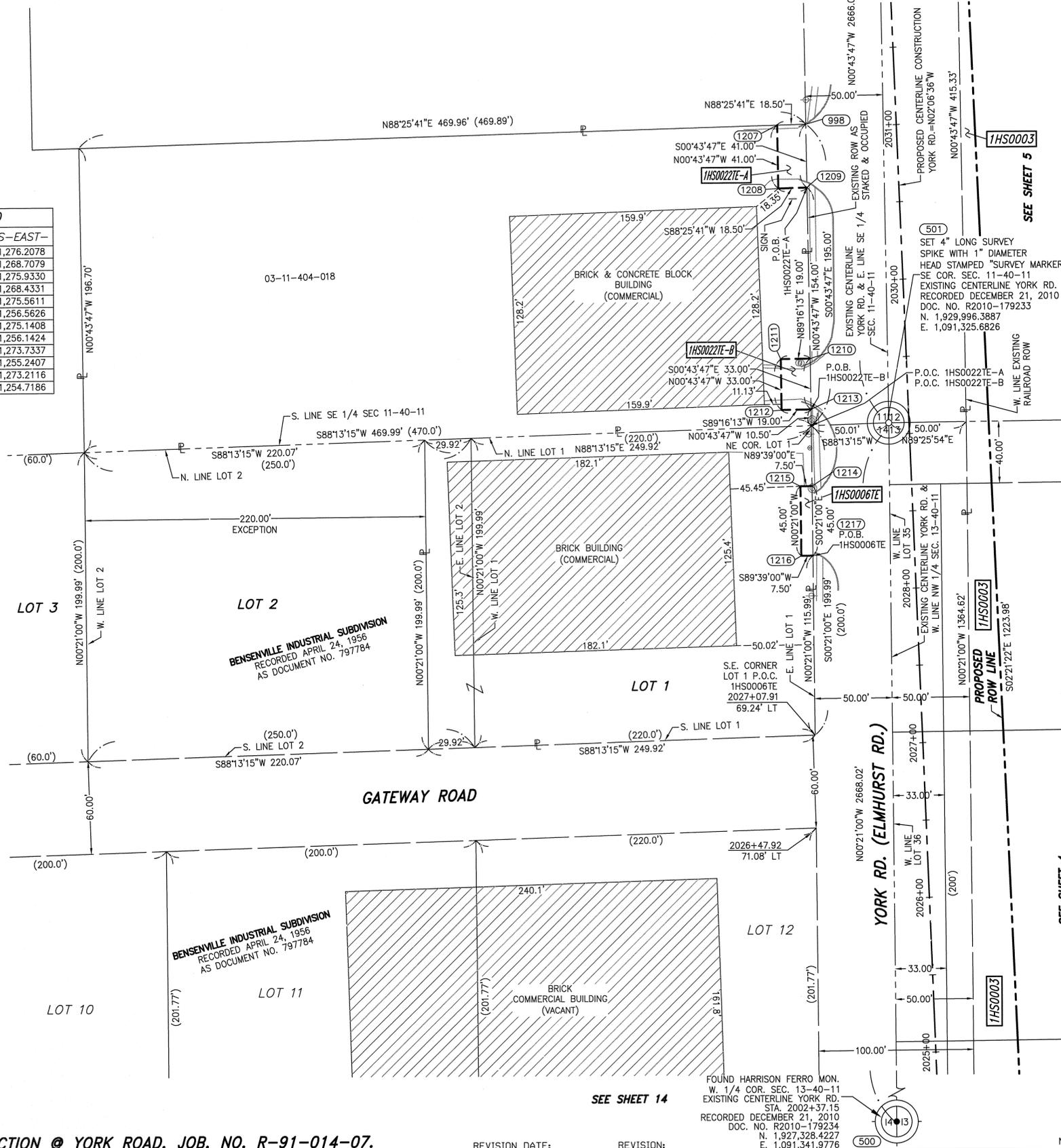


PART OF THE NE 1/4 SECTION 14 AND THE SE 1/4 SECTION 11, T40N, R11E OF THE 3rd PM, ADDISON TOWNSHIP, DUPAGE COUNTY, ILLINOIS.

PARCEL NUMBER	OWNER	TOTAL HOLDING ACRES	PART TAKEN ACRES	REMAINDER ACRES	PREV. DED. ACRES	EASEMENT ACRES	EASEMENT PURPOSE	PERMANENT TAX INDEX NUMBER	PROPERTY ACQUIRED BY
1HS0022TE-A	FIRST NATIONAL BANK OF MORTON GROVE, AS TRUSTEE UNDER A TRUST AGREEMENT DATED SEPTEMBER 18, 1990 AND KNOWN AS TRUST NO. 90-123	2.113				0.017	CONSTRUCTION	03-11-404-018	
1HS0022TE-B						0.014			
1HS0006TE	METAL MASTERS, INC., A DISSOLVED ILLINOIS CORPORATION	1.147				0.008 338 S.F.	CONSTRUCTION	03-14-206-008	

NO.	STATION	OFFSET	NORTH-COORDINATES-EAST-	
1217	2028+23.84	65.67' LT	N. 1,929,910.8377	E. 1,091,276.2078
1216	2028+24.07	73.17' LT	N. 1,929,910.7918	E. 1,091,268.7079
1214	2028+68.82	64.29' LT	N. 1,929,955.8368	E. 1,091,275.9330
1215	2028+69.05	71.79' LT	N. 1,929,955.7910	E. 1,091,268.4331
1213	2029+18.30	62.84' LT	N. 1,930,005.3352	E. 1,091,275.5611
1212	2029+18.76	81.83' LT	N. 1,930,005.0933	E. 1,091,256.5626
1210	2029+51.29	62.04' LT	N. 1,930,038.3326	E. 1,091,275.1408
1211	2029+51.75	81.04' LT	N. 1,930,038.0906	E. 1,091,256.1424
1209	2030+61.76	59.38' LT	N. 1,930,148.8236	E. 1,091,273.7337
1208	2030+61.93	77.88' LT	N. 1,930,148.3161	E. 1,091,255.2407
998	2031+02.75	58.39' LT	N. 1,930,189.8203	E. 1,091,273.2116
1207	2031+02.92	76.89' LT	N. 1,930,189.3128	E. 1,091,254.7186

- SYMBOL LEGEND**
- INLET
 - LIGHT POLE
 - POWER POLE
 - SIGN
 - MANHOLE
 - TRAFFIC SIGNAL HANDHOLE
 - ELECTRICAL OUTLET
 - IRRIGATION CONTROL VALVE
 - PHONE PEDESTAL
 - FIRE HYDRANT
 - VALVE BOX
 - TRAFFIC SIGNAL
 - PHONE HANDHOLE
 - UNDERGROUND TANK CAP
 - GASOLINE MONITORING WELL
 - ELECTRIC SPLICE BOX
 - BUFFALO BOX
 - BOLLARD



LEGEND

- SECTION CORNER
- QUARTER SECTION CORNER
- SECTION LINE
- QUARTER SECTION LINE
- QUARTER SECTION LINE
- PLATTED LOT LINE
- PROPERTY (DEED) LINE
- APL
- APPARENT PROPERTY LINE
- EXISTING CENTERLINE
- PROPOSED CENTERLINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE
- PROPOSED EASEMENT
- MEASURED DIMENSION
- COMPUTED DIMENSION
- RECORD DATA
- EXISTING BUILDING
- IRON PIPE OR ROD FOUND
- CUT CROSS FOUND OR SET
- TI THESE STAKES REFERENCE FOUND OR SET MONUMENTATION
- T2 SET 5/8 INCH REBAR FLUSH WITH GROUND TO TIE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS PROFESSIONAL NUMBER.
- T3 BY COLORED PLASTIC CAP AND BEARING SURVEYORS PROFESSIONAL NUMBER.
- BT1 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION.
- BT2 BURIED 5/8 INCH REBAR 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE.
- BT3 IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS PROFESSIONAL NUMBER.
- STAKING OF PROPOSED RIGHT OF WAY. SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS PROFESSIONAL NUMBER.
- STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. BURIED 5/8 INCH REBAR 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS PROFESSIONAL NUMBER.
- PERMANENT SURVEY MARKER. IDOT STD. 2135 (TO BE SET BY OTHERS)
- RIGHT OF WAY STAKING PROPOSED TO BE SET.

BEARINGS ARE BASED ON ILLINOIS STATE PLANE COORDINATE SYSTEM EAST ZONE, N.A.D. 83 (2007)

NOTES:

- BEARINGS AND COORDINATES SHOWN HEREON ARE BASED ON ILLINOIS STATE PLANE COORDINATE SYSTEM EAST ZONE, NAD 83, (2007).

SCALE: 1" = 40'

STATE OF ILLINOIS)
COUNTY OF WILL)

THIS IS TO CERTIFY THAT WE, CLAASSEN, WHITE & ASSOCIATES, P.C., AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION NUMBER 184-004039, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTIONS 11 AND 14, TOWNSHIP 40 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, DUPAGE COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. THIS SURVEY CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY. MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT JOLIET, ILLINOIS THIS _____ DAY OF _____, 2010 A.D.

VICE PRESIDENT

DAVID A. CLAASSEN
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-002962
LICENSE EXPIRES NOVEMBER 30, 2012
THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

RECEIVED
OCT 24 2011
PLATS & LEGALS

PLAT OF HIGHWAYS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
ILLINOIS ROUTE 19

SECTION @ YORK ROAD DUPAGE COUNTY
PROJECT JOB NO. R-91-014-07
STATION 2025+00 TO STATION 2031+00
SCALE: 1" = 40' SHEET 15 OF _____

BUREAU OF LAND ACQUISITION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196-1096

RECEIVED
OCT 24 2011
PLATS & LEGALS

PRINTING DATE: DECEMBER 22, 2010 ~ JLS Microstation\Sheet 15.dgn

PART OF THE E 1/2 SECTION 14, T40N, R11E OF THE 3rd PM, ADDISON TOWNSHIP, DUPAGE COUNTY, ILLINOIS.
TOTAL HOLDING FOR PARCELS 1HS0009, 1HS0010 & 1HS0011

PARCEL NUMBER	OWNER	TOTAL HOLDING ACRES	PART TAKEN ACRES	REMAINDER ACRES	PREV. DED. ACRES	EASEMENT ACRES	EASEMENT PURPOSE	PERMANENT TAX INDEX NUMBER	PROPERTY ACQUIRED BY
1HS0009	BELL FUELS, INC.	1.935	0.005	1.930	N/A	0.017	CONSTRUCTION	03-14-209-013 03-14-209-025	
1HS0009TE-A						0.011	CONSTRUCTION		
1HS0009TE-B									
1HS0010	BURGER KING CORPORATION	0.766	0.034	0.732	N/A	0.013	CONSTRUCTION	03-14-209-020	
1HS0010TE-A						0.009	CONSTRUCTION		
1HS0010TE-B									
1HS0011	ITASCA BANK & TRUST CO., AS TRUSTEE UNDER A TRUST AGREEMENT DATED THE 7TH DAY OF NOVEMBER, 1978 AND KNOWN AS TRUST NUMBER 1496	0.624	0.133	0.491	0.100	0.010	CONSTRUCTION	03-14-209-017	
1HS0011TE						423 SQ.FT.			

LEGEND

SECTION CORNER: 9 10 16 15

QUARTER SECTION CORNER: 16 15

SECTION LINE
 QUARTER SECTION LINE
 QUARTER, QUARTER SECTION LINE
 PLATTED LOT LINE
 PROPERTY (DEED) LINE

APL
 APPARENT PROPERTY LINE
 EXISTING CENTERLINE
 PROPOSED CENTERLINE
 EXISTING RIGHT OF WAY LINE
 PROPOSED RIGHT OF WAY LINE
 PROPOSED EASEMENT

MEASURED DIMENSION
 COMPUTED DIMENSION
 RECORD DATA

EXISTING BUILDING

IRON PIPE OR ROD FOUND
 CUT CROSS FOUND OR SET

SET 5/8" x 30" REBAR
 FOUND PK NAIL
 SET PK NAIL

TI THESE STAKES REFERENCE FOUND OR SET MONUMENTATION
 T2 SET 5/8 INCH REBAR FLUSH WITH GROUND TO TIE FOUND IRON STAKE. IDENTIFIED BY COLORED PLASTIC CAP AND BEARING SURVEYORS PROFESSIONAL NUMBER.
 T3 BY COLORED PLASTIC CAP AND BEARING SURVEYORS PROFESSIONAL NUMBER.

BT1 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION.
 BT2 BURIED 5/8 INCH REBAR 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE.
 BT3 IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS PROFESSIONAL NUMBER.

STAKING OF PROPOSED RIGHT OF WAY.
 SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS PROFESSIONAL NUMBER.

STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS.
 BURIED 5/8 INCH REBAR 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION. IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS PROFESSIONAL NUMBER.

PERMANENT SURVEY MARKER. IDOT STD. 2135 (TO BE SET BY OTHERS)

RIGHT OF WAY STAKING PROPOSED TO BE SET.

NOTES:
 1) BEARINGS AND COORDINATES SHOWN HEREON ARE BASED ON ILLINOIS STATE PLANE COORDINATE SYSTEM EAST ZONE, NAD 83, (2007).

SCALE: 1" = 50'

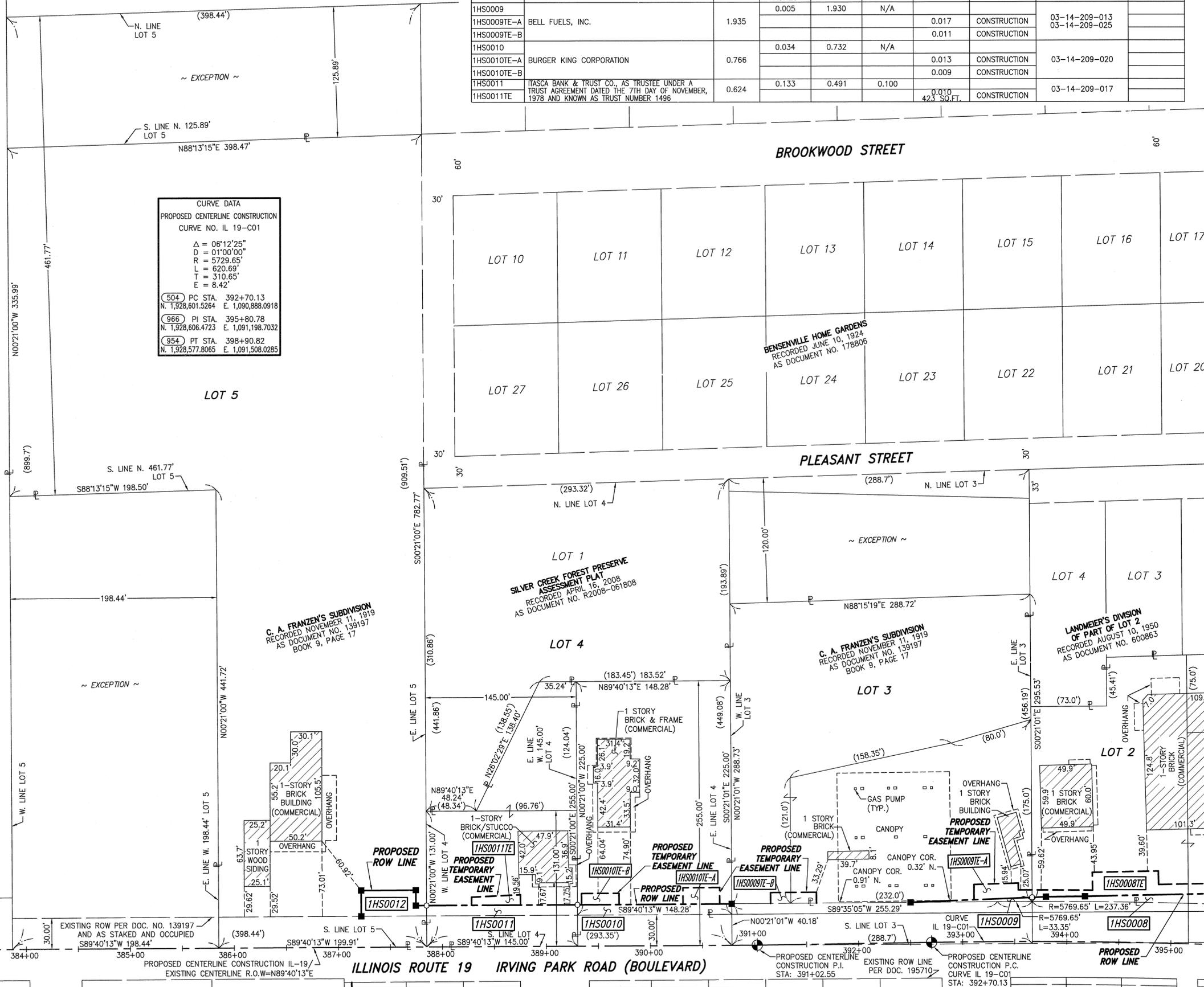
CURVE DATA
 PROPOSED CENTERLINE CONSTRUCTION
 CURVE NO. IL 19-C01

$\Delta = 06^{\circ}12'25''$
 $D = 01^{\circ}00'00''$
 $R = 5729.65'$
 $L = 320.69'$
 $T = 310.65'$
 $E = 8.42'$

504 PC STA. 392+70.13
 N. 1,928,601.5264 E. 1,090,888.0918

966 PI STA. 395+80.78
 N. 1,928,606.4723 E. 1,091,198.7032

954 PT STA. 398+90.82
 N. 1,928,577.8065 E. 1,091,508.0285



STATE OF ILLINOIS)
 COUNTY OF WILL) SS

THIS IS TO CERTIFY THAT WE, CLAASSEN, WHITE & ASSOCIATES, P.C., AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION NUMBER 184-004039, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 14, TOWNSHIP 40 NORTH, RANGE 11 EAST OF THE THIRD PRINCIPAL MERIDIAN, DUPAGE COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE CURRENT TO ENABLE THE SURVEY TO BE RETRACED. THIS SURVEY CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY. MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT JOLIET, ILLINOIS THIS ____ DAY OF _____, 2010 A.D.

 VICE PRESIDENT

DAVID A. CLAASSEN
 ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-002962
 LICENSE EXPIRES NOVEMBER 30, 2012
 THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

NOTE: SEE SHEETS 11, 12 & 13 FOR PARCEL IHS0008, IHS0009, IHS0010, IHS0011 & IHS0012 DETAILS.

RECEIVED
 OCT 24 2011
 PLATS & LEGALS

Claassen, White & Associates, P.C.
 121 AIRPORT DRIVE, UNIT 1
 JOLIET, ILLINOIS 60431
 (815) 744-3120

PLAT OF HIGHWAYS
 STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 ILLINOIS ROUTE 19

SECTION @ YORK ROAD
 PROJECT
 STATION 384+00
 SCALE: 1" = 50'

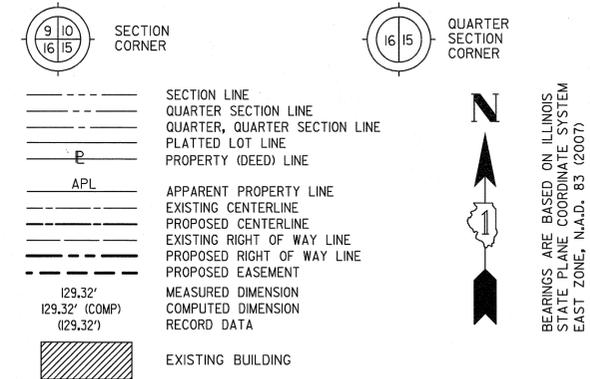
DUPAGE COUNTY
 JOB NO. R-91-014-07
 TO STATION 395+00
 SHEET 16 OF ____

BUREAU OF LAND ACQUISITION
 201 WEST CENTER COURT
 SCHAMBURG, ILLINOIS 60196-1096

PRINTING DATE: DECEMBER 1, 2010 ~ KAG Microstation/Sheet 16.dgn

PART OF THE SW 1/4 SECTION 12, THE NW 1/4 SECTION 14 AND THE W. 1/2 SECTION 13, T40N, R11E OF THE 3rd PM, ADDISON TOWNSHIP, DUPAGE COUNTY, ILLINOIS.

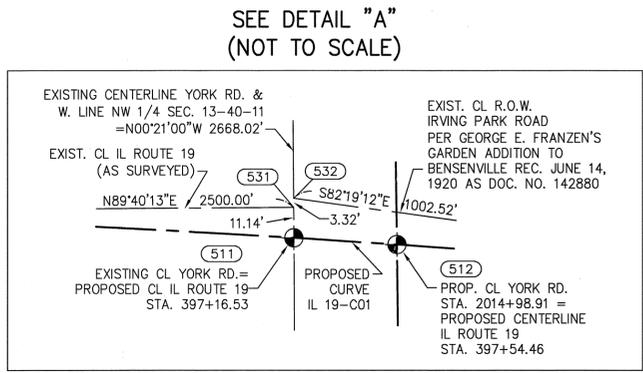
LEGEND



- IRON PIPE OR ROD FOUND
- SET 5/8" x 30" REBAR
- + CUT CROSS FOUND OR SET
- PK FOUND PK NAIL
- PK SET PK NAIL
- T1 THESE STAKES REFERENCE FOUND OR SET MONUMENTATION
- T2 SET 5/8 INCH REBAR FLUSH WITH GROUND TO TIE FOUND IRON STAKE, IDENTIFIED BY COLORED PLASTIC CAP AND BEARING SURVEYORS PROFESSIONAL NUMBER.
- T3 BY COLORED PLASTIC CAP AND BEARING SURVEYORS PROFESSIONAL NUMBER.
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- BT2 BURIED 5/8 INCH REBAR 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE.
- BT3 IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS PROFESSIONAL NUMBER.
- STAKING OF PROPOSED RIGHT OF WAY.
- DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS PROFESSIONAL NUMBER.
- M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS.
- BURIED 5/8 INCH REBAR 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION, IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS PROFESSIONAL NUMBER.
- PERMANENT SURVEY MARKER, IDOT STD. 2135 (TO BE SET BY OTHERS)
- RIGHT OF WAY STAKING PROPOSED TO BE SET.

GRID COORDINATES ARE SHOWN
COORDINATE TABLE

NO.	-NORTH-COORDINATES-EAST-
410	N. 1,932,662.2474 E. 1,091,291.7327
500	N. 1,927,328.4227 E. 1,091,341.9776
501	N. 1,929,996.3887 E. 1,091,325.6826
502	N. 1,928,588.0021 E. 1,088,834.2381
503	N. 1,928,598.8582 E. 1,090,720.5308
510	N. 1,928,238.2055 E. 1,093,422.8756
511	N. 1,928,591.2475 E. 1,091,334.2647
512	N. 1,928,588.7731 E. 1,091,372.1051
524	N. 1,929,335.6411 E. 1,091,363.1184
531	N. 1,928,602.3901 E. 1,091,334.1967
532	N. 1,928,605.7147 E. 1,091,334.1764
533	N. 1,928,471.7395 E. 1,092,327.7053
538	N. 1,930,022.6577 E. 1,093,973.3377
951	N. 1,930,331.9229 E. 1,091,326.4100
952	N. 1,932,662.3111 E. 1,091,296.7323
965	N. 1,927,526.4779 E. 1,092,821.3436
969	N. 1,927,038.5237 E. 1,091,343.7874
971	N. 1,926,713.2747 E. 1,092,982.2465
2050	N. 1,924,663.8200 E. 1,091,358.6130



CURVE DATA
PROPOSED CENTERLINE CONSTRUCTION
CURVE NO. IL 19-C01

$\Delta = 06^{\circ}12'25''$
 $D = 01^{\circ}00'00''$
 $R = 5729.65'$
 $L = 520.69'$
 $T = 310.65'$
 $E = 8.42'$

504 PC STA. 392+70.13
 N. 1,928,601.5264 E. 1,090,888.0918

966 PI STA. 395+80.78
 N. 1,928,606.4723 E. 1,091,198.7032

954 PT STA. 398+90.83
 N. 1,928,577.8065 E. 1,091,508.0285

CURVE DATA
PROPOSED CENTERLINE CONSTRUCTION
CURVE NO. IL 19-C02

$\Delta = 82^{\circ}13'01''$
 $D = 08^{\circ}11'06''$
 $R = 700.00'$
 $L = 1004.47'$
 $T = 610.83'$
 $E = 229.04'$

955 PC STA. 405+58.20
 N. 1,928,516.2234 E. 1,092,172.5549

957 PI STA. 411+69.03
 N. 1,928,459.8578 E. 1,092,780.7801

956 PT STA. 415+62.67
 N. 1,927,849.6024 E. 1,092,807.3010

CURVE DATA
PROPOSED CENTERLINE CONSTRUCTION
CURVE NO. YORK-C1

$\Delta = 05^{\circ}39'51''$
 $D = 2^{\circ}49'51''$
 $R = 2024.00'$
 $L = 200.09'$
 $T = 100.13'$
 $E = 2.48'$

516 PC STA. 2005+00.00
 N. 1,927,591.2658 E. 1,091,340.3722

519 PI STA. 2006+00.13
 N. 1,927,691.3902 E. 1,091,339.7607

518 PT STA. 2007+00.09
 N. 1,927,791.0860 E. 1,091,349.0342

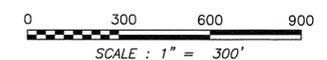
CURVE DATA
PROPOSED CENTERLINE CONSTRUCTION
CURVE NO. YORK-C2

$\Delta = 06^{\circ}00'13''$
 $D = 02^{\circ}17'31''$
 $R = 2500.00'$
 $L = 261.96'$
 $T = 131.10'$
 $E = 3.44'$

520 PC STA. 2008+81.32
 N. 1,927,971.5370 E. 1,091,365.8193

523 PI STA. 2010+12.42
 N. 1,928,102.0720 E. 1,091,377.9614

522 PT STA. 2011+43.28
 N. 1,928,233.1609 E. 1,091,376.3840



NOTES:
1) BEARINGS AND COORDINATES SHOWN HEREON ARE BASED ON ILLINOIS STATE PLANE COORDINATE SYSTEM EAST ZONE, NAD 83, (2007).

STATE OF ILLINOIS)
 COUNTY OF WILL)

THIS IS TO CERTIFY THAT WE, CLAASSEN, WHITE & ASSOCIATES, P.C., AN ILLINOIS PROFESSIONAL DESIGN FIRM LAND SURVEYING CORPORATION NUMBER 184-004039, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTIONS 12 AND 13, TOWNSHIP 40 NORTH, RANGE II EAST OF THE THIRD PRINCIPAL MERIDIAN, DUPAGE COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED. THIS SURVEY CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY. MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT JOLIET, ILLINOIS THIS _____ DAY OF _____, 2010 A.D.

 VICE PRESIDENT

DAVID A. CLAASSEN
 ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 035-002962
 LICENSE EXPIRES NOVEMBER 30, 2012
 THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.



SCANNED

Classten, White & Associates, P.C.
 121 AIRPORT DRIVE, UNIT 1
 JOLIET, ILLINOIS 60431
 (815) 744-3720

PLAT OF HIGHWAYS
 STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 ILLINOIS ROUTE 19

SECTION @ YORK ROAD DUPAGE COUNTY
 PROJECT JOB NO. R-91-014-07
 STATION TO STATION
 SCALE: 1" = 300' SHEET 17 OF

BUREAU OF LAND ACQUISITION
 201 WEST CENTER COURT
 SCHAUMBURG, ILLINOIS 60196-1096

RECEIVED
 MAR 31 2011
 PLATS & LEGALS

JOB #5660 (ORIGINAL #5660)

PRINTING DATE: March 30, 2011 - JMH Microstation/Sheet 17.dgn



UTILITIES OWNERS
UNLESS OTHERWISE NOTED:

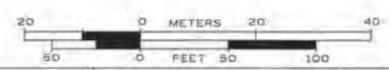
ELECTRIC - COMED
PHONE - AT&T
GAS - NICOR
WATER - VILLAGE OF BENSENVILLE
SANITARY - VILLAGE OF BENSENVILLE
CATV - COMCAST



- A—A—A— AERIAL UTILITY
- - - - - UNKNOWN
- cTV-cTV-cTV CABLE TV
- T-T-T TELEPHONE
- G-G-G GAS
- E-E-E ELECTRIC
- W-W-W WATER
- FO-FO-FO FIBER OPTIC
- >>> SEWER
- ⊕ TBE TEST HOLE

Utilities shown on these plans as depicted in the legend have been investigated by Cardno TBE in accordance with SUE Industry Standards. All other information shown has been provided to Cardno TBE by others. TBE's SUE field investigation was performed 8/2/10 through 11/12/10. Changes to utilities after this date may have been made and therefore may result in variances from this plan. Consideration should be given to updating this plan if deemed advisable prior to final design and construction.

ALL UTILITIES SHOWN QUALITY LEVEL "B"
UNLESS NOTED OTHERWISE.



Utility Quality Level "A" : Test Hole	DESIGNED <i>EG</i>	REVISED
Utility Quality Level "B" : Designating	DRAWN <i>KLC</i>	REVISED
Utility Quality Level "C" : Research with Survey	CHECKED <i>KFS</i>	REVISED
Utility Quality Level "D" : Records Research	DATE <i>12/06/10</i>	REVISED

DESIGNED <i>EG</i>	REVISED
DRAWN <i>KLC</i>	REVISED
CHECKED <i>KFS</i>	REVISED
DATE <i>12/06/10</i>	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL RT.19 at York Road
Bensenville, IL

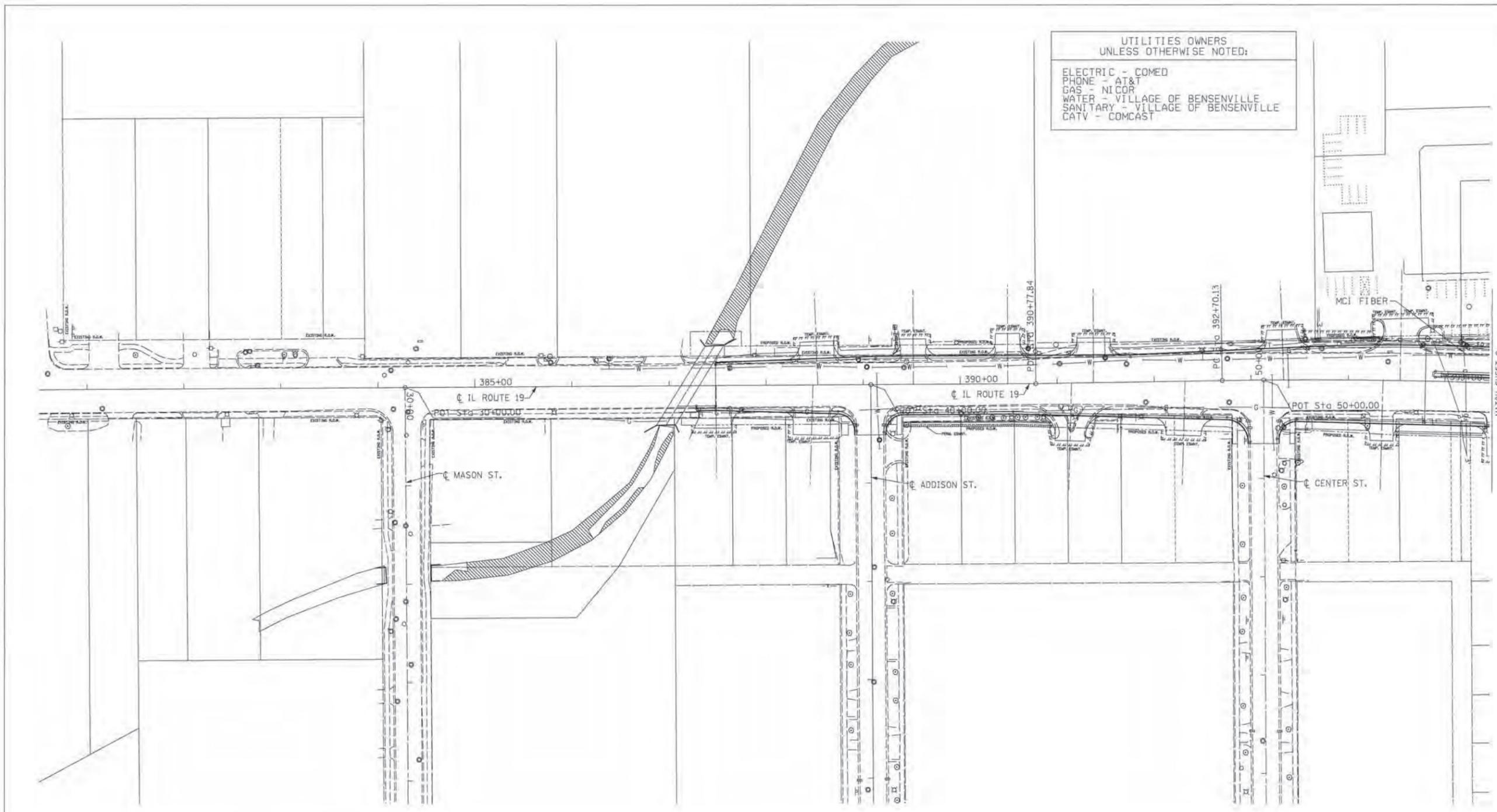
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32WRS-5	Cook	388	104
FED. ROAD DIST. NO. ILLINOIS IDOT Project No.			Contract No. 60W01	

TBE Job No. IL09510417
SUE Plan Page: Cover



UTILITIES OWNERS
UNLESS OTHERWISE NOTED:

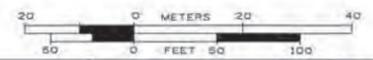
ELECTRIC - COMED
PHONE - AT&T
GAS - NICOR
WATER - VILLAGE OF BENSENVILLE
SANITARY - VILLAGE OF BENSENVILLE
CATV - COMCAST



— A — A —	AERIAL UTILITY
- - - - -	UNKNOWN
— CTV — CTV —	CABLE TV
— T — T —	TELEPHONE
— G — G —	GAS
— E — E —	ELECTRIC
— W — W —	WATER
— FO — FO —	FIBER OPTIC
— S — S —	SEWER
⊙	TBE TEST HOLE

Utilities shown on these plans as depicted in the legend have been investigated by Cardno TBE in accordance with SUE Industry Standards. All other information shown has been provided to Cardno TBE by others. TBE's SUE field investigation was performed 8/2/10 through 11/12/10. Changes to utilities after this date may have been made and therefore may result in variances from this plan. Consideration should be given to updating this plan if deemed advisable prior to final design and construction.

ALL UTILITIES SHOWN QUALITY LEVEL "B"
UNLESS NOTED OTHERWISE.



TBE Job No. IL09510417
SUE Plan Page: 1 of 7

Utility Quality Level "A" : Test Hole
Utility Quality Level "B" : Designating
Utility Quality Level "C" : Research with Survey
Utility Quality Level "D" : Records Research

DESIGNED <i>EG</i>	REVISED
DRAWN <i>KLC</i>	REVISED
CHECKED <i>KFS</i>	REVISED
DATE <i>12/06/10</i>	REVISED

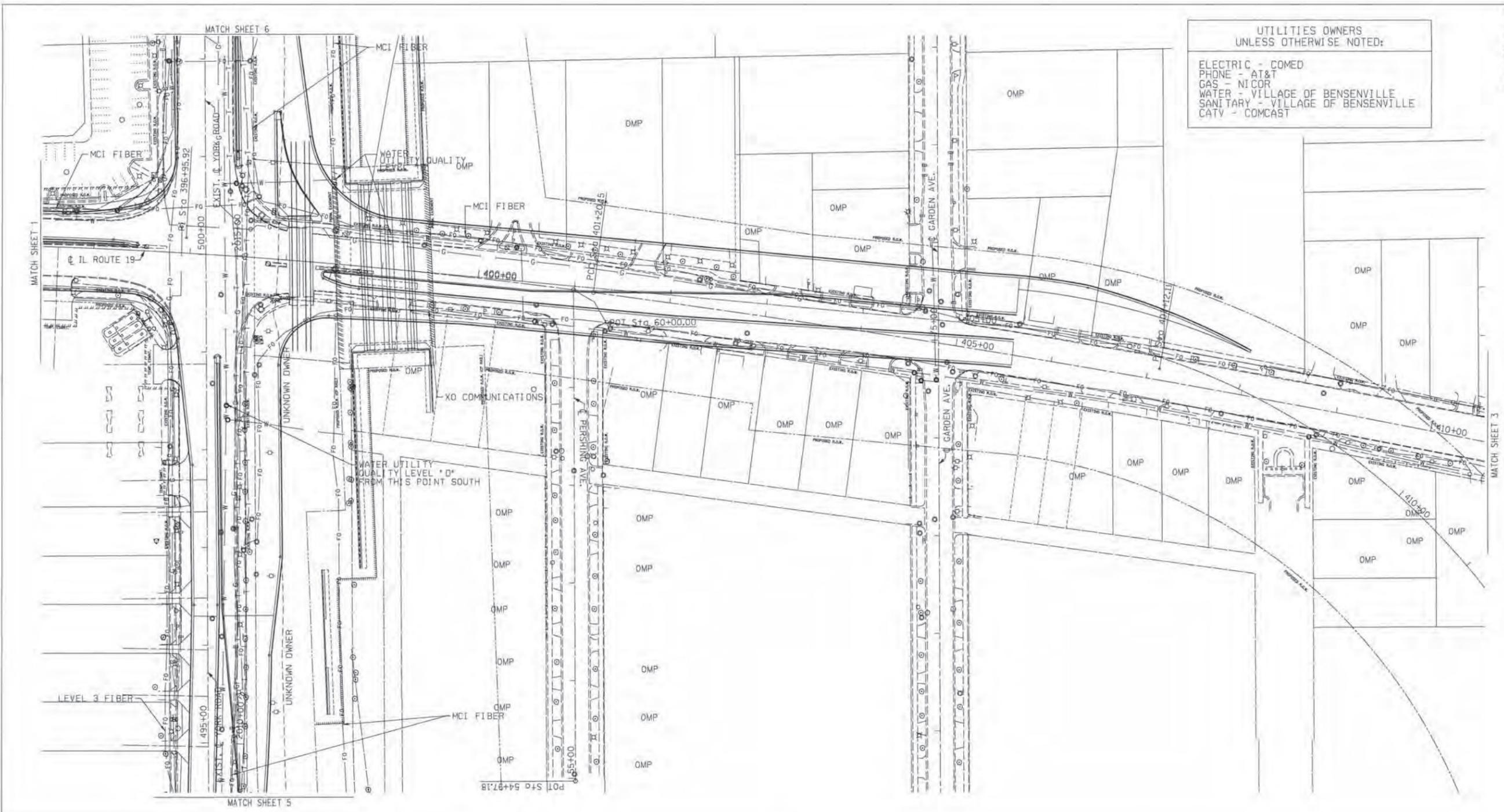
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL RT.19 at York Road
Bensenville, IL

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32WRS-5	Cook	388	105
Contract No. 60W01				
FED. ROAD DIST. NO. ILLINOIS IDOT Project No.				



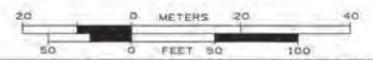
UTILITIES OWNERS
UNLESS OTHERWISE NOTED:
ELECTRIC - COMED
PHONE - AT&T
GAS - NICOR
WATER - VILLAGE OF BENSENVILLE
SANITARY - VILLAGE OF BENSENVILLE
CATV - COMCAST



- A — A — AERIAL UTILITY
- U — U — UNKNOWN
- CTV — CTV — CABLE TV
- T — T — TELEPHONE
- G — G — GAS
- E — E — ELECTRIC
- W — W — WATER
- FO — FO — FIBER OPTIC
- S — S — SEWER
- ⊕ — ⊕ — TBE TEST HOLE

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ALL UTILITIES SHOWN QUALITY LEVEL "B"
UNLESS NOTED OTHERWISE.



TBE Job No. IL09510417
SUE Plan Page: 2 of 7

Utility Quality Level "A": Test Hole
Utility Quality Level "B": Designating
Utility Quality Level "C": Research with Survey
Utility Quality Level "D": Records Research

DESIGNED	EG	REVISED	
DRAWN	KLC	REVISED	
CHECKED	KPS	REVISED	
DATE	12/06/10	REVISED	

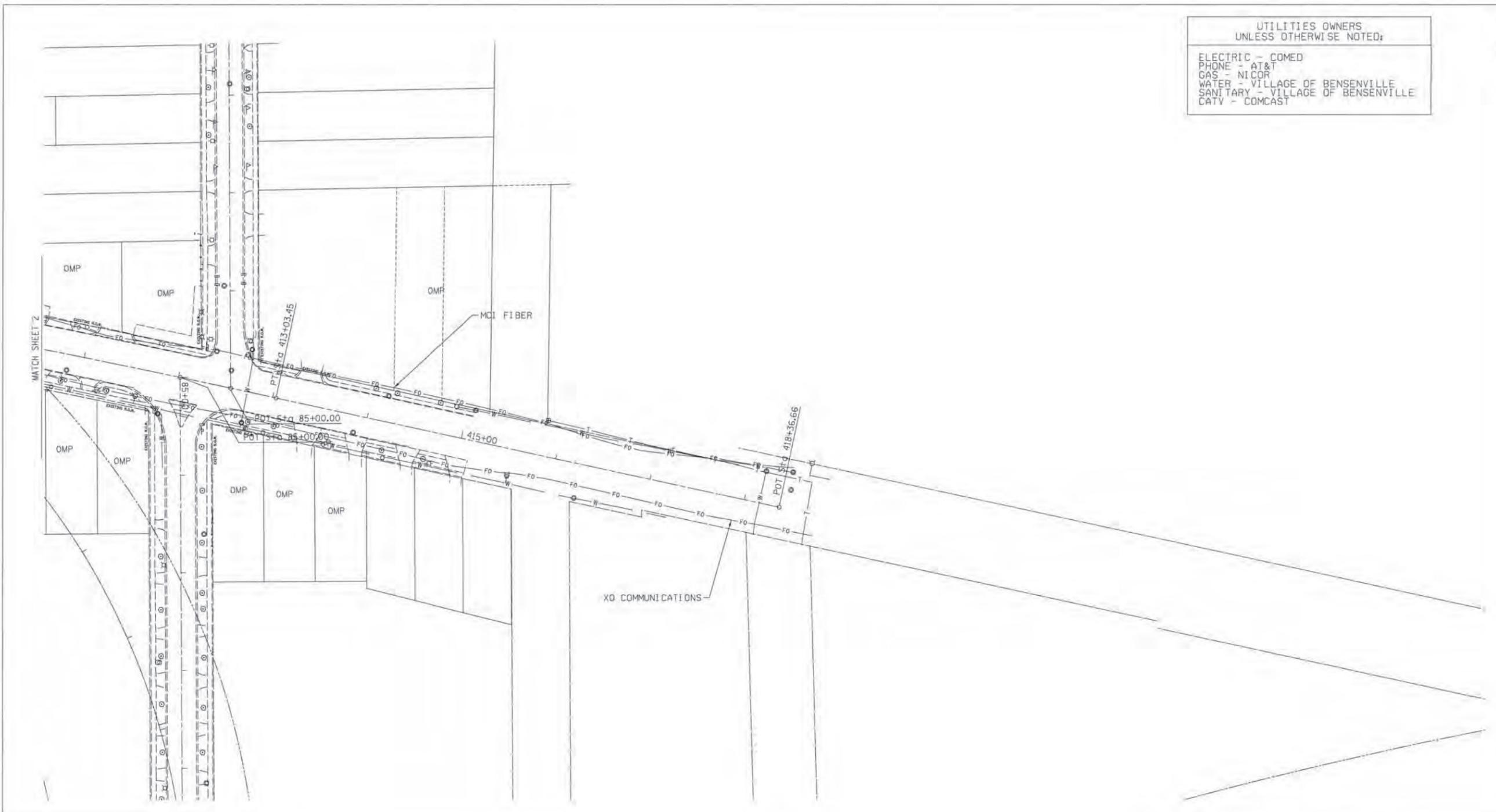
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL RT.19 at York Road
Bensenville, IL

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32WRS-S	Cook	388	106
Contract No. 60Y €				
FED. ROAD DIST. NO. [ILLINOIS] IDOT Project No.				

UTILITIES OWNERS
UNLESS OTHERWISE NOTED:

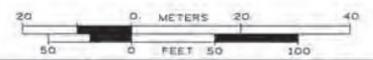
ELECTRIC - COMED
PHONE - AT&T
GAS - NICOR
WATER - VILLAGE OF BENSENVILLE
SANITARY - VILLAGE OF BENSENVILLE
CATV - COMCAST



— A — A —	AERIAL UTILITY
— — — —	UNKNOWN
— CTV — CTV —	CABLE TV
— T — T —	TELEPHONE
— G — G —	GAS
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— W — W —	WATER
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⊕	TBE TEST HOLE

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ALL UTILITIES SHOWN QUALITY LEVEL "B"
UNLESS NOTED OTHERWISE.



TBE Job No. IL09510417
SUE Plan Page: 3 of 7

Utility Quality Level "A": Test Hole	DESIGNED <i>EG</i>	REVISED
Utility Quality Level "B": Designating	DRAWN <i>KLC</i>	REVISED
Utility Quality Level "C": Research with Survey	CHECKED <i>KFS</i>	REVISED
Utility Quality Level "D": Records Research	DATE <i>12/06/10</i>	REVISED

DESIGNED <i>EG</i>	REVISED
DRAWN <i>KLC</i>	REVISED
CHECKED <i>KFS</i>	REVISED
DATE <i>12/06/10</i>	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

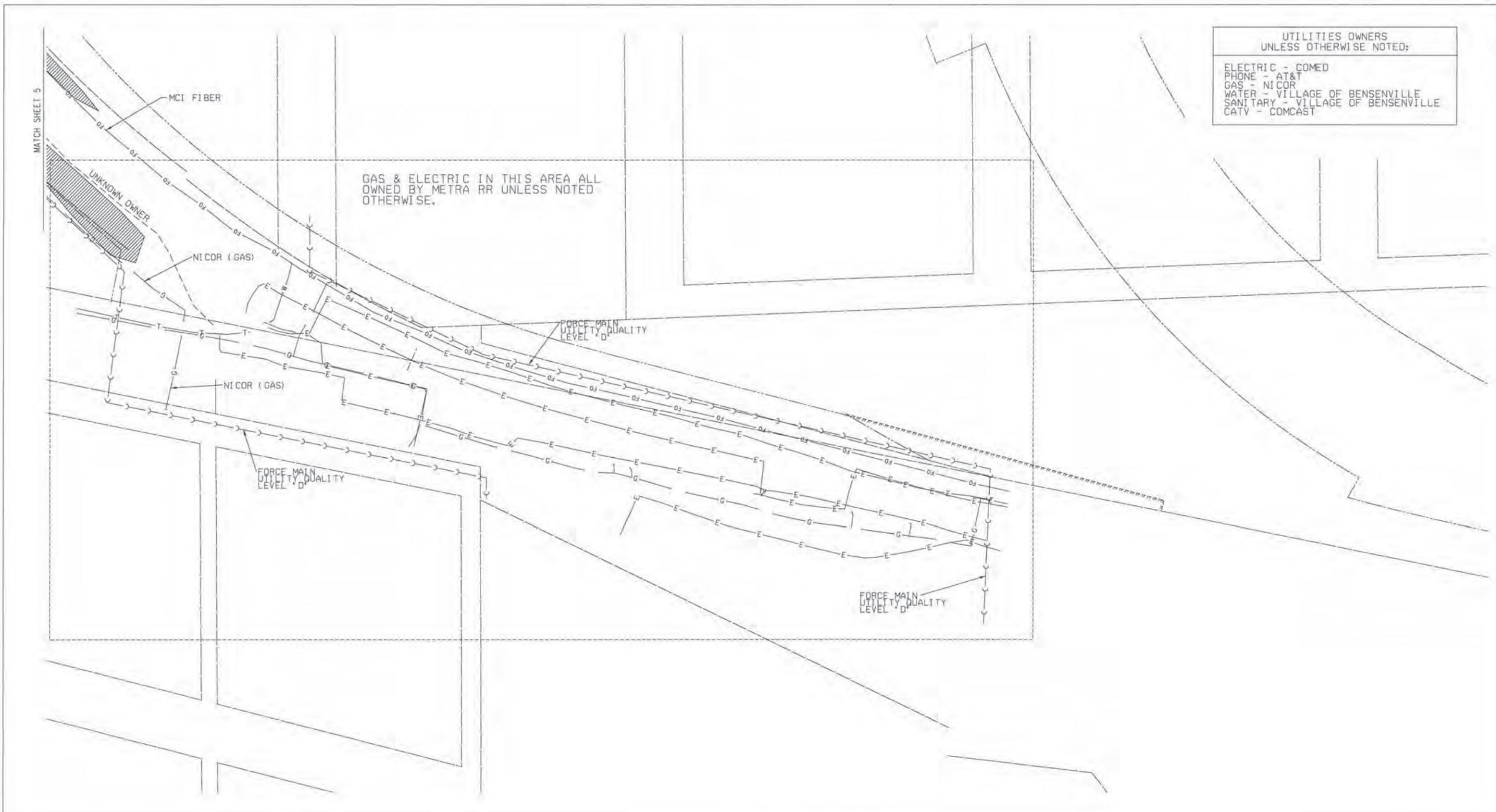
IL RT.19 at York Road
Bensenville, IL

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32WRS-S	Cook	388	107
FED. ROAD DIST. NO. ILLINOIS IDOT Project No.			Contract No. 60W01	



UTILITIES OWNERS
UNLESS OTHERWISE NOTED:

ELECTRIC - COMED
PHONE - AT&T
GAS - NICOR
WATER - VILLAGE OF BENSENVILLE
SANITARY - VILLAGE OF BENSENVILLE
CATV - COMCAST



GAS & ELECTRIC IN THIS AREA ALL OWNED BY METRA RR UNLESS NOTED OTHERWISE.

MATCH SHEET 5

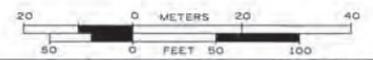
— A — A —	AERIAL UTILITY
- - - - -	UNKNOWN
— CTV — CTV —	CABLE TV
— T — T —	TELEPHONE
— G — G —	GAS
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ALL UTILITIES SHOWN QUALITY LEVEL "B"
UNLESS NOTED OTHERWISE.



TBE Job No. IL09510417
SUE Plan Page: 4 of 7



Utility Quality Level "A" : Test Hole	DESIGNED <i>EG</i>	REVISED
Utility Quality Level "B" : Designating	DRAWN <i>KLC</i>	REVISED
Utility Quality Level "C" : Research with Survey	CHECKED <i>KFS</i>	REVISED
Utility Quality Level "D" : Records Research	DATE <i>12/06/10</i>	REVISED

DESIGNED <i>EG</i>	REVISED
DRAWN <i>KLC</i>	REVISED
CHECKED <i>KFS</i>	REVISED
DATE <i>12/06/10</i>	REVISED

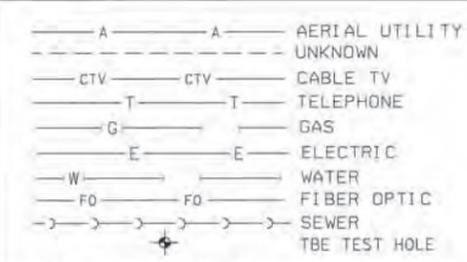
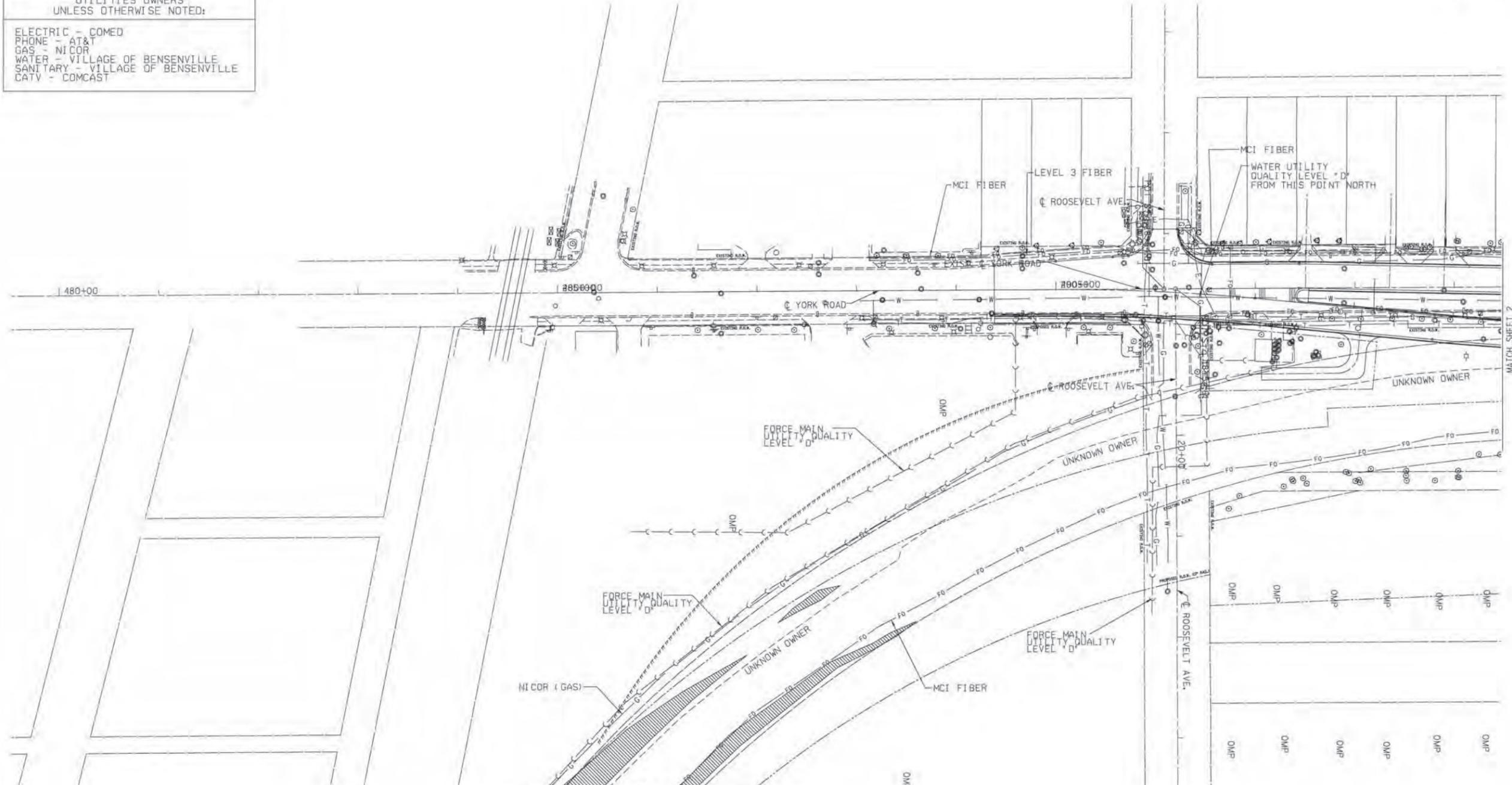
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL RT.19 at York Road
Bensenville, IL

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32WRS-5	Cook	388	108
FED. ROAD DIST. NO. ILLINOIS IDOT Project No.			Contract No. 60W01	

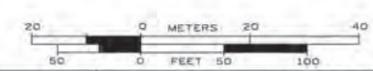
UTILITIES OWNERS
UNLESS OTHERWISE NOTED:

ELECTRIC - COMED
PHONE - AT&T
GAS - NICOR
WATER - VILLAGE OF BENSenville
SANITARY - VILLAGE OF BENSenville
CATV - COMCAST



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TBE Job No. IL09510417
SUE Plan Page: 5 of 7

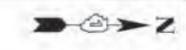
Utility Quality Level "A" : Test Hole
Utility Quality Level "B" : Designating
Utility Quality Level "C" : Research with Survey
Utility Quality Level "D" : Records Research

DESIGNED	EG	REVISED
DRAWN	KLC	REVISED
CHECKED	KPS	REVISED
DATE	12/06/10	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

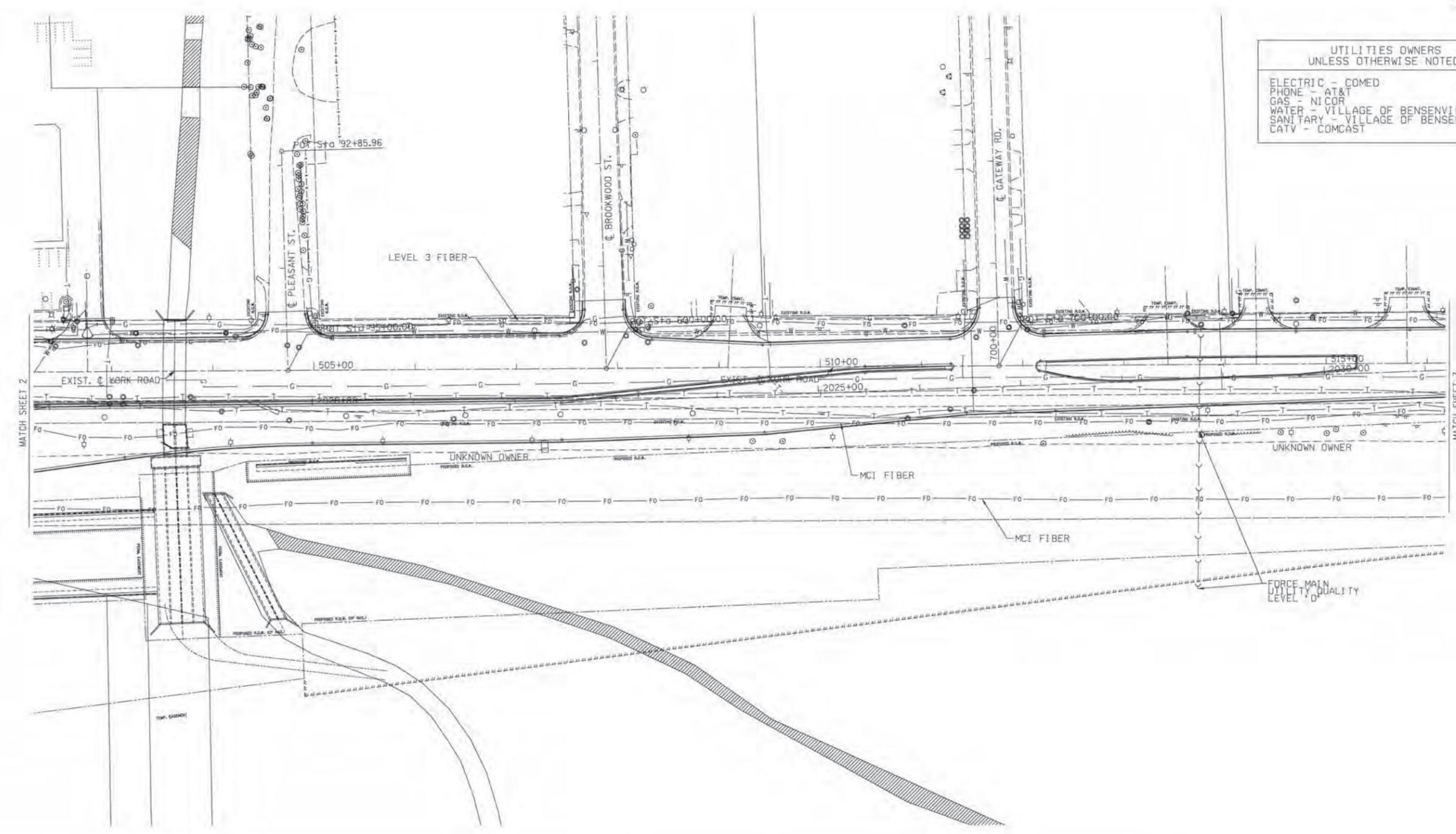
IL RT.19 at York Road
Bensenville, IL

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32WRS-5	Cook	311	109
FED. ROAD DIST. NO. [ILLINOIS] IDOT Project No.			Contract No. 60Y	



UTILITIES OWNERS
UNLESS OTHERWISE NOTED:

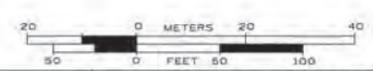
ELECTRIC - COMED
PHONE - AT&T
GAS - NICOR
WATER - VILLAGE OF BENSENVILLE
SANITARY - VILLAGE OF BENSENVILLE
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UNLESS NOTED OTHERWISE.



TBE Job No. IL09510417
SUE Plan Page: 6 of 7

Utility Quality Level "A": Test Hole
Utility Quality Level "B": Designating
Utility Quality Level "C": Research with Survey
Utility Quality Level "D": Records Research

DESIGNED	EG	REVISED
DRAWN	KLC	REVISED
CHECKED	RF	REVISED
DATE	12/06/10	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

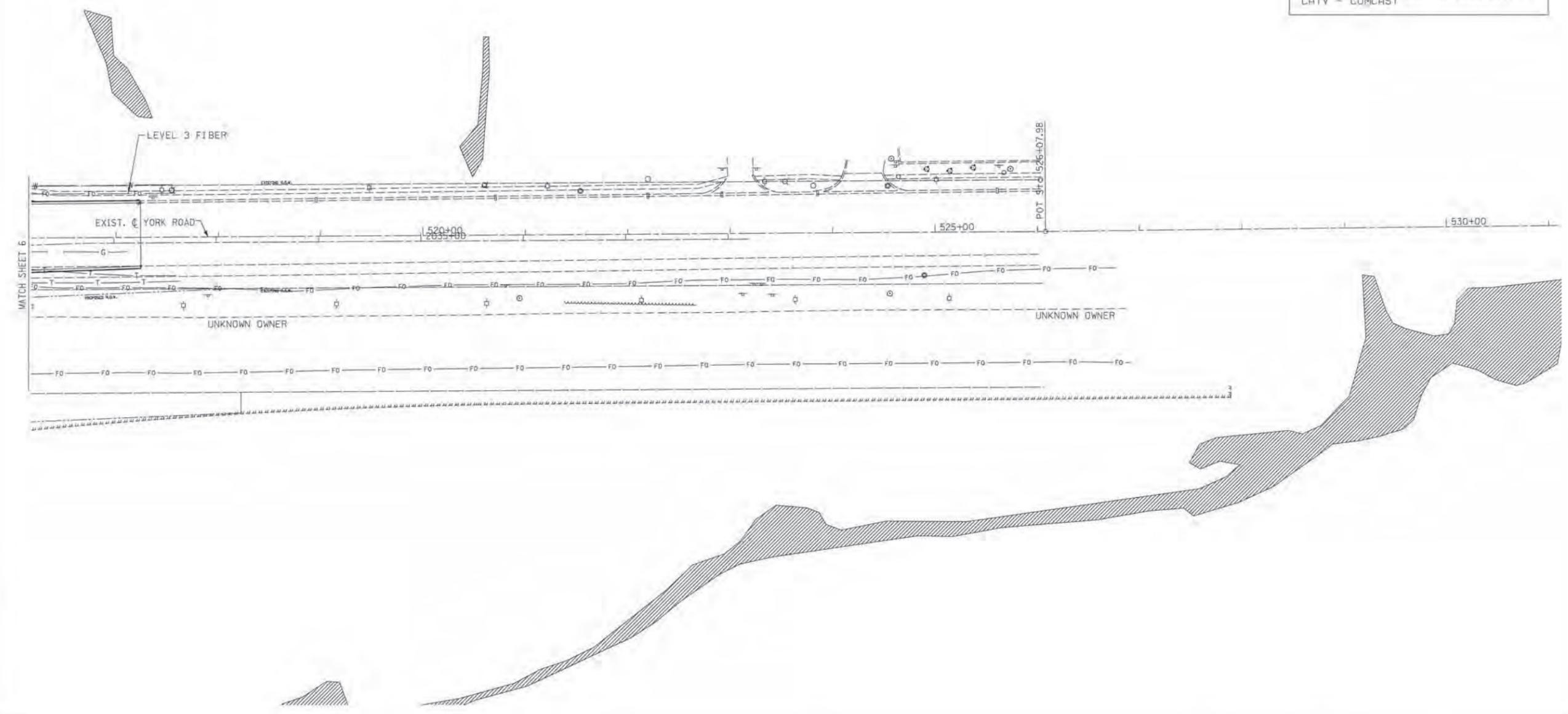
IL RT.19 at York Road
Bensenville, IL

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32WR5-5	Cook	388	110
FED. ROAD DIST. NO.		ILLINOIS IDOT Project No.		
		Contract No. 60W01		



UTILITIES OWNERS
UNLESS OTHERWISE NOTED:

ELECTRIC - COMED
PHONE - AT&T
GAS - NI COR
WATER - VILLAGE OF BENSENVILLE
SANITARY - VILLAGE OF BENSENVILLE
CATV - COMCAST



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Cardno TBE
CIVIL ENGINEERING * TRANSPORTATION * ENVIRONMENTAL * PLANNING * UTILITY ENGINEERING/LOCATING

TBE Job No. IL09510417
SUE Plan Page 7 of 7



Utility Quality Level "A": Test Hole	DESIGNED: EG	REVISED:
Utility Quality Level "B": Designating	DRAWN: KLC	REVISED:
Utility Quality Level "C": Research with Survey	CHECKED: KPS	REVISED:
Utility Quality Level "D": Records Research	DATE: 12/06/10	REVISED:

DESIGNED: EG	REVISED:
DRAWN: KLC	REVISED:
CHECKED: KPS	REVISED:
DATE: 12/06/10	REVISED:

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL RT.19 at York Road
Bensenville, IL

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	32WRS-5	Cook	388	111
Contract No.			60W01	
FED. ROAD DIST. NO.		ILLINOIS DOT Project No.		

TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED																											
CONTROLLER CABINET				EMERGENCY VEHICLE LIGHT DETECTOR				ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE																														
RAILROAD CONTROL CABINET				CONFIRMATION BEACON				COAXIAL CABLE																														
COMMUNICATIONS CABINET				HANDHOLE				VENDOR CABLE FOR CAMERA																														
MASTER CONTROLLER				HEAVY DUTY HANDHOLE				COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED																														
MASTER MASTER CONTROLLER				DOUBLE HANDHOLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F																														
UNINTERRUPTIBLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F																														
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)				FIBER OPTIC CABLE NO. 62.5/125, MM12F																														
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)																														
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH				GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE																														
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)				CONTROLLER CABINET AND FOUNDATION TO BE REMOVED																														
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM				STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED																														
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM				ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED																														
SIGNAL POST				REMOVE ITEM				STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED																														
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				RELOCATE ITEM				SIGNAL POST AND FOUNDATION TO BE REMOVED																														
GUY WIRE				ABANDON ITEM				INTERSECTION & SAMPLING (SYSTEM) DETECTOR																														
SIGNAL HEAD				12" (300mm) TRAFFIC SIGNAL SECTION				SAMPLING (SYSTEM) DETECTOR																														
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				EXISTING INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR																														
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				EXISTING PREFORMED INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR																														
SIGNAL HEAD OPTICALLY PROGRAMMED				SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD				PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR																														
FLASHER INSTALLATION (S DENOTES SOLAR POWER)				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL				PREFORMED SAMPLING (SYSTEM) DETECTOR																														
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED				<h2 style="margin: 0;">RAILROAD SYMBOLS</h2> <table style="width: 100%; border: none;"> <thead> <tr> <th style="width: 50%;"></th> <th style="width: 25%; text-align: center;">EXISTING</th> <th style="width: 25%; text-align: center;">PROPOSED</th> </tr> </thead> <tbody> <tr> <td>RAILROAD CONTROL CABINET</td> <td></td> <td></td> </tr> <tr> <td>RAILROAD CANTILEVER MAST ARM</td> <td></td> <td></td> </tr> <tr> <td>FLASHING SIGNAL</td> <td></td> <td></td> </tr> <tr> <td>CROSSING GATE</td> <td></td> <td></td> </tr> <tr> <td>CROSSBUCK</td> <td></td> <td></td> </tr> </tbody> </table>					EXISTING	PROPOSED	RAILROAD CONTROL CABINET			RAILROAD CANTILEVER MAST ARM			FLASHING SIGNAL			CROSSING GATE			CROSSBUCK											
	EXISTING	PROPOSED																																				
RAILROAD CONTROL CABINET																																						
RAILROAD CANTILEVER MAST ARM																																						
FLASHING SIGNAL																																						
CROSSING GATE																																						
CROSSBUCK																																						
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID																																		
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER																																		
ILLUMINATED SIGN "NO LEFT TURN"				RADIO INTERCONNECT																																		
ILLUMINATED SIGN "NO RIGHT TURN"				RADIO REPEATER																																		
DETECTOR LOOP, TYPE I				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED																																		
PREFORMED DETECTOR LOOP				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)																																		
MICROWAVE VEHICLE SENSOR								<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</td> <td colspan="2" style="text-align: center;">DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS</td> <td style="text-align: center;">F.A.U. RTE.</td> <td style="text-align: center;">SECTION</td> <td style="text-align: center;">COUNTY</td> <td style="text-align: center;">TOTAL SHEETS</td> <td style="text-align: center;">SHEET NO.</td> </tr> <tr> <td colspan="2"></td> <td colspan="2"></td> <td style="text-align: center;">SCALE: NONE</td> <td style="text-align: center;">SHEET NO. 6 OF 6 SHEETS</td> <td style="text-align: center;">STA. TO STA.</td> <td colspan="2" style="text-align: center;">CONTRACT NO.</td> </tr> <tr> <td colspan="2"></td> <td colspan="2"></td> <td colspan="5" style="text-align: center;">FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT</td> </tr> </table>				STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.					SCALE: NONE	SHEET NO. 6 OF 6 SHEETS	STA. TO STA.	CONTRACT NO.						FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.																														
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VIDEO DETECTION CAMERA								<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</td> <td colspan="2" style="text-align: center;">DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS</td> <td style="text-align: center;">F.A.U. RTE.</td> <td style="text-align: center;">SECTION</td> <td style="text-align: center;">COUNTY</td> <td style="text-align: center;">TOTAL SHEETS</td> <td style="text-align: center;">SHEET NO.</td> </tr> <tr> <td colspan="2"></td> <td colspan="2"></td> <td style="text-align: center;">SCALE: NTS</td> <td style="text-align: center;">SHEET NO. 1 OF 23 SHEETS</td> <td style="text-align: center;">STA. TO STA.</td> <td colspan="2" style="text-align: center;">CONTRACT NO. 60W01</td> </tr> <tr> <td colspan="2"></td> <td colspan="2"></td> <td colspan="5" style="text-align: center;">ILLINOIS FED. AID PROJECT</td> </tr> </table>				STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.					SCALE: NTS	SHEET NO. 1 OF 23 SHEETS	STA. TO STA.	CONTRACT NO. 60W01						ILLINOIS FED. AID PROJECT				
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.																														
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				ILLINOIS FED. AID PROJECT																																		
PAN, TILT, ZOOM CAMERA								<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</td> <td colspan="2" style="text-align: center;">DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS</td> <td style="text-align: center;">F.A.U. RTE.</td> <td style="text-align: center;">SECTION</td> <td style="text-align: center;">COUNTY</td> <td style="text-align: center;">TOTAL SHEETS</td> <td style="text-align: center;">SHEET NO.</td> </tr> <tr> <td colspan="2"></td> <td colspan="2"></td> <td style="text-align: center;">SCALE: NTS</td> <td style="text-align: center;">SHEET NO. 1 OF 23 SHEETS</td> <td style="text-align: center;">STA. TO STA.</td> <td colspan="2" style="text-align: center;">CONTRACT NO. 60W01</td> </tr> <tr> <td colspan="2"></td> <td colspan="2"></td> <td colspan="5" style="text-align: center;">ILLINOIS FED. AID PROJECT</td> </tr> </table>				STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.					SCALE: NTS	SHEET NO. 1 OF 23 SHEETS	STA. TO STA.	CONTRACT NO. 60W01						ILLINOIS FED. AID PROJECT				
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WIRELESS DETECTOR SENSOR								<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</td> <td colspan="2" style="text-align: center;">DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS</td> <td style="text-align: center;">F.A.U. RTE.</td> <td style="text-align: center;">SECTION</td> <td style="text-align: center;">COUNTY</td> <td style="text-align: center;">TOTAL SHEETS</td> <td style="text-align: center;">SHEET NO.</td> </tr> <tr> <td colspan="2"></td> <td colspan="2"></td> <td style="text-align: center;">SCALE: NTS</td> <td style="text-align: center;">SHEET NO. 1 OF 23 SHEETS</td> <td style="text-align: center;">STA. TO STA.</td> <td colspan="2" style="text-align: center;">CONTRACT NO. 60W01</td> </tr> <tr> <td colspan="2"></td> <td colspan="2"></td> <td colspan="5" style="text-align: center;">ILLINOIS FED. AID PROJECT</td> </tr> </table>				STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.					SCALE: NTS	SHEET NO. 1 OF 23 SHEETS	STA. TO STA.	CONTRACT NO. 60W01						ILLINOIS FED. AID PROJECT				
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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.																														
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				ILLINOIS FED. AID PROJECT																																		

FILE NAME =	USER NAME = kenthephuzxybo	DESIGNED - DAG/BCK	REVISED -
anpu-work\VPWIDOTV\KANTH\PHIDAY9C\0112012\4\traf7\traf7legend.v7.dgn		DRAWN - BCK	REVISED -
PLOT SCALE = 20.8000' / 1" IN.		CHECKED - DAD	REVISED -
PLOT DATE = 10/6/2009		DATE - 10/28/09	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE	SHEET NO. 6 OF 6 SHEETS	STA. TO STA.	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
				CONTRACT NO.			
				FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			



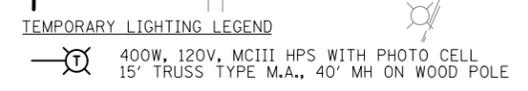
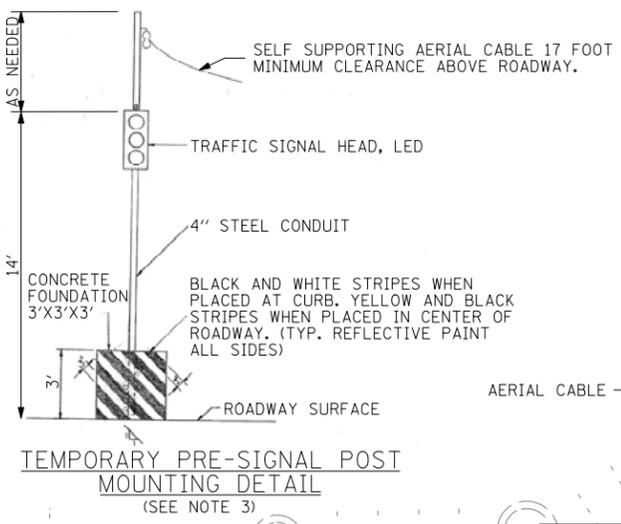
FOR STANDARD TEMPORARY LIGHTING SERVICE WIRING DIAGRAM, REFER TO THE SCHEMATIC ON SHEET 117, BE-800, AND BE-805

MATCH LINE STATION 2016+50

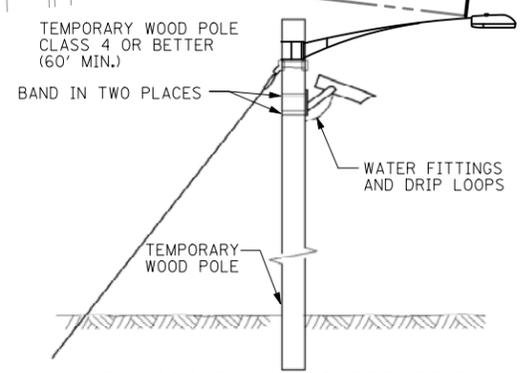
MATCH LINE STATION 394+50

MATCH LINE STATION 400+55

MATCH LINE STATION 2013+00



- NOTES:
1. TRAFFIC SIGNAL PRE-SIGNAL HEADS MOUNTED TO THE SPAN WIRE AS SHOWN ON THE PLANS ARE TO BE HORIZONTALLY MOUNTED AS LOW AS POSSIBLE MAINTAINING 16' MINIMUM CLEARANCE FOR MAXIMUM VISIBILITY DUE TO BRIDGE BEAM OBSTRUCTION TO THE SATISFACTION OF THE ENGINEER AND CPRR REPRESENTATIVE.
 2. CONDUIT UNDER THE EXISTING CPRR TRACKS SHALL BE INSTALLED BY MEANS OF HORIZONTAL DIRECTIONAL DRILLING IN ACCORDANCE WITH ALL CURRENT CPRR REQUIREMENTS, STANDARD SPECIFICATIONS, AND STANDARDS. CONDUIT SPANNING UNDER YORK ROAD SHALL BE INSTALLED AT A DEPTH SUFFICIENT TO PROTECT THE CONDUIT FOR THE DURATION OF THE NEED FOR CABLE INSTALLATION UNDER THE CPRR TRACKS OR UNTIL THE HIGHWAY-RAILROAD GRADE CROSSING IS TAKEN OUT OF SERVICE.
 3. POST MOUNTED PRE-SIGNALS SHALL BE INSTALLED AS NEEDED ON 3' BY 3' BY 3' CONCRETE BLOCKS FITTED WITH LIFTING EYES FOR EASE OF PLACEMENT OR RELOCATION. POST MOUNTED SIGNALS SHALL BE MOUNTED AS LOW AS POSSIBLE WITH TOP OF RED INDICATION AT FOURTEEN FOOT MAXIMUM HEIGHT FOR A THREE SECTION HEAD AND SIXTEEN FEET FOR A FIVE SECTION HEAD. WITH TRUCK DETOUR IN PLACE, CABLES WILL BE SIGNED FOR CLEARANCE HEIGHT IN EACH DIRECTION.
 4. CONTRACTOR SHALL EMBED SIXTY FOOT MINIMUM LENGTH CLASS 4 TEMPORARY TRAFFIC SIGNAL WOOD POLES AT A MINIMUM DEPTH OF TWENTY FEET TO ENSURE MAXIMUM STABILITY DUE TO POSSIBILITY OF EARTH EXCAVATION ACTIVITIES IN CLOSE PROXIMITY TO TEMPORARY WOOD POLE INSTALLATIONS. TYPICAL FOR ALL TEMPORARY TRAFFIC SIGNAL WOOD POLES.
 5. EACH LIGHTING UNIT SHALL BE CONTROLLED BY PHOTO CELL MOUNTED ON EACH LUMINAIRE WITH THE LIGHTING CIRCUIT FED FROM THE TEMPORARY SERVICE DISCONNECT BOX. OTHER MEANS OF LIGHTING CONTROL CAN BE CONSIDERED IF APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL SPLICE AERIAL CABLE AT THE LIGHT POLE USING HEAT SHRINKABLE CAPS WITH THE FACTORY APPLIED WATERPROOF SEALANT OR AN APPROVED UL LISTED AERIAL TAP DEVICE. THE CONTRACTOR SHALL COORDINATE TEMPORARY LIGHTING AND TRAFFIC SIGNAL INSTALLATIONS.



SINGH
SINGH & ASSOCIATES, INC.
CONSULTING ENGINEERS

300 W. ADAMS ST.
CHICAGO, IL 60606
TEL: (312) 629-0240
FAX: (312) 629-8449

USER NAME = Singh Office
DESIGNED - VP
DRAWN - YJ
CHECKED - LGP/GR
DATE - 11-02-2012

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN STAGE 1 IL ROUTE 19 (IRVING PARK RD.) AT YORK ROAD
SCALE: 1"=20' SHEET NO. 2 OF 23 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DUPAGE	371	113
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				



NOTES FOR TEMPORARY TRAFFIC SIGNAL

1. ALL CONTROL EQUIPMENT AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR. EMERGENCY VEHICLE PRE-EMPTION EQUIPMENT FURNISHED FOR THIS PROJECT WILL BE THE PROPERTY OF THE VILLAGE OF BENSENVILLE AND WILL BE PAID FOR BY THE VILLAGE.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLER USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300MM) DIAMETER, HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
7. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATION OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS

CONSTRUCTION NOTES:

1. ALL PEDESTRIAN SIGNAL HEADS SHALL BE BAGGED AND DISCONNECTED WHEN EXISTING PAVEMENT IS REMOVED.
2. ALL PEDESTRIAN SIGNAL HEADS SHALL REMAIN BAGGED UNTIL THE PAVEMENT IS RESTORED TO PROVIDE A SAFE CROSSING AREA.
3. FULL OR PARTIAL USE OF PEDESTRIAN SIGNAL HEADS AT THIS LOCATION SHALL BE DETERMINED BY THE RESIDENT ENGINEER ON LOCATION.
4. TEMPORARY RADIO INTERCONNECT SHALL NOT BE REMOVED UNTIL FIBER INTERCONNECT TO CHURCH ROAD AND GREEN STREET IS INSTALLED AND OPERATIONAL.
5. EXISTING LIGHT DETECTORS, CONFIRMATION BEACONS, AND LIGHT DETECTOR AMPLIFIERS ARE TO BE REMOVED AND RETURNED TO THE VILLAGE OF BENSENVILLE FOR RELOCATION ONTO NEW MAST ARMS AND NEW CONTROLLER CABINET IN A SEPARATE CONTRACT BY IDOT.

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND ARRANGE FOR PICK UP OF ALL EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

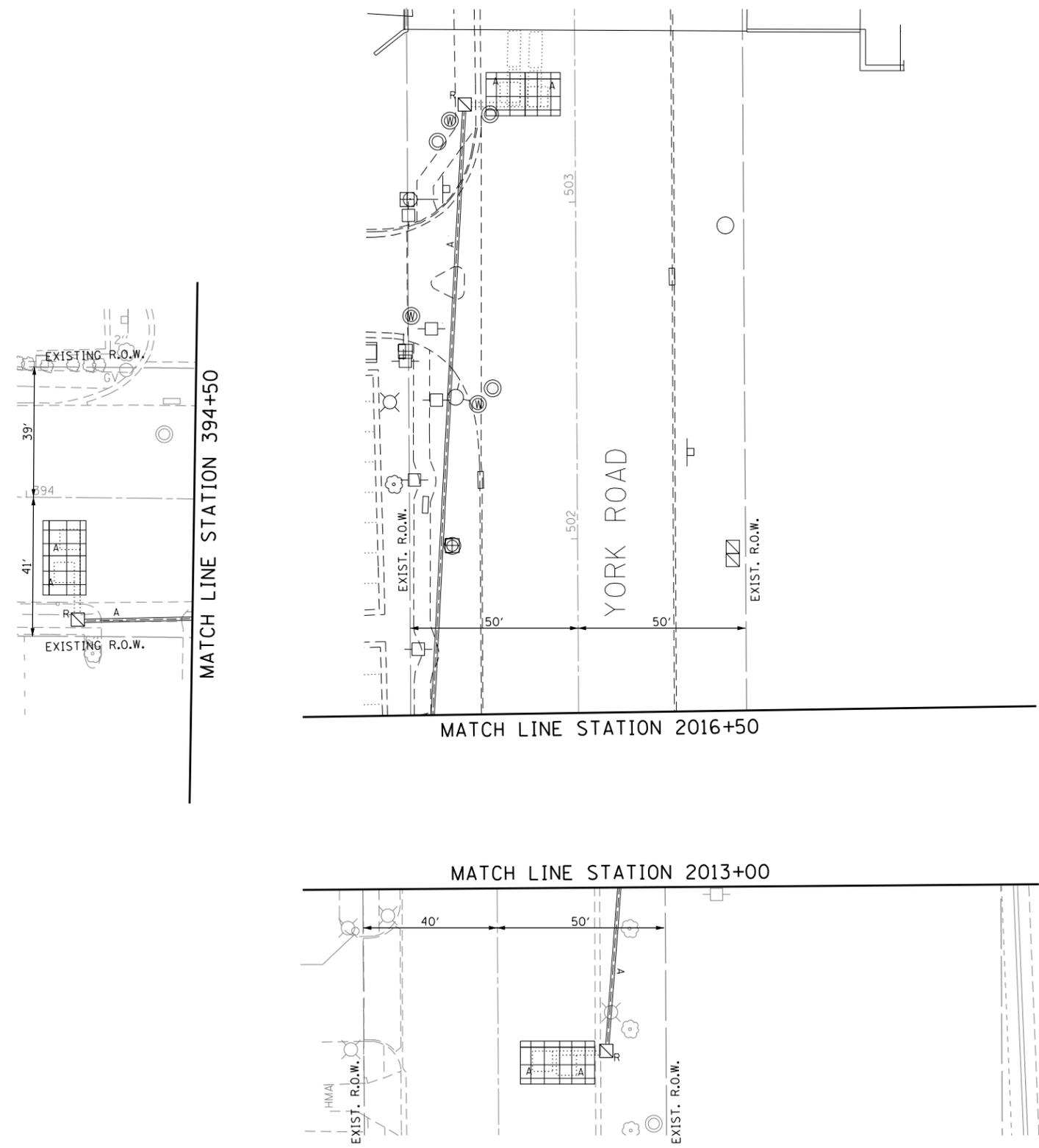
AGENCY: VILLAGE OF BENSENVILLE

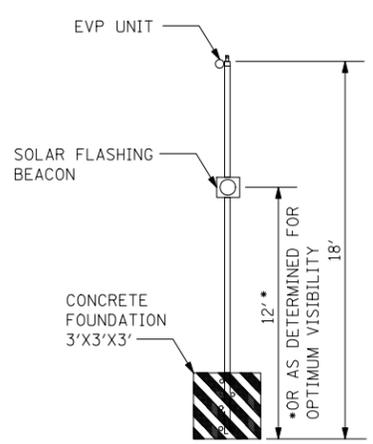
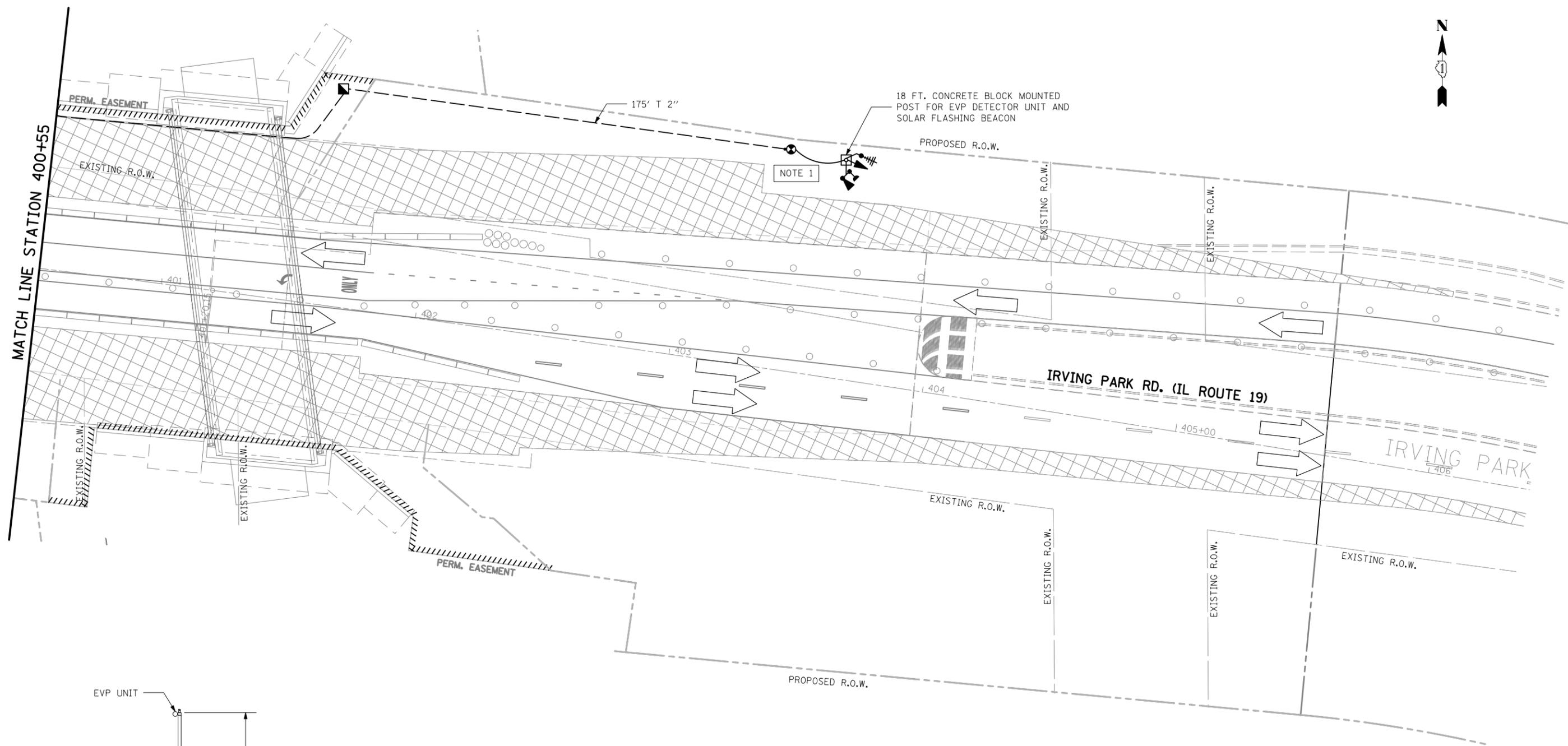
- 2 EACH LIGHT DETECTOR
- 1 EACH LIGHT DETECTOR AMPLIFIER

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 6 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 10 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
- 1 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
- 5 EACH STEEL MAST ARM AND POLE
- 3 EACH SIGNAL POST
- 2 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE
- 2 EACH BLANK OUT SIGN, NLT
- 2 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 2 EACH BLANK OUT SIGN, NRT
- 4 EACH PEDESTRIAN PUSH-BUTTON
- 1 EACH ELECTRICAL SERVICE

NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.





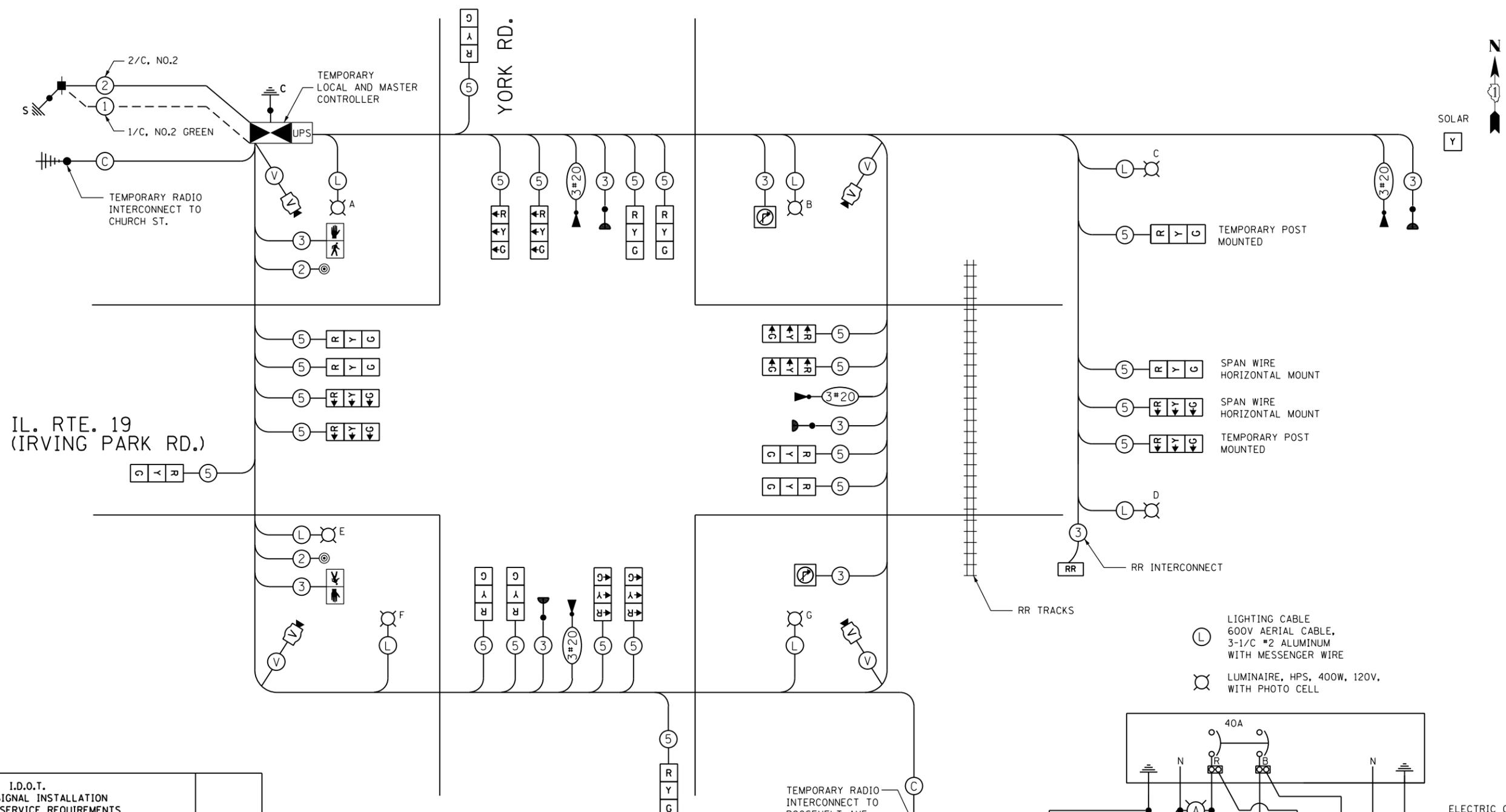
TEMPORARY ADVANCE EVP POST DETAIL

NOTES:

- CONTRACTOR SHALL INSTALL ADDITIONAL 30' CLASS 5 OR BETTER WOOD POLES AS NECESSARY FOR ROUTING OF AERIAL CABLE TO EVP UNIT MOUNTED ON 3' BY 3' BY 3' CONCRETE BLOCK WITH LIFTING EYES WITH 18' POST. CONTRACTOR SHALL ROUTE UNDERGROUND CONDUIT AS NECESSARY TO PASS UNDER UPRR BRIDGE. CONDUIT SHALL BE AT SUFFICIENT DEPTH TO PROTECT CONDUIT FROM REMOVAL OF TEMPORARY PAVEMENT AND ALL OTHER CONSTRUCTION ACTIVITIES FOR DURATION OF CONTRACT. PLACEMENT OF TEMPORARY POST FOR EVP SHALL BE AT APPROXIMATELY STATION 403+50 AND CONTRACTOR SHALL ADJUST LOCATION AS NECESSARY TO OBTAIN OPTIMAL POSITION TO THE SATISFACTION OF THE ENGINEER. CONTRACTOR SHALL FURNISH AND INSTALL SOLAR FLASHING BEACON ON TEMPORARY POST AS SHOWN IN DETAIL THIS SHEET AND SHEET 97. POLE LOCATIONS AS SHOWN ARE ONLY APPROXIMATE AND SHALL BE DETERMINED IN THE FIELD.

USER NAME = Singh Office	DESIGNED - VP	REVISED -
PLOT SCALE = #SCALE#	DRAWN - YJ	REVISED -
PLOT DATE = 11/15/2012	CHECKED - LGP/GR	REVISED -
	DATE - 11-02-2012	REVISED -

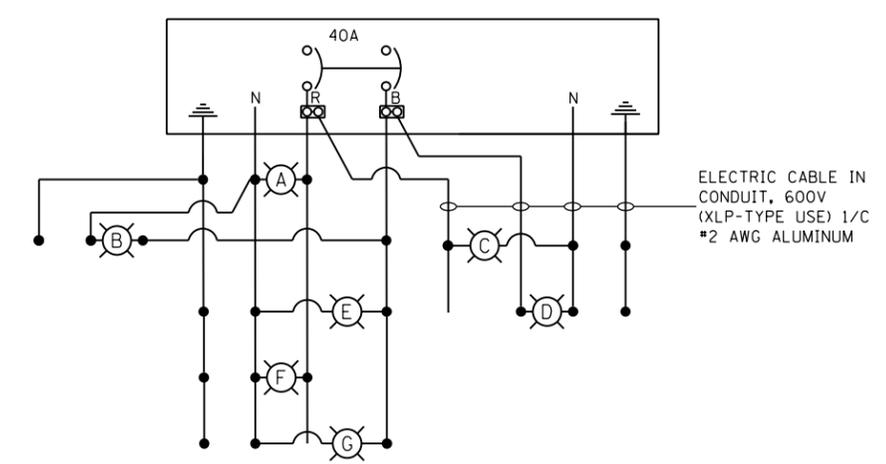
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DUPAGE	371	115
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				



TEMPORARY CABLE PLAN
STAGE 1, STAGE 1A, AND STAGE 2 CONSTRUCTION

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

NOTE:
THE TEMPORARY CABLE PLAN AS DEPICTED ABOVE, WILL REMAIN IN EFFECT FOR FOR THE DURATION OF STAGE 1, STAGE 1A, AND STAGE 2, AND UNTIL THE AT GRADE RAILROAD CROSSING IS REMOVED FROM SERVICE.



LIGHTING CIRCUIT DIAGRAM

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		H.I.D.	LED		
SIGNAL (RED)	13		17	0.50	110.5
(YELLOW)	13		25	0.25	81.25
(GREEN)	13		15	0.25	48.75
ARROW	30		12	0.10	36
PED. SIGNAL	2		25	1.00	50
ILLUM. SIGN	2		25	0.10	5
FLASHER	-		100	1.00	-
VIDEO SYSTEM	1		150	1.00	150
LUMINAIRE	7	400		0.50	1400
				TOTAL =	1881.5

ENERGY COST TO:
VILLAGE OF BENSENVILLE
700 WEST IRVING PARK ROAD
BENSENVILLE, ILLINOIS 60133

ENERGY SUPPLY CONTACT: CURTIS TOPPS
PHONE: 630-691-4356
COMPANY: COMED

SINGH 300 W. ADAMS ST. CHICAGO, IL 60606 SINGH & ASSOCIATES, INC. CONSULTING ENGINEERS TEL: (312) 629-0240 FAX: (312) 629-8449	USER NAME = user	DESIGNED - VP	REVISED -
	PLOT SCALE = #SCALE#	DRAWN - YJ	REVISED -
	PLOT DATE = 11/2/2012	CHECKED - LGP/GR	REVISED -
		DATE - 11-02-2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, STAGE 1, STAGE 1A, AND STAGE 2
IL ROUTE 19 (IRVING PARK RD.) AT YORK ROAD

SCALE: NTS SHEET NO. 4 OF 23 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DUPAGE	388	116
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATIONS

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1	1	1	5	5	7	7	9	9	9	13	13	13	17	17	20	20	24	24	24																																			
EMERGENCY VEHICLE PREEMPTION SEQUENCE INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	1V	1W	1X	1Y	1Z	1AA	1BB	1CC	1DD	1EE	1FF	1GG	1HH	1JJ	1KK	1LL	1MM	1NN	1PP	1QQ	1RR	1SS	1TT	1UU	1VV	1WW	1XX	1YY	1ZZ	1AAA	1BBB					
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE INTERVAL NUMBER	1B	2	1D	1E	1F	3 OR 5	1H	1J	1K	4	2	1N	1P	1Q	3,4 OR 5	1S	2,3 OR 5	4	1V	2	1X	1Y	1Z	3 OR 5	1BB	1CC	1DD	4	1FF	2 OR 4	1HH	3	1KK	5	1MM	2,4 OR 5	3	1OO	1RR	2,3 OR 4	5	1UU	1VV	2 OR 4	1XX	1YY	3	1AAA	1BBB	5					
IL RTE 19 (IRVING PARK RD) EASTBOUND NEAR RIGHT AND FAR RIGHT SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	G	Y	R	Y	R	R	R	G	G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
IL RTE 19 (IRVING PARK RD) EASTBOUND MID SPAN LEFT & FAR LEFT SIGNALS	←Y	←R	←Y	←R	←R	←R	←G	←G	←G	←G	←R	←R	←R	←R	←R	←Y	←R	←G	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R			
IL RTE 19 (IRVING PARK RD) WESTBOUND NEAR RIGHT AND FAR RIGHT SIGNALS	R	R	R	R	R	R	R	R	R	R	G	G	G	Y	R	R	R	R	G	G	G	G	Y	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
IL RTE 19 (IRVING PARK RD) WESTBOUND MID SPAN LEFT & FAR LEFT SIGNALS	←G	←G	←G	←G	←Y	←R	←G	←G	←Y	←R	←G	←G	←G	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R			
IL RTE 19 WB SIGNALS EAST OF RR TRACKS PRE-SIGNALS MID SPAN RIGHT & NEAR RIGHT	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	R	G	G	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
IL RTE 19 WB SIGNALS EAST OF RR TRACKS PRE-SIGNALS MID SPAN LEFT & NEAR LEFT	←G	←G	←Y	←R	←R	←R	←Y	←R	←R	←R	←G	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R			
YORK RD NORTHBOUND MID SPAN RIGHT, FAR RIGHT AND NEAR RIGHT SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
YORK RD NORTHBOUND MID SPAN LEFT AND FAR LEFT	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R			
YORK RD SOUTHBOUND MID SPAN RIGHT, FAR RIGHT AND NEAR RIGHT SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
YORK RD SOUTHBOUND MID SPAN LEFT AND FAR LEFT	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R		
PEDESTRIAN SIGNALS CROSSING IL RTE 19 ON WEST SIDE OF YORK RD	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H		

CONTINUED BELOW

NOTE:

THE TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATIONS DEPICTED ABOVE, IS TO REMAIN IN EFFECT FOR THE DURATION OF STAGE 1, STAGE 1A, AND STAGE 2, AND UNTIL THE HIGHWAY RAILROAD CROSSING IS REMOVED FROM SERVICE.



EMERGENCY VEHICLE SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY INTERVAL AFTER EMERGENCY VEHICLE 2 OR 3 IS TERMINATED.

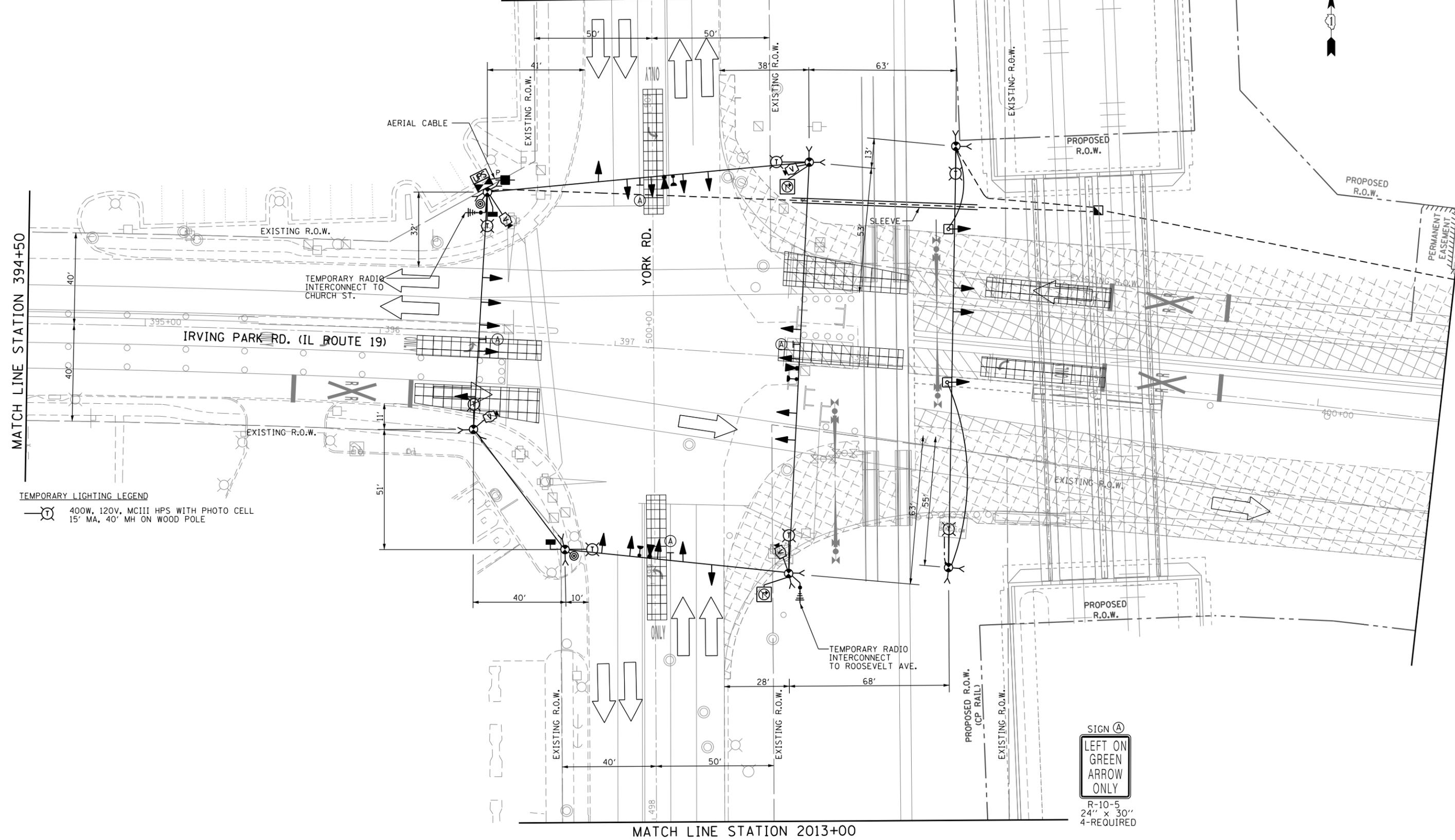
- P - ILLUMINATED PERSON - WALK
- FH - ILLUMINATED FLASHING HAND - FLASHING DON'T WALK
- H - ILLUMINATED SOLID HAND - DON'T WALK

CONTINUED ABOVE

	PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	PREEMPTOR NUMBER 5	PREEMPTOR NUMBER 6	CLEAR TO NORMAL
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER					
EMERGENCY VEHICLE PREEMPTION SEQUENCE INTERVAL NUMBER	2	3	4	5	
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE INTERVAL NUMBER					
IL RTE 19 (IRVING PARK RD) EASTBOUND NEAR RIGHT AND FAR RIGHT SIGNALS	R	R	G	R	◆
IL RTE 19 (IRVING PARK RD) EASTBOUND MID SPAN LEFT & FAR LEFT SIGNALS	←R	←R	←G	←R	◆
IL RTE 19 (IRVING PARK RD) WESTBOUND NEAR RIGHT AND FAR RIGHT SIGNALS	G	R	R	R	◆
IL RTE 19 (IRVING PARK RD) WESTBOUND MID SPAN LEFT & FAR LEFT SIGNALS	←G	←R	←R	←R	◆
IL RTE 19 WB SIGNALS EAST OF RR TRACKS PRE-SIGNALS MID SPAN RIGHT & NEAR RIGHT	G	R	R	R	◆
IL RTE 19 WB SIGNALS EAST OF RR TRACKS PRE-SIGNALS MID SPAN LEFT & NEAR LEFT	←G	←R	←R	←R	◆
YORK RD NORTHBOUND MID SPAN RIGHT, FAR RIGHT AND NEAR RIGHT SIGNALS	R	G	R	R	◆
YORK RD NORTHBOUND MID SPAN LEFT AND FAR LEFT	←R	←G	←R	←R	◆
YORK RD SOUTHBOUND MID SPAN RIGHT, FAR RIGHT AND NEAR RIGHT SIGNALS	R	R	R	G	◆
YORK RD SOUTHBOUND MID SPAN LEFT AND FAR LEFT	←R	←R	←R	←G	◆
PEDESTRIAN SIGNALS CROSSING IL RTE 19 ON WEST SIDE OF YORK RD	H	H	H	H	◆



MATCH LINE STATION 2016+50

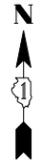


TEMPORARY LIGHTING LEGEND
 400W, 120V, MCIII HPS WITH PHOTO CELL
 15' MA, 40' MH ON WOOD POLE

SIGN (A)

 R-10-5
 24" x 30"
 4-REQUIRED

MATCH LINE STATION 2013+00

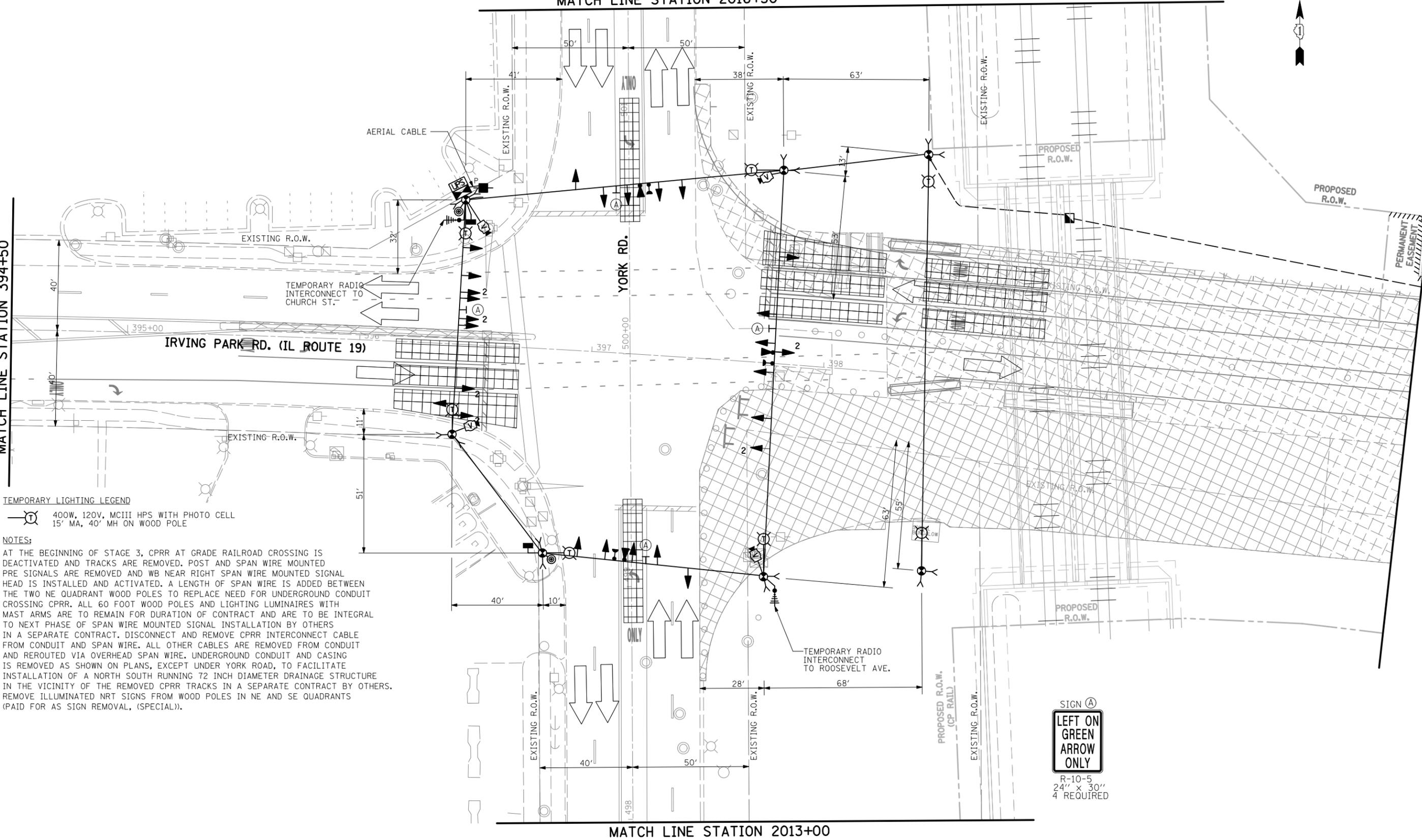


MATCH LINE STATION 2016+50

MATCH LINE STATION 394+50

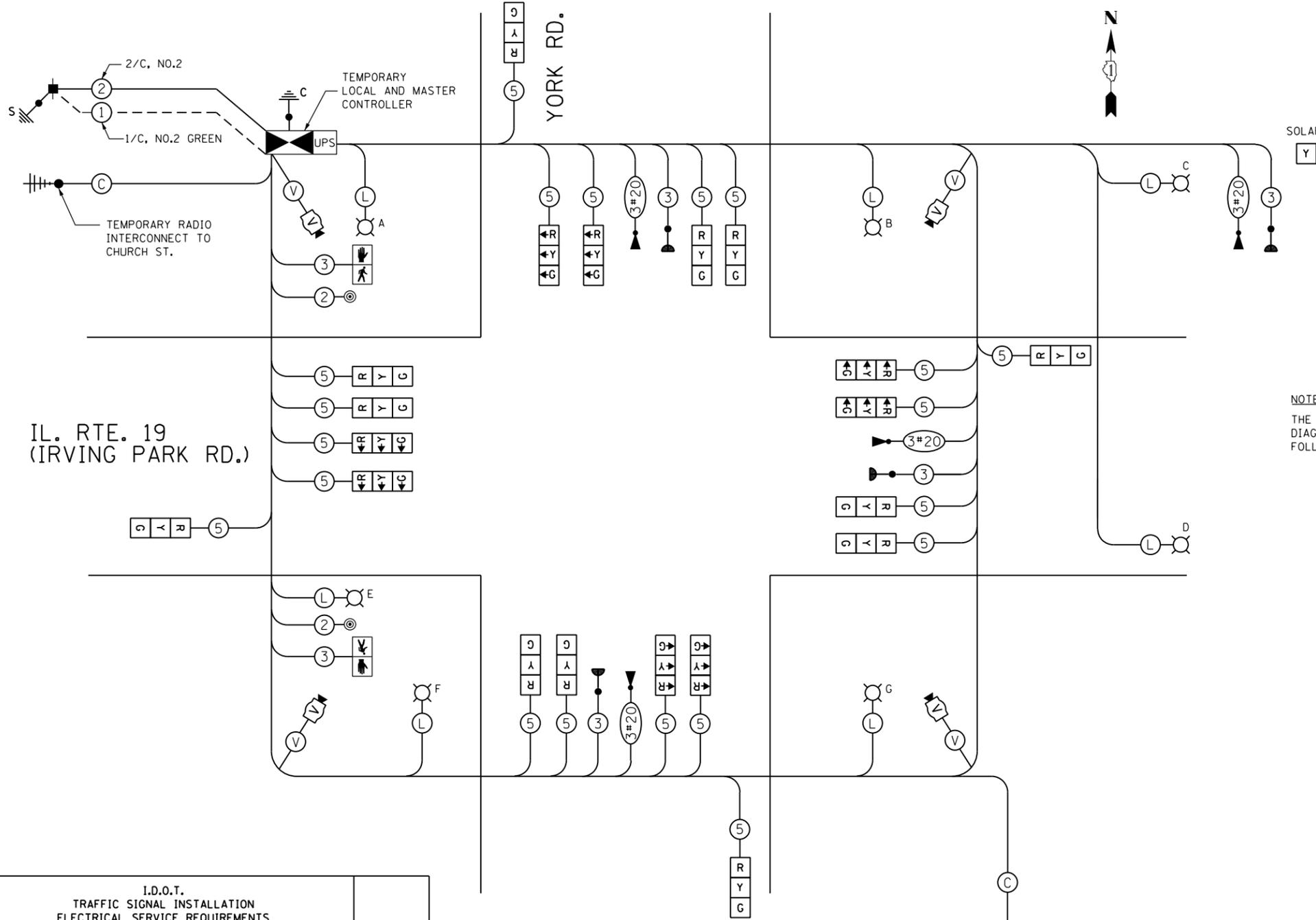
TEMPORARY LIGHTING LEGEND
 400W, 120V, MCIII HPS WITH PHOTO CELL
 15' MA, 40' MH ON WOOD POLE

- NOTES:**
1. AT THE BEGINNING OF STAGE 3, CPRR AT GRADE RAILROAD CROSSING IS DEACTIVATED AND TRACKS ARE REMOVED. POST AND SPAN WIRE MOUNTED PRE SIGNALS ARE REMOVED AND WB NEAR RIGHT SPAN WIRE MOUNTED SIGNAL HEAD IS INSTALLED AND ACTIVATED. A LENGTH OF SPAN WIRE IS ADDED BETWEEN THE TWO NE QUADRANT WOOD POLES TO REPLACE NEED FOR UNDERGROUND CONDUIT CROSSING CPRR. ALL 60 FOOT WOOD POLES AND LIGHTING LUMINAIRES WITH MAST ARMS ARE TO REMAIN FOR DURATION OF CONTRACT AND ARE TO BE INTEGRAL TO NEXT PHASE OF SPAN WIRE MOUNTED SIGNAL INSTALLATION BY OTHERS IN A SEPARATE CONTRACT. DISCONNECT AND REMOVE CPRR INTERCONNECT CABLE FROM CONDUIT AND SPAN WIRE. ALL OTHER CABLES ARE REMOVED FROM CONDUIT AND REROUTED VIA OVERHEAD SPAN WIRE. UNDERGROUND CONDUIT AND CASING IS REMOVED AS SHOWN ON PLANS, EXCEPT UNDER YORK ROAD, TO FACILITATE INSTALLATION OF A NORTH SOUTH RUNNING 72 INCH DIAMETER DRAINAGE STRUCTURE IN THE VICINITY OF THE REMOVED CPRR TRACKS IN A SEPARATE CONTRACT BY OTHERS. REMOVE ILLUMINATED NRT SIGNS FROM WOOD POLES IN NE AND SE QUADRANTS (PAID FOR AS SIGN REMOVAL, (SPECIAL)).



SIGN (A)
**LEFT ON GREEN
 ARROW
 ONLY**
 R-10-5
 24" x 30"
 4 REQUIRED

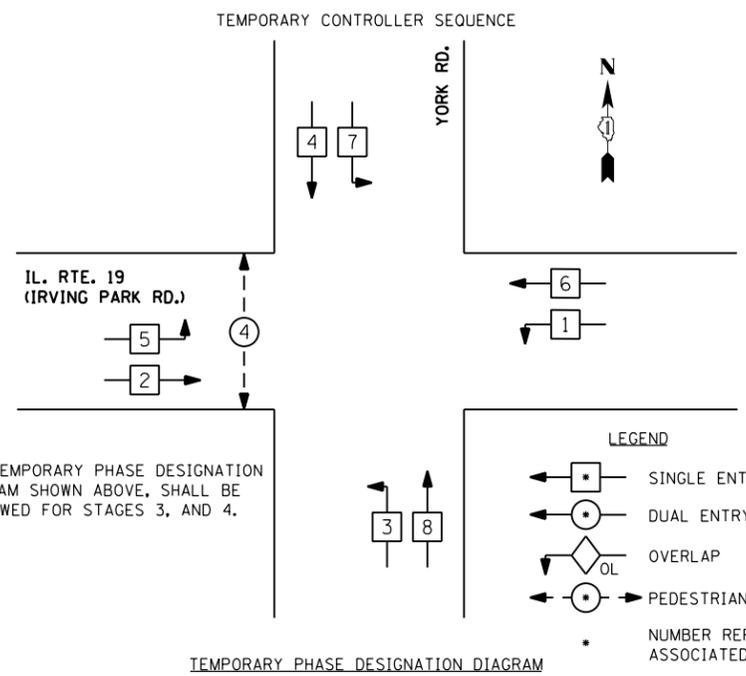
MATCH LINE STATION 2013+00



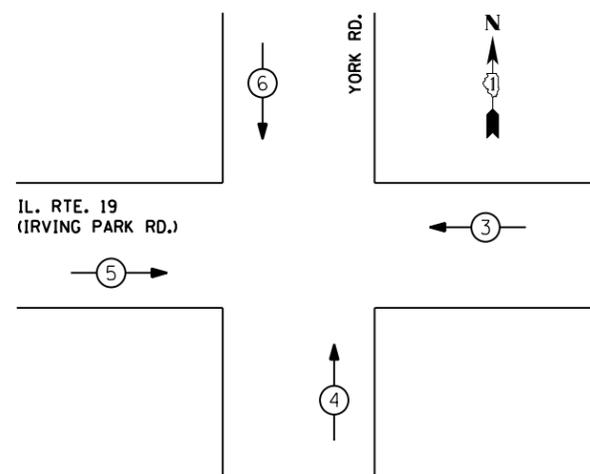
TEMPORARY CABLE PLAN
STAGE 3, AND STAGE 4 CONSTRUCTION

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

NOTE:
THE TEMPORARY CABLE PLAN SHOWN ABOVE, SHALL BE FOLLOWED FOR STAGES 3, AND 4.



TEMPORARY PHASE DESIGNATION DIAGRAM



TEMPORARY EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	←	↑	→	↓

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		H.I.D.	LED		
SIGNAL (RED)	12		17	0.50	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	24		12	0.10	28.8
PED. SIGNAL	2		25	1.00	50
ILLUM. SIGN	-		25	0.10	-
FLASHER	-		100	1.00	-
VIDEO SYSTEM	1		150	1.00	150
LUMINAIRE	7	400		0.50	1400
				TOTAL =	1850.8

ENERGY COST TO:
VILLAGE OF BENSENVILLE
700 WEST IRVING PARK ROAD
BENSENVILLE, ILLINOIS 60133

ENERGY SUPPLY CONTACT: CURTIS TOPPS
PHONE: 630-691-4356
COMPANY: COMED

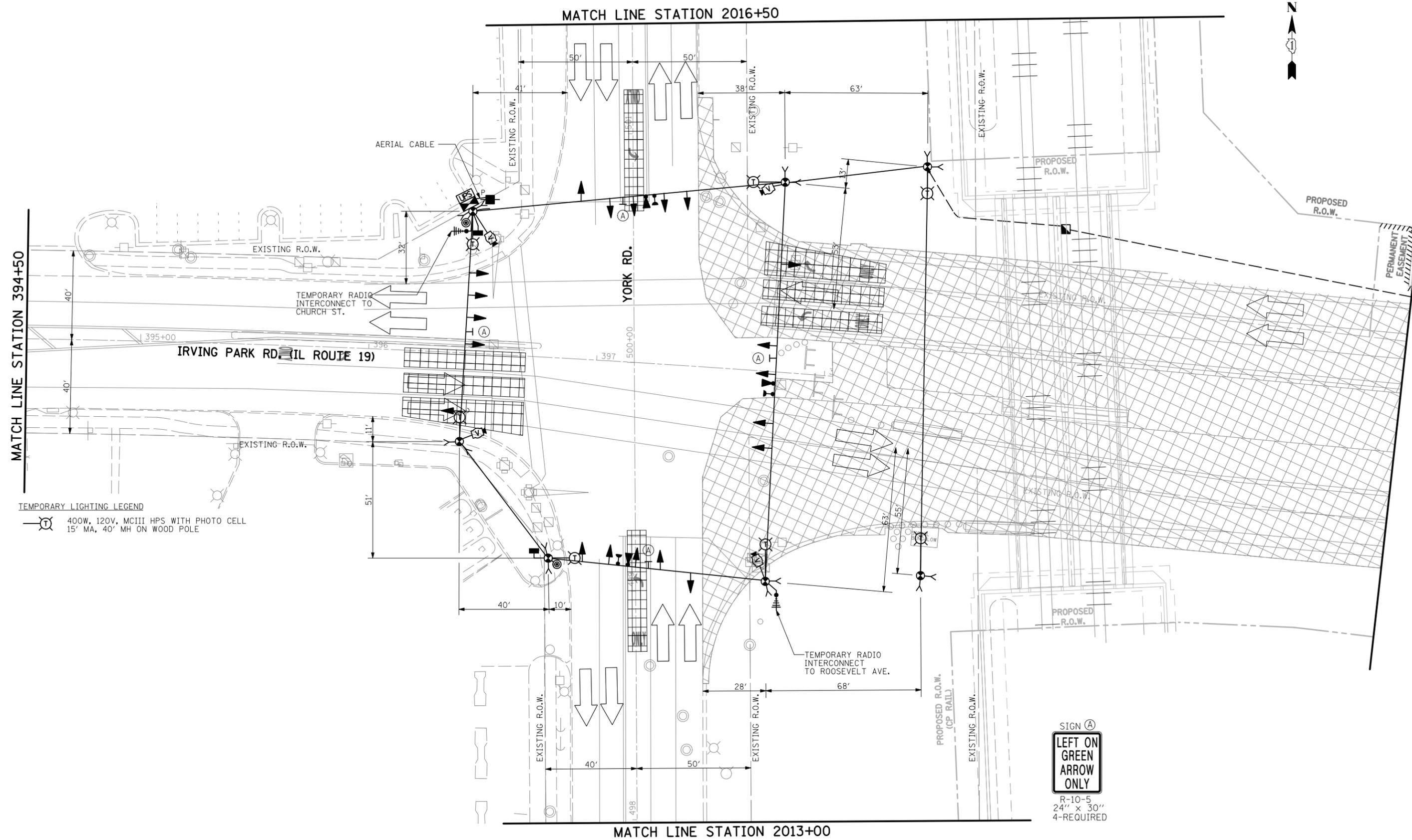
SINGH SINGH & ASSOCIATES, INC. CONSULTING ENGINEERS 300 W. ADAMS ST. CHICAGO, IL 60606 TEL: (312) 629-0240 FAX: (312) 629-8449	USER NAME = user	DESIGNED - VP	REVISED -
	PLOT SCALE = *SCALE*	DRAWN - YJ	REVISED -
	PLOT DATE = 11/2/2012	CHECKED - LGP/GR	REVISED -
		DATE - 11-02-2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM, AND TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE, STAGES 3, AND 4
IL ROUTE 19 (IRVING PARK RD.) AT YORK ROAD

SCALE: NTS SHEET NO. 9 OF 23 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DUPAGE	388	121
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				



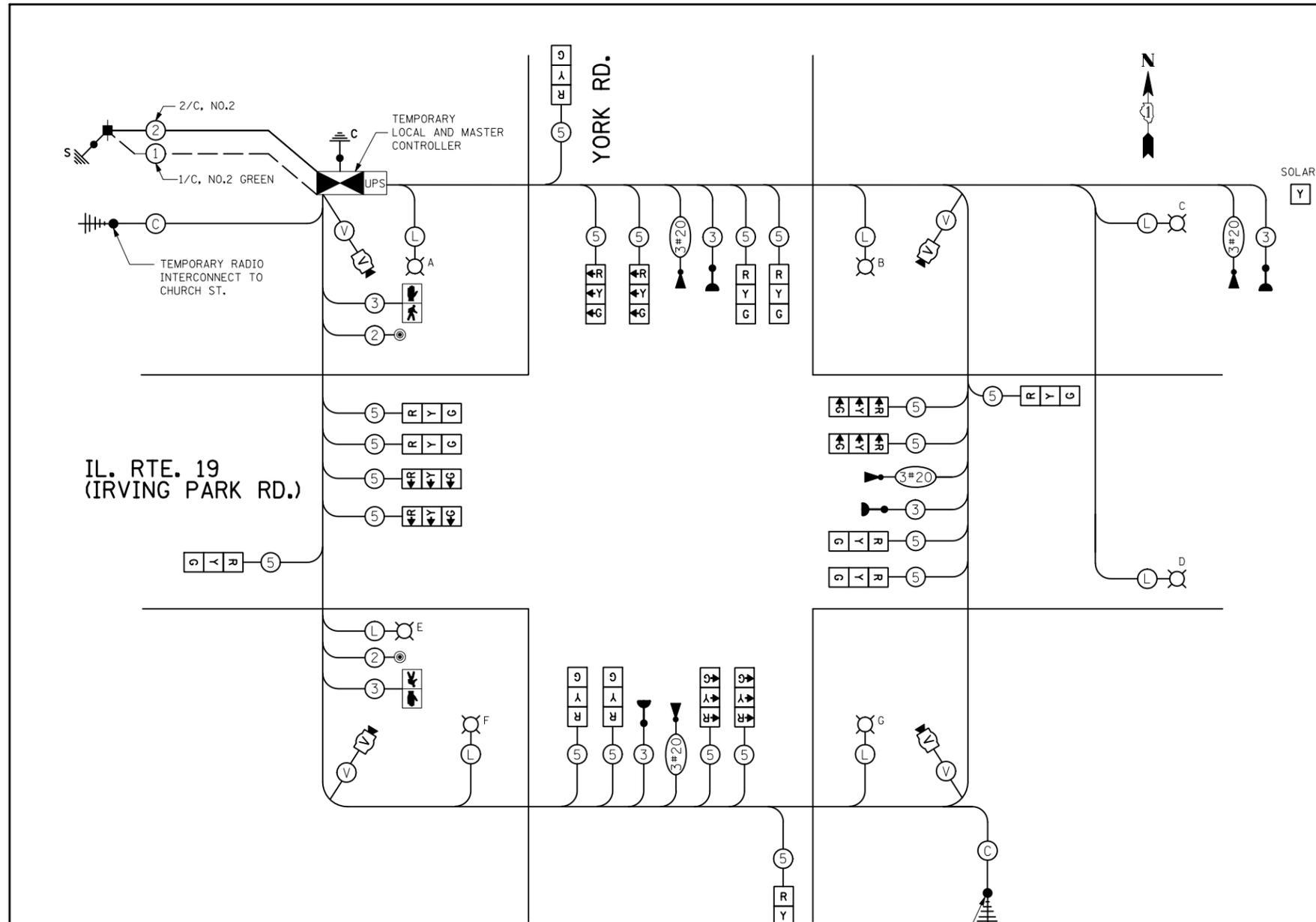
TEMPORARY LIGHTING LEGEND
 ⦿ 400W, 120V, MCIII HPS WITH PHOTO CELL
 15' MA, 40' MH ON WOOD POLE

SIGN (A)
LEFT ON GREEN ARROW ONLY

R-10-5
 24" x 30"
 4-REQUIRED

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
SIGN PANEL - TYPE 1	SQ FT	20
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	477
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	350
HANDHOLE	EACH	2
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 2	FOOT	1,540
AERIAL CABLE, 3-1/C NO. 2 WITH MESSENGER WIRE	FOOT	578
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL, 400 WATT	EACH	7
LIGHT POLE, WOOD, 30 FOOT, CLASS 5	EACH	1
LIGHT POLE, WOOD, 60 FOOT, CLASS 4, WITH 15FT MAST ARM	EACH	7
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
MAINTENANCE OF TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
RAILROAD, FULL-ACTUATED CONTROLLER AND TYPE V CABINET	EACH	1
MASTER CONTROLLER	EACH	1
UNINTERRUPTABLE POWER SUPPLY, STANDARD	EACH	1
SPAN WIRE	FOOT	816
TETHER WIRE	FOOT	753
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	743
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1,438
ELECTRIC CABLE IN CONDUIT, COMMUNICATION NO. 20 3C	FOOT	743
ELECTRIC CABLE IN CONDUIT, RAILROAD, NO. 14 3C	FOOT	388
ELECTRIC CABLE AERIAL SUSPENDED, SIGNAL, NO. 14 2C	FOOT	220
ELECTRIC CABLE AERIAL SUSPENDED, SIGNAL, NO. 14 3C	FOOT	1,550
ELECTRIC CABLE AERIAL SUSPENDED, SIGNAL, NO. 14 5C	FOOT	5,069
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED	EACH	2
LIGHT DETECTOR	EACH	4
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	2
ILLUMINATED SIGN, LED	EACH	2
RELOCATE EXISTING SIGNAL HEAD	EACH	20
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1,826
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
VIDEO DETECTION SYSTEM	L SUM	1
SOLAR-POWERED FLASHING BEACON ASSEMBLY (COMPLETE)	EACH	1
RELOCATE EXISTING SIGNS	EACH	4
TELEPHONE SERVICE INSTALLATION	EACH	1
MAINTENANCE OF TEMPORARY LIGHTING SYSTEM	L SUM	1
ELECTRIC CABLE AERIAL SUSPENDED NO. 20 3/C, TWISTED, SHIELDED	FOOT	827
REMOVE EXISTING SIGNAL HEAD AND POST	EACH	2
REMOVE EXISTING SIGNAL HEAD	EACH	2
TRAFFIC SIGNAL POST 18 FT. (SPECIAL)	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, SPAN WIRE MOUNTED	EACH	21
ELECTRIC CABLE AERIAL SUSPENDED, RAILROAD, NO. 14 3C	FOOT	229
ELECTRIC CABLE AERIAL SUSPENDED, SERVICE, NO. 2 3C	FOOT	21
REMOVE AERIAL CABLE	FOOT	1,104
SIGN REMOVAL, (SPECIAL)	LUMP SUM	1
STEEL CASING PIPE, BORED, 6"	FOOT	80
REMOVE EXISTING UNDERGROUND CONDUIT	FOOT	135



TEMPORARY CABLE PLAN
STAGE 5 CONSTRUCTION

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		H.I.D.	LED		
SIGNAL (RED)	12		17	0.50	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	24		12	0.10	28.8
PED. SIGNAL	2		25	1.00	50
ILLUM. SIGN	-		25	0.10	-
FLASHER	-		100	1.00	-
VIDEO SYSTEM	1		150	1.00	150
LUMINAIRE	7	400		0.50	1400
				TOTAL =	1850.8

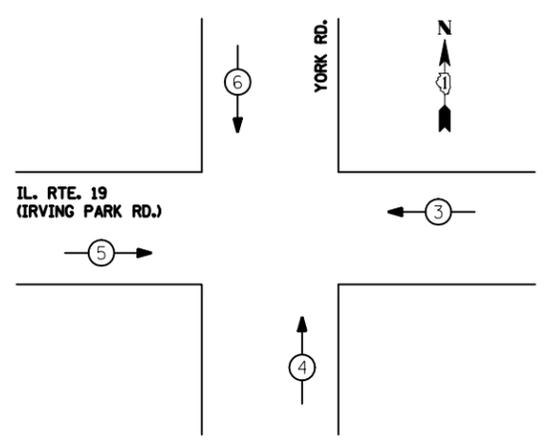
ENERGY COST TO:
VILLAGE OF BENSenville
700 WEST IRVING PARK ROAD
BENSenville, ILLINOIS 60133

ENERGY SUPPLY CONTACT: CURTIS TOPPS
PHONE: 630-691-4356
COMPANY: COMED

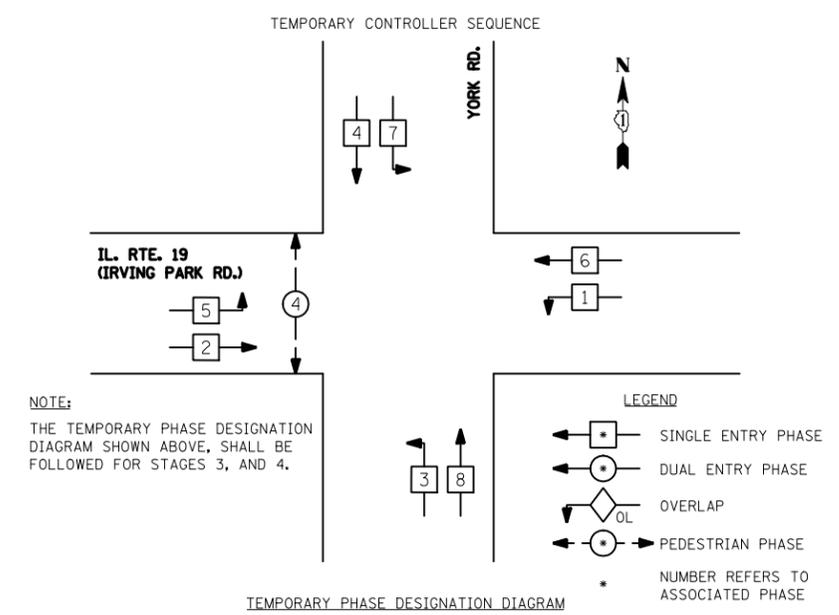
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TEMPORARY EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	[Symbol]	[Symbol]	[Symbol]	[Symbol]

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



NOTE:
THE TEMPORARY PHASE DESIGNATION DIAGRAM SHOWN ABOVE, SHALL BE FOLLOWED FOR STAGES 3, AND 4.

TEMPORARY PHASE DESIGNATION DIAGRAM

SINGH
300 W. ADAMS ST.
CHICAGO, IL 60606
SINGH & ASSOCIATES, INC.
CONSULTING ENGINEERS

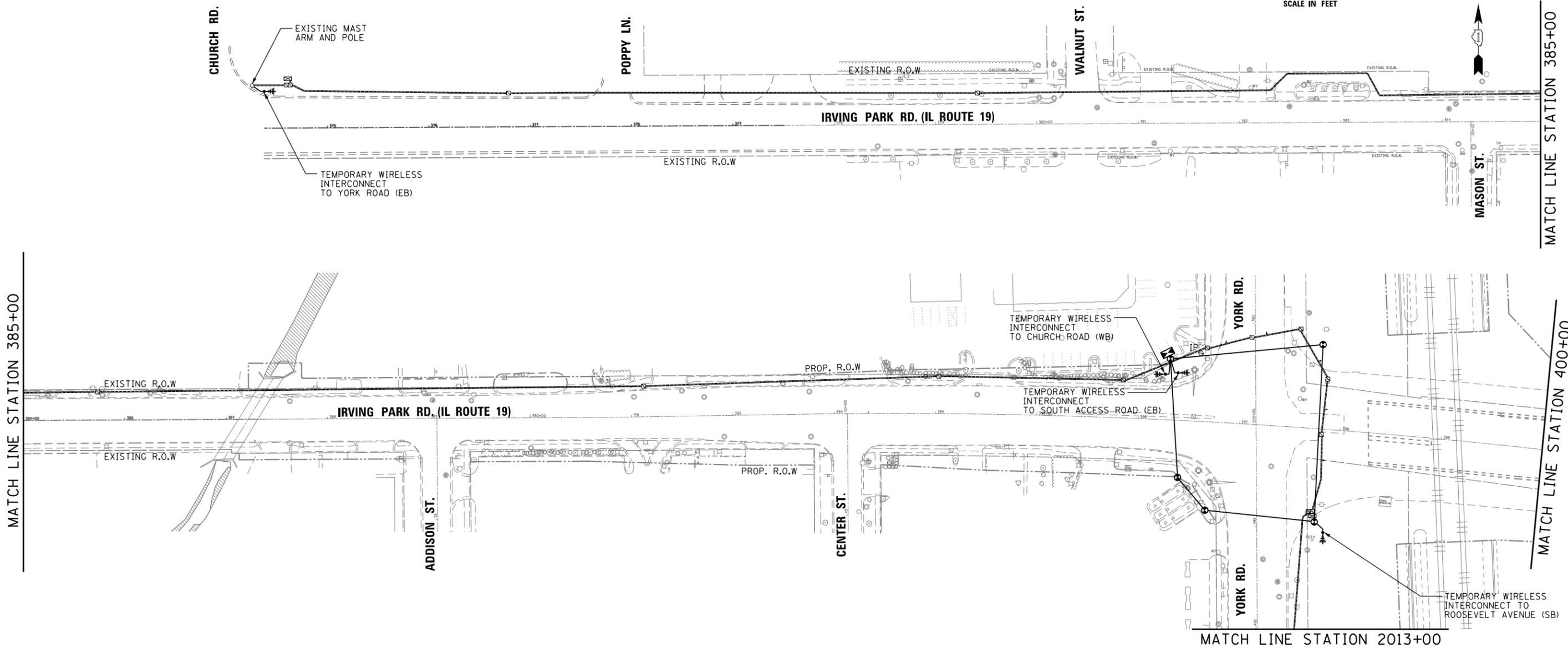
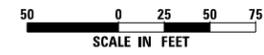
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PLOT DATE = 11/27/2012	CHECKED - LGP/GR	REVISED -
	DATE - 11-02-2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM, AND
TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE, STAGE 5
IL ROUTE 19 (IRVING PARK RD.) AT YORK ROAD

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DUPAGE	371	123
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				

SCALE: NTS SHEET NO. 11 OF 23 SHEETS STA. TO STA.



NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

SINGH
SINGH & ASSOCIATES, INC.
CONSULTING ENGINEERS

USER NAME = user	DESIGNED - VP	REVISED -
	DRAWN - YJ	REVISED -
PLOT SCALE = #SCALE#	CHECKED - LGP	REVISED -
PLOT DATE = 11/2/2012	DATE - 11-02-2012	REVISED -

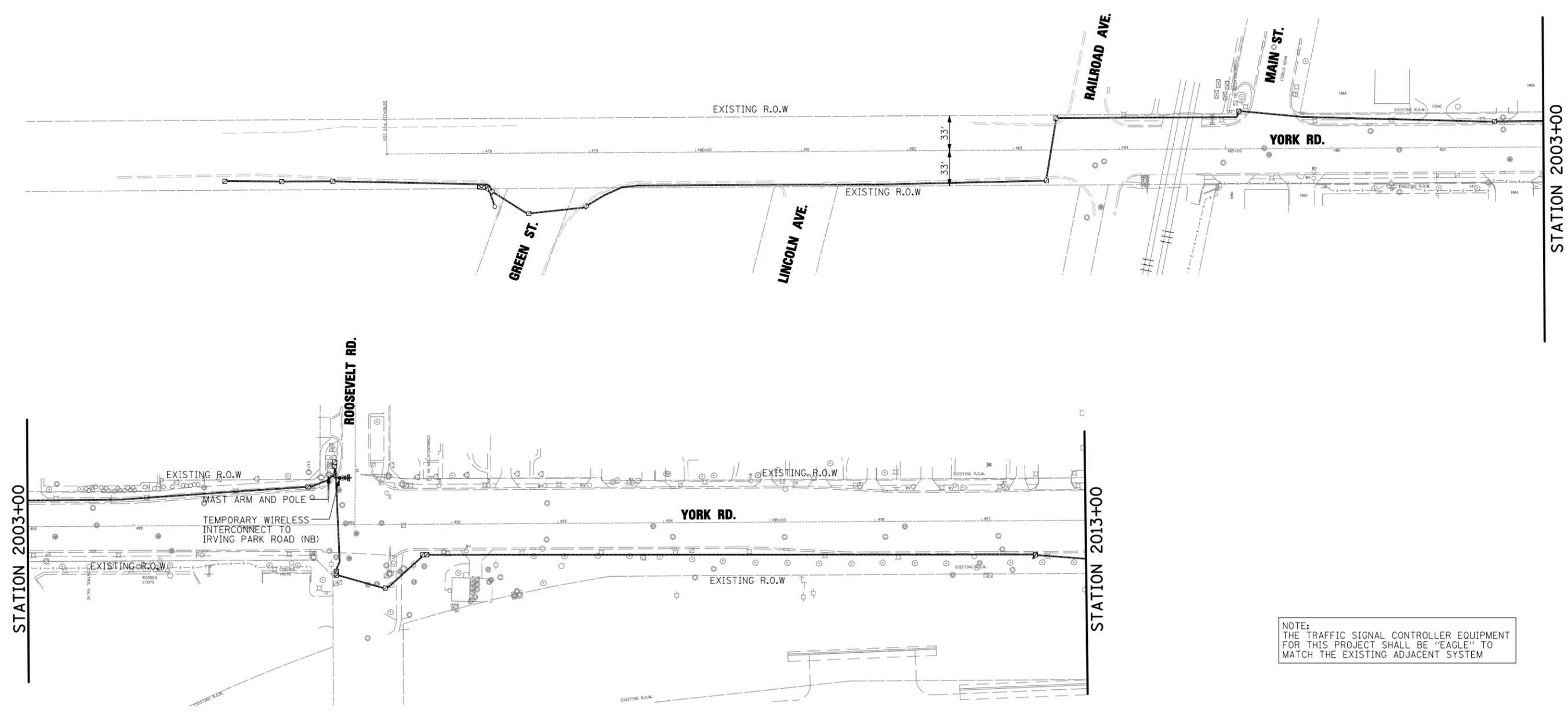
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY INTERCONNECT PLAN
IL ROUTE 19 (IRVING PARK RD.) AT YORK ROAD**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DUPAGE	388	124
CONTRACT NO. 60W01				

SCALE: 1"=50' SHEET NO. 12 OF 23 SHEETS STA. TO STA.

ILLINOIS FED. AID PROJECT



NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT
FOR THIS PROJECT SHALL BE "EAGLE" TO
MATCH THE EXISTING ADJACENT SYSTEM

SINGH
SINGH & ASSOCIATES, INC.
CONSULTING ENGINEERS

300 W. ADAMS ST.
CHICAGO, IL 60606
TEL: (312) 629-0240
FAX: (312) 629-8449

USER NAME = Singh Office
DESIGNED - VP
DRAWN - YJ
CHECKED - LGP/GR
DATE - 11-02-2012

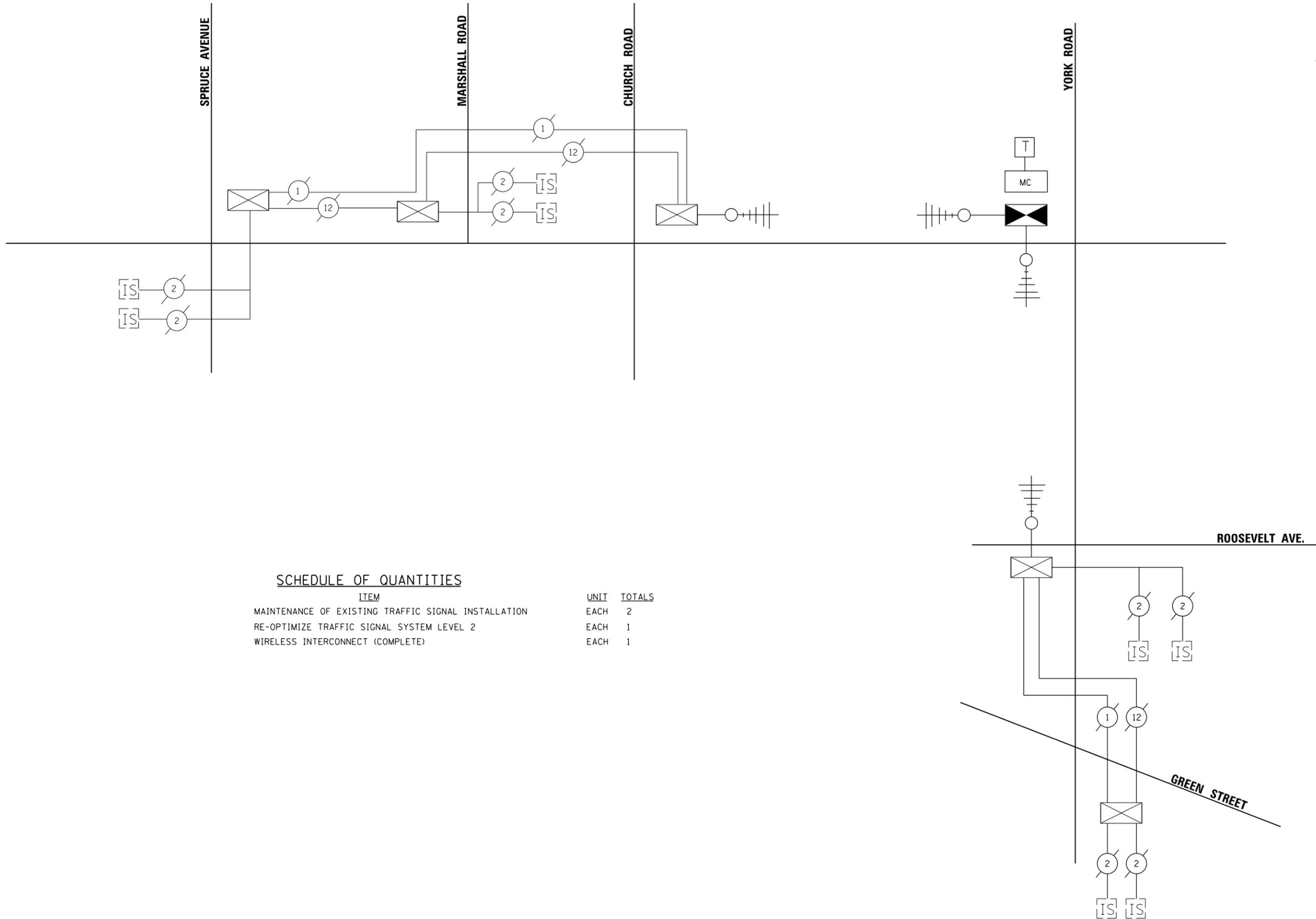
REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY INTERCONNECT PLAN
IL ROUTE 19 (IRVING PARK RD.) AT YORK ROAD**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DUPAGE	371	125
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				

SCALE: SHEET NO. 13 OF 23 SHEETS STA. TO STA.



SCHEDULE OF QUANTITIES

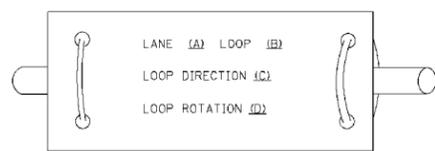
ITEM	UNIT	TOTALS
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	1
WIRELESS INTERCONNECT (COMPLETE)	EACH	1

CONTRACT NO.				
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

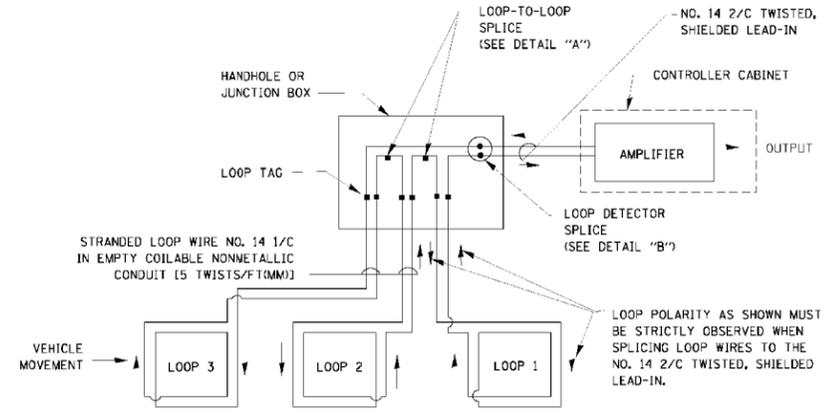
LOOP DETECTOR NOTES

- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
- EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVESHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
- LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
- PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

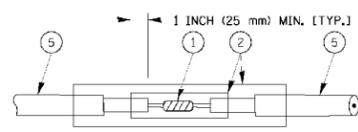


- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

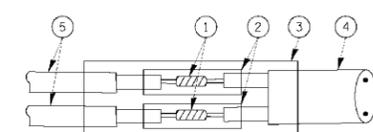


DETECTOR LOOP WIRING SCHEMATIC

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

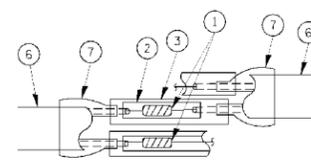


DETAIL "A" LOOP-TO-LOOP SPLICE

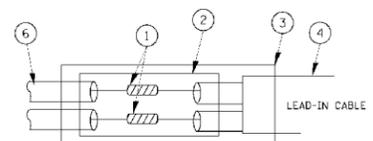


DETAIL "B" LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A" LOOP-TO-LOOP SPLICE



PRE-FORMED LOOP

DETAIL "B" LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- NO. 14 2/C TWISTED, SHIELDED CABLE.
- LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- PREFORMED LOOP
- XL POLYOLEFIN 2 CONDUCTOR
- BREAKOUT SEALS, TYCO CBR-2 OR APPROVED EQUAL

REVISIONS	
NAME	DATE
CAED	5/30/00
ADD NOTE NO. 8	11/12/01
BUREAU OF TRAFFIC	1-01-02
BCK	10/28/09

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

SCALE: NONE

DRAWN BY: BCK
DESIGNED BY: DAD
CHECKED BY: DAD
SHEET 1 OF 6

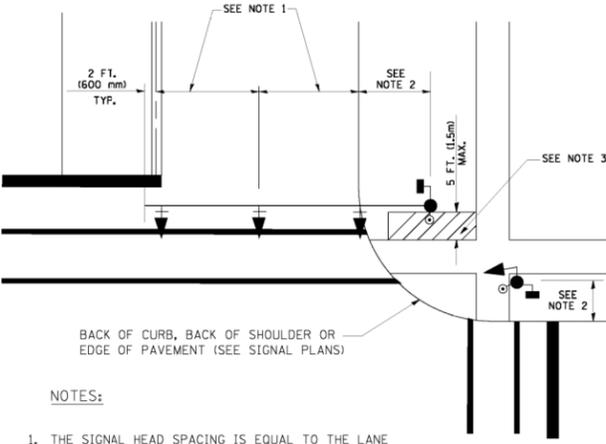
TS05

PLOT DATE = 11/2/2012
 PLOT SCALE = 8/8/000 / IN.
 USER NAME = baaw-d

CONTRACT NO.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

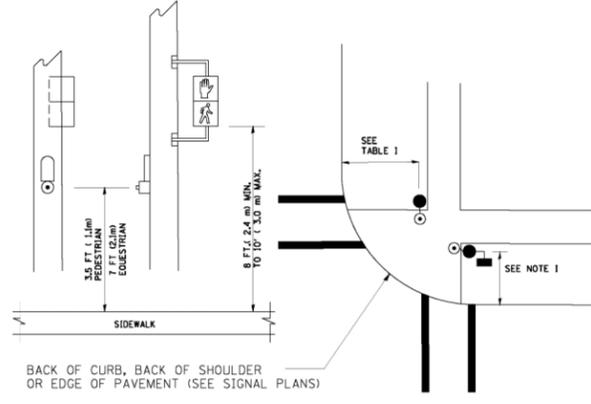
TRAFFIC SIGNAL MAST ARM AND SIGNAL POST
 MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

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

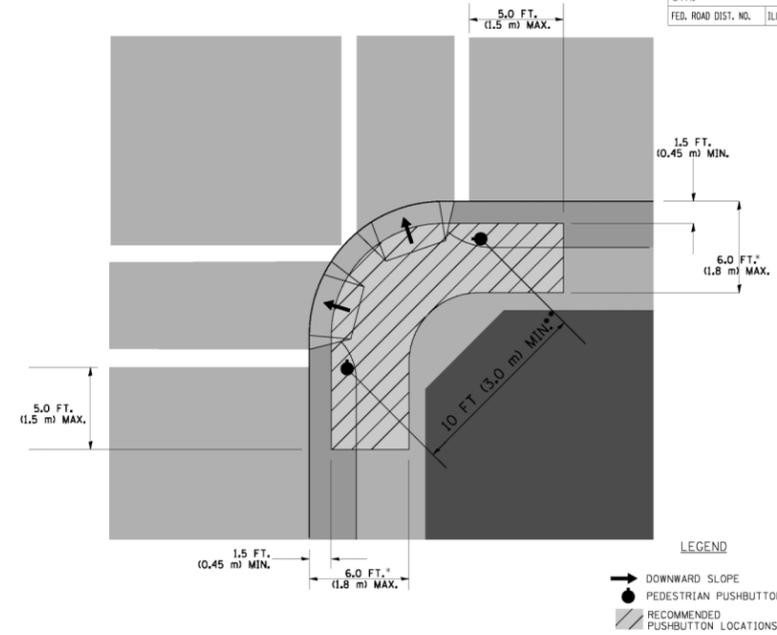
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

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

RECOMMENDED PUSHBUTTON LOCATIONS



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

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

TRAFFIC SIGNAL EQUIPMENT OFFSET

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

NOTES:

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

REVISIONS	
NAME	DATE
BUREAU OF TRAFFIC	1/01/02
BCK	10/28/09

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

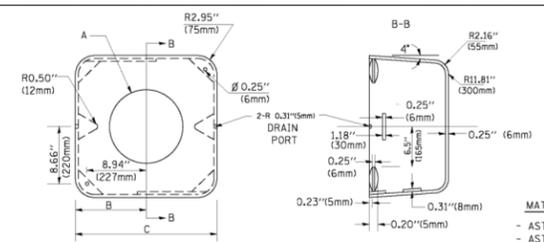
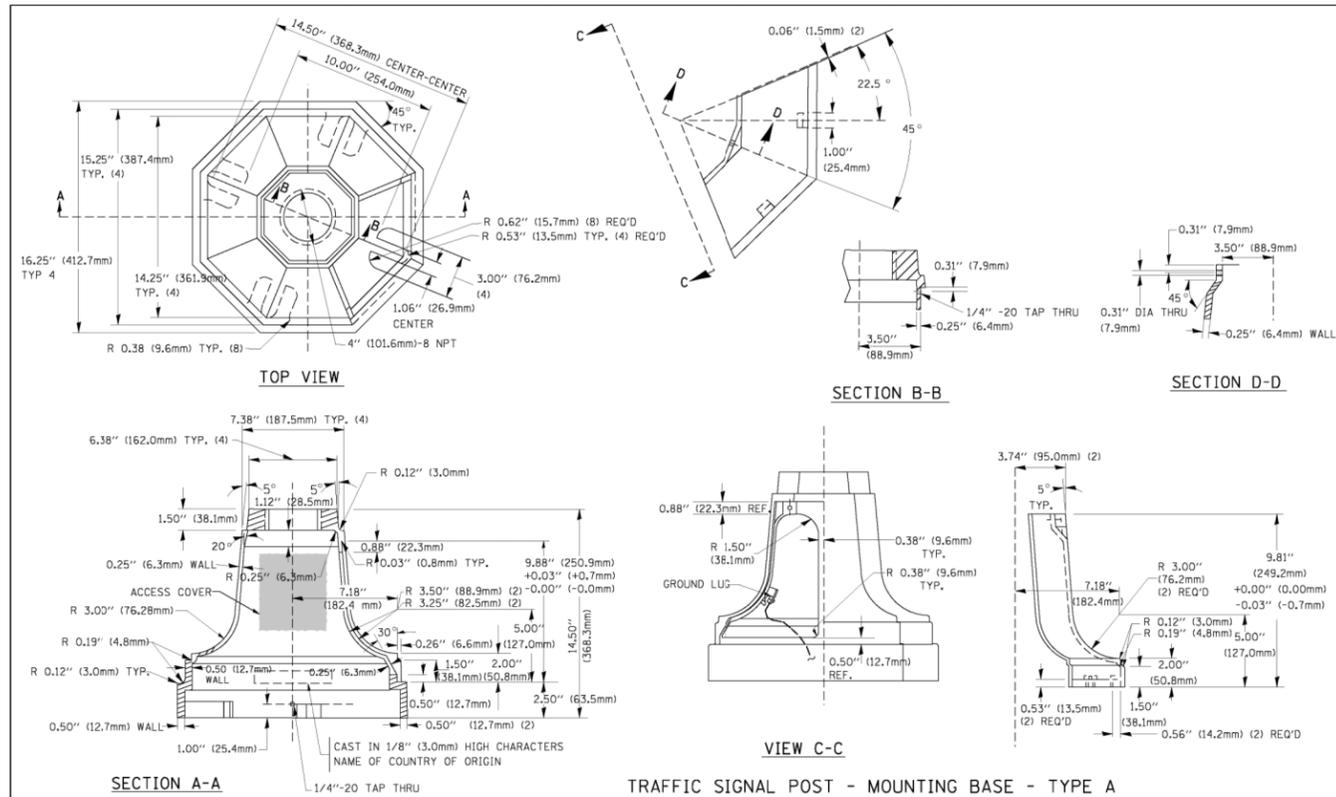
SCALE: NONE

DRAWN BY: BCK
 DESIGNED BY: DAD
 CHECKED BY: DAD
 SHEET 2 OF 6

TS05

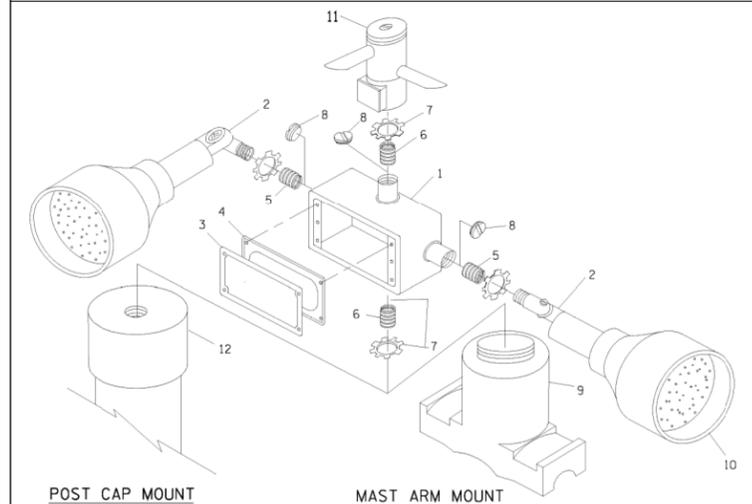
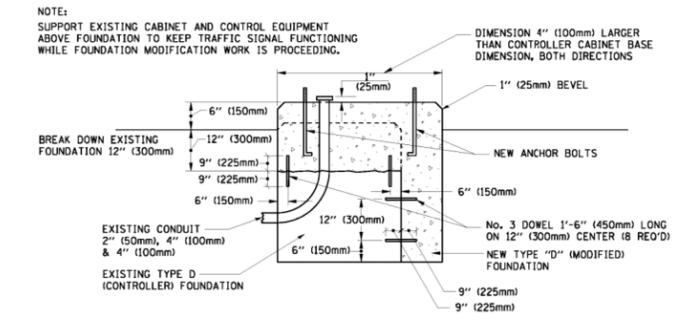
USER NAME = user	DESIGNED - VP	REVISED -
	DRAWN - YJ	REVISED -
PLOT SCALE = *SCALE*	CHECKED - LGP/GR	REVISED -
PLOT DATE = 11/2/2012	DATE - 11-02-2012	REVISED -

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DUPAGE	388	128
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				



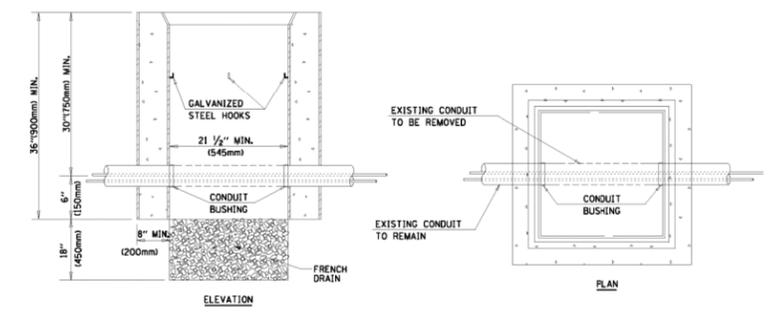
A	B	C	HEIGHT	WEIGHT
VARIABLES	9.5" (241mm)	19" (483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIABLES	10.75" (273mm)	21.5" (546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIABLES	13.0" (330mm)	26" (660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIABLES	18.5" (470mm)	37" (940mm)	7" (178mm) - 12"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

- NOTES:**
- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
 - THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
 - THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.



ITEM NO.	IDENTIFICATION
1	OUTLET BOX - GALV. 21 CU.IN. (0,000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4" (19 mm) CLOSE NIPPLE
7	3/4" (19 mm) LOCKNUT
8	3/4" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP (18 FT. (5.4 m) POST MIN.)

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



- NOTES:**
- HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
 - REMOVE OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

REVISIONS	DATE
BUREAU OF TRAFFIC	5/30/00
BUREAU OF TRAFFIC	3/15/01
BUREAU OF TRAFFIC	11/12/01
BUREAU OF TRAFFIC	1-01-02
BCK	10/28/09

ILLINOIS DEPARTMENT OF TRANSPORTATION

**DISTRICT ONE
 STANDARD TRAFFIC SIGNAL
 DESIGN DETAILS**

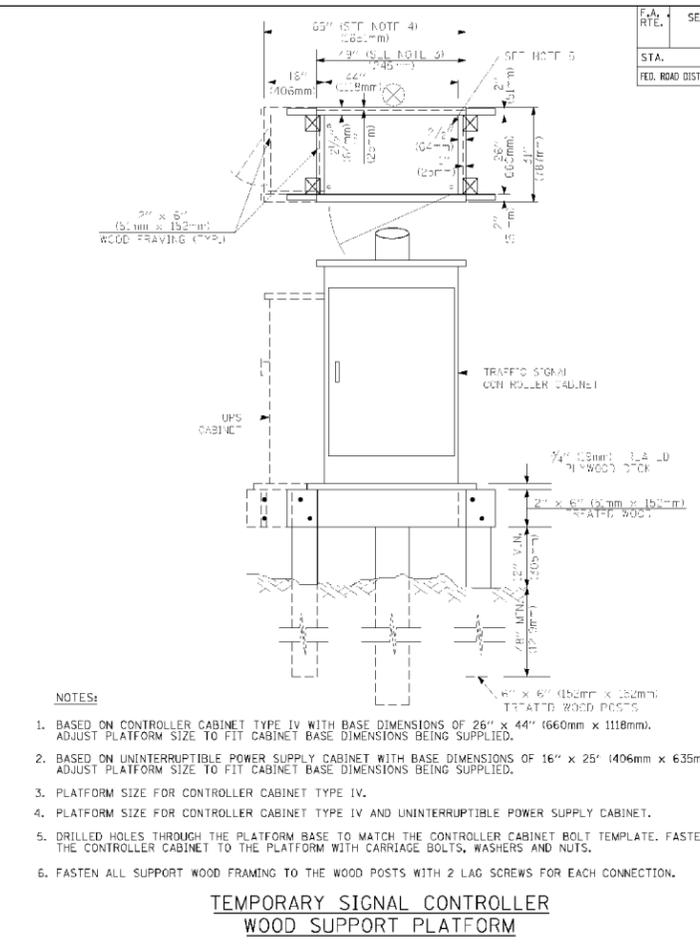
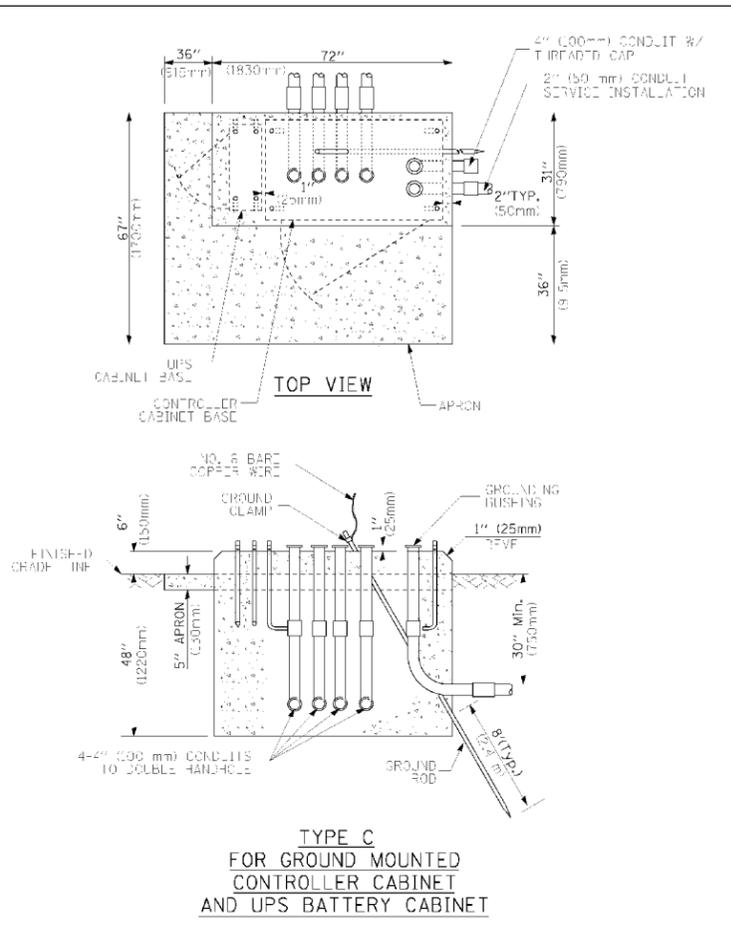
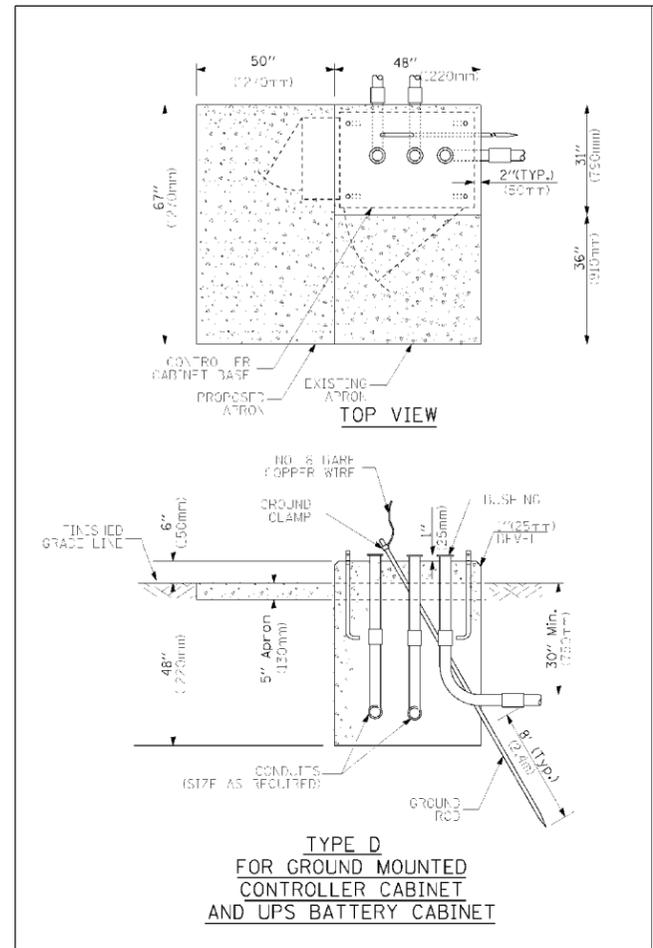
SCALE: NONE

DRAWN BY: BCK
 DESIGNED BY: DAD
 CHECKED BY: DAD
 SHEET 4 OF 6

TS05

CONTRACT NO.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

TEMPORARY SIGNAL CONTROLLER WOOD SUPPORT PLATFORM

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

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) L = MAST ARM LENGTH + DISTANCE TO SIGNAL HEAD FROM END OF ARM	20.0-4	6.0-4
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

VERTICAL CABLE LENGTH

MAST ARM LENGTH	FOUNDATION DEPTH	FOUNDATION DIAMETER	SPIRAL DIAMETER	QUANTITY OF REBARS	SIZE OF REBARS
Less than or equal to 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and less than 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)

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

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

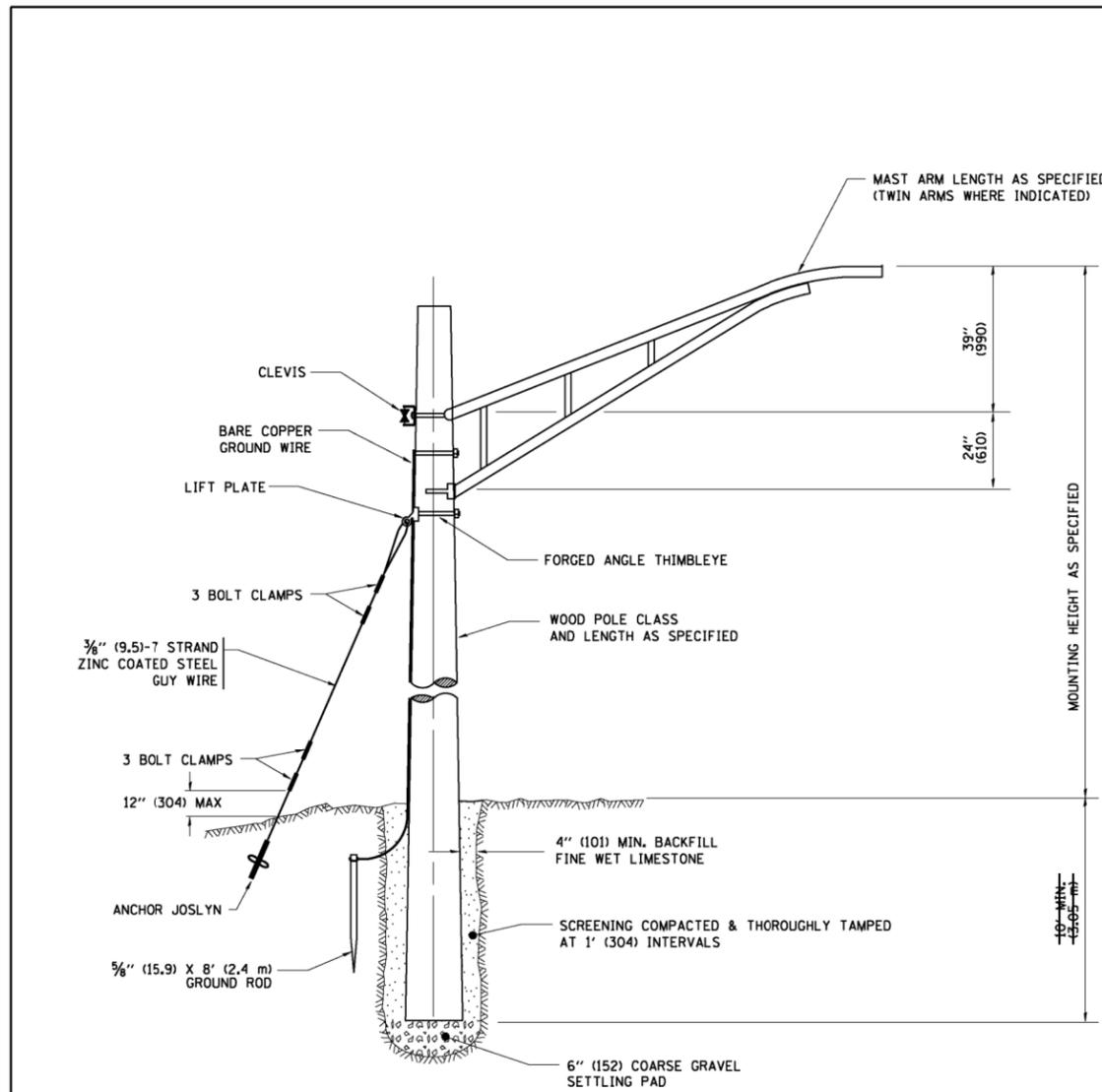
FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

DEPTH OF FOUNDATION

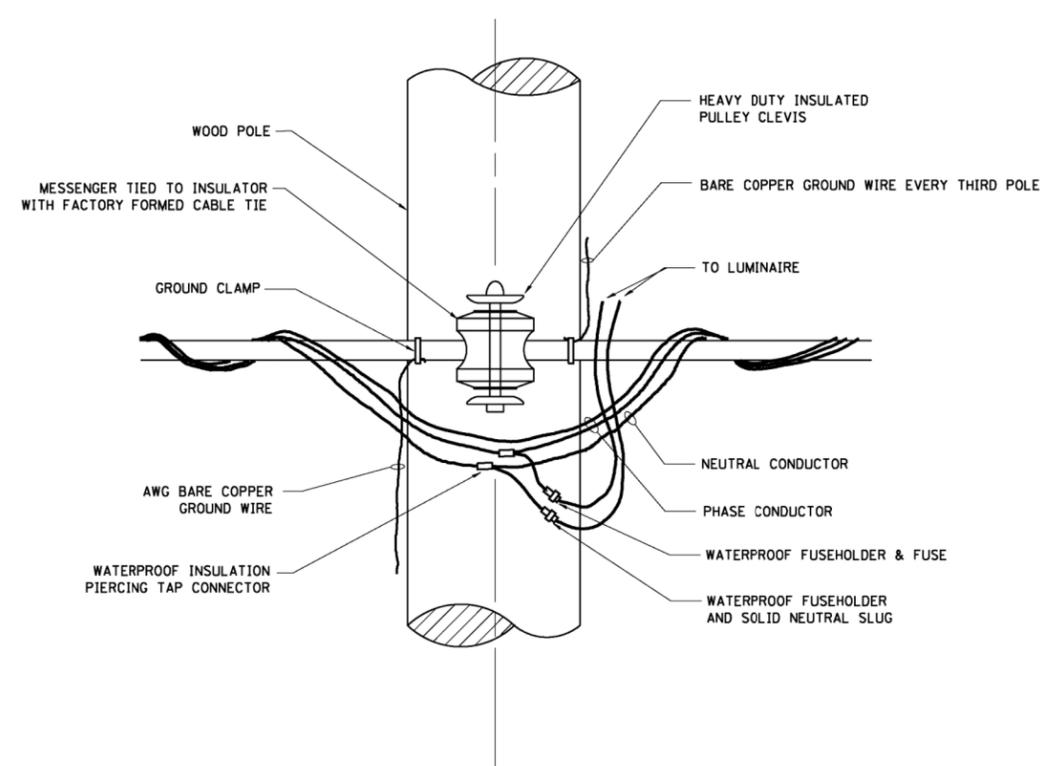
REVISIONS	DATE
NAME	DATE
	5/30/00
	3/15/01
	11/12/01

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

SCALE: NONE
DRAWN BY: BCK
DESIGNED BY: DAD
CHECKED BY: DAD
SHEET 5 OF 6
TS05



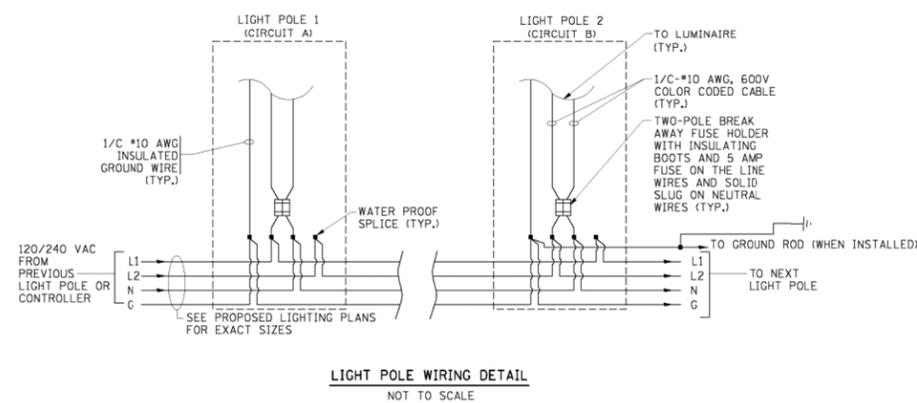
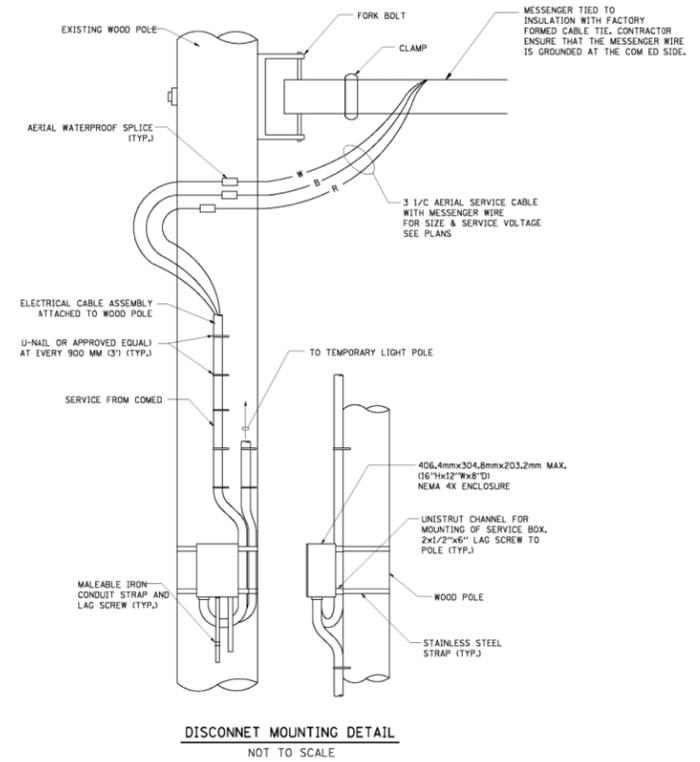
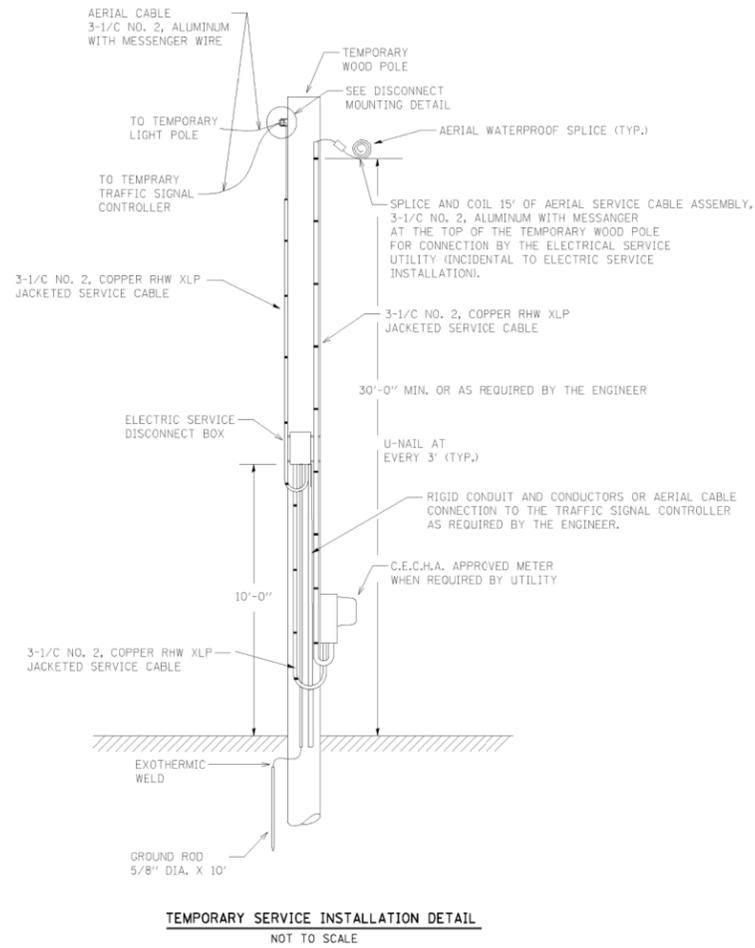
TEMPORARY LIGHT POLE DETAIL



TEMPORARY LIGHT POLE ATTACHMENT DETAIL

NOTES:
1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED

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	PLOT SCALE = 50,000' / IN.	DRAWN -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	BE-800	CONTRACT NO.		
	PLOT DATE = 1/4/2008	CHECKED -	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
		DATE -	REVISED -									



FILE NAME =	USER NAME = bauerdl	DESIGNED - MP	REVISED -
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PLOT SCALE = 5/8,000 ' / IN.		CHECKED -	REVISED -
PLOT DATE = 1/14/2010		DATE - 01/14/10	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TEMPORARY LIGHTING AND TRAFFIC SIGNALS FOR SINGLE LANE STAGING	
SCALE: NONE	SHEET NO. 2 OF 3 SHEETS STA. TO STA.

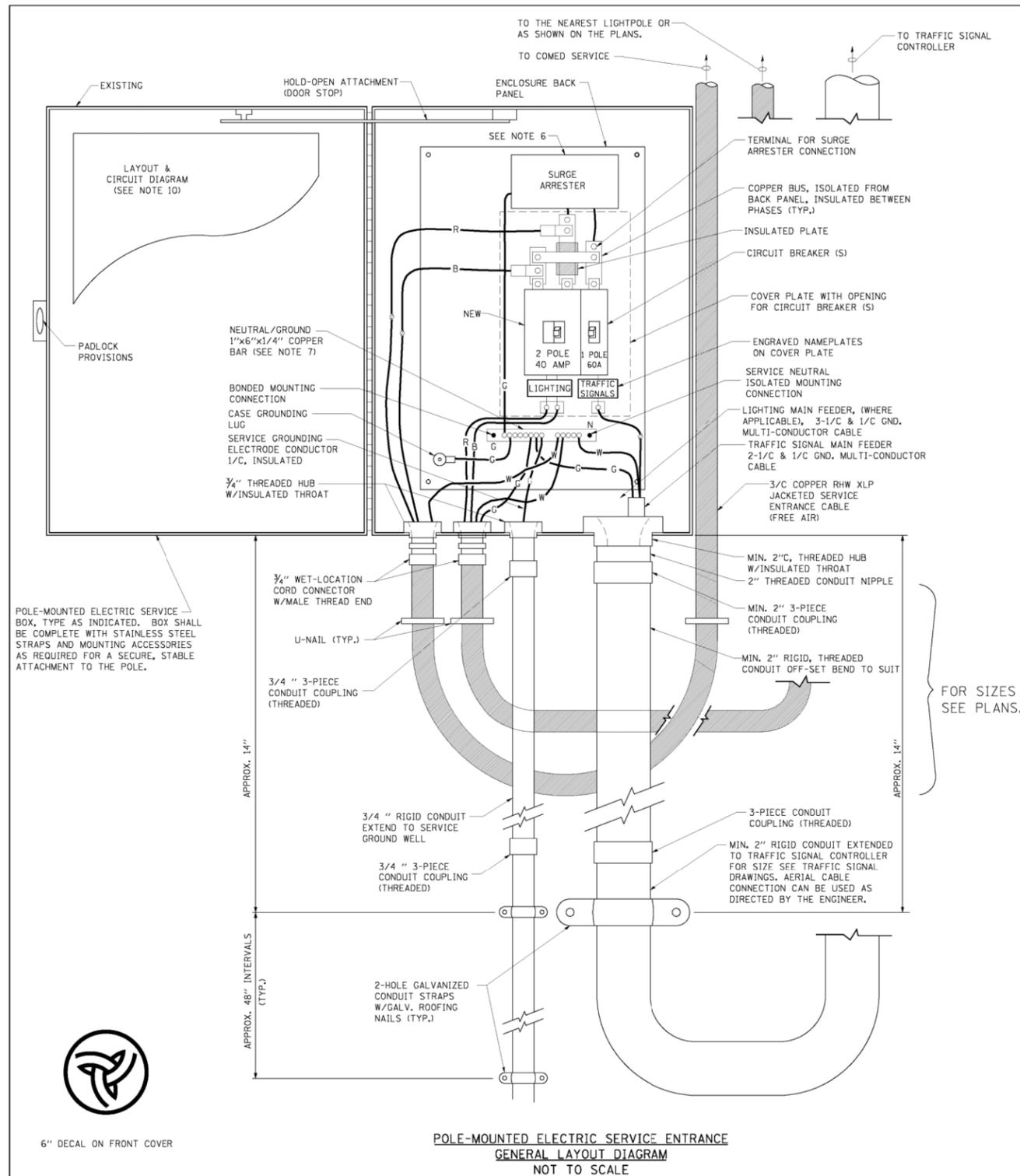
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB		388	133
CONTRACT NO. 60W01				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

USER NAME = user	DESIGNED - VP	REVISED -
	DRAWN - YJ	REVISED -
PLOT SCALE = *SCALE*	CHECKED - LGP/GR	REVISED -
PLOT DATE = 11/2/2012	DATE - 11-02-2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

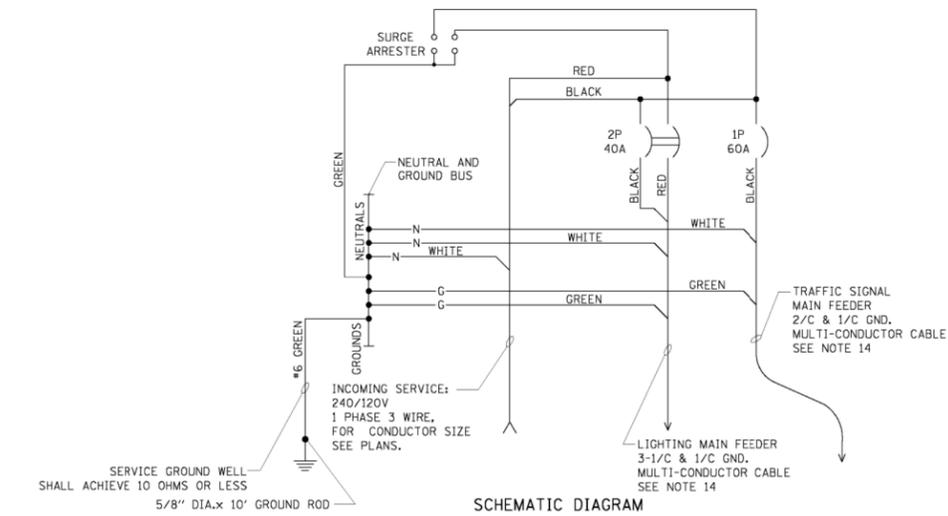
STANDARD TEMPORARY LIGHTING DESIGN DETAILS IL ROUTE 19 (IRVING PARK RD.) AT YORK ROAD	
SCALE:	SHEET NO. 21 OF 23 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB		388	133
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				



NOTES:

- ELECTRIC SERVICE SHALL BE OF THE VOLTAGE INDICATED OR DESIGNATED BY THE ENGINEER, AND SERVICE DROP CABLE SHALL BE COMPATIBLE WITH THE SERVICE ACCORDINGLY. SOME INSTALLATIONS MAY CALL FOR SERVICE ENTRANCE EQUIPMENT SUITABLE FOR 3-WIRE SERVICE EVEN THOUGH INITIALLY WIRED FOR 2-WIRE SERVICE.
- THE POLE-MOUNTED ELECTRIC SERVICE BOX SHALL BE CONFIGURED AND FULLY EQUIPPED FOR 240/120V 3W SERVICE, COMPLETE WITH LIGHTING MAIN BREAKER AND TRAFFIC SIGNALS MAIN BREAKER AS REQUIRED.
- THE ELECTRIC SERVICE EQUIPMENT ASSEMBLY SHALL BE UL LISTED AS SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT.
- THE ELECTRIC SERVICE EQUIPMENT ENCLOSURE SHALL BE NEMA 4X STAINLESS STEEL, NOMINALLY 12"W X 16"H X 8"D, WITH A PIANO-HINGED DOOR, STEEL BACK PANEL, FAST-ACTING STAINLESS STEEL ENCLOSURE CLAMPS, PADLOCK PROVISIONS AND DOOR STOP, HOFFMAN CATALOG NO. A-16H120856LP/A-16 P12/A-DSTOPK/C-PMK12, OR APPROVED EQUAL.
- CIRCUIT BREAKERS SHALL BE THERMAL MAGNETIC BOLT-ON TYPE WITH A MINIMUM INTERRUPTING CAPACITY OF 25,000 SYMMETRICAL AMPERES AT 240 VOLTS. THEY SHALL BE LOCKABLE IN THE "OFF" POSITION FOR COMPLIANCE WITH OSHA LOCK-OUT/TAG-OUT REQUIREMENTS. HANDLES SHALL BE TRIP FREE.
- THE SURGE PROTECTOR SHALL BE SUITABLE FOR THE SERVICE VOLTAGE SINGLE PHASE 60HZ AC, WITH A SURGE ENERGY CAPABILITY OF 2160 JOULES OR BETTER AT 8/20 MICRO-SECONDS, RATED -40 TO 60 DEGREES C., WITH LED OPERATING INDICATORS, AND SHALL BE UL LISTED PER UL 1449, CUTLER-HAMMER CMOV230L065XST OR APPROVED EQUAL.
- BUS BARS, CONNECTORS, AND LUGS SHALL BE COPPER, INSULATED AND ISOLATED, AND CONFIGURED TO PREVENT SHORTED CONDITIONS FROM TIGHTENING TERMINATIONS, ETC. THE OVERALL BUS SECTION SHALL BE CONFIGURED BEHIND AN INSULATING BARRIER SHIELD WHICH IS REMOVABLE FOR ACCESS TO CONNECTIONS, OR THE ASSEMBLY SHALL BE A MANUFACTURED SPECIALTY PANELBOARD, CUTLER-HAMMER PRL2A OR APPROVED EQUAL.
- THE COMBINATION GROUND AND NEUTRAL BAR SHALL BE CONFIGURED WITH SEPARATE GROUND AND NEUTRAL SECTIONS AND SPARE TERMINALS AS INDICATED. THE HEADS OF GROUND SCREWS SHALL BE PAINTED GREEN. THE SERVICE NEUTRAL AND SERVICE GROUNDING ELECTRODE CONDUCTOR SHALL BE TERMINATED ADJACENT TO EACH OTHER AT THE DIVIDE BETWEEN THE SECTIONS AND WIRING SHALL BE TERMINATED ONLY UPON THE APPROPRIATE SECTION.
- THE WIRING TERMINALS, INCLUDING THE GROUND/NEUTRAL BAR SHALL BE ARRANGED TO PROVIDE ADEQUATE ROOM FOR PERFORMING FIELD TERMINATIONS.
- A PLASTIC LAMINATED LAYOUT AND CIRCUIT DIAGRAM SHALL BE MECHANICALLY SECURED TO THE INTERIOR SIDE OF THE ENCLOSURE DOOR.
- A 2-COLOR ENGRAVED PLASTIC NAMEPLATE, ATTACHED WITH SCREWS, AND ENGRAVED AS INDICATED, SHALL BE PROVIDED FOR EACH MAIN BREAKER.
- LUGS AND CONNECTORS SHALL BE RATED FOR 75 C CONDUCTOR.
- THE EXACT MOUNTING HEIGHT OF THE BOX SHALL BE FIELD DETERMINED TO AVOID OBSTRUCTIONS AND PUBLIC ACCESS. TYPICAL HEIGHT SHALL BE APPROXIMATELY 10 FEET ABOVE GRADE.



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er:\pwwork\pww\DOT\BAUERD\ad0108315\be005\dgn		DRAWN -	REVISED -
	PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 1/14/2010	DATE - 01/14/10	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY LIGHTING AND TRAFFIC SIGNALS
FOR SINGLE LANE STAGING**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	BE-805			
CONTRACT NO.				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

USER NAME = user	DESIGNED - VP	REVISED -
	DRAWN - YJ	REVISED -
PLOT SCALE = *SCALE*	CHECKED - LGP/GR	REVISED -
PLOT DATE = 11/2/2012	DATE - 11-02-2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**STANDARD TEMPORARY LIGHTING DESIGN DETAILS
IL ROUTE 19 (IRVING PARK RD.) AT YORK ROAD**

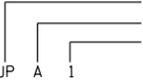
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB		388	134
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				

SINGH & ASSOCIATES, INC.
300 W. ADAMS ST.
CHICAGO, IL 60606
TEL: (312) 629-0240
FAX: (312) 629-8449
CONSULTING ENGINEERS

ABBREVIATIONS

AC	ALTERNATING CURRENT
AFG	ABOVE FINISHED GRADE
ATS	ATTACHED TO STRUCTURE
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CT	CURRENT TRANSFORMER
DIA	DIAMETER
FND	FOUNDATION
FT	FOOT
FU	FUSE
GND	GROUND
HID	HIGH INTENSITY DISCHARGE
IN	INCH
JB	JUNCTION BOX
KVA	KILOVOLT - AMPERE
KW	KILOWATTS
MH	MOUNTING HEIGHT
NO, #	NUMBER
PB	PUSH BUTTON
PNL	PANEL
PVC RGC	PVC COATED RIGID GALVANIZED CONDUIT
RECP	RECEPTACLE
RGC	RIGID GALVANIZED CONDUIT
SEL SW	SELECTOR SWITCH
SS	STAINLESS STEEL
STA	STATION
TYP	TYPICAL
UD	UNIT DUCT
WP	WEATHERPROOF
XFMR	TRANSFORMER

ELECTRICAL SYMBOLS

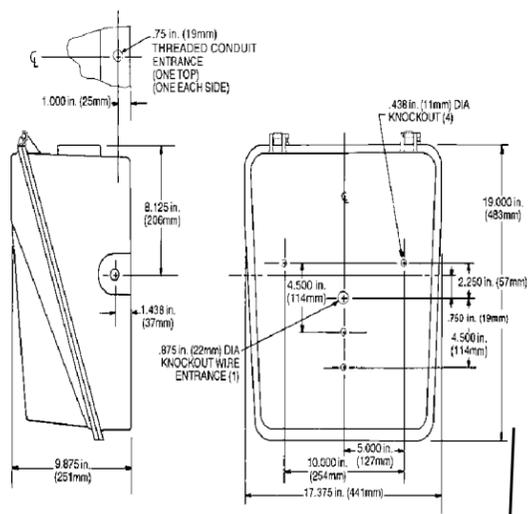
	UNDERPASS LIGHTING UNIT (PRIMARY LIGHT DISTRIBUTION PATTERN DIRECTION AS INDICATED BY ARROW). 100W HPS, VSNC4 DISTRIBUTION, 240 VOLT.
	JUNCTION BOX ATTACHED TO STRUCTURE, SIZE AS INDICATED
	EXISTING HANDHOLE
	PROPOSED LIGHTING CONTROL CABINET
	EXISTING TEMPORARY LIGHTING CONTROLLER.
	PROPOSED ELECTRIC SERVICE POLE
	EXISTING TELEPHONE
	EXISTING GAS
	RACEWAY UNDERGROUND
	CONDUIT ATTACHED TO STRUCTURE
	CONTROL CABINET DESIGNATION CIRCUIT DESIGNATION POLE NUMBER ON CIRCUIT

ELECTRICAL GENERAL NOTES:

- SPECIAL CARE SHALL BE TAKEN DURING TRENCHING OPERATIONS DUE TO THE NUMBER OF UTILITIES ALONG IRVING PARK RD. AND YORK RD.
- QUANTITIES OF UNDERGROUND CONDUIT, AND CONDUIT ATTACHED TO STRUCTURE WHERE INDICATED ON PLAN DRAWINGS, ARE APPROXIMATIONS ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL LENGTHS AND SHALL INSTALL RACEWAYS IN COMPLETE COMPLIANCE WITH SPECIFIED REQUIREMENTS.
- THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENTS FOR GROUNDING. GROUNDING CONNECTIONS AT THE LIGHTING CONTROLLER SHALL BE EXOTHERMIC, AS APPLICABLE, AND SHALL BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO ENERGIZING THE LIGHTING CIRCUITS.
- THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENTS FOR A BURIED WARNING TAPE INCLUDED AS PART OF THE UNDERGROUND CONDUIT WORK. THE INSTALLATION OF THE TAPE SHALL BE INSPECTED BY THE ENGINEER PRIOR TO BACKFILLING.
- LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT AND STAINLESS STEEL JUNCTION BOXES SHALL BE FURNISHED AND INSTALLED AT ALL LOCATIONS SUSCEPTIBLE TO EXPANSION, CONTRACTION, OR DEFLECTION. THE COST OF FURNISHING AND INSTALLING SUCH FITTINGS SHALL NOT BE PAID FOR SEPARATELY BUT, SHALL BE INCLUDED IN THE PRICE OF THE ASSOCIATED CONDUIT TO WHICH THESE FITTINGS ARE CONNECTED.

SCHEDULE OF QUANTITIES

DESCRIPTION	UNIT	QUANTITY
ELECTRIC SERVICE INSTALLATION	EACH	1
ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1
UNDERGROUND CONDUIT, 2 1/2" DIA., GALVANIZED STEEL	FOOT	26
UNDERGROUND CONDUIT, 3" DIA., GALVANIZED STEEL	FOOT	246
CONDUIT ATTACHED TO STRUCTURE, 1" DIA., PVC COATED GALVANIZED STEEL	FOOT	342
CONDUIT ATTACHED TO STRUCTURE, 2" DIA., PVC COATED GALVANIZED STEEL	FOOT	25
CONDUIT ATTACHED TO STRUCTURE, 3" DIA., PVC COATED GALVANIZED STEEL	FOOT	10
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6" x 6" x 4"	EACH	8
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" x 12" x 6"	EACH	3
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 16" x 12" x 6"	EACH	1
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	1532
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	354
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 2	FOOT	40
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 6	FOOT	354
UNDERPASS LUMINAIRE, 100 WATT, HIGH PRESSURE SODIUM VAPOR	EACH	8
LIGHTING CONTROLLER, BASE MOUNTED, 480VOLT, 100AMP	EACH	1
REMOVAL OF LIGHTING CONTROLLER	EACH	1
REMOVAL OF ELECTRIC SERVICE INSTALLATION	EACH	1
REMOVAL OF LIGHTING CONTROLLER FOUNDATION	EACH	1
DRILL EXISTING HANDHOLE	EACH	1

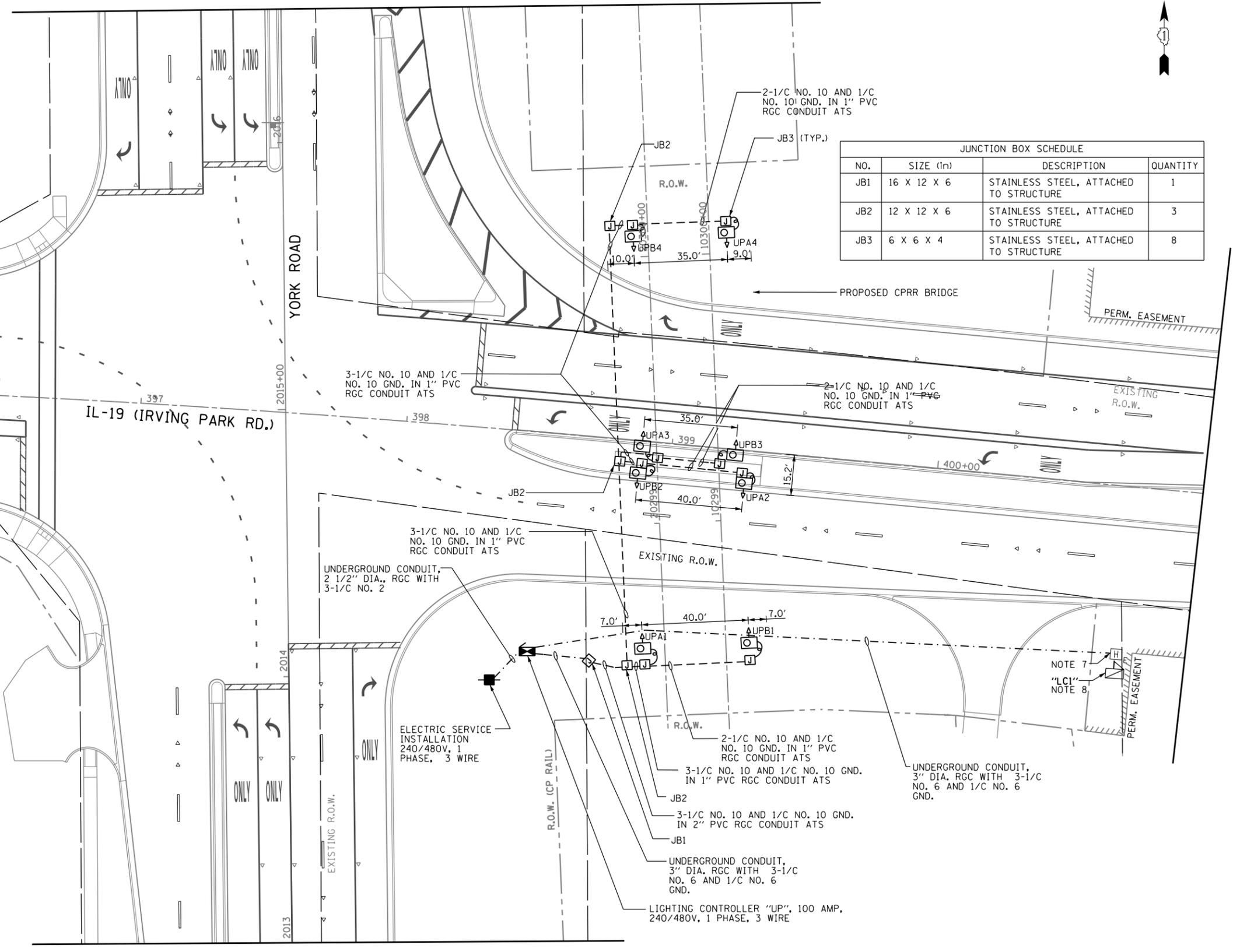


100W HPS, UNDERPASS LUMINAIRE DETAILS
N.T.S.

JUNCTION BOX SCHEDULE			
NO.	SIZE (in)	DESCRIPTION	QUANTITY
JB1	16 X 12 X 6	STAINLESS STEEL, ATTACHED TO STRUCTURE	1
JB2	12 X 12 X 6	STAINLESS STEEL, ATTACHED TO STRUCTURE	3
JB3	6 X 6 X 4	STAINLESS STEEL, ATTACHED TO STRUCTURE	8

NOTES:

- SEE DRAWING E-1 FOR ELECTRICAL GENERAL NOTES.
- SEE DRAWING E-2 FOR ELECTRICAL SYMBOLS, ABBREVIATIONS AND SCHEDULE OF QUANTITIES.
- UNDERPASS LUMINAIRE SHALL BE 100W HPS, VERY SHORT NON CUTOFF TYPE 4 DISTRIBUTION, 240 VOLT, GE VERSAFLOOD II WALLIGHTER MODEL #V2FWIOS3A1SNAGRFL, OR APPROVED EQUAL. SEE THIS SHEET AND DRAWING E-7 FOR UNDERPASS LIGHTING DETAILS AND SECTIONS.
- PROPOSED LUMINAIRE TO BE MOUNTED TO THE ABUTMENT WALLS AND CENTER PIER.
- INSTALL PROPOSED UNDERPASS LUMINAIRE AT 14.5 FT MOUNTING HEIGHT AFTER THE COMPLETION OF THE BRIDGE DECK.
- INSTALL 10A FUSES WITH DISCONNECT TYPE FUSE HOLDERS FOR PHASE WIRES FOR CIRCUITS A AND B IN THE JB1 JUNCTION BOX. COST TO BE INCLUDED IN THE PRICE FOR JUNCTION BOX JB1.
- CONTRACTOR SHALL REMOVE THE EXISTING CABLE FROM THE CONDUIT RUNNING FROM THE HANDHOLE TO THE JUNCTION BOX ON THE UPRR BRIDGE ABUTMENT WALL. CONTRACTOR SHALL THEN INSTALL NEW CONTINUOUS NO. 6 CABLE FROM THE PROPOSED CONTROLLER TO THE JUNCTION BOX ON THE UPRR BRIDGE ABUTMENT WALL. REMOVAL OF THE EXISTING CABLE SHALL BE INCLUDED IN THE COST OF THE PROPOSED CABLE.
- CONTRACTOR SHALL REMOVE THE EXISTING TEMPORARY CONTROLLER "LC1" AND TEMPORARY ELECTRIC SERVICE INCLUDING CABLES AND CONDUITS TO SERVICE AND HANDHOLE AFTER THE PROPOSED SERVICE AND CONTROLLER OF UPRR UNDERPASS LIGHTING IS IN OPERATION. THE CONTRACTOR SHALL RECONNECT UPRR UNDERPASS LUMINAIRE TO "UP" CONTROLLER CIRCUITS. THE UPRR LUMINAIRE SHALL BE RETAGGED AS SHOWN ON THESE DRAWINGS AND THE COST OF RETAGGING SHALL BE INCLUDED IN THE COST OF THE PROPOSED UNDERPASS LUMINAIRE.
- PLAN SHEET IS DEPICTED WITH THE ULTIMATE PROPOSED GEOMETRY CONDITION BY OTHERS AS A BACKGROUND FOR REFERENCE.
- CONTRACTOR SHALL VERIFY CONTINUITY OF EQUIPMENT GROUND FROM "UP" CONTROLLER TO ALL UNDERPASS LUMINAIRE INCLUDING EXISTING LUMINAIRE OF UPRR BRIDGE.



SINGH
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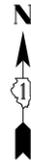
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PLOT DATE = 11/2/2012	CHECKED - LGP/GR	REVISED -
	DATE - 11-02-2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**UNDERPASS LIGHTING PLAN
IL ROUTE 19 (IRVING PARK RD.)**

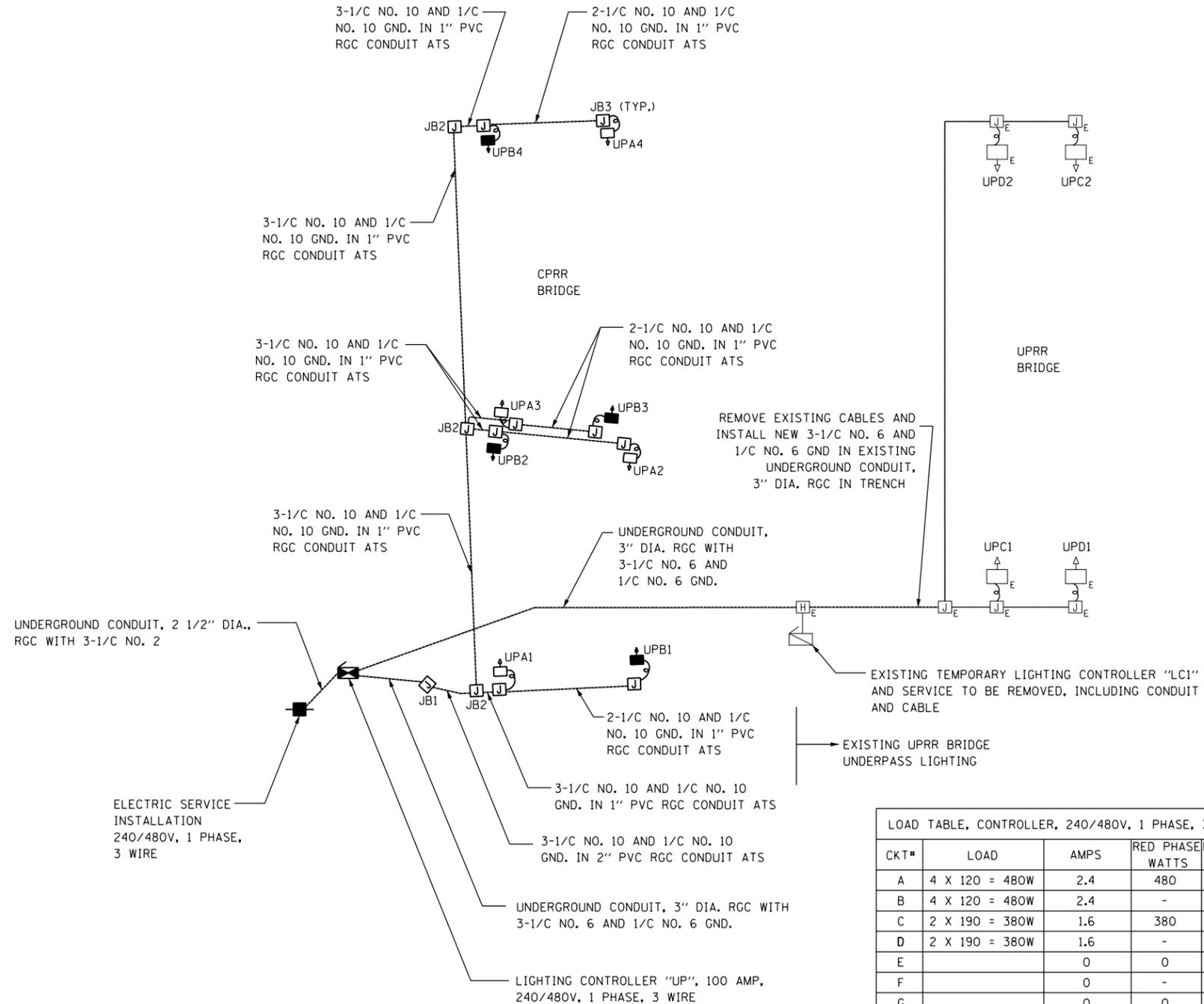
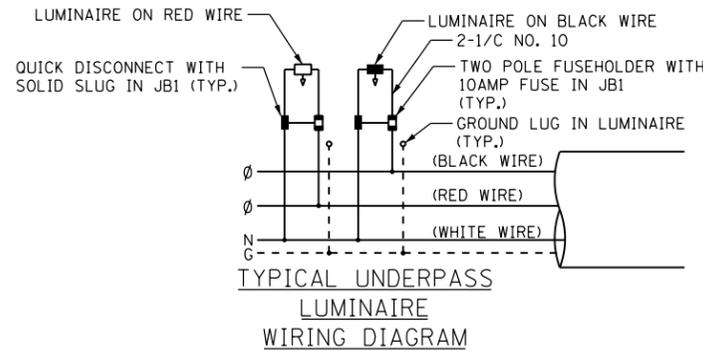
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DUPAGE	388	136
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				



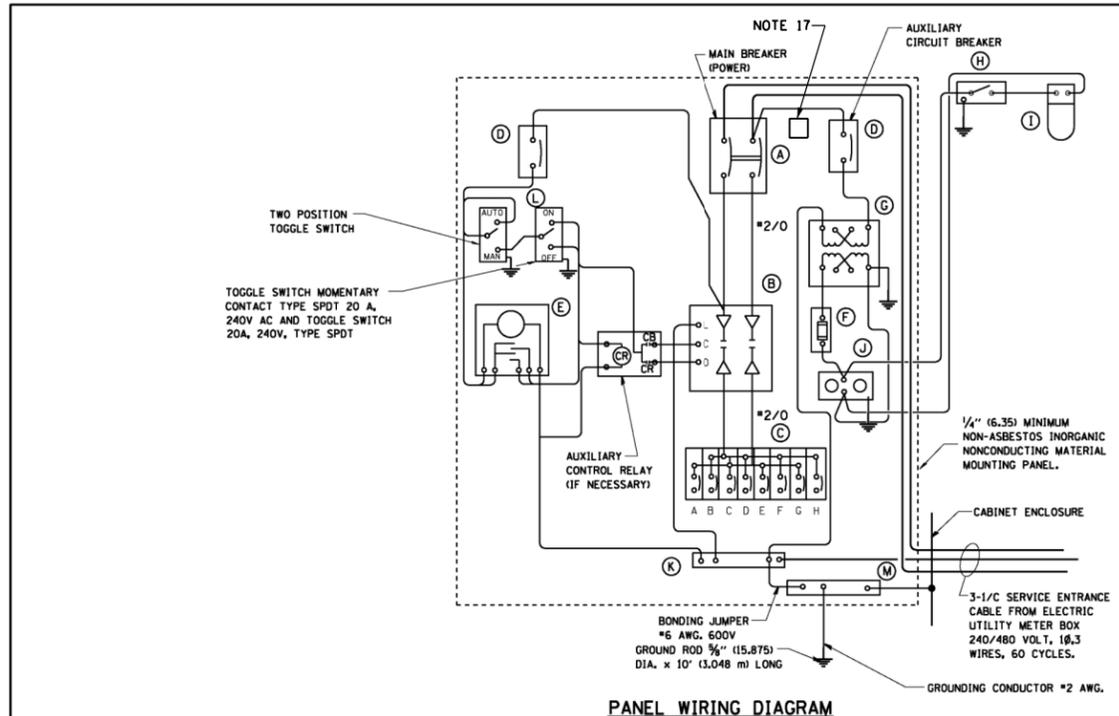
ELECTRICAL SYMBOLS

-  100W HPS, UNDERPASS LUMINAIRE ON BLACK WIRE
-  100W HPS, UNDERPASS LUMINAIRE ON RED WIRE
-  JUNCTION BOX AS NOTED ON PLANS
-  PROPOSED LIGHTING CONTROL CABINET
-  PROPOSED ELECTRIC SERVICE POLE
-  EXISTING 150W HPS, UNDERPASS LUMINAIRE
-  EXISTING JUNCTION BOX
-  EXISTING HANDHOLE
-  EXISTING TEMPORARY LIGHTING CONTROLLER



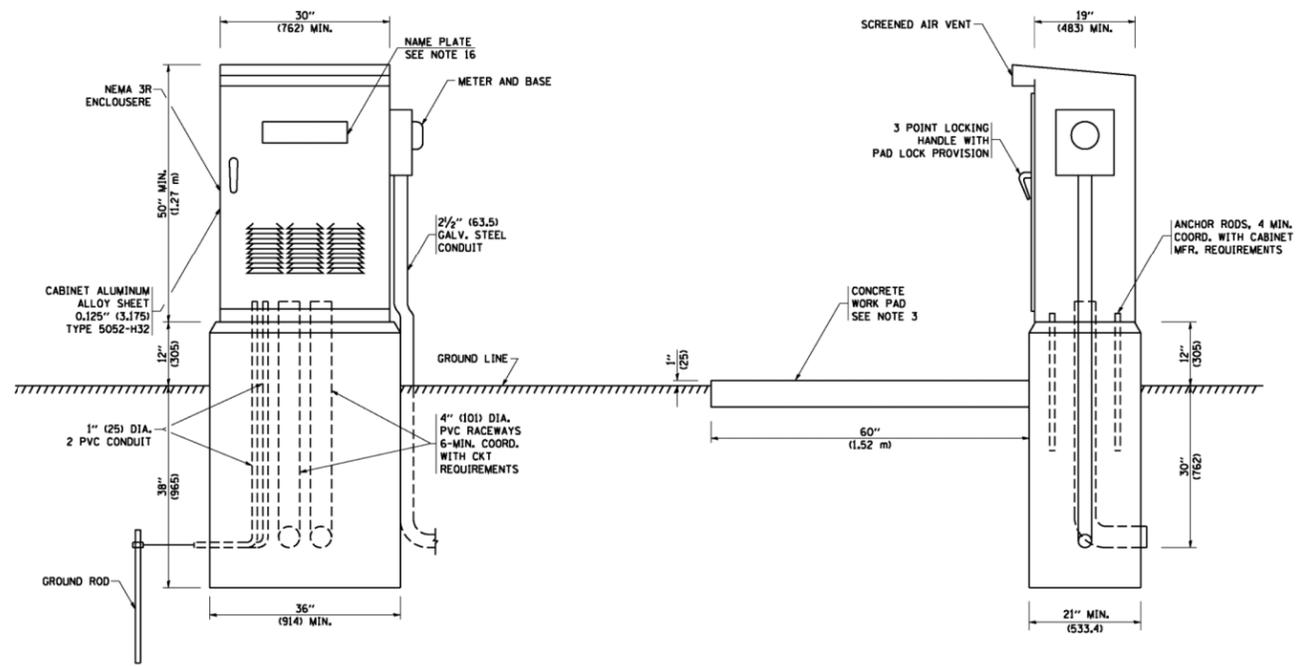
LOAD TABLE, CONTROLLER, 240/480V, 1 PHASE, 3 WIRE

CKT#	LOAD	AMPS	RED PHASE WATTS	BLACK PHASE WATTS
A	4 X 120 = 480W	2.4	480	-
B	4 X 120 = 480W	2.4	-	480
C	2 X 190 = 380W	1.6	380	-
D	2 X 190 = 380W	1.6	-	380
E		0	0	-
F		0	-	0
G		0	0	-
H		0	-	0
TOTAL	1,720W	8.0	860	860



PANEL WIRING DIAGRAM

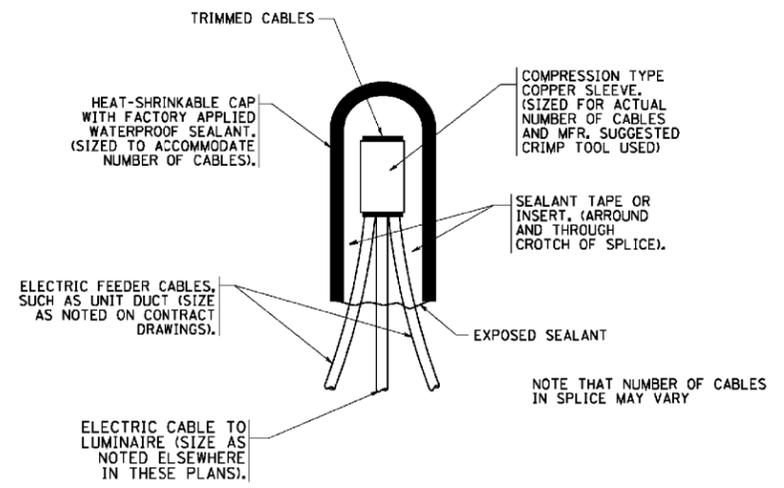
PANEL EQUIPMENT		
BILL OF MATERIAL		
ITEM	QUANTITY	DESCRIPTION
A	1	MAIN CIRCUIT BREAKER, 2 POLE, 600 VOLT 100 AMP. FRAME, 100 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-22000 AMP. AT 480 VOLT.
B	1	REMOTE CONTROL SWITCH, ELECTRICALLY OPERATED, MECHANICALLY HELD, 2 POLE, SINGLE THROW, 100 AMP., 600 VOLTS CONTROL CIRCUIT 240 VOLT.
C	8	CIRCUIT BREAKERS, 1 POLE, 100AMP. FRAME, 50 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-22,000 AMP. AT 240V.
D	2	CONTROL CIRCUIT-CIRCUIT BREAKER, 1 POLE, 240 V., 100 AMP. FRAME, 15 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-22,000 AMP. AT 240 V.
E	1	ASTRONOMIC MICROPROCESSOR-BASED 2-CHANNEL CONTROLLER (TIME SWITCH).
F	1	20 A., 120 V. FUSE.
G	1	1.5 KVA, SINGLE PHASE, ENCAPSULATED TRANSFORMER 240 X 480 / 120 X 240 VOLT, 60 HZ.
H	1	SPST 20A SWITCH ON DOOR, TO TURN LIGHT ON WHEN DOOR IS OPEN.
I	1	INCANDESCENT LIGHTING FIXTURE ENCLOSED AND GASKETED WITH 60 WATT, 120 V. LAMP.
J	1	20 A., 120 V., DUPLEX RECEPTACLE, GFCI.
K	1	COPPER GROUND BUS 1/4" (6.35) X 1" (25.4) X 12" (304.8 mm) LONG MOUNTED ON PANEL WITH LUGS AND 4 SPARE LUGS
L	1	TOGGLE SWITCHES MOUNTED IN 4" (101.6) X 4" (101.6 mm) BOX.
M	1	COPPER GROUND BUS 1/4" (6.35) X 1" (25.4) X 12" (304.8 mm) LONG MOUNTED ON PANEL WITH LUGS AND SPARE LUGS



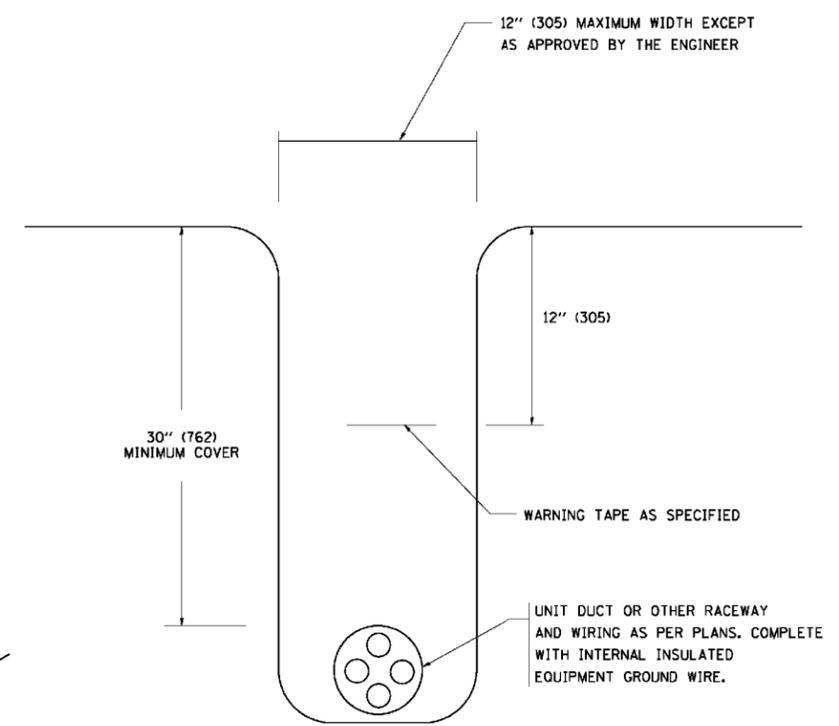
NOTES:

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- FOUNDATION SIZE SHALL BE COORDINATED WITH CABINET SIZE AND MFR.
- IN FRONT OF CONTROL CABINET DOOR, REMOVE VEGETATION AND 2" (50.8 mm) TOP SOIL. LEVEL THE AREA AND ON TOP, PLACE LENGTH WISE PARALLEL TO CONTROL CABINET, A CONCRETE PAD 36" (914.4 mm) x 60" (1524 mm) x 4" (101 mm) MIN. SIZE. THE COST OF LABOR AND MATERIALS ARE INCLUDED IN THE COST OF THE CONTROLLER.
- DOOR SHALL BE CONSTRUCTED FROM SAME TYPE OF MATERIAL AND THICKNESS AS CABINET.
- DOOR SHALL BE EQUIPPED WITH THREE POINT LATCHING MECHANISM WITH NYLON ROLLERS AT TOP THE BOTTOM.
- DOOR HINGE SHALL BE A HEAVY GAUGE CONTINUOUS HINGE WITH A 1/4" (6.35 mm) DIA. STAINLESS STEEL HINGE PIN.
- ALL EXTERNAL HARDWARE SHALL BE STAINLESS STEEL.
- CONTROL WIRING TO BE #12 AWG, 600V, TYPE "SIS" GRAY SWITCH BOARD WIRE, STRANDED COPPER.
- METER BOX SHALL BE MOUNTED ON THE SIDE OF CONTROL CABINET, NEAR TO THE SERVICE POLE.
- CABINETS SHALL BE PRIMED AND PAINTED AS SPECIFIED.
- THE HEADS OF CONNECTORS SCREWS SHALL BE PAINTED WHITE FOR NEUTRAL BAR CONNECTION AND GREEN FOR GROUND BAR CONNECTORS.
- ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED.
R = RED BL = BLUE W = WHITE
B = BLACK Y = YELLOW G = GREEN
- PROVIDE SEALING GROMMETS FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES OR CABINETS WITHIN THE CONTROL CABINET.
- ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.
- THE CONTROLLER SHALL BE CONSTRUCTED TO U.L. STD. 508 AND BEAR THE U.L. LABEL "ENCLOSED INDUSTRIAL CONTROL PANEL".
- 12" (304.8) X 16" (406.4 mm) STAINLESS STEEL EXTERIOR NAMEPLATE SHALL BE ENGRAVED TO "CITY OF CHICAGO" UNLESS OTHERWISE SPECIFIED.
- ADD WARNING NAMEPLATE FOR LIVE CIRCUITS EVEN WHEN MAIN BREAKER IS OFF.

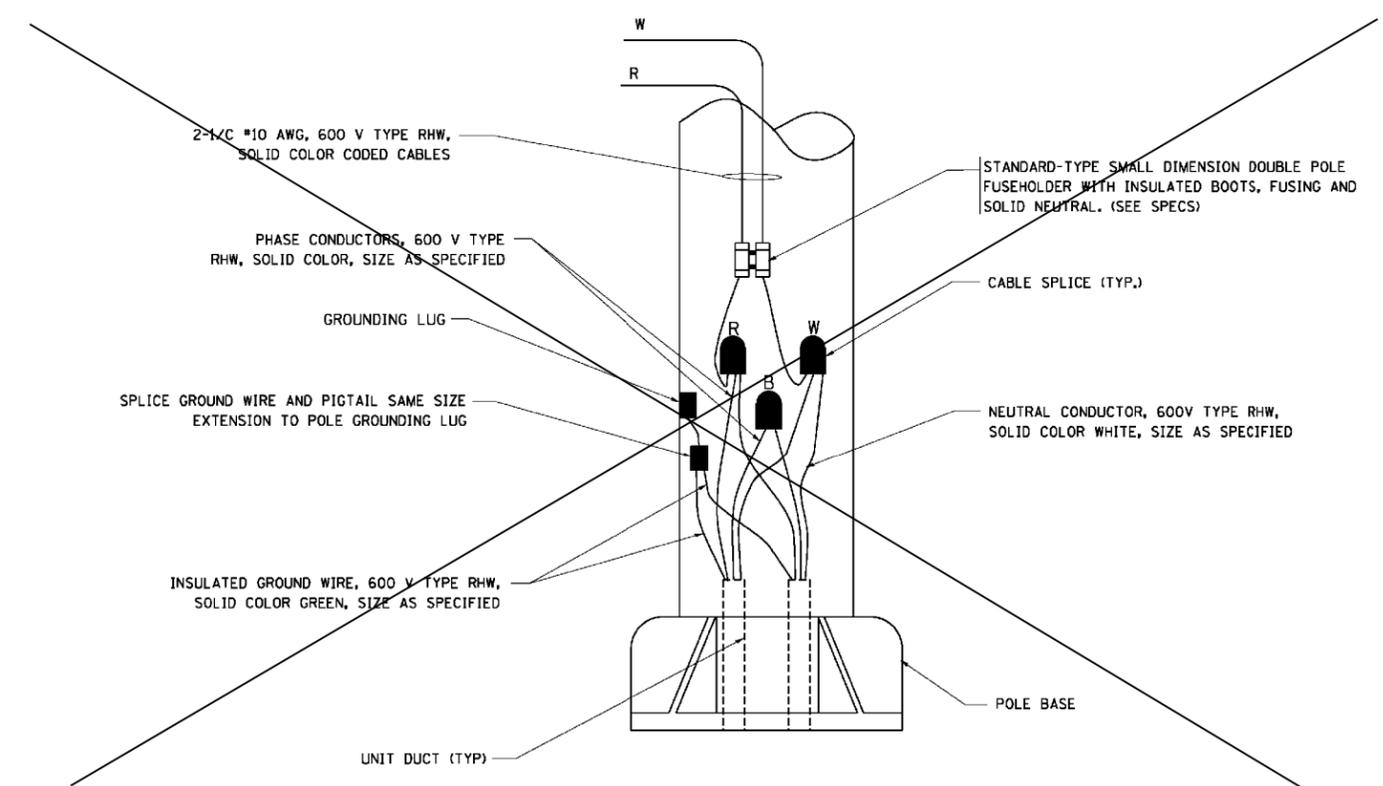
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PLOT SCALE = 50:2000 "/>											
PLOT DATE = 1/4/2008	CHECKED -	REVISED -	SCALE: NONE		SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	BE-215		CONTRACT NO.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT



TYPICAL SPLICE DETAIL
N.T.S.



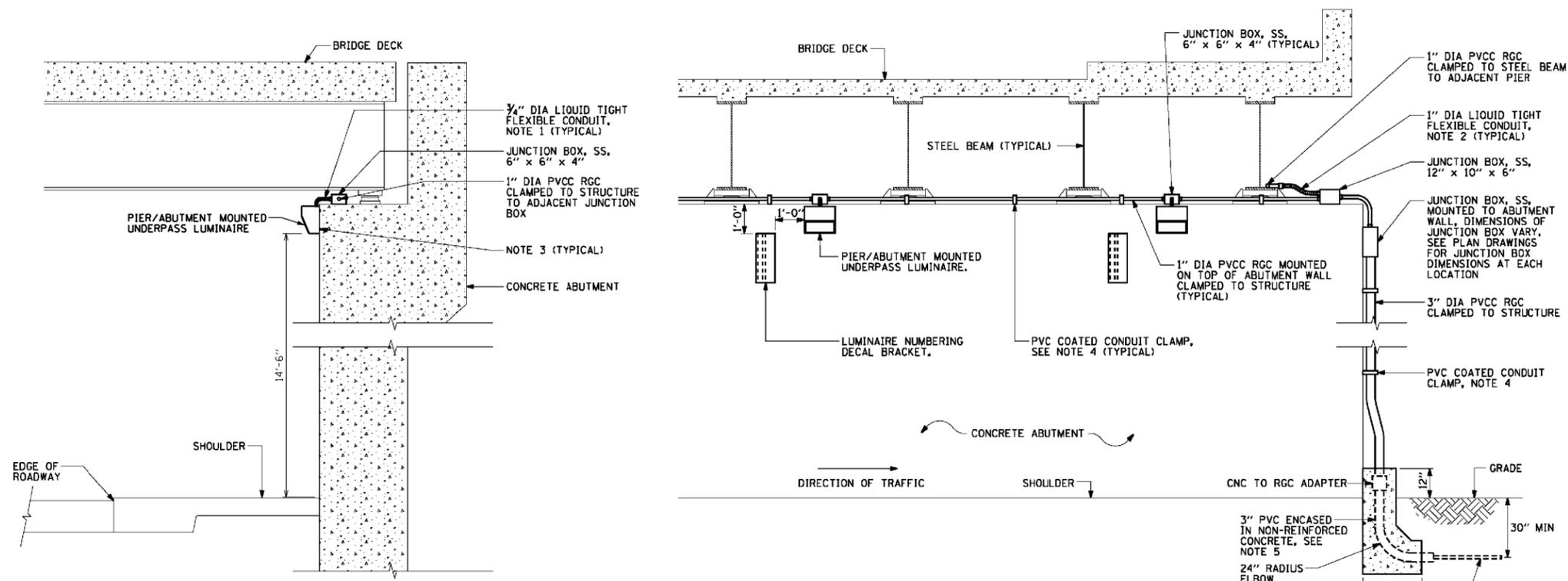
TYPICAL WIRING IN TRENCH DETAIL
N.T.S.



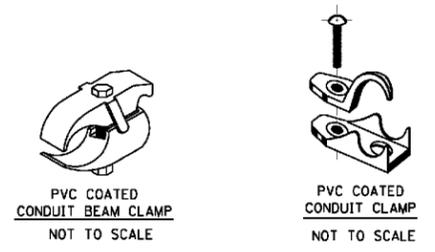
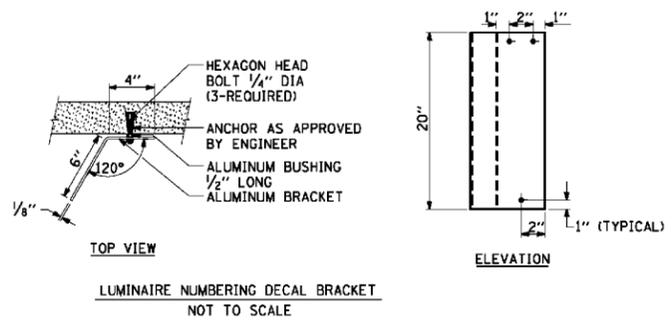
POLE WIRING DETAIL
N.T.S.

FILE NAME = W:\distsatd\22x34\be702.dgn	USER NAME = gajliemobt	DESIGNED -	REVISED - 08-08-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MISC. ELECTRICAL DETAILS SHEET A			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	BE-702		CONTRACT NO.		
		CHECKED -	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
		DATE -	REVISED -									

SINGH SINGH & ASSOCIATES, INC. CONSULTING ENGINEERS	300 W. ADAMS ST. CHICAGO, IL 60606 TEL: (312) 629-0240 FAX: (312) 629-8449	USER NAME = user	DESIGNED - MK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IDOT LIGHTING STANDARD DETAILS IL ROUTE 19 (IRVING PARK RD.)			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			DRAWN - YJ	REVISED -		SCALE: NONE	SHEET NO. 6 OF 7 SHEETS	STA. TO STA.	32VB		CONTRACT NO. 60W01		
			CHECKED - LGP/GR	REVISED -		ILLINOIS FED. AID PROJECT							
			DATE - 11-02-2012	REVISED -									



TYPICAL PIER / ABUTMENT MOUNTED UNDERPASS LIGHTING INSTALLATION DETAILS



- NOTES:**
1. LIQUID TIGHT FLEXIBLE METAL CONDUIT, MAXIMUM LENGTH 6'-0", TYPICAL FOR EACH INSTANCE AS SHOWN. PROVIDE PVC COATED RIGID GALVANIZED STEEL CONDUIT AS REQUIRED NOT TO EXCEED 6'-0" OF FLEXIBLE LIQUID TIGHT METAL CONDUIT. LIQUID TIGHT FLEXIBLE METAL CONDUIT WILL BE INCLUDED IN THE COST OF THE CONDUIT ATTACHED TO STRUCTURE OF THE CORRESPONDING DIA., GALVANIZED STEEL, PVC COATED PAY ITEM EXCEPT THAT THE COST OF THE 3/4" DIA. RIGID STEEL CONDUIT AND 3/4" DIA. FLEXIBLE CONDUIT SHALL BE INCLUDED IN THE LUMINAIRE INSTALLATION.
 2. UNDERPASS LUMINAIRE MOUNTED TO FACE OF PIER OR ABUTMENT WALL. MOUNTING HEIGHT OF 1" BELOW THE TOP OF PIER OR ABUTMENT WALL TYPICAL FOR ALL PIER/ABUTMENT MOUNTED UNDERPASS LUMINAIRES UNLESS OTHERWISE NOTED.
 3. EXPANSION ANCHOR, POWDER ACTUATED FASTENERS WILL NOT BE ALLOWED. EXPANSION ANCHOR MUST BE SIZED IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS.
 4. SECURE THE CONDUIT WITH PVC COATED CONDUIT CLAMPS OR CONDUIT BEAM CLAMPS AS SHOWN AT 5'-0" INTERVALS FOR LATERALS AND WITHIN 2'-0" MAXIMUM FROM ANY JUNCTION BOX, FLEXIBLE CONDUIT, OR CHANGE IN DIRECTION. ALL PVC COATED CONDUIT CLAMPS OR BEAM CLAMPS SHALL BE INCLUDED WITH THE COST OF THE "CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA., GALVANIZED STEEL, PVC COATED" PAY ITEM.
 5. THE CONCRETE ENCASED CONDUIT TRANSITION SHALL BE INCLUDED IN THE COST OF THE GALVANIZED RIGID STEEL CONDUIT PAY ITEMS.
 6. ALL CONDUIT ATTACHED TO STRUCTURE SHALL BE PVC COATED RIGID STEEL CONDUIT (PVCC RGC) TYPICAL.

FILE NAME = W:\data\22x34\be902.dgn	USER NAME = gegl1enobts	DESIGNED - DRAWN -	REVISED - REVISED -	01-25-05	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER / ABUTMENT MOUNTED UNDERPASS LUMINAIRE INSTALLATION DETAILS			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 68.888' / IN.	CHECKED -	REVISED -			SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	BE-902		CONTRACT NO.	
	PLOT DATE = 1/4/2009	DATE -	REVISED -			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							

Bench Mark: TBM 4 - Chiseled "□" in southeast portion of cantilever traffic signal concrete foundation at northeast corner of York Rd. & IL 19; approx Sta. 397+55, offset 67' Lt., Elev. 668.76 (NAVD 88).

Reconstruction of IL 19 to be performed after bridge construction.

Existing Structure: none.

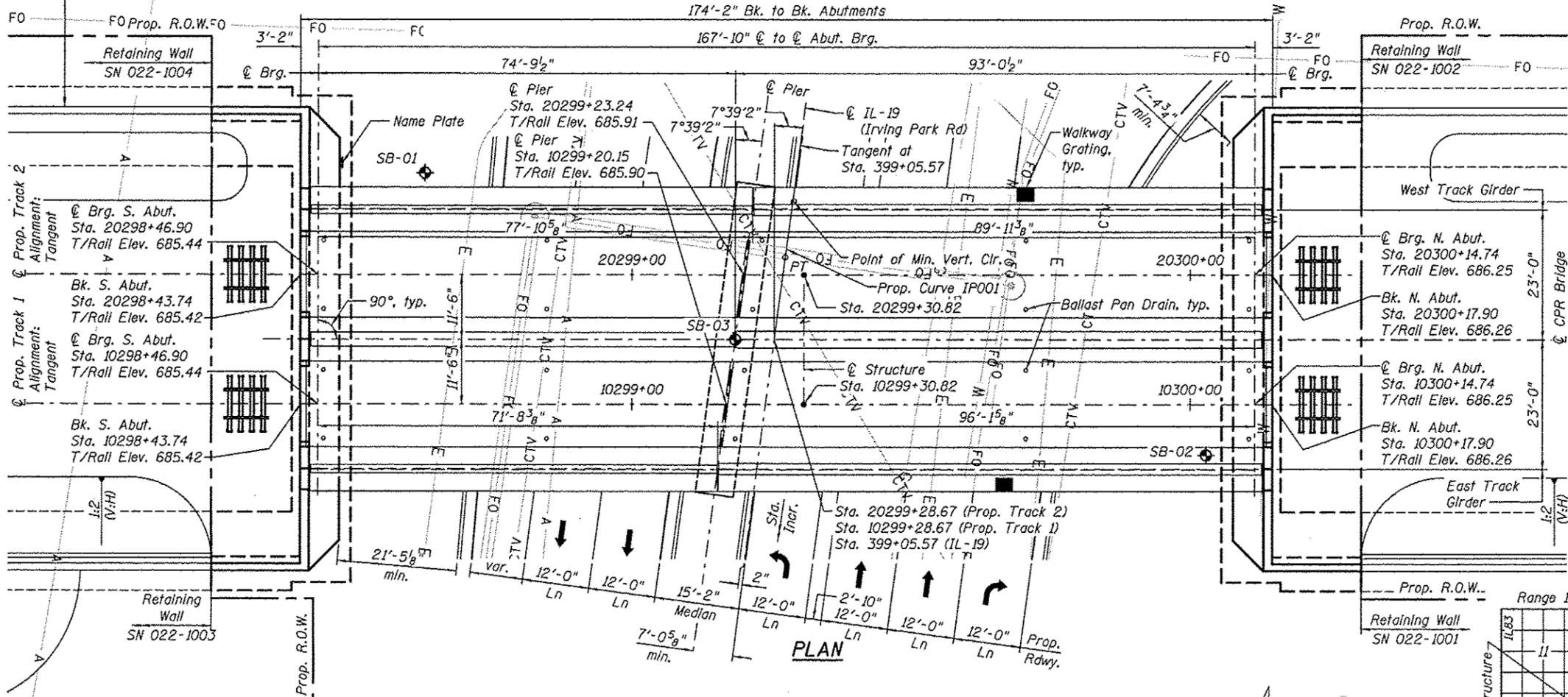
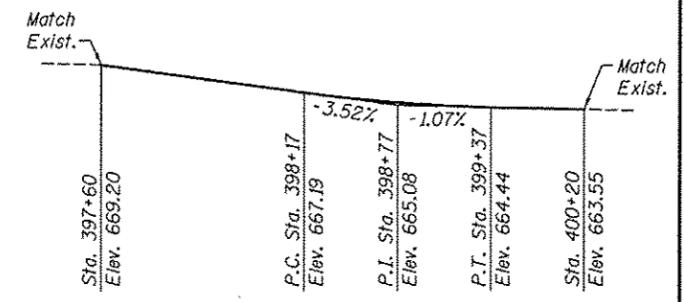
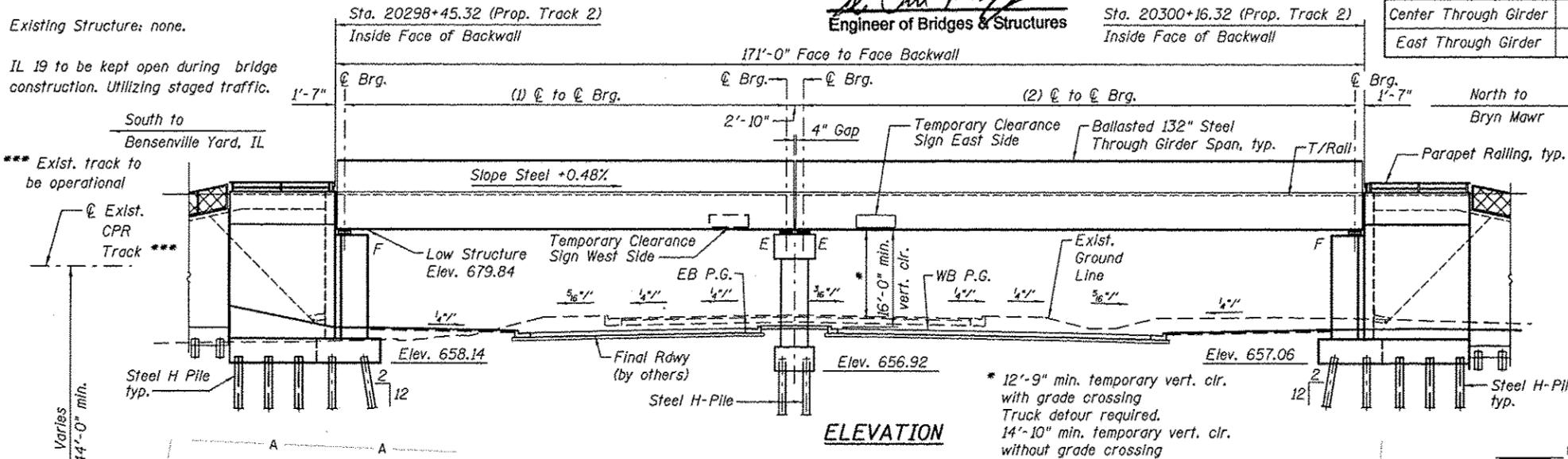
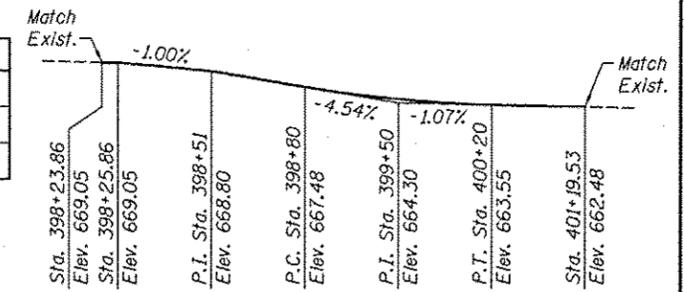
IL 19 to be kept open during bridge construction. Utilizing staged traffic.

APPROVED
For Structural Adequacy Only

Dr. Carl Perry
Engineer of Bridges & Structures

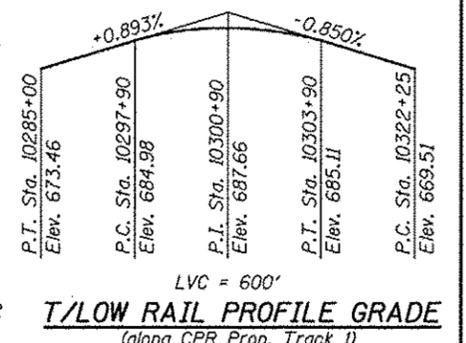
GIRDER SPAN LENGTHS

Location	(1)	(2)
West Through Girder	76'-5 ⁵ / ₈ "	88'-6 ³ / ₈ "
Center Through Girder	73'-4 ¹ / ₂ "	91'-7 ¹ / ₂ "
East Through Girder	70'-3 ³ / ₈ "	94'-8 ⁵ / ₈ "



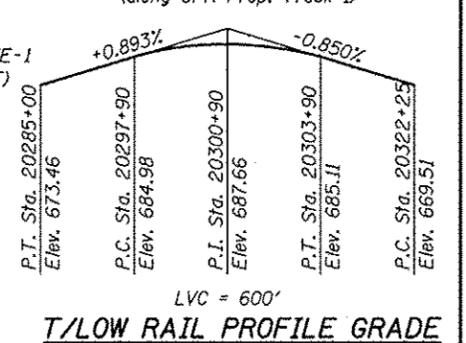
CURVE DATA

Prop. Curve PRIL19-01
 $\Delta = 6^\circ 12' 25''$ (RT)
 $D = 1^\circ 00' 00''$
 $R = 5,729.65'$
 $T = 310.65'$
 $L = 620.69'$
 $E = 8.42'$
 $e = NC$
 $T.R. = N/A$
 $S.E. RUN = N/A$
 $P.C. STA = 392+70.13$
 $P.T. STA = 398+90.82$
 $PI STA. = 395+80.78$



CURVE DATA

Prop. Curve PR_EOP_NE-1
 $\Delta = 77^\circ 16' 57.16''$ (LT)
 $D = 57^\circ 17' 44.81''$
 $R = 100.00'$
 $T = 79.95'$
 $L = 134.88'$
 $E = 28.03'$
 $e = NC$
 $T.R. = N/A$
 $S.E. RUN = N/A$
 $P.C. STA = 1+93.23$
 $P.T. STA = 3+28.11$
 $PI STA. = 2+73.18$



GENERAL PLAN
CPR BRIDGE MP 0.45 OVER
IRVING PARK ROAD (IL 19)
F.A.P. 345A/F.A.U. 1321-SEC. 32VB
DU PAGE COUNTY
STATION 10299+30.82
STRUCTURE NO. 022-0226

DESIGN STRESSES
FIELD UNITS
 $f'_c = 5,000$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (A709 Grade 50W)

LOADING COOPER E90
DESIGN SPECIFICATIONS
 2010 AREMA
 2006 Canadian Pacific Railway Requirements
 for Design of Steel and Concrete Bridges

SEISMIC DATA
 Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.089g
 Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.152g
 Soil Site Class = D



BY: *Carl Perry* DATE: 11-02-2012
 HDR ENGINEERING, INC.
 SHTS. 142-180
 LICENSE EXPIRES 11-30-2014

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
 STRUCTURE NO. 022-0226

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DU PAGE	388	142

CONTRACT NO. 60W01
 ILLINOIS FED. AID PROJECT



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PLOT DATE = 12/3/2012	CHECKED = AMM	REVISIONS =

SHEET NO. 1 OF 43 SHEETS

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GENERAL NOTES:

- Fasteners shall be A325 Type 1 mechanically galvanized bolts. Countersunk bolts shall be A449 Type 1 mechanically galvanized. Bolts shall be 7/8 in. diameter, holes 15/16 in. diameter, unless otherwise noted.
- Fabrication of steel components shall be in accordance with 2010 AREMA Chapter 15, Part 3.
- Calculated weight of Structural Steel:
 295,130 Lb. ASTM A709 Gr. 50F3
 755,240 Lb. ASTM A709 Gr. 50T3
 72,110 Lb. ASTM A709 Gr. 50
 1,380 Lb. ASTM A36
- Structural Steel shall be as follows unless noted otherwise:
 Girder Bottom Flanges, Webs, and End Floorbeams ASTM A709 Gr. 50F3
 Lateral Bracing System, Walkway Brackets and Walkway Supports ASTM A709 Gr. 50
 Handrail Pipe ASTM A53 Gr. B
 Cover Plates and Handrail Base Plates ASTM A36
 All other Structural Steel ASTM A709 Gr. 50T3
 Anchor Rods ASTM F1554 Gr. 105
- The Organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4. See Special Provision for "Cleaning and Painting New Metal Structures".
- Steel components designated as galvanized shall be galvanized per ASTM A123, latest edition.
- Steel components designated as metallized shall be metallized per AWS C2.2, latest edition. Minimum thickness of zinc coatings to be 150 microns.
- Structural steel members designated as Fracture Critical Members (F.C.M.) shall meet the requirements of ASTM A705 Gr. 50F3.
- Welding of steel components shall be in accordance with AWS D1.5, latest edition. All flange-to-web fillet welds and 25% of all other welds shall be tested by magnetic particle method (MPT). All flange-to-web complete joint penetration welds shall be tested by ultrasonic method (UT). All butt joints in flanges and webs shall be tested by radiographic method (RT).
- No field welding is permitted.
- Reinforcement bars shall conform to ASTM A615, Gr. 60.
- Reinforcement bars designated (E) shall be epoxy coated. (Minimum thickness 7 mils).
- Concrete reinforcement cover shall be 3 inches unless noted otherwise.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 in. (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
- Concrete sealer shall be applied to the designated areas of the abutments and pier.
- Minimum concrete strength shall be 5000 psi at 28 days.
- Through girder structure shall be fully shop assembled (including deck plates, checkered walkway plates and steel grate walkway system) for checking accurate fit and then disassembled prior to shipping. Cost included with Furnishing and Erecting Structural Steel.
- Form Liner Textured Surface shall be ashlar stone pattern with 1" maximum relief & 3/4" minimum relief.

INDEX OF SHEETS

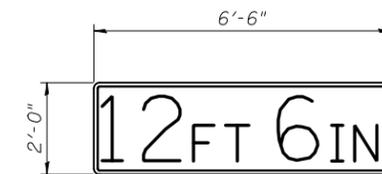
- General Plan and Elevation
- General Notes and Bill of Material
- Footing Layout
- Deck Plate Plan
- Deck Plate Details
- Deck Plate and Cover Plate Details
- Framing Plan - Span 1
- Framing Plan - Span 2
- Through Girder Elevations 1
- Through Girder Elevations 2
- Through Girder Elevations 3
- Typical Section and Details
- End Floorbeam Details at Abutments
- End Floorbeam Details at Pier
- Lateral Bracing Details 1
- Lateral Bracing Details 2
- Knee Brace and Walkway Support Details
- Checkered Walkway and Walkway Support Details 1
- Checkered Walkway and Walkway Support Details 2
- Exterior Walkway and Handrail Details
- Handrail Elevations
- Bearing Details 1
- Bearing Details 2
- Deck Drainage System
- Drainage Details
- South Abutment Plan and Elevation
- South Abutment Reinforcing Details
- South Abutment East Wingwall Details
- South Abutment West Wingwall Details
- South Abutment Wingwall Footing Plans
- North Abutment Plan and Elevation
- North Abutment Reinforcing Details
- North Abutment East Wingwall Details
- North Abutment West Wingwall Details
- North Abutment Wingwall Footing Plans
- Pier Plan and Elevation
- Pier Footing Plan and Bill of Material
- Parapet Railing Details
- HP Pile Details
- Soil Boring Logs
- Soil Boring Logs
- Soil Boring Logs
- Soil Boring Logs

TOTAL BILL OF MATERIAL

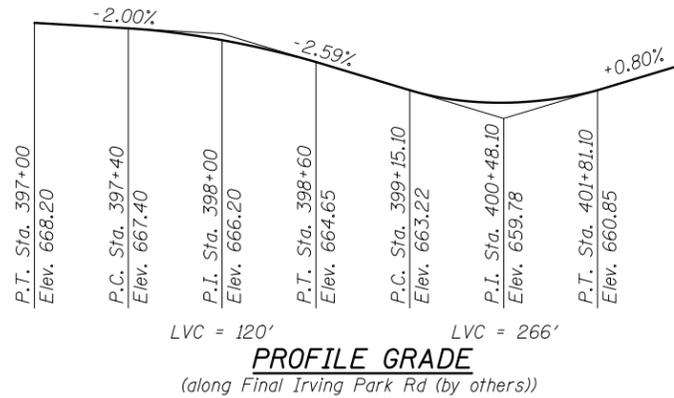
ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment	Cu. Yd.	-	1,073.7	1,073.7
Stone Riprap, Class A4	Sq. Yd.	-	16	16
Filter Fabric	Sq. Yd.	-	16	16
Structure Excavation	Cu. Yd.	-	1,296	1,296
Form Liner Textured Surface	Sq. Ft.	-	3,600	3,600
Furnishing and Erecting Structural Steel	L. Sum	1	-	1
Reinforcement Bars, Epoxy Coated	Pound	-	138,760	138,760
Parapet Railing	Foot	-	122	122
Furnishing Steel Piles HP14X89	Foot	-	7,473	7,473
Driving Piles	Foot	-	7,473	7,473
Test Pile Steel HP14X89	Each	-	3	3
Pile Shoes	Each	-	110	110
Name Plates	Each	-	1	1
Anchor Bolts, 1/2"	Each	60	-	60
Concrete Sealer	Sq. Ft.	-	6,174	6,174
Geocomposite Wall Drain	Sq. Yd.	-	391	391
Steel Grate Walkway	Sq. Yd.	145.2	-	145.2
Pipe Handrail, Special	Foot	341.0	-	341.0
Membrane Waterproofing (Special)	Sq. Ft.	5,648.0	-	5,648.0
Drainage System	L. Sum	1	-	1
Pipe Underdrains for Structures 4"	Foot	-	168	168
Concrete Structures CPR Special	Cu. Yd.	-	1,513.4	1,513.4

C.P.R.R.
 BUILT BY
 STATE OF ILLINOIS
 F.A.U. RT. 1321 SEC. 32VB
 STA. 10299+30.82 LOADING E90
 STR. NO. 022-0226

NAME PLATE
 See Std. 515001



TEMPORARY CLEARANCE SIGN DETAIL



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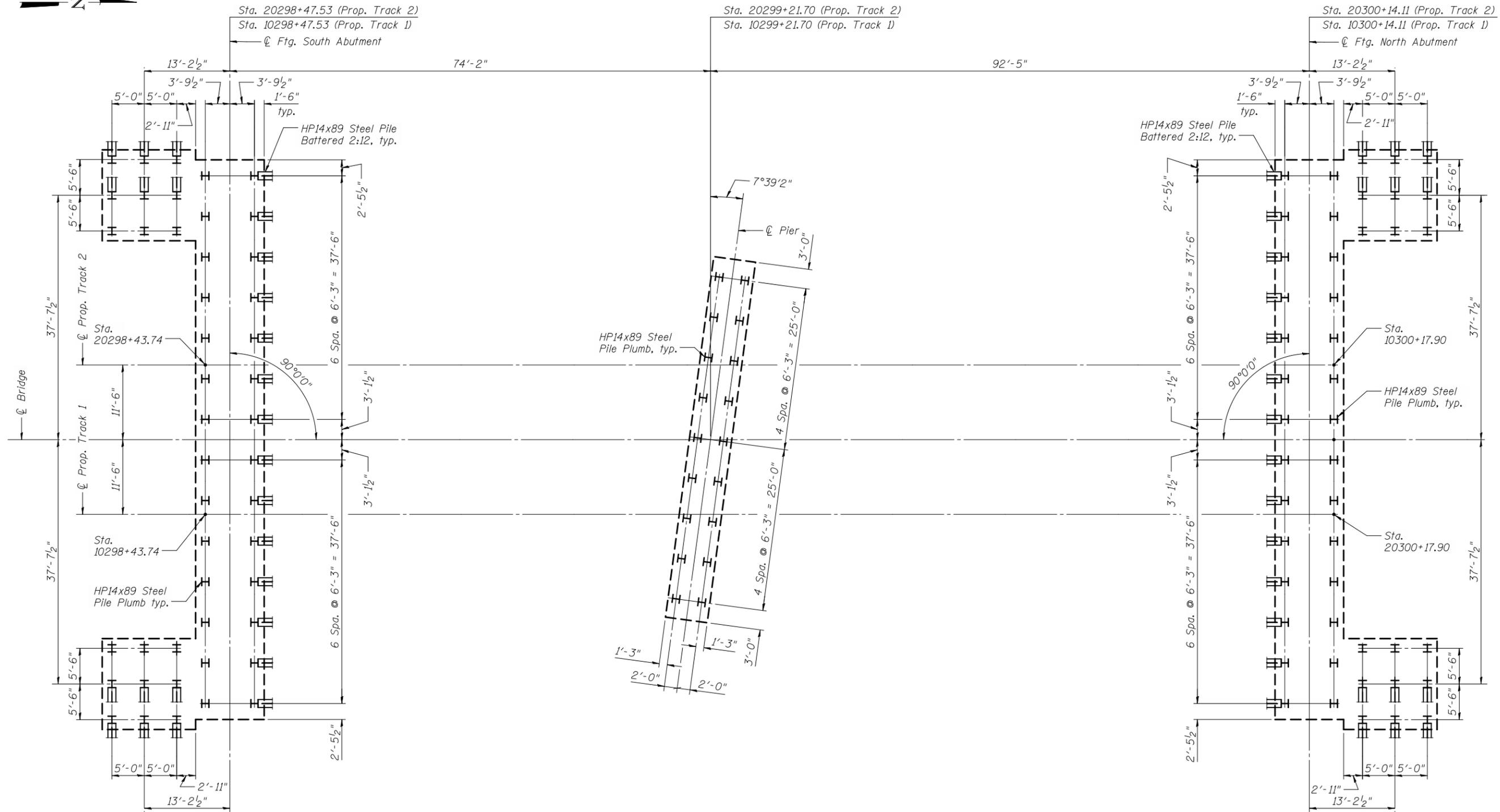
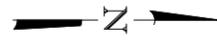
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES AND BILL OF MATERIAL
 STRUCTURE NO. 022-0226**

SHEET NO. 2 OF 43 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB		388	143
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				



FOUNDATION LAYOUT PLAN

Notes:

1. Pile splices shall be a minimum of 15' below ground surface.
2. Piles shall be fitted with pile shoes before driving.
3. See Sheet Nos. 40 thru 43 for Soil Borings.
4. For Pile Data and additional notes, see Substructure Sheets.

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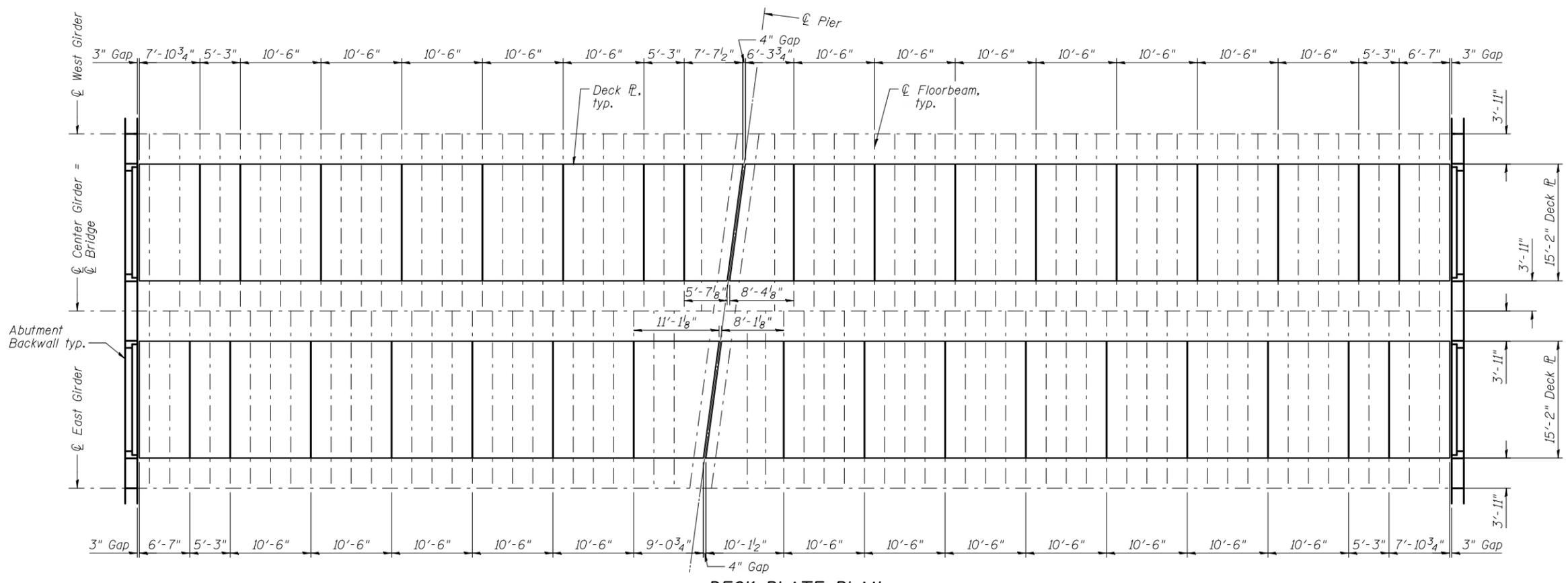
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**FOOTING LAYOUT
STRUCTURE NO. 022-0226**

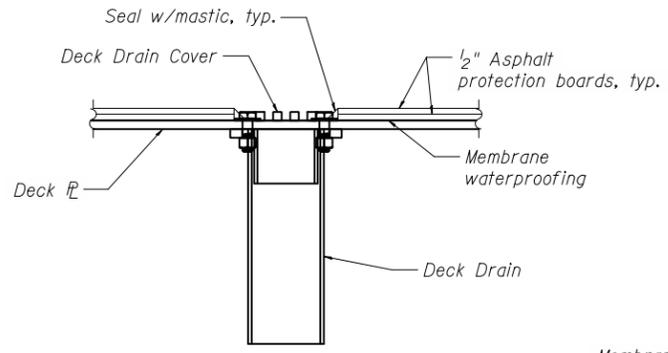
SHEET NO. 3 OF 43 SHEETS

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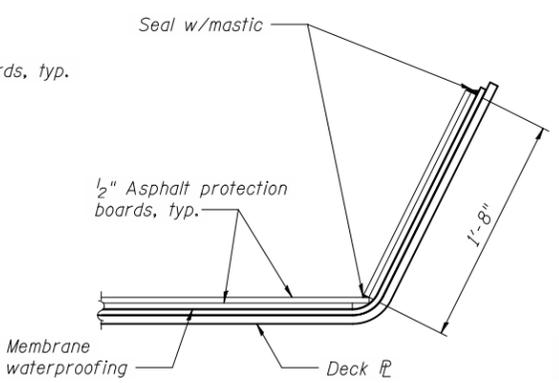
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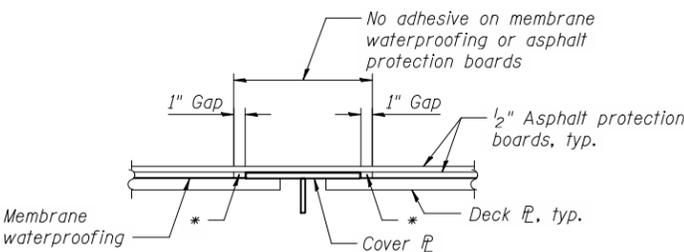
DECK PLATE PLAN



WATERPROOFING AT DECK DRAIN

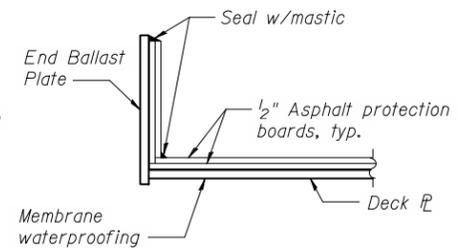


WATERPROOFING AT DECK PLATE



WATERPROOFING AT COVER PLATE

* Fill gap w/ mastic



WATERPROOFING AT END BALLAST PLATE

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

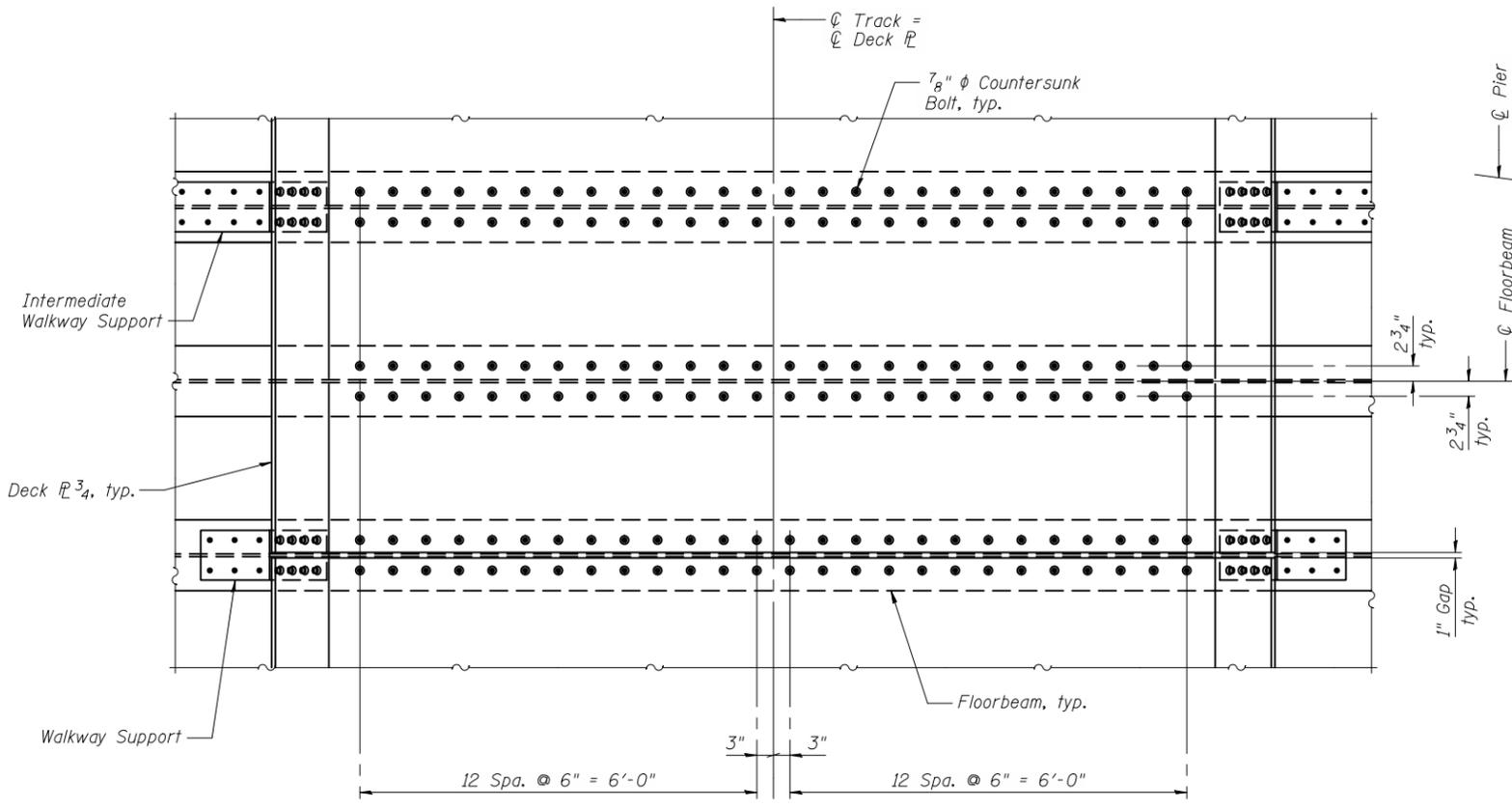
**DECK PLATE PLAN
STRUCTURE NO. 022-0226**

SHEET NO. 4 OF 43 SHEETS

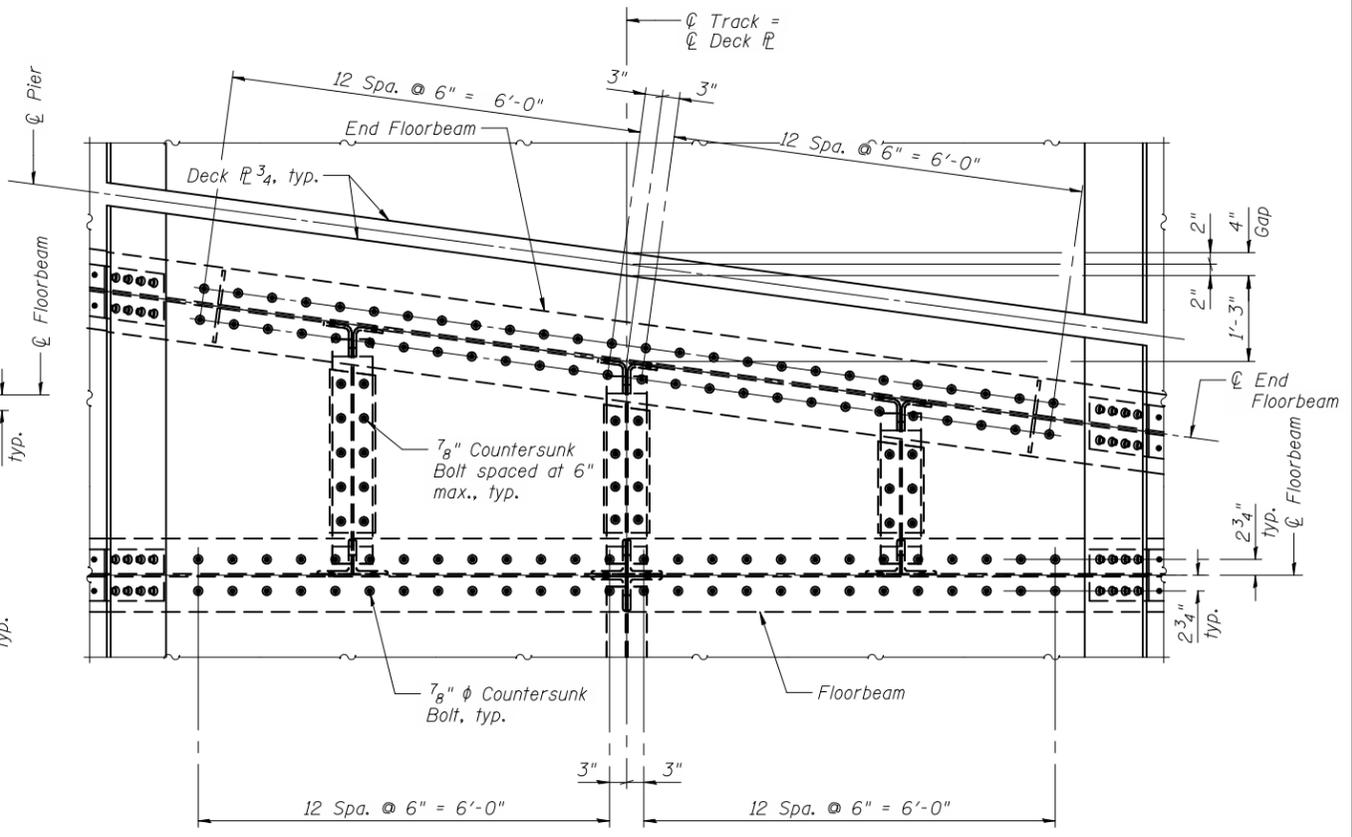
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CONTRACT NO. 60W01				

ILLINOIS FED. AID PROJECT

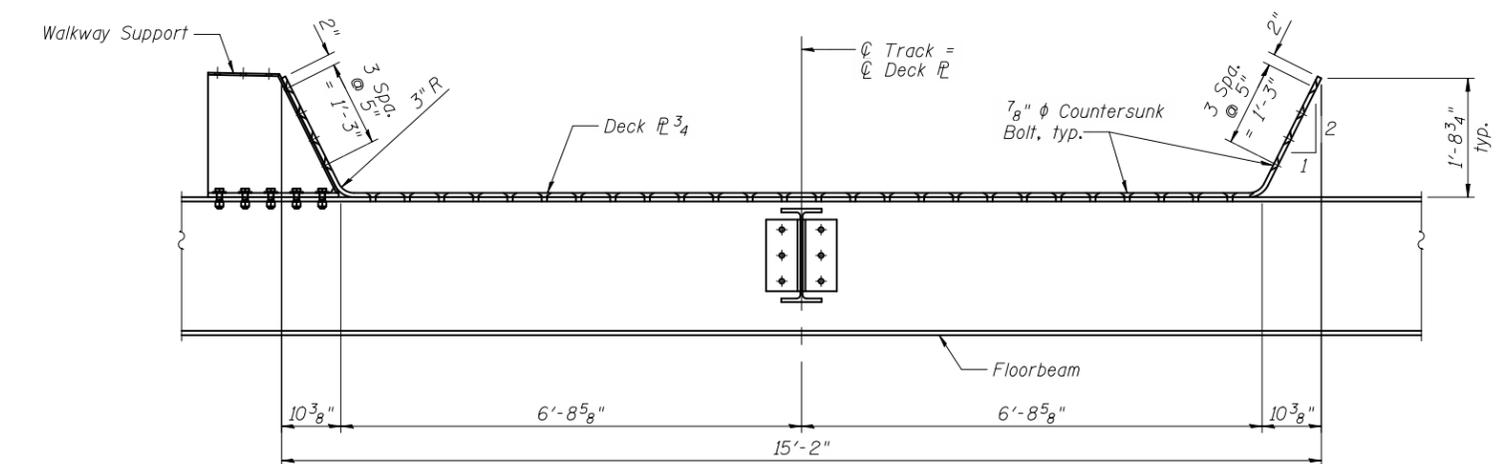
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DECK PLATE TYPICAL PLAN



DECK PLATE PLAN AT PIER



TYPICAL DECK PLATE SECTION

Note:
 See Sheet No. 4 for deck
 plate layout.



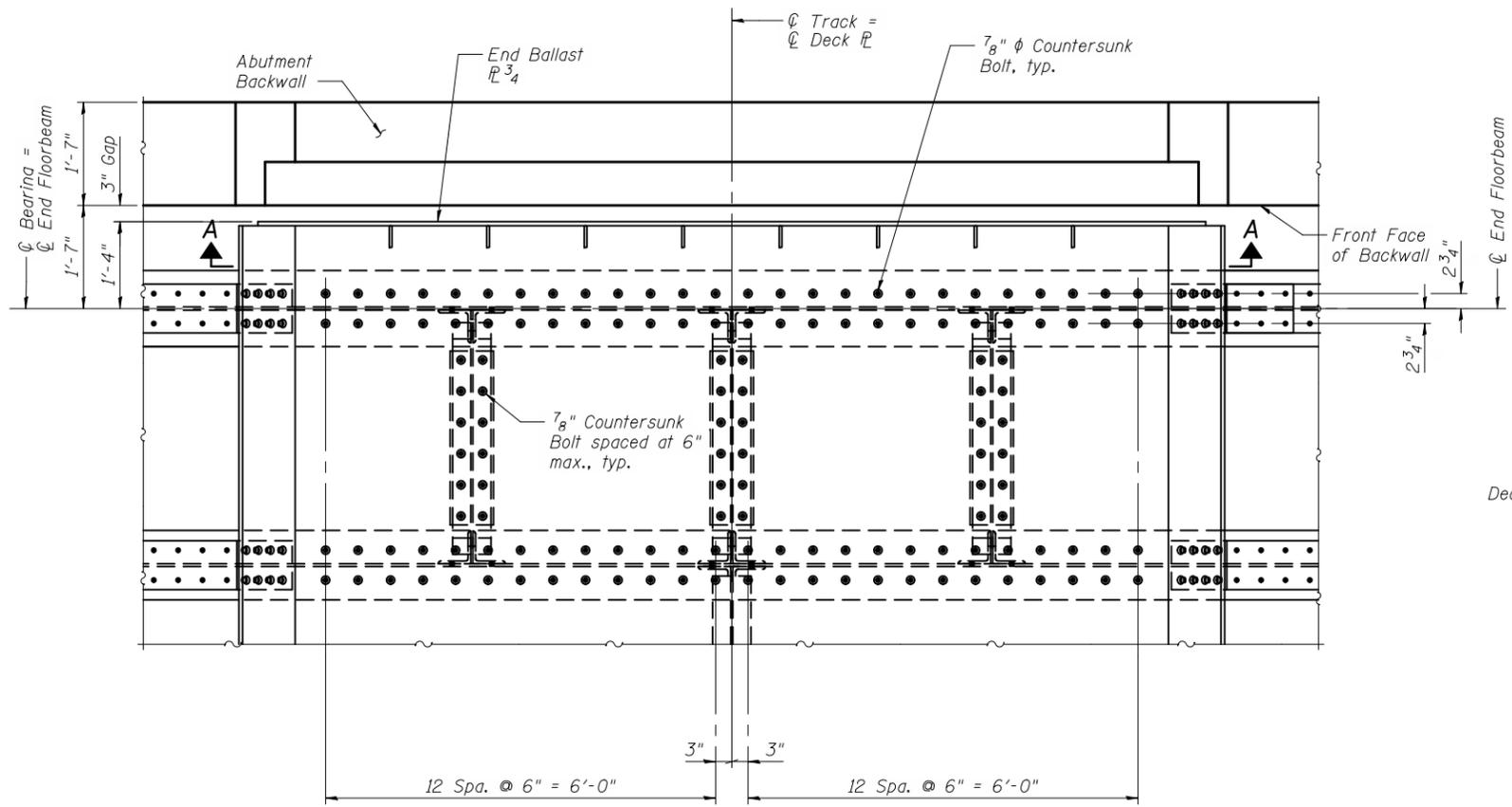
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**DECK PLATE DETAILS
 STRUCTURE NO. 022-0226**

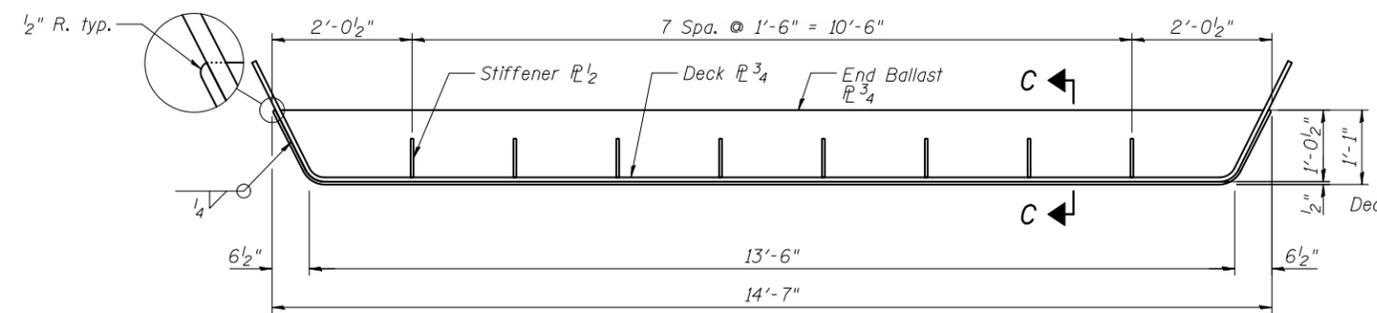
SHEET NO. 5 OF 43 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS FED. AID PROJECT				



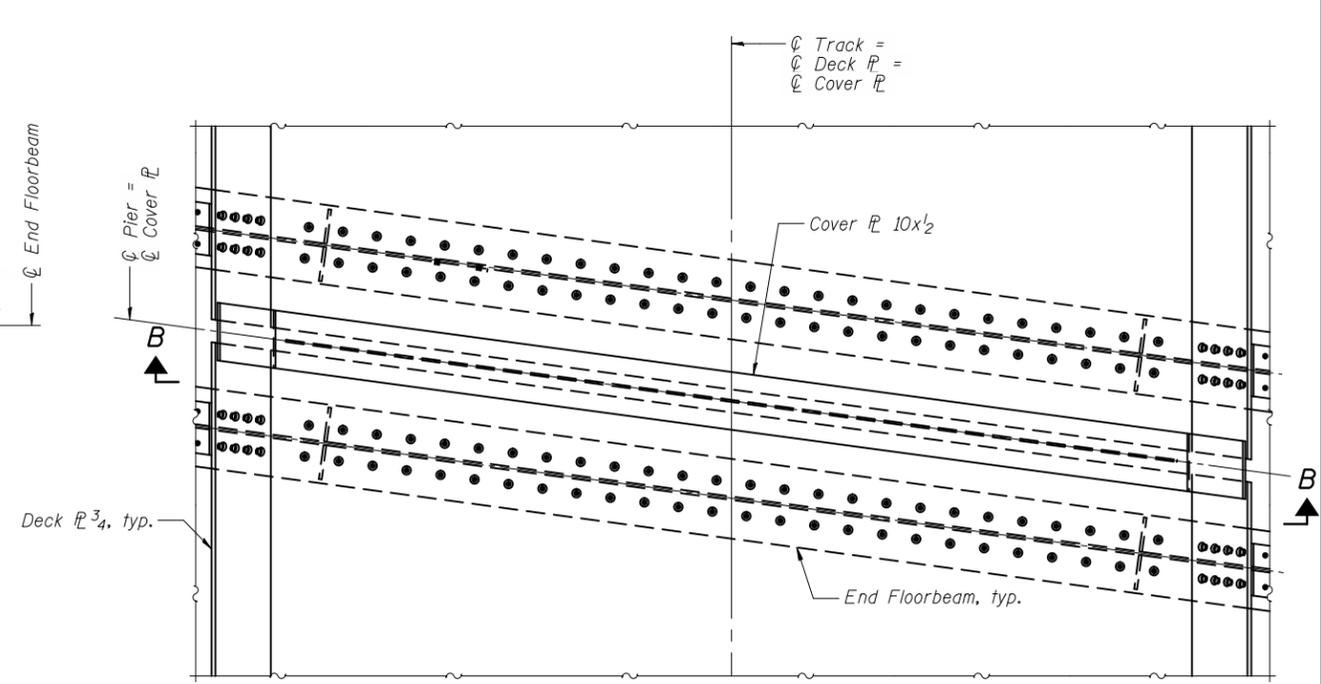
DECK PLATE PLAN AT ABUTMENT

Detail shown at location with 3 diaphragms. Detail at other locations similar, except only one diaphragm is present at CL track; since deck is not supported by the single diaphragm at these locations, connection to single diaphragm is not required.

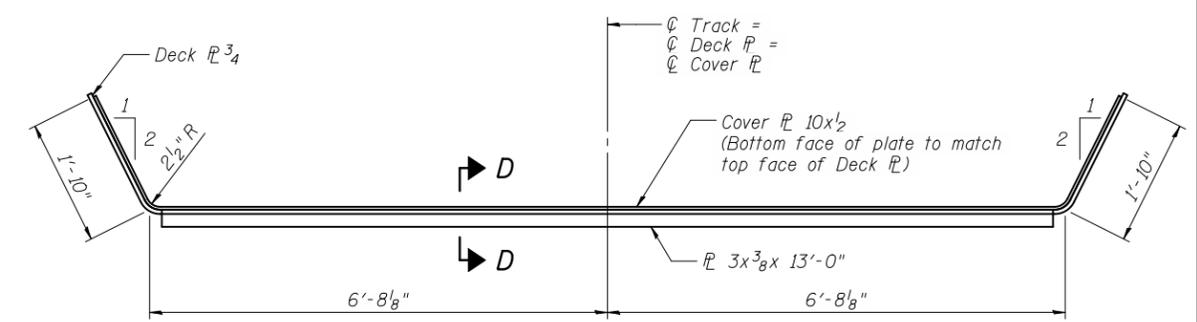


SECTION A-A

Note:
End ballast plate is sized for proposed track elevation
Future ballast raises may require modification of the ballast plate.

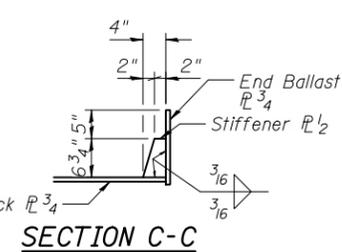


PLAN - COVER PLATE AT PIER

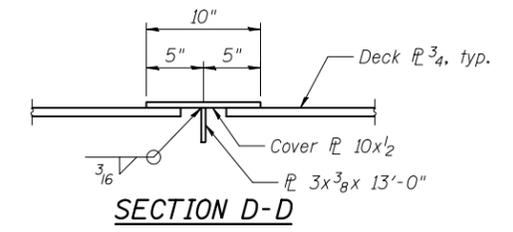


SECTION B-B

End Floorbeam and End Walkway Supports not shown for clarity.



SECTION C-C



SECTION D-D

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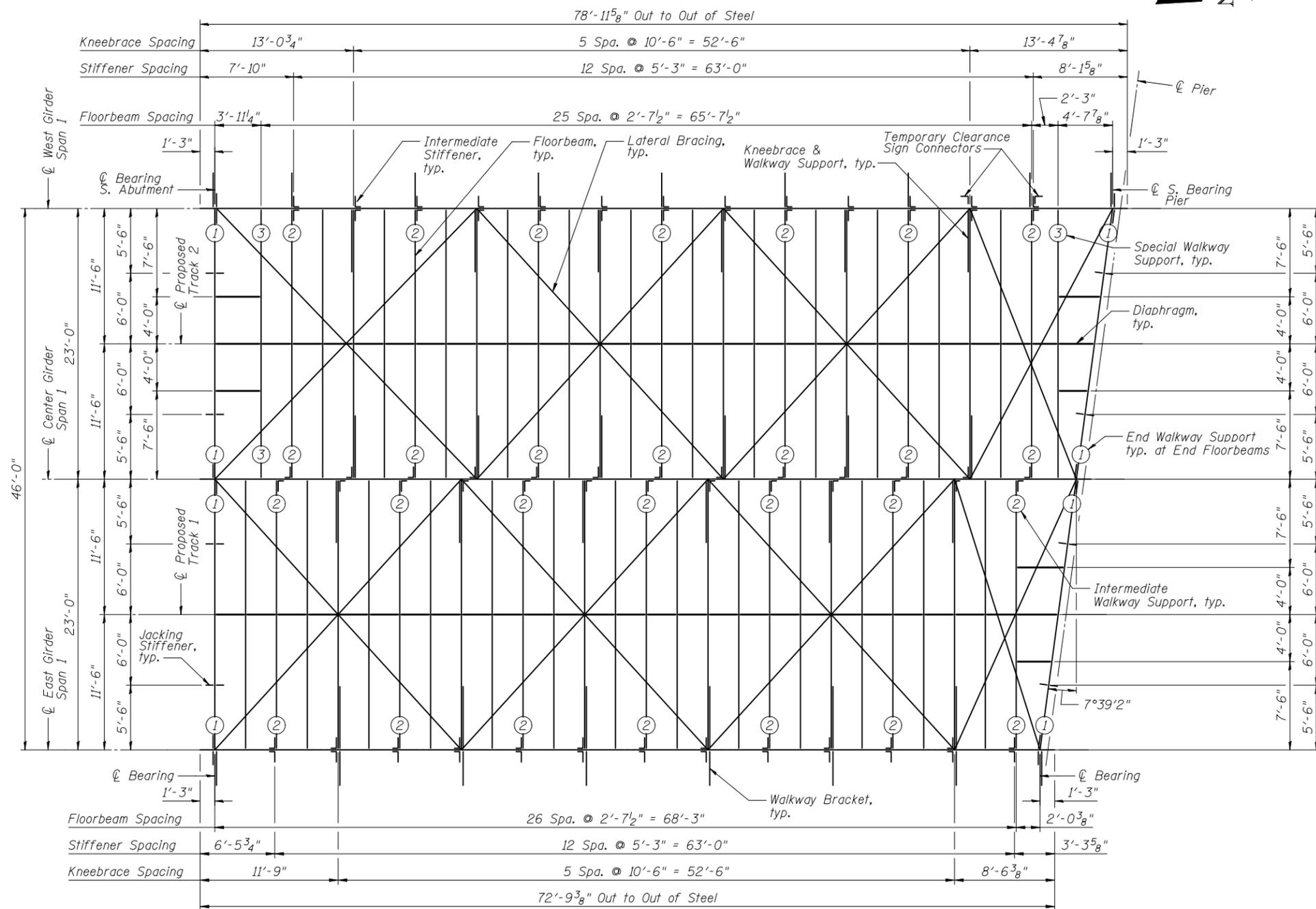
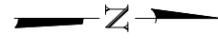
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK PLATE AND COVER PLATE DETAILS
STRUCTURE NO. 022-0226**

SHEET NO. 6 OF 43 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60W01				

ILLINOIS FED. AID PROJECT

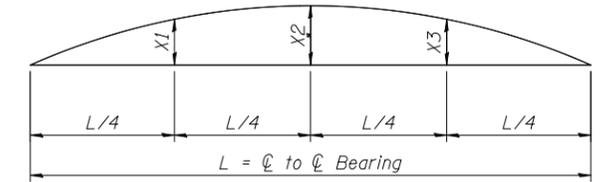


FRAMING PLAN - SPAN 1

Notes:

1. Girder stiffener spacing is measured to back face of stiffener angles.
2. End Floorbeam Stiffener spacing is measured at ϕ stiffener plates and ϕ floorbeam.
3. All cross frames and diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

THROUGH GIRDER	CAMBER				
	L	L/4	X1	X2	X3
Span 1, East Girder	70'-3 3/8"	17'-6 7/8" (-)	1/8"	3/16"	1/8"
Span 1, Center Girder	73'-4 1/2"	18'-4 1/8"	3/16"	1/4"	3/16"
Span 1, West Girder	76'-5 5/8"	19'-1 3/8" (+)	3/16"	1/4"	3/16"
Span 2, East Girder	94'-8 5/8"	23'-8 1/8" (+)	5/16"	7/16"	5/16"
Span 2, Center Girder	91'-7 1/2"	22'-10 7/8"	1/4"	3/8"	1/4"
Span 2, West Girder	88'-6 3/8"	22'-1 5/8" (-)	1/4"	3/8"	1/4"



THROUGH GIRDER PARABOLIC CAMBER DIAGRAM

Camber shown for information only.
Camber shown does not exceed 3/4" tolerance per IDOT Standard Specification Article 505.04.

Walkway Support Location Key

- ① - End Walkway Support
- ② - Intermediate Walkway Support
- ③ - Special Walkway Support

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

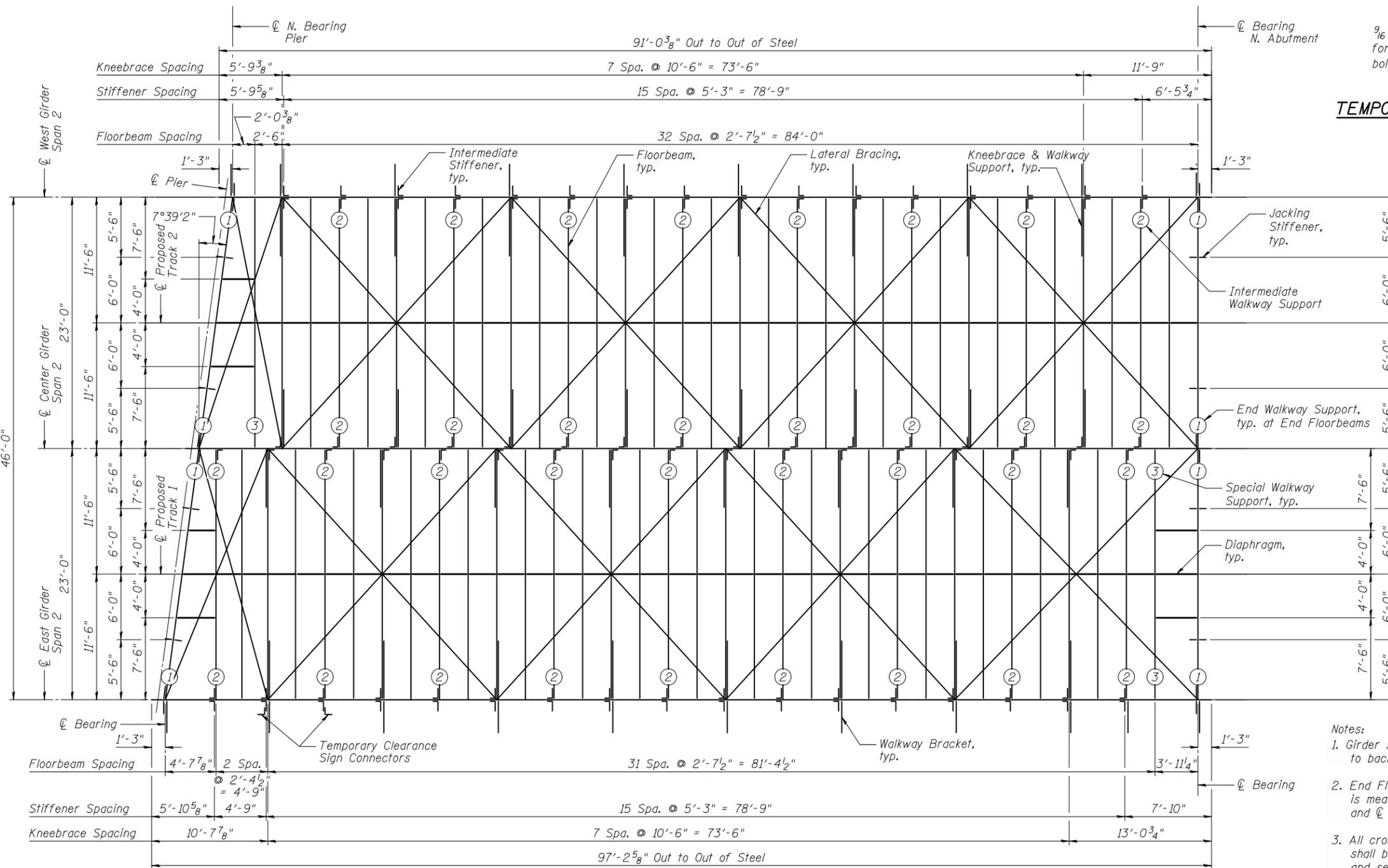
**FRAMING PLAN - SPAN 1
STRUCTURE NO. 022-0226**

SHEET NO. 7 OF 43 SHEETS

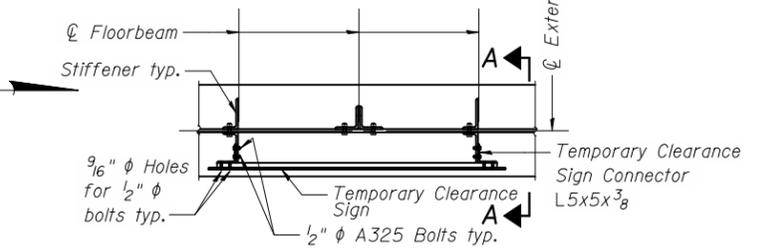
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DU PAGE	388	148
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				

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jmlgus

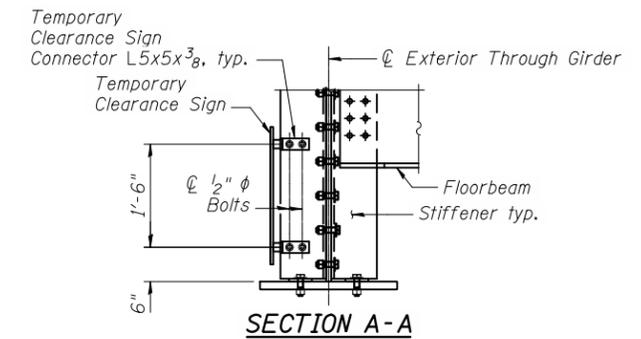
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FRAMING PLAN - SPAN 2



TEMPORARY CLEARANCE SIGN CONNECTOR DETAIL



Walkway Support Location Key

- ① - End Walkway Support
- ② - Intermediate Walkway Support
- ③ - Special Walkway Support

Notes:

1. Girder stiffener spacing is measured to back face of stiffener angles.
2. End Floorbeam Stiffener spacing is measured at center of stiffener plates and center of floorbeam.
3. All cross frames and diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.



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FILE NAME = 0220226-60B42-008-FRP.DGN
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PLOT DATE = 11/2/2012

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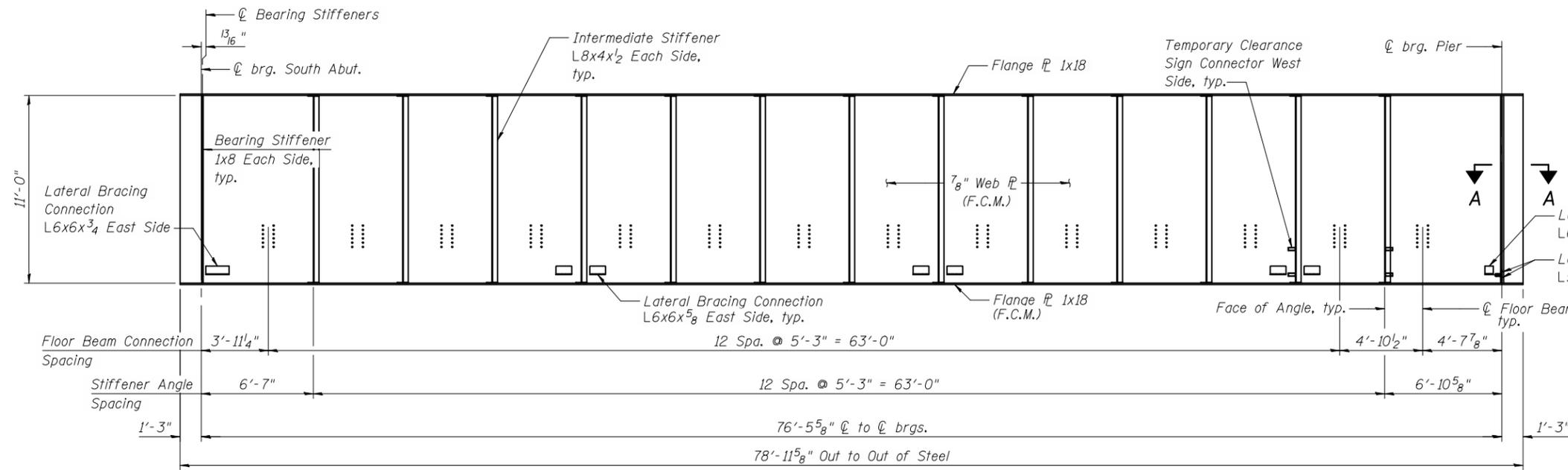
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**FRAMING PLAN - SPAN 2
STRUCTURE NO. 022-0226**

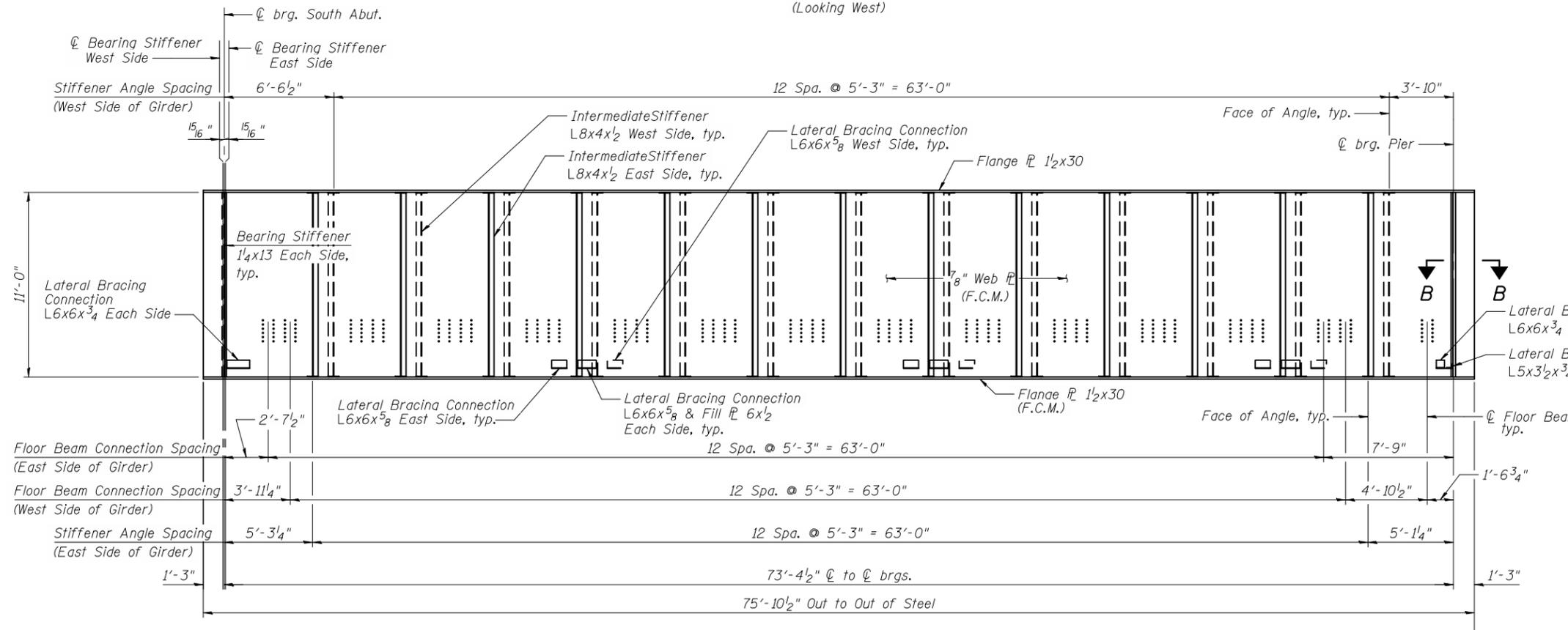
SHEET NO. 8 OF 43 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS FED. AID PROJECT				



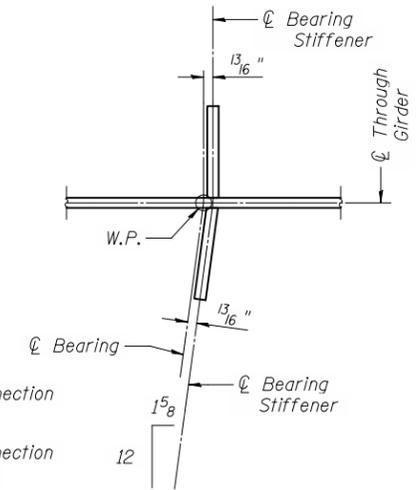
SPAN 1 WEST THROUGH GIRDER INSIDE ELEVATION

(Looking West)

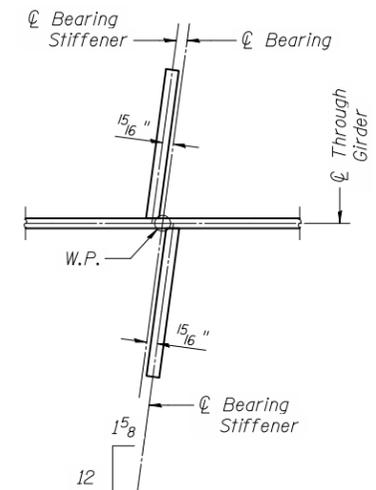


SPAN 1 CENTER THROUGH GIRDER ELEVATION

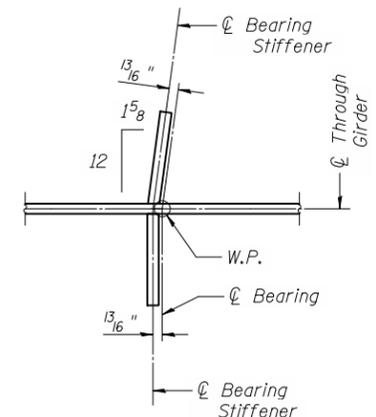
(Looking West)



SECTION A-A



SECTION B-B



SECTION C-C

- Notes:
 1. W.P. = Working Point
 2. F.C.M. denotes fracture critical member.

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 jmlgus

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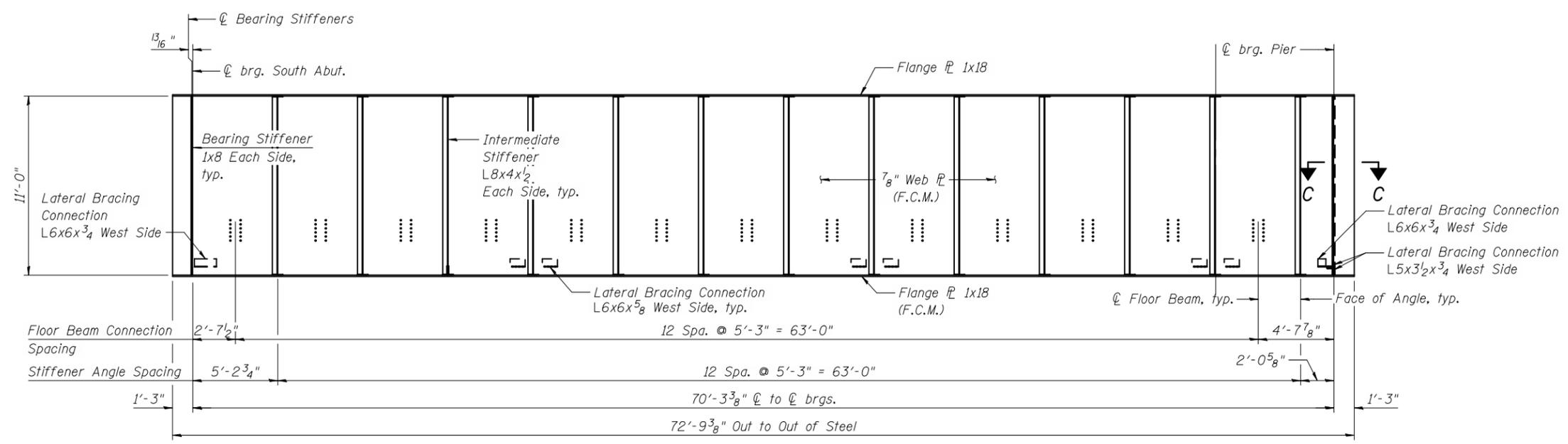
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

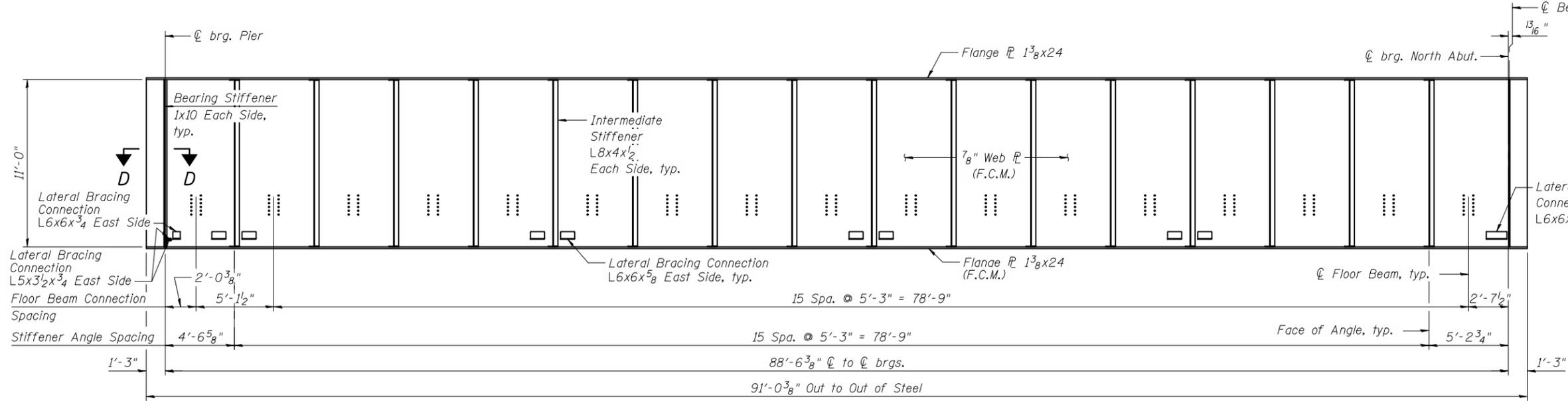
**THROUGH GIRDER ELEVATIONS 1
 STRUCTURE NO. 022-0226**

SHEET NO. 9 OF 43 SHEETS

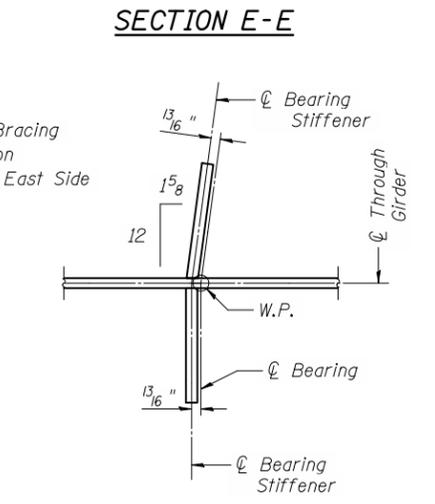
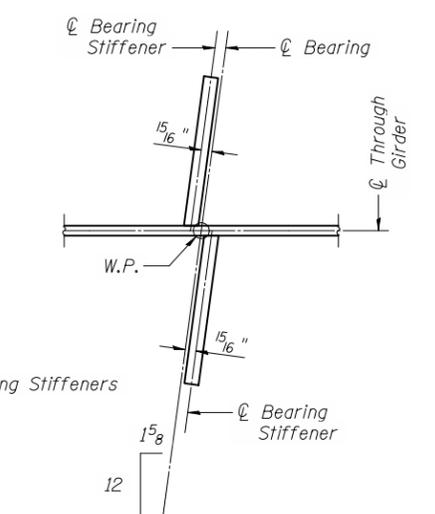
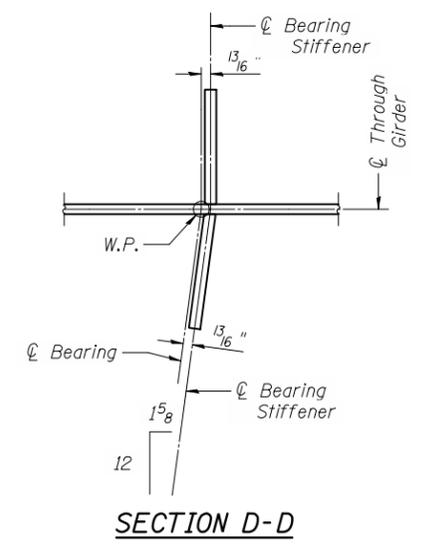
F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DU PAGE	388	150
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				



SPAN 1 EAST THROUGH GIRDER OUTSIDE ELEVATION
(Looking West)



SPAN 2 WEST THROUGH GIRDER INSIDE ELEVATION
(Looking West)



- Notes:
 1. W.P. = Working Point
 2. F.C.M. denotes fracture critical member.
 3. For Section C-C, see Sheet No. 9.

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jmlgus

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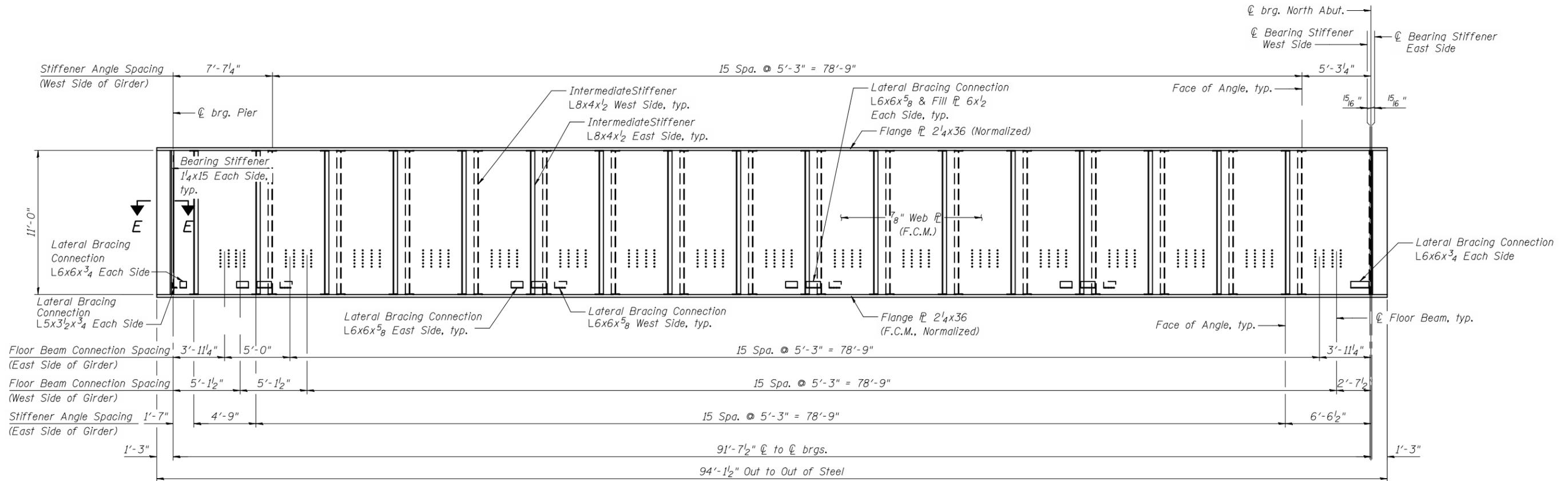
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

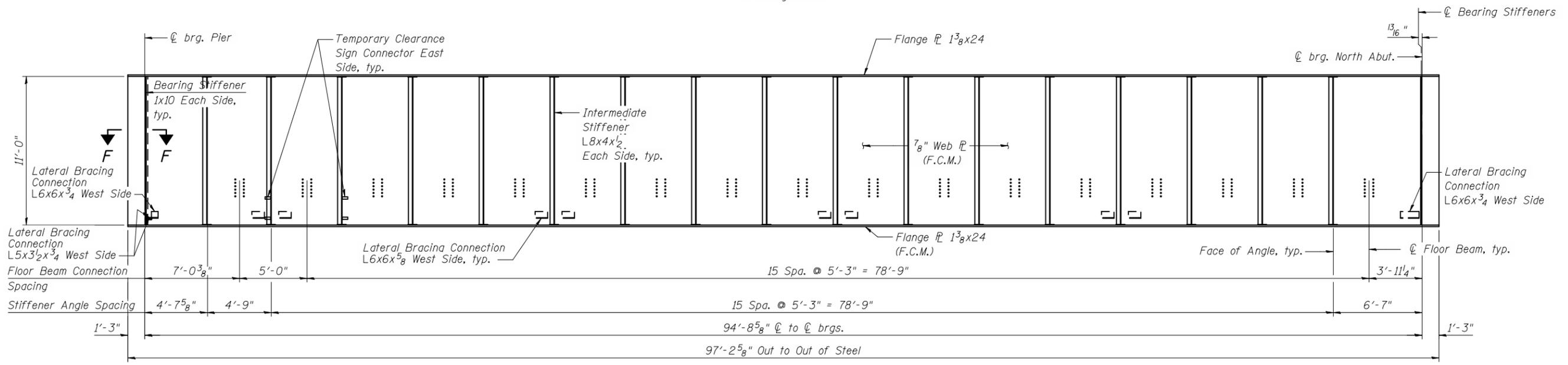
**THROUGH GIRDER ELEVATIONS 2
STRUCTURE NO. 022-0226**

SHEET NO. 10 OF 43 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DU PAGE	388	151
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				



SPAN 2 CENTER THROUGH GIRDER ELEVATION
(Looking West)



SPAN 2 EAST THROUGH GIRDER OUTSIDE ELEVATION
(Looking West)

- Notes:
 1. For Sections E-E and F-F, see Sheet No. 10.
 2. F.C.M. denotes fracture critical member.

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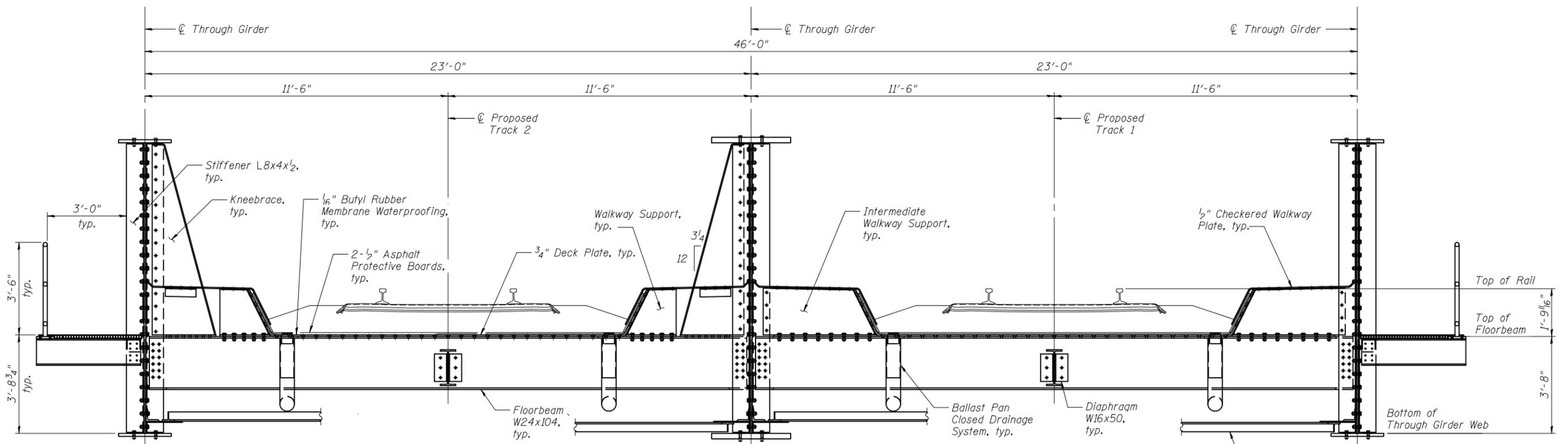
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

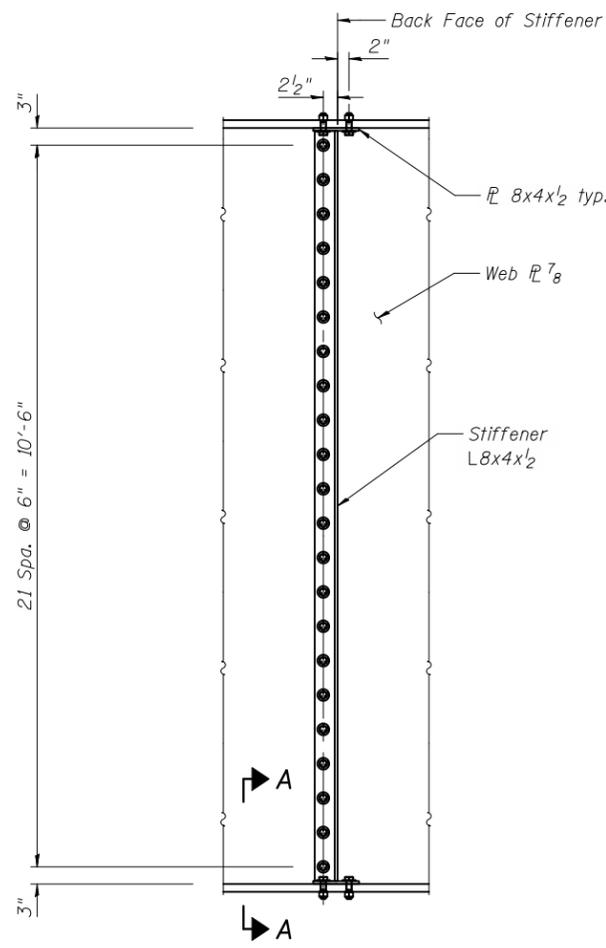
**THROUGH GIRDER ELEVATIONS 3
STRUCTURE NO. 022-0226**

SHEET NO. 11 OF 43 SHEETS

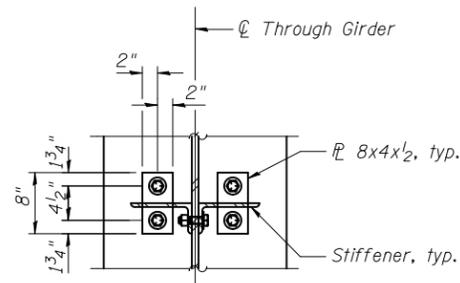
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ILLINOIS FED. AID PROJECT				



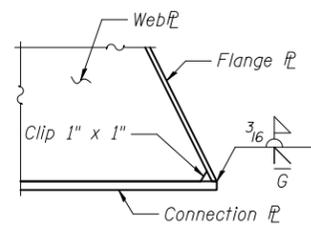
TYPICAL SECTION



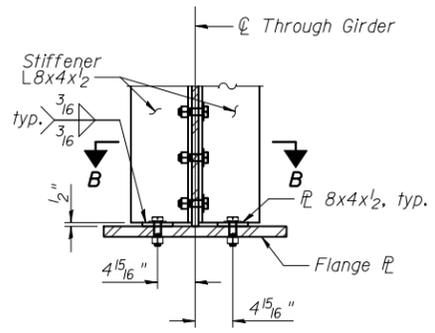
STIFFENER CONNECTION DETAIL



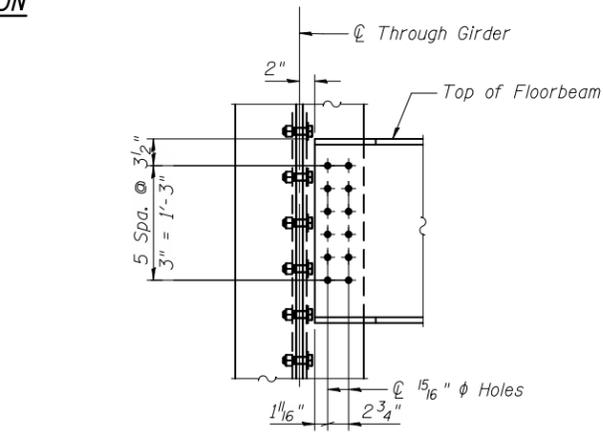
SECTION B-B



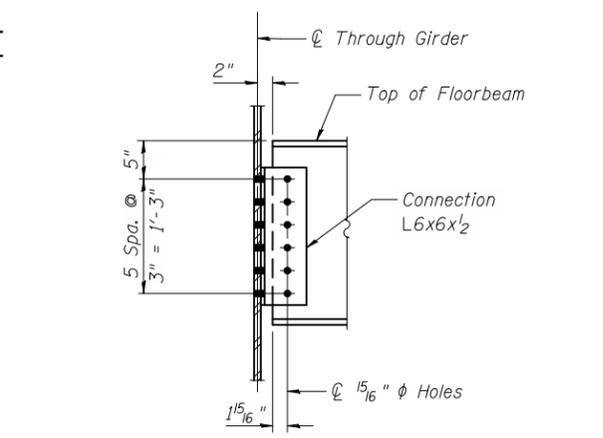
KNEEBRACE AND WALKWAY SUPPORT WEB CLIP DETAIL



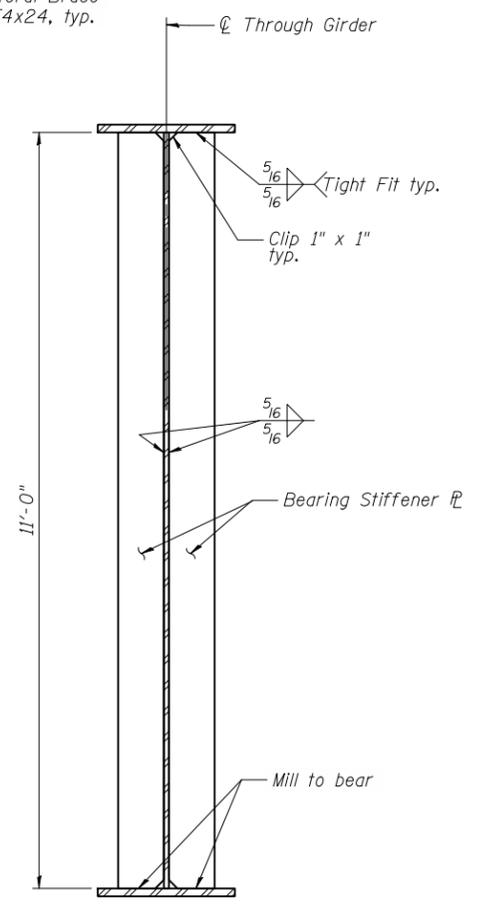
SECTION A-A



FLOORBEAM CONNECTION AT STIFFENERS



FLOORBEAM CONNECTION AT GIRDER WEB



BEARING STIFFENER

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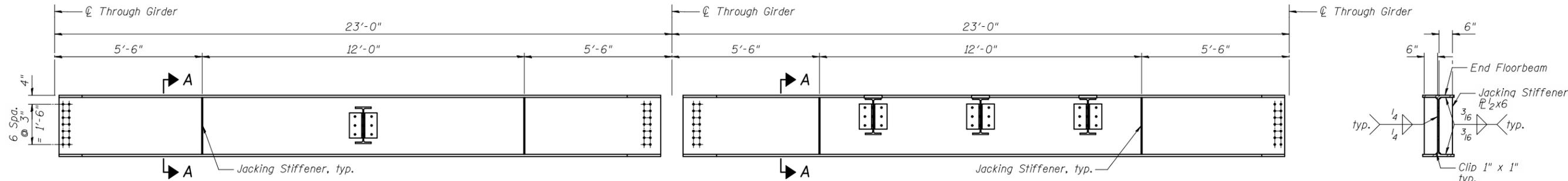
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION AND DETAILS
STRUCTURE NO. 022-0226

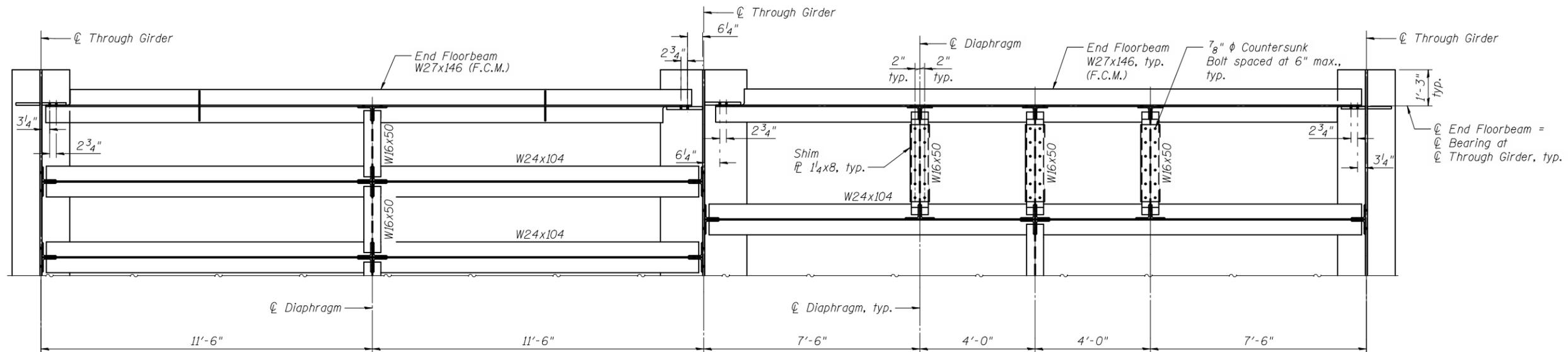
SHEET NO. 12 OF 43 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DU PAGE	388	153
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				



END FLOORBEAM ELEVATION AT ABUTMENT

SECTION A-A



PARTIAL PLAN AT ABUTMENT

Note:
Lateral bracing and top flanges of Through Girders and Floorbeams not shown for clarity.

MOMENT TABLE								
Discription	I _G (in ⁴)	Span 1		Span 2		Floorbeam W24x104	*Floorbeam W24x104	End Floorbeam W27x146
		Center Thru Girder	Exterior Thru Girder	Center Thru Girder	Exterior Thru Girder			
Moment of Inertia, Gross	I _G (in ⁴)	568,724	326,910	897,708	461,233	3,100	3,100	5,660
Moment of Inertia, Net	I _N (in ⁴)	507,422	283,745	811,733	407,994	2,885	2,885	5,303
Section Modulus, Gross	S _G (in ³)	8,426	4,879	13,153	6,846	258	258	414
Section Modulus, Net	S _N (in ³)	7,517	4,235	11,894	6,056	228	228	370
Dead Load	D _L (lb/ft)	5,771	3,177	6,053	3,294	543	543	930
Dead Load Moment	M _{DL} (k-ft)	3,882	2,321	6,352	3,694	42	42	65
Live Load Moment	M _{LL} (k-ft)	8,515	4,583	12,673	6,723	273	273	458
Impact Moment	M _I (k-ft)	2,617	1,373	3,421	1,786	121	121	275
Moment at kneebrace	(k-ft)	-	-	-	-	-	45	-
Jacking Load	(kip)	-	-	-	-	-	-	164
Jacking Load Moment	(k-ft)	-	-	-	-	-	-	84.3
Total Moment	MTOTAL (k-ft)	15,010	8,277	22,445	12,203	436	481	798
Flexural Stress	f _S TOTAL (ksi)	23.96	23.45	22.65	24.18	22.95	25.32	25.88

REACTION TABLE								Jacking Load Governs
Discription	Span 1		Span 2		Floorbeam W24x104	*Floorbeam W24x104	End Floorbeam W27x146	
	Center Thru Girder	Exterior Thru Girder	Center Thru Girder	Exterior Thru Girder				
Dead Load (kip)	219	125	285	160	6	6	-	
Live Load (kip)	530	275	640	329	32	32	-	
Impact (kip)	163	82	173	88	14	14	-	
Kneebrace (kip)	-	-	-	-	-	-	-	
Jacking Load (kip)	-	-	-	-	-	-	164	
Total (kip)	912	482	1098	577	52	56	164	

* At knee brace location.

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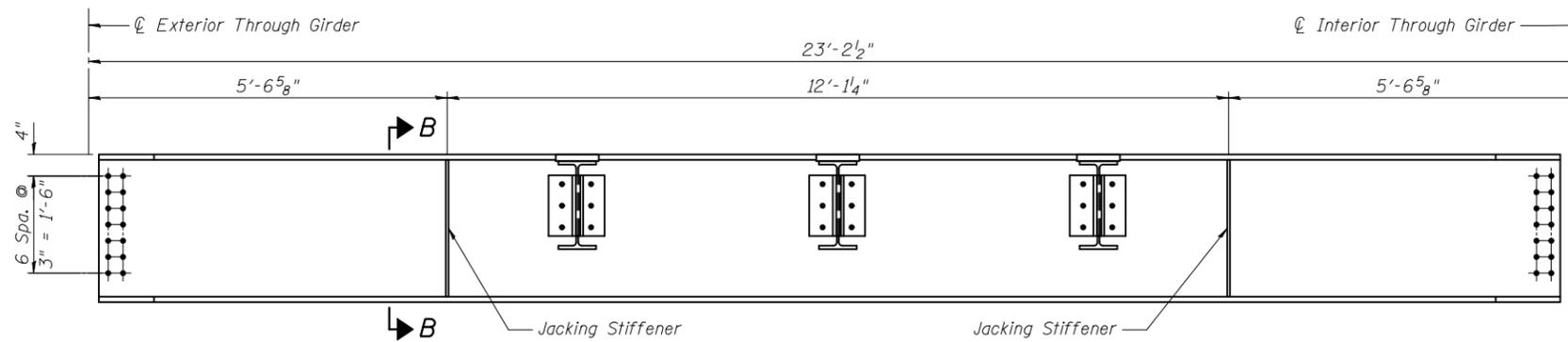
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

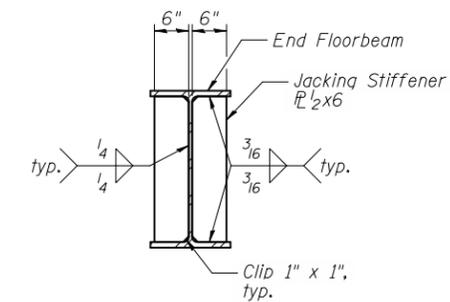
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STRUCTURE NO. 022-0226**

SHEET NO. 13 OF 43 SHEETS

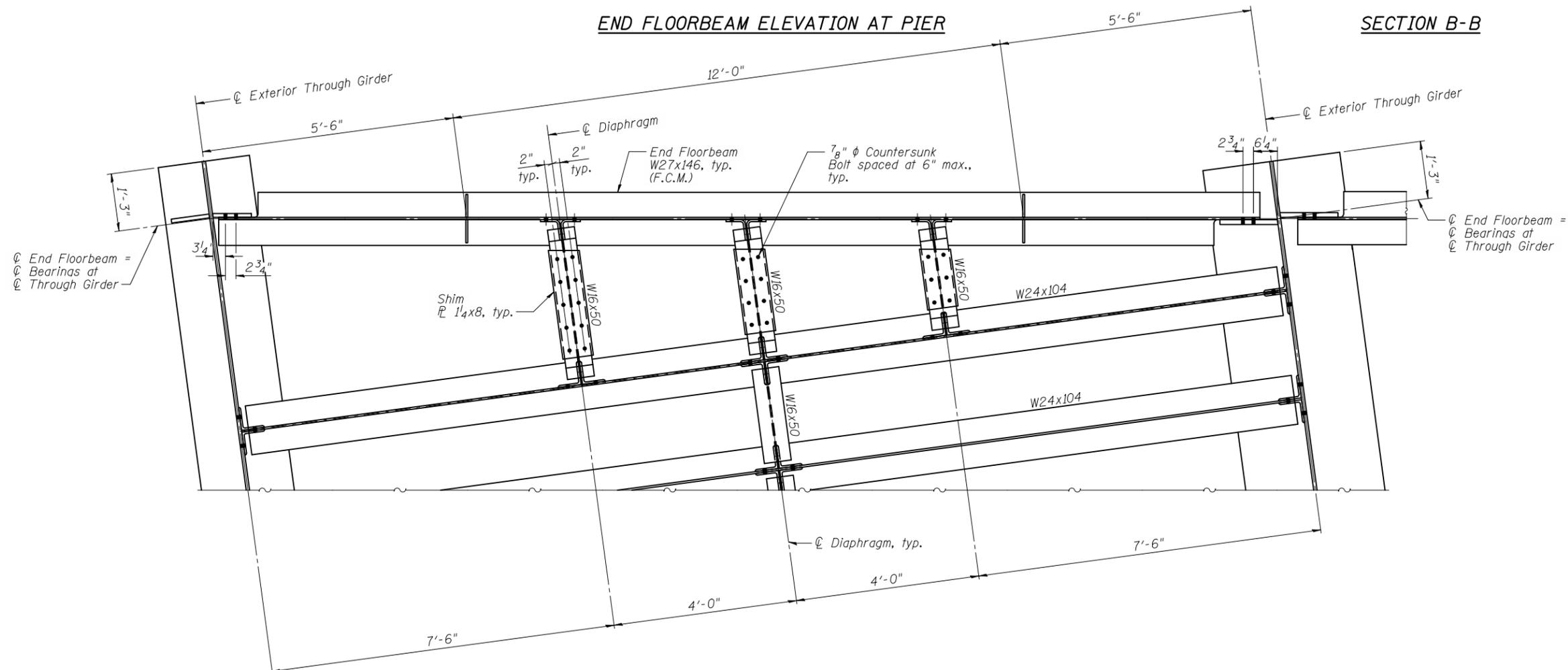
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DU PAGE	388	154
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				



END FLOORBEAM ELEVATION AT PIER



SECTION B-B



PARTIAL PLAN AT PIER

Note:
Lateral bracing and top flanges of Through Girders and Floorbeams not shown for clarity.

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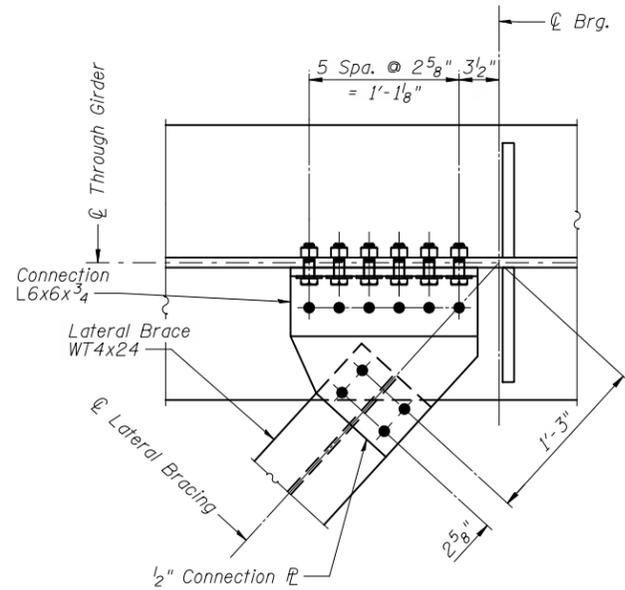
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

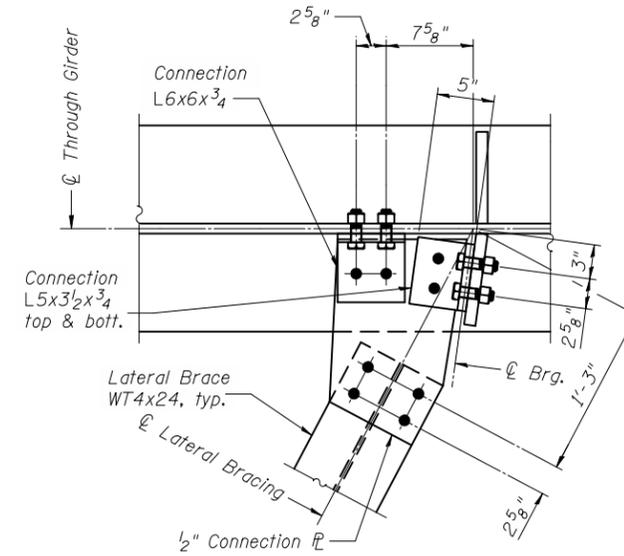
**END FLOORBEAM DETAILS AT PIER
STRUCTURE NO. 022-0226**

SHEET NO. 14 OF 43 SHEETS

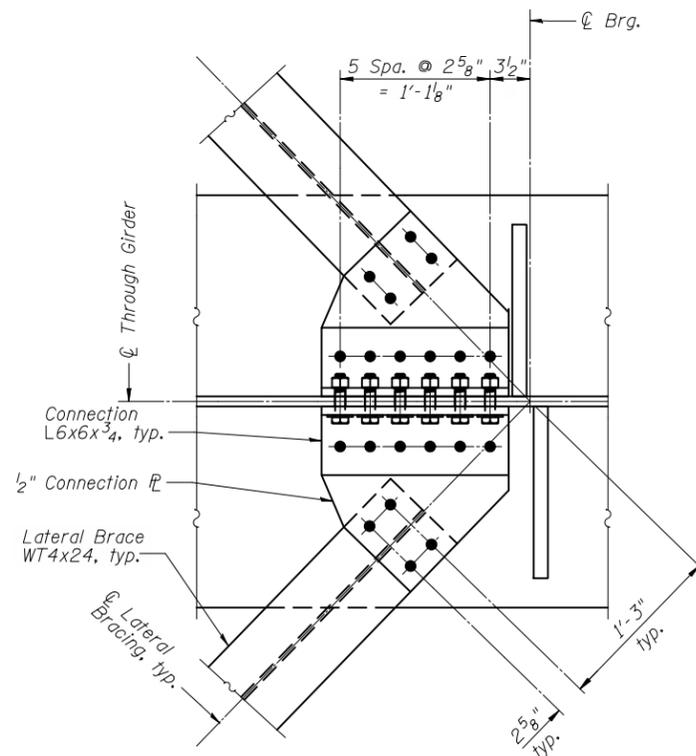
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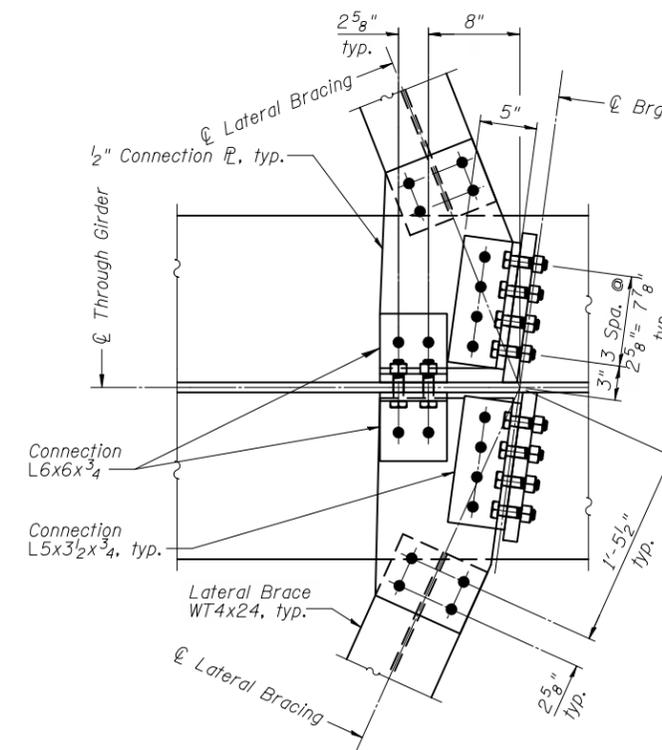
TYPICAL BRACING END CONNECTION DETAIL - EXTERIOR THROUGH GIRDER AT ABUTMENTS



TYPICAL BRACING END CONNECTION DETAIL - EXTERIOR THROUGH GIRDER AT PIER



TYPICAL BRACING END CONNECTION DETAIL - INTERIOR THROUGH GIRDER AT ABUTMENTS



TYPICAL BRACING END CONNECTION DETAIL - INTERIOR THROUGH GIRDER AT PIER

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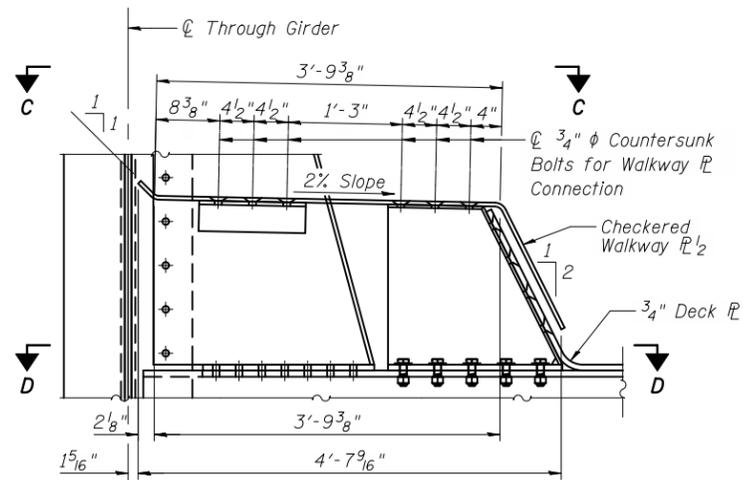
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LATERAL BRACING DETAILS 2
STRUCTURE NO. 022-0226

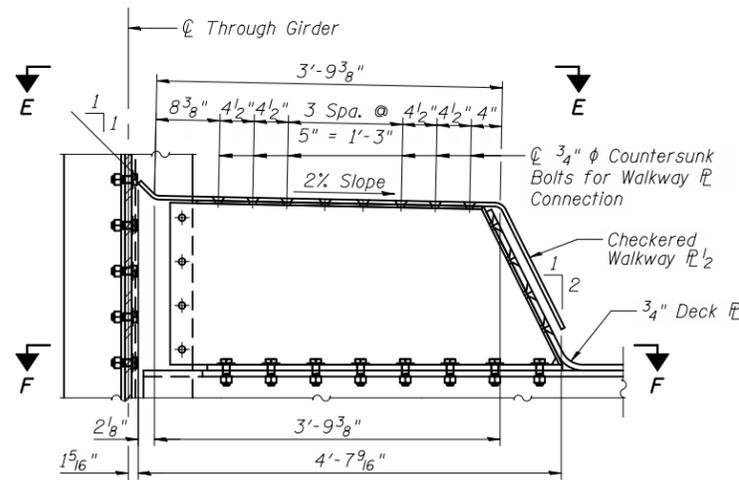
SHEET NO. 16 OF 43 SHEETS

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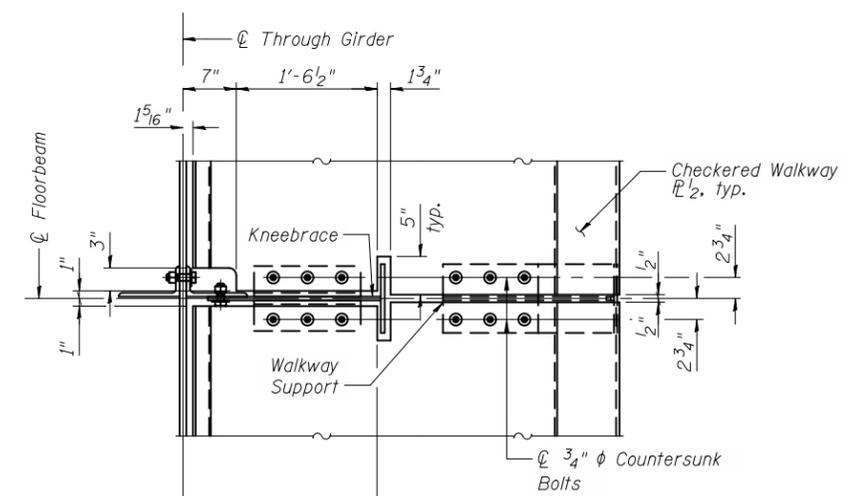
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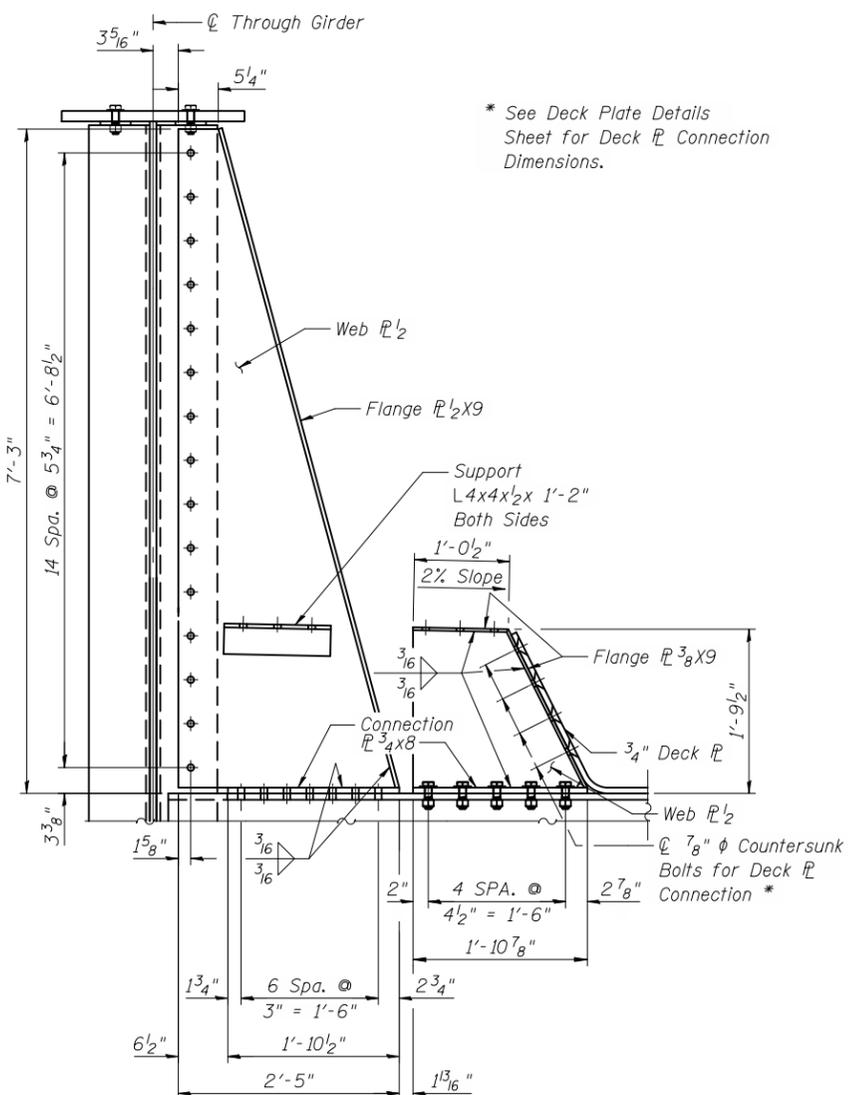
WALKWAY PLATE AT KNEEBRACE



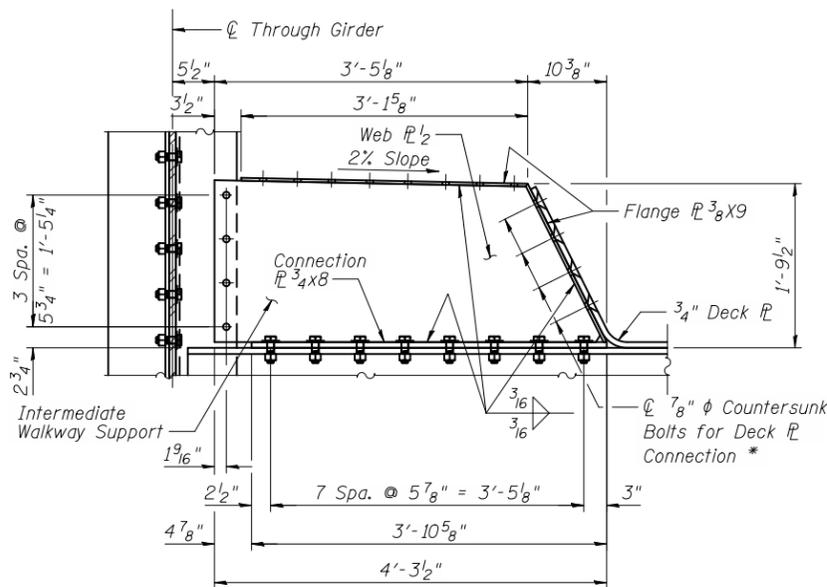
WALKWAY PLATE AT INTERMEDIATE SUPPORT



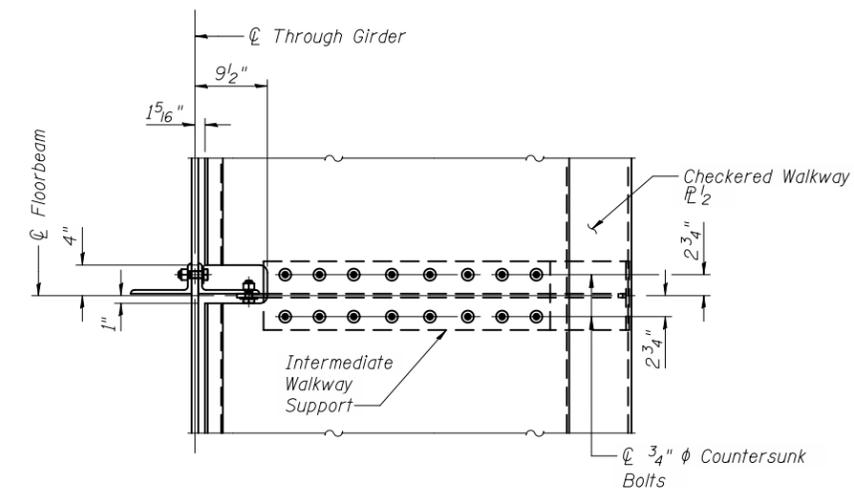
SECTION C-C



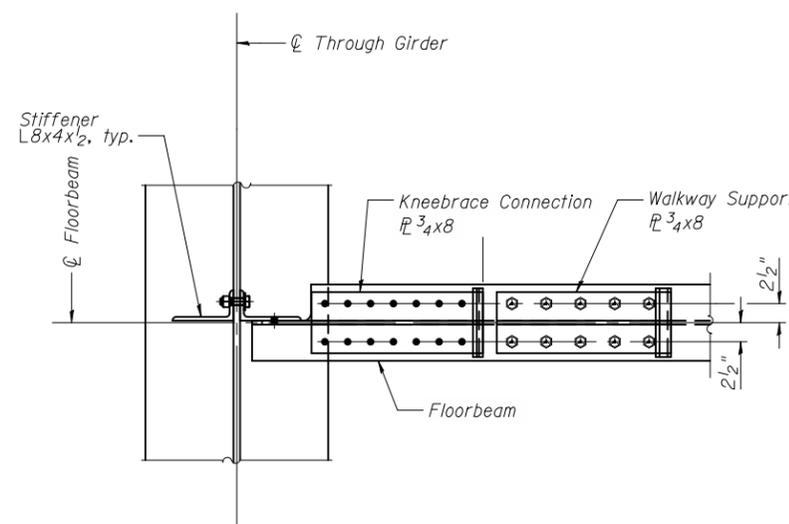
KNEEBRACE AND WALKWAY SUPPORT



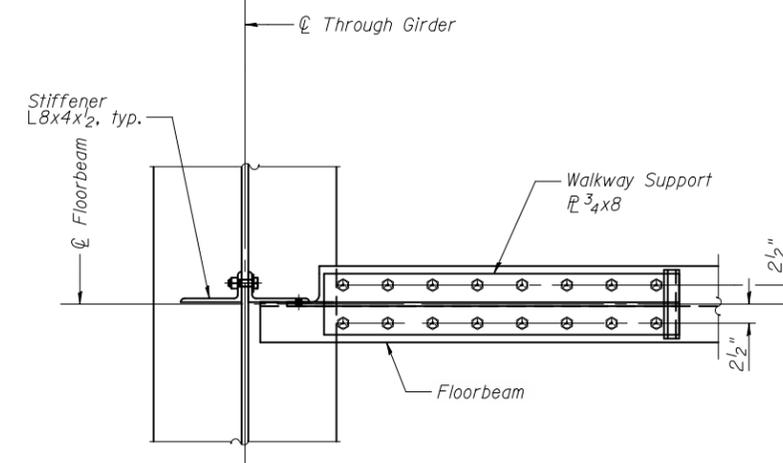
INTERMEDIATE WALKWAY SUPPORT



SECTION E-E



SECTION D-D



SECTION F-F

* See Deck Plate Details Sheet for Deck Plate Connection Dimensions.

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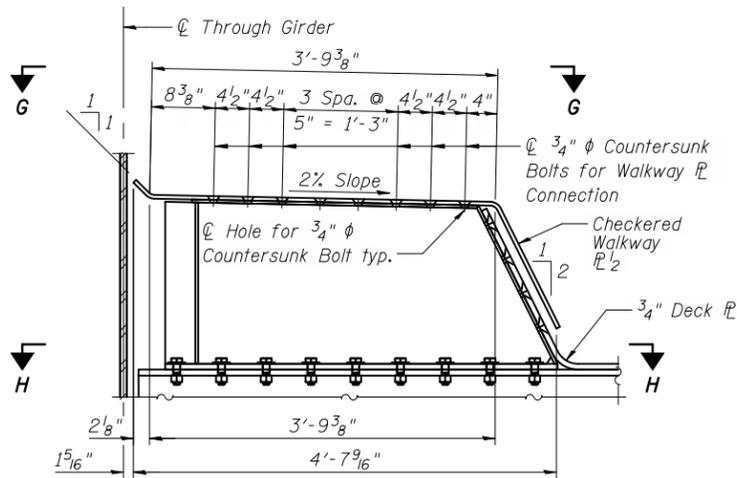
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**KNEE BRACE AND WALKWAY SUPPORT DETAILS
STRUCTURE NO. 022-0226**

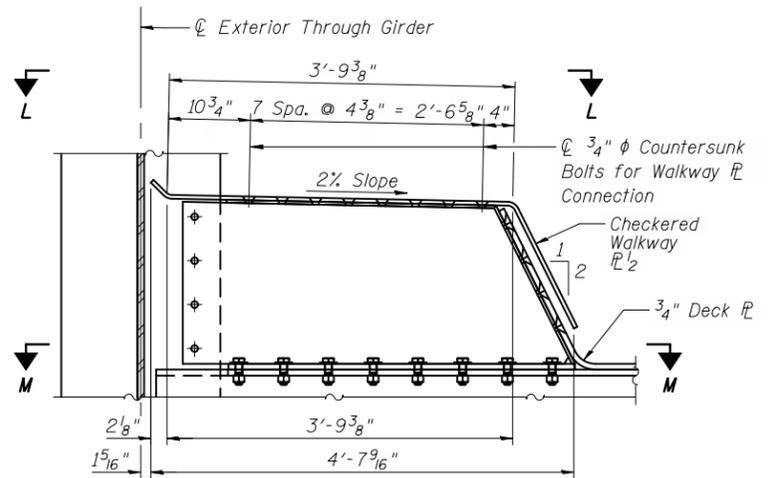
SHEET NO. 17 OF 43 SHEETS

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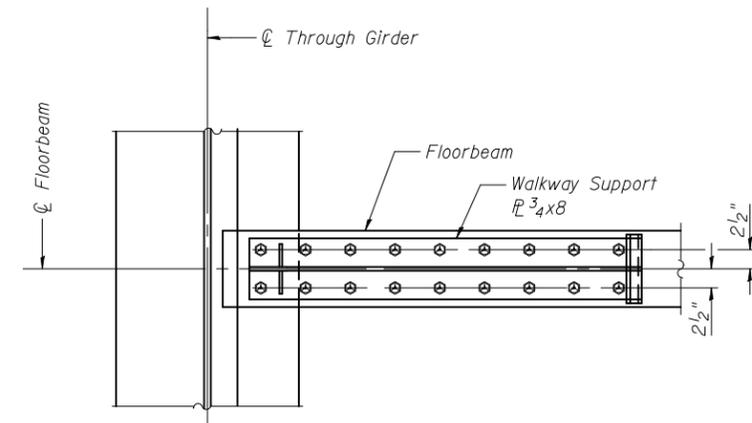
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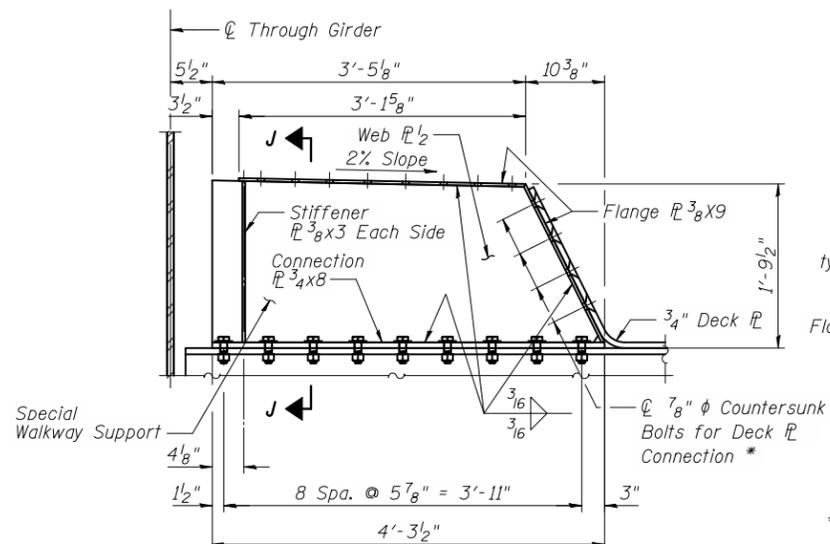
WALKWAY PLATE AT SPECIAL SUPPORT



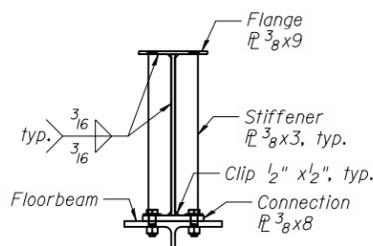
WALKWAY PLATE AT AT END SUPPORT - EXTERIOR GIRDER



SECTION H-H

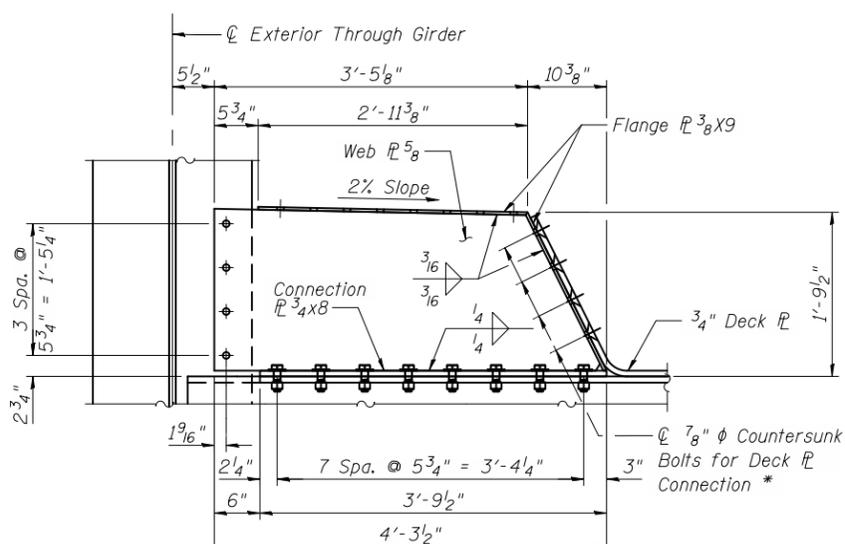


SPECIAL WALKWAY SUPPORT

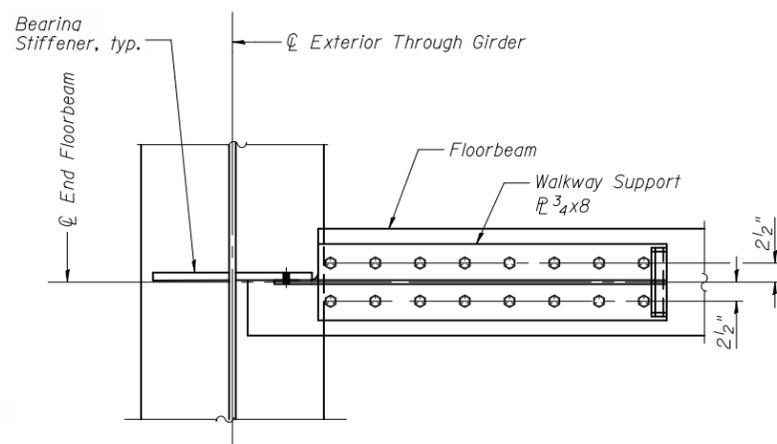


SECTION J-J

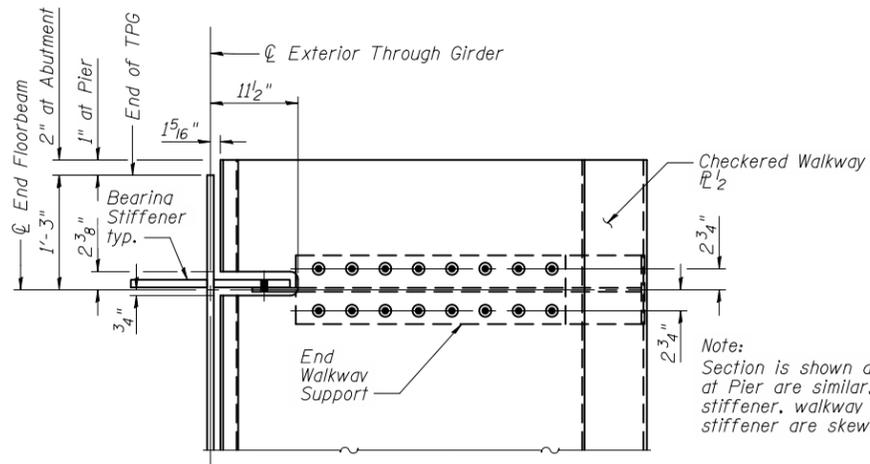
* See Deck Plate Details Sheet for Deck PL Connection Dimensions.



END WALKWAY SUPPORT - EXTERIOR GIRDER

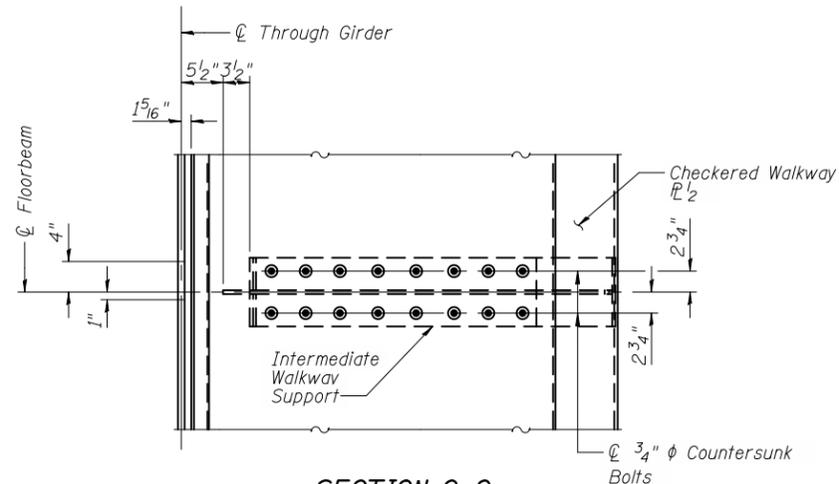


SECTION M-M



SECTION L-L

Note: Section is shown at abutment. Walkway and support at Pier are similar, except that the support, bearing stiffener, walkway plate and walkway cutout at the stiffener are skewed.



SECTION G-G

cc:\pwworking\oma\0463409\0220226-60842-018-TYP.DGN
jmlgus
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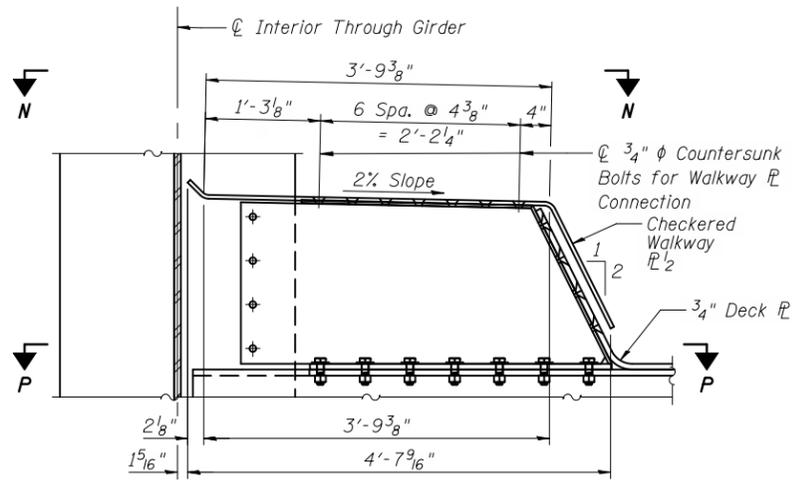
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

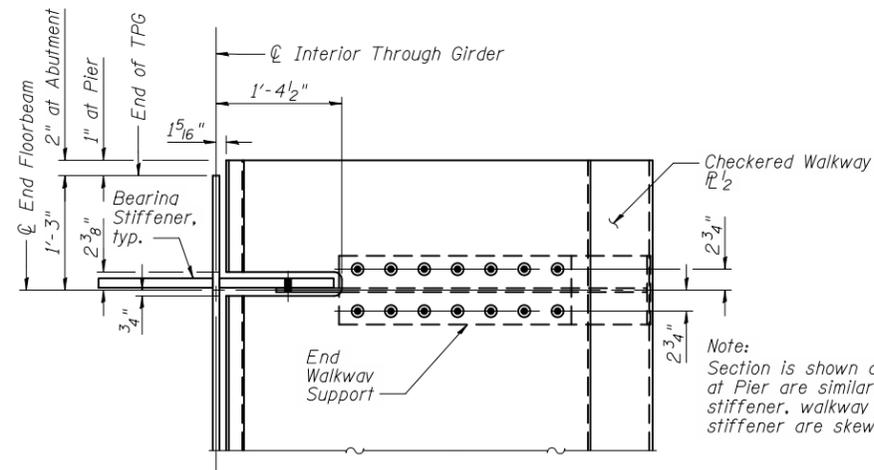
**CHECKERED WALKWAY AND WALKWAY SUPPORT DETAILS 1
STRUCTURE NO. 022-0226**

SHEET NO. 18 OF 43 SHEETS

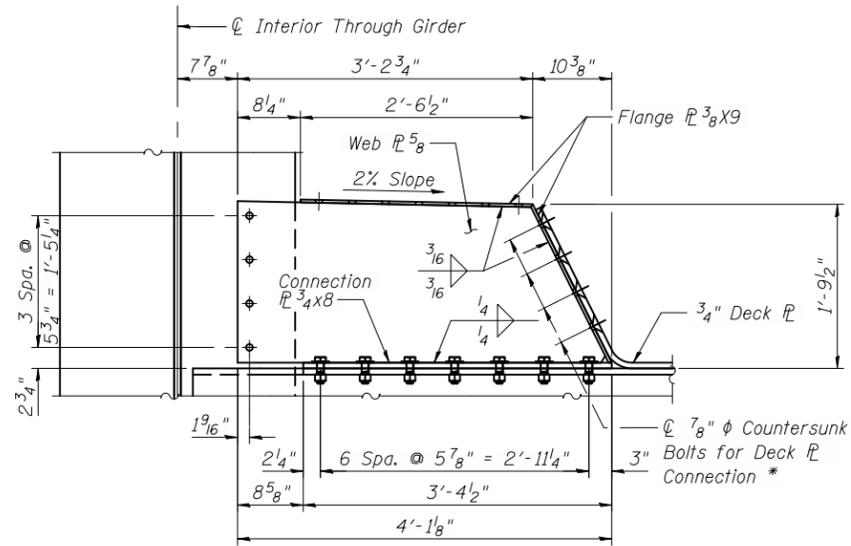
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DU PAGE	388	159
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				



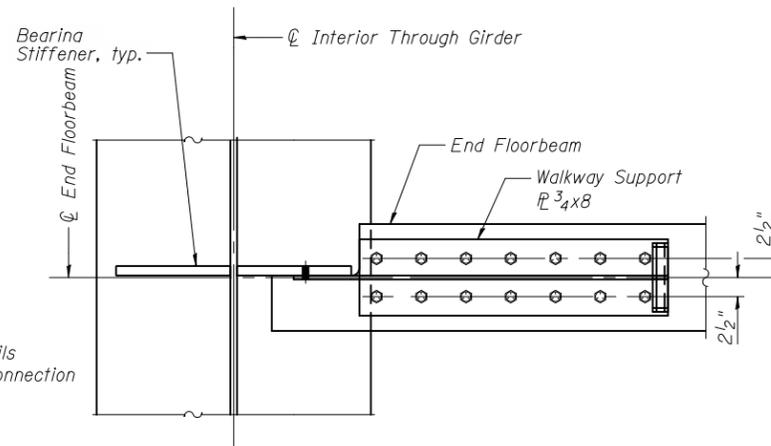
WALKWAY PLATE AT END SUPPORT - INTERIOR GIRDER



SECTION N-N



END WALKWAY SUPPORT - INTERIOR GIRDER



SECTION P-P

* See Deck Plate Details Sheet for Deck Plate Connection Dimensions.

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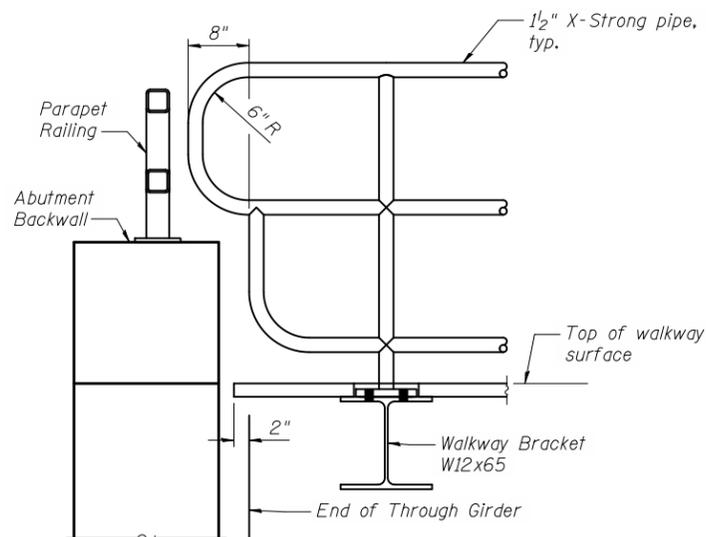
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CHECKERED WALKWAY AND WALKWAY SUPPORT DETAILS 2
STRUCTURE NO. 022-0226**

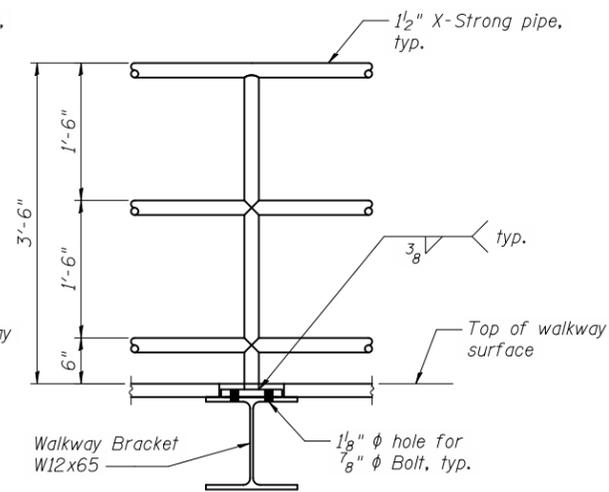
SHEET NO. 19 OF 43 SHEETS

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1321	32VB	DU PAGE	388	160
CONTRACT NO. 60W01				

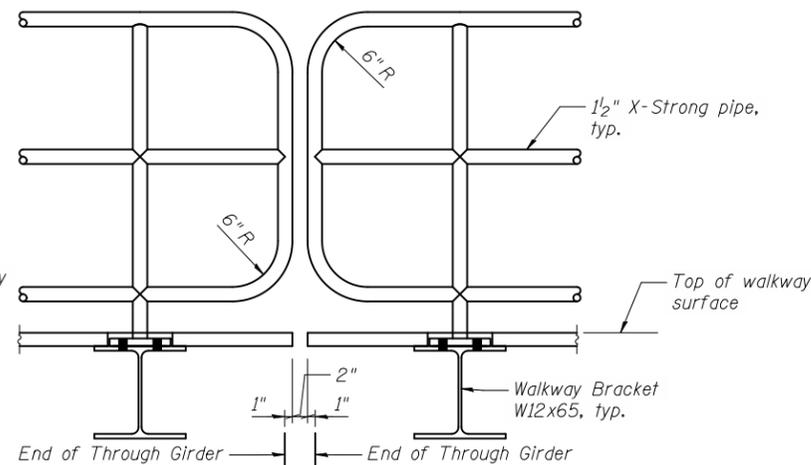
ILLINOIS FED. AID PROJECT



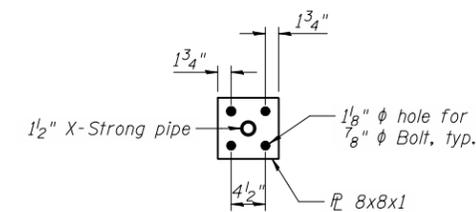
HANDRAIL ELEVATION AT ABUTMENT



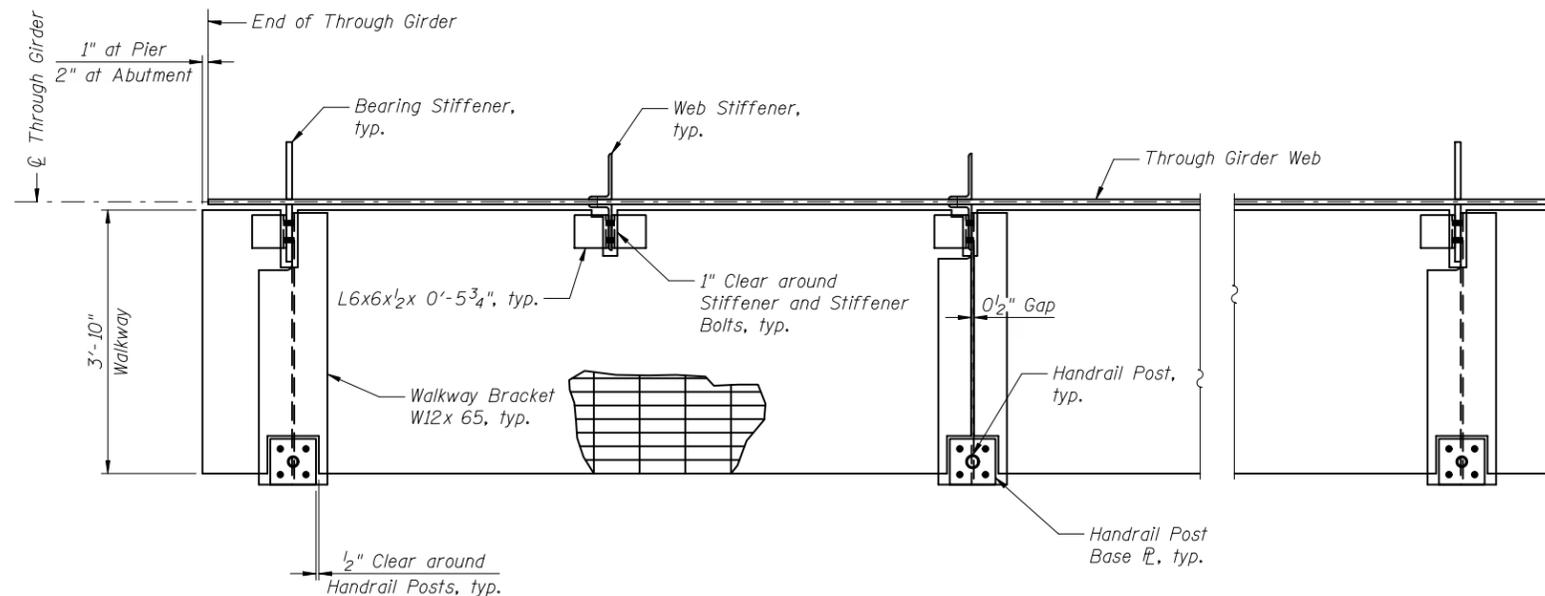
TYPICAL HANDRAIL POST DETAIL



HANDRAIL ELEVATION AT PIER



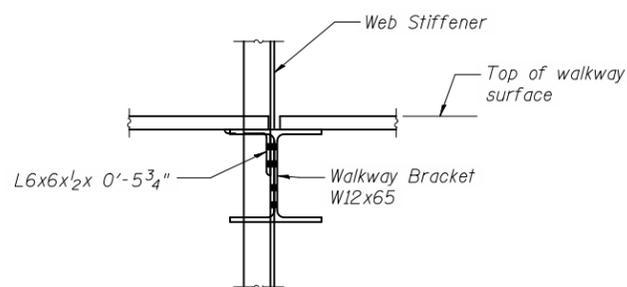
HANDRAIL POST BASE PLATE



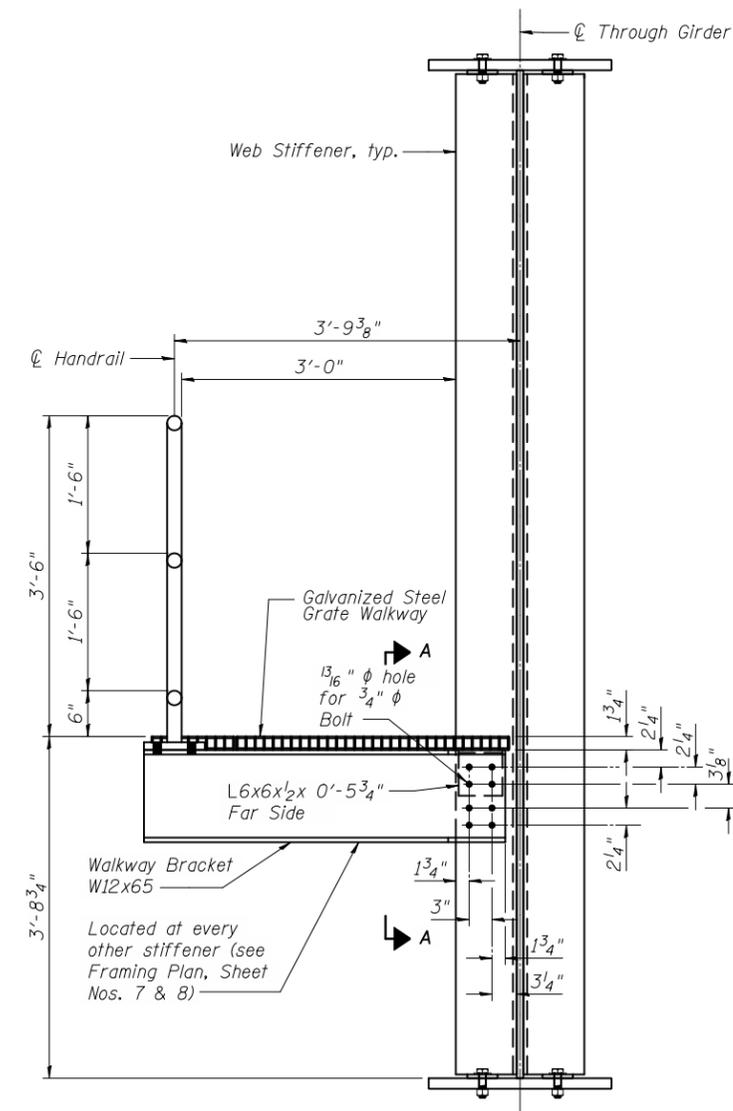
EXTERIOR WALKWAY TYPICAL PLAN

Note: Floor Beams not shown for clarity.

- Notes:
1. Vent holes shall be provided as required by Standard Specification Article 509.
 2. Handrail assembly shall be galvanized after fabrication.



SECTION A-A



EXTERIOR WALKWAY SECTION

11/2/2012 11:24:45 AM c:\pwworking\oma\0463409\0220226-60842-020-HDT.DGN jmgus



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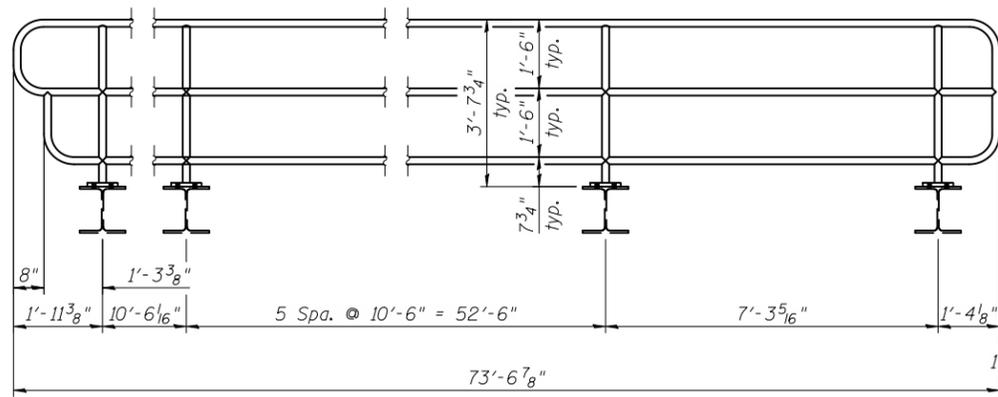
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EXTERIOR WALKWAY AND HANDRAIL DETAILS
STRUCTURE NO. 022-0226**

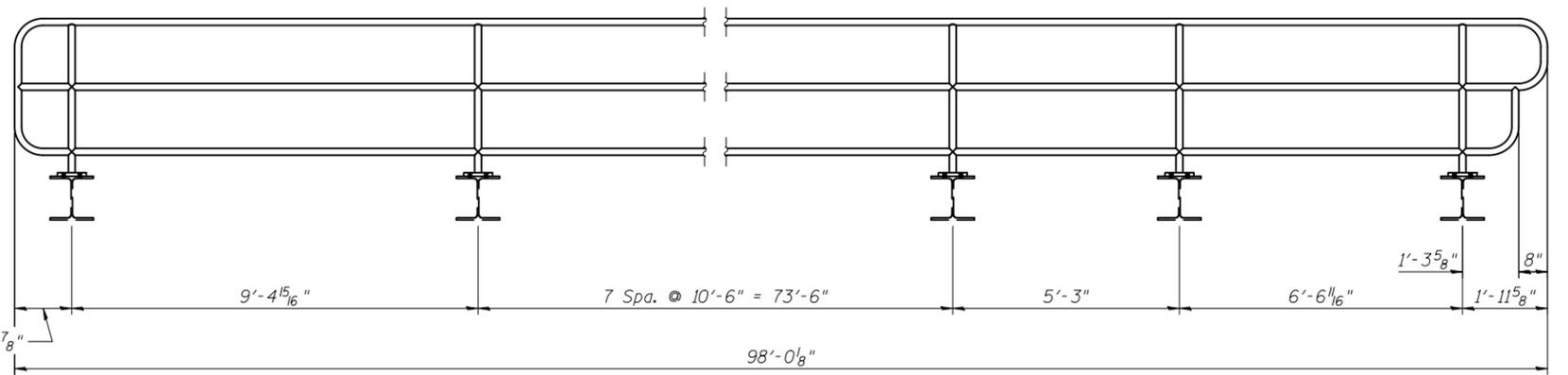
SHEET NO. 20 OF 43 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60W01				

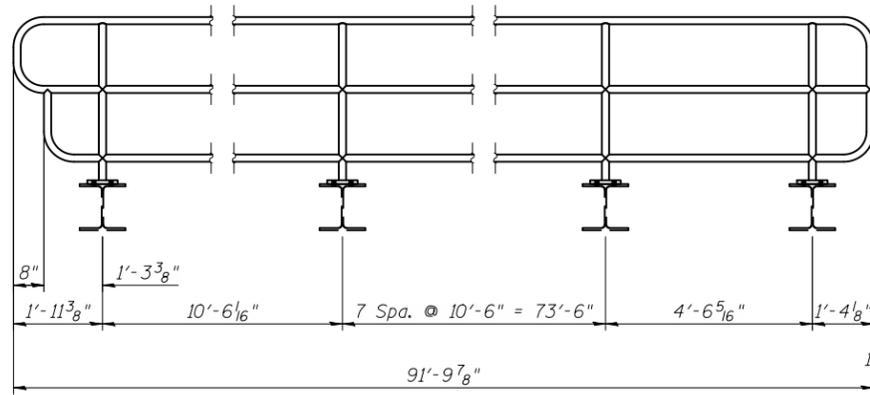
ILLINOIS FED. AID PROJECT



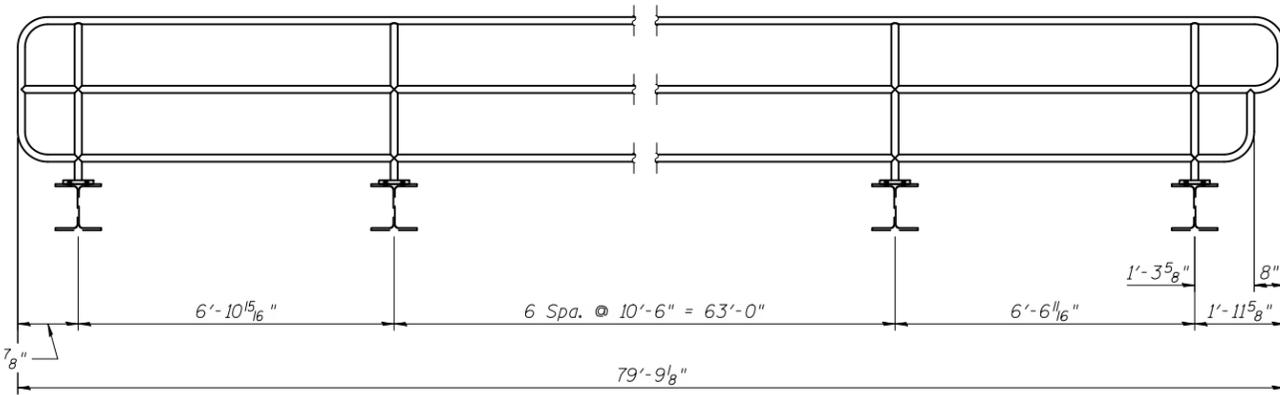
HANDRAIL ELEVATION - SPAN 1 EAST SIDE



HANDRAIL ELEVATION - SPAN 2 EAST SIDE



HANDRAIL ELEVATION - SPAN 2 WEST SIDE



HANDRAIL ELEVATION - SPAN 1 WEST SIDE

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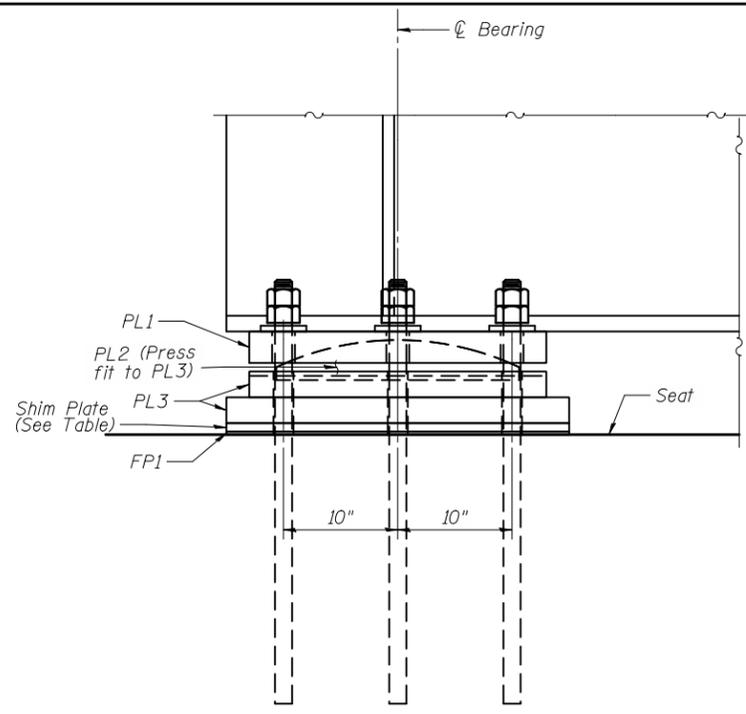
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

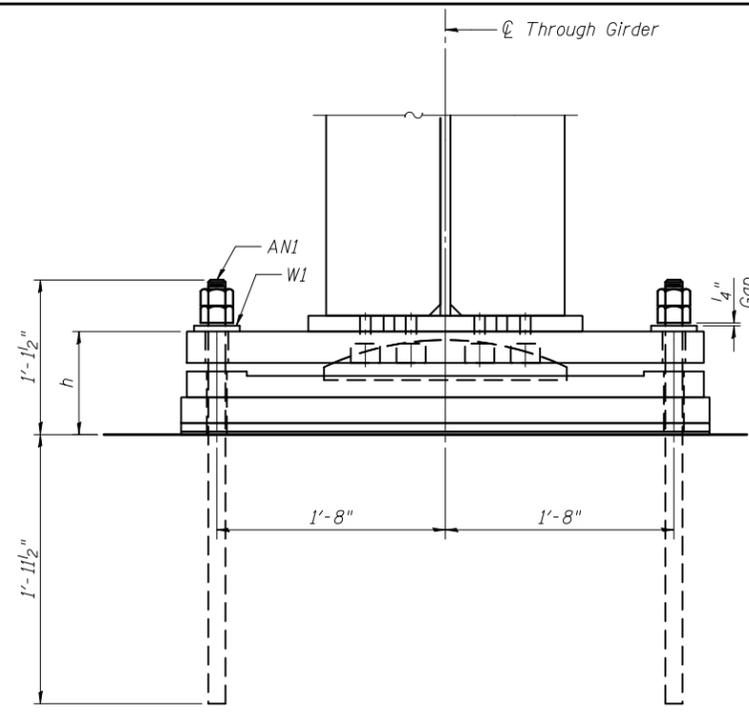
HANDRAIL ELEVATIONS
 STRUCTURE NO. 022-0226

SHEET NO. 21 OF 43 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS FED. AID PROJECT				

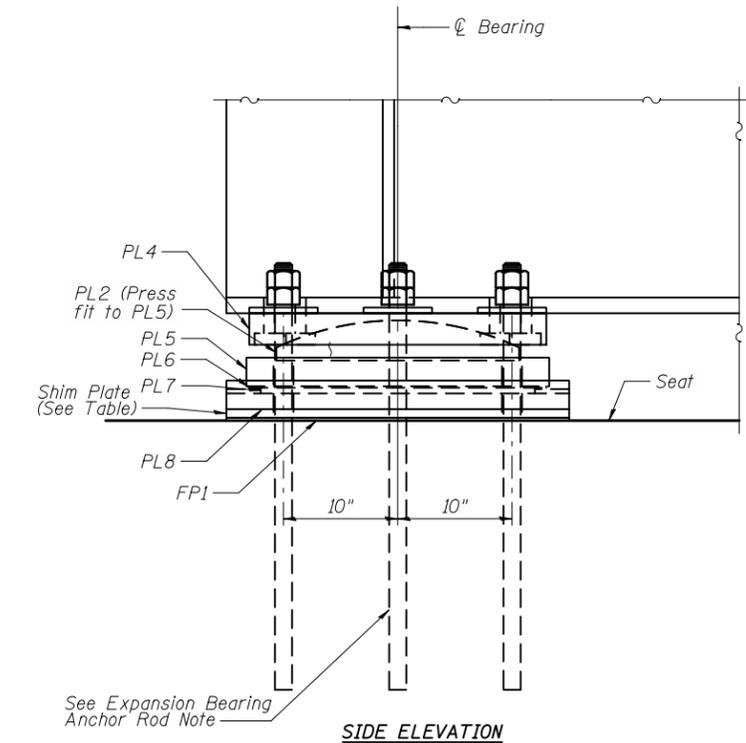


SIDE ELEVATION

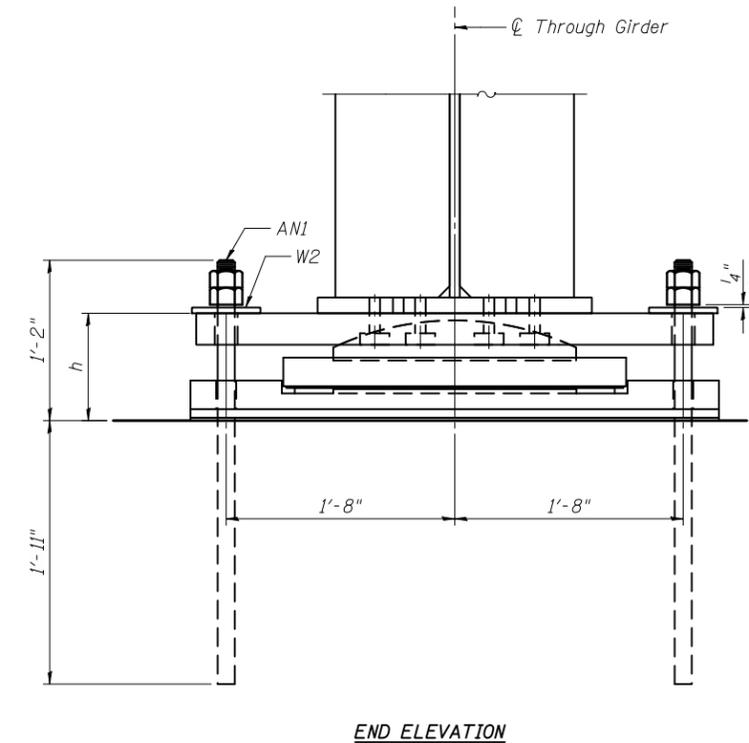


END ELEVATION

FIXED BEARING



SIDE ELEVATION

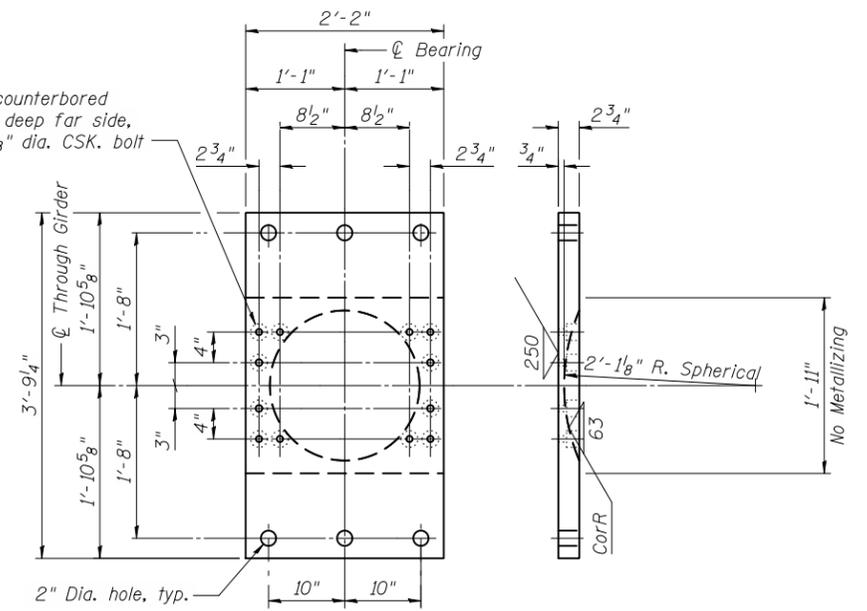


END ELEVATION

EXPANSION BEARING

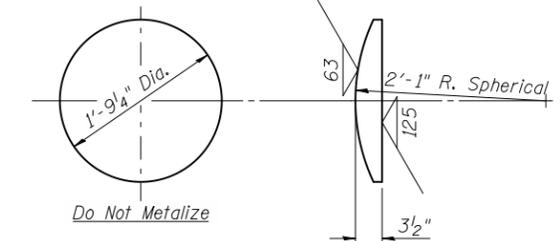
Expansion Bearing Anchor Rod Note:
Four anchor rods shall be installed at each Expansion Bearing. See Pier Plan for location of rods.

15/16" Dia. holes counterbored
2 3/16" dia. x 1/16" deep far side,
12 places for 7/8" dia. CSK. bolt



SHOE PLATE PL1

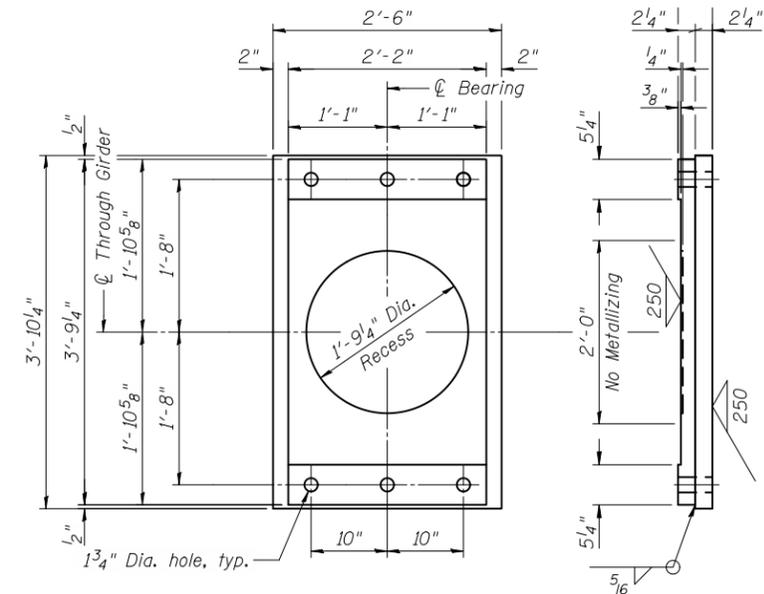
2'-2" x 2 3/4" x 3'-9 1/4"
3 Required per span



Do Not Metalize

DISC PLATE PL2

1'-9 1/4" Dia. x 3/2"
6 Required per span
Press fit to PL3 and PL5



BED PLATE PL3

2'-2" x 2 1/4" x 3'-9 1/4" &
2'-6" x 2 1/4" x 3'-10 1/4"
3 Required per span

*See next sheet for Bearing Notes.

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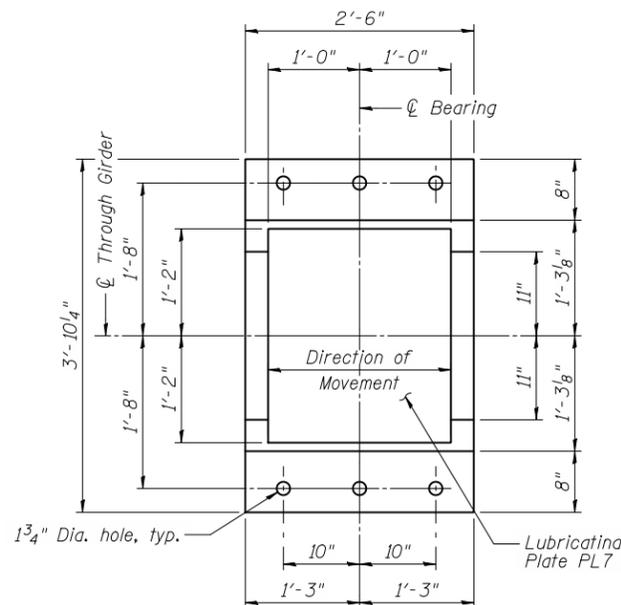
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS 1
STRUCTURE NO. 022-0226

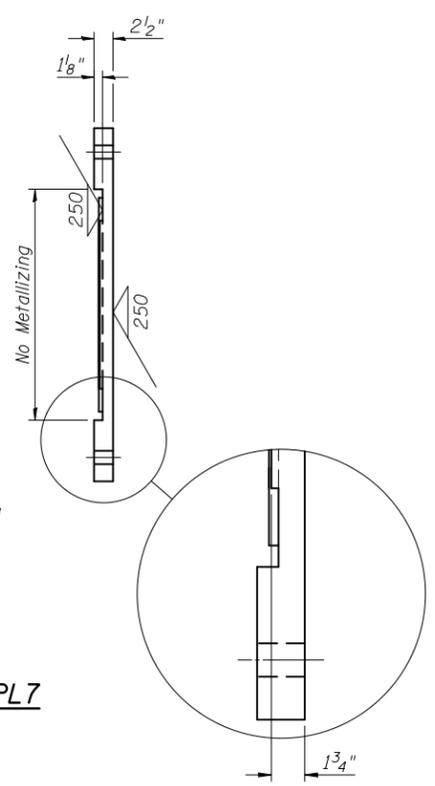
SHEET NO. 22 OF 43 SHEETS

F.A.U. RTE. 1321	SECTION 32VB	COUNTY DU PAGE	TOTAL SHEETS 388	SHEET NO. 163
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				



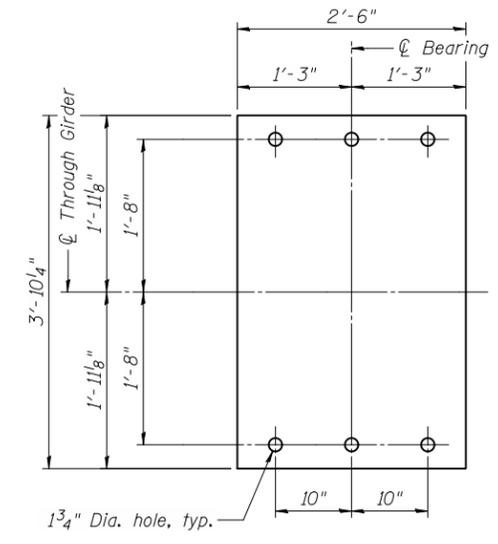
BED PLATE PL8
 2'-6" x 2 1/2" x 3'-10 1/4"
 3 Required per span

LUBRICATING PLATE PL7
 2'-0" x 1/2" x 2'-4"
 3 Required per span



BED PLATE PL5
 2'-2 1/2" x 2 1/2" x 2'-6"
 3 Required per span

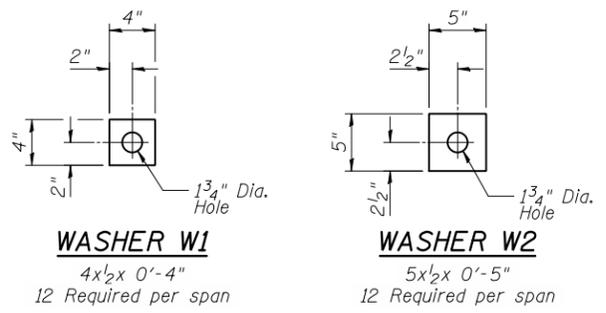
SLIDE PLATE PL6
 2'-2" x 1/8" x 2'-5 1/2"
 3 Required per span
 Attached to Bed Plate PL5
 per manufacturer's recommendations.



BEARING PAD FP1
 2'-6" x 1/4" x 3'-10 1/4"
 6 Required per span

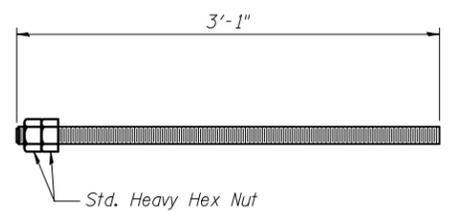
BEARING INFORMATION								
Girder Location	Span 1				Span 2			
	South Abutment		Pier		Pier		North Abutment	
	Bearing Height "h"	Shim Plate Thickness						
East	8 7/8"	1/2"	10"	1 1/4"	9 3/4"	1"	9 1/4"	7/8"
Center	8 3/8"	No Shim	9 3/8"	5/8"	8 3/4"	No Shim	8 3/8"	No Shim
West	8 7/8"	1/2"	9 3/8"	7/8"	9 1/2"	3/4"	9 1/4"	7/8"

- BEARING NOTES:**
- Surface Texture Symbols:** Symbols shown are in accordance with American National Standards Institute Standard Y14.36-1978 and the roughness average is shown in microinches.
 - Shipping:** Components shall be pre-assembled in shop to ensure proper fit. Match-marked and crated for shipment. Countersunk bolts to be shipped loose.
 - Lubricating Plates:** To be "Lubrite" self-lubricating bronze expansion bearing plates with trepanned recesses on one side only as manufactured by "Merriman" division of Litton Industrial Products or approved equivalent. Plates to be in accordance with ASTM Specification B22-82 alloy UNS No. C91100.
 - Slide Plates:** To be ASTM A167 or A240, type 304 stainless steel. Attach to bed plate per manufacturer's recommendations.
 - Shim Plates:** To match plan geometry of Bearing Pads FP1. Thickness per Bearing Information Table.
 - Metallizing:** Except for areas shown, all surfaces of all bearing plates, except lubricating plates and slider plates, are to be metallized. See note on Sheet No. 2.
 - Galvanizing:** Material where noted to be galvanized in accordance with the ASTM Specification A123, latest edition. Min. 2 ozs./sq.ft.
 - Bearings Pads:** To be 1/4" thick structural bearing pads as manufactured by "Sorbtex" or "Fabreka".
 - General Notes:** Refer to Sheet No. 2.
 - Cost:** The bearing assemblies are included in the cost of Furnishing and Erecting Structural Steel.



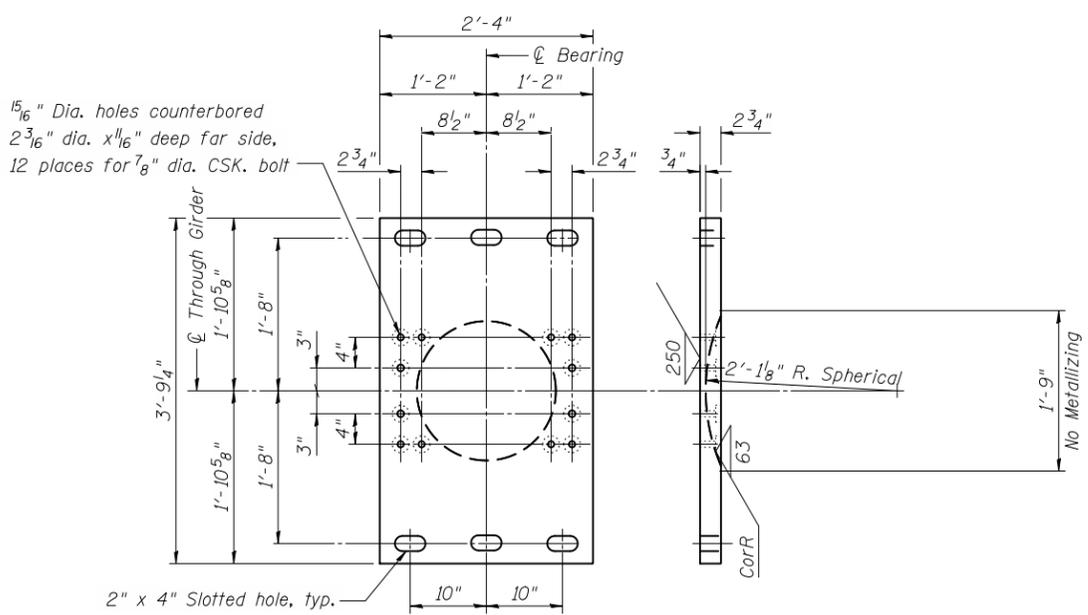
WASHER W1
 4x2x0'-4"
 12 Required per span

WASHER W2
 5x2x0'-5"
 12 Required per span



Note:
 Nuts to turn freely after galvanizing.

ANCHOR ROD AN1
 1 1/2" φ x 3'-1" (Galvanized)
 30 Required per span



SHOE PLATE PL4
 2'-4" x 2 3/4" x 3'-9 1/4"
 3 Required per span

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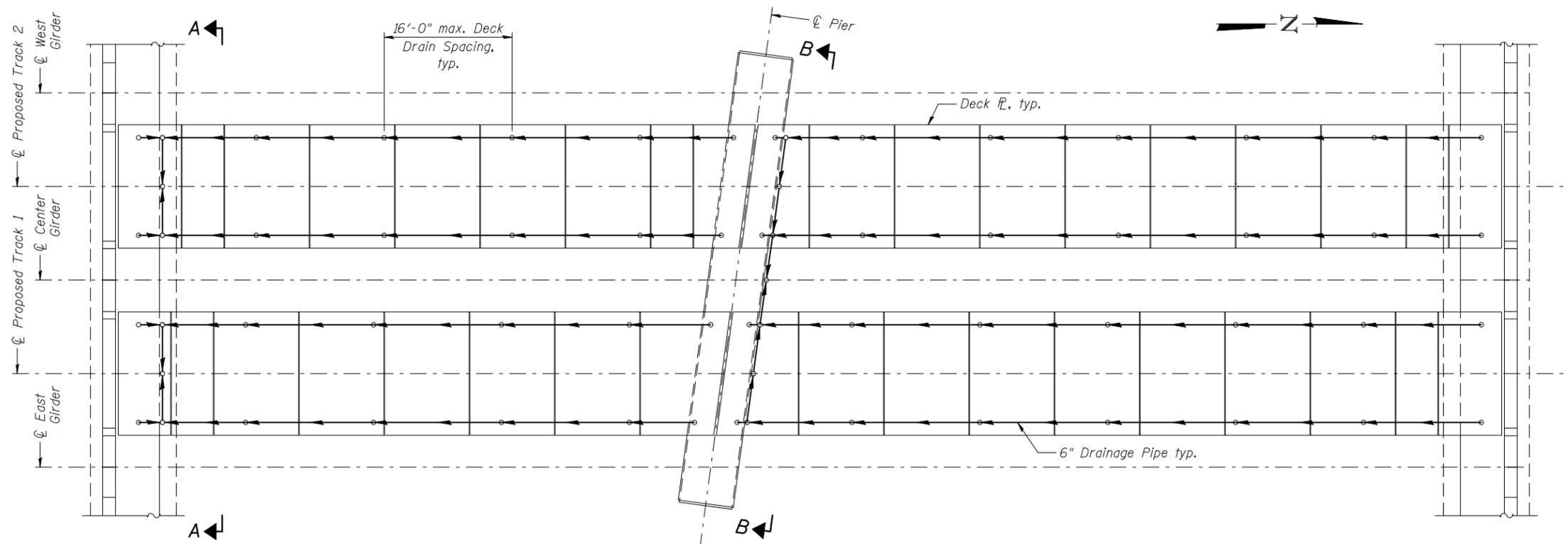
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BEARING DETAILS 2
 STRUCTURE NO. 022-0226

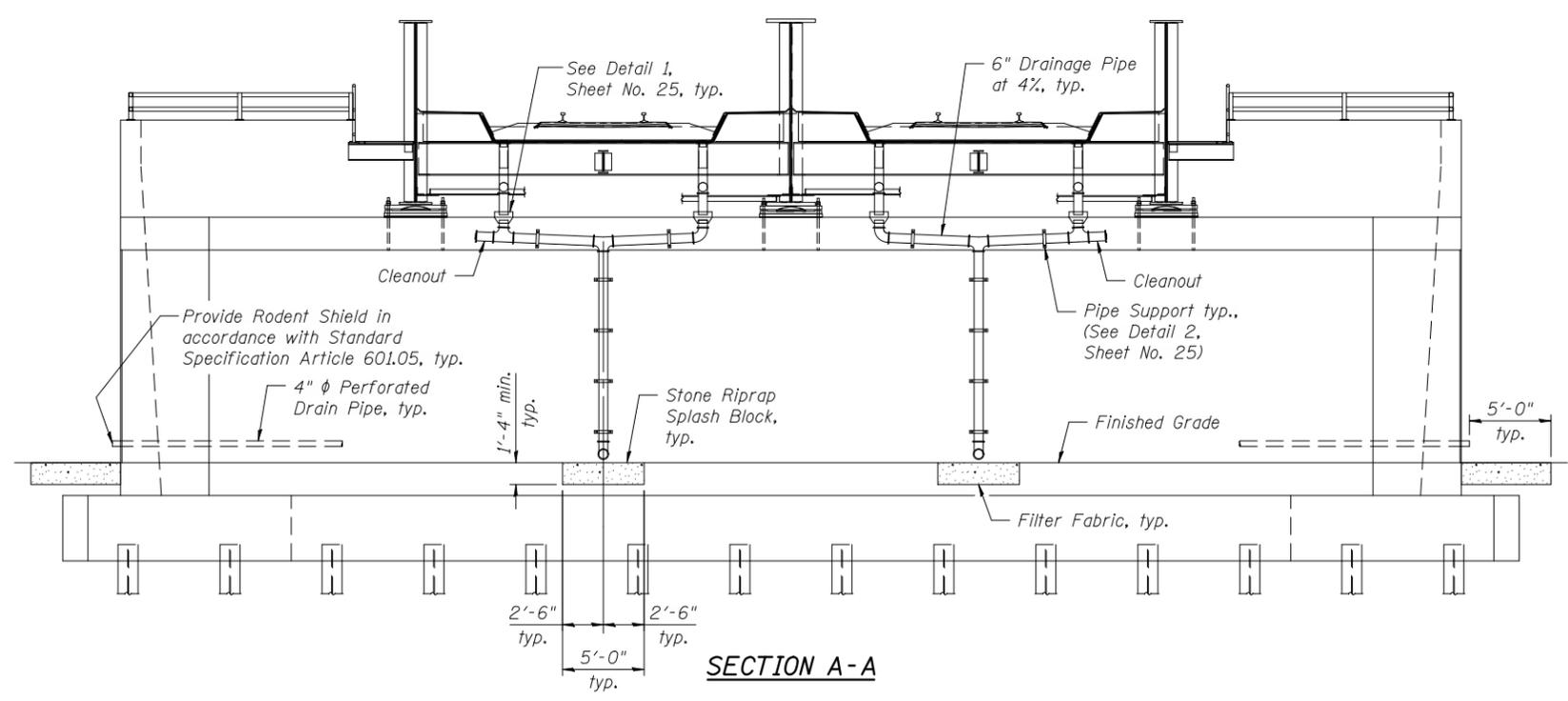
SHEET NO. 23 OF 43 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DU PAGE	388	164
CONTRACT NO. 60W01				

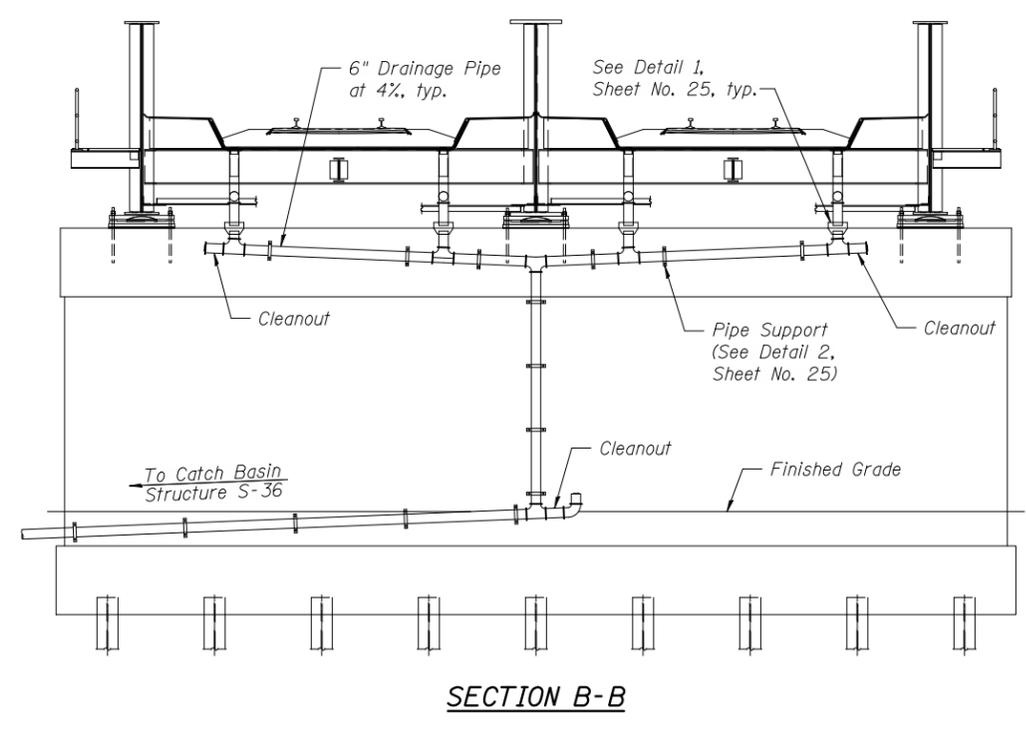
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DECK DRAINAGE PLAN



SECTION A-A



SECTION B-B

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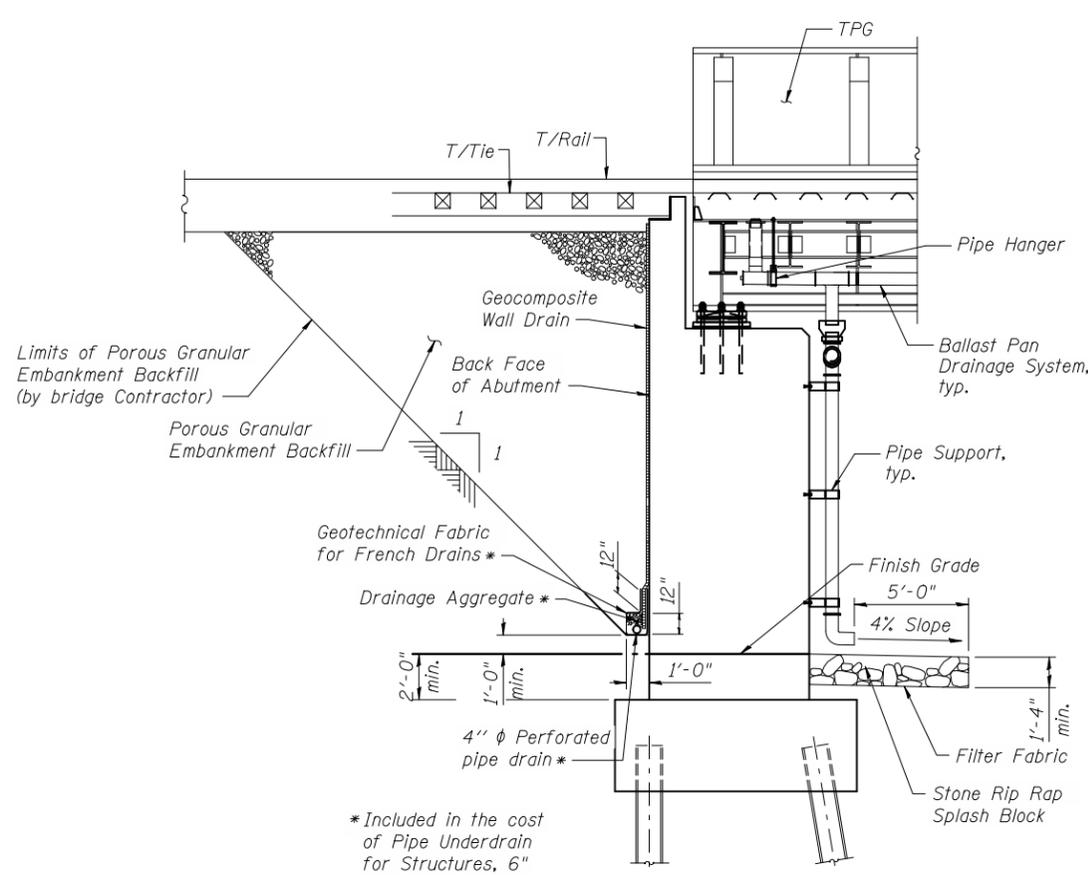
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

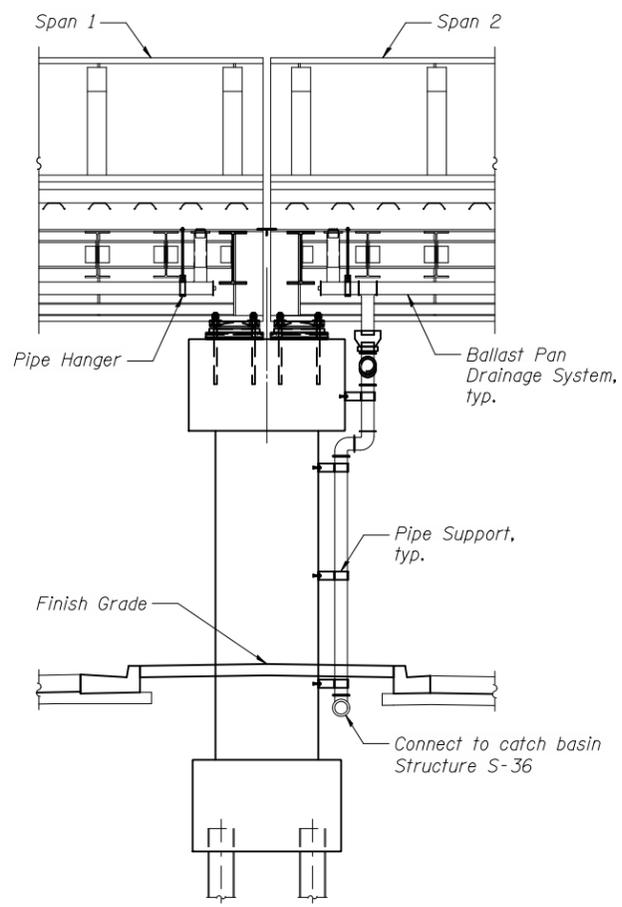
DECK DRAINAGE SYSTEM
STRUCTURE NO. 022-0226
SHEET NO. 24 OF 43 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60W01				
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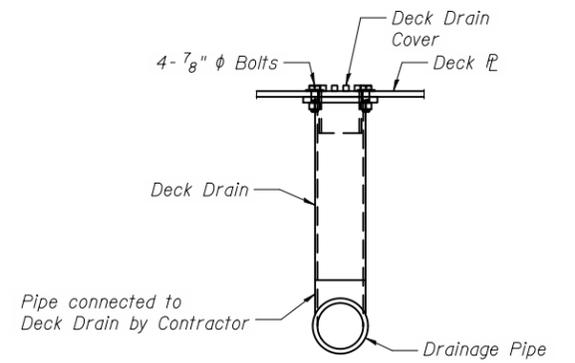
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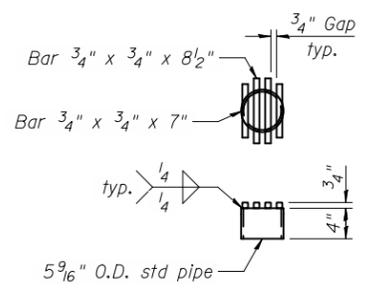
DRAINAGE AT SOUTH ABUTMENT



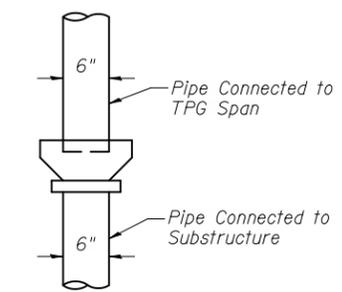
DRAINAGE AT PIER



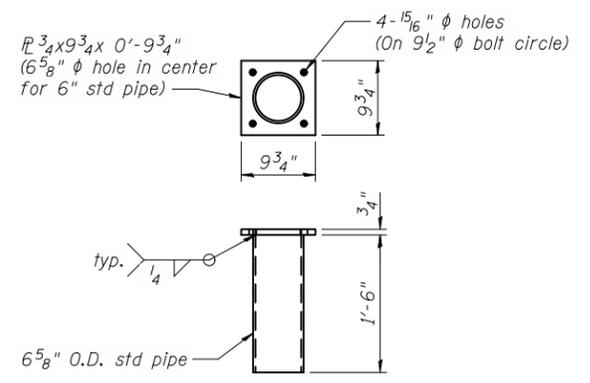
DECK DRAIN CONNECTION DETAIL



DECK DRAIN COVER DETAIL



DETAIL 1



DECK DRAIN DETAIL



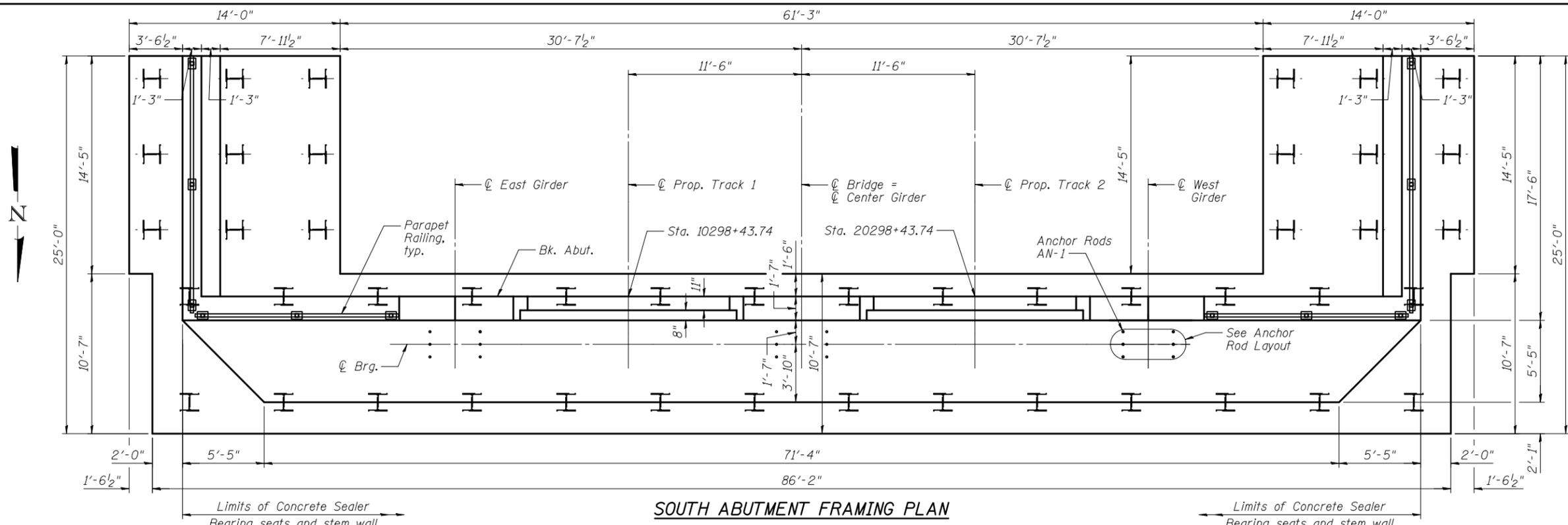
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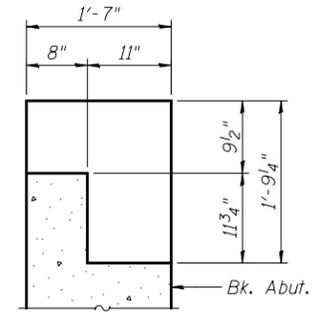
**DRAINAGE DETAILS
 STRUCTURE NO. 022-0226**

SHEET NO. 25 OF 43 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				

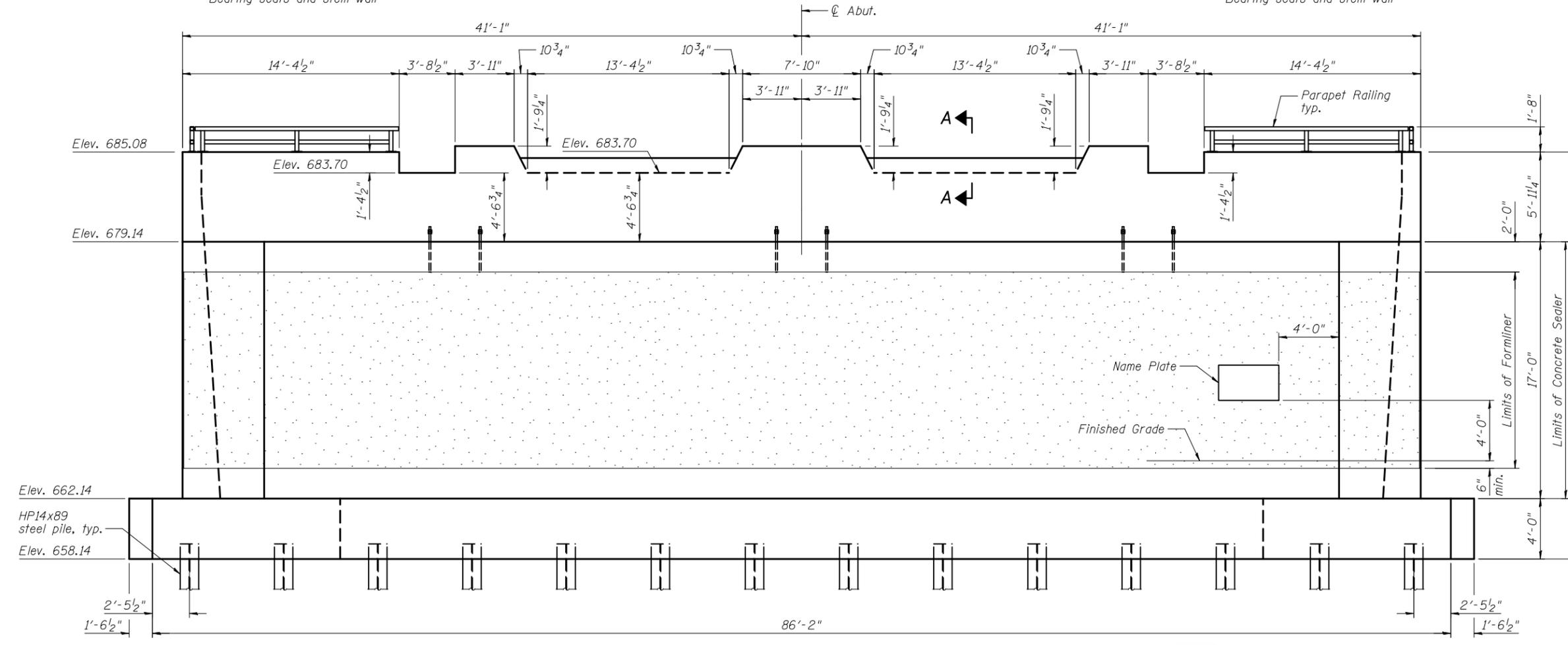


SOUTH ABUTMENT FRAMING PLAN

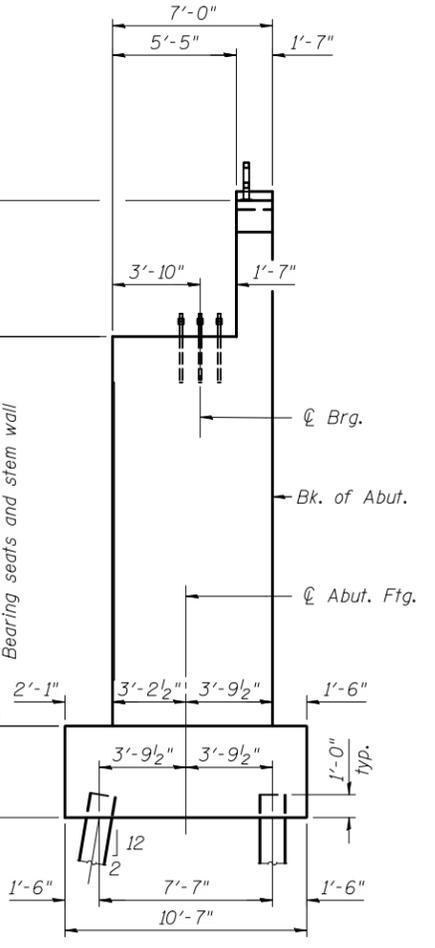


SECTION A-A

Note:
Form Liner Textured Surface shall be ashlar stone pattern with 1" maximum relief.



SOUTH ABUTMENT FRAMING ELEVATION



SECTION THRU ABUTMENT

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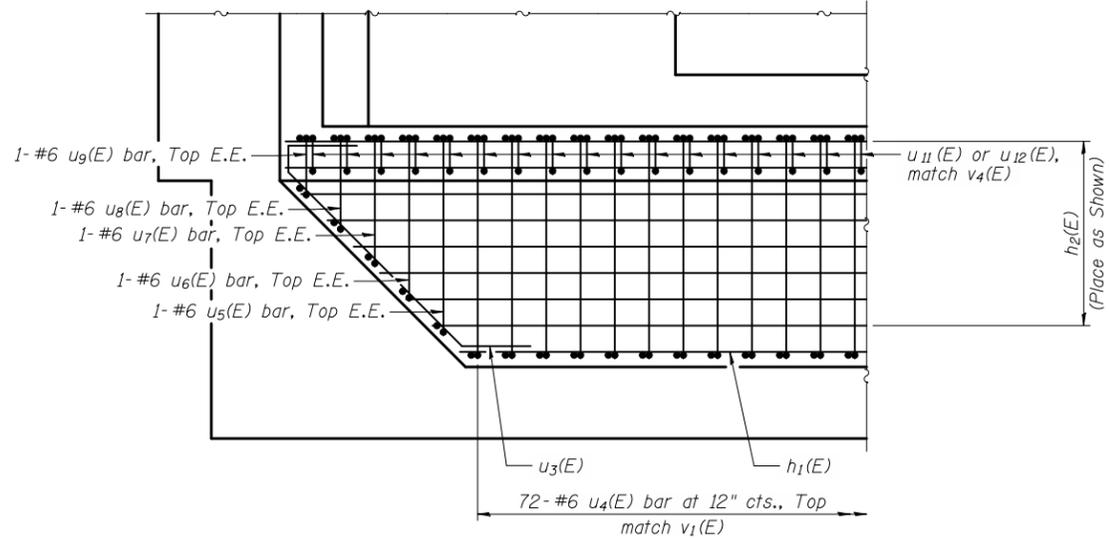
**STATE OF ILLINOIS
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**SOUTH ABUTMENT PLAN AND ELEVATION
STRUCTURE NO. 022-0226**

SHEET NO. 26 OF 43 SHEETS

F.A.U. R.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DU PAGE	388	167
CONTRACT NO. 60W01				

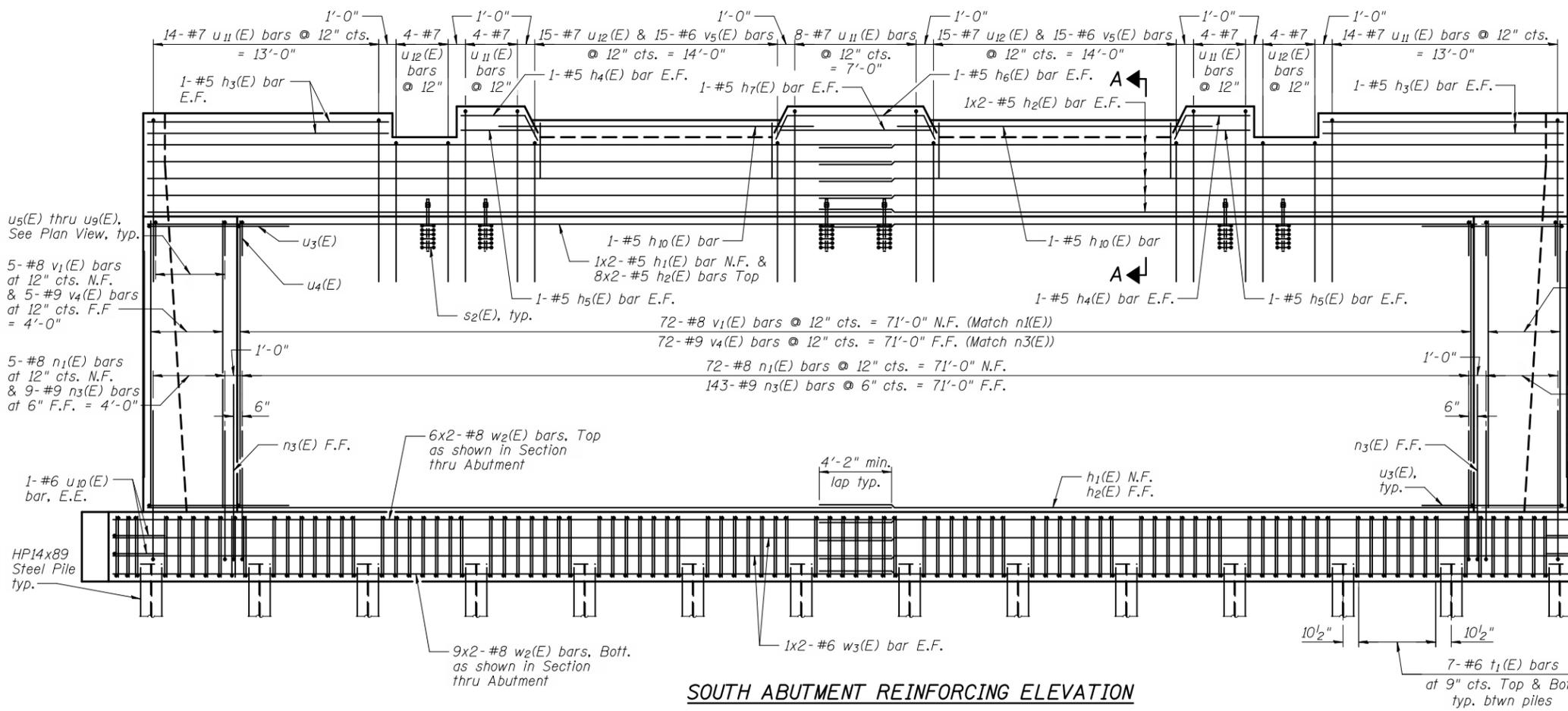
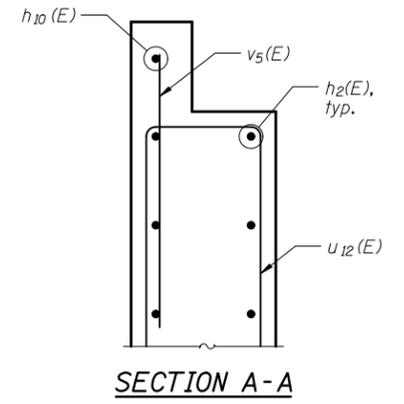
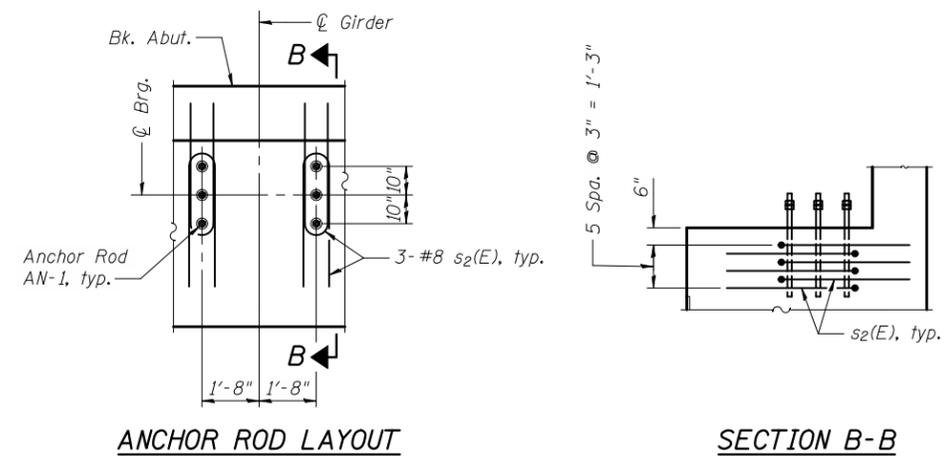
ILLINOIS FED. AID PROJECT



TYPICAL ABUTMENT STEM AND BACKWALL REINFORCING PLAN

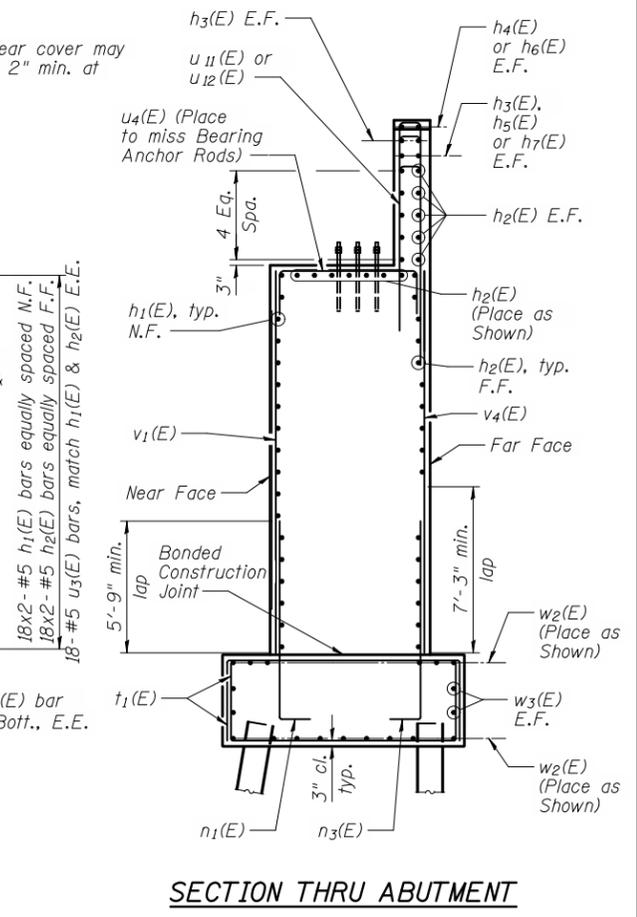
Footing, wingwall and horizontal backwall reinforcing not shown for clarity

Note:
 N.F. = Near Face
 F.F. = Far Face
 E.F. = Each Face
 E.E. = Each End



SOUTH ABUTMENT REINFORCING ELEVATION

Note:
 Reinforcing clear cover may be reduced to 2\"/>



SECTION THRU ABUTMENT

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 DEPARTMENT OF TRANSPORTATION**

**SOUTH ABUTMENT REINFORCING DETAILS
 STRUCTURE NO. 022-0226**

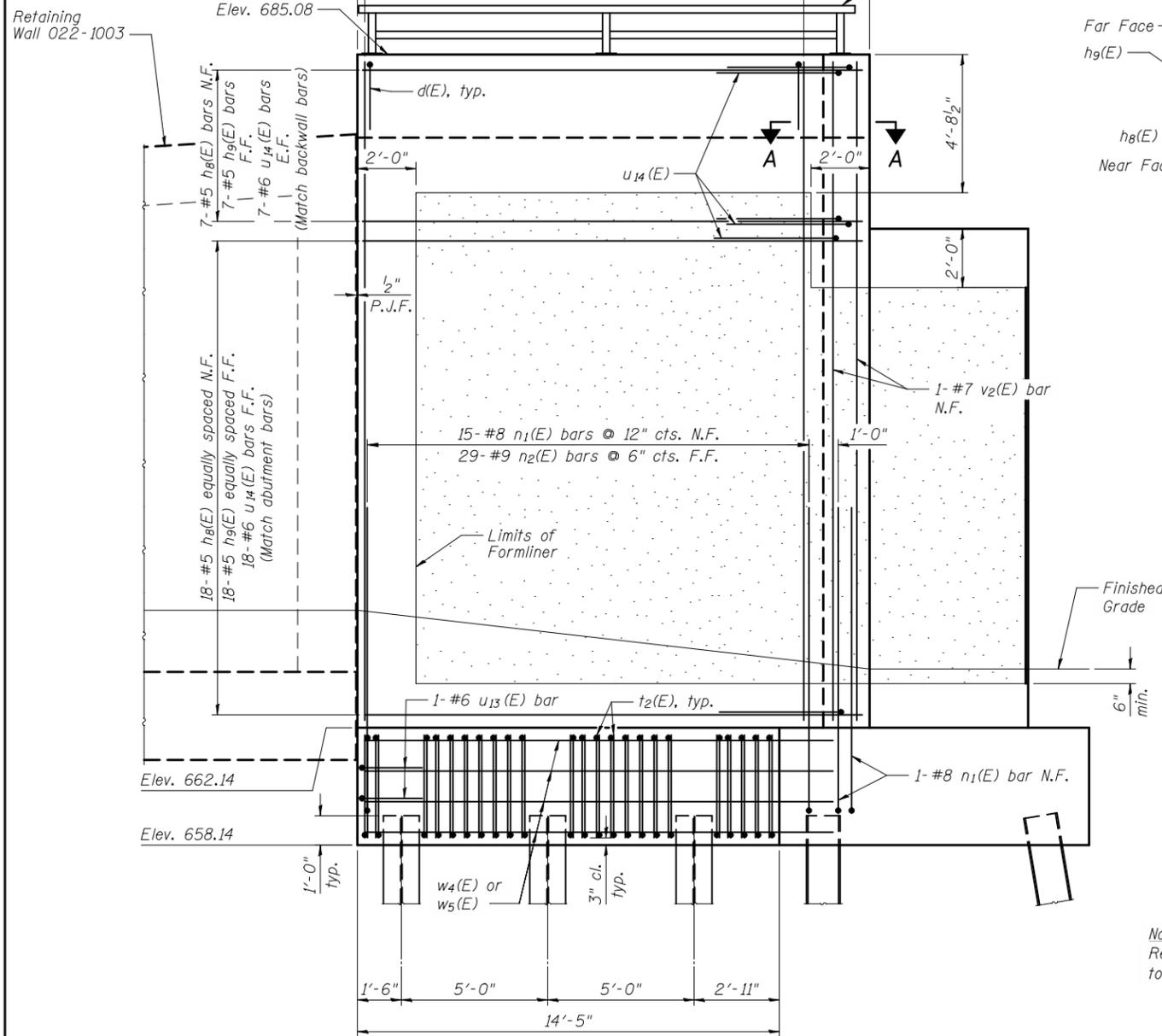
F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DU PAGE	388	168
CONTRACT NO. 60W01				

SHEET NO. 27 OF 43 SHEETS

ILLINOIS FED. AID PROJECT

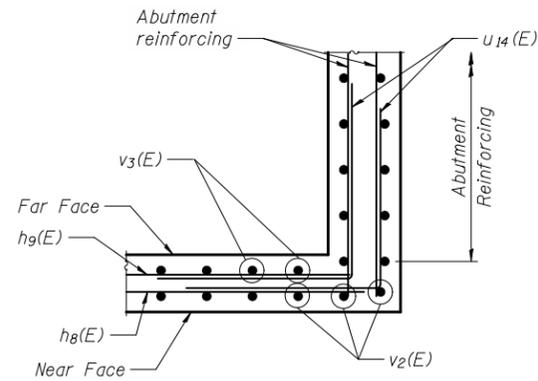
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jmgus

11/2/2012
11:25:32 AM



SOUTH ABUTMENT EAST WINGWALL ELEVATION

Abutment footing, stem and backwall reinforcing not shown for clarity

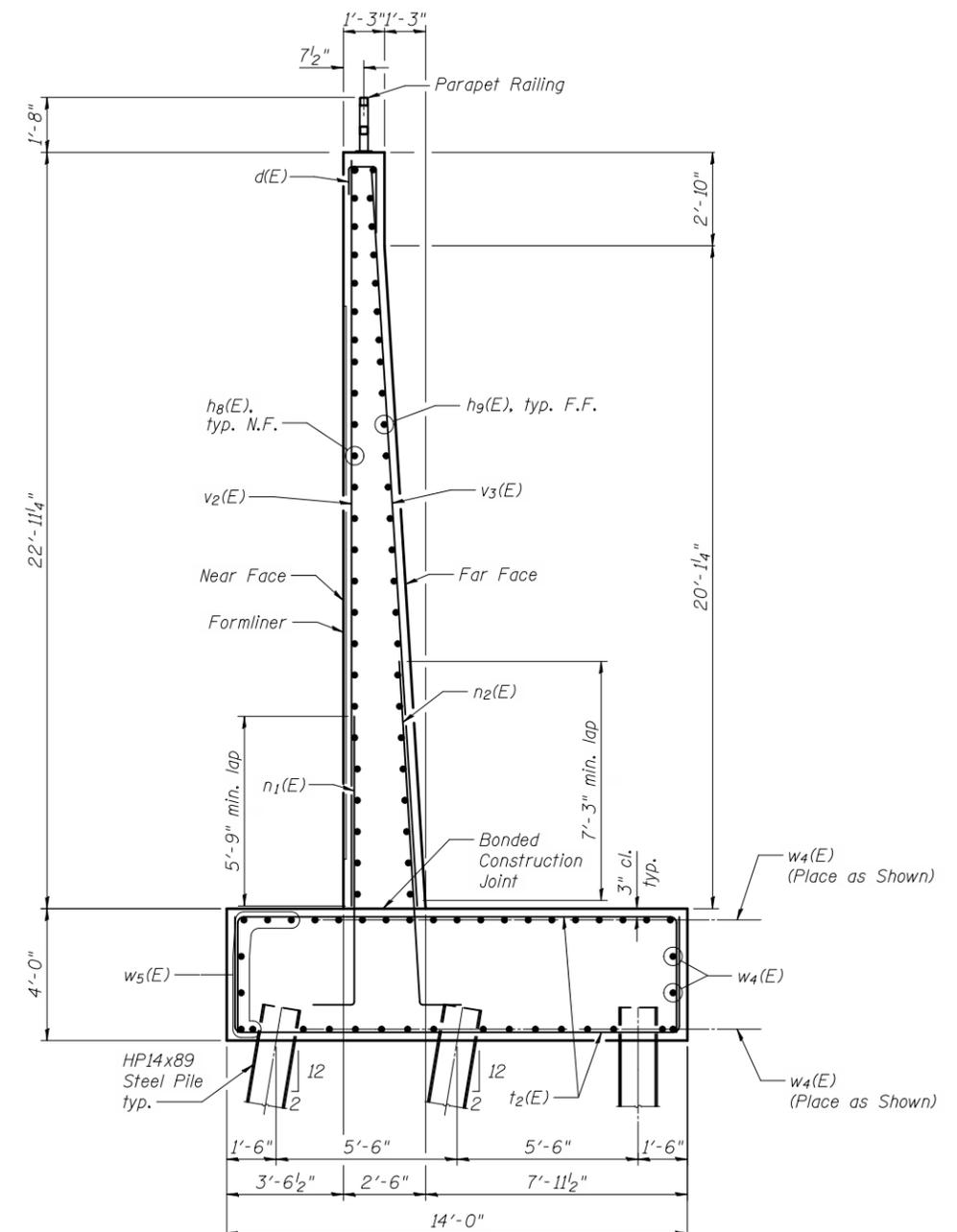


SECTION A-A

d(E) bars not shown

Note:
N.F. = Near Face
F.F. = Far Face

Note:
Reinforcing clear cover may be reduced to 2" min. at formliner.



SOUTH ABUTMENT EAST WINGWALL SECTION



USER NAME = jmgus
FILE NAME = 0220226-60842-028-ABD.DGN
PLOT SCALE = NONE
PLOT DATE = 11/2/2012

DESIGNED - AMM
CHECKED - LAG
DRAWN - RMA
CHECKED - AMM

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT EAST WINGWALLS DETAILS
STRUCTURE NO. 022-0226

SHEET NO. 28 OF 43 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DU PAGE	388	169
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				

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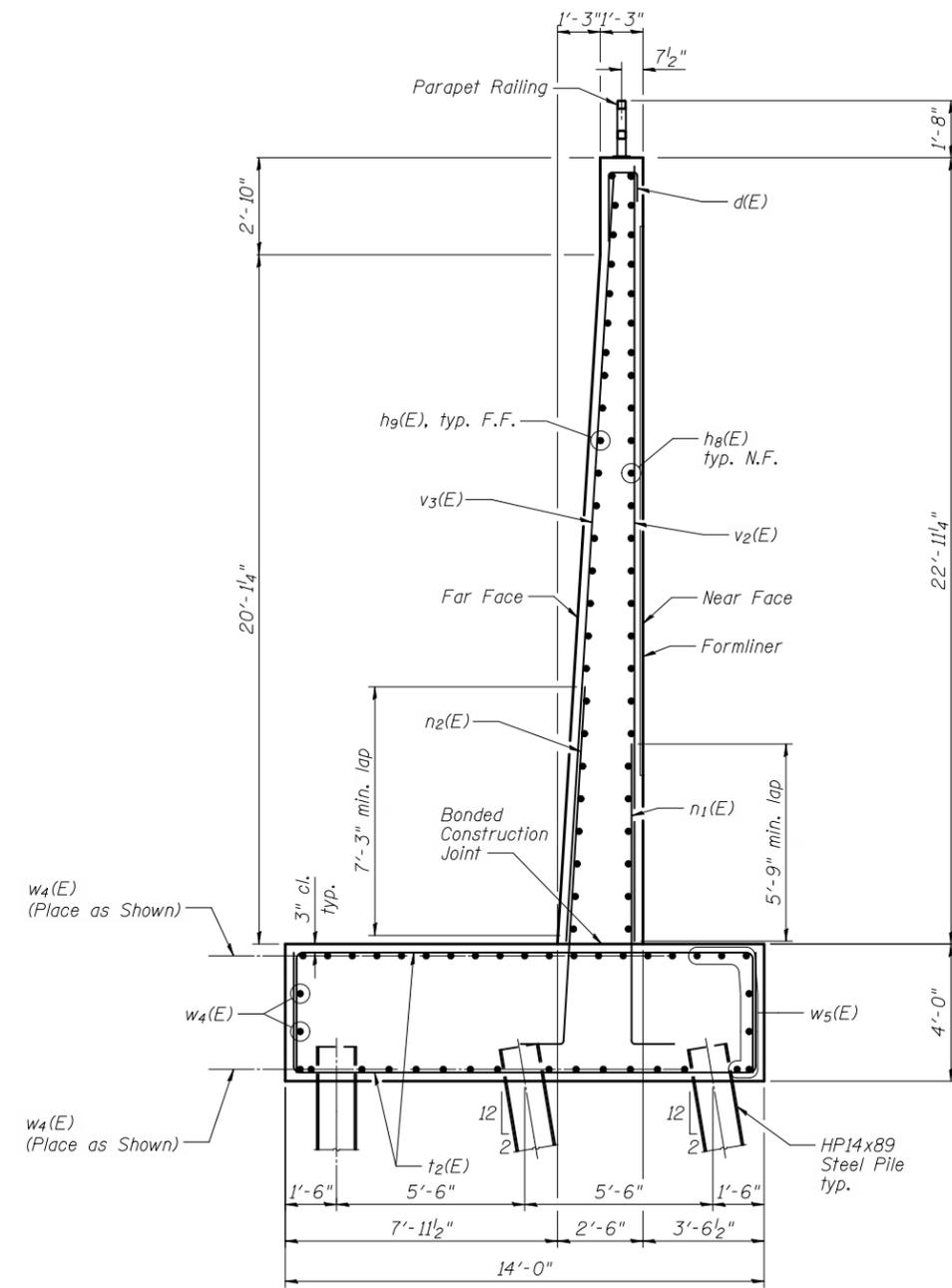
REVISED -
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 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT WEST WINGWALLS DETAILS
 STRUCTURE NO. 022-0226

SHEET NO. 29 OF 43 SHEETS

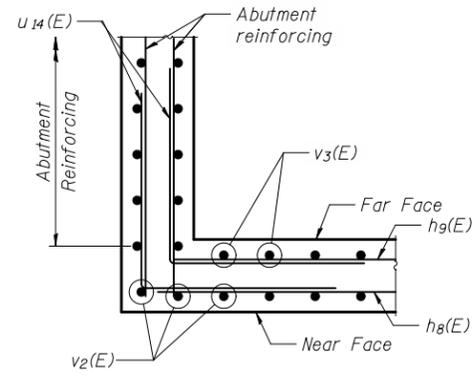
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CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				



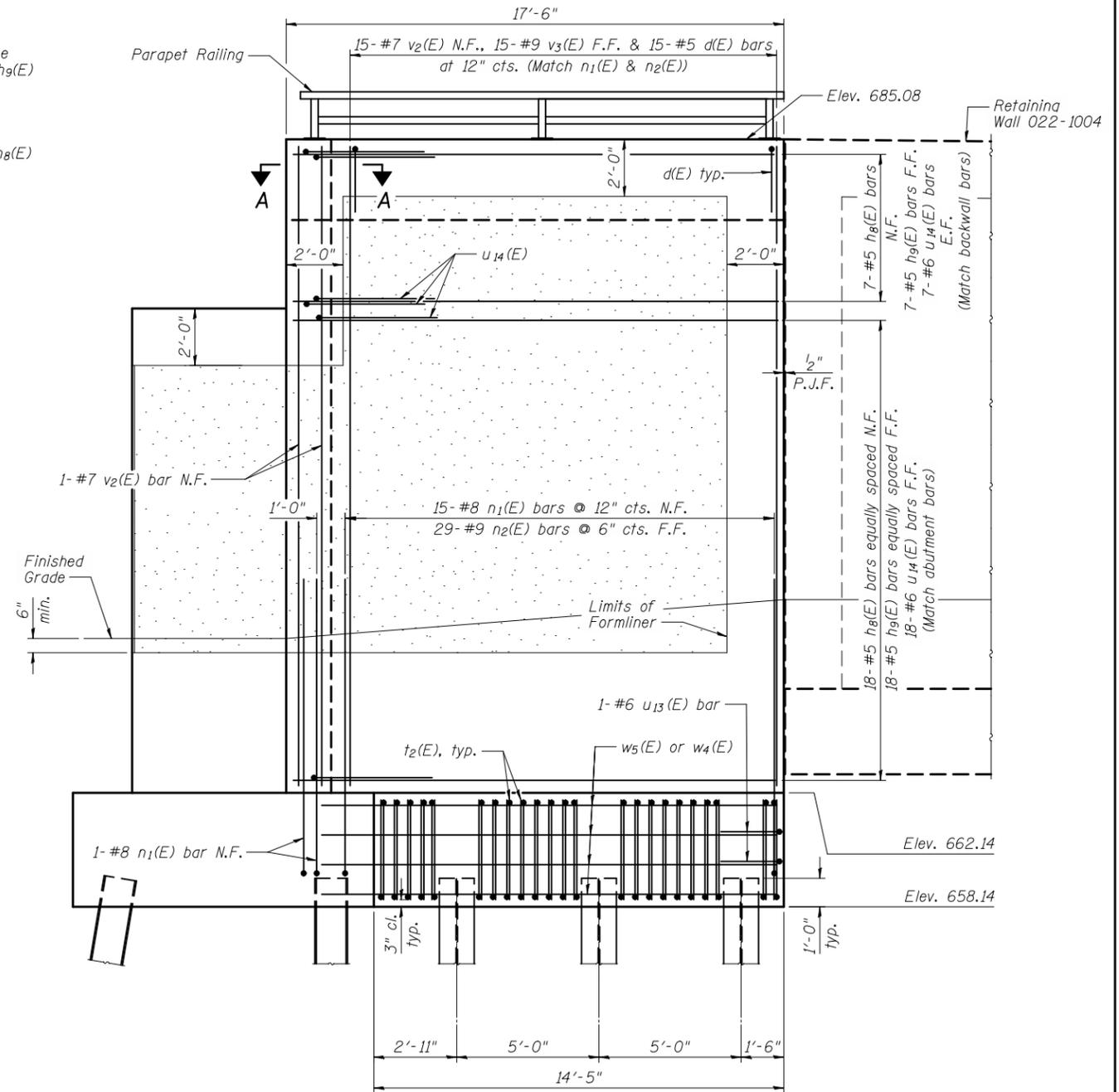
SOUTH ABUTMENT WEST WINGWALL SECTION

Note:
 N.F. = Near Face
 F.F. = Far Face

Note:
 Reinforcing clear cover may be reduced to 2" min. at formliner.



SECTION A-A
 d(E) bars not shown



SOUTH ABUTMENT WEST WINGWALL ELEVATION

Abutment footing, stem and backwall reinforcing not shown for clarity

**S. ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d(E)	30	#5	3'-7"	┌
h ₁ (E)	36	#5	38'-0"	—
h ₂ (E)	70	#5	43'-0"	—
h ₃ (E)	8	#5	13'-10"	—
h ₄ (E)	4	#5	5'-5"	└
h ₅ (E)	4	#5	3'-11"	—
h ₆ (E)	2	#5	11'-6"	└
h ₇ (E)	2	#5	8'-4"	—
h ₈ (E)	50	#5	17'-0"	—
h ₉ (E)	50	#5	16'-3"	—
h ₁₀ (E)	2	#5	18'-2"	—

PILE DATA

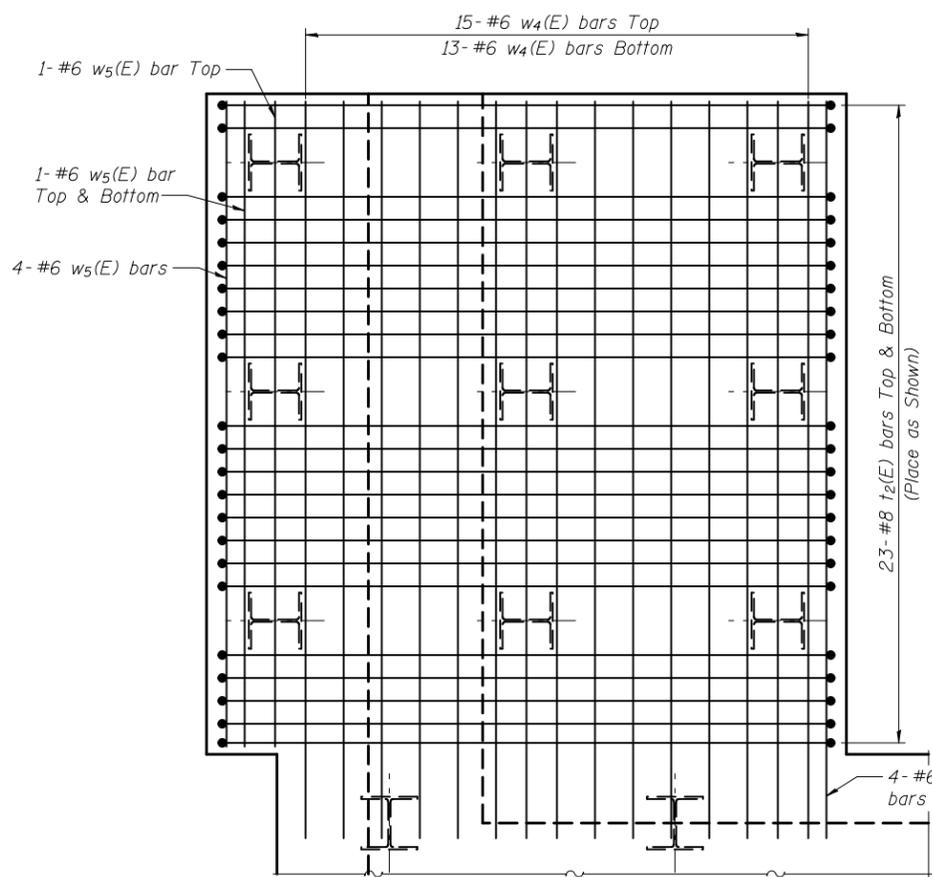
Type: HP14x89
 Pile Cutoff Elev.: 659.14
 Min. Pile Tip Elev.: 588.14
 Est. Pile Length: 71'
 Required Resistance: 254 kips
 Allowable Resistance Available: 127 kips
 No. Piles: 45+1 Test Pile

- Notes:**
- All piles must be driven to the minimum tip elevation shown. At the minimum tip elevation, driving shall be continued until the required resistance is achieved. "Required resistance" is equivalent to "nominal required bearing" in the IDOT Standard Specifications. The nominal driven bearing, as determined by the pile driving formula specified in Art. 512.14 of the IDOT Standard Specifications and modified by the Special Provisions, must be greater than or equal to the required resistance shown.
 - In addition to meeting the minimum tip elevation requirements of Note 1, piles shall be driven to fractured rock. If fractured rock is encountered above the minimum tip elevation, the piles may be terminated after driving 2'-0" into the fractured rock.

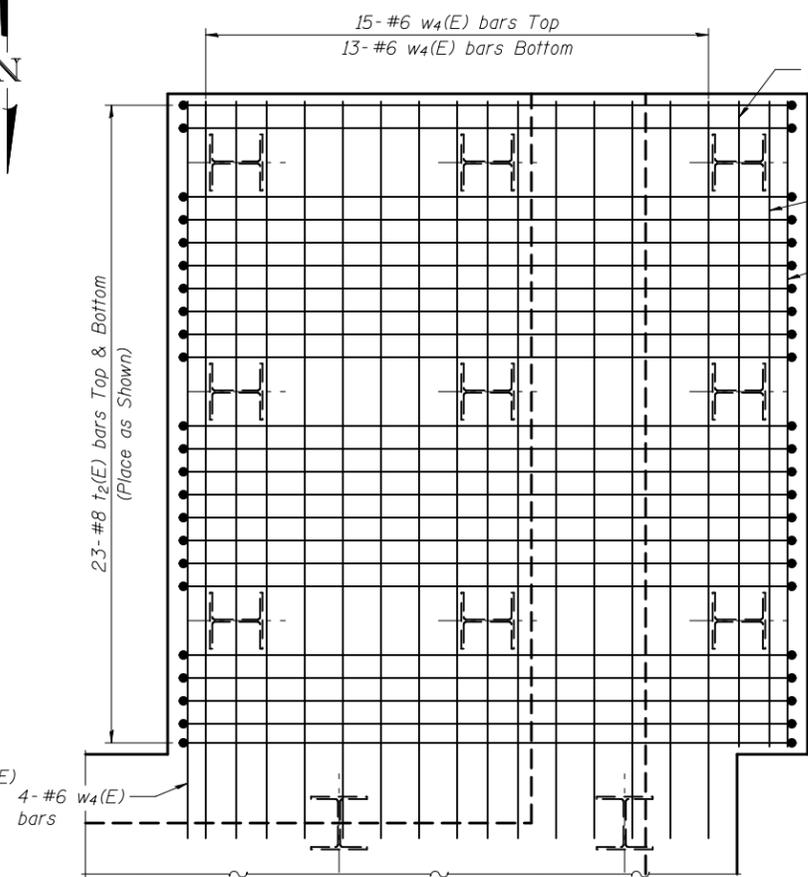
s ₂ (E)	36	#8	8'-4"	—
t ₁ (E)	194	#6	16'-11"	┌
t ₂ (E)	92	#8	20'-4"	┌
u ₃ (E)	36	#5	12'-7"	└
u ₄ (E)	72	#6	10'-6"	└
u ₅ (E)	2	#6	9'-7"	└
u ₆ (E)	2	#6	8'-7"	└
u ₇ (E)	2	#6	7'-7"	└
u ₈ (E)	2	#6	6'-7"	└
u ₉ (E)	2	#6	5'-7"	└
u ₁₀ (E)	4	#6	13'-11"	└
u ₁₁ (E)	44	#7	19'-6"	└
u ₁₂ (E)	38	#7	16'-0"	└
u ₁₃ (E)	4	#6	17'-4"	└
u ₁₄ (E)	64	#6	5'-0"	└
v ₁ (E)	82	#8	16'-8"	—
v ₂ (E)	34	#7	22'-7"	—
v ₃ (E)	30	#9	22'-7"	—
v ₄ (E)	82	#9	16'-8"	—
v ₅ (E)	30	#6	2'-6"	—
w ₂ (E)	30	#8	45'-0"	—
w ₃ (E)	8	#6	45'-0"	—
w ₄ (E)	64	#6	16'-0"	—
w ₅ (E)	14	#6	13'-11"	—

Structural Excavation	Cu. Ft.	620
Form Liner Textured Surface	Sq. Ft.	1,689
Reinforcing Bars, Epoxy Coated	Pounds	53,190
Parapet Railing	Foot	61
Furnishing Steel Piles HP14X89	Foot	3,266
Driving Piles	Foot	3,266
Test Pile Steel HP14X89	Each	1
Concrete Sealer	Sq. Ft.	1,889
Geocomposite Wall Drain	Sq. Yd.	187
Concrete Structure CPR Special	Cu. Yd.	614.0

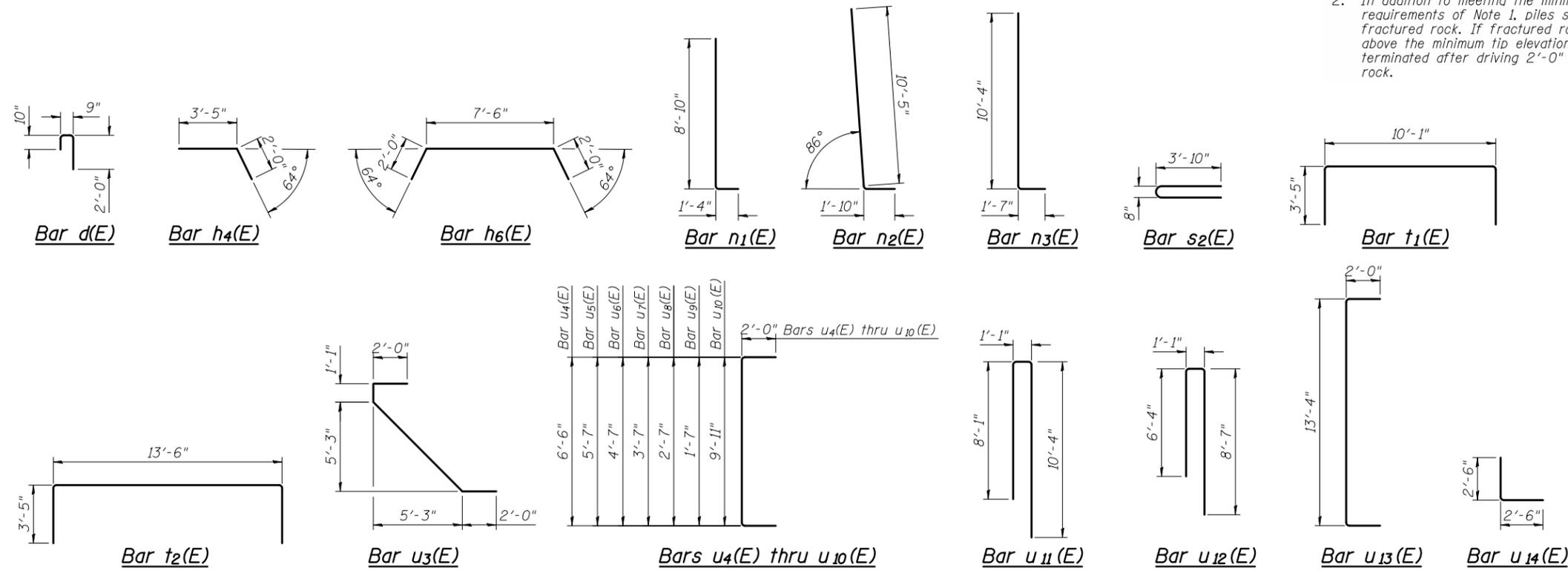
Bars indicated thus 6 x 2-#6 etc. indicates 6 lines of bars with 2 lengths per line.



EAST WINGWALL FOOTING REINFORCING PLAN
 Abutment and Wingwall Reinforcing not shown for clarity



WEST WINGWALL FOOTING REINFORCING PLAN
 Abutment and Wingwall Reinforcing not shown for clarity



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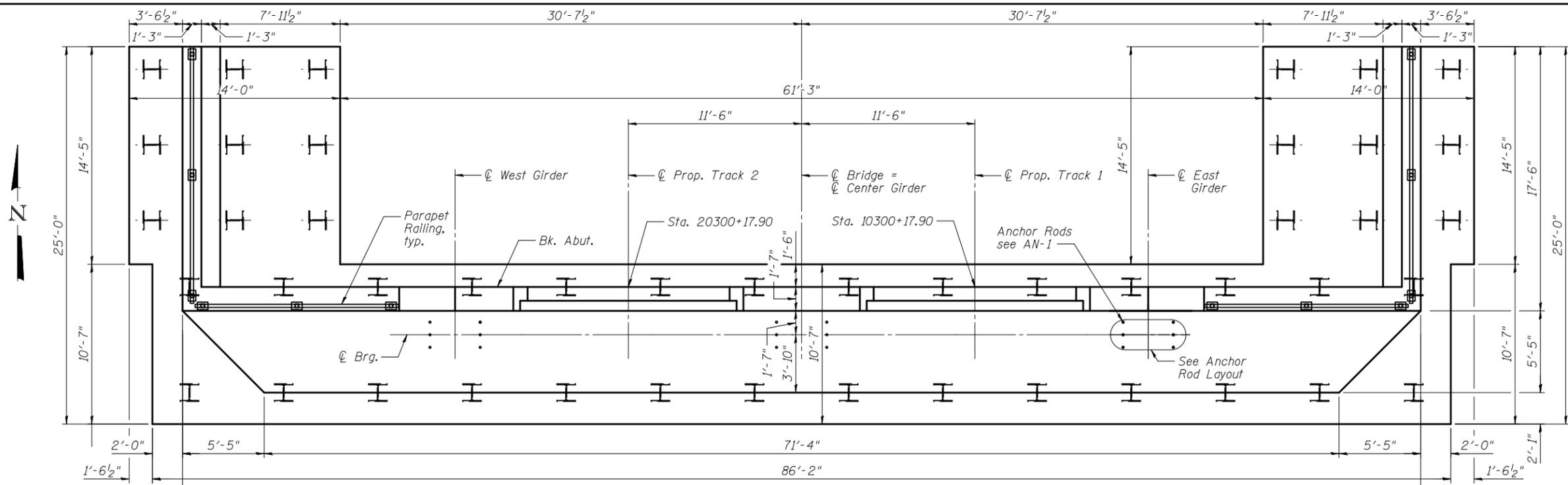
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

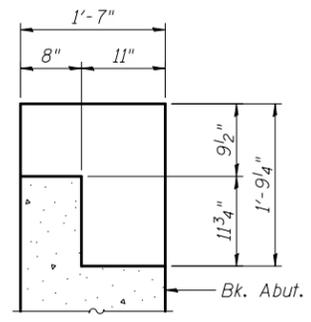
**SOUTH ABUTMENT WINGWALL FOOTING PLANS
STRUCTURE NO. 022-0226**

SHEET NO. 30 OF 43 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DU PAGE	388	171
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				

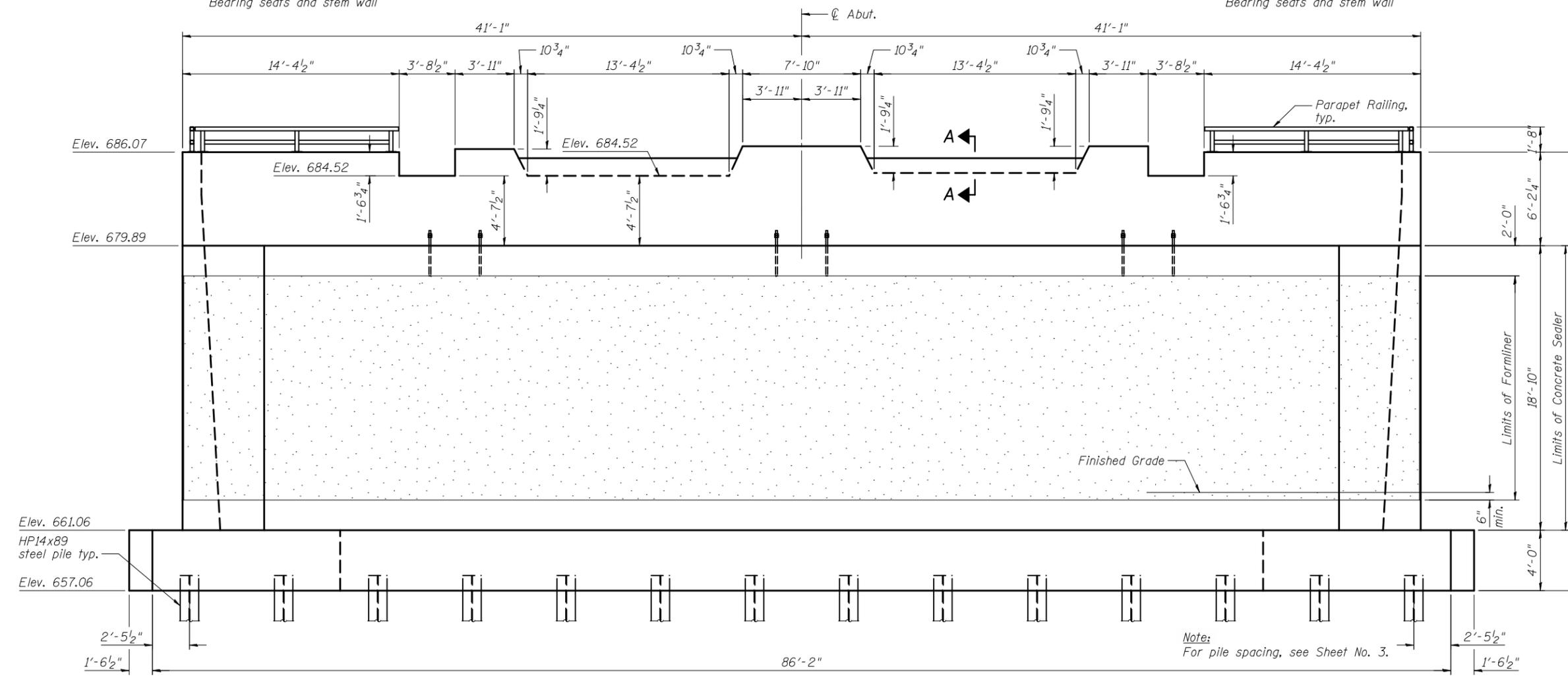


NORTH ABUTMENT FRAMING PLAN

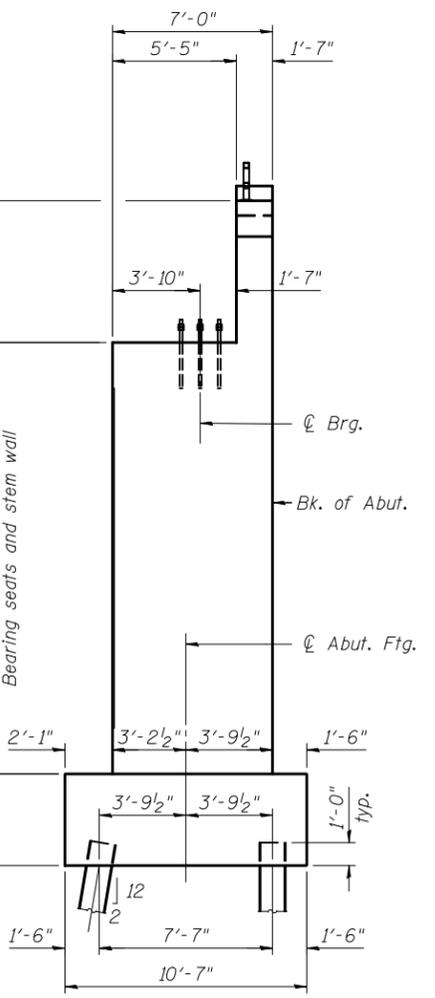


SECTION A-A

Note:
Form Liner Textured Surface shall be ashlar stone pattern with 1" maximum relief.



NORTH ABUTMENT FRAMING ELEVATION



SECTION THRU ABUTMENTS

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jmlgus
11/2/2012 11:25:52 AM



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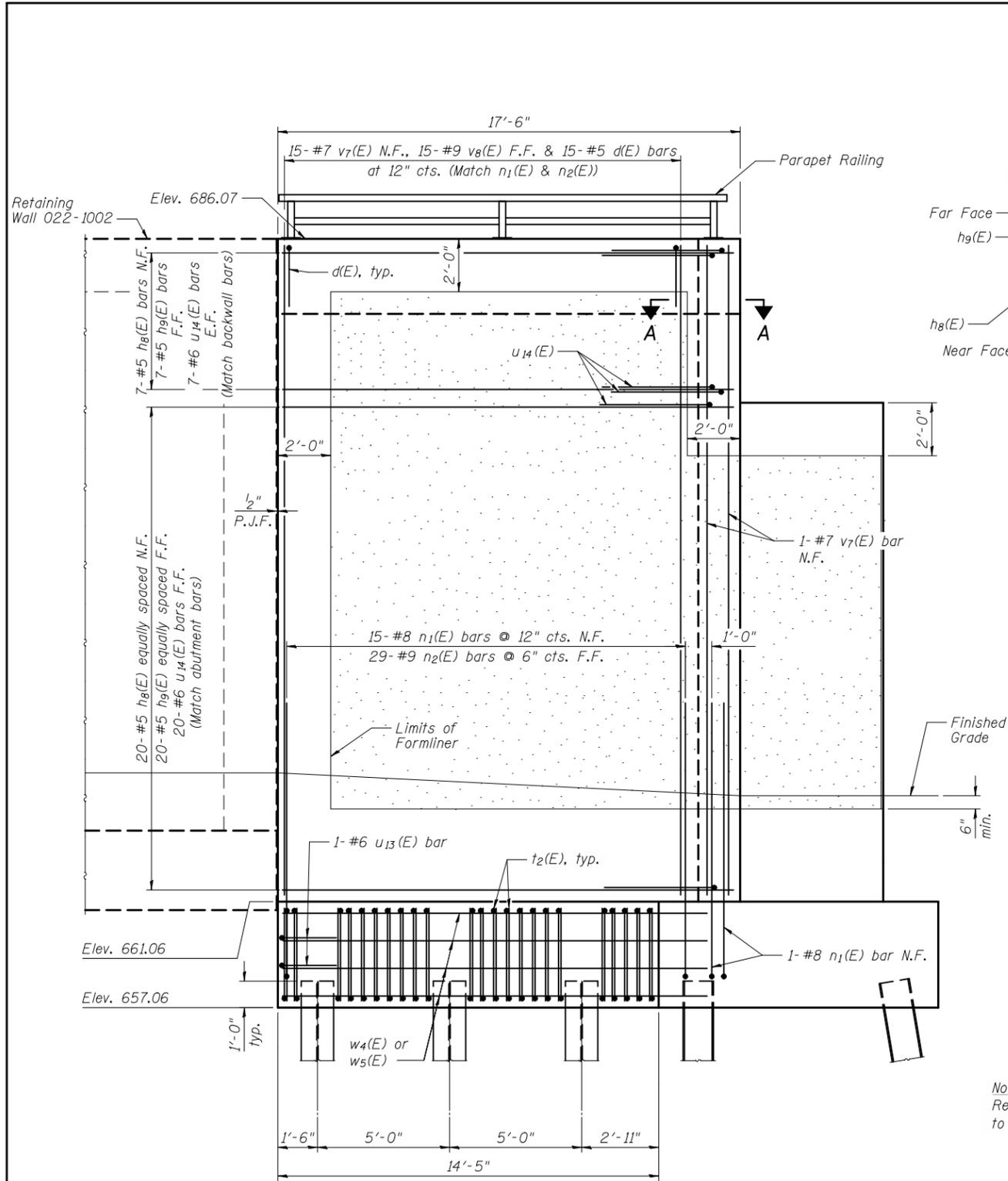
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**NORTH ABUTMENT PLAN AND ELEVATION
STRUCTURE NO. 022-0226**

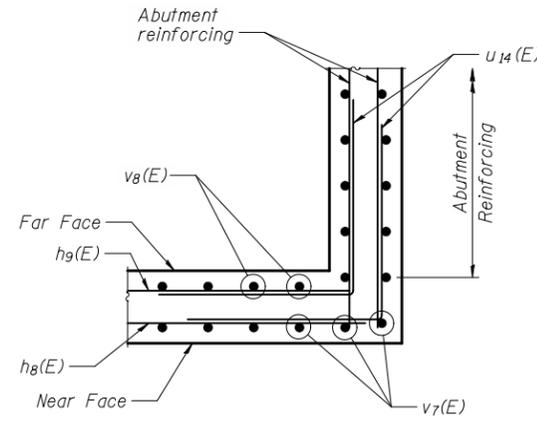
SHEET NO. 31 OF 43 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60W01			ILLINOIS FED. AID PROJECT	

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 jmlgus



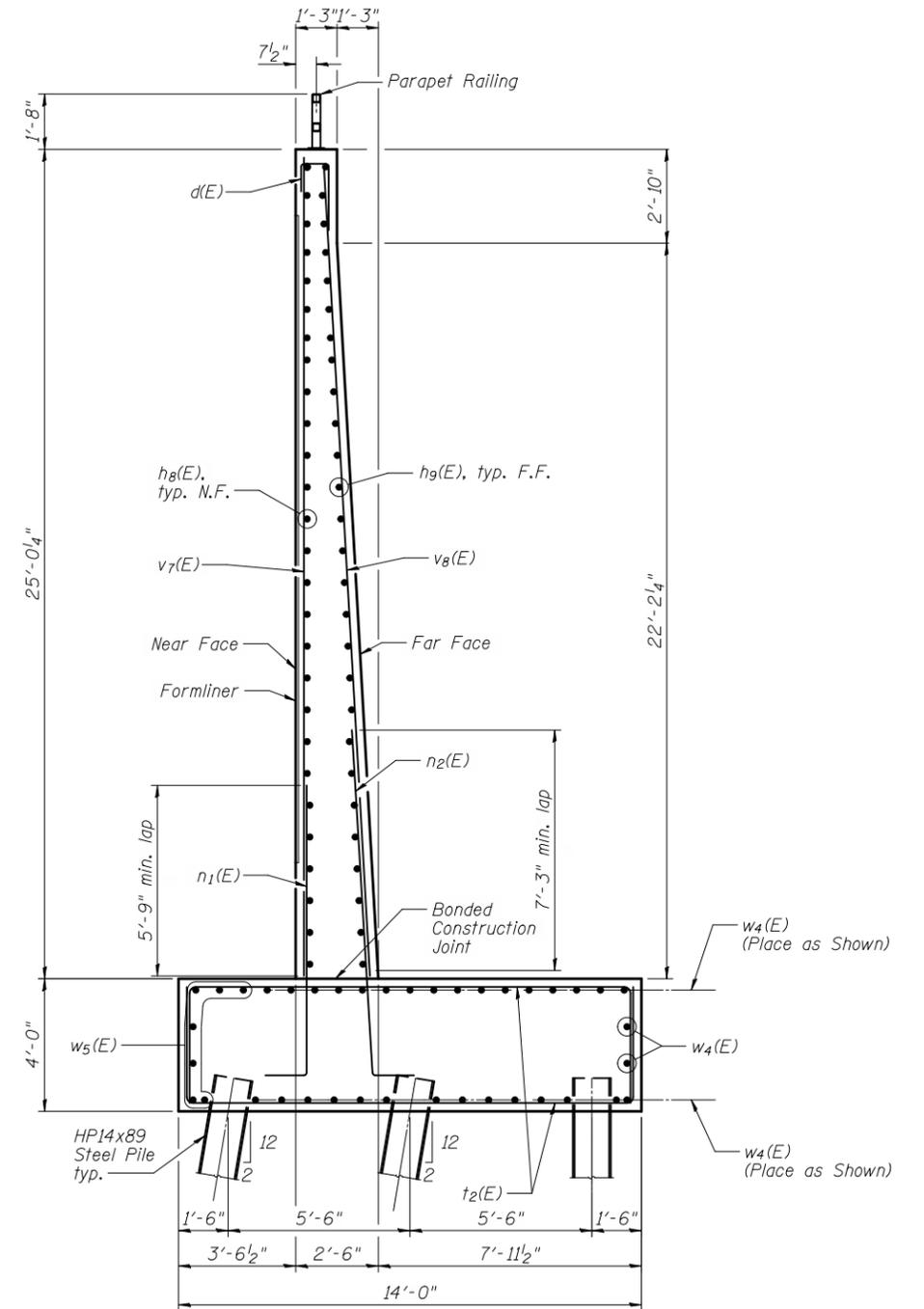
NORTH ABUTMENT WEST WINGWALL ELEVATION
 Abutment footing, stem and backwall reinforcing not shown for clarity



SECTION E-E
 d(E) bars not shown

Note:
 N.F. = Near Face
 F.F. = Far Face

Note:
 Reinforcing clear cover may be reduced to 2" min. at formliner.



NORTH ABUTMENT WEST WINGWALL SECTION



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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**NORTH ABUTMENT WEST WINGWALLS DETAILS
 STRUCTURE NO. 022-0226**

SHEET NO. 34 OF 43 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DU PAGE	388	175
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				

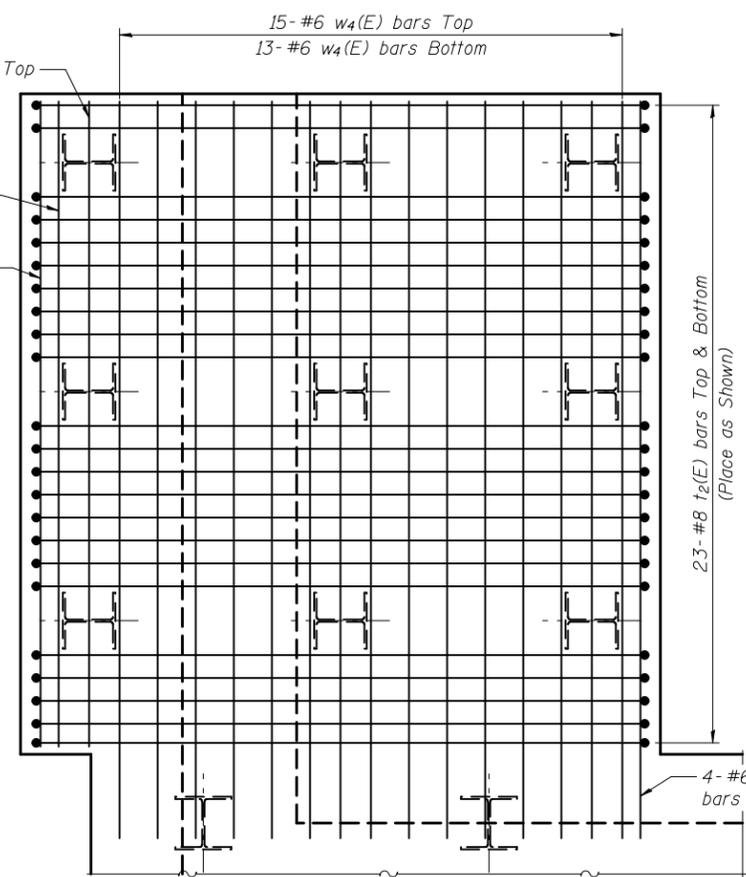
**N. ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d(E)	30	#5	3'-7"	┐
h ₁ (E)	40	#5	38'-0"	—
h ₂ (E)	74	#5	43'-0"	—
h ₃ (E)	8	#5	13'-10"	—
h ₄ (E)	4	#5	5'-5"	┘
h ₅ (E)	4	#5	3'-11"	—
h ₆ (E)	2	#5	11'-6"	┘
h ₇ (E)	2	#5	8'-4"	—
h ₈ (E)	54	#5	17'-0"	—
h ₉ (E)	54	#5	16'-3"	—
h ₁₀ (E)	2	#5	18'-2"	—
n ₁ (E)	116	#8	10'-2"	L
n ₂ (E)	58	#9	12'-3"	L
n ₃ (E)	163	#9	11'-11"	L
s ₂ (E)	36	#8	8'-4"	┐
t ₁ (E)	194	#6	16'-11"	┐
t ₂ (E)	92	#8	20'-4"	┐
u ₃ (E)	40	#5	12'-7"	┘
u ₄ (E)	72	#6	10'-6"	┘
u ₅ (E)	2	#6	9'-7"	┘
u ₆ (E)	2	#6	8'-7"	┘
u ₇ (E)	2	#6	7'-7"	┘
u ₈ (E)	2	#6	6'-7"	┘
u ₉ (E)	2	#6	5'-7"	┘
u ₁₀ (E)	4	#6	13'-11"	┘
u ₁₁ (E)	44	#7	19'-6"	┘
u ₁₂ (E)	38	#7	16'-0"	┘
u ₁₃ (E)	4	#6	17'-4"	┘
u ₁₄ (E)	68	#6	5'-0"	L
v ₅ (E)	30	#6	2'-6"	—
v ₆ (E)	82	#8	18'-6"	—
v ₇ (E)	34	#7	22'-5"	—
v ₈ (E)	30	#9	24'-5"	—
v ₉ (E)	82	#9	18'-6"	—
w ₂ (E)	30	#8	45'-0"	—
w ₃ (E)	8	#6	45'-0"	—
w ₄ (E)	64	#6	16'-0"	—
w ₅ (E)	14	#6	13'-11"	—
Structural Excavation		Cu. Ft.	424	
Form Liner Textured Surface		Sq. Ft.	1,911	
Reinforcing Bars, Epoxy Coated		Pounds	54,840	
Parapet Railing		Foot	61	
Furnishing Steel Piles HP14X89		Foot	3,174	
Driving Piles		Foot	3,174	
Test Pile Steel HP14X89		Each	1	
Concrete Sealer		Sq. Ft.	2,048	
Geocomposite Wall Drain		Sq. Yd.	204	
Concrete Structure CPR Special		Cu. Yd.	656.3	

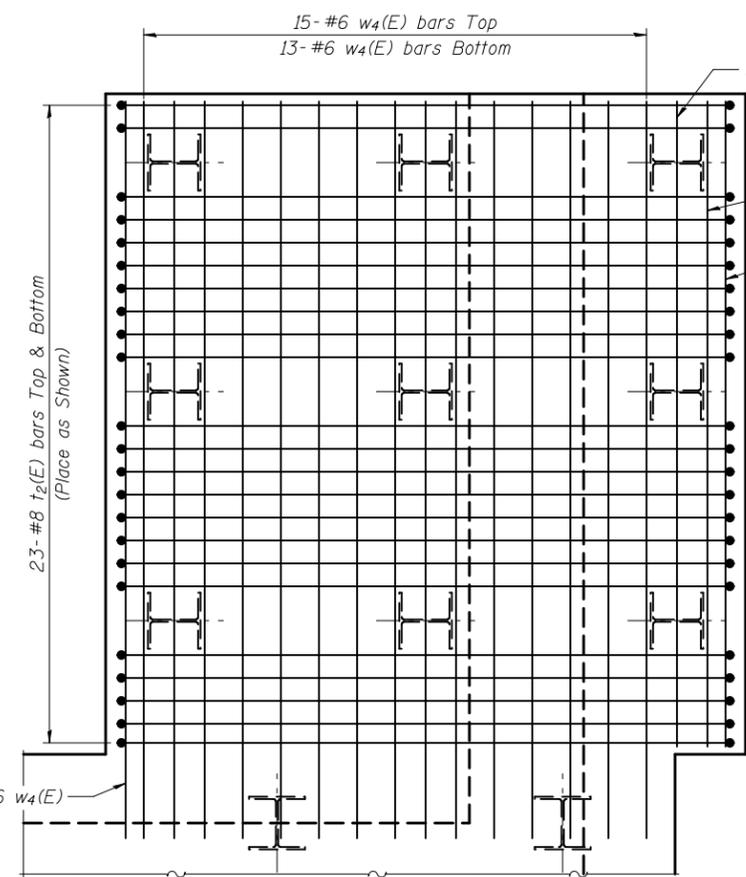
PILE DATA

Type: HP14x89
 Pile Cutoff Elev.: 658.06
 Min. Pile Tip Elev.: 589.06
 Est. Pile Length: 69'
 Required Resistance: 270 kips
 Allowable Resistance Available: 135 kips
 No. Piles: 45+1 Test Pile

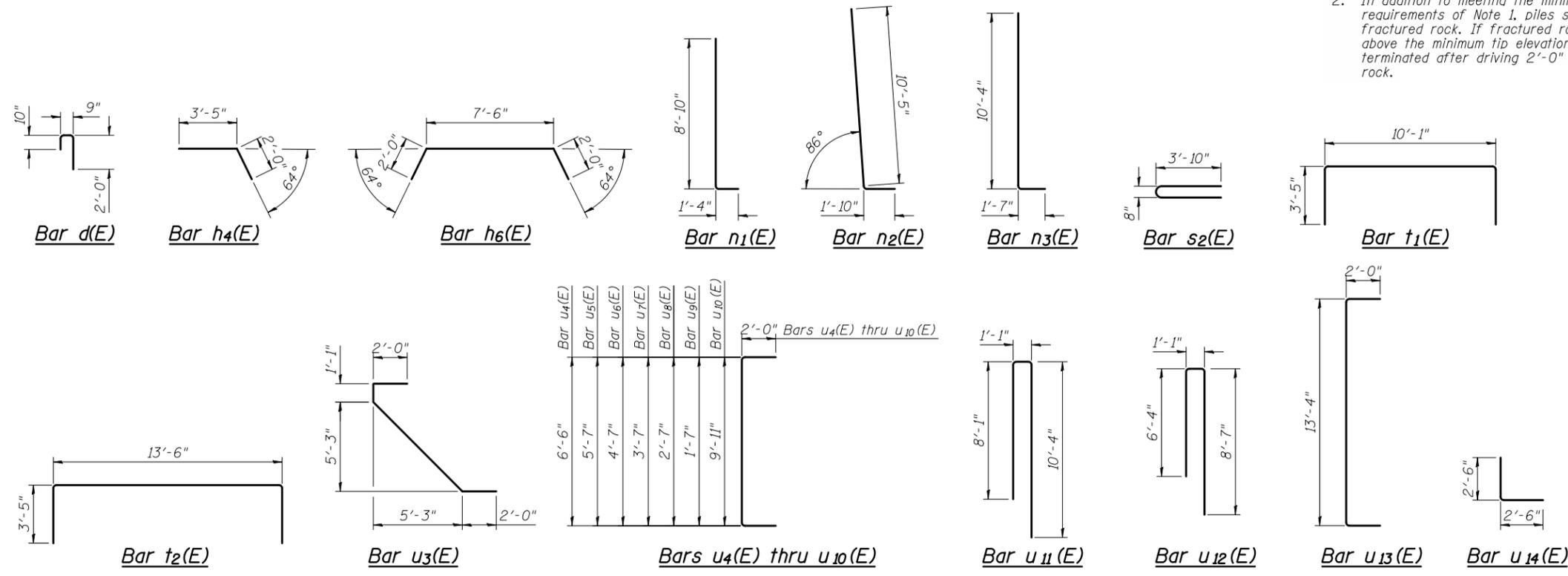
- Notes:**
- All piles must be driven to the minimum tip elevation shown. At the minimum tip elevation, driving shall be continued until the required resistance is achieved. "Required resistance" is equivalent to "nominal required bearing" in the IDOT Standard Specifications. The nominal driven bearing, as determined by the pile driving formula specified in Art. 512.14 of the IDOT Standard Specifications and modified by the Special Provisions, must be greater than or equal to the required resistance shown.
 - In addition to meeting the minimum tip elevation requirements of Note 1, piles shall be driven to fractured rock. If fractured rock is encountered above the minimum tip elevation, the piles may be terminated after driving 2'-0" into the fractured rock.



WEST WINGWALL FOOTING REINFORCING PLAN
 Abutment and Wingwall Reinforcing not shown for clarity



EAST WINGWALL FOOTING REINFORCING PLAN
 Abutment and Wingwall Reinforcing not shown for clarity



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 11/2/2012 11:26:23 AM



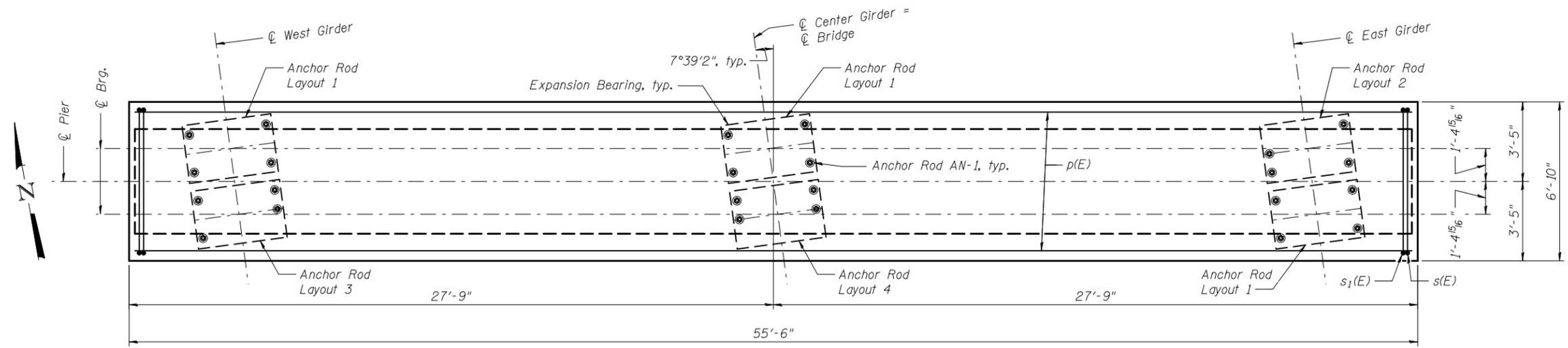
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PLOT DATE = 11/2/2012	CHECKED - AMM	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

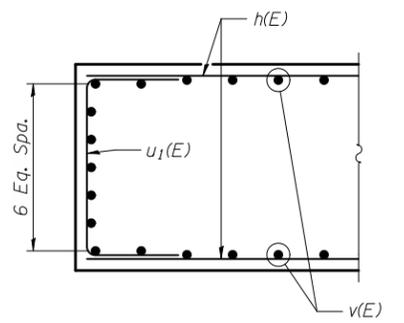
**NORTH ABUTMENT WINGWALL FOOTING PLANS
STRUCTURE NO. 022-0226**

SHEET NO. 35 OF 43 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DU PAGE	388	176
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				

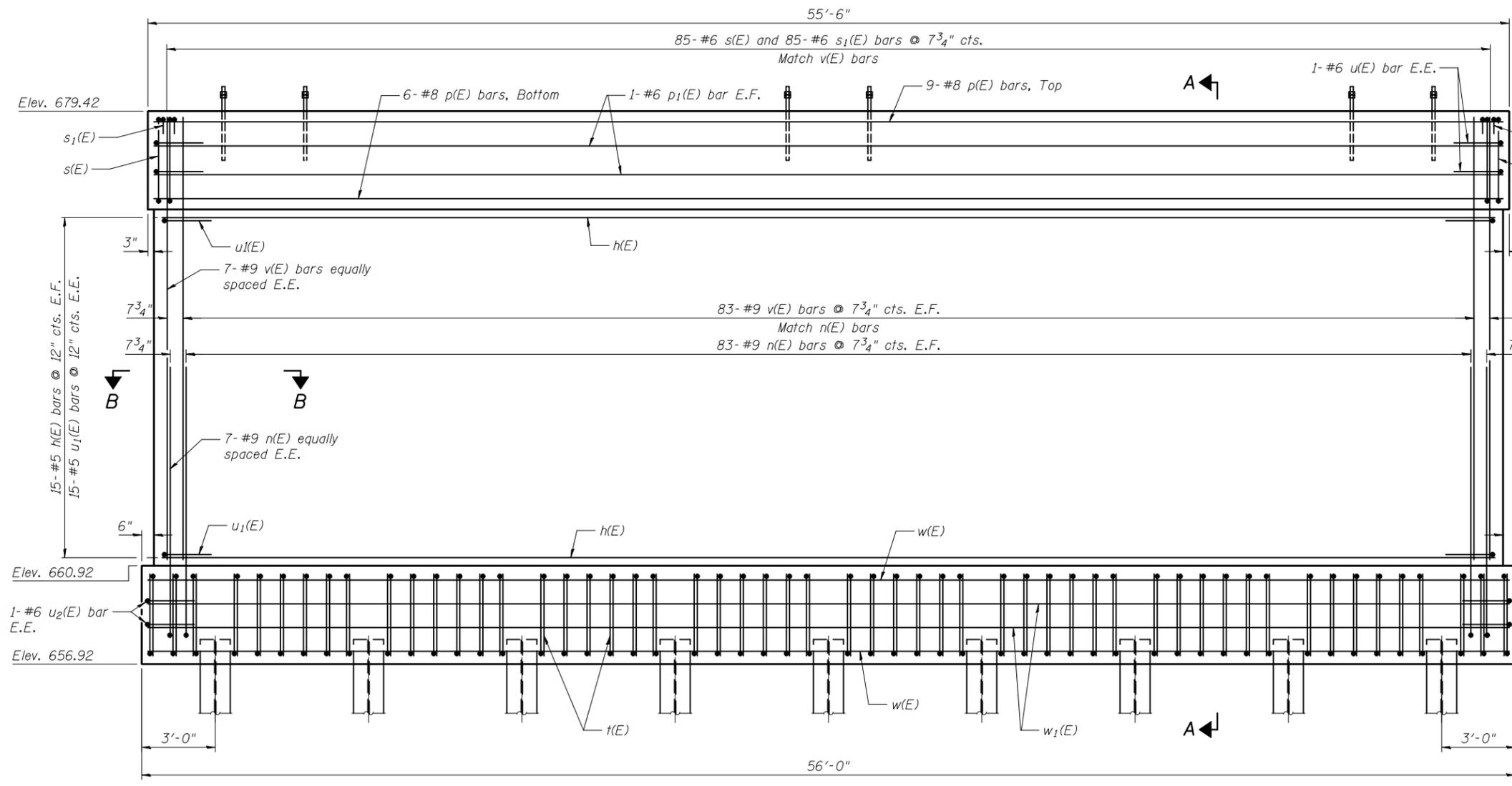


TOP PLAN



SECTION B-B

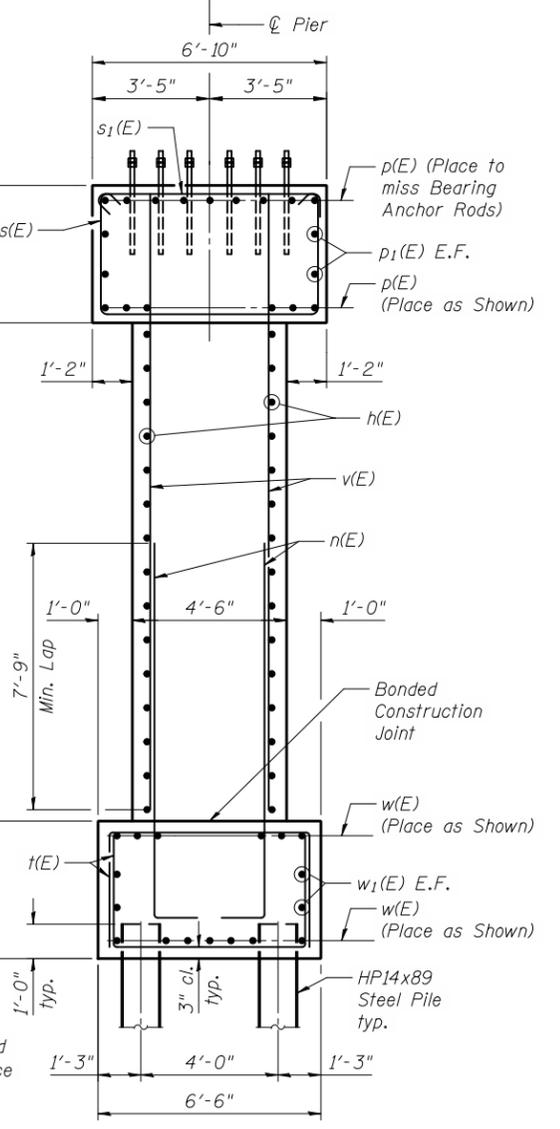
Footings and Cap bars not shown for clarity



ELEVATION
(Looking North)

Note:
E.E. = Each End
E.F. = Each Face

Note:
For pile spacing,
see Sheet No. 3.



SECTION A-A

11/2/2012 11:26:30 AM
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

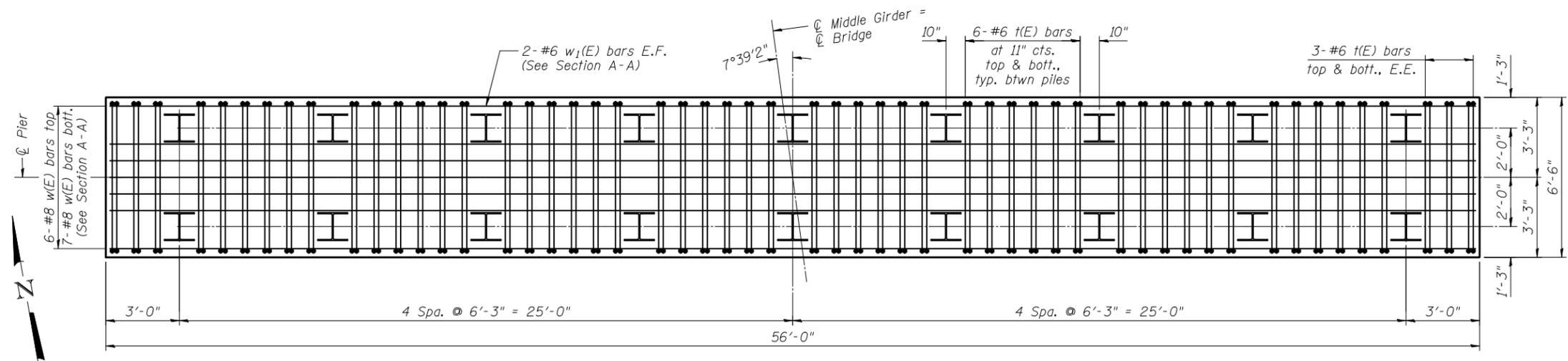
PIER PLAN AND ELEVATION
STRUCTURE NO. 022-0226

SHEET NO. 36 OF 43 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DU PAGE	388	177
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				

**PIER
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	30	#5	54'-6"	—
n(E)	180	#9	12'-5"	L
p(E)	15	#8	55'-2"	—
p ₁ (E)	4	#6	55'-2"	—
s(E)	87	#6	8'-0"	┌
s ₁ (E)	87	#6	14'-8"	└
t(E)	108	#6	13'-4"	┌
u(E)	4	#6	10'-2"	└
u ₁ (E)	30	#5	8'-2"	└
u ₂ (E)	4	#6	9'-10"	└
v(E)	180	#9	18'-2"	—
w(E)	13	#8	55'-6"	—
w ₁ (E)	4	#6	55'-6"	—
Structural Excavation		Cu. Yd.	252	
Reinforcing Bars, Epoxy Coated		Pounds	30,730	
Furnishing Steel Piles HP14X89		Foot	1,242	
Driving Piles		Foot	1,242	
Test Pile Steel HP14x89		Each	1	
Anchor Bolts 1/2"		Each	24	
Concrete Sealer		Sq. Ft.	2,237	
Concrete Structure CPR Special		Cu. Yd.	241.3	



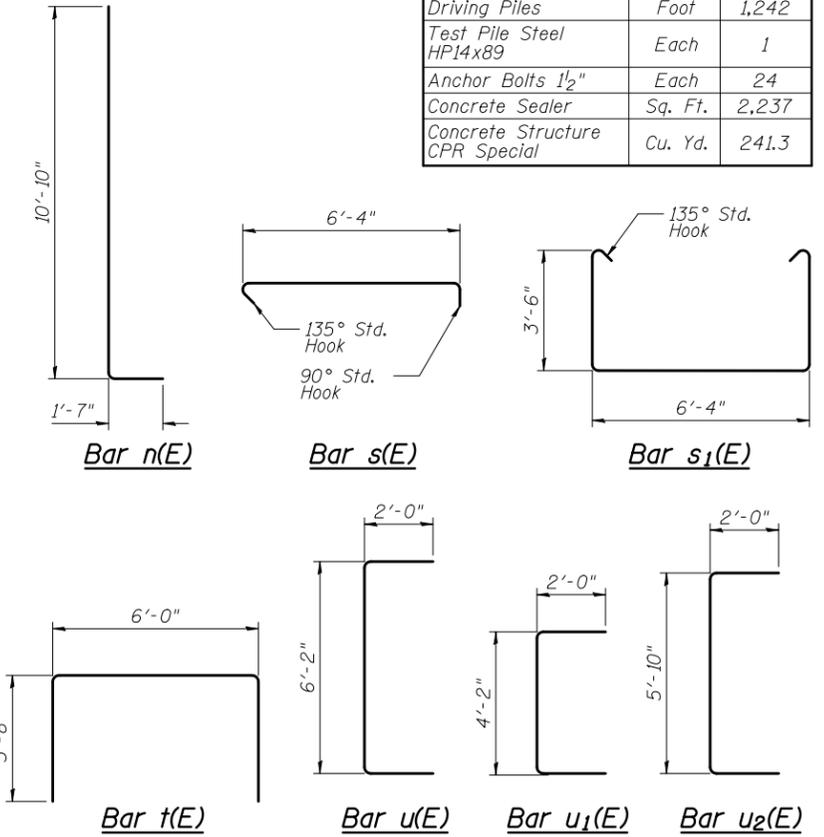
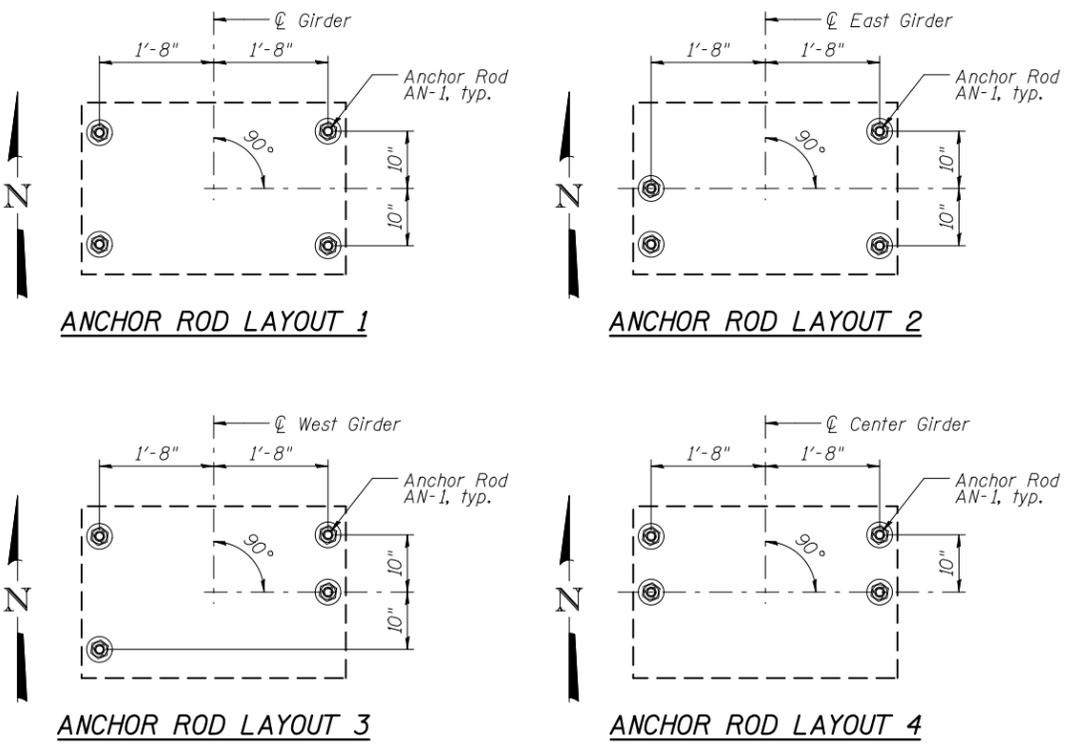
FOOTING PLAN

Top and side longitudinal reinforcing steel not shown.

PILE DATA

Type: HP14x89
 Pile Cutoff Elev.: 657.92
 Min. Pile Tip Elev.: 588.92
 Est. Pile Length: 69'
 Required Resistance: 206 kips
 Allowable Resistance: 103 kips
 Available: 103 kips
 No. Piles: 17+1 Test Pile

- Notes:
- All piles must be driven to the minimum tip elevation shown. At the minimum tip elevation, driving shall be continued until the required resistance is achieved. "Required resistance" is equivalent to "nominal required bearing" in the IDOT Standard Specifications. The nominal driven bearing, as determined by the pile driving formula specified in Art. 512.14 of the IDOT Standard Specifications and modified by the Special Provisions, must be greater than or equal to the required resistance shown.
 - In addition to meeting the minimum tip elevation requirements of Note 1, piles shall be driven to fractured rock. If fractured rock is encountered above the minimum tip elevation, the piles may be terminated after driving 2'-0" into the fractured rock.



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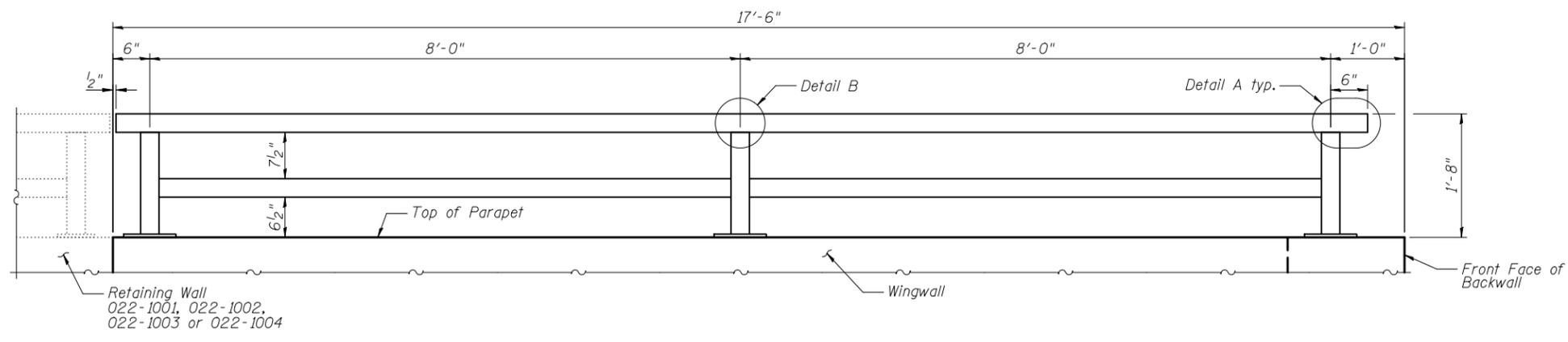
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

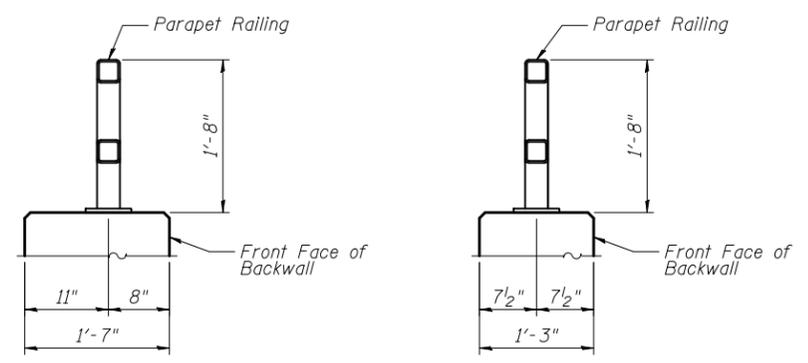
**PIER FOOTING PLAN AND BILL OF MATERIAL
STRUCTURE NO. 022-0226**

SHEET NO. 37 OF 43 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DU PAGE	388	178
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				

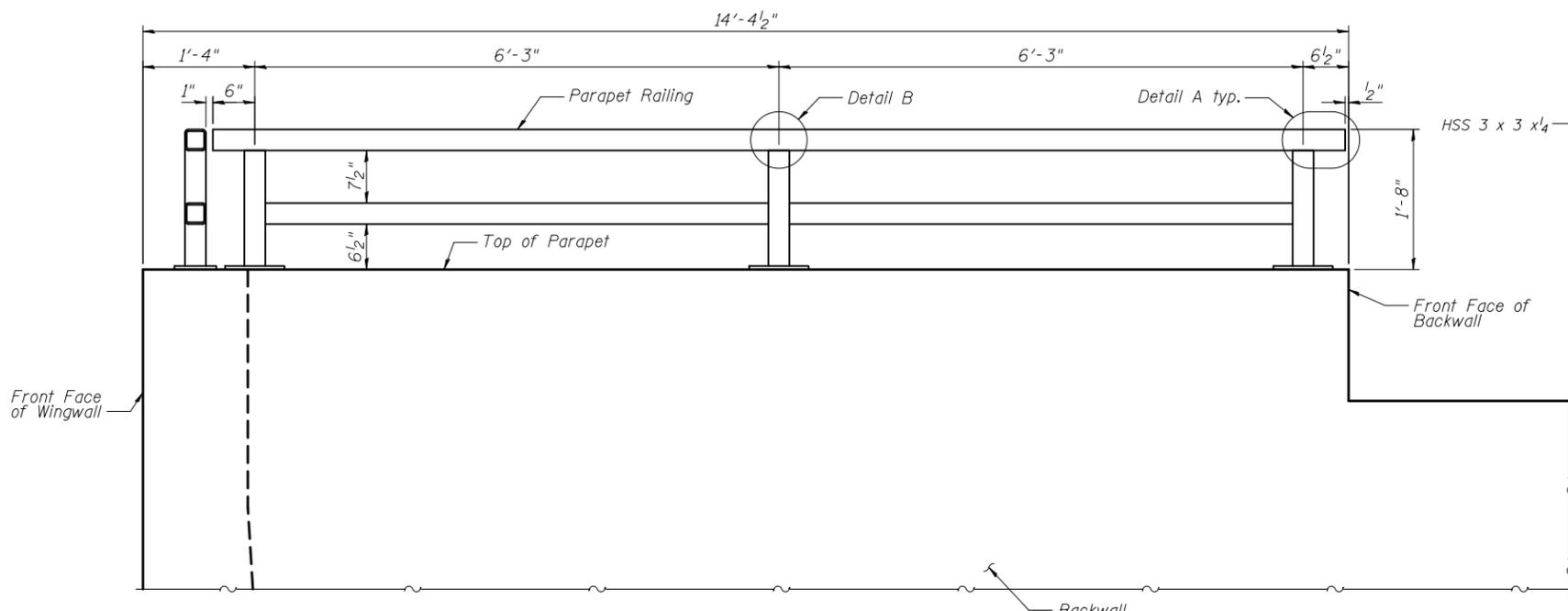


SECTION A-A

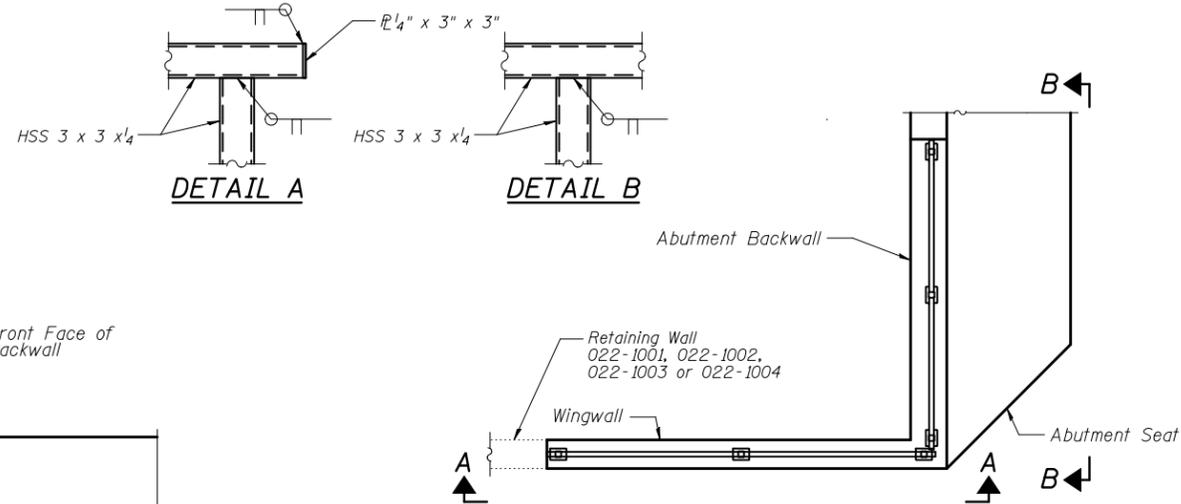


SECTION THRU BACKWALL

SECTION THRU WINGWALL



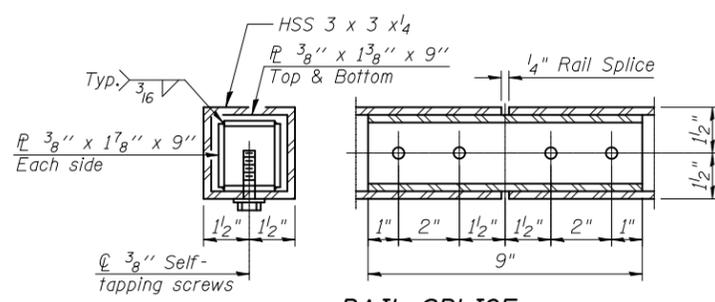
SECTION B-B



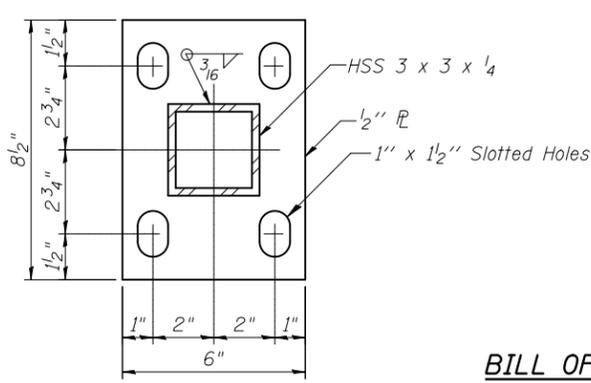
DETAIL A

DETAIL B

TYPICAL PARAPET RAILING PLAN



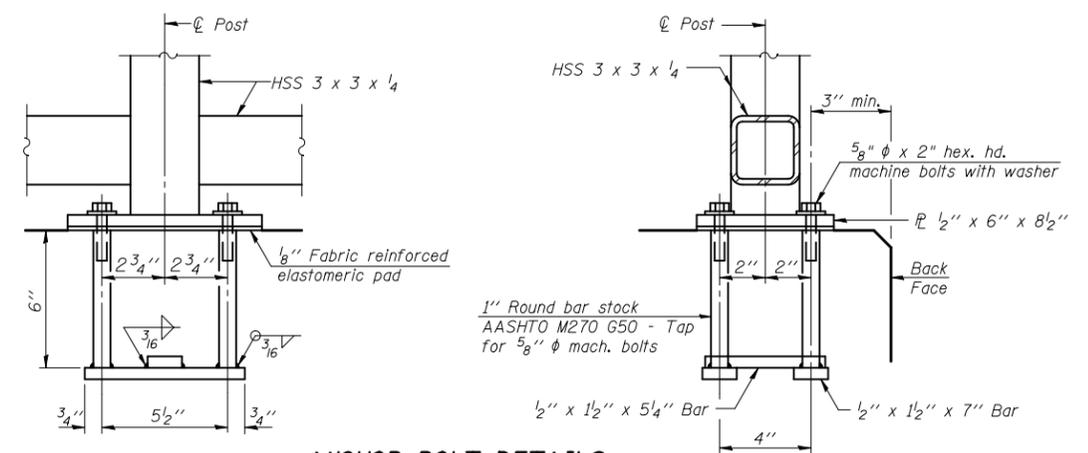
RAIL SPLICE



BASE PL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Parapet Railing	Foot	122



ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" ϕ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

Note: Vent holes shall be provided as required by Standard Specification Article 509.

ca:\pwworking\oma\0463409\0220226-60B42-038-RDT.DGN
jmgus

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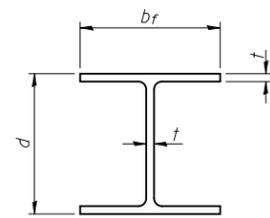


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FILE NAME = 0220226-60B42-038-RDT.DGN	CHECKED - LAG	REVISED -
PLOT SCALE = NONE	DRAWN - RMA	REVISED -
PLOT DATE = 11/2/2012	CHECKED - AMM	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

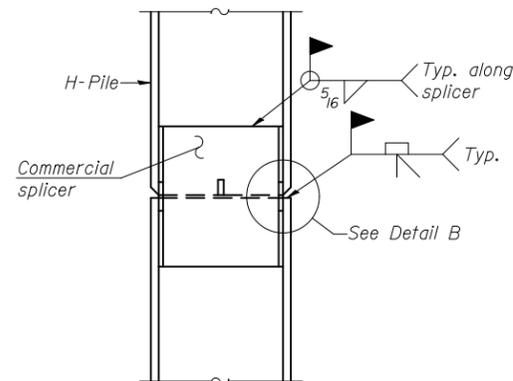
**PARAPET RAILING DETAILS
STRUCTURE NO. 022-0226**
SHEET NO. 38 OF 43 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DU PAGE	388	179
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				

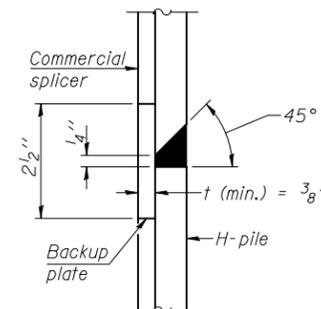


STEEL PILE TABLE

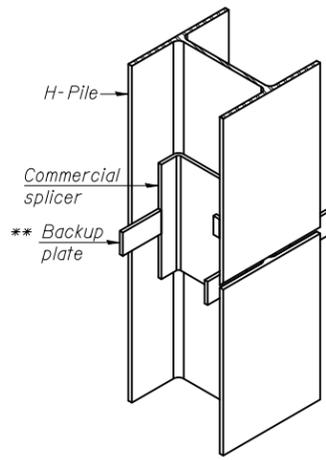
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53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



ELEVATION

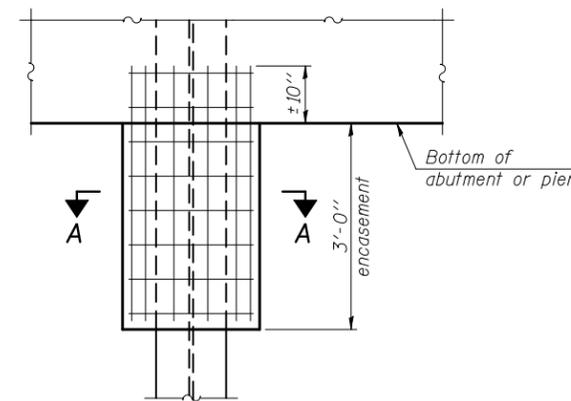


DETAIL "B"

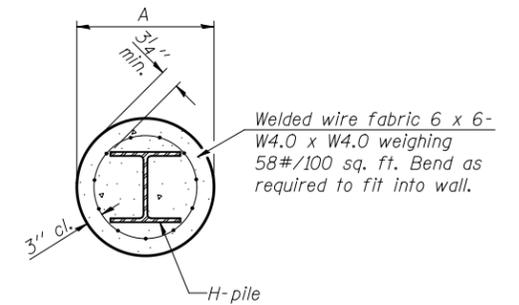


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE

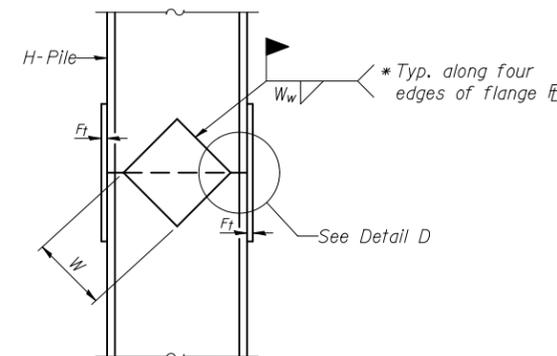


ELEVATION

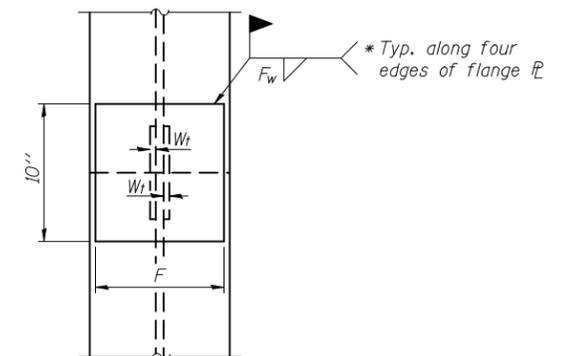


SECTION A-A

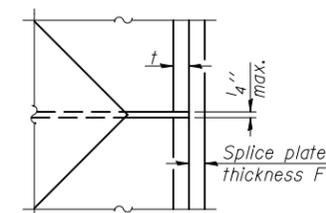
PILE ENCASEMENT



ELEVATION



END VIEW



DETAIL D

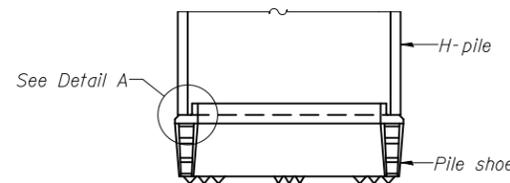
WELDED PLATE FIELD SPLICE

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

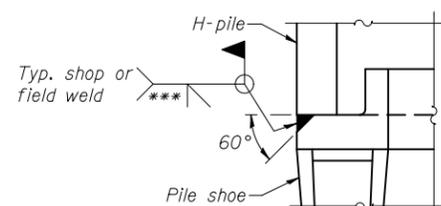
WELDED COMMERCIAL SPLICE ALTERNATE

- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- *** Weld size per pile shoe manufacturer (5/16" min.).

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

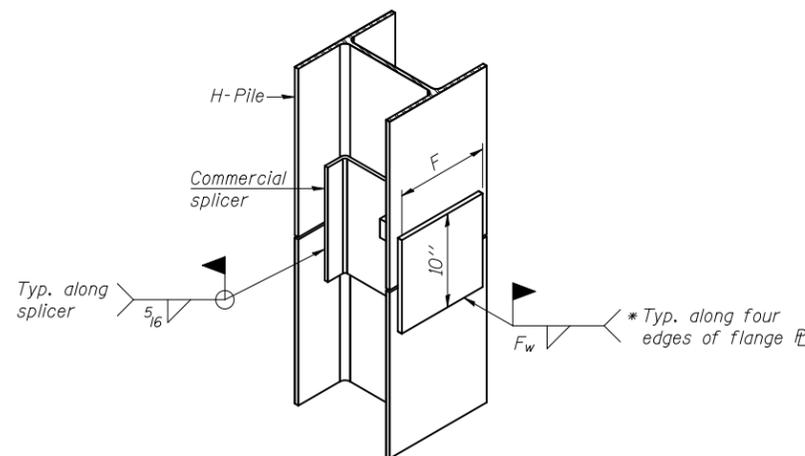


ELEVATION



DETAIL A

H-PILE SHOE ATTACHMENT



ISOMETRIC VIEW

F-HP 7-1-10



USER NAME = jmlgus
FILE NAME = 0220226-60B42-039-RDT.DGN
PLOT SCALE = NONE
PLOT DATE = 11/2/2012

DESIGNED - AMM
CHECKED - LAG
DRAWN - RMA
CHECKED - AMM

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HP PILE DETAILS
STRUCTURE NO. 022-0226

SHEET NO. 39 OF 43 SHEETS

F.A.U. R.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DU PAGE	388	180
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				

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jmlgus

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Geo Services, Inc. SOIL BORING LOG PAGE 1 of 3
 DATE 5/19-20/2011
 LOGGED BY MR
 GSI JOB No. 09165

ROUTE IL RTE 19 DESCRIPTION Irving Park Rd., York Rd., CPR Grade Separation Pri D-91-332-06
 SECTION 32 WRS-5 LOCATION Addison Township T 40 N, R 11 E, NW 1/4 Section 13, 3rd P.M.
 COUNTY DuPage DRILLING METHOD Hollow Stem Auger/ Rotary HAMMER TYPE CME Automatic

STRUCT. NO. -
 Station -
 BORING NO. SB-03
 Station: 20299+14
 Offset: 11.5' Right
 Ground Surface Elev. 666.6

DEPTH (ft)	SOIL TYPE	UCS (tsf)	MOISTURE (%)	DEPTH (ft)	SOIL TYPE	UCS (tsf)	MOISTURE (%)
0	8.0" ASPHALT, 5.0" CONCRETE			0			
2	CLAY LOAM-dark brown & gray-very stiff (A-6) Fill	101		3		108	
4		2.4B	24	4		2.1B	19
663.6				5			
662.1	TOPSOIL-black			3		109	
4				4			
-5		1.75P	28	6		1.3B	20
3				3		109	
4				5			
8	CLAY LOAM-brown & gray-very stiff to hard (A-5)	19		6		1.7B	20
2		100		3		109	
3				5			
-10		3.2B	22	7		2.0B	20
8				8			
8				10		4.5+P	25
653.6				3		112	
5				6			
-15		2.5P	24	8		1.2B	17
3				3		103	
6				6			
8		2.0B	23	8			
4				5			
7				6			
-20			24	8		NP	23

Surface Water Elev. n/a
 Stream Bed Elev. n/a
 Groundwater Elevation:
 First Encounter 662.6
 Upon Completion n/a
 After Hrs. n/a

619.6 599.6 629.6

CLAY-grcy-stiff to very stiff (A-6)
 SANDY LOAM to LOAM-gray-medium dense (A-4)

Geo Services, Inc. SOIL BORING LOG PAGE 2 of 3
 DATE 5/19-20/2011
 LOGGED BY MR
 GSI JOB No. 09165

ROUTE IL RTE 19 DESCRIPTION Irving Park Rd., York Rd., CPR Grade Separation Pri D-91-332-06
 SECTION 32 WRS-5 LOCATION Addison Township T 40 N, R 11 E, NW 1/4 Section 13, 3rd P.M.
 COUNTY DuPage DRILLING METHOD Hollow Stem Auger/ Rotary HAMMER TYPE CME Automatic

STRUCT. NO. -
 Station -
 BORING NO. SB-03
 Station: 20299+14
 Offset: 11.5' Right
 Ground Surface Elev. 666.6

DEPTH (ft)	SOIL TYPE	UCS (tsf)	MOISTURE (%)	DEPTH (ft)	SOIL TYPE	UCS (tsf)	MOISTURE (%)
0				0			
3				3		111	
6				6			
-45		NP	23	8		116	
5				7		1.5B	14
5				5			
8				6			
6				8		1.8B	15
-50		7	2.0B	20			
3				3		118	
6				6			
-55		8	1.2B	17			
3				4			
4				4			
-60			21	4			

Surface Water Elev. n/a
 Stream Bed Elev. n/a
 Groundwater Elevation:
 First Encounter 662.6
 Upon Completion n/a
 After Hrs. n/a

619.6 599.6 594.6

SANDY LOAM to LCAM-gray-medium dense (A-4)
 CLAY LOAM-gray-stiff (A-6)
 SAND-gray-medium dense (A-3)
 CLAY LOAM-gray-stiff (A-6)
 SILTY LOAM-gray-very dense (A-4)

Geo Services, Inc. SOIL BORING LOG PAGE 3 of 3
 DATE 5/19-20/2011
 LOGGED BY MR
 GSI JOB No. 09165

ROUTE IL RTE 19 DESCRIPTION Irving Park Rd., York Rd., CPR Grade Separation Pri D-91-332-06
 SECTION 32 WRS-5 LOCATION Addison Township T 40 N, R 11 E, NW 1/4 Section 13, 3rd P.M.
 COUNTY DuPage DRILLING METHOD Hollow Stem Auger/ Rotary HAMMER TYPE CME Automatic

STRUCT. NO. -
 Station -
 BORING NO. SB-03
 Station: 20299+14
 Offset: 11.5' Right
 Ground Surface Elev. 666.6

DEPTH (ft)	SOIL TYPE	UCS (tsf)	MOISTURE (%)	DEPTH (ft)	SOIL TYPE	UCS (tsf)	MOISTURE (%)
0				0			
31				31			
50/4				50/4			
-85		4.5P	11	50/5			
5				8			
8				10		NP	22
-90		4.5+P	11	5			
555.6				8			
27				33			
39				48		NP	14
-95		50/4		50/1			
567.6				42			
50/2				50/2			
-100				NP			

Surface Water Elev. n/a
 Stream Bed Elev. n/a
 Groundwater Elevation:
 First Encounter 662.6
 Upon Completion n/a
 After Hrs. n/a

584.6 555.6

SILTY LOAM-gray-very dense (A-4)
 CLAY LOAM-gray-very dense (A-6)

Drillers Observation: Weathered Bedrock 566.1
 Apparent Bedrock 565.6

Silurian System Niagara Series Dolomite
 RUN 1 (-101.0' to -111.0')
 Light gray to gray with horizontal bedding. Fine grained with some light weathering in fractures. Numerous horizontal fractures throughout with some intersecting vertical fractures.
 100.0% water loss @ -105.5'.
 Recovery=100.0%
 R.Q.D.=65.0%

End Of Boring @ -111.0'
 Hollow Stem Augers To -10.0'
 Rotary Drilling To Completion
 CME Automatic Hammer
 10.0' Of 4.0" Casing Used
 103.0' Of 3.0" Casing Used



USER NAME = jmlgus
 FILE NAME = 0220226-60B42-042-SBL.DGN
 PLOT SCALE = NONE
 PLOT DATE = 11/2/2012

DESIGNED -
 CHECKED -
 DRAWN - RMA
 CHECKED - AMM

REVISED -
 REVISED -
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 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
 STRUCTURE NO. 022-0226
 SHEET NO. 42 OF 43 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DU PAGE	388	183
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				

Geo Services, Inc. **ROCK CORE LOG** PAGE 1 of 1
 Geotechnical, Environmental & Civil Engineering
 805 Amherst-Curtis Square 204
 Naperville, Illinois 60565
 (630) 351-2838

DATE 4/19-21/2010
 LOGGED BY DR
 GSI JOB No. 09165

ROUTE II RTE 19 DESCRIPTION Irving Park Rd., York Rd., CPR Grade Separation Pri D-91-332-06
 SECTION 32 WRS-5 LOCATION Addison Township T 40 N, R 11 E, NW 1/4 Section 13, 3rd P.M.
 COUNTY DuPage CORING METHOD Rotary Wash

STRUCT. NO. -- CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
 Station -- Core Diameter 2.0 in
 Top of Rock Elev. 568.6
 BORING NO. SB-01 Begin Core Elev. 568.6
 Station: 20298+66
 Offset: 18.0' Left
 Ground Surface Elev. 667.6

DEPTH (ft)	CORRECTION (%)	RECOVERY (%)	RQD (%)	STRENGTH (min/ft) (tsf)
1	100.0	85.0	n/a	928 -99.6

Silurian System Niagaran Series Dolomite
 RUN 1 (-99.0' to -109.0')

Light gray to gray with horizontal bedding. Fine grained with some light weathering in fractures. Vertical fracture from -99.0' to -99.4'. Horizontal fractures @ -100.1', -100.8', -101.1', -101.4', -1-1.7', -101.8', -102.2', -102.4', -103.2', -104.0', -104.4', -104.5', -105.8', -106.5', -106.8', -107.0', -107.6', -107.8' & -108.3'.
 100.0% Water Loss @ -103.0'



Color pictures of the cores Yes Cores will be stored for examination for XX
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

Geo Services, Inc. **ROCK CORE LOG** PAGE 1 of 1
 Geotechnical, Environmental & Civil Engineering
 805 Amherst-Curtis Square 204
 Naperville, Illinois 60565
 (630) 351-2838

DATE 4/19-21/2010
 LOGGED BY DR
 GSI JOB No. 09165

ROUTE II RTE 19 DESCRIPTION Irving Park Rd., York Rd., CPR Grade Separation Pri D-91-332-06
 SECTION 32 WRS-5 LOCATION Addison Township T 40 N, R 11 E, NW 1/4 Section 13, 3rd P.M.
 COUNTY DuPage CORING METHOD Rotary Wash

STRUCT. NO. -- CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
 Station -- Core Diameter 2.0 in
 Top of Rock Elev. 565.6
 BORING NO. SB-02 Begin Core Elev. 565.6
 Station: 20300+06
 Offset: 32.0' Right
 Ground Surface Elev. 663.6

DEPTH (ft)	CORRECTION (%)	RECOVERY (%)	RQD (%)	STRENGTH (min/ft) (tsf)
1	98.0	87.0	n/a	552 -98.0

Silurian System Niagaran Series Dolomite
 RUN 1 (-98.0' to -108.0')

Light gray to gray with horizontal bedding. Fine grained with some light weathering in fractures, & some vugs. Horizontal fractures @ -98.5', -99.7', -99.3', -99.5', -100.1', -100.9', -101.1', -101.3', -102.6', -103.3', -103.7', -105.0', -105.1', -106.0' & -106.8'.



Color pictures of the cores Yes Cores will be stored for examination for XX
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

Geo Services, Inc. **ROCK CORE LOG** PAGE 1 of 1
 Geotechnical, Environmental & Civil Engineering
 805 Amherst-Curtis Square 204
 Naperville, Illinois 60565
 (630) 351-2838

DATE 5/19-23/2011
 LOGGED BY MR
 GSI JOB No. 09165

ROUTE II RTE 19 DESCRIPTION Irving Park Rd., York Rd., CPR Grade Separation Pri D-91-332-06
 SECTION 32 WRS-5 LOCATION Addison Township T 40 N, R 11 E, NW 1/4 Section 13, 3rd P.M.
 COUNTY DuPage CORING METHOD Rotary Wash

STRUCT. NO. -- CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
 Station -- Core Diameter 2.0 in
 Top of Rock Elev. 566.1
 BORING NO. SB-03 Begin Core Elev. 565.6
 Station: 20299+14
 Offset: 11.5' Right
 Ground Surface Elev. 666.6

DEPTH (ft)	CORRECTION (%)	RECOVERY (%)	RQD (%)	STRENGTH (min/ft) (tsf)
1	100.0	65.0	n/a	xx -111

Silurian System Niagaran Series Dolomite
 RUN 1 (-101.0' to -111.0')

Light gray to gray with horizontal bedding. Fine grained with some light weathering in fractures. Numerous horizontal fractures throughout with some intersecting vertical fractures.
 100.0% water loss @ -105.5'



Color pictures of the cores Yes Cores will be stored for examination for XX
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

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 jmlgus

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PLOT DATE = 11/2/2012	CHECKED - AMM	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

ROCK CORE LOGS
 STRUCTURE NO. 022-0226

SHEET NO. 43 OF 43 SHEETS

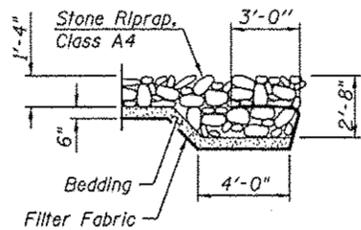
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DU PAGE	388	184
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				

Bench Mark: TBM 10 - Fnd. brass IDOT monument at south side of west headwall of Bensenville Ditch culvert crossing York Rd, approx. 1,200 feet north of IL 19; Elev. 662.75.
All elevations are NAVD 88.

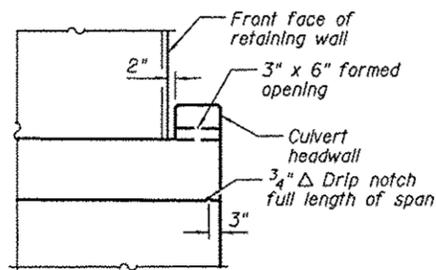
Existing Structure: twin 7'H x 10' W x 102' long RC box culvert under York Rd; ±8'H x ±23.5'W x ±22.5' long RC junction chamber; single cell 8'H x 12'W x 60' long RC box culvert under CPR.

Precast alternate is not allowed.

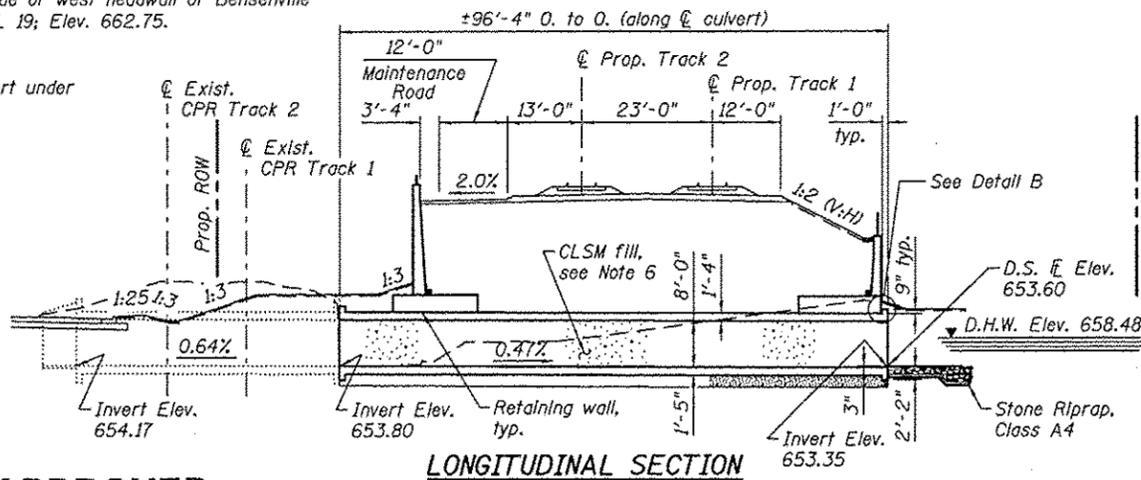
No salvage.



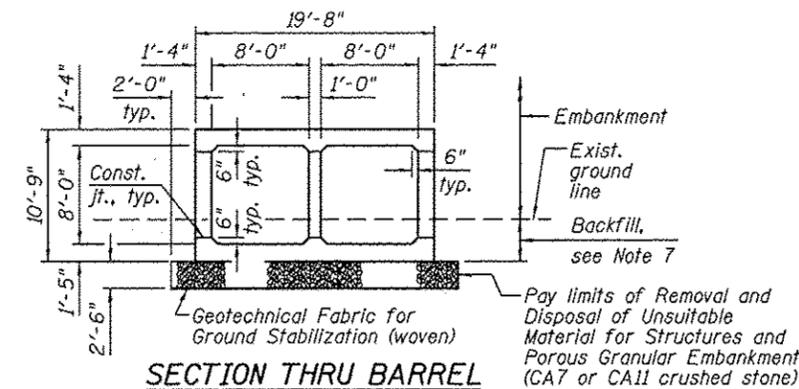
SECTION A-A



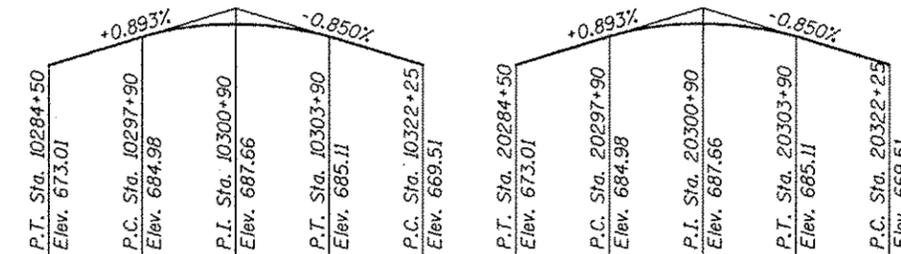
DETAIL B



LONGITUDINAL SECTION



SECTION THRU BARREL



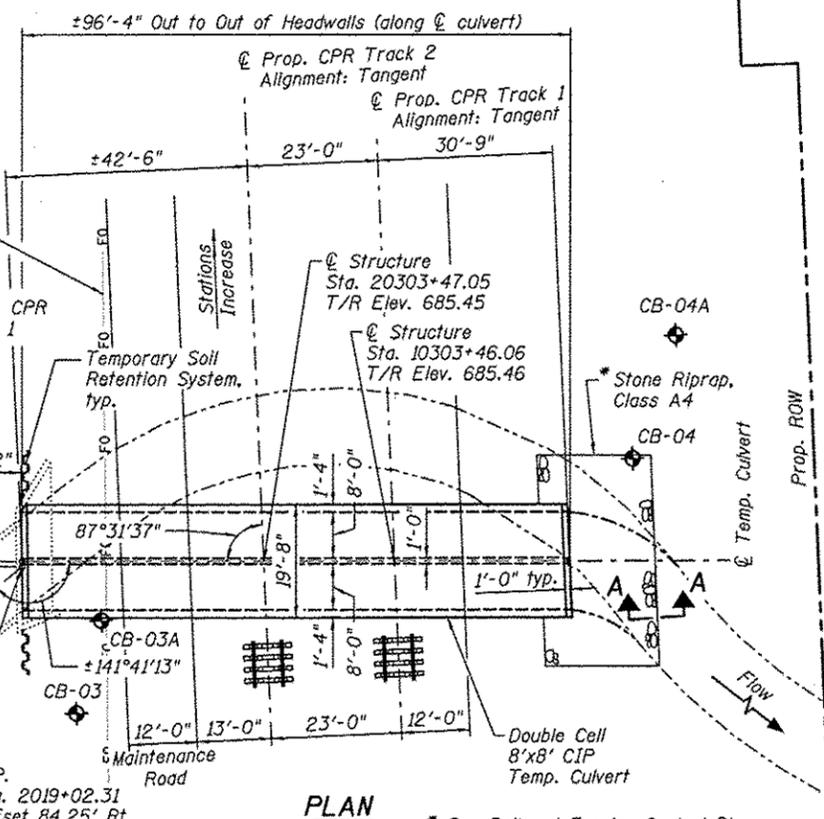
T/LOW RAIL PROFILE
(along CPR Prop. Track 1)

T/LOW RAIL PROFILE
(along CPR Prop. Track 2)

APPROVED
For Structural Adequacy Only

Carl Kuyper
Engineer of Bridges & Structures

Fiber Optic line to be relocated by utility



PLAN

INDEX OF SHEETS

- 1. General Plan
- 2.-3. Details
- 4.-5. Soil Boring Logs

GENERAL NOTES

1. Reinforcement Bars shall conform to the requirements of ASTM A615, Grade 60.
2. Reinforcement bars designated (E) shall be epoxy coated (minimum thickness 7 mils).
3. Depth of Removal and Disposal of Unsuitable Material for Structures is 2'-6". Additional depth shall be removed and replaced if additional unsuitable soils are encountered in the field and/or as directed by the Engineer.
4. Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
5. All construction joints shall be bonded. Construction joints shall be placed at a maximum spacing of 50'-0".
6. Culvert will remain in place and will be filled after completion of the permanent culvert. Pay Item for this work is covered in Permanent Culvert Plans.
7. Excavation and backfill is paid for as Concrete Box Culverts CPR Special. See Art. 502.01 & 502.13 of the Standard Specifications.
8. Net allowable soil bearing pressure is 4,000 psf.
9. For Temporary Soil Retention System Details, notes and estimated quantities, see Permanent Culvert Plans.
10. The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, causeways, etc. Any permit application by the Contractor shall refer to the IDNR 3704 Floodway Construction permit number allowing permanent construction as shown in the contract plans.
11. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.



BY: *[Signature]* DATE: 11-02-2012
HDR ENGINEERING, INC.
SHTS. 185-187
LICENSE EXPIRES 11-30-2014

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Porous Granular Embankment	Cu. Yd.	211
Geotechnical Fabric for Ground Stabilization	Sq. Yd.	253
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	211
Reinforcement Bars	Pound	70,310
Reinforcement Bars, Epoxy Coated	Pound	340
Expansion Bolts 3/4 Inch	Each	28
Concrete Box Culverts CPR Special	Cu. Yd.	303.3
Box Culverts to be Cleaned	Foot	292



LOCATION SKETCH

LOADING E100
(Barrel design)

DESIGN STRESSES

FIELD UNITS

f'c = 4,500 psi
fy = 60,000 psi (Reinforcement)

DESIGN SPECIFICATIONS

2010 AREMA Manual for Railway Engineering
2006 Canadian Pacific Railway Requirements for Design of Steel and Concrete Bridges
2002 AASHTO Standard Specifications for Highway Bridges

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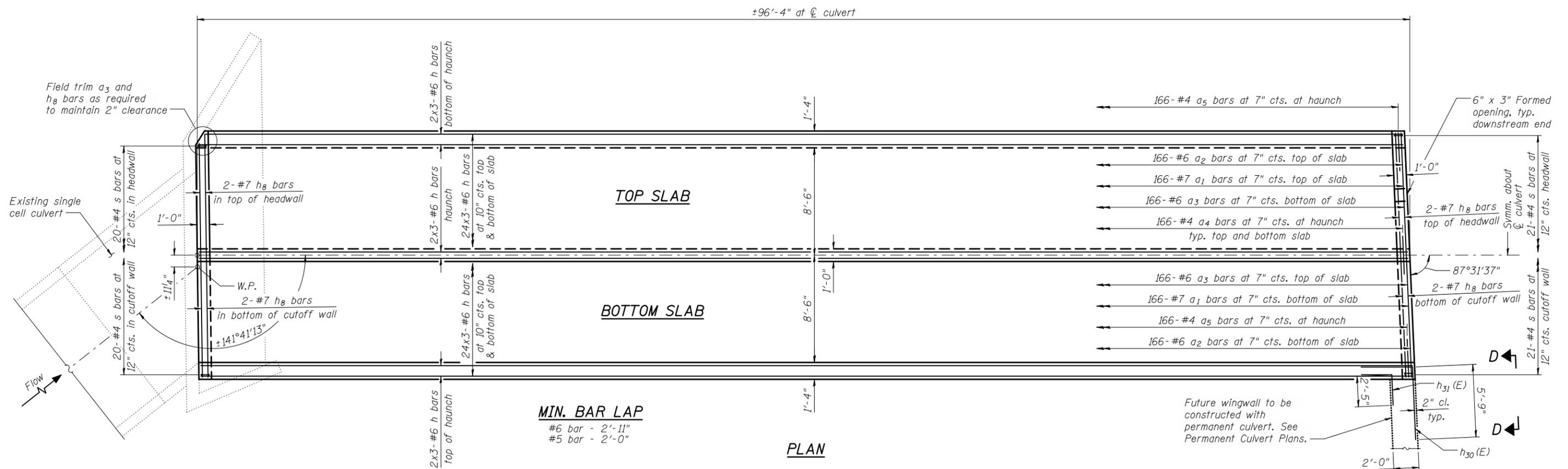
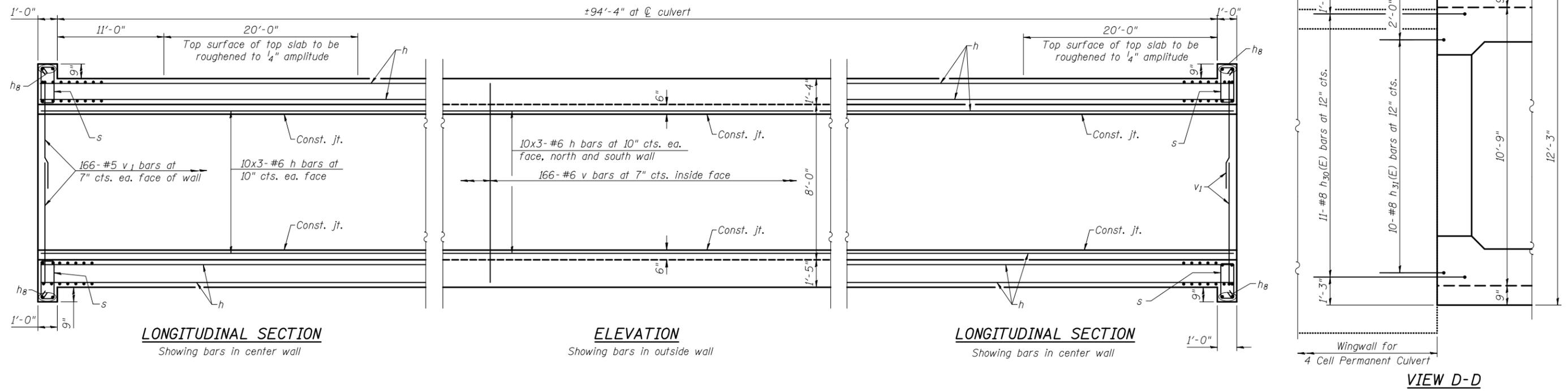
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PLOT DATE = 12/3/2012	CHECKED - LGP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
TEMPORARY CULVERT UNDER CPR

SHEET NO. 1 OF 5 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DU PAGE	388	185
CONTRACT NO. GOW01				
ILLINOIS FED. AID PROJECT				



Notes:
 For working point (W.P.) station and offset, see Sheet 1.
 For removal limits of Apron and Wings to build temporary culvert, see Permanent Culvert Plans.
 Bars indicated thus 12x4-#5 etc. indicates 12 lines of bars with 4 lengths per line.
 Roughening of top slab is included in the cost of Concrete Box Culverts CPR Special.

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 CHECKED - LGP

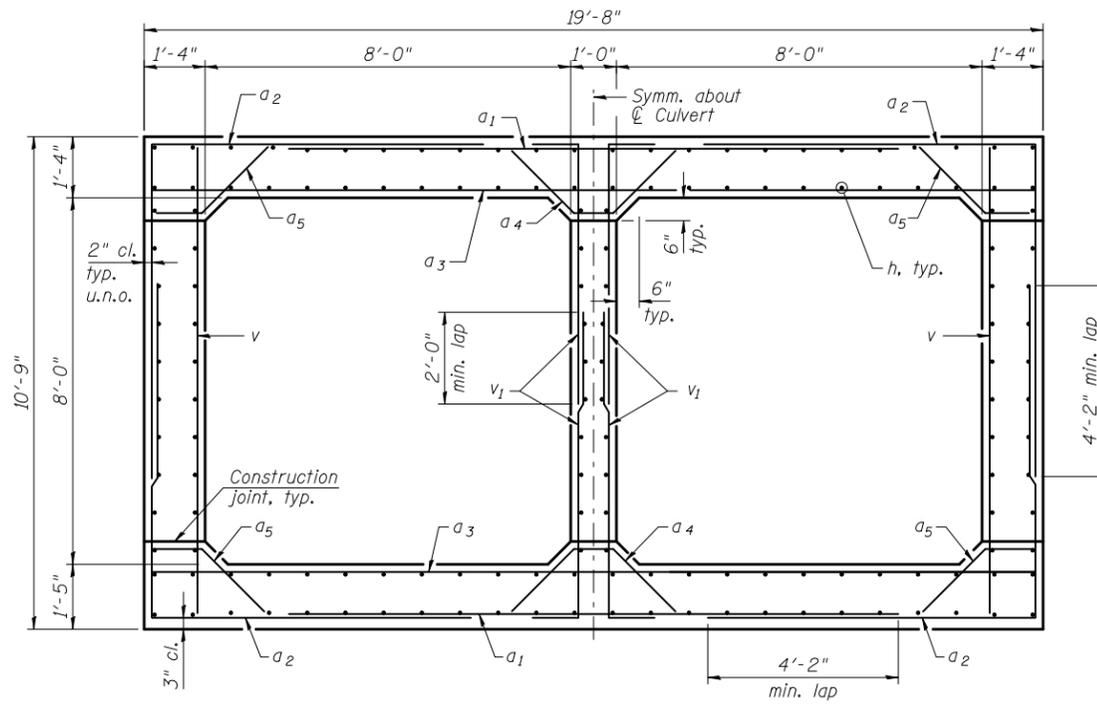
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

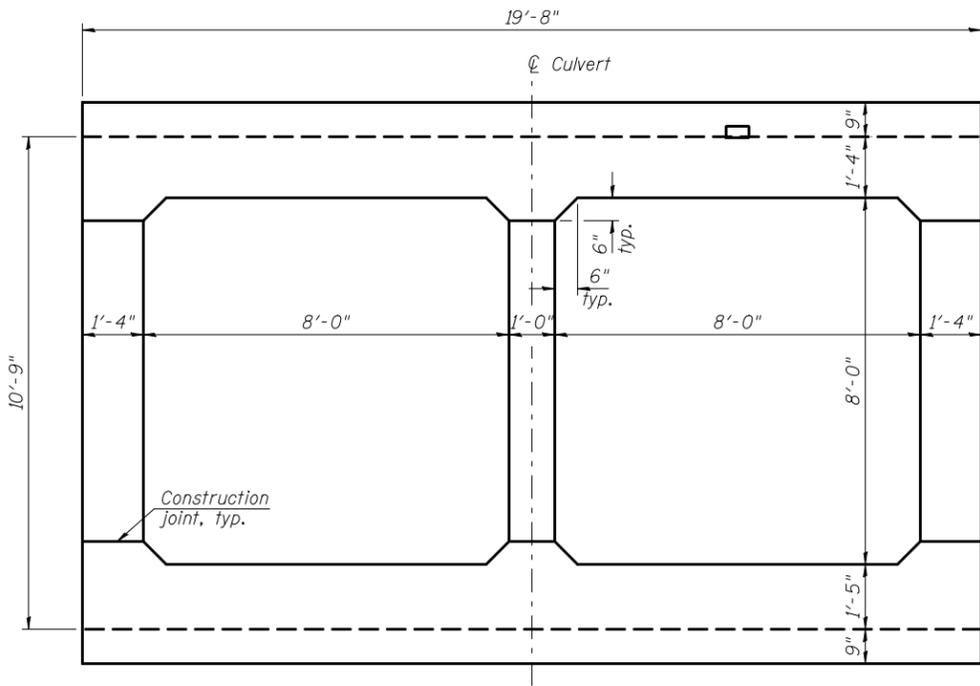
DETAILS
 TEMPORARY CULVERT UNDER CPR

SHEET NO. 2 OF 5 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DU PAGE	388	186
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				



SECTION THRU BARREL

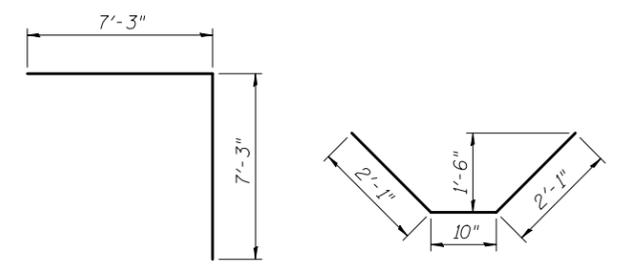


HALF END VIEW
Upstream end at existing culvert

HALF END VIEW
Downstream end

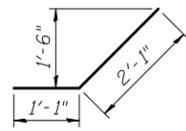
BILL OF BARS

Bar	No.	Size	Length	Shape	
a ₁	332	#7	13'-4"	—	
a ₂	664	#6	14'-6"	┌	
a ₃	332	#6	19'-4"	—	
a ₄	332	#4	5'-0"	└	
a ₅	664	#4	3'-2"	└	
h	468	#6	34'-0"	—	
h ₈	8	#7	19'-4"	—	
h _{30(E)}	11	#8	9'-10"	┌	
h _{31(E)}	10	#5	4'-10"	┌	
s	82	#4	5'-7"	└	
v	332	#6	10'-4"	—	
v ₁	664	#5	7'-2"	┌	
Concrete Box Culverts CPR Special				Cu. Yd.	303.3
Reinforcement Bars				Pound	70,310
Reinforcement Bars, Epoxy Coated				Pound	340
Expansion Bolts 3/4" Inch				Each	28



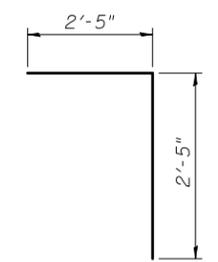
BAR a₂

BAR a₄

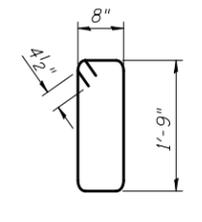


BAR a₅

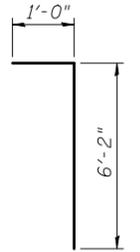
BAR h_{30(E)}



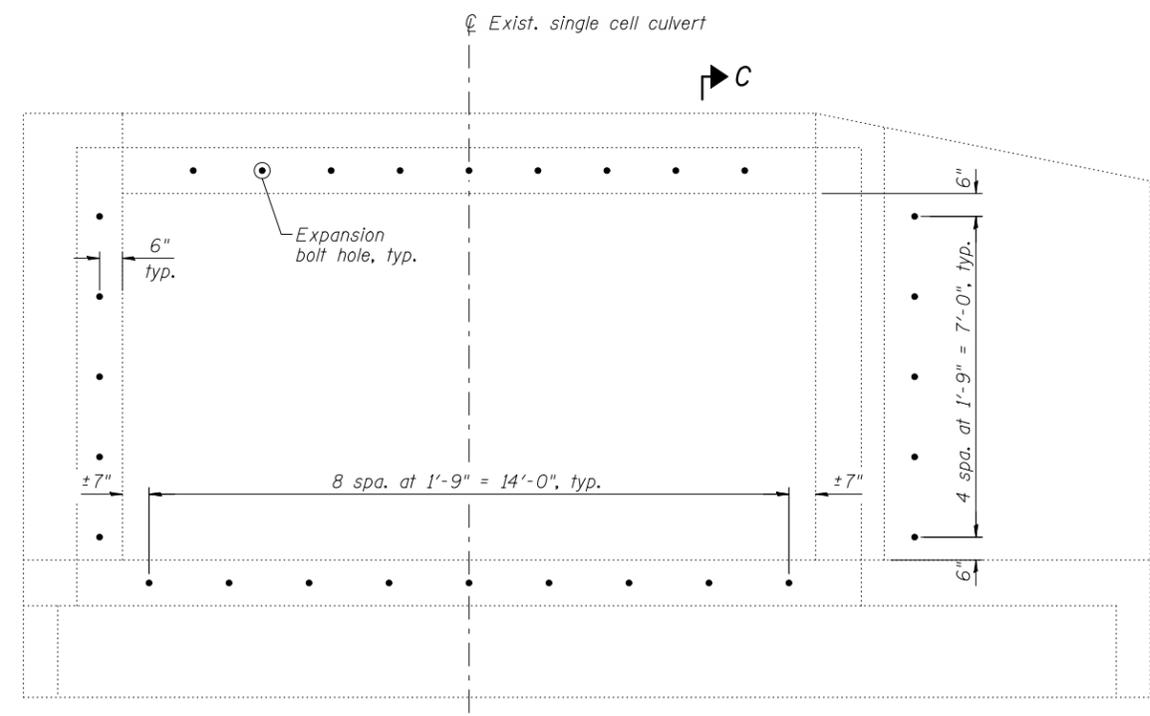
BAR h_{31(E)}



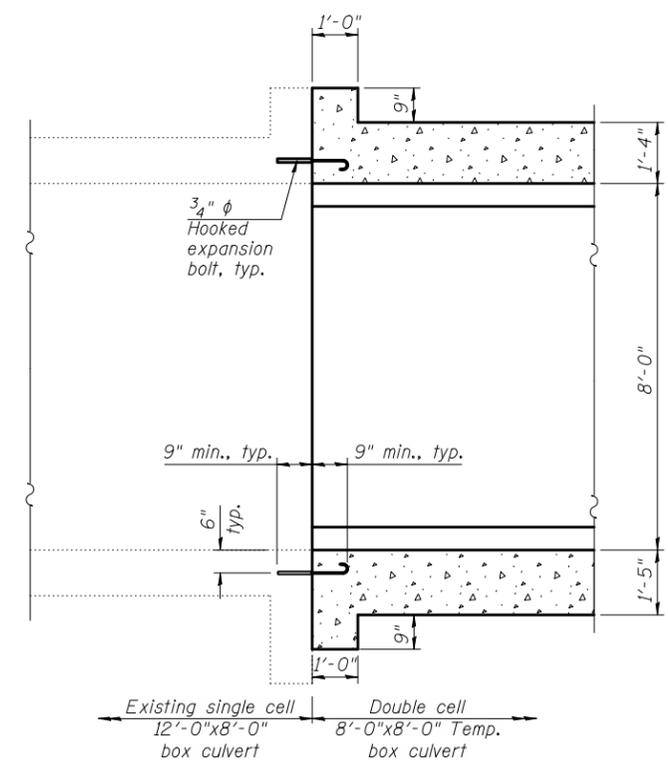
BAR s



BAR v₁



END ELEVATION OF EXISTING CULVERT
At downstream end, showing expansion bolt locations



SECTION C-C
Upstream end of culvert, showing expansion bolt locations

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PLOT DATE = 11/2/2012	CHECKED - LGP	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS
TEMPORARY CULVERT UNDER CPR

SHEET NO. 3 OF 5 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1321	32VB	DU PAGE	388	187
CONTRACT NO. 60W01				

ILLINOIS FED. AID PROJECT

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PAGE 1 of 2

Geo Services, Inc. SOIL BORING LOG DATE 4/23/2010
 Geotechnical, Environmental & Civil Engineering
 805 Amberst Court, Suite 204
 Naperville, Illinois 60565
 (630) 355-2838

LOGGED BY DR
 GSI JOB No. 09165

ROUTE II, RTE 19 DESCRIPTION Irving Park Rd, York Rd, CNRR Grade Separation Pri D-91-332-06
 SECTION 32 WRS-5 LOCATION Addison Township T40 N, R11 E, NW 1/4 Section 13
 COUNTY DuPage DRILLING METHOD Hollow Stem Auger/ Rotary HAMMER TYPE CME Automatic

STRUCT. NO. --
 Station --

BORING NO. **CB-04**
 Station: 20303+62
 Offset: 65.5' Right
 Ground Surface Elev. 659.5

DEPTH (ft)	BLOW COUNT (blows/ft)	UCS (tsf)	MOISTURE (%)	SOIL DESCRIPTION		DEPTH (ft)	BLOW COUNT (blows/ft)	UCS (tsf)	MOISTURE (%)
				DEPTH (ft)	SOIL DESCRIPTION				
0				639.0	SILTY CLAY-stiff to very stiff (A-6)	0			
2						2			
3						3			
4	2.5P			636.5	SANDY CLAY LOAM-gray-loose (A-4)	4	1.25P		12
5						5			
6						6			
7						7			
8						8			
9						9			
10	1.25P			633.0	SILTY CLAY LOAM-brown & gray-stiff to very stiff (A-4/A-6)	10	1.5P		16
11						11			
12						12			
13						13			
14						14			
15						15			
16						16			
17						17			
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59						59			
60						60			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
 NR-No Recovery

PAGE 2 of 2

Geo Services, Inc. SOIL BORING LOG DATE 4/23/2010
 Geotechnical, Environmental & Civil Engineering
 805 Amberst Court, Suite 204
 Naperville, Illinois 60565
 (630) 355-2838

LOGGED BY DR
 GSI JOB No. 09165

ROUTE II, RTE 19 DESCRIPTION Irving Park Rd, York Rd, CNRR Grade Separation Pri D-91-332-06
 SECTION 32 WRS-5 LOCATION Addison Township T40 N, R11 E, NW 1/4 Section 13
 COUNTY DuPage DRILLING METHOD Hollow Stem Auger/ Rotary HAMMER TYPE CME Automatic

STRUCT. NO. --
 Station --

BORING NO. **CB-04**
 Station: 20303+62
 Offset: 65.5' Right
 Ground Surface Elev. 659.5

DEPTH (ft)	BLOW COUNT (blows/ft)	UCS (tsf)	MOISTURE (%)	SOIL DESCRIPTION		DEPTH (ft)	BLOW COUNT (blows/ft)	UCS (tsf)	MOISTURE (%)
				DEPTH (ft)	SOIL DESCRIPTION				
0						0			
1						1			
2						2			
3						3			
4						4			
5						5			
6						6			
7						7			
8						8			
9						9			
10						10			
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59						59			
60						60			

End Of Boring @ -45.0'
 Hollow Stem Augers To -10.0'
 Rotary Drilling To Completion
 CME Automatic Hammer
 10.0' Of 4.0" Casing Used

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
 NR-No Recovery

PAGE 1 of 1

Geo Services, Inc. SOIL BORING LOG DATE 5/5/2010
 Geotechnical, Environmental & Civil Engineering
 805 Amberst Court, Suite 204
 Naperville, Illinois 60565
 (630) 355-2838

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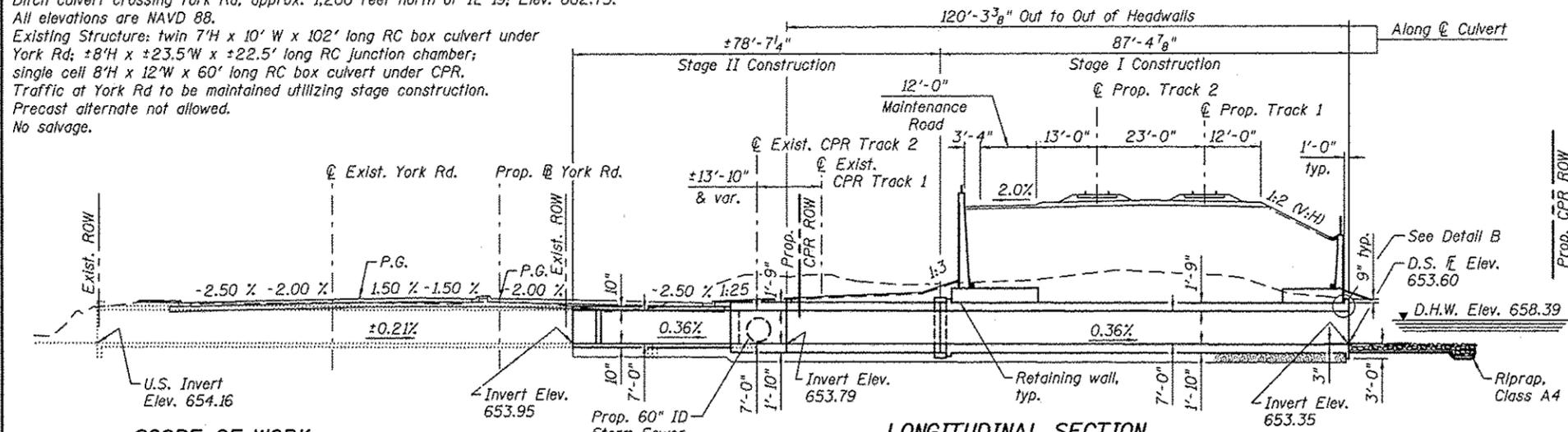
ROUTE II, RTE 19 DESCRIPTION Irving Park Rd, York Rd, CNRR Grade Separation Pri D-91-332-06
 SECTION 32 WRS-5 LOCATION Addison Township T40 N, R11 E, NW 1/4 Section 13
 COUNTY DuPage DRILLING METHOD Hand Auger HAMMER TYPE CME Automatic

STRUCT. NO. --
 Station --

BORING NO. **CB-04A**
 Station: 20303+83
 Offset: 74.0' Right
 Ground Surface Elev. 555.3

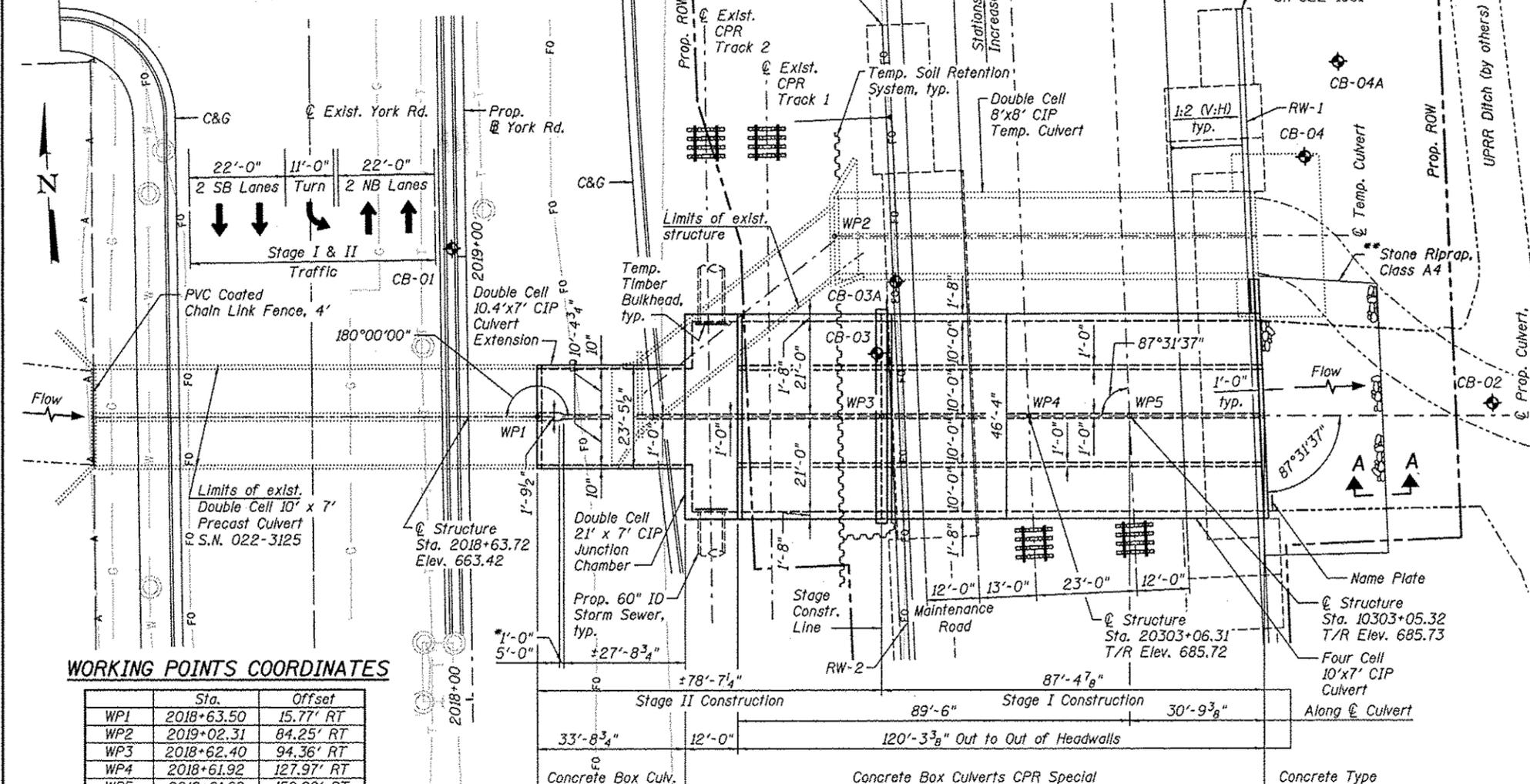
DEPTH (ft)	BLOW COUNT (blows/ft)	UCS (tsf)	MOISTURE (%)	SOIL DESCRIPTION		DEPTH (ft)	BLOW COUNT (blows/ft)	UCS (tsf)	MOISTURE (%)
				DEPTH (ft)	SOIL DESCRIPTION				
0						0			
1						1			
2						2			
3						3			
4						4			
5						5			
6						6			
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41						41			
42						42			
43						43			
44									

Bench Mark: TBM 10 - Fnd. brass IDOT monument at south side of west headwall of Bensenville Ditch culvert crossing York Rd, approx. 1,200 feet north of IL 19; Elev. 662.75.
 All elevations are NAVD 88.
 Existing Structure: twin 7'H x 10' W x 102' long RC box culvert under York Rd; ±8'H x ±23.5'W x ±22.5' long RC junction chamber; single cell 8'H x 12'W x 60' long RC box culvert under CPR.
 Traffic at York Rd to be maintained utilizing stage construction.
 Precast alternate not allowed.
 No salvage.

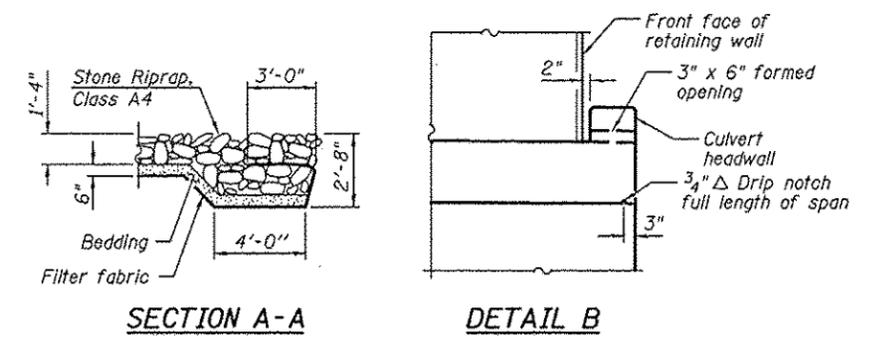


SCOPE OF WORK

1. Extend existing CPR culvert with temporary culvert.
2. Stage I - Construct four cell CPR culvert from the east.
3. Stage II - Complete four cell CPR culvert and construct junction chamber and two cell York Rd culvert extension.
4. Fill temporary culvert with Controlled Low Strength Material.
5. Fill space between temporary and permanent culvert with Controlled Low Strength Material. See Sheet 2 for details.



PLAN



DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Upstream	Downstream
	651.16	650.35

LOADING E100
 (Four Cell Culvert)

LOADING HS20-44
 Allow 50 psf for future wearing surface.
 (Culvert Extension & Junction Chamber)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.089g
 Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.152g
 Soil Site Class = D

DESIGN SPECIFICATIONS

2010 AREMA Manual for Railway Engineering
 2006 Canadian Pacific Railway Requirements for Design of Steel and Concrete Bridges
 2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi (Culvert Extension)
 f'_c = 4,500 psi (Junction Chamber & Four Cell Culvert)
 f_y = 60,000 psi (Reinforcement)

APPROVED
 For Structural Adequacy Only
[Signature]
 Engineer of Bridges & Structures



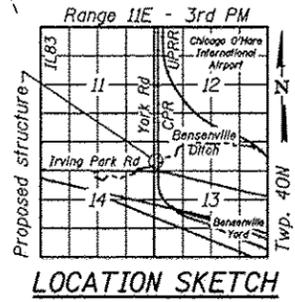
BY: *[Signature]* DATE: 11-02-2012
 HDR ENGINEERING, INC.
 SHTS. 190-199
 LICENSE EXPIRES 11-30-2014

INDEX OF SHEETS

1. General Plan
2. General Data
3. Removal Details
4. Double Cell Box Culvert Extension Details
5. Double Cell Box Culvert Extension Details
6. Junction Chamber Details
7. Junction Chamber Details
8. 4 Cell Box Culvert Details
9. 4 Cell Box Culvert Details
10. 4 Cell Box Culvert Details
11. Soil Boring Logs
12. Soil Boring Logs
13. Soil Boring Logs

GENERAL PLAN

**YORK RD. & CPR OVER
 BENSENVILLE DITCH
 PUBLIC WATERS
 F.A.P. 345A - SEC. 32VB
 DU PAGE COUNTY
 STATION 2018+63.72
 STRUCTURE NO. 022-3125**



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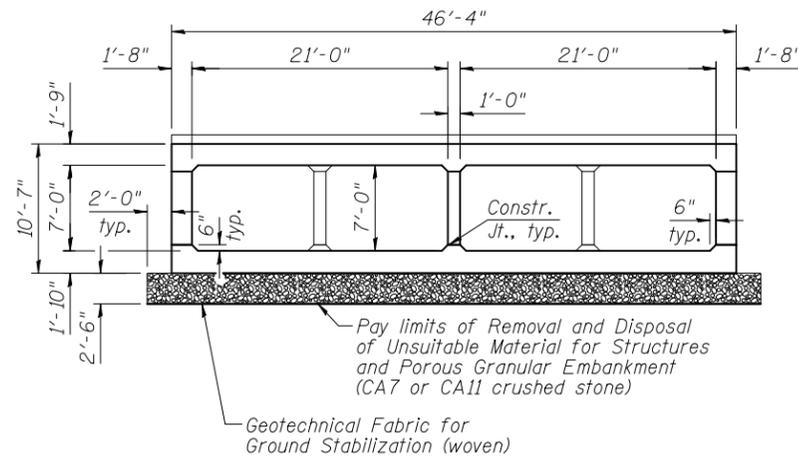


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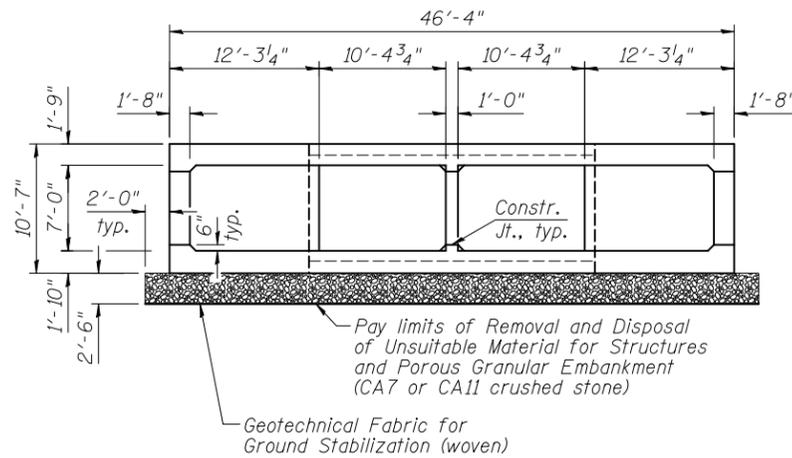
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
 STRUCTURE NO. 022-3125
 SHEET NO. 1 OF 13 SHEETS

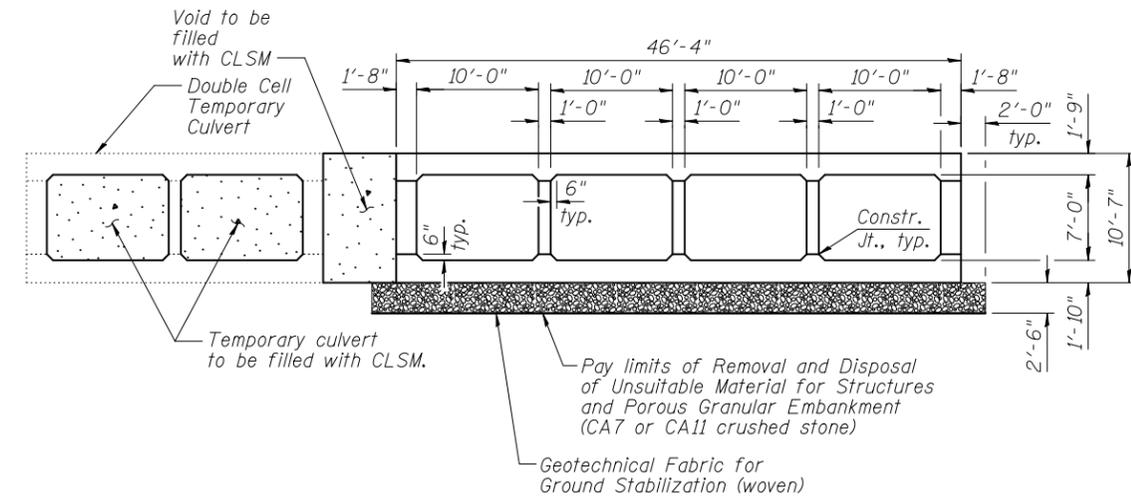
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				CONTRACT NO. GOW01
ILLINOIS FED. AID PROJECT				



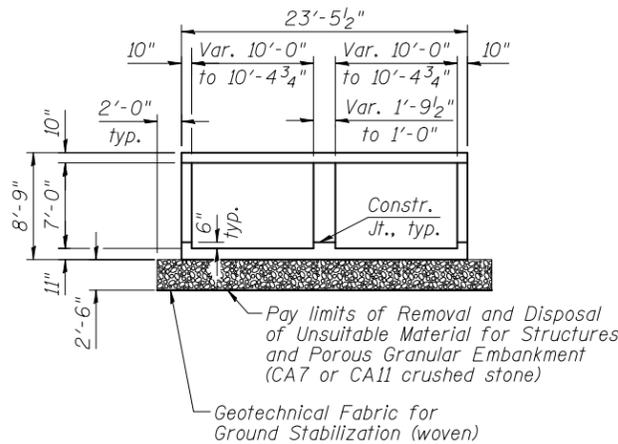
SECTION THRU JUNCTION CHAMBER
(Looking Downstream)



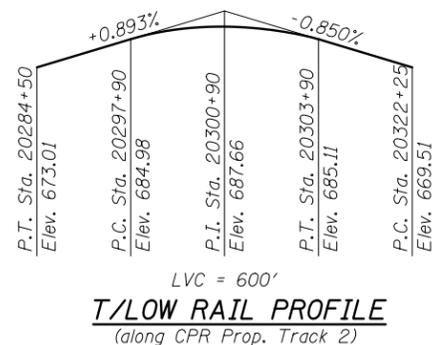
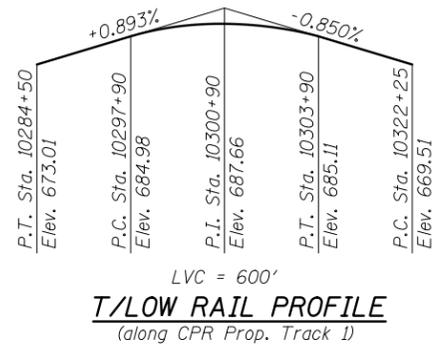
SECTION THRU JUNCTION CHAMBER
(Looking Upstream)



SECTION THRU BARREL
(Four Cell Culvert looking downstream)



SECTION THRU BARREL
(Culvert Extension)

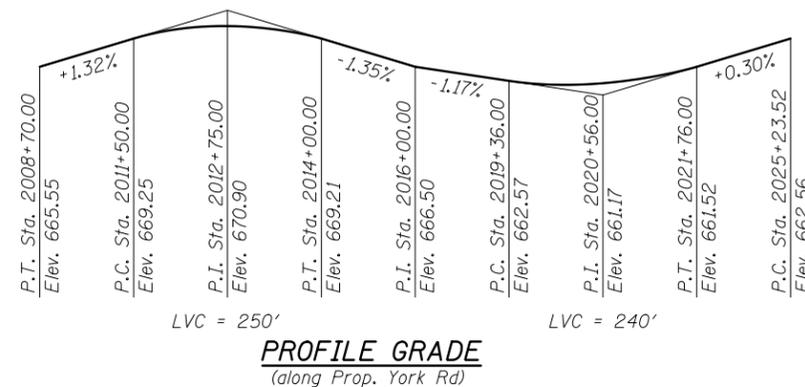


TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Porous Granular Embankment	Cu. Yd.	669
Geotechnical Fabric for Ground Stabilization	Sq. Yd.	802
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	669
Reinforcement Bars, Epoxy Coated	Pound	273,680
Expansion Bolts 3/4 Inch	Each	38
Concrete Box Culverts CPR Special	Cu. Yd.	1,066.2
Concrete Box Culverts	Cu. Yd.	76.4
Removal of Existing Structures	Each	1
Controlled Low-Strength Material	Cu. Yd.	745.6
Name Plates	Each	1
Chain Link Fence, 4'	Foot	23
Temporary Soil Retention System	Sq. Ft.	1,530

BENSENVILLE DITCH
C.P.R.
BUILT BY
STATE OF ILLINOIS
YORK RD SEC. 32VB
STA. 2018+63.72
LOADING E100/HS-20
STR. NO. 022-3125

NAME PLATE
See Std. 515001



WATERWAY INFORMATION (York Rd)

Drainage Area = 1.56 Sq Mi Low Grade Elev. 661.45 @ Sta. 2021+30

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	50	594	91.8	91.8	658.75	2.60	0.17	661.35	658.92
Base	100	684	102.2	102.2	659.27	2.94	0.34	662.21	659.61
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	1,163	140.0	140.0	666.12	1.72	0.49	667.84	666.61

WATERWAY INFORMATION (CPR)

Drainage Area = 1.56 Sq Mi Low Grade Elev. 685.76 @ Sta. 20303+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	50	594	51.7	190.4	658.48	2.97	0.07	661.45	658.55
Base	100	684	59.0	214.8	659.09	3.03	0.06	662.12	659.15
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	1,163	96.0	280.0	666.12	1.76	0.55	667.88	666.67

GENERAL NOTES

- Reinforcement Bars shall conform to the requirements of ASTM A615, Grade 60.
- Reinforcement bars designated (E) shall be epoxy coated (minimum thickness 7 mils).
- The depth of Removal and Disposal of Unsuitable Material for Structures is 2'-6". Additional depth shall be removed and replaced if additional unsuitable soils are encountered in the field and/or as directed by the Engineer.
- Layout of slope protection system (stone riprap) may be varied in the field to suit ground conditions as directed by the Engineer.
- All construction joints shall be bonded. Construction joints shall be placed at a maximum spacing of 50'-0".
- Net allowable soil bearing pressure is 4,000 psf.
- Excavation and backfill is paid for as Concrete Box Culverts and Concrete Box Culverts CPR Special. See Art. 502.01 & 502.13 of the Standard Specifications.
- CLSM = Controlled Low-Strength Material
- Removal of Existing Structures shall include removal of the existing fence around the open channel in the area between the existing York Rd. Culvert and the existing CPR Culvert. It shall also include removal of the concrete in the ditch adjacent to the open channel between the existing York Rd. Culvert and the existing CPR Culvert.
- The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, causeways, etc. Any permit application by the Contractor shall refer to the IDNR 3704 Floodway Construction permit number allowing permanent construction as shown in the contract plans.
- Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

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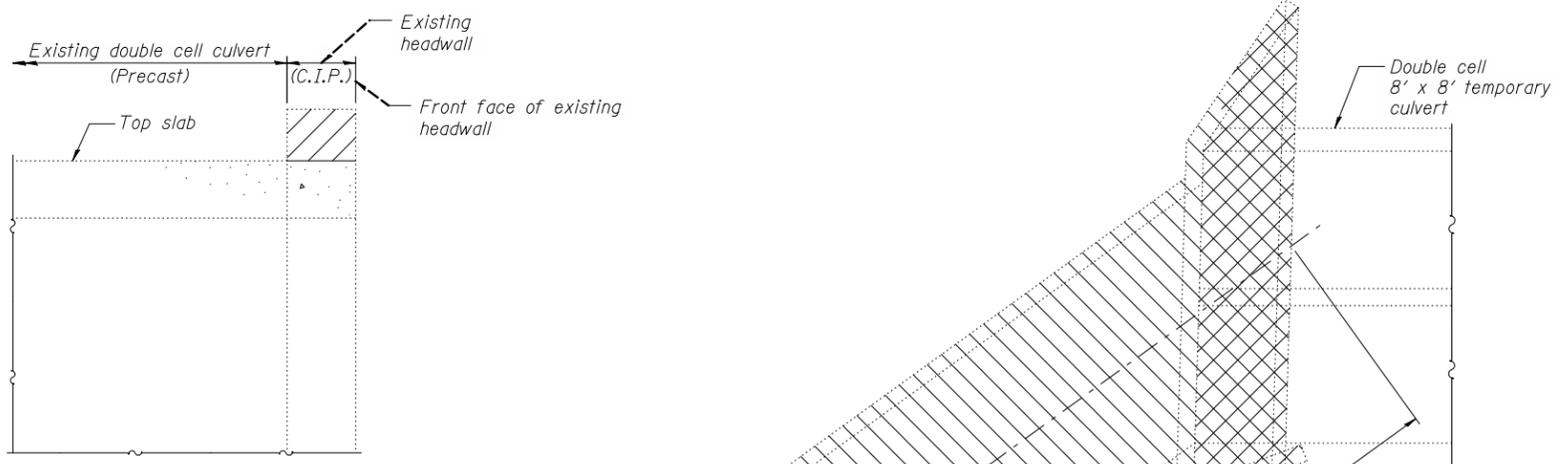
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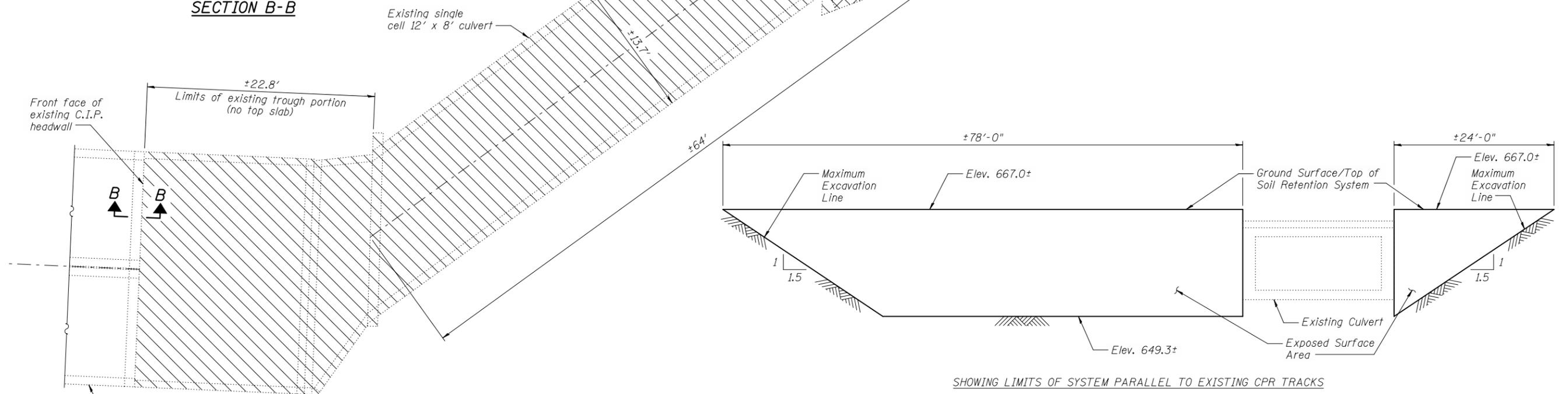
GENERAL DATA
STRUCTURE NO. 022-3125

SHEET NO. 2 OF 13 SHEETS

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CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				



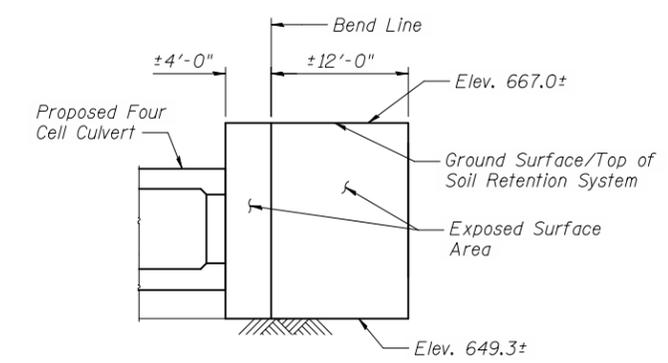
SECTION B-B



SHOWING LIMITS OF SYSTEM PARALLEL TO EXISTING CPR TRACKS

 Limits of Removal of Existing Structures
 Limits of Removal of Existing Structures to build temporary culvert. See Temporary Culvert Plans.

REMOVAL DETAIL PLAN



SHOWING LIMITS OF SUPPLEMENTAL SYSTEM TO CONSTRUCT STAGE II

TEMPORARY SOIL RETENTION SYSTEM

Note:
 A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a Temporary Soil Retention System design including plan details and calculations for review and acceptance by the Engineer. Temporary Soil Retention System shall be designed for railroad surcharge.

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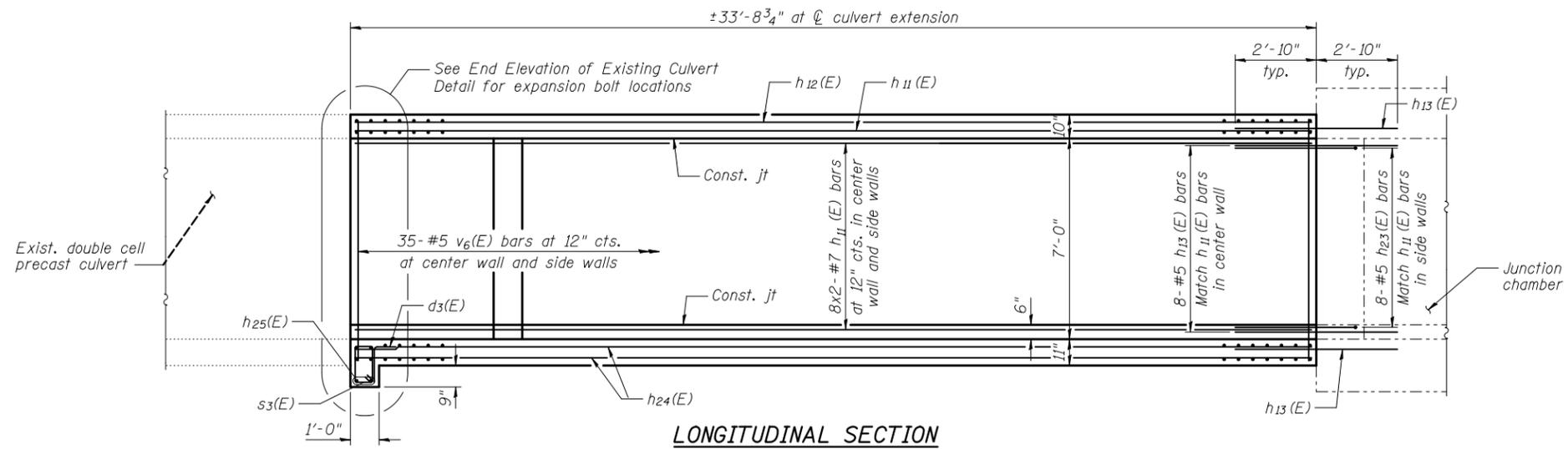
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**STATE OF ILLINOIS
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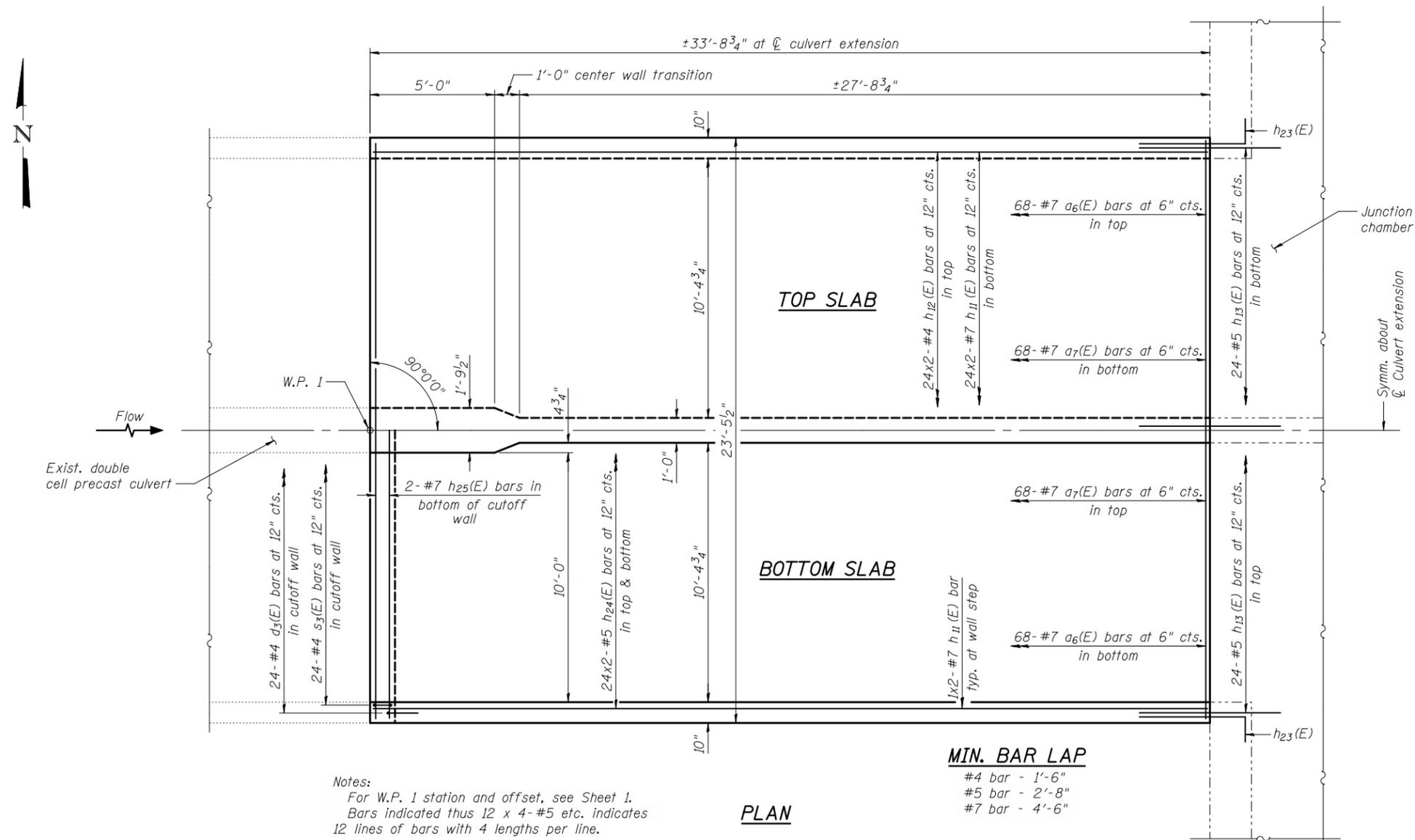
**REMOVAL DETAILS
 STRUCTURE NO. 022-3125**

SHEET NO. 3 OF 13 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345A	32VB	DU PAGE	388	192
CONTRACT NO. 60W01				
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LONGITUDINAL SECTION



PLAN

Notes:
For W.P. 1 station and offset, see Sheet 1.
Bars indicated thus 12 x 4-#5 etc. indicates
12 lines of bars with 4 lengths per line.

MIN. BAR LAP

- #4 bar - 1'-6"
- #5 bar - 2'-8"
- #7 bar - 4'-6"

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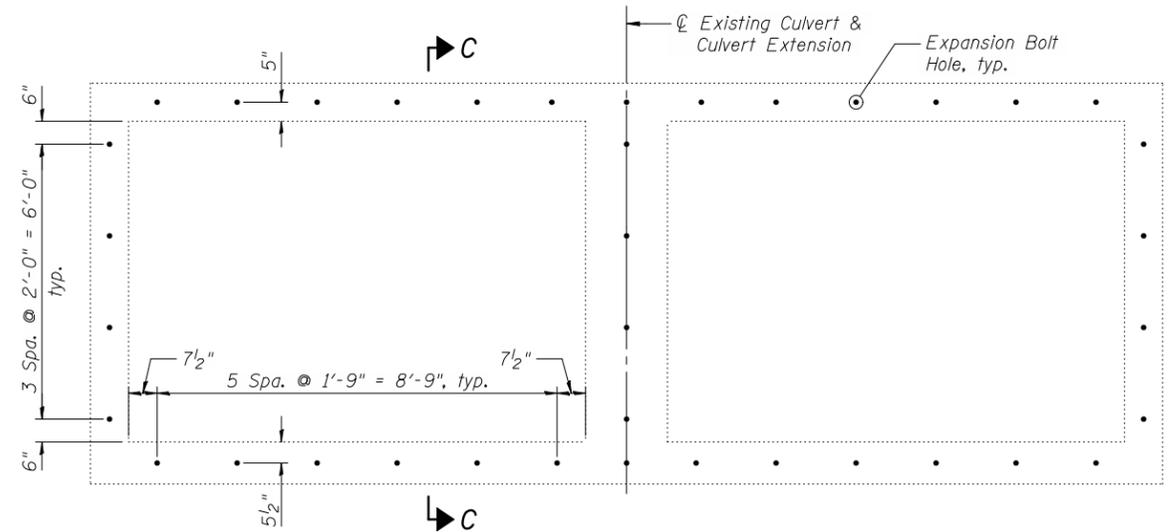
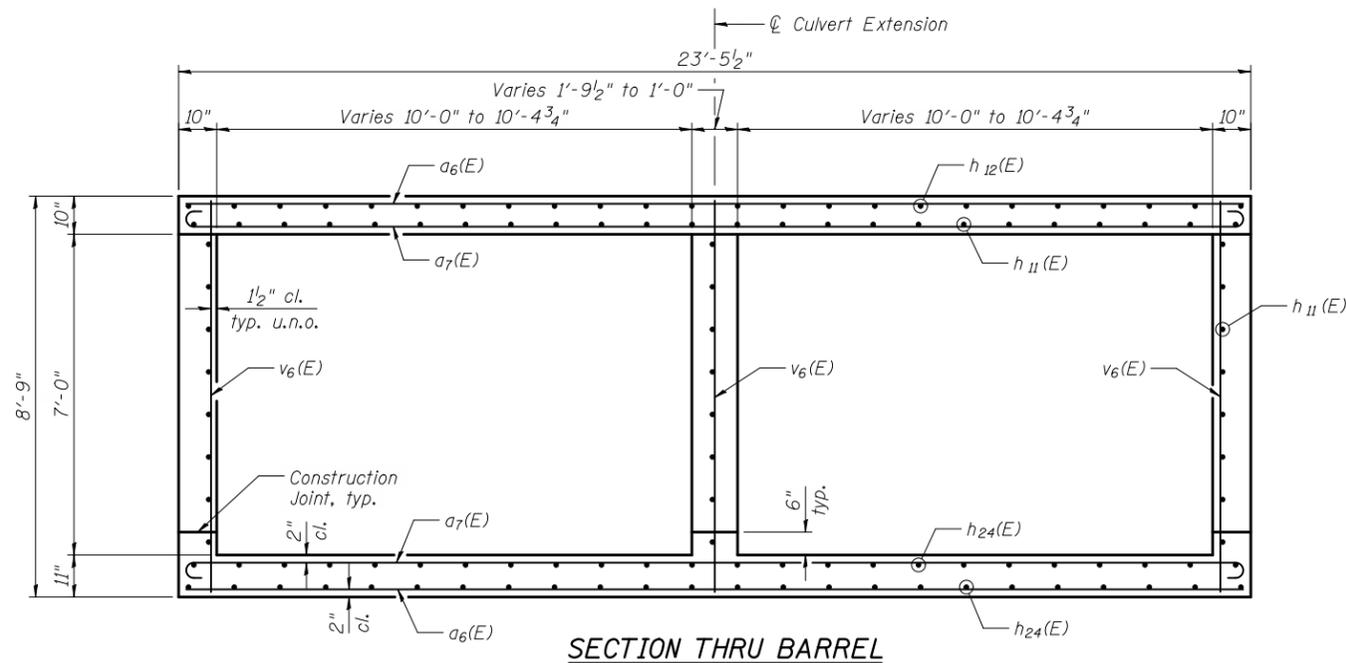
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**STATE OF ILLINOIS
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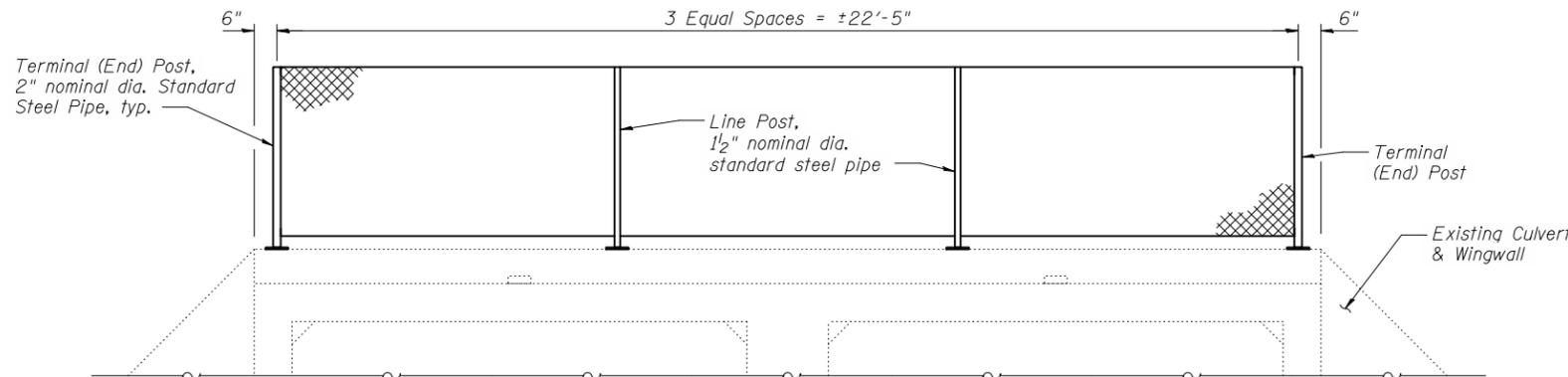
**DOUBLE CELL BOX CULVERT EXTENSION DETAILS
STRUCTURE NO. 022-3125**

SHEET NO. 4 OF 13 SHEETS

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CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				



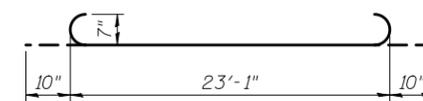
END ELEVATION OF EXISTING CULVERT
Shown at east end of existing culvert



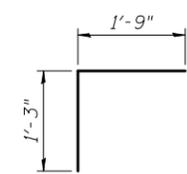
END ELEVATION OF EXISTING CULVERT
West end of existing culvert showing Chain Link Fence, 4'

BILL OF MATERIAL

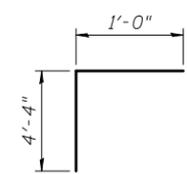
Bar	No.	Size	Length	Shape
a6(E)	136	#7	23'-1"	—
a7(E)	136	#7	24'-9"	—
d3(E)	24	#4	3'-0"	┌
h11(E)	96	#7	19'-0"	—
h12(E)	48	#4	17'-6"	—
h13(E)	56	#5	5'-8"	—
h23(E)	16	#5	5'-4"	┌
h24(E)	96	#5	18'-1"	—
h25(E)	2	#7	23'-2"	—
s3(E)	24	#4	4'-11"	┌
v6(E)	105	#5	8'-5"	—
Concrete Box Culverts		Cu. Yd.		76.4
Reinforcement Bars, Epoxy Coated		Pound		20,960
Chain Link Fence, 4'		Foot		23
Expansion Bolts 3/4 Inch		Each		38



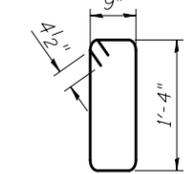
BAR a7(E)



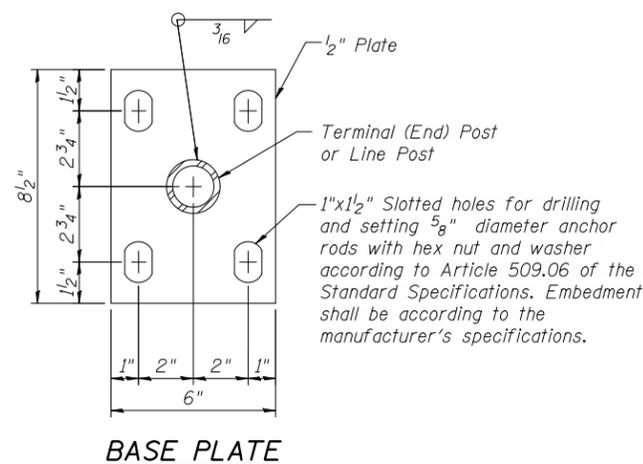
BAR d3(E)



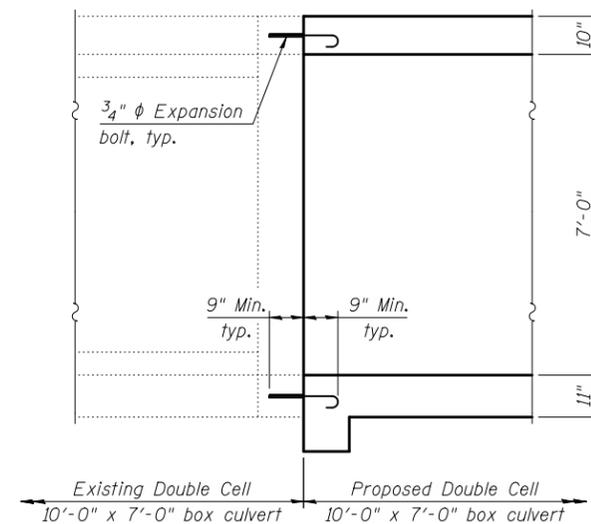
BAR h23(E)



BAR s3(E)



BASE PLATE



SECTION C-C

Upstream end of proposed culvert extension showing bolt locations

Notes:

All items associated with constructing the chain-link fence shall be galvanized according to the Standard Specifications. See Article 509 of the Standard Specifications and Chain Link Fence Standard 664001-02 for more information regarding chain link fence. Expansion bolts shall be placed along centerlines of walls, top slab and bottom slab of existing culvert.

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

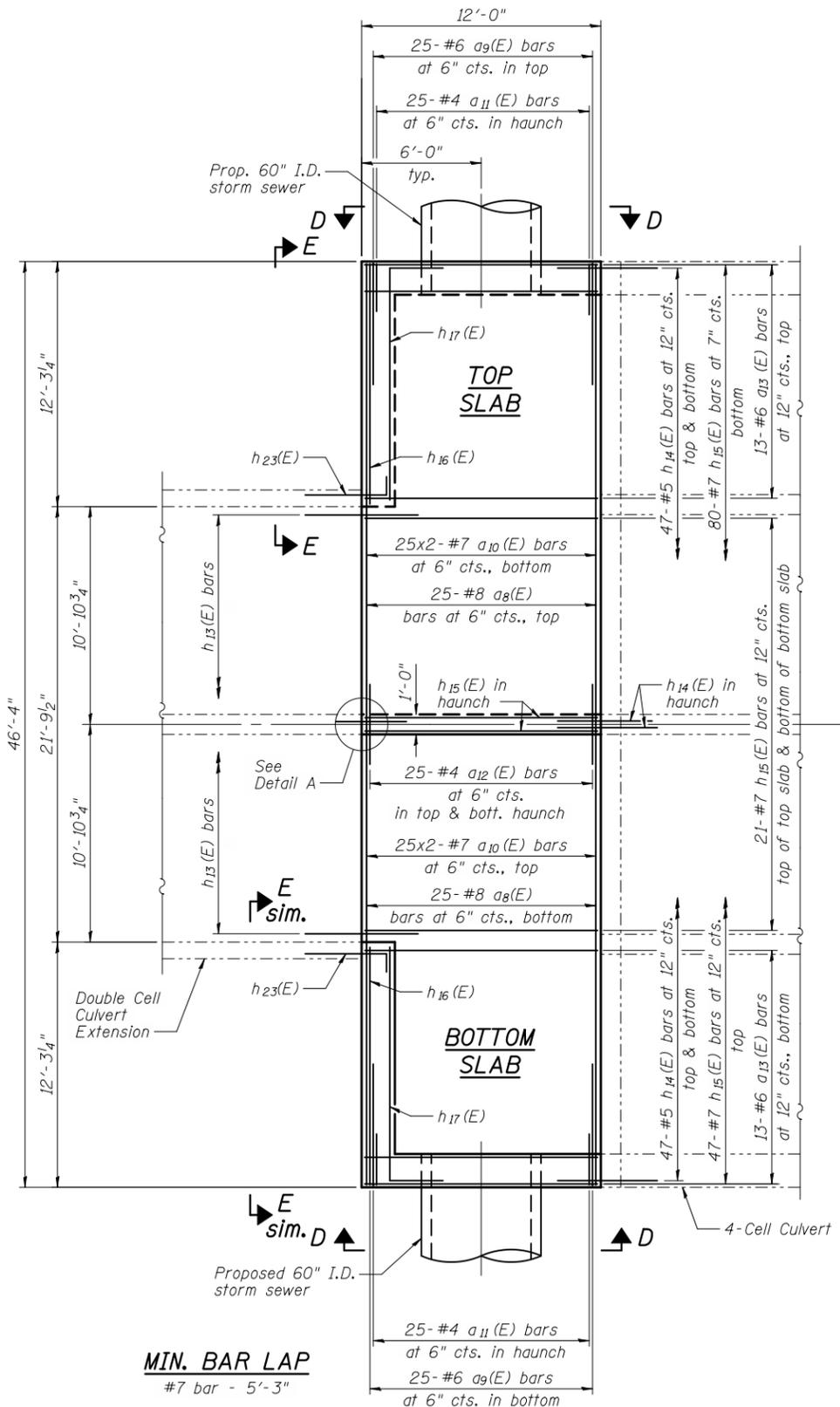
**DOUBLE CELL BOX CULVERT EXTENSION DETAILS
STRUCTURE NO. 022-3125**

SHEET NO. 5 OF 13 SHEETS

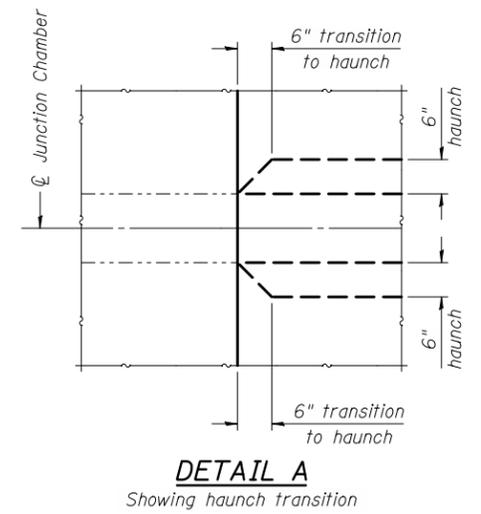
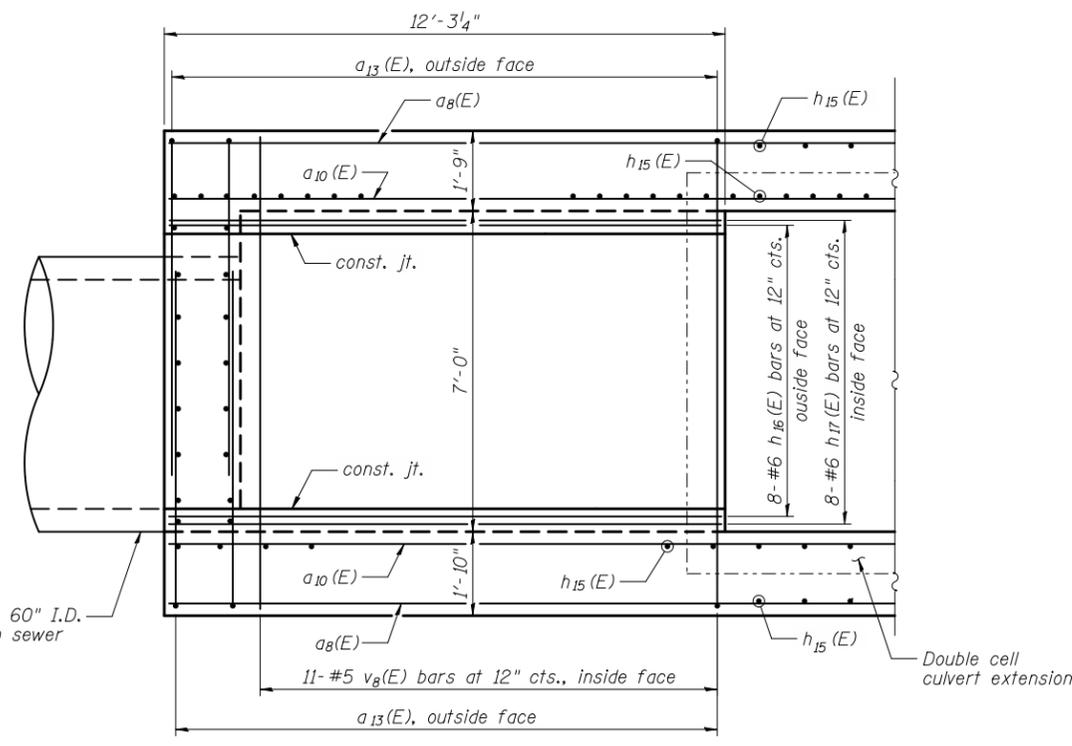
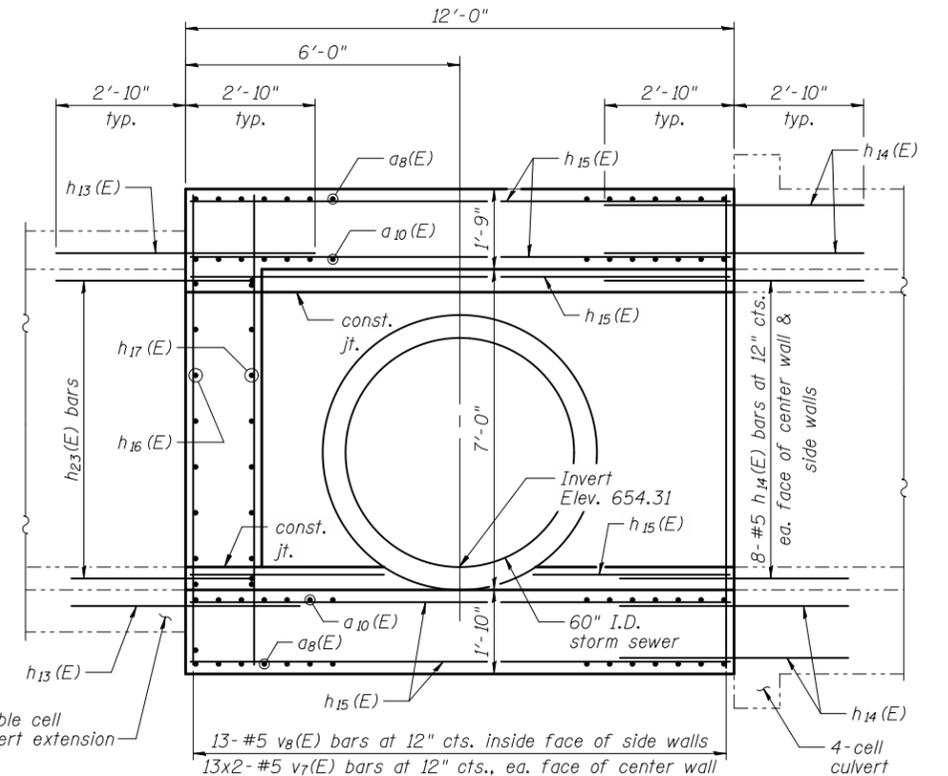
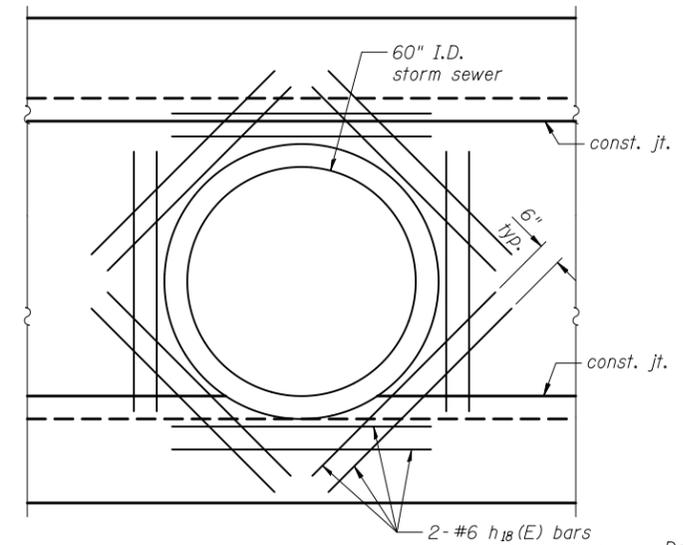
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345A	32VB	DU PAGE	388	194
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				

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MIN. BAR LAP
#7 bar - 5'-3"



Notes:
For h₁₃(E) bar details and layout, see double cell box culvert extension details sheets.
All field cut ends of bars shall be coated with epoxy patching material supplied by the manufacturer of the epoxy coating.
Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths per line.



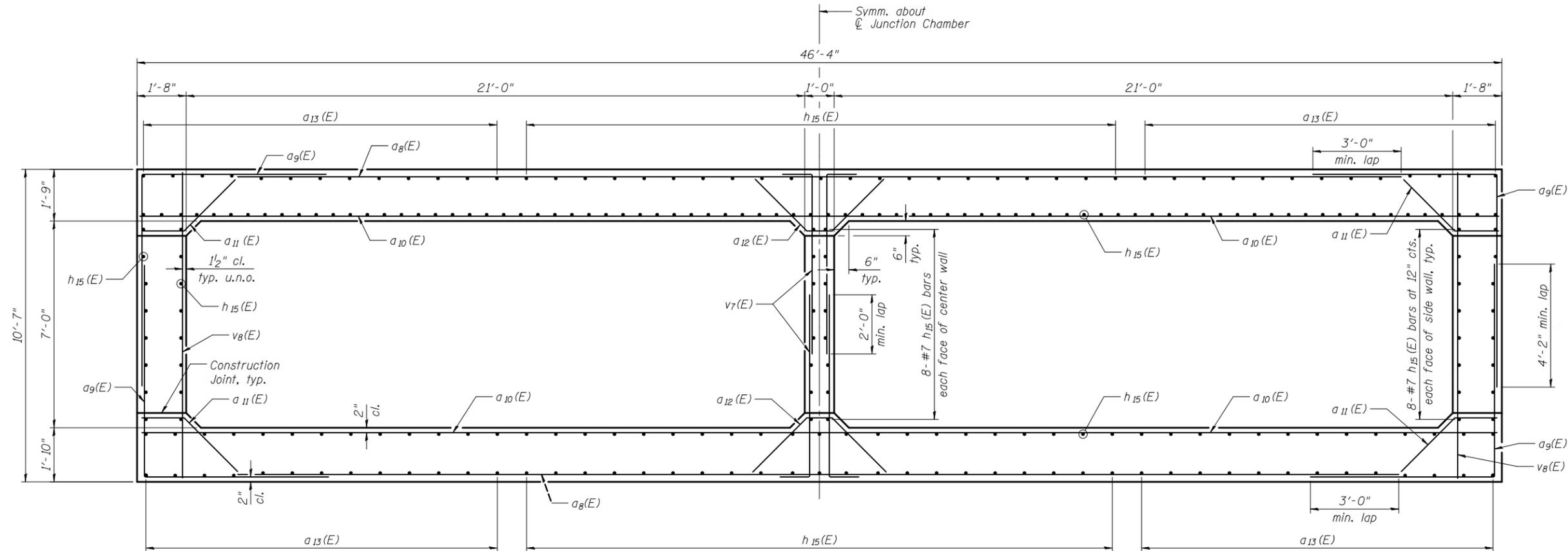
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

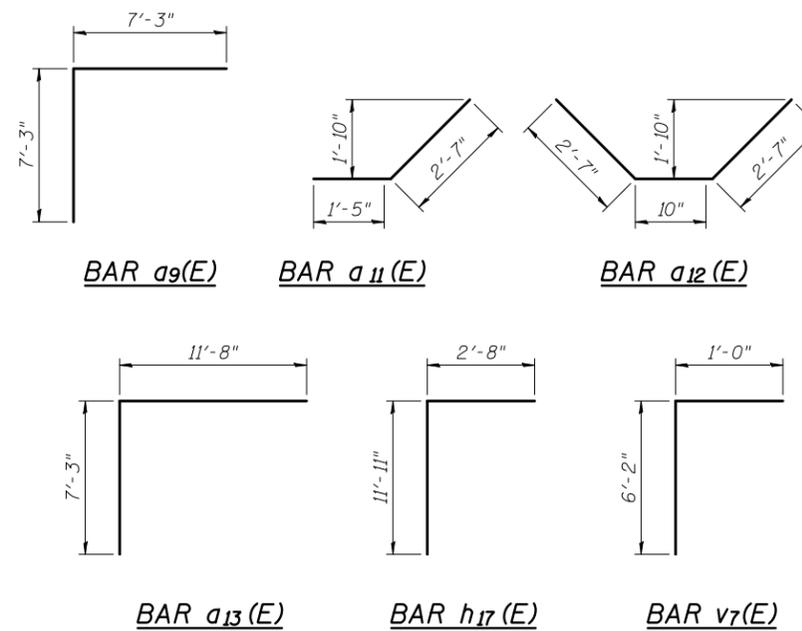
**JUNCTION CHAMBER DETAILS
STRUCTURE NO. 022-3125**

SHEET NO. 6 OF 13 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345A	32VB	DU PAGE	388	195
CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				



SECTION THRU JUNCTION CHAMBER



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a ₈ (E)	50	#8	37'-9"	—
a ₉ (E)	100	#6	14'-6"	┌
a ₁₀ (E)	100	#7	25'-9"	—
a ₁₁ (E)	100	#4	4'-0"	┘
a ₁₂ (E)	50	#4	6'-0"	┘
a ₁₃ (E)	52	#6	18'-11"	┌
h ₁₄ (E)	236	#5	5'-8"	—
h ₁₅ (E)	217	#7	11'-8"	—
h ₁₆ (E)	16	#6	11'-11"	—
h ₁₇ (E)	16	#6	14'-7"	┌
h ₁₈ (E)	64	#6	5'-8"	—
v ₇ (E)	52	#5	7'-2"	┌
v ₈ (E)	48	#5	10'-3"	—
Concrete Box Culverts CPR Special			Cu. Yd.	93.4
Reinforcement Bars, Epoxy Coated			Pound	23,080

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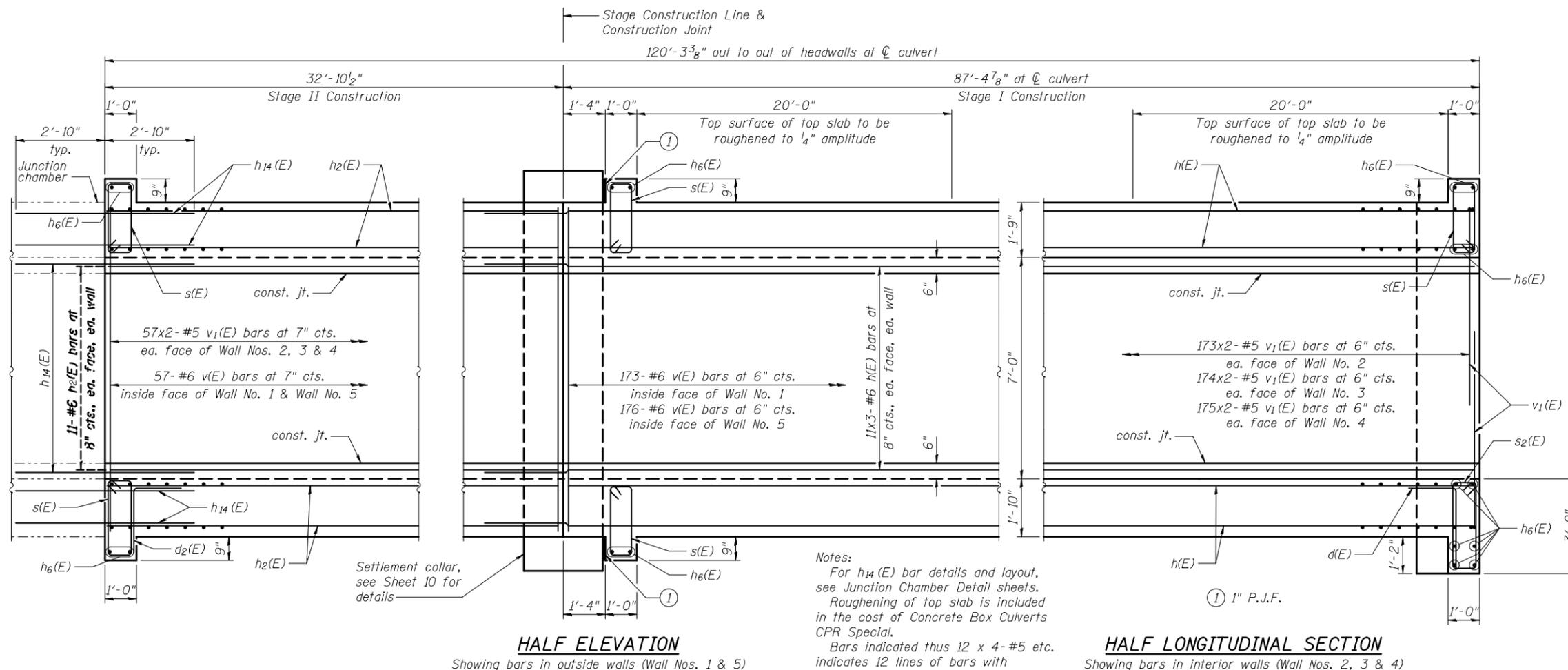
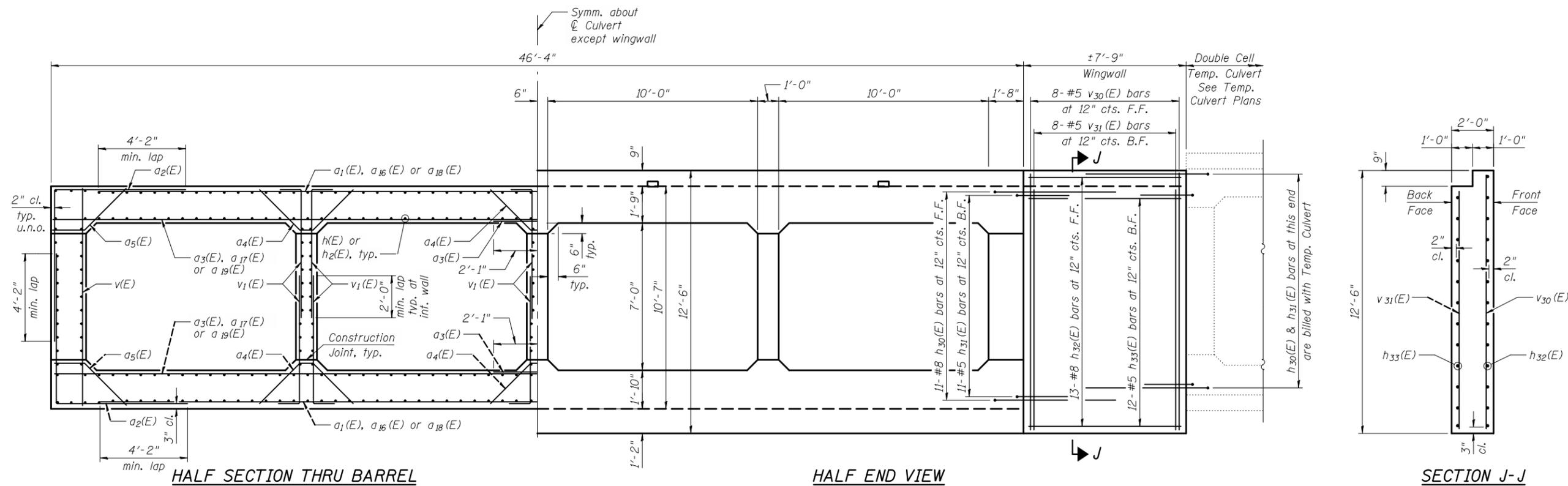
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JUNCTION CHAMBER DETAILS
STRUCTURE NO. 022-3125

SHEET NO. 7 OF 13 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345A	32VB	DU PAGE	388	196
CONTRACT NO. 60W01			ILLINOIS FED. AID PROJECT	



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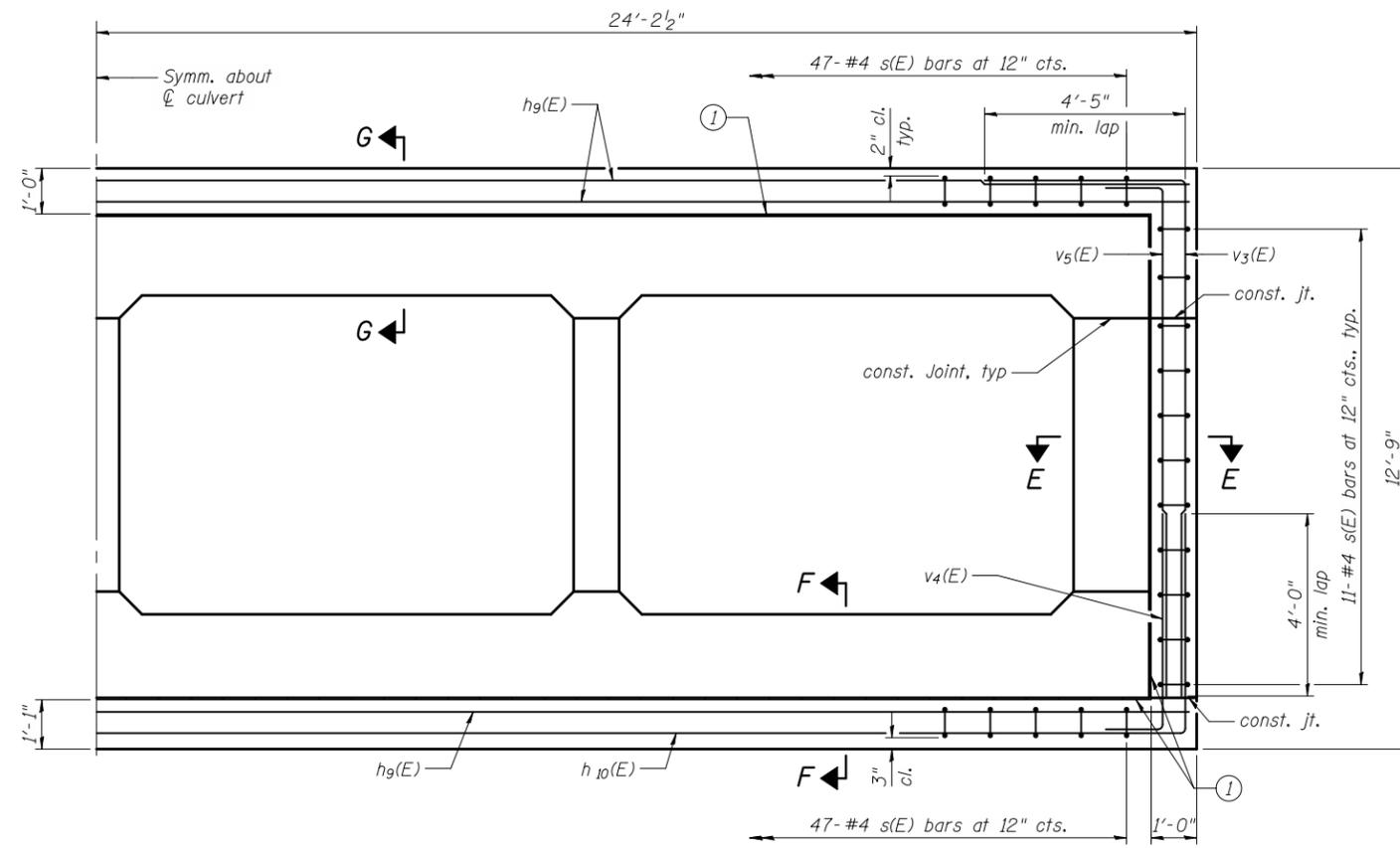
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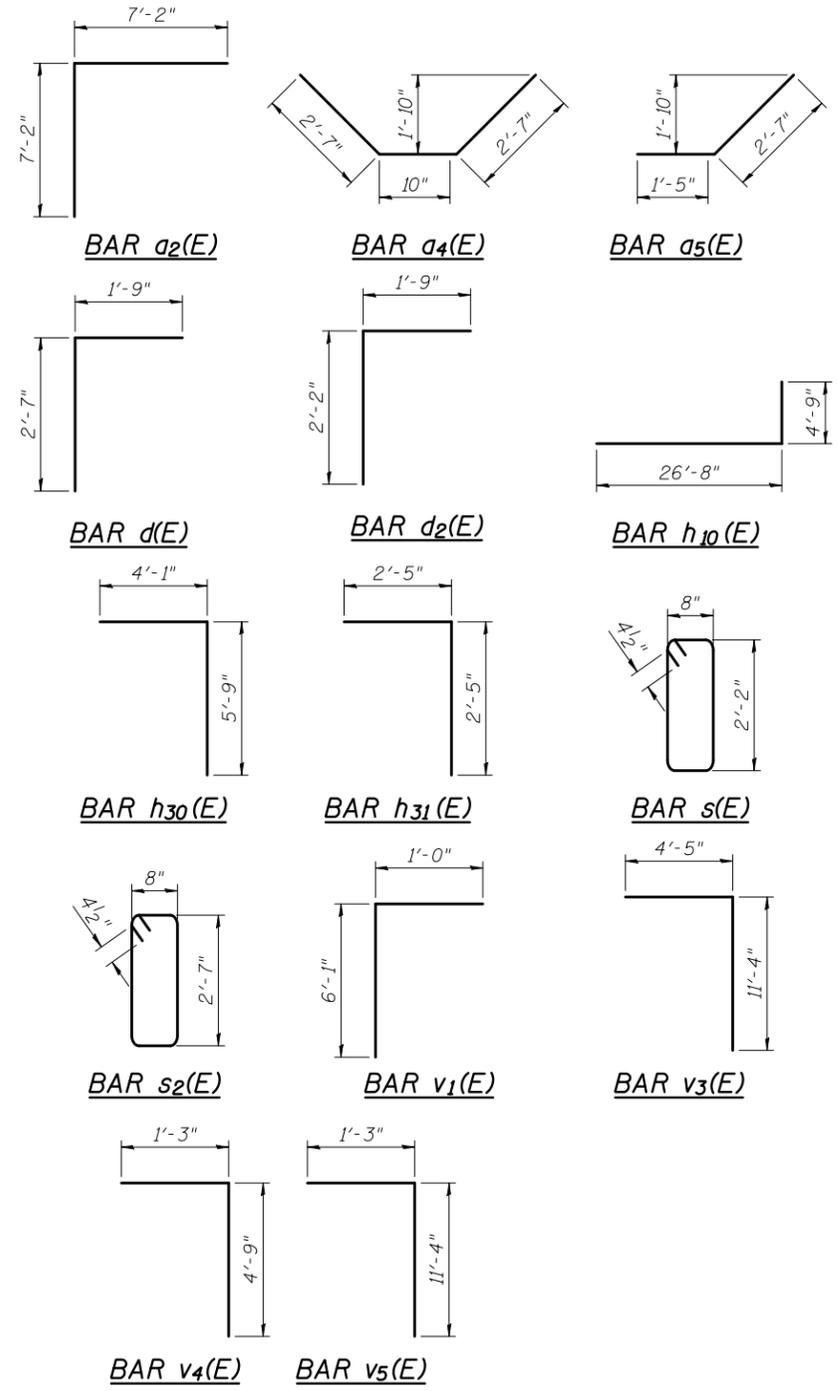
4 CELL BOX CULVERT DETAILS
STRUCTURE NO. 022-3125

SHEET NO. 9 OF 13 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60W01				
ILLINOIS FED. AID PROJECT				

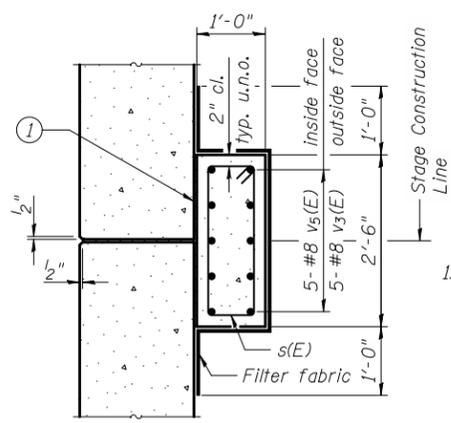


SECTION THRU BOX AT COLLAR
Culvert reinforcement not shown for clarity.

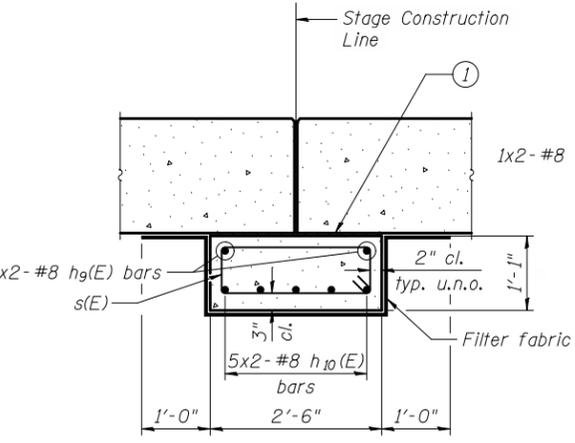


BILL OF MATERIAL

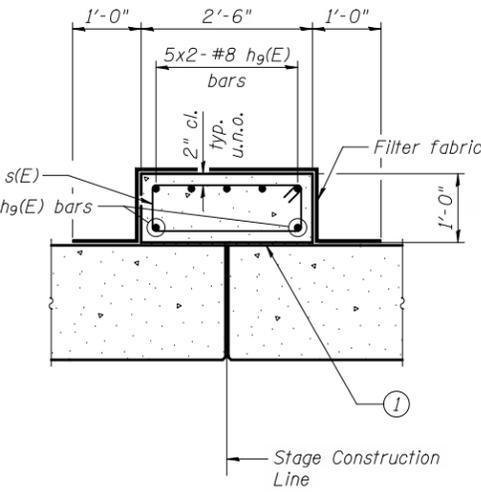
Bar	No.	Size	Length	Shape
a ₁ (E)	460	#8	40'-0"	—
a ₂ (E)	926	#7	14'-4"	┌
a ₃ (E)	920	#6	25'-1"	—
a ₄ (E)	1,386	#4	6'-0"	└
a ₅ (E)	926	#4	4'-0"	└
a ₁₆ (E)	2	#8	29'-4"	—
a ₁₇ (E)	2	#6	32'-5"	—
a ₁₈ (E)	2	#8	15'-10"	—
a ₁₉ (E)	2	#6	18'-11"	—
d(E)	47	#4	4'-4"	┌
d ₂ (E)	47	#4	3'-11"	┌
h(E)	1158	#6	32'-3"	—
h ₂ (E)	386	#6	32'-6"	—
h ₆ (E)	36	#7	25'-8"	—
h ₉ (E)	18	#8	26'-8"	—
h ₁₀ (E)	10	#8	31'-5"	┌
h ₃₀ (E)	11	#8	9'-10"	┌
h ₃₁ (E)	11	#5	4'-10"	┌
h ₃₂ (E)	13	#8	7'-5"	—
h ₃₃ (E)	12	#5	7'-5"	—
s(E)	351	#4	6'-5"	┌
s ₂ (E)	47	#4	7'-3"	┌
v(E)	463	#6	10'-2"	—
v ₁ (E)	2,772	#5	7'-1"	┌
v ₃ (E)	10	#8	15'-9"	┌
v ₄ (E)	10	#8	6'-0"	┌
v ₅ (E)	10	#8	12'-7"	┌
v ₃₀ (E)	8	#5	12'-4"	┌
v ₃₁ (E)	8	#5	11'-7"	┌
Concrete Box Culverts CPR Special		Cu. Yd.	972.8	
Reinforcement Bars, Epoxy Coated		Pound	229,640	



SECTION E-E



SECTION F-F



SECTION G-G

① 1/2" P.J.F.
P.J.F. and filter fabric included in the cost
of Concrete Box Culverts CPR Special

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**4 CELL BOX CULVERT DETAILS
STRUCTURE NO. 022-3125**

SHEET NO. 10 OF 13 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60W01				

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