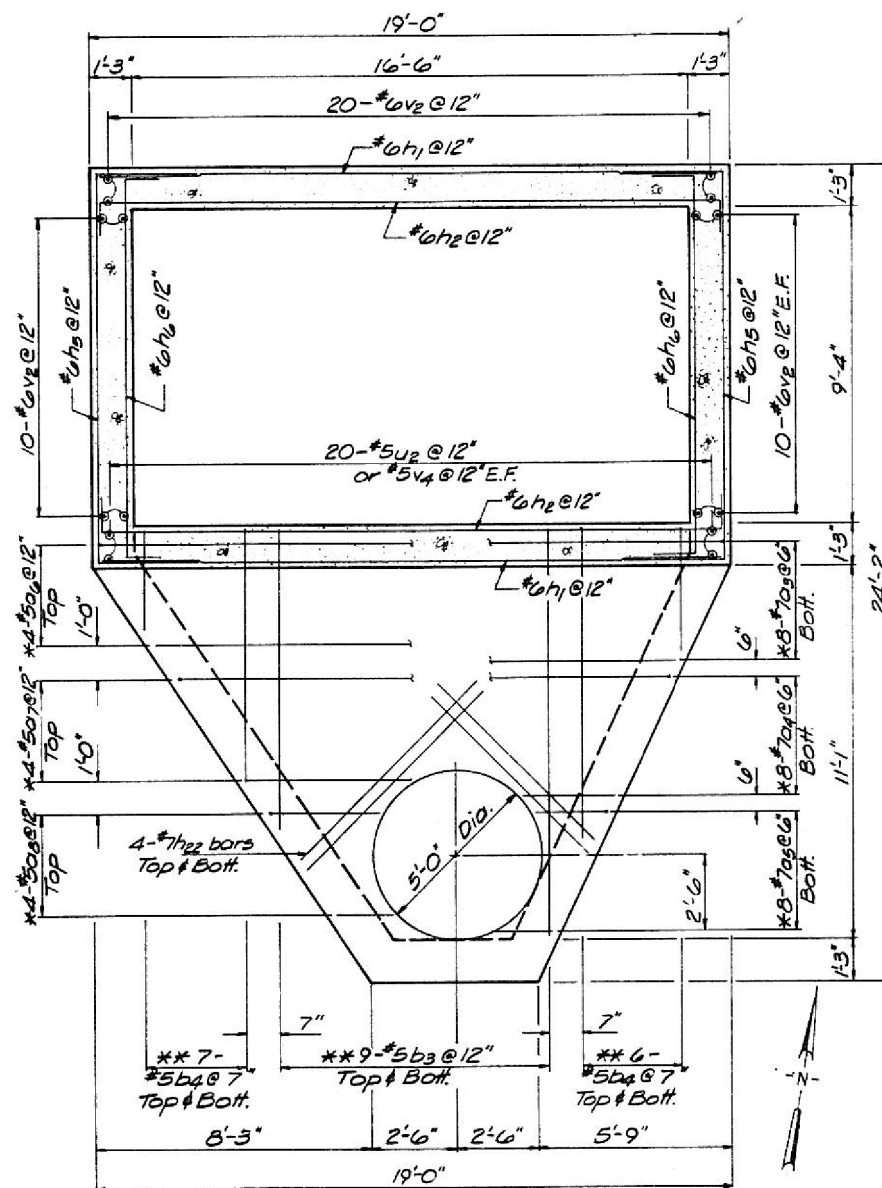
BILL OF MATERIAL - CONT.

Bar No.	Size	Length	Shape
a3	#7	19'-4"	U
a4	#7	15'-10"	U
a5	#7	11'-2"	U
a6	#5	19'-1"	U
a7	#5	15'-7"	U
a8	#5	10'-11"	U
a9	#8	20'-4"	U
a10	#7	18'-6"	U
a11	#8	18'-11"	U
a12	#7	18'-0"	U
a13	#8	14'-5"	U
a14	#7	13'-6"	U
a15	#8	9'-8"	U
a16	#7	8'-9"	U
b3	#5	13'-9"	U
b4	#5	9'-7"	U
b5	#8	12'-3"	U
b6	#7	11'-4"	U
b7	#8	13'-5"	U
b8	#7	11'-6"	U
b9	#8	17'-10"	U
b10	#7	16'-2"	U

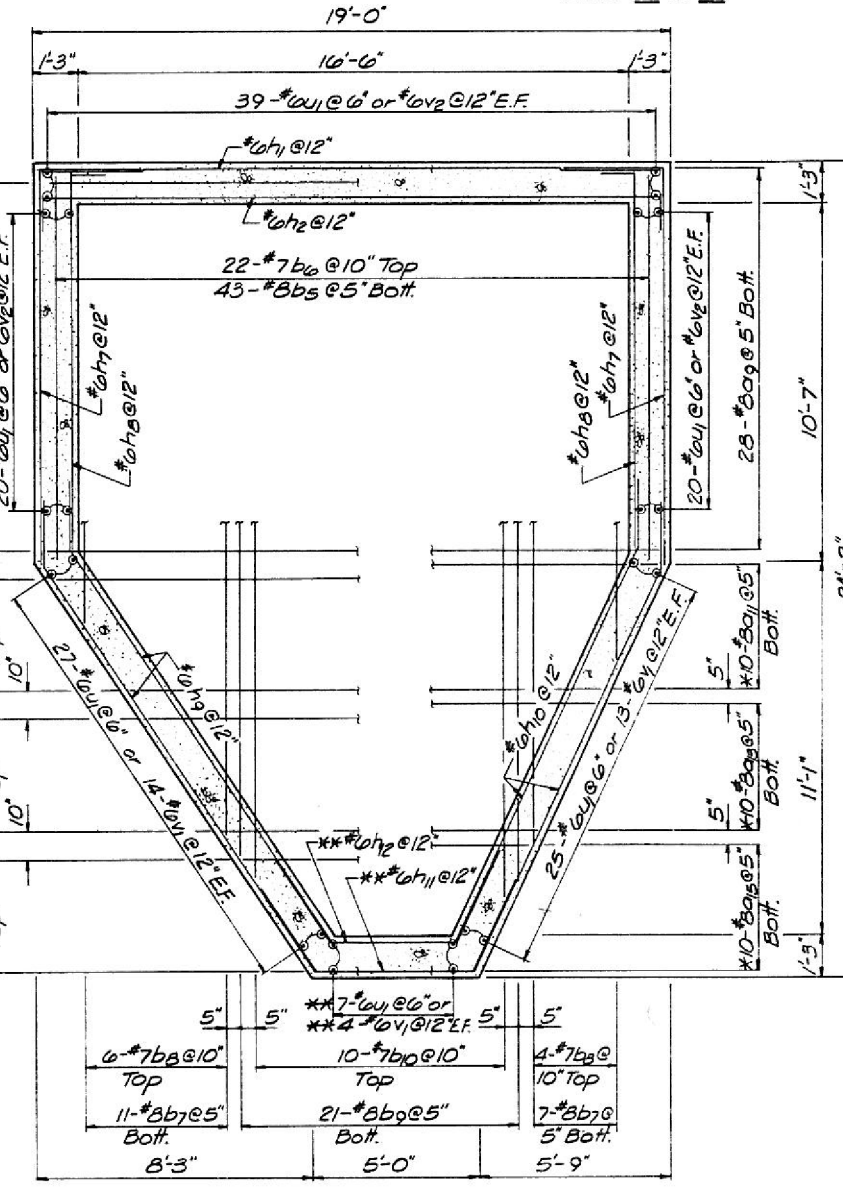
Bar No.	Size	Length	Shape
h17	#4	7'-2"	U
h20	#6	4'-6"	U
h21	#6	8'-6"	U
h22	#7	8'-0"	U
u1	#6	8'-1/2"	U
u2	#5	7'-3/2"	U
v1	#6	8'-6"	U
v2	#6	13'-6"	U
v3	#5	11'-8"	U
v4	#5	14'-2"	U
v5	#5	9'-2"	U
v6	#4	5'-6"	U

Class X Concrete Cu. Yds. 115.2
 Reinforcement Bar Lbs. 24,920
 Cofferdam Excavation Cu. Yds. 414
 Rock Excavation for Structure Cu. Yds. 83
 Porous Granular Emb. Cu. Yds. 138

Bars Interrupted By Pipes Or Openings My Be Either Cut In Field or Prefabricated Prior To Shipment.

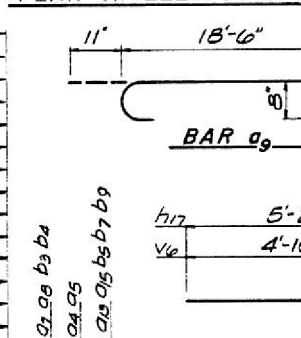


PLAN AT ELEV. 580.15



PLAN AT ELEV. 571.40

a3	18'-6"	10"
a4	15'-0"	10"
a5	10'-4"	10"
a6	18'-6"	7"
a7	15'-0"	7"
a8	10'-4"	7"
a11	18'-0"	11"
a13	13'-6"	11"
a15	8'-9"	11"
b3	13'-2"	7"
b4	9'-0"	7"
b5	11'-4"	11"
b7	12'-6"	11"
b9	16'-11"	11"



* - Field Cut and Alternate Hooked Ends.
 ** - Field Cut as Required.

BARS a3, a4, a5, a6, a7, a8, a11, a13, a15, b3, b4, b5, b7, b9

BARS h17, v6

LIFT STATION
 F.A.U. ROUTE 7985
 STATE SECTION 22, SB-1
 CITY SECTION 71-00217-00-RP
 PROJECT M-MG
 SANGAMON COUNTY

DESIGNED TRG
 CHECKED PMM
 DRAWN PMM
 CHECKED TRG

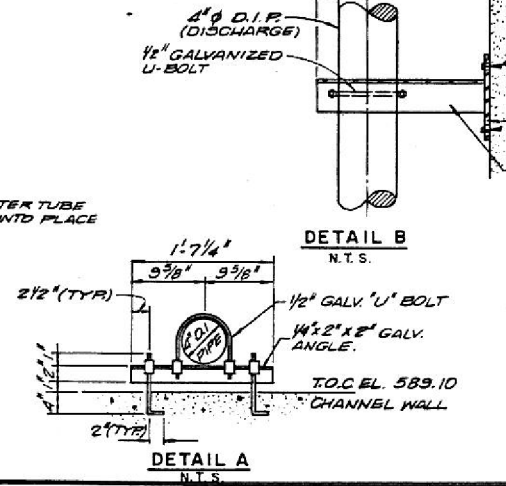
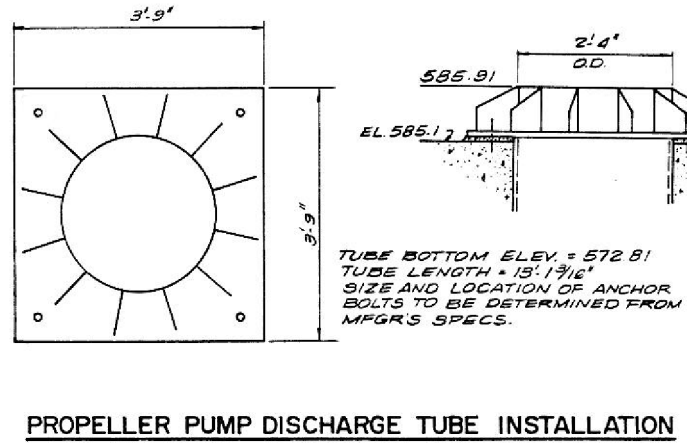
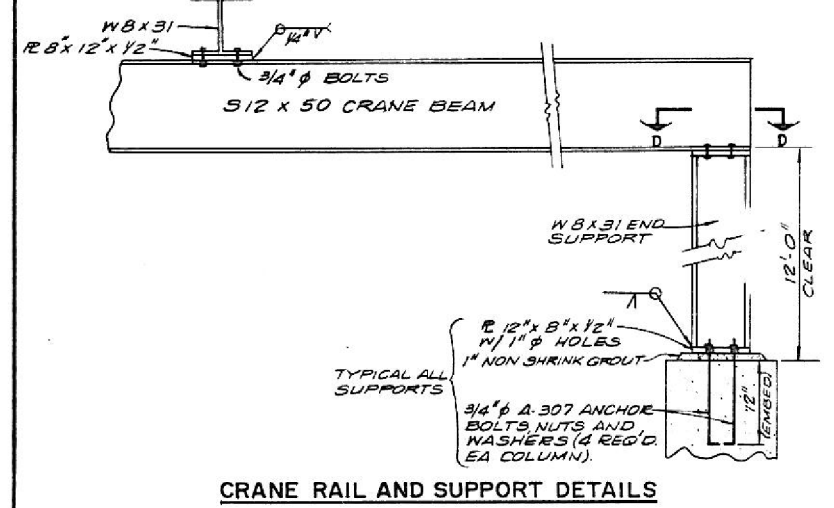
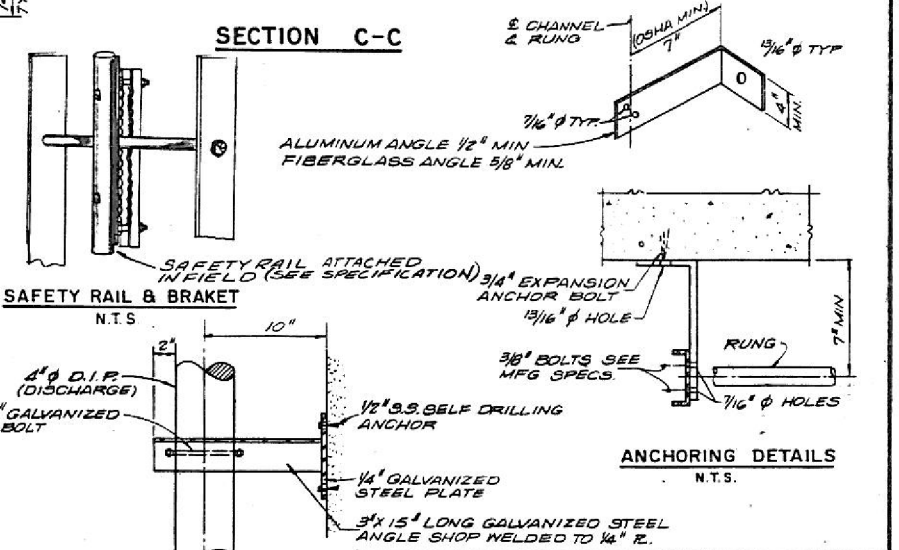
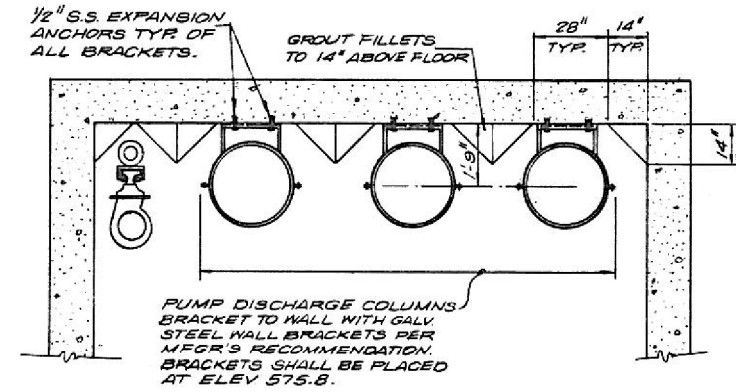
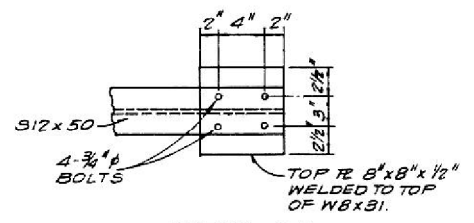
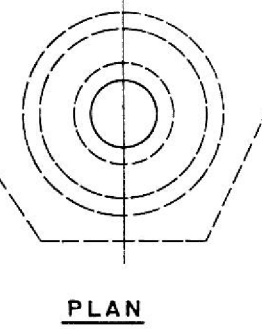
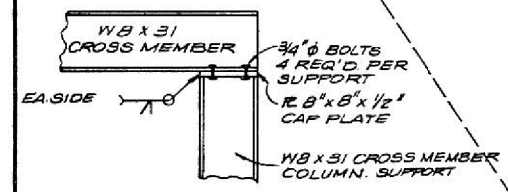
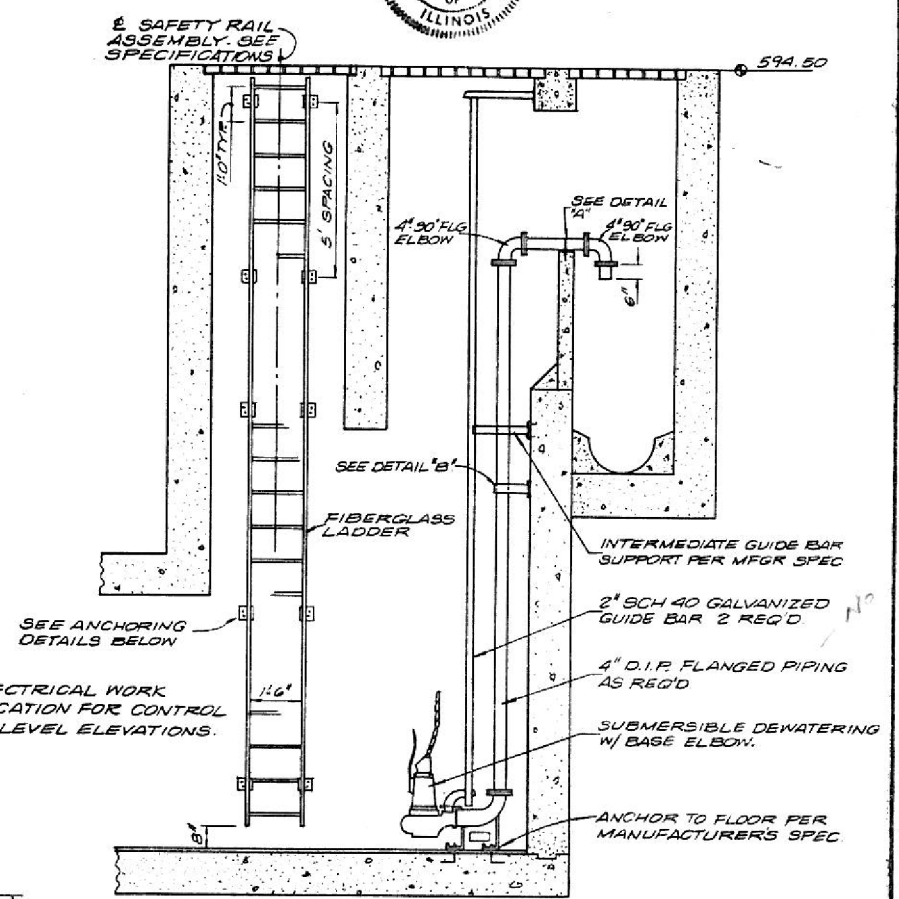
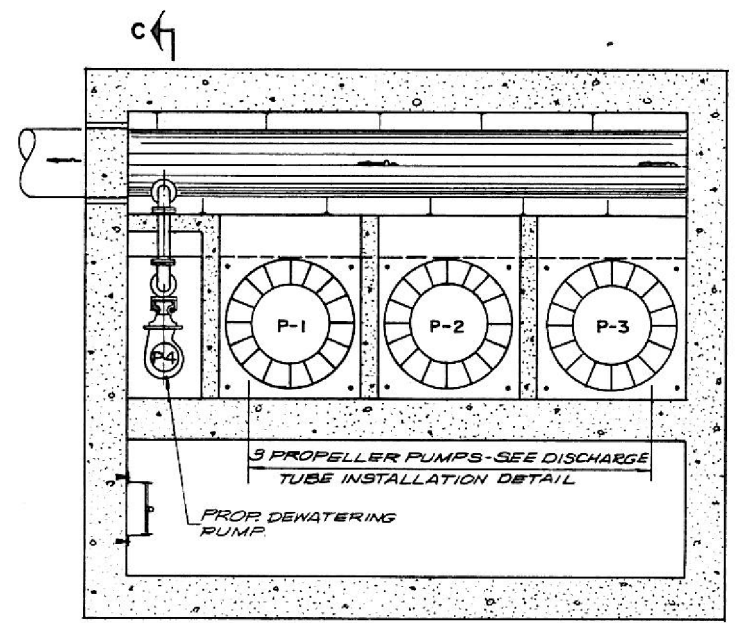
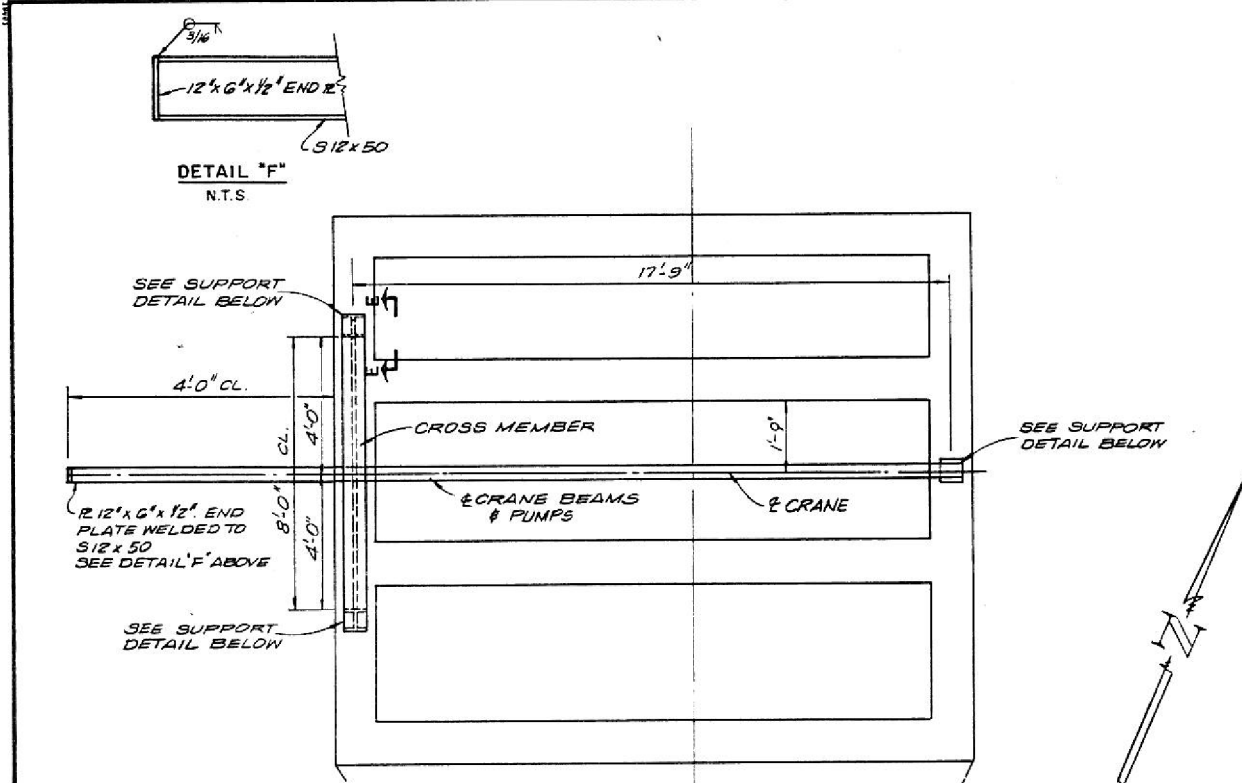
HANSON ENGINEERS
 INCORPORATED
 SPRINGFIELD, PEORIA & ROCKFORD, ILLINOIS

FILE NO. B4S10B1
 DATE Dec. 1986



ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 22	7985	Sangamon	101	84

Sheet 4 of 8



LIFT STATION MECHANICAL DETAILS

FAU. ROUTE 7985
STATE SECTION 22, SB-1
CITY SECTION 71-00217-00-RP
PROJECT M-MG-
SANGAMON COUNTY

DESIGNED: J.R.
DRAWN: W.M.
CHECKED: J.R.

CMT
CONSULTING ENGINEERS

3750 West Washington St. • Springfield, IL 62702 • PH. (217) 787-8650
SPRINGFIELD, IL • AUBURN, IL • ST. LOUIS, MO

JOB NO. 8624-52
DATE DEC. 1986

FINAL

V&K
Veenstra & Kimm, Inc.
Springfield, IL. Phone: (217)544-8033

USER NAME = Pop00275	DESIGNED -	REVISED -
PLOT SCALE = 2,000' / 1"	DRAWN -	REVISED -
PLOT DATE = 1/18/2021	CHECKED -	REVISED -
	DATE - 1/18/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

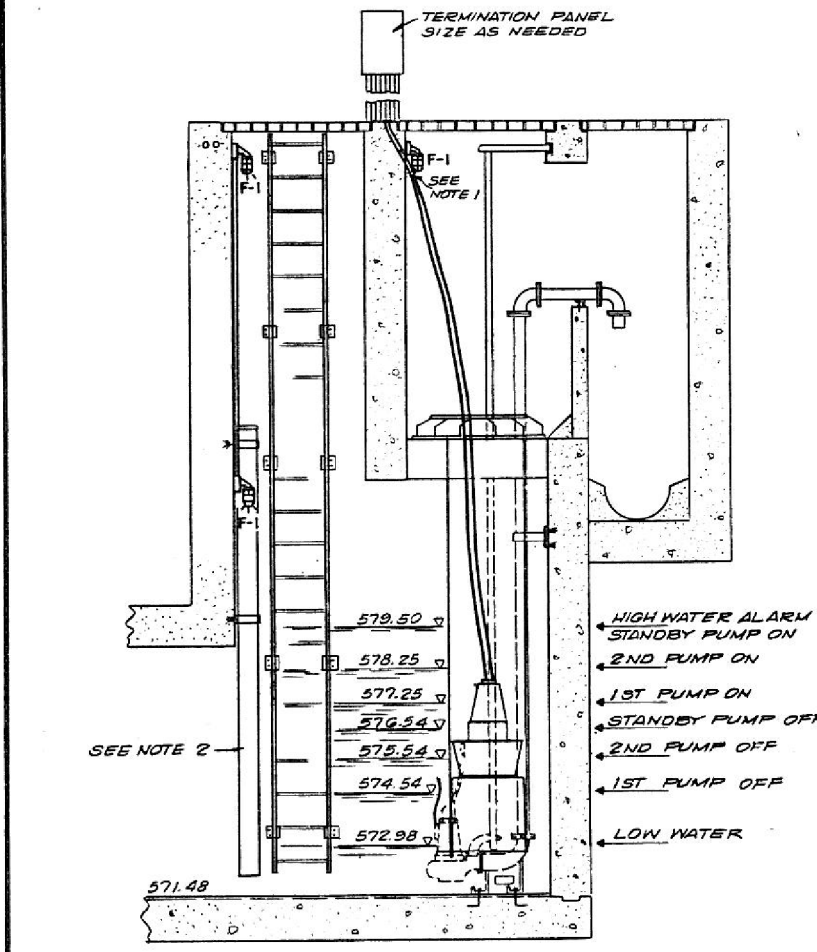
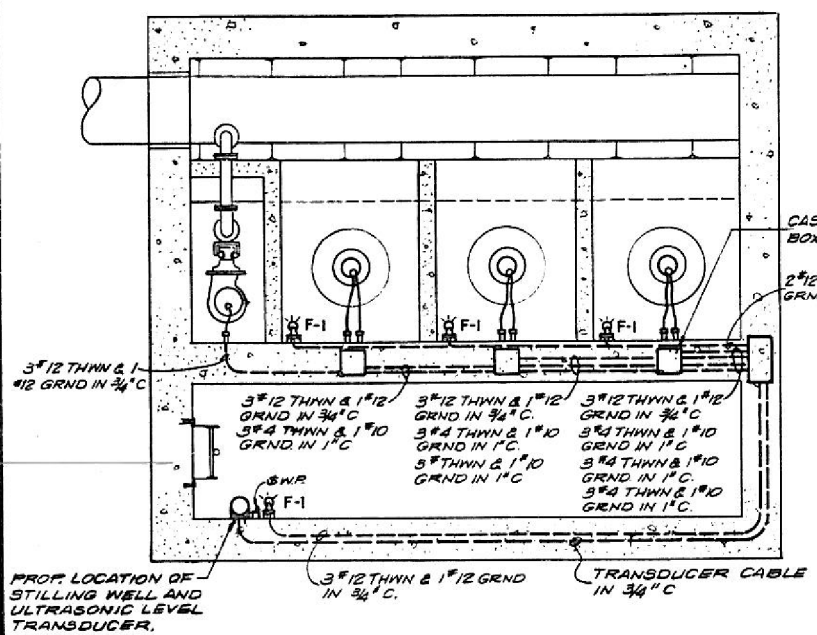
SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
EXISTING PLANS - COOK STREET - 5

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	19-00488-00-BR	SANGAMON	347	187
	09L0179B			CONTRACT NO. 9374

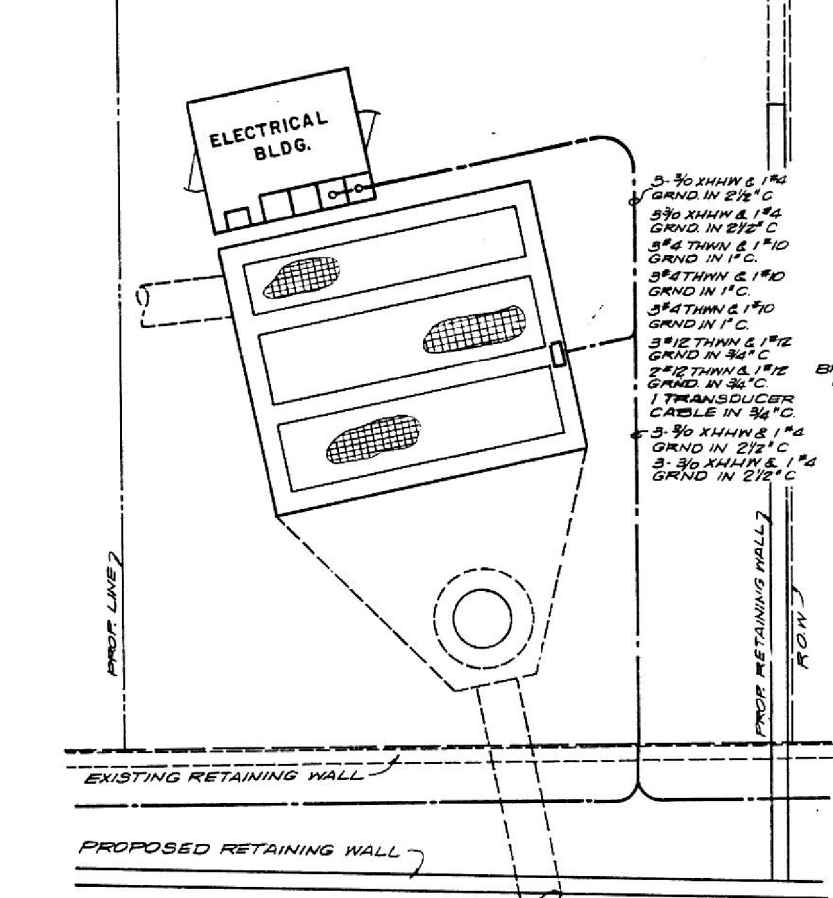
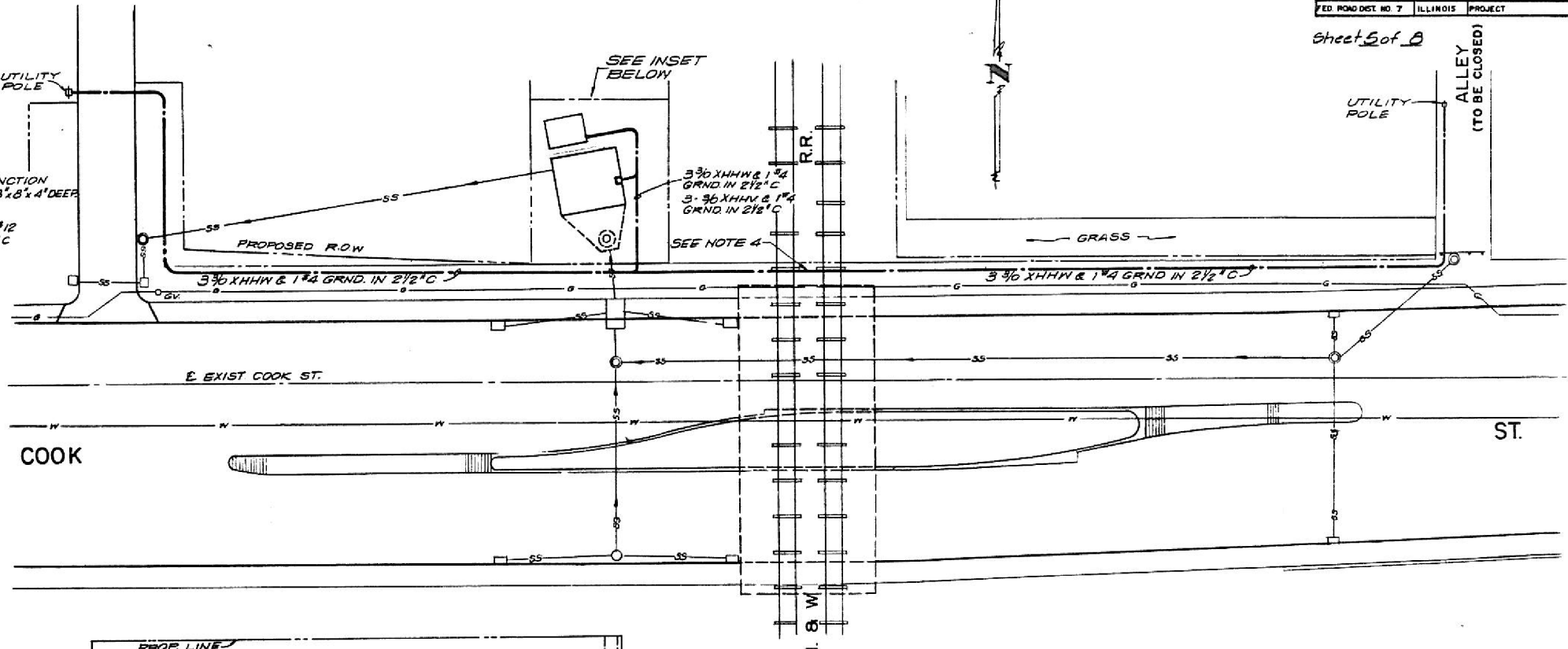
SCALE: SHEET 5 OF 8 SHEETS STA. TO STA.

F. 7985A & 8154 ILLINOIS FED. AID PROJECT

Sheet 5 of 8
ALLEY (TO BE CLOSED)

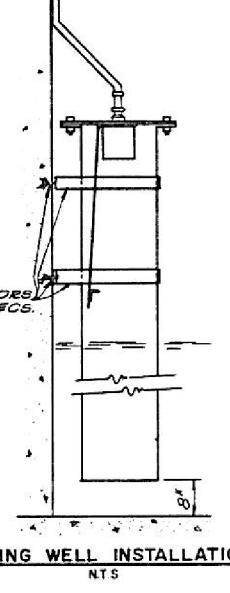


PUMPING STATION ELECTRICAL DETAILS
SCALE: 3/8" = 1'-0"

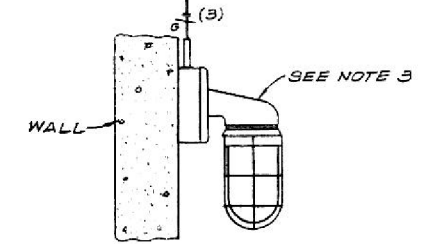


PUMPING STATION SITE PLAN
SCALE: 3/16" = 1'-0"

AREA ELECTRICAL SITE PLAN
SCALE: 1" = 20'



STILLING WELL INSTALLATION
NTS



F-1 FIXTURE TYPICAL MOUNTING DETAIL
NTS

- NOTES**
1. SEALING BUSHING SHALL BE O-Z GEDNEY "CSBG" OR EQUAL.
 2. 8" PVC SCH 40 STILLING PIPE W/ FLANGE MOUNT ULTRASONIC LEVEL TRANSMITTER. FISHER AND PORTER MODEL 50 US 3213 ABE OR EQUAL.
 3. F-1 LIGHT FIXTURE APPLETON # JBW 20G-A OR EQUAL 150 W. INCANDESCENT.
 4. ELECTRICAL DUCT TO BE INSTALLED IN PHASES. ELECTRICAL CONTRACTOR TO COORDINATE INSTALLATION WITH OTHER WORK BEING DONE IN THIS AREA.



LIFT STATION ELECTRICAL DETAILS
FAU, ROUTE 7985
STATE SECTION 22, SB-1
CITY SECTION 71-00217-00-RP
PROJECT M-MG
SANGAMON COUNTY

DESIGNED - T.S.	 <small>CLIFFORD M. TAYLOR & TAYLOR, Inc. Consulting Engineers</small> <small>2750 West Washington St. - Springfield, IL 62702 - Ph. (217) 787-8551</small> <small>SPRINGFIELD, IL - AURORA, IL - ST. LOUIS, MO</small>	JOB NO.
DRAWN - W.M.		8624-52
CHECKED - J.R.		DATE
		DEC. 1986

FINAL



USER NAME = Pop00275	DESIGNED -	REVISED -
PLOT SCALE = 2,000' / in.	DRAWN -	REVISED -
PLOT DATE = 1/18/2021	CHECKED -	REVISED -
	DATE = 1/18/2021	REVISED -

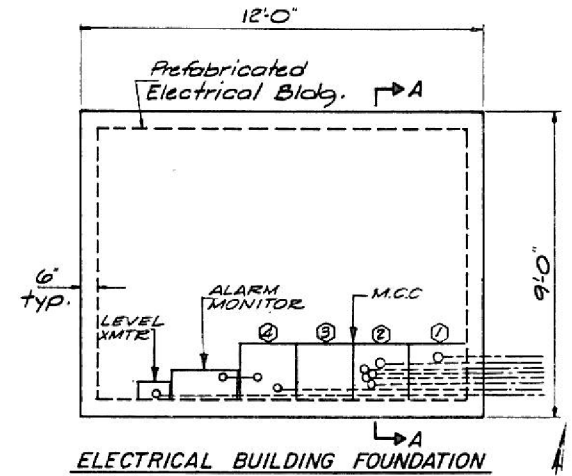
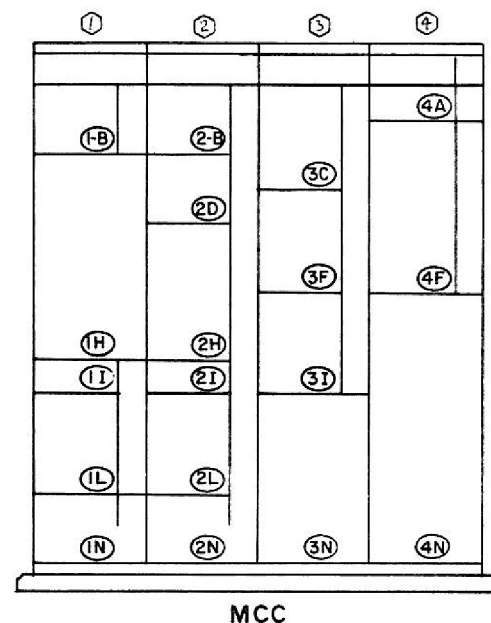
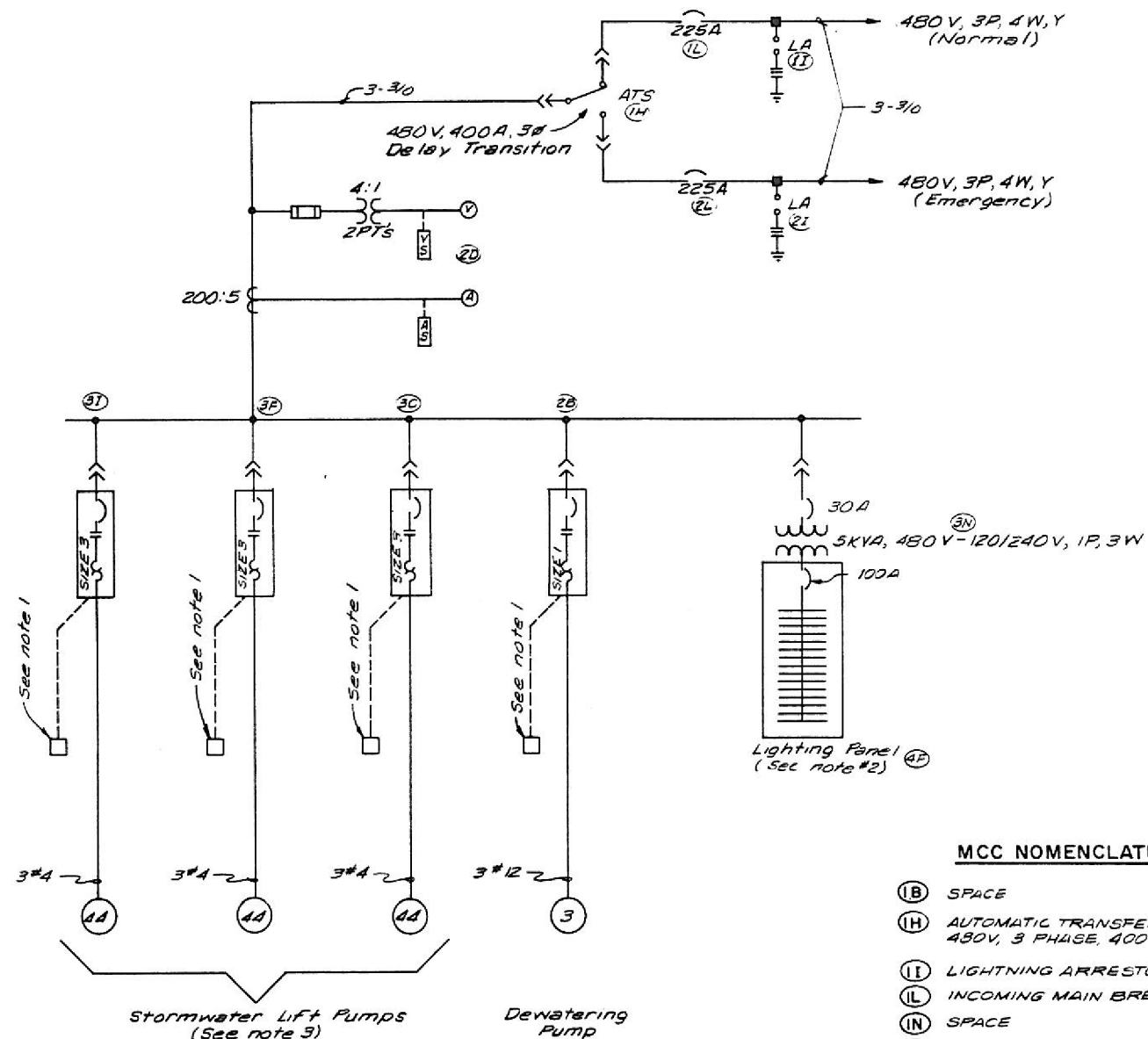
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
EXISTING PLANS - COOK STREET - 6

SCALE: SHEET 6 OF 8 SHEETS STA. TO STA.

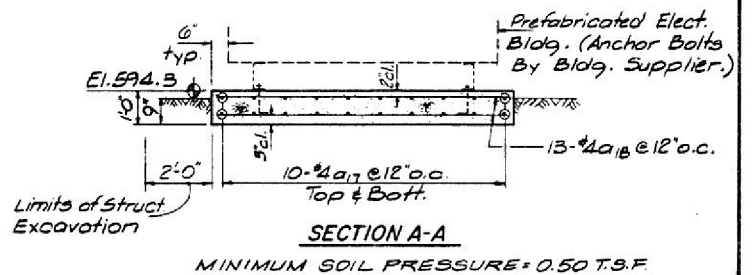
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
* 7985A & 8155	19-00488-00-BR	SANGAMON	347	188
0910179B		CONTRACT NO.	93747	
ILLINOIS		FED. AID PROJECT		

Sheet 6 of 8



BILL OF MATERIAL

Bar No.	Size	Length	Shape
a17	20 #4	8'-6"	
a18	20 #4	11'-6"	
Class X Concrete Cu. Yds. 4.0			
Reinforcement Bars Lbs. 320			
Structure Excavation Cu. Yds. 6.0			



MCC NOMENCLATURE

- (1B) SPACE
- (1H) AUTOMATIC TRANSFER SWITCH 480V, 3 PHASE, 400 AMP
- (1I) LIGHTNING ARRESTOR, SURGE CAPACITOR
- (1L) INCOMING MAIN BREAKER, PRIMARY SOURCE, 225AMP
- (1N) SPACE
- (2B) DEWATERING PUMP STARTER, SIZE 1, COMB. CIR. BKR TYPE.
- (2H) METERING
- (2I) LIGHTNING ARRESTOR, SURGE CAPACITOR
- (2L) INCOMING MAIN BREAKER, ALTERNATE SOURCE, 225A
- (2N) SPACE
- (3C) LIFT PUMP #1 STARTER, SIZE 3, COMB. CIR. BKR TYPE.
- (3F) LIFT PUMP #2 STARTER, SIZE 3, COMB. CIR. BKR TYPE
- (3I) LIFT PUMP #3 STARTER, SIZE 3, COMB. CIR. BKR TYPE
- (3N) LIGHTING PANEL TRANSFORMER, 5KVA, 480-120/240V, 1φ 3W NO BUSS IN SECTION (4)
- (4A) SPACE
- (4F) LIGHTING PANEL 20 CIR, 120/240, 1φ WITH 100A MAIN BKR.
- (4N) OPEN SECTION WITH BACK PANEL FOR PLC MOUNTING

- NOTES**
- Indicates PLC connection for pump control
 - Lighting Panel 20 circuit with 100A main breaker, 1 phase, 3 wire 120/240 VAC, Square D type D-457 or equal.
 - Pump Motors are rated at 33 KW power at the shaft or 44 shaft horsepower.

LIGHT PANEL SCHEDULE

CKT. NO.	POLE NO.	BREAKER SIZE	USAGE
1	1	20A	SPARE
2	2	20A	OUTLETS
3	3	20A	LIGHTS - WET WELL
4	4	20A	LIGHTS - MCC BLDG
5	5	20A	VENT FAN
6	6	20A	ULTRASONIC LEVEL SENSOR
7	7	20A	ALARM MONITOR
8	8	20A	PLC.
9	9, 11	10A	HOIST
10	10, 12	30A	HEATER
11	13		SPACE
12	14		"
13	15		"
14	16		"
15	17		"
16	18		"
17	19		"
18	20		SPACE

LIFT STATION ELECTRICAL DETAILS

F.A.U. ROUTE 7985
STATE SECTION 22, SB-1
CITY SECTION 71-00217-00-RP
PROJECT M-MG
SANGAMON COUNTY

DESIGNED: T.S.	CMT CRAWFORD, BURPEY & TALLE, Inc. Consulting Engineers 2750 West Washington St. • Springfield, IL 62762 • Ph. (217) 787-8550 SPRINGFIELD, IL • AGRORA, IL • ST. LOUIS, MO	JOB NO.
DRAWN: W.M.		8624-52
CHECKED: T.S.		DATE
		DEC. 1986

FINAL

V&K
Veenstra & Kimm, Inc.
Springfield, IL Phone: (217)544-8033

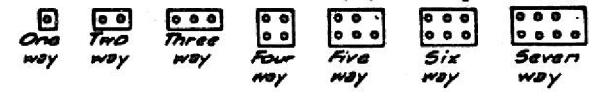
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PLOT SCALE = 2,000' / 1"	DRAWN -	REVISED -
PLOT DATE = 1/18/2021	CHECKED -	REVISED -
	DATE = 1/18/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

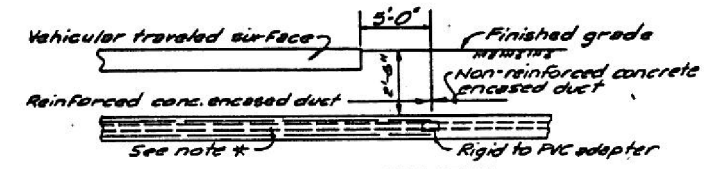
SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
EXISTING PLANS - COOK STREET - 7

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7985A & 8156	19-00488-00-BR	SANGAMON	347	189
09L0179B			CONTRACT NO.	9374
SCALE: SHEET 7 OF 8 SHEETS STA. TO STA.			FED. AID PROJECT	

ROUTE NO.	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
FAU. 7985	22	Sangamon	101	88
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT				

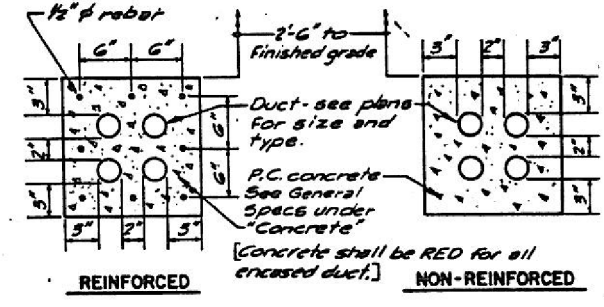


TYPICAL DUCT BANK CONFIGURATIONS



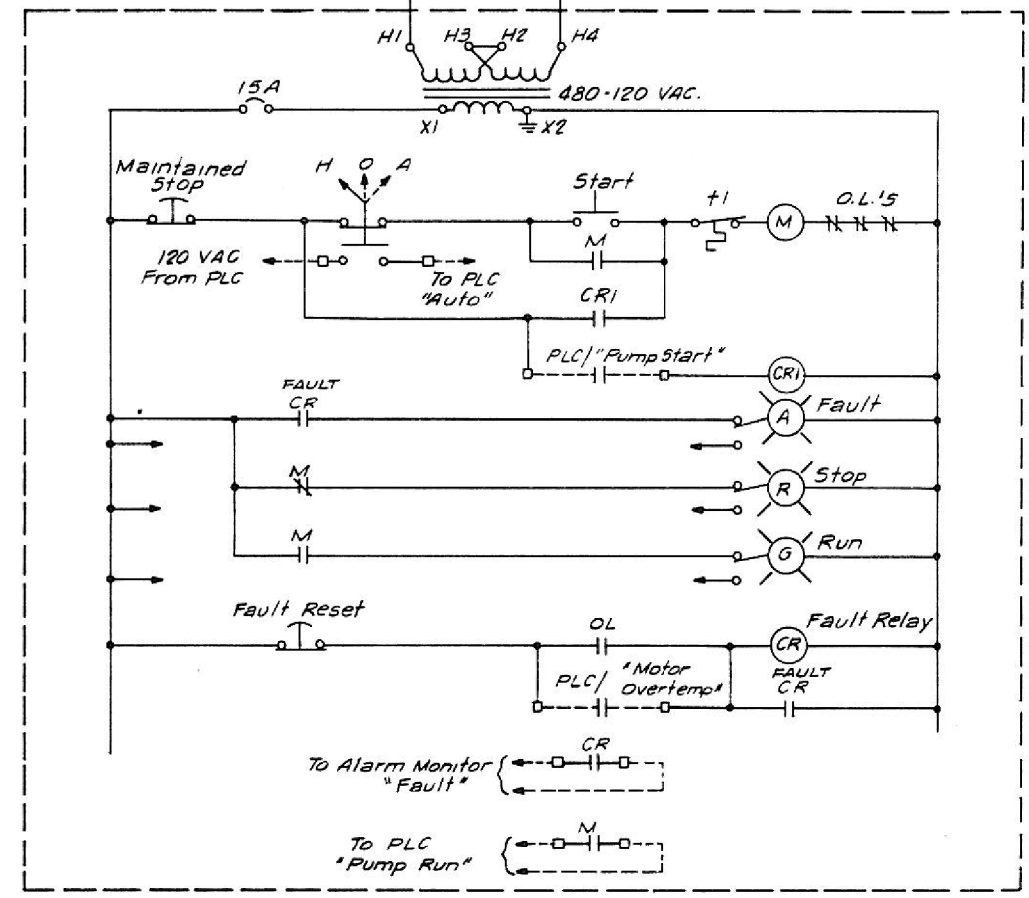
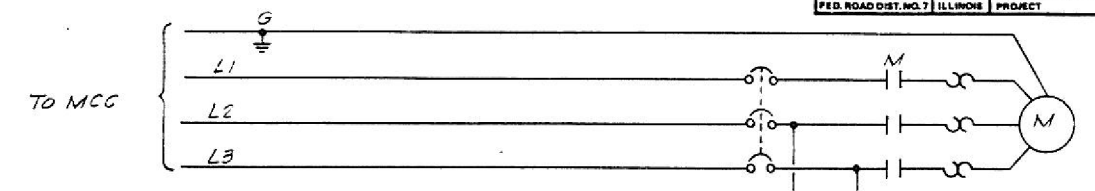
REINFORCED DUCT INSTALLATION

* Galv. Rigid steel conduit shall be used under ALL roadway crossings. PVC sch. 40 shall be used for all other duct.



CONCRETE ENCASED DUCT DETAILS (4-WAY SHOWN)

Note: All dimensions shown are minimum.



TYPICAL PUMP CONTROL SCHEMATIC

LIFT STATION ELECTRICAL DETAILS
 F.A.U. ROUTE 7985
 STATE SECTION 22, SB-1
 CITY SECTION 71-00217-00-RP
 PROJECT M-MG
 SANGAMON COUNTY

DESIGNED: T.S.		JOB NO.
DRAWN: R.F.		8624-52
CHECKED: T.S.		DATE
2750 West Washington St. • Springfield, IL 62762 • Ph. (217) 787-8030 SPRINGFIELD, IL • AURORA, IL • ST. LOUIS, MO		DEC. 19 86

FINAL

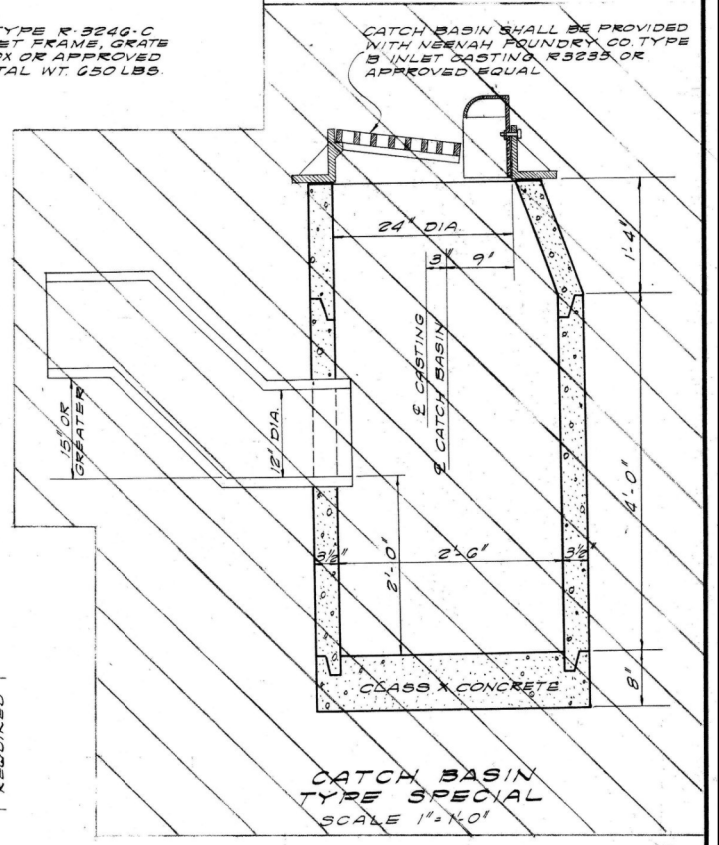
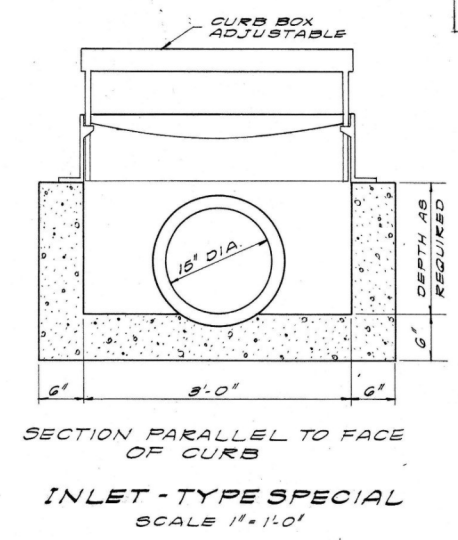
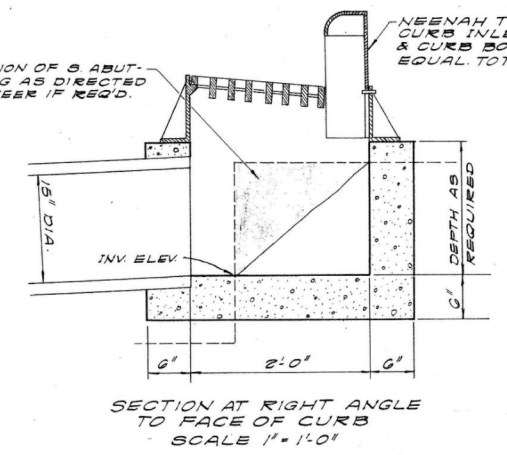
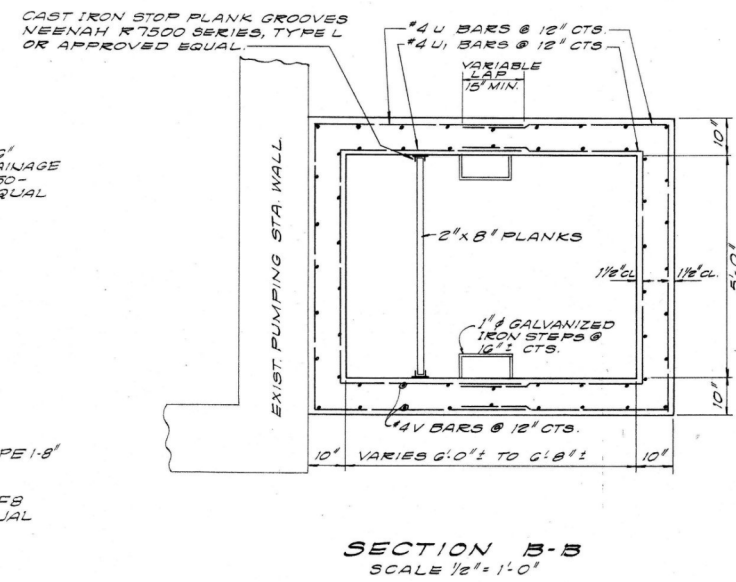
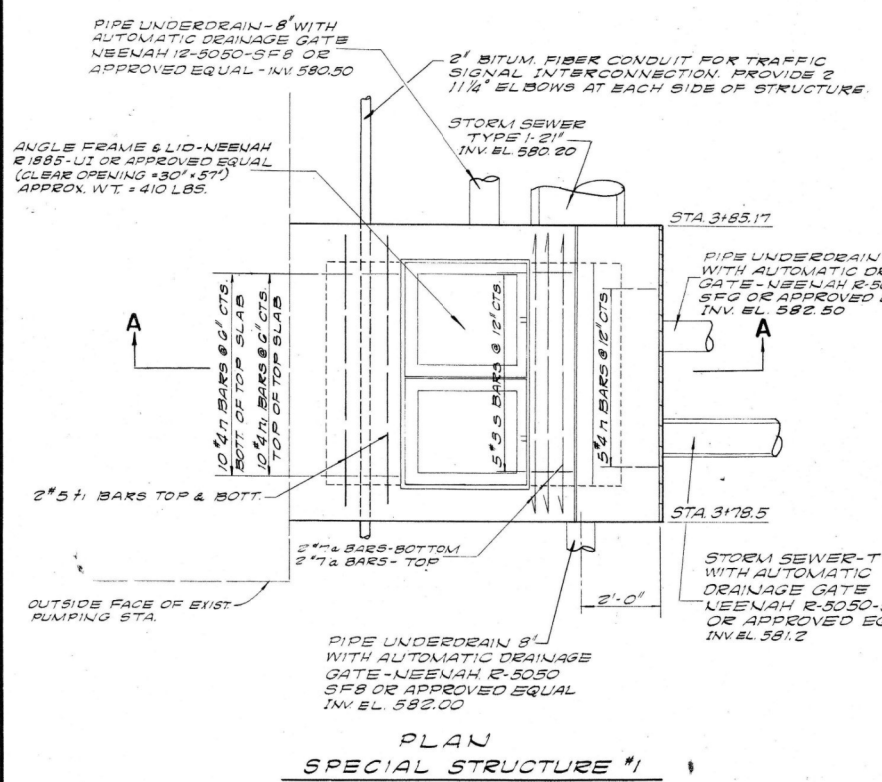
USER NAME = Pop00275	DESIGNED -	REVISED -
PLOT SCALE = 2,000' / 1"	DRAWN -	REVISED -
PLOT DATE = 1/18/2021	CHECKED -	REVISED -
	DATE = 1/18/2021	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
 SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
 EXISTING PLANS - COOK STREET - 8

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7985A & 8157	19-00488-00-BR	SANGAMON	347	190
CONTRACT NO.			93747	
SCALE: SHEET 8 OF 8 SHEETS STA. TO STA.				

MODEL: 008
 FILE: \\MAILSrv\pub\basinc\paw\benley\com\basinc\paw\017985\usable\segment_V\Coas\Sheet\0690017985\sh-evid_01.mxd



THE CONTRACT UNIT PRICE FOR INLET TYPE SPECIAL AND CATCH BASIN, TYPE SPECIAL SHALL INCLUDE THE CAST IRON FRAMES & GRATES SHOWN.

BAR LIST
SPEC. STRUCT. NO. 1

MARK	SIZE	NO.	LENGTH	SHAPE
a	#7	4	8'-0"	U
n	#4	40	2'-10"	U
n1	#4	10	4'-1"	U
i	#4	8	7'-4"	U
i1	#5	13	6'-4"	U
u	#4	20	11'-3"	U
u1	#4	20	9'-6"	U
v	#4	34	9'-7"	U
s	#3	5	2'-4"	U

BILL OF MATERIALS

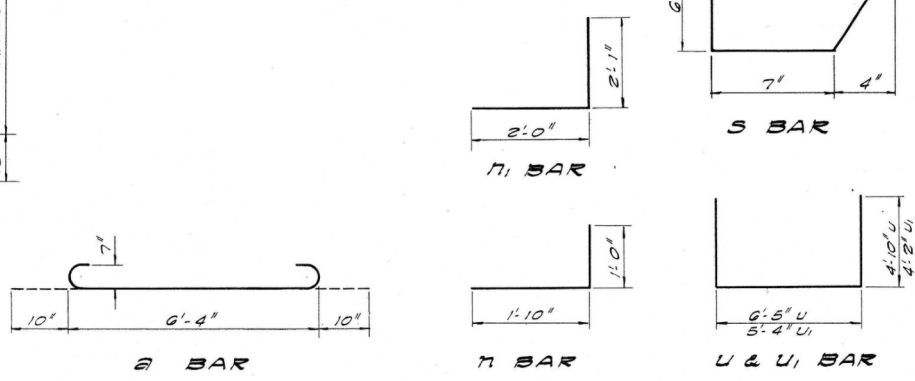
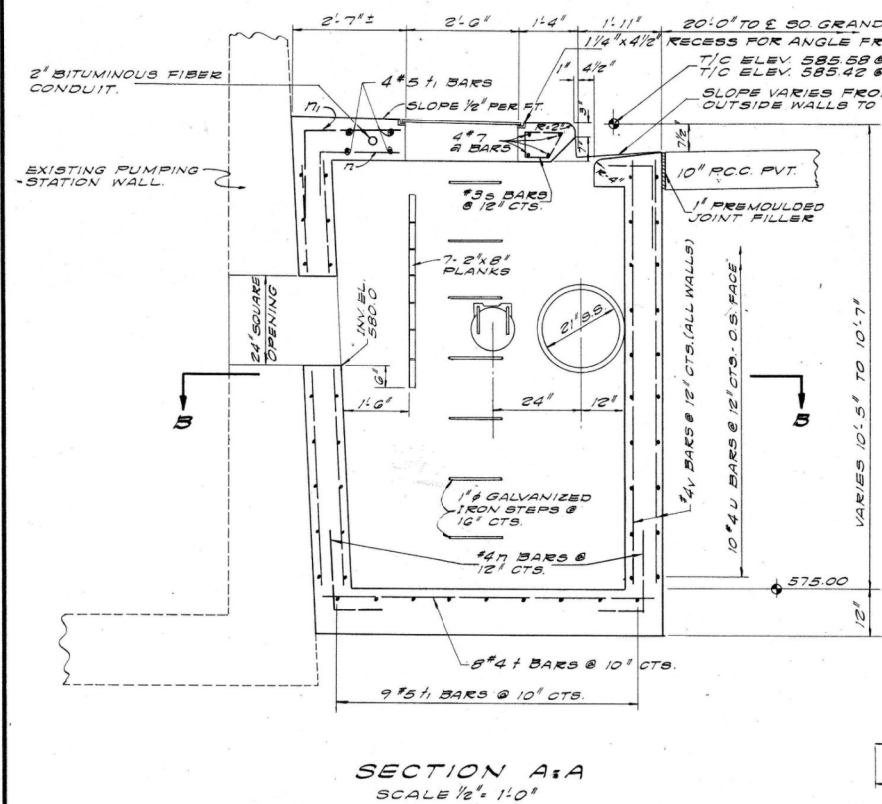
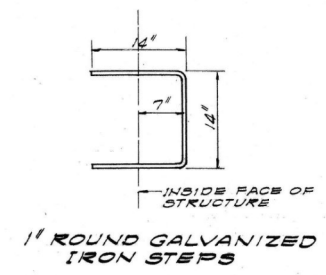
CAST IRON FRAMES & GRATES LBS. 410

REINFORCEMENT BARS LBS. 920

CLASS X CONCRETE CU YDS. 10.8

AUTO. DRAINAGE GATE, 8" EA. 3

AUTO. DRAINAGE GATE, 6" EA. 1



- GENERAL NOTES SPECIAL STRUCTURE NO. 1**
- CLASS X CONCRETE SHALL BE USED THROUGHOUT.
 - REINFORCEMENT BARS SHALL BE LAPPED 20 BAR DIAMETERS OR A MINIMUM OF 12" UNLESS OTHERWISE SHOWN ON THE PLANS.
 - LUMBER SHALL BE 1600 F DENSE SOUTHERN PINE OR 1700 F DENSE DOUGLAS FIR, S-44, UNTREATED, MEETING THE REQUIREMENTS OF SECTION 125 OF THE STANDARD SPECIFICATIONS.
 - SPECIAL STRUCTURE NO. 1 WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR SPECIAL STRUCTURE NO. 1. SEE SPECIAL PROVISIONS.

CITY OF SPRINGFIELD
SECTION 165 C.S.

**SPECIAL STRUCTURE NO. 1
CATCH BASIN, TYPE SPECIAL
INLET, TYPE SPECIAL**

DESIGNED BY: *David Thompson*
DRAWN BY: *W. Misonik*
CHECKED BY: *J.C. Minder*
APPROVED BY: *J.A.M.*

CRAWFORD, MURPHY & TILLY, Inc.
Consulting Engineers
Springfield, Illinois

SCALE AS SHOWN
JOB NO. 6611
DATE DEC. 1966
SHEET 7 OF 22 SHEETS

FINAL

V&K
Veenstra & Kimm, Inc.
Springfield, IL. Phone: (217)544-8033

USER NAME = Pop00275	DESIGNED -	REVISED -
PLOT SCALE = 2,000' / 1"	DRAWN -	REVISED -
PLOT DATE = 1/18/2021	CHECKED -	REVISED -
	DATE = 1/18/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
EXISTING PLANS - SOUTH GRAND AVE - 1

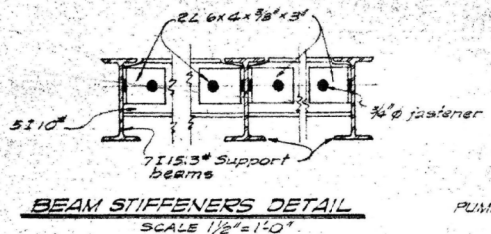
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	191
	09L0179B	CONTRACT NO.		93747

SCALE: SHEET 1 OF 3 SHEETS STA. TO STA.

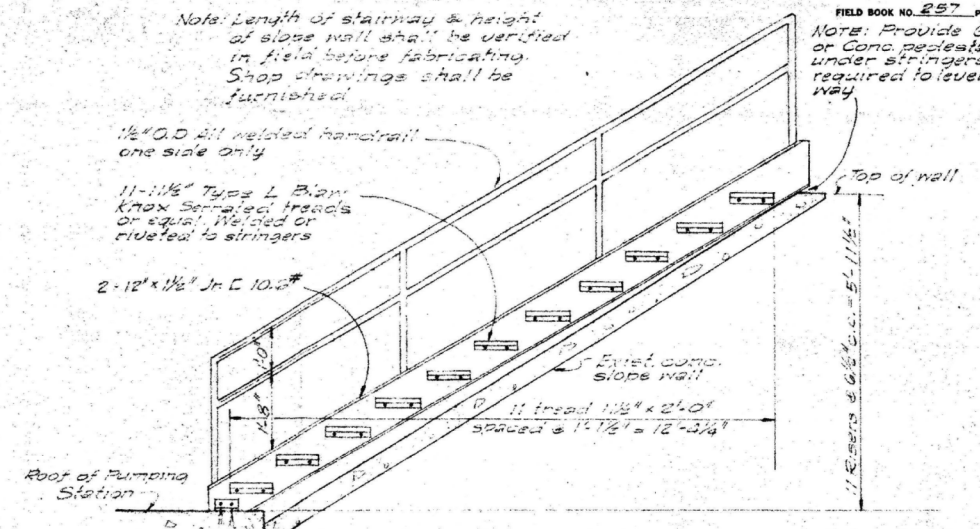
* 7985A & 8158 ILLINOIS FED. AID PROJECT

Note: Length of stairway & height of slope wall shall be verified in field before fabricating. Shop drawings shall be furnished.

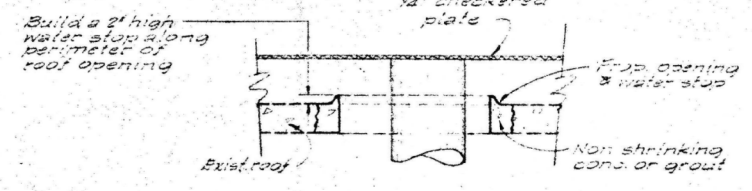
Note: Provide Grout or Conc. pedestal under stringers as required to level stairway.



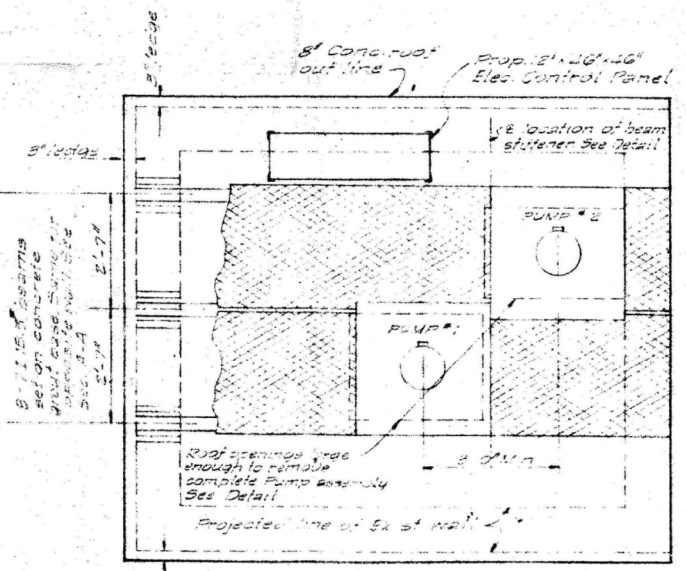
BEAM STIFFENERS DETAIL
SCALE 1/2" = 1'-0"



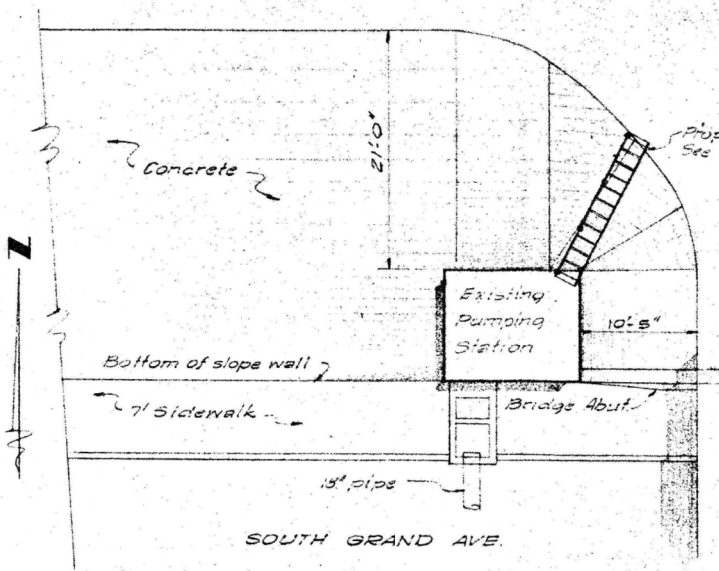
STAIRWAY DETAIL
SCALE 1/2" = 1'-0"



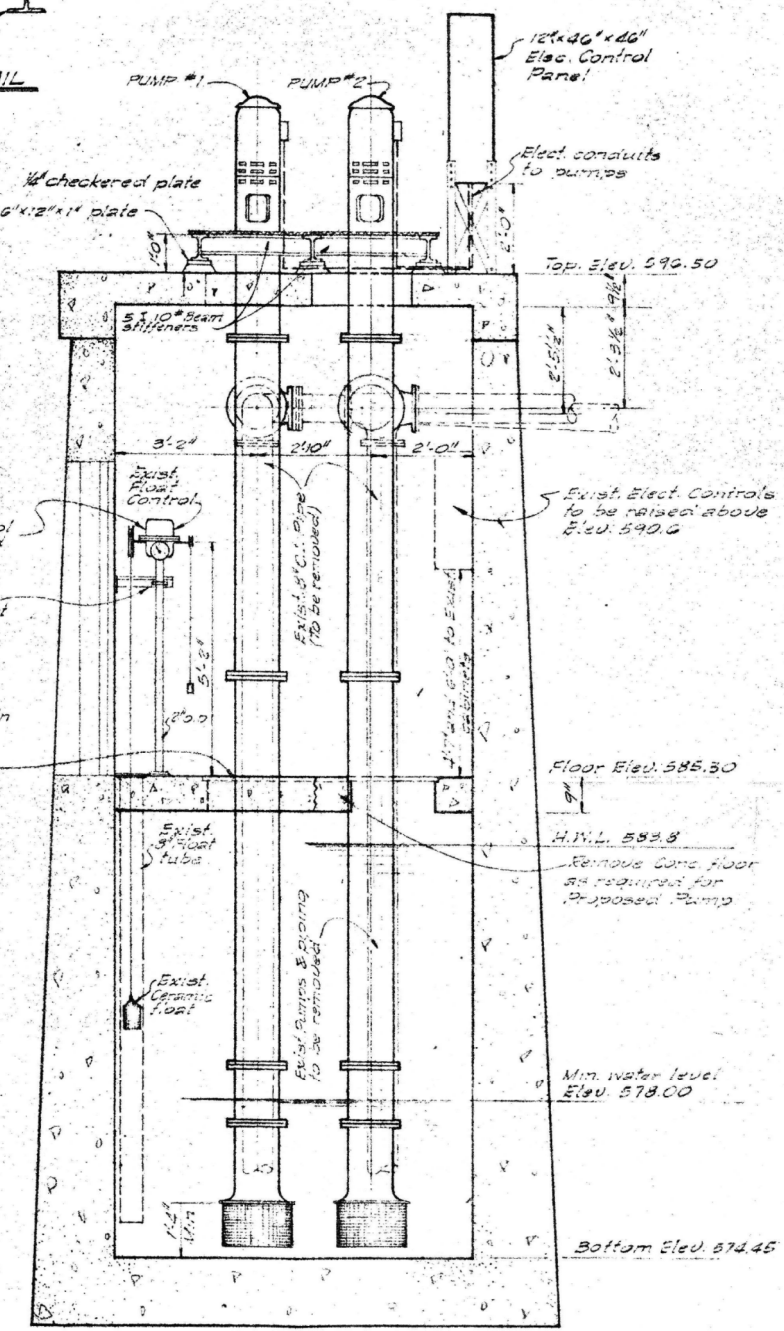
ROOF OPENING DETAIL
NO SCALE



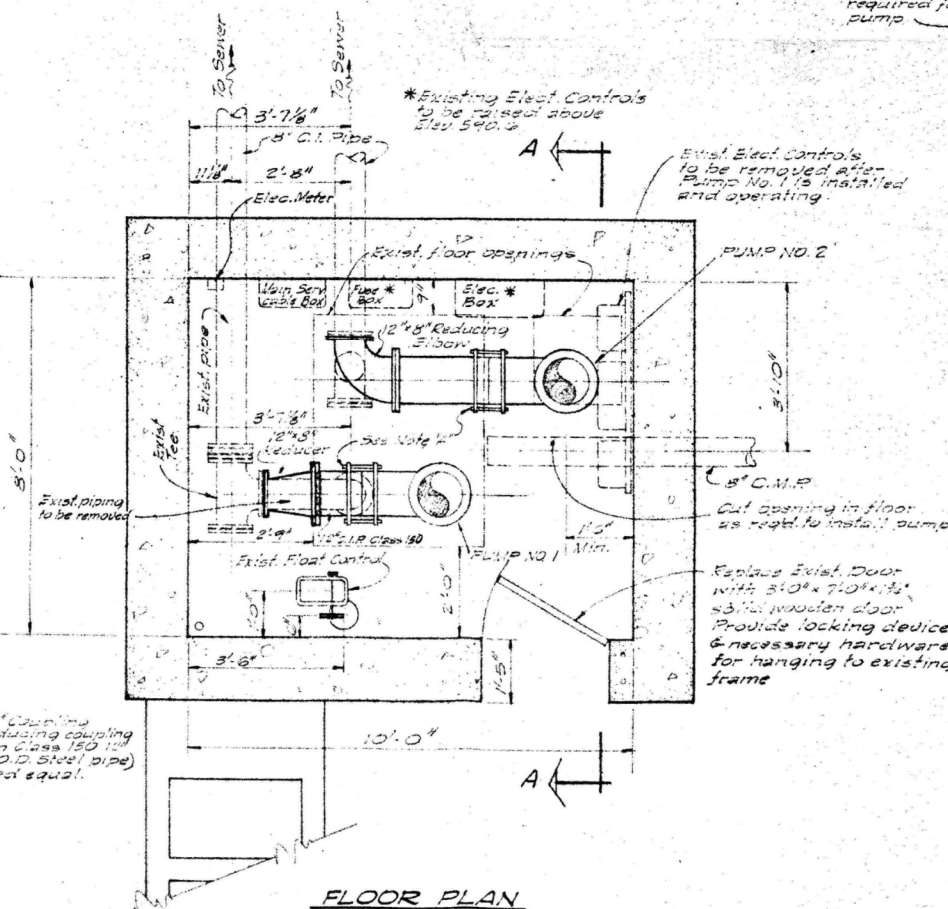
ROOF PLAN
SCALE 1/2" = 1'-0"



LOCATION PLAN
SCALE 1/8" = 1'-0"



SECTION A-A
SCALE 1/2" = 1'-0"



FLOOR PLAN
SCALE 1/2" = 1'-0"

- GENERAL NOTES**
- 1) Contractor shall verify all dimensions before ordering materials.
 - 2) All metal parts shall receive one shop coat and two field coats of corrosion resistant paint. Wooden door shall receive a prime and two final coats of weather resistant paint. Paint shall be similar or equal to those manufactured by Inertol Co. Inc.
 - 3) Pumps & piping to remain property of city. Contractor shall deliver to site designated by City.
 - 4) All electrical work to comply with the current requirements of the National Electric Code and any applicable local Regulation.
 - 5) Grounding continuity shall be established between Current Transformer Cabinet and Station Ground to provide Equipment Grounding.

MODEL 002
FILE NAME: p:\projects\caw\hanshaw\pwr-01\Documents\09101798\USable - Segment - V\South Grand\1011\Sheet\0910179811-11-21.dwg
DRAWN BY: J. S. ...
CHECKED BY: ...
APPROVED BY: ...

FINAL

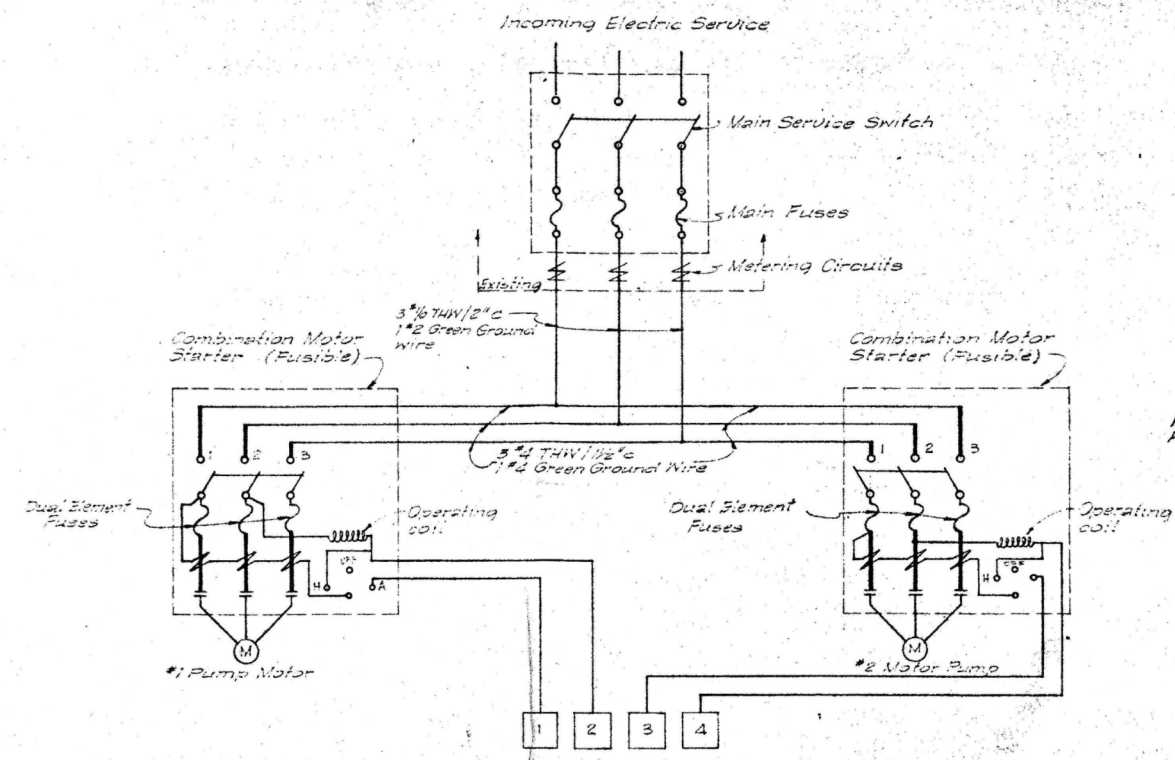


USER NAME = Pop00275	DESIGNED -	REVISED -
PLOT SCALE = 2,000' / in.	DRAWN -	REVISED -
PLOT DATE = 1/18/2021	CHECKED -	REVISED -
	DATE = 1/18/2021	REVISED -

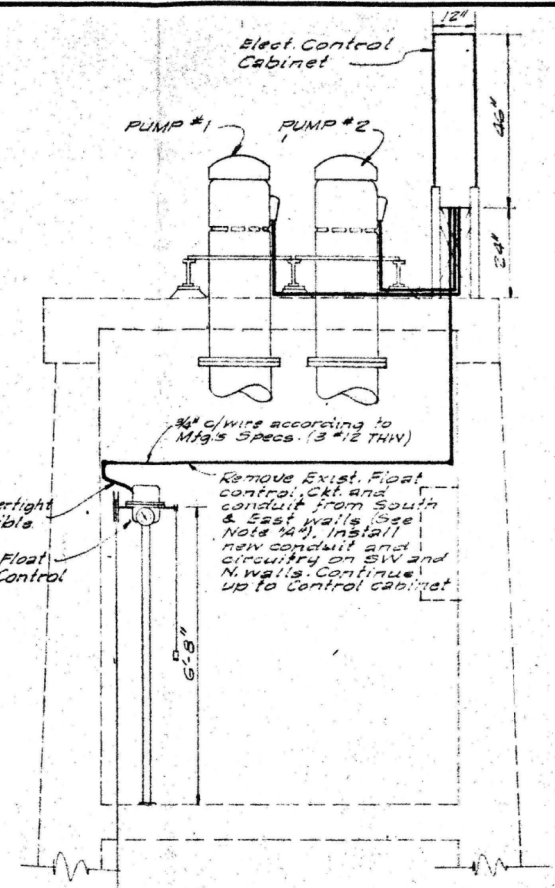
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
EXISTING PLANS - SOUTH GRAND AVE - 2

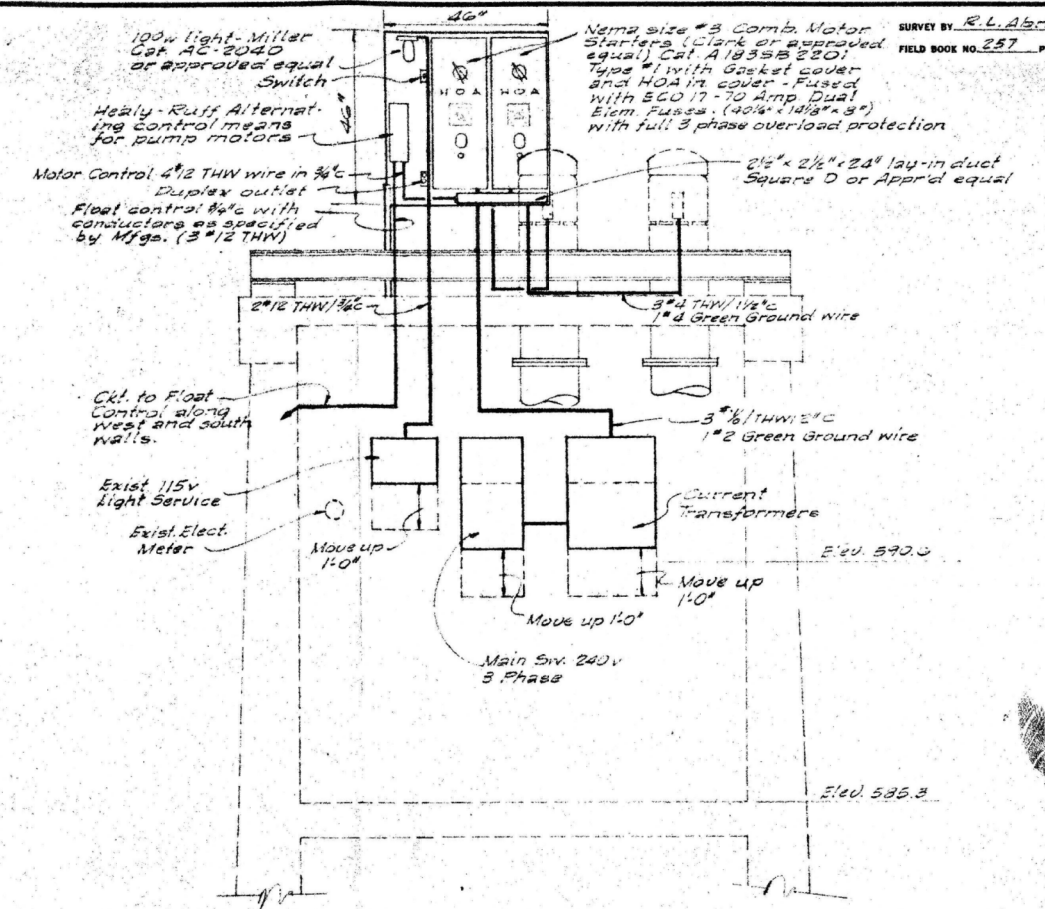
CITY OF SPRINGFIELD SPRINGFIELD, ILLINOIS	
UNDERPASS - SO. GRAND AVE. & TENTH ST. PUMPING STATION IMPROVEMENTS	
DESIGNED BY DRAWN BY CHECKED BY APPROVED BY	SCALE 1/2" = 1'-0" DATE 10/28/23 SHEET 1 OF 2 SHEETS JOB NO. 6206-1
CRAWFORD, MURPHY & TILLY, Inc. Consulting Engineers Springfield, Illinois	



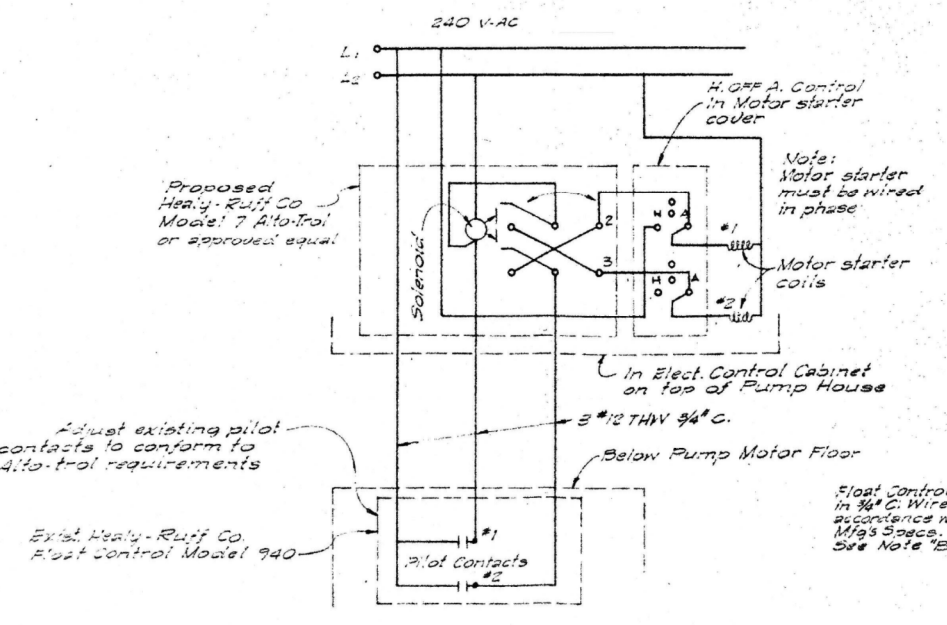
PUMP MOTOR CONTROL CIRCUIT
NO SCALE



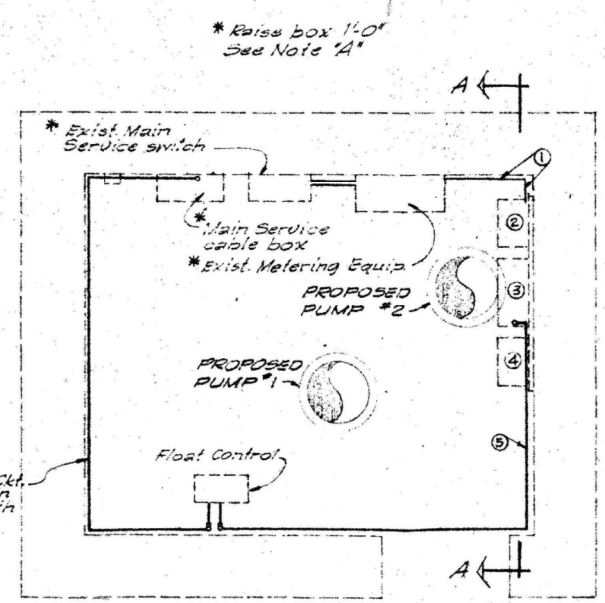
SECTION A-A
SCALE 1/2" = 1'-0"



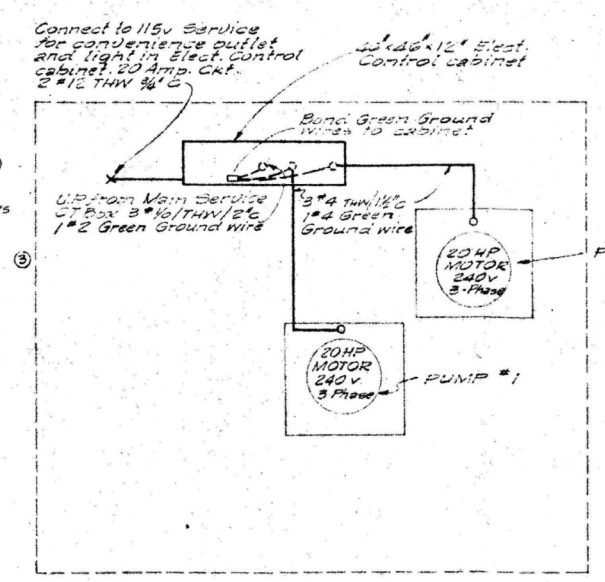
NORTH WALL ELECT. DETAILS
SCALE 1/2" = 1'-0"



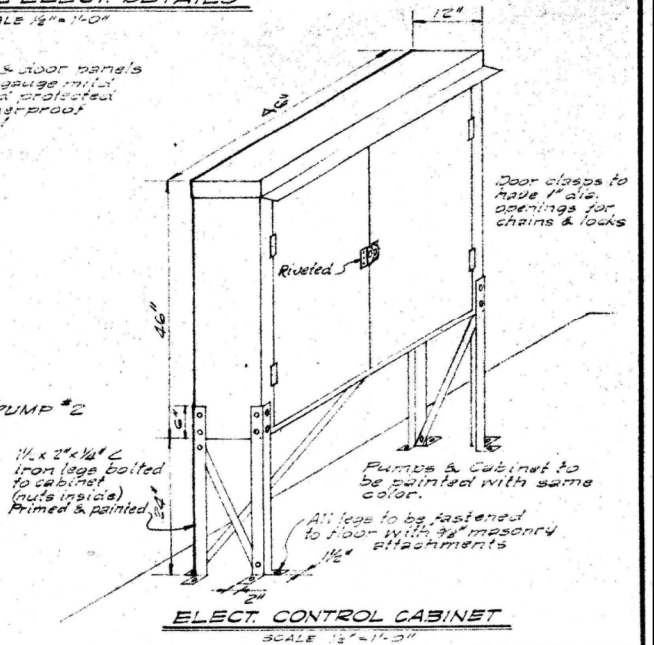
MODEL 7 ALTO-TROL FOR TWO PUMP MOTORS ELECTRICAL CIRCUIT
NO SCALE



MAIN FLOOR ELECT. PLAN
SCALE 1/2" = 1'-0"



ROOF PLAN
SCALE 1/2" = 1'-0"



ELECT. CONTROL CABINET
SCALE 1/2" = 1'-0"

OPERATION:
Closing contact #1 Energizes solenoid. Leads pump starts. Contact #2 Starts 2ND Pump.
Opening Pilot Contact #1 de-energizes Solenoid and stops Lead Pump.
Contact #2 Stops Pump #2. De-energization of Solenoid positions Mercury switches to alternate Pumps for next starting cycle.

Note #1: This equipment and conduit to remain operative until Pump #1 is installed and operating.
Note #2: Proposed Float Control Ckt will incorporate means for starting motors alternately.

Cabinet & door panels to be 10 gauge mild steel and protected by weather-proof material.

Door closes to have 1" air opening for chains & locks.

CITY OF SPRINGFIELD
SPRINGFIELD, ILLINOIS

UNDERPASS - SO. GRAND AVE. & TENTH ST.
PUMPING STATION ELECTRICAL DETAILS

SCALE AS SHOWN JOB NO. 6206-1
DATE 10/29/25
SHEET 2 OF 2 SHEETS

DESIGNED BY: [Signature]
DRAWN BY: [Signature]
CHECKED BY: [Signature]
APPROVED BY: [Signature]

CNAW CRAWFORD, MURPHY & TILLY, INC.
Consulting Engineers
Springfield, Illinois

FINAL

V&K
Veenstra & Kimm, Inc.
Springfield, IL Phone: (217)544-8033

USER NAME = Pop00275	DESIGNED -	REVISED -
PLOT SCALE = 2,000' / 1 in.	DRAWN -	REVISED -
PLOT DATE = 1/18/2021	CHECKED -	REVISED -
	DATE = 1/18/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
EXISTING PLANS - SOUTH GRAND AVE - 3

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	193
	09L0179B	CONTRACT NO.	9374	
SCALE:		SHEET 3 OF 3 SHEETS		STA. TO STA.
* 7985A & 8160		ILLINOIS FED. AID PROJECT		

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7985A 7989	19-00488-00-BR	SANGAMON	347	194
		ILLINOIS	CONTRACT NO. 93747	

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2	INDEX AND STANDARDS
3	SEAL SHEET
4	GENERAL NOTES AND UTILITY INFORMATION
5 - 22	SUMMARY OF QUANTITIES
23 - 26	TYPICAL SECTIONS - COOK STREET
27 - 28	STAGING TYPICAL SECTIONS - COOK STREET
29 - 33	TYPICAL SECTIONS - SOUTH GRAND AVE
34 - 36	STAGING TYPICAL SECTIONS - SOUTH GRAND AVE
37 - 38	TYPICAL SECTIONS - TRACK
39 - 40	UTILITY ADJUSTMENT SCHEDULES
41 - 49	SCHEDULE OF QUANTITIES - ROADWAY
50 - 58	SCHEDULE OF QUANTITIES - TRACK
59	ALIGNMENT - COOK STREET
60	ALIGNMENT - SOUTH GRAND AVE
61 - 64	ALIGNMENT, TIES AND BENCHMARKS - TRACK
65 - 66	GEOMETRY TABLES - TRACK
67	PROFILE SCHEMATIC - TRACK
68	ALIGNMENT - TRACK
69	GEOMETRY TABLES - TRACK
70 - 71	REMOVAL PLANS - COOK STREET
72	REMOVAL PLANS - SOUTH GRAND AVE
73	REMOVAL DETAILS - SOUTH GRAND AVE
74 - 82	REMOVAL PLANS - TRACK
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87	PLAN AND PROFILE - 9TH ST ENTRANCE
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96 - 99	MANHOLE SPECIAL - PLAN AND DETAILS
100 - 103	DRAINAGE DETAILS - COOK STREET
104 - 107	DRAINAGE DETAILS - SOUTH GRAND AVE
108 - 109	DRAINAGE AND SEWER DETAILS - TRACK
110	ABUTMENT DRAINAGE - COOK STREET
111	ABUTMENT DRAINAGE - SOUTH GRAND AVE
112 - 113	CITY PARKING LOT - CAPITOL / EDWARDS
114 - 115	TRAFFIC DETOUR PLAN - COOK STREET
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123	PAVEMENT MARKING PLAN - COOK STREET
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126 - 135	TRACK FENCING AND ACCESS PLAN - TRACK
136 - 140	TRACK ENTRANCE DETAILS
141	PUMP STATION ENTRANCE ROAD - SOUTH GRAND AVE
142 - 144	SLOPE WALL DETAILS - SOUTH GRAND AVE
145	MISCELLANEOUS DETAILS - TRACK
146	EROSION CONTROL - SOUTH GRAND AVE
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157	EROSION CONTROL DETAILS - TRACK
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165 - 171	PUMP STATION PLANS - SOUTH GRAND AVE
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173	LIGHTING PLAN - COOK STREET
174 - 175	LIGHTING DETAILS - COOK STREET
176	LIGHTING PLAN - SOUTH GRAND AVE
177 - 179	LIGHTING DETAILS - SOUTH GRAND AVE
180 - 181	LIGHTING DETAILS
182	FIBER OPTIC RELOCATION - SOUTH GRAND AVE
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191 - 193	EXISTING PLANS - SOUTH GRAND AVE

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS
PROPOSED HIGHWAY PLANS USABLE SEGMENT V
F.A.U. ROUTE 7985A (COOK STREET) & F.A.U. ROUTE 7989 (SOUTH GRAND AVE)
AT 10TH ST. CORRIDOR / RR UNDERPASS
SECTION 19-00488-00-BR
PROJECT ZOBP (501)
STRUCTURE REPLACEMENT
CITY OF SPRINGFIELD, SANGAMON COUNTY
C-96-016-20

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213 - 228	STRUCTURE 084-9965 - COOK STREET
229 - 231	RETAINING WALL COOK STREET
232 - 250	STRUCTURE 084-9966 - SOUTH GRAND AVE
251 - 267	STRUCTURE 084-9967 - SOUTH GRAND AVE
268 - 286	RETAINING WALL - SOUTH GRAND AVE
287 - 292	CROSS SECTIONS - COOK STREET
293 - 300	CROSS SECTIONS - SOUTH GRAND AVE
301 - 304	CROSS SECTIONS - 9TH STREET ENTRANCE
305 - 347	CROSS SECTIONS - TRACK

VOLUME II

STRUCTURES & CROSS SECTIONS

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION



Know what's below.
Call before you dig.

J.U.L.I.E.

1-800-892-0123
OR 811

FINAL PLANS

PROJECT ENGINEER: MICHAEL MENDENHALL (217)788-2450

PROJECT MANAGER: JIM MOLL (217)788-2450

CONTRACT NO. 93747

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Benchmark:
 BM TJM-1: Chiseled 'X' on West Bolt of Fire Hydrant, SE quadrant of 11th St. and Edwards St., Elevation = 598.122

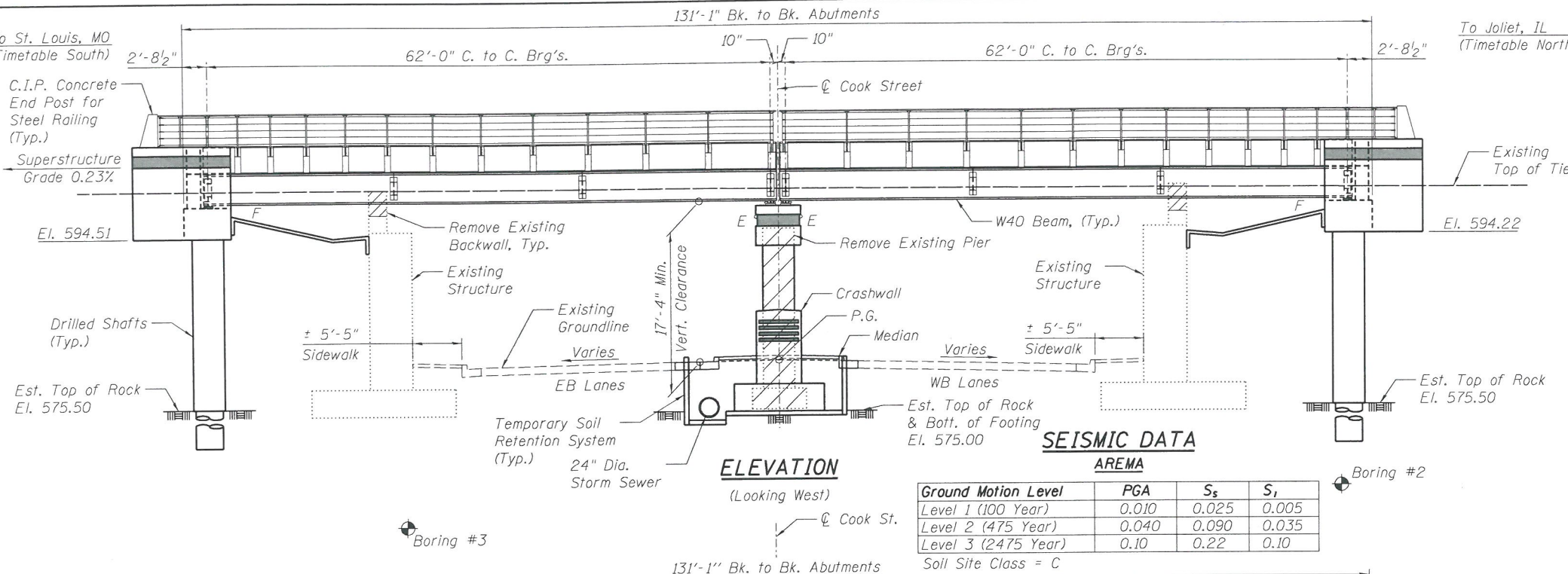
Existing NSRR Structure: SN 084-9939 - Built in 1988 under 2Z.SB-1. Two Span Steel through plate girder structure supported on closed abutments. Bk. to Bk. Abutment length is 90'-0" and ctr. to ctr. through girder width of 30'-0". Superstructure and Piers to be removed and replaced. Abutments to remain in place.

Traffic Control: Temporary Lane Closures and Complete Closures

Salvage: None

Construction Sequence: See Track Staging Plans

Railroad utilities may exist within NSRR right-of-way. Prior to the start of any construction or excavation, utility relocations will have to be coordinated with the NSRR.



HIGHWAY CLASSIFICATION

F.A.U. 7985A - Cook St.
 Functional Class: Minor Arterial
 ADT: 8,200 (2017); 11,300 (2038)
 DHV: 820 (2017); 1,130 (2038)
 ADTT: 660 (2017); 900 (2038)
 Design Speed: 30 mph
 Posted Speed: 30 mph

LOADING COOPER E-80

Impact: Diesel Impact
 Allow 30" of Ballast Dead Load

DESIGN SPECIFICATIONS

2019 AREMA Specifications
 Live Load Deflection: L/640
 Composite Design for Deflection Requirements
 Design Speed: 50 m.p.h.

DESIGN STRESSES

FIELD UNITS

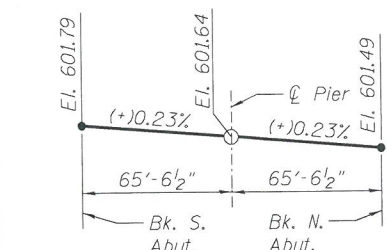
f'c = 4,000 psi
 fy = 60,000 psi (Reinforcement)
 fy = 50,000 psi (ASTM A709 Grade 50)

PRECAST UNITS

f'c = 6,500 psi
 f'ci = 5,000 psi
 f'pu = 270,000 psi (1/2" φ Low Lax Strands)
 fpbt = 201,960 psi (1/2" φ Low Lax Strands)
 fy = 60,000 psi (Reinforcement)

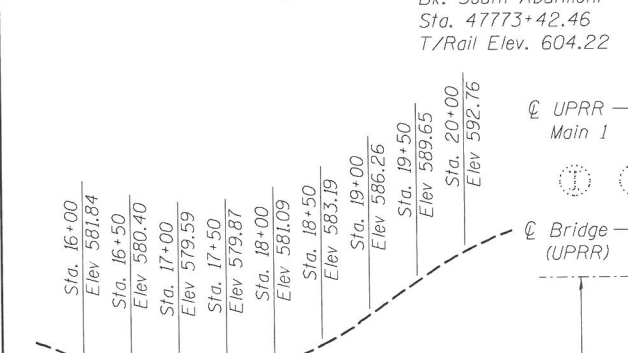
Ground Motion Level	PGA	S ₂	S ₁
Level 1 (100 Year)	0.010	0.025	0.005
Level 2 (475 Year)	0.040	0.090	0.035
Level 3 (2475 Year)	0.10	0.22	0.10

Soil Site Class = C



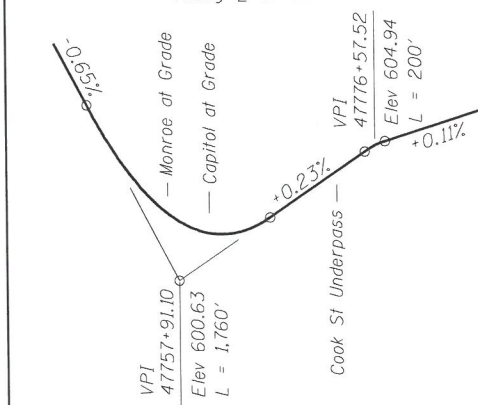
TOP OF BALLAST PAN GRADE

(Looking West)
 (Elevations Taken along Bridge @)



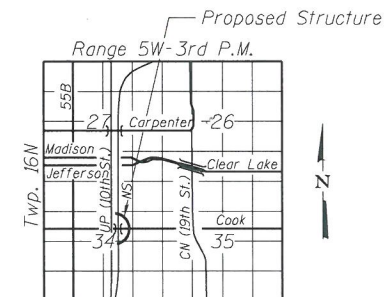
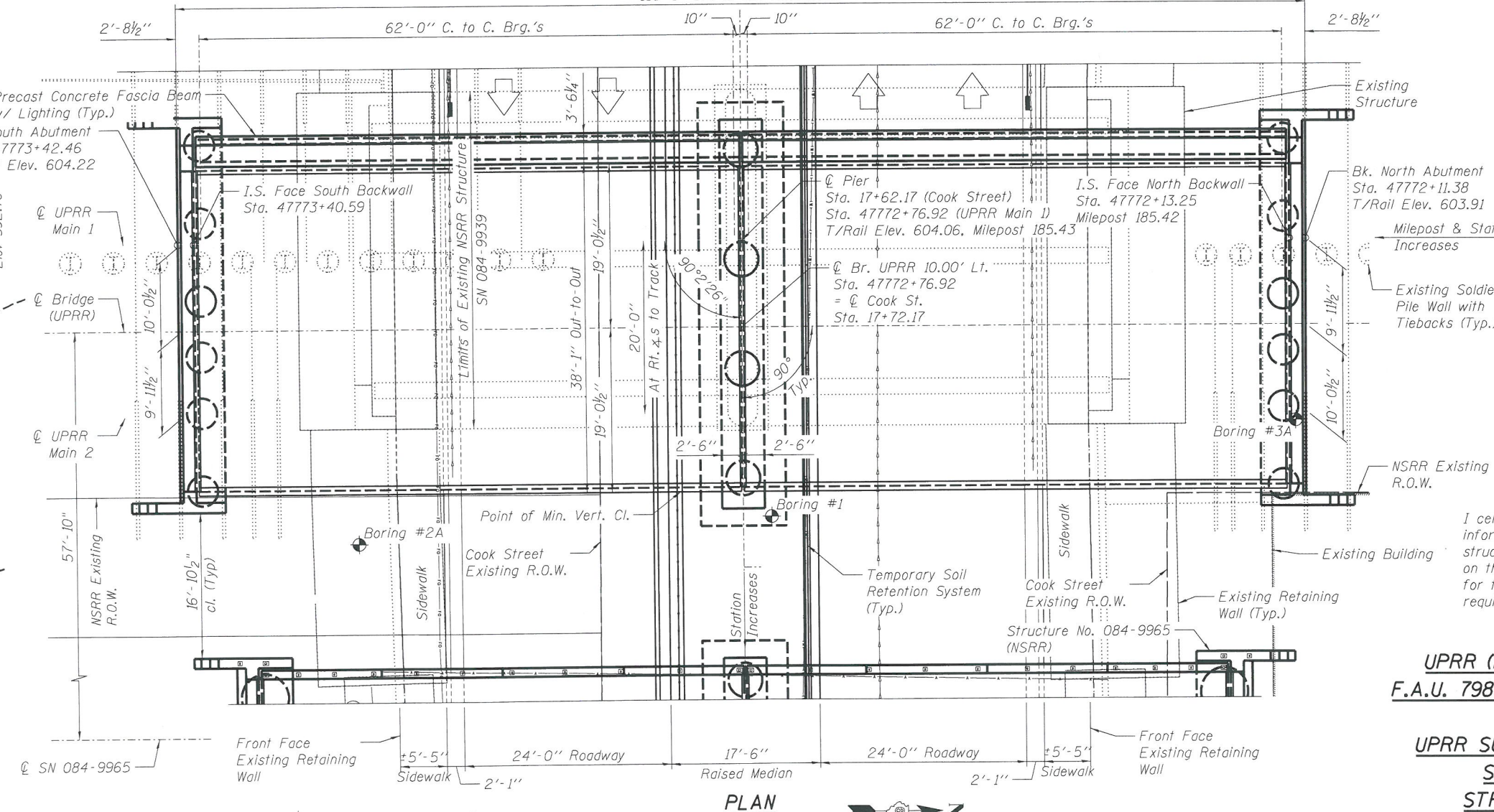
EXISTING PROFILE GRADE COOK STREET

Along @ of Cook St.



P.G. UPRR MAIN 1 RAIL

(Along Top of Rail)



LOCATION SKETCH



Matthew J. Willey
 SIGNATURE
 1-18-2021
 DATE
 L.I.C. EXP. DATE: 11-30-2020

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 AREMA Specifications.

GENERAL PLAN

UPRR (MP 185.43) OVER COOK ST.
F.A.U. 7985A-SECTION 19-00488-00-BR
SANGAMON COUNTY
UPRR SUBDIVISION - SPRINGFIELD
STATION 47772+76.92
STRUCTURE NO. 084-9964



USER NAME = Pop08275	DESIGNED - MJW	REVISED -
CHECKED - CGP/JEC <td>REVISED -</td> <td></td>	REVISED -	
DRAWN - CDP <td>REVISED -</td> <td></td>	REVISED -	
CHECKED - MJW <td>REVISED -</td> <td></td>	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

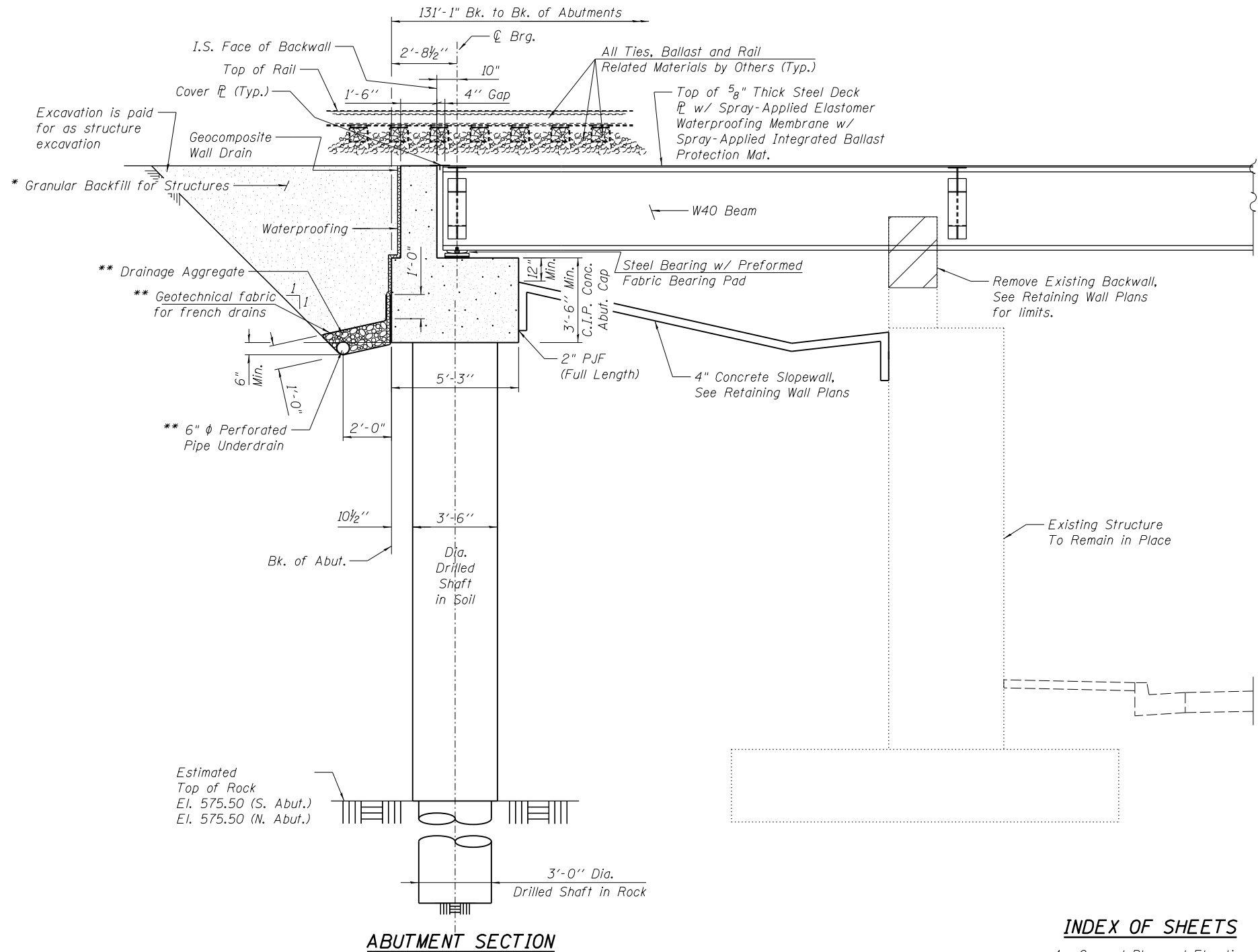
GENERAL PLAN AND ELEVATION
STRUCTURE NO. 084-9964
 SHEET NO. 1 OF 18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	19-00488-00-BR	SANGAMON	347	195
CONTRACT NO. 93747				
* 7985A & 8162 [ILLINOIS] FED. AID PROJECT				

GENERAL NOTES

- Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts 7/8 in. φ, holes 1 1/8 in. φ, unless otherwise noted.
- Calculated weight of Structural Steel, ASTM A709, Gr. 50 = 814,690 lbs. ASTM A36, Gr. 36 = 122,640 lbs.
- All structural steel shall be ASTM A709 Grade 50 unless otherwise noted on the plans. The deck plate shall be ASTM A36.
- All substructure concrete shall have a compressive strength of 4,000 psi at 14 days.
- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars designated (E) shall be epoxy coated.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
- Concrete Sealer shall be applied to the following surfaces:
 Abutments - inside face of backwall, inside face of cheekwall, top of cap (except surfaces coated with concrete surface treatment).
 Pier - entire exposed pier surface (except surfaces coated with concrete surface color treatment).
 Superstructure - entire exposed surface of precast prestressed fascia beam and curb (except surfaces coated with surface color treatment), concrete railing end post.
- Concrete Surface Color Treatment shall be applied to the following surfaces:
 Abutments - wingwall and cheekwall surfaces designated in plans.
 Pier - cap and crashwall surface designated in plans.
 Superstructure - precast fascia beam surfaces designated in plans.
- The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces, exterior bottom of deck plate, steel curb, shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams and exterior cantilever support bracket shall be blue, Munsell No. 10B 3/6.
- Waterproofing shall be applied to the backside of the abutment cap and backwall and backside of wingwalls for surfaces below ground. This shall be according to Article 503.18 of the Std. Spec. Cost included with Concrete Structures.

- Drilled shaft cross-hole sonic log (CSL) testing:
- Drilled shafts shall be evaluated by cross-hole sonic log testing. Testing pipes shall be installed in each drilled shaft to facilitate the logging process, which will follow completion of each shaft.
 - Furnish and install three standard 2 inch nominal diameter steel pipes (ASTM A53, Grade B) for use in CSL testing of each drilled shaft. Pipes shall be equally spaced around the interior of the reinforcing steel cage.
 - Pipes shall be fitted with a screw-on watertight shoe and cap and shall be securely fixed to the interior of the reinforcing steel cage. Watertight joints shall be used to achieve the required length. The pipes shall be filled with water and plugged or capped before concrete placement. The upper end of the pipe shall not be left open during or after concrete placement. The pipes shall extend at least 2'-6" above the top of the drilled shaft concrete. The lower end of the pipes shall extend to the bottom of the shaft.
 - CSL testing will be completed by the Engineer at no cost to the Contractor. If CSL test results are unsatisfactory according to the Engineer, the Contractor shall propose a method of correction including designs if required to the Engineer for approval. The correction shall be at the expense of the Contractor.



TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu. Yd.	-	453	453
Rock Excavation for Structures	Cu. Yd.	-	39	39
Concrete Structures	Cu. Yd.	-	281.2	281.2
Seal Coat Concrete	Cu. Yd.	-	16.0	16.0
Reinforcement Bars	Pound	-	49660	49660
Reinforcement Bars, Epoxy Coated	Pound	-	41820	41820
Name Plates	Each	-	1	1
Drilled Shaft in Soil	Cu. Yd.	-	80.6	80.6
Drilled Shaft in Rock	Cu. Yd.	-	31.4	31.4
Granular Backfill for Structures	Cu. Yd.	-	138	138
Concrete Sealer	Sq. Ft.	887	2809	3696
Geocomposite Wall Drain	Sq. Yd.	-	74	74
Temporary Soil Retention System	Sq. Ft.	-	941	941
Crosshole Sonic Logging Access Ducts	Foot	-	376	376
Concrete Surface Color Treatment	Sq. Ft.	435	199	634
Membrane Waterproofing (Special)	Sq. Ft.	4836	-	4836
Furnishing and Erecting Structural Steel, Bridge No. 1	L. Sum	1	-	1
Precast Prestressed Concrete Fascia Beam, No. 1	L. Sum	1	-	1
Steel Railing (Special)	Foot	276	-	276
Pipe Underdrains for Structures, 6"	Foot	-	126	126

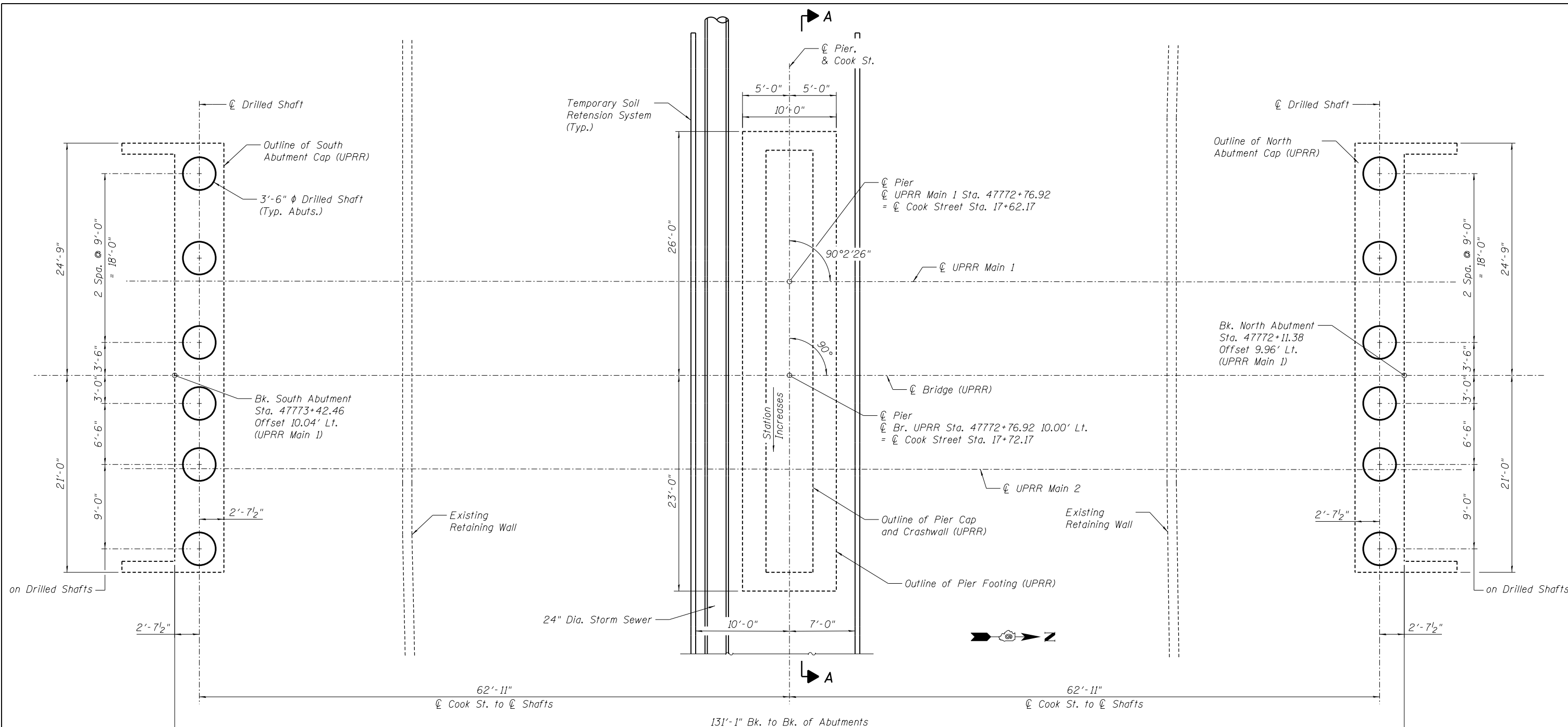
UNION PACIFIC RAILROAD
 S.N. 084-9964 BUILT 20__ BY
 CITY OF SPRINGFIELD
 SEC. 19-00488-00-BR
 STATION 47772+76.92
 MILE POST 185.43
 LOADING COOPER E-80

NAME PLATE
 See Std. 515001

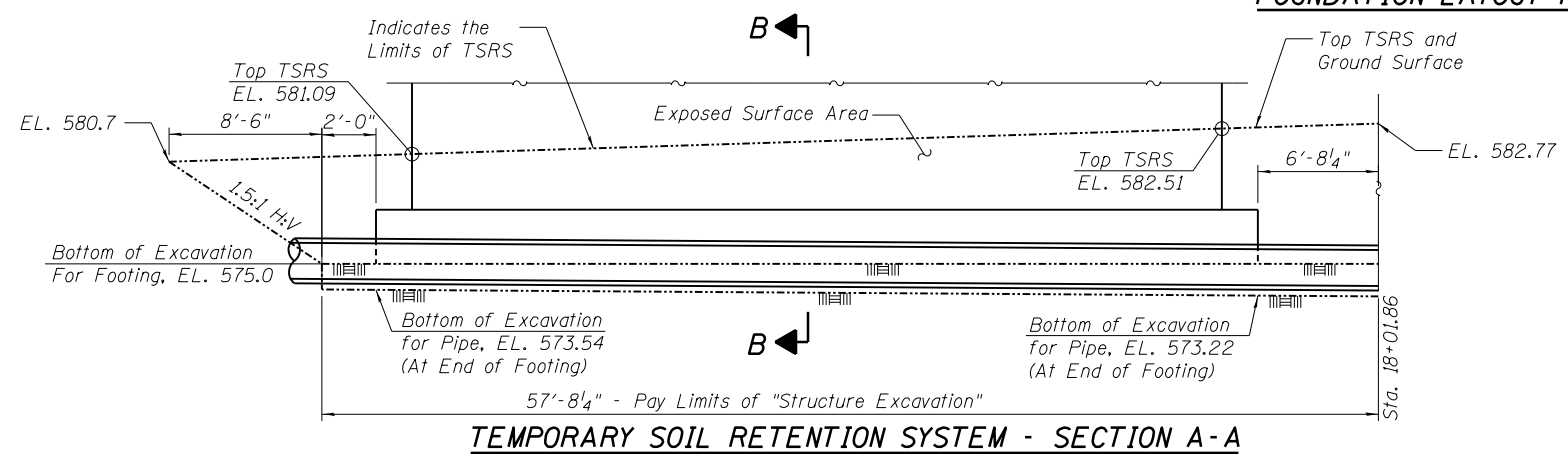
INDEX OF SHEETS

- General Plan and Elevation
- General Data
- Foundation Layout
- Superstructure
- Structural Steel
- Structural Steel Details (1 of 3)
- Structural Steel Details (2 of 3)
- Structural Steel Details (3 of 3)
- Precast Fascia Beam
- Precast Fascia Beam Details
- Bearing Details
- Membrane Waterproofing
- Steel Railing (Special) Westside
- Steel Railing (Special) Eastside
- North & South Abutment
- North & South Abutment Details
- Pier
- Subsurface Data Profile

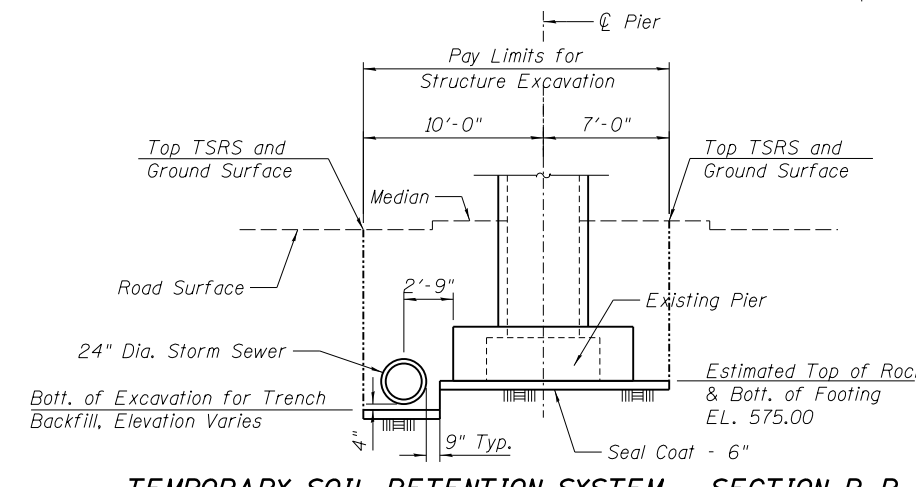
- Notes:
- South Abutment Section Shown North Similar
 - * Granular Backfill for Structures shall be placed and compacted according to Section 502.10 of the Standard Specifications.
 - ** Included in the cost of "Pipe Underdrains for Structures, 6". For additional drainage details see Roadway Plans.



FOUNDATION LAYOUT PLAN

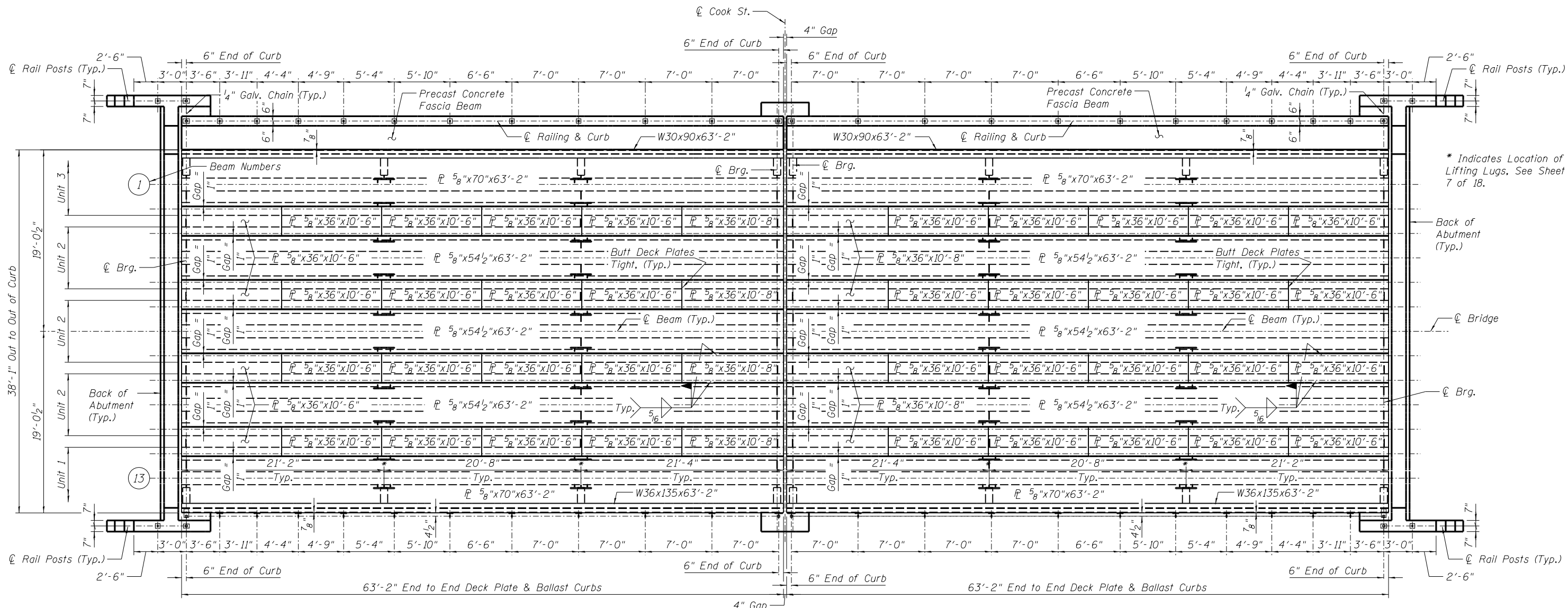


TEMPORARY SOIL RETENTION SYSTEM - SECTION A-A

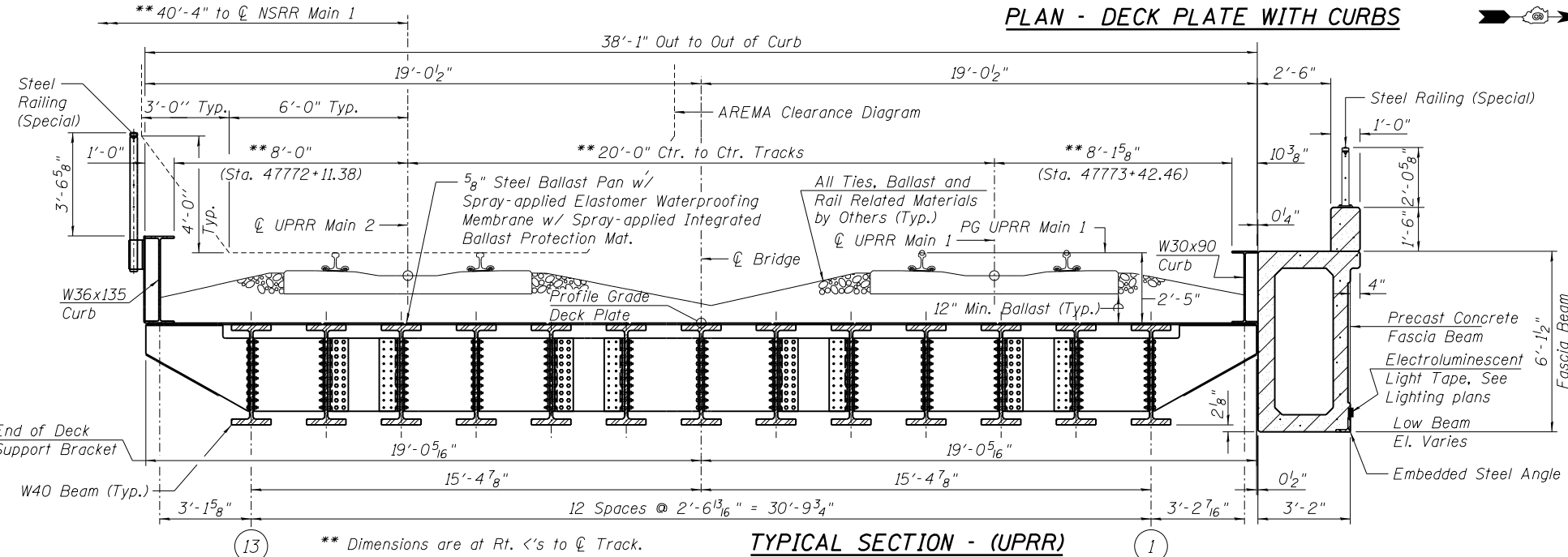


TEMPORARY SOIL RETENTION SYSTEM - SECTION B-B

<p>FINAL</p> <p>© Copyright Hanson Professional Services Inc., 2021</p>	<p>USER NAME = Pop00275</p> <p>PLOT SCALE = 1/8" = 1'-0"</p> <p>PLOT DATE = 1/18/2021</p>	<p>DESIGNED - MJW</p> <p>CHECKED - JEC</p> <p>DRAWN - CDP</p> <p>CHECKED - MJW</p>	<p>REVISED -</p> <p>REVISED -</p> <p>REVISED -</p> <p>REVISED -</p>	<p>STATE OF ILLINOIS</p> <p>DEPARTMENT OF TRANSPORTATION</p>	<p>FOUNDATION LAYOUT</p> <p>STRUCTURE NO. 084-9964</p> <p>SHEET NO. 3 OF 18 SHEETS</p>	<p>F.A.P. RTE. =</p> <p>SECTION = 19-00488-00-BR</p> <p>COUNTY = SANGAMON</p> <p>CONTRACT NO. = 93747</p>	<p>TOTAL SHEETS = 347</p> <p>SHEET NO. = 197</p>
	<p>7985A & 8164 ILLINOIS FED. AID PROJECT</p>						

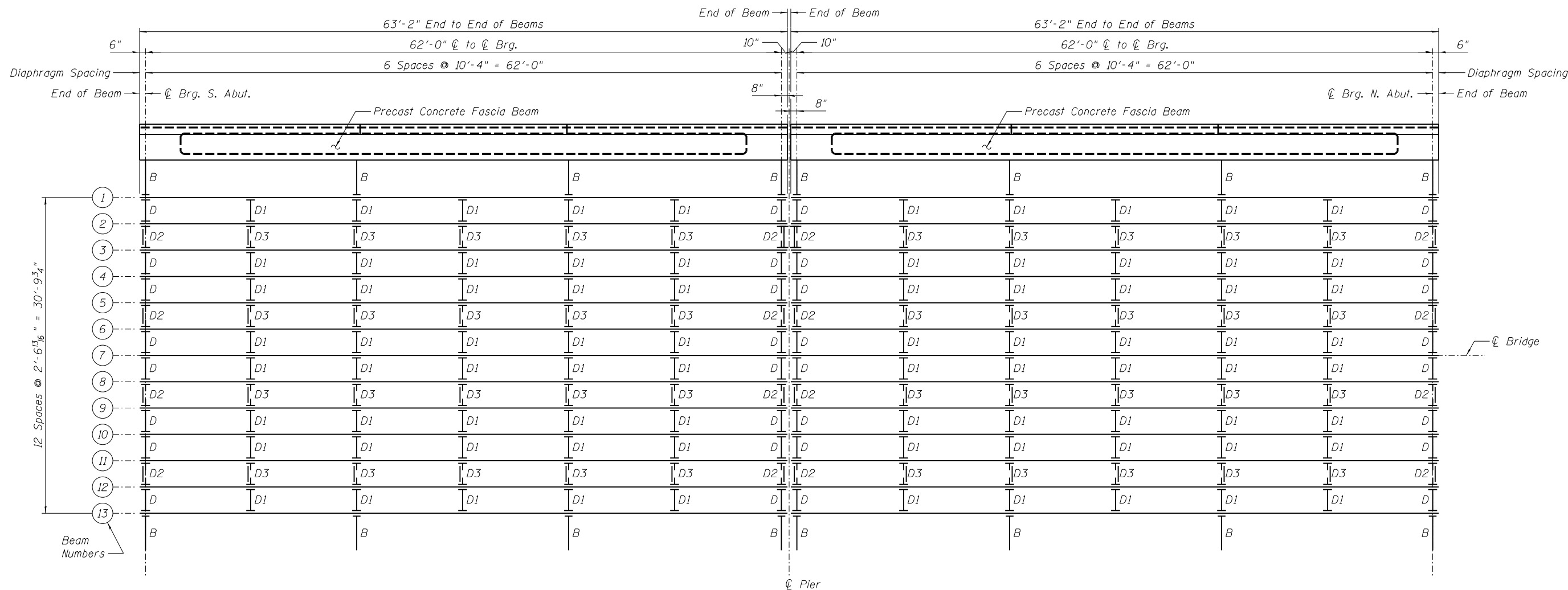


PLAN - DECK PLATE WITH CURBS

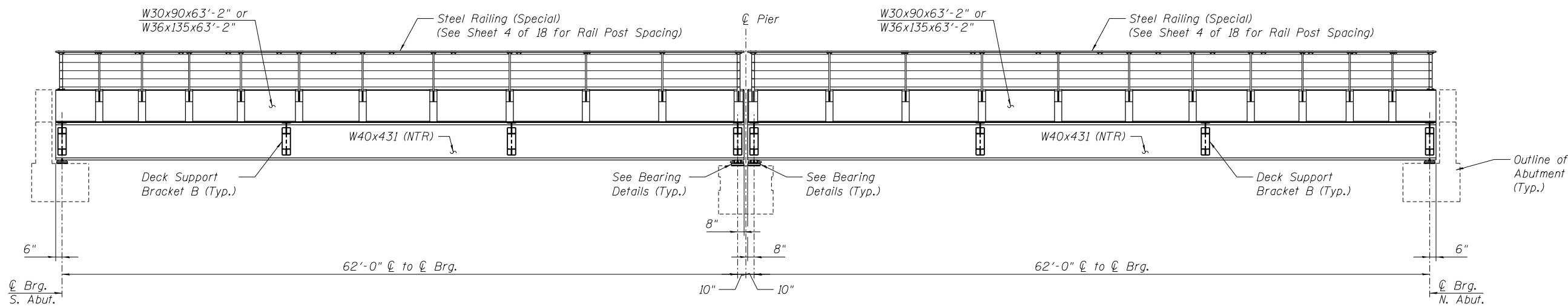


TYPICAL SECTION - (UPRR)

Notes:
 For Steel Railing Details See Sheets 13 and 14 of 18.
 For Membrane Waterproofing Details See Sheet 12 of 18.
 For 1/4" Galv. Chain Details, See Sheet 13 of 18. Cost of chain and hardware included in the cost of Steel Railing (Special).



FRAMING PLAN



Notes:

All diaphragms shall be installed at the fabricators shop except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.

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USER NAME = Pop02275	DESIGNED - MJW	REVISED -
	CHECKED - CGP	REVISED -
PLOT SCALE = 1/8" = 1'-0"	DRAWN - CDP	REVISED -
PLOT DATE = 1/18/2021	CHECKED - MJW	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STRUCTURAL STEEL
STRUCTURE NO. 084-9964**

SHEET NO. 5 OF 18 SHEETS

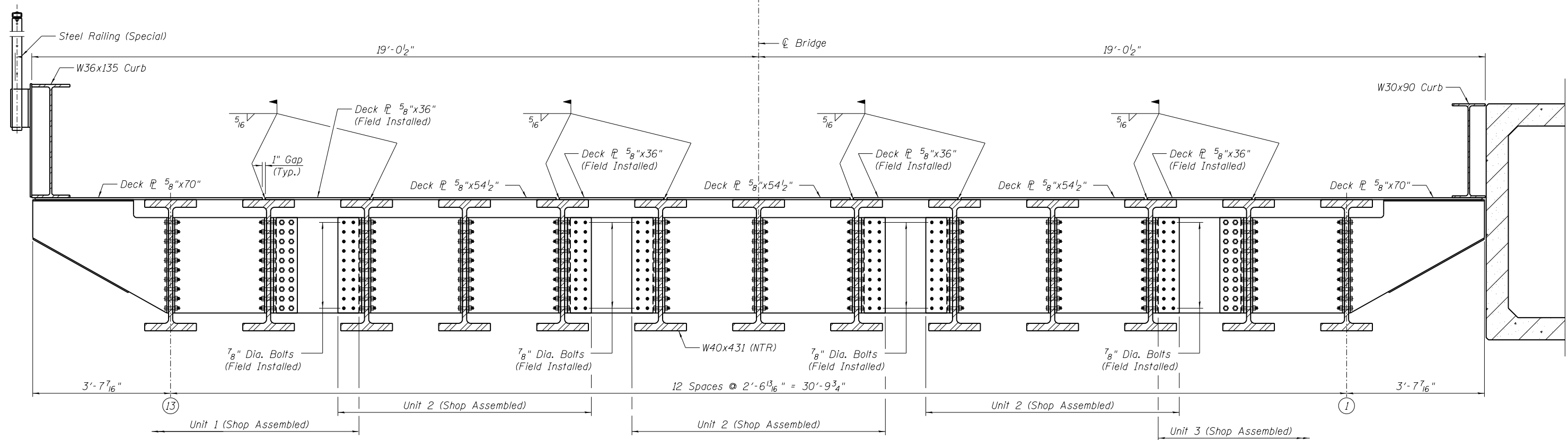
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	19-00488-00-BR	SANGAMON	347	199
			CONTRACT NO. 93747	

• 7985A & 8166 ILLINOIS FED. AID PROJECT

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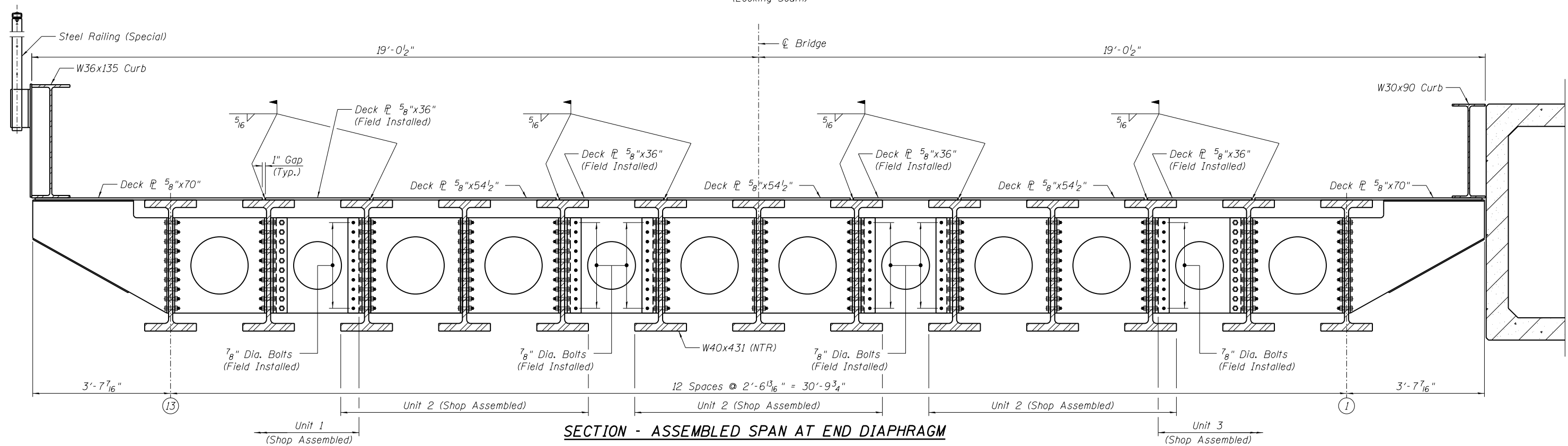


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SECTION - ASSEMBLED SPAN AT INTERIOR DIAPHRAGM

(Looking South)



SECTION - ASSEMBLED SPAN AT END DIAPHRAGM

(Looking South)

Notes:
 Bolts shall be 7/8" ϕ placed in 1 5/16" ϕ holes unless otherwise noted.
 Steel shall conform to ASTM A709 Gr. 50, unless otherwise noted.

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USER NAME = Pop00275	DESIGNED - MJW	REVISED -
PLOT SCALE = 1/8" = 1' / in.	CHECKED - CGP	REVISED -
PLOT DATE = 1/18/2021	DRAWN - CDP	REVISED -
	CHECKED - MJW	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**STRUCTURAL STEEL DETAILS (1 OF 3)
 STRUCTURE NO. 084-9964**

SHEET NO. 6 OF 18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
•	19-00488-00-BR	SANGAMON	347	200
			CONTRACT NO. 93747	

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FINAL



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