

LEGEND

- EXPANSION JOINT PER STD. 420001
- SAWED CONTRACTION JOINT PER STD. 420001
- SAWED LONGITUDINAL JOINT PER STD. 420001
- FLOW ARROW
- PROPOSED SURFACE ELEVATION

N

10 0 10 20 30 40 50
SCALE IN FEET

FILE: h:\projects\2009\2009\3034\cadd\state\vgm\00\0366884-hv-intersection-02.dgn DATE: TIME: 8/6/2015 11:42:45 PM

GR&EF 8501 N. Higgins Road Suite 280
Chicago, Illinois 60631
(773) 399-0112

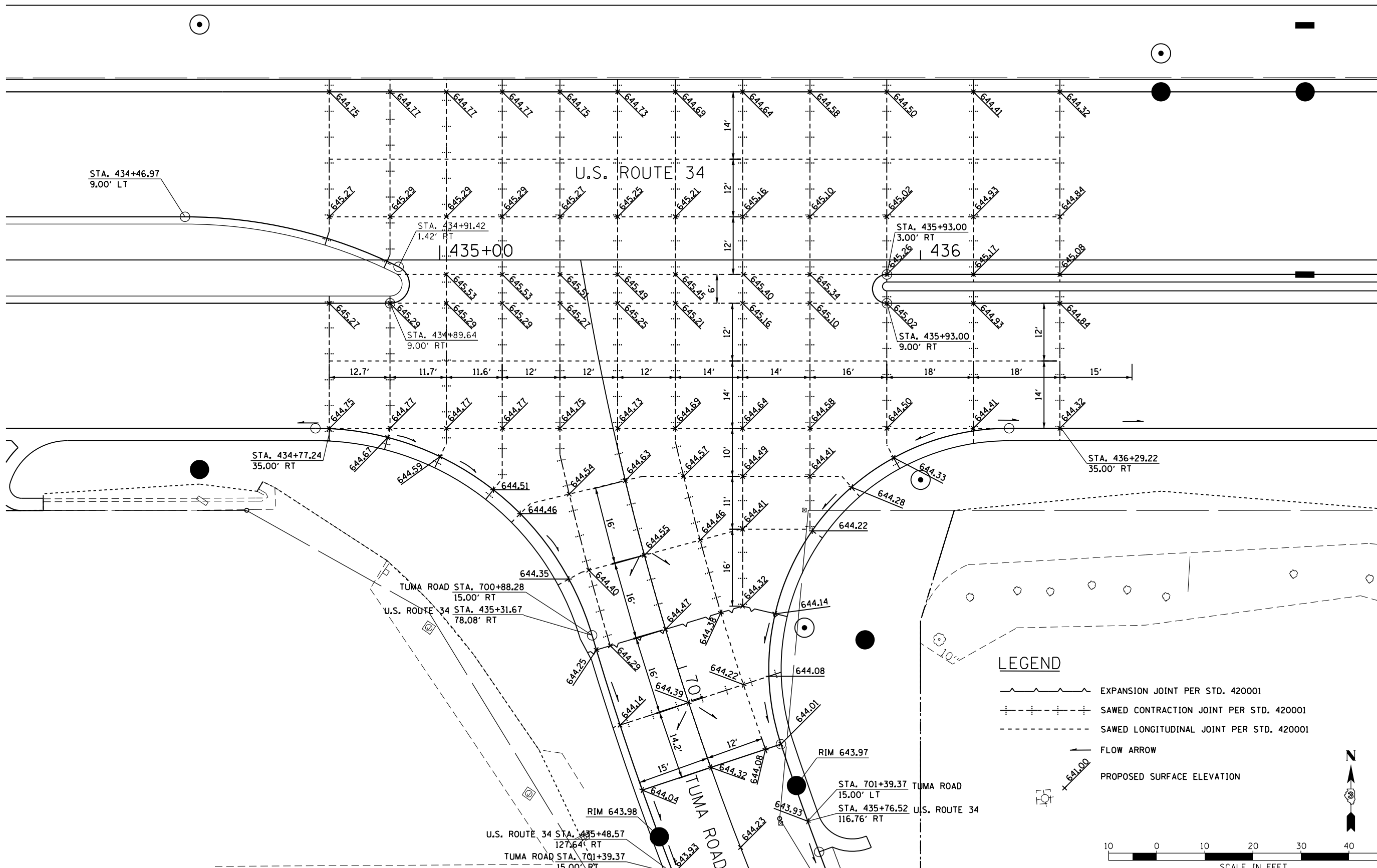
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	DRAWN - JWB	REVISED -
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PLOT DATE = 8/6/2015	DATE - 08/07/2015	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**US 34
INTERSECTION DETAILS
US ROUTE 34 / McHUGH ROAD (SOUTH)**

SCALE: 1"=10 FT

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	401
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				



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DRAWN - JWB	REVISED -	
PLOT SCALE = 20.000 ft / in.	CHECKED - RS	REVISED -
PLOT DATE = 8/6/2015	DATE - 08/07/2015	REVISED -



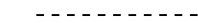


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

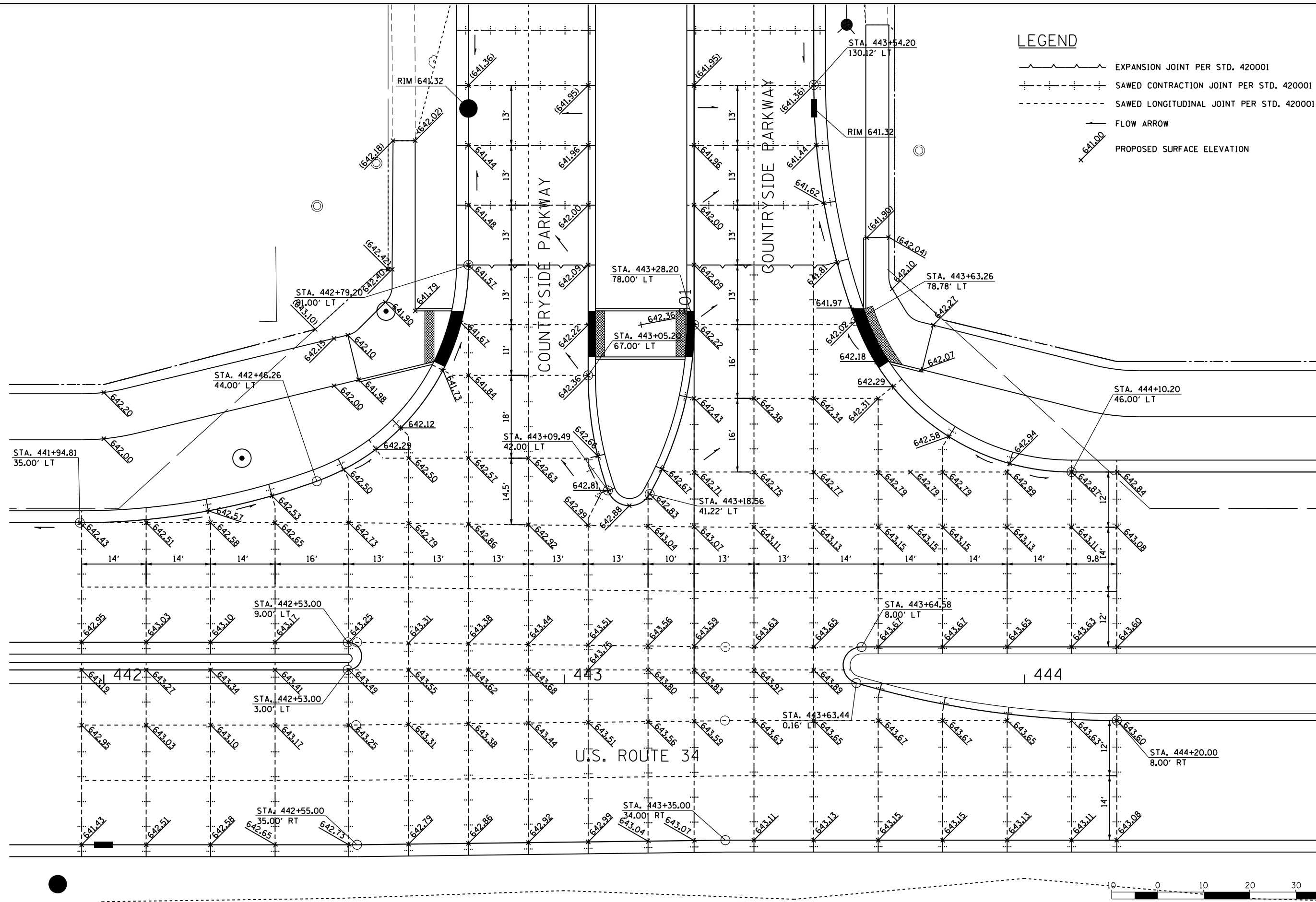
SCALE: 1"=10 FT

US 34
INTERSECTION DETAILS
US ROUTE 34 / TUMA ROAD

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	402
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

LEGEND

-  EXPANSION JOINT PER STD. 420001
-  SAWED CONTRACTION JOINT PER STD. 420001
-  SAWED LONGITUDINAL JOINT PER STD. 420001
-  FLOW ARROW
-  PROPOSED SURFACE ELEVATION



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USER NAME = 1654	DESIGNED - JWB	REVISED -
DRAWN - JWB	REVISED -	
CHECKED - RS	REVISED -	
DATE - 08/07/2015	REVISED -	

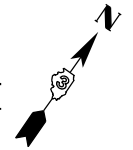
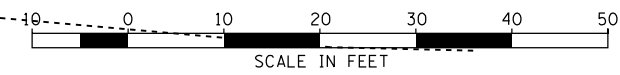
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 34
INTERSECTION DETAILS
US ROUTE 34 / COUNTRYSIDE PARKWAY

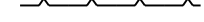
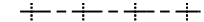



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	403
CONTRACT NO. 66884				

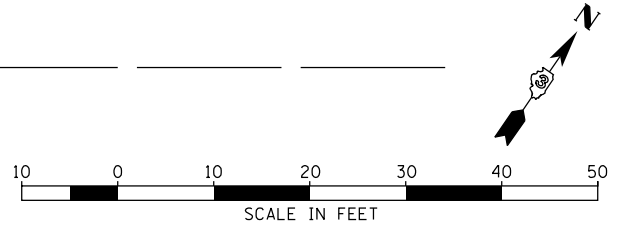
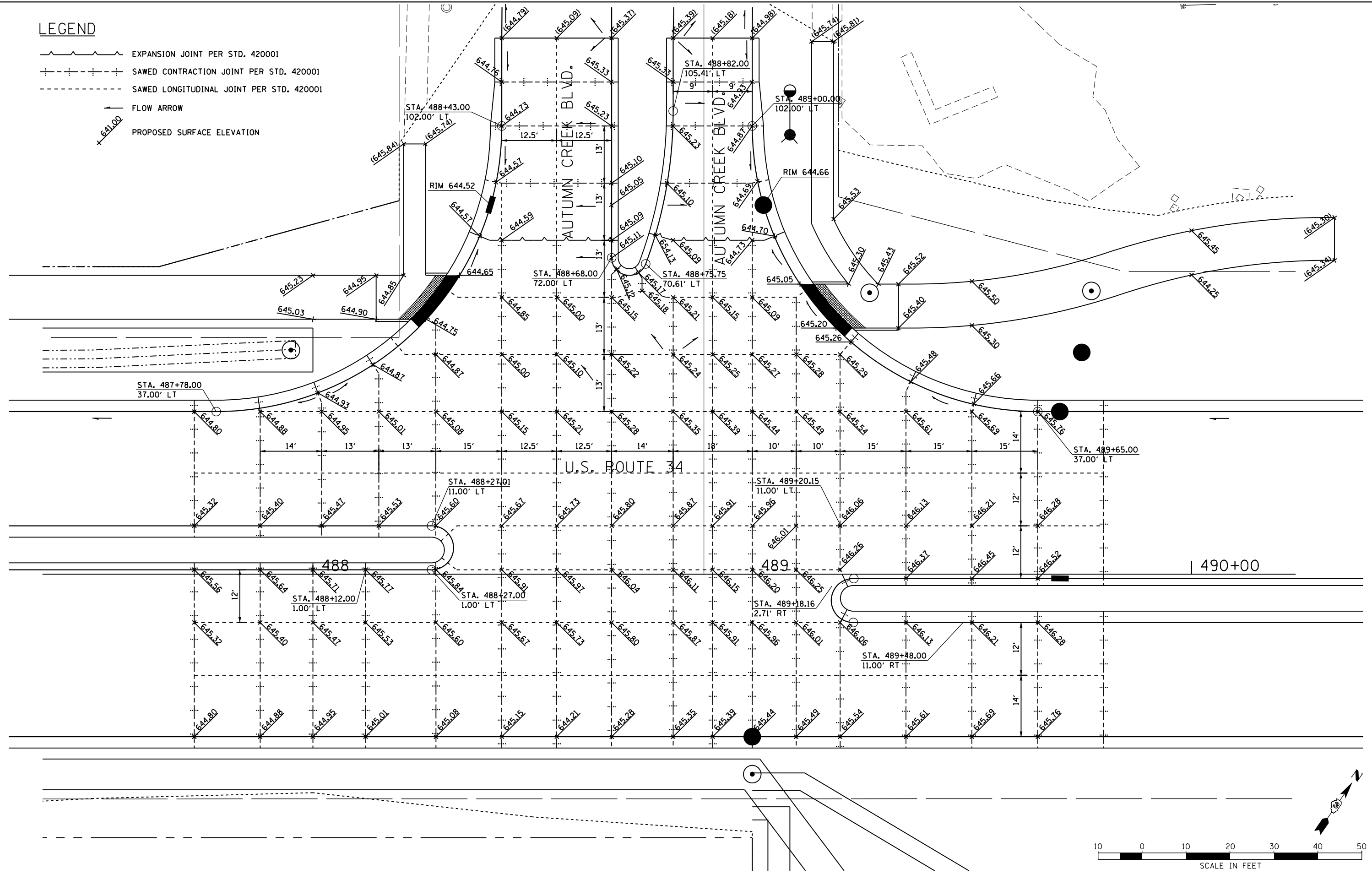
ILLINOIS FED. AID PROJECT

SCALE: 1"=10' FT



LEGEND

-  EXPANSION JOINT PER STD. 420001
-  SAWED CONTRACTION JOINT PER STD. 420001
-  SAWED LONGITUDINAL JOINT PER STD. 420001
-  FLOW ARROW
-  PROPOSED SURFACE ELEVATION



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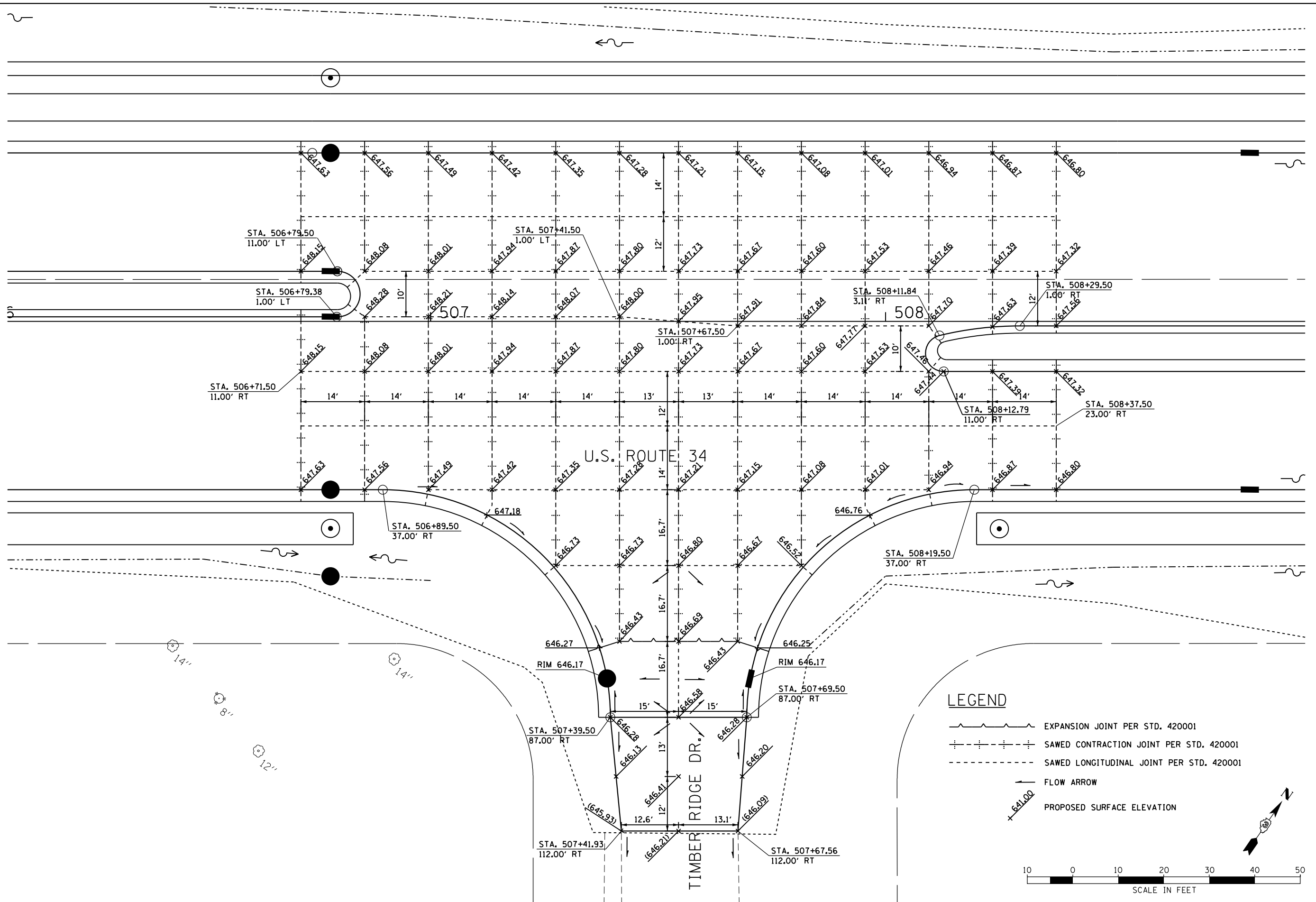
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DRAWN - JWB	REVISED -	
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PLOT DATE = 8/7/2015	DATE - 08/07/2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 34
INTERSECTION DETAILS
US ROUTE 34 / AUTUMN CREEK BOULEVARD

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	404
CONTRACT NO. 66884				

ILLINOIS FED. AID PROJECT



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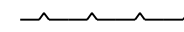
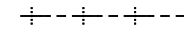
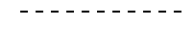

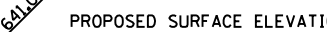
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DRAWN - JWB	REVISOR -	REVISION -
CHECKED - RS	REVISOR -	REVISION -
DATE - 08/07/2015	REVISOR -	REVISION -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

US 34
INTERSECTION DETAILS
US ROUTE 34 / TIMBER RIDGE DRIVE
 SCALE: 1"=10 FT

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	405
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

LEGEND

-  EXPANSION JOINT PER STD. 420001
-  SAWED CONTRACTION JOINT PER STD. 420001
-  SAWED LONGITUDINAL JOINT PER STD. 420001
-  FLOW ARROW
-  PROPOSED SURFACE ELEVATION

RIDGE
TALL



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USER NAME = 1654
 PLOT SCALE = 20.000 Ft / in.
 PLOT DATE = 8/6/2015

DESIGNED - JWB
 DRAWN - JWB
 CHECKED - RS
 DATE - 08/07/2015


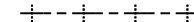
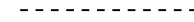


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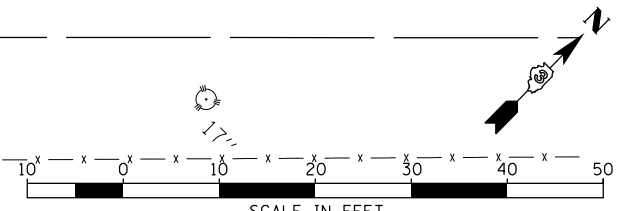
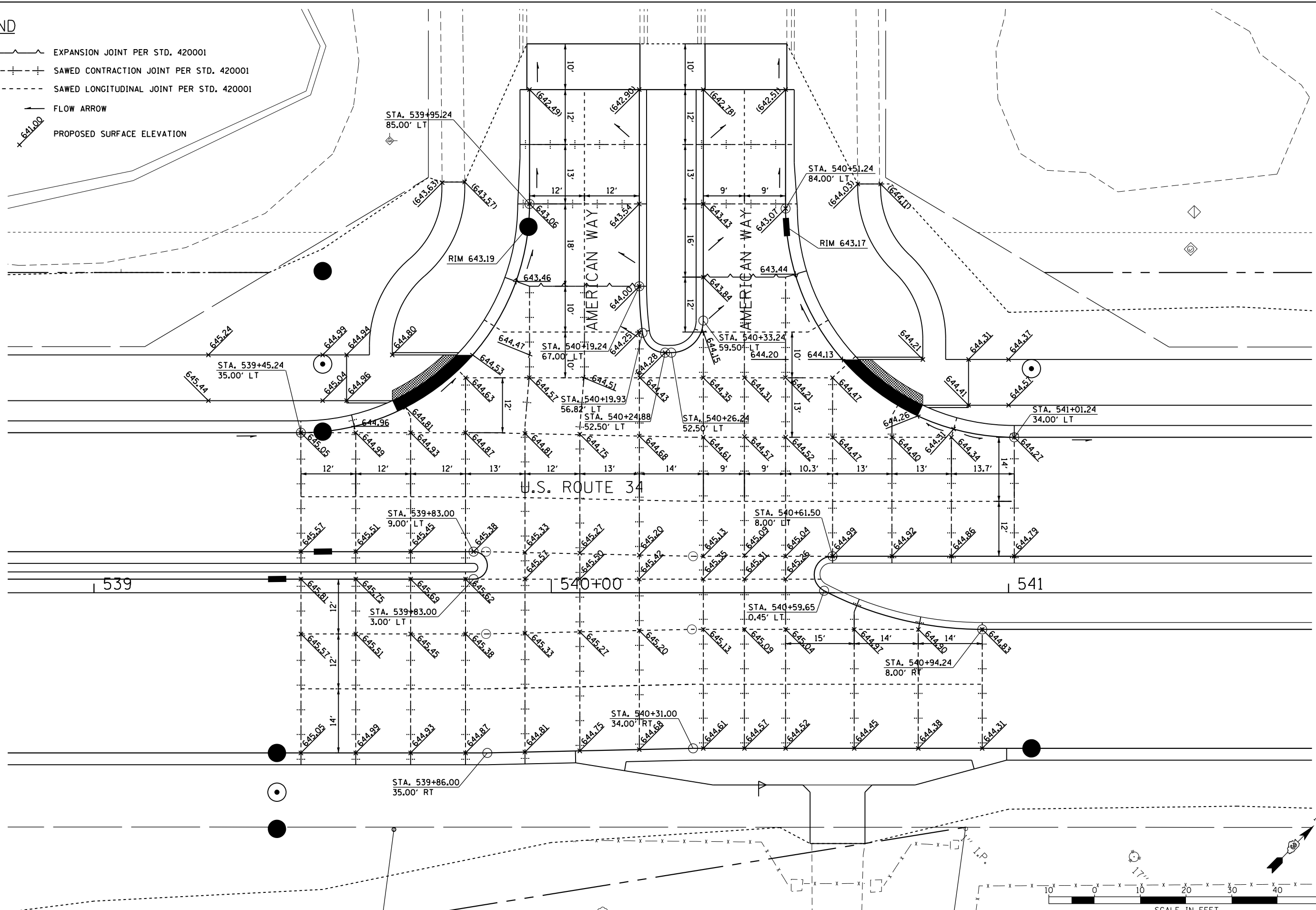
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**US 34
INTERSECTION DETAILS
US ROUTE 34 / BRISTOL RIDGE ROAD**
 SCALE: 1"=10 FT

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	406
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

LEGEND

-  EXPANSION JOINT PER STD. 420001
-  SAWED CONTRACTION JOINT PER STD. 420001
-  SAWED LONGITUDINAL JOINT PER STD. 420001
-  FLOW ARROW
-  PROPOSED SURFACE ELEVATION



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USER NAME = 1654	DESIGNED - JWB	REVISED -
DRAWN - JWB	REVISED -	
CHECKED - RS	REVISED -	
DATE - 08/07/2015	REVISED -	

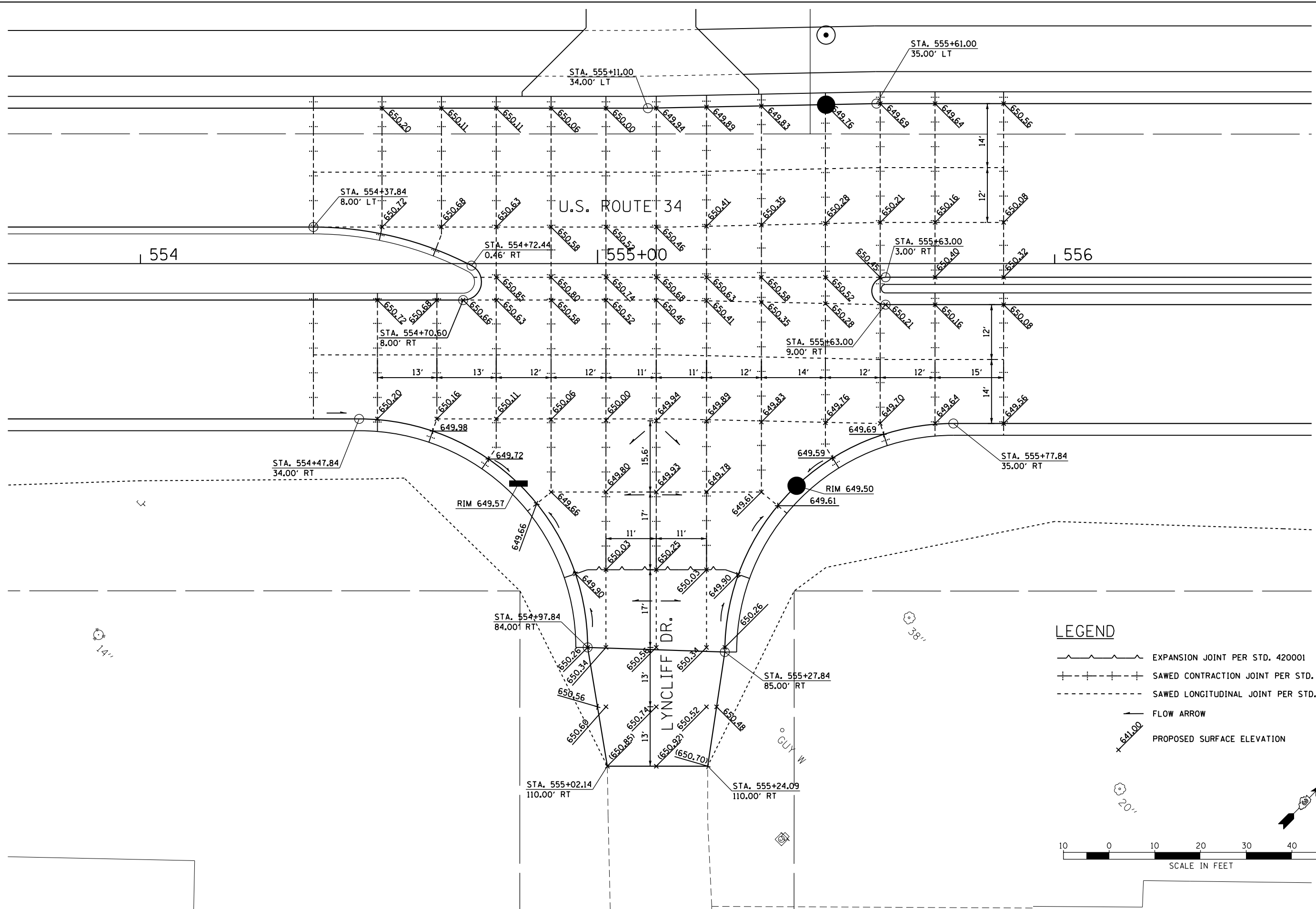
REVISIONS	DATE	BY	DESCRIPTION

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 34
INTERSECTION DETAILS
US ROUTE 34 / AMERICAN WAY

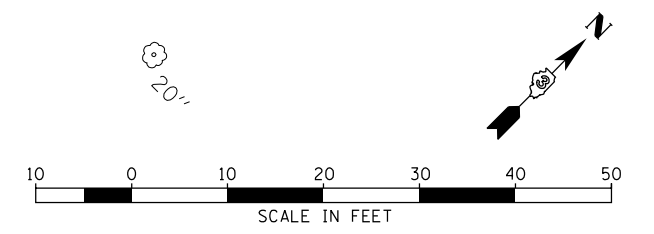
SCALE: 1"=10 FT

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	407
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				



LEGEND

- EXPANSION JOINT PER STD. 420001
- SAWED CONTRACTION JOINT PER STD. 420001
- SAWED LONGITUDINAL JOINT PER STD. 420001
- FLOW ARROW
- PROPOSED SURFACE ELEVATION



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DRAWN - JWB	REVISED -	
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PLOT DATE = 8/6/2015	DATE - 08/07/2015	REVISED -


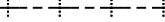
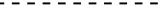


**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

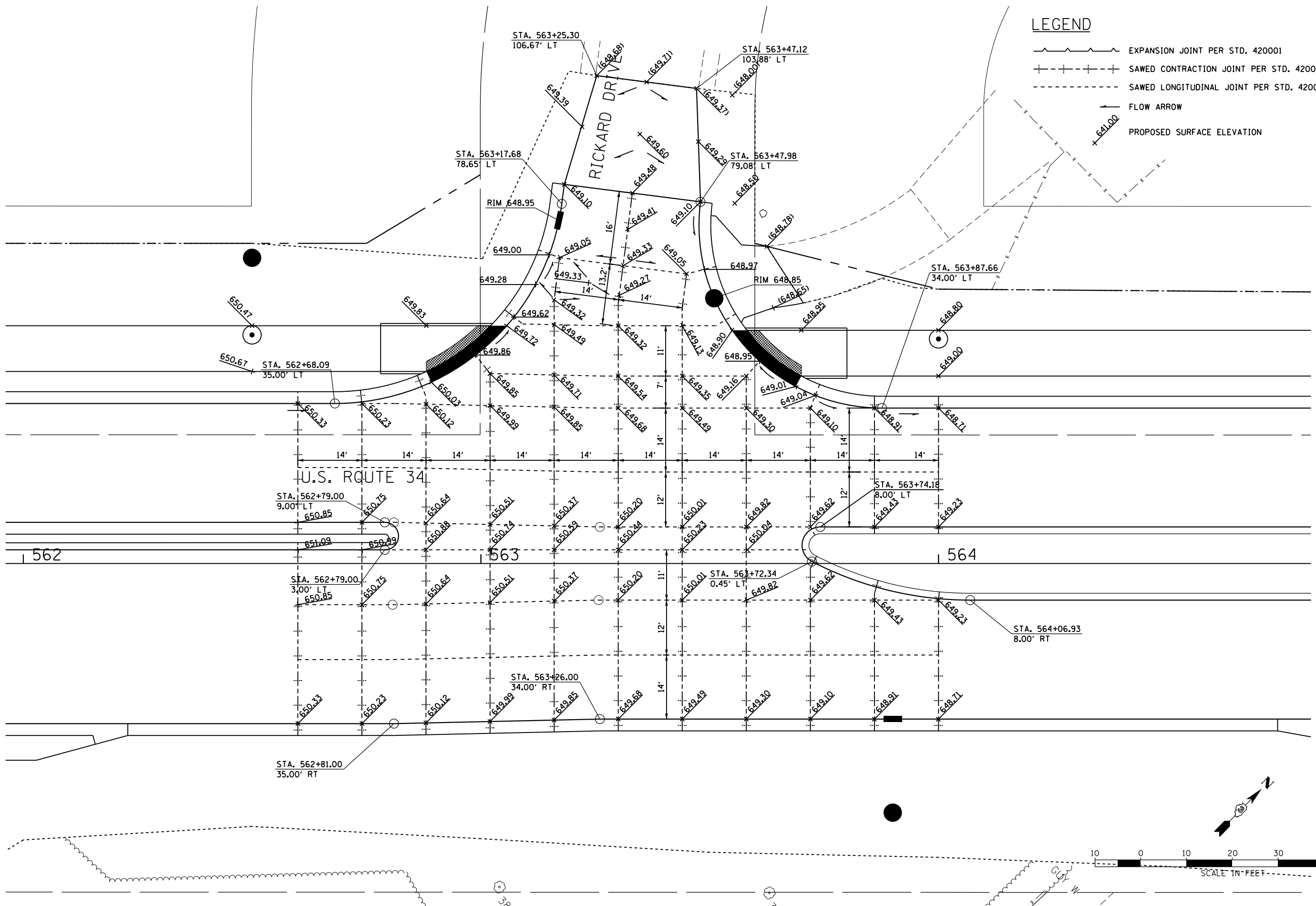
**US 34
INTERSECTION DETAILS
US ROUTE 34 / LYNCLIFF DRIVE**

SCALE: 1"=10 FT

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	408
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

LEGEND

-  EXPANSION JOINT PER STD. 420001
-  SAWED CONTRACTION JOINT PER STD. 420001
-  SAWED LONGITUDINAL JOINT PER STD. 420001
-  FLOW ARROW
-  PROPOSED SURFACE ELEVATION



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Chicago, Illinois 60631
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DRAWN - JWB	REVISIONS -	
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PLOT DATE = 8/6/2015	DATE - 08/07/2015	REVISED -


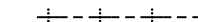
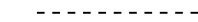


**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

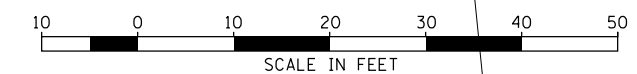
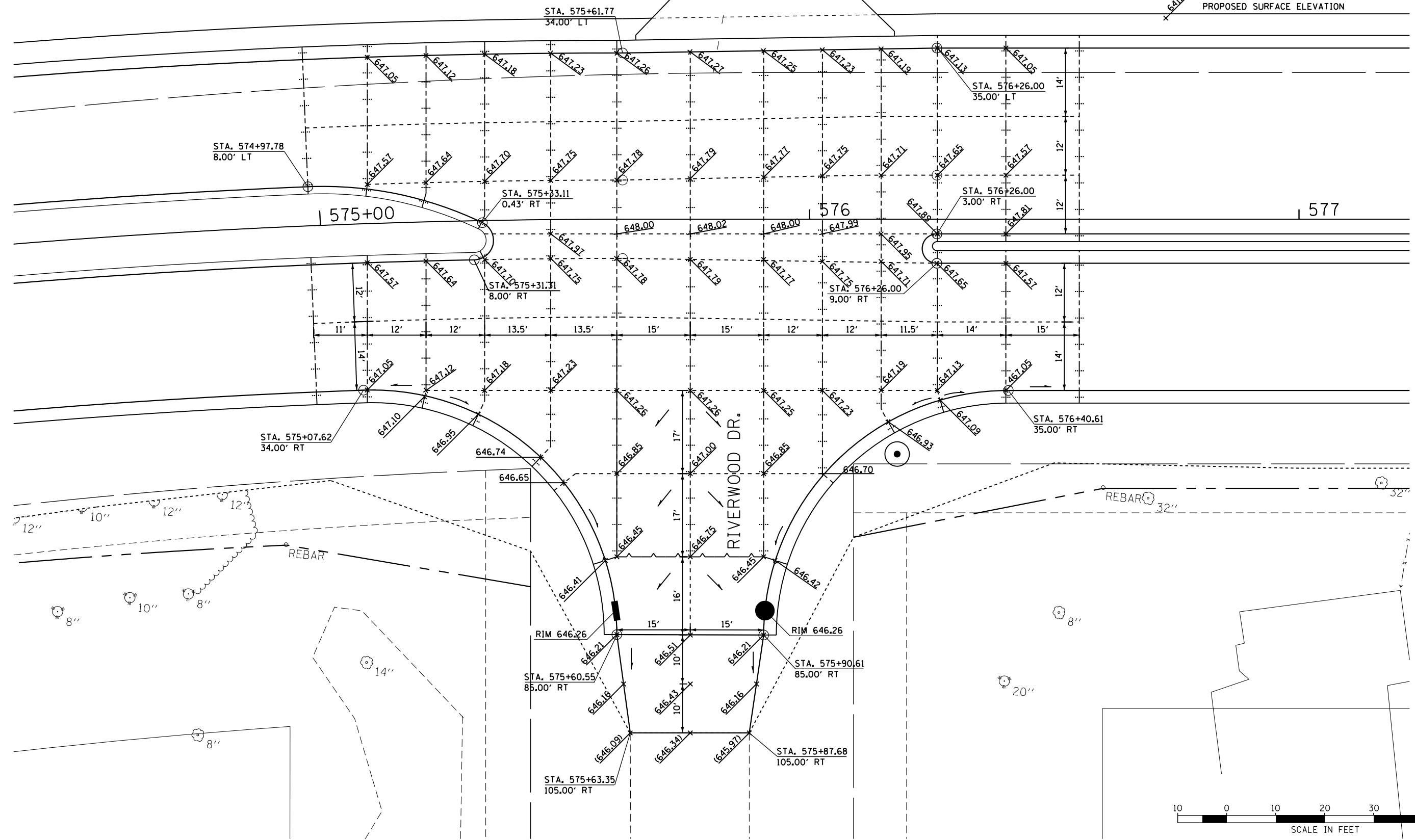
**US 34
INTERSECTION DETAILS
US ROUTE 34 / RICKARD DRIVE**

SCALE: 1"=10 FT

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	409
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

LEGEND

-  EXPANSION JOINT PER STD. 420001
-  SAWED CONTRACTION JOINT PER STD. 420001
-  SAWED LONGITUDINAL JOINT PER STD. 420001
-  FLOW ARROW
-  PROPOSED SURFACE ELEVATION



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USER NAME = 1654	DESIGNED - JW B	REVISED -
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PLOT DATE = 8/6/2015	DATE - 08/07/2015	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

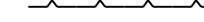




**US 34
INTERSECTION DETAILS
US ROUTE 34 / RIVER WOOD DRIVE**

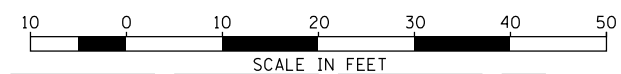
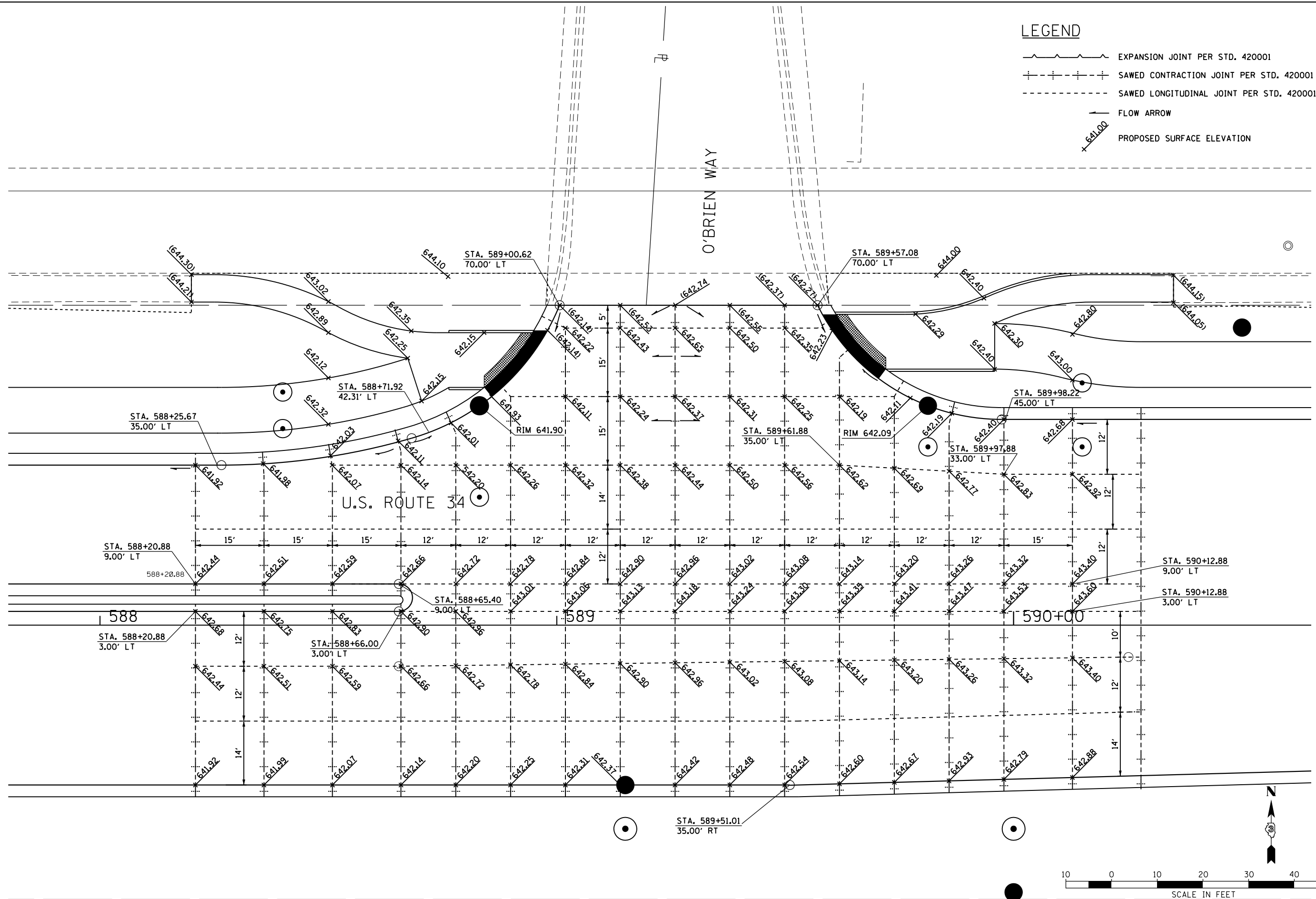
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	410
CONTRACT NO. 66884				

ILLINOIS FED. AID PROJECT

LEGEND

-  EXPANSION JOINT PER STD. 420001
-  SAWED CONTRACTION JOINT PER STD. 420001
-  SAWED LONGITUDINAL JOINT PER STD. 420001
-  FLOW ARROW
-  PROPOSED SURFACE ELEVATION



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GR&EF 8501 N. Higgins Road Suite 280
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(773) 399-0112

USER NAME = 1654	DESIGNED - JW B	REVISED -
DRAWN - JW B	REVISED -	
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PLOT DATE = 8/6/2015	DATE - 08/07/2015	REVISED -

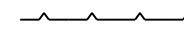
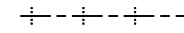
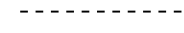
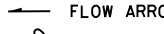
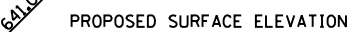
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

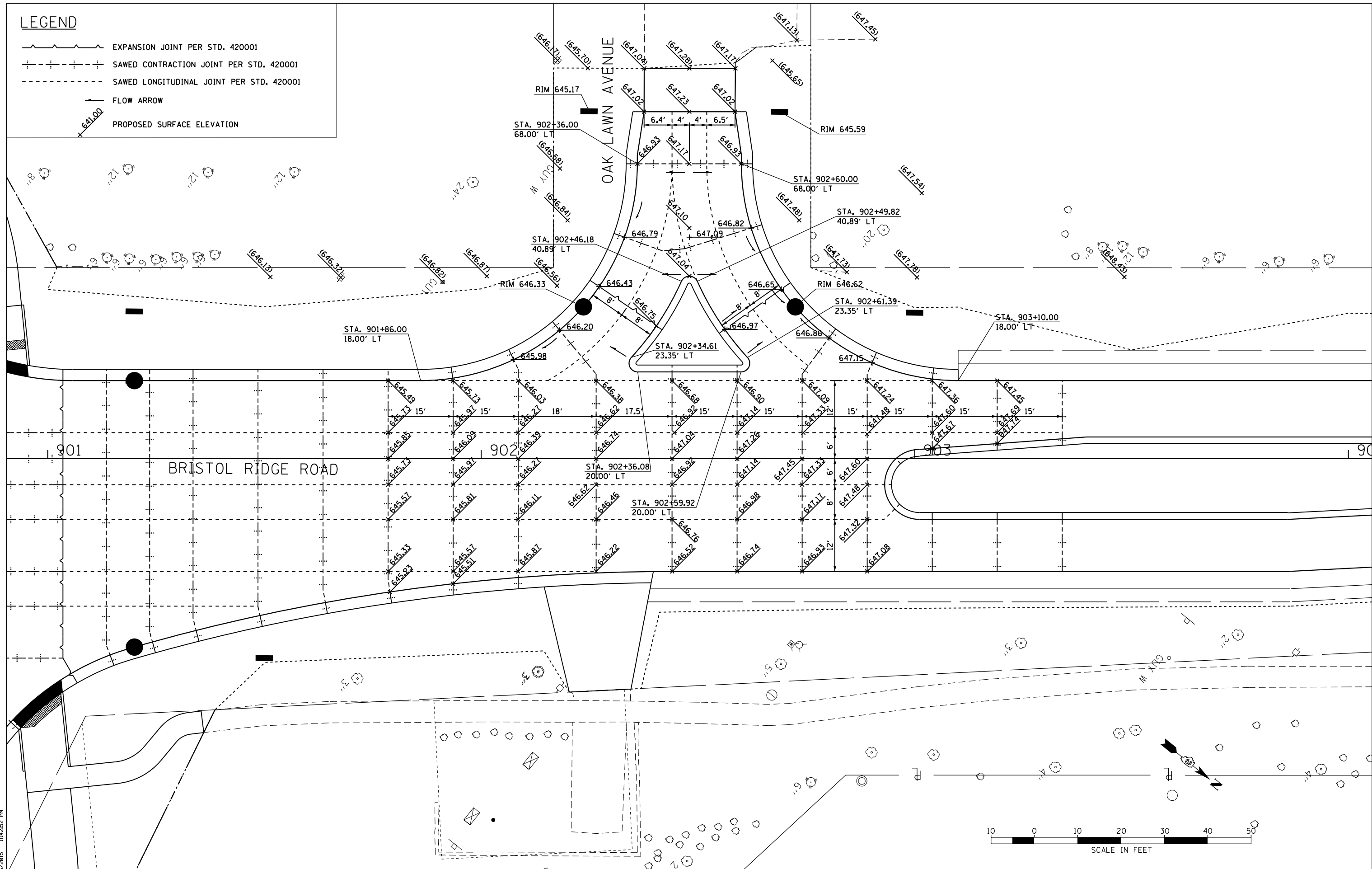
**US 34
INTERSECTION DETAILS
US ROUTE 34 / O'BRIEN WAY**

SCALE: 1"=10 FT

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	411
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

LEGEND

-  EXPANSION JOINT PER STD. 420001
-  SAWED CONTRACTION JOINT PER STD. 420001
-  SAWED LONGITUDINAL JOINT PER STD. 420001
-  FLOW ARROW
-  PROPOSED SURFACE ELEVATION



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 8501 N. Higgins Road Suite 280
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USER NAME = 1654	DESIGNED - JWB	REVISED -
DRAWN - JWB	REVISED -	
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DATE - 08/07/2015	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

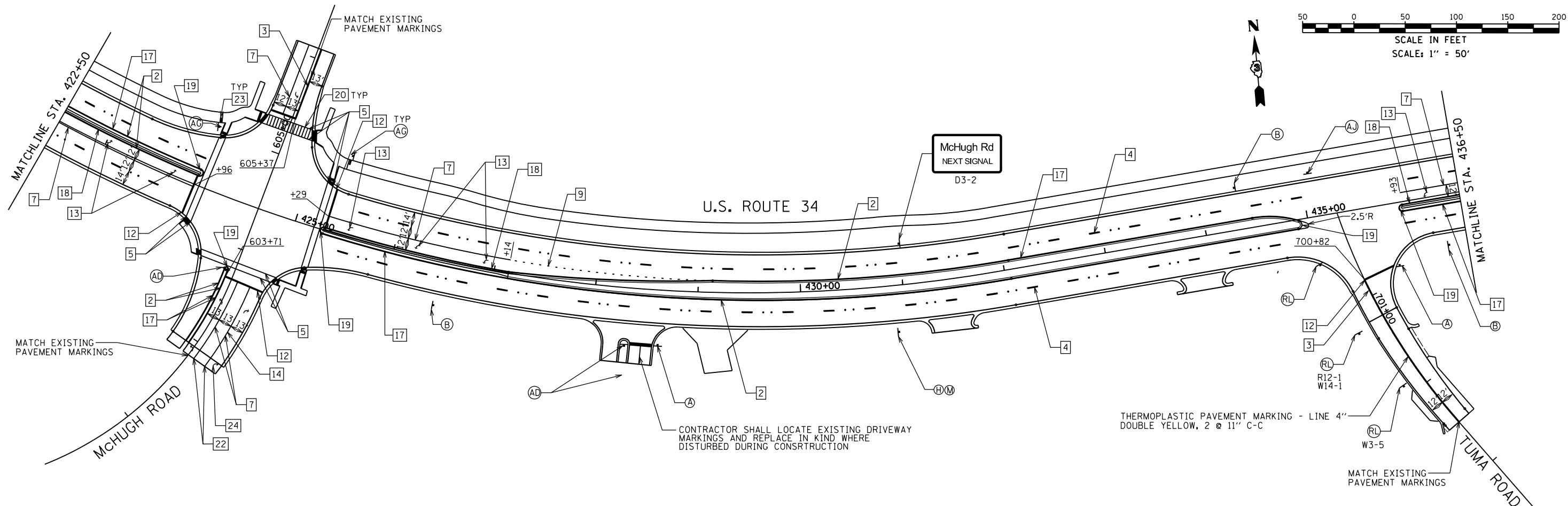
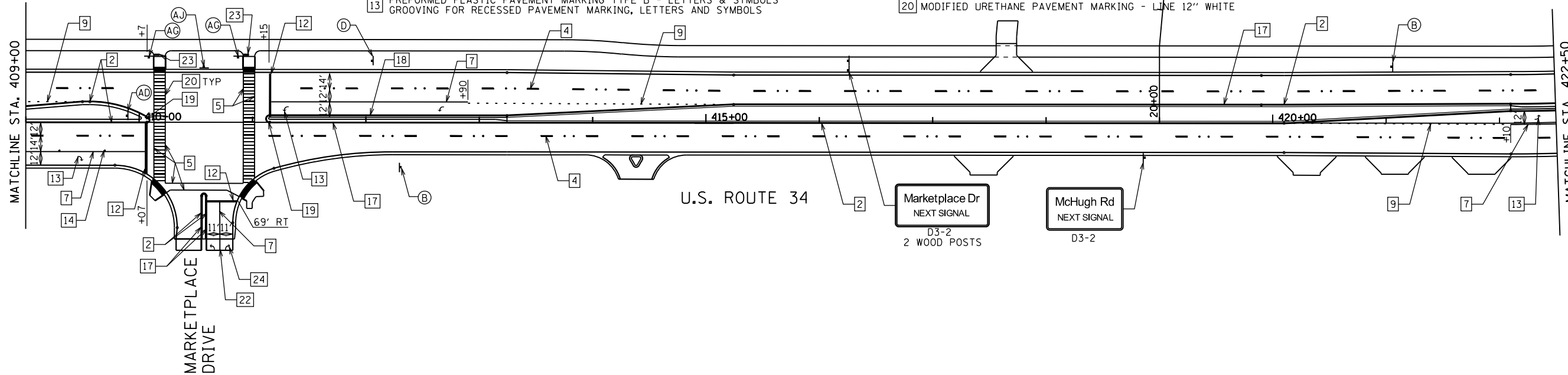
US 34
INTERSECTION DETAILS
OAK LAWN AVENUE / BRISTOL RIDGE ROAD
 SCALE: 1"=10 FT

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	413
CONTRACT NO. 66884				

ILLINOIS FED. AID PROJECT

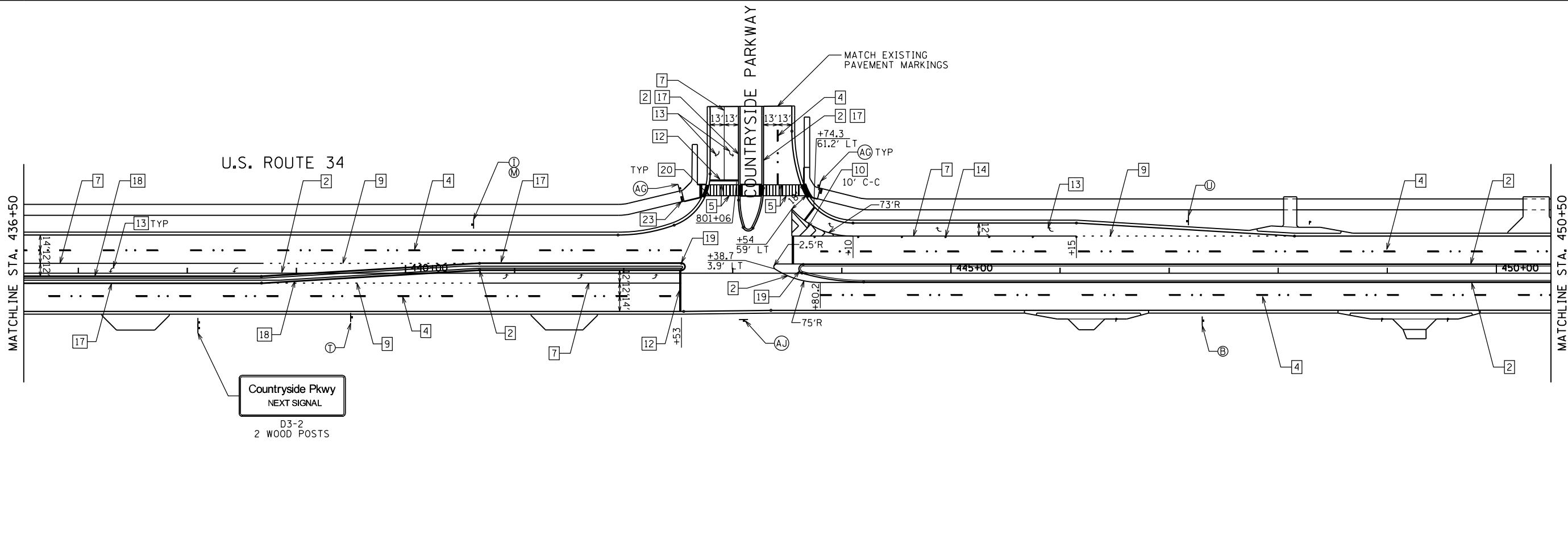
PAVEMENT MARKING LEGEND

- | | | | |
|--|--|--|---|
| 1 MODIFIED URETHANE PAVEMENT MARKING - LINE 4" WHITE SOLID | 7 MODIFIED URETHANE PAVEMENT MARKING - LINE 8" WHITE GROOVING FOR RECESSED PAVEMENT MARKING 9" | 14 RAISED PAVEMENT MARKER, SINGLE WHITE 40' C-C | 21 THERMOPLASTIC PAVEMENT MARKING - LINE 4" SOLID |
| 2 MODIFIED URETHANE PAVEMENT MARKING - LINE 4" YELLOW SOLID | 8 MODIFIED URETHANE PAVEMENT MARKING - LINE 8" YELLOW | 15 RAISED PAVEMENT MARKER, DOUBLE YELLOW 40' C-C | 22 THERMOPLASTIC PAVEMENT MARKING - LINE 8" SOLID |
| 3 MODIFIED URETHANE PAVEMENT MARKING - LINE 4" DOUBLE YELLOW, 2 @ 11" C-C | 9 MODIFIED URETHANE PAVEMENT MARKING - LINE 8" WHITE 2' DASH, 6' SKIP GROOVING FOR RECESSED PAVEMENT MARKING 9" | 16 RAISED PAVEMENT MARKER, DOUBLE YELLOW 4' C-C AROUND NOSE | 23 THERMOPLASTIC PAVEMENT MARKING - LINE 24" SOLID |
| 4 PREFORMED PLASTIC PAVEMENT MARKING-TYPE B-INLAID LINE 6" WHITE SKIP DASH - 10' DASH, 30' SKIP W/2 CRYSTAL/OPAQUE RPM'S | 10 MODIFIED URETHANE PAVEMENT MARKING - LINE 12" WHITE @ 45 DEGREE | 17 PRISMATIC CURB REFLECTORS, 40' C-C | 24 THERMOPLASTIC PAVEMENT MARKING - LETTERS & SYMBOLS |
| 5 PREFORMED PLASTIC PAVEMENT MARKING TYPE B - INLAID - LINE 6" WHITE | 11 MODIFIED URETHANE PAVEMENT MARKING - LINE 12" YELLOW @ 45 DEGREE | 18 PRISMATIC CURB REFLECTORS, 20' C-C | |
| 6 MODIFIED URETHANE PAVEMENT MARKING - LINE 6" YELLOW 10' DASH, 30' SKIP | 12 PREFORMED PLASTIC PAVEMENT MARKING TYPE B - INLAID - LINE 24" WHITE | 19 PRISMATIC CURB REFLECTORS, +/-2' C-C AND SURFACE MOUNTED FLEXIBLE DELINEATORS | |
| | 13 PREFORMED PLASTIC PAVEMENT MARKING TYPE B - LETTERS & SYMBOLS GROOVING FOR RECESSED PAVEMENT MARKING, LETTERS AND SYMBOLS | 20 MODIFIED URETHANE PAVEMENT MARKING - LINE 12" WHITE | |



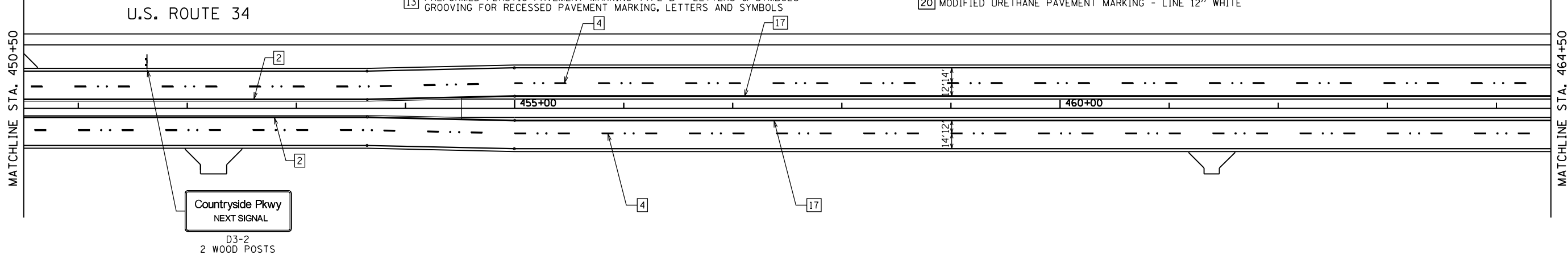
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8501 N. Higgins Road Suite 280 Chicago, Illinois 60631 (773) 399-0112	USER NAME = 1654	DESIGNED - JWB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	US 34 PAVEMENT MARKINGS AND SIGNING		F.A.P. RTE. = 591	SECTION = (13C & 13R & T)	COUNTY = KENDALL	TOTAL SHEETS = 753	SHEET NO. = 415
	PLOT SCALE = 100.000 ft / in.	CHECKED - RS	REVISIED -		SCALE: 1"=50'	SHEET NO. 2 OF 9	STA. 409+50 TO STA. 436+50	CONTRACT NO. 66884 ILLINOIS FED. AID PROJECT			
	PLOT DATE = 8/6/2015	DATE - 08/07/2015	REVISIED -								

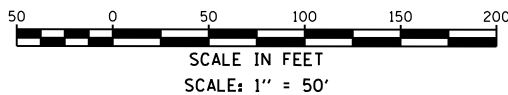


PAVEMENT MARKING LEGEND

- | | | | |
|---|--|---|--|
| <p>1 MODIFIED URETHANE PAVEMENT MARKING - LINE 4" WHITE SOLID</p> <p>2 MODIFIED URETHANE PAVEMENT MARKING - LINE 4" YELLOW SOLID</p> <p>3 MODIFIED URETHANE PAVEMENT MARKING - LINE 4" DOUBLE YELLOW, 2 @ 11" C-C</p> <p>4 PREFORMED PLASTIC PAVEMENT MARKING-TYPE B-INLAID LINE 6" WHITE SKIP DASH - 10' DASH, 30' SKIP W/2 CRYSTAL/OPAQUE RPM'S</p> <p>5 PREFORMED PLASTIC PAVEMENT MARKING TYPE B - INLAID - LINE 6" WHITE</p> <p>6 MODIFIED URETHANE PAVEMENT MARKING - LINE 6" YELLOW 10' DASH, 30' SKIP</p> | <p>7 MODIFIED URETHANE PAVEMENT MARKING - LINE 8" WHITE GROOVING FOR RECESSED PAVEMENT MARKING 9"</p> <p>8 MODIFIED URETHANE PAVEMENT MARKING - LINE 8" YELLOW</p> <p>9 MODIFIED URETHANE PAVEMENT MARKING - LINE 8" WHITE 2' DASH, 6' SKIP GROOVING FOR RECESSED PAVEMENT MARKING 9"</p> <p>10 MODIFIED URETHANE PAVEMENT MARKING - LINE 12" WHITE @ 45 DEGREE</p> <p>11 MODIFIED URETHANE PAVEMENT MARKING - LINE 12" YELLOW @ 45 DEGREE</p> <p>12 PREFORMED PLASTIC PAVEMENT MARKING TYPE B - INLAID - LINE 24" WHITE</p> <p>13 PREFORMED PLASTIC PAVEMENT MARKING TYPE B - LETTERS & SYMBOLS GROOVING FOR RECESSED PAVEMENT MARKING, LETTERS AND SYMBOLS</p> | <p>14 RAISED PAVEMENT MARKER, SINGLE WHITE 40' C-C</p> <p>15 RAISED PAVEMENT MARKER, DOUBLE YELLOW 40' C-C</p> <p>16 RAISED PAVEMENT MARKER, DOUBLE YELLOW 4' C-C AROUND NOSE</p> <p>17 PRISMATIC CURB REFLECTORS, 40' C-C</p> <p>18 PRISMATIC CURB REFLECTORS, 20' C-C</p> <p>19 PRISMATIC CURB REFLECTORS, +/-2' C-C AND SURFACE MOUNTED FLEXIBLE DELINEATORS</p> <p>20 MODIFIED URETHANE PAVEMENT MARKING - LINE 12" WHITE</p> | <p>21 THERMOPLASTIC PAVEMENT MARKING - LINE 4" SOLID</p> <p>22 THERMOPLASTIC PAVEMENT MARKING - LINE 8" SOLID</p> <p>23 THERMOPLASTIC PAVEMENT MARKING - LINE 24" SOLID</p> <p>24 THERMOPLASTIC PAVEMENT MARKING - LETTERS & SYMBOLS</p> |
|---|--|---|--|



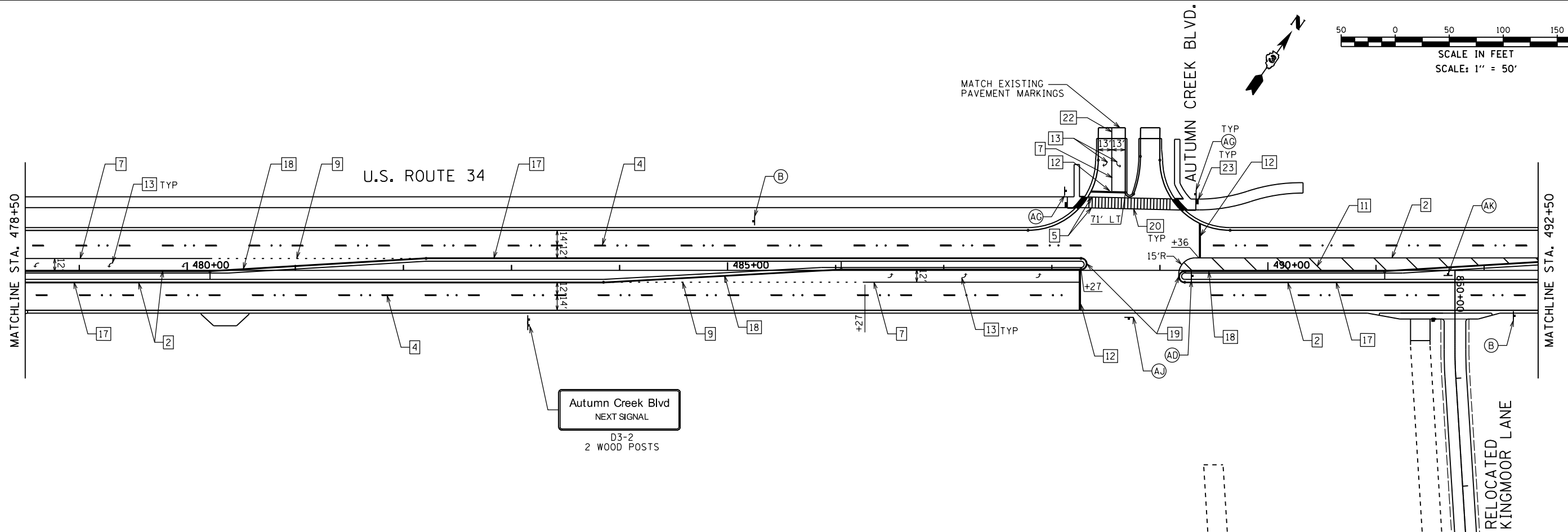
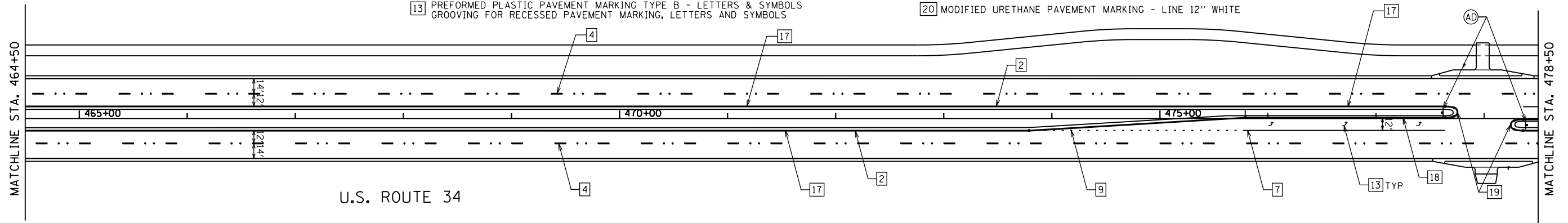
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8501 N. Higgins Road Suite 280 Chicago, Illinois 60631 (773) 399-0112	USER NAME = 1654	DESIGNED - JWB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	US 34 PAVEMENT MARKINGS AND SIGNING		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = 100.000 ft / in.	CHECKED - RS	REVISED -		SCALE: 1"=50'	SHEET NO. 3 OF 9	STA. 436+50 TO STA. 464+50	591	(13C & 13R & T)	KENDALL	753	416
	PLOT DATE = 8/7/2015	DATE - 08/07/2015	REVISED -					CONTRACT NO. 66884 ILLINOIS FED. AID PROJECT				

PAVEMENT MARKING LEGEND

- | | | | |
|---|---|---|--|
| 1] MODIFIED URETHANE PAVEMENT MARKING - LINE 4" WHITE SOLID | 7] MODIFIED URETHANE PAVEMENT MARKING - LINE 8" WHITE GROOVING FOR RECESSED PAVEMENT MARKING 9" | 14] RAISED PAVEMENT MARKER, SINGLE WHITE 40' C-C | 21] THERMOPLASTIC PAVEMENT MARKING - LINE 4" SOLID |
| 2] MODIFIED URETHANE PAVEMENT MARKING - LINE 4" YELLOW SOLID | 8] MODIFIED URETHANE PAVEMENT MARKING - LINE 8" YELLOW | 15] RAISED PAVEMENT MARKER, DOUBLE YELLOW 40' C-C | 22] THERMOPLASTIC PAVEMENT MARKING - LINE 8" SOLID |
| 3] MODIFIED URETHANE PAVEMENT MARKING - LINE 4" DOUBLE YELLOW, 2 @ 11" C-C | 9] MODIFIED URETHANE PAVEMENT MARKING - LINE 8" WHITE 2' DASH, 6' SKIP GROOVING FOR RECESSED PAVEMENT MARKING 9" | 16] RAISED PAVEMENT MARKER, DOUBLE YELLOW 4' C-C AROUND NOSE | 23] THERMOPLASTIC PAVEMENT MARKING - LINE 24" SOLID |
| 4] PREFORMED PLASTIC PAVEMENT MARKING-TYPE B-INLAID LINE 6" WHITE SKIP DASH - 10' DASH, 30' SKIP W/2 CRYSTAL/OPAQUE RPM'S | 10] MODIFIED URETHANE PAVEMENT MARKING - LINE 12" WHITE @ 45 DEGREE | 17] PRISMATIC CURB REFLECTORS, 40' C-C | 24] THERMOPLASTIC PAVEMENT MARKING - LETTERS & SYMBOLS |
| 5] PREFORMED PLASTIC PAVEMENT MARKING TYPE B - INLAID - LINE 6" WHITE | 11] MODIFIED URETHANE PAVEMENT MARKING - LINE 12" YELLOW @ 45 DEGREE | 18] PRISMATIC CURB REFLECTORS, 20' C-C | |
| 6] MODIFIED URETHANE PAVEMENT MARKING - LINE 6" YELLOW 10' DASH, 30' SKIP | 12] PREFORMED PLASTIC PAVEMENT MARKING TYPE B - INLAID - LINE 24" WHITE | 19] PRISMATIC CURB REFLECTORS, +/-2' C-C AND SURFACE MOUNTED FLEXIBLE DELINEATORS | |
| | 13] PREFORMED PLASTIC PAVEMENT MARKING TYPE B - LETTERS & SYMBOLS GROOVING FOR RECESSED PAVEMENT MARKING, LETTERS AND SYMBOLS | 20] MODIFIED URETHANE PAVEMENT MARKING - LINE 12" WHITE | |



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DRAWN - JWB	REVISED -	
CHECKED - RS	REVISED -	
DATE - 08/07/2015	REVISED -	
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PLOT DATE = 8/7/2015		

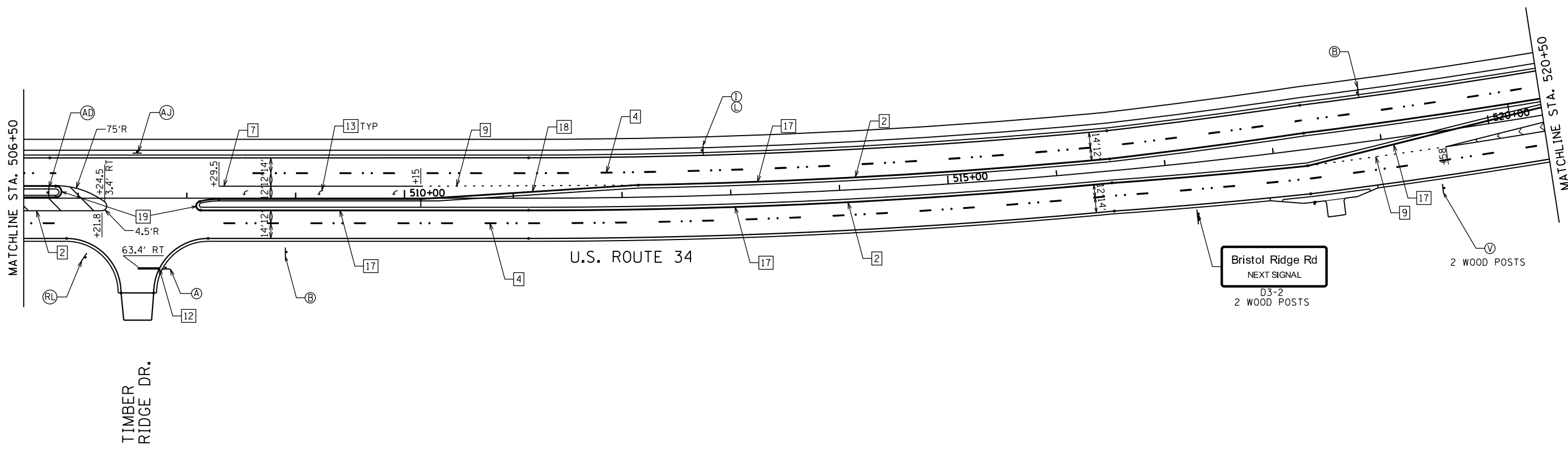
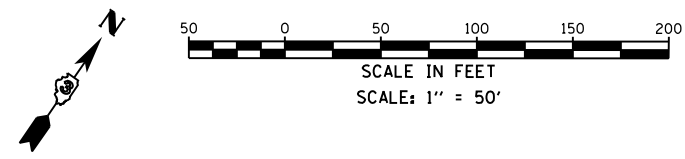
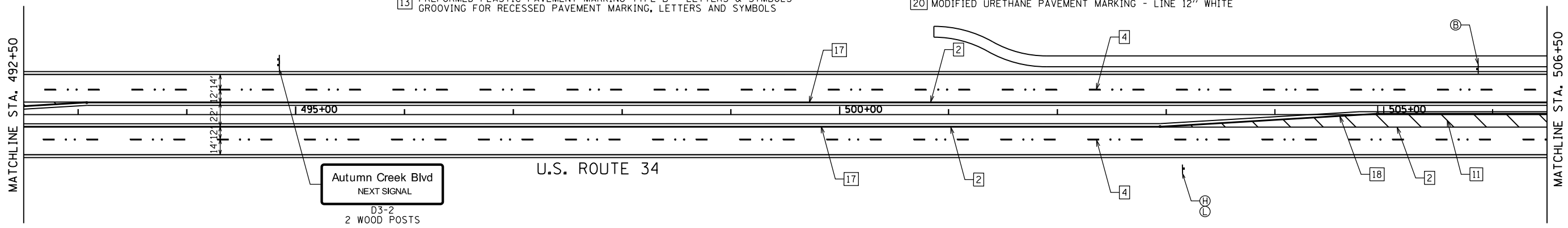
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 34 PAVEMENT MARKINGS AND SIGNING	
SCALE: 1"=50'	SHEET NO. 4 OF 9
STA. 464+50	TO STA. 492+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T)	KENDALL	753	417
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

PAVEMENT MARKING LEGEND

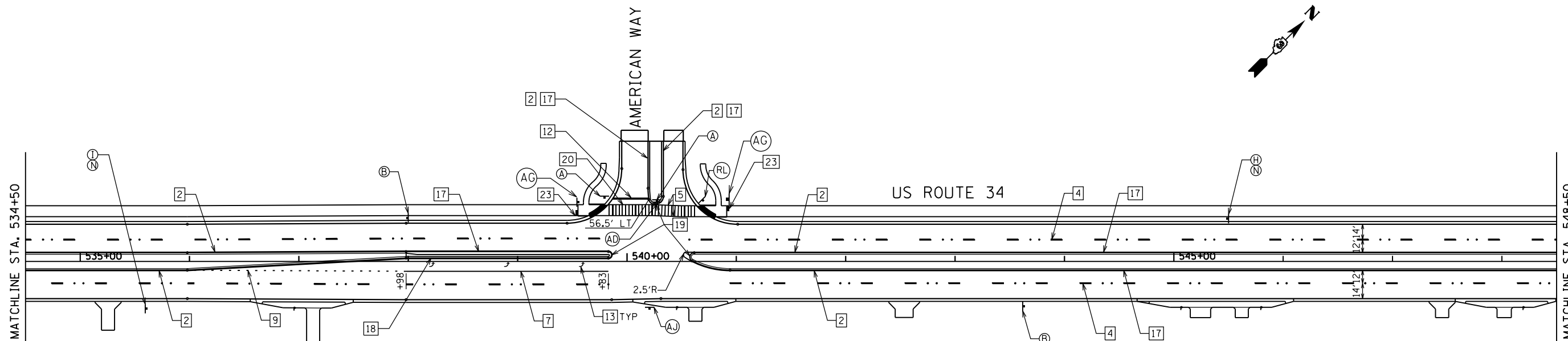
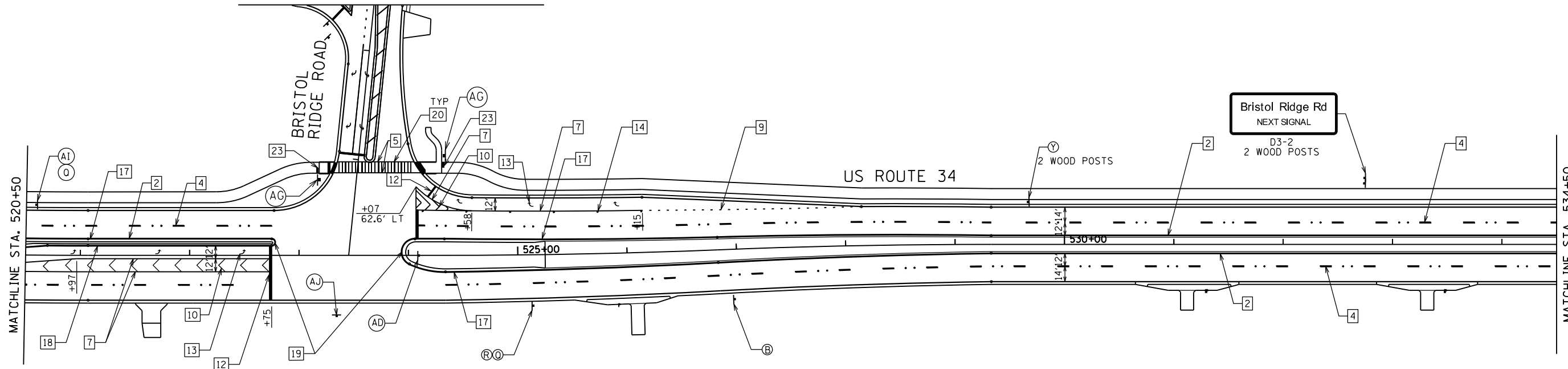
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|---|---|---|--|
| 1] MODIFIED URETHANE PAVEMENT MARKING - LINE 4" WHITE SOLID | 7] MODIFIED URETHANE PAVEMENT MARKING - LINE 8" WHITE GROOVING FOR RECESSED PAVEMENT MARKING 9" | 14] RAISED PAVEMENT MARKER, SINGLE WHITE 40' C-C | 21] THERMOPLASTIC PAVEMENT MARKING - LINE 4" SOLID |
| 2] MODIFIED URETHANE PAVEMENT MARKING - LINE 4" YELLOW SOLID | 8] MODIFIED URETHANE PAVEMENT MARKING - LINE 8" YELLOW | 15] RAISED PAVEMENT MARKER, DOUBLE YELLOW 40' C-C | 22] THERMOPLASTIC PAVEMENT MARKING - LINE 8" SOLID |
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| 5] PREFORMED PLASTIC PAVEMENT MARKING TYPE B - INLAID - LINE 6" WHITE | 11] MODIFIED URETHANE PAVEMENT MARKING - LINE 12" YELLOW @ 45 DEGREE | 18] PRISMATIC CURB REFLECTORS, 20' C-C | |
| 6] MODIFIED URETHANE PAVEMENT MARKING - LINE 6" YELLOW 10' DASH, 30' SKIP | 12] PREFORMED PLASTIC PAVEMENT MARKING TYPE B - INLAID - LINE 24" WHITE | 19] PRISMATIC CURB REFLECTORS, +/-2' C-C AND SURFACE MOUNTED FLEXIBLE DELINEATORS | |
| | 13] PREFORMED PLASTIC PAVEMENT MARKING TYPE B - LETTERS & SYMBOLS GROOVING FOR RECESSED PAVEMENT MARKING, LETTERS AND SYMBOLS | 20] MODIFIED URETHANE PAVEMENT MARKING - LINE 12" WHITE | |



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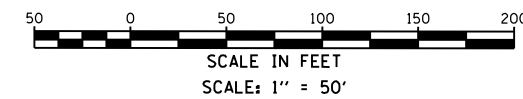
8501 N. Higgins Road Suite 280 Chicago, Illinois 60631 (773) 399-0112	USER NAME = 1654	DESIGNED - JWB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	US 34 PAVEMENT MARKINGS AND SIGNING		F.A.P. RTE. = 591	SECTION = (13C & 13R & T)	COUNTY = KENDALL	TOTAL SHEETS = 753	SHEET NO. = 418
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	PLOT DATE = 8/6/2015	DATE = 08/07/2015	REVISED -								

SEE BRISTOL RIDGE PVT MKG PLAN



PAVEMENT MARKING LEGEND

- 1] MODIFIED URETHANE PAVEMENT MARKING - LINE 4" WHITE SOLID
- 2] MODIFIED URETHANE PAVEMENT MARKING - LINE 4" YELLOW SOLID
- 3] MODIFIED URETHANE PAVEMENT MARKING - LINE 4" DOUBLE YELLOW, 2 @ 11" C-C
- 4] PREFORMED PLASTIC PAVEMENT MARKING-TYPE B-INLAID LINE 6" WHITE SKIP DASH - 10' DASH, 30' SKIP W/2 CRYSTAL/OPAQUE RPM'S
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- 6] MODIFIED URETHANE PAVEMENT MARKING - LINE 6" YELLOW 10' DASH, 30' SKIP
- 7] MODIFIED URETHANE PAVEMENT MARKING - LINE 8" WHITE GROOVING FOR RECESSED PAVEMENT MARKING 9"
- 8] MODIFIED URETHANE PAVEMENT MARKING - LINE 8" YELLOW
- 9] MODIFIED URETHANE PAVEMENT MARKING - LINE 8" WHITE 2' DASH, 6' SKIP GROOVING FOR RECESSED PAVEMENT MARKING 9"
- 10] MODIFIED URETHANE PAVEMENT MARKING - LINE 12" WHITE @ 45 DEGREE
- 11] MODIFIED URETHANE PAVEMENT MARKING - LINE 12" YELLOW @ 45 DEGREE
- 12] PREFORMED PLASTIC PAVEMENT MARKING TYPE B - INLAID - LINE 24" WHITE
- 13] PREFORMED PLASTIC PAVEMENT MARKING TYPE B - LETTERS & SYMBOLS GROOVING FOR RECESSED PAVEMENT MARKING, LETTERS AND SYMBOLS
- 14] RAISED PAVEMENT MARKER, SINGLE WHITE 40' C-C
- 15] RAISED PAVEMENT MARKER, DOUBLE YELLOW 40' C-C
- 16] RAISED PAVEMENT MARKER, DOUBLE YELLOW 4' C-C AROUND NOSE
- 17] PRISMATIC CURB REFLECTORS, 40' C-C
- 18] PRISMATIC CURB REFLECTORS, 20' C-C
- 19] PRISMATIC CURB REFLECTORS, +/-2' C-C AND SURFACE MOUNTED FLEXIBLE DELINEATORS
- 20] MODIFIED URETHANE PAVEMENT MARKING - LINE 12" WHITE
- 21] THERMOPLASTIC PAVEMENT MARKING - LINE 4" SOLID
- 22] THERMOPLASTIC PAVEMENT MARKING - LINE 8" SOLID
- 23] THERMOPLASTIC PAVEMENT MARKING - LINE 24" SOLID
- 24] THERMOPLASTIC PAVEMENT MARKING - LETTERS & SYMBOLS



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	DRAWN - JWB	REVISED -
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PLOT DATE = 8/6/2015	DATE - 08/07/2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

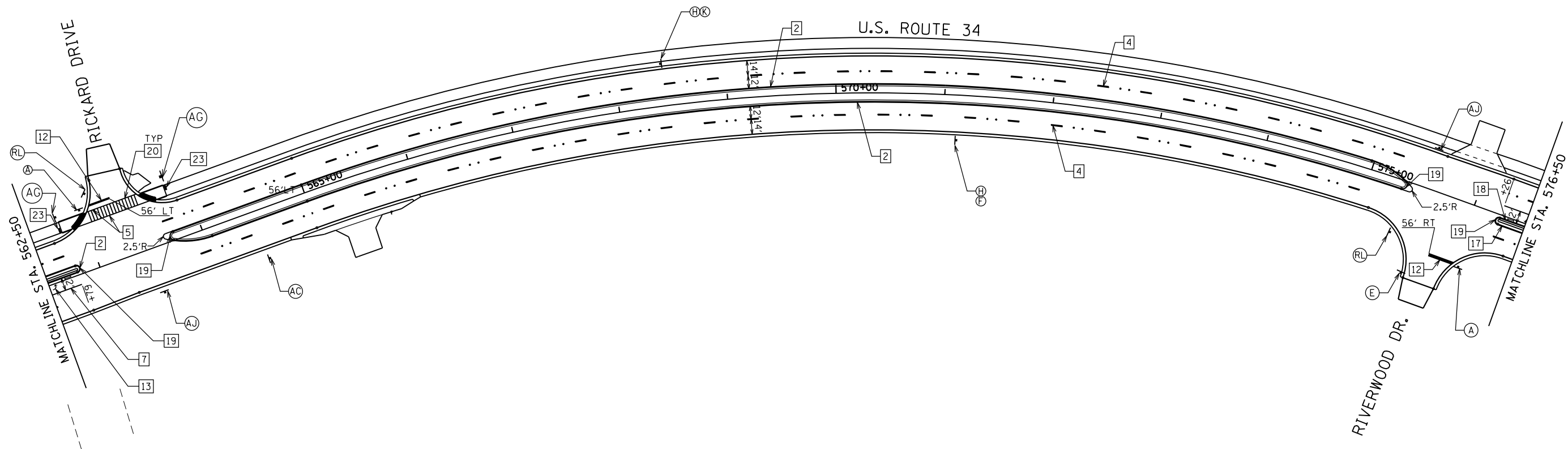
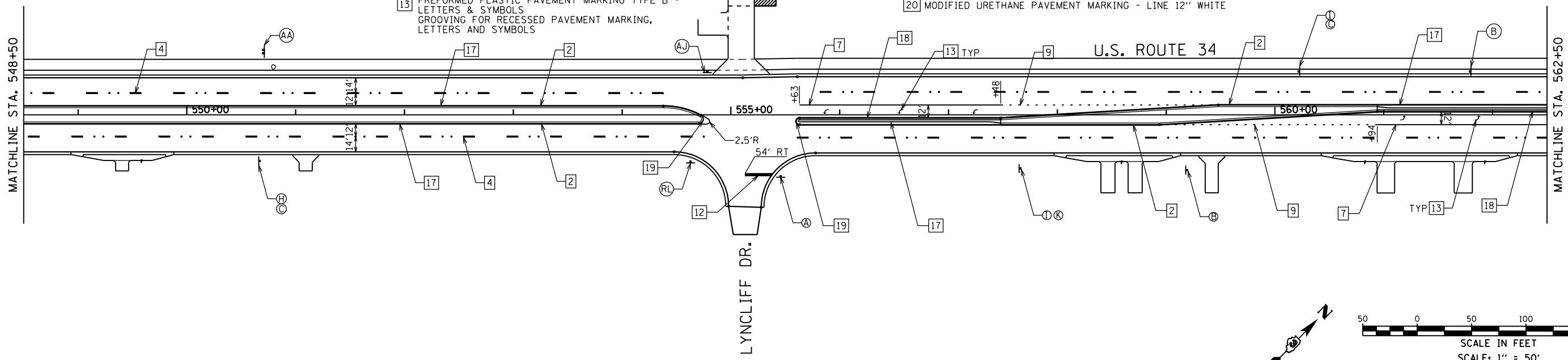
US 34
PAVEMENT MARKINGS AND SIGNING

SCALE: 1"=50' SHEET NO. 6 OF 9 STA. 520+50 TO STA. 548+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	419
			CONTRACT NO. 66884	
ILLINOIS FED. AID PROJECT				

PAVEMENT MARKING LEGEND

- | | | | |
|---|--|---|--|
| <p>1 MODIFIED URETHANE PAVEMENT MARKING - LINE 4" WHITE SOLID</p> <p>2 MODIFIED URETHANE PAVEMENT MARKING - LINE 4" YELLOW SOLID</p> <p>3 MODIFIED URETHANE PAVEMENT MARKING - LINE 4" DOUBLE YELLOW, 2 @ 11" C-C</p> <p>4 PREFORMED PLASTIC PAVEMENT MARKING-TYPE B-INLAID
LINE 6" WHITE SKIP DASH - 10' DASH, 30' SKIP W/2 CRYSTAL/OPAQUE RPM'S</p> <p>5 PREFORMED PLASTIC PAVEMENT MARKING TYPE B - INLAID - LINE 6" WHITE</p> <p>6 MODIFIED URETHANE PAVEMENT MARKING - LINE 6" YELLOW 10' DASH, 30' SKIP</p> | <p>7 MODIFIED URETHANE PAVEMENT MARKING - LINE 8" WHITE
GROOVING FOR RECESSED PAVEMENT MARKING 9"</p> <p>8 MODIFIED URETHANE PAVEMENT MARKING - LINE 8" YELLOW</p> <p>9 MODIFIED URETHANE PAVEMENT MARKING - LINE 8" WHITE 2' DASH, 6' SKIP
GROOVING FOR RECESSED PAVEMENT MARKING 9"</p> <p>10 MODIFIED URETHANE PAVEMENT MARKING - LINE 12" WHITE @ 45 DEGREE</p> <p>11 MODIFIED URETHANE PAVEMENT MARKING - LINE 12" YELLOW @ 45 DEGREE</p> <p>12 PREFORMED PLASTIC PAVEMENT MARKING TYPE B - INLAID - LINE 24" WHITE</p> <p>13 PREFORMED PLASTIC PAVEMENT MARKING TYPE B -
LETTERS & SYMBOLS
GROOVING FOR RECESSED PAVEMENT MARKING,
LETTERS AND SYMBOLS</p> | <p>14 RAISED PAVEMENT MARKER, SINGLE WHITE 40' C-C</p> <p>15 RAISED PAVEMENT MARKER, DOUBLE YELLOW 40' C-C</p> <p>16 RAISED PAVEMENT MARKER, DOUBLE YELLOW 4' C-C AROUND NOSE</p> <p>17 PRISMATIC CURB REFLECTORS, 40' C-C</p> <p>18 PRISMATIC CURB REFLECTORS, 20' C-C</p> <p>19 PRISMATIC CURB REFLECTORS, +/-2' C-C AND
SURFACE MOUNTED FLEXIBLE DELINEATORS</p> <p>20 MODIFIED URETHANE PAVEMENT MARKING - LINE 12" WHITE</p> | <p>21 THERMOPLASTIC PAVEMENT MARKING - LINE 4" SOLID</p> <p>22 THERMOPLASTIC PAVEMENT MARKING - LINE 8" SOLID</p> <p>23 THERMOPLASTIC PAVEMENT MARKING - LINE 24" SOLID</p> <p>24 THERMOPLASTIC PAVEMENT MARKING - LETTERS & SYMBOLS</p> |
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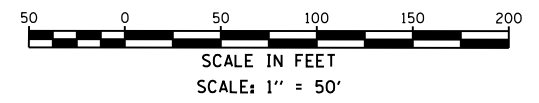
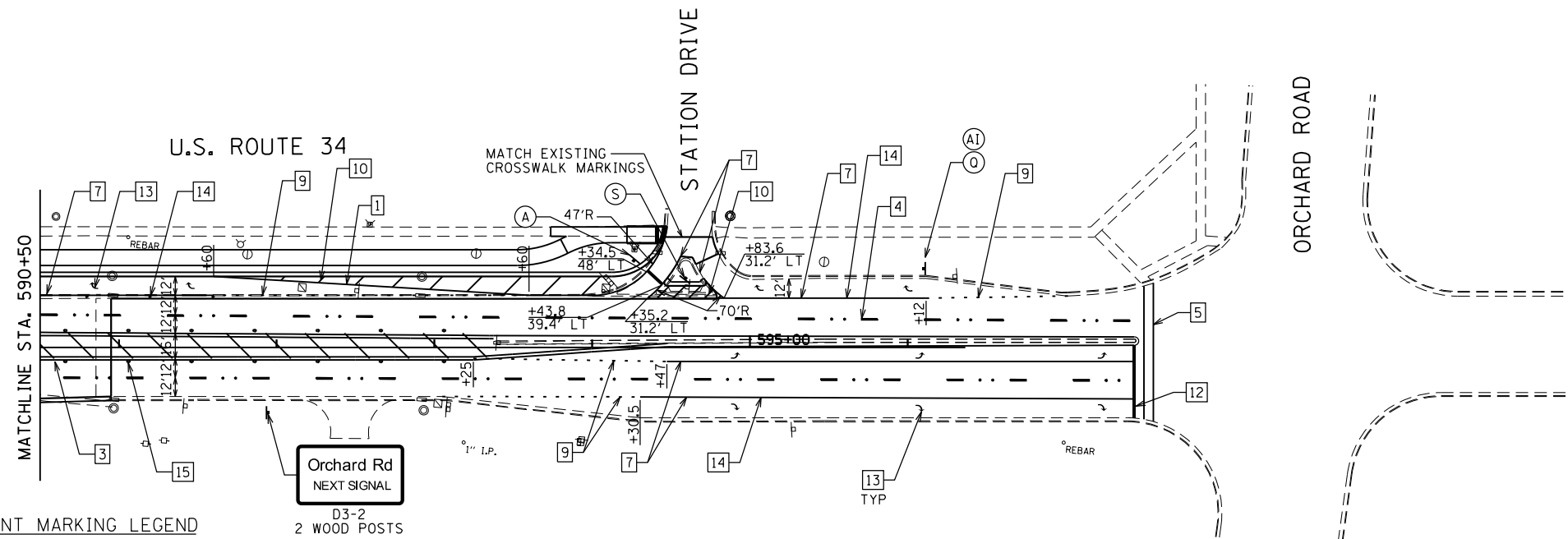
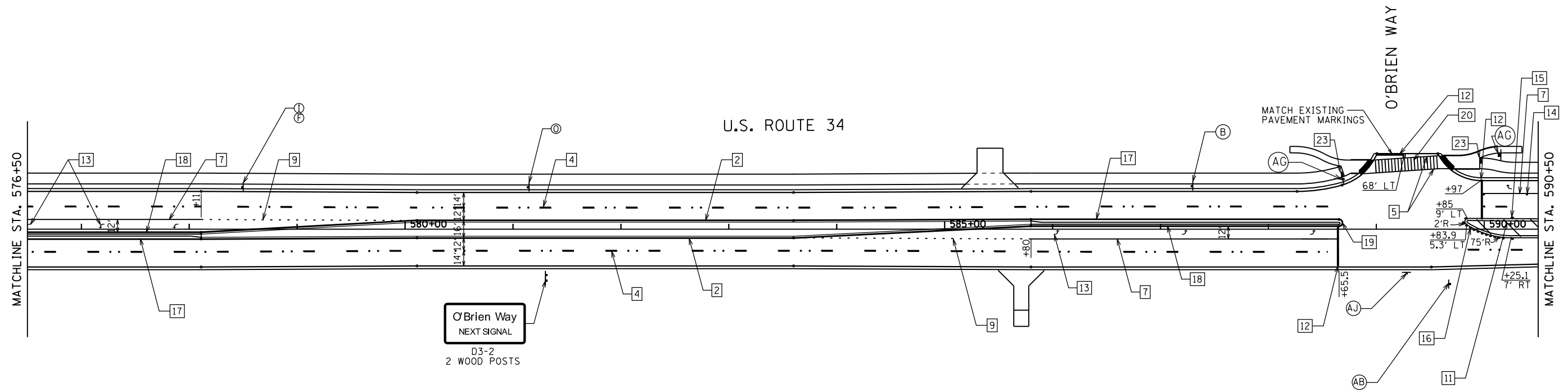


USER NAME = 1654	DESIGNED - JWB	REVISED -
DRAWN - JWB	REVISED -	
PLOT SCALE = 100.000 ft / in.	CHECKED - RS	REVISED -
PLOT DATE = 8/6/2015	DATE - 08/07/2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 34 PAVEMENT MARKINGS AND SIGNING	
SCALE: 1"=50'	SHEET NO. 7 OF 9
STA. 548+50	TO STA. 576+50

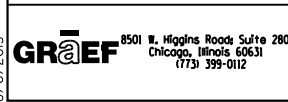
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	420
ILLINOIS FED. AID PROJECT			CONTRACT NO. 66884	



PAVEMENT MARKING LEGEND

- | | | | |
|--|---|--|---|
| <ul style="list-style-type: none"> 1 MODIFIED URETHANE PAVEMENT MARKING - LINE 4" WHITE SOLID 2 MODIFIED URETHANE PAVEMENT MARKING - LINE 4" YELLOW SOLID 3 MODIFIED URETHANE PAVEMENT MARKING - LINE 4" DOUBLE YELLOW, 2 @ 11" C-C 4 PREFORMED PLASTIC PAVEMENT MARKING-TYPE B-INLAID LINE 6" WHITE SKIP DASH - 10' DASH, 30' SKIP W/2 CRYSTAL/OPAQUE RPM'S 5 PREFORMED PLASTIC PAVEMENT MARKING TYPE B - INLAID - LINE 6" WHITE 6 MODIFIED URETHANE PAVEMENT MARKING - LINE 6" YELLOW 10' DASH, 30' SKIP | <ul style="list-style-type: none"> 7 MODIFIED URETHANE PAVEMENT MARKING - LINE 8" WHITE GROOVING FOR RECESSED PAVEMENT MARKING 9" 8 MODIFIED URETHANE PAVEMENT MARKING - LINE 8" YELLOW 9 MODIFIED URETHANE PAVEMENT MARKING - LINE 8" WHITE 2' DASH, 6' SKIP GROOVING FOR RECESSED PAVEMENT MARKING 9" 10 MODIFIED URETHANE PAVEMENT MARKING - LINE 12" WHITE @ 45 DEGREE 11 MODIFIED URETHANE PAVEMENT MARKING - LINE 12" YELLOW @ 45 DEGREE 12 PREFORMED PLASTIC PAVEMENT MARKING TYPE B - INLAID - LINE 24" WHITE 13 PREFORMED PLASTIC PAVEMENT MARKING TYPE B - LETTERS & SYMBOLS GROOVING FOR RECESSED PAVEMENT MARKING, LETTERS AND SYMBOLS | <ul style="list-style-type: none"> 14 RAISED PAVEMENT MARKER, SINGLE WHITE 40' C-C 15 RAISED PAVEMENT MARKER, DOUBLE YELLOW 40' C-C 16 RAISED PAVEMENT MARKER, DOUBLE YELLOW 4' C-C AROUND NOSE 17 PRISMATIC CURB REFLECTORS, 40' C-C 18 PRISMATIC CURB REFLECTORS, 20' C-C 19 PRISMATIC CURB REFLECTORS, +/-2' C-C AND SURFACE MOUNTED FLEXIBLE DELINEATORS 20 MODIFIED URETHANE PAVEMENT MARKING - LINE 12" WHITE | <ul style="list-style-type: none"> 21 THERMOPLASTIC PAVEMENT MARKING - LINE 4" SOLID 22 THERMOPLASTIC PAVEMENT MARKING - LINE 8" SOLID 23 THERMOPLASTIC PAVEMENT MARKING - LINE 24" SOLID 24 THERMOPLASTIC PAVEMENT MARKING - LETTERS & SYMBOLS |
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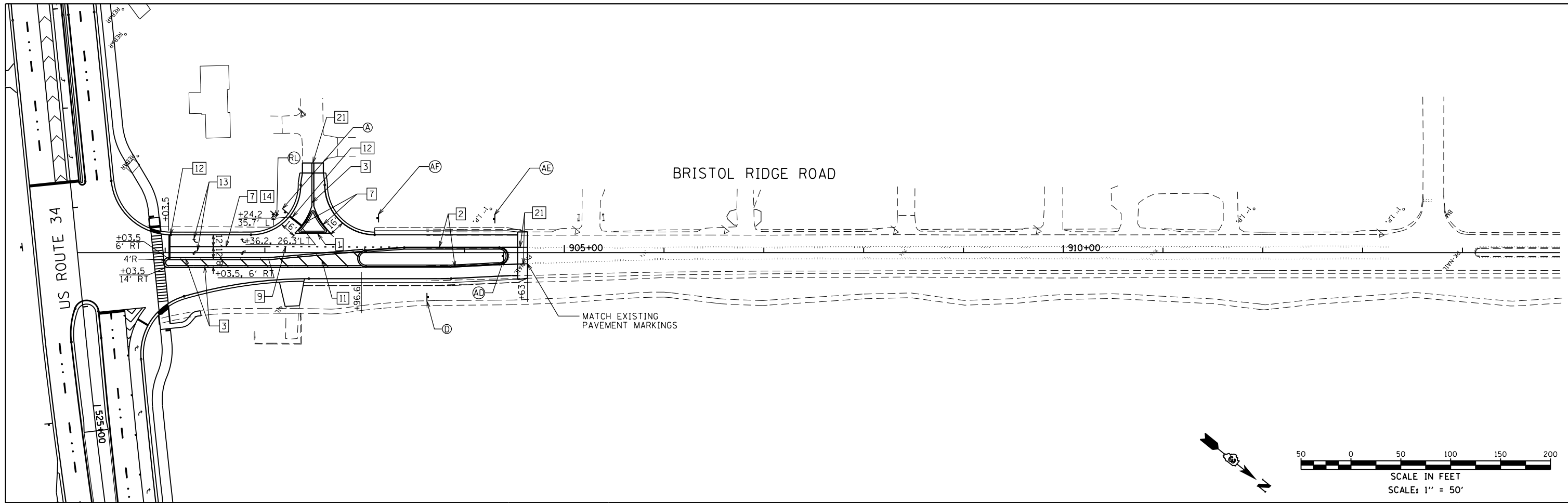


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	DRAWN - JWB	REVISED -
PLOT SCALE = 100.000 ft / in.	CHECKED - RS	REVISED -
PLOT DATE = 8/6/2015	DATE - 08/07/2015	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

US 34 PAVEMENT MARKINGS AND SIGNING	
SCALE: 1"=50'	SHEET NO. 8 OF 9
STA. 576+50	TO STA. 596+00

F.A.P. RTE. 591	SECTION (13C & 13R & T)	COUNTY KENDALL	TOTAL SHEETS 753	SHEET NO. 421
CONTRACT NO. 66884				ILLINOIS FED. AID PROJECT

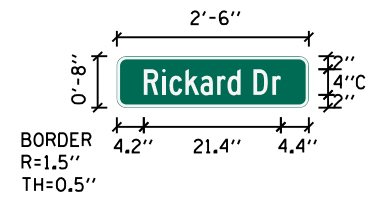


PAVEMENT MARKING LEGEND

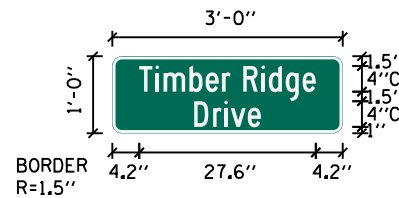
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|---|---|--|---|
| <ul style="list-style-type: none"> 1 MODIFIED URETHANE PAVEMENT MARKING - LINE 4" WHITE SOLID 2 MODIFIED URETHANE PAVEMENT MARKING - LINE 4" YELLOW SOLID 3 MODIFIED URETHANE PAVEMENT MARKING - LINE 4" DOUBLE YELLOW, 2 @ 11" C-C 4 PREFORMED PLASTIC PAVEMENT MARKING-TYPE B-INLAID
LINE 6" WHITE SKIP DASH - 10' DASH, 30' SKIP W/2 CRYSTAL/OPAQUE RPM'S 5 PREFORMED PLASTIC PAVEMENT MARKING TYPE B - INLAID - LINE 24" WHITE 6 MODIFIED URETHANE PAVEMENT MARKING - LINE 6" YELLOW 10' DASH, 30' SKIP | <ul style="list-style-type: none"> 7 MODIFIED URETHANE PAVEMENT MARKING - LINE 8" WHITE
GROOVING FOR RECESSED PAVEMENT MARKING 9" 8 MODIFIED URETHANE PAVEMENT MARKING - LINE 8" YELLOW 9 MODIFIED URETHANE PAVEMENT MARKING - LINE 8" WHITE 2' DASH, 6' SKIP
GROOVING FOR RECESSED PAVEMENT MARKING 9" 10 MODIFIED URETHANE PAVEMENT MARKING - LINE 12" WHITE @ 45 DEGREE 11 MODIFIED URETHANE PAVEMENT MARKING - LINE 12" YELLOW @ 45 DEGREE 12 PREFORMED PLASTIC PAVEMENT MARKING TYPE B - INLAID - LINE 24" WHITE 13 PREFORMED PLASTIC PAVEMENT MARKING TYPE B - LETTERS & SYMBOLS
GROOVING FOR RECESSED PAVEMENT MARKING, LETTERS AND SYMBOLS | <ul style="list-style-type: none"> 14 RAISED PAVEMENT MARKER, SINGLE WHITE 40' C-C 15 RAISED PAVEMENT MARKER, DOUBLE YELLOW 40' C-C 16 RAISED PAVEMENT MARKER, DOUBLE YELLOW 4' C-C AROUND NOSE 17 PRISMATIC CURB REFLECTORS, 40' C-C 18 PRISMATIC CURB REFLECTORS, 20' C-C 19 PRISMATIC CURB REFLECTORS, +/-2' C-C AND
SURFACE MOUNTED FLEXIBLE DELINEATORS 20 MODIFIED URETHANE PAVEMENT MARKING - LINE 12" WHITE | <ul style="list-style-type: none"> 21 THERMOPLASTIC PAVEMENT MARKING - LINE 4" SOLID 22 THERMOPLASTIC PAVEMENT MARKING - LINE 8" SOLID 23 THERMOPLASTIC PAVEMENT MARKING - LINE 24" SOLID 24 THERMOPLASTIC PAVEMENT MARKING - LETTERS & SYMBOLS |
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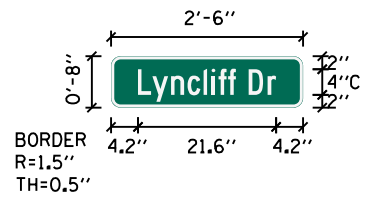
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	PLOT SCALE = 100.000 ft / in.	CHECKED - RS	REVISIED -			SCALE: 1"=50'	SHEET NO. 9 OF 9	STA. 901+50 TO STA. 912+50	CONTRACT NO. 66884	
	PLOT DATE = 8/6/2015	DATE - 08/07/2015	REVISIED -							



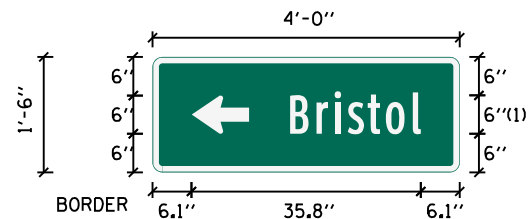
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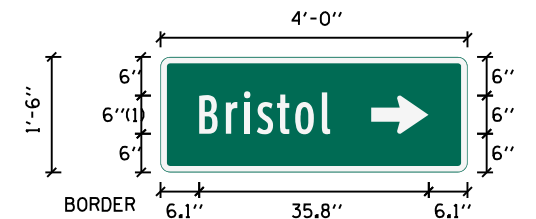
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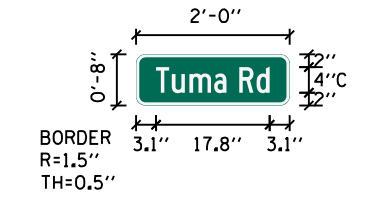
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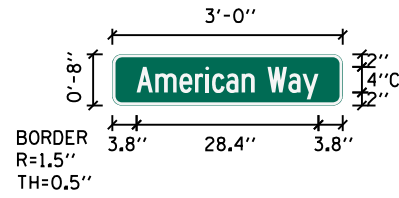
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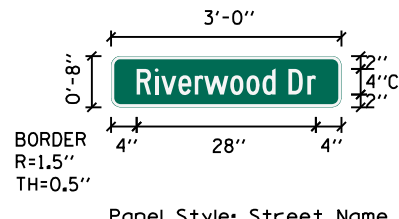
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M.U.T.C.D.: 2009 Edition



Panel Style: Street Name 4-3in.ssi
M.U.T.C.D.: 2009 Edition



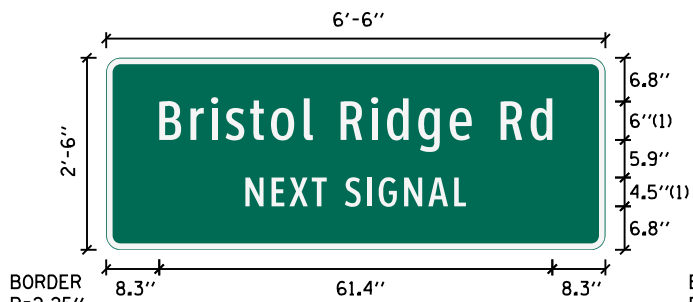
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M.U.T.C.D.: 2009 Edition



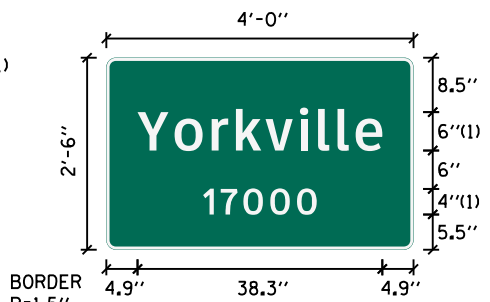
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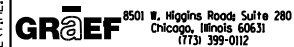


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DRAWN - JWB	REVISIONS -	
PLOT SCALE = 2.5000' / in.	CHECKED - RS	REVISIONS -
PLOT DATE = 8/7/2015	DATE - 08/07/2015	REVISIONS -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 34
SIGN DETAILS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	423
CONTRACT NO. 66884				

ILLINOIS FED. AID PROJECT

TRAFFIC SIGNAL GENERAL NOTES

1. THE CONTRACTOR SHALL CONTACT THE CITY OF YORKVILLE A MINIMUM OF 72 HOURS PRIOR TO BEGINNING WORK.
2. THE TRAFFIC SIGNAL SECTION AT THE DEPARTMENT OF TRANSPORTATION, DISTRICT 3, SHALL BE NOTIFIED AT 815-434-8506 AT LEAST 72 HOURS PRIOR TO TURNING ON ANY FLASHER OR CONTROL UNIT.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED FOR NON-EMERGENCY WORK. THE JULIE NUMBER IS 800-892-0123.
4. ALL TRAFFIC CONTROL AND OTHER ADVISORY SIGNS NEEDED FOR CONSTRUCTION ARE FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH SECTION 701 OF THE STANDARD SPECIFICATIONS.
5. ALL TRAFFIC SIGNAL HEADS SHALL BE 12-INCH POLYCARBONATE.
6. TRAFFIC SIGNAL HEADS SHALL BE PROPERLY COVERED PRIOR TO INTERSECTION TURN-ON OR AS DIRECTED BY THE ENGINEER. THIS COST SHALL BE INCLUDED WITH THE COST OF THE ASSOCIATED TRAFFIC SIGNAL PAY ITEMS.
7. A 1/2" DIAMETER CONTINUOUS RODENT RESISTANT NYLON ROPE SHALL BE FURNISHED AND LEFT IN PLACE IN ALL CONDUITS BETWEEN HANDHOLES AND FOUNDATIONS OR CONTROLLER. THIS COST SHALL BE INCLUDED IN THE COST OF CONDUIT PAY ITEM.
THE CONTRACTOR SHALL ARRANGE FOR A FACTORY OR SUPPLIER REPRESENTATIVE TO BE PRESENT AT THE INTERSECTION WHEN THE SIGNAL IS TURNED ON. COST TO BE INCLUDED IN THE TRAFFIC SIGNAL CONTROLLER PAY ITEM.
8. PRESENT AT THE INTERSECTION WHEN THE SIGNAL IS TURNED ON. COST TO BE INCLUDED IN THE TRAFFIC SIGNAL CONTROLLER PAY ITEM.
9. ALL CONDUIT IN TRENCH SHALL BE PVC. CONDUIT PUSHED MAY BE PVC OR GALVANIZED STEEL. CONDUIT ATTACHED TO STRUCTURES SHALL BE GALVANIZED STEEL.
10. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR PLACING CONDUIT AT GREATER THAN 2' MINIMUM DEPTH TO AVOID OBSTACLES SUCH AS UNDERGROUND UTILITIES.
11. THE ELECTRICAL CONDUCTORS FOR ALL TRAFFIC SIGNAL HEADS SHALL BE SOLID, SOFT COPPER.
12. ALL THREADS OF BOLTS USED IN ASSEMBLY OF TRAFFIC SIGNAL COMPONENTS SHALL BE COATED WITH NON-LEAD BASED ANTI-SEIZE COMPOUND, SIMILAR TO LEAD PLATE, PRIOR TO ASSEMBLY.
13. ALL HARDWARE SHALL BE TIGHTENED AND WELL SECURED. CABLES SHALL BE NEATLY WOUND IN HANDHOLES. CABLES SHALL BE NEATLY TRAINED IN THE CONTROLLER CABINET.
14. ALL TRAFFIC SIGNAL WIRING SHALL EXTEND FROM CONTROLLER TO SIGNAL. SPLICES IN JUNCTION BOXES WILL NOT BE ALLOWED.
15. THE CONTROLLER CABINET SHALL BE PLACED SO THAT A TECHNICIAN MAY SEE THE INTERSECTION OVER THE TOP OF THE CABINET WHILE WATCHING THE COMPONENTS OF THE CABINET.

16. THE PROPOSED TRAFFIC SIGNAL CONTROLLER CABINET SHALL BE FURNISHED WITH A MANUAL CONTROL SWITCH AND MANUAL CONTROL CHORD WITHIN THE POLICE DOOR COMPARTMENT. THIS WORK SHALL BE INCLUDED IN THE CONTROLLER CABINET PAY ITEM.
17. THE CONTRACTOR SHALL PROVIDE A SELF-ADHERED PHASE DIAGRAM ON THE INSIDE OF THE CONTROLLER CABINET DOOR.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ELECTRICAL SERVICE FOR THE TRAFFIC SIGNALS. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANY PRIOR TO BEGINNING WORK TO OBTAIN THE UTILITY COMPANY REQUIREMENTS FOR THE SERVICE INSTALLATION.
19. THE CONTRACTOR SHALL CONTACT THE CITY OF YORKVILLE, IDOT AND UTILITY COMPANY FOR THE TELEPHONE CONNECTION TO THE MASTER CONTROLLER.
20. THE ELEVATION OF THE TOP OF THE DOUBLE HANDHOLE SHALL BE LESS THAN THE ELEVATION OF THE TOP OF THE CONTROLLER FOUNDATION.
21. ALL UNINTERRUPTIBLE POWER SUPPLIES SHALL BE EQUIPPED WITH ALPHA GUARD MONITORS.
22. ALL GROUNDING MATERIALS FOR CONCRETE FOUNDATIONS SHALL REFER TO SECTION 806 OF THE STANDARD SPECIFICATIONS.
23. ALL AREAS DISTURBED BY THE CONTRACTOR SHALL BE RESTORED WITH SEED OR SOD TO THE SATISFACTION OF THE ENGINEER. SEEDING OR SODDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET OR IN AN UNTILLABLE CONDITION.
24. THE FIBER OPTIC CABLE SHALL BE LABELED WITH DIRECTION AND ASSIGNMENT NUMBER.
25. THE SURGE PROTECTOR IN THE CONTROLLER CABINET SHALL HAVE AN INDICATOR LIGHT.
26. THE MAST ARM FOUNDATIONS SHALL BE LOCATED A MINIMUM 6' FROM THE FACE OF THE CURB OR A MINIMUM OF 18' FROM THE EDGE OF THE PAVEMENT TO THE FACE OF THE FOUNDATION WHERE THERE IS NO CURB. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, IN CURB AREA, GET MORE THAN 6' IF POSSIBLE IF THE SIGNAL HEAD STILL LINES UP WITH THE CENTER OF LANE.
27. ONE WEEK PRIOR TO SIGNAL TURN-ON FOR BOTH DIRECTIONS, THE CHANGEABLE MESSAGE SIGNS SHOULD READ "NEW SIGNAL AHEAD/TURN ON DATE" FOR THREE WEEKS. AFTER THE SIGNALS ARE TURNED ON THE MESSAGE SIGN SHOULD READ "NEW SIGNAL AHEAD / BE PREPARED TO STOP", FOR FOUR WEEKS.
28. ALL MAST ARM MOUNTED SIGNAL HEADS ON INDIVIDUAL MAST ARM SHALL BE MOUNTED SO THAT THE RED INDICATIONS ARE LEVEL WITH EACH OTHER.
29. BACKPLATES SHALL BE POLYCARBONATE, LOUVERED FORMED BACKPLATES.
30. ALL VEHICLE AND PEDESTRIAN SIGNAL HEADS SHALL HAVE POLYCARBONATE BLACK HOUSING AND BLACK BACKPLATES.

TEMPORARY TRAFFIC SIGNAL GENERAL NOTES

1. ALL SIGNAL HEADS ON INDIVIDUAL SPAN WIRE SHALL BE MOUNTED SO THAT THE "RED" INDICATIONS ARE LEVEL WITH EACH OTHER.
2. THE CONTRACTOR SHALL PROVIDE 3' OF SLACK CABLE IN THE CONTROLLER AND ON THE WOOD POLES. THE SLACK IS IN ADDITION TO THE VERTICAL LENGTH OF THE CABLE DEFINED IN THE STANDARD SPECIFICATIONS AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR ELECTRICAL CABLE OF THE TYPE SPECIFIED.
3. TEMPORARY WOOD POLES SHALL BE LOCATED A MINIMUM OF 6' FROM THE FACE OF CURB OR A MINIMUM OF 18' FROM THE EDGE OF PAVEMENT WHERE THERE IS NO CURB, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
4. ALL TEMPORARY WOOD POLES SHALL BE INSTALLED SO THAT THE MINIMUM OF 30' OF POLE I ABOVE THE EXISTING PAVEMENT ELEVATION ADJACENT TO THE POLE. A SUFFICIENT LENGTH OF POLE SHALL BE BURIED AND BACK GUYED TO ALLOW THE INSTALLATION TO WITHSTAND A 70 MPH SUSTAINED WIND LOADING.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING THE WOOD POLE LOCATIONS BEFORE ORDERING TO DETERMINE IF LONGER POLES ARE REQUIRED.
6. TEMPORARY SIGNAL HEADS SHALL BE RELOCATED AS NECESSARY TO LINE UP WITH STAGE TRAFFIC LANES. THIS WORK SHALL BE INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION.

LIGHTING GENERAL NOTES

1. UNDERGROUND SPLICING IS NOT PERMITTED. ALL SPLICING SHALL BE DONE IN POLE HANDHOLES IN ACCORDANCE WITH ARTICLE 817.05 OF THE STANDARD SPECIFICATIONS.
2. PROVIDE AND INSTALL COMBINATION LIGHTING CONTROLLER EQUIPMENT INSIDE TRAFFIC SIGNAL CONTROLLER. SEE COMBINATION LIGHTING CONTROLLER DETAIL AND SPECIAL PROVISION FOR MORE INFORMATION.
3. NO POLE TO BE INSTALLED IN TEH FLOWLINE OF DITCH. POLE SETBACK TO BE ADJUSTED IF NECESSARY AS DIRECTED BY THE ENGINEER.
4. UNIT DUCT SHALL BE SCHEDULE 40.

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AMES Engineering, Inc.
CONSULTING ENGINEERS
5413 Walnut Avenue
Downers Grove, IL 60515

USER NAME = duncanbd	DESIGNED - AS	REVISED - BDD 10/02/2015
	DRAWN - RV	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - MSA	REVISED -
PLOT DATE = 10/5/2015	DATE - 12/01/2014	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**US 34 TRAFFIC SIGNAL AND LIGHTING PLANS
GENERAL NOTES**

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	425
CONTRACT NO. 66884			ILLINOIS FED. AID PROJECT	

TS-02

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 3, 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 12" (300mm). HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. 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.

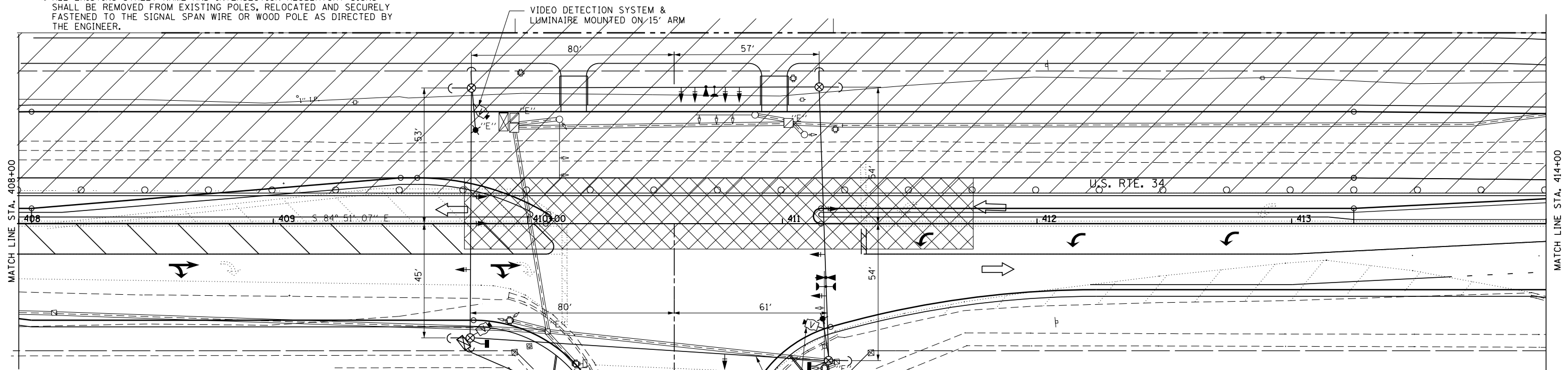
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, 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. THE LOCATIONS OF THE TEMPORARY TRAFFIC SIGNAL HEADS ARE BASED ON SUGGESTED CONSTRUCTION STAGING AND TRAFFIC CONTROL-STAGE 1. THE SECONDARY SIGNAL HEADS LOCATIONS SHALL BE PLACED PER OTHER CONSTRUCTION STAGING AND AS APPROVED BY THE ENGINEER IN THE FIELD.

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE CITY OF YORKVILLE AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE CITY TRAFFIC SIGNAL MAINTENANCE FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS:

- | | | |
|----|------|---|
| 1 | EACH | CONTROLLER AND CABINET (COMPLETE) |
| 6 | EACH | SIGNAL HEAD, 1-FACE, 3-SECTION MAST ARM MOUNTED |
| 2 | EACH | SIGNAL HEAD, 1-FACE, 3-SECTION BRACKET MOUNTED |
| 1 | EACH | SIGNAL HEAD, 1-FACE, 5-SECTION BRACKET MOUNTED |
| 1 | EACH | SIGNAL HEAD, 1-FACE, 5-SECTION MAST ARM MOUNTED |
| 12 | EACH | TRAFFIC SIGNAL BACKPLATE |
| 2 | EACH | TRAFFIC SIGNAL POST |
| 1 | EACH | SERVICE INSTALLATION |
| 3 | EACH | STEEL MAST ARM ASSEMBLY AND POLE |
| 2 | EACH | PEDESTRIAN SIGNAL HEAD, 1-FACE |
| 2 | EACH | PEDESTRIAN PUSHBUTTON |

NOTES FOR TEMPORARY LIGHTING

1. TEMPORARY LIGHTING SHALL BE PROVIDED AS DESCRIBED IN THE SPECIAL PROVISION "TEMPORARY LIGHTING SYSTEM".



TEMPORARY TRAFFIC SIGNAL LEGEND

- ← TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
- ↔ TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
- ⊗ TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM
- ⊠ TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE AND CABLE
- ⊞ TEMPORARY SERVICE INSTALLATION
- ⊞ TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- ⊞ VIDEO DETECTION SYSTEM
- ⊞ PEDESTRIAN PUSHBUTTON DETECTOR
- ⊞ EMERGENCY VEHICLE LIGHT DETECTOR
- ⊞ CONFIRMATION BEACON
- ⊞ VEHICLE DETECTOR, INDUCTION LOOP
- UD UNIT DUCT
- - - G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- HANDHOLE
- ⊞ HEAVY DUTY HANDHOLE
- CT COMMON TRENCH
- GUY WIRE
- ⊞ RADIO INTERCONNECT
- ★ LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT

EXISTING EQUIPMENT TO BE REMOVED LEGEND

- ⊞ EXISTING SIGNAL HEAD TO BE REMOVED
- "E" ⊞ EXISTING SERVICE INSTALLATION TO BE REMOVED
- ⊞ EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- ⊞ EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" ⊞ EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- "E" ⊞ EXISTING HANDHOLE TO BE REMOVED
- ⊞ EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- ⊞ EXISTING PEDESTRIAN PUSHBUTTON TO BE REMOVED
- ⊞ EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- ⊞ CONFIRMATION BEACON TO BE REMOVED
- "E" ⊞ EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- ⊞ EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" ⊞ EXISTING EXISTING JUNCTION BOX TO BE REMOVED

THE TRAFFIC SIGNAL EQUIPMENTS FOR THIS CONTRACT SHALL BE ECONOLITE BRAND. THE CONTROLLER FURNISHED SHALL BE THE MOST CURRENT ECONOLITE BRAND.

WHERE POSSIBLE TEMPORARY SPAN WIRES SHALL BE PLACED IN FRONT OF PERMANENT TRAFFIC SIGNALS. ALL TEMPORARY WOOD POLES LOCATION SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.

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, MEDIAN, 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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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AMES Engineering, Inc.
CONSULTING ENGINEERS
5413 Walnut Avenue
Downers Grove, IL 60515

USER NAME = duncanbd	DESIGNED - AS	REVISED - BDD 10/02/2015
	DRAWN - RV	REVISED -
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PLOT DATE = 10/5/2015	DATE - 12/01/2014	REVISED -

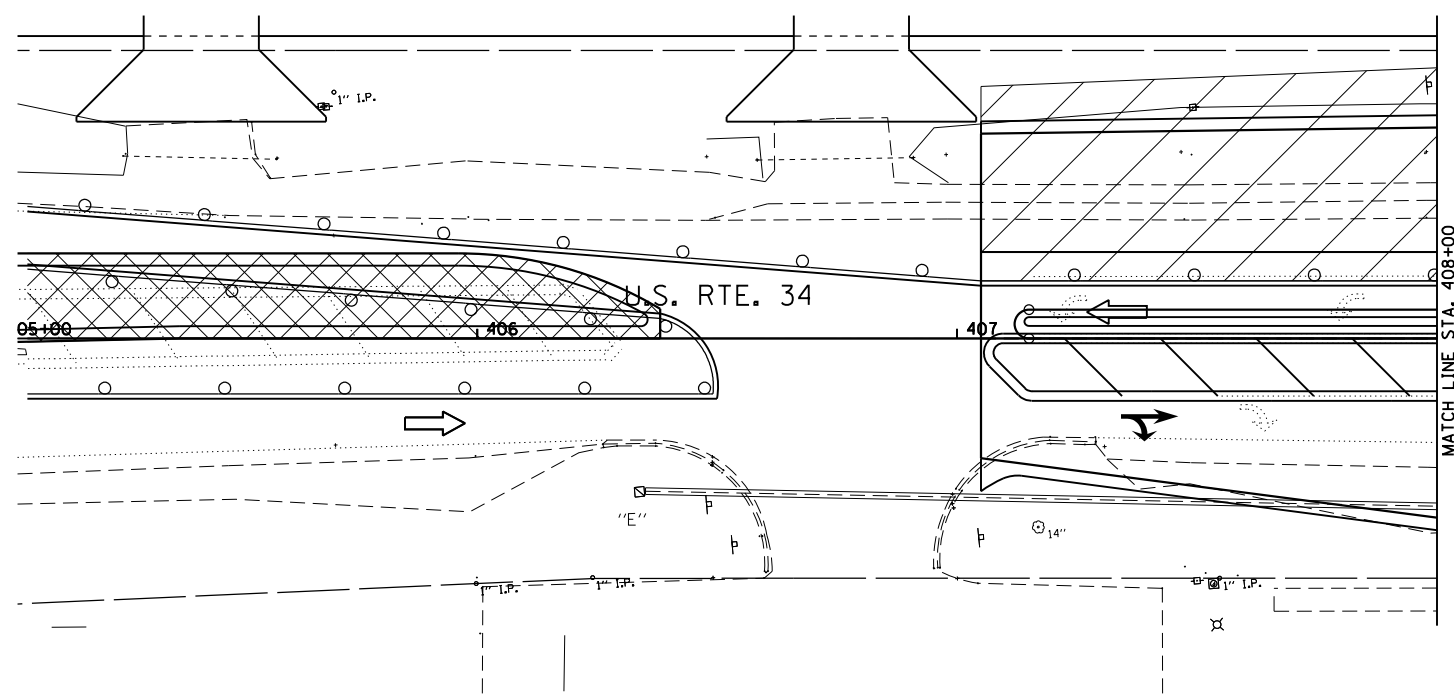
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL AND REMOVAL PLAN
AT US 34 AND MARKET PLACE DR.**

SHEET OF SHEETS STA. TO STA.

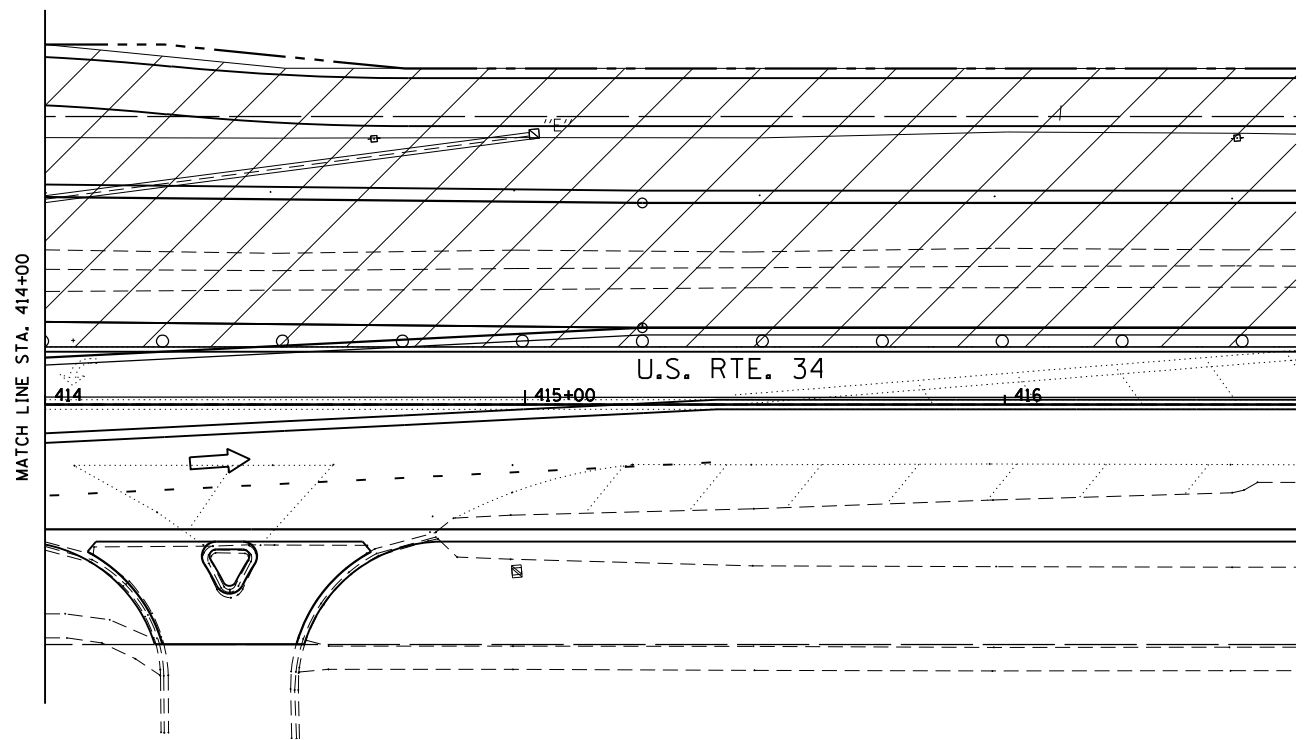
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	426
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

TS-03



TEMPORARY TRAFFIC SIGNAL LEGEND

- ← TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
- ⇄ TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
- ⊗ TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM
- ⊠ TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE AND CABLE
- ⊞ TEMPORARY SERVICE INSTALLATION
- ⊞ TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- ⊞ MICROWAVE VEHICLE SENSOR
- ⊞ PEDESTRIAN PUSHBUTTON DETECTOR
- ⊞ EMERGENCY VEHICLE LIGHT DETECTOR
- ⊞ CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- UD UNIT DUCT
- - - G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- ⊞ HANDHOLE
- ⊞ HEAVY DUTY HANDHOLE
- CT COMMON TRENCH
- GUY WIRE
- ⊞ RADIO INTERCONNECT



FILE: F:\Projects\1002 US_34-Corridor\Design\Sheet\New - PCC Per\A\0366884-ht-TS-04.dgn
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AMES Engineering, Inc.
 CONSULTING ENGINEERS
 5413 Walnut Avenue
 Downers Grove, IL 60515

USER NAME = Vramesh	DESIGNED - AS	REVISED -
PLOT SCALE = 48.0000' / in.	DRAWN - RV	REVISED -
PLOT DATE = 12/2/2014	CHECKED - MSA	REVISED -
	DATE - 12/01/2014	REVISED -

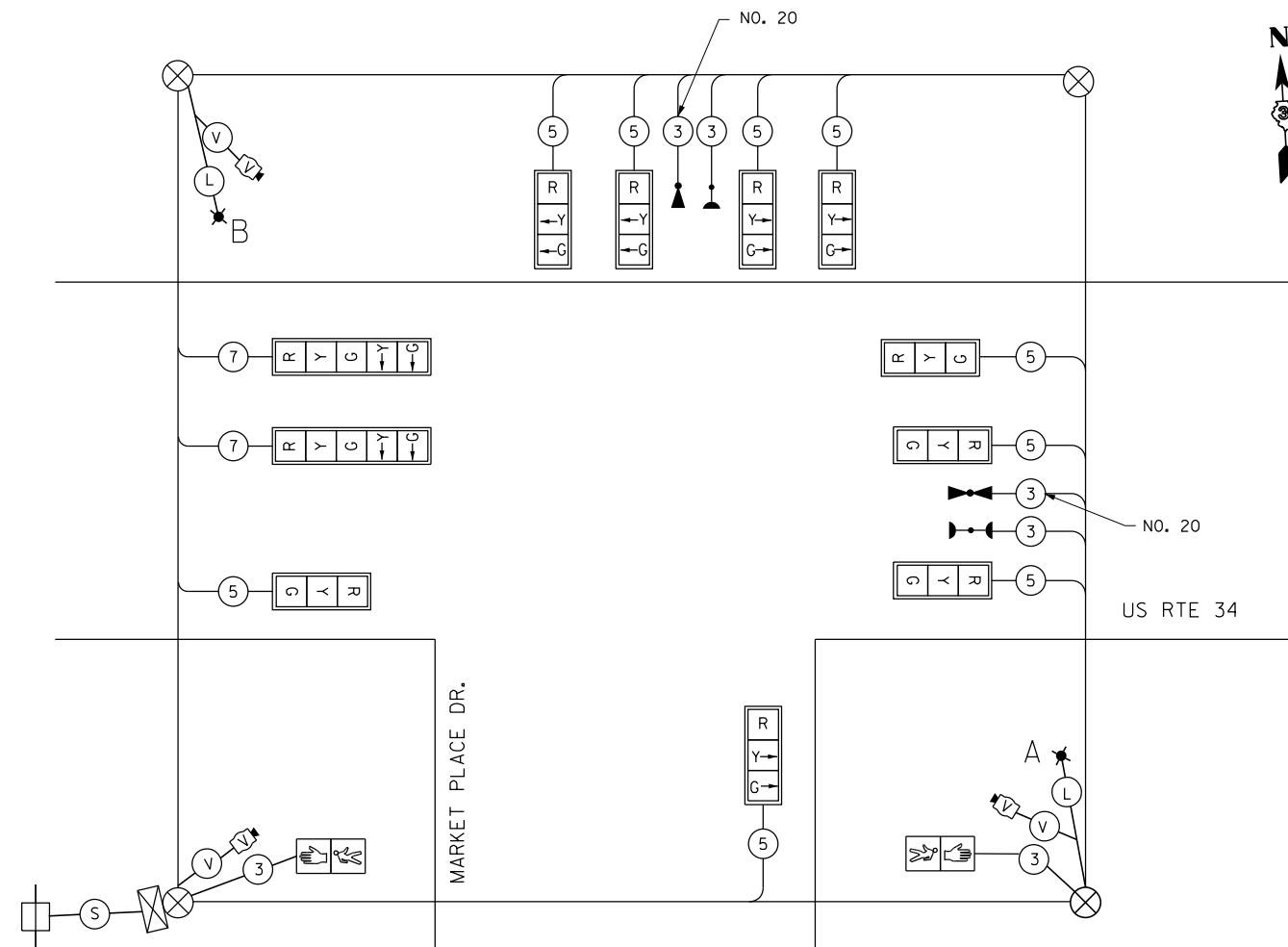
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL AND REMOVAL PLAN
AT US 34 AND MARKET PLACE DR.-2

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	427
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

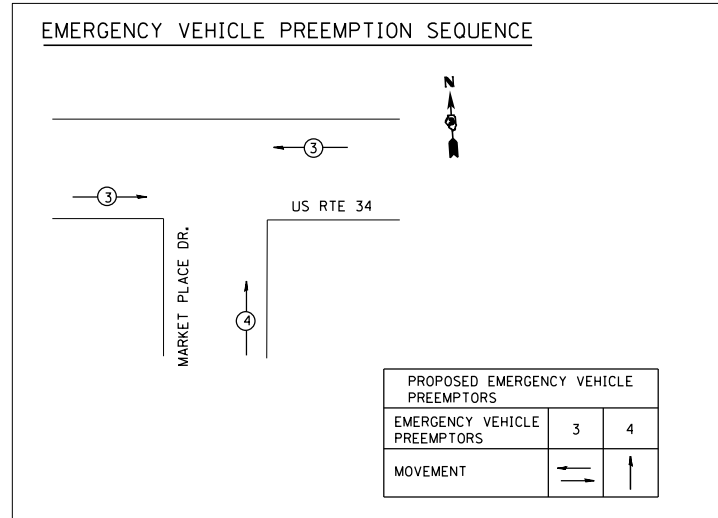
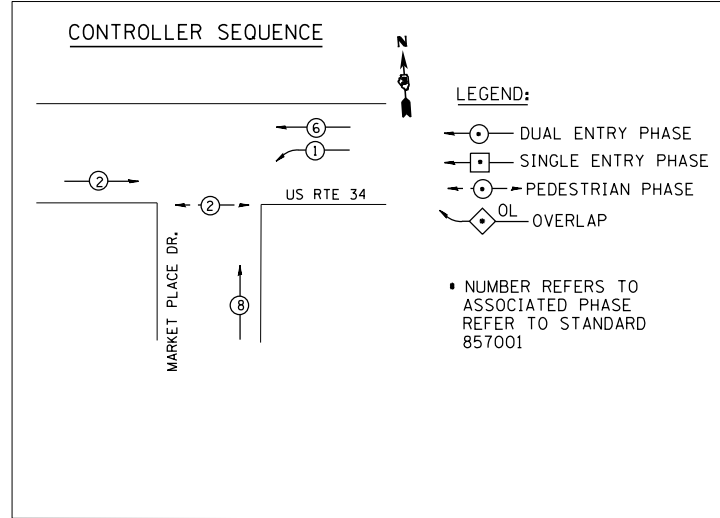
TS-04



TEMPORARY CABLE PLAN
N.T.S.

TEMPORARY CABLE DIAGRAM LEGEND

- TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION 12" (300mm)
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SERVICE INSTALLATION
- INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED.
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- PEDESTRIAN PUSHBUTTON DETECTOR
- 12" (300mm) PEDESTRIAN SIGNAL SECTION
- VIDEO DETECTION SYSTEM
- GROUND ROD AT ELECTRIC SERVICE INSTALLATION
- LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM
- VIDEO CAMERA CABLE
6 PAIRS TWISTED REQUIRED
3 PAIRS CONDUCTOR FOR POWER -24V AC (AC+, AC-, GND)
1 PAIR DATA
1 PAIR COMPOSITE VIDEO
1 PAIR DETECTOR DATA
OVERALL SHIELD MINIMUM 16 AWG (PAIRS) (TO BE INCLUDED IN THE BID PRICE FOR TEMPORARY TRAFFIC SIGNAL INSTALLATION)
- SERVICE CABLE
ELECTRIC CABLE IN CONDUIT, SERVICE NO. 6 2C
- LIGHTING CABLE
600V (XLP-TYPE USE) 3 1/C NO. 10



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL VOLTAGE
TYPE	NO. LAMPS	WATTAGE INCAND	WATTAGE LED	% OPERATION	
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	4	135	12	0.10	4.8
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	-
LUMINAIRE	2	250		0.50	250
FLASHER				0.50	-
TOTAL =					608.30

ENERGY COST TO: Illinois Department of Transportation
Division of Highways / District 3
700E Norris Drive, Ottawa, ILL

ENERGY SUPPLY: CONTACT: Mr. Thomas Perkins
PHONE: 630-723-2127
COMPANY: ComEd

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AMES Engineering, Inc.
CONSULTING ENGINEERS
5413 Walnut Avenue
Downers Grove, IL 60515

USER NAME = duncanbd	DESIGNED - AS	REVISED - BDD 10/02/2015
	DRAWN - RV	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - MSA	REVISED -
PLOT DATE = 10/5/2015	DATE - 12/01/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN AND PHASE DESIGNATION DIAGRAM
US ROUTE 34 & MARKET PLACE DR

SHEET OF SHEETS STA. TO STA.

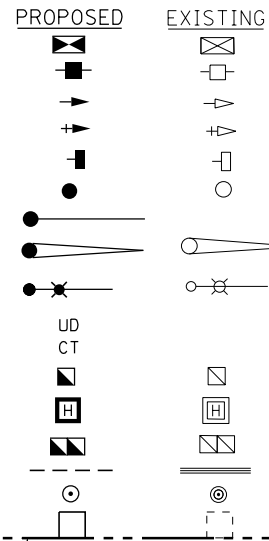
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	428
CONTRACT NO. 66884				

TS-05

ILLINOIS FED. AID PROJECT

TRAFFIC SIGNAL LEGEND

- CONTROLLER
- SERVICE INSTALLATION
- SIGNAL HEAD
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD, PEDESTRIAN
- SIGNAL POST
- MAST ARM ASSEMBLY AND POLE, STEEL
- MAST ARM ASSEMBLY AND POLE, ALUMINUM
- COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE
- UNIT DUCT
- COMMON TRENCH
- HANDHOLE
- HEAVY-DUTY HANDHOLE
- DOUBLE HANDHOLE
- G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP

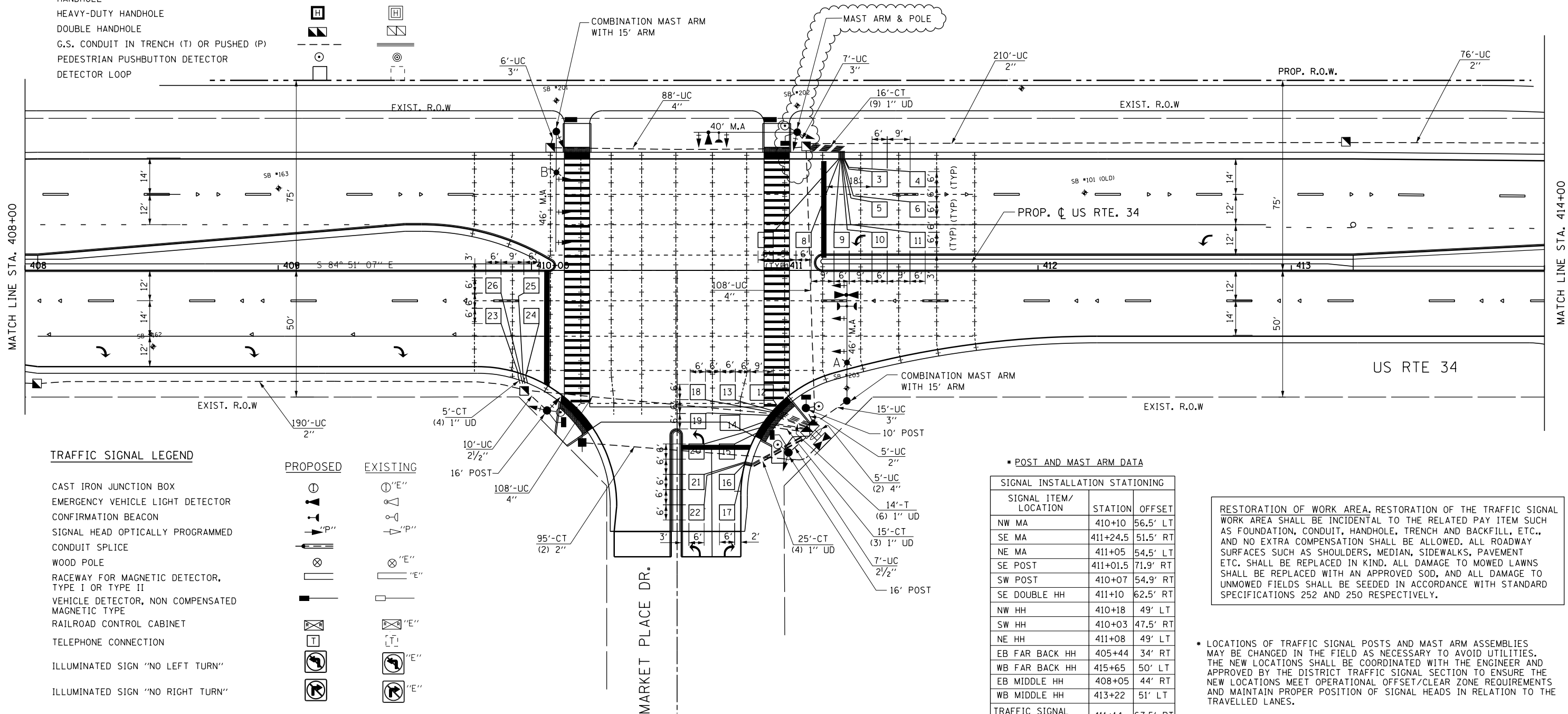


NOTES:

1. THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.
2. THE ELEVATION OF THE DOUBLE HANDHOLE SHALL BE LESS THAN THE ELEVATION OF THE CONTROLLER CABINET.
3. ALL PEDESTRIAN PUSHBUTTONS SHALL BE "4EVR" BRAND.
4. A SELF-ADHERE PHASE DIAGRAM SHALL BE PLACED INSIDE THE CABINET DOOR.

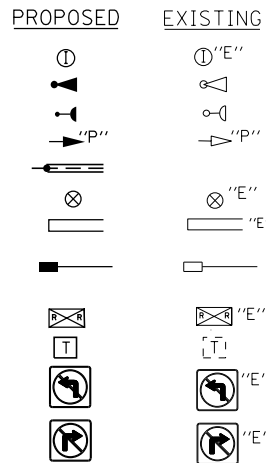
SEE TRAFFIC SIGNAL GENERAL NOTES ON SHEET TS-02

POSTED SPEED LIMIT = 45 MPH



TRAFFIC SIGNAL LEGEND

- CAST IRON JUNCTION BOX
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- SIGNAL HEAD OPTICALLY PROGRAMMED
- CONDUIT SPLICE
- WOOD POLE
- RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II
- VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE
- RAILROAD CONTROL CABINET
- TELEPHONE CONNECTION
- ILLUMINATED SIGN "NO LEFT TURN"
- ILLUMINATED SIGN "NO RIGHT TURN"



*** POST AND MAST ARM DATA**

SIGNAL INSTALLATION STATIONING		
SIGNAL ITEM/LOCATION	STATION	OFFSET
NW MA	410+10	56.5' LT
SE MA	411+24.5	51.5' RT
NE MA	411+05	54.5' LT
SE POST	411+01.5	71.9' RT
SW POST	410+07	54.9' RT
SE DOUBLE HH	411+10	62.5' RT
NW HH	410+18	49' LT
SW HH	410+03	47.5' RT
NE HH	411+08	49' LT
EB FAR BACK HH	405+44	34' RT
WB FAR BACK HH	415+65	50' LT
EB MIDDLE HH	408+05	44' RT
WB MIDDLE HH	413+22	51' LT
TRAFFIC SIGNAL CONTROLLER	411+14	67.5' RT

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, MEDIAN, 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.

* LOCATIONS OF TRAFFIC SIGNAL POSTS AND MAST ARM ASSEMBLIES MAY BE CHANGED IN THE FIELD AS NECESSARY TO AVOID UTILITIES. THE NEW LOCATIONS SHALL BE COORDINATED WITH THE ENGINEER AND APPROVED BY THE DISTRICT TRAFFIC SIGNAL SECTION TO ENSURE THE NEW LOCATIONS MEET OPERATIONAL OFFSET/CLEAR ZONE REQUIREMENTS AND MAINTAIN PROPER POSITION OF SIGNAL HEADS IN RELATION TO THE TRAVELLED LANES.

NOTE: CONTRACTOR SHALL NOTIFY ENGINEER OF CHANGES IN LOCATION

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AMES Engineering, Inc.
CONSULTING ENGINEERS
5413 Walnut Avenue
Downers Grove, IL 60515

USER NAME = duncanbd	DESIGNED - AS	REVISED - BDD 10/02/2015
PLOT SCALE = 40.0000' / in.	DRAWN - RV	REVISED -
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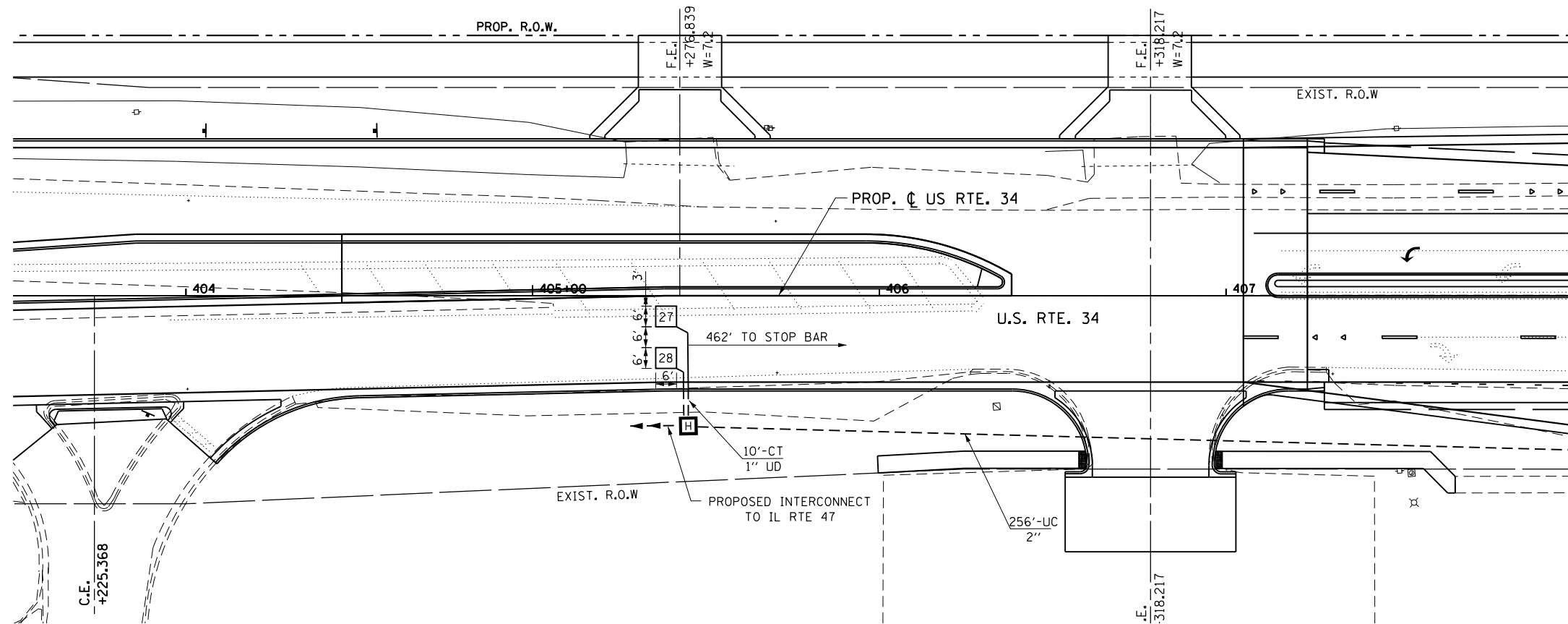
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL INSTALLATION PLAN
US RTE 34 & MARKET PLACE DR**

1"=20'-0" SHEET OF SHEETS STA. 408+00 TO STA. 414+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	429
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

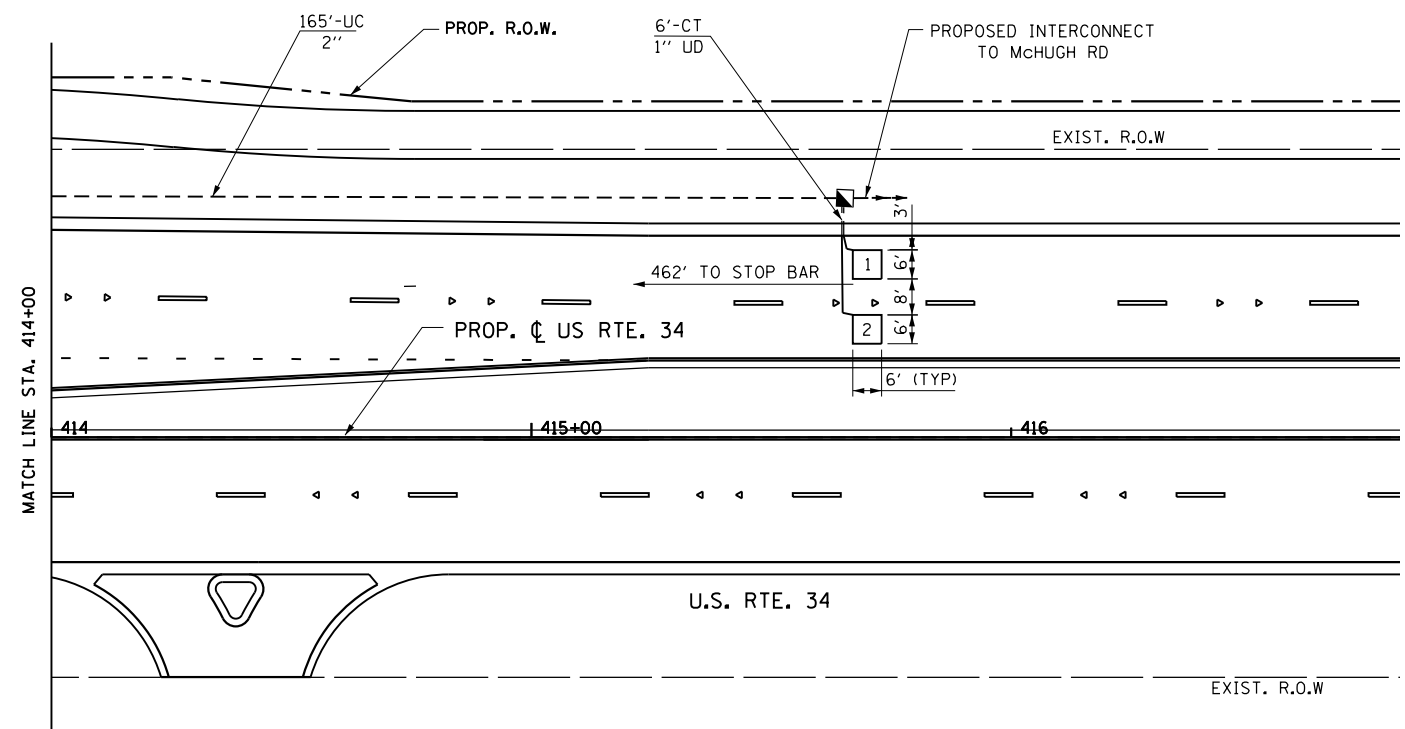
TS-06



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]
SERVICE INSTALLATION	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]
SIGNAL HEAD, PEDESTRIAN	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, ALUMINUM	[Symbol]	[Symbol]
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE	[Symbol]	[Symbol]
UNIT DUCT	[Symbol]	[Symbol]
COMMON TRENCH	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
HEAVY-DUTY HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)	[Symbol]	[Symbol]
PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
CAST IRON JUNCTION BOX	[Symbol]	[Symbol]
EMERGENCY VEHICLE LIGHT DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]
SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]
CONDUIT SPLICE	[Symbol]	[Symbol]
WOOD POLE	[Symbol]	[Symbol]
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	[Symbol]	[Symbol]
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	[Symbol]	[Symbol]
RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
TELEPHONE CONNECTION	[Symbol]	[Symbol]
ILLUMINATED SIGN "NO LEFT TURN"	[Symbol]	[Symbol]
ILLUMINATED SIGN "NO RIGHT TURN"	[Symbol]	[Symbol]

Approach	Detector ID	Turns	Code Number	Coded Pay Item	Loop	Preformed Loop to EOP	Lead-In Wire EOP to Handhole	Slack	Quantity
	1	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	4'	6'	6'	28'
	2	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	18'	6'	6'	42'
	3	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	13'	16'	6'	37'
	4	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	28'	16'	6'	52'
EAST APPROACH US34	5	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	24'	16'	6'	48'
	6	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	38'	16'	6'	62'
	7	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	39'	16'	6'	63'
	8	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	31'	16'	6'	55'
	9	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	29'	16'	6'	53'
	10	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	28'	16'	6'	52'
	11	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	40'	16'	6'	64'
								Total	556'
	12	5	88600700	PREFORMED DETECTOR LOOP	9'x6'	5'	14'	6'	35'
	13	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	16'	14'	6'	40'
	14	5	88600700	PREFORMED DETECTOR LOOP	8'x6'	9'	15'	6'	37'
	15	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	15'	15'	6'	39'
	16	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	8'	25'	6'	32'
NORTH APPROACH MARKET PLACE	17	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	16'	25'	6'	40'
	18	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	27'	14'	6'	51'
	19	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	29'	14'	6'	53'
	20	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	28'	15'	6'	52'
	21	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	17'	25'	6'	41'
	22	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	28'	25'	6'	52'
								Total	472'
WEST APPROACH US34	23	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	21'	5'	6'	45'
	24	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	21'	5'	6'	45'
	25	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	33'	5'	6'	57'
	26	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	33'	10'	6'	57'
	27	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	20'	10'	6'	44'
	28	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	8'	10'	6'	32'
								Total	280'



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AMES Engineering, Inc.
 CONSULTING ENGINEERS
 5413 Walnut Avenue
 Downers Grove, IL 60515

USER NAME = Vramesh	DESIGNED - AS	REVISED -
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	DATE - 12/01/2014	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

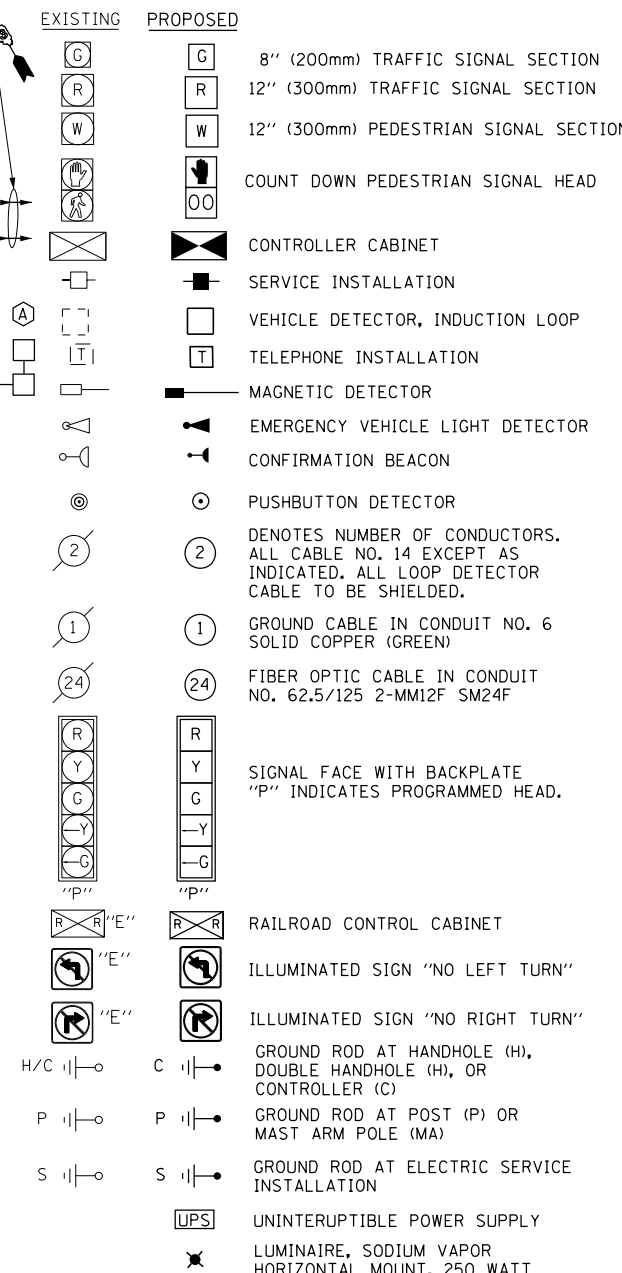
**TRAFFIC SIGNAL INSTALLATION PLAN
 US RTE 34 & MARKET PLACE DR**

1"=20'-0" SHEET OF SHEETS STA. 405+00 TO STA. 416+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	430
			CONTRACT NO. 66884	
ILLINOIS FED. AID PROJECT				

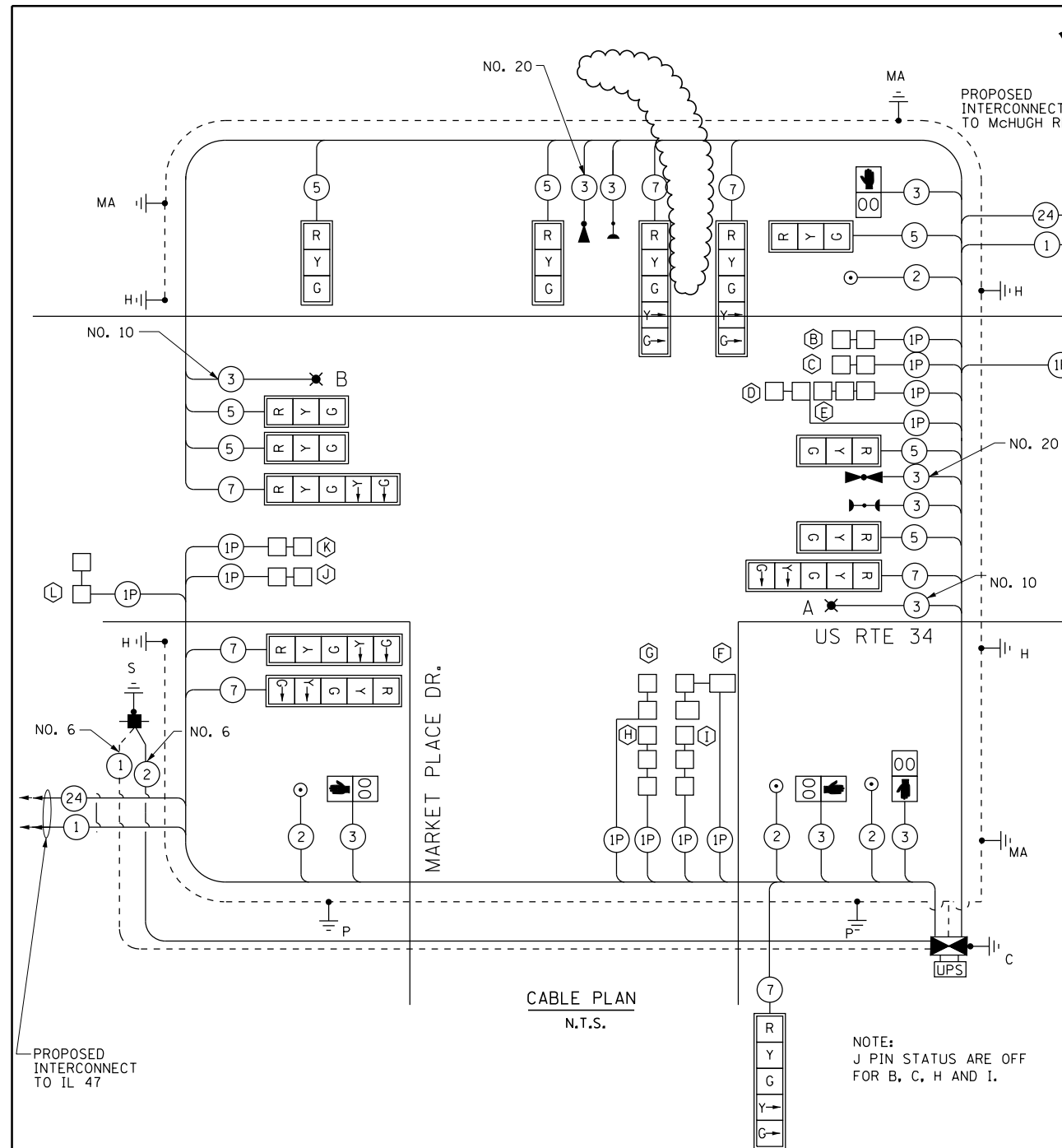
TS-07

CABLE PLAN LEGEND



BILL OF MATERIALS

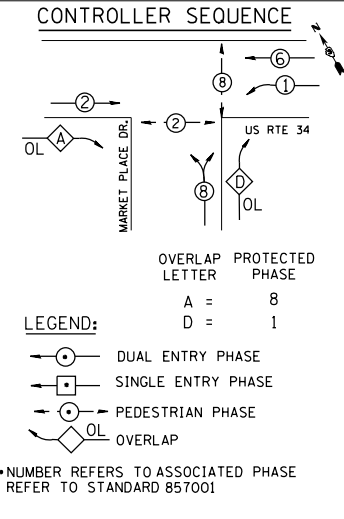
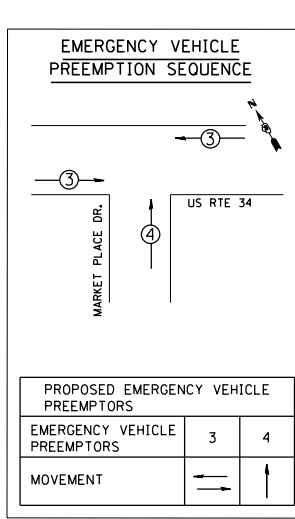
ITEM	UNIT	US 34 @ MARKET PL.
SIGN PANEL - TYPE 2	50 FT	50
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	995
UNDERGROUND CONDUIT, PVC, 2 1/2" DIA.	FOOT	14
UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	33
UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	314
HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	6
HEAVY-DUTY HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	1
DOUBLE HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	1
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 10	FOOT	376
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	2
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, EXTENDED	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	400
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	725
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1500
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1200
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2192
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	110
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 46 FT.	EACH	2
CONCRETE FOUNDATION, TYPE A	FOOT	9
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	39
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	5
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	3
PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED WITH COUNT DOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	14
INDUCTIVE LOOP DETECTOR	EACH	12
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	4
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	5
REMOVE EXISTING HANDHOLE	EACH	8
REMOVE EXISTING CONCRETE FOUNDATION	EACH	6
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	950
PREFORMED DETECTOR LOOP	FOOT	1300
OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1
SERVICE INSTALLATION, TYPE B	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	350
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 20 3C TWISTED SHIELDED	FOOT	400
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 6, 1/C NO. 6 GROUND	FOOT	95
RE-OPTIMIZE TEMPORARY TRAFFIC SIGNAL SYSTEM	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	300
STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH	1
COMBINATION LIGHTING CONTROLLER	EACH	1
TEMPORARY LIGHTING SYSTEM	LSUM	1



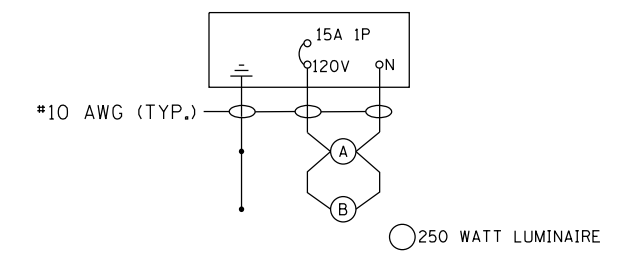
CABLE PLAN
N.T.S.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL VOLTAGE
TYPE	NO. LAMPS	WATTAGE INCAND	WATTAGE LED	% OPERATION	
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	87.5
(GREEN)	14	135	15	0.25	52.5
ARROW	14	135	12	0.10	16.8
PED. SIGNAL	4	90	25	1.00	100
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	-
LUMINAIRE	3	250		0.50	375
FLASHER				0.50	-
TOTAL =					850.8

ENERGY COST TO: Illinois Department of Transportation
Division of Highways / District 3
700 E. Norris Dr., Ottawa, IL 61350
ENERGY SUPPLY: CONTACT: Mr. Thomas Perkins
PHONE: 630-723-2127
COMPANY: ComEd



(L) LIGHTING CABLE
600V (XLP-TYPE USE) 3 - 1/C NO. 10



LIGHTING CIRCUIT DIAGRAM
AGENCY RESPONSIBLE FOR ENERGY CHARGES:
CITY OF YORKVILLE
CONTRACTOR PAYS ALL ENERGY CHARGES
UNTIL PROJECT IS ACCEPTED

FILE: 4FILES DATE/TIME: 10/05/2015 9:56:22 AM

AMES Engineering, Inc.
CONSULTING ENGINEERS
5413 Walnut Avenue
Downers Grove, IL 60515

USER NAME = duncanbd
DESIGNED - AS
DRAWN - RV
PLOT SCALE = 48.0000' / in.
PLOT DATE = 10/5/2015

REVISIONS:
REVISED - BDD 10/02/2015
REVISOR -
CHECKED - MSA
DATE - 12/01/2014

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DIAGRAM & SCHEDULE OF QUANTITIES
US RTE 34 & MARKET PLACE DR.

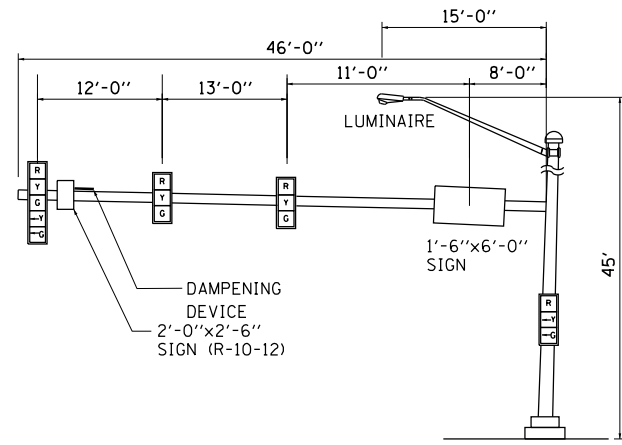
NONE SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	431
CONTRACT NO. 66884				

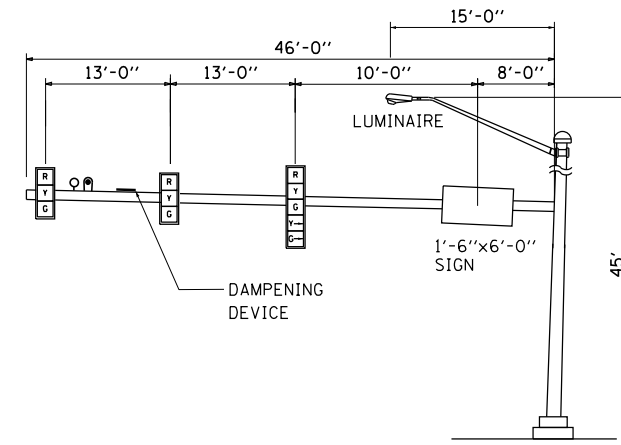
TS-08

ILLINOIS FED. AID PROJECT

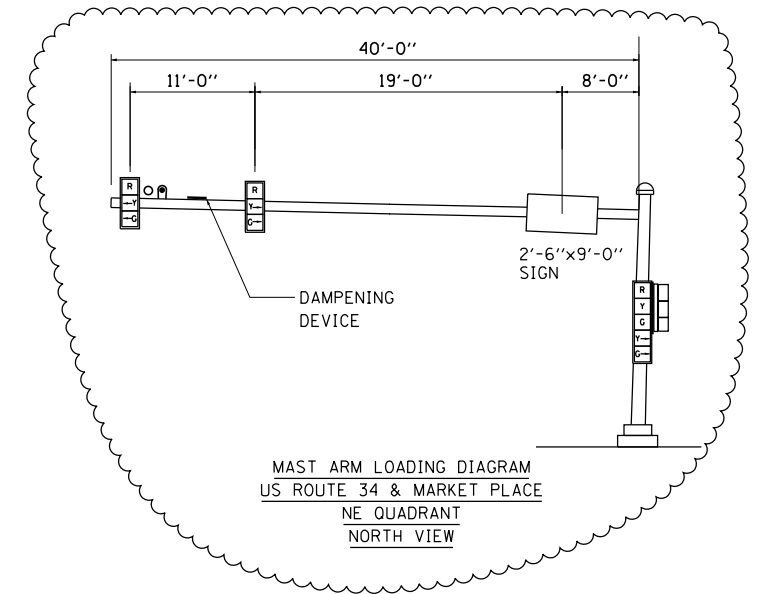
FOUNDATION DEPTH TABLE		
TYPE	LOCATION	FOUNDATION DEPTH
46' COMBINATION MAST ARM	NW QUADRANT US RTE 34 & MARKET PLACE	13'
46' COMBINATION MAST ARM	SE QUADRANT US RTE 34 & MARKET PLACE	13'
40' MAST ARM	NE QUADRANT US RTE 34 & MARKET PLACE	13'



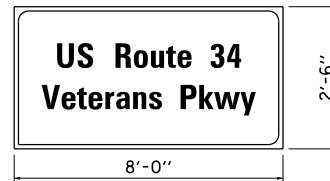
MAST ARM LOADING DIAGRAM
US ROUTE 34 & MARKET PLACE
NW QUADRANT
WESTBOUND VIEW



MAST ARM LOADING DIAGRAM
US ROUTE 34 & MARKET PLACE
SE QUADRANT
EASTBOUND VIEW



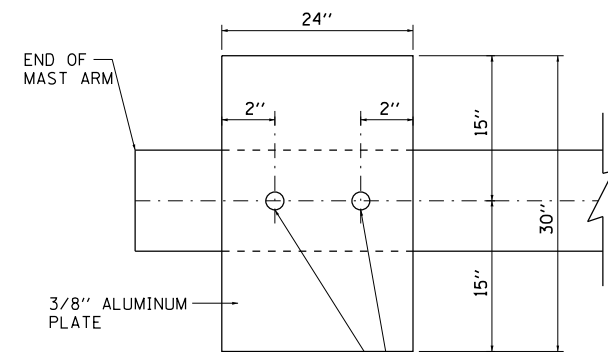
MAST ARM LOADING DIAGRAM
US ROUTE 34 & MARKET PLACE
NE QUADRANT
NORTH VIEW



3/4" BORDER
8" D SERIES LETTERS
TYPE ZZ SHEETING REQUIRED
1 SIGN REQUIRED= 20.0 SQ FT EACH
= 20.0 SQ FT TOTAL



3/4" BORDER
8" D SERIES LETTERS
TYPE ZZ SHEETING REQUIRED
2 SIGNS REQUIRED= 15.0 SQ FT EACH
= 30.0 SQ FT TOTAL



NOTE
MOUNT DAMPING PLATE TO END OF
EACH TRAFFIC SIGNAL MAST ARM

DAMPING PLATE DETAIL - TOP VIEW

NOTE:

DAMPING DEVICE SHALL CONSIST OF A
24"X30" TYPE 1, UNPAINTED ALUMINUM
SIGN STOCK MOUNTED HORIZONTALLY ON
TOP OF MAST ARM WITH THE 30" LENGTH
PERPENDICULAR TO THE ARM. COST OF THE
DAMPING DEVICE IS INCLUDED IN THE
MAST ARM PAY ITEM.

NOTES:

1. ALL SIGNAL HEADS HAVE BACKPLATES.
2. ALL MAST ARM FOUNDATIONS TO BE 36" DIAMETER.
3. DAMPING DEVICE SHALL CONSIST OF A 24"X30" TYPE-1, UNPAINTED ALUMINUM SIGN STOCK MOUNTED HORIZONTALLY ON TOP OF MAST ARM WITH THE 30" LENGTH PERPENDICULAR TO THE ARM. COST OF THE DAMPING DEVICE SHALL BE INCLUDED IN THE COST OF MAST ARM PAY ITEM.
4. ARM SUPPORT FOR LUMINAIRE SHALL BE PARALLEL TO MAST ARM UNLESS SHOWN ON PLAN.
5. FOUNDATION DEPTHS ARE BASED ON HIGHWAY STANDARD 878001-08. THE CONTRACTOR SHALL VERIFY THE SOIL STRENGTH TO THE DEPTH OF FOUNDATION AT EACH PROPOSED LOCATION. BUREAU OF BRIDGES & STRUCTURES SHOULD BE CONTACTED FOR A REVISED DESIGN IF CONDITIONS OTHER THAN STATED IN STANDARD 878001-08 ARE ENCOUNTERED.

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AMES Engineering, Inc.
CONSULTING ENGINEERS
5413 Walnut Avenue
Downers Grove, IL 60515

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAST ARM LOADING DIAGRAM & SIGN DETAILS
US RTE 34 AND MARKET PLACE

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	432
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

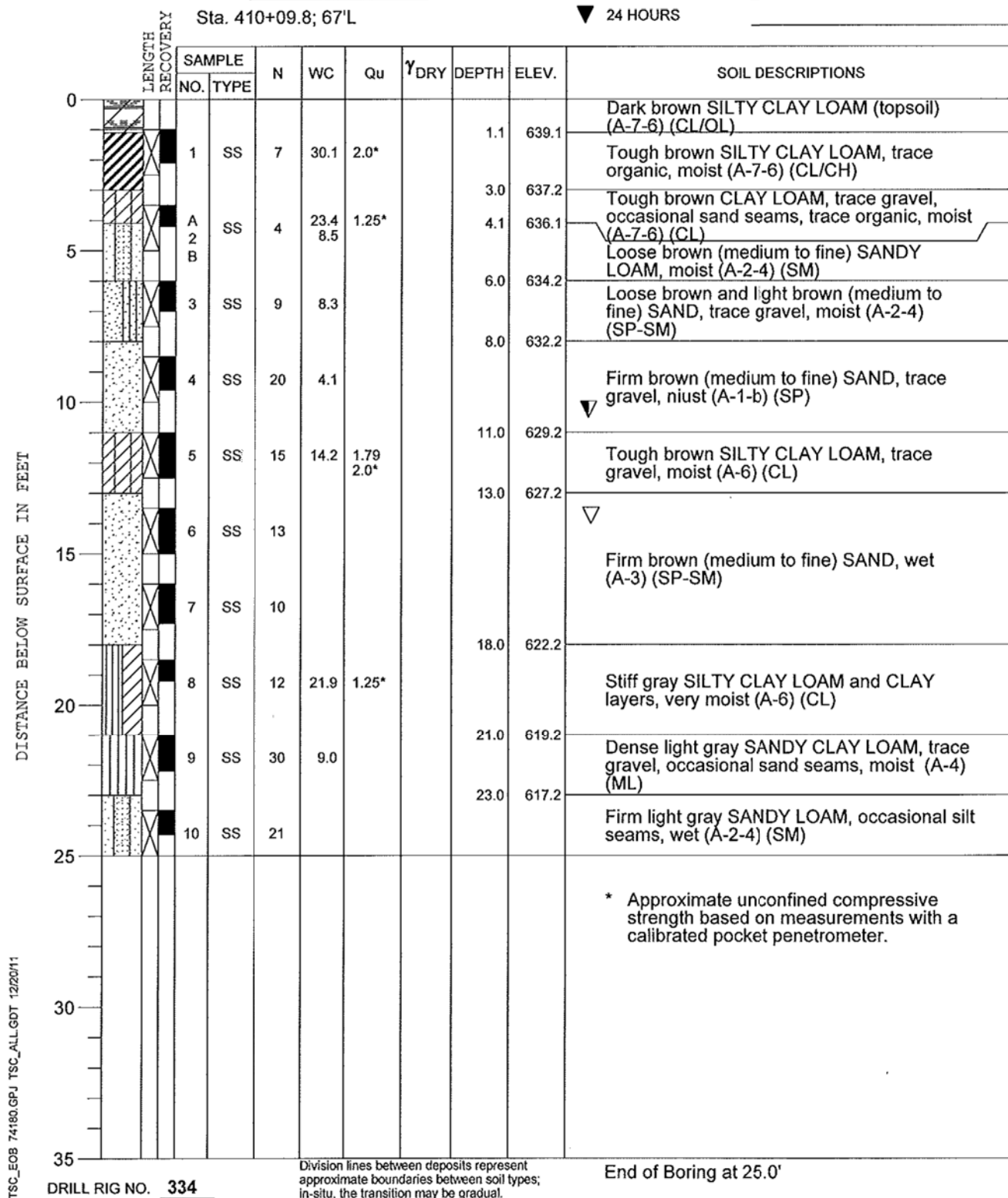
TS-09

PROJECT **U.S. Route 34 Reconstruction and Widening, Yorkville, Illinois**

CLIENT **GRAEF, Chicago, Illinois**

BORING **201** DATE STARTED **11-16-11** DATE COMPLETED **11-16-11** JOB **L-74,180**

ELEVATIONS		WATER LEVEL OBSERVATIONS	
GROUND SURFACE	640.2	▽ WHILE DRILLING	10.5'
END OF BORING	615.2	▽ AT END OF BORING	14.0'
		▽ 24 HOURS	

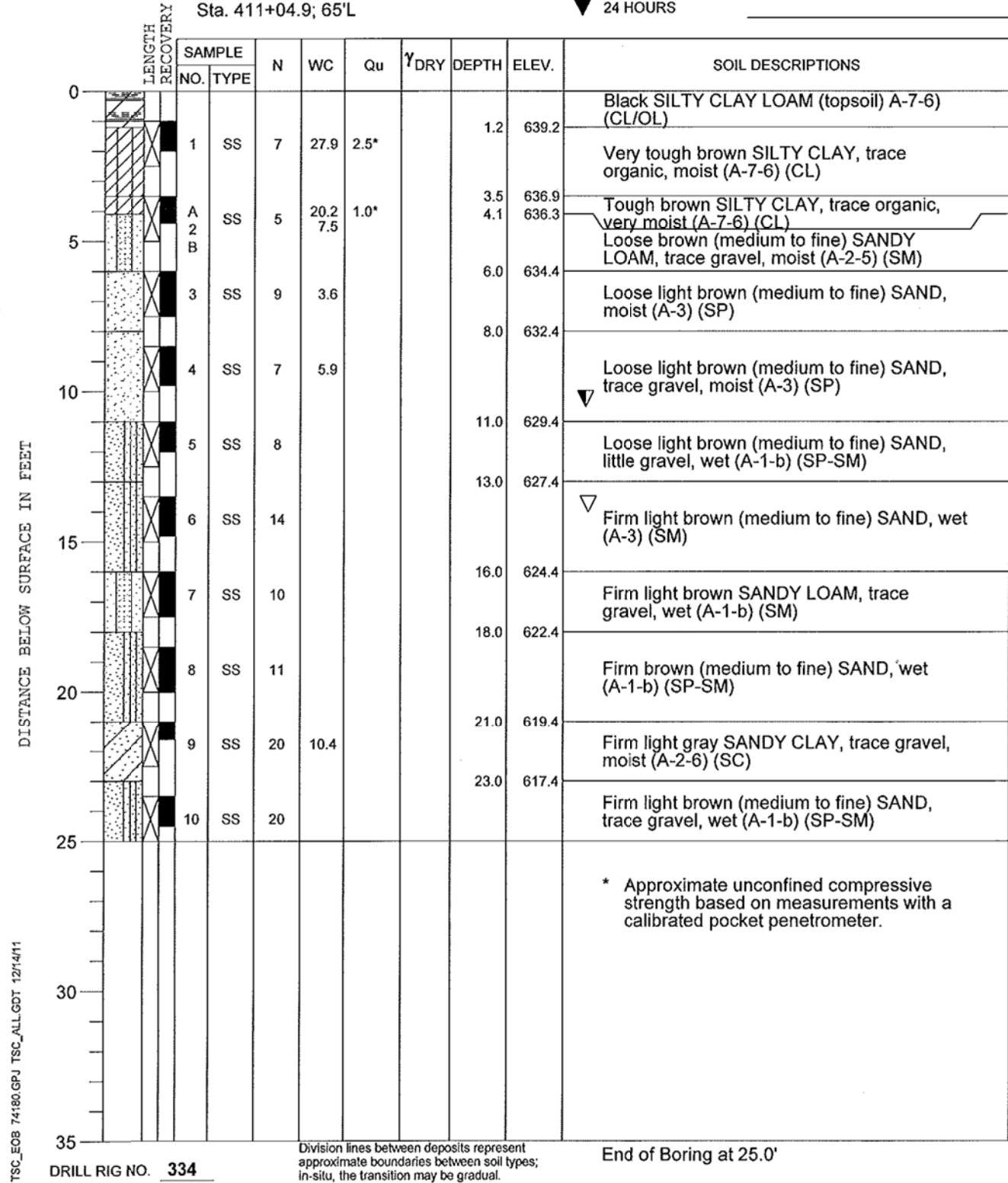


PROJECT **U.S. Route 34 Reconstruction and Widening, Yorkville, Illinois**

CLIENT **GRAEF, Chicago, Illinois**

BORING **202** DATE STARTED **11-16-11** DATE COMPLETED **11-16-11** JOB **L-74,180**

ELEVATIONS		WATER LEVEL OBSERVATIONS	
GROUND SURFACE	640.4	▽ WHILE DRILLING	10.5'
END OF BORING	615.4	▽ AT END OF BORING	14.0'
		▽ 24 HOURS	



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	DATE - 12/01/2014	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**US 34 AND MARKET PLACE
BORING LOGS**

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	433
CONTRACT NO. 66884				

PROJECT **U.S. Route 34 Reconstruction and Widening, Yorkville, Illinois**

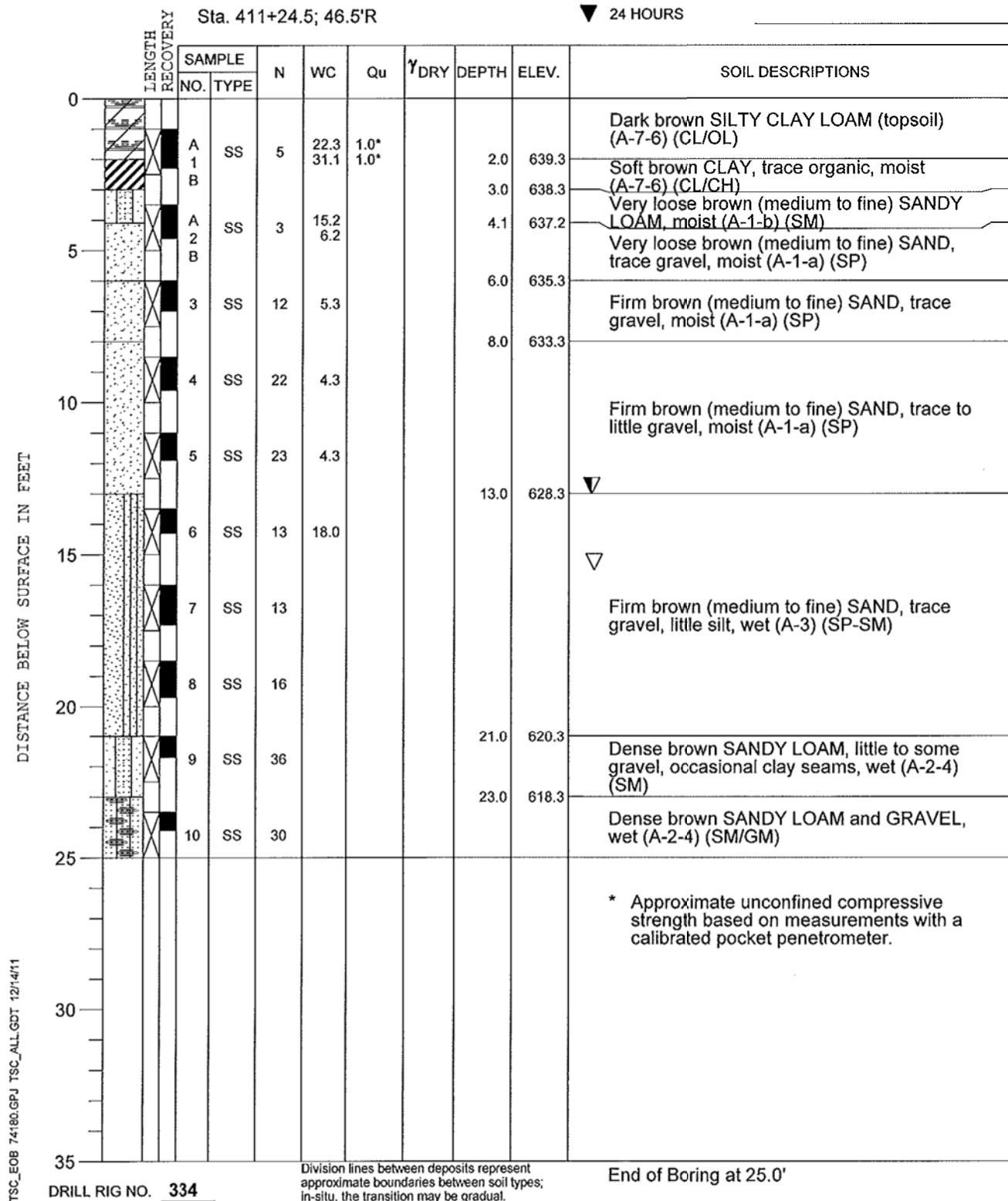


CLIENT **GRAEF, Chicago, Illinois**

BORING **203** DATE STARTED **11-7-11** DATE COMPLETED **11-7-11** JOB **L-74,180**

ELEVATIONS
 GROUND SURFACE **641.3**
 END OF BORING **616.3**

WATER LEVEL OBSERVATIONS
 WHILE DRILLING **13.0'**
 AT END OF BORING **15.5'**
 24 HOURS



DRILL RIG NO. **334**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

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	DATE - 12/01/2014	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**US 34 AND MARKET PLACE
 BORING LOGS**

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	434
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

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 3, INSTALLED IN A NEMA TS1 OF 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 12" (300mm). HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. 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. THE LOCATIONS OF THE TEMPORARY TRAFFIC SIGNAL HEADS ARE BASED ON MAINTENANCE OF SUGGESTED CONSTRUCTION STAGING AND TRAFFIC CONTROL STAGE-1. THE SECONDARY SIGNAL HEADS LOCATIONS SHALL BE PLACED PER OTHER CONSTRUCTION STAGING AND AS APPROVED BY THE ENGINEER IN THE FIELD.
8. SIGNAL HEADS FOR CROSS STREET SHALL BE BAGGED WHEN TRAFFIC IS DETOURED AND UNBAGGED WHEN LANES ARE OPEN TO TRAFFIC.

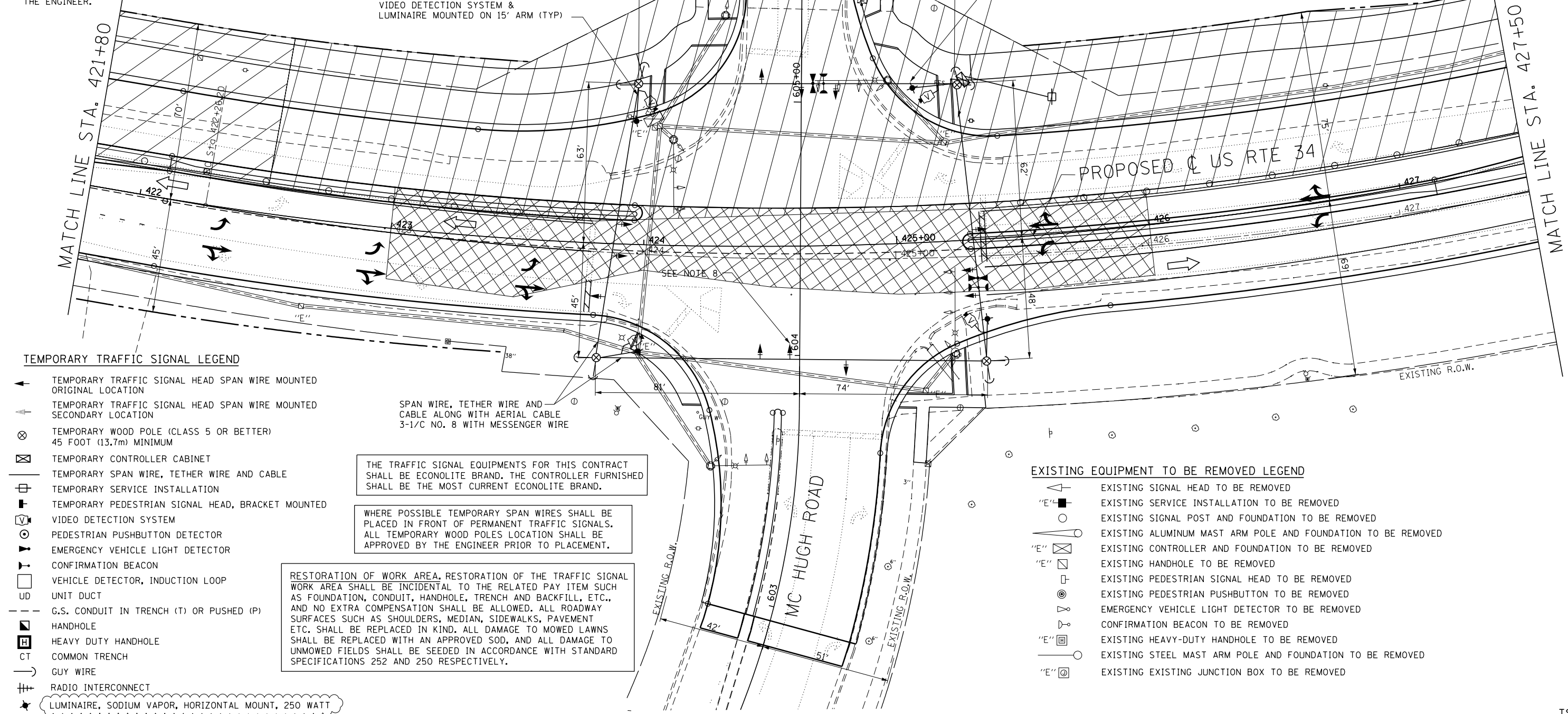
NOTES FOR TEMPORARY LIGHTING

1. TEMPORARY LIGHTING SHALL BE PROVIDED AS DESCRIBED IN THE SPECIAL PROVISION "TEMPORARY LIGHTING SYSTEM".

VIDEO DETECTION SYSTEM & LUMINAIRE MOUNTED ON 15' ARM (TYP)

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE CITY OF YORKVILLE AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE CITY TRAFFIC SIGNAL MAINTENANCE FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS:

- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 4 EACH SIGNAL HEAD, 1-FACE, 3-SECTION MAST ARM MOUNTED
- 1 EACH SIGNAL HEAD, 1-FACE, 3-SECTION BRACKET MOUNTED
- 5 EACH SIGNAL HEAD, 1-FACE, 5-SECTION MAST ARM MOUNTED
- 5 EACH SIGNAL HEAD, 1-FACE, 5-SECTION BRACKET MOUNTED
- 15 EACH TRAFFIC SIGNAL BACKPLATE
- 4 EACH STEEL MAST ARM ASSEMBLY AND POLE
- 1 EACH SERVICE INSTALLATION



TEMPORARY TRAFFIC SIGNAL LEGEND

- ▲ TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
- ⬆ TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
- ⊗ TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM
- ⊠ TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE AND CABLE
- ⊕ TEMPORARY SERVICE INSTALLATION
- ⊞ TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- ⊞ VIDEO DETECTION SYSTEM
- ⊞ PEDESTRIAN PUSHBUTTON DETECTOR
- ⊞ EMERGENCY VEHICLE LIGHT DETECTOR
- ⊞ CONFIRMATION BEACON
- ⊞ VEHICLE DETECTOR, INDUCTION LOOP
- UD UNIT DUCT
- G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- ⊞ HANDHOLE
- ⊞ HEAVY DUTY HANDHOLE
- CT COMMON TRENCH
- GUY WIRE
- ⊞ RADIO INTERCONNECT
- ★ LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT

SPAN WIRE, TETHER WIRE AND CABLE ALONG WITH AERIAL CABLE 3-1/8 NO. 8 WITH MESSENGER WIRE

THE TRAFFIC SIGNAL EQUIPMENTS FOR THIS CONTRACT SHALL BE ECONOLITE BRAND. THE CONTROLLER FURNISHED SHALL BE THE MOST CURRENT ECONOLITE BRAND.

WHERE POSSIBLE TEMPORARY SPAN WIRES SHALL BE PLACED IN FRONT OF PERMANENT TRAFFIC SIGNALS. ALL TEMPORARY WOOD POLES LOCATION SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.

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, MEDIAN, 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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

EXISTING EQUIPMENT TO BE REMOVED LEGEND

- ▲ EXISTING SIGNAL HEAD TO BE REMOVED
- ⊞ EXISTING SERVICE INSTALLATION TO BE REMOVED
- ⊞ EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- ⊞ EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- ⊞ EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- ⊞ EXISTING HANDHOLE TO BE REMOVED
- ⊞ EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- ⊞ EXISTING PEDESTRIAN PUSHBUTTON TO BE REMOVED
- ⊞ EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- ⊞ CONFIRMATION BEACON TO BE REMOVED
- ⊞ EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- ⊞ EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED
- ⊞ EXISTING EXISTING JUNCTION BOX TO BE REMOVED

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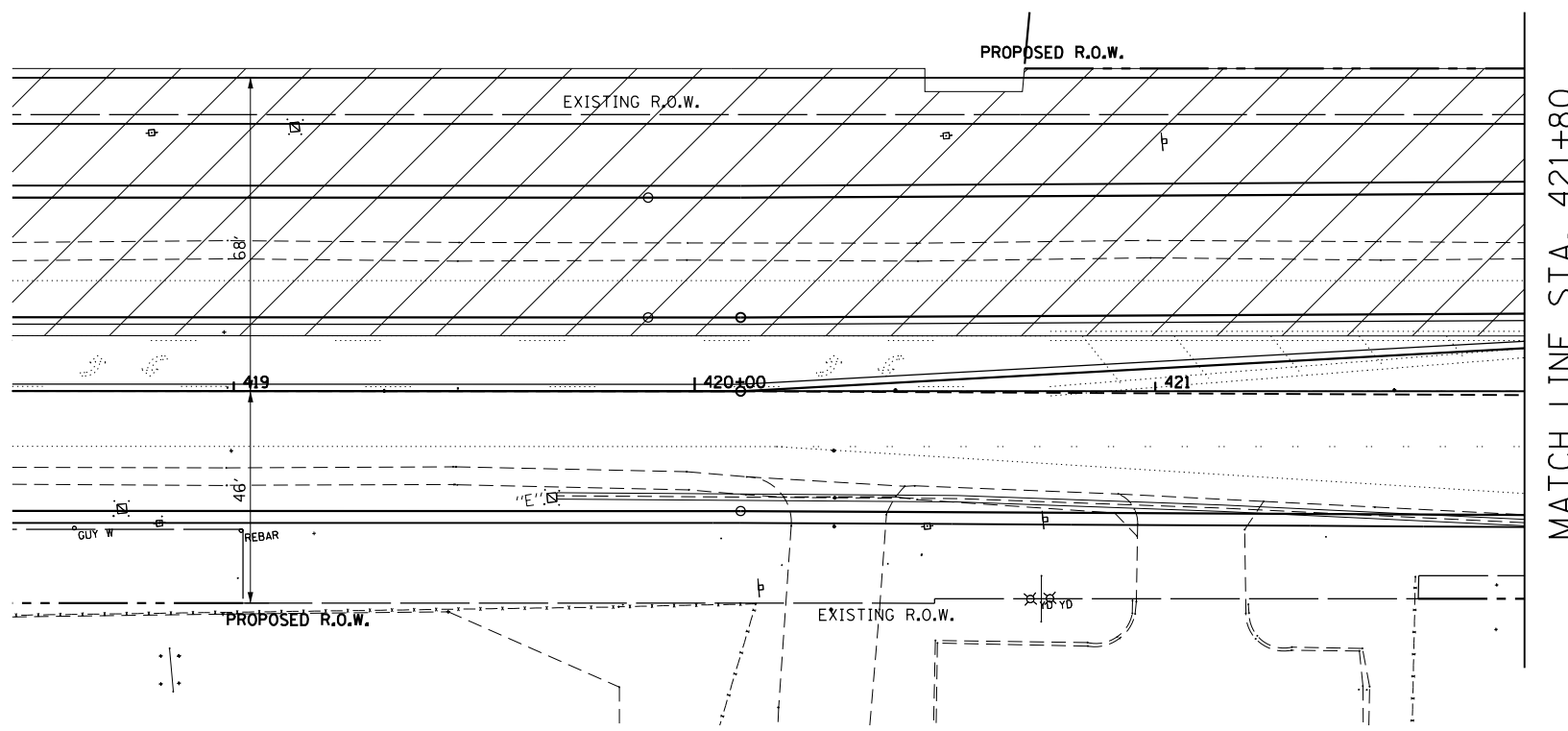
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL AND REMOVAL PLAN
AT US 34 AND McHUGH ROAD**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T)	KENDALL	753	435
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

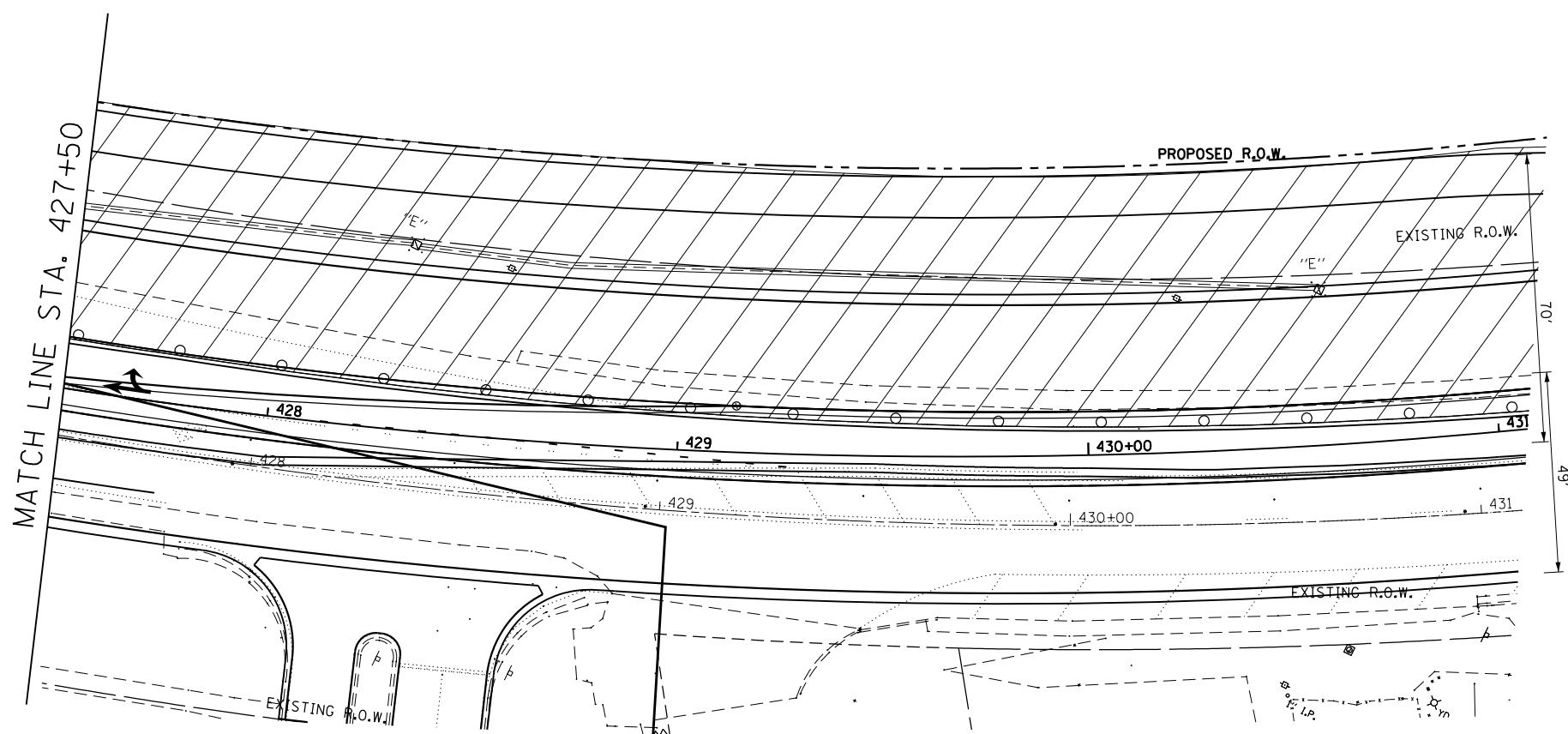
TS-12



MATCH LINE STA. 421+80

TEMPORARY TRAFFIC SIGNAL LEGEND

- ← TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
- ↖ TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
- ⊗ TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM
- ⊠ TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE AND CABLE
- ⊞ TEMPORARY SERVICE INSTALLATION
- ⊞ TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- ⊞ VIDEO DETECTION SYSTEM
- ⊞ PEDESTRIAN PUSHBUTTON DETECTOR
- ⊞ EMERGENCY VEHICLE LIGHT DETECTOR
- ⊞ CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- UD UNIT DUCT
- - - G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- ⊞ HANDHOLE
- ⊞ HEAVY DUTY HANDHOLE
- CT COMMON TRENCH
- ⊞ GUY WIRE
- ⊞ RADIO INTERCONNECT
- ⊞ LUMINAIRE



MATCH LINE STA. 427+50

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PLLOT DATE = 11/26/2014	CHECKED - MSA	REVISIONS
	DATE - 12/01/2014	REVISIONS

DESIGNED - AS	REVISIONS
DRAWN - RV	REVISIONS
CHECKED - MSA	REVISIONS
DATE - 12/01/2014	REVISIONS

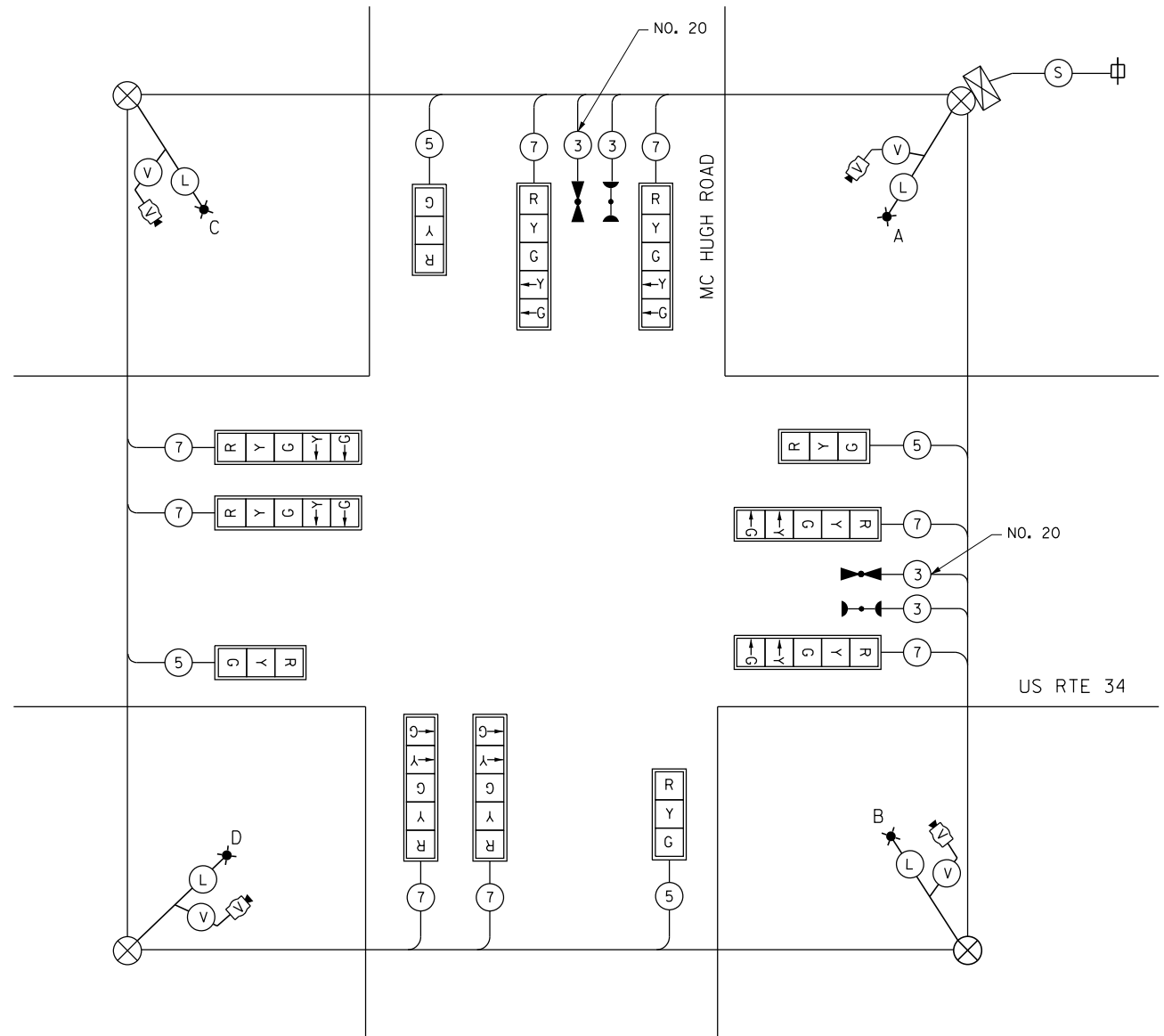
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL AND REMOVAL PLAN
AT US 34 AND McHUGH ROAD-2**

1"=20' SHEET ___ OF ___ SHEETS STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	436
			CONTRACT NO. 66884	
ILLINOIS FED. AID PROJECT				

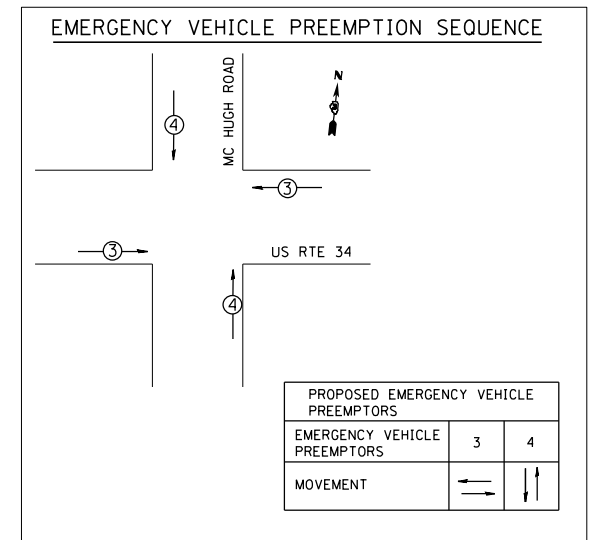
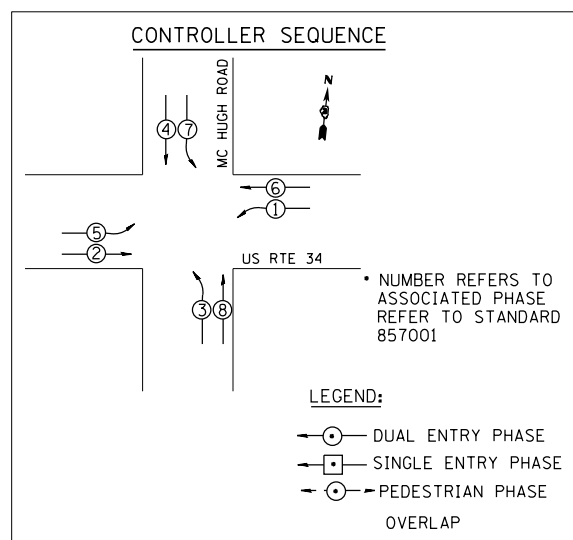
TS-13



TEMPORARY CABLE PLAN
N.T.S.

TEMPORARY CABLE DIAGRAM LEGEND

- [R] TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION 12" (300mm)
- [X] TEMPORARY CONTROLLER CABINET
- [S] TEMPORARY SERVICE INSTALLATION
- (5) INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED.
- [V] EMERGENCY VEHICLE LIGHT DETECTOR
- [B] CONFIRMATION BEACON
- [□] VEHICLE DETECTOR, INDUCTION LOOP
- [○] PEDESTRIAN PUSHBUTTON DETECTOR
- [H] 12" (300mm) PEDESTRIAN SIGNAL SECTION
- [V] VIDEO DETECTION SYSTEM
- [S] GROUND ROD AT ELECTRIC SERVICE INSTALLATION
- [L] LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT
- [X] TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM
- [V] VIDEO CAMERA CABLE
6 PAIRS TWISTED REQUIRED
3 PAIRS CONDUCTOR FOR POWER -24V AC (AC+, AC-, GND)
1 PAIR DATA
1 PAIR COMPOSITE VIDEO
1 PAIR DETECTOR DATA
OVERALL SHIELD
MINIMUM 16 AWG (PAIRS)
(TO BE INCLUDED IN THE BID PRICE FOR TEMPORARY TRAFFIC SIGNAL INSTALLATION)
- [S] SERVICE CABLE
ELECTRIC CABLE IN CONDUIT,
SERVICE NO. 6 2C
- [L] LIGHTING CABLE
600V (XLP-TYPE USE) 3 1/C NO. 10



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL VOLTAGE
TYPE	NO. LAMPS	WATTAGE INCAND	WATTAGE LED	% OPERATION	
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		84		0.05	-
LUMINAIRE	4	250		0.50	500
FLASHER				0.50	-
TOTAL =					841.2

ENERGY COST TO: Illinois Department of Transportation
Division of Highways / District 3
700E Norris Drive, Ottawa, ILL 61350-0697

ENERGY SUPPLY: CONTACT: Mr. Thomas Perkins
PHONE: 630-723-2127
COMPANY: ComEd

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CONSULTING ENGINEERS
5413 Walnut Avenue
Downers Grove, IL 60515

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DRAWN - RV
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PLOT DATE = 10/5/2015

DESIGNED - AS
DRAWN - RV
CHECKED - MSA
DATE - 12/01/2014

REVISED - BDD 10/02/2015
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN AND PHASE DESIGNATION DIAGRAM
US ROUTE 34 & McHUGH ROAD

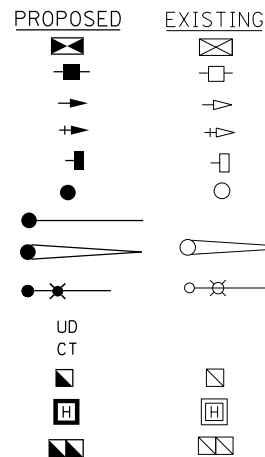
SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	437
CONTRACT NO. 66884				

ILLINOIS FED. AID PROJECT

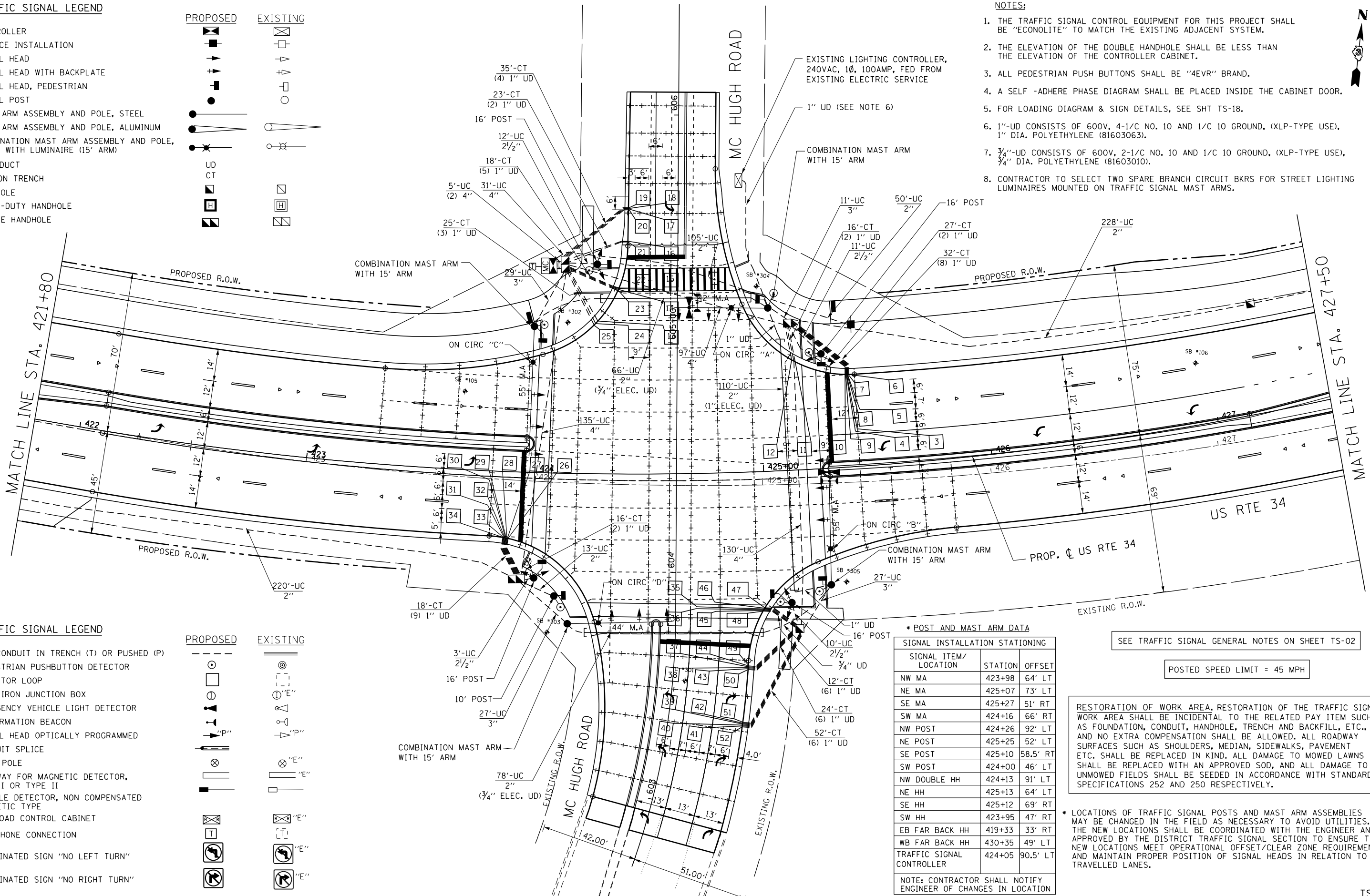
TRAFFIC SIGNAL LEGEND

- CONTROLLER
- SERVICE INSTALLATION
- SIGNAL HEAD
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD, PEDESTRIAN
- SIGNAL POST
- MAST ARM ASSEMBLY AND POLE, STEEL
- MAST ARM ASSEMBLY AND POLE, ALUMINUM
- COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE (15' ARM)
- UNIT DUCT
- COMMON TRENCH
- HANDHOLE
- HEAVY-DUTY HANDHOLE
- DOUBLE HANDHOLE



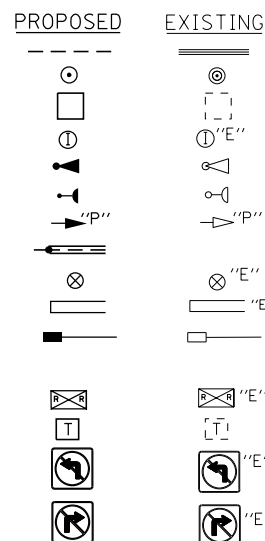
NOTES:

1. THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.
2. THE ELEVATION OF THE DOUBLE HANDHOLE SHALL BE LESS THAN THE ELEVATION OF THE CONTROLLER CABINET.
3. ALL PEDESTRIAN PUSH BUTTONS SHALL BE "4EVR" BRAND.
4. A SELF-ADHERE PHASE DIAGRAM SHALL BE PLACED INSIDE THE CABINET DOOR.
5. FOR LOADING DIAGRAM & SIGN DETAILS, SEE SHT TS-18.
6. 1"-UD CONSISTS OF 600V, 4-1/C NO. 10 AND 1/C 10 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE (81603063).
7. 3/4"-UD CONSISTS OF 600V, 2-1/C NO. 10 AND 1/C 10 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE (81603010).
8. CONTRACTOR TO SELECT TWO SPARE BRANCH CIRCUIT BKRS FOR STREET LIGHTING LUMINAIRES MOUNTED ON TRAFFIC SIGNAL MAST ARMS.



TRAFFIC SIGNAL LEGEND

- G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP
- CAST IRON JUNCTION BOX
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- SIGNAL HEAD OPTICALLY PROGRAMMED
- CONDUIT SPLICE
- WOOD POLE
- RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II
- VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE
- RAILROAD CONTROL CABINET
- TELEPHONE CONNECTION
- ILLUMINATED SIGN "NO LEFT TURN"
- ILLUMINATED SIGN "NO RIGHT TURN"



*** POST AND MAST ARM DATA**

SIGNAL INSTALLATION STATIONING		
SIGNAL ITEM/ LOCATION	STATION	OFFSET
NW MA	423+98	64' LT
NE MA	425+07	73' LT
SE MA	425+27	51' RT
SW MA	424+16	66' RT
NW POST	424+26	92' LT
NE POST	425+25	52' LT
SE POST	425+10	58.5' RT
SW POST	424+00	46' LT
NW DOUBLE HH	424+13	91' LT
NE HH	425+13	64' LT
SE HH	425+12	69' RT
SW HH	423+95	47' RT
EB FAR BACK HH	419+33	33' RT
WB FAR BACK HH	430+35	49' LT
TRAFFIC SIGNAL CONTROLLER	424+05	90.5' LT

NOTE: CONTRACTOR SHALL NOTIFY ENGINEER OF CHANGES IN LOCATION

SEE TRAFFIC SIGNAL GENERAL NOTES ON SHEET TS-02

POSTED SPEED LIMIT = 45 MPH

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, MEDIAN, 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.

* LOCATIONS OF TRAFFIC SIGNAL POSTS AND MAST ARM ASSEMBLIES MAY BE CHANGED IN THE FIELD AS NECESSARY TO AVOID UTILITIES. THE NEW LOCATIONS SHALL BE COORDINATED WITH THE ENGINEER AND APPROVED BY THE DISTRICT TRAFFIC SIGNAL SECTION TO ENSURE THE NEW LOCATIONS MEET OPERATIONAL OFFSET/CLEAR ZONE REQUIREMENTS AND MAINTAIN PROPER POSITION OF SIGNAL HEADS IN RELATION TO THE TRAVELLED LANES.

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AMES Engineering, Inc.
CONSULTING ENGINEERS
5413 Walnut Avenue
Downers Grove, IL 60515

USER NAME = duncanbd
PLOT SCALE = 48.0000' / in.
PLOT DATE = 10/5/2015

DESIGNED - AS
DRAWN - RV
CHECKED - MSA
DATE - 12/01/2014

REVISED - BDD 10/02/2015
REVISED -
REVISED -
REVISED -

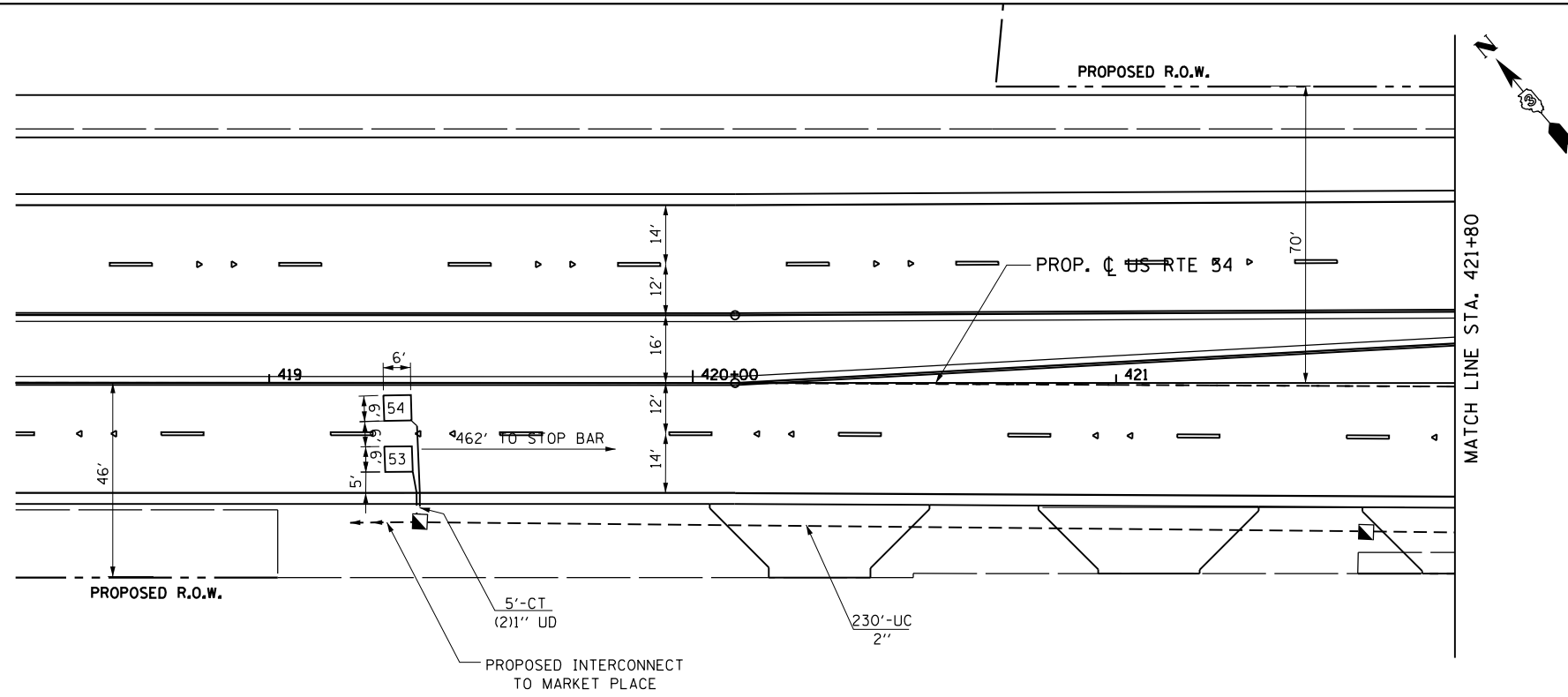
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION PLAN
US RTE 34 & McHUGH ROAD

1"=20' SHEET OF SHEETS STA. 421+80 TO STA. 427+50

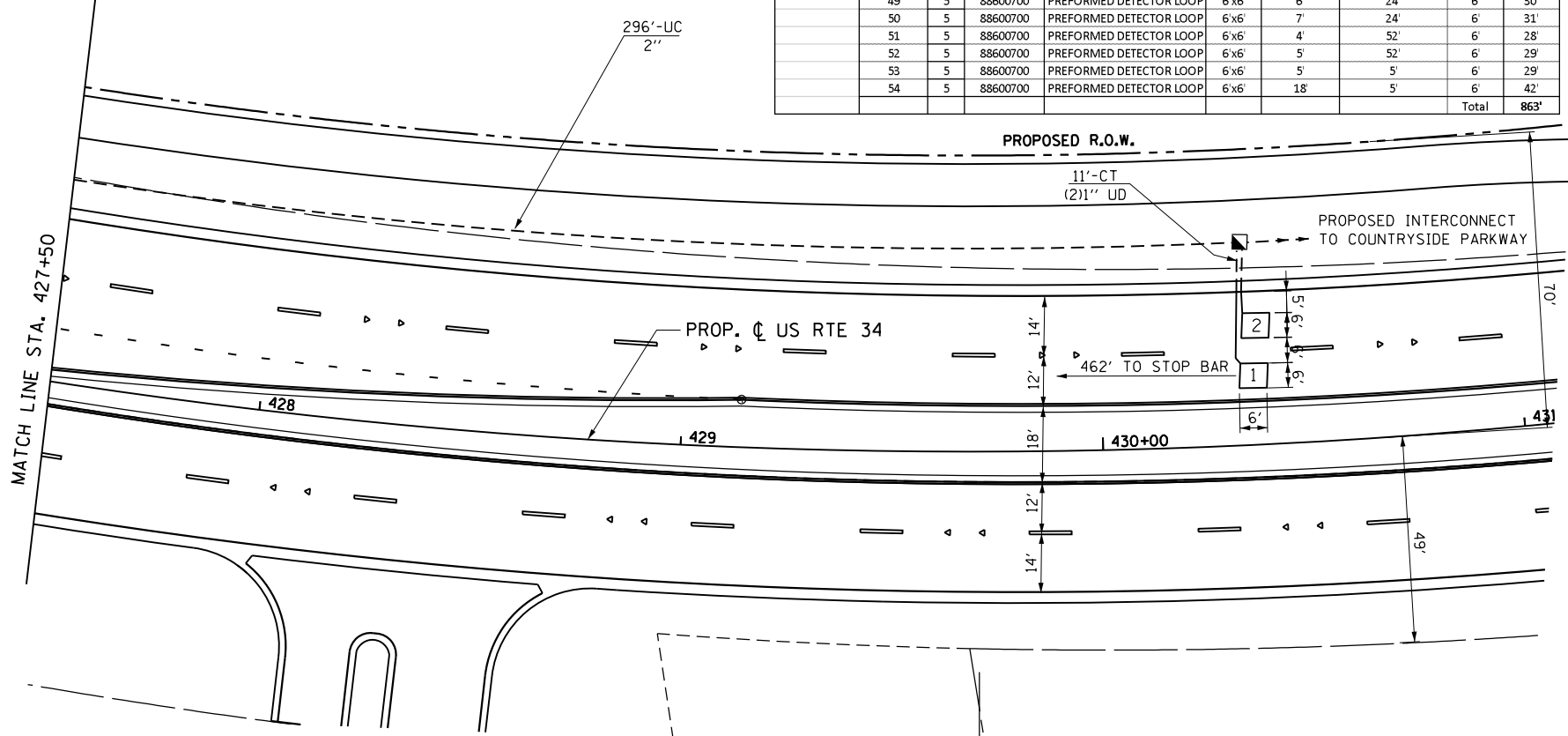
F.A.P. SECTION COUNTY TOTAL SHEETS SHEET NO.
RTE. (13C & 13R & T) KENDALL 753 438
591 CONTRACT NO. 66884
ILLINOIS FED. AID PROJECT

TS-15



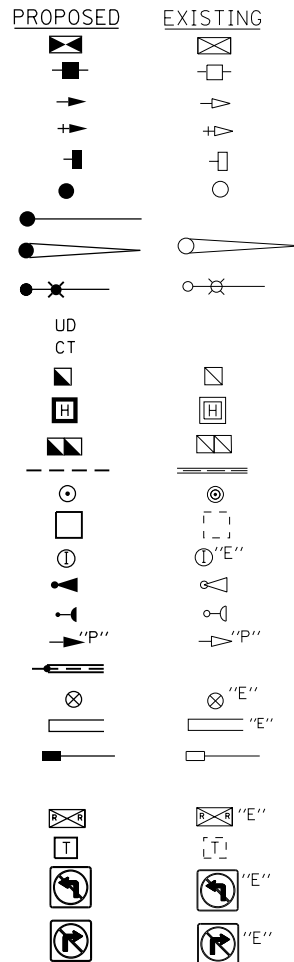
Approach	Detector ID	Turns	Code Number	Coded Pay Item	Loop	Preformed Loop to EOP	Lead-In Wire EOP to Handhole	Slack	Quantity	
EAST APPROACH US34	1	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	18'	11'	6'	42'	
	2	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	5'	11'	6'	29'	
	3	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	56'	32'	6'	80'	
	4	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	42'	32'	6'	66'	
	5	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	30'	32'	6'	54'	
	6	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	18'	32'	6'	42'	
	7	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	5'	32'	6'	29'	
	8	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	17'	32'	6'	41'	
	9	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	32'	32'	6'	56'	
	10	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	29'	32'	6'	53'	
	11	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	35'	16'	6'	59'	
	12	5	88600700	PREFORMED DETECTOR LOOP	9'x6'	37'	16'	6'	67'	
									Total	618'
NORTH APPROACH MARKET PLACE	13	5	88600700	PREFORMED DETECTOR LOOP	9'x6'	30'	24'	6'	60'	
	14	5	88600700	PREFORMED DETECTOR LOOP	9'x6'	21'	18'	6'	51'	
	15	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	21'	18'	6'	45'	
	16	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	16'	23'	6'	40'	
	17	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	16'	35'	6'	40'	
	18	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	16'	35'	6'	40'	
	19	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	3'	35'	6'	27'	
	20	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	5'	35'	6'	29'	
	21	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	4'	23'	6'	28'	
	22	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	7'	18'	6'	31'	
	23	5	88600700	PREFORMED DETECTOR LOOP	9'x6'	7'	18'	6'	37'	
	24	5	88600700	PREFORMED DETECTOR LOOP	9'x6'	16'	24'	6'	46'	
	25	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	3'	24'	6'	27'	
									Total	501'
WEST APPROACH US34	26	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	36'	18'	6'	60'	
	27	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	31'	18'	6'	55'	
	28	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	30'	18'	6'	54'	
	29	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	31'	18'	6'	55'	
	30	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	39'	18'	6'	63'	
	31	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	29'	18'	6'	53'	
	32	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	19'	18'	6'	43'	
	33	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	9'	18'	6'	33'	
	34	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	20'	18'	6'	44'	
									Total	460'
SOUTH APPROACH US34	35	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	37'	14'	6'	61'	
	36	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	36'	14'	6'	60'	
	37	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	30'	24'	6'	54'	
	38	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	30'	24'	6'	54'	
	39	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	30'	52'	6'	54'	
	40	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	30'	52'	6'	54'	
	41	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	17'	52'	6'	41'	
	42	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	17'	52'	6'	41'	
	43	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	17'	24'	6'	41'	
	44	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	18'	24'	6'	42'	
	45	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	23'	14'	6'	47'	
46	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	25'	14'	6'	49'		
47	5	88600700	PREFORMED DETECTOR LOOP	9'x6'	9'	14'	6'	39'		
48	5	88600700	PREFORMED DETECTOR LOOP	9'x6'	7'	14'	6'	37'		
49	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	6'	24'	6'	30'		
50	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	7'	24'	6'	31'		
51	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	4'	52'	6'	28'		
52	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	5'	52'	6'	29'		
53	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	5'	5'	6'	29'		
54	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	18'	5'	6'	42'		
									Total	863'

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, MEDIAN, 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.



TRAFFIC SIGNAL LEGEND

- CONTROLLER
- SERVICE INSTALLATION
- SIGNAL HEAD
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD, PEDESTRIAN
- SIGNAL POST
- MAST ARM ASSEMBLY AND POLE, STEEL
- MAST ARM ASSEMBLY AND POLE, ALUMINUM
- COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE
- UNIT DUCT
- COMMON TRENCH
- HANDHOLE
- HEAVY-DUTY HANDHOLE
- DOUBLE HANDHOLE
- G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP
- CAST IRON JUNCTION BOX
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- SIGNAL HEAD OPTICALLY PROGRAMMED
- CONDUIT SPLICE
- WOOD POLE
- RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II
- VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE
- RAILROAD CONTROL CABINET
- TELEPHONE CONNECTION
- ILLUMINATED SIGN "NO LEFT TURN"
- ILLUMINATED SIGN "NO RIGHT TURN"



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AMES Engineering, Inc.
 CONSULTING ENGINEERS
 5413 Walnut Avenue
 Downers Grove, IL 60515

USER NAME = Vramesh	DESIGNED - AS	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - RV	REVISED -
PLOT DATE = 11/25/2014	CHECKED - MSA	REVISED -
	DATE - 12/01/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION PLAN
US RTE 34 & McHUGH ROAD

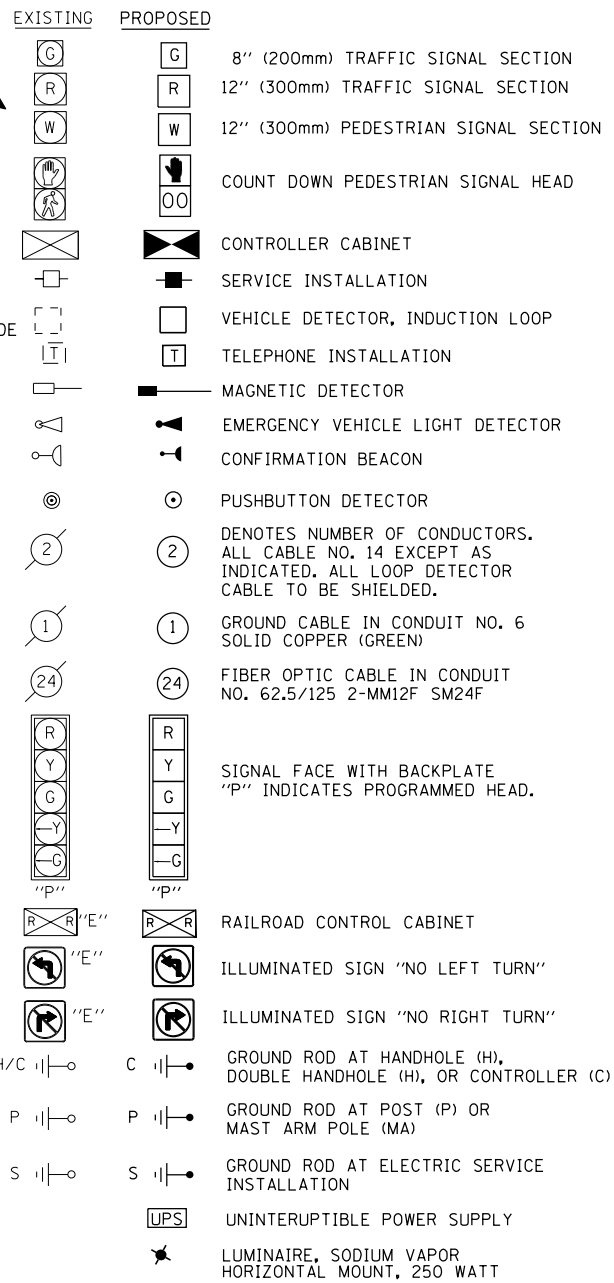
1"=20' SHEET ___ OF ___ SHEETS STA. ___ TO STA. ___

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	439
CONTRACT NO. 66884				

ILLINOIS FED. AID PROJECT

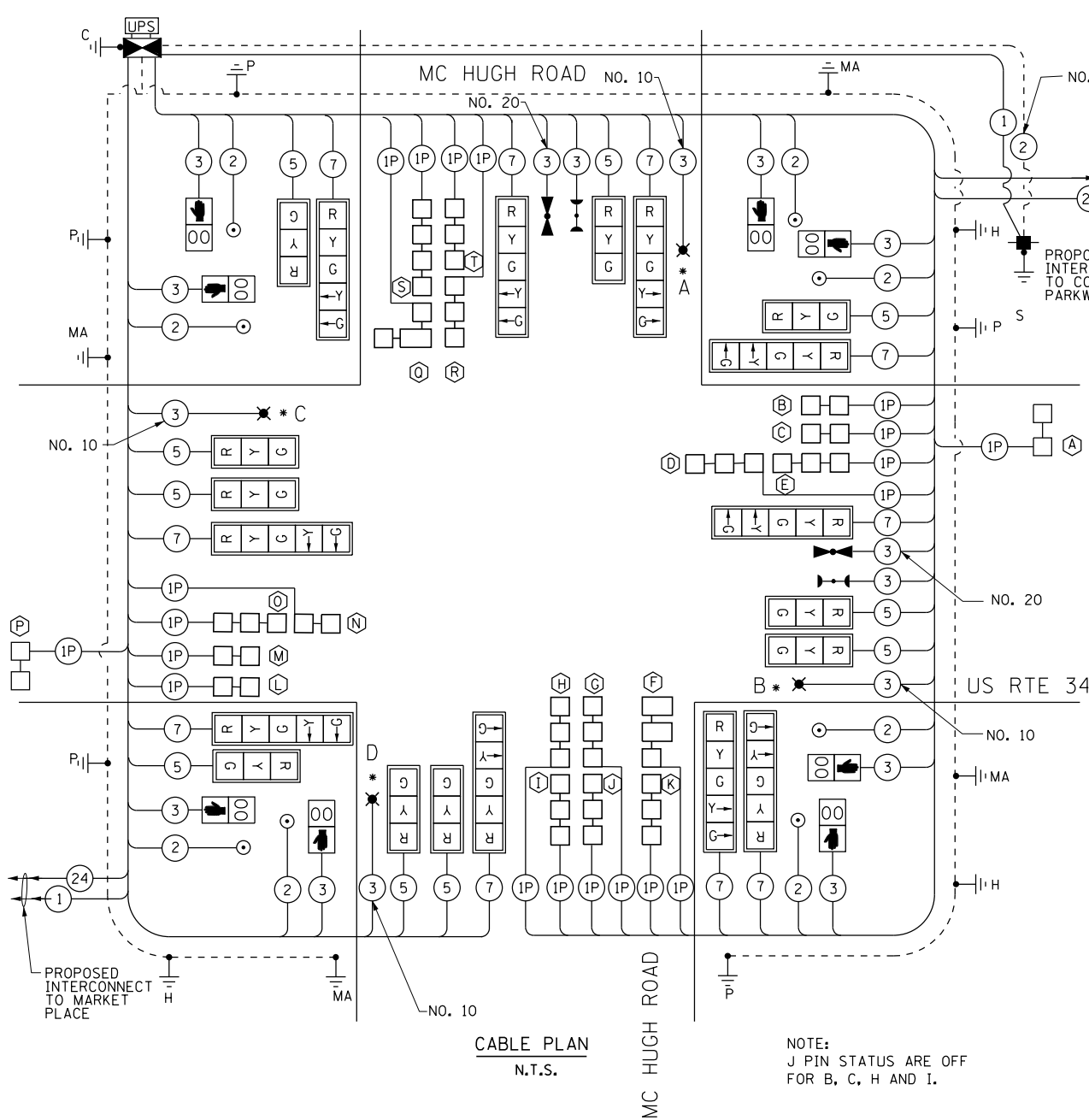
TS-16

CABLE PLAN LEGEND



BILL OF MATERIALS

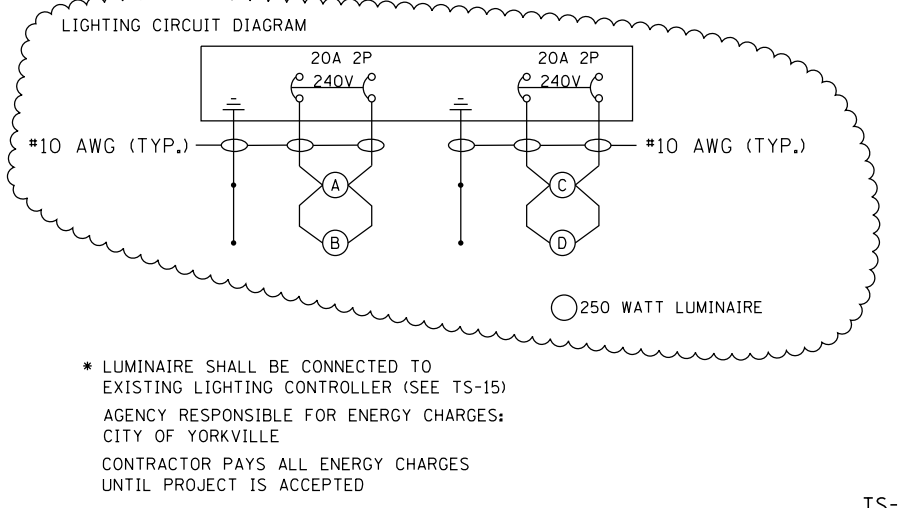
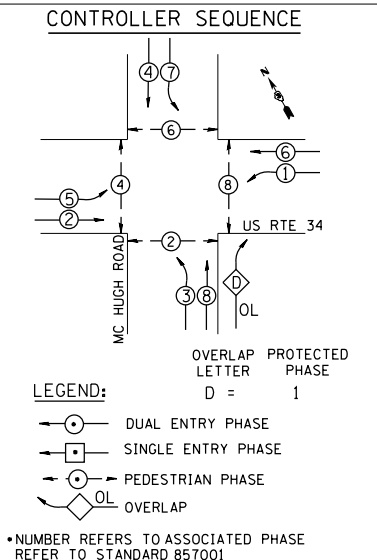
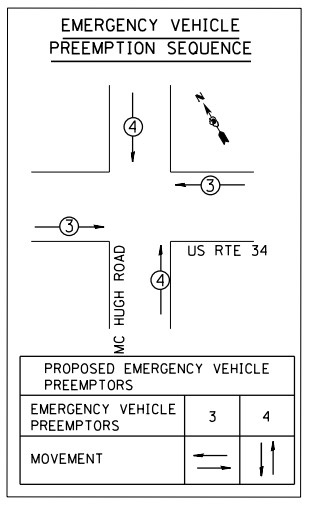
ITEM	UNIT	JS Rte 34 @ McHugh Rd
SIGN PANEL - TYPE 1	SQ FT	18
SIGN PANEL - TYPE 2	SQ FT	40
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	1288
UNDERGROUND CONDUIT, PVC, 2 1/2" DIA.	FOOT	46
UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	94
UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	350
HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	4
DOUBLE HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	3
UNIT DUCT, 600V, 2-1C NO. 10, 1/C NO. 10 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE	FOOT	257
UNIT DUCT, 600V, 4-1C NO. 10, 1/C NO. 10 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE	FOOT	224
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	4
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	FOOT	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, EXTENDED	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1400
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2000
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2025
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	2100
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	4110
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	130
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 42 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 44 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 55 FT.	EACH	2
CONCRETE FOUNDATION, TYPE A	FOOT	16
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	56
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	7
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	5
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	5
PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED WITH COUNT DOWN TIMER	EACH	8
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	20
INDUCTIVE LOOP DETECTOR	EACH	20
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	5
REMOVE EXISTING HANDHOLE	EACH	9
REMOVE EXISTING CONCRETE FOUNDATION	EACH	5
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	700
PREFORMED DETECTOR LOOP	FOOT	2442
OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1
SERVICE INSTALLATION, TYPE B	EACH	1
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	400
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 20 3C TWISTED SHIELDED	FOOT	550
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	254
RE-OPTIMIZE TEMPORARY TRAFFIC SIGNAL SYSTEM	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	400
TEMPORARY LIGHTING SYSTEM	LSUM	1



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL VOLTAGE
TYPE	NO. LAMPS	WATTAGE INCAND	WATTAGE LED	% OPERATION	
SIGNAL (RED)	20	135	17	0.50	170
(YELLOW)	20	135	25	0.25	125
(GREEN)	20	135	15	0.25	75
ARROW	20	135	12	0.10	24
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	-
FLASHER				0.50	-
TOTAL =					694

ENERGY COST TO: Illinois Department of Transportation
Division of Highways / District 3
700 E. Norris Dr., Ottawa, IL 61350

ENERGY SUPPLY: CONTACT: Mr. Thomas Perkins
PHONE: 630-723-2127
COMPANY: ComEd



FILE: \FILES\10/05/2015 10:01:05 AM

AMES Engineering, Inc.
CONSULTING ENGINEERS
5413 Walnut Avenue
Downers Grove, IL 60515

USER NAME = duncanbd	DESIGNED - AS	REVISED - BDD 10/02/2015
PLOT SCALE = 40.0000' / in.	DRAWN - RV	REVISED -
PLOT DATE = 10/5/2015	CHECKED - MSA	REVISED -
	DATE - 12/01/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

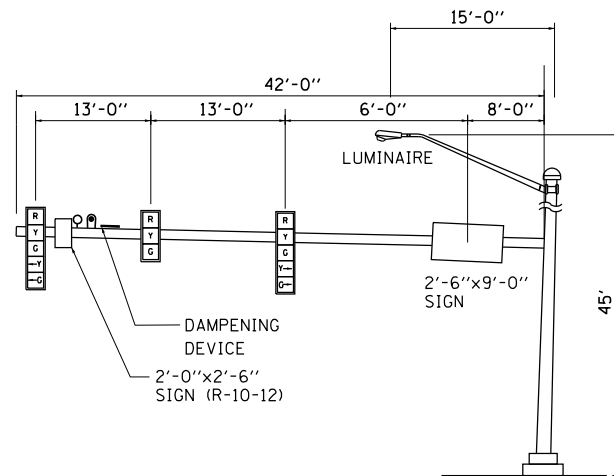
CABLE PLAN, PHASE DIAGRAM & SCHEDULE OF QUANTITIES
US RTE 34 & MCHUGH ROAD

NONE	SHEET	OF	SHEETS	STA.	TO	STA.
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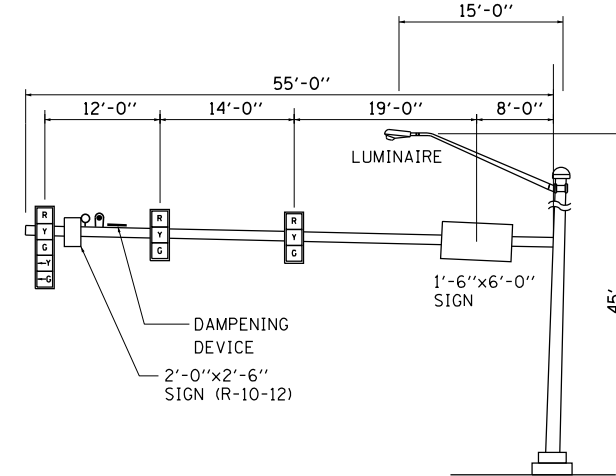
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13JR & T	KENDALL	753	440
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

TS-17

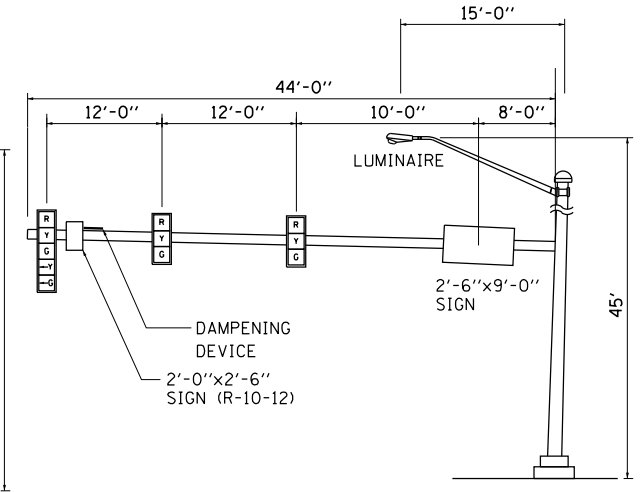
FOUNDATION DEPTH TABLE		
TYPE	LOCATION	FOUNDATION DEPTH
55' COMBINATION MAST ARM	NW QUADRANT US RTE 34 & McHUGH RD	13'
42' COMBINATION MAST ARM	NE QUADRANT US RTE 34 & McHUGH RD	13'
55' COMBINATION MAST ARM	SE QUADRANT US RTE 34 & McHUGH RD	13'
44' COMBINATION MAST ARM	SW QUADRANT US RTE 34 & McHUGH RD	13'



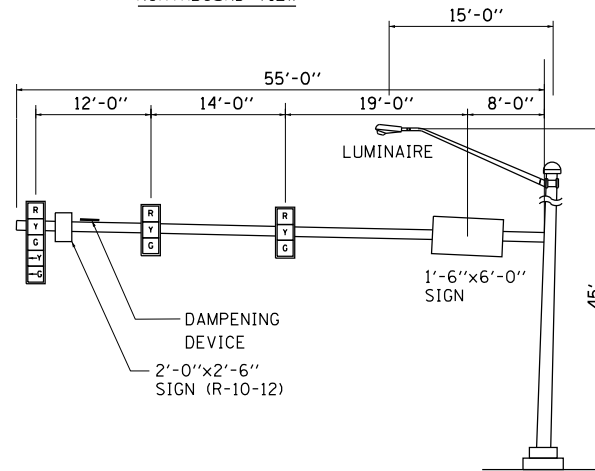
MAST ARM LOADING DIAGRAM
US ROUTE 34 & McHUGH ROAD
NE QUADRANT
NORTHBOUND VIEW



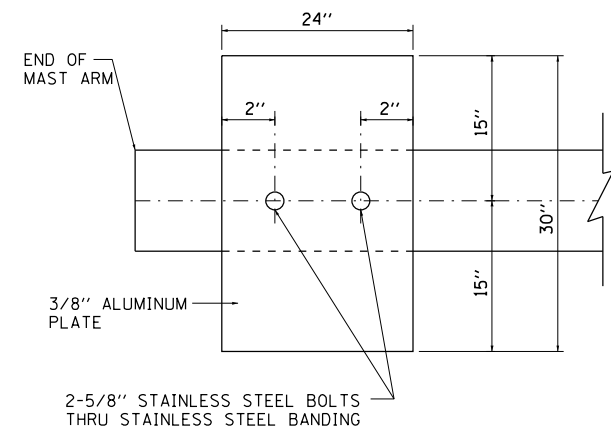
MAST ARM LOADING DIAGRAM
US ROUTE 34 & McHUGH ROAD
SE QUADRANT
EASTBOUND VIEW



MAST ARM LOADING DIAGRAM
US ROUTE 34 & McHUGH ROAD
SW QUADRANT
SOUTHBOUND VIEW



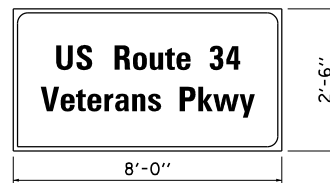
MAST ARM LOADING DIAGRAM
US ROUTE 34 & McHUGH ROAD
NW QUADRANT
WESTBOUND VIEW



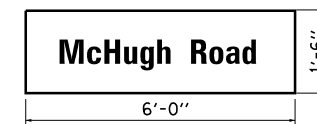
NOTE
MOUNT DAMPING PLATE TO END OF
EACH TRAFFIC SIGNAL MAST ARM
DAMPING PLATE DETAIL - TOP VIEW

NOTE:

DAMPING DEVICE SHALL CONSIST OF A
24"x30" TYPE 1, UNPAINTED ALUMINUM
SIGN STOCK MOUNTED HORIZONTALLY ON
TOP OF MAST ARM WITH THE 30" LENGTH
PERPENDICULAR TO THE ARM. COST OF THE
DAMPING DEVICE IS INCLUDED IN THE
MAST ARM PAY ITEM.



3/4" BORDER
8" D SERIES LETTERS
TYPE ZZ SHEETING REQUIRED
2 SIGNS REQUIRED= 20.0 SQ FT EACH
= 40.0 SQ FT TOTAL



3/4" BORDER
8" D SERIES LETTERS
TYPE ZZ SHEETING REQUIRED
2 SIGNS REQUIRED= 9.0 SQ FT EACH
= 18.0 SQ FT TOTAL

NOTES:

1. ALL SIGNAL HEADS HAVE BACKPLATES.
2. ALL MAST ARM FOUNDATIONS TO BE 36" DIAMETER.
3. DAMPING DEVICE SHALL CONSIST OF A 24"x30" TYPE-1, UNPAINTED ALUMINUM SIGN STOCK MOUNTED HORIZONTALLY ON TOP OF MAST ARM WITH THE 30" LENGTH PERPENDICULAR TO THE ARM. COST OF THE DAMPING DEVICE SHALL BE INCLUDED IN THE COST OF MAST ARM PAY ITEM.
4. ARM SUPPORT FOR LUMINAIRE SHALL BE PARALLEL TO MAST ARM UNLESS SHOWN ON PLAN.
5. FOUNDATION DEPTHS ARE BASED ON HIGHWAY STANDARD 878001-08. THE CONTRACTOR SHALL VERIFY THE SOIL STRENGTH TO THE DEPTH OF FOUNDATION AT EACH PROPOSED LOCATION. BUREAU OF BRIDGES & STRUCTURES SHOULD BE CONTACTED FOR A REVISED DESIGN IF CONDITIONS OTHER THAN STATED IN STANDARD 878001-08 ARE ENCOUNTERED.

FILE: \FILES\ 10/5/2015 10:08:14 AM

AMES Engineering, Inc.
CONSULTING ENGINEERS
5413 Walnut Avenue
Downers Grove, IL 60515

USER NAME = duncanbd
DESIGNED - AS
DRAWN - RV
PLOT SCALE = 40.0000' / in.
CHECKED - MSA
DATE = 12/01/2014
PLOT DATE = 10/5/2015

DESIGNED - AS
DRAWN - RV
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REVISED - BDD 10/02/2015
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAST ARM LOADING DIAGRAM & SIGN DETAILS
US RTE 34 AND McHUGH ROAD

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	441
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

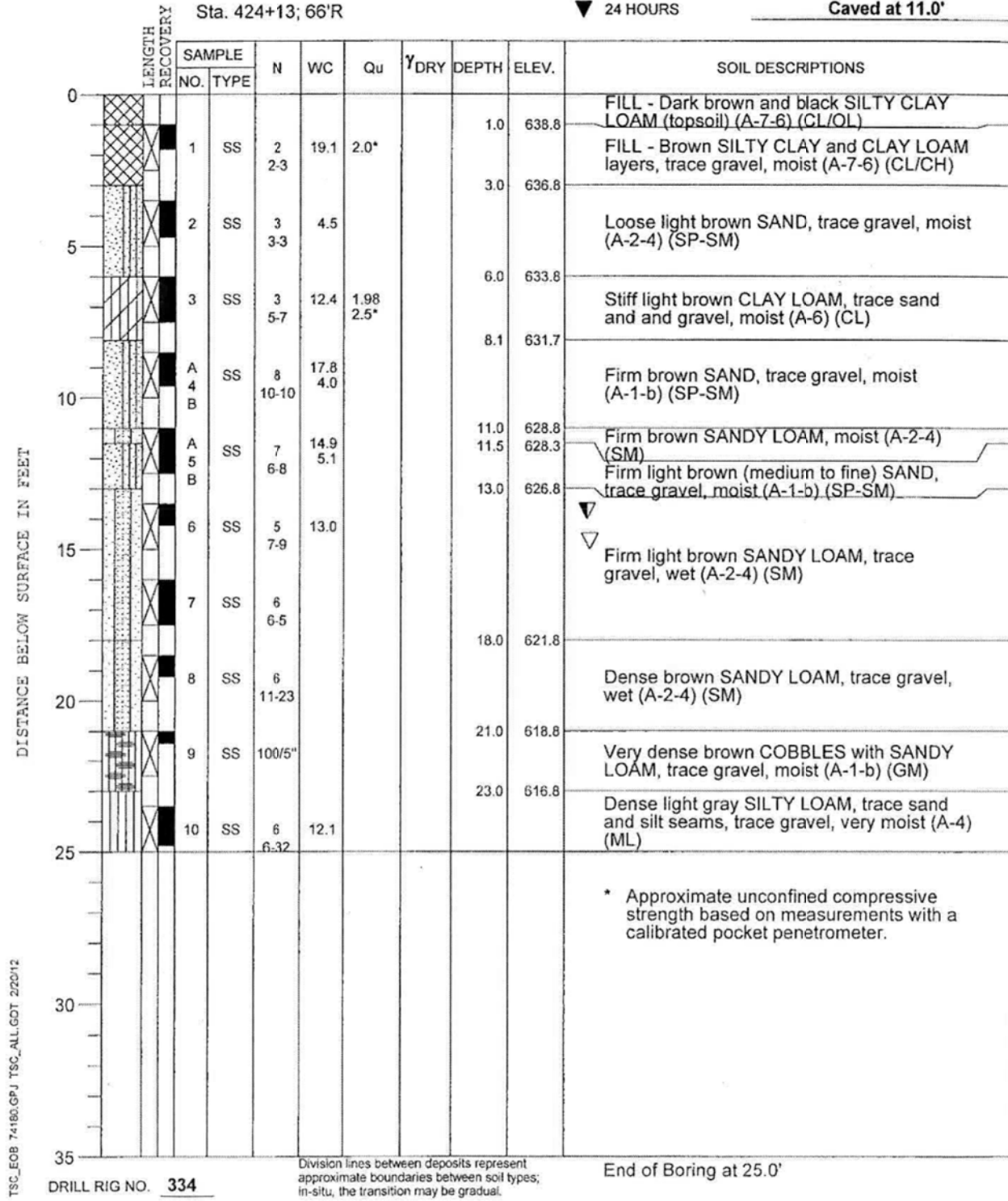
TS-18

PROJECT **U.S. Route 34 Reconstruction and Widening, Yorkville, Illinois**
 CLIENT **GRAEF, Chicago, Illinois**
 BORING **302** DATE STARTED **11-7-11** DATE COMPLETED **11-7-11** JOB **L-74,180**



ELEVATIONS
 GROUND SURFACE **639.8**
 END OF BORING **614.8**
 Sta. 424+13; 66'R

WATER LEVEL OBSERVATIONS
 ▽ WHILE DRILLING **14.0'**
 ▽ AT END OF BORING **15.0'**
 ▽ 24 HOURS **Caved at 11.0'**

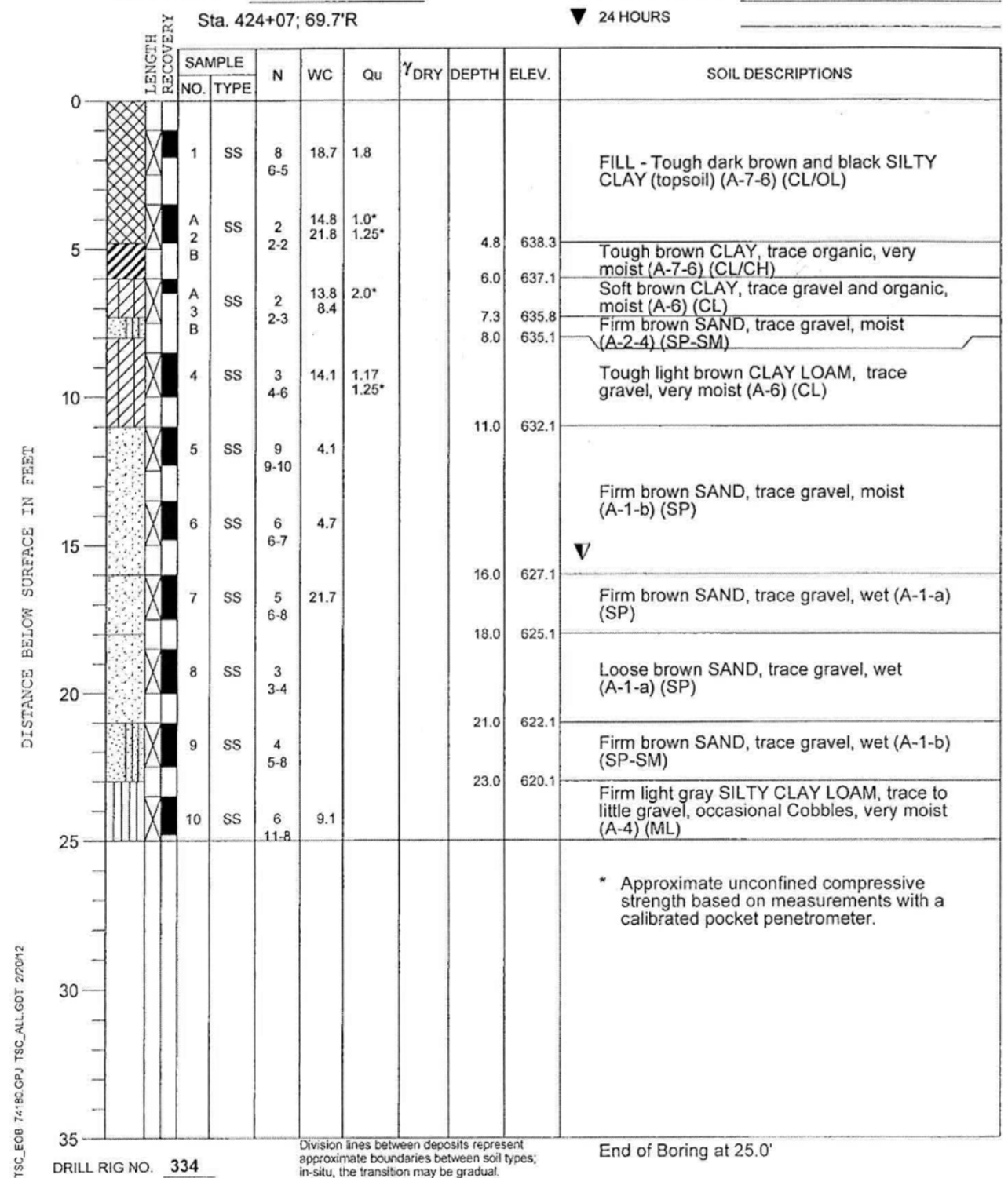


PROJECT **U.S. Route 34 Reconstruction and Widening, Yorkville, Illinois**
 CLIENT **GRAEF, Chicago, Illinois**
 BORING **303** DATE STARTED **11-7-11** DATE COMPLETED **11-7-11** JOB **L-74,180**



ELEVATIONS
 GROUND SURFACE **643.1**
 END OF BORING **618.1**
 Sta. 424+07; 69.7'R

WATER LEVEL OBSERVATIONS
 ▽ WHILE DRILLING **15.5'**
 ▽ AT END OF BORING **17.0'**
 ▽ 24 HOURS



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AMES Engineering, Inc.
 CONSULTING ENGINEERS
 5413 Walnut Avenue
 Downers Grove, IL 60515

USER NAME - Vramesh	DESIGNED - AS	REVISED -
DRAWN - RV	CHECKED - MSA	REVISED -
PLOT SCALE - 48.0000' / in.	DATE - 12/01/2014	REVISED -
PLOT DATE - 11/25/2014		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 34 AND McHUGH ROAD
BORING LOGS

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	442
CONTRACT NO. 66884			ILLINOIS FED. AID PROJECT	

PROJECT **U.S. Route 34 Reconstruction and Widening, Yorkville, Illinois**

CLIENT **GRAEF, Chicago, Illinois**

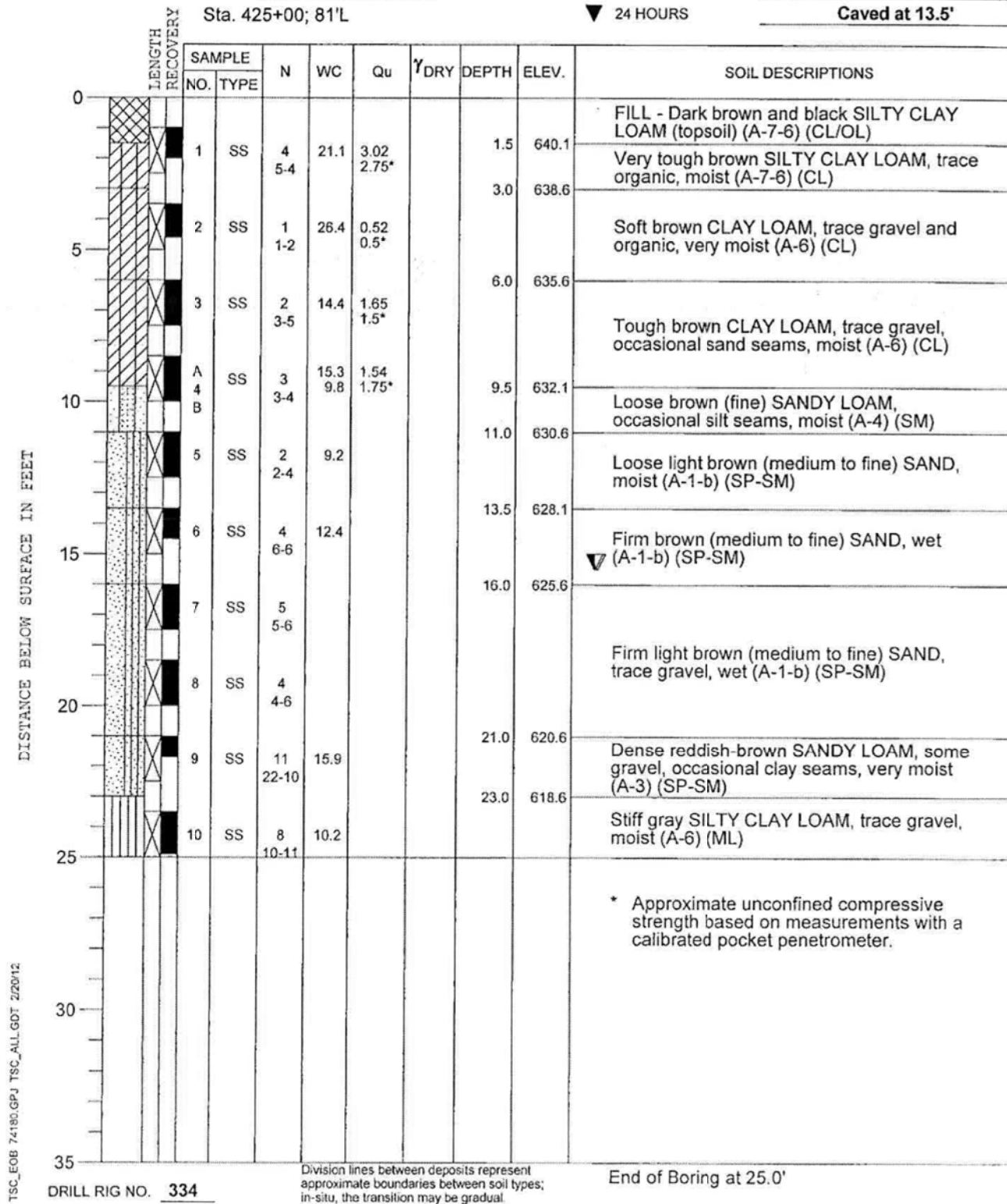


BORING **304** DATE STARTED **11-4-11** DATE COMPLETED **11-4-11** JOB **L-74,180**

ELEVATIONS
 GROUND SURFACE **641.6**
 END OF BORING **616.6**

WATER LEVEL OBSERVATIONS
 WHILE DRILLING **15.5'**
 AT END OF BORING **15.5'**
 24 HOURS **Caved at 13.5'**

Sta. 425+00; 81'L



TSC_EOB 74180.GPJ TSC_ALL.GDT 11/20/12

DRILL RIG NO. **334**

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AMES Engineering, Inc.
 CONSULTING ENGINEERS
 5413 Walnut Avenue
 Downers Grove, IL 60515

USER NAME = Vramesh	DESIGNED - AS	REVISED -
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PLOT DATE = 11/25/2014	CHECKED - MSA	REVISED -
	DATE - 12/01/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 34 AND McHUGH ROAD
BORING LOGS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	443
CONTRACT NO. 66884				

ILLINOIS FED. AID PROJECT

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 3. INSTALLED IN A NEMA TS1 OF 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 12" (300mm). HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. 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. THE LOCATIONS OF THE TEMPORARY TRAFFIC SIGNAL HEADS ARE BASED ON SUGGESTED CONSTRUCTION STAGING AND TRAFFIC CONTROL-STAGE 1. THE SECONDARY SIGNAL HEADS LOCATIONS SHALL BE PLACED PER OTHER CONSTRUCTION STAGING AND AS APPROVED BY THE ENGINEER IN THE FIELD.
8. SIGNAL HEADS FOR CROSS STREET SHALL BE BAGGED WHEN TRAFFIC IS DETOURED AND UNBAGGED WHEN LANES ARE OPEN TO TRAFFIC.

NOTES FOR TEMPORARY LIGHTING

1. TEMPORARY LIGHTING SHALL BE PROVIDED AS DESCRIBED IN THE SPECIAL PROVISION "TEMPORARY LIGHTING SYSTEM".

TEMPORARY TRAFFIC SIGNAL LEGEND

- ← TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
- ↔ TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
- ⊗ TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM
- ⊠ TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE AND CABLE
- ⊕ TEMPORARY SERVICE INSTALLATION
- ⊞ TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- ⊞ VIDEO DETECTION SYSTEM
- ⊞ PEDESTRIAN PUSHBUTTON DETECTOR
- ⊞ EMERGENCY VEHICLE LIGHT DETECTOR
- ⊞ CONFIRMATION BEACON
- ⊞ VEHICLE DETECTOR, INDUCTION LOOP
- UD UNIT DUCT
- - - G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- ⊞ HANDHOLE
- ⊞ HEAVY DUTY HANDHOLE
- CT COMMON TRENCH
- GUY WIRE
- ⊞ RADIO INTERCONNECT
- ★ LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT

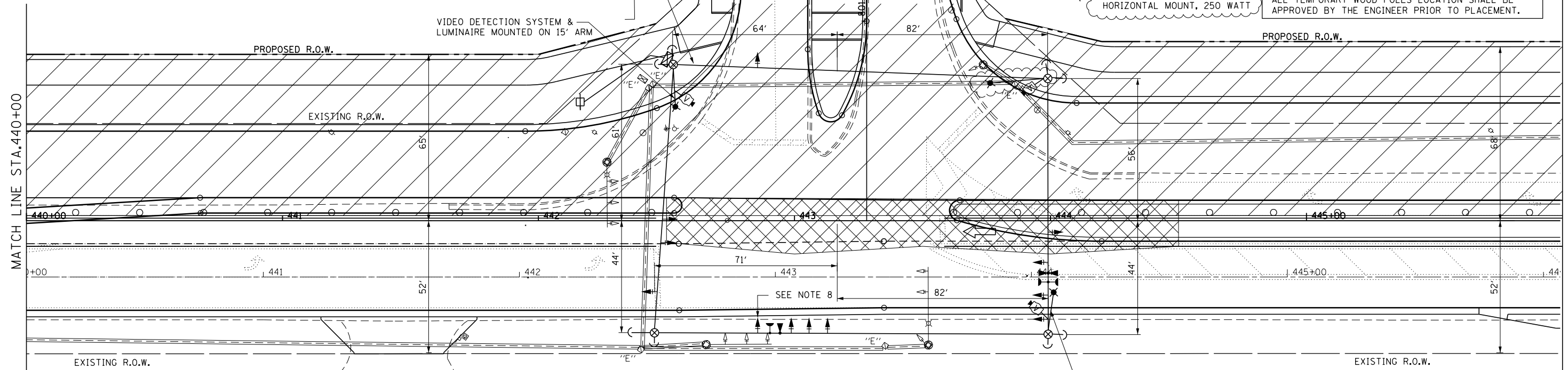
THE TRAFFIC SIGNAL EQUIPMENTS FOR THIS CONTRACT SHALL BE ECONOLITE BRAND. THE CONTROLLER FURNISHED SHALL BE THE MOST CURRENT ECONOLITE BRAND.

WHERE POSSIBLE TEMPORARY SPAN WIRES SHALL BE PLACED IN FRONT OF PERMANENT TRAFFIC SIGNALS. ALL TEMPORARY WOOD POLES LOCATION SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.

SPAN WIRE, TETHER WIRE AND CABLE ALONG WITH AERIAL CABLE 3-1/C NO. 8 WITH MESSENGER WIRE

VIDEO DETECTION SYSTEM & LUMINAIRE MOUNTED ON 15' ARM

VIDEO DETECTION SYSTEM & LUMINAIRE MOUNTED ON 15' ARM



EXISTING EQUIPMENT TO BE REMOVED LEGEND

- ← EXISTING SIGNAL HEAD TO BE REMOVED
- "E" ⊞ EXISTING SERVICE INSTALLATION TO BE REMOVED
- EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- ⊞ EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" ⊠ EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- "E" ⊞ EXISTING HANDHOLE TO BE REMOVED
- ⊞ EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- ⊞ EXISTING PEDESTRIAN PUSHBUTTON TO BE REMOVED
- ⊞ EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- ⊞ CONFIRMATION BEACON TO BE REMOVED
- "E" ⊞ EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- ○ EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" ⊞ EXISTING EXISTING JUNCTION BOX TO BE REMOVED

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE CITY OF YORKVILLE AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE CITY TRAFFIC SIGNAL MAINTENANCE FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS:

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

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, MEDIAN, 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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PLOT DATE = 10/5/2015	DATE - 12/01/2014	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL AND REMOVAL PLAN
AT US 34 AND COUNTRYSIDE PKWY.**

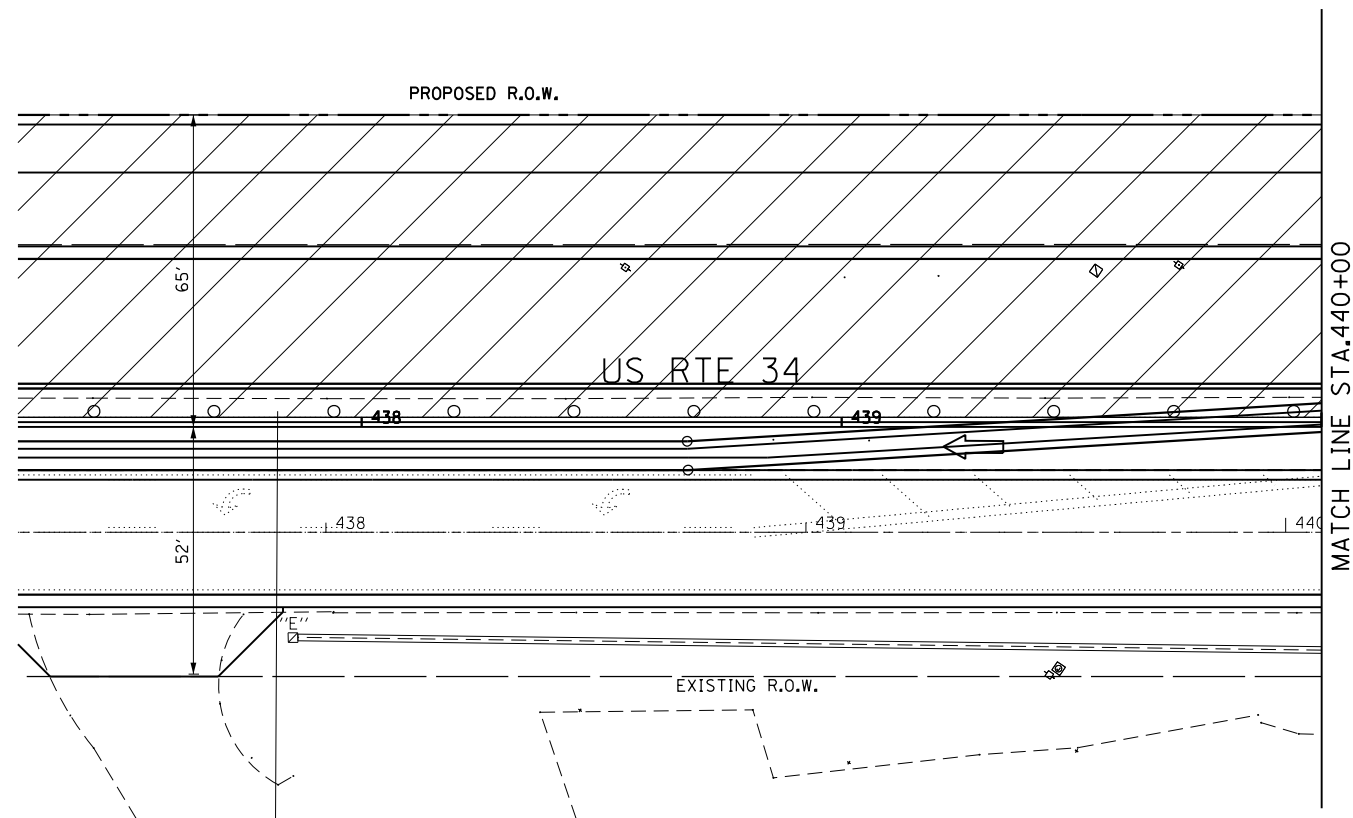
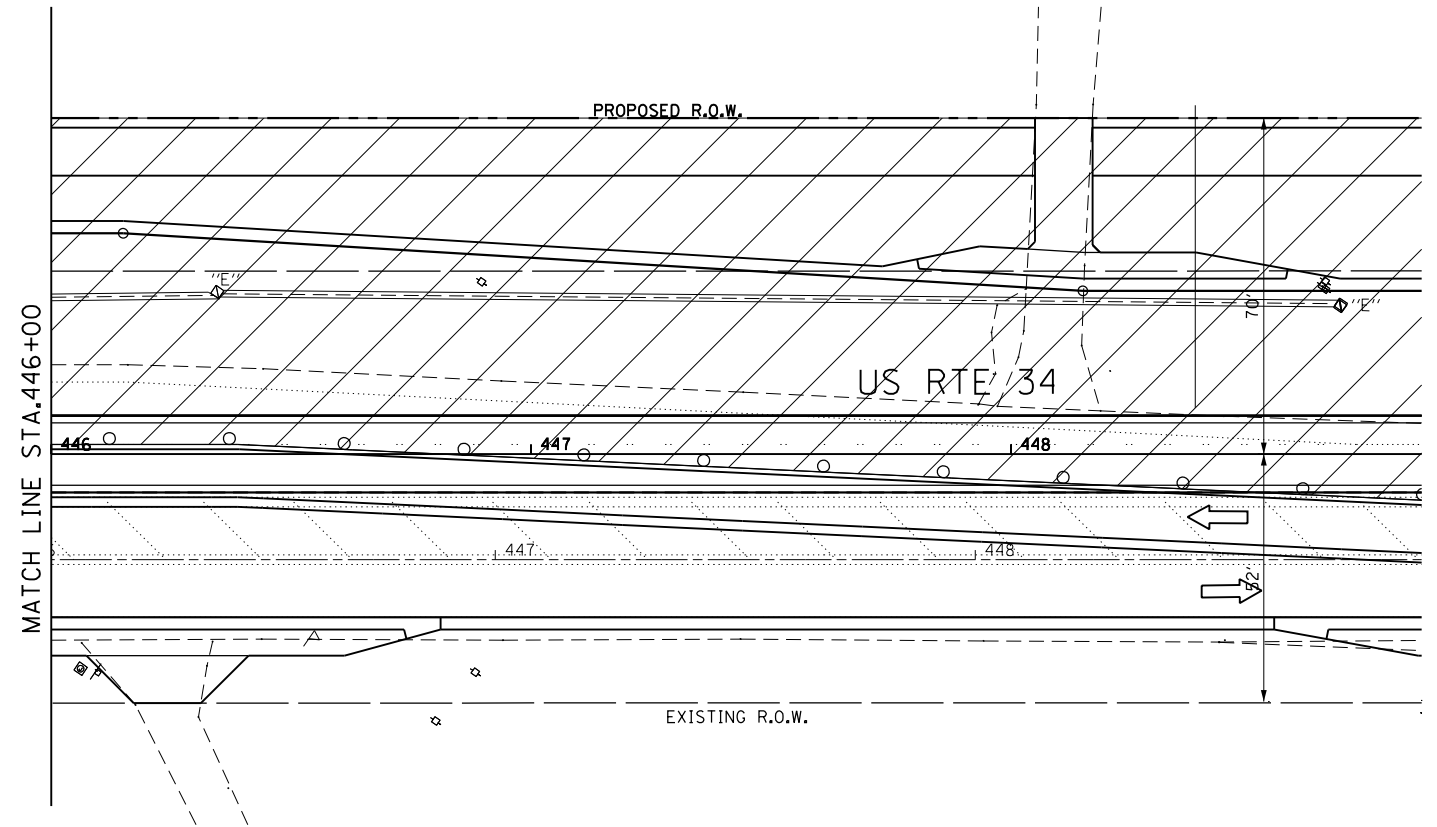
SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	444
			CONTRACT NO. 66884	
ILLINOIS FED. AID PROJECT				

TS-21

TEMPORARY TRAFFIC SIGNAL LEGEND

- ← TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
- ⇐ TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
- ⊗ TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM
- ⊠ TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE AND CABLE
- ⊞ TEMPORARY SERVICE INSTALLATION
- ⊞ TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- ⊞ VIDEO DETECTION SYSTEM
- ⊞ PEDESTRIAN PUSHBUTTON DETECTOR
- ⊞ EMERGENCY VEHICLE LIGHT DETECTOR
- ⊞ CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- UD UNIT DUCT
- - - G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- ⊞ HANDHOLE
- ⊞ HEAVY DUTY HANDHOLE
- CT COMMON TRENCH
- GUY WIRE
- ⊞ RADIO INTERCONNECT
- ★ LUMINAIRE



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 DATE: TIME: 12/2/2014 5:04:31 PM

AMES Engineering, Inc.
 CONSULTING ENGINEERS
 5413 Walnut Avenue
 Downers Grove, IL 60515

USER NAME = Vramesh	DESIGNED - AS	REVISED -
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PLOT DATE = 12/2/2014	CHECKED - MSA	REVISED -
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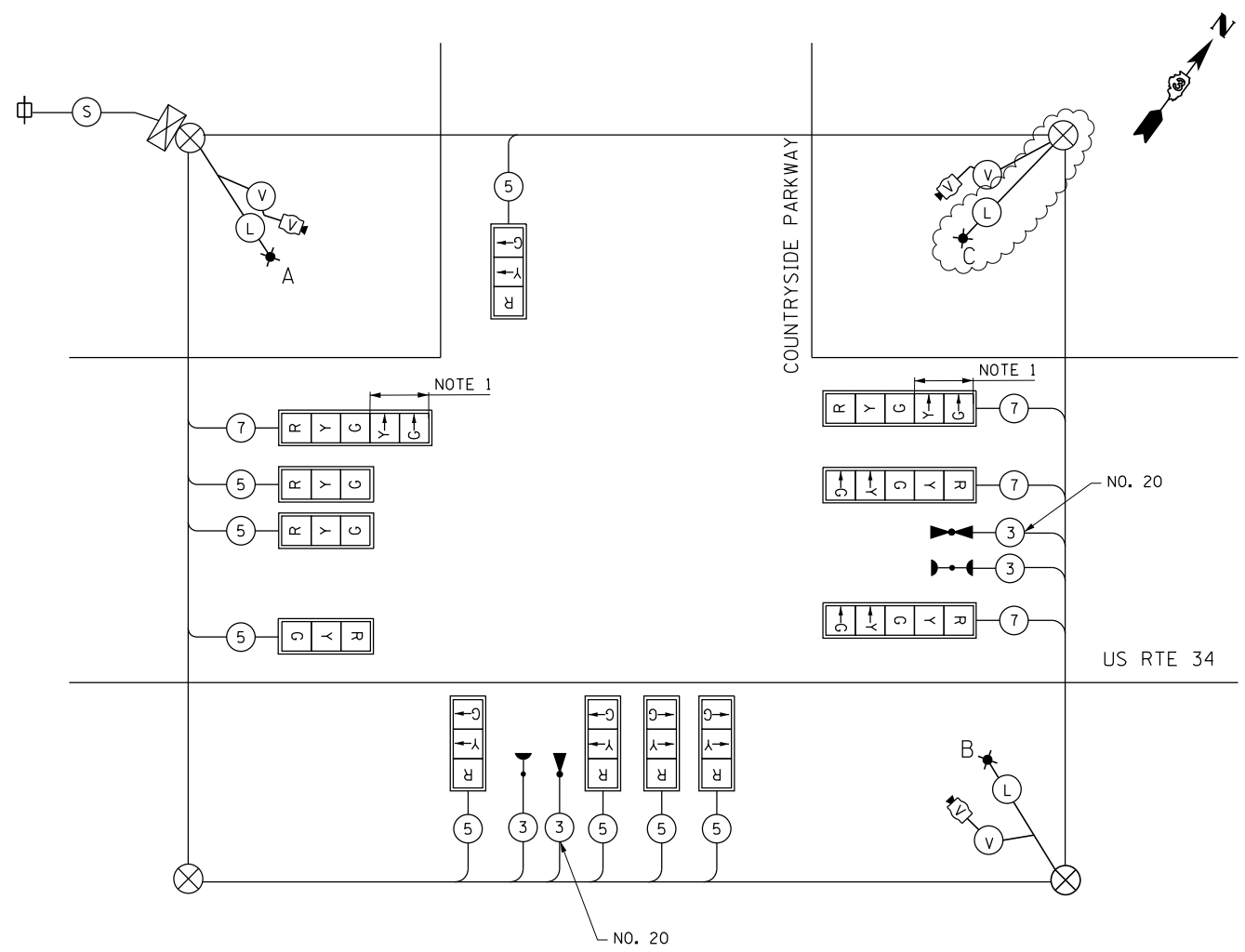
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL AND REMOVAL PLAN
AT US 34 AND COUNTRYSIDE PKWY.-2

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	445
				CONTRACT NO. 66884
ILLINOIS FED. AID PROJECT				

TS-22



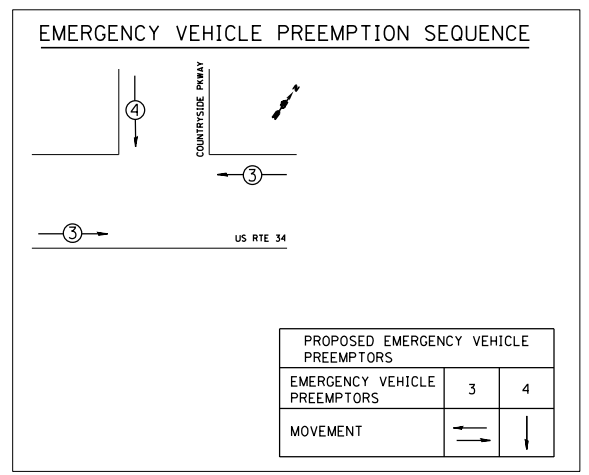
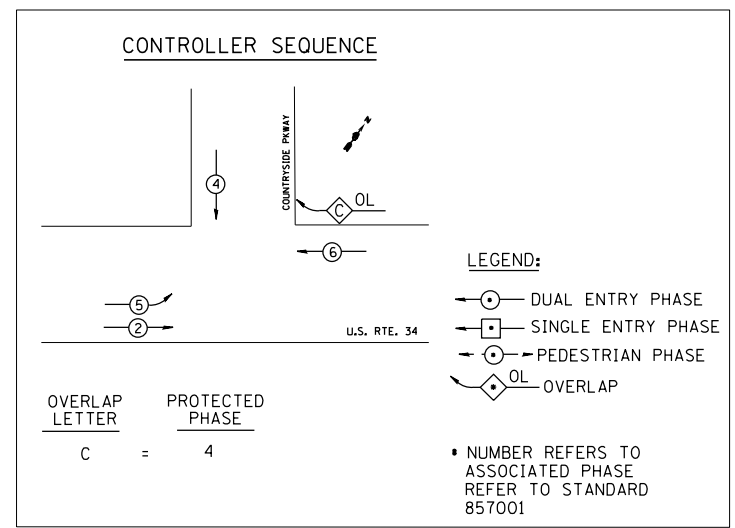
TEMPORARY CABLE PLAN
N.T.S.

TEMPORARY CABLE DIAGRAM LEGEND

- R TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION 12" (300mm)
- X TEMPORARY CONTROLLER CABINET
- S TEMPORARY SERVICE INSTALLATION
- 5 INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED.
- V EMERGENCY VEHICLE LIGHT DETECTOR
- B CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- P PEDESTRIAN PUSHBUTTON DETECTOR
- H 12" (300mm) PEDESTRIAN SIGNAL SECTION
- V VIDEO DETECTION SYSTEM
- S GROUND ROD AT ELECTRIC SERVICE INSTALLATION
- L LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT
- X TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM

- V VIDEO CAMERA CABLE
 - 6 PAIRS TWISTED REQUIRED
 - 3 PAIRS CONDUCTOR FOR POWER -24V AC (AC+, AC-, GND)
 - 1 PAIR DATA
 - 1 PAIR COMPOSITE VIDEO
 - 1 PAIR DETECTOR DATA
 - OVERALL SHIELD MINIMUM 16 AWG (PAIRS) (TO BE INCLUDED IN THE BID PRICE FOR TEMPORARY TRAFFIC SIGNAL INSTALLATION)
- S SERVICE CABLE
 - ELECTRIC CABLE IN CONDUIT, SERVICE NO. 6 2C
- L LIGHTING CABLE
 - 600V (XLP-TYPE USE) 3 1/C NO. 10

NOTE 1. THE BOTTOM SIGNAL HEADS WITH RIGHT TURN ARROWS SHALL BE BAGGED AND DISCONNECTED DURING STAGE 1. AFTER COMPLETION OF STAGE 1 CONSTRUCTION THESE SIGNAL HEADS SHALL BE UNBAGGED AND ACTIVATED FOR USE DURING OTHER CONSTRUCTION STAGES AND UNTIL PERMANENT SIGNALS ARE INSTALLED.



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL VOLTAGE
TYPE	NO. LAMPS	WATTAGE INCAND	WATTAGE LED	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.0
(YELLOW)	12	135	25	0.25	75.0
(GREEN)	12	135	15	0.25	45.0
ARROW	8	135	12	0.10	9.6
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	-
LUMINAIRE	2	250		0.50	250
FLASHER				0.50	-
TOTAL =					581.6

ENERGY COST TO: Illinois Department of Transportation
Division of Highways / District 3
700E Norris Drive, Ottawa, ILL 61350-0697
ENERGY SUPPLY: CONTACT: Mr. Thomas Perkins
PHONE: 630-723-2127
COMPANY: ComEd

FILE: \FILES\10/5/2015 10:18:01 AM

AMES Engineering, Inc.
CONSULTING ENGINEERS
5413 Walnut Avenue
Downers Grove, IL 60515

USER NAME = duncanbd
DESIGNED - AS
DRAWN - RV
PLOT SCALE = 48.0000' / in.
PLOT DATE = 10/5/2015

REVISIONS:
REVISED - BDD 10/02/2015
REVISED -
CHECKED - MSA
DATE - 12/01/2014
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, PHASE DESIGNATION DIAGRAM
US ROUTE 34 & COUNTRYSIDE PKWY

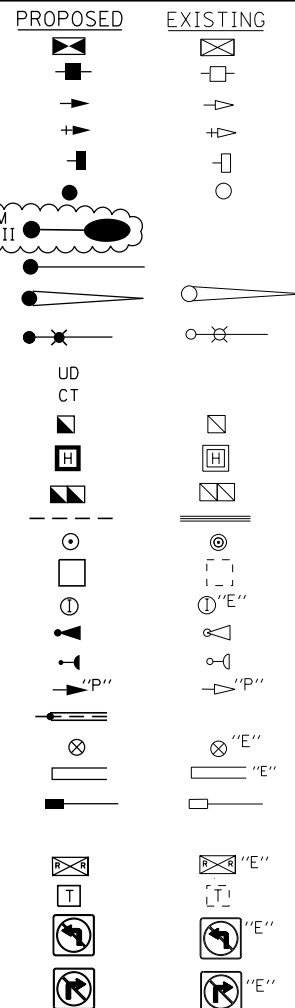
SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	446
CONTRACT NO. 66884				

ILLINOIS FED. AID PROJECT

TRAFFIC SIGNAL LEGEND

- CONTROLLER
- SERVICE INSTALLATION
- SIGNAL HEAD
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD, PEDESTRIAN
- SIGNAL POST
- LIGHTING UNIT, 45' M.H., ALUMINUM, 15' DAVIT ARM
250 W HORIZONTAL MOUNT HPS LUMINAIRE, TYPE III
- MAST ARM ASSEMBLY AND POLE, STEEL
- MAST ARM ASSEMBLY AND POLE, ALUMINUM
- COMBINATION MAST ARM ASSEMBLY AND POLE,
STEEL WITH LUMINAIRE (15' ARM)
- UNIT DUCT
- COMMON TRENCH
- HANDHOLE
- HEAVY-DUTY HANDHOLE
- DOUBLE HANDHOLE
- G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP
- CAST IRON JUNCTION BOX
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- SIGNAL HEAD OPTICALLY PROGRAMMED
- CONDUIT SPLICE
- WOOD POLE
- RACEWAY FOR MAGNETIC DETECTOR,
TYPE I OR TYPE II
- VEHICLE DETECTOR, NON COMPENSATED
MAGNETIC TYPE
- RAILROAD CONTROL CABINET
- TELEPHONE CONNECTION
- ILLUMINATED SIGN "NO LEFT TURN"
- ILLUMINATED SIGN "NO RIGHT TURN"



*** POST AND MAST ARM DATA**

SIGNAL INSTALLATION STATIONING		
SIGNAL ITEM/LOCATION	STATION	OFFSET
NW MA	442+45	59.4' LT
SW MA	442+57	46.5' RT
SE MA	443+44	46.5' RT
NW POST	442+69.3	85.8' LT
NE POST	443+83.5	65' LT
NE LP	443+82	+62' LT
NW DOUBLE HH	442+56	59' LT
NE HH	443+87	60' LT
SE HH	443+32	41' RT
SW HH	442+65	41' RT
EB FAR BACK HH	437+93	41' RT
WB FAR BACK HH	448+50	45' LT
TRAFFIC SIGNAL CONTROLLER	442+55	64' LT

NOTE: CONTRACTOR SHALL NOTIFY ENGINEER OF CHANGES IN LOCATION

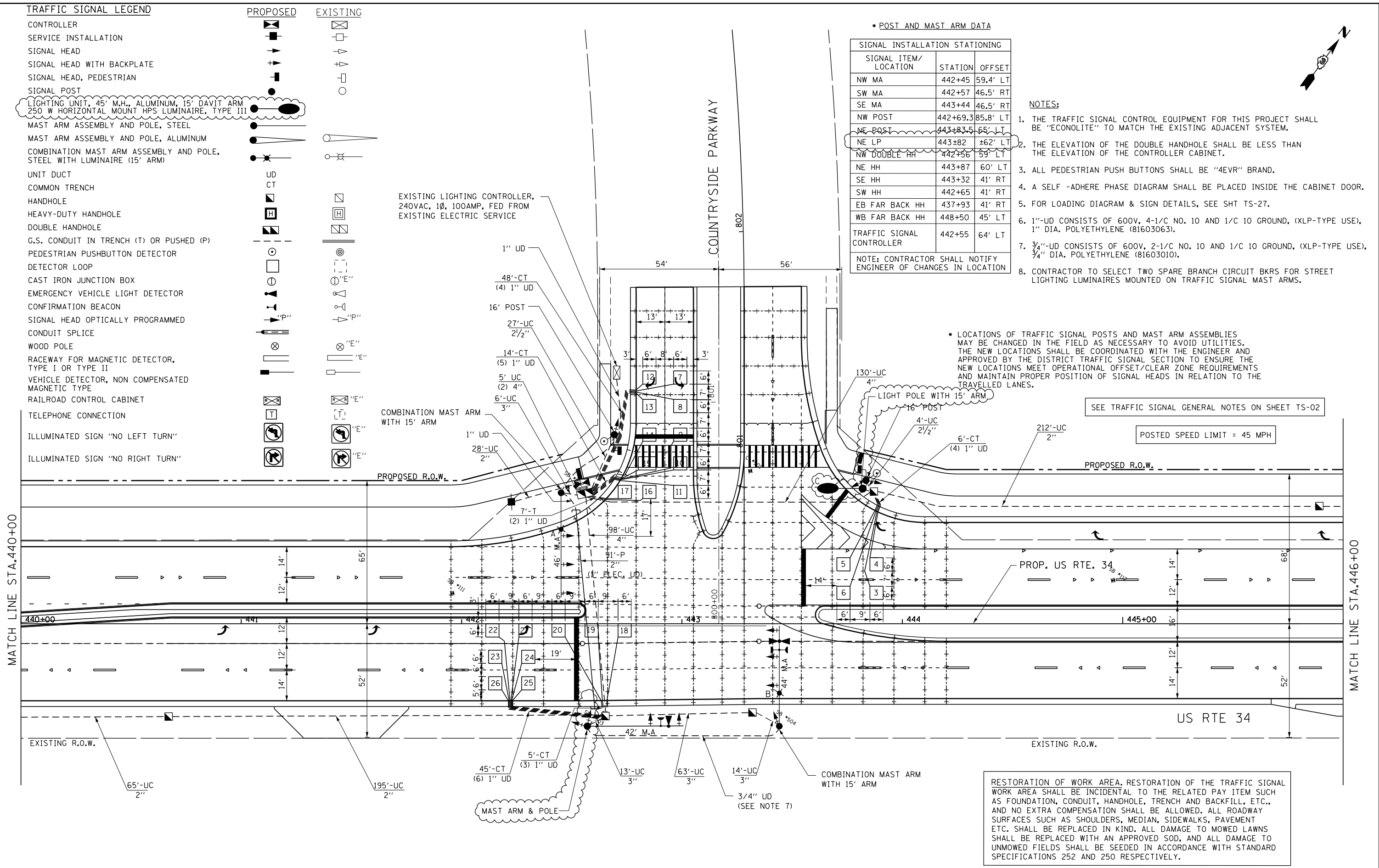
NOTES:

1. THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.
2. THE ELEVATION OF THE DOUBLE HANDHOLE SHALL BE LESS THAN THE ELEVATION OF THE CONTROLLER CABINET.
3. ALL PEDESTRIAN PUSH BUTTONS SHALL BE "4EVR" BRAND.
4. A SELF-ADHERE PHASE DIAGRAM SHALL BE PLACED INSIDE THE CABINET DOOR.
5. FOR LOADING DIAGRAM & SIGN DETAILS, SEE SHT TS-27.
6. 1"-UD CONSISTS OF 600V, 4-1/C NO. 10 AND 1/C 10 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE (81603063).
7. 3/4"-UD CONSISTS OF 600V, 2-1/C NO. 10 AND 1/C 10 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE (81603010).
8. CONTRACTOR TO SELECT TWO SPARE BRANCH CIRCUIT BKRS FOR STREET LIGHTING LUMINAIRES MOUNTED ON TRAFFIC SIGNAL MAST ARMS.

* LOCATIONS OF TRAFFIC SIGNAL POSTS AND MAST ARM ASSEMBLIES MAY BE CHANGED IN THE FIELD AS NECESSARY TO AVOID UTILITIES. THE NEW LOCATIONS SHALL BE COORDINATED WITH THE ENGINEER AND APPROVED BY THE DISTRICT TRAFFIC SIGNAL SECTION TO ENSURE THE NEW LOCATIONS MEET OPERATIONAL OFFSET/CLEAR ZONE REQUIREMENTS AND MAINTAIN PROPER POSITION OF SIGNAL HEADS IN RELATION TO THE TRAVELLED LANES.

SEE TRAFFIC SIGNAL GENERAL NOTES ON SHEET TS-02

POSTED SPEED LIMIT = 45 MPH



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, MEDIAN, 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.

FILE: \FILES\10/5/2015 10:08:41 AM

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CONSULTING ENGINEERS
5413 Walnut Avenue
Downers Grove, IL 60515

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	DATE - 12/01/2014	REVISED -

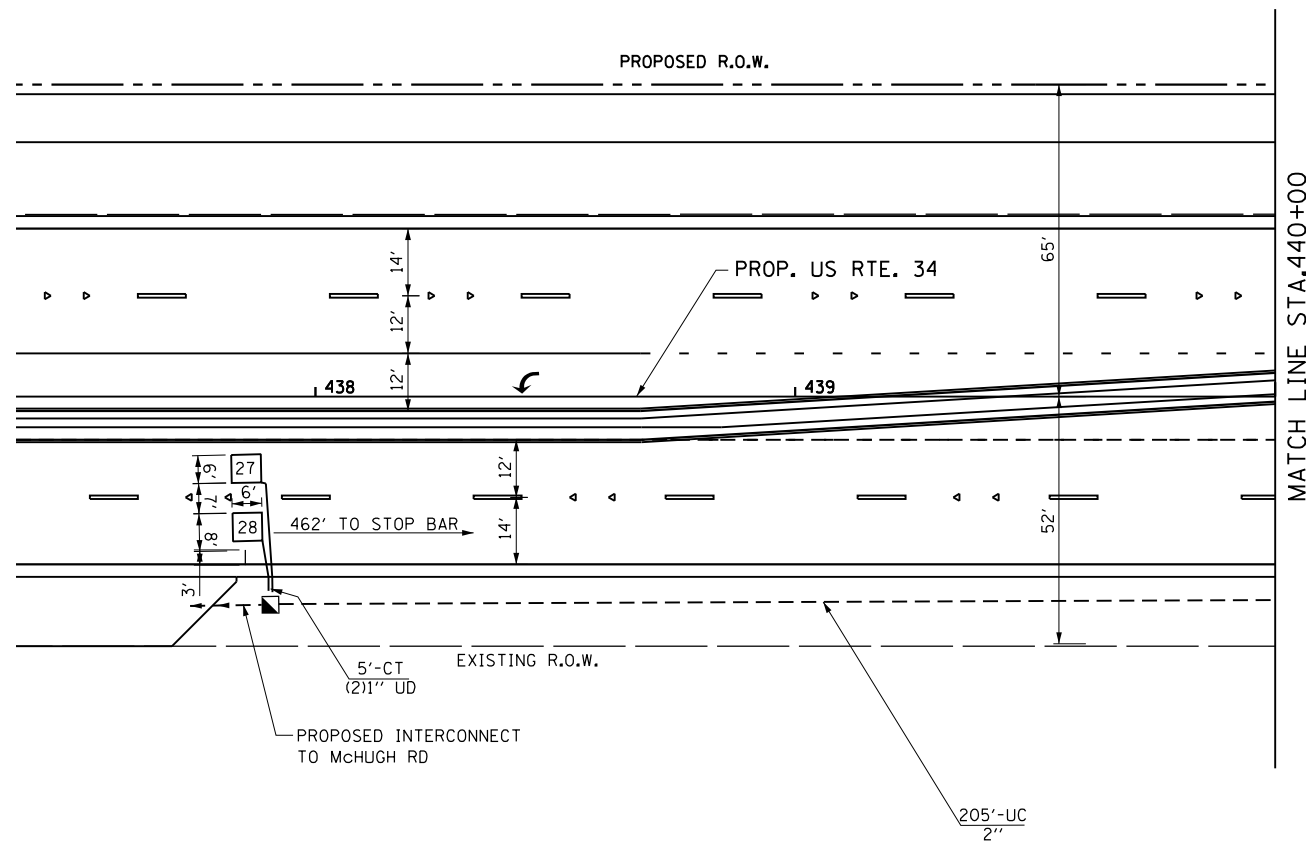
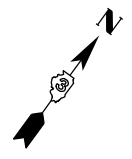
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL INSTALLATION PLAN
US RTE 34 & COUNTRYSIDE PARKWAY**

1"=20'-0" SHEET OF SHEETS STA. 440+00 TO STA. 446+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	447
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

TS-24



MATCH LINE STA. 440+00

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT		
COMMON TRENCH		
HANDHOLE		
HEAVY-DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CAST IRON JUNCTION BOX		
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		
WOOD POLE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		
TELEPHONE CONNECTION		
ILLUMINATED SIGN "NO LEFT TURN"		
ILLUMINATED SIGN "NO RIGHT TURN"		

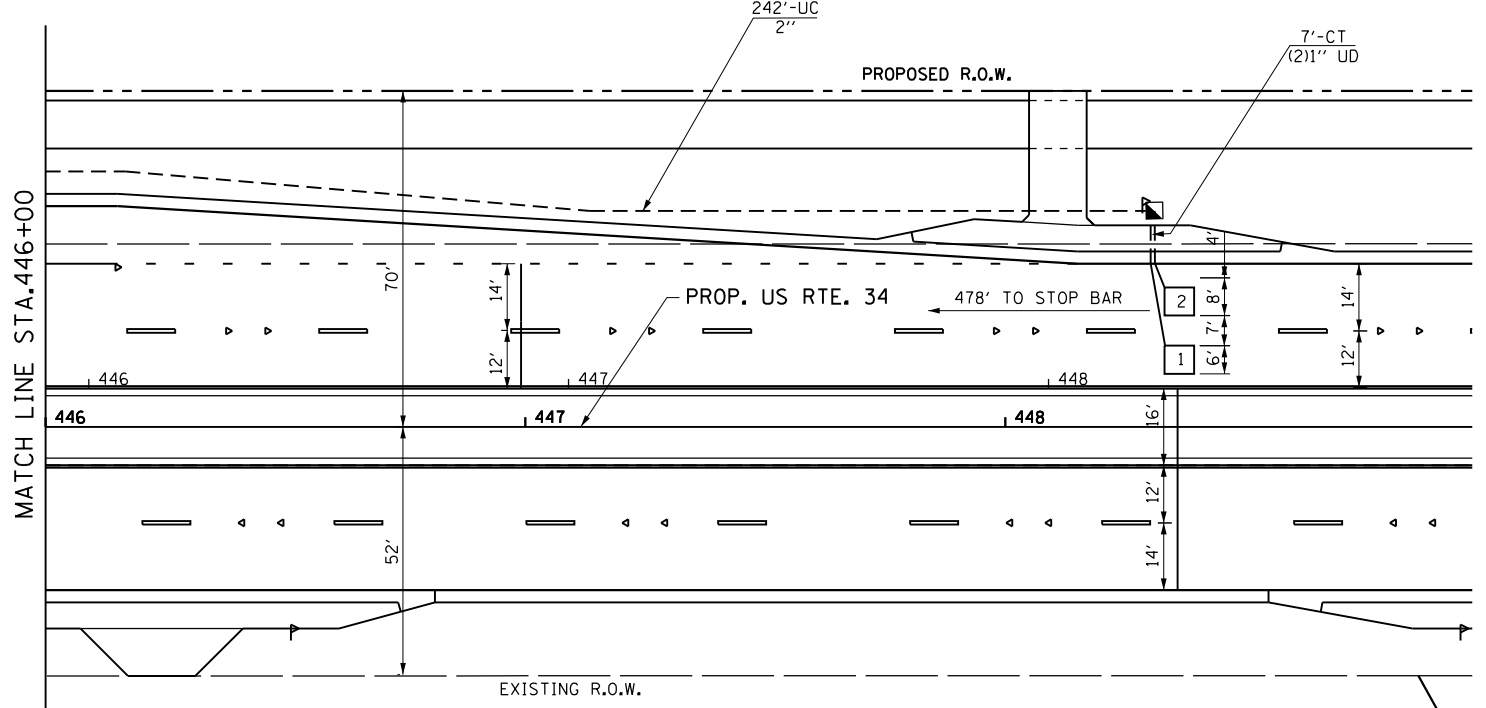
RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT ETC. SHALL 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.

1. THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.
2. THE ELEVATION OF THE DOUBLE HANDHOLE SHALL BE LESS THAN THE ELEVATION OF THE CONTROLLER CABINET.
3. ALL PEDESTRIAN PUSHBUTTONS SHALL BE "4EVR" BRAND.
4. A SELF-ADHERE PHASE DIAGRAM SHALL BE PLACED INSIDE THE CABINET DOOR.

SEE TRAFFIC SIGNAL GENERAL NOTES ON SHEET TS-02

POSTED SPEED LIMIT = 45 MPH

Approach	Detector ID	Turns	Code Number	Coded Pay Item	Loop	Preformed Loop to EOP	Lead-In Wire EOP to Handhole	Slack	Quantity
EAST APPROACH US34	1	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	17'	7'	6'	41'
	2	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	5'	7'	6'	29'
	3	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	35'	6'	6'	59'
	4	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	21'	6'	6'	45'
	5	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	24'	6'	6'	48'
	6	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	36'	6'	6'	60'
								Total	282'
NORTH APPROACH MARKET PLACE	7	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	17'	48'	6'	41'
	8	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	17'	48'	6'	41'
	9	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	36'	17'	6'	60'
	10	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	24'	17'	6'	48'
	11	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	24'	17'	6'	48'
	12	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	4'	48'	6'	28'
	13	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	5'	48'	6'	29'
	14	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	17'	17'	6'	41'
	15	6	88600700	PREFORMED DETECTOR LOOP	8'x6'	8'	17'	6'	36'
	16	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	16'	7'	6'	40'
	17	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	5'	7'	6'	29'
									Total
WEST APPROACH US34	18	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	29'	5'	6'	53'
	19	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	29'	5'	6'	53'
	20	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	34'	5'	6'	58'
	21	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	29'	45'	6'	53'
	22	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	30'	45'	6'	54'
	23	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	17'	45'	6'	41'
	24	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	18'	45'	6'	42'
	25	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	6'	45'	6'	30'
	26	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	6'	45'	6'	30'
	27	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	21'	5'	6'	45'
	28	6	88600700	PREFORMED DETECTOR LOOP	6'x6'	8'	5'	6'	32'
								Total	491'



MATCH LINE STA. 446+00

FILE: F:\Projects\1002 US 34-Countryside\Design\Sheet\New - FCC Per\A\0366884-sh-t-15-25.dgn DATE/TIME: 11/25/2014 1:54:06 PM

AMES Engineering, Inc.
CONSULTING ENGINEERS
5413 Walnut Avenue
Downers Grove, IL 60515

USER NAME = vramesh	DESIGNED - AS	REVISED -
	DRAWN - RV	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - MSA	REVISED -
PLOT DATE = 11/25/2014	DATE - 12/01/2014	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL INSTALLATION PLAN
US RTE 34 & COUNTRYSIDE PARKWAY**

1"=20'-0" SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	448
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

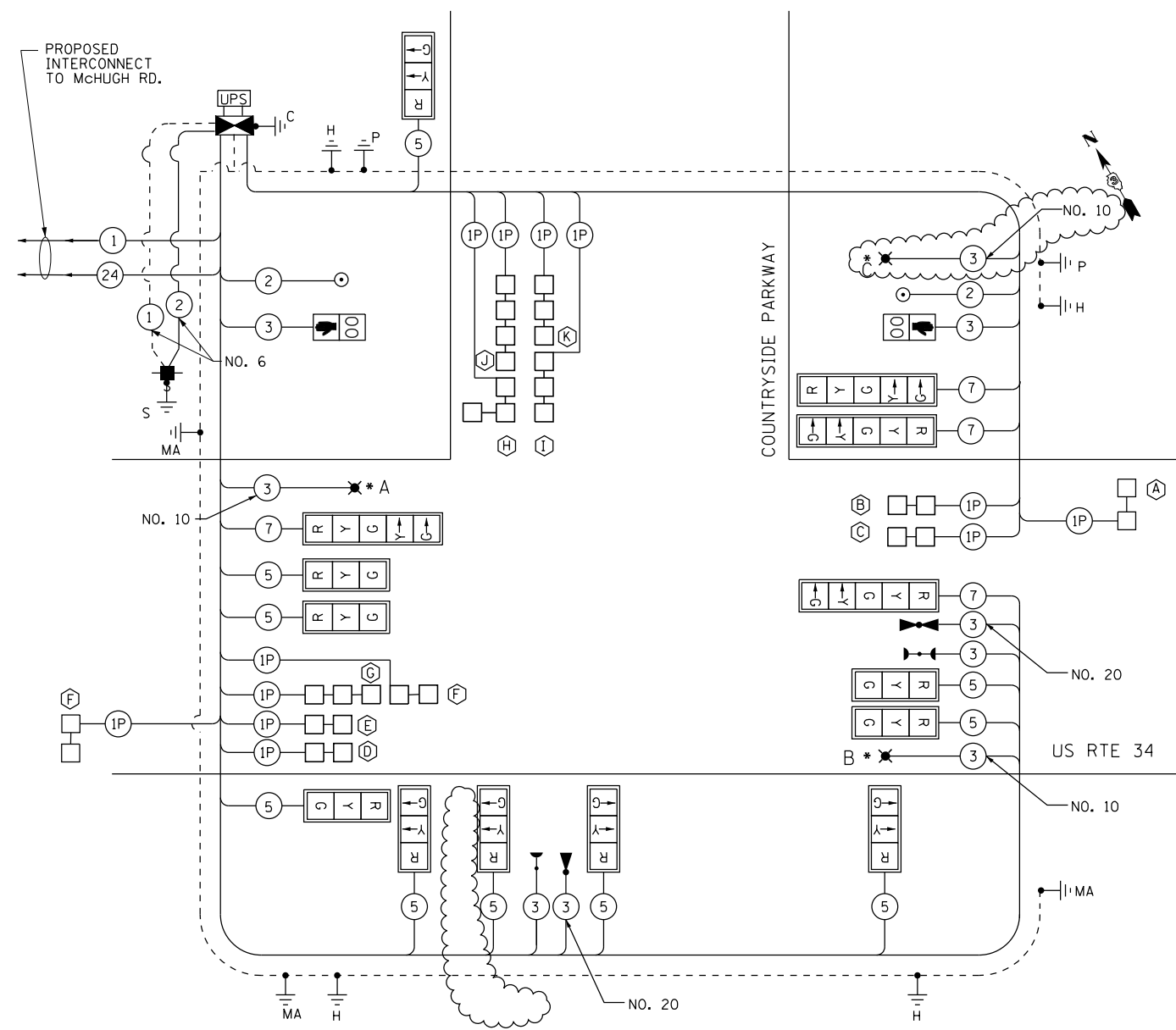
TS-25

CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		COUNT DOWN PEDESTRIAN SIGNAL HEAD
		CONTROLLER CABINET
		SERVICE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		TELEPHONE INSTALLATION
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
2	2	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
1	1	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
24	24	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM24F
		SIGNAL FACE WITH BACKPLATE
"P"	"P"	"P" INDICATES PROGRAMMED HEAD.
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"
H/C	C	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
P	P	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		UNINTERRUPTIBLE POWER SUPPLY
		LUMINAIRE, SODIUM VAPOR HORIZONTAL MOUNT, 250 WATT

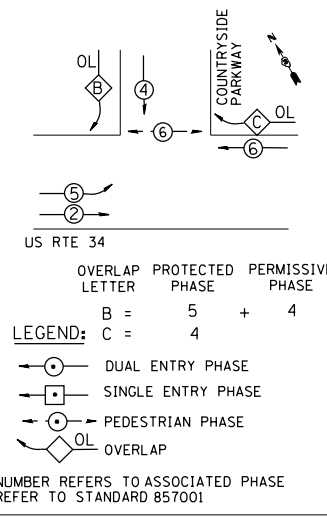
BILL OF MATERIALS

ITEM	UNIT	US Rte 34 @ Countryside
SIGN PANEL - TYPE 2	SQ FT	50
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	950
UNDERGROUND CONDUIT, PVC, 2 1/2" DIA.	FOOT	31
UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	96
UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	240
HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	7
DOUBLE HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	1
UNIT DUCT, 600V, 2-1C NO. 10, 1/C NO. 10 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE	FOOT	97
UNIT DUCT, 600V, 4-1C NO. 10, 1/C NO. 10 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE	FOOT	198
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	3
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, EXTENDED	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	250
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	750
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1800
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	748
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2162
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	80
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 44 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 46 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	6
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	39
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	6
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED WITH COUNT DOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	14
INDUCTIVE LOOP DETECTOR	EACH	11
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	2
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	4
REMOVE EXISTING HANDHOLE	EACH	8
REMOVE EXISTING CONCRETE FOUNDATION	EACH	5
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	500
PREFORMED DETECTOR LOOP	FOOT	1214
OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1
SERVICE INSTALLATION, TYPE B	EACH	1
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	343
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 20 3C TWISTED SHIELDED	FOOT	500
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	91
RE-OPTIMIZE TEMPORARY TRAFFIC SIGNAL SYSTEM	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	200
STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1
LIGHT POLE, ALUMINUM, 45 FT. M.H., 15' DAVIT ARM	EACH	1
LIGHT POLE FOUNDATION, METAL, 15" BOLT CIRCLE, 8" X 6"	EACH	1
UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 2" DIA.	FOOT	8
BREAKAWAY DEVICE, COUPLING WITH STAINLESS STEEL SCREEN	EACH	4
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 10	FOOT	140
TEMPORARY LIGHTING SYSTEM	LSUM	1

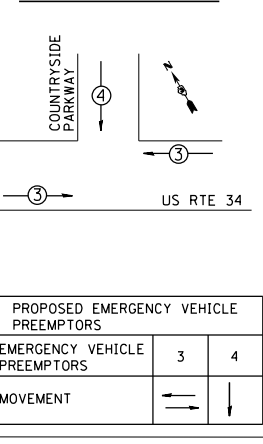


NOTE:
J PIN STATUS ARE OFF FOR B, C, D AND E.

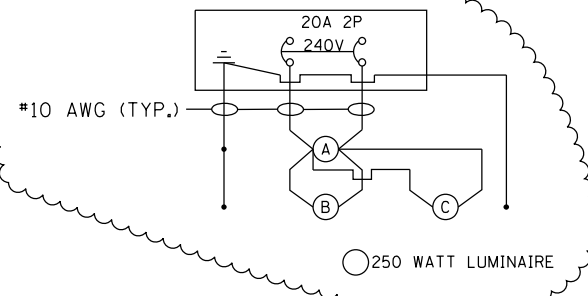
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LIGHTING CIRCUIT DIAGRAM



* LUMINAIRE SHALL BE CONNECTED TO EXISTING LIGHTING CONTROLLER (SEE TS-24)
AGENCY RESPONSIBLE FOR ENERGY CHARGES: CITY OF YORKVILLE
CONTRACTOR PAYS ALL ENERGY CHARGES UNTIL PROJECT IS ACCEPTED

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL VOLTAGE
TYPE	NO. LAMPS	WATTAGE INCAND	WATTAGE LED	% OPERATION	
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	87.5
(GREEN)	14	135	15	0.25	52.5
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	-
FLASHER				0.50	-
TOTAL =					418.6

ENERGY COST TO: Illinois Department of Transportation
Division of Highways / District 3
700 E. Norris Dr., Ottawa, IL 61350
ENERGY SUPPLY: CONTACT: Mr. Thomas Perkins
PHONE: 630-723-2127
COMPANY: ComEd

<p>AMES Engineering, Inc. CONSULTING ENGINEERS 5413 Walnut Avenue Downers Grove, IL 60515</p>	USER NAME = duncanbd	DESIGNED - AS	REVISED - BDD 10/02/2015
	PLOT SCALE = 40.0000' / in.	DRAWN - RV	REVISED -
	PLOT DATE = 10/5/2015	CHECKED - MSA	REVISED -
		DATE - 12/01/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DIAGRAM & SCHEDULE OF QUANTITIES				
US RTE 34 & COUNTRYSIDE PARKWAY				
NONE	SHEET	OF	SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	449
CONTRACT NO. 66884				

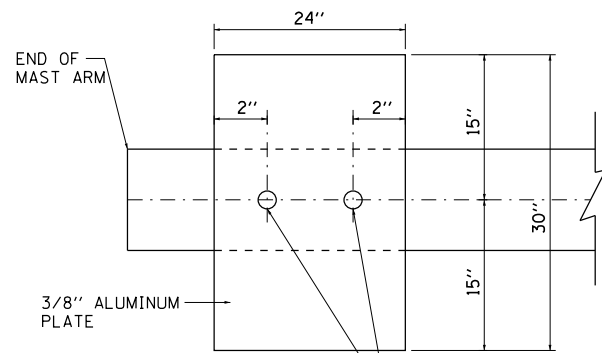
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TS-26

ILLINOIS FED. AID PROJECT

NOTE:

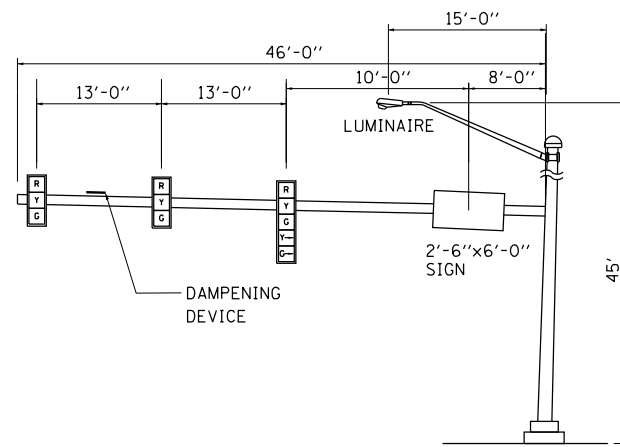
DAMPING DEVICE SHALL CONSIST OF A 24"X30" TYPE 1, UNPAINTED ALUMINUM SIGN STOCK MOUNTED HORIZONTALLY ON TOP OF MAST ARM WITH THE 30" LENGTH PERPENDICULAR TO THE ARM. COST OF THE DAMPING DEVICE IS INCLUDED IN THE MAST ARM PAY ITEM.



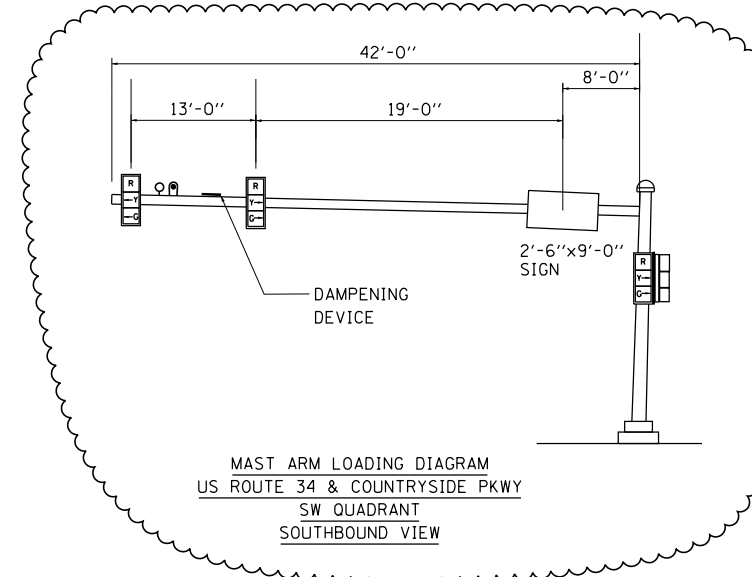
2-5/8" STAINLESS STEEL BOLTS THRU STAINLESS STEEL BANDING

NOTE
MOUNT DAMPING PLATE TO END OF EACH TRAFFIC SIGNAL MAST ARM

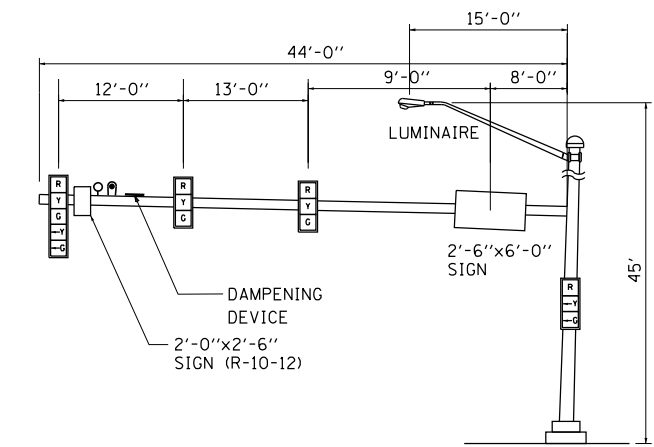
DAMPING PLATE DETAIL - TOP VIEW



MAST ARM LOADING DIAGRAM
US ROUTE 34 & COUNTRYSIDE PKWY
NW QUADRANT
WESTBOUND VIEW

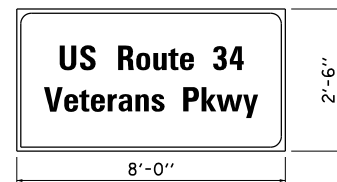


MAST ARM LOADING DIAGRAM
US ROUTE 34 & COUNTRYSIDE PKWY
SW QUADRANT
SOUTHBOUND VIEW

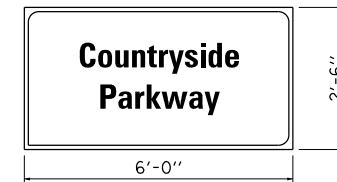


MAST ARM LOADING DIAGRAM
US ROUTE 34 & COUNTRYSIDE PKWY
SE QUADRANT
EASTBOUND VIEW

FOUNDATION DEPTH TABLE		
TYPE	LOCATION	FOUNDATION DEPTH
46' COMBINATION MAST ARM	NW QUADRANT US RTE 34 & COUNTRYSIDE PKWY	14'
44' COMBINATION MAST ARM	SE QUADRANT US RTE 34 & COUNTRYSIDE PKWY	13'
42' MAST ARM	SW QUADRANT US RTE 34 & COUNTRYSIDE PKWY	13'



3/4" BORDER
8" D SERIES LETTERS
TYPE ZZ SHEETING REQUIRED
1 SIGN REQUIRED= 20.0 SQ FT EACH
= 20.0 SQ FT TOTAL



3/4" BORDER
8" D SERIES LETTERS
TYPE ZZ SHEETING REQUIRED
2 SIGNS REQUIRED= 15.0 SQ FT EACH
= 30.0 SQ FT TOTAL

NOTES:

1. ALL SIGNAL HEADS HAVE BACKPLATES.
2. ALL MAST ARM FOUNDATIONS TO BE 36" DIAMETER.
3. DAMPING DEVICE SHALL CONSIST OF A 24"X30" TYPE-1, UNPAINTED ALUMINUM SIGN STOCK MOUNTED HORIZONTALLY ON TOP OF MAST ARM WITH THE 30" LENGTH PERPENDICULAR TO THE ARM. COST OF THE DAMPING DEVICE SHALL BE INCLUDED IN THE COST OF MAST ARM PAY ITEM.
4. ARM SUPPORT FOR LUMINAIRE SHALL BE PARALLEL TO MAST ARM UNLESS SHOWN ON PLAN.
5. FOUNDATION DEPTHS ARE BASED ON HIGHWAY STANDARD 878001-08. THE CONTRACTOR SHALL VERIFY THE SOIL STRENGTH TO THE DEPTH OF FOUNDATION AT EACH PROPOSED LOCATION. BUREAU OF BRIDGES & STRUCTURES SHOULD BE CONTACTED FOR A REVISED DESIGN IF CONDITIONS OTHER THAN STATED IN STANDARD 878001-08 ARE ENCOUNTERED.

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AMES Engineering, Inc.
CONSULTING ENGINEERS
5413 Walnut Avenue
Downers Grove, IL 60515

USER NAME = duncanbd
DESIGNED - AS
DRAWN - RV
PLOT SCALE = 48.0000' / in.
CHECKED - MSA
PLOT DATE = 10/5/2015

DESIGNED - AS
DRAWN - RV
CHECKED - MSA
DATE - 12/01/2014

REVISED - BDD 10/02/2015
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAST ARM LOADING DIAGRAM & SIGN DETAILS
US RTE 34 AND COUNTRYSIDE PARKWAY

SHEET OF SHEETS STA. TO STA.

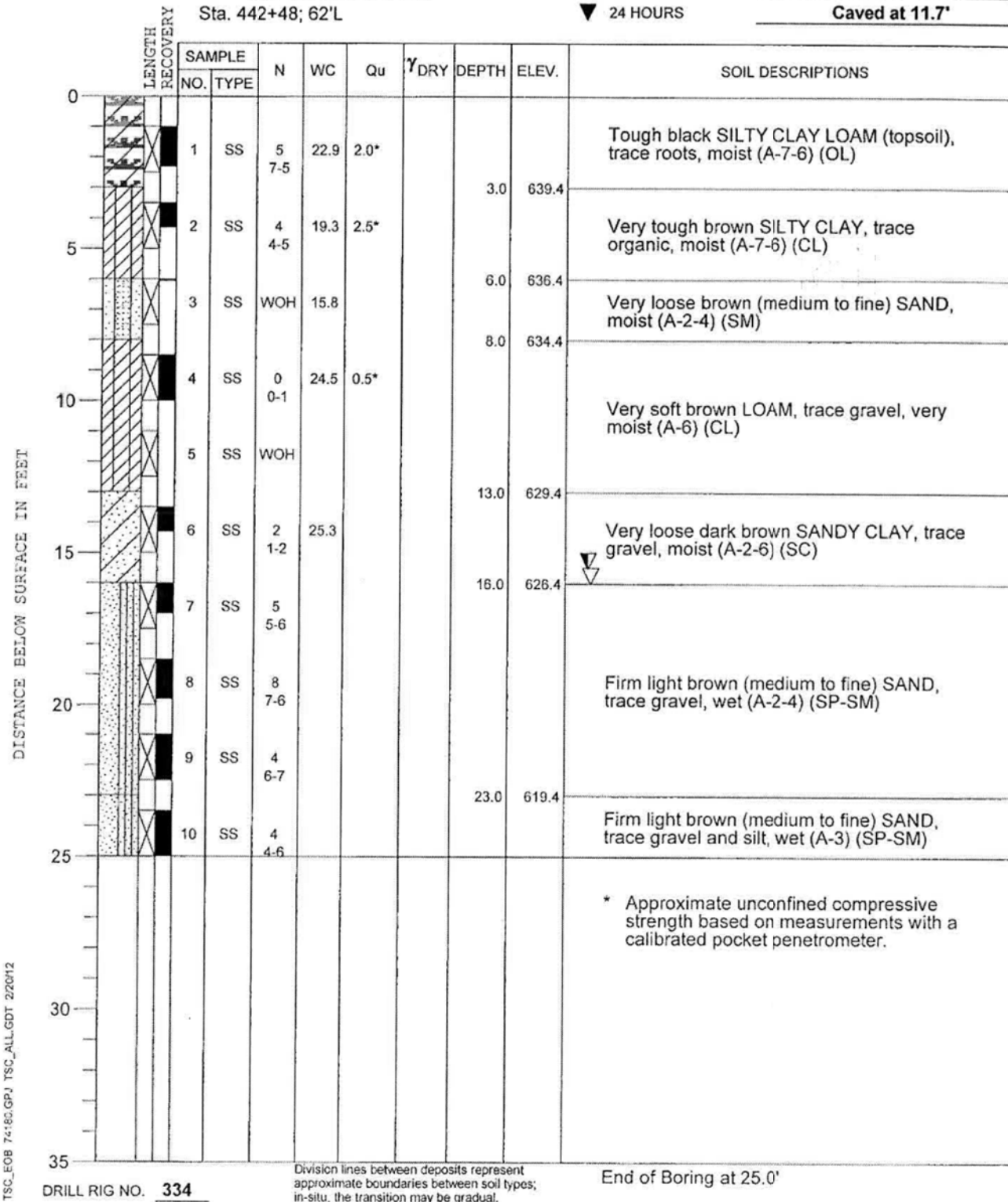
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	450
				CONTRACT NO. 66884
ILLINOIS FED. AID PROJECT				

PROJECT U.S. Route 34 Reconstruction and Widening, Yorkville, Illinois

CLIENT GRAEF, Chicago, Illinois

BORING 502 DATE STARTED 11-4-11 DATE COMPLETED 11-4-11 JOB L-74,180

ELEVATIONS WATER LEVEL OBSERVATIONS
 GROUND SURFACE 642.4 WHILE DRILLING 15.5'
 END OF BORING 617.4 AT END OF BORING 16.0'
 24 HOURS Caved at 11.7'



DRILL RIG NO. 334

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

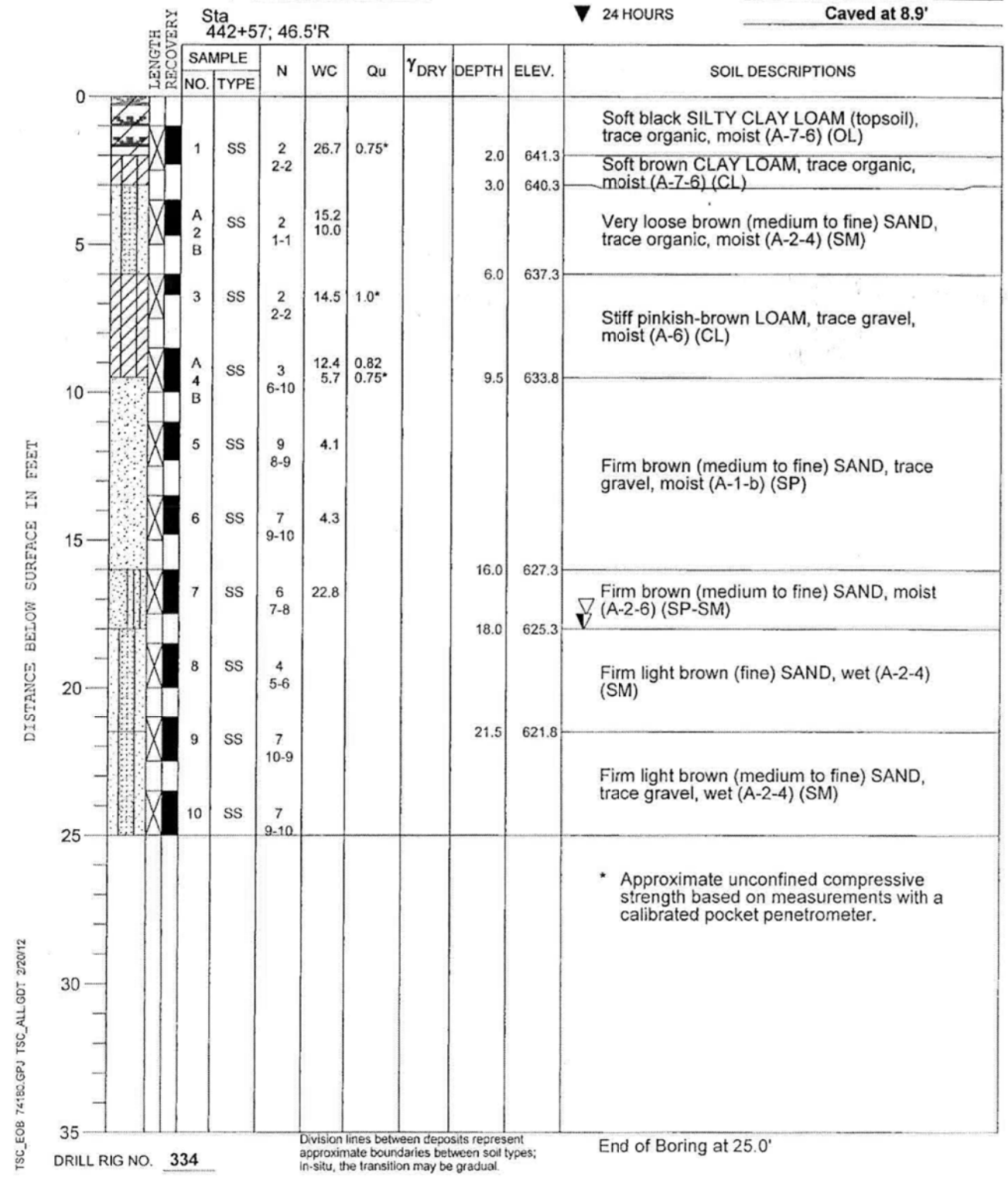
End of Boring at 25.0'

PROJECT U.S. Route 34 Reconstruction and Widening, Yorkville, Illinois

CLIENT GRAEF, Chicago, Illinois

BORING 503 DATE STARTED 11-4-11 DATE COMPLETED 11-4-11 JOB L-74,180

ELEVATIONS WATER LEVEL OBSERVATIONS
 GROUND SURFACE 643.3 WHILE DRILLING 18.0'
 END OF BORING 618.3 AT END OF BORING 17.5'
 24 HOURS Caved at 8.9'



DRILL RIG NO. 334

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

End of Boring at 25.0'

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AMES Engineering, Inc.
 CONSULTING ENGINEERS
 5413 Walnut Avenue
 Downers Grove, IL 60515

USER NAME - Vramesh	DESIGNED - AS	REVISED -
PLOT SCALE - 48.0000' / in.	DRAWN - RV	REVISED -
PLOT DATE - 11/25/2014	CHECKED - MSA	REVISED -
	DATE - 12/01/2014	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

US 34 AND COUNTRYSIDE PARKWAY
 BORING LOGS

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	451
			CONTRACT NO. 66884	
ILLINOIS FED. AID PROJECT				

TS-28

PROJECT **U.S. Route 34 Reconstruction and Widening, Yorkville, Illinois**

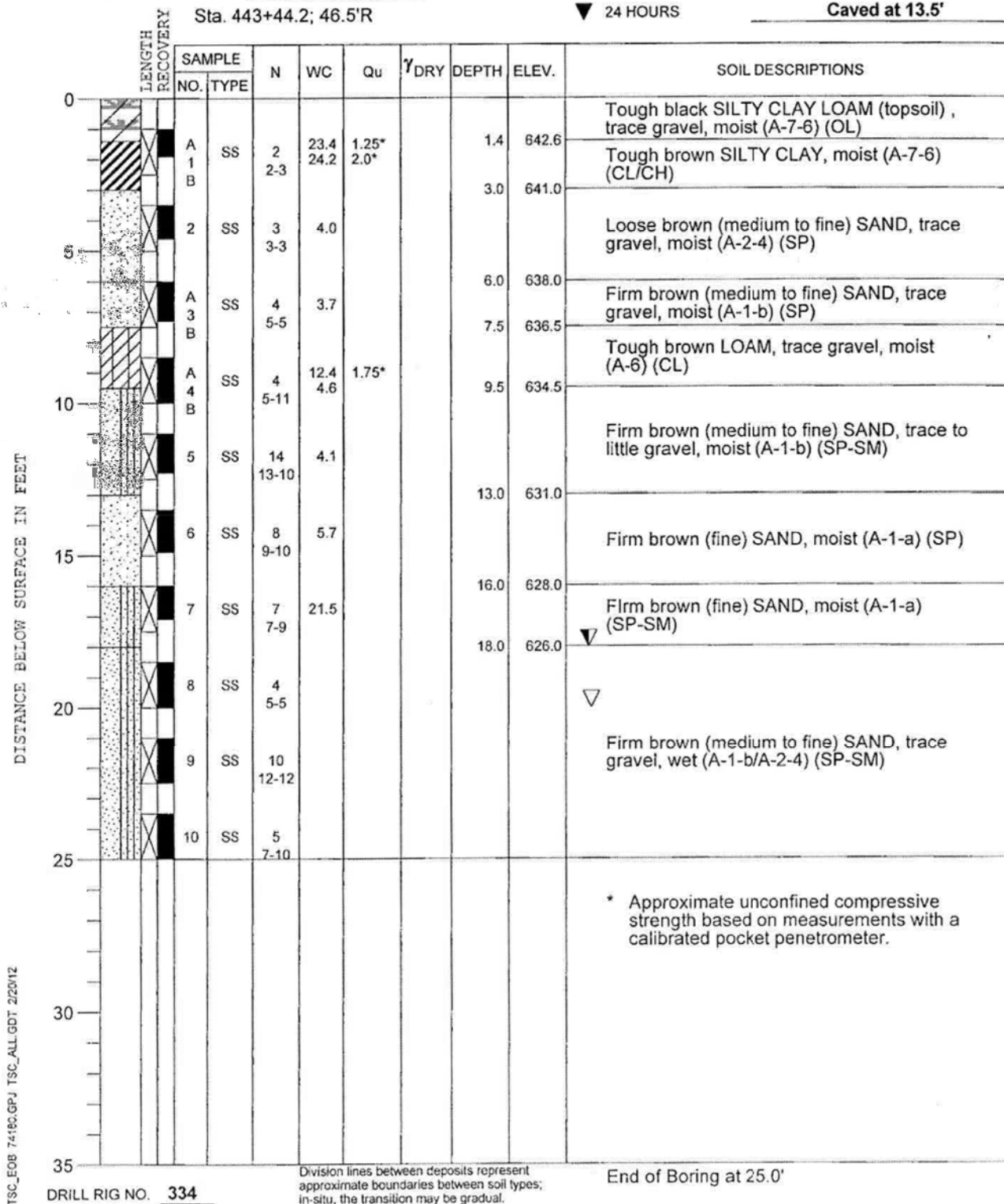


CLIENT **GRAEF, Chicago, Illinois**

BORING **504** DATE STARTED **11-4-11** DATE COMPLETED **11-4-11** JOB **L-74,180**

ELEVATIONS
 GROUND SURFACE **644.0**
 END OF BORING **619.0**

WATER LEVEL OBSERVATIONS
 WHILE DRILLING **18.0'**
 AT END OF BORING **20.0'**
 24 HOURS **Caved at 13.5'**



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AMES Engineering, Inc.
 CONSULTING ENGINEERS
 5413 Walnut Avenue
 Downers Grove, IL 60515

USER NAME = Vramesh	DESIGNED - AS	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - RV	REVISED -
PLOT DATE = 11/25/2014	CHECKED - MSA	REVISED -
	DATE - 12/01/2014	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**US 34 AND COUNTRYSIDE PARKWAY
 BORING LOGS**

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T)	KENDALL	753	452
CONTRACT NO. 66884			ILLINOIS FED. AID PROJECT	

TEMPORARY TRAFFIC SIGNAL LEGEND

- ← TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
- ↖ TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
- ⊗ TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM
- ☒ TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE AND CABLE
- ⊕ TEMPORARY SERVICE INSTALLATION
- ⊠ TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- ⊕ VIDEO DETECTION SYSTEM
- ⊕ PEDESTRIAN PUSHBUTTON DETECTOR
- ⊕ EMERGENCY VEHICLE LIGHT DETECTOR
- ⊕ CONFIRMATION BEACON
- ⊕ VEHICLE DETECTOR, INDUCTION LOOP
- UD UNIT DUCT
- - - G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- ⊕ HANDHOLE
- ⊕ HEAVY DUTY HANDHOLE
- CT COMMON TRENCH
- GUY WIRE
- ⊕ RADIO INTERCONNECT
- ★ LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT

EXISTING EQUIPMENT TO BE REMOVED LEGEND

- ⊕ EXISTING SIGNAL HEAD TO BE REMOVED
- ⊕ EXISTING SERVICE INSTALLATION TO BE REMOVED
- ⊕ EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- ⊕ EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- ⊕ EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- ⊕ EXISTING HANDHOLE TO BE REMOVED
- ⊕ EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- ⊕ EXISTING PEDESTRIAN PUSHBUTTON TO BE REMOVED
- ⊕ EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- ⊕ CONFIRMATION BEACON TO BE REMOVED
- ⊕ EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- ⊕ EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED
- ⊕ EXISTING EXISTING JUNCTION BOX TO BE REMOVED

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE CITY OF YORKVILLE AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE CITY TRAFFIC SIGNAL MAINTENANCE FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS:

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

NOTES FOR TEMPORARY LIGHTING

- 1. TEMPORARY LIGHTING SHALL BE PROVIDED AS DESCRIBED IN THE SPECIAL PROVISION "TEMPORARY LIGHTING SYSTEM".

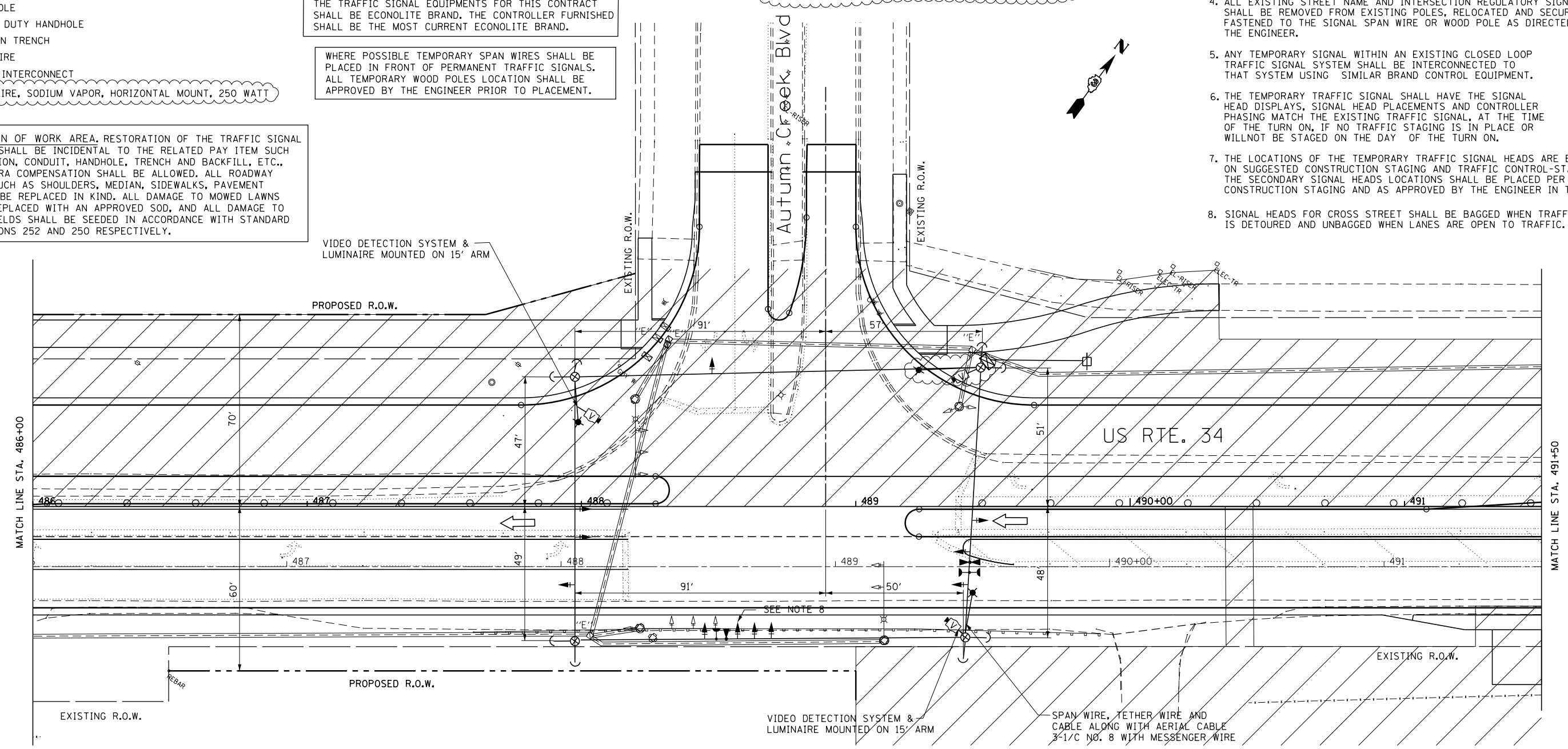
THE TRAFFIC SIGNAL EQUIPMENTS FOR THIS CONTRACT SHALL BE ECONOLITE BRAND. THE CONTROLLER FURNISHED SHALL BE THE MOST CURRENT ECONOLITE BRAND.

WHERE POSSIBLE TEMPORARY SPAN WIRES SHALL BE PLACED IN FRONT OF PERMANENT TRAFFIC SIGNALS. ALL TEMPORARY WOOD POLES LOCATION SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.

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, MEDIAN, 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 3, INSTALLED IN A NEMA TS1 OF 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 12" (300mm). HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. 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. THE LOCATIONS OF THE TEMPORARY TRAFFIC SIGNAL HEADS ARE BASED ON SUGGESTED CONSTRUCTION STAGING AND TRAFFIC CONTROL-STAGE 1. THE SECONDARY SIGNAL HEADS LOCATIONS SHALL BE PLACED PER OTHER CONSTRUCTION STAGING AND AS APPROVED BY THE ENGINEER IN THE FIELD.
8. SIGNAL HEADS FOR CROSS STREET SHALL BE BAGGED WHEN TRAFFIC IS DETOURED AND UNBAGGED WHEN LANES ARE OPEN TO TRAFFIC.



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CONSULTING ENGINEERS
5413 Walnut Avenue
Downers Grove, IL 60515

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	DATE - 12/01/2014	REVISED -

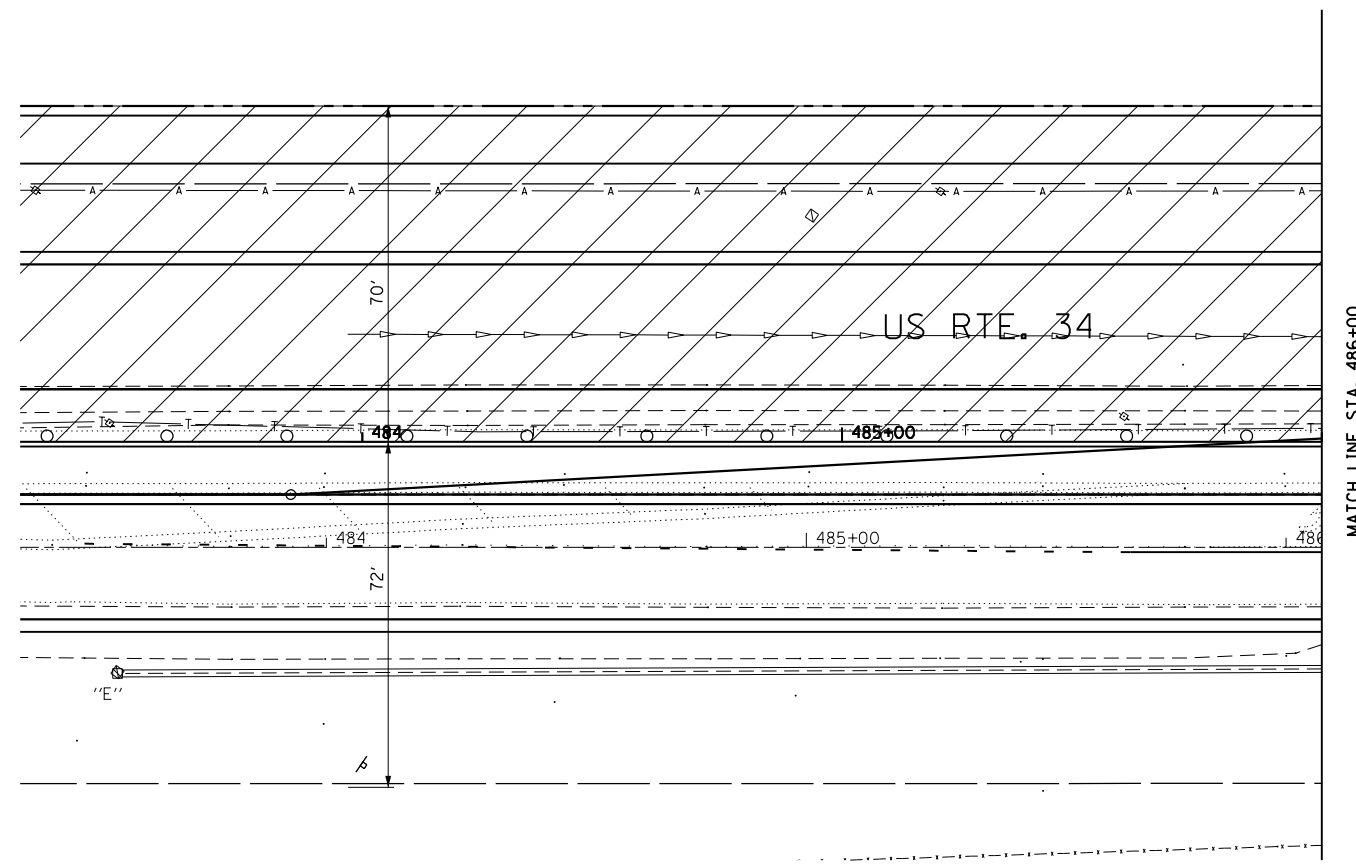
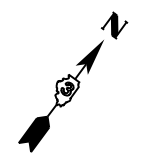
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL AND REMOVAL PLAN
AT US 34 AND AUTUMN CREEK BLVD.**

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T)	KENDALL	753	453
			CONTRACT NO. 66884	
ILLINOIS FED. AID PROJECT				

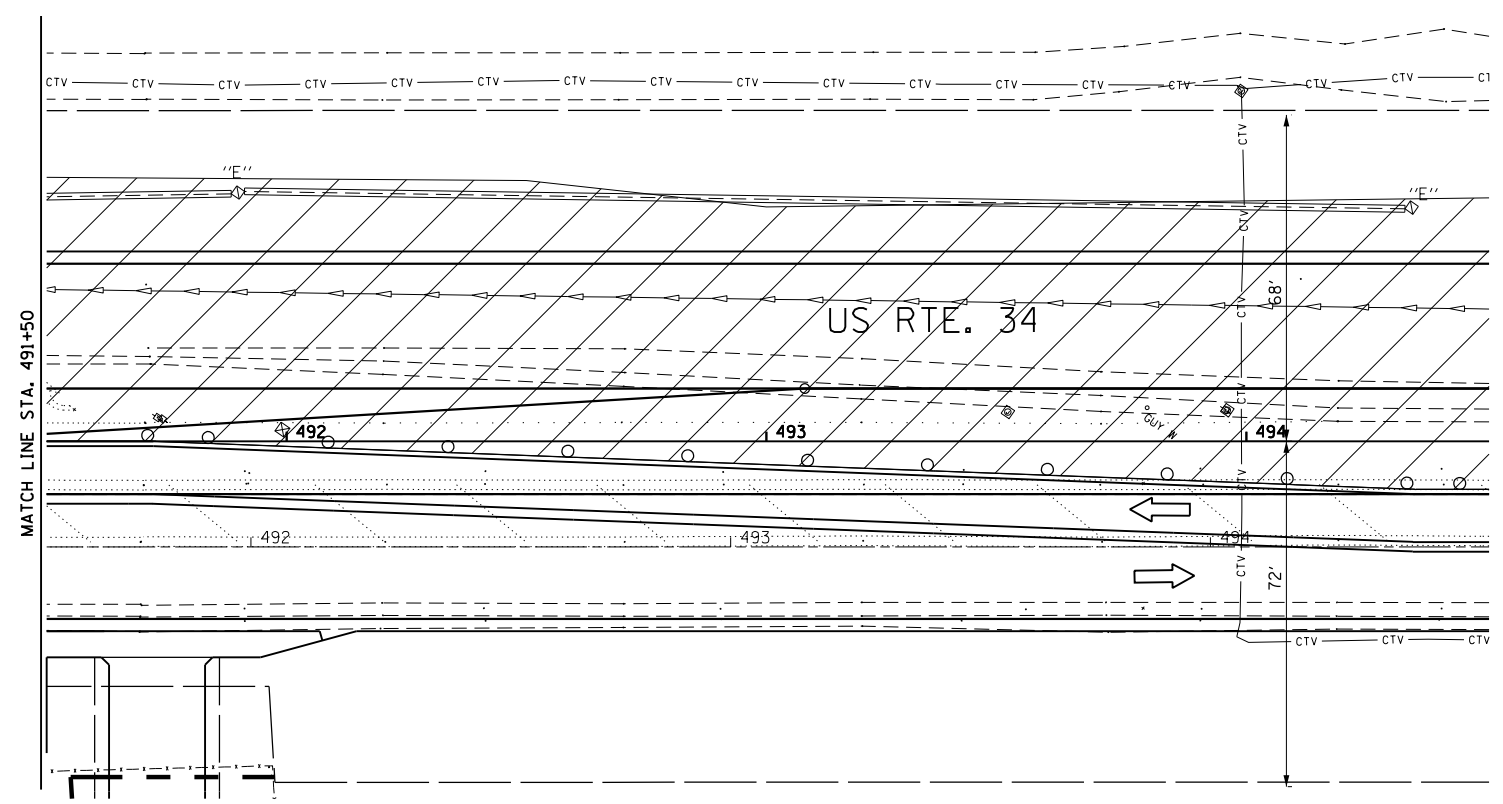
TS-30



MATCH LINE STA. 486+00

TEMPORARY TRAFFIC SIGNAL LEGEND

- ← TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
- ⊗ TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM
- ⊠ TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE AND CABLE
- ⊞ TEMPORARY SERVICE INSTALLATION
- ⊞ TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- ⊞ VIDEO DETECTION SYSTEM
- ⊞ PEDESTRIAN PUSHBUTTON DETECTOR
- ⊞ EMERGENCY VEHICLE LIGHT DETECTOR
- ⊞ CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- UD UNIT DUCT
- G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- ⊞ HANDHOLE
- ⊞ HEAVY DUTY HANDHOLE
- CT COMMON TRENCH
- GUY WIRE
- ⊞ RADIO INTERCONNECT
- ★ LUMINAIRE



MATCH LINE STA. 491+50

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 5413 Walnut Avenue
 Downers Grove, IL 60515

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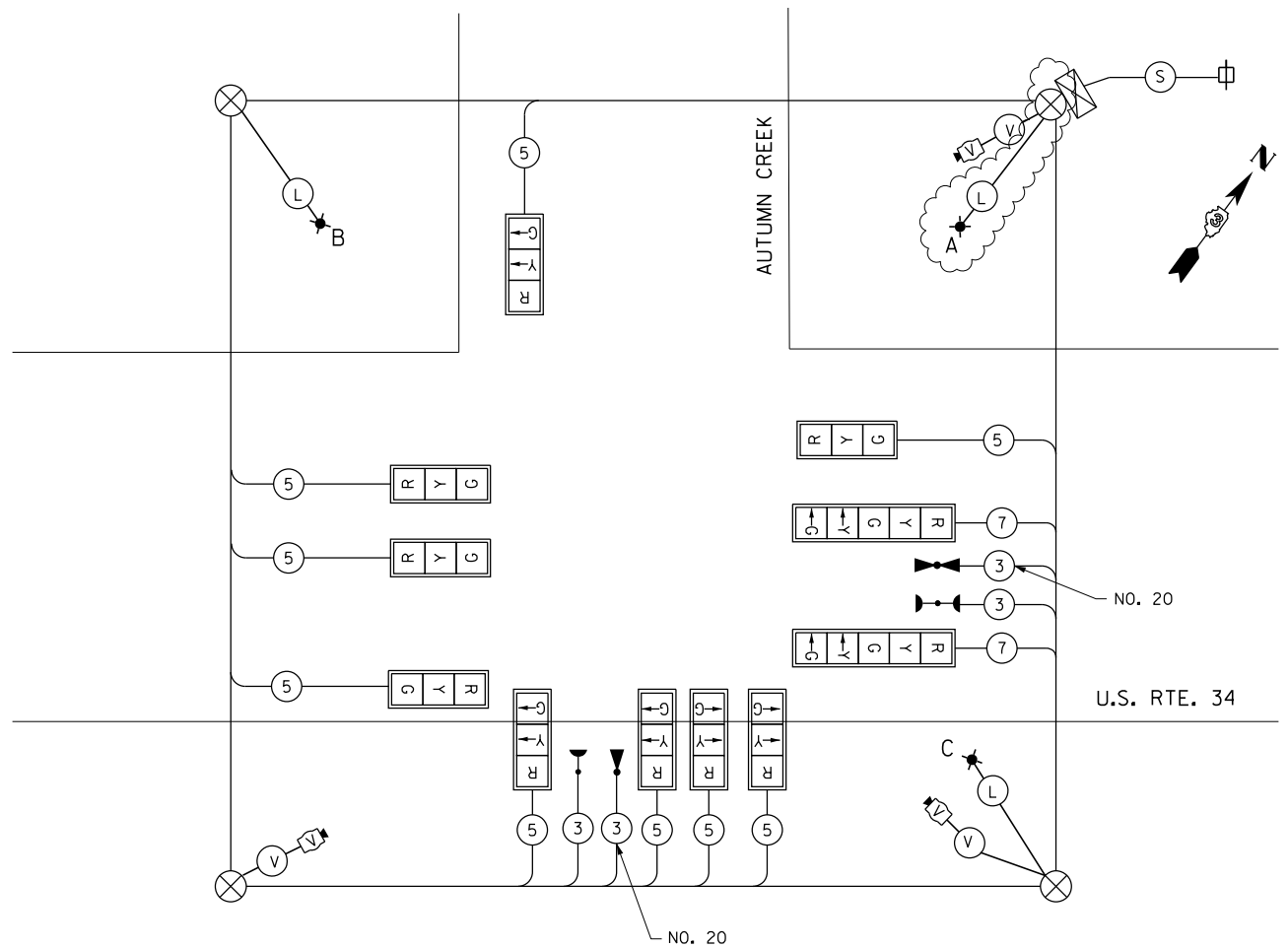
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL AND REMOVAL PLAN
 AT US 34 AND AUTUMN CREEK BLVD.-2**

SHEET	OF	SHEETS	STA.	TO	STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	454
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

TS-31



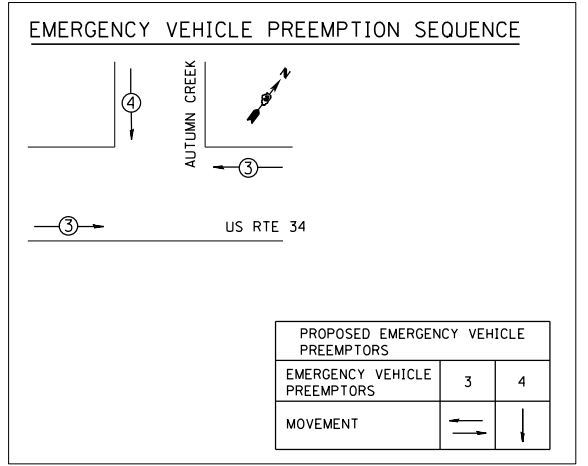
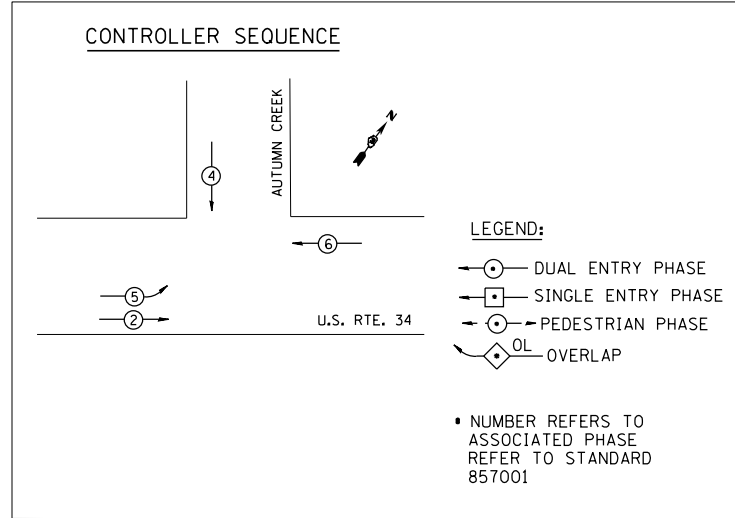
TEMPORARY CABLE PLAN
N.T.S.

TEMPORARY CABLE DIAGRAM LEGEND

- TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION 12" (300mm)
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SERVICE INSTALLATION
- INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED.
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- PEDESTRIAN PUSHBUTTON DETECTOR
- 12" (300mm) PEDESTRIAN SIGNAL SECTION
- VIDEO DETECTION SYSTEM
- GROUND ROD AT ELECTRIC SERVICE INSTALLATION
- LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM

- VIDEO CAMERA CABLE
 - 6 PAIRS TWISTED REQUIRED
 - 3 PAIRS CONDUCTOR FOR POWER -24V AC (AC+, AC-, GND)
 - 1 PAIR DATA
 - 1 PAIR COMPOSITE VIDEO
 - 1 PAIR DETECTOR DATA
 - OVERALL SHIELD MINIMUM 16 AWG (PAIRS) (TO BE INCLUDED IN THE BID PRICE FOR TEMPORARY TRAFFIC SIGNAL INSTALLATION)
- SERVICE CABLE
 - ELECTRIC CABLE IN CONDUIT, SERVICE NO. 6 2C
- LIGHTING CABLE
 - 600V (XLP-TYPE USE) 3 1/C NO. 10

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, MEDIAN, 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.



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL VOLTAGE
TYPE	NO. LAMPS	WATTAGE INCAND	WATTAGE LED	% OPERATION	
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	4	135	12	0.10	4.8
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	-
LUMINAIRE	2	250		0.50	250
FLASHER				0.50	
TOTAL =					608.25

ENERGY COST TO: Illinois Department of Transportation
Division of Highways / District 3
700E Norris Drive, Ottawa, ILL 61350-0697
ENERGY SUPPLY: CONTACT: Mr. Thomas Perkins
PHONE: 630-723-2127
COMPANY: ComEd

AMES Engineering, Inc.
CONSULTING ENGINEERS
5413 Walnut Avenue
Downers Grove, IL 60515

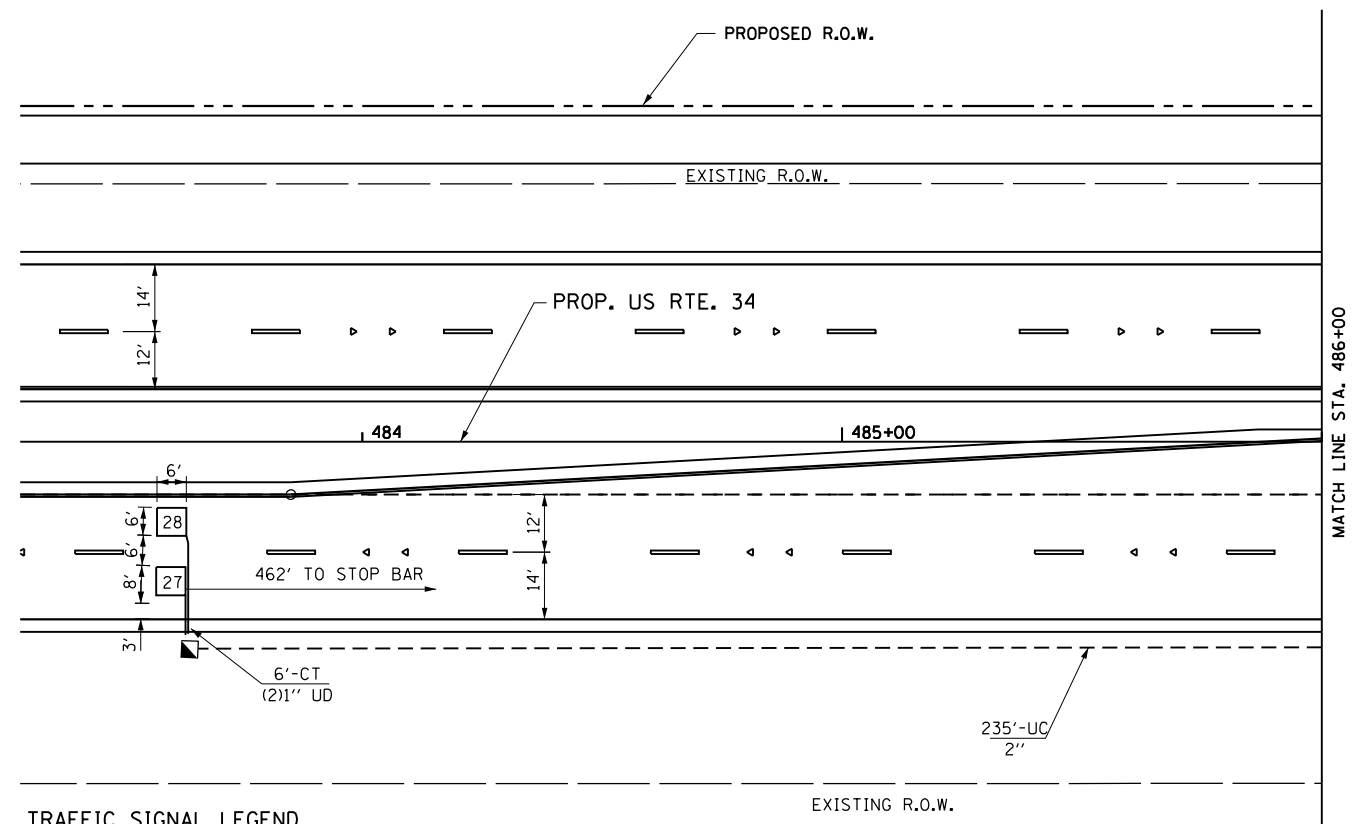
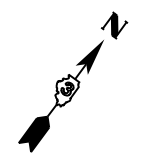
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DATE - 12/01/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN AND PHASE DESIGNATION DIAGRAM
US ROUTE 34 & AUTUMN CREEK

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	455
CONTRACT NO. 66884				

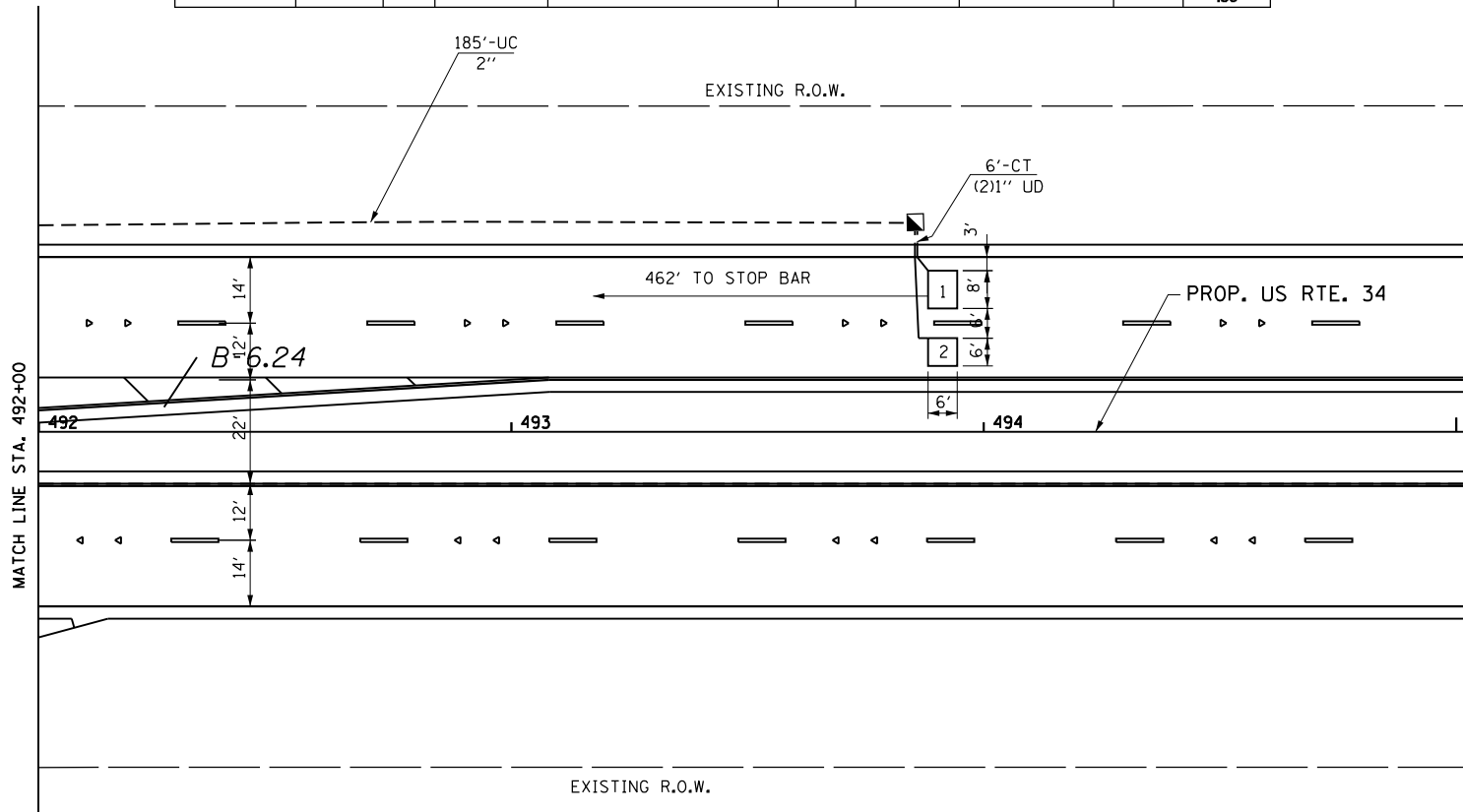
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Approach	Detector ID	Turns	Code Number	Coded Pay Item	Loop	Preformed Loop to EOP	Lead-In Wire EOP to Handhole	Slack	Quantity
EAST APPROACH US34	1	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	5'	6'	6'	29'
	2	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	18'	6'	6'	42'
	3	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	6'	45'	6'	30'
	4	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	19'	45'	6'	43'
	5	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	19'	45'	6'	43'
	6	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	8'	45'	6'	32'
								Total	219'
NORTH APPROACH MARKET PLACE	7	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	42'	9'	6'	66'
	8	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	53'	9'	6'	77'
	9	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	27'	56'	6'	51'
	10	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	17'	56'	6'	41'
	11	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	17'	56'	6'	41'
	12	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	5'	56'	6'	29'
	13	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	3'	56'	6'	27'
	14	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	14'	56'	6'	38'
	15	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	35'	9'	6'	59'
	16	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	26'	9'	6'	50'
								Total	516'
WEST APPROACH US34	18	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	34'	4'	6'	58'
	19	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	29'	4'	6'	53'
	20	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	30'	4'	6'	54'
	21	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	29'	34'	6'	53'
	22	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	18'	34'	6'	42'
	23	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	7'	34'	6'	31'
	24	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	5'	34'	6'	29'
	25	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	17'	34'	6'	41'
	26	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	30'	34'	6'	54'
	27	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	5'	6'	6'	29'
	28	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	18'	6'	6'	42'
									Total

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT		
COMMON TRENCH		
HANDHOLE		
HEAVY-DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CAST IRON JUNCTION BOX		
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		
WOOD POLE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		
TELEPHONE CONNECTION		
ILLUMINATED SIGN "NO LEFT TURN"		
ILLUMINATED SIGN "NO RIGHT TURN"		



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 CONSULTING ENGINEERS
 5413 Walnut Avenue
 Downers Grove, IL 60515

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	DATE - 12/01/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION PLAN
US RTE 34 & AUTUMN CREEK BLVD.

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	457
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

TS-34

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I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL VOLTAGE
TYPE	NO. LAMPS	WATTAGE INCAND	WATTAGE LED	% OPERATION	
SIGNAL (RED)	13	135	17	0.50	110.5
(YELLOW)	13	135	25	0.25	81.25
(GREEN)	13	135	15	0.25	48.75
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	-
LUMINAIRE	3	250		0.50	375
FLASHER				0.50	-
TOTAL =					770.3

ENERGY COST TO: Illinois Department of Transportation
Division of Highways / District 3
700 E. Norris Dr., Ottawa, IL 61350

ENERGY SUPPLY: CONTACT: Mr. Thomas Perkins
PHONE: 630-723-2127
COMPANY: ComEd

AMES Engineering, Inc.
CONSULTING ENGINEERS
5413 Walnut Avenue
Downers Grove, IL 60515

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DRAWN - RV
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PLOT DATE = 10/5/2015

REVISOR - BDD 10/02/2015
REVISOR -
CHECKED - MSA
DATE - 12/01/2014

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DIAGRAM & SCHEDULE OF QUANTITIES
US RTE 34 & AUTUMN CREEK BLVD.

NONE SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	458
CONTRACT NO. 66884				

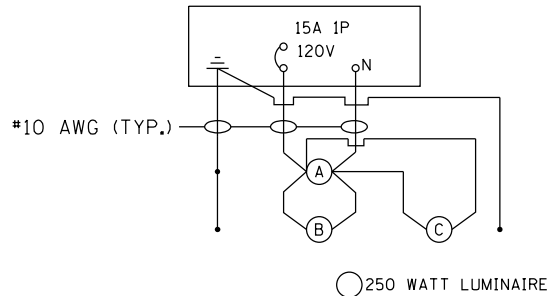
ILLINOIS FED. AID PROJECT

TS-35

BILL OF MATERIALS

ITEM	UNIT	US Rte 34 @ Autumn Creek
SIGN PANEL - TYPE 2	SO FT	50
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	996
UNDERGROUND CONDUIT, PVC, 2 1/2" DIA.	FOOT	41
UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	37
UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	232
HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	7
DOUBLE HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	1
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 6, 1/C NO. 6 GROUND	FOOT	10
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 10	EACH	438
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	3
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	FOOT	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, EXTENDED	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	214
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	760
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1600
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	276
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2733
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	166
TRAFFIC SIGNAL POST, GALVANIZED STEEL, 16 FT.	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 40 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 44 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	6
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	37
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	5
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	6
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED WITH COUNT DOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	13
INDUCTIVE LOOP DETECTOR	EACH	12
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	2
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	4
REMOVE EXISTING HANDHOLE	EACH	6
REMOVE EXISTING CONCRETE FOUNDATION	EACH	6
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	600
PREFORMED DETECTOR LOOP	FOOT	1220
OPTIMIZE TRAFFIC SIGNAL SYSTEM	FOOT	1
SERVICE INSTALLATION, TYPE B	EACH	1
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	360
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 20 3C TWISTED SHIELDED	FOOT	250
RE-OPTIMIZE TEMPORARY TRAFFIC SIGNAL SYSTEM	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	250
STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1
LIGHT POLE, ALUMINUM, 45 FT. M.H., 15' DAVIT ARM	EACH	1
LIGHT POLE FOUNDATION, METAL, 15" BOLT CIRCLE, 8" X 6"	EACH	1
BREAKAWAY DEVICE, COUPLING WITH STAINLESS STEEL SCREEN	EACH	4
UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 2" DIA.	FOOT	45
COMBINATION LIGHTING CONTROLLER	EACH	1
TEMPORARY LIGHTING SYSTEM	LSUM	1

(L) LIGHTING CABLE
600V (XLP-TYPE USE) 3 - 1/C NO. 10



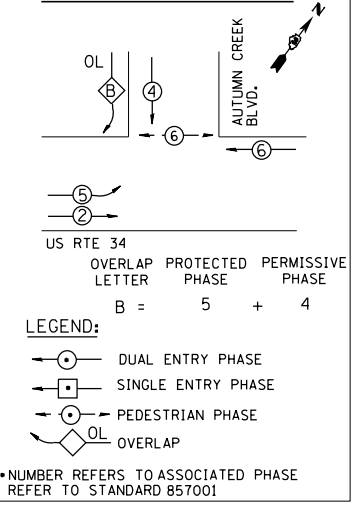
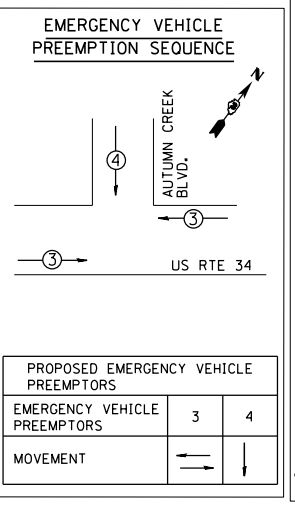
LIGHTING CIRCUIT DIAGRAM

AGENCY RESPONSIBLE FOR ENERGY CHARGES:
CITY OF YORKVILLE

CONTRACTOR PAYS ALL ENERGY CHARGES
UNTIL PROJECT IS ACCEPTED

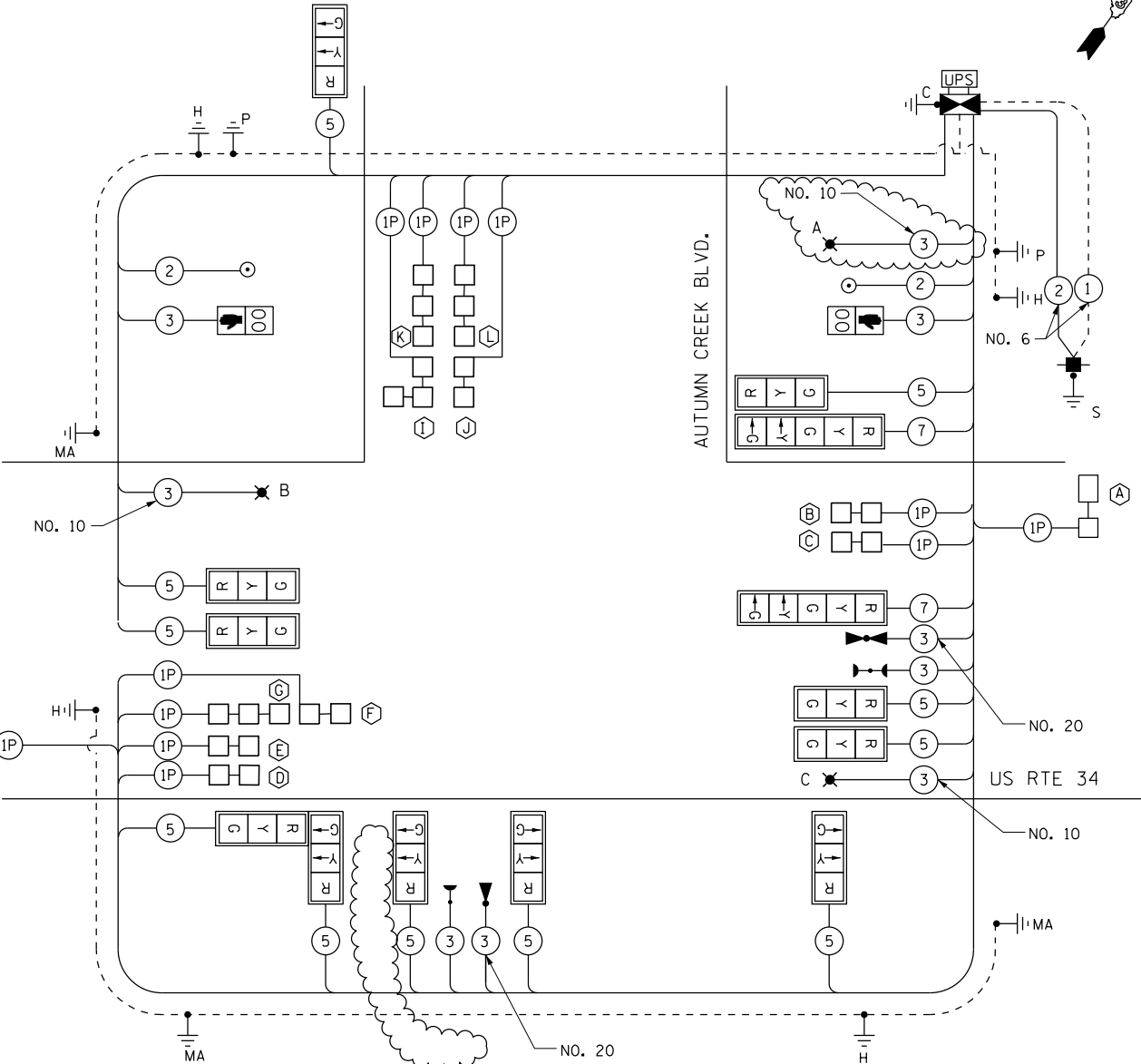
CABLE PLAN LEGEND

- | | | |
|-----------------|-----------------|---|
| EXISTING | PROPOSED | |
| (G) | (G) | 8" (200mm) TRAFFIC SIGNAL SECTION |
| (R) | (R) | 12" (300mm) TRAFFIC SIGNAL SECTION |
| (W) | (W) | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| (Hand icon) | (OO) | COUNT DOWN PEDESTRIAN SIGNAL HEAD |
| (Cabinet icon) | (Cabinet icon) | CONTROLLER CABINET |
| (Square icon) | (Square icon) | SERVICE INSTALLATION |
| (Square icon) | (Square icon) | VEHICLE DETECTOR, INDUCTION LOOP |
| (T icon) | (T icon) | TELEPHONE INSTALLATION |
| (Magnet icon) | (Magnet icon) | MAGNETIC DETECTOR |
| (Triangle icon) | (Triangle icon) | EMERGENCY VEHICLE LIGHT DETECTOR |
| (Beacon icon) | (Beacon icon) | CONFIRMATION BEACON |
| (Circle icon) | (Circle icon) | PUSHBUTTON DETECTOR |
| (2) | (2) | DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| (1) | (1) | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| (24) | (24) | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM24F |
| (R, Y, G, Y, G) | (R, Y, G, Y, G) | SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD. |
| (R, R) | (R, R) | RAILROAD CONTROL CABINET |
| (E) | (E) | ILLUMINATED SIGN "NO LEFT TURN" |
| (E) | (E) | ILLUMINATED SIGN "NO RIGHT TURN" |
| H/C | C | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C) |
| P | P | GROUND ROD AT POST (P) OR MAST ARM POLE (MA) |
| S | S | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| (UPS) | (UPS) | UNINTERRUPTIBLE POWER SUPPLY |
| (Star icon) | (Star icon) | LUMINAIRE, SODIUM VAPOR HORIZONTAL MOUNT, 250 WATT |



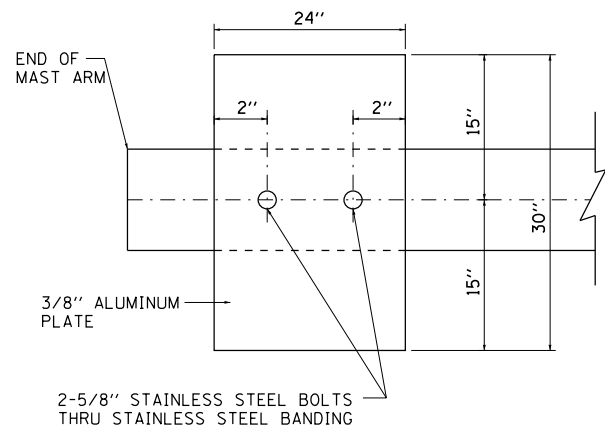
NOTE:
J PIN STATUS ARE OFF FOR B, C, D AND E.

CABLE PLAN
N.T.S.

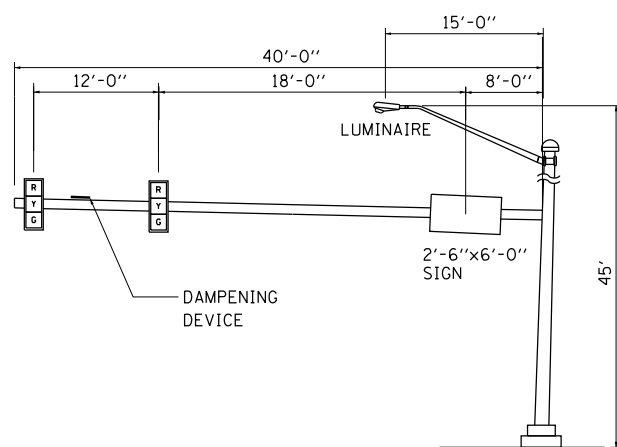


NOTE:

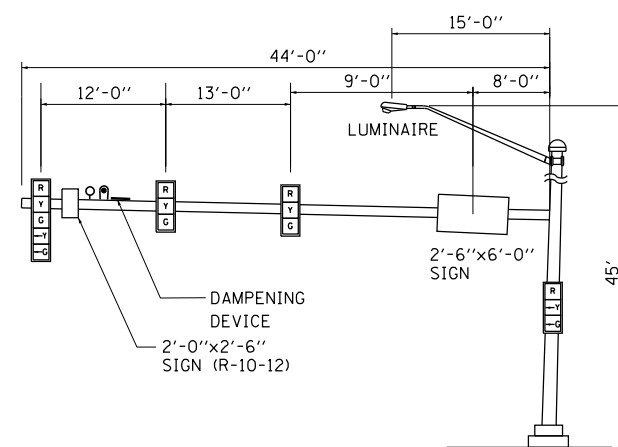
DAMPING DEVICE SHALL CONSIST OF A 24"x30" TYPE 1, UNPAINTED ALUMINUM SIGN STOCK MOUNTED HORIZONTALLY ON TOP OF MAST ARM WITH THE 30" LENGTH PERPENDICULAR TO THE ARM. COST OF THE DAMPING DEVICE IS INCLUDED IN THE MAST ARM PAY ITEM.



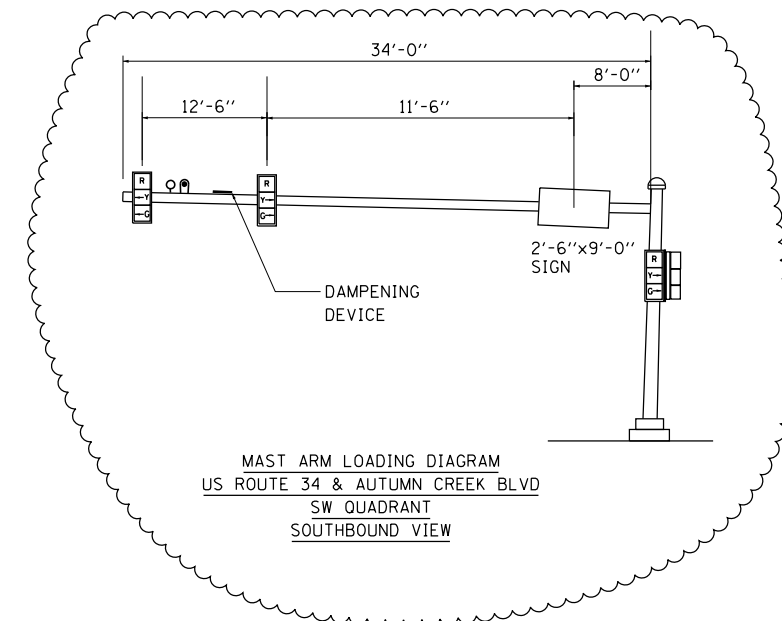
NOTE
MOUNT DAMPING PLATE TO END OF EACH TRAFFIC SIGNAL MAST ARM
DAMPING PLATE DETAIL - TOP VIEW



MAST ARM LOADING DIAGRAM
US ROUTE 34 & AUTUMN CREEK BLVD
NW QUADRANT
WESTBOUND VIEW



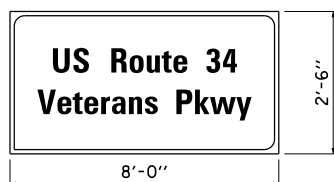
MAST ARM LOADING DIAGRAM
US ROUTE 34 & AUTUMN CREEK BLVD
SE QUADRANT
EASTBOUND VIEW



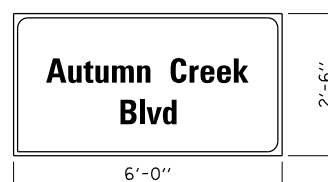
MAST ARM LOADING DIAGRAM
US ROUTE 34 & AUTUMN CREEK BLVD
SW QUADRANT
SOUTHBOUND VIEW

FOUNDATION DEPTH TABLE

TYPE	LOCATION	FOUNDATION DEPTH
40' COMBINATION MAST ARM	NW QUADRANT US RTE 34 & AUTUMN CREEK	12'
44' COMBINATION MAST ARM	SE QUADRANT US RTE 34 & AUTUMN CREEK	13'
34' MAST ARM	SW QUADRANT US RTE 34 & AUTUMN CREEK	11'



3/4" BORDER
8" D SERIES LETTERS
TYPE ZZ SHEETING REQUIRED
1 SIGN REQUIRED= 20.0 SQ FT EACH
= 20.0 SQ FT TOTAL



3/4" BORDER
8" D SERIES LETTERS
TYPE ZZ SHEETING REQUIRED
2 SIGNS REQUIRED= 15.0 SQ FT EACH
= 30.0 SQ FT TOTAL

NOTES:

- ALL SIGNAL HEADS HAVE BACKPLATES.
- ALL MAST ARM FOUNDATIONS TO BE 36" DIAMETER.
- DAMPING DEVICE SHALL CONSIST OF A 24"x30" TYPE-1, UNPAINTED ALUMINUM SIGN STOCK MOUNTED HORIZONTALLY ON TOP OF MAST ARM WITH THE 30" LENGTH PERPENDICULAR TO THE ARM. COST OF THE DAMPING DEVICE SHALL BE INCLUDED IN THE COST OF MAST ARM PAY ITEM.
- ARM SUPPORT FOR LUMINAIRE SHALL BE PARALLEL TO MAST ARM UNLESS SHOWN ON PLAN.
- FOUNDATION DEPTHS ARE BASED ON HIGHWAY STANDARD 878001-08. THE CONTRACTOR SHALL VERIFY THE SOIL STRENGTH TO THE DEPTH OF FOUNDATION AT EACH PROPOSED LOCATION. BUREAU OF BRIDGES & STRUCTURES SHOULD BE CONTACTED FOR A REVISED DESIGN IF CONDITIONS OTHER THAN STATED IN STANDARD 878001-08 ARE ENCOUNTERED.

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AMES Engineering, Inc.
CONSULTING ENGINEERS
5413 Walnut Avenue
Downers Grove, IL 60515

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAST ARM LOADING DIAGRAM & SIGN DETAILS
US RTE 34 AND AUTUMN CREEK

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	459
				CONTRACT NO. 66884
ILLINOIS FED. AID PROJECT				

PROJECT U.S. Route 34 Reconstruction and Widening, Yorkville, Illinois

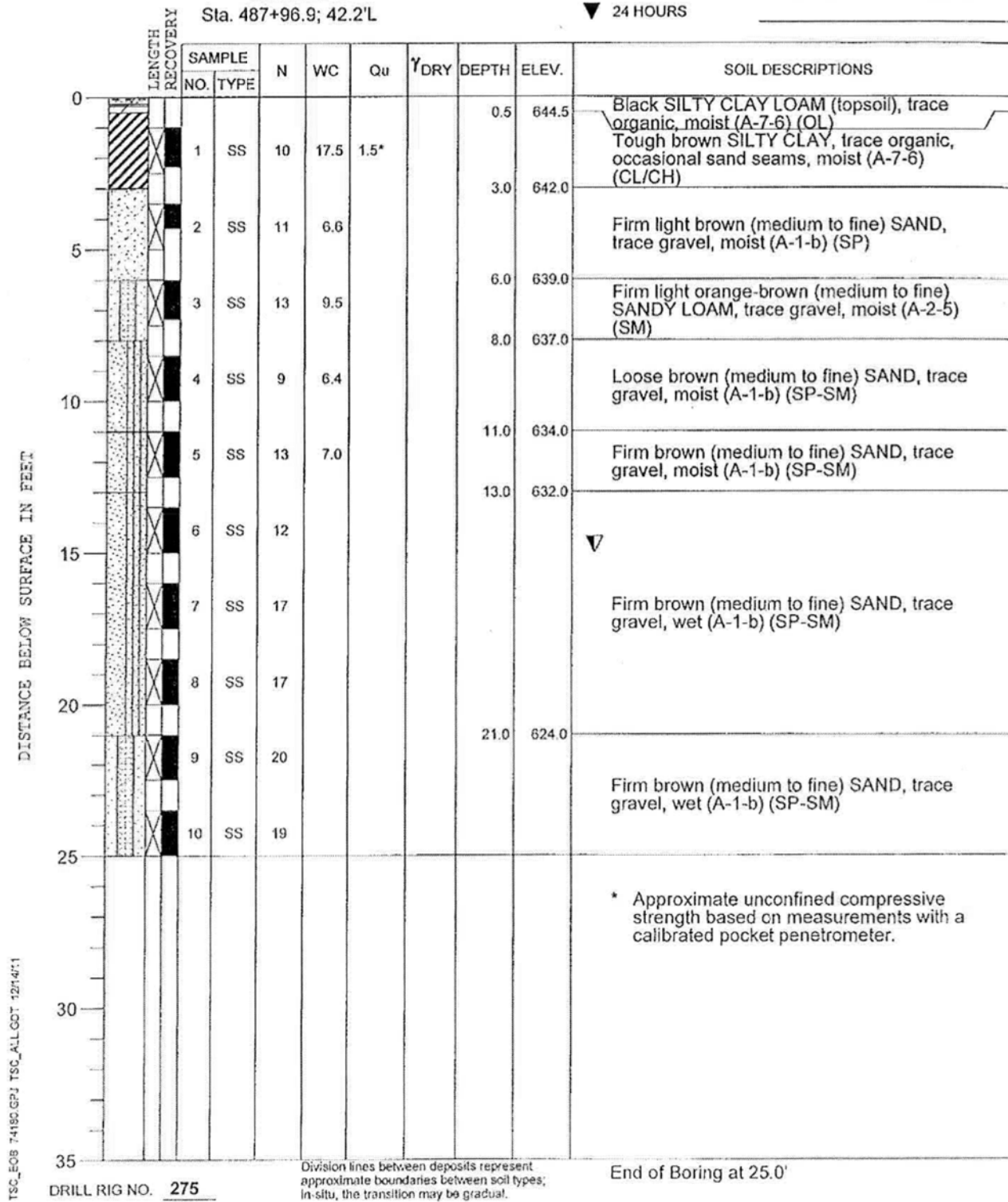
CLIENT GRAEF, Chicago, Illinois

BORING 701 DATE STARTED 11-15-11 DATE COMPLETED 11-15-11 JOB L-74,180



ELEVATIONS WATER LEVEL OBSERVATIONS
 GROUND SURFACE 645.0 WHILE DRILLING 15.0'
 END OF BORING 620.0 AT END OF BORING Caved at 12.0'
 24 HOURS

Sta. 487+96.9; 42.2'L



PROJECT U.S. Route 34 Reconstruction and Widening, Yorkville, Illinois

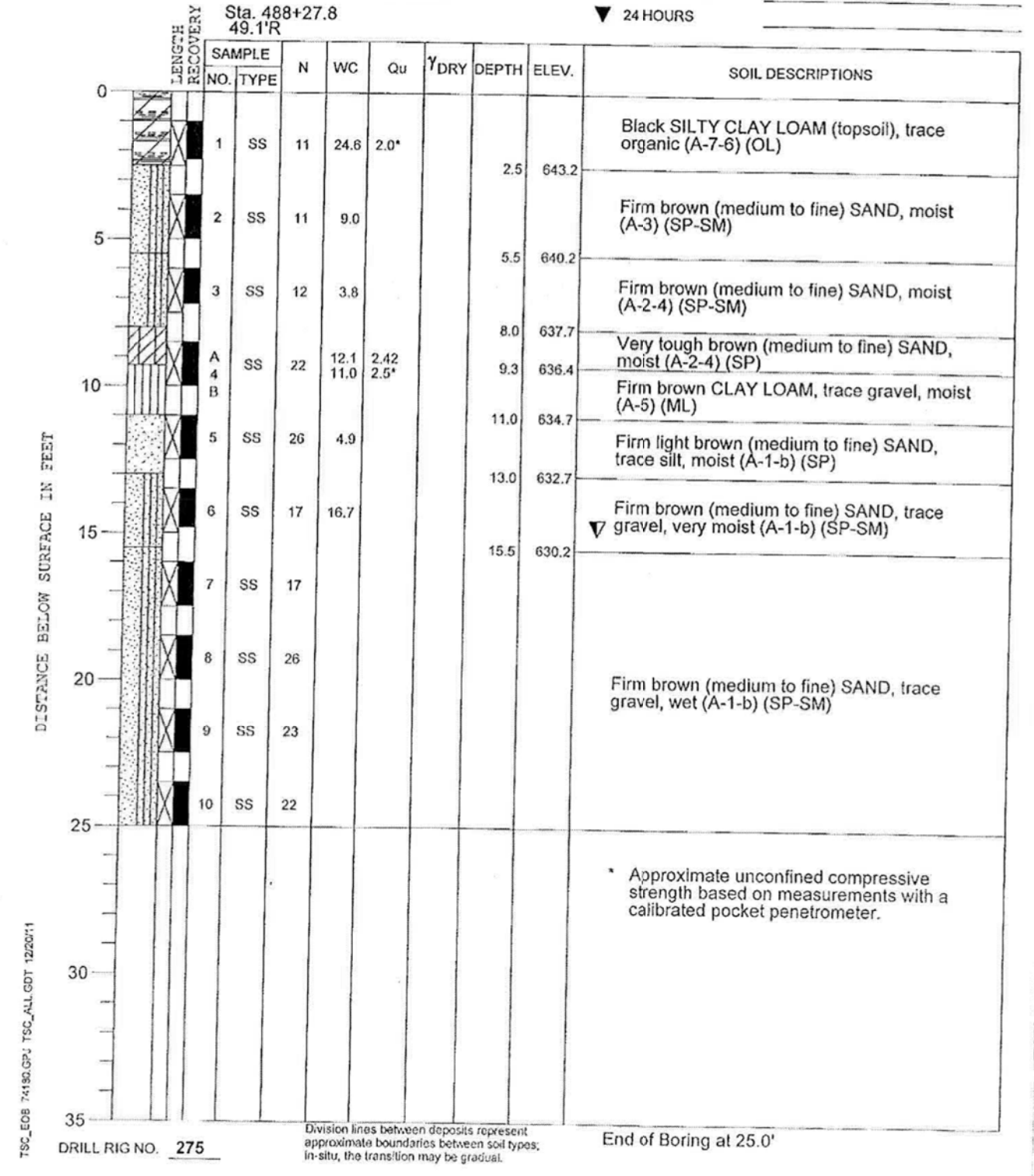
CLIENT GRAEF, Chicago, Illinois

BORING 702 DATE STARTED 11-15-11 DATE COMPLETED 11-15-11 JOB L-74,180



ELEVATIONS WATER LEVEL OBSERVATIONS
 GROUND SURFACE 645.7 WHILE DRILLING 15.0'
 END OF BORING 620.7 AT END OF BORING Caved at 10.0'
 24 HOURS

Sta. 488+27.8
49.1'R



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	DATE - 12/01/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 34 AND AUTUMN CREEK DRIVE
BORING LOGS

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	460
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

TS-37

TEMPORARY TRAFFIC SIGNAL LEGEND

- ← TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
- ↖ TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
- ⊗ TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM
- ⊠ TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE AND CABLE
- ⊕ TEMPORARY SERVICE INSTALLATION
- ⊞ TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- ⊟ VIDEO DETECTION SYSTEM
- ⊠ PEDESTRIAN PUSHBUTTON DETECTOR
- ⊡ EMERGENCY VEHICLE LIGHT DETECTOR
- ⊢ CONFIRMATION BEACON
- ⊣ VEHICLE DETECTOR, INDUCTION LOOP
- UD UNIT DUCT
- G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- ⊤ HANDHOLE
- ⊥ HEAVY DUTY HANDHOLE
- CT COMMON TRENCH
- ⊦ GUY WIRE
- ⊧ RADIO INTERCONNECT
- ★ LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE CITY OF YORKVILLE AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE CITY TRAFFIC SIGNAL MAINTENANCE FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS:

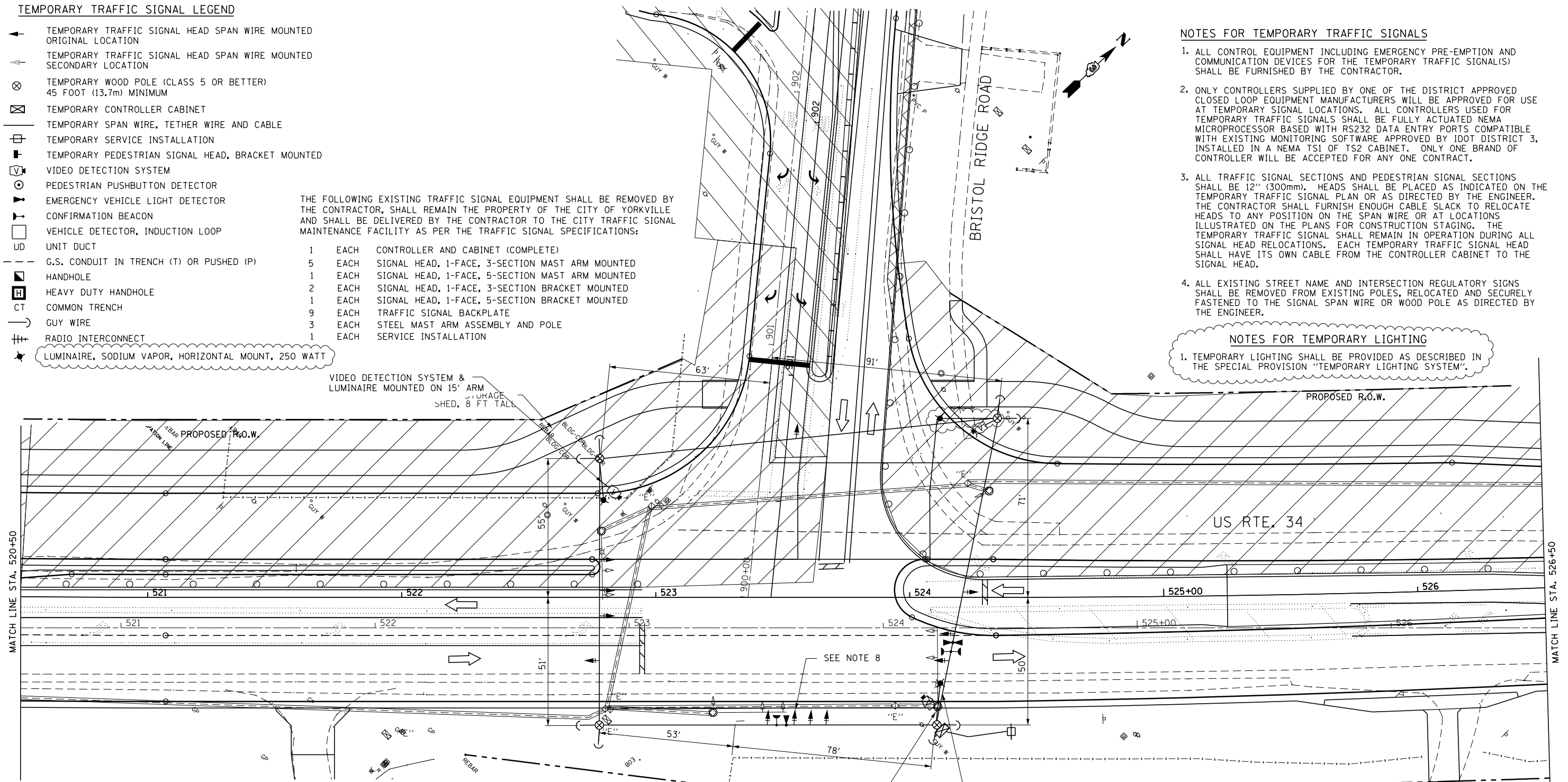
- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 5 EACH SIGNAL HEAD, 1-FACE, 3-SECTION MAST ARM MOUNTED
- 1 EACH SIGNAL HEAD, 1-FACE, 5-SECTION MAST ARM MOUNTED
- 2 EACH SIGNAL HEAD, 1-FACE, 3-SECTION BRACKET MOUNTED
- 1 EACH SIGNAL HEAD, 1-FACE, 5-SECTION BRACKET MOUNTED
- 9 EACH TRAFFIC SIGNAL BACKPLATE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

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 3. INSTALLED IN A NEMA TS1 OF 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 12" (300mm). HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. 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.

NOTES FOR TEMPORARY LIGHTING

1. TEMPORARY LIGHTING SHALL BE PROVIDED AS DESCRIBED IN THE SPECIAL PROVISION "TEMPORARY LIGHTING SYSTEM".



EXISTING EQUIPMENT TO BE REMOVED LEGEND

- ⊠ EXISTING SIGNAL HEAD TO BE REMOVED
- "E" ⊠ EXISTING SERVICE INSTALLATION TO BE REMOVED
- ⊠ EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- ⊠ EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" ⊠ EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- "E" ⊠ EXISTING HANDHOLE TO BE REMOVED
- ⊠ EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- ⊠ EXISTING PEDESTRIAN PUSHBUTTON TO BE REMOVED
- ⊡ EXISTING EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- ⊢ EXISTING CONFIRMATION BEACON TO BE REMOVED
- "E" ⊠ EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- ⊠ EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" ⊠ EXISTING EXISTING JUNCTION BOX TO BE REMOVED

THE TRAFFIC SIGNAL EQUIPMENTS FOR THIS CONTRACT SHALL BE ECONOLITE BRAND. THE CONTROLLER FURNISHED SHALL BE THE MOST CURRENT ECONOLITE BRAND.

WHERE POSSIBLE TEMPORARY SPAN WIRES SHALL BE PLACED IN FRONT OF PERMANENT TRAFFIC SIGNALS. ALL TEMPORARY WOOD POLES LOCATION SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.

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, MEDIAN, 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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

NOTES FOR TEMPORARY TRAFFIC SIGNALS (CONT.)

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. THE LOCATIONS OF THE TEMPORARY TRAFFIC SIGNAL HEADS ARE BASED ON SUGGESTED CONSTRUCTION STAGING AND TRAFFIC CONTROL-STAGE 1. THE SECONDARY SIGNAL HEADS LOCATIONS SHALL BE PLACED PER OTHER CONSTRUCTION STAGING AND AS APPROVED BY THE ENGINEER IN THE FIELD.
8. SIGNAL HEADS FOR CROSS STREET SHALL BE BAGGED WHEN TRAFFIC IS DETOURED AND UNBAGGED WHEN LANES ARE OPEN TO TRAFFIC.

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5413 Walnut Avenue
Downers Grove, IL 60515

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	DATE - 12/01/2014	REVISED -

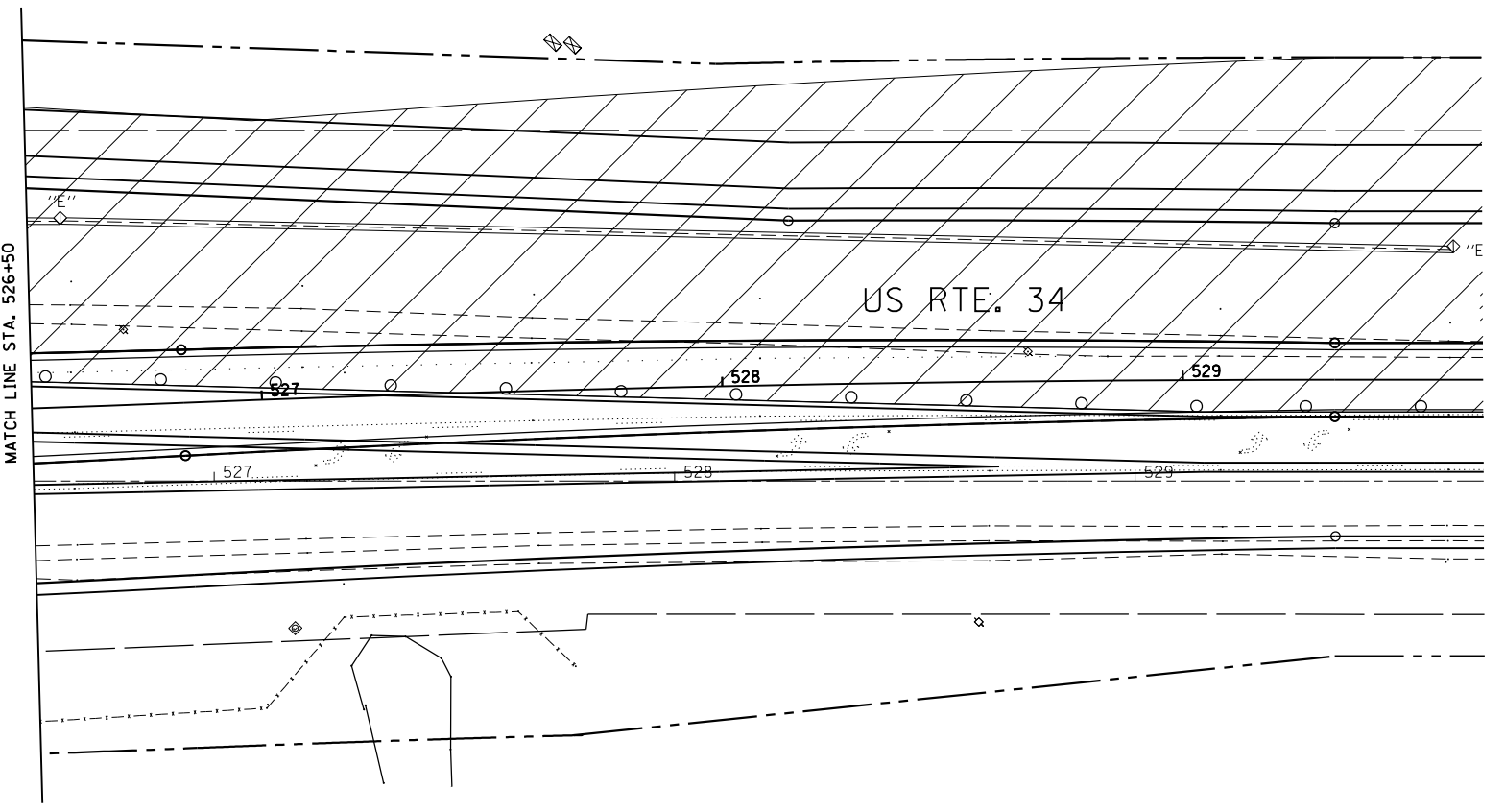
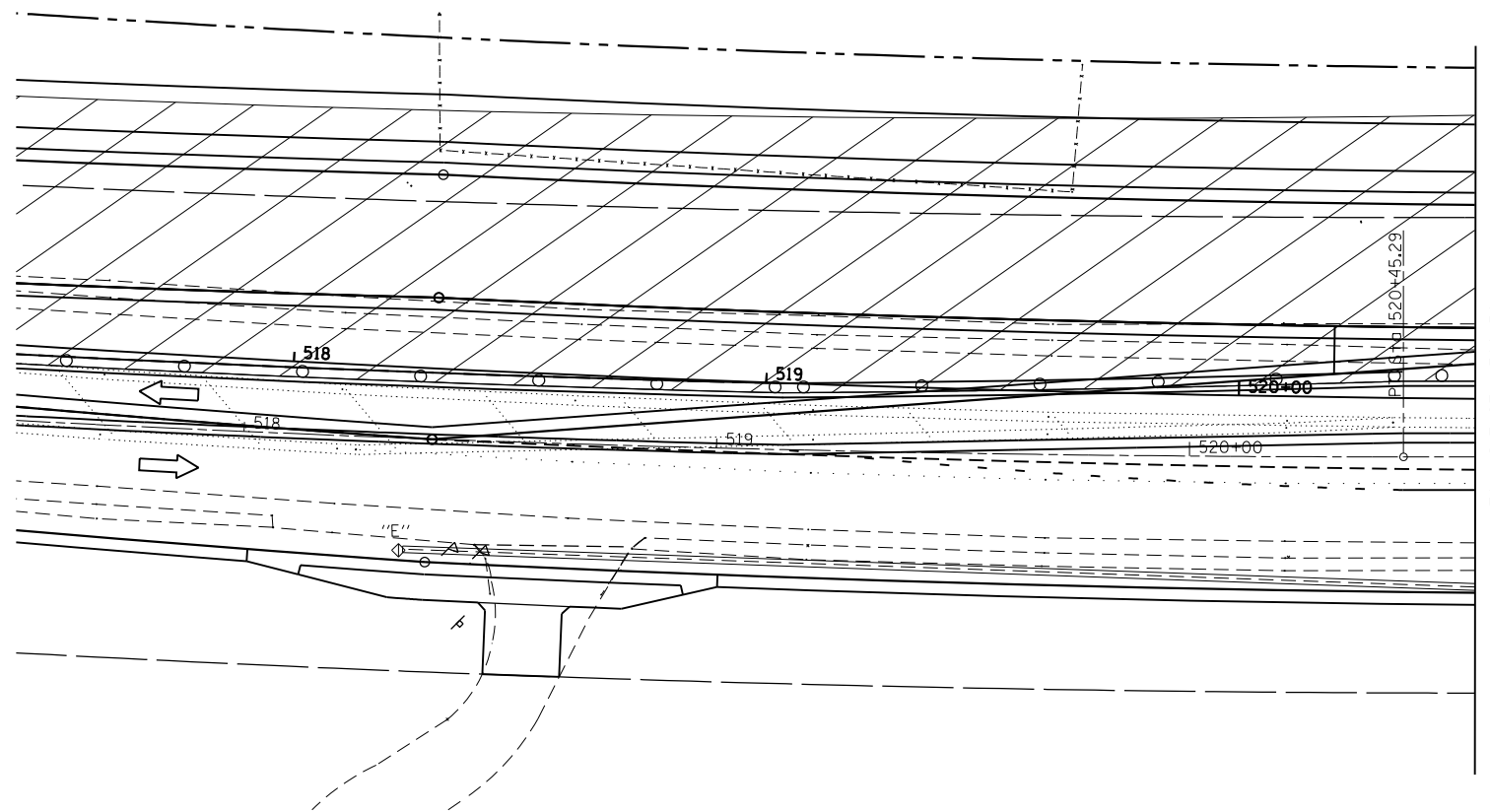
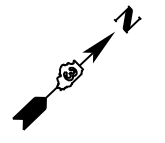
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL AND REMOVAL PLAN
AT US 34 AND BRISTOL RIDGE ROAD**

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	462
			CONTRACT NO. 66884	
ILLINOIS FED. AID PROJECT				

TS-39



TEMPORARY TRAFFIC SIGNAL LEGEND

- ← TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
- ⇐ TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
- ⊗ TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM
- ⊠ TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE AND CABLE
- ⊕ TEMPORARY SERVICE INSTALLATION
- ⊞ TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- Ⓜ VIDEO DETECTION SYSTEM
- Ⓞ PEDESTRIAN PUSHBUTTON DETECTOR
- Ⓜ EMERGENCY VEHICLE LIGHT DETECTOR
- Ⓜ CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- UD UNIT DUCT
- - - G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- Ⓜ HANDHOLE
- Ⓜ HEAVY DUTY HANDHOLE
- CT COMMON TRENCH
- GUY WIRE

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 CONSULTING ENGINEERS
 5413 Walnut Avenue
 Downers Grove, IL 60515

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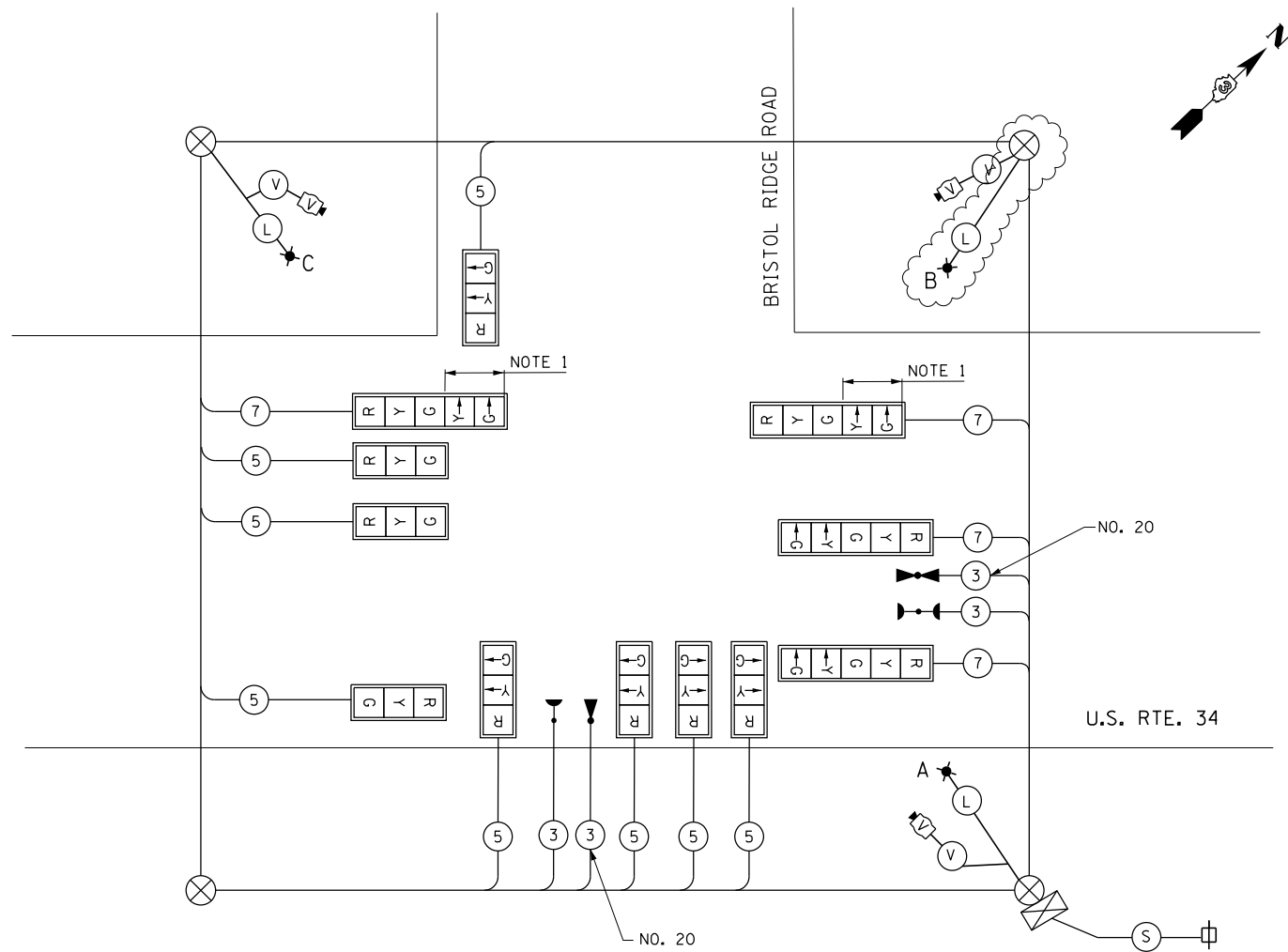
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL AND REMOVAL PLAN
AT US 34 AND BRISTOL RODGE ROAD-2

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	463
			CONTRACT NO. 66884	
ILLINOIS FED. AID PROJECT				

TS-40



TEMPORARY CABLE DIAGRAM LEGEND

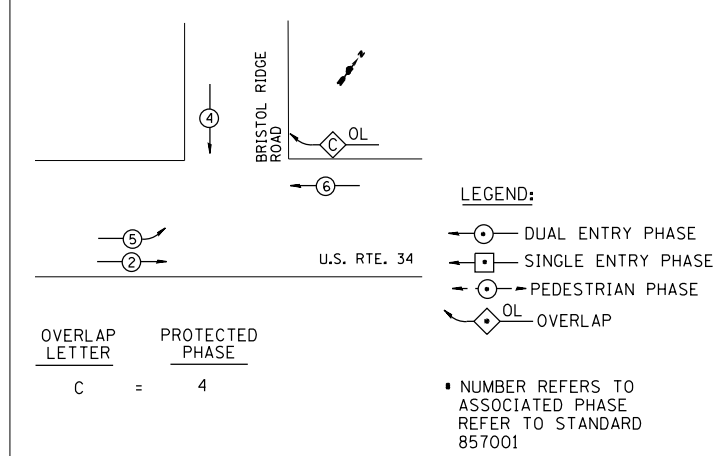
- R TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION 12" (300mm)
 - ⊠ TEMPORARY CONTROLLER CABINET
 - ⊞ TEMPORARY SERVICE INSTALLATION
 - 5 INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED.
 - ▲ EMERGENCY VEHICLE LIGHT DETECTOR
 - ⬇ CONFIRMATION BEACON
 - VEHICLE DETECTOR, INDUCTION LOOP
 - ⊙ PEDESTRIAN PUSHBUTTON DETECTOR
 - ⊞ 12" (300mm) PEDESTRIAN SIGNAL SECTION
 - ⊞ VIDEO DETECTION SYSTEM
 - S GROUND ROD AT ELECTRIC SERVICE INSTALLATION
 - ★ LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT
 - ⊗ TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM
- V VIDEO CAMERA CABLE
 - 6 PAIRS TWISTED REQUIRED
 - 3 PAIRS CONDUCTOR FOR POWER -24V AC (AC+, AC-, GND)
 - 1 PAIR DATA
 - 1 PAIR COMPOSITE VIDEO
 - 1 PAIR DETECTOR DATA
 - OVERALL SHIELD MINIMUM 16 AWG (PAIRS) (TO BE INCLUDED IN THE BID PRICE FOR TEMPORARY TRAFFIC SIGNAL INSTALLATION)
 - S SERVICE CABLE
 - ELECTRIC CABLE IN CONDUIT, SERVICE NO. 6 2C
 - L LIGHTING CABLE
 - 600V (XLP-TYPE USE) 3 1/2 NO. 10

NOTE 1. THE BOTTOM SIGNAL HEADS WITH RIGHT TURN ARROWS SHALL BE BAGGED AND DISCONNECTED DURING STAGE 1. AFTER COMPLETION OF STAGE 1 CONSTRUCTION THESE SIGNAL HEADS SHALL BE UNBAGGED AND ACTIVATED FOR USE DURING OTHER CONSTRUCTION STAGES AND UNTIL PERMANENT SIGNALS ARE INSTALLED.

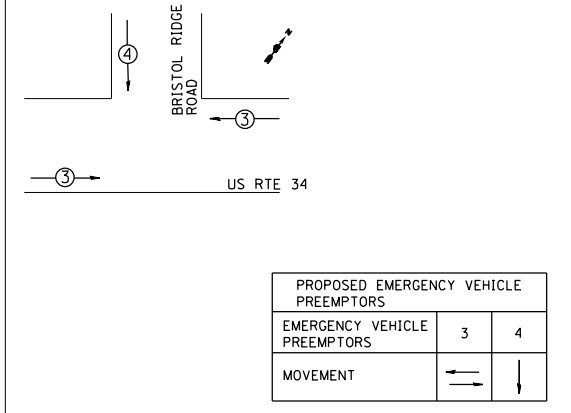
RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT ETC. SHALL 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.

TEMPORARY CABLE PLAN
N.T.S.

CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL VOLTAGE
TYPE	NO. LAMPS	WATTAGE INCAND	WATTAGE LED	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.0
(YELLOW)	12	135	25	0.25	75.0
(GREEN)	12	135	15	0.25	45.0
ARROW	8	135	12	0.10	9.6
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	-
LUMINAIRE	2	250		0.50	250
FLASHER				0.50	-
TOTAL =					581.6

ENERGY COST TO: Illinois Department of Transportation
Division of Highways / District 3
700E Norris Drive, Ottawa, ILL 61350-0697
ENERGY SUPPLY: CONTACT: Mr. Thomas Perkins
PHONE: 630-723-2127
COMPANY: ComEd



USER NAME = duncanbd	DESIGNED - AS	REVISED - BDD 10/02/2015
PLOT SCALE = 40.0000' / in.	DRAWN - RV	REVISED -
PLOT DATE = 10/5/2015	CHECKED - MSA	REVISED -
	DATE - 12/01/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN AND PHASE DESIGNATION DIAGRAM
US ROUTE 34 & BRISTOL RIDGE ROAD

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	464
CONTRACT NO. 66884				

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TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
LIGHTING UNIT, 45" M.H., ALUMINUM, 15' DAVIT ARM 250 W HORIZONTAL MOUNT HPS LUMINAIRE, TYPE III		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT	UD	
COMMON TRENCH	CT	
HANDHOLE		
HEAVY-DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CAST IRON JUNCTION BOX		
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		
WOOD POLE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		

*** POST AND MAST ARM DATA**

SIGNAL INSTALLATION STATIONING		
SIGNAL ITEM/LOCATION	STATION	OFFSET
NW MA	522+87	56' LT
SW MA	522+85	53' RT
SE MA	523+94	51.5' RT
NW POST	523+25	93.9' LT
NE POST	524+33	73' LT
NE/LP	524+35	66' LT
NW DOUBLE HH	524+30	51' RT
NW HH	523+00	66' LT
NE HH	524+50	62' LT
SW HH	522+74	47' RT
EB FAR BACK HH	584+03	42' RT
WB FAR BACK HH	595+37	52' LT
EB MIDDLE HH	520+75	48' RT
WB MIDDLE HH	526+54	54' LT
TRAFFIC SIGNAL CONTROLLER	524+31	59' RT

NOTE: CONTRACTOR SHALL NOTIFY ENGINEER OF CHANGES IN LOCATION

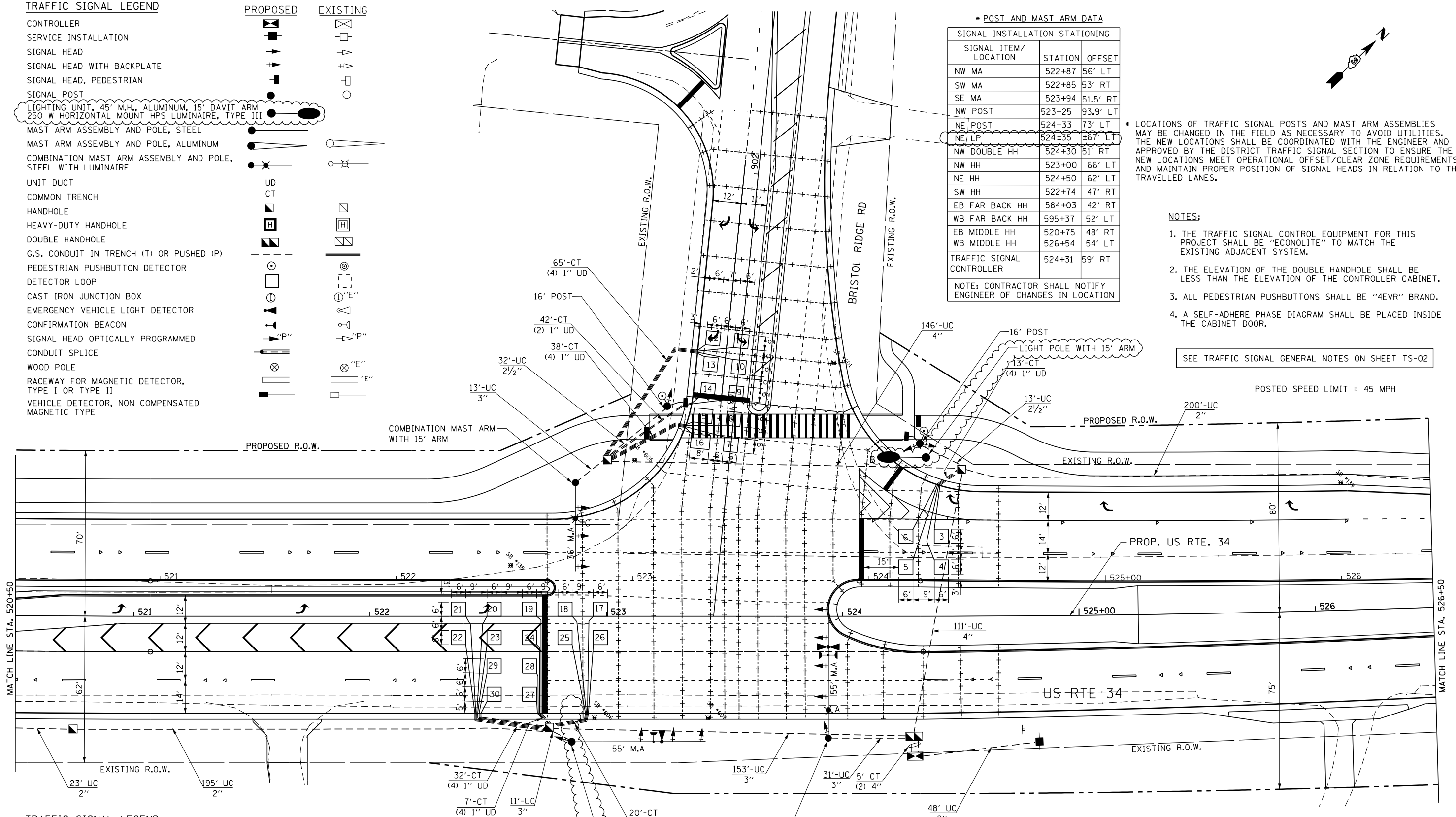
* LOCATIONS OF TRAFFIC SIGNAL POSTS AND MAST ARM ASSEMBLIES MAY BE CHANGED IN THE FIELD AS NECESSARY TO AVOID UTILITIES. THE NEW LOCATIONS SHALL BE COORDINATED WITH THE ENGINEER AND APPROVED BY THE DISTRICT TRAFFIC SIGNAL SECTION TO ENSURE THE NEW LOCATIONS MEET OPERATIONAL OFFSET/CLEAR ZONE REQUIREMENTS AND MAINTAIN PROPER POSITION OF SIGNAL HEADS IN RELATION TO THE TRAVELLED LANES.

NOTES:

1. THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.
2. THE ELEVATION OF THE DOUBLE HANDHOLE SHALL BE LESS THAN THE ELEVATION OF THE CONTROLLER CABINET.
3. ALL PEDESTRIAN PUSHBUTTONS SHALL BE "4EVR" BRAND.
4. A SELF-ADHERE PHASE DIAGRAM SHALL BE PLACED INSIDE THE CABINET DOOR.

SEE TRAFFIC SIGNAL GENERAL NOTES ON SHEET TS-02

POSTED SPEED LIMIT = 45 MPH



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
RAILROAD CONTROL CABINET		
TELEPHONE CONNECTION		
ILLUMINATED SIGN "NO LEFT TURN"		
ILLUMINATED SIGN "NO RIGHT TURN"		

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, MEDIAN, 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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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AMES Engineering, Inc.
CONSULTING ENGINEERS
5413 Walnut Avenue
Downers Grove, IL 60515

USER NAME = duncanbd	DESIGNED - AS	REVISED - BDD 10/02/2015
PLOT SCALE = 48.0000' / in.	DRAWN - RV	REVISED -
PLOT DATE = 10/5/2015	CHECKED - MSA	REVISED -
	DATE - 12/01/2014	REVISED -

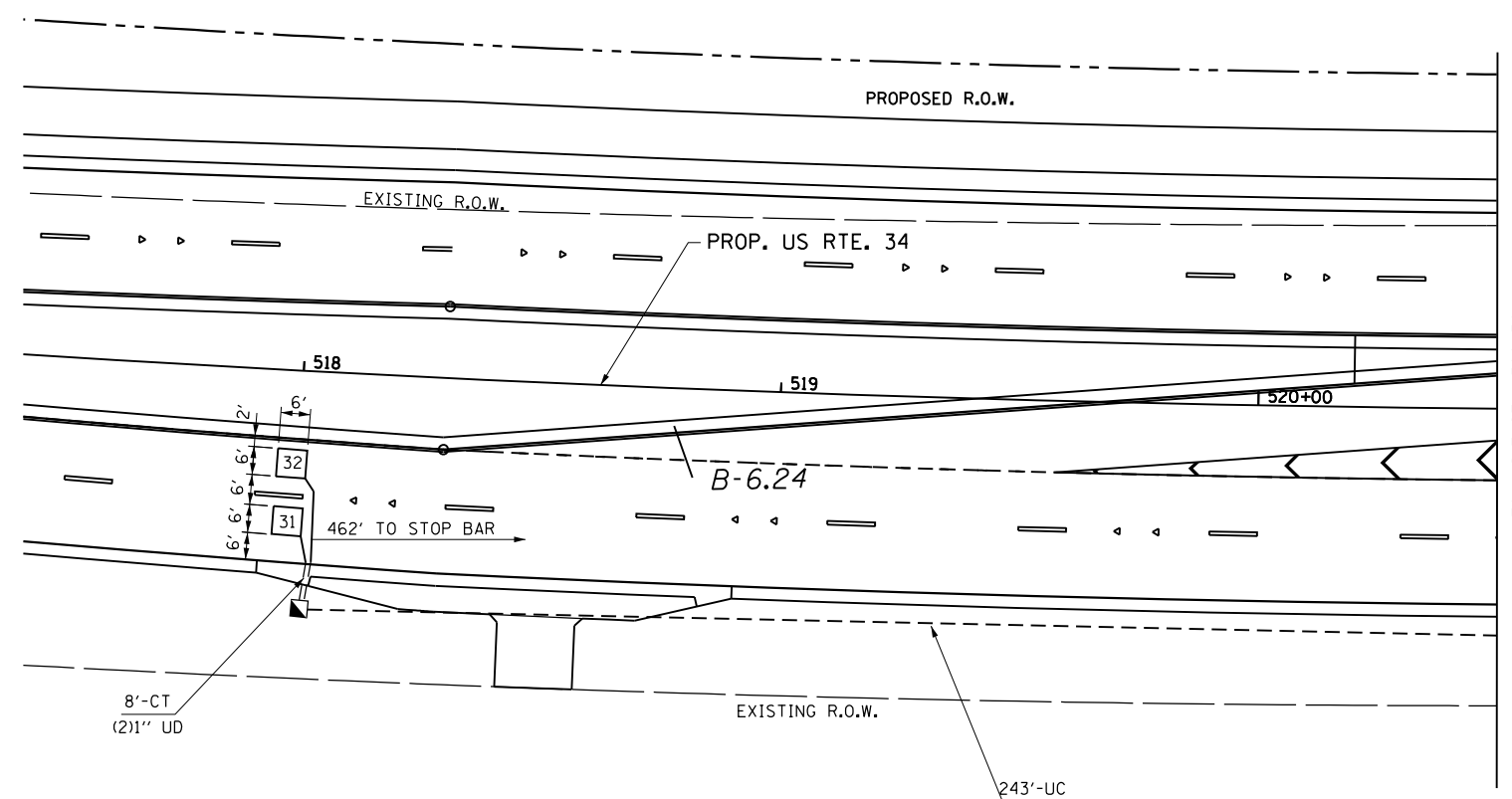
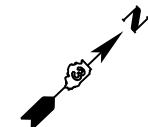
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL INSTALLATION PLAN
US RTE 34 & BRISTOL RIDGE RD**

1"=20' SHEET OF SHEETS STA. 520+50 TO STA. 526+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T)	KENDALL	753	465
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

TS-42



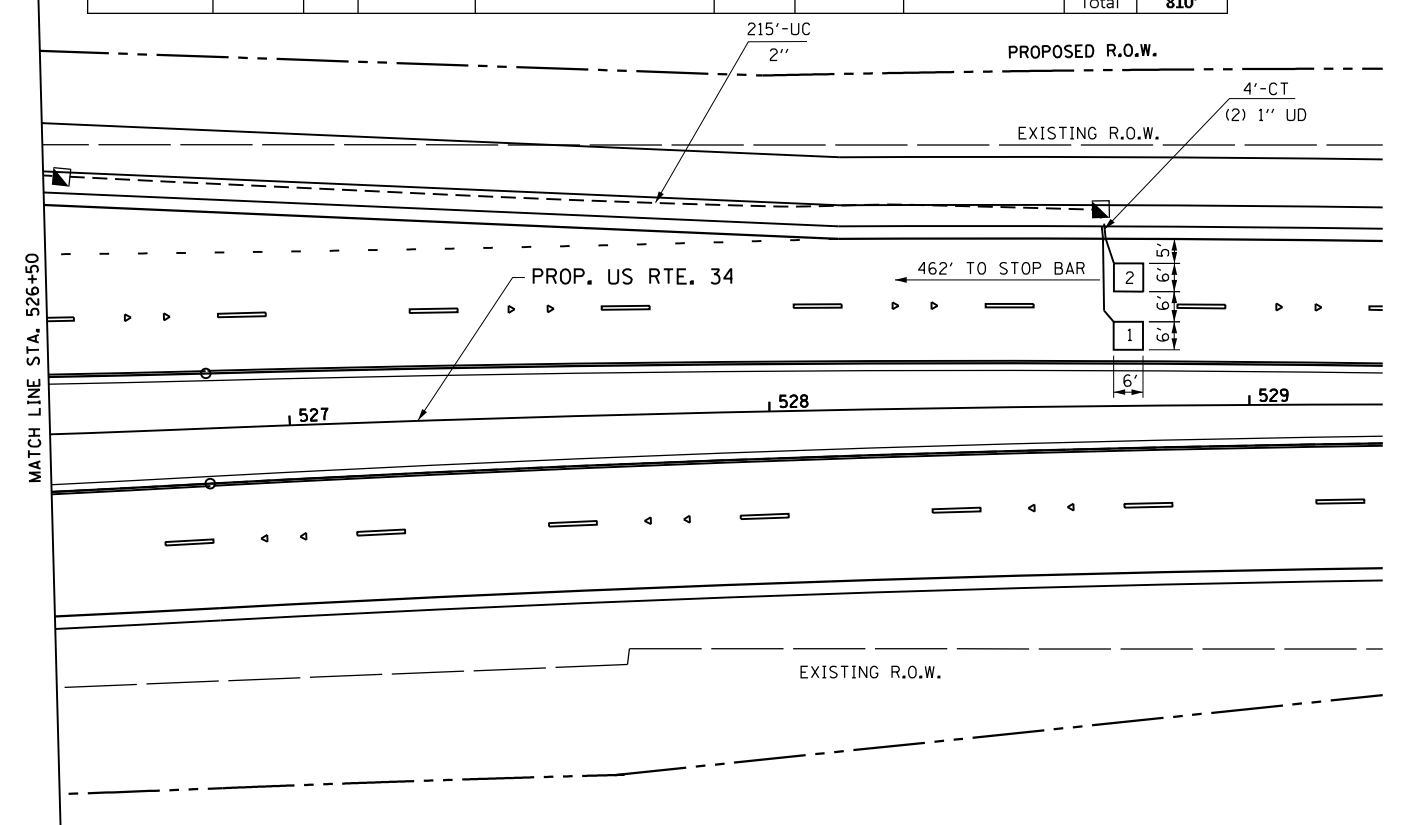
MATCH LINE STA. 520+50

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT	UD	
COMMON TRENCH	CT	
HANDHOLE		
HEAVY-DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CAST IRON JUNCTION BOX		
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		
WOOD POLE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		
TELEPHONE CONNECTION		
ILLUMINATED SIGN "NO LEFT TURN"		
ILLUMINATED SIGN "NO RIGHT TURN"		

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, MEDIAN, 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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

Approach	Detector ID	Turns	Code Number	Coded Pay Item	Loop	Preformed Loop to EOP	Lead-In Wire EOP to Handhole	Slack	Quantity
EAST APPROACH US34	1	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	18'	4'	6'	42'
	2	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	5'	4'	6'	29'
	3	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	19'	13'	6'	43'
	4	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	32'	13'	6'	56'
	5	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	23'	13'	6'	47'
	6	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	22'	13'	6'	46'
									Total
									263'
NORTH APPROACH MARKET PLACE	7	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	17'	38'	6'	41'
	8	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	17'	38'	6'	41'
	9	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	15'	42'	6'	39'
	10	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	15'	65'	6'	39'
	11	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	15'	65'	6'	39'
	12	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	4'	65'	6'	28'
	13	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	3'	65'	6'	27'
	14	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	4'	42'	6'	28'
	15	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	4'	38'	6'	28'
	16	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	4'	38'	6'	28'
									Total
									338'
WEST APPROACH US34	17	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	43'	20'	6'	67'
	18	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	42'	20'	6'	66'
	19	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	42'	5'	6'	66'
	20	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	42'	30'	6'	66'
	21	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	41'	30'	6'	65'
	22	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	29'	30'	6'	53'
	23	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	29'	30'	6'	53'
	24	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	30'	5'	6'	54'
	25	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	29'	20'	6'	53'
	26	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	29'	20'	6'	53'
	27	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	5'	5'	6'	29'
	28	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	18'	5'	6'	42'
	29	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	17'	30'	6'	41'
	30	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	6'	30'	6'	30'
	31	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	6'	8'	6'	30'
	32	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	18'	8'	6'	42'
									Total
									810'



MATCH LINE STA. 526+50

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AMES Engineering, Inc.
CONSULTING ENGINEERS
5413 Walnut Avenue
Downers Grove, IL 60515

USER NAME = Vramesh	DESIGNED - AS	REVISED -
PLOT SCALE = 48.0000' / in.	DRAWN - RV	REVISED -
PLOT DATE = 11/25/2014	CHECKED - MSA	REVISED -
	DATE - 12/01/2014	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL INSTALLATION PLAN
AT US 34 AND BRISTOL RIDGE RD.**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	466
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

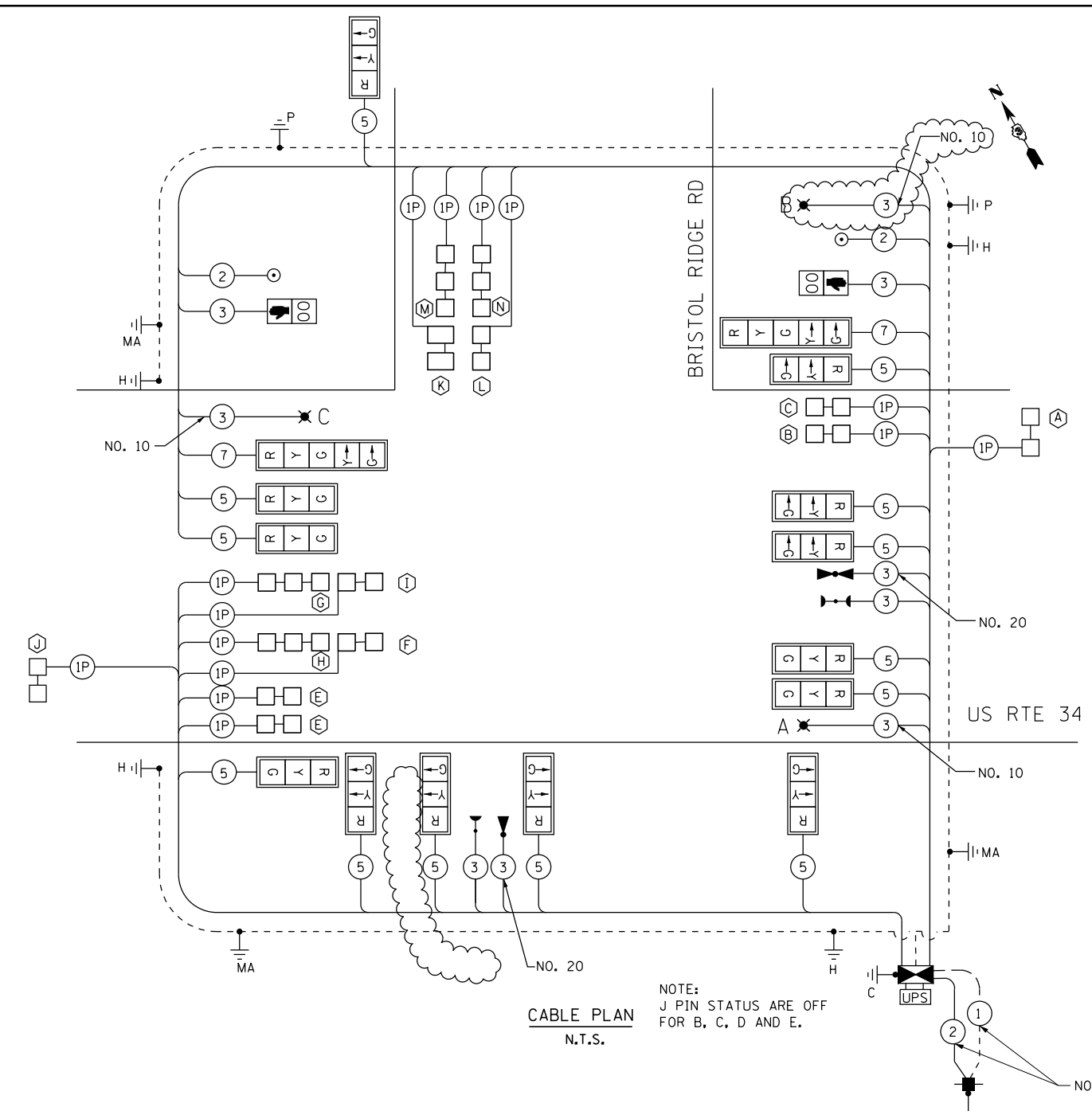
TS-43

CABLE PLAN LEGEND

EXISTING	PROPOSED	
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		COUNT DOWN PEDESTRIAN SIGNAL HEAD
		CONTROLLER CABINET
		SERVICE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		TELEPHONE INSTALLATION
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
		GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
		SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD.
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"
		GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
		GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
		GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		UNINTERRUPTIBLE POWER SUPPLY
		LUMINAIRE, SODIUM VAPOR HORIZONTAL MOUNT, 250 WATT

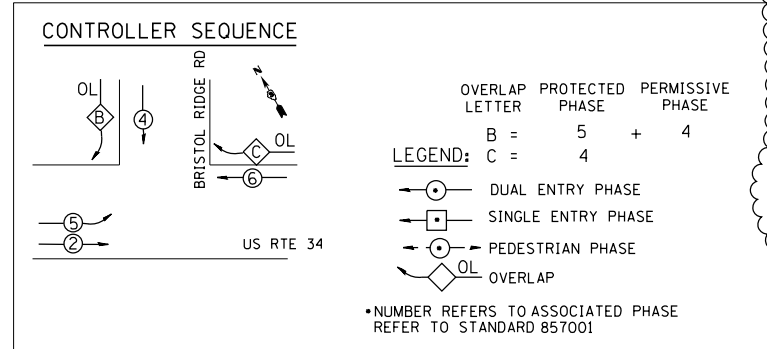
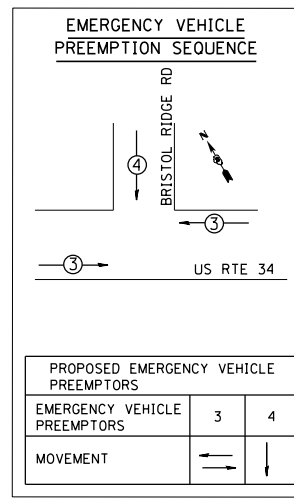
BILL OF MATERIALS

ITEM	UNIT	US Rte 34 @ Bristol Ridge
SIGN PANEL - TYPE 2	SQ FT	50
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	1080
UNDERGROUND CONDUIT, PVC, 2 1/2" DIA.	FOOT	45
UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	208
UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	268
HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	6
DOUBLE HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	1
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 10	FOOT	423
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	3
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, EXTENDED	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	500
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	918
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2848
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	526
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	3742
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	100
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 36 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 55 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	6
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	41
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	9
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED WITH COUNT DOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	15
INDUCTIVE LOOP DETECTOR	EACH	14
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	FOOT	2
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	4
REMOVE EXISTING HANDHOLE	EACH	7
REMOVE EXISTING CONCRETE FOUNDATION	EACH	5
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	650
PREFORMED DETECTOR LOOP	FOOT	1400
OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1
SERVICE INSTALLATION, TYPE B	EACH	1
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	520
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 20 3C TWISTED SHIELDED	FOOT	390
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 6, 1/C NO. 6 GROUND	FOOT	48
RE-OPTIMIZE TEMPORARY TRAFFIC SIGNAL SYSTEM	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	300
STEEL MAST ARM ASSEMBLY AND POLE, 55 FT.	EACH	1
LIGHT POLE, ALUMINUM, 45 FT. M.H., 15' DAVIT ARM	EACH	1
LIGHT POLE FOUNDATION, METAL, 15" BOLT CIRCLE, 8" X 6'	EACH	1
BREAKAWAY DEVICE, COUPLING WITH STAINLESS STEEL SCREEN	EACH	4
UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 2" DIA.	FOOT	12
COMBINATION LIGHTING CONTROLLER	EACH	1
TEMPORARY LIGHTING SYSTEM	LSUM	1

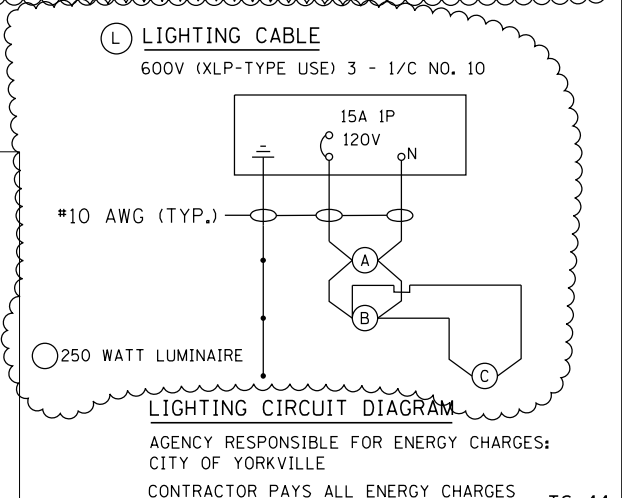


CABLE PLAN N.T.S.

NOTE: J PIN STATUS ARE OFF FOR B, C, D AND E.



OVERLAP PROTECTED PERMISSIVE
LETTER PHASE PHASE
LEGEND:
B = 5 + 4
C = 4
● DUAL ENTRY PHASE
○ SINGLE ENTRY PHASE
○ PEDESTRIAN PHASE
OL OVERLAP
*NUMBER REFERS TO ASSOCIATED PHASE REFER TO STANDARD 857001



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL VOLTAGE
TYPE	NO. LAMPS	WATTAGE INCAND	WATTAGE LED	% OPERATION	
SIGNAL (RED)	15	135	17	0.50	127.5
(YELLOW)	15	135	25	0.25	93.75
(GREEN)	15	135	15	0.25	56.25
ARROW	4	135	12	0.10	4.8
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	-
LUMINAIRE	3	250		0.50	375
FLASHER				0.50	-
TOTAL =					757.3

ENERGY COST TO: Illinois Department of Transportation
Division of Highways / District 3
700 E. Norris Dr., Ottawa, IL 61350

ENERGY SUPPLY: CONTACT: Mr. Thomas Perkins
PHONE: 630-723-2127
COMPANY: ComEd

FILE: PFILES DATE: TIME: 10/5/2015 10:22:17 AM

AMES Engineering, Inc.
CONSULTING ENGINEERS
5413 Walnut Avenue
Downers Grove, IL 60515

USER NAME = duncanbd	DESIGNED - AS	REVISED - BDD 10/02/2015
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DIAGRAM & SCHEDULE OF QUANTITIES
US RTE 34 & BRISTOL RIDGE RD

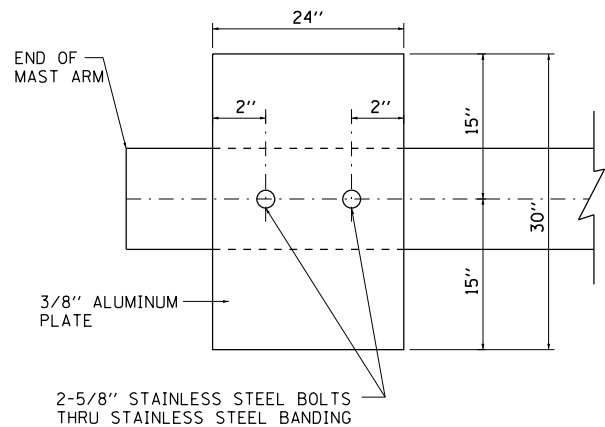
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	467
CONTRACT NO. 66884				

ILLINOIS FED. AID PROJECT

TS-44

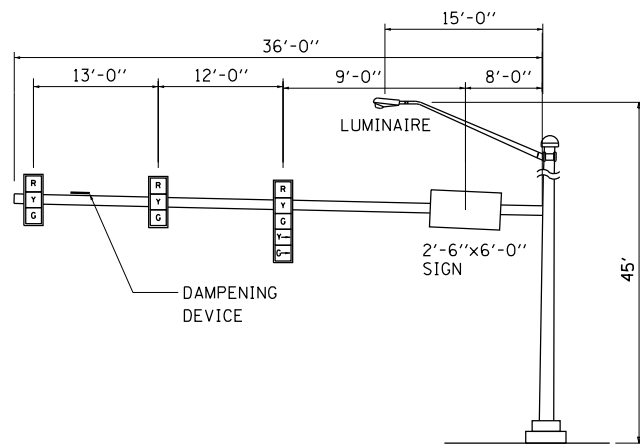
NOTE:

DAMPING DEVICE SHALL CONSIST OF A 24"X30" TYPE I, UNPAINTED ALUMINUM SIGN STOCK MOUNTED HORIZONTALLY ON TOP OF MAST ARM WITH THE 30" LENGTH PERPENDICULAR TO THE ARM. COST OF THE DAMPING DEVICE IS INCLUDED IN THE MAST ARM PAY ITEM.

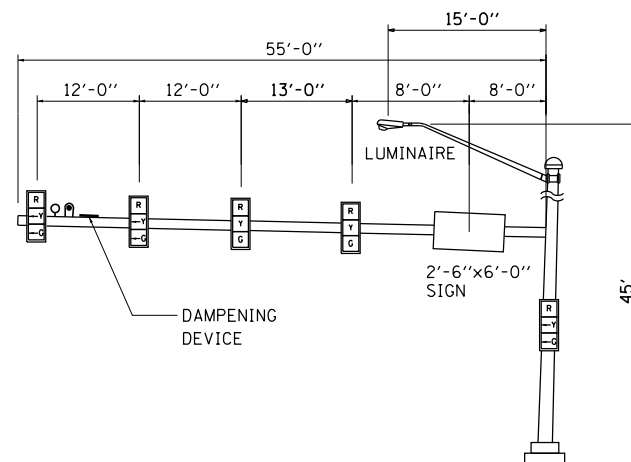


NOTE
MOUNT DAMPING PLATE TO END OF
EACH TRAFFIC SIGNAL MAST ARM

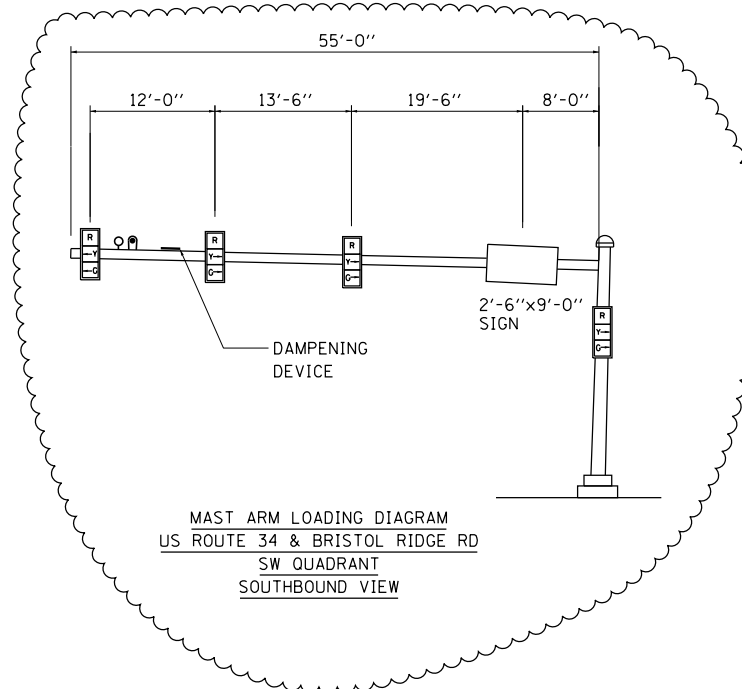
DAMPING PLATE DETAIL - TOP VIEW



**MAST ARM LOADING DIAGRAM
US ROUTE 34 & BRISTOL RIDGE RD
NW QUADRANT
WESTBOUND VIEW**

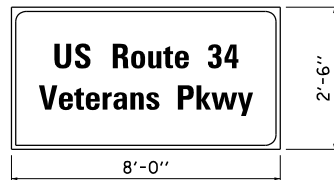


**MAST ARM LOADING DIAGRAM
US ROUTE 34 & BRISTOL RIDGE RD
SE QUADRANT
EASTBOUND VIEW**

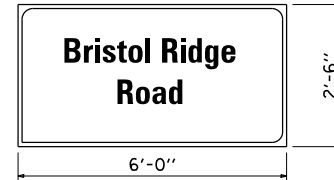


**MAST ARM LOADING DIAGRAM
US ROUTE 34 & BRISTOL RIDGE RD
SW QUADRANT
SOUTHBOUND VIEW**

FOUNDATION DEPTH TABLE		
TYPE	LOCATION	FOUNDATION DEPTH
36' COMBINATION MAST ARM	NW QUADRANT US RTE 34 & BRISTOL RIDGE ROAD	13'
55' MAST ARM	SW QUADRANT US RTE 34 & BRISTOL RIDGE ROAD	13'
55' COMBINATION MAST ARM	SE QUADRANT US RTE 34 & BRISTOL RIDGE ROAD	13'



3/4" BORDER
8" D SERIES LETTERS
TYPE ZZ SHEETING REQUIRED
1 SIGN REQUIRED= 20.0 SQ FT EACH
= 20.0 SQ FT TOTAL



3/4" BORDER
8" D SERIES LETTERS
TYPE ZZ SHEETING REQUIRED
2 SIGNS REQUIRED= 15.0 SQ FT EACH
= 30.0 SQ FT TOTAL

NOTES:

1. ALL SIGNAL HEADS HAVE BACKPLATES.
2. ALL MAST ARM FOUNDATIONS TO BE 36" DIAMETER.
3. DAMPING DEVICE SHALL CONSIST OF A 24"X30" TYPE-I, UNPAINTED ALUMINUM SIGN STOCK MOUNTED HORIZONTALLY ON TOP OF MAST ARM WITH THE 30" LENGTH PERPENDICULAR TO THE ARM. COST OF THE DAMPING DEVICE SHALL BE INCLUDED IN THE COST OF MAST ARM PAY ITEM.
4. ARM SUPPORT FOR LUMINAIRE SHALL BE PARALLEL TO MAST ARM UNLESS SHOWN ON PLAN.
5. FOUNDATION DEPTHS ARE BASED ON HIGHWAY STANDARD 878001-08. THE CONTRACTOR SHALL VERIFY THE SOIL STRENGTH TO THE DEPTH OF FOUNDATION AT EACH PROPOSED LOCATION. BUREAU OF BRIDGES & STRUCTURES SHOULD BE CONTACTED FOR A REVISED DESIGN IF CONDITIONS OTHER THAN STATED IN STANDARD 878001-08 ARE ENCOUNTERED.

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5413 Walnut Avenue
Downers Grove, IL 60515

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**MAST ARM LOADING DIAGRAM & SIGN DETAILS
US RTE 34 AND BRISTOL RIDGE ROAD**

SHEET OF SHEETS STA. TO STA.

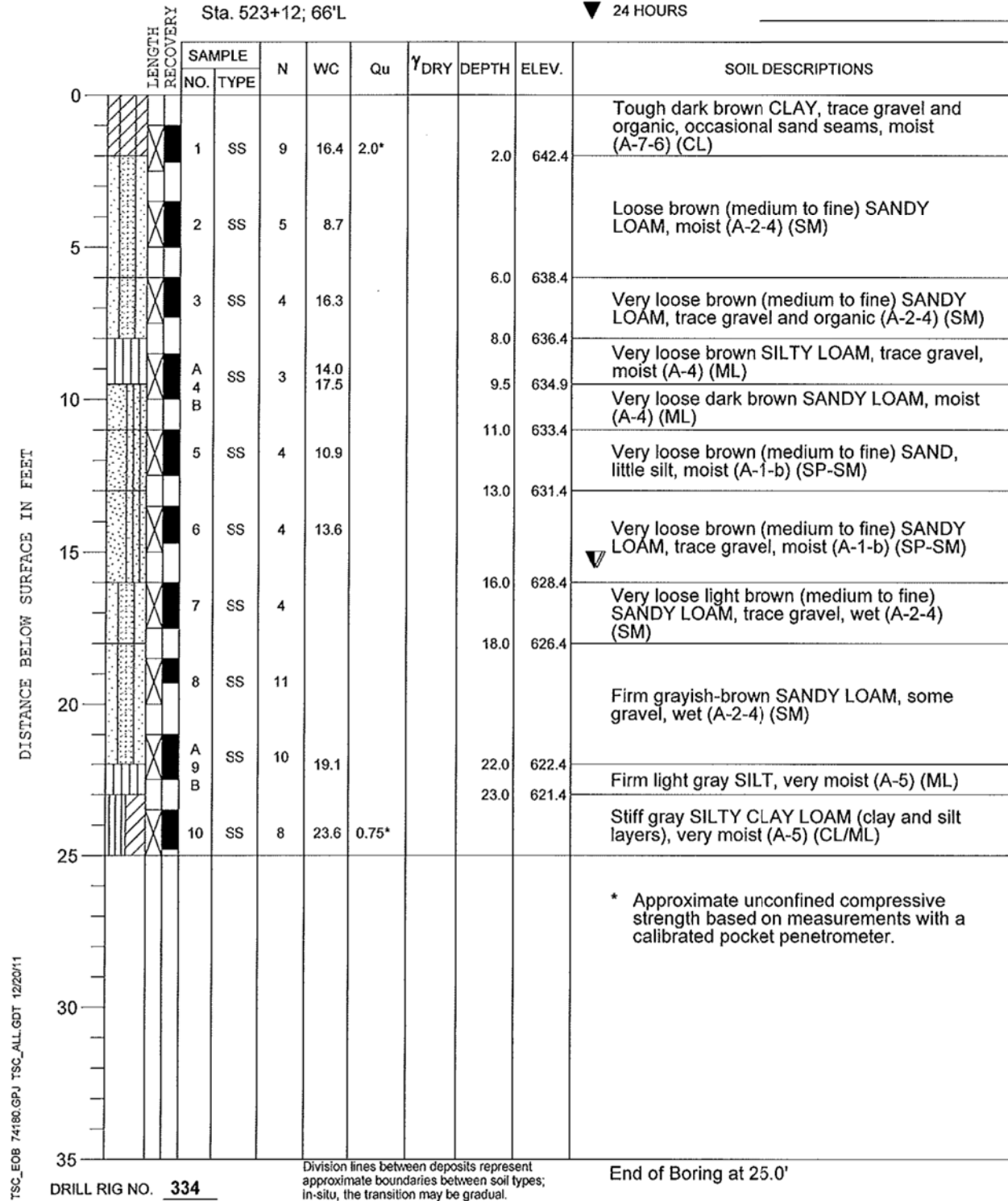
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	468
				CONTRACT NO. 66884
ILLINOIS FED. AID PROJECT				

PROJECT **U.S. Route 34 Reconstruction and Widening, Yorkville, Illinois**
 CLIENT **GRAEF, Chicago, Illinois**
 BORING **605** DATE STARTED **11-16-11** DATE COMPLETED **11-16-11** JOB **L-74,180**



ELEVATIONS
 GROUND SURFACE **644.4**
 END OF BORING **619.4**
 Sta. 523+12; 66'L

WATER LEVEL OBSERVATIONS
 ▽ WHILE DRILLING **15.5'**
 ▽ AT END OF BORING **15.5'**
 ▽ 24 HOURS

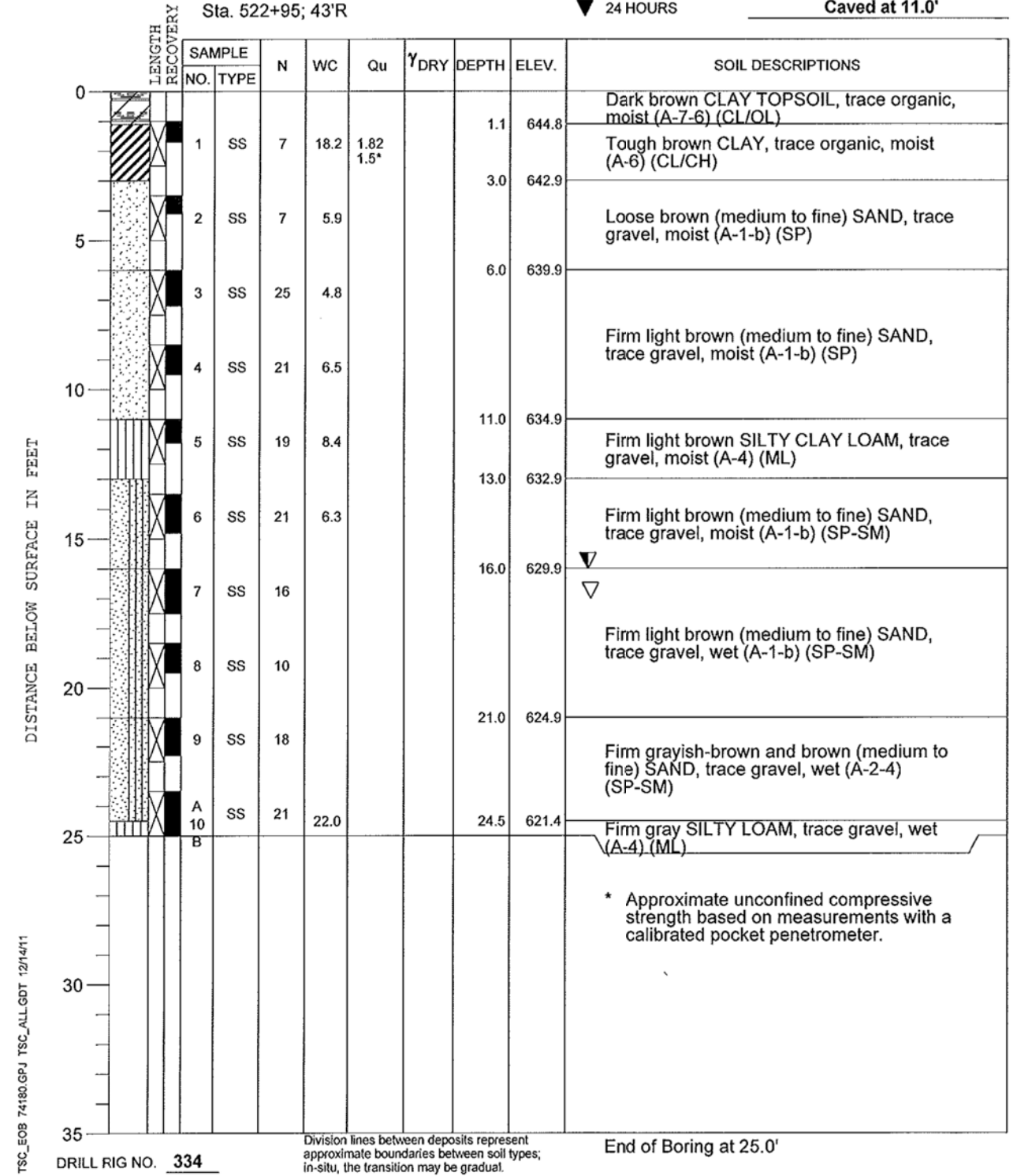


PROJECT **U.S. Route 34 Reconstruction and Widening, Yorkville, Illinois**
 CLIENT **GRAEF, Chicago, Illinois**
 BORING **606** DATE STARTED **11-15-11** DATE COMPLETED **11-15-11** JOB **L-74,180**



ELEVATIONS
 GROUND SURFACE **645.9**
 END OF BORING **620.9**
 Sta. 522+95; 43'R

WATER LEVEL OBSERVATIONS
 ▽ WHILE DRILLING **16.0'**
 ▽ AT END OF BORING **17.0'**
 ▽ 24 HOURS **Caved at 11.0'**



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STATE OF ILLINOIS
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US 34 AND BRISTOL RIDGE ROAD
BORING LOGS

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	469
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

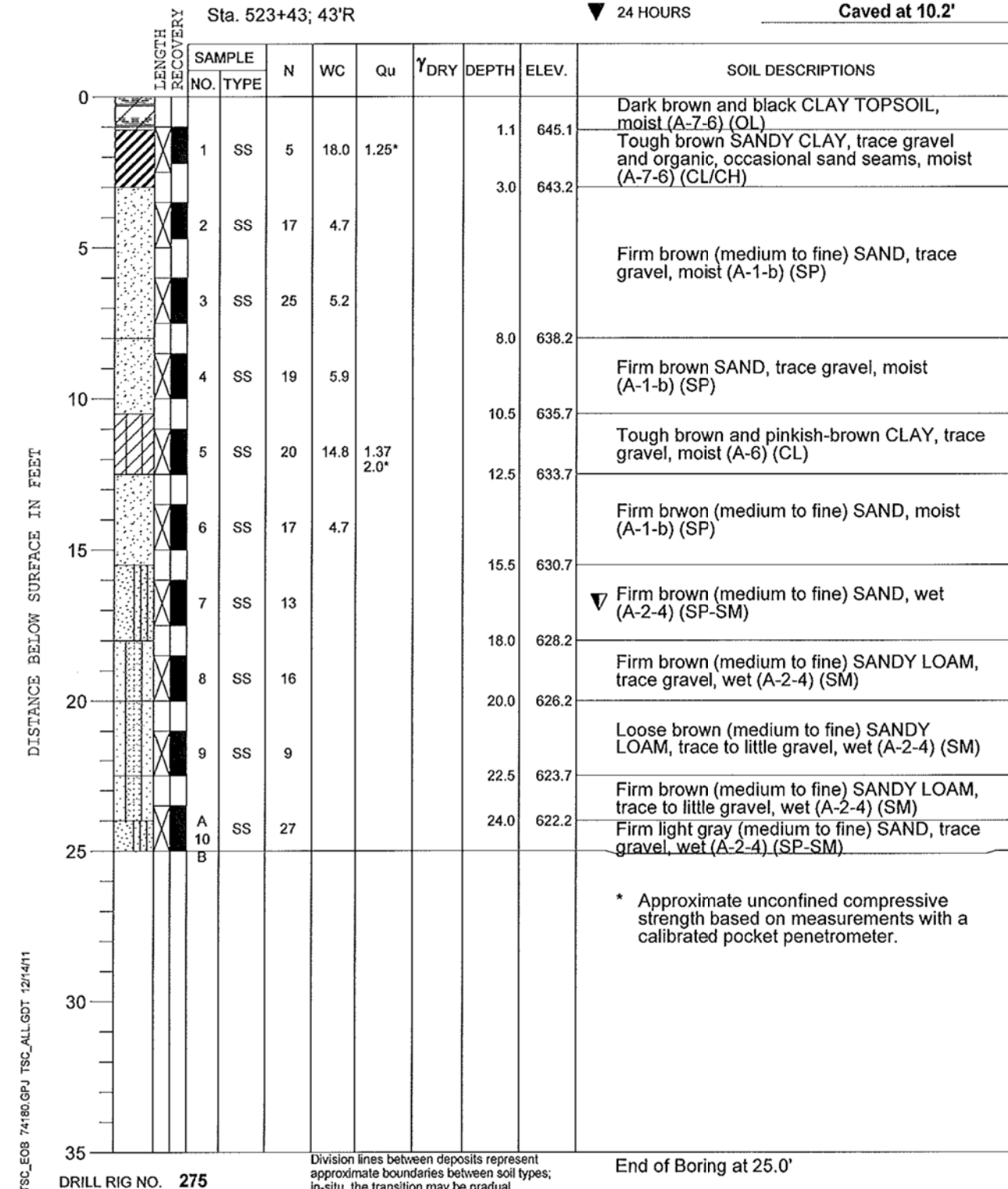
PROJECT **U.S. Route 34 Reconstruction and Widening, Yorkville, Illinois**



CLIENT **GRAEF, Chicago, Illinois**

BORING **607** DATE STARTED **11-15-11** DATE COMPLETED **11-15-11** JOB **L-74,180**

ELEVATIONS		WATER LEVEL OBSERVATIONS	
GROUND SURFACE	646.2	▽ WHILE DRILLING	17.0'
END OF BORING	621.2	▽ AT END OF BORING	Caved at 14.0'
		▽ 24 HOURS	Caved at 10.2'



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	DATE - 12/01/2014	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**US 34 AND BRISTOL RIDGE ROAD
BORING LOGS**

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T)	KENDALL	753	470
CONTRACT NO. 66884				

ILLINOIS FED. AID PROJECT

TEMPORARY TRAFFIC SIGNAL LEGEND

- ← TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
- ↔ TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
- ⊗ TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM
- ☒ TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE AND CABLE
- ⊕ TEMPORARY SERVICE INSTALLATION
- ⊠ TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- Ⓜ VIDEO DETECTION SYSTEM
- Ⓜ PEDESTRIAN PUSHBUTTON DETECTOR
- Ⓜ EMERGENCY VEHICLE LIGHT DETECTOR
- Ⓜ CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- UD UNIT DUCT
- - - G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- Ⓜ HANDHOLE
- Ⓜ HEAVY DUTY HANDHOLE
- CT COMMON TRENCH
- Ⓜ GUY WIRE
- Ⓜ RADIO INTERCONNECT
- ★ LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT

THE TRAFFIC SIGNAL EQUIPMENTS FOR THIS CONTRACT SHALL BE ECONOLITE BRAND. THE CONTROLLER FURNISHED SHALL BE THE MOST CURRENT ECONOLITE BRAND.

WHERE POSSIBLE TEMPORARY SPAN WIRES SHALL BE PLACED IN FRONT OF PERMANENT TRAFFIC SIGNALS. ALL TEMPORARY WOOD POLES LOCATION SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.

EXISTING EQUIPMENT TO BE REMOVED LEGEND

- Ⓜ EXISTING SIGNAL HEAD TO BE REMOVED
- Ⓜ EXISTING SERVICE INSTALLATION TO BE REMOVED
- EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- Ⓜ EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- Ⓜ EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- Ⓜ EXISTING HANDHOLE TO BE REMOVED
- Ⓜ EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- Ⓜ EXISTING PEDESTRIAN PUSHBUTTON TO BE REMOVED
- Ⓜ EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- Ⓜ CONFIRMATION BEACON TO BE REMOVED
- Ⓜ EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- Ⓜ EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED
- Ⓜ EXISTING EXISTING JUNCTION BOX TO BE REMOVED

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 3, INSTALLED IN A NEMA TS1 OF 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 12" (300mm). HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. 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. THE LOCATIONS OF THE TEMPORARY TRAFFIC SIGNAL HEADS ARE BASED ON SUGGESTED CONSTRUCTION STAGING AND TRAFFIC CONTROL-STAGE 1. THE SECONDARY SIGNAL HEADS LOCATIONS SHALL BE PLACED PER OTHER CONSTRUCTION STAGING AND AS APPROVED BY THE ENGINEER IN THE FIELD.
8. SIGNAL HEADS FOR CROSS STREET SHALL BE BAGGED WHEN TRAFFIC IS DETOURED AND UNBAGGED WHEN LANES ARE OPEN TO TRAFFIC.

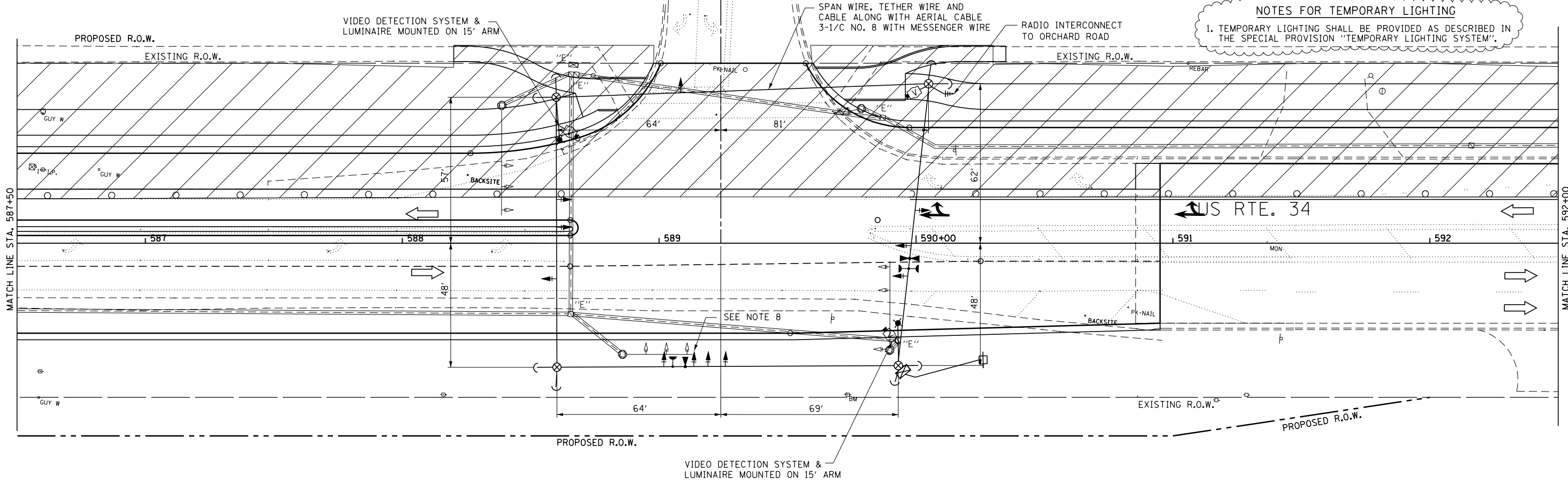
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE CITY OF YORKVILLE AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE CITY TRAFFIC SIGNAL MAINTENANCE FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS:

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

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, MEDIAN, 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 LIGHTING

1. TEMPORARY LIGHTING SHALL BE PROVIDED AS DESCRIBED IN THE SPECIAL PROVISION "TEMPORARY LIGHTING SYSTEM".



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	DATE - 12/01/2014	REVISED -

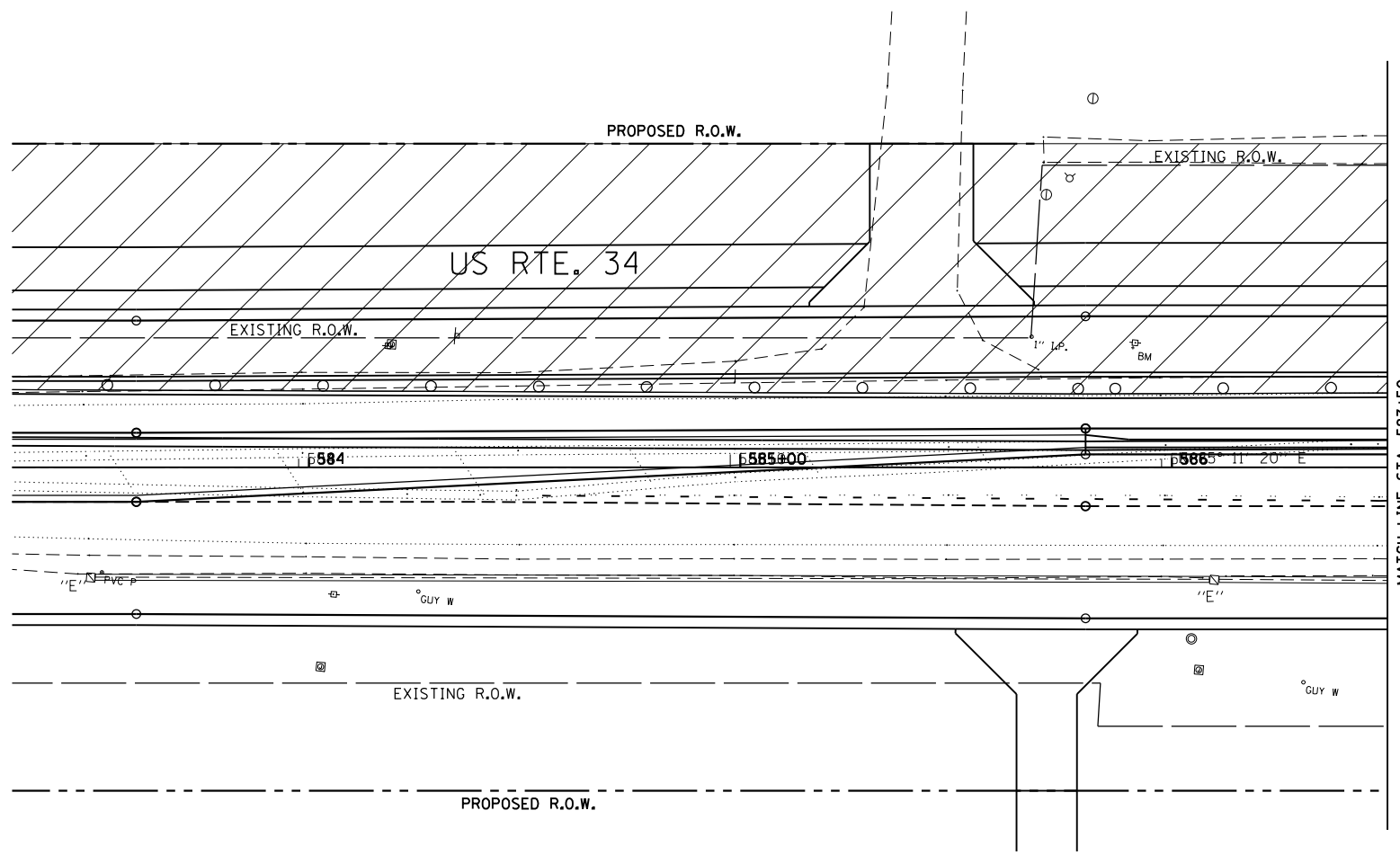
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL AND REMOVAL PLAN
AT US 34 AND O'BRIEN WAY**

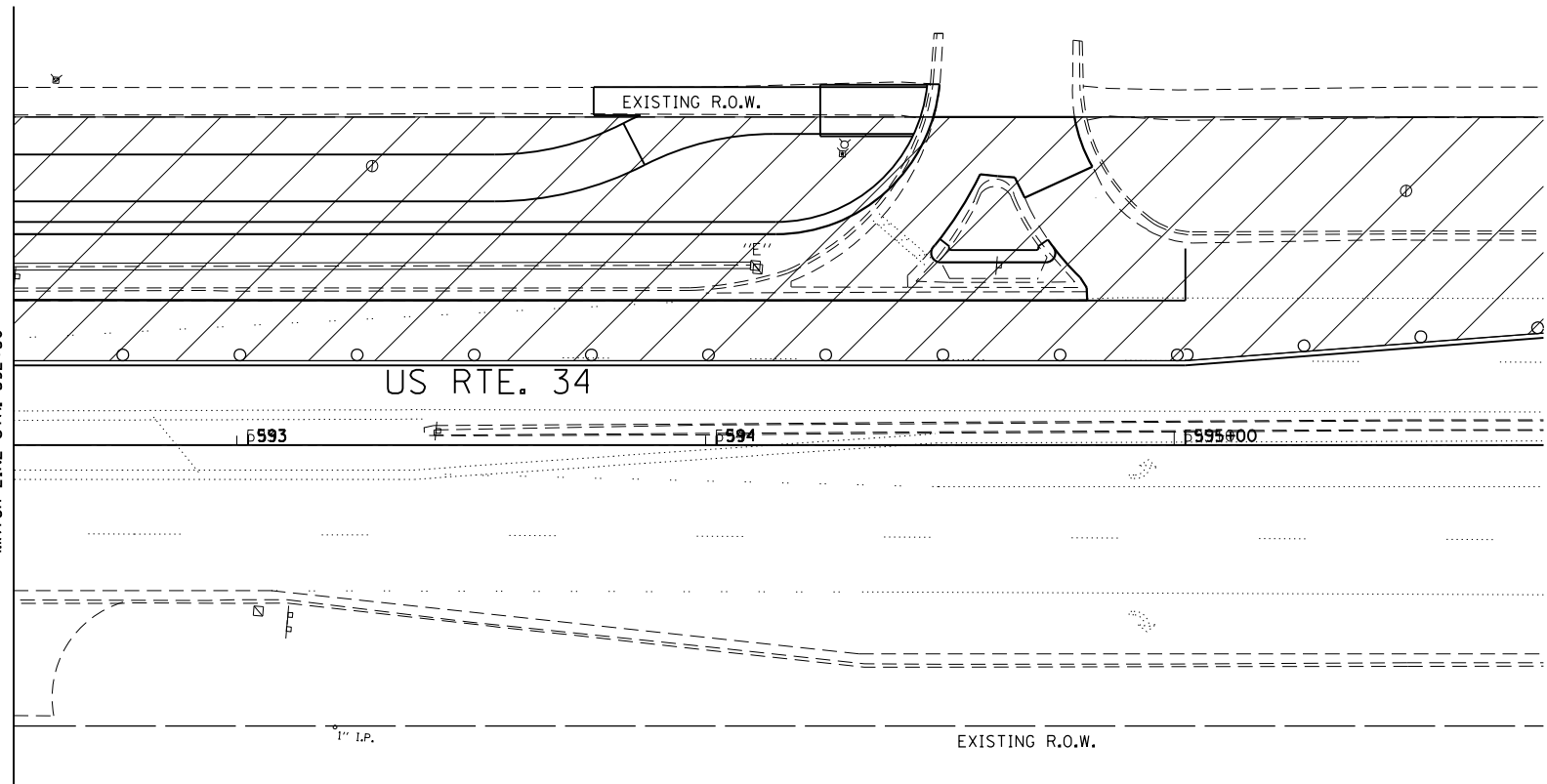
SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T)	KENDALL	753	471
			CONTRACT NO. 66884	
ILLINOIS FED. AID PROJECT				

TS-48



MATCH LINE STA. 587+50



MATCH LINE STA. 592+50

TEMPORARY TRAFFIC SIGNAL LEGEND

- ← TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
- ↗ TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
- ⊗ TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM
- ⊠ TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE AND CABLE
- ⊞ TEMPORARY SERVICE INSTALLATION
- ⊞ TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- ⊞ VIDEO DETECTION SYSTEM
- ⊞ PEDESTRIAN PUSHBUTTON DETECTOR
- ⊞ EMERGENCY VEHICLE LIGHT DETECTOR
- ⊞ CONFIRMATION BEACON
- ⊞ VEHICLE DETECTOR, INDUCTION LOOP
- UD UNIT DUCT
- G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- ⊞ HANDHOLE
- ⊞ HEAVY DUTY HANDHOLE
- CT COMMON TRENCH
- ↗ GUY WIRE
- ⊞ RADIO INTERCONNECT
- ★ LUMINAIRE

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Downers Grove, IL 60515

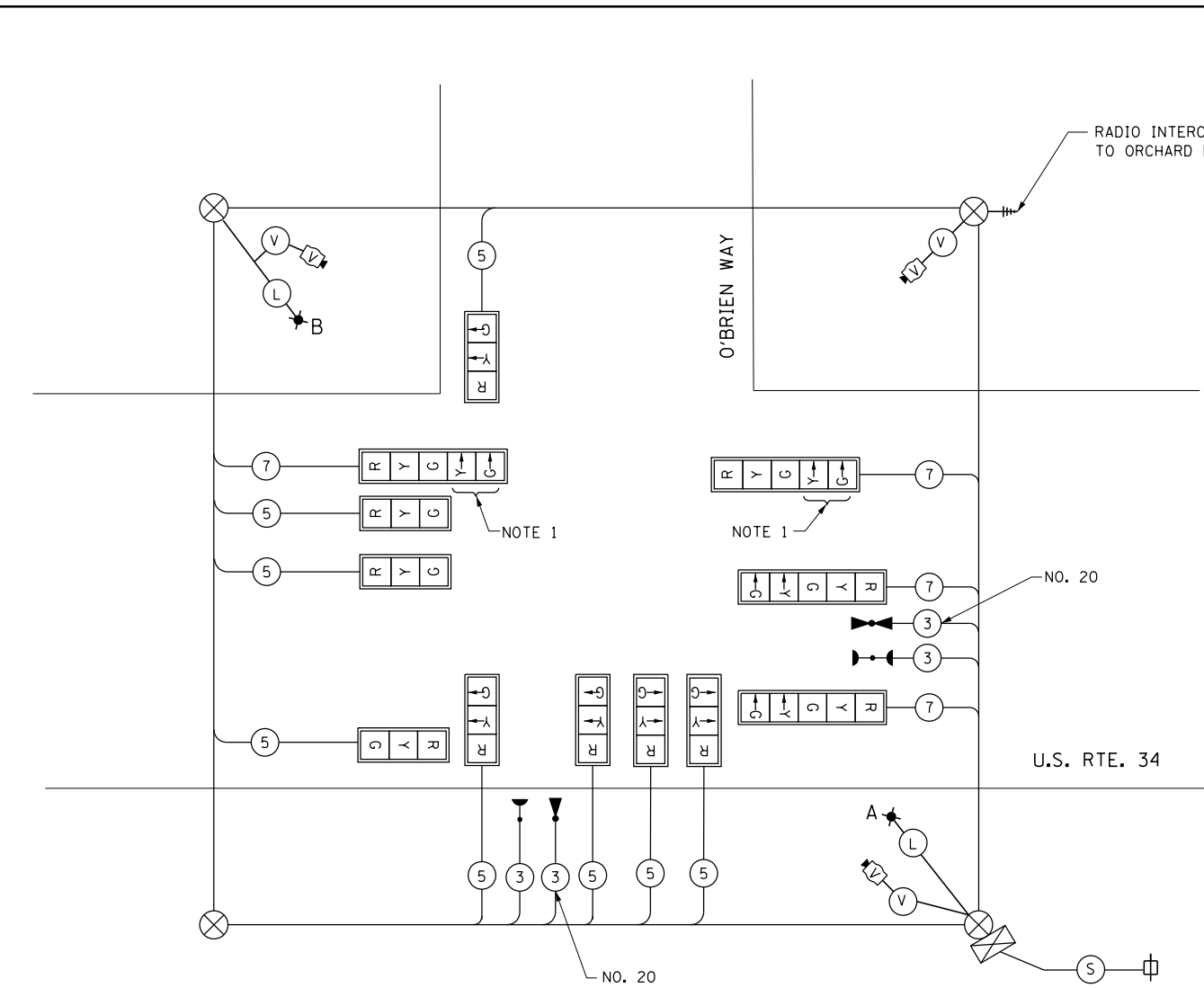
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL AND REMOVAL PLAN
AT US 34 AND O'BRIEN WAY-2**

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	472
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				



TEMPORARY CABLE DIAGRAM LEGEND

- R TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION 12" (300mm)
- ⊠ TEMPORARY CONTROLLER CABINET
- ⊕ TEMPORARY SERVICE INSTALLATION
- ⑤ INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED.
- ▶ EMERGENCY VEHICLE LIGHT DETECTOR
- ◀ CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- ⊙ PEDESTRIAN PUSHBUTTON DETECTOR
- ⊞ 12" (300mm) PEDESTRIAN SIGNAL SECTION
- ⊞ VIDEO DETECTION SYSTEM
- ⊞ GROUND ROD AT ELECTRIC SERVICE INSTALLATION
- ⊞ LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT
- ⊞ TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM

- Ⓜ VIDEO CAMERA CABLE
 - 6 PAIRS TWISTED REQUIRED
 - 3 PAIRS CONDUCTOR FOR POWER -24V AC (AC+, AC-, GND)
 - 1 PAIR DATA
 - 1 PAIR COMPOSITE VIDEO
 - 1 PAIR DETECTOR DATA
- OVERALL SHIELD MINIMUM 16 AWG (PAIRS) (TO BE INCLUDED IN THE BID PRICE FOR TEMPORARY TRAFFIC SIGNAL INSTALLATION)
- Ⓢ SERVICE CABLE
 - ELECTRIC CABLE IN CONDUIT, SERVICE NO. 6 2C
- Ⓛ LIGHTING CABLE
 - 600V (XLP-TYPE USE) 3 1/C NO. 10

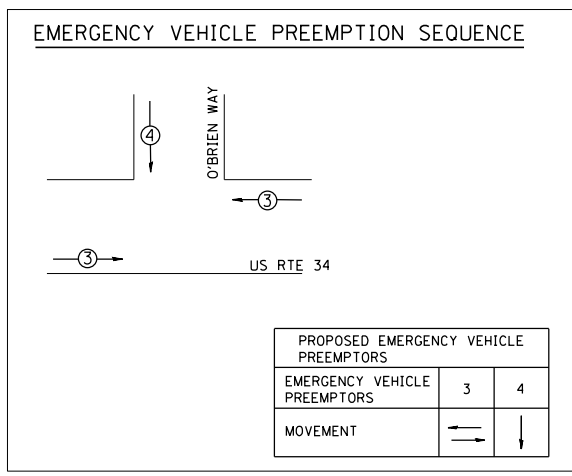
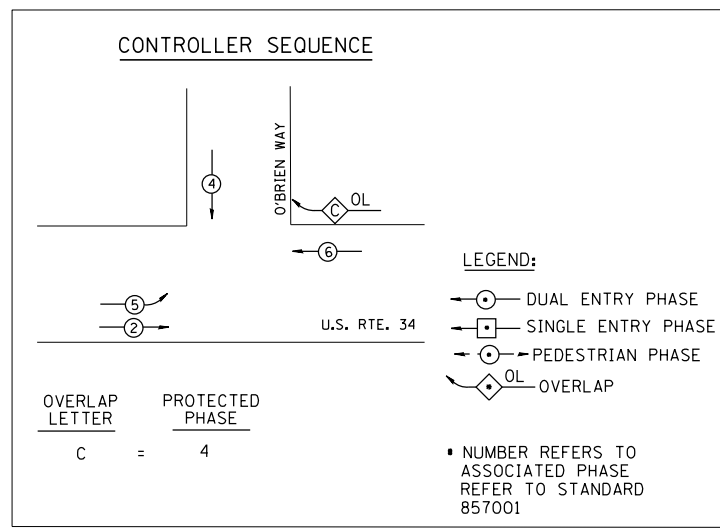
NOTE 1. THE BOTTOM SIGNAL HEADS WITH RIGHT TURN ARROWS SHALL BE BAGGED AND DISCONNECTED DURING STAGE 1. AFTER COMPLETION OF STAGE 1 CONSTRUCTION THESE SIGNAL HEADS SHALL BE UNBAGGED AND ACTIVATED FOR USE DURING OTHER CONSTRUCTION STAGES AND UNTIL PERMANENT SIGNALS ARE INSTALLED.

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, MEDIAN, 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.

TEMPORARY CABLE PLAN
N.T.S.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL VOLTAGE
TYPE	NO. LAMPS	WATTAGE INCAND	WATTAGE LED	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.0
(YELLOW)	12	135	25	0.25	75.0
(GREEN)	12	135	15	0.25	45.0
ARROW	8	135	12	0.10	9.6
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	-
LUMINAIRE	2	250		0.50	250
FLASHER				0.50	-
TOTAL =					581.6

ENERGY COST TO: Illinois Department of Transportation
Division of Highways / District 3
700E Norris Drive, Ottawa, ILL 61350-0697
ENERGY SUPPLY: CONTACT: Mr. Thomas Perkins
PHONE: 630-723-2127
COMPANY: ComEd



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	DATE - 12/01/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN AND PHASE DESIGNATION DIAGRAM
US ROUTE 34 & O'BRIEN WAY

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	473
CONTRACT NO. 66884				

ILLINOIS FED. AID PROJECT

TS-50

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT		
COMMON TRENCH		
HANDHOLE		
HEAVY-DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CAST IRON JUNCTION BOX		
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		
WOOD POLE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		
TELEPHONE CONNECTION		
ILLUMINATED SIGN "NO LEFT TURN"		
ILLUMINATED SIGN "NO RIGHT TURN"		

*** POST AND MAST ARM DATA**

SIGNAL INSTALLATION STATIONING		
SIGNAL ITEM/LOCATION	STATION	OFFSET
NW MA	588+55	57' LT
SW MA	588+67	50' RT
SE MA	589+80	50' RT
NW POST	588+94	67.7' LT
NE POST	589+86	53.8' LT
SE DOUBLE HH	590+10	43.6' RT
NW HH	588+84	68' LT
NE HH	590+01	51.6' LT
SW HH	588+60	40.8' RT
EB FAR BACK HH	584+04	42' RT
WB FAR BACK HH	595+37	52' LT
EB MIDDLE HH	586+63	41.5' RT
WB MIDDLE HH	592+08	52.5' LT
TRAFFIC SIGNAL CONTROLLER	590+10	49' RT

NOTE: CONTRACTOR SHALL NOTIFY ENGINEER OF CHANGES IN LOCATION

* LOCATIONS OF TRAFFIC SIGNAL POSTS AND MAST ARM ASSEMBLIES MAY BE CHANGED IN THE FIELD AS NECESSARY TO AVOID UTILITIES. THE NEW LOCATIONS SHALL BE COORDINATED WITH THE ENGINEER AND APPROVED BY THE DISTRICT TRAFFIC SIGNAL SECTION TO ENSURE THE NEW LOCATIONS MEET OPERATIONAL OFFSET/CLEAR ZONE REQUIREMENTS AND MAINTAIN PROPER POSITION OF SIGNAL HEADS IN RELATION TO THE TRAVELLED LANES.

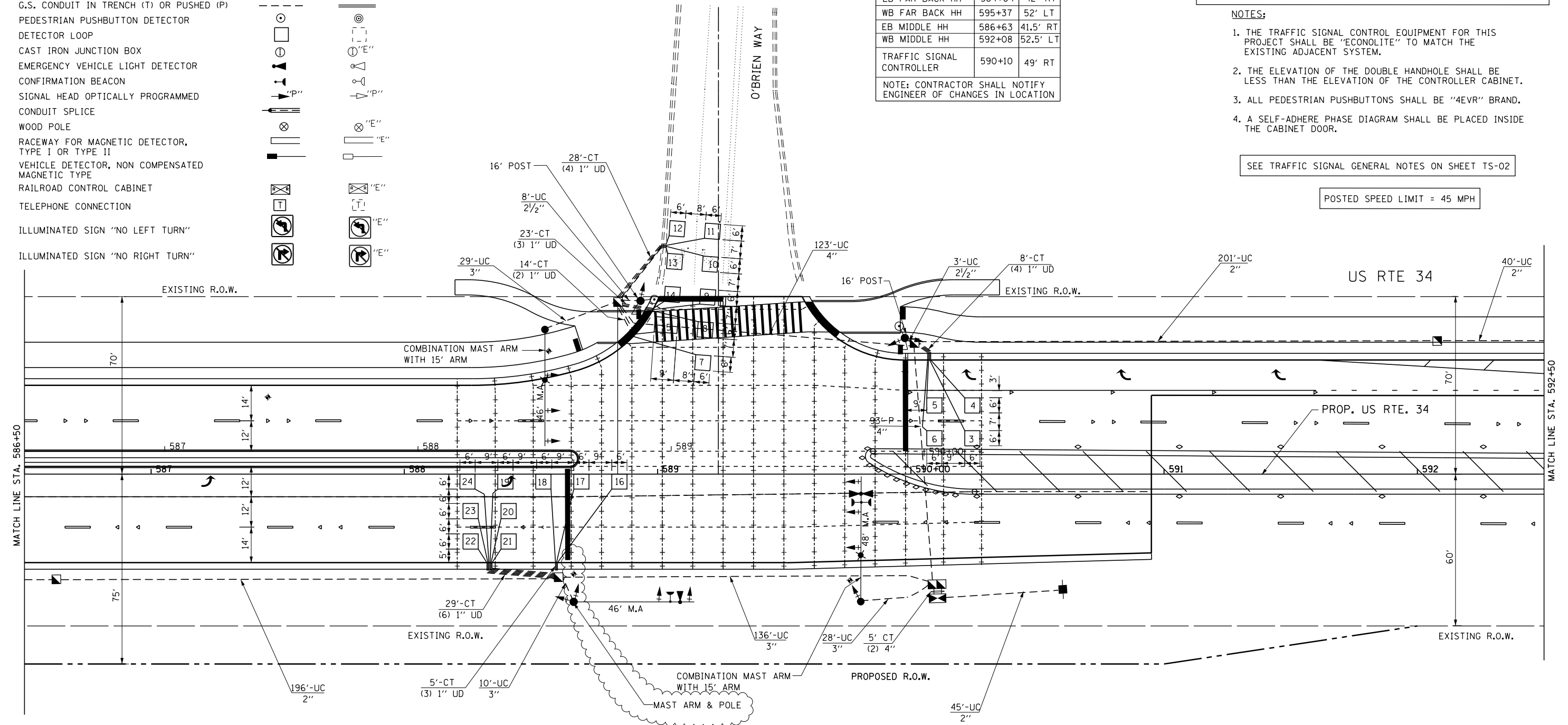
RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT ETC. SHALL 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. THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.
2. THE ELEVATION OF THE DOUBLE HANDHOLE SHALL BE LESS THAN THE ELEVATION OF THE CONTROLLER CABINET.
3. ALL PEDESTRIAN PUSHBUTTONS SHALL BE "4EVR" BRAND.
4. A SELF-ADHERE PHASE DIAGRAM SHALL BE PLACED INSIDE THE CABINET DOOR.

SEE TRAFFIC SIGNAL GENERAL NOTES ON SHEET TS-02

POSTED SPEED LIMIT = 45 MPH



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PLOT SCALE = 48.0000' / in.	DRAWN - RV	REVISED -
PLOT DATE = 10/5/2015	CHECKED - MSA	REVISED -
	DATE - 12/01/2014	REVISED -

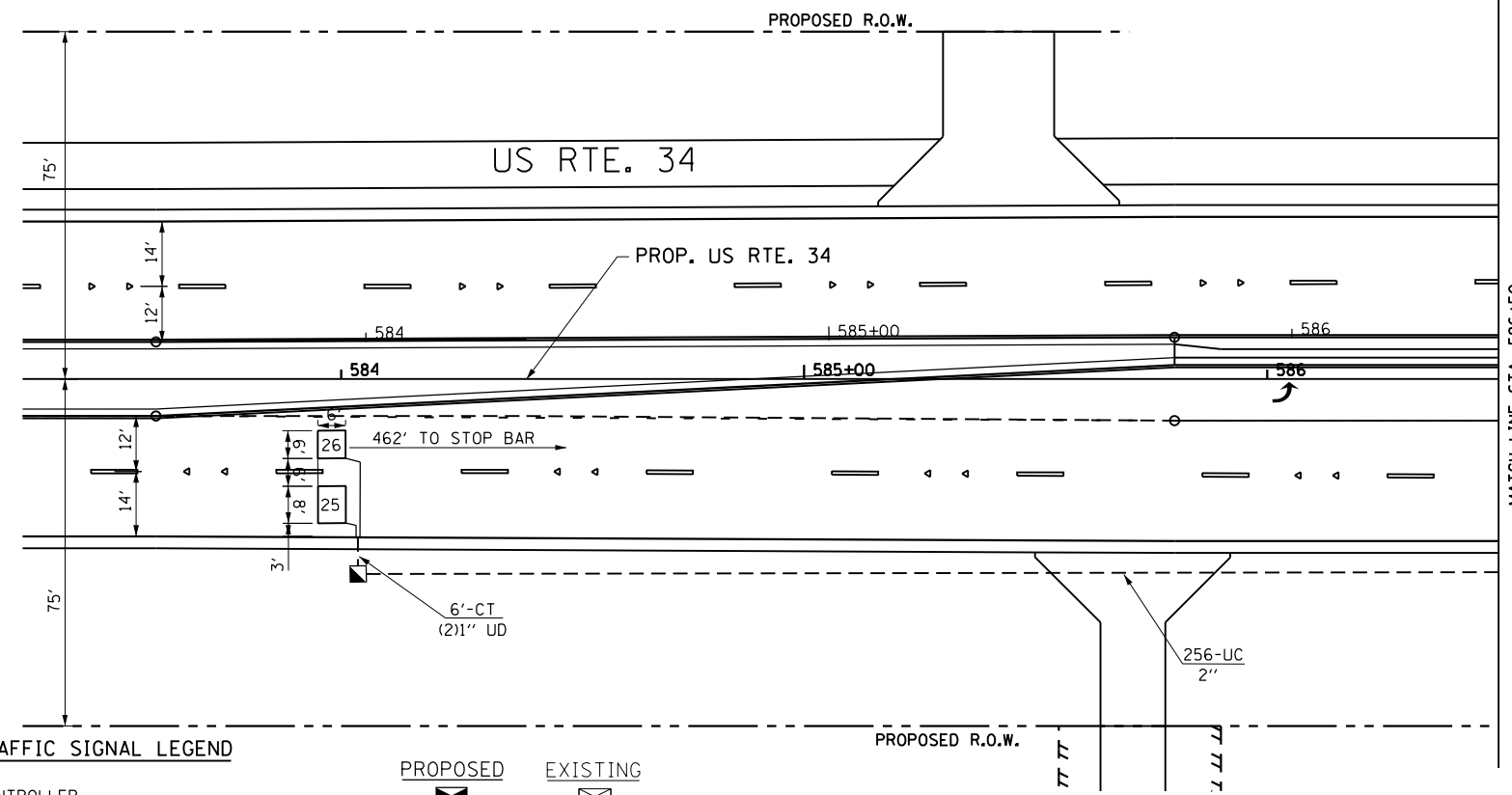
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL INSTALLATION PLAN
US RTE 34 & O'BRIEN WAY**

1"=20' SHEET OF SHEETS STA. 586+50 TO STA. 592+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T)	KENDALL	753	474
			CONTRACT NO. 66884	
ILLINOIS FED. AID PROJECT				

TS-51

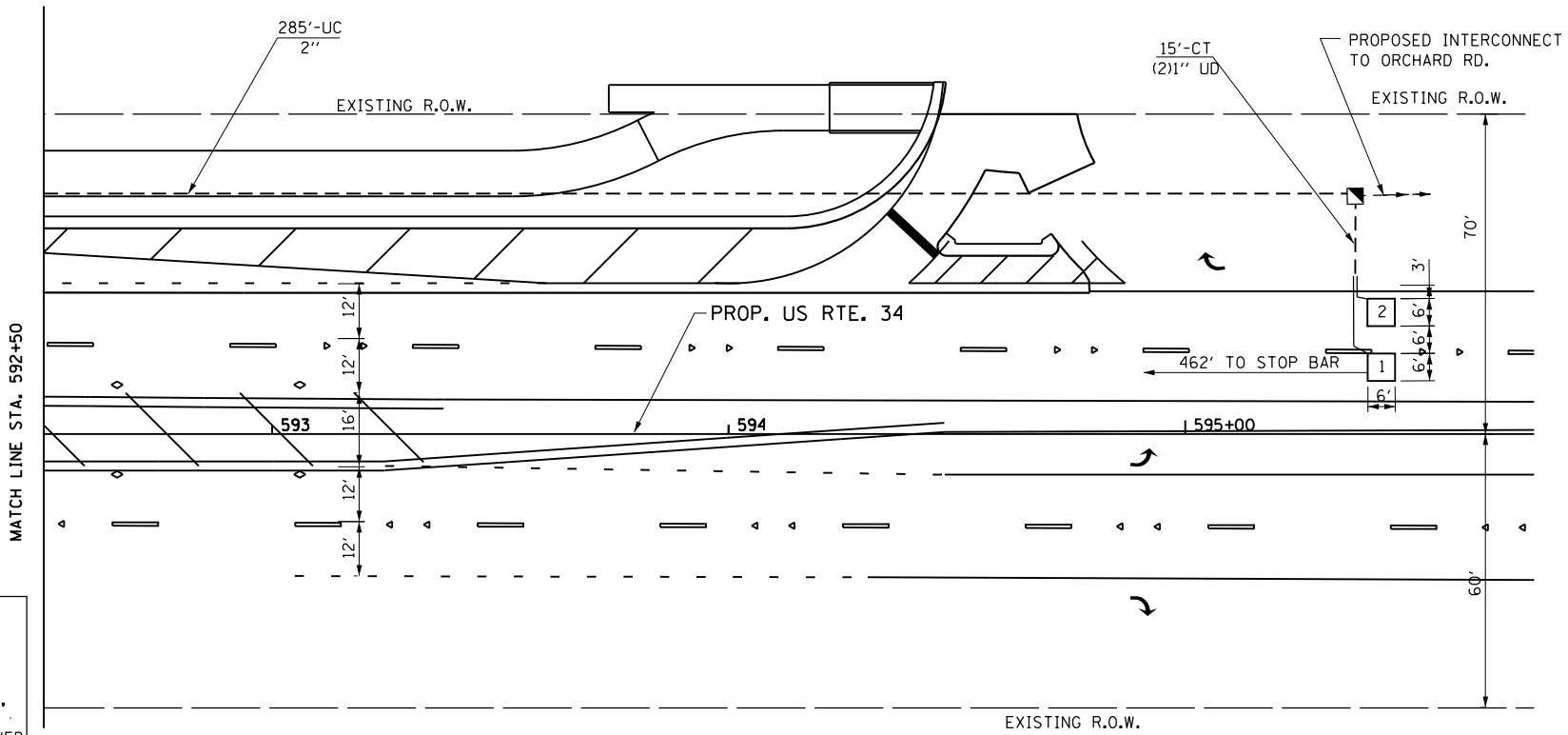


Approach	Detector ID	Turns	Code Number	Coded Pay Item	Loop	Preformed Loop to EOP	Lead-In Wire EOP to Handhole	Slack	Quantity
EAST APPROACH US34	1	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	19'	15'	6'	43'
	2	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	7'	15'	6'	31'
	3	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	31'	8'	6'	55'
	4	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	20'	8'	6'	44'
	5	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	15'	8'	6'	39'
	6	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	29'	8'	6'	53'
								Total	265'
NORTH APPROACH MARKET PLACE	7	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	26'	14'	6'	50'
	8	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	19'	23'	6'	43'
	9	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	19'	23'	6'	43'
	10	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	15'	44'	6'	39'
	11	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	15'	44'	6'	39'
WEST APPROACH US34	12	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	4'	44'	6'	28'
	13	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	2'	44'	6'	26'
	14	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	5'	23'	6'	29'
	15	5	88600700	PREFORMED DETECTOR LOOP	9'x6'	7'	14'	6'	37'
								Total	334'
WEST APPROACH US34	16	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	36'	5'	6'	60'
	17	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	30'	5'	6'	54'
	18	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	29'	5'	6'	53'
	19	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	30'	29'	6'	54'
	20	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	18'	29'	6'	42'
	21	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	6'	29'	6'	30'
	22	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	6'	29'	6'	30'
	23	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	18'	29'	6'	42'
	24	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	31'	24'	6'	55'
	25	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	5'	6'	6'	29'
	26	5	88600700	PREFORMED DETECTOR LOOP	6'x6'	19'	6'	6'	43'
								Total	492'

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]
SERVICE INSTALLATION	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]
SIGNAL HEAD, PEDESTRIAN	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, ALUMINUM	[Symbol]	[Symbol]
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE	[Symbol]	[Symbol]
UNIT DUCT	[Symbol]	[Symbol]
COMMON TRENCH	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
HEAVY-DUTY HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)	[Symbol]	[Symbol]
PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
CAST IRON JUNCTION BOX	[Symbol]	[Symbol]
EMERGENCY VEHICLE LIGHT DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]
SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]
CONDUIT SPLICE	[Symbol]	[Symbol]
WOOD POLE	[Symbol]	[Symbol]
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	[Symbol]	[Symbol]
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	[Symbol]	[Symbol]
RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
TELEPHONE CONNECTION	[Symbol]	[Symbol]
ILLUMINATED SIGN "NO LEFT TURN"	[Symbol]	[Symbol]
ILLUMINATED SIGN "NO RIGHT TURN"	[Symbol]	[Symbol]

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, MEDIAN, 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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 DATE: TIME: 12/2/2014 5:12:05 PM

AMES Engineering, Inc.
 CONSULTING ENGINEERS
 5413 Walnut Avenue
 Downers Grove, IL 60515

USER NAME = vramesh	DESIGNED - AS	REVISED -
PLOT SCALE = 48.0000' / in.	DRAWN - RV	REVISED -
PLOT DATE = 12/2/2014	CHECKED - MSA	REVISED -
	DATE - 12/01/2014	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL INSTALLATION PLAN
 US RTE 34 & O'BRIEN WAY**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	475
			CONTRACT NO. 66884	
ILLINOIS FED. AID PROJECT				

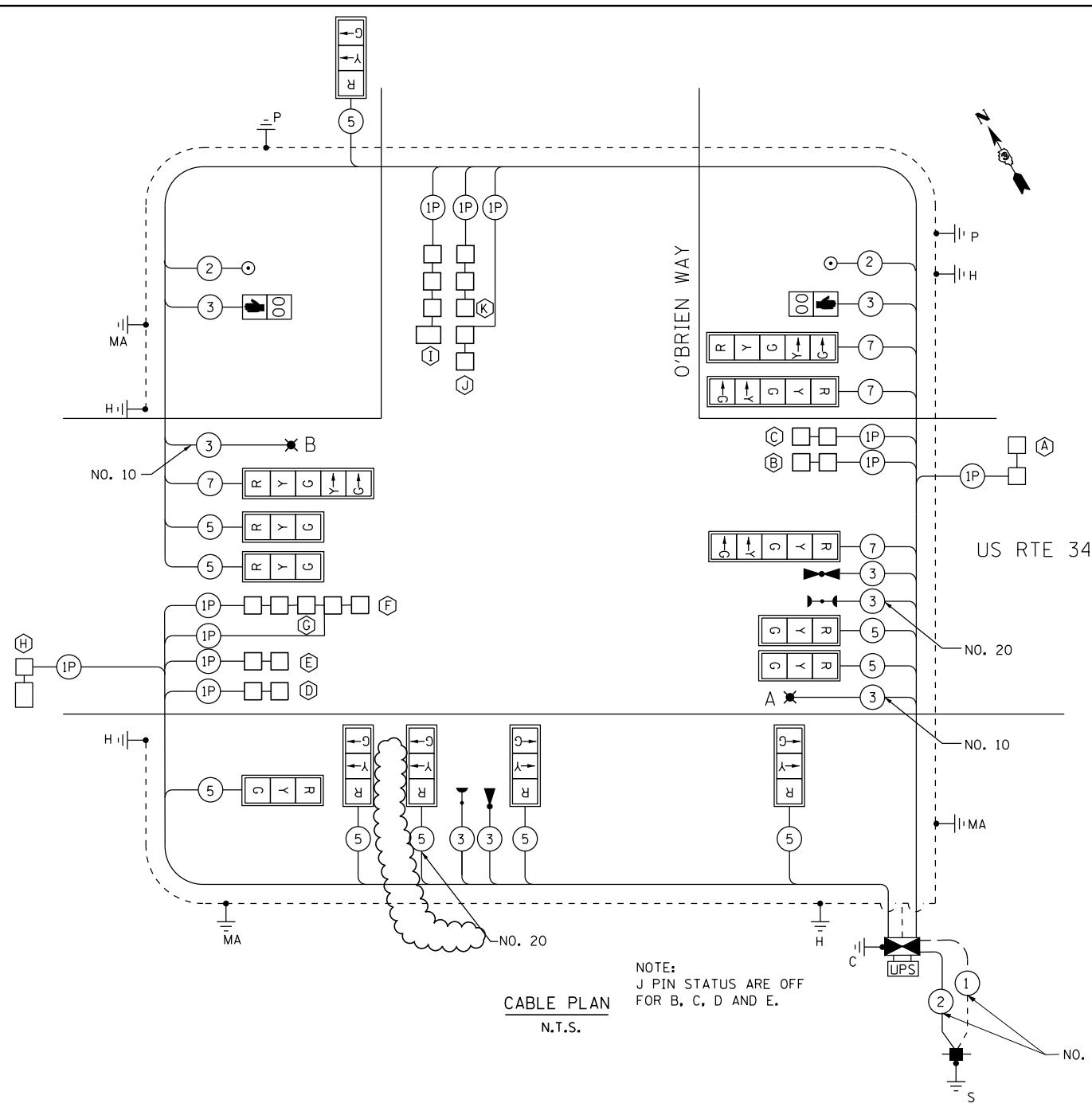
TS-52

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I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL VOLTAGE
TYPE	NO. LAMPS	WATTAGE INCAND	WATTAGE LED	% OPERATION	
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	87.5
(GREEN)	14	135	15	0.25	52.5
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	-
LUMINAIRE	3	250		0.50	375
FLASHER				0.50	-
TOTAL =					793.6

ENERGY COST TO: Illinois Department of Transportation
Division of Highways / District 3
700 E. Norris Dr., Ottawa, IL 61350

ENERGY SUPPLY: CONTACT: Mr. Thomas Perkins
PHONE: 630-723-2127
COMPANY: ComEd

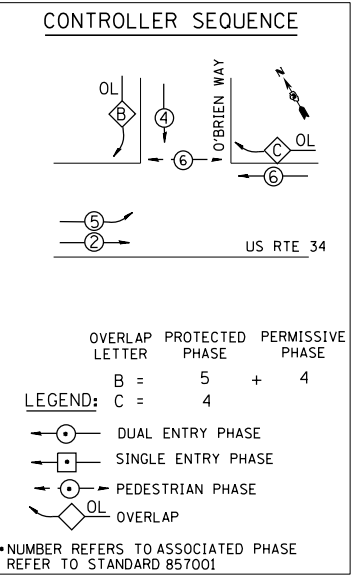
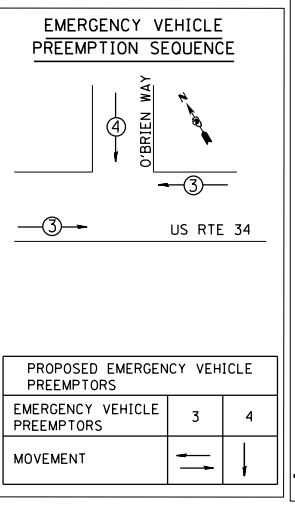


CABLE PLAN
N.T.S.

NOTE:
J PIN STATUS ARE OFF
FOR B, C, D AND E.

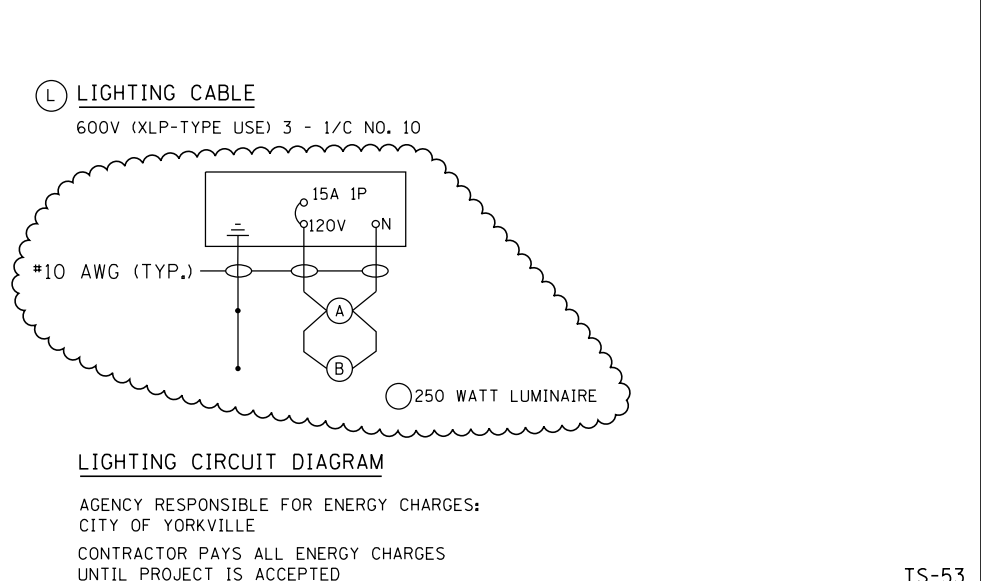
CABLE PLAN LEGEND

EXISTING	PROPOSED	
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		COUNT DOWN PEDESTRIAN SIGNAL HEAD
		CONTROLLER CABINET
		SERVICE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		TELEPHONE INSTALLATION
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
		GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
		SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD.
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"
		GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
		GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
		GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		UNINTERRUPTIBLE POWER SUPPLY
		LUMINAIRE, SODIUM VAPOR HORIZONTAL MOUNT, 250 WATT



BILL OF MATERIALS

ITEM	UNIT	US Rte 34 @ O'Brien Way
SIGN PANEL - TYPE 2	SQ FT	53
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	1154
UNDERGROUND CONDUIT, PVC, 2 1/2" DIA.	FOOT	11
UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	203
UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	226
HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	7
DOUBLE HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	1
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 10	FOOT	329
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	2
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, EXTENDED	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	510
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	920
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2300
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	776
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2931
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	100
TRAFFIC SIGNAL POST, GALVANIZED STEEL, 16 FT.	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 46 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 48 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	6
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	39
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	6
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED WITH COUNT DOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	14
INDUCTIVE LOOP DETECTOR	EACH	11
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	FOOT	2
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	5
REMOVE EXISTING HANDHOLE	EACH	8
REMOVE EXISTING CONCRETE FOUNDATION	EACH	5
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	600
PREFORMED DETECTOR LOOP	FOOT	1100
OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1
SERVICE INSTALLATION, TYPE B	EACH	1
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	450
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 20 3C TWISTED SHIELDED	FOOT	400
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 6, 1/C NO. 6 GROUND	FOOT	38
RE-OPTIMIZE TEMPORARY TRAFFIC SIGNAL SYSTEM	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	200
STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	1
COMBINATION LIGHTING CONTROLLER	EACH	1
TEMPORARY LIGHTING SYSTEM	LSUM	1



 AMES Engineering, Inc. CONSULTING ENGINEERS 5413 Walnut Avenue Downers Grove, IL 60515	USER NAME = duncanbd	DESIGNED - AS	REVISED - BDD 10/02/2015
	PLOT SCALE = 48.0000' / in.	DRAWN - RV	REVISED -
	PLOT DATE = 10/5/2015	CHECKED - MSA	REVISED -
		DATE - 12/01/2014	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CABLE PLAN, PHASE DIAGRAM & SCHEDULE OF QUANTITIES

US RTE 34 & O'BRIEN WAY

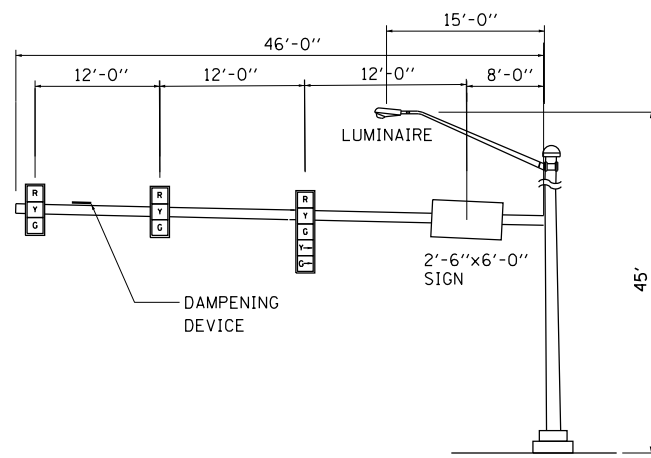
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	476
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

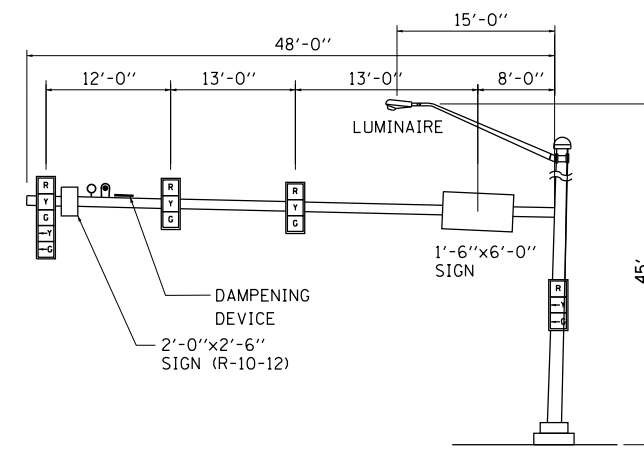
TS-53

TRAFFIC SIGNAL GENERAL NOTES

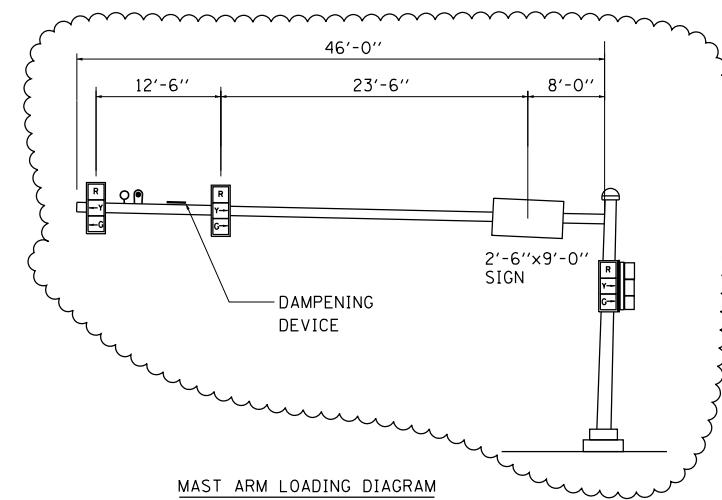
1. THE CONTRACTOR SHALL CONTACT THE UNITED CITY OF YORKVILLE (630-553-4350) A MINIMUM OF 72 HOURS PRIOR TO BEGINNING WORK.
2. THE TRAFFIC SIGNAL SECTION AT THE ILLINOIS DEPARTMENT OF TRANSPORTATION, DISTRICT 3, SHALL BE NOTIFIED AT 815-434-8506 AT LEAST 72 HOURS PRIOR TO TURNING ON ANY FLASHER OR CONTROLLER UNITS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. A MINIMUM OF 48 HOURS ADVANCED NOTICE IS REQUIRED FOR NON-EMERGENCY WORK. THE JULIE NUMBER IS 800-892-0123.
4. ALL TRAFFIC CONTROL AND OTHER ADVISORY SIGNS NEEDED FOR CONSTRUCTION ARE TO BE FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH SECTION 701 OF THE STANDARD SPECIFICATIONS.
5. ALL TRAFFIC SIGNAL HEADS SHALL BE 12-INCH POLYCARBONATE.
6. TRAFFIC SIGNAL HEADS SHALL BE PROPERLY COVERED PRIOR TO INTERSECTION TURN-ON OR AS DIRECTED BY THE ENGINEER. THIS COST SHALL BE INCLUDED WITH THE COST OF THE ASSOCIATED TRAFFIC SIGNAL PAY ITEMS.
7. A 1/4" DIAMETER CONTINUOUS RODENT RESISTANT NYLON ROPE SHALL BE FURNISHED AND LEFT IN PLACE IN ALL CONDUITS BETWEEN HANDHOLES AND FOUNDATIONS OR CONTROLLER. THIS COST SHALL BE INCLUDED WITH THE COST OF CONDUIT PAY ITEM.
8. THE CONTRACTOR SHALL ARRANGE FOR A FACTORY OR SUPPLIER REPRESENTATIVE TO BE PRESENT AT THE INTERSECTION WHEN THE SIGNAL IS TURNED ON. COST TO BE INCLUDED WITH THE TRAFFIC SIGNAL CONTROLLER PAY ITEM.
9. ALL CONDUIT IN TRENCH SHALL BE PVC. ALL CONDUIT PUSHED MAY BE PVC OR GALVANIZED STEEL. CONDUIT ATTACHED TO STRUCTURES SHALL BE GALVANIZED STEEL.
10. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR PLACING CONDUIT AT A GREATER THAN 2' MINIMUM DEPTH TO AVOID OBSTACLES SUCH AS UNDERGROUND UTILITIES.
11. THE ELECTRICAL CONDUCTORS FOR ALL TRAFFIC SIGNAL HEADS SHALL BE SOLID, SOFT COPPER.
12. ALL THREADS OF BOLTS USED IN THE ASSEMBLY OF TRAFFIC SIGNAL COMPONENTS SHALL BE COATED WITH A NON-LEAD BASED ANTI-SEIZE COMPOUND, SIMILAR TO LEAD PLATE, PRIOR TO ASSEMBLY.
13. ALL HARDWARE SHALL BE TIGHTENED AND WELL SECURED, CABLES SHALL BE NEATLY WOUND IN HANDHOLES. CABLES SHALL BE NEATLY TRAINED IN THE CONTROLLER CABINET.
14. ALL TRAFFIC SIGNAL WIRING SHALL EXTEND FROM CONTROLLER TO SIGNAL. SPLICES IN JUNCTION BOXES WILL NOT BE ALLOWED.
15. THE CONTROLLER CABINET SHALL BE PLACED SO THAT A TECHNICIAN MAY SEE THE INTERSECTION OVER THE TOP OF THE CABINET WHILE WATCHING THE COMPONENTS IN THE CABINET.
16. THE PROPOSED TRAFFIC SIGNAL CONTROLLER CABINET SHALL BE FURNISHED WITH A MANUAL CONTROL SWITCH AND MANUAL CONTROL CHORD WITHIN THE POLICE DOOR COMPARTMENT. THIS WORK SHALL BE INCLUDED IN THE CONTROLLER CABINET PAY ITEM.
17. THE CONTRACTOR SHALL PROVIDE A SELF-ADHERED PHASE DIAGRAM ON THE INSIDE OF THE CONTROLLER CABINET DOOR.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ELECTRICAL SERVICE FOR THE TRAFFIC SIGNALS. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANY PRIOR TO BEGINNING WORK TO OBTAIN THE UTILITY COMPANY REQUIREMENTS FOR THE SERVICE INSTALLATION.
19. THE ELEVATION OF THE TOP OF THE DOUBLE HANDHOLE SHALL BE LESS THAN THE ELEVATION OF THE TOP OF THE CONTROLLER FOUNDATION.
20. ALL UNINTERRUPTIBLE POWER SUPPLIES SHALL BE EQUIPPED WITH ALPHA GUARD MONITORS.
21. ALL GROUNDING MATERIALS FOR CONCRETE FOUNDATIONS SHALL REFER TO SECTION 806 OF THE STANDARD SPECIFICATIONS.
22. ALL AREAS DISTURBED BY THE CONTRACTOR SHALL BE RESTORED WITH SEED OR SOD TO THE SATISFACTION OF THE ENGINEER. SEEDING OR SODDING SHALL NOT PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION.
23. THE FIBER OPTIC CABLE SHALL BE LABELED WITH DIRECTION AND ASSIGNMENT NUMBER.
24. THE SURGE PROTECTOR IN THE CONTROLLER CABINET SHALL HAVE AN INDICATOR LIGHT.
25. THE MAST ARMS SHALL BE LOCATED A MINIMUM 6' FROM THE FACE OF CURB OR A MINIMUM 18' FROM THE EDGE OF PAVEMENT TO THE FACE OF FOUNDATION WHERE THERE IS NO CURB, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. IN CURB AREA, GET MORE THAN 6' IF POSSIBLE IF THE SIGNAL HEAD STILL LINES UP IN CENTER OF LANE.



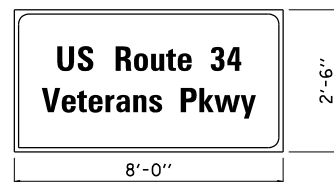
MAST ARM LOADING DIAGRAM
US ROUTE 34 & O'BRIEN WAY
NW QUADRANT
WESTBOUND VIEW



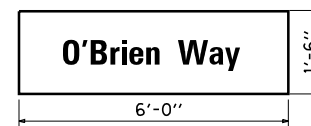
MAST ARM LOADING DIAGRAM
US ROUTE 34 & O'BRIEN WAY
SE QUADRANT
EASTBOUND VIEW



MAST ARM LOADING DIAGRAM
US ROUTE 34 & O'BRIEN WAY
SW QUADRANT
SOUTHBOUND VIEW



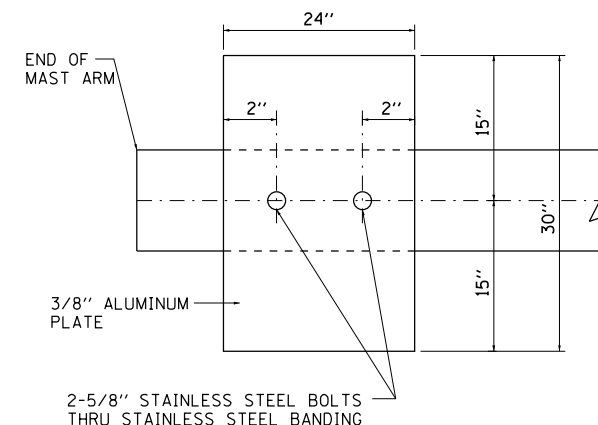
3/4" BORDER
8" D SERIES LETTERS
TYPE ZZ SHEETING REQUIRED
1 SIGN REQUIRED= 20.0 SQ FT EACH
= 20.0 SQ FT TOTAL



3/4" BORDER
8" D SERIES LETTERS
TYPE ZZ SHEETING REQUIRED
2 SIGNS REQUIRED= 15.0 SQ FT EACH
= 30.0 SQ FT TOTAL

NOTE:

DAMPING DEVICE SHALL CONSIST OF A 24"x30" TYPE-1, UNPAINTED ALUMINUM SIGN STOCK MOUNTED HORIZONTALLY ON TOP OF MAST ARM WITH THE 30" LENGTH PERPENDICULAR TO THE ARM. COST OF THE DAMPING DEVICE IS INCLUDED IN THE MAST ARM PAY ITEM.



NOTE
MOUNT DAMPING PLATE TO END OF EACH TRAFFIC SIGNAL MAST ARM
DAMPING PLATE DETAIL - TOP VIEW

NOTES:

1. ALL SIGNAL HEADS HAVE BACKPLATES.
2. ALL MAST ARM FOUNDATIONS TO BE 36" DIAMETER.
3. DAMPING DEVICE SHALL CONSIST OF A 24"x30" TYPE-1, UNPAINTED ALUMINUM SIGN STOCK MOUNTED HORIZONTALLY ON TOP OF MAST ARM WITH THE 30" LENGTH PERPENDICULAR TO THE ARM. COST OF THE DAMPING DEVICE SHALL BE INCLUDED IN THE COST OF MAST ARM PAY ITEM.
4. ARM SUPPORT FOR LUMINAIRE SHALL BE PARALLEL TO MAST ARM UNLESS SHOWN ON PLAN.
5. FOUNDATION DEPTHS ARE BASED ON HIGHWAY STANDARD 878001-08. THE CONTRACTOR SHALL VERIFY THE SOIL STRENGTH TO THE DEPTH OF FOUNDATION AT EACH PROPOSED LOCATION. BUREAU OF BRIDGES & STRUCTURES SHOULD BE CONTACTED FOR A REVISED DESIGN IF CONDITIONS OTHER THAN STATED IN STANDARD 878001-08 ARE ENCOUNTERED.

26. IF THERE IS A PAY ITEM, CHANGEABLE MESSAGE SIGNS ARE REQUIRED FOR BOTH DIRECTIONS. ONE WEEK PRIOR TO SIGNAL TURN-ON, THE MESSAGE SHOULD READ "NEW SIGNAL AHEAD/TURN ON DATE." FOR THREE WEEKS AFTER, THE MESSAGE SHOULD READ "NEW SIGNAL AHEAD/BE PREPARED TO STOP".

USE THE FOLLOWING IF THERE ARE TEMPORARY TRAFFIC SIGNALS:

27. ALL SIGNAL HEADS ON AN INDIVIDUAL SPAN WIRE SHALL BE MOUNTED SO THAT THE "RED" INDICATIONS ARE LEVEL WITH EACH OTHER.
28. THE CONTRACTOR SHALL PROVIDE 3 FEET OF SLACK CABLE IN THE CONTROLLER AND ON THE WOOD POLES. THE SLACK IS IN ADDITION TO THE VERTICAL LENGTH OF CABLE DEFINED IN THE STANDARD SPECIFICATIONS AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR ELECTRIC CABLE OF THE TYPE SPECIFIED.
29. TEMPORARY WOOD POLES SHALL BE LOCATED A MINIMUM OF 6' FROM THE FACE OF CURB OR A MINIMUM OF 18' FROM THE EDGE OF PAVEMENT WHERE THERE IS NO CURB, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
30. ALL TEMPORARY WOOD POLES SHALL BE INSTALLED SO THAT A MINIMUM OF 30' OF POLE IS ABOVE THE EXISTING PAVEMENT ELEVATION ADJACENT TO THE POLE. A SUFFICIENT LENGTH OF POLE SHALL BE BURIED AND BACK GUYED TO ALLOW THE INSTALLATION TO WITHSTAND A 70 MPH SUSTAINED WIND LOADING.
31. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING THE WOOD POLE LOCATIONS BEFORE ORDERING TO DETERMINE IF LONGER POLES ARE REQUIRED

FOUNDATION DEPTH TABLE		
TYPE	LOCATION	FOUNDATION DEPTH
46' COMBINATION MAST ARM	NW QUADRANT US RTE 34 & O'BRIEN WAY	13'
48' COMBINATION MAST ARM	SE QUADRANT US RTE 34 & O'BRIEN WAY	13'
46' MAST ARM	SW QUADRANT US RTE 34 & O'BRIEN WAY	13'

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AMES Engineering, Inc.
CONSULTING ENGINEERS
5413 Walnut Avenue
Downers Grove, IL 60515

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PLOT SCALE = 48.0000' / in.	DRAWN - RV	REVISED -
PLOT DATE = 10/5/2015	CHECKED - MSA	REVISED -
	DATE - 12/01/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAST ARM LOADING DIAGRAM & SIGN DETAILS
US RTE 34 AND O'BRIEN WAY

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	477
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

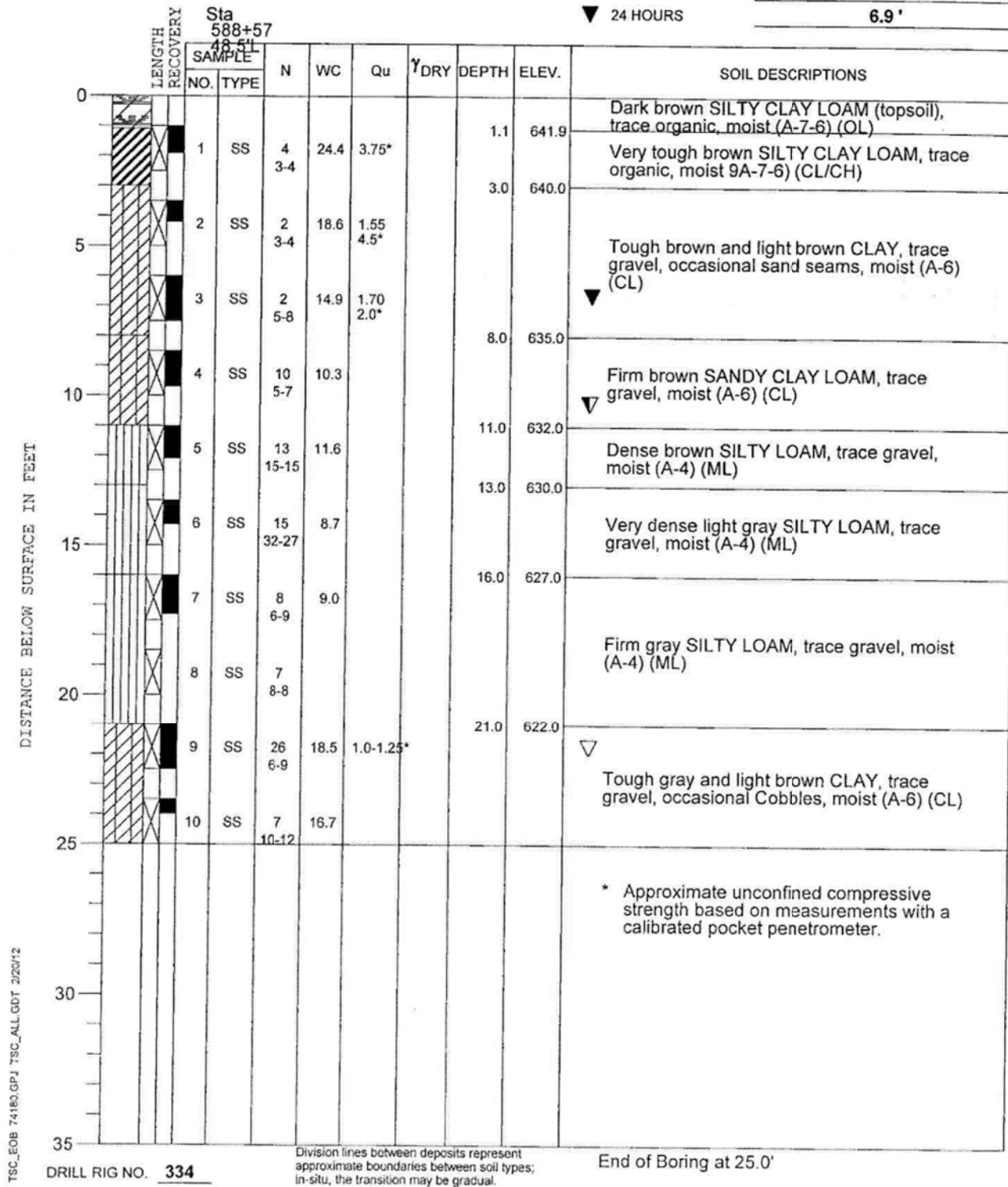
TS-54

PROJECT **U.S. Route 34 Reconstruction and Widening, Yorkville, Illinois**
 CLIENT **GRAEF, Chicago, Illinois**
 BORING **801** DATE STARTED **11-15-11** DATE COMPLETED **11-15-11** JOB **L-74,180**



ELEVATIONS
 GROUND SURFACE **643.0**
 END OF BORING **618.0**

WATER LEVEL OBSERVATIONS
 WHILE DRILLING **10.5'**
 AT END OF BORING **22.0'**
 24 HOURS **6.9'**

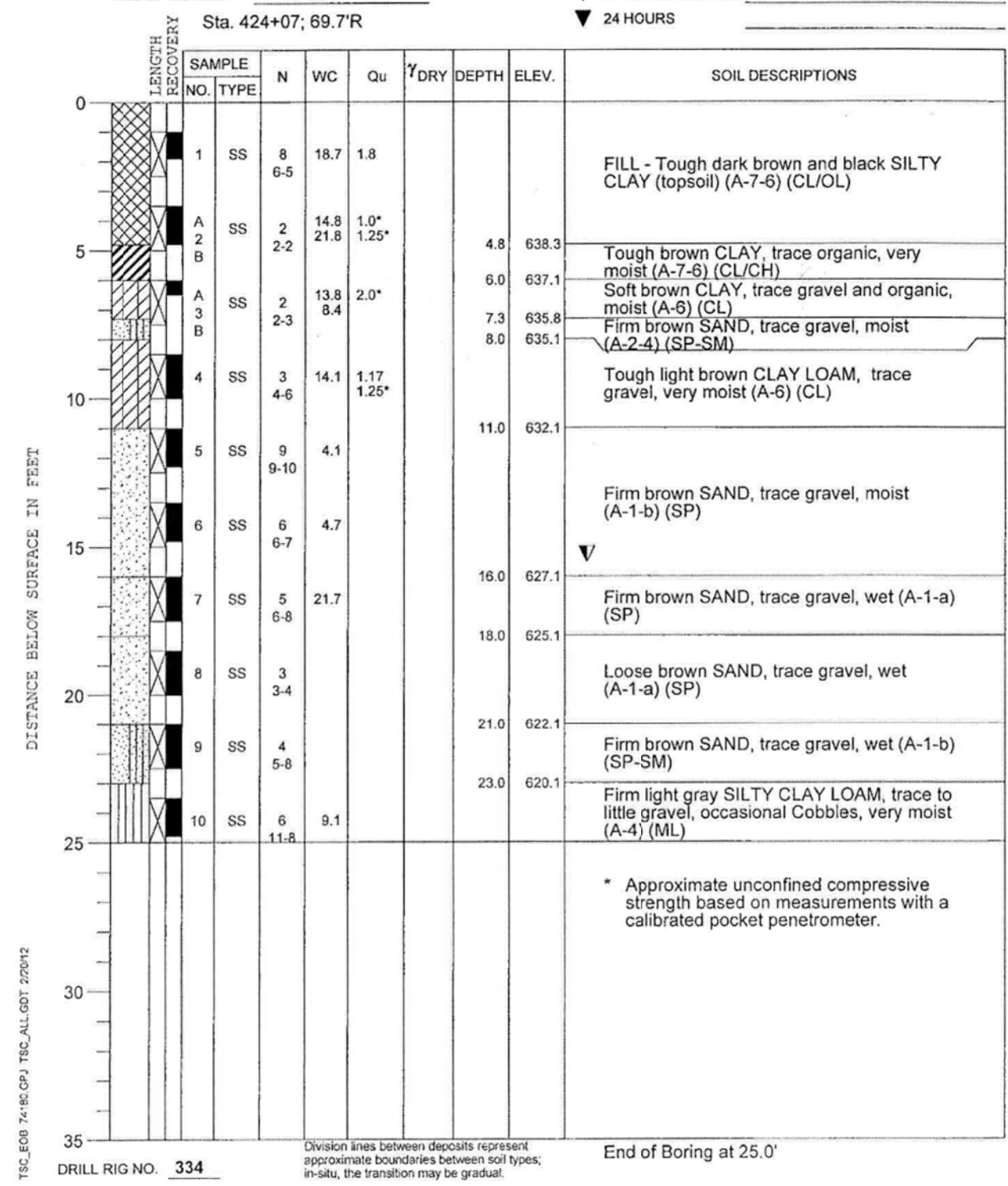


PROJECT **U.S. Route 34 Reconstruction and Widening, Yorkville, Illinois**
 CLIENT **GRAEF, Chicago, Illinois**
 BORING **303** DATE STARTED **11-7-11** DATE COMPLETED **11-7-11** JOB **L-74,180**



ELEVATIONS
 GROUND SURFACE **643.1**
 END OF BORING **618.1**

WATER LEVEL OBSERVATIONS
 WHILE DRILLING **15.5'**
 AT END OF BORING **17.0'**
 24 HOURS



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AMES Engineering, Inc.
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 5413 Walnut Avenue
 Downers Grove, IL 60155

USER NAME : Vramesh	DESIGNED - AS	REVISED -
DRAWN - RV	REVISOR -	
PLOT SCALE = 48.0000' / in.	CHECKED - MSA	REVISED -
PLOT DATE = 11/25/2014	DATE - 12/01/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 34 AND O'BRIEN WAY
BORING LOGS

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	478
			CONTRACT NO. 66884	

TS-55

ILLINOIS FED. AID PROJECT

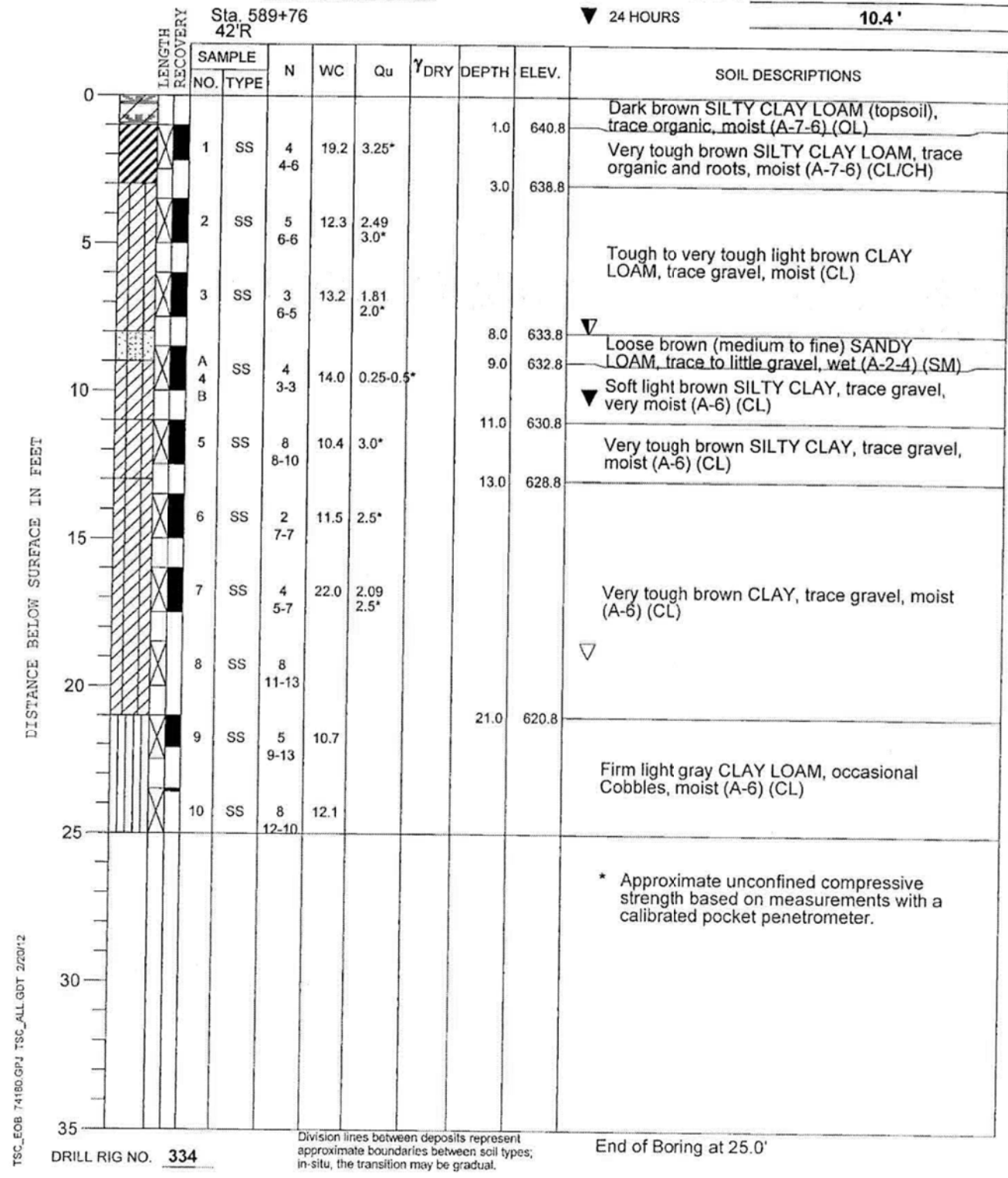
PROJECT **U.S. Route 34 Reconstruction and Widening, Yorkville, Illinois**

CLIENT **GRAEF, Chicago, Illinois**



BORING **803** DATE STARTED **11-15-11** DATE COMPLETED **11-15-11** JOB **L-74,180**

ELEVATIONS		WATER LEVEL OBSERVATIONS	
GROUND SURFACE	641.8	▽ WHILE DRILLING	8.0'
END OF BORING	616.8	▽ AT END OF BORING	19.0'
		▽ 24 HOURS	10.4'



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AMES Engineering, Inc.
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5413 Walnut Avenue
Downers Grove, IL 60515

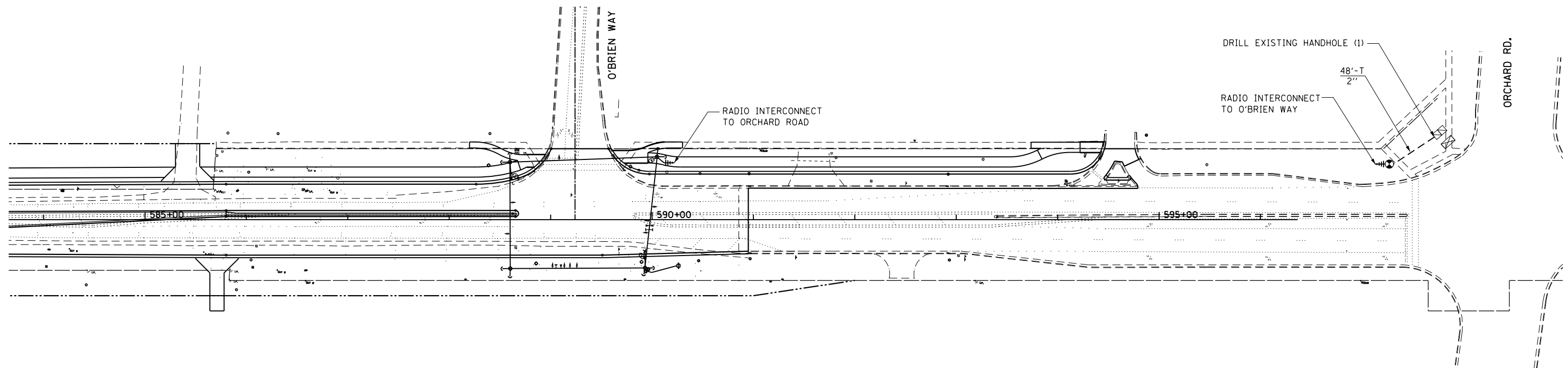
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	DATE - 12/01/2014	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**US 34 AND O'BRIEN WAY
BORING LOGS**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T)	KENDALL	753	479
CONTRACT NO. 66884				

ILLINOIS FED. AID PROJECT



TEMPORARY INTERCONNECT PLAN LEGEND

PROPOSED	EXISTING	
		TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM
		CONTROLLER
		HANDHOLE
		DOUBLE HANDHOLE
		HEAVY-DUTY HANDHOLE
		DETECTOR LOOP
		AERIAL FIBER OPTIC INTERCONNECT CABLE
		SYSTEM WOOD POLE
		INTERSECTION WOOD POLE
		G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
		UNIT DUCT
		RADIO INTERCONNECT

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AMES Engineering, Inc.
 CONSULTING ENGINEERS
 5413 Walnut Avenue
 Downers Grove, IL 60515

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	DATE - 12/01/2014	REVISED -

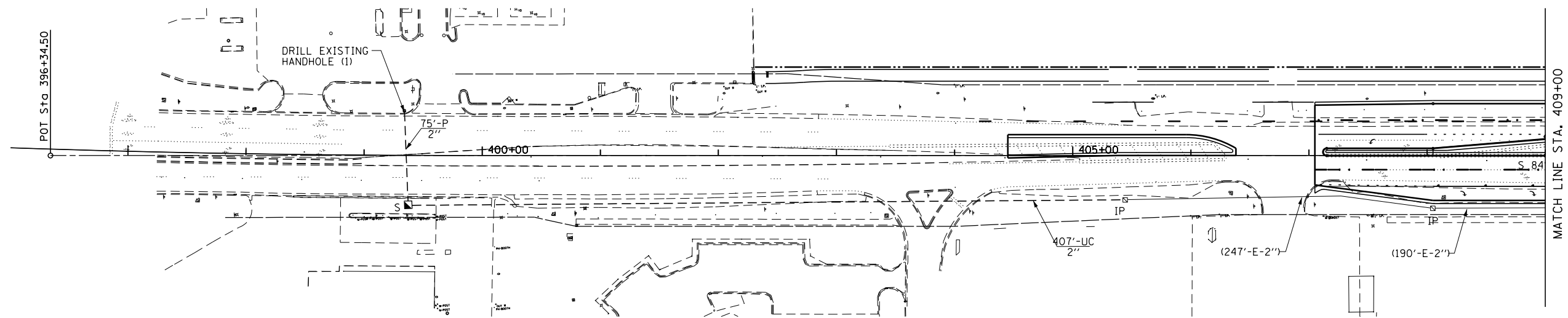
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US RTE 34 - TEMPORARY INTERCONNECT PLAN
FROM O'BRIEN WAY TO ORCHARD RD.

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	480
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

TS-57

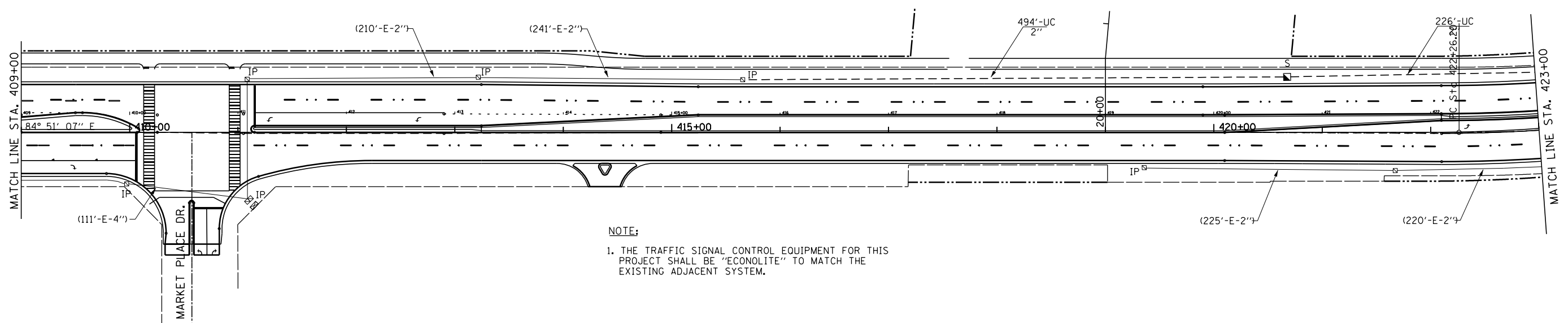


INTERCONNECT PLAN LEGEND

PROPOSED	EXISTING	
		CONTROLLER
		HANDHOLE
		DOUBLE HANDHOLE
		HEAVY-DUTY HANDHOLE
		G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
		DETECTOR LOOP
CT		COMMON TRENCH
UD		UNIT DUCT
S		SYSTEM
IP	I	INTERSECTION

THE PAY ITEM "MODIFY EXISTING CONTROLLER AND CABINET" TO BE USED TO MODIFY EXISTING MASTER CONTROLLER LOCATED AT THE INTERSECTION OF US 34 AND IL 47 AS DIRECTED BY THE ENGINEER.

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, MEDIAN, 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:
1. THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.



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AMES Engineering, Inc.
CONSULTING ENGINEERS
5413 Walnut Avenue
Downers Grove, IL 60515

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PLOT DATE = 10/5/2015

DESIGNED - AS
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CHECKED - MSA
DATE - 12/01/2014

REVISED - BDD 10/02/2015
REVISED -
REVISED -
REVISED -

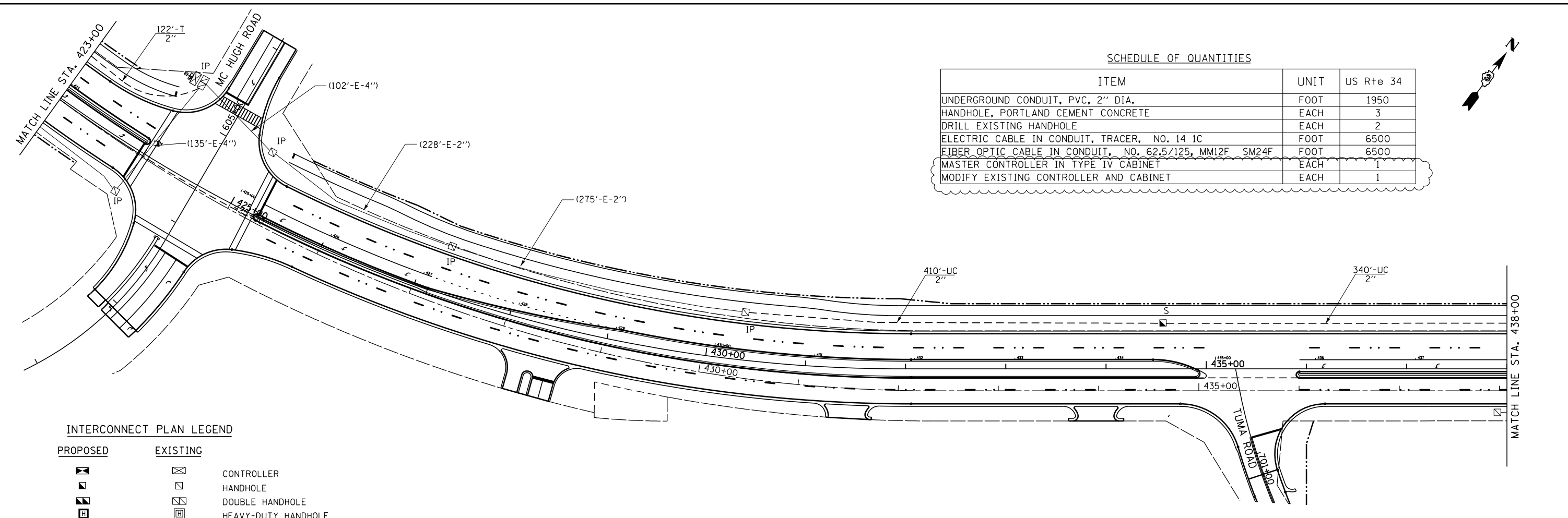
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**US RTE 34 - INTERCONNECT PLAN
ILL RTE 47 TO COUNTRYSIDE ROAD**

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	481
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

TS-58

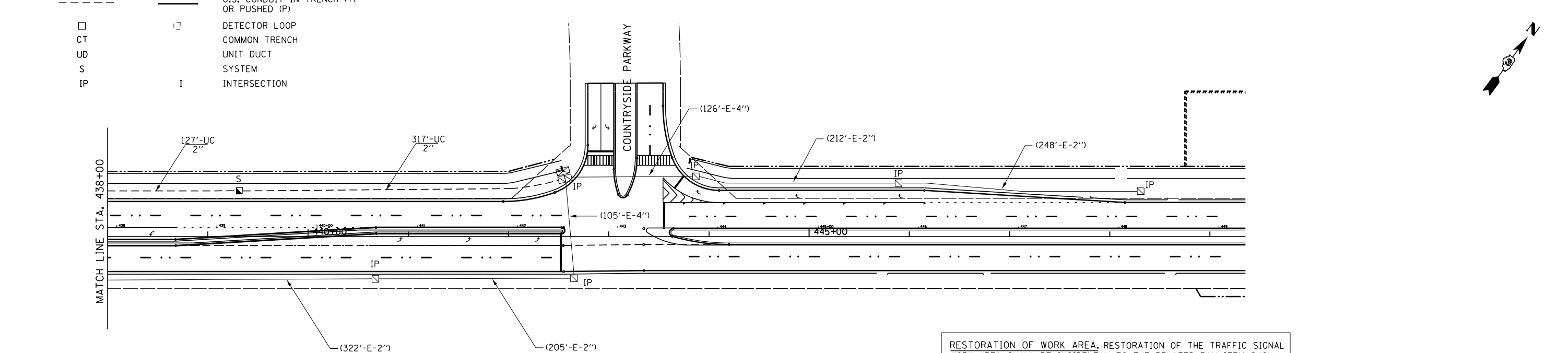


SCHEDULE OF QUANTITIES

ITEM	UNIT	US Rte 34
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	1950
HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	3
DRILL EXISTING HANDHOLE	EACH	2
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	6500
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	6500
MASTER CONTROLLER IN TYPE IV CABINET	EACH	1
MODIFY EXISTING CONTROLLER AND CABINET	EACH	1

INTERCONNECT PLAN LEGEND

PROPOSED	EXISTING	
		CONTROLLER
		HANDHOLE
		DOUBLE HANDHOLE
		HEAVY-DUTY HANDHOLE
		G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
		DETECTOR LOOP
		COMMON TRENCH
		UNIT DUCT
		SYSTEM
		INTERSECTION



NOTE:
 1. THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" 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, MEDIAN, 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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 CONSULTING ENGINEERS
 5413 Walnut Avenue
 Downers Grove, IL 60515

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PLOT DATE = 10/5/2015	CHECKED - MSA	REVISED -
	DATE - 12/01/2014	REVISED -

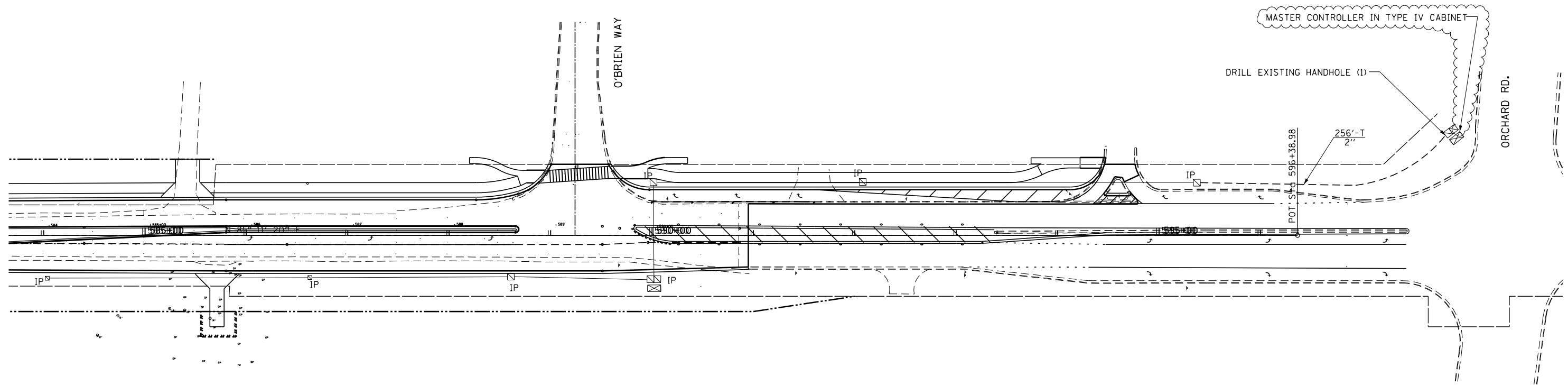
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US RTE 34 - INTERCONNECT PLAN
ILL RTE 47 TO COUNTRYSIDE ROAD

SHEET	OF	SHEETS	STA.	TO	STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	482
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

TS-59



INTERCONNECT PLAN LEGEND

PROPOSED	EXISTING	
		CONTROLLER
		HANDHOLE
		DOUBLE HANDHOLE
		HEAVY-DUTY HANDHOLE
		G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
		DETECTOR LOOP
		COMMON TRENCH
		UNIT DUCT
		SYSTEM
		INTERSECTION

NOTE:
1. THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" 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, MEDIAN, 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-60

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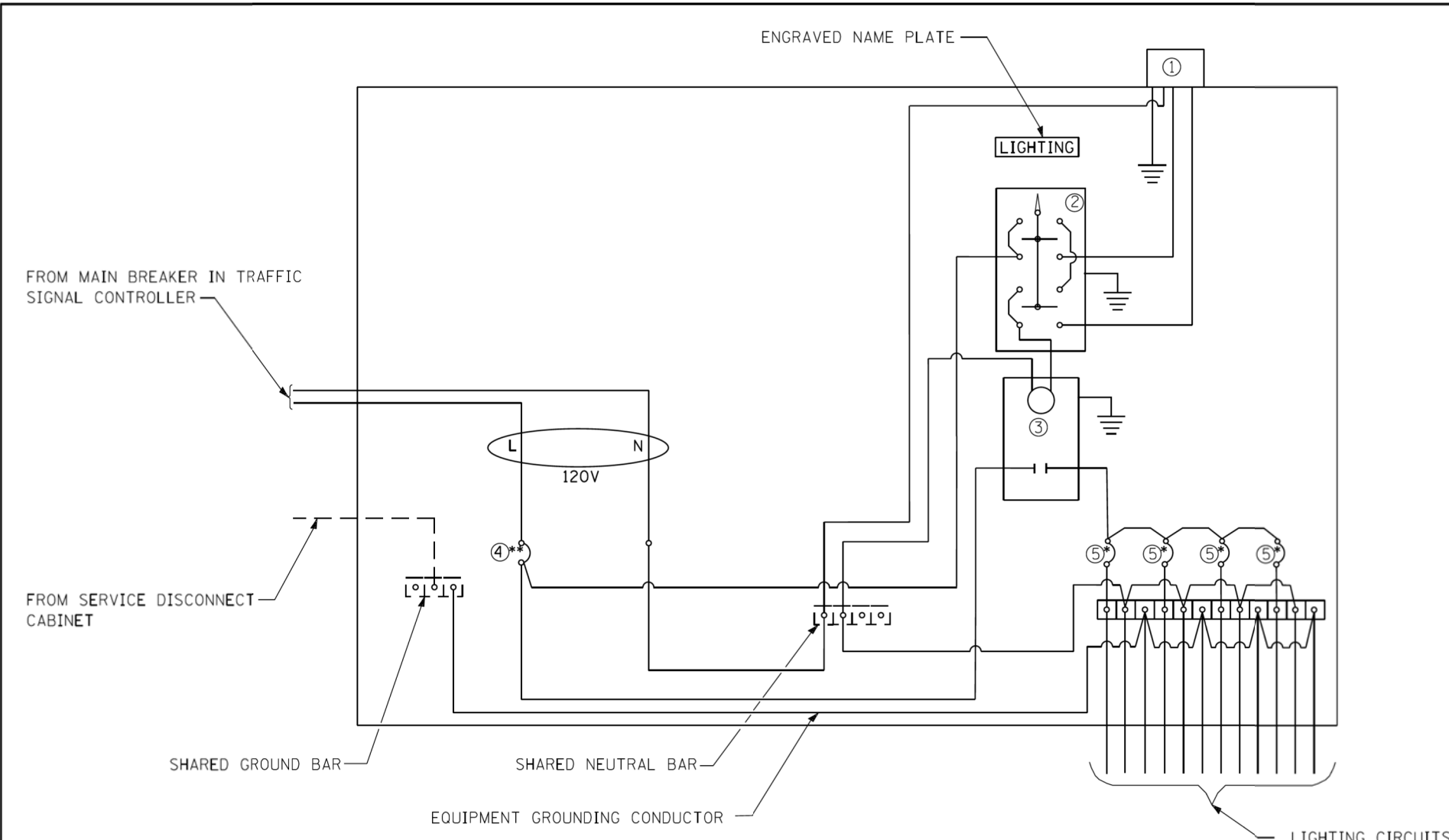
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PLOT DATE = 10/5/2015	DATE - 12/01/2014	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**US RTE 34 - INTERCONNECT PLAN
O'BRIEN WAY TO ORCHARD ROAD**

SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	483
				CONTRACT NO. 66884
ILLINOIS FED. AID PROJECT				



- LEGEND**
- Ground connected to shared ground bar.
 - Indicates shared with traffic signal controller equipment.
 - ① Photocell with integral surge arrester.
 - ② HAND-OFF-AUTO selector switch.
 - ③ 30 amp, 1 pole electrically held contactor.
 - ④ 20 amp, 1 pole, circuit breaker
 - ⑤ 15 amp, 1 pole, branch breaker
 - * Quantity of branch breakers shall depend on the combination lighting circuit diagram or as directed by the engineer.
 - ** Size larger as needed.

COMBINATION LIGHTING CONTROLLER WIRING DIAGRAM

GENERAL NOTES

All control installation components shall be U.L. listed.

All wiring shall be neatly dressed, identified by tags, and supported.

The circuit breaker shall be clearly labeled for lighting according to Article 1068.01(f) of the Standard Specifications.

Install under eave photocell on traffic signal controller cabinet per Article 1068.01(e)(2) of the Standard Specifications.

All lighting equipment shall be installed on a side mounted insulated subpanel per Article 1068.01(e)(9) of the Standard Specifications on the lower right hand side of the traffic signal controller or as directed by the engineer.

Provide an engraved stainless steel nameplate on the sub panel reading "LIGHTING".

DATE	REVISIONS	COMBINATION LIGHTING CONTROLLER DETAIL
10/13/14	NEW DETAIL	

FILE: F:\Projects\1002 US 34-Corridor\Design\Sheet\New - FCC Per\10366884-ht-TS-61.dgn
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AMES Engineering, Inc.
 CONSULTING ENGINEERS
 5413 Walnut Avenue
 Downers Grove, IL 60515

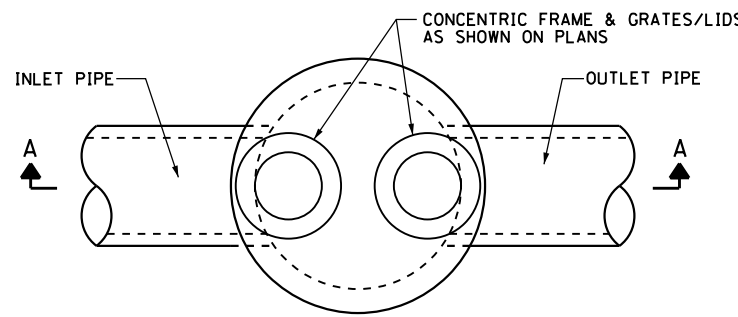
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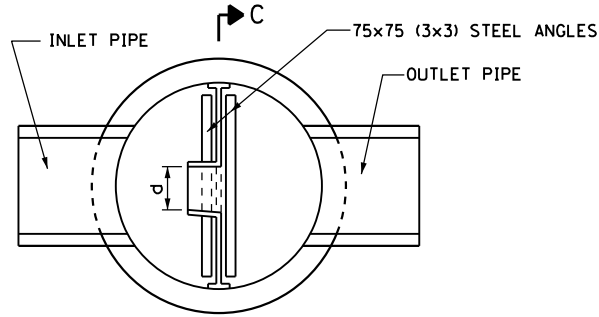
LIGHTING ELECTRIC SERVICE AND CONTROL
 SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

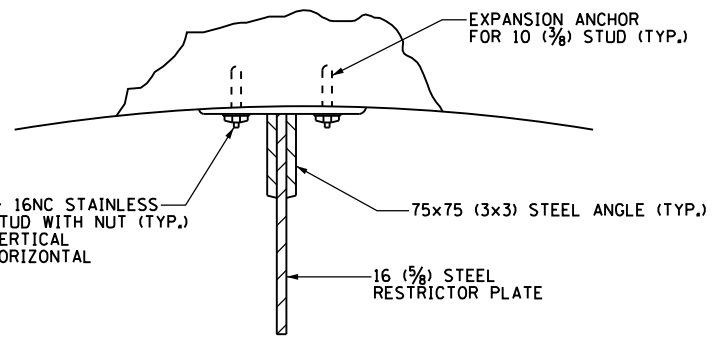
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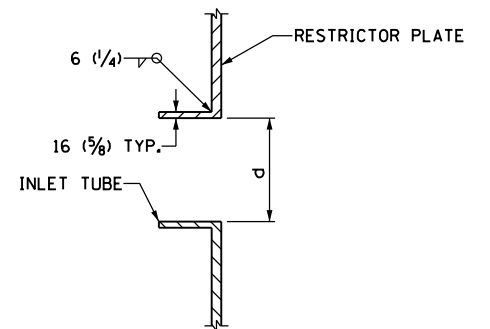
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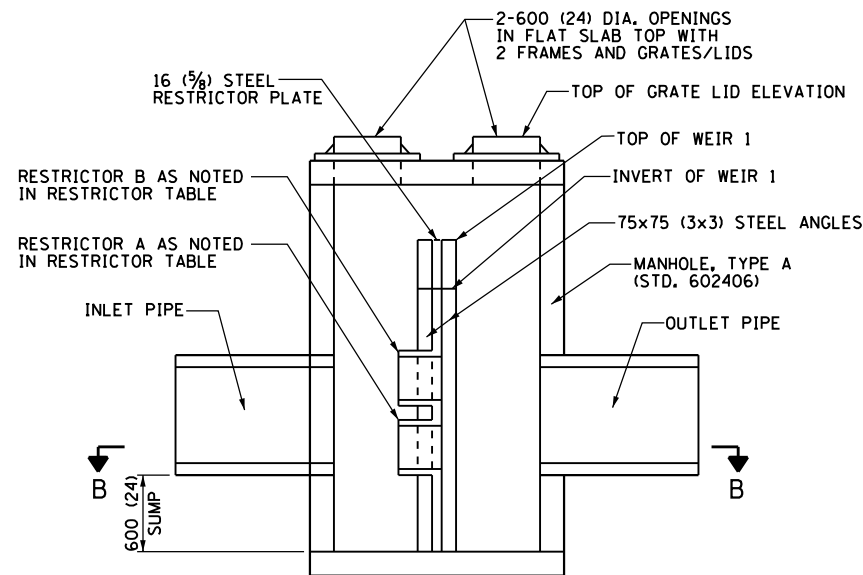
SECTION B-B



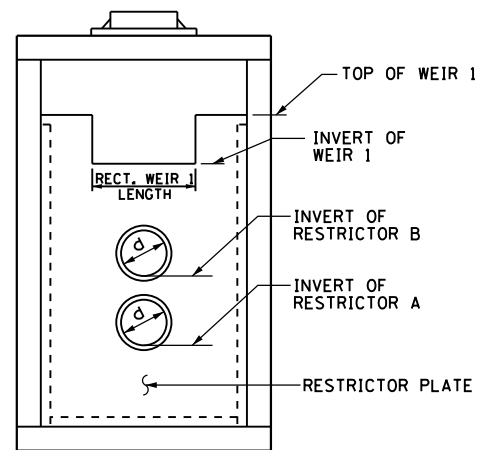
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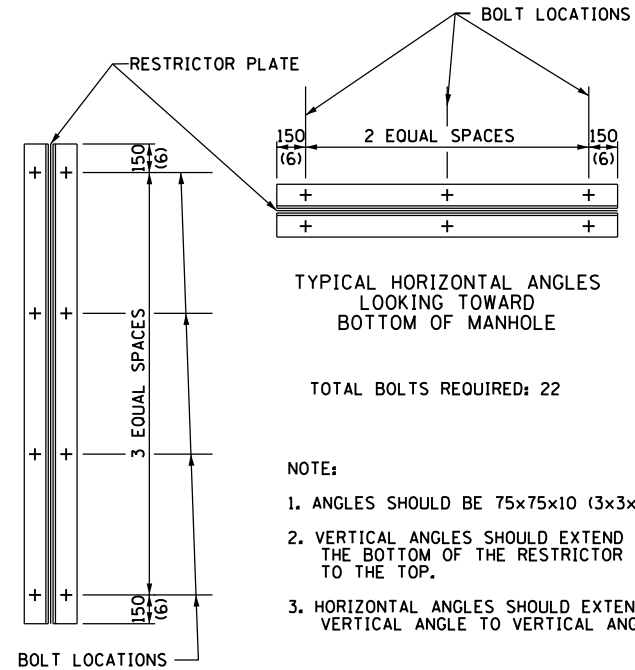
INLET TUBE DETAIL



SECTION A-A



SECTION C-C



STEEL ANGLE BOLTING DETAILS

RESTRICTOR TYPE					
1	2	3	4	5	6
RE-ENTRANT TUBE	SHARP EDGED	SQUARE EDGED	RE-ENTRANT TUBE	SQUARE EDGED	ROUNDED
LENGTH: 1/2 TO 1 DIA.		STREAM CLEARS SIDES	LENGTH: 2-1/2 TO 1 DIA.	LENGTH: 2-1/2 TO 1 DIA.	
C=.52	C=.61	C=.61	C=.73	C=.82	C=.98

VALUES OF "C" FOR CIRCULAR AND SQUARE ORIFICES

- NOTE:
1. ANGLES SHOULD BE 75x75x10 (3x3x3/8).
 2. VERTICAL ANGLES SHOULD EXTEND FROM THE BOTTOM OF THE RESTRICTOR PLATE TO THE TOP.
 3. HORIZONTAL ANGLES SHOULD EXTEND FROM VERTICAL ANGLE TO VERTICAL ANGLE.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.

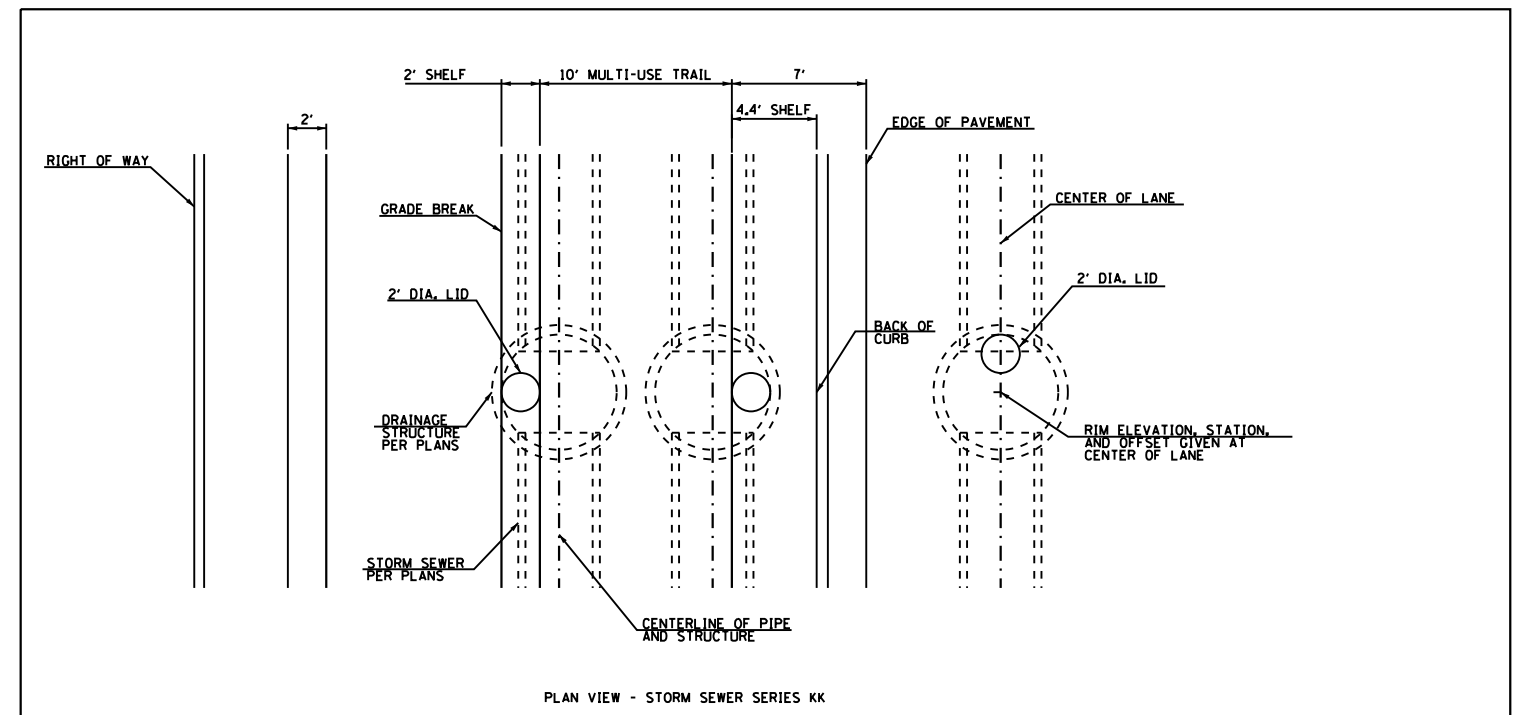
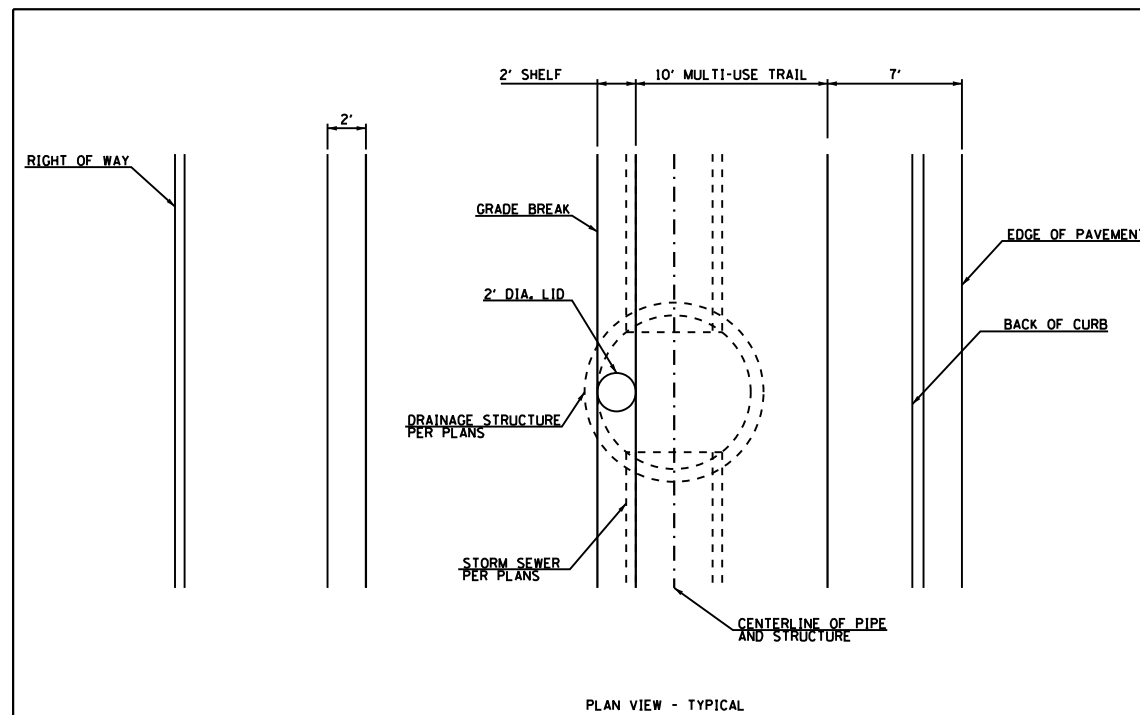
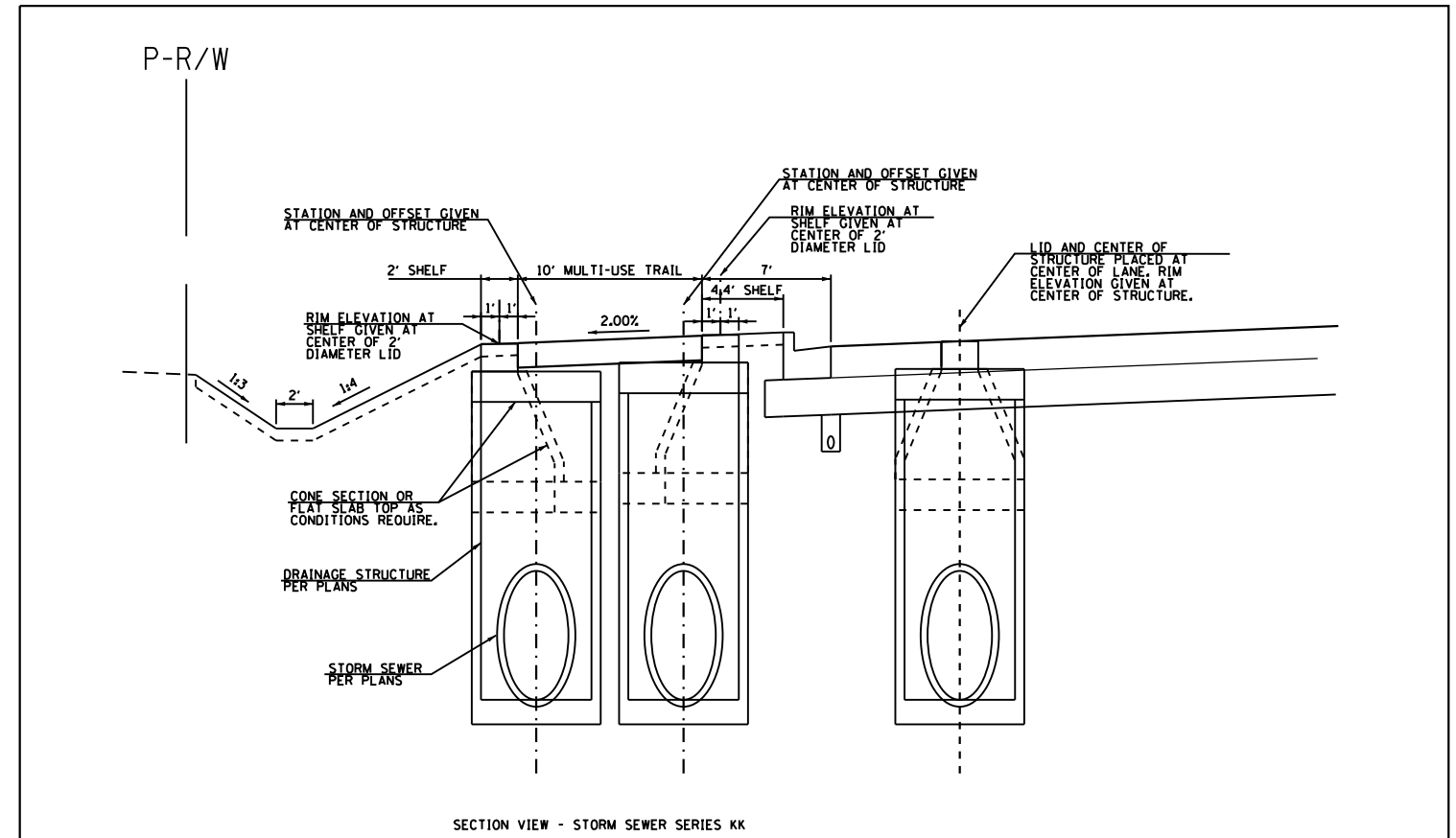
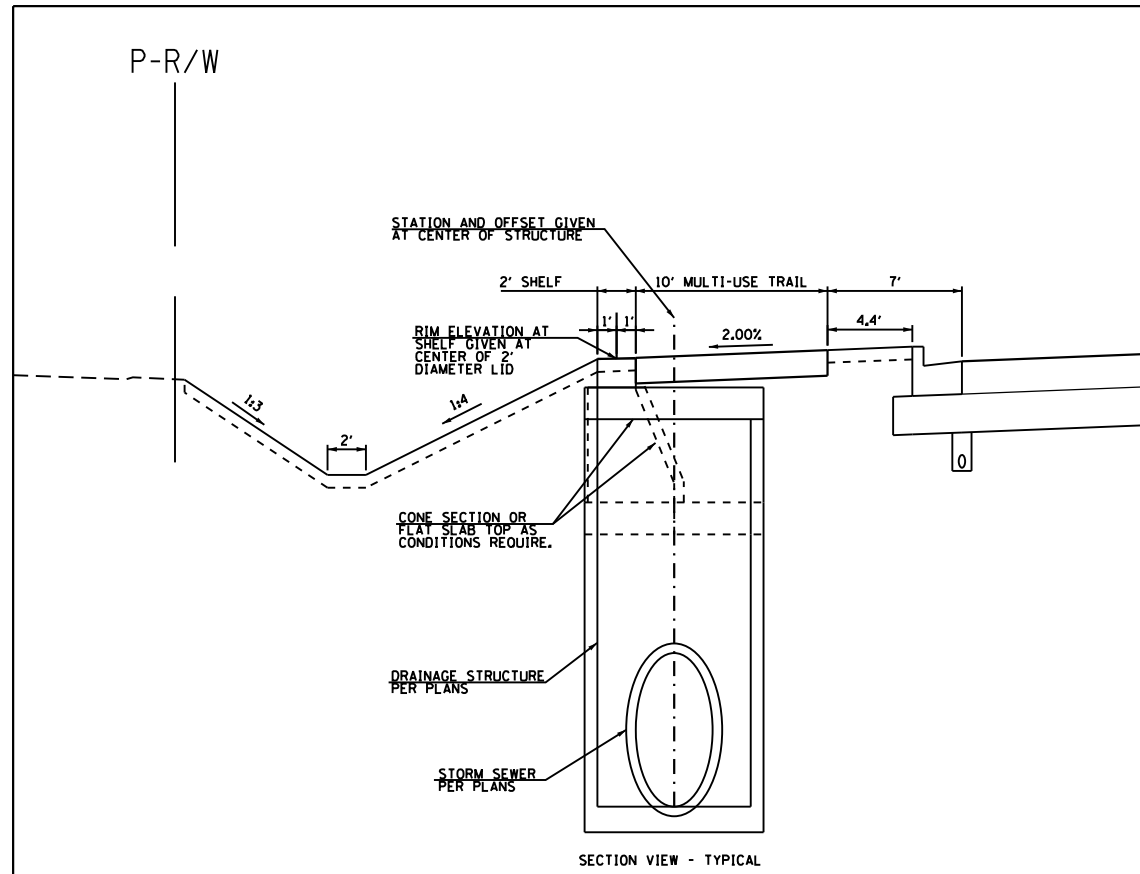
NOTES:

1. ALL STEEL ANGLES AND PLATES TO BE GALVANIZED AFTER FABRICATION.
2. ALL RESTRICTOR PLATES, ANGLES AND HARDWARE TO BE INCLUDED IN THE COST OF THE MANHOLE.
3. BASIS OF PAYMENT: "MANHOLES, TYPE A, 1.8m (6FT.)-DIAMETER, TYPE 1 FRAME, CLOSED LID, RESTRICTOR PLATE" EACH

ROADWAY	STRUCTURE NUMBER	STATION	MANHOLE DIA (ft.)	FRAME & GRATE	RIM ELEVATION	RESTRICTOR A			RESTRICTOR B			WEIR 1			
						TYPE	INSIDE DIAMETER (in.)	INVERT	TYPE	INSIDE DIAMETER (in.)	INVERT	TYPE	LENGTH (FEET)	INVERT	TOP OF WEIR
US RTE 34	BB1	527+50.00	8	TY 1 FR, CL	644.53	2	6.50	634.00	2	18.00	637.20	RECTANGULAR	4.00	639.50	641.00
US RTE 34	CC1	526+89.80	6	TY 1 FR, CL	643.37	2	4.00	636.50	N/A	N/A	N/A	RECTANGULAR	1.50	639.50	640.50
US RTE 34	DD1	538+00.00	6	TY 1 FR, CL	645.50	2	3.75	639.20	N/A	N/A	N/A	RECTANGULAR	4.00	642.00	643.00
US RTE 34	EEO	570+90.00	6	TY 1 FR, CL	642.02	2	3.75	630.50	2	10.00	634.50	RECTANGULAR	4.00	637.00	638.00
US RTE 34	FF	570+75.20	6	TY 1 FR, CL	641.90	2	3.00	632.00	2	4.00	636.00	RECTANGULAR	3.00	638.75	639.75
US RTE 34	JJ1	582+07.63	6	TY 1 FR, CL	640.36	2	5.00	634.10	N/A	N/A	N/A	RECTANGULAR	4.00	635.70	637.20
US RTE 34	KK1	582+44.00	6	TY 1 FR, CL	640.11	2	4.50	634.10	2	9.00	636.50	RECTANGULAR	4.00	638.00	638.50
US RTE 34	LL1	582+04.30	7	TY 1 FR, CL	639.50	2	3.25	633.80	2	3.00	635.50	RECTANGULAR	4.00	636.50	637.50
US RTE 34	MM1	582+46.60	6	TY 1 FR, CL	639.40	2	3.00	633.80	2	6.00	636.10	RECTANGULAR	4.00	637.00	637.25

FILE: h:\projects\2009\34\cadd\state\sgn\00\0366884-hv-d\encl1-01.dgn DATE: TIME: 8/6/2015 11:42:58 PM

NOTES:
 1. THIS DETAIL APPLIES TO DRAINAGE STRUCTURES THAT HAVE THE TEXT "SHELF" INCLUDED NEXT TO THE RIM ELEVATION ON THE DRAINAGE PLAN AND PROFILE DRAWINGS.



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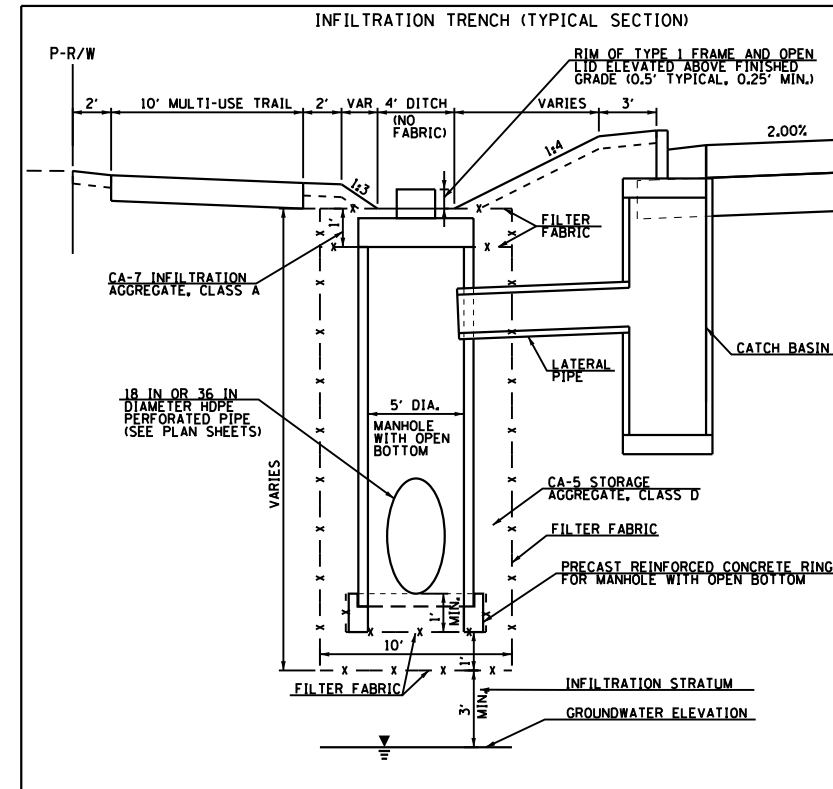
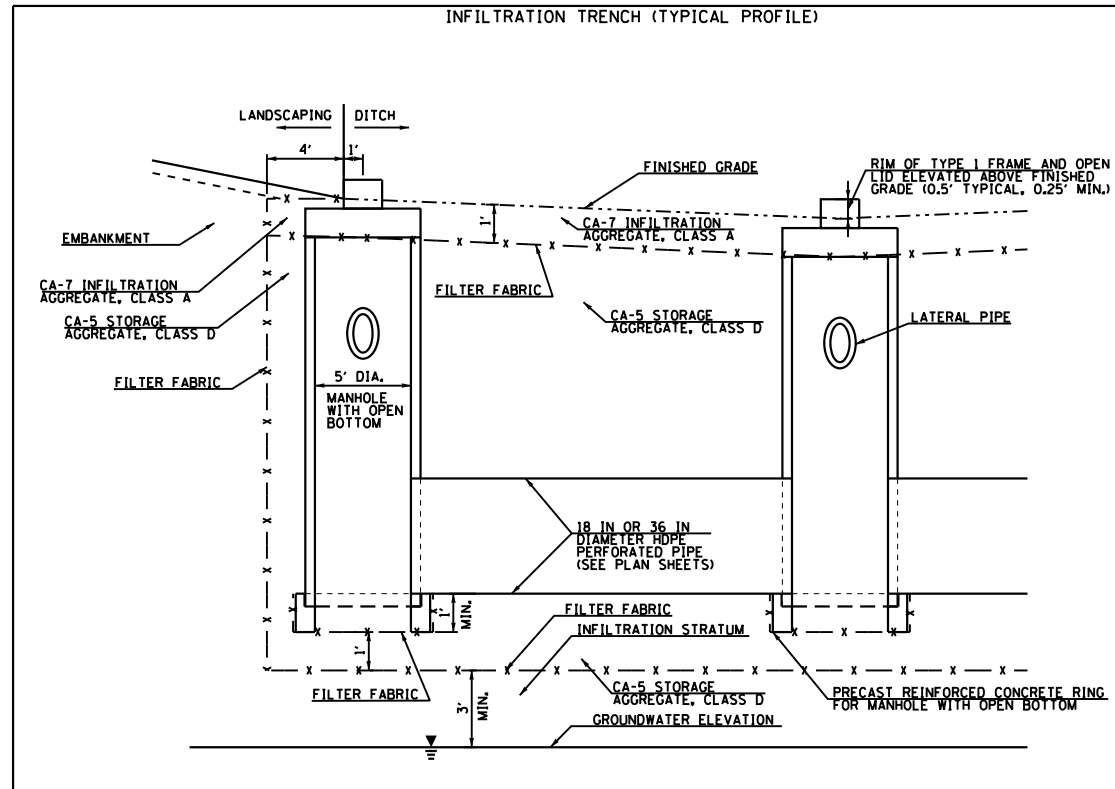
GR&EF 8501 N. Higgins Road Suite 280
 Chicago, Illinois 60631
 (773) 399-0112

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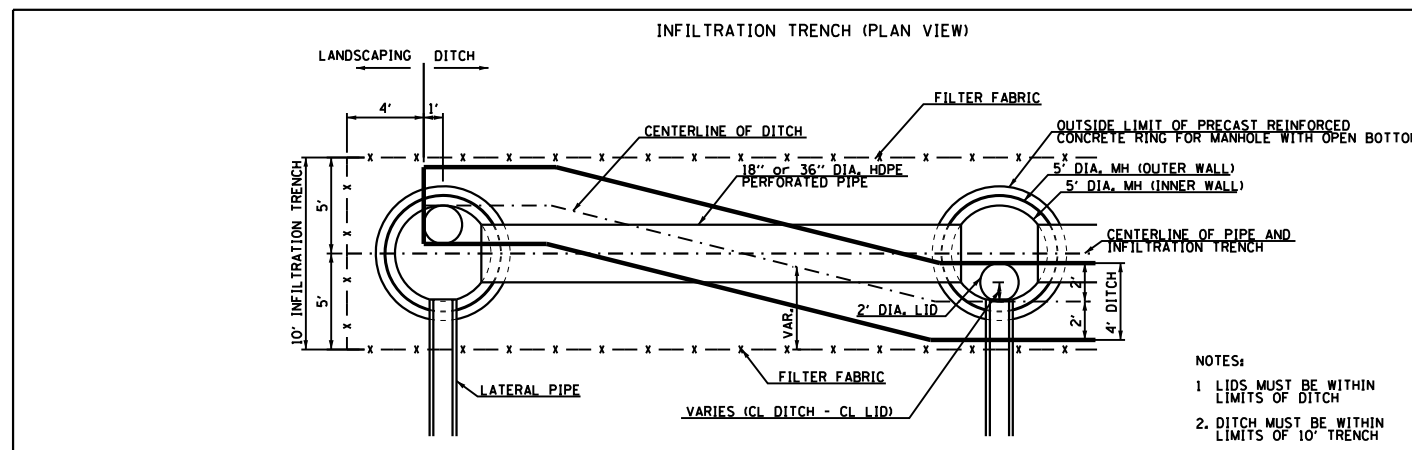
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**US 34
 CONSTRUCTION DETAILS
 DRAINAGE STRUCTURE FRAMES ALONG MULTI-USE TRAIL SHELF**

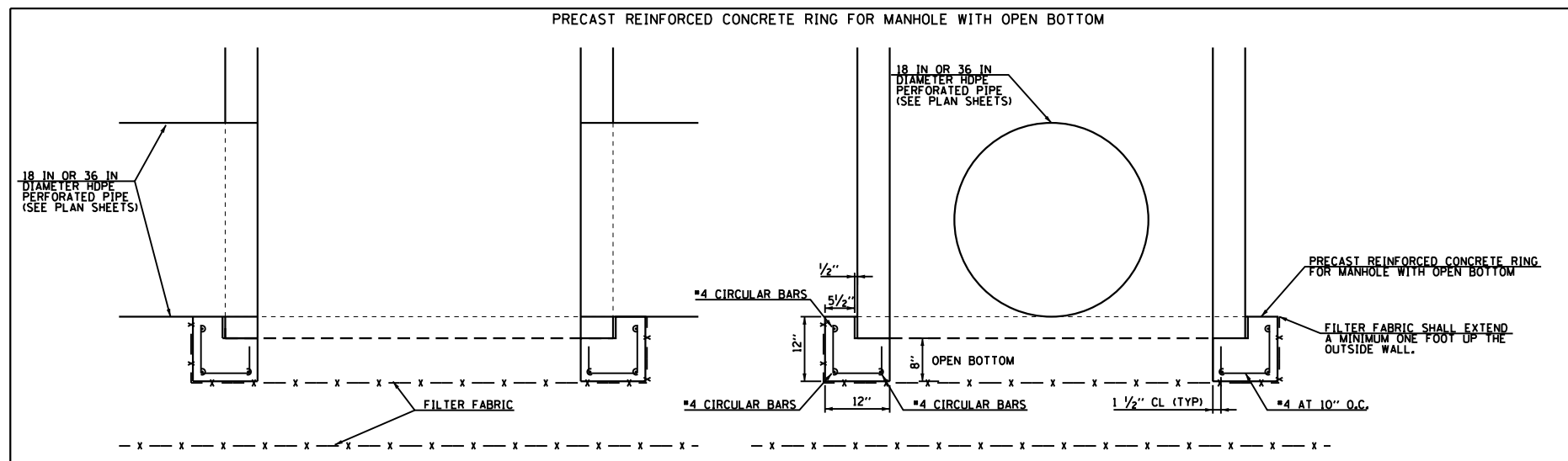
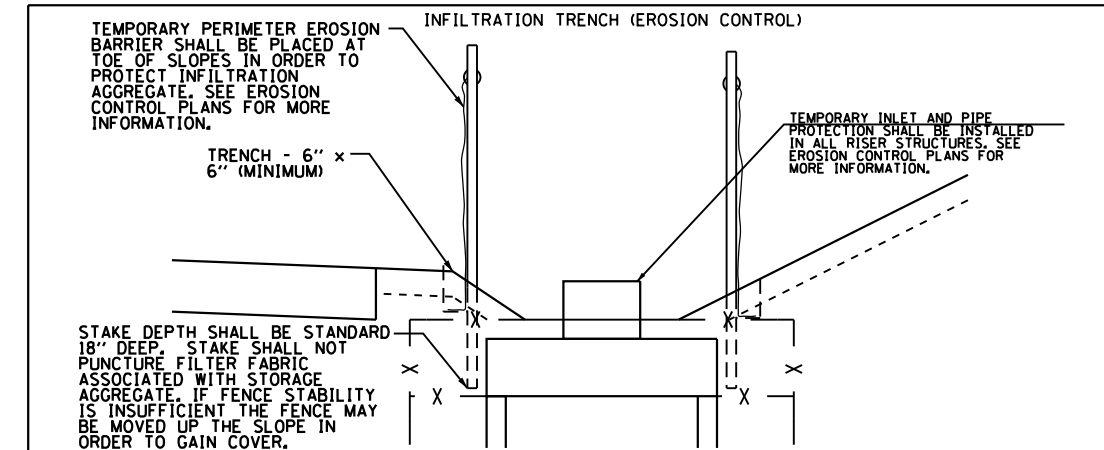
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13)R & T	KENDALL	753	486
				CONTRACT NO. 66884
ILLINOIS FED. AID PROJECT				



- NOTES
1. THE 18 INCH DIAMETER PERFORATED PIPE SHALL BE HDPE AND HAVE AN AVERAGE WATER INLET AREA OF 2.0 +/- 0.6 SQUARE INCHES PER LINEAR FOOT OF PIPE WITH ROUND PERFORATIONS OF 0.315 +/- 0.010 INCHES IN DIAMETER. PERFORATED PIPE SHALL NOT BE WRAPPED IN FILTER FABRIC.
 2. THE 36 INCH DIAMETER PERFORATED PIPE SHALL BE HDPE AND HAVE AN AVERAGE WATER INLET AREA OF 2.5 +/- 0.5 SQUARE INCHES PER LINEAR FOOT OF PIPE WITH ROUND PERFORATIONS OF 0.375 +/- 0.025 INCHES IN DIAMETER. PERFORATED PIPE SHALL NOT BE WRAPPED IN FILTER FABRIC.
 3. FILTER FABRIC SHALL COMPLY WITH THE "FILTER FABRIC, SPECIAL" SPECIAL PROVISION.
 4. PRIOR TO INSTALLATION OF THE LOWER LEVEL OF THE STORAGE AGGREGATE'S FILTER FABRIC, THE GEOTECHNICAL ENGINEER WILL INSPECT THE EXISTING SUBGRADE. AREAS OF THE SUBGRADE WHICH DO NOT MEET THE MINIMUM INFILTRATION REQUIREMENT SHALL BE OVEREXCAVATED AND BACKFILLED WITH INFILTRATION AGGREGATE TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER. FILTER FABRIC SHALL BE PLACED ALONG THE BOTTOM AND SIDES OF THE OVEREXCAVATION. SEE INFILTRATION SCHEDULE FOR SUGGESTED ELEVATIONS OF THE BOTTOM OF THE UNDERCUT. ELEVATIONS OF THE UNDERCUT ARE ALSO REFLECTED IN CROSS-SECTIONS ASSOCIATED WITH THE RESPECTIVE INFILTRATION TRENCH.
 5. RIM OF TYPE 1 FRAME AND OPEN LID MUST BE BELOW SURFACE OF MULTI-USE TRAIL.
 6. PRECAST REINFORCED CONCRETE RING FOR MANHOLE WITH OPEN BOTTOM IS INCLUDED IN THE COST OF THE MANHOLE.



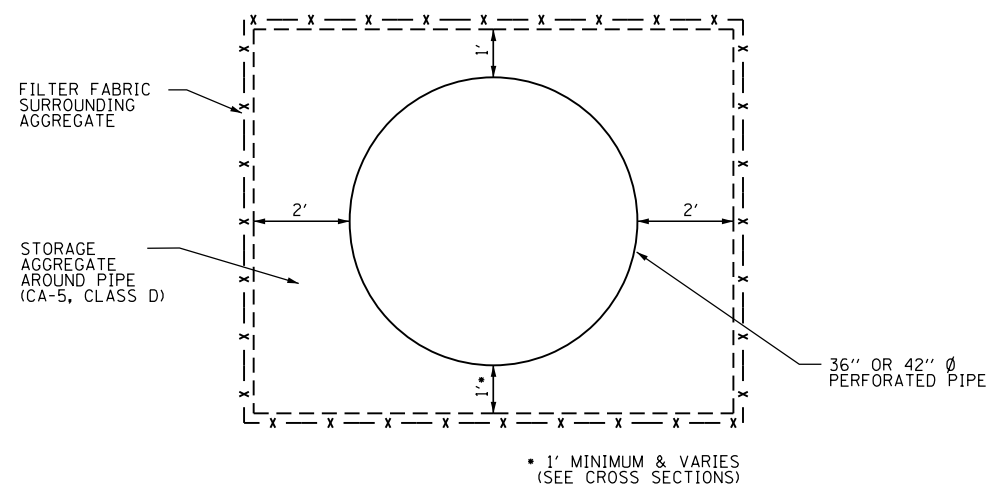
- NOTES:
1. LIDS MUST BE WITHIN LIMITS OF DITCH
 2. DITCH MUST BE WITHIN LIMITS OF 10' TRENCH



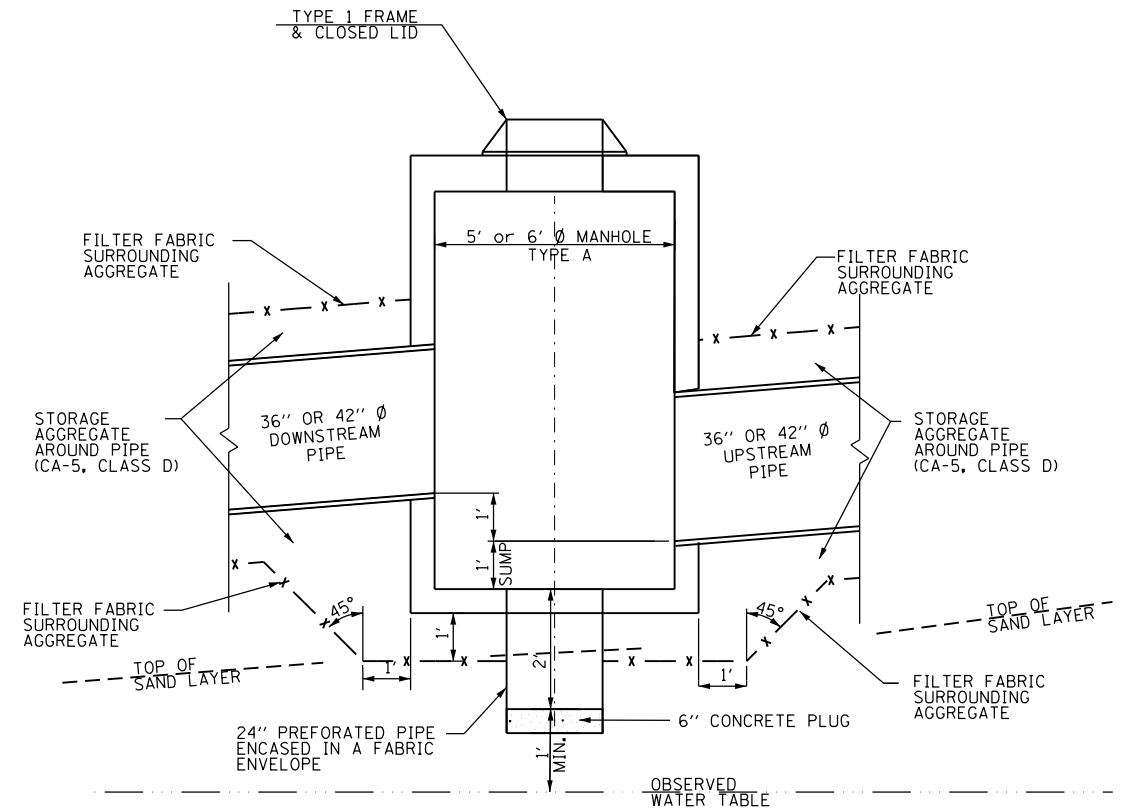
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PLOT SCALE = 10.000 ft / in.	DRAWN - JWB	REVISED -
PLOT DATE = 8/6/2015	CHECKED - RS	REVISED -
	DATE - 08/07/2015	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	487
				CONTRACT NO. 66884
ILLINOIS FED. AID PROJECT				



INFILTRATION PIPE DETAIL



INFILTRATION MANHOLE DETAIL

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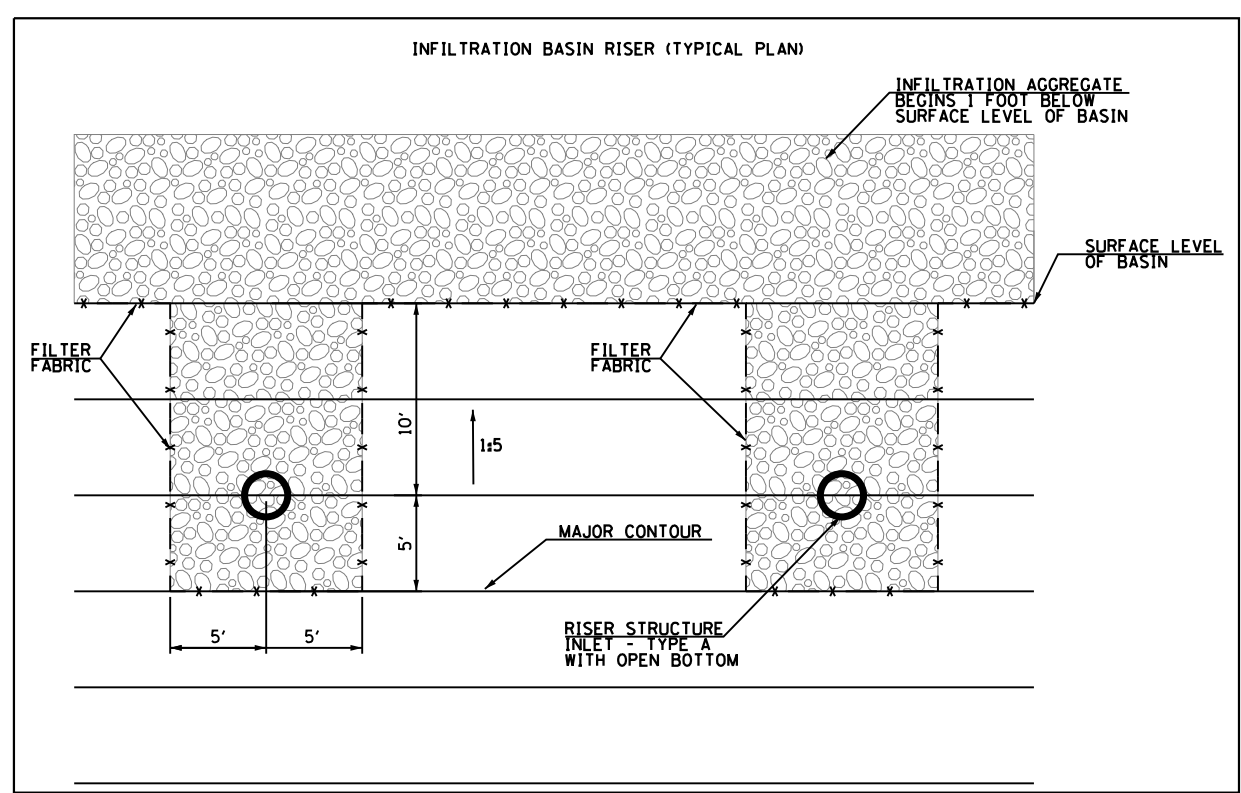
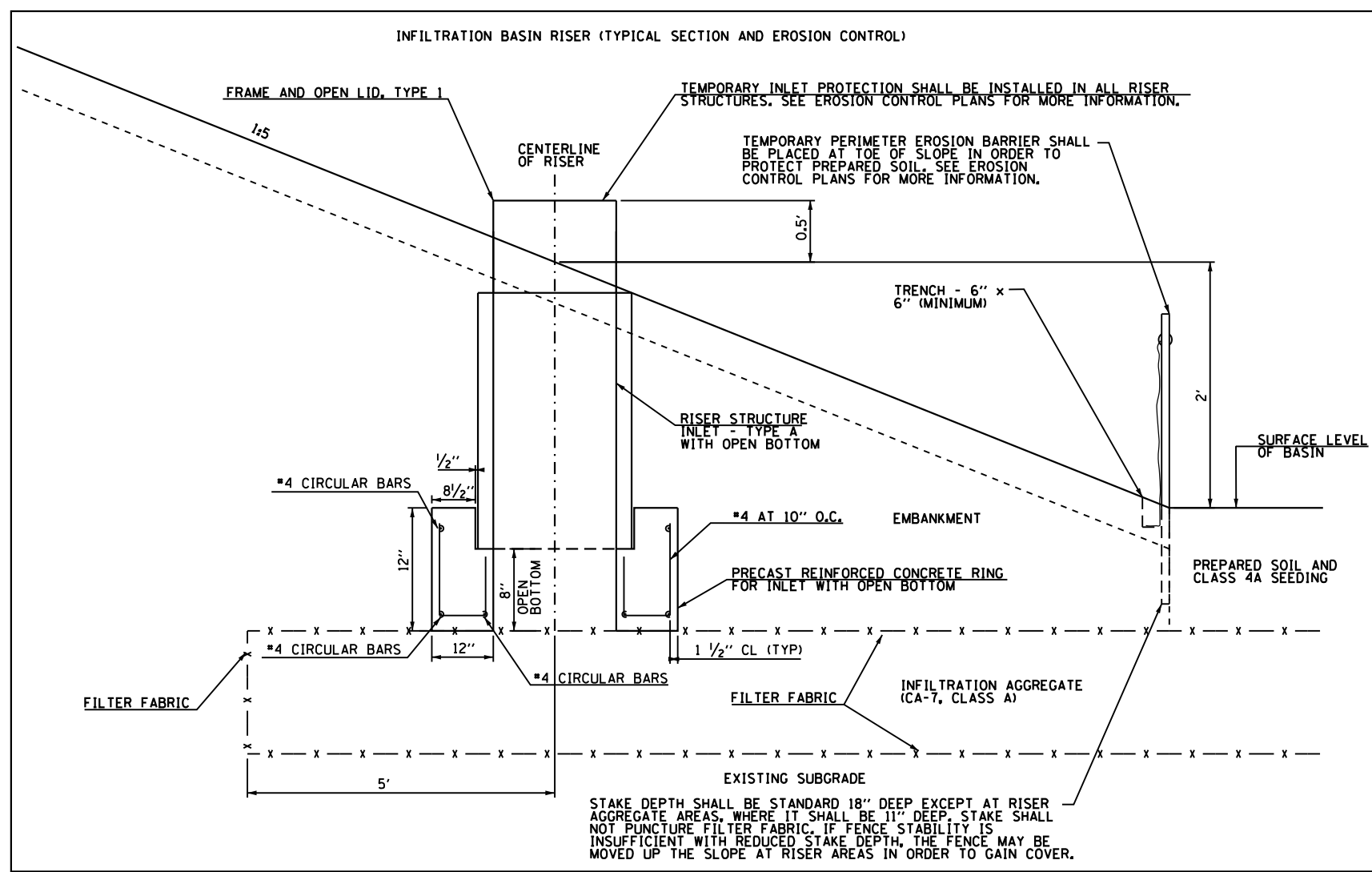
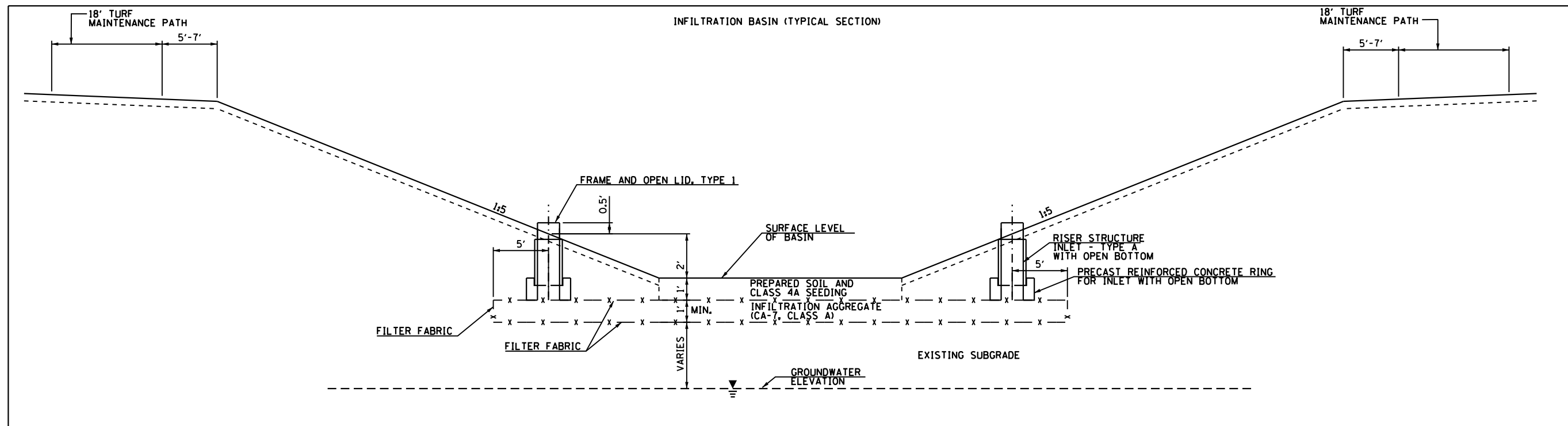
GRÄEF 8501 W. Higgins Road Suite 280
Chicago, Illinois 60631
(773) 399-0112

USER NAME = 1654	DESIGNED - JWB	REVISED -
	DRAWN - JWB	REVISED -
PLOT SCALE = 20.000 ft / in.	CHECKED - RS	REVISED -
PLOT DATE = 8/6/2015	DATE - 08/07/2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 34
CONSTRUCTION DETAILS
INFILTRATION SEWER (TRIBUTARY TO EAST BASIN)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	488
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				



- NOTES
1. FILTER FABRIC SHALL COMPLY WITH THE "FILTER FABRIC, SPECIAL" SPECIAL PROVISION.
 2. PRIOR TO INSTALLATION OF THE LOWER LEVEL OF FILTER FABRIC, THE GEOTECHNICAL ENGINEER WILL INSPECT THE EXISTING SUBGRADE. AREAS OF THE SUBGRADE WHICH DO NOT MEET THE MINIMUM INFILTRATION REQUIREMENT SHALL BE OVEREXCAVATED AND BACKFILLED WITH INFILTRATION AGGREGATE TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER. THE FILTER FABRIC ENVELOPE SHALL EXTEND TO THE BOTTOM OF THE OVEREXCAVATION. SEE INFILTRATION SCHEDULE FOR SUGGESTED ELEVATIONS OF BOTTOM OF INFILTRATION AGGREGATE. ELEVATIONS ARE ALSO REFLECTED IN CROSS-SECTIONS ASSOCIATED WITH THE RESPECTIVE INFILTRATION BASIN.
 3. PREPARED SOIL SHALL CONSIST OF:
50-60% FINE AGGREGATE
20-30% TOPSOIL
20-30% COMPOST
 4. PRECAST REINFORCED CONCRETE RING FOR INLET WITH OPEN BOTTOM IS INCLUDED IN THE COST OF THE INLET.

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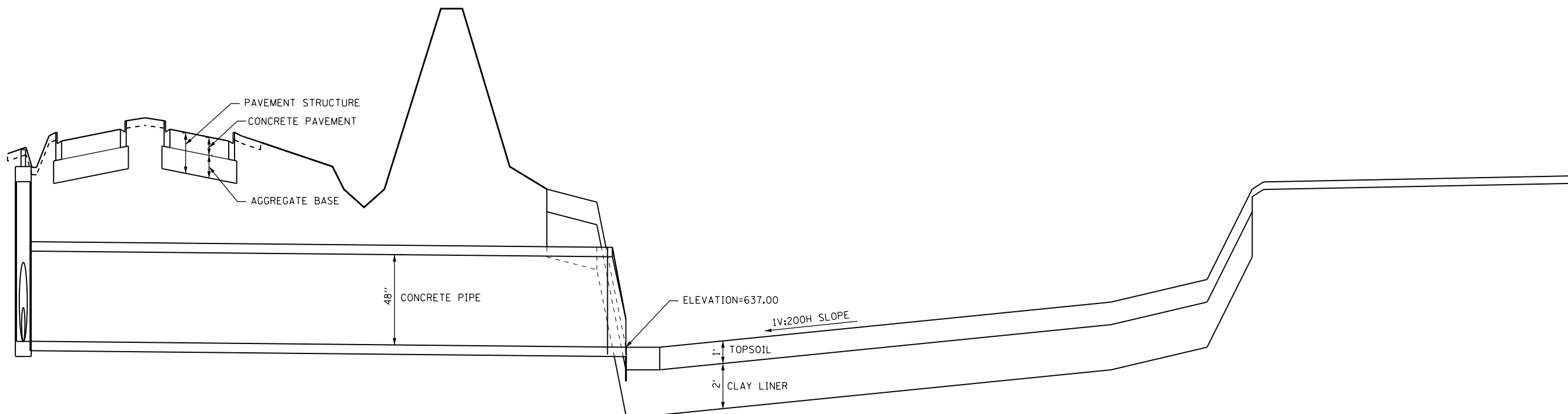
GRÄEF
8501 N. Higgins Road Suite 280
Chicago, Illinois 60631
(773) 399-0112

USER NAME = 1654	DESIGNED - JWB	REVISED -
	DRAWN - JWB	REVISED -
PLOT SCALE = 10.000 ft / in.	CHECKED - RS	REVISED -
PLOT DATE = 8/6/2015	DATE - 08/07/2015	REVISED -

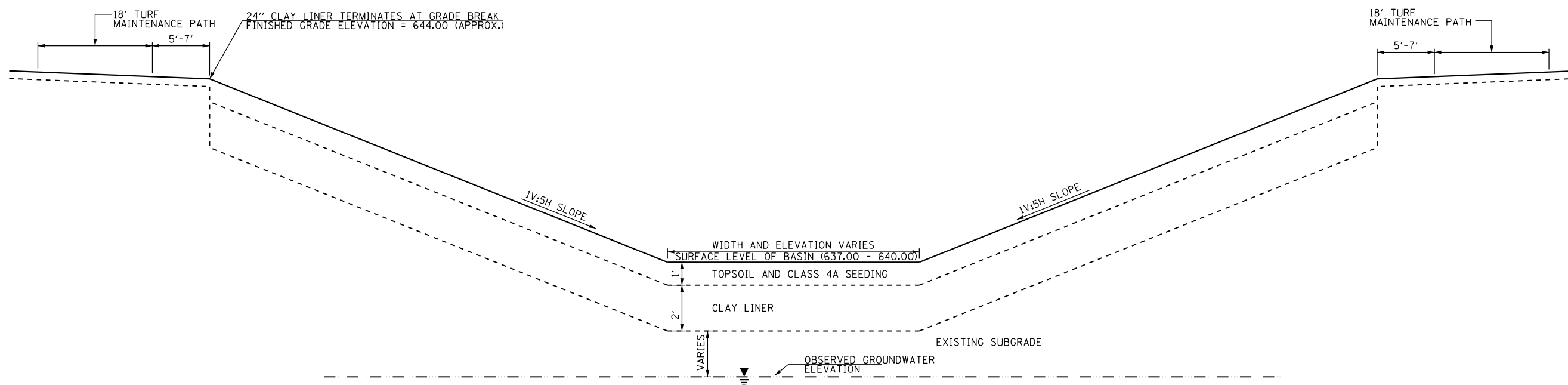
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**US 34
CONSTRUCTION DETAILS
INFILTRATION BASIN**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	489
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				



EAST DETENTION BASIN LONGITUDINAL
TYPICAL SECTION



EAST DETENTION BASIN TRANSVERSE
TYPICAL SECTION

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 8501 W. Higgins Road Suite 280
 Chicago, Illinois 60631
 (773) 399-0112

USER NAME = 1654	DESIGNED - JWB	REVISED -
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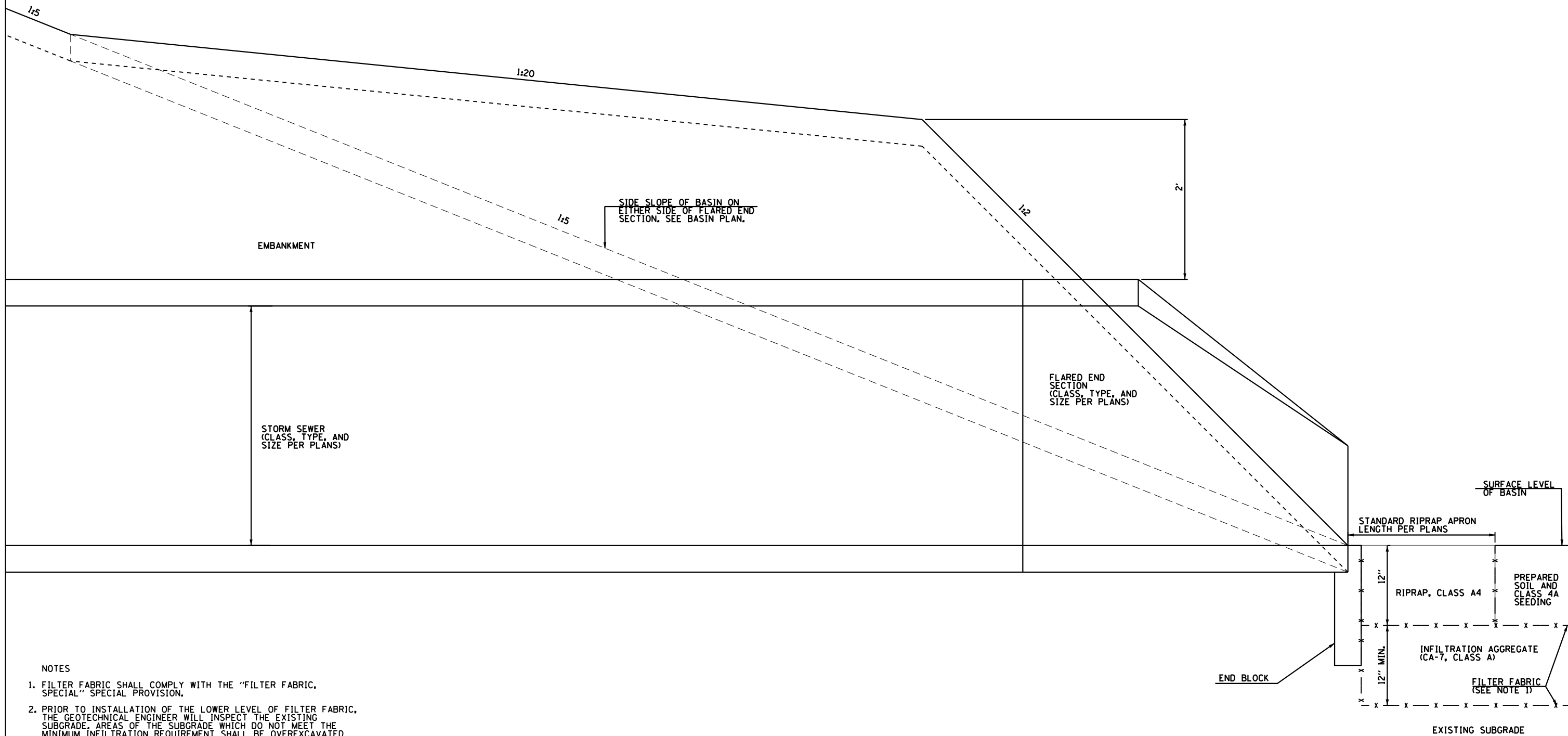
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

US 34
CONSTRUCTION DETAILS
EAST DETENTION BASIN TYPICAL SECTIONS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	490
			CONTRACT NO. 66884	

ILLINOIS FED. AID PROJECT

INFILTRATION BASIN FLARED END SECTION (TYPICAL SECTION)



NOTES

1. FILTER FABRIC SHALL COMPLY WITH THE "FILTER FABRIC, SPECIAL" SPECIAL PROVISION.
2. PRIOR TO INSTALLATION OF THE LOWER LEVEL OF FILTER FABRIC, THE GEOTECHNICAL ENGINEER WILL INSPECT THE EXISTING SUBGRADE. AREAS OF THE SUBGRADE WHICH DO NOT MEET THE MINIMUM INFILTRATION REQUIREMENT SHALL BE OVEREXCAVATED AND BACKFILLED WITH INFILTRATION AGGREGATE TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER. THE FILTER FABRIC ENVELOPE SHALL EXTEND TO THE BOTTOM OF THE OVEREXCAVATION. SEE INFILTRATION SCHEDULE FOR SUGGESTED ELEVATIONS OF BOTTOM OF INFILTRATION AGGREGATE. ELEVATIONS ARE ALSO REFLECTED IN CROSS-SECTIONS ASSOCIATED WITH THE RESPECTIVE INFILTRATION BASIN.
3. PREPARED SOIL SHALL CONSIST OF:
 50-60% FINE AGGREGATE
 20-30% TOPSOIL
 20-30% COMPOST

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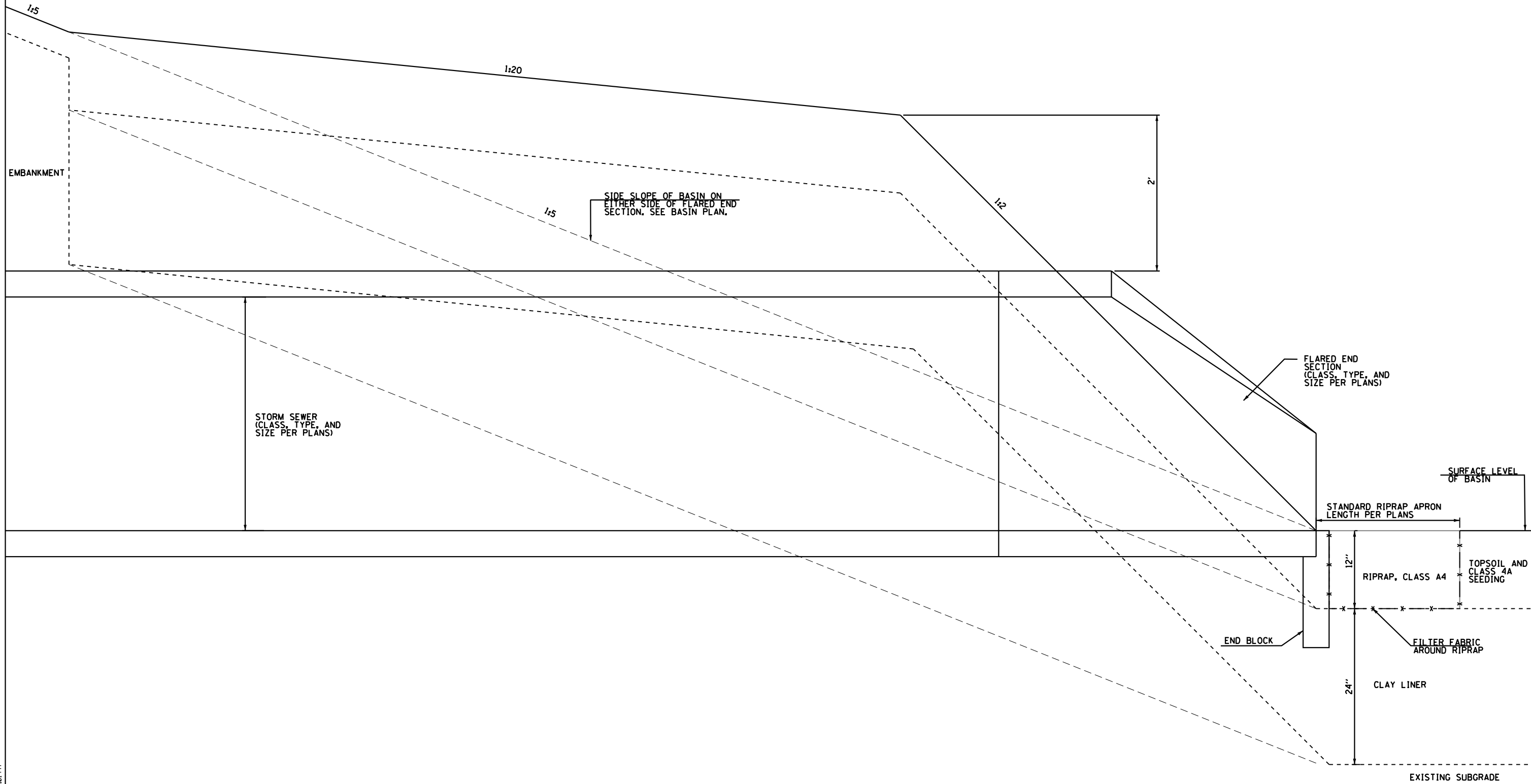
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		DATE - 08/07/2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 34
CONSTRUCTION DETAILS
FLARED END SECTION AND RIPRAP APRON AT INFILTRATION BASIN

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	491
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				

EAST DETENTION BASIN FLARED END SECTION (TYPICAL SECTION)



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 Chicago, Illinois 60631
 (773) 399-0112

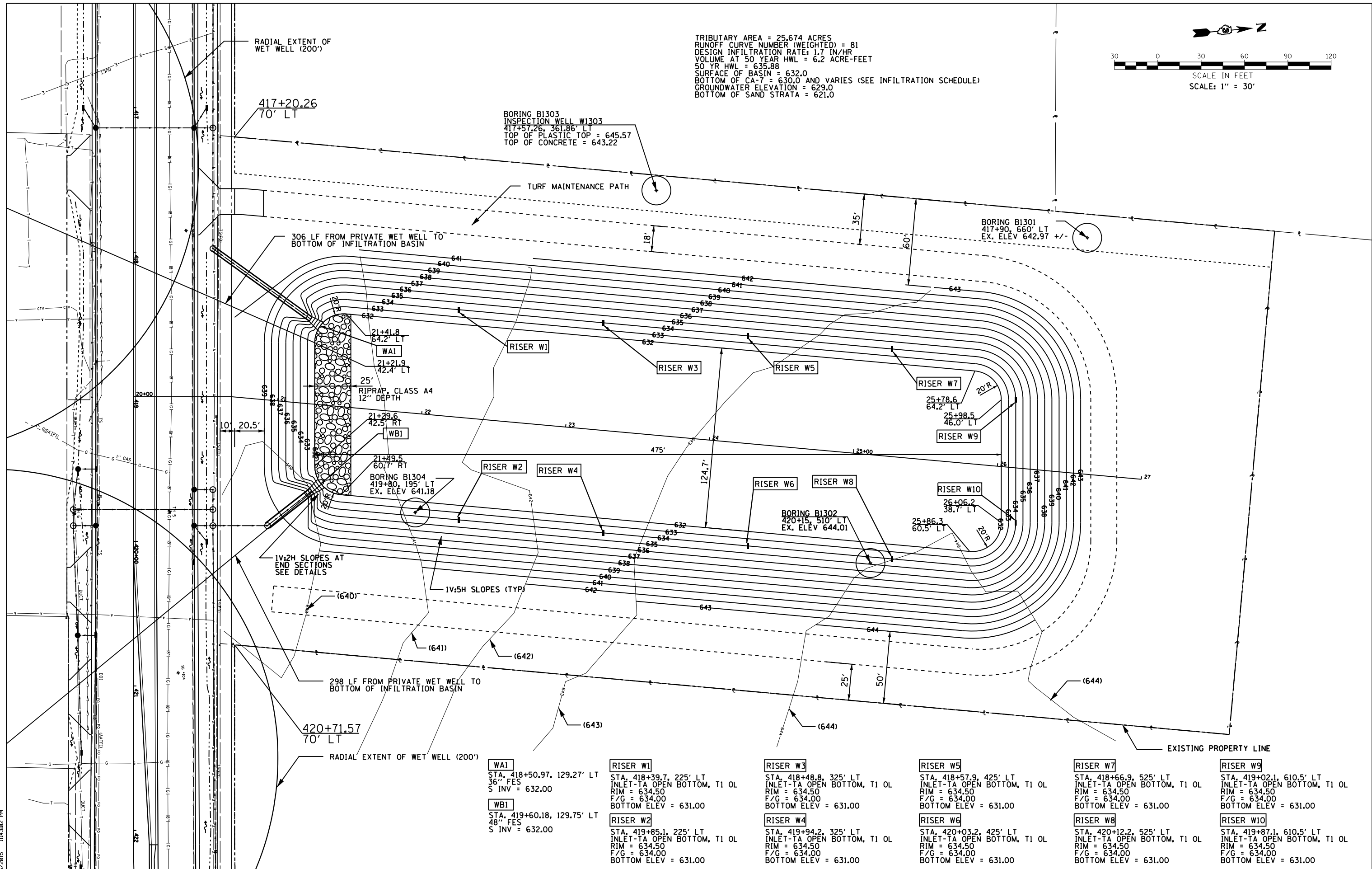
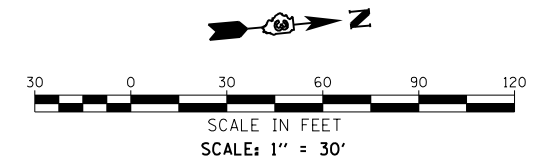
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DRAWN - JWB	REVISED -	
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PLOT DATE = 8/6/2015	DATE - 08/07/2015	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

US 34
 CONSTRUCTION DETAILS
 FLARED END SECTION AND RIPRAP APRON AT EAST DETENTION BASIN

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T	KENDALL	753	492
ILLINOIS FED. AID PROJECT			CONTRACT NO. 66884	

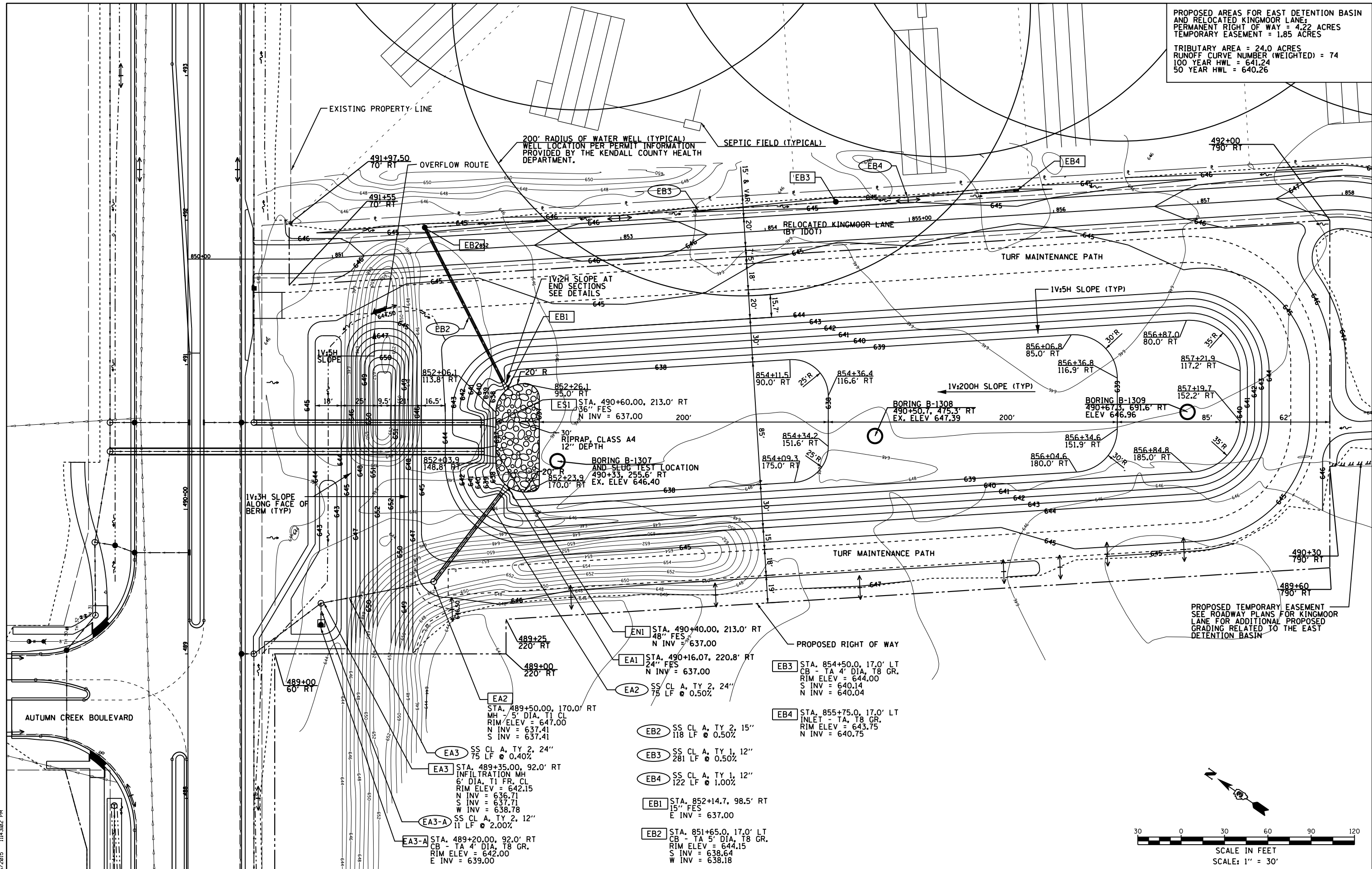
TRIBUTARY AREA = 25,674 ACRES
 RUNOFF CURVE NUMBER (WEIGHTED) = 81
 DESIGN INFILTRATION RATE: 1.7 IN/HR
 VOLUME AT 50 YEAR HWL = 6.2 ACRE-FEET
 50 YR HWL = 635.88
 SURFACE OF BASIN = 632.0
 BOTTOM OF CA-7 = 630.0 AND VARIES (SEE INFILTRATION SCHEDULE)
 GROUNDWATER ELEVATION = 629.0
 BOTTOM OF SAND STRATA = 621.0



WAI STA. 418+50.97, 129.27' LT 36" FES S INV = 632.00	WBI STA. 419+60.18, 129.75' LT 48" FES S INV = 632.00	RISER W1 STA. 418+39.7, 225' LT INLET-TA OPEN BOTTOM, T1 OL RIM = 634.50 F/G = 634.00 BOTTOM ELEV = 631.00	RISER W2 STA. 419+85.1, 225' LT INLET-TA OPEN BOTTOM, T1 OL RIM = 634.50 F/G = 634.00 BOTTOM ELEV = 631.00	RISER W3 STA. 418+48.8, 325' LT INLET-TA OPEN BOTTOM, T1 OL RIM = 634.50 F/G = 634.00 BOTTOM ELEV = 631.00	RISER W4 STA. 419+94.2, 325' LT INLET-TA OPEN BOTTOM, T1 OL RIM = 634.50 F/G = 634.00 BOTTOM ELEV = 631.00	RISER W5 STA. 418+57.9, 425' LT INLET-TA OPEN BOTTOM, T1 OL RIM = 634.50 F/G = 634.00 BOTTOM ELEV = 631.00	RISER W6 STA. 420+03.2, 425' LT INLET-TA OPEN BOTTOM, T1 OL RIM = 634.50 F/G = 634.00 BOTTOM ELEV = 631.00	RISER W7 STA. 418+66.9, 525' LT INLET-TA OPEN BOTTOM, T1 OL RIM = 634.50 F/G = 634.00 BOTTOM ELEV = 631.00	RISER W8 STA. 420+12.2, 525' LT INLET-TA OPEN BOTTOM, T1 OL RIM = 634.50 F/G = 634.00 BOTTOM ELEV = 631.00	RISER W9 STA. 419+02.1, 610.5' LT INLET-TA OPEN BOTTOM, T1 OL RIM = 634.50 F/G = 634.00 BOTTOM ELEV = 631.00	RISER W10 STA. 419+87.1, 610.5' LT INLET-TA OPEN BOTTOM, T1 OL RIM = 634.50 F/G = 634.00 BOTTOM ELEV = 631.00
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PROPOSED AREAS FOR EAST DETENTION BASIN AND RELOCATED KINGMOOR LANE:
 PERMANENT RIGHT OF WAY = 4.22 ACRES
 TEMPORARY EASEMENT = 1.85 ACRES
 TRIBUTARY AREA = 24.0 ACRES
 RUNOFF CURVE NUMBER (WEIGHTED) = 74
 100 YEAR HWL = 641.24
 50 YEAR HWL = 640.26



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GRAEF
 8501 N. Higgins Road Suite 280
 Chicago, Illinois 60631
 (773) 399-0112

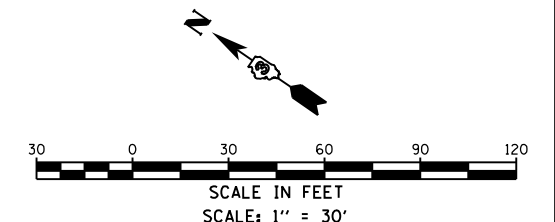
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PLOT SCALE = 60.0000' / in.	DRAWN - JWB	REVISED -
PLOT DATE = 8/6/2015	CHECKED - RS	REVISED -
	DATE - 08/07/2015	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**US 34
 CONSTRUCTION DETAILS
 OVERALL PLAN - EAST DETENTION BASIN**

SCALE: 1"=30' STA. 487+50 TO STA. 493+50

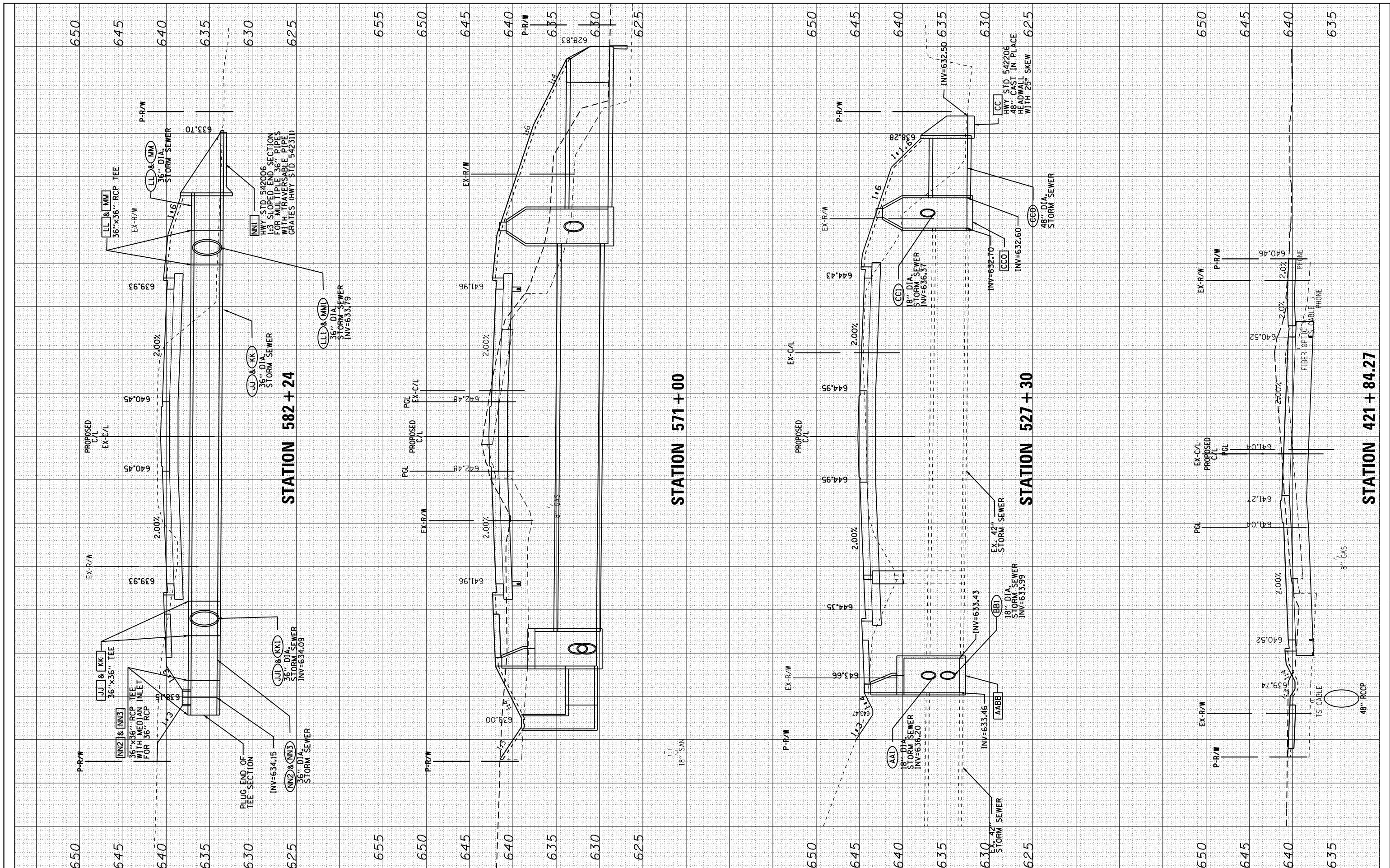
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T)	KENDALL	753	494
CONTRACT NO. 66884				
ILLINOIS FED. AID PROJECT				



- EN1 STA. 490+40.00, 213.0' RT
48" FES
N INV = 637.00
- EA1 STA. 490+16.07, 220.8' RT
24" FES
N INV = 637.00
- EA2 SS CL A, TY 2, 24"
75 LF @ 0.50%
- EA3 SS CL A, TY 2, 24"
75 LF @ 0.40%
- EA3 STA. 489+35.00, 92.0' RT
INFILTRATION MH
6' DIA. T1 FR. CL
RIM ELEV = 642.15
N INV = 636.71
S INV = 637.71
W INV = 638.78
- EA3-A SS CL A, TY 2, 12"
11 LF @ 2.00%
- EA3-A STA. 489+20.00, 92.0' RT
CB - TA 4" DIA, T8 GR.
RIM ELEV = 642.00
E INV = 639.00
- EA2 STA. 489+50.00, 170.0' RT
MH - 5' DIA, T1 CL
RIM ELEV = 647.00
N INV = 637.41
S INV = 637.41
- EB2 STA. 851+65.0, 17.0' LT
CB - TA 5" DIA, T8 GR.
RIM ELEV = 644.15
S INV = 638.64
W INV = 638.18
- EB3 STA. 854+50.0, 17.0' LT
CB - TA 4" DIA, T8 GR.
RIM ELEV = 644.00
S INV = 640.14
N INV = 640.04
- EB4 STA. 855+75.0, 17.0' LT
INLET - TA, T8 GR.
RIM ELEV = 643.75
N INV = 640.75
- EB1 STA. 852+14.7, 98.5' RT
15" FES
E INV = 637.00
- EB2 STA. 852+23.9, 170.0' RT
EX. ELEV 646.40
- EB3 STA. 854+11.5, 90.0' RT
25' R
- EB4 STA. 854+36.4, 116.6' RT
25' R
- EB1 STA. 852+26.1, 95.0' RT
30' RIPRAP, CLASS A4
12" DEPTH
- EB2 STA. 852+06.1, 113.8' RT
20' R
- EB3 STA. 854+09.3, 175.0' RT
25' R
- EB4 STA. 854+34.2, 151.6' RT
25' R
- EB1 STA. 856+04.6, 180.0' RT
30' R
- EB2 STA. 856+34.6, 151.9' RT
30' R
- EB3 STA. 856+06.8, 85.0' RT
30' R
- EB4 STA. 856+36.8, 116.9' RT
35' R
- EB1 STA. 857+19.7, 152.2' RT
85'
- EB2 STA. 857+21.9, 117.2' RT
85'
- EB3 STA. 856+84.8, 185.0' RT
35' R
- EB4 STA. 856+87.0, 80.0' RT
35' R

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
AREAS CHECKED	TEMPLATE		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
AREAS CHECKED	TEMPLATE		
	AREAS CHECKED		



FILE NAME =
 USER NAME = 1654
 DRAWN - JWB
 CHECKED - RS
 DATE - 08/07/2015

DESIGNED - JWB
 DRAWN - JWB
 CHECKED - RS
 DATE - 08/07/2015

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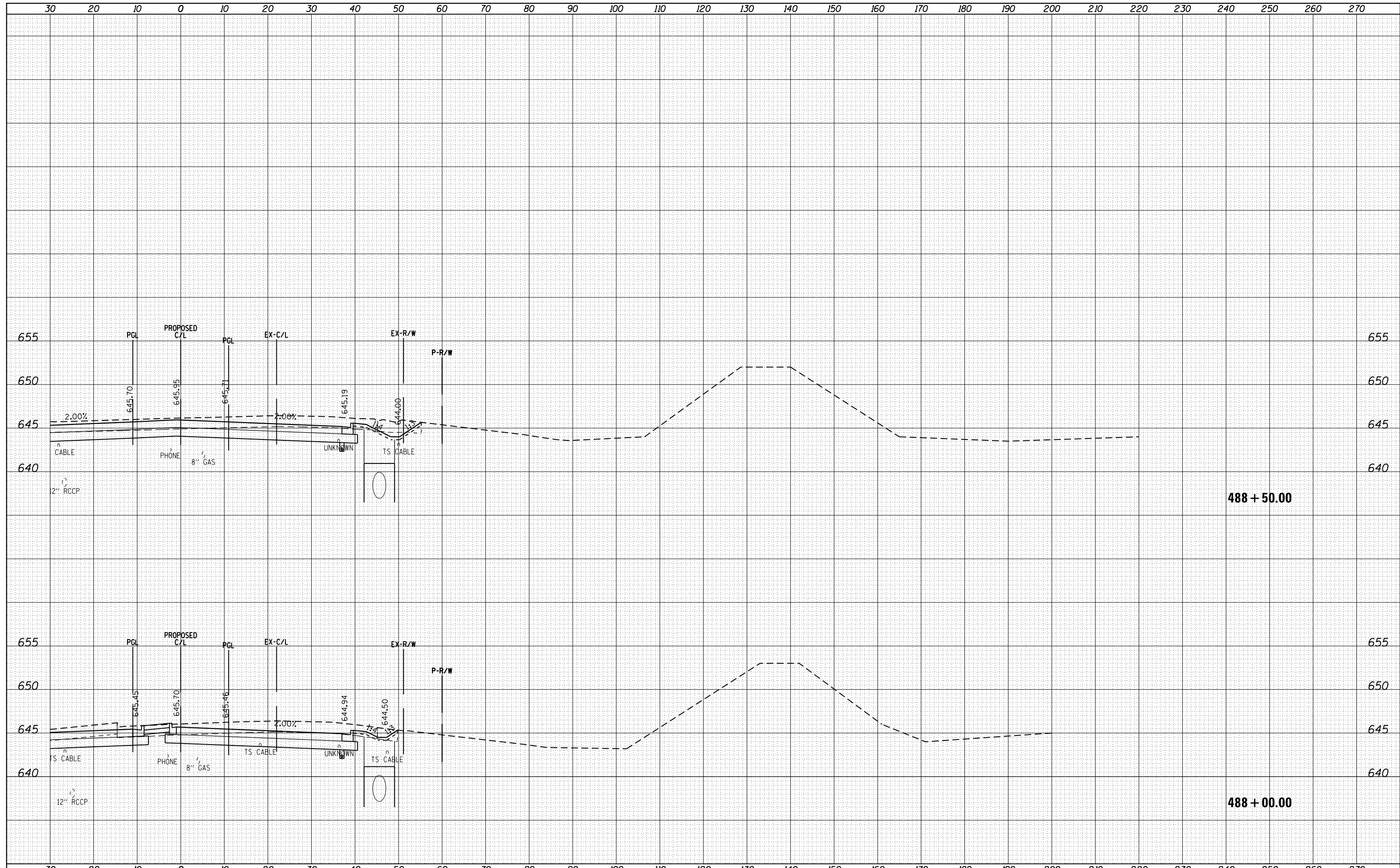
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

US 34
 CONSTRUCTION DETAILS
 ANCILLARY CROSS-SECTIONS
 SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13JR & T)	KENDALL	753	495
CONTRACT NO. 66884			ILLINOIS FED. AID PROJECT	

DATE	
BY	
FINAL SURVEY	SURVEYED
NOTE BOOK NO.	PLOTTED
	TEMPLATE
	AREAS CHECKED

DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK NO.	PLOTTED
	TEMPLATE
	AREAS CHECKED



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	PLOT DATE = 8/6/2015	DATE -	08/07/2015	REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION DETAILS
CROSS SECTIONS - US 34 & KINGMOOR BERM**

SCALE: SHEET 1 OF 7 SHEETS STA. 488+00.00 TO STA. 488+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
591	(13C & 13R & T)	KENDALL	753	499
			CONTRACT NO. 66884	
ILLINOIS FED. AID PROJECT				

