

PART OF THE SE1/4 OF SECTION 13, TWP. 38 N., R. 9 E. OF THE 3RD. P.M., IN DUPAGE COUNTY, ILLINOIS.

PARCEL NUMBER	TOTAL HOLDINGS ACRES	PART TAKEN ACRES	AREA IN EXISTING R.O.W. ACRES	REMAINDER AREA ACRES	EASEMENT AREA		PARCEL INDEX NUMBER	OWNER
					ACRES	SQUARE FEET		
0006 0006TE	0.419	0.042		0.377	0.251		07-13-444-006	NORTH CENTRAL COLLEGE

PROJECT COORDINATES
ILLINOIS STATE PLANE, EAST ZONE, NAD83 (2011)

EXISTING WASHINGTON STREET

STATION	NORTHING	EASTING	DESCRIPTION
31+08.88	1858632.14	1034694.83	START
32+59.88	1858782.63	1034707.19	PC
33+29.32	1858851.84	1034712.88	PI
33+98.65	1858920.12	1034725.56	PT
36+65.14	1859477.08	1034829.02	END

PROPOSED WASHINGTON STREET

STATION	NORTHING	EASTING	DESCRIPTION
131+08.88	1858632.14	1034694.83	START
131+49.63	1858672.75	1034698.17	PC
132+70.20	1858792.92	1034708.04	PI
133+90.57	1858911.46	1034730.06	PT
136+69.36	1859185.57	1034780.97	POT
138+19.48	1859334.14	1034802.47	END

EXISTING AURORA AVENUE

STATION	NORTHING	EASTING	DESCRIPTION
200+00	1858794.03	1034207.05	START
205+00	1858777.62	1034706.78	END

SECTION CORNERS

CORNER	NORTHING	EASTING
13-NE	1863947.51	1029662.15
13-NW	1864118.74	1035043.85
13-S-1/4	1858721.50	1032274.82
13-SE	1858809.30	1035005.94

PARCEL COORDINATES

STATION	OFFSET	NORTHING	EASTING
132+92.35	29.45	1858810.38	1034743.28
132+94.30	46.36	1858809.88	1034760.29
133+06.37	145.83	1858806.91	1034860.39
133+29.91	26.91	1858847.46	1034746.32
133+71.77	140.90	1858868.34	1034865.43
133+98.52	37.83	1858912.38	1034768.71
134+26.60	27.69	1858941.83	1034763.86
134+28.17	37.83	1858941.52	1034774.12
134+33.24	70.46	1858940.54	1034807.13

EXISTING CENTERLINE
SOUTHEAST CORNER OF MARTIN'S ADDITION
SOUTH LINE OF SECTION 13

EXISTING WASHINGTON STREET
INTERSECTS SECTION LINE AT STATION 32+77.07

PROPOSED WASHINGTON STREET
INTERSECTS SECTION LINE AT STATION 132+77.51

EXISTING WASHINGTON STREET
INTERSECTS SECTION LINE AT STATION 32+77.07

PROPOSED WASHINGTON STREET
INTERSECTS SECTION LINE AT STATION 132+77.51

EXISTING WASHINGTON STREET
INTERSECTS SECTION LINE AT STATION 32+77.07

PROPOSED WASHINGTON STREET
INTERSECTS SECTION LINE AT STATION 132+77.51

EXISTING WASHINGTON STREET
INTERSECTS SECTION LINE AT STATION 32+77.07

PROPOSED WASHINGTON STREET
INTERSECTS SECTION LINE AT STATION 132+77.51

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INTERSECTS SECTION LINE AT STATION 32+77.07

PROPOSED WASHINGTON STREET
INTERSECTS SECTION LINE AT STATION 132+77.51

EXISTING WASHINGTON STREET
INTERSECTS SECTION LINE AT STATION 32+77.07

PROPOSED WASHINGTON STREET
INTERSECTS SECTION LINE AT STATION 132+77.51

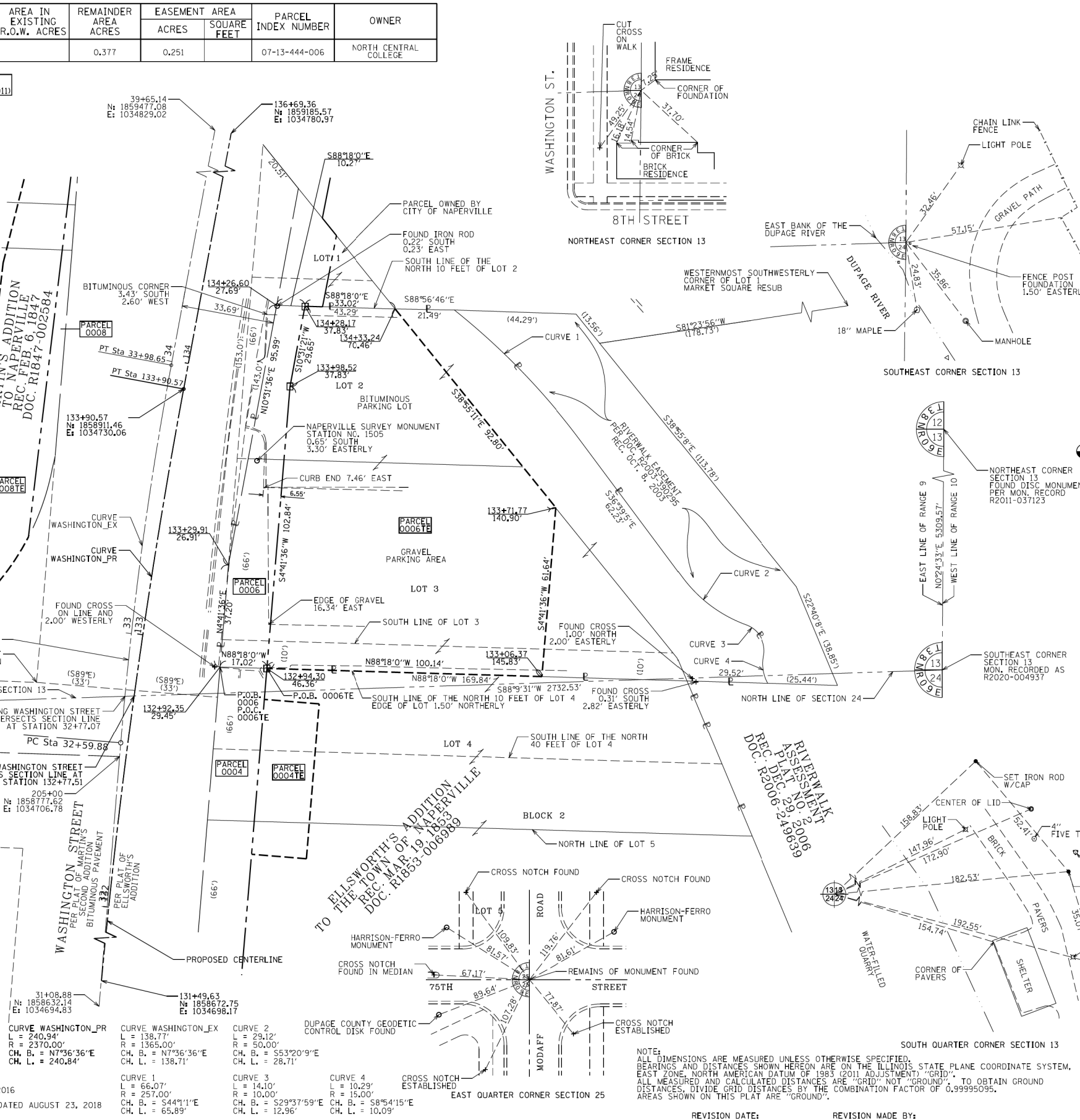
EXISTING WASHINGTON STREET
INTERSECTS SECTION LINE AT STATION 32+77.07

PROPOSED WASHINGTON STREET
INTERSECTS SECTION LINE AT STATION 132+77.51

EXISTING WASHINGTON STREET
INTERSECTS SECTION LINE AT STATION 32+77.07

PROPOSED WASHINGTON STREET
INTERSECTS SECTION LINE AT STATION 132+77.51

EXISTING WASHINGTON STREET
INTERSECTS SECTION LINE AT STATION 32+77.07



LEGEND

- SECTION / QUARTER SECTION LINE
- PLATTED LOT LINES
- PROPERTY (DEED) LINE
- APPARENT PROPERTY LINE
- EXISTING CENTERLINE
- PROPOSED CENTERLINE
- EXISTING RIGHT OF WAY LINE
- PROPOSED RIGHT OF WAY LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING ACCESS CONTROL LINE
- PROPOSED ACCESS CONTROL LINE
- MEASURED DIMENSION
- COMPUTED DIMENSION
- RECORDED DIMENSION
- EXISTING BUILDING

SECTION CORNER
QUARTER SECTION CORNER

GRAPHIC SCALE
FEET
SCALE: 1"=20'

BEARINGS AND COORDINATES ARE REFERENCED TO THE ILLINOIS STATE PLANE COORDINATE SYSTEM, NAD83 (2011 ADJUSTMENT), EAST ZONE.

- IRON PIPE OR ROD FOUND
- CUT CROSS FOUND OR SET
- STAKING OF PROPOSED RIGHT OF WAY, SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
- STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS, BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- PERMANENT SURVEY MARKER, I.D.O.T. STANDARD 2135 (TO BE SET BY OTHERS)
- RIGHT OF WAY STAKING PROPOSED TO BE SET



STATE OF ILLINOIS)
COUNTY OF DUPAGE)

THIS IS TO CERTIFY THAT I, ZACHARY N. RAWLINGS, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTION 13, TOWNSHIP 38 NORTH, RANGE 9 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, MADE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS.

DATED AT NAPERVILLE, ILLINOIS THIS 16 DAY OF MARCH 20 20 A.D.

Zachary N. Rawlings
ILLINOIS PROFESSIONAL LAND SURVEYOR NO. 3934
LICENSE EXPIRATION DATE: NOVEMBER 30, 2020
FIELD WORK COMPLETED: 1/4/2019
THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.



PARCEL PLAT
CITY OF NAPERVILLE
WASHINGTON STREET
BRIDGE RECONSTRUCTION

LIMITS: AURORA AVE TO CHICAGO AVE COUNTY: DUPAGE
SECTION: 16-00167-00-BR JOB NO.: R-55-001-97
STA. 132+92.35 TO STA. 134+33.24
SCALE: 1"=20' SHEET 4 OF 6 SHEETS

CITY OF NAPERVILLE
400 SOUTH EAGLE STREET
NAPERVILLE, ILLINOIS 60540

NOTE: ALL DIMENSIONS ARE MEASURED UNLESS OTHERWISE SPECIFIED. BEARINGS AND DISTANCES SHOWN HEREON ARE ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT) "GRID". ALL MEASURED AND CALCULATED DISTANCES ARE "GRID" NOT "GROUND". TO OBTAIN GROUND DISTANCES, DIVIDE GRID DISTANCES BY THE COMBINATION FACTOR OF 0.99995095. AREAS SHOWN ON THIS PLAT ARE "GROUND".

REVISION DATE: REVISION MADE BY:

MODEL: s400BELNAME
FILE NAME: N:\PROJ\020794\01\Drawings\Plat\020794_01_Plat01.dgn



USER NAME	DESIGNED	REVISION
= Roadway	- TBH	-
	- VZ	-
	- DD	-
	-	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARCEL PLAT
07-13-443-005 & 07-13-443-010

SCALE: N.T.S. SHEET 4 OF 6 SHEETS STA. TO STA.

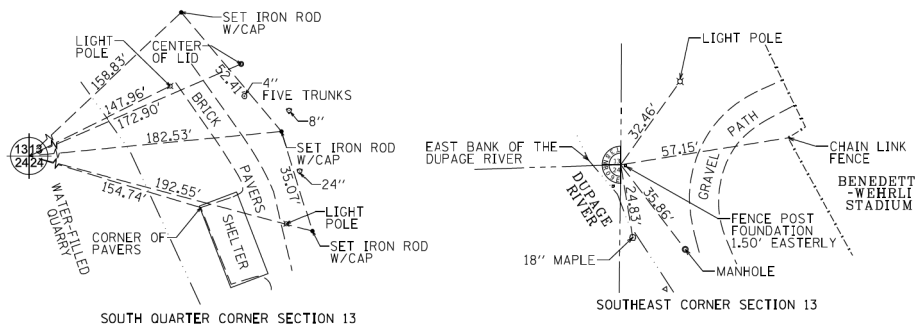
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	101

CONTRACT NO. 61G82

ILLINOIS FED. AID PROJECT

PART OF THE SE1/4 OF SECTION 13, TWP. 38 N., R. 9 E. OF THE 3RD. P.M., IN DUPAGE COUNTY, ILLINOIS.

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					ACRES	SQUARE FEET		
0008 0008TE	0.829	0.014	0.014	0.815	0.086		07-13-443-005 07-13-443-010	WILLOWAY LLC SERIES 4 419 SOUTH WASHINGTON



LEGEND

SECTION CORNER (9, 10, 15, 16)

QUARTER SECTION CORNER

SECTION / QUARTER SECTION LINE

PLATTED LOT LINES

PROPERTY (DEED) LINE

APPARENT PROPERTY LINE

EXISTING CENTERLINE

PROPOSED CENTERLINE

EXISTING RIGHT OF WAY LINE

PROPOSED RIGHT OF WAY LINE

EXISTING EASEMENT

PROPOSED EASEMENT

EXISTING ACCESS CONTROL LINE

PROPOSED ACCESS CONTROL LINE

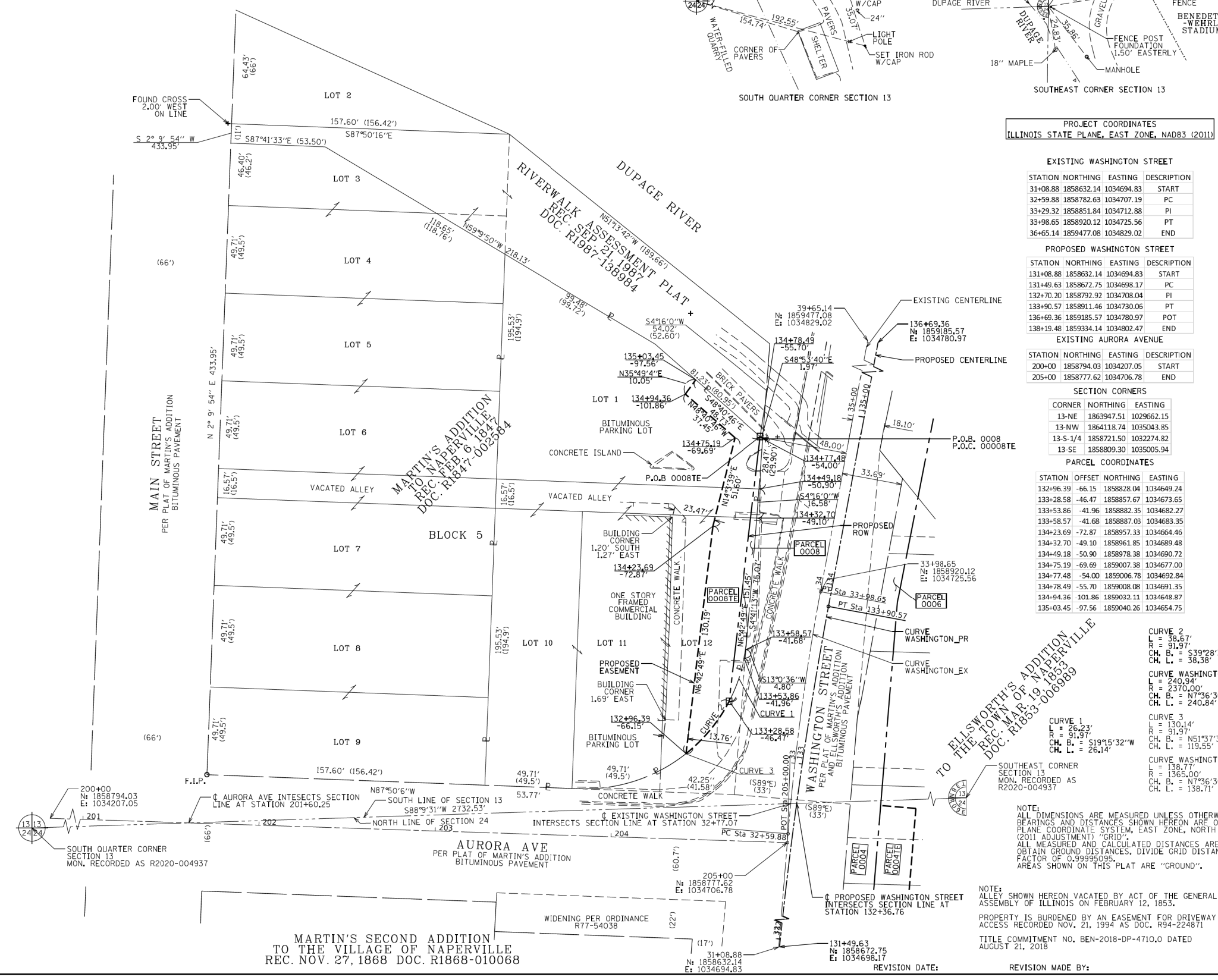
MEASURED DIMENSION

COMPUTED DIMENSION

RECORDED DIMENSION

EXISTING BUILDING

GRAPHIC SCALE
FEET
SCALE: 1"= 30'



PROJECT COORDINATES
ILLINOIS STATE PLANE, EAST ZONE, NAD83 (2011)

EXISTING WASHINGTON STREET

STATION	NORTHING	EASTING	DESCRIPTION
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33+29.32	1858851.84	1034712.88	PI
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EXISTING AURORA AVENUE

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SECTION CORNERS

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13-NW	1864118.74	1035043.85
13-S-1/4	1858721.50	1032274.82
13-SE	1858809.30	1035005.94

PARCEL COORDINATES

STATION	OFFSET	NORTHING	EASTING
132+96.39	-66.15	1858828.04	1034649.24
133+28.58	-46.47	1858857.67	1034673.65
133+53.86	-41.96	1858882.35	1034682.27
133+58.57	-41.68	1858887.03	1034683.35
134+23.69	-72.87	1858957.33	1034664.46
134+32.70	-49.10	1858961.85	1034689.48
134+49.18	-50.90	1858978.38	1034690.72
134+75.19	-69.69	1859007.38	1034677.00
134+77.48	-54.00	1859006.78	1034692.84
134+78.49	-55.70	1859008.08	1034691.35
134+94.26	-101.86	1859032.11	1034648.87
135+03.45	-97.56	1859040.26	1034654.75

- BEARINGS AND COORDINATES ARE REFERENCED TO THE ILLINOIS STATE PLANE COORDINATE SYSTEM, NAD83 (2011 ADJUSTMENT), EAST ZONE.
- IRON PIPE OR ROD FOUND
 - ⊕ *MAG*NAIL SET
 - + CUT CROSS FOUND OR SET
 - 5 / 8" REBAR SET
 - STAKING OF PROPOSED RIGHT OF WAY, SET DIVISION OF HIGHWAYS SURVEY MARKER TO MONUMENT THE POSITION SHOWN, IDENTIFIED BY INSCRIPTION DATA AND SURVEYORS REGISTRATION NUMBER.
 - M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER POSITION IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
 - ⊙ PERMANENT SURVEY MARKER, I.D.O.T. STANDARD 2135 (TO BE SET BY OTHERS)
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COUNTY OF DUPAGE)
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PARCEL PLAT
CITY OF NAPERVILLE
WASHINGTON STREET
BRIDGE RECONSTRUCTION

LIMITS: AURORA AVE TO CHICAGO AVE COUNTY: DUPAGE
SECTION: 16-00167-00-BR JOB NO.: R-55-001-97
STA. 132+96.39 TO STA. 135+03.45
SCALE: 1"=30' SHEET 6 OF 6 SHEETS

CITY OF NAPERVILLE
400 SOUTH EAGLE STREET
NAPERVILLE, ILLINOIS 60540

NOTE:
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NOTE:
ALLEY SHOWN HEREON VACATED BY ACT OF THE GENERAL ASSEMBLY OF ILLINOIS ON FEBRUARY 12, 1853. PROPERTY IS BURDENED BY AN EASEMENT FOR DRIVEWAY ACCESS RECORDED NOV. 21, 1994 AS DOC. R94-224871

TITLE COMMITMENT NO. BEN-2018-DP-4710.0 DATED AUGUST 21, 2018

REVISION DATE: REVISION MADE BY:

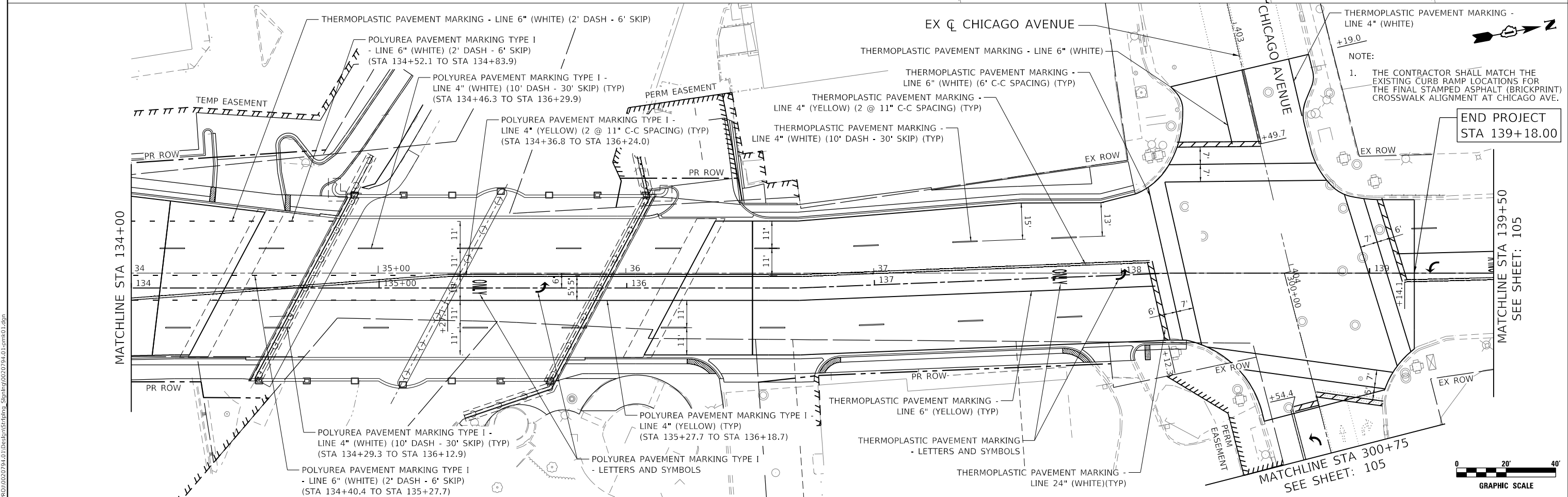
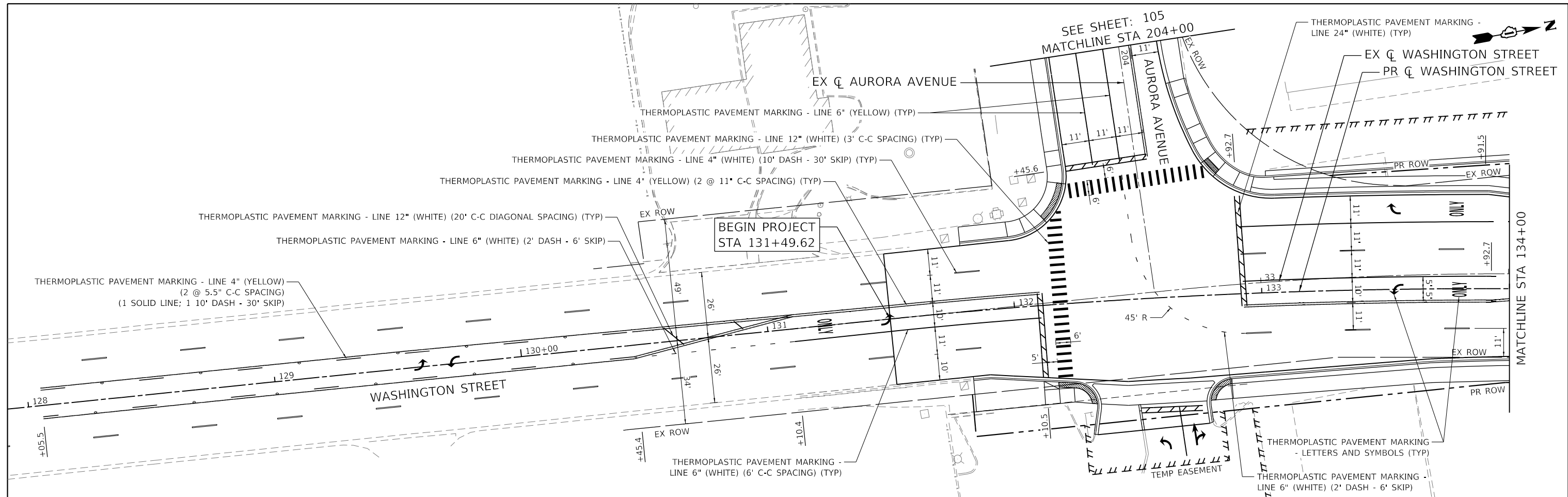
CiorbaGroup
8725 W. Higgins Rd, Ste 600, Chicago, IL 60631
P 773.775.4009 | www.ciorba.com

USER NAME	DESIGNED	REVISION
= Roadway	- TBH	-
	DRAWN - VZ	REVISED -
	CHECKED - DD	REVISED -
	DATE - 8/8/2022	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARCEL PLAT
07-24-206-036
SCALE: N.T.S. SHEET 6 OF 6 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	103
CONTRACT NO. 61G82				
ILLINOIS FED. AID PROJECT				



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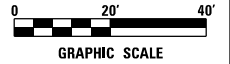
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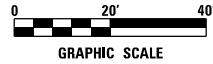
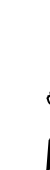
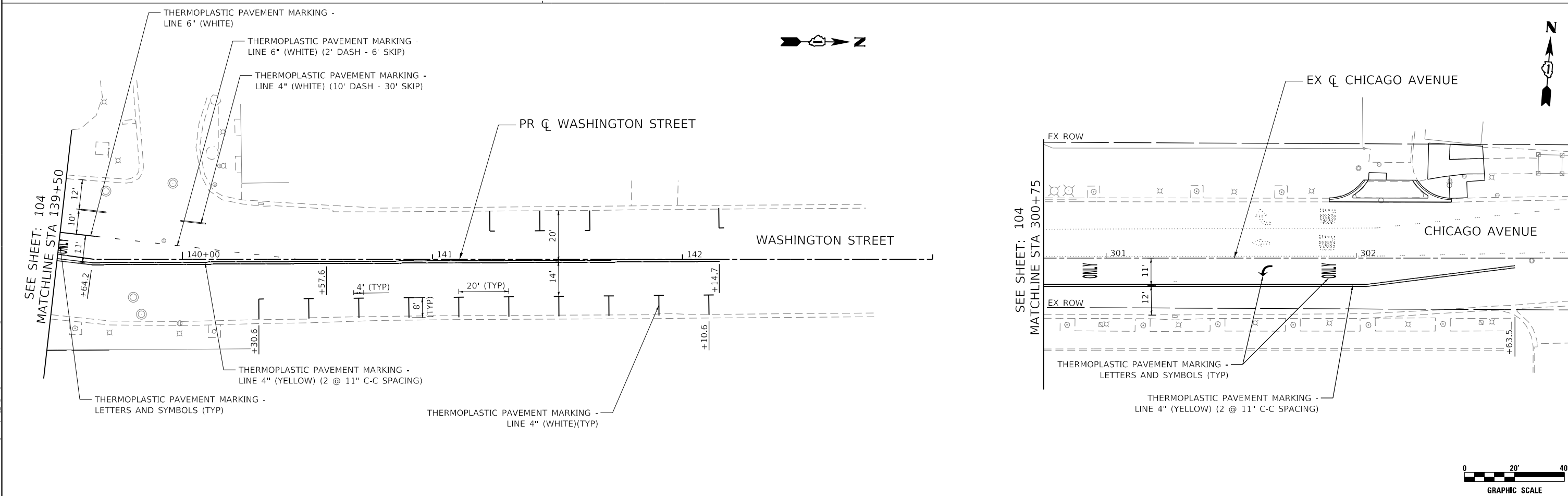
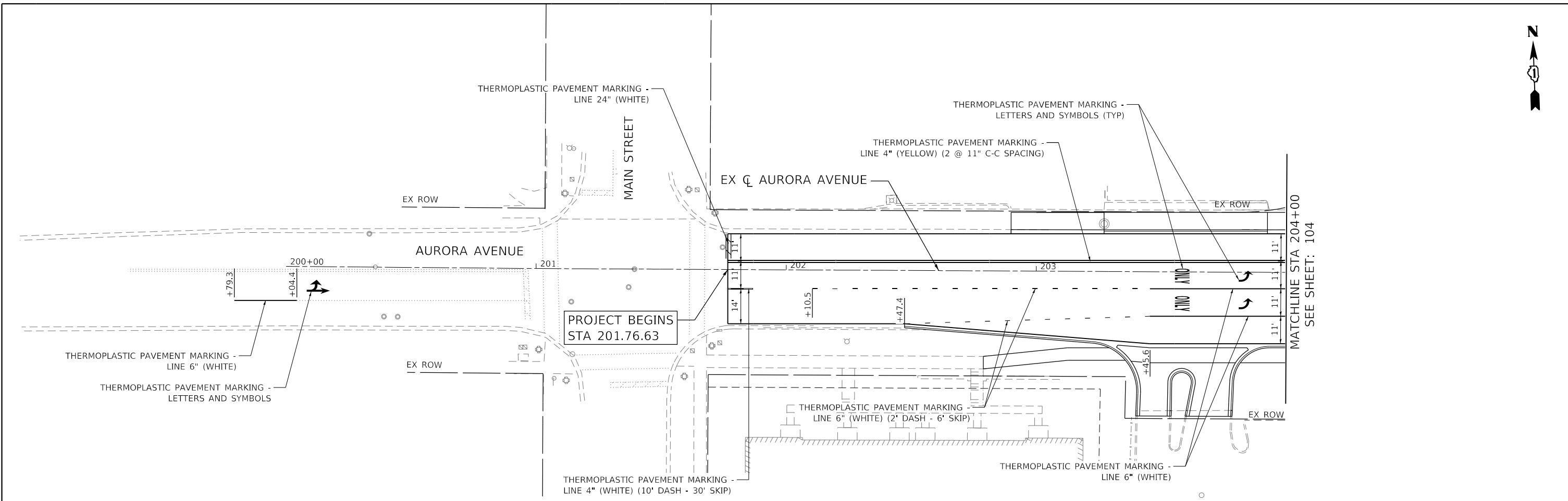
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WASHINGTON STREET BRIDGE
PAVEMENT MARKING PLAN**

SCALE: 1" = 20' SHEET 1 OF 2 SHEETS STA. 128+01.00 TO STA. 139+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	104
CONTRACT NO. 61G82				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				





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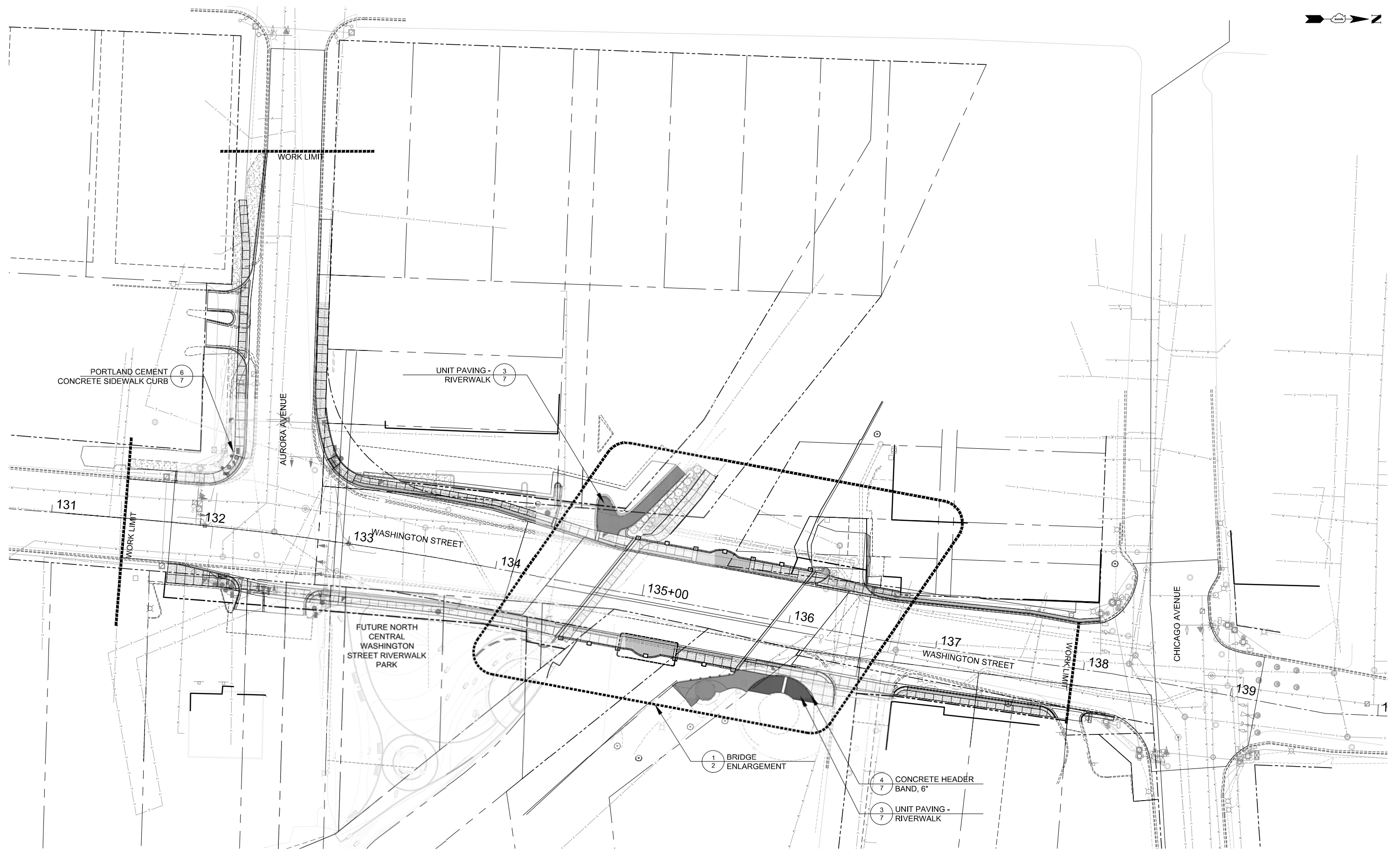
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	DATE - 8/8/2022	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET BRIDGE
PAVEMENT MARKING PLAN

SCALE: 1" = 20' SHEET 2 OF 2 SHEETS STA. 200+00.00 TO STA. 204+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	105
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



J:\PROJECTS\ALPHA\CORBA GROUP\MAPERVILLE WASHINGTON STREET BRIDGE\09 GRAPHICS\02 DD-CD\01-OVERALL PLAN.DWG 01
 Plotted: 04/08/2022 By: APLACIDO



USER NAME =	DESIGNED - XS	REVISED -
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PLOT DATE =	CHECKED - TCK	REVISED -
	DATE - 08/08/2022	REVISED -

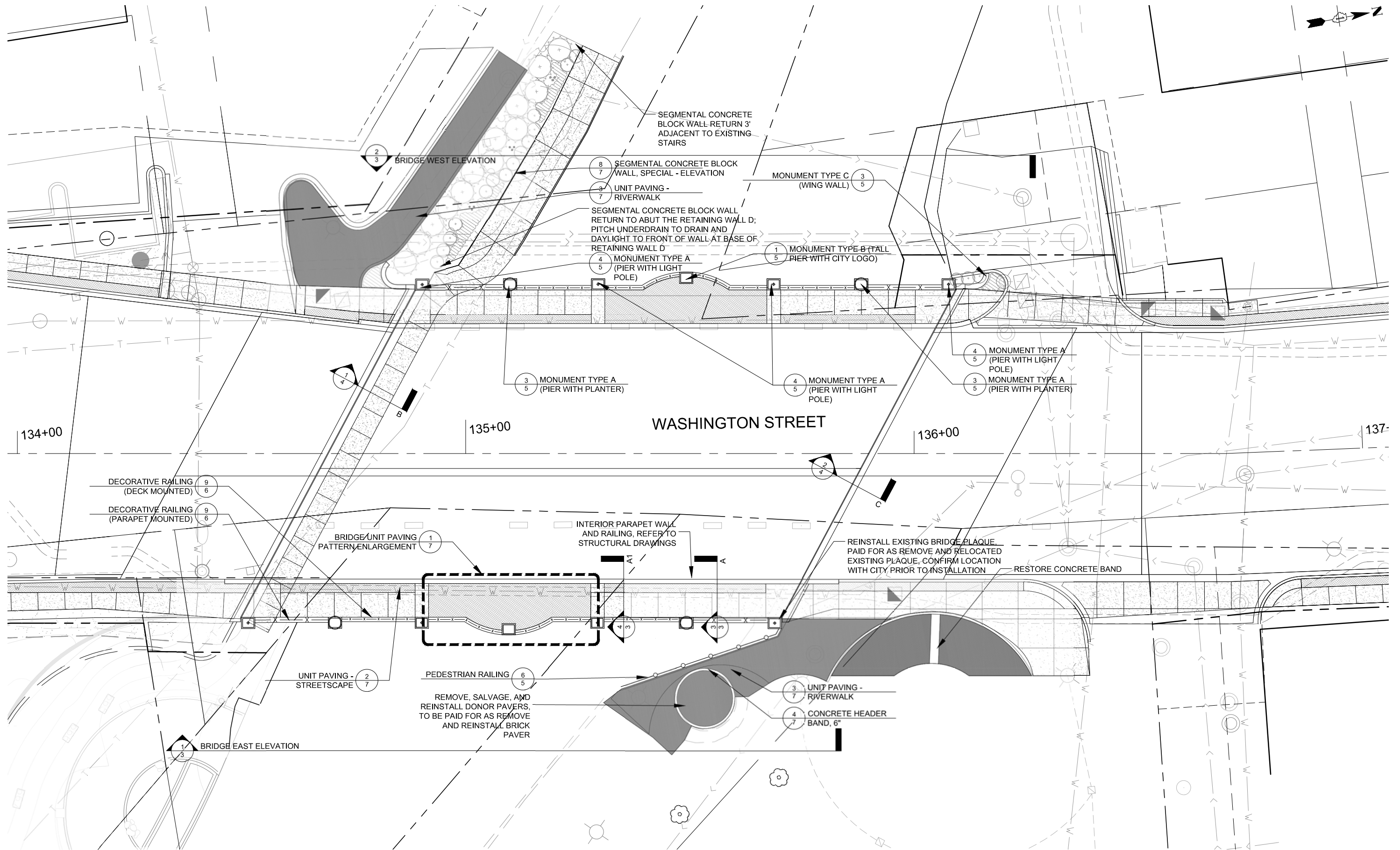
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**WASHINGTON STREET BRIDGE
 ENHANCEMENT PLAN
 OVERALL ENHANCEMENT PLAN**

SCALE: 1"=30' SHEET 1 OF 9 SHEETS STA. 131+49.63 TO STA. 138+19.48

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	106
ILLINOIS FED. AID PROJECT			CONTRACT NO. - 61G82	

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 Plotter: 04/08/2022 By: APLACIDO



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PLOT SCALE =	DRAWN - XS	REVISED -
PLOT DATE =	CHECKED - TCK	REVISED -
	DATE - 08/08/2022	REVISED -

DESIGNED - XS	REVISED -
DRAWN - XS	REVISED -
CHECKED - TCK	REVISED -
DATE - 08/08/2022	REVISED -

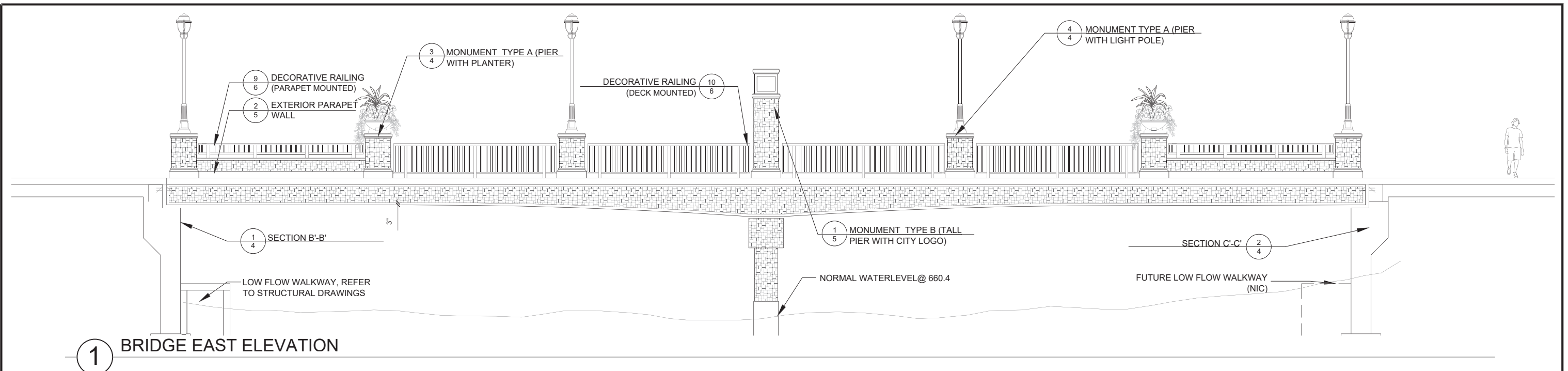
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**WASHINGTON STREET BRIDGE
 ENHANCEMENT PLAN
 BRIDGE ENHANCEMENT PLAN**

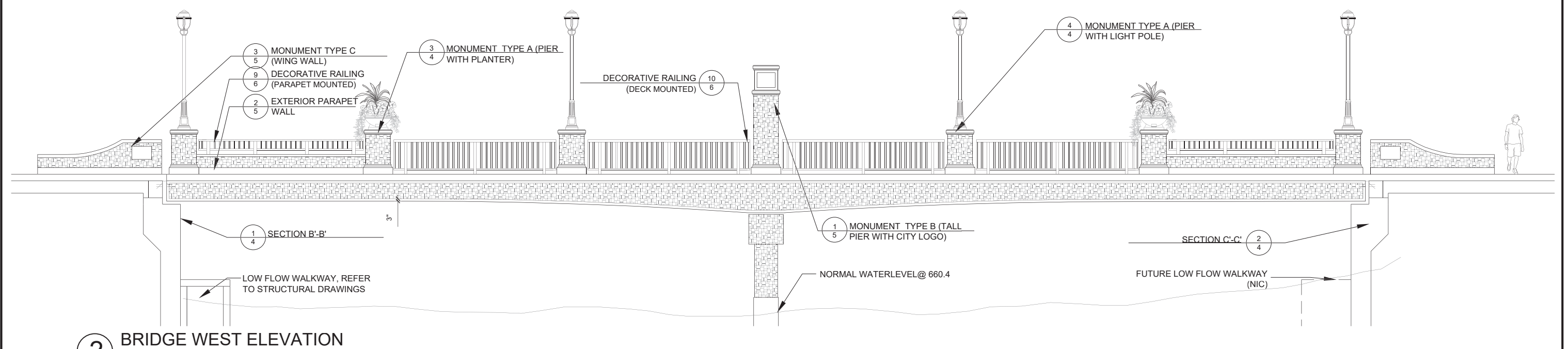
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. - 61G82			ILLINOIS FED. AID PROJECT	

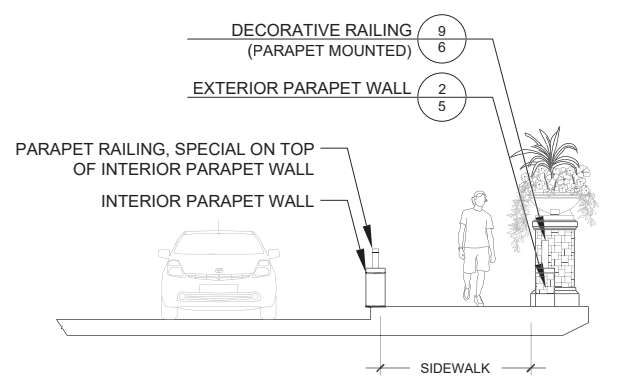
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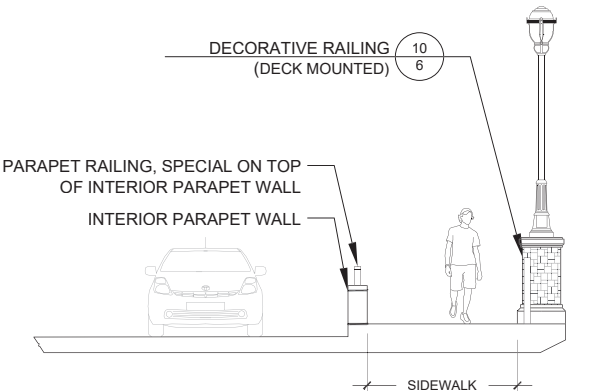
1 BRIDGE EAST ELEVATION



2 BRIDGE WEST ELEVATION



3 SECTION A-A



4 SECTION A1-A1



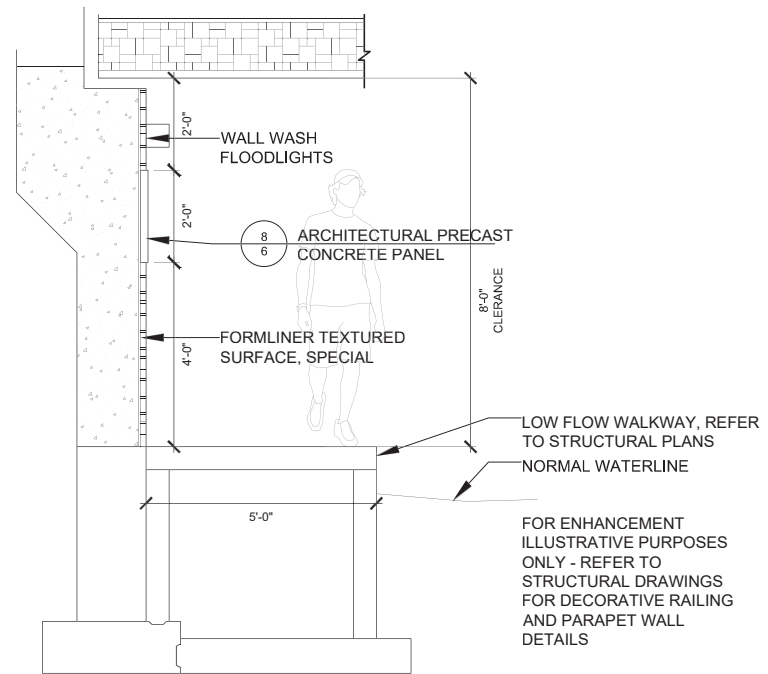
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PLOT SCALE =	DRAWN - XS	REVISED -
PLOT DATE =	CHECKED - TCK	REVISED -
	DATE - 08/08/2022	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

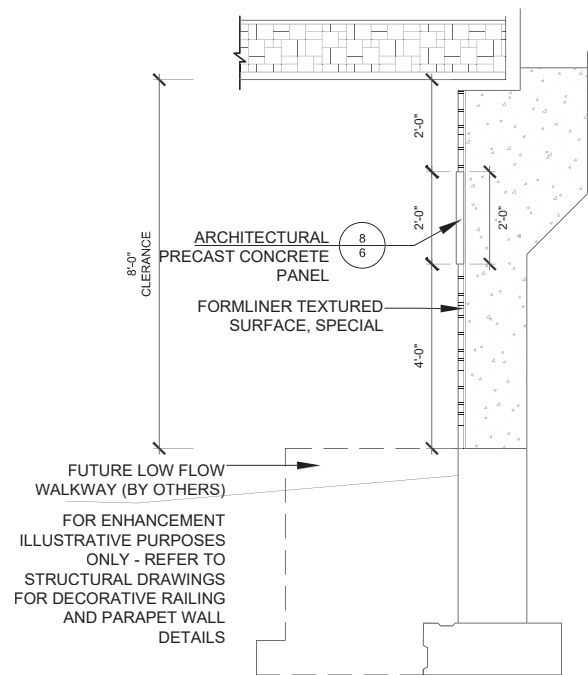
WASHINGTON STREET BRIDGE
 ENHANCEMENT PLAN
 BRIDGE ENHANCEMENT SECTION AND ELEVATIONS

F.A.P. RTE. 2552	SECTION 16-00167-00-BR	COUNTY DUPAGE	TOTAL SHEETS 261	SHEET NO. 108
SCALE: SHEET 3 OF 9 SHEETS STA. TO STA.		CONTRACT NO. - 61G82		

ILLINOIS	FED. AID PROJECT
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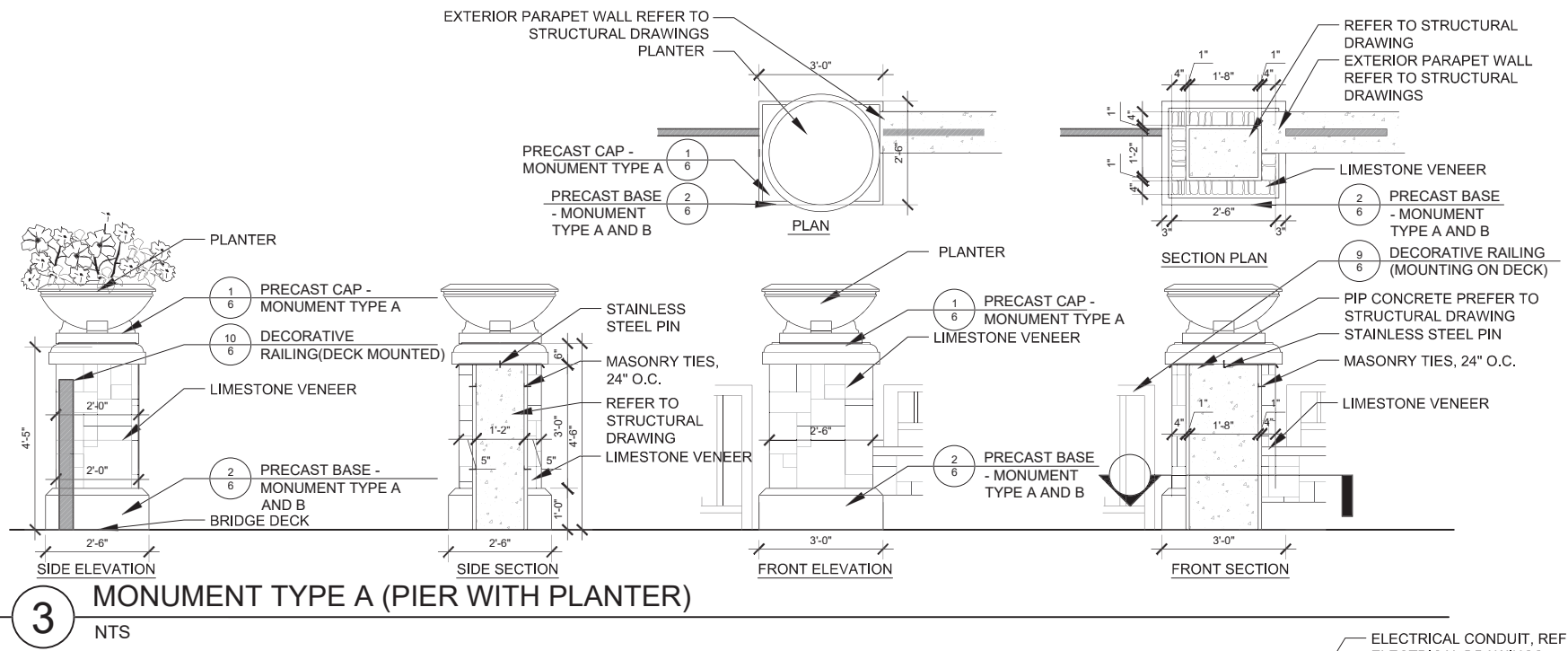
1 SECTION B-B
NTS



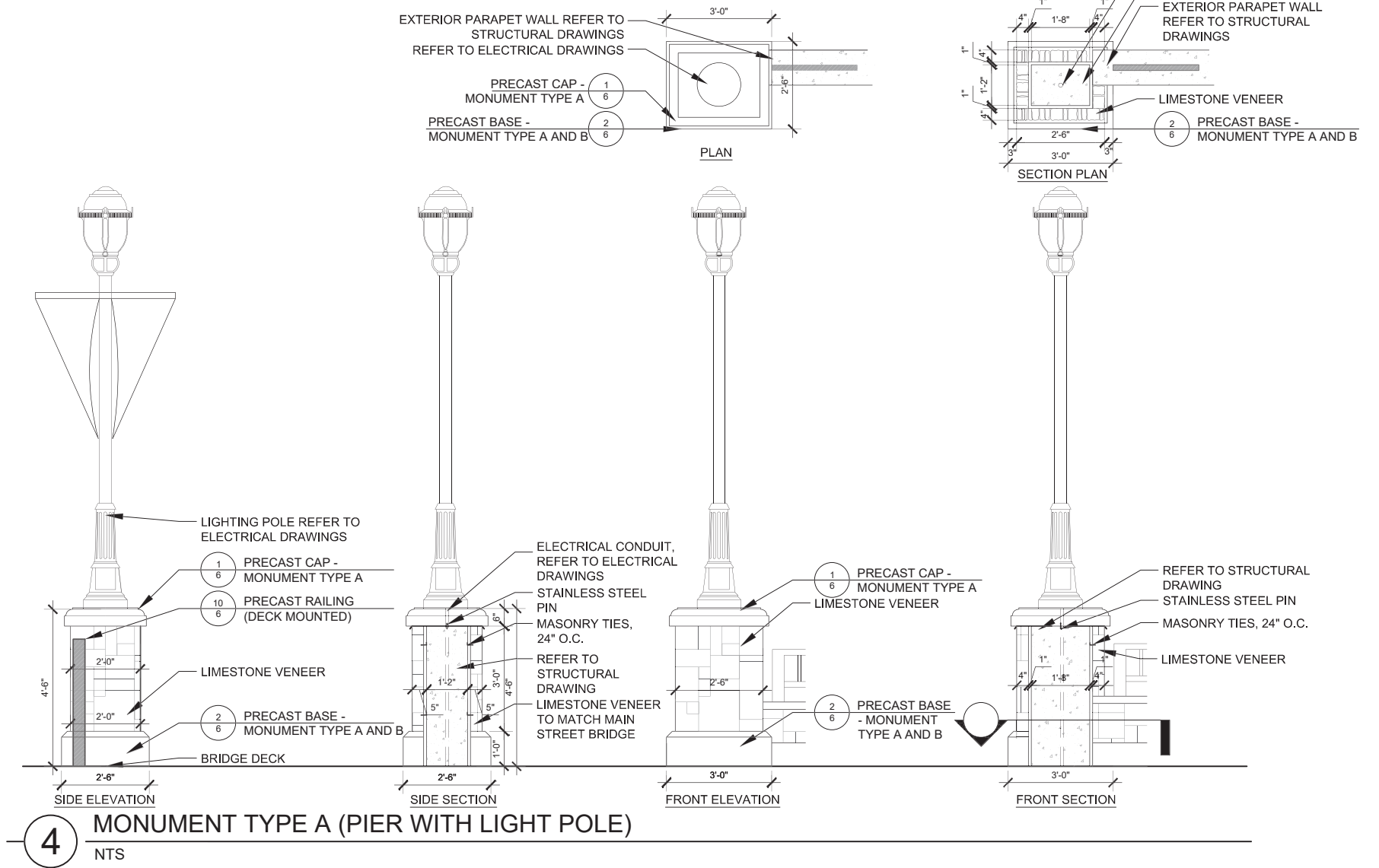
2 SECTION C-C
NTS

MASONRY NOTES

- SEE STRUCTURAL PLANS FOR DIMENSIONS, MASONRY TIES, REINFORCEMENT, ELECTRICAL AND CONDUIT LOCATIONS, AND FOUNDATION DETAILS.
- PROVIDE LOGO PLAQUE ON ONE SIDE TWO SIDES OF COLUMN, FACING NORTH/SOUTH..
- LOCAL AGENCY WILL PROVIDE LOGO ARTWORK AND CUSTOMIZED FONT PRIOR TO FABRICATION.
- CONFIRM LIGHT FIXTURE PLACEMENT PRIOR TO FABRICATION OF PRECAST CAP.
- ALL PRECAST CAPS TO HAVE DRIP EDGE.



3 MONUMENT TYPE A (PIER WITH PLANTER)
NTS



4 MONUMENT TYPE A (PIER WITH LIGHT POLE)
NTS

J:\PROJECTS\ALPHA\CORBA GROUP\WAPERVILLE WASHINGTON STREET BRIDGE\09 GRAPHICS\02 DD-CD\03-BRIDGE SECTION + ELEVATION.DWG 04 Plot Date: 04/08/2022 By: APL/ADD



USER NAME =	DESIGNED - XS	REVISED -
PLOT SCALE =	DRAWN - XS	REVISED -
PLOT DATE =	CHECKED - TCK	REVISED -
	DATE - 08/08/2022	REVISED -

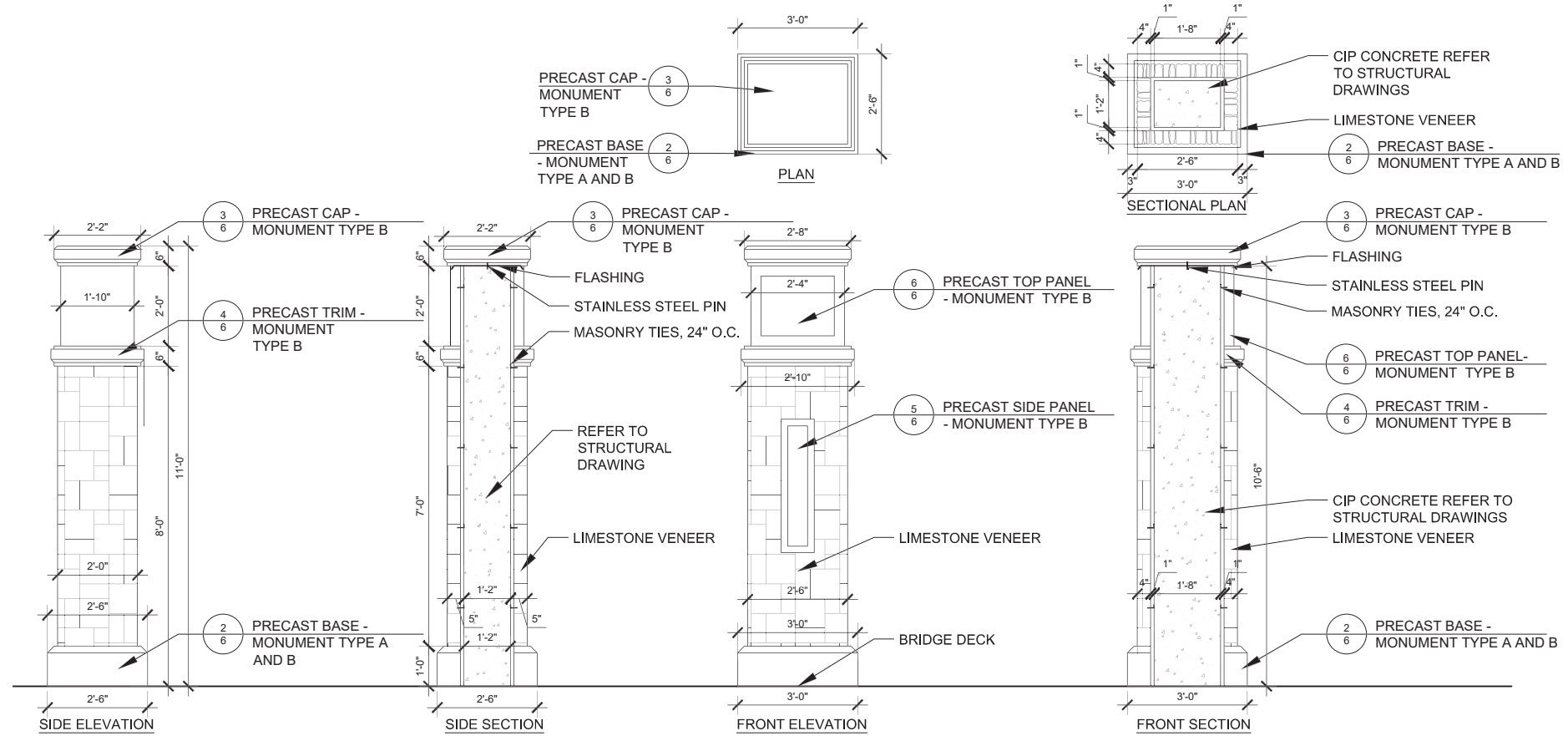
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET BRIDGE
ENHANCEMENT PLAN
BRIDGE ENHANCEMENT SECTION AND MONUMENT DETAILS

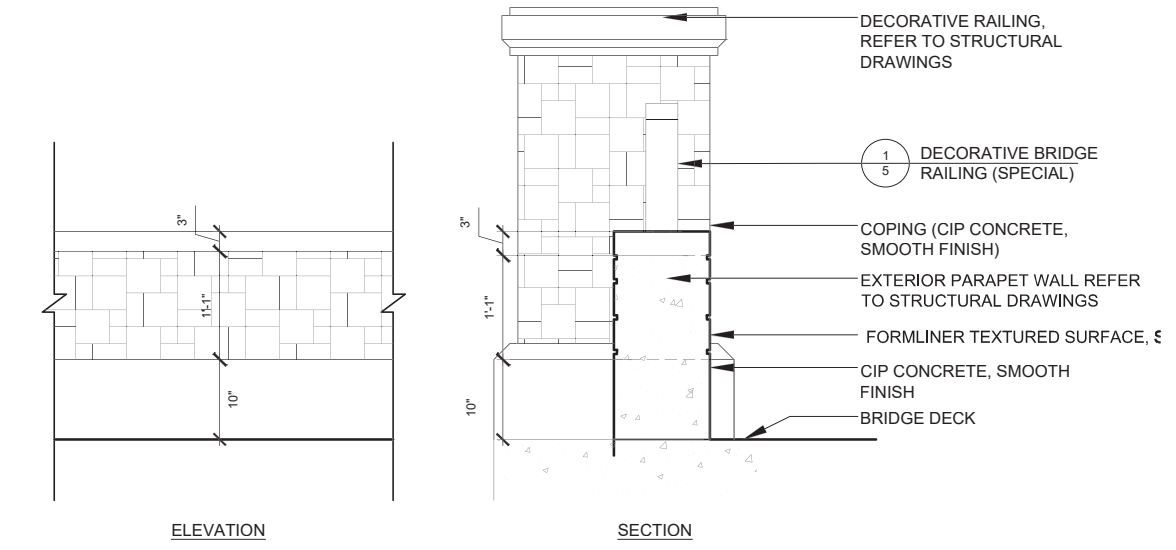
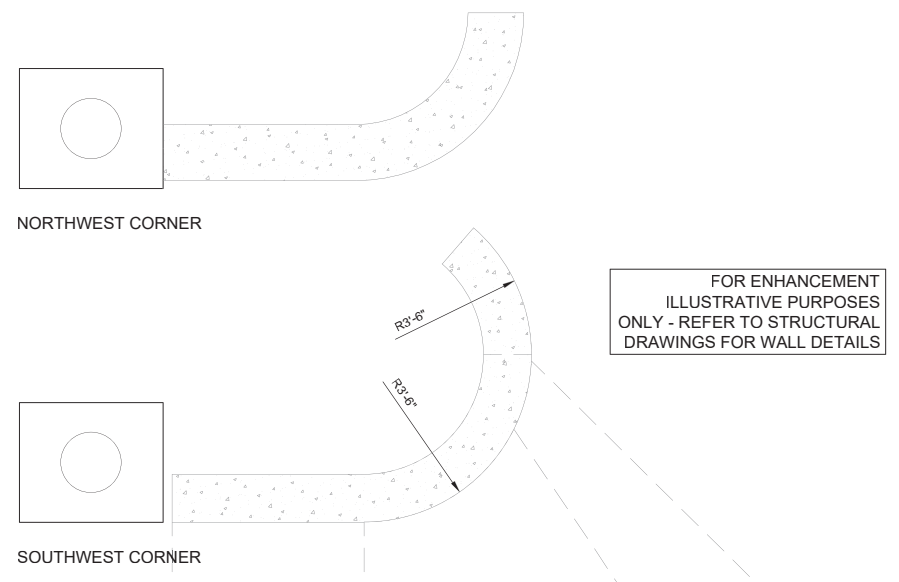
SCALE: SHEET 4 OF 9 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. - 61G82			ILLINOIS FED. AID PROJECT	

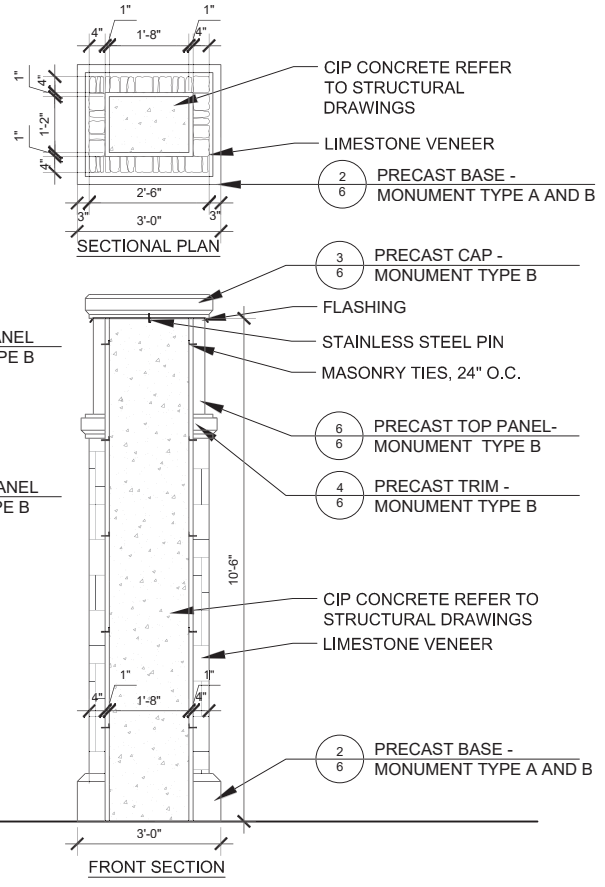
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 Plot Date: 04/08/2022 3:41:40 PM



1 MONUMENT TYPE B (TALL PIER WITH CITY LOGO)
 NTS



2 EXTERIOR PARAPET WALL
 NTS



3 MONUMENT TYPE C (WING WALL)
 NTS

- MASONRY NOTES**
- SEE STRUCTURAL PLANS FOR DIMENSIONS, MASONRY TIES, REINFORCEMENT, ELECTRICAL AND CONDUIT LOCATIONS, AND FOUNDATION DETAILS.
 - PROVIDE LOGO PLAQUE ON ONE SIDE TWO SIDES OF COLUMN, FACING NORTH/SOUTH..
 - LOCAL AGENCY WILL PROVIDE LOGO ARTWORK AND CUSTOMIZED FONT PRIOR TO FABRICATION.
 - CONFIRM LIGHT FIXTURE PLACEMENT PRIOR TO FABRICATION OF PRECAST CAP.
 - ALL PRECAST CAPS TO HAVE DRIP EDGE.



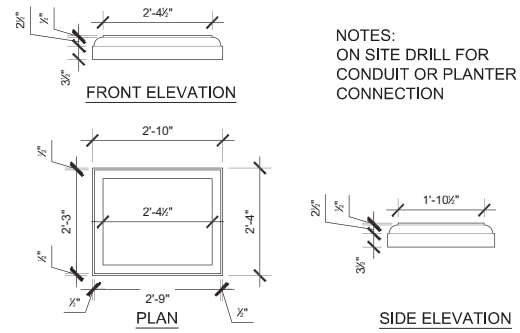
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PLOT SCALE =	DRAWN — XS	REVISED -
PLOT DATE =	CHECKED — TCK	REVISED -
	DATE — 08/08/2022	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET BRIDGE
 ENHANCEMENT PLAN
 MONUMENT DETAILS

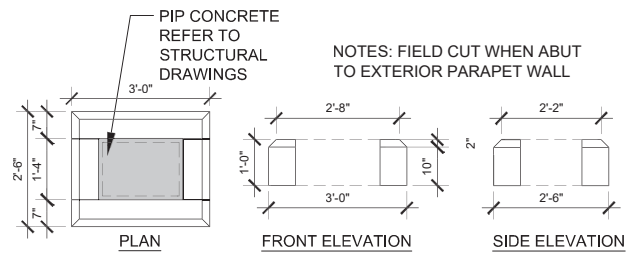
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	110
CONTRACT NO. - 61G82			ILLINOIS FED. AID PROJECT	

SCALE: SHEET 5 OF 9 SHEETS STA. - TO STA. -



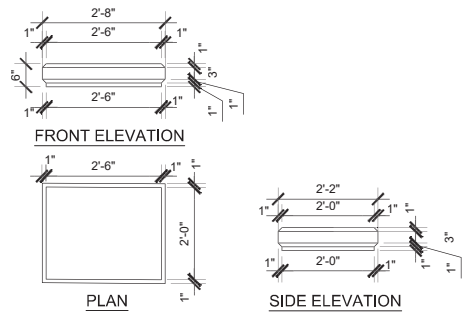
NOTES:
ON SITE DRILL FOR
CONDUIT OR PLANTER
CONNECTION

1 PRECAST CAP- MONUMENT TYPE A
NTS

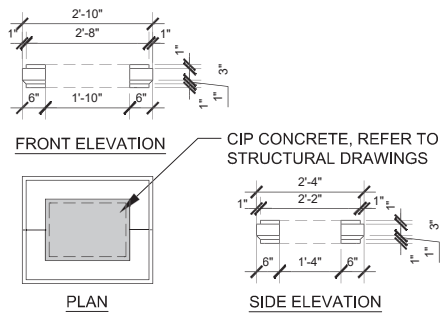


NOTES: FIELD CUT WHEN ABUT
TO EXTERIOR PARAPET WALL

2 PRECAST BASE - MONUMENT TYPE A AND B
NTS

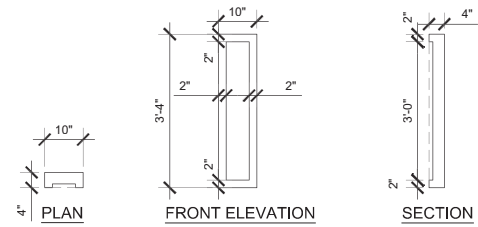


3 PRECAST CAP - MONUMENT TYPE B
NTS

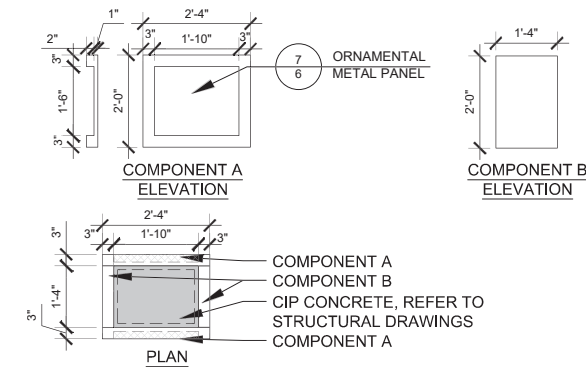


4 PRECAST TRIM - MONUMENT TYPE B
NTS

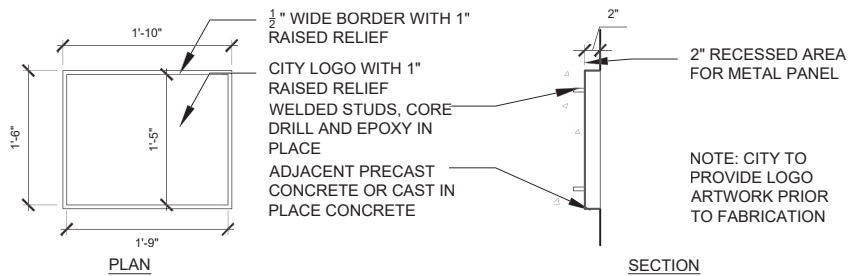
CIP CONCRETE, REFER TO
STRUCTURAL DRAWINGS



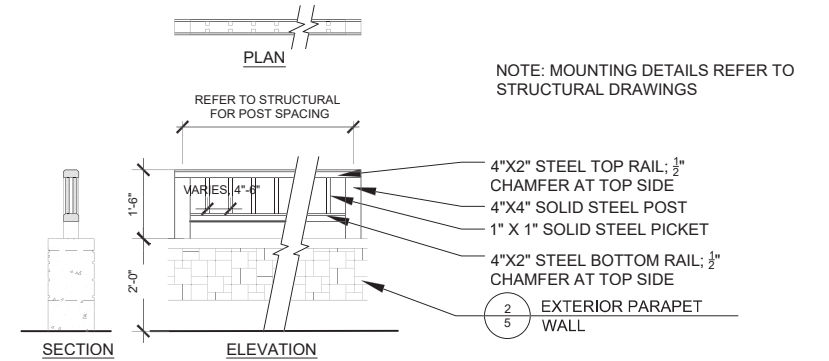
5 PRECAST SIDE PANEL - MONUMENT TYPE
NTS



6 PRECAST CITY LOGO PLATE - MONUMENT TYPE B
NTS

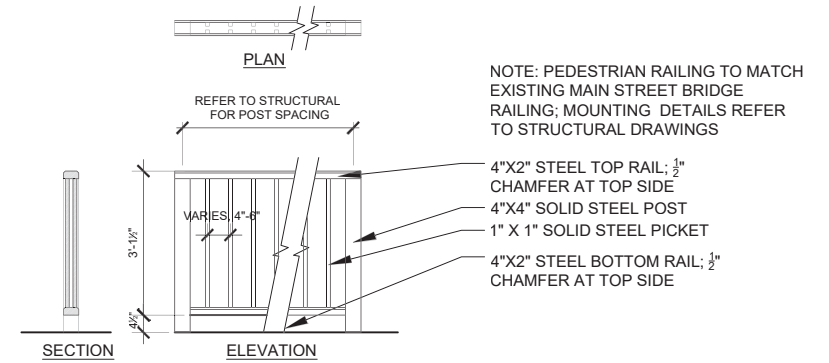


7 ORNAMENTAL METAL PANEL
NTS



NOTE: MOUNTING DETAILS REFER TO
STRUCTURAL DRAWINGS

9 DECORATIVE RAILING (PARAPET MOUNTED)
NTS



NOTE: PEDESTRIAN RAILING TO MATCH
EXISTING MAIN STREET BRIDGE
RAILING; MOUNTING DETAILS REFER
TO STRUCTURAL DRAWINGS

10 DECORATIVE RAILING (DECK MOUNTED)
NTS



8 ARCHITECTURAL PRECAST CONCRETE PANEL
NTS

RECESSED LETTERS 1";
PAINT BLACK

FONT TO BE HELVETICA -
CONFIRM WITH CITY PRIOR
TO FABRICATION

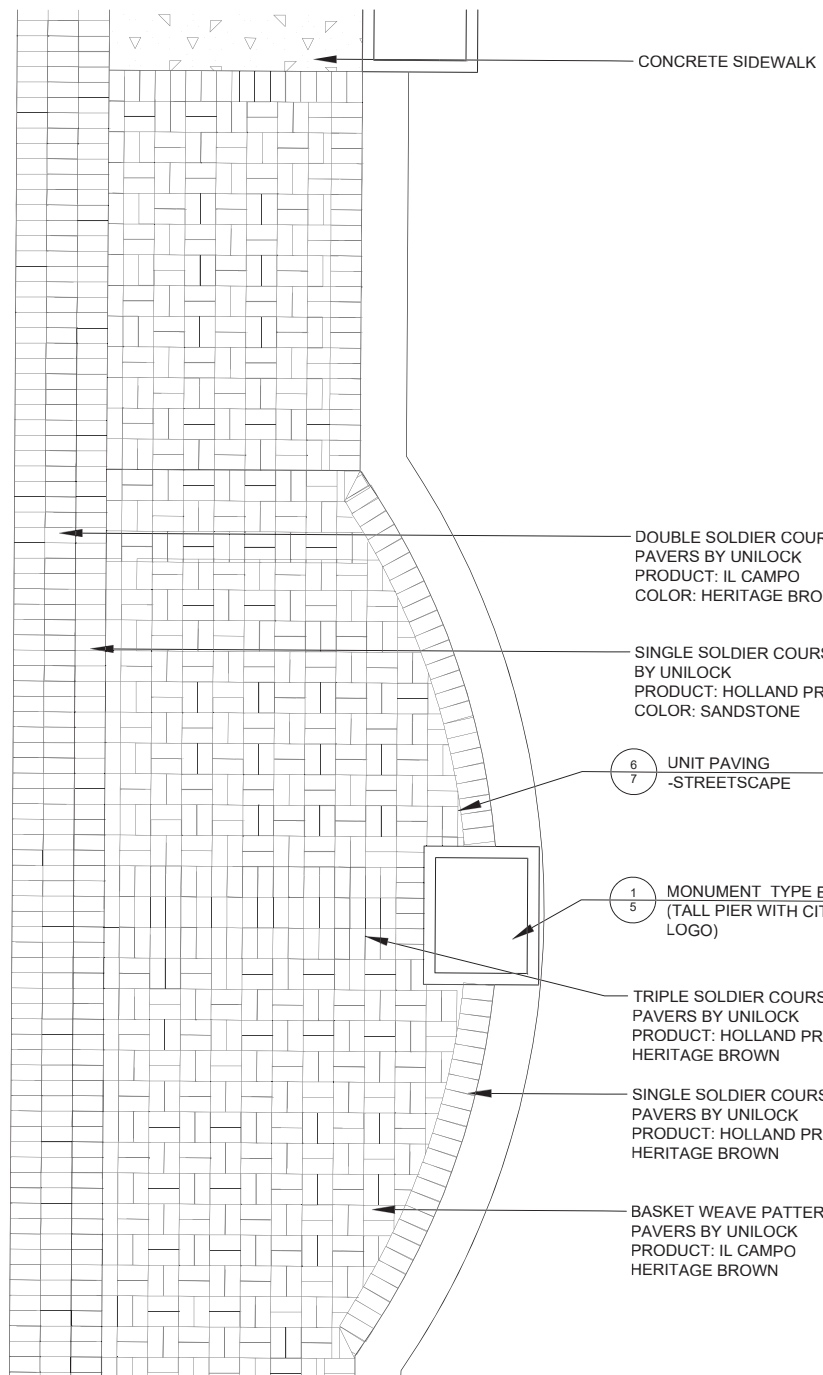
MASONRY NOTES

1. SEE STRUCTURAL PLANS FOR DIMENSIONS, MASONRY TIES, REINFORCEMENT, ELECTRICAL AND CONDUIT LOCATIONS, AND FOUNDATION DETAILS.
2. PROVIDE LOGO PLAQUE ON ONE SIDE TWO SIDES OF COLUMN, FACING NORTH/SOUTH..
3. LOCAL AGENCY WILL PROVIDE LOGO ARTWORK AND CUSTOMIZED FONT PRIOR TO FABRICATION.
4. CONFIRM LIGHT FIXTURE PLACEMENT PRIOR TO FABRICATION OF PRECAST CAP.
5. ALL PRECAST CAPS TO HAVE DRIP EDGE.

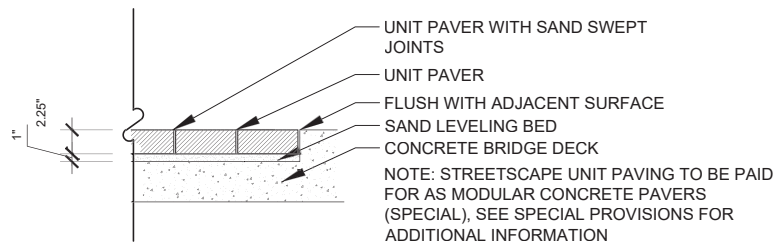
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PLOT SCALE =	DRAWN - XS	REVISED -
PLOT DATE =	CHECKED - TCK	REVISED -
	DATE - 08/08/2022	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	111
SCALE: SHEET 6 OF 9 SHEETS STA. - TO STA. -			CONTRACT NO. - 61G82	
ILLINOIS FED. AID PROJECT				

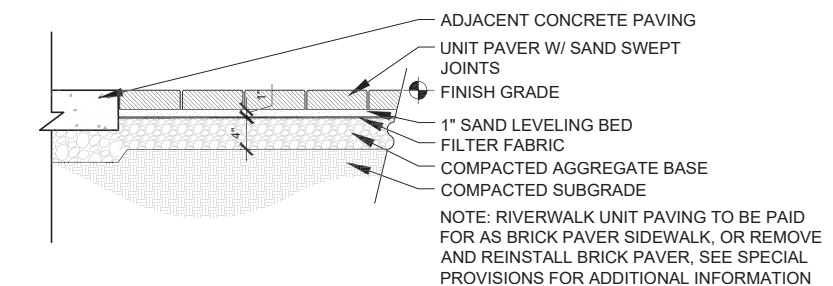
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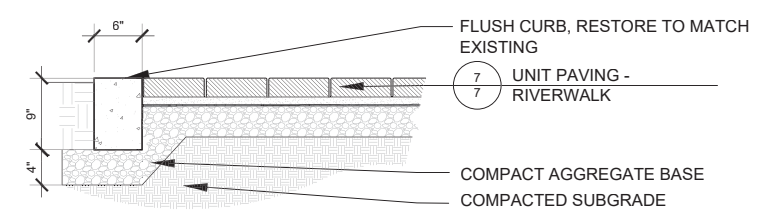
1 PAVING PATTERN ENLARGEMENT
NTS



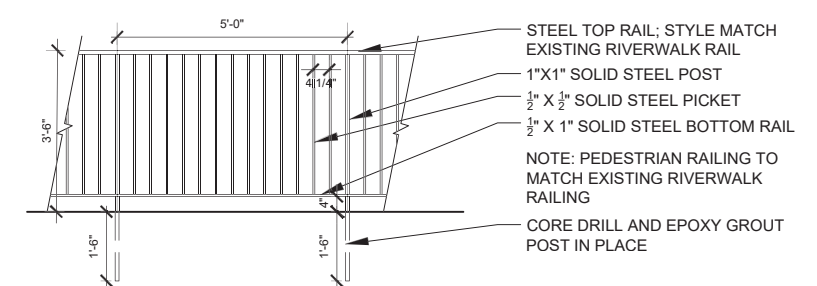
2 UNIT PAVING - STREETSCAPE
NTS



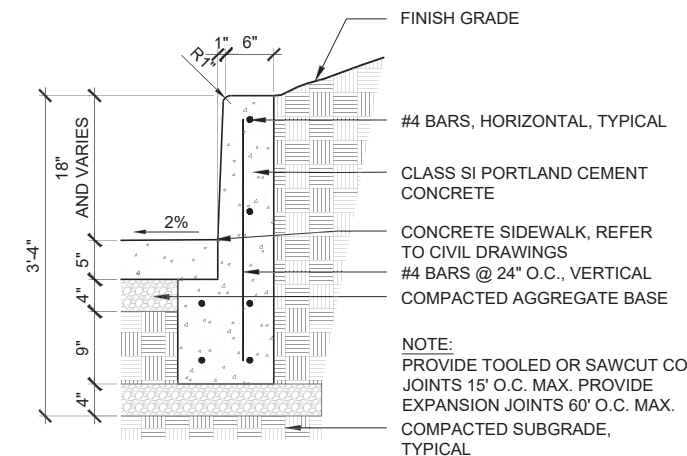
3 UNIT PAVING - RIVERWALK
NTS



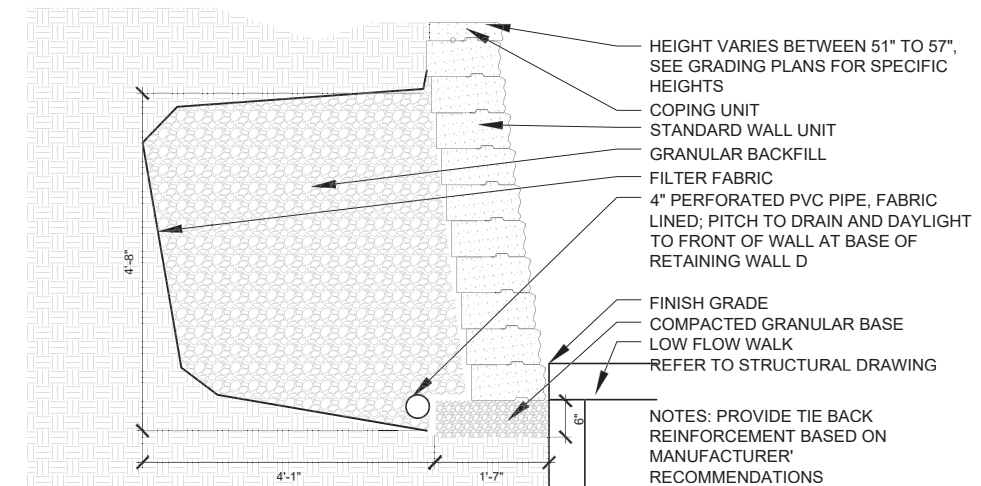
4 FLUSH CURB
NTS



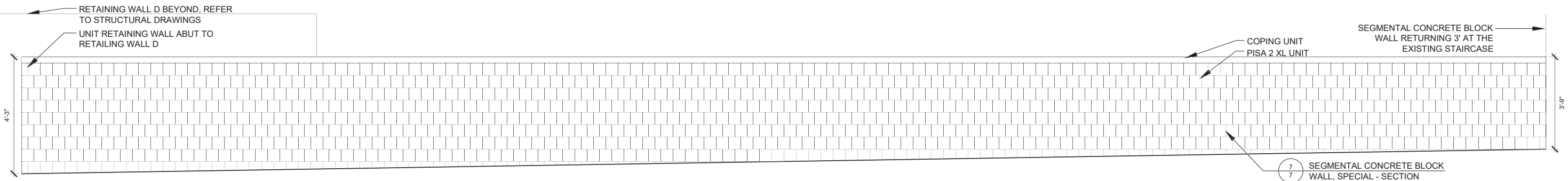
5 PEDESTRIAN RAILING
NTS



6 PORTLAND CEMENT CONCRETE SIDEWALK CURB
NTS



7 SEGMENTAL CONCRETE BLOCK WALL, SPECIAL - SECTION
NTS



8 SEGMENTAL CONCRETE BLOCK WALL, SPECIAL - ELEVATION
NTS



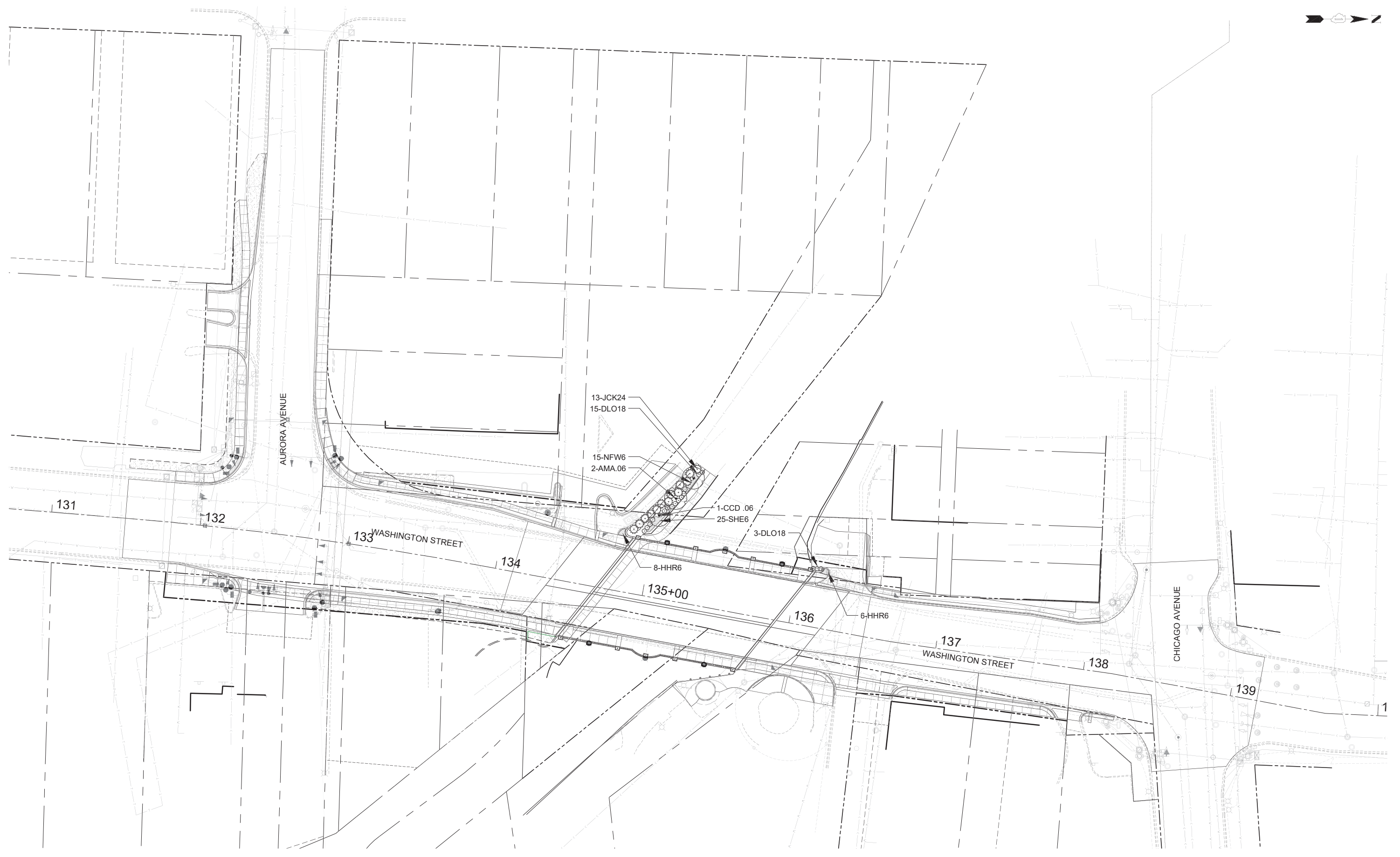
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PLOT DATE =	CHECKED - TCK	REVISED -
	DATE - 08/08/2022	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET BRIDGE
ENHANCEMENT PLAN
CONSTRUCTION DETAILS

SCALE: SHEET 7 OF 9 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	112
CONTRACT NO. - 61G82			ILLINOIS FED. AID PROJECT	



J:\PROJECTS\ALPHA\CORBA GROUP\MAPEVILLE WASHINGTON STREET BRIDGE\09 GRAPHICS\02 DD-CD\07-08 PLANTING PLANDWG 08
 Plotter: 04/08/2022 By: APL/ADD



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PLOT DATE =	CHECKED - TCK	REVISED -
	DATE - 08/08/2022	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**WASHINGTON STREET BRIDGE
 ENHANCEMENT PLAN
 PLANTING PLAN**

SCALE: 1"=30' SHEET 8 OF 9 SHEETS STA. 131+49.63 TO STA. 138+19.48

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	113
CONTRACT NO. - 61G82			ILLINOIS FED. AID PROJECT	

PLANTING SCHEDULE:

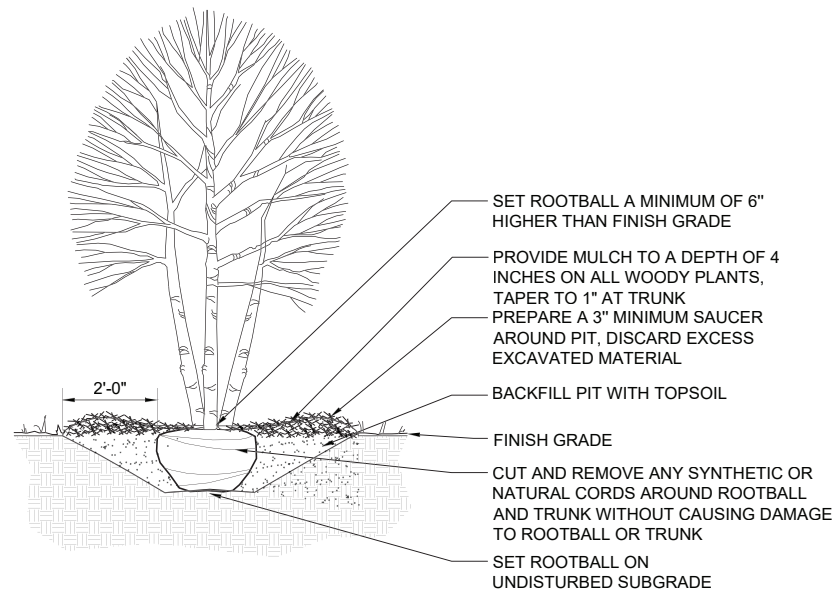
CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY
ORNAMENTAL TREES				
AMA.06	AMELANCHIER X GRANDIFLORA AUTUMN BRILLIANCE	AUTUMN BRILLIANCE SERVICE BERRY	6' HT	2
CCD.06	CERCIS CANADENSIS	EASTERN REDBUD	6' HT	1
DECIDUOUS SHRUBS				
DLO18	DIERVILLA LONICERA	BUSH HONEY SUCKLE	5 GA	18
EVERGREEN SHRUBS				
JCK 24	JUNIPERUS CHINENSIS KALLAY'S COMPACT	KALLAY'S PFITZER JUNIOR	3 GA	13
PERENNIALS				
NFW6	NEPETA X FAASSENII 'WALKER'S LOW'	WALKER'S LOW CATMINT	1 GAL	15
SHE6	SPOROBOLUS HETEROLEPIS	PRAIRIE DROPSEED	1 GAL	25
HHR6	HEMEROCALLIS 'HAPPY RETURNS'	HAPPY RETURNS DAYLILY	1 GAL	14

ALL PERENNIALS TO BE PAID FOR AS PERENNIAL PLANTS, TOTAL PERENNIALS: 63
 ORNAMENTAL TYPE, GALLON POT (1 UNIT = 100 PLANTS) TOTAL UNITS: .63
 ALL PERENNIALS TO BE PLANTED AT 18 INCH SPACING

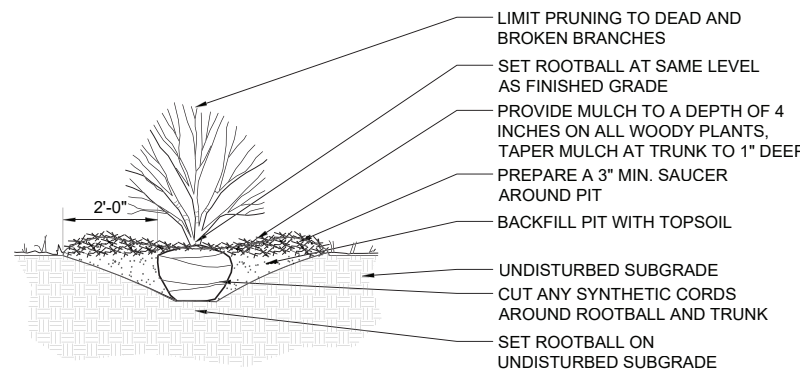
SEE SUMMARY OF QUANTITIES FOR SPECIFIC PLANT MATERIAL PAY ITEMS

PLANTING NOTES

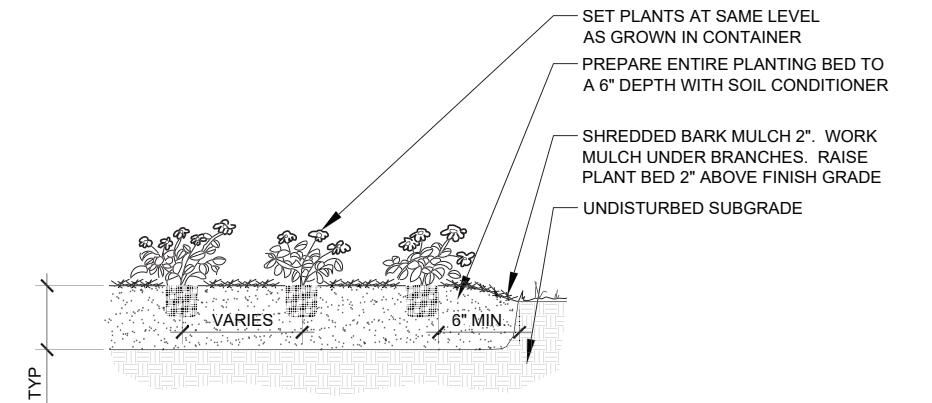
1. PLACE TOPSOIL TO A DEPTH OF 12 INCHES FOR ALL PLANTING BED AREAS.
2. PLACE SOIL CONDITIONER TO A DEPTH OF 3 INCHES FOR PLANT BED AREAS AFTER TOPSOIL HAS BEEN FURNISHED AND PLACED.
3. PROVIDE MULCH TO A DEPTH OF 4 INCHES ON ALL WOODY PLANTS AND 2 INCHES ON ALL PERENNIALS PER IDOT STANDARD SPECIFICATIONS.
4. REFER TO THE SPECIAL PROVISIONS FOR ADDITIONAL CONDITIONS, STANDARDS AND NOTES.



1 ORNAMENTAL TREE PLANTING
 NTS D-ORNAMENTAL TREE



2 SHRUB PLANTING
 NTS D-SHRUB



3 PERENNIAL PLANTING
 NTS D-ANNUAL-PERENNIAL

J:\PROJECTS\ALPHA\CORBA GROUP\WAPERVILLE WASHINGTON STREET BRIDGE\09 GRAPHICS\02 DD-CD\07-08 PLANTING PLANDWG 09 Plotter: 04/05/2022 09:41:00



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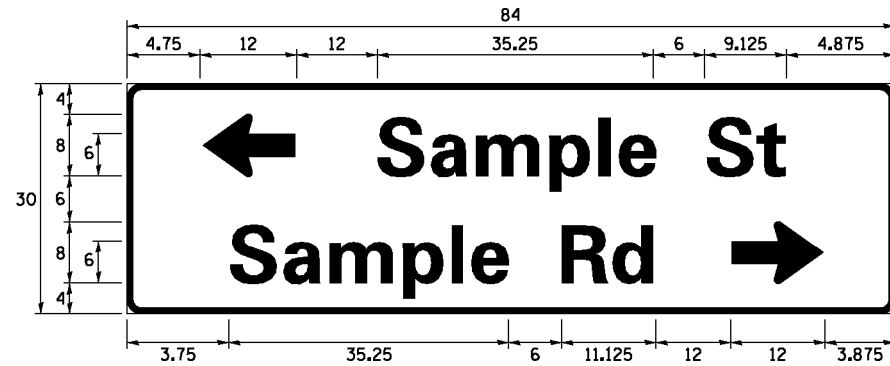
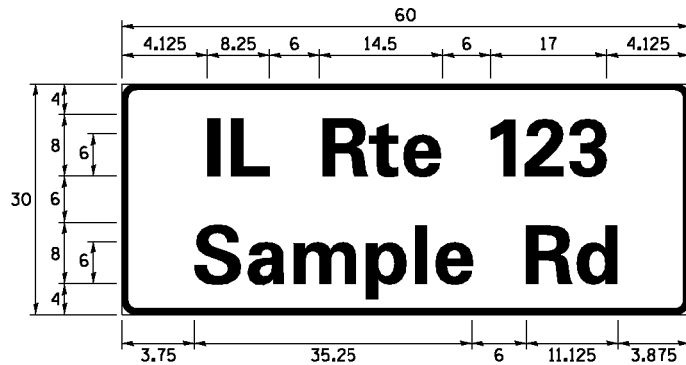
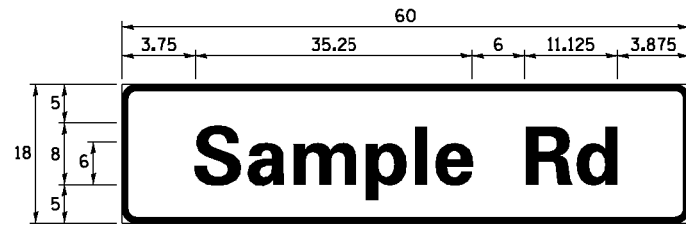
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**WASHINGTON STREET BRIDGE
 ENHANCEMENT PLAN
 PLANTING DETAILS**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	114
CONTRACT NO. - 61G82			ILLINOIS FED. AID PROJECT	

SIGN PANEL – TYPE 1 OR TYPE 2



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D OR C	-	1 OR 2	ZZ	-

ALL DIMENSIONS ARE IN INCHES EXCEPT NOTED OTHERWISE

COMMON STREET NAME ABBREVIATIONS AND WIDTHS

NAME	ABBREVIATION	WIDTH (INCH)	
		SERIES "C"	SERIES "D"
AVENUE	Ave	15.000	18.250
BOULEVARD	Bld	17.125	20.000
CIRCLE	Cir	11.125	13.000
COURT	Ct	8.250	9.625
DRIVE	Dr	8.625	10.125
HIGHWAY	Hwy	18.375	22.000
ILLINOIS	IL	7.000	8.250
LANE	Ln	9.125	10.750
PARKWAY	Pkwy	23.375	27.375
PLACE	Pl	7.125	7.750
ROAD	Rd	9.625	11.125
ROUTE	Rte	12.625	14.500
STREET	St	8.000	9.125
TERRACE	Ter	12.625	14.625
TRAIL	Tr	7.750	9.125
UNITED STATES	US	10.375	12.250

GENERAL NOTES

- WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
- ALL SIGNS SHALL CONSIST OF A WHITE LEGEND AND BORDER (TYPE ZZ SHEETING) ON A GREEN BACKGROUND (TYPE ZZ SHEETING)
- THE SIGN LENGTH SHALL BE IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHALL NOT EXCEED 8'-0". ALL BORDERS SHALL BE 3/4" WIDE. CORNER RADIUS SHALL BE 1-7/8". THE SPACING BETWEEN THE WORDS SHOULD BE 6", IF POSSIBLE, BUT MAY BE REDUCED TO 5" WHEN SPACING IS CRITICAL. A MINIMUM OF 2-1/2" SHALL BE INCLUDED BETWEEN THE WORD AND THE RIGHT AND LEFT EDGES OF THE SIGN.
- A PREFERRED METHOD FOR THE SIGN DESIGN IS TO USE SERIES "D" LETTER ON A ONE-LINE SIGN 18" IN HEIGHT AND A MAXIMUM OF 8'-0" IN WIDTH. IF SERIES "D" DOES NOT FIT ON A 8'-0" SIGN, THEN SERIES "C" SHOULD BE TRIED. IF SERIES "C" DOES NOT FIT ON A 8'-0" SIGN, A 30" HIGH TWO-LINE SIGN CAN BE USED. THE CROSSROAD DESIGNATION AS TO STREET, AVENUE, ETC. SHOULD BE SPELLED OUT ON THE SECOND LINE, IF THE ABBREVIATION CANNOT FIT ON THE FIRST LINE.
- LED ILLUMINATED STREET NAME SIGNS CAN BE USED IN PLACE OF REGULAR SIGN PANELS BUT ANY SPECIAL WORDING AND SYMBOLGY MUST BE APPROVED BY THE DEPARTMENT. GENERAL DESIGN REQUIREMENT AS LISTED ABOVE (COLOR, FONT, SIZE, ETC.) MUST BE FOLLOWED.
- ~~SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.~~

LOCAL SUPPLIERS:

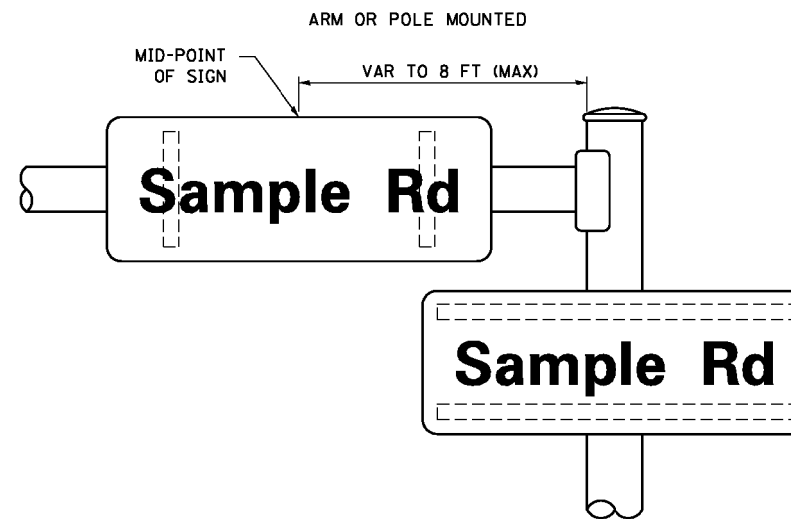
- J.O. HERBERT COMPANY, INC
MIDLOTHIAN, VA
- WESTERN REMAC, INC.
WOODRIDGE, IL

PARTS LISTING:

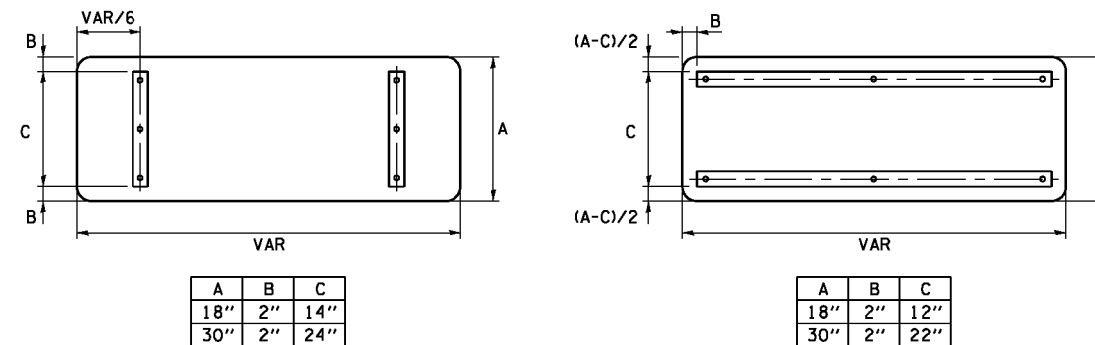
- SIGN CHANNEL PART #HPN053 (MED. CHANNEL)
1/4" x 14 x 1" H.W.H. #3
- SIGN SCREWS SELF TAPPING WITH NEOPRENE WASHER
PART #HPN034 (UNIVERSAL)
- BRACKETS CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BACKET OF THE ABOVE PRODUCT.

MOUNTING LOCATION



SUPPORTING CHANNELS



STANDARD ALPHABETS SPACING CHART

(8") UPPER CASE AND (6") LOWER CASE

CHARACTER	FHWA SERIES "C"			FHWA SERIES "D"			
	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)	CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)
A	0.240	5.122	0.240	A	0.240	6.804	0.240
B	0.880	4.482	0.480	B	0.960	5.446	0.400
C	0.720	4.482	0.720	C	0.800	5.446	0.800
D	0.880	4.482	0.720	D	0.960	5.446	0.800
E	0.880	4.082	0.480	E	0.960	4.962	0.400
F	0.880	4.082	0.240	F	0.960	4.962	0.240
G	0.720	4.482	0.720	G	0.800	5.446	0.800
H	0.880	4.482	0.880	H	0.960	5.446	0.960
I	0.880	1.120	0.880	I	0.960	1.280	0.960
J	0.240	4.082	0.880	J	0.240	5.122	0.960
K	0.880	4.482	0.480	K	0.960	5.604	0.400
L	0.880	4.082	0.240	L	0.960	4.962	0.240
M	0.880	5.284	0.880	M	0.960	6.244	0.960
N	0.880	4.482	0.880	N	0.960	5.446	0.960
O	0.720	4.722	0.720	O	0.800	5.684	0.800
P	0.880	4.482	0.720	P	0.960	5.446	0.240
Q	0.720	4.722	0.720	Q	0.800	5.684	0.800
R	0.880	4.482	0.480	R	0.960	5.446	0.400
S	0.480	4.482	0.480	S	0.400	5.446	0.400
T	0.240	4.082	0.240	T	0.240	4.962	0.240
U	0.880	4.482	0.880	U	0.960	5.446	0.960
V	0.240	4.962	0.240	V	0.240	6.084	0.240
W	0.240	6.084	0.240	W	0.240	7.124	0.240
X	0.240	4.722	0.240	X	0.400	5.446	0.400
Y	0.240	5.122	0.240	Y	0.240	6.884	0.240
Z	0.480	4.482	0.480	Z	0.400	5.446	0.400
a	0.320	3.842	0.640	a	0.400	4.562	0.720
b	0.720	4.082	0.480	b	0.800	4.802	0.480
c	0.480	4.002	0.240	c	0.480	4.722	0.240
d	0.480	4.082	0.720	d	0.480	4.802	0.800
e	0.480	4.082	0.320	e	0.480	4.722	0.320
f	0.320	2.480	0.160	f	0.320	2.882	0.160
g	0.480	4.082	0.720	g	0.480	4.802	0.800
h	0.720	4.082	0.640	h	0.800	4.722	0.720
i	0.720	1.120	0.720	i	0.800	1.280	0.800
j	0.000	2.320	0.720	j	0.000	2.642	0.800
k	0.720	4.322	0.160	k	0.800	5.122	0.160
l	0.720	1.120	0.720	l	0.800	1.280	0.800
m	0.720	6.724	0.640	m	0.800	7.926	0.720
n	0.720	4.082	0.640	n	0.800	4.722	0.720
o	0.480	4.082	0.480	o	0.480	4.882	0.480
p	0.720	4.082	0.480	p	0.800	4.802	0.480
q	0.480	4.082	0.720	q	0.480	4.802	0.800
r	0.720	2.642	0.160	r	0.800	3.042	0.160
s	0.320	3.362	0.240	s	0.320	3.762	0.240
t	0.080	2.882	0.080	t	0.080	3.202	0.080
u	0.640	4.082	0.720	u	0.720	4.722	0.800
v	0.160	4.722	0.160	v	0.160	5.684	0.160
w	0.160	7.524	0.160	w	0.160	9.046	0.160
x	0.000	5.202	0.000	x	0.000	6.244	0.000
y	0.160	4.962	0.160	y	0.160	6.004	0.160
z	0.240	3.362	0.240	z	0.240	4.002	0.240
1	0.720	1.680	0.880	1	0.800	2.000	0.960
2	0.480	4.482	0.480	2	0.800	5.446	0.800
3	0.480	4.482	0.480	3	1.440	5.446	0.800
4	0.240	4.962	0.720	4	0.160	6.004	0.960
5	0.480	4.482	0.480	5	0.800	5.446	0.800
6	0.720	4.482	0.720	6	0.800	5.446	0.800
7	0.240	4.482	0.720	7	0.560	5.446	0.560
8	0.480	4.482	0.480	8	0.800	5.446	0.800
9	0.480	4.482	0.480	9	0.800	5.446	0.800
0	0.720	4.722	0.720	0	0.800	5.684	0.800
-	0.240	2.802	0.240	-	0.240	2.802	0.240

TRAFFIC SIGNAL LEGEND

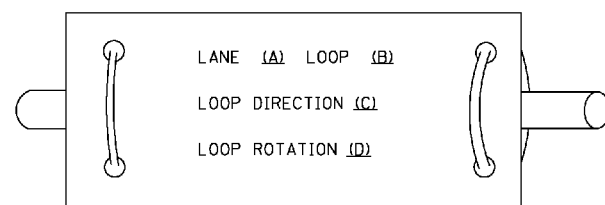
(NOT TO SCALE)

ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED
CONTROLLER CABINET			HANDHOLE -SQUARE -ROUND	 	 	SIGNAL HEAD -(P) PROGRAMMABLE SIGNAL HEAD		
COMMUNICATION CABINET			HEAVY DUTY HANDHOLE -SQUARE -ROUND	 	 	SIGNAL HEAD WITH BACKPLATE -(P) PROGRAMMABLE SIGNAL HEAD -(RB) RETROREFLECTIVE BACKPLATE		
MASTER CONTROLLER			DOUBLE HANDHOLE			PEDESTRIAN SIGNAL HEAD AT RAILROAD INTERSECTIONS		
MASTER MASTER CONTROLLER			JUNCTION BOX			PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER		
UNINTERRUPTABLE POWER SUPPLY			RAILROAD CANTILEVER MAST ARM			ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"		
SERVICE INSTALLATION -(P) POLE MOUNTED			RAILROAD FLASHING SIGNAL			NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE. ALL DETECTOR LOOP CABLE TO BE SHIELDED		
SERVICE INSTALLATION -(G) GROUND MOUNTED -(GM) GROUND MOUNTED METERED	 	 	RAILROAD CROSSING GATE			GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)		
TELEPHONE CONNECTION			RAILROAD CROSSBUCK			ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1/C		
STEEL MAST ARM ASSEMBLY AND POLE			RAILROAD CONTROLLER CABINET			COAXIAL CABLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE			UNDERGROUND CONDUIT (UC), GALVANIZED STEEL			VENDOR CABLE		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE			TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE			COPPER INTERCONNECT CABLE, NO. 18, 3 PAIR TWISTED, SHIELDED		
SIGNAL POST -(BM) BARREL MOUNTED - TEMPORARY			SYSTEM ITEM	S	SP	FIBER OPTIC CABLE -NO. 62.5/125, MM12F -NO. 62.5/125, MM12F SM12F -NO. 62.5/125, MM12F SM24F		
WOOD POLE			INTERSECTION ITEM	I	IP	GROUND ROD -(C) CONTROLLER -(M) MAST ARM -(P) POST -(S) SERVICE		
GUY WIRE			REMOVE ITEM		R			
SIGNAL HEAD			RELOCATE ITEM		RL			
SIGNAL HEAD WITH BACKPLATE			ABANDON ITEM		A			
SIGNAL HEAD OPTICALLY PROGRAMMED			CONTROLLER CABINET AND FOUNDATION TO BE REMOVED		RCF			
FLASHER INSTALLATION -(FS) SOLAR POWERED	 	 	MAST ARM POLE AND FOUNDATION TO BE REMOVED		RMF			
PEDESTRIAN SIGNAL HEAD			SIGNAL POST AND FOUNDATION TO BE REMOVED		RPF			
PEDESTRIAN PUSH BUTTON -(APS) ACCESSIBLE PEDESTRIAN PUSH BUTTON			DETECTOR LOOP, TYPE I					
RADAR DETECTION SENSOR			PREFORMED DETECTOR LOOP					
VIDEO DETECTION CAMERA			SAMPLING (SYSTEM) DETECTOR					
RADAR/VIDEO DETECTION ZONE			INTERSECTION AND SAMPLING (SYSTEM) DETECTOR					
PAN, TILT, ZOOM (PTZ) CAMERA			QUEUE AND SAMPLING (SYSTEM) DETECTOR					
EMERGENCY VEHICLE LIGHT DETECTOR			WIRELESS DETECTOR SENSOR					
CONFIRMATION BEACON			WIRELESS ACCESS POINT					
WIRELESS INTERCONNECT								
WIRELESS INTERCONNECT RADIO REPEATER								

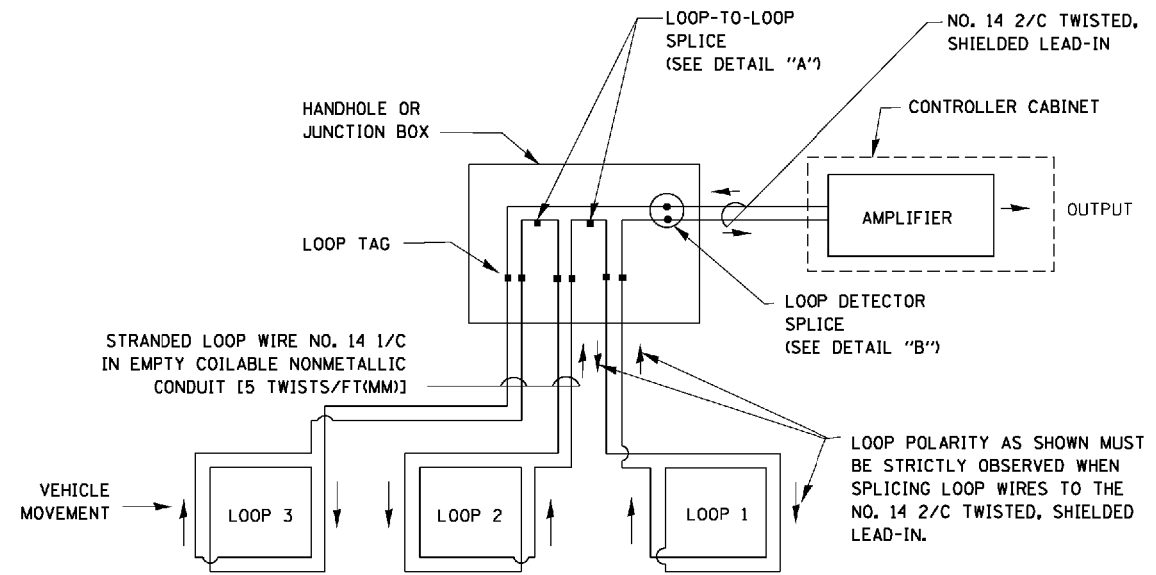
LOOP DETECTOR NOTES

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

LOOP LEAD-IN CABLE TAG

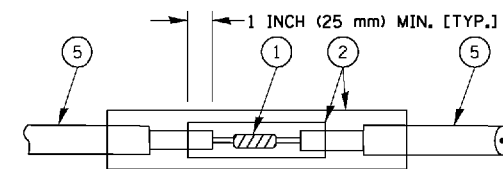


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

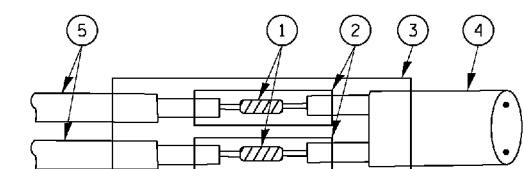


DETECTOR LOOP WIRING SCHEMATIC

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

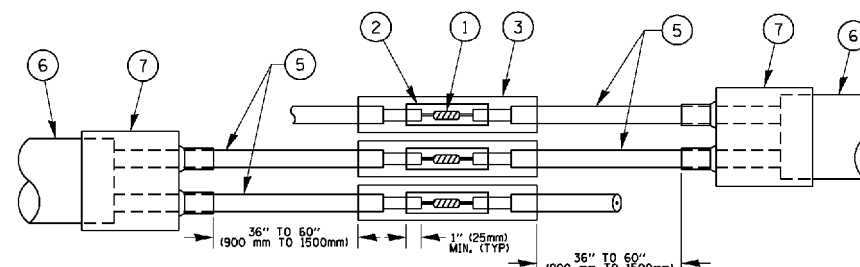


DETAIL "A"
LOOP-TO-LOOP SPLICE

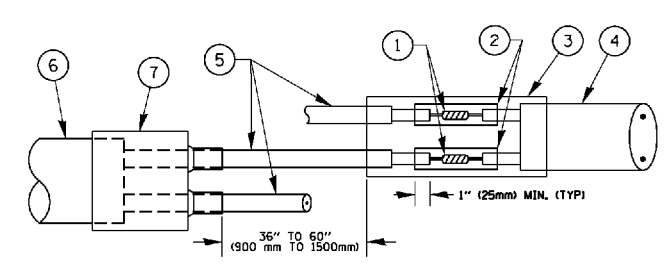


DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

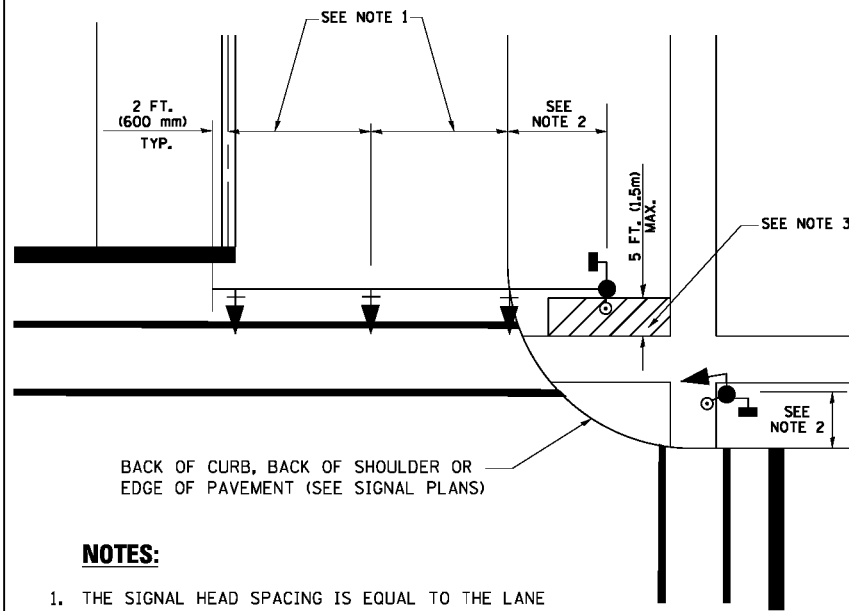
PREFORMED LOOP

LOOP DETECTOR SPLICE

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

FILE NAME =	USER NAME = footemj	DESIGNED - DAD	REVISED - DAG 1-1-14	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
of\pwr\work\pwr\dot\Footemj\00108315\ts05.epr	DRAWN - BCK	REVISED -	2552			16-00167-00-BR	DUPAGE	261	117	
PLOT SCALE = 50.0000' / in.	CHECKED - DAD	REVISED -	TS-05			CONTRACT NO.	61G82			
PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
				SCALE: NONE	SHEET NO. 2 OF 7 SHEETS	STA. TO STA.				

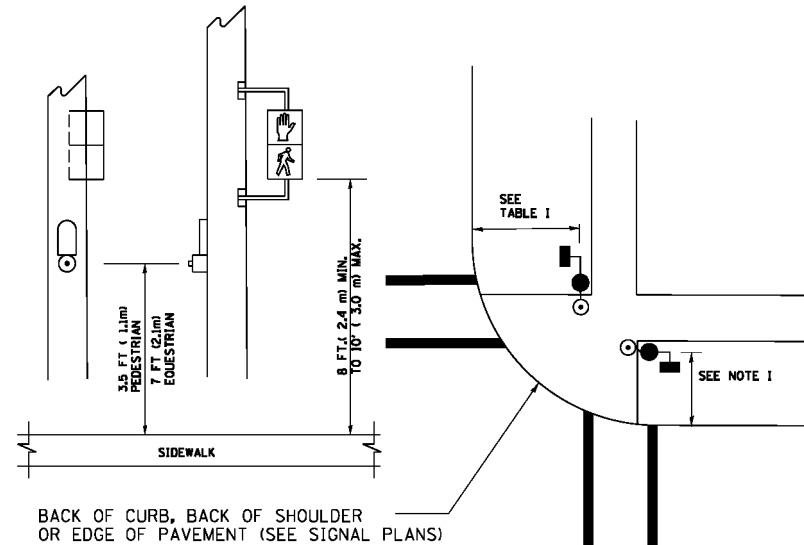
**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR
FUTURE SIDEWALK/BICYCLE PATH AREA INTERSECTION SHOWN
WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.**



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."

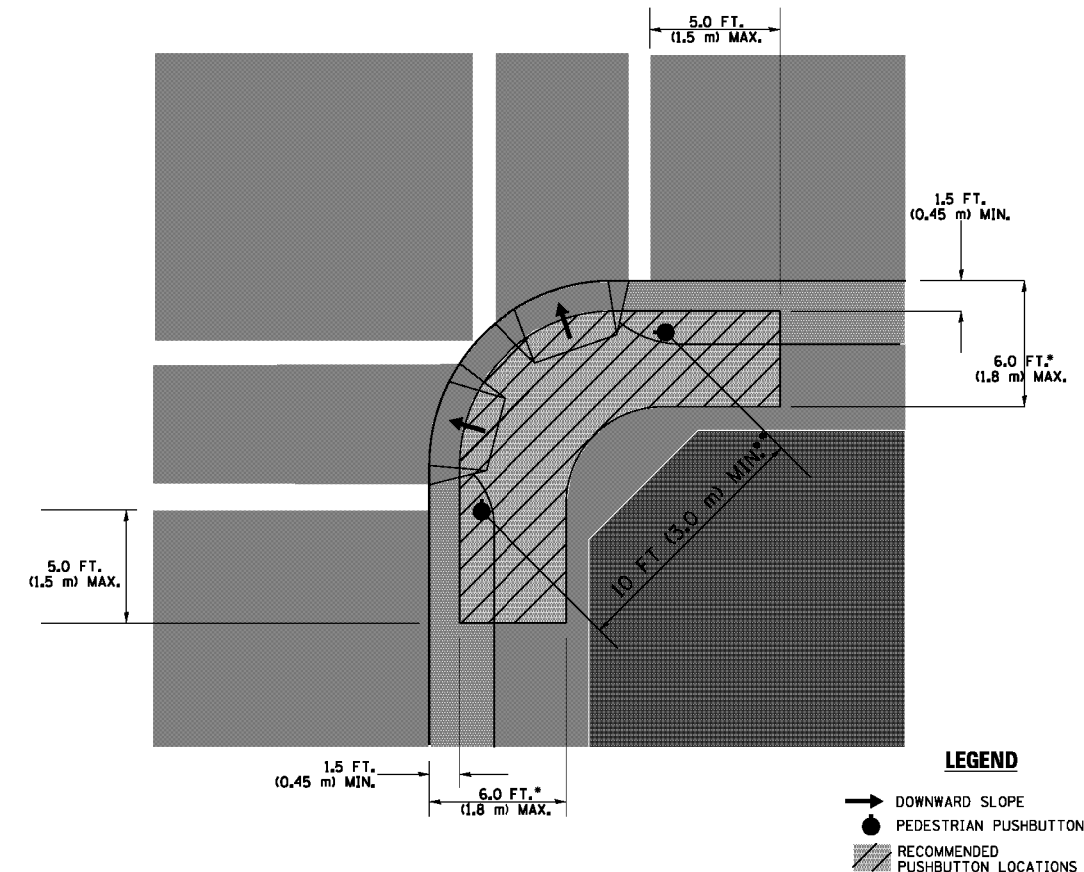
**PEDESTRIAN SIGNAL POST
AND
PEDESTRIAN PUSH BUTTON POST**



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:

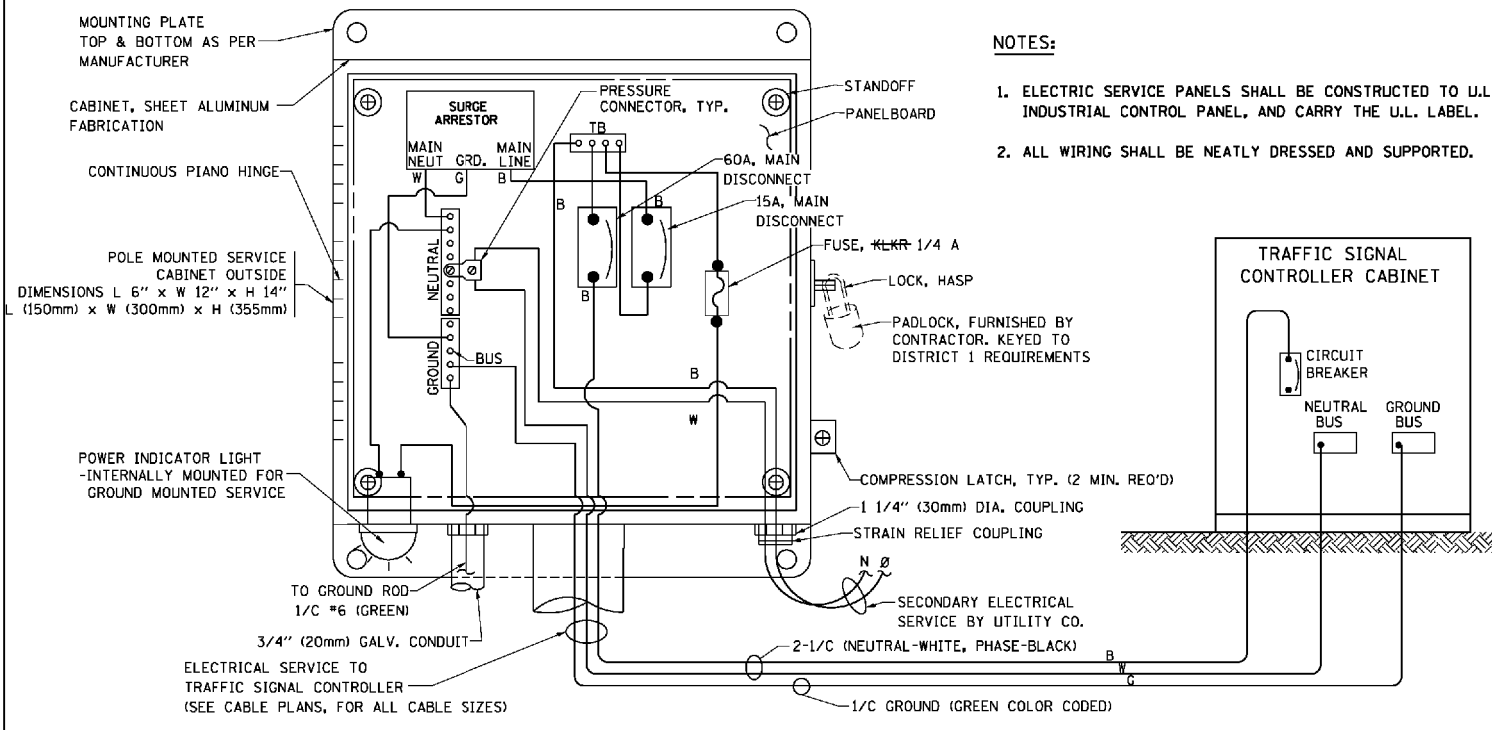
1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM 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

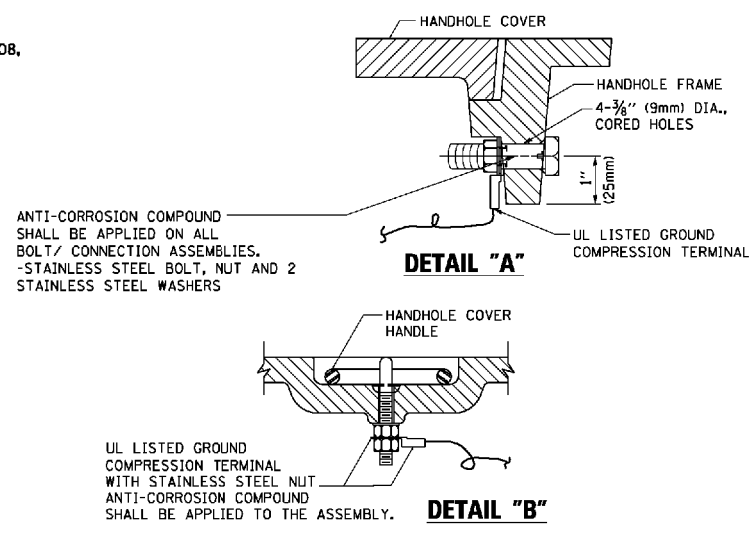
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 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.

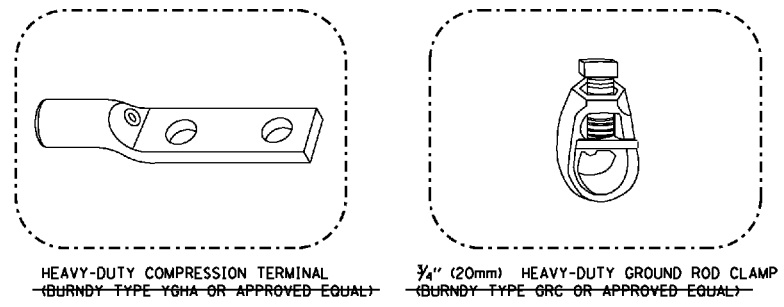
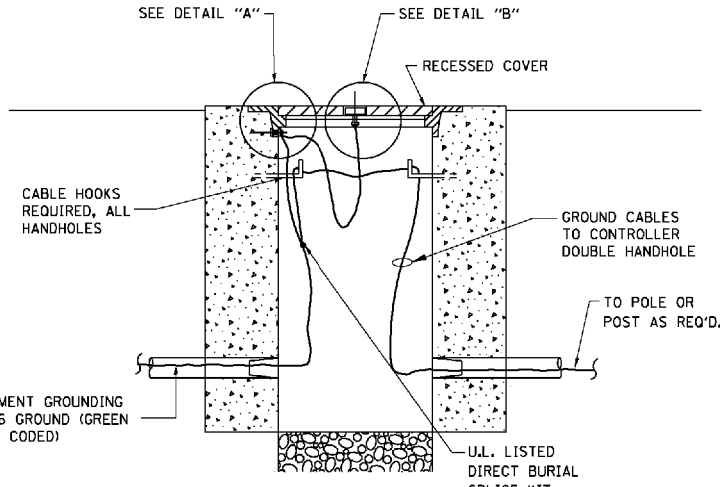


ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE) SERVICE INSTALLATION POLE MOUNT (SHOWN) (NOT TO SCALE)



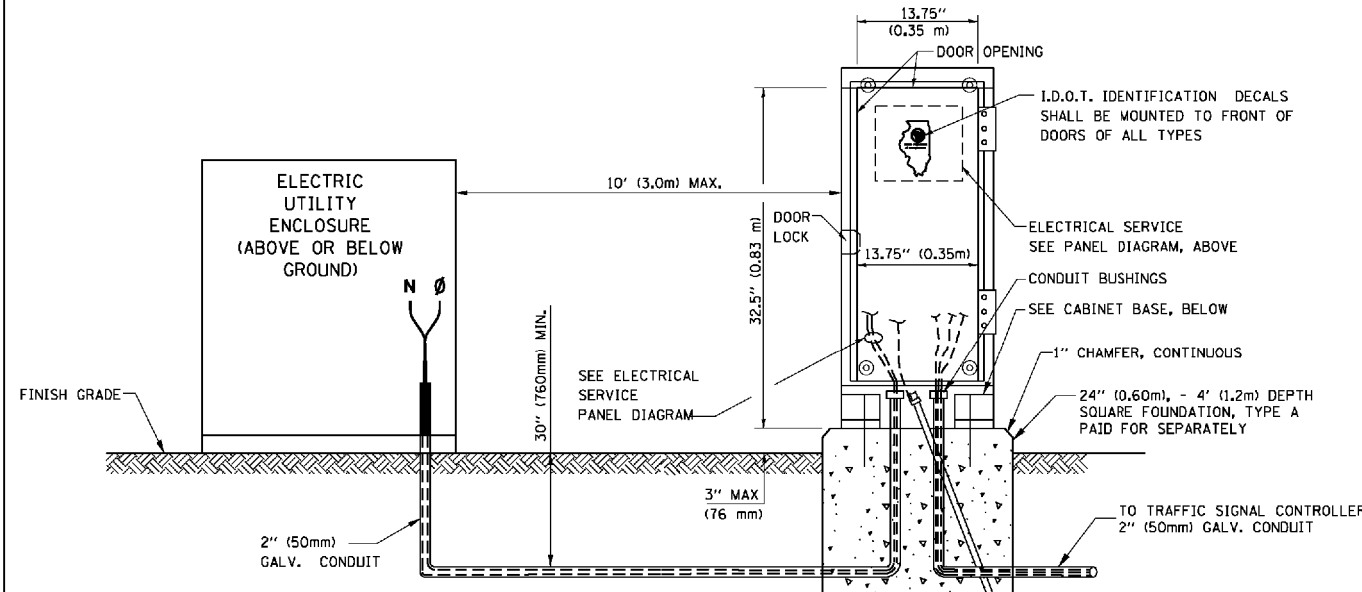
NOTES:
GROUNDING SYSTEM

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

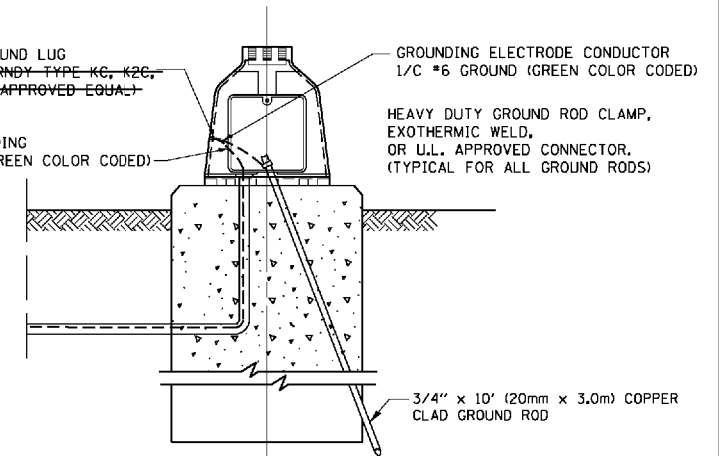
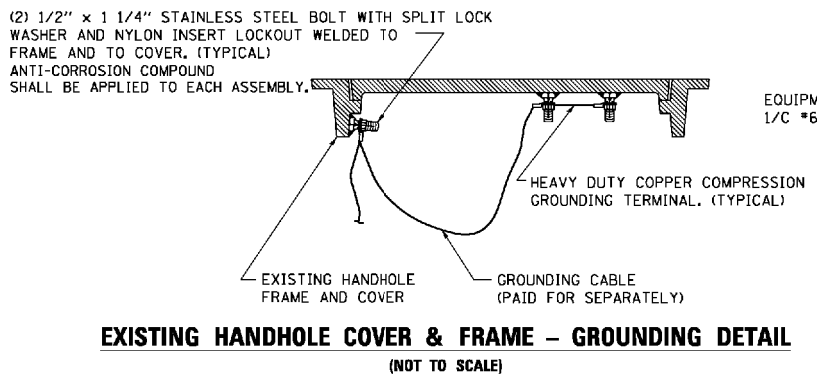


NOTES:

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

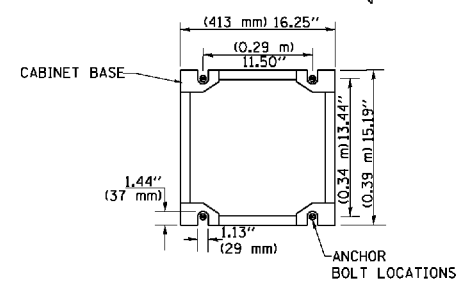


EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL (NOT TO SCALE)



SERVICE INSTALLATION GROUND MOUNT (NOT TO SCALE)

CABINET - BASE BOLT PATTERN (NOT TO SCALE)

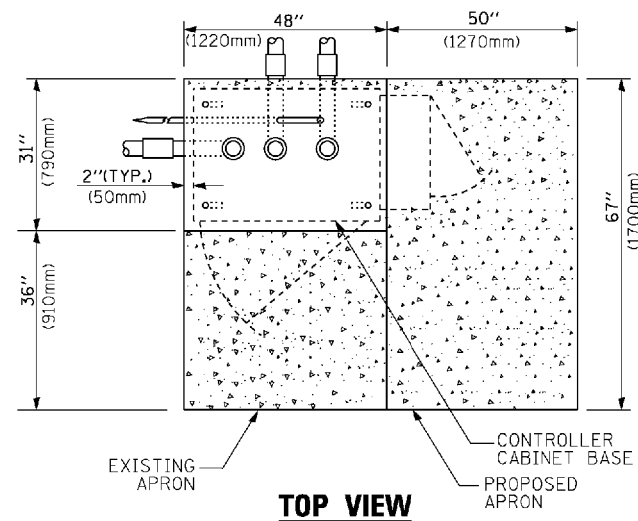


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		CHECKED - DAD	REVISED -
		DATE - 10-28-09	REVISED -

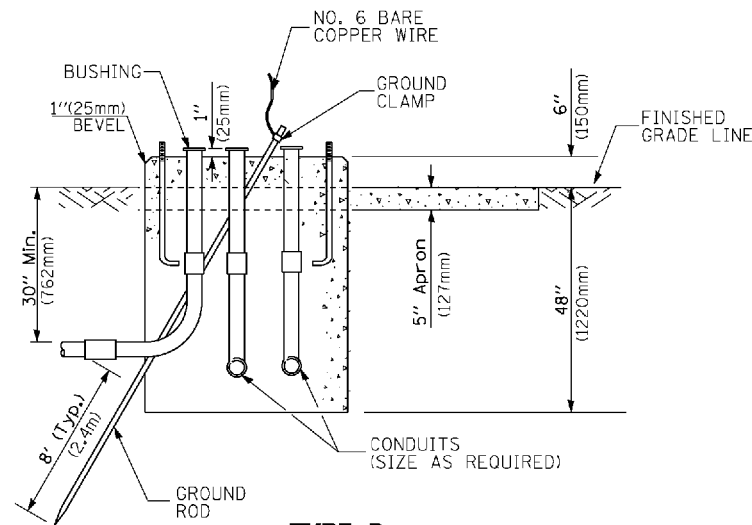
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE			
STANDARD TRAFFIC SIGNAL DESIGN DETAILS			
SCALE: NONE	SHEET NO. 4 OF 7 SHEETS	STA.	TO STA.

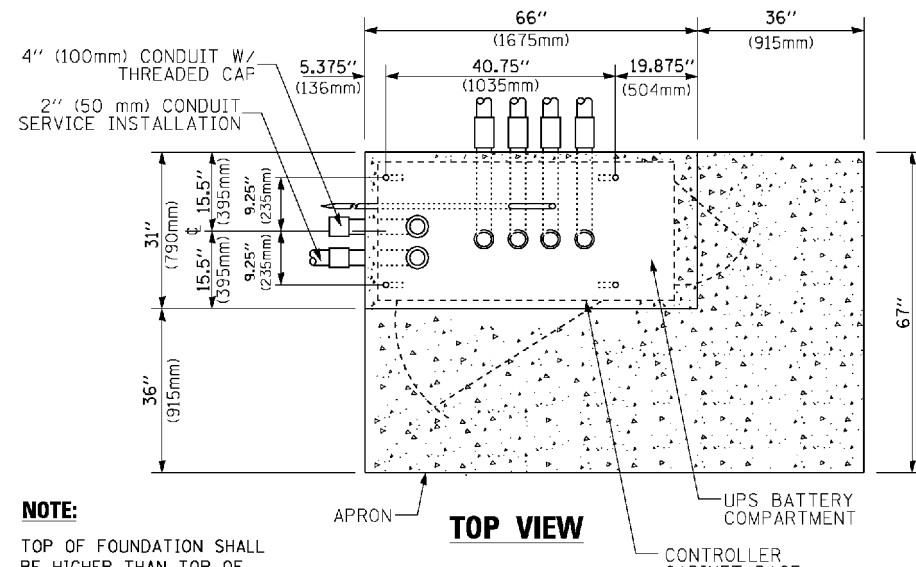
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	119
TS-05		CONTRACT NO.	61G82	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



TOP VIEW

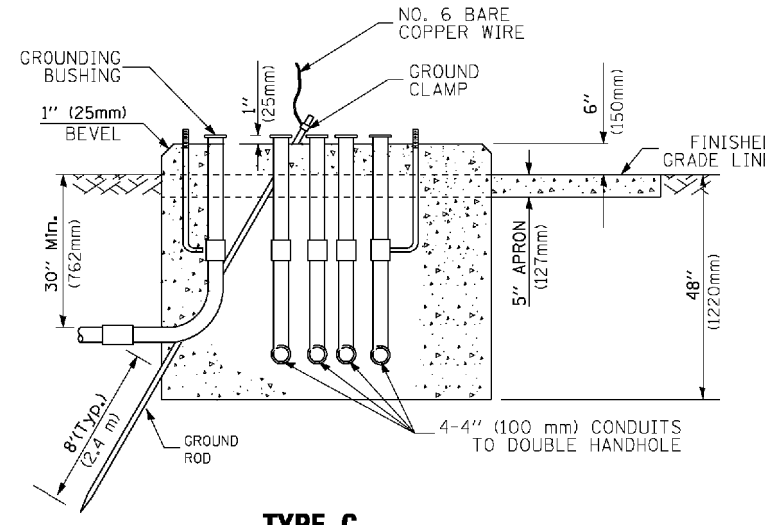


**TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET**

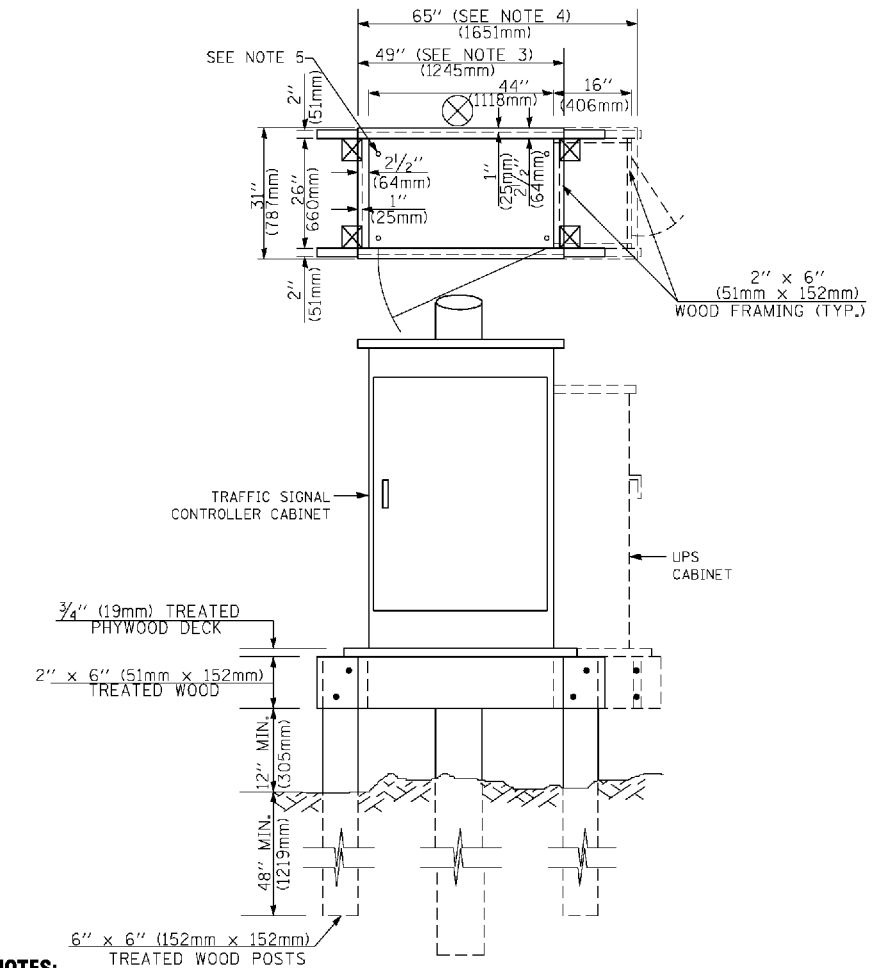


TOP VIEW

NOTE:
TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE



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



NOTES:

- 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.
- 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.
- PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
- PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
- 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.
- FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

**TEMPORARY SIGNAL CONTROLLER
WOOD SUPPORT PLATFORM**

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

CABLE SLACK

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

VERTICAL CABLE LENGTH

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

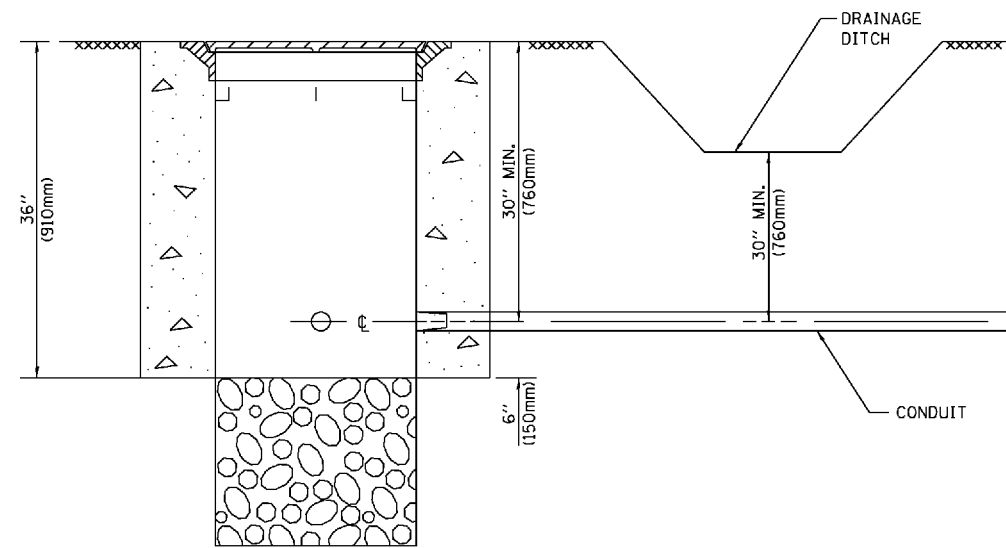
DEPTH OF FOUNDATION

MAST ARM LENGTH	① FOUNDATION DEPTH	FOUNDATION DIAMETER	SPIRAL DIAMETER	QUANTITY OF REBARS	SIZE OF REBARS
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
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 up to 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 less than 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

NOTES:

- 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.
- Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
- Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
- For mast arm assemblies with dual arms refer to state standard 878001..

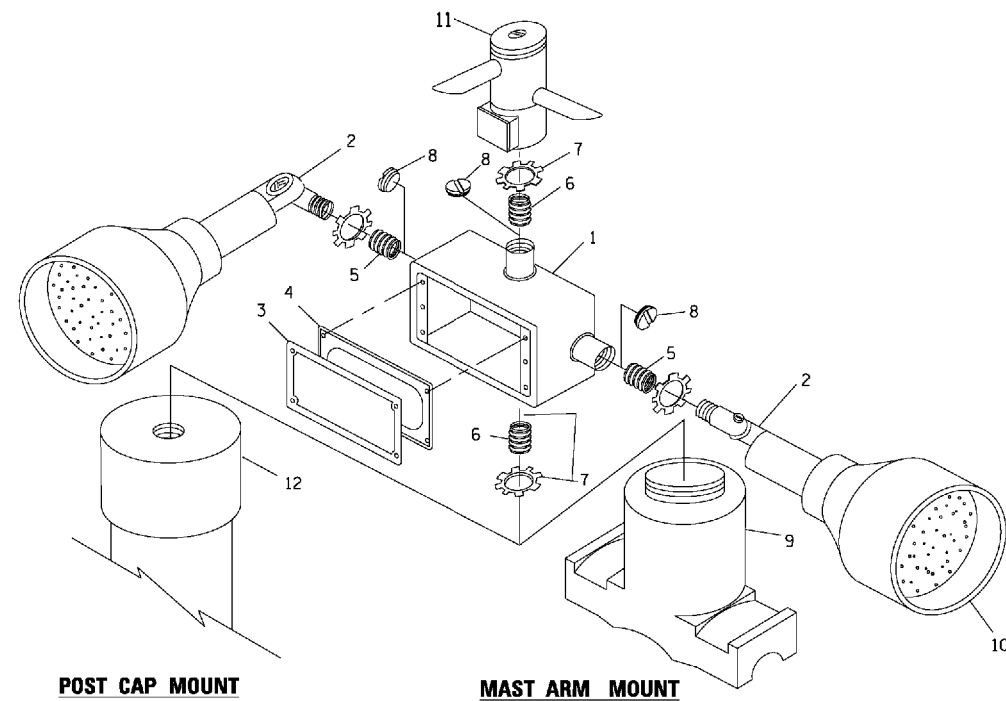
DEPTH OF MAST ARM FOUNDATIONS, TYPE E



NOTES:

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

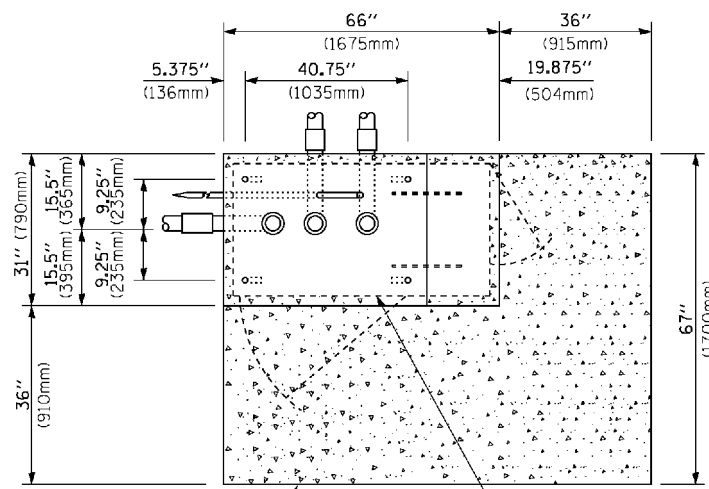
HANDHOLE WITH MINIMUM CONDUIT DEPTH
(NOT TO SCALE)



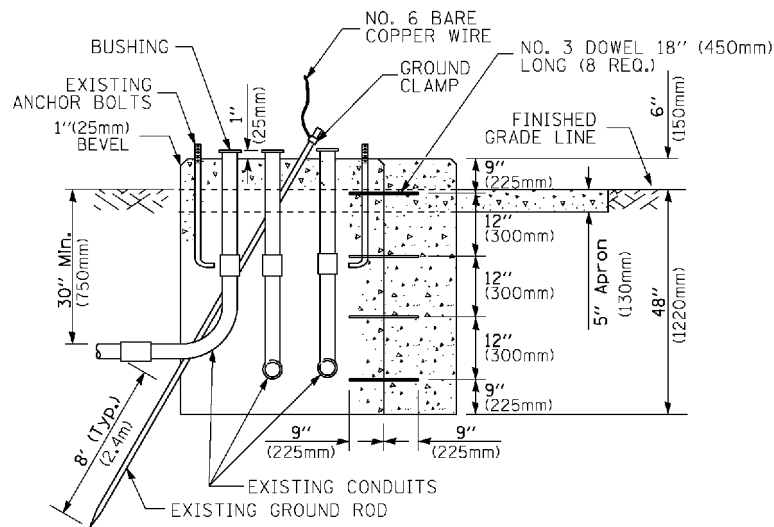
POST CAP MOUNT

MAST ARM MOUNT

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL



TOP VIEW
(NOT TO SCALE)

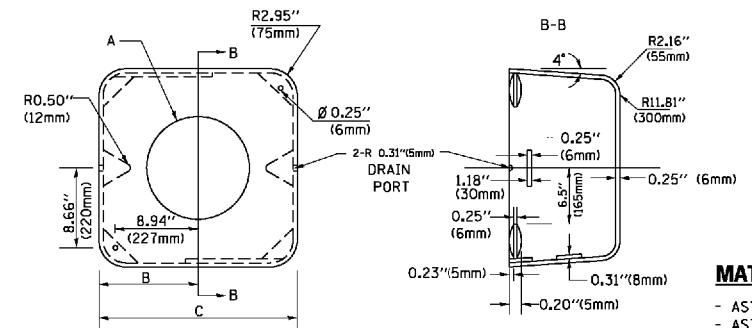


MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION
(NOT TO SCALE)

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:

1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. ITEM #1 - OZ/GEBNEY FSX 1-50 OR EQUIVALENT
ITEM #2 - MULBERRY CON 0 SHADE LAMP SHIELD OR EQUIVALENT
ITEM #9 - "BAND-IT" SADDLE BRACKET OR EQUIVALENT
3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4" (19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



MATERIAL:

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

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)

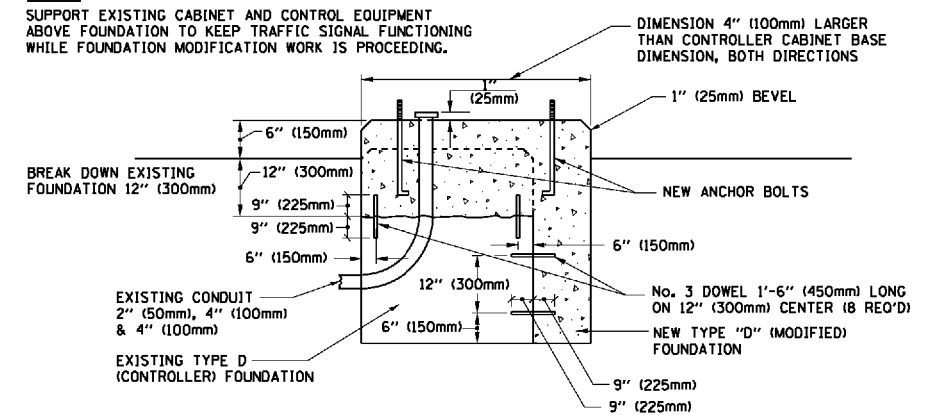
SHROUD

NOTES:

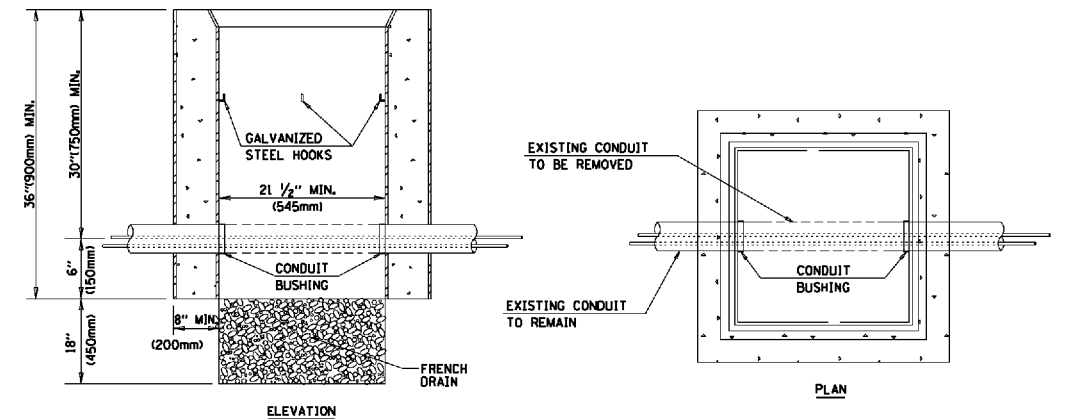
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

NOTE:

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



MODIFY EXISTING TYPE "D" FOUNDATION



NOTES:

1. HANDHOLE CONSTRUCTED PER STATE STANDARD B1400L.
2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

FILE NAME =	USER NAME = faoemj	DESIGNED - DAD	REVISED - DAG 1-1-14
ca:\pwr_work\pwr\dot\Faodemj\00108315\ts05.dgn		DRAWN - BCK	REVISED -
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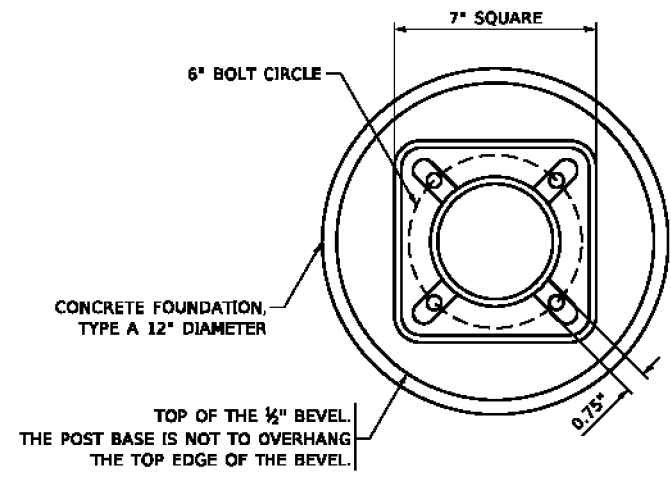
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE

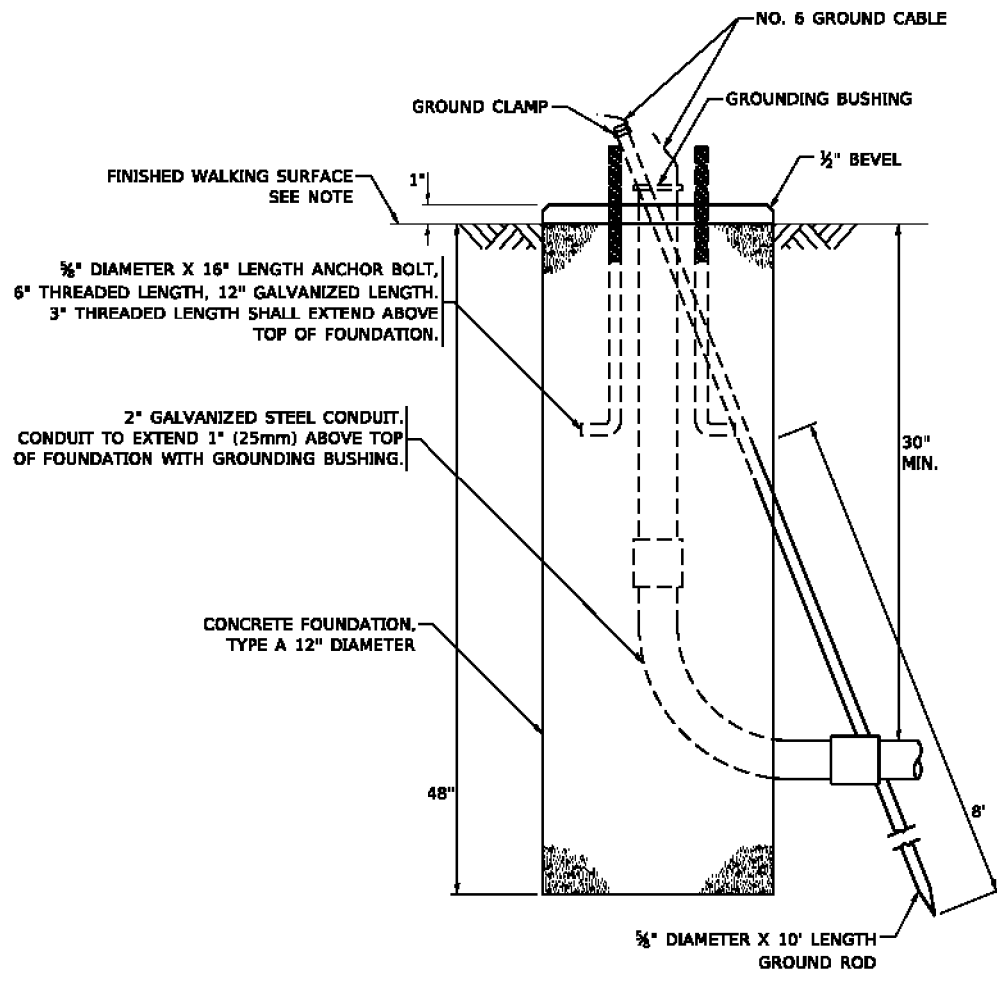
SHEET NO. 6 OF 7 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	121
	TS-05	CONTRACT NO.		61G82
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

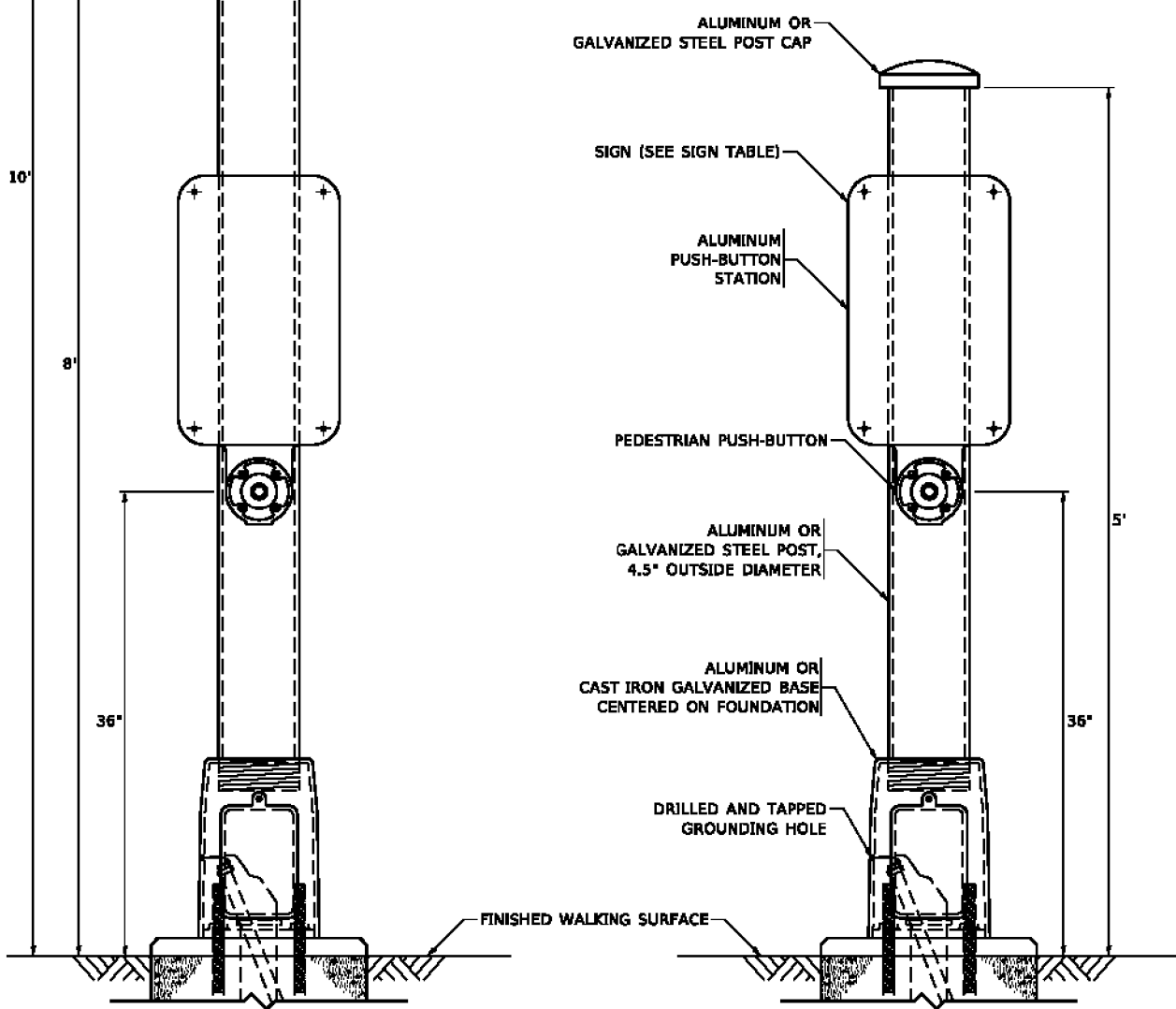
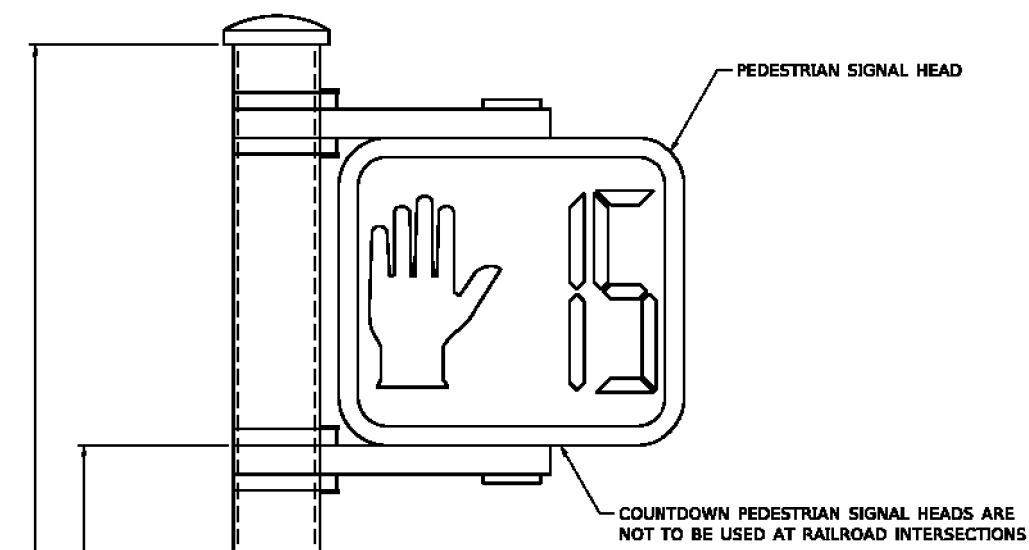


BOLT PATTERN

NOTE:
1. IF THE PEDESTRIAN SIGNAL POST FOUNDATION IS INSTALLED WITHIN OR BEHIND A BARRIER CURB, THE TOP OF THE FOUNDATION SHALL BE INSTALLED FLUSH WITH THE TOP OF THE BARRIER CURB.

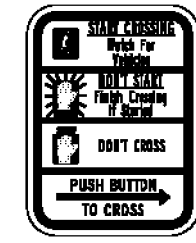


CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER

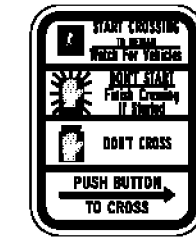


PEDESTRIAN SIGNAL POST, 10 FT.

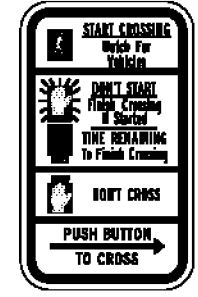
PEDESTRIAN SIGNAL POST, 5 FT.



R10-3b



R10-3d



R10-3e

SIGN TABLE

SIGN	DIMENSIONS
R10-3b (RAILROAD ONLY)	9" X 12"
R10-3d (RAILROAD ONLY)	9" X 12"
R10-3e	9" X 12"

NOTES:
1. THE SIGN PANELS SHALL BE TYPE AP SHEETING.
2. THE ARROW ON SIGNS FOR PUSH-BUTTONS SERVING TWO DIRECTIONS ON THE SAME PHASE SHALL BE BI-DIRECTIONAL.
3. THE SIGN FOR DUAL-CALL PUSH-BUTTONS SHALL HAVE NO ARROW.

MODEL Default
FILE Name: p16167-00-01.dwg
PROJECT: 16-00167-00-01
DRAWING: STANDARD TRAFFIC SIGNAL DESIGN DETAILS
DATE: 10-15-2020

USER NAME = gag@arobt	DESIGNED - IP	REVISED - 10-15-2020
PLOT SCALE = 100,0000' / in.	DRAWN - IP	REVISED -
PLOT DATE = 11/23/2020	CHECKED - LP	REVISED -
	DATE - 10-15-2018	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**
SCALE: NONE SHEET 7 OF 7 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	122
TS-06		CONTRACT NO.	61G82	
ILLINOIS FED. AID PROJECT				

REMOVAL AND RELOCATION NOTES:

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.

- 2 EACH STEEL MAST ARM ASSEMBLY AND POST
- 2 EACH TRAFFIC SIGNAL POST
- 1 EACH PEDESTRIAN PUSH BUTTON POST
- 3 EACH 3-SECTION SIGNAL HEAD
- 4 EACH 4-SECTION SIGNAL HEAD
- 4 EACH 5-SECTION SIGNAL HEAD
- 6 EACH TRAFFIC SIGNAL BACKPLATE
- 6 EACH PEDESTRIAN SIGNAL HEAD
- 3 EACH PEDESTRIAN PUSH BUTTON
- 12 EACH WIRELESS IN-PAVEMENT DETECTOR

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND RETURNED TO THE CITY OF NAPERVILLE.

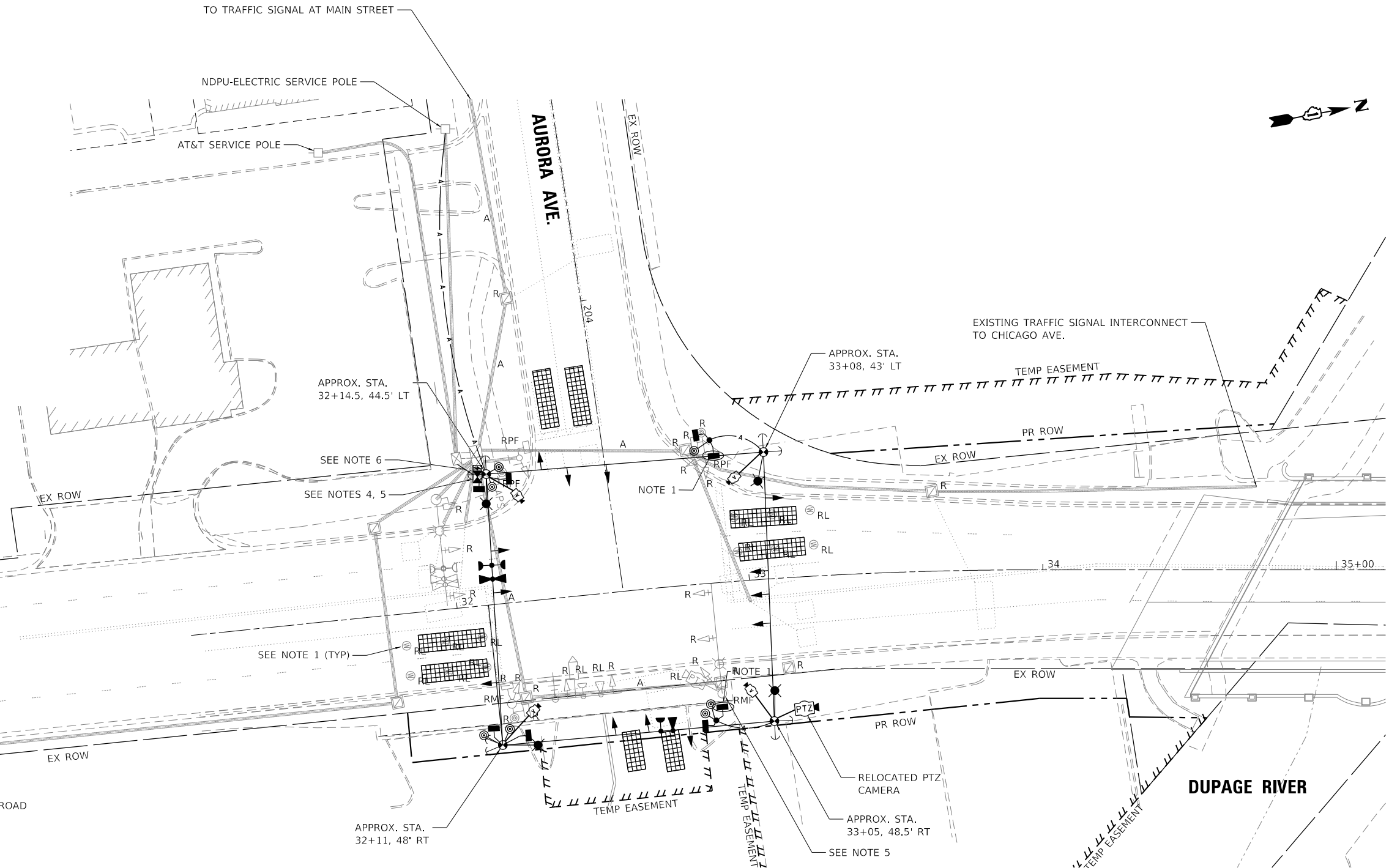
- 2 EACH CONFIRMATION BEACON
- 2 EACH LIGHT DETECTOR
- 1 EACH LIGHT DETECTOR AMPLIFIER

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED, STORED AND REINSTALLED IN THE PROPOSED TRAFFIC SIGNAL INSTALLTION. THIS WORK SHALL BE INCLUDED IN THE COST OF MODIFY EXISTING CONTROLLER CABINET.

- 1 EACH ACCESS POINT FOR WIRELESS DETECTION
- 1 EACH WIRELESS COMMUNICATION ANTENNA

THE FOLLOWING EXISTING EQUIPMENT SHALL BE RELOCATED TO THE TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMAIN IN OPERATION DURING CONSTRUCTION. THIS EQUIPMENT SHALL BE RELOCATED TO THE PERMANENT TRAFFIC SIGNAL INSTALLATION UPON COMPLETION OF THE INSTALLATION. THIS WORK SHALL BE INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION. THE TEMPORARY AND PERMANENT LOCATIONS OF THE CAMERA SHALL BE APPROVED BY THE CITY OF NAPERVILLE.

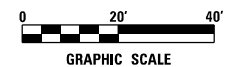
- 1 EACH PTZ CAMERA



NOTES

1. EXISTING WIRELESS DETECTORS TO BE REMOVED SHALL BE RETURNED TO THE CITY.
2. FLOW PROFILE DETECTORS LOCATED WITHIN SEPARATE LANES SHALL BE ASSIGNED TO SEPARATE DETECTOR CHANNELS FOR EACH APPROACH.
3. PHASE UTILIZATION DETECTORS LOCATED WITHIN THE SAME LANE SHALL BE ASSIGNED TO THE SAME DETECTOR CHANNEL FOR EACH APPROACH.
4. TEMPORARY TRAFFIC SIGNAL CABINETS SHALL INCLUDE AN ETHERNET SWITCH COMPATIBLE WITH EXISTING SIGNAL CABINET EQUIPMENT TO MAINTAIN INTERCONNECT COMMUNICATIONS DURING CONSTRUCTION. SEE TEMPORARY INTERCONNECT PLANS.
5. EXISTING NAPERVILLE ELECTRIC SCADA NODE TO BE RELOCATED TO TEMPORARY TRAFFIC SIGNAL POLE. CONTRACTOR TO COORDINATE WITH NAPERVILLE DPU-E. THIS WORK INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION.
6. THE NETWORK SWITCH WITHIN THE EXISTING SIGNAL CABINET SHALL BE RELOCATED TO THE TEMPORARY SIGNAL CONTROLLER CABINET. THE EXISTING FIBER OPTIC CABLE BETWEEN THE SPLICE IN THE ADJACENT DOUBLE HANDHOLE AND THE EXISTING SIGNAL CABINET SHALL BE ROUTED/EXTENDED INTO THE TEMPORARY CABINET.

PRESTAGE SHOWN



MODEL: 140816.MXFS
FILE NAME: NAPERVILLE_10020794.01.Dwg.dgn
DATE: 8/8/2022



USER NAME = untitled	DESIGNED - DTJ	REVISED -
	DRAWN - DTJ	REVISED -
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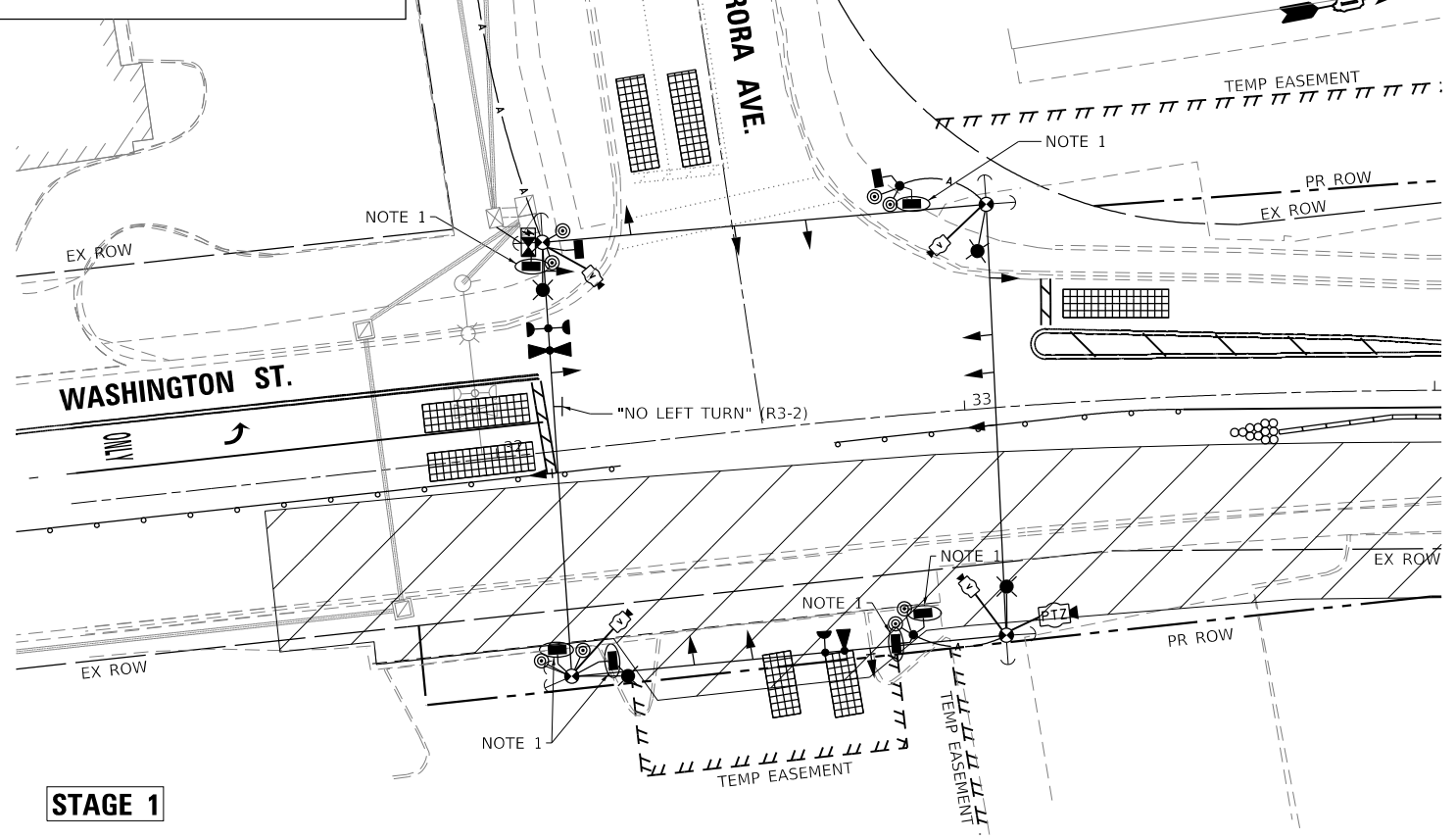
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC INSTALLATION PLAN AND REMOVE
EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN (SHEET 1 OF 3)
AURORA AVENUE AND WASHINGTON STREET

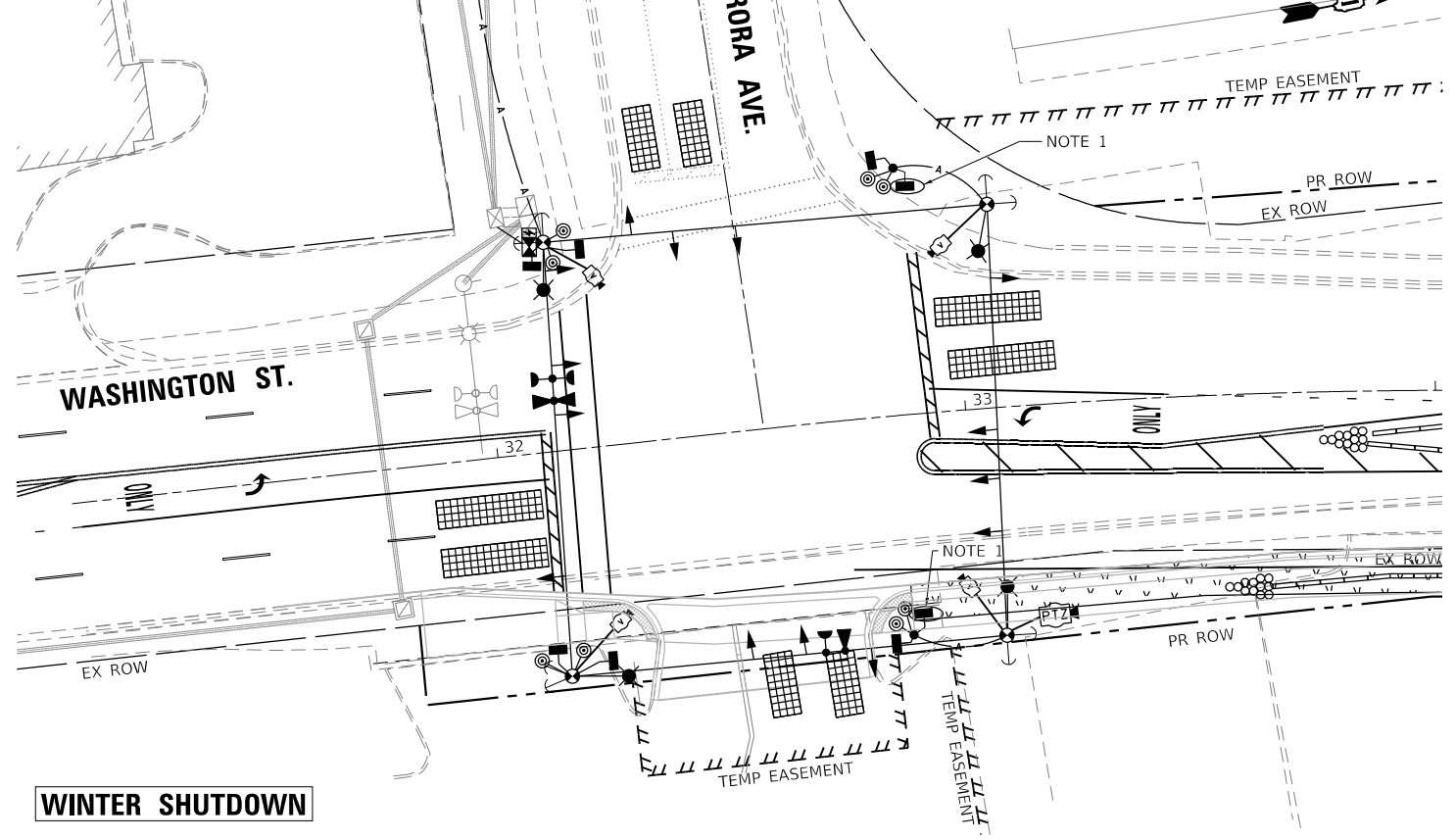
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2552	16-00167-00-BR	DUPAGE	261	123
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCALE: 1" = 20' SHEET 1 OF 3 SHEETS STA. TO STA.

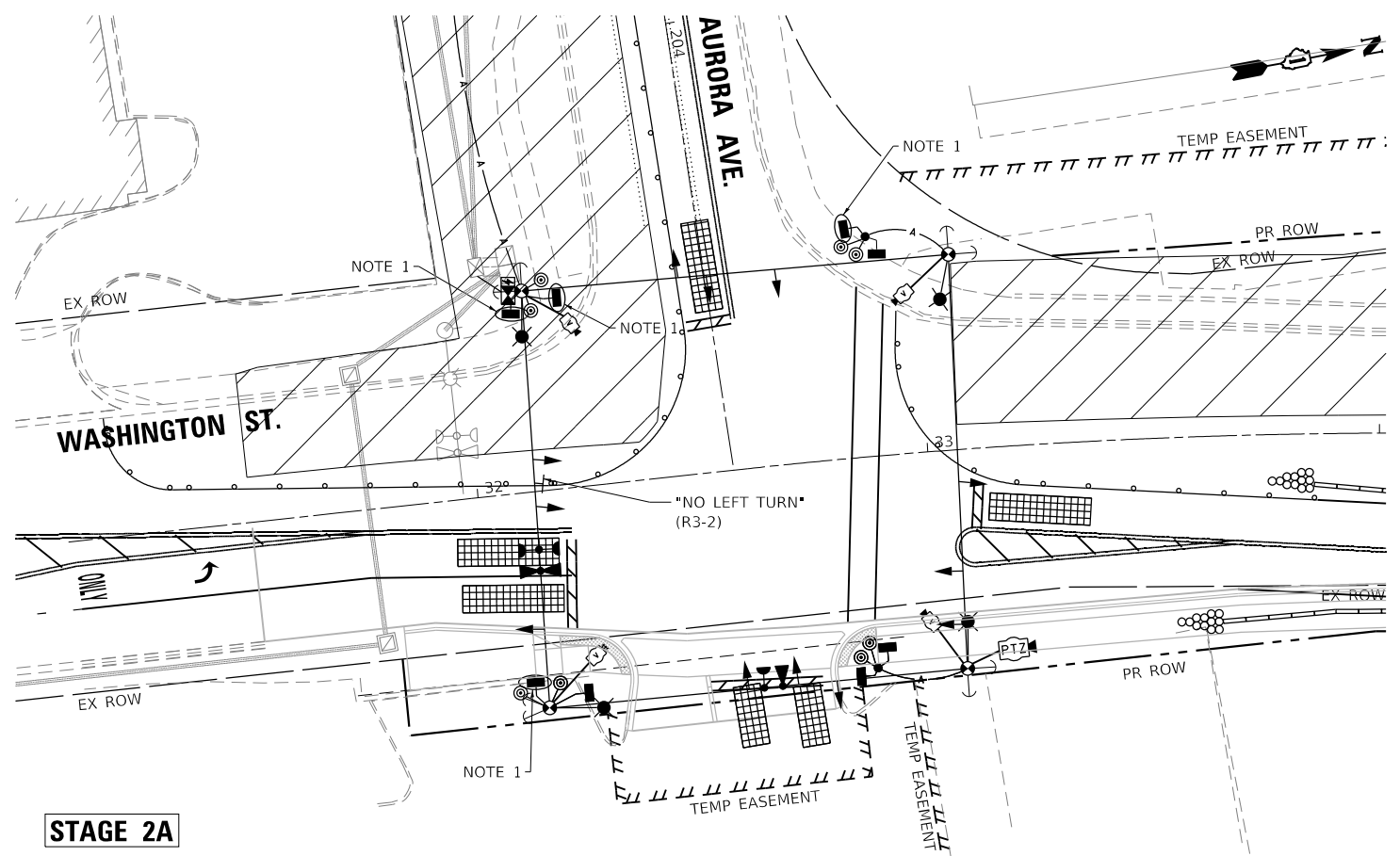
NOTES:
1. BAG TEMPORARY PEDESTRIAN SIGNAL HEAD



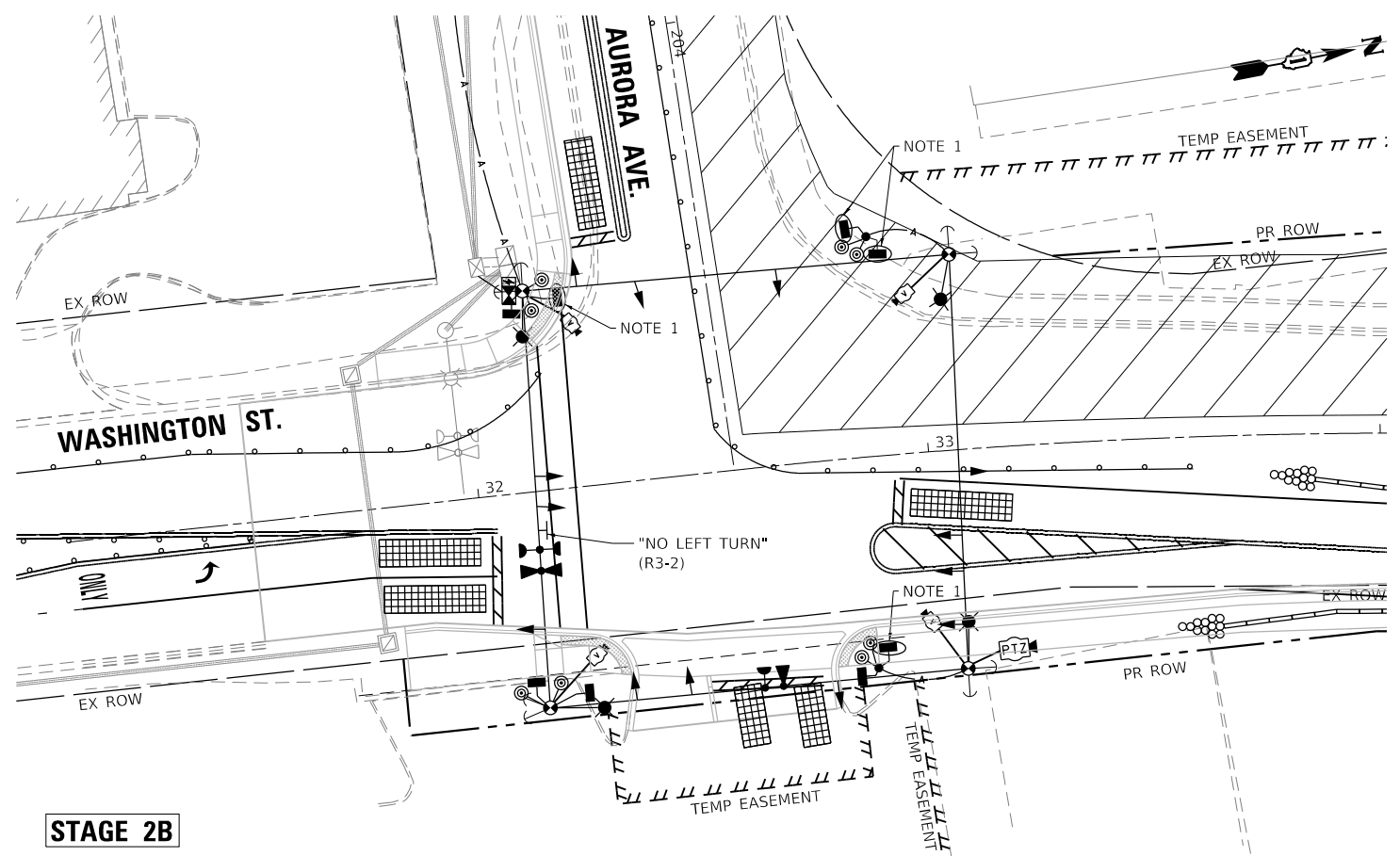
STAGE 1



WINTER SHUTDOWN



STAGE 2A



STAGE 2B

MODEL: 1409161.NMFE
 FILE NAME: N:\PROJ\020794.01\Drawings\Signal\Aurora020794.01_15.102.TemporaryPlan.dgn



USER NAME = Electrical	DESIGNED - DTJ	REVISED -
	DRAWN - DTJ	REVISED -
PLOT SCALE = 12.1920 m / in.	CHECKED - JMV	REVISED -
PLOT DATE = 8/8/2022	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

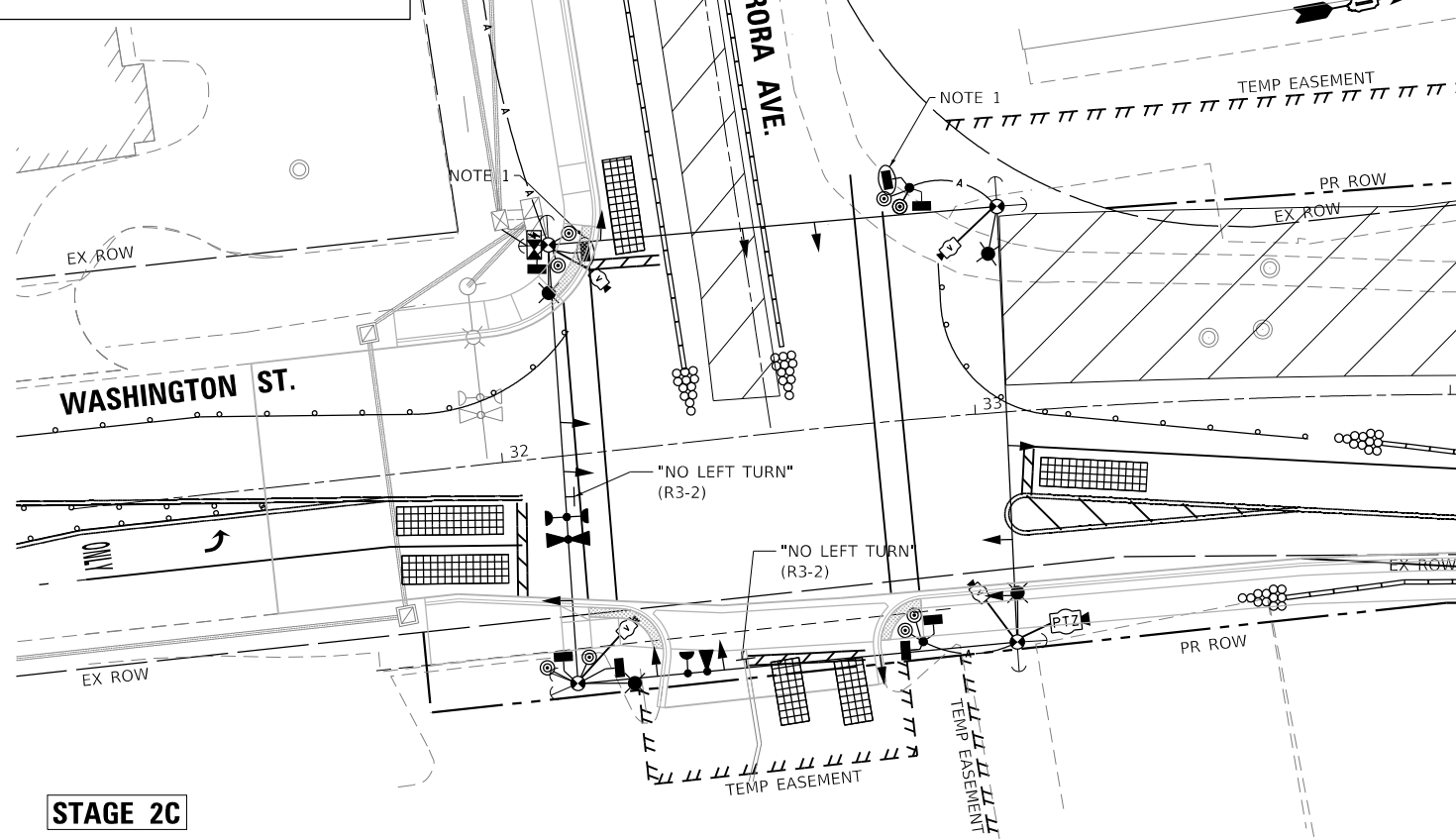
**TEMPORARY TRAFFIC INSTALLATION PLAN AND
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN (SHEET 2 OF 3)
AURORA AVENUE AND WASHINGTON STREET**

SCALE: 1" = 20' SHEET 2 OF 3 SHEETS STA. TO STA.

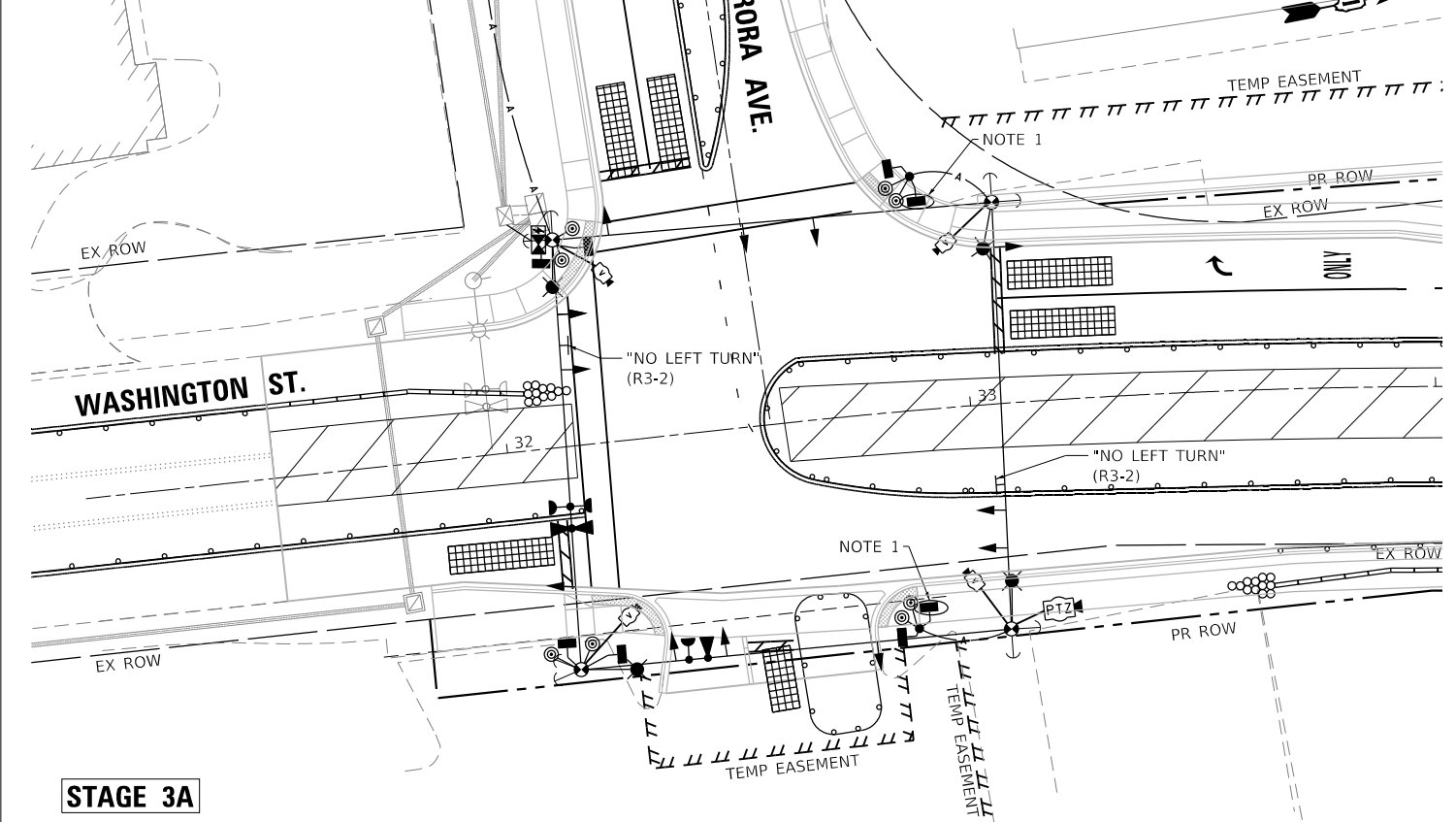
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	124
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

NOTES:

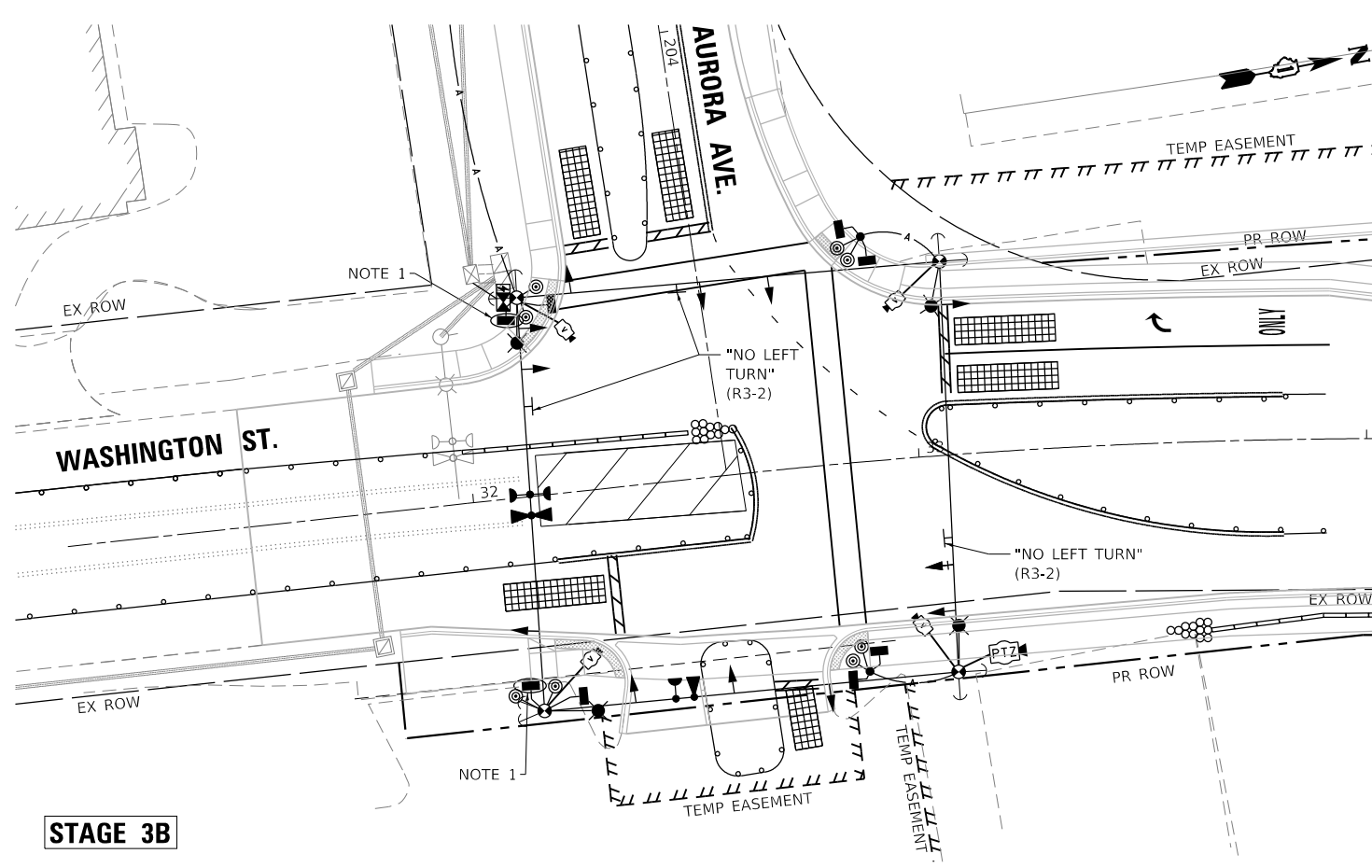
1. BAG TEMPORARY PEDESTRIAN SIGNAL HEAD



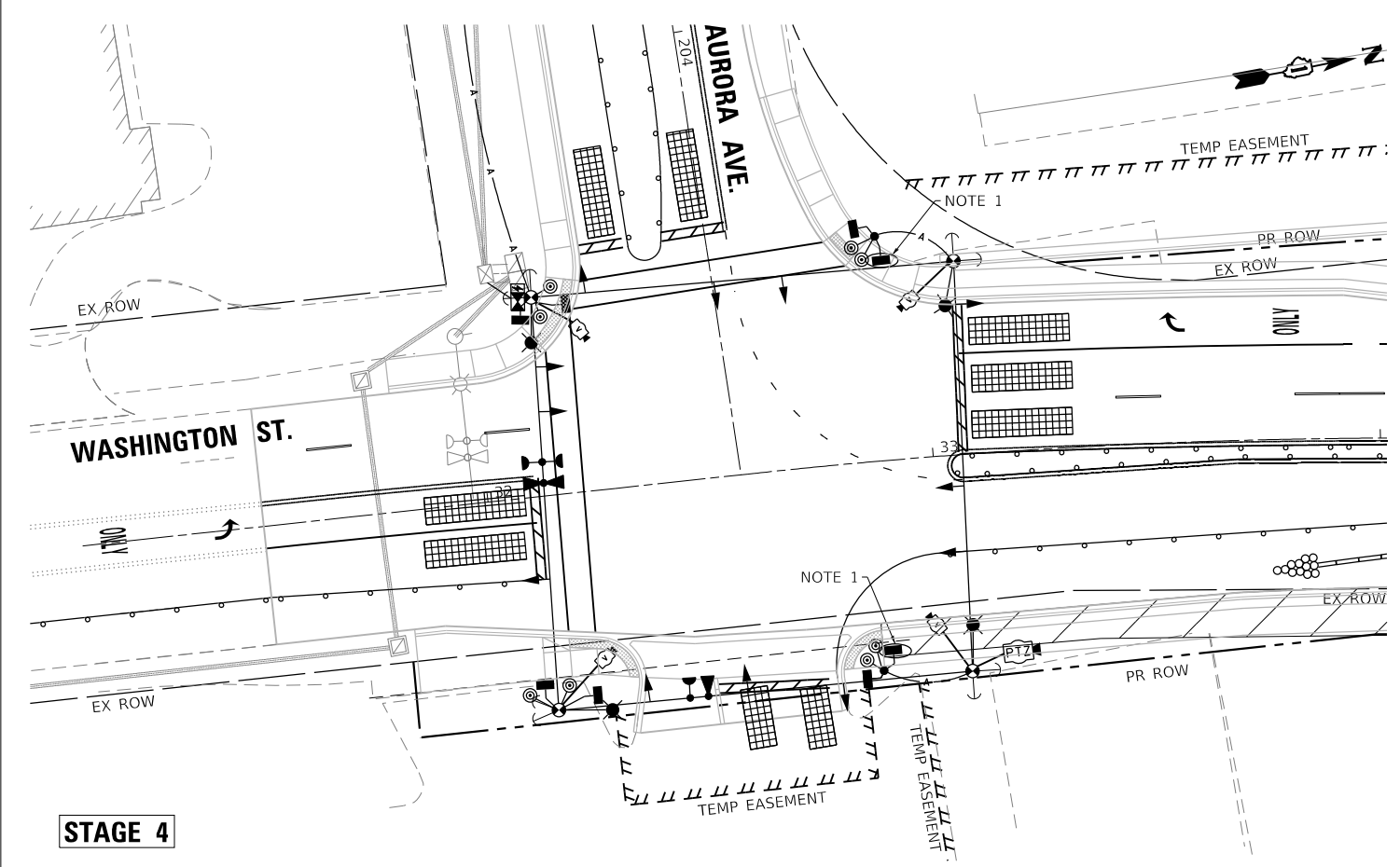
STAGE 2C



STAGE 3A



STAGE 3B



STAGE 4

MODEL: \\006\ENR\NAME\...
 FILE NAME: \\006\ENR\0020794\01\Drawings\Signal\Aurora0020794_01_153.TemporaryPlan.dgn



USER NAME = Electrical	DESIGNED - DTJ	REVISED -
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PLOT DATE = 8/8/2022	CHECKED - JMV	REVISED -
	DATE -	REVISED -

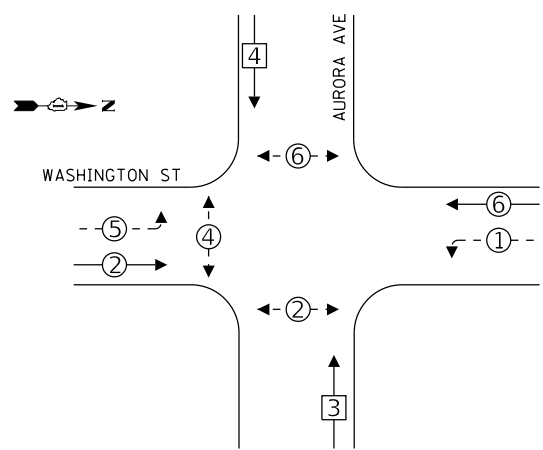
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC INSTALLATION PLAN AND
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN (SHEET 3 OF 3)
AURORA AVENUE AND WASHINGTON STREET**

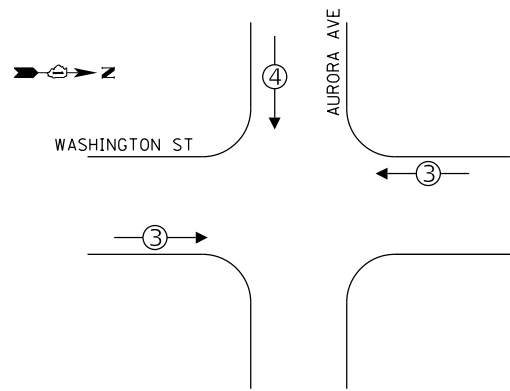
SCALE: 1" = 20' SHEET 3 OF 3 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	125
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

**TEMPORARY CONTROLLER SEQUENCE
PRESTAGE, WINTER SHUTDOWN, STAGE 4**



**TEMPORARY EMERGENCY VEHICLE
PREEMPTION SEQUENCE**



LEGEND:

- ◀ * → SINGLE-ENTRY PHASE
- ◀ * → PROTECTED PHASE
- ◀ * → PROTECTED/PERMITTED PHASE
- ◀ * → PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY FIBER INTERCONNECT TO MAIN ST (SEE TEMPORARY INTERCONNECT PLANS)

FIBER OPTIC JUMPER BETWEEN EXISTING AND TEMPORARY TRAFFIC SIGNAL CABINETS

EXISTING FIBER INTERCONNECT TO HILLSIDE AVE

EXISTING TRACER CABLE

WASHINGTON ST.

AURORA AVE.

WASHINGTON ST.

BURGER KING DRIVEWAY

**CABLE PLAN
(NOT TO SCALE)**

**AURORA AVE AND WASHINGTON ST
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66.0
(YELLOW)	12	20	5	12.0
(GREEN)	12	12	45	64.8
PROTECTED ARROW	12	10	10	12.0
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	1	150	100	150.0
BLANK-OUT SIGN	-	-	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	100	-
LUMINAIRE	4	250	50	500.0
TOTAL =				1089.8

ENERGY COSTS TO:

CITY OF NAPERVILLE
400 S. EAGLE STREET
NAPERVILLE, IL 60540

ENERGY SUPPLY CONTACT:

COMPANY: NAPERVILLE DPU-E
PHONE: (630) 420-6059

ACCOUNT NUMBER: ---

MODEL: 4400BEL.NAMES
FILE NAME: NAPER010020794.01.Dwg
DATE: 8/8/2022



USER NAME = Electrical	DESIGNED - DTJ	REVISED -
PLOT SCALE = 40,0000 "/>		

DRAWN - DTJ	REVISED -
CHECKED - JMV	REVISED -
DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

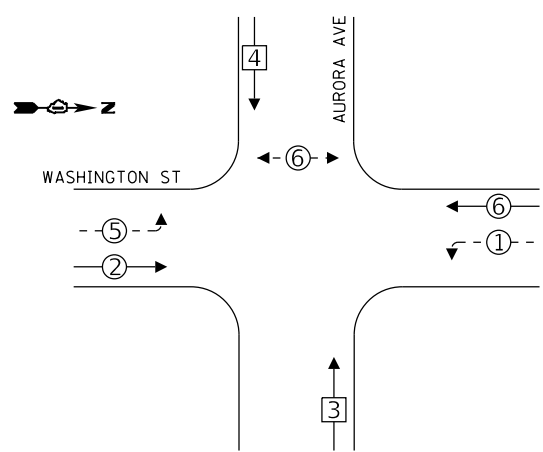
TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM,
AND TEMPORARY EMERGENCY PREEMPTION SEQUENCE
AURORA AVE & WASHINGTON ST - PRESTAGE, STAGE 4, WINTER SHUTDOWN

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	126
CONTRACT NO. 61G82				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TEMPORARY CONTROLLER SEQUENCE

STAGE 1



LEGEND:

- ← [*] ← SINGLE ENTRY PHASE
- ← [*] ← PROTECTED PHASE
- ← [*] ← PROTECTED/PERMITTED PHASE
- ← [*] ← PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

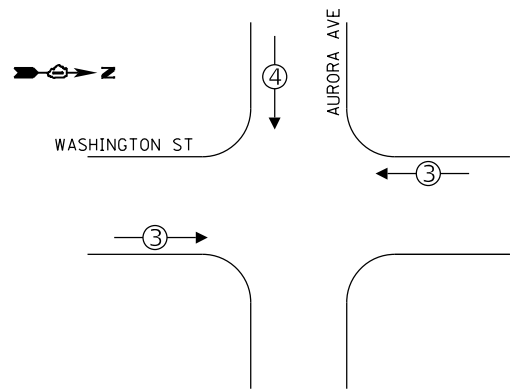
TEMPORARY FIBER INTERCONNECT TO MAIN ST (SEE TEMPORARY INTERCONNECT PLANS)

FIBER OPTIC JUMPER BETWEEN EXISTING AND TEMPORARY TRAFFIC SIGNAL CABINETS

EXISTING FIBER INTERCONNECT TO HILLSIDE AVE

EXISTING TRACER CABLE

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



AURORA AVE AND WASHINGTON ST TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66.0
(YELLOW)	12	20	5	12.0
(GREEN)	12	12	45	64.8
PROTECTED ARROW	12	10	10	12.0
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	1	150	100	150.0
BLANK-OUT SIGN	-	-	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	100	-
LUMINAIRE	4	250	50	500.0
TOTAL =				1089.8

ENERGY COSTS TO:

CITY OF NAPERVILLE
400 S. EAGLE STREET
NAPERVILLE, IL 60631

ENERGY SUPPLY CONTACT:

COMPANY: NAPERVILLE DPU-E
PHONE: (630) 420-6059
ACCOUNT NUMBER: ---

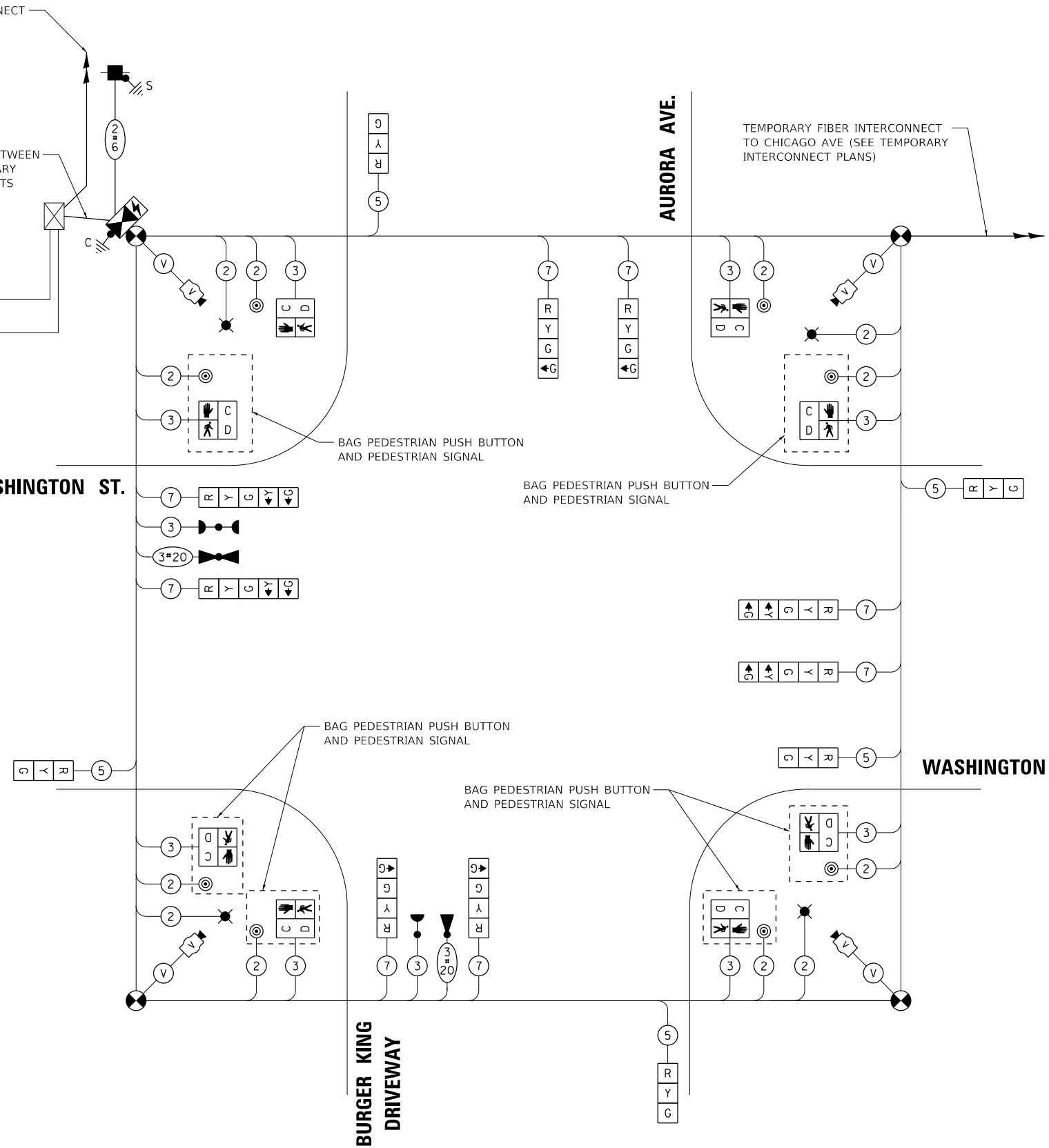
WASHINGTON ST.

AURORA AVE.

WASHINGTON ST.

BURGER KING DRIVEWAY

CABLE PLAN
(NOT TO SCALE)



MODEL: 1408161.MXD
FILE NAME: NAPER010020794.01.Dwg
DATE: 8/8/2022



USER NAME = Electrical	DESIGNED - DTJ	REVISED -
PLOT SCALE = 40,0000 "/>		

DRAWN - DTJ	REVISED -
CHECKED - JMV	REVISED -
DATE -	REVISED -

STATE OF ILLINOIS	TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM,	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
DEPARTMENT OF TRANSPORTATION	AND TEMPORARY EMERGENCY PREEMPTION SEQUENCE	2552	16-00167-00-BR	DUPAGE	261	127
	AURORA AVENUE AND WASHINGTON STREET - STAGE 1	SCALE: N.T.S.		SHEET 1 OF 1 SHEETS	STA. TO STA.	CONTRACT NO. 61G82
		FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

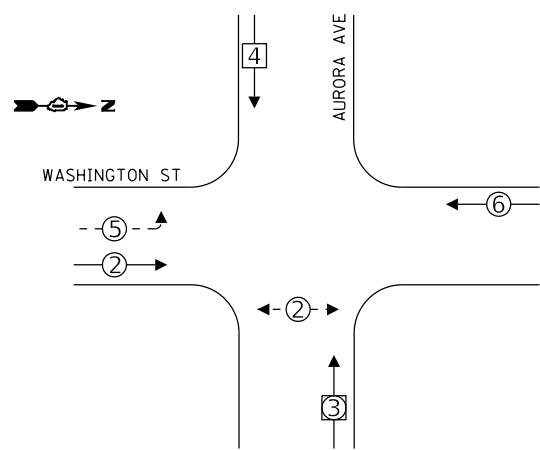
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM,
AND TEMPORARY EMERGENCY PREEMPTION SEQUENCE
AURORA AVENUE AND WASHINGTON STREET - STAGE 1

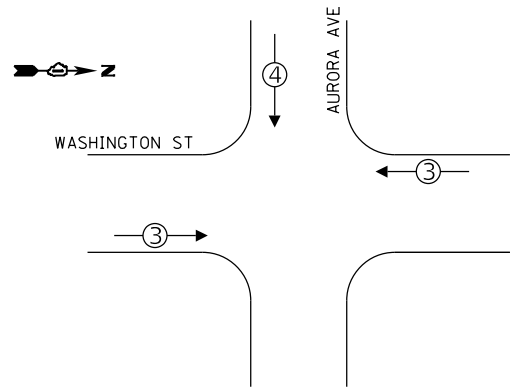
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	127
SCALE: N.T.S.		SHEET 1 OF 1 SHEETS	STA. TO STA.	CONTRACT NO. 61G82
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

TEMPORARY CONTROLLER SEQUENCE

STAGE 2A



**TEMPORARY EMERGENCY VEHICLE
PREEMPTION SEQUENCE**



LEGEND:

- ← [*] SINGLE ENTRY PHASE
- ← [*] PROTECTED PHASE
- ← [*] PROTECTED/PERMITTED PHASE
- ← [*] PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY FIBER INTERCONNECT TO MAIN ST (SEE TEMPORARY INTERCONNECT PLANS)

FIBER OPTIC JUMPER BETWEEN EXISTING AND TEMPORARY TRAFFIC SIGNAL CABINETS

EXISTING FIBER INTERCONNECT TO HILLSIDE AVE

EXISTING TRACER CABLE

WASHINGTON ST.

AURORA AVE.

WASHINGTON ST.

BURGER KING DRIVEWAY

CABLE PLAN
(NOT TO SCALE)

**AURORA AVE AND WASHINGTON ST
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66.0
(YELLOW)	12	20	5	12.0
(GREEN)	12	12	45	64.8
PROTECTED ARROW	12	10	10	12.0
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	1	150	100	150.0
BLANK-OUT SIGN	-	-	5	-
FLASHER	-	-	50	-
SCREEN NAME SIGN	-	120	100	-
LUMINAIRE	4	250	50	500.0
TOTAL =				1089.8

ENERGY COSTS TO:

CITY OF NAPERVILLE
400 S. EAGLE STREET
NAPERVILLE, IL 60631

ENERGY SUPPLY CONTACT:

COMPANY: NAPERVILLE DPU-E

PHONE: (630) 420-6059

ACCOUNT NUMBER: ---

MODEL: 1400BEL.NAMES
FILE NAME: NAPER010020794.01.Dwg
DATE: 8/8/2022



USER NAME = Electrical	DESIGNED - DTJ	REVISED -
PLOT SCALE = 40,0000 ' / in.	DRAWN - DTJ	REVISED -
PLOT DATE = 8/8/2022	CHECKED - JMV	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

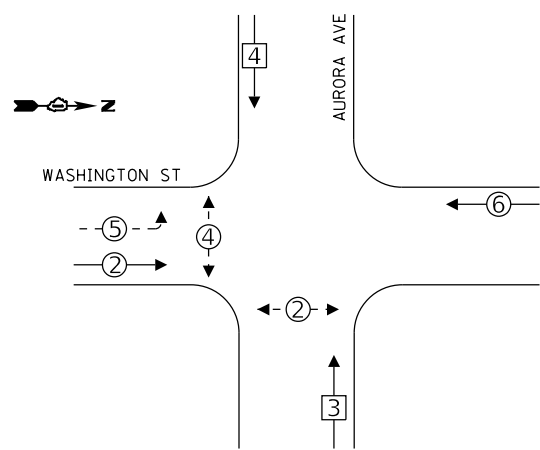
TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM,
AND TEMPORARY EMERGENCY PREEMPTION SEQUENCE
AURORA AVENUE AND WASHINGTON STREET - STAGE 2A

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

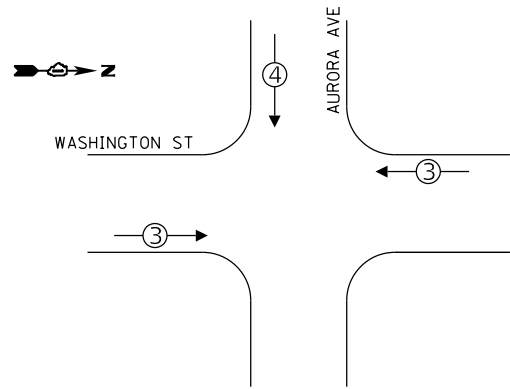
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	128
				CONTRACT NO. 61G82
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

TEMPORARY CONTROLLER SEQUENCE

STAGE 2B



**TEMPORARY EMERGENCY VEHICLE
PREEMPTION SEQUENCE**



LEGEND:

- ← [*] SINGLE ENTRY PHASE
- ← [*] PROTECTED PHASE
- ← [*] PROTECTED/PERMITTED PHASE
- ← [*] PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY FIBER INTERCONNECT TO MAIN ST (SEE TEMPORARY INTERCONNECT PLANS)

FIBER OPTIC JUMPER BETWEEN EXISTING AND TEMPORARY TRAFFIC SIGNAL CABINETS

EXISTING FIBER INTERCONNECT TO HILLSIDE AVE

EXISTING TRACER CABLE

TEMPORARY FIBER INTERCONNECT TO CHICAGO AVE (SEE TEMPORARY INTERCONNECT PLANS)

WASHINGTON ST.

AURORA AVE.

WASHINGTON ST.

BURGER KING DRIVEWAY

CABLE PLAN
(NOT TO SCALE)

**AURORA AVE AND WASHINGTON ST
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66.0
(YELLOW)	12	20	5	12.0
(GREEN)	12	12	45	64.8
PROTECTED ARROW	12	10	10	12.0
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	1	150	100	150.0
BLANK-OUT SIGN	-	-	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	100	-
LUMINAIRE	4	250	50	500.0
TOTAL =				1089.8

ENERGY COSTS TO:

CITY OF NAPERVILLE
400 S. EAGLE STREET
NAPERVILLE, IL 60540

ENERGY SUPPLY CONTACT:

COMPANY: NAPERVILLE DPU-E

PHONE: (630) 420-6059

ACCOUNT NUMBER: ---

MODEL: 1408161.NM.FS
FILE NAME: NAPER010020794.01.Dwg (p1)S:\m\0020794.01.TS11A.TrafficSignalRpt.dwg



USER NAME = Electrical	DESIGNED - DTJ	REVISED -
PLOT SCALE = 40,0000' / in.	DRAWN - DTJ	REVISED -
PLOT DATE = 8/8/2022	CHECKED - JMV	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

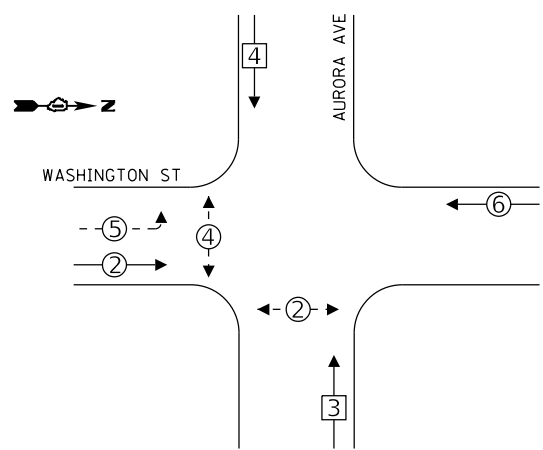
TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM,
AND TEMPORARY EMERGENCY PREEMPTION SEQUENCE
AURORA AVENUE AND WASHINGTON STREET - STAGE 2B

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	129
				CONTRACT NO. 61G82
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

TEMPORARY CONTROLLER SEQUENCE

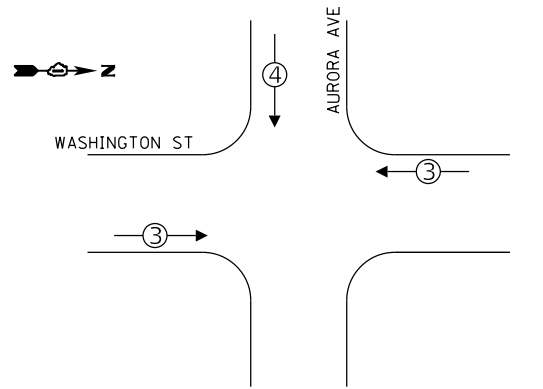
STAGE 2C



LEGEND:

- ← [*] ← SINGLE ENTRY PHASE
- ← [*] ← PROTECTED PHASE
- ← [*] ← PROTECTED/PERMITTED PHASE
- ← [*] → PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

**TEMPORARY EMERGENCY VEHICLE
PREEMPTION SEQUENCE**



**AURORA AVE AND WASHINGTON ST
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS**

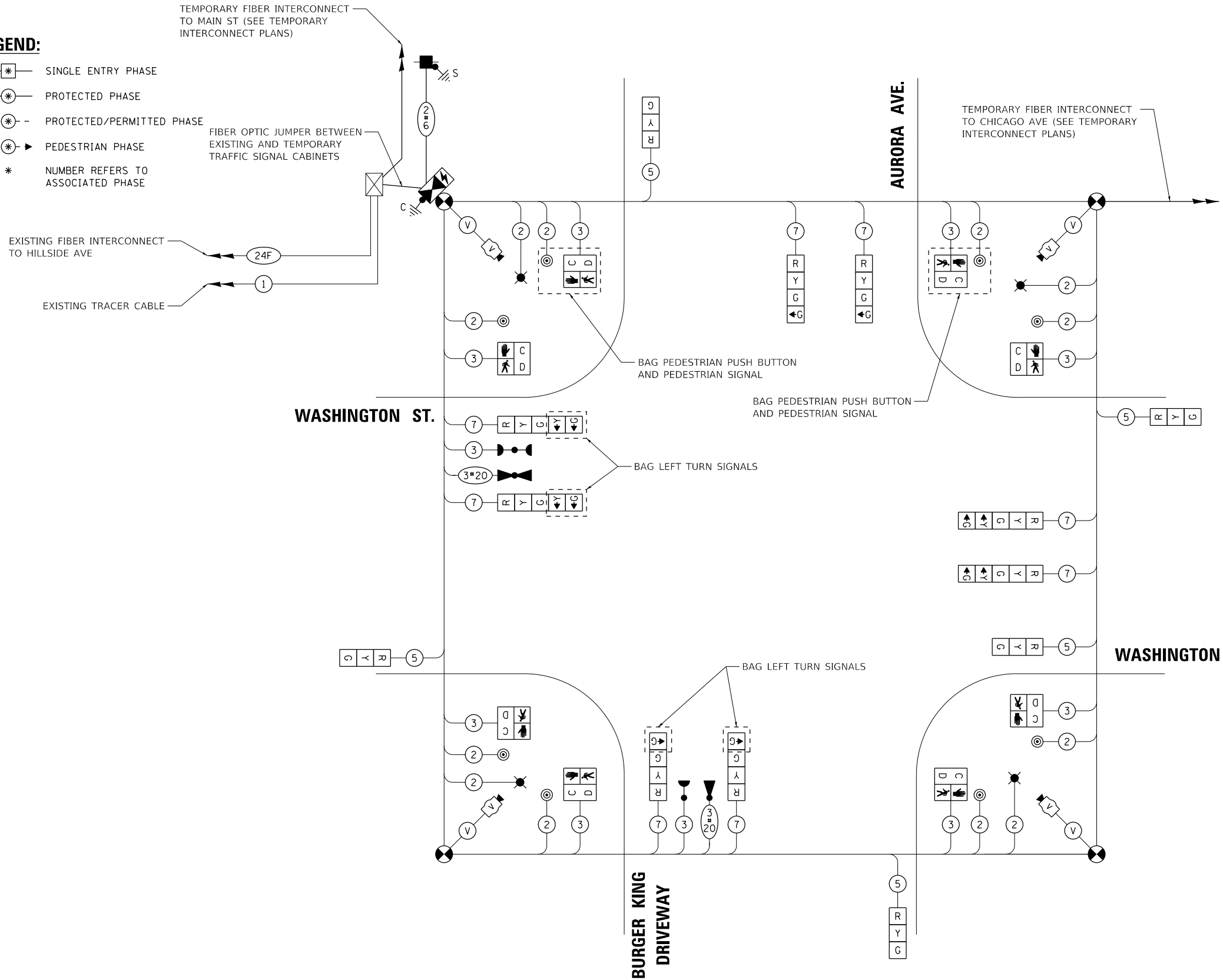
TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66.0
(YELLOW)	12	20	5	12.0
(GREEN)	12	12	45	64.8
PROTECTED ARROW	12	10	10	12.0
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	1	150	100	150.0
BLANK-OUT SIGN	-	-	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	100	-
LUMINAIRE	4	250	50	500.0
TOTAL =				1089.8

ENERGY COSTS TO:

CITY OF NAPERVILLE
400 S. EAGLE STREET
NAPERVILLE, IL 60540

ENERGY SUPPLY CONTACT:

COMPANY: NAPERVILLE DPU-E
PHONE: (630) 420-6059
ACCOUNT NUMBER: ---



CABLE PLAN
(NOT TO SCALE)

MODEL: 1400BEL.NMFE
FILE NAME: NAPER010020794.01.Dwg.dgn
DATE: 8/8/2022



USER NAME = Electrical	DESIGNED - DTJ	REVISED -
PLOT SCALE = 40,0000 ' / in.	DRAWN - DTJ	REVISED -
PLOT DATE = 8/8/2022	CHECKED - JMV	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

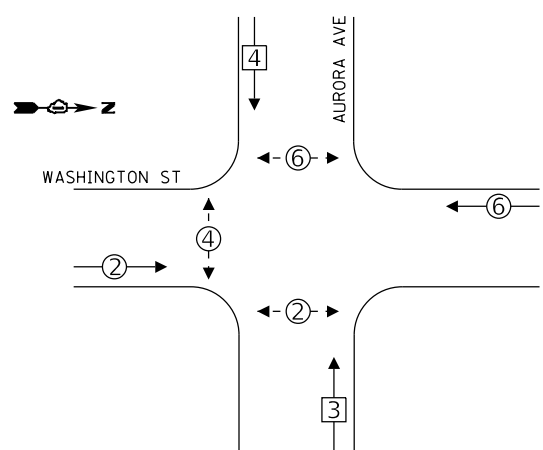
TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM,
AND TEMPORARY EMERGENCY PREEMPTION SEQUENCE
AURORA AVENUE AND WASHINGTON STREET - STAGE 2C

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	130
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

TEMPORARY CONTROLLER SEQUENCE

STAGE 3A



LEGEND:

- ← [*] ← SINGLE ENTRY PHASE
- ← [*] ← PROTECTED PHASE
- ← [*] ← PROTECTED/PERMITTED PHASE
- ← [*] → PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

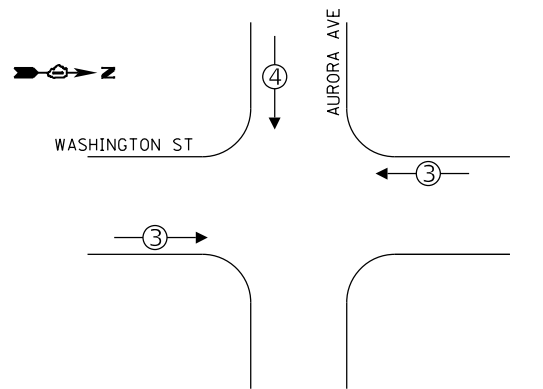
TEMPORARY FIBER INTERCONNECT TO MAIN ST (SEE TEMPORARY INTERCONNECT PLANS)

FIBER OPTIC JUMPER BETWEEN EXISTING AND TEMPORARY TRAFFIC SIGNAL CABINETS

EXISTING FIBER INTERCONNECT TO HILLSIDE AVE

EXISTING TRACER CABLE

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



AURORA AVE AND WASHINGTON ST TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66.0
(YELLOW)	12	20	5	12.0
(GREEN)	12	12	45	64.8
PROTECTED ARROW	12	10	10	12.0
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	1	150	100	150.0
BLANK-OUT SIGN	-	-	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	100	-
LUMINAIRE	4	250	50	500.0
TOTAL =				1089.8

ENERGY COSTS TO:

CITY OF NAPERVILLE
400 S. EAGLE STREET
NAPERVILLE, IL 60540

ENERGY SUPPLY CONTACT:

COMPANY: NAPERVILLE DPU-E
PHONE: (630) 420-6059
ACCOUNT NUMBER: ---

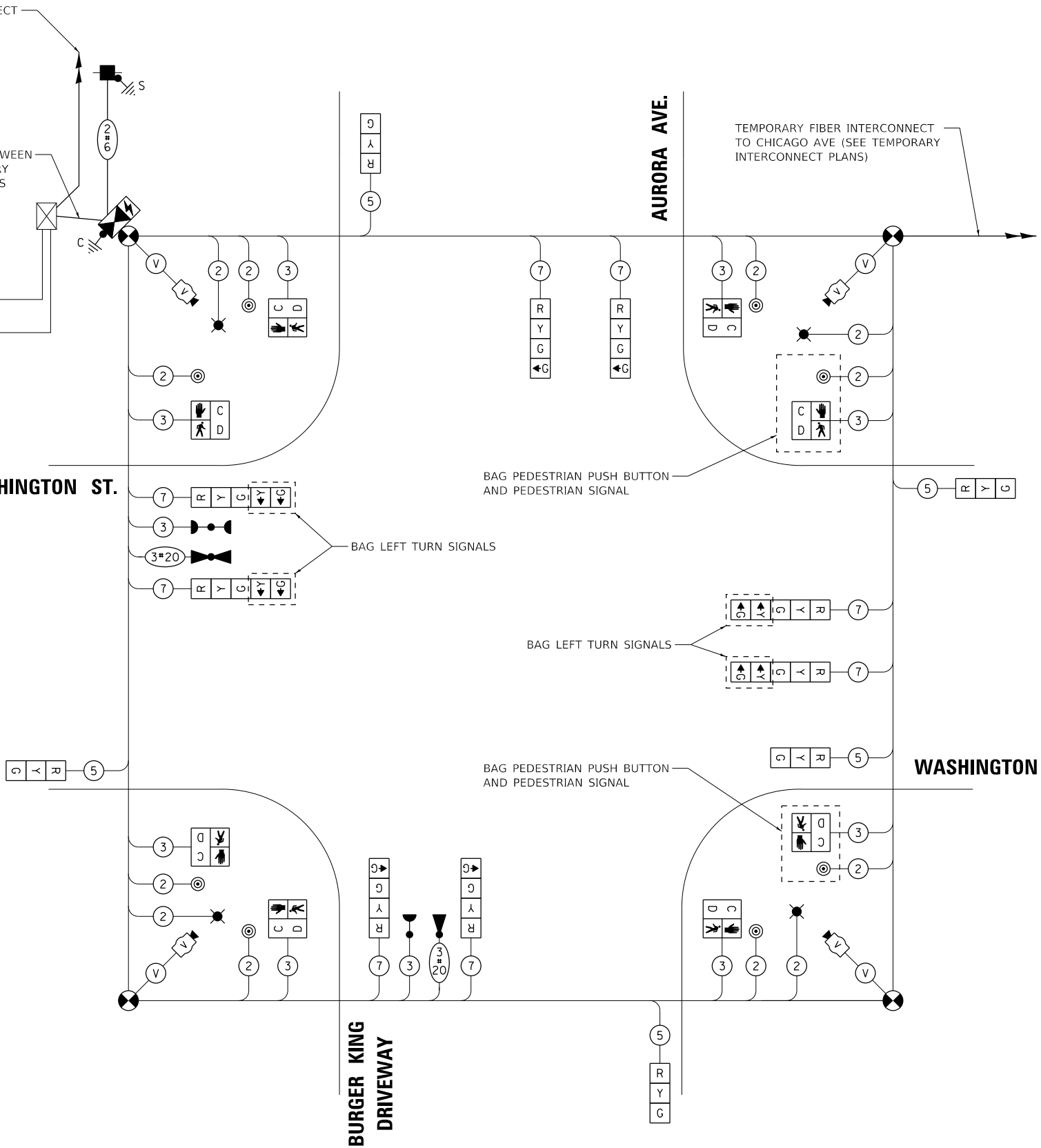
WASHINGTON ST.

AURORA AVE.

WASHINGTON ST.

BURGER KING DRIVEWAY

CABLE PLAN
(NOT TO SCALE)



MODEL: 1400BEL.NAMES
FILE NAME: NAPER010020794.01.Dwg (p1)S:\main\0020794.01.TS116.TemporaryCablePlan.dwg



USER NAME = Electrical	DESIGNED - DTJ	REVISED -
PLOT SCALE = 40,0000' / in.	DRAWN - DTJ	REVISED -
PLOT DATE = 8/8/2022	CHECKED - JMV	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

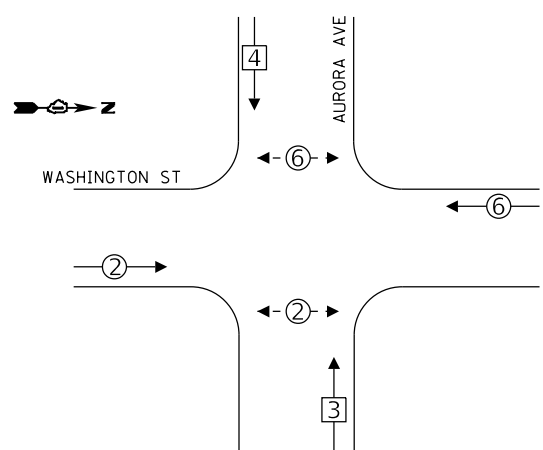
TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM,
AND TEMPORARY EMERGENCY PREEMPTION SEQUENCE
AURORA AVENUE AND WASHINGTON STREET - STAGE 3A

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

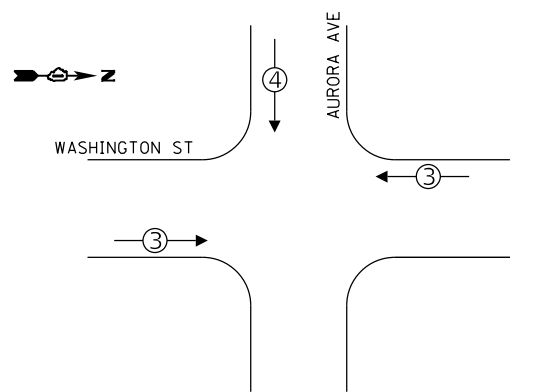
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	131
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

TEMPORARY CONTROLLER SEQUENCE

STAGE 3B



**TEMPORARY EMERGENCY VEHICLE
PREEMPTION SEQUENCE**



LEGEND:

- ← * → SINGLE ENTRY PHASE
- ← * → PROTECTED PHASE
- ← * → PROTECTED/PERMITTED PHASE
- ← * → PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY FIBER INTERCONNECT TO MAIN ST (SEE TEMPORARY INTERCONNECT PLANS)

FIBER OPTIC JUMPER BETWEEN EXISTING AND TEMPORARY TRAFFIC SIGNAL CABINETS

EXISTING FIBER INTERCONNECT TO HILLSIDE AVE

EXISTING TRACER CABLE

TEMPORARY FIBER INTERCONNECT TO CHICAGO AVE (SEE TEMPORARY INTERCONNECT PLANS)

WASHINGTON ST.

AURORA AVE.

WASHINGTON ST.

BURGER KING DRIVEWAY

CABLE PLAN
(NOT TO SCALE)

**AURORA AVE AND WASHINGTON ST
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66.0
(YELLOW)	12	20	5	12.0
(GREEN)	12	12	45	64.8
PROTECTED ARROW	12	10	10	12.0
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	1	150	100	150.0
BLANK-OUT SIGN	-	-	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	100	-
LUMINAIRE	4	250	50	500.0
TOTAL =				1089.8

ENERGY COSTS TO:

CITY OF NAPERVILLE
400 S. EAGLE STREET
NAPERVILLE, IL 60540

ENERGY SUPPLY CONTACT:

COMPANY: NAPERVILLE DPU-E
PHONE: (630) 420-6059

ACCOUNT NUMBER: ---



USER NAME = Electrical	DESIGNED - DTJ	REVISED -
PLOT SCALE = 40,0000 "/>		

DRAWN - DTJ	REVISED -
CHECKED - JMV	REVISED -
DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM,
AND TEMPORARY EMERGENCY PREEMPTION SEQUENCE
AURORA AVENUE AND WASHINGTON STREET - STAGE 3B

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	132
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

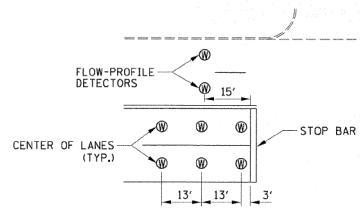
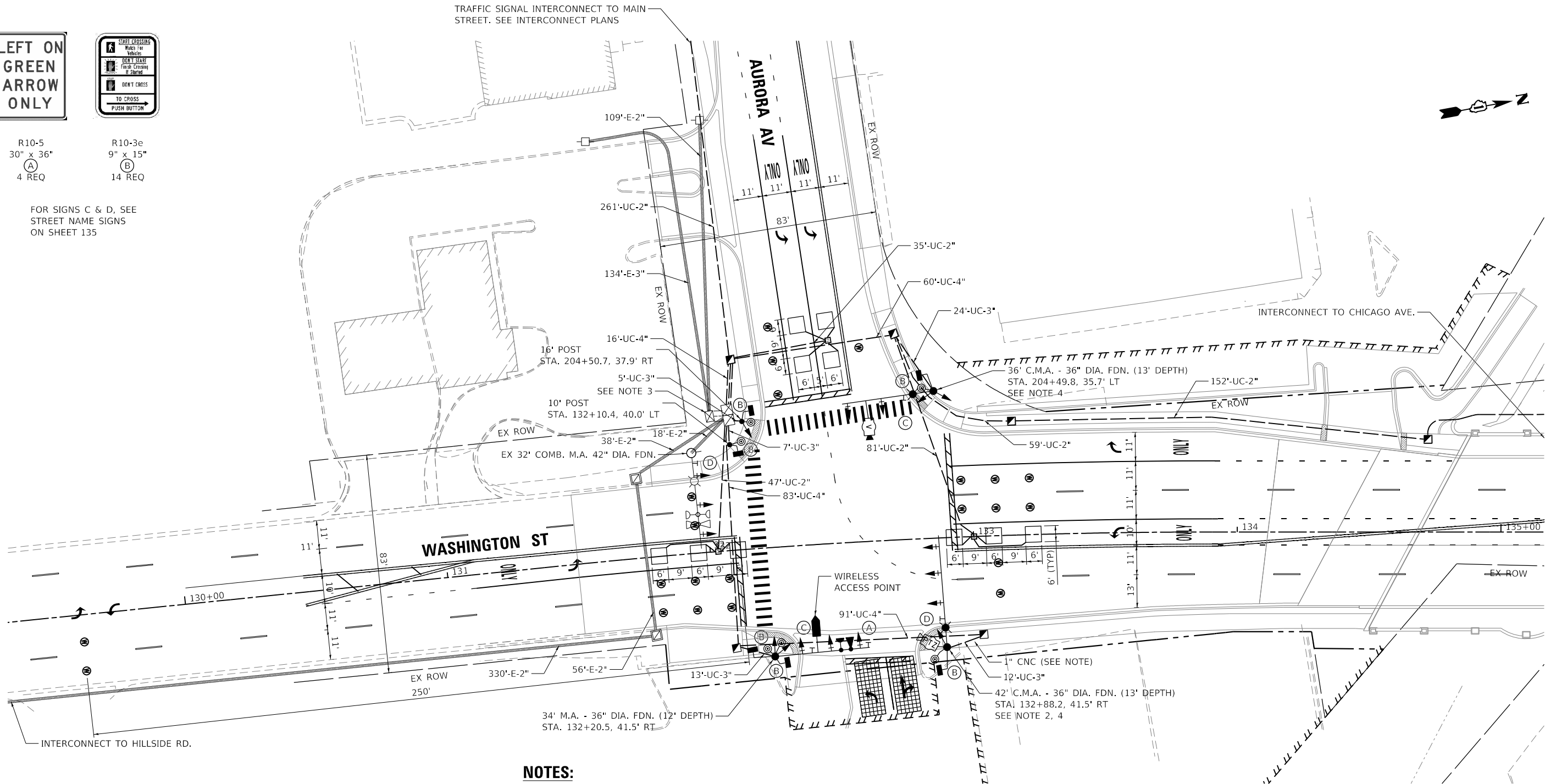
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R10-5
30" x 36"
A
4 REQ

R10-3e
9" x 15"
B
14 REQ

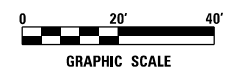
FOR SIGNS C & D, SEE
STREET NAME SIGNS
ON SHEET 135



**WIRELESS IN PAVEMENT
DETECTOR DETAIL**

NOTES:

1. EACH DETECTOR LOOP SHALL HAVE ITS OWN 1" COILABLE NON-METALLIC CONDUIT BETWEEN THE EDGE OF PAVEMENT AND THE ADJACENT HANDHOLE AS SHOWN ON THE PLANS AND AS STATED IN THE TRAFFIC SIGNAL SPECIFICATIONS.
2. NAPERVILLE ELECTRIC SCADA NODE TO BE RELOCATED TO PROPOSED COMBINATION POLE. CONTRACTOR TO COORDINATE WITH NAPERVILLE DPU-E. THIS WORK INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION.
3. THE NETWORK SWITCH FROM THE TEMPORARY SIGNAL CABINET SHALL BE RELOCATED TO THE PERMANENT SIGNAL CABINET. NEW FIBER OPTIC CABLE SHALL BE PROVIDED BETWEEN THE SPLICE IN THE DOUBLE HANDHOLE TO THE PERMANENT SIGNAL CABINET.
4. LIGHTING MAST ARM ON THE STEEL COMBINATION MAST ARM ASSEMBLY AND POLE SHALL BE 12' LONG.
5. IF BEDROCK IS ENCOUNTERED WITH THE SHAFT DEPTH, THE FOUNDATION SHALL BE CORED INTO THE BEDROCK UNTIL THE DEPTH SPECIFIED IS REACHED. WITH A MINIMUM BEDROCK CORE LENGTH OF THREE FEET.



MODEL: 4400BEL.MAKES FILE NAME: NAPERVILLE_082020794.01.Dwg.dgn STA: 132+10.4 TO 132+10.4 TrafficSignalPlan.dgn



USER NAME = Electrical	DESIGNED - DTJ	REVISED -
	DRAWN - DTJ	REVISED -
PLOT SCALE = 40,0000' / in.	CHECKED - JMV	REVISED -
PLOT DATE = 8/8/2022	DATE -	REVISED -

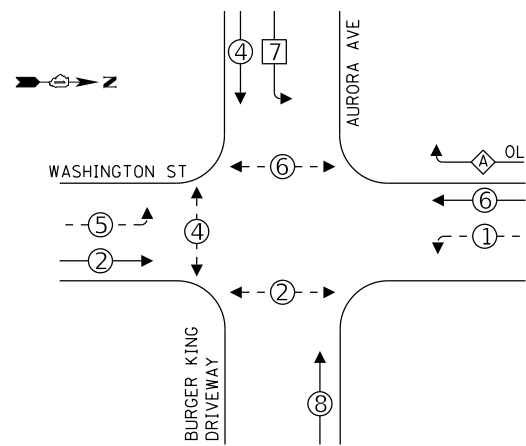
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WASHINGTON STREET BRIDGE
TRAFFIC SIGNAL PLAN
AURORA AVENUE AND WASHINGTON STREET**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	133
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PROPOSED CONTROLLER SEQUENCE

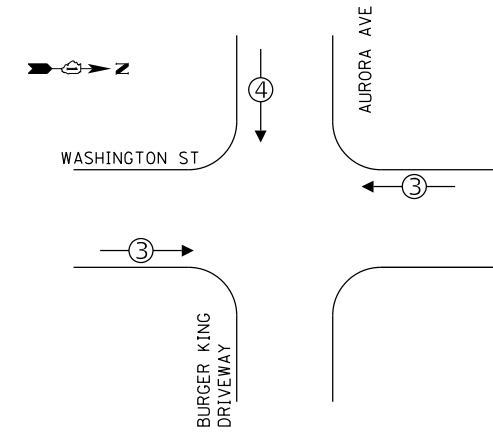


LEGEND:

- ← * → SINGLE ENTRY PHASE
- ← * PROTECTED PHASE
- ← * - PROTECTED/PERMITTED PHASE
- ← * → PEDESTRIAN PHASE
- ← * OL → OVERLAP

OVERLAP LETTER A = PERMISSIVE PHASE 6 + PROTECTED PHASE 7

EMERGENCY VEHICLE PREEMPTION SEQUENCE



AURORA AVE AND WASHINGTON ST TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	15	11	50	82.5
(YELLOW)	15	20	5	15.0
(GREEN)	15	12	45	81.0
PROTECTED ARROW	16	10	10	16.0
PED. SIGNAL	6	20	100	120.0
CONTROLLER	1	100	100	100.0
UPS	-	25	100	-
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	-	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	4	120	50	240.0
LUMINAIRE	3	250	50	375.0
TOTAL =				1029.5

ENERGY COSTS TO:

CITY OF NAPERVILLE
400 S. EAGLE STREET
NAPERVILLE, IL 60540

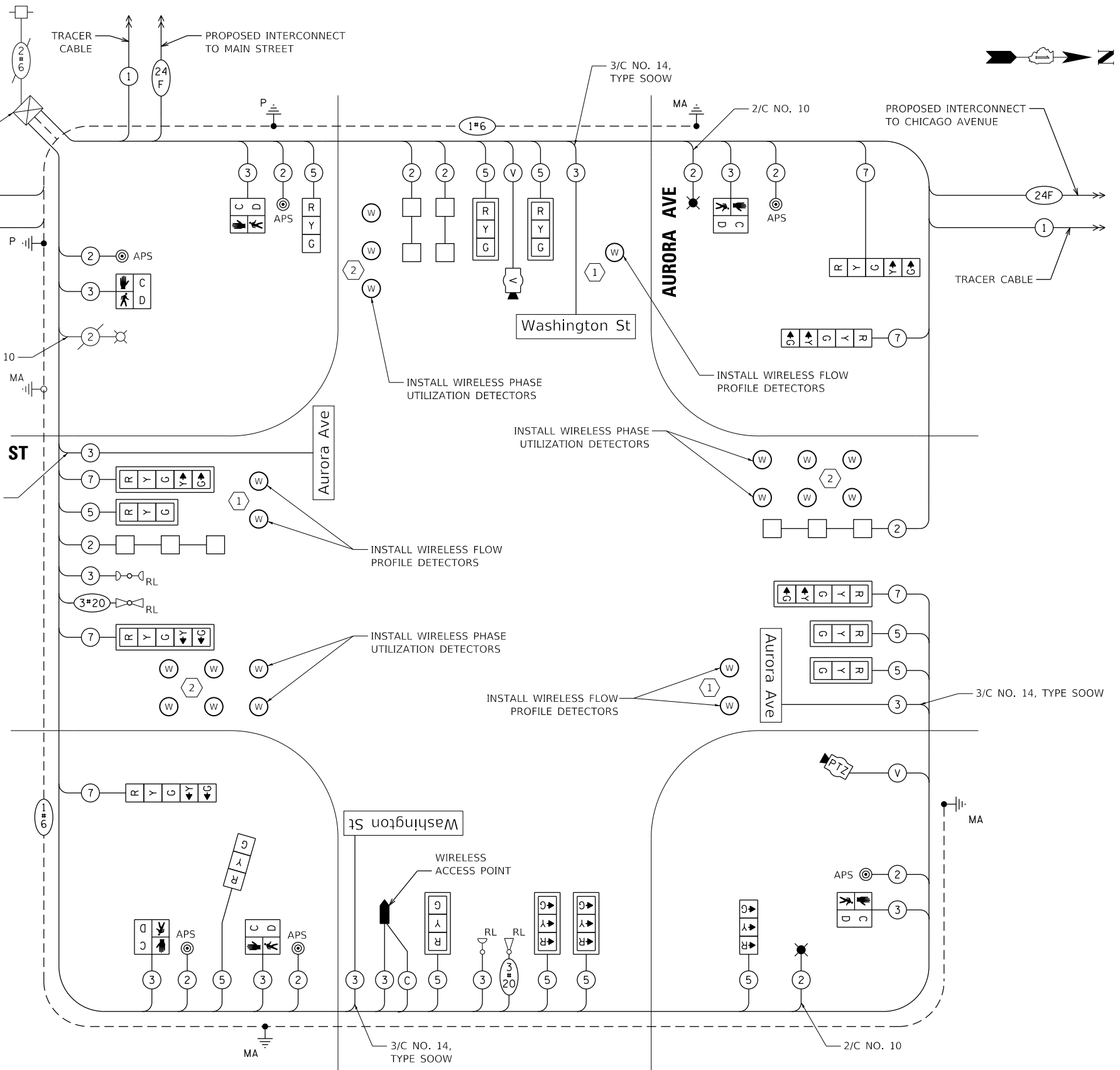
ENERGY SUPPLY CONTACT:
COMPANY: NAPERVILLE DPU-E
PHONE: (630) 420-6059
ACCOUNT NUMBER: ---

CONSTRUCTION NOTES:

- 1 FLOW PROFILE DETECTORS LOCATED WITHIN SEPARATE DETECTOR CHANNELS FOR EACH APPROACH.
- 2 PHASE UTILIZATION DETECTORS LOCATED WITHIN THE SAME LANE SHALL BE ASSIGNED TO THE SAME DETECTOR CHANNEL FOR EACH APPROACH.

WASHINGTON ST

3/C NO. 14, TYPE SOOW



CABLE PLAN

NOT TO SCALE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET BRIDGE CABLE PLAN, PHASE
DESIGNATION DIAGRAM, AND EMERGENCY PREEMPTION SEQUENCE
AURORA AVENUE AND WASHINGTON STREET

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	134
CONTRACT NO. 61G82				

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

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



USER NAME = Electrical	DESIGNED - DTJ	REVISED -
PLOT SCALE = 40,0000 "/>		

DRAWN - DTJ	REVISED -
CHECKED - JMV	REVISED -
DATE -	REVISED -

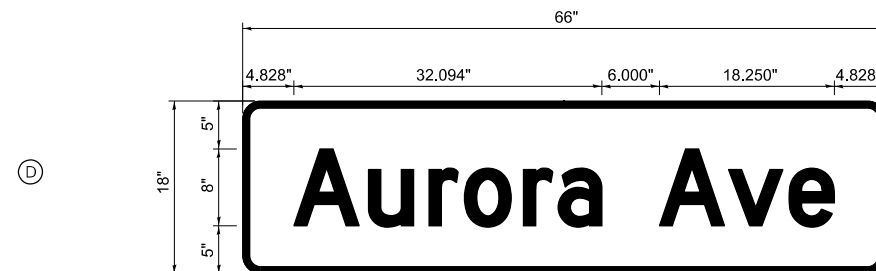
MODEL: 1400BEL.MAKES
FILE NAME: NAPER010020794.01.Dwg
DATE: 8/8/2022

LED INTERNALLY ILLUMINATED STREET NAME SIGN

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	QTY. REQUIRED
D	2



DESIGN SERIES	QTY. REQUIRED
D	2

NOTE:
FOR ADDITIONAL DESIGN AND INSTALLATION INFORMATION,
SEE DISTRICT ONE MAST ARM MOUNTED STREET NAME SIGNS DETAIL.

SCHEDULE OF QUANTITIES		
ITEM DESCRIPTION	UNITS	TOTAL QTY
NON-SPECIAL WASTE DISPOSAL	CU YD	115
SIGN PANEL - TYPE 1	SQ FT	21
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	222
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	61
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	250
HANDHOLE	EACH	4
HEAVY-DUTY HANDHOLE	EACH	3
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	1,620
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	712
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1,030
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2,027
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	922
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	452
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	153
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6	FOOT	486
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 36 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 42 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	38
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	8
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	3
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH	EACH	6
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	11
DETECTOR LOOP, TYPE I	FOOT	402
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	2
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	6
REMOVE EXISTING CONCRETE FOUNDATION	EACH	5
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	276
LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	4
WIRELESS IN PAVEMENT DETECTOR	EACH	20
VIDEO VEHICLE DETECTION SYSTEM, SINGLE APPROACH	EACH	1
ELECTRIC CABLE IN CONDUIT, STREET NAME SIGN, NO. 14 3C, TYPE SOOW	FOOT	671
CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	4
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

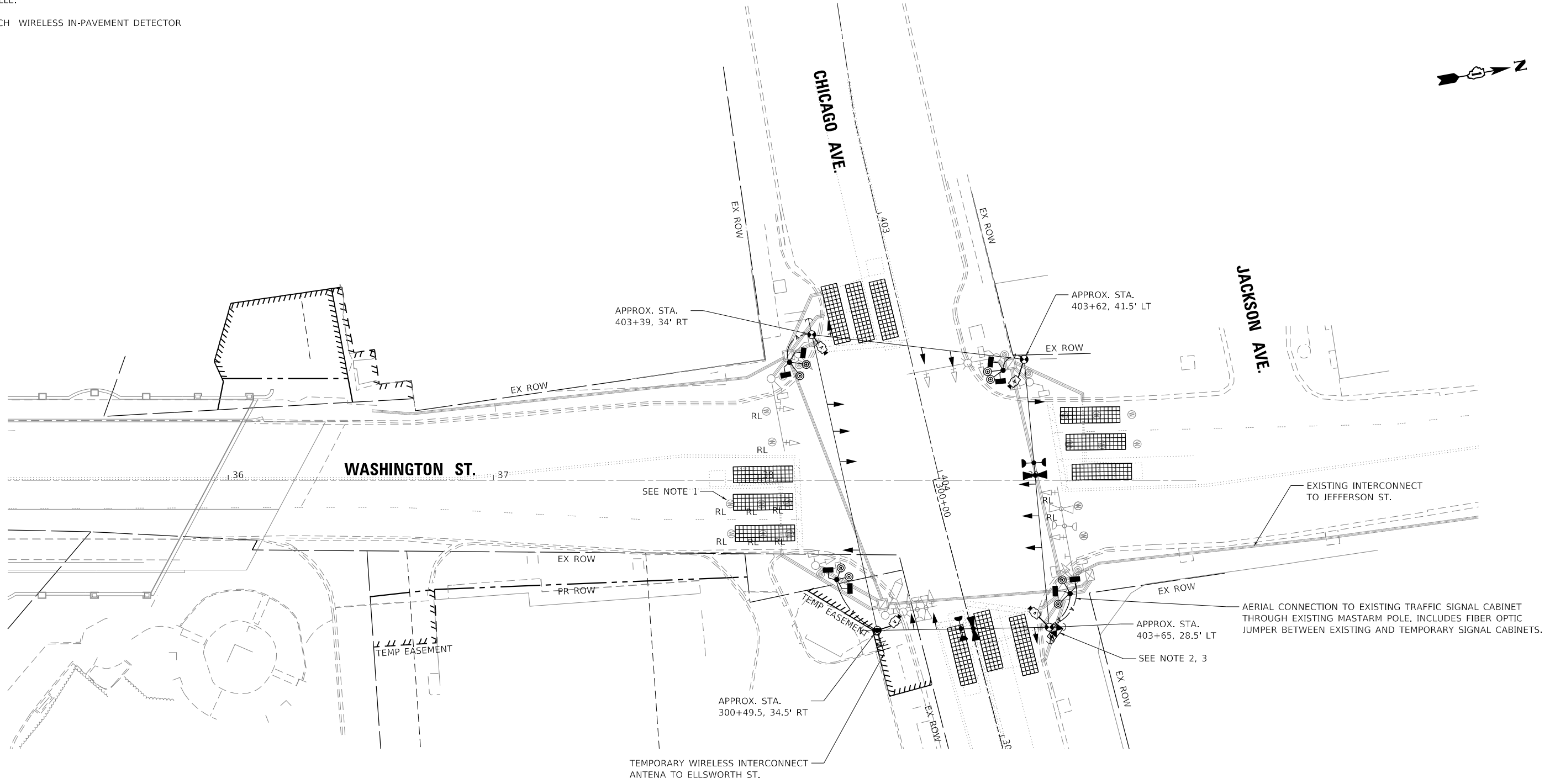
MODEL: 440BEL.MAKFS
FILE NAME: N:\PROJ\020794\01\Drawings\Signs\020794_01_132_Signs_S00.dgn

USER NAME = Electrical	DESIGNED - DTJ	REVISED -
PLOT SCALE = 40,0000' / in.	DRAWN - DTJ	REVISED -
PLOT DATE = 8/8/2022	CHECKED - JMV	REVISED -
	DATE -	REVISED -

REMOVAL AND RELOCATION NOTES:

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND RETURNED TO THE CITY OF NAPERVILLE.

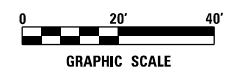
8 EACH WIRELESS IN-PAVEMENT DETECTOR



NOTES

1. ALL EXISTING TRAFFIC SIGNAL HEADS AND PEDESTRIAN HEADS SHALL BE BAGGED.
2. TEMPORARY TRAFFIC SIGNAL CABINETS SHALL CONTAIN AN ETHERNET SWITCH COMPATIBLE WITH EXISTING TRAFFIC SIGNAL CABINET EQUIPMENT TO MAINTAIN COMMUNICATIONS DURING CONSTRUCTION. SEE TEMPORARY INTERCONNECT PLANS.
3. THE CONTRACTOR SHALL COORDINATE THE PLACEMENT OF THE TEMPORARY SIGNAL HEADS AND SIGNAL TIMING WITH THE STAGES AND SUBSTAGES OF THE ADJACENT DOWNTOWN STREETSCAPE - WASHINGTON STREET CONSTRUCTION PROJECT DURING STAGE 1.

PRESTAGE AND STAGE 4 SHOWN



MODEL: 44091EN.MXD
FILE NAME: N:\PROJECTS\16-00167-00-01\16-00167-00-01-TS201-TempSignalPlan.dwg



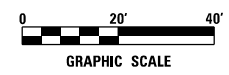
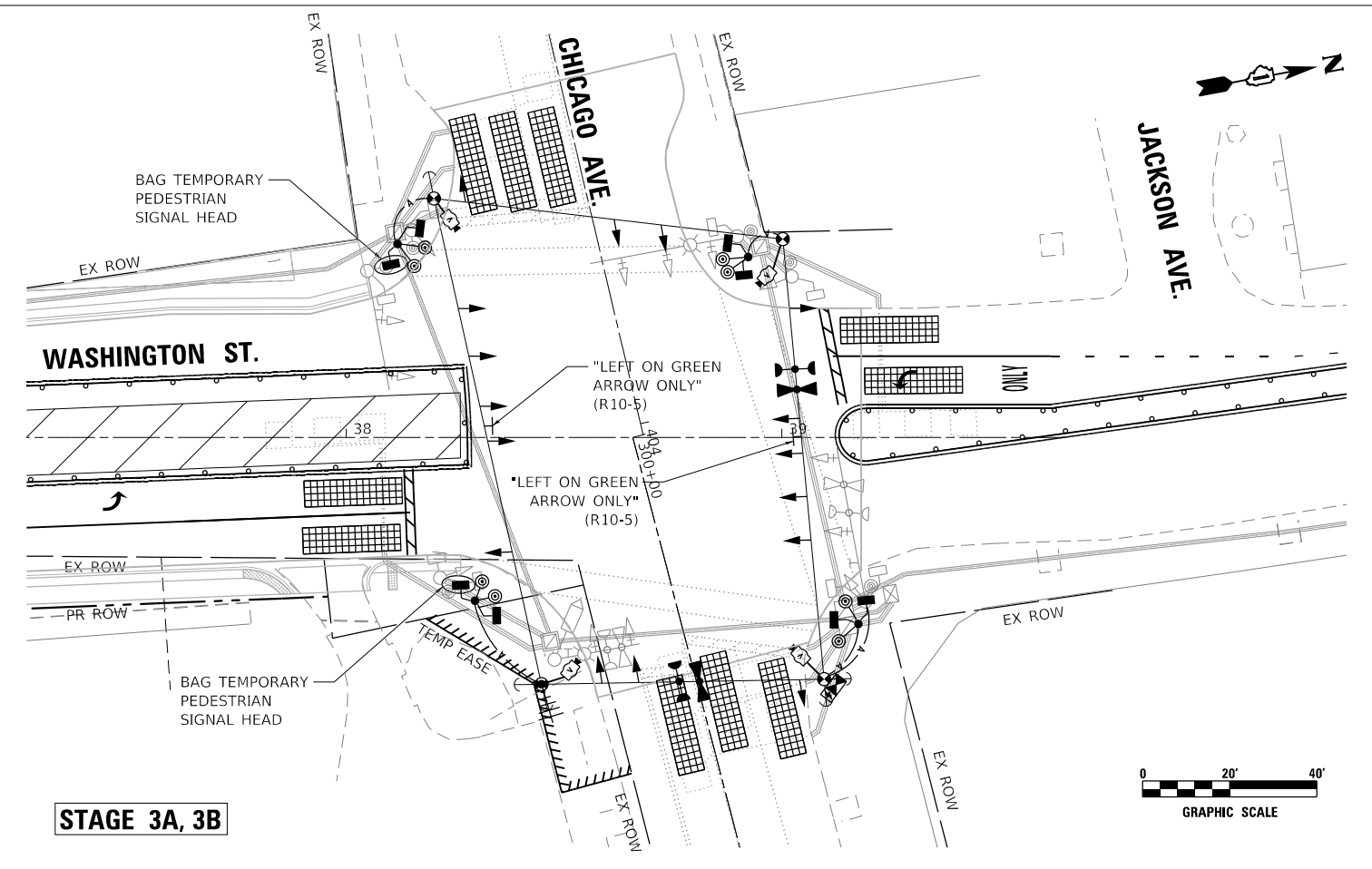
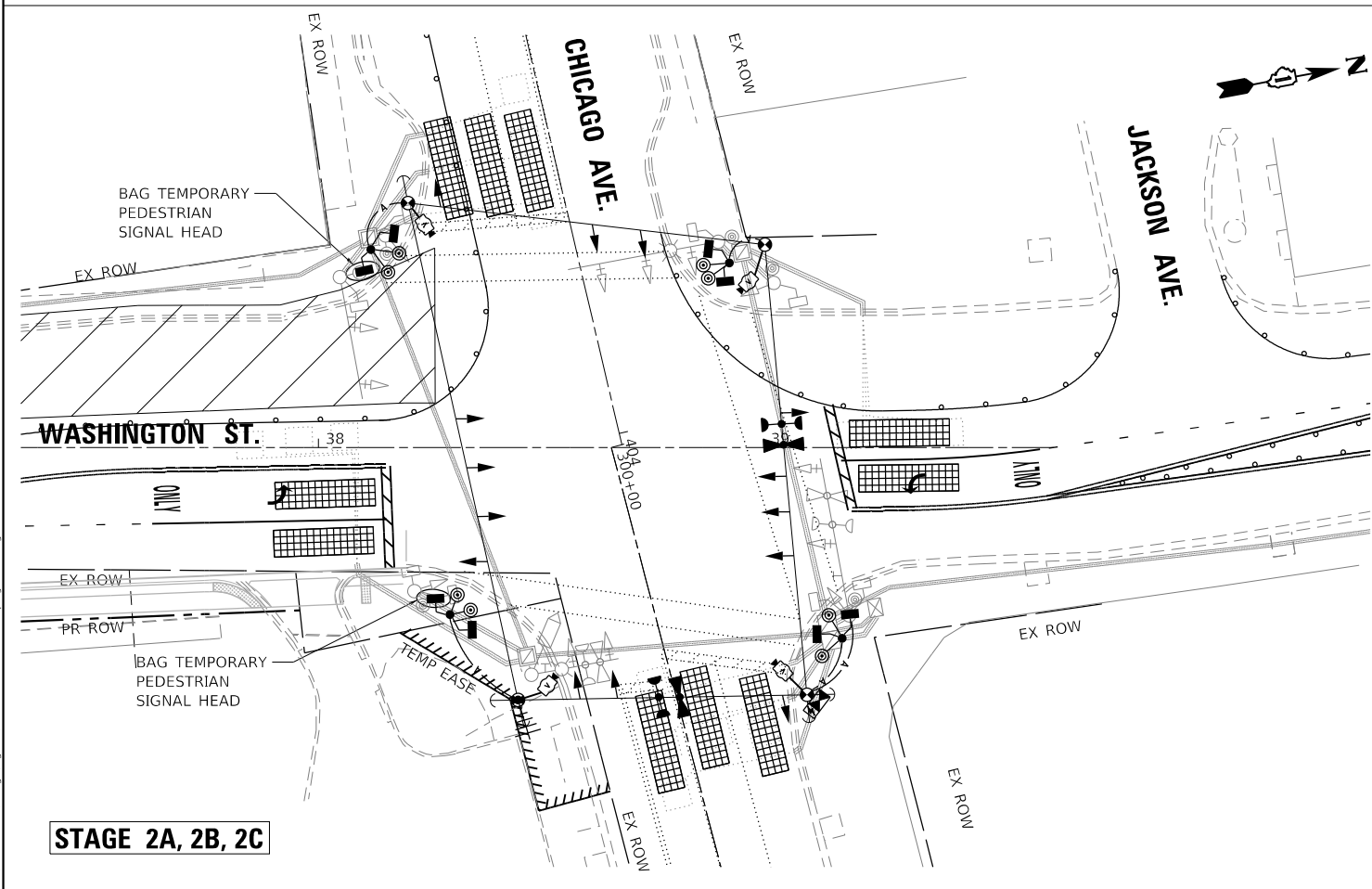
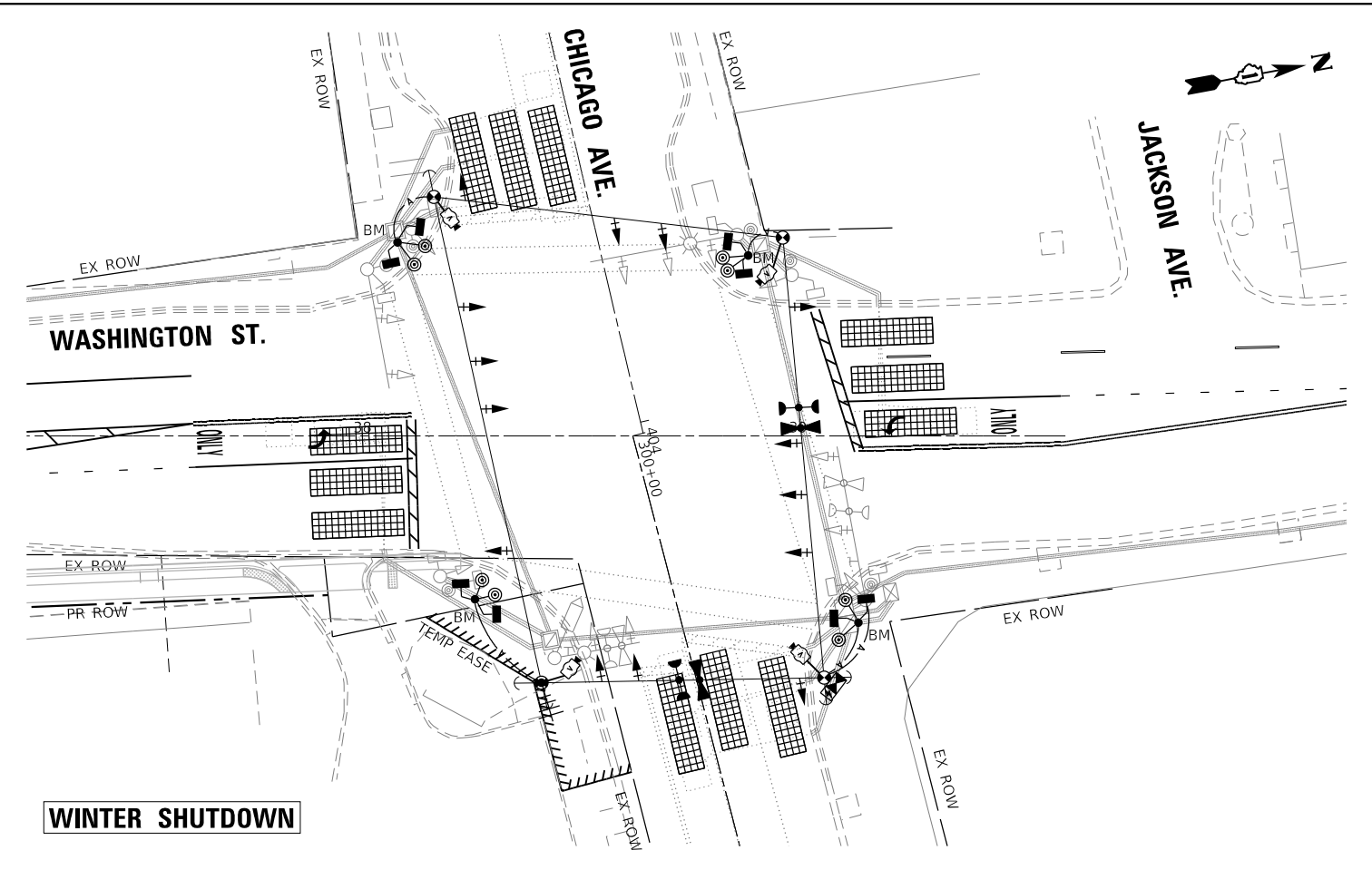
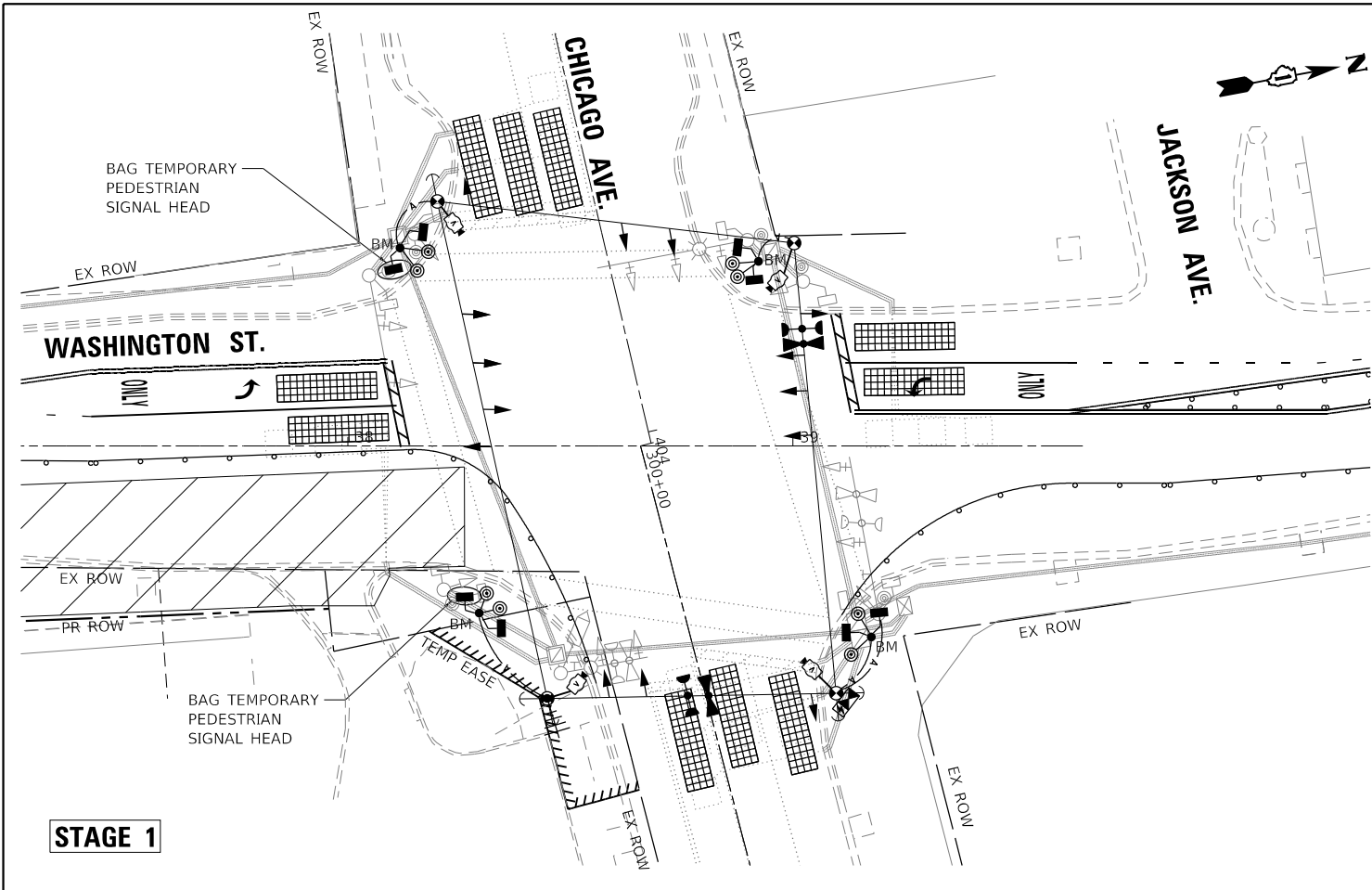
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC INSTALLATION PLAN AND
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN (SHEET 1 OF 2)
CHICAGO AVENUE AND WASHINGTON STREET

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	136
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCALE: 1" = 20' SHEET 1 OF 2 SHEETS STA. TO STA.



MODEL: 1409161.MXD
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USER NAME = Electrical	DESIGNED - DTJ	REVISED -
PLOT SCALE = 40.0000" / in.	DRAWN - DTJ	REVISED -
PLOT DATE = 8/8/2022	CHECKED - JMV	REVISED -
	DATE -	REVISED -

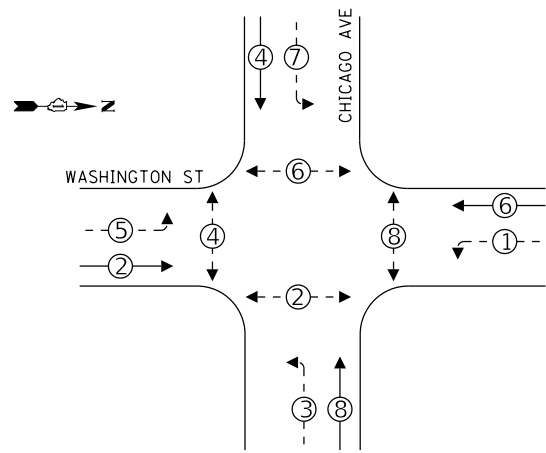
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC INSTALLATION PLAN AND
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN (SHEET 2 OF 2)
CHICAGO AVENUE AND WASHINGTON STREET

SCALE: 1" = 20' SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	137
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

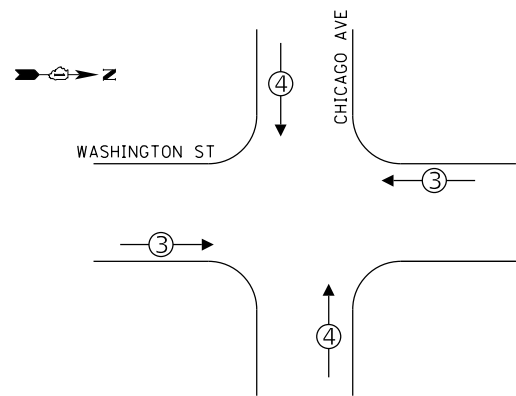
TEMPORARY CONTROLLER SEQUENCE
PRESTAGE, WINTER SHUTDOWN AND STAGE 4



LEGEND:

- ← (⊙) ← PROTECTED PHASE
- ← (⊙) ← PROTECTED/PERMITTED PHASE
- ← (⊙) ← PEDESTRIAN PHASE
- ← (⊙) ← OVERLAP

EMERGENCY VEHICLE PREEMPTION SEQUENCE



TEMPORARY AERIAL INTERCONNECT TO AURORA AVE (SEE TEMPORARY INTERCONNECT PLAN)

CHICAGO AVE AND WASHINGTON ST TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

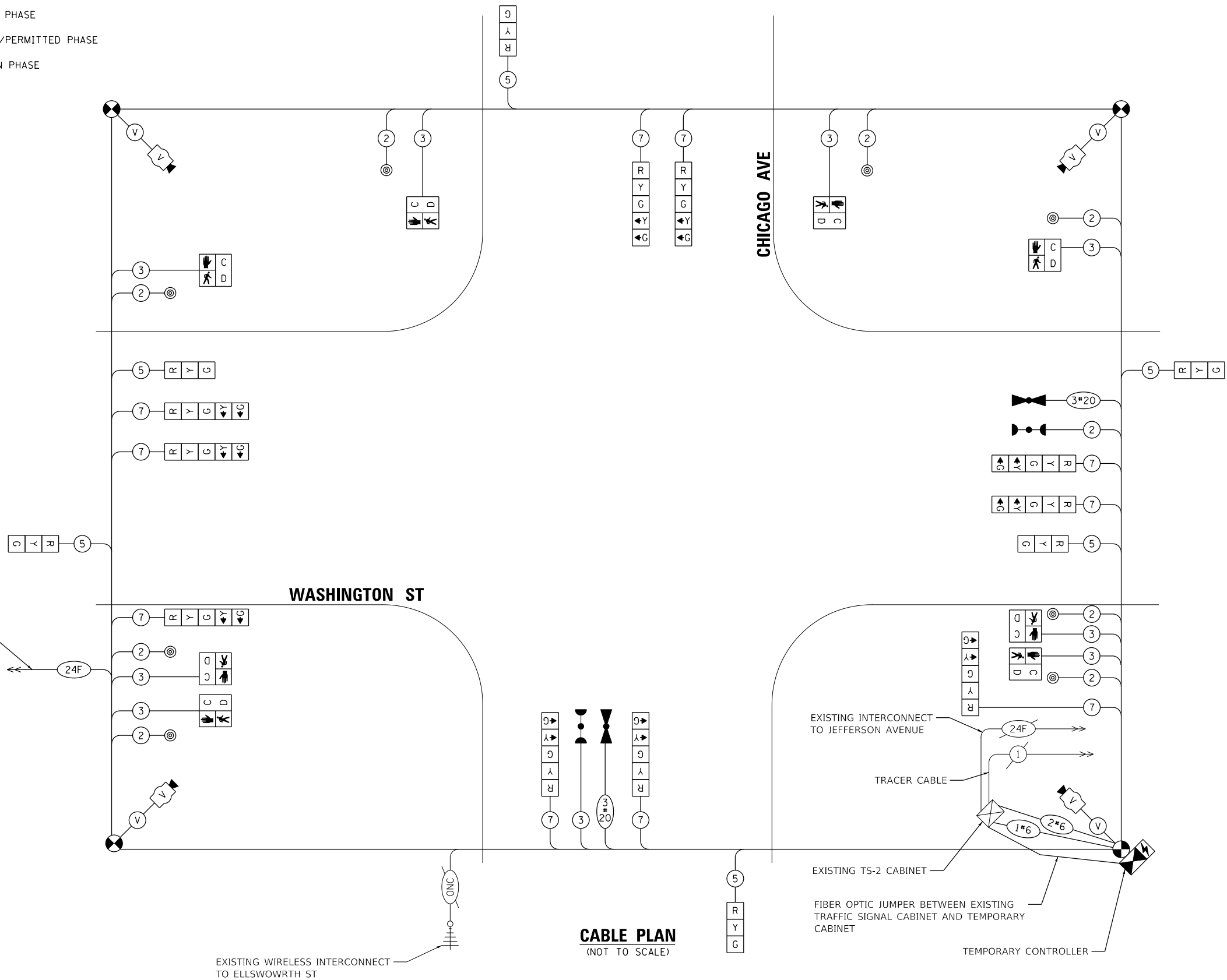
TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	11	50	77.0
(YELLOW)	14	20	5	14.0
(GREEN)	14	12	45	75.6
PROTECTED ARROW	16	10	10	16.0
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
LPS	-	25	100	-
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	-	5	-
FLASHER	-	-	50	-
STREEN NAME SIGN	4	120	50	240.0
LUMINAIRE	1	250	50	125.0
TOTAL =				807.6

ENERGY COSTS TO:

CITY OF NAPERVILLE
 400 S. EAGLE STREET
 NAPERVILLE, IL 60540

ENERGY SUPPLY CONTACT:

COMPANY: NAPERVILLE DPU-E
 PHONE: (630) 420-6059
 ACCOUNT NUMBER: ---



CABLE PLAN
(NOT TO SCALE)

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM,
 AND TEMPORARY EMERGENCY PREEMPTION SEQUENCE
 CHICAGO AVENUE AND WASHINGTON STREET - PRESTAGE AND STAGE 4

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	138
CONTRACT NO. 61G82				



USER NAME = Electrical	DESIGNED - DTJ	REVISED -
PLOT SCALE = 40,0000 ' / in.	DRAWN - DTJ	REVISED -
PLOT DATE = 8/8/2022	CHECKED - JMV	REVISED -
	DATE -	REVISED -

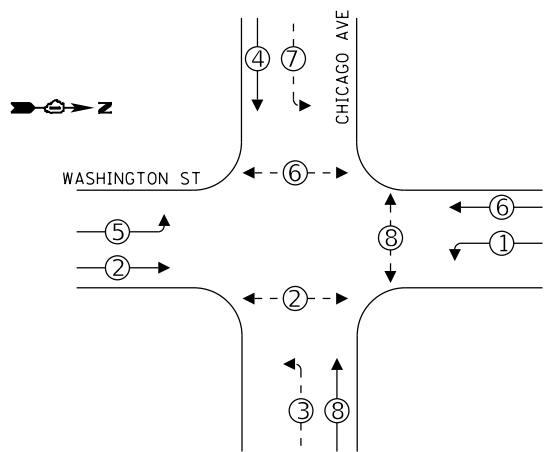
SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

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

MODEL: 44081E1.NAMES
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TEMPORARY CONTROLLER SEQUENCE

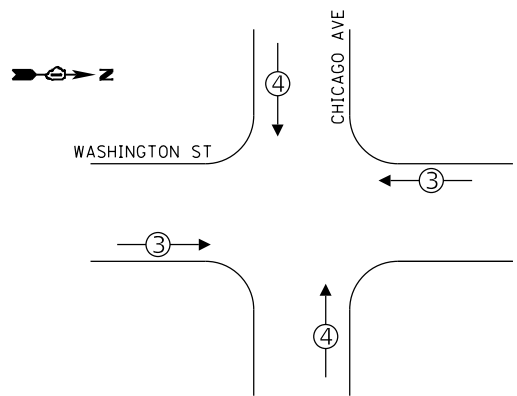
STAGE 2A, 2B, AND 2C



LEGEND:

- ← ⊙ ← PROTECTED PHASE
- ← ⊙ → PROTECTED/PERMITTED PHASE
- ← ⊙ → PEDESTRIAN PHASE
- ⊙ OL OVERLAP

**EMERGENCY VEHICLE
PREEMPTION SEQUENCE**



**CHICAGO AVE AND WASHINGTON ST
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	11	50	77.0
(YELLOW)	14	20	5	14.0
(GREEN)	14	12	45	75.6
PROTECTED ARROW	16	10	10	16.0
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
LPS	-	25	100	-
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	-	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	4	120	50	240.0
LUMINAIRE	1	250	50	125.0
TOTAL =				807.6

ENERGY COSTS TO:

CITY OF NAPERVILLE
400 S. EAGLE STREET
NAPERVILLE, IL 60540

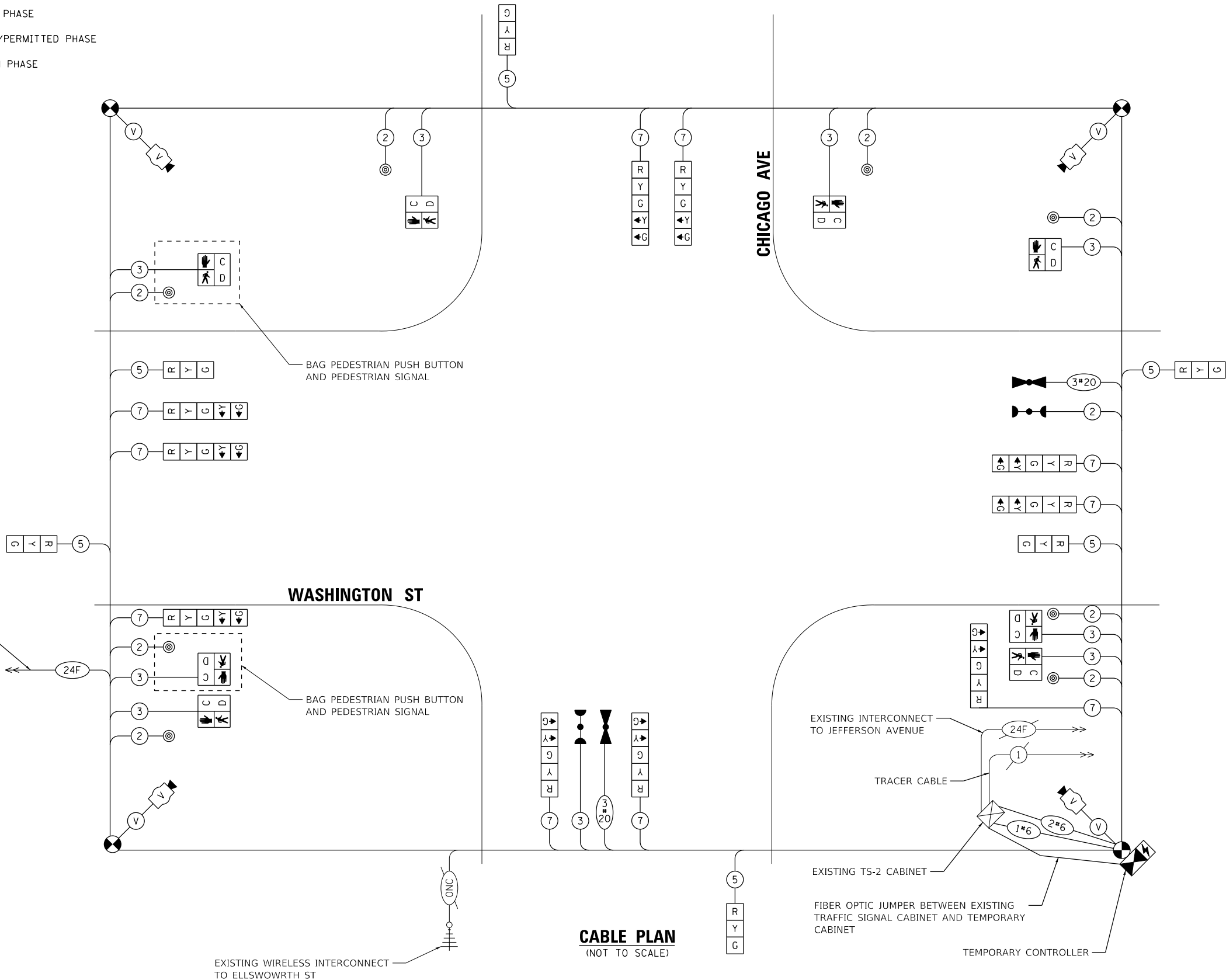
ENERGY SUPPLY CONTACT:

COMPANY: NAPERVILLE DPU-E
PHONE: (630) 420-6059
ACCOUNT NUMBER: ---

TEMPORARY AERIAL INTERCONNECT
TO AURORA AVE (SEE TEMPORARY
INTERCONNECT PLAN)

WASHINGTON ST

CHICAGO AVE



**CABLE PLAN
(NOT TO SCALE)**

EXISTING WIRELESS INTERCONNECT
TO ELLSWORRTH ST

EXISTING INTERCONNECT
TO JEFFERSON AVENUE

TRACER CABLE

EXISTING TS-2 CABINET
FIBER OPTIC JUMPER BETWEEN EXISTING
TRAFFIC SIGNAL CABINET AND TEMPORARY
CABINET

TEMPORARY CONTROLLER

MODEL: 4400BELNAME
FILE NAME: NAPERVIL0020794L01.Dwg
DATE: 8/8/2022



USER NAME = Electrical	DESIGNED - DTJ	REVISED -
PLOT SCALE = 40,0000 "/>		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

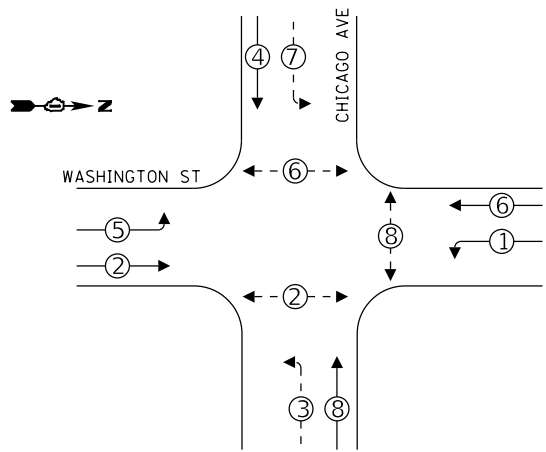
**TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM,
AND TEMPORARY EMERGENCY PREEMPTION SEQUENCE
CHICAGO AVENUE AND WASHINGTON STREET - STAGE 2A, 2B & 2C**

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	139
CONTRACT NO. 61G82				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TEMPORARY CONTROLLER SEQUENCE

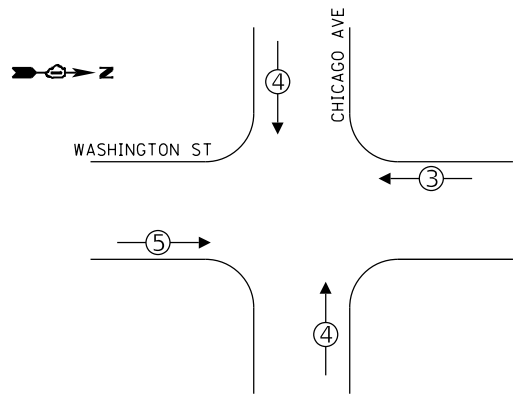
STAGE 3A & 3B



LEGEND:

- ← (⊛) → PROTECTED PHASE
- ← (⊛) - → PROTECTED/PERMITTED PHASE
- ← (⊛) → PEDESTRIAN PHASE
- ← (⊛) OL → OVERLAP

**EMERGENCY VEHICLE
PREEMPTION SEQUENCE**



TEMPORARY AERIAL INTERCONNECT
TO AURORA AVE (SEE TEMPORARY
INTERCONNECT PLAN)

**CHICAGO AVE AND WASHINGTON ST
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS**

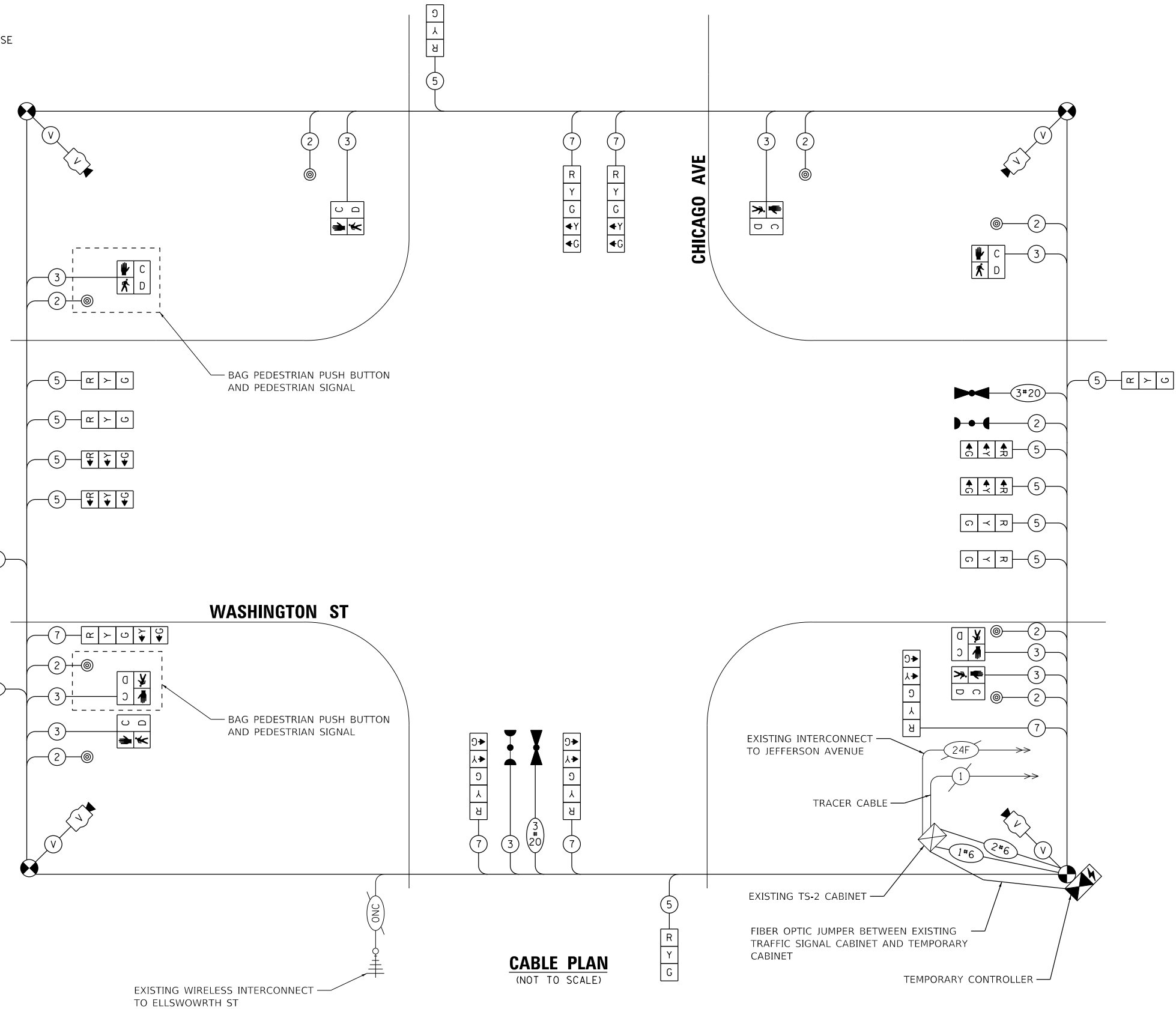
TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	11	50	77.0
(YELLOW)	14	20	5	14.0
(GREEN)	14	12	45	75.6
PROTECTED ARROW	16	10	10	16.0
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
LPS	-	25	100	-
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	-	5	-
FLASHER	-	-	50	-
STREEN NAME SIGN	4	120	50	240.0
LUMINAIRE	1	250	50	125.0
TOTAL =				807.6

ENERGY COSTS TO:

CITY OF NAPERVILLE
400 S. EAGLE STREET
NAPERVILLE, IL 60540

ENERGY SUPPLY CONTACT:

COMPANY: NAPERVILLE DPU-E
PHONE: (630) 420-6059
ACCOUNT NUMBER: ---



CABLE PLAN
(NOT TO SCALE)

MODEL: 1408161.MXD
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DATE: 8/8/2022 10:00:00 AM



USER NAME = Electrical	DESIGNED - DTJ	REVISED -
PLOT SCALE = 40,0000 "/>		

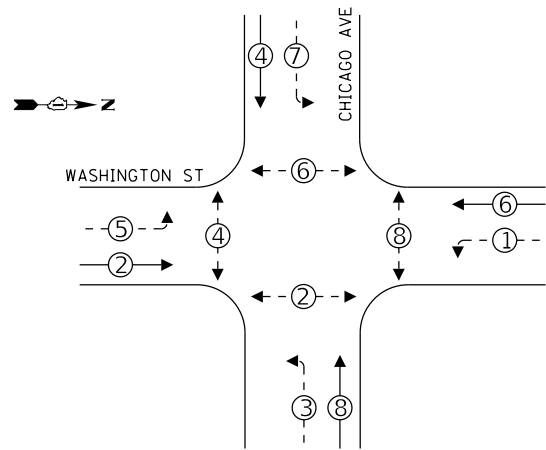
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM,
AND TEMPORARY EMERGENCY PREEMPTION SEQUENCE
CHICAGO AVENUE AND WASHINGTON STREET - STAGE 3A & 3B**

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	140
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

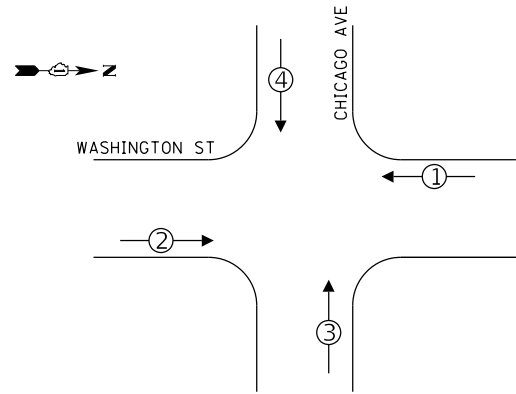
PROPOSED CONTROLLER SEQUENCE



LEGEND:

- ← ⊙ ← PROTECTED PHASE
- ← ⊙ - PROTECTED/PERMITTED PHASE
- ← ⊙ → PEDESTRIAN PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



SCHEDULE OF QUANTITIES			
ITEM DESCRIPTION	UNITS	TOTAL QTY	
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	69	
HEAVY-DUTY HANDHOLE	EACH	1	
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	105	
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1	
MODIFY EXISTING CONTROLLER CABINET	EACH	1	
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	
WIRELESS IN PAVEMENT DETECTOR	EACH	8	
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1	

CHICAGO AVE AND WASHINGTON ST TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	13	11	50	71.5
(YELLOW)	13	20	5	13.0
(GREEN)	13	12	45	70.2
PROTECTED ARROW	16	10	10	16.0
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	-	25	100	-
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	-	5	-
FLASHER	-	-	50	-
STREEN NAME SIGN	4	120	50	240.0
LUMINAIRE	2	250	50	250.0
TOTAL =				920.7

ENERGY COSTS TO:

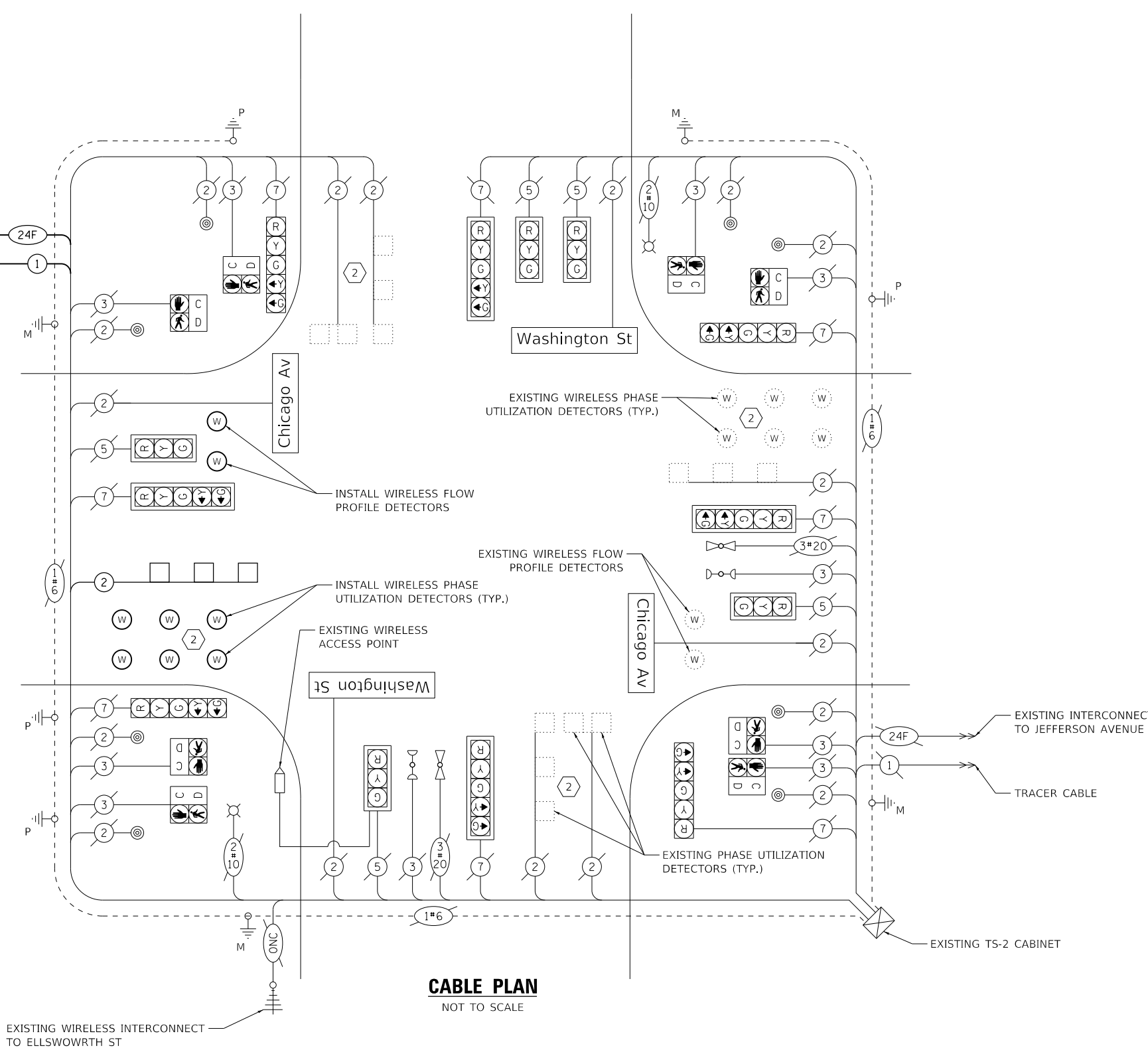
CITY OF NAPERVILLE
400 S. EAGLE STREET
NAPERVILLE, IL 60540

ENERGY SUPPLY CONTACT:

COMPANY: NAPERVILLE DPU-E
PHONE: (630) 420-6059
ACCOUNT NUMBER: ---

CONSTRUCTION NOTES:

- 1 FLOW PROFILE DETECTORS LOCATED WITHIN SEPARATE DETECTOR CHANNELS FOR EACH APPROACH.
- 2 PHASE UTILIZATION DETECTORS LOCATED WITHIN THE SAME LANE SHALL BE ASSIGNED TO THE SAME DETECTOR CHANNEL FOR EACH APPROACH.



CABLE PLAN
NOT TO SCALE

MODEL: 1400BEL.NAMES
FILE NAME: NAPERVIL0020794.01.Dwg
FILE NO: NAPERVIL0020794.01.LTS231.Cshhben.dwg



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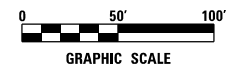
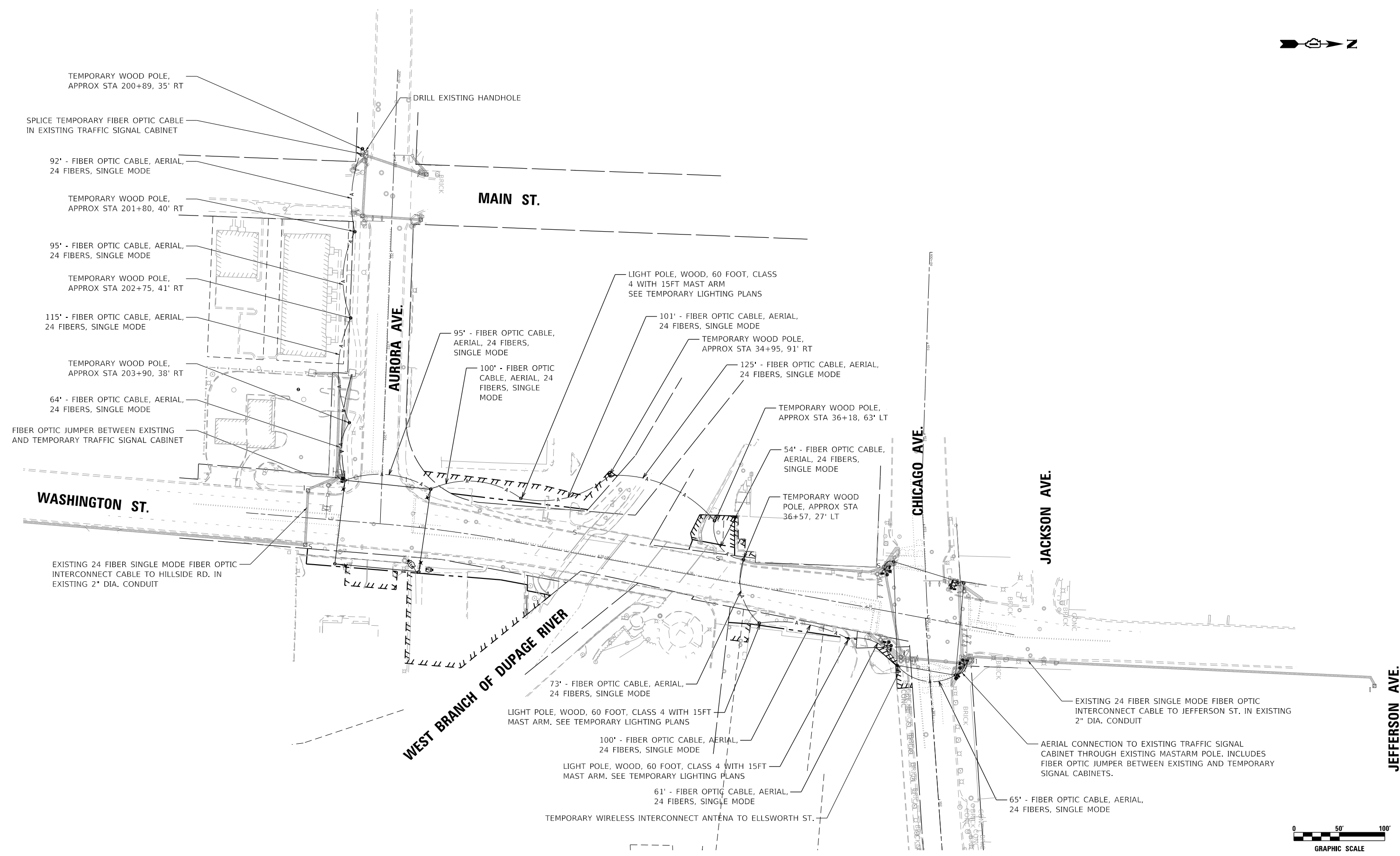
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CHECKED - JMV	REVISED -
DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET BRIDGE CABLE PLAN, PHASE DESIGNATION
DIAGRAM, AND EMERGENCY PREEMPTION SEQUENCE
CHICAGO AVENUE AND WASHINGTON STREET

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	142
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.



MODEL: \\MODEL\NAME: FILE NAME: \\PROJ\0020794\01\Drawings\16-00167-00-01-TS801-TemporaryInterconnectPlan.dgn

CiorbaGroup
 8725 W. Higgins Rd, Ste 600, Chicago, IL 60631
 P 773.775.4009 | www.ciorba.com

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	DRAWN - DTJ	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED - JMV	REVISED -
PLOT DATE = 8/8/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

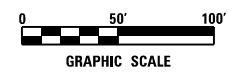
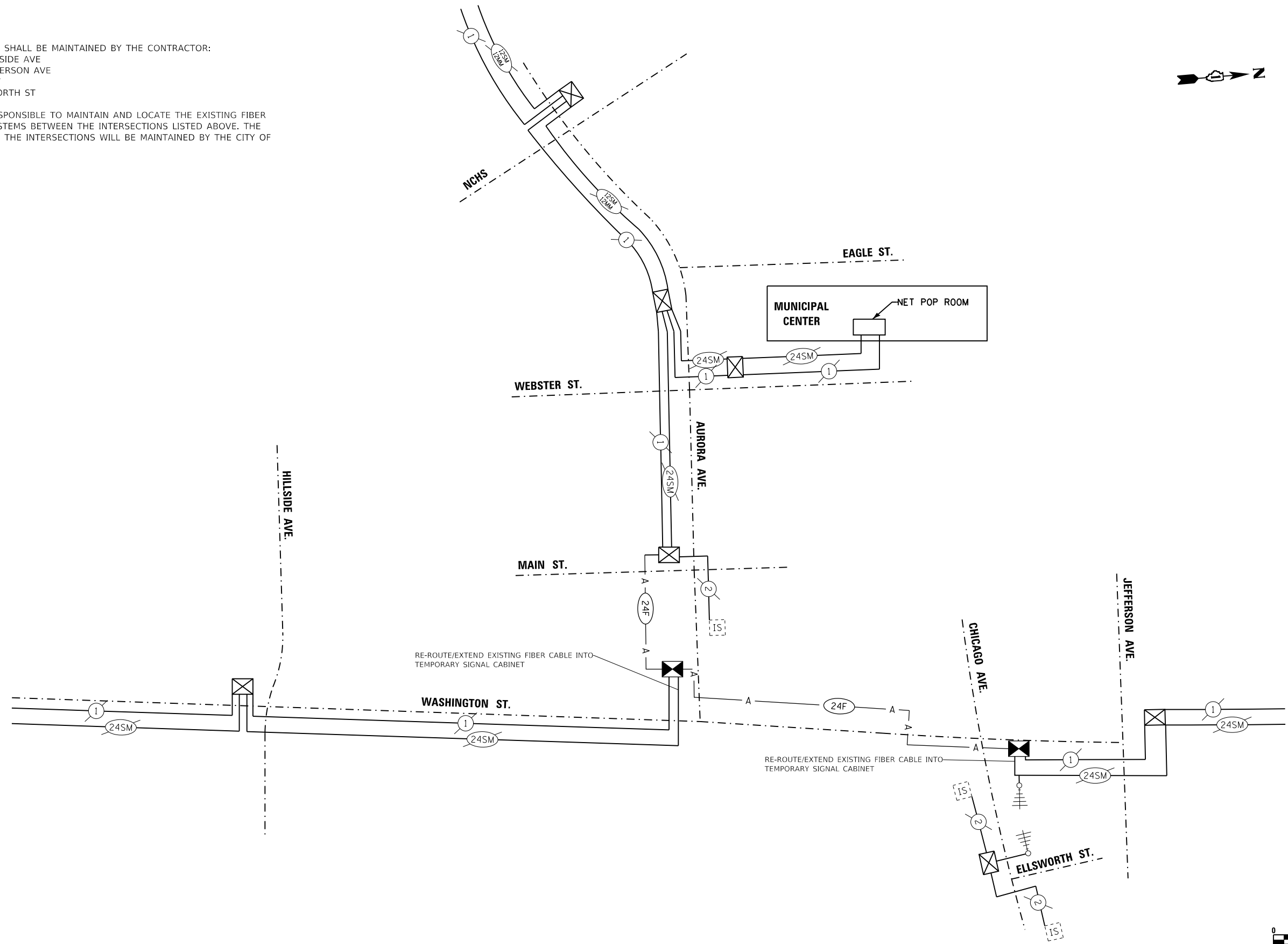
WASHINGTON STREET BRIDGE
TEMPORARY INTERCONNECT PLAN
WASHINGTON STREET, FROM PORTER AVENUE TO JEFFERSON AVENUE

SCALE: 1" = 50' SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	143
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

NOTES:

1. THE FOLLOWING INTERSECTIONS SHALL BE MAINTAINED BY THE CONTRACTOR:
 WASHINGTON ST AND HILLSIDE AVE
 WASHINGTON ST AND JEFFERSON AVE
 AURORA AVE AND MAIN ST
 CHICAGO AVE AND ELLSWORTH ST
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN AND LOCATE THE EXISTING FIBER OPTIC CABLE AND WIRELESS SYSTEMS BETWEEN THE INTERSECTIONS LISTED ABOVE. THE INTERCONNECT SYSTEM BEYOND THE INTERSECTIONS WILL BE MAINTAINED BY THE CITY OF NAPERVILLE.



MODEL: 140961.MX.MX
 FILE: 140961.MX.MX
 PROJECT: 16-00167-00-01-TS811-TemporaryInterconnectSchematic.dgn

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PLOT DATE = 8/8/2022	DATE -	REVISED -

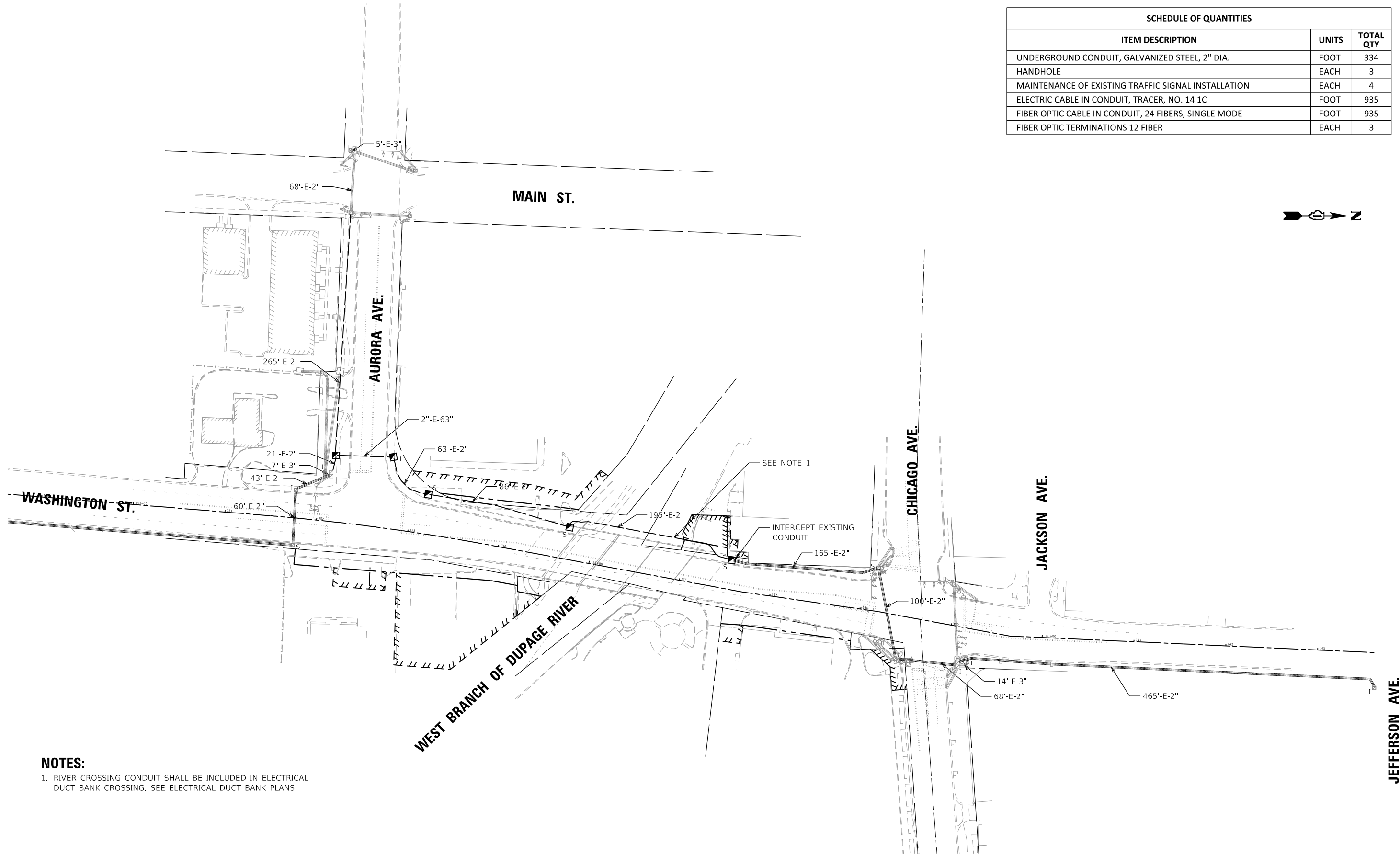
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET BRIDGE
TEMPORARY INTERCONNECT SCHEMATIC
WASHINGTON STREET FROM PORTER AVENUE TO JEFFERSON AVENUE

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	144
FED. ROAD DIST. NO.			CONTRACT NO. 61G82	
ILLINOIS FED. AID PROJECT				

SCHEDULE OF QUANTITIES		
ITEM DESCRIPTION	UNITS	TOTAL QTY
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	334
HANDHOLE	EACH	3
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	4
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	935
FIBER OPTIC CABLE IN CONDUIT, 24 FIBERS, SINGLE MODE	FOOT	935
FIBER OPTIC TERMINATIONS 12 FIBER	EACH	3



NOTES:
 1. RIVER CROSSING CONDUIT SHALL BE INCLUDED IN ELECTRICAL DUCT BANK CROSSING. SEE ELECTRICAL DUCT BANK PLANS.

MODEL: \\4001\BEN\M\FE...
 FILE NAME: \\4001\BEN\M\FE...
 FILE: \\4001\BEN\M\FE...

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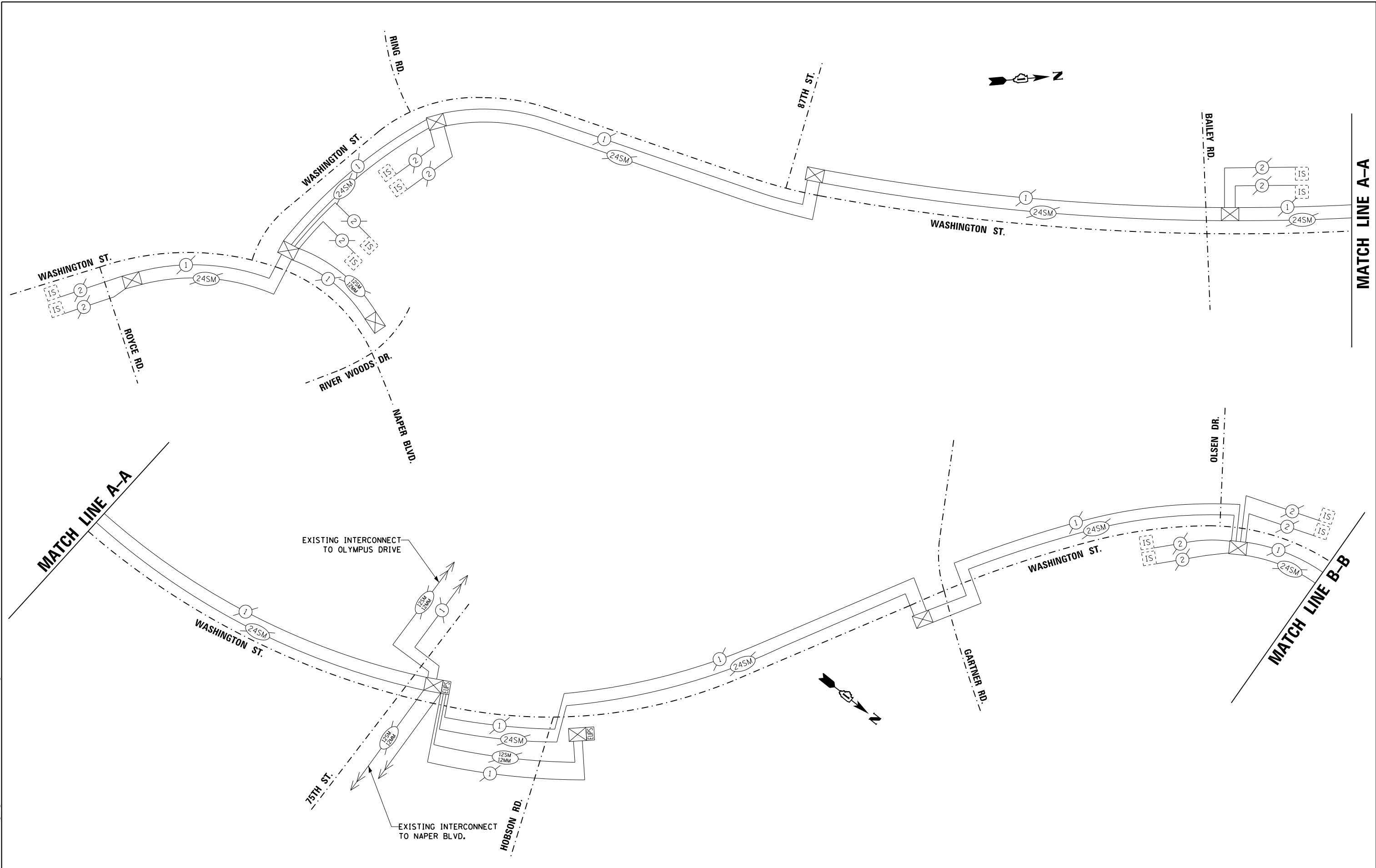
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PLOT DATE = 8/8/2022	CHECKED - JMV	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**WASHINGTON STREET BRIDGE
 INTERCONNECT PLAN
 WASHINGTON STREET, FROM PORTER AVENUE TO JEFFERSON AVENUE**

SCALE: 1" = 50' SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	145
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 61G82	



MODEL: \\40961\NAME\FE
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 P 773.775.4009 | www.ciorba.com

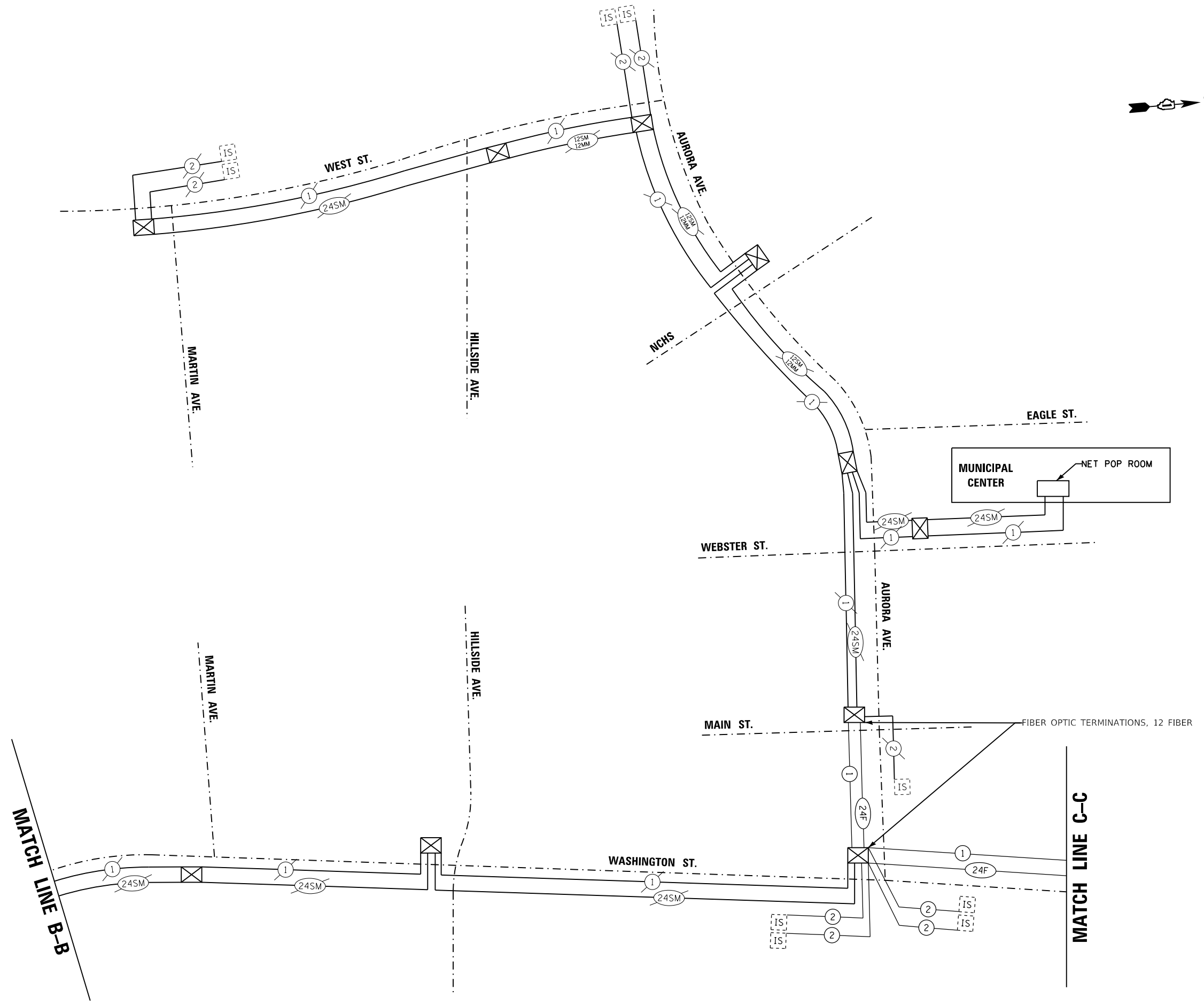
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PLOT DATE = 8/8/2022	DATE -	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET BRIDGE
 INTERCONNECT SCHEMATIC
 WASHINGTON STREET (1 OF 3)

SCALE: N.T.S. SHEET 1 OF 3 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	146
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 61G82	



MODEL: \\40961\NAME\F...
 FILE: \\40961\NAME\F...
 MODEL: \\40961\NAME\F...

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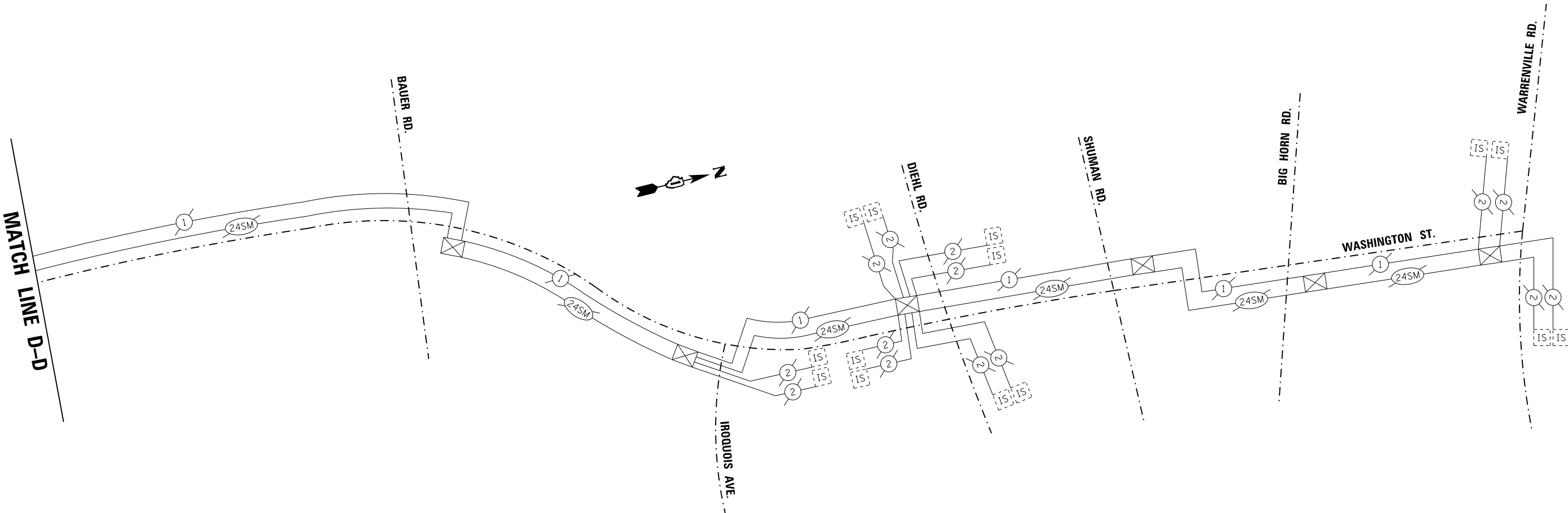
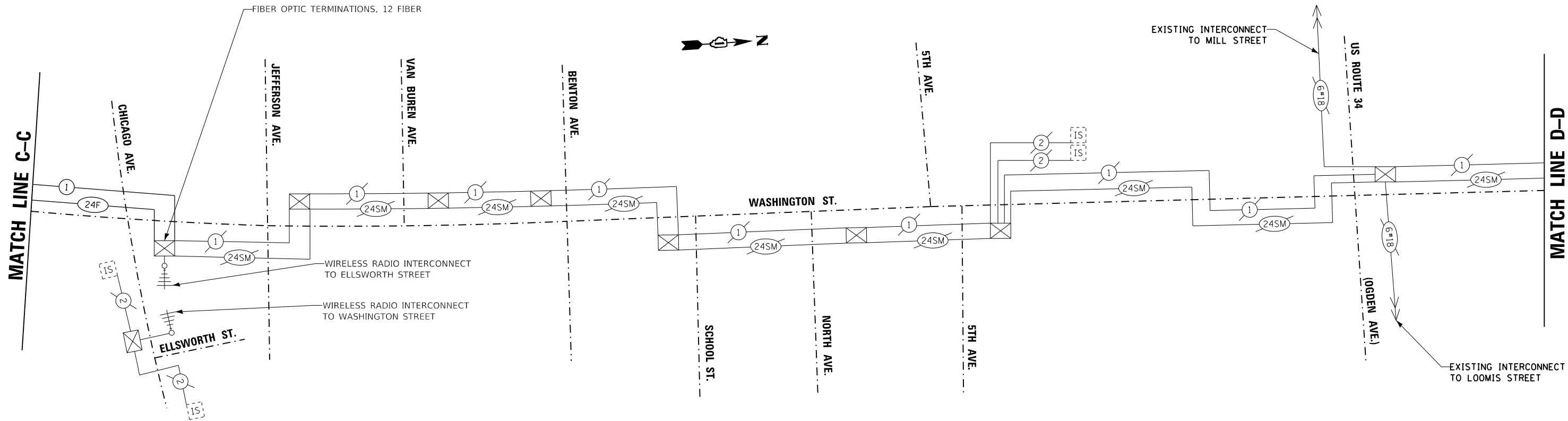
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PLOT DATE = 8/8/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET BRIDGE
INTERCONNECT SCHEMATIC
WASHINGTON STREET (2 OF 3)

SCALE: N.T.S. SHEET 2 OF 3 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	147
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 61G82	



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 FILE: \\400BEL\NAME\...
 MODEL: \\400BEL\NAME\...



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	DRAWN - DTJ	REVISED -
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PLOT DATE = 8/8/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET BRIDGE
INTERCONNECT SCHEMATIC
WASHINGTON STREET (3 OF 3)

SCALE: N.T.S. SHEET 3 OF 3 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	148
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

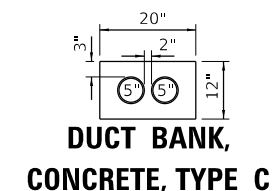
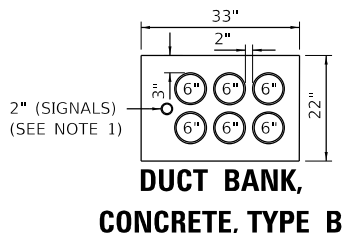
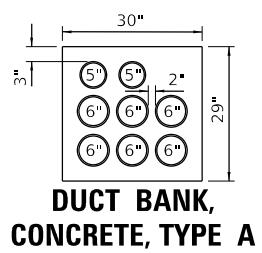
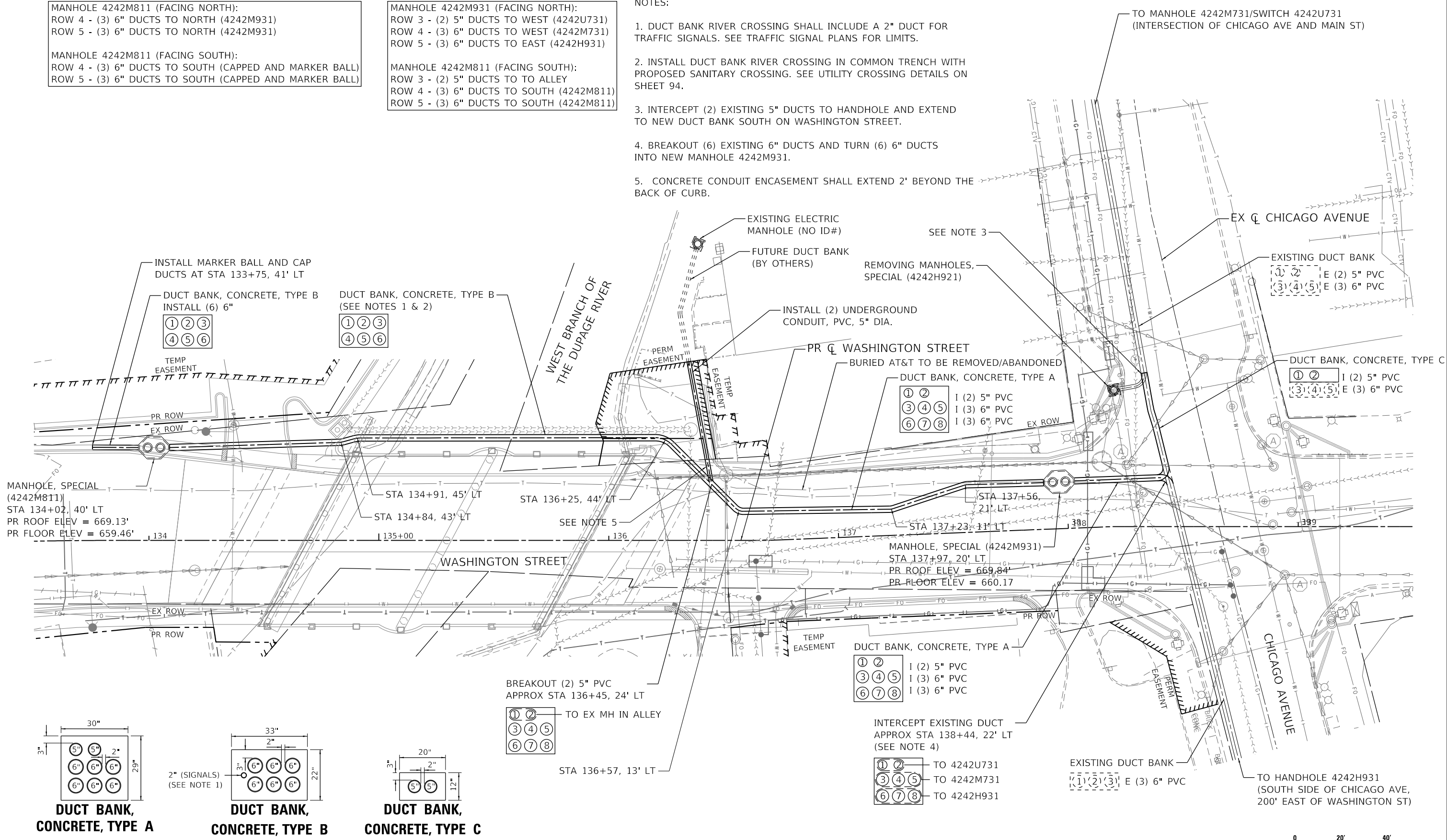
MANHOLE 4242M811 (FACING NORTH):
 ROW 4 - (3) 6" DUCTS TO NORTH (4242M931)
 ROW 5 - (3) 6" DUCTS TO NORTH (4242M931)

MANHOLE 4242M811 (FACING SOUTH):
 ROW 4 - (3) 6" DUCTS TO SOUTH (CAPPED AND MARKER BALL)
 ROW 5 - (3) 6" DUCTS TO SOUTH (CAPPED AND MARKER BALL)

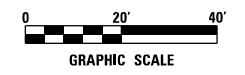
MANHOLE 4242M931 (FACING NORTH):
 ROW 3 - (2) 5" DUCTS TO WEST (4242U731)
 ROW 4 - (3) 6" DUCTS TO WEST (4242M731)
 ROW 5 - (3) 6" DUCTS TO EAST (4242H931)

MANHOLE 4242M811 (FACING SOUTH):
 ROW 3 - (2) 5" DUCTS TO TO ALLEY
 ROW 4 - (3) 6" DUCTS TO SOUTH (4242M811)
 ROW 5 - (3) 6" DUCTS TO SOUTH (4242M811)

- NOTES:
1. DUCT BANK RIVER CROSSING SHALL INCLUDE A 2" DUCT FOR TRAFFIC SIGNALS. SEE TRAFFIC SIGNAL PLANS FOR LIMITS.
 2. INSTALL DUCT BANK RIVER CROSSING IN COMMON TRENCH WITH PROPOSED SANITARY CROSSING. SEE UTILITY CROSSING DETAILS ON SHEET 94.
 3. INTERCEPT (2) EXISTING 5" DUCTS TO HANDHOLE AND EXTEND TO NEW DUCT BANK SOUTH ON WASHINGTON STREET.
 4. BREAKOUT (6) EXISTING 6" DUCTS AND TURN (6) 6" DUCTS INTO NEW MANHOLE 4242M931.
 5. CONCRETE CONDUIT ENCASEMENT SHALL EXTEND 2' BEYOND THE BACK OF CURB.



DUCT BANK CONCRETE COVER REQUIREMENTS:
 MINIMUM 3" ABOVE AND BELOW CONDUITS
 MINIMUM 2" HORIZONTALLY BETWEEN CONDUITS



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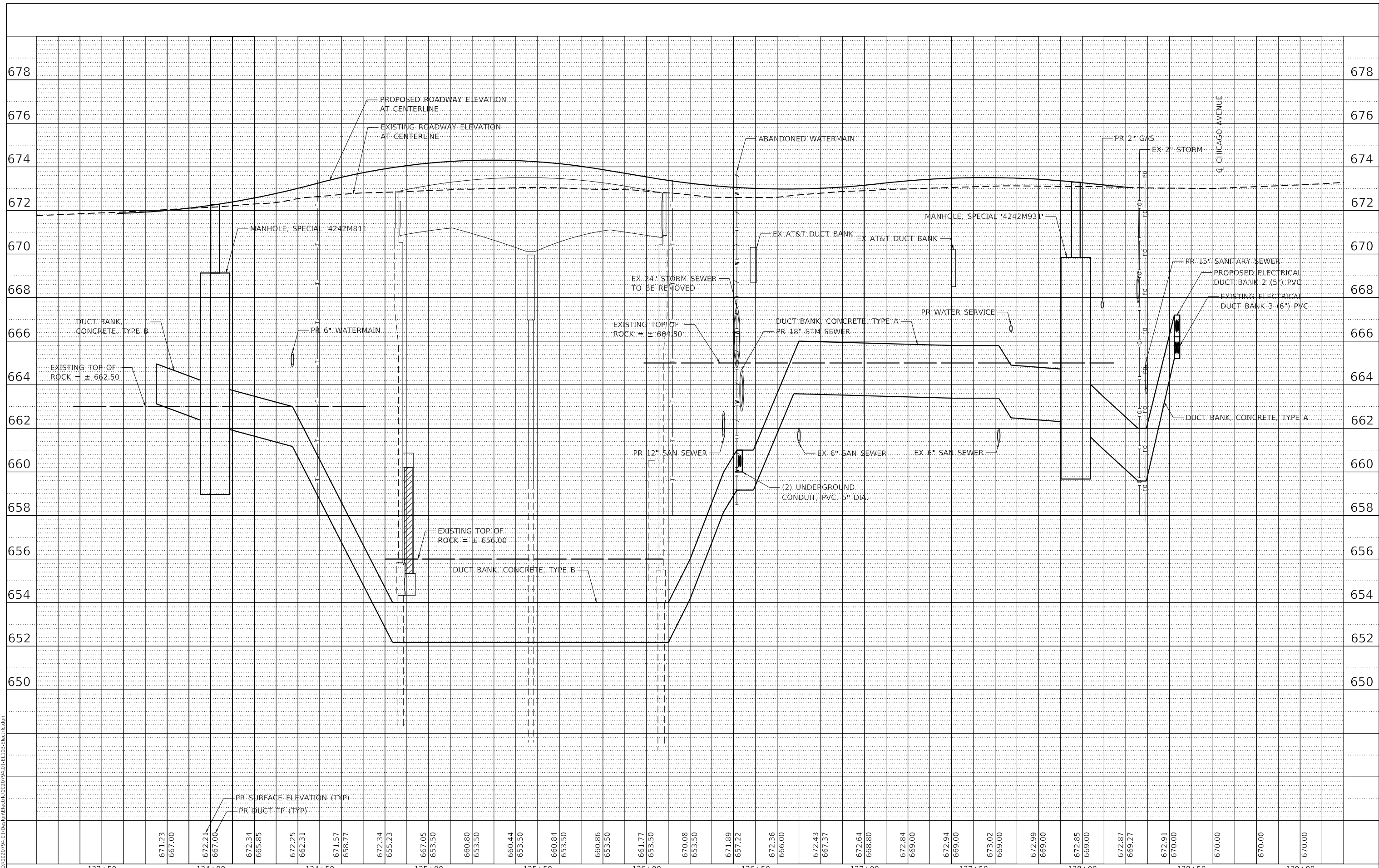
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	DRAWN - DTJ	REVISED -
PLOT SCALE = 40,0000 "/>		

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET BRIDGE
 ELECTRIC DUCT BANK PLAN

SCALE: 1" = 20' SHEET 1 OF 1 SHEETS STA. 134+00 TO STA. 139+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	149
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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133+50	671.23 667.00	134+00	672.21 667.00	134+50	672.34 665.85	672.25 662.31	671.57 658.77	672.34 655.23	667.05 653.50	660.80 653.50	660.44 653.50	660.84 653.50	660.86 653.50	661.77 653.50	670.08 653.50	671.89 657.22	672.36 666.00	672.43 667.37	672.64 668.80	672.84 669.00	672.94 669.00	673.02 669.00	672.99 669.00	672.85 669.00	672.87 669.27	672.91 670.00	670.00	670.00	670.00
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PLOT SCALE = 40,0000 "/>		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET BRIDGE
ELECTRIC DUCT BANK PROFILE

SCALE: 1" = 20' SHEET 1 OF 2 SHEETS STA. 133+50 TO STA. 139+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	150
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONDUIT RUN TRENCH PREPARATION

THESE INSTRUCTIONS COVER DESIGN AND CONSTRUCTION INFORMATION NECESSARY FOR THE LAY-OUT AND INSTALLATION OF CONDUIT RUNS.

SAFEGUARDING UNDERGROUND FACILITIES

IN ORDER TO SAFEGUARD THE UNDERGROUND FACILITIES OF BOTH THE CITY OF NAPERVILLE AND OTHERS, APPLICABLE INSTRUCTIONS AND PROCEDURES COVERING THE PROVISIONS OF ANY AGREEMENT BETWEEN THE CITY OF NAPERVILLE AND ANOTHER UTILITY CONCERNING INTERCHANGE OF INFORMATION AND CONSTRUCTION WORK PRACTICES SHALL BE FOLLOWED. BEFORE ANY SOIL IS DISTURBED, J.U.L.I.E. MUST BE NOTIFIED TO MARK ALL UTILITIES IN THE AREA OF THE TRENCH.

CONDUIT RUN LAYOUT

CONDUIT RUNS AND MANHOLES SHOULD BE LOCATED SO THAT THE RUN WILL FOLLOW AS NEARLY AS POSSIBLE A STRAIGHT LINE BETWEEN MANHOLES. IF OBSTRUCTIONS MAKE THIS IMPRACTICAL, THE RUN MAY BE CURVED AS NECESSARY.

CONDUIT RUNS BETWEEN MANHOLES SHALL HAVE AN OVERALL LENGTH FROM MANHOLE TO MANHOLE NOT TO EXCEED 475 FT. SPECIAL CASES INVOLVING LONGER LENGTHS MAY BE CONSIDERED BY THE ENGINEER, BUT ONLY IF SPECIALLY ORDERED CABLE REELS CAN ACCOMMODATE THIS LONG-PULL CONSTRUCTION.

A CONDUIT RUN MAY ENTER A STANDARD MANHOLE AT A MAXIMUM ANGLE OF 15° TO THE RESPECTIVE AXIS OF THE MANHOLE. IN CASES WHERE A LARGER ANGLE IS REQUIRED, THE MANHOLE SHALL BE REDESIGNED TO OBTAIN SATISFACTORY CABLE PULLING AND TRAINING CONDITIONS. IN LOCATIONS WHERE STREET LINES ARE NOT DETERMINED BY CURBS, SIDEWALKS OR BUILDINGS, THE EXACT POSITION OF THE CONDUIT RUN SHALL BE DETERMINED BY A SURVEY.

THE PROPOSED TRENCH MAY BE MARKED OFF BY MEANS OF A CHALK LINE IN UNPAVED TERRITORY AND BY A ROUTE IDENTIFICATION SPRAY PAINTED IN PAVED TERRITORY. BOTH SIDES OF THE TRENCH SHALL BE MARKED IF THE TRENCH IS TO BE DUG BY HAND. IF A MACHINE IS TO BE USED, ONLY ONE SIDE OF THE TRENCH NEED BE MARKED.

EXCAVATION

THE STANDARD WIDTH OF THE TRENCH SHALL BE EQUAL TO THE OVERALL WIDTH OF THE CONDUIT RUN AS SHOWN ON PAGE 6 FOR REGULAR FORMATIONS, AND SHALL BE ADJUSTED TO INCLUDE WHERE TRANSPOSITIONS ARE NECESSARY TO PASS OBSTRUCTIONS. THE SIDES OF THE TRENCH SHALL BE TRIMMED SMOOTHLY TO GIVE A UNIFORM THICKNESS OF CONCRETE AROUND THE CONDUIT. THE SIDES OF THE EXCAVATION SHALL BE SHORED IN ACCORDANCE WITH SAFETY REGULATING COMMISSION PRACTICES TO PREVENT CAVE-INS.

DEPTH OF TRENCH

THE DEPTH OF THE TRENCH IN THE RUN IS GOVERNED BY THE MINIMUM DEPTH OF THE CONDUIT RUN BELOW THE STREET SURFACE OR ESTABLISHED GRADE, THE HEIGHT OF THE DUCT SECTION, AND THE PRESENCE OF OBSTRUCTIONS. AT THE APPROACH TO THE MANHOLE, THE MINIMUM DISTANCE FROM THE MANHOLE ROOF TO THE TOP DUCTS AND THE FANNING OF THE DUCTS AT THE DUCT ENTRANCE OF THE MANHOLE ALSO GOVERN THE DEPTH OF THE TRENCH.

IF CINDERS, SLAG, RUBBISH FILL OR OTHER MATERIAL HAVING POOR HEAT CONDUCTING PROPERTIES ARE UNCOVERED IN THE EXCAVATION, THE WIDTH AND DEPTH OF THE TRENCH SHALL BE INCREASED. THIS EXTRA SPACE IS TO PROVIDE FOR THE PLACING OF SPECIAL BACKFILL GRAVEL AROUND THE CONDUIT.

THE MINIMUM DISTANCE FROM THE TOP OF A CONDUIT RUN TO THE SURFACE OF A ROADWAY OR ESTABLISHED GRADE SHALL BE 2 FEET 6 INCHES EXCEPT WHERE THE CONDUIT PASSES UNDER A VIADUCT AND CAUSES A SUMP IN THE LINE. IN THIS CASE THE MINIMUM DISTANCE SHALL BE 3 FEET 0 INCHES. CONDUIT RUNS WHICH PASS UNDER RAILROAD SWITCH TRACKS, OR MAIN LINE TRACKS SHALL HAVE THE MINIMUM DISTANCE OF 4 FEET 2 INCHES BELOW THE TOP OF THE RAIL.

THE HEIGHT OF THE DUCT SECTION FOR VARIOUS STANDARD CONDUIT FORMATIONS OF DUCTS IS SHOWN ON PAGE 6, AND SHALL BE ADJUSTED FOR TRANSPOSITION SECTIONS.

THE MINIMUM DISTANCE FROM THE TOP OF THE DUCTS TO THE MANHOLE ROOF IS SPECIFIED ON THE MANHOLE DRAWINGS AND THE SEPARATION OF THE DUCTS AT THE MANHOLE DUCT ENTRANCE IS SHOWN ON THE MANHOLE STANDARDS. THIS WILL DETERMINE THE MINIMUM WIDTH AND DEPTH OF THE TRENCH AT THE MANHOLE.

OBSTRUCTIONS AFFECT THE DEPTH OF THE TRENCH IN THAT THE GRADE OF THE CONDUIT RUN MUST BE ADJUSTED TO AVOID THEM. THE ENTIRE TRENCH SHOULD BE OPENED BETWEEN MANHOLES BEFORE ANY CONDUIT IS LAID TO ASCERTAIN THE EXISTENCE AND POSITION OF ANY OBSTRUCTIONS.

WHEN THE REQUIRED DEPTH OF THE TRENCH IS KNOWN FOR ALL POINTS, THE GRADE MAY BE ESTABLISHED.

GRADE

IN GENERAL, ALL CONDUIT RUNS SHALL BE UNIFORMLY GRADED SO THAT WATER WILL DRAIN INTO THE MANHOLES FROM ANY POINT IN THE RUN. THE EXCEPTIONS TO THIS RULE ARE CONDUIT RUNS WHICH PASS UNDER RIVERS, VIADUCTS, AND ABNORMAL OBSTRUCTIONS IN THE RUN. IT IS ESSENTIAL THAT THE CONDUIT RUN SHALL BE UNIFORMLY GRADED SO THAT THERE WILL BE NO RIPPLES IN THE RUN.

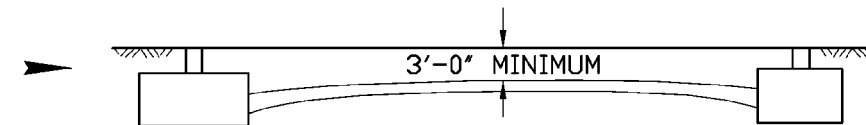
THE MINIMUM GRADE FOR A CONDUIT RUN SHALL BE 1 INCH PER 100 FT. ALL GRADES SHALL BE ESTABLISHED WITH A LEVEL BY THE CONTRACTOR'S ENGINEER AND MARKED BY WOODEN GRADE STAKES ON THE CENTER LINE OF THE BOTTOM OF THE TRENCH. THE STAKES SHALL BE SET 5 FT. APART WHEN CONCRETE CONDUIT IS TO BE INSTALLED AND 10 FT., APART FOR PLASTIC CONDUIT ALONE.

THE TOP OF THE GRADE STAKE SHALL INDICATE THE TOP SURFACE OF THE BOTTOM CONDUIT CONCRETE ENCASEMENT.

AFTER THE GRADE OF THE CONDUIT RUN HAS BEEN ESTABLISHED BY MEANS OF THE GRADE STAKES, THE BOTTOM OF THE TRENCH SHALL BE TRIMMED 3 INCHES BELOW THE TOP OF THE STAKES EXCEPT WHERE THE TRENCH CROSSES A RAILROAD TRACK. IN SUCH CASES THE BOTTOM SHALL BE TRIMMED 6 INCHES BELOW THE TOP OF THE STAKES. TRENCHES WHICH HAVE BEEN DUG TOO DEEP AND THEN PARTIALLY REFILLED SHALL BE TAMPED SOLID AFTER REFILLING BEFORE POURING THE CONCRETE ENCASEMENT.

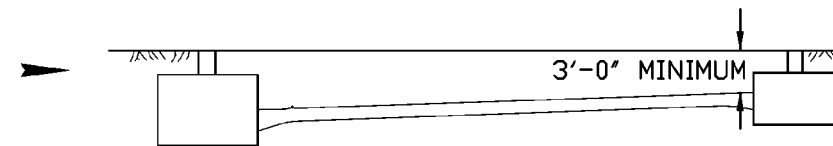
DOUBLE SLOPE GRADING

THE MOST DESIRABLE METHOD OF GRADING A CONDUIT RUN BETWEEN MANHOLES IS ILLUSTRATED IN THE SKETCH SHOWN BELOW. THE MINIMUM DISTANCE FROM THE TOP OF THE CONDUIT RUN TO THE STREET SURFACE IS 3 FT. 0 INCHES, AT THE CENTER OF THE RUN. FROM THERE THE RUN FALLS IN A DOUBLE SLOPE AND DRAINS TOWARD BOTH MANHOLES.



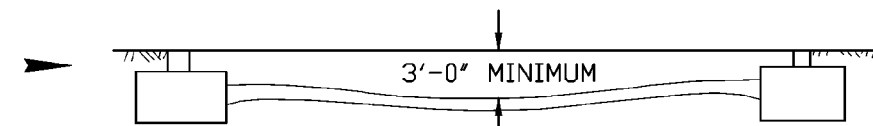
SINGLE SLOPE GRADING

WHERE THE STREET LEVEL SLOPES FROM ONE MANHOLE TO THE OTHER, OR WHERE OBSTRUCTIONS WILL NOT PERMIT DOUBLE SLOPE GRADING, THE CONDUIT RUN SHALL BE GRADED IN ONLY ONE DIRECTION AS SHOWN.



GRADING UNDER VIADUCT OR LARGE OBSTRUCTIONS

A CONDUIT RUN, WHICH IS TO BE INSTALLED UNDER A VIADUCT WHERE THE STREET GRADE IS DEPRESSED, OR UNDER A LARGE OBSTRUCTION, MAY BE GRADED WITH A SUMP IN THE LINE AS SHOWN, PROVIDED THAT THE SINGLE SLOPE GRADING METHOD IS NOT PRACTICAL OR ECONOMICAL. THE TOP OF THE RUN SHALL BE AT LEAST 3 FT. BELOW STREET GRADE TO PREVENT FREEZING. IF THE STREET GRADE IS LEVEL UNDER THE VIADUCT THIS RULE DOES NOT APPLY.



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CONDUIT RUN INSTALLATION

MONOLITHIC METHOD

APPLICATION

- THIS STANDARD COVERS THE PROCEDURE TO BE FOLLOWED WHEN INSTALLING CONCRETE ENCASED CONDUIT BY THE MONOLITHIC METHOD. THIS METHOD CONSISTS OF BUILDING UP THE LAYERS OF CONDUIT ON SPACERS AND THEN POURING THE CONCRETE ENCASEMENT IN A MONOLITHIC MASS.

GENERAL

THE SIZE AND TYPE OF CONDUIT IS GIVEN ON M30-1500 BUT SHALL BE SPECIFIED FOR EACH JOB ON THE INSTALLATION DRAWINGS. SPLIT CONDUIT, IF AVAILABLE, MAY BE USED TO REBUILD OR CHANGE THE LOCATION OF EXISTING DUCTS THAT CONTAIN CABLES. ALL CONDUIT TRENCHES SHALL BE DUG WITH A 100 FOOT HEADWAY TO ALLOW FOR VERTICAL ADJUSTMENTS. INSTALL ALL TRENCHES AS PER OSHA STANDARDS FOR OPEN CUTTING THE GROUND. ALL CONDUIT WITH BROKEN ENDS SHALL BE CUT, AND USED WHENEVER POSSIBLE.

TRENCH PREPARATION

THE PREPARATION OF THE TRENCH FOR CONDUIT RUNS SHALL BE AS PRESCRIBED ON PAGE 1 OF THIS STANDARD. WHERE SWAMPY OR UNSTABLE SOIL IS ENCOUNTERED, CONDUIT SHALL BE PLACED ON A CONCRETE BASE, LAYING THE CONDUIT AFTER THE CONCRETE IS LEVELED AND STARTS TO SET. AT THIS POINT THE BASE OF THE CONCRETE WILL SUPPORT THE CONDUIT AND PERMIT THE BASE SPACERS TO BE DEPRESSED AND TO FIND AN EVEN BEARING WHILE THE BASE CONCRETE IS STILL YIELDING. THE BASE CONCRETE IS BY VOLUME: 1 PART PORTLAND CEMENT, 3 PARTS #2 TORPEDO SAND, AND 5 PARTS 3/4 INCH TO #4 GRAVEL (NOT CRUSHED STONE).

IF THE CONDUIT DOES NOT REST ON UNDISTURBED EARTH WITHIN 3 FEET OF THE MANHOLE OR VAULT, BRIDGE THE GAP TO THE UNDISTURBED EARTH WITH A 6 INCH BASE OF REINFORCED CONCRETE. THIS CONCRETE SHALL BE A "DENSE SHEATHING" (PAGE 5) WITH #4 REINFORCING BARS ON 6 INCH CENTERS, 3 INCHES FROM THE BOTTOM.

CONCRETE MIX FOR CONDUIT ENCASEMENT (SHEATHING)

(a) READY-MIXED

READY MIXED CONCRETE DELIVERED TO THE JOB SHALL BE SPECIFIED AS 3000 POUNDS PER SQUARE INCH MINIMUM (AT 28 DAYS) CONCRETE. THE COARSE AGGREGATE SHALL BE PEA GRAVEL. THE FINE AGGREGATE SHALL BE #2 TORPEDO SAND. SLUMP AT POINT OF DELIVERY SHALL NOT BE MORE THAN 4 INCHES NOR LESS THAN 2 INCHES.

MINIMUM CEMENT CONTENT SHALL BE 3 1/2 BAGS OF TYPE I PORTLAND CEMENT PER CUBIC YARD. FLY ASH SHALL BE INCORPORATED INTO THE MIX ON THE BASIS OF 20 POUNDS PER SACK OF CEMENT. INCLUDE AIR ENTRAINMENT AGENT TO ENTRAIN BETWEEN 4 PERCENT AND 6 PERCENT OF AIR IN THE CONCRETE.

EXCEPT AS OTHERWISE DESIGNATED IN THIS STANDARD, ANY READY-MIXED CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF SPECIFICATIONS FOR READY-MIXED CONCRETE (ASTM C94 LATEST EDITION).

READY-MIXED CONCRETE SHALL BE PLACED WITHIN 1 HOUR AFTER WATER HAS BEEN ADDED TO THE MIX.

(b) BATCH-MIXED

WHEN THE CONCRETE IS MIXED ON THE JOB, A PRE-BAGGED CEMENT MIX CONSISTING BY WEIGHT OF 70 PERCENT PORTLAND CEMENT AND 30 PERCENT FLY ASH SHALL NORMALLY BE USED. THE CONCRETE MIX PROPORTIONS BY VOLUME (RODDED SATURATED SURFACE DRY BASIS) SHALL BE: 1 PART OF PRE-BAGGED MIX (1 BAG IS 1 CUBIC FOOT), 3 1/2 PARTS OF #2 TORPEDO SAND, AND 2 1/2 PARTS PEA GRAVEL. MAXIMUM WATER CONTENT, INCLUDING FREE SURFACE MOISTURE IN AGGREGATES, SHALL NOT EXCEED 7 GALLONS PER BAG OF CEMENT MIX. SLUMP SHALL BE AS SPECIFIED ABOVE UNDER READY-MIXED CONCRETE.

IN THE EVENT THAT THE PRE-BAGGED CEMENT MIX IS NOT AVAILABLE, 1 BAG OF TYPE I PORTLAND CEMENT SHALL BE SUBSTITUTED FOR 1 BAG OF THE CEMENT MIX. WATER CONTENT, SLUMP, AND THE CONCRETE MIX PROPORTIONS SHALL REMAIN AS STATED IN THE PRECEDING PARAGRAPH.

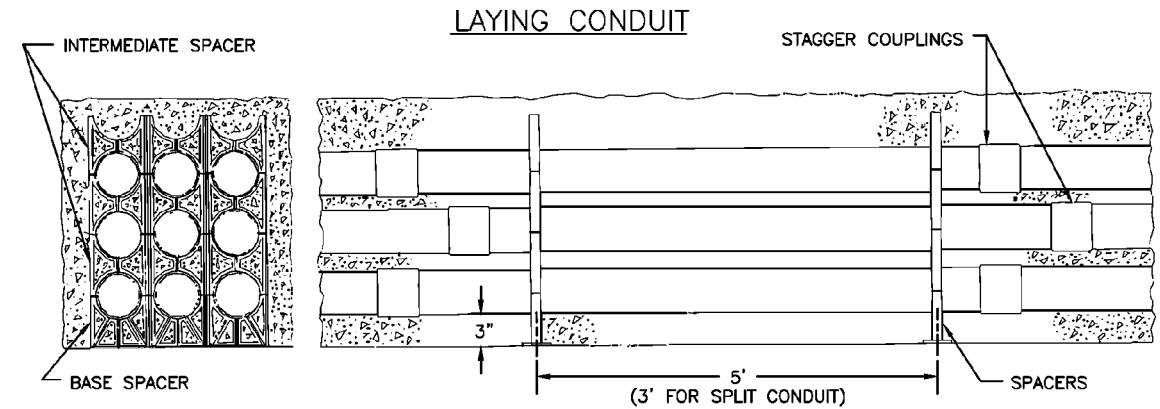
THE AGGREGATES SHALL BE MEASURED BEFORE BEING PUT IN THE MIXER, AND SHALL BE IN SUCH PROPORTIONS THAT ONE FULL BAG OF CEMENT WILL BE USED IN EACH BATCH. ALL CONCRETE SHALL BE MIXED FOR A MINIMUM OF TWO MINUTES IN A MACHINE MIXER.

HAND MIXING SHALL NOT BE DONE EXCEPT BY THE SPECIAL PERMISSION OF THE ENGINEER. NO MORTAR OR CONCRETE SHALL BE "RETEMPERED" EITHER BY REMIXING OR BY THE ADDITION OF ANY MATERIALS OR ADMIXTURES. THE DRUM OF THE MIXER SHALL BE COMPLETELY EMPTIED BEFORE RECEIVING MATERIALS FOR THE SUCCEEDING BATCH. CONCRETE THAT HAS OBTAINED ITS INITIAL SET BEFORE BEING PLACED SHALL BE DISCARDED AND NOT USED ON THE JOB.

COLD WEATHER CONCRETING (BELOW 40°F)

INGREDIENTS OF CONCRETE POURED WHEN THE SURROUNDING AIR IS BELOW 40° F SHALL BE HEATED SO THAT THE TEMPERATURE OF THE CONCRETE AFTER PLACEMENT IS NEITHER LOWER THAN 55° F NOR GREATER THAN 65° F. PLUG ENDS OF CONDUIT RUN TO PREVENT AIR CIRCULATION. PROTECT CONCRETE FROM FREEZING FOR A MINIMUM OF 48 HOURS.

WHEREVER POSSIBLE, ALL CONCRETE MATERIALS AND ALL REINFORCEMENT, FORMS, FILLERS AND GROUND WITH WHICH CONCRETE IS TO COME IN CONTACT SHOULD BE FREE FROM FROST.



CONDUIT INSTALLATION

THE STANDARD ARRANGEMENT AND SEPARATION OF DUCTS AND THE THICKNESS OF CONCRETE SHEATHING SHALL BE AS SHOWN ON PAGE 7 FOR CONDUIT RUNS UNDER MAIN LINE RAILROAD TRACK, OR ON PAGE 6 OF THIS STANDARD FOR ALL OTHER LOCATIONS. IF SPECIAL ARRANGEMENTS ARE REQUIRED, THE SECTIONAL OUTLINE OF THE DUCTS SHALL BE SHOWN ON THE INSTALLATION DRAWINGS. TRANSPOSITION OF THE DUCTS, MADE NECESSARY BY OBSTRUCTIONS, SHALL BE MADE FOLLOWING THIS STANDARD, BUT SHALL BE DONE ONLY WHEN SPECIFIED ON THE DRAWINGS OR WHEN SPECIALLY AUTHORIZED BY THE ENGINEER AFTER UNFORESEEN OBSTRUCTIONS ARE UNCOVERED.

THE FIRST LAYER OF THE CONDUIT SHALL BE LAID ON PLASTIC 6 INCH BASE SPACERS (DPU-E #285-199-00170) HORIZONTALLY LOCKED, WHICH WILL PROVIDE A 3-INCH LAYER OF CONCRETE BELOW THE CONDUIT. THEY SHALL BE PLACED AT INTERVALS OF APPROXIMATELY 5 FEET. ALL OF THE SUCCEEDING LAYERS ARE PLACED ON PLASTIC 6 INCH INTERMEDIATE SPACERS (DPU-E #285-199-00180) VERTICALLY LOCKED TO PREVIOUSLY PLACED SPACERS. THE CONDUIT COUPLINGS SHALL BE STAGGERED SO THAT NO COUPLING IS IN-LINE WITH THE COUPLING ON AN ADJACENT CONDUIT. WHEN THE REQUIRED LAYERS OF CONDUIT ARE BUILT UP, THE ENTIRE ASSEMBLY SHALL BE BRACED TO PREVENT LATERAL AND VERTICAL MOVEMENT. WHEN THE INSTALLATION OF SPLIT DUCT IS SPECIFIED, PLACE SPACERS AT THREE FOOT INTERVALS.

THE CONCRETE SHALL BE THOROUGHLY SPADED AND PUDDLED IN AND AROUND THE CONDUIT PACKAGE. BRACING SHALL BE REMOVED WHEN CONCRETE HAS STARTED TO SET AND THERE IS NO FURTHER DANGER THAT DUCTS WILL FLOAT OR MOVE OUT OF ALIGNMENT. HOLES LEFT BY BRACING SHOULD THEN BE FILLED WITH GROUT.

IN FORMATIONS GREATER THAN 4 DUCTS HIGH, THE PREFERRED PRACTICE IS TO INSTALL THE FORMATION IN TWO LAYERS WITH THE CONCRETE BEING POURED IN 2 STEPS. THIS WILL PREVENT THE SPACERS FROM SPREADING OUT UNEVENLY AND CREATING UNEVEN VARIANCES IN CLEARANCES BETWEEN CONDUITS. THIS PROCEDURE WILL ALSO ENSURE THAT THERE IS A CONCRETE ENVELOPE AROUND EVERY DUCT AND DECREASE VERTICAL DROP TO THE LOWEST POSSIBLE DISTANCE WHEN POURING THE CONCRETE.

UNFINISHED CONSTRUCTION

IF THE CONDUIT RUN MUST BE TEMPORARILY LEFT UNFINISHED DURING CONSTRUCTION, CONDUIT SHALL BE CLOSED WITH PLASTIC CONDUIT PLUGS. IF THE CONDUIT RUN IS TO BE DEAD-ENDED, FOR COMPLETION AT SOME FUTURE TIME, THE END OF EACH CONDUIT SHALL BE PLUGGED AND STAGGERED APPROXIMATELY 3 INCHES FROM THE ADJACENT CONDUIT. THE END OF THE CONCRETE SHEATHING SHALL BE STEPPED BACK APPROXIMATELY 6 INCHES FOR EACH HORIZONTAL ROW OF CONDUIT. THE ENDS OF THE INSTALLED CONDUIT SHALL EXTEND BEYOND THE SHEATHING TO PERMIT CONNECTION TO FUTURE CONDUIT.

IN INSTANCES WHERE THE CONDUIT ENDS MAY NOT BE EASILY LOCATED, INSTALL AN ELECTRONIC MARKER BALL (DPU-E# 284-199-00250) TO ASSIST IN LOCATION. AFTER THE CONDUIT IS INSTALLED, BACKFILL THE HOLE COVERING THE CONDUIT ENDS APPROXIMATELY 6 TO 12 INCHES AND INSERT MARKER IN HOLE ABOVE THE CONDUIT END. LAY MARKER ON FLAT GROUND AND CONTINUE BACKFILLING, INSURING THAT THE MARKER STAYS IN A HORIZONTAL POSITION SO THAT IT MAY BE LOCATED BY THE LOCATOR TOOL.

TRANSPOSING AROUND OBSTRUCTIONS

WHEN SMALL OBSTRUCTIONS ARE ENCOUNTERED, AND IT IS NOT ECONOMICAL OR DESIRABLE TO INSTALL THE CONDUIT RUN BELOW THE OBSTRUCTION, THE CONDUIT PACKAGE MAY BE TRANSPOSED. IN SUCH AN OPERATION, A 1-INCH SPACE SHALL BE LEFT ABOVE AND BELOW, BETWEEN THE CONCRETE SHEATH AND THE OBSTRUCTION. A 6 INCH GAP SHALL BE LEFT AROUND UTILITIES THAT ARE OBSTRUCTIONS. EACH PORTION OF THE TRANSPOSED CONDUIT SECTION SHALL BE INSTALLED AS A DOUBLE REVERSE CURVE USING A MINIMUM RADIUS OF 300 FEET.

THE SPACE BETWEEN THE TWO PORTIONS OF THE TRANSPOSED SECTION SHALL BE COMPLETELY FILLED WITH CONCRETE TO WITHIN 3 INCHES OF EACH SIDE OF THE OBSTRUCTION. THIS 3 INCH SPACE SHALL BE FILLED WITH #2 TORPEDO SAND (FA-2 MATERIAL).

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CONDUIT RUN INSTALLATION

CONDUIT BELLS

ALL CONDUITS SHALL TERMINATE AT A PRE-CAST MANHOLE IN PLASTIC CONDUIT ENTRANCE BELL ENDS AS SHOWN ON PAGE 8 OF THIS STANDARD. ALL CONDUITS SHALL TERMINATE AT A VAULT PER THIS STANDARD. IF CONDUIT PLUGS ARE USED, THEY SHOULD BE REMOVED AFTER CONSTRUCTION IS COMPLETED UNLESS OTHERWISE SPECIFIED.

BACKFILLING

AFTER THE CONCRETE SHEATHING HAS ATTAINED ITS INITIAL SET, THE TRENCH SHALL BE BACKFILLED. SAND OR OTHER STATE OR MUNICIPAL APPROVED MATERIAL SHALL BE USED UNDER PAVEMENTS EXCEPT WHEN THE EXCAVATED MATERIAL IS FINE, DRY, CAN BE WELL COMPACTED, AND WILL NOT SETTLE AFTER PAVEMENT IS RESTORED. IF THE EXCAVATION IS MADE IN SANDY SOIL, THE REMOVED MATERIAL MAY BE USED FOR BACKFILL IF SATISFACTORY TO THE ENGINEER. LAKE SAND SHALL NEVER BE USED FOR THE BACKFILL IN CONDUIT TRENCHES BECAUSE OF ITS POOR HEAT-CONDUCTING PROPERTIES. ALL BACKFILL IN PAVED AREAS SHALL BE THOROUGHLY COMPACTED AND FLOODED.

CONDUIT RUNS IN PARKWAYS MAY BE BACKFILLED WITH THE EXCAVATED MATERIAL IF IT IS CLAY, LOAM, COARSE SAND, OR GRAVEL.

WHEN LAKE SAND, PEAT, CINDERS, SLAG, OR OTHER MATERIALS WITH POOR HEAT CONDUCTING PROPERTIES ARE ENCOUNTERED IN THE CONDUIT EXCAVATION, THERMAL BACKFILL SHALL BE ADDED AROUND AND ABOVE THE CONDUIT, AS SPECIFIED ON THE INSTALLATION PLANS OR BY THE ENGINEER. THIS THERMAL BACKFILL WILL BE SPECIFIED OR BANK RUN GRAVEL FROM A LOCATION APPROVED BY THE ENGINEER.

PAVING, CURBS, SIDEWALKS

REPLACEMENT OF PAVING, CURBS, AND SIDEWALKS SHALL BE DONE IN ACCORDANCE WITH THE MUNICIPAL OR STATE REQUIREMENTS.

CONDUIT PREPARATION

AFTER THE CONCRETE SHEATHING HAS ATTAINED ITS INITIAL SET, EACH CONDUIT SHALL BE RODDED AND MANDRELLED, BY THE CONTRACTOR OR CREW, THROUGH EACH OF THE CONDUIT. WHEN A PREVIOUSLY DEAD-END CONDUIT RUN IS EXTENDED, THE ENTIRE RUN SHALL BE RODDED AND MANDRELLED. CONDUIT RUNS CONTAINING OR TERMINATING IN SMALL RADIUS BENDS THAT WILL NOT PERMIT THE PASSAGE OF A STANDARD SIZE MANDREL, SHALL BE MANDRELLED THROUGH THEIR STRAIGHT PORTION PRIOR TO THE CONSTRUCTION OR INSTALLATION OF THE BENDS. THE MANDRELING OF SMALL RADIUS BENDS SHALL BE DONE WITH A FLEXIBLE MANDREL NO SMALLER IN DIAMETER THAN 1/2 INCH LESS THAN THE NOMINAL DIAMETER OF THE BEND.

WHEN REQUESTED, THE CONTRACTOR SHALL, AS A PART OF THE MANDRELING OPERATION, PULL IN AND LEAVE IN CERTAIN DESIGNATED DUCTS A #12 SOL. CU. MARKER CABLE (DPU-E# 280-113-00040, WHITE), (DPU-E# 280-113-00041, BLACK), (DPU-E# 280-113-00042, RED), (DPU-E# 280-113-00043, GREEN), (DPU-E# 280-113-00044, BLUE), (DPU-E# 280-113-00045, ORANGE), OR (DPU-E# 280-113-00046, YELLOW). ADDITIONALLY A 22GA. DETECTABLE MULETAPE 1250# STRENGTH @ 3000' (DPU-E# 450-024-00010), MAY BE USED. EITHER OPTION WILL BE FURNISHED BY THE CITY OF NAPERVILLE DPU-E.

LATERALS

CONDUIT LATERALS THAT ARE TO BE CONCRETE ENCASED SHALL BE INSTALLED IN THE SAME MANNER AS MAIN CONDUIT RUNS. LATERALS THAT TERMINATE AT MANHOLE WALLS SHALL BE CONSTRUCTED AS SHOWN ON THIS STANDARD. THOSE THAT TERMINATE AT A POLE SHALL BE CONSTRUCTED PER PAGE 9 OF THIS STANDARD. THOSE TERMINATING AT AN EQUIPMENT FOUNDATION SHALL BE CONSTRUCTED PER THAT SPECIFIC EQUIPMENT FOUNDATION STANDARD.

DENSE CONDUIT SHEATHING FOR SPECIAL CONDITIONS

WHEN SPECIFIED ON THE INSTALLATION DRAWINGS, CONDUIT RUNS TO BE INSTALLED IN KNOWN CORROSIVE LOCATIONS, SUCH AS IN CINDER FILL, ADJACENT TO COAL STORAGE PILES, IN GAS PURIFIER SLAG, ETC., SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING INSTRUCTIONS. ALL OTHER PROCEDURES GIVEN IN PRECEEDING PAGES OF THIS STANDARD SHALL BE FOLLOWED.


THE OUTER SHEATHING ALL AROUND SHALL BE 4 INCHES THICK.

CONCRETE SHALL CONSIST OF THE FOLLOWING MIX:

- 1 PART TYPE 1 PORTLAND CEMENT
- 2 PARTS #2 TORPEDO SAND
- 2 PARTS PEA GRAVEL (NOT CRUSHED STONE)
- 1/2 BAG OF FLY ASH SHALL BE ADDED TO THE MIX FOR EACH BAG OF PORTLAND CEMENT USED.
- FOR AN ALTERNATIVE TO PORTLAND CEMENT AND FLY ASH, LUMNITE CEMENT SHALL BE SPECIFIED.
- INCLUDE AIR ENTRAINMENT AGENT TO ENTRAIN 7 1/2 PERCENT OF AIR IN CONCRETE.

INCLUDING FREE SURFACE MOISTURE IN THE AGGREGATES OF NOT MORE THAN 6 GALLONS OF WATER PER BAG OF CEMENT SHALL BE USED.

MINIMUM SLUMP SHALL BE 2 INCHES AND MAXIMUM SLUMP IS 4 INCHES.

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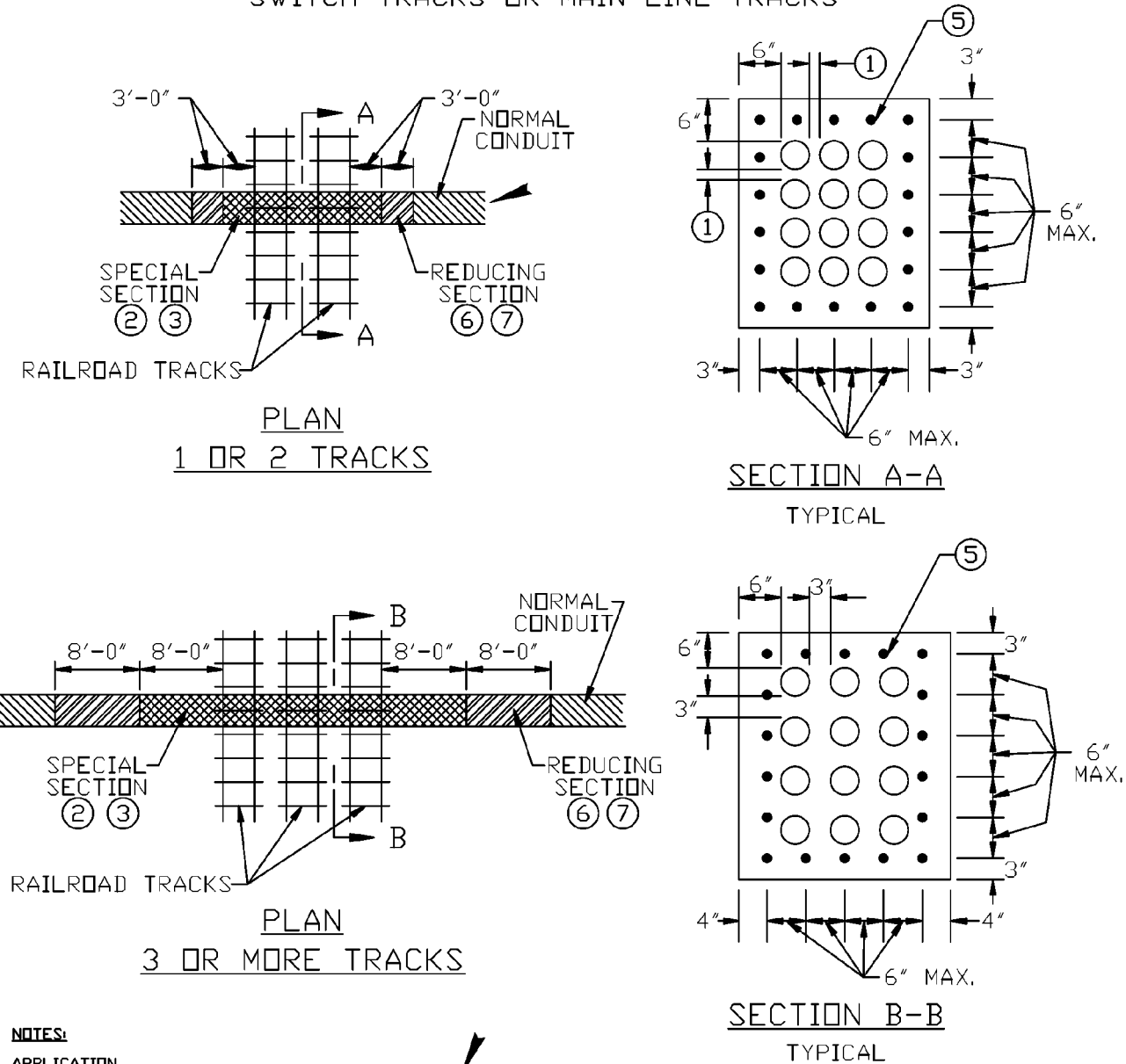
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CONDUIT RUN RR TRACK CROSSING

SWITCH TRACKS OR MAIN LINE TRACKS



NOTES:

APPLICATION

- THIS STANDARD SHALL BE USED FOR THE FORMATION OF CONDUIT RUNS THAT CROSS UNDER RAILROAD TRACKS.

INFORMATION

- ① NORMAL DUCT SPACING AS ON PAGE 6 (2 INCHES).
- ② TOP OF SPECIAL SECTION TO BE AT LEAST 50' BELOW TOP OF RAIL.
- ③ CONCRETE MIXTURE OF SPECIAL SECTION TO BE OF DENSE SHEATHING, SEE PAGE 5.
- ④ LEAVE TRACK SHORING IN PLACE AT LEAST 7 DAYS UNLESS QUICK SETTING CEMENT IS USED.

- ⑤ #6 GRADE 60 REINFORCING BARS, OVERLAP THE ENDS 18".
- ⑥ DUCTS OF REDUCING SECTION TO BE LAID AS REVERSE CURVE.
- ⑦ REDUCE HORIZONTAL AND VERTICAL SEPARATION OF DUCTS FROM 3" TO NORMAL, AND THE ENVELOPE FROM 6" TO 3". CONCRETE MIXTURE OF REDUCING SECTION TO BE NORMAL SHEATHING.

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APPLICABLE TO SWITCHGEAR AND TRANSFORMER VAULTS

CONDUIT ENTRANCES INTO MANHOLES/HANDHOLES SHALL NORMALLY BE MADE WITH PLASTIC ENTRANCE BELLS PER FIGURE 1 OR 2. THE ENTRANCE CONDUIT SHALL BE PLASTIC OR STEEL ENCASED IN CONCRETE AS PER FIGURE 1 AND 2 BELOW, SPECIFIED BY THE ENGINEER ON THE CONSTRUCTION DRAWINGS.

POCKETS

DUCT POCKETS SHALL BE PROVIDED IN WALLS WHERE SPECIFIED ON CONSTRUCTION DRAWINGS. POCKET NOT REQUIRED ON NEWER STYLE MANHOLE DESIGNS (FIGURE 2). TYPICAL POCKET DIMENSIONS ARE INDICATED BELOW ON FIGURE 1.

CONDUIT SPACING

CONDUIT SHALL NORMALLY BE SUPPORTED BY VERTICAL AND HORIZONTALLY INTERLOCKED PLASTIC SPACERS TO PROVIDE ALIGNMENT WITH PLASTIC ENTRANCE BELL UNITS AT 8 1/4 IN. SPACING.

ENTRANCE BELL UNITS

PLASTIC 6 INCH ENTRANCE BELLS, DPU-E# 285-103-00100 SHALL BE USED ON CONDUIT ENTRANCES TO MANHOLES.

ENTRANCE PIPES

GALVANIZED STEEL CONDUIT, M30-1550, SHALL BE USED FOR ALL BENDS. PIPES INTENDED FOR CABLES ON INITIAL INSTALLATION SHALL BE CAPPED WITH PLUGS (DPU-E# 285-103-00090) TO PREVENT CONTAMINATION FROM ENTERING THE PIPES.

INSTALLATION METHODS

EVERY EFFORT SHALL BE MADE TO INSURE A WATERTIGHT INSTALLATION OF ENTRANCE PIPES. WHERE PIPES ARE INSTALLED THROUGH AN OPENING LEFT IN A MANHOLE, OR BROKEN OUT OF AN EXISTING MANHOLE WALL, SURFACES SHALL BE CLEANED, WETTED AND COVERED WITH A COATING OF 3 TO 1 SAND AND CEMENT MORTAR. IF BRICKWORK IS EXISTING ON THE INNER FACE OF WALL, IT SHALL ALSO BE COATED WITH A SAND AND CEMENT MORTAR. AN ALTERNATE PROCEDURE IS TO DRILL HOLES IN THE WALL AND GROUT THE PIPES IN PLACE WITH A SAND AND CEMENT MORTAR. THE INSIDE SURFACE OF THE HOLES SHALL BE ROUGHENED TO OBTAIN A STRONG AND WATERTIGHT BOND.

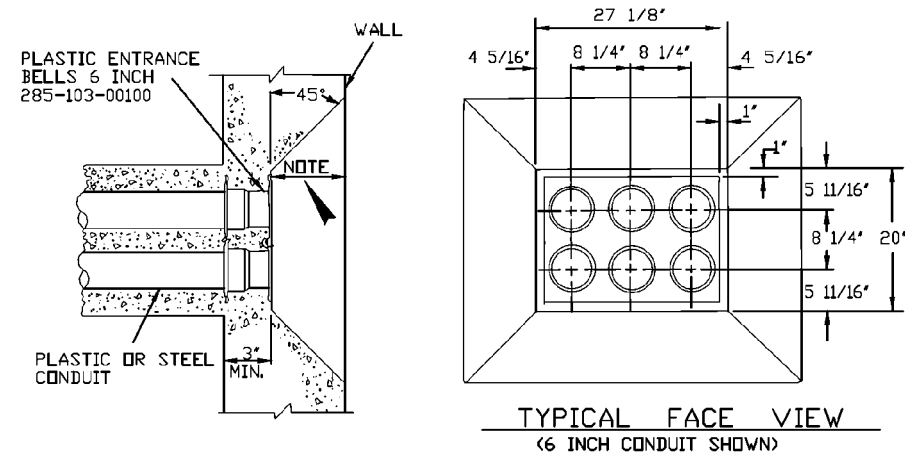


FIG. 1 MANHOLE ENTRANCE WITH PLASTIC TERMINATORS (OLDER STYLE) FOR PLASTIC OR STEEL CONDUIT (POCKET TYPE)

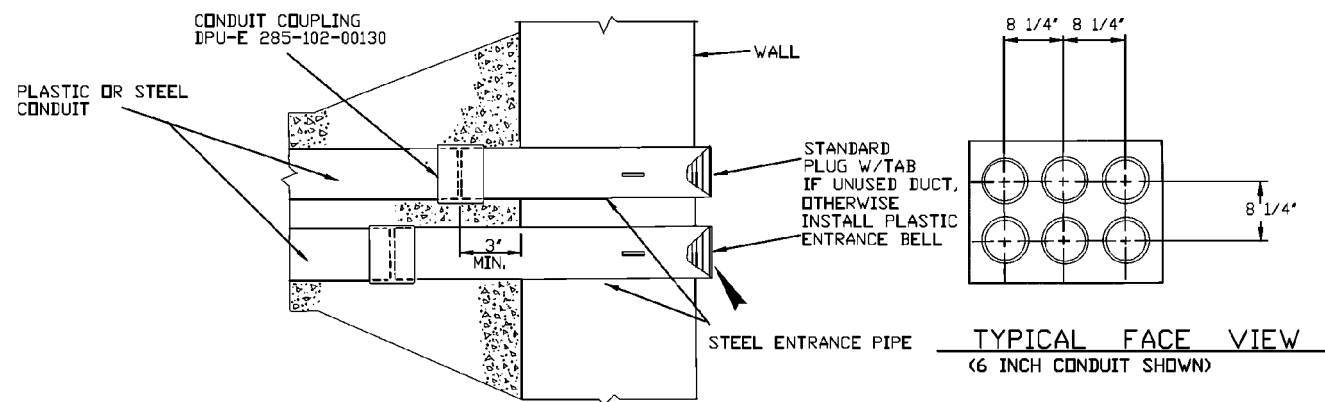


FIG. 2 ENTRANCE IN MANHOLE/HANDHOLE (NEWER STYLE)

CONDUIT ENTRANCE INTO MANHOLE/HANDHOLE

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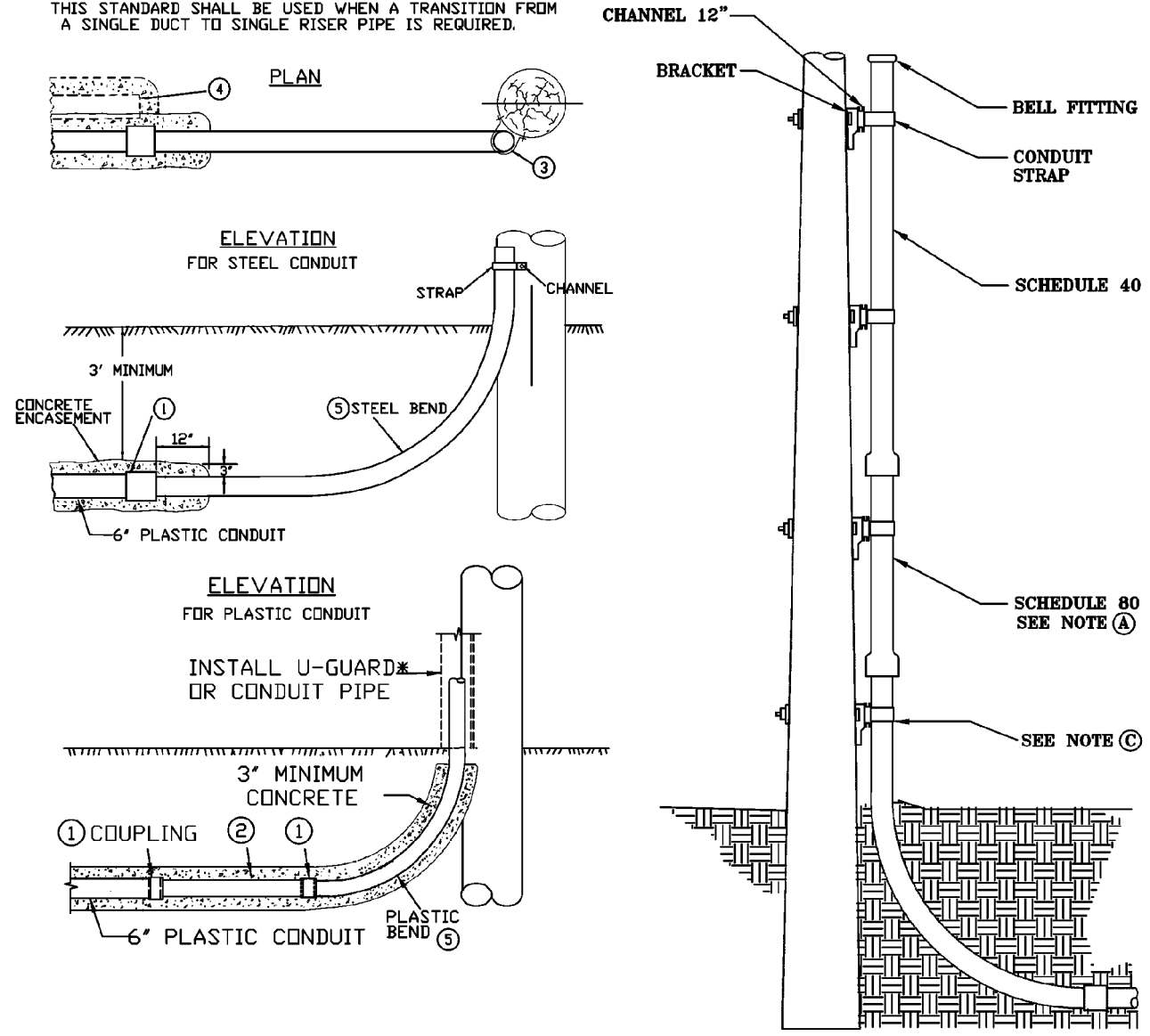
CONDUIT TO RISER AT POLE

DUCTBANK CONDUIT TO RISER AT POLE FOR PLASTIC OR STEEL CONDUIT

RISER CONSTRUCTION FOLLOW CONSTRUCTION STANDARD C20-5220

APPLICATION

THIS STANDARD SHALL BE USED WHEN A TRANSITION FROM A SINGLE DUCT TO SINGLE RISER PIPE IS REQUIRED.



SUPPLEMENTARY MATERIAL


- ① IF BELLED END OF PLASTIC CONDUIT CAN BE CONNECTED TO STEEL BEND OMIT COUPLING.

NOTES:

- A). FIRST SECTION ABOVE ELBOW MUST BE SCHEDULE 80.
- B). FOR LARGER POLES (>50'), ADDITIONAL CONDUIT AND HARDWARE MAY BE REQUIRED.
- C). STEEL BEND AND POLE BRACKET EXISTING FROM PREVIOUS DUCT BANK INSTALLATION.

INFORMATION

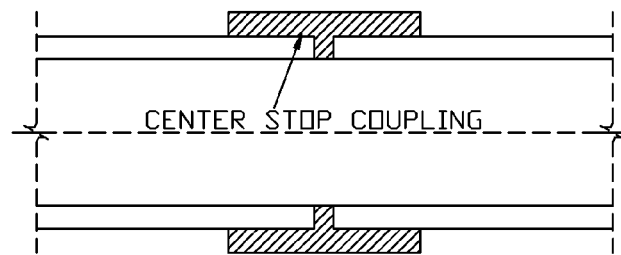
- ② FIELD CUT SO THAT A GOOD CONNECTING FIT CAN BE MADE BETWEEN THE CONDUITS AND BENDS.
- ③ LOCATE THE BEND ON A QUADRANT OF THE POLE WHERE IT IS THE LEAST SUSCEPTIBLE TO DAMAGE BY VEHICLES.
- ④ IF SPARE DUCT IS INSTALLED, PLUG AT BOTH ENDS AND ENCASE IN CONCRETE WHEN NECESSARY.
- ⑤ SCHEDULE 80 PVC DOES NOT REQUIRE CONCRETE ENCASUREMENT.
- ⑥ CONDUIT TO A U-GUARD* RISER FOLLOWS C20-5222, FOR USE AS MAINTENANCE ONLY.

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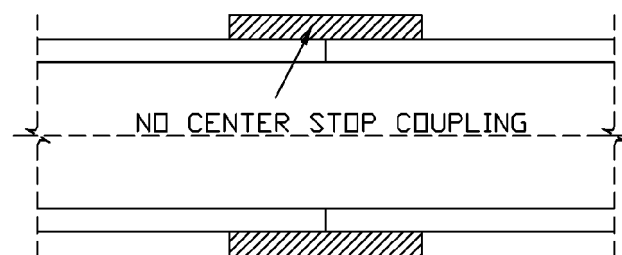
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	DATE -	REVISED -

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	156
CONTRACT NO. 61G82				
ILLINOIS FED. AID PROJECT				



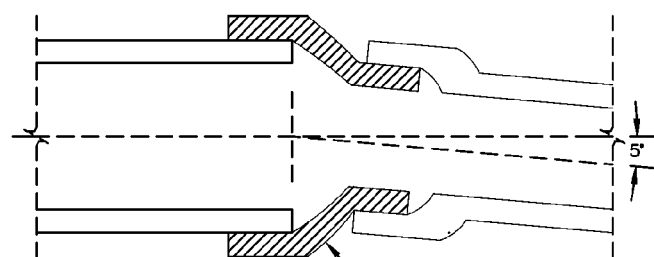
CENTER STOP COUPLING
PLASTIC TO PLASTIC OR
PLASTIC TO STEEL COUPLING

SIZE	DPU-E #	MATERIAL / USE
3'	285-102-00040	PLASTIC TO PLASTIC
5'	285-102-00110	PLASTIC TO PLASTIC
6'	285-102-00140	PLASTIC TO PLASTIC
5'	285-102-00110	PLASTIC TO STEEL
6'	285-102-00140	PLASTIC TO STEEL



NO CENTER STOP COUPLING
PLASTIC TO PLASTIC OR
PLASTIC TO STEEL SLEEVE

SIZE	DPU-E #	MATERIAL / USE
3'	285-102-00060	PLASTIC TO PLASTIC
5'	285-102-00100	PLASTIC OR STEEL
6'	285-102-00130	PLASTIC OR STEEL



COUPLER WITH 5° DEGREE
DEFLECTION

PLASTIC TO PLASTIC 5° COUPLING

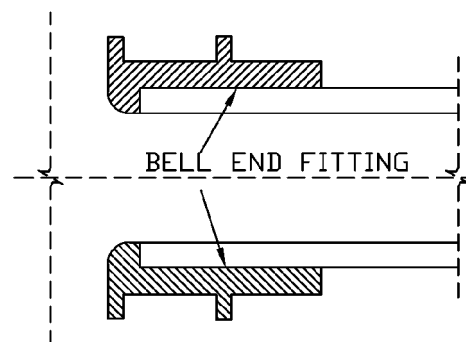
SIZE	DPU-E #	MATERIAL / USE
3'	285-102-00050	PLASTIC TO PLASTIC
5'	285-102-00120	PLASTIC TO PLASTIC
6'	285-102-00150	PLASTIC TO PLASTIC

PLUG W/PULL TAB

SIZE	DPU-E #
3'	285-103-00030
5'	285-103-00070
6'	285-103-00090

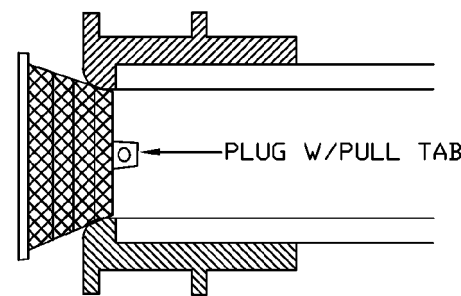
APPLICATION

THIS STANDARD SHALL BE USED FOR THE INSTALLATION OF CONDUIT CONNECTIONS ON CONCRETE ENCASED PLASTIC CONDUIT DUCTBANK.



BELL END FITTING
PLASTIC BELL END FITTINGS

SIZE	DPU-E #	MATERIAL
3'	285-103-00040	PLASTIC
5'	285-103-00080	PLASTIC
6'	285-103-00100	PLASTIC



PLUG W/PULL TAB

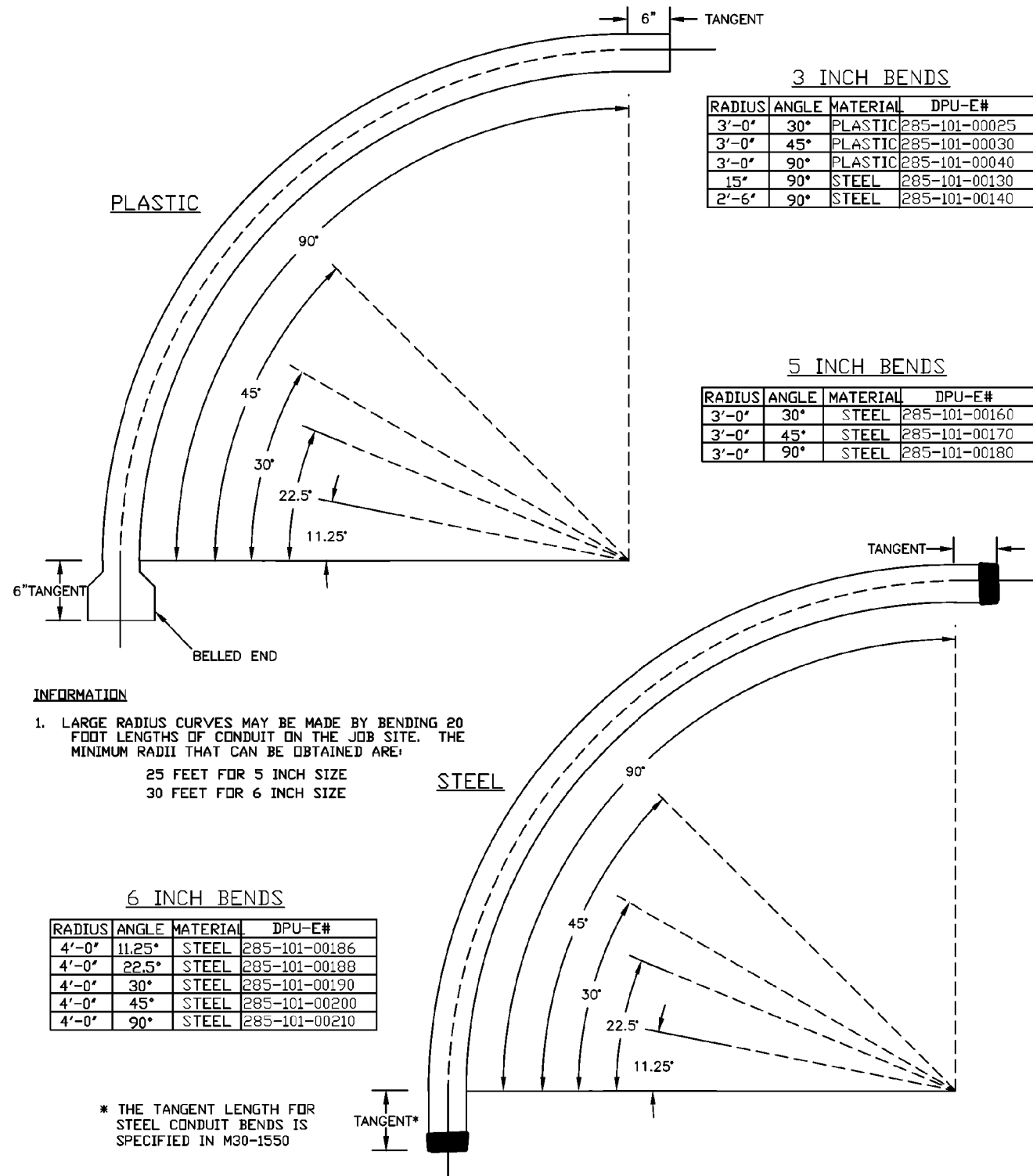
THE 6" EXPANDING PLUG W/EYE NUT DPU-E# 285-103-00150

PLASTIC CONDUIT COUPLINGS
FOR CONCRETE ENCASED PLASTIC CONDUIT

 NAPERVILLE PUBLIC UTILITIES DEPARTMENT		DUCTBANK CONSTRUCTION SPECIFICATION				DATE: 04-24-07			
						PAGE 7 OF 9			
						STD. NO. C30-1900			
REV#	DATE	DESCRIPTION	REV BY	APPVD BY	REV#	DATE	DESCRIPTION	REV BY	APPVD BY

MODEL: 4400ELECTRICAL.dwg
 FILE NAME: C:\PROJ\020794\01\Drawings\Electrical\020794-01-EL-201-Electrical.dwg

FOR CONCRETE ENCASED CONDUIT
BENDS, UP TO 90° DEGREE ANGLES



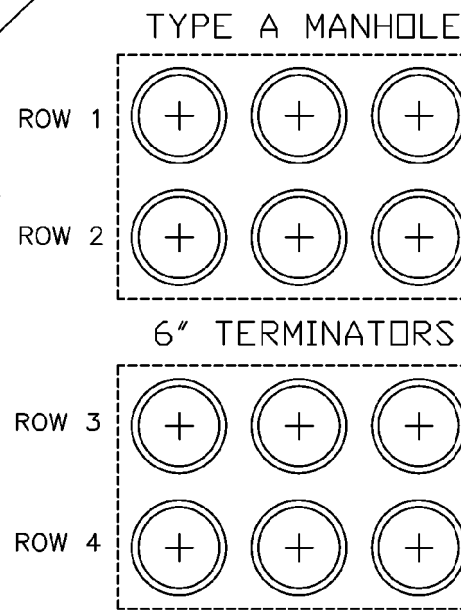
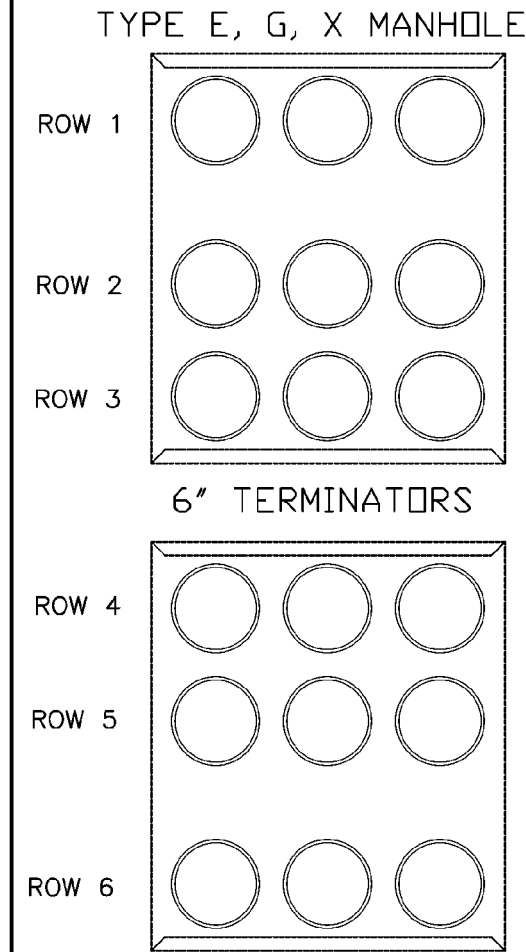
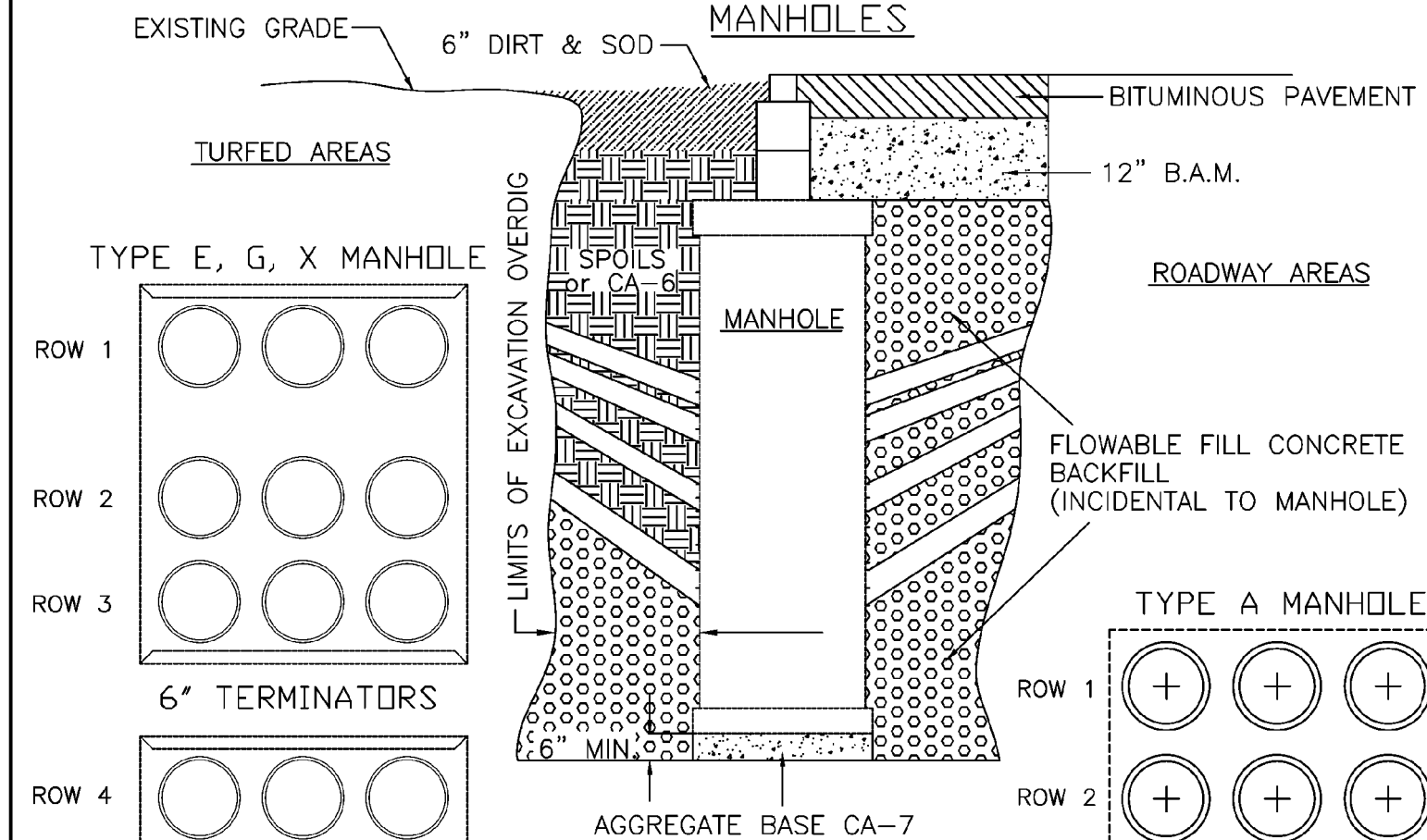
INFORMATION

- LARGE RADIUS CURVES MAY BE MADE BY BENDING 20 FOOT LENGTHS OF CONDUIT ON THE JOB SITE. THE MINIMUM RADIUS THAT CAN BE OBTAINED ARE:
25 FEET FOR 5 INCH SIZE
30 FEET FOR 6 INCH SIZE

<p>NAPERVILLE PUBLIC UTILITIES DEPARTMENT</p>	<p>DUCTBANK CONSTRUCTION SPECIFICATION</p>						DATE: 04-24-07			
							ELECTRIC STANDARDS		PAGE 8 OF 9	
									STD. NO. C30-1900	
REV#	DATE	DESCRIPTION	REV BY	APPVD BY	REV#	DATE	DESCRIPTION	REV BY	APPVD BY	

MODEL: 4400BELNAMES
 FILE NAME: N:\PROJ\020794\01\Drawings\Electrical\020794-01-EL-208-Electrical.dwg

EXCAVATION DETAIL ELECTRICAL



NOTE:
 FLOWABLE FILL CONCRETE TO BE PLACED 360° AROUND MANHOLES TO THE BASE OF THE PVC CONDUITS ONLY IN TURFED AREAS. IN ROADWAY AREAS FLOWABLE FILL CONCRETE MUST COMPLETELY ENCASE 360° THE MANHOLE AND DUCTBANK.

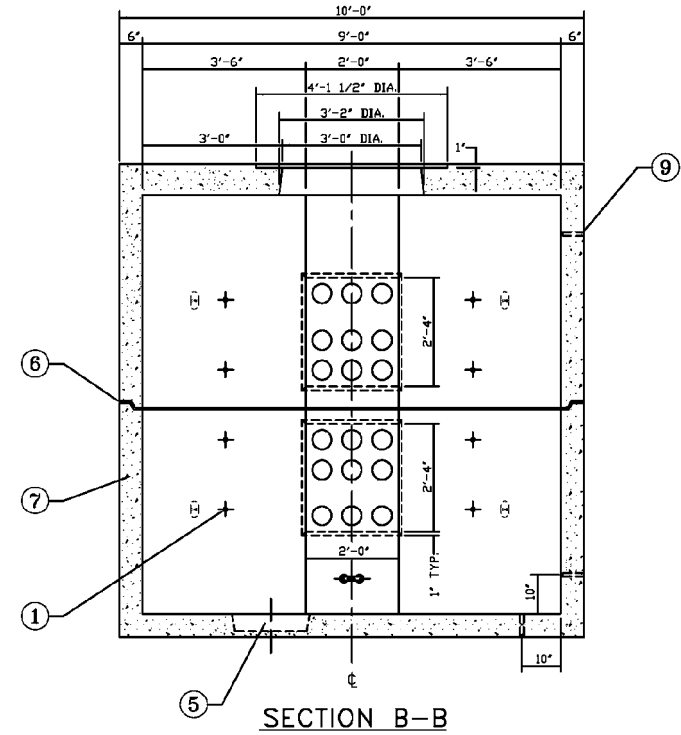
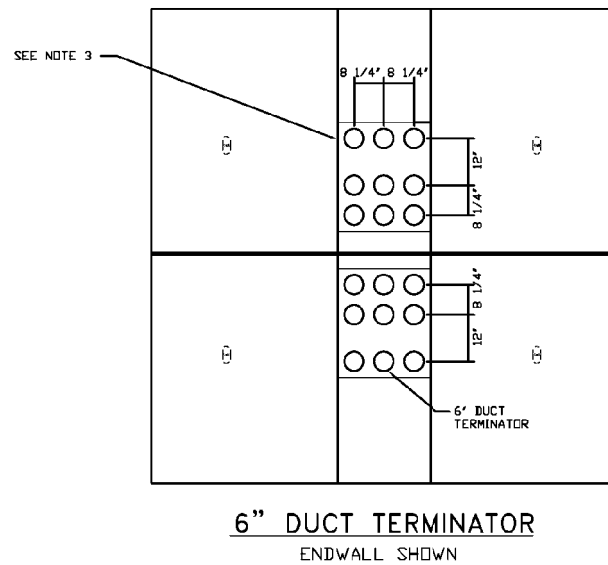
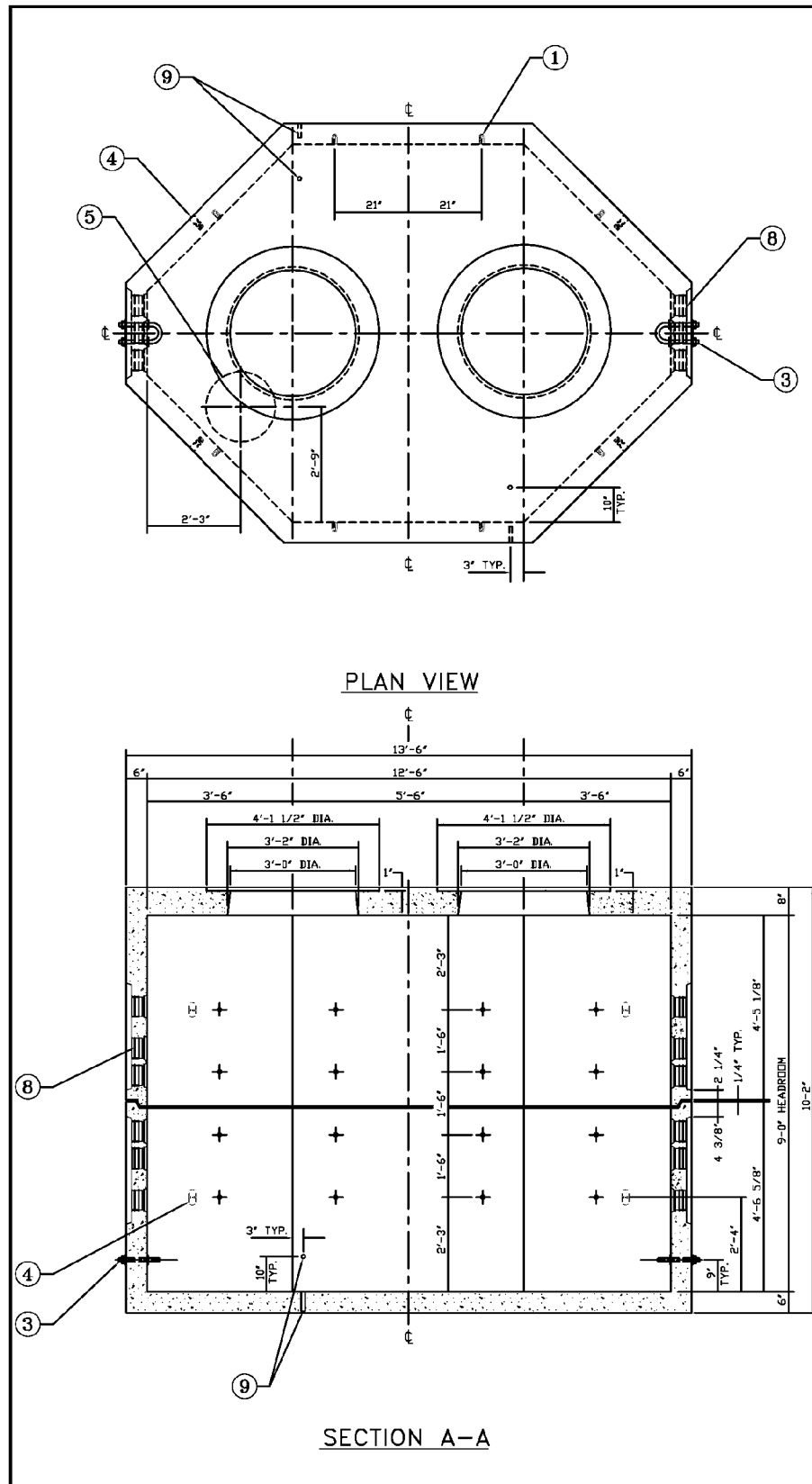
TYPE	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
4-WAY DUCT BANK	-----	-----	-----	2 X 6"	2 X 6"	-----
6-WAY DUCT BANK	-----	-----	-----	3 X 6"	3 X 6"	-----
8-WAY DUCT BANK	-----	-----	2 X 6'	3 X 6"	3 X 6"	-----
10-WAY DUCT BANK	-----	1 X 6"	3 X 6"	3 X 6"	3 X 6"	-----

FILL THE OUTSIDE DUCTS IN EACH ROW FIRST

TYPICAL DUCT BANK ARRANGEMENT FOR PORT USAGE INTO MANHOLES

NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	DUCTBANK CONSTRUCTION SPECIFICATION						DATE: 04-24-07		
							PAGE 9 OF 9		
							STD. NO. C30-1900		
REV#	DATE	DESCRIPTION	REV BY	APPVD BY	REV#	DATE	DESCRIPTION	REV BY	APPVD BY

MODEL: 4400ELECTRICAL
 FILE NAME: N:\PROJ\020794\01\Drawings\Electrical\020794-01-EL-209-ElectricalDetail.dwg



ITEM	DESCRIPTION	QTY	NOTE	
	TOTAL MANHOLE WEIGHT	5000 P.S.I. CONC.	42,470 LBS.	
⑦	TOP SECTION WEIGHT			21,470 LBS.
	BASE SECTION WEIGHT			21,000 LBS.
⑦	REBAR, EPOXY COATED		2	
⑨	1"Ø x 5 1/2" GROUND WIRE HOLE, 1/2" KNOCKOUT	4		
⑧	6" DUCT TERMINATORS	36	3	
⑥	1"Ø BUTYL RUBBER JOINT SEALANT	4 ROLLS		
⑤	IBT SUMP DEPRESSION	1		
④	6" LIFTING ANCHORS	8		
③	1"Ø S.S. PULLING IRONS	2	4	
①	CABLE RACK INSERTS: 1/2" 304 STAINLESS STEEL THREADED INSERTS EACH WITH 1/2" x 2" 304 S.S. HEX HEAD BOLT, 1/2" S.S. WASHER, AND 1/2" PVC WASHER	32		

- NOTES:
- CONCRETE: 5000 psi @ 28 DAYS, 5%-8% ENTRAINED AIR, 4" MAX. SLUMP.
 - REBAR: ASTM A-615 GRD. 60, EPOXY COATED.
 - DUCT ENTRANCE: SINGLE DUCT TERMINATORS TO ACCEPT 6" DIAMETER SCH. 40 PVC CONDUIT. SEE DETAIL THIS SHEET.
 - PLEASE NOTE PULLING IRON DESIGNED AS PER A.C.I. 318 FOR WORKING LOAD CAPACITY OF 20,000 POUNDS APPLIED COINCIDENT TO THE MAJOR AXIS OF THE PULLING IRON.
 - IDENTIFICATION: IMPRESSED INTO CEILING OF VAULT.
 - DESIGN CRITERIA:
 - A.) DESIGNED AND BUILT IN ACCORDANCE WITH ASTM C858 'STANDARD SPECIFICATION FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES'.
 - B.) ALL LOADING AS PER ASTM C857 'MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES' INCLUDING:
 - EARTH COVER: MIN. 2.0', MAX. 5.0'.
 - AASHTO HS-20 WHEEL LOAD AND APPLICABLE IMPACT.
 - VERTICAL AND LATERAL SOIL PRESSURES DETERMINED USING A SOIL DENSITY OF 120 PCF.
 - GROUNDWATER AT 3'-0" BELOW GRADE.
 - C.) STRUCTURAL DESIGN PERFORMED USING AASHTO STRENGTH DESIGN METHOD.
 - D.) REINFORCING COVER REQUIREMENTS AS PER ACI 318.

 NAPERVILLE PUBLIC UTILITIES DEPARTMENT	TYPE E MANHOLE				DATE: 05-08-06				
					ELECTRIC STANDARDS		PAGE 1 OF 1 STD. NO. M30-1160		
REV#	DATE	DESCRIPTION	REV BY	APPVD BY	REV#	DATE	DESCRIPTION	REV BY	APPVD BY


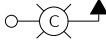




















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PLOT SCALE = 2,000' / 1"	DRAWN -	REVISED -
PLOT DATE = 8/8/2022	CHECKED -	REVISED -
	DATE -	REVISED -

NOTES:

1. THE CONTRACTOR SHALL KEEP DEVIATIONS FROM THE UNIT DUCT ROUTING SHOWN ON THE PLANS TO A MINIMUM. MAJOR DEVIATIONS SHALL BE REPORTED TO AND APPROVED BY THE ENGINEER BEFORE INSTALLATION.
2. REMOVAL OF THE EXISTING LIGHTING SYSTEM SHALL NOT BEGIN BEFORE THE TEMPORARY OR PROPOSED LIGHTING SYSTEM IS OPERATIONAL.
3. THE ENGINEER SHALL APPROVE THE LOCATION OF ALL PUSH PITS.
4. NO POLES SHALL BE ERECTED UNTIL THE RESPECTIVE CONCRETE FOUNDATIONS HAVE CURED.
5. LIGHTING UNIT COMPLETE, SPECIAL, MOUNTED ON BRIDGE ORNAMENTAL PIERS DO NOT UTILIZE LIGHT POLE FOUNDATION, SPECIAL.
6. STREETLIGHT FOUNDATION, POLE, AND WIRING CONSTRUCTION MUST BE COORDINATED WITH THE DPUE UTILITY OPERATIONS MANAGER (630-420-6754) A MINIMUM OF 60 DAYS IN ADVANCE.

LEGEND:

-  EXISTING COMBINATION LIGHT POLE (SEE TRAFFIC SIGNAL PLANS)
-  PROPOSED COMBINATION LIGHT POLE (SEE TRAFFIC SIGNAL PLANS)
-  EXISTING ROADWAY LIGHT POLE TO REMAIN
-  EXISTING ROADWAY LIGHT POLE TO BE REMOVED. (PAID FOR AS REMOVAL OF LIGHTING UNIT, SALVAGE), REMOVAL OF POLE FOUNDATION
-  INSTALL LIGHT POLE, WOOD, 60 FOOT, CLASS 4, WITH 15FT MAST ARM, AND TEMPORARY LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H
-  INSTALL LIGHT POLE, ALUMINUM, 40 FT. M.H., 12 FT. MAST ARM, WITH LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H. AND BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE, ON LIGHT POLE FOUNDATION, METAL, 15" BOLT CIRCLE, 8 5/8" X 6"
-  INSTALL LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 12 FT. MAST ARM, WITH LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H. AND BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE, ON LIGHT POLE FOUNDATION, 24" DIAMETER
-  EXISTING DECORATIVE ROADWAY LIGHT POLE TO REMAIN
-  INSTALL LIGHT POLE, ALUMINUM, 30 FT. M.H., TENON MOUNT, AND LUMINAIRE, SPECIAL, ON BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE, AND LIGHT POLE FOUNDATION, 24" DIAMETER
-  EXISTING PEDESTRIAN LIGHT POLE TO REMAIN
-  EXISTING LIGHT POLE TO BE REMOVED. (PAID FOR AS REMOVAL OF LIGHTING UNIT, SALVAGE), REMOVAL OF POLE FOUNDATION)
-  LIGHTING UNIT COMPLETE, SPECIAL, ON LIGHT POLE FOUNDATION, SPECIAL. SEE NOTE 5.
-  JUNCTION BOX, STAINLESS STEEL, EMBEDDED OR ATTACHED TO STRUCTURE AS NOTED, SIZED AS NOTED.
-  EXISTING HANDHOLE
-  HANDHOLE
-  HANDHOLE, COMPOSITE CONCRETE
-  TEMPORARY WOOD POLE, 60 FT., CLASS 4
-  AERIAL CABLE, 2-1/C NO. 6 WITH MESSENGER WIRE
-  UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/2" DIA.
-  UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1" DIA.
-  UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/2" DIA.
-  UNIT DUCT, 600V, 3-1/C NO.6, 1/C NO.6 GROUND, (XLP-TYPE USE), 1 1/4" DIA., POLYETHYLENE

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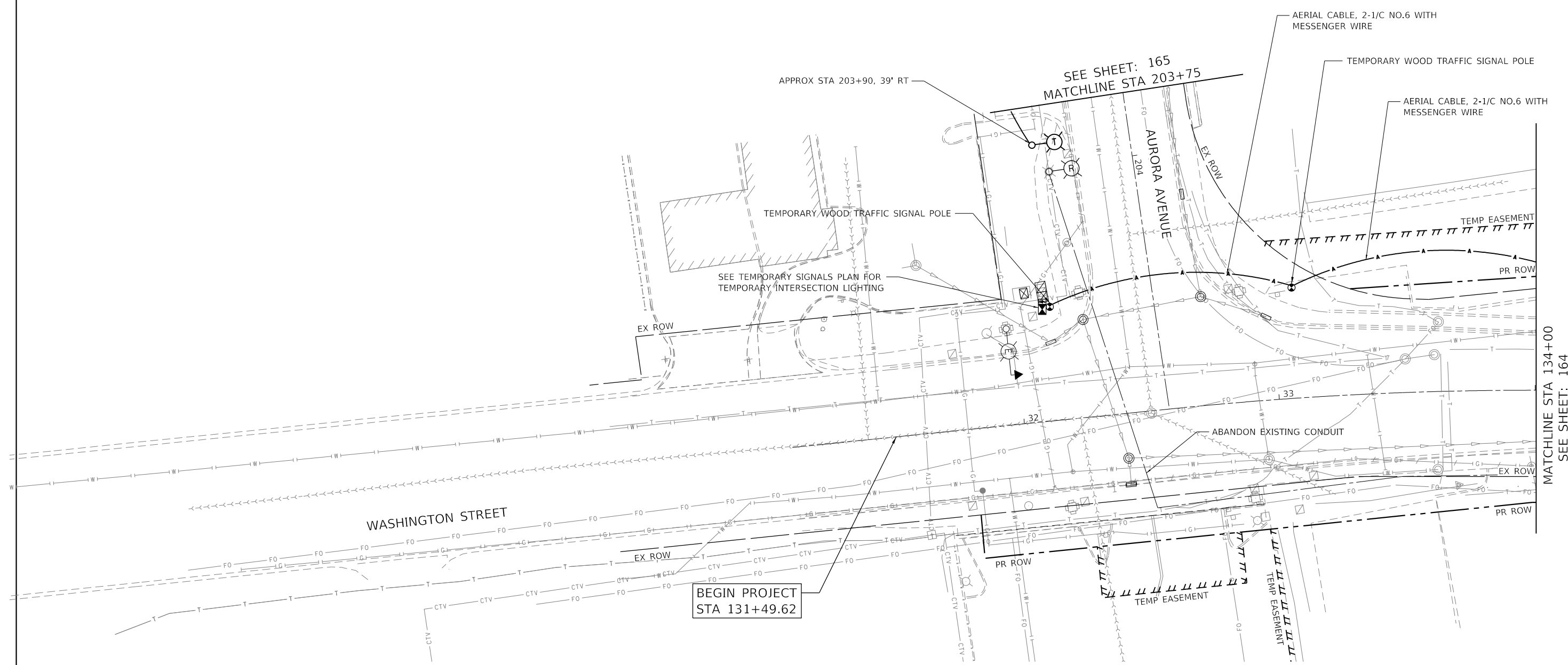
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PLOT DATE = 8/8/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET BRIDGE
LIGHTING GENERAL NOTES AND LEGEND

SCALE: N.T.S. SHEET 1 OF 1 SHEETS STA. TO STA.

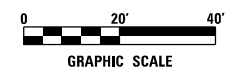
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CONTRACT NO. 61G82				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



BEGIN PROJECT
STA 131+49.62

SEE SHEET: 165
MATCHLINE STA 203+75

MATCHLINE STA 134+00
SEE SHEET: 164



MODEL: \\MODEL\NAME: FILE: \\NAME: \\PROJECT\02020794\01\Drawings\Lighting\020794-01-1-1G-101-Rem_TempRise.dwg

CiorbaGroup
 8725 W. Higgins Rd, Ste 600, Chicago, IL 60631
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USER NAME = Electrical	DESIGNED - DTJ	REVISED -
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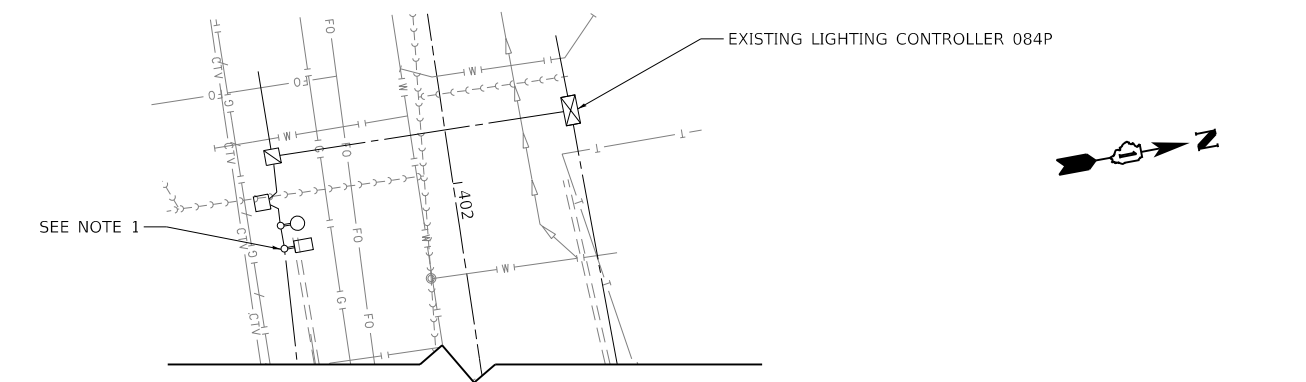
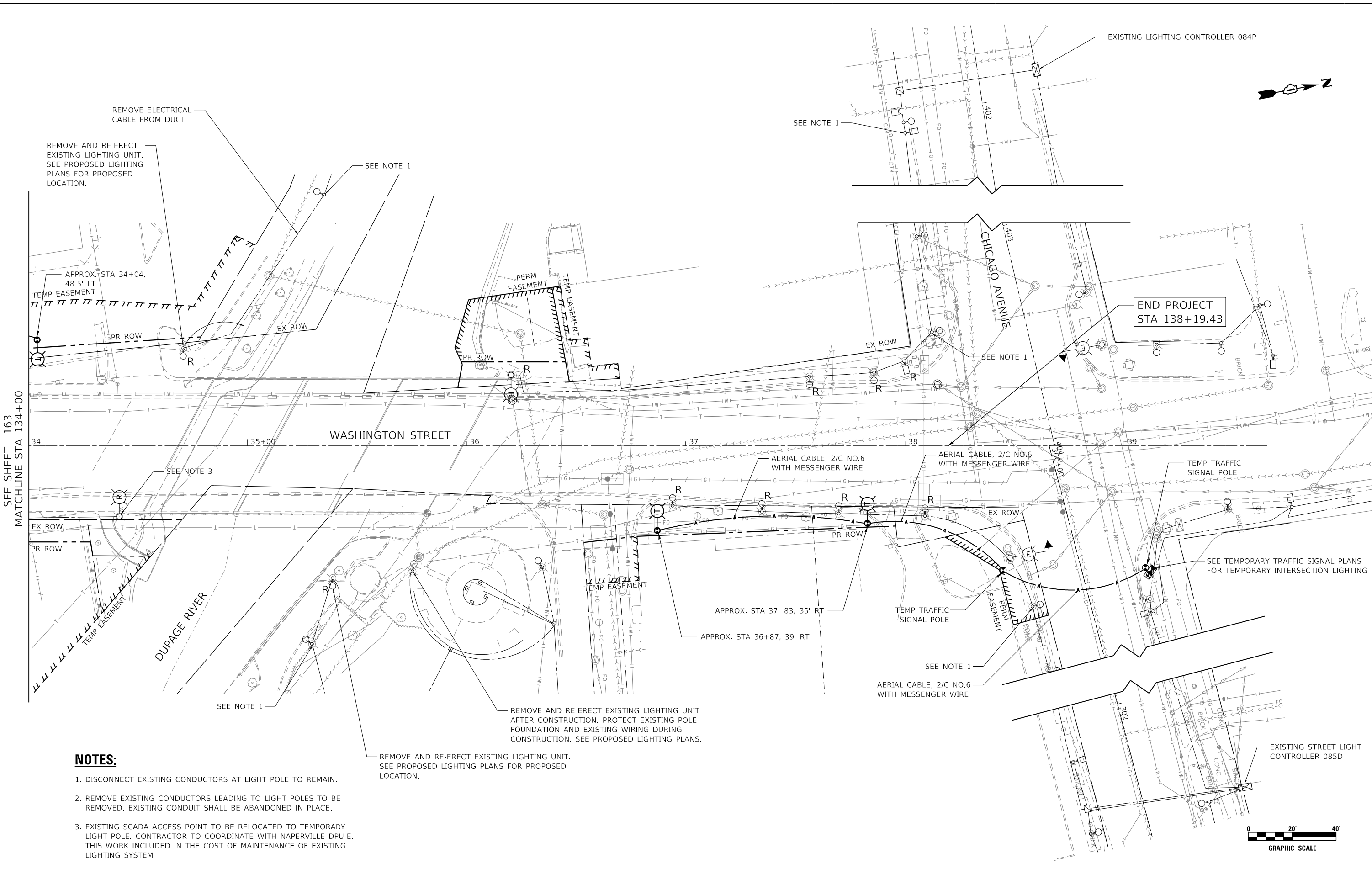
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET BRIDGE
REMOVAL AND TEMPORARY LIGHTING PLAN

SCALE: 1" = 20' SHEET 1 OF 4 SHEETS STA. 128+01.51 TO STA. 134+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	163
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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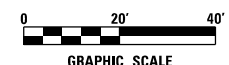


- NOTES:**
1. DISCONNECT EXISTING CONDUCTORS AT LIGHT POLE TO REMAIN.
 2. REMOVE EXISTING CONDUCTORS LEADING TO LIGHT POLES TO BE REMOVED. EXISTING CONDUIT SHALL BE ABANDONED IN PLACE.
 3. EXISTING SCADA ACCESS POINT TO BE RELOCATED TO TEMPORARY LIGHT POLE. CONTRACTOR TO COORDINATE WITH NAPERVILLE DPU-E. THIS WORK INCLUDED IN THE COST OF MAINTENANCE OF EXISTING LIGHTING SYSTEM

REMOVE AND RE-ERECT EXISTING LIGHTING UNIT. SEE PROPOSED LIGHTING PLANS FOR PROPOSED LOCATION.

REMOVE AND RE-ERECT EXISTING LIGHTING UNIT AFTER CONSTRUCTION. PROTECT EXISTING POLE FOUNDATION AND EXISTING WIRING DURING CONSTRUCTION. SEE PROPOSED LIGHTING PLANS.

SEE TEMPORARY TRAFFIC SIGNAL PLANS FOR TEMPORARY INTERSECTION LIGHTING

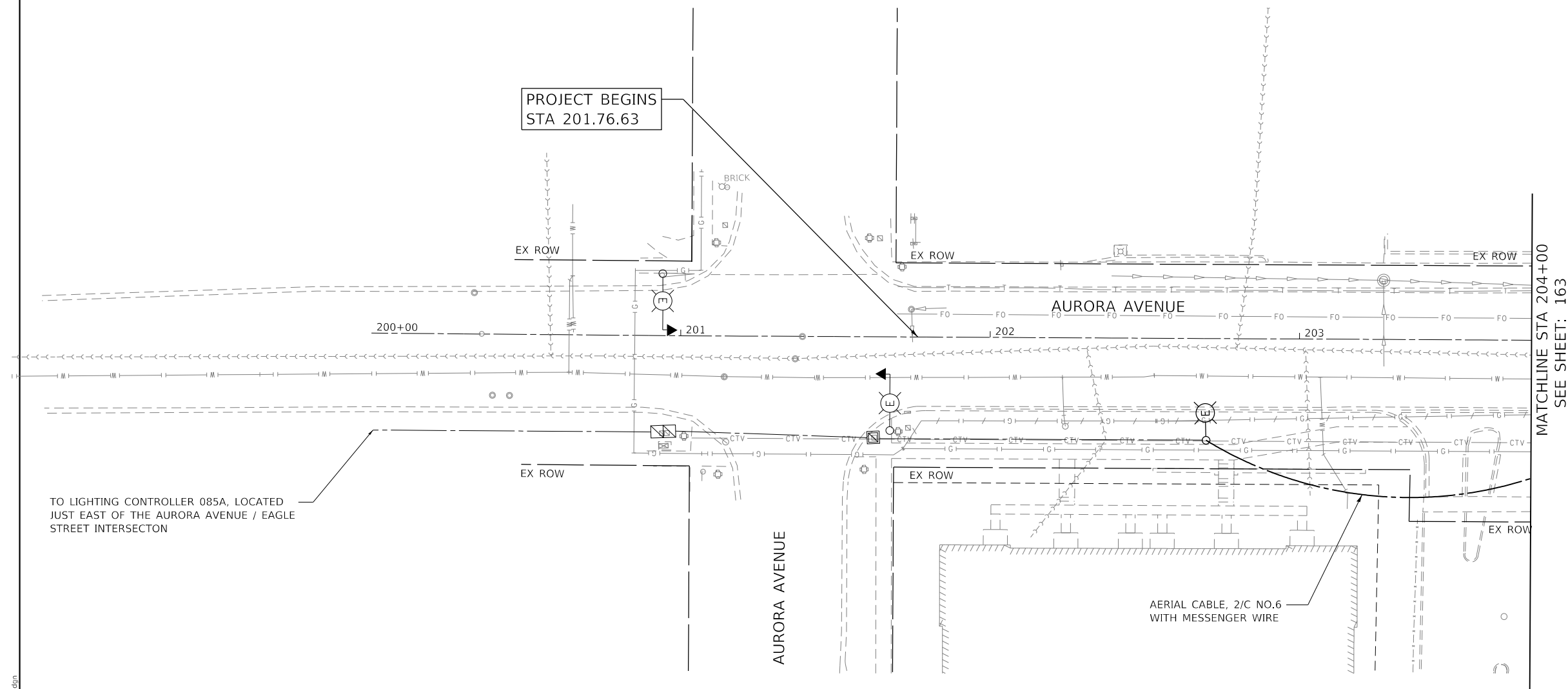
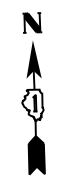


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	DRAWN - DTJ	REVISED -
PLOT SCALE = 40,0000 "/>		

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET BRIDGE
 REMOVAL AND TEMPORARY LIGHTING PLAN
 SCALE: 1" = 20' SHEET 2 OF 3 SHEETS STA. 134+00.00 TO STA. 140+16.92

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	164
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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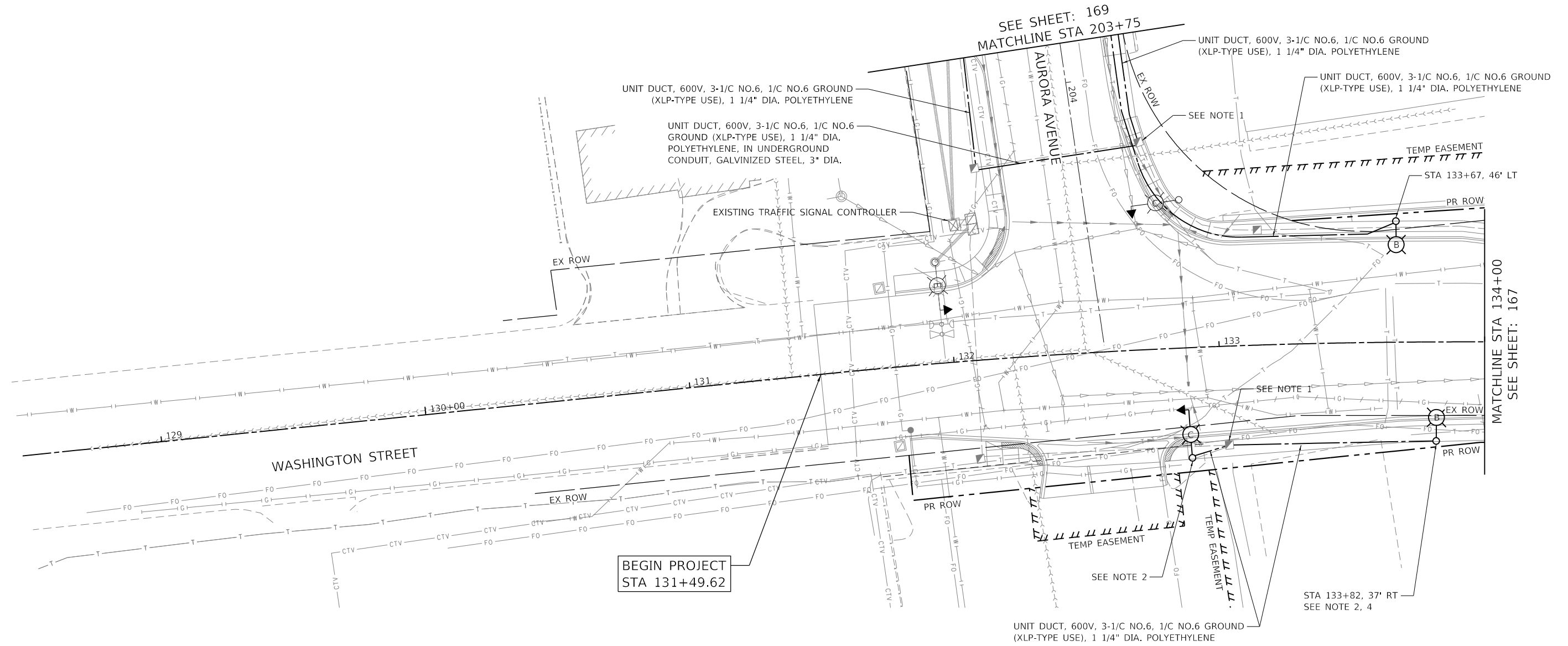
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PLOT DATE = 8/8/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET BRIDGE
REMOVAL AND TEMPORARY LIGHTING PLAN

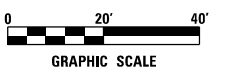
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	165
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 61G82	



NOTES:

1. ARTERIAL LIGHTING SHALL USE PROPOSED TRAFFIC SIGNAL HANDHOLES
2. THIS LIGHT POLE SHALL BE CONNECTED TO THE LIGHTING CIRCUIT FOR THE TRAFFIC SIGNAL COMBINATION POLE LIGHTING
3. SEE TRAFFIC SIGNAL PLANS FOR INTERSECTION LIGHTING
4. EXISTING SCADA ACCESS POINT TO BE RELOCATED TO PROPOSED LIGHT POLE. CONTRACTOR TO COORDINATE WITH NAPERVILLE DPU-E. THIS WORK INCLUDED IN THE COST OF MAINTENANCE OF EXISTING LIGHTING SYSTEM.



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WASHINGTON STREET BRIDGE
PROPOSED LIGHTING PLAN**

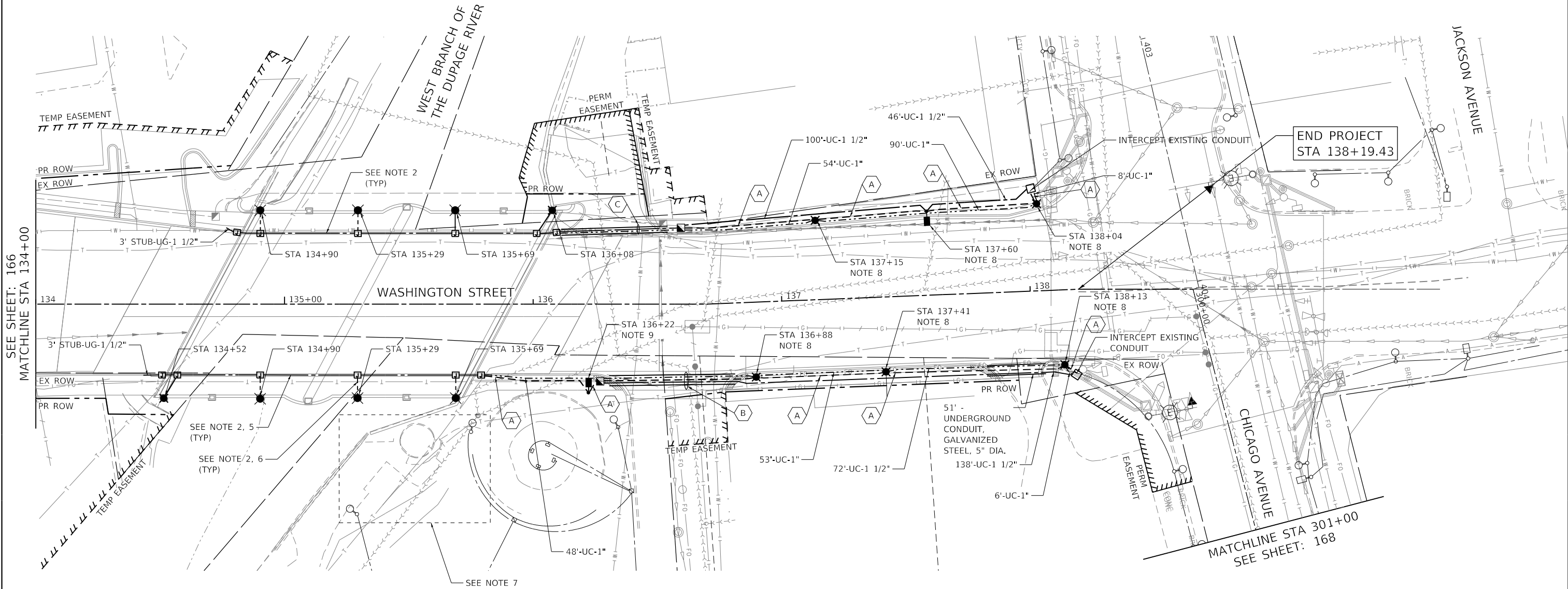
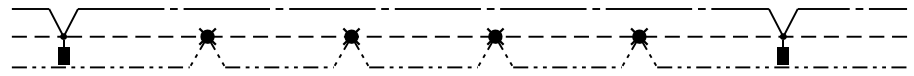
SCALE: 1" = 20' SHEET 1 OF 5 SHEETS STA. 128+01.51 TO STA. 134+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	166
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONDUIT AND CONDUCTOR SCHEMATIC

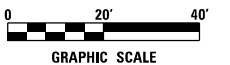
- (A) --- UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/2" DIA., WITH ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE), 7-1/C NO.6 (BETWEEN ALL POLES)
- UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/2" DIA., WITH PULL STRING FOR CCTV / OTHER (BETWEEN 30' CBD POLES)
- UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1" DIA., WITH PULL STRING FOR CCTV / OTHER (BETWEEN LIGHTING UNIT COMPLETE, SPECIAL)

- (B) NOT USED
- (C) 50' - (1) UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1" DIA., AND 50' - (1) UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/2" DIA., IN 43' - (1) UNDERGROUND CONDUIT, GALVANIZED STEEL, 5" DIA.
- (D) 37' - (1) UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1" DIA., AND 37' - (1) UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/2" DIA., IN 23' - (1) UNDERGROUND CONDUIT, GALVANIZED STEEL, 5" DIA.



NOTES:

1. SEE LIGHTING DETAILS AND BRIDGE PLANS FOR CONDUIT AND JUNCTION BOX PLACEMENT.
2. CONDUIT EMBEDDED IN BRIDGE STRUCTURE. SEE LIGHTING DETAILS.
3. PROPOSED LIGHTING CONDUITS TO BE IN COMMON TRENCH AS POSSIBLE. SEPARATION SHOWN FOR CLARITY.
4. LIGHTING UNIT COMPLETE, SPECIAL, SHALL BE LOCATED TWO FEET FROM BACK OF CURB TO CENTER OF FOUNDATION.
5. ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE), 7-1/C NO.6, IN CONDUIT EMBEDDED IN STRUCTURE, 1 1/2" DIA., PVC (BETWEEN JUNCTION IN BARRIER AND LIGHT POLE ON ORNAMENTAL PIER)
6. ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE), 7-1/C NO.6, IN CONDUIT EMBEDDED IN STRUCTURE, 2" DIA., PVC (BETWEEN JUNCTION BOXES EMBEDDED IN TRAFFIC BARRIER)
7. FOR PROPOSED PARK LIGHTING PLAN SEE SHEET 170
8. CENTER OF LIGHT POLE FOUNDATION LOCATED 1'-6" FROM BACK OF CURB
9. CENTER OF LIGHT POLE FOUNDATION LOCATED 7'-0" FROM BACK OF CURB



MODEL: 1408161.MXD
FILE NAME: 16-00167-00-01-LIGHTING.dwg
DATE: 8/8/2022



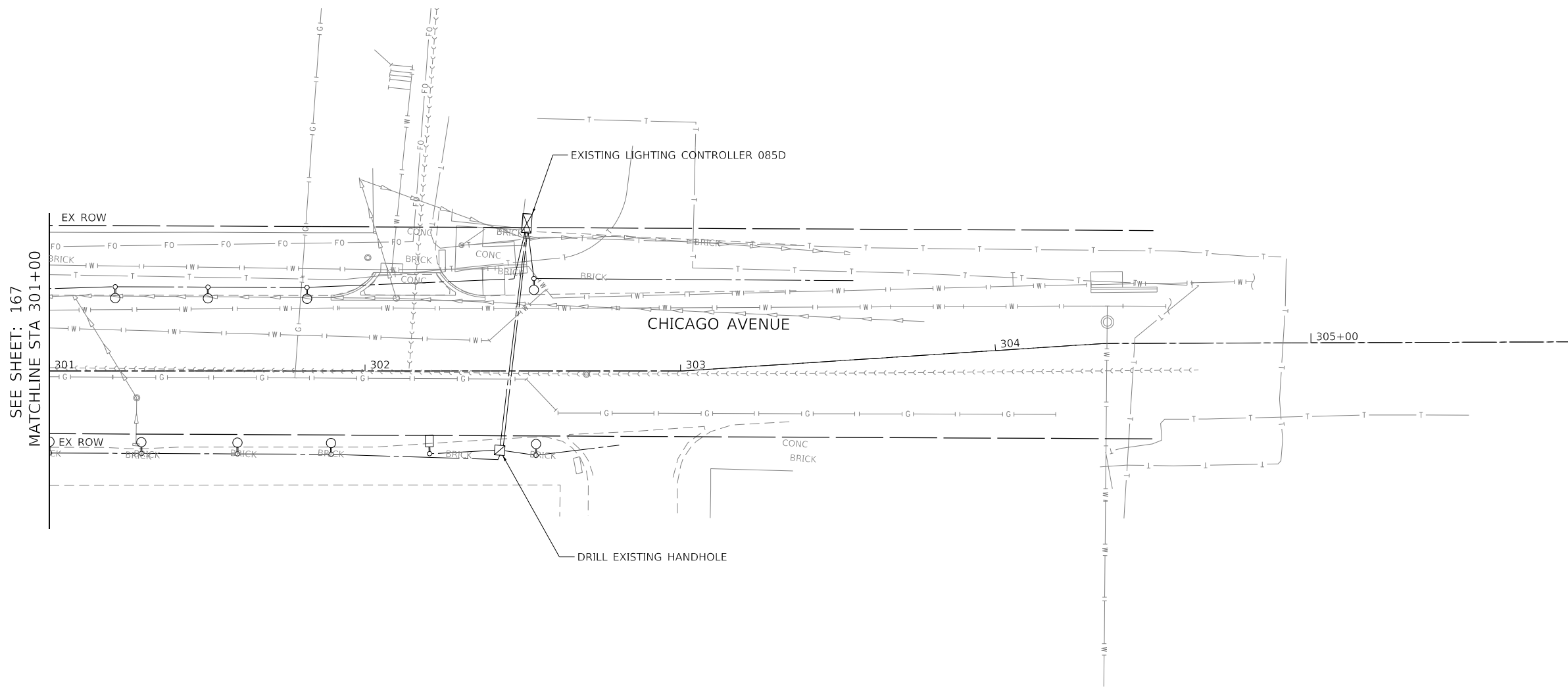
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	DRAWN - DTJ	REVISED -
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PLOT DATE = 8/8/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

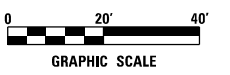
WASHINGTON STREET BRIDGE
PROPOSED LIGHTING PLAN

SCALE: 1" = 20' SHEET 2 OF 5 SHEETS STA. 134+00.00 TO STA. 140+16.92

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	167
CONTRACT NO. 61G82				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



SEE SHEET: 167
MATCHLINE STA 301+00



MODEL: 1408161.MXD
FILE NAME: N:\PROJ\020794.01\Design\Lighting\020794.01-1-1-2023-LightPlan.dwg

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8725 W. Higgins Rd, Ste 600, Chicago, IL 60631
P 773.775.4009 | www.ciorba.com

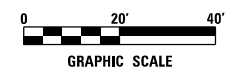
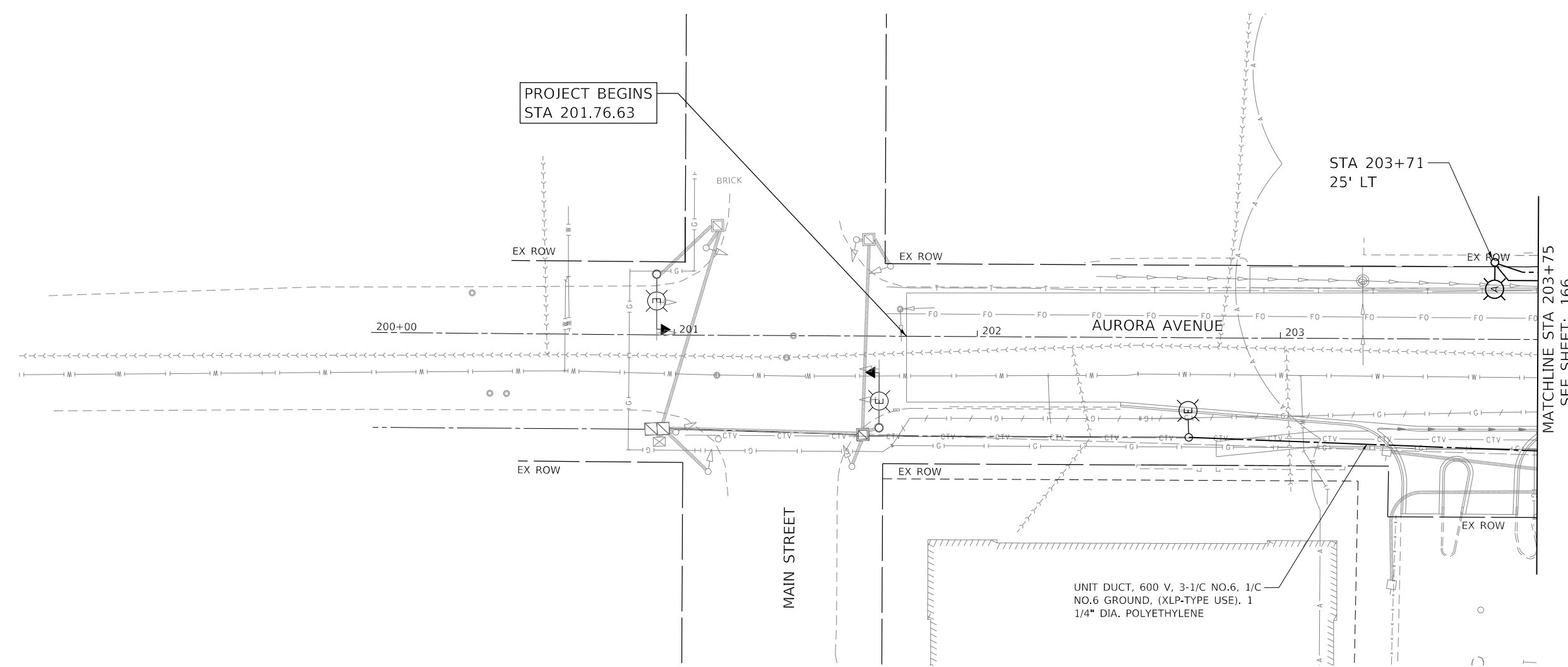
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PLOT DATE = 8/8/2022	CHECKED - JMV	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WASHINGTON STREET BRIDGE
PROPOSED LIGHTING PLAN**

SCALE: 1" = 20' SHEET 3 OF 5 SHEETS STA. 301+00.00 TO STA. 305+82.21

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	168
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



MODEL: 4409EL.MXD
 FILE NAME: C:\PROJ\020794\01\Design\Lighting\020794_01_1\TG204-LightPlan.dwg



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USER NAME = Electrical	DESIGNED - DTJ	REVISED -
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PLOT SCALE = 40,0000' / in.	CHECKED - JMV	REVISED -
PLOT DATE = 8/8/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

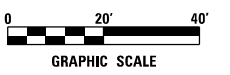
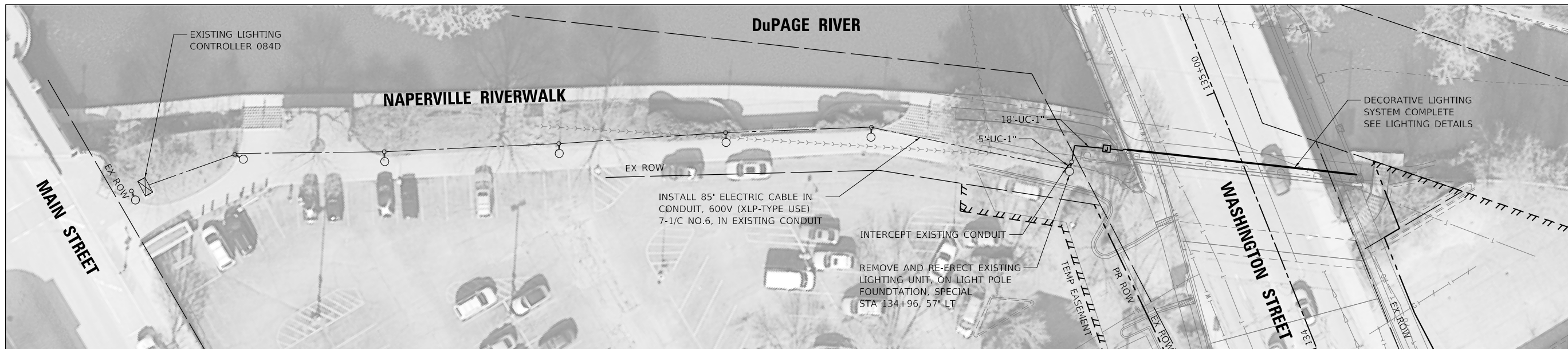
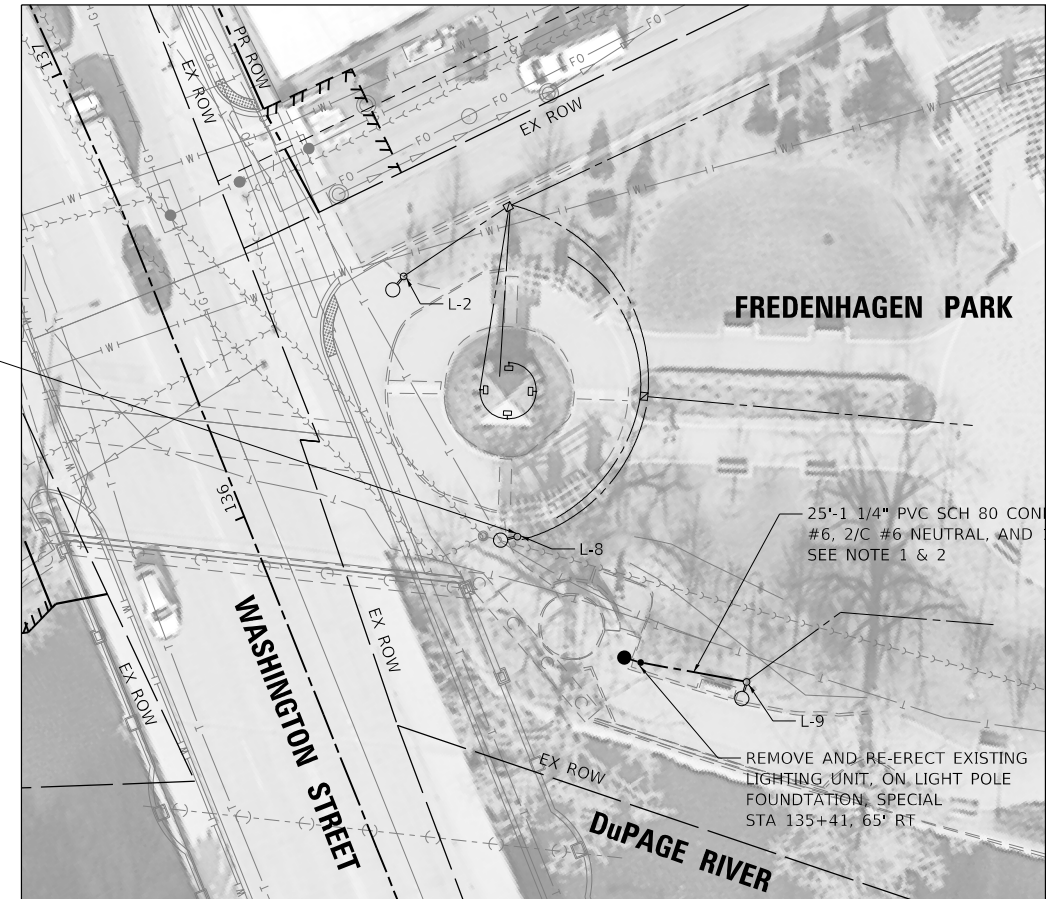
WASHINGTON STREET BRIDGE
PROPOSED LIGHTING PLAN

SCALE: 1" = 20' SHEET 4 OF 5 SHEETS STA. 200+00 TO STA. 203+75

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	169
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

NOTES

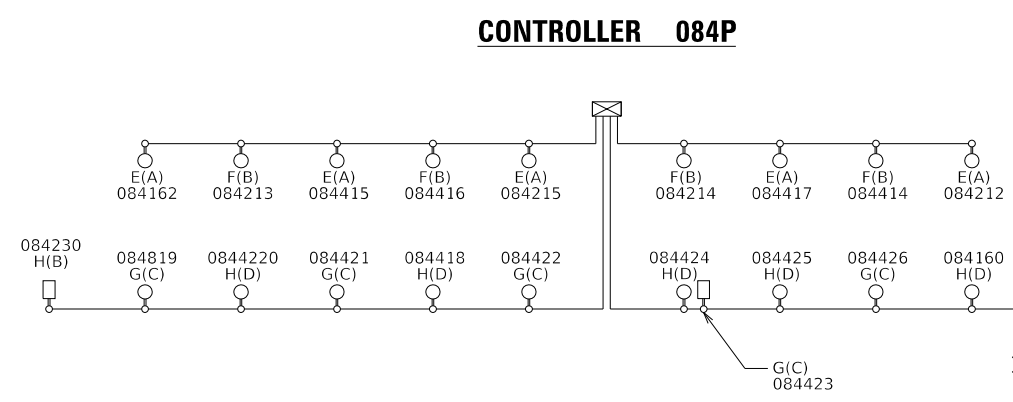
1. SEE FREDENHAGEN PARK SITE LIGHTING AND ELECTRICAL SITE PLAN RECORD DRAWING.
2. INTERCEPT EXISTING CONDUIT FROM LIGHT POLE L-9



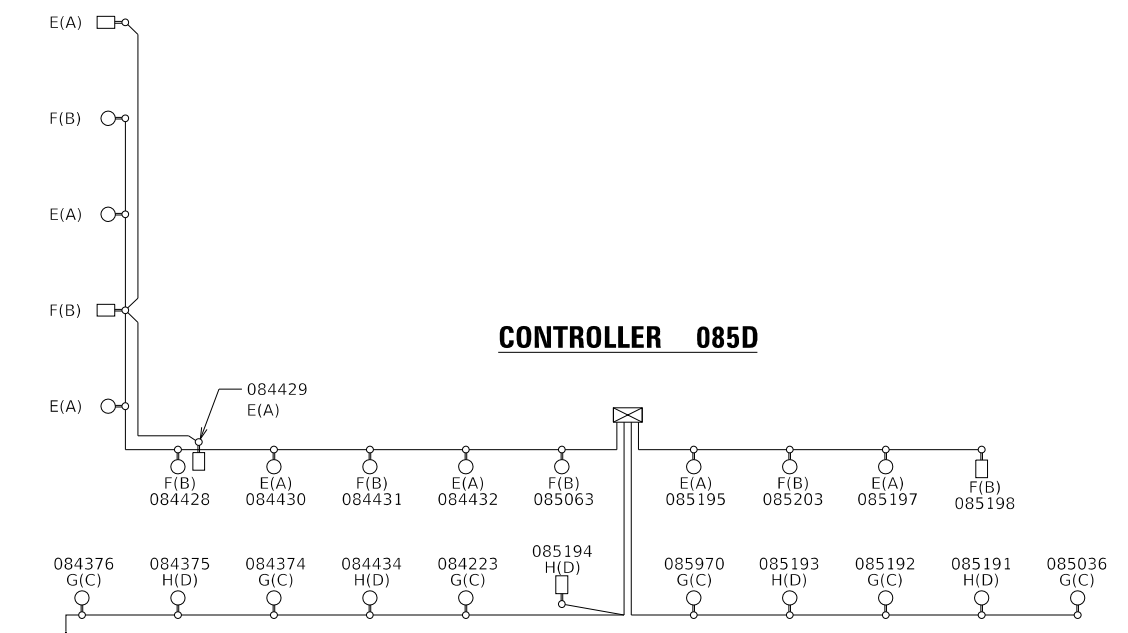
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PLOT DATE = 8/8/2022	DATE -	REVISED -

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	170
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



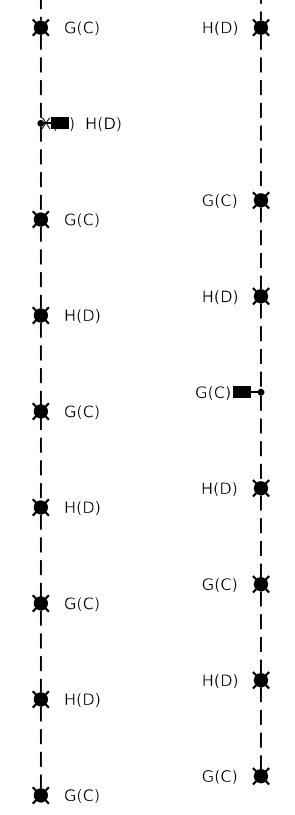
WASHINGTON ST



CHICAGO AVE

LIGHTING CONTROLLER CIRCUIT LOADS (CONTROLLER 084P)												
CIRCUIT ID	32' M.H. ROADWAY LUMINAIRE		30' M.H. SIDE MOUNT ROADWAY LUMINAIRE		12' M.H. SHEPARD'S CROOK LUMINAIRE		10' M.H. CAGED ACORN LUMINAIRE		RECEPTACLES		TOTAL	
	QTY.	LOAD/FIXT. (WATTS)	QTY.	LOAD/FIXT. (WATTS)	QTY.	LOAD/FIXT. (WATTS)	QTY.	LOAD/FIXT. (WATTS)	QTY.	LOAD/FIXT. (WATTS)	WATTS	AMPS (VOLTS)
A									5	240 W	1200 W	10.00 A
B									4	240 W	960 W	8.00 A
C									10	240 W	2400 W	20.00 A
D									10	240 W	2400 W	20.00 A
E		250 W		116 W	5	70 W		43 W			350 W	2.92 A
F		250 W		116 W	4	70 W		43 W			280 W	2.33 A
G	1	250 W		116 W	4	70 W	5	43 W			745 W	6.21 A
H	1	250 W	1	116 W	5	70 W	3	43 W			845 W	7.04 A
TOTAL	2	N/A	1	N/A	18	N/A	8	N/A	29		9180 W	76.50 A (120V)

LIGHTING CONTROLLER CIRCUIT LOADS (CONTROLLER 085D)												
CIRCUIT ID	32' M.H. ROADWAY LUMINAIRE		30' M.H. SIDE MOUNT ROADWAY LUMINAIRE		12' M.H. SHEPARD'S CROOK LUMINAIRE		10' M.H. CAGED ACORN LUMINAIRE		RECEPTACLES		TOTAL	
	QTY.	LOAD/FIXT. (WATTS)	QTY.	LOAD/FIXT. (WATTS)	QTY.	LOAD/FIXT. (WATTS)	QTY.	LOAD/FIXT. (WATTS)	QTY.	LOAD/FIXT. (WATTS)	WATTS	AMPS (VOLTS)
A									8	240 W	1920 W	16.00 A
B									7	240 W	1680 W	14.00 A
C									10	240 W	2400 W	20.00 A
D									10	240 W	2400 W	20.00 A
E	2	250 W		116 W	6	70 W		43 W			920 W	7.67 A
F	2	250 W		116 W	5	70 W		43 W			850 W	7.08 A
G		250 W	1	116 W	6	70 W	4	43 W			708 W	5.90 A
H	1	250 W		116 W	3	70 W	4	43 W			632 W	5.27 A
TOTAL	5	N/A	1	N/A	21	N/A	8	N/A	35		11510 W	95.91 A (120V)



LEGEND

- ◻ EXISTING 32' MOUNTING HEIGHT STREET LIGHT, 250 WATT
- EXISTING 12' SHEPHERDS CROOK STREET LIGHT, 70 WATT
- PROPOSED SIDE MOUNTED STREET LIGHT, 30' MOUNTING HEIGHT, 116 WATT, 4000K CCT
- ✱ PROPOSED POST TOP STREET LIGHT, 10' MOUNTING HEIGHT, 43 WATT, 4000K CCT
- EXISTING ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 7/C NO.6
- - PROPOSED CABLE IN CONDUIT, 600V (XLP-TYPE USE) 7/C NO.6
- XXXXXX LUMINAIRE ID
- E(A) LUMINAIRE CIRCUIT ID (RECEPTACLE CIRCUIT ID)

NOTES

1. POLE ID NUMBERS FOR NEW LIGHT POLES TO BE PROVIDED BY THE CITY OF NAPERVILLE.

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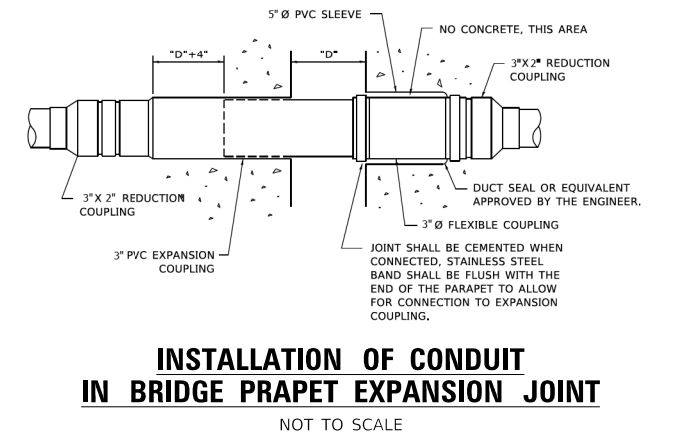
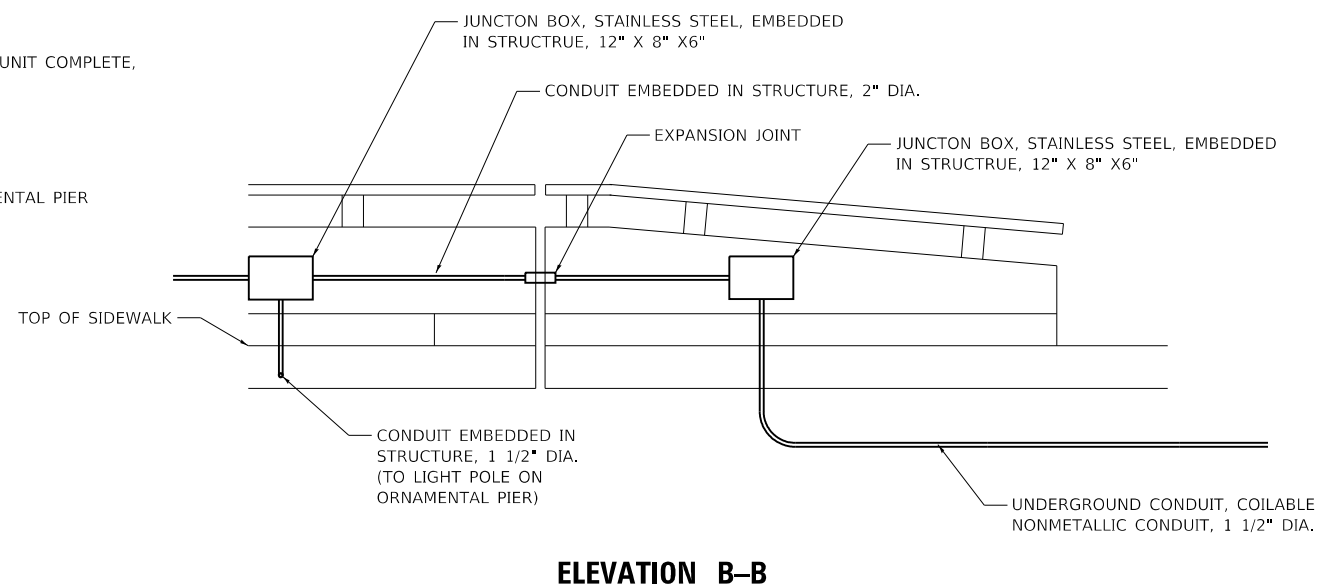
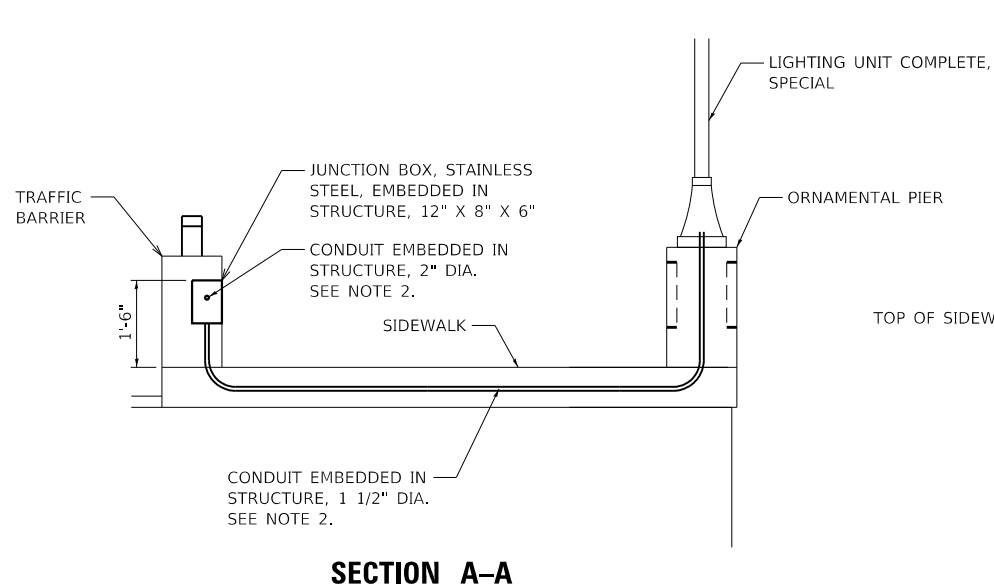
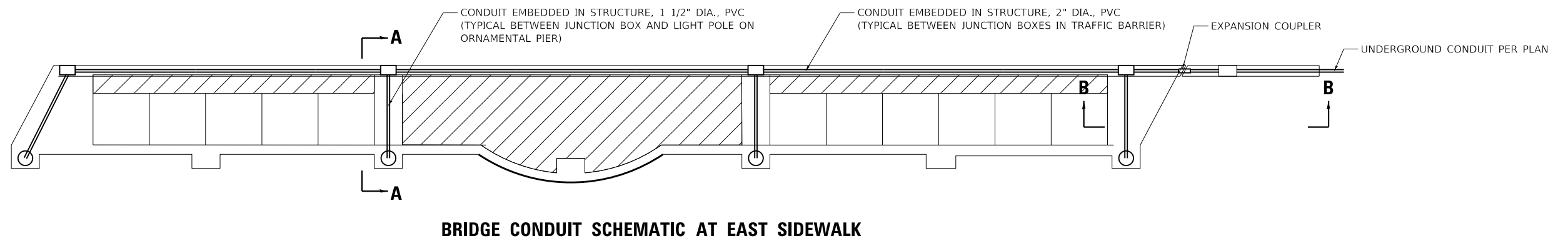
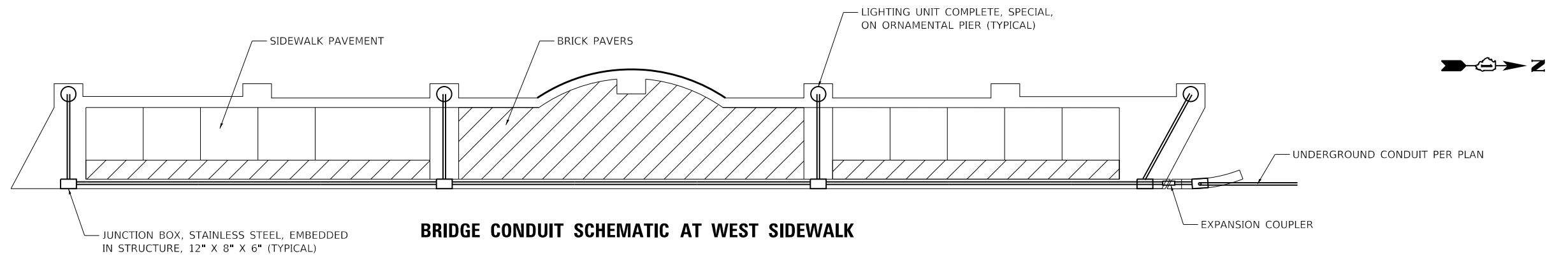
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PLOT SCALE = 40,0000 "/>		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET BRIDGE
SINGLE LINE DIAGRAM

SCALE: N.T.S.	SHEET	OF	SHEETS	STA.	TO	STA.
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F.A.U. RTE. 2552	SECTION 16-00167-00-BR	COUNTY	TOTAL SHEETS 261	SHEET NO. 171
CONTRACT NO. 61G82		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		



NOTES

- SEE STRUCTURAL PLANS FOR JUNCTION BOX LOCATION WITHIN WINGWALL.
- CONDUIT LATERALS SHALL BE INSTALLED WITHIN THE SIDEWALK.

MODEL: 1408161.MAKES
FILE NAME: 16-00167-00-01-1-16-00-00.dwg



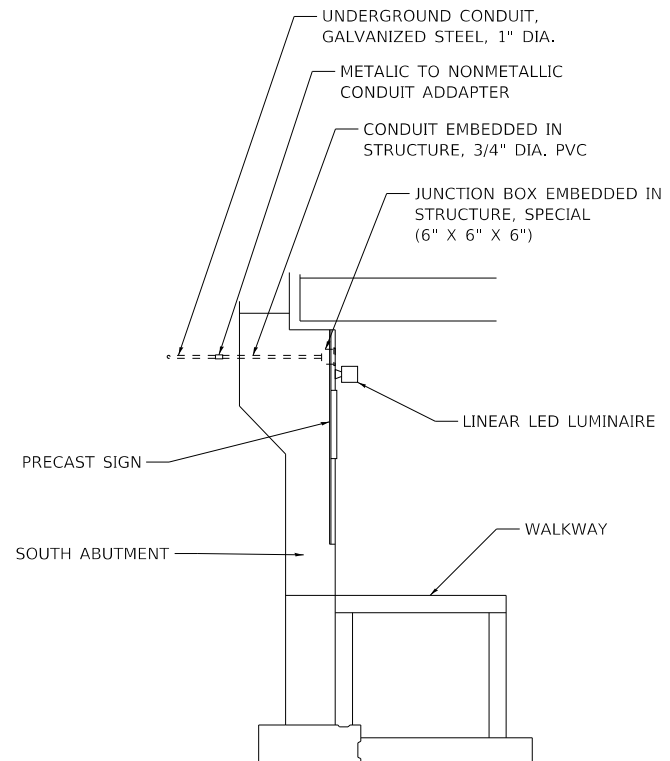
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PLOT DATE = 8/8/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

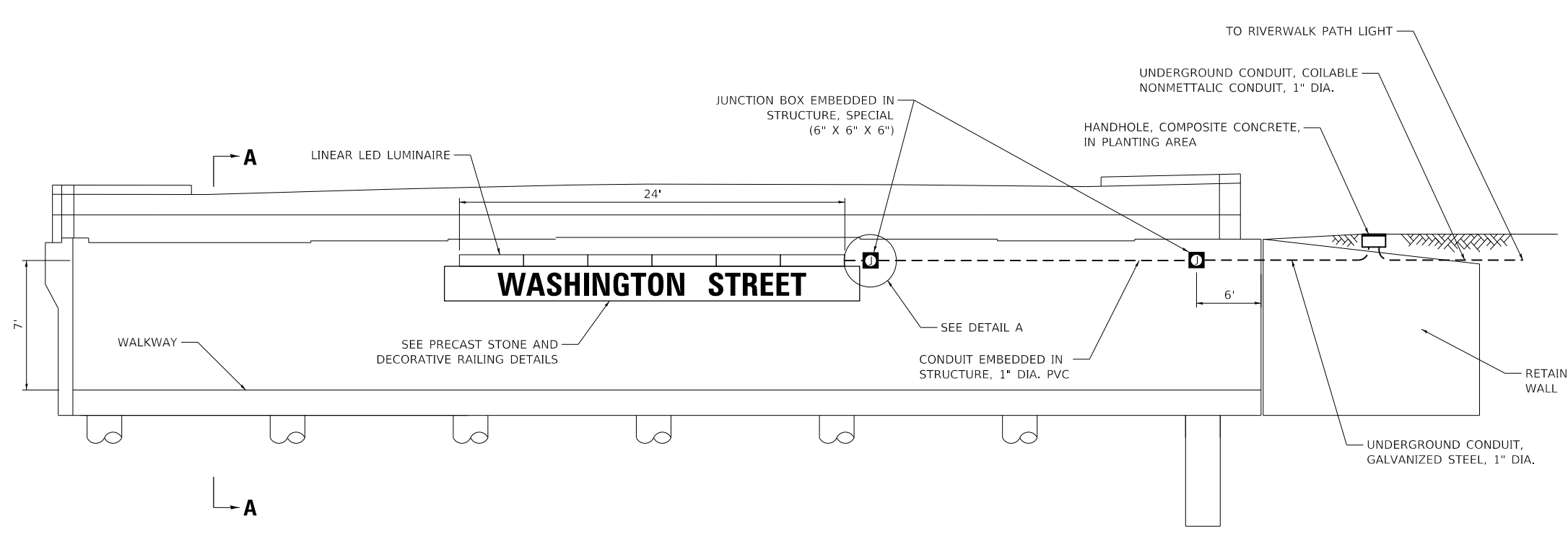
WASHINGTON STREET BRIDGE
LIGHTING DETAILS

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 61G82				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



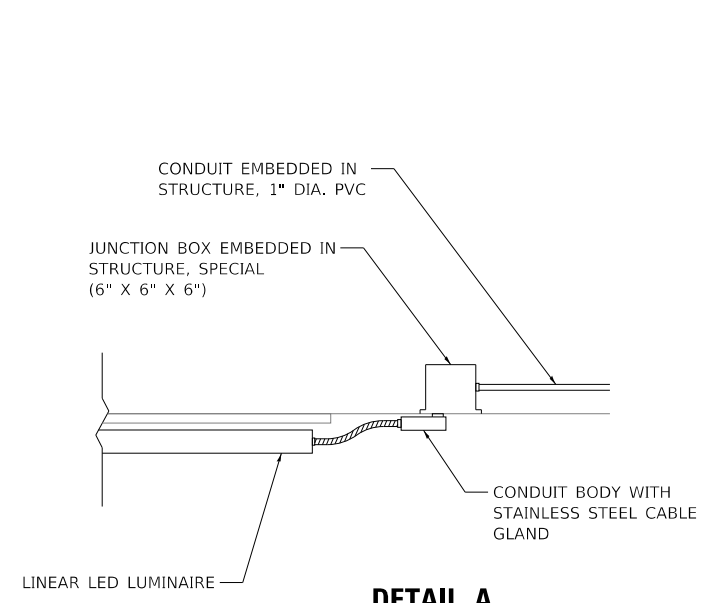
SECTION A-A
(LOOKING WEST)
SEE NOTE 1



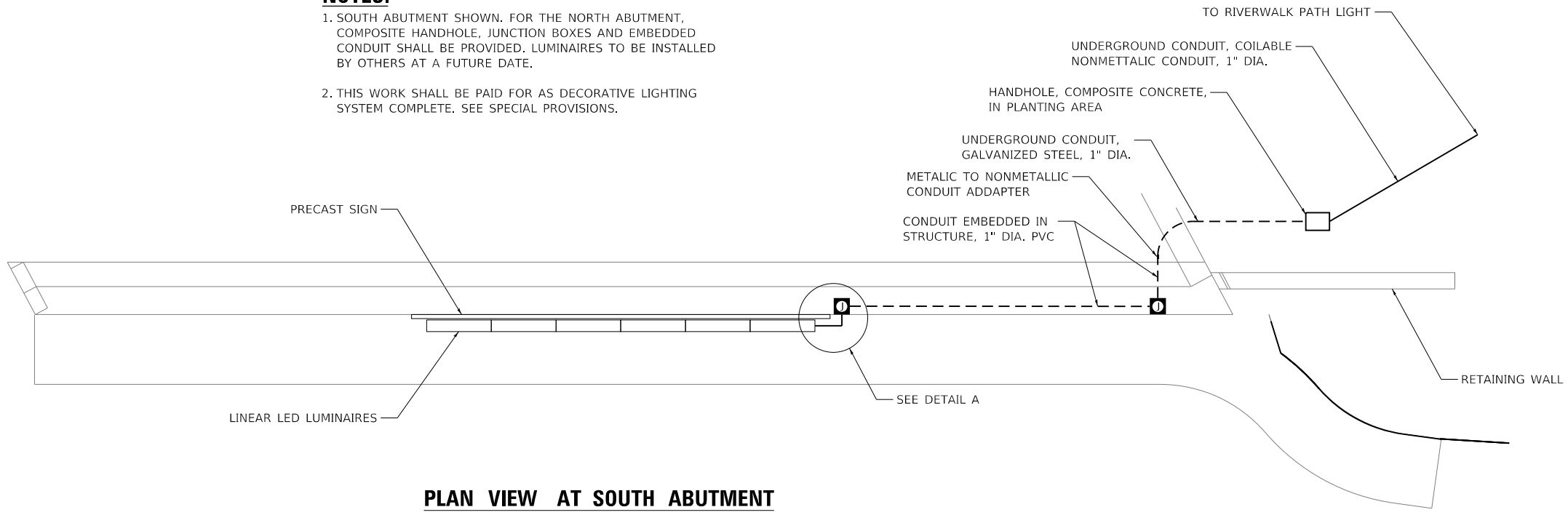
ELEVATION VIEW AT SOUTH ABUTMENT
(LOOKING SOUTH)

NOTES:

1. SOUTH ABUTMENT SHOWN. FOR THE NORTH ABUTMENT, COMPOSITE HANDHOLE, JUNCTION BOXES AND EMBEDDED CONDUIT SHALL BE PROVIDED. LUMINAIRES TO BE INSTALLED BY OTHERS AT A FUTURE DATE.
2. THIS WORK SHALL BE PAID FOR AS DECORATIVE LIGHTING SYSTEM COMPLETE. SEE SPECIAL PROVISIONS.



DETAIL A
(PLAN VIEW)



PLAN VIEW AT SOUTH ABUTMENT

MODEL: 1400BELNAMES
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PLOT DATE = 8/8/2022	CHECKED - JMV	REVISED -
	DATE -	REVISED -

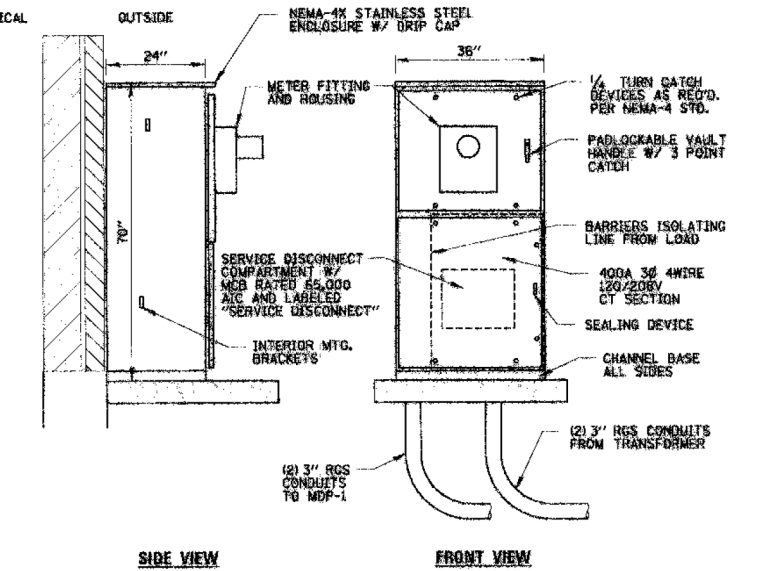
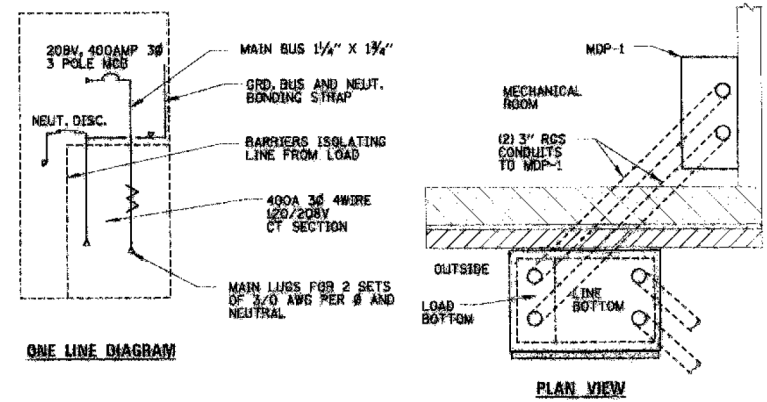
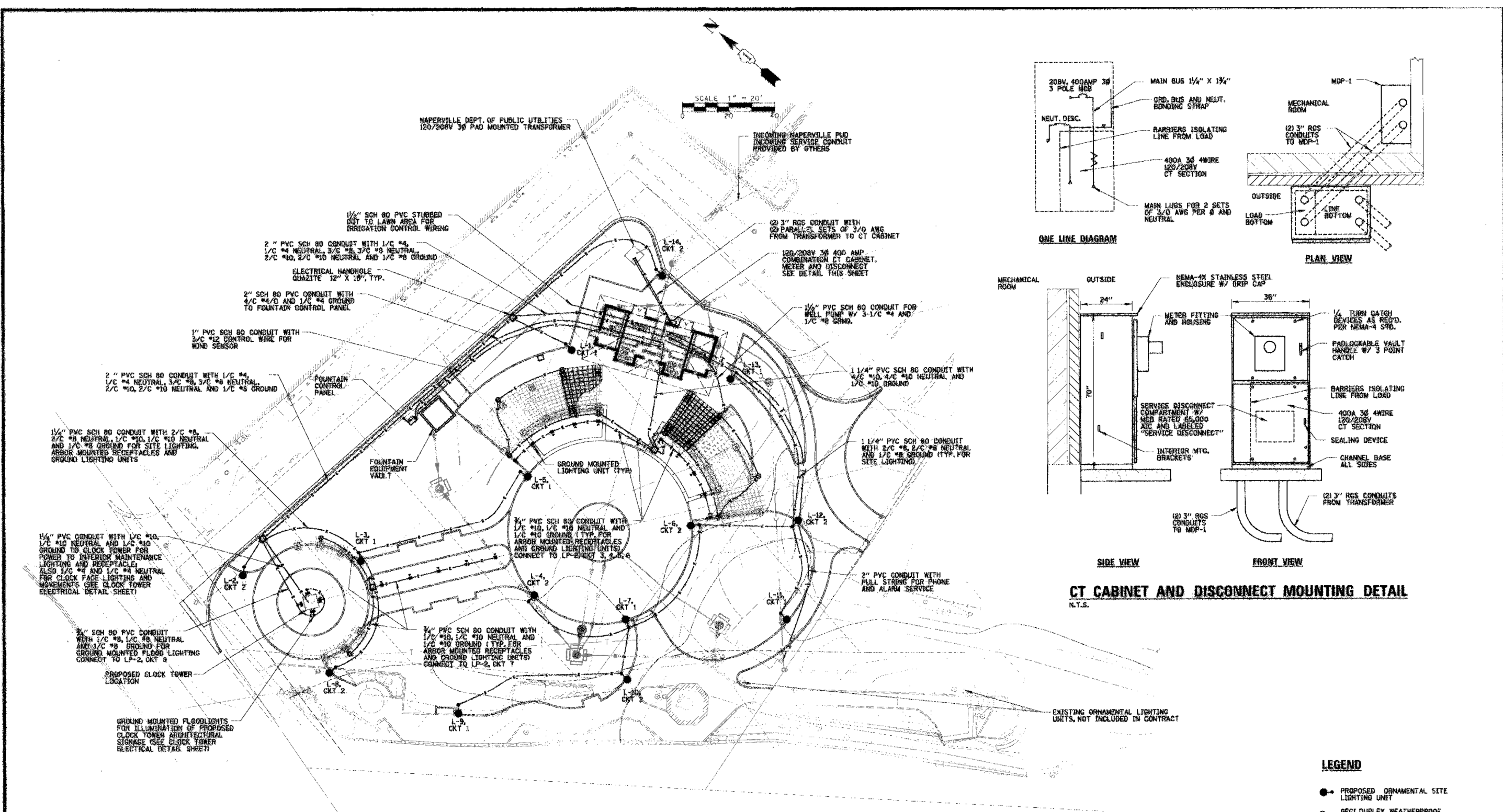
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET BRIDGE
RIVERWALK LIGHTING DETAILS

SCALE: N.T.S.	SHEET	OF	SHEETS	STA.	TO	STA.
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	173
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

MODEL: 4400BELNAMES
 FILE NAME: N:\PROJ\020794\01\Design\Lighting\020794-01-LT-02-Detail.dwg



FOR INFORMATION ONLY

- LEGEND**
- PROPOSED ORNAMENTAL SITE LIGHTING UNIT
 - ⊕ OFCI DUPLEX WEATHERPROOF RECEPTACLE
 - ⊙ EXISTING SHEPHERD HOOK LIGHT FIXTURE NOT IN CONTRACT
 - PROPOSED GROUND MOUNTED FLOODLIGHT
 - ⚡ PROPOSED GROUND LIGHTING UNIT
 - PROPOSED ELECTRICAL CONDUIT
 - ELECTRICAL HANDHOLE

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

CLIENT: **City of Naperville**
 Transportation, Engineering and Development
 400 S. EAGLE STREET
 NAPERVILLE, ILLINOIS 60566
 (630) 420-6100

NO.	DATE	NATURE OF REVISION	CHKD.
1	12/06/2002	DESIGN MECHANICAL	JPC

TITLE: **FREDENHAGEN PARK
 SITE LIGHTING AND ELECTRICAL PLAN**

PROJECT NO. 02-68
 SHEET 27 OF 47
 DRAWING NO. **MEP-1**

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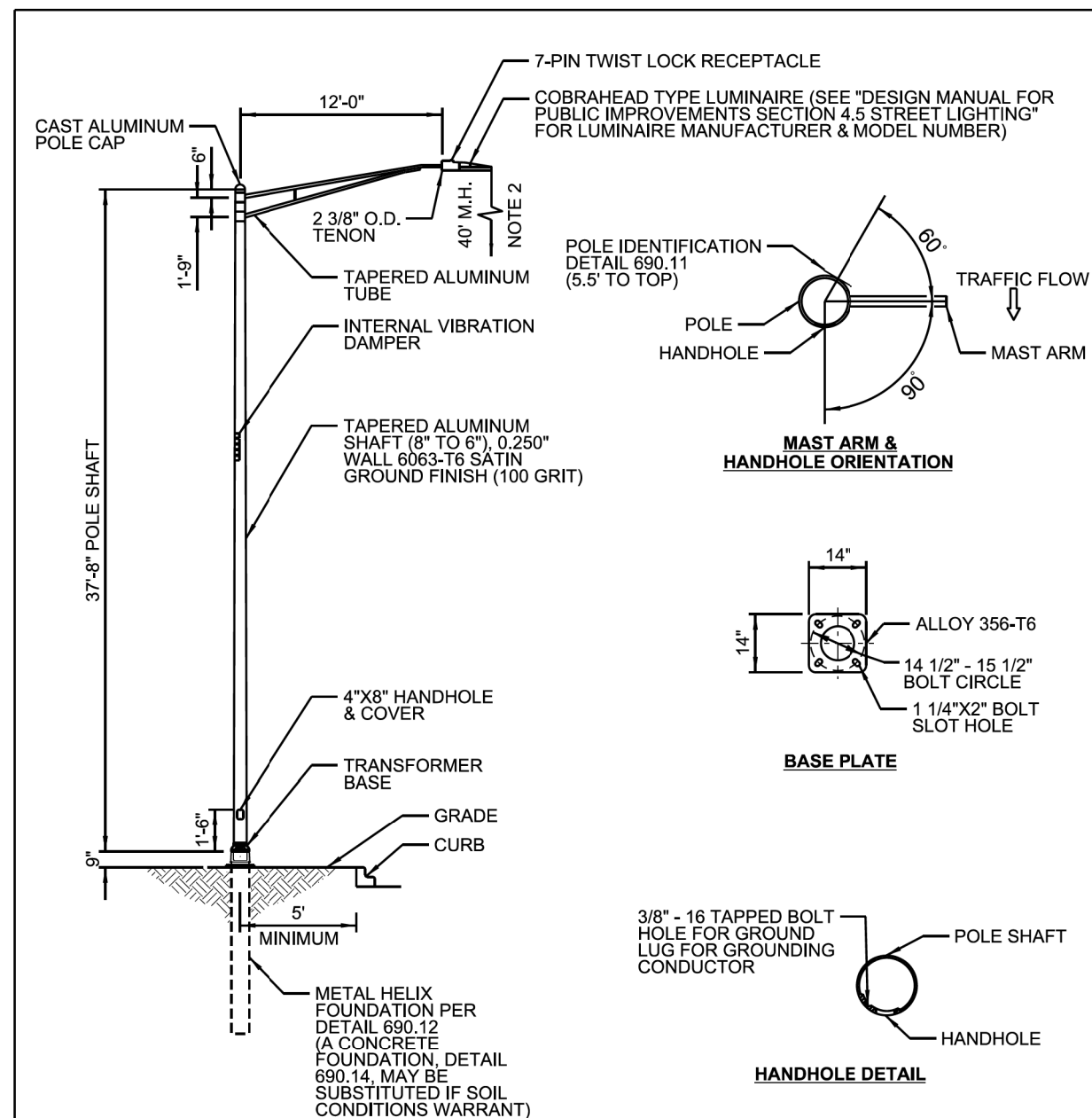
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	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**WASHINGTON STREET BRIDGE
 LIGHTING DETAILS**

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

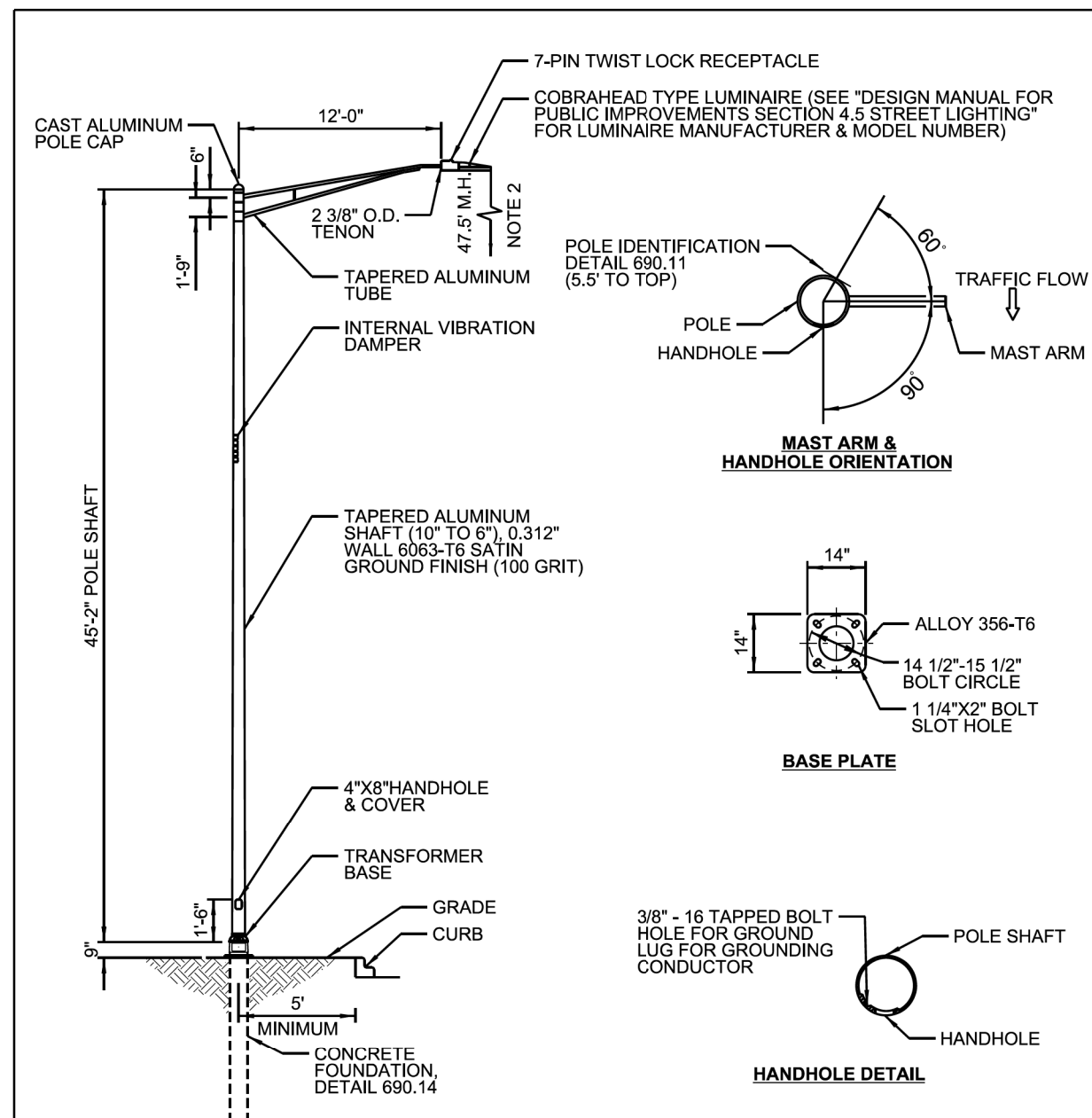
F.A.U. RTE. 2552	SECTION 16-00167-00-BR	COUNTY DUPAGE	TOTAL SHEETS 261	SHEET NO. 174
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 61G82	



NOTES:

1. COMPLETE ASSEMBLY NATURAL SATIN FINISH WITH 5 YEAR WARRANTY. HADGG, VALMONT OR APPROVED EQUAL.
2. MOUNTED HEIGHT FROM TENON TO POLE ANCHOR PLATE.
3. LUMINAIRE ATTACHED TO POLE WITH CLAMP BRACKET & 1/2" X 13" N.C. S.S. HARDWARE.
4. POLE IS UL CLASSIFIED WITH UL LABEL AND HANDHOLE COVER GASKET COMPLYING WITH UL 1572.
5. RISE OF LUMINAIRE ARM IS 34".
6. POLE DESIGN MEETS LATEST AASHTO SPECIFICATION FOR 90 MPH WIND WITH A LUMINAIRE HAVING A MAXIMUM EPA OF 1.6 SQ. FT. AND WEIGHING 75 LBS.

<p>City of Naperville STANDARD DETAIL</p>	TRUSS ARM STREET LIGHT DETAIL - 40 FOOT		LIGHTING 6
	EFFECTIVE: 4/20/2020	SHEET 1 OF 1	690.06



NOTES:

1. COMPLETE ASSEMBLY NATURAL SATIN FINISH WITH 5 YEAR WARRANTY. HADGG, VALMONT OR APPROVED EQUAL.
2. MOUNTED HEIGHT FROM TENON TO POLE ANCHOR PLATE.
3. LUMINAIRE ATTACHED TO POLE WITH CLAMP BRACKET & 1/2" X 13" N.C. S.S. HARDWARE.
4. POLE IS UL CLASSIFIED WITH UL LABEL AND HANDHOLE COVER GASKET COMPLYING WITH UL 1572.
5. RISE OF LUMINAIRE ARM IS 34".
6. POLE DESIGN MEETS LATEST AASHTO SPECIFICATION FOR 90 MPH WIND WITH A LUMINAIRE HAVING A MAXIMUM EPA OF 1.6 SQ. FT. AND WEIGHING 75 LBS.

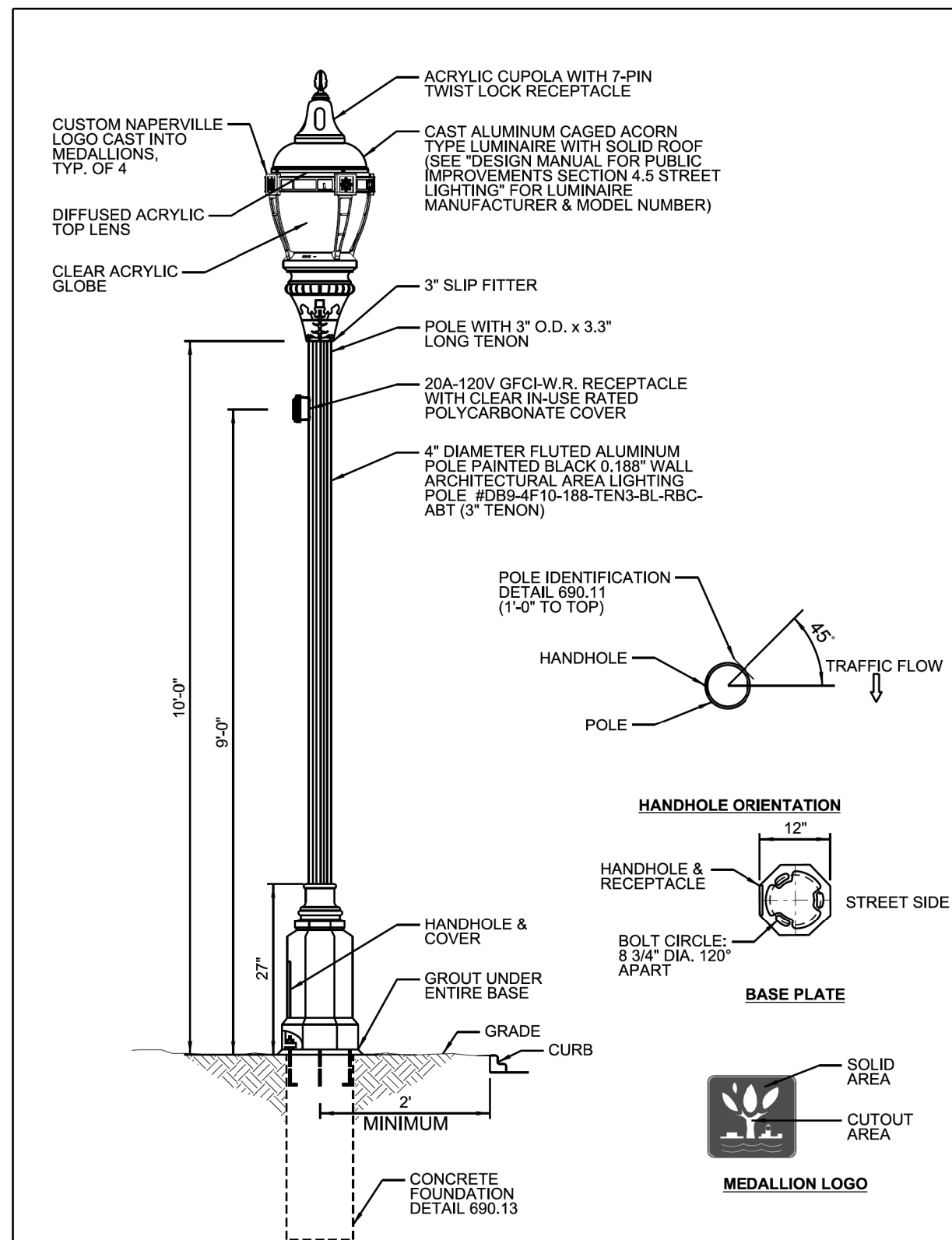
<p>City of Naperville STANDARD DETAIL</p>	TRUSS ARM STREET LIGHT DETAIL - 47.5 FOOT		LIGHTING 7
	EFFECTIVE: 4/20/2020	SHEET 1 OF 1	690.07

MODEL: 4400BELNAMES
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 DATE: 8/8/2022

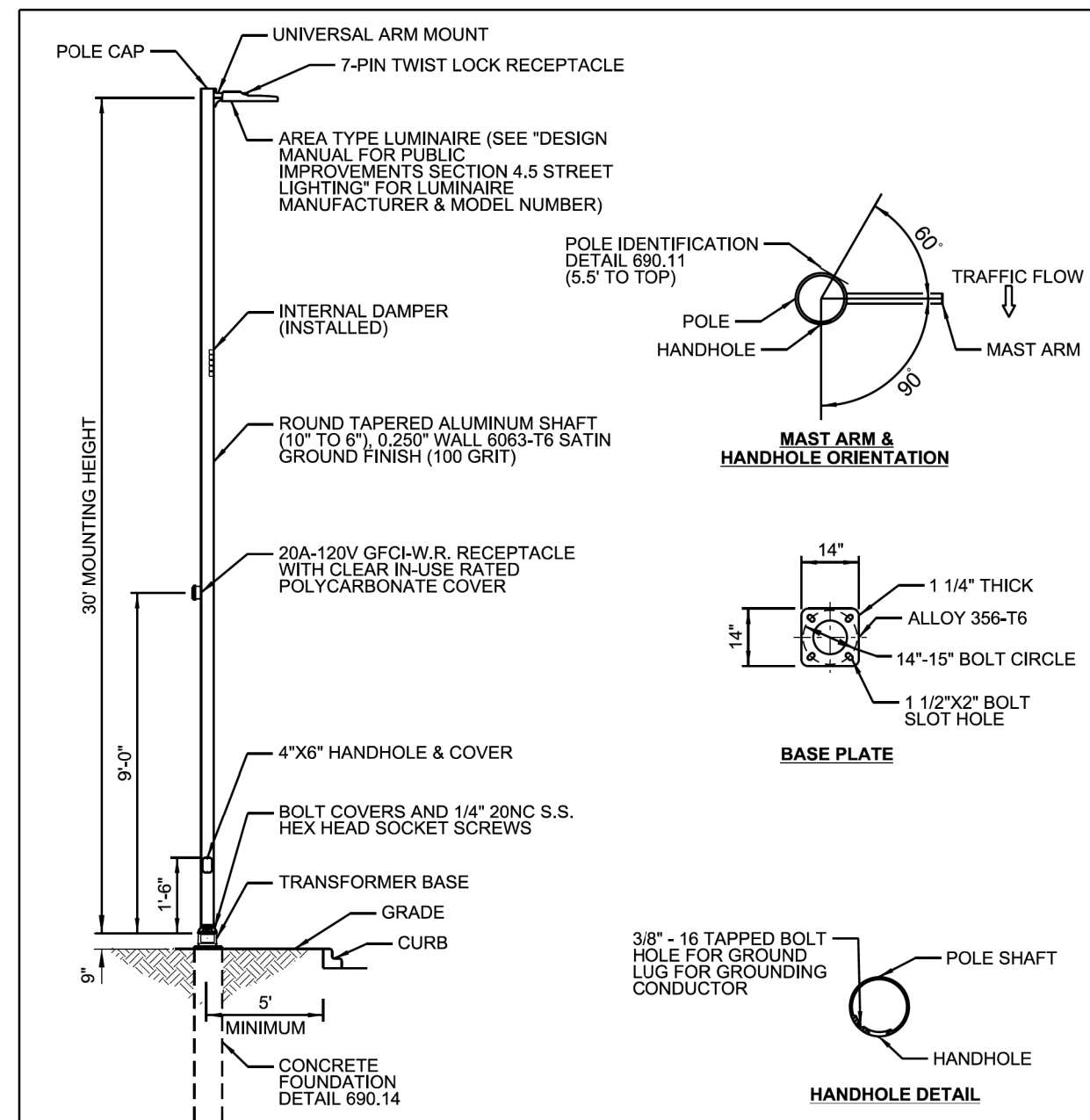
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PLOT DATE = 8/8/2022	CHECKED - JMV	REVISED -
	DATE -	REVISED -

WASHINGTON STREET BRIDGE LIGHTING DETAILS	
SCALE: N.T.S.	SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	175
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



	City of Naperville	CAGED ACORN STREET LIGHT DETAIL- 10 FOOT (CBD ONLY)	LIGHTING 9
	STANDARD DETAIL		690.09
	EFFECTIVE: 4/20/2020	SHEET 1 OF 1	



- NOTES:**
1. COMPLETE ASSEMBLY POWDER COATED TEXTURED BLACK HADGG, VALMONT, OR APPROVED-EQUAL- WITH 5 YEAR WARRANTY.
 2. POLE IS UL CLASSIFIED WITH UL LABEL AND HANDHOLE COVER GASKET COMPLYING WITH UL 1572.
 3. LUMINAIRE IS ATTACHED TO POLE WITH UNIVERSAL ARM MOUNT.
 4. POLE DESIGN MEETS LATEST AASHTO SPECIFICATION FOR 90 MPH WIND WITH A LUMINAIRE HAVING A MAXIMUM EPA OF 1.6 SQ. FT. AND WEIGHING 75 LBS.

	City of Naperville	SIDE MOUNT STREET LIGHT DETAIL - 30 FOOT (CBD ONLY)	LIGHTING 10
	STANDARD DETAIL		690.10
	EFFECTIVE: 4/20/2020	SHEET 1 OF 1	

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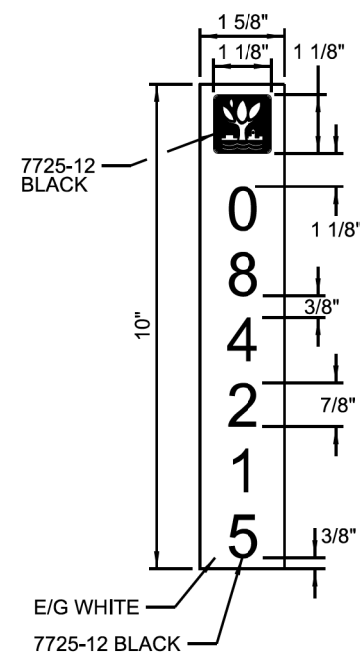


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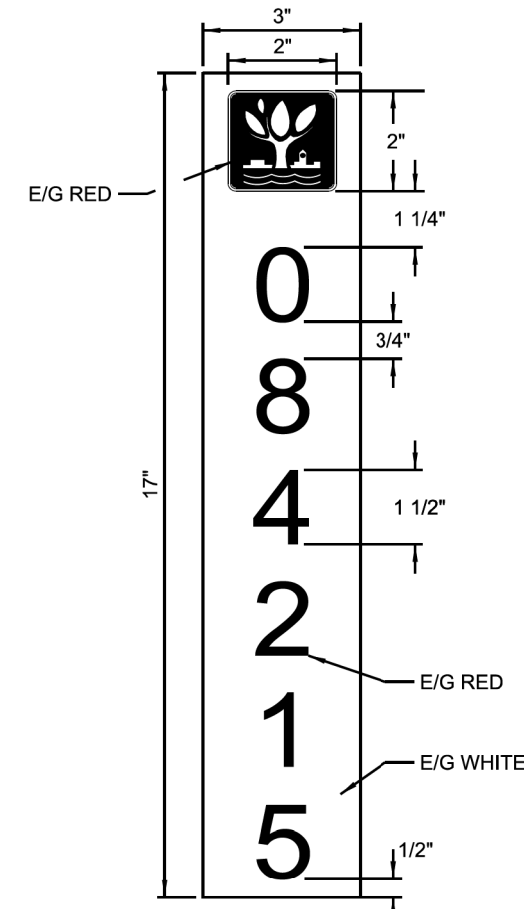
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET BRIDGE			
LIGHTING DETAILS			
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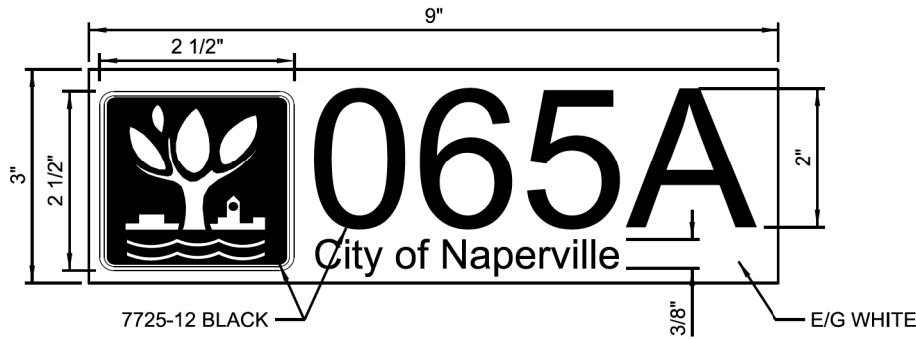
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2552	16-00167-00-BR	DUPAGE	261	176
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 61G82	



CBD LIGHT POLE LABEL



TYPICAL LIGHT POLE LABEL



LIGHTING CONTROLLER LABEL (BACK OF CABINET)

NOTES:

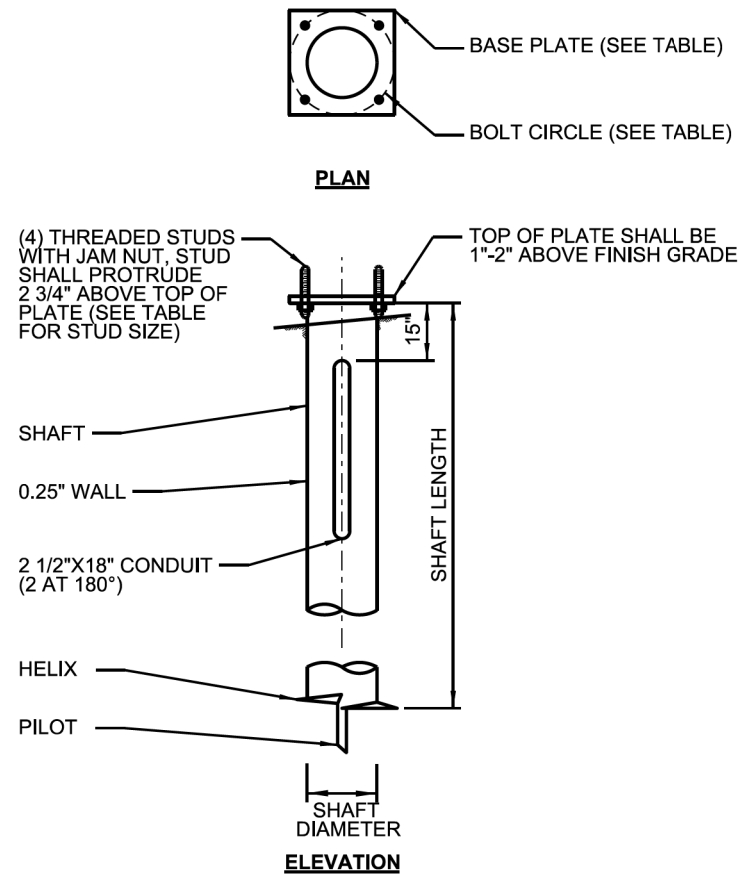
1. ALL LABELS SHALL BE WESTERN REMAC OR APPROVED EQUAL.
2. COORDINATE LABEL NUMBERS WITH THE CITY.
3. SEE POLE AND CONTROLLER DETAILS FOR LOCATION OF LABELS.

 City of Naperville STANDARD DETAIL	LIGHT POLE AND CONTROLLER LABELING DETAIL		LIGHTING 11
	EFFECTIVE: 4/20/2020	SHEET 1 OF 1	690.11

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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	177
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



HELIX FOUNDATION MATERIALS	
ITEM	MATERIAL REQUIREMENT
BASE PLATE	AASHTO M 270M, GRADE 36 (M270M, GRADE 250)
SHAFT	ASTM A 252, GRADE 2 (PHOSPHOROUS 0.04% MAXIMUM, SULFUR 0.05% MAXIMUM)
HELIX SCREW	AASHTO M 183 (ASTM A 635)
PILOT POINT	AASHTO M 270 (ASTM A 575)
ANCHOR RODS/STUDS	AASHTO M 314 (ASTM F 1554)
HEXAGON NUTS	AASHTO M 291M (ASTM A 563) GRADE DH, OR AASHTO M 292 (ASTM A 194) GRADE 2H
WASHERS	AASHTO M 293 (ASTM F 436)

HELIX FOUNDATION SIZE					
POLE HEIGHT	BOLT CIRCLE	SHAFT DIA.	BOLT SIZE	SHAFT LENGTH	BASEPLATE
23 FT	10 1/2"	8 5/8"	1"	5.0 FT	12"X12"X1"
32 FT	11 1/2"	8 5/8"	1"	6.0 FT	12"X12"X1"
40 FT	15"	8 5/8"	1"	6.0 FT	15"X15"X1 1/4"

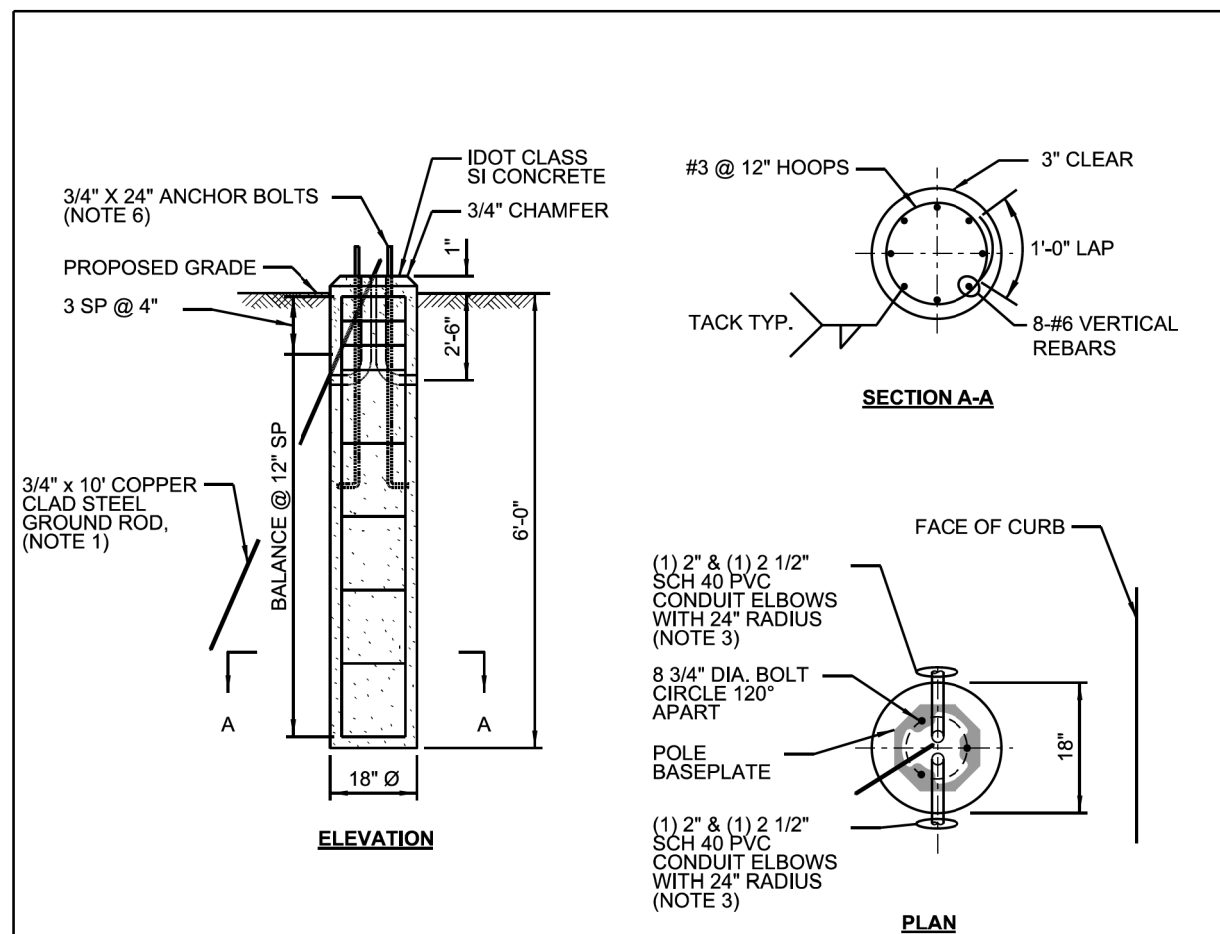
NOTES:

1. ALL MATERIALS SHALL BE GALVANIZED ACCORDING TO AASHTO M 111 (LATEST REVISION).
2. ALL WELDS SHALL BE CONTINUOUS AND NOT LESS THAN 1/4" FILLET WELDS. THE WELDED FOUNDATION SHALL BE CAPABLE OF WITHSTANDING 10,000 FT/LBS OF INSTALLATION TORQUE APPLIED ABOUT THE AXIS OF THE FOUNDATION.
3. THE HELIX FOUNDATION SHAFT SHALL BE INSTALLED PLUMB AND THE BASE PLATE SHALL BE IN LEVEL.
4. THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE INSTALLATION OF THE LIGHT POLE.
5. THE CONTRACTOR SHALL COORDINATE EXTENSION OF ANCHOR BOLTS ABOVE TOP OF THE BASE PLATE WITH THE BREAKAWAY DEVICE MANUFACTURER'S REQUIREMENTS.
6. ANY VOIDS WITHIN THE METAL FOUNDATION SHALL BE FILLED WITH FINE AGGREGATE.
7. METAL FOUNDATIONS SHALL BE INSTALLED IN UNDISTURBED SOIL. PREDRILLING A PILOT HOLE AND/OR BACK FILLING AROUND THE FOUNDATION IS NOT ALLOWED.
8. THE METAL FOUNDATION SHALL NOT BE INSTALLED TO A TORQUE WHICH EXCEEDS THE MANUFACTURER'S MAXIMUM TORQUE RATING NOR SHALL IT BE INSTALLED TO AN INSTALLATION TORQUE VALUE OF LESS THAN 3,500 FT LB. METAL FOUNDATIONS THAT ARE NOT INSTALLED TO FULL INSTALLATION DEPTH OR DO NOT ACHIEVE THE MINIMUM INTALLATION TORQUE SHALL BE REMOVED AND REPLACE WITH A CONCRETE FOUNDATION.
9. BASE PLATE TO BE PERPENDICULAR TO SHAFT AXIS (± 1 DEG) AND HOLE CENTERLINE CONCENTRIC (± 0.188) TO THE SHAFT AXIS.
10. PILOT POINT AND SHAFT AXES TO BE CONCENTRIC (± 125) AND IN LINE (± 2 DEG).
11. BASE PLATE SHALL BE PERMANENTLY STAMPED WITH MANUFACTURER'S NAME AND DATE OF MANUFACTURE.

<p>City of Naperville STANDARD DETAIL</p>	<p>HELIX TYPE POLE FOUNDATION DETAIL</p>		<p>LIGHTING 12</p>
	<p>EFFECTIVE: 4/20/2020</p>	<p>SHEET 1 OF 2</p>	<p>690.12</p>

<p>City of Naperville STANDARD DETAIL</p>	<p>HELIX TYPE POLE FOUNDATION DETAIL</p>		<p>LIGHTING 12</p>
	<p>EFFECTIVE: 4/20/2020</p>	<p>SHEET 2 OF 2</p>	<p>690.12</p>

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NOTES:

1. GROUND ROD SHALL BE CAST INTO CONCRETE FOUNDATION WITH 8 FEET IN CONTACT WITH SOIL AND PROTRUDE 2" ABOVE FOUNDATION.
2. FOUNDATIONS SHALL BE VIBRATED IN ACCORDANCE WITH IDOT STANDARD PRACTICES.
3. COORDINATE PVC CONDUIT STUB UP LOCATIONS WITH POLE BASE OPENINGS. PVC SHALL ONLY BE USED EMBEDDED IN CONCRETE FOUNDATION, UNDERGROUND HDPE CONDUIT SHALL BE RUN BETWEEN POLES & INSTALLED THRU EMBEDDED PVC.
4. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.
5. THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
6. ANCHOR BOLT PROJECTION SHALL BE 3 1/2" ABOVE CONCRETE.
7. THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. A FULL DEPTH LINER SHALL BE USED IF SOIL CONDITIONS REQUIRE IT.
8. THE TOP OF FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4".
9. THE CONCRETE SHALL BE CLASS SI. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 OF IDOT STANDARD SPECIFICATIONS (MIN 7 DAYS) BEFORE LIGHT POLES ARE INSTALLED.

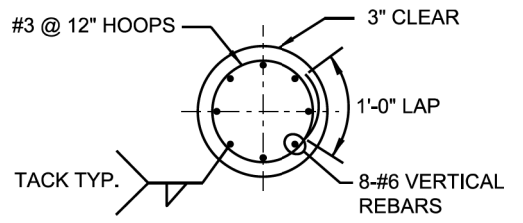
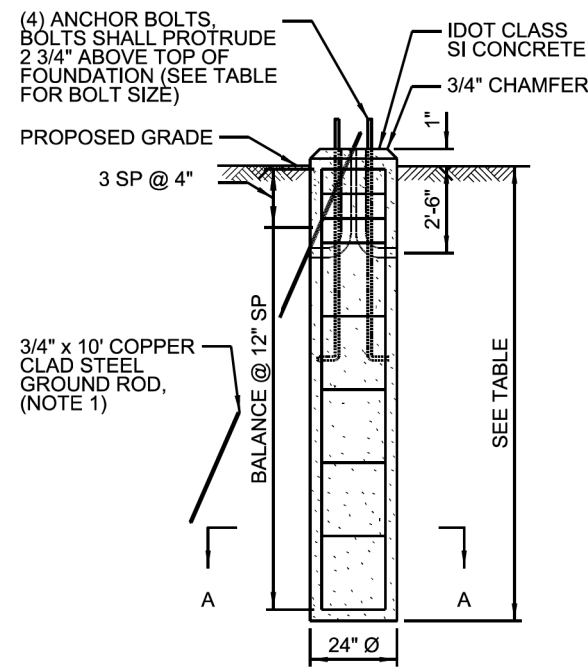
NOTES:

10. THE ANCHOR BOLTS SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
11. THE ANCHOR BOLTS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A1942H OR ASTM A563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F436.
12. ANCOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UM OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F1136.
13. THE ANCHOR BOLTS SHALL BE THREADED A MINIMUM OF 6 INCHES WITH A MINIMUM OF 3 INCHES OF THREADED ANCHOR BOLT EMBEDDED IN THE FOUNDATION.
14. THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
15. THE RACEWAYS SHALL PROJECT 1 INCH ABOVE THE TOP OF THE FOUNDATION.

 City of Naperville STANDARD DETAIL	CONCRETE POLE FOUNDATION DETAIL - 18 INCH DIAMETER (CBD ONLY)	LIGHTING 13 690.13
	EFFECTIVE: 4/20/2020	SHEET 1 OF 2

 City of Naperville STANDARD DETAIL	CONCRETE POLE FOUNDATION DETAIL - 18 INCH DIAMETER (CBD ONLY)	LIGHTING 13 690.13
	EFFECTIVE: 4/20/2020	SHEET 2 OF 2

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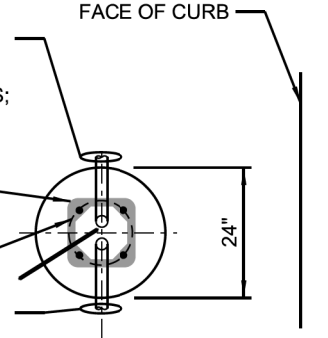


SECTION A-A

NON-CBD AREA:
(1) 2 1/2" PVC ELBOW;
CBD AREA:
(2) 2 1/2" PVC ELBOWS;
24" RADIUS, TYP.
(NOTE 3)

POLE
BASEPLATE
BOLT CIRCLE PER
MFG. (SEE TABLE)

NON-CBD AREA:
(1) 2 1/2" PVC ELBOW;
CBD AREA:
(2) 2 1/2" PVC ELBOWS;
24" RADIUS, TYP.
(NOTE 3)



PLAN

LIGHT POLE FOUNDATION DEPTH TABLE

SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY Qu = 0.375 TON/SQ. FT.	13'-0"	15'-0"
MEDIUM CLAY Qu = 0.75 TON/SQ. FT.	9'-6"	14'-10"
STIFF CLAY Qu = 1.50 TON/SQ. FT.	7'-6"	8'-7"
LOOSE SAND Ø = 34°	9'-6"	10'-7"
MEDIUM SAND Ø = 37.5°	9'-0"	9'-10"
DENSE SAND Ø = 40°	8'-3"	9'-7"

ANCHOR BOLT SIZE		
POLE HEIGHT	BOLT CIRCLE	BOLT SIZE
23FT	10 1/2"	1" X 36"
30 FT (CBD)	14 1/2"	1 1/4" X 42"
32 FT	11 1/2"	1" X 60"
40 FT	15"	1" X 60"
47.5 FT	15"	1" X 60"

NOTES:

- GROUND ROD SHALL BE CAST INTO CONCRETE FOUNDATION WITH 8 FEET IN CONTACT WITH SOIL AND PROTRUDE 2" ABOVE FOUNDATION.
- FOUNDATIONS SHALL BE VIBRATED IN ACCORDANCE WITH IDOT STANDARD PRACTICES.
- COORDINATE PVC CONDUIT STUB UP LOCATIONS WITH POLE BASE OPENINGS. PVC SHALL ONLY BE USED EMBEDDED IN CONCRETE FOUNDATION, UNDERGROUND HDPE CONDUIT SHALL BE RUN BETWEEN POLES & INSTALLED THRU EMBEDDED PVC.
- ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.

NOTES:

- THE ANCHOR BOLTS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 4 IN. ABOVE THE FINISHED GRADE WITHIN A 60 IN. CHORD ACROSS THE FOUNDATION, WITH ANCHOR BOLTS INCLUDED, IN ACCORDANCE AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR BOLTS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4".
- THE CONCRETE SHALL BE CLASS SI. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 OF IDOT STANDARD SPECIFICATION (MIN 7 DAYS) BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR BOLT SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR BOLT WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR BOLT. A TACK WELDED ANCHOR BOLT MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR BOLTS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A1942H OR ASTM A563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F436.
- ANCHOR BOLTS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UM (6 MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F1136.
- THE ANCHOR BOLTS SHALL BE THREADED A MINIMUM OF 6 INCHES WITH A MINIMUM OF 3 INCHES OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR BOLTS SHALL PROJECT 2 3/4" ABOVE THE TOP OF THE FOUNDATION.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 1 INCH ABOVE THE TOP OF THE FOUNDATION.

<p>City of Naperville STANDARD DETAIL</p>	<p>CONCRETE POLE FOUNDATION DETAIL - 24 INCH DIAMETER</p>		<p>LIGHTING 14</p>
	<p>690.14</p>		<p>EFFECTIVE: 4/20/2020 SHEET 1 OF 2</p>

<p>City of Naperville STANDARD DETAIL</p>	<p>CONCRETE POLE FOUNDATION DETAIL - 24 INCH DIAMETER</p>		<p>LIGHTING 14</p>
	<p>690.14</p>		<p>EFFECTIVE: 4/20/2020 SHEET 2 OF 2</p>

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CiorbaGroup
 8725 W. Higgins Rd, Ste 600, Chicago, IL 60631
 P 773.775.4009 | www.ciorba.com

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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

WASHINGTON STREET BRIDGE
 LIGHTING DETAILS

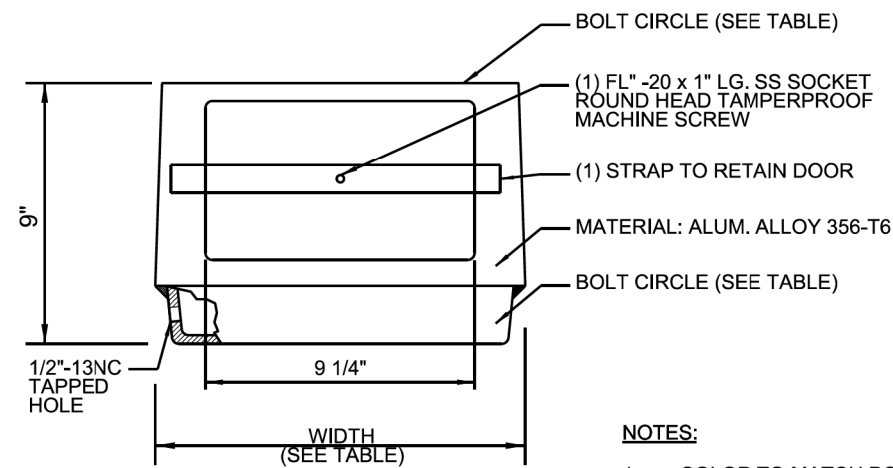
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FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 61G82	

SIZE				
POLE HEIGHT	TOP BOLT CIRCLE	BOTTOM BOLT CIRCLE	WIDTH	BOLT DIA.
23 FT	10 1/2"-12"	10"-12 3/4"	11 1/2"	1"
30 FT (CBD)	14 1/2"-15"	14 1/2"-16 1/4"	15"	1 1/4"
32 FT	10 1/2"-12"	10"-12 3/4"	11 1/2"	1"
40 FT	11 1/2"-12"	10"-12 3/4"	11 1/2"	1"
47.5 FT	14 1/2"-15"	14 1/2"-16 1/4"	15"	1"

BASE SUPPLIED WITH:

1. DOOR AND 1/4"-20NC S.S. HEX. HD. SCREW
2. EIGHT WASHERS 1/2" THICK X 2 3/4" O.D. (GALV. PER ASTM A153 OR ASTM B454)
3. FOUR 8NC X 3 3/4" LONG GALV. STL. HEX. HD. BOLTS
4. FOUR 8NC GALV. STL. HEX. NUTS
5. FOUR GALV. STL. LOCK WASHERS
6. FOUR GALV. STL. FLAT WASHERS
7. FHWA APPROVED MEETING AASHTO BREAKAWAY REQUIREMENTS
8. BEFORE INSTALLATION OF BREAKAWAY BASE, USER SHOULD CONSULT WITH AUTHORIZED DISTRIBUTOR REGARDING USERS PROPOSED APPLICATION, LOAD REQUIREMENTS AND INSTALLATION METHODS. FAILURES CAN RESULT FROM USERS MISAPPLICATION OR IMPROPER INSTALLATION. TO APPROACH OPTIMUM STATIC LOADS, USE THE LARGEST POSSIBLE BOLT CIRCLES. SHIMS SHALL NOT BE ALLOWED.



NOTES:

1. COLOR TO MATCH POLE.



City of Naperville
**STANDARD
DETAIL**

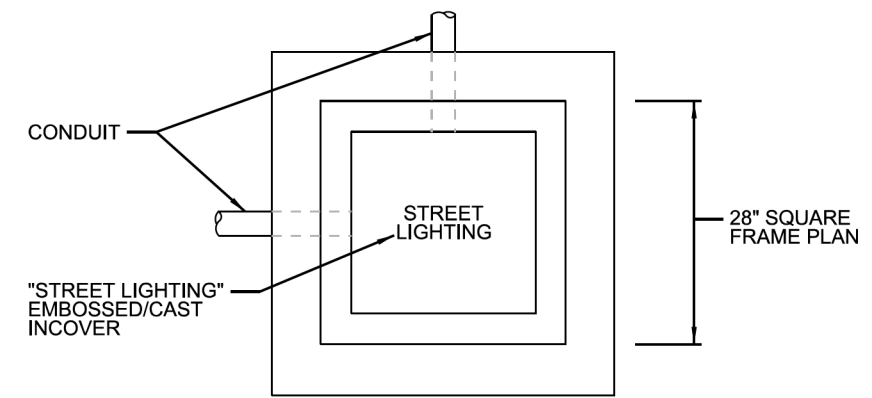
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EFFECTIVE: 4/20/2020

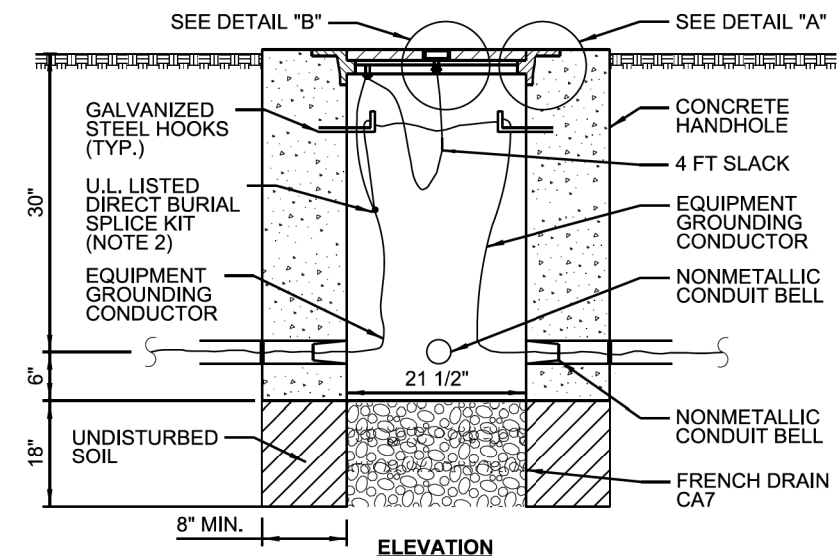
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LIGHTING 16

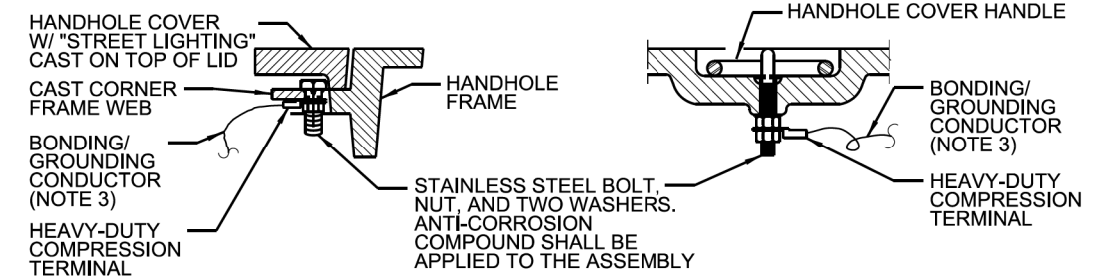
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PLAN



ELEVATION



DETAIL "A"

DETAIL "B"

NOTES:

1. FRAME AND COVER SHALL HAVE MINIMUM WEIGHT 140 LBS AND ABLE TO WITHSTAND AASHTO H-15 LOADING.
2. EQUIPMENT GROUNDING CONDUCTOR SHALL NOT BE CUT.
3. BONDING/GROUNDING CONDUCTOR SHALL BE XLP-TYPE USE-600V & SIZED TO MATCH EQUIPMENT GROUNDING CONDUCTOR.
4. NO SPLICING OF CURRENT CARRYING CONDUCTORS PERMITTED IN HANDHOLE.



City of Naperville
**STANDARD
DETAIL**

**CAST IN PLACE CONCRETE
HANDHOLE DETAIL**

EFFECTIVE: 4/20/2020

SHEET 1 OF 1

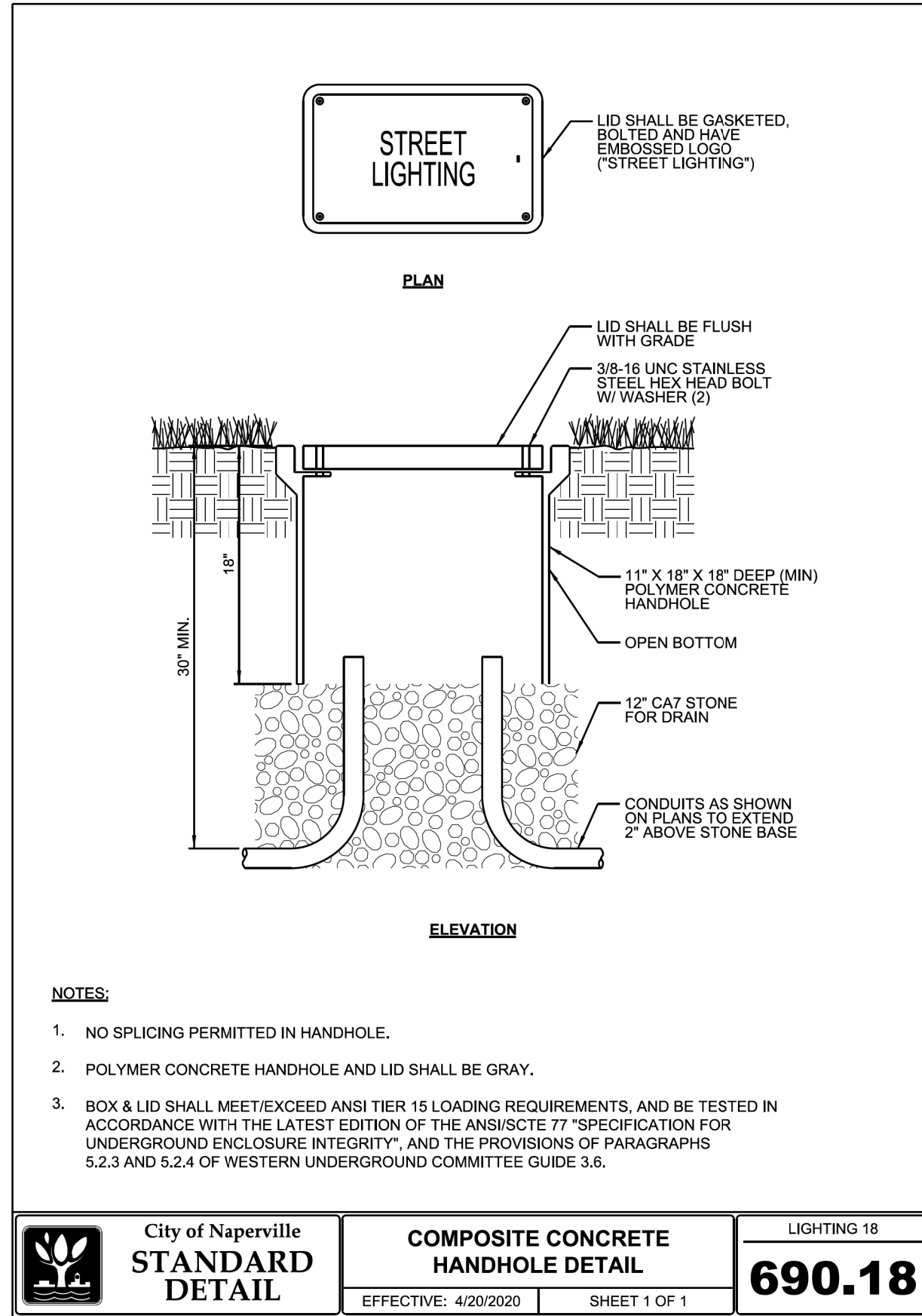
LIGHTING 17

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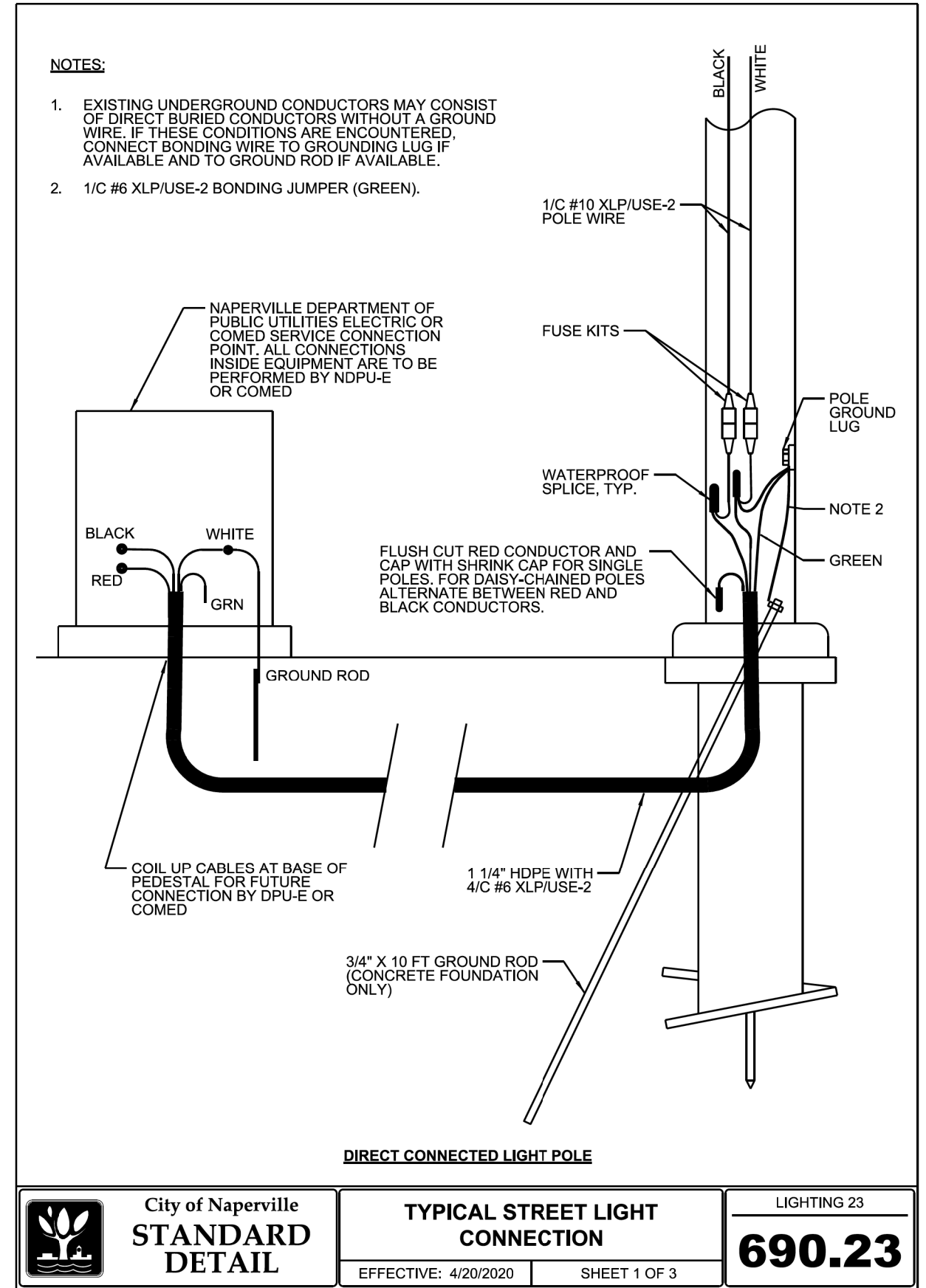
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 61G82	

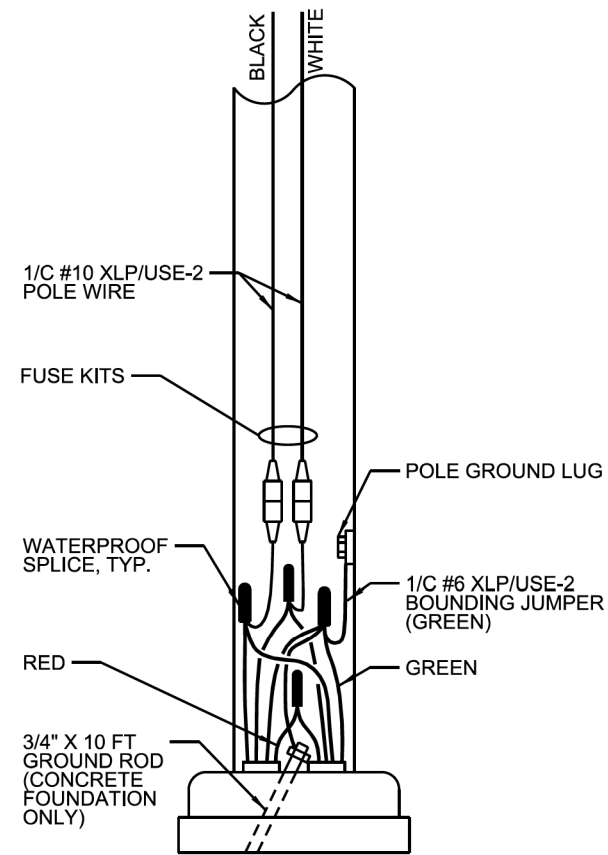


City of Naperville STANDARD DETAIL	COMPOSITE CONCRETE HANDHOLE DETAIL		LIGHTING 18
	EFFECTIVE: 4/20/2020	SHEET 1 OF 1	690.18

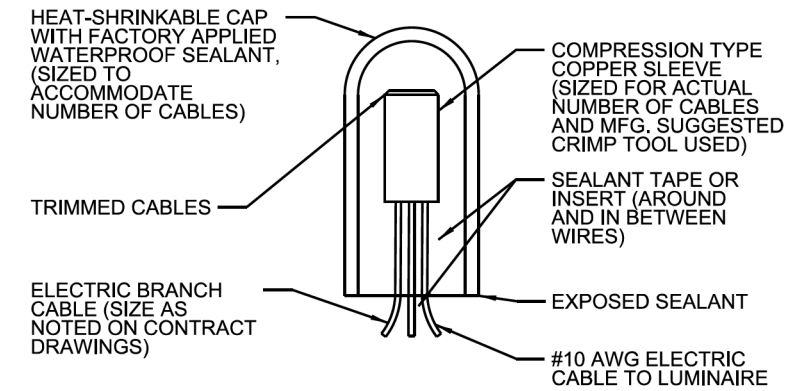


City of Naperville STANDARD DETAIL	TYPICAL STREET LIGHT CONNECTION		LIGHTING 23
	EFFECTIVE: 4/20/2020	SHEET 1 OF 3	690.23

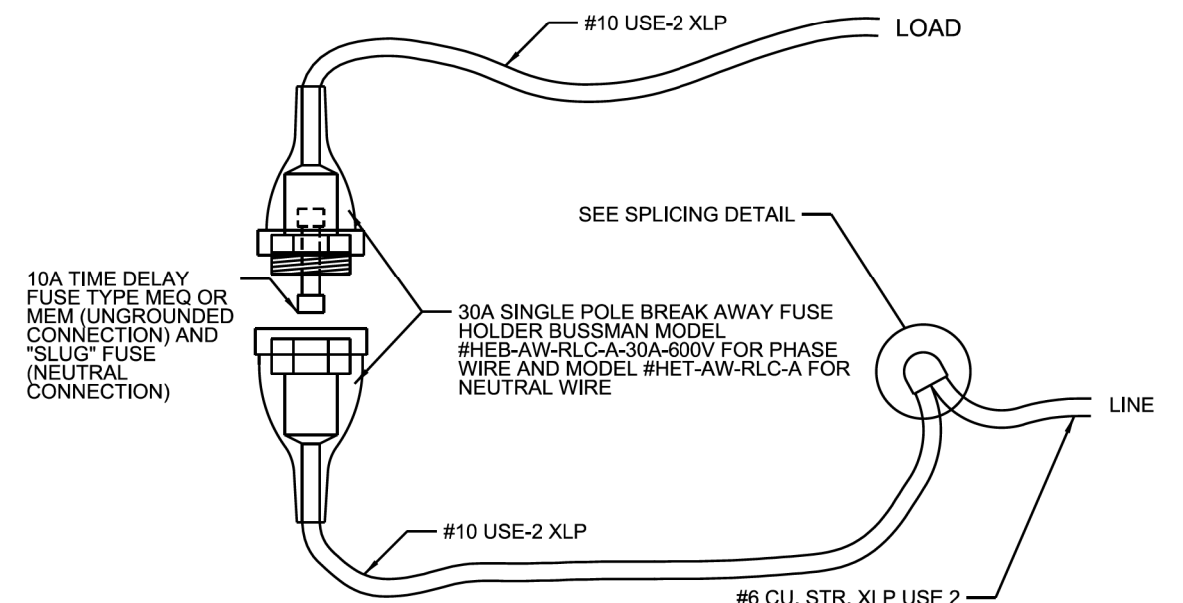
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LIGHT POLE ON CONTROLLER



SPLICE DETAIL



TYPICAL FUSE HOLDER CONNECTION IN POLE



City of Naperville
**STANDARD
DETAIL**

**TYPICAL STREET LIGHT
CONNECTION**

EFFECTIVE: 4/20/2020 SHEET 2 OF 3

LIGHTING 23

690.23



City of Naperville
**STANDARD
DETAIL**

**TYPICAL STREET LIGHT
CONNECTION**

EFFECTIVE: 4/20/2020 SHEET 3 OF 3

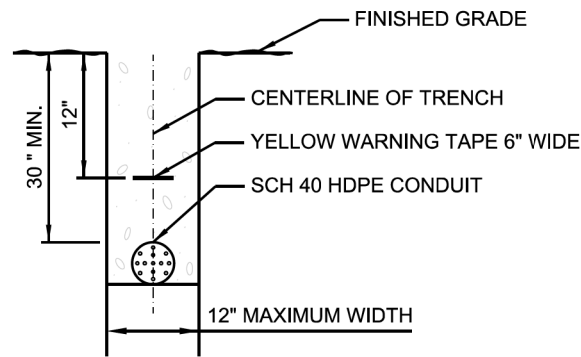
LIGHTING 23

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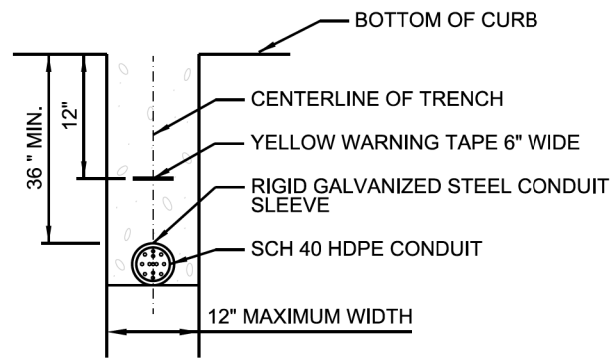
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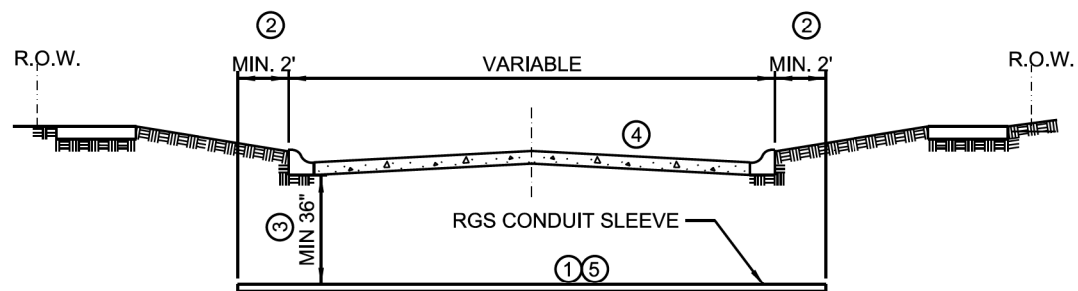
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2552	16-00167-00-BR	DUPAGE	261	183
CONTRACT NO. 61G82				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



TRENCH CROSS SECTION (NON-PAVED AREAS)



TRENCH CROSS SECTION (UNDER ROADWAYS & COMMERCIAL DRIVEWAYS)



ROADWAY / PAVEMENT CROSSING

- ① SLEEVE SHALL BE HEAVY WALL RIGID GALVANIZED STEEL (RGS) CONDUIT.
- ② SLEEVE SHALL EXTEND A MINIMUM OF 2 FT. BEYOND BACK OF CURB.
- ③ SLEEVE SHALL BE A MINIMUM OF 36" BELOW ROADWAY OR CURB BOTTOM.
- ④ CONTRACTOR SHALL PERFORM EXPLORATORY POTHOLES IN PAVEMENT IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND AS DIRECTED BY THE ENGINEER.
- ⑤ CONDUIT SHALL BE PUSHED UNDER EXISTING ROADWAY AND COMMERCIAL DRIVEWAYS UNLESS OTHERWISE APPROVED BY THE CITY.



City of Naperville
**STANDARD
DETAIL**

TYPICAL TRENCH DETAIL

EFFECTIVE: 4/20/2020

SHEET 1 OF 1

LIGHTING 30

690.30

MODEL: 140921.NM.MFE FILE NAME: NURS010020794.010DesIgnLighting020794.01-1-1.dwg 12-Dec-2020

USER NAME = Electrical	DESIGNED - DTJ	REVISED -
PLOT SCALE = 40,0000' / in.	DRAWN - DTJ	REVISED -
PLOT DATE = 8/8/2022	CHECKED - JMV	REVISED -
	DATE -	REVISED -

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	184
CONTRACT NO. 61G82				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Bench Mark: Disk monument located N.E. end of existing structure. Elev. 674.22.

Existing Structure: The existing structure, S.N. 022-0030, is a three-span precast concrete deck beam built in 1977. The total length of the bridge back-to-back of abutments is 130'-7". Individual spans measure 43±, 43±, and 43±. The out-to-out dimension is 62'-0"± with a 28° left skew. The abutments are reinforced concrete closed abutments with wingwalls. The piers are solid reinforced concrete walls. The piers, abutments and wingwalls are supported on untreated timber piles. In 2003, the substructure elements and deck beams were repaired and a concrete deck overlay was constructed. One lane of traffic in each direction to be maintained during construction utilizing staged construction.

No Salvage.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.064g
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.122g
Soil Site Class = C

DESIGN SPECIFICATIONS

2017 AASHTO AASHTO LRFD Bridge Design Specifications, 8th Edition

LOADING HL-93

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

DESIGN STRESSES

CONC. DECK SLAB

f'c = 6,000 psi (High-Performance)
fy = 60,000 psi (Reinforcement)
f's = 270,000 psi (0.6" dia low relaxation)

CONC. SUBSTRUCTURE

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

CONC. SUPERSTRUCTURE

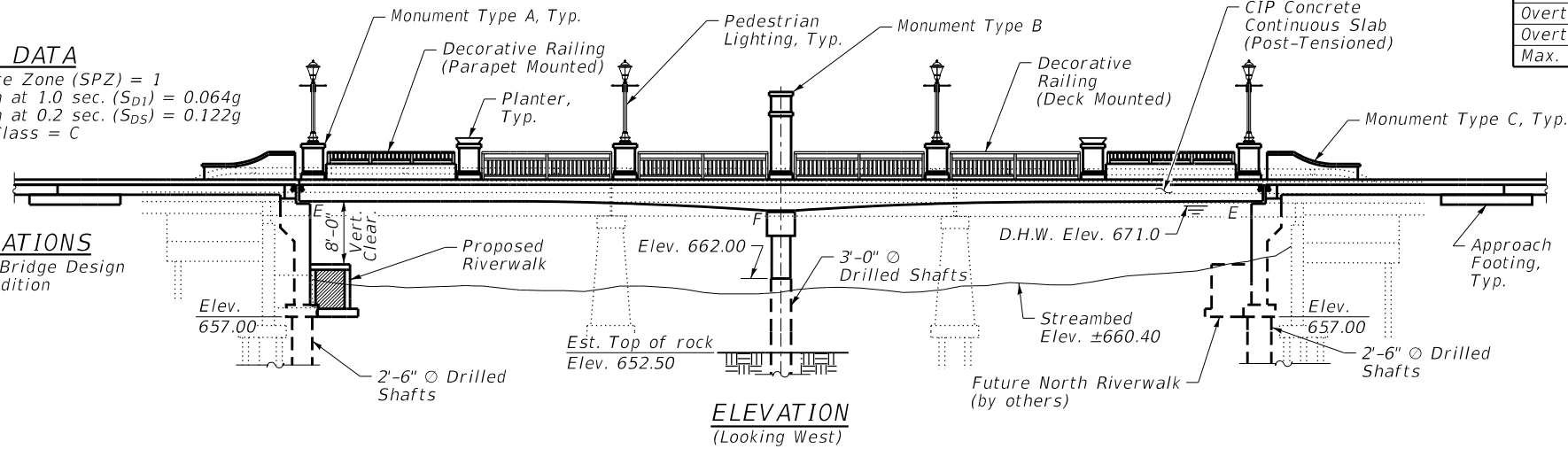
f'c = 4,000 psi
fy = 60,000 psi (Reinforcement)

DESIGN SCOUR ELEVATION TABLE

Table with 4 columns: S. Abut., Pier, N. Abut., Item. Values: 654.0, 652.5, 660.0, 5

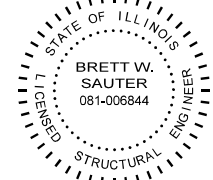
WATERWAY INFORMATION

Table with columns: Flood, Freq. Yr., Q C.F.S., Opening Sq. Ft., Nat. H.W.E., Head - Ft., Headwater El. Includes Flood, Design, Base, and Overtopping data.



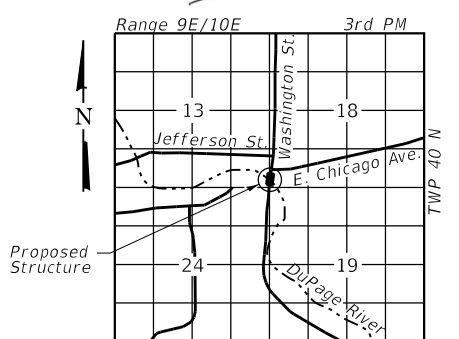
LEGEND section listing symbols for Proposed Underground Water Line, Proposed Underground Sanitary Sewer, Existing Fiber Optic Line, etc.

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



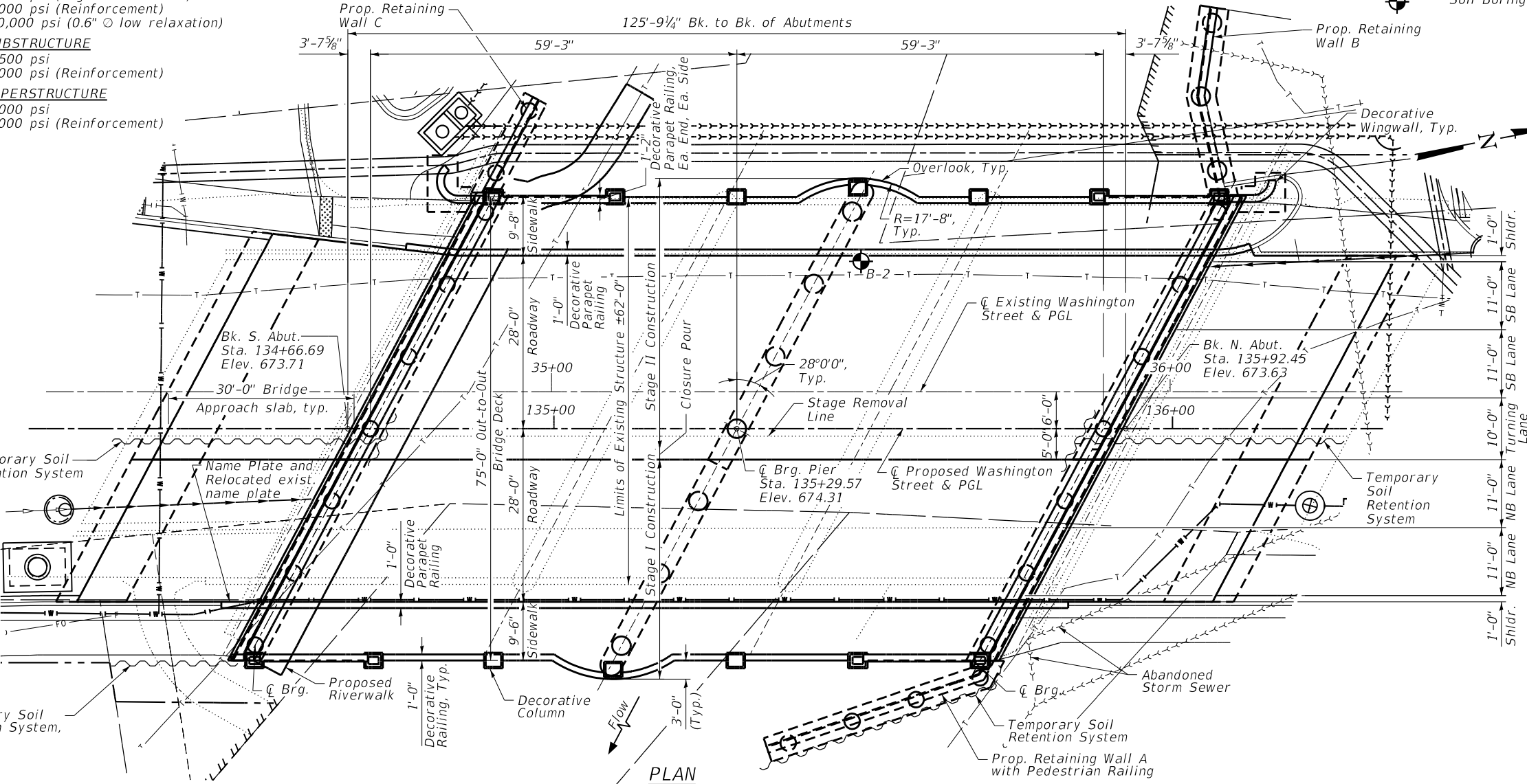
DATE: 8/8/2022
SEAL EXPIRES: 11/30/2022

Signature of Brett W. Sauter



LOCATION MAP

GENERAL PLAN AND ELEVATION
WASHINGTON STREET BRIDGE
OVER DUPAGE RIVER
F.A.U. 2552 - SEC. 16-00167-00 BR
DUPAGE COUNTY
STATION 135+29.57
S.N. 022-6749



PLAN

FILE NAME: N:\PROJ\020794-01\Design\Structural\CAD\020794-01_01-GPE.dgn



Table with columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, DRAWN, CHECKED, REVISED.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET S-1 OF S-48 SHEETS

Table with columns: F.A.U. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.

GENERAL NOTES

- Expansion joint embeds and attached bars shall be shop painted with the inorganic zinc rich primer.
- Reinforcement bars designated (E) shall be epoxy coated.
- Concrete Sealer shall be applied to the seat area of the abutments and pier.
- All Construction Joints shall be bonded.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8". Adjustment shall be made either by grinding the surface or by shimming the bearings.
- 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.
- Seal coat thickness design is based on the Estimated Water Surface Elevation (EWSE). Cofferdam design details and proposed changes in seal coat thickness shall be submitted to the Engineer for approval with the cofferdam design.
- The CONTRACTOR shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection. Forms for the deck slab shall be removed prior to placement of bridge approach slab.
- The CONTRACTOR shall coordinate structural work with civil, electrical, utilities, and architectural work.
- The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
- Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The CONTRACTOR shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.
- Backfill shall be placed behind the abutment after the superstructure has been poured and falsework removed. See Article 502.10 of the Standard Specifications.

INDEX OF SHEETS

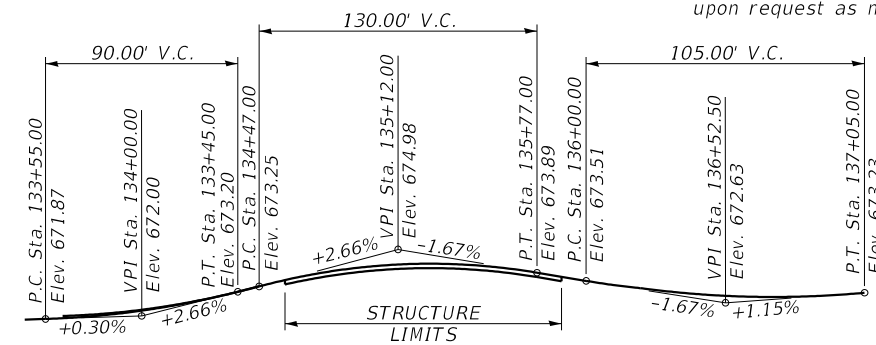
- S-1 General Plan and Elevation
- S-2 General Data
- S-3 Footing Layout
- S-4 Existing Structure Removal Details I
- S-5 Existing Structure Removal Details II
- S-6 Bridge Construction Staging
- S-7 Suggested Sequence of Work
- S-8 Temporary Soil Retention System
- S-9 Temporary Barrier Details
- S-10 Top of Slab Elevations I
- S-11 Top of Slab Elevations II
- S-12 Top of South Approach Slab Elevations
- S-13 Top of North Approach Slab Elevations
- S-14 Slab Geometry and Post-Tensioning
- S-15 Post-Tensioning Details
- S-16 Superstructure Plan and Longitudinal Section
- S-17 Superstructure Details
- S-18 Deck Details I
- S-19 Deck Details II
- S-20 Deck Details III
- S-21 Deck Details IV
- S-22 Bridge Approach Slab Plan
- S-23 Approach Slab Details I
- S-24 Approach Slab Details II
- S-25 Traffic Barrier Details I
- S-26 Traffic Barrier Details II
- S-27 Decorative Railing Details I
- S-28 Decorative Railing Details II
- S-29 Expansion Joint Details I
- S-30 Expansion Joint Details II
- S-31 Abutment Bearing Details
- S-32 Pier Bearing Details
- S-33 South Abutment Plan and Elevation
- S-34 South Abutment Details
- S-35 Low Flow Walk Details I
- S-36 Low Flow Walk Details II
- S-37 North Abutment Plan and Elevation
- S-38 North Abutment Details
- S-39 Northeast Retaining Wall "A" Details
- S-40 Northwest Retaining Wall "B" Details I
- S-41 Northwest Retaining Wall "B" Details II
- S-42 Southwest Retaining Wall "C" Details
- S-43 Monument Type C Details
- S-44 Pier Details I
- S-45 Pier Details II
- S-46 Bar Splicer Assembly Details
- S-47 Boring Logs I
- S-48 Boring Logs II

13. Current Rating Factors on File for Existing Structure

Inventory: HS 12.2
 Operating: HS 20.2
 Live Load Restrictions: 15 Tons

Inventory and Operating Rating Factors and Live Load Restrictions are provided for information only. Inventory and Operating Ratings are based on HS-20 loading and configuration. Live Load Restrictions are based on Illinois legal loads and configurations. The Rating Factors and Live Load Restrictions are not necessarily representative of capacities to support the CONTRACTOR's equipment.

14. The CONTRACTOR is advised that the existing structure contains members that are in a deteriorated condition with reduced load carrying capacity. It is the CONTRACTOR's responsibility to account for the condition of the existing structure when developing construction procedures for the complete or partial removal, or replacement of the structure. An Existing Structure Information Package is available upon request as noted in the special provisions.



PROPOSED PROFILE GRADE
 (Along Washington St.)

STATION 135+29.57
 BUILT 202_ BY
 CITY OF NAPERVILLE
 F.A.U. RTE. 2552 SEC. 16-00167-00BR
 LOADING HL-93
 STRUCTURE NO. 022-6749

For Mounting See Sheet S-25

NAME PLATE
 See Std. 515001

Existing Name Plate to be cleaned and relocated next to the new Name Plate. Cost included with Name Plates.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SP	SUB	SUPER	TOTAL
PROTECTIVE COAT	SQ YD			1,583	1,583
REMOVAL OF EXISTING STRUCTURES NO. 1	EACH		0.5	0.5	1
REMOVAL OF EXISTING STRUCTURES NO. 2	EACH		1.0		1
REMOVAL OF EXISTING STRUCTURES NO. 3	EACH		1.0		1
REMOVAL OF EXISTING STRUCTURES NO. 4	EACH		1.0		1
STRUCTURE EXCAVATION	CU YD		261.0		261.0
ROCK EXCAVATION FOR STRUCTURES	CU YD		298		298
CONCRETE STRUCTURES	CU YD		450.8		450.8
CONCRETE SUPERSTRUCTURE	CU YD		1.3	86.1	87.4
BRIDGE DECK GROOVING	SQ YD			1,083	1,083
SEAL COAT CONCRETE	CU YD		88		88
CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD			159.8	159.8
REINFORCEMENT BARS	POUND		18,760		18,760
REINFORCEMENT BARS, EPOXY COATED	POUND		67,120	156,300	223,420
BAR SPLICERS	EACH		328	518	846
MECHANICAL SPLICERS	EACH			56	56
NAME PLATES	EACH			1	1
DRILLED SHAFT IN SOIL	CU YD		12.4		12.4
DRILLED SHAFT IN ROCK	CU YD		60		60
PREFORMED JOINT STRIP SEAL	FOOT			170	170
ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH			18	18
ANCHOR BOLTS, 1"	EACH			72	72
TEMPORARY SOIL RETENTION SYSTEM	SQ FT		1,589		1,589
GRANULAR BACKFILL FOR STRUCTURES	CU YD		339		339
CONCRETE SEALER	SQ FT		685		685
GEOCOMPOSITE WALL DRAIN	SQ YD		267		267
NON-SPECIAL WASTE DISPOSAL	CU YD	Y	57		57
BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/4 INCHES	SQ YD	Y		822	822
BRIDGE DECK SCARIFICATION 2 1/4"	SQ YD	Y		61	61
PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	0	257		257
PLANTER	EACH	Y		4	4
CROSSHOLE SONIC LOGGING ACCESS DUCTS	FOOT	Y	991		991
CROSSHOLE SONIC LOGGING TESTING	EACH	Y	9		9
DECORATIVE RAILING (DECK MOUNTED)	FOOT	Y		120	120
DECORATIVE RAILING (PARAPET MOUNTED)	FOOT	Y		58	58
TEMPORARY SOIL RETENTION SYSTEM (SPECIAL)	SQ FT	Y	384		384
ANTI-GRAFFITI COATING	SQ FT	Y	3,058		3,058
COFFERDAM (TYPE 1) (IN-STREAM/WETLAND WORK)	EACH	Y	4		4
FORM LINER TEXTURED SURFACE, SPECIAL	SQ FT	Y	3,280	910	4,190
PARAPET RAILING, SPECIAL	FOOT	Y		274	274
HIGH LOAD MULTI-ROTATIONAL BEARINGS, FIXED - 400K	EACH	Y		9	9
MODULAR CONCRETE PAVERS (SPECIAL)	SQ FT	Y		898	898
FURNISHING, INSTALLING AND STRESSING POST-TENSIONING STRANDS	POUND	Y		40,910	40,910
MONUMENT TYPE A	EACH	Y		12	12
MONUMENT TYPE B	EACH	Y		2	2
MONUMENT TYPE C	EACH	Y		2	2
LOW FLOW WALK	FOOT	Y	114		114
HIGH PERFORMANCE CONCRETE SUPERSTRUCTURE	CU YD	Y		770.5	770.5

FILE NAME: N:\PROJ\020794-01\Design\Structural\CAD\020794-01_02-General Notes.dgn



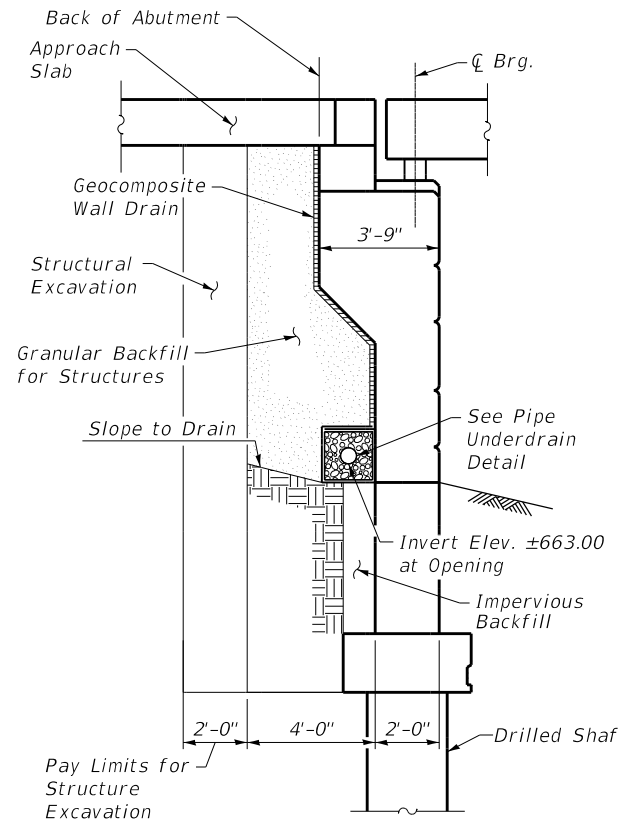
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PLOT SCALE = 0.1667' / in.	CHECKED - BWS	REVISED -
PLOT DATE = 8/8/2022	DRAWN - SBA	REVISED -
	CHECKED - BWS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

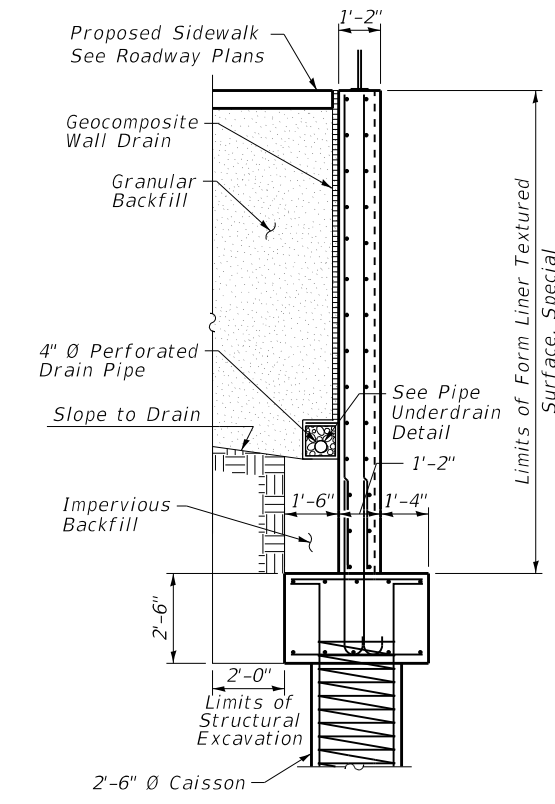
GENERAL DATA
STRUCTURE NO. 022-6749

SHEET S-2 OF S-48 SHEETS

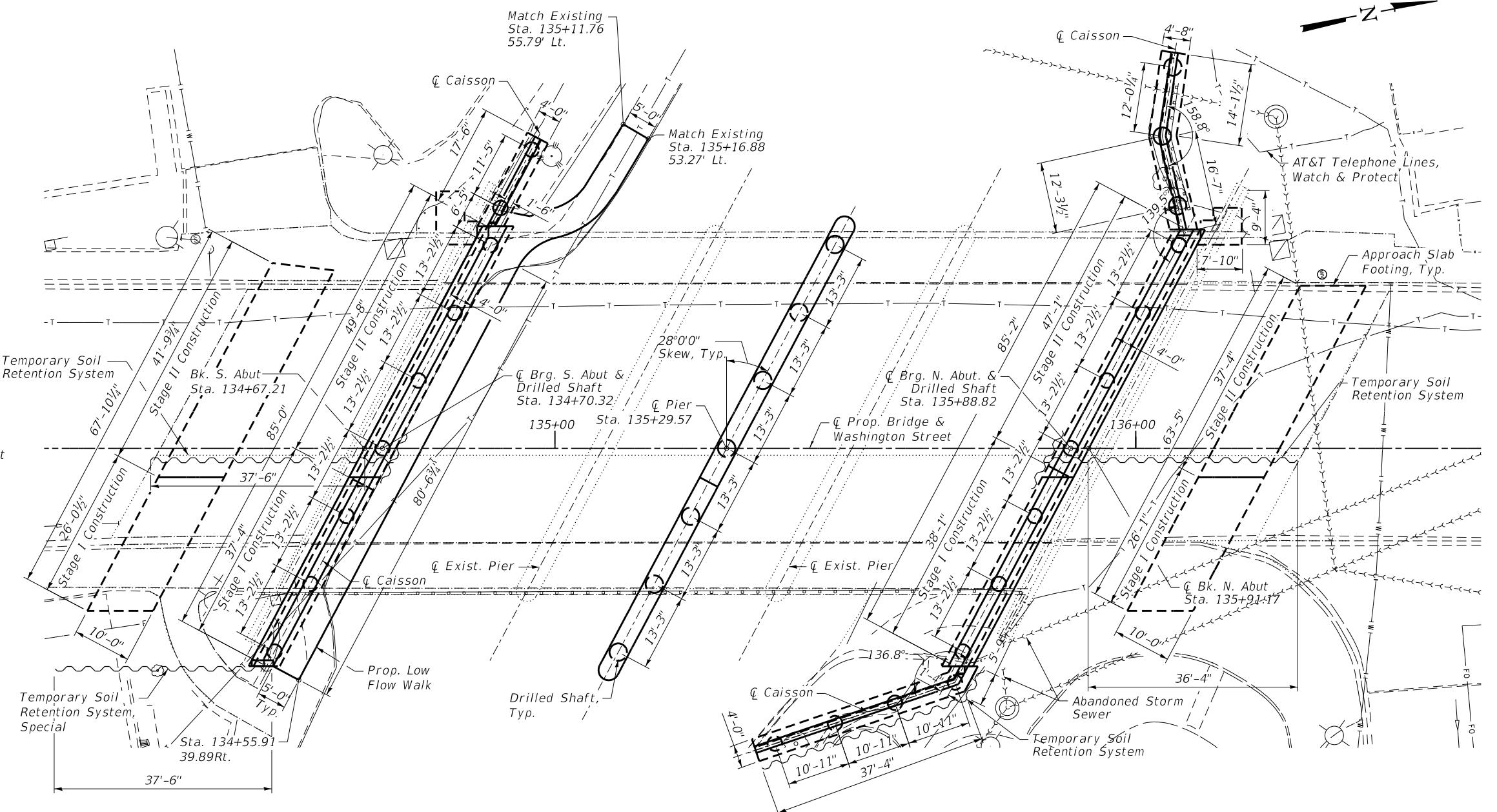
F.A.U. RTE. 2552	SECTION 16-00167-00-BR	COUNTY DUPAGE	TOTAL SHEETS 261	SHEET NO. 186
ILLINOIS			CONTRACT NO. 61G82	



SECTION THRU ABUTMENT
(Horiz. Dim. @ Rt. L's)



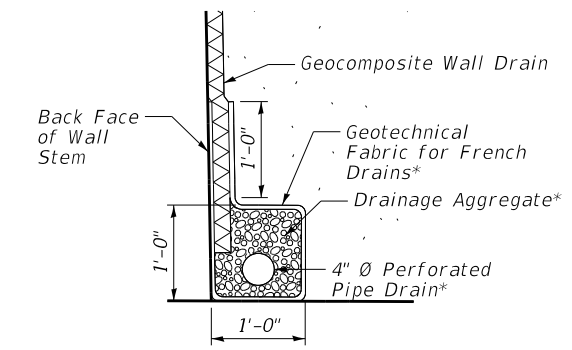
SECTION THRU WALL



PROPOSED FOUNDATION PLAN

NOTES:

- For utility details see roadway plans.
- For Temporary Soil Retention System, see Sheet S-8.
- The Contractor shall notify the City of Naperville, Department of Public Utilities prior to installation of the temporary soil retention system. The Contractor shall take into account existing utilities during the design of the temporary soil retention system. These requirements shall be included with the cost of Temporary Soil Retention System.
- Penetration of the drilled shaft into rock through the existing abutment stone footing shall require heavier drilling and rock coring equipment.
- Test pit excavations should be performed to help evaluate the location of the apparent buried structure and assess its impact on the proposed construction.
- Following the test pit excavations, the Contractor should evaluate the possibility of pre-excavating and removing such obstruction prior to shaft drilling and utility installation.
- Cost of drilling through the abutment stone footing shall be included with pay item Drilled Shaft in Rock.
- Contractor to field verify location of existing abutment stone footing prior to start of drilling operation.
- Impervious backfill shall be placed and compacted to 6" below invert elevations as shown in the Plans and accordance with Section 205 of Std. Specs. The backfill shall be sloped to drain towards the underdrain. Cost included with Structure Excavation.



PIPE UNDERDRAIN DETAIL

* Included in the cost of Pipe Underdrains for Structures, 4"

FILE NAME: N:\PROJ\020794.01\Design\Structural\CAD\020794.01_03-Footing Layout.dgn



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		CHECKED -	BWS	REVISED -	
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PLOT DATE =	8/8/2022	CHECKED -	BWS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

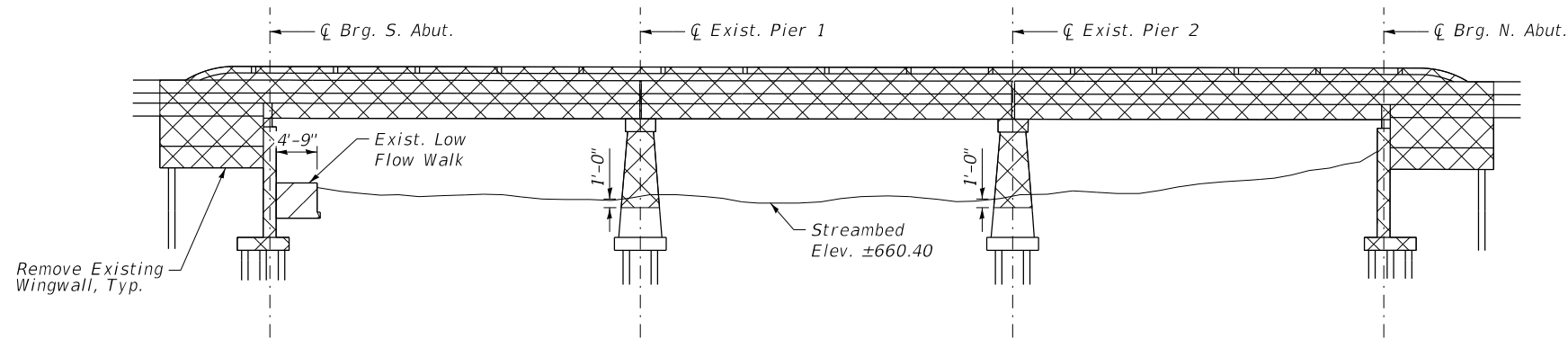
FOOTING LAYOUT
STRUCTURE NO. 022-6749

SHEET S-3 OF S-48 SHEETS

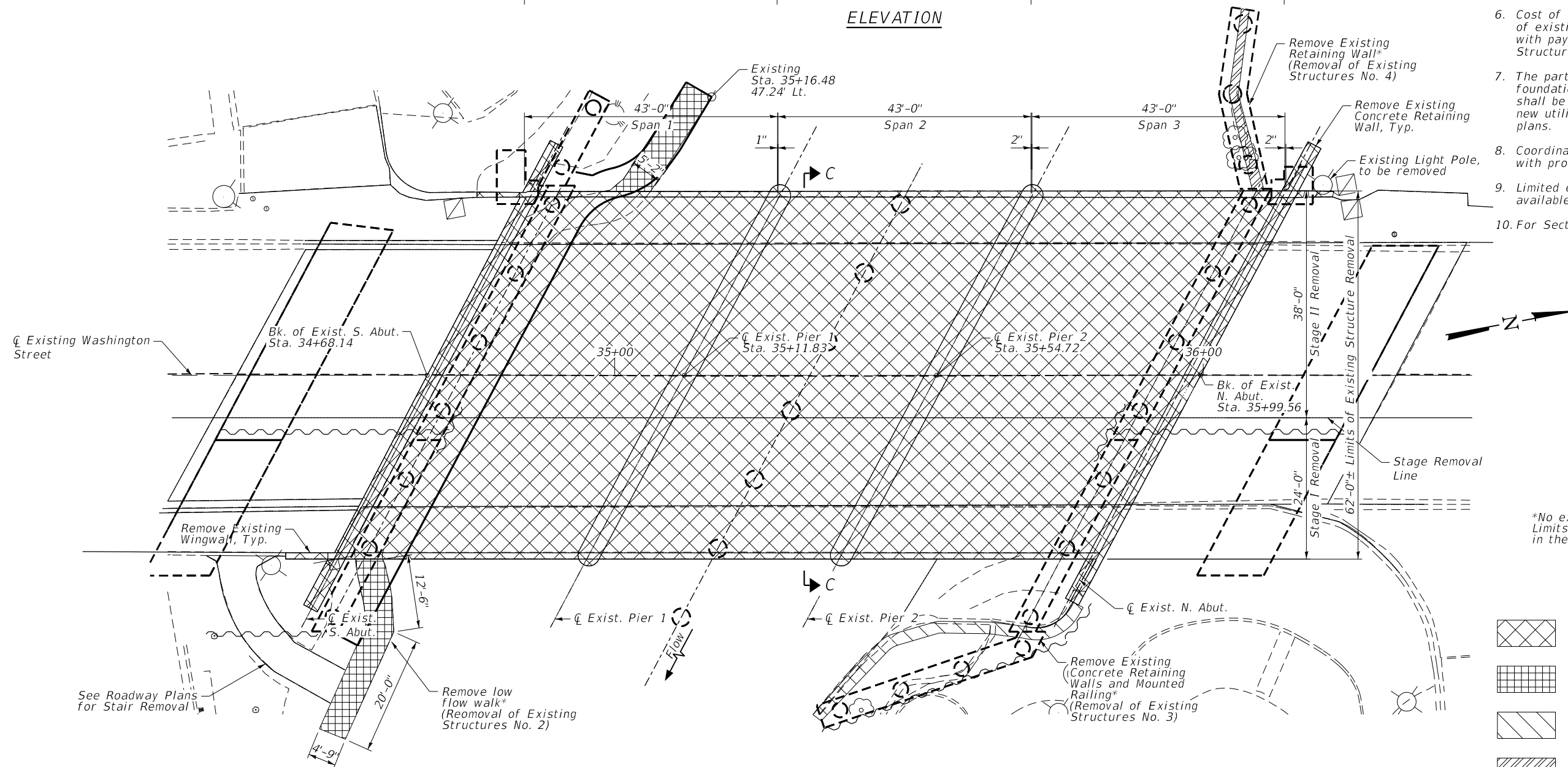
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	187
CONTRACT NO.			61G82	
ILLINOIS FED. AID PROJECT				

NOTES:

1. The existing bridge is removed in stages. See Construction Sequence for details.
2. Removal of Existing bridge rail, sidewalk, wingwall, pavement, abutment, and piers are included in the Pay Item "Removal of Existing Structure No. 1."
3. The CONTRACTOR is advised that the existing PPC deck beams are in a deteriorated condition with reduced responsibility to account for the condition of the beams when developing construction procedures.
4. For existing approach slab, sidewalk, curb and gutter, parapet, railing, and pavement removal quantities, see Roadway Plans.
5. For Temporary Soil Retention System limits, see Sheet S-8.
6. Cost of test pits, excavation, and removal of existing stone footing shall be included with pay item Removal of Existing Structure No. 1.
7. The parts of the piers, abutments, and foundation that encroach the new utilities shall be removed as required to locate the new utilities indicated on the contract plans.
8. Coordinate Removal of Existing Structures with proposed construction.
9. Limited existing plans of the bridge are available for Contractor reference.
10. For Section C-C, see Sheet S-5.








ELEVATION



PLAN

LEGEND

-  Removal of Existing Structures No. 1
-  Removal of Existing Structures No. 2
-  Removal of Existing Structures No. 3
-  Removal of Existing Structures No. 4
-  Temporary Soil Retention System

FILE NAME: N:\PROJ\020794.01\Design\Structural\CAD\020794.01_04-Existing Structure Removal Details 1.dgn



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CHECKED -	BWS	CHECKED -	BWS	REVISED -	
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PLOT DATE =	8/8/2022	CHECKED -	BWS	REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EXISTING STRUCTURE REMOVAL DETAILS I
STRUCTURE NO. 022-6749**

SHEET S-4 OF S-48 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	188
CONTRACT NO.			61G82	
ILLINOIS FED. AID PROJECT				

BILL OF MATERIAL

Item	Unit	Total
Removal of Existing Structures No. 1	EACH	1
Removal of Existing Structures No. 2	EACH	1
Removal of Existing Structures No. 3	EACH	1
Removal of Existing Structures No. 4	EACH	1

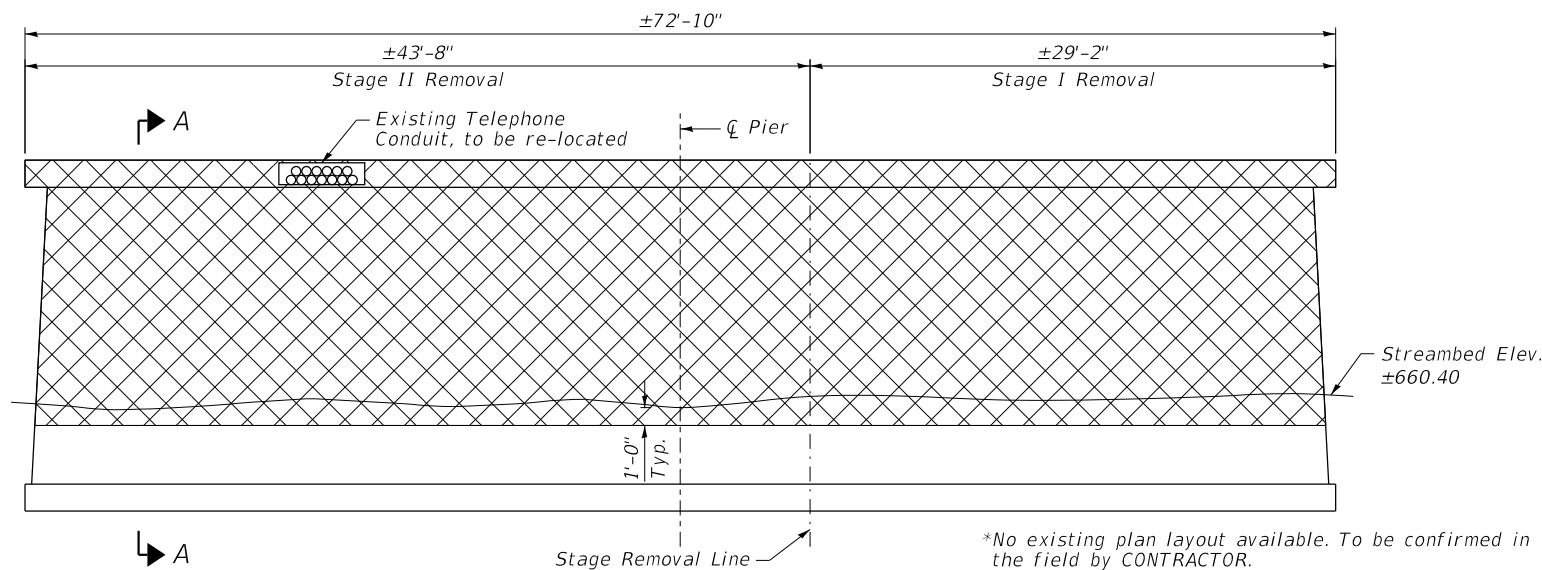
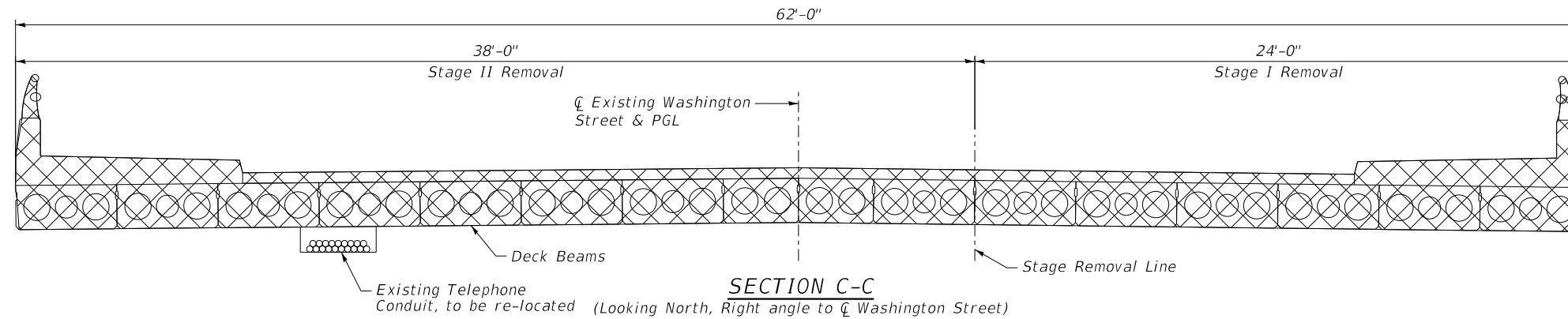
NOTE:

1. For Existing Structure Removal Notes, see Sheet S-4.

LEGEND



Removal of Existing Structures

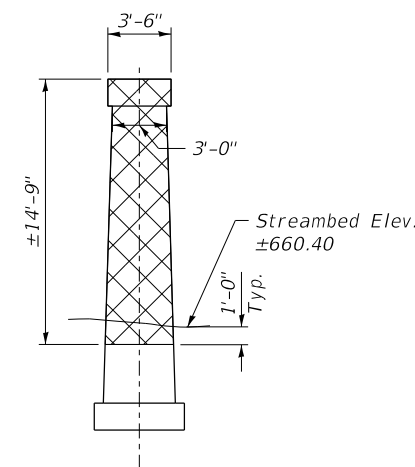


*No existing plan layout available. To be confirmed in the field by CONTRACTOR.

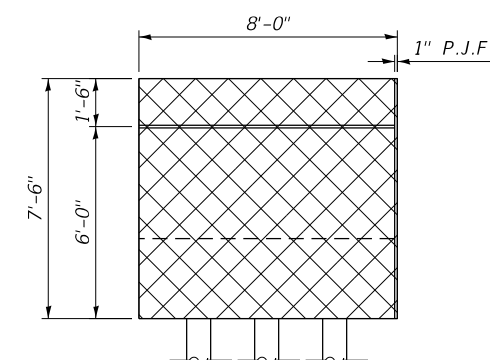
Cost of additional required removal for proposed construction to be included in the pay item Removal of Existing Structures No. 1.

PIER REMOVAL

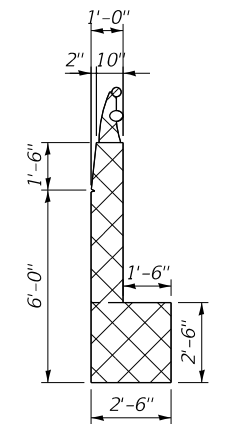
(Pier 1, Pier 2 similar, Looking North, Along Skew)



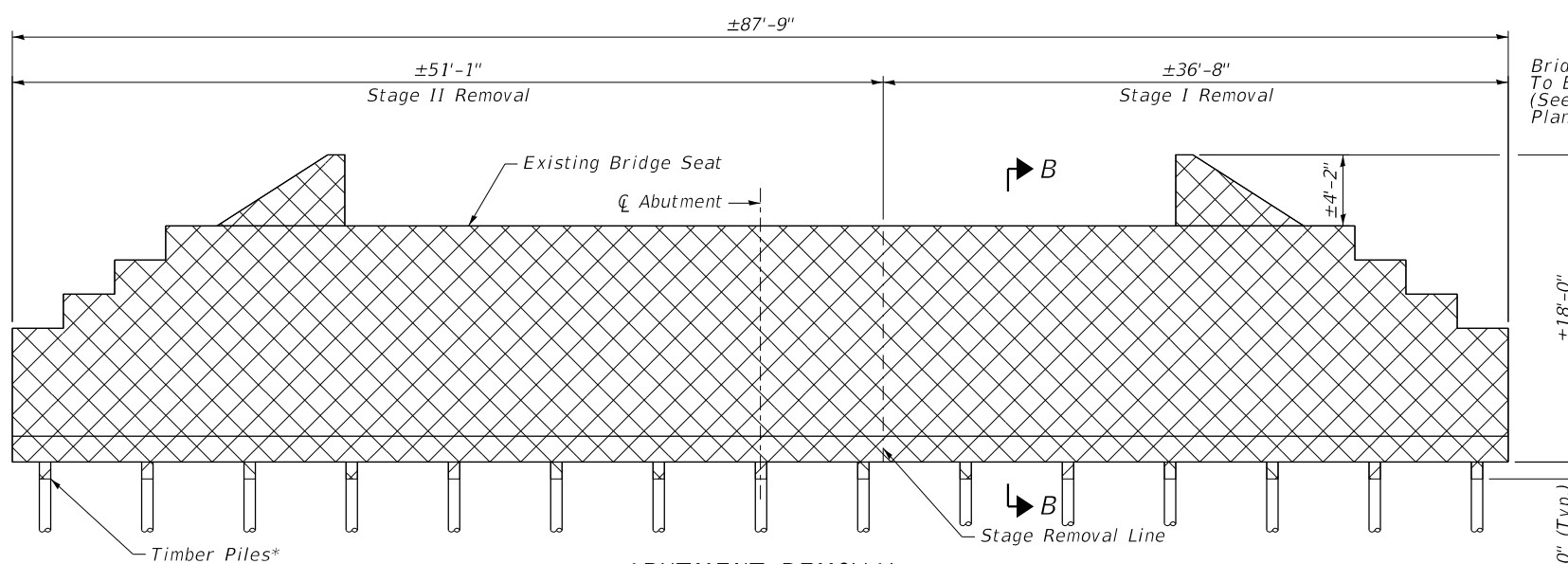
SECTION A-A



ELEVATION WINGWALL

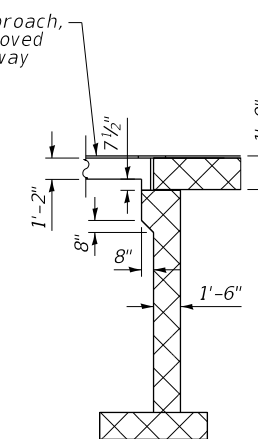


SECTION C-C

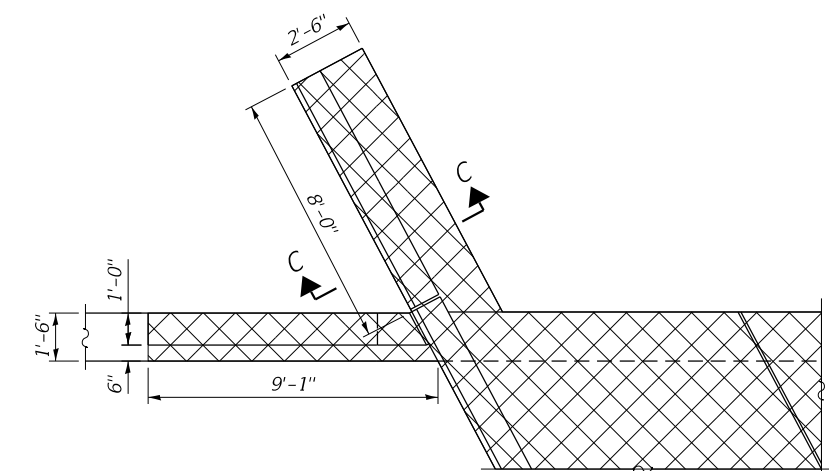


ABUTMENT REMOVAL

(N. Abut., S. Abut. similar, Looking North, Along Skew)



SECTION B-B



WINGWALL REMOVAL

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PLOT DATE = 8/8/2022	DRAWN - SBA	REVISD -
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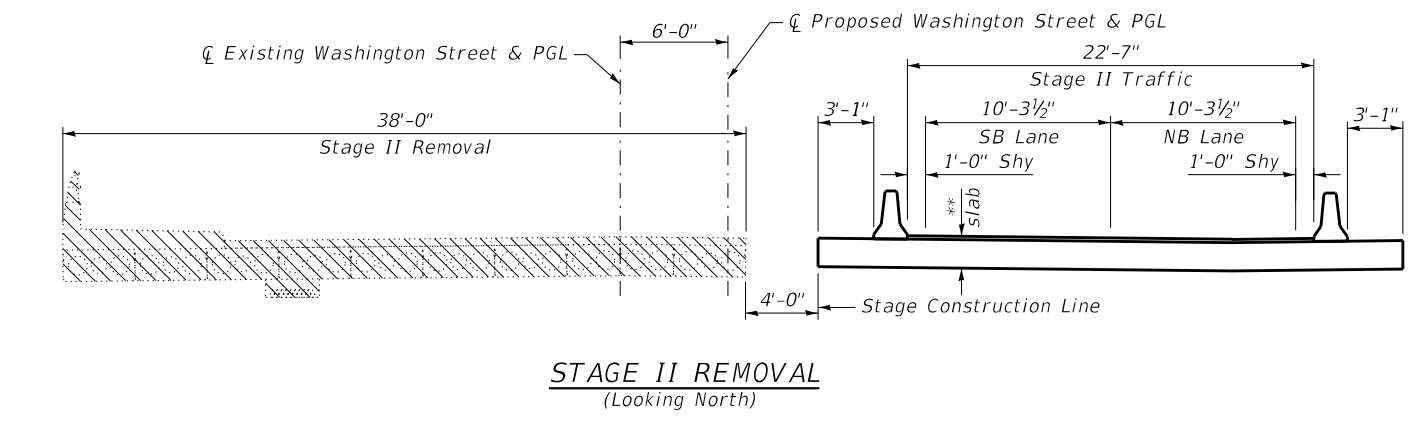
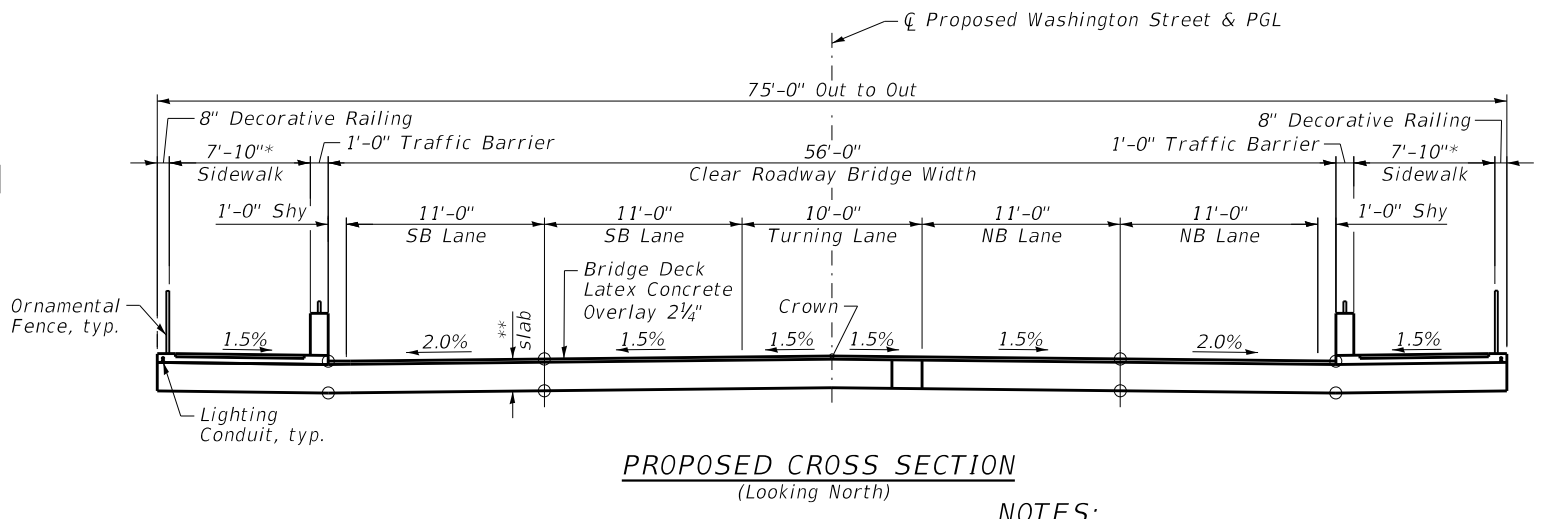
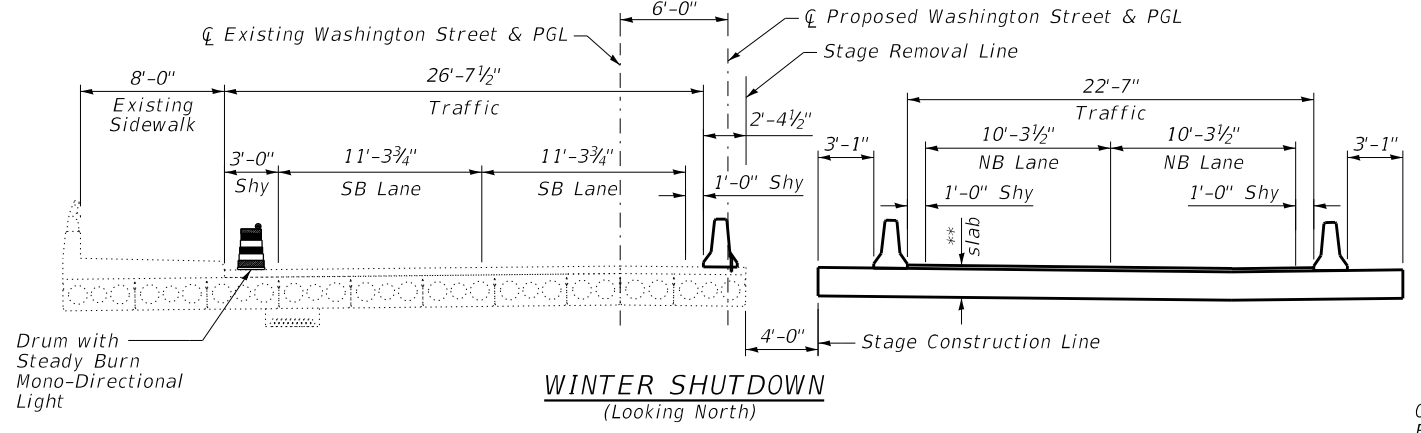
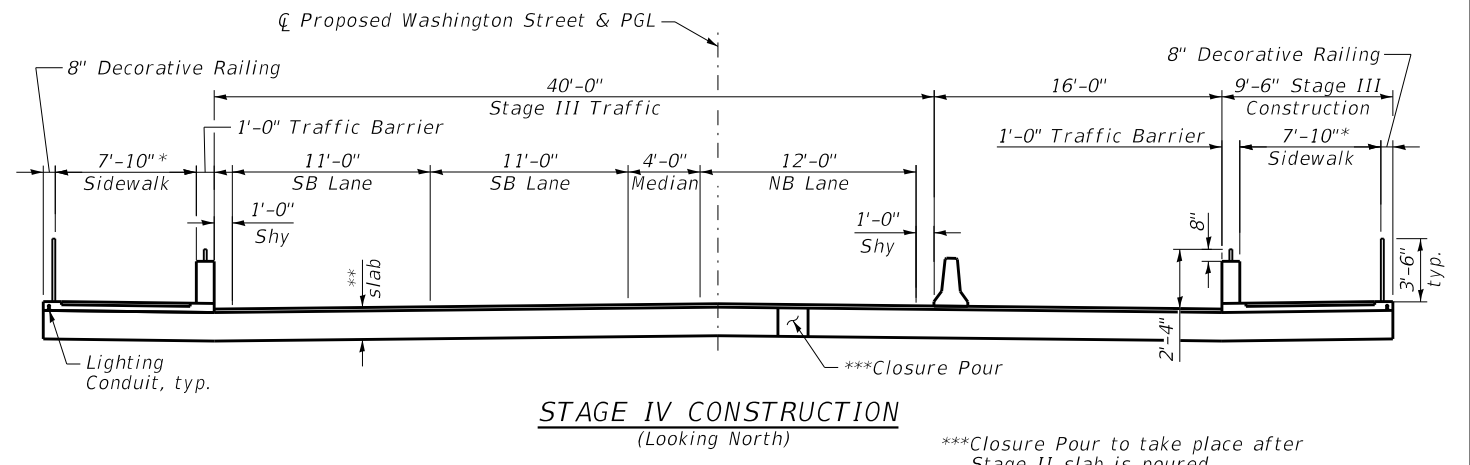
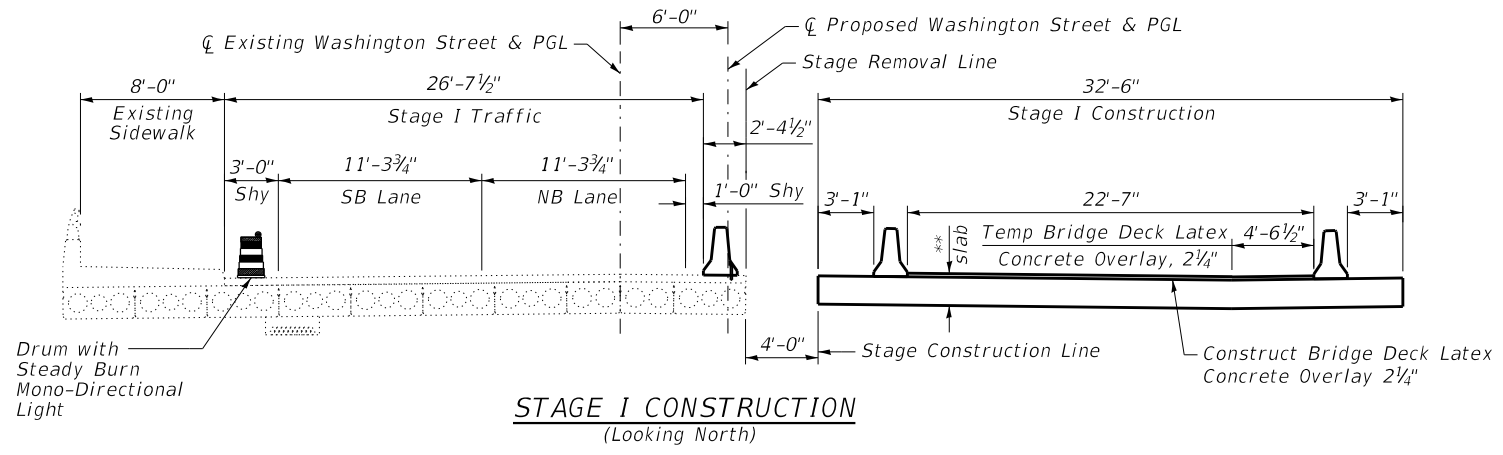
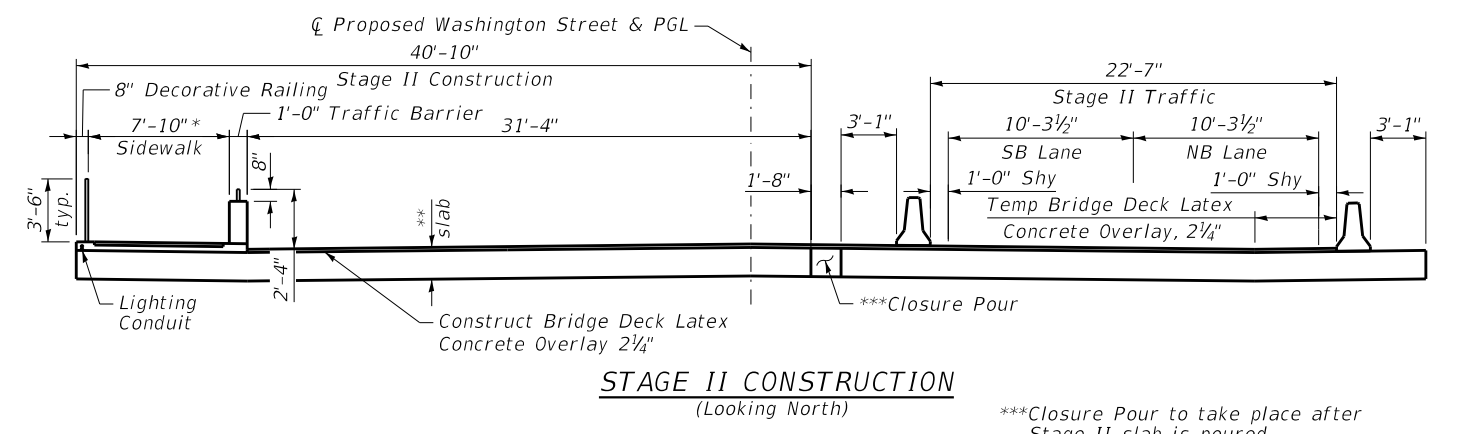
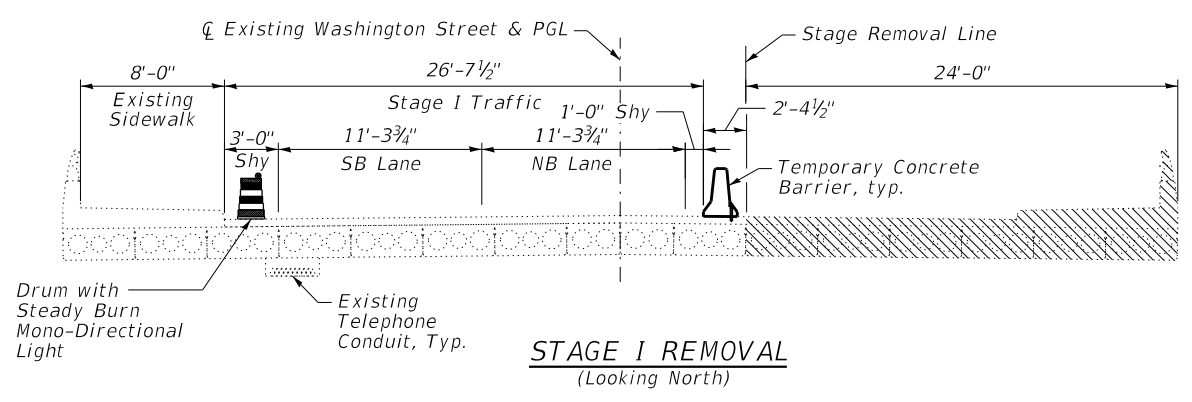
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE REMOVAL DETAILS II
STRUCTURE NO. 022-6749

SHEET S-5 OF S-48 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	189
ILLINOIS FED. AID PROJECT			CONTRACT NO.	61G82

FILE NAME: N:\PROJ\020794.01\Design\Structural\CAD\020794.01_06-Bridge_Construction_Staging.dgn



- NOTES:**
- For Temporary Concrete Barrier and Drum, see Roadway Plans.
 - For overall construction staging, see Roadway plans.
 - Dimensions shown are to edge of bridge deck and do not include overlook.
 - Bridge Deck Latex Concrete Overlay 2 1/4" seam shall not occur within 1'-0" of staged construction joint.
 - Temporary Bridge Deck Latex Concrete Overlay, 2 1/4" shall be removed prior to Stage IV construction and shall not affect maintenance of traffic. Temporary Bridge Deck Latex Concrete Overlay, 2 1/4" removal paid for as Bridge Deck Scarification, 2 1/4".

*Sidewalk width increases to 11'-0" at overlook.
**Slab thickness varies from 1'-10" at Abutments to 3'-0" at Pier.



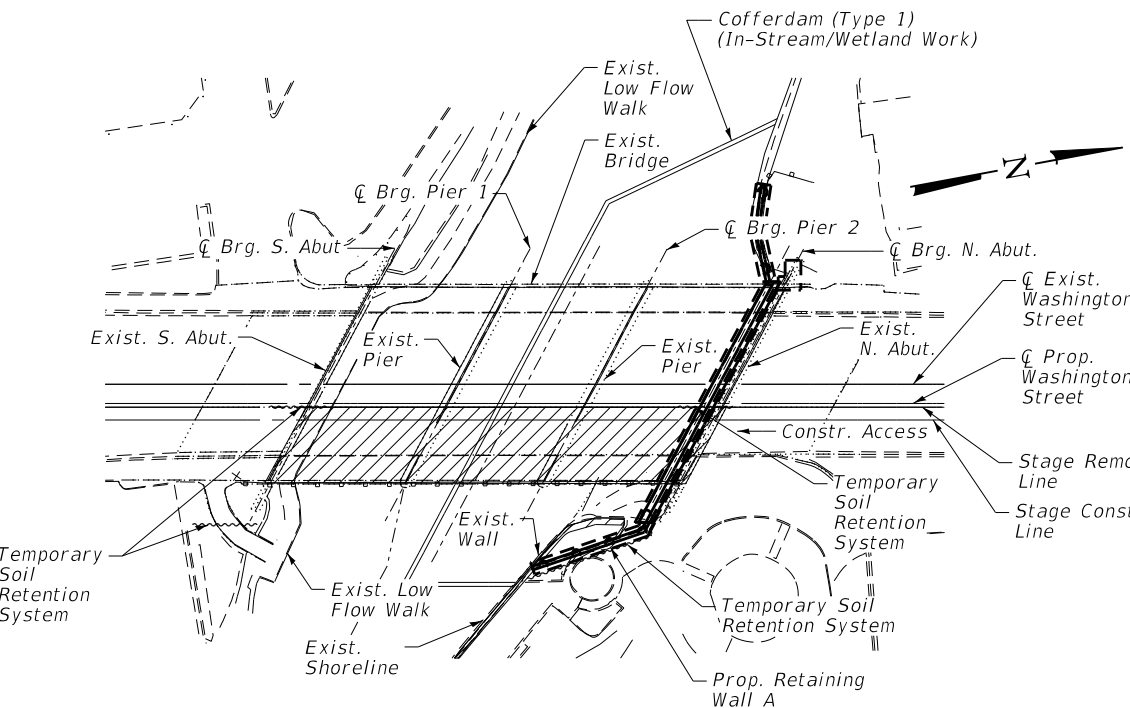
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CHECKED - BWS	CHECKED - BWS	REVISED -
PLOT SCALE = 0.1667' / in.	DRAWN - SBA	REVISED -
PLOT DATE = 8/8/2022	CHECKED - BWS	REVISED -

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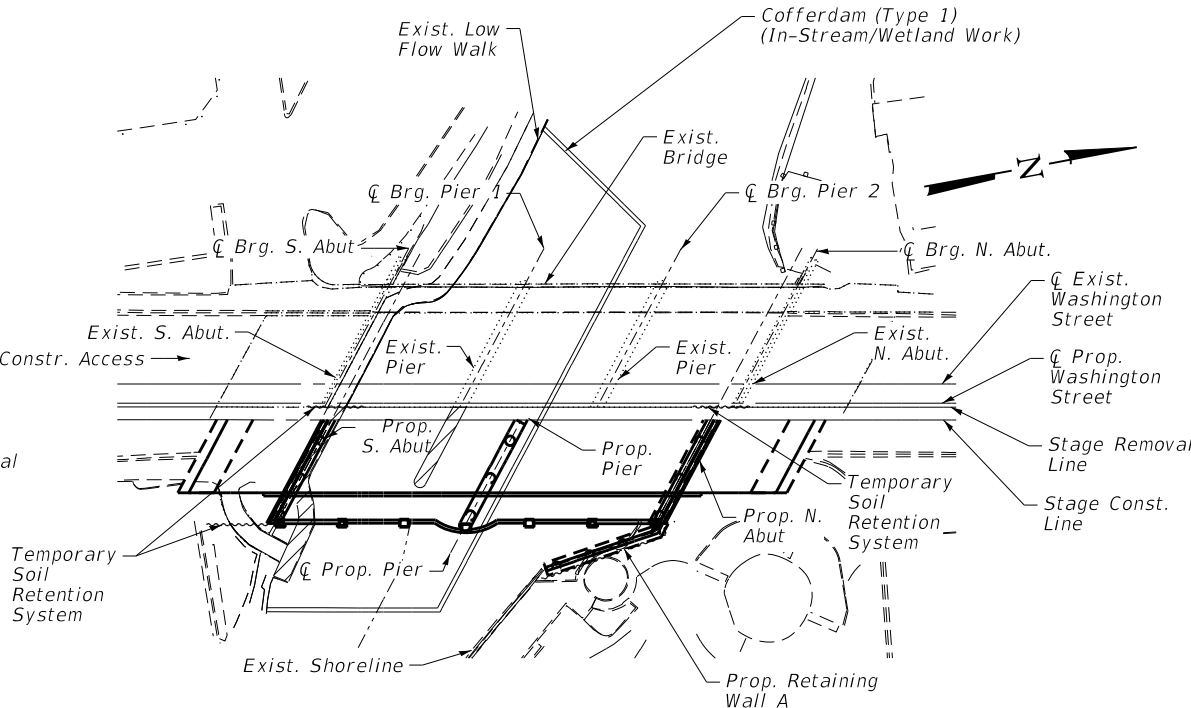
BRIDGE CONSTRUCTION STAGING
STRUCTURE NO. 022-6749

SHEET S-6 OF S-48 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	190
CONTRACT NO.			61G82	
ILLINOIS FED. AID PROJECT				



STAGE I - PHASE I



STAGE I - PHASE II

STAGE I - PHASE I

1. Put maintenance of traffic in place.
2. Construct temporary soil retention systems.
3. Remove east-half of existing superstructure.
4. Construct temporary cofferdam on north side.
5. Remove east-half of existing N Abut and N. pier.
6. Construct utilities on north-half of E. and W. side.
7. Construct east-half of N. Abut.
8. Construct Retaining Wall A.
9. Set superstructure falsework.
10. Remove temporary cofferdam.

STAGE I - PHASE II

1. Construct temporary cofferdam on south side.
2. Remove east-half of existing S.E. Staircase, Low Flow walk, S Abut., and S. Pier.
3. Construct utilities on south-half of E. and W. side and pour seal coat concrete.
4. Set superstructure falsework.
5. Construct E. side of proposed Pier.
6. Perform aesthetic finishes on Pier.
7. Construct east-half of S. Abut.
8. Construct Temporary Soil Retention System, to remain.
9. Cast superstructure and post-tension superstructure after it has reached the specified strength.
10. Construct Bridge Deck Latex Concrete Overlay over full width of clear roadway on Stage I deck.
11. Remove falsework.
12. Open traffic on east-half of new bridge.
13. Remove temporary cofferdam.

WINTER SHUTDOWN

1. Suspend construction.
2. Open traffic to east-half of new bridge and west-half of existing bridge.

STAGE II - PHASE I

1. Construct temporary cofferdam on south side.
2. Close traffic to west-half of existing bridge.
3. Remove west-half of existing superstructure.
4. Remove west-half of existing Low Flow walk, S. Abut., and S. pier and pour seal coat concrete.
5. Set superstructure falsework.
6. Construct west-half of S. Abut.
7. Perform aesthetic finishes on S. Abut.
8. Construct Retaining Wall C & SW Monument Type C.
9. Construct Low Flow Walk (Special) on south side.
10. Remove cofferdam.

STAGE II - PHASE II

1. Construct temporary cofferdam on north side.
2. Remove west-half of existing N. Abut and N. Pier.
3. Set superstructure falsework.
4. Construct W. side of Pier.
5. Construct west-half of N. Abut.
6. Construct Retaining Wall B and Monument Type C.
7. Cast superstructure and post-tension superstructure after it has reached the specified strength.
8. Construct sidewalk, parapet railing, and pedestrian railing on west side of deck.
9. Perform aesthetic finishes on N. Abut.
10. Remove falsework.
11. Remove cofferdam.
12. Construct deck slab closure.
13. Construct Bridge Deck Latex Concrete Overlay on Stage II deck.

STAGE IV

1. Remove Bridge Deck Latex Concrete Overlay beneath proposed sidewalk only on Stage I deck and perform repairs as necessary.
2. Construct sidewalk, parapet railing, and pedestrian railing on east side of deck.

NOTES:

1. The Contractor shall provide an In-Stream Work Plan for review and approval by the Engineer, DuPage County Stormwater, and the U.S. Army Corps of Engineers prior to starting any in-stream work.
2. All construction debris shall be removed from the riverbed prior to the completion of the project and the riverbed and stream banks shall be restored to their original condition.
3. For overall construction staging, see Roadway Plans.

FILE NAME: N:\PROJ\020794-01\Design\Structural\CAD\020794-01_07-Suggested Sequence of Work.dgn

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USER NAME =	Structural	DESIGNED -	MLK	REVISED -	
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PLOT SCALE =	0.1667' / in.	DRAWN -	SBA	REVISED -	
PLOT DATE =	8/8/2022	CHECKED -	BWS	REVISED -	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

LEGEND

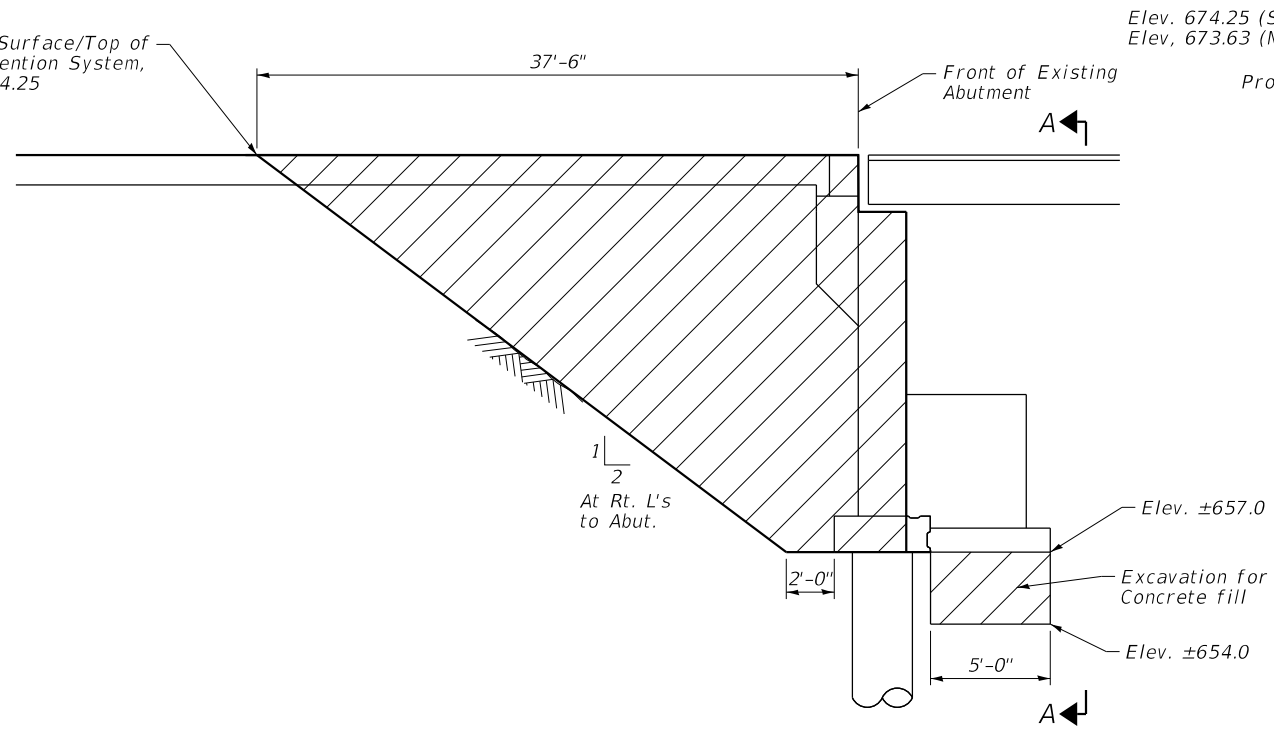
Removal of Existing Structures

SUGGESTED SEQUENCE OF WORK
 STRUCTURE NO. 022-6749

SHEET S-7 OF S-48 SHEETS

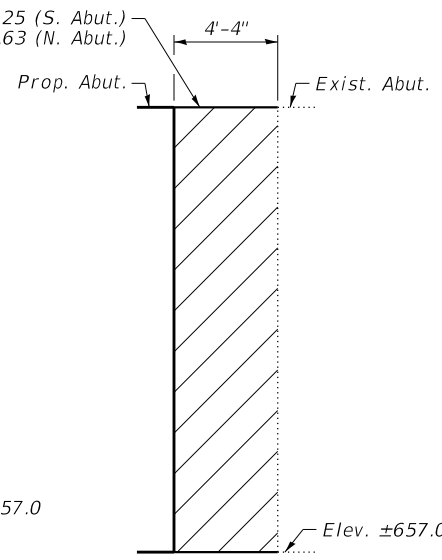
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	191
ILLINOIS FED. AID PROJECT			CONTRACT NO. 61G82	

Ground Surface/Top of Soil Retention System, Elev. 674.25

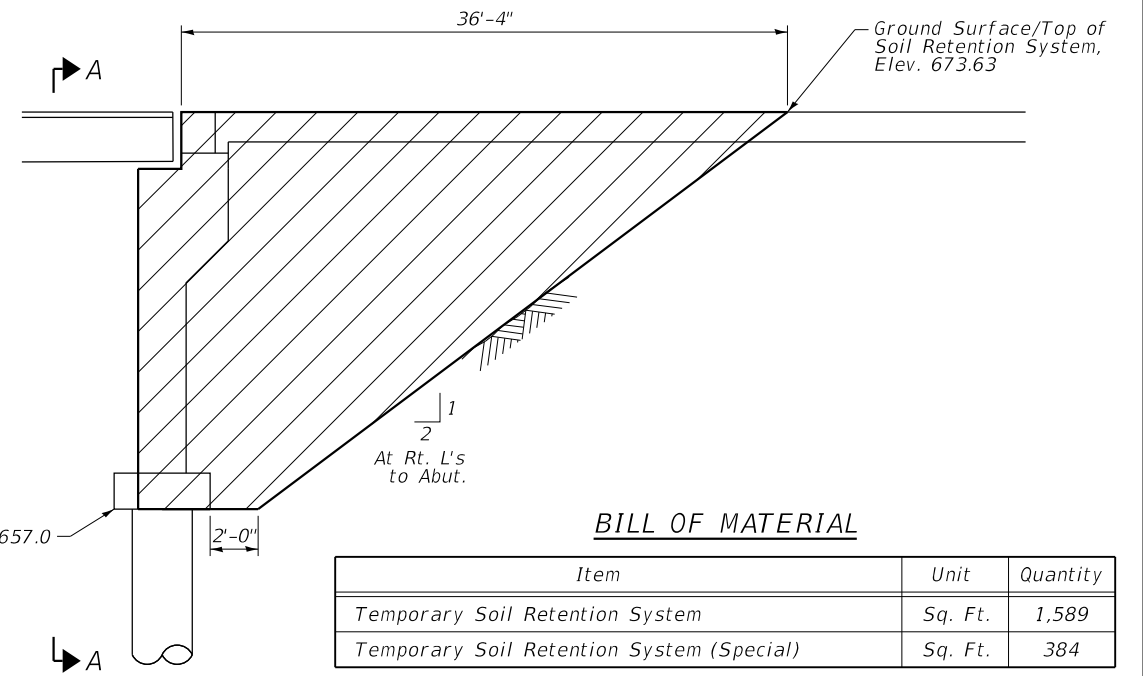


SOUTH ABUTMENT TEMPORARY SOIL RETENTION SYSTEM
(Looking West)

Elev. 674.25 (S. Abut.)
Elev. 673.63 (N. Abut.)



VIEW A-A
(S. Abut. shown, N. Abut. mirrored)



NORTH ABUTMENT TEMPORARY SOIL RETENTION SYSTEM
(Looking West)

BILL OF MATERIAL

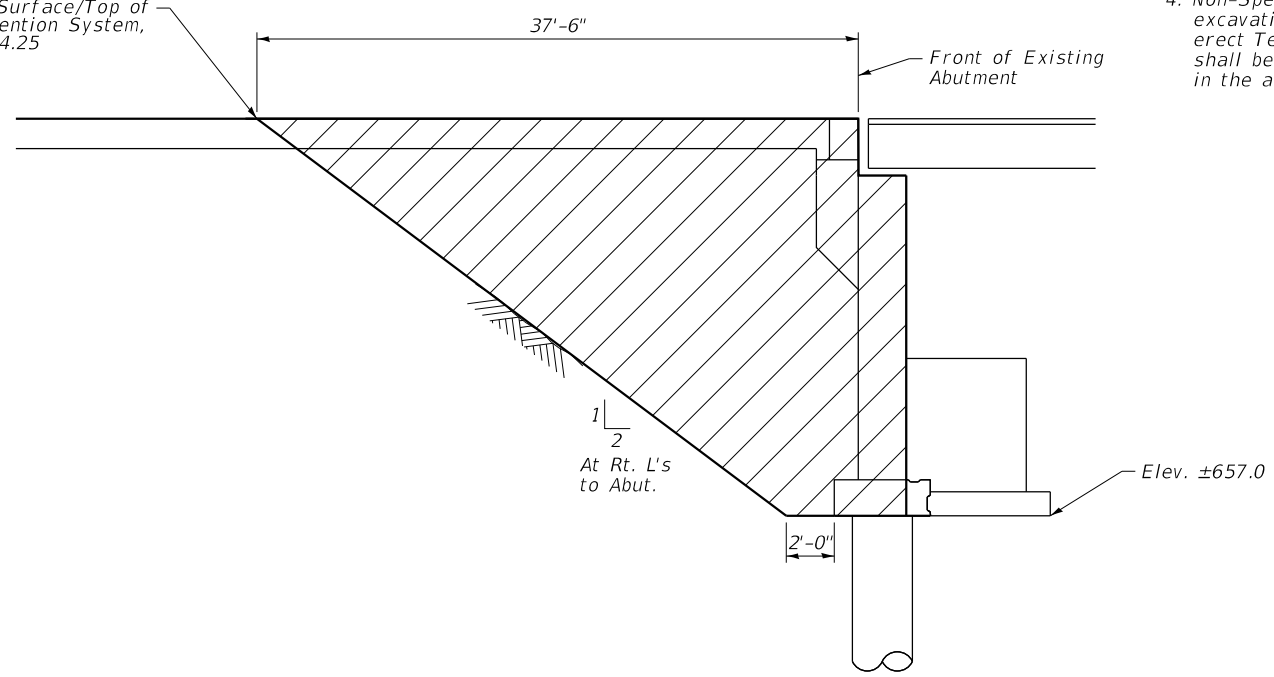
Item	Unit	Quantity
Temporary Soil Retention System	Sq. Ft.	1,589
Temporary Soil Retention System (Special)	Sq. Ft.	384

NOTES:

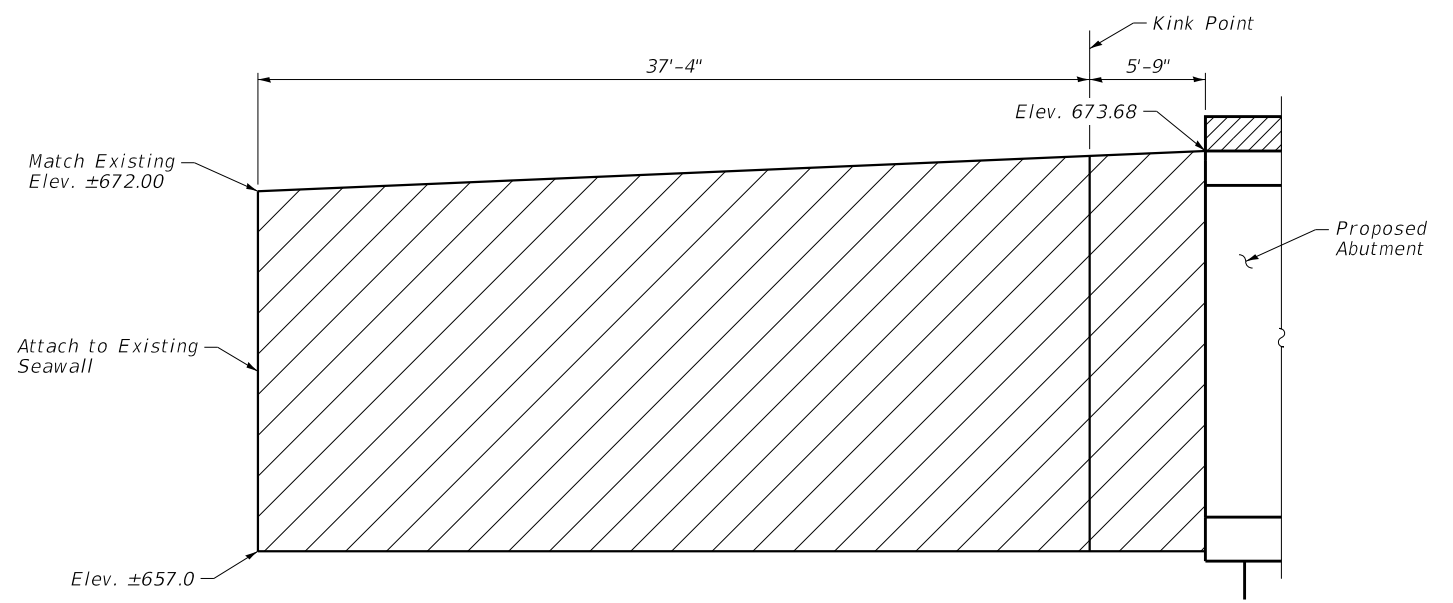
- See sheet S-3 for Temporary Soil Retention System layout and geometry.
- Adjacent seawall shall be restored to its original condition. Any additional construction required to repair adjacent seawall impacted during demolition or construction will be done so at the CONTRACTOR's expense.
- Temporary Soil Retention System (Special) to remain in place at end of construction.
- Non-Special Waste Disposal for top 6" of excavation within the streambed required to erect Temporary Soil Retention System (Special) shall be included with the respective pay item in the area of work performed.

- The CONTRACTOR shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.
- 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.

Ground Surface/Top of Soil Retention System, Elev. 674.25



SOUTHEAST TEMPORARY SOIL RETENTION SYSTEM (SPECIAL)
(Looking West)



RETAINING WALL A TEMPORARY SOIL RETENTION SYSTEM
(Looking West)

FILE NAME: N:\PROJ\020794.01\Design\Structural\CAD\020794.01_08-Temporary Soil Retention System.dgn

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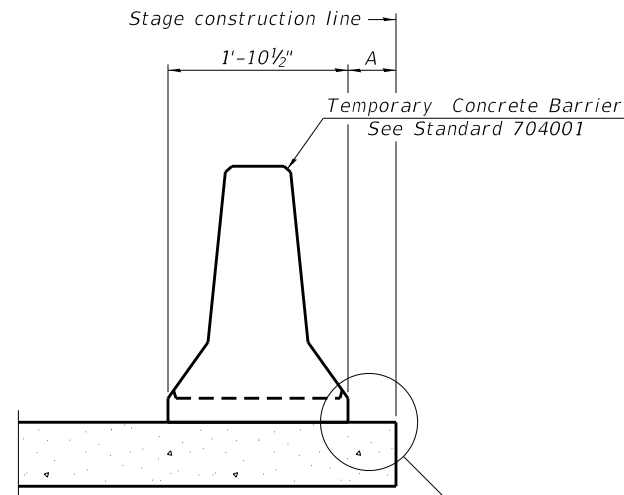
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PLOT SCALE = 0.1667' / in.	CHECKED - BWS	REVISED -
PLOT DATE = 8/8/2022	DRAWN - SBA	REVISED -
	CHECKED - BWS	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY SOIL RETENTION SYSTEM
STRUCTURE NO. 022-6749**

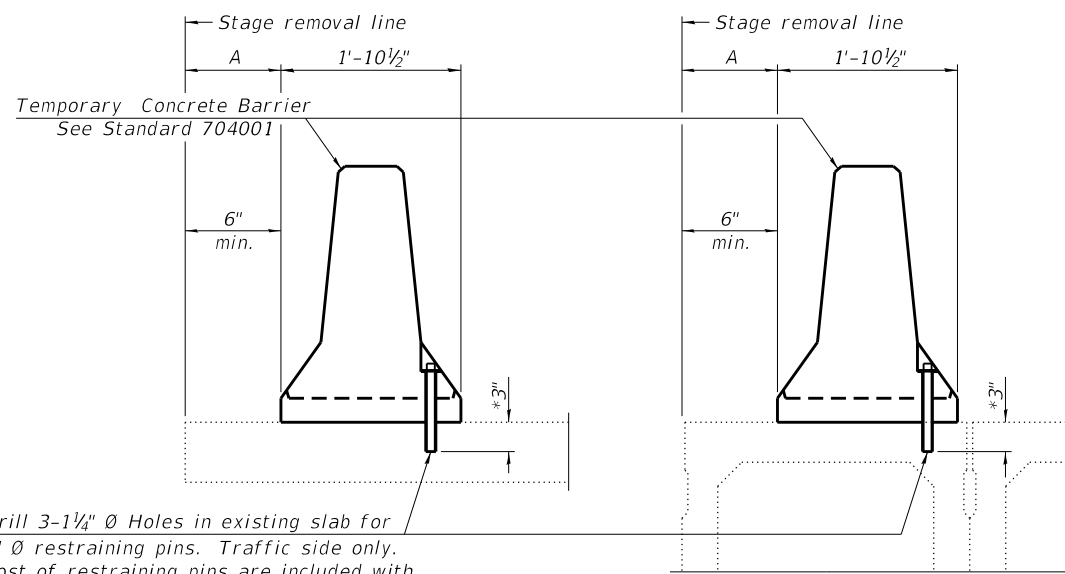
SHEET S-8 OF S-48 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	192
ILLINOIS FED. AID PROJECT			CONTRACT NO. 61G82	



When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



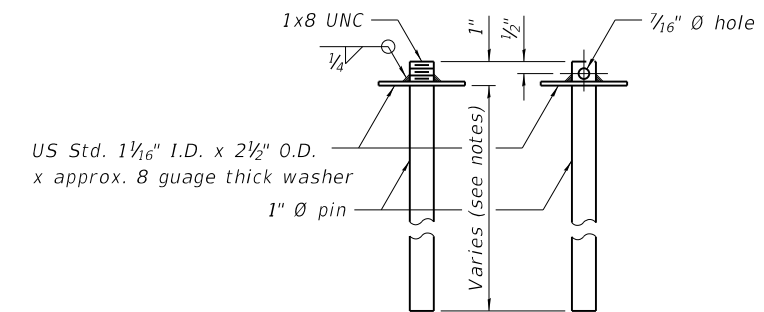
Drill 3-1 1/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

EXISTING DECK BEAM

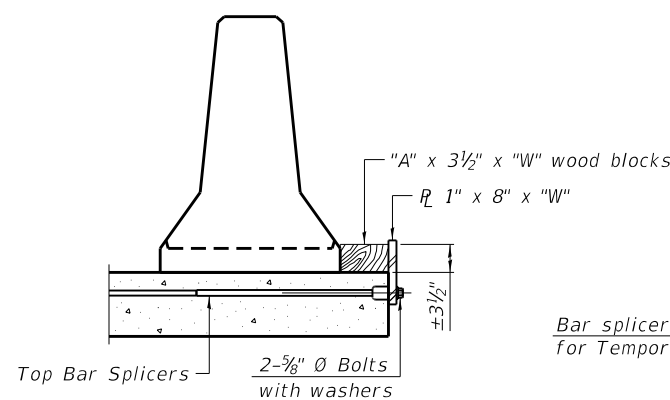
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

SECTIONS THRU SLAB OR DECK BEAM



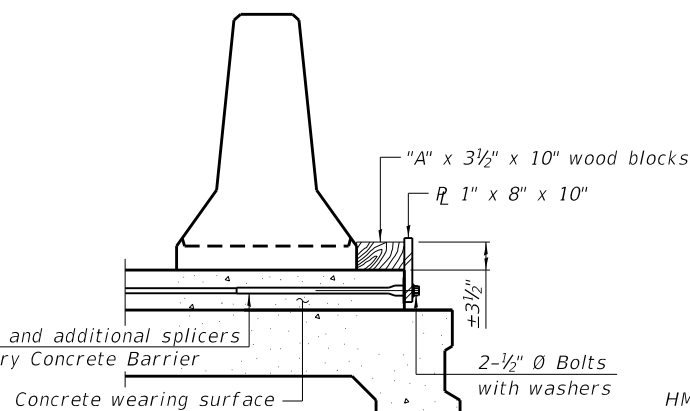
RESTRAINING PIN

US Std. 1 1/16" I.D. x 2 1/2" O.D. x approx. 8 gauge thick washer

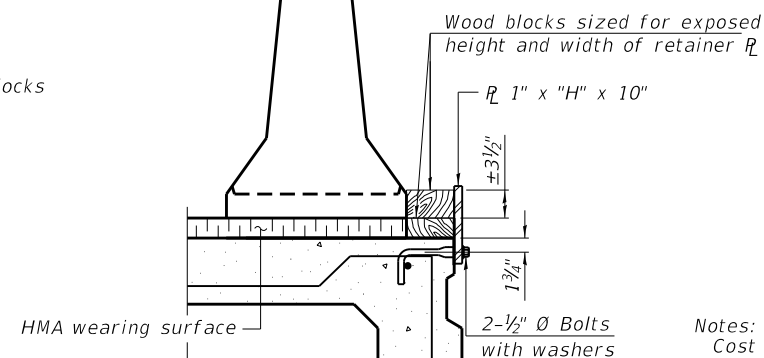


DETAIL I

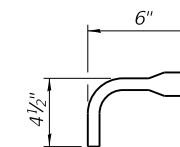
Bar splicers and additional splicers for Temporary Concrete Barrier



DETAIL II



DETAIL III



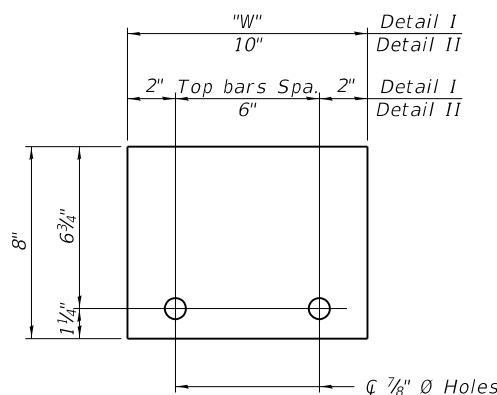
BAR SPLICER FOR #4 BAR - DETAIL III

Notes:
 Cost of retainer assembly is included with Temporary Concrete Barrier.
 A retainer assembly shall be located at the approximate center of each temporary concrete barrier.
 The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.
 When the 'A' dimension is less than 1 1/2", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

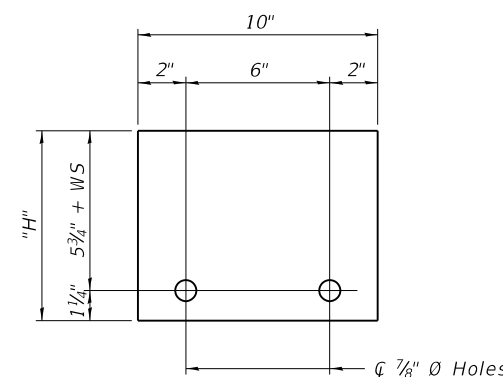
Detail I - Installation for a new bridge deck or bridge slab.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.



STEEL RETAINER 1" x 8" x "W" (Detail I and II)



STEEL RETAINER 1" x "H" x 10" (Detail III)

R-27

2-17-2017



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PLOT SCALE = 0.1667' / in.	CHECKED - BWS	REVISED -
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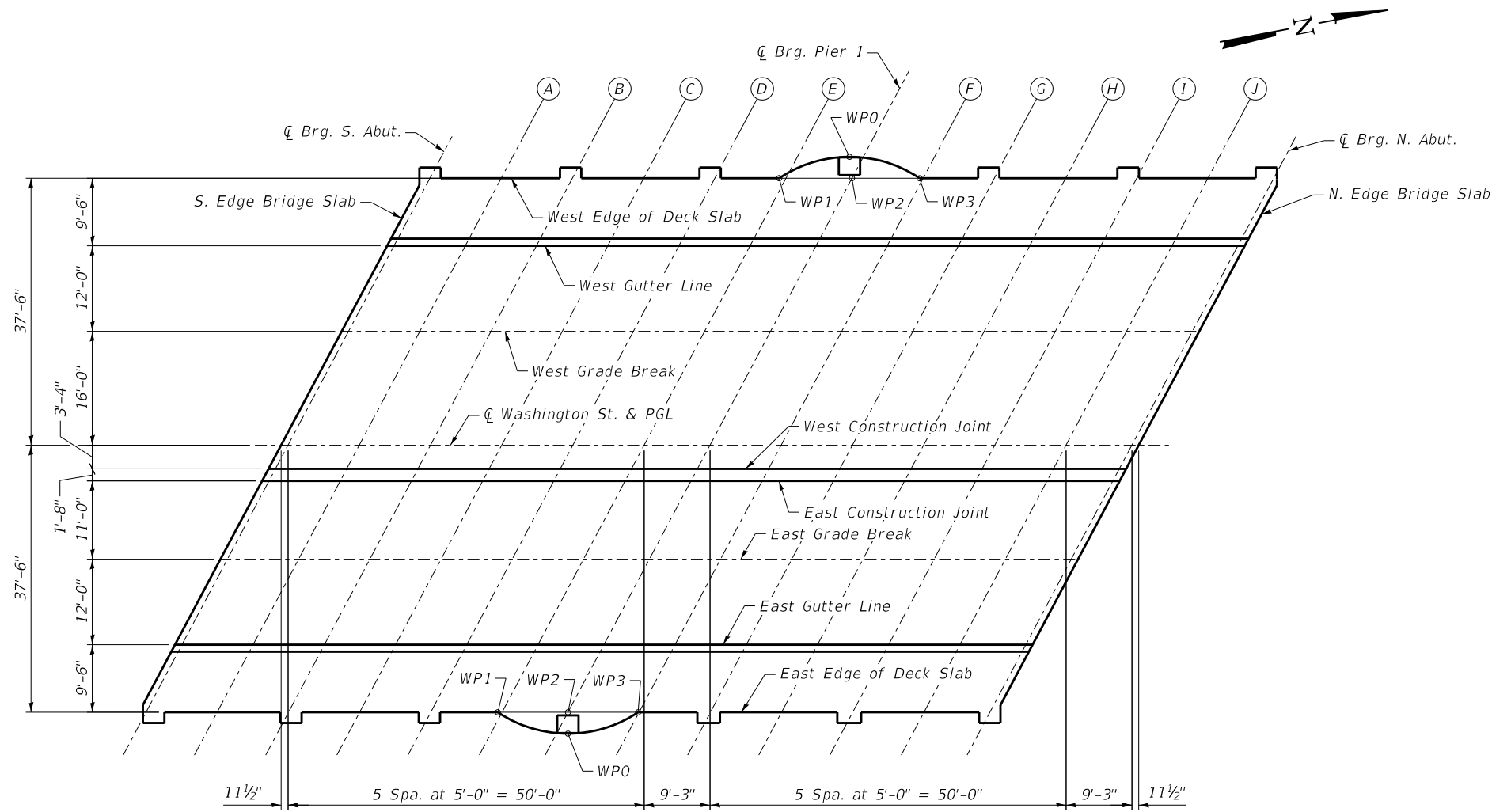
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY BARRIER DETAILS
STRUCTURE NO. 022-6749

SHEET S-9 OF S-48 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	193
CONTRACT NO.			61G82	
ILLINOIS FED. AID PROJECT				

FILE NAME: N:\PROJ\020794-01\Design\Structural\CAD\020794-01_09-Temporary Barrier Details.dgn



DECK SLAB ELEVATION LAYOUT - PLAN

WEST EDGE OF DECK SLAB

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Post Tensioning Deflection
Bk. S. Abut.	134+87.24	-37.67	674.19	674.19
CL Brg. S. Abut.	134+90.35	-37.67	674.23	674.23
A	135+00.35	-37.67	674.34	674.33
B	135+10.26	-37.50	674.41	674.40
C	135+20.26	-37.50	674.45	674.44
D	135+30.26	-37.50	674.45	674.45
E	135+40.26	-37.50	674.43	674.43
CL Pier 1	135+49.51	-37.50	674.37	674.37
F	135+59.51	-37.50	674.28	674.27
G	135+69.51	-37.50	674.15	674.14
H	135+79.51	-37.50	674.00	673.98
I	135+89.51	-37.50	673.83	673.81
J	135+99.60	-37.67	673.66	673.66
CL Brg. N. Abut.	136+08.85	-37.67	673.51	673.51
Bk. N. Abut.	136+11.96	-37.67	673.46	673.46

WEST GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Post Tensioning Deflection
Bk. S. Abut.	134+82.10	-28.00	673.50	673.50
CL Brg. S. Abut.	134+85.21	-28.00	673.54	673.54
A	134+95.21	-28.00	673.66	673.66
B	135+05.21	-28.00	673.75	673.74
C	135+15.21	-28.00	673.81	673.80
D	135+25.21	-28.00	673.83	673.83
E	135+35.21	-28.00	673.82	673.82
CL Pier 1	135+44.46	-28.00	673.78	673.78
F	135+54.46	-28.00	673.71	673.70
G	135+64.46	-28.00	673.60	673.58
H	135+74.46	-28.00	673.46	673.44
I	135+84.46	-28.00	673.29	673.28
J	135+94.46	-28.00	673.13	673.12
CL Brg. N. Abut.	136+03.71	-28.00	672.97	672.97
Bk. N. Abut.	136+06.82	-28.00	672.92	672.92

BRIDGE OVERLOOKS

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Post Tensioning Deflection
W. Overlook WP0	135+49.15	-40.50	674.42	674.42
W. Overlook WP1	135+39.31	-37.50	674.43	674.43
W. Overlook WP2	135+49.15	-37.50	674.37	674.37
W. Overlook WP3	135+59.00	-37.50	674.28	674.28
E. Overlook WP0	135+09.63	40.50	674.45	674.45
E. Overlook WP1	134+99.68	37.50	674.33	674.33
E. Overlook WP2	135+09.60	37.50	674.40	674.40
E. Overlook WP3	135+19.52	37.50	674.45	674.44

CL WASHINGTON STREET

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Post Tensioning Deflection
Bk. S. Abut.	134+67.21	0.00	673.72	673.72
CL Brg. S. Abut.	134+70.32	0.00	673.78	673.78
A	134+80.32	0.00	673.95	673.94
B	134+90.32	0.00	674.09	674.08
C	135+00.32	0.00	674.19	674.18
D	135+10.32	0.00	674.27	674.26
E	135+20.32	0.00	674.31	674.31
CL Pier 1	135+29.57	0.00	674.31	674.31
F	135+39.57	0.00	674.29	674.28
G	135+49.57	0.00	674.23	674.21
H	135+59.57	0.00	674.14	674.12
I	135+69.57	0.00	674.01	674.00
J	135+79.57	0.00	673.85	673.85
CL Brg. N. Abut.	135+88.82	0.00	673.70	673.70
Bk. N. Abut.	135+91.93	0.00	673.65	673.65

WEST GRADE BREAK

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Post Tensioning Deflection
Bk. S. Abut.	134+75.72	-16.00	673.64	673.64
CL Brg. S. Abut.	134+78.83	-16.00	673.69	673.69
A	134+88.83	-16.00	673.83	673.82
B	134+98.83	-16.00	673.94	673.93
C	135+08.83	-16.00	674.02	674.01
D	135+18.83	-16.00	674.06	674.06
E	135+28.83	-16.00	674.07	674.07
CL Pier 1	135+38.08	-16.00	674.05	674.05
F	135+48.08	-16.00	674.00	673.99
G	135+58.08	-16.00	673.91	673.90
H	135+68.08	-16.00	673.79	673.77
I	135+78.08	-16.00	673.64	673.62
J	135+88.08	-16.00	673.47	673.46
CL Brg. N. Abut.	135+97.33	-16.00	673.32	673.32
Bk. N. Abut.	136+00.44	-16.00	673.27	673.27

NOTES:

- Theoretical elevations are given at top of overlay except for overlooks and edge of slab where they are given at top of sidewalk.
- Theoretical Grade Elevation Adjusted for Dead Load Deflection and Post-Tensioning Deflection are based on Time-Dependent Effects and are dependent on the final construction sequence and final construction schedule. The Elevations given are therefore approximate. The CONTRACTOR shall coordinate the construction schedule with the ENGINEER to determine the actual deflections based on the construction schedule.

FILE NAME: N:\PROJ\020794-01\Design\Structural\CAD\020794-01_10-Top of the Slab Elevation.dgn



USER NAME = Structural	DESIGNED - MLK	REVISED -
PLOT SCALE = 0.1667' / in.	CHECKED - BWS	REVISED -
PLOT DATE = 8/8/2022	DRAWN - SBA	REVISED -
	CHECKED - BWS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS I
STRUCTURE NO. 022-6749

SHEET S-10 OF S-48 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	194
CONTRACT NO.			61G82	
ILLINOIS FED. AID PROJECT				

WEST CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Post Tensioning Deflection
Bk. S. Abut.	134+65.44	3.33	673.63	673.63
CL Brg. S. Abut.	134+68.55	3.33	673.69	673.69
A	134+78.55	3.33	673.87	673.87
B	134+88.55	3.33	674.02	674.00
C	134+98.55	3.33	674.13	674.12
D	135+08.55	3.33	674.21	674.20
E	135+18.55	3.33	674.25	674.25
CL Pier 1	135+27.80	3.33	674.26	674.26
F	135+37.80	3.33	674.24	674.24
G	135+47.80	3.33	674.19	674.18
H	135+57.80	3.33	674.11	674.08
I	135+67.80	3.33	673.99	673.97
J	135+77.80	3.33	673.83	673.83
CL Brg. N. Abut.	135+87.05	3.33	673.68	673.68
Bk. N. Abut.	135+90.16	3.33	673.63	673.63

EAST CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Post Tensioning Deflection
Bk. S. Abut.	134+64.55	5.00	673.59	673.59
CL Brg. S. Abut.	134+67.66	5.00	673.65	673.65
A	134+77.66	5.00	673.83	673.83
B	134+87.66	5.00	673.98	673.97
C	134+97.66	5.00	674.09	674.08
D	135+07.66	5.00	674.18	674.17
E	135+17.66	5.00	674.22	674.22
CL Pier 1	135+26.91	5.00	674.24	674.24
F	135+36.91	5.00	674.22	674.22
G	135+46.91	5.00	674.17	674.16
H	135+56.91	5.00	674.09	674.07
I	135+66.91	5.00	673.97	673.96
J	135+76.91	5.00	673.82	673.82
CL Brg. N. Abut.	135+86.16	5.00	673.67	673.67
Bk. N. Abut.	135+89.27	5.00	673.62	673.62

EAST GRADE BREAK

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Post Tensioning Deflection
Bk. S. Abut.	134+58.70	16.00	673.30	673.30
CL Brg. S. Abut.	134+61.81	16.00	673.37	673.37
A	134+71.81	16.00	673.57	673.56
B	134+81.81	16.00	673.73	673.72
C	134+91.81	16.00	673.87	673.86
D	135+01.81	16.00	673.97	673.96
E	135+11.81	16.00	674.03	674.04
CL Pier 1	135+21.06	16.00	674.07	674.07
F	135+31.06	16.00	674.07	674.06
G	135+41.06	16.00	674.04	674.03
H	135+51.06	16.00	673.98	673.96
I	135+61.06	16.00	673.88	673.86
J	135+71.06	16.00	673.75	673.74
CL Brg. N. Abut.	135+80.31	16.00	673.60	673.60
Bk. N. Abut.	135+83.42	16.00	673.55	673.55

EAST GUTTER LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Post Tensioning Deflection
Bk. S. Abut.	134+52.32	28.00	672.90	672.90
CL Brg. S. Abut.	134+55.43	28.00	672.98	672.98
A	134+65.43	28.00	673.20	673.19
B	134+75.43	28.00	673.39	673.38
C	134+85.43	28.00	673.55	673.53
D	134+95.43	28.00	673.67	673.66
E	135+05.43	28.00	673.76	673.76
CL Pier 1	135+14.68	28.00	673.81	673.81
F	135+24.68	28.00	673.83	673.83
G	135+34.68	28.00	673.82	673.81
H	135+44.68	28.00	673.78	673.76
I	135+54.68	28.00	673.71	673.69
J	135+64.68	28.00	673.60	673.59
CL Brg. N. Abut.	135+73.93	28.00	673.47	673.47
Bk. N. Abut.	135+77.04	28.00	673.42	673.42

EAST EDGE OF DECK

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection & Post Tensioning Deflection
Bk. S. Abut.	134+47.18	37.67	673.40	673.40
CL Brg. S. Abut.	134+50.29	37.67	673.48	673.48
A	134+60.29	37.67	673.72	673.71
B	134+70.38	37.50	673.92	673.91
C	134+80.38	37.50	674.09	674.08
D	134+90.38	37.50	674.23	674.23
E	135+00.38	37.50	674.34	674.34
CL Pier 1	135+09.63	37.50	674.40	674.40
F	135+19.63	37.50	674.45	674.44
G	135+29.63	37.50	674.45	674.44
H	135+39.63	37.50	674.43	674.41
I	135+49.63	37.50	674.37	674.35
J	135+59.54	37.67	674.28	674.27
CL Brg. N. Abut.	135+68.79	37.67	674.17	674.17
Bk. N. Abut.	135+71.90	37.67	674.12	674.12

FILE NAME: N:\PROJ\020794-01\Design\Structural\CAD\020794_01_11-Top of the Slab Elevation II.dgn



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		CHECKED -	BWS	REVISED -	
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PLOT DATE =	8/8/2022	CHECKED -	BWS	REVISED -	

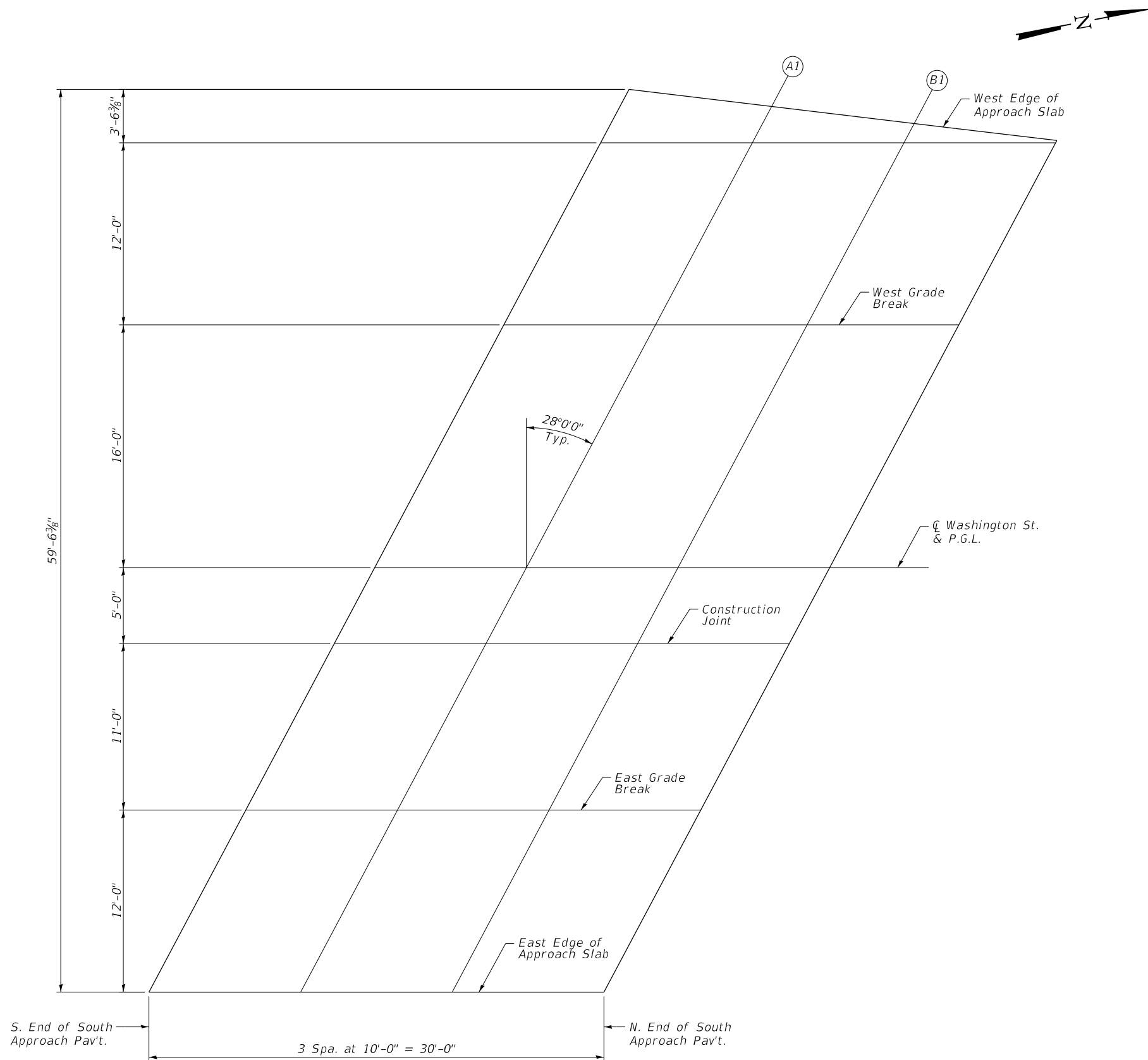
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS II
STRUCTURE NO. 022-6749

SHEET S-11 OF S-48 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	195
CONTRACT NO.			61G82	
ILLINOIS		FED. AID PROJECT		

FILE NAME: N:\PROJ\020794.01\Design\Structural\CAD\020794.01_12-Top of South Approach Slab Elevations.dgn



S. APP. SLAB ELEVATION LAYOUT - PLAN

WEST EDGE OF APPROACH SLAB

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. App. Slab	134+54.54	-31.53	672.89
A1	134+63.94	-30.40	673.12
B1	134+73.34	-29.28	673.33
N. End of S. App. Slab	134+83.25	-29.11	673.52

WEST GRADE BREAK

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. App. Slab	134+46.28	-16.00	672.99
A1	134+56.28	-16.00	673.24
B1	134+66.28	-16.00	673.46
N. End of S. App. Slab	134+76.28	-16.00	673.64

PGL & C WASHINGTON STREET

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. App. Slab	134+37.77	0.00	673.00
A1	134+47.77	0.00	673.27
B1	134+57.77	0.00	673.51
N. End of S. App. Slab	134+67.77	0.00	673.73

CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. App. Slab	134+35.11	5.00	672.85
A1	134+45.11	5.00	673.12
B1	134+55.11	5.00	673.38
N. End of S. App. Slab	134+65.11	5.00	673.60

EAST GRADE BREAK

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. App. Slab	134+29.26	16.00	672.53
A1	134+39.26	16.00	672.80
B1	134+49.26	16.00	673.07
N. End of S. App. Slab	134+59.26	16.00	673.31

EAST EDGE OF APPROACH SLAB

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. App. Slab	134+22.88	28.00	672.12
A1	134+32.88	28.00	672.39
B1	134+42.88	28.00	672.66
N. End of S. App. Slab	134+52.35	29.00	672.92



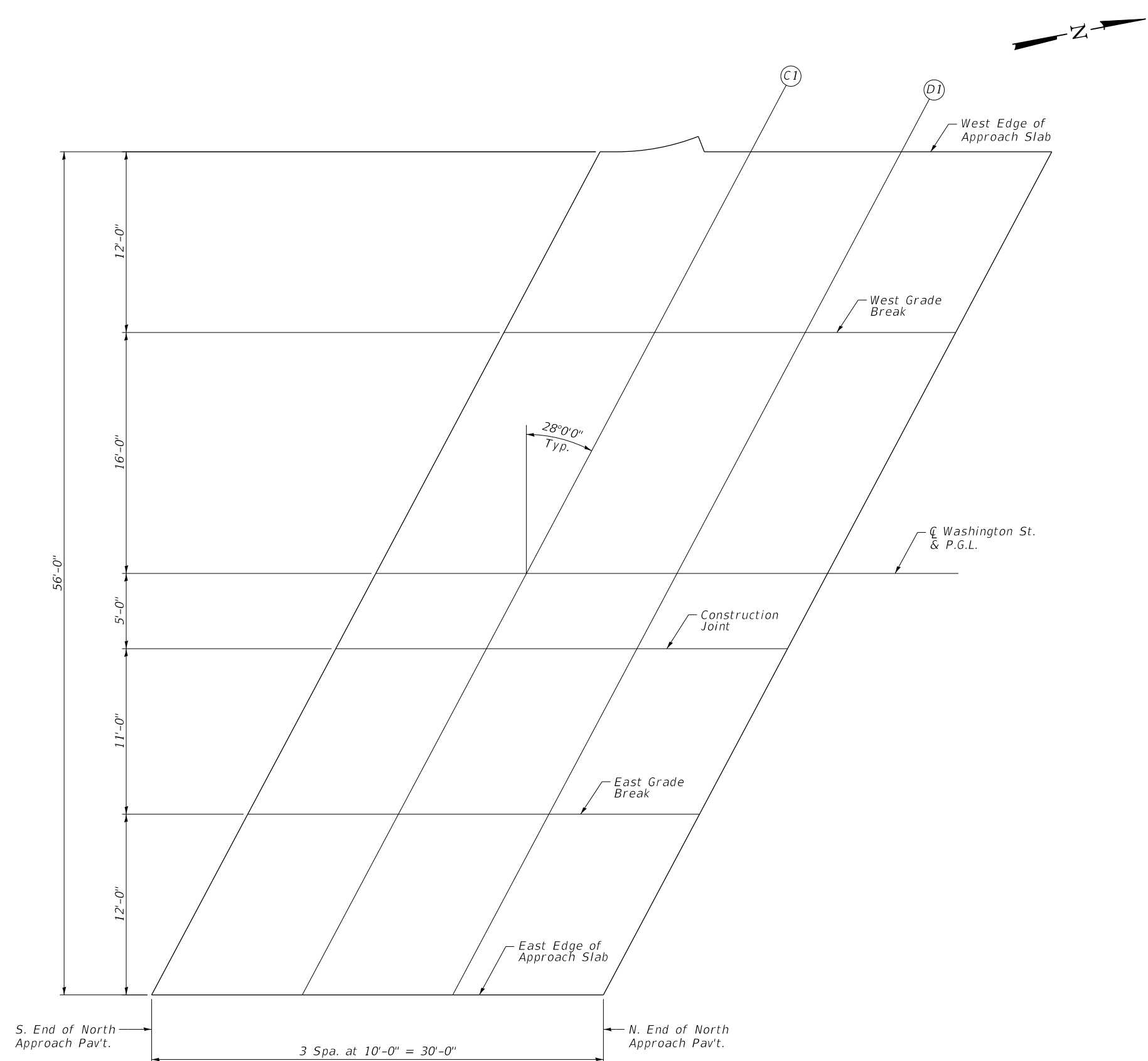
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PLOT DATE = 8/8/2022	DRAWN - SBA	REVISED -
	CHECKED - BWS	REVISED -

STATE OF ILLINOIS
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TOP OF SOUTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 022-6749

F.A.U. RTE. 2552	SECTION 16-00167-00-BR	COUNTY DUPAGE	TOTAL SHEETS 261	SHEET NO. 196
CONTRACT NO. ILLINOIS FED. AID PROJECT			61G82	

FILE NAME: N:\PROJ\020794.01\Design\Structural\CAD\020794.01_13-Top of North Approach Slab Elevations.dgn



N. APP. SLAB ELEVATION LAYOUT - PLAN

WEST EDGE OF APPROACH SLAB

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. App. Slab	136+06.79	-29.00	672.93
C1	136+16.26	-28.00	672.79
D1	136+26.26	-28.00	672.68
N. End of N. App. Slab	136+36.26	-28.00	672.60

WEST GRADE BREAK

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. App. Slab	135+99.88	-16.00	673.28
C1	136+09.88	-16.00	673.12
D1	136+19.88	-16.00	672.99
N. End of N. App. Slab	136+29.88	-16.00	672.89

PGL & C WASHINGTON STREET

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. App. Slab	135+91.37	0.00	673.66
C1	136+01.37	0.00	673.49
D1	136+11.37	0.00	673.34
N. End of N. App. Slab	136+21.37	0.00	673.22

CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. App. Slab	135+88.71	5.00	673.63
C1	135+98.71	5.00	673.46
D1	136+08.71	5.00	673.30
N. End of N. App. Slab	136+18.71	5.00	673.17

EAST GRADE BREAK

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. App. Slab	135+82.86	16.00	673.56
C1	135+92.86	16.00	673.39
D1	136+02.86	16.00	673.22
N. End of N. App. Slab	136+12.86	16.00	673.08

EAST EDGE OF APPROACH SLAB

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. App. Slab	135+75.95	29.00	673.45
C1	135+86.48	28.00	673.26
D1	135+96.48	28.00	673.09
N. End of N. App. Slab	136+06.48	28.00	672.93

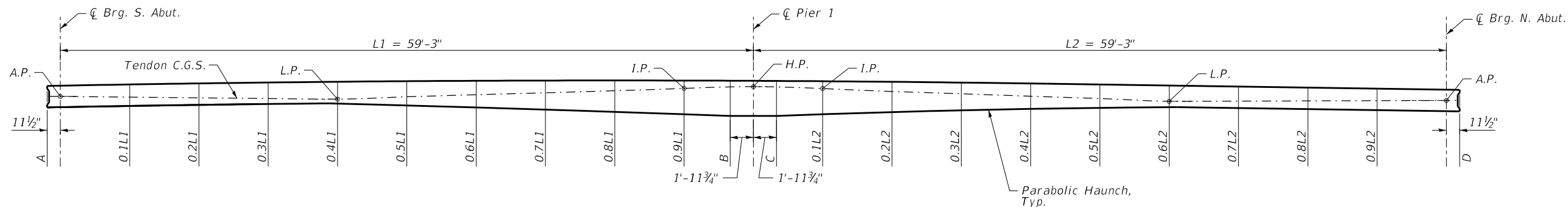


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PLOT DATE = 8/8/2022	DRAWN - SBA	REVISD -
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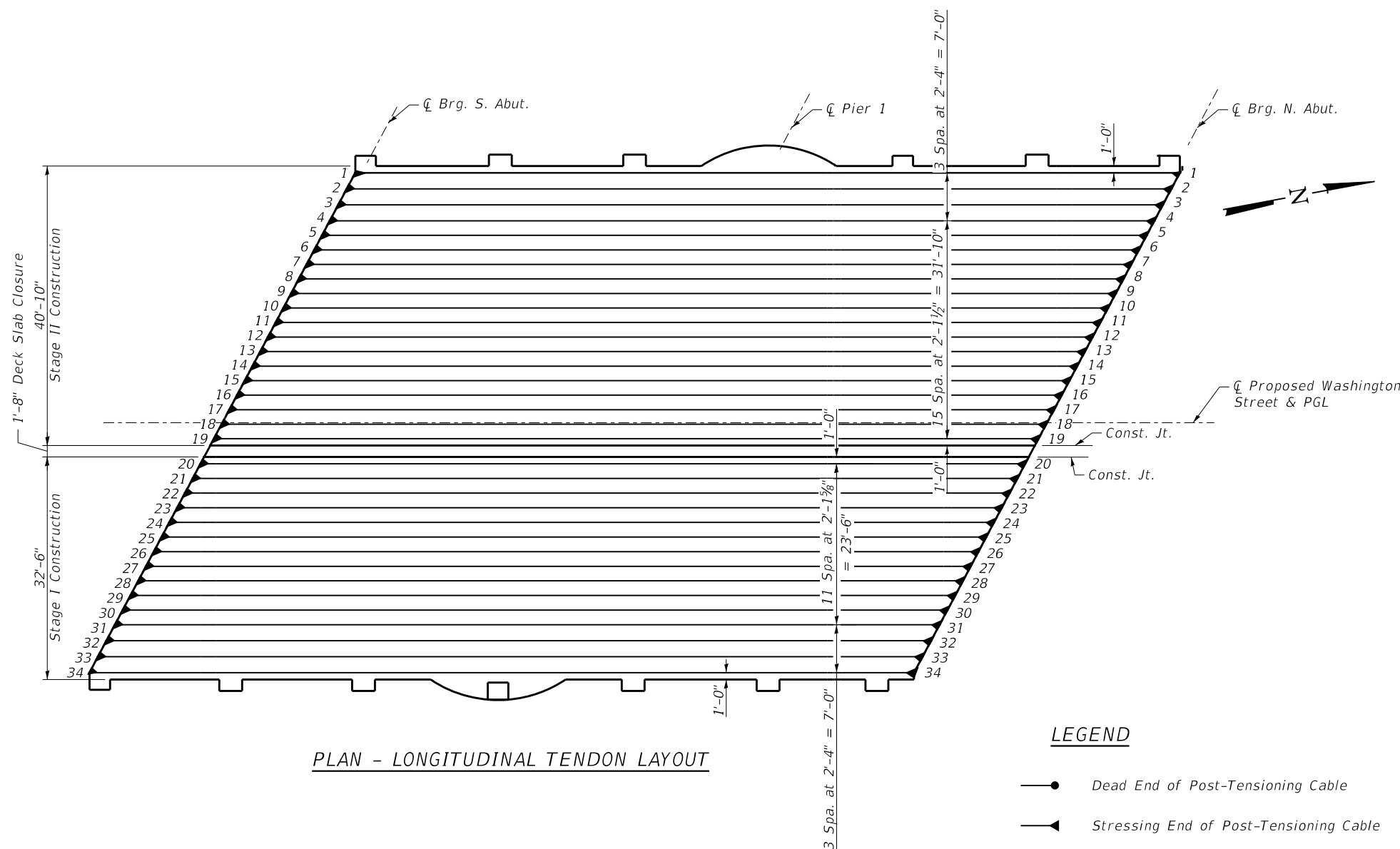
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF NORTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 022-6749

F.A.U. RTE. 2552	SECTION 16-00167-00-BR	COUNTY DUPAGE	TOTAL SHEETS 261	SHEET NO. 197
CONTRACT NO. ILLINOIS FED. AID PROJECT			61G82	



VERTICAL SCHEMATIC - LONGITUDINAL TENDON LAYOUT



PLAN - LONGITUDINAL TENDON LAYOUT

LEGEND

- Dead End of Post-Tensioning Cable
- ◄ Stressing End of Post-Tensioning Cable

NOTES:

1. C.G.S. indicates dimension from top of slab to center of prestressing steel.
2. All tendons are to be stressed as indicated in the stressing sequence table. All strands shall be 0.6" diameter.
3. Tendons shall be placed to achieve the profile for C.G.S. shown on the schematic elevation where:
A.P. = Anchor Point
L.P. = Low Point
I.P. = Inflection Point
H.P. = High Point
4. Longitudinal tendons shall be Parabolically Curved between Control Points (A.P., L.P., I.P., and H.P.).
5. Anchorage locations shown are based upon the use of proprietary multi-strand anchors. The Contractor is responsible for determining the proper anchor breakout size so that a minimum 2" clearance is achieved from the concrete edge to the end of the P-T strand extension.
6. Local bursting and confining steel shall be supplied by the Contractor for his furnished P-T system at all anchorages. Cost of steel shall be included with Furnishing, Installing, and Stressing Post-Tensioning Strands.
7. SUPERSTRUCTURE ERECTION SEQUENCE
 - a. Form and pour slab on temporary formwork.
 - b. Stress longitudinal tendons according to the stressing sequence table after the deck has cured to a minimum compressive strength of 4,000 psi and is at least 3 days old.
 - c. Grout post-tensioning ducts.
 - d. Remove temporary falsework and slab forms after the P-T duct grout has cured to a minimum compressive strength of 5,000 psi.
8. The Contractor shall submit detailed plans and calculations for falsework and forms to the Engineer for approval.
9. The post-tensioning jacking force in the stressing sequence can accommodate an increase of 5% to compensate for excessive friction or wobble losses during stressing. The force increase, if necessary, shall be accomplished by stressing the tendons to a higher value while still satisfying allowable stress requirements.
10. AASHTO M203, Grade 270 Low relaxation strands (0.6" dia.) shall be used.
11. Tendon Design Properties
 - a. Friction Coefficient = 0.25
 - b. Wobble Coefficient = 0.0002/ft
 - c. Maximum Jacking Stress = 0.8 f's
 - d. Maximum Stress at Anchor after Seating = 0.7 f's
 - e. Assumed Anchor Set = 3/8"
12. For slab depth, tendon profiles, and stressing sequence see Sheet S-15.
13. For purposes of computing long-term losses relative humidity (RH) is 74%.

FILE NAME: N:\PROJ\020794-01\Design\Structural\CAD\020794-01_14-Slab Geometry and Post-Tensioning.dgn



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SLAB GEOMETRY AND POST-TENSIONING
STRUCTURE NO. 022-6749

SHEET S-14 OF S-48 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	198
CONTRACT NO.			61G82	
ILLINOIS FED. AID PROJECT				

Stressing Sequence										
Stage	Location	Sequence	Tendon No.	No. Strands	Jacking Force (Kips)	Location	Sequence	Tendon No.	No. Strands	Jacking Force (Kips)
Stage I	South Abutment	1	23	12	527	North Abutment	16	27	12	527
		2	31	12	527		17	34	12	527
		3	26	12	527		18	20	12	527
		4	28	12	527		19	29	12	527
		5	21	12	527		20	25	12	527
		6	33	12	527		21	32	12	527
		7	24	12	527		22	22	12	527
		8	30	12	527		23	30	12	527
		9	22	12	527		24	24	12	527
		10	32	12	527		25	33	12	527
		11	25	12	527		26	21	12	527
		12	29	12	527		27	28	12	527
		13	20	12	527		28	26	12	527
		14	34	12	527		29	31	12	527
		15	27	12	527		30	23	12	527
Stage II	South Abutment	1	5	12	527	North Abutment	20	10	12	527
		2	15	12	527		21	16	12	527
		3	8	12	527		22	4	12	527
		4	12	12	527		23	19	12	527
		5	2	12	527		24	1	12	527
		6	18	12	527		25	13	12	527
		7	6	12	527		26	7	12	527
		8	14	12	527		27	17	12	527
		9	9	12	527		28	3	12	527
		10	11	12	527		29	11	12	527
		11	3	12	527		30	9	12	527
		12	17	12	527		31	14	12	527
		13	7	12	527		32	6	12	527
		14	13	12	527		33	18	12	527
		15	1	12	527		34	2	12	527
		16	19	12	527		35	12	12	527
		17	4	12	527		36	8	12	527
		18	16	12	527		37	15	12	527
		19	10	12	527		38	5	12	527

Location	Depth of Slab	Tendon CGS Profile (Measured from T/Slab)
A	1'-10"	-
☒ Brg. S. Abut.	1'-10"	11"
0.1L1	1'-10"	1'-1"
0.2L1	1'-10"	1'-2 ³ / ₄ "
0.3L1	1'-10"	1'-4 ³ / ₈ "
0.4L1	1'-10"	1'-5 ³ / ₄ "
0.5L1	2'-0 ⁷ / ₈ "	1'-4"
0.6L1	2'-3 ³ / ₈ "	1'-2 ¹ / ₄ "
0.7L1	2'-5 ³ / ₄ "	1'-0 ¹ / ₂ "
0.8L1	2'-8 ¹ / ₄ "	10 ¹ / ₂ "
0.9L1	2'-10 ¹ / ₂ "	8"
B	3'-0 ¹ / ₈ "	6 ⁵ / ₁₆ "
☒ Brg. Pier 1	3'-0"	6"
C	2'-11 ⁷ / ₈ "	6 ³ / ₁₆ "
0.1L2	2'-9 ⁷ / ₈ "	7 ¹ / ₁₆ "
0.2L2	2'-7"	9 ¹ / ₁₆ "
0.3L2	2'-4 ¹ / ₂ "	11 ¹ / ₂ "
0.4L2	2'-2"	1'-1"
0.5L2	1'-11 ⁷ / ₈ "	1'-2 ³ / ₈ "
0.6L2	1'-10"	1'-4 ¹ / ₈ "
0.7L2	1'-10"	1'-2 ¹ / ₈ "
0.8L2	1'-10"	1'-1 ⁵ / ₈ "
0.9L2	1'-10"	1'-0 ¹ / ₄ "
☒ Brg N. Abut.	1'-10"	11"
D	1'-10"	-

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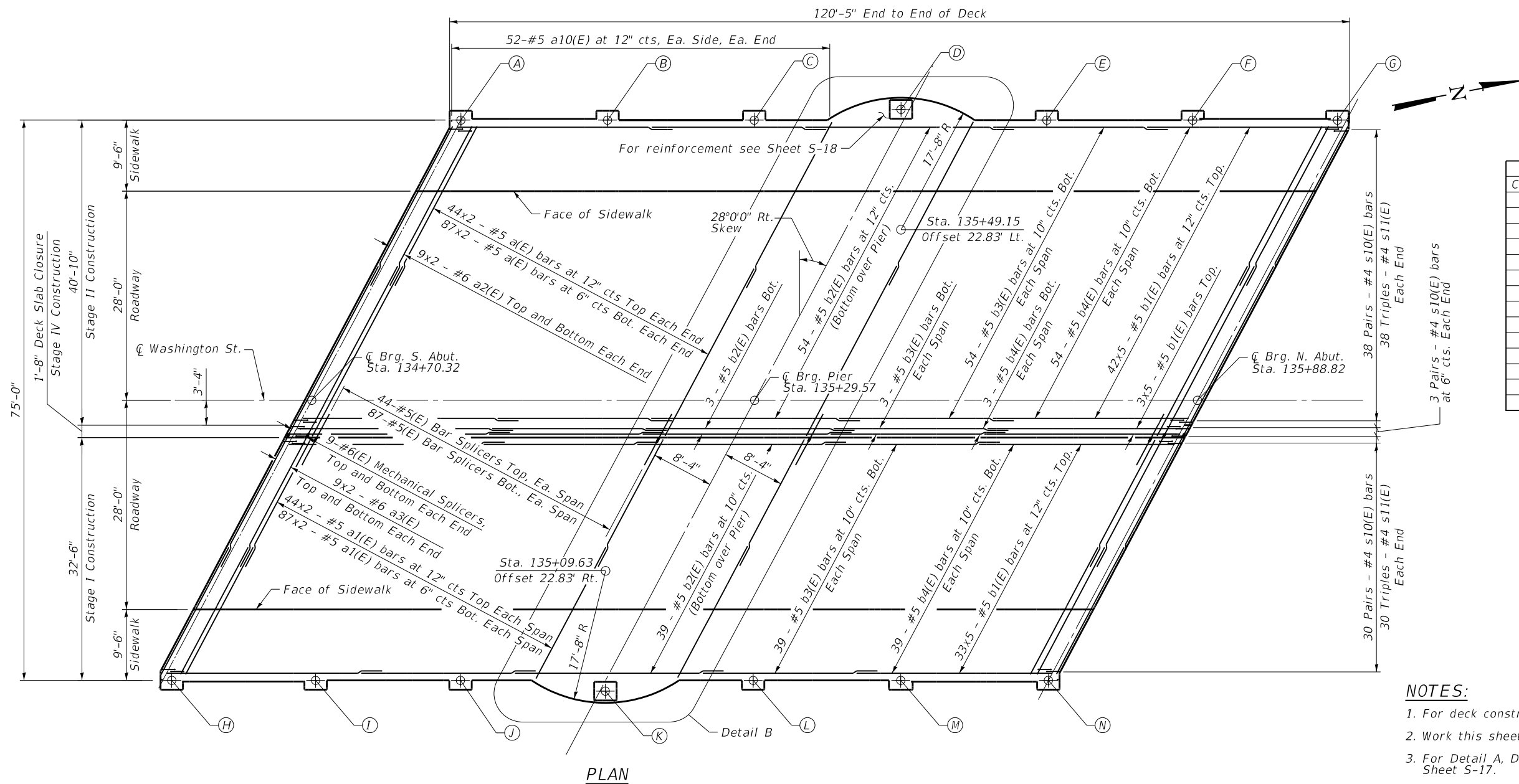
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PLOT DATE = 8/8/2022	DRAWN - SBA	REVISED -
	CHECKED - BWS	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**POST-TENSIONING DETAILS
STRUCTURE NO. 022-6749**

SHEET S-15 OF S-48 SHEETS

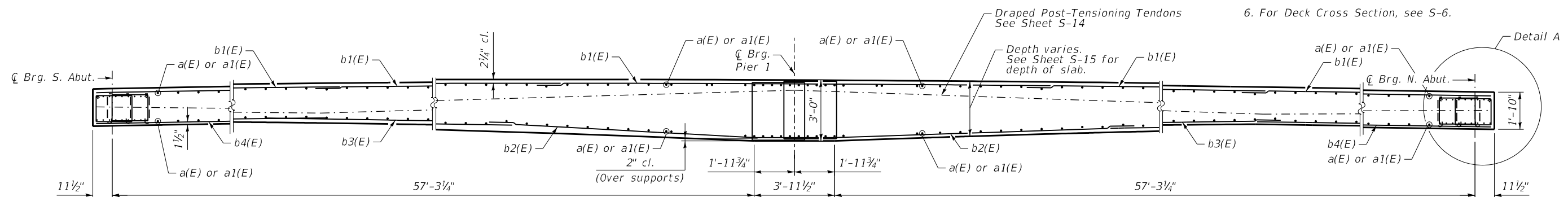
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	199
CONTRACT NO.			61G82	
ILLINOIS		FED. AID PROJECT		



Column Locations		
Column	Station	Offset
A	134+90.27	37.50' Lt.
B	135+09.90	37.50' Lt.
C	135+29.53	37.50' Lt.
D	135+49.15	38.94' Lt.
E	135+68.67	37.50' Lt.
F	135+88.18	37.50' Lt.
G	136+07.55	37.50' Lt.
H	134+51.59	37.50' Rt.
I	134+70.83	37.50' Rt.
J	134+90.22	37.50' Rt.
K	135+09.60	38.94' Rt.
L	135+29.38	37.50' Rt.
M	135+49.12	37.50' Rt.
N	135+68.87	37.50' Rt.

LAP LENGTHS
 #5 Bar = 2'-6"
 #6 Bar = 3'-0"

- NOTES:**
1. For deck construction staging, see Sheet S-6.
 2. Work this sheet with Sheets S-17 thru S-21.
 3. For Detail A, Detail B, and Overlook details, see Sheet S-17.
 4. For sidewalk details, see Sheet S-19.
 5. Stations and offsets given from ζ of Washington Street.
 6. For Deck Cross Section, see S-6.



LONGITUDINAL SECTION

FILE NAME: N:\PROJ\020794.01\Design\Structure\CAD\020794.01_16-Superstructure Plan and Long Section.dgn



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	CHECKED - BWS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE PLAN AND LONGITUDINAL SECTION
STRUCTURE NO. 022-6749

SHEET S-16 OF S-48 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2552	16-00167-00-BR	DUPAGE	261	200
CONTRACT NO.			61G82	

ILLINOIS FED. AID PROJECT