N

20+00

EX ℄ I-90 RAMP 3

EX I-90

WET REF TEM TAPE T3 4
Y EDGE LINE (TYP.)

MATCH LINE 2

3395+00

3400+00

1000' (83.33:1) TAPER 12.0'
1000' (83.33:1) TAPER 12.0'
1000' (83.33:1) TAPER 12.0'

WET REF TEM TAPE T3 4
W EDGE LINE (TYP.)

10+00

EX ℄ I-90 RAMP 8

END WORK ZONE SPEED LIMIT

G20-1103(0)-3660
36 x 18 In.

LEGEND

- WORK AREA
- TEMPORARY PAVEMENT
- PROP. BASE COURSE WIDENING WITH 2 1/2" OF TEMPORARY PAVEMENT
- TYPE II BARRICADES OR DRUMS WITH STEADY BURNING LIGHTS @ 50 FT CENTERS ALONG ROADWAY (TANGENTS), 25 FT CENTERS ALONG TAPERS, AND 12 FT CENTERS ALONG RADII.
- IMP ATTN TEMP FRN TL3
- TEMPORARY CONCRETE BARRIER
- DIRECTION OF TRAFFIC
- VERTICAL PANEL @ 50 FT C-C
- TYPE III BARRICADES WITH FLASHING LIGHTS

USER NAME = tkoeppen(Rdwy_Lisle)	DESIGNED - CPK	REVISED -	
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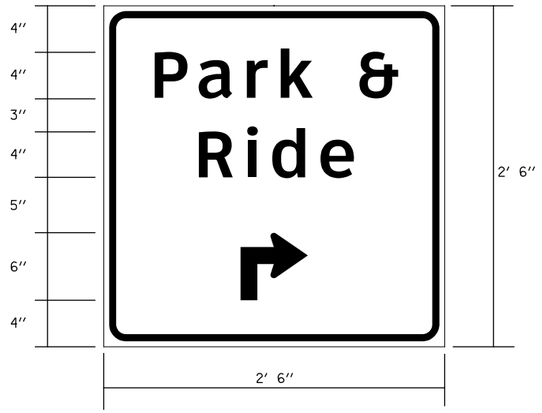
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGES OF CONSTRUCTION & TRAFFIC CONTROL
DETAIL FOR I-90 PIPE JACKING OPERATIONS

SCALE: 1"=50' | SHEET MOT-41 OF 42

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	101
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

G:\IDOT\21050_006_CumberlandAve\Drawings\CADD Sheets\D160J14-sht-staging_05_03_I-90_recvplt.dgn



TEMPORARY INFORMATION SIGN
164″ X 14″

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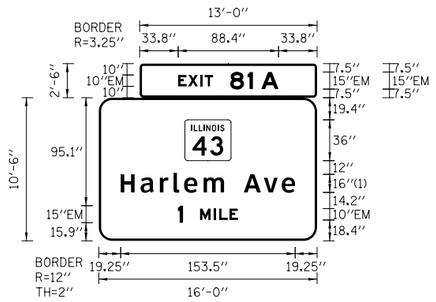
M.U.T.C.D.: 2009 Edition



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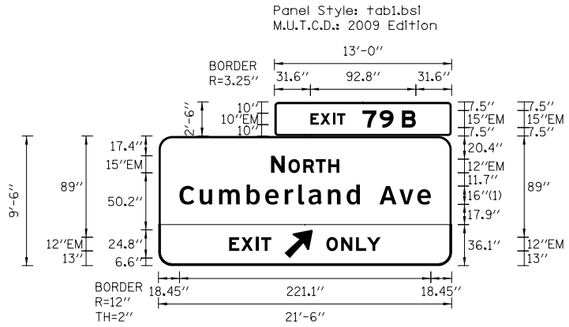
(1) ClearviewHwy-5-W

Panel Style: guide_exp_advance_b.ssi
M.U.T.C.D.: 2009 Edition

GROUND MOUNTED TEMPORARY INFORMATION SIGNS

Panel Style: tab1.bsl
M.U.T.C.D.: 2009 Edition



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GROUND MOUNTED TEMPORARY INFORMATION SIGNS

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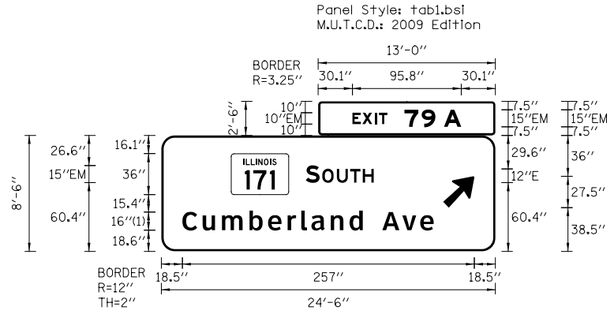

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GROUND MOUNTED TEMPORARY INFORMATION SIGNS

SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNS" FOR ADDITIONAL INFORMATION.

ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN.

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LISLE, IL 60532
patrickengineering.com

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGES OF CONSTRUCTION & TRAFFIC CONTROL
TEMPORARY SIGNING DETAIL

SCALE: NA | SHEET MOT-42 OF 42 | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	102
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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EROSION CONTROL GENERAL NOTES:

1. THE CONSTRUCTION LIMITS WILL BE STAKED/APPROVED BY THE ENGINEER PRIOR TO COMMENCING CONSTRUCTION. THE CONSTRUCTION LIMITS MAY BE ADJUSTED BY THE ENGINEER TO PRESERVE TREES AND NO ADDITIONAL COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR CHANGES IN THE CONSTRUCTION LIMITS.

2. EROSION CONTROL ITEMS ARE CONSIDERED TO BE HIGH PRIORITY ITEMS ON THIS CONTRACT. THE ENGINEER WILL IMPLEMENT ALL PROVISIONS OF THE SPECIFICATION NECESSARY TO ASSURE THAT EROSION CONTROL ITEMS ARE CONSTRUCTED AND MAINTAINED IN A TIMELY WAY. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES.

3. THE EROSION CONTROL MEASURES SHOWN ARE BUT A GRAPHICAL REPRESENTAION OF SUGGESTED MEASURES. DEVIATIONS FROM THIS PLAN ARE TO BE EXPECTED PENDING A JOBSITE INSPECTION BETWEEN THE CONTRACTOR AND THE DEPARTMENT.

4. THE CONTRACTOR WILL BE REQUIRED TO IMPLEMENT AND MAINTAIN SEDIMENT CONTROL MEASURES PRIOR TO STRIPPING EXISTING VEGETATION.

5. TEMPORARY EROSION CONTROL SEEDING SHALL BE PROVIDED PER SUB-STAGE AS SOON AS ROUGH GRADING IS COMPLETED IN A SECTION, BUT IN NO CASE MORE THAN 7 DAYS AFTER THE CONSTRUCTION ACTIVITIES IN THAT PORTION OF THE SITE HAVE TEMPORARILY OR PERMANANTLY CEASED WHERE CONSTRUCTION WILL NOT OCCUR FOR A PERIOD OF 14 OR MORE CALENDAR DAYS.

6. ANY AREA WHERE THERE IS NO PROPOSED GRADING THE EXISTING GROUND COVER SHALL REMAIN.

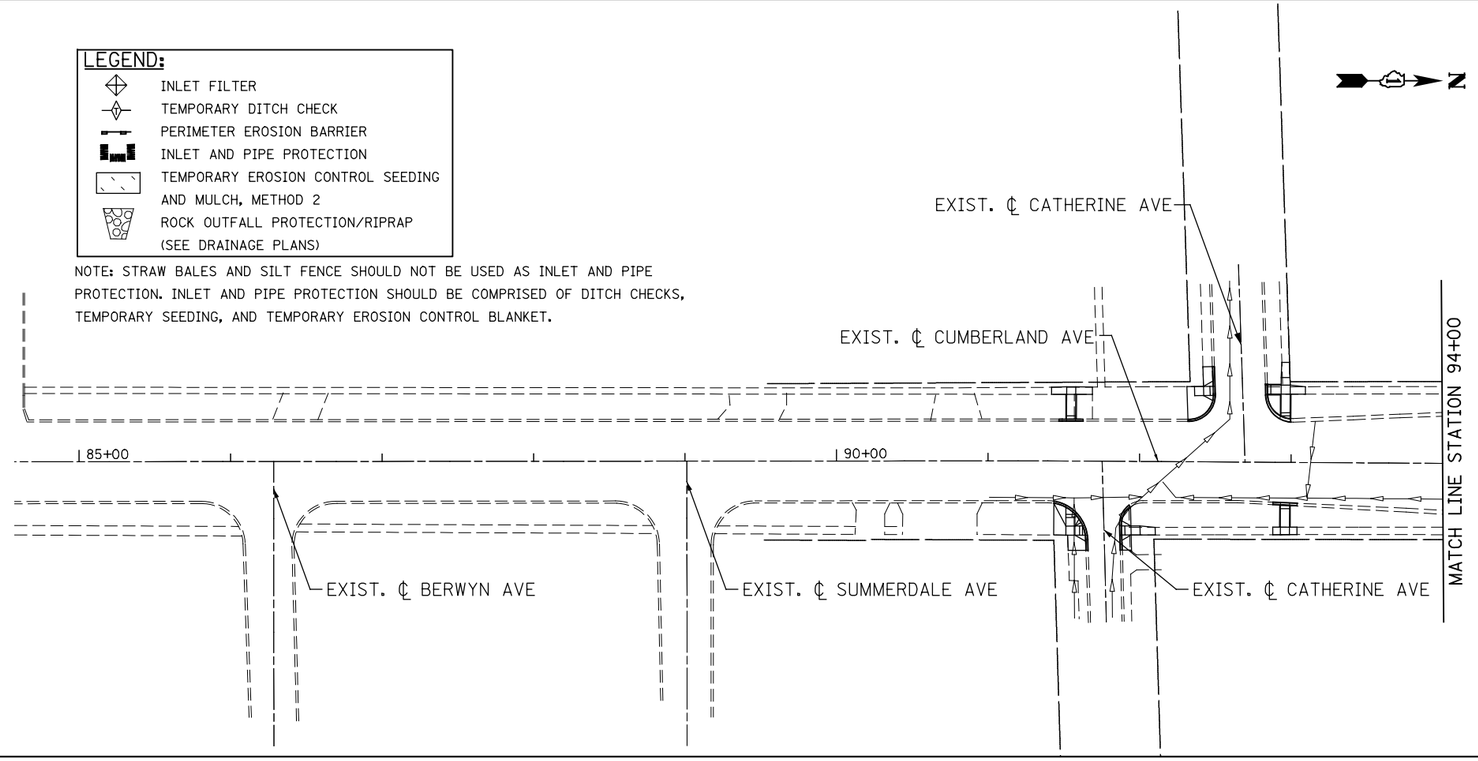
7. THE CONTRACTOR SHALL PROVIDE TO THE RESIDENT ENGINEER A PLAN TO HAVE A STABILIZED CONNECTION BETWEEN THE UPSTREAM AND DOWNSTREAM ENDS OF STORM WATER CONVEYANCE UNDER CONSTRUCTION WHEN RAIN IS FORECASTED DURING STORM SEWER CONSTRUCTION, SO THAT FLOW WILL NOT CAUSE EROSION.

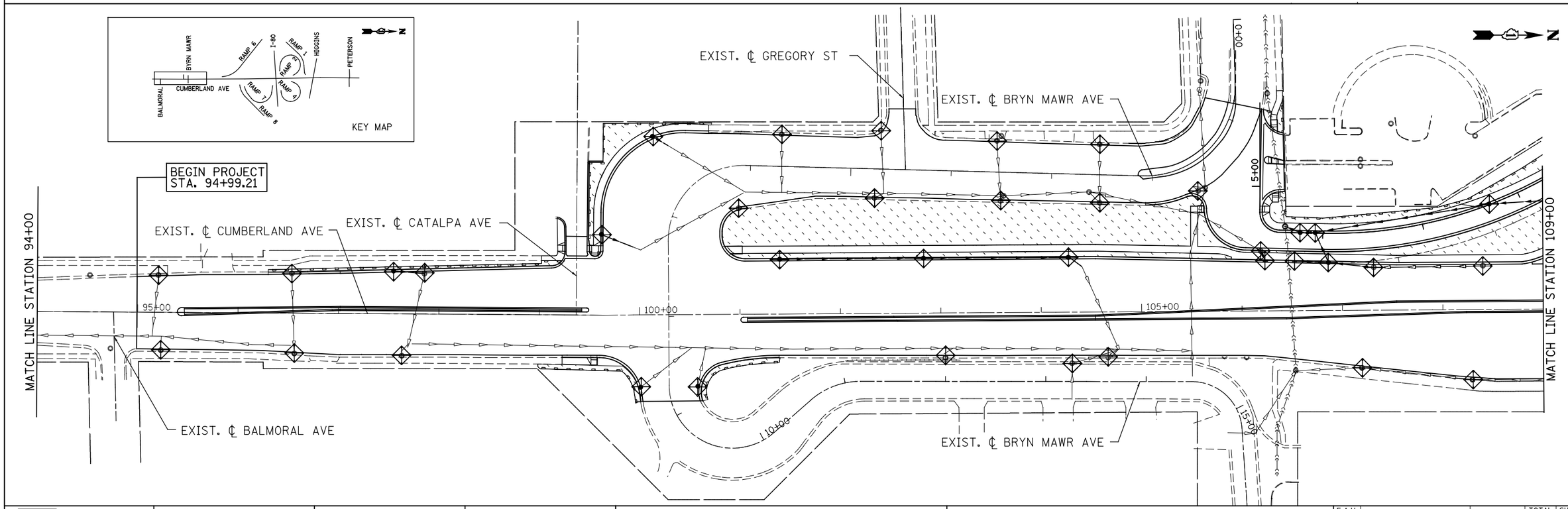
8. TEMPORARY STOCKPILE LOCATIONS SHALL BE APPROVED BY THE ENGINEER AND WILL REQUIRE SILT FENCE AND TEMPORARY SEEDING.

LEGEND:

- INLET FILTER
- TEMPORARY DITCH CHECK
- PERIMETER EROSION BARRIER
- INLET AND PIPE PROTECTION
- TEMPORARY EROSION CONTROL SEEDING AND MULCH, METHOD 2
- ROCK OUTFALL PROTECTION/RIPRAP (SEE DRAINAGE PLANS)

NOTE: STRAW BALES AND SILT FENCE SHOULD NOT BE USED AS INLET AND PIPE PROTECTION. INLET AND PIPE PROTECTION SHOULD BE COMPRISED OF DITCH CHECKS, TEMPORARY SEEDING, AND TEMPORARY EROSION CONTROL BLANKET.





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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL EROSION AND SEDIMENTATION CONTROL PLAN
CUMBERLAND AVENUE

SCALE: 1"=50' | SHEET ERO-01 OF 6 | STA. 94+99.21 TO STA. 109+00

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	103
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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MATCH LINE STATION 109+00

EXIST. ℄ HIGGINS RD

EXIST. ℄ CUMBERLAND AVE

EXIST. ℄ I-90 RAMP 7

EXIST. ℄ I-90 RAMP 8

EXIST. ℄ I-90

EXIST. ℄ I-90 RAMP 2

EXIST. ℄ I-90 RAMP 1

PROP. ℄ CUMBERLAND AVE

EXIST. ℄ I-90 RAMP 4

MATCH LINE STATION 124+00

PROP. R.O.W.

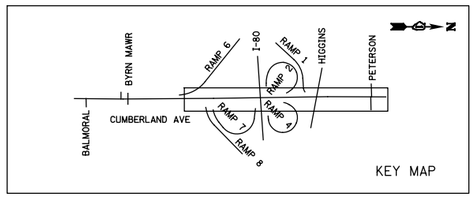
PROP. ℄ CUMBERLAND AVE

EXIST. ℄ CUMBERLAND AVE

END PROJECT
STA. 132+00.73

EXIST. ℄ PETERSON AVE

EXIST. ℄ GLENLAKE AVE



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL EROSION AND SEDIMENTATION CONTROL PLAN
CUMBERLAND AVENUE

SCALE: 1"=50' | SHEET ERO-02 OF 6 | STA. 109+00 TO STA. 132+00.73

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	104
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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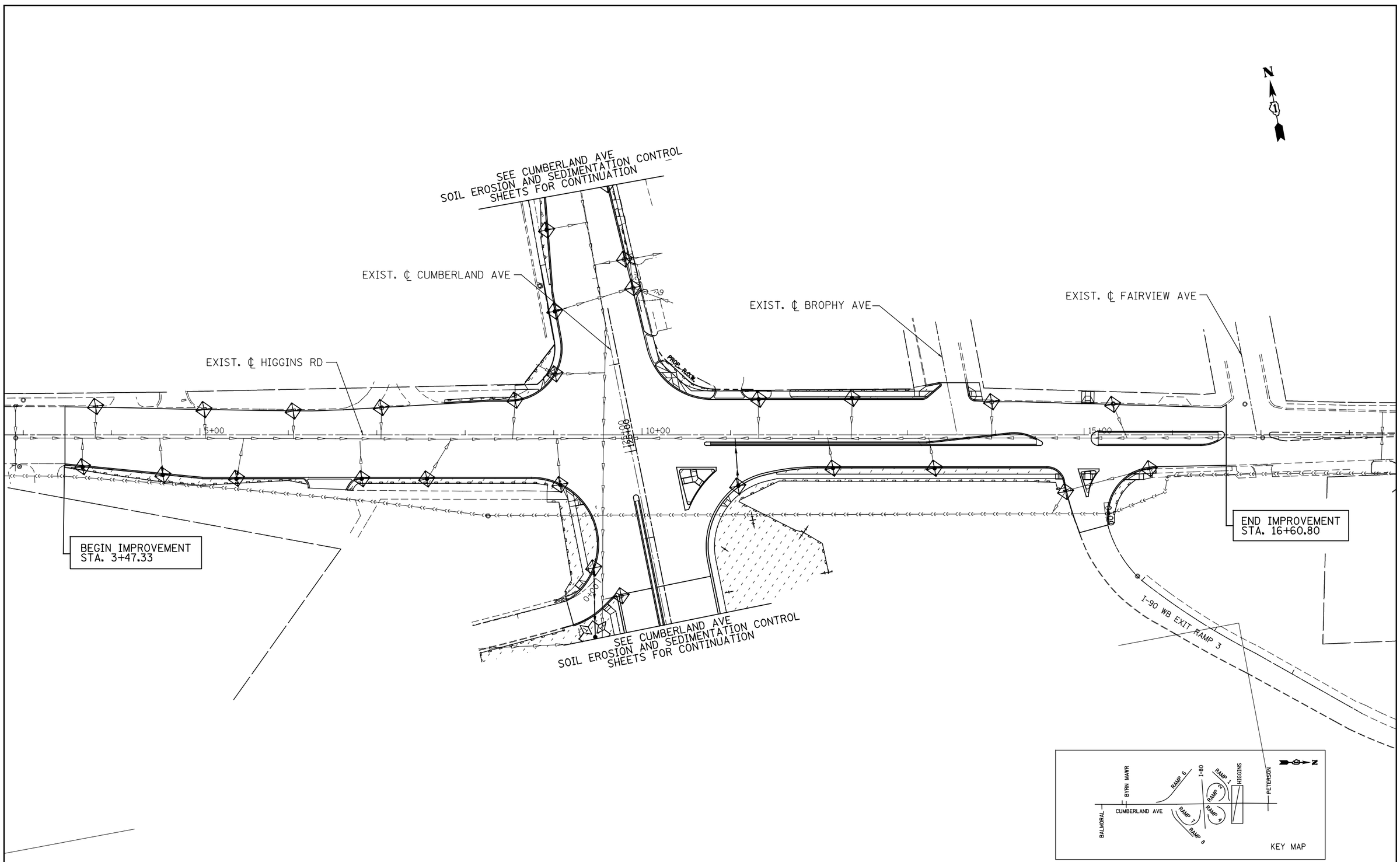

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SOIL EROSION AND SEDIMENTATION CONTROL PLAN
HIGGINS ROAD

SCALE: 1"=50' | SHEET ERO-03 OF 6 | STA. 3+47.33 | TO STA. 16+60.80

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	105
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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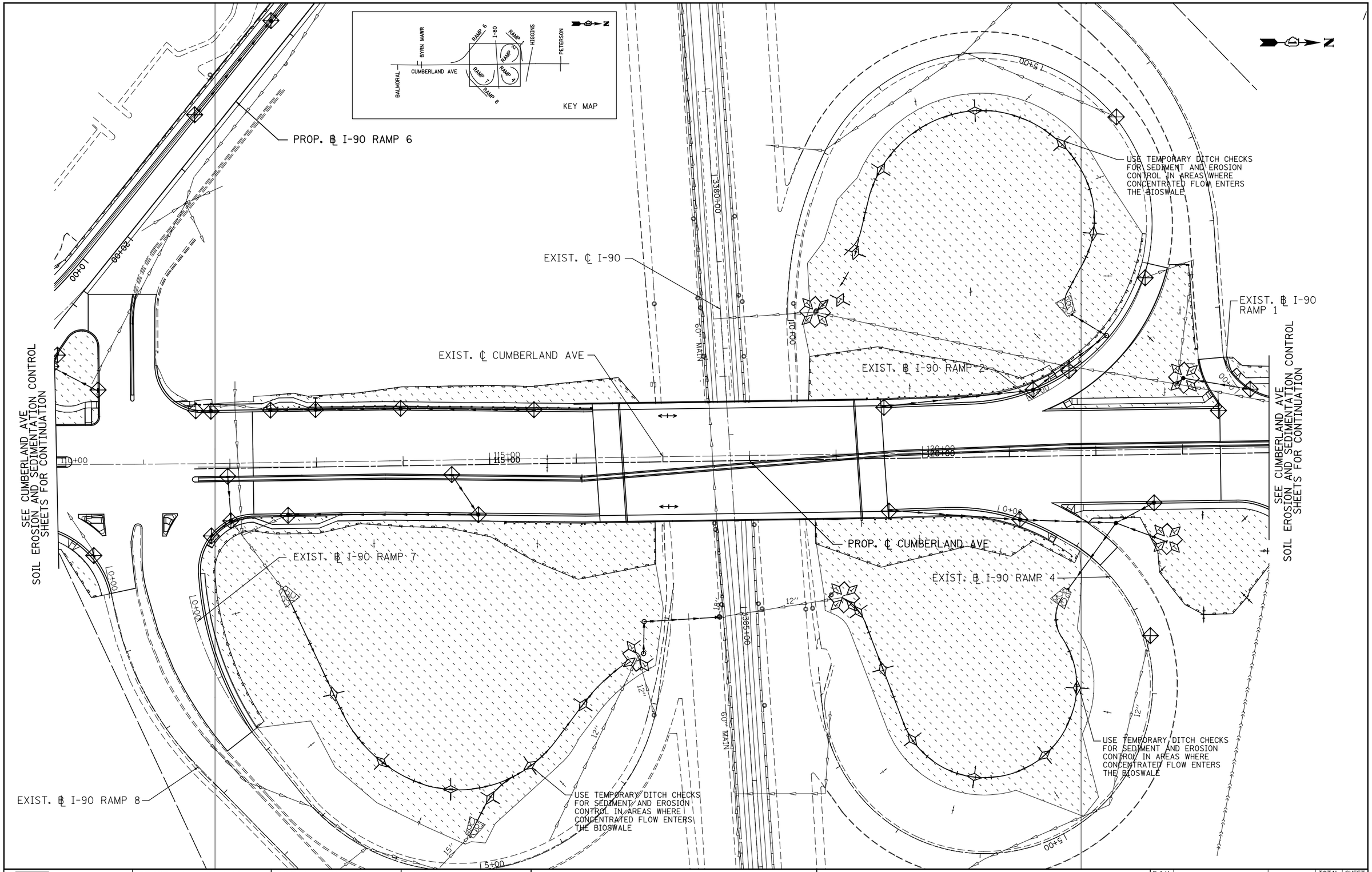

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	PLOT DATE = 2/18/2013 5:03:15 PM	DATE - 2/18/2013	REVISED -		SCALE: 1"=50' | SHEET ERO-04 OF 6 | STA. 110+00.00 TO STA. 124+00.00

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	106
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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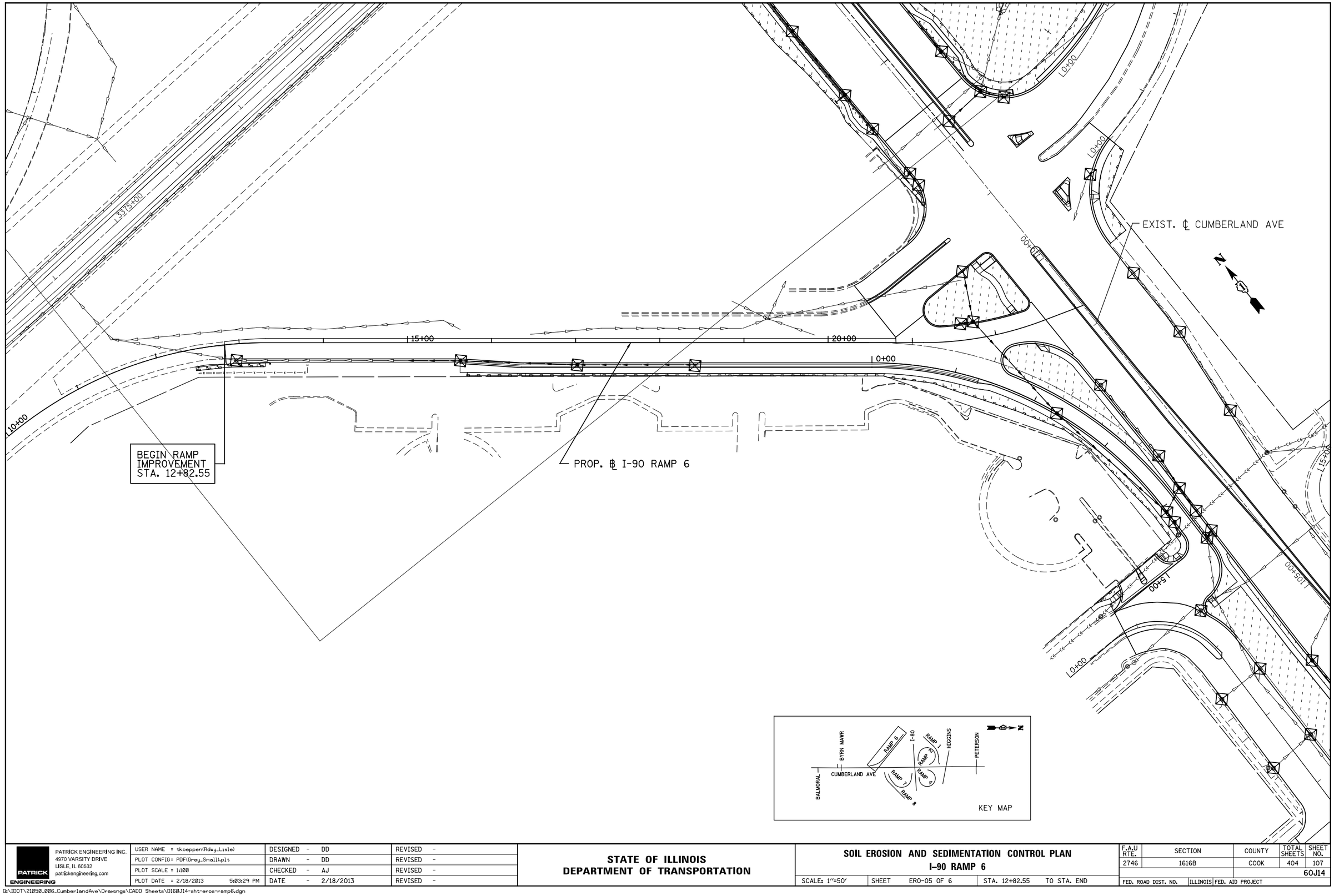

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL EROSION AND SEDIMENTATION CONTROL PLAN
I-90 RAMP 6

SCALE: 1"=50' | SHEET ERO-05 OF 6 | STA. 12+82.55 TO STA. END

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	107
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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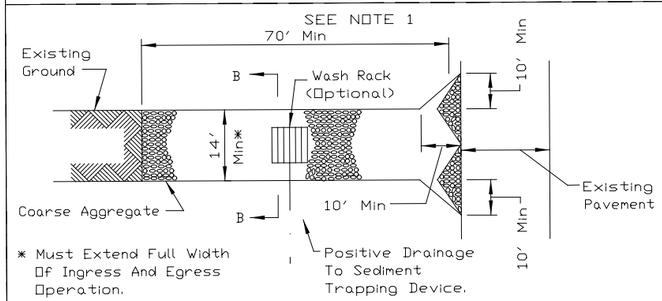
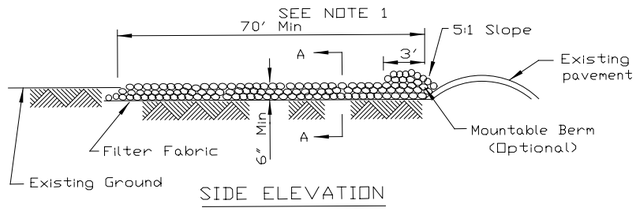
STABILIZED CONSTRUCTION ENTRANCE PLAN



PLAN VIEW



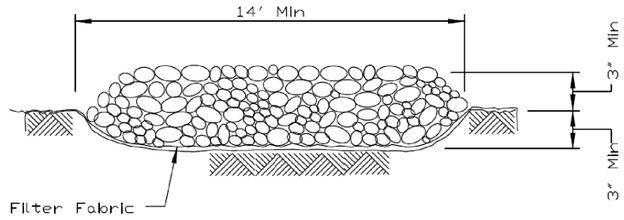
SIDE ELEVATION

NOTES:
1. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table I or 2, Class I, II or IV and shall be placed over the cleared area prior to the placing of rock.
2. Rock or reclaimed concrete shall meet one of the following IDOT coarse aggregate gradation, CA-1, CA-2, CA-3 or CA-4 and be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class III compaction.
3. Any drainage facilities required because of washing shall be constructed according to manufacturers specifications.
4. If wash racks are used they shall be installed according to the manufactures specifications.

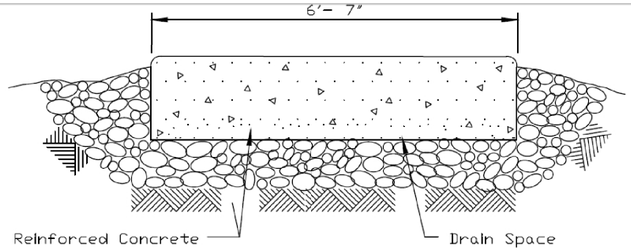
		IL-630

NOTE:
1: LENGTH SHALL BE THE LESSER OF 70 FEET OR THE DISTANCE BETWEEN THE EXISTING PAVEMENT AND THE LIMITS OF GRADING BUT NO LESS THAN 50 FEET.

STABILIZED CONSTRUCTION ENTRANCE PLAN



SECTION A-A



SECTION B-B

REFERENCE		STANDARD DWG. NO.
Project	NRCS Natural Resources Conservation Service	IL-630
Designed ____ Date ____		SHEET 2 OF 2
Checked ____ Date ____		DATE 8-18-94
Approved ____ Date ____		

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL EROSION AND SEDIMENTATION CONTROL PLAN
CUMBERLAND AVENUE

SCALE: NA | SHEET ERO-06 OF 6 | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	108
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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EXISTING DRAINAGE STRUCTURES

(1) MANHOLE
STA 106+45, 65' LT
RIM = 632.76
N INV = 624.06
E INV = 623.46
S INV = 628.66
W INV = 623.36

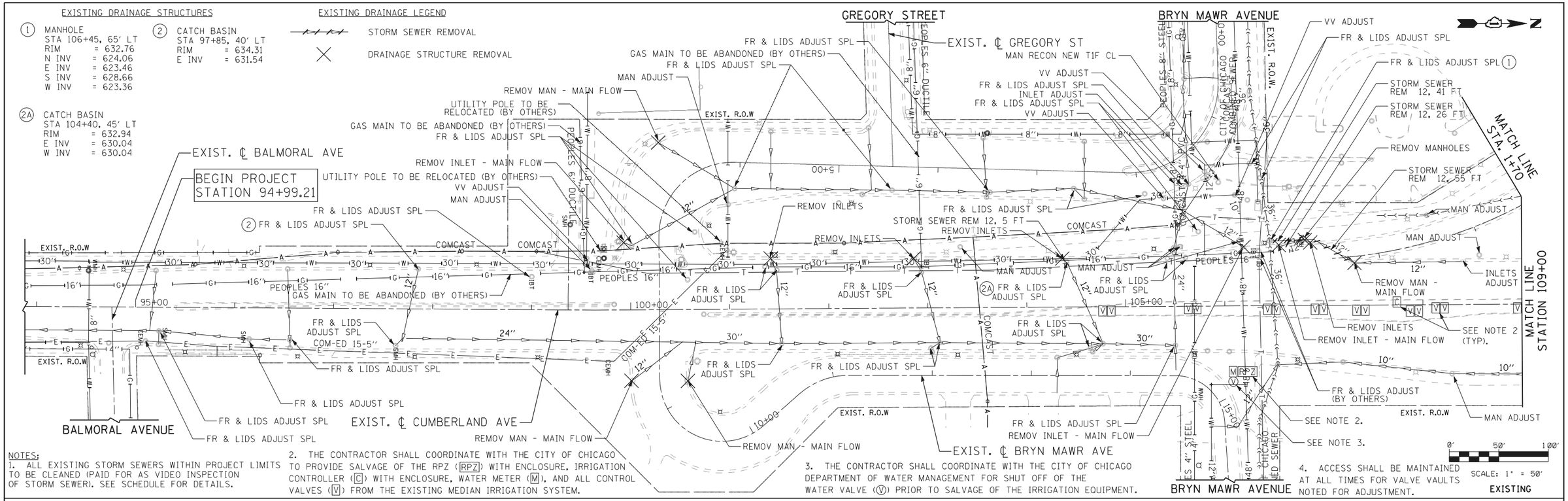
(2) CATCH BASIN
STA 97+85, 40' LT
RIM = 634.31
E INV = 631.54

(2A) CATCH BASIN
STA 104+40, 45' LT
RIM = 632.94
E INV = 630.04
W INV = 630.04

EXISTING DRAINAGE LEGEND

STORM SEWER REMOVAL

DRAINAGE STRUCTURE REMOVAL



NOTES:

1. ALL EXISTING STORM SEWERS WITHIN PROJECT LIMITS TO BE CLEANED (PAID FOR AS VIDEO INSPECTION OF STORM SEWER). SEE SCHEDULE FOR DETAILS.

2. THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF CHICAGO TO PROVIDE SALVAGE OF THE RPZ (RPZ) WITH ENCLOSURE, IRRIGATION CONTROLLER (C) WITH ENCLOSURE, WATER METER (M), AND ALL CONTROL VALVES (V) FROM THE EXISTING MEDIAN IRRIGATION SYSTEM.

3. THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF CHICAGO DEPARTMENT OF WATER MANAGEMENT FOR SHUT OFF OF THE WATER VALVE (V) PRIOR TO SALVAGE OF THE IRRIGATION EQUIPMENT.

4. ACCESS SHALL BE MAINTAINED AT ALL TIMES FOR VALVE VAULTS NOTED FOR ADJUSTMENT.

NOTES:

1. SEE SHEET DU-10 FOR DRAINAGE STRUCTURE TABLES.

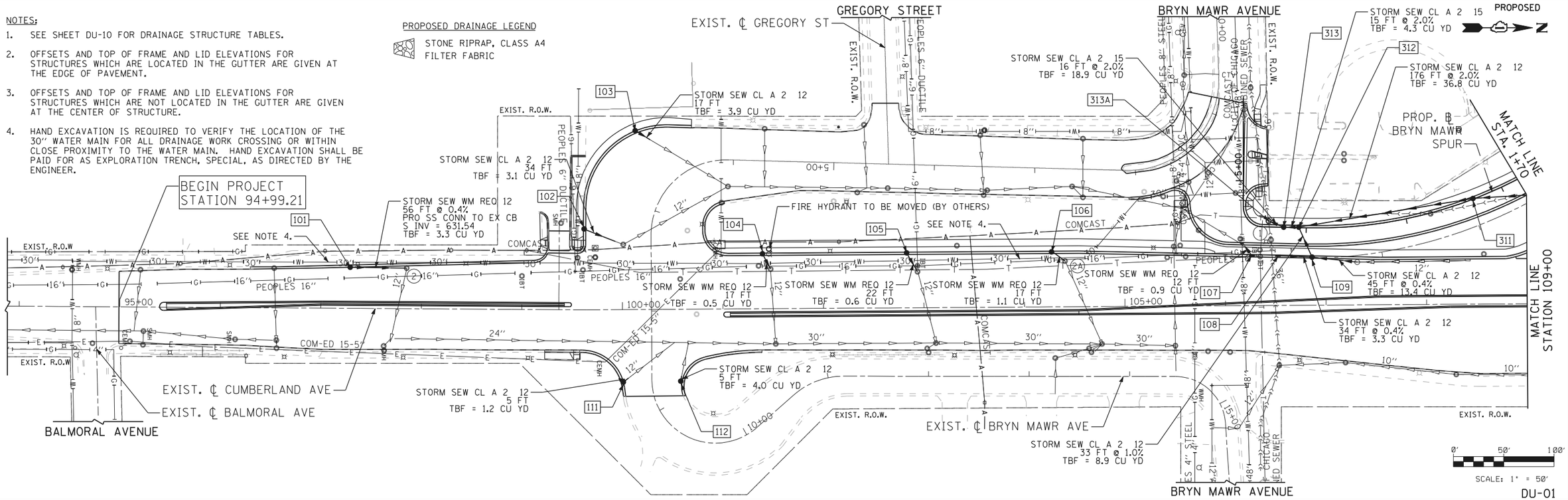
2. OFFSETS AND TOP OF FRAME AND LID ELEVATIONS FOR STRUCTURES WHICH ARE LOCATED IN THE GUTTER ARE GIVEN AT THE EDGE OF PAVEMENT.

3. OFFSETS AND TOP OF FRAME AND LID ELEVATIONS FOR STRUCTURES WHICH ARE NOT LOCATED IN THE GUTTER ARE GIVEN AT THE CENTER OF STRUCTURE.

4. HAND EXCAVATION IS REQUIRED TO VERIFY THE LOCATION OF THE 30" WATER MAIN FOR ALL DRAINAGE WORK CROSSING OR WITHIN CLOSE PROXIMITY TO THE WATER MAIN. HAND EXCAVATION SHALL BE PAID FOR AS EXPLORATION TRENCH, SPECIAL, AS DIRECTED BY THE ENGINEER.

PROPOSED DRAINAGE LEGEND

STONE RIPRAP, CLASS A4
FILTER FABRIC



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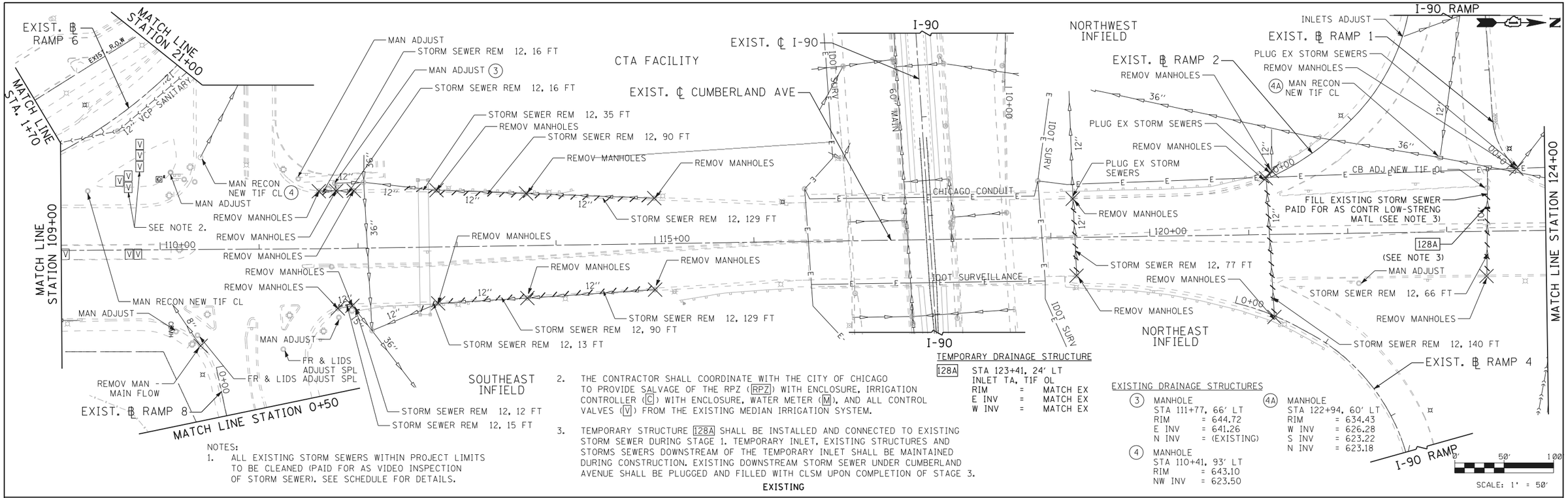
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE AND UTILITIES PLAN
CUMBERLAND AVENUE

SCALE: 1"=50' | SHEET NO. OF SHEETS | STA. 94+99.21 | TO STA. 109+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	109
		CONTRACT NO. 60J14		
		ILLINOIS FED. AID PROJECT		



DU-02

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PLOT DATE = 2/18/2013	DATE - 2/18/2013	REVISED -

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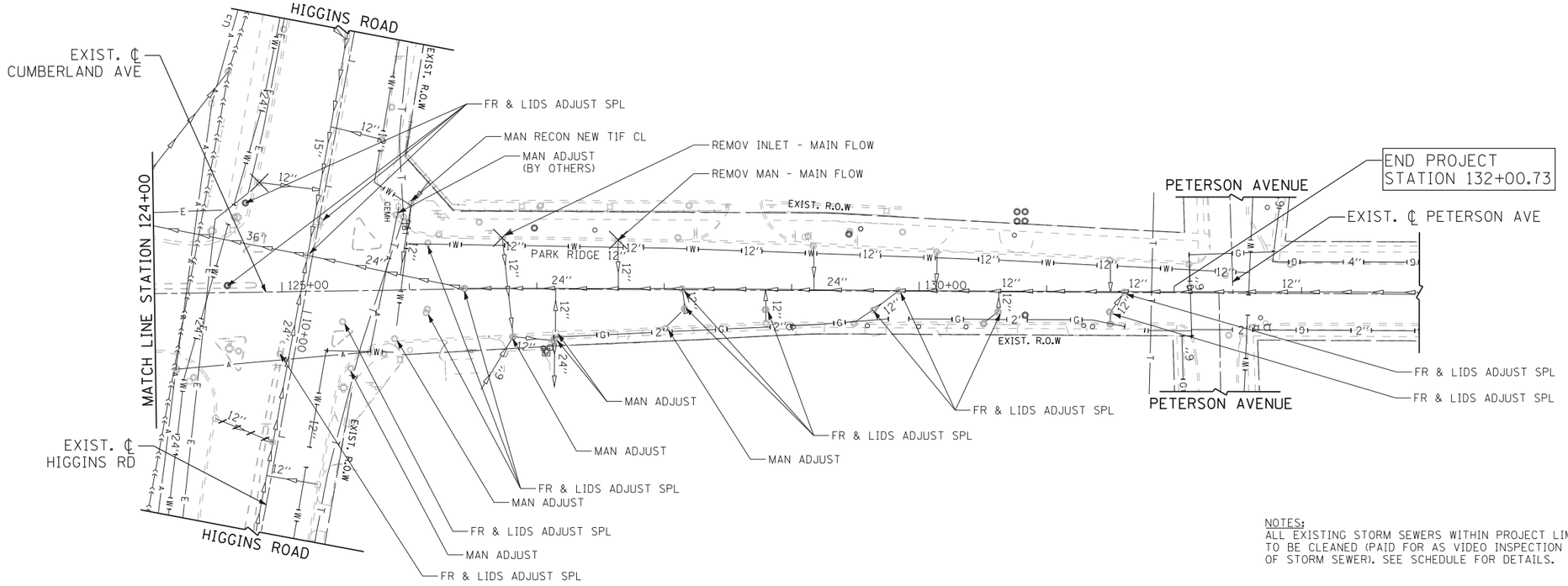
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE AND UTILITIES PLAN
CUMBERLAND AVENUE

SCALE: 1"=50' | SHEET NO. OF SHEETS | STA. 109+00 TO STA. 124+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	110
		CONTRACT NO. 60J14		
		ILLINOIS FED. AID PROJECT		



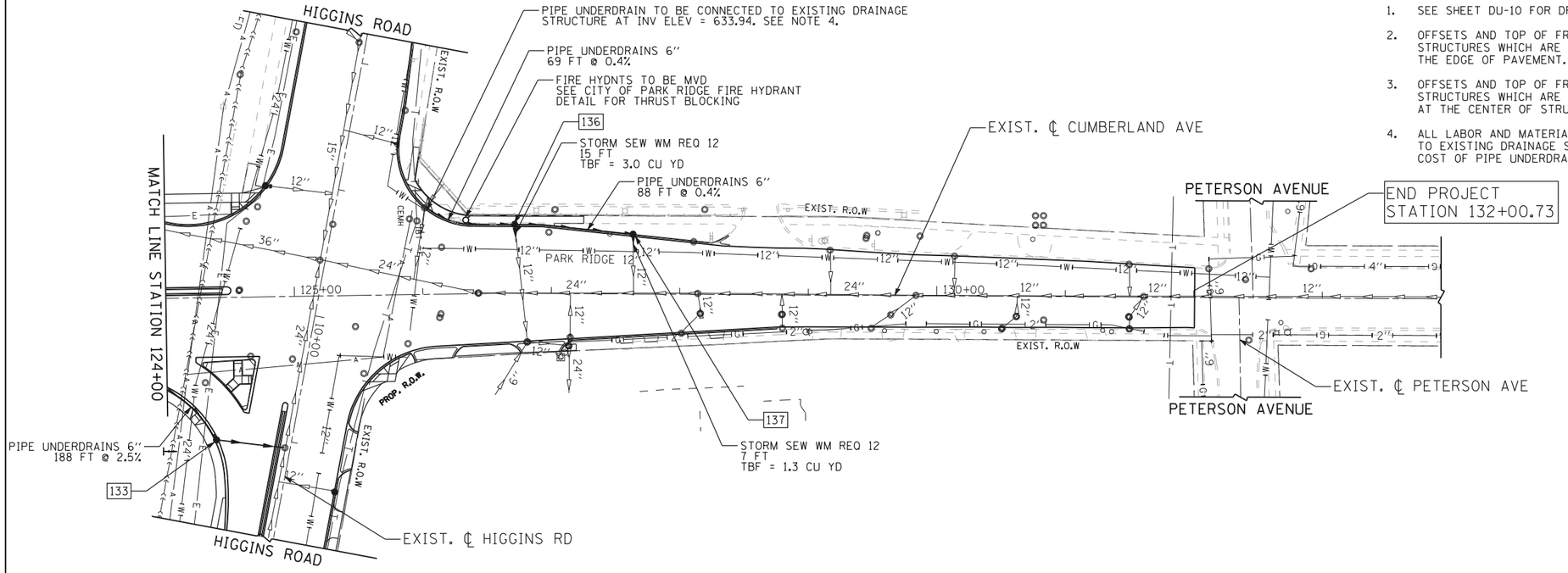
NOTES:
ALL EXISTING STORM SEWERS WITHIN PROJECT LIMITS TO BE CLEANED (PAID FOR AS VIDEO INSPECTION OF STORM SEWER). SEE SCHEDULE FOR DETAILS.

0′ 50′ 100′

SCALE: 1" = 50′

EXISTING

PROPOSED



NOTES:

1. SEE SHEET DU-10 FOR DRAINAGE STRUCTURE TABLES.
2. OFFSETS AND TOP OF FRAME AND LID ELEVATIONS FOR STRUCTURES WHICH ARE LOCATED IN THE GUTTER ARE GIVEN AT THE EDGE OF PAVEMENT.
3. OFFSETS AND TOP OF FRAME AND LID ELEVATIONS FOR STRUCTURES WHICH ARE NOT LOCATED IN THE GUTTER ARE GIVEN AT THE CENTER OF STRUCTURE.
4. ALL LABOR AND MATERIAL FOR CONNECTION OF PIPE UNDERDRAINS TO EXISTING DRAINAGE STRUCTURE SHALL BE INCLUDED IN THE COST OF PIPE UNDERDRAINS 6.

0′ 50′ 100′

SCALE: 1" = 50′

DU-03

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USER NAME = cgutowski	DESIGNED - GR	REVISED -
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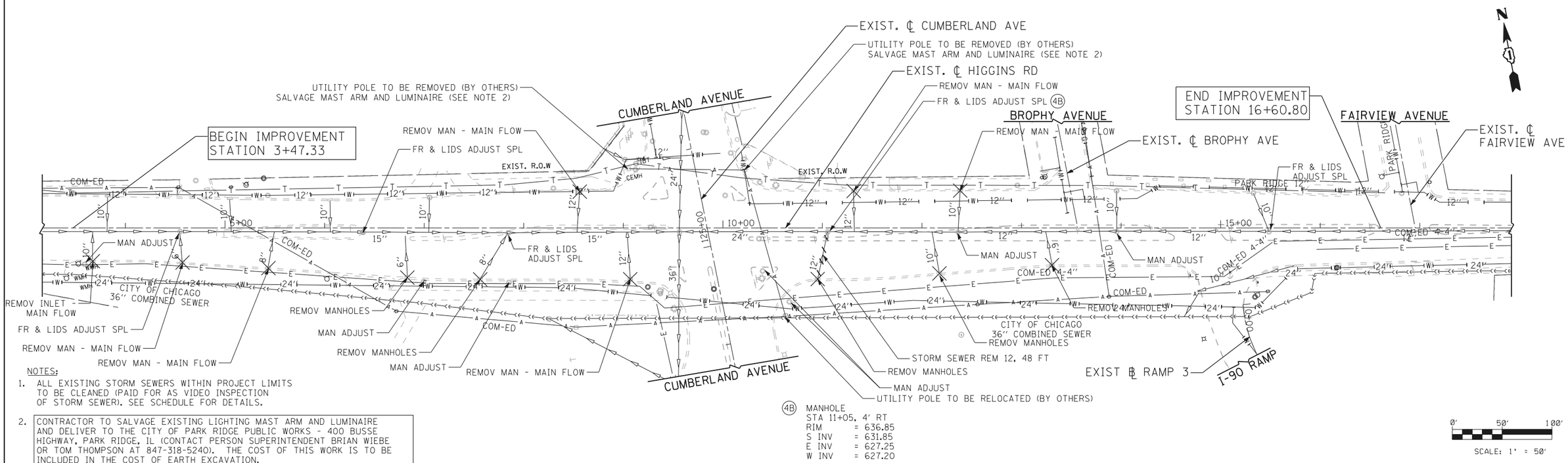
EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE AND UTILITIES PLAN
CUMBERLAND AVENUE

SCALE: 1"=50′ | SHEET NO. OF SHEETS | STA. 124+00 | TO STA. 132+00.73

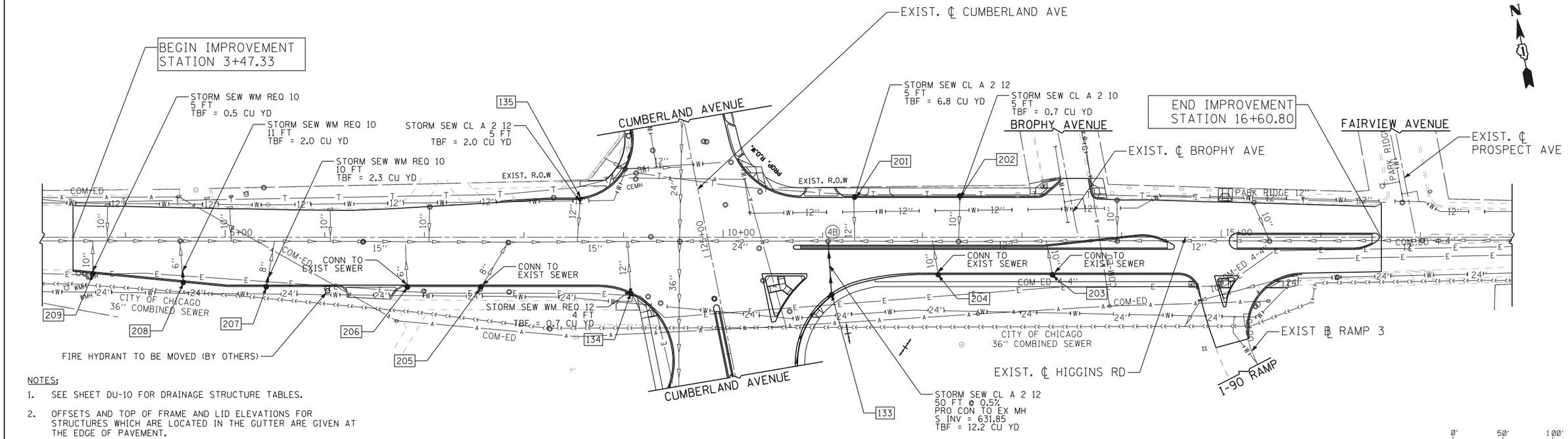
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	111
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			



NOTES:

1. ALL EXISTING STORM SEWERS WITHIN PROJECT LIMITS TO BE CLEANED (PAID FOR AS VIDEO INSPECTION OF STORM SEWER). SEE SCHEDULE FOR DETAILS.
2. CONTRACTOR TO SALVAGE EXISTING LIGHTING MAST ARM AND LUMINAIRE AND DELIVER TO THE CITY OF PARK RIDGE PUBLIC WORKS - 400 BUSSE HIGHWAY, PARK RIDGE, IL (CONTACT PERSON SUPERINTENDENT BRIAN WIEBE OR TOM THOMPSON AT 847-318-5240). THE COST OF THIS WORK IS TO BE INCLUDED IN THE COST OF EARTH EXCAVATION.

(4B) MANHOLE
STA 11+05, 4' RT
RIM = 636.85
S INV = 631.85
E INV = 627.25
W INV = 627.20



NOTES:

1. SEE SHEET DU-10 FOR DRAINAGE STRUCTURE TABLES.
2. OFFSETS AND TOP OF FRAME AND LID ELEVATIONS FOR STRUCTURES WHICH ARE LOCATED IN THE GUTTER ARE GIVEN AT THE EDGE OF PAVEMENT.
3. OFFSETS AND TOP OF FRAME AND LID ELEVATIONS FOR STRUCTURES WHICH ARE NOT LOCATED IN THE GUTTER ARE GIVEN AT THE CENTER OF STRUCTURE.

DU-04

USER NAME = cgutowski	DESIGNED - GR	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE AND UTILITIES PLAN
HIGGINS ROAD

SCALE: 1"=50' | SHEET NO. OF SHEETS | STA. 3+47.33 | TO STA. 16+60.80

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	112
		CONTRACT NO. 60J14		
		ILLINOIS FED. AID PROJECT		

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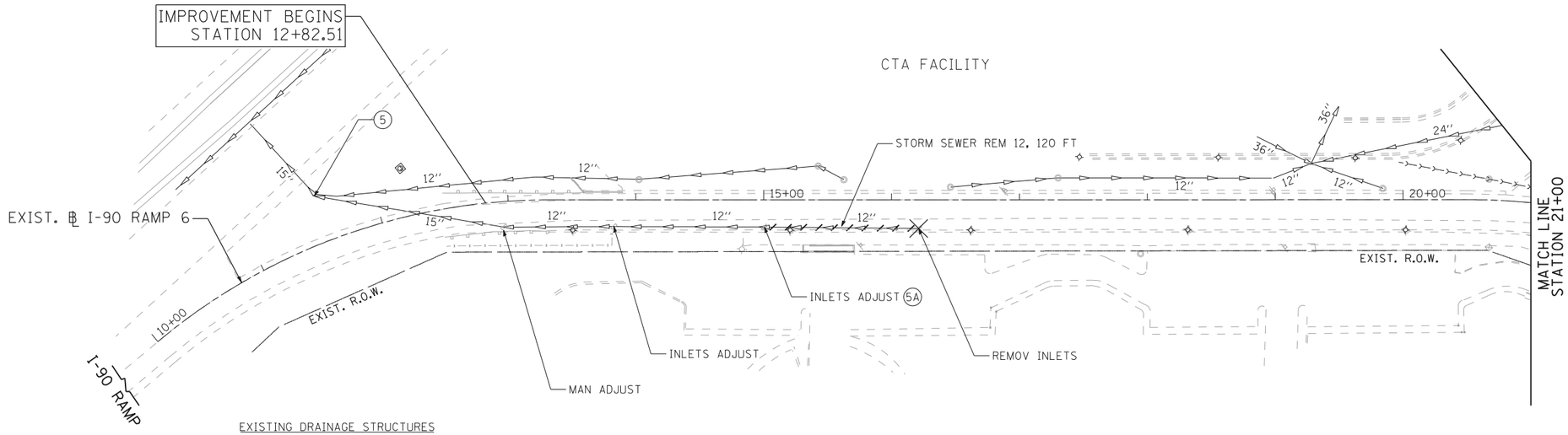


EXISTING DRAINAGE STRUCTURES

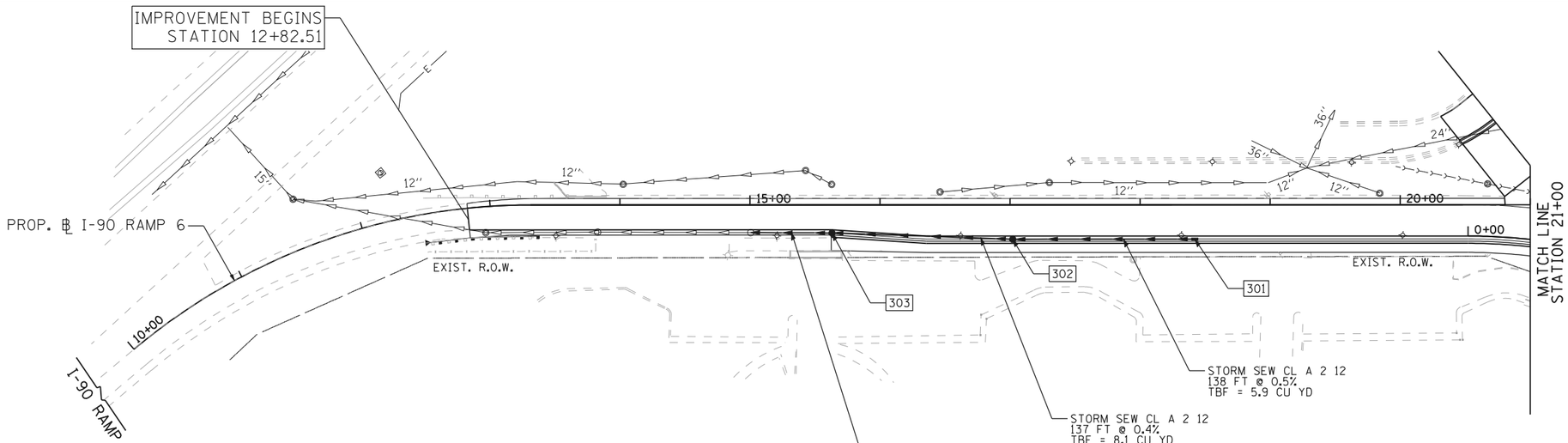
(5) MANHOLE
STA 11+44, 40' LT
RIM = 635.59
N INV = 622.19
SE INV = 629.99
S INV = 622.79

(5A) MANHOLE
STA 15+01, 21' RT
RIM = 634.83
NW INV = 631.96
SE INV = 631.96

NOTES:
ALL EXISTING STORM SEWERS WITHIN PROJECT LIMITS TO BE CLEANED (PAID FOR AS VIDEO INSPECTION OF STORM SEWER). SEE SCHEDULE FOR DETAILS.

0' 50' 100'
SCALE: 1" = 50'

EXISTING
PROPOSED



NOTES;

1. SEE SHEET DU-10 FOR DRAINAGE STRUCTURE TABLES.
2. OFFSETS AND TOP OF FRAME AND LID ELEVATIONS FOR STRUCTURES WHICH ARE LOCATED IN THE TYPE B GUTTER ARE GIVEN AT THE FRONT EDGE OF GUTTER.
3. OFFSETS AND TOP OF FRAME AND LID ELEVATIONS FOR STRUCTURES WHICH ARE NOT LOCATED IN THE GUTTER ARE GIVEN AT THE CENTER OF STRUCTURE.
4. SEE DRAINAGE DETAIL SHEET DU-15 FOR CONCRETE GUTTER, TYPE B TRANSITIONS AT DRAINAGE STRUCTURES.

0' 50' 100'
SCALE: 1" = 50'

DU-05

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411 South Wells Street Suite 1000
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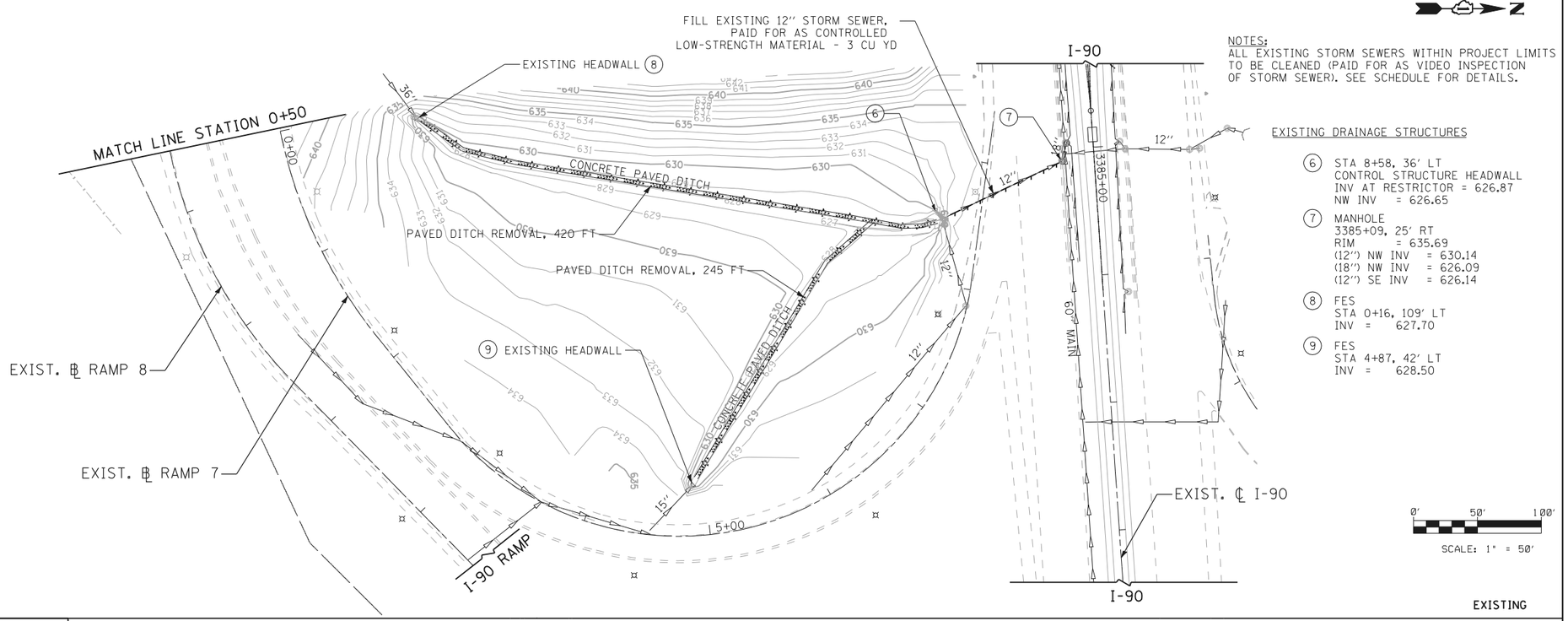
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE AND UTILITIES PLAN
I-90 RAMP 6

SCALE: 1"=50' | SHEET NO. OF SHEETS | STA. 3+47.33 | TO STA. 16+60.80

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	113
		CONTRACT NO. 60J14		
		ILLINOIS	FED. AID PROJECT	

SOUTHEAST INFIELD PROPOSED ELEVATIONS			
POINT	N	E	ELEVATION
1	1936789.70	1119503.20	627.63
2	1936810.92	1119548.47	627.56
3	1936832.82	1119593.77	627.48
4	1936858.70	1119635.89	627.41
5	1936896.78	1119667.98	627.34
6	1936942.93	1119686.54	627.27
7	1936992.66	1119687.01	627.19
8	1937003.31	1119701.12	627.20
9	1937039.41	1119670.05	627.12
10	1937077.28	1119637.80	627.05
11	1937107.33	1119597.84	626.98
12	1937140.16	1119560.26	626.90
13	1936968.94	1119540.36	632.00



NOTES:
ALL EXISTING STORM SEWERS WITHIN PROJECT LIMITS TO BE CLEANED (PAID FOR AS VIDEO INSPECTION OF STORM SEWER). SEE SCHEDULE FOR DETAILS.

EXISTING DRAINAGE STRUCTURES

(6) STA 8+58, 36' LT
CONTROL STRUCTURE HEADWALL
INV AT RESTRICTOR = 626.87
NW INV = 626.65

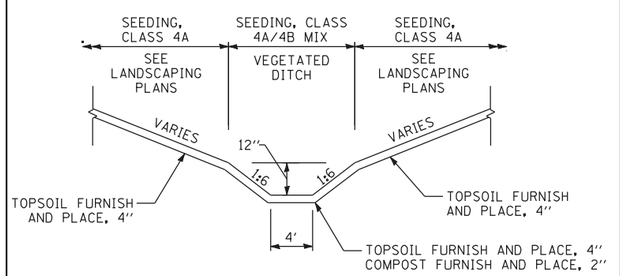
(7) MANHOLE
3385+09, 25' RT
RIM = 635.69
(12") NW INV = 630.14
(18") NW INV = 626.09
(12") SE INV = 626.14

(8) FES
STA 0+16, 109' LT
INV = 627.70

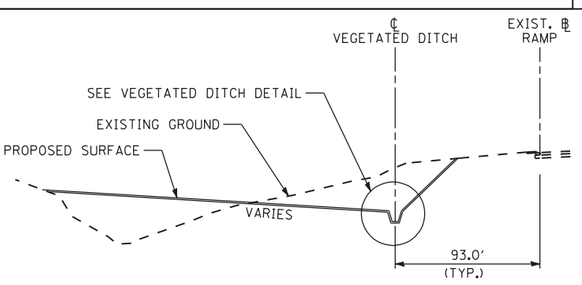
(9) FES
STA 4+87, 42' LT
INV = 628.50

EXISTING

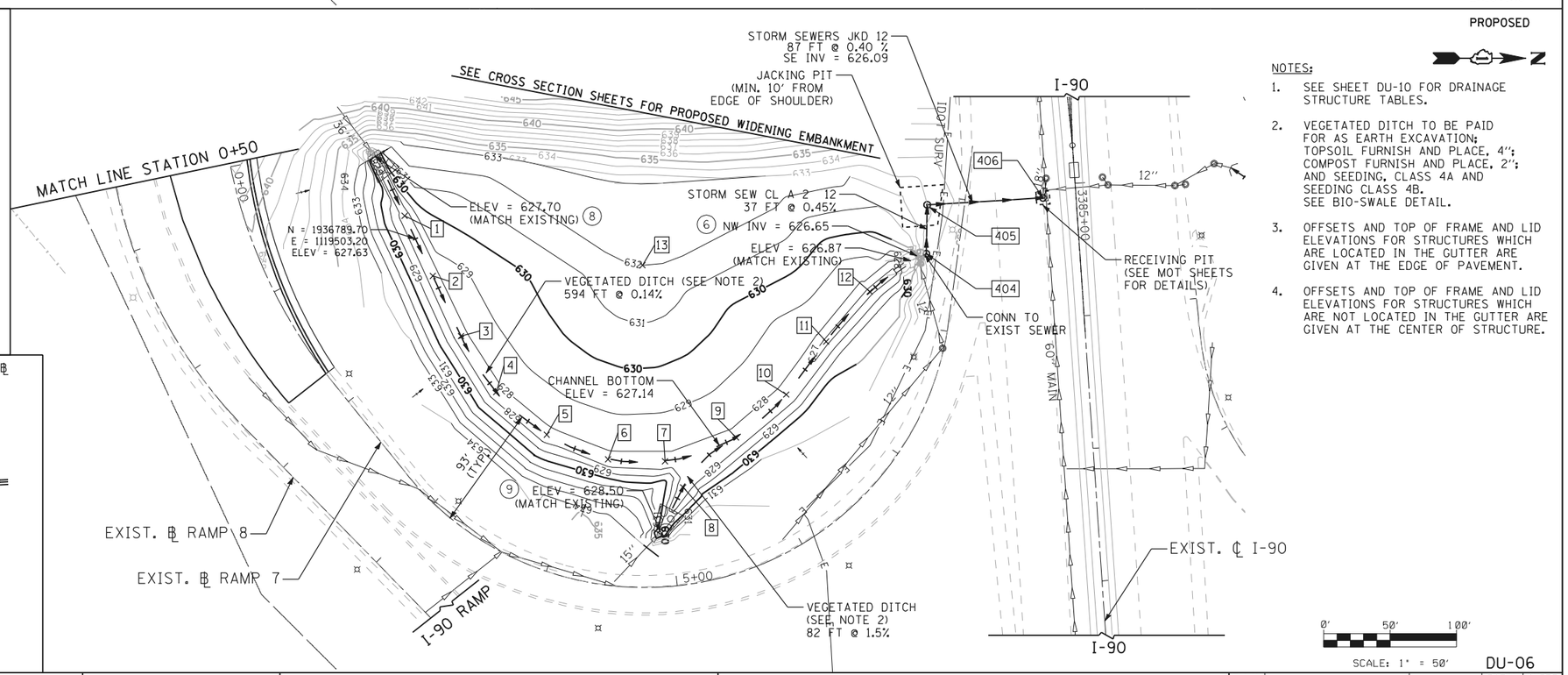
PROPOSED



VEGETATED DITCH DETAIL
(NOT TO SCALE)



TYPICAL INFIELD SECTION
(NOT TO SCALE)



NOTES:

1. SEE SHEET DU-10 FOR DRAINAGE STRUCTURE TABLES.
2. VEGETATED DITCH TO BE PAID FOR AS EARTH EXCAVATION; TOPSOIL FURNISH AND PLACE, 4"; COMPOST FURNISH AND PLACE, 2"; AND SEEDING, CLASS 4A AND SEEDING CLASS 4B. SEE BIO-SWALE DETAIL.
3. OFFSETS AND TOP OF FRAME AND LID ELEVATIONS FOR STRUCTURES WHICH ARE LOCATED IN THE GUTTER ARE GIVEN AT THE EDGE OF PAVEMENT.
4. OFFSETS AND TOP OF FRAME AND LID ELEVATIONS FOR STRUCTURES WHICH ARE NOT LOCATED IN THE GUTTER ARE GIVEN AT THE CENTER OF STRUCTURE.

PROPOSED

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EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

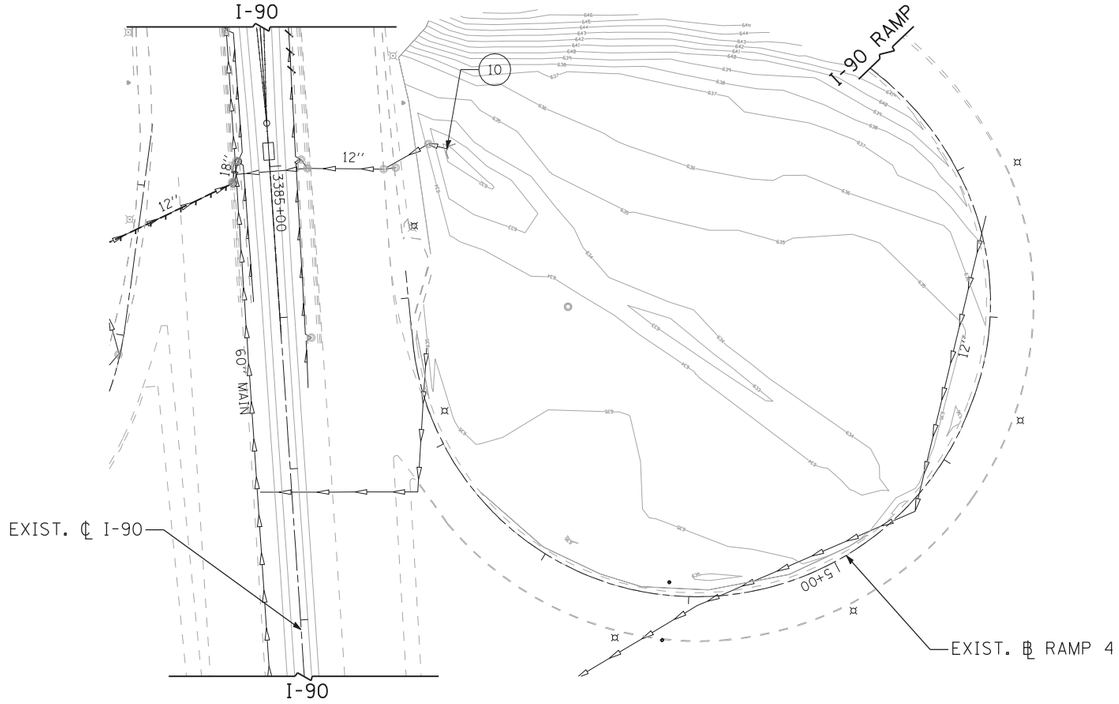
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE AND UTILITIES PLAN
I-90 SOUTHEAST INFIELD

SCALE: 1"=50' | SHEET NO. OF SHEETS | STA. 109+00 TO STA. 124+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	114
		CONTRACT NO. 60J14		
		ILLINOIS FED. AID PROJECT		

DU-06



EXISTING DRAINAGE STRUCTURES

(10) MANHOLE
STA 3384+90, 107' LT
RIM = 631.67
S INV = 628.97

NOTES:
ALL EXISTING STORM SEWERS WITHIN PROJECT LIMITS TO BE CLEANED (PAID FOR AS VIDEO INSPECTION OF STORM SEWER). SEE SCHEDULE FOR DETAILS.

0' 50' 100'

SCALE: 1" = 50'

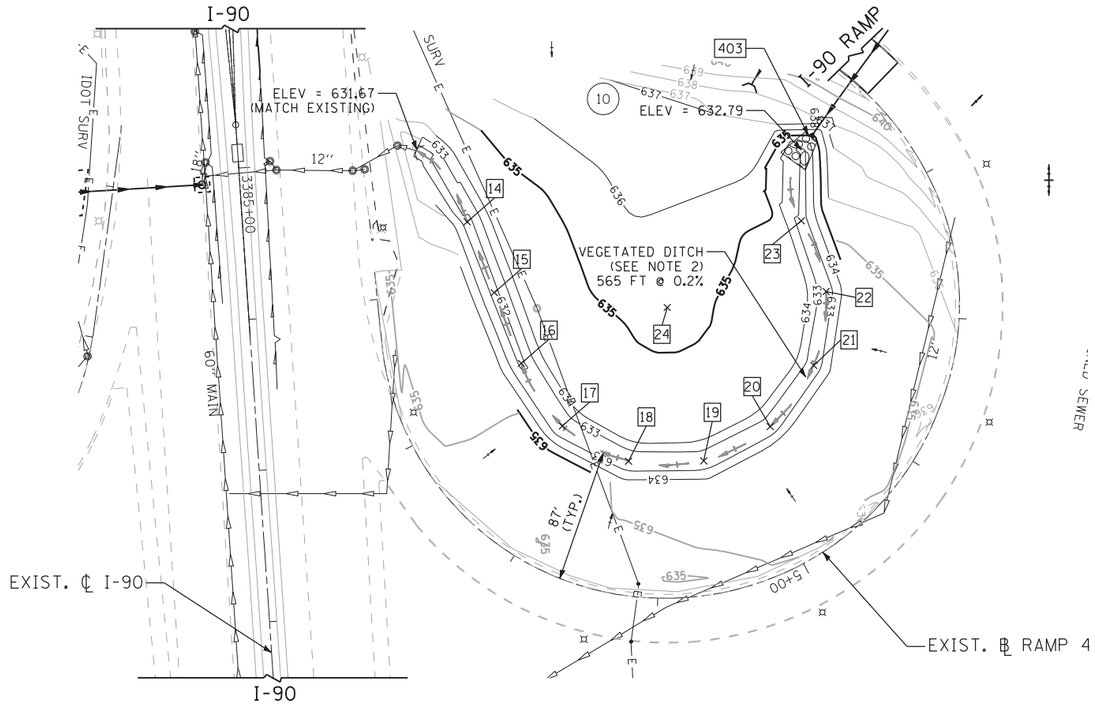
EXISTING

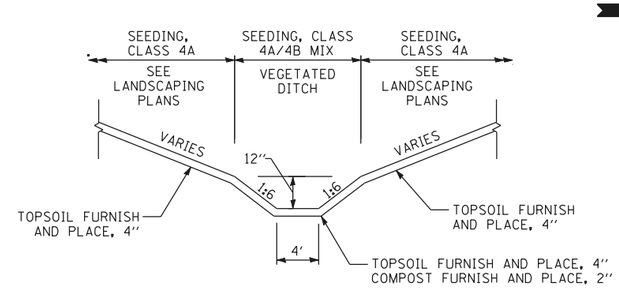
PROPOSED

NOTES:

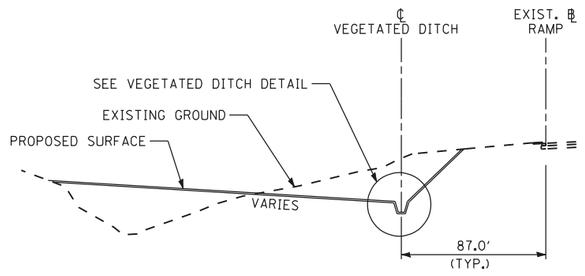
1. SEE SHEET DU-10 FOR DRAINAGE STRUCTURE TABLES.
2. VEGETATED DITCH TO BE PAID FOR AS EARTH EXCAVATION; TOPSOIL FURNISH AND PLACE, 4"; COMPOST FURNISH AND PLACE, 2"; AND SEEDING, CLASS 4A AND SEEDING CLASS 4B. SEE BIO-SWALE DETAIL.
3. OFFSETS AND TOP OF FRAME AND LID ELEVATIONS FOR STRUCTURES WHICH ARE LOCATED IN THE GUTTER ARE GIVEN AT THE EDGE OF PAVEMENT.
4. OFFSETS AND TOP OF FRAME AND LID ELEVATIONS FOR STRUCTURES WHICH ARE NOT LOCATED IN THE GUTTER ARE GIVEN AT THE CENTER OF STRUCTURE.

NORTHEAST INFIELD PROPOSED ELEVATIONS			
POINT	N	E	ELEVATION
14	1937445.74	1119514.12	631.79
15	1937463.88	1119560.83	631.89
16	1937481.43	1119607.54	631.99
17	1937508.51	1119648.94	632.09
18	1937552.19	1119672.17	632.19
19	1937601.87	1119671.94	632.29
20	1937645.73	1119649.25	632.39
21	1937674.51	1119608.94	632.49
22	1937682.64	1119560.13	632.59
23	1937666.20	1119513.48	632.69
24	1937577.84	1119572.00	635.50





VEGETATED DITCH DETAIL
(NOT TO SCALE)



TYPICAL INFIELD SECTION
(NOT TO SCALE)

0' 50' 100'

SCALE: 1" = 50'

DU-07

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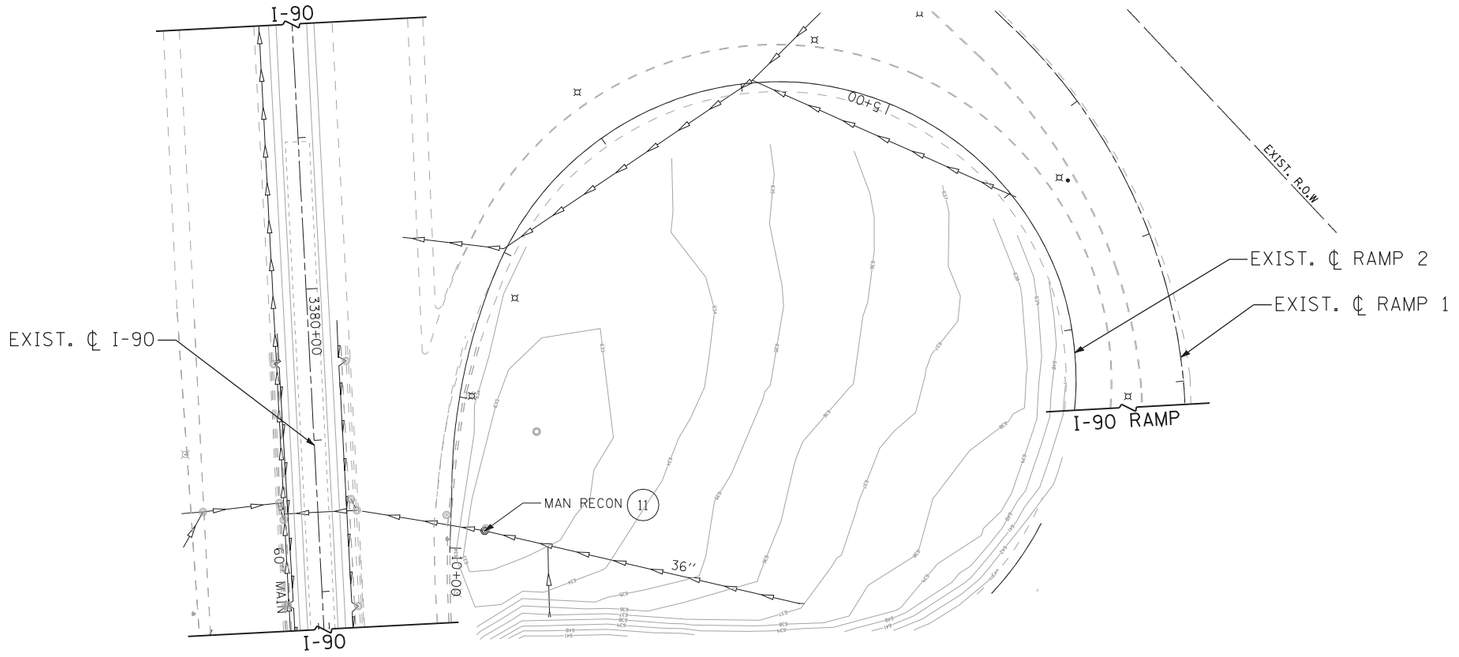
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE AND UTILITIES PLAN
I-90 NORTHEAST INFIELD

SCALE: 1"=50' | SHEET NO. OF SHEETS | STA. 109+00 TO STA. 124+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	115
		CONTRACT NO. 60J14		
		ILLINOIS FED. AID PROJECT		



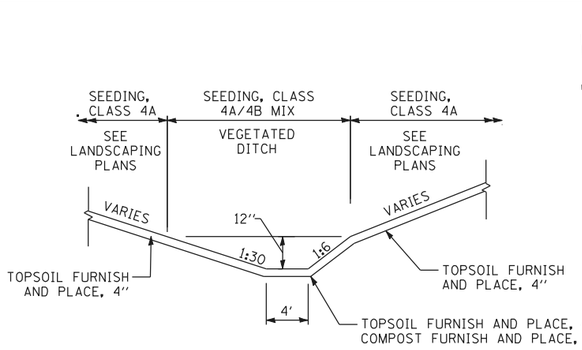
NOTES:
ALL EXISTING STORM SEWERS WITHIN PROJECT LIMITS TO BE CLEANED (PAID FOR AS VIDEO INSPECTION OF STORM SEWER). SEE SCHEDULE FOR DETAILS.

EXISTING DRAINAGE STRUCTURES

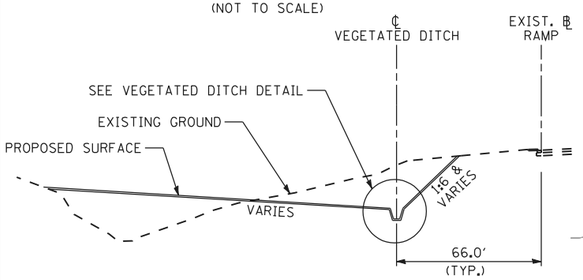
(11) MANHOLE
STA 3381+66, 109' LT
RIM = 631.87
N INV = 623.42
S INV = 623.42

Ø' 50' 100'
SCALE: 1" = 50'

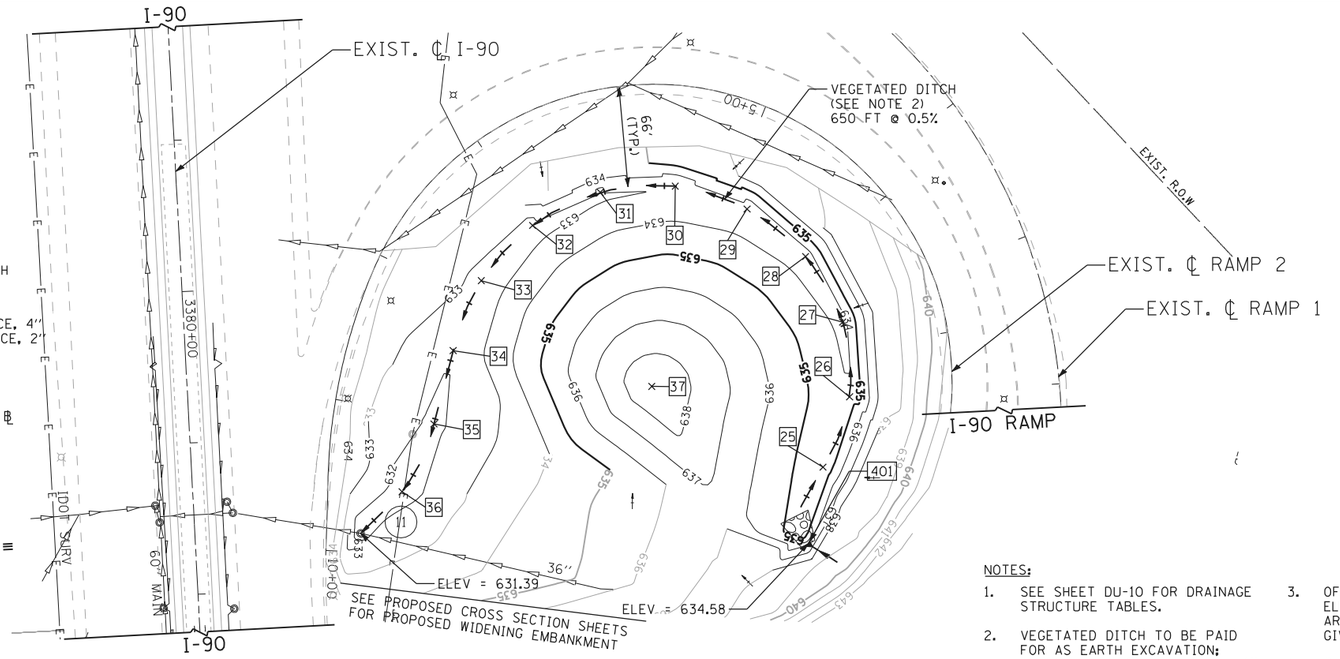
EXISTING
PROPOSED



VEGETATED DITCH DETAIL
(NOT TO SCALE)



TYPICAL INFIELD SECTION
(NOT TO SCALE)



NORTHWEST INFIELD PROPOSED ELEVATIONS			
POINT	N	E	ELEVATION
25	1937685.75	1119089.30	634.33
26	1937701.88	1119042.42	634.08
27	1937697.23	1118993.39	633.83
28	1937672.11	1118950.50	633.58
29	1937633.06	1118919.75	633.33
30	1937585.47	1118905.38	633.08
31	1937536.00	1118910.28	632.83
32	1937491.62	1118932.72	632.58
33	1937458.34	1118969.66	632.33
34	1937440.49	1119016.09	632.08
35	1937428.58	1119064.65	631.83
36	1937408.11	1119109.75	631.58
37	1937571.95	1119037.78	639.00

NOTES:
1. SEE SHEET DU-10 FOR DRAINAGE STRUCTURE TABLES.
2. VEGETATED DITCH TO BE PAID FOR AS EARTH EXCAVATION: TOPSOIL FURNISH AND PLACE, 4"; COMPOST FURNISH AND PLACE, 2"; AND SEEDING, CLASS 4A AND SEEDING CLASS 4B. SEE BIO-SWALE DETAIL.
3. OFFSETS AND TOP OF FRAME AND LID ELEVATIONS FOR STRUCTURES WHICH ARE LOCATED IN THE GUTTER ARE GIVEN AT THE EDGE OF PAVEMENT.
4. OFFSETS AND TOP OF FRAME AND LID ELEVATIONS FOR STRUCTURES WHICH ARE NOT LOCATED IN THE GUTTER ARE GIVEN AT THE CENTER OF STRUCTURE.

Ø' 50' 100'
SCALE: 1" = 50'

DU-08

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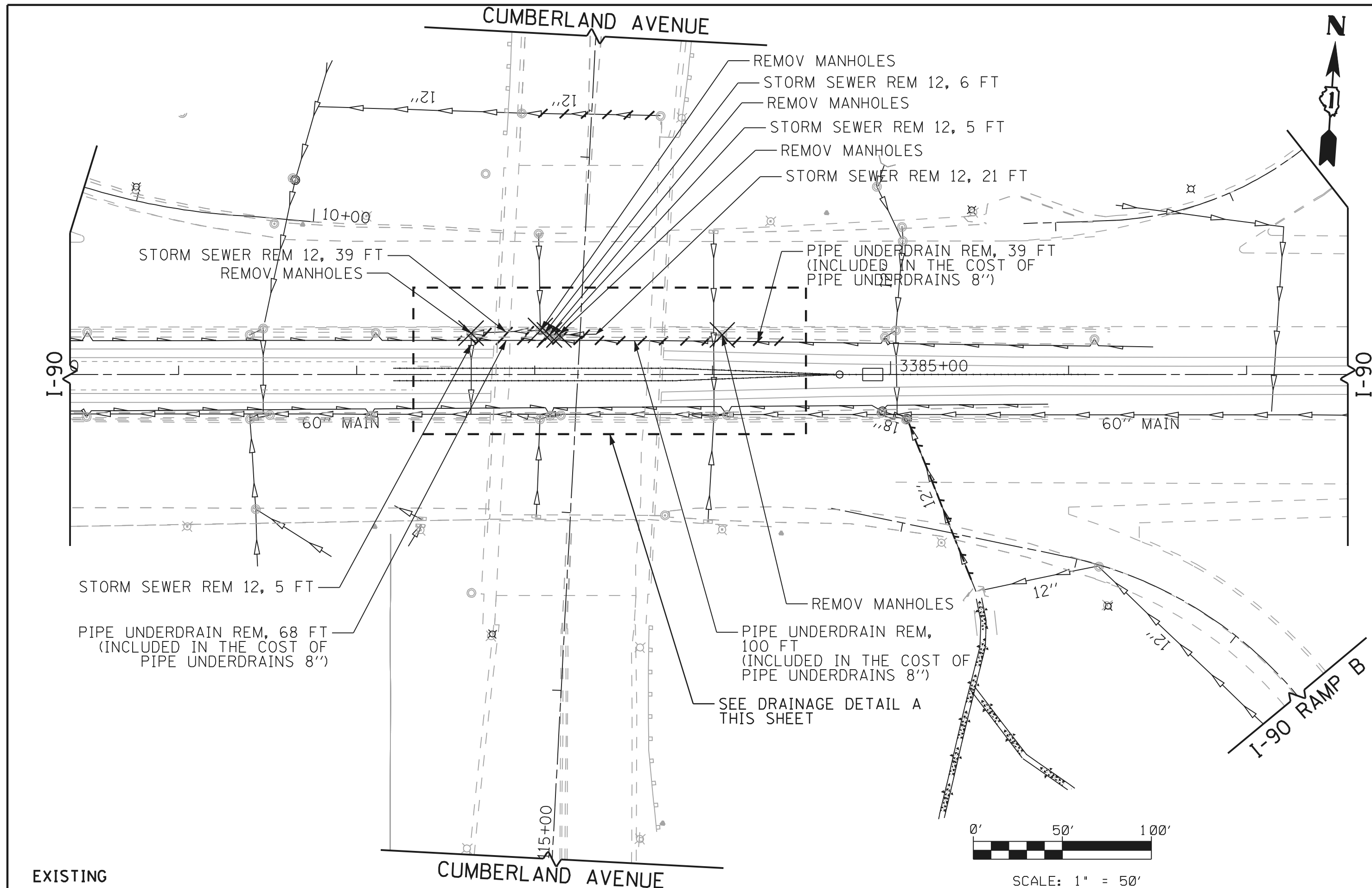
411 South Wells Street Suite 1000
Chicago, Illinois 60607

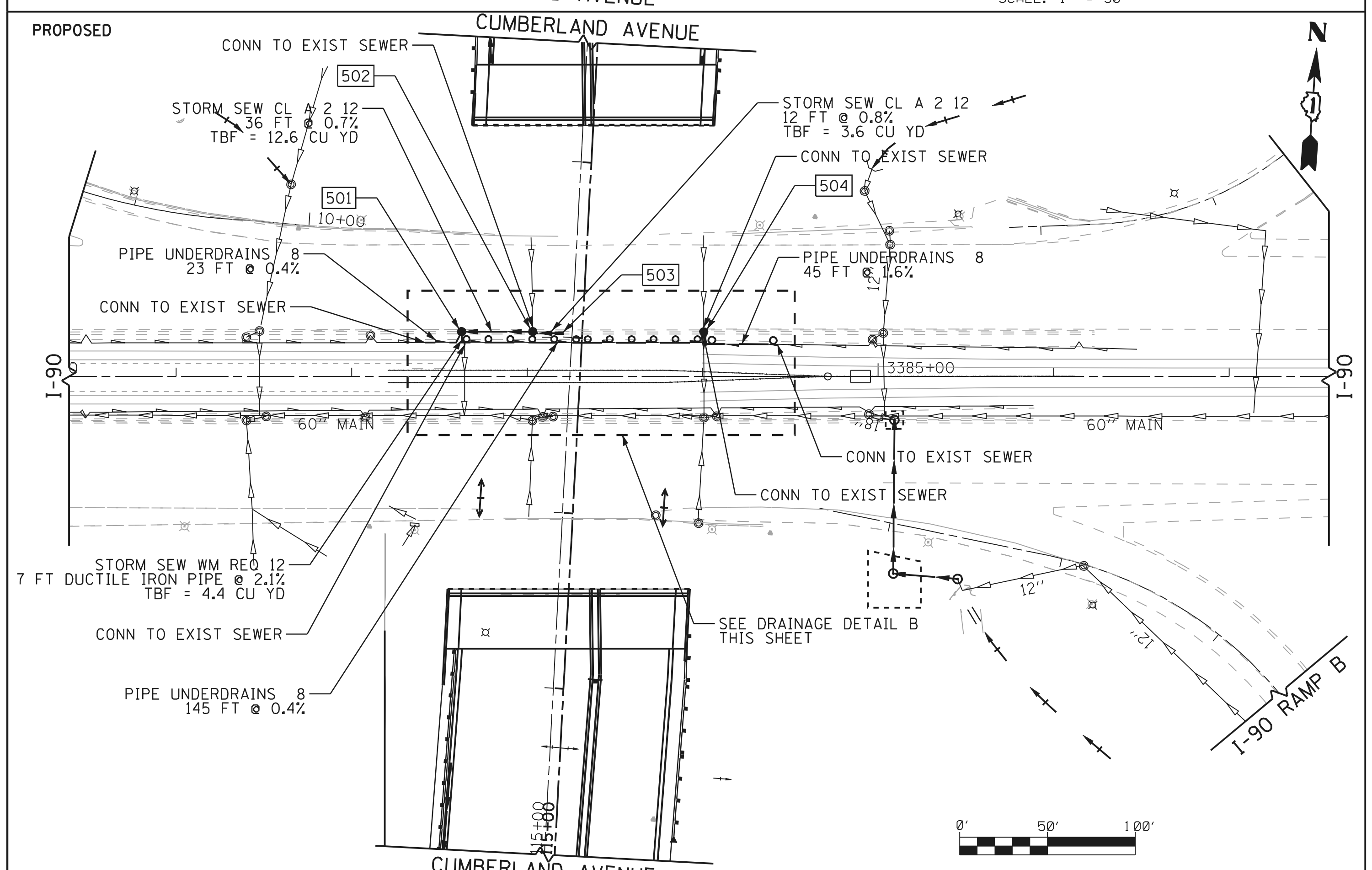
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

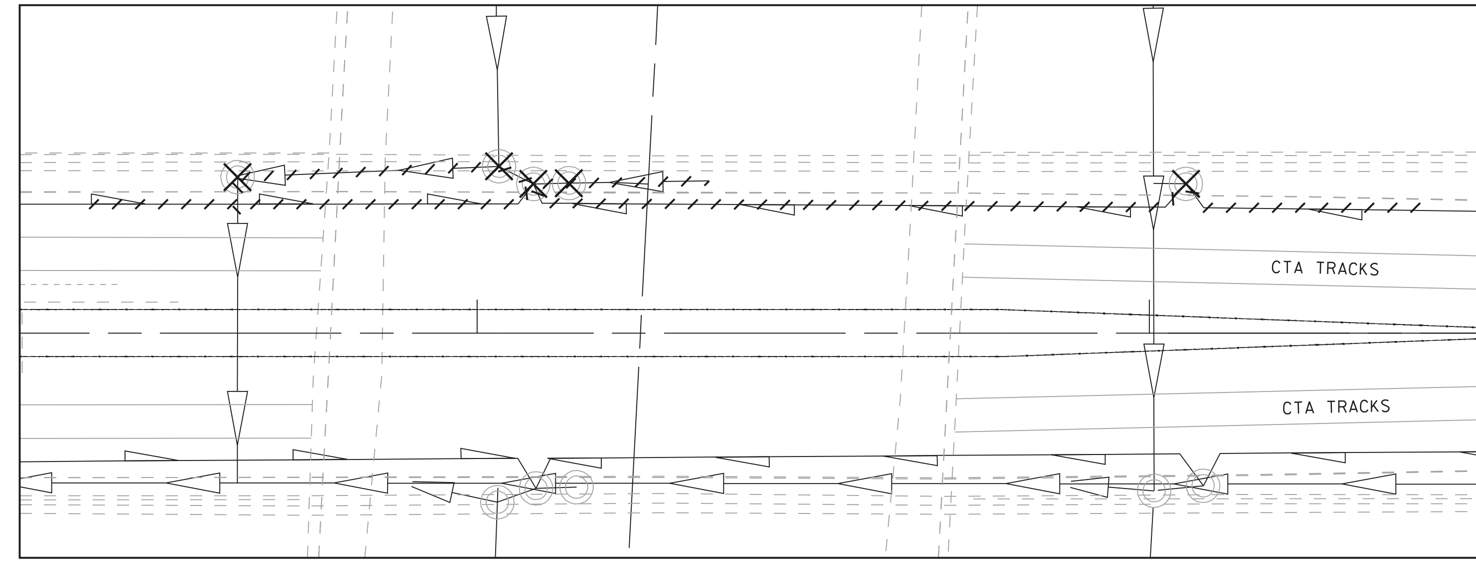
DRAINAGE AND UTILITIES PLAN
I-90 NORTHWEST INFIELD

SCALE: 1"=50' | SHEET NO. OF SHEETS | STA. 94+99.21 | TO STA. 109+00

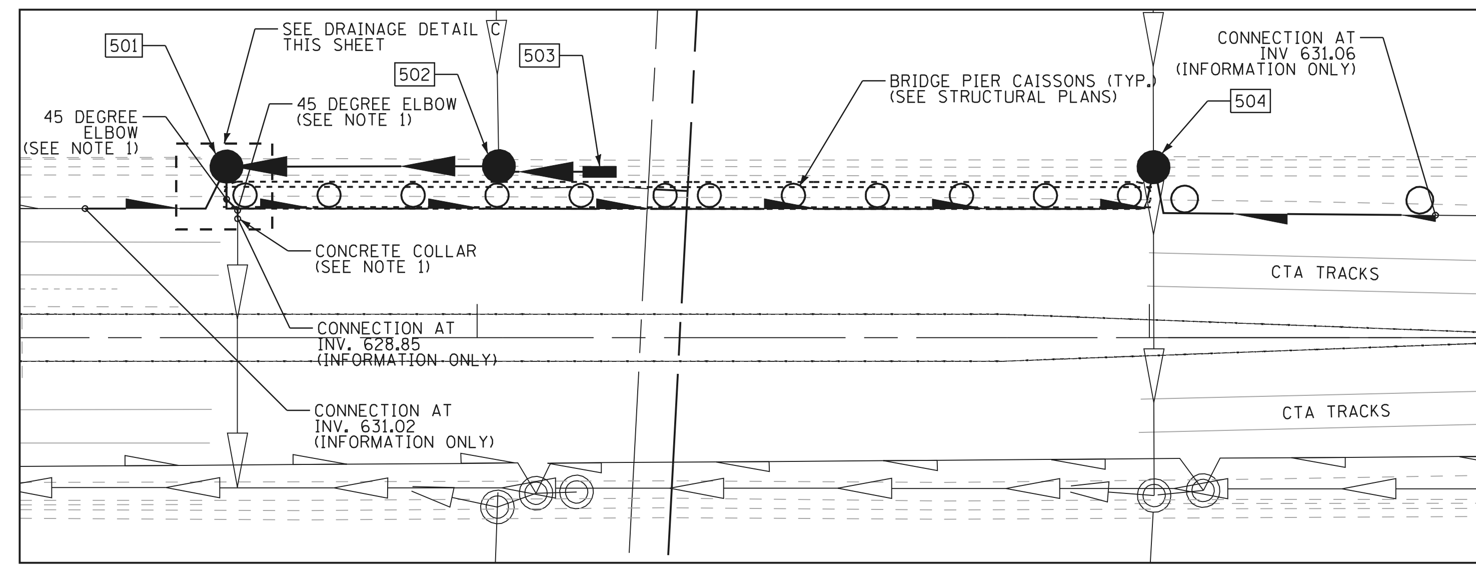
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	116
		CONTRACT NO. 60J14		
		ILLINOIS FED. AID PROJECT		



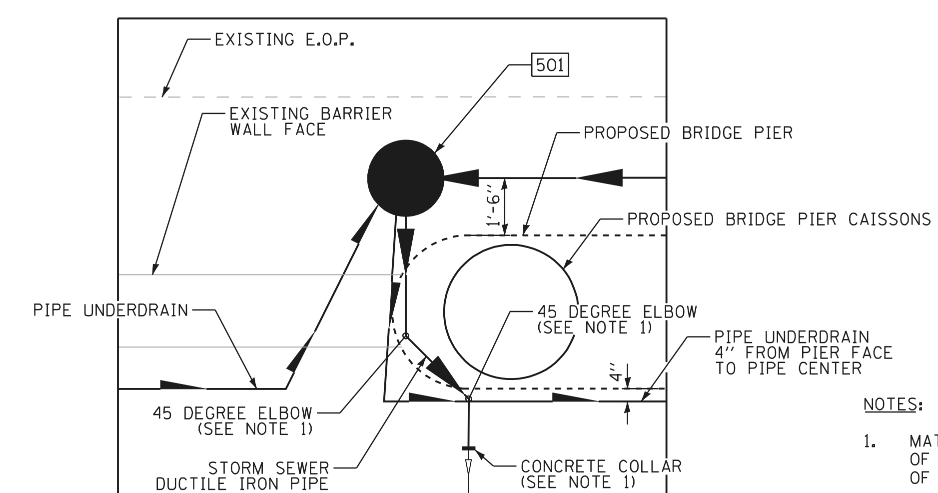




DETAIL A: EXISTING I-90 DRAINAGE ENLARGED VIEW
(NOT TO SCALE)



DETAIL B: PROPOSED I-90 DRAINAGE ENLARGED VIEW
(NOT TO SCALE)



DETAIL C:
PROPOSED I-90 DRAINAGE ENLARGED VIEW
(NOT TO SCALE)

NOTES:

1. MATERIAL AND LABOR REQUIRED FOR INSTALLATION OF ELBOWS AND COLLARS IS INCLUDED IN THE COST OF THE SEWER.
2. SEE SHEET DU-10 FOR DRAINAGE STRUCTURE TABLES.

DU-09

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USER NAME = cgutowski	DESIGNED - GR	REVISED -	
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EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE AND UTILITIES PLAN
CUMBERLAND AVENUE

SCALE: 1"=50' | SHEET NO. OF SHEETS | STA. 3380+39 TO STA. 3387+57

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	117

CONTRACT NO. 60J14

ILLINOIS FED. AID PROJECT

PROPOSED DRAINAGE STRUCTURES

101 STA 97+29, 41' LT
INLETS TA T24F&G
RIM = 634.16
N INV = 631.76

102 STA 7+18, 65' RT
CB TC T24F&G
RIM = 633.65
NE INV = 630.70

103 STA 6+61, 60' RT
CB TC T24F&G
RIM = 633.06
NE INV = 628.81

104 STA 101+40, 53' LT
CB TC T24F&G
RIM = 633.79
E INV = 631.46

105 STA 102+83, 53' LT
CB TC T24F&G
RIM = 633.27
E INV = 630.94

106 STA 104+27, 53' LT
CB TC T24F&G
RIM = 632.95
NE INV = 630.62

107 STA 106+27, 48' LT
INLETS TA T24F&G
RIM = 632.35
W INV = 629.56

108 STA 106+52, 48' LT
INLETS TA T24F&G
RIM = 632.66
N INV = 629.82

109 STA 106+86, 47' LT
CB TA 4 DIA T24F&G
RIM = 632.85
W INV = 628.08
N INV = 629.68
S INV = 629.68

110 NOT USED

111 STA 8+70, 28' RT
CB TC T24F&G
RIM = 633.71
NW INV = 629.29

112 STA 8+71, 29' LT
CB TC T24F&G
RIM = 633.72
W INV = 626.75

113 STA 111+61, 60' LT
INLETS TA T24F&G
RIM = 644.65
N INV = 641.60

114 STA 111+79, 59' LT
CB TA 4 DIA T24F&G
RIM = 644.45
W INV = 641.28 (EXIST S.S.)
S INV = 641.28

115 STA 112+48, 65' LT
CB TA 4 DIA T24F&G
RIM = 645.75
S INV = 641.21 (EXIST S.S.)
N INV = 641.81

116 STA 113+00, 65' LT
CB TA 4 DIA T24F&G
RIM = 647.08
W INV = 643.58
N INV = 643.58
S INV = 643.57

116A STA 113+00, 80' LT
INLET TA T8G
RIM = 647.02
E INV = 643.71

117 STA 113+98, 64' LT
CB TA 4 DIA T24F&G
RIM = 650.93
S INV = 646.91
N INV = 647.01

118 STA 115+52, 60' LT
INLETS TA T24F&G
RIM = 656.51
S INV = 652.25

119 STA 111+97, 15' RT
INLETS TA T24F&G
RIM = 646.13
E INV = 640.87

120 STA 114+56, 11' RT
INLETS TA T24F&G
RIM = 654.49
NE INV = 650.18

120A STA 110+41, 106' RT
INLETS TA T24F&G
RIM = 642.60
W INV = 634.57

121 STA 111+77, 83' RT
INLETS TA T24F&G
RIM = 644.15
NW INV = 637.82

122 STA 112+00, 65' RT
CB TA 4 DIA T24F&G
RIM = 644.79
NE INV = 637.68 (EXIST S.S.)
SE INV = 637.68
W INV = 637.68

123 STA 112+66, 53' RT
CB TA 4 DIA T24F&G
RIM = 646.45
SE INV = 639.62 (EXIST S.S.)
N INV = 640.62

124 STA 114+86, 56' RT
CB TA 4 DIA T24F&G
RIM = 654.87
S INV = 649.63
SW INV = 649.63

125 STA 119+56, 59' LT
INLETS TA T24F&G
RIM = 653.46
N INV = 649.12

126 STA 121+29, 75' LT
CB TA 4 DIA T24F&G
RIM = 645.85
NW INV = 640.50
S INV = 642.00

127 STA 122+14, 138' LT
MAN TA 4 DIA T1F CL
RIM = 643.18
SW INV = 634.80
SE INV = 635.80

127A STA 123+02, 87' LT
CB TA 4 DIA T8G
RIM = 635.41
SW INV = 629.70
SE INV = 629.52

128 STA 123+79, 67' LT
INLET TA, T24F&G
RIM = 636.36
S INV = 632.86

129 STA 119+61, 59' RT
INLETS TA T24F&G
RIM = 653.29
N INV = 647.50

130 STA 121+12, 71' RT
CB TA 4 DIA T24F&G
RIM = 646.84
N INV = 640.60
S INV = 640.80

131 STA 122+66, 54' RT
CB TA 4 DIA T24F&G
RIM = 640.64
SE INV = 636.08
S INV = 638.64 (UNDERDRAIN OUTLET)
N INV = 638.64 (UNDERDRAIN CLEANOUT)

132 STA 122+22, 78' RT
CB TA 5 DIA T1F CL (CONC. FLAT SLAB TOP)
RIM = 641.69
NW INV = 635.84
S INV = 637.30
NE INV = 633.34
SE INV = 633.24

133 STA 124+37, 110' RT
CB TC T24F&G
RIM = 635.90
N INV = 632.10
SW INV = 633.90 (UNDERDRAIN OUTLET)

134 STA 124+80, 86' LT
CB TA 4 DIA T24F&G
RIM = 636.04
N INV = 632.26

135 STA 125+82, 117'LT
INLETS TA T24F&G
RIM = 635.84
S INV = 630.05

136 STA 126+71, 52' LT
CB TC T24F&G
RIM = 635.75
E INV = 631.78
S INV = 633.66 (UNDERDRAIN OUTLET)
N INV = 633.66 (UNDERDRAIN CLEANOUT)

137 STA 127+63, 45' LT
CB TC T24F&G
RIM = 635.58
E INV = 631.82
S INV = 633.31 (PIPE UNDERDRAIN OUTLET)

201 STA 11+35, 40' LT
CB TC T24F&G
RIM = 635.70
SW INV = 625.36

202 STA 12+38, 40' LT
CB TC T24F&G
RIM = 635.50
S INV = 632.09

203 STA 13+31, 36' RT
CB TC T24F&G
RIM = 636.03
N INV = 631.03 (EXIST S.S.)

204 STA 12+16, 36' RT
CB TC T24F&G
RIM = 635.92
N INV = 630.87 (EXIST S.S.)

205 STA 7+57, 48' RT
CB TC T24F&G
RIM = 635.65
N INV = 630.65 (EXIST S.S.)

206 STA 6+83, 48' RT
CB TC T24F&G
RIM = 635.27
N INV = 630.97 (EXIST S.S.)

207 STA 5+41, 48' RT
CB TC T24F&G
RIM = 634.42
N INV = 631.11

208 STA 4+58, 44' RT
CB TC T24F&G
RIM = 633.93
N INV = 630.14

209 STA 3+67, 35' RT
CB TC T24F&G
RIM = 633.59
N INV = 630.69

301 STA 18+42, 25.5' RT
INLETS TA T10F&G
RIM = 635.87
NW INV = 633.31
•BOT STR = 631.15

302 STA 17+02, 25.5' RT
CB TC T10F&G
RIM = 635.44
NW INV = 632.69
SE INV = 632.69
•BOT STR = 630.60

303 STA 15+63, 21' RT
CB TC T10F&G
RIM = 635.02
NW INV = 632.18
SE INV = 632.18
•BOT STR = 630.79

• BOTTOM OF STRUCTURE ELEVATION PROVIDED FOR MINIMUM 6'' CLEARANCE ABOVE THE PROPOSED RETAINING WALL FOOTING

304 NOT USED

305 NOT USED

306 NOT USED

307 NOT USED

308 NOT USED

309 STA 21+61, 21' LT
INLETS TA T24F&G
RIM = 639.95
E INV = 634.34

310 STA 21+76, 21' LT
CB TA 4 DIA T24F&G
RIM = 639.86
W INV = 634.20
N INV = 634.50
S INV = 634.10

310A STA 110+47, 85' LT
INLETS TA T24F&G
RIM = 643.00
S INV = 635.10

311 STA 2+29, 0'
CB TA 4 DIA T24F&G
RIM = 634.99
N INV = 631.45
S INV = 631.35

312 STA 4+07, 0'
CB TA 4 DIA T24F&G
RIM = 632.25
N INV = 627.75
S INV = 627.65
E INV = 627.75

313 STA 4+22, 0'
CB TA 4 DIA T24F&G
RIM = 632.23
N INV = 627.35
SW INV = 623.56

313A STA 4+38, 6' RT
MAN TYPE B T 1F CL (CHGO)
RIM = 632.70
E INV = 623.24
W INV = 623.24
NE INV = 623.24

401 STA 1+07, 51' LT
PRC FLAR END SEC 12
GRATING-C FL END S 12
FES INV = 634.58

402 STA 122+81, 101' RT
PRC FLAR END SEC 12
GRATING-C FL END S 12
FES INV = 633.62

403 STA 121+65, 155' RT
PRC FLAR END SEC 24
GRATING-C FL END S 24
FES INV = 632.79

404 STA 116+74, 221' RT
MAN TA 4 DIA T1F CL
RIM = 633.27
S INV = 626.63 (EX S.S.)
W INV = 626.62

405 STA 116+79, 184' RT
MAN TA 4 DIA T1F CL
RIM = 633.36
E INV = 626.45
N INV = 626.44

406 STA 117+63, 180' RT
MAN TA 4 DIA T1F CL
RIM = 635.69
NW INV = 630.14 (EX S.S.)
NW INV = 626.09 (EX S.S.)
S INV = 626.09

407 STA 121+27, 120' RT
CONC HDWL FOR P DRAIN
FES INV=638.50

501 STA 118+00, 69' LT
CB TA 4 DIA T1F OL
RIM = 634.85
E INV = 629.26
S INV = 629.00
SW INV = 630.93
SE INV = 630.93

502 STA 118+02, 28' LT
CB TA 4 DIA T1F OL
RIM = 634.76
N INV = 629.61 (EX S.S.)
E INV = 629.61
W INV = 629.50

503 STA 118+03, 13' LT
INLETS TA T1F OL
RIM = 634.37
W INV = 629.70

504 STA 118+07, 69' LT
CB TA 4 DIA T1F OL
RIM = 634.91
N INV = 629.79 (EX S.S.)
S INV = 629.72 (EX S.S.)
SW INV = 630.32
SE INV = 630.32

NOTE:
THE FINAL RIM ELEVATION OF ALL PROPOSED, ADJUSTED, OR RECONSTRUCTED DRAINAGE STRUCTURES SHALL BE DETERMINED FROM THE FINISHED GRADES OF THE PROPOSED PAVEMENT SURFACE AND GUTTER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE FINAL RIM ELEVATION OF ALL DRAINAGE STRUCTURES PRIOR TO STARTING ANY DRAINAGE WORK.

DU-10

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	DRAWN - GR	REVISED -
PLOT SCALE = 1:100	CHECKED - DT	REVISED -
PLOT DATE = 2/18/2013	DATE - 2/18/2013	REVISED -

EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

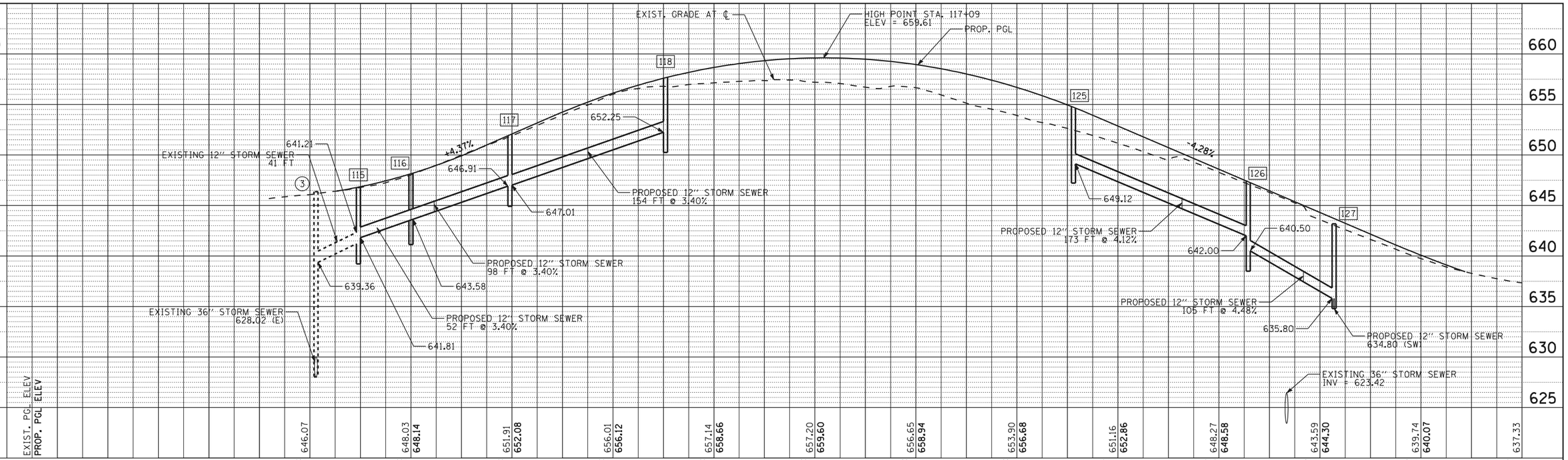
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE AND UTILITIES STRUCTURE SCHEDULE
CUMBERLAND AVENUE AT I-90

SCALE: 1''=50' | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	118
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			

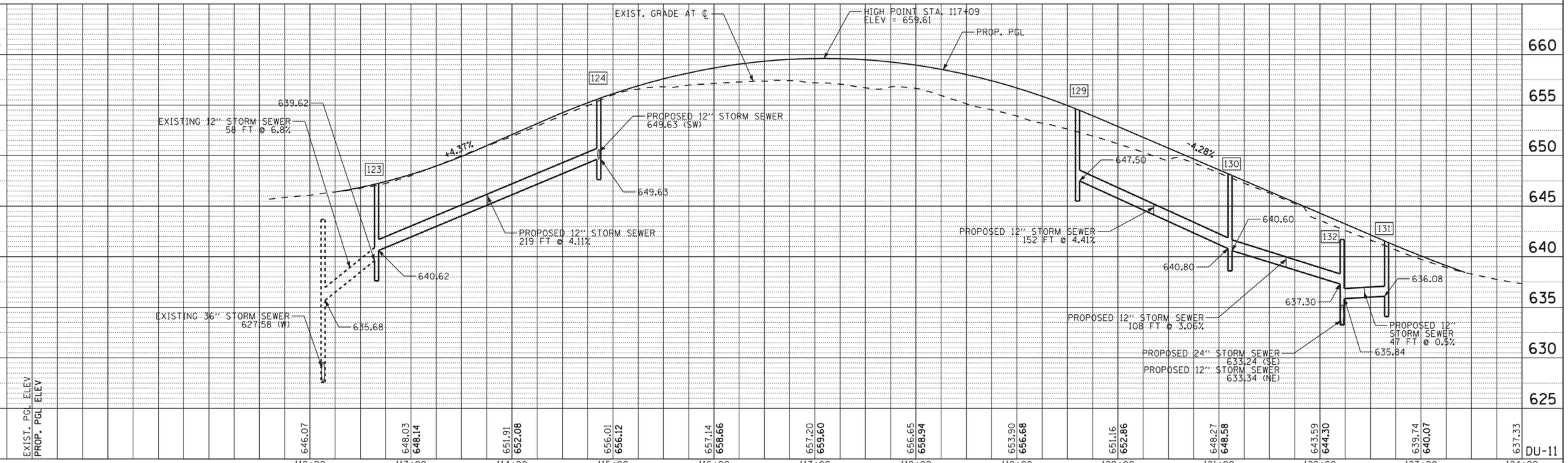
PLAN
SURVEYED
PLOTTED
ASSIGNMENT CHECKED
NOTE BOOK R/T. OF WAY CHECKED
NO. CADD FILE NAME
BY
DATE



CUMBERLAND AVENUE DRAINAGE PROFILE – WEST

CUMBERLAND AVENUE DRAINAGE PROFILE – EAST

PROFILE
SURVEYED
PLOTTED
ASSIGNMENT CHECKED
NOTE BOOK R.M. NOTED STRUCTURE NOTATNS CHKD
NO.
BY
DATE



DU-11

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PLOT SCALE = 1:100	CHECKED - DT	REVISED -
PLOT DATE = 2/18/2013	DATE - 2/18/2013	REVISED -

EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE AND UTILITIES PROFILE
CUMBERLAND AVENUE

SCALE: 1"=50' | SHEET NO. OF SHEETS | STA. 109+00 TO STA. 124+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	119
		CONTRACT NO. 60J14		
		ILLINOIS FED. AID PROJECT		

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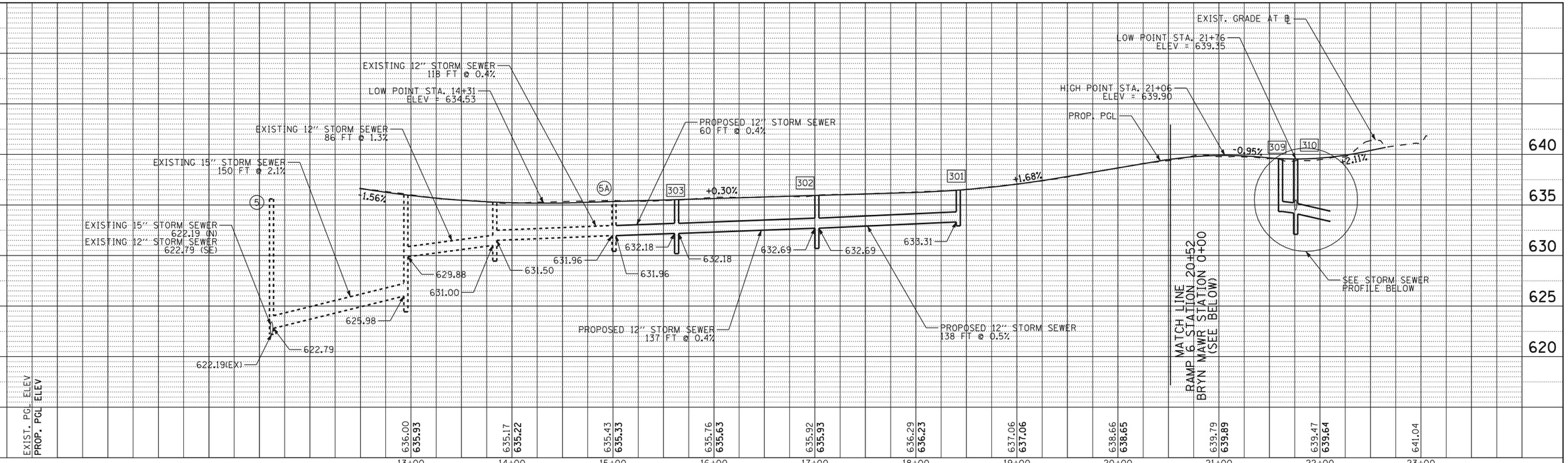
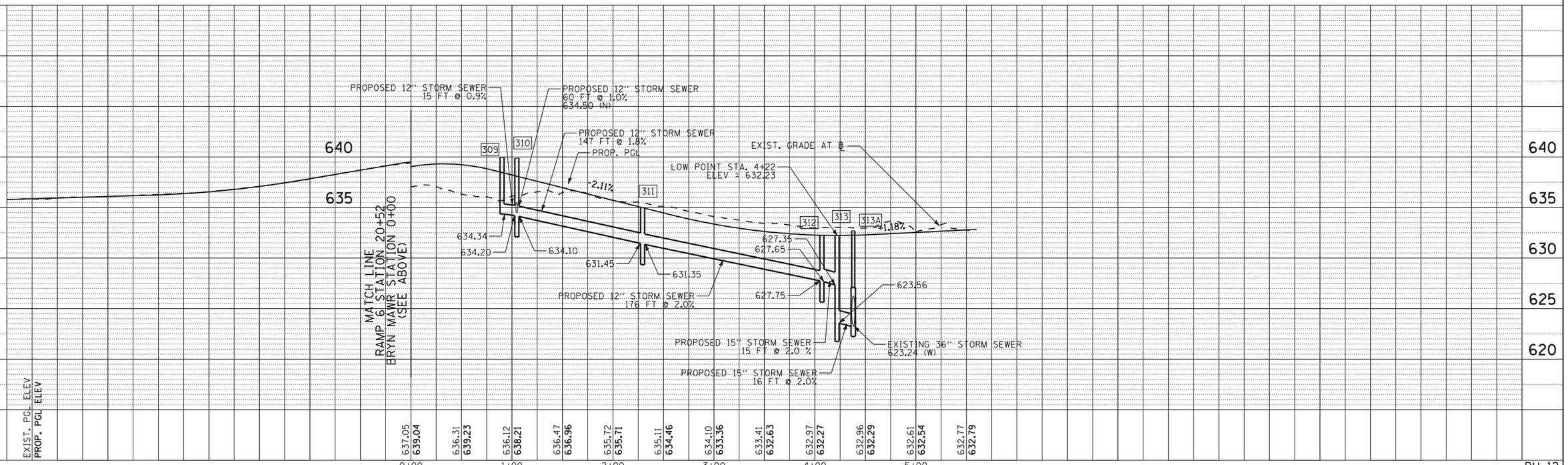
PLAN
SURVEYED
PLOTTED
CROSS CHECKED
NOTE BOOK
NO.
DRAWING CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
BY
DATE



I-90 RAMP 6 DRAINAGE PROFILE – SOUTH

I-90 RAMP 6/BRYN MAWR DRAINAGE PROFILE

PROFILE
SURVEYED
PLOTTED
CROSS CHECKED
NOTE BOOK
NO.
B.M. NOTED
STRUCTURE NOTATNS CHKD
BY
DATE



DU-12

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	DRAWN - GR	REVISED -
PLOT SCALE = 1:100	CHECKED - DT	REVISED -
PLOT DATE = 2/18/2013	DATE - 2/18/2013	REVISED -

EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE AND UTILITIES PROFILE
I-90 RAMP 6

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	120
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			

	X0323160 VIDEO INSPECTION OF STORM SEWER (STORM SEWERS TO BE CLEANED)						
SHEET	FROM (UPSTREAM)			TO (DOWNSTREAM)			LENGTH
	STATION	OFFSET	RT/LT	STATION	OFFSET	RT/LT	FOOT
DU-01	95+23	24	RT	94+99	24	RT	47
DU-01	95+20	24	RT	95+14	37	LT	61
DU-01	95+23	24	RT	95+23	37	RT	14
DU-01	96+14	24	RT	95+23	32	RT	91
DU-01	96+55	32	RT	96+14	32	RT	41
DU-01	96+56	32	RT	96+55	40	RT	8
DU-01	96+55	40	LT	96+53	32	RT	72
DU-01	97+62	37	RT	97+85	40	LT	82
DU-01	97+62	37	RT	97+69	30	RT	10
DU-01	97+69	30	RT	101+52	35	RT	383
DU-01	101+47	51	LT	101+41	38	LT	15
DU-01	101+52	35	RT	103+12	35	RT	160
DU-01	102+94	50	LT	102+86	36	LT	16
DU-01	103+03	41	RT	103+11	35	RT	10
DU-01	103+11	35	RT	104+77	37	RT	165
DU-01	104+77	45	LT	104+40	37	RT	90
DU-01	104+30	87	RT	104+30	51	RT	36
DU-01	104+30	51	RT	104+64	42	RT	35
DU-01	104+64	42	RT	104+76	37	RT	14
DU-01	104+66	45	RT	104+76	37	RT	13
DU-01	106+19	97	LT	105+57	59	LT	72
DU-01	106+53	60	RT	106+26	217	LT	278
DU-01	106+53	60	RT	106+26	217	LT	278
DU-01	104+77	37	RT	105+49	39	RT	73
DU-01	105+48	60	LT	105+49	39	RT	99
DU-01	105+49	39	RT	105+50	65	RT	25
DU-01	107+31	43	LT	108+39	43	LT	109
DU-01	107+19	60	RT	106+5	57	RT	66
DU-01	108+29	57	RT	107+19	70	RT	111
DU-01	109+00	70	RT	108+29	70	RT	71
DU-02	109+18	71	RT	109+00	70	RT	18
DU-02	110+40	55	RT	110+11	98	RT	51
DU-02	110+41	93	LT	110+79	166	LT	84
DU-02	111+76	66	LT	111+78	58	LT	8
DU-02	111+76	66	LT	112+06	67	LT	29
DU-02	112+06	67	LT	112+07	94	LT	28
DU-02	112+12	67	LT	112+06	84	RT	150
DU-02	111+93	58	RT	112+12	84	RT	32
DU-02	112+61	64	RT	112+56	142	RT	73
DU-02	112+79	84	RT	112+12	57	RT	72
DU-02	112+50	67	LT	112+06	61	LT	39
DU-02	122+94	75	LT	119+43	149	LT	359
DU-02	124+00	75	LT	122+94	53	LT	108
DU-02	123+42	44	LT	123+41	65	LT	21
DU-03	125+20	53	LT	124+00	28	LT	123
DU-03	126+43	1	LT	125+20	28	LT	126
DU-03	126+55	79	RT	126+80	38	RT	48
DU-03	126+73	39	LT	126+80	38	RT	77
DU-03	126+80	38	RT	127+14	41	RT	33
DU-03	127+14	41	RT	127+14	77	RT	37
DU-03	127+14	34	RT	127+14	1	LT	34

PRE-CONSTRUCTION

POST-CONSTRUCTION

	X0323160 VIDEO INSPECTION OF STORM SEWER (STORM SEWERS TO BE CLEANED)						
SHEET	FROM (UPSTREAM)			TO (DOWNSTREAM)			LENGTH
	STATION	OFFSET	RT/LT	STATION	OFFSET	RT/LT	FOOT
CUMBERLAND							
DU-03	128+14	1	LT	125+43	1	LT	170
DU-03	127+63	39	LT	128+63	0	RT	39
DU-03	128+01	29	RT	128+16	15	RT	21
DU-03	128+16	15	LT	128+14	1	RT	16
DU-03	129+84	1	LT	128+14	0	LT	170
DU-03	128+80	26	LT	128+79	1	RT	26
DU-03	129+17	35	LT	129+17	1	LT	35
DU-03	129+49	25	RT	129+83	0	LT	42
DU-03	130+13	31	LT	130+13	0	LT	30
DU-03	131+61	0	LT	129+84	1	LT	177
DU-03	130+51	24	RT	130+62	16	RT	14
DU-03	130+62	16	RT	130+62	1	LT	16
DU-03	131+49	25	LT	131+50	1	LT	24
DU-03	131+50	25	RT	131+50	15	RT	9
DU-03	131+50	15	RT	131+61	1	LT	20
DU-03	132+00	1	LT	131+61	1	LT	39
BRYN MAWR							
DU-01	0+59	32	RT	0+00	34	RT	58
DU-01	0+72	34	RT	0+59	36	RT	9
DU-01	1+59	36	RT	0+72	28	LT	98
DU-01	1+67	28	LT	1+59	21	LT	12
DU-01	1+64	28	LT	1+67	21	LT	7
DU-01	1+62	21	LT	1+67	82	LT	66
DU-01	1+71	49	LT	2+62	17	LT	112
DU-01	2+51	30	RT	2+51	28	LT	58
DU-01	2+51	28	LT	2+62	17	LT	15
DU-01	3+46	17	LT	2+62	23	LT	85
DU-01	4+45	24	LT	3+46	24	LT	99
DU-01	3+50	23	LT	3+46	28	LT	6
DU-01	3+55	28	LT	3+50	31	RT	60
DU-01	4+76	24	LT	4+66	29	LT	11
DU-01	4+71	24	LT	4+66	38	RT	63
DU-01	5+69	32	RT	5+68	26	LT	58
DU-01	7+33	26	LT	6+04	28	RT	119
DU-01	6+57	26	LT	6+04	47	RT	90
DU-01	6+04	26	LT	4+45	24	LT	159
DU-01	7+30	36	RT	7+33	28	RT	8
DU-01	8+69	24	LT	8+30	28	RT	65
DU-01	15+23	14	RT	14+97	70	LT	79
HIGGINS							
DU-04	3+66	32	RT	3+67	4	RT	28
DU-04	3+47	4	RT	3+62	4	RT	21
DU-04	3+81	31	LT	3+81	4	RT	35
DU-04	4+57	4	RT	4+54	35	RT	31
DU-04	3+67	4	RT	6+38	4	RT	272
DU-04	5+04	29	LT	5+06	4	RT	33
DU-04	5+43	40	RT	5+49	4	RT	37
DU-04	6+05	27	LT	6+05	4	RT	31
DU-04	6+83	4	RT	6+80	50	RT	45
DU-04	7+05	31	LT	7+04	5	RT	35
DU-04	6+38	4	RT	7+84	5	RT	146

	X0323160 VIDEO INSPECTION OF STORM SEWER (STORM SEWERS TO BE CLEANED)						
SHEET	FROM (UPSTREAM)			TO (DOWNSTREAM)			LENGTH
	STATION	OFFSET	RT/LT	STATION	OFFSET	RT/LT	FOOT
HIGGINS							
DU-04	7+56	51	RT	7+84	5	RT	54
DU-04	7+84	5	RT	9+56	4	RT	172
DU-04	8+56	36	LT	8+53	5	RT	41
DU-04	9+07	52	RT	9+03	4	RT	47
DU-04	8+80	80	LT	9+01	69	LT	24
DU-04	9+01	69	LT	9+57	70	LT	56
DU-04	11+05	4	RT	9+56	4	RT	149
DU-04	10+95	52	RT	11+05	4	RT	48
DU-04	11+31	37	LT	11+05	4	RT	48
DU-04	12+36	4	RT	11+05	4	RT	131
DU-04	12+17	45	RT	12+10	3	RT	43
DU-04	12+38	37	LT	12+36	4	RT	41
DU-04	13+95	4	RT	12+36	3	RT	159
DU-04	13+30	38	RT	13+24	4	RT	34
DU-04	13+95	38	LT	13+95	3	RT	41
DU-04	15+48	3	RT	13+95	4	RT	153
DU-04	15+73	38	RT	14+63	89	RT	128
DU-04	15+32	35	LT	15+48	4	RT	42
DU-04	16+61	4	RT	15+48	3	RT	113
I-90 RAMP 1							
DU-02	1+56	61	LT	0+30	26	LT	145
DU-08	3380+35	471	RT	3381+21	301	RT	381
I-90 RAMP 2							
DU-02	2+00	1	RT	2+37	52	RT	60
I-90 RAMP 6							
DU-05	12+97	143	LT	10+87	91	LT	159
DU-05	11+62	37	LT	11+43	111	LT	78
DU-05	14+02	16	LT	11+62	37	LT	255
DU-05	15+42	27	LT	14+02	16	LT	141
DU-05	15+62	16	LT	15+42	27	LT	23
DU-05	16+46	10	LT	17+30	17	LT	84
DU-05	17+30	17	LT	19+28	28	LT	200
DU-05	18+85	49	LT	19+28	28	LT	47
DU-05	19+49	73	LT	19+28	28	LT	50
DU-05	19+84	9	LT	19+28	28	LT	59
DU-05	20+77	59	LT	19+28	28	LT	152
I-90 RAMP 7							
DU-06	1+48	49	RT	4+49	2	LT	322
DU-06	3+52	68	RT	3+63	0	RT/LT	73
DU-06	4+49	2	LT	4+88	37	LT	49
DU-06	5+89	10	LT	8+50	30	LT	235
DU-06	7+86	0	LT	8+50	30	LT	71
I-90							
DU-06	3384+96	118	LT	3384+99	21	RT	139
DU-07	3386+26	95	LT	3387+13	21	RT	199
DU-07	2+34	6	LT	3388+50	185	LT	450
DU-08	3381+65	109	LT	3381+65	8	RT	117
DU-08	3382+24	318	LT	3381+65	109	LT	217
TOTAL							**12221**

USER NAME = cgutowski	DESIGNED - GR	REVISED -
	DRAWN - GR	REVISED -
PLOT SCALE = 1:100	CHECKED - DT	REVISED -
PLOT DATE = 2/18/2013	DATE - 2/18/2013	REVISED -

EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCHEDULE
CUMBERLAND AVENUE AT I-90

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	121
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			

550A0330 - STORM SEWERS, CLASS A, TYPE 2 10"							
SHEET	FROM (UPSTREAM)			TO (DOWNSTREAM)			LENGTH
	STATION	OFFSET	RT/LT	STATION	OFFSET	RT/LT	FOOT
DU-04	12+38	42	LT	12+38	36	LT	5
TOTAL							5

550A0340 - STORM SEWERS, CLASS A, TYPE 2 12"							
SHEET	FROM (UPSTREAM)			TO (DOWNSTREAM)			LENGTH
	STATION	OFFSET	RT/LT	STATION	OFFSET	RT/LT	FOOT
DU-01	7+18	67	RT	7+31	36	RT	34
DU-01	6+56	63	RT	6+57	46	RT	17
DU-01	8+70	28	RT	8+67	23	RT	5
DU-01	8+70	29	LT	8+65	30	LT	5
DU-01	106+86	47	LT	4+15	0	RT	33
DU-01	107+31	43	LT	106+86	48	LT	45
DU-01	106+86	48	LT	106+52	49	LT	34
DU-01	2+30	1	RT	3+89	2	RT	176
DU-02	1+05	63	LT	2+29	0	RT	147
DU-02	21+61	21	LT	21+76	21	LT	15
DU-02	110+47	85	LT	109+94	113	LT	60
DU-02	111+61	61	LT	111+79	61	LT	16
DU-02	111+79	61	LT	111+79	66	LT	5
DU-02	113+00	66	LT	112+48	66	LT	52
DU-02	113+98	66	LT	113+00	66	LT	98
DU-02	115+52	62	LT	113+98	66	LT	154
DU-02	110+42	105	RT	110+40	98	RT	5
DU-02	111+78	83	RT	112+00	66	RT	28
DU-02	111+98	9	RT	112+00	66	RT	50
DU-02	113+00	80	LT	113+00	66	LT	13
DU-02	114+86	58	RT	112+66	54	RT	219
DU-02	114+56	11	RT	114+86	58	RT	55
DU-02	119+56	60	LT	121+29	76	LT	173
DU-02	121+29	76	LT	122+14	138	LT	105
DU-02	122+14	138	LT	121+77	161	LT	44
DU-02	119+60	60	RT	121+11	73	RT	152
DU-02	121+11	73	RT	122+22	78	RT	108
DU-02	122+66	56	RT	122+22	78	RT	47
DU-02	122+77	100	RT	122+22	78	RT	57
DU-02	123+79	67	LT	123+02	87	LT	79
DU-02	123+02	87	LT	122+94	60	LT	10
DU-04	125+82	117	LT	125+76	125	LT	5
DU-04	124+37	110	RT	11+05	4	RT	50
DU-04	11+35	42	LT	11+31	37	LT	5
DU-05	18+42	26	RT	17+02	26	RT	138
DU-05	17+02	26	RT	15+63	21	RT	137
DU-05	155+63	4	RT	15+01	21	RT	60
DU-06	116+75	184	RT	116+83	184	RT	37
DU-09	118+03	13	LT	118+02	28	LT	12
DU-09	118+02	28	LT	118+00	69	LT	36
TOTAL							2521

550A0360 - STORM SEWERS, CLASS A, TYPE 2 15"							
SHEET	FROM (UPSTREAM)			TO (DOWNSTREAM)			LENGTH
	STATION	OFFSET	RT/LT	STATION	OFFSET	RT/LT	FOOT
DU-01	3+89	2	RT	4+04	1	RT	15
DU-01	4+04	1	RT	4+39	11	RT	16
TOTAL							31

550A0410 - STORM SEWERS, CLASS A, TYPE 2 24"							
SHEET	FROM (UPSTREAM)			TO (DOWNSTREAM)			LENGTH
	STATION	OFFSET	RT/LT	STATION	OFFSET	RT/LT	FOOT
DU-02	121+67	152	RT	122+22	78	RT	89
TOTAL							89

Z0056606 - STORM SEWER (WATER MAIN REQUIREMENTS) 10 INCH							
SHEET	FROM (UPSTREAM)			TO (DOWNSTREAM)			LENGTH
	STATION	OFFSET	RT/LT	STATION	OFFSET	RT/LT	FOOT
DU-04	3+67	36	RT	3+67	31	RT	5
DU-04	4+58	45	RT	4+57	34	RT	11
DU-04	5+41	50	RT	5+43	40	RT	10
TOTAL							26

Z0056608 - STORM SEWER (WATER MAIN REQUIREMENTS) 12 INCH							
SHEET	FROM (UPSTREAM)			TO (DOWNSTREAM)			LENGTH
	STATION	OFFSET	RT/LT	STATION	OFFSET	RT/LT	FOOT
DU-01	97+29	41	LT	97+85	40	LT	56
DU-01	101+40	55	LT	101+48	39	LT	17
DU-01	102+83	55	LT	102+94	36	LT	22
DU-01	104+27	53	LT	104+40	45	LT	17
DU-01	106+27	48	LT	106+19	59	LT	12
DU-03	126+71	54	LT	126+73	40	LT	15
DU-03	127+63	47	LT	127+64	38	LT	7
DU-04	124+73	86	LT	124+84	92	LT	4
DU-09	118+00	69	LT	117+92	67	LT	7
TOTAL							157

20800150 - TRENCH BACKFILL FOR STORM SEWER REMOVAL UNDER ROADWAY							
SHEET	FROM (UPSTREAM)			TO (DOWNSTREAM)			VOLUME
	STATION	OFFSET	RT/LT	STATION	OFFSET	RT/LT	CU YD
DU-01	106+55	60	LT	106+81	66	LT	9.7
DU-01	106+87	63	LT	106+81	66	LT	2.5
DU-01	107+31	43	LT	106+81	66	LT	24.1
DU-01	106+81	66	LT	106+45	65	LT	42.4
DU-02	115+00	46	LT	113+71	53	LT	42.0
DU-02	113+71	53	LT	112+80	57	LT	30.5
DU-02	112+80	57	LT	112+48	61	LT	12.3
DU-02	111+61	58	LT	111+79	58	LT	4.7
DU-02	111+97	58	LT	111+79	58	LT	4.5
DU-02	114+99	46	RT	113+70	53	RT	46.7
DU-02	113+70	53	RT	112+80	57	RT	32.1
DU-02	112+80	57	RT	112+66	60	RT	11.9
DU-02	111+79	61	RT	111+93	58	RT	6.8
DU-02	111+93	58	RT	112+00	66	RT	11.9
DU-02	123+40	45	RT	123+41	44	LT	134.2
DU-02	121+25	83	RT	121+18	57	LT	34.9
DU-02	119+25	39	RT	119+23	39	LT	77.9
DU-04	10+95	52	RT	11+05	4	LT	21.8
TOTAL							550.9

NOTE: ALL STORM SEWER, CLASS A, SHALL BE REINFORCED CONCRETE PIPE.

20800150 - TRENCH BACKFILL FOR NEW STORM SEWERS							
SHEET	FROM (UPSTREAM)			TO (DOWNSTREAM)			VOLUME
	STATION	OFFSET	RT/LT	STATION	OFFSET	RT/LT	CU YD
DU-01	97+29	41	LT	97+85	40	LT	3.3
DU-01	7+18	67	RT	7+31	36	RT	3.1
DU-01	6+56	63	RT	6+57	46	RT	3.9
DU-01	8+70	28	RT	8+67	23	RT	1.2
DU-01	8+70	29	LT	8+65	30	LT	4.0
DU-01	106+27	48	LT	106+19	59	LT	0.9
DU-01	106+86	47	LT	4+07	0	RT	8.9
DU-01	107+31	43	LT	106+86	48	LT	13.4
DU-01	106+86	48	LT	106+52	49	LT	3.3
DU-01	2+29	0	RT	4+07	0	RT	36.8
DU-01	4+07	0	RT	4+22	0	RT	4.3
DU-01	4+22	0	RT	4+38	6	LT	18.9
DU-01	101+40	55	LT	101+48	39	LT	0.5
DU-01	102+83	55	LT	102+94	36	LT	0.6
DU-01	104+27	53	LT	104+40	45	LT	1.1
DU-02	1+05	63	LT	2+29	18	LT	39.7
DU-02	21+61	21	LT	21+76	21	LT	5.2
DU-02	110+47	85	LT	109+94	113	LT	44.7
DU-02	111+61	61	LT	111+79	61	LT	1.7
DU-02	111+79	61	LT	111+77	66	LT	0.6
DU-02	113+00	80	LT	113+00	66	LT	1.8
DU-02	113+00	66	LT	112+48	66	LT	9.0
DU-02	113+98	66	LT	113+00	66	LT	17.3
DU-02	115+52	62	LT	113+98	66	LT	30.5
DU-02	110+42	105	RT	110+40	98	RT	4.7
DU-02	111+78	83	RT	112+00	66	RT	21.3
DU-02	111+98	9	RT	112+00	66	RT	18.8
DU-02	114+86	58	RT	112+66	54	RT	79.5
DU-02	114+56	11	RT	114+86	58	RT	15.6
DU-02	119+56	60	LT	121+29	76	LT	36.7
DU-02	121+29	76	LT	122+14	138	LT	73.8
DU-02	122+14	138	LT	121+77	161	LT	5.2
DU-02	119+60	60	RT	121+11	73	RT	95.7
DU-02	121+11	73	RT	122+22	78	RT	36.7
DU-02	122+66	56	RT	122+22	78	RT	15.4
DU-02	121+66	159	RT	122+22	78	RT	53.0
DU-02	123+79	67	LT	122+94	60	LT	21.0
DU-03	126+71	54	LT	126+73	40	LT	3.0
DU-03	127+63	47	LT	127+64	38	LT	1.3
DU-04	11+35	42	LT	11+31	37	LT	6.8
DU-04	12+38	42	LT	12+38	36	LT	0.7
DU-04	3+67	35	RT	3+67	30	RT	0.5
DU-04	4+58	45	RT	4+57	34	RT	2.0
DU-04	5+41	50	RT	5+43	40	RT	2.3
DU-04	124+80	86	LT	124+84	86	LT	0.7
DU-04	124+36	110	RT	11+05	4	RT	12.2
DU-04	125+82	117	LT	125+77	117	LT	2.0
DU-05	18+42	26	RT	17+02	26	RT	5.9
DU-05	17+02	26	RT	15+63	21	RT	8.1
DU-05	155+63	4	RT	15+01	21	RT	4.0
DU-09	118+03	13	LT	118+02	28	LT	3.6
DU-09	118+02	28	LT	118+00	69	LT	12.6
DU-09	118+00	69	LT	117+92	67	LT	4.4
TOTAL							802.3

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USER NAME = cgutowski	DESIGNED - GR	REVISED -
	DRAWN - GR	REVISED -
PLOT SCALE = 1:100	CHECKED - DT	REVISED -
PLOT DATE = 2/18/2013	DATE - 2/18/2013	REVISED -

EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCHEDULE
CUMBERLAND AVENUE AT I-90

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	122
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			

54213657 - PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"				
SHEET	STATION	OFFSET	RT/LT	EACH
DU-02	1+07	51	LT	1
DU-02	122+81	101	RT	1
TOTAL				2

54213669 - PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24"				
SHEET	STATION	OFFSET	RT/LT	EACH
DU-02	121+65	155	RT	1
TOTAL				1

60200805 - CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 8 GRATE				
SHEET	STATION	OFFSET	RT/LT	EACH
DU-02	123+02	87	LT	1
TOTAL				1

60201340 - CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 24 FRAME AND GRATE				
SHEET	STATION	OFFSET	RT/LT	EACH
DU-01	2+29	0	RT	1
DU-01	4+07	0	RT	1
DU-01	4+22	0	RT	1
DU-01	106+86	47	LT	1
DU-02	111+79	59	LT	1
DU-02	112+48	65	LT	1
DU-02	113+00	65	LT	1
DU-02	113+98	64	LT	1
DU-02	112+00	65	RT	1
DU-02	112+66	53	RT	1
DU-02	114+86	56	RT	1
DU-02	121+29	75	LT	1
DU-02	121+12	71	RT	1
DU-02	122+66	54	RT	1
DU-02	21+76	21	LT	1
DU-04	124+80	86	LT	1
TOTAL				16

60200105 - CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, OPEN LID				
SHEET	STATION	OFFSET	RT/LT	EACH
DU-09	118+00	69	LT	1
DU-09	118+02	28	LT	1
DU-09	118+07	69	RT	1
TOTAL				3

60203905 - CATCH BASINS TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID				
SHEET	STATION	OFFSET	RT/LT	EACH
DU-02	122+22	78	RT	1
TOTAL				1

- MANHOLE, TYPE B, TYPE 1 FRAME, CLOSED LID (CITY OF CHICAGO)				
SHEET	STATION	OFFSET	RT/LT	EACH
DU-01	4+38	6	RT	1
TOTAL				1

60207805 - CATCH BASINS, TYPE C, TYPE 10 FRAME AND GRATE				
SHEET	STATION	OFFSET	RT/LT	EACH
DU-05	17+02	26	RT	1
DU-05	15+63	21	RT	1
TOTAL				2

60208240 - CATCH BASINS, TYPE C, TYPE 24 FRAME AND GRATE				
SHEET	STATION	OFFSET	RT/LT	EACH
DU-01	7+18	65	RT	1
DU-01	6+61	60	RT	1
DU-01	101+40	53	LT	1
DU-01	102+83	53	LT	1
DU-01	104+27	53	LT	1
DU-01	8+70	28	RT	1
DU-01	8+71	29	LT	1
DU-03	126+71	52	LT	1
DU-03	127+63	45	LT	1
DU-04	11+35	40	LT	1
DU-04	12+38	40	LT	1
DU-04	124+37	110	RT	1
DU-04	13+31	36	RT	1
DU-04	12+16	36	RT	1
DU-04	7+57	48	RT	1
DU-04	6+83	48	RT	1
DU-04	5+41	48	RT	1
DU-04	4+58	44	RT	1
DU-04	3+67	35	RT	1
TOTAL				19

60218400 - MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID				
SHEET	STATION	OFFSET	RT/LT	EACH
DU-02	122+14	138	LT	1
DU-06	116+74	221	RT	1
DU-06	116+79	184	RT	1
DU-06	117+63	180	RT	1
TOTAL				4

60107800 – PIPE UNDERDRAINS 8"							
SHEET	FROM (UPSTREAM)			TO (DOWNSTREAM)			LENGTH
	STATION	OFFSET	RT/LT	STATION	OFFSET	RT/LT	FOOT
DU-09	118+02	111	RT	118+07	69	RT	45
DU-09	118+07	69	RT	118+00	69	LT	145
DU-09	118+00	69	LT	117+93	89	LT	23
TOTAL							213

60107700 – PIPE UNDERDRAINS 6"							
SHEET	FROM (UPSTREAM)			TO (DOWNSTREAM)			LENGTH
	STATION	OFFSET	RT/LT	STATION	OFFSET	RT/LT	FOOT
DU-02	121+61	54	RT	122+66	54	RT	103
DU-03	122+66	54	RT	124+37	110	RT	188
DU-03	126+02	73	LT	126+71	52	LT	69
DU-03	126+71	52	LT	127+63	45	LT	88
TOTAL							448

60236200 - INLETS, TYPE A, TYPE 8 GRATE				
SHEET	STATION	OFFSET	RT/LT	EACH
DU-02	113+00	80	LT	1
TOTAL				1

60236700 - INLETS, TYPE A, TYPE 10 FRAME AND GRATE				
SHEET	STATION	OFFSET	RT/LT	EACH
DU-05	18+42	25.5	LT	1
TOTAL				1

60237470 - INLETS, TYPE A, TYPE 24 FRAME AND GRATE				
SHEET	STATION	OFFSET	RT/LT	EACH
DU-01	97+29	41	LT	1
DU-01	106+27	48	LT	1
DU-01	106+52	48	LT	1
DU-02	111+61	60	LT	1
DU-02	115+52	60	LT	1
DU-02	111+97	15	RT	1
DU-02	114+56	11	RT	1
DU-02	110+41	106	RT	1
DU-02	111+77	83	RT	1
DU-02	119+56	59	LT	1
DU-02	123+79	67	LT	1
DU-02	119+61	59	RT	1
DU-02	21+61	21	LT	1
DU-02	110+47	85	LT	1
DU-04	125+82	117	LT	1
TOTAL				15

60234200 - INLETS, TYPE A, TYPE 1 FRAME, OPEN LID				
SHEET	STATION	OFFSET	RT/LT	EACH
DU-02	123+41	24	LT	1
DU-09	118+03	13	LT	1
TOTAL				2

60258200 - MANHOLES TO BE RECONSTRUCTED WITH NEW TYPE 1 FRAME, CLOSED LID				
SHEET	STATION	OFFSET	RT/LT	EACH
DU-01	106+45	65	LT	1
DU-01	105+63	123	LT	1
DU-02	110+41	93	LT	1
DU-02	109+27	60	LT	1
DU-02	122+94	75	LT	1
DU-03	126+02	67	LT	1
TOTAL				6

60100060 – CONCRETE HEADWALLS FOR PIPE DRAINS				
SHEET	STATION	OFFSET	RT/LT	EACH
DU-02	121+27	120	RT	1
TOTAL				1

60108200 – PIPE UNDERDRAINS 6" (SPECIAL)							
SHEET	FROM (UPSTREAM)			TO (DOWNSTREAM)			LENGTH
	STATION	OFFSET	RT/LT	STATION	OFFSET	RT/LT	FOOT
DU-02	121+61	54	RT	121+27	120	RT	77
TOTAL							77

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USER NAME = cgutowski	DESIGNED - GR	REVISED -
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PLOT SCALE = 1:100	CHECKED - DT	REVISED -
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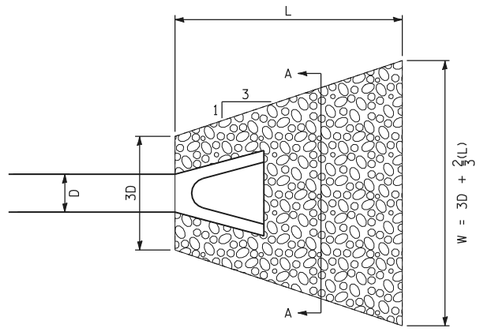
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

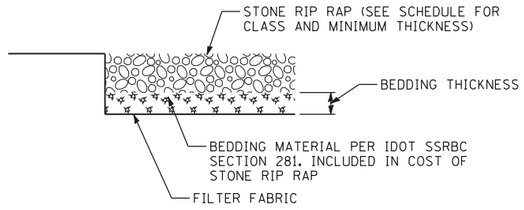
DRAINAGE SCHEDULE
CUMBERLAND AVENUE AT I-90

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	123
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			



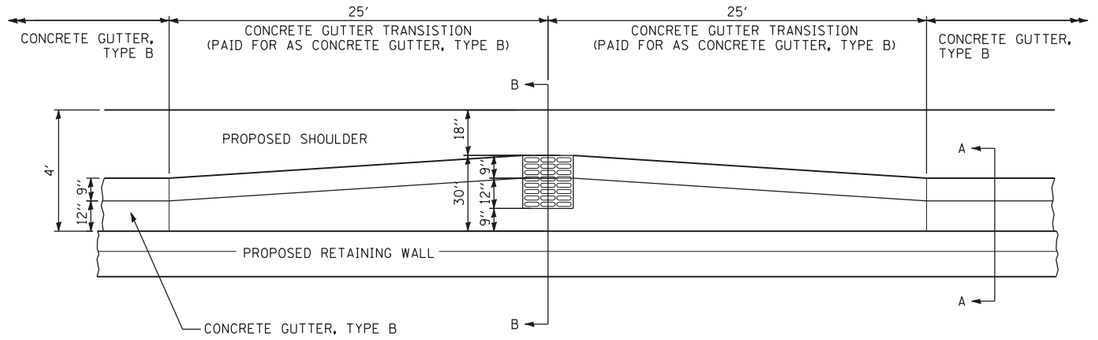
RIP RAP APRON

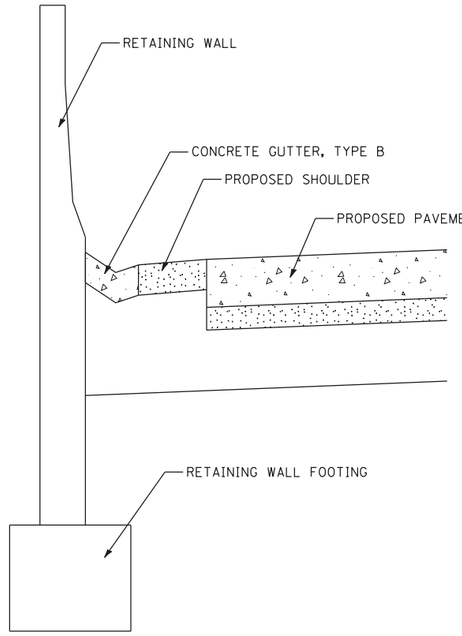


SECTION A-A

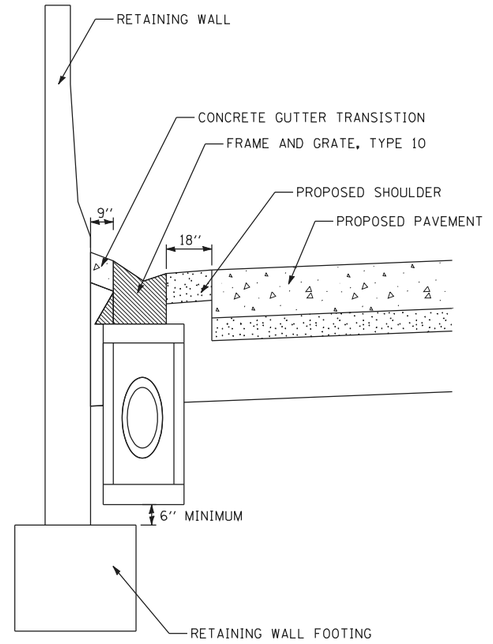
STONE RIPRAP DETAIL

28100107 - STONE RIPRAP, CLASS A4										
SHEET	LOCATION			PIPE SIZE (IN.)	3D (FT.)	L (FT.)	W (FT.)	MINIMUM THICKNESS (IN.)	BEDDING THICKNESS (IN.)	QUANTITY (SQ. YD.)
	STATION	OFFSET	RT/LT							
	EX. CUMBERLAND AVE.									
DU-06	112+58	145'	RT	36"	9 FT	12 FT	17 FT	16"	6"	17
DU-06	114+70	435'	RT	15"	4 FT	8 FT	9 FT	16"	6"	6
DU-07	121+65	160'	RT	24"	6 FT	8 FT	11 FT	16"	6"	8
DU-08	121+73	157'	LT	12"	3 FT	6 FT	7 FT	16"	6"	3
TOTAL										34





SECTION A-A



SECTION B-B

CONCRETE GUTTER, TYPE B DETAIL

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USER NAME = cgutowski	DESIGNED - GR	REVISED -
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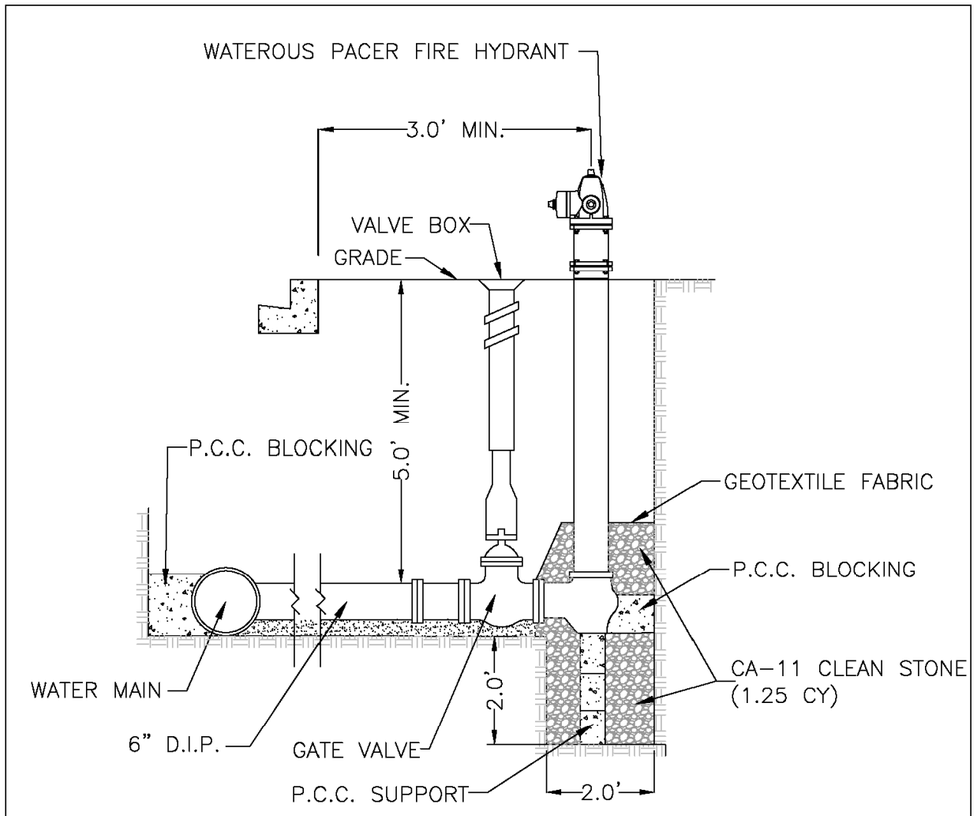
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE DETAILS
CUMBERLAND AVENUE AT I-90

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	124
		CONTRACT NO. 60J14		
	ILLINOIS	FED. AID PROJECT		



TYPICAL HYDRANT DETAIL

NOT TO SCALE

CITY OF PARK RIDGE FIRE HYDRANT DETAIL

NOTES:

1. THRUST BLOCKING PER THE CITY OF PARK RIDGE FIRE HYDRANT DETAIL SHALL BE PROVIDED FOR ALL CITY OF PARK RIDGE FIRE HYDRANTS TO BE MOVED. ALL MATERIALS AND WORK REQUIRED TO MEET THE DETAIL SHALL BE CONSIDERED INCLUDED IN THE COST OF FIRE HYDRANTS TO BE MOVED.

2. THE CONTRACTOR SHALL CONTACT THE CITY OF PARK RIDGE A MINIMUM OF 48 HOURS PRIOR TO PERFORMING THE WORK FOR FIRE HYDRANTS TO BE MOVED. (CONTACT PERSON - SUPERINTENDENT BRIAN WIEBE OR TOM THOMPSON AT 847-318-5240).

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	DRAWN - GR	REVISED -
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PLOT DATE = 2/18/2013	DATE - 2/18/2013	REVISED -

EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CITY OF PARK RIDGE FIRE HYDRANT DETAIL
CUMBERLAND AVENUE AT I-90

SCALE: NTS | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	125
		CONTRACT NO. 60J14		
		ILLINOIS FED. AID PROJECT		

PROP. ℄ CUMBERLAND AVE.

EXIST. ℄ CUMBERLAND AVE.

EXIST. ℄ HIGGINS RD.

N

PROP. STATIONING | EXIST. STATIONING

PROP. STATIONING CUMBERLAND AVENUE | EXIST. STATIONING CUMBERLAND AVENUE

+50.00 52.00' LT EL=641.40

+00.00 52.00' LT EL=639.32

+79.11 67.65 LT EL=636.60

+55.00 96.30 LT EL=636.96

8+74.92 48.00' RT EL=636.12

9+07.33 56.37' RT EL=636.04

124+51.21 68.75' LT EL= 636.09

76' R

+20.00 61.56 LT EL=636.15

+43.66 14.00' LT EL=638.43

+43.66 52.00' LT EL=637.67

+50.00 14.00' LT EL=642.16

+00.00 14.00' LT EL=640.07

+50.00 8.00' LT EL. 642.64

+00.00 8.00' LT EL. 640.55

+43.66 8.00' LT EL=638.75

STA. 124+47.71 14.00' LT EL=636.72

PROP. PGL (RECON.)

+50.00 0.00' LT/RT EL. 642.48

+00.00 0.00' LT/RT EL. 640.39

+55.00 5.83' LT EL. 638.26

+20.00 5.83' LT EL. 637.22

STA. 124+47.71 8.00' LT EL=636.72

125+00

+50.00 16.00' RT EL=642.16

+00.00 16.00' RT EL=640.07

PROP. PGL (RECON.)

+43.66 16.00' RT EL=638.43

+20.60 40.50' RT EL. 636.46

124+72.34 40.50' RT EL. 636.73

+55.00 54.00' RT EL. 637.02

+50.00 54.00' RT EL=641.33

+66.00 54.00' RT EL=640.64

+00.00 54.00' RT EL=639.25

+43.66 54.00' RT EL=637.60

+61.07 54.00' RT EL=636.84

+00.26 63.54' RT EL=636.32

85' R

10+70.52 10.04' RT EL. 637.00

10+82.96 36.50' RT EL. 636.53

124+37.84 105.01' RT EL= 635.90

11+37.00 43.50' RT EL=636.08

11+32.10 12.00' RT EL. 636.85

11+32.10 8.00' RT EL. 636.85

11+61.27 38.64' RT EL=636.15

255' R

12+15.96 37.50' RT EL=635.92

110+00

8+49.67 38.00' LT EL=635.90

8+56.41 38.92' LT EL=635.84

60' R

+00.00 75.13' LT EL. 635.93

+63.60 59.86' LT EL=635.75

126+40.39 58.33' LT EL=635.85

+50.00 58.13' LT EL. 635.77

+63.36 46.55' LT EL=635.58

EXIST. R.O.W.

+00.00 51.38' LT EL. 635.65

+50.00 46.32' LT EL. 635.61

+00.00 41.27' LT EL. 635.71

+00.00 5.83' LT EL. 636.91

+50.00 5.83' LT EL. 636.80

+00.00 0.00' LT/RT EL. 636.79

+50.00 0.00' LT/RT EL. 636.89

+00.00 0.00' LT/RT EL. 636.87

126+09.44 34.77' RT EL=636.64

75' R

+50.00 33.09' RT EL. 636.44

+00.00 36.07' RT EL. 636.33

+50.00 32.95' LT/RT EL. 636.36

+00.00 29.82' RT EL. 636.15

EXIST. R.O.W.

+14.80 35.50' RT EL. 636.24

10+78.85 40.00' LT EL=636.27

PROP. R.O.W.

11+00.00 40.00' LT EL=636.16

11+34.81 40.00' LT EL=635.70

EXIST. R.O.W.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION DETAIL
CUMBERLAND & HIGGINS

SCALE: 1"=20' | SHEET INT-01 OF 10 | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	126
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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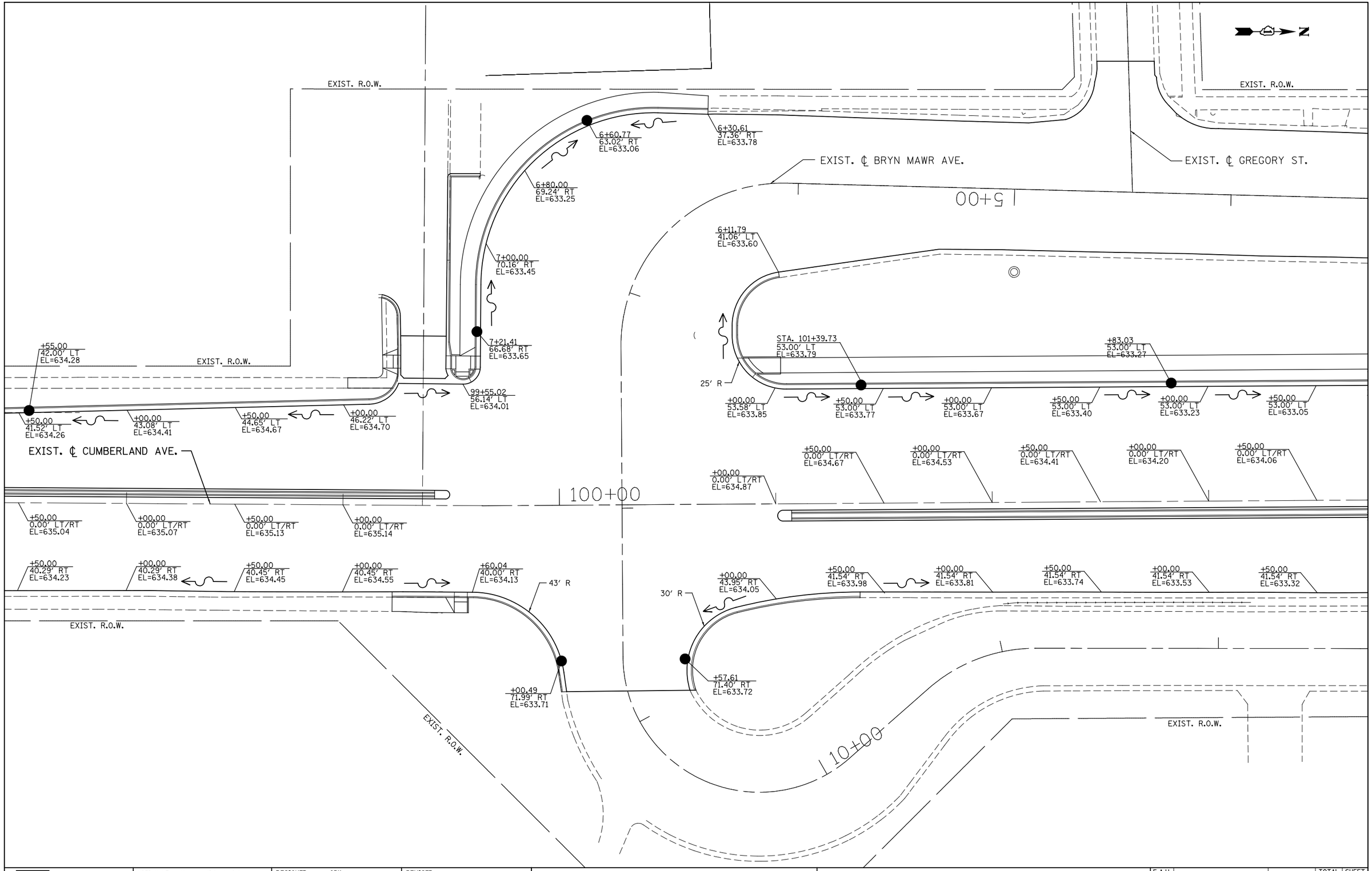

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INTERSECTION DETAIL
CUMBERLAND & BRYN MAWR

SCALE: 1"=20' | SHEET INT-02 OF 10 | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	127
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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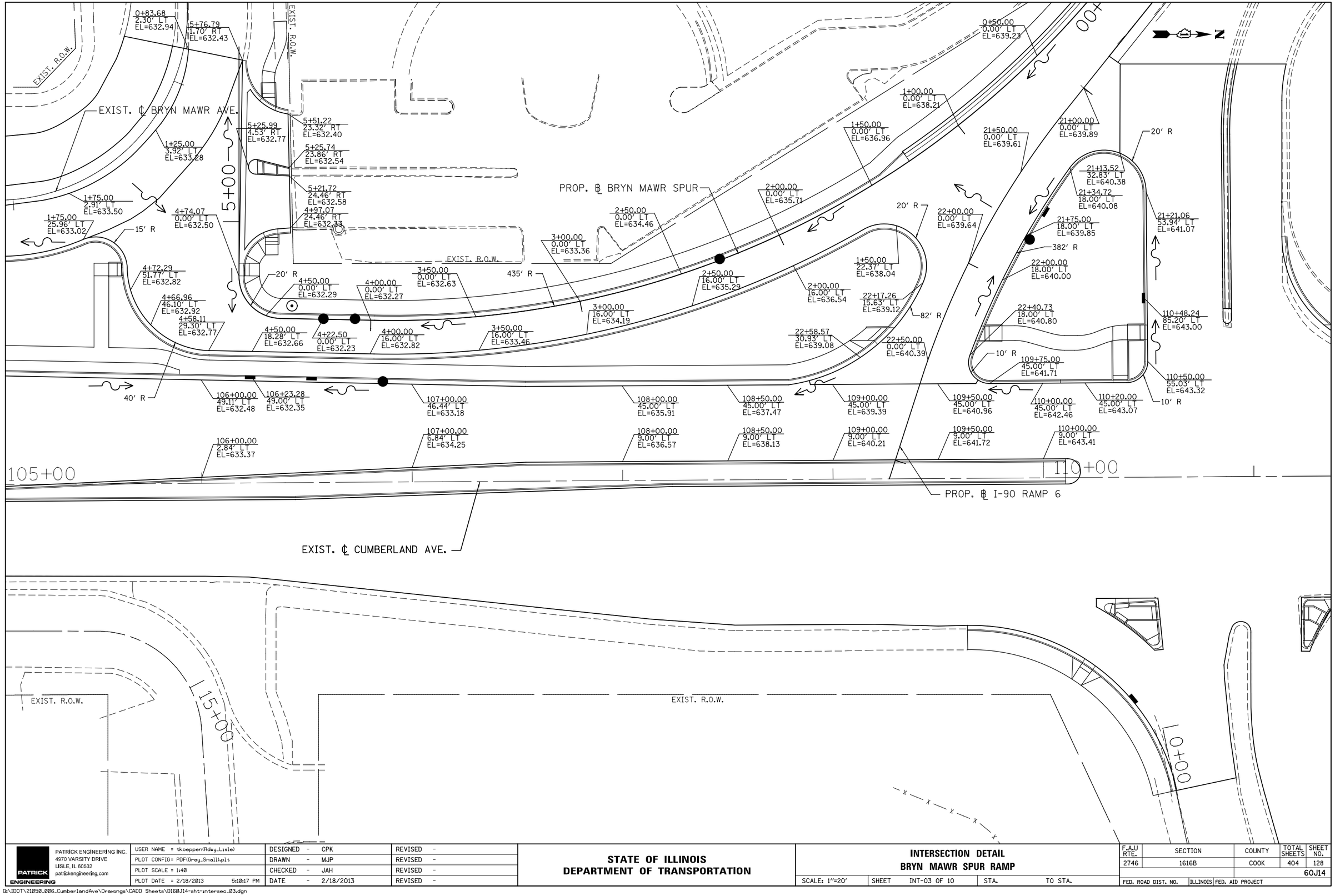

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERSECTION DETAIL
BRYN MAWR SPUR RAMP

SCALE: 1"=20' | SHEET INT-03 OF 10 | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	128
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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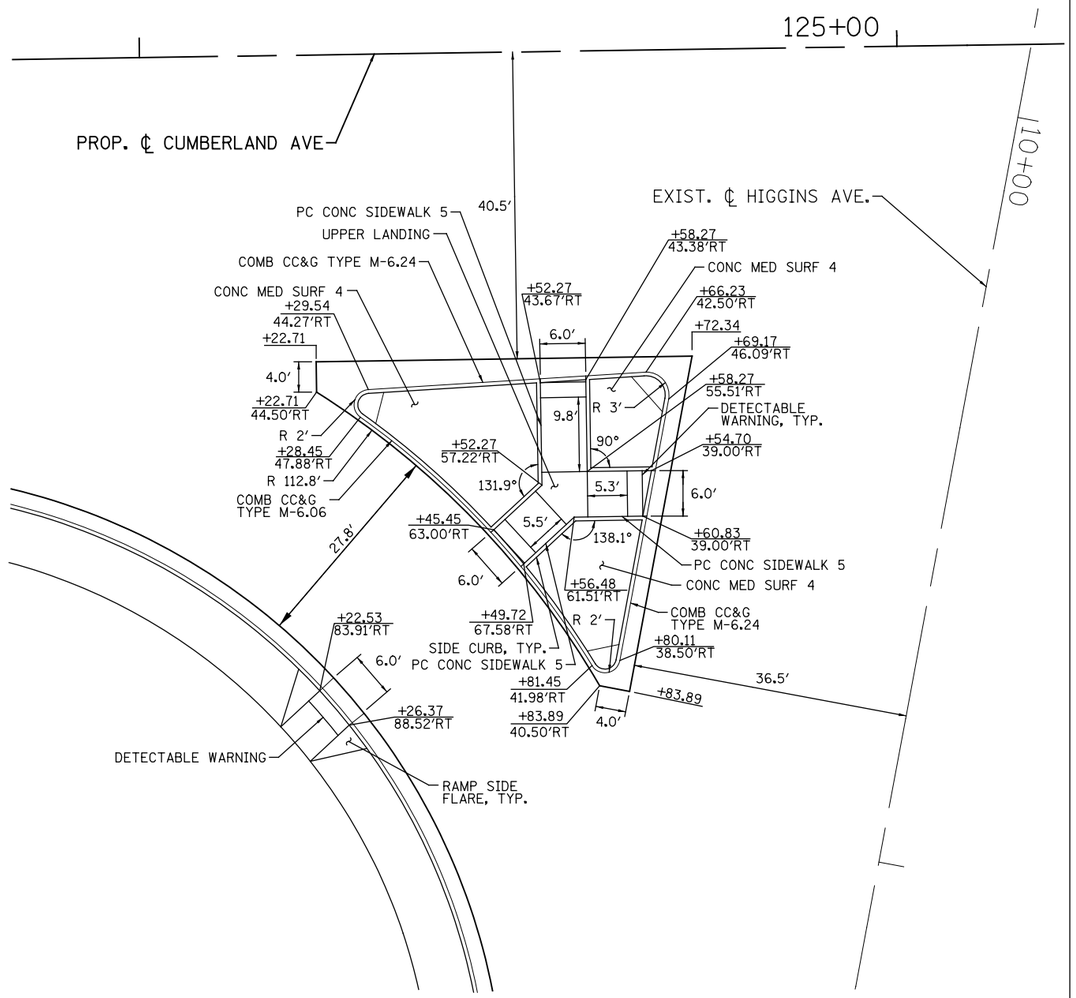
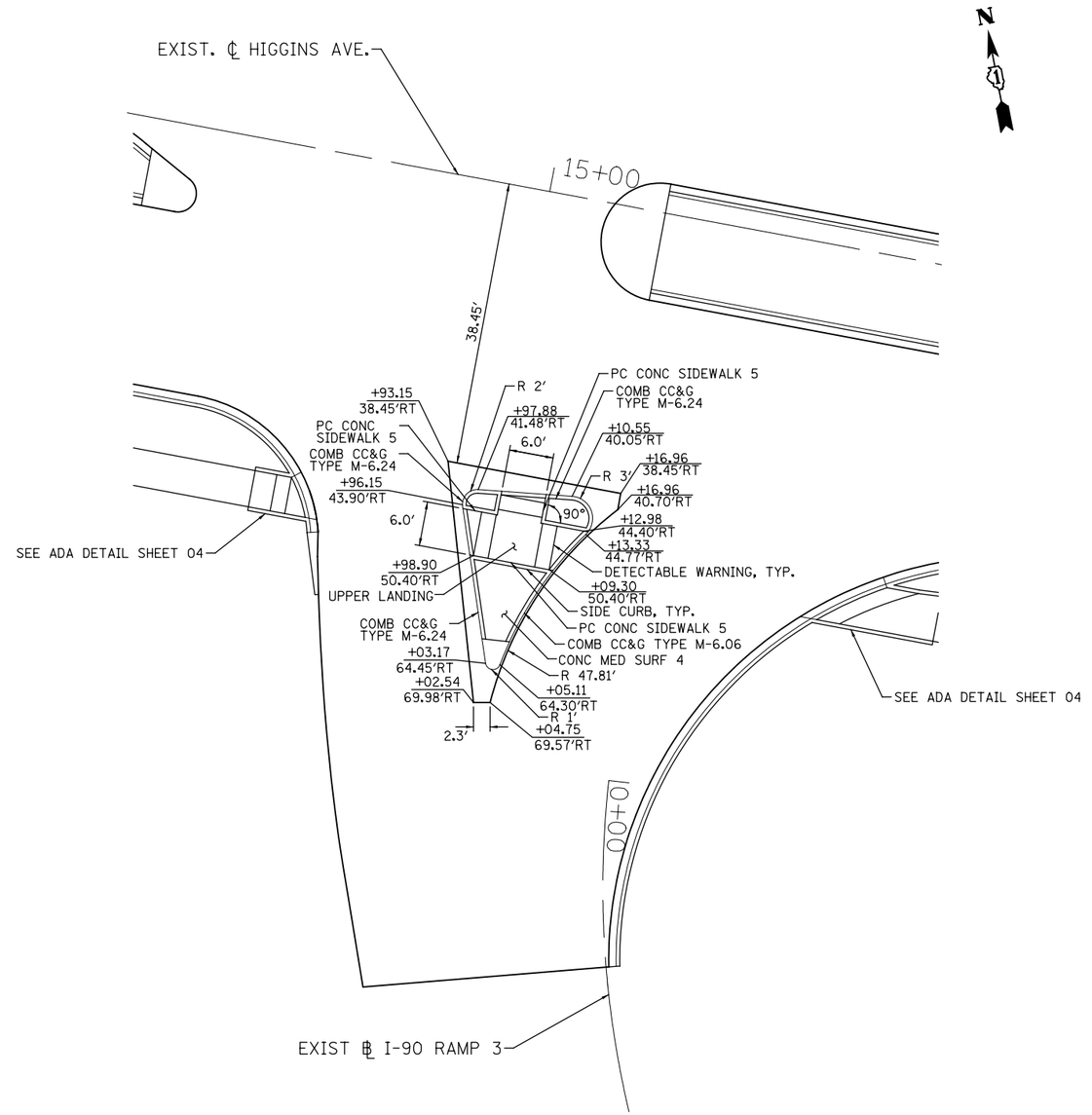


CUMBERLAND AVENUE & HIGGINS ROAD



HIGGINS ROAD & I-90 RAMP 3

NOTES

1. PROP. ISLAND MEDIANS MUST CONFORM TO IDOT STANDARD DETAIL 606301-04
2. PROP. ADA CROSSWALKS RAMPS MUST CONFORM TO IDOT STANDARD DETAILS 424001-06, 424006, 424011, 424016, 424021, 424026, 424031.

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PATRICK ENGINEERING INC.
4970 VARSITY DRIVE
LISLE, IL 60532
patrickengineering.com

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ISLAND DETAIL
HIGGINS ROAD AT CUMBERLAND AVENUE AND I-90 WB EXIT RAMP 3

SCALE: 1″=20′ | SHEET INT-04 OF 10 | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	129
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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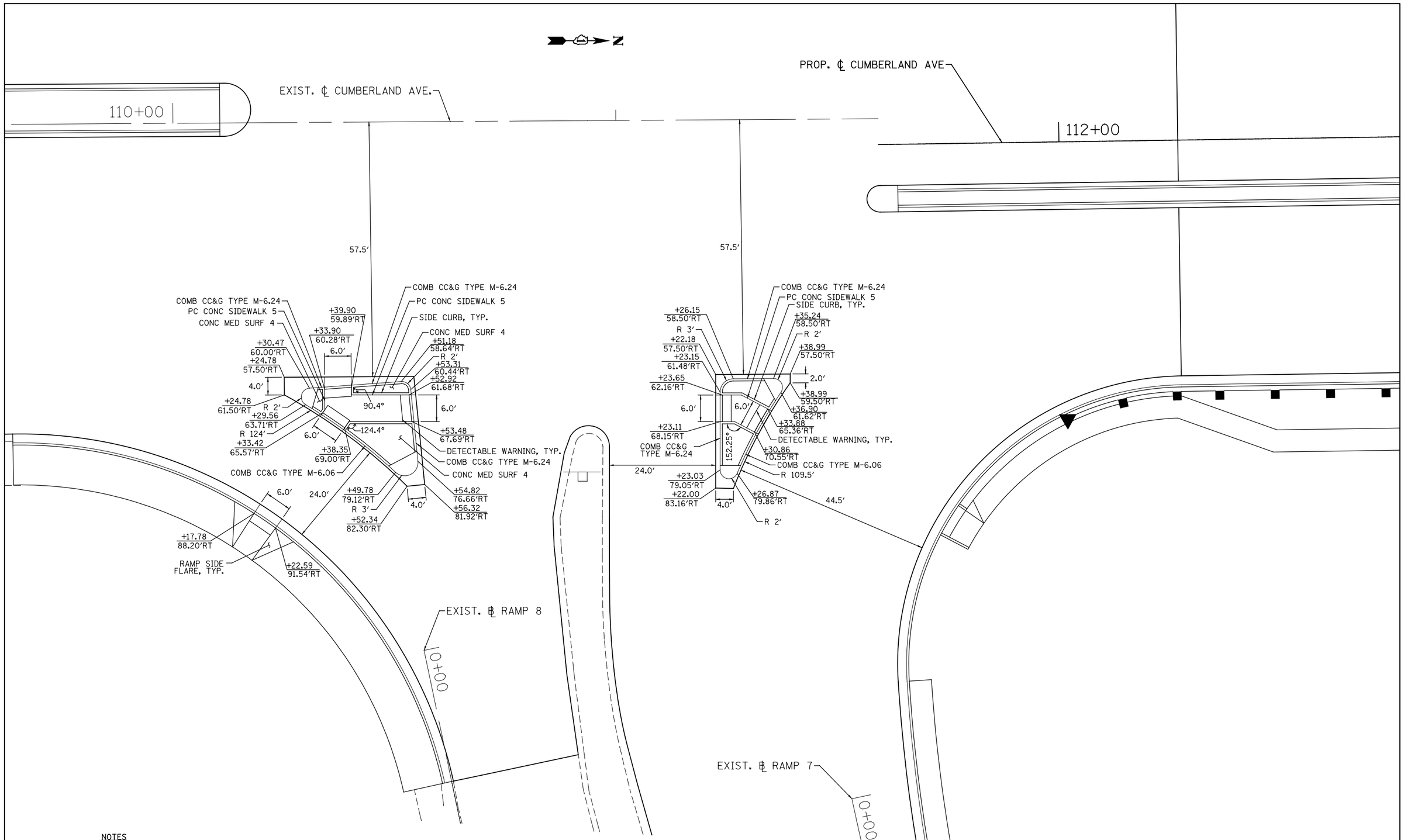

NOTES

1. PROP. ISLAND MEDIANS MUST CONFORM TO IDOT STANDARD DETAIL 606301-04
2. PROP. ADA CROSSWALKS RAMPS MUST CONFORM TO IDOT STANDARD DETAILS 424001-06, 424006, 424011, 424016, 424021, 424026, 424031.

CUMBERLAND AVENUE & RAMP 7 & RAMP 8

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ISLAND DETAIL
CUMBERLAND AVENUE AND I-90 RAMPS 7 & 8

SCALE: 1″=20′ | SHEET INT-05 OF 10 | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	130
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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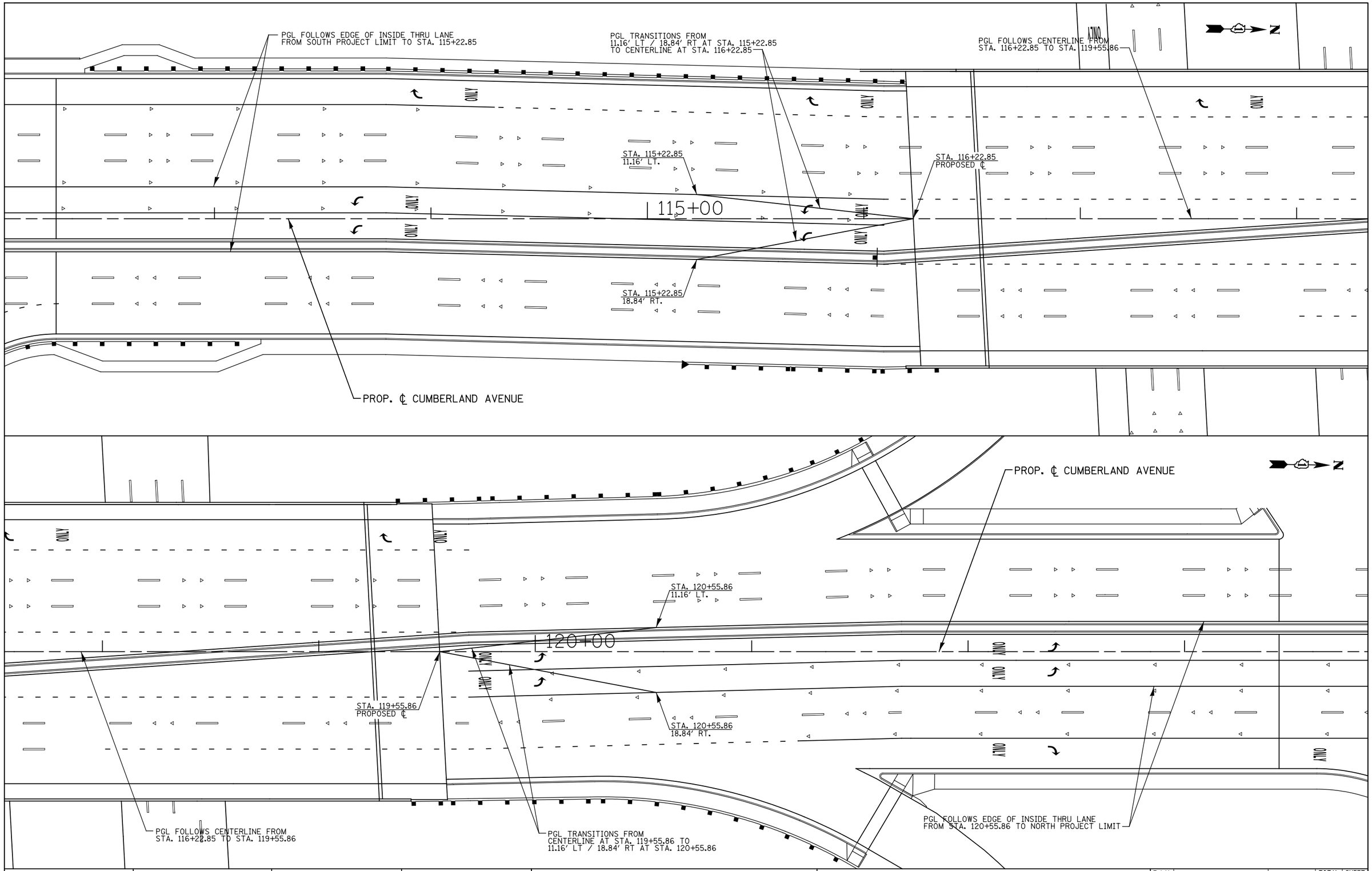

PATRICK ENGINEERING
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4970 VARSITY DRIVE
LISLE, IL 60532
patrickengineering.com

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PGL TRANSITION DETAIL
CUMBERLAND AVENUE

SCALE: 1"=20' | SHEET INT-06 OF 10 | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	131
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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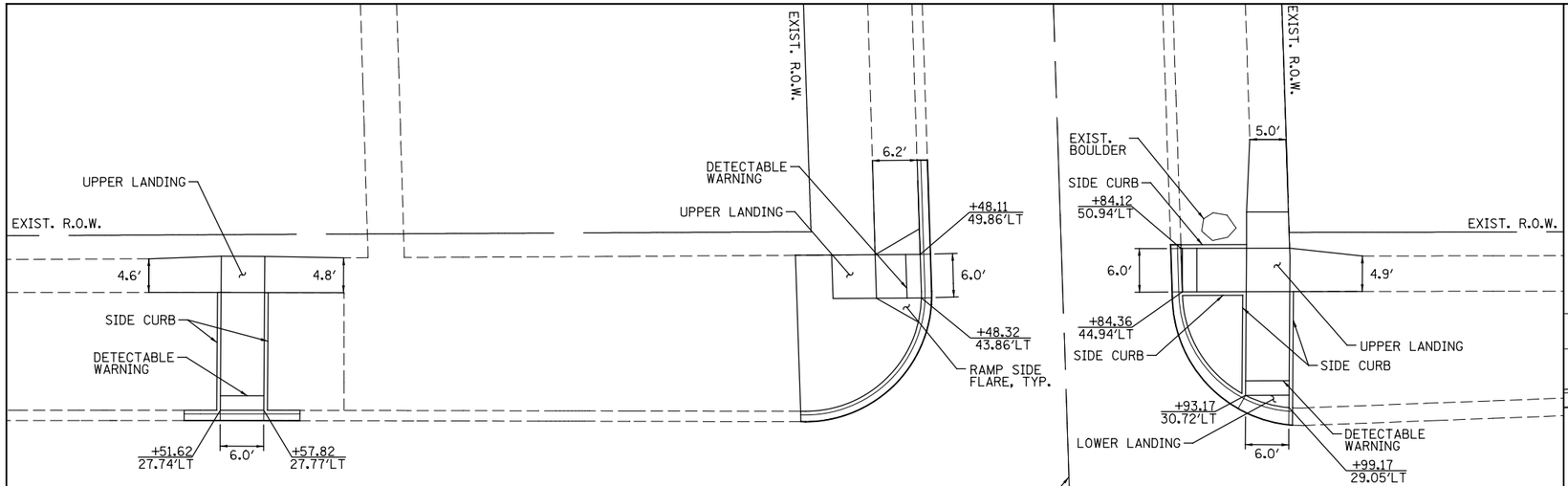

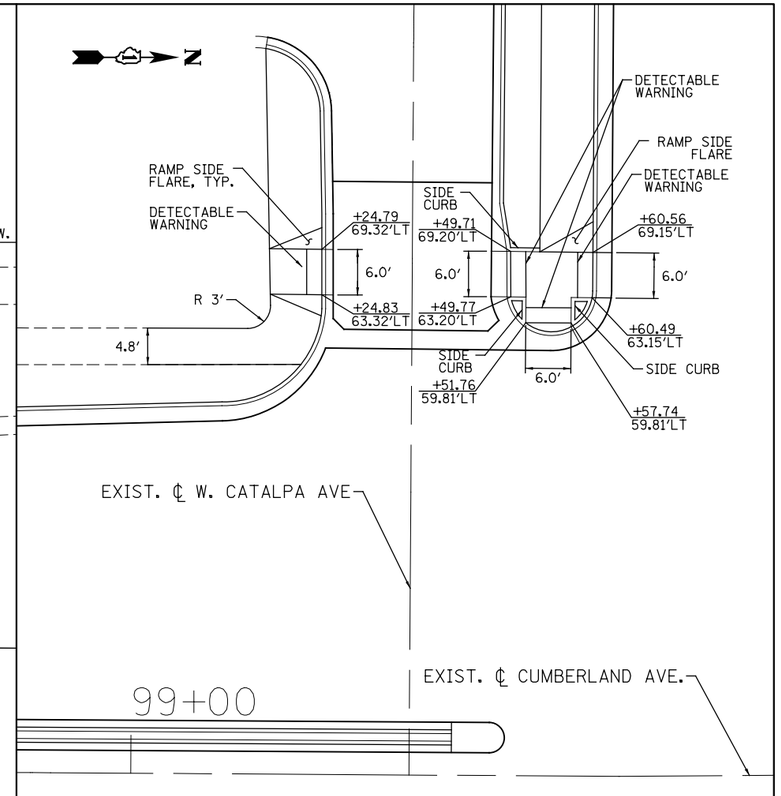

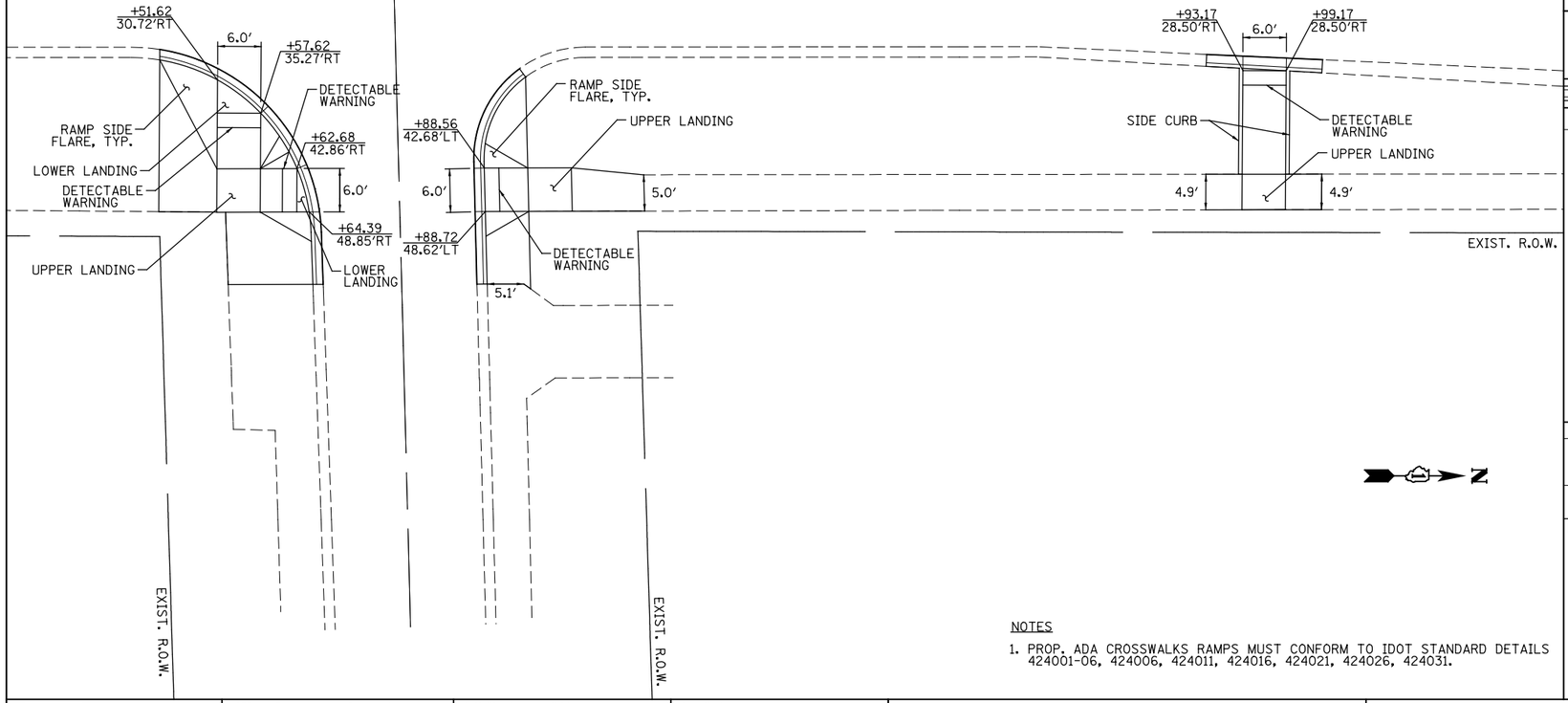

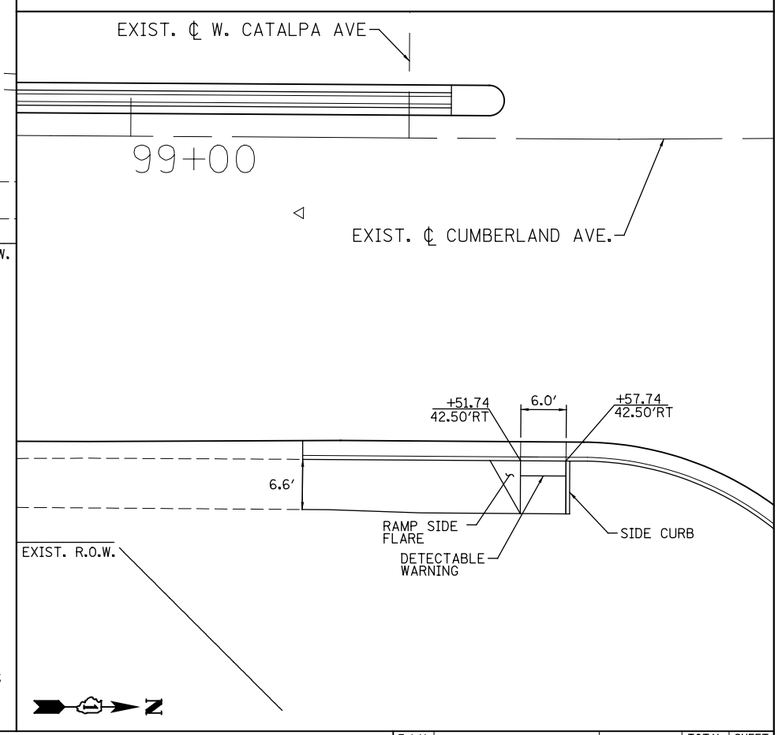

NOTES

1. PROP. ADA CROSSWALKS RAMPS MUST CONFORM TO IDOT STANDARD DETAILS 424001-06, 424006, 424011, 424016, 424021, 424026, 424031.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ADA RAMP DETAIL
CUMBERLAND AVENUE

SCALE: 1″=20′ | SHEET INT-07 OF 10 | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	132
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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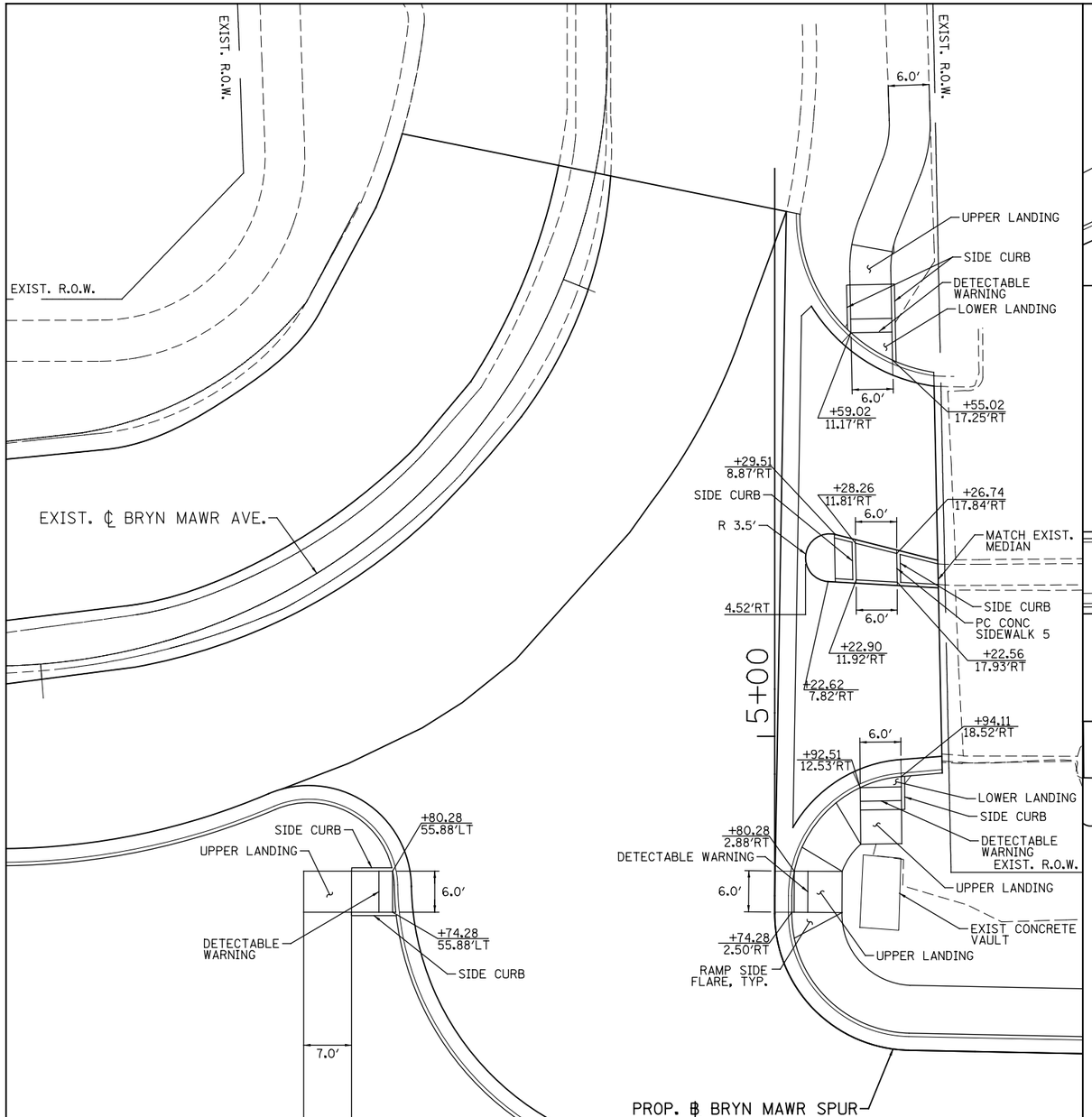

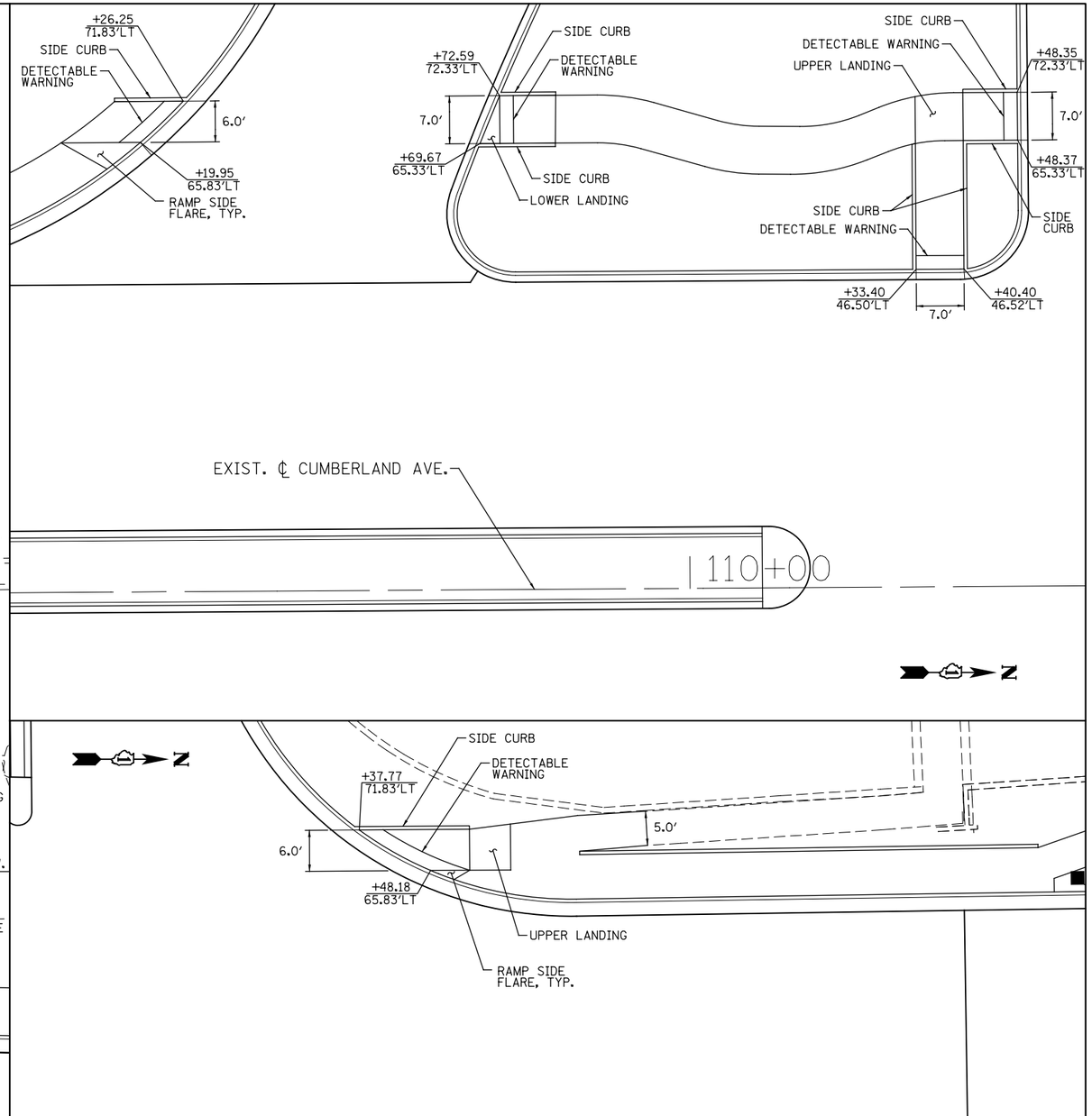

NOTES

1. PROP. ADA CROSSWALKS RAMPS MUST CONFORM TO IDOT STANDARD DETAILS 424001-06, 424006, 424011, 424016, 424021, 424026, 424031.

PATRICK ENGINEERING
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LISLE, IL 60532
patrickengineering.com

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ADA RAMP DETAIL
CUMBERLAND AVENUE

SCALE: 1″=20′ | SHEET INT-08 OF 10 | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	133
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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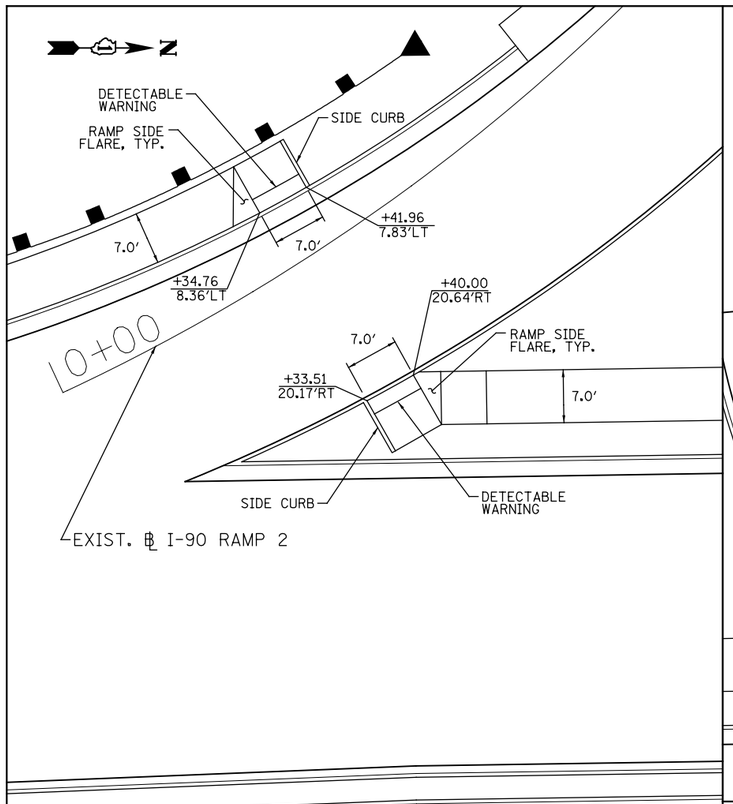

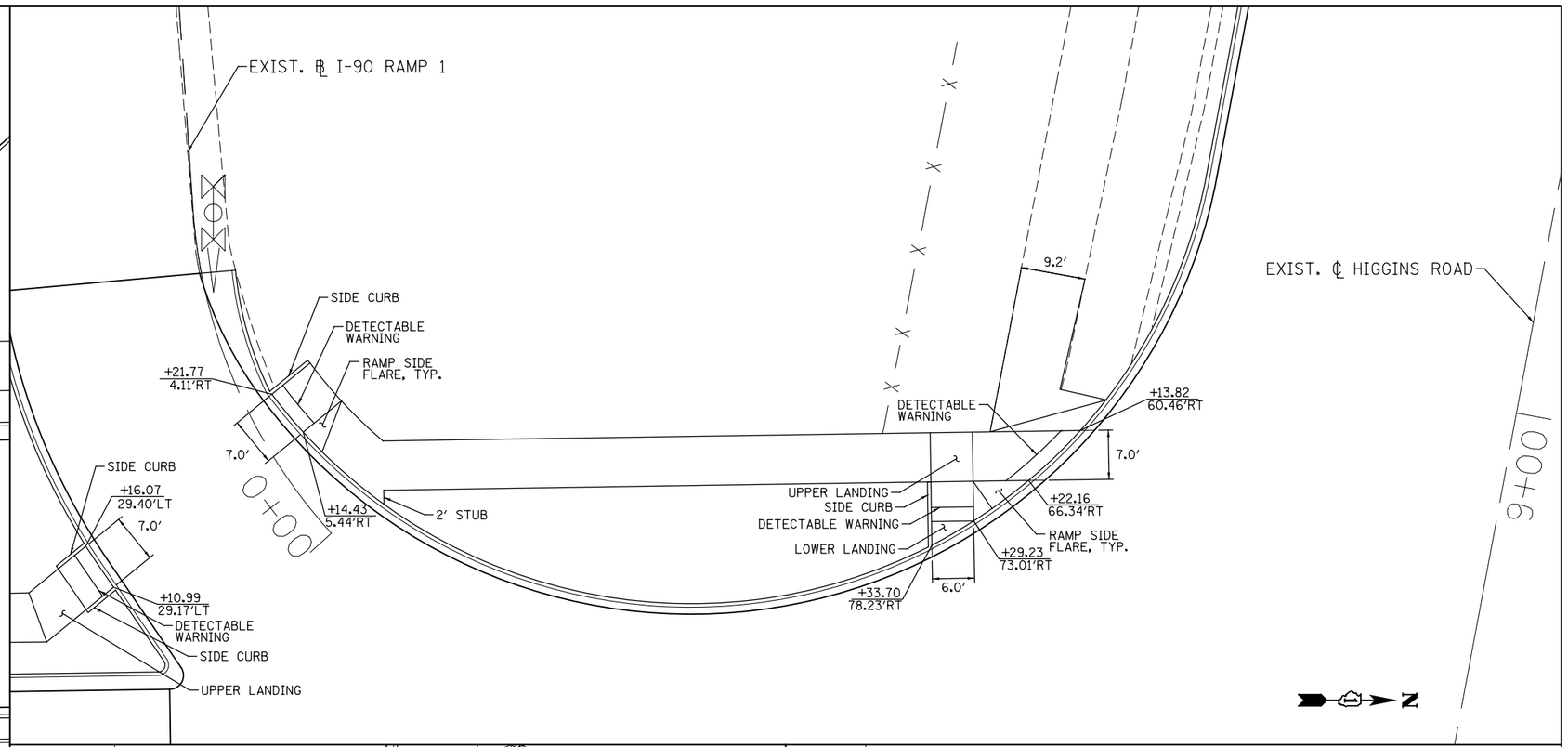

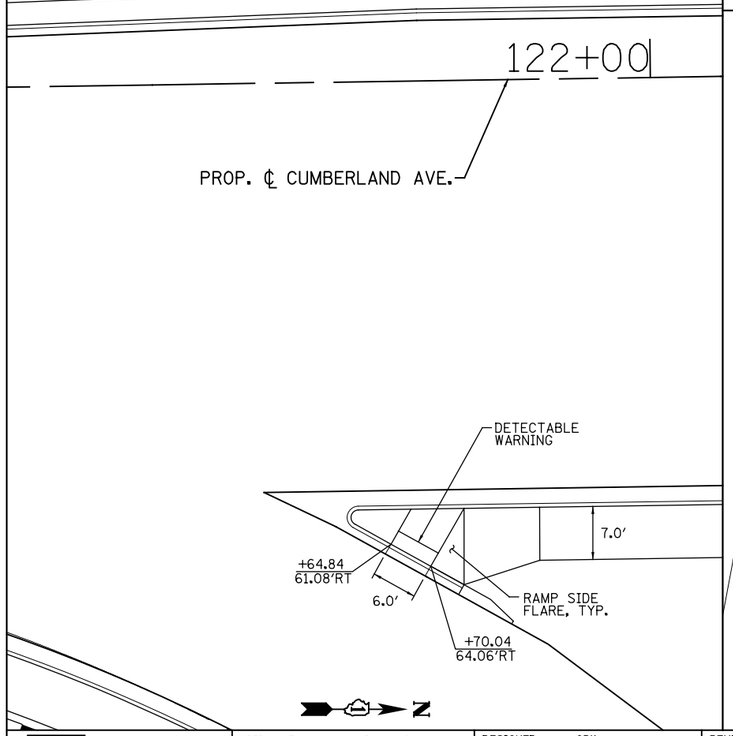

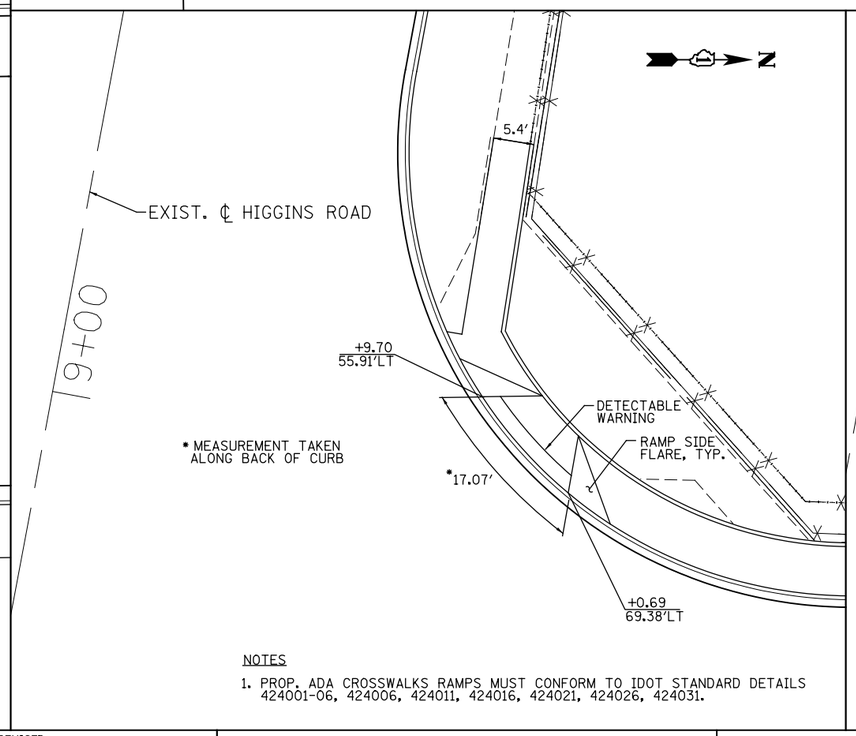

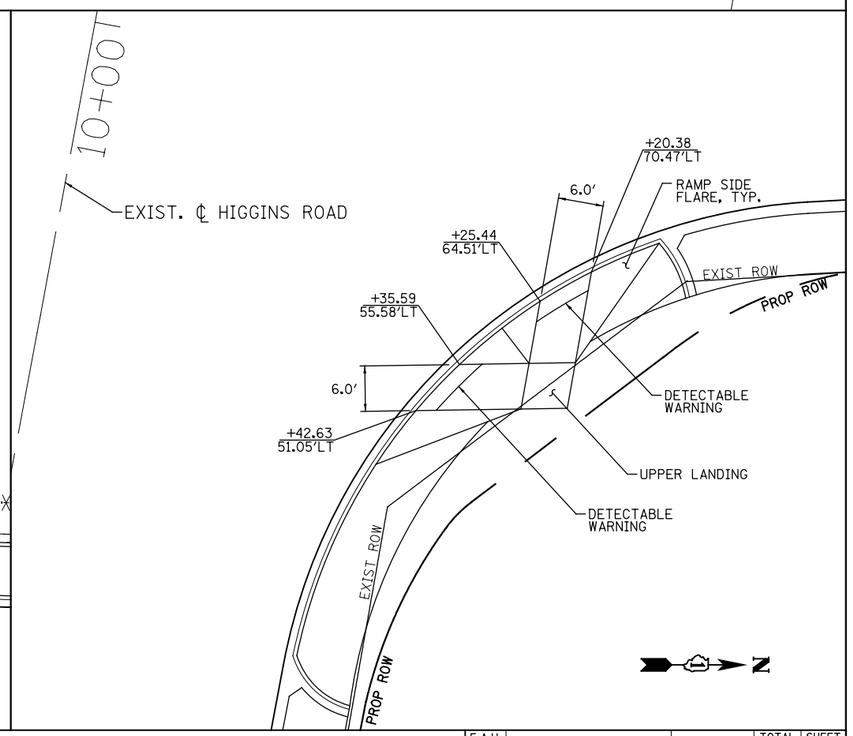

NOTES

1. PROP. ADA CROSSWALKS RAMPS MUST CONFORM TO IDOT STANDARD DETAILS 424001-06, 424006, 424011, 424016, 424021, 424026, 424031.

PATRICK ENGINEERING
PATRICK ENGINEERING INC.
4970 VARSITY DRIVE
LISLE, IL 60532
patrickengineering.com

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ADA RAMP DETAIL
CUMBERLAND AVENUE

SCALE: 1"=20' | SHEET INT-09 OF 10 | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	134
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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EXIST. ℄ HIGGINS ROAD

13+00

EXIST ROW

UPPER LANDING

EXIST ROW

DETECTABLE WARNING

+22.12
43.51'LT

+29.20
49.50'LT

RAMP SIDE FLARE, TYP.

6.0'

EXIST. ℄ BROPHY AVE.

+71.15
43.49'LT

RAMP SIDE FLARE, TYP.

6.0'

+69.89
49.50'LT

RAMP SIDE FLARE, TYP.

DETECTABLE WARNING

UPPER LANDING

EXIST ROW

EXIST ROW

NOTES

1. PROP. ADA CROSSWALKS RAMPS MUST CONFORM TO IDOT STANDARD DETAILS 424001-06, 424006, 424011, 424016, 424021, 424026, 424031.

DETECTABLE WARNING

SIDE CURB

LOWER LANDING

SIDE CURB

+72.69
44.50'RT

+75.51
49.50'RT

5.0'

EXIST. ℄ HIGGINS ROAD

15+00

SEE ISLAND DETAIL 01

+46.20
50.40'RT

6.0'

SIDE CURB

DETECTABLE WARNING

+54.76
44.40'RT

SIDE CURB

4.6'

RAMP SIDE FLARE, TYP.

+01.06
36.94'LT

6.0'

+07.06
36.77'LT

UPPER LANDING

DETECTABLE WARNING

PATRICK ENGINEERING INC. 4970 VARSITY DRIVE LISLE, IL 60532 patrickengineering.com	USER NAME = tkoeppen(Rdwy_Lisle)	DESIGNED - CPK	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ADA RAMP DETAIL
CUMBERLAND AVENUE

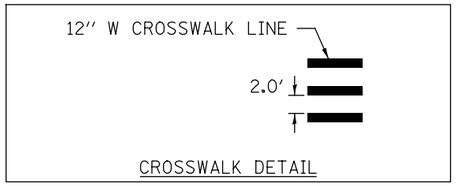
SCALE: 1"=20' | SHEET INT-10 OF 10 | STA. | TO STA.

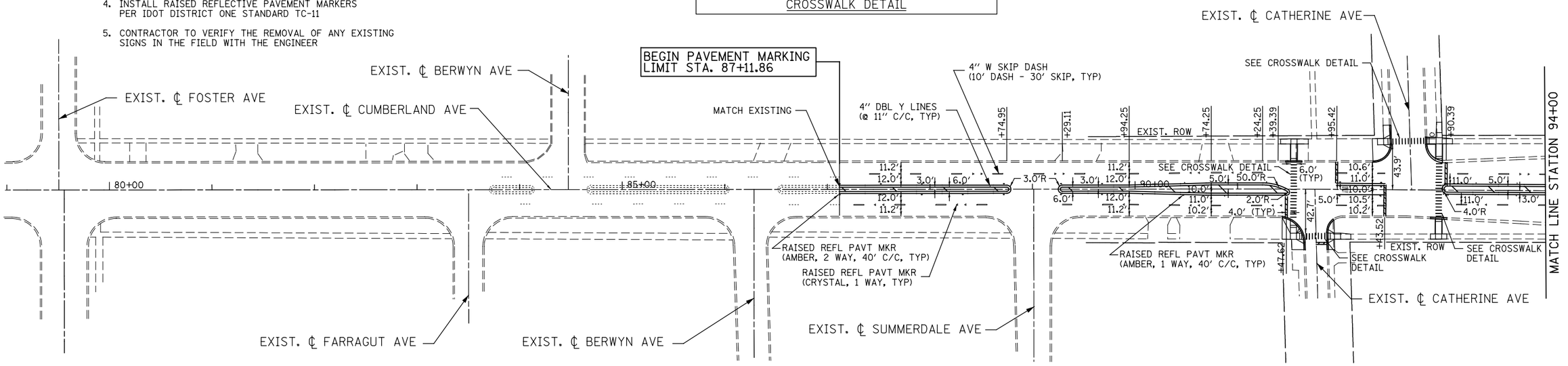
F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	135
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

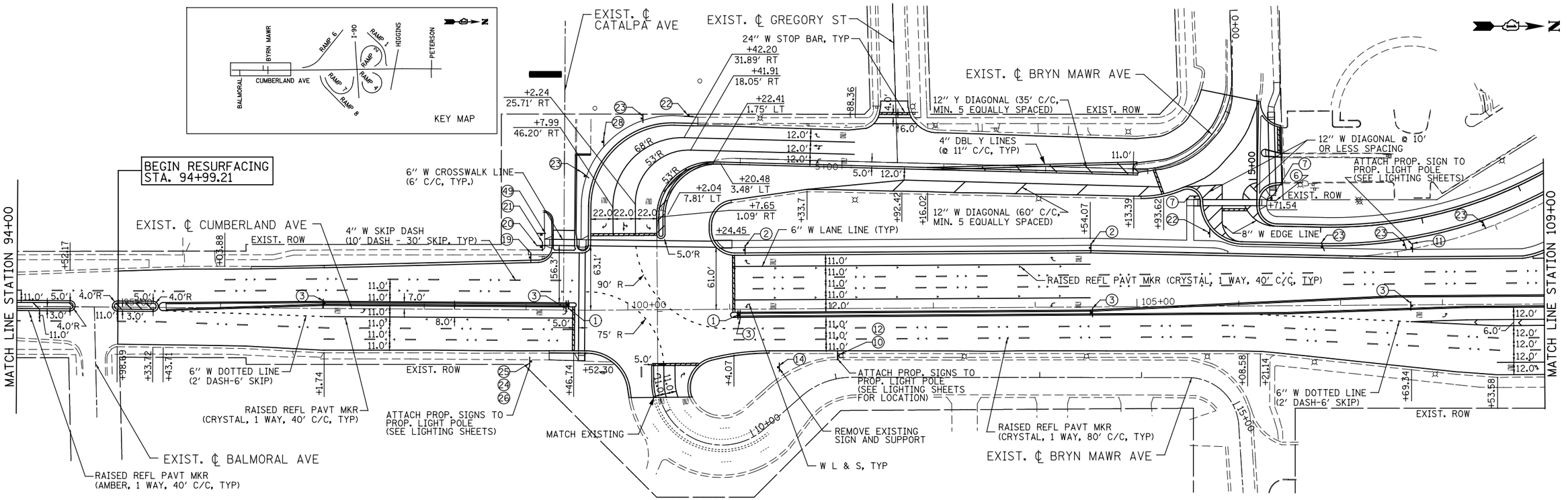
Q:\IDOT\21050.006_CumberlandAve\Drawings\CADD Sheets\D160J14-sht-details-ADA-04.dgn

NOTES:

1. FINAL PAVEMENT MARKING ON PCC PAVEMENT SHALL BE POLYUREA PAVEMENT MARKING.
2. FINAL PAVEMENT MARKING ON HMA PAVEMENT SHALL BE THERMOPLASTIC PAVEMENT MARKING.
3. THE CONTRACTOR SHALL CONTACT WALTER CZARNY AT 847-715-8419 TWO WEEKS PRIOR TO INSTALLING FINAL PAVEMENT MARKINGS.
4. INSTALL RAISED REFLECTIVE PAVEMENT MARKERS PER IDOT DISTRICT ONE STANDARD TC-11
5. CONTRACTOR TO VERIFY THE REMOVAL OF ANY EXISTING SIGNS IN THE FIELD WITH THE ENGINEER







PATRICK ENGINEERING	PATRICK ENGINEERING INC. 4970 VARSITY DRIVE LISLE, IL 60532 patrickengineering.com	USER NAME = tkoepper\Rdwy_Lisle)	DESIGNED - CPK
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REVISED	-
REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING PLAN
CUMBERLAND AVENUE

SCALE: 1''=50' | SHEET PMK-01 OF 9 | STA. 87+11.86 TO STA. 109+00

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	136
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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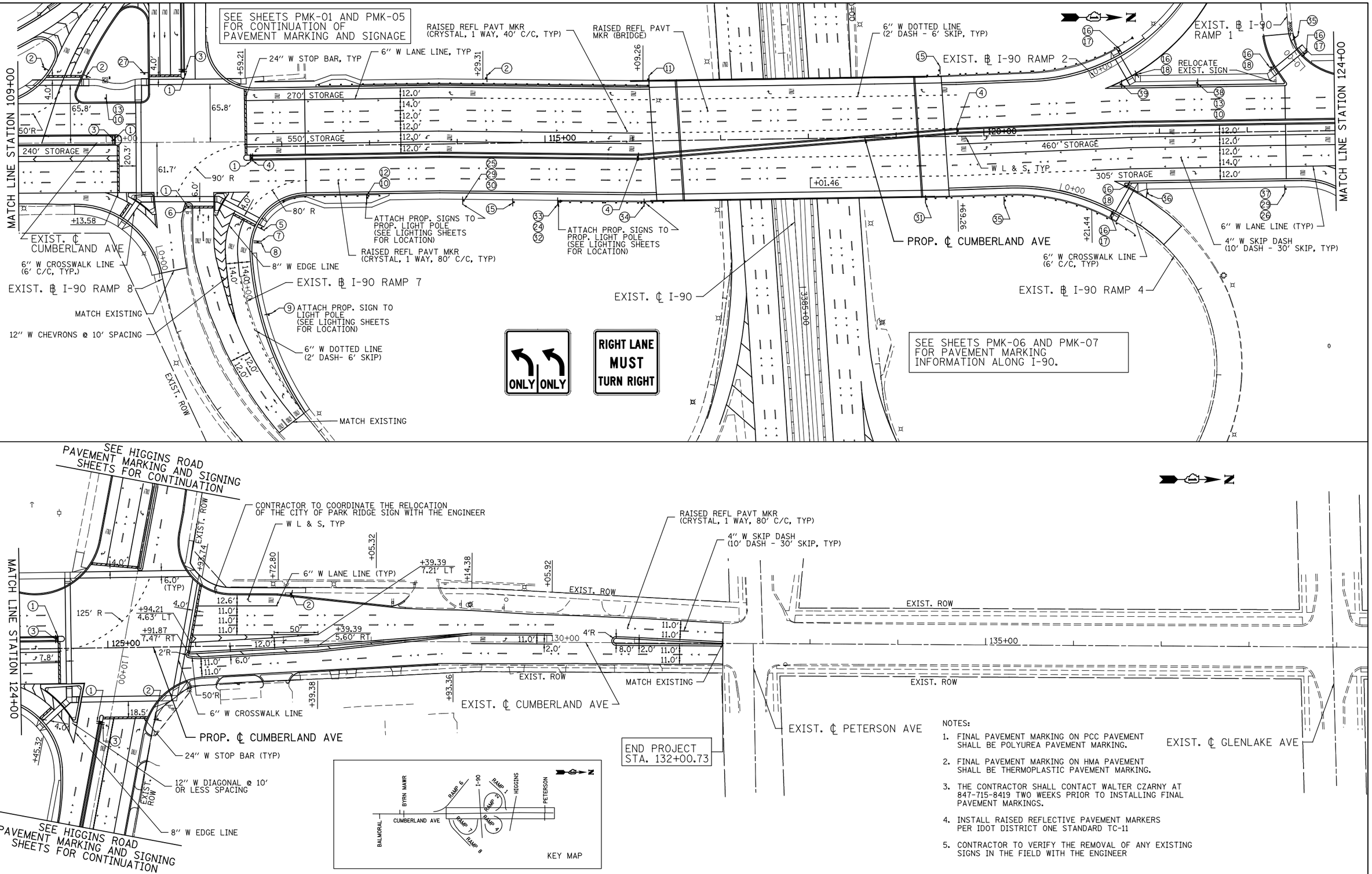

NOTES:

1. FINAL PAVEMENT MARKING ON PCC PAVEMENT SHALL BE POLYUREA PAVEMENT MARKING.
2. FINAL PAVEMENT MARKING ON HMA PAVEMENT SHALL BE THERMOPLASTIC PAVEMENT MARKING.
3. THE CONTRACTOR SHALL CONTACT WALTER CZARNY AT 847-715-8419 TWO WEEKS PRIOR TO INSTALLING FINAL PAVEMENT MARKINGS.
4. INSTALL RAISED REFLECTIVE PAVEMENT MARKERS PER IDOT DISTRICT ONE STANDARD TC-11
5. CONTRACTOR TO VERIFY THE REMOVAL OF ANY EXISTING SIGNS IN THE FIELD WITH THE ENGINEER

PATRICK ENGINEERING
PATRICK ENGINEERING INC.
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LISLE, IL 60532
patrickengineering.com

USER NAME = tkoeppen(Rdwy_Lisle)	DESIGNED - CPK	REVISED -	
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING PLAN
CUMBERLAND AVENUE

SCALE: 1"=50' | SHEET PMK-02 OF 9 | STA. 109+00 TO STA. 132+00

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	137
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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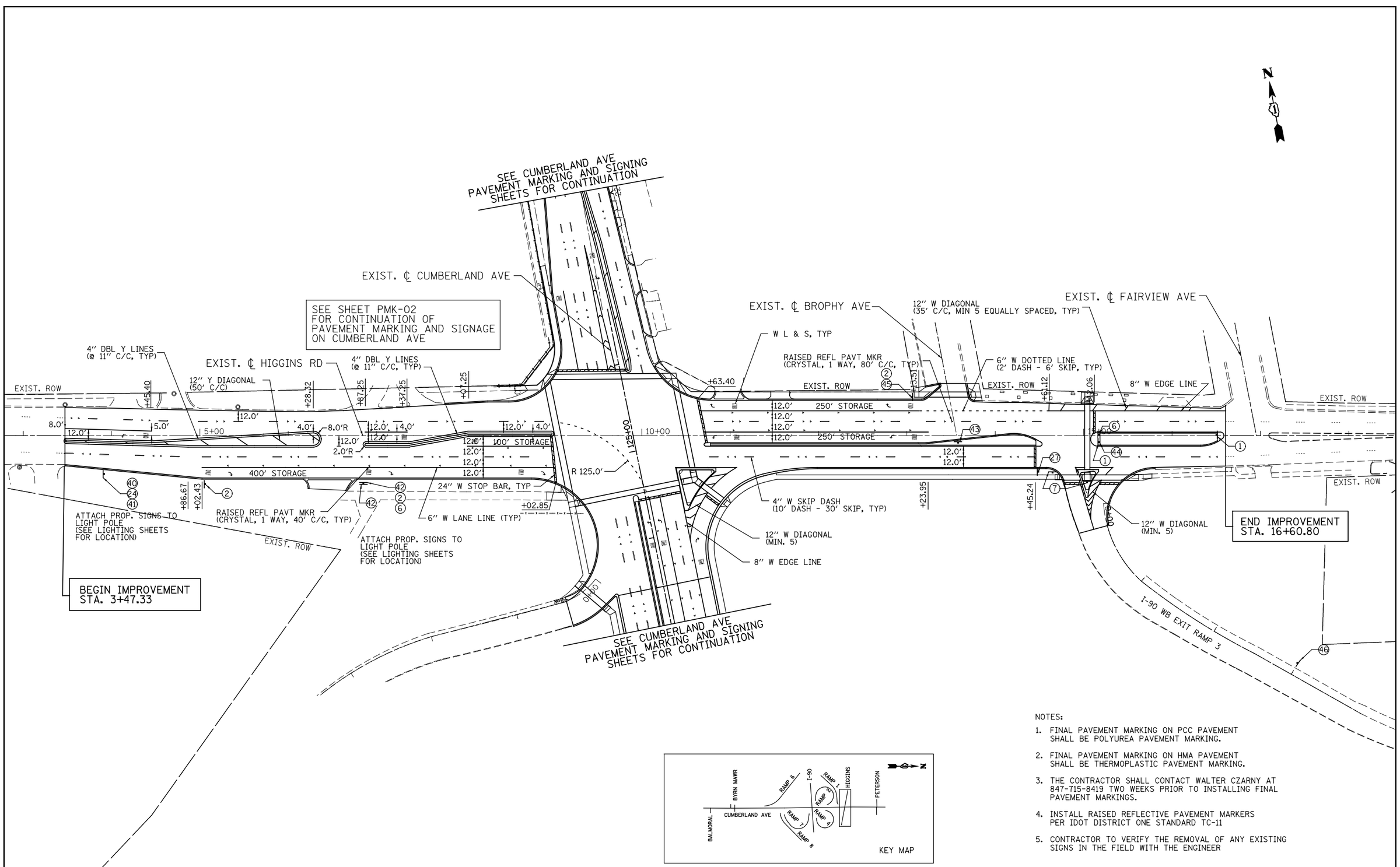

NOTES:

1. FINAL PAVEMENT MARKING ON PCC PAVEMENT SHALL BE POLYUREA PAVEMENT MARKING.
2. FINAL PAVEMENT MARKING ON HMA PAVEMENT SHALL BE THERMOPLASTIC PAVEMENT MARKING.
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5. CONTRACTOR TO VERIFY THE REMOVAL OF ANY EXISTING SIGNS IN THE FIELD WITH THE ENGINEER

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PATRICK ENGINEERING INC.
4970 VARSITY DRIVE
LISLE, IL 60532
patrickengineering.com

USER NAME = tkoeppen(Rdwy_Lisle)	DESIGNED - CPK	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING PLAN
HIGGINS ROAD

SCALE: 1"=50' | SHEET PMK-03 OF 9 | STA. 3+47.33 TO STA. 16+60.80

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	138
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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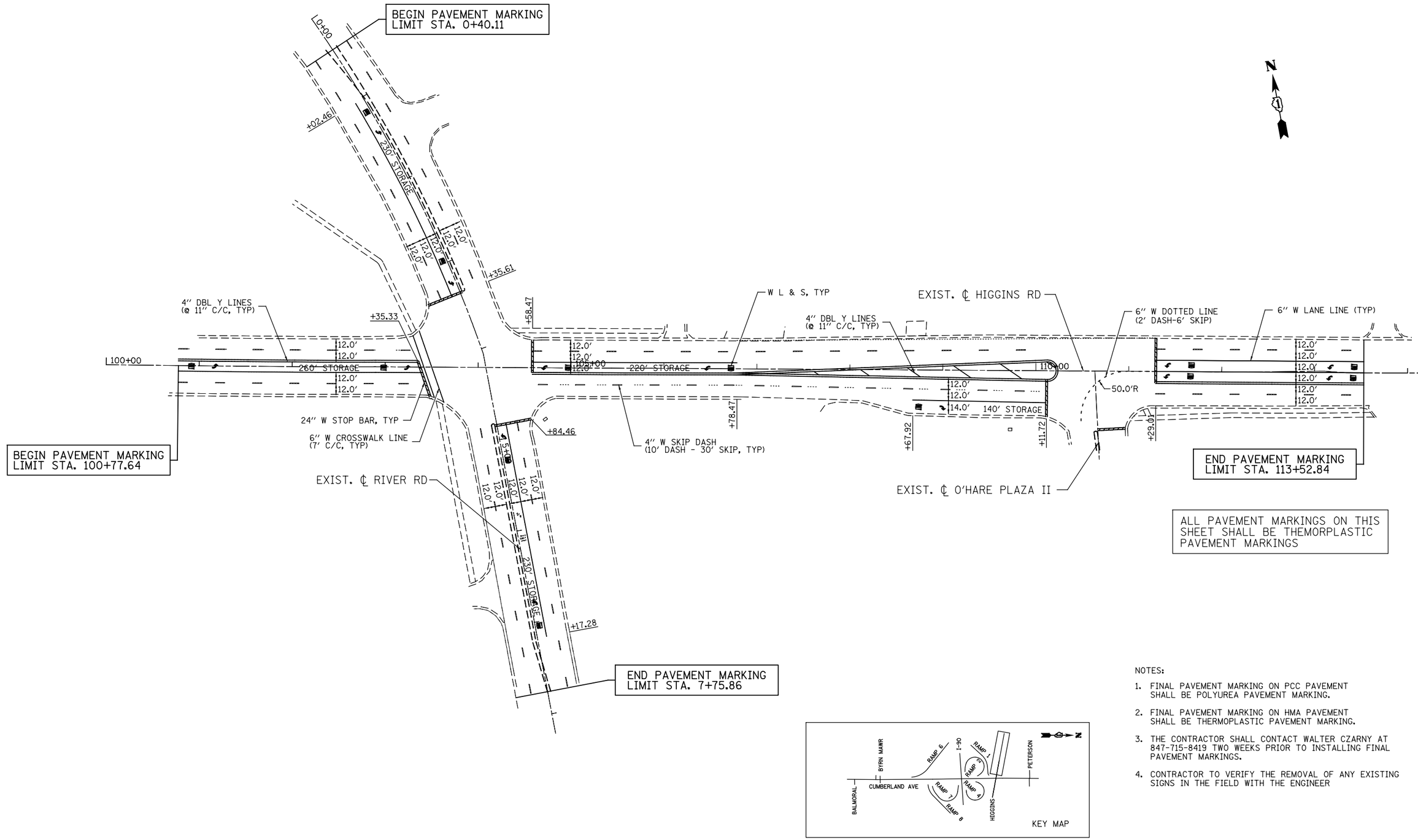

NOTES:

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LISLE, IL 60532
patrickengineering.com

USER NAME = tkoeppen(Rdwy_Lisle)	DESIGNED - CPK	REVISED -	
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING PLAN
HIGGINS ROAD

SCALE: 1"=50' | SHEET PMK-04 OF 9 | STA. 10+00 TO STA. END

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	139
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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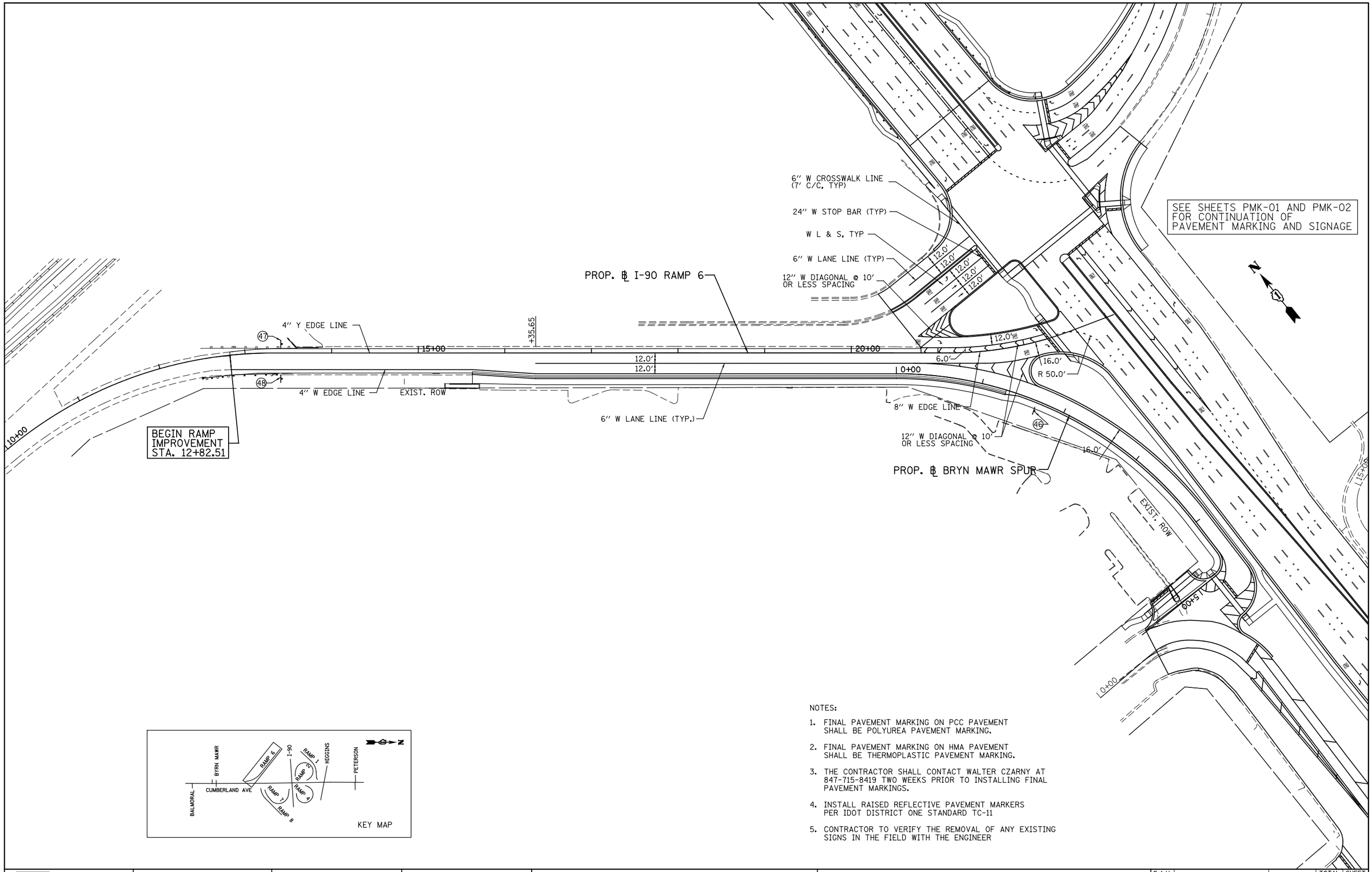

NOTES:

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LISLE, IL 60532
patrickengineering.com

USER NAME = tkoeppen(Rdwy_Lisle)	DESIGNED - CPK	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING PLAN
I-90 RAMP 6

SCALE: 1"=50' | SHEET PMK-05 OF 9 | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	140
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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NOTES:

1. FINAL PAVEMENT MARKING ON PCC PAVEMENT SHALL BE POLYUREA PAVEMENT MARKING.
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4. INSTALL RAISED REFLECTIVE PAVEMENT MARKERS PER IDOT DISTRICT ONE STANDARD TC-11
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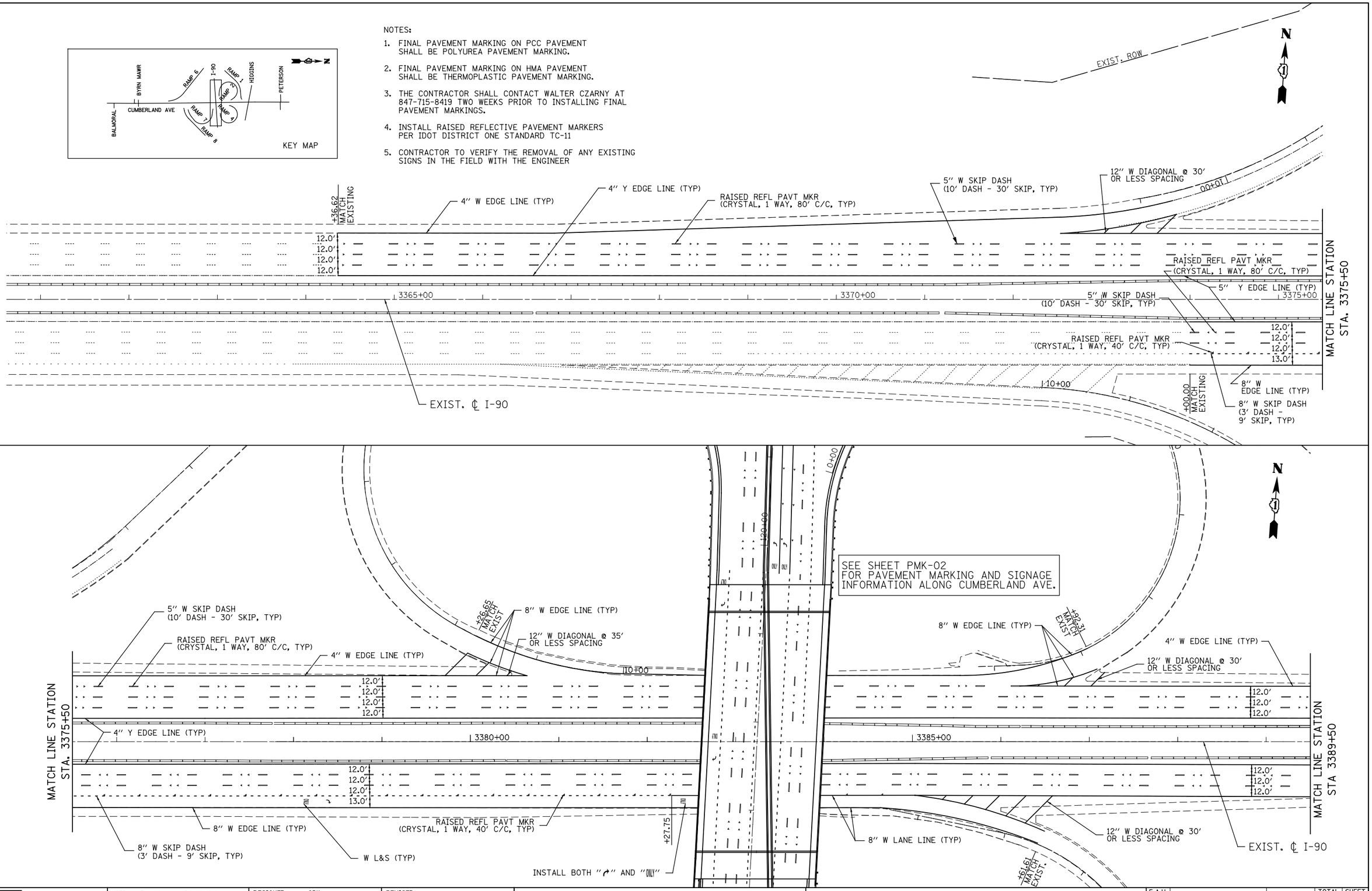

PATRICK ENGINEERING INC. 4970 VARSITY DRIVE LISLE, IL 60532 patrickengineering.com	USER NAME = tkoepper(Rdwy_Lisle)	DESIGNED - CPK	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING PLAN
I-90

SCALE: 1"=50' | SHEET PMK-06 OF 9 | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	141
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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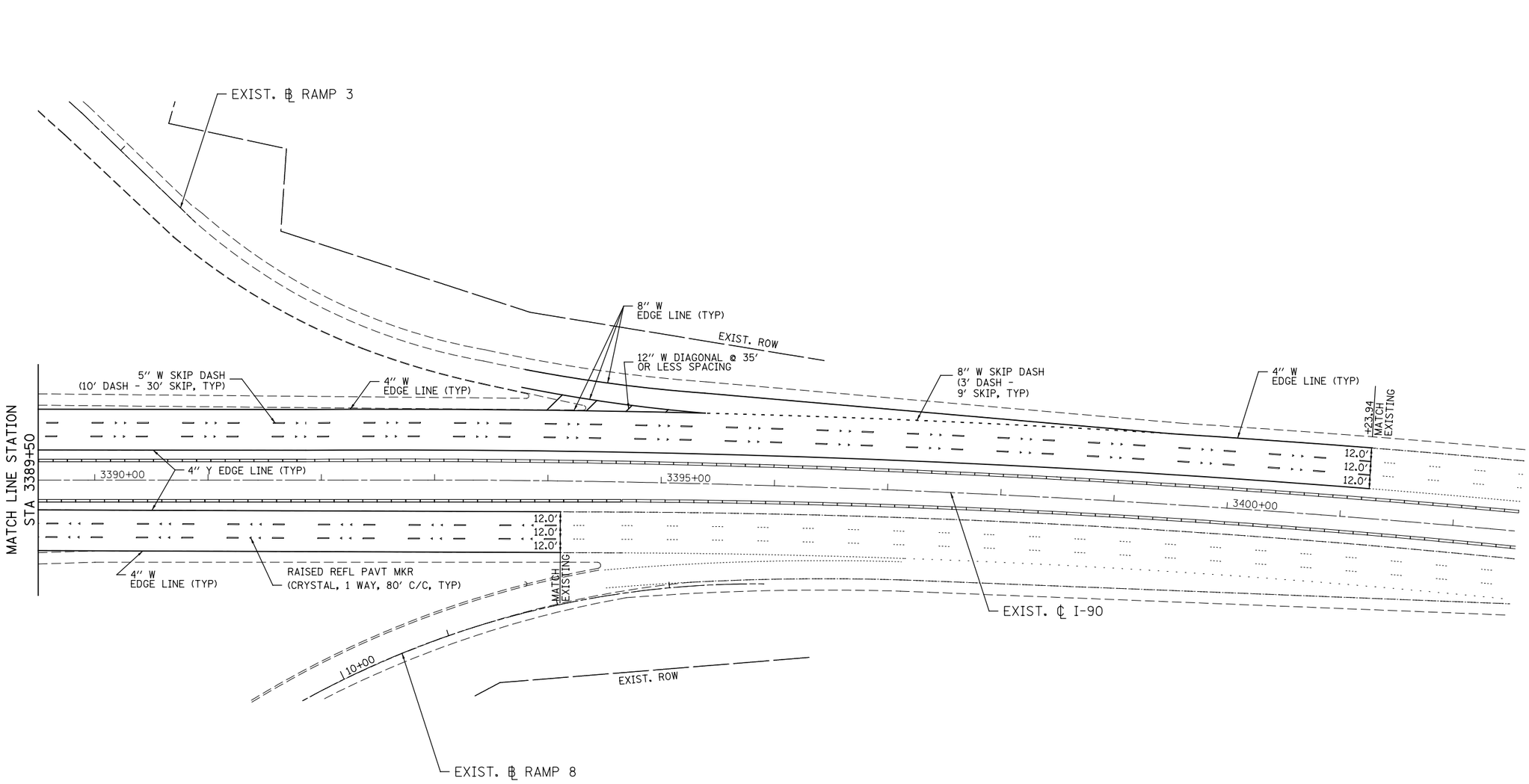

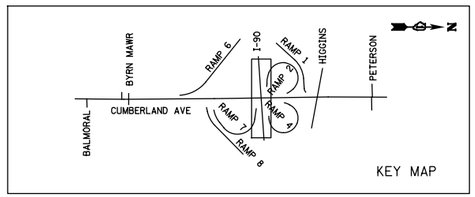

NOTES:

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4970 VARSITY DRIVE
LISLE, IL 60532
patrickengineering.com
PATRICK ENGINEERING

USER NAME = tkoeppen(Rdwy_Lisle)	DESIGNED - CPK	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING PLAN
I-90

SCALE: 1"=50' | SHEET PMK-07 OF 9 | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	142
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

G:\IDOT\21050_006_CumberlandAve\Drawings\CADD Sheets\D160J14-sht-pmk-I90 2.dgn

1
R4-7
(24" x 30")

2
R3-5 R
(30" x 36")

3
R3-5
(24" X 30")

4
CUSTOM
(30" x 30")

5
R10-11B
(36" X 36")

6
R3-2
(36" x 36")

7
R5-1
(36" x 36")

8
CUSTOM
(30" x 30")

9
R5-1A
(42" x 30")

10
M1-I100
(30" x 24")

11
R2-1
(30" x 36")

12
M3-1
(24" x 12")

13
M3-3
(24" x 12")

14
CUSTOM
(36" x 30")

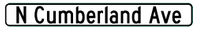
15
R3-7R
36" X 36"

16
W11-2
48" X 48"

17
W16-7P L
30" X 18"

18
W16-7P R
30" X 18"

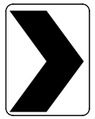
19
W9-1
36" X 36"



20
CUSTOM
(66" x 8")

21
CUSTOM
(54" x 8")

22
W1-6 R
(48" x 24")



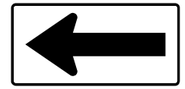
23
W1-8 R
(24" x 30")

24
M1-1
(24" x 24")

25
M2-1
(21" x 15")

26
M5-6
(24" x 18")

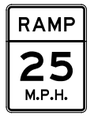
27
R3-1
(36" x 36")



28
W1-6 L
(48" x 24")

29
M1-I100
(24" x 24")

30
CUSTOM
(24" x 8")



31
W13-3
(24" x 30")

32
M5-2 R
(21" x 15")

33
M3-4
(24" x 12")

34
R2-1
(30" x 36")

35
R5-I100
(40" x 48")

36
FOR DETAILS SEE
SIGN LEGEND SHEET 2

37
M3-4
(24" x 12")

38
M4-14
(24" x 12")

39
W4-3
(36" x 36")

40
M4-5
(24" x 12")

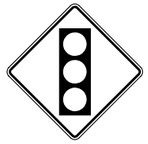
41
M5-1 R
(24" x 15")

42
R9-3
(30" x 30")

43
R6-2
(30" x 36")

44
R9-3
(18" x 18")

45
R7-1
(12" x 18")



46
W3-3
(48" x 48")

47
FOR DETAILS SEE
SIGN LEGEND SHEET 2

48
FOR DETAILS SEE
SIGN LEGEND SHEET 2

49
R1-1
(30" X 30")

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4970 VARSITY DRIVE
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USER NAME = tkoeppen(Rdwy_Lisle)	DESIGNED - CPK	REVISED - 8/14/2012	
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING PLAN
SIGN LEGEND

SCALE: NA | SHEET PMK-08 OF 9 | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	143
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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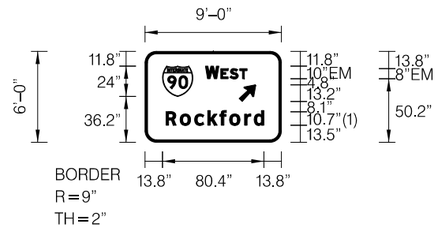


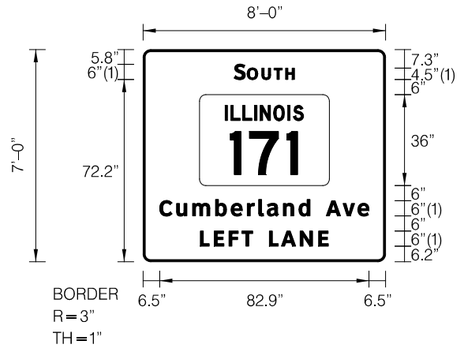
FONT:
(1) ClearviewHwy–5–W

SIGN NUMBER	name
WIDTH x HGHT.	8'–6" x 6'–0"
BORDER WIDTH	2"
CORNER RADIUS	9"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Color 24
LEGEND/BORDER	TYPE: Reflective
	COLOR: Color 100/Color 100

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	14.1	34.2	24	24
AR_Type A	315	74.8	30.3	10.6	16.8

LETTER POSITIONS (X)																				LENGTH	SERIES/SIZE
W	E	S	T																		EM 2000
48.1	60.1	67.5	75.1																	33	10.8
R	o	c	k	f	o	r	d														EM 2000
14.1	24.6	34.2	44.6	53.9	60.7	71.2	78.2													71.2	10.7/8

SIGN NUMBER 36



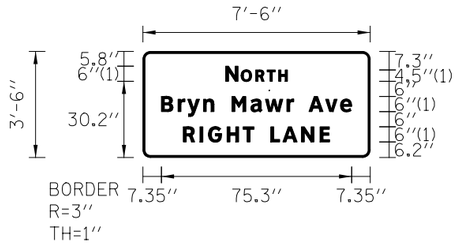
FONT:
(1) ClearviewHwy–5–W

SIGN NUMBER	47
WIDTH x HGHT.	8'–0" x 7'–0"
BORDER WIDTH	1.00"
CORNER RADIUS	3"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
M1–I100A–3–42–20D	0	22.3	30.2	51.4	36

LETTER POSITIONS (X)																				LENGTH	SERIES/SIZE
S	O	U	T	H																	ClearviewHwy–5–W
36.1	41.2	47	51.9	56.5																23.8	6,4.5
C	u	m	b	e	r	l	a	n	d		A	v	e								ClearviewHwy–5–W
6.5	13.2	19.6	28.7	34.8	41.3	45.8	49.1	55.5	61.7	66.1	72.6	79.2	85.1							82.9	6/4.9
L	E	F	T		L	A	N	E													ClearviewHwy–5–W
22.7	28.1	34	39.1	43.4	50	54.8	62.2	69.5												50.6	6

SIGN NUMBER 47



SIGN NUMBER	48
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BORDER WIDTH	1.00"
CORNER RADIUS	3"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT

LETTER POSITIONS (X)														LENGTH	SERIES/SIZE
N	O	R	T	H											ClearviewHwy–5–W
32.8	38.9	44.7	49.2	53.8										24.5	6,4.5
B	r	y	n		M	a	w	r		A	v	e			ClearviewHwy–5–W
7.3	13.9	17.7	24	28.1	35.3	42.8	48.5	57	59.8	65.7	72.3	78.2		75.3	6/4.9
R	I	G	H	T		L	A	N	E						ClearviewHwy–5–W
16	22.6	25.9	33.3	39.7	44	50.6	55.4	62.8	70.1					57.9	6

SIGN NUMBER 48

NOTE:
FONT:
(1) ClearviewHwy-5-W
(2) SEE PAVEMENT MARKING AND SIGNING PLAN FOR PLACEMENT INFORMAION

PATRICK ENGINEERING INC.
4970 VARSITY DRIVE
LISLE, IL 60532
patrickengineering.com

USER NAME = tkoeppen(Rdwy_Lisle)	DESIGNED - CPK	REVISED -	
PLOT CONFIG= PDF(Grey_Small).plt	DRAWN - MJP	REVISED -	
PLOT SCALE = 1:1.0	CHECKED - JAH	REVISED -	
PLOT DATE = 2/18/2013 5:15:00 PM	DATE - 2/18/2013	REVISED -	

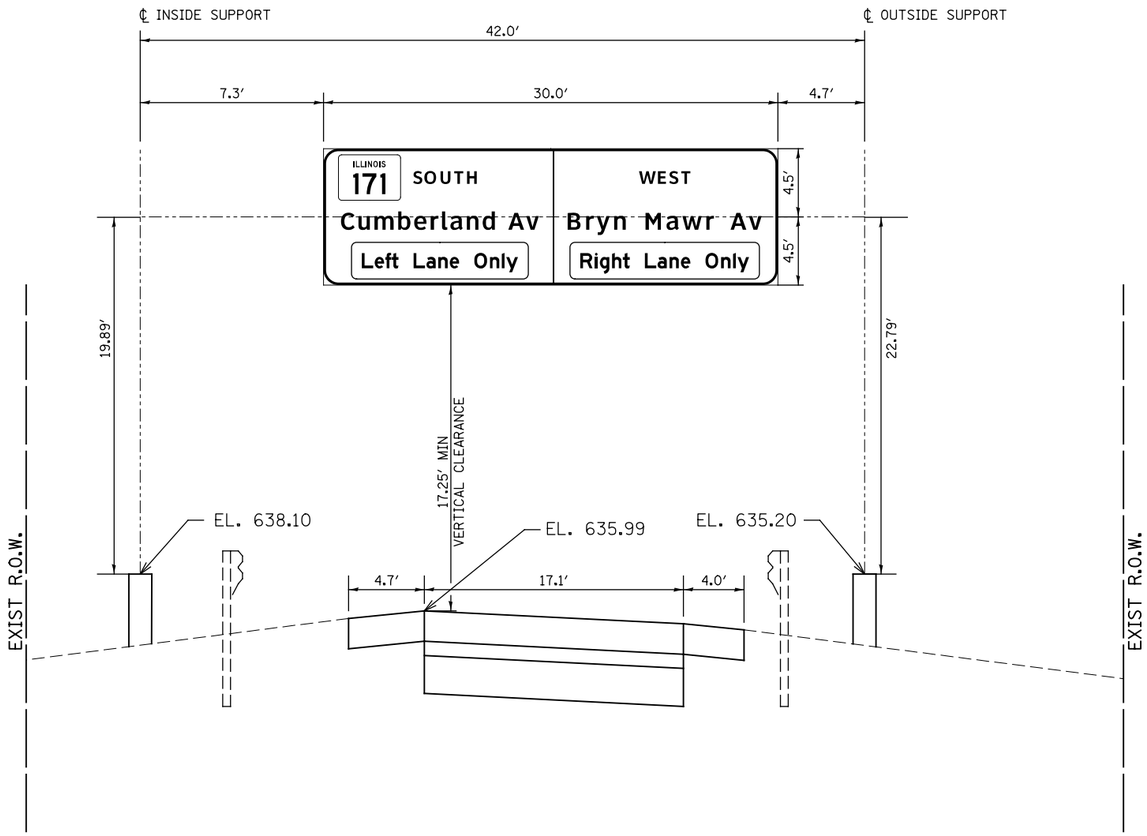
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING PLAN
SIGN LEGEND

SCALE: NA | SHEET PMK-09 OF 9 | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	144
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Q:\IDOT\21050.026_CumberlandAve\Drawings\CADD Sheets\D160J14-sht-pmk-sign legend 2.dgn



OVERHEAD SIGN

I-90 RAMP 6
STA. 12+95.00
(LOOKING SOUTHEAST)

PATRICK ENGINEERING
PATRICK ENGINEERING INC.
4970 VARSITY DRIVE
LISLE, IL 60532
patrickengineering.com

USER NAME = tkoepper(Rdwy_Lisle)	DESIGNED - CPK	REVISED -
PLOT CONFIG= PDF(Grey_Small).plt	DRAWN - MJP	REVISED -
PLOT SCALE = 1:1.0	CHECKED - JAH	REVISED -
PLOT DATE = 2/19/2013 9:29:00 AM	DATE - 2/18/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURE
SIGN DETAILS

SCALE: | SHEET SGN-1 OF 10 | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	145
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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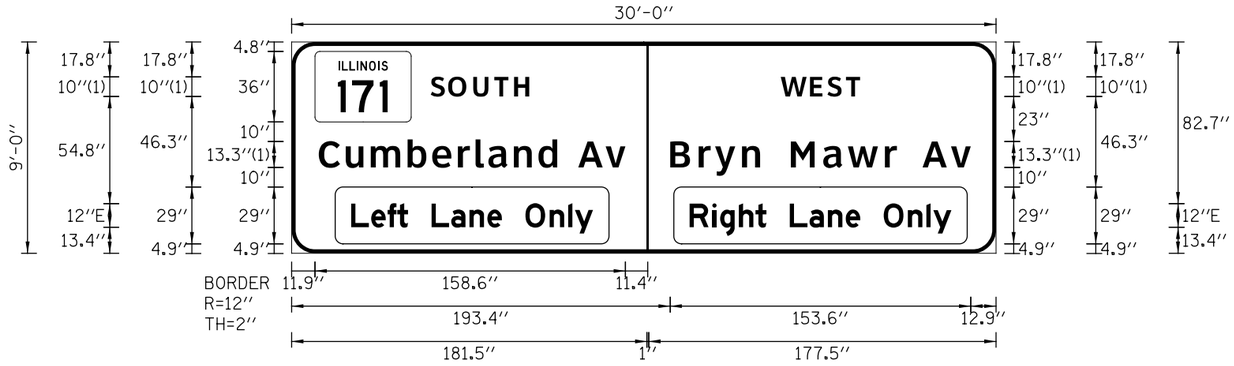
SIGN DETAIL

1:10



FONT:
(1) ClearviewHwy-5-W

Panel Style: guide_fwy_next_x_exits.ssi
M.U.T.C.D.: 2003 Edition

Panel Style: guide_fwy_next_x_exits.ssi
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

SIGN NUMBER	1S016S078L000.3
WIDTH x HGHT.	30'-0" x 9'-0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green/Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
M1-1100A-3-22-10D		11.9	67.2	49.1	36

LETTER POSITIONS (X)

																																		LENGTH	SERIES/SIZE
S	O	U	T	H																															ClearviewHwy-5-W
71	79.9	92.8	103.5	113.7																														50.3	10
W	E	S	T																																ClearviewHwy-5-W
250	264.9	273.8	283.3																															40.6	10
C	u	m	b	e	r	l	a	n	d		A	v																							ClearviewHwy-5-W
13.9	27.7	40.5	59.2	71.8	85	93.9	100.5	113.5	126.1	135.7	146.4	160.5																						156.7	13.3/10.8
B	r	y	n		M	a	w	r		A	v																								ClearviewHwy-5-W
193.4	208	216.4	230.2	239.4	255.2	271.7	284.3	303.2	309.3	322.4	337																							153.6	13.3/10.8
L	e	f	t		L	a	n	e		O	n	l	y																						E 2000
30.4	40.6	49	53.9	59.5	71.5	81.5	90.9	100	107.5	119.5	131.8	141.3	144.8																					123.6	12/8.8
R	i	g	h	t		L	a	n	e		O	n	l	y																					E 2000
203.4	215	219	228.6	237.1	242.6	254.6	264.7	274	283.2	290.6	302.6	315	324.4	327.9																				133.8	12/8.8

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USER NAME = tkoeppen(Rdwy_Lisle)	DESIGNED - CPK	REVISED -
PLOT CONFIG= PDF(Grey_Small).plt	DRAWN - MJP	REVISED -
PLOT SCALE = 1:1.0	CHECKED - JAH	REVISED -
PLOT DATE = 2/19/2013 9:29:00 AM	DATE - 2/18/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

OVERHEAD SIGN STRUCTURE
SIGN DETAILS

SCALE: | SHEET SGN-2 OF 10 | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	146
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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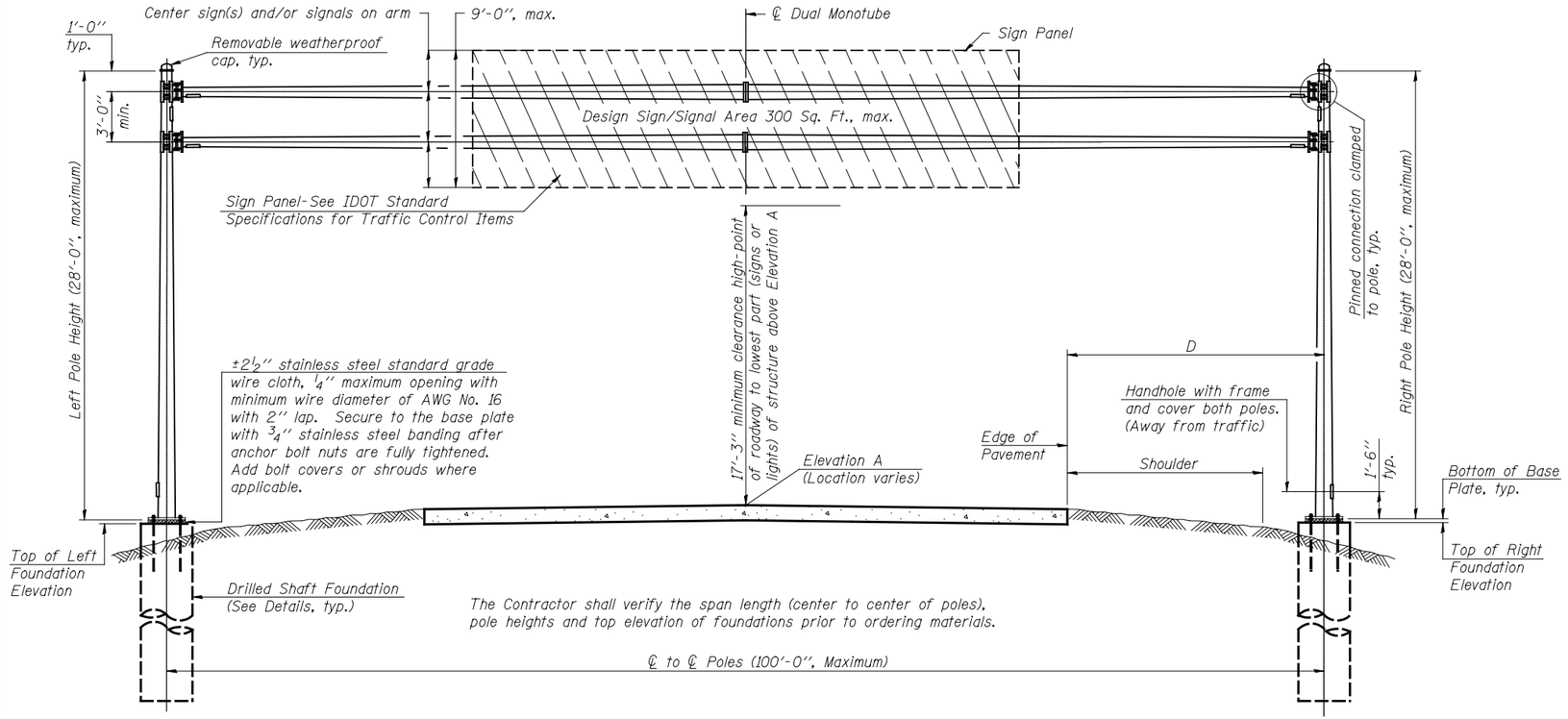

ELEVATION

Looking at face of signs.
Looking upstation for structures with signs both sides.

GENERAL NOTES

DESIGN: Current (at time of letting) AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals (Fatigue Category II - natural wind gust only).

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Recurring Special Provisions. ("Standard Specifications") All references to "Mast Arm Assembly and Pole" are applicable, unless otherwise noted.

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 Structural Welding Code and the Standard Specifications.

ANCHOR RODS: Shall conform to ASTM F1554 Grade 105. No welding shall be permitted on rods.

FASTENERS: All connection bolts shall be High Strength Bolts M164, Galvanize M232 (A153), Type 3, or stainless steel heavy hex conforming to ASTM A193, Grade B8 or B8M, Class 1. U-bolts shall be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished, or an equivalent material acceptable to the Engineer. Nuts for stainless steel bolts shall be stainless steel conforming to ASTM A194, Grade 8 (AISI Type 304) or Grade 8F (AISI Type 303). All nuts shall be "locknuts" with nylon or steel inserts and semifinished hexagonal heads equivalent to the finished heavy hex series of the American National Standard. Washers for stainless steel bolts shall be stainless steel conforming to ASTM A240, Type 302 or 304.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

CAMBER: Minimum AASHTO camber = L / 1000 + dead load camber

FOUNDATIONS: The contract unit price for Drilled Shaft Concrete Foundations shall include reinforcement bars complete in place.

SIGN STRUCTURE DATA TABLE

Structure Number	Station	℄ to ℄ Poles	Elevation A	Dimension D	Actual Sign/Signal Area	Left Foundation					Right Foundation					Class SI Concrete (Cu. Yds.)
						Elevation Top	Elev. Bottom	A	B	F	Elevation Top	Elev. Bottom	A	B	F	
1M016I190R000.6	12+95.00 (Ramp 6)	42.0	635.99	11'-2"	270	638.10	624.60	1'-6"	12'-0"	13'-6"	635.20	621.70	1'-6"	12'-0"	13'-6"	7.1

BILL OF MATERIAL

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE- SPAN, DUAL MONOTUBE	Foot	42.0
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	7.1

DUALTUBE - 1 6-1-12

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LISLE, IL 60532
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PLOT SCALE =	CHECKED - JAH	REVISED	
PLOT DATE =	DATE - 2/18/2013	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELEVATION AND NOTES
DUAL MONOTUBE SIGN STRUCTURE

SCALE: SHEET NO. SGN-3 OF 10 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	147
		CONTRACT NO. 60J14		
	ILLINOIS	FED. AID PROJECT		

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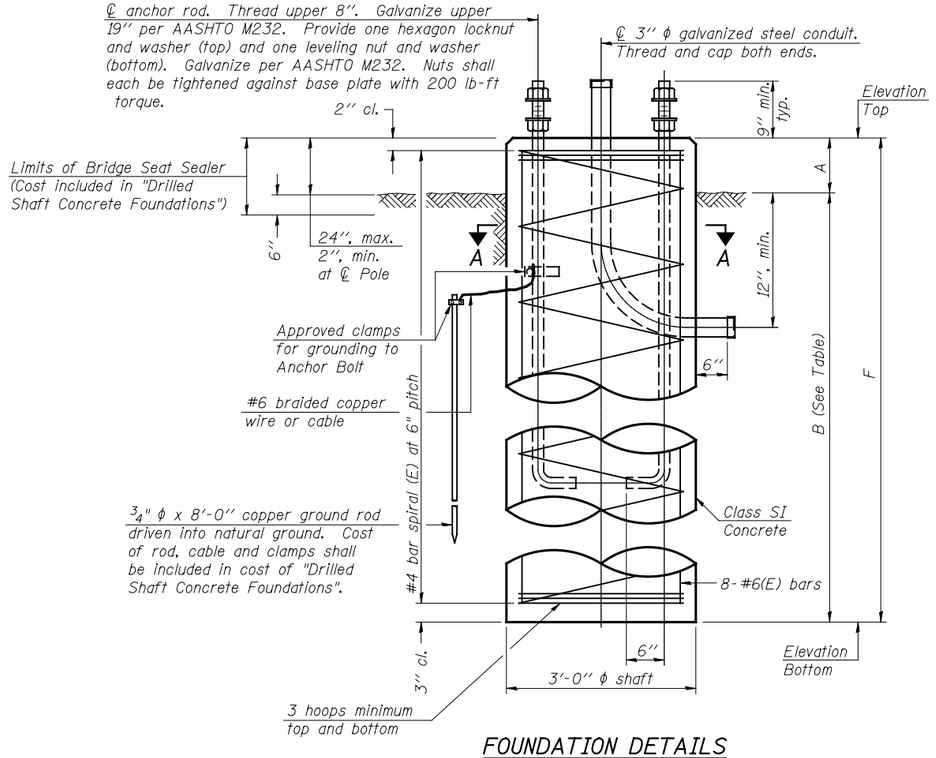


FOUNDATION DETAILS

Typical, except conduit may only be required at one foundation. Provide conduit openings both poles.

Foundation Design Table	
Span (Ft.)	B (Ft.)
Span ≤ 65	12
65 < Span ≤ 85	13
85 < Span ≤ 100	14

FOUNDATIONS:

The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12'' by the Contractor, ''as-built'' plans shall be prepared and submitted to the District Bureau of Operations for future reference.

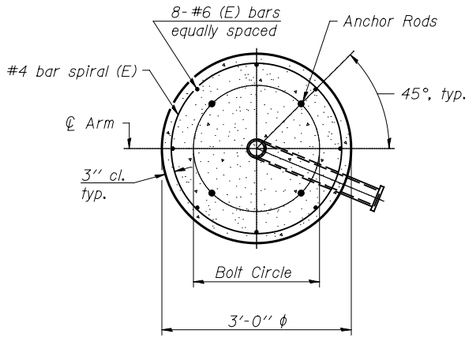
No sonotubes or decomposable forms shall be used below the lower conduit entrance.

Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

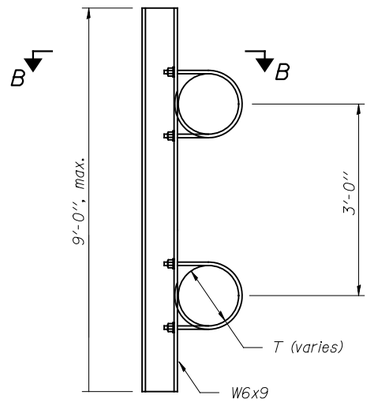
Concrete shall be placed monolithically, without construction joints.

Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

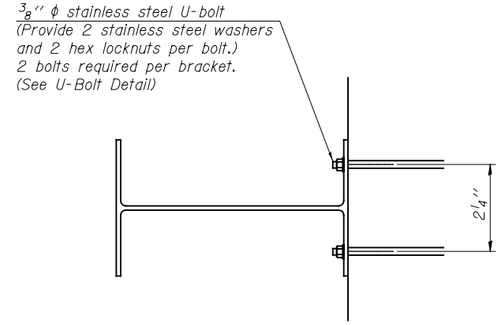
A normal surface finish followed by a Bridge Seat Sealer application will be required on concrete surfaces above the lowest elevation 6'' below finished ground line. Cost included in ''Drilled Shaft Concrete Foundation''.



SECTION A-A

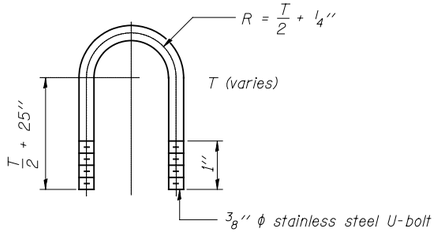


SIGN MOUNTING BRACKET



SECTION B-B

6'-0'' maximum spacing.
2'-0'' maximum sign overhang beyond end bracket.



U-BOLT DETAIL

(Typical)

DUALTUBE - 2 6-1-12

PATRICK ENGINEERING
PATRICK ENGINEERING INC.
4970 VARSITY DRIVE
LISLE, IL 60532
patrickengineering.com

USER NAME =	DESIGNED - CPK	REVISED
	DRAWN - MJP	REVISED
PLOT SCALE =	CHECKED - JAH	REVISED
PLOT DATE =	DATE - 2/18/2013	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOUNDATION AND DETAILS
DUAL MONOTUBE SIGN STRUCTURE

SCALE: SHEET NO. SGN-4 OF 10 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	148
		CONTRACT NO. 60J14		
	ILLINOIS	FED. AID PROJECT		

Q:\IDOT\21050_006_CumberlandAve\Drawings\CADD Sheets\D160J14-sht-sign-DHDT2.dgn

BLOOM COMPANIES, LLC. — Chicago, IL

BORING LOG

JOB NO: BM3-1334 CLIENT: Illinois Department of Transportation — BORING NO: B-1
PROJECT: Proposed Retaining Wall and Sign Structure — STATION: 11+95
LOCATION: Cumberland Avenue Exit Ramp at I-90 East — OFFSET: 21.0 RT
BORING RIG & METHOD: Diedrich D-50 w/Hollow Stem Augers — SURF ELEV: 636.4

DEPTH	SAMPLE FROM - TO	ELEV.	SOIL DESCRIPTION	REC.	BLOWS/6"	q_u	STRAIN %	WATER CONTENT %
		635.8	3.5" Biuminous Concrete Pavement					
	0.0-1.0	634.9	FILL: Gr Sand A-1-a, trace Gravel		Auger			3.8
	1.0-2.5			14	4 2-3	2.4	15	12.2
5	3.5-5.0	629.4	Very Stiff Gr Silty Clay A-6, trace Gravel	10	4 6-10	(3.2)		19.3
	6.0-7.5			14	4 5-5			18.4
10	8.5-10.0		Medium Dense Gr Sand A-3, trace Gravel	16	3 5-8			8.1
	11.0-12.5	623.4		18	5 5-7			15.1
15	13.5-15.0	621.4	Medium Dense Gr Sand A-2-4, trace Gravel	16	5 10-10			20.8
	16.0-17.5		Stiff Gr Silty Clay A-4, trace Gravel	18	3 4-6	1.6	15	11.7
20	18.5-20.0	616.4		12	7 8-11	(1.2)		13.7

Boring Terminated @ 20 feet

REMARKS Caved in at 10.5'. Backfilled w/soil cutting and Bentonite Chips.
- Automatic Hammer Used.

( ) Denotes Calibrated Penetrometer Estimate

WATER	13.5 FT. ELEV.	622.9 DURING DRILLING	∇ CORE SIZE	IN.	DATE:	Nov 28, 11
WATER	Dry FT. ELEV.	AT COMPLETION	▼ CASING LENGTH	FT.	DRILLER:	G. Shlimon
WATER	FT. ELEV.	AFTER HRS.	∇ CASING DIAMETER	IN.	INSPECTOR:	M. Sanati

EIDN BM3-1334 I90 AND CUMBERLAND AVE. RETAING WALL.GPJ 05/11/12

BLOOM COMPANIES, LLC. — Chicago, IL

BORING LOG

JOB NO: BM3-1334 CLIENT: Illinois Department of Transportation — BORING NO: B-2
PROJECT: Proposed Retaining Wall and Sign Structure — STATION: 11+95
LOCATION: Cumberland Avenue Exit Ramp at I-90 East — OFFSET: 12.0 LT
BORING RIG & METHOD: Diedrich D-50 w/Hollow Stem Augers — SURF ELEV: 636.6

DEPTH	SAMPLE FROM - TO	ELEV.	SOIL DESCRIPTION	REC.	BLOWS/6"	q_u	STRAIN %	WATER CONTENT %
	0.0-1.0	635.6	FILL: Br to Gr Silty Clay A-7-6, trace Gravel		Auger			11.2
	1.0-2.5			13	5 6-7	3.8	15	11.7
5	3.5-5.0		Stiff to Very Stiff Gr Silty Clay A-6 (occasional sand seams)	14	3 3-5	1.5	15	18.8
	6.0-7.5	628.6		12	4 4-6	2.7	15	12.6
10	8.5-10.0	625.6	Loose Gr/Br M-C Sand A-3, trace Gravel	16	2 3-4			16.7
	11.0-12.5			18	5 5-6			10.9
15	13.5-15.0		Loose to Medium Dense Gr Sand A-2-4	18	7 8-10			18.3
	16.0-17.5	619.1		18	3 4-3			21.2
20	18.5-20.0	616.6	Very Stiff Gr Silty Clay A-6, trace Gravel	18	5 7-8	2.2	15	16.1

Boring Terminated @ 20 feet

REMARKS Caved in at 10.5'. Backfilled w/soil cutting and Bentonite Chips.
- Automatic Hammer Used.

( ) Denotes Calibrated Penetrometer Estimate

WATER	13.5 FT. ELEV.	623.1 DURING DRILLING	∇ CORE SIZE	IN.	DATE:	Nov 28, 11
WATER	Dry FT. ELEV.	AT COMPLETION	▼ CASING LENGTH	FT.	DRILLER:	G. Shlimon
WATER	FT. ELEV.	AFTER HRS.	∇ CASING DIAMETER	IN.	INSPECTOR:	M. Sanati

EIDN BM3-1334 I90 AND CUMBERLAND AVE. RETAING WALL.GPJ 05/11/12

BLOOM COMPANIES, LLC. — Chicago, IL

BORING LOG

JOB NO: BM3-1334 CLIENT: Illinois Department of Transportation — BORING NO: B-3
PROJECT: Proposed Retaining Wall and Sign Structure — STATION: 14+58
LOCATION: Cumberland Avenue Exit Ramp at I-90 East — OFFSET: 16.8 RT
BORING RIG & METHOD: Diedrich D-50 w/Hollow Stem Augers — SURF ELEV: 634.8

DEPTH	SAMPLE FROM - TO	ELEV.	SOIL DESCRIPTION	REC.	BLOWS/6"	q_u	STRAIN %	WATER CONTENT %
		634.1	6.5" Bituminous Concrete Pavement					
	0.0-1.0	632.8	FILL: Gray Sand A-1-a, trace Gravel		Auger			1.5
	1.0-2.5			12	5 2-2	(1.5)		17.7
5	3.5-5.0		Stiff to Very Stiff Gr Silty Clay A-6, trace Gravel	16	2 3-7	3.5	15	16.6
	6.0-7.5	626.8		14	2 2-2	1.4	15	18.8
10	8.5-10.0	624.8	Medium Dense Gr Sand A-2-4, trace Gravel	14	9 6-9			18.6
	11.0-12.5			13	2 4-6	1.4	15	19.9
15	13.5-15.0		Stiff to Very Stiff Gr Silty Clay A-6, trace Gravel	16	3 5-7	2.8	15	22.8
	16.0-17.5			16	6 5-6	3.0	15	10.5
20	18.5-20.0	614.8		16	3 5-7	2.7	15	20.3

Boring Terminated @ 20 feet

REMARKS Caved in at 15'. Backfilled w/soil cutting, Bentonite Chips and Cold Asphalt patch.
- Automatic Hammer Used.

( ) Denotes Calibrated Penetrometer Estimate

WATER	11.0 FT. ELEV.	623.8 DURING DRILLING	∇ CORE SIZE	IN.	DATE:	Nov 28, 11
WATER	14.0 FT. ELEV.	620.8 AT COMPLETION	▼ CASING LENGTH	FT.	DRILLER:	G. Shlimon
WATER	FT. ELEV.	AFTER HRS.	∇ CASING DIAMETER	IN.	INSPECTOR:	M. Sanati

EIDN BM3-1334 I90 AND CUMBERLAND AVE. RETAING WALL.GPJ 05/11/12

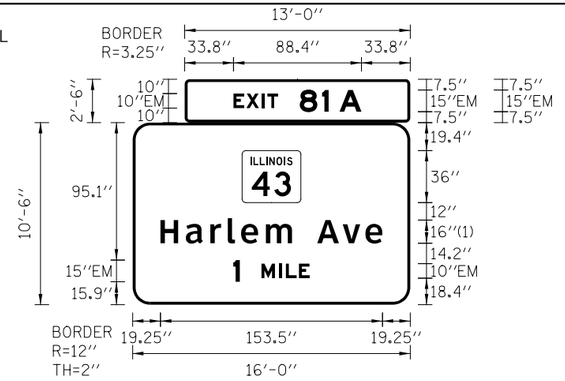
PATRICK ENGINEERING INC. 4970 VARSITY DRIVE LISLE, IL 60532 patrickengineering.com	USER NAME =	DESIGNED - CPK	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BORING LOGS DUAL MONOTUBE SIGN STRUCTURE
		DRAWN - MJP	REVISED		
	PLOT SCALE =	CHECKED - JAH	REVISED		SCALE: SHEET NO. SGN-5 OF 10 SHEETS
	PLOT DATE =	DATE - 2/18/2013	REVISED		

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	149
		CONTRACT NO. 60J14		
		ILLINOIS FED. AID PROJECT		

Q:\IDOT\21050.006_CumberlandAve\Drawings\CADD Sheets\D160J14-sht-blog-ss3.dgn

SIGN DETAIL

1:75



SIGN NUMBER	SIGN PANEL 1
WIDTH x HGHT.	16'-0" x 10'-6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Color 24
LEGEND/BORDER	TYPE: Reflective
	COLOR: Color 100/Color 100

SYMBOL	ROT	X	Y	WID	HT
M1-1100A-2-32-15D	0	75.7	70.6	40.5	36

Panel Style: guide_exp_overhead.ssi
Dimensions are in inches.tenths

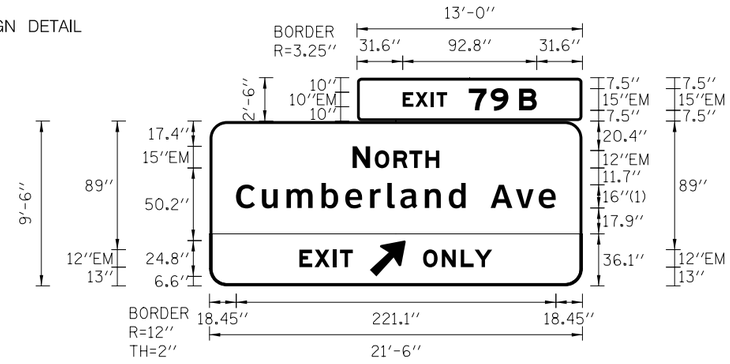
FONT:
(1) ClearviewHwy-5-W

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																					LENGTH	SERIES-SIZE
E	X	I	T	8	1	A																EM 2000
33.8	42.6	53.4	57.2	79.6	95	107															88.4	10,15
H	a	r	l	e	m		A	v	e													ClearviewHwy-5-W
19.2	36.8	53.8	65.8	75	92.2	110.4	127.7	145.3	161												153.5	1613
1	M	I	L	E																		EM 2000
69.6	89.1	101.2	106	115																	52.8	15,10

SIGN DETAIL

1:75



SIGN NUMBER	SIGN PANEL 2
WIDTH x HGHT.	21'-6" x 9'-6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Color 24
LEGEND/BORDER	TYPE: Reflective
	COLOR: Color 100/Color 100

SYMBOL	ROT	X	Y	WID	HT
AR_Type A	315	110.9	6.6	20	31.5

Panel Style: guide_exp_overhead.ssi
Dimensions are in inches.tenths

FONT:
(1) ClearviewHwy-5-W

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																					LENGTH	SERIES-SIZE
E	X	I	T	7	9	B																EM 2000
31.6	40.4	51.2	55	77.4	92.6	112.2															92.8	10,15
N	O	R	T	H																		EM 2000
99	114.3	127.3	138.3	149.3																	60.1	15,12
C	u	m	b	e	r	l	a	n	d		A	v	e									ClearviewHwy-5-W
18.4	36.3	53.3	77.5	93.9	111.1	123.1	132	149	165.6	177.2	194.5	212.1	227.8								221.1	1613
E	X	I	T																			EM 2000
62.2	72.7	85.7	90.2																		37	12
O	N	L	Y																			EM 2000
147.7	160.7	173.8	183.4																		47.8	12

NOTE:

(1) SEE BRIDGE MOUNTED SIGN PANEL LAYOUT DETAIL.

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PATRICK ENGINEERING INC.
4970 VARSITY DRIVE
LISLE, IL 60532
patrickengineering.com

USER NAME = tkoeppen(Rdwy_Lisle)	DESIGNED - CPK	REVISED -	
PLOT CONFIG= PDF(Grey_Small).plt	DRAWN - MJP	REVISED -	
PLOT SCALE = 1:1.0	CHECKED - JAH	REVISED -	
PLOT DATE = 2/19/2013 9:24:41 AM	DATE - 2/18/2013	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

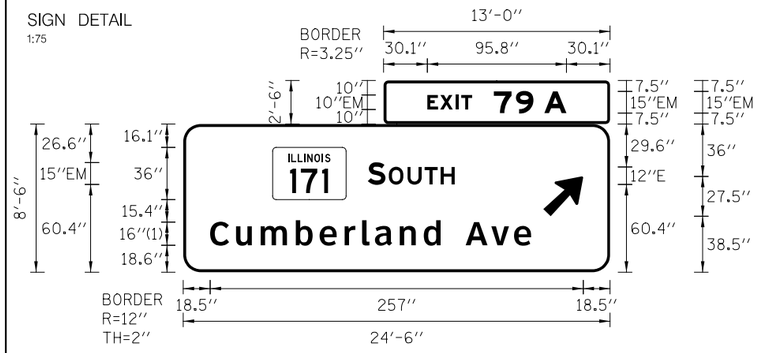
BRIDGE MOUNTED SIGN DETAILS

SCALE: | SHEET SGN-6 OF 10 | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	150
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Q:\IDOT\21050.026_CumberlandAve\Drawings\CADD Sheets\D160J14-sht-sign_Detail2.dgn

SIGN DETAIL
1:75



SIGN NUMBER	SIGN PANEL 3
WIDTH x HGHT.	24'-6" x 8'-6"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Color 24
LEGEND/BORDER	TYPE: Reflective
	COLOR: Color 100/Color 100

SYMBOL	ROT	X	Y	WID	HT
M1-1(100A-3-32-150)		61.5	49.9	50.6	36
AR_Type A	315	248	38.5	22.2	34.9

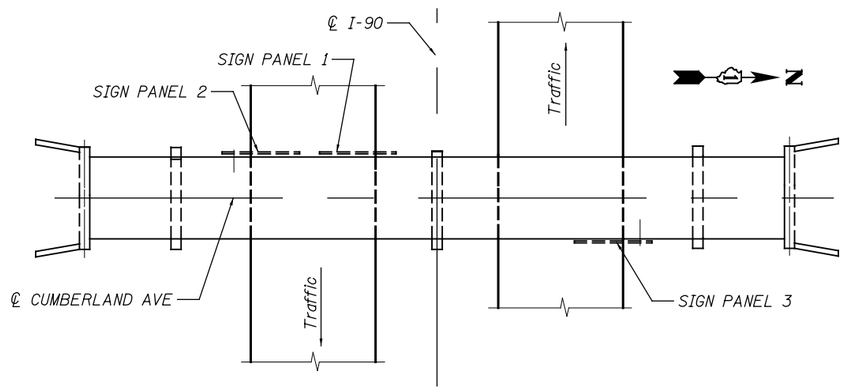
Panel Style: guide_exp_overhead.ssi
Dimensions are in inches.tenths

FONT:
(1) ClearviewHwy-5-W

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)

																				LENGTH	SERIES/SIZE
E	X	I	T	7	9	A															EM 2000
30.1	38.9	49.7	53.5	75.9	91.1	110.7														95.8	10,15
S	O	U	T	H																	EM 2000,E 2000
127.1	141.6	154.4	166.2	177.2																59.8	15,12
C	u	m	b	e	r	l	a	n	d		A	v	e								ClearviewHwy-5-W
18.5	36.4	53.4	77.6	94	111.2	123.2	132.1	149.1	165.6	177.3	194.5	212.1	227.9							221.1	1613



BRIDGE MOUNTED SIGN PANEL LAYOUT

PATRICK ENGINEERING INC.
4970 VARSITY DRIVE
LISLE, IL 60532
patrickengineering.com

USER NAME = tkoeppen(Rdwy_Lisle)	DESIGNED - CPK	REVISED -
PLOT CONFIG= PDF(Grey_Small).plt	DRAWN - MJP	REVISED -
PLOT SCALE = 1:1.0	CHECKED - JAH	REVISED -
PLOT DATE = 2/19/2013 9:24:42 AM	DATE - 2/18/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE MOUNTED SIGN DETAILS

SCALE: | SHEET SGN-7 OF 10 | STA. | TO STA.

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	151
				60J14

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

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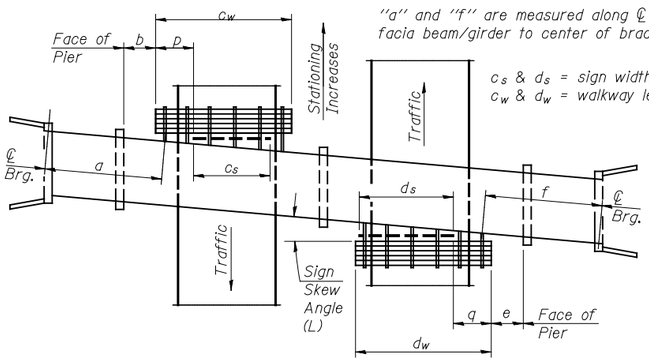
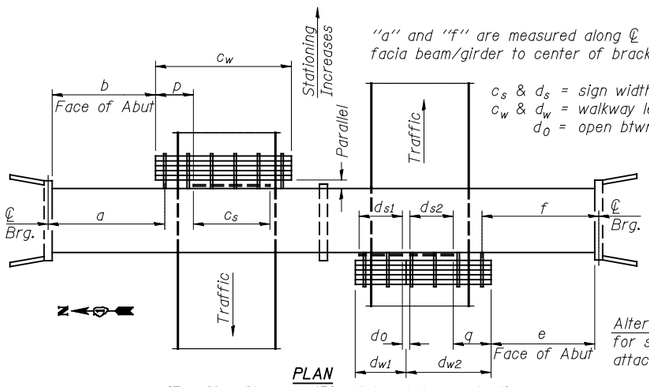


PLAN

(Left Sign Skew > 15°)

WALKWAY AND HANDRAIL SKETCH

(Road plan beneath structure varies.)

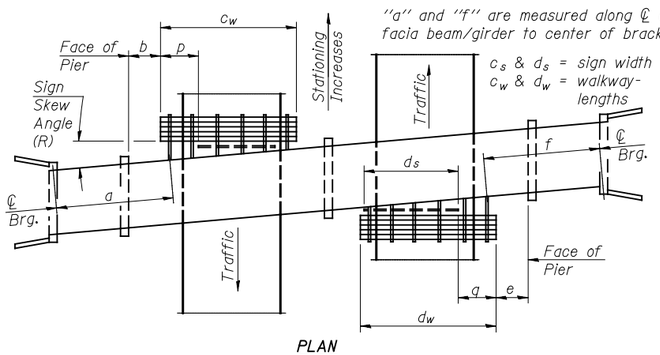


PLAN

(For Sign Skew ≤ 15°, all brackets constant)

WALKWAY AND HANDRAIL SKETCH

(Road plan beneath structure varies.)

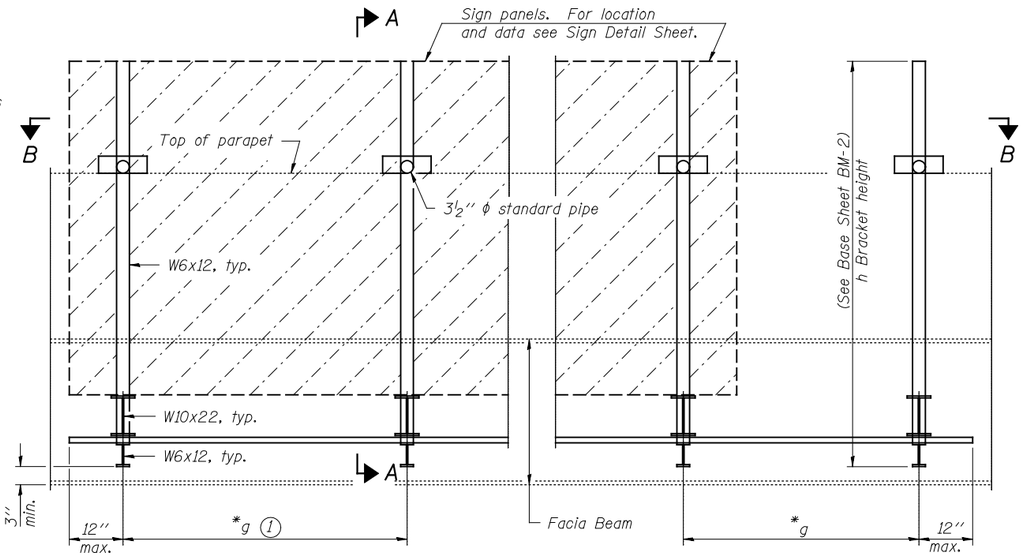


PLAN

(Right Sign Skew > 15°)

WALKWAY AND HANDRAIL SKETCH

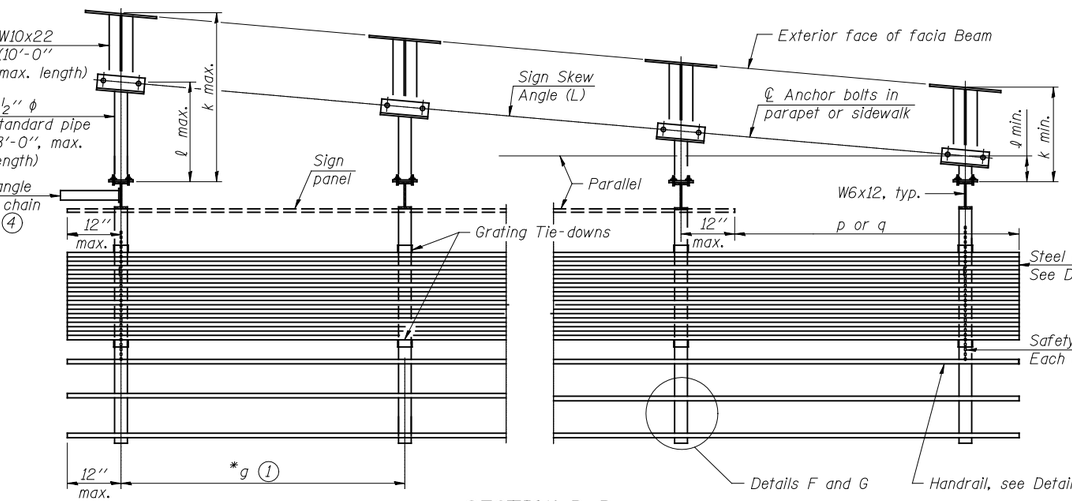
(Road plan beneath structure varies.)



*For sign support spacing see Bridge Plans.

TYPICAL FRONT ELEVATION

(With lights, safety chain and handrail omitted for clarity.)



SECTION B-B

(Shown: Left Sign Skew > 15°)

GENERAL NOTES

SPECIFICATIONS:

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications") (2)

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 90 M.P.H. WIND VELOCITY

WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

MINIMUM CLEARANCE: 3" greater than bridge members at all locations. (All Obstructions)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 Structural Welding Code (Steel) and the Standard Specificiations.

MATERIALS: All Structural Steel Pipe shall be ASTM A53 Grade B with a minimum yield of 35,000 p.s.i., or A500 Grade B or C with a minimum yield of 46,000 p.s.i. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53.
All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 (M183, M223 Gr. 50,).

HIGH STRENGTH BOLTS: All bolts, washers, nuts and locknuts shall satisfy the requirements of ASTM designation A307 unless noted as "H.S." which shall require AASHTO M164 (A325), ASTM A449, or approved alternate. All fasteners shall be hot dip galvanized per AASHTO M232 unless otherwise specified.

GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

ANCHOR RODS: All-threaded rod shall conform to ASTM F1554 Grade 105, $\frac{3}{4}$" ϕ x 12" long, each with one plate washer and locknut and be hot dip galvanized per AASHTO M232. They shall be either cast into the concrete or epoxy grouted in accordance with Section 584 of the Standard Specifications. Minimum embedment in concrete shall be 9".

(1) Bracket spacing g ≤ 6'-0", max. Spacing shall be uniform if possible but may vary ±6" to miss existing obstruction (rail post, light poles, web stiffeners, splice plates, etc.). Adjust bracket lengths accordingly on skewed structures.

(2) Any design modifications shall be based on the current version of applicable specifications and submitted for the Engineer's approval.

(3) Unit price includes brackets, supports, anchor bolts, fasteners, fabrication, delivery, erection, field drilling and other necessary items. Limits of payment are based on sign panel length (cs, ds1, ds2).

(4) Walkway and lighting not required. Use alternate brackets without walkway supports.

TOTAL BILL OF MATERIAL

(3) OVERHEAD SIGN STRUCTURE- BRIDGE MOUNTED	Foot	62.0

Structure Number	Sign Skew Angle (L) or (R)	Bridge Station	Bridge Structure Number	Contract Route Designation	a	b	c_s	c_w	d_o	d_{s1}	d_{s2}	d_{w1}	d_{w2}	e	f	No. of Brackets (Total)	p	q	Total Grating/ Hndrl. Lengths (c_w + d_w)
1B016I090R064.1	3° L	3383+30	016-1250	2746	——	——	——	——	4'-6"	16'-0"	21'-6"	——	——	——	43'-$11\frac{5}{8}$"	9	——	——	——
1B016I090L064.1	3° L	3383+30	016-1250	2746	64'-$11\frac{3}{4}$"	——	24'-6"	——	——	——	——	——	——	——	——	5	——	——	——

Dimensions a, b, e, f & g may vary as approved by the Engineer, see (1).
When c_w < c_s and/or d_w < d_s, use alternate brackets without walkway supports where applicable, see (3).

BM-1

6-1-12

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USER NAME =	DESIGNED - RLD	REVISED
	DRAWN - CPK	REVISED
PLOT SCALE =	CHECKED - JAH	REVISED
PLOT DATE =	DATE - 2/18/2013	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE MOUNTED SIGN STRUCTURE
GENERAL PLAN AND ELEVATION

SCALE: SHEET NO. SGN-8 OF 10 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	152
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			

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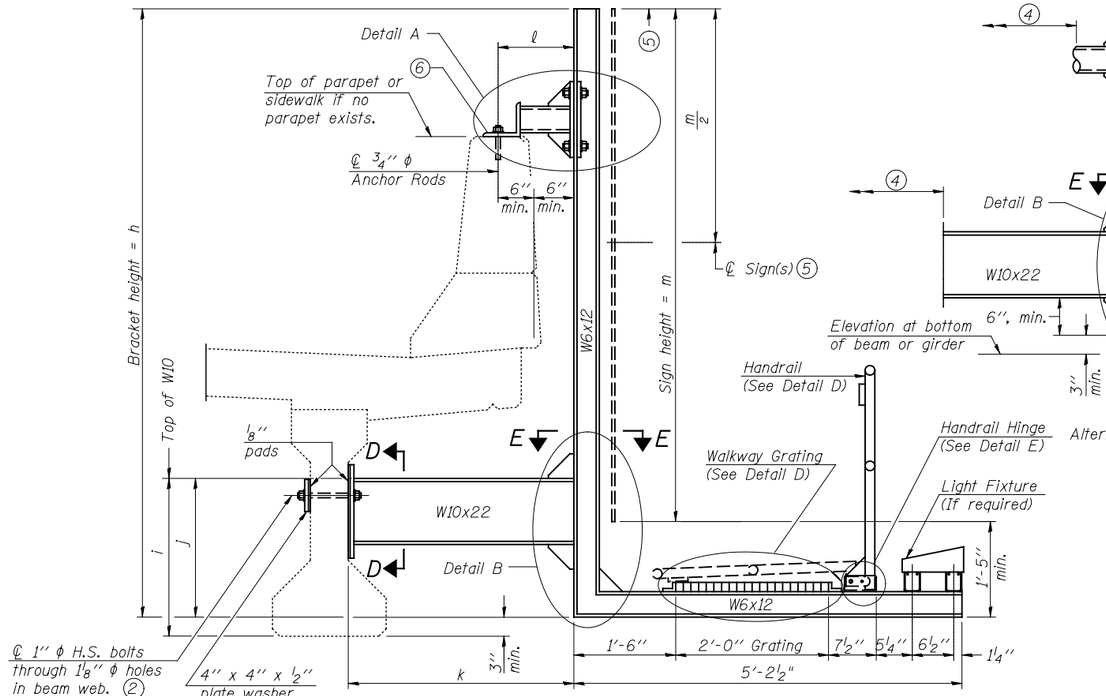
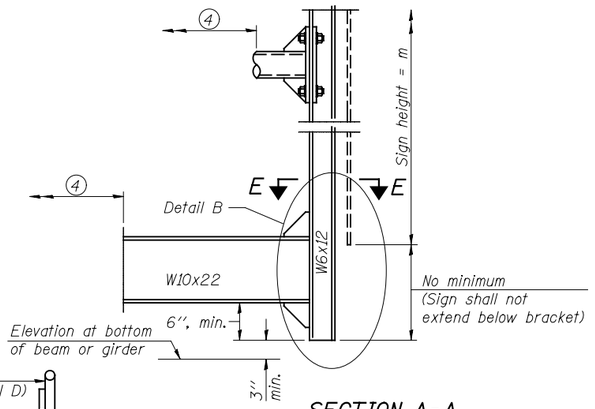


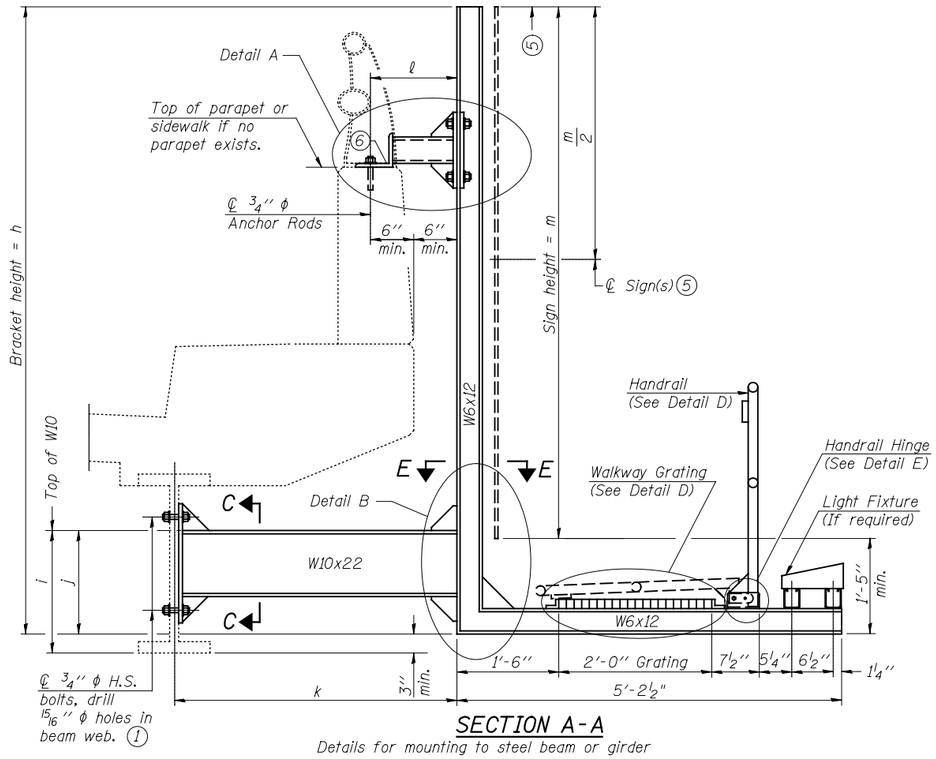
SECTION A-A

Details for mounting to PPC I Beam or Bulb "T" & Details for mounting to parapet w/o rail



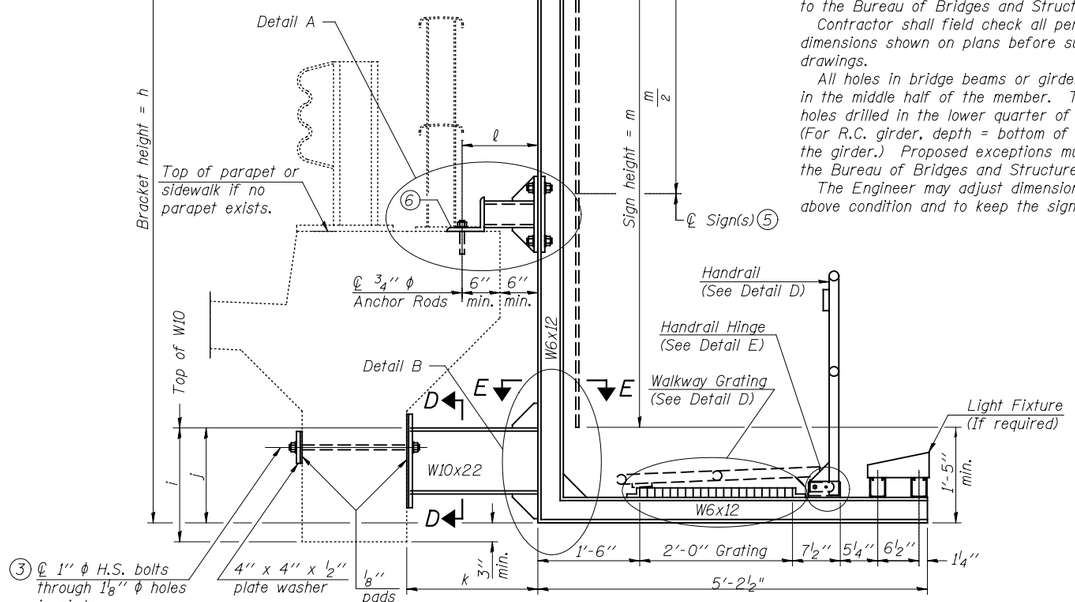
SECTION A-A

Alternate with no lights or walkways



SECTION A-A

Details for mounting to steel beam or girder & Details for mounting with existing parapet mounted rail



SECTION A-A

Details for mounting to integral reinforced concrete girder & Details for mounting on safety curb with surface-mount bridge rail

Notes:

Installations not within dimensional limits shown require special analysis for all components and must be submitted to the Bureau of Bridges and Structures for approval.

Contractor shall field check all pertinent existing bridge dimensions shown on plans before submitting shop drawings.

All holes in bridge beams or girders should be located in the middle half of the member. There shall be no holes drilled in the lower quarter of the member's depth. (For R.C. girder, depth = bottom of deck to bottom of the girder.) Proposed exceptions must be approved by the Bureau of Bridges and Structures.

The Engineer may adjust dimension "i" to meet the above condition and to keep the sign level.

① *Holes in new steel members may be drilled in the fabrication shop or in the field. Field drill existing members.*

② *For new PPC I beams, holes shall be formed during casting. For existing PPC I beams, prestressing strand locations shall be determined and spaced to miss strands by 6", min. Minimize spalling during field drilling of existing beams.*

③ *For new construction, form holes. For existing RC beams, locate primary reinforcement and space holes to miss by 6", min. Minimize spalling and concrete fracturing/damage during field drilling of existing concrete. Spalls over 1/4" deep or beyond the coverage of the 4x4 plate washer shall be repaired with epoxy mortar before installing washer.*

④ *For attachment details of 3 1/2" pipe and W10x22, see other sections as applicable.*

⑤ *Sign shall not extend more than 6" above top of bracket, and this dimension may vary to keep sign level if bridge is on grade or vertical curve. Multiple signs of various heights shall share a common horizontal centerline and use equal bracket heights. If no sign is attached to a W6x12 vertical (bracket only supporting walkway), dimension h shall be the same as an adjacent bracket with a sign attached, unless Engineer specifically directs shorter brackets due to locational restraints on future uses. (See Detail A for minimum bracket height.)*

⑥ *For bridge mounted sign structures installed on new bridges with railing, during design, bracket spacing must be coordinated with railing post spacing and the Contractor must install upper brackets prior to railing installation. For bridge mounted sign structures installed on existing bridges with railing, during design, brackets spacing must be coordinated with railing post spacing and the Contractor must temporarily remove sections of railing to facilitate upper bracket installation. If it is determined during design that existing railings can't be removed, alternate upper connection details must be developed for the contract plans and approved by the Bureau of Bridges and Structures.*

Structure Number	Station	h	i	j	k max. (10'-0" max.)	ℓ max. (8'-0" max.)	m (15'-0" max.)
1B016I0900R64.1	3382+60	13'-3"	2'-4"	2'-1"	4'-4"	1'-10"	13'-0"
1B016I0900L64.1	3384+00	11'-3"	2'-4"	2'-1"	3'-6"	1'-0"	11'-0"

For Details A & B, Sections C-C, D-D and E-E, see Base Sheet BM-3.
For Details D & E, see Base Sheet BM-4.

BM-2 6-1-12

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USER NAME =	DESIGNED - RLD	REVISED
	DRAWN - CPK	REVISED
PLOT SCALE =	CHECKED - JAH	REVISED
PLOT DATE =	DATE - 2/18/2013	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE MOUNTED SIGN STRUCTURE
WALKWAY AND CONNECTION DETAILS

SCALE: SHEET NO. SGN-9 OF 10 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	153
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			

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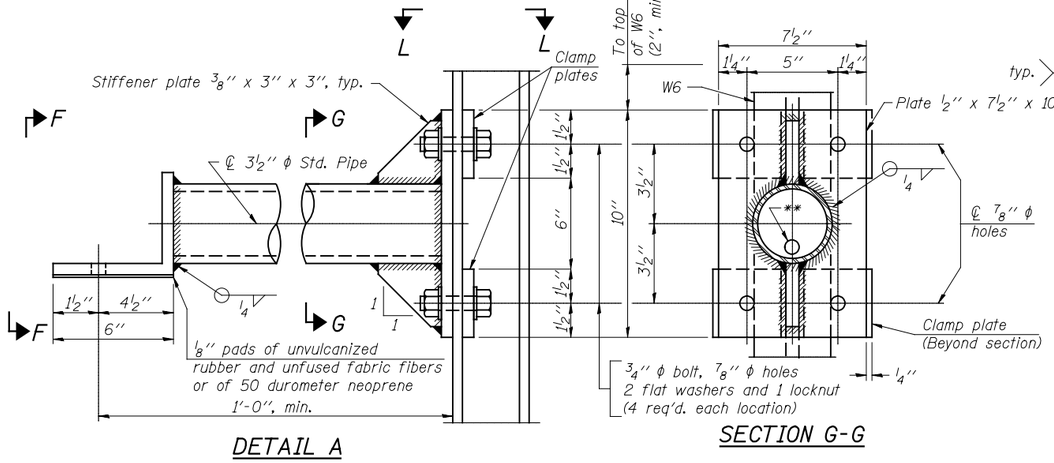
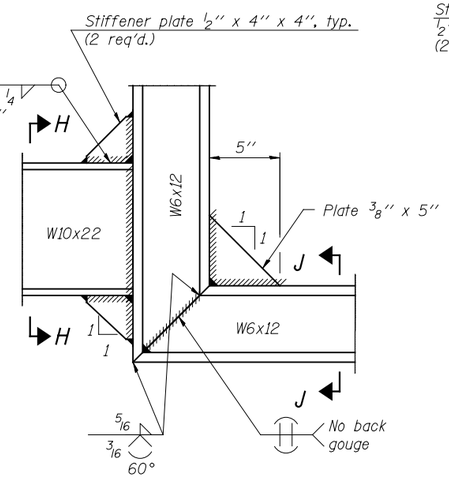
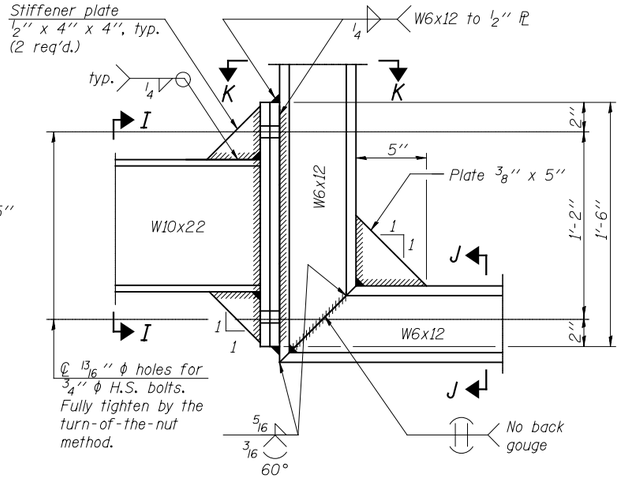


DETAIL A

SECTION G-G

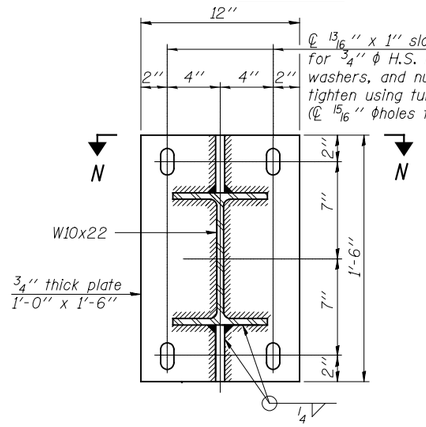


DETAIL B - WELDED W10x22 TO W6x12 CONNECTION



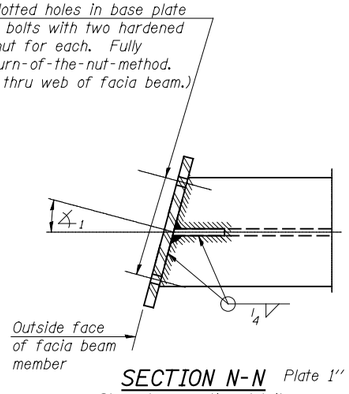
DETAIL B - ALTERNATE BOLTED W10x22 TO W6x12 CONNECTION

Alternate may be substituted by contractor to facilitate construction or galvanizing, especially on long struts for skewed bridges.



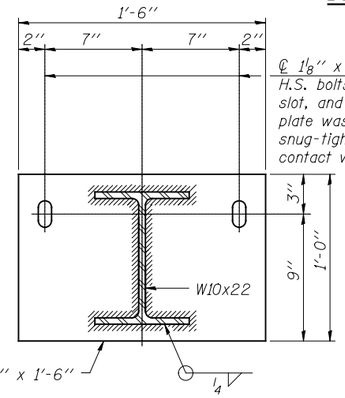
SECTION C-C

Steel beam or girder connection plate details



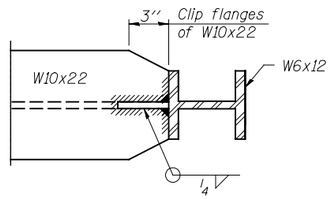
SECTION N-N

Skewed connection detail for W10x22 to facia beam.

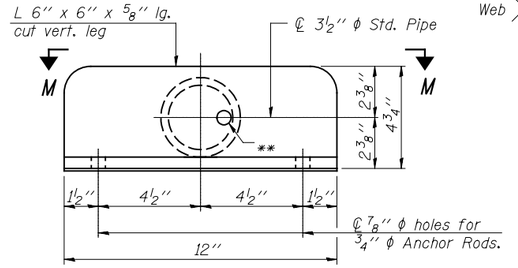


SECTION D-D

Concrete beam or girder connection plate details.

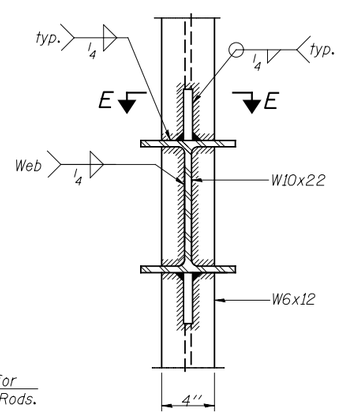


SECTION E-E

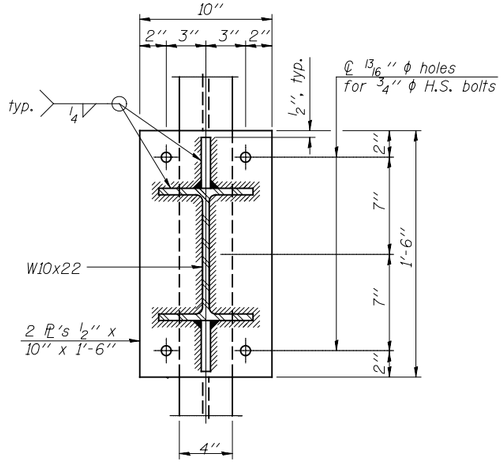


VIEW F-F

** 13/16" ϕ holes for galvanizing. After galvanizing, install 7/8" ϕ A307 hot-dip galvanized bolt to close hole in angle. (No bolt required in 1/2" plate.)

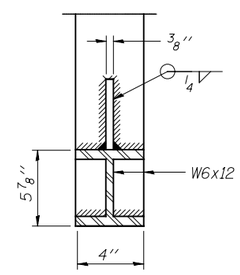


SECTION H-H

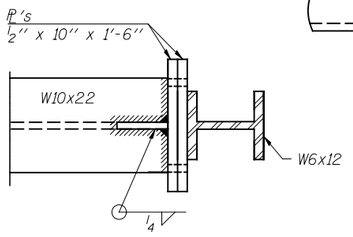


SECTION I-I

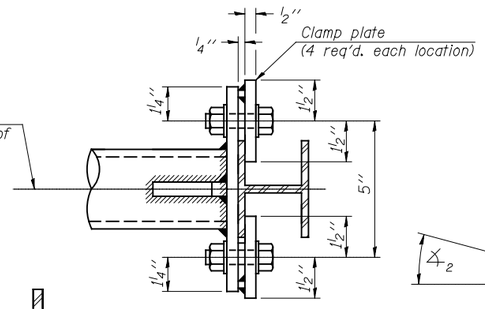
Note: For constant slab overhang at facia beam. $\measuredangle_1 = \measuredangle_2$ = sign angle. For flared beams or other special cases where $\measuredangle_1 \neq \measuredangle_2$, $\measuredangle_1$ = sign angle.



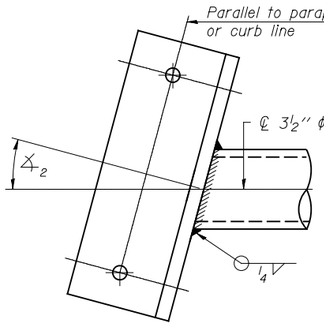
SECTION J-J



SECTION K-K

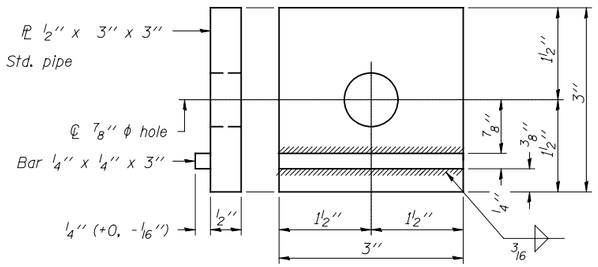


SECTION L-L



SECTION M-M

Skewed connection detail for 3 1/2" ϕ pipe to parapet.



CLAMP PLATE DETAILS

BM-3

6-1-12

PATRICK ENGINEERING INC. 4970 VARSITY DRIVE LISLE, IL 60532 patrickengineering.com	USER NAME =	DESIGNED - RLD	REVISED
		DRAWN - CPK	REVISED
	PLOT SCALE =	CHECKED - JAH	REVISED
	PLOT DATE =	DATE - 2/18/2013	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE MOUNTED SIGN STRUCTURE
CONNECTION DETAILS

SCALE: SHEET NO. SGN-10 OF 10 SHEETS

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	154
		CONTRACT NO. 60J14		
	ILLINOIS	FED. AID PROJECT		

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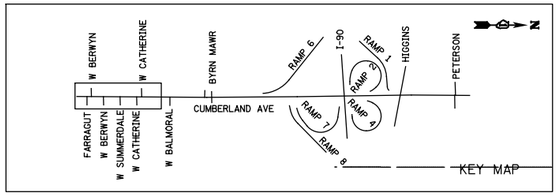
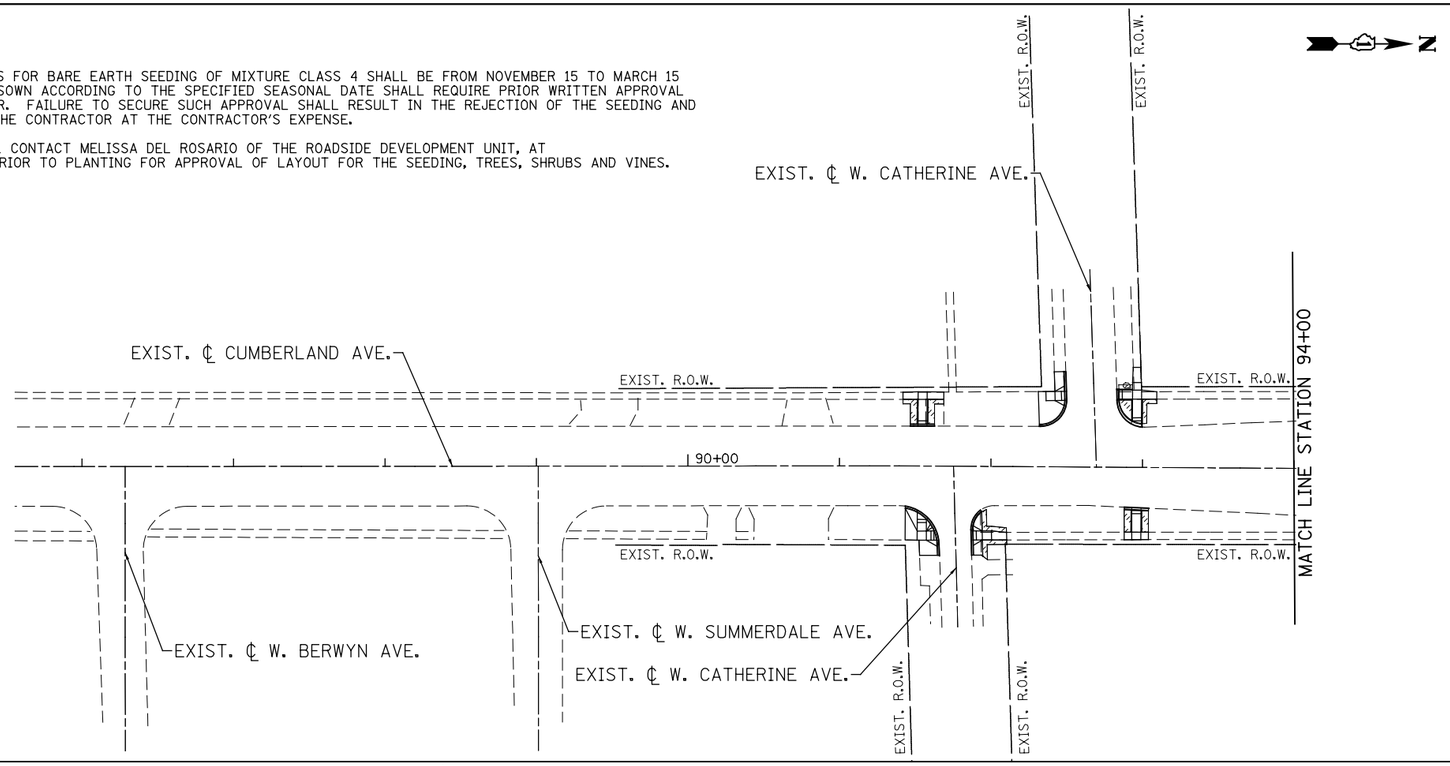


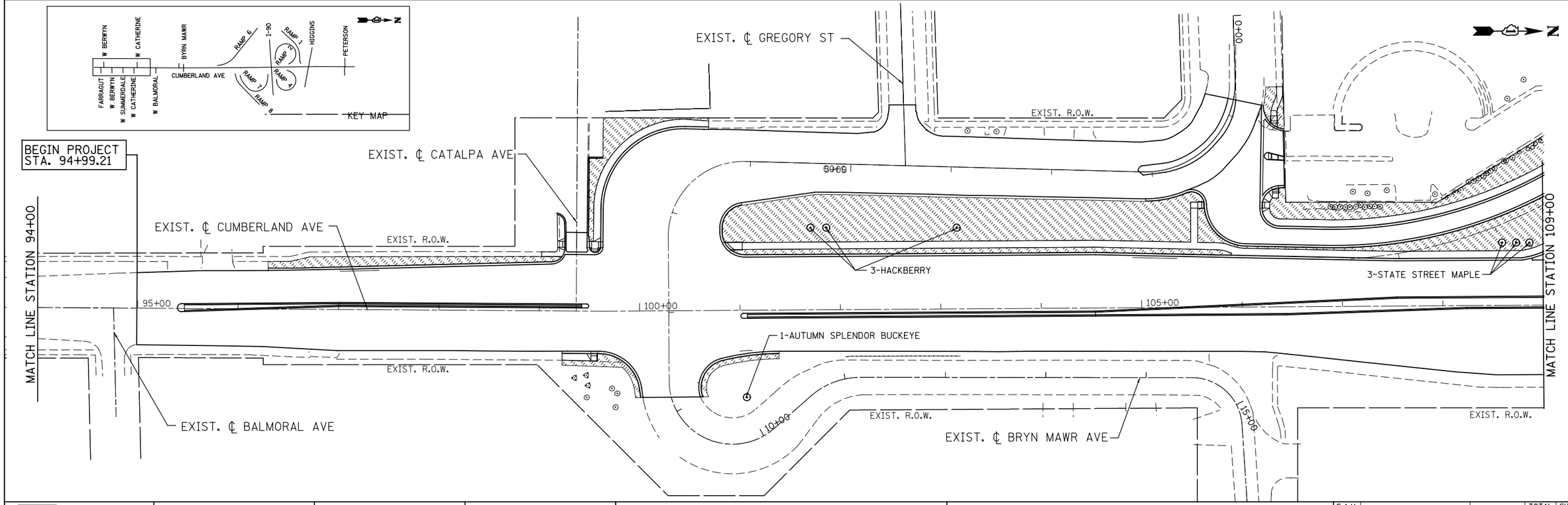
NOTES

1. THE SEEDING DATES FOR BARE EARTH SEEDING OF MIXTURE CLASS 4 SHALL BE FROM NOVEMBER 15 TO MARCH 15 ALL SEEDING NOT SOWN ACCORDING TO THE SPECIFIED SEASONAL DATE SHALL REQUIRE PRIOR WRITTEN APPROVAL FROM THE ENGINEER. FAILURE TO SECURE SUCH APPROVAL SHALL RESULT IN THE REJECTION OF THE SEEDING AND REPLACEMENT BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
2. THE ENGINEER WILL CONTACT MELISSA DEL ROSARIO OF THE ROADSIDE DEVELOPMENT UNIT, AT LEAST 72 HOURS PRIOR TO PLANTING FOR APPROVAL OF LAYOUT FOR THE SEEDING, TREES, SHRUBS AND VINES.

LEGEND:

TOPSOIL FURNISH AND PLACE, 4"
SODDING, SALT TOLERANT
NITROGEN AND POTASSIUM FERTILIZER NUTRIENT





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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LANDSCAPING PLAN
CUMBERLAND AVENUE

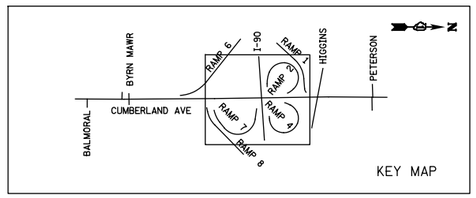
SCALE: 1"=50' | SHEET LCPE-1 OF 5 | STA. 86+00 TO STA. 109+00

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	155
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Q:\IDOT\21050.006_CumberlandAve\Drawings\CADD Sheets\D160J14-sht-lndscp-01.dgn

NOTES

1. THE SEEDING DATES FOR BARE EARTH SEEDING OF MIXTURE CLASS 4 SHALL BE FROM NOVEMBER 15 TO MARCH 15 ALL SEEDING NOT SOWN ACCORDING TO THE SPECIFIED SEASONAL DATE SHALL REQUIRE PRIOR WRITTEN APPROVAL FROM THE ENGINEER. FAILURE TO SECURE SUCH APPROVAL SHALL RESULT IN THE REJECTION OF THE SEEDING AND REPLACEMENT BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
2. THE ENGINEER WILL CONTACT MELISSA DEL ROSARIO OF THE ROADSIDE DEVELOPMENT UNIT, AT LEAST 72 HOURS PRIOR TO PLANTING FOR APPROVAL OF LAYOUT FOR THE SEEDING, TREES, SHRUBS AND VINES.



KEY MAP

LEGEND:

TOPSOIL FURNISH AND PLACE, 4" SODDING, SALT TOLERANT NITROGEN AND POTASSIUM FERTILIZER NUTRIENT

COMPOST FURNISH AND PLACE, 2" TOPSOIL FURNISH AND PLACE, 4" SEEDING, CLASS 4A/4B EROSION CONTROL BLANKET

EXIST. ℄ I-90

(3) SWAMP WHITE OAK, 9', CLUMP FORM
(2) SWAMP WHITE OAK, 2 1/2" CALIPER
30' O.C., STAGGERED WITH MULCH RING

EXIST. ROW

EXIST. ℄ CUMBERLAND AVE.

3-KENTUCKY COFFEETREE

PROP. ℄ CUMBERLAND AVE

EXIST. ℄ I-90 RAMP 2

EXIST. ℄ I-90 RAMP 1

MATCH LINE STATION 109+00

MATCH LINE STATION 124+00

(3) SWAMP WHITE OAK, 9', CLUMP FORM
(1) SWAMP WHITE OAK, 2 1/2" CALIPER
30' O.C., STAGGERED WITH MULCH RING

(3) SWAMP WHITE OAK, 2 1/2" CALIPER- 30' O.C., STAGGERED WITH MULCH RING

EXIST. ℄ I-90 RAMP 8

EXIST. ℄ I-90 RAMP 7

EXIST. ℄ I-90 RAMP 4

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LANDSCAPING PLAN
I-90 RAMPS

SCALE: 1"=50' | SHEET LCPE-2 OF 5 | STA. 109+00 TO STA. 124+00

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	156
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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NOTES

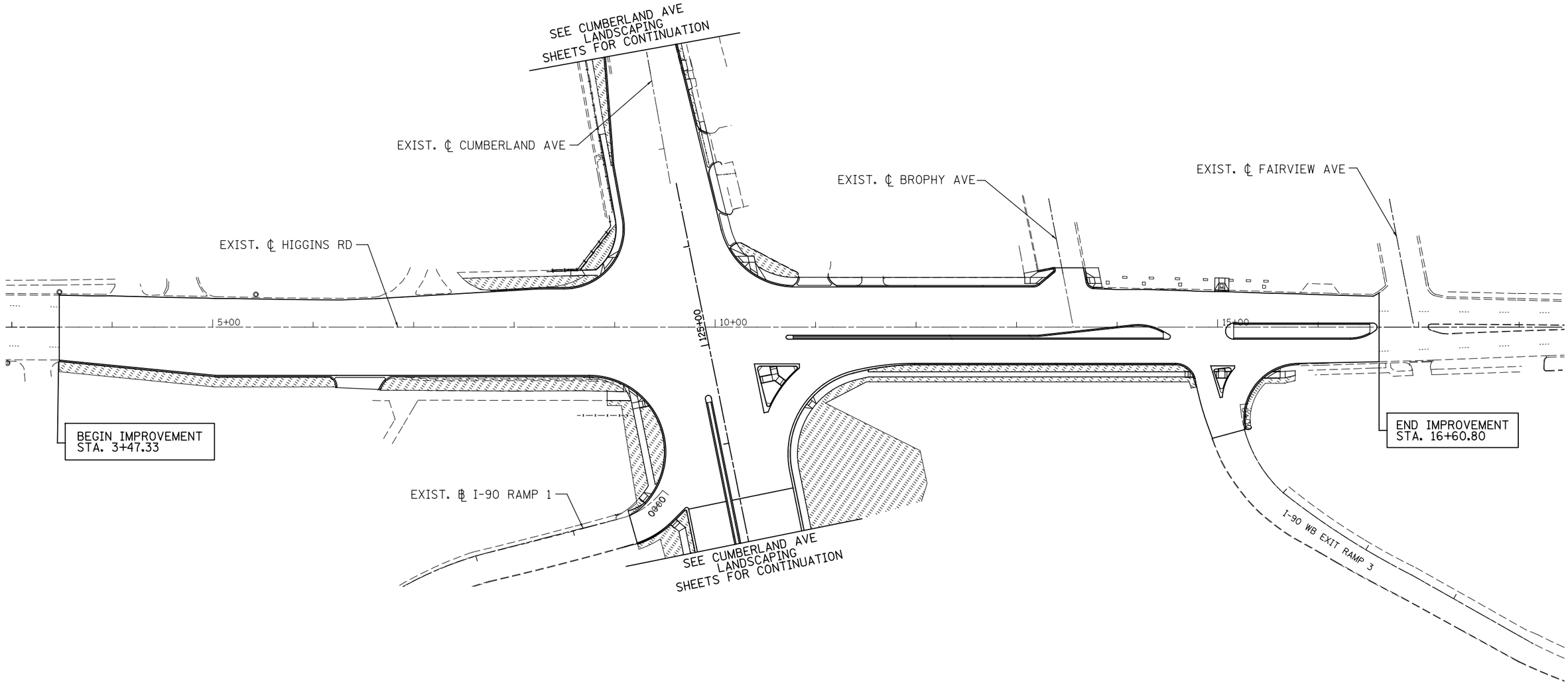
1. THE SEEDING DATES FOR BARE EARTH SEEDING OF MIXTURE CLASS 4 SHALL BE FROM NOVEMBER 15 TO MARCH 15 ALL SEEDING NOT SOWN ACCORDING TO THE SPECIFIED SEASONAL DATE SHALL REQUIRE PRIOR WRITTEN APPROVAL FROM THE ENGINEER. FAILURE TO SECURE SUCH APPROVAL SHALL RESULT IN THE REJECTION OF THE SEEDING AND REPLACEMENT BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

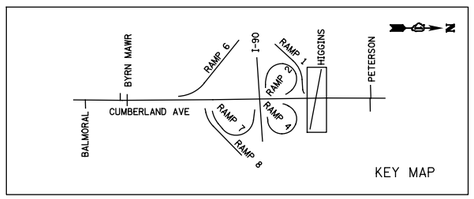
2. THE ENGINEER WILL CONTACT MELISSA DEL ROSARIO OF THE ROADSIDE DEVELOPMENT UNIT, AT LEAST 72 HOURS PRIOR TO PLANTING FOR APPROVAL OF LAYOUT FOR THE SEEDING, TREES, SHRUBS AND VINES.

LEGEND:

TOPSOIL FURNISH AND PLACE, 4"
SODDING, SALT TOLERANT
NITROGEN AND POTASSIUM FERTILIZER NUTRIENT

N





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LISLE, IL 60532
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LANDSCAPING PLAN
HIGGINS ROAD

SCALE: 1"=50' | SHEET LCPE-3 OF 5 | STA. 3+47.33 | TO STA. 16+60.80

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	157
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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NOTES

1. THE SEEDING DATES FOR BARE EARTH SEEDING OF MIXTURE CLASS 4 SHALL BE FROM NOVEMBER 15 TO MARCH 15 ALL SEEDING NOT SOWN ACCORDING TO THE SPECIFIED SEASONAL DATE SHALL REQUIRE PRIOR WRITTEN APPROVAL FROM THE ENGINEER. FAILURE TO SECURE SUCH APPROVAL SHALL RESULT IN THE REJECTION OF THE SEEDING AND REPLACEMENT BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

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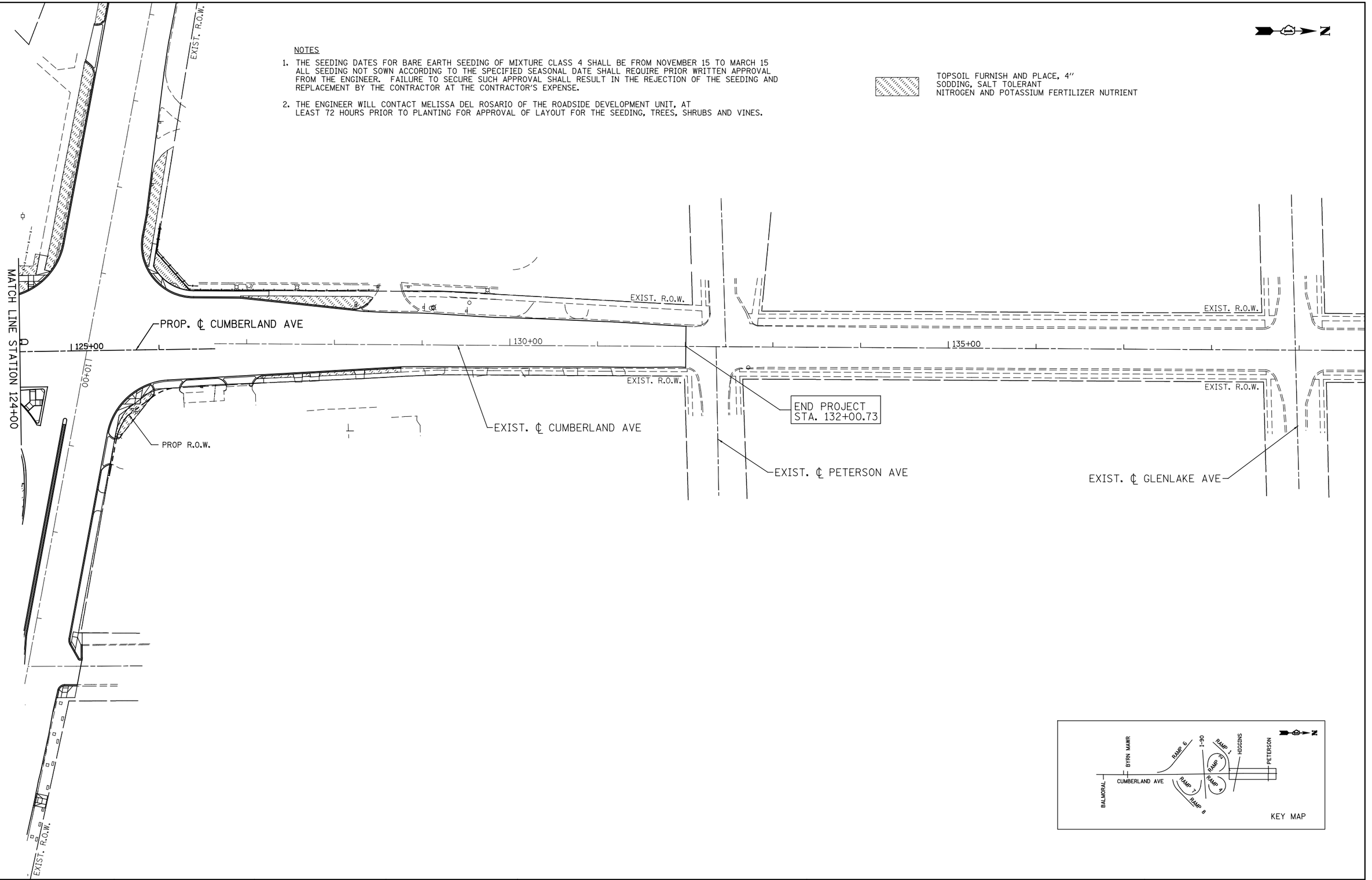
TOPSOIL FURNISH AND PLACE, 4"
SODDING, SALT TOLERANT
NITROGEN AND POTASSIUM FERTILIZER NUTRIENT



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LANDSCAPING PLAN
CUMBERLAND AVENUE

SCALE: 1"=50' | SHEET LCPE-4 OF 5 | STA. 124+00 | TO STA. END

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	158
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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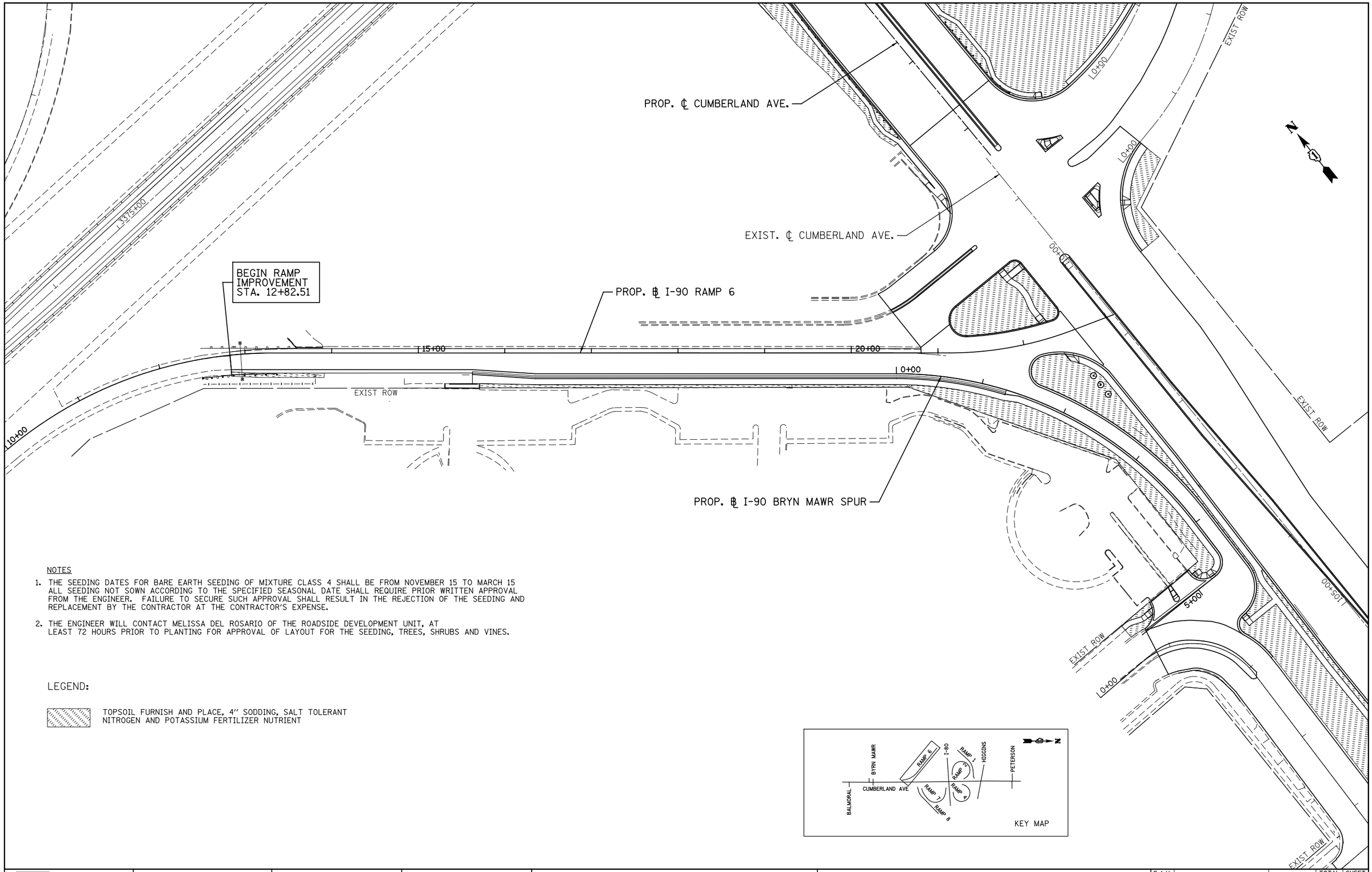

NOTES

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LEGEND:

TOPSOIL FURNISH AND PLACE, 4" SODDING, SALT TOLERANT
NITROGEN AND POTASSIUM FERTILIZER NUTRIENT

PATRICK ENGINEERING INC.
4970 VARSITY DRIVE
LISLE IL 60532
patrickengineering.com

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LANDSCAPING PLAN
RAMP 6

SCALE: 1"=50' | SHEET LCPE-5 OF 5 | STA. 12+82.51 | TO STA. END

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	159
				60J14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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IDOT TRAFFIC SIGNALS SCHEDULE OF QUANTITIES

ITEM	UNIT	HIGGINS AT DEE/EAST RIVER	HIGGINS AT O'HARE PLAZA II	HIGGINS AT CUMBERLAND	HIGGINS AT I-90 WB EXIT RAMP	INTERCONNECT	TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT				200		200
SIDEWALK REMOVAL	SQ FT				325		325
SIGN PANEL - TYPE 1	SQ FT	28.5	10	20			58.5
SIGN PANEL - TYPE 2	SQ FT	25		60	12.5		97.5
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1					1
SERVICE INSTALLATION - POLE MOUNTED	EACH		1	1	1		3
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	1300	866	1081	195	1247	4689
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	55	164	18	120		357
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	59	27	106	110		302
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	445	225	1014	332		2016
HANDHOLE	EACH	5	5	7	9		26
HEAVY-DUTY HANDHOLE	EACH	5	2	4			11
DOUBLE HANDHOLE	EACH	2	1	3	1		7
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH					1	1
MASTER CONTROLLER IN TYPE V CABINET	EACH			1			1
TRANSCEIVER - FIBER OPTIC	EACH	1	1	1	1		4
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT					6594	6594
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	863		1857	681		3401
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	451		2070	881		3402
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1558	1949	3687	2125		9319
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1514	241	2882			4637
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	4052	2159	7538	856		14605
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	22	238	35	34		329
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	647	780	1075	941		3443
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH				2		2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH		4	1	5		10
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4					4
STEEL MAST ARM ASSEMBLY AND POLE, 18 FT.	EACH			1			1
STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.	EACH		1		1		2
STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH			1			1
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1	1				2
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1					1
STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1					1
STEEL MAST ARM ASSEMBLY AND POLE, 48 FT.	EACH	1					1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 24 FT.	EACH			2			2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT.	EACH				1		1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT.	EACH				1		1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 36 FT.	EACH			1			1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 46 FT.	EACH			1			1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 62 FT.	EACH			1			1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 68 FT.	EACH			1			1
CONCRETE FOUNDATION, TYPE A	FOOT	20	16	4	28		68
CONCRETE FOUNDATION, TYPE C	FOOT	4	4	4	4		16
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT		10	20	10		40
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	48	11	46	22		127
CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT			46			46
DRILL EXISTING HANDHOLE	EACH					4	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	8	4	11	6		29
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH		3	2	6		11
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4					4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4	1	10			15
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH		1				1
SIGNAL HEAD, LED, 3-FACE, 3-SECTION, BRACKET MOUNTED	EACH		1				1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2		7	3		12
PEDESTRIAN SIGNAL HEAD, LED, 3-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH			1	1		2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	12	5	21	6		44
INDUCTIVE LOOP DETECTOR	EACH	13	9	24	4		50
DETECTOR LOOP, TYPE I	FOOT	718	526	1111	362		2717
PEDESTRIAN PUSH-BUTTON	EACH	4		9	5		18
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1	1	1			3
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT					7708	7708
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	1	1			3
REMOVE EXISTING HANDHOLE	EACH	11	9	12			32
REMOVE EXISTING CONCRETE FOUNDATION	EACH	9	8	7			24
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1	1		1		3
FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH			1			1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1	1	1	1		4
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT					6663	6663
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH					2	2
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1	1	1			3

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	DRAWN - GR	REVISED -
PLOT SCALE =	CHECKED - CG	REVISED -
PLOT DATE =	DATE - 2/18/2013	REVISED -

EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IDOT TRAFFIC SIGNAL SCHEDULE OF QUANTITIES
CUMBERLAND AVENUE OVER I-90

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	160
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			

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.

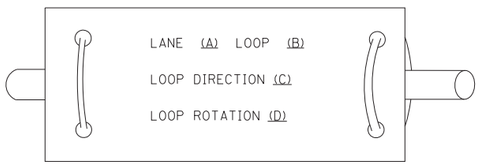
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

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

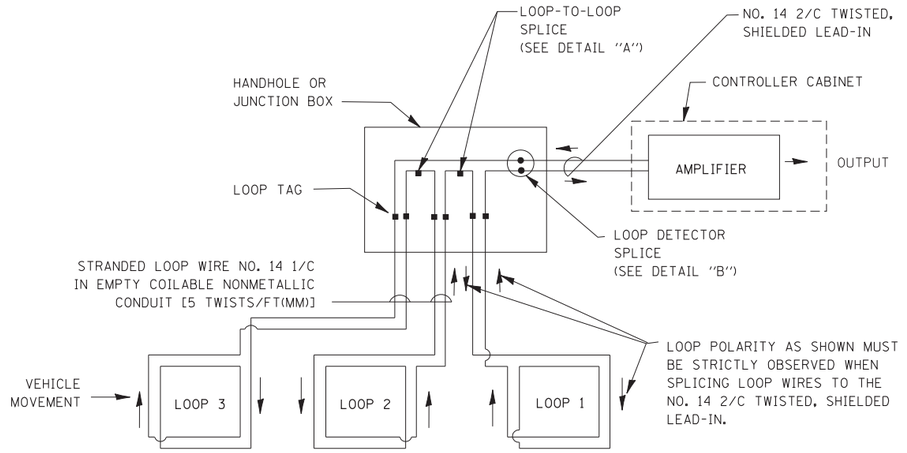


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.

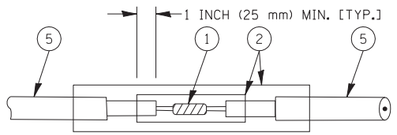
C. LABEL LOOP CABLE ''IN'' OR LOOP CABLE ''OUT''.

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

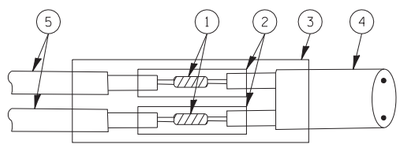


DETECTOR LOOP WIRING SCHEMATIC

- 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.

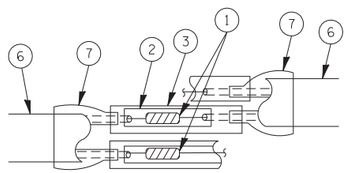


DETAIL ''A''
LOOP-TO-LOOP SPLICE



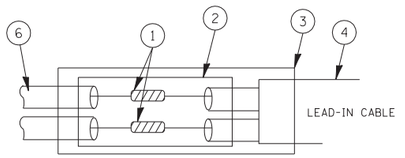
DETAIL ''B''
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL ''A''
LOOP-TO-LOOP SPLICE

PRE-FORMED LOOP



DETAIL ''B''
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

(1) WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.

(2) WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3'' (75 mm), UNDERWATER GRADE.

(3) WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGHT 6'' (150 mm), UNDERWATER GRADE.

(4) NO. 14 2/C TWISTED, SHIELDED CABLE.

(5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

(6) PRE-FORMED LOOP

(7) XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

TS-02

FILE NAME = c:\pw_work\PWIDOT\KANTHAPHIXAYBC\d0112614\traffic_legend_v7.dgn	USER NAME = kanthaphixaybc	DESIGNED - DAD	REVISED -
		DRAWN - BCK	REVISED -
	PLOT SCALE = 20.0000 ' / IN.	CHECKED - DAD	REVISED -
	PLOT DATE = 10/6/2009	DATE - 10/28/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

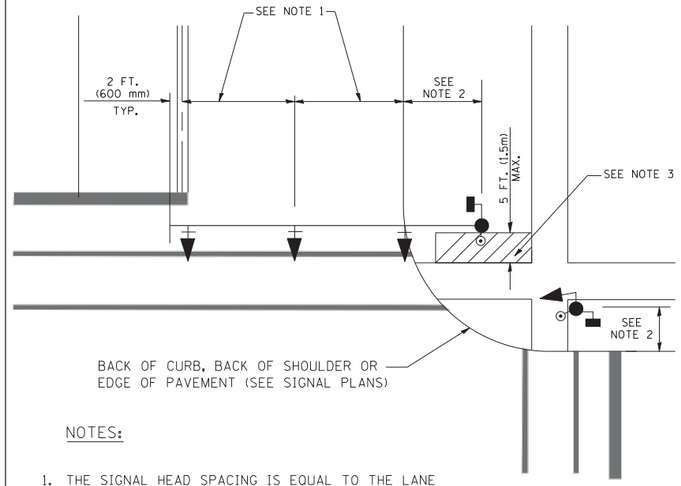
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: | SHEET NO. 1 OF 6 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	161
		CONTRACT NO. 60J14		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

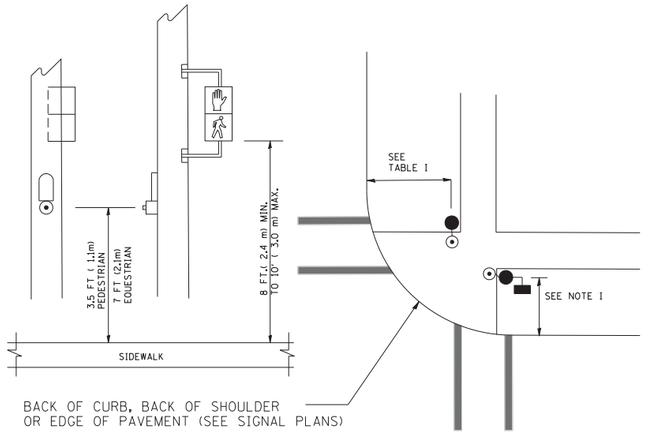
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

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

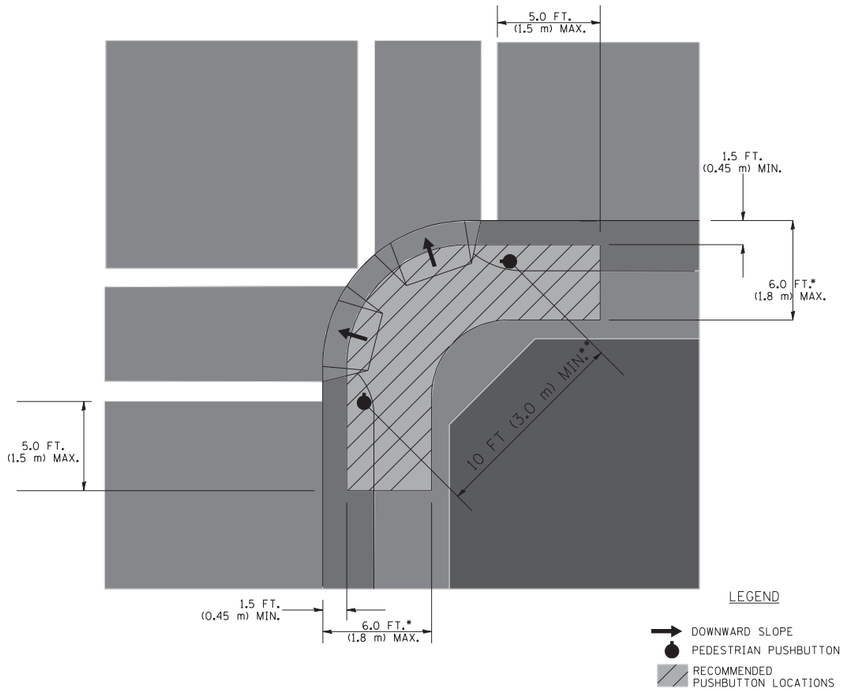
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

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

RECOMMENDED PUSHBUTTON LOCATIONS



* WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.

** WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

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

TRAFFIC SIGNAL EQUIPMENT OFFSET

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

NOTES:

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

TS-03

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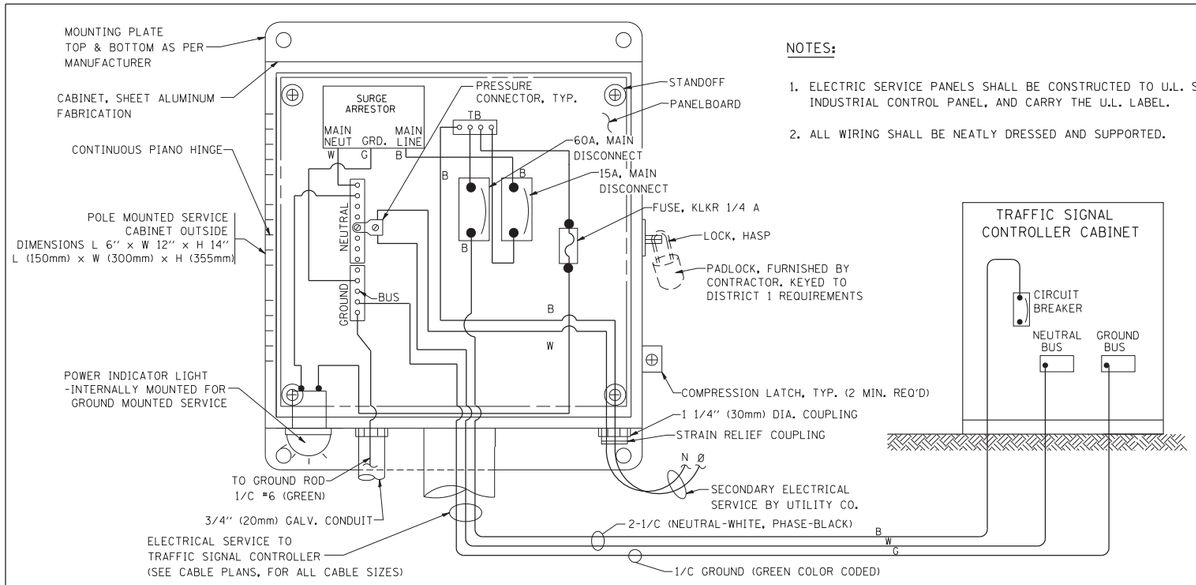
	PLOT DATE = 10/6/2009	DATE - 10/28/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: | SHEET NO. 2 OF 6 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	162
		CONTRACT NO. 60J14		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



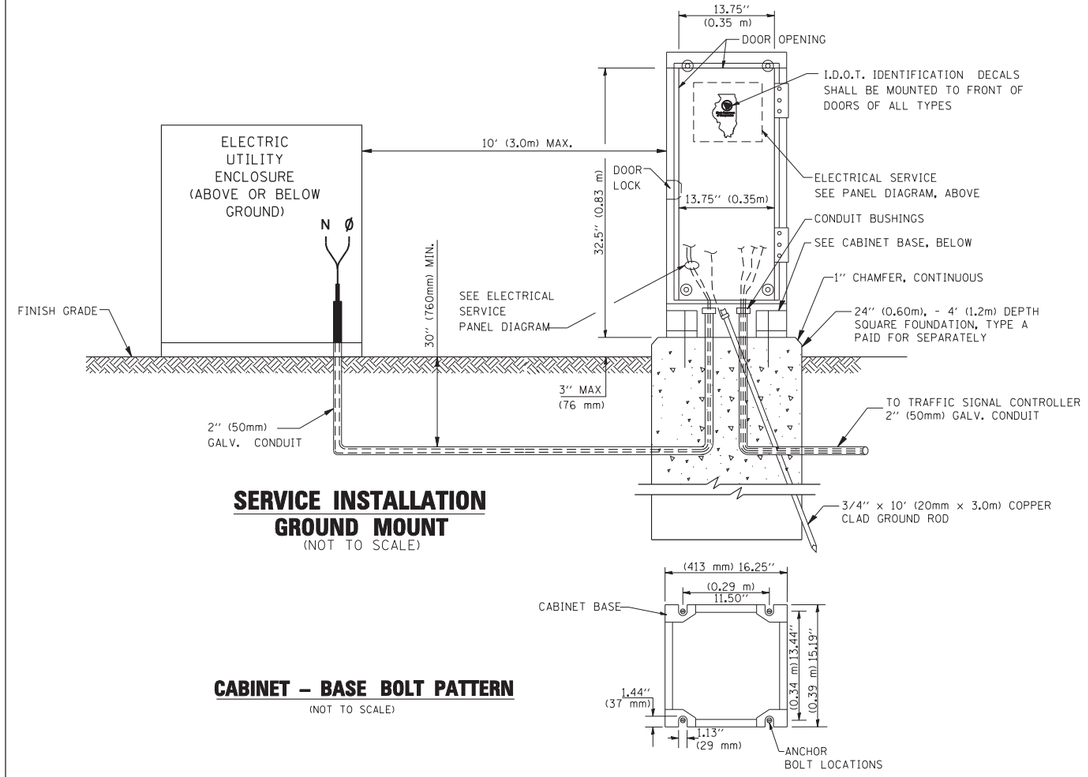
NOTES:

1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

SERVICE INSTALLATION POLE MOUNT (SHOWN)

(NOT TO SCALE)

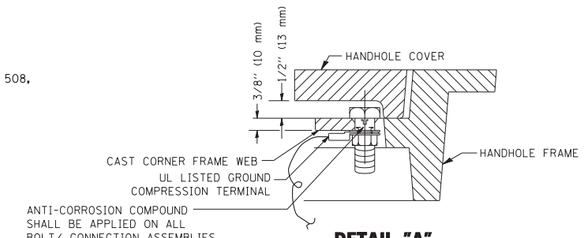


SERVICE INSTALLATION GROUND MOUNT

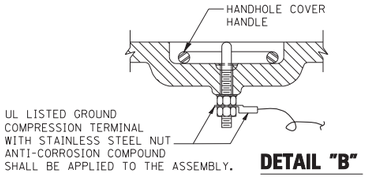
(NOT TO SCALE)

CABINET – BASE BOLT PATTERN

(NOT TO SCALE)



DETAIL "A"

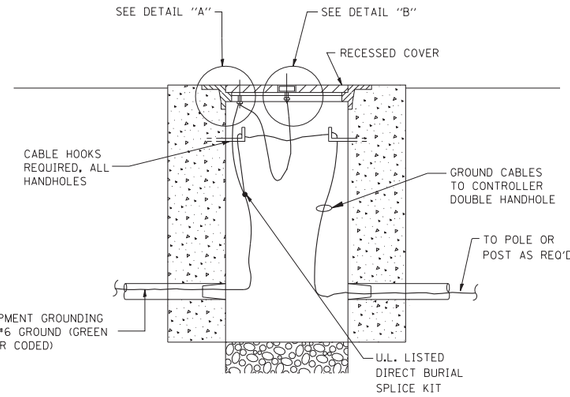


DETAIL "B"

NOTES:

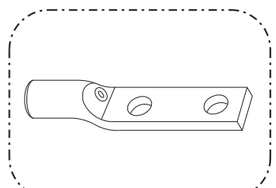
GROUNDING SYSTEM

1. 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.
2. 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.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

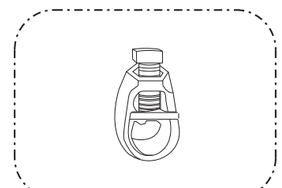


HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)



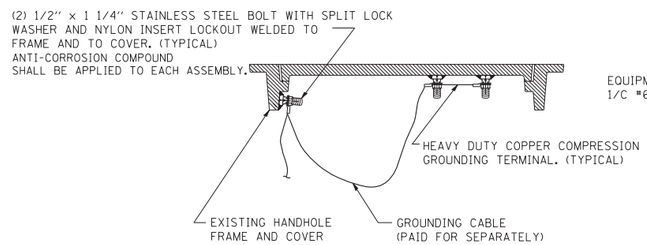
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EQUAL)

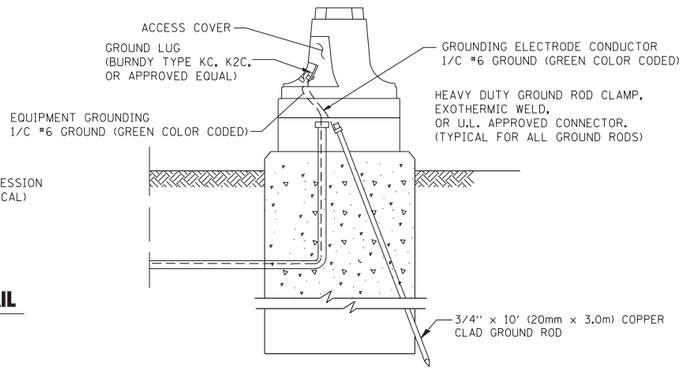
NOTES:

- 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)



MAST ARM POLE / POST–GROUNDING DETAIL

(NOT TO SCALE)

TS-04

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	PLOT DATE = 10/6/2009	DATE - 10/28/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: | SHEET NO. 3 OF 6 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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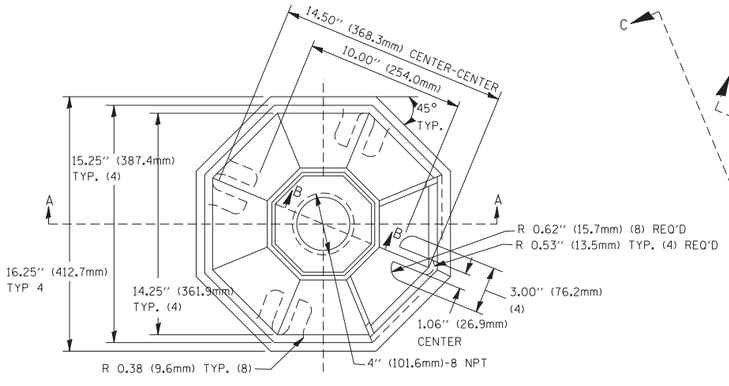
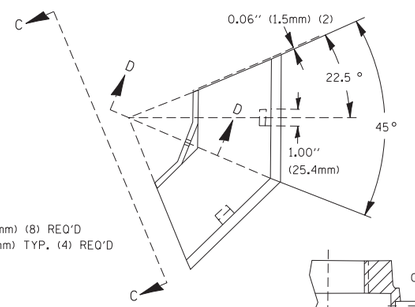
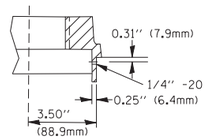
		CONTRACT NO. 60J14		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

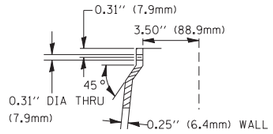


TOP VIEW

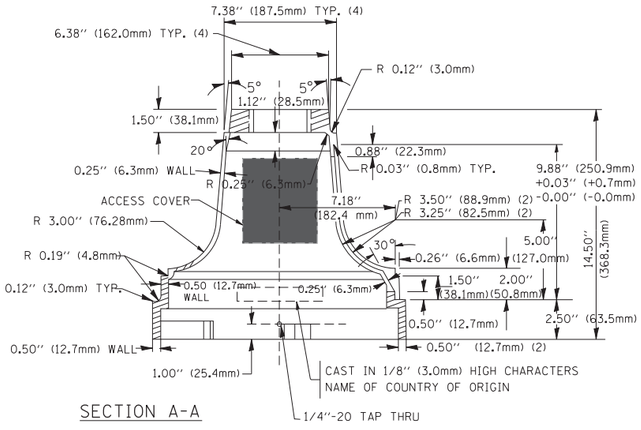




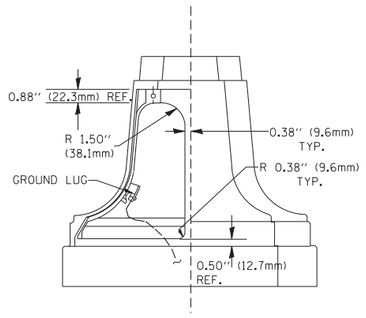
SECTION B-B



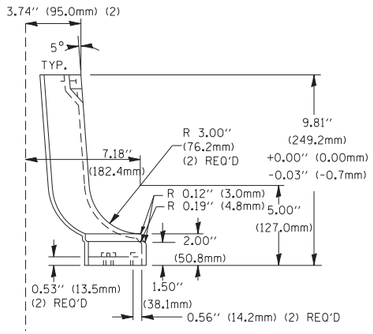
SECTION D-D



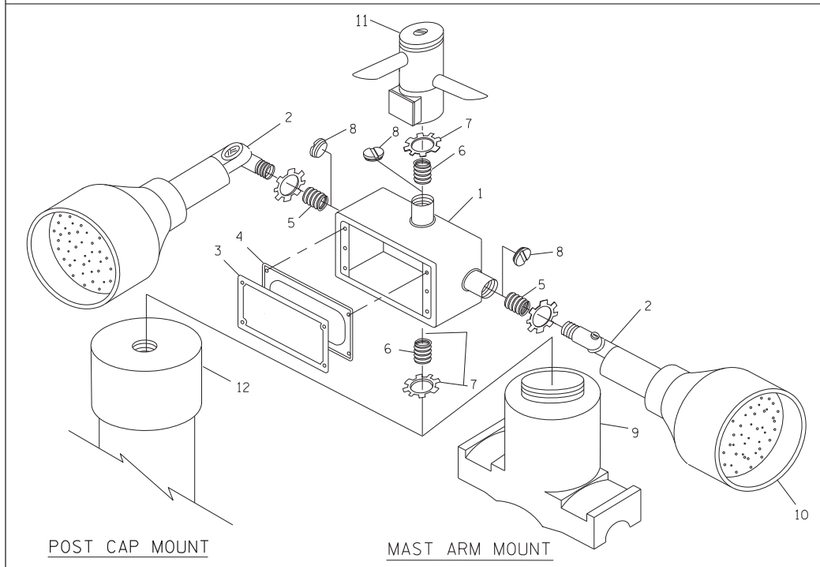
SECTION A-A



VIEW C-C



TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



POST CAP MOUNT

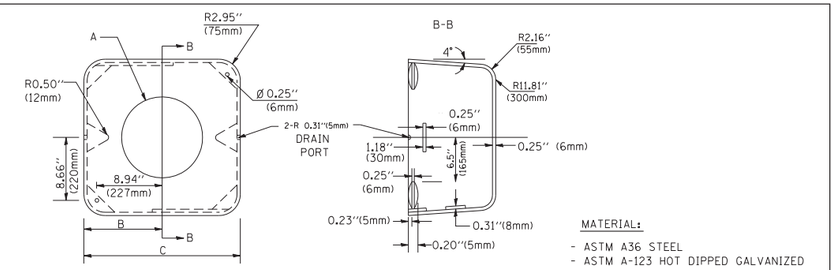
MAST ARM MOUNT

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

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	¾''(19 mm) CLOSE NIPPLE
7	¾''(19 mm) LOCKNUT
8	¾''(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/GEDNEY FSX-1-50 OR EQUIVALENT
   ITEM #2- MULBERRY CON-O-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 ¾''(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

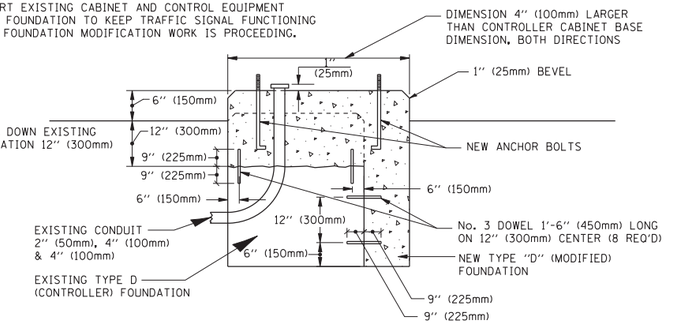
A	B	C	HEIGHT	WEIGHT
VARIES	9.5''(241mm)	19''(483mm)	7'' (178mm) - 12'' (300mm)	53 lbs (24kg)
VARIES	10.75''(273mm)	21.5''(546mm)	7'' (178mm) - 12'' (300mm)	68 lbs (31 kg)
VARIES	13.0''(330mm)	26''(660mm)	7'' (178mm) - 12'' (300mm)	81 lbs (37 kg)
VARIES	18.5''(470mm)	37''(940mm)	7'' (178mm) - 12'' (300mm)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

SHROUD

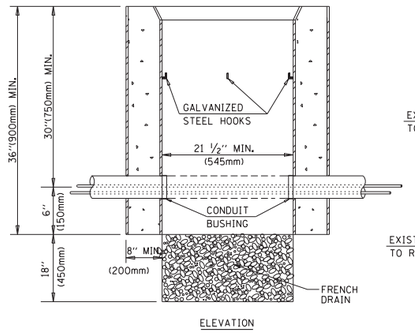
NOTES:

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 VERIFIED 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.

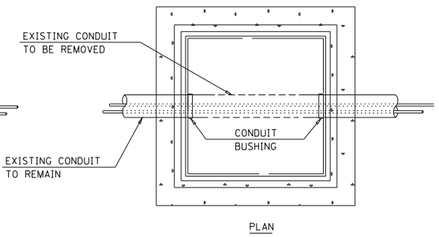
NOTE:
SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



MODIFY EXISTING TYPE ''D'' FOUNDATION



ELEVATION



PLAN

NOTES:

1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

TS-05

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: | SHEET NO. 4 OF 6 SHEETS | STA. | TO STA.

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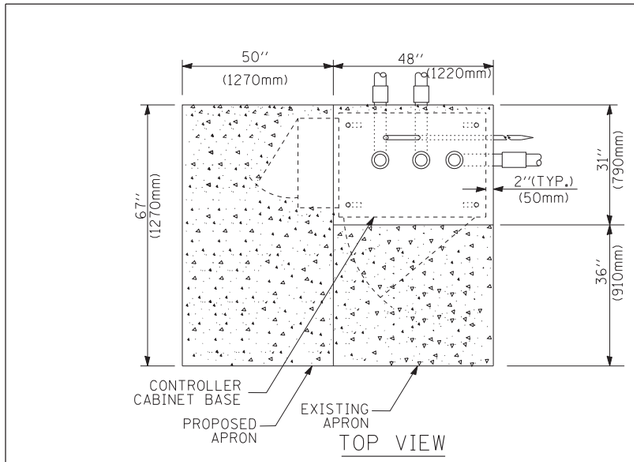
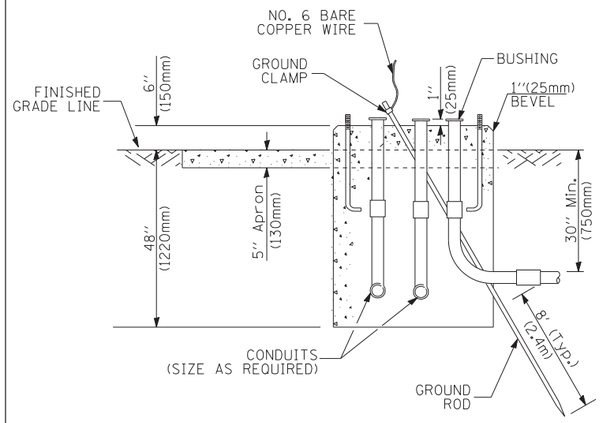
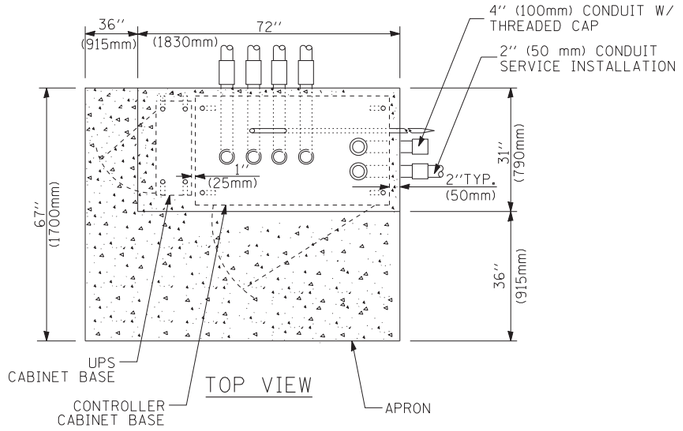
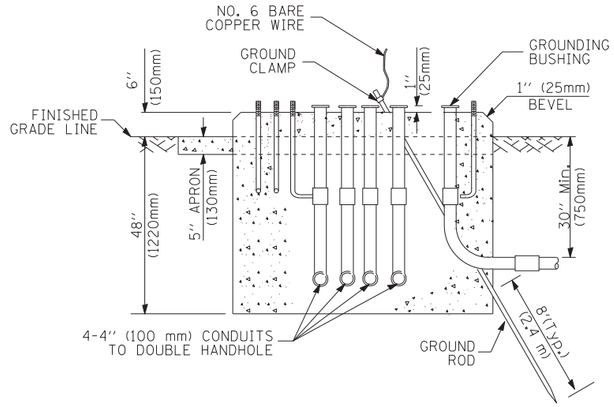
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



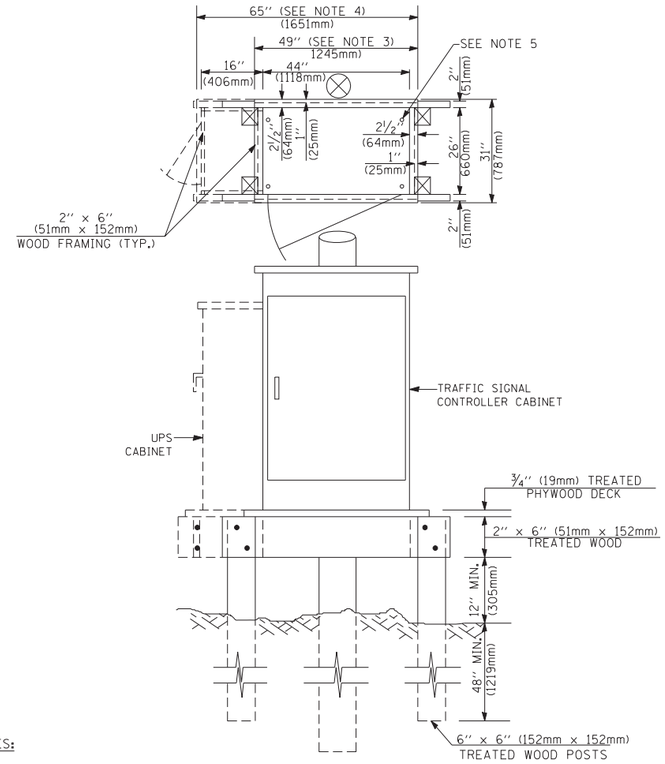


TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET





TYPE C
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



NOTES:

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

TEMPORARY SIGNAL CONTROLLER
WOOD SUPPORT PLATFORM

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

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)
	11'-0'' (3.4 m)	36'' (900mm)	30'' (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0'' (4.0 m)	36'' (900mm)	30'' (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0'' (4.6 m)	36'' (900mm)	30'' (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0'' (6.4 m)	42'' (1060mm)	36'' (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0'' (7.6 m)	42'' (1060mm)	36'' (900mm)	16	8(25)

NOTES:

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

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

TS-06

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		DRAWN - BCK	REVISED -
	PLOT SCALE = 20.0000 ' / IN.	CHECKED - DAD	REVISED -
	PLOT DATE = 10/6/2009	DATE - 10/28/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: | SHEET NO. 5 OF 6 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	165
		CONTRACT NO. 60J14		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET	R		
RAILROAD CONTROL CABINET			
COMMUNICATIONS CABINET	R CC	E C C	C C
MASTER CONTROLLER		EMC	MC
MASTER MASTER CONTROLLER		EMMC	MMC
UNINTERRUPTIBLE POWER SUPPLY	R UPS	EUPS	UPS
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	R	P	P
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT	R T	P T	P T
STEEL MAST ARM ASSEMBLY AND POLE	R		
ALUMINUM MAST ARM ASSEMBLY AND POLE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE	R		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA	R PTZ	PTZ	PTZ
SIGNAL POST	R		
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM	R		
GUY WIRE	R		
SIGNAL HEAD	R		
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)			2
SIGNAL HEAD WITH BACKPLATE	R		
SIGNAL HEAD OPTICALLY PROGRAMMED	R "P"	"P"	"P"
FLASHER INSTALLATION (S DENOTES SOLAR POWER)	R "F"	"F"	"F"
PEDESTRIAN SIGNAL HEAD	R		
PEDESTRIAN PUSHBUTTON DETECTOR	R		
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR	R APS	APS	APS
ILLUMINATED SIGN "NO LEFT TURN"	R		
ILLUMINATED SIGN "NO RIGHT TURN"	R		
DETECTOR LOOP, TYPE I			
PREFORMED DETECTOR LOOP		P	P
MICROWAVE VEHICLE SENSOR	R M	M	M
VIDEO DETECTION CAMERA	R V	V	V
VIDEO DETECTION ZONE			
PAN, TILT, ZOOM CAMERA	R PTZ	PTZ	PTZ
WIRELESS DETECTOR SENSOR	R W	W	W
WIRELESS ACCESS POINT	R		

ITEM	REMOVAL	EXISTING	PROPOSED
EMERGENCY VEHICLE LIGHT DETECTOR	R		
CONFIRMATION BEACON	R		
HANDHOLE	R		
HEAVY DUTY HANDHOLE	R H	H	H
DOUBLE HANDHOLE	R		
JUNCTION BOX	R		
GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)			
TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE	R		
COMMON TRENCH			CT
COILABLE NONMETALLIC CONDUIT (EMPTY)			CNC
SYSTEM ITEM		S	S
INTERSECTION ITEM		I	IP
REMOVE ITEM	R		
RELOCATE ITEM	RL		
ABANDON ITEM	A		
12" (300mm) TRAFFIC SIGNAL SECTION		R	R
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE		R Y G	
SIGNAL FACE		R Y G Y G	R Y G Y G
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD		R Y G Y G "P"	R Y G Y G "P"
12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL		DW W	
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED			
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID			
PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER		C D	C D
RADIO INTERCONNECT	R		
RADIO REPEATER	R ERR	ERR	RR
DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED		5	5
GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)		I	I

ITEM	REMOVAL	EXISTING	PROPOSED
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE		I	I
COAXIAL CABLE		C	C
VENDOR CABLE FOR CAMERA		V	V
COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED		6	6
FIBER OPTIC CABLE NO. 62.5/125, MM12F		12F	
FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F		24F	24F
FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)			
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE		C	C
CONTROLLER CABINET AND FOUNDATION TO BE REMOVED	RCF		
STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED	RMF		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED	RMF		
SIGNAL POST AND FOUNDATION TO BE REMOVED	RMF		
INTERSECTION & SAMPLING (SYSTEM) DETECTOR		IS	IS
SAMPLING (SYSTEM) DETECTOR		S	S
EXISTING INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		P	
EXISTING PREFORMED INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		PP	
PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		PIS	PIS
PREFORMED SAMPLING (SYSTEM) DETECTOR		PS	PS

RAILROAD SYMBOLS

	EXISTING	PROPOSED
RAILROAD CONTROL CABINET		
RAILROAD CANTILEVER MAST ARM		
FLASHING SIGNAL		
CROSSING GATE		
CROSSBUCK		

TS-07

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	PLOT SCALE = 20.0000 ' / IN.	CHECKED - DAD	REVISED -
	PLOT DATE = 10/6/2009	DATE - 10/28/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE | SHEET NO. 6 OF 6 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	166
		CONTRACT NO. 60J14		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

NOTES FOR TEMPORARY TRAFFIC SIGNALS;

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
7. UNINTERRUPTABLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.

NOTES FOR TEMPORARY TRAFFIC SIGNALS (CONTD);

8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.
11. THE EXISTING GROUND MOUNTED SERVICE INSTALLATION SHALL ALSO BE USED AS THE TEMPORARY SERVICE INSTALLATION. DRILL HOLE IN SIDE OF EXISTING GROUND MOUNTED SERVICE INSTALLATION AND INSTALL BUSHING. INSTALL WOOD POLE ADJACENT TO CABINET AND INSTALL 3" LIQUID TIGHT FLEXIBLE METALLIC CONDUIT FROM CABINET TO MINIMUM 10' ABOVE GRADE ON WOOD POLE. ROUTE TEMPORARY SERVICE CABLE VIA LIQUID TIGHT FLEXIBLE METALLIC CONDUIT AND AERIALLY TO POLE ADJACENT TO TEMPORARY CONTROLLER. REMOVE SERVICE INSTALLATION UPON REMOVAL OF TEMPORARY TRAFFIC SIGNALS.
12. INSTALL PEDESTRIAN PUSH-BUTTONS ON TEMPORARY WOOD POLES AT 42 INCHES AND 70 INCHES ABOVE GROUND.

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

1	EACH	CONTROLLER AND CABINET (COMPLETE)
4	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
7	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
1	EACH	SIGNAL HEAD, 2-FACE, 1 3-SECTION, 1 5-SECTION
4	EACH	TRAFFIC SIGNAL BACKPLATE
4	EACH	ALUMINUM MAST ARM AND POLE
4	EACH	TRAFFIC SIGNAL POST
2	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
4	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	SERVICE INSTALLATION (SEE NOTE 11)

TEMPORARY VIDEO DETECTION MOUNTING DETAIL

NOT TO SCALE

TS-08

USER NAME =	DESIGNED - GR	REVISED -	
	DRAWN - GR	REVISED -	
PLOT SCALE =	CHECKED - CG	REVISED -	
PLOT DATE =	DATE - 2/18/2013	REVISED -	

EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION (ALL STAGES) AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN
IL RTE 72 (HIGGINS ROAD) AT EAST RIVER ROAD/DEE ROAD

SCALE: 1" = 20' | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	167
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			

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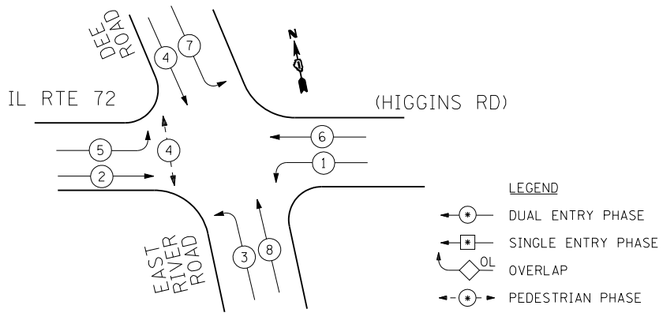
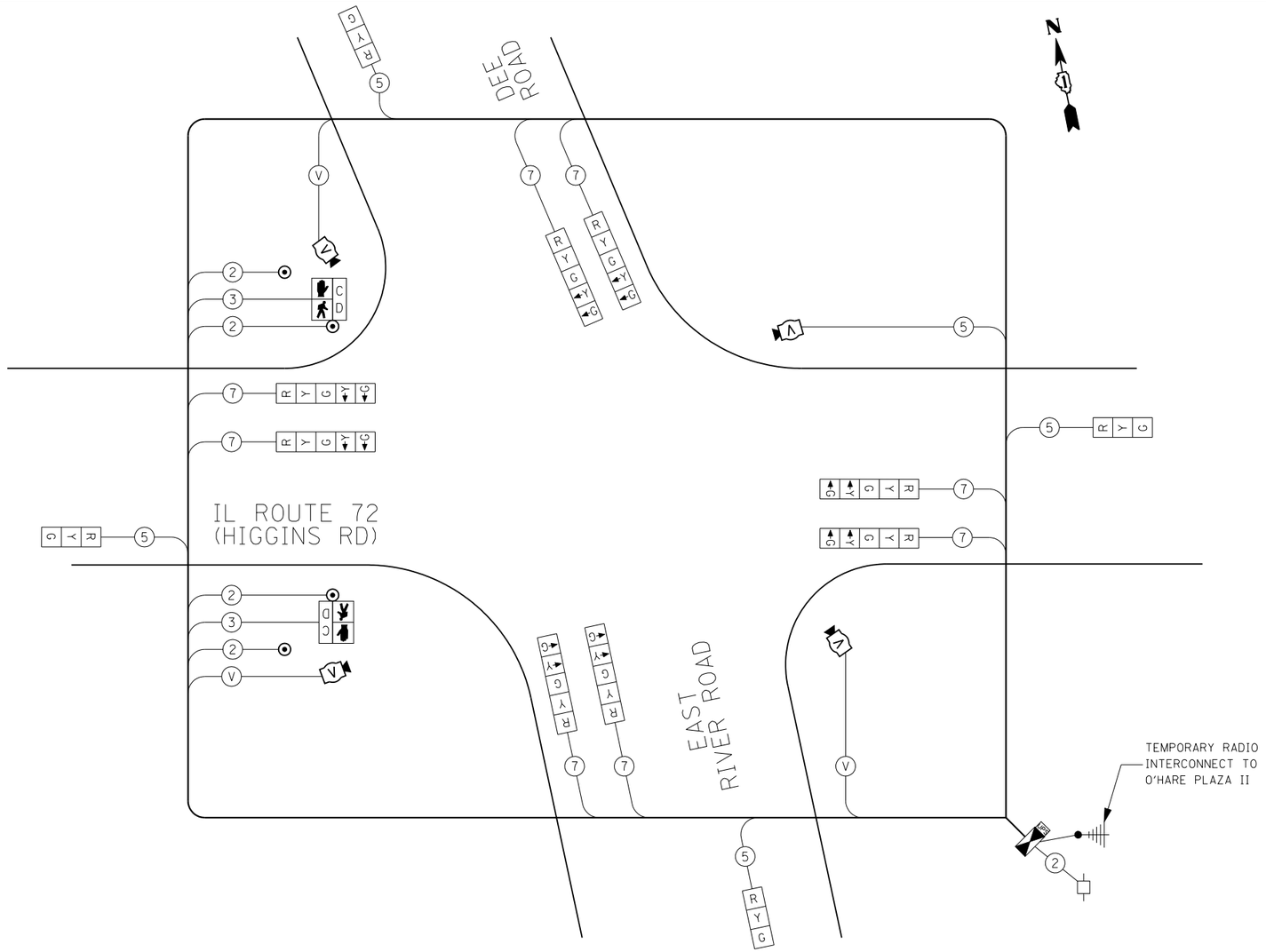
TEMPORARY CONTROLLER SEQUENCE



LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OL OVERLAP
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY PHASE DESIGNATION DIAGRAM



TEMPORARY CABLE PLAN

I.D.O.T.
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATIONS	TOTAL WATTAGE
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN			25	0.50	
VIDEO SYSTEM	1	150		1.00	150

ENERGY COSTS TO: TOTAL = 541.2

ILLINOIS DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS/DISTRICT 1
201 WEST CENTER COURT/SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: MARY INFANTI
PHONE: (847) 816-5322
COMPANY: COM ED

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

TS-09

USER NAME =	DESIGNED - GR	REVISED -
	DRAWN - GR	REVISED -
PLOT SCALE =	CHECKED - CG	REVISED -
PLOT DATE =	DATE - 2/18/2013	REVISED -

EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN
AND TEMPORARY PHASE DESIGNATION DIAGRAM (ALL STAGES)
IL RTE 72 (HIGGINS ROAD) AT EAST RIVER ROAD/DEE ROAD

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	168
		CONTRACT NO. 60J14		
		ILLINOIS FED. AID PROJECT		

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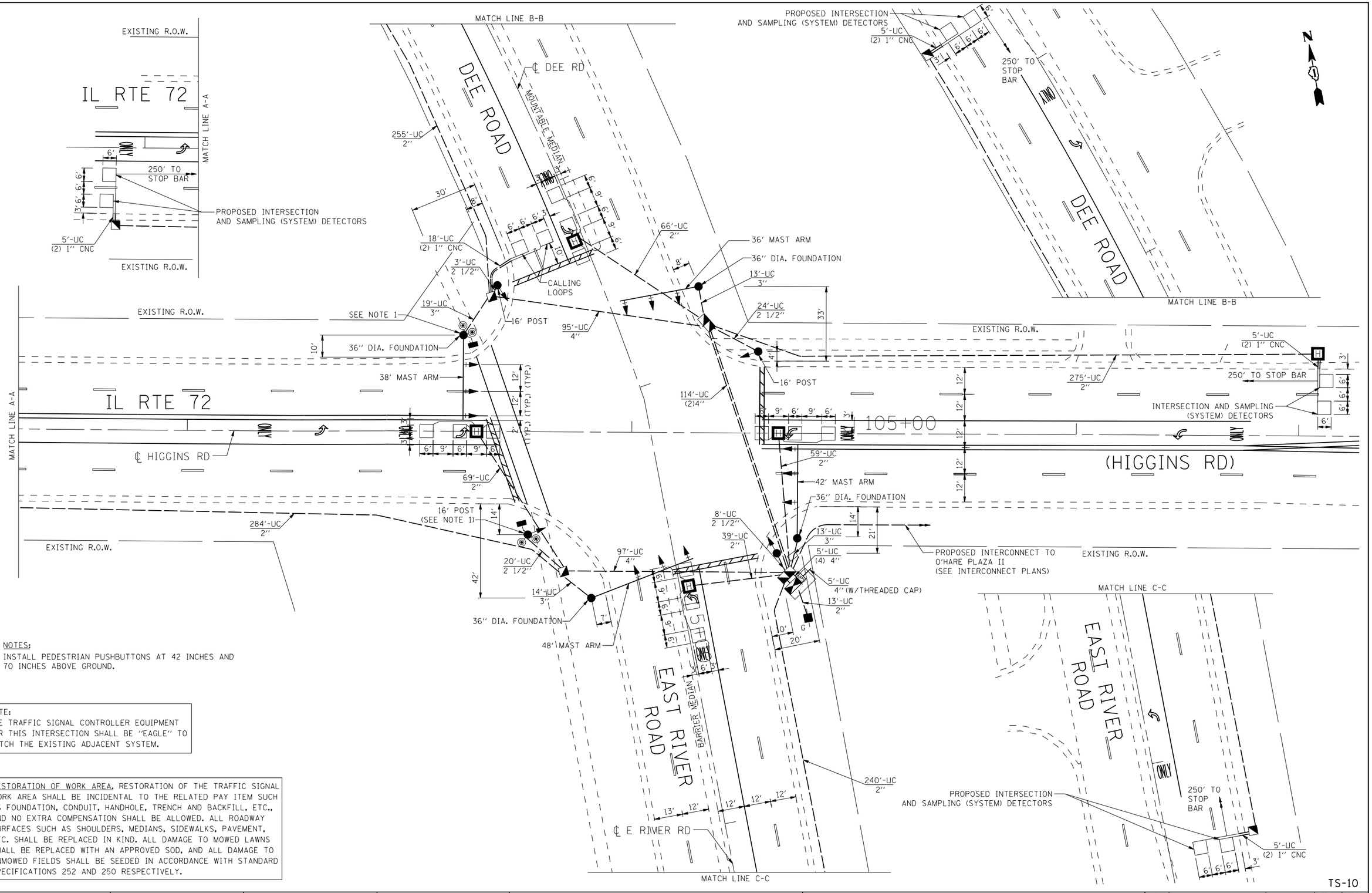

NOTES:

1. INSTALL PEDESTRIAN PUSHBUTTONS AT 42 INCHES AND 70 INCHES ABOVE GROUND.

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

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

TS-10

USER NAME =	DESIGNED - GR	REVISED -
	DRAWN - GR	REVISED -
PLOT SCALE =	CHECKED - CG	REVISED -
PLOT DATE =	DATE - 2/18/2013	REVISED -

EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION PLAN
IL RTE 72 (HIGGINS ROAD) AT EAST RIVER ROAD/DEE ROAD

SCALE: 1" = 20' | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	169
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			

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2/18/2013

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
SIGN PANEL - TYPE 1	SQ FT	28.5
SIGN PANEL - TYPE 2	SQ FT	25
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	1300
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	55
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	59
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	445
HANDHOLE	EACH	5
HEAVY-DUTY HANDHOLE	EACH	5
DOUBLE HANDHOLE	EACH	2
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	863
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	451
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1558
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1514
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	4052
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	22
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	647
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 48 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	20
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	48
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	8
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	12
INDUCTIVE LOOP DETECTOR	EACH	13
DETECTOR LOOP, TYPE I	FOOT	718
PEDESTRIAN PUSH-BUTTON	EACH	4
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	11
REMOVE EXISTING CONCRETE FOUNDATION	EACH	9
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

I.D.O.T.
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	16	135	17	0.50	136.00
(YELLOW)	16	135	25	0.25	100.00
(GREEN)	16	135	15	0.25	60.00
ARROW	16	135	12	0.10	19.20
PED. SIGNAL	2	90	25	1.00	50.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN			25	0.50	

ENERGY COSTS TO: TOTAL = 465.20

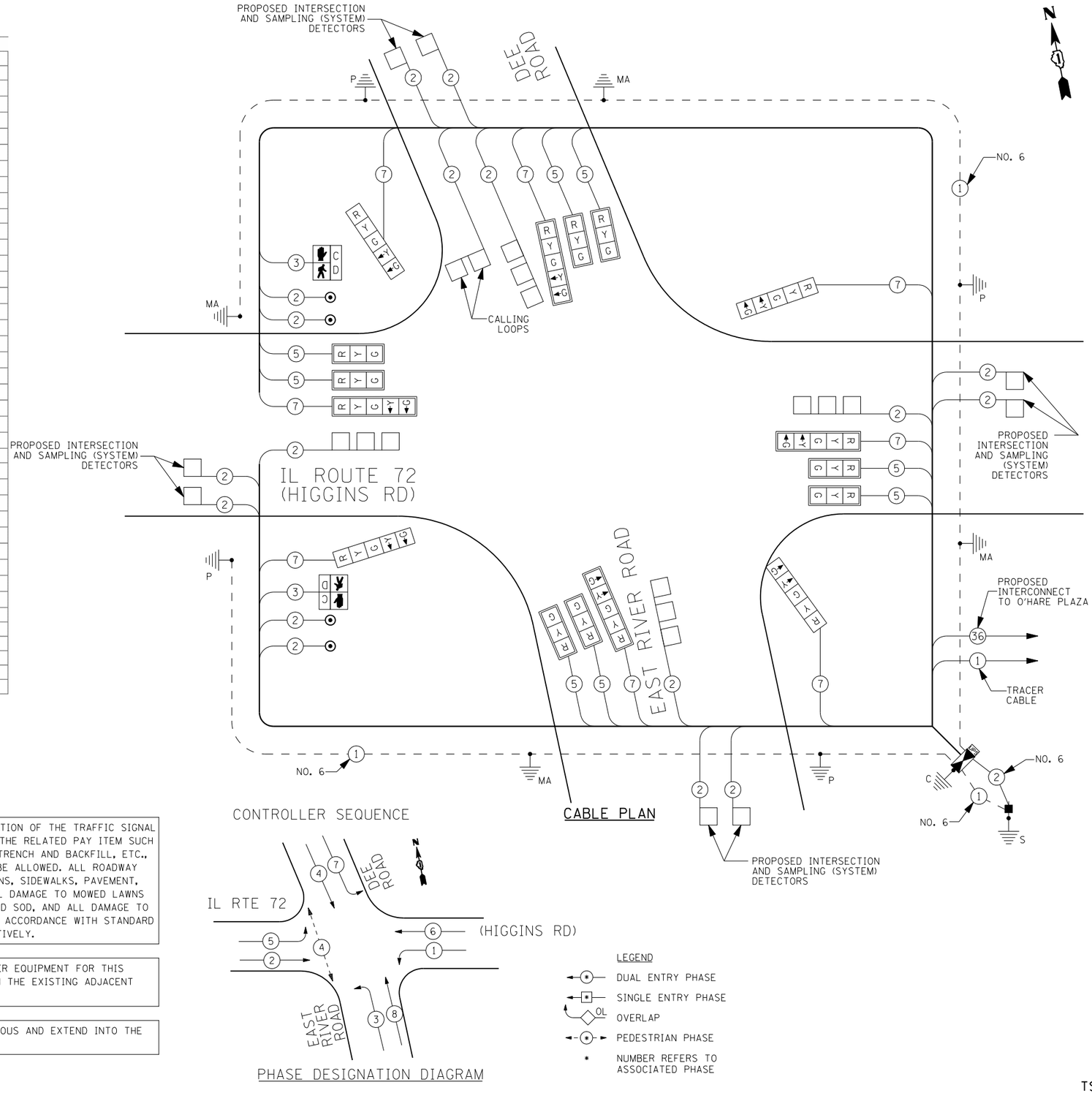
ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/DISTRICT 1
201 WEST CENTER COURT/SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: MARY INFANTI
PHONE: (847) 816-5322
COMPANY: COM ED

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.



CONTROLLER SEQUENCE

PHASE DESIGNATION DIAGRAM

LEGEND
- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OL OVERLAP
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

TS-11

USER NAME =	DESIGNED - GR	REVISED -
	DRAWN - GR	REVISED -
PLOT SCALE =	CHECKED - CG	REVISED -
PLOT DATE =	DATE - 2/18/2013	REVISED -

EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, AND PHASE DESIGNATION DIAGRAM
IL RTE 72 (HIGGINS ROAD) AT EAST RIVER ROAD/DEE ROAD

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	170
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			

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NOTES FOR TEMPORARY TRAFFIC SIGNALS:

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.

2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.

3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.

4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.

5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.

6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

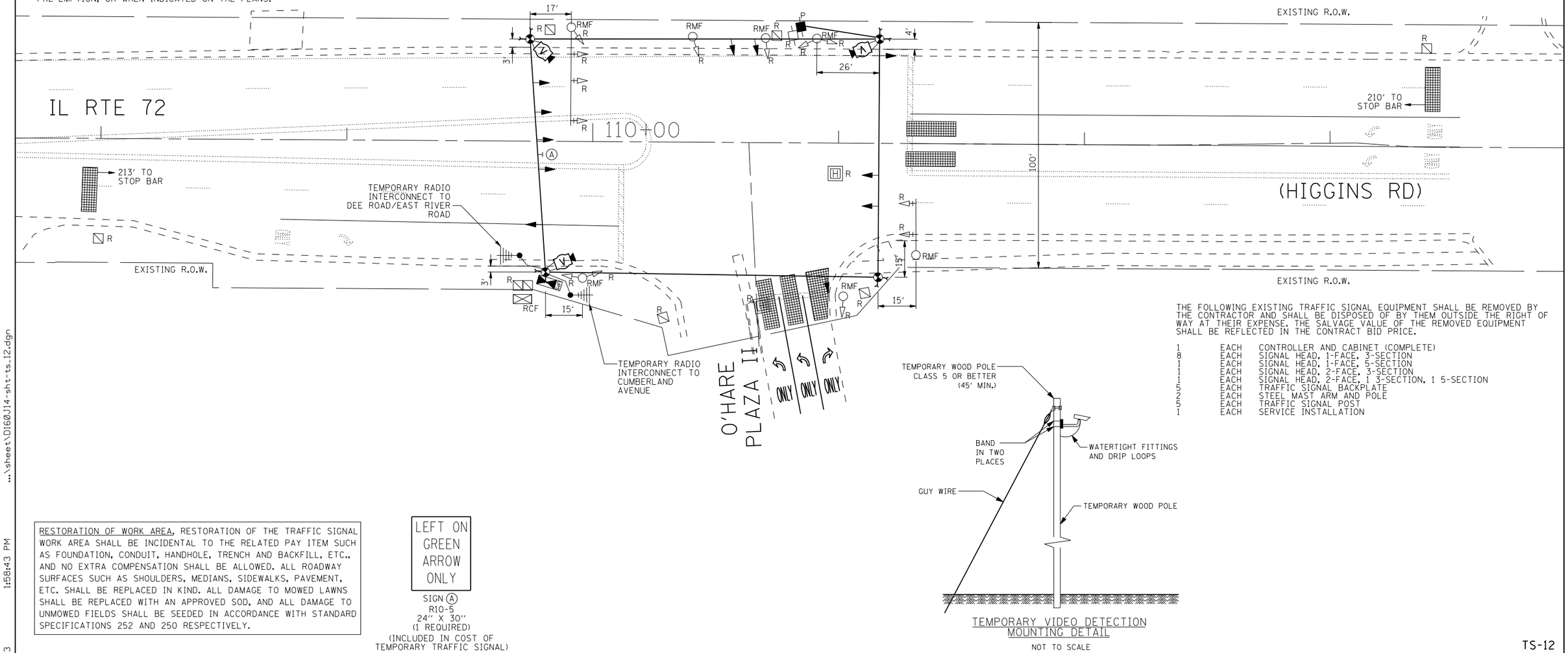
7. UNINTERRUPTABLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.

8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.

9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEEER.

10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

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



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

1	EACH	CONTROLLER AND CABINET (COMPLETE)
8	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
1	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
1	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION
1	EACH	SIGNAL HEAD, 2-FACE, 1 3-SECTION, 1 5-SECTION
5	EACH	TRAFFIC SIGNAL BACKPLATE
2	EACH	STEEL MAST ARM AND POLE
5	EACH	TRAFFIC SIGNAL POST
1	EACH	SERVICE INSTALLATION

TEMPORARY VIDEO DETECTION MOUNTING DETAIL

NOT TO SCALE

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

SIGN (A)
R10-5
24" X 30"
(1 REQUIRED)
(INCLUDED IN COST OF TEMPORARY TRAFFIC SIGNAL)

TS-12

USER NAME =	DESIGNED - GR	REVISED -	EJM ENGINEERING, INC. 411 South Wells Street Suite 1000 Chicago, Illinois 60607	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL INSTALLATION (ALL STAGES) AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN IL RTE 72 (HIGGINS ROAD) AT O'HARE PLAZA II	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN - GR	REVISED -				2746	1616B	COOK	404	171
PLOT SCALE =	CHECKED - CG	REVISED -						CONTRACT NO. 60J14		
PLOT DATE =	DATE - 2/18/2013	REVISED -			SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		

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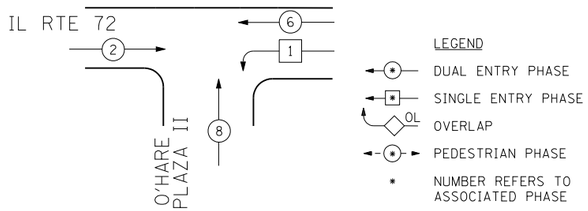
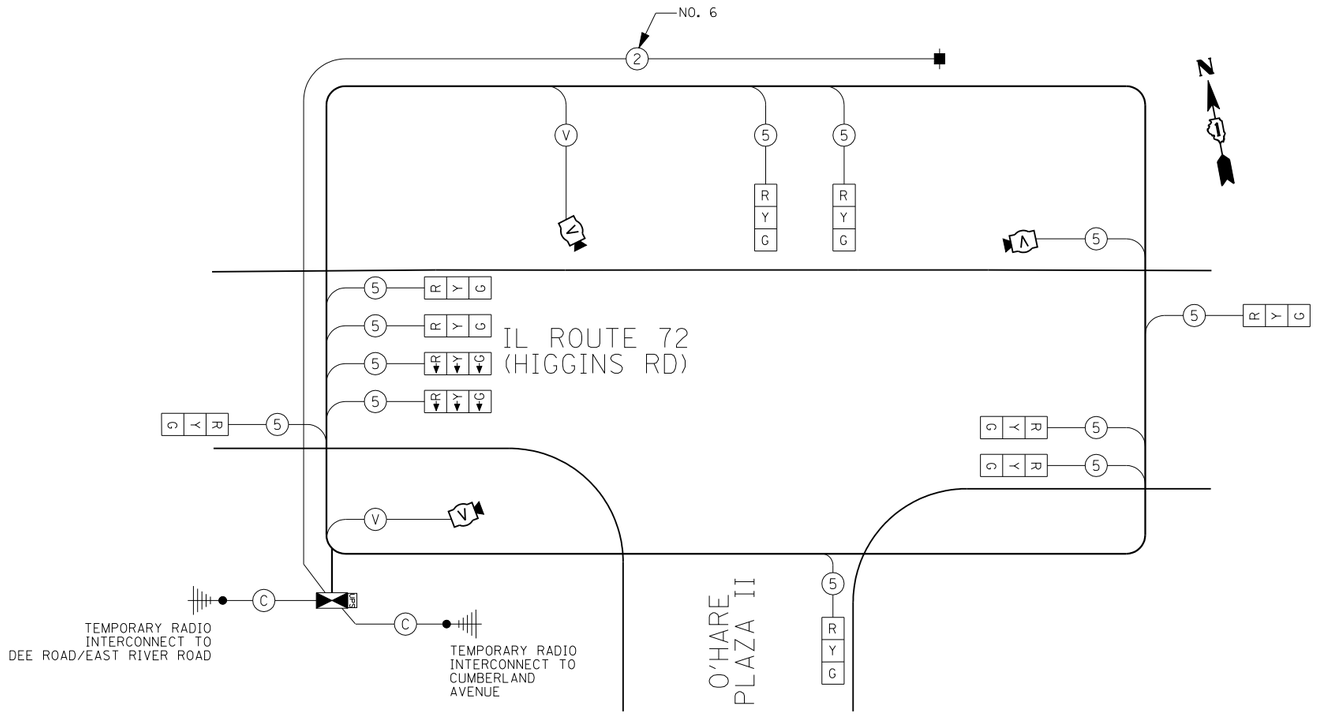
TEMPORARY CONTROLLER SEQUENCE



TEMPORARY PHASE DESIGNATION DIAGRAM



TEMPORARY CABLE PLAN

I.D.O.T.
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATIONS	TOTAL WATTAGE
SIGNAL (RED)	11	135	17	0.50	93.5
(YELLOW)	11	135	25	0.25	68.75
(GREEN)	11	135	15	0.25	41.25
ARROW	-	135	12	0.10	-
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	100	100	1.00	-
ILLUM. SIGN	-		25	0.50	100
VIDEO SYSTEM	1	150		1.00	150
ENERGY COSTS TO:				TOTAL =	453.5

ILLINOIS DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS/DISTRICT 1
201 WEST CENTER COURT/SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: MARY INFANTI
PHONE: (847) 816-5322
COMPANY: COM ED

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

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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TS-13

USER NAME =	DESIGNED - GR	REVISED -
	DRAWN - GR	REVISED -
PLOT SCALE =	CHECKED - CG	REVISED -
PLOT DATE =	DATE - 2/18/2013	REVISED -

EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

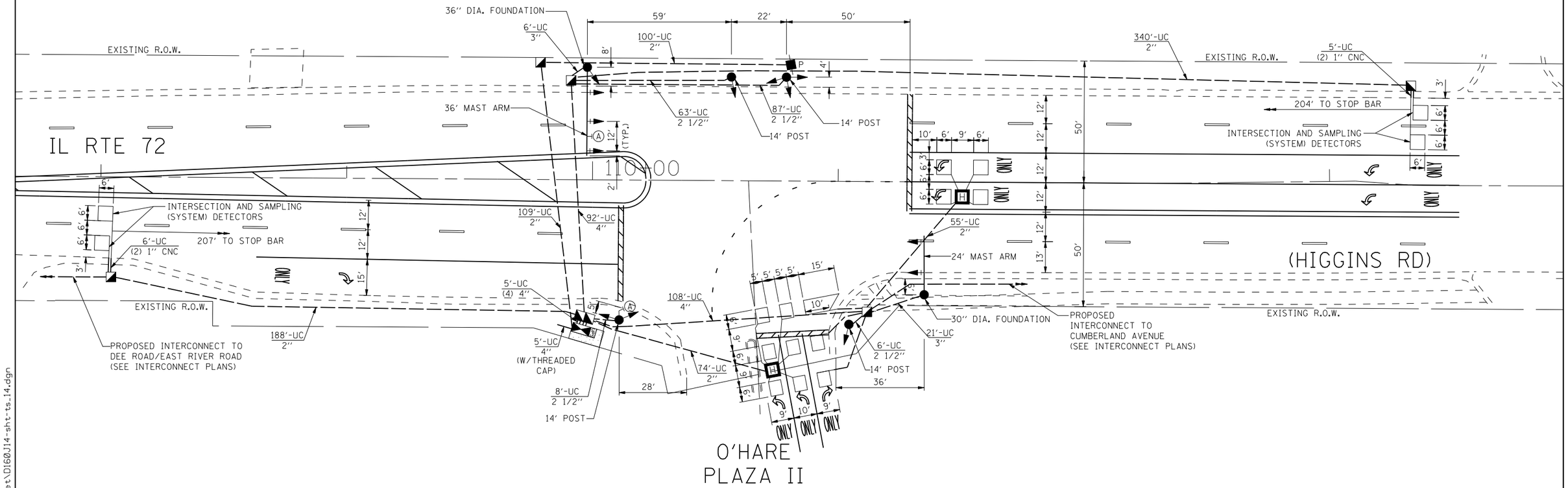
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN (ALL STAGES)
AND TEMPORARY PHASE DESIGNATION DIAGRAM
IL RTE 72 (HIGGINS ROAD) AT O'HARE PLAZA II

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	172
		CONTRACT NO. 60J14		
		ILLINOIS FED. AID PROJECT		

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



LEFT ON GREEN ARROW ONLY

SIGN (A)
R10-5
24" X 30"
(2 REQUIRED)

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

TS-14

USER NAME =	DESIGNED - GR	REVISED -
	DRAWN - GR	REVISED -
PLOT SCALE =	CHECKED - CG	REVISED -
PLOT DATE =	DATE - 2/18/2013	REVISED -

EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION
IL RTE 72 (HIGGINS ROAD) AT O'HARE PLAZA II

SCALE: 1" = 20' | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	173
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			

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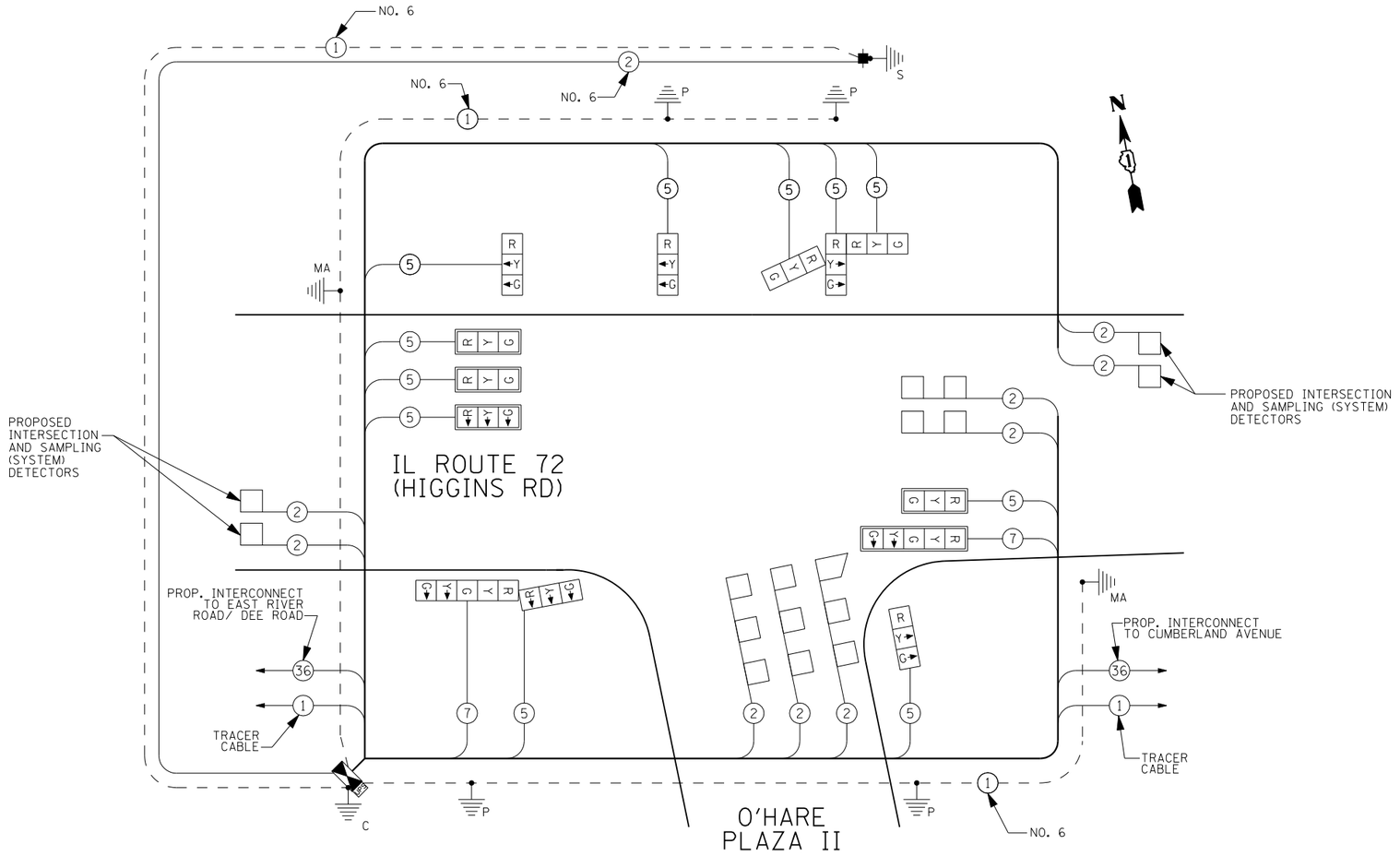
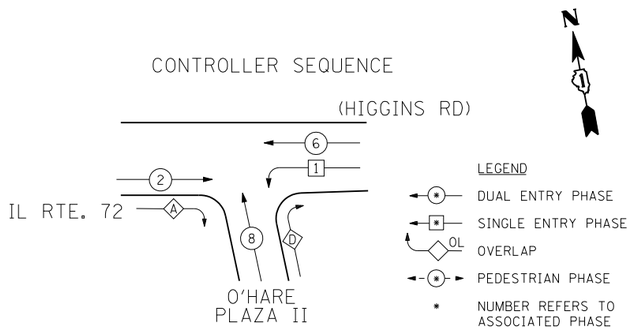
SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
SIGN PANEL - TYPE 1	SQ FT	10
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	866
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	164
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	27
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	225
HANDHOLE	EACH	5
HEAVY-DUTY HANDHOLE	EACH	2
DOUBLE HANDHOLE	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1949
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	241
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2159
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	238
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	780
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	4
STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	16
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	10
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	11
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 3-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	5
INDUCTIVE LOOP DETECTOR	EACH	9
DETECTOR LOOP, TYPE I	FOOT	526
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	9
REMOVE EXISTING CONCRETE FOUNDATION	EACH	8
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1



CABLE PLAN



PHASE DESIGNATION DIAGRAM

OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
A	=	2	+	8
D	=	8	+	1

I.D.O.T.
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	13	135	17	0.50	110.50
(YELLOW)	13	135	25	0.25	81.25
(GREEN)	13	135	15	0.25	48.75
ARROW	4	135	12	0.10	4.80
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN			25	0.50	

ENERGY COSTS TO: TOTAL = 345.30

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/DISTRICT 1
201 WEST CENTER COURT/SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: MARY INFANTI
PHONE: (847) 816-5322
COMPANY: COM ED

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

TS-15

USER NAME =	DESIGNED - GR	REVISED -	
	DRAWN - GR	REVISED -	
PLOT SCALE =	CHECKED - CG	REVISED -	
PLOT DATE =	DATE - 2/18/2013	REVISED -	

EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, AND PHASE DESIGNATION DIAGRAM
IL RTE 72 (HIGGINS ROAD) AT O'HARE PLAZA II

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	174
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			

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NOTES FOR TEMPORARY TRAFFIC SIGNALS:

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.

2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.

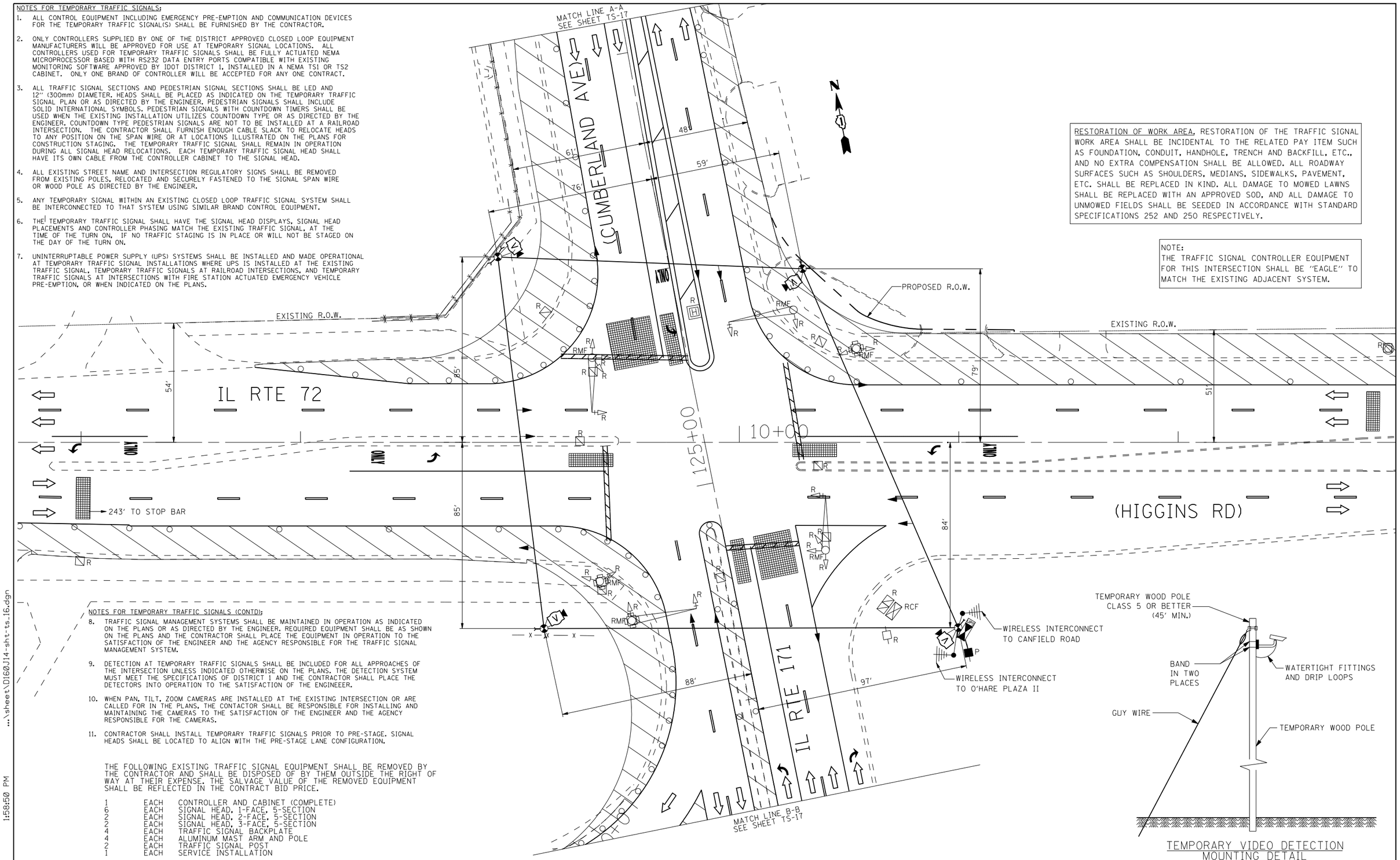
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.

4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.

5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.

6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON. IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

7. UNINTERRUPTABLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.



RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

NOTES FOR TEMPORARY TRAFFIC SIGNALS (CONTD):

8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.

9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.

10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

11. CONTRACTOR SHALL INSTALL TEMPORARY TRAFFIC SIGNALS PRIOR TO PRE-STAGE. SIGNAL HEADS SHALL BE LOCATED TO ALIGN WITH THE PRE-STAGE LANE CONFIGURATION.

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

1	EACH	CONTROLLER AND CABINET (COMPLETE)
6	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
2	EACH	SIGNAL HEAD, 2-FACE, 5-SECTION
2	EACH	SIGNAL HEAD, 3-FACE, 5-SECTION
4	EACH	TRAFFIC SIGNAL BACKPLATE
4	EACH	ALUMINUM MAST ARM AND POLE
2	EACH	TRAFFIC SIGNAL POST
1	EACH	SERVICE INSTALLATION

TEMPORARY VIDEO DETECTION
MOUNTING DETAIL

NOT TO SCALE

TS-16

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EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION (PRE-STAGE) AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN
IL RTE 72 (HIGGINS ROAD) AT IL RTE 171 (CUMBERLAND AVE)

SCALE: 1" = 20' | SHEET NO. 1 OF 2 SHEETS | STA. 123+50 TO STA. 128+12

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	175
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			

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NOTES FOR TEMPORARY TRAFFIC SIGNALS:

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.

2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.

3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.

4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.

5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.

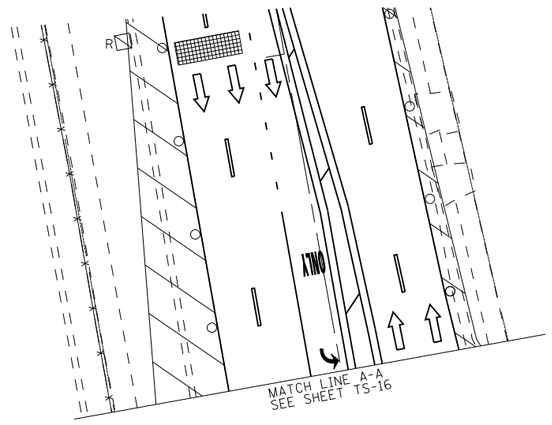
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

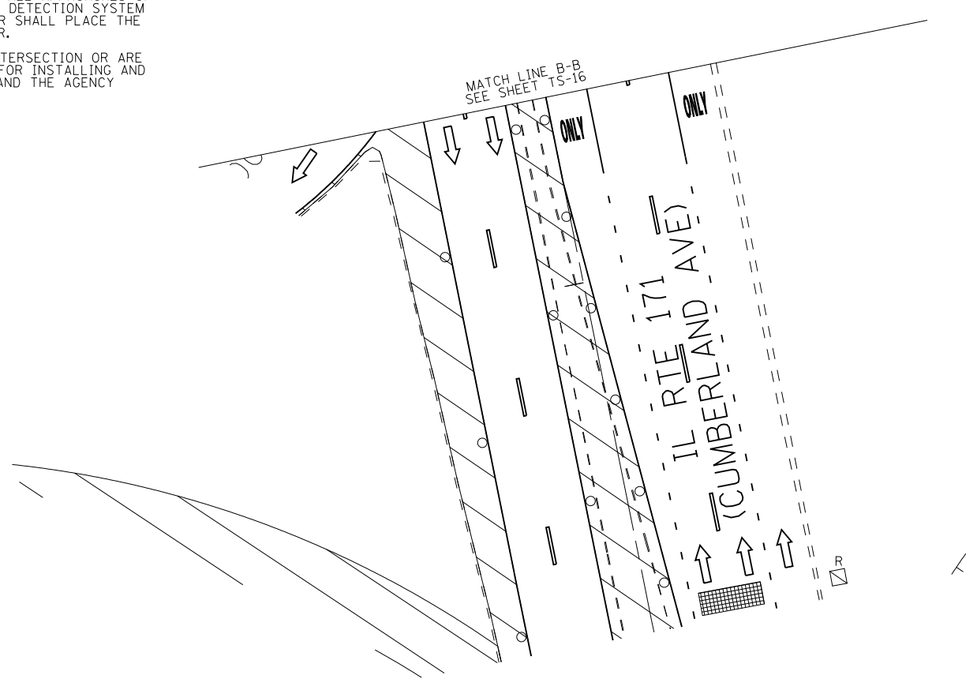
7. UNINTERRUPTABLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.

8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.

9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEEER.

10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.





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RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

TS-17

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EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION (PRE-STAGE) AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN
IL RTE 72 (HIGGINS ROAD) AT IL RTE 171 (CUMBERLAND AVE)

SCALE: 1" = 20' | SHEET NO. 2 OF 2 SHEETS | STA. 122+05 TO STA. 123+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	176
		CONTRACT NO. 60J14		
	ILLINOIS	FED. AID PROJECT		

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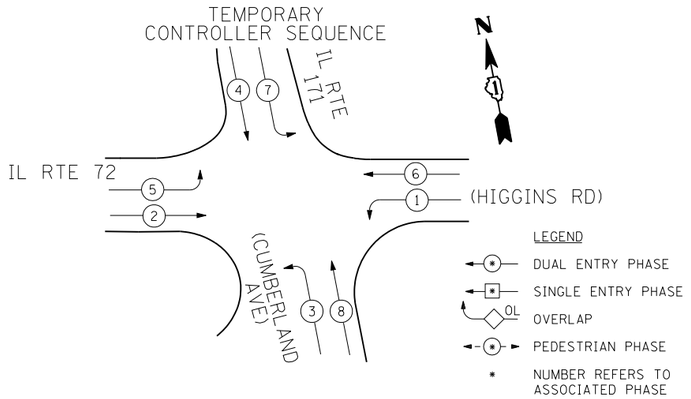
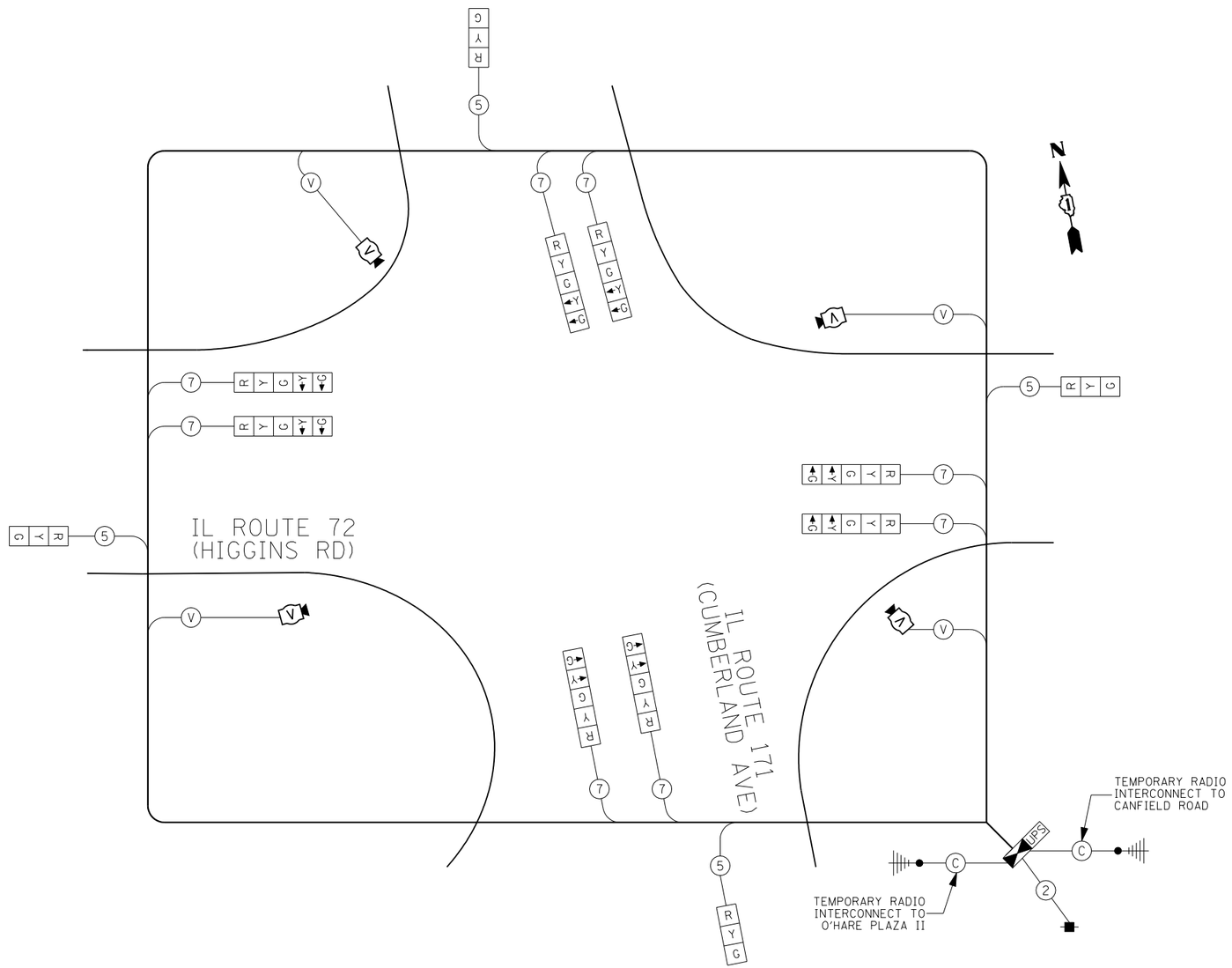


TEMPORARY PHASE DESIGNATION DIAGRAM



TEMPORARY CABLE PLAN

I.D.O.T.
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN			25	0.50	
ENERGY COSTS TO:				TOTAL =	341.2

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/DISTRICT 1
201 WEST CENTER COURT/SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: MARY INFANTI
PHONE: (847) 816-5322
COMPANY: COM ED

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

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

TS-18

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411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN AND TEMPORARY PHASE DESIGNATION DIAGRAM (PRE-STAGE)
IL RTE 72 (HIGGINS ROAD) AT IL RTE 171 (CUMBERLAND AVE)

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	177
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			

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MATCH LINE A-A

(CUMBERLAND AVE)

ONLY

61'

48'

EXISTING R.O.W.

PROPOSED R.O.W.

IL RTE 72

54'

51'

125+00

10+00

(HIGGINS RD)

WIRELESS INTERCONNECT TO CANFIELD ROAD

WIRELESS INTERCONNECT TO O'HARE PLAZA II

IL RTE 171

MATCH LINE B-B

00+0

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

TS-19

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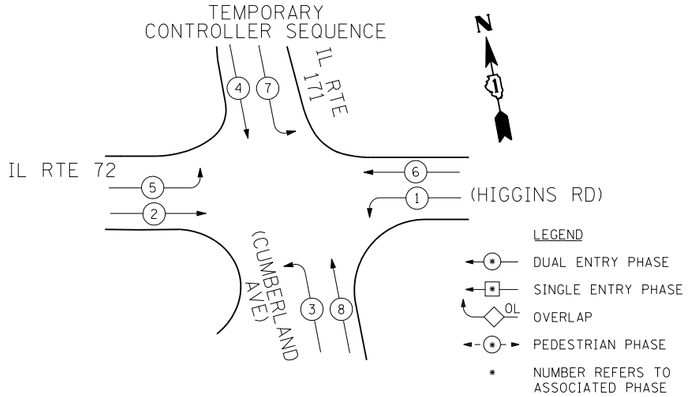
EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

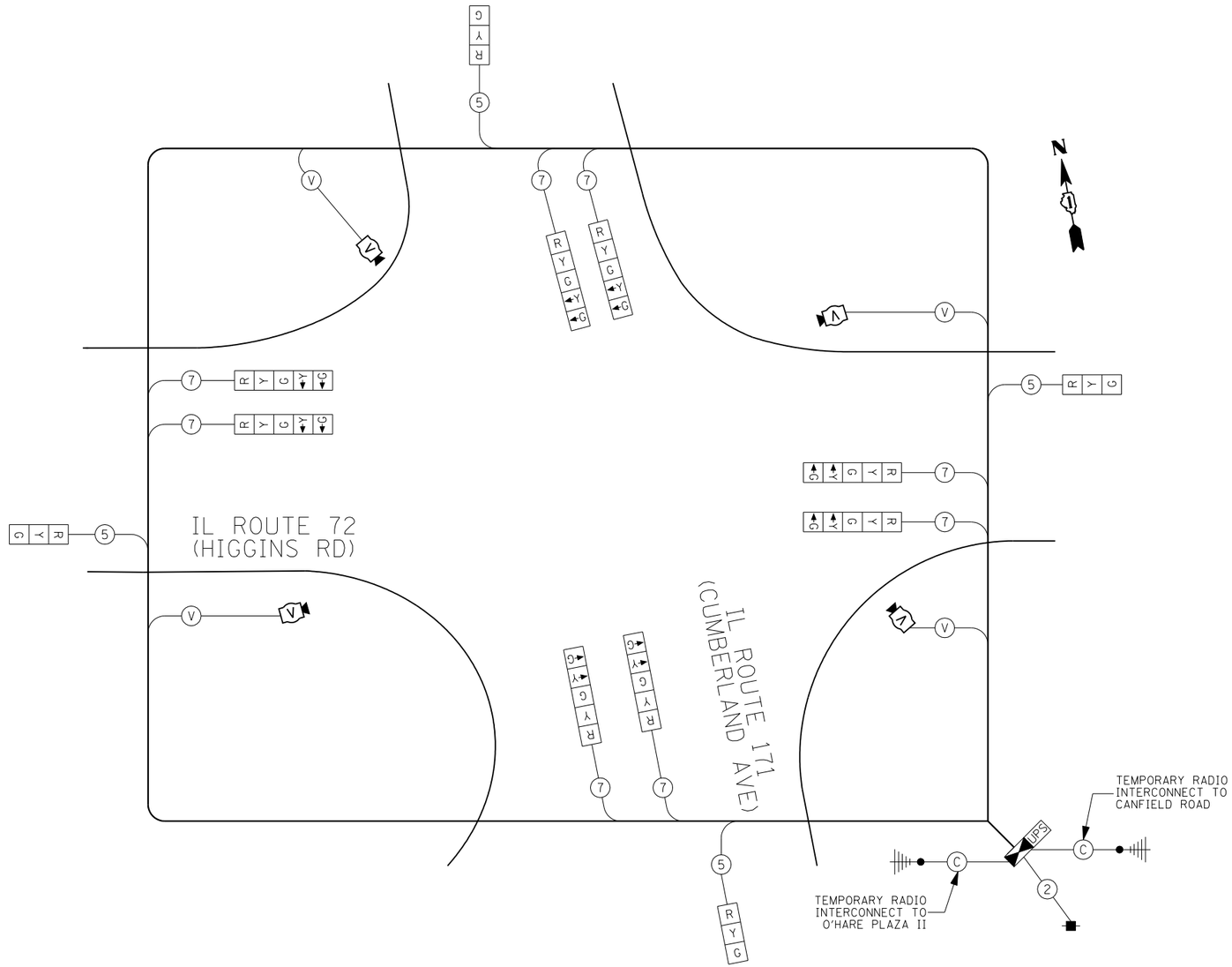
TEMPORARY TRAFFIC SIGNAL INSTALLATION (STAGE 1)
IL RTE 72 (HIGGINS ROAD) AT IL RTE 171 (CUMBERLAND AVE)

SCALE: 1" = 20' | SHEET NO. 1 OF 1 SHEETS | STA. 123+50 TO STA. 128+12

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	178
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			



TEMPORARY PHASE DESIGNATION DIAGRAM



TEMPORARY CABLE PLAN

I.D.O.T.
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN			25	0.50	
ENERGY COSTS TO:				TOTAL =	341.2

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/DISTRICT 1
201 WEST CENTER COURT/SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: MARY INFANTI
PHONE: (847) 816-5322
COMPANY: COM ED

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

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

TS-20

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EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN AND TEMPORARY PHASE DESIGNATION DIAGRAM (STAGE 1)
IL RTE 72 (HIGGINS ROAD) AT IL RTE 171 (CUMBERLAND AVE)

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	179
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			

MATCH LINE A-A

(CUMBERLAND AVE)

ONLY

61'

48'

EXISTING R.O.W.

PROPOSED R.O.W.

IL RTE 72

54'

ONLY

ONLY

ONLY

ONLY

1125+00

10+00

00+00

EXISTING R.O.W.

51'

(HIGGINS RD)

WIRELESS INTERCONNECT TO CANFIELD ROAD

WIRELESS INTERCONNECT TO O'HARE PLAZA II

P

IL RTE 171

ONLY

MATCH LINE B-B

MATCH LINE A-A

MATCH LINE B-B

IL RTE 171 (CUMBERLAND AVE)

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

TS-21

USER NAME =	DESIGNED - GR	REVISED -
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PLOT SCALE =	CHECKED - CG	REVISED -
PLOT DATE =	DATE - 2/18/2013	REVISED -

EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION (STAGE 1A)
IL RTE 72 (HIGGINS ROAD) AT IL RTE 171 (CUMBERLAND AVE)

SCALE: 1" = 20' | SHEET NO. 1 OF 1 SHEETS | STA. 123+50 TO STA. 128+12

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	180
		CONTRACT NO. 60J14		
		ILLINOIS FED. AID PROJECT		

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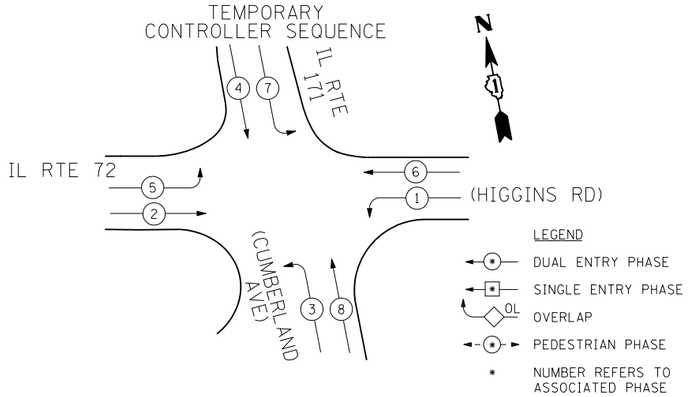
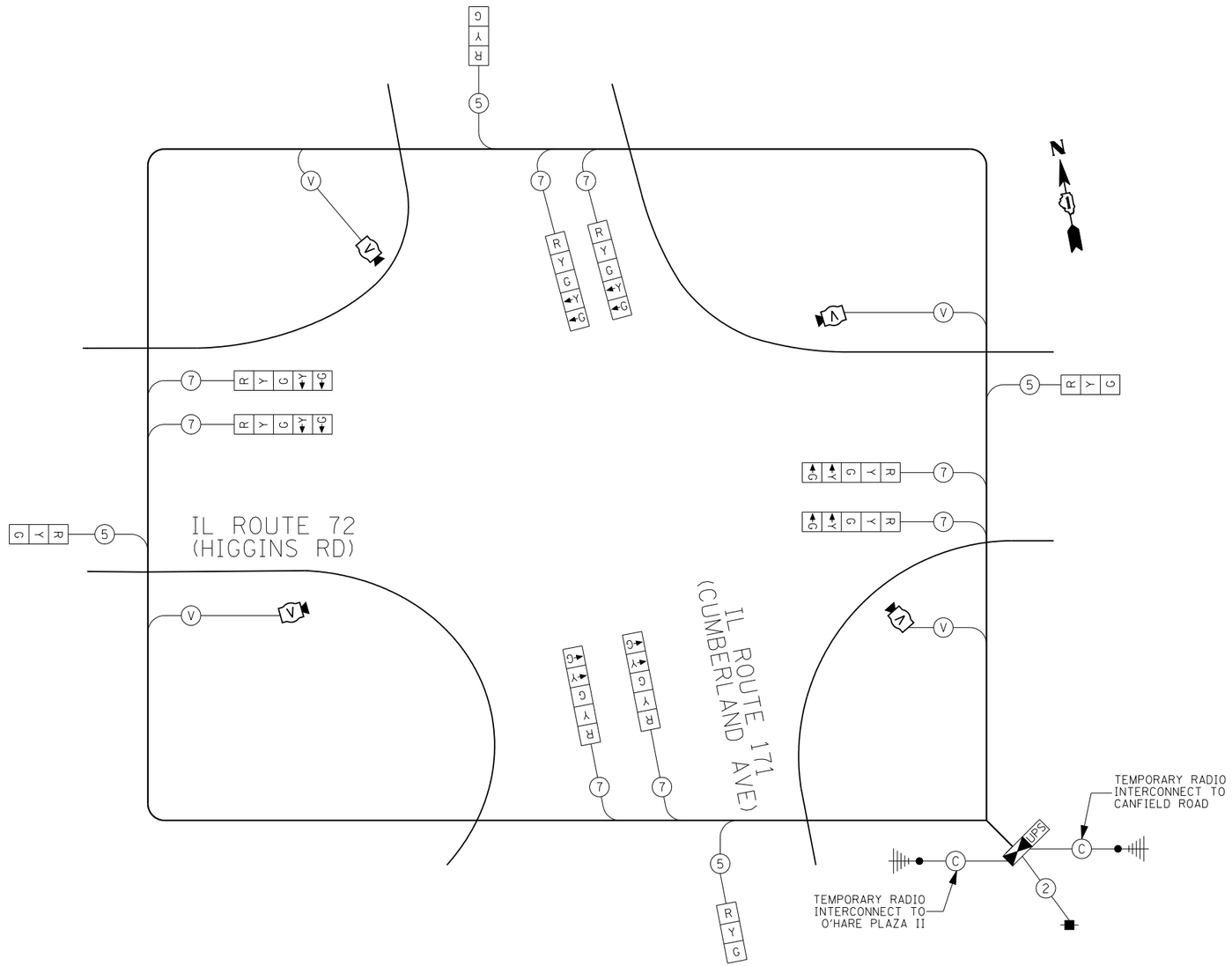


TEMPORARY PHASE DESIGNATION DIAGRAM



TEMPORARY CABLE PLAN

I.D.O.T.
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN			25	0.50	
ENERGY COSTS TO:				TOTAL =	341.2

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/DISTRICT 1
201 WEST CENTER COURT/SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: MARY INFANTI
PHONE: (847) 816-5322
COMPANY: COM ED

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

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

TS-22

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EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN AND TEMPORARY PHASE DESIGNATION DIAGRAM (STAGE 1A)
IL RTE 72 (HIGGINS ROAD) AT IL RTE 171 (CUMBERLAND AVE)

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	181
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			

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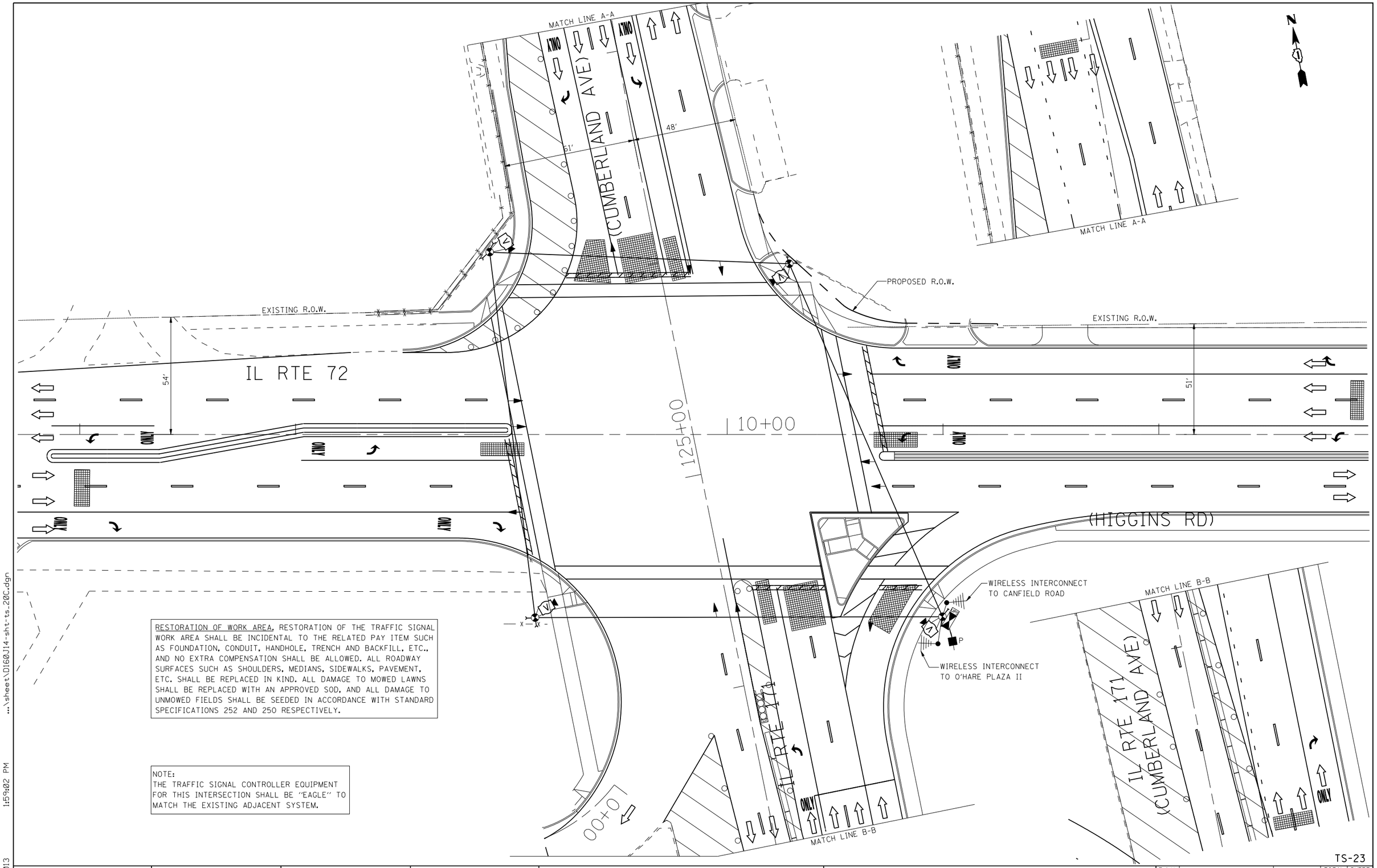

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

TS-23

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411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION (STAGE 2)
IL RTE 72 (HIGGINS ROAD) AT IL RTE 171 (CUMBERLAND AVE)

SCALE: 1" = 20' | SHEET NO. 1 OF 1 SHEETS | STA. 123+50 TO STA. 128+12

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	182
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			

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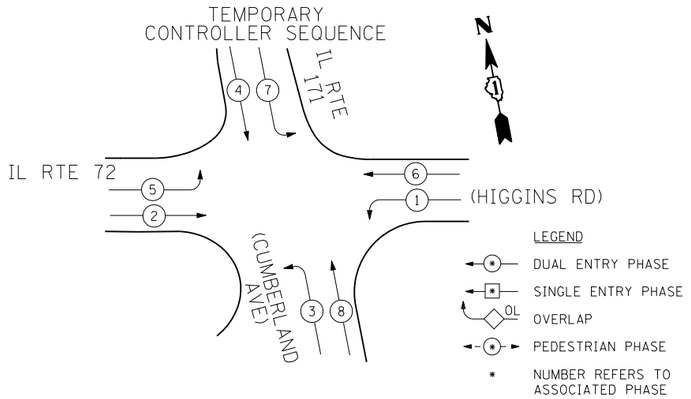
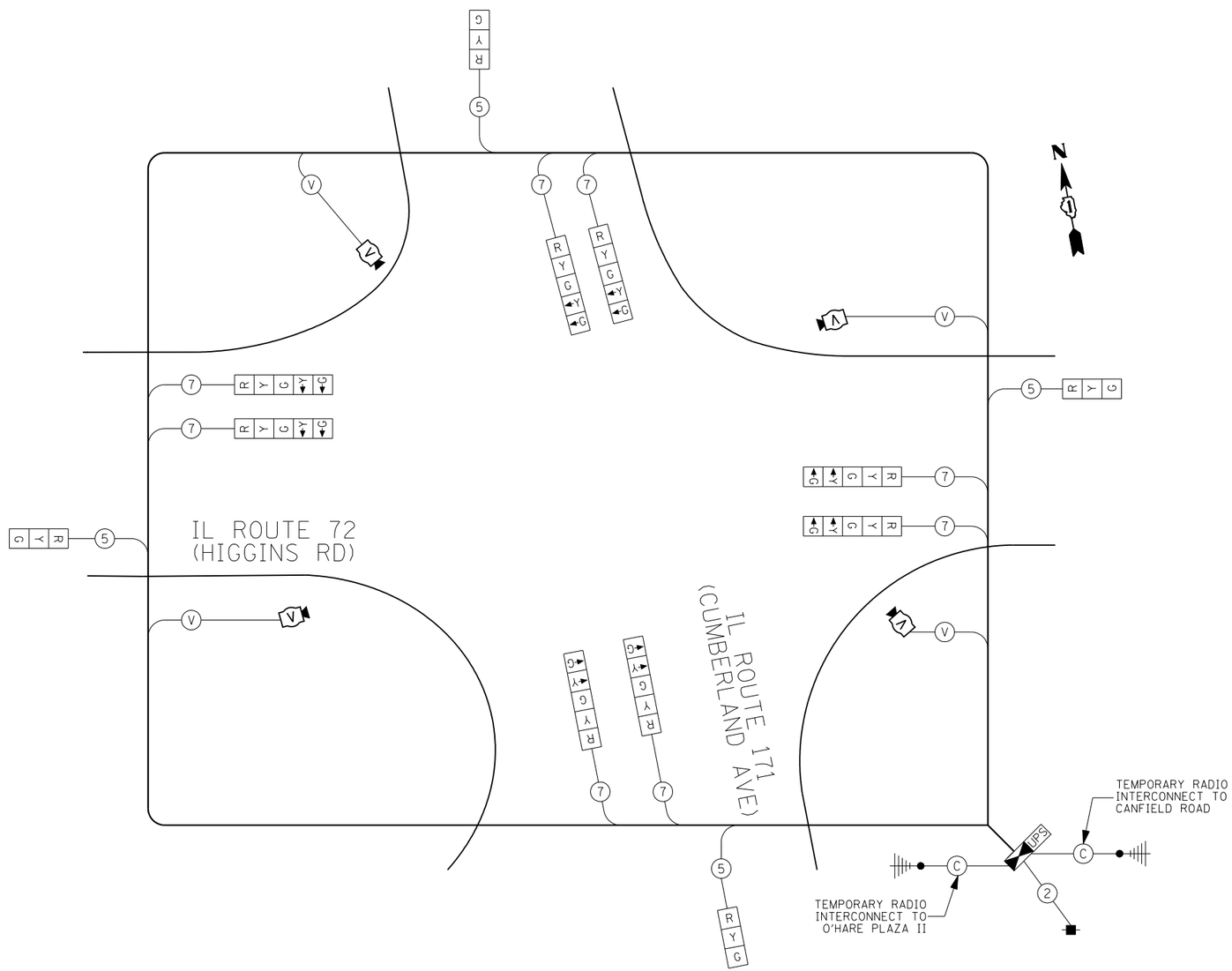


TEMPORARY PHASE DESIGNATION DIAGRAM



TEMPORARY CABLE PLAN

I.D.O.T.
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN			25	0.50	
ENERGY COSTS TO:				TOTAL =	341.2

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/DISTRICT 1
201 WEST CENTER COURT/SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: MARY INFANTI
PHONE: (847) 816-5322
COMPANY: COM ED

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

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

TS-24

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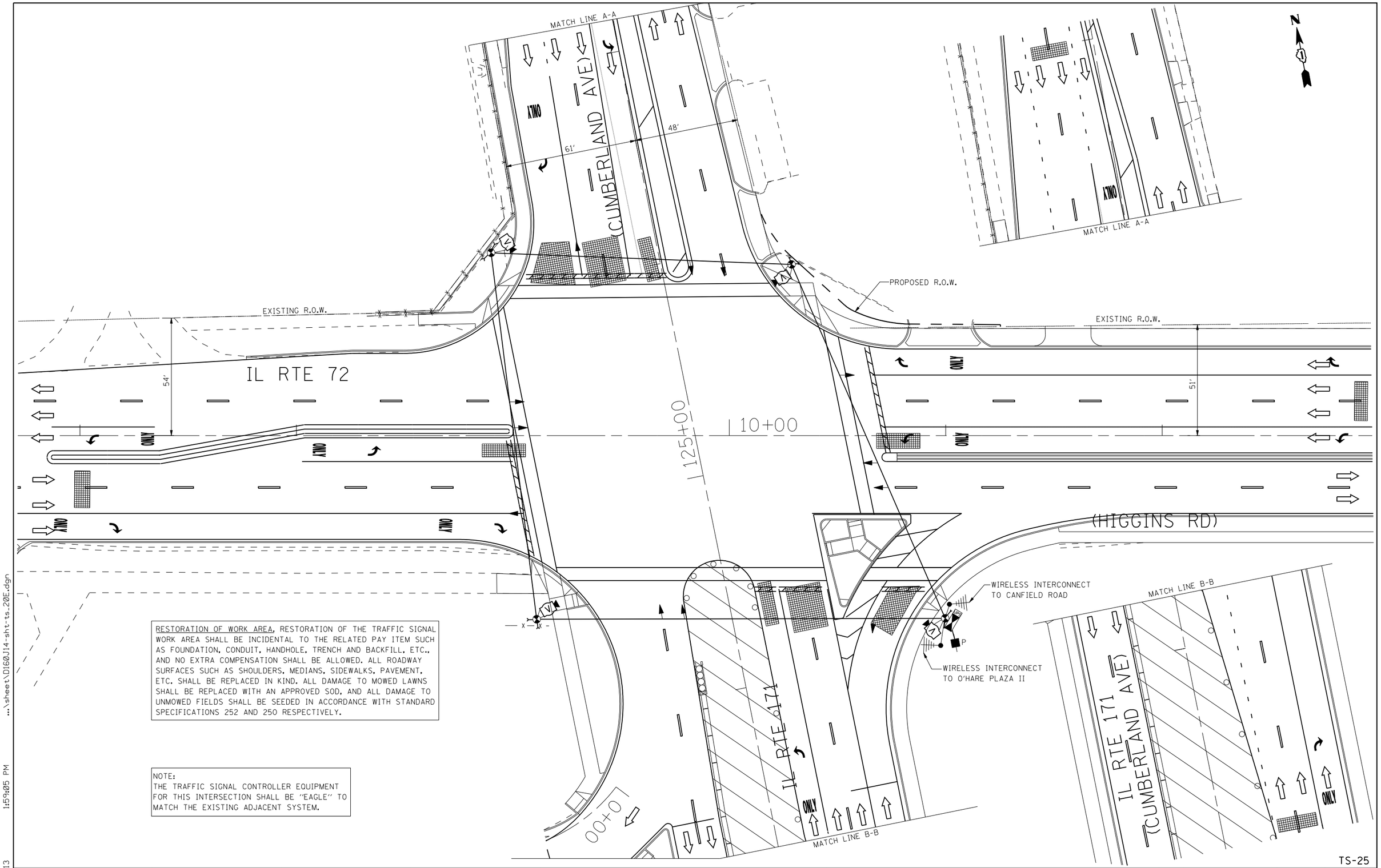
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN AND TEMPORARY PHASE DESIGNATION DIAGRAM (STAGE 2)
IL RTE 72 (HIGGINS ROAD) AT IL RTE 171 (CUMBERLAND AVE)

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	183
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			



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

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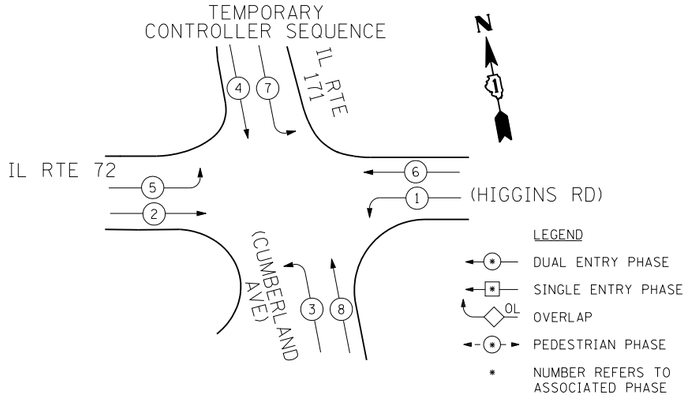
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

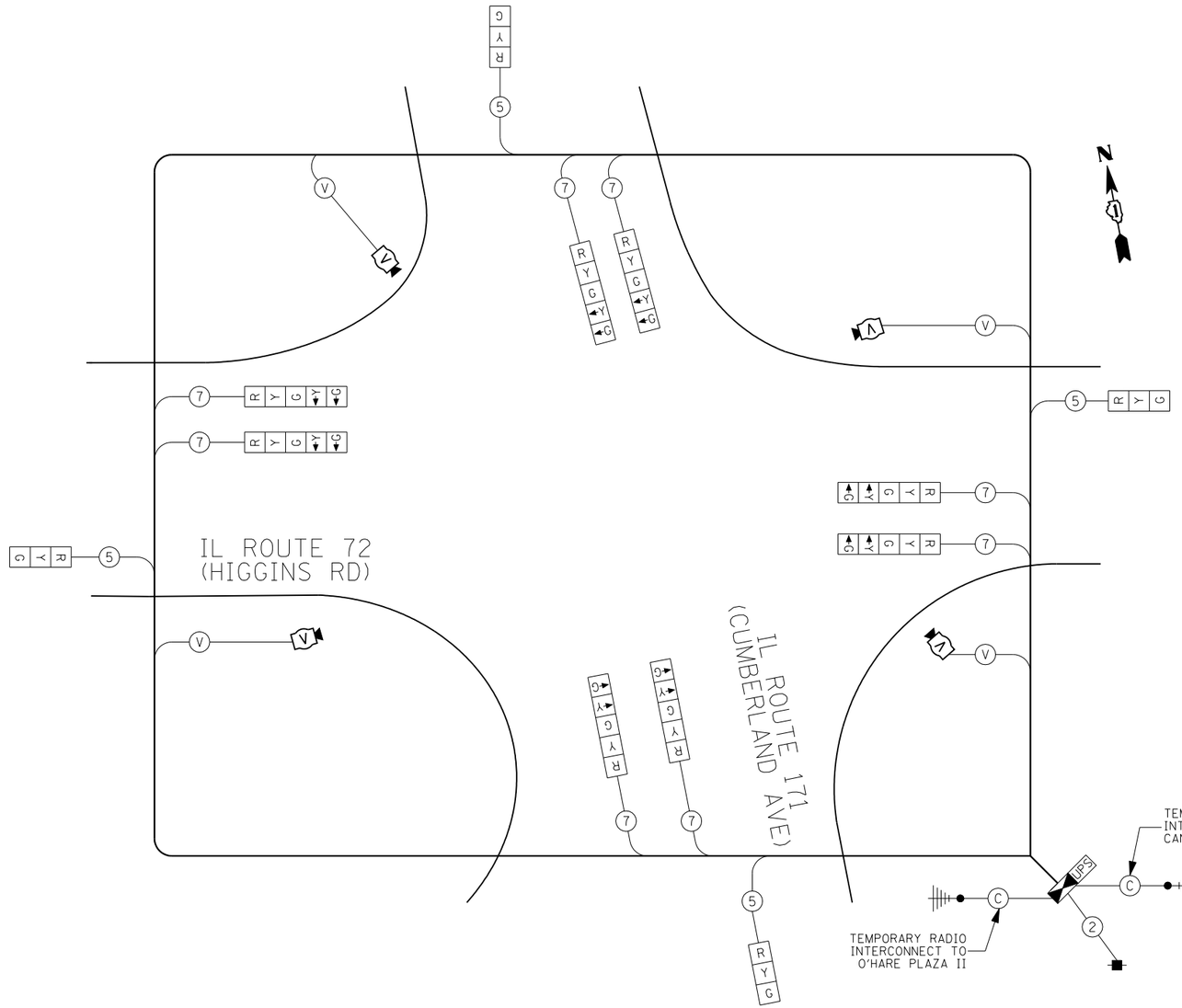
TEMPORARY TRAFFIC SIGNAL INSTALLATION (STAGE 3)
IL RTE 72 (HIGGINS ROAD) AT IL RTE 171 (CUMBERLAND AVE)

SCALE: 1" = 20' | SHEET NO. 1 OF 1 SHEETS | STA. 123+50 TO STA. 128+12

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	184
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			



TEMPORARY PHASE DESIGNATION DIAGRAM



TEMPORARY CABLE PLAN

I.D.O.T.
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN			25	0.50	
ENERGY COSTS TO:				TOTAL =	341.2

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/DISTRICT 1
201 WEST CENTER COURT/SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: MARY INFANTI
PHONE: (847) 816-5322
COMPANY: COM ED

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

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

TS-26

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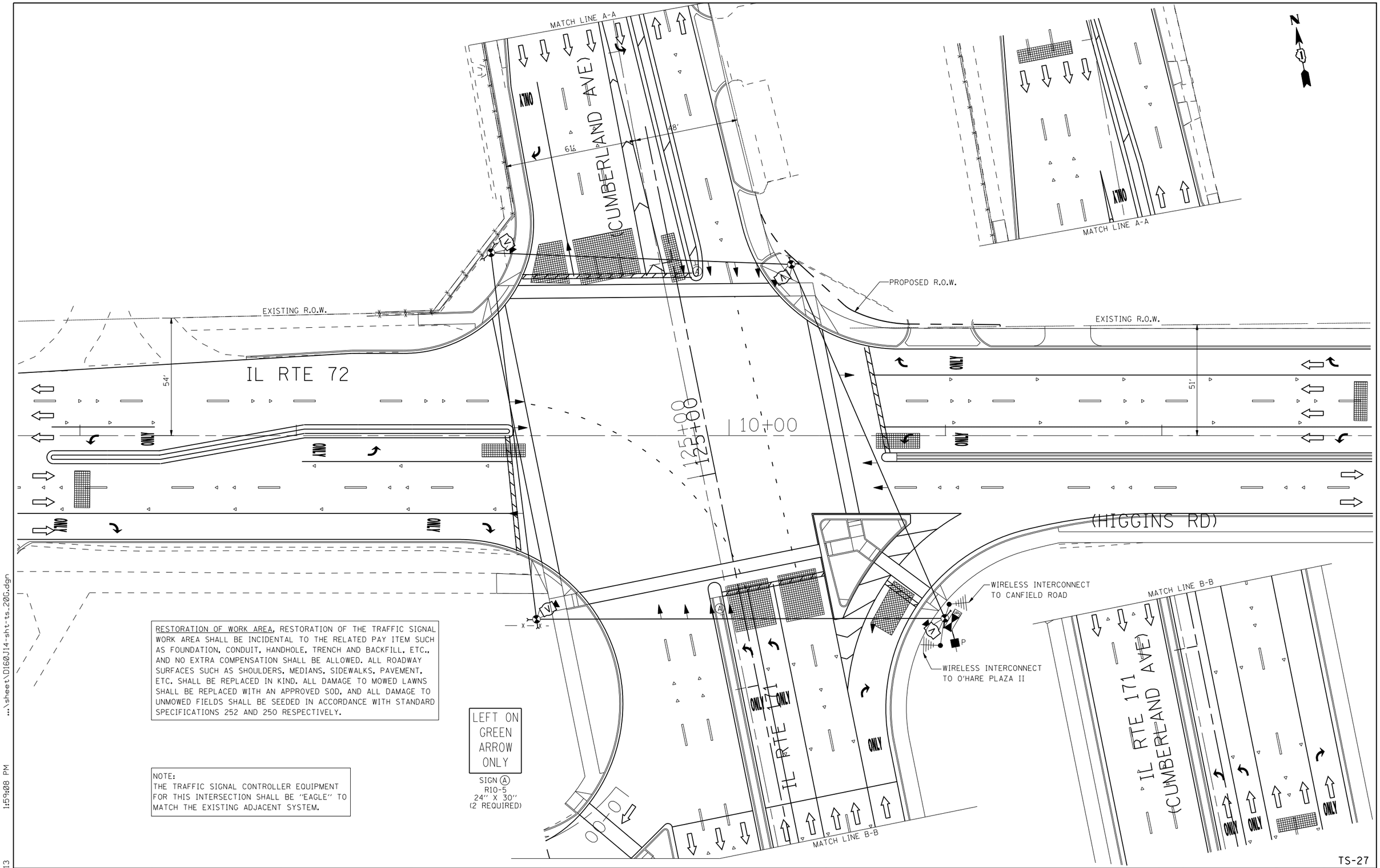
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN AND TEMPORARY PHASE DESIGNATION DIAGRAM (STAGE 3)
IL RTE 72 (HIGGINS ROAD) AT IL RTE 171 (CUMBERLAND AVE)

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	185
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			



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

LEFT ON GREEN ARROW ONLY

SIGN (A)
R10-5
24" X 30"
(2 REQUIRED)

TS-27

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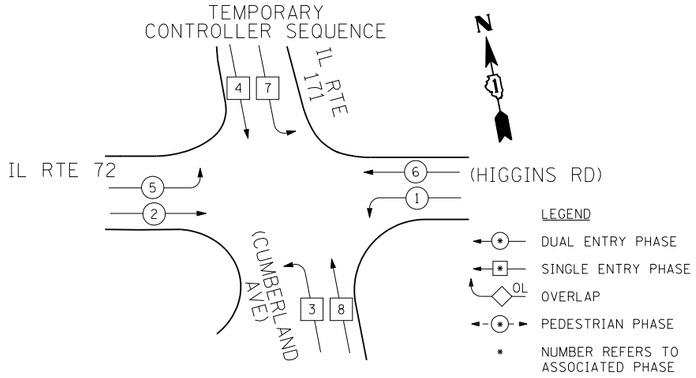
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

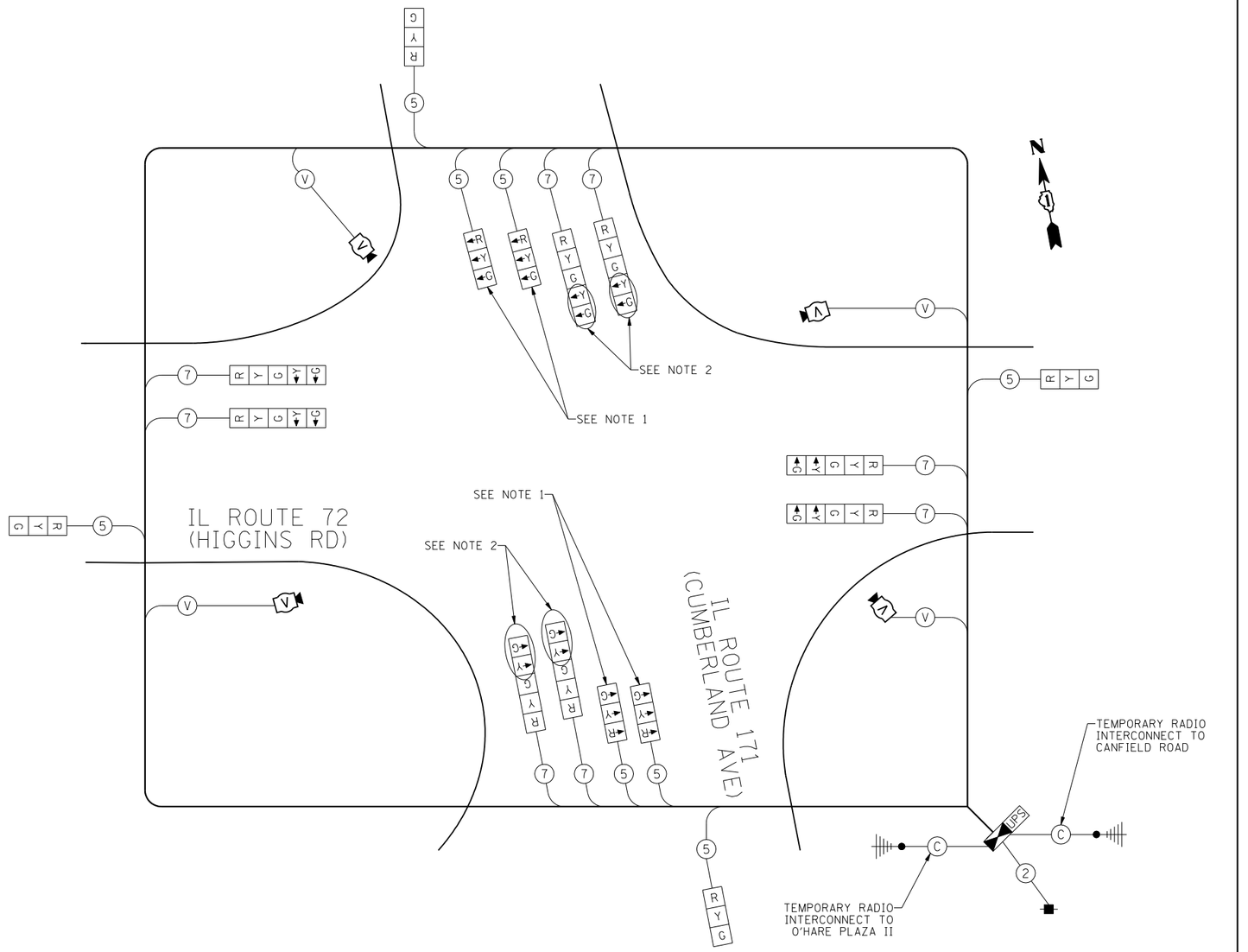
TEMPORARY TRAFFIC SIGNAL INSTALLATION (PROPOSED CONDITIONS)
IL RTE 72 (HIGGINS ROAD) AT IL RTE 171 (CUMBERLAND AVE)

SCALE: 1" = 20' | SHEET NO. 1 OF 1 SHEETS | STA. 123+50 TO STA. 128+12

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	186
		CONTRACT NO. 60J14		
	ILLINOIS	FED. AID PROJECT		



TEMPORARY PHASE DESIGNATION DIAGRAM



TEMPORARY CABLE PLAN

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. OF LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	16	135	17	0.50	136.00
(YELLOW)	16	135	25	0.25	100.00
(GREEN)	16	135	15	0.25	60.00
ARROW		135	12	0.10	
PED. SIGNAL	-	90	25	1.00	
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN			25	0.50	
ENERGY COSTS TO:				TOTAL =	396.00

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

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

NOTES:

1. CONTRACTOR SHALL INSTALL SIGNAL HEADS PRIOR TO ACTIVATION OF THE FINAL STAGE (TEMPORARY SIGNALS FOR PROPOSED CONDITIONS).
2. CONTRACTOR SHALL COVER AND DE-ENERGIZE THE ARROW SECTION HEADS FOR THE DURATION OF THE FINAL STAGE (TEMPORARY SIGNALS FOR PROPOSED CONDITIONS).

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/DISTRICT 1
201 WEST CENTER COURT/SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: MARY INFANTI
PHONE: (847) 816-5322
COMPANY: COM ED

TS-28

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Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN AND TEMPORARY PHASE DESIGNATION DIAGRAM (PROPOSED CONDITIONS)
IL RTE 72 (HIGGINS ROAD) AT IL RTE 171 (CUMBERLAND AVE)

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	187
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			

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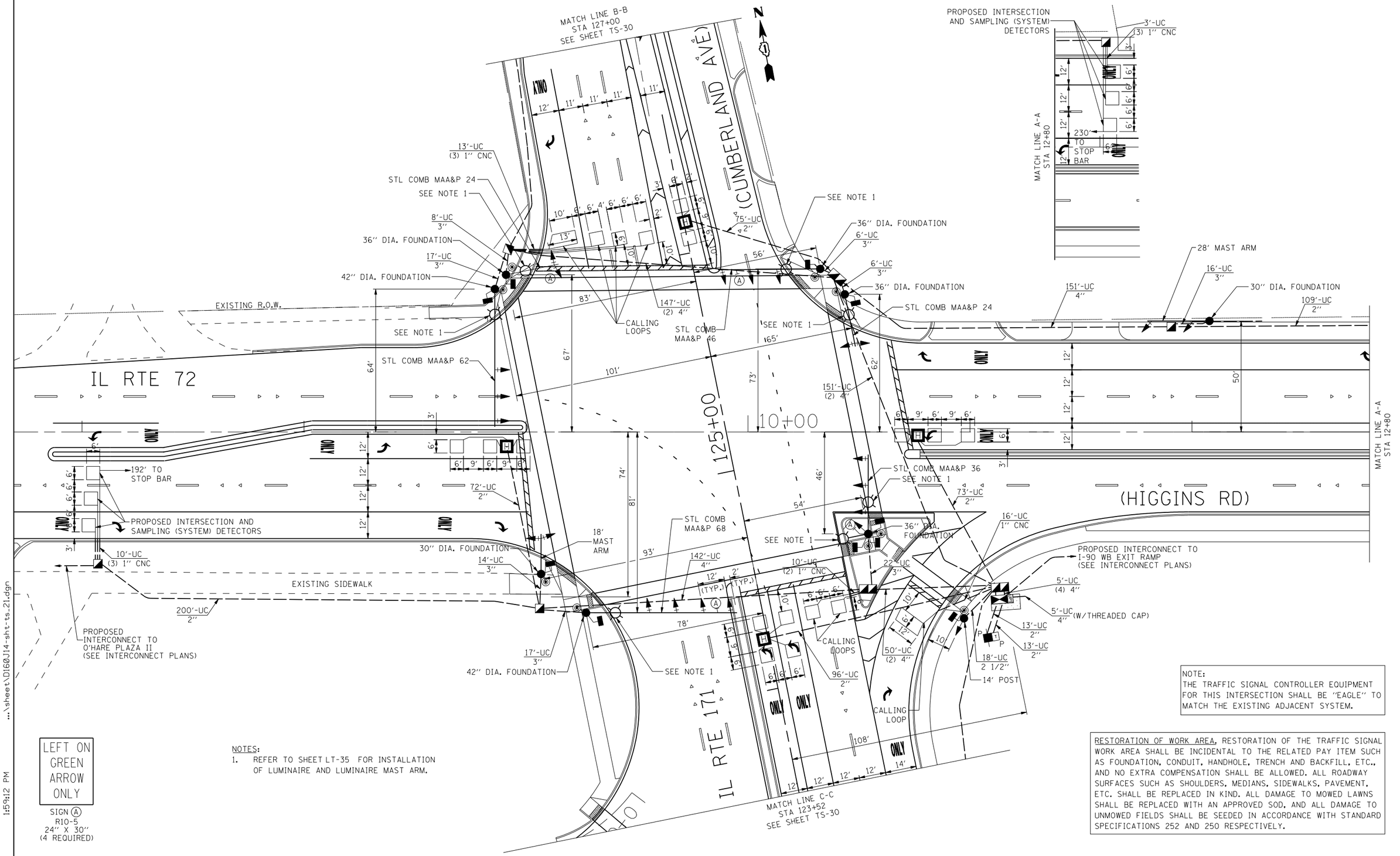

LEFT ON GREEN ARROW ONLY

SIGN (A)
R10-5
24" X 30"
(4 REQUIRED)

NOTES:
1. REFER TO SHEET LT-35 FOR INSTALLATION OF LUMINAIRE AND LUMINAIRE MAST ARM.

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

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

TS-29

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411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION PLAN
IL RTE 72 (HIGGINS ROAD) AT IL RTE 171 (CUMBERLAND AVE)

SCALE: 1" = 20' | SHEET NO. 1 OF 2 SHEETS | STA. 123+52 TO STA. 127+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	188
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			

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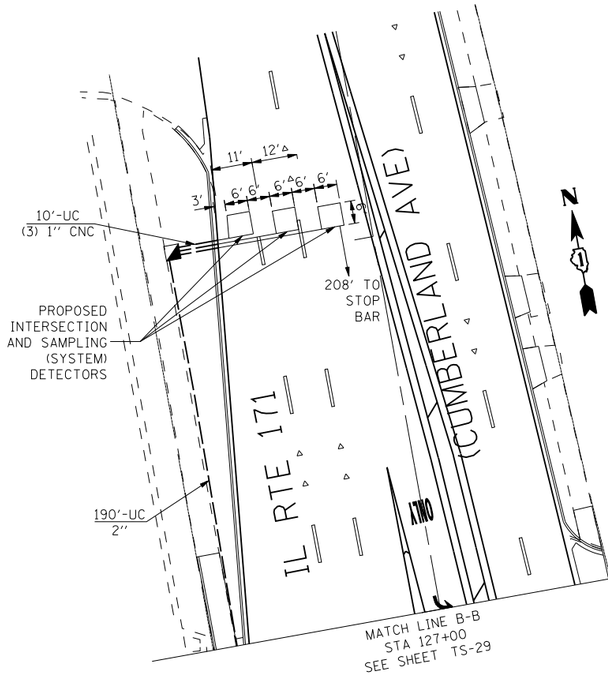

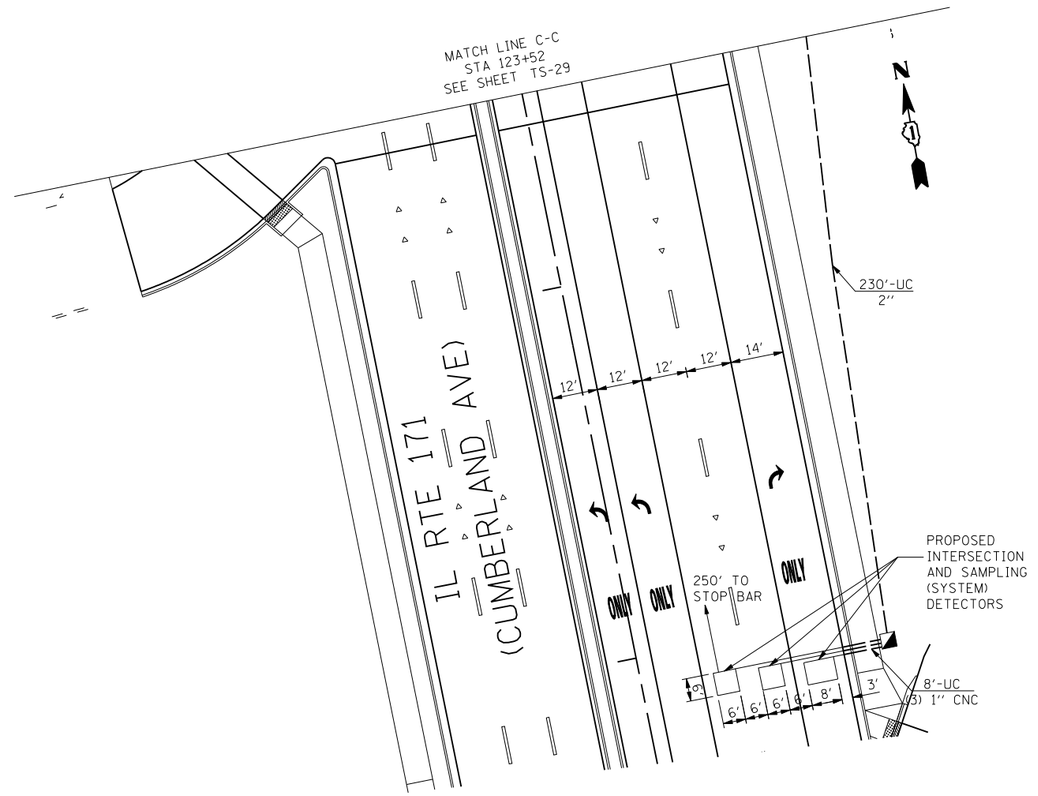

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411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION PLAN
IL RTE 72 (HIGGINS ROAD) AT IL RTE 171 (CUMBERLAND AVE)

SCALE: 1" = 20' | SHEET NO. 2 OF 2 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	189
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			

SCHEDULE OF QUANTITIES

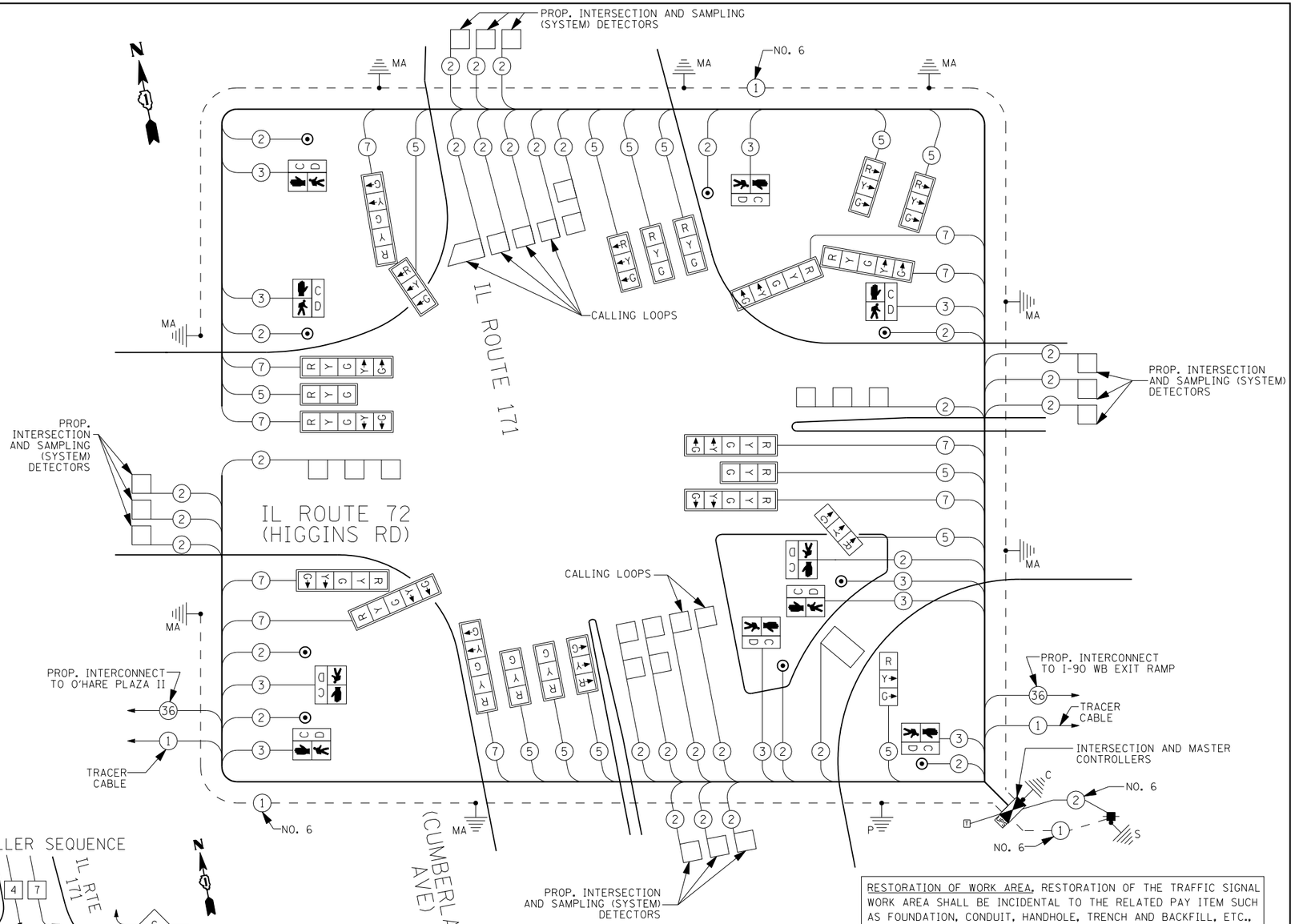
ITEM	UNIT	QUANTITY
SIGN PANEL - TYPE 1	SQ FT	20
SIGN PANEL - TYPE 2	SQ FT	60
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	1081
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	18
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	106
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	1014
HANDHOLE	EACH	7
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	3
MASTER CONTROLLER IN TYPE V CABINET	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1857
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2070
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	3687
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	2882
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	7538
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	35
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	1075
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 18 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 24 FT.	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 36 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 46 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 62 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 68 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	4
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	20
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	46
CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	46
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	11
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	10
TIMER	EACH	7
TIMER	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	21
INDUCTIVE LOOP DETECTOR	EACH	24
DETECTOR LOOP, TYPE I	FOOT	1111
PEDESTRIAN PUSH-BUTTON	EACH	9
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	12
REMOVE EXISTING CONCRETE FOUNDATION	EACH	7
FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

I.D.O.T.
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

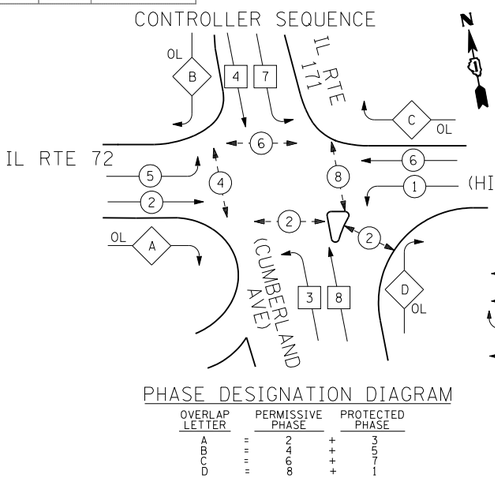
TYPE	NO. OF LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	23	135	17	0.50	195.5
(YELLOW)	19	135	25	0.25	118.75
(GREEN)	19	135	15	0.25	71.25
ARROW	28	135	12	0.10	33.6
PED. SIGNAL	10	90	25	1.00	250
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN			25	0.50	
ENERGY COSTS TO:				TOTAL =	769.1

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/DISTRICT 1
201 WEST CENTER COURT/SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: MARY INFANTI
PHONE: (847) 816-5322
COMPANY: COM ED



CABLE PLAN



PHASE DESIGNATION DIAGRAM

OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
A	=	2	+	3
B	=	4	+	5
C	=	6	+	7
D	=	8	+	1

LEGEND
- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OL OVERLAP
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

TS-31

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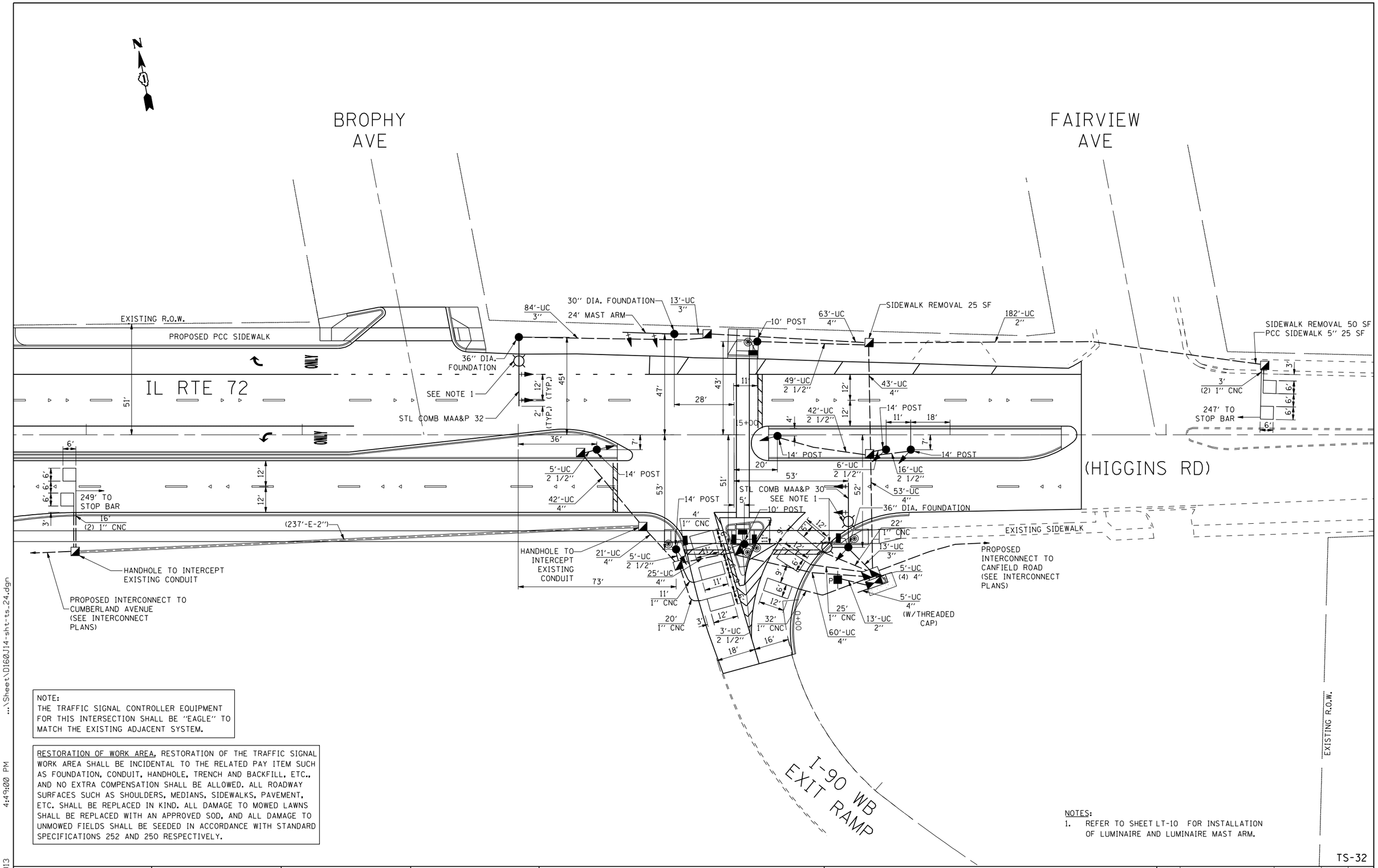
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, AND PHASE DESIGNATION DIAGRAM
IL RTE 72 (HIGGINS ROAD) AT IL RTE 171 (CUMBERLAND AVE)

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	190
		CONTRACT NO. 60J14		
		ILLINOIS FED. AID PROJECT		



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

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

NOTES:
1. REFER TO SHEET LT-10 FOR INSTALLATION OF LUMINAIRE AND LUMINAIRE MAST ARM.

TS-32

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Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

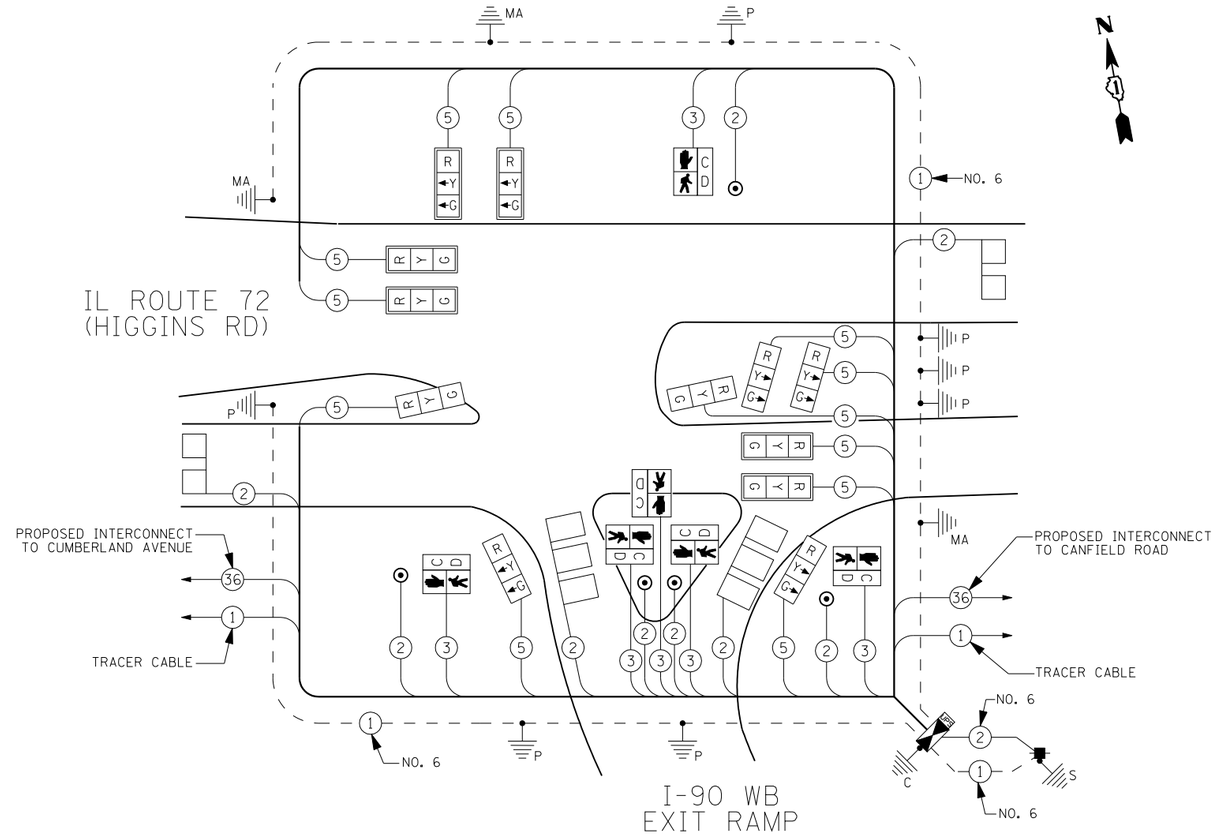
TRAFFIC SIGNAL INSTALLATION PLAN
IL RTE 72 (HIGGINS ROAD) AT I-90 WB EXIT RAMP

SCALE: 1" = 20' | SHEET NO. 1 OF 1 SHEETS | STA. 11+66 TO STA. 17+96

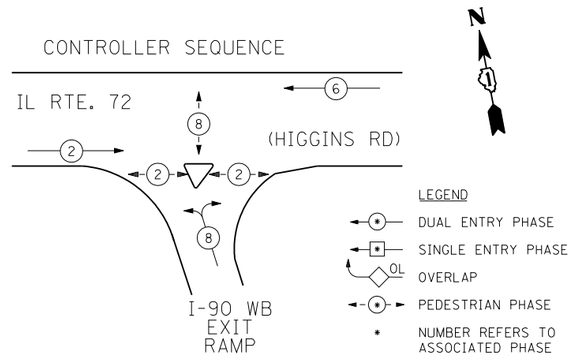
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	191
		CONTRACT NO. 60J14		
		ILLINOIS FED. AID PROJECT		

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	200
SIDEWALK REMOVAL	SQ FT	325
SIGN PANEL - TYPE 2	SQ FT	12.5
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	195
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	120
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	110
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	332
HANDHOLE	EACH	9
DOUBLE HANDHOLE	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	681
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	881
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2125
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	856
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	34
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	941
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	5
STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	28
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	10
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	22
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	6
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	3
PEDESTRIAN SIGNAL HEAD, LED, 3-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	6
INDUCTIVE LOOP DETECTOR	EACH	4
DETECTOR LOOP, TYPE I	FOOT	362
PEDESTRIAN PUSH-BUTTON	EACH	5
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1



CABLE PLAN



PHASE DESIGNATION DIAGRAM

I.D.O.T.
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATIONS	TOTAL WATTAGE
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW		135	12	0.10	-
PED. SIGNAL	6	90	25	1.00	150
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN			25	0.50	

ENERGY COSTS TO: TOTAL = 472

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS/DISTRICT 1
201 WEST CENTER COURT/SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: MARY INFANTI
PHONE: (847) 816-5322
COMPANY: COM ED

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

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411 South Wells Street Suite 1000
Chicago, Illinois 60607

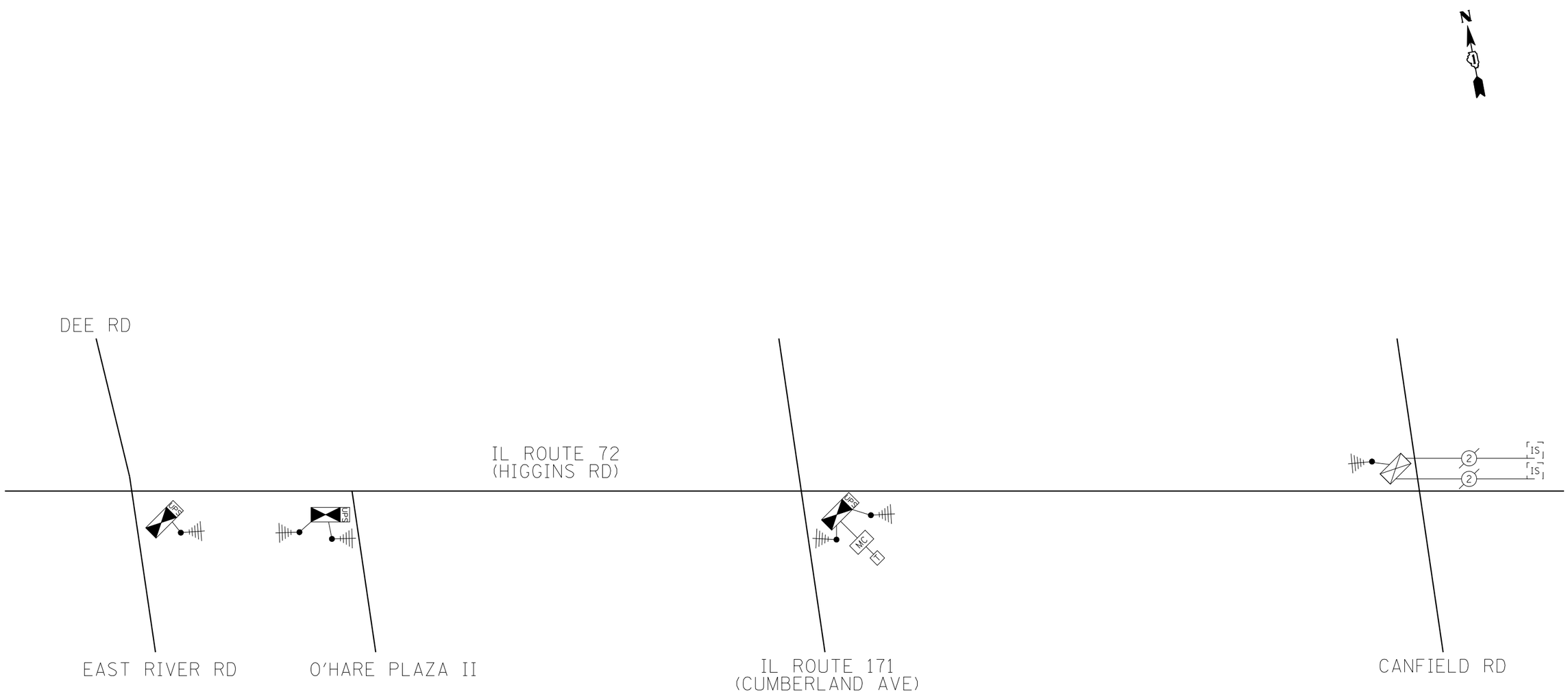
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, AND PHASE DESIGNATION DIAGRAM
IL RTE 72 (HIGGINS ROAD) AT I-90 WB EXIT RAMP

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

TS-33

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	192
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			



TS-34

USER NAME =	DESIGNED - GR	REVISED -	EJM ENGINEERING, INC. 411 South Wells Street Suite 1000 Chicago, Illinois 60607	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY INTERCONNECT SCHEMATIC IL RTE 72 (HIGGINS RD) DEE RD/EAST RIVER RD TO CANFIELD RD
	DRAWN - GR	REVISED -			SCALE: NONE | SHEET NO. OF SHEETS | STA. TO STA.
PLOT SCALE =	CHECKED - CG	REVISED -			
PLOT DATE =	DATE - 2/18/2013	REVISED -			

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	193
		CONTRACT NO. 60J14		
	ILLINOIS	FED. AID PROJECT		

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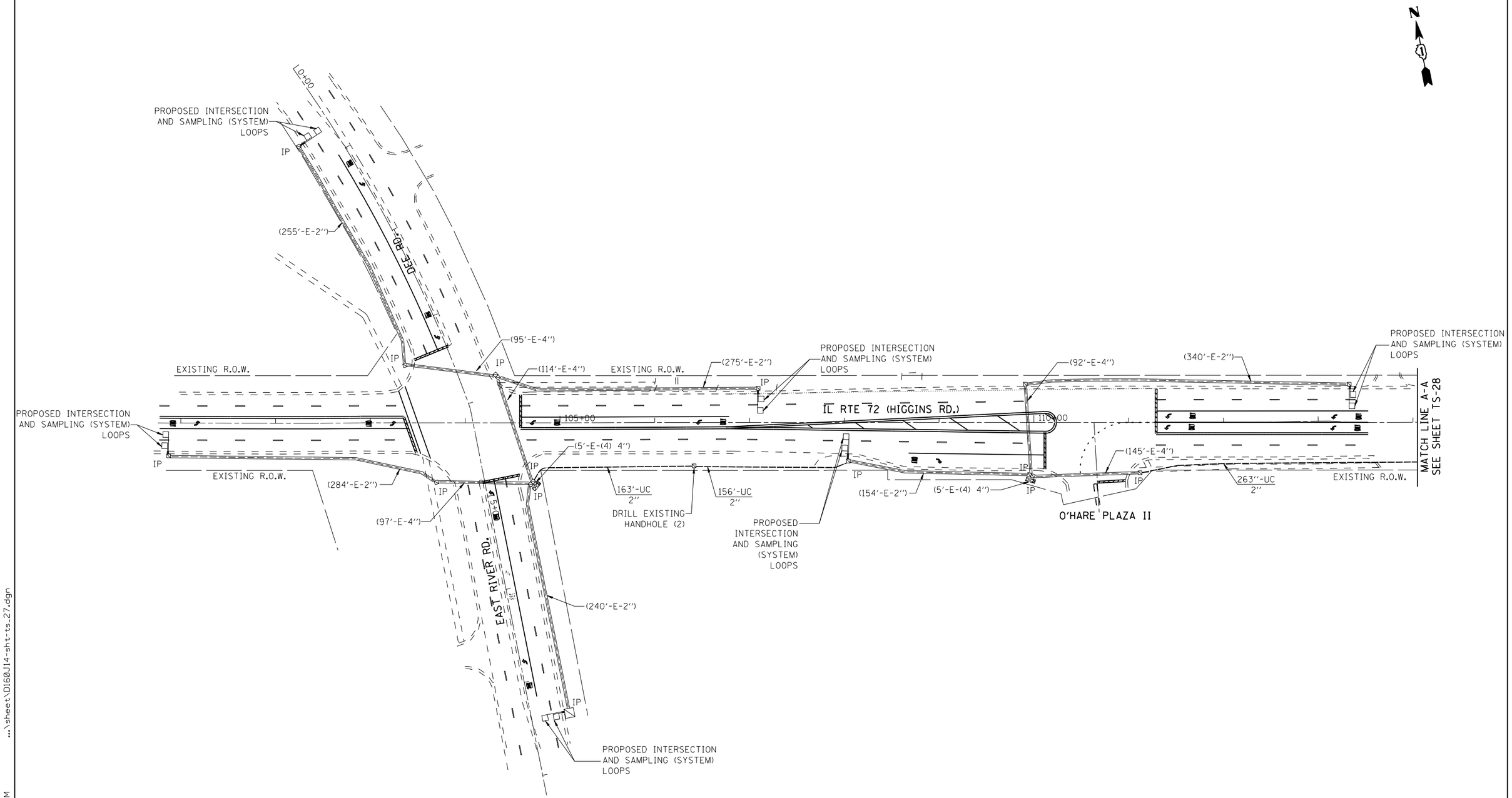

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PLOT SCALE =	CHECKED - CG	REVISED -
PLOT DATE =	DATE - 2/18/2013	REVISED -

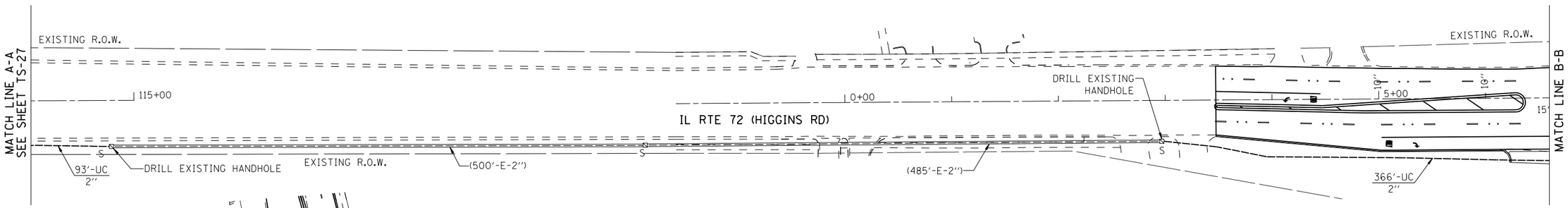
EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

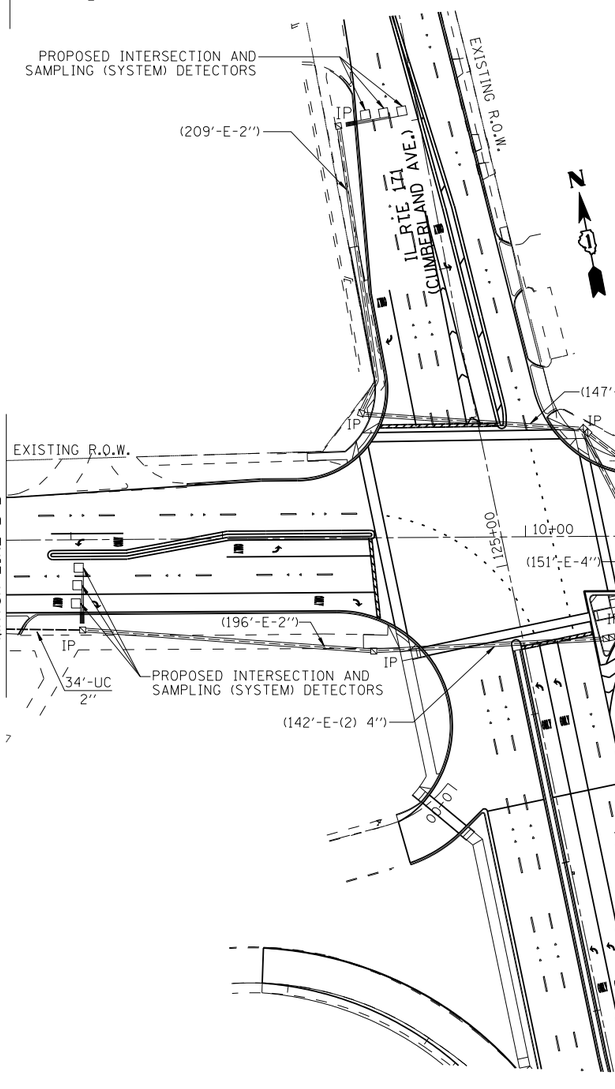
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INTERCONNECT PLAN
ILL RTE 72 (HIGGINS RD)
DEE RD./EAST RIVER RD. TO CANFIELD AVE.

SCALE: 1"=50' | SHEET NO. 1 OF 3 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	194
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			





NOTES:

1. REMOVE EXISTING FIBER OPTIC CABLE AND TRACER WIRE FROM ALL EXISTING CONDUIT TO REMAIN IN USE.

TS-36

USER NAME =	DESIGNED - GR	REVISED -
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411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INTERCONNECT PLAN
IL RTE 72 (HIGGINS RD)
DEE RD./EAST RIVER RD. TO CANFIELD AVE.

SCALE: 1"=50' | SHEET NO. 2 OF 3 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	195
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			

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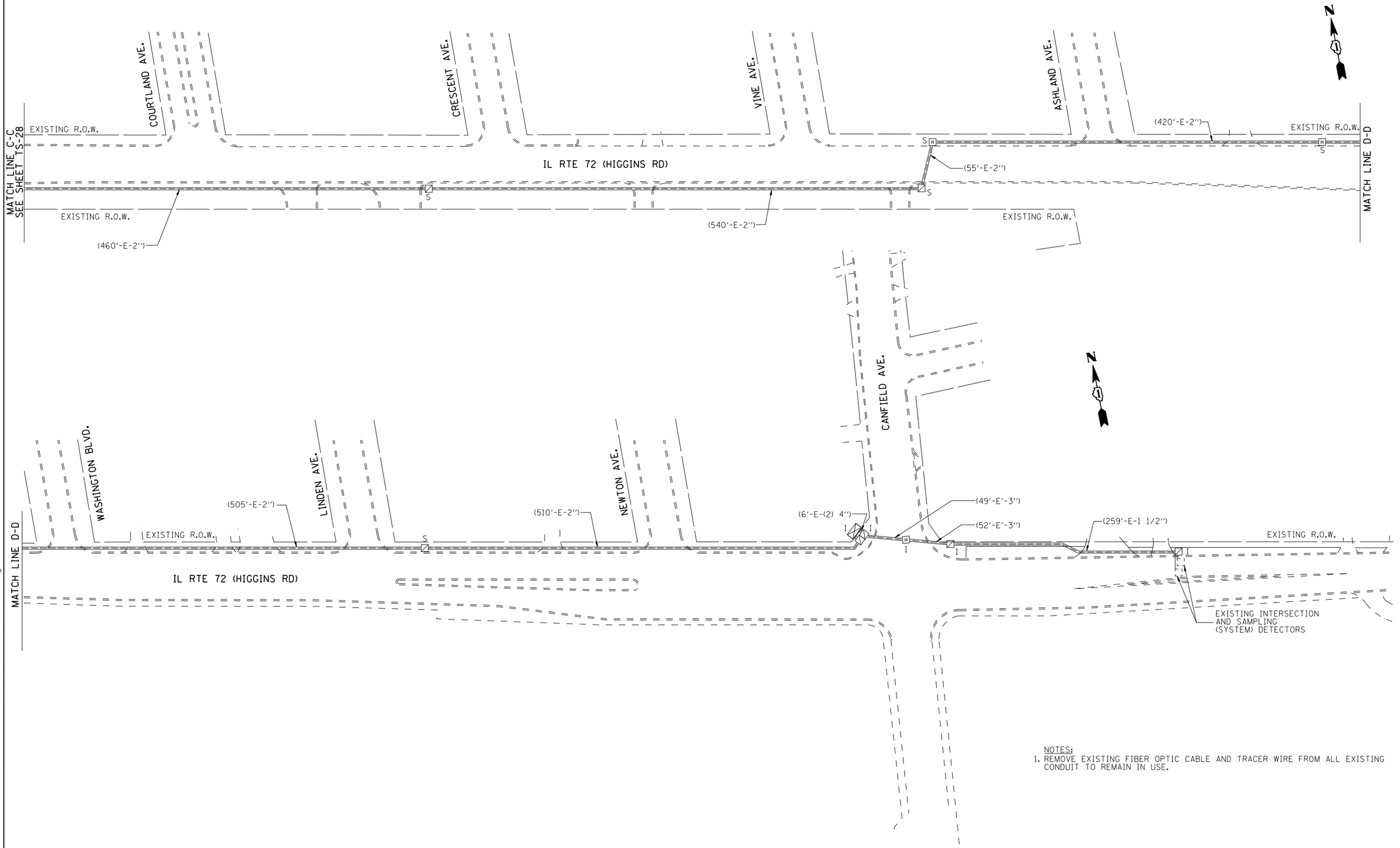

NOTES:
1. REMOVE EXISTING FIBER OPTIC CABLE AND TRACER WIRE FROM ALL EXISTING CONDUIT TO REMAIN IN USE.

TS-37

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Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INTERCONNECT PLAN
IL RTE 72 (HIGGINS RD.)
DEE RD./EAST RIVER RD. TO CANFIELD AVE.

SCALE: 1"=50' | SHEET NO. 3 OF 3 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	196
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			

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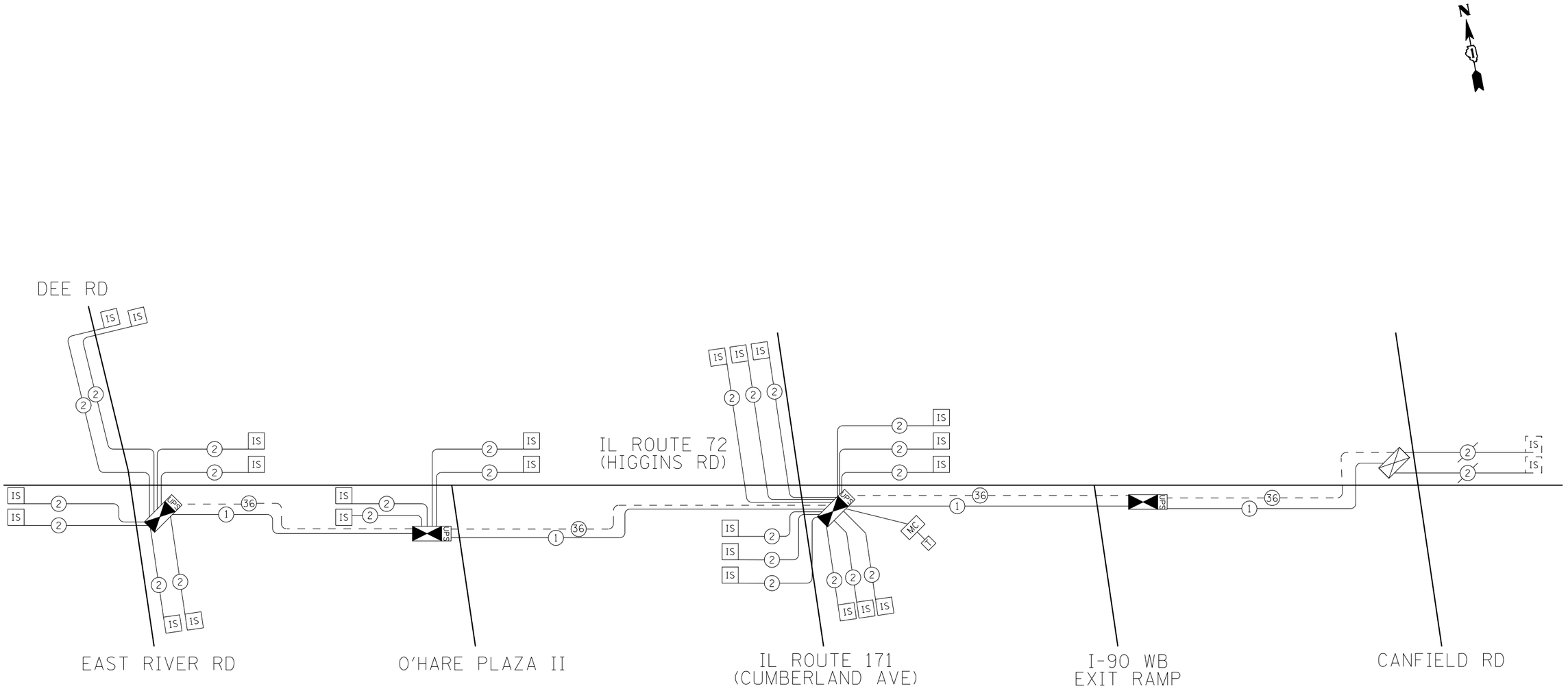

INTERCONNECT SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	1247
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	6594
DRILL EXISTING HANDHOLE	EACH	4
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	7708
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	6663
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	2

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Chicago, Illinois 60607

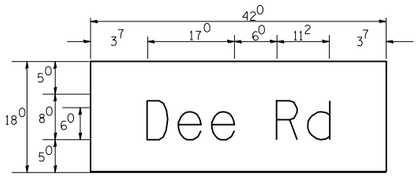
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT SCHEMATIC
IL RTE 72 (HIGGINS RD)
DEE RD/EAST RIVER RD TO CANFIELD RD

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

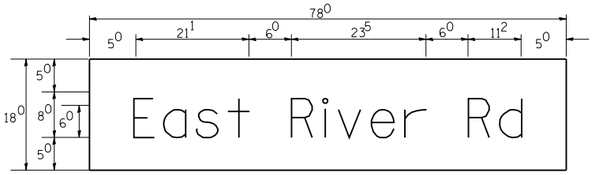
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	197
		CONTRACT NO. 60J14		
		ILLINOIS FED. AID PROJECT		

PANEL SIGN DESIGN TYPE 1



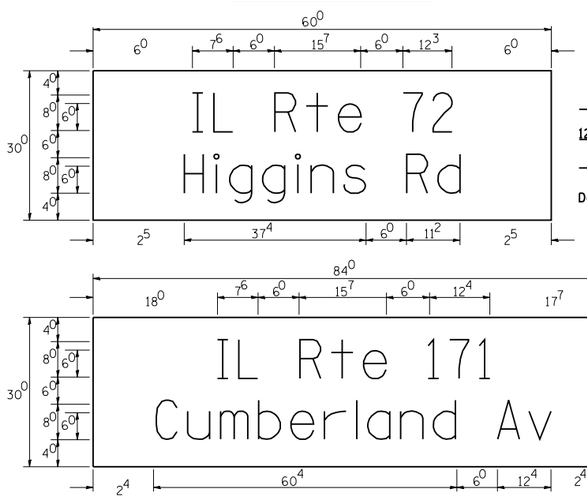
___ Sq. M. each
5.25 Sq. Ft. each
2 Required
Design Series D

NOTE: SIGN DIMENSIONS ARE IN ENGLISH UNITS



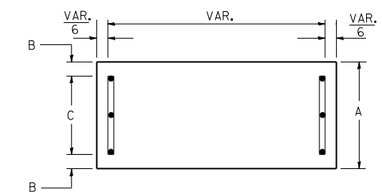
___ Sq. M. each
9.0 Sq. Ft. each
2 Required
Design Series D

PANEL SIGN DESIGN TYPE 2

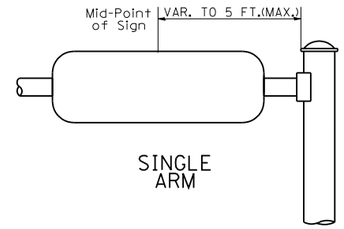


___ Sq. M. each
12.5 Sq. Ft. each
4 Required
Design Series D

SUPPORTING CHANNELS

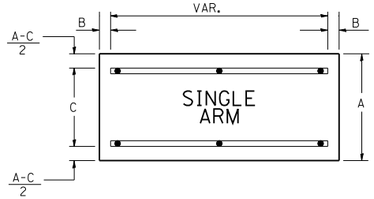


A	B	C
18″	2″	14″



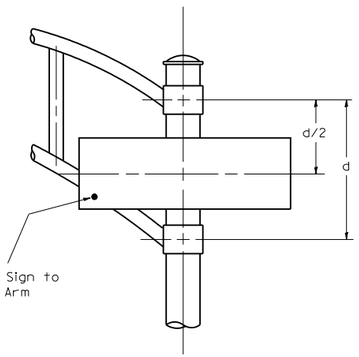
SINGLE ARM

SUPPORTING CHANNELS



A	B	C
18″	2″	12″
30″	2″	22″

___ Sq. M. each
17.5 Sq. Ft. each
2 Required
Design Series D



DUAL ARM

SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM
Shall be used. See Note *5.

GENERAL NOTES

1. 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, 877001 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.
2. ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND, TYPE A SHEETING.
3. THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHOULD NOT EXCEED 8'-0".
4. ALL BORDERS SHALL BE ¾" WIDE AND CORNER RADIUS SHALL BE 2-1/4 ".
5. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS. LOCAL SUPPLIERS OF THE SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM ARE:
   * J.D. HERBERT CO. MIDLOTHIAN, VA.
   * WESTERN REMAC INC. WOODRIDGE, IL.

PARTS LISTING:

SIGN CHANNEL	PART #HPN053 (MED. CHANNEL)
SIGN SCREWS	¼" x 14 x 1" H.W.H. #3 SELF TAPPING WITH NEOPRENE WASHER
BRACKETS	PART #HPN034 (UNIVERSAL) CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

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

Upper Case To Lower Case
Spacing Chart 8-6 Inch Series "C & D"

EXAMPLE, 2 (3) DENOTES 3/8"

FIRST LETTER	SECOND LETTER: acde goq		bhikl mnpru		f w		j		s t		v y		x		z	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
A W X	1²	1⁴	1⁴	1⁵	1²	1⁴	0⁶	1⁰	1¹	1⁴	0⁶	1⁰	1¹	1²	1²	1⁴
B	1⁴	1⁵	2⁰	2¹	1⁴	1⁵	1¹	1²	1⁴	1⁵	1²	1⁴	1²	1⁴	1⁶	1⁷
C E G	1⁴	1⁵	2⁰	2¹	1²	1⁴	0⁶	1⁰	1²	1⁴	1²	1⁴	1⁴	1⁵	1⁴	1⁵
D O Q R	1⁴	1⁵	2⁰	2¹	1⁴	1⁵	0⁶	1⁰	1²	1⁴	1²	1⁴	1⁴	1⁵	1⁴	1⁵
F	0⁵	0⁶	1⁴	1⁵	0⁶	1⁰	0⁵	0⁶	0⁶	1⁰	0⁶	1⁰	0⁶	1⁰	1¹	1²
H I M N	2⁰	2¹	2²	2⁴	2⁰	2¹	1⁴	1⁵	1⁶	1⁷	1⁶	1⁷	2⁰	2¹	2⁰	2¹
J U	2⁰	2¹	2⁰	2¹	1⁶	1⁷	1⁴	1⁵	1⁶	1⁷	1⁶	1⁷	1⁶	1⁷	2⁰	2¹
K L	1¹	1²	1⁶	1⁷	1¹	1²	0⁵	0⁶	1¹	1²	1¹	1²	1¹	1²	1²	1⁴
P	1²	1⁴	1⁴	1⁵	1²	1⁴	0⁵	0⁶	1¹	1²	1¹	1²	1²	1⁴	1²	1⁴
S	1²	1⁴	1⁶	1⁷	1²	1⁴	0⁶	1⁰	1²	1⁴	1²	1⁴	1²	1⁴	1²	1⁴
T	1¹	1²	1⁶	1⁷	0⁶	1⁰	0⁶	1⁰	1¹	1²	1¹	1²	1¹	1²	1²	1⁴
V	0⁶	1⁰	1⁴	1⁵	1¹	1²	0⁶	1⁰	1²	1⁴	1²	1⁴	1²	1⁴	1²	1⁴
Y	0⁵	0⁶	1⁴	1⁵	0⁶	1⁰	0⁵	0⁶	0⁵	0⁷	0⁵	0⁶	0⁶	1⁰	1¹	1²
Z	1⁶	1⁷	2²	2⁴	1⁶	1⁷	1²	1⁴	1⁶	1⁷	1⁶	1⁷	1⁶	1⁷	2⁰	2¹

Lower Case To Lower Case
Spacing Chart 6 Inch Series "C & D"

FIRST LETTER	SECOND LETTER: acde goq		bhikl mnpru		f w		j		s t		v y		x		z	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
adhgij lmnqu	1⁶	1⁷	2²	2⁴	1⁶	1⁷	1²	1⁴	1⁴	1⁵	1⁴	1⁵	1⁶	1⁷	1⁶	1⁷
bfkops	1²	1⁴	1⁶	1⁷	1¹	1²	0⁵	0⁶	1¹	1²	1¹	1²	1²	1⁴	1²	1⁴
c e	1²	1⁴	1⁶	1⁷	1²	1⁴	0⁶	1⁰	1²	1⁴	1²	1⁴	1²	1⁴	1²	1⁴
r	0⁶	1⁰	1²	1⁴	0⁶	1⁰	0³	0³	0⁵	0⁶	0⁵	0⁶	0⁶	1⁰	0⁶	1⁰
t z	1²	1⁴	1⁶	1⁷	1²	1⁴	0⁶	1⁰	1¹	1²	1¹	1²	1²	1⁴	1²	1⁴
v y	1¹	1²	1⁴	1⁵	1¹	1²	0⁵	0⁶	0⁶	1⁰	0⁶	1⁰	1¹	1²	1¹	1²
w	1¹	1²	1⁴	1⁵	1¹	1²	0⁵	0⁶	1¹	1²	1¹	1²	1¹	1²	1²	1⁴
x	1²	1⁴	1⁶	1⁷	1¹	1²	0⁵	0⁶	1¹	1²	1¹	1²	1¹	1²	1²	1⁴

Number To Number
Spacing Chart 8 Inch Series "C & D"

FIRST NUMBER	SECOND NUMBER: 0		1		2		3		4		5		6		7		8		9	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
0 9	1⁶	1⁷	1⁶	1⁷	1⁴	1⁵	1²	1⁴	1⁴	1⁵	1⁴	1⁵	1⁶	1⁷	1²	1⁴	1⁶	1⁷	1⁶	1⁷
1	2⁰	2¹	2⁰	2¹	2⁰	2¹	1⁶	1⁷	1⁴	1⁵	2⁰	2¹	2⁰	2¹	1⁴	1⁵	2⁰	2¹	2⁰	2¹
2 3 4	1⁴	1⁵	1⁴	1⁵	1⁴	1⁵	1²	1⁴	1²	1⁴	1⁴	1⁵	1⁴	1⁵	1¹	1²	1⁶	1⁷	1⁴	1⁵
5	1⁴	1⁵	1⁴	1⁵	1⁴	1⁵	1¹	1²	1¹	1²	1⁴	1⁵	1⁴	1⁵	1¹	1²	1⁴	1⁵	1⁴	1⁵
6	1⁶	1⁷	1⁴	1⁵	1⁴	1⁵	1²	1⁵	1²	1⁴	1⁴	1⁵	1⁴	1⁵	1¹	1²	1⁴	1⁵	1⁴	1⁵
7	1²	1⁴	1²	1⁴	1⁴	1⁵	1²	1⁵	0⁵	0⁶	1²	1⁴	1⁴	1⁵	1¹	1²	1⁴	1⁵	1²	1⁴
8	1⁶	1⁷	1⁶	1⁷	1⁴	1⁵	1²	1⁵	1²	1⁴	1⁴	1⁵	1⁶	1⁷	1²	1⁴	1⁶	1⁷	1⁴	1⁵

UPPER AND LOWER CASE LETTER WIDTHS

LETTERS	6 INCH UPPER CASE LETTERS SERIES C	6 INCH UPPER CASE LETTERS SERIES D	8 INCH UPPER CASE LETTERS SERIES C	8 INCH UPPER CASE LETTERS SERIES D	LETTERS	6 INCH LOWER CASE LETTERS SERIES C	6 INCH LOWER CASE LETTERS SERIES D
A	3⁶	5⁰	5⁰	6⁵	a	3⁵	4²
B	3²	4⁰	4³	5³	b	3⁵	4²
C	3²	4⁰	4³	5³	c	3⁵	4¹
D	3²	4⁰	4³	5³	d	3⁵	4²
E	3⁰	3⁵	4⁰	4⁷	e	3⁵	4²
F	3⁰	3⁵	4⁰	4⁷	f	2³	2⁶
G	3²	4⁰	4³	5³	g	3⁵	4²
H	3²	4⁰	4³	5³	h	3⁵	4²
I	0⁷	0⁷	1¹	1²	i	1¹	1¹
J	3⁰	3⁶	4⁰	5⁰	j	2⁰	2²
K	3²	4¹	4³	5⁴	k	3⁵	4²
L	3⁰	3⁵	4⁰	4⁷	l	1¹	1¹
M	3⁷	4⁵	5¹	6¹	m	6⁰	7⁰
N	3²	4⁰	4³	5³	n	3⁵	4²
O	3⁴	4²	4⁵	5⁵	o	3⁶	4³
P	3²	4⁰	4³	5³	p	3⁵	4²
Q	3⁴	4²	4⁵	5⁵	q	3⁵	4²
R	3²	4⁰	4³	5³	r	2⁶	3²
S	3²	4⁰	4³	5³	s	3⁶	4²
T	3⁰	3⁵	4⁰	4⁷	t	2⁷	3²
U	3²	4⁰	4³	5³	u	3⁵	4²
V	3⁵	4⁴	4⁷	6⁰	v	4²	4⁷
W	4⁴	5²	6⁰	7⁰	w	5⁵	6⁴
X	3⁴	4⁰	4⁵	5³	x	4⁴	5¹
Y	3⁶	5⁰	5⁰	6⁶	y	4⁶	5³
Z	3²	4⁰	4³	5³	z	3⁶	4³

NUMBER	6 INCH SERIES C	6 INCH SERIES D	8 INCH SERIES C	8 INCH SERIES D
1	1²	1⁴	1⁵	2⁰
2	3²	4⁰	4³	5³
3	3²	4⁰	4³	5³
4	3⁵	4³	4⁷	5⁷
5	3²	4⁰	4³	5³
6	3²	4⁰	4³	5³
7	3²	4⁰	4³	5³
8	3²	4⁰	4³	5³
9	3²	4⁰	4³	5³
0	3⁴	4²	4⁵	5⁵

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PLOT DATE =	DATE - 2/18/2013	REVISED -	

EJM ENGINEERING, INC. 411 South Wells Street Suite 1000 Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1
MAST ARM MOUNTED STREET NAME SIGNS

SCALE: NONE | SHEET NO. OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	198
		CONTRACT NO. 60J14		
	ILLINOIS FED. AID PROJECT			

CDOT TRAFFIC SIGNALS SCHEDULE OF QUANTITIES

ITEM #	ITEM	UNIT	CUMBERLAND @ CATHERINE	CUMBERLAND @ BRYN MAWR	BRYN MAWR @ I-90 EB RAMP SPUR	CUMBERLAND @ CTA/I-90 EB RAMP	INTERCONNECT
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	200				
44000600	SIDEWALK REMOVAL	SQ FT	75				
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT		6	58		
81028350	UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT		0		17	
81028370	UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	242	210	110	390	844
87300925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT					1045
87502710	TRAFFIC SIGNAL POST, ALUMINUM 17 FT.	EACH	3	2	3	7	
87900200	DRILL EXISTING HANDHOLE	EACH	18				2
88040070	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	5		3	8	
88040090	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	7	4	3	10	
88040110	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH		2	1		
88040120	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH		2	1		
88040150	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH		4		3	
88040160	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH		4			
88055160	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	2				
88055165	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	2				
88055170	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	2				
88102825	PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED WITH COUNT DOWN TIMER	EACH	8	4	4	12	
89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1	1		1	
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT					252
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	1		1	
89502380	REMOVE EXISTING HANDHOLE	EACH		4		5	
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	9	8		10	
X0322689	POLE, STEEL, ANCHOR BASE, 10" DIA., 7-GAUGE, 34'-6"	EACH		2		1	
X0322690	POLE, STEEL, ANCHOR BASE, 10" DIA., 3-GAUGE, 34'-6"	EACH	3				
X0322713	FLASHING BEACON, BRACKET MOUNTED	EACH		2			
X0326451	VIDEO SYSTEM DETECTION CAMERA	EACH	2	4	1	5	
X0326968	JUNCTION BOX, POLE OR POST MOUNTED	EACH	8	8	5	12	
X8800101	PEDESTRIAN PUSH-BUTTON, SPECIAL	EACH	4	2	2	3	
Z0033050	COAXIAL CABLE IN CONDUIT	FOOT	347	965	244	915	
	ATC CONTROLLER, TRAFFIC, 16 LOAD BAY, “P” CABINET	EACH	1	1	1	1	
	COAXIAL JUMPER CABLE	EACH	1	1	1	1	
	CONCRETE FOUNDATION FOR TYPE "P" BASE MOUNTED TRAFFIC SIGNAL CONTROLLER	EACH	1	1	1	1	
	CONCRETE FOUNDATION, 20" DIAMETER, 3/4" ANCHOR RODS, 13" BOLT CIRCLE	FOOT	15	10	15	35	
	CONCRETE FOUNDATION, 24" DIAMETER, 1 1/4" ANCHOR RODS, 15" BOLT CIRCLE	FOOT	27	14		7	
	CONCRETE FOUNDATION, 30" DIAMETER, 1 1/2" ANCHOR RODS, 16 1/2" BOLT CIRCLE	FOOT	22	44	11	33	
	CONCRETE FOUNDATION, 30" DIAMETER, 1 1/4" ANCHOR RODS, 17 1/4" BOLT CIRCLE	FOOT			9	9	
	CUT OFF POLE AND INSTALL CAP	EACH	1				
	ELECTRIC CABLE IN CONDUIT NO. 14 19/C	FOOT	1141	1380	606	2161	
	ELECTRIC CABLE IN CONDUIT NO. 4 2/C	FOOT	188	243	101	45	
	ELECTRIC CABLE NO. 14 3/C, SHIELDED	FOOT	347	965	244	915	
	ELECTRICAL HANDHOLE, 30", 24" FRAME AND LID	EACH		0	1	2	1
	ELECTRICAL HANDHOLE, 36", 24" FRAME AND LID	EACH		4	1	4	
	ELECTRICAL MANHOLE, 3' X 4' X 4', 24" FRAME AND LID	EACH		1	1	1	
	FIBER OPTIC ADD-IN FOR LOCAL CONTROLLER	EACH		1			
	FIBER OPTIC ADD-IN FOR MASTER CONTROLLER	EACH				1	
	FIBER OPTIC HYBRID CABLE IN CONDUIT	FOOT					1045
	FIBER OPTIC STAR MODEM	EACH		1		1	
	HARNESS CABLE, #16, 8/C	FOOT	443	582	186	613	
	INTERFACE PANEL, 2 CAMERA	EACH	1		1		
	INTERFACE PANEL, 4 CAMERA	EACH		1			
	INTERFACE PANEL, 8 CAMERA	EACH				1	
	MAST ARM, STEEL, MONOTUBE 16 FT.	EACH	1				
	MAST ARM, STEEL, MONOTUBE 20 FT.	EACH	1				
	MAST ARM, STEEL, MONOTUBE 26 FT.	EACH	2				
	MAST ARM, STEEL, MONOTUBE 30 FT.	EACH			1	1	
	MAST ARM, STEEL, MONOTUBE 35 FT.	EACH	1		1		
	MAST ARM, STEEL, MONOTUBE 40 FT.	EACH		1	0	3	
	MAST ARM, STEEL, MONOTUBE 44 FT.	EACH	1	3			
	POLE, STEEL, ANCHOR BASE, 11" DIA., 3-GAUGE, 34'-6"	EACH			1	1	
	POLE, STEEL, ANCHOR BASE, 12-1/2" DIA. 3-GAUGE, 34'-6"	EACH	2	4	1	3	
	SERVICE INSTALLATION, 100 AMPERE	EACH		1	1		
	UNDERGROUND CONDUIT, PVC, 3" DIA. (SCHEDULE 80)	FOOT		1579	585	1588	0
	VIDEO CABLE HARNESS	EACH	2	4	1	5	
	VIDEO DETECTION CARD RACK, 4 CAMERA	EACH		1			
	VIDEO DETECTION CARD RACK, 8 CAMERA	EACH				1	
	VIDEO DETECTION POWER SUPPLY	EACH	1	1	1	1	
	VIDEO PROCESSOR CARD	EACH		1		1	
	VIDEO PROCESSOR CARD AND RACK	EACH	1		1		

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EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CDOT TRAFFIC SIGNAL SCHEDULE OF QUANTITIES
CUMBERLAND AVENUE OVER I-90

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	199
		CONTRACT NO. 60J14		
	ILLINOIS	FED. AID PROJECT		

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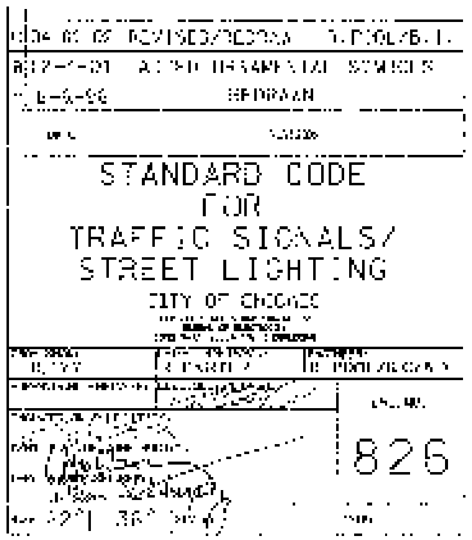
PROPOSED	PRESENT	
		SIGNAL, TRAFFIC 3 SECTION 1-WAY ADJUSTABLE, 12" OR AS NOTED
		SIGNAL, TRAFFIC 3 SECTION 2-WAY ADJUSTABLE, 12" OR AS NOTED
		SIGNAL OPTICALLY PROGRAMMED
		SIGNAL, PEDESTRIAN, DON'T WALK/WALK
		SIGNAL FACE ARROW, 12" COLOR AS NOTED
	Y G	SIGNAL FACE, 1 SECTION YELLOW/GREEN ARROW DUAL INDICATION
		PUSH BUTTON, PEDESTRIAN
		SIGN,ILLUMINATED, WITH MESSAGE OR SYMBOL AS INDICATED
		MAST ARM, MONOTUBE, STEEL. SIZE AS INDICATED (SEE DWG. #870)
		MAST ARM, TRUSS, ALUMINUM. SIZE AS INDICATED
		CONTROLLER, TRAFFIC SIGNAL. PEDESTAL OR BASE MOUNTED AS INDICATED
		CONTROLLER, STREET LIGHTING. PEDESTAL OR BASE MOUNTED. (DWG. 876 or 880)
		CONTROLLER,STREET LIGHTING. POLE MOUNTED (DWG. #11940)
		POLE, WOOD. COMMONWEALTH EDISON COMPANY, SERVICE
		POLE, CITY STEEL, ANCHOR BASE, 34'6",7 GA. 10" DI A. AND 15"B.C. 24"X9' FND. W/1 1/4" ANCHOR RODS DRG. #818.
		POLE, CITY STEEL, ANCHOR BASE, 34'-6", 3 GA. 10" DIA. AND 15" B.C. 24"X9' FND. W/1 1/4" ANCHOR RODS DRG. #818 (16',20'or 26'M.A.)
		POLE, CITY STEEL, ANCHOR BASE, 34"-6", 3GA., 11" DIA. AND 17 1/4" B.C. 30"X9' FND. W/1 1/4" ANCHOR RODS DRG. #816. (30' M.A.)
		POLE, CITY STEEL, ANCHOR BASE 34'-6", 3 GA. 12 1/2" DIA. AND 16 1/2"B.C. 30"X11' FND. W/1 1/2" ANCHOR RODS DRG.#817. (35',40'or 44' M.A.)
		POLE, CITY STEEL, ANCHOR BASE, 32'-6", 3 GA. 10" DIA., WITH 3 GA. BAL. HSG. BASE AND 17 1/4" B. C. ON 30"X9' FND. W/ 11/4" ANCHOR RODS DRG. #816.
		POLE, CITY STEEL, ANCHOR BASE, 20',27'-6",29'-6", 7 GA. WITH STEEL BAL. HSG. BASE AND FND. W/10" D. B.C. AND 1" ANCHOR RODS DRG. #716.
		POLE,CITY STEEL, ANCHOR BASE, 20',27'-6",29'-6", 3 GA., WITH STEEL BAL. HSG. BASE AND FND. W/10" D. B.C. AND 1" ANCHOR RODS DWG.#719.
		POLE, CITY STEEL, ANCHOR BASE, 20',27'-6",29'-6" 7 GA., AND FND. WITH 10" B.C. AND 1" ANCHOR RODS DWG. #11408B.
		POLE, CITY STEEL, ANCHOR BASE, 20',27'-6",29'-6" 3 GA.,AND FND. WITH 10" B.C. AND 1" ANCHOR RODS DWG. #11408B.
		POLE , CITY STEEL, ANCHOR BASE, 32'-6", 7 GA., AND FND. WITH 11 1/2" B.C. AND 1" ANCHOR RODS DWG. #753.
		POLE, CITY STEEL, ANCHR BASE, 32'-6", 3 GA., AND FND. WITH 11 1/2" B.C. AND 1" ANCHOR RODS DWG. #753.
		POLE, CITY STEEL, ANCHOR BASE, 32'-6" 7 GA., ALUM. BHB AND FND. WITH 15" B.C.-24"X7' WITH 1" ANCHOR RODS DRG. #691.
		POLE, CITY STEEL, ANCHOR BASE, 32'-6", 3 GA., ALUM. BHB AND FND. WITH 15" B.C. 24"X 7' WITH 1" ANCHOR RODS DWG. #691.
		POLE, CITY ALUMINUM, WITH ROUND BAL. HSG. BASE, 25', 28', or 30' ON FND.WITH 14" B.C., ACQUIRED FROM CHICAGO PARK DISTRICT.
		POLE, CITY STEEL, EMBEDDED, 4"X 9"X 35' 7 GA., TAPERED TUBULAR. (DWG. #658)
		POLE, CITY STEEL, EMBEDDED, 4"X 9"X 35' 3 GA., TAPERED TUBULAR. (DWG. #658)
		POLE, CITY STEEL, EMBEDDED. (ACQUIRED FROM CTA)
		COLUMN,ELEVATED STRUCTURE
		POLE, WOOD. (SIZE AS NOTED)
		POLE, FOUNDATION WITH ELBOWS AS INDICATED.(SIZE AS NOTED)
		TWIN ARM ORNAMENTAL LIGHTING LUMINAIRE H.P.S.V. & LAMP, (VARIOUS BY CONTRACTOR) DWG. #873
		SINGLE ORNAMENTAL LIGHTING LUMINAIRE H.P.S.V. & LAMP, (VARIOUS BY CONTRACTOR) DWG. #898 & 899

PROPOSED	PRESENT	
		HANDHOLE, HEAVY DUTY, 36" I.D. (DWG.#866)
		HANDHOLE, CIRCULAR WITH 24"FRAME & COVER,30"I.D. (#867)
		MANHOLE, CITY 3'X4'X4' DWG. #729 or 730; 4'X6'X6' DWG. #732or 733.
		FOUNDATION, CONTROLLER OR PEDESTAL, 13" B.C.,20"X5' (DWG. #709)
		FOUNDATION, TRAFFIC CONTROLLER DWG. #854. F.A. TERMINAL FND. DWG. #11972
P	P	FOUNDATION, TRAFFIC TYPE "P", BASE MOUNT. (DWG. #888)
		FOUNDATION,CONTROLLER STREET LIGHT ,SPECIAL, 100A & 200A. (DWG.#876 & # 880)
		FOUNDATION, TRANSCLOSURE; TRANSCLOSURE HOUSING. (DWG.# 583 & #891)
		CONTROLLER,UNDERPASS LIGHTING 120V. & 240V. (DWG. #860 & #861)
	E	MANHOLE, UTILITY, E=COMMONWEALTH EDISON; T=ILL.BELL TEL.; G=PEOPLES GAS; W=CITY WATER; P=CHGO PARK DISTRICT; CTA=C.T.A; S= SEWER
J		JUNCTION BOX, IN PAVEMENT (DWG. #815)
		DETECTOR LOOP IN PAVEMENT
		CONDUIT or P.V.C., NUMBER,SIZE & TYPE. (AS NOTED)
2D	2D	CONDUIT or P.V.C. ENCASED IN CONCRETE. (SECTION or NUMBER OF CONDUIT INDICATED
		CONDUIT UNDER PAVEMENT, (BY PAVT CONTRACTOR) 3"- LENGTH AS NOTED.
		LUMINAIRE, H.P.S.V. AND LAMP, 400W, 240V, WITH INTEGRAL BALLAST
		LUMINAIRE, H.P.S.V. AND LAMP, 310W, 240V, WITH INTEGRAL BALLAST
		LUMINAIRE, H.P.S.V. AND LAMP, 195W, 240V, WITH INTEGRAL BALLAST
		LUMINAIRE, H.P.S.V. AND LAMP, 150W, 240V, WITH INTEGRAL BALLAST
		LUMINAIRE, H.P.S.V. AND LAMP, 90W, 240V, WITH INTEGRAL BALLAST (ALLEY LIGHT).
		LUMINAIRE, INCANDESCENT AND LAMP, 300W, 240V.
T		TERMINAL, CABINET F.A. & P.C.
F		FIRE ALARM BOX, POLE MOUNTED
F		FIRE ALARM BOX, POLE MOUNTED
PR	PR	CABLE, TRAFFIC SIGNAL, COMMUNICATION, 1-PAIR #14 SHIELDED, IN CONDUIT
2	2	CABLE, TRAFFIC SIGNAL POWER SUPPLY, 2/C- #4, 600 V. EPR. IN CONDUIT
		CABLE, TRAFFIC SIGNAL POWER SUPPLY, 2 1/C-#2 or #1/0 600V. EPR IN CONDUIT
		CABLE, TRAFFIC SIGNAL POWER SUPPLY, 2/C-#10 or #6, 600V NSRI, IN CONDUIT
VII	VII	CABLE, TRAFFIC SIGNAL, 7/C-#12 or #14, 600V, EPR IN CONDUIT
X	X	CABLE, TRAFFIC SIGNAL, 10/C-#12 600V. EPR IN CONDUIT
	XIV	CABLE, TRAFFIC SIGNAL, 14/C-#14, 600V. EPR IN CONDUIT
XIX	XIX	CABLE, TRAFFIC SIGNAL, 19/C-#12 600V, EPR IN CONDUIT
2N	2N	CABLE, STREET LIGHT, 2 1/C-#6, 600V. RINS IN PARKWAY
2NC	2NC	CABLE, STREET LIGHT, 2 1/C-#6, 600V. RINS IN CONDUIT
3TC	3TC	CABLE, STREET LIGHT, 2 1/C-#6 EPRN 600V. & 1 1/C-#8 GREEN, TRIPLEXED,IN CONDUIT
3NC	3NC	CABLE, STREET LIGHT, 3 1/C-#1/0, or #2/0, or #4, 600V. EPR IN CONDUIT
2W	2W	WIRE, STREET LIGHT, 2 1/C-#6, HDNS. AERIAL
3W	3W	WIRE, STREET LIGHT, 2 1/C-#6 & 1 1/C #8, HDNS. AERIAL
III	III	CABLE, STREET LIGHT AERIAL, 3 1/C-#4 or #2 SELF SUPPORTING, 600V EPR
W FA	1W FA	WIRE, F.A. & P.C. AERIAL, 1/C-#10, NUMERAL DENOTES QUANTITY
PR	PR	CABLE, F.A. & P.C. AERIAL, W/ MESSENGER #19-(NUMBER OF PAIRS AS INDICATED)
6 PR 6	6 PR	CABLE, F.A. & P.C. AERIAL, SELF SUPPORTING, #19-(NUMBER OF PAIRS AS INDICATED)
37 PR	37 PR	CABLE, F.A. & P.C., IN CONDUIT, #19-(NUMBER OF PAIRS AS INDICATED)
		DOWNLIGHT ASSEMBLY. (DWG. #850)
		LIGHT, TRAFFIC SAFETY ISLAND
		FLASHING BEACON & DOWNLIGHT



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TS-41

USER NAME =	DESIGNED - GR	REVISED -	EJM ENGINEERING, INC. 411 South Wells Street Suite 1000 Chicago, Illinois 60607	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CDOT STANDARD CODE FOR TRAFFIC SIGNALS/STREET LIGHTING	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN - GR	REVISED -				2746	1616B	COOK	404	200
PLOT SCALE =	CHECKED - CG	REVISED -						CONTRACT NO. 60J14		
PLOT DATE =	DATE - 2/18/2013	REVISED -			SCALE: NONE / SHEET NO. OF SHEETS / STA. TO STA.		ILLINOIS FED. AID PROJECT			