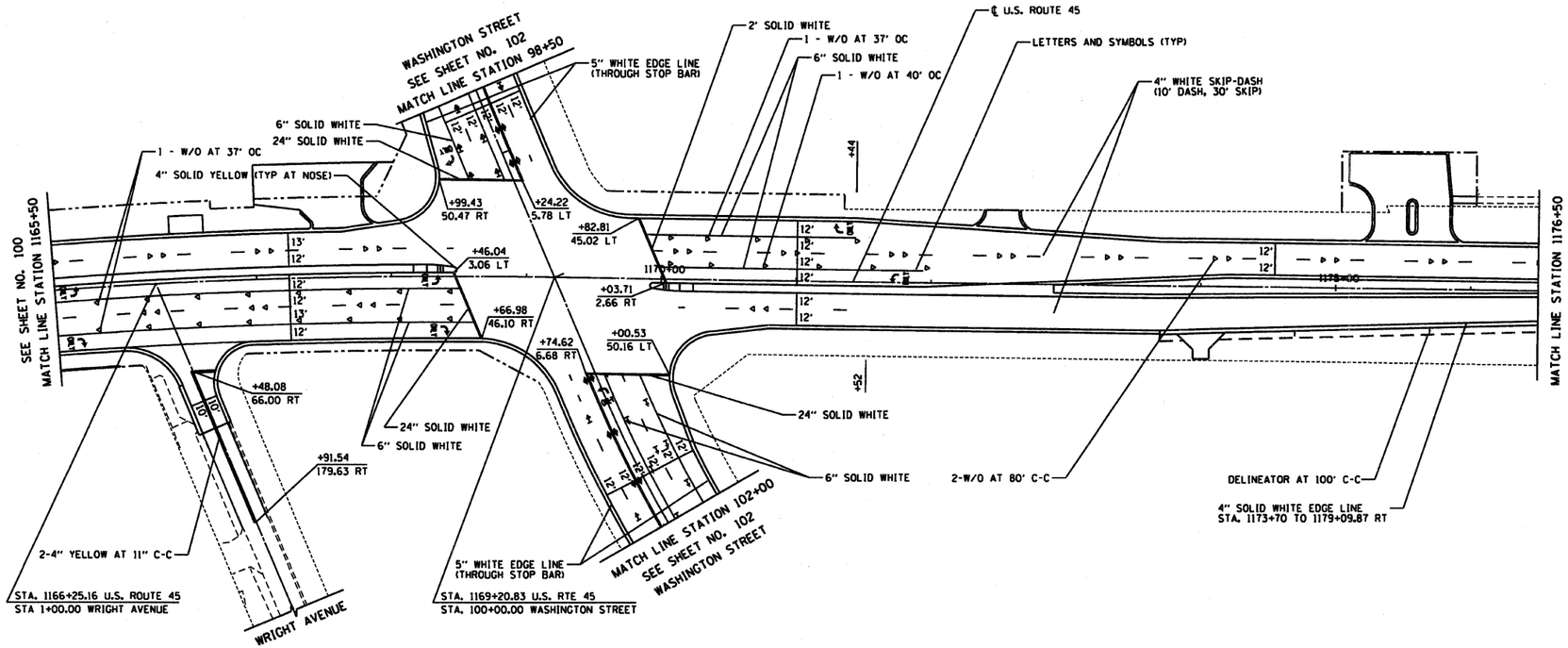
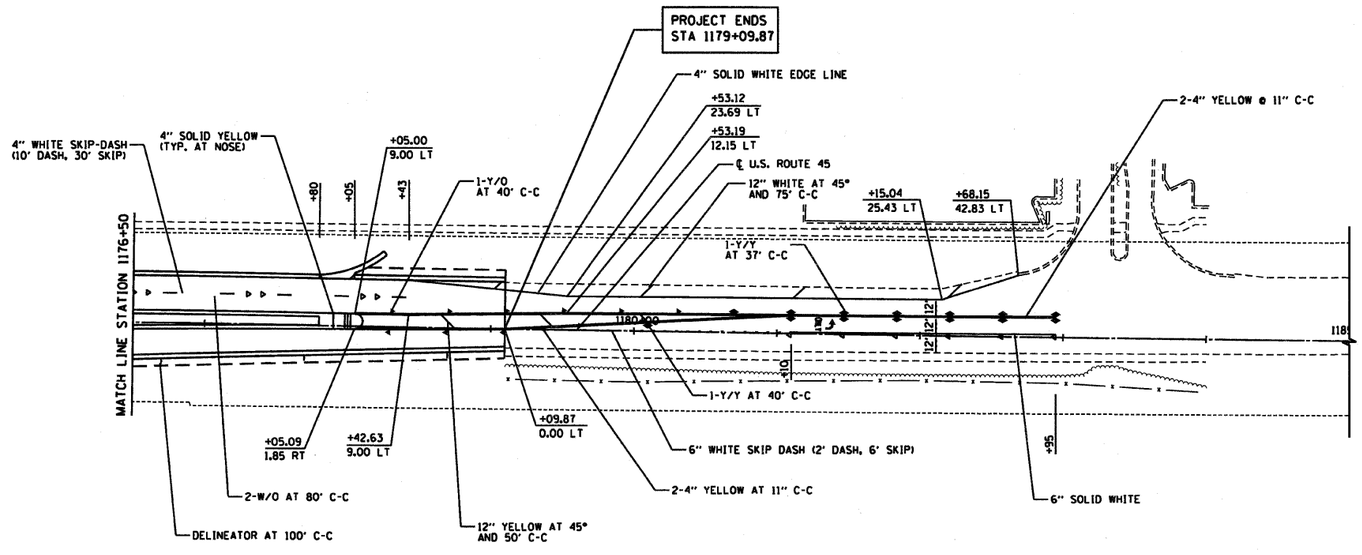
RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	101
STA. 1165+50	TO STA. 1179+09.87			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956



FOR LEGEND AND NOTES
SEE SHEET NO. 98



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN

U.S. ROUTE 45

STATION 1165+50 TO STATION 1179+09.87

HORIZ.50 0 50

SCALE IN FEET

DATE 12/14/09

DRAWN BY SAH

CHECKED BY MJL

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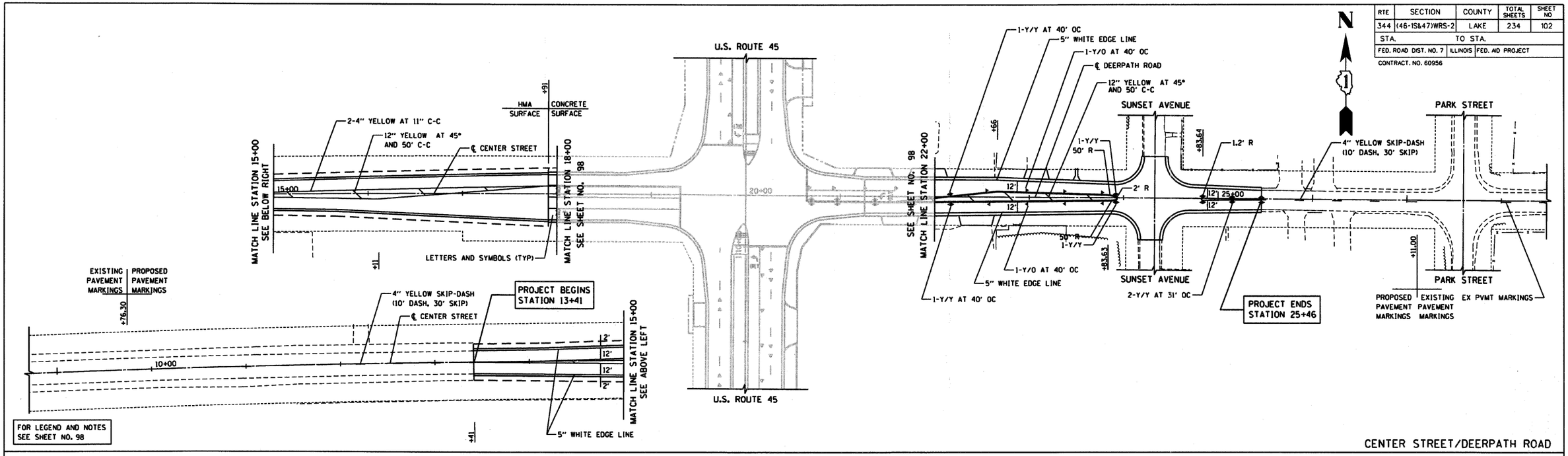
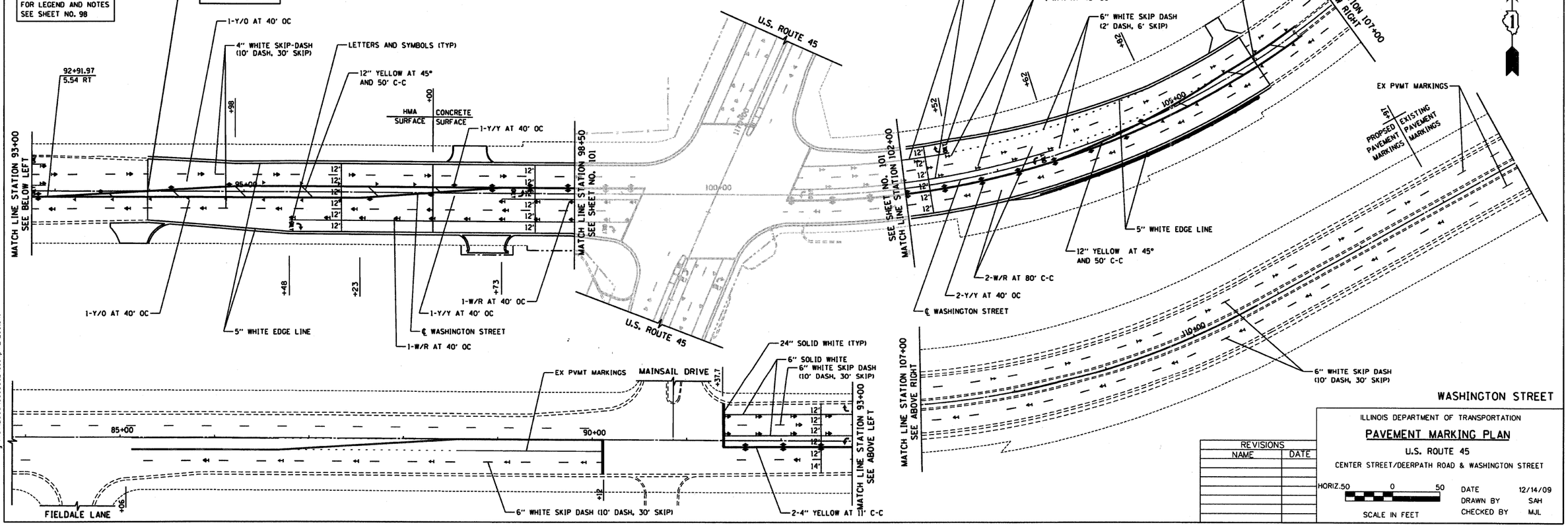
RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	102
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956



CENTER STREET/DEERPATH ROAD



WASHINGTON STREET

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN

U.S. ROUTE 45

CENTER STREET/DEERPATH ROAD & WASHINGTON STREET

HORIZ. 50 0 50

SCALE IN FEET

DATE 12/14/09

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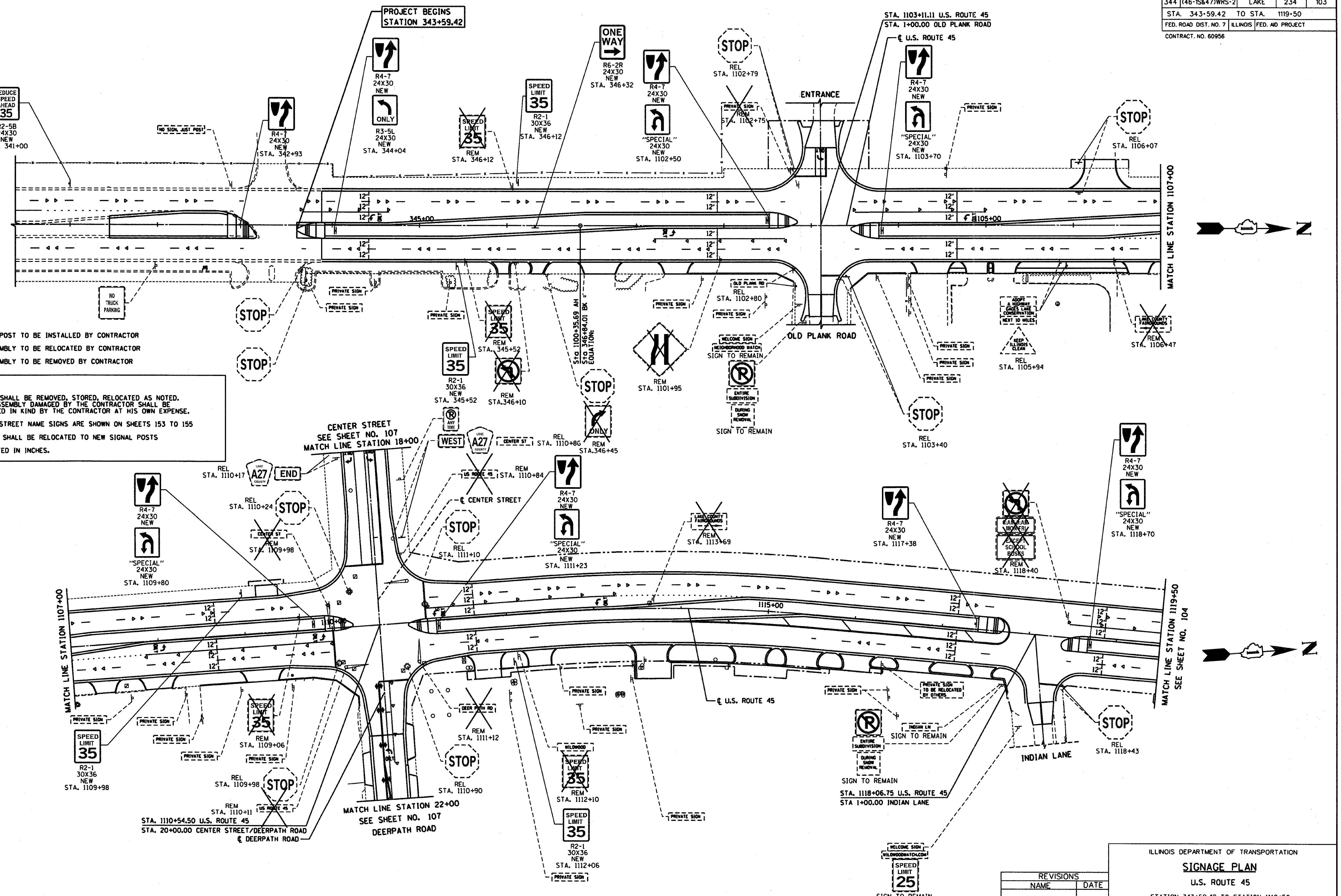
RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	103
STA. 343+59.42	TO STA. 1119+50			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956



PROJECT BEGINS
STATION 343+59.42
REDUCE SPEED AHEAD 35
R2-5B 24X30 NEW STA. 341+00
R4-7 24X30 NEW STA. 342+93
R4-7 24X30 NEW
R3-5L 24X30 NEW STA. 344+04
SPEED LIMIT 35 REM STA. 346+12
SPEED LIMIT 35 R2-1 30X36 NEW STA. 346+12
ONE WAY
R6-2R 24X30 NEW STA. 346+32
R4-7 24X30 NEW
"SPECIAL" 24X30 NEW STA. 1102+50
STOP REL STA. 1102+79
STA. 1102+75
ENTRANCE
STA. 1103+11.11 U.S. ROUTE 45
STA. 1+00.00 OLD PLANK ROAD
℄ U.S. ROUTE 45
R4-7 24X30 NEW
"SPECIAL" 24X30 NEW STA. 1103+70
STOP REL STA. 1106+07
MATCH LINE STATION 1107+00
NO TRUCK PARKING
STOP
STOP
PRIVATE SIGN
SPEED LIMIT 35 REM STA. 345+52
SPEED LIMIT 35 R2-1 30X36 NEW STA. 345+52
REM STA.346+10
Sta 1100+35.69 AH
Sta 346+84.01 BK
EQUATION:
STOP
ONLY REM STA.346+45
REM STA. 1101+95
OLD PLANK RD REL STA. 1102+80
WELCOME SIGN
NEIGHBORHOOD WATCH
SIGN TO REMAIN
ENTIRE SUBDIVISION
DURING SNOW REMOVAL
SIGN TO REMAIN
OLD PLANK ROAD
STOP REL STA. 1103+40
REL STA. 1105+94
REM STA. 1106+47
345+00
1105+00
CENTER STREET
SEE SHEET NO. 107
MATCH LINE STATION 18+00
WEST A27 CENTER ST REL STA. 1110+86
REL STA. 1110+17 A27 END
US ROUTE 45 REM STA. 1110+84
℄ CENTER STREET
REL STA. 1110+24 STOP
CENTER ST REM STA. 1109+98
STOP REL STA. 1111+10
R4-7 24X30 NEW
"SPECIAL" 24X30 NEW STA. 1111+23
R4-7 24X30 NEW
"SPECIAL" 24X30 NEW STA. 1109+80
REM STA. 1113+69
R4-7 24X30 NEW STA. 1117+38
REM STA. 1118+40
R4-7 24X30 NEW
"SPECIAL" 24X30 NEW STA. 1118+70
1115+00
MATCH LINE STATION 1107+00
MATCH LINE STATION 1119+50
SEE SHEET NO. 104
SPEED LIMIT 35 R2-1 30X36 NEW STA. 1109+98
SPEED LIMIT 35 REM STA. 1109+06
REL STA. 1109+98 STOP
REM STA. 1110+11 US ROUTE 45
STA. 1110+54.50 U.S. ROUTE 45
STA. 20+00.00 CENTER STREET/DEERPATH ROAD
℄ DEERPATH ROAD
MATCH LINE STATION 22+00
SEE SHEET NO. 107
DEERPATH ROAD
STOP REL STA. 1110+90
DEER PATH RD REM STA. 1111+12
WILDWOOD REM STA. 1112+10
SPEED LIMIT 35 R2-1 30X36 NEW STA. 1112+06
℄ U.S. ROUTE 45
PRIVATE SIGN TO BE RELOCATED BY OTHERS
INDIAN LN SIGN TO REMAIN
ENTIRE SUBDIVISION DURING SNOW REMOVAL SIGN TO REMAIN
STA. 1118+06.75 U.S. ROUTE 45
STA 1+00.00 INDIAN LANE
INDIAN LANE
STOP REL STA. 1118+43
WELCOME SIGN WILDWOODWATCH.COM
SPEED LIMIT 25 SIGN TO REMAIN
N

LEGEND

NEW SIGN PANEL AND POST TO BE INSTALLED BY CONTRACTOR

REL SIGN PANEL ASSEMBLY TO BE RELOCATED BY CONTRACTOR

X SIGN PANEL ASSEMBLY TO BE REMOVED BY CONTRACTOR

NOTE

1. ALL EXISTING SIGNS SHALL BE REMOVED, STORED, RELOCATED AS NOTED. ANY SIGN OR SIGN ASSEMBLY DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED IN KIND BY THE CONTRACTOR AT HIS OWN EXPENSE.
2. MAST ARM MOUNTED STREET NAME SIGNS ARE SHOWN ON SHEETS 153 TO 155
3. FOLDING STOP SIGNS SHALL BE RELOCATED TO NEW SIGNAL POSTS
4. SIGN SIZES ARE LISTED IN INCHES.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SIGNAGE PLAN

U.S. ROUTE 45

STATION 343+59.42 TO STATION 1119+50

HORIZ. 50 0 50

SCALE IN FEET

DATE 12/14/09

DRAWN BY SAH

CHECKED BY MJL

TranSystems®

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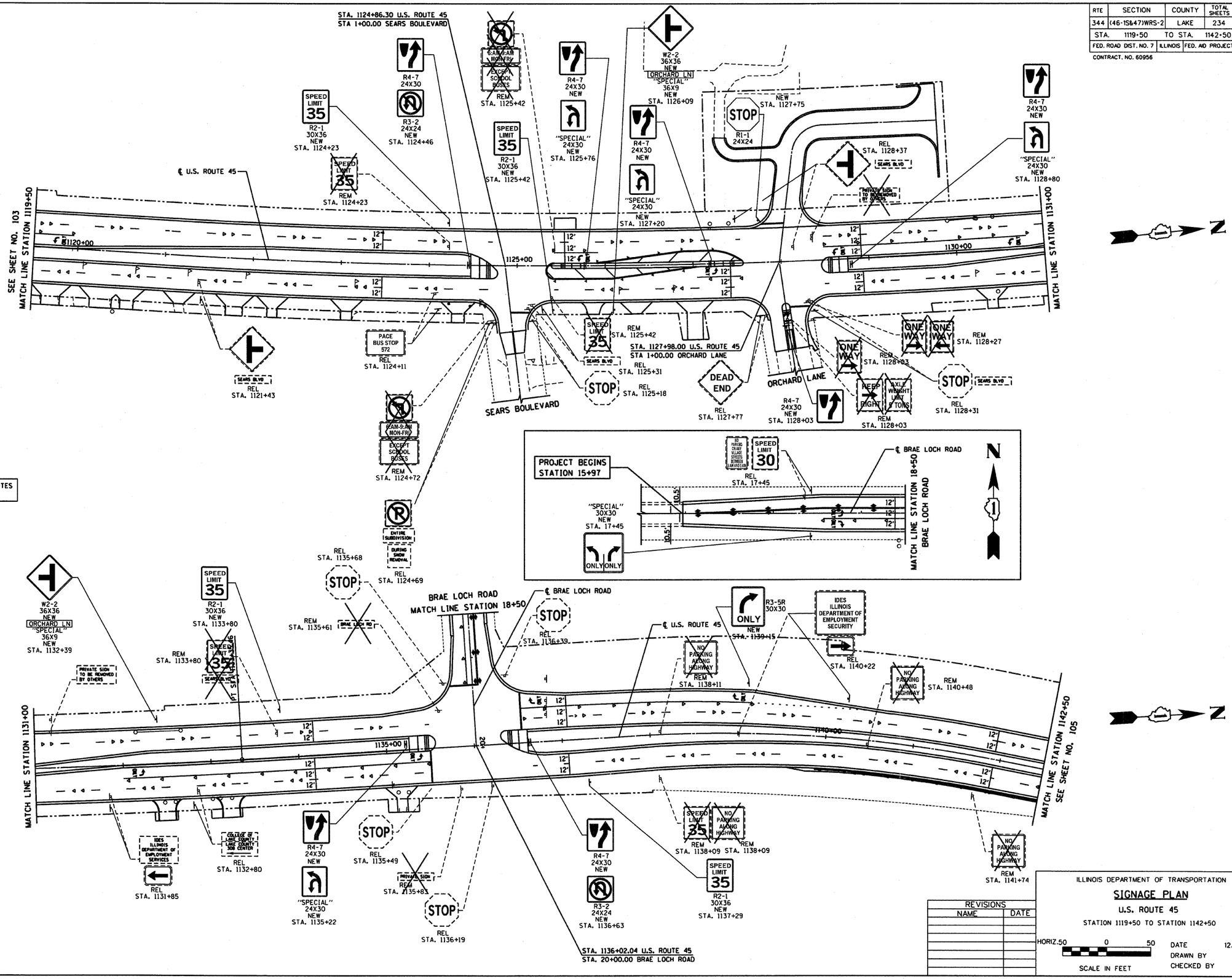
RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	104
STA.	1119+50	TO STA.	1142+50	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SIGNAGE PLAN

U.S. ROUTE 45

STATION 1119+50 TO STATION 1142+50

HORIZ. 50 0 50

SCALE IN FEET

DATE 12/14/09

DRAWN BY SAH

CHECKED BY MJL

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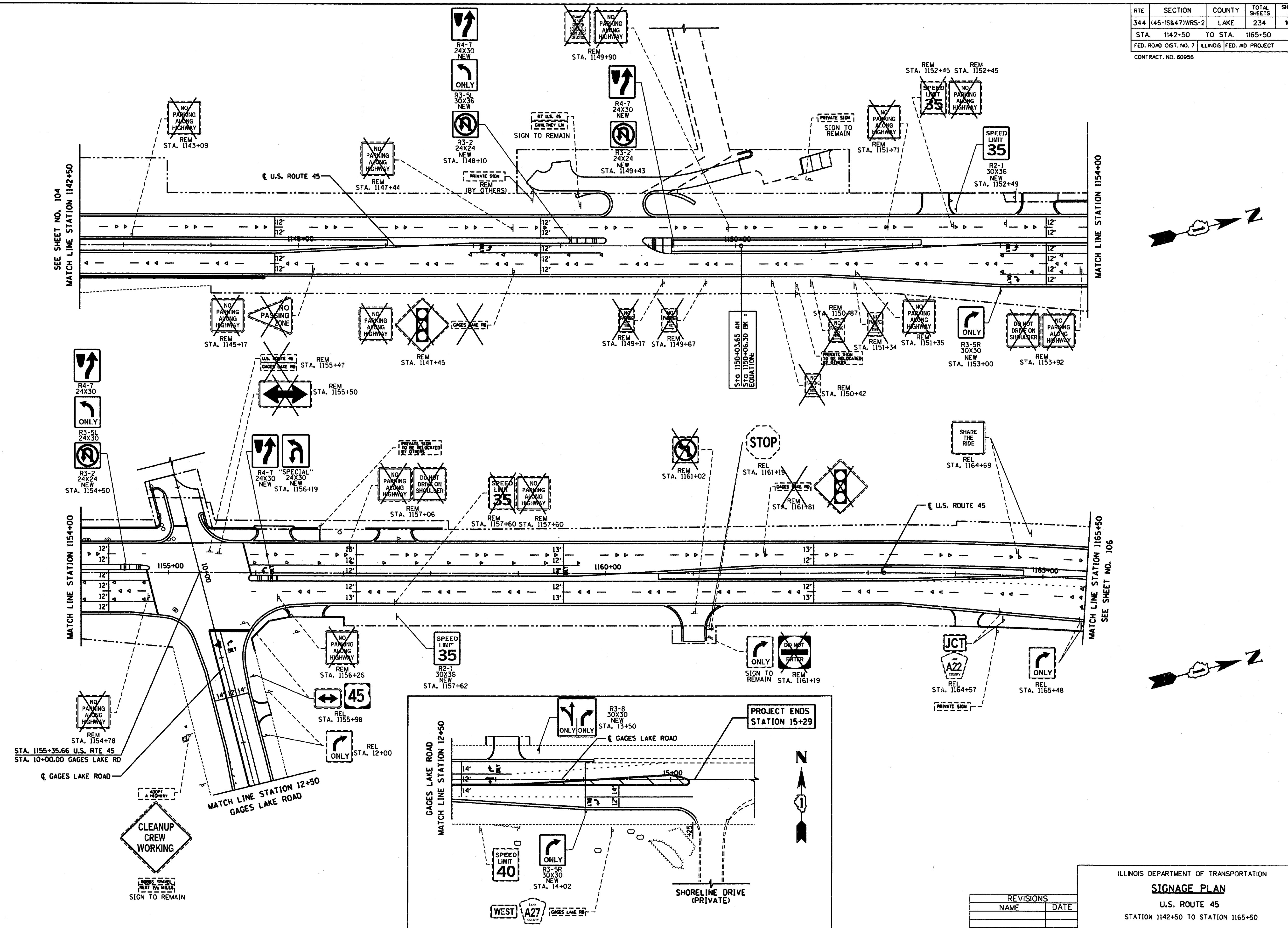
RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	105

STA. 1142+50 TO STA. 1165+50		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT

CONTRACT. NO. 60956

FOR LEGEND AND NOTES SEE SHEET NO. 103



SEE SHEET NO. 104
MATCH LINE STATION 1142+50
MATCH LINE STATION 1154+00
MATCH LINE STATION 1165+50
SEE SHEET NO. 106
℄ U.S. ROUTE 45
R4-7 24X30 NEW
R3-5L 30X36 NEW
R3-2 24X24 NEW STA. 1148+10
REM STA. 1149+90
R4-7 24X30 NEW
R3-2 24X24 NEW STA. 1149+43
SIGN TO REMAIN
PRIVATE SIGN REM (BY OTHERS)
REM STA. 1143+09
REM STA. 1147+44
PRIVATE SIGN SIGN TO REMAIN
REM STA. 1151+71
REM STA. 1152+45
SPEED LIMIT 35
R2-1 30X36 NEW STA. 1152+49
REM STA. 1145+17
NO PASSING ZONE
REM STA. 1147+45
REM STA. 1149+17
REM STA. 1149+67
Sta 1150+03.65 AH
Sta 1150+06.30 BK
EQUATION
REM STA. 1150+87
REM STA. 1151+34
REM STA. 1151+35
REM STA. 1150+42
ONLY
R3-5R 30X30 NEW STA. 1153+00
DO NOT DRIVE ON SHOULDER
NO PARKING ALONG HIGHWAY
REM STA. 1153+92
R4-7 24X30
R3-5L 24X30
R3-2 24X24 NEW STA. 1154+50
REM STA. 1155+47
REM STA. 1155+50
R4-7 24X30 NEW
"SPECIAL" 24X30 NEW STA. 1156+19
PRIVATE SIGN TO BE RELOCATED BY OTHERS
REM STA. 1157+06
REM STA. 1157+60
REM STA. 1157+60
REM STA. 1161+02
STOP
REL STA. 1161+19
REM STA. 1161+81
SHARE THE RIDE
REL STA. 1164+69
1155+00
1160+00
1165+00
REM STA. 1156+26
SPEED LIMIT 35
R2-1 30X36 NEW STA. 1157+62
SIGN TO REMAIN
DO NOT ENTER
REM STA. 1161+19
JCT
A22
REL STA. 1164+57
PRIVATE SIGN
REL STA. 1165+48
45
REL STA. 1155+98
REL STA. 12+00
REM STA. 1154+78
STA. 1155+35.66 U.S. RTE 45
STA. 10+00.00 GAGES LAKE RD
℄ GAGES LAKE ROAD
MATCH LINE STATION 12+50 GAGES LAKE ROAD
ADOPT A HIGHWAY
CLEANUP CREW WORKING
SIGN TO REMAIN
R3-8 30X30 NEW STA. 13+50
PROJECT ENDS STATION 15+29
℄ GAGES LAKE ROAD
GAGES LAKE ROAD
MATCH LINE STATION 12+50
15+00
SPEED LIMIT 40
R3-5R 30X30 NEW STA. 14+02
SHORELINE DRIVE (PRIVATE)
WEST
A27
N

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SIGNAGE PLAN

U.S. ROUTE 45

STATION 1142+50 TO STATION 1165+50

HORIZ. 50 0 50

SCALE IN FEET

DATE 12/14/09
DRAWN BY SAH
CHECKED BY MJL

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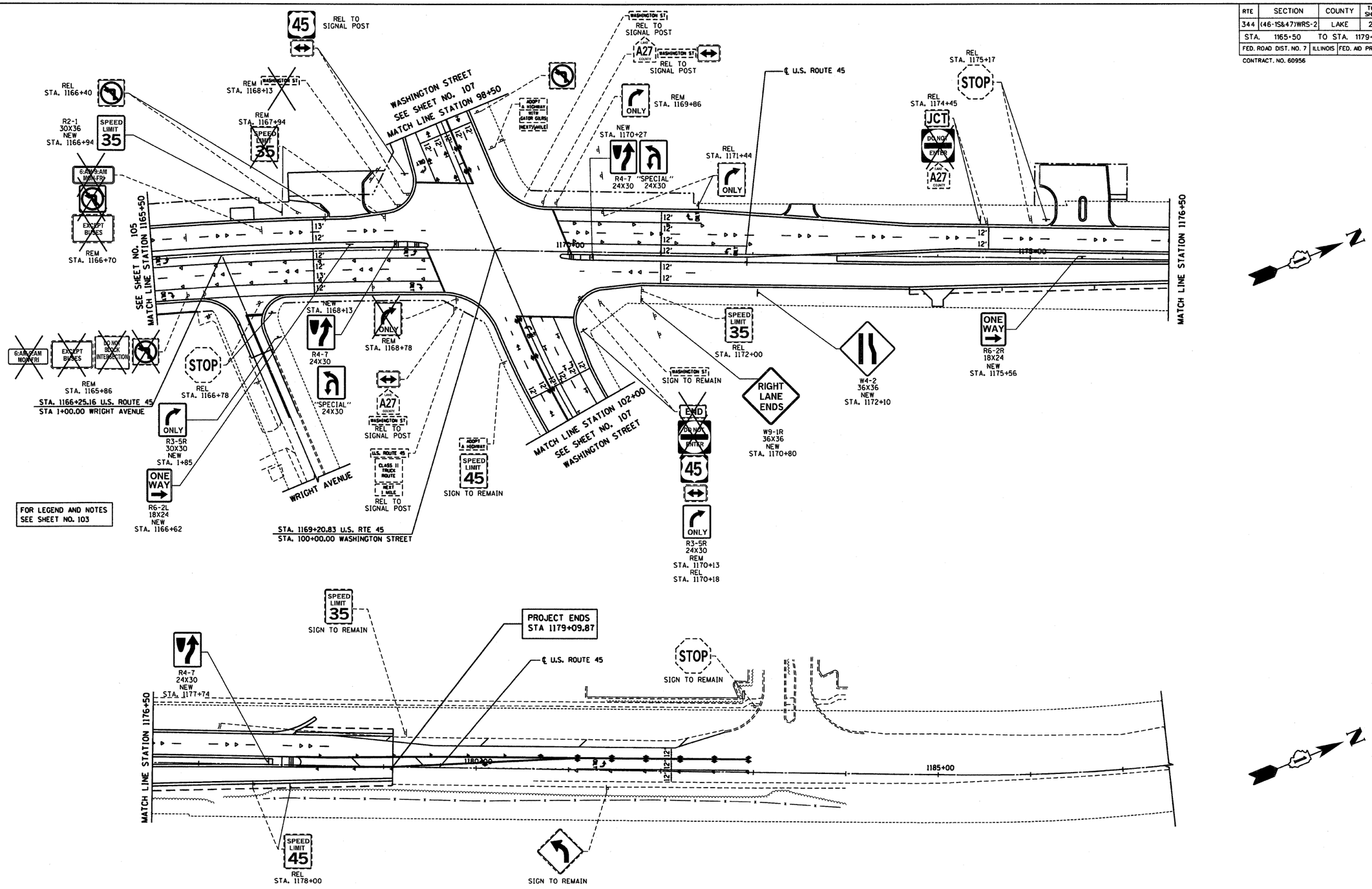
12/14/09

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	106
STA.	1165+50	TO STA.	1179+09.87	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SIGNAGE PLAN

U.S. ROUTE 45

STATION 1165+50 TO STATION 1179+09.87

HORIZ. 50 0 50

SCALE IN FEET

DATE 12/14/09

DRAWN BY SAH

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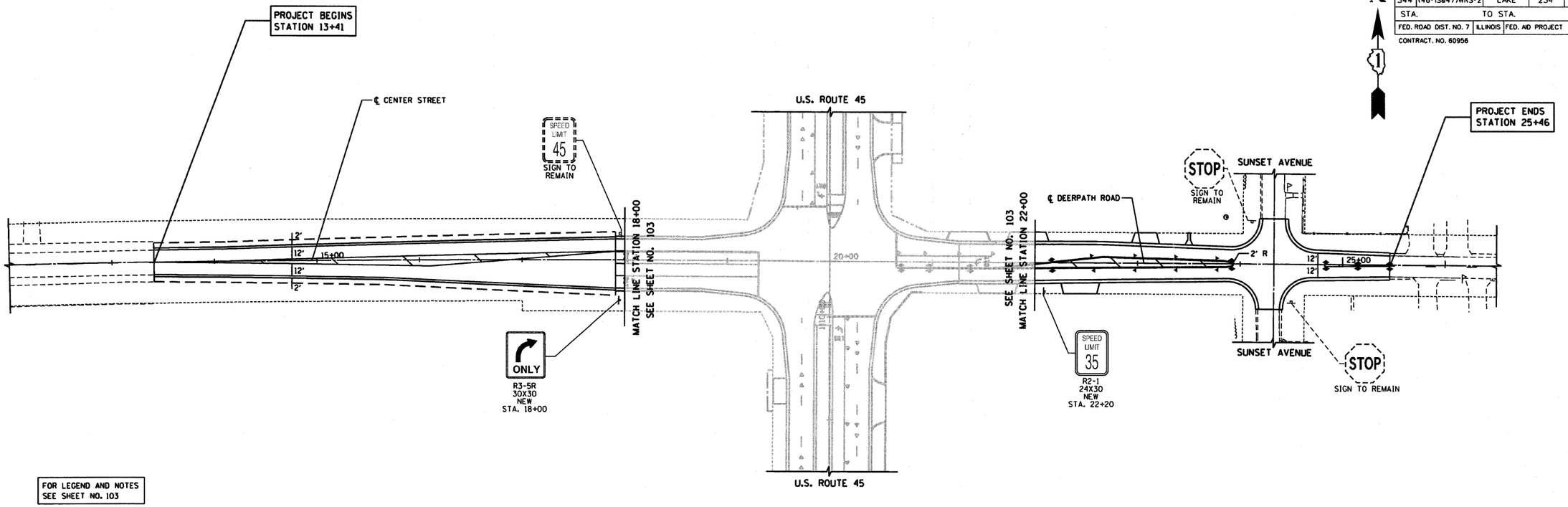
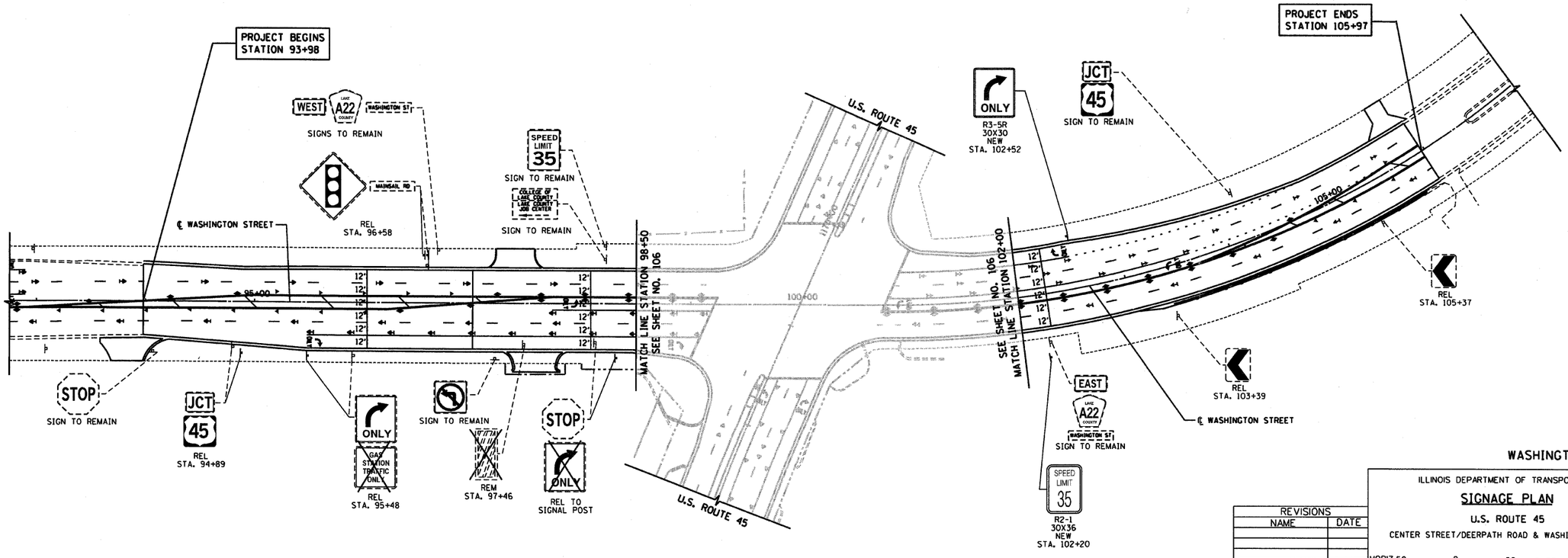
RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	107
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956



FOR LEGEND AND NOTES SEE SHEET NO. 103

CENTER STREET/DEERPATH ROAD



FOR LEGEND AND NOTES SEE SHEET NO. 103

WASHINGTON STREET

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SIGNAGE PLAN

U.S. ROUTE 45

CENTER STREET/DEERPATH ROAD & WASHINGTON STREET

HORIZ. 50 0 50

SCALE IN FEET

DATE 12/14/09

DRAWN BY SAH

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Tran Systems

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EXISTING SIGN PANELS

STATION	REMOVE SIGN PANEL ASSEMBLY - TYPE A 72400100	REMOVE SIGN PANEL ASSEMBLY - TYPE B 72400200	REMOVE SIGN PANEL - TYPE 1 72400310	RELOCATE SIGN PANEL ASSEMBLY - TYPE A 72400500	RELOCATE SIGN PANEL ASSEMBLY - TYPE B 72400600	RELOCATE SIGN PANEL - TYPE 1 72400710
	EACH	EACH	SQ FT	EACH	EACH	SQ FT
345+52 RT	1					
346+10 RT	1					
346+12 LT	1					
346+45 RT	1					
1101+95 RT	1					
1102+75 LT	1				1	
1102+79 LT						
1102+80 RT				1	1	
1103+40 RT						
1105+94 RT				1	1	
1106+07 LT						
1106+47 RT						
1109+06 LT	1					
1109+98 LT	1					
1109+98 RT						4
1110+11 RT	1					
1110+17 LT				1		
1110+24 LT					1	4
1110+86 LT						
1110+84 LT	1					
1111+10 LT						4
1110+90 RT						4
1111+12 RT	1					
1112+10 RT	1					
1113+69 LT						
1118+40 LT		1				
1118+43 RT				1	1	
1121+43 RT						
1124+11 RT				1		
1124+23 LT	1					
1125+42 LT		1				
1125+42 RT	1					
1125+31 RT				1		
1125+18 RT				1		
1124+72 RT		1			1	
1124+69 RT						
1127+77 RT				1		
1128+03 RT	2					
1128+27 RT		1				
1128+31 RT				1	1	
1128+37 LT						
1131+85 RT				1		
1132+80 RT				1		
1133+80 LT	1					
1135+49 RT						4
1135+83 RT	1					
1136+19 RT						4
1135+61 LT	1					
1135+68 LT						4
1136+39 LT						4
1138+09 RT	1					
1138+11 LT	1				1	
1140+22 LT						
1140+48 LT	1					
1141+74 RT	1					
17+45 LT BRAE LOCH ROAD				1		
1143+09 LT	1					
1145+17 RT		1				
1147+45 RT		1				
1147+44 LT				1		
1149+17 RT	1					
1149+67 RT	1					
1149+90 LT		1				
1150+42 RT	1					
1150+87 RT	1					
1151+34 RT	1					
1151+35 RT	1					
1151+71 LT	1					
1152+45 LT	1					
1153+92 RT		1				
1154+78 RT	1					
1155+47 LT	1					
1155+50 LT	1					
1156+26 RT	1					
1155+98 RT				1		
12+00 LT GAGES LAKE ROAD				1		
1157+06 LT		1				
1157+60 RT	1					
1161+02 RT	1					
1161+19 RT				1		
1161+19 RT						
1161+81 LT		1				
1164+57 RT			2	1		
1164+69 LT				1		
1165+48 RT				1		
1165+86 RT		1				
1166+40 LT				1		
1166+46 RT	1					
1166+70 LT		1				
1166+78 RT				1		
1167+94 LT	1					
1168+13 LT	1					
1168+25 LT						6.2
1168+35 RT						8.5
1168+78 RT	1					
1169+75 LT						7

EXISTING SIGN PANELS

STATION	REMOVE SIGN PANEL ASSEMBLY - TYPE A 72400100	REMOVE SIGN PANEL ASSEMBLY - TYPE B 72400200	REMOVE SIGN PANEL - TYPE 1 72400310	RELOCATE SIGN PANEL ASSEMBLY - TYPE A 72400500	RELOCATE SIGN PANEL ASSEMBLY - TYPE B 72400600	RELOCATE SIGN PANEL - TYPE 1 72400710
	EACH	EACH	SQ FT	EACH	EACH	SQ FT
1169+86 LT	1					
1170+13 RT	1					
1170+18 RT				1		
1171+19 RT				1		
1171+44 LT				1		
1174+45 LT			2		1	
1175+17 LT				1		
1178+00 RT				1		
94+89 RT WASHINGTON STREET				1		
95+48 RT WASHINGTON STREET			4	1		
96+58 LT WASHINGTON STREET					1	
97+46 RT WASHINGTON STREET	1					
98+18 RT WASHINGTON STREET	1					
98+32 RT WASHINGTON STREET						4
TOTAL	46	12	8	28	10	57.7

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	108
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SIGNAGE SCHEDULE
EXISTING
U.S. ROUTE 45

NO SCALE

DATE 12/14/09
DRAWN BY MLB
CHECKED BY TSB

TranSystems

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NEW SIGN AND POST

STATION	TYPE	DESCRIPTION	SIGN PANEL T1 72000100 (SQ FT)	NO. OF POSTS	METAL POST TYPE A 72900200 (FOOT)	METAL POST TYPE B 72900200 (FOOT)
341+00 LT	R2-5B	35	5	1	12	
342+93 LT	R4-7		5	1	12	
344+04 RT	R4-7		5	1		13
	R3-5L		5			
345+52 RT	R2-1	35	7.5	1		13
346+12 LT	R2-1	35	7.5	1		13
346+32 RT	R6-2R		5	1	12	
1102+50 LT	R4-7		5	1		13
	SPECIAL	LEFT/U-TURN	5			
1103+70 RT	R4-7		5	1		13
	SPECIAL	LEFT/U-TURN	5			
1108+98 LT	R2-1	35	7.5	1		13
1109+80 LT	R4-7		5	1		13
	SPECIAL	LEFT/U-TURN	5			
1111+23 RT	R4-7		5	1		13
	SPECIAL	LEFT/U-TURN	5			
1112+06 RT	R2-1	35	7.5	1		13
1117+38 LT	R4-7		5	1		13
1118+70 RT	R4-7		5	1		13
	SPECIAL	LEFT/U-TURN	5			
1124+23 LT	R2-1	35	7.5	1		13
1124+46 RT	R4-7		5	1	12	
	R3-2		4			
1125+42 RT	R2-1	35	7.5	1		13
1125+76 RT	R4-7		5	1		13
	SPECIAL	LEFT/U-TURN	5			
1126+09 RT	W2-2		9	2		15
	SPECIAL	ORCHARD LN	2.25			
1127+20 RT	R4-7		5	1		13
	SPECIAL	LEFT/U-TURN	5			
1127+75 LT	R1-1		4	1	12	
1128+03 RT	R4-7		5	1	12	
1128+80 RT	R4-7		5	1		13
	SPECIAL	LEFT/U-TURN	5			
1132+39 LT	W2-2		9	2		15
	SPECIAL	ORCHARD LN	2.25			
1133+80 LT	R2-1	35	7.5	1		13
1135+22 RT	R4-7		5	1		13
	SPECIAL	LEFT/U-TURN	5			
17+45 RT BRAE LOCH ROAD	SPECIAL	LEFT/RIGHT ONLY	6.25	1		12.5
1136+63 RT	R4-7		5	1	12	
	R3-2		4			
1137+29 RT	R2-1	35	7.5	1		13
1139+15 LT	R3-5R		6.25	1		12.5
1148+10 LT	R4-7		5	2		15
	R3-5L		5			
	R3-2		4			
1149+43 LT	R4-7		5	1	12	
	R3-2		4			
1152+49 LT	R2-1	35	7.5	1		13
1153+00 LT	R3-5R		6.25	1		12.5
1154+50 LT	R4-7		5	2		15
	R3-5L		5			
	R3-2		4			
1156+19 LT	R4-7		5	1		13
	SPECIAL	LEFT/U-TURN	5			
1157+62 RT	R2-1	35	7.5	1		13
13+50 LT GAGES LAKE ROAD	R3-8	THROUGH-LEFT/RIGHT ONLY	6.25	1		12.5
14+02 RT GAGES LAKE ROAD	R3-5R		6.25	1		12.5
1166+62 LT	R6-2L		3	1	11.5	
1166+94 LT	R2-1	35	7.5	1		13
1168+13 LT	R4-7		5	1		13
	SPECIAL	LEFT/U-TURN	5			
1170+27 LT	R4-7		5	1		13
	SPECIAL	LEFT/U-TURN	5			
1170+80 RT	W9-1R		9	2		14.25
1172+10 RT	W4-2		9	2		14.25
1175+56 LT	R6-2R		3	1	11.5	
1177+74 LT	R4-7		5	1	12	
18+00 RT CENTER STREET	R3-5R		6.25	1		12.5
22+20 RT DEERPATH ROAD	R2-1		5	1	12	
1+85 LT WRIGHT AVENUE	R3-5R		6.25	1		12.5
102+20 LT WASHINGTON STREET	R2-1		7.5	1		13
102+52 LT WASHINGTON STREET	R3-5R		6.25	1		12.5
TOTAL			411	58	143	615

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	109
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

NOTE: A QUANTITY OF 30 FEET OF WOOD SIGN SUPPORT HAS BEEN INCLUDED FOR USE INSTEAD OF METAL POST TYPE A OR B ON SIGNS AS DEEMED APPROPRIATE BY THE ENGINEER.

TranSystems®

12/14/09 - g:\401\2000\0005302\cad\sign_schedule.sht

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

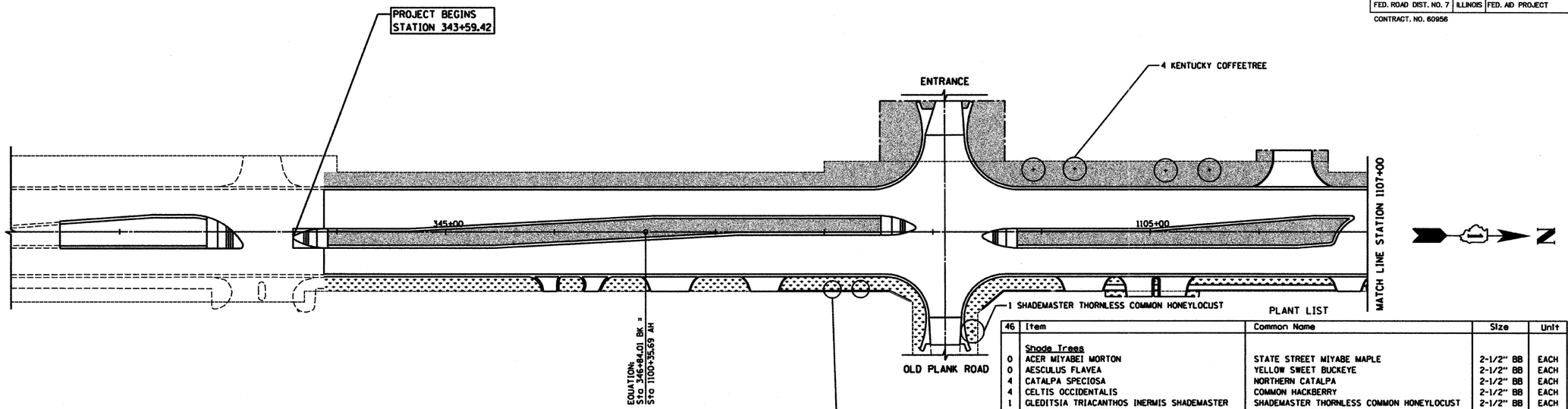
SIGNAGE SCHEDULE
PROPOSED
U.S. ROUTE 45

NO SCALE

DATE 12/14/09
DRAWN BY MLB
CHECKED BY TSB

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	110
STA. 343+59.42	TO STA. 1119+50			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956



NOTE: SEE SHEETS 110 TO 113 FOR MEDIAN PLANTING PLANS

LEGEND

- SODDING - SALT TOLERANT
  FURNISH AND PLACE TOPSOIL, 4"
  FERTILIZER (ONLY NITROGEN AND POTASSIUM - DO NOT USE PHOSPHORUS)
- SEEDING - CLASS 2A
  EROSION CONTROL BLANKET
  TOPSOIL FURNISH AND PLACE, 24" (IN MEDIANS)
  TOPSOIL FURINSH AND PLACE, 4" (ELSEWHERE)
  FERTILIZER (ONLY NITROGEN AND POTASSIUM - DO NOT USE PHOSPHORUS)
- SEEDING - CLASS 4
  COMPOST FURNISH AND PLACE, 4"
- PROPOSED SHADE TREE
- PROPOSED INTERMEDIATE TREE
- PROPOSED SHRUB
- PROPOSED PERENNIAL PLANTS

PLANT LIST

46	Item	Common Name	Size	Unit
	Shade Trees			
0	ACER MIYABEI MORTON	STATE STREET MIYABE MAPLE	2-1/2" BB	EACH
0	AESCULUS FLAVEA	YELLOW SWEET BUCKEYE	2-1/2" BB	EACH
4	CATALPA SPECIOSA	NORTHERN CATALPA	2-1/2" BB	EACH
4	CELTIS OCCIDENTALIS	COMMON HACKBERRY	2-1/2" BB	EACH
1	GLEDITSIA TRIACANTHOS INERMIS SHADEMASTER	SHADEMASTER THORNLESS COMMON HONEYLOCUST	2-1/2" BB	EACH
4	GYMNOCLADUS DIOICUS	KENTUCKY COFFEETREE	2-1/2" BB	EACH
4	JUGLANS NIGRA	BLACK WALNUT	2-1/2" BB	EACH
0	QUERCUS MACROCARPA	BURR OAK	2-1/2" BB	EACH
0	QUERCUS X MACDANIELLI CLEMONS	HERITAGE OAK	2" BB	EACH
4	ULMUS CARPINIFOLIA MORTON	ACCOLADE ELM	2-1/2" BB	EACH
	Intermediate Trees			
0	CRATAEGUS CRUSGALLI INERMIS	THORNLESS COCKSPUR HAWTHORN	2-1/2" BB	EACH
0	MALUS ADAMS	ADAMS CRABAPPLE	2-1/2" BB	EACH
0	MALUS PRAIRIFIRE	PRAIRIEFIRE CRABAPPLE	2-1/2" BB	EACH
2	MALUS RED JEWEL	RED JEWEL CRABAPPLE	2-1/2" BB	EACH
0	MALUS SARGENTII	SARGENT CRABAPPLE	2" BB	EACH
2	PRUNUS VIRGINIANA SCHUBERT	SCHUBERT CHOKECHERRY	2" BB	EACH
0	PYRUS CALLERYANA CHANTICLEER	CHANTICLEER CALLERY PEAR	2-1/2" BB	EACH
0	SYRINGA PEKINENSIS MORTON	CHINA SNOW PEKING LILAC	2-1/2" BB	EACH
0	SYRINGA PATULA MISS KIM	IVORY SILK JAPANESE TREE LILAC	2-1/2" BB	EACH
1	MALUS PURPLE PRINCE	PURPLE PRINCE CRABAPPLE	2" BB	EACH
	Shrubs			
20	SYRINGA PATULA 'MISS KIM'	MISS KIM MANCHURIAN LILAC	30" BB	EACH
	Perennial Plants			
0	JUNCUS TORREYI	TORREY'S RUSH	-	PLUGS
0	SCIRPUS ACUTUS	HARD-STEMMED BULRUSH	-	PLUGS
0	SPARTINA PECTINATA	PRAIRIE CORD GRASS	-	PLUGS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

LANDSCAPING PLAN

U.S. ROUTE 45

STATION 343+59.42 TO STATION 1119+50

HORIZ. 50 0 50

SCALE IN FEET

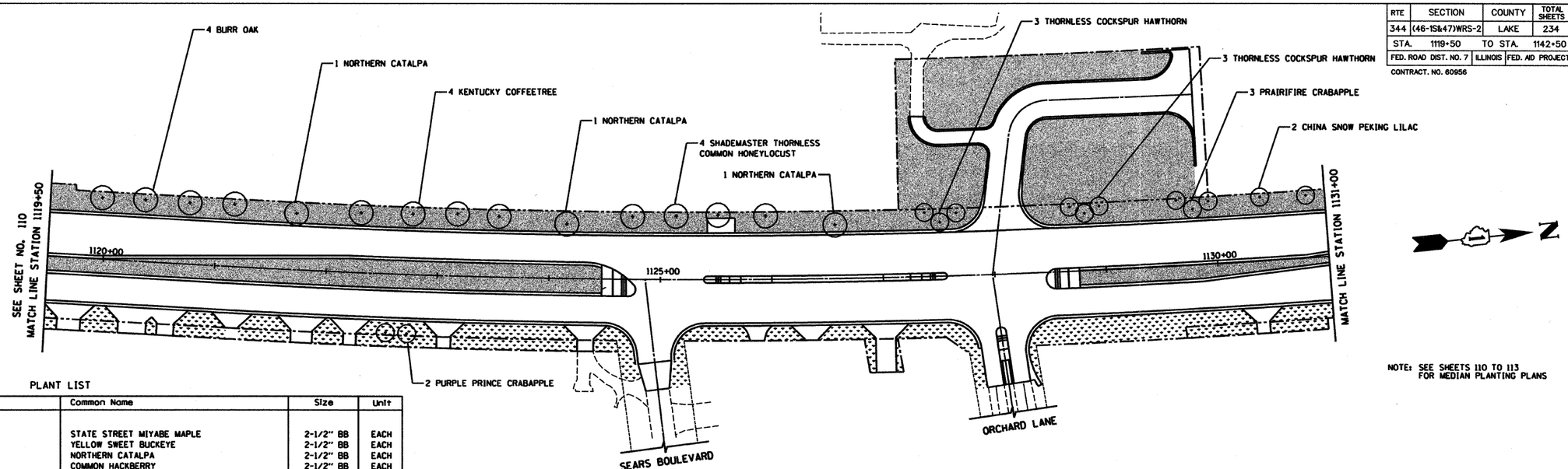
DATE 4/2/10
DRAWN BY SAH
CHECKED BY MJL

TranSystems

4/2/10 - g:\401\2000\0005302\cad\LS34100.SHT

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	111
STA.	1119+50	TO STA.	1142+50	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

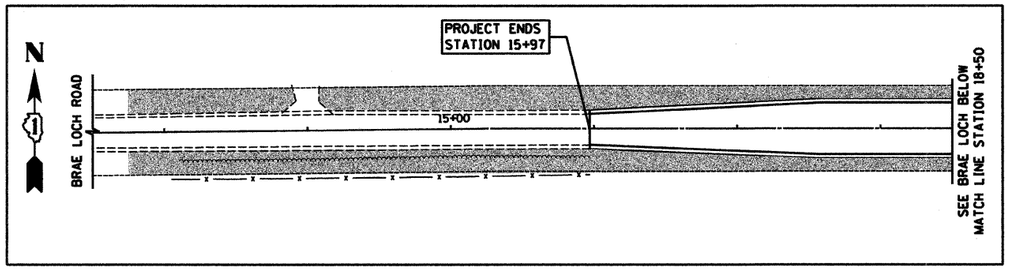


NOTE: SEE SHEETS 110 TO 113 FOR MEDIAN PLANTING PLANS

PLANT LIST

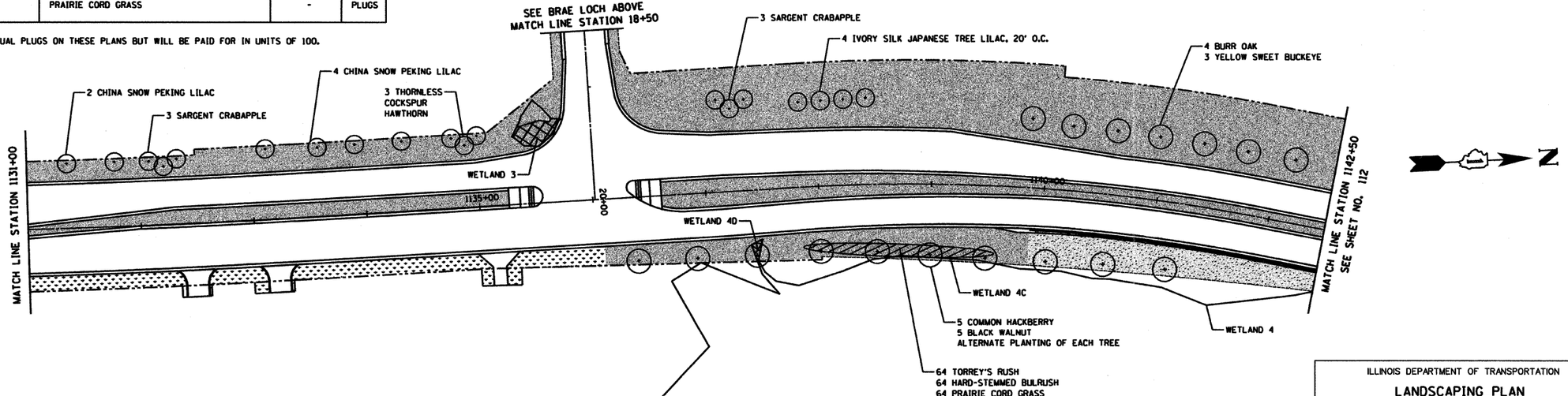
256	Item	Common Name	Size	Unit
	Shade Trees			
0	ACER MIYABEI MORTON	STATE STREET MIYABE MAPLE	2-1/2" BB	EACH
3	AESCULUS FLAVEA	YELLOW SWEET BUCKEYE	2-1/2" BB	EACH
3	CATALPA SPECIOSA	NORTHERN CATALPA	2-1/2" BB	EACH
5	CELTIS OCCIDENTALIS	COMMON HACKBERRY	2-1/2" BB	EACH
4	GLEDITSIA TRIACANTHOS INERMIS SHADEMASTER	SHADEMASTER THORNLESS COMMON HONEYLOCUST	2-1/2" BB	EACH
4	GYMNOCLADUS DIOICUS	KENTUCKY COFFEETREE	2-1/2" BB	EACH
5	JUGLANS NIGRA	BLACK WALNUT	2-1/2" BB	EACH
8	QUERCUS MACROCARPA	BURR OAK	2-1/2" BB	EACH
0	QUERCUS X MACDANIELLI CLEMONS	HERITAGE OAK	2" BB	EACH
0	ULMUS CARPINIFOLIA MORTON	ACCOLADE ELM	2-1/2" BB	EACH
	Intermediate Trees			
9	CRATAEGUS CRUSGALLI INERMIS	THORNLESS COCKSPUR HAWTHORN	2-1/2" BB	EACH
0	MALUS ADAMS	ADAMS CRABAPPLE	2-1/2" BB	EACH
3	MALUS PRAIRIFIRE	PRAIRIEFIRE CRABAPPLE	2-1/2" BB	EACH
0	MALUS RED JEWEL	RED JEWEL CRABAPPLE	2-1/2" BB	EACH
6	MALUS SARGENTII	SARGENT CRABAPPLE	2" BB	EACH
0	PRUNUS VIRGINIANA SCHUBERT	SCHUBERT CHOKECHERRY	2" BB	EACH
0	PYRUS CALLERYANA CHANTICLEER	CHANTICLEER CALLERY PEAR	2-1/2" BB	EACH
8	SYRINGA PEKINENSIS MORTON	CHINA SNOW PEKING LILAC	2-1/2" BB	EACH
4	SYRINGA PATULA MISS KIM	IVORY SILK JAPANESE TREE LILAC	2-1/2" BB	EACH
2	MALUS PURPLE PRINCE	PURPLE PRINCE CRABAPPLE	2" BB	EACH
	Shrubs			
0	SYRINGA PATULA 'MISS KIM'	MISS KIM MANCHURIAN LILAC	30" BB	EACH
	PERENNIAL PLANTS			
64	JUNCUS TORREYI	TORREY'S RUSH	-	PLUGS
64	SCIRPUS ACUTUS	HARD-STEMMED BULRUSH	-	PLUGS
64	SPARTINA PECTINATA	PRAIRIE CORD GRASS	-	PLUGS

NOTE: PERNENNIAL PLANTS ARE COUNTED AS INDIVIDUAL PLUGS ON THESE PLANS BUT WILL BE PAID FOR IN UNITS OF 100.



LEGEND

- SODDDING - SALT TOLERANT
  FURNISH AND PLACE TOPSOIL, 4"
  FERTILIZER (ONLY NITROGEN AND POTASSIUM - DO NOT USE PHOSPHORUS)
- SEEDING - CLASS 2A
  EROSION CONTROL BLANKET
  TOPSOIL FURNISH AND PLACE, 24" (IN MEDIANS)
  TOPSOIL FURINSH AND PLACE, 4" (ELSEWHERE)
  FERTILIZER (ONLY NITROGEN AND POTASSIUM - DO NOT USE PHOSPHORUS)
- SEEDING - CLASS 4
  COMPOST FURNISH AND PLACE, 4"
- PROPOSED SHADE TREE
- PROPOSED INTERMEDIATE TREE
- PROPOSED SHRUB
- PROPOSED PERENNIAL PLANTS



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

LANDSCAPING PLAN

U.S. ROUTE 45

STATION 1119+50 TO STATION 1142+50

HORIZ. 50 0 50

SCALE IN FEET

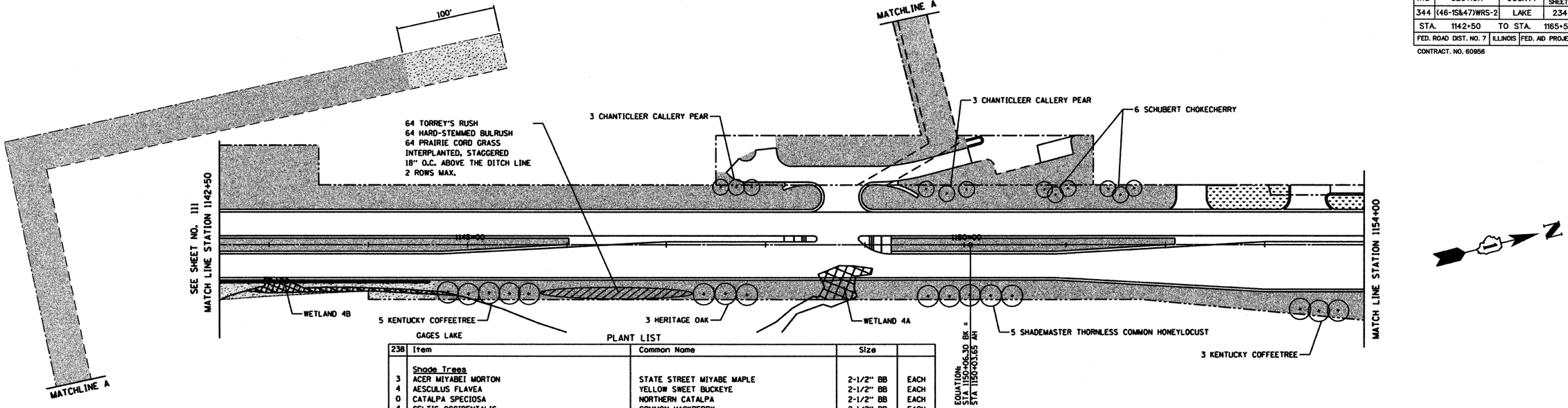
DATE 4/2/10
DRAWN BY SAH
CHECKED BY TSB

TranSystems

4/2/10 - g:\401\2000\0005302\cad\LS111950.SHT

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	112
STA. 1142+50		TO STA. 1165+50		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60958



PLANT LIST

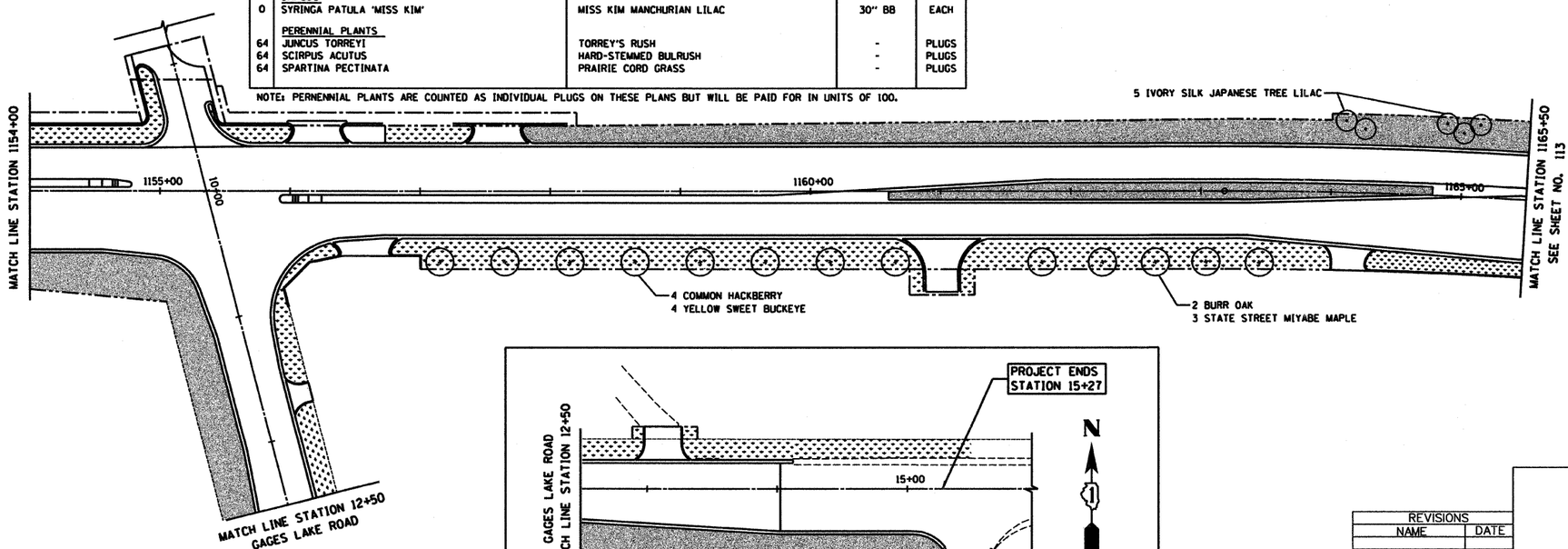
238	Item	Common Name	Size	
	Shade Trees			
3	ACER MIYABEI MORTON	STATE STREET MIYABE MAPLE	2-1/2" BB	EACH
4	AESCULUS FLAVEA	YELLOW SWEET BUCKEYE	2-1/2" BB	EACH
0	CATALPA SPECIOSA	NORTHERN CATALPA	2-1/2" BB	EACH
4	CELTIS OCCIDENTALIS	COMMON HACKBERRY	2-1/2" BB	EACH
5	GLEDITSIA TRIACANTHOS INERMIS SHADEMASTER	SHADEMASTER THORNLESS COMMON HONEYLOCUST	2-1/2" BB	EACH
8	GYMNOCLADUS DIOICUS	KENTUCKY COFFEETREE	2-1/2" BB	EACH
0	JUGLANS NIGRA	BLACK WALNUT	2-1/2" BB	EACH
2	QUERCUS MACROCARPA	BURR OAK	2-1/2" BB	EACH
3	QUERCUS x MACDANIELLI CLEMONS	HERITAGE OAK	2" BB	EACH
0	ULMUS CARPINIFOLIA MORTON	ACCOLADE ELM	2-1/2" BB	EACH
	Intermediate Trees			
0	CRATAEGUS CRUSGALLI INERMIS	THORNLESS COCKSPUR HAWTHORN	2-1/2" BB	EACH
0	MALUS ADAMS	ADAMS CRABAPPLE	2-1/2" BB	EACH
0	MALUS PRAIRIFIRE	PRAIRIEFIRE CRABAPPLE	2-1/2" BB	EACH
0	MALUS RED JEWEL	RED JEWEL CRABAPPLE	2-1/2" BB	EACH
0	MALUS SARGENTII	SARGENT CRABAPPLE	2" BB	EACH
6	PRUNUS VIRGINIANA SCHUBERT	SCHUBERT CHOKECHERRY	2" BB	EACH
6	PYRUS CALLERYANA CHANTICLEER	CHANTICLEER CALLERY PEAR	2-1/2" BB	EACH
0	SYRINGA PEKINENSIS MORTON	CHINA SNOW PEKING LILAC	2-1/2" BB	EACH
5	SYRINGA PATULA MISS KIM	IVORY SILK JAPANESE TREE LILAC	2-1/2" BB	EACH
0	MALUS PURPLE PRINCE	PURPLE PRINCE CRABAPPLE	2" BB	EACH
	Shrubs			
0	SYRINGA PATULA 'MISS KIM'	MISS KIM MANCHURIAN LILAC	30" BB	EACH
	PERENNIAL PLANTS			
64	JUNCUS TORREYI	TORREY'S RUSH	-	PLUGS
64	SCIRPUS ACUTUS	HARD-STEMMED BULRUSH	-	PLUGS
64	SPARTINA PECTINATA	PRAIRIE CORD GRASS	-	PLUGS

NOTE: PERNENNIAL PLANTS ARE COUNTED AS INDIVIDUAL PLUGS ON THESE PLANS BUT WILL BE PAID FOR IN UNITS OF 100.

NOTE: SEE SHEETS 110 TO 113 FOR MEDIAN PLANTING PLANS

LEGEND

- SODDDING - SALT TOLERANT
  FURNISH AND PLACE TOPSOIL, 4"
  FERTILIZER (ONLY NITROGEN AND POTASSIUM - DO NOT USE PHOSPHORUS)
- SEEDING - CLASS 2A
  EROSION CONTROL BLANKET
  TOPSOIL FURNISH AND PLACE, 24" (IN MEDIANS)
  TOPSOIL FURNISH AND PLACE, 4" (ELSEWHERE)
  FERTILIZER (ONLY NITROGEN AND POTASSIUM - DO NOT USE PHOSPHORUS)
- SEEDING - CLASS 4
  COMPOST FURNISH AND PLACE, 4"
- PROPOSED SHADE TREE
- PROPOSED INTERMEDIATE TREE
- PROPOSED SHRUB
- PROPOSED PERENNIAL PLANTS



Tran Systems

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

LANDSCAPING PLAN

U.S. ROUTE 45

STATION 1142+50 TO STATION 1165+50

HORIZ. 50 0 50

SCALE IN FEET

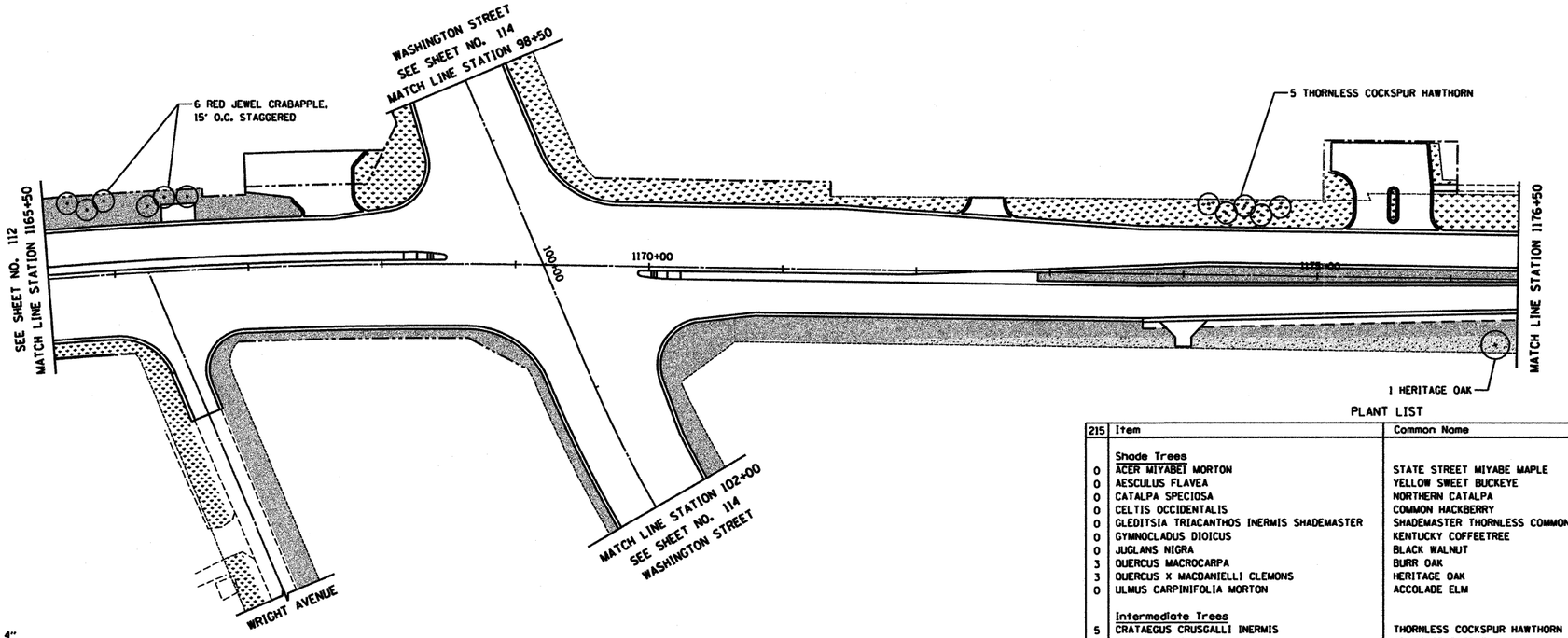
DATE 4/2/10

DRAWN BY SAH

CHECKED BY TSB

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	113
STA. 1165+50		TO STA. 1179+09.87		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956



PLANT LIST

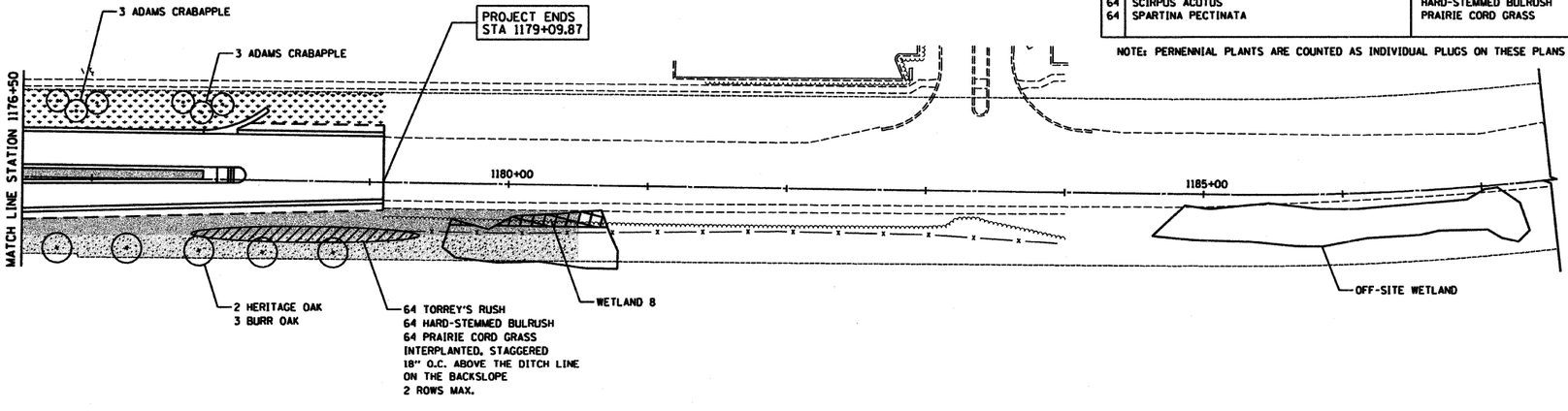
215	Item	Common Name	Size	Unit
	Shade Trees			
0	ACER MIYABEI MORTON	STATE STREET MIYABE MAPLE	2-1/2" BB	EACH
0	AESCULUS FLAVEA	YELLOW SWEET BUCKEYE	2-1/2" BB	EACH
0	CATALPA SPECIOSA	NORTHERN CATALPA	2-1/2" BB	EACH
0	CELTIS OCCIDENTALIS	COMMON HACKBERRY	2-1/2" BB	EACH
0	GLEDITSIA TRIACANTHOS INERMIS SHADEMASTER	SHADEMASTER THORNLESS COMMON HONEYLOCUST	2-1/2" BB	EACH
0	GYMNOCLADUS DIOICUS	KENTUCKY COFFEETREE	2-1/2" BB	EACH
0	JUGLANS NIGRA	BLACK WALNUT	2-1/2" BB	EACH
3	QUERCUS MACROCARPA	BURR OAK	2-1/2" BB	EACH
3	QUERCUS X MACDANIELLI CLEMONS	HERITAGE OAK	2" BB	EACH
0	ULMUS CARPINIFOLIA MORTON	ACCOLADE ELM	2-1/2" BB	EACH
	Intermediate Trees			
5	CRATAEGUS CRUSGALLI INERMIS	THORNLESS COCKSPUR HAWTHORN	2-1/2" BB	EACH
6	MALUS ADAMS	ADAMS CRABAPPLE	2-1/2" BB	EACH
0	MALUS PRAIRIFIRE	PRAIRIEFIRE CRABAPPLE	2-1/2" BB	EACH
6	MALUS RED JEWEL	RED JEWEL CRABAPPLE	2-1/2" BB	EACH
0	MALUS SARGENTII	SARGENT CRABAPPLE	2" BB	EACH
0	PRUNUS VIRGINIANA SCHUBERT	SCHUBERT CHOKECHERRY	2" BB	EACH
0	PYRUS CALLERYANA CHANTICLEER	CHANTICLEER CALLERY PEAR	2-1/2" BB	EACH
0	SYRINGA PEKINENSIS MORTON	CHINA SNOW PEKING LILAC	2-1/2" BB	EACH
0	SYRINGA PATULA MISS KIM	IVORY SILK JAPANESE TREE LILAC	2-1/2" BB	EACH
0	MALUS PURPLE PRINCE	PURPLE PRINCE CRABAPPLE	2" BB	EACH
	Shrubs			
0	SYRINGA PATULA 'MISS KIM'	MISS KIM MANCHURIAN LILAC	30" BB	EACH
	PERENNIAL PLANTS			
64	JUNCUS TORREYI	TORREY'S RUSH	-	PLUGS
64	SCIRPUS ACUTUS	HARD-STEMMED BULRUSH	-	PLUGS
64	SPARTINA PECTINATA	PRAIRIE CORD GRASS	-	PLUGS

NOTE: PERNENNIAL PLANTS ARE COUNTED AS INDIVIDUAL PLUGS ON THESE PLANS BUT WILL BE PAID FOR IN UNITS OF 100.

LEGEND

- SODDDING - SALT TOLERANT
  FURNISH AND PLACE TOPSOIL, 4"
  FERTILIZER (ONLY NITROGEN AND POTASSIUM - DO NOT USE PHOSPHORUS)
- SEEDING - CLASS 2A
  EROSION CONTROL BLANKET
  TOPSOIL FURNISH AND PLACE, 24" (IN MEDIANS)
  TOPSOIL FURINSH AND PLACE, 4" (ELSEWHERE)
  FERTILIZER (ONLY NITROGEN AND POTASSIUM - DO NOT USE PHOSPHORUS)
- SEEDING - CLASS 4
  COMPOST FURNISH AND PLACE, 4"
- PROPOSED SHADE TREE
- PROPOSED INTERMEDIATE TREE
- PROPOSED SHRUB
- PROPOSED PERENNIAL PLANTS

NOTE: SEE SHEETS 110 TO 113 FOR MEDIAN PLANTING PLANS



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

LANDSCAPING PLAN

U.S. ROUTE 45

STATION 1165+50 TO STATION 1179+09.87

HORIZ.50 0 50

SCALE IN FEET

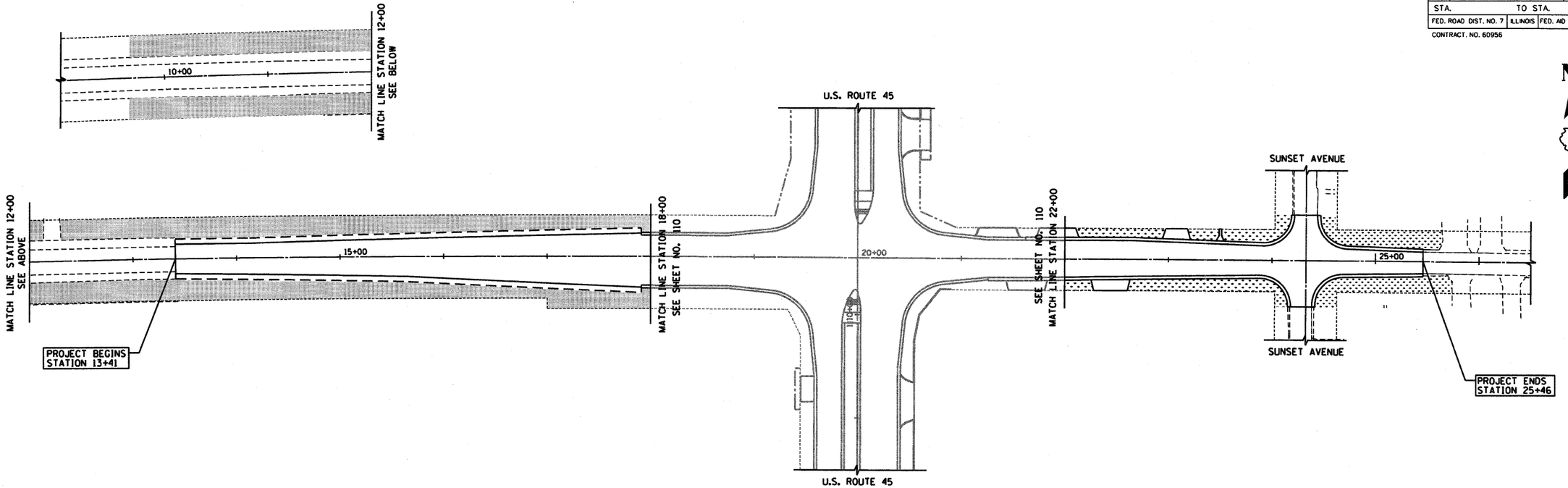
DATE 4/2/10
DRAWN BY SAH
CHECKED BY TSB

TranSystems

4/2/10 - g:\401\2000\0005302\cad\sht16550.sht

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	114
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956



CENTER STREET/DEERPATH ROAD

LEGEND

SODDDING - SALT TOLERANT
FURNISH AND PLACE TOPSOIL, 4"
FERTILIZER (ONLY NITROGEN AND POTASSIUM - DO NOT USE PHOSPHORUS)

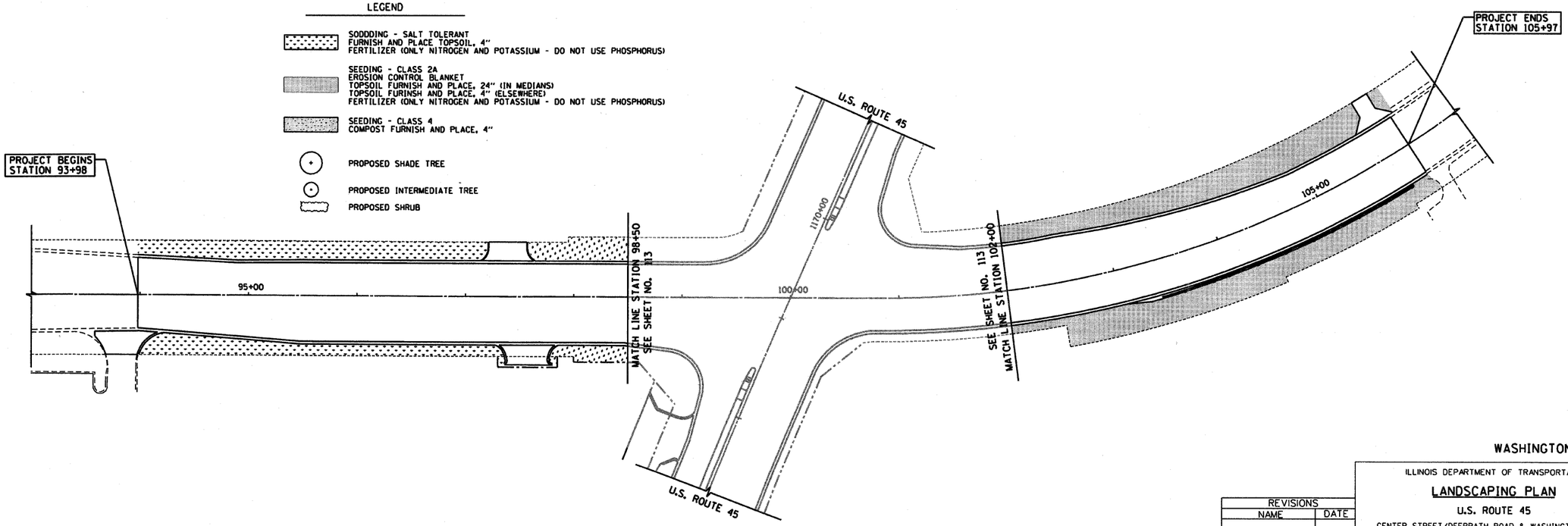
SEEDING - CLASS 2A
EROSION CONTROL BLANKET
TOPSOIL FURNISH AND PLACE, 24" (IN MEDIANS)
TOPSOIL FURNISH AND PLACE, 4" (ELSEWHERE)
FERTILIZER (ONLY NITROGEN AND POTASSIUM - DO NOT USE PHOSPHORUS)

SEEDING - CLASS 4
COMPOST FURNISH AND PLACE, 4"

PROPOSED SHADE TREE

PROPOSED INTERMEDIATE TREE

PROPOSED SHRUB



WASHINGTON STREET

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

LANDSCAPING PLAN

U.S. ROUTE 45

CENTER STREET/DEERPATH ROAD & WASHINGTON STREET

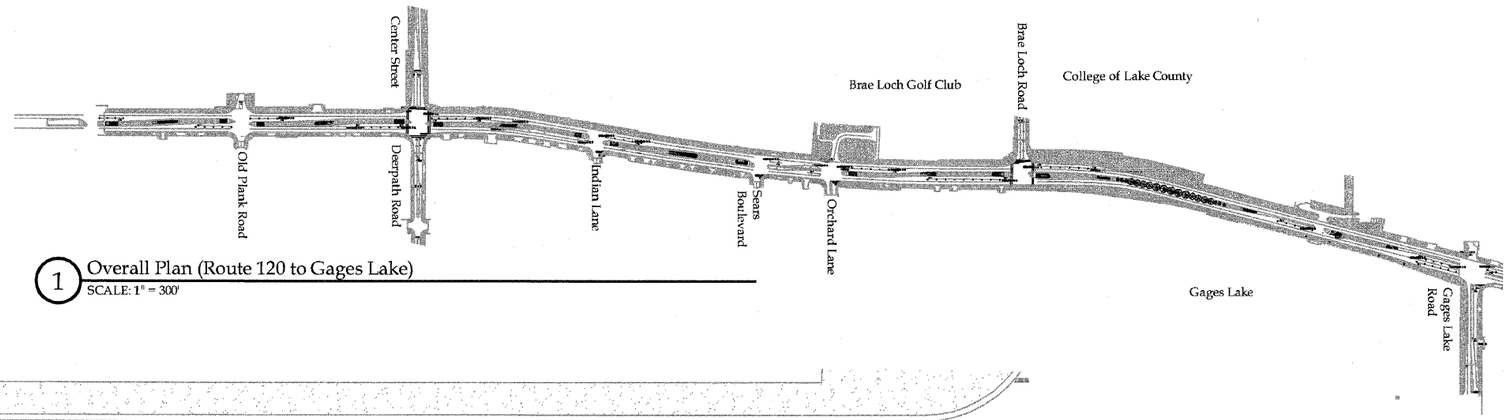
HORIZ. 50 0 50

SCALE IN FEET

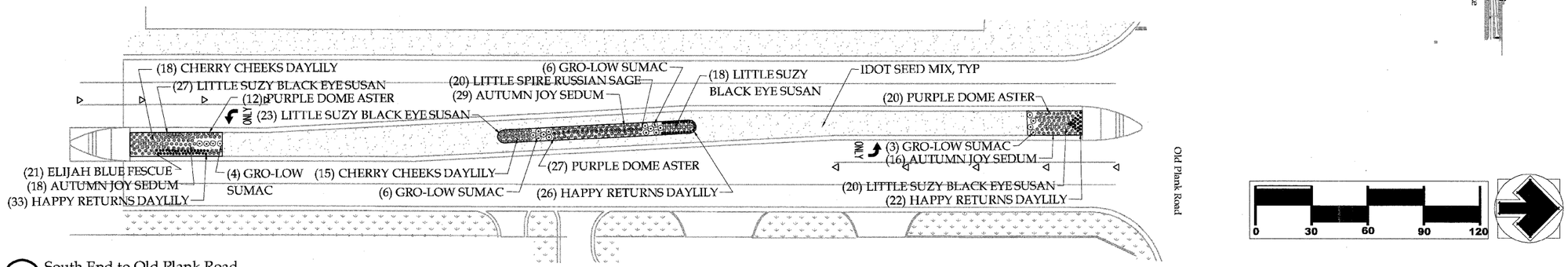
DATE 12/14/09
DRAWN BY SAH
CHECKED BY TSB

Tran Systems

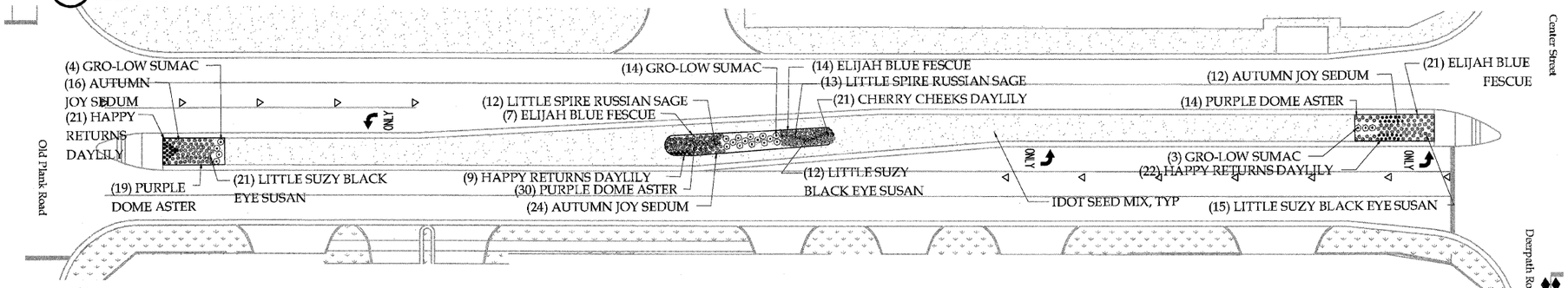
12/14/09 - g:\401\2000\0005302\cad\ls_1200.sht



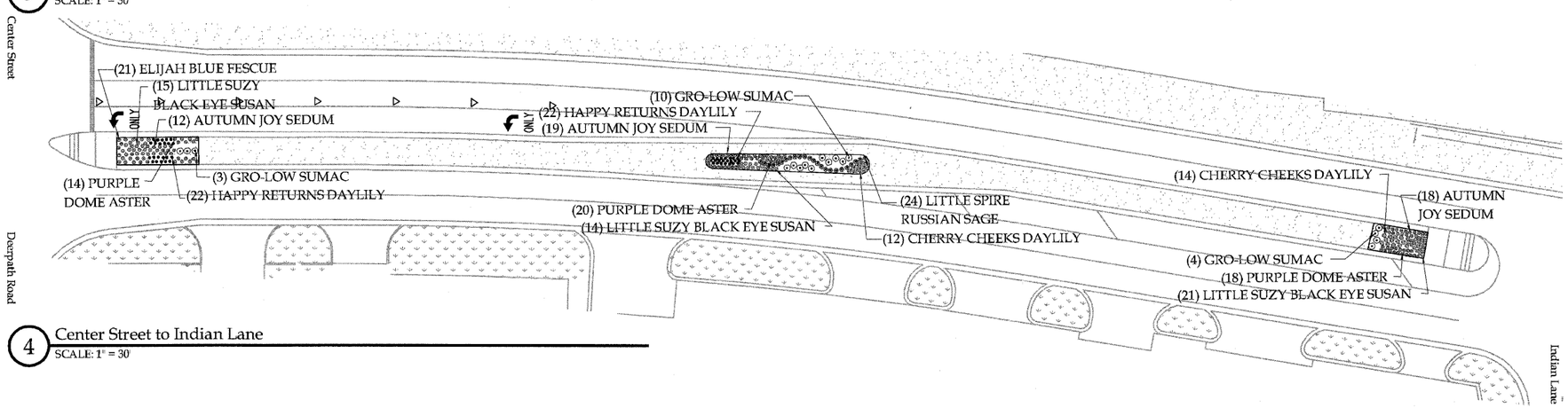
1 Overall Plan (Route 120 to Gages Lake)
SCALE: 1" = 300'



2 South End to Old Plank Road
SCALE: 1" = 30'



3 Old Plank Road to Center Street
SCALE: 1" = 30'



4 Center Street to Indian Lane
SCALE: 1" = 30'

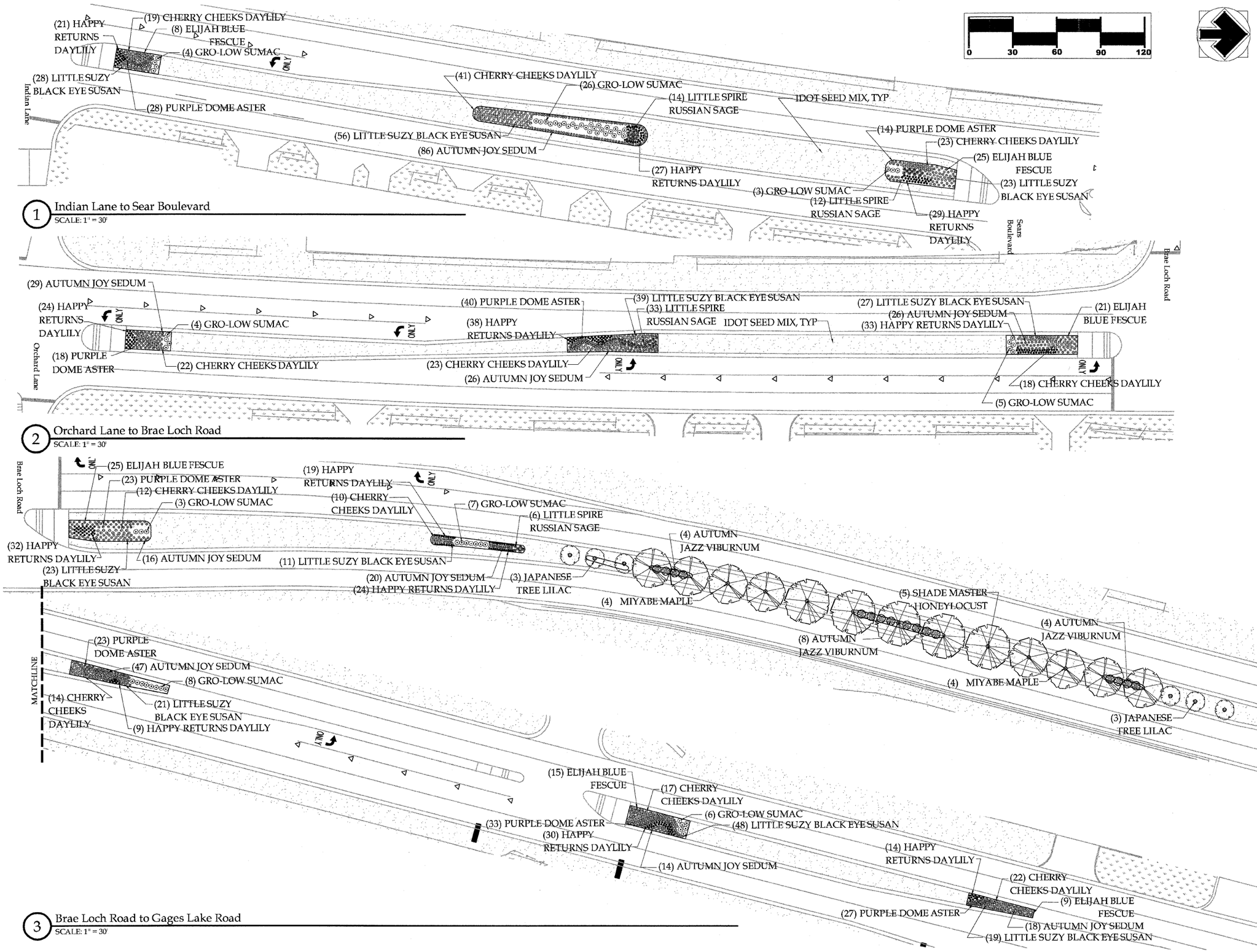
3D design studio
529 North Barron Boulevard
Grayslake, IL 60030
(847)223-1891 (847)223-1892 FAX
website: www.3ddesignstudio.com
email: info@3ddesignstudio.com

Total Sheets 234 | Sheet No. 115

sheet title: Village of Grayslake - Route 45 Median Plantings
Landscape Planting South

scale	AS NOTED
design	3D
date	July 31, 2009
revision	August 20, 2009
revision	August 25, 2009
revision	September 18, 2009

sheet 1 of 3 sheet(s)



Total Sheets 234 | Sheet No. 116

3D design studio
529 North Barron Boulevard
Grayslake, IL 60030
(847)223-1891 (847)223-1892 FAX
website: www.3ddesignstudio.com
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sheet title: Village of Grayslake - Route 45 Median Plantings
Landscape Planting North

scale	AS NOTED
design	3D
date	July 31, 2009
revision	August 20, 2009
revision	August 25, 2009
revision	September 18, 2009

sheet 2 of 3 sheet(s)

Plant Key

COMMON NAME	BOTANICAL NAME	Quan	Size
SHADE TREES			
"Shade Master" Honeylocust	*Gleditsia triacanthos "Shade Master"*	5	2.5" BB
"State Street" Miyabe Maple	*Acer miyabei "Morton"*	8	2.5" BB
ORNAMENTAL TREES			
Japanese Tree Lilac	*Syringa reticulata*	6	8' BB
SHRUBS			
Gro-Low Sumac	*Rhus aromatica "Gro-Low"*	124	24" #3GAL
Autumn Jazz Viburnum	*Viburnum dentatum 'Autumn Jazz'*	16	36" BB
PERENNIALS			
Black Eyed Susan "Little Suzy"	*Rudbeckia fulgida "Little Suzy"*	481	1 GAL
"Happy Returns" Daylily	*Hemerocallis "Happy Return"*	476	1 GAL
"Cherry Cheeks" Daylily	*Hemerocallis "Cherry Cheeks"*	301	1 GAL
Purple Dome Aster	*Aster novae-angliae "Purple Dome"*	380	1 GAL
"Autumn Joy" Sedum	*Sedum spectabile "Autumn Joy"*	446	1 GAL
"Little Spire" Russian Sage	*Perovskia atriplicifolia "Little Spire"*	134	1 GAL
"Elijah Blue" Fescue	*Festuca ovina var. glauca "Elijah Blue"*	187	1 GAL

LANDSCAPE GENERAL NOTES:

1. ALL PLANT MATERIAL IS SUBJECT TO AVAILABILITY AND CORRECT SEASONAL PLANTING PROCEDURE.
ANY AND ALL SUBSTITUTIONS REQUEST MUST BE SUBMITTED IN WRITING TO THE OWNER'S REPRESENTATIVE PRIOR TO ORDERING SUBSTITUTION MATERIALS.
2. ALL PLANTS SHALL RECEIVE MIN. 3" DEPTH OF SHREDDED HARDWOOD BARK MULCH COVER IN PLANTING BED, INCLUDING PERENNIAL PLANTINGS.
3. THE LANDSCAPE CONTRACTOR SHALL STAKE AND LAYOUT ALL INSTALLATIONS AND BEDS FOR APPROVAL BY OWNER'S REPRESENTATIVE. FAILURE TO RECEIVE REVIEW AND APPROVAL MAY BE CAUSE TO REQUIRE THE REMOVAL OF PLANTS AND REINSTALLATION AT NO ADDITIONAL COST TO THE OWNER.
4. THE CONTRACTOR SHALL SUPPLY LANDSCAPE PLANTING SOIL MIX FOR ALL PERENNIAL PLANTING BEDS TO CONSIST OF 1/3 TOPSOIL, 1/3 SAND AND 1/3 COMPOSTED MANURE OR "MUSHROOM COMPOST". THIS MIXTURE IS TO BE ROTOTILLED INTO THE SOIL A MINIMUM OF 8" THROUGHOUT THE BED, AFTER INSTALLATION MULCH AS SPECIFIED ABOVE. CONTRACTOR MUST ALSO WORK INTO SOIL TERRA-SORB HB AT A RATE PER THE MANUFACTURER'S RECOMMENDATION ALL SHRUB AND NON-IRRIGATED TREE AND PERENNIAL BEDS. SUBMIT MANUFACTURER'S LITERATURE FOR APPROVAL PRIOR TO IMPLEMENTATION.
5. THE CONTRACTOR SHALL PROVIDE A BASE OF 24" OF PULVERIZED IMPORTED TOPSOIL BEFORE PLANTING ANY MATERIAL. ADDITIONALLY, THE CONTRACTOR SHALL PROVIDE A "SLIT" IN THE COMPACTED SUBBASE THROUGH ALL PLANTING BEDS WITH A BACKHOE. SEE TREE PLANTING DETAIL.

1.00 PART 1 _ DESCRIPTION
Provide all materials and equipment, and do all work required to complete the planting, as indicated on the Drawings and specified herein.

1.01 REFERENCED STANDARDS
American National Standards Institute, Inc. (ANSI): Z60.1 American Standard for Nursery Stock (Sponsor: American Association of Nurserymen)

1.02 SUBMITTALS
Samples: The following samples shall be submitted, prior to commencement of work, to the Owner's Representative's office:

Material	Sample Size or Quantity
Mulch	1 cu. ft.
Planting soil mix	1 cu. ft.

Package of Terrasorb Water Absorption agent1 packet
Guying and Staking _ Guying and staking will be Contractor's option, but all guys and/or stakes must be signified with fluorescent marking tape, and guying and/or staking must be removed by the Contractor after 4 months growing time.
When conditions detrimental to plant growths are encountered; rubble fill, adverse drainage conditions, or obstructions, notify Owners' Representative before planting. A reasonable change order bid price may be developed to correct the situation.
A complete list of plants, including a schedule of sizes, quantities and other requirements are shown on herein. In the event that quantity discrepancies or material omissions occur in the plant materials list, the planting plans shall govern. It shall be the responsibility of the Owners' Representative to list those discrepancies and/or omissions on the bid form as additional work.

1.03 SOURCE QUALITY CONTROL
Selection of Plant Materials
All landscape plant material will be reviewed by the Owner's Representative. The Contractor will be responsible for coordinating delivery, installation, and maintenance of the trees until Substantial Completion is granted.

1.04 DELIVERY, STORAGE AND HANDLING
Digging Plant Material
Plants shall not be dug at the nursery or approved source until the Contractor is ready to transport them from their original locations to the site of the work or acceptable storage location.
Transportation of Plant Material
Plants transported to the project in open vehicles shall be covered with tarpaulins or other suitable covers securely fastened to the body of the vehicle to prevent injury to the plants. Closed vehicles shall be adequately ventilated to prevent overheating of the plants.
Plants shall be kept moist, fresh, and protected at all times. Such protection shall encompass the entire period during which the plants are in transit, being handled, or are in temporary storage.
Storage

1.05 REJECTION OF MATERIALS
Evidence of inadequate protection following digging, carelessness while in transit, or improper handling or storage, shall be cause for rejection. Should the roots be dried out, large branches be broken, balls of earth broken or loosened, or areas of bark be torn, the Owners' Representative will reject the injured plant.
When a plant has been rejected, remove it from the area of the work and replace it with one of the equal or greater required size and quality. This type of replacement is independent from all required guarantees.

2.00 PART 2 _ MATERIALS
2.01 PLANTS
Size and grade of plant materials shall conform to ANSI Z60.1. In no case shall ball size be less than 11 in. in diameter per inch of caliper.
Plants shall have outstanding form; symmetrical, heavily branched with an even branch distribution, densely foliated and/or budded, and a strong, straight, distinct leader where this is characteristic of species. Plants shall possess a normal balance between height and spread. The Owner's Representative will make final determination as to the acceptability of plant form.
Plants shall be healthy and vigorous, free of disease, and insect pests, and shall have a well_developed fibrous root system.
Plants shall be free of physical damage such as scrapes, broken or split branches, scars, bark abrasions, sunscalds, fresh limb cuts, knots, or other defects.

2.02 PLANTING SOIL MIX
Excavated material from plant pits can be used as backfill planting mixture provided it is free of heavy clumps and debris and is amended with 1/4 part topsoil or 1/4 part well aged manure and provided it is approved by the Owner's Representative.
ALL Planting pits MUST be amended with Terrasorb water absorbing agent. Contractor to supply sample for acceptance prior to commencing with installations.
Planting soil shall have pH value range of 5.5 to 7.0.
If planting soil mixture does not fall within the required pH range, limestone or aluminum sulfate shall be added to bring the pH within the specified limit.

2.03 COMMERCIAL FERTILIZER
Fertilizer content shall conform to the following:

Constituent	% Present by Weight
Nitrogen (N)	5
Phosphorus (P)	10
Potassium (K)	10

2.07 MULCH
Mulch shall be 6 month old well rotted shredded native hardwood bark mulch not larger than 4" in length and 1/2" in width, free of woodchips and sawdust.

3.00 PART 3 _ CONSTRUCTION REQUIREMENTS
3.01 LAYOUT OF PLANTING AREAS
The Owner's Representative shall approve locations of plants prior to planting. The Owner's Representative has the right and authority to request all shrubs and perennials be set in place by the Owner's Representative and/or a laborer for approval prior to planting. Failure to receive approval prior to planting will be cause for the Owner's Representative to request the planting locations be revised at no additional expense to the Owner.

3.02 UTILITIES
It is the responsibility of the Contractor to obtain accurate utility location information from the appropriate sources and review it fully prior to construction. Contractor to have J.U.L.I.E. identifying locations as required to coordinate planting.

Prior to the start of the work, the Contractor shall verify to his satisfaction that all utilities, both above and below ground, will not interfere or conflict with excavation or other essential activities. Any detected conflict between existing structures, irrigation, paving, utilities, or other facilities and the work of this Project shall be called to the Owner's Representative's attention before proceeding with the work.

3.03 PLANT PIT EXCAVATION
When conditions detrimental to plant growth are encountered, such as rubble fill, debris, or obstructions, notify the Owner's Representative before planting.

3.04 PLANTING
Walls of plant pits shall be dug so that they are vertical and scarified. If obstructions are encountered that are not shown on the drawings, do not proceed with planting operations until alternate plant locations have been selected by Owner's Representative, or arrangements for removal of the obstruction have been approved by Owner's Representative.
Planting shall be positioned in center of planting pit, set plumb, and rigidly braced in position until all planting soil has been tampered around the ball.
Pits shall be backfilled with planting soil mix. Soil shall be worked carefully into voids and pockets, tamping lightly every 6 in.
When pit is two_thirds full, plants shall be watered thoroughly, and water left to soak in before proceeding.
At this time, ropes or strings on top of ball shall be cut and shall be pulled back. Burlap or cloth wrapping shall be left intact around ball except that portions of wrap that are exposed at top of ball shall be turned under and buried. Non-biodegradable ball wrapping and support wire shall be totally removed from ball and planting pit.
Backfilling and tamping shall be finished and a saucer formed around plants.
Saucer shall be filled with water left to soak in. Fill saucer with water again.

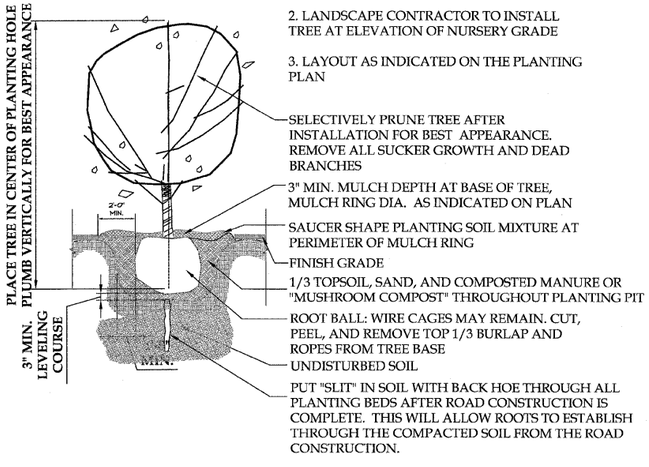
3.05 PRUNING
Prune branches of deciduous stock, after planting, to balance the loss of roots and preserve the natural character appropriate to the particular plant requirements. In general, remove 1/4 to 1/3 of the leaf bearing buds, proportion shall in all cases be acceptable to the Owner's Representative. Remove or cut back broken, damaged, and unsymmetrical growth of new wood.
Multiple leader plants: Preserve the leader which will best promote the symmetry of the plant. Cut branches flush with the trunk or main branch, at a point beyond a lateral shoot a distance not less than 1/2 the diameter of the supporting branch.
Prune evergreens only to remove broken or damaged branches.

3.06 BED EDGING
All bed edges and tree rings shall be spade edged. Spade edge shall be a maximum of 2 1/2" deep and a minimum of 1 1/2" deep.

3.07 MAINTENANCE OF PLANTING
Maintenance shall begin immediately after each plant is planted and shall continue until written approval of Substantial Completion in each work area. Cost for this work shall be included in the unit price of each plant. After approval of Substantial Completion, maintenance shall become the responsibility of the Owner.

Maintenance shall consist of pruning, watering, cultivating weeding, mulching, removal of dead material, repairing and replacing of damaged tree wrap material, resetting plants to proper grades and upright position, and furnishing and applying such sprays as are necessary to keep plantings in a healthy growing condition.
Planting areas shall be kept free of weeds, grass, and other undesired vegetation.
Water trees within the first 24 hours of initial planting, and not less than once per week. Include seven (7) waterings, and as necessary for contractor to maintain healthy vigorous growth until Acceptance is received in writing.

3.08 CLEANING
Perform cleaning during installation of the work and upon completion of the work. Remove from site all excess materials, soil, debris, and equipment. Repair damage resulting from planting operations.



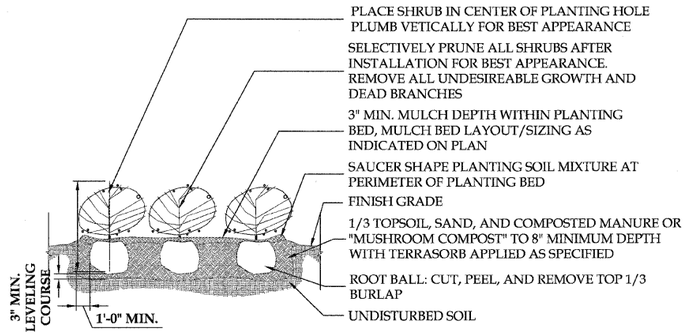
NOTES:
1. LANDSCAPE CONTRACTOR SHALL COMFIRM TREE PIT DOES NOT HOLD WATER.

2. LANDSCAPE CONTRACTOR TO INSTALL TREE AT ELEVATION OF NURSERY GRADE

3. LAYOUT AS INDICATED ON THE PLANTING PLAN

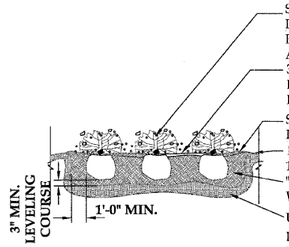
- SELECTIVELY PRUNE TREE AFTER INSTALLATION FOR BEST APPEARANCE. REMOVE ALL SUCKER GROWTH AND DEAD BRANCHES
- 3" MIN. MULCH DEPTH AT BASE OF TREE, MULCH RING DIA. AS INDICATED ON PLAN
- SAUCER SHAPE PLANTING SOIL MIXTURE AT PERIMETER OF MULCH RING
- FINISH GRADE
- 1/3 TOPSOIL, SAND, AND COMPOSTED MANURE OR "MUSHROOM COMPOST" THROUGHOUT PLANTING PIT
- ROOT BALL: WIRE CAGES MAY REMAIN. CUT, PEEL, AND REMOVE TOP 1/3 BURLAP AND ROPES FROM TREE BASE
- UNDISTURBED SOIL
- PUT "SLIT" IN SOIL WITH BACK HOE THROUGH ALL PLANTING BEDS AFTER ROAD CONSTRUCTION IS COMPLETE. THIS WILL ALLOW ROOTS TO ESTABLISH THROUGH THE COMPACTED SOIL FROM THE ROAD CONSTRUCTION.

1 Tree Planting Detail
SCALE: NTS



- PLACE SHRUB IN CENTER OF PLANTING HOLE PLUMB VETICALLY FOR BEST APPEARANCE
- SELECTIVELY PRUNE ALL SHRUBS AFTER INSTALLATION FOR BEST APPEARANCE. REMOVE ALL UNDESIREABLE GROWTH AND DEAD BRANCHES
- 3" MIN. MULCH DEPTH WITHIN PLANTING BED, MULCH BED LAYOUT/SIZING AS INDICATED ON PLAN
- SAUCER SHAPE PLANTING SOIL MIXTURE AT PERIMETER OF PLANTING BED
- FINISH GRADE
- 1/3 TOPSOIL, SAND, AND COMPOSTED MANURE OR "MUSHROOM COMPOST" TO 8" MINIMUM DEPTH WITH TERRASORB APPLIED AS SPECIFIED
- ROOT BALL: CUT, PEEL, AND REMOVE TOP 1/3 BURLAP
- UNDISTURBED SOIL
- LANDSCAPE CONTRACTOR TO INSTALL SHRUB(S) TO REFLECT NURSERY GRADE(S)
- LAYOUT AS INDICATED ON THE PLANTING PLAN

2 Shrub Planting Detial
SCALE: NTS



- SELECTIVELY PRUNE PERENNIALS AFTER INSTALLATION FOR BEST APPEARANCE. REMOVE ALL UNDESIREABLE GROWTH AND DEAD MATERIAL
- 3" MIN. MULCH DEPTH WITHIN PLANTING BED, MULCH BED LAYOUT/SIZING AS INDICATED ON PLAN
- SAUCER SHAPE PLANTING SOIL MIXTURE AT PERIMETER OF PLANTIING BED
- FINISH GRADE
- 1/3 TOPSOIL, SAND, AND COMPOSTED MANURE OR "MUSHROOM COMPOST" TO 8" MINIMUM DEPTH WITH TERRASORB MIXED IN BEDS
- UNDISTURBED SOIL
- LAYOUT AS INDICATED ON THE PLANTING PLAN

3 Perennial Planting Detial
SCALE: NTS

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Total Sheets 234 | Sheet No. 117

sheet title: Village of Grayslake - Route 45 Median Plantings
Landscape Planting Details

scale	AS NOTED
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date	July 31, 2009
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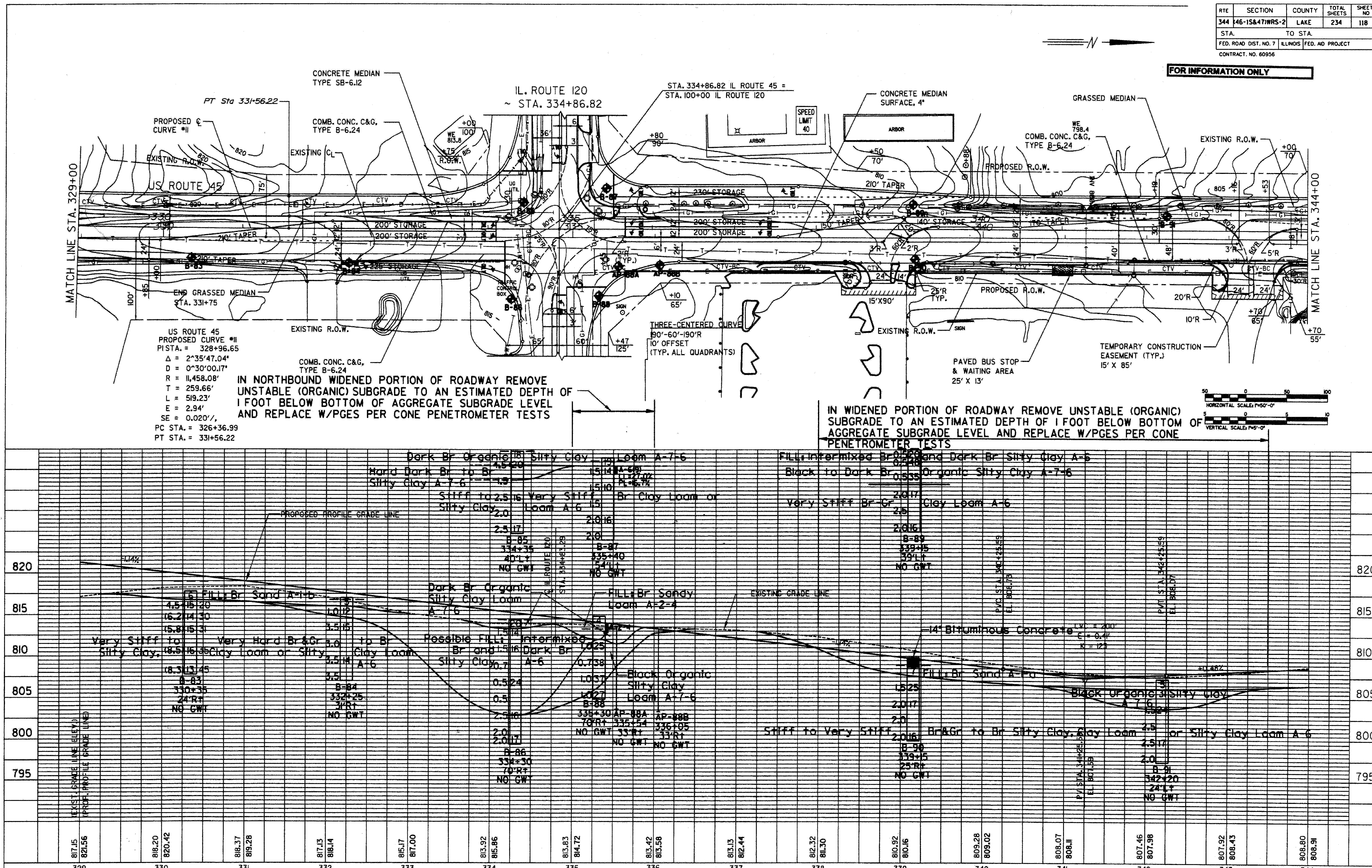
revision	September 21, 2009

sheet 3 of 3 sheet(s)



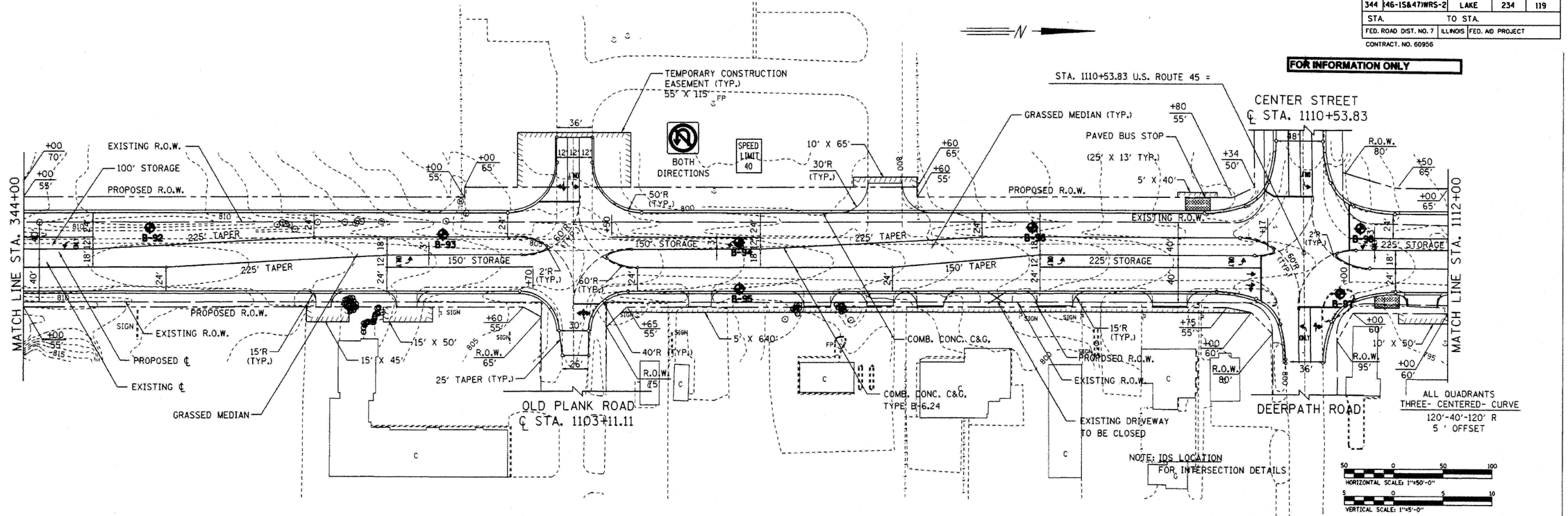
MIRZA ENGINEERING, INC.

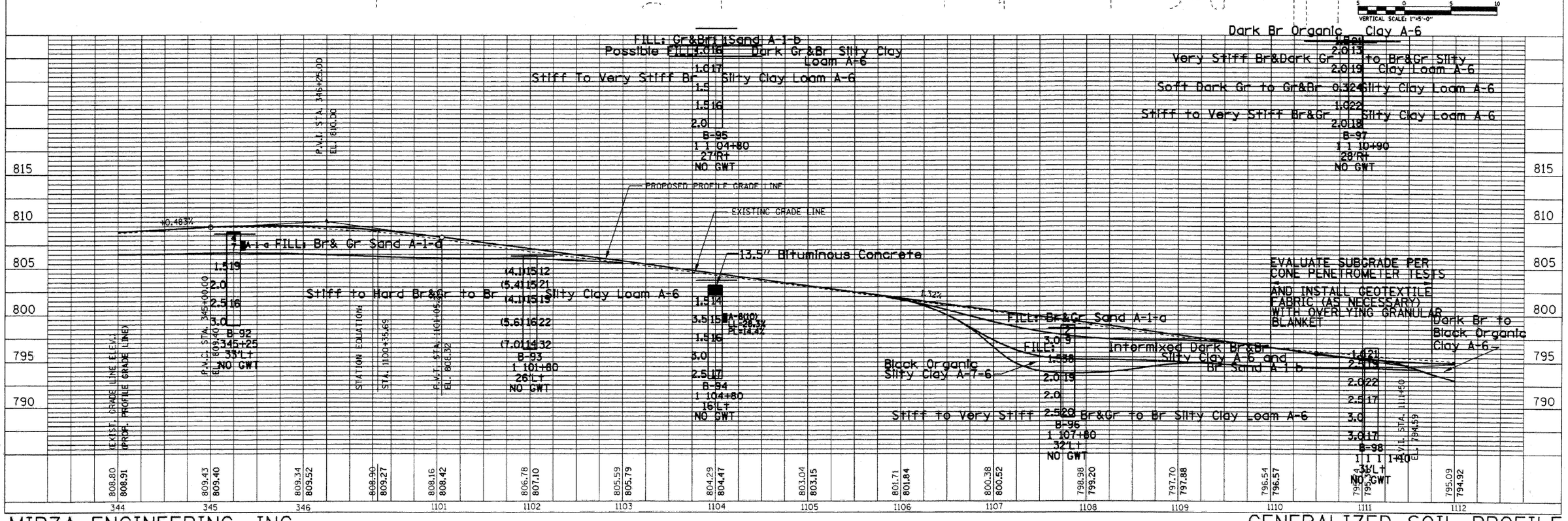
GENERALIZED SOIL PROFILE

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	46-1S&47WRS-2	LAKE	234	119
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

FOR INFORMATION ONLY





MIRZA ENGINEERING, INC.

GENERALIZED SOIL PROFILE

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-15&47)WRS-2	LAKE	234	120
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

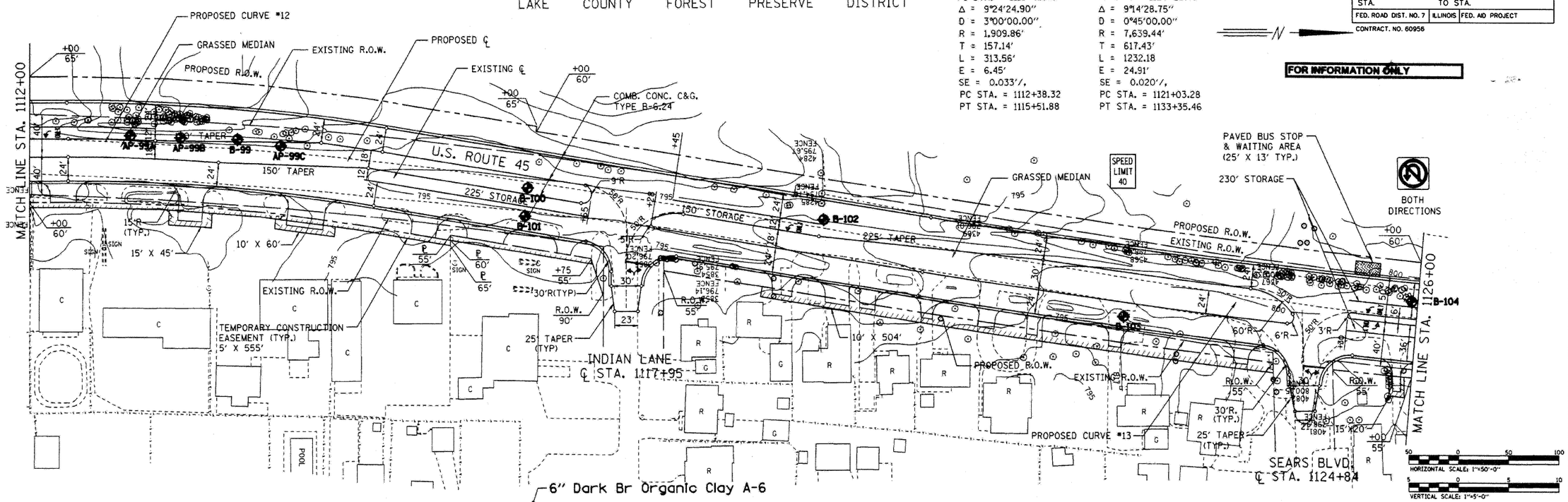
CONTRACT. NO. 60956

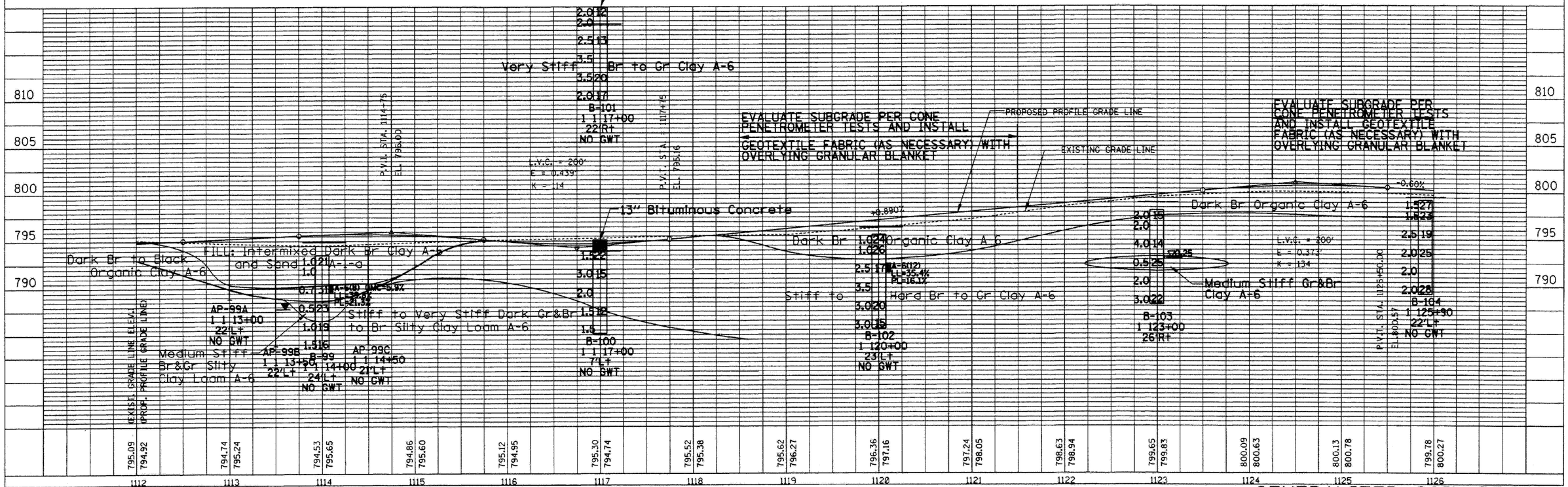
FOR INFORMATION ONLY

US ROUTE 45
PROPOSED CURVE #12
PI STA. = 1113+95.46
Δ = 9°24'24.90"
D = 3°00'00.00"
R = 1,909.86'
T = 157.14'
L = 313.56'
E = 6.45'
SE = 0.033'/'
PC STA. = 1112+38.32
PT STA. = 1115+51.88

US ROUTE 45
PROPOSED CURVE #13
PI STA. = 1127+20.71
Δ = 9°14'28.75"
D = 0°45'00.00"
R = 7,639.44'
T = 617.43'
L = 1232.18
E = 24.91'
SE = 0.020'/'
PC STA. = 1121+03.28
PT STA. = 1133+35.46

LAKE COUNTY FOREST PRESERVE DISTRICT





PLAN — SURVEYED / PLOTTED / GRADES CHECKED / ALIGNMENT CHECKED / NOTE BOOK / NO. / CADD FILE NAME / STRUCTURE NOTATIONS OMITTED / BY / DATE

PROFILE — SURVEYED / PLOTTED / GRADES CHECKED / NOTE BOOK / NO. / STRUCTURE NOTATIONS OMITTED / BY / DATE

MIRZA ENGINEERING, INC.

GENERALIZED SOIL PROFILE

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	121
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

FOR INFORMATION ONLY

NOTE: IDS LOCATION
FOR INTERSECTION DETAILS
SEE INTERSECTION DESIGN STUDY

LAKE COUNTY FOREST PRESERVE DISTRICT

BRAE LOCH GOLF COURSE

BRAE LOCH ROAD
℄ STA. 1136+02.05

STA. 1136+02.05 U.S. RT. 45 =
STA. 10+00 BRAE LOCH RD.

TEMPORARY CONSTRUCTION EASEMENT (TYP.) 280' X 135'

DRIVEWAY TO BE REMOVED

EXISTING R.O.W.

CONCRETE MEDIAN TYPE SB-6.12

PROPOSED R.O.W.

DRIVEWAY TO BE RELOCATED

DRIVEWAY TO BE REMOVED

PAVEMENT TO BE REMOVED (TYP.)

SPEED LIMIT 40

THREE CENTERED CURVE
120'-40'-120'R
5' OFFSET

TWO CENTERED CURVE
60'-220'R
10' OFFSET

GRASSED MEDIAN

MATCH LINE STA. 1126+00

MATCH LINE STA. 1138+00

230' STORAGE

225' STORAGE

150' TAPER

210' TAPER

350' STORAGE

460' TAPER (50:1)

U.S. ROUTE 45

ORCHARD LANE
℄ STA. 1127+98

EXISTING GRASSED MEDIAN

GRASSED MEDIAN

EXISTING ℄

℄ PROPOSED CURVE #13

COMB. CONC. C&G, TYPE B-6.24

EXISTING R.O.W.

BOTH DIRECTIONS

B-105

B-106

B-107

B-108

B-109

US ROUTE 45
PROPOSED CURVE #13
PI STA. = 1127+20.71
Δ = 9°14'28.75"
D = 0°45'00.00"
R = 7,639.44'
T = 617.43'
L = 1232.18
E = 24.91'
SE = NORMAL CROWN
PC STA. = 1121+03.28
PT STA. = 1133+35.46

HORIZONTAL SCALE: 1"=50'-0"

VERTICAL SCALE: 1"=5'-0"

16" Bituminous Concrete

EVALUATE SUBGRADE PER CONE PENETROMETER TESTS AND INSTALL GEO-TEXTILE FABRIC (AS NECESSARY) WITH OVERLYING GRANULAR BLANKET

PROPOSED PROFILE GRADE LINE

EXISTING GRADE LINE

FILL: Intermixed Dark Gr and Gr-Br Clay A-6

Stiff to Very Stiff Br Clay A-6

FILL: Br Sand A-1-b

Dark Br Organic Clay A-6

Possible FILL: Intermixed Br Silty Clay A-6 and Dark Gr Organic Silty Clay A-7-6

Very Stiff Br Clay A-6

Very Stiff to Hard Br-Gr Clay A-7-6

Dark Gr Organic Silty Clay Loam A-7-6

B-105 1128+95 7'Lt NO GWT

B-106 1126+95 21'Rt NO GWT

B-107 1132+85 24'Lt NO GWT

B-108 1135+00 30'Rt NO GWT

B-109 1137+95 46'Lt NO GWT

P.V.C.: STA. 1130+00.00 EL. 791.67

P.V.I.: STA. 1132+00.00 EL. 796.67

P.V.I.: STA. 1133+50.00 EL. 795.12

P.V.C.: STA. 1135+00.00 EL. 787.33

L.V.C. = 200'
K = 68

P.V.I.: STA. 1136+00.00 EL. 786.59

P.V.I.: STA. 1137+00.00 EL. 786.000

	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138
(EXIST. GRADE LINE ELEV.)	799.78	799.32	798.83	798.56	798.10	797.40	796.20	794.44	792.05	789.51	787.36	785.99	785.49
(PROP. PROFILE GRADE LINE)	800.27	799.67	799.07	798.47	797.87	797.19	796.02	794.26	792.00	789.67	787.33	785.73	785.59

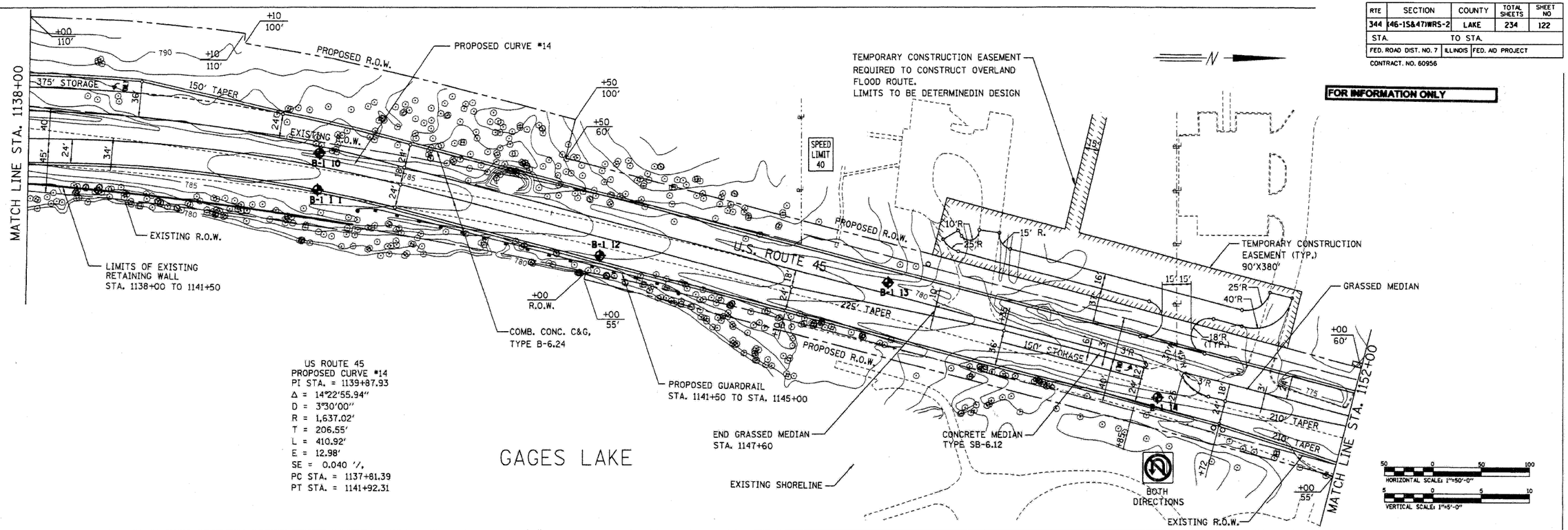
MIRZA ENGINEERING, INC.

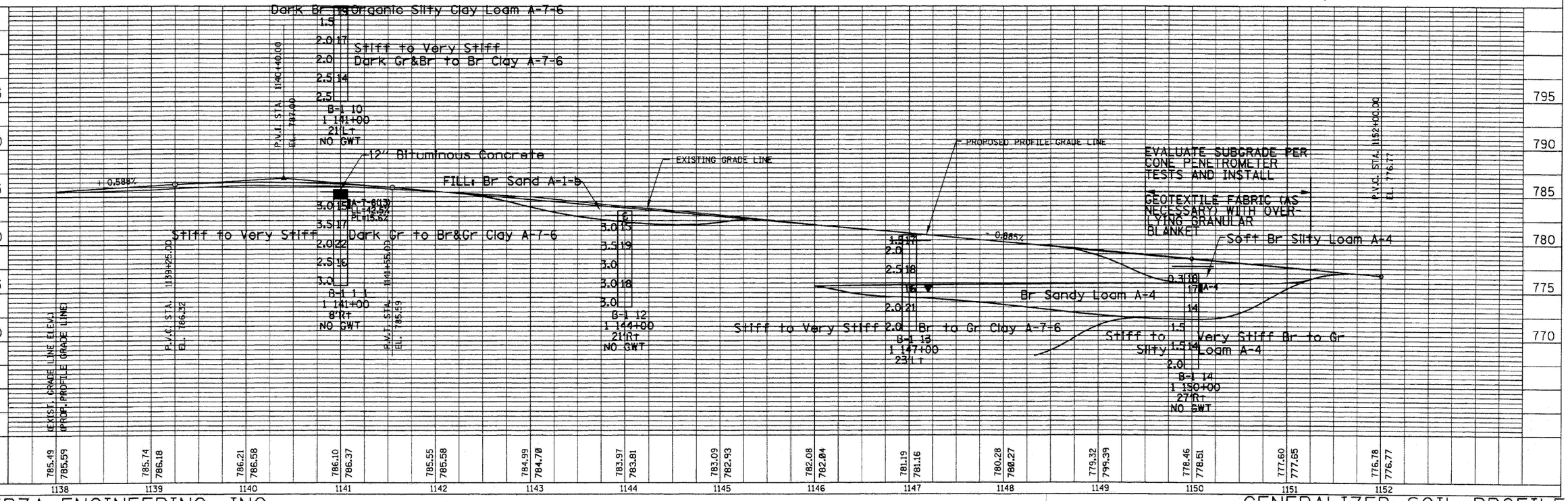
GENERALIZED SOIL PROFILE

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-15&471WRS-2	LAKE	234	122
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

FOR INFORMATION ONLY





MIRZA ENGINEERING, INC.

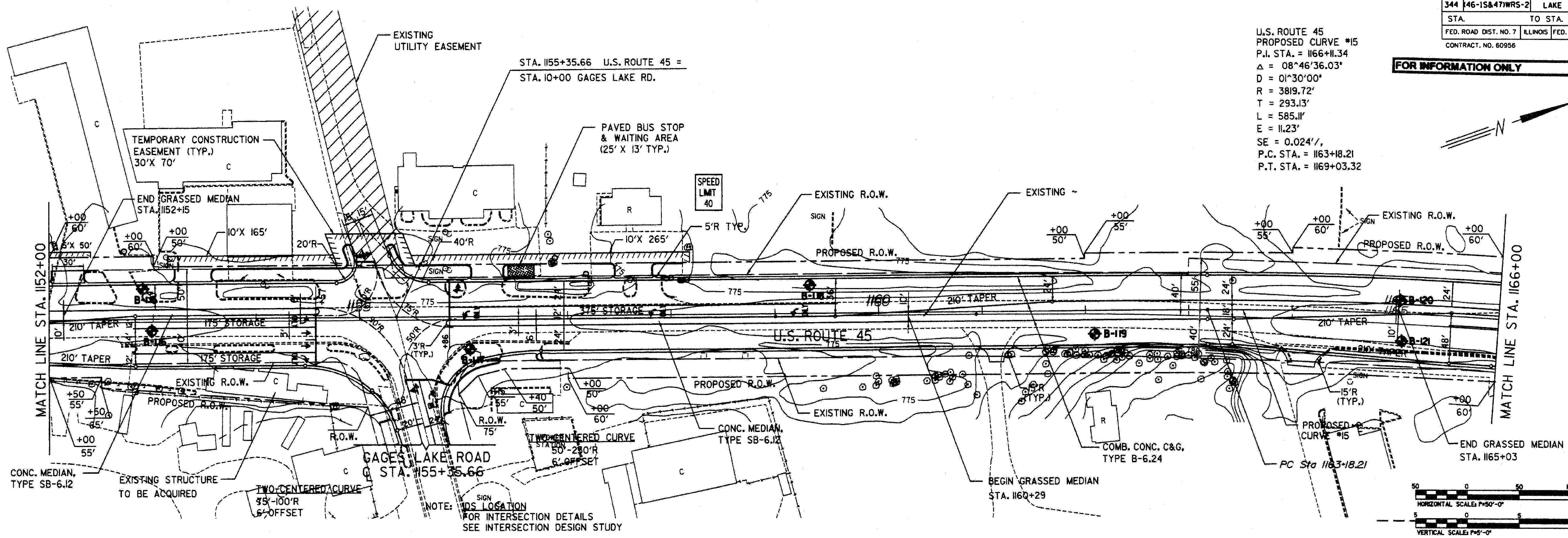
GENERALIZED SOIL PROFILE

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	123
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

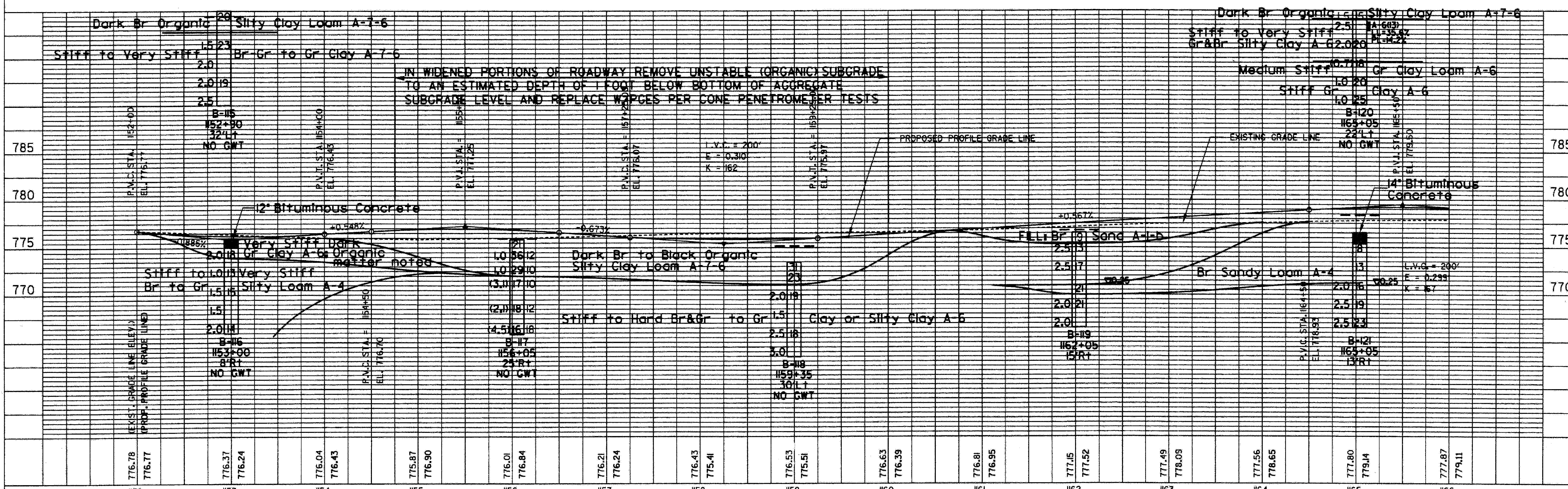
CONTRACT. NO. 60956

FOR INFORMATION ONLY

U.S. ROUTE 45
PROPOSED CURVE #15
P.I. STA. = 1166+11.34
Δ = 08°46'36.03"
D = 01°30'00"
R = 3819.72'
T = 293.13'
L = 585.11'
E = 11.23'
SE = 0.024'/,
P.C. STA. = 1163+18.21
P.T. STA. = 1169+03.32



MATCH LINE STA. 1152+00
MATCH LINE STA. 1166+00
EXISTING UTILITY EASEMENT
STA. 1155+35.66 U.S. ROUTE 45 = STA. 10+00 GAGES LAKE RD.
TEMPORARY CONSTRUCTION EASEMENT (TYP.) 30'X 70'
PAVED BUS STOP & WAITING AREA (25' X 13' TYP.)
SPEED LIMIT 40
END GRASSED MEDIAN STA. 1152+15
EXISTING R.O.W.
PROPOSED R.O.W.
U.S. ROUTE 45
210' TAPER
175' STORAGE
375' STORAGE
GAGES LAKE ROAD
℄ STA. 1155+35.66
CONC. MEDIAN, TYPE SB-6.12
EXISTING STRUCTURE TO BE ACQUIRED
TWO-CENTERED CURVE 75'-100'R 6' OFFSET
TWO-CENTERED CURVE 50'-250'R 6' OFFSET
NOTE: IDS LOCATION FOR INTERSECTION DETAILS SEE INTERSECTION DESIGN STUDY
CONC. MEDIAN, TYPE SB-6.12
COMB. CONC. C&G, TYPE B-6.24
BEGIN GRASSED MEDIAN STA. 1160+29
PC Sta 1163+18.21
PROPOSED ℄ CURVE #15
END GRASSED MEDIAN STA. 1165+03
B-115 B-116 B-117 B-118 B-119 B-120 B-121
HORIZONTAL SCALE: 1"=50'-0"
VERTICAL SCALE: 1"=5'-0"



Dark Br Organic Silty Clay Loam A-7-6
Stiff to Very Stiff Br-Gr to Gr Clay A-7-6
IN WIDENED PORTIONS OF ROADWAY REMOVE UNSTABLE (ORGANIC) SUBGRADE TO AN ESTIMATED DEPTH OF 1 FOOT BELOW BOTTOM OF AGGREGATE SUBGRADE LEVEL AND REPLACE W/PCES PER CONE PENETROMETER TESTS
B-115 1152+90 32'Lt NO GWT
12" Bituminous Concrete
Very Stiff Dark Gr Clay A-6; Organic matter noted
Stiff to Very Stiff Br to Gr Silty Loam A-4
B-116 1153+00 8'Rt NO GWT
B-117 1156+05 25'Rt NO GWT
Dark Br to Black Organic Silty Clay Loam A-7-6
Stiff to Hard Br&Gr to Gr Clay or Silty Clay A-6
B-118 1159+35 30'Lt NO GWT
L.V.C. = 200' E = 0.310 K = 162
PROPOSED PROFILE GRADE LINE
EXISTING GRADE LINE
Fill: Br Sand A-1-b
Br Sandy Loam A-4
B-119 1162+05 15'Rt
Dark Br Organic Silty Clay Loam A-7-6
Stiff to Very Stiff Gr&Br Silty Clay A-6
Medium Stiff Gr Clay Loam A-6
Stiff Gr Clay A-6
B-120 1165+05 22'Lt NO GWT
14" Bituminous Concrete
B-121 1165+05 13'Rt
L.V.C. = 200' E = 0.299 K = 67
(EXIST. GRADE LINE ELEV.) (PROP. PROFILE GRADE LINE)
785 780 775 770
1152 1153 1154 1155 1156 1157 1158 1159 1160 1161 1162 1163 1164 1165 1166

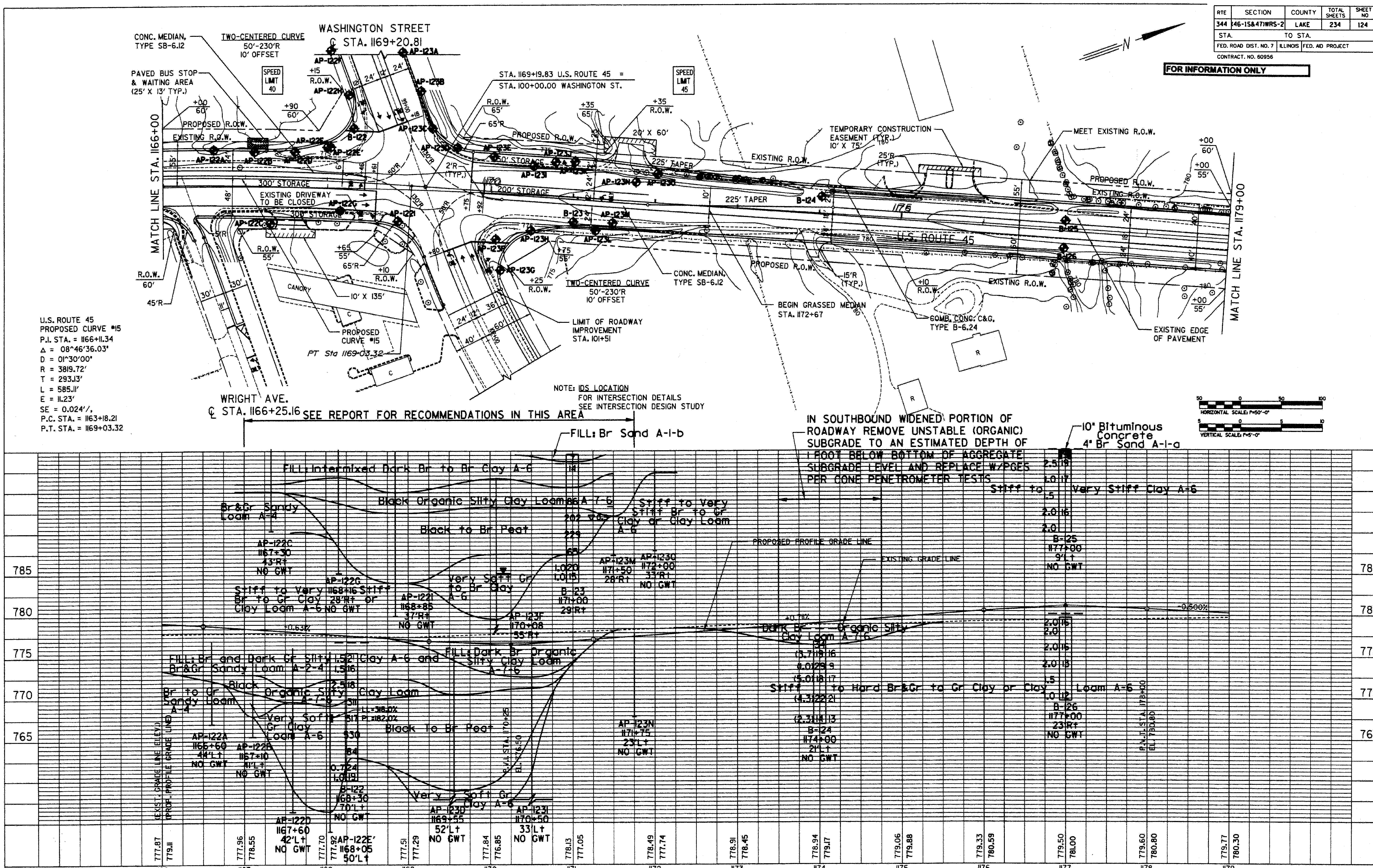
MIRZA ENGINEERING, INC.

GENERALIZED SOIL PROFILE

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	46-1S&47IWRS-2	LAKE	234	124
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

FOR INFORMATION ONLY



MIRZA ENGINEERING, INC.

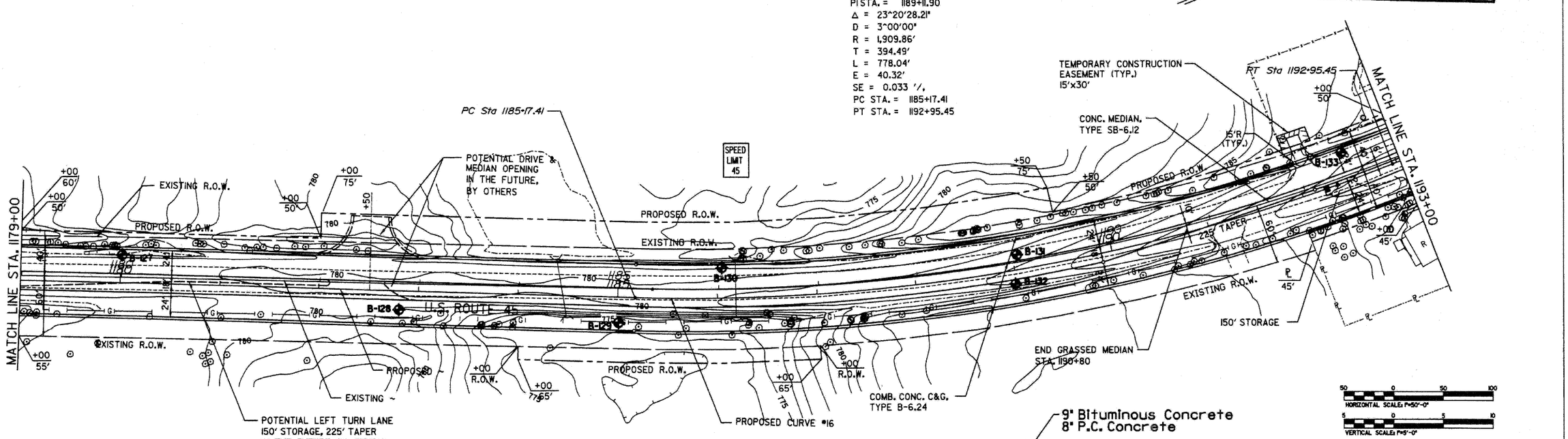
GENERALIZED SOIL PROFILE

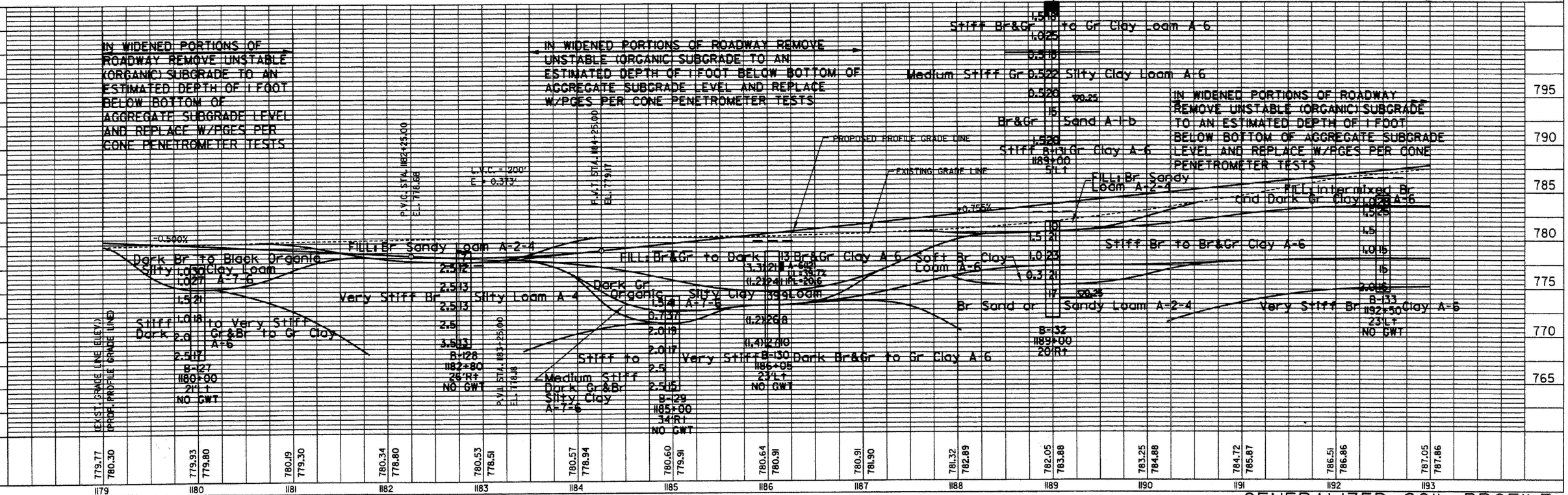
RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	125
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

FOR INFORMATION ONLY

US ROUTE 45
PROPOSED CURVE #16
P.I STA. = 1189+11.90
Δ = 23°00'28.21"
D = 3°00'00"
R = 1,909.86'
T = 394.49'
L = 778.04'
E = 40.32'
SE = 0.033 ft/ft
PC STA. = 1185+17.41
PT STA. = 1192+95.45





MIRZA ENGINEERING, INC.

GENERALIZED SOIL PROFILE

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	46-1S&47WRS-2	LAKE	234	126
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

MIRZA ENGINEERING, INC. — CHICAGO, ILLINOIS

BORING LOG

JOB NO: 9555N CLIENT: ILLINOIS DEPARTMENT OF TRANSPORTATION
PROJECT: FAP 344 - U.S. Route 45 - Illinois Route 137 to Illinois Route 132
LOCATION: Lake County, Illinois
BORING RIG & METHOD: Mobile B-53 w/Hollow Stem Augers

BORING NO: B-93
STATION: 1101+80
OFFSET: 26'Lt
SURF ELEV: 806.3

DEPTH	SAMPLE FROM - TO	ELEV.	SOIL DESCRIPTION	REC. in.	BLOWS/6"	q_u tsf	STRAIN %	WATER CONTENT %
		806.0	FILL: Br & Gr Sand A-1-a					
	0.0-0.5				Auger			
2	0.5-2.0			10	5 5-7	4.1	15	15
	2.0-3.5			18	5 8-13	5.4	15	15
4								
	3.5-5.0			18	5 9-10	4.1	15	15
6			Hard Br & Gr Silty Clay Loam A-6					
	6.0-7.5			18	9 9-13	5.6	15	16
8								
10	8.5-10.0	796.3	Boring terminated at 10'	18	6 14-18	7.0	15	14

REMARKS — () Denotes Calibrated Penetrometer Estimate

WATER	Dry FT. ELEV.	DURING DRILLING ▽ CORE SIZE	IN.	DATE:	AUG 29 97
WATER	Dry FT. ELEV.	AT COMPLETION ▼ CASING LENGTH	FT.	DRILLER:	Shlimon
WATER	Dry FT. ELEV.	AFTER 1/4 HRS. ▽ CASING DIAMETER	IN.	INSPECTOR:	Bugayong

MIRZA ENGINEERING, INC. — CHICAGO, ILLINOIS

BORING LOG

JOB NO: 9555N CLIENT: ILLINOIS DEPARTMENT OF TRANSPORTATION
PROJECT: FAP 344 - U.S. Route 45 - Illinois Route 137 to Illinois Route 132
LOCATION: Lake County, Illinois
BORING RIG & METHOD: Mobile B-53 w/Hollow Stem Augers

BORING NO: B-117
STATION: 1156+05
OFFSET: 25'Rt
SURF ELEV: 775.8

DEPTH	SAMPLE FROM - TO	ELEV.	SOIL DESCRIPTION	REC. in.	BLOWS/6"	q_u tsf	STRAIN %	WATER CONTENT %
			1" Bituminous Concrete					
	0.0-0.5				Auger			21
2	0.5-2.0		Dark Br to Black Organic Silty Clay Loam A-7-6	10	6 6-6	(1.0)		36
	2.0-3.5	772.0		6	5 5-5	(1.0)		29
4								
	3.5-5.0			12	4 4-6	3.1	15	17
6			Very Stiff to Hard Gr & Br to Gr Clay A-6					
	6.0-7.5			18	4 5-7	2.1	15	18
8								
10	8.5-10.0	765.8	Boring terminated at 10'	18	5 7-11	4.5	15	16

REMARKS — () Denotes Calibrated Penetrometer Estimate

WATER	Dry FT. ELEV.	DURING DRILLING ▽ CORE SIZE	IN.	DATE:	AUG 20 97
WATER	Dry FT. ELEV.	AT COMPLETION ▼ CASING LENGTH	FT.	DRILLER:	Shlimon
WATER	Dry FT. ELEV.	AFTER 1/4 HRS. ▽ CASING DIAMETER	IN.	INSPECTOR:	Bugayong

MIRZA ENGINEERING, INC. — CHICAGO, ILLINOIS

BORING LOG

JOB NO: 9555N CLIENT: ILLINOIS DEPARTMENT OF TRANSPORTATION
PROJECT: FAP 344 - U.S. Route 45 - Illinois Route 137 to Illinois Route 132
LOCATION: Lake County, Illinois
BORING RIG & METHOD: Mobile B-53 w/Hollow Stem Augers

BORING NO: B-109
STATION: 1138+10
OFFSET: 46'Lt
SURF ELEV: 786.5

DEPTH	SAMPLE FROM - TO	ELEV.	SOIL DESCRIPTION	REC. in.	BLOWS/6"	q_u tsf	STRAIN %	WATER CONTENT %
			2" Root zone material					
	0.0-0.5				Auger			
2	0.5-2.0			7	5 9-10	5.8	15	25
	2.0-3.5			8	5 8-10	5.8	15	21
4								
	3.5-5.0			18	5 10-12	6.2	15	19
6			Hard Br & Gr Clay A-6					
	6.0-7.5			18	5 10-15	4.5	15	20
8								
10	8.5-10.0	776.5	Boring terminated at 10'	18	7 10-21	6.6	15	22

REMARKS — () Denotes Calibrated Penetrometer Estimate

WATER	Dry FT. ELEV.	DURING DRILLING ▽ CORE SIZE	IN.	DATE:	AUG 22 97
WATER	Dry FT. ELEV.	AT COMPLETION ▼ CASING LENGTH	FT.	DRILLER:	Shlimon
WATER	Dry FT. ELEV.	AFTER 1/4 HRS. ▽ CASING DIAMETER	IN.	INSPECTOR:	Bugayong

MIRZA ENGINEERING, INC. — CHICAGO, ILLINOIS

BORING LOG

JOB NO: 9555N CLIENT: ILLINOIS DEPARTMENT OF TRANSPORTATION
PROJECT: FAP 344 - U.S. Route 45 - Illinois Route 137 to Illinois Route 132
LOCATION: Lake County, Illinois
BORING RIG & METHOD: Mobile B-53 w/Hollow Stem Augers

BORING NO: B-124
STATION: 1174+00
OFFSET: 21'Lt
SURF ELEV: 777.5

DEPTH	SAMPLE FROM - TO	ELEV.	SOIL DESCRIPTION	REC. in.	BLOWS/6"	q_u tsf	STRAIN %	WATER CONTENT %
			2" Root zone material					
	0.0-0.5	777.0	Dark Br Organic Silty Clay Loam A-7-6		Auger			34
2	0.5-2.0			14	4 6-10	3.7	15	19
	2.0-3.5	773.6	Very Stiff to Stiff Br & Gr Clay A-7-6	13	3 4-6	1.0	15	29
4								
	3.5-5.0			18	3 6-11	5.0	15	18
6			Hard to Very Stiff Br & Gr to Gr Clay A-6					
	6.0-7.5			18	5 10-11	4.3	15	22
8								
10	8.5-10.0	767.5	Boring terminated at 10'	18	5 5-8	2.3	15	14

REMARKS — () Denotes Calibrated Penetrometer Estimate

WATER	Dry FT. ELEV.	DURING DRILLING ▽ CORE SIZE	IN.	DATE:	AUG 22 97
WATER	Dry FT. ELEV.	AT COMPLETION ▼ CASING LENGTH	FT.	DRILLER:	Shlimon
WATER	Dry FT. ELEV.	AFTER 1/4 HRS. ▽ CASING DIAMETER	IN.	INSPECTOR:	Bugayong

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS

U.S. ROUTE 45
ILLINOIS ROUTE 120 TO WASHINGTON STREET

NO SCALE

DATE 12/14/09
DRAWN BY MLB
CHECKED BY TSB

Tran Systems

12/14/09 - g:\401\2000\0005302\cad\053boring_logs.shl

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	127
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

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

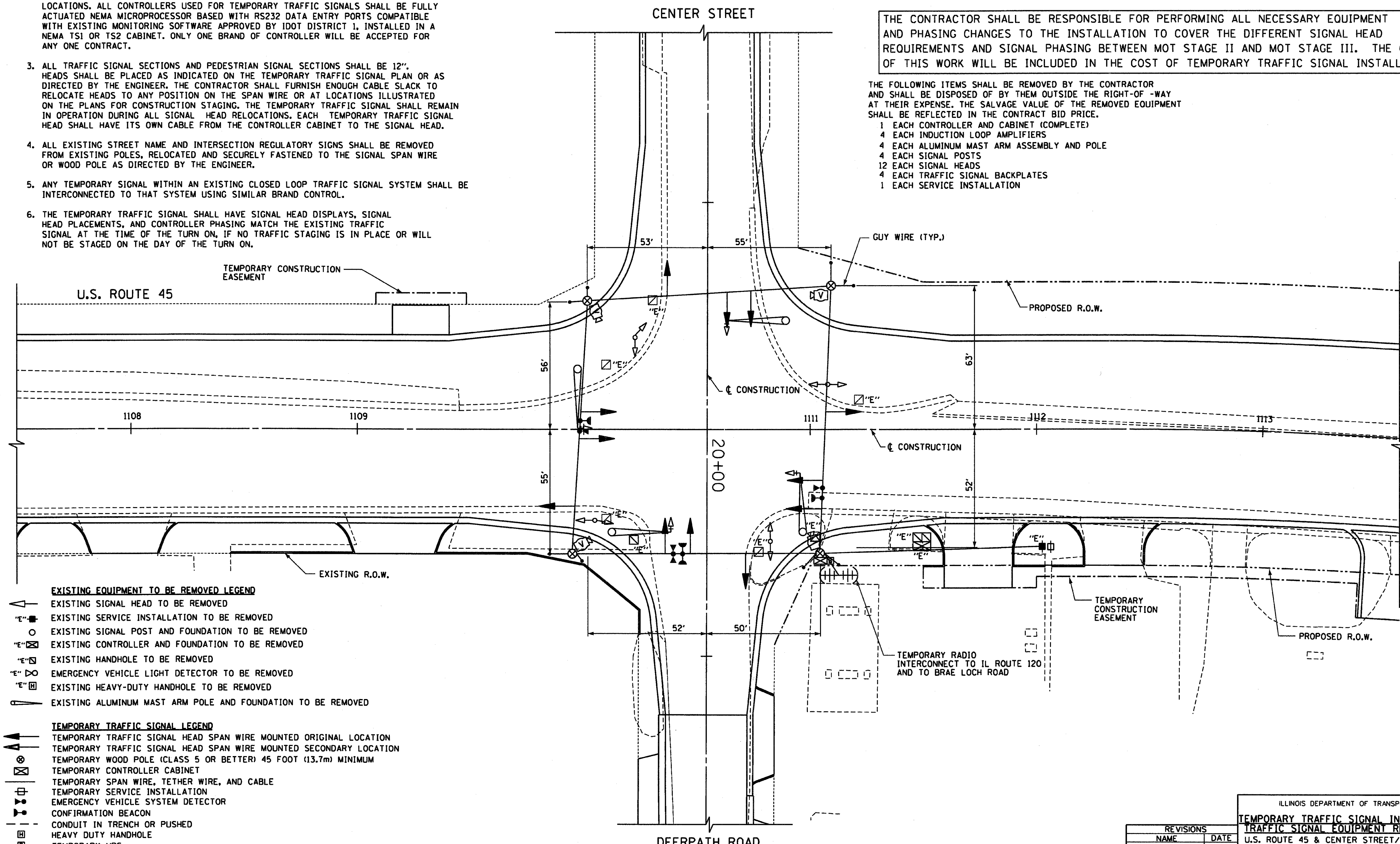
NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". 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.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE 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.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL NECESSARY EQUIPMENT AND PHASING CHANGES TO THE INSTALLATION TO COVER THE DIFFERENT SIGNAL HEAD REQUIREMENTS AND SIGNAL PHASING BETWEEN MOT STAGE II AND MOT STAGE III. THE COST OF THIS WORK WILL BE INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION.

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

- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 4 EACH INDUCTION LOOP AMPLIFIERS
- 4 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 4 EACH SIGNAL POSTS
- 12 EACH SIGNAL HEADS
- 4 EACH TRAFFIC SIGNAL BACKPLATES
- 1 EACH SERVICE INSTALLATION



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
- "E" EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- "E" EXISTING HANDHOLE TO BE REMOVED
- "E" EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- "E" EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED

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
- EMERGENCY VEHICLE SYSTEM DETECTOR
- CONFIRMATION BEACON
- CONDUIT IN TRENCH OR PUSHED
- H HEAVY DUTY HANDHOLE
- B TEMPORARY UPS
- V VIDEO DETECTOR
- RADIO INTERCONNECT ANTENNA

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION & TRAFFIC SIGNAL EQUIPMENT REMOVAL PLAN

U.S. ROUTE 45 & CENTER STREET/DEERPATH ROAD
STAGES I & II

HORIZ. 20 0 20
SCALE IN FEET

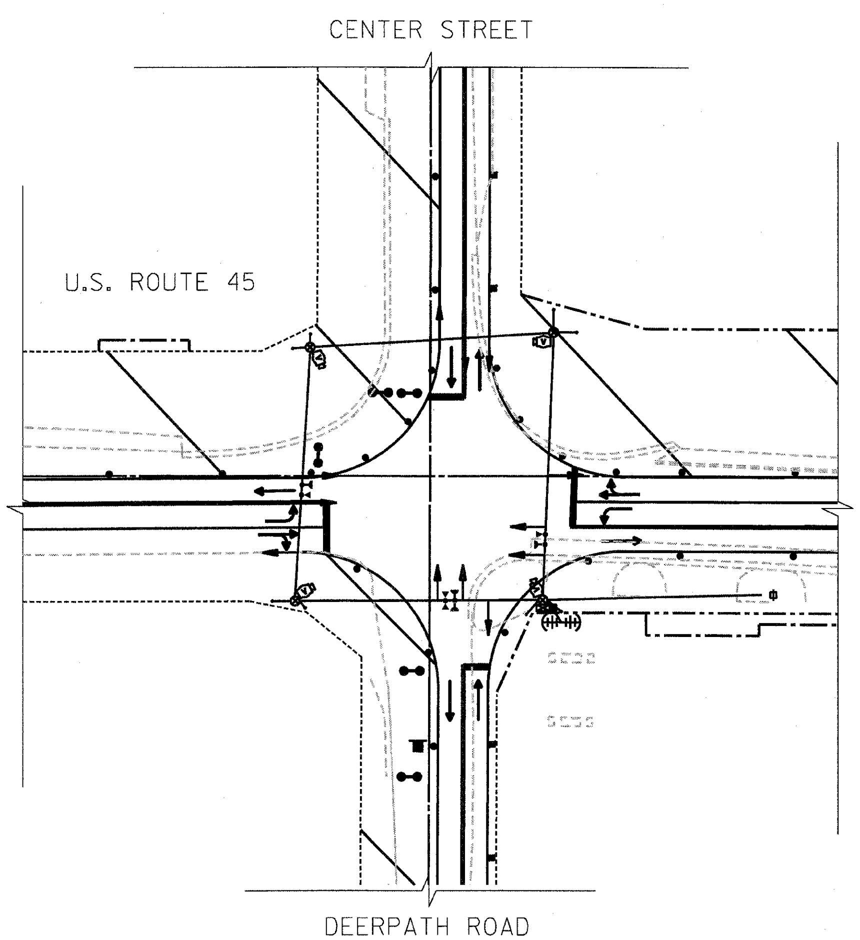
DATE 12/14/09
DRAWN BY MB/AJP
CHECKED BY KMM

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	128
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

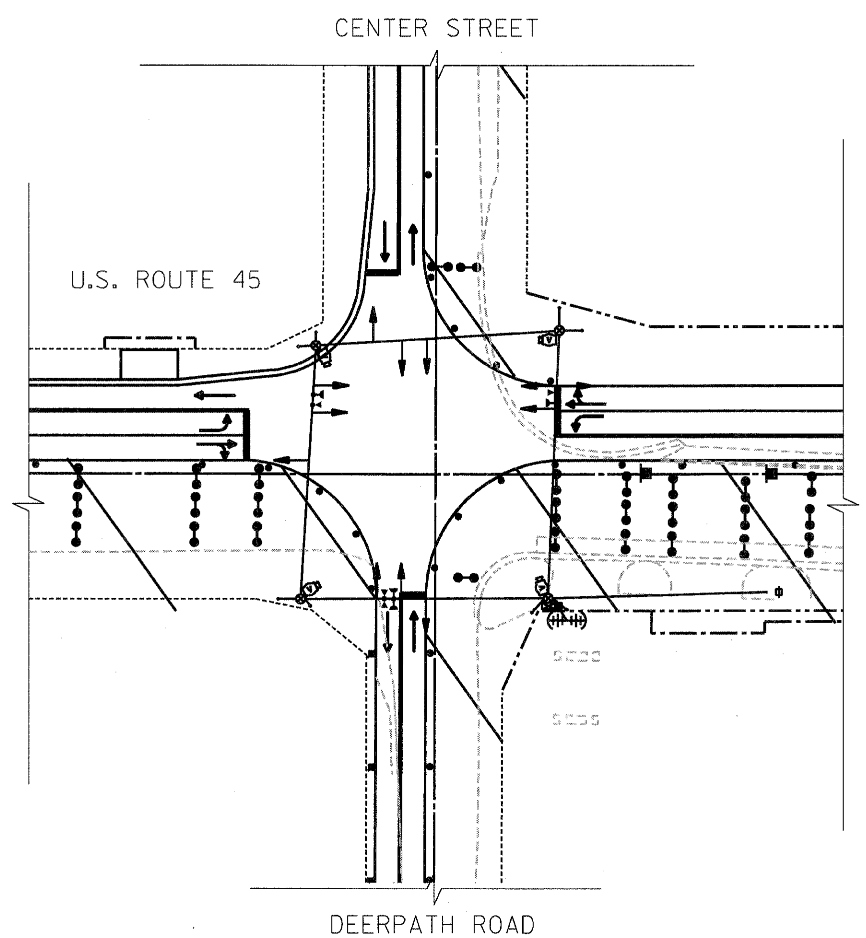
CONTRACT. NO. 60956

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL NECESSARY EQUIPMENT AND PHASING CHANGES TO THE INSTALLATION TO COVER THE DIFFERENT SIGNAL HEAD REQUIREMENTS AND SIGNAL PHASING BETWEEN MOT STAGE II AND MOT STAGE III. THE COST OF THIS WORK WILL BE INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION.

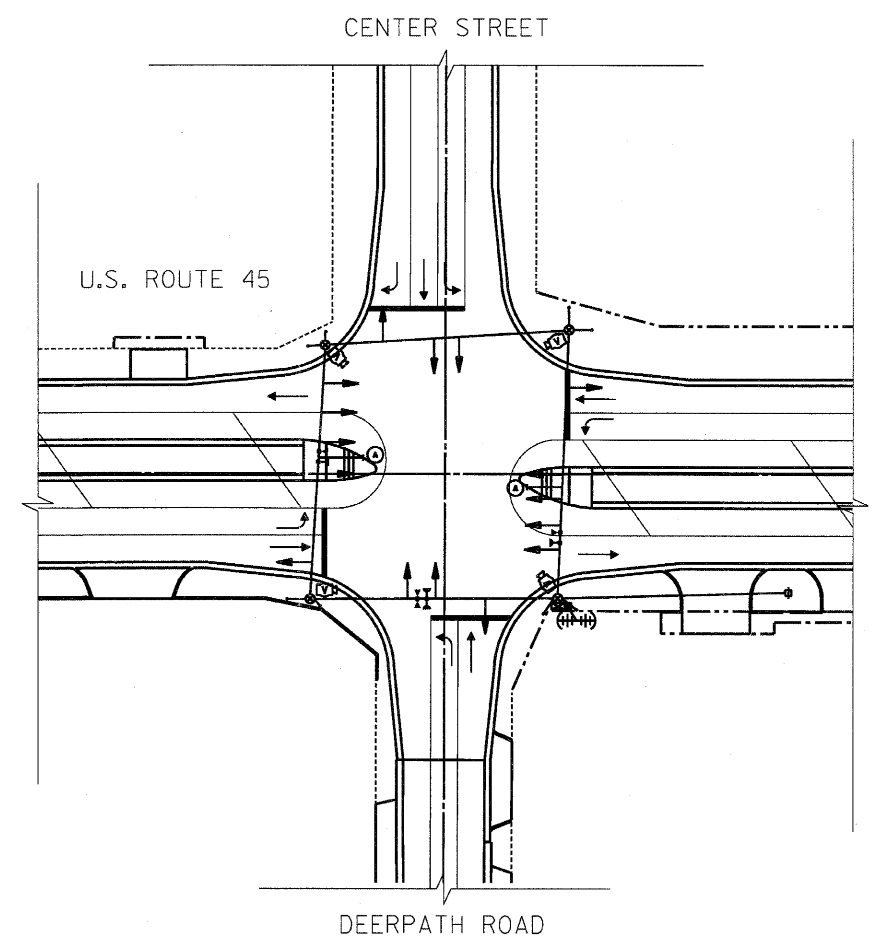
MAINTENANCE OF TRAFFIC STAGE I



MAINTENANCE OF TRAFFIC STAGE II



MAINTENANCE OF TRAFFIC STAGE III



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
- EMERGENCY VEHICLE SYSTEM DETECTOR
- CONFIRMATION BEACON
- CONDUIT IN TRENCH OR PUSHED
- H HEAVY DUTY HANDHOLE
- B TEMPORARY UPS
- V VIDEO DETECTOR
- RADIO INTERCONNECT ANTENNA

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
- "E" EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- "E" EXISTING HANDHOLE TO BE REMOVED
- "E" EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- "E" H EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION

U.S. ROUTE 45 & CENTER STREET/DEERPATH ROAD

STAGES I, II & III

HORIZ. 20 0 20

SCALE IN FEET

DATE	12/14/09
DRAWN BY	MB/AJP
CHECKED BY	KMM

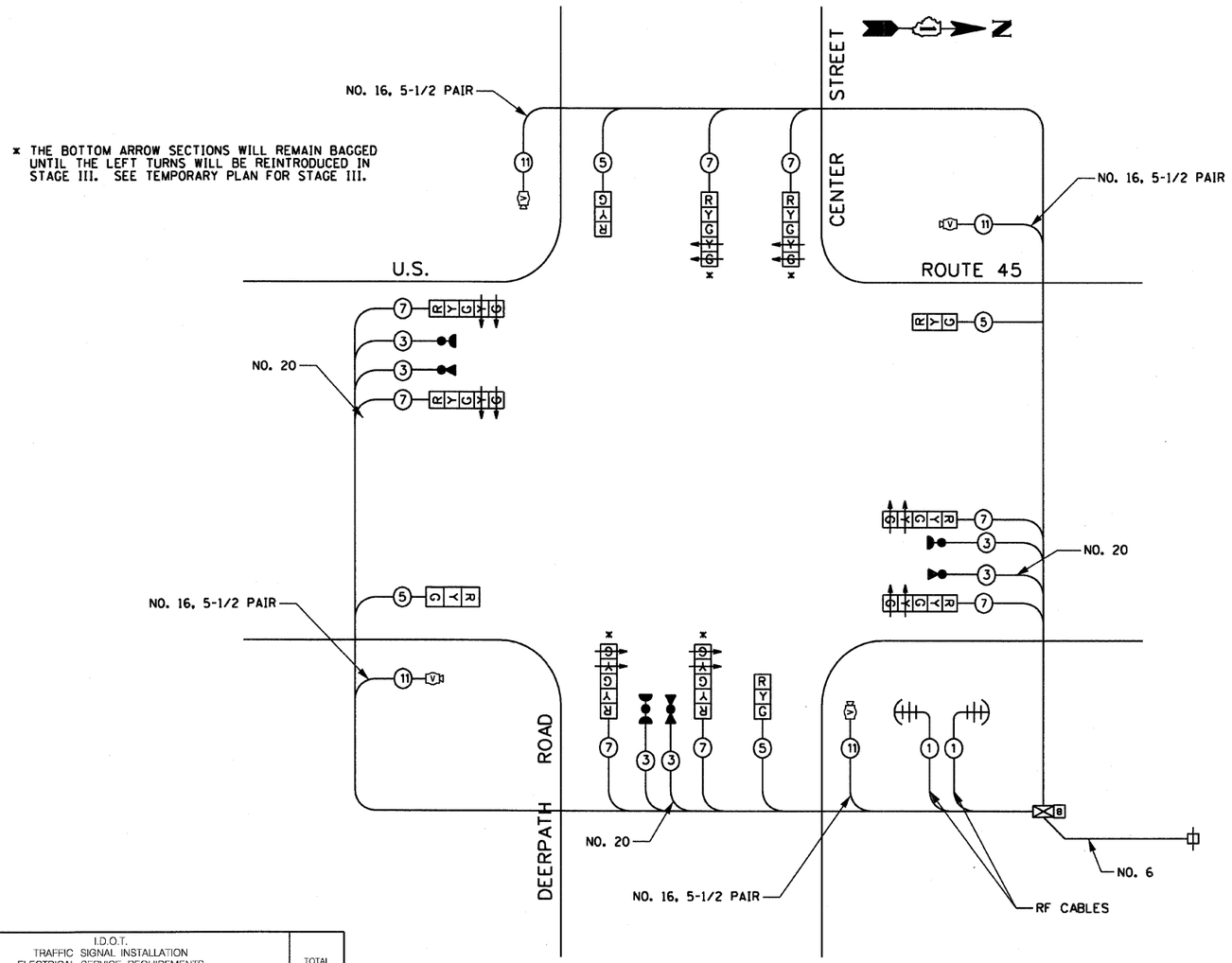
TranSystems®

12/14/09 - g:\401\2000\0005302\cad\shah\ltsigcenter_staging.sht

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL NECESSARY EQUIPMENT AND PHASING CHANGES TO THE INSTALLATION TO COVER THE DIFFERENT SIGNAL HEAD REQUIREMENTS AND SIGNAL PHASING BETWEEN MOT STAGE II AND MOT STAGE III. THE COST OF THIS WORK WILL BE INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION.

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	129
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956



TEMPORARY CABLE PLAN
NOT TO SCALE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	x WATTAGE INCAND.	x WATTAGE LED	x % OPERATION	
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	8	135	12	0.10	10
PED. SIGNAL	0	90	25	1.00	0
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		64		0.05	0
FLASHER	0			0.50	0
				TOTAL=	332

ENERGY COSTS TO:
ILLINOIS DEPARTMENT OF TRANSPORTATION
201 W. CENTER COURT
SHAUMBURG, IL 60196

ENERGY SUPPLY CONTACT: MS. LOIS HICKS
PHONE: (847) 816-5489
COMPANY: COMMONWEALTH EDISON COMPANY

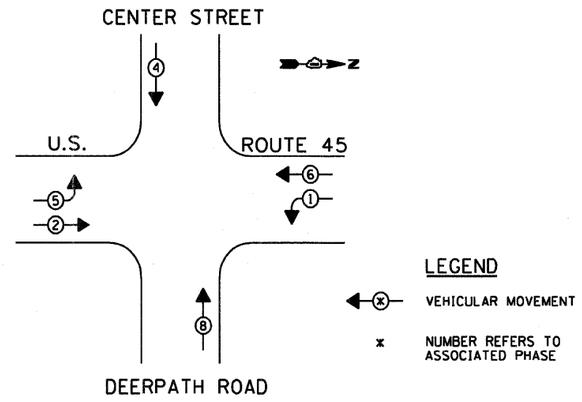
FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A-POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
C-CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20+L-2=
E-MAST ARM POLE		SIGNAL POST	2 (4.0)		(6m+L-0.6m)=
24" (600 mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750 mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900 mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND POST MOUNTED	13.5 (4.1)
					6 (1.8)

TEMPORARY CABLE PLAN LEGEND

- TEMPORARY UPS
- TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12"
- 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
- VIDEO DETECTOR
- RADIO INTERCONNECT ANTENNA

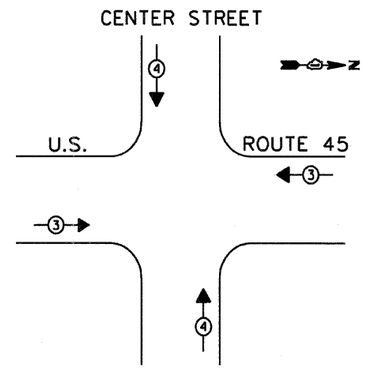
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TEMPORARY CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



TEMPORARY EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4		
MOVEMENT	⇄	⇅		

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TEMPORARY TRAFFIC SIGNAL CABLE PLAN
PHASE DESIGNATION DIAGRAM
U.S. ROUTE 45 & CENTER STREET/DEERPATH ROAD
STAGES I & II

HORIZ. 10 0 10
SCALE IN FEET

DATE 12/14/09
DRAWN BY MB/AJP
CHECKED BY KMM

TranSystems

12/14/09 - g:\401\2000\0005302\cad\shah\tempcabcenter_88.sht

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	130
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

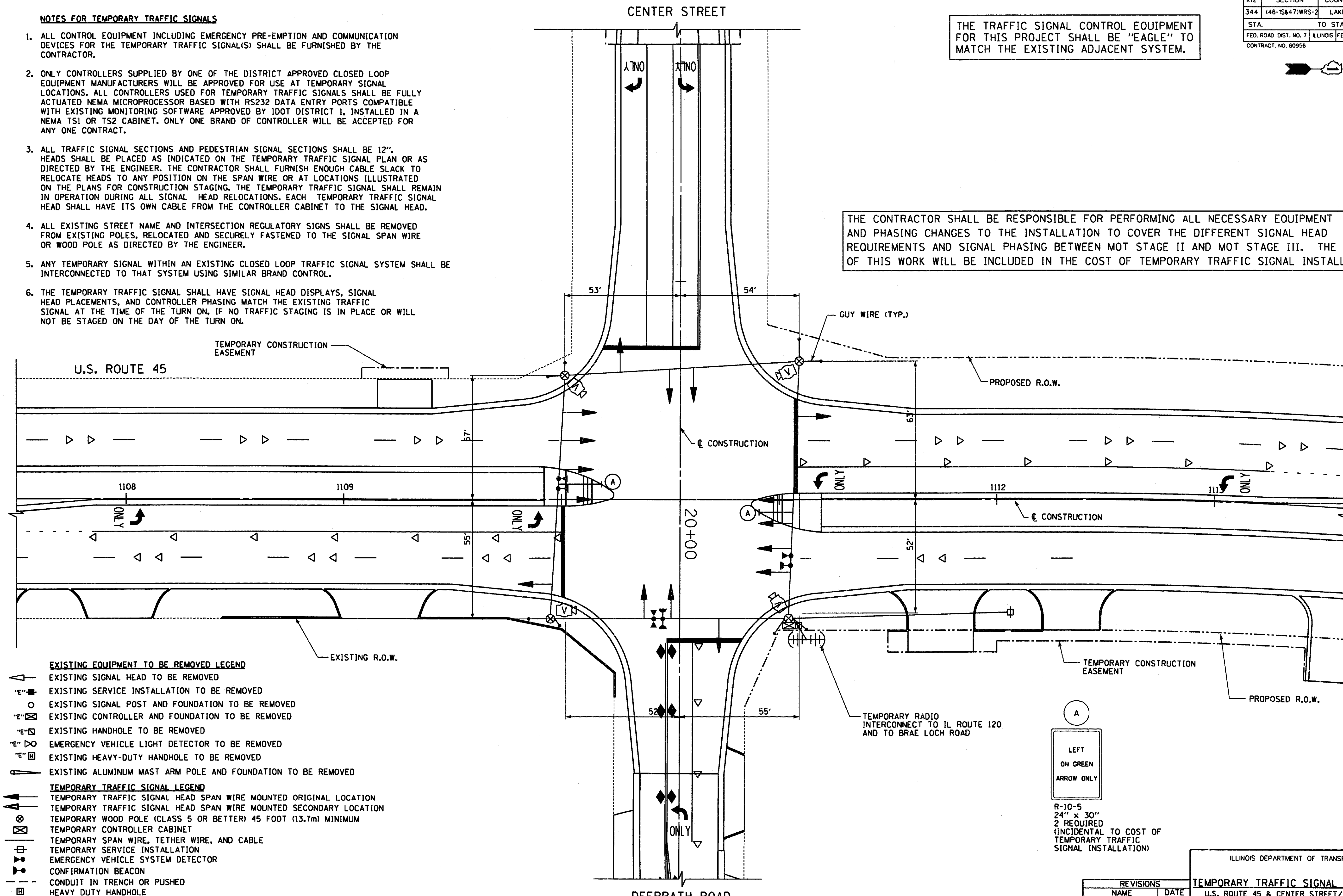
CONTRACT. NO. 60956

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

NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". 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.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE 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.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL NECESSARY EQUIPMENT AND PHASING CHANGES TO THE INSTALLATION TO COVER THE DIFFERENT SIGNAL HEAD REQUIREMENTS AND SIGNAL PHASING BETWEEN MOT STAGE II AND MOT STAGE III. THE COST OF THIS WORK WILL BE INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION.



R-10-5
24" x 30"
2 REQUIRED
(INCIDENTAL TO COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION)

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
- "E" EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- "E" EXISTING HANDHOLE TO BE REMOVED
- "E" EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- "E" EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED

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
- EMERGENCY VEHICLE SYSTEM DETECTOR
- CONFIRMATION BEACON
- CONDUIT IN TRENCH OR PUSHED
- H HEAVY DUTY HANDHOLE
- B TEMPORARY UPS
- V VIDEO DETECTOR
- RADIO INTERCONNECT ANTENNA

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION

U.S. ROUTE 45 & CENTER STREET/DEERPATH ROAD

STAGE III AND FINAL

HORIZ. 20 0 20
SCALE IN FEET

DATE 12/14/09
DRAWN BY MB/AJP
CHECKED BY KMM

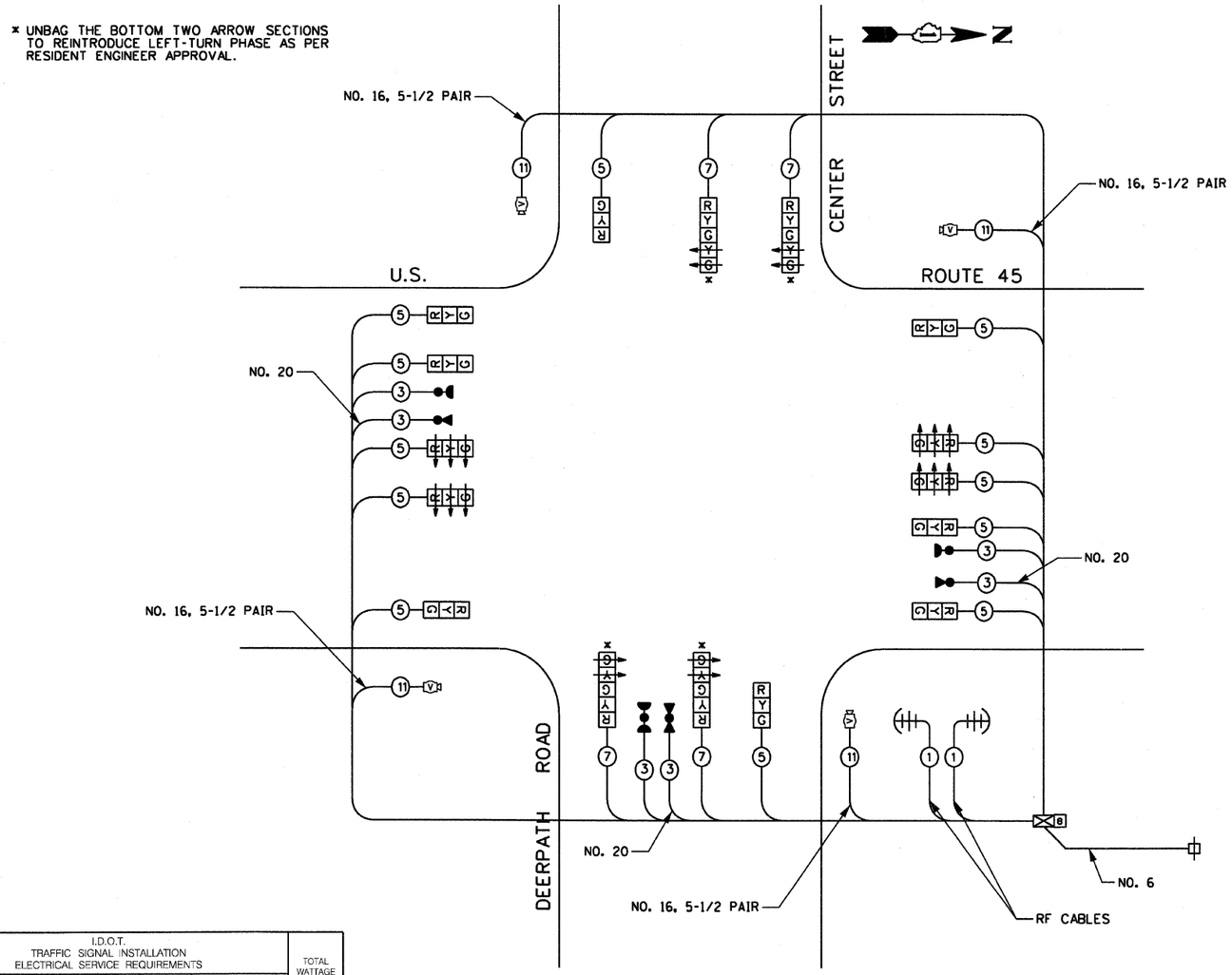
THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL NECESSARY EQUIPMENT AND PHASING CHANGES TO THE INSTALLATION TO COVER THE DIFFERENT SIGNAL HEAD REQUIREMENTS AND SIGNAL PHASING BETWEEN MOT STAGE II AND MOT STAGE III. THE COST OF THIS WORK WILL BE INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION.

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

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	131
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

* UNBAG THE BOTTOM TWO ARROW SECTIONS TO REINTRODUCE LEFT-TURN PHASE AS PER RESIDENT ENGINEER APPROVAL.



TEMPORARY CABLE PLAN
NOT TO SCALE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS						TOTAL WATTAGE
TYPE	NO LAMPS	x WATTAGE INCAND.	x WATTAGE LED	x % OPERATION		
SIGNAL (RED)	16	135	17	0.50		136
(YELLOW)	16	135	25	0.25		100
(GREEN)	16	135	15	0.25		60
ARROW	8	135	12	0.10		10
PED. SIGNAL	0	90	25	1.00		0
CONTROLLER	1	100	100	1.00		100
ILLUM. SIGN		64		0.05		0
FLASHER	0			0.50		0
					TOTAL=	406

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION
201 W. CENTER COURT
SHAUMBURG, IL 60196

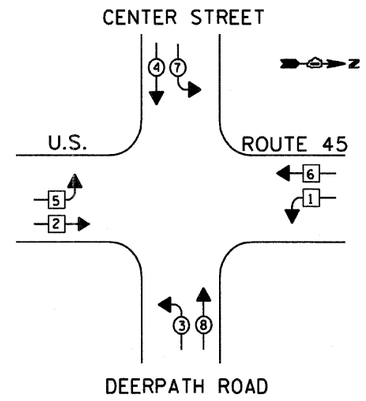
ENERGY SUPPLY CONTACT: MS. LOIS HICKS
PHONE: (847) 816-5489
COMPANY: COMMONWEALTH EDISON COMPANY

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A-POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
C-CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20+L-2=
E-MAST ARM POLE		SIGNAL POST	2 (4.0)		(6m+L-0.6m)=
24" (600 mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750 mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900 mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND POST MOUNTED	13.5 (4.1) 6 (1.8)

TEMPORARY CABLE PLAN LEGEND

- [B] TEMPORARY UPS
- [R] TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12"
- 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
- [V] VIDEO DETECTOR
- RADIO INTERCONNECT ANTENNA

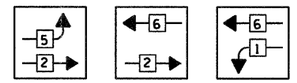
TEMPORARY CONTROLLER SEQUENCE



LEGEND
- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- x NUMBER REFERS TO ASSOCIATED PHASE

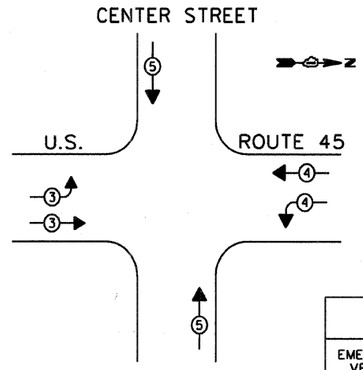
PHASE DESIGNATION DIAGRAM

FOR PHASES 1, 2, 5 & 6 IN THE PHASE DESIGNATION DIAGRAM SHOWN ABOVE, THE FOLLOWING PHASE SEQUENCE WILL BE FOLLOWED:



PHASES 3, 4, 7 & 8 WILL FOLLOW THE STANDARD SEQUENCE IN ACCORDANCE WITH STATE STANDARD 857001.

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



TEMPORARY EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	
MOVEMENT				

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL CABLE PLAN
PHASE DESIGNATION DIAGRAM
U.S. ROUTE 45 & CENTER STREET/DEERPATH ROAD
STAGE III

HORIZ. 10 0 10
SCALE IN FEET

DATE 12/14/09
DRAWN BY MB/AJP
CHECKED BY KMM

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RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	132
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

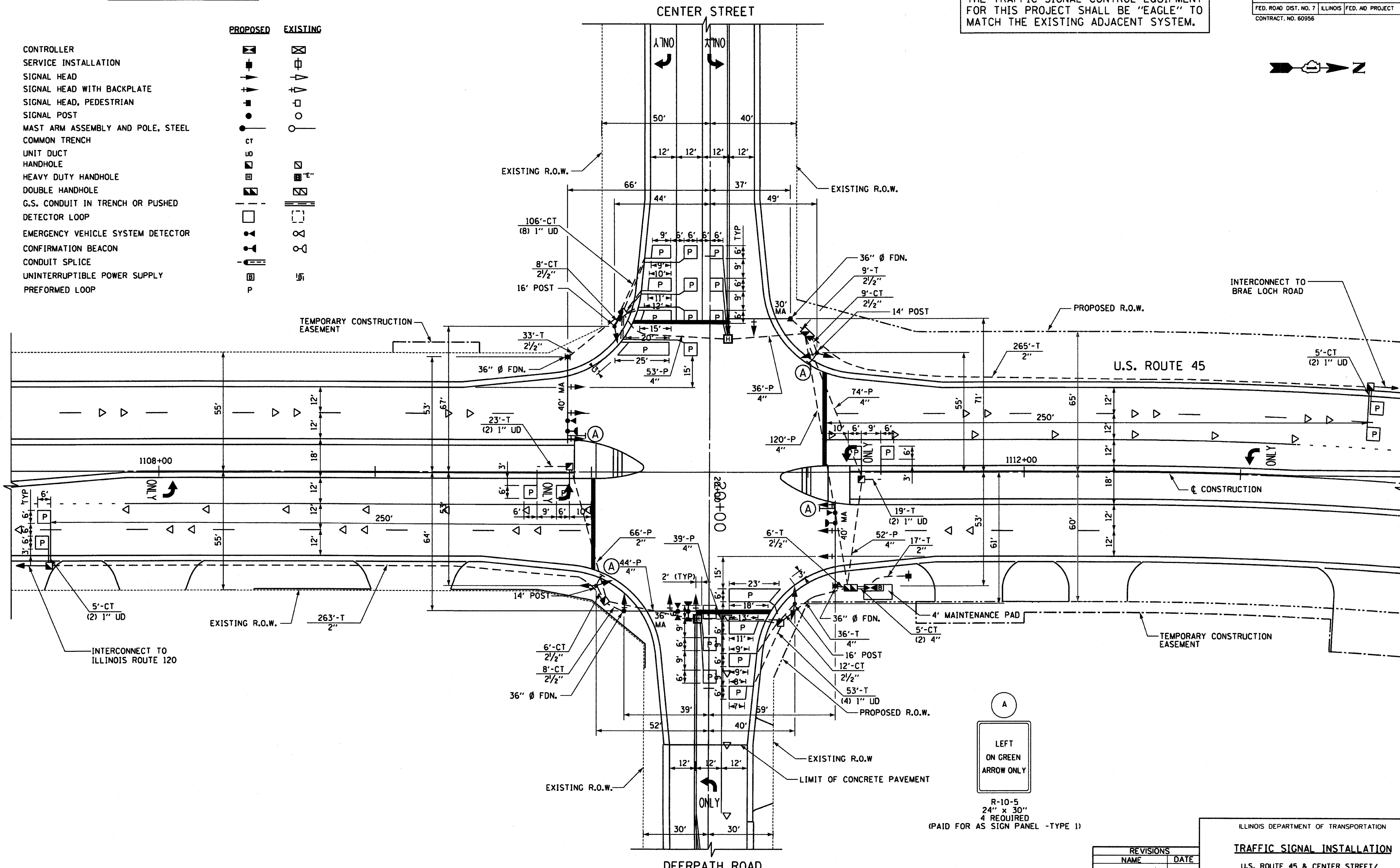
CONTRACT. NO. 60956

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

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
- COMMON TRENCH — CT
- UNIT DUCT — UD
- HANDHOLE
- HEAVY DUTY HANDHOLE — "E"
- DOUBLE HANDHOLE
- G.S. CONDUIT IN TRENCH OR PUSHED
- DETECTOR LOOP
- EMERGENCY VEHICLE SYSTEM DETECTOR
- CONFIRMATION BEACON
- CONDUIT SPLICE
- UNINTERRUPTIBLE POWER SUPPLY
- PREFORMED LOOP — P



R-10-5
24" x 30"
4 REQUIRED
(PAID FOR AS SIGN PANEL -TYPE 1)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION

U.S. ROUTE 45 & CENTER STREET/ DEERPATH ROAD

HORIZ. 20 0 20 — SCALE IN FEET

DATE	12/14/09
DRAWN BY	MB/AJP
CHECKED BY	KMM

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	133
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

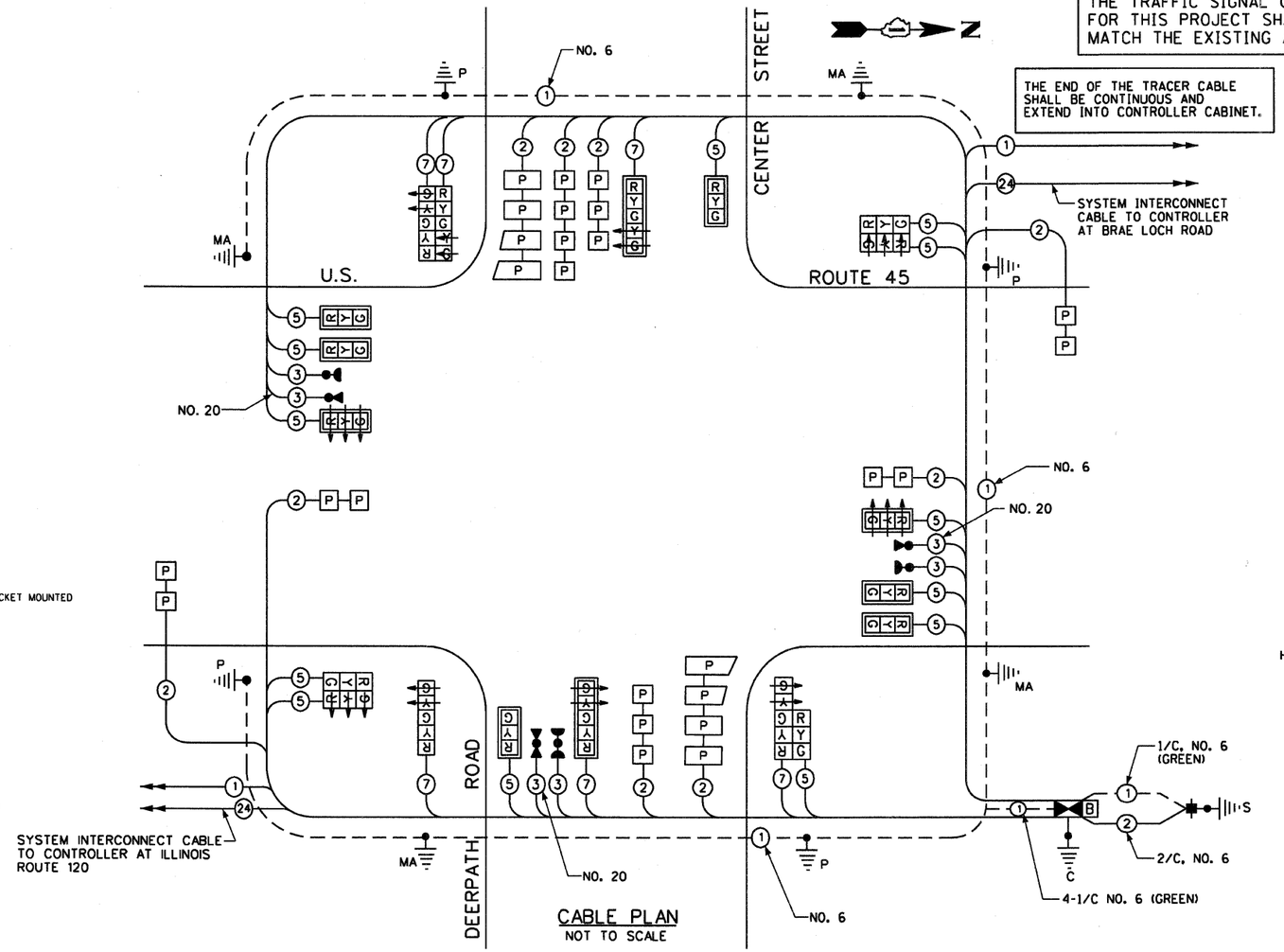
CONTRACT. NO. 60956

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
68	SQ. FT.	SIGN PANEL-TYPE 1
545	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
91	FOOT	CONDUIT IN TRENCH, 2½" DIA., GALVANIZED STEEL
46	FOOT	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL
66	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
418	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
7	EACH	HANDHOLE
2	EACH	HEAVY-DUTY HANDHOLE
2	EACH	DOUBLE HANDHOLE
669	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
2521	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
1298	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
2061	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD IN, NO. 14 1 PAIR
36	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
569	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
2	EACH	TRAFFIC SIGNAL POST, 14 FT.
2	EACH	TRAFFIC SIGNAL POST, 16 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.
2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.
16	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE C
60	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
8	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED
1	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, L.E.D., 2-FACE, 3-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, L.E.D., 2-FACE, 5-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, L.E.D., 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
10	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
9	EACH	INDUCTIVE LOOP DETECTOR
1128	FOOT	PREFORMED DETECTOR LOOP
1	FOOT	TEMPORARY TRAFFIC SIGNAL INSTALLATION
3	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	TRANSCEIVER-FIBER OPTIC
1	EACH	SERVICE INSTALLATION, POLE MOUNT
634	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
8	EACH	REMOVE EXISTING HANDHOLE
9	EACH	REMOVE EXISTING CONCRETE FOUNDATION
669	FOOT	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED
1	EACH	UNINTERRUPTABLE POWER SUPPLY
1	EACH	TEMPORARY TRAFFIC SIGNAL TIMING

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

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

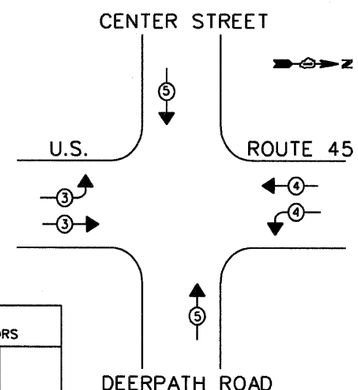


CABLE PLAN
NOT TO SCALE

CABLE PLAN LEGEND

EXISTING	PROPOSED	
G	G	8" TRAFFIC SIGNAL SECTION
R	R	12" TRAFFIC SIGNAL SECTION
W	W	12" PEDESTRIAN SIGNAL SECTION
		12" PEDESTRAIN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
	P	PREFORMED LOOP
		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
R Y G "P"	R Y G "P"	SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD
	(24)	NO. 62.5/125, 12MM, 12SM FIBER OPTIC CABLE
	(1)	NO. 14 1/C TRACER CABLE
H/C	H/C	GROUND ROD AT HANDHOLE, DOUBLE HANDHOLE, OR CONTROLLER
P	P	GROUND ROD AT POST OR MAST ARM POLE
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		GROUND CABLES NO.6 1C GREEN
B	B	UNINTERRUPTIBLE POWER SUPPLY

EMERGENCY VEHICLE PREEMPTION SEQUENCE

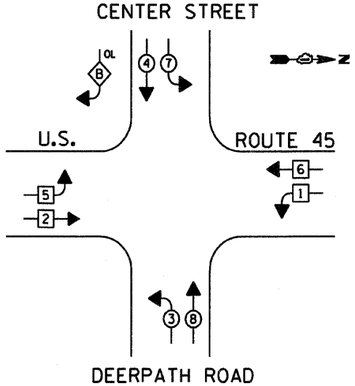


PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	
MOVEMENT				

LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OL OVERLAP

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

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

TYPE	NO. LAMPS	x WATTAGE INCAND.	x WATTAGE LED	x % OPERATION	TOTAL WATTAGE
SIGNAL (RED)	19	135	17	0.50	162
(YELLOW)	19	135	25	0.25	119
(GREEN)	19	135	15	0.25	72
ARROW	12	135	12	0.10	15
PED. SIGNAL	0	90	25	1.00	0
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		64		0.05	0
FLASHER	0			0.50	0
				TOTAL=	460

ENERGY COSTS TO:
ILLINOIS DEPARTMENT OF TRANSPORTATION
201 W. CENTER COURT
SHAUMBURG, IL 60196

ENERGY SUPPLY
CONTACT: MS. LOIS HICKS
PHONE: (847) 816-5489
COMPANY: COMMONWEALTH EDISON COMPANY

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A-POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
C-CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20+L-2=
E-MAST ARM POLE		SIGNAL POST	2 (4.0)		(6m+L-0.6m)=
24" (600 mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750 mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900 mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND POST MOUNTED	13.5 (4.1)
					6 (1.8)

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN
SCHEDULE OF QUANTITIES
PHASE DESIGNATION DIAGRAM
U.S. ROUTE 45 & CENTER STREET/DEERPATH ROAD
HORIZ. 10 0 10
SCALE IN FEET
DATE 12/14/09
DRAWN BY MB/AJP
CHECKED BY KMM

TranSystems

g:\401\2000\0005302\cad\sheet\cablecenter_92.sht - 12/14/09

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	134
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

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

NOTES FOR TEMPORARY TRAFFIC SIGNALS

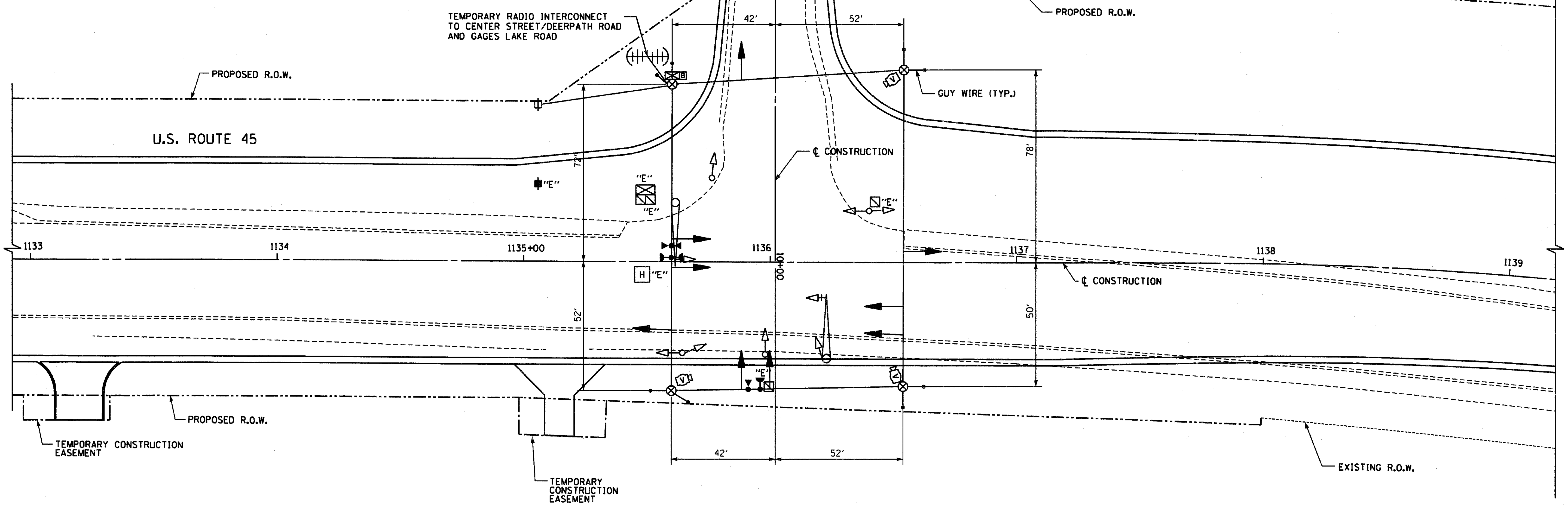
1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". 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.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE 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.

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
- "E" EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- "E" EXISTING HANDHOLE TO BE REMOVED
- "E" EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- "E" EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED

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
- EMERGENCY VEHICLE SYSTEM DETECTOR
- CONFIRMATION BEACON
- CONDUIT IN TRENCH OR PUSHED
- H HEAVY DUTY HANDHOLE
- B TEMPORARY UPS
- V VIDEO DETECTOR
- RADIO INTERCONNECT ANTENNA



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

1 EACH CONTROLLER AND CABINET (COMPLETE)
3 EACH INDUCTION LOOP AMPLIFIERS
2 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
4 EACH SIGNAL POSTS
9 EACH SIGNAL HEADS
2 EACH TRAFFIC SIGNAL BACKPLATES
1 EACH SERVICE INSTALLATION

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL NECESSARY EQUIPMENT AND PHASING CHANGES TO THE INSTALLATION TO COVER THE DIFFERENT SIGNAL HEAD REQUIREMENTS AND SIGNAL PHASING BETWEEN MOT STAGE II AND MOT STAGE III. THE COST OF THIS WORK WILL BE INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION & TRAFFIC SIGNAL EQUIPMENT REMOVAL PLAN

U.S. ROUTE 45 & BRAE LOCH ROAD
STAGES I& II

HORIZ. 20 0 20
SCALE IN FEET

DATE 12/14/09
DRAWN BY MB/AJP
CHECKED BY KMM

TranSystems

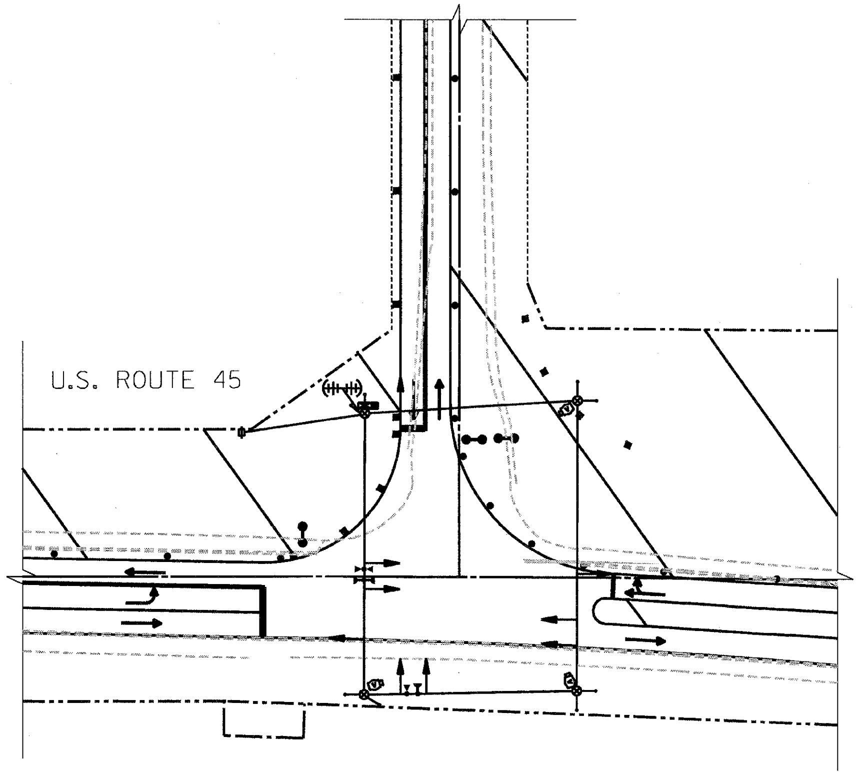
12/14/09 - g:\401\2000\0005302\cad\SHAH\tsigbraeloch_93.sht

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	135
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

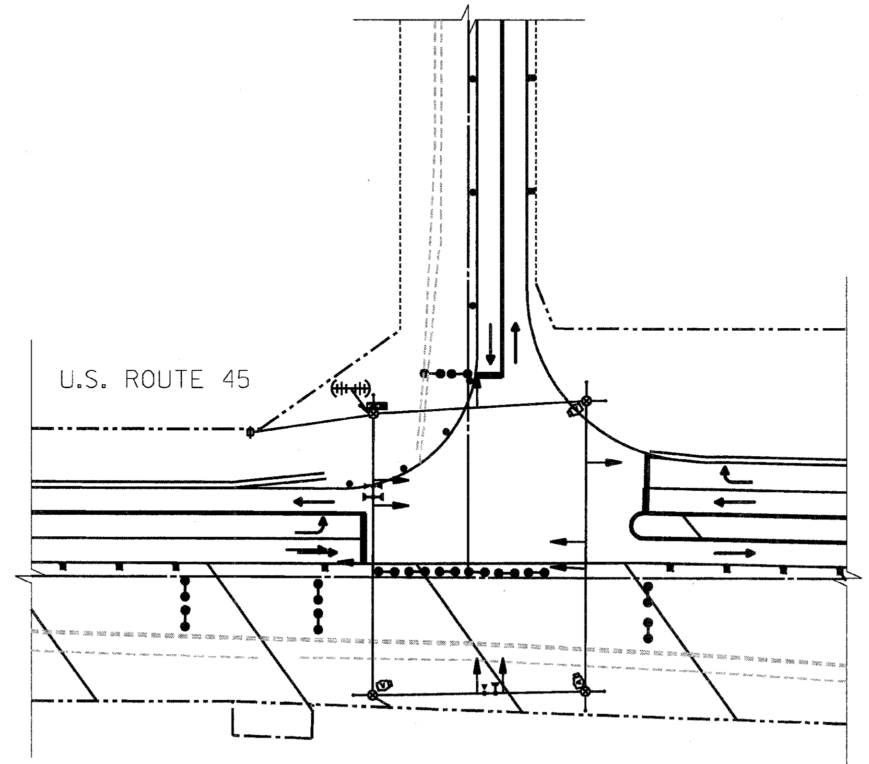
CONTRACT. NO. 60956

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL NECESSARY EQUIPMENT AND PHASING CHANGES TO THE INSTALLATION TO COVER THE DIFFERENT SIGNAL HEAD REQUIREMENTS AND SIGNAL PHASING BETWEEN MOT STAGE II AND MOT STAGE III. THE COST OF THIS WORK WILL BE INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION.

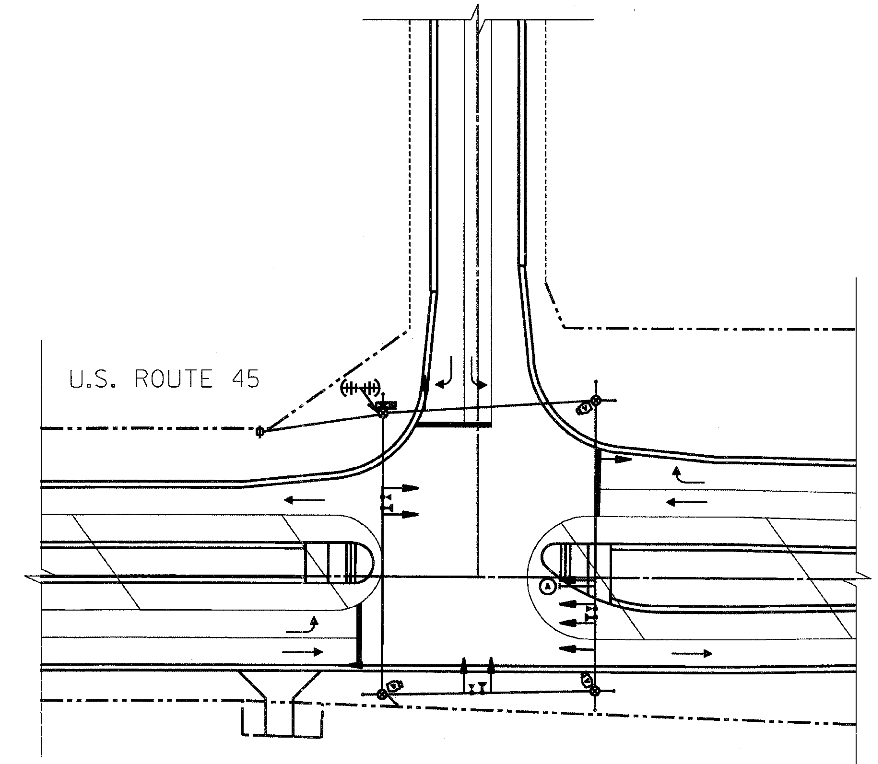
MAINTENANCE OF TRAFFIC STAGE I



MAINTENANCE OF TRAFFIC STAGE II



MAINTENANCE OF TRAFFIC STAGE III



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
- EMERGENCY VEHICLE SYSTEM DETECTOR
- CONFIRMATION BEACON
- CONDUIT IN TRENCH OR PUSHED
- H HEAVY DUTY HANDHOLE
- B TEMPORARY UPS
- V VIDEO DETECTOR
- RADIO INTERCONNECT ANTENNA

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
- "E" EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- "E" EXISTING HANDHOLE TO BE REMOVED
- "E" EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- "E" H EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION
U.S. ROUTE 45 & BRAE LOCH ROAD
STAGES I, II & III

HORIZ. 20 0 20
SCALE IN FEET

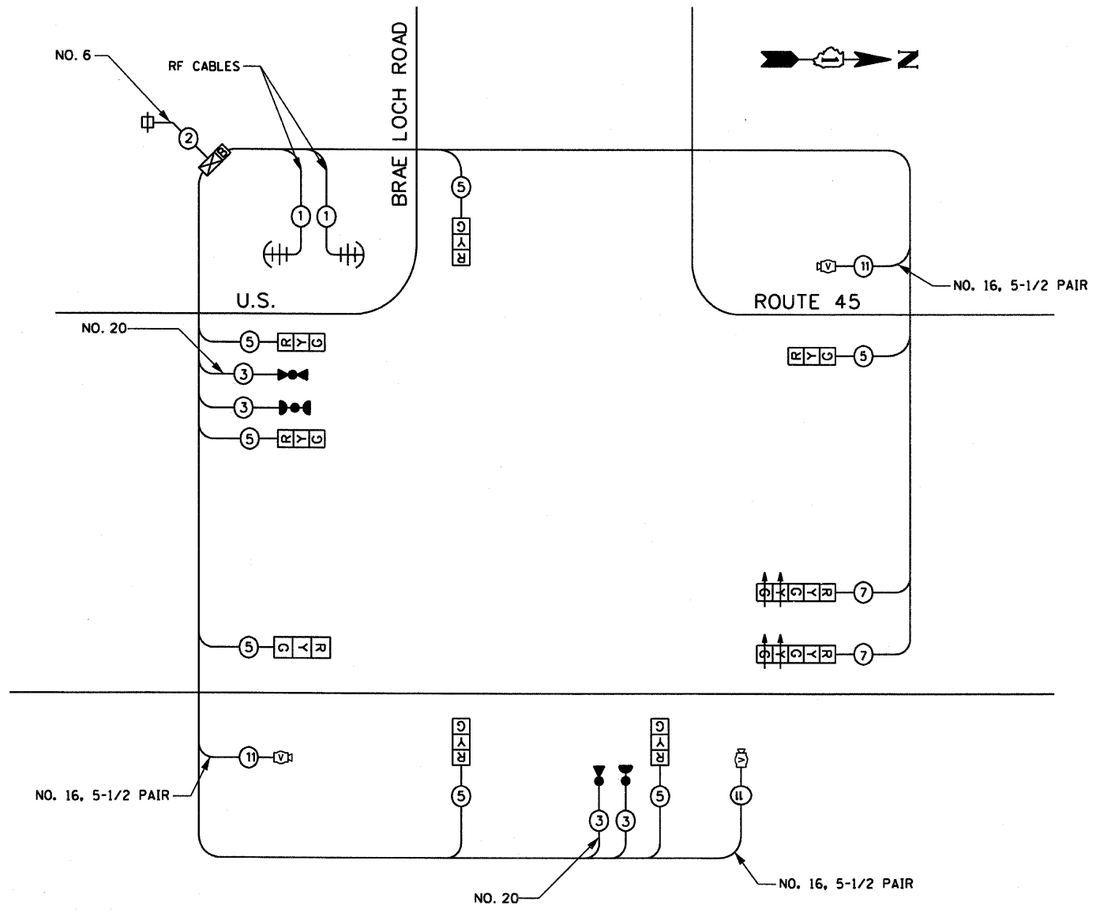
DATE	12/14/09
DRAWN BY	MB/AJP
CHECKED BY	KMM

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL NECESSARY EQUIPMENT AND PHASING CHANGES TO THE INSTALLATION TO COVER THE DIFFERENT SIGNAL HEAD REQUIREMENTS AND SIGNAL PHASING BETWEEN MOT STAGE II AND MOT STAGE III. THE COST OF THIS WORK WILL BE INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION.

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

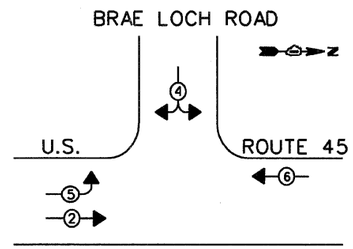
RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	136
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956



TEMPORARY CABLE PLAN
NOT TO SCALE

TEMPORARY CONTROLLER SEQUENCE

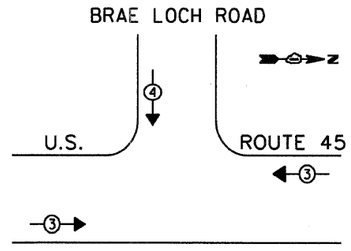


PHASE DESIGNATION DIAGRAM

LEGEND

- VEHICULAR MOVEMENT
- x NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	x WATTAGE INCAND.	x WATTAGE LED	x % OPERATION	
SIGNAL (RED)	9	135	17	0.50	77
(YELLOW)	9	135	25	0.25	56
(GREEN)	9	135	15	0.25	34
ARROW	2	135	12	0.10	3
PED. SIGNAL	0	90	25	1.00	0
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		64		0.05	0
FLASHER	0			0.50	0
				TOTAL=	270

ENERGY COSTS TO:
ILLINOIS DEPARTMENT OF TRANSPORTATION
201 W. CENTER COURT
SHAUMBURG, IL 60196

ENERGY SUPPLY CONTACT: MS. LOIS HICKS
PHONE: (847) 816-5489
COMPANY: COMMONWEALTH EDISON COMPANY

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A-POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
C-CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20+L-2=
E-MAST ARM POLE		SIGNAL POST	2 (4.0)		(6m+L-0.6m)=
24" (600 mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750 mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900 mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

TEMPORARY CABLE DIAGRAM LEGEND

- R — TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12"
- 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
- V — VIDEO DETECTOR
- B — TEMPORARY UPS
- RADIO INTERCONNECT ANTENNA

TEMPORARY EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4		
MOVEMENT	← →	↓		

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL CABLE PLAN

PHASE DESIGNATION DIAGRAM

U.S. ROUTE 45 & BRAE LOCH ROAD

STAGES I & II

HORIZ. 10 0 10

SCALE IN FEET

DATE 12/14/09
DRAWN BY MB/AJP
CHECKED BY KMM

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RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	137
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". 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.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE 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.

BRAE LOCH ROAD

EXISTING R.O.W.

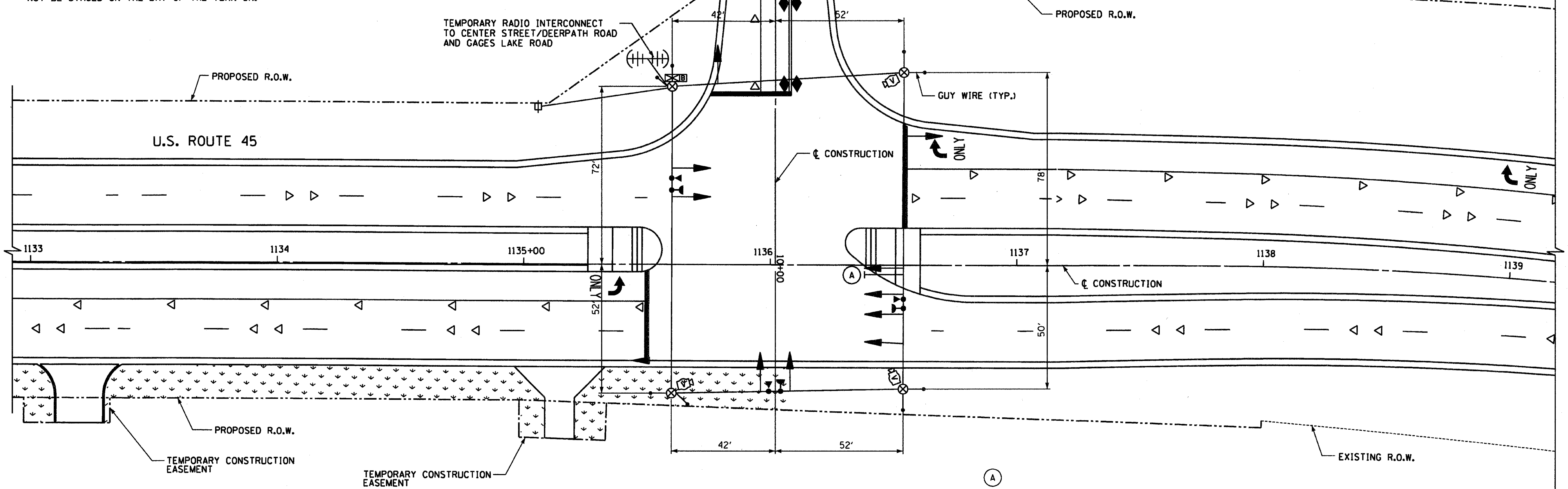
TEMPORARY RADIO INTERCONNECT TO CENTER STREET/DEERPATH ROAD AND GAGES LAKE ROAD

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
- "E" EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- "E" EXISTING HANDHOLE TO BE REMOVED
- "E" EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- "E" EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED

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
- EMERGENCY VEHICLE SYSTEM DETECTOR
- CONFIRMATION BEACON
- CONDUIT IN TRENCH OR PUSHED
- H HEAVY DUTY HANDHOLE
- B TEMPORARY UPS
- V VIDEO DETECTOR
- RADIO INTERCONNECT ANTENNA



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

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL NECESSARY EQUIPMENT AND PHASING CHANGES TO THE INSTALLATION TO COVER THE DIFFERENT SIGNAL HEAD REQUIREMENTS AND SIGNAL PHASING BETWEEN MOT STAGE II AND MOT STAGE III. THE COST OF THIS WORK WILL BE INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION.

(A)

LEFT ON GREEN ARROW ONLY

R10-5
24" x 30"
1 REQUIRED
(INCIDENTAL TO COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION

U.S. ROUTE 45 & BRAE LOCH ROAD
STAGE III AND FINAL

HORIZ. 20 0 20
SCALE IN FEET

DATE 12/14/09
DRAWN BY MB/AJP
CHECKED BY KMM

TranSystems®

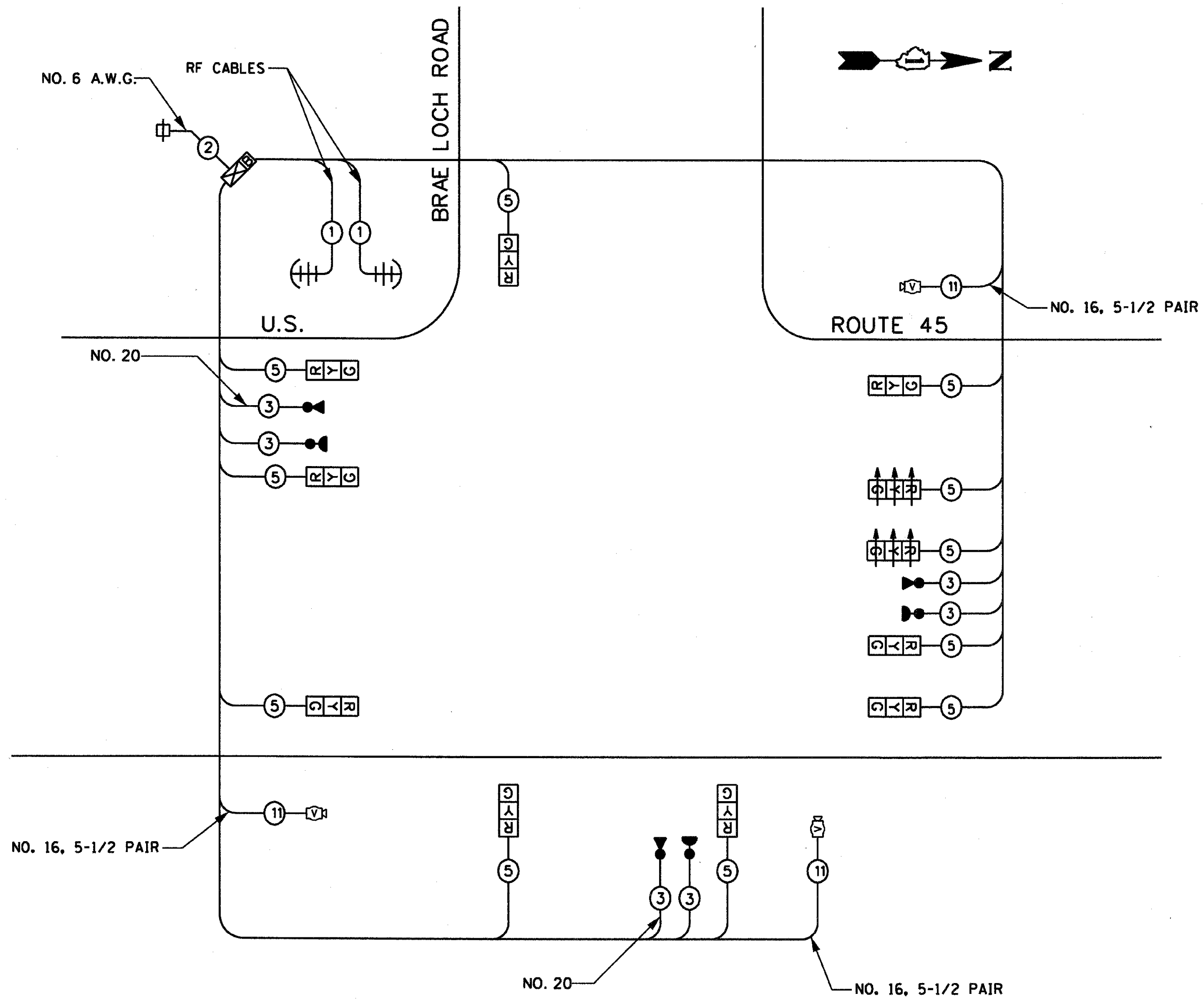
12/14/09 - g:\1401\2000\0005302\cad\SHAH\tsigbraeloch_95.sht

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	138
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

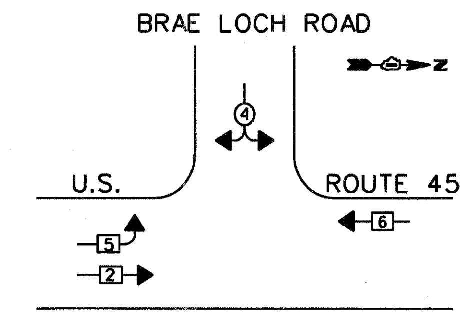
THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL NECESSARY EQUIPMENT AND PHASING CHANGES TO THE INSTALLATION TO COVER THE DIFFERENT SIGNAL HEAD REQUIREMENTS AND SIGNAL PHASING BETWEEN MOT STAGE II AND MOT STAGE III. THE COST OF THIS WORK WILL BE INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION.

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



TEMPORARY CABLE PLAN
NOT TO SCALE

TEMPORARY CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

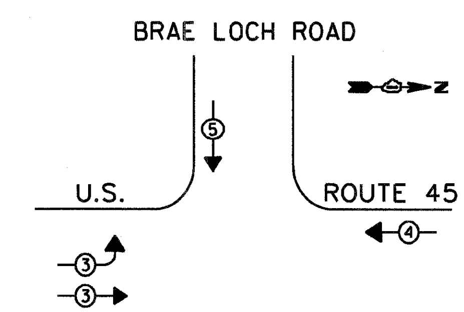
LEGEND

DUAL ENTRY PHASE

SINGLE ENTRY PHASE

x NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

TEMPORARY CABLE DIAGRAM LEGEND

R TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12"

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

VIDEO DETECTOR

B TEMPORARY UPS

RADIO INTERCONNECT ANTENNA

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	x WATTAGE INCAND.	x WATTAGE LED	x % OPERATION	
SIGNAL (RED)	11	135	17	0.50	94
(YELLOW)	11	135	25	0.25	69
(GREEN)	11	135	15	0.25	41
ARROW	0	135	12	0.10	0
PED. SIGNAL	0	90	25	1.00	0
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		64		0.05	0
FLASHER	0			0.50	0
				TOTAL=	304

ENERGY COSTS TO:
ILLINOIS DEPARTMENT OF TRANSPORTATION
201 W. CENTER COURT
SHAUMBURG, IL 60196

ENERGY SUPPLY
CONTACT: MS. LOIS HICKS
PHONE: (847) 816-5489
COMPANY: COMMONWEALTH EDISON COMPANY

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A-POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
C-CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20+L-2=
E-MAST ARM POLE		SIGNAL POST	2 (4.0)		(6m+L-0.6m)=
24" (600 mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750 mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900 mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL CABLE PLAN

PHASE DESIGNATION DIAGRAM

U.S. ROUTE 45 & BRAE LOCH ROAD
STAGE III

HORIZ. 10 0 10
SCALE IN FEET

DATE 12/14/09
DRAWN BY MB/AJP
CHECKED BY KMM

TranSystems®

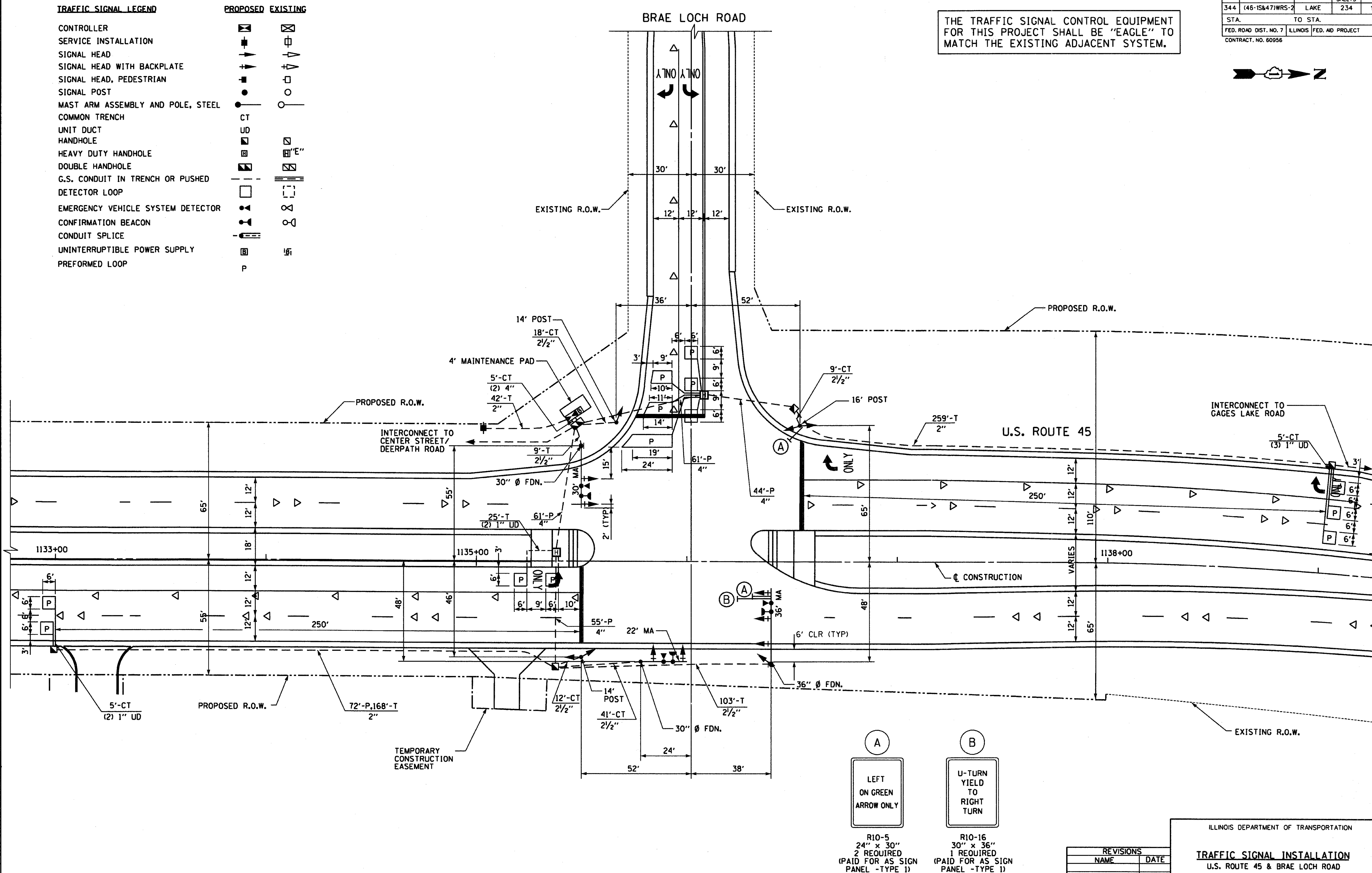
12/14/09 - g:\401\2000\0005302\cad\shah\tempcablebraeloch_96.sht

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	139

STA. TO STA.

FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT

CONTRACT. NO. 60956



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
COMMON TRENCH CT
UNIT DUCT UD
HANDHOLE
HEAVY DUTY HANDHOLE "E"
DOUBLE HANDHOLE
G.S. CONDUIT IN TRENCH OR PUSHED
DETECTOR LOOP
EMERGENCY VEHICLE SYSTEM DETECTOR
CONFIRMATION BEACON
CONDUIT SPLICE
UNINTERRUPTIBLE POWER SUPPLY
PREFORMED LOOP P
BRAE LOCH ROAD
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.
N
ONLY
30'
30'
12'
12'
12'
EXISTING R.O.W.
EXISTING R.O.W.
36'
52'
PROPOSED R.O.W.
14' POST
18'-CT
2½"
4' MAINTENANCE PAD
5'-CT
(2) 4"
42'-T
2"
PROPOSED R.O.W.
INTERCONNECT TO CENTER STREET/ DEERPATH ROAD
9'-T
2½"
30" Ø FDN.
9'-CT
2½"
16' POST
259'-T
2"
U.S. ROUTE 45
INTERCONNECT TO GAGES LAKE ROAD
5'-CT
(3) 1" UD
61'-P
4"
44'-P
4"
14'
19'
24'
250'
110'
65'
25'-T
(2) 1" UD
61'-P
4"
2' (TYP)
30' MA
1133+00
1135+00
1138+00
℄ CONSTRUCTION
VARIES
48'
46'
55'
250'
55'-P
4"
22' MA
36' MA
6' CLR (TYP)
36" Ø FDN.
5'-CT
(2) 1" UD
PROPOSED R.O.W.
72'-P,168'-T
2"
12'-CT
2½"
14' POST
41'-CT
2½"
103'-T
2½"
30" Ø FDN.
TEMPORARY CONSTRUCTION EASEMENT
24'
52'
38'
EXISTING R.O.W.
LEFT ON GREEN ARROW ONLY
R10-5
24" x 30"
2 REQUIRED
(PAID FOR AS SIGN PANEL -TYPE 1)
U-TURN YIELD TO RIGHT TURN
R10-16
30" x 36"
1 REQUIRED
(PAID FOR AS SIGN PANEL -TYPE 1)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION

U.S. ROUTE 45 & BRAE LOCH ROAD

HORIZ. 20 0 20
SCALE IN FEET

DATE 12/14/09
DRAWN BY MB/AJP
CHECKED BY KMM

TranSystems®

12/14/09 - g:\401\2000\0005302\cad\SHAH\sigbraeloch_97.sht

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	140
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

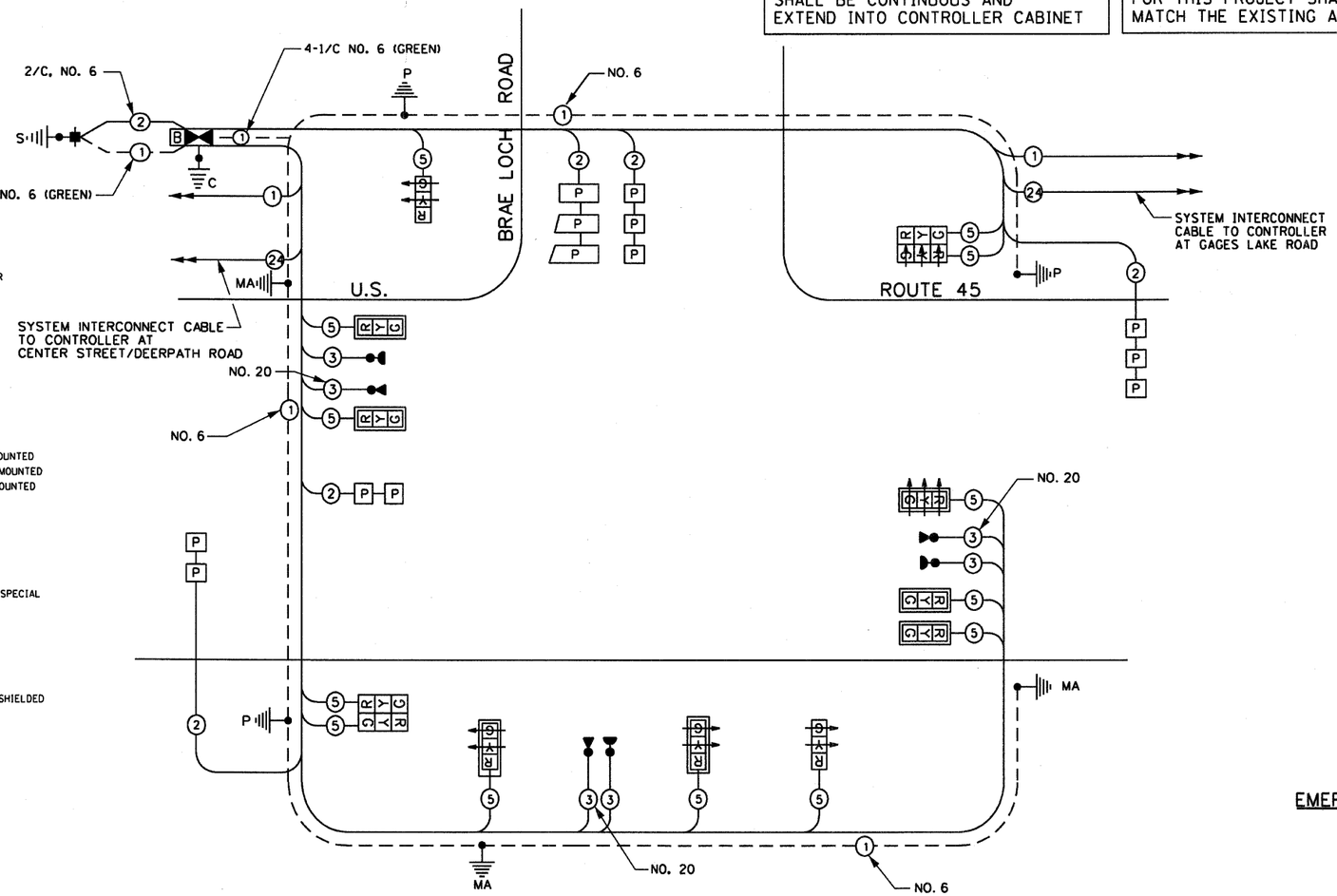
CONTRACT. NO. 60956

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO CONTROLLER CABINET

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

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
44	SQ. FT.	SIGN PANEL-TYPE 1
469	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
192	FOOT	CONDUIT IN TRENCH, 2½" DIA., GALVANIZED STEEL
10	FOOT	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL
72	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
221	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
4	EACH	HANDHOLE
2	EACH	HEAVY-DUTY HANDHOLE
1	EACH	DOUBLE HANDHOLE
631	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
2560	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
1074	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD IN, NO. 14 1 PAIR
61	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
571	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
2	EACH	TRAFFIC SIGNAL POST, 14 FT.
1	EACH	TRAFFIC SIGNAL POST, 16 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.
12	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE C
30	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
15	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
2	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED
7	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, L.E.D., 2-FACE, 3-SECTION, BRACKET MOUNTED
7	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
5	EACH	INDUCTIVE LOOP DETECTOR
561	FOOT	PREFORMED DETECTOR LOOP
1	FOOT	TEMPORARY TRAFFIC SIGNAL INSTALLATION
3	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	TRANSCEIVER-FIBER OPTIC
1	EACH	SERVICE INSTALLATION, POLE MOUNT
586	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6	EACH	REMOVE EXISTING HANDHOLE
7	EACH	REMOVE EXISTING CONCRETE FOUNDATION
631	FOOT	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED
1	EACH	UNINTERRUPTABLE POWER SUPPLY
1	FOOT	TEMPORARY TRAFFIC SIGNAL TIMING

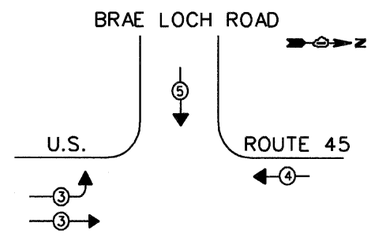


CABLE PLAN
NOT TO SCALE

CABLE PLAN LEGEND

EXISTING	PROPOSED	
C	C	8" TRAFFIC SIGNAL SECTION
R	R	12" TRAFFIC SIGNAL SECTION
W	W	12" PEDESTRIAN SIGNAL SECTION
		12" PEDESTRAIN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
	P	PREFORMED LOOP
		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
R Y G ←	R Y G ←	SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD
"P"	"P"	
	(24)	NO. 62.5/125, 12MM, 12SM FIBER OPTIC CABLE
	(1)	NO. 14 1/C TRACER CABLE
H/C	H/C	GROUND ROD AT HANDHOLE DOUBLE HOLE, OR CONTROLLER
P	P	GROUND ROD AT POST OR MAST ARM POLE
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		GROUND CABLES NO.6 1C GREEN
B	B	UNINTERRUPTIBLE POWER SUPPLY

EMERGENCY VEHICLE PREEMPTION SEQUENCE

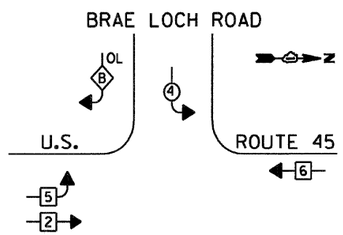


PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	
MOVEMENT				

LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- x NUMBER REFERS TO ASSOCIATED PHASE

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	x WATTAGE INCAND.	x WATTAGE LED	x % OPERATION	TOTAL WATTAGE
SIGNAL (RED)	13	135	17	0.50	111
(YELLOW)	13	135	25	0.25	82
(GREEN)	13	135	15	0.25	49
PED. SIGNAL	0	90	25	1.00	0
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		64		0.05	0
FLASHER	0			0.50	0
				TOTAL=	342

ENERGY COSTS TO:
ILLINOIS DEPARTMENT OF TRANSPORTATION
201 W. CENTER COURT
SHAUMBURG, IL 60196

ENERGY SUPPLY CONTACT: MS. LOIS HICKS
PHONE: (847) 816-5489
COMPANY: COMMONWEALTH EDISON COMPANY

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A-POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
C-CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20+L-2=
E-MAST ARM POLE		SIGNAL POST	2 (4.0)		(6m+L-0.6m)=
24" (600 mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750 mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900 mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND POST MOUNTED	13.5 (4.1) 6 (1.8)

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN
SCHEDULE OF QUANTITIES
PHASE DESIGNATION DIAGRAM
U.S. ROUTE 45 & BRAE LOCH ROAD

HORIZ. 10 0 10
SCALE IN FEET

DATE 12/14/09
DRAWN BY MB/AJP
CHECKED BY KMM

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12/14/09

Tran Systems

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	141
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

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
- "E" EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- "E" EXISTING HANDHOLE TO BE REMOVED
- "E" EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- "E" EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" EXISTING TEMPORARY WOOD POLE TO BE REMOVED
- "R" EMERGENCY VEHICLE SYSTEM DETECTOR TO BE RELOCATED
- "R" CONFIRMATION BEACON TO BE RELOCATED

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
- EMERGENCY VEHICLE SYSTEM DETECTOR
- CONFIRMATION BEACON
- CONDUIT IN TRENCH OR PUSHED
- HEAVY DUTY HANDHOLE
- V VIDEO DETECTOR
- RADIO INTERCONNECT ANTENNA

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

1 EACH CONTROLLER AND CABINET (COMPLETE)
1 EACH SERVICE INSTALLATION
10 EACH SIGNAL HEAD
4 WOOD POLE

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE RELOCATED ON NEW TRAFFIC SIGNAL INSTALLATION.

1 EACH LIGHT DETECTOR WITH CONFIRMATION BEACON

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

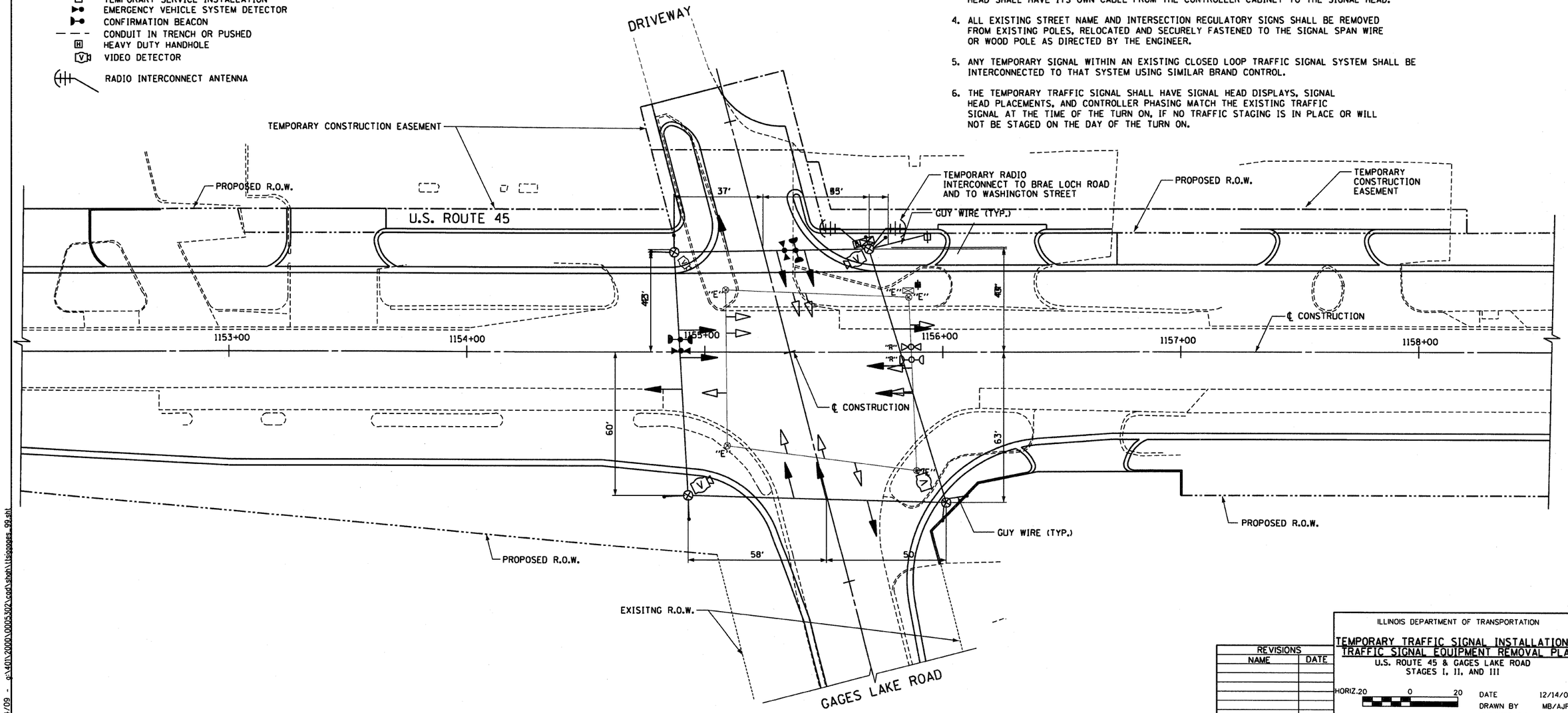
AGENCY: GURNEE FIRE DEPARTMENT

1 EACH LIGHT DETECTOR WITH CONFIRMATION BEACON
1 EACH LIGHT DETECTOR AMPLIFIER

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

NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". 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.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE 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.



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION & TRAFFIC SIGNAL EQUIPMENT REMOVAL PLAN

U.S. ROUTE 45 & GAGES LAKE ROAD
STAGES I, II, AND III

HORIZ.20 0 20
SCALE IN FEET

DATE 12/14/09
DRAWN BY MB/AJP
CHECKED BY KMM

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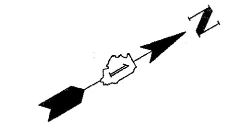
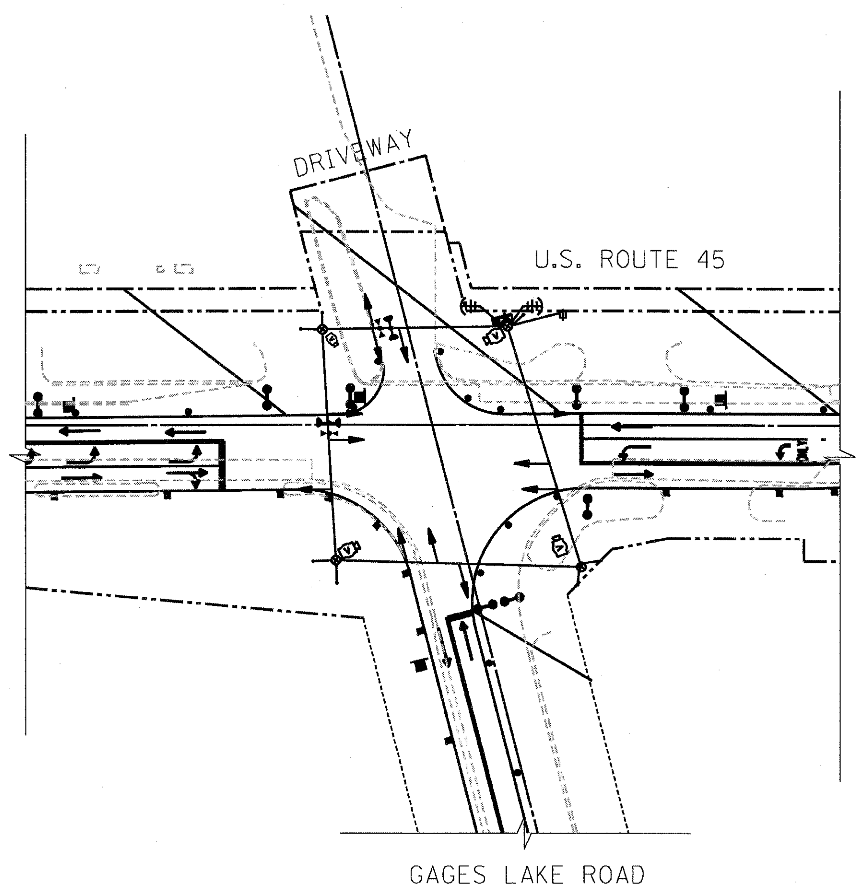
RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	142
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

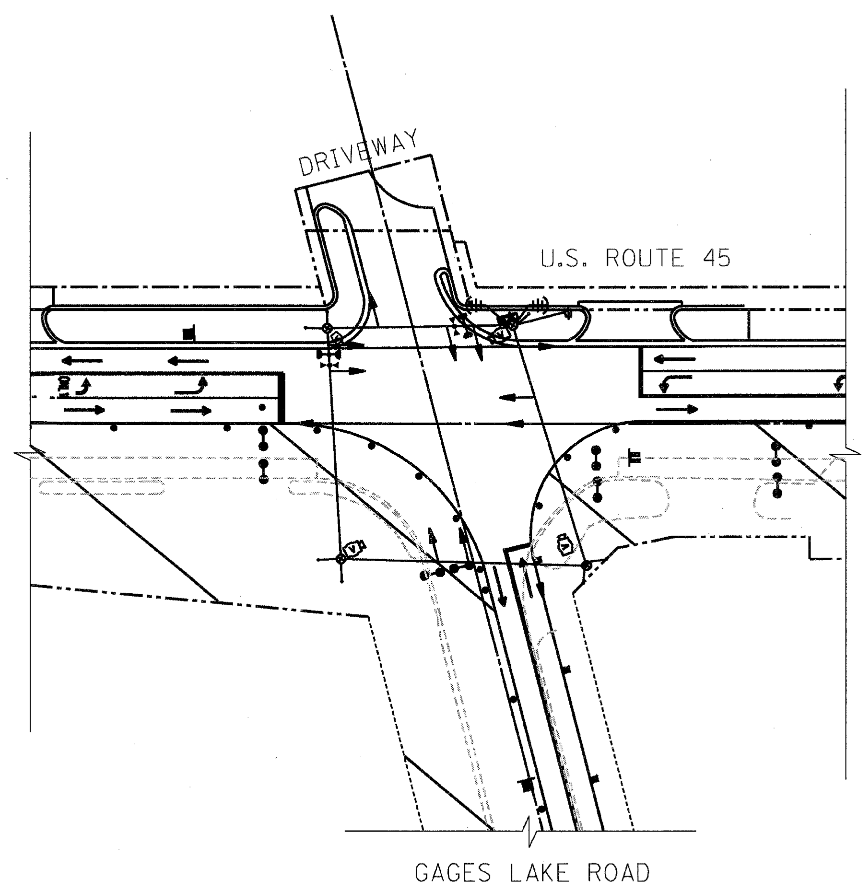
CONTRACT. NO. 60956



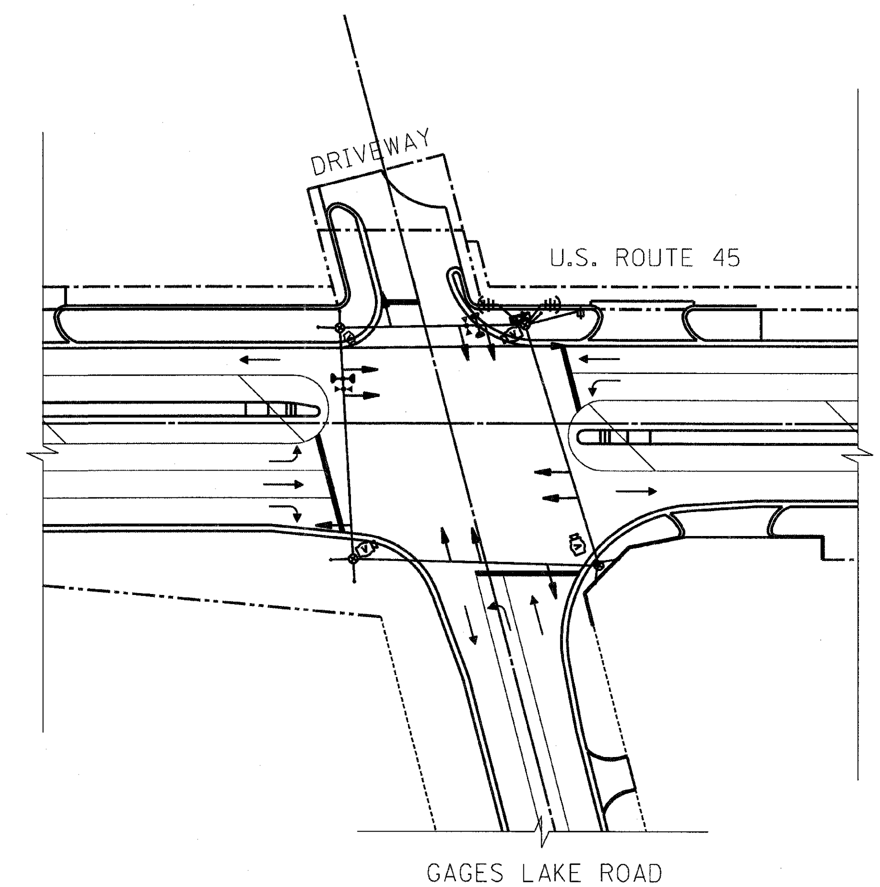
MAINTENANCE OF TRAFFIC STAGE I



MAINTENANCE OF TRAFFIC STAGE II



MAINTENANCE OF TRAFFIC STAGE III



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
- EMERGENCY VEHICLE SYSTEM DETECTOR
- CONFIRMATION BEACON
- CONDUIT IN TRENCH OR PUSHED
- H HEAVY DUTY HANDHOLE
- V VIDEO DETECTOR
- RADIO INTERCONNECT ANTENNA

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
- "E" EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- "E" EXISTING HANDHOLE TO BE REMOVED
- "E" EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- "E" H EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION
U.S. ROUTE 45 & GAGES LAKE ROAD
STAGES I, II & III

HORIZ. 20 0 20
SCALE IN FEET

DATE 12/14/09
DRAWN BY MB/AJP
CHECKED BY KMM

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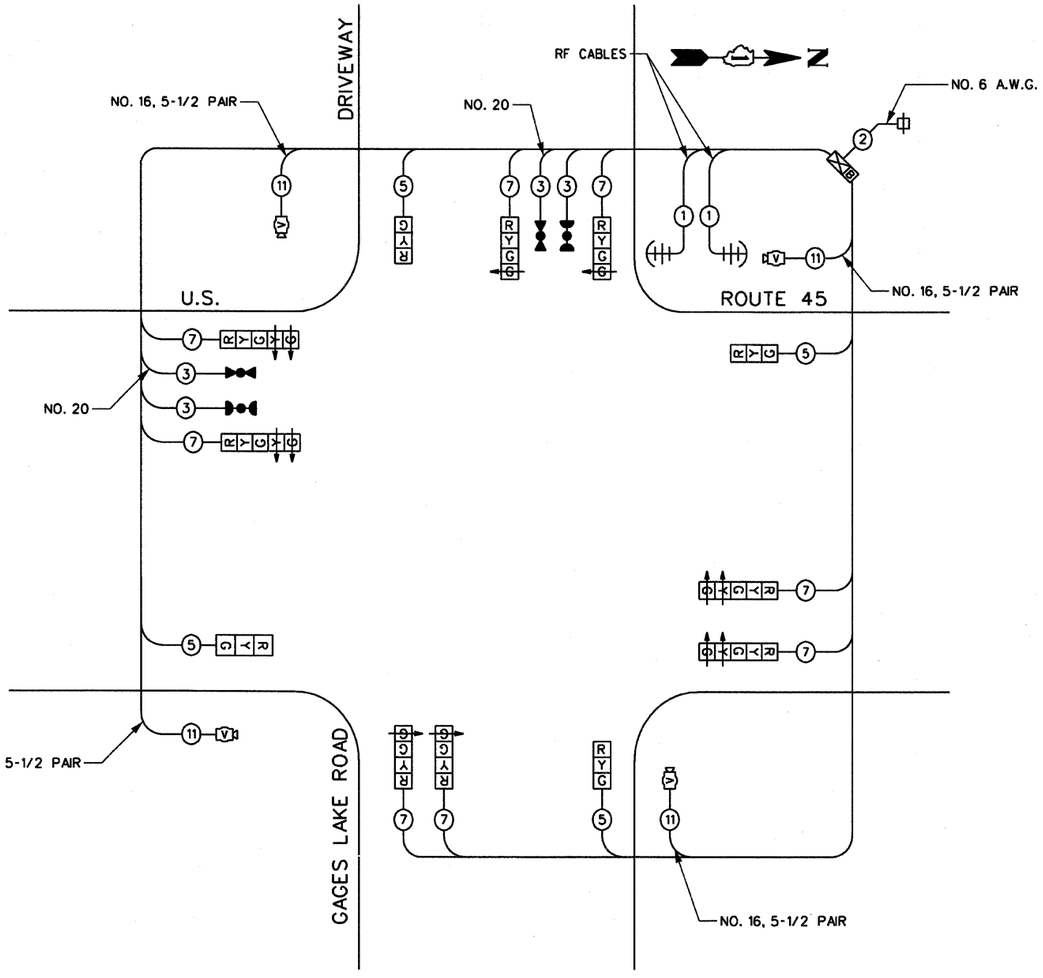
RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	143
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

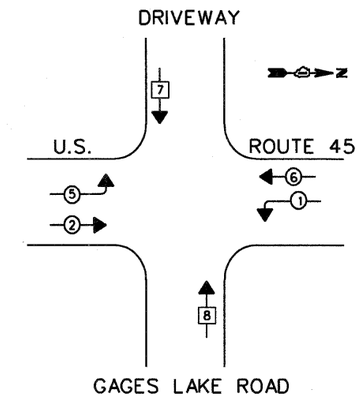
CONTRACT. NO. 60956

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



TEMPORARY CABLE PLAN
NOT TO SCALE

TEMPORARY CONTROLLER SEQUENCE

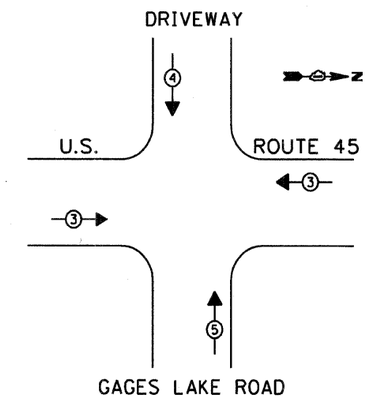


LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- x NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	x WATTAGE INCAND.	x WATTAGE LED	x % OPERATION	
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	16	135	15	0.25	60
ARROW	8	135	12	0.10	10
PED. SIGNAL	0	90	25	1.00	0
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		64		0.05	0
FLASHER	0			0.50	0
				TOTAL=	347

ENERGY COSTS TO:
ILLINOIS DEPARTMENT OF TRANSPORTATION
201 W. CENTER COURT
SHAUMBURG, IL 60196

ENERGY SUPPLY CONTACT: MS. LOIS HICKS
PHONE: (847) 816-5489
COMPANY: COMMONWEALTH EDISON COMPANY

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A-POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
C-CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20+L-2=
E-MAST ARM POLE		SIGNAL POST	2 (4.0)		(6m+L-0.6m)=
24" (600 mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750 mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900 mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

TEMPORARY CABLE DIAGRAM LEGEND

- R TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12"
- 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
- V VIDEO DETECTOR
- B TEMPORARY UPS
- RADIO INTERCONNECT ANTENNA

TEMPORARY EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	
MOVEMENT	⇄	↓	↑	

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL CABLE PLAN
PHASE DESIGNATION DIAGRAM
U.S. ROUTE 45 & GAGES LAKE ROAD
STAGES I, II, AND III

HORIZ. 10 0 10
SCALE IN FEET

DATE 12/14/09
DRAWN BY MB/AJP
CHECKED BY KMM

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12/14/09

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	144
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

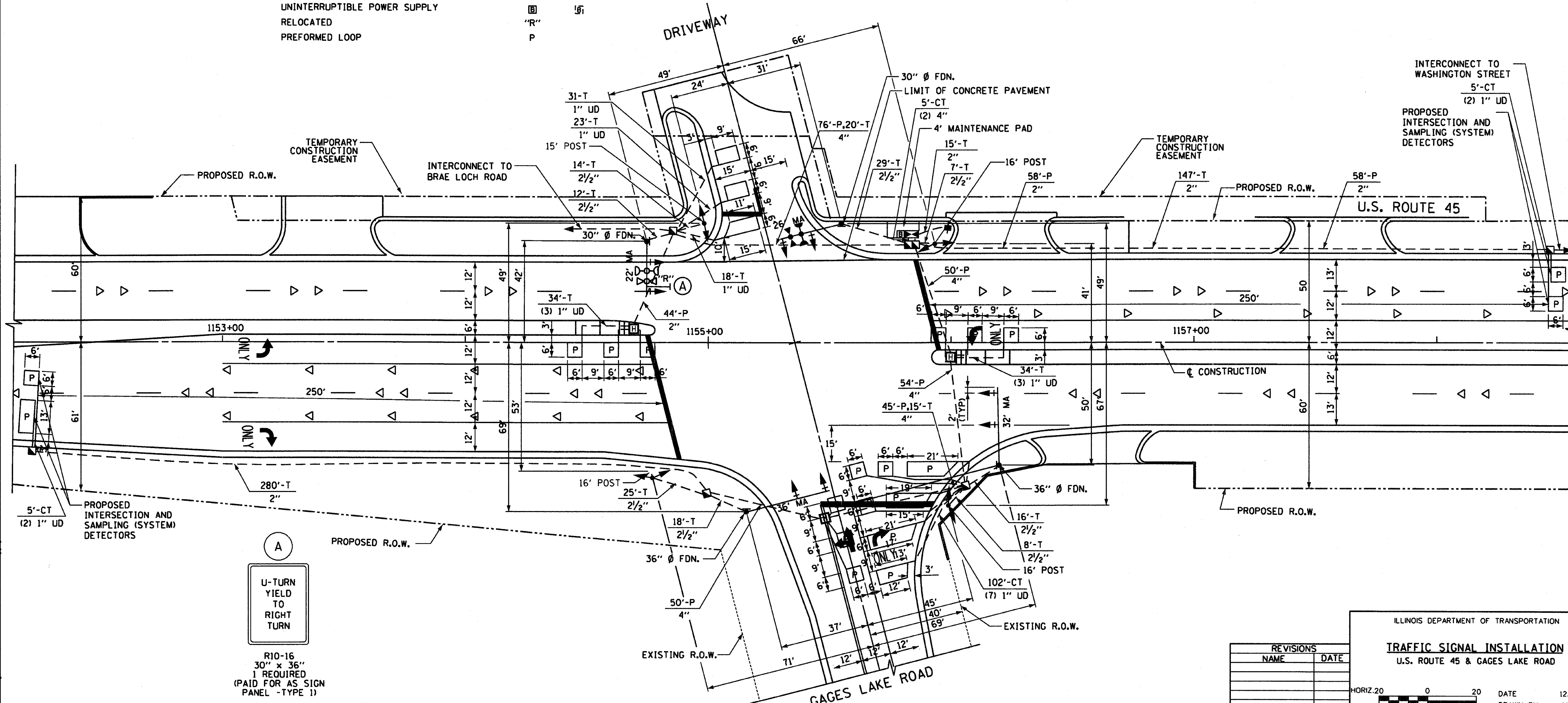
CONTRACT. NO. 60956

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

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
- COMMON TRENCH — CT
- UNIT DUCT — UD
- HANDHOLE
- HEAVY DUTY HANDHOLE — "E"
- DOUBLE HANDHOLE
- G.S. CONDUIT IN TRENCH OR PUSHED
- DETECTOR LOOP
- EMERGENCY VEHICLE SYSTEM DETECTOR
- CONFIRMATION BEACON
- CONDUIT SPLICE
- UNINTERRUPTIBLE POWER SUPPLY
- RELOCATED — "R"
- PREFORMED LOOP — P



(A)

U-TURN YIELD TO RIGHT TURN

R10-16
30" x 36"
1 REQUIRED
(PAID FOR AS SIGN PANEL -TYPE 1)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION
U.S. ROUTE 45 & GAGES LAKE ROAD

HORIZ. 20 0 20
SCALE IN FEET

DATE 12/14/09
DRAWN BY MB/AJP
CHECKED BY KMM

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RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	145
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

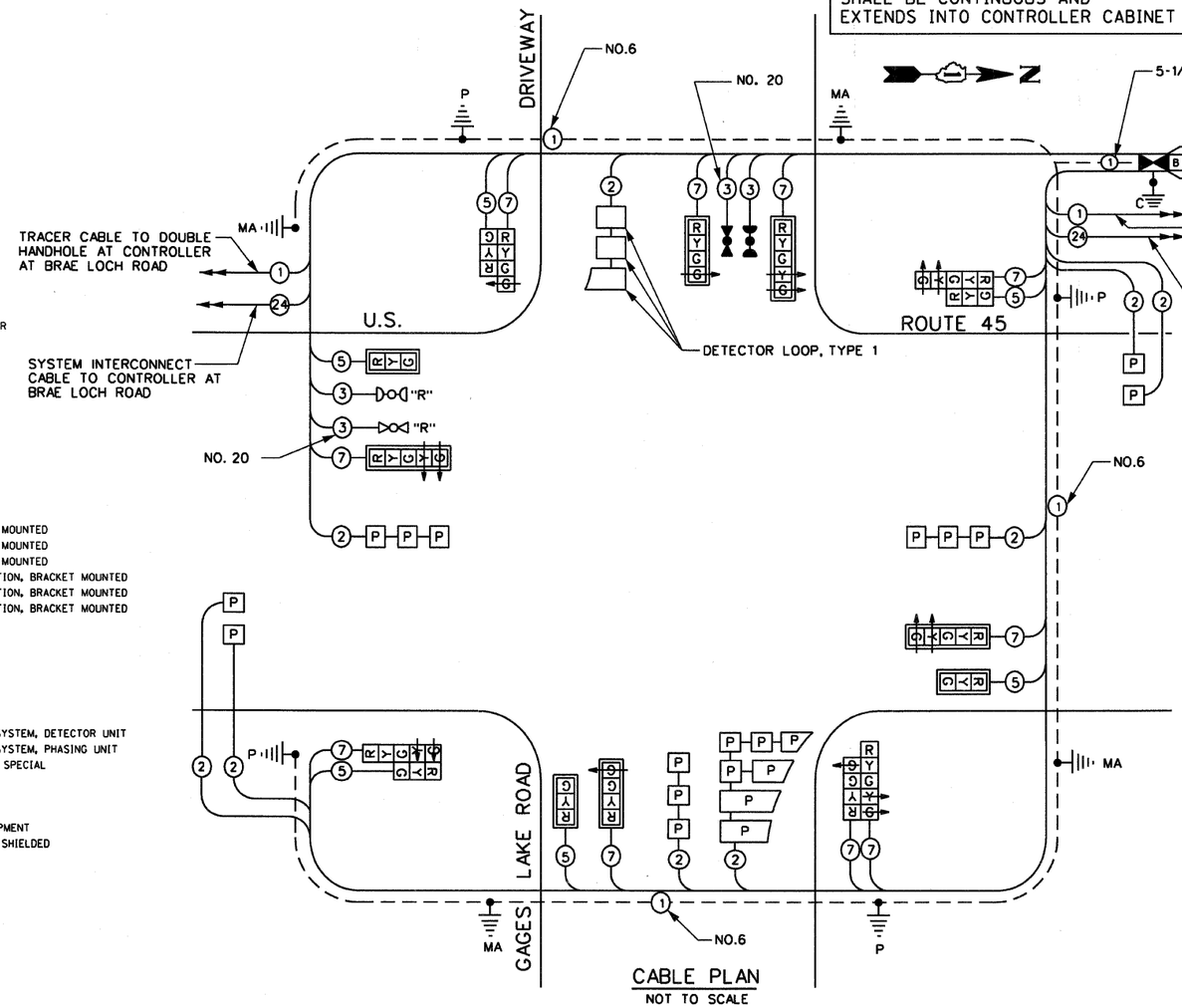
CONTRACT. NO. 60956

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTENDS INTO CONTROLLER CABINET

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

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
41	SQ. FT.	SIGN PANEL-TYPE 1
442	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
129	FOOT	CONDUIT IN TRENCH, 2½" DIA., GALVANIZED STEEL
45	FOOT	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL
160	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
275	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
5	EACH	HANDHOLE
3	EACH	HEAVY-DUTY HANDHOLE
1	EACH	DOUBLE HANDHOLE
280	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1209	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
1767	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
2407	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD IN, NO. 14 1 PAIR
34	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
593	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
1	EACH	TRAFFIC SIGNAL POST, 15 FT.
3	EACH	TRAFFIC SIGNAL POST, 16 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.
16	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE C
30	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
30	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
3	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 4-SECTION, MAST ARM MOUNTED
3	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED
1	EACH	SIGNAL HEAD, L.E.D., 2-FACE, 1-3 SECTION, 1-4 SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, L.E.D., 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, L.E.D., 2-FACE, 1-4 SECTION, 1-5 SECTION, BRACKET MOUNTED
8	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
9	EACH	INDUCTIVE LOOP DETECTOR
179	FOOT	DETECTOR LOOP, TYPE 1
961	FOOT	PREFORMED DETECTOR LOOP
1	FOOT	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER
1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT
1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	TRANSCEIVER-FIBER OPTIC
1	EACH	SERVICE INSTALLATION, POLE MOUNT
611	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	REMOVE EXISTING TEMPORARY TRAFFIC SIGNAL EQUIPMENT
280	FOOT	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED
1	EACH	UNINTERRUPTIBLE POWER SUPPLY
1	EACH	TEMPORARY TRAFFIC SIGNAL TIMING

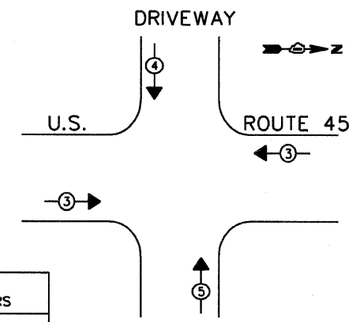


CABLE PLAN
NOT TO SCALE

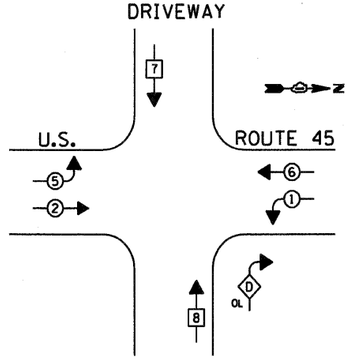
CABLE PLAN LEGEND

EXISTING	PROPOSED	
G	G	8" TRAFFIC SIGNAL SECTION
R	R	12" TRAFFIC SIGNAL SECTION
W	W	12" PEDESTRIAN SIGNAL SECTION
		12" PEDESTRAIN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
	P	PREFORMED LOOP
		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
		SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD
"P"	"P"	
	(24)	NO. 62.5/125, 12MM, 12SM FIBER OPTIC CABLE
	(1)	NO. 14 1/C TRACER CABLE
H/C	H/C	GROUND ROD AT HANDHOLE DOUBLE HOLE, OR CONTROLLER
P	P	GROUND ROD AT POST OR MAST ARM POLE
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		GROUND CABLES NO.6 1C GREEN
[B]	[B]	UNINTERRUPTIBLE POWER SUPPLY
"R"	"R"	RELOCATED

EMERGENCY VEHICLE PREEMPTION SEQUENCE



CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- NUMBER REFERS TO ASSOCIATED PHASE

PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	
MOVEMENT	⇄	↓	↑	

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

TYPE	NO. LAMPS	x WATTAGE INCAND.	x WATTAGE LED	x % OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	135	17	0.50	136
(YELLOW)	16	135	25	0.25	100
(GREEN)	20	135	15	0.25	75
ARROW	12	135	12	0.10	14
PED. SIGNAL	0	90	25	1.00	0
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		64		0.05	0
FLASHER	0			0.50	0
				TOTAL=	411

ENERGY COSTS TO:
ILLINOIS DEPARTMENT OF TRANSPORTATION
201 W. CENTER COURT
SHAUMBURG, IL 60196

ENERGY SUPPLY CONTACT: MS. LOIS HICKS
PHONE: (847) 816-5489
COMPANY: COMMONWEALTH EDISON COMPANY

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A-POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
C-CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20+L-2=
E-MAST ARM POLE		SIGNAL POST	2 (4.0)		(6m+L-0.6m)=
24" (600 mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750 mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900 mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND POST MOUNTED	13.5 (4.1)
					6 (1.8)

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN
SCHEDULE OF QUANTITIES
PHASE DESIGNATION DIAGRAM
U.S. ROUTE 45 & GAGES LAKE ROAD

HORIZ. 10 0 10
SCALE IN FEET

DATE 12/14/09
DRAWN BY MB/AJP
CHECKED BY KMM

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12/14/09

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	146
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

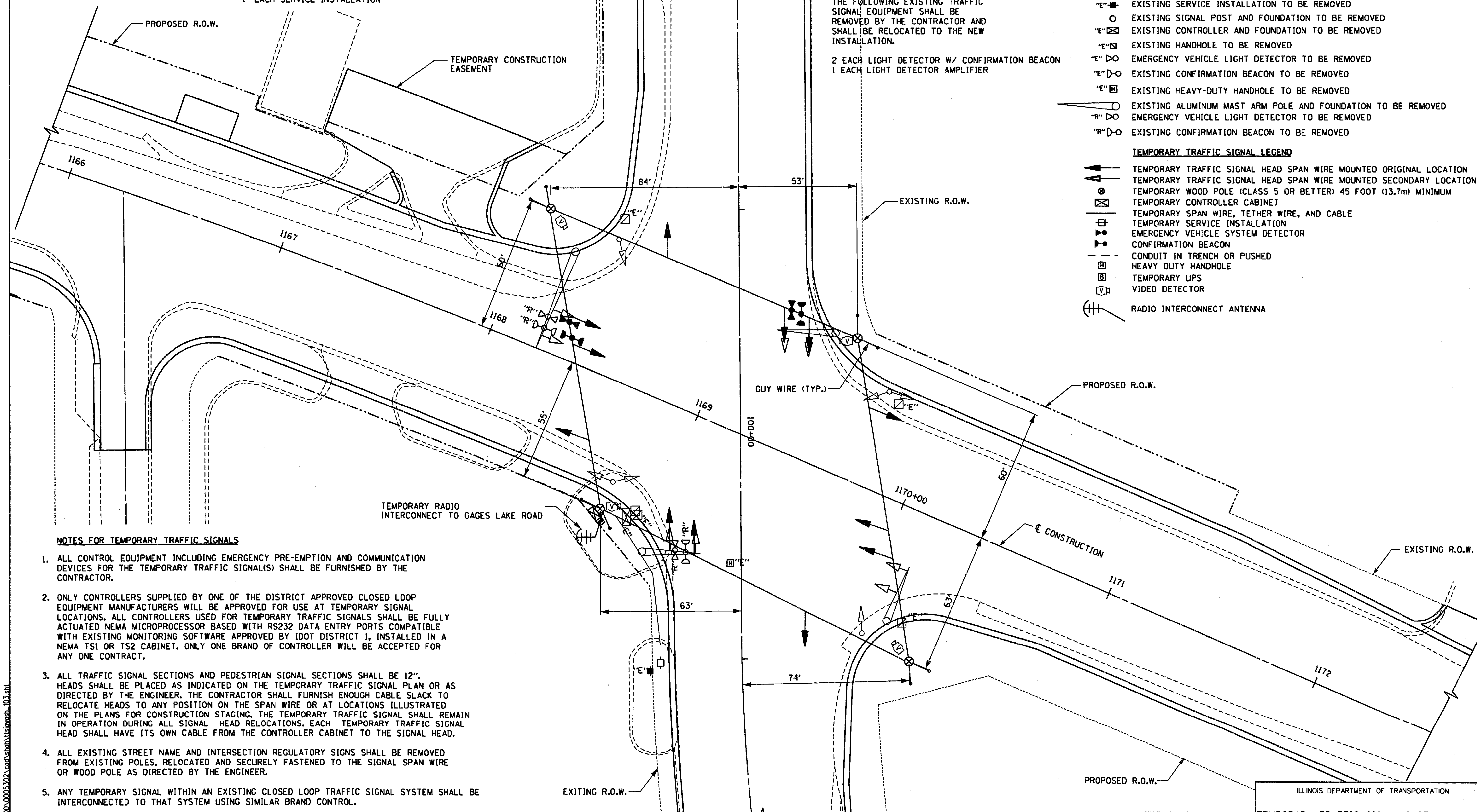
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

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

- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 4 EACH ALUMINIUM MAST ARM ASSEMBLY AND POLE
- 4 EACH SIGNAL POSTS
- 12 EACH SIGNAL HEADS
- 8 EACH TRAFFIC SIGNAL BACKPLATES
- 1 EACH SERVICE INSTALLATION

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE RELOCATED TO THE NEW INSTALLATION.

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



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
- "E" EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- "E" EXISTING HANDHOLE TO BE REMOVED
- "E" EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- "E" EXISTING CONFIRMATION BEACON TO BE REMOVED
- "E" EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "R" EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- "R" EXISTING CONFIRMATION BEACON TO BE REMOVED

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
- EMERGENCY VEHICLE SYSTEM DETECTOR
- CONFIRMATION BEACON
- CONDUIT IN TRENCH OR PUSHED
- H HEAVY DUTY HANDHOLE
- B TEMPORARY UPS
- V VIDEO DETECTOR
- RADIO INTERCONNECT ANTENNA

NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". 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.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE 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.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION & TRAFFIC SIGNAL EQUIPMENT REMOVAL PLAN

U.S. ROUTE 45 & WASHINGTON STREET
STAGES I, II, AND III

HORIZ. 20 0 20 SCALE IN FEET

DATE 12/14/09
DRAWN BY MB/AJP
CHECKED BY KMM

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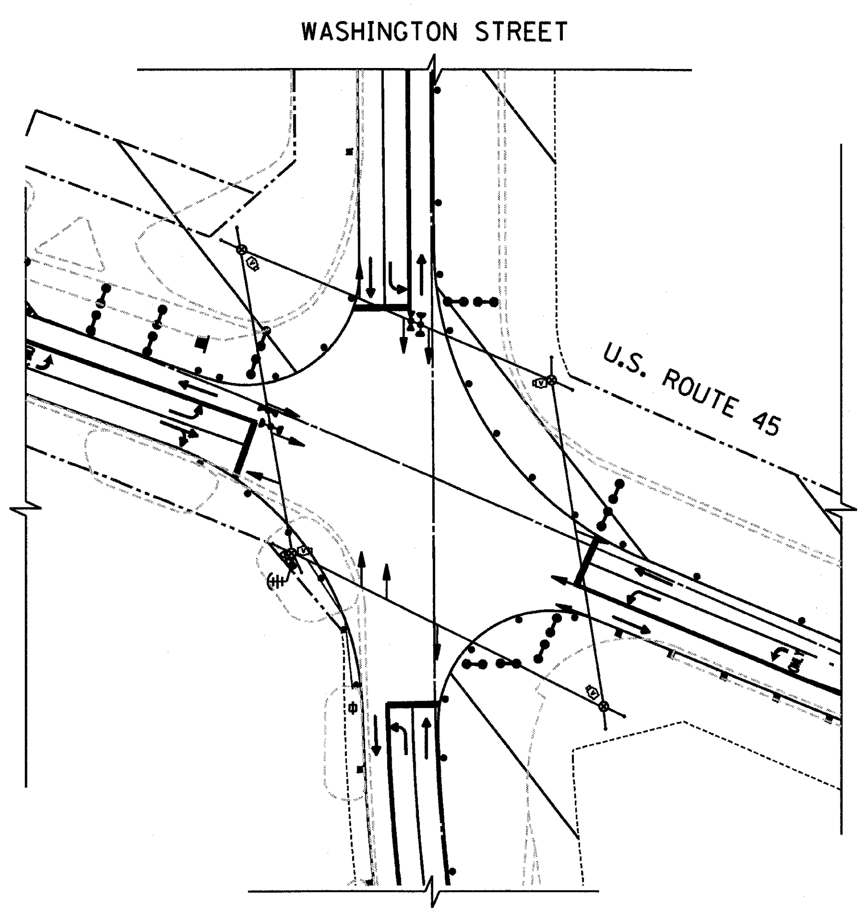
RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	147

STA. TO STA.

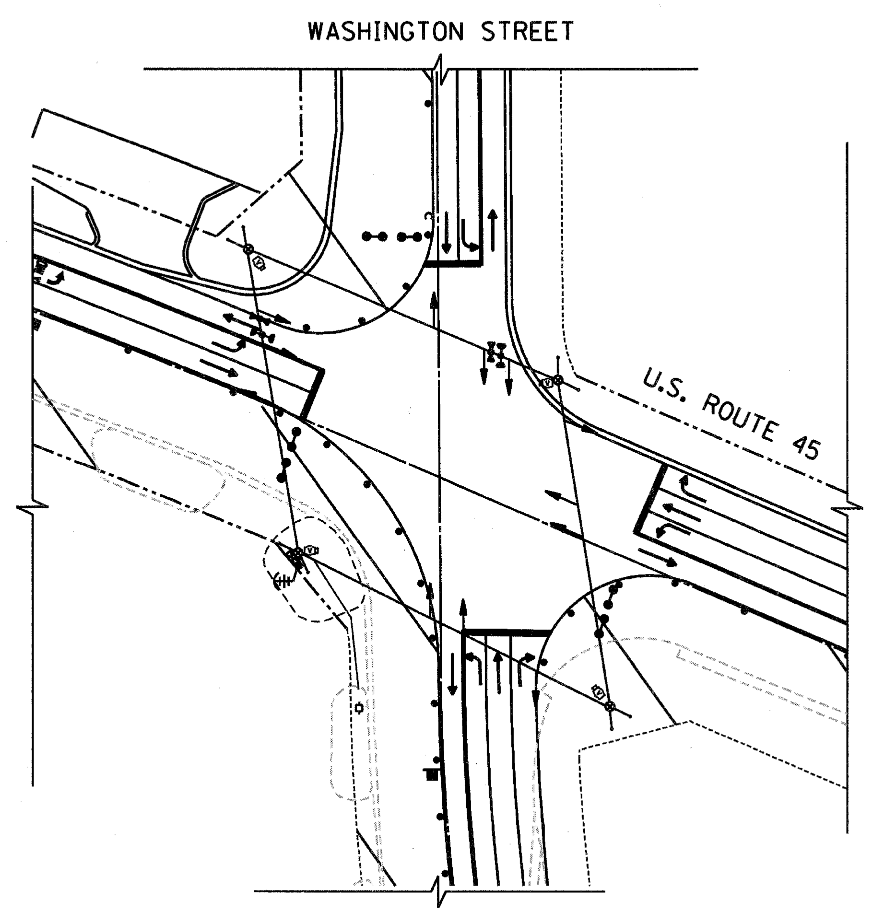
FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT

CONTRACT. NO. 60956

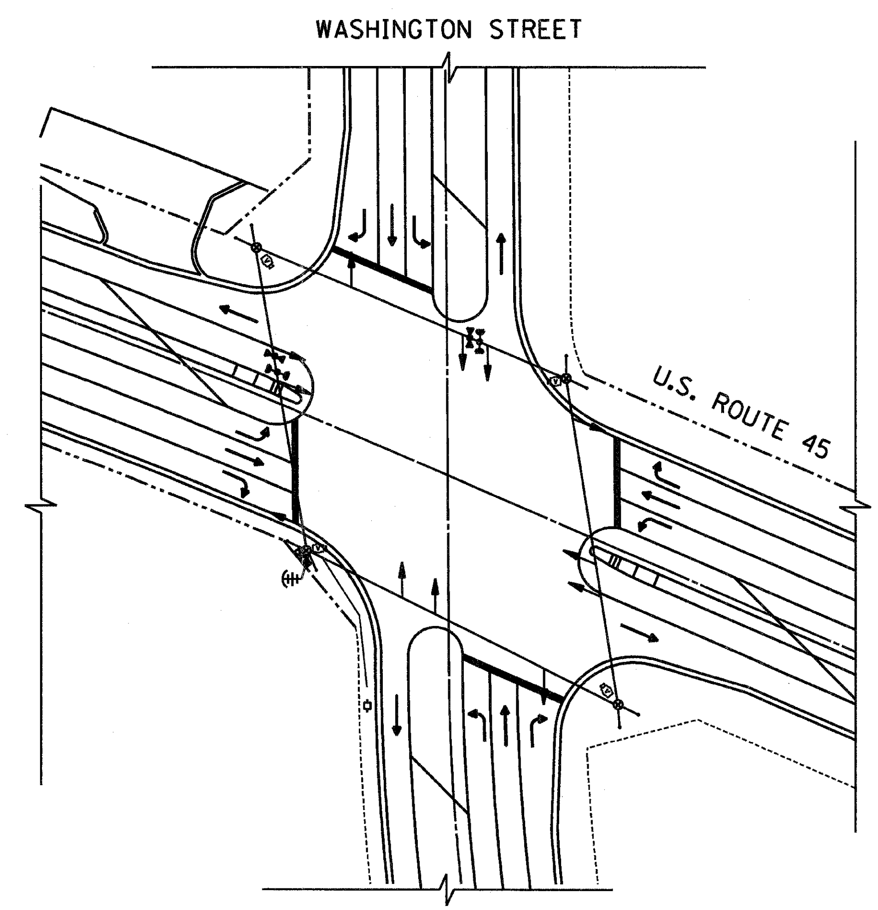
MAINTENANCE OF TRAFFIC STAGE I



MAINTENANCE OF TRAFFIC STAGE II



MAINTENANCE OF TRAFFIC STAGE III



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
- EMERGENCY VEHICLE SYSTEM DETECTOR
- CONFIRMATION BEACON
- CONDUIT IN TRENCH OR PUSHED
- H HEAVY DUTY HANDHOLE
- B TEMPORARY UPS
- V VIDEO DETECTOR
- RADIO INTERCONNECT ANTENNA

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
- "E" EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- "E" EXISTING HANDHOLE TO BE REMOVED
- "E" EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- "E" H EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION

U.S. ROUTE 45 & WASHINGTON STREET

STAGES I, II & III

HORIZ. 20 0 20

SCALE IN FEET

DATE	12/14/09
DRAWN BY	MB/AJP
CHECKED BY	KMM

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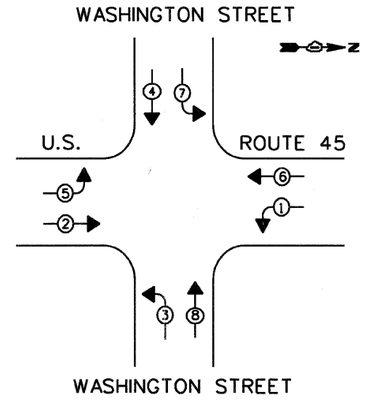
RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	148
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

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

TEMPORARY CONTROLLER SEQUENCE

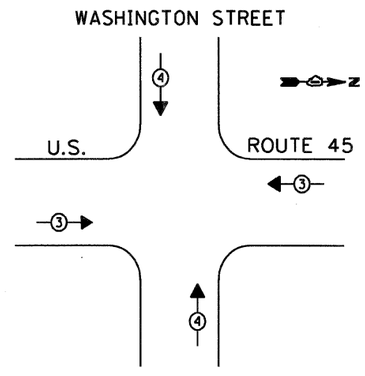


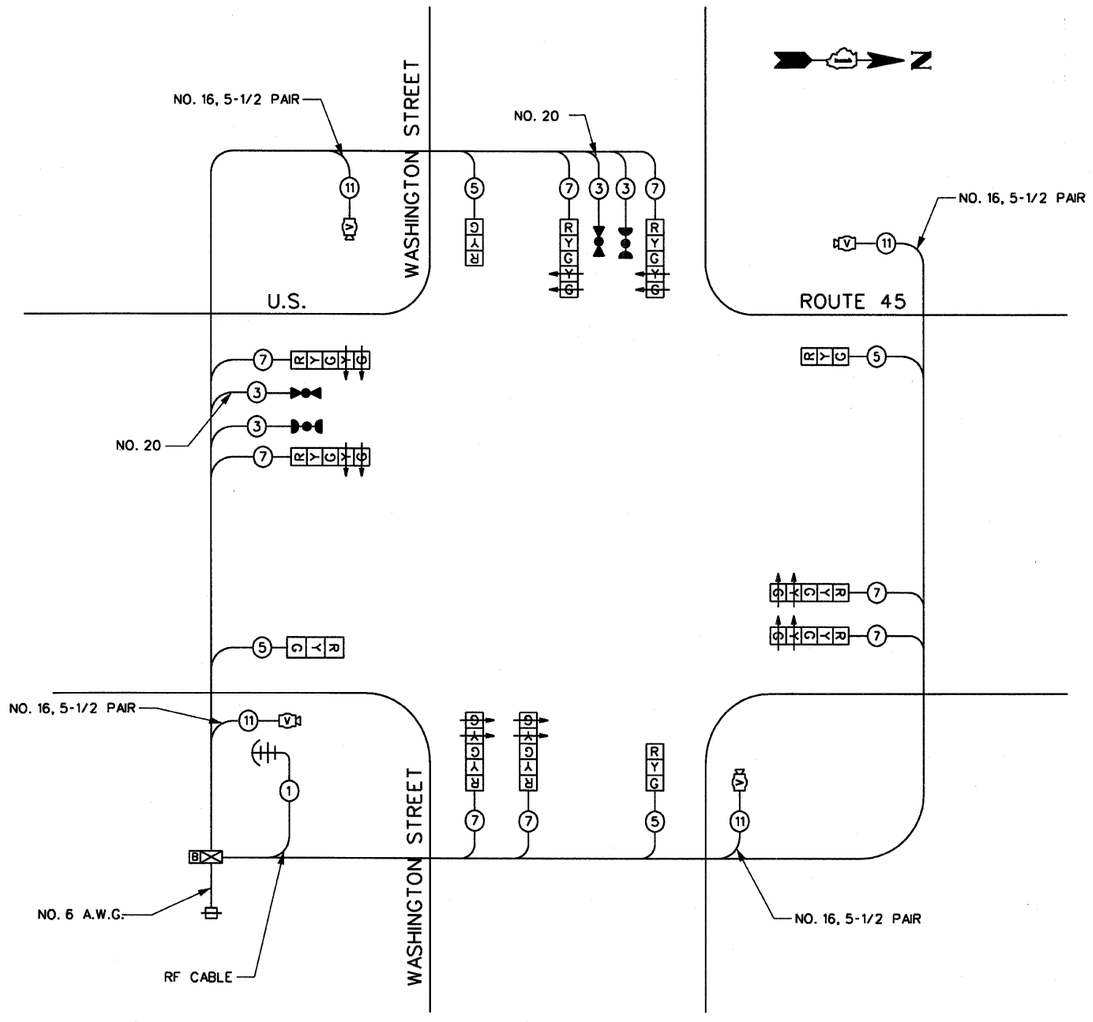
PHASE DESIGNATION DIAGRAM

LEGEND

- VEHICULAR MOVEMENT
- x NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE





TEMPORARY CABLE PLAN

NOT TO SCALE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	x WATTAGE INCAND.	x WATTAGE LED	x % 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	20
PED. SIGNAL	0	90	25	1.00	0
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		64		0.05	0
FLASHER	0			0.50	0
				TOTAL=	342

ENERGY COSTS TO:
ILLINOIS DEPARTMENT OF TRANSPORTATION
201 W. CENTER COURT
SHAUMBURG, IL 60196

ENERGY SUPPLY CONTACT: MS. LOIS HICKS
PHONE: (847) 816-5489
COMPANY: COMMONWEALTH EDISON COMPANY

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A-POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
C-CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20+L-2=
E-MAST ARM POLE		SIGNAL POST	2 (4.0)		(6m+L-0.6m)=
24" (600 mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750 mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900 mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND POST MOUNTED	13.5 (4.1) 6 (1.8)

TEMPORARY CABLE DIAGRAM LEGEND

- R — TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12"
- 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
- V — VIDEO DETECTOR
- B — TEMPORARY UPS
- RADIO INTERCONNECT ANTENNA

TEMPORARY EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4		
MOVEMENT	⇄	⇅		

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL CABLE PLAN
PHASE DESIGNATION DIAGRAM
U.S. ROUTE 45 & WASHINGTON STREET
STAGES I, II, AND III

HORIZ. 10 0 10
SCALE IN FEET

DATE 12/14/09
DRAWN BY MB/AJP
CHECKED BY KMM

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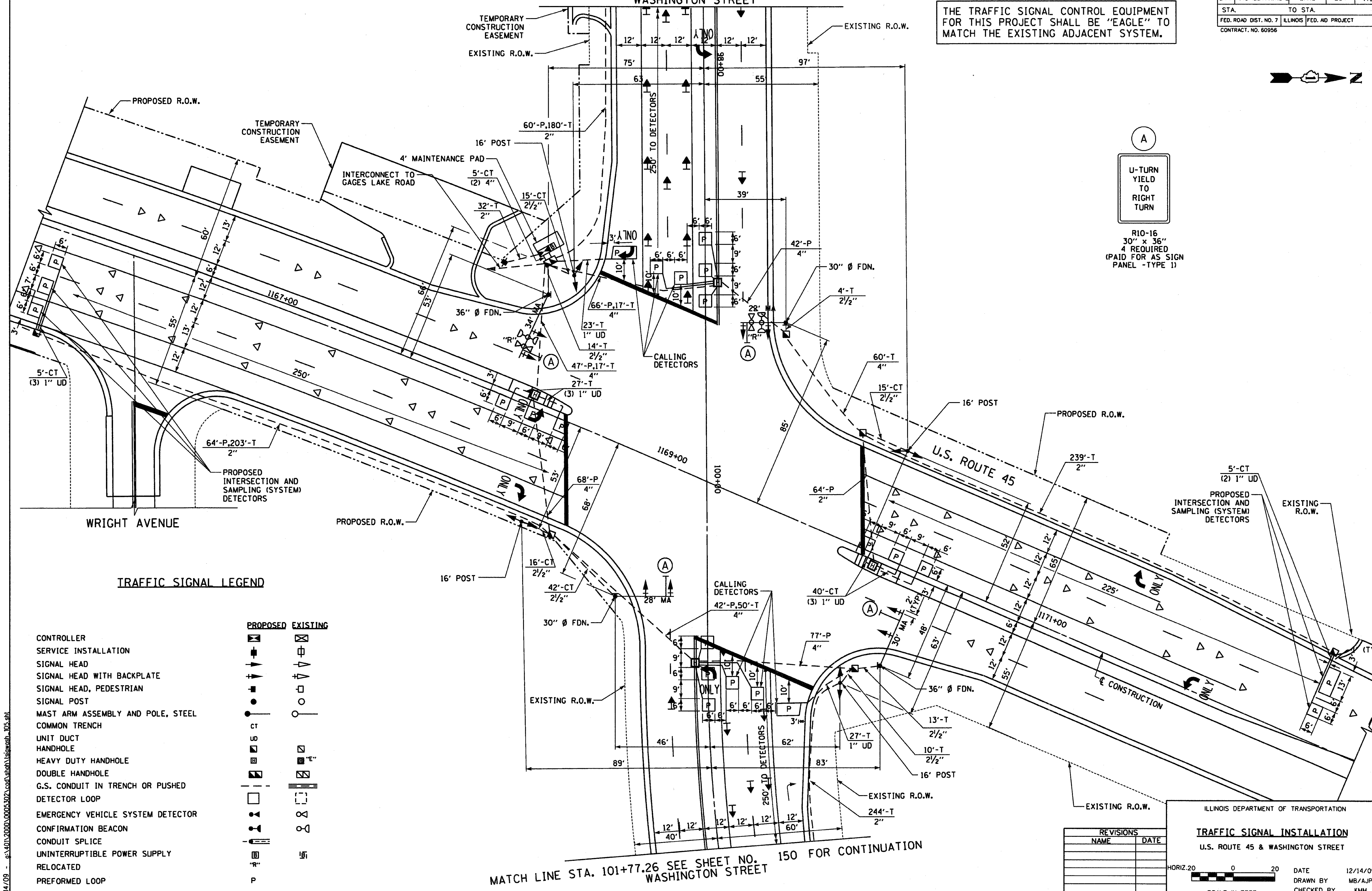
RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	149
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		
CONTRACT. NO. 60956				

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



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		
COMMON TRENCH	CT	
UNIT DUCT	UD	
HANDHOLE		
HEAVY DUTY HANDHOLE		"E"
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
DETECTOR LOOP		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
CONDUIT SPLICE		
UNINTERRUPTIBLE POWER SUPPLY		
RELOCATED	"R"	
PREFORMED LOOP	P	

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION

U.S. ROUTE 45 & WASHINGTON STREET

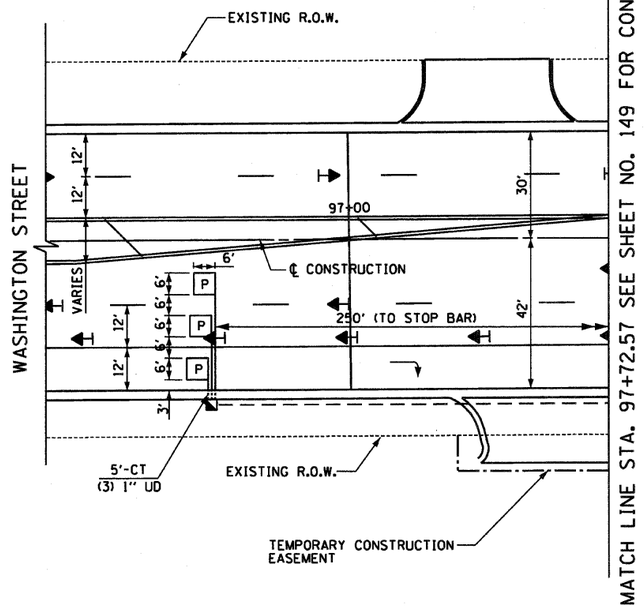
HORIZ. 20 0 20 SCALE IN FEET

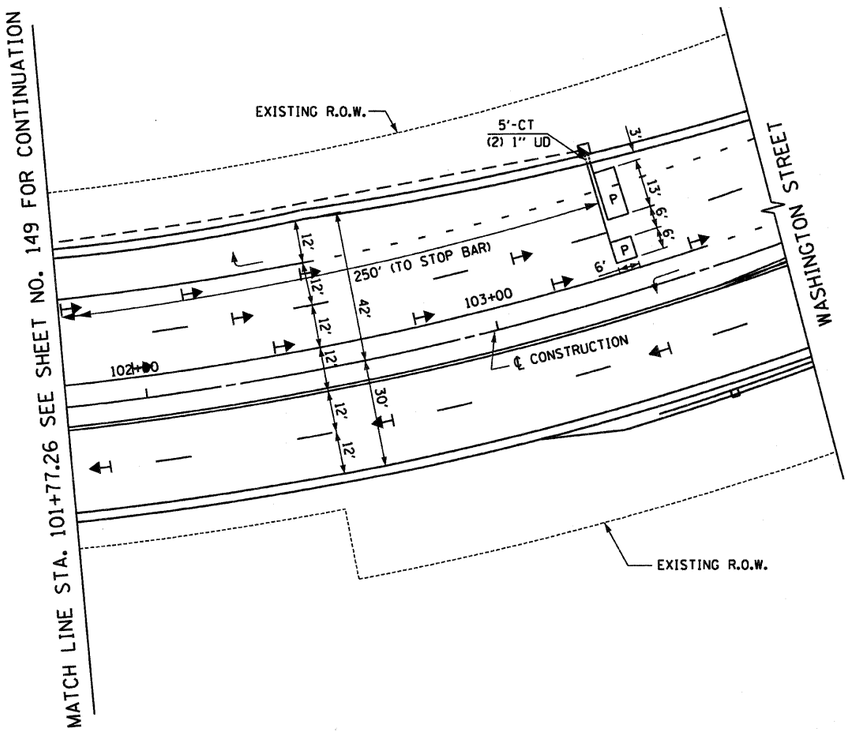
DATE 12/14/09
DRAWN BY MB/AJP
CHECKED BY KMM

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	150
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		
CONTRACT. NO. 60956				

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		
COMMON TRENCH	CT	
UNIT DUCT	UD	
HANDHOLE		
HEAVY DUTY HANDHOLE		"E"
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
DETECTOR LOOP		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
CONDUIT SPLICE		
UNINTERRUPTIBLE POWER SUPPLY	B	
RELOCATED	"R"	
PREFORMED LOOP	P	





REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INSTALLATION

U.S. ROUTE 45 & WASHINGTON STREET

HORIZ.20 0 20

SCALE IN FEET

DATE 12/14/09

DRAWN BY MB/AJP

CHECKED BY KMM

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THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTENDS INTO CONTROLLER CABINET

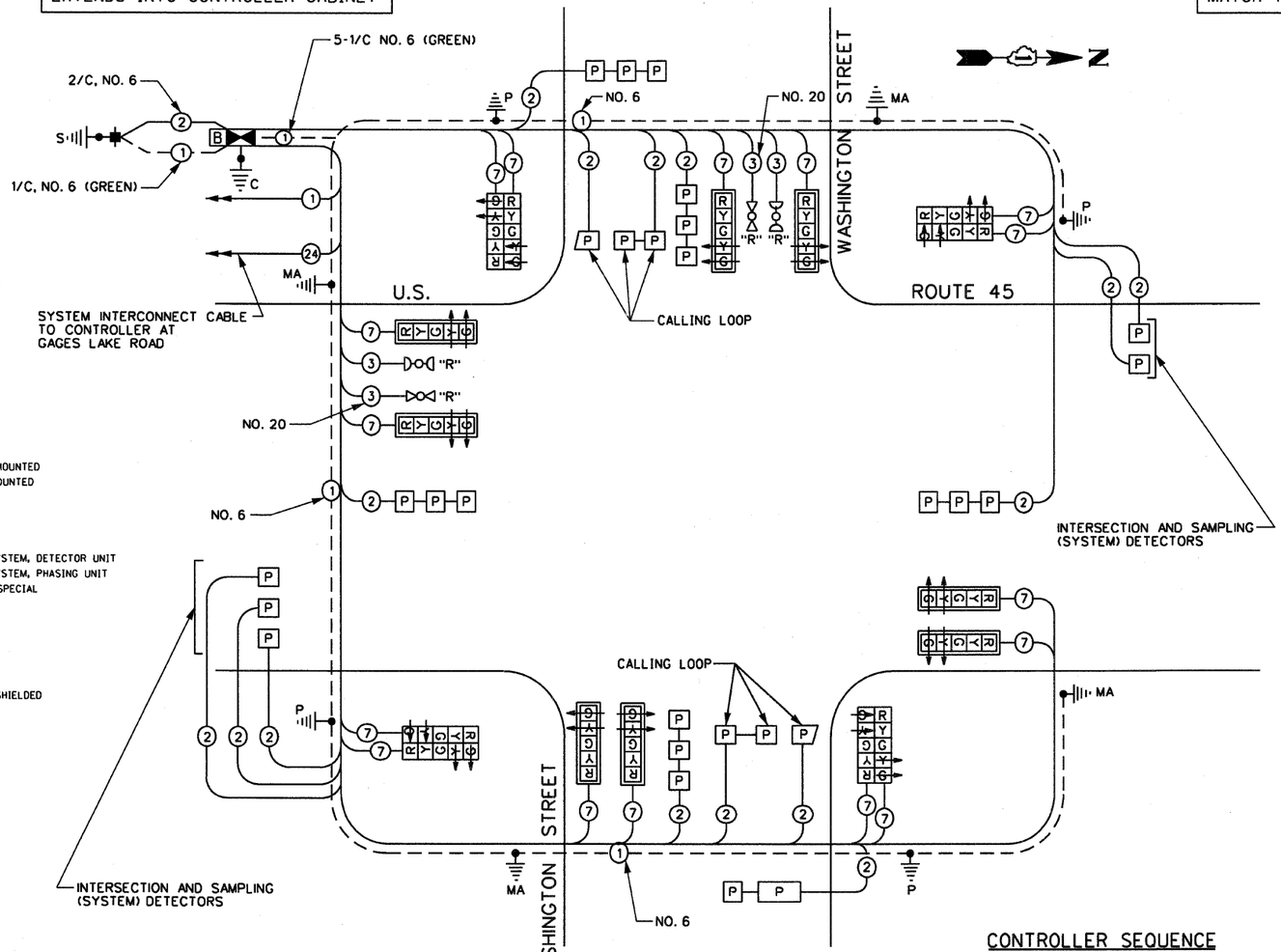
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	151
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
63	SQ. FT.	SIGN PANEL-TYPE 1
898	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
129	FOOT	CONDUIT IN TRENCH, 2½" DIA., GALVANIZED STEEL
154	FOOT	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL
188	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
342	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
8	EACH	HANDHOLE
4	EACH	HEAVY-DUTY HANDHOLE
1	EACH	DOUBLE HANDHOLE
300	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
3707	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
4656	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD IN, NO. 14 1 PAIR
51	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
790	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
4	EACH	TRAFFIC SIGNAL POST, 16 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.
16	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE C
30	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
30	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
8	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED
4	EACH	SIGNAL HEAD, L.E.D., 2-FACE, 5 SECTION, BRACKET MOUNTED
8	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
15	EACH	INDUCTIVE LOOP DETECTOR
1197	FOOT	PREFORMED DETECTOR LOOP
1	FOOT	TEMPORARY TRAFFIC SIGNAL INSTALLATION
2	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT
1	EACH	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	TRANSCEIVER-FIBER OPTIC
1	EACH	SERVICE INSTALLATION, POLE MOUNT
1088	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
7	EACH	REMOVE EXISTING HANDHOLE
9	EACH	REMOVE EXISTING CONCRETE FOUNDATION
300	FOOT	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED
1	EACH	UNINTERRUPTIBLE POWER SUPPLY
1	EACH	TEMPORARY TRAFFIC SIGNAL TIMING

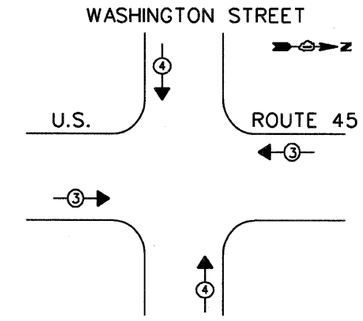


CABLE PLAN
NOT TO SCALE

CABLE PLAN LEGEND

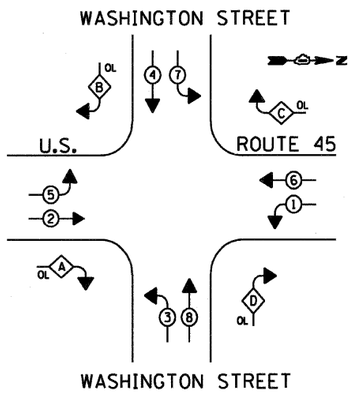
EXISTING	PROPOSED	
G	G	8" TRAFFIC SIGNAL SECTION
R	R	12" TRAFFIC SIGNAL SECTION
W	W	12" PEDESTRIAN SIGNAL SECTION
		12" PEDESTRAIN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
	P	PREFORMED LOOP
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
2	2	DENOTES NUMBER OF CONDUCTORS ALL CABLE NO. 14 EXCEPT AS INDICATED ALL LOOP DETECTOR CABLE TO BE SHIELDED
R Y G G Y R "P"	R Y G G Y R "P"	SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD
	24	NO. 62.5/125, 12MM, 12SM FIBER OPTIC CABLE
	1	NO. 14 1/C TRACER CABLE
H/C	H/C	GROUND ROD AT HANDHOLE DOUBLE HOLE, OR CONTROLLER
P	P	GROUND ROD AT POST OR MAST ARM POLE
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		GROUND CABLES NO.6 1C GREEN
	B	UNINTERRUPTIBLE POWER SUPPLY
	"R"	RELOCATED

EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4		
MOVEMENT	← →	↓ ↑		

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

LEGEND

- DUAL ENTRY PHASE
- OVERLAP
- NUMBER REFERS TO ASSOCIATED PHASE

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

TYPE	NO. LAMPS	x WATTAGE INCAND.	x WATTAGE LED	x % OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	135	17	0.50	136
(YELLOW)	16	135	25	0.25	100
(GREEN)	16	135	15	0.25	60
ARROW	32	135	12	0.10	38
PED. SIGNAL	0	90	25	1.00	0
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		64		0.05	0
FLASHER	0			0.50	0
				TOTAL=	434

ENERGY COSTS TO:
ILLINOIS DEPARTMENT OF TRANSPORTATION
201 W. CENTER COURT
SHAUMBURG, IL 60196

ENERGY SUPPLY
CONTACT: MS. LOIS HICKS
PHONE: (847) 816-5489
COMPANY: COMMONWEALTH EDISON COMPANY

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A-POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
C-CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20+L-2=
E-MAST ARM POLE		SIGNAL POST	2 (4.0)		(6m+L-0.6m)=
24" (600 mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750 mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900 mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND POST MOUNTED	13.5 (4.1)
					6 (1.8)

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN
SCHEDULE OF QUANTITIES
PHASE DESIGNATION DIAGRAM
U.S. ROUTE 45 & WASHINGTON STREET

HORIZ. 10 0 10
SCALE IN FEET

DATE 12/14/09
DRAWN BY MB/AJP
CHECKED BY KMM

TranSystems

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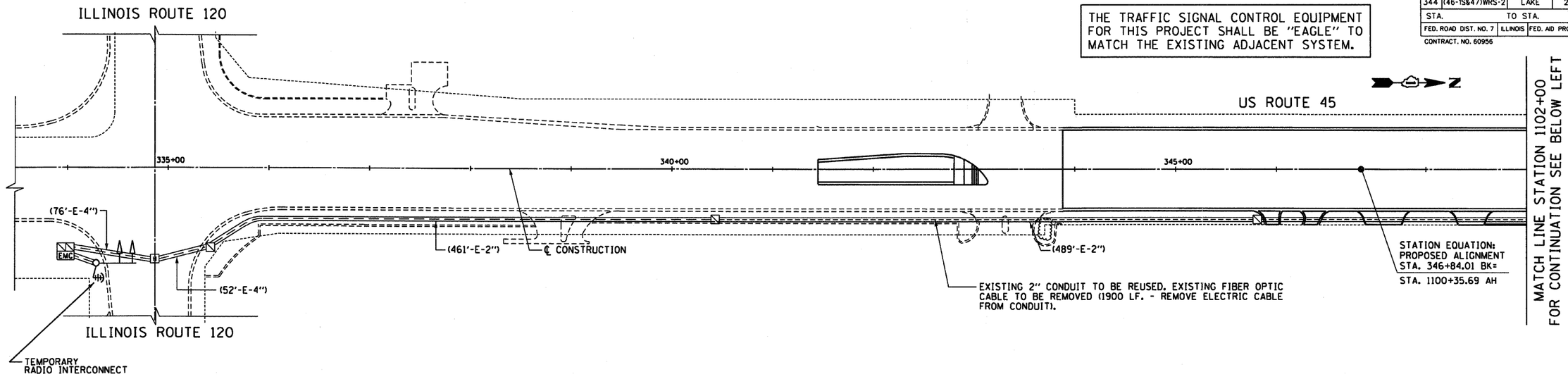
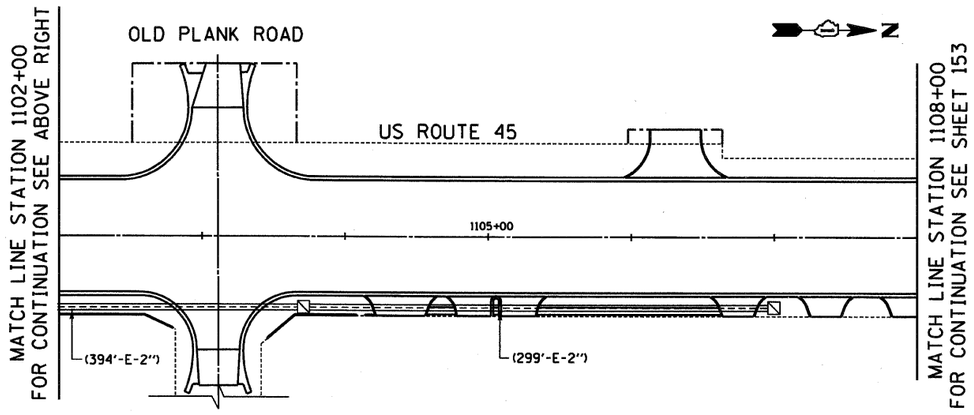
12/14/09

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	152
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

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





INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
MASTER CONTROLLER	MC	EMC
HANDHOLE		
HEAVY DUTY HANDHOLE	H	H
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED	— — —	═══
DETECTOR LOOP		
COMMON TRENCH	CT	
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
WOOD POLE	⊗	⊗
EXISTING HANDHOLE TO BE REMOVED		"E"
RADIO INTERCONNECT ANTENNA		

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL SYSTEM INTERCONNECT PLAN

U.S. ROUTE 45

STATION 334+00 TO STATION 1108+00

HORIZ. 50 0 50

SCALE IN FEET

DATE 12/14/09

DRAWN BY MB/AJP

CHECKED BY KMM

TranSystems

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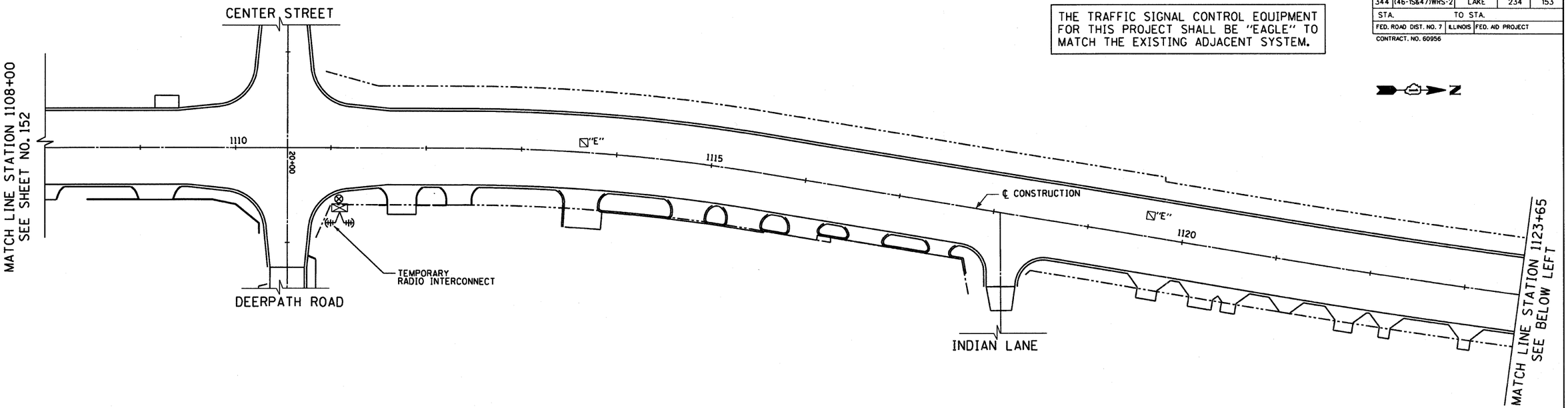
RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	153
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

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



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER	⊠	⊠
HANDHOLE	◪	▨
HEAVY DUTY HANDHOLE	H	H
DOUBLE HANDHOLE	◪	▨
G.S. CONDUIT IN TRENCH OR PUSHED	— — —	═══
DETECTOR LOOP	□	⬚
COMMON TRENCH	CT	
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
WOOD POLE	⊗	⊗
EXISTING HANDHOLE TO BE REMOVED		"E"
RADIO INTERCONNECT ANTENNA		

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL SYSTEM INTERCONNECT PLAN

U.S. ROUTE 45

STATION 1108+00 TO STATION 1138+90

HORIZ. 50 0 50

SCALE IN FEET

DATE 12/14/09

DRAWN BY MB/AJP

CHECKED BY KMM

TranSystems

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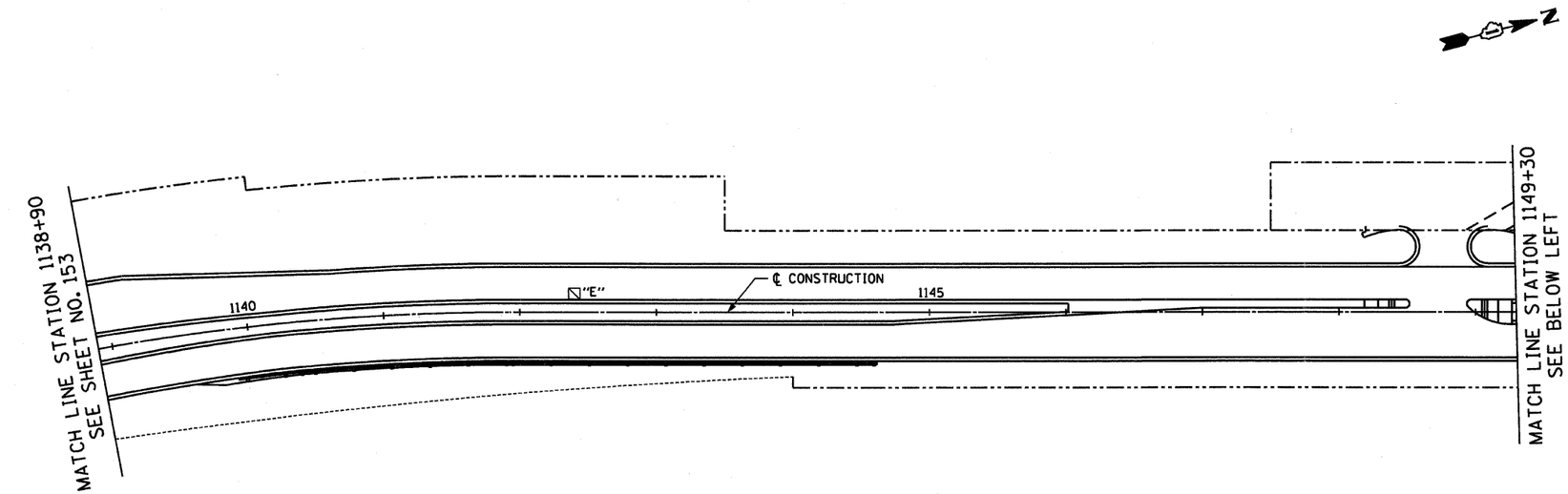
RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	154
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

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



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER	▣	⊠
HANDHOLE	◩	◪
HEAVY DUTY HANDHOLE	H	H
DOUBLE HANDHOLE	◧	◪
G.S. CONDUIT IN TRENCH OR PUSHED	— — —	═══
DETECTOR LOOP	□	⬚
COMMON TRENCH	CT	
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
WOOD POLE	⊗	⊗
EXISTING HANDHOLE TO BE REMOVED		"E"
RADIO INTERCONNECT ANTENNA		

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL SYSTEM INTERCONNECT PLAN

U.S. ROUTE 45

STATION 1138+90 TO STATION 1159+25

HORIZ. 50 0 50

SCALE IN FEET

DATE 12/14/09

DRAWN BY MB/AJP

CHECKED BY KMM

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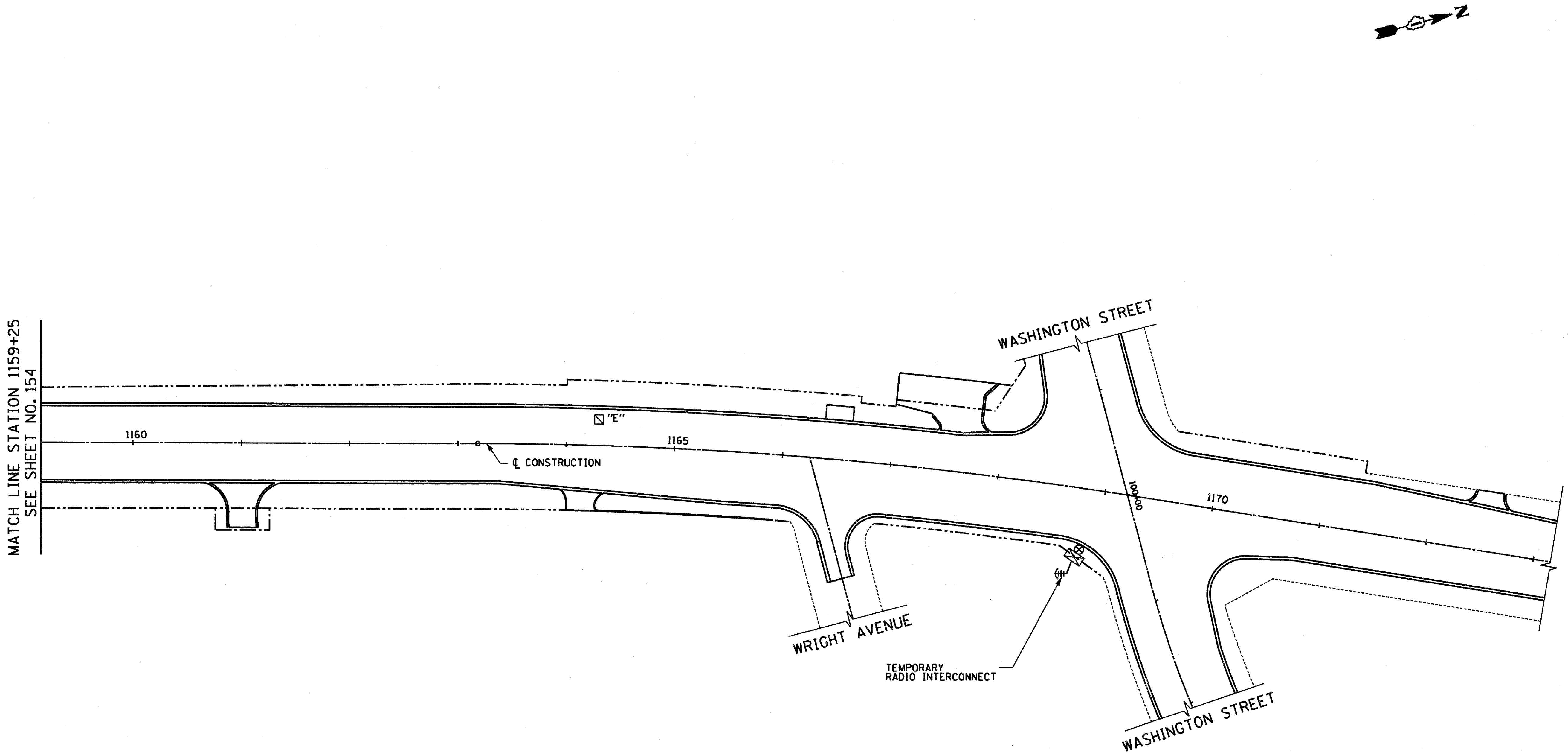
RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	155
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

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



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
HEAVY DUTY HANDHOLE	H	H
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
DETECTOR LOOP		
COMMON TRENCH	CT	
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
WOOD POLE	⊗	⊗
EXISTING HANDHOLE TO BE REMOVED		"E"
RADIO INTERCONNECT ANTENNA		

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL SYSTEM INTERCONNECT PLAN

U.S. ROUTE 45

STATION 1159+25 TO STATION 1173+20

HORIZ. 50 0 50

SCALE IN FEET

DATE 12/14/09
DRAWN BY MB/AJP
CHECKED BY KMM

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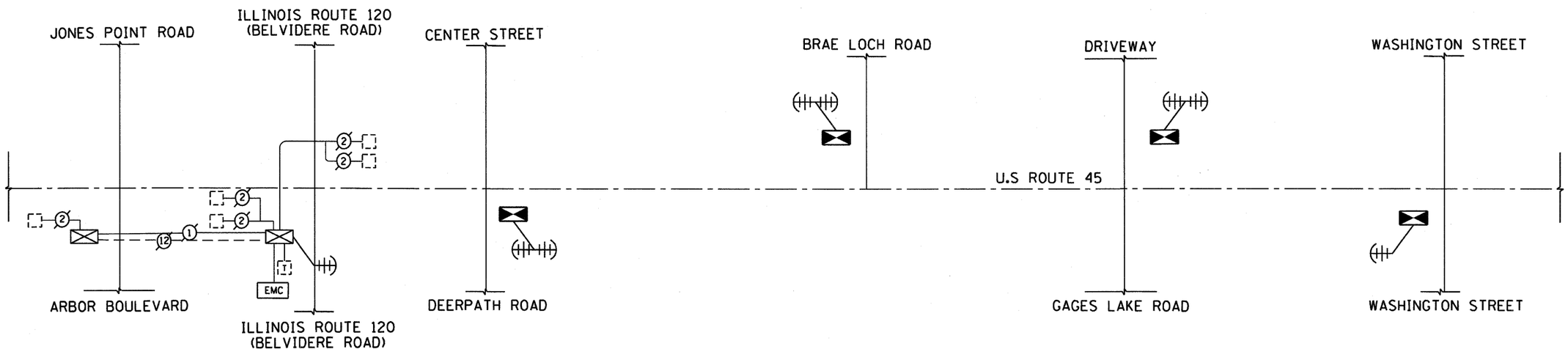
RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	156
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

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



TEMPORARY INTERCONNECT SCHEMATIC LEGEND

- TEMPORARY INTERSECTION CONTROLLER
- EXISTING INTERSECTION CONTROLLER
- EMC EXISTING MASTER CONTROLLER
- MMC MASTER MASTER CONTROLLER
- EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS
- RADIO INTERCONNECT ANTENNA
- (12) EXISTING INTERCONNECT CABLE-NO. 62.5/125 12F FIBER OPTIC CABLE
- (2) EXISTING LOOP DETECTOR CABLE-2/C TWISTED, SHIELDED
- (1) PROPOSED TRACER CABLE NO. 14 1C
- [T] EXISTING TELEPHONE CONNECTION
- (1) EXISTING TRACER CABLE 1/C (AS SPECIFIED)

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY INTERCONNECT SCHEMATIC

U.S. ROUTE 45
JONES POINT ROAD/ARBOR BOULEVARD TO WASHINGTON STREET

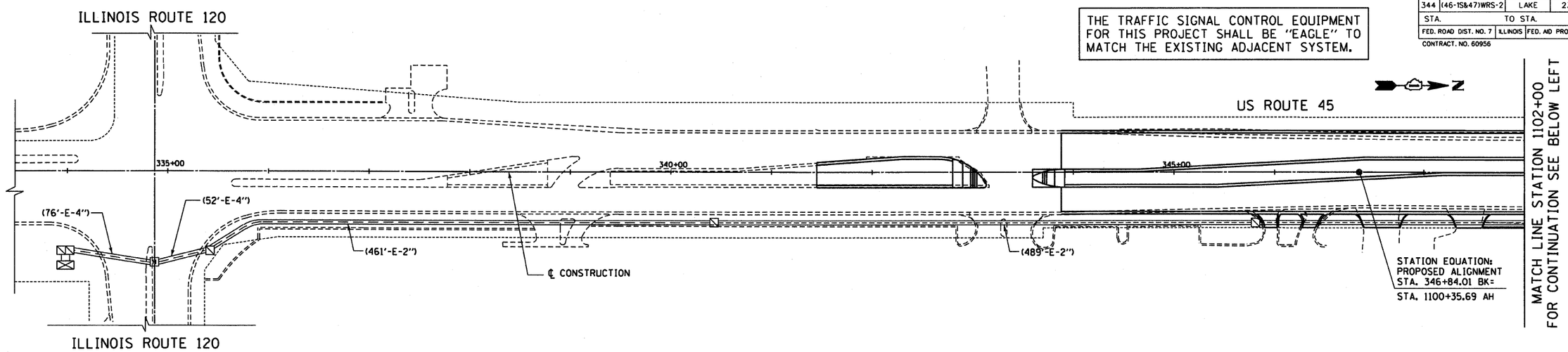
SCALE: NONE

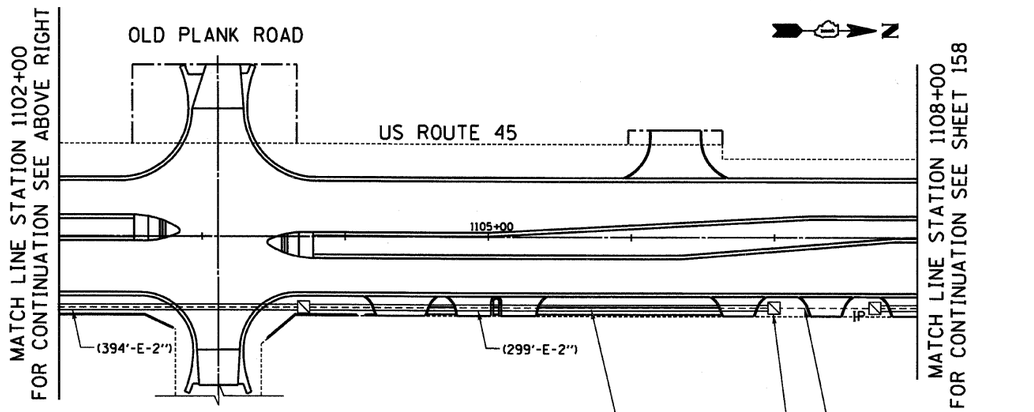
DATE 12/14/09
DRAWN BY MB/AJP
CHECKED BY KMM

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	157
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

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





INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER	◪	⊠
MASTER CONTROLLER	MC	EMC
HANDHOLE	◪	⊠
HEAVY DUTY HANDHOLE	H	H
DOUBLE HANDHOLE	◪	⊠
G.S. CONDUIT IN TRENCH OR PUSHED	— — —	═══
DETECTOR LOOP	□	⬚
COMMON TRENCH	CT	
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
WOOD POLE	⊗	⊗
EXISTING HANDHOLE TO BE REMOVED		⊠"E"
TEMPORARY AERIAL CABLE	———	

NOTES:

1. QUANTITIES FOR ITEMS INSTALLED FOR TRAFFIC SIGNALS AT INTERSECTIONS, SUCH AS CONTROLLERS, AND SIGNAL HEADS, ARE INCLUDED ON THE APPROPRIATE TRAFFIC SIGNAL CABLE PLAN.
2. THE CONTRACTOR SHALL PLACE THE INTERCONNECTION SYSTEM HANDHOLES AND CONDUIT AS CLOSE TO THE RIGHT-OF-WAY LINES AS POSSIBLE OR, AS DIRECTED BY THE ENGINEER.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN

U.S. ROUTE 45

STATION 334+00 TO STATION 1108+00

HORIZ. 50 0 50

SCALE IN FEET

DATE 12/14/09

DRAWN BY MB/AJP

CHECKED BY KMM

TranSystems

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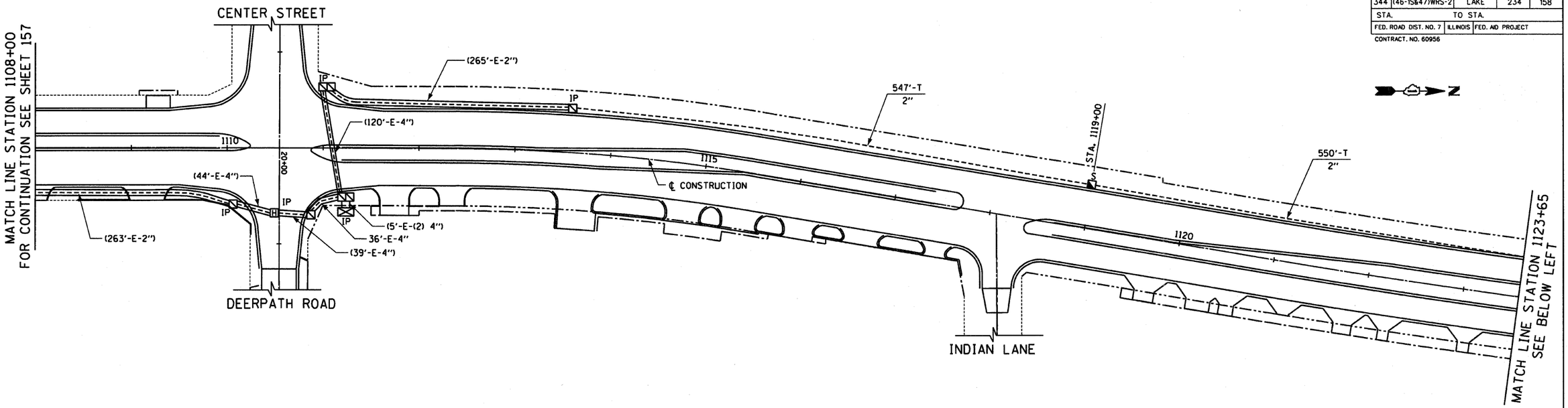
RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	158
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER	▣	▣
HANDHOLE	◪	◪
HEAVY DUTY HANDHOLE	⊞	⊞
DOUBLE HANDHOLE	◪◪	◪◪
G.S. CONDUIT IN TRENCH OR PUSHED	— — —	═══
DETECTOR LOOP	□	⬚
COMMON TRENCH	CT	
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
WOOD POLE	⊗	⊗
EXISTING HANDHOLE TO BE REMOVED		◪"E"

NOTES;

1. QUANTITIES FOR ITEMS INSTALLED FOR TRAFFIC SIGNALS AT INTERSECTIONS, SUCH AS CONTROLLERS, AND SIGNAL HEADS, ARE INCLUDED ON THE APPROPRIATE TRAFFIC SIGNAL CABLE PLAN.
2. THE CONTRACTOR SHALL PLACE THE INTERCONNECTION SYSTEM HANDHOLES AND CONDUIT AS CLOSE TO THE RIGHT-OF-WAY LINES AS POSSIBLE OR, AS DIRECTED BY THE ENGINEER.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN

U.S. ROUTE 45
STATION 1108+00 TO STATION 1138+90

HORIZ. 50 0 50
SCALE IN FEET

DATE 12/14/09
DRAWN BY MB/AJP
CHECKED BY KMM

TranSystems

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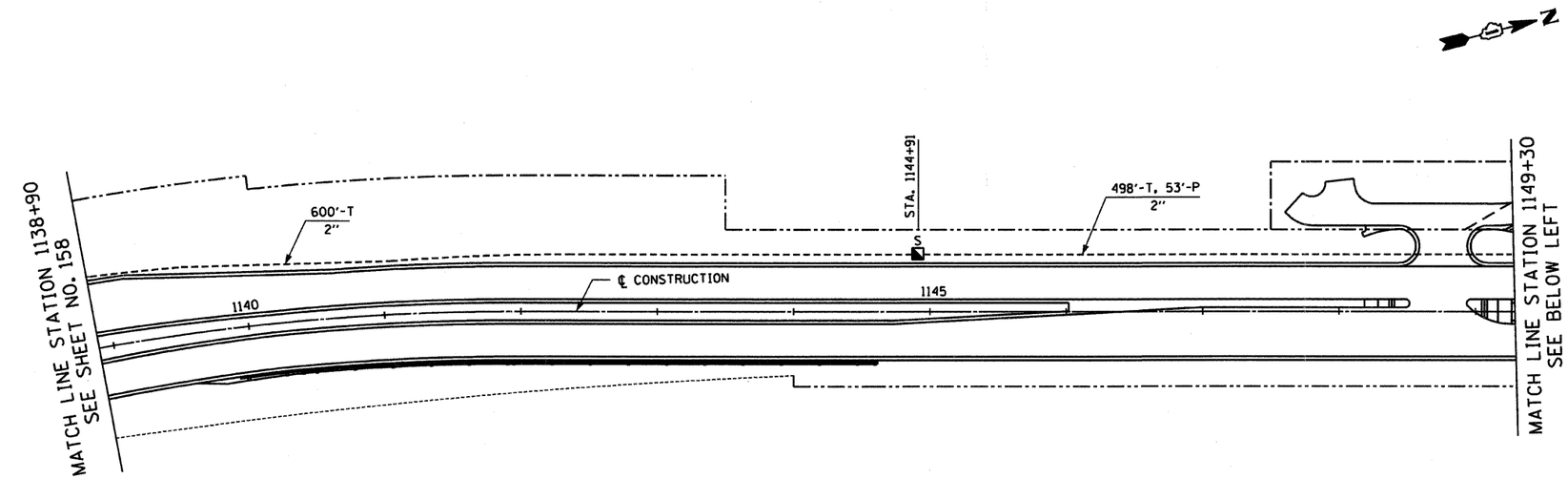
RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	159
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER	▣	▣
HANDHOLE	◪	◪
HEAVY DUTY HANDHOLE	⊞	⊞
DOUBLE HANDHOLE	◪◪	◪◪
G.S. CONDUIT IN TRENCH OR PUSHED	— — —	═══
DETECTOR LOOP	□	⬚
COMMON TRENCH	CT	
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
WOOD POLE	⊗	⊗
EXISTING HANDHOLE TO BE REMOVED		◪"E"

NOTES:

1. QUANTITIES FOR ITEMS INSTALLED FOR TRAFFIC SIGNALS AT INTERSECTIONS, SUCH AS CONTROLLERS, AND SIGNAL HEADS, ARE INCLUDED ON THE APPROPRIATE TRAFFIC SIGNAL CABLE PLAN.
2. THE CONTRACTOR SHALL PLACE THE INTERCONNECTION SYSTEM HANDHOLES AND CONDUIT AS CLOSE TO THE RIGHT-OF-WAY LINES AS POSSIBLE OR, AS DIRECTED BY THE ENGINEER.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN

U.S. ROUTE 45

STATION 1138+90 TO STATION 1159+25

HORIZ. 50 0 50

SCALE IN FEET

DATE 12/14/09

DRAWN BY MB/AJP

CHECKED BY KMM

TranSystems

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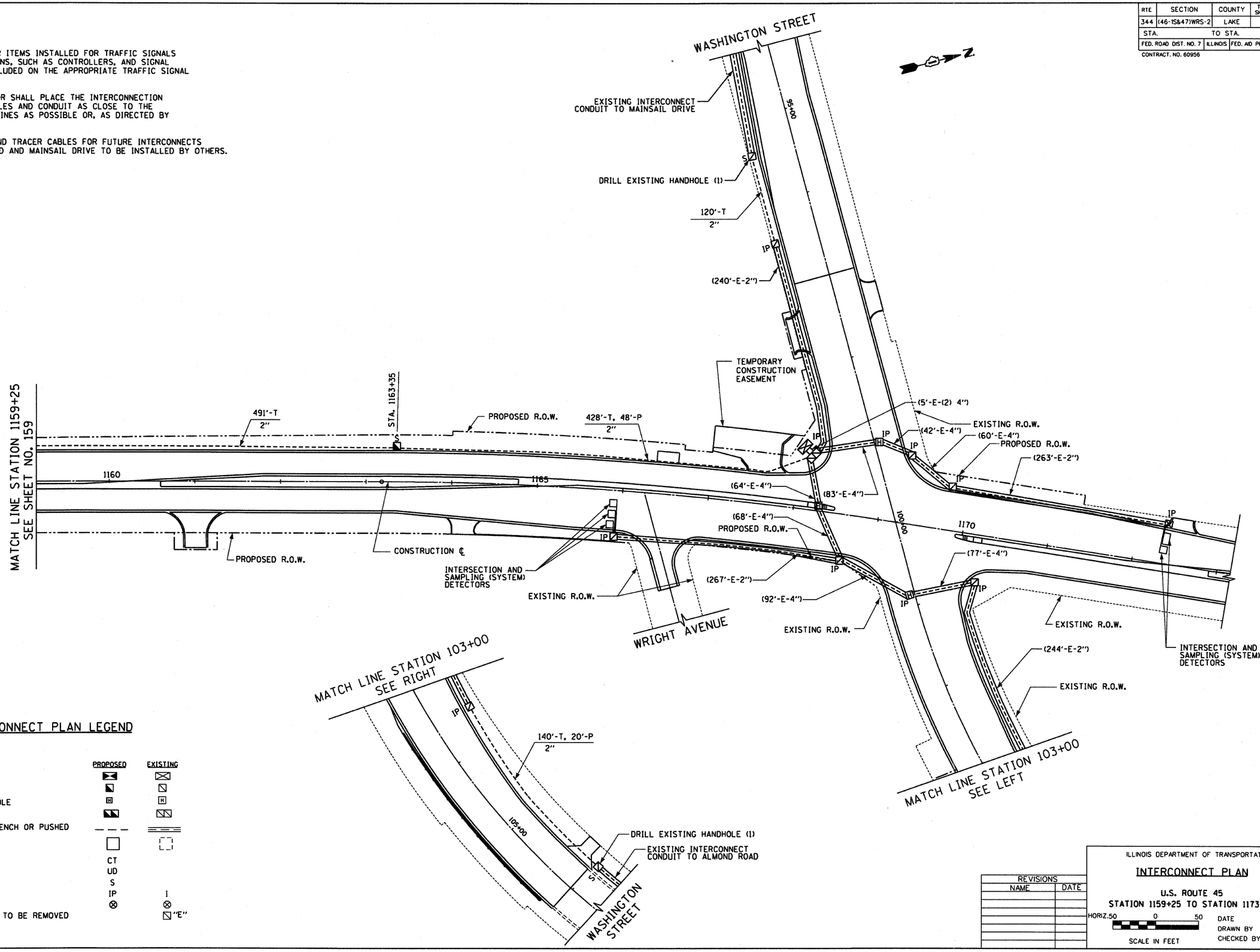
RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	160
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

NOTES:

1. QUANTITIES FOR ITEMS INSTALLED FOR TRAFFIC SIGNALS AT INTERSECTIONS, SUCH AS CONTROLLERS, AND SIGNAL HEADS, ARE INCLUDED ON THE APPROPRIATE TRAFFIC SIGNAL CABLE PLAN.
2. THE CONTRACTOR SHALL PLACE THE INTERCONNECTION SYSTEM HANDHOLES AND CONDUIT AS CLOSE TO THE RIGHT-OF-WAY LINES AS POSSIBLE OR, AS DIRECTED BY THE ENGINEER.
3. FIBER OPTIC AND TRACER CABLES FOR FUTURE INTERCONNECTS TO ALMOND ROAD AND MAINSAIL DRIVE TO BE INSTALLED BY OTHERS.



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER	▣	⊠
HANDHOLE	◪	⊡
HEAVY DUTY HANDHOLE	H	H
DOUBLE HANDHOLE	◪◪	⊡⊡
G.S. CONDUIT IN TRENCH OR PUSHED	— — —	═══
DETECTOR LOOP	□	⬚
COMMON TRENCH	CT	
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
WOOD POLE	⊗	⊗
EXISTING HANDHOLE TO BE REMOVED		⊡ "E"

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN

U.S. ROUTE 45

STATION 1159+25 TO STATION 1173+20

HORIZ. 50 0 50

SCALE IN FEET

DATE 12/14/09

DRAWN BY MB/AJP

CHECKED BY KMM

Tran Systems

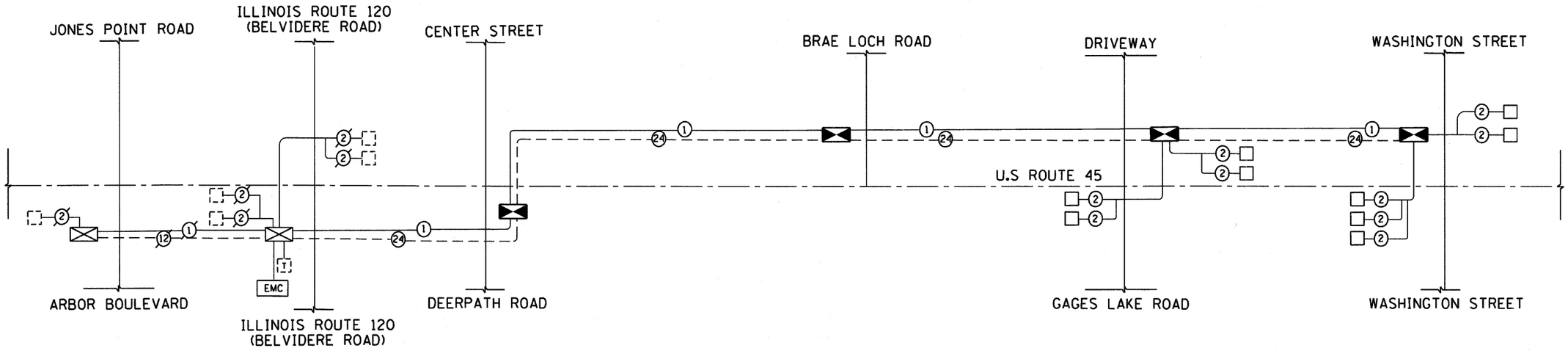
12/14/09 - g:\401\2000\0005302\cad\shah\interconnect3_115.sht

RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	161
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

SYSTEM INTERCONNECT SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
4846	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
255	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
6	EACH	HANDHOLE
9562	FOOT	ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1C
9622	FOOT	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125 MM12F & SM12F
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
4846	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
3	EACH	DRILL EXISTING HANDHOLE
1	EACH	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2
8	EACH	REMOVE EXISTING HANDHOLE
1	EACH	TEMPORARY TRAFFIC SIGNAL INTERCONNECT



INTERCONNECT SCHEMATIC LEGEND

- INTERSECTION CONTROLLER
- EXISTING INTERSECTION CONTROLLER
- EMC EXISTING MASTER CONTROLLER
- MMC MASTER MASTER CONTROLLER
- PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS
- EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS
- (24) INTERCONNECT CABLE-NO. 62.5/125 24F, 12MM, 12SM FIBER OPTIC CABLE
- (2) LOOP DETECTOR CABLE-2/C TWISTED, SHIELDED
- (12) EXISTING INTERCONNECT CABLE-NO. 62.5/125 12F FIBER OPTIC CABLE
- (2) EXISTING LOOP DETECTOR CABLE-2/C TWISTED, SHIELDED
- (1) PROPOSED TRACER CABLE NO. 14 1C
- [T] EXISTING TELEPHONE CONNECTION
- (1) EXISTING TRACER CABLE 1/C (AS SPECIFIED)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

INTERCONNECT SCHEMATIC

U.S. ROUTE 45
JONES POINT ROAD/ARBOR BOULEVARD TO
WASHINGTON STREET

DATE 12/14/09
DRAWN BY MB/AJP
SCALE: NONE CHECKED BY KMM

TranSystems

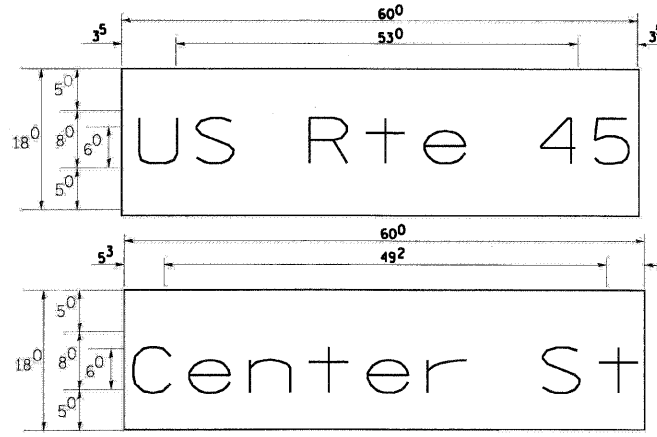
12/14/09 - g:\401\2000\0005302\cad\shah\intschicen2broe_116.sht

CONTRACT NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47)WRS-2	LAKE	234	162
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

PANEL SIGN DESIGN TYPE 1

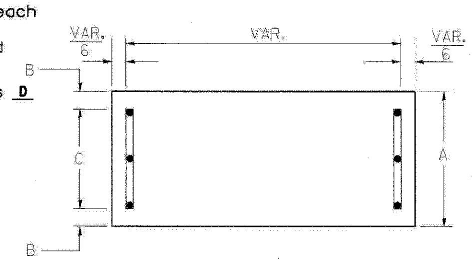


___ Sq. M. each
7.5 Sq. Ft. each
7 Required
Design Series D

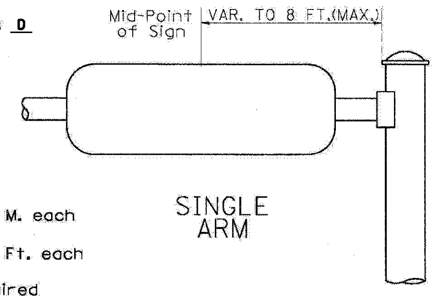
___ Sq. M. each
7.5 Sq. Ft. each
2 Required
Design Series D

NOTE: SIGN DIMENSIONS ARE IN ENGLISH UNITS

SUPPORTING CHANNELS

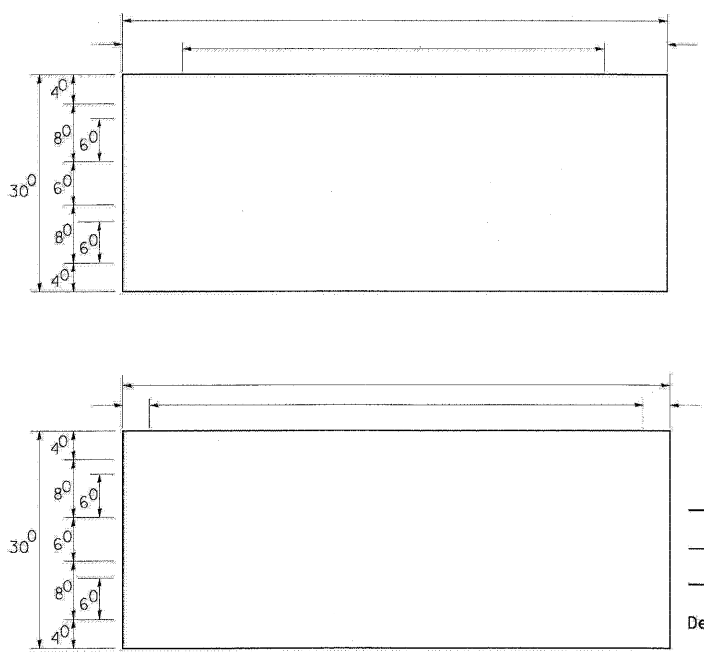


A	B	C
18"	2"	14"



SINGLE ARM

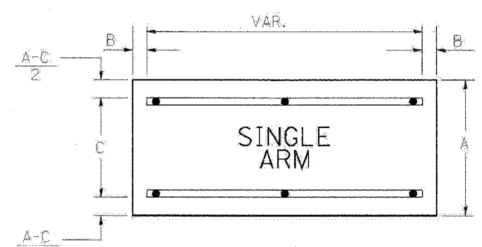
PANEL SIGN DESIGN TYPE 2



___ Sq. M. each
___ Sq. Ft. each
___ Required
Design Series ___

___ Sq. M. each
___ Sq. Ft. each
___ Required
Design Series ___

SUPPORTING CHANNELS



A	B	C
18"	2"	12"
30"	2"	22"

GENERAL NOTES

1. WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" × 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
2. ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND, TYPE A SHEETING.
3. THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHOULD NOT EXCEED 8'-0".
4. ALL BORDERS SHALL BE ¾" WIDE AND CORNER RADIUS SHALL BE 2-1/4 ".
5. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS. LOCAL SUPPLIERS OF THE SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM ARE:

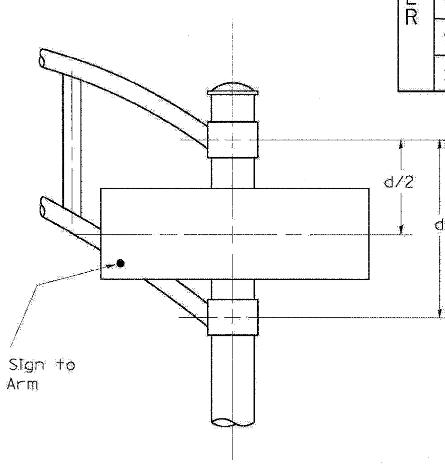
* J.O. HERBERT CO.
MIDLOTHIAN, VA.

* WESTERN REMAC INC.
WOODRIDGE, IL.

PARTS LISTING:

SIGN CHANNEL	PART #HPN053 (MED. CHANNEL)
SIGN SCREWS	¼" × 14 × 1" H.W.H. #3 SELF TAPPING WITH NEOPRENE WASHER
BRACKETS	PART #HPN034 (UNIVERSAL) CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

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



DUAL ARM

SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM
shall be used. See Note #5.

EXAMPLE. 2^{3} (circled) DENOTES $\frac{3''}{8}$

Upper Case To Lower Case
Spacing Chart 8-6 Inch Series "C & D"

FIRST LETTER	SECOND LETTER: a c d e g o q		b h i k l m n p r u		f w		j		s t		v y		x		z	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
A W X	1^2	1^4	1^4	1^5	1^2	1^4	0^6	1^0	1^1	1^4	0^6	1^0	1^1	1^2	1^2	1^4
B	1^4	1^5	2^0	2^1	1^4	1^5	1^1	1^2	1^4	1^5	1^2	1^4	1^2	1^4	1^6	1^7
C E G	1^4	1^5	2^0	2^1	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5
D O Q R	1^4	1^5	2^0	2^1	1^4	1^5	0^6	1^0	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5
F	0^5	0^6	1^4	1^5	0^6	1^0	0^5	0^6	0^6	1^0	0^6	1^0	0^6	1^0	1^1	1^2
H I M N	2^0	2^1	2^2	2^4	2^0	2^1	1^4	1^5	1^6	1^7	1^6	1^7	2^0	2^1	2^0	2^1
J U	2^0	2^1	2^0	2^1	1^6	1^7	1^4	1^5	1^6	1^7	1^6	1^7	1^6	1^7	2^0	2^1
K L	1^1	1^2	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
P	1^2	1^4	1^4	1^5	1^2	1^4	0^5	0^6	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
S	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
T	1^1	1^2	1^6	1^7	0^6	1^0	0^6	1^0	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
V	0^6	1^0	1^4	1^5	1^1	1^2	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
Y	0^5	0^6	1^4	1^5	0^6	1^0	0^5	0^6	0^5	0^7	0^5	0^6	0^6	1^0	1^1	1^2
Z	1^6	1^7	2^2	2^4	1^6	1^7	1^2	1^4	1^6	1^7	1^6	1^7	1^6	1^7	2^0	2^1

Lower Case To Lower Case
Spacing Chart 6 Inch Series "C & D"

FIRST LETTER	SECOND LETTER: a c d e g o q		b h i k l m n p r u		f w		j		s t		v y		x		z	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
a d h g i j l m n q u	1^6	1^7	2^2	2^4	1^6	1^7	1^2	1^4	1^4	1^5	1^4	1^5	1^6	1^7	1^6	1^7
b f k o p s	1^2	1^4	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
c e	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
r	0^6	1^0	1^2	1^4	0^6	1^0	0^3	0^3	0^5	0^6	0^5	0^6	0^6	1^0	0^6	1^0
t z	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
v y	1^1	1^2	1^4	1^5	1^1	1^2	0^5	0^6	0^6	1^0	0^6	1^0	1^1	1^2	1^1	1^2
w	1^1	1^2	1^4	1^5	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
x	1^2	1^4	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4

Number To Number
Spacing Chart 8 Inch Series "C & D"

FIRST NUMBER	SECOND NUMBER: 0		1		2		3		4		5		6		7		8		9	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
0 9	1^6	1^7	1^6	1^7	1^4	1^5	1^2	1^4	1^4	1^5	1^4	1^5	1^6	1^7	1^2	1^4	1^6	1^7	1^6	1^7
1	2^0	2^1	2^0	2^1	2^0	2^1	1^6	1^7	1^4	1^5	2^0	2^1	2^0	2^1	1^4	1^5	2^0	2^1	2^0	2^1
2 3 4	1^4	1^5	1^4	1^5	1^4	1^5	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5	1^1	1^2	1^6	1^7	1^4	1^5
5	1^4	1^5	1^4	1^5	1^4	1^5	1^1	1^2	1^1	1^2	1^4	1^5	1^4	1^5	1^1	1^2	1^4	1^5	1^4	1^5
6	1^6	1^7	1^4	1^5	1^4	1^5	1^2	1^5	1^2	1^4	1^4	1^5	1^4	1^5	1^1	1^2	1^4	1^5	1^4	1^5
7	1^2	1^4	1^2	1^4	1^4	1^5	1^2	1^5	0^5	0^6	1^2	1^4	1^4	1^5	1^1	1^2	1^4	1^5	1^2	1^4
8	1^6	1^7	1^6	1^7	1^4	1^5	1^2	1^5	1^2	1^4	1^4	1^5	1^6	1^7	1^2	1^4	1^6	1^7	1^4	1^5

UPPER AND LOWER CASE
LETTER WIDTHS

LETTERS	6 INCH UPPER CASE LETTERS (SERIES) C	D	8 INCH UPPER CASE LETTERS (SERIES) C	D	LETTERS	6 INCH LOWER CASE LETTERS (SERIES) C	D
A	3^6	5^0	5^0	6^5	a	3^5	4^2
B	3^2	4^0	4^3	5^3	b	3^5	4^2
C	3^2	4^0	4^3	5^3	c	3^5	4^1
D	3^2	4^0	4^3	5^3	d	3^5	4^2
E	3^0	3^5	4^0	4^7	e	3^5	4^2
F	3^0	3^5	4^0	4^7	f	2^3	2^6
G	3^2	4^0	4^3	5^3	g	3^5	4^2
H	3^2	4^0	4^3	5^3	h	3^5	4^2
I	0^7	0^7	1^1	1^2	i	1^1	1^1
J	3^0	3^6	4^0	5^0	j	2^0	2^2
K	3^2	4^1	4^3	5^4	k	3^5	4^2
L	3^0	3^5	4^0	4^7	l	1^1	1^1
M	3^7	4^5	5^1	6^1	m	6^0	7^0
N	3^2	4^0	4^3	5^3	n	3^5	4^2
O	3^4	4^2	4^5	5^5	o	3^6	4^3
P	3^2	4^0	4^3	5^3	p	3^5	4^2
Q	3^4	4^2	4^5	5^5	q	3^5	4^2
R	3^2	4^0	4^3	5^3	r	2^6	3^2
S	3^2	4^0	4^3	5^3	s	3^6	4^2
T	3^0	3^5	4^0	4^7	t	2^7	3^2
U	3^2	4^0	4^3	5^3	u	3^5	4^2
V	3^5	4^4	4^7	6^0	v	4^2	4^7
W	4^4	5^2	6^0	7^0	w	5^5	6^4
X	3^4	4^0	4^5	5^3	x	4^4	5^1
Y	3^6	5^0	5^0	6^6	y	4^6	5^3
Z	3^2	4^0	4^3	5^3	z	3^6	4^3

NUMBER	6 INCH SERIES C	D	8 INCH SERIES C	D
1	1^2	1^4	1^5	2^0
2	3^2	4^0	4^3	5^3
3	3^2	4^0	4^3	5^3
4	3^5	4^3	4^7	5^7
5	3^2	4^0	4^3	5^3
6	3^2	4^0	4^3	5^3
7	3^2	4^0	4^3	5^3
8	3^2	4^0	4^3	5^3
9	3^2	4^0	4^3	5^3
0	3^4	4^2	4^5	5^5

REVISIONS NAME	DATE
CREATED	2/79
D.A.Z./ D.A.C.	11/90
	6/98
CADD	10/01/00
D.A.C.	10/28/09

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT 1
MAST ARM MOUNTED
STREET NAME SIGNS

SCALE: NONE

DRAWN BY BCK
CHECKED BY DAG/DAD

TS 2

PLOT DATE = 11/4/2009
FILE NAME = a:\pw_work\pwidot\bauerdl\d0108364\ts02.dgn
PLOT SCALE = 49.9999 ' / IN.
USER NAME = bauerdl

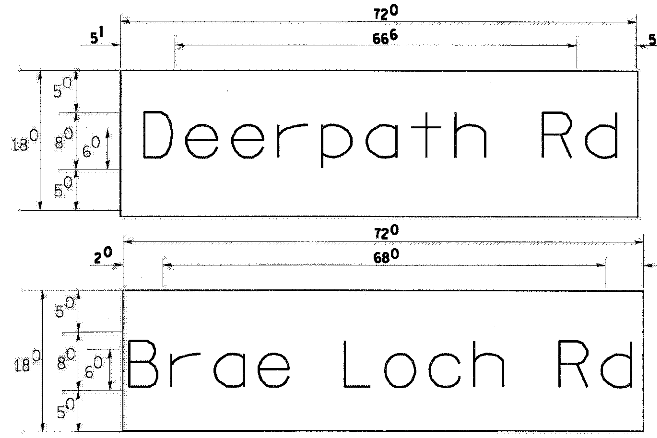
PLOT DATE = 11/4/2009
FILE NAME = a:\pw_work\pwidot\bauerdl\d0108364\ts02.dgn
PLOT SCALE = 49.9999 '/ IN.
USER NAME = bauerdl

CONTRACT NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47)WRS-2	LAKE	234	163
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS FED. AID PROJECT			

CONTRACT. NO. 60956

PANEL SIGN DESIGN TYPE 1

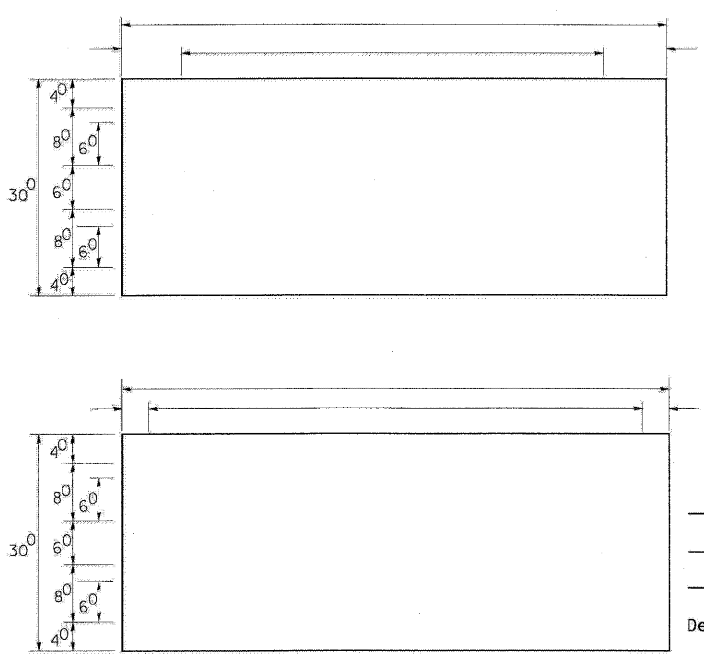


___ Sq. M. each
9.0 Sq. Ft. each
2 Required
Design Series D

___ Sq. M. each
9.0 Sq. Ft. each
2 Required
Design Series D

NOTE: SIGN DIMENSIONS ARE IN ENGLISH UNITS

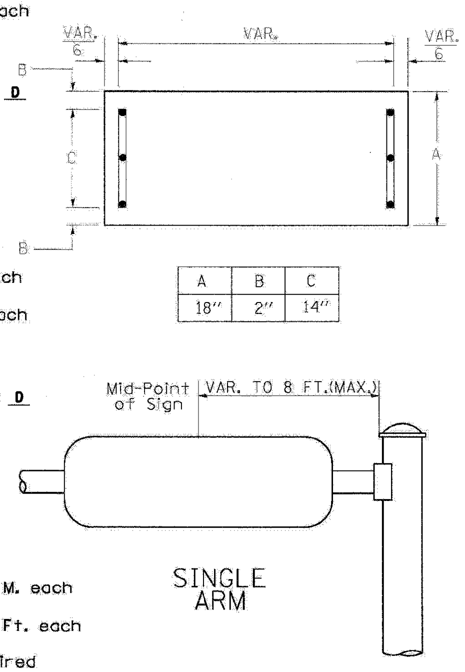
PANEL SIGN DESIGN TYPE 2



___ Sq. M. each
___ Sq. Ft. each
___ Required
Design Series ___

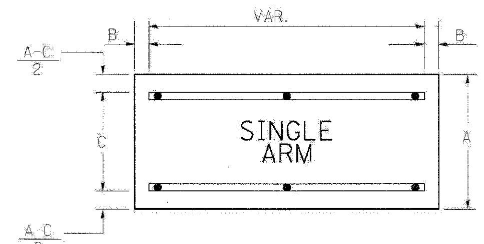
___ Sq. M. each
___ Sq. Ft. each
___ Required
Design Series ___

SUPPORTING CHANNELS

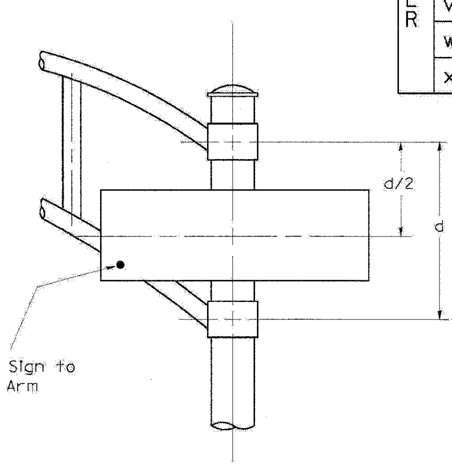


A	B	C
18″	2″	14″

SUPPORTING CHANNELS



A	B	C
18″	2″	12″
30″	2″	22″



SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM
shall be used. See Note #5.

GENERAL NOTES

1. WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2′-6″ x 8′-0″ MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
2. ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND, TYPE A SHEETING.
3. THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHOULD NOT EXCEED 8′-0″.
4. ALL BORDERS SHALL BE ¾″ WIDE AND CORNER RADIUS SHALL BE 2-1/4 ″.
5. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS. LOCAL SUPPLIERS OF THE SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM ARE:

* J.O. HERBERT CO.
MIDLOTHIAN, VA.

* WESTERN REMAC INC.
WOODRIDGE, IL.

PARTS LISTING:

SIGN CHANNEL	PART #HPN053 (MED. CHANNEL)
SIGN SCREWS	¼″ x 14 x 1″ H.W.H. #3 SELF TAPPING WITH NEOPRENE WASHER
BRACKETS	PART #HPN034 (UNIVERSAL) CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

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

Upper Case To Lower Case
Spacing Chart 8-6 Inch Series "C & D"

FIRST LETTER	SECOND LETTER: a c d e g o q		b h i k l m n p r u		f w		j		s t		v y		x		z	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
A W X	1^2	1^4	1^4	1^5	1^2	1^4	0^6	1^0	1^1	1^4	0^6	1^0	1^1	1^2	1^2	1^4
B	1^4	1^5	2^0	2^1	1^4	1^5	1^1	1^2	1^4	1^5	1^2	1^4	1^2	1^4	1^6	1^7
C E G	1^4	1^5	2^0	2^1	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5
D O Q R	1^4	1^5	2^0	2^1	1^4	1^5	0^6	1^0	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5
F	0^5	0^6	1^4	1^5	0^6	1^0	0^5	0^6	0^6	1^0	0^6	1^0	0^6	1^0	1^1	1^2
H I M N	2^0	2^1	2^2	2^4	2^0	2^1	1^4	1^5	1^6	1^7	1^6	1^7	2^0	2^1	2^0	2^1
J U	2^0	2^1	2^0	2^1	1^6	1^7	1^4	1^5	1^6	1^7	1^6	1^7	1^6	1^7	2^0	2^1
K L	1^1	1^2	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
P	1^2	1^4	1^4	1^5	1^2	1^4	0^5	0^6	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
S	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
T	1^1	1^2	1^6	1^7	0^6	1^0	0^6	1^0	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
V	0^6	1^0	1^4	1^5	1^1	1^2	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
Y	0^5	0^6	1^4	1^5	0^6	1^0	0^5	0^6	0^5	0^7	0^5	0^6	0^6	1^0	1^1	1^2
Z	1^6	1^7	2^2	2^4	1^6	1^7	1^2	1^4	1^6	1^7	1^6	1^7	1^6	1^7	2^0	2^1

Lower Case To Lower Case
Spacing Chart 6 Inch Series "C & D"

FIRST LETTER	SECOND LETTER: a c d e g o q		b h i k l m n p r u		f w		j		s t		v y		x		z	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
a d h g i j l m n q u	1^6	1^7	2^2	2^4	1^6	1^7	1^2	1^4	1^4	1^5	1^4	1^5	1^6	1^7	1^6	1^7
b f k o p s	1^2	1^4	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
c e	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
r	0^6	1^0	1^2	1^4	0^6	1^0	0^3	0^3	0^5	0^6	0^5	0^6	0^6	1^0	0^6	1^0
t z	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
v y	1^1	1^2	1^4	1^5	1^1	1^2	0^5	0^6	0^6	1^0	0^6	1^0	1^1	1^2	1^1	1^2
w	1^1	1^2	1^4	1^5	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
x	1^2	1^4	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4

Number To Number
Spacing Chart 8 Inch Series "C & D"

FIRST NUMBER	SECOND NUMBER: 0		1		2		3		4		5		6		7		8		9	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
0 9	1^6	1^7	1^6	1^7	1^4	1^5	1^2	1^4	1^4	1^5	1^4	1^5	1^6	1^7	1^2	1^4	1^6	1^7	1^6	1^7
1	2^0	2^1	2^0	2^1	2^0	2^1	1^6	1^7	1^4	1^5	2^0	2^1	2^0	2^1	1^4	1^5	2^0	2^1	2^0	2^1
2 3 4	1^4	1^5	1^4	1^5	1^4	1^5	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5	1^1	1^2	1^6	1^7	1^4	1^5
5	1^4	1^5	1^4	1^5	1^4	1^5	1^1	1^2	1^1	1^2	1^4	1^5	1^4	1^5	1^1	1^2	1^4	1^5	1^4	1^5
6	1^6	1^7	1^4	1^5	1^4	1^5	1^2	1^5	1^2	1^4	1^4	1^5	1^4	1^5	1^1	1^2	1^4	1^5	1^4	1^5
7	1^2	1^4	1^2	1^4	1^4	1^5	1^2	1^5	0^5	0^6	1^2	1^4	1^4	1^5	1^1	1^2	1^4	1^5	1^2	1^4
8	1^6	1^7	1^6	1^7	1^4	1^5	1^2	1^5	1^2	1^4	1^4	1^5	1^6	1^7	1^2	1^4	1^6	1^7	1^4	1^5

EXAMPLE, $2^{③}$ DENOTES $\frac{3}{8}$″

UPPER AND LOWER CASE
LETTER WIDTHS

LETTERS	6 INCH UPPER CASE LETTERS SERIES C	6 INCH UPPER CASE LETTERS SERIES D	8 INCH UPPER CASE LETTERS SERIES C	8 INCH UPPER CASE LETTERS SERIES D	LETTERS	6 INCH LOWER CASE LETTERS SERIES C	6 INCH LOWER CASE LETTERS SERIES D
A	3^6	5^0	5^0	6^5	a	3^5	4^2
B	3^2	4^0	4^3	5^3	b	3^5	4^2
C	3^2	4^0	4^3	5^3	c	3^5	4^1
D	3^2	4^0	4^3	5^3	d	3^5	4^2
E	3^0	3^5	4^0	4^7	e	3^5	4^2
F	3^0	3^5	4^0	4^7	f	2^3	2^6
G	3^2	4^0	4^3	5^3	g	3^5	4^2
H	3^2	4^0	4^3	5^3	h	3^5	4^2
I	0^7	0^7	1^1	1^2	i	1^1	1^1
J	3^0	3^6	4^0	5^0	j	2^0	2^2
K	3^2	4^1	4^3	5^4	k	3^5	4^2
L	3^0	3^5	4^0	4^7	l	1^1	1^1
M	3^7	4^5	5^1	6^1	m	6^0	7^0
N	3^2	4^0	4^3	5^3	n	3^5	4^2
O	3^4	4^2	4^5	5^5	o	3^6	4^3
P	3^2	4^0	4^3	5^3	p	3^5	4^2
Q	3^4	4^2	4^5	5^5	q	3^5	4^2
R	3^2	4^0	4^3	5^3	r	2^6	3^2
S	3^2	4^0	4^3	5^3	s	3^6	4^2
T	3^0	3^5	4^0	4^7	t	2^7	3^2
U	3^2	4^0	4^3	5^3	u	3^5	4^2
V	3^5	4^4	4^7	6^0	v	4^2	4^7
W	4^4	5^2	6^0	7^0	w	5^5	6^4
X	3^4	4^0	4^5	5^3	x	4^4	5^1
Y	3^6	5^0	5^0	6^6	y	4^6	5^3
Z	3^2	4^0	4^3	5^3	z	3^6	4^3

NUMBER	6 INCH SERIES C	6 INCH SERIES D	8 INCH SERIES C	8 INCH SERIES D
1	1^2	1^4	1^5	2^0
2	3^2	4^0	4^3	5^3
3	3^2	4^0	4^3	5^3
4	3^5	4^3	4^7	5^7
5	3^2	4^0	4^3	5^3
6	3^2	4^0	4^3	5^3
7	3^2	4^0	4^3	5^3
8	3^2	4^0	4^3	5^3
9	3^2	4^0	4^3	5^3
0	3^4	4^2	4^5	5^5

REVISIONS NAME	DATE
CREATED	2/79
D.A.Z./ D.A.G.	11/90
	6/98
CADD	10/01/00
D.A.G.	10/28/09

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT 1 MAST ARM MOUNTED STREET NAME SIGNS

SCALE: NONE

DRAWN BY BCK
CHECKED BY DAG/DAD

TS 2

CONTRACT NO.

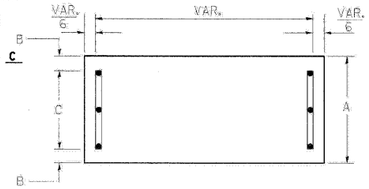
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47)WRS-2	LAKE	234	164
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60956

PANEL SIGN DESIGN TYPE 1

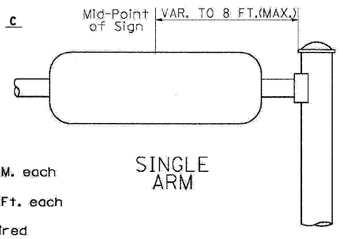
____ Sq. M. each
2⁵ 9.0 Sq. Ft. each
2 Required
Design Series C

SUPPORTING CHANNELS



A	B	C
18"	2"	14"

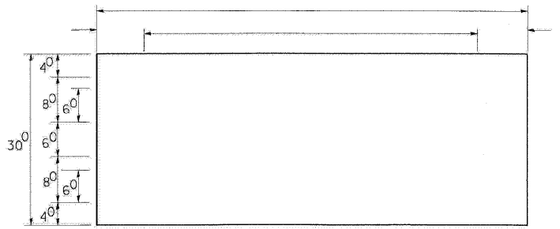
____ Sq. M. each
9.0 Sq. Ft. each
2 Required
Design Series C



SINGLE ARM

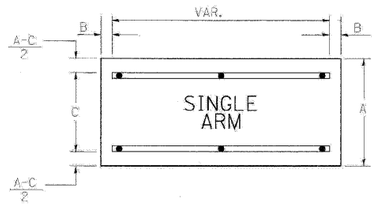
NOTE: SIGN DIMENSIONS ARE IN ENGLISH UNITS

PANEL SIGN DESIGN TYPE 2

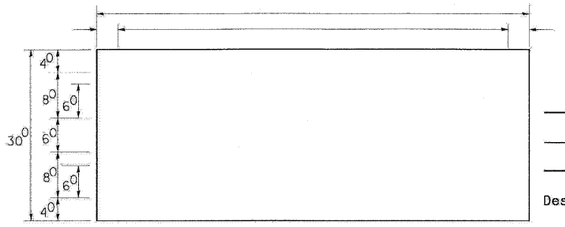


____ Sq. M. each
____ Sq. Ft. each
____ Required
Design Series ___

SUPPORTING CHANNELS



A	B	C
18"	2"	12"
30"	2"	22"



____ Sq. M. each
____ Sq. Ft. each
____ Required
Design Series ___

GENERAL NOTES

1. WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" X 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
2. ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND, TYPE A SHEETING.
3. THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHOULD NOT EXCEED 8'-0".
4. ALL BORDERS SHALL BE ¾" WIDE AND CORNER RADIUS SHALL BE 2-1/4 ".
5. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS. LOCAL SUPPLIERS OF THE SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM ARE:

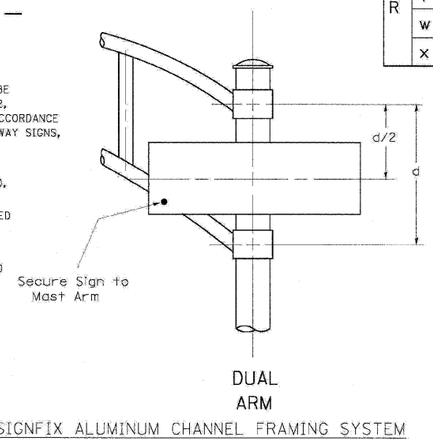
* J.O. HERBERT CO.
MIDLOTHIAN, VA.

* WESTERN REMAC INC.
WOODRIDGE, IL.

PARTS LISTING:

SIGN CHANNEL	PART #HPN053 (MED. CHANNEL)
SIGN SCREWS	¼" x 14 x 1" H.W.H. #3 SELF TAPPING WITH NEOPRENE WASHER
BRACKETS	PART #HPN034 (UNIVERSAL) CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

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



DUAL ARM

SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM shall be used. See Note #5.

Upper Case To Lower Case
Spacing Chart 8-6 Inch Series "C & D"

FIRST LETTER	SECOND LETTER: a c d e g o q		b h i k l m n p r u		f w		j		s t		v y		x		z	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
A W X	1^2	1^4	1^4	1^5	1^2	1^4	0^6	1^0	1^1	1^4	0^6	1^0	1^1	1^2	1^2	1^4
B	1^4	1^5	2^0	2^1	1^4	1^5	1^1	1^2	1^4	1^5	1^2	1^4	1^2	1^4	1^6	1^7
C E G	1^4	1^5	2^0	2^1	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5
D O Q R	1^4	1^5	2^0	2^1	1^4	1^5	0^6	1^0	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5
F	0^5	0^6	1^4	1^5	0^6	1^0	0^5	0^6	0^6	1^0	0^6	1^0	0^6	1^0	1^1	1^2
H I M N	2^0	2^1	2^2	2^4	2^0	2^1	1^4	1^5	1^6	1^7	1^6	1^7	2^0	2^1	2^0	2^1
J U	2^0	2^1	2^0	2^1	1^6	1^7	1^4	1^5	1^6	1^7	1^6	1^7	1^6	1^7	2^0	2^1
K L	1^1	1^2	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
P	1^2	1^4	1^4	1^5	1^2	1^4	0^5	0^6	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
S	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
T	1^1	1^2	1^6	1^7	0^6	1^0	0^6	1^0	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
V	0^6	1^0	1^4	1^5	1^1	1^2	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
Y	0^5	0^6	1^4	1^5	0^6	1^0	0^5	0^6	0^5	0^7	0^5	0^6	0^6	1^0	1^1	1^2
Z	1^6	1^7	2^2	2^4	1^6	1^7	1^2	1^4	1^6	1^7	1^6	1^7	1^6	1^7	2^0	2^1

Lower Case To Lower Case
Spacing Chart 6 Inch Series "C & D"

FIRST LETTER	SECOND LETTER: a c d e g o q		b h i k l m n p r u		f w		j		s t		v y		x		z	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
a d h g i j l m n q u	1^6	1^7	2^2	2^4	1^6	1^7	1^2	1^4	1^4	1^5	1^4	1^5	1^6	1^7	1^6	1^7
b f k o p s	1^2	1^4	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
c e	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^2	1^4	1^2	1^4	1^2	1^4	1^2	1^4
r	0^6	1^0	1^2	1^4	0^6	1^0	0^3	0^3	0^5	0^6	0^5	0^6	0^6	1^0	0^6	1^0
t z	1^2	1^4	1^6	1^7	1^2	1^4	0^6	1^0	1^1	1^2	1^1	1^2	1^2	1^4	1^2	1^4
v y	1^1	1^2	1^4	1^5	1^1	1^2	0^5	0^6	0^6	1^0	0^6	1^0	1^1	1^2	1^1	1^2
w	1^1	1^2	1^4	1^5	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4
x	1^2	1^4	1^6	1^7	1^1	1^2	0^5	0^6	1^1	1^2	1^1	1^2	1^1	1^2	1^2	1^4

Number To Number
Spacing Chart 8 Inch Series "C & D"

FIRST NUMBER	SECOND NUMBER: 0		1		2		3		4		5		6		7		8		9	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
0 9	1^6	1^7	1^6	1^7	1^4	1^5	1^2	1^4	1^4	1^5	1^4	1^5	1^6	1^7	1^2	1^4	1^6	1^7	1^6	1^7
1	2^0	2^1	2^0	2^1	2^0	2^1	1^6	1^7	1^4	1^5	2^0	2^1	2^0	2^1	1^4	1^5	2^0	2^1	2^0	2^1
2 3 4	1^4	1^5	1^4	1^5	1^4	1^5	1^2	1^4	1^2	1^4	1^4	1^5	1^4	1^5	1^1	1^2	1^6	1^7	1^4	1^5
5	1^4	1^5	1^4	1^5	1^4	1^5	1^1	1^2	1^1	1^2	1^4	1^5	1^4	1^5	1^1	1^2	1^4	1^5	1^4	1^5
6	1^6	1^7	1^4	1^5	1^4	1^5	1^2	1^5	1^2	1^4	1^4	1^5	1^4	1^5	1^1	1^2	1^4	1^5	1^4	1^5
7	1^2	1^4	1^2	1^4	1^4	1^5	1^2	1^5	0^5	0^6	1^2	1^4	1^4	1^5	1^1	1^2	1^4	1^5	1^2	1^4
8	1^6	1^7	1^6	1^7	1^4	1^5	1^2	1^5	1^2	1^4	1^4	1^5	1^6	1^7	1^2	1^4	1^6	1^7	1^4	1^5

EXAMPLE, 2 (3) DENOTES $\frac{3''}{8}$

UPPER AND LOWER CASE LETTER WIDTHS

LETTERS	6 INCH UPPER CASE LETTERS SERIES C	6 INCH UPPER CASE LETTERS SERIES D	8 INCH UPPER CASE LETTERS SERIES C	8 INCH UPPER CASE LETTERS SERIES D	LETTERS	6 INCH LOWER CASE LETTERS SERIES C	6 INCH LOWER CASE LETTERS SERIES D
A	3^6	5^0	5^0	6^5	a	3^5	4^2
B	3^2	4^0	4^3	5^3	b	3^5	4^2
C	3^2	4^0	4^3	5^3	c	3^5	4^1
D	3^2	4^0	4^3	5^3	d	3^5	4^2
E	3^0	3^5	4^0	4^7	e	3^5	4^2
F	3^0	3^5	4^0	4^7	f	2^3	2^6
G	3^2	4^0	4^3	5^3	g	3^5	4^2
H	3^2	4^0	4^3	5^3	h	3^5	4^2
I	0^7	0^7	1^1	1^2	i	1^1	1^1
J	3^0	3^6	4^0	5^0	j	2^0	2^2
K	3^2	4^1	4^3	5^4	k	3^5	4^2
L	3^0	3^5	4^0	4^7	l	1^1	1^1
M	3^7	4^5	5^1	6^1	m	6^0	7^0
N	3^2	4^0	4^3	5^3	n	3^5	4^2
O	3^4	4^2	4^5	5^5	o	3^6	4^3
P	3^2	4^0	4^3	5^3	p	3^5	4^2
Q	3^4	4^2	4^5	5^5	q	3^5	4^2
R	3^2	4^0	4^3	5^3	r	2^6	3^2
S	3^2	4^0	4^3	5^3	s	3^6	4^2
T	3^0	3^5	4^0	4^7	t	2^7	3^2
U	3^2	4^0	4^3	5^3	u	3^5	4^2
V	3^5	4^4	4^7	6^0	v	4^2	4^7
W	4^4	5^2	6^0	7^0	w	5^5	6^4
X	3^4	4^0	4^5	5^3	x	4^4	5^1
Y	3^6	5^0	5^0	6^6	y	4^6	5^3
Z	3^2	4^0	4^3	5^3	z	3^6	4^3

NUMBER	6 INCH SERIES C	6 INCH SERIES D	8 INCH SERIES C	8 INCH SERIES D
1	1^2	1^4	1^5	2^0
2	3^2	4^0	4^3	5^3
3	3^2	4^0	4^3	5^3
4	3^5	4^3	4^7	5^7
5	3^2	4^0	4^3	5^3
6	3^2	4^0	4^3	5^3
7	3^2	4^0	4^3	5^3
8	3^2	4^0	4^3	5^3
9	3^2	4^0	4^3	5^3
0	3^4	4^2	4^5	5^5

REVISIONS NAME	DATE
CREATED	2/79
D.A.Z./ D.A.G.	11/90
	6/98
CADD	10/01/00
D.A.G.	10/28/09

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT 1
MAST ARM MOUNTED
STREET NAME SIGNS

SCALE: NONE

DRAWN BY BCK
CHECKED BY DAG/DAD

TS 2

PLOT DATE = 11/4/2009
FILE NAME = c:\projects\bauerd\d0186394\ts82.dgn
PLOT SCALE = 43.9999 '/ IN.
USER NAME = bauerd

CONTRACT NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47)WRS-2	LAKE	234	165
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.

2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.

3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.

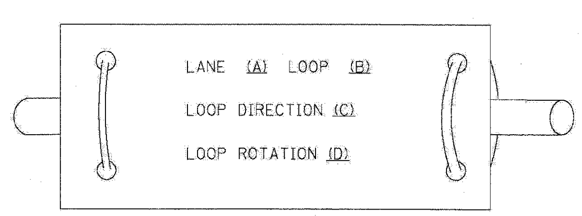
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.

5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.

6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.

7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

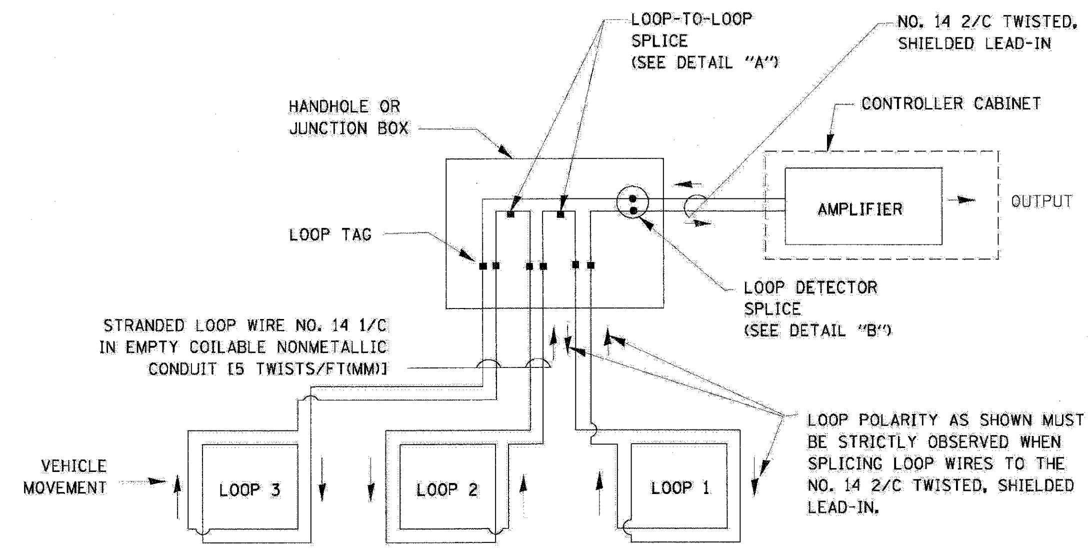


A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY

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

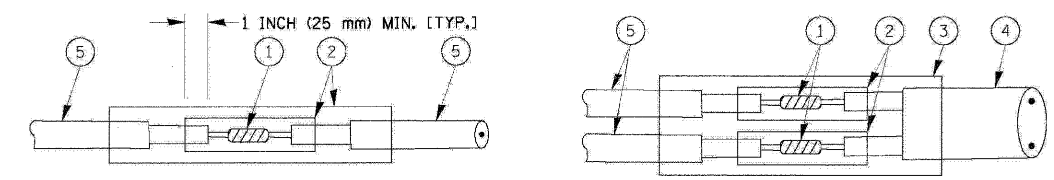
C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".

D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



DETECTOR LOOP WIRING SCHEMATIC

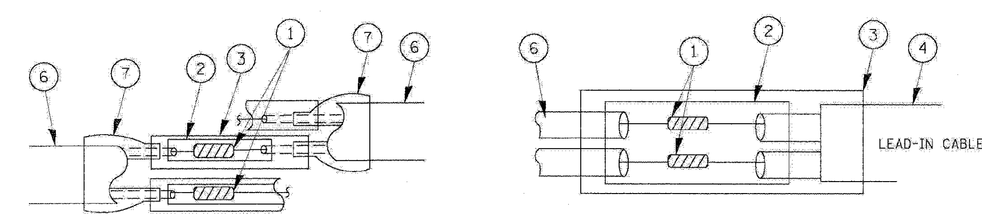
- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.



DETAIL "A"
LOOP-TO-LOOP SPLICE

DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE

PRE-FORMED LOOP

DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

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

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

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

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

(5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

(6) PRE-FORMED LOOP

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

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

SCALE: NONE

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

TS05

PLOT DATE = 11/4/2009
USER NAME = bauerdl

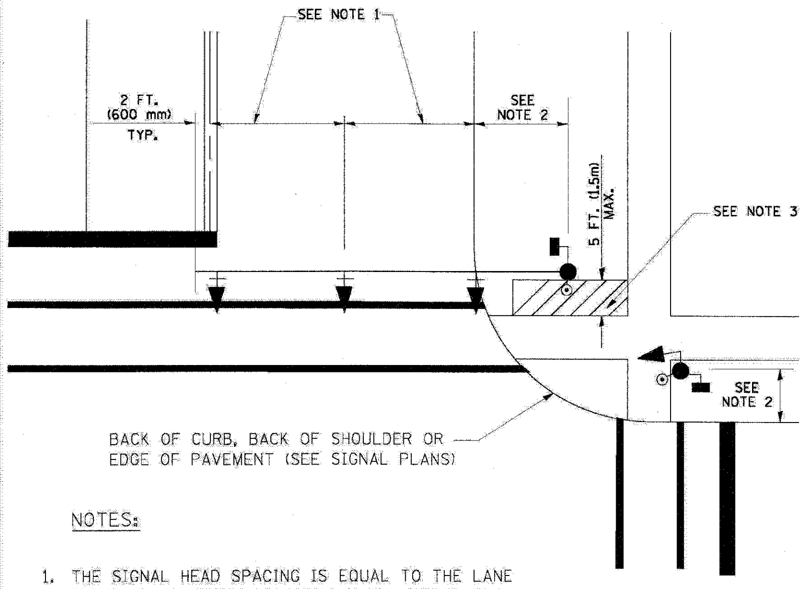
CONTRACT NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47)WRS-2	LAKE	234	166
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

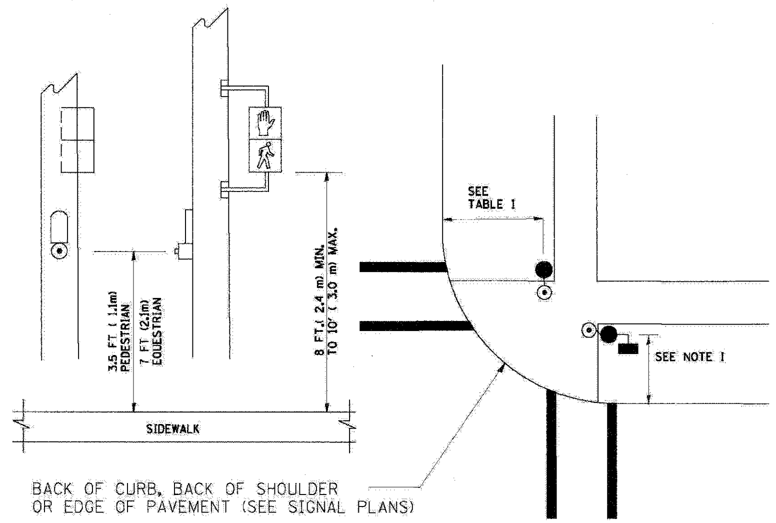
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

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

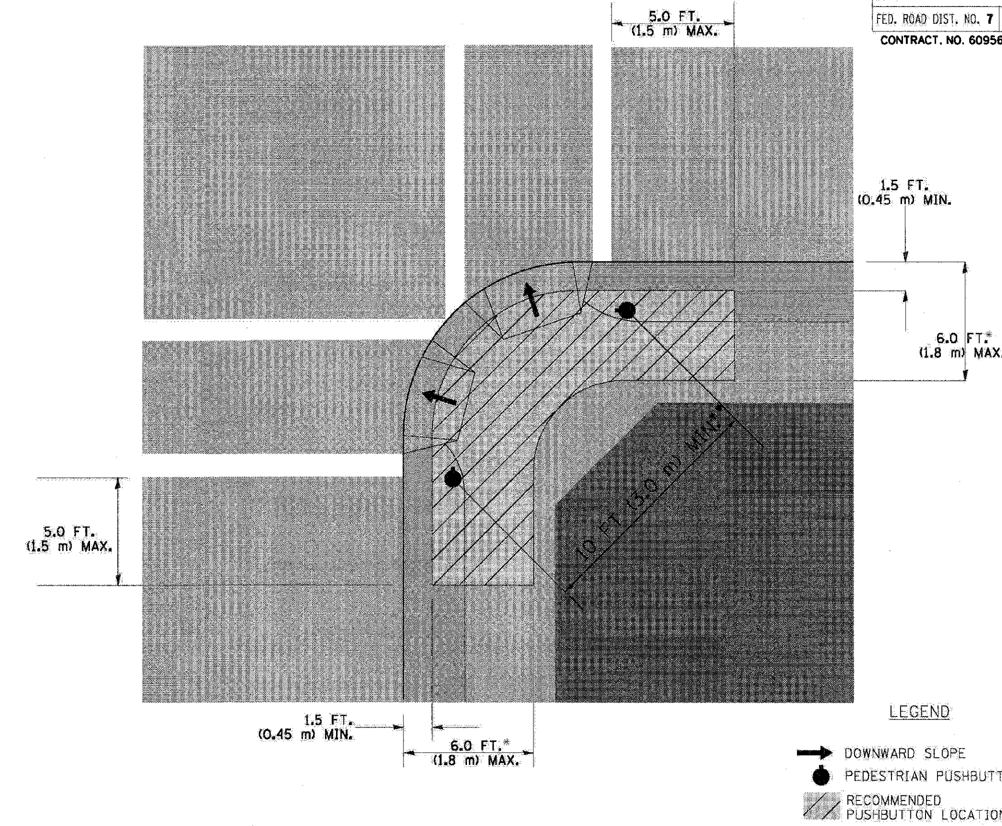
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

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

RECOMMENDED PUSHBUTTON LOCATIONS



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

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

NOTES:

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

TRAFFIC SIGNAL EQUIPMENT OFFSET

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

NOTES:

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

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE

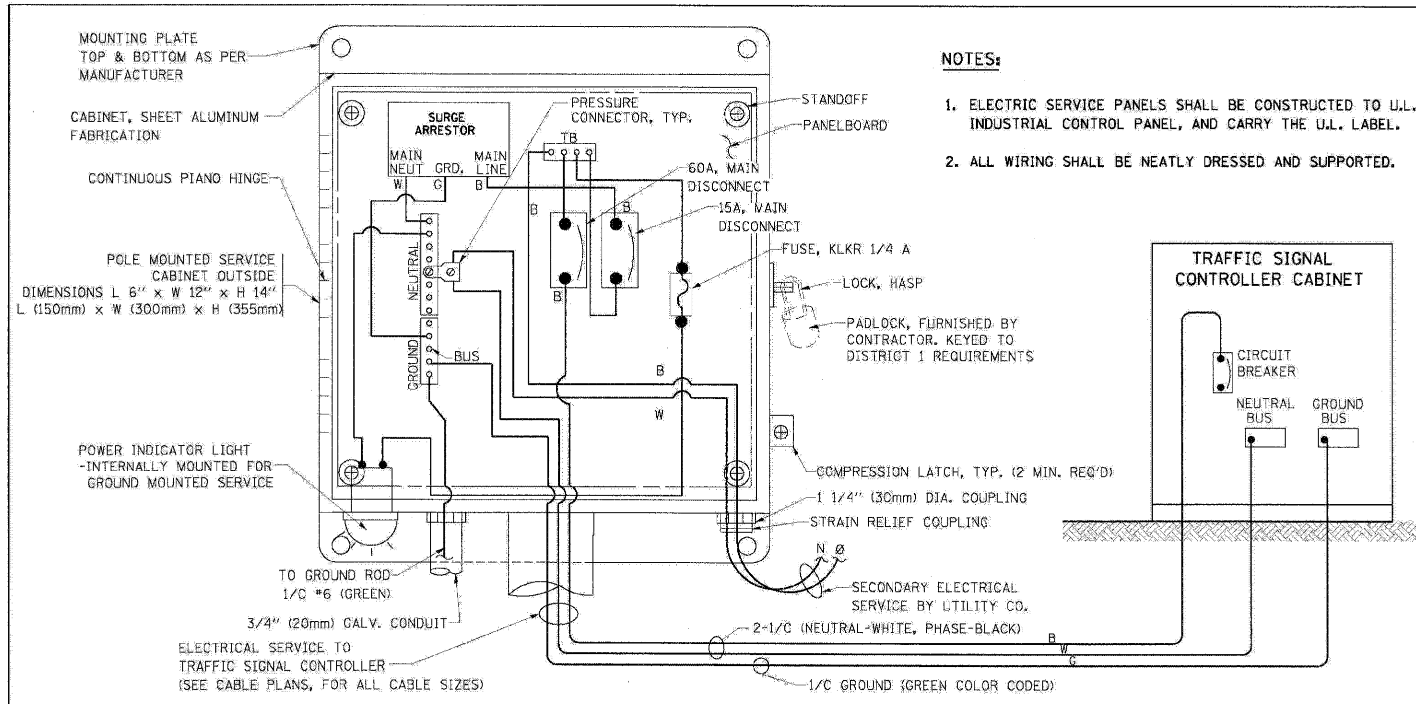
DRAWN BY: BCK
DESIGNED BY: DAD
CHECKED BY: DAD
SHEET 2 OF 6

TS05

CONTRACT NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47)WRS-2	LAKE	234	167
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT. NO. 60956



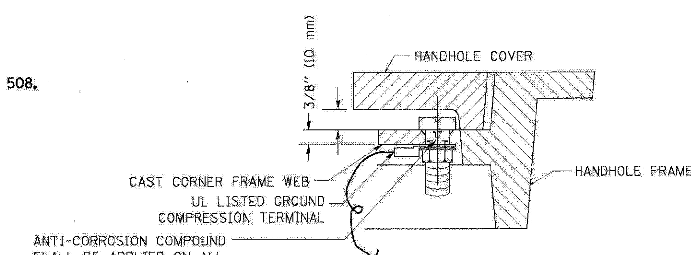
NOTES:

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

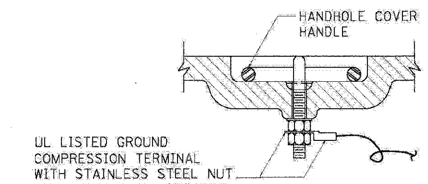
ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

SERVICE INSTALLATION POLE MOUNT (SHOWN)

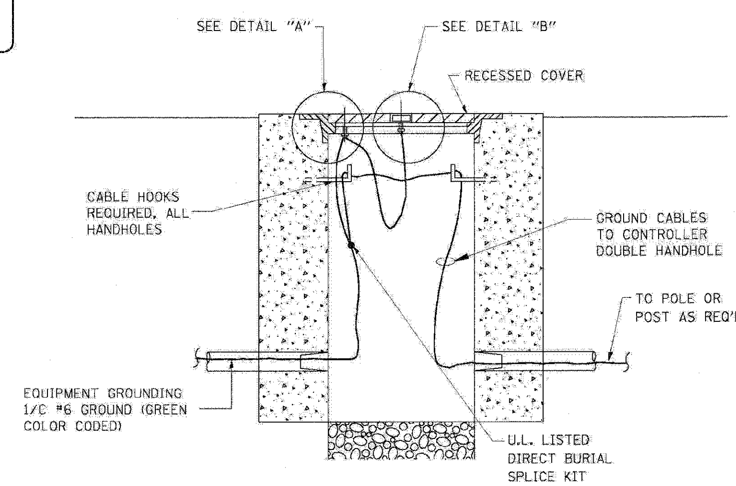
(NOT TO SCALE)



DETAIL "A"



DETAIL "B"



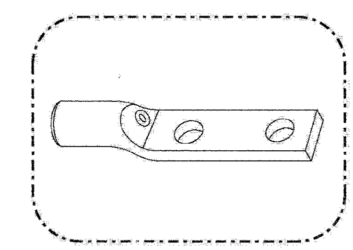
HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)

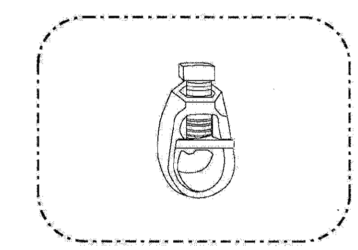
NOTES:

GROUNDING SYSTEM

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



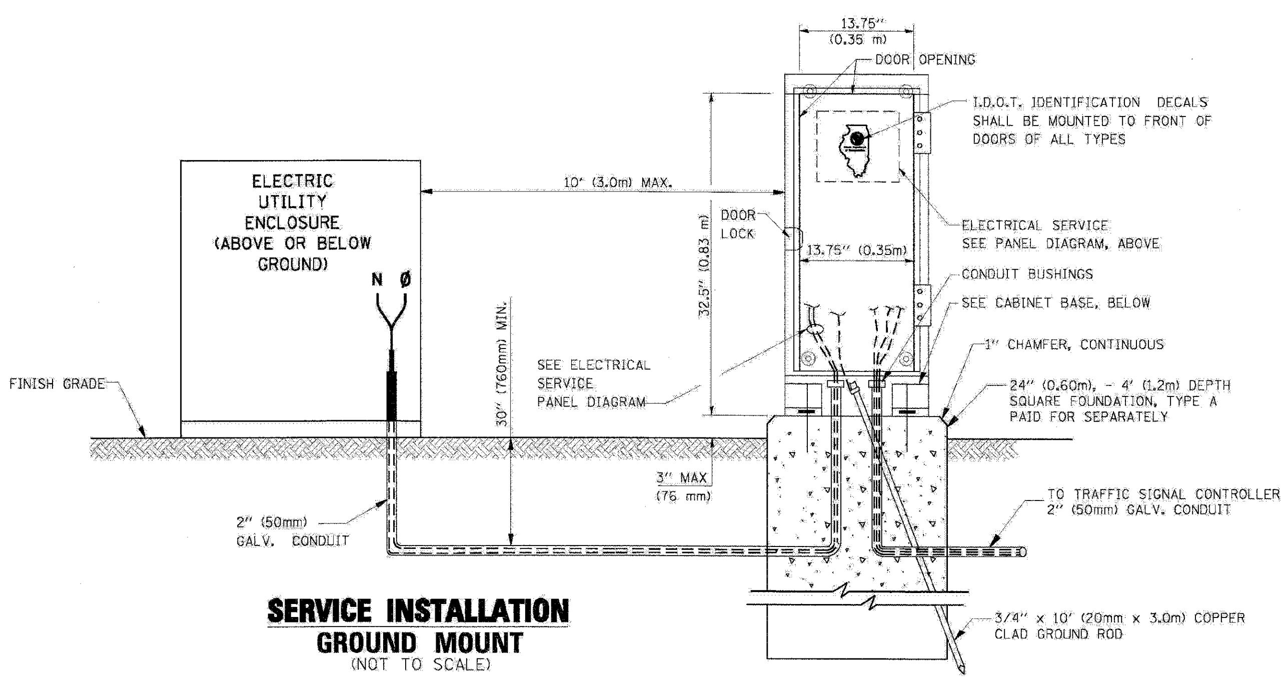
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



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

NOTES:

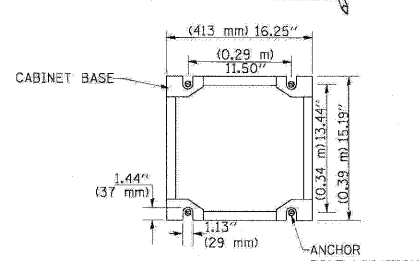
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



SERVICE INSTALLATION

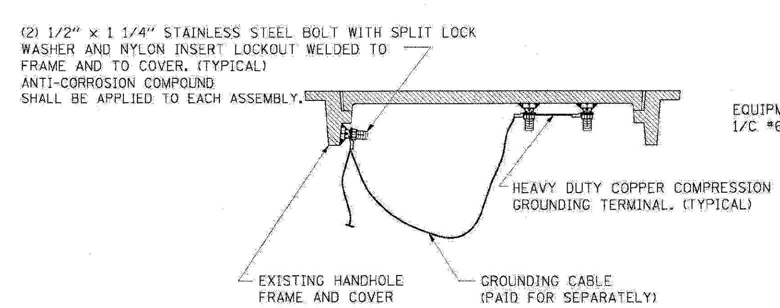
GROUND MOUNT

(NOT TO SCALE)



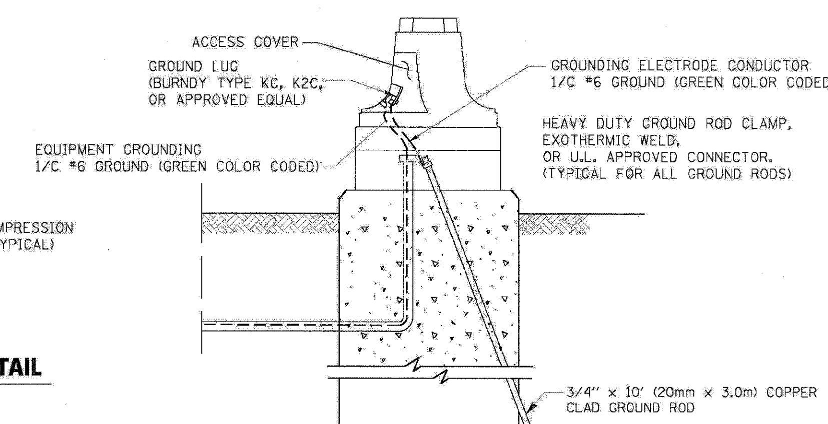
CABINET – BASE BOLT PATTERN

(NOT TO SCALE)



EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL

(NOT TO SCALE)



MAST ARM POLE / POST–GROUNDING DETAIL

(NOT TO SCALE)

REVISIONS	
NAME	DATE
CADD	5/30/00
CADD	3/15/01
BUREAU OF TRAFFIC	1/01/02
BCK	10/28/09

ILLINOIS DEPARTMENT OF TRANSPORTATION

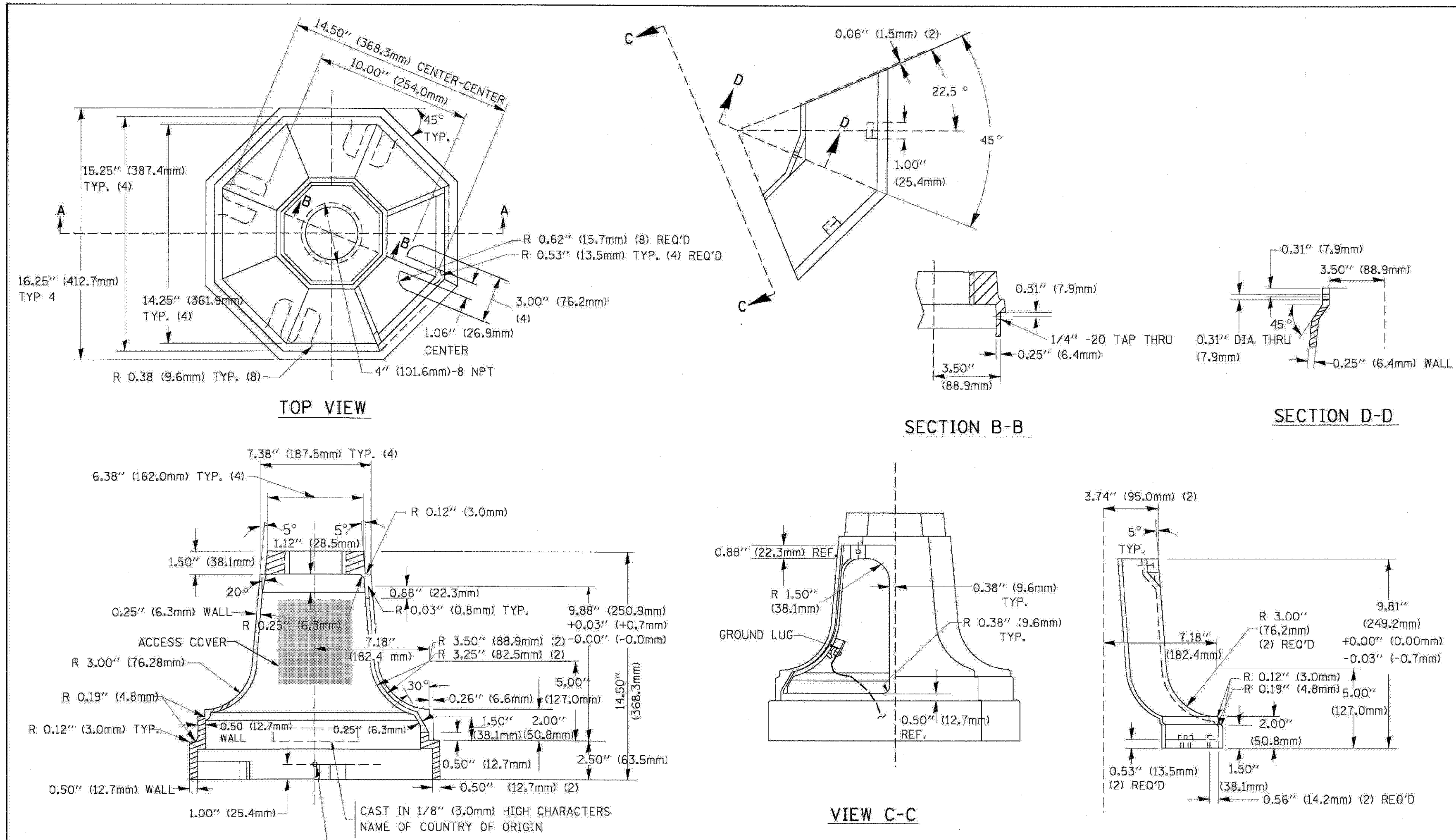
DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

SCALE: NONE

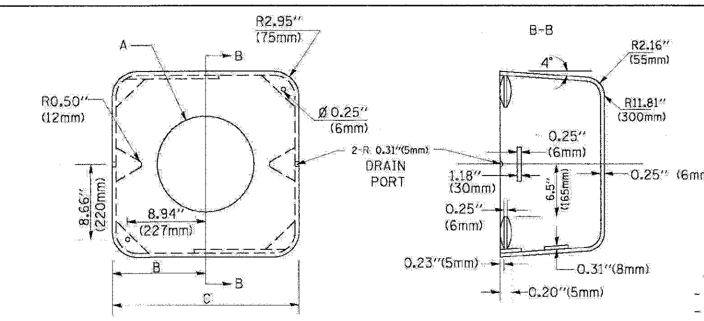
DRAWN BY: BCK
DESIGNED BY: DAD
CHECKED BY: DAD
SHEET 3 OF 6

TS05

PLOT DATE = 11/4/2009
USER NAME = bauerdl



TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



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

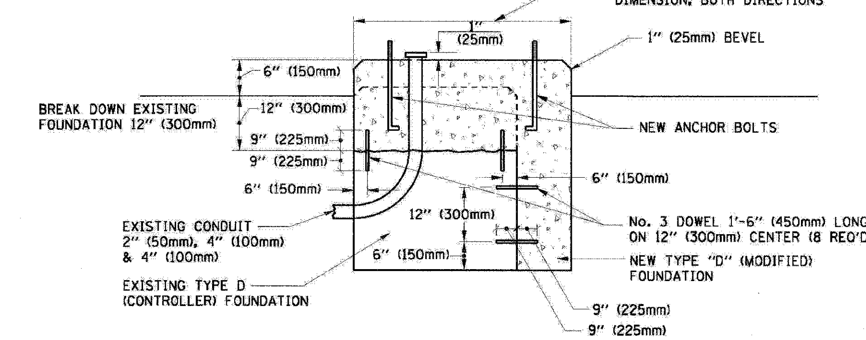
A	B	C	HEIGHT	WEIGHT
VARIES	9.5"(241mm)	19"(483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIES	10.75"(273mm)	21.5"(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIES	13.0"(330mm)	26"(660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIES	18.5"(470mm)	37"(940mm)	7" (178mm) - 12" (300mm)	126 lbs (57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

SHROUD

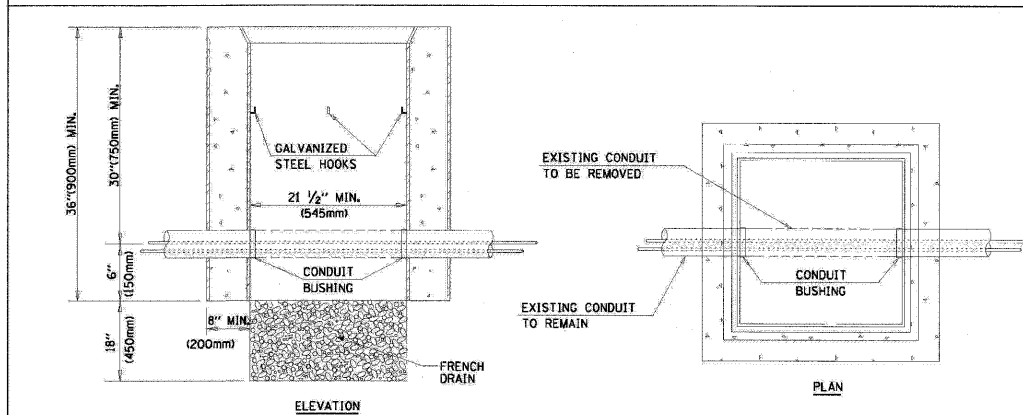
NOTES:

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

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



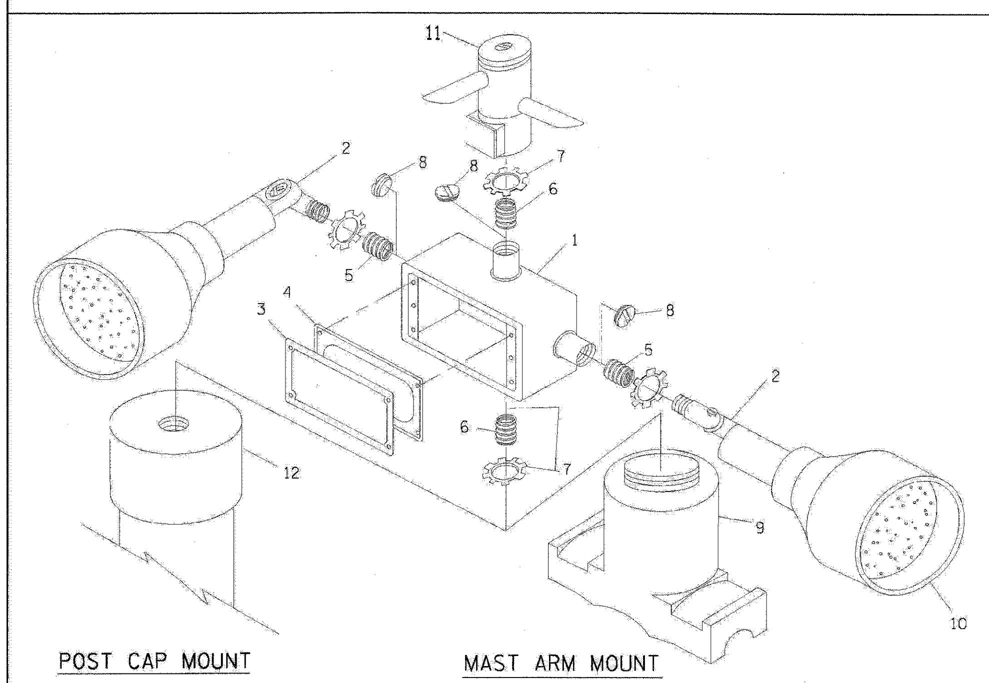
MODIFY EXISTING TYPE "D" FOUNDATION



HANDHOLE TO INTERCEPT EXISTING CONDUIT

NOTES:

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



EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4"(19 mm) CLOSE NIPPLE
7	3/4"(19 mm) LOCKNUT
8	3/4"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

NOTES:

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

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

SCALE: NONE

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

TS05

PLOT DATE = 11/4/2009
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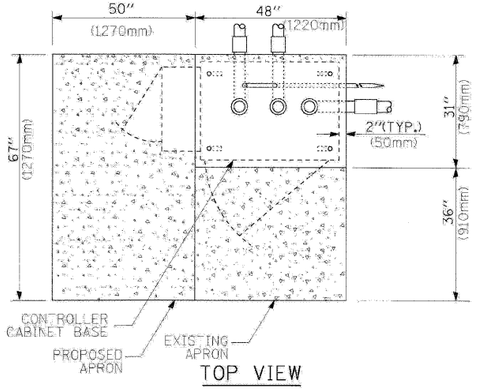
USER NAME = bauerdl

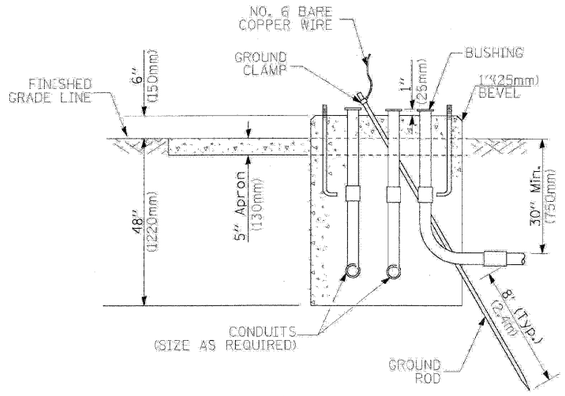
CONTRACT NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47)WRS-2	LAKE	234	169
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

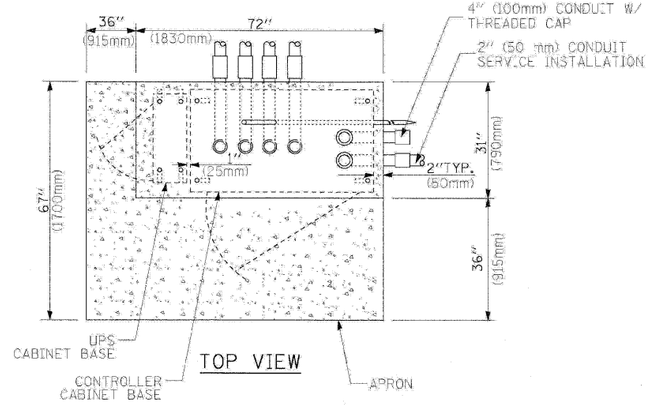
CONTRACT NO. 60956



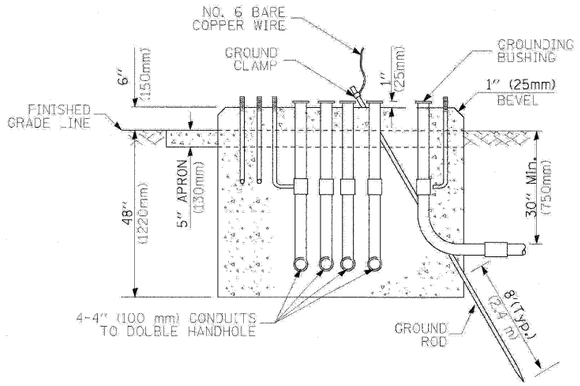
TOP VIEW



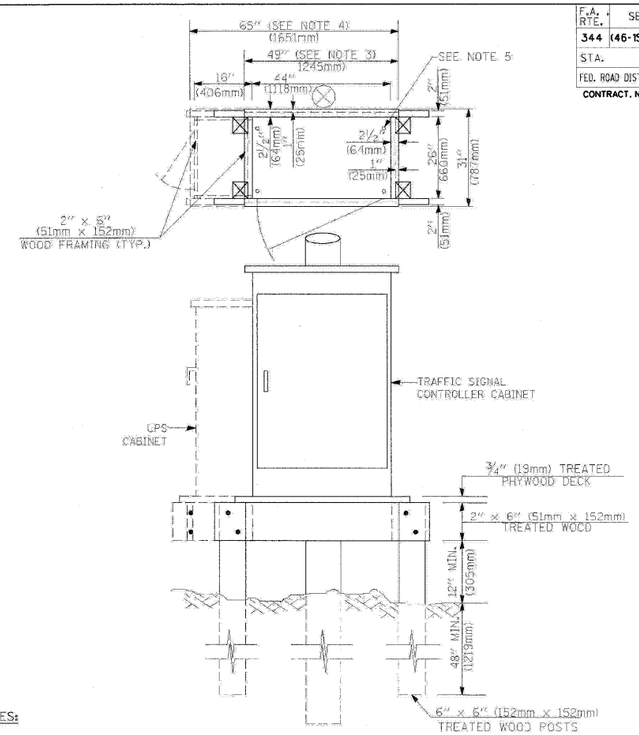
TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



TOP VIEW



TYPE C
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET



NOTES:

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

TEMPORARY SIGNAL CONTROLLER
WOOD SUPPORT PLATFORM

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

CABLE SLACK

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

VERTICAL CABLE LENGTH

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

NOTES:

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

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

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

DEPTH OF FOUNDATION

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

SCALE: NONE

DRAWN BY: BCK
DESIGNED BY: DAD
CHECKED BY: DAD
SHEET 5 OF 6

TSD5

PLOT DATE = 11/4/2003
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CONTRACT NO.				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47)WRS-2	LAKE	234	170
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60956

TRAFFIC SIGNAL LEGEND

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

ITEM	REMOVAL	EXISTING	PROPOSED
EMERGENCY VEHICLE LIGHT DETECTOR	R		
CONFIRMATION BEACON	R		
HANDHOLE	R		
HEAVY DUTY HANDHOLE	R H	H	H
DOUBLE HANDHOLE	R		
JUNCTION BOX	R		
GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)			
TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE	R		
COMMON TRENCH			CT
COILABLE NONMETALLIC CONDUIT (EMPTY)			CNC
SYSTEM ITEM		S	S
INTERSECTION ITEM		I	IP
REMOVE ITEM	R		
RELOCATE ITEM	RL		
ABANDON ITEM	A		
12" (300mm) TRAFFIC SIGNAL SECTION		R	R
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE		R Y G	
SIGNAL FACE		R Y G Y G	R Y G Y G
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD		R Y G Y G "P"	R Y G Y G "P"
12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL		DW W	
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED			
12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID			
PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER		C D	C D
RADIO INTERCONNECT	R		
RADIO REPEATER	R ERR	ERR	RR
DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED		5	5
GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)		1	1

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

RAILROAD SYMBOLS

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

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

SCALE: NONE

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

TS05

PLOT DATE = 11/4/2020
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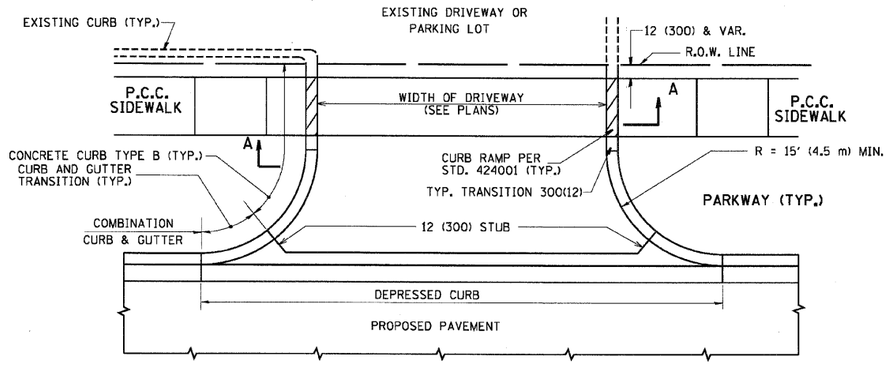
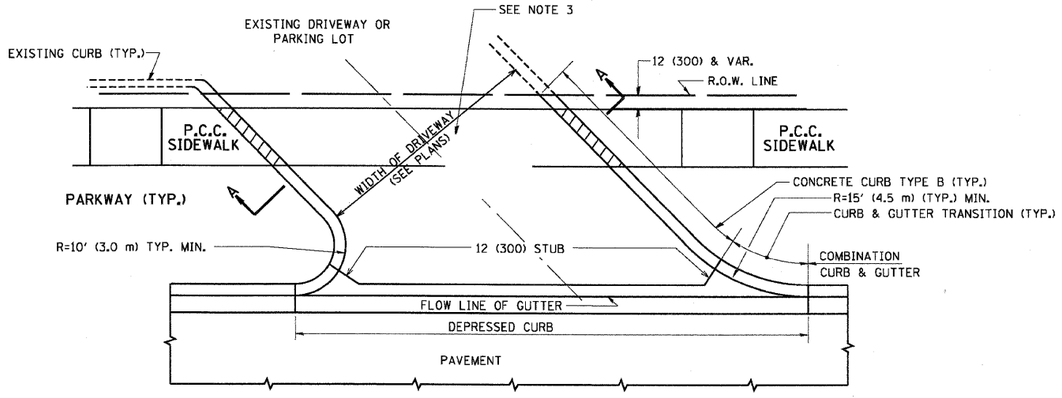
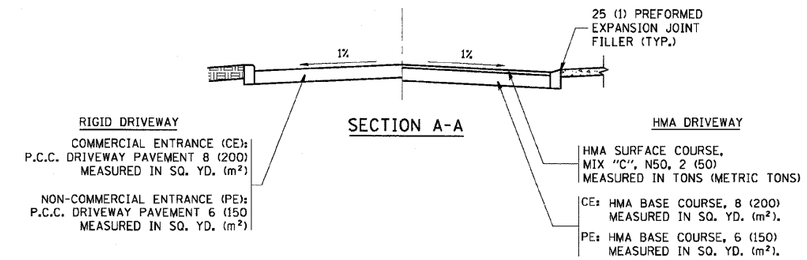
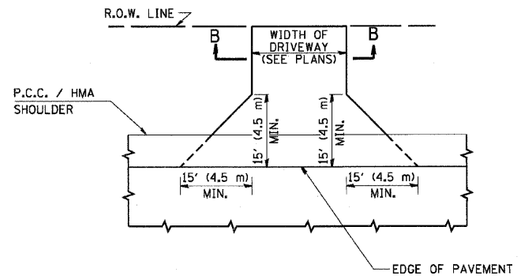


WITH CONCRETE CURB, TYPE B

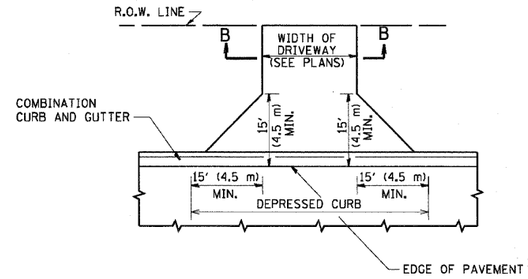


WITH CONCRETE CURB, TYPE B

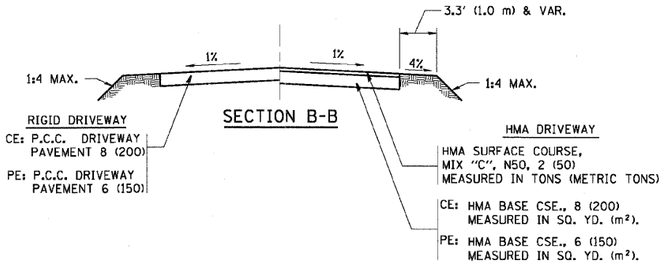




ADJACENT TO P.C.C. / HMA SHOULDER



ADJACENT TO CURB AND GUTTER



RURAL FIELD ENTRANCE (FE)

HMA SURFACE COURSE,
MIX "C", N50, 2 (50)
MEASURED IN TONS (METRIC TONS)

AGGREGATE BASE CSE., TYPE B, 8 (200)
MEASURED IN SQ. YD. (m²).

GENERAL NOTES:

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK. DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.

COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

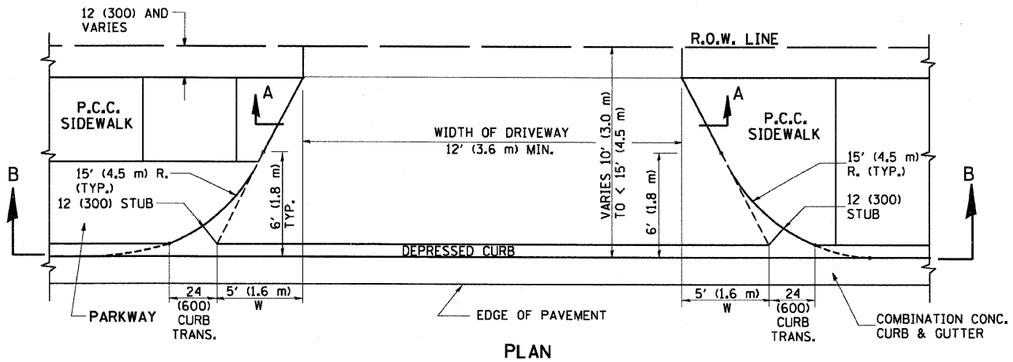
COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

WHEN THE P.C.C. SIDEWALK EXTENDS THROUGH THE DRIVEWAY, THE THICKNESS OF THE SIDEWALK IN THE DRIVEWAY AREA SHALL BE THE SAME AS THE DRIVEWAY THICKNESS. SIDEWALK WILL BE PAID FOR AS P.C.C. SIDEWALK OF THE THICKNESS SPECIFIED. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

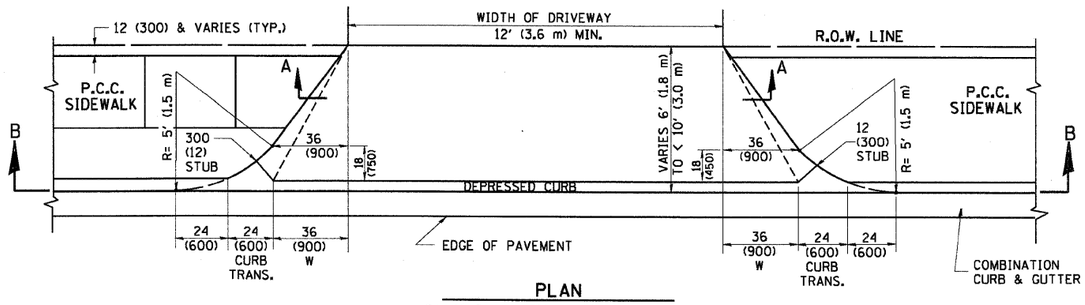
FILE NAME = c:\projects\diststd22x34\bd01.dgn	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - M. GOMEZ 04-06-01	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**DRIVEWAY DETAILS – DISTANCE BETWEEN R.O.W. AND FACE OF CURB & EDGE OF SHOULDER >= 15' (4.5 m)**
		DRAWN -	REVISED - P. LaFLUER 04-15-03		
	PLOT SCALE = 49.9999 ' / IN.	CHECKED -	REVISED - R. BORO 01-01-07		
	PLOT DATE = 6/12/2008	DATE - 11-04-95	REVISED - R. BORO 06-11-08		SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47WRS-2	LAKE	234	171
	BD0156-07 (BD-01)	CONTRACT NO. 60956		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		



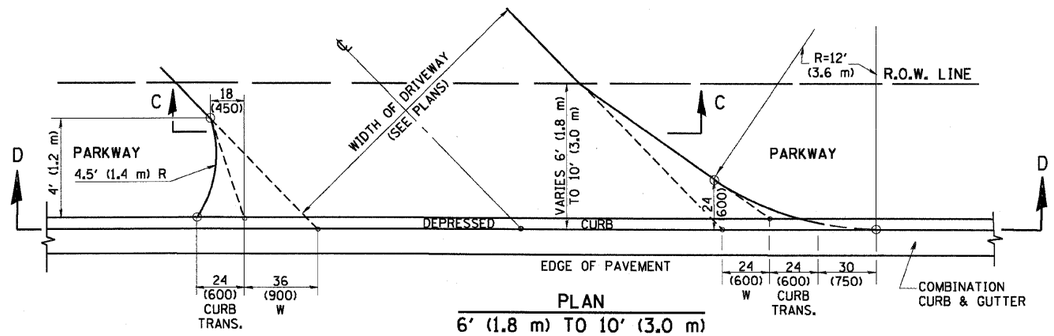
PLAN

10' (3.0 m) TO < 15' (4.5 m)



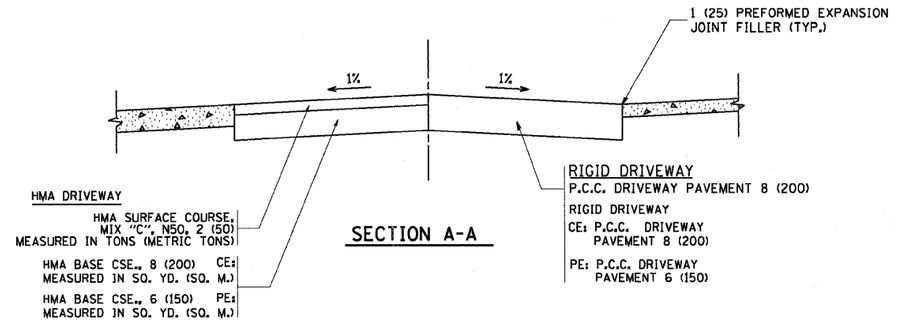
PLAN

6' (1.8 m) TO < 10' (3.0 m)

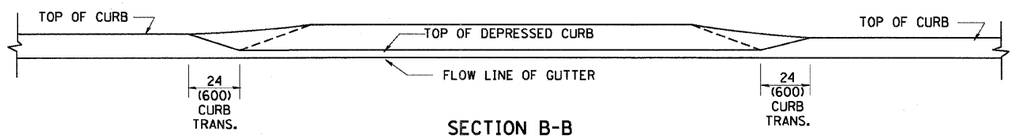


PLAN

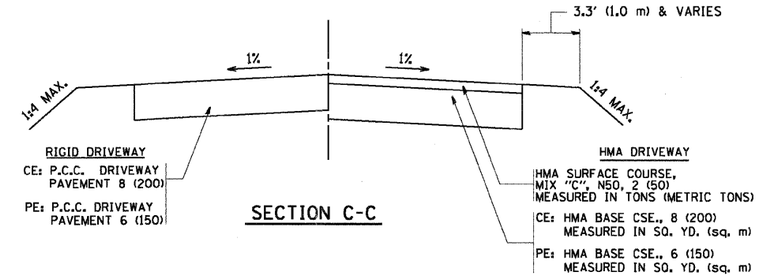
6' (1.8 m) TO 10' (3.0 m)



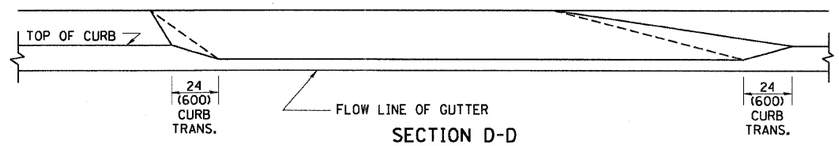
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

GENERAL NOTES

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATION 10 IN THE PERMIT HANDBOOK. WHERE SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED WITH RIGID PAVEMENT. WHERE NO SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED IN KIND. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

WHEN THE DISTANCE BETWEEN R.O.W. AND THE BACK OF CURB IS EQUAL TO OR LESS THAN 8' (2.4 m), THE P.C.C. SIDEWALK SHALL EXTEND TO THE BACK OF CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

THE 1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

"W" VARIES FROM 36 (900) TO 5' (1.5 m) PROPORTIONAL TO THE LENGTH (L), FROM 6' (1.8 m) TO 10' (3 m).

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

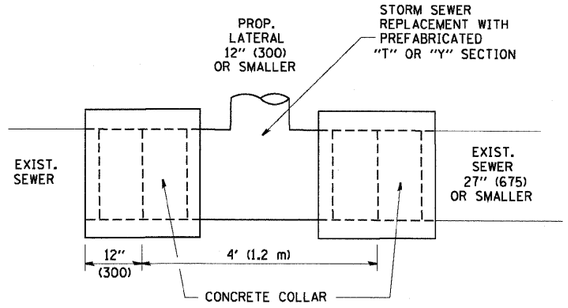
FILE NAME = W:\diststd\22x34\bd02.dgn	USER NAME = geglienobt	DESIGNED - R. SHAH	REVISED - T. HOLTZ 04-08-97
		DRAWN -	REVISED - M. GOMEZ 04-06-01
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - P. LaFLEUR 04-15-03
	PLOT DATE = 1/4/2008	DATE - 11-06-95	REVISED - R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRIVEWAY DETAILS
DISTANCE BETWEEN ROW AND FACE OF CURB < 15' (4.5 m)

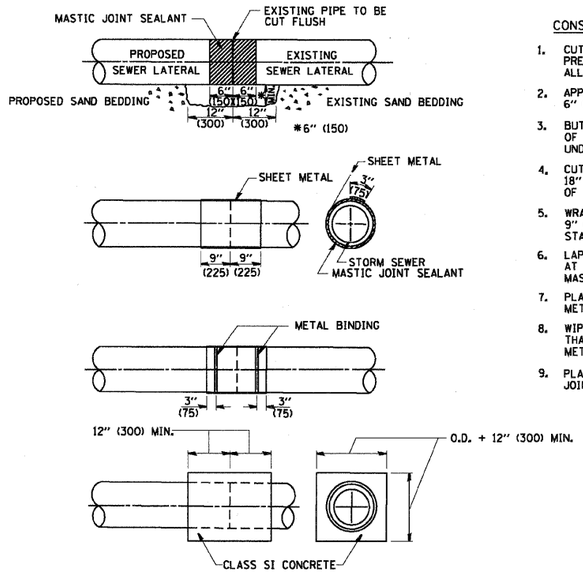
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47)WRS-2	LAKE	234	172
	BD400-02 (BD-02)	CONTRACT NO. 60956		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		



DETAIL "A"

LATERAL CONNECTION TO EXISTING SEWER
OF 27" (675) OR SMALLER

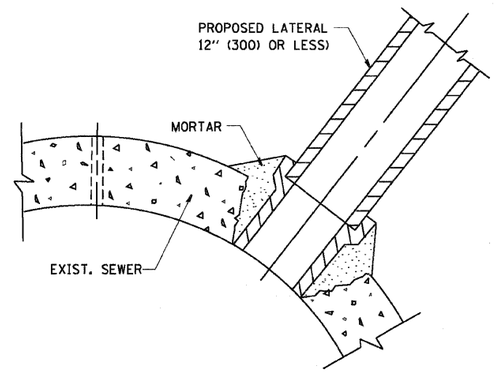


DETAIL "B"

CLASS SI CONCRETE COLLAR

CONSTRUCTION SEQUENCE

1. CUT THE EXISTING END OF THE PIPE SO AS TO PRESENT A FLUSH BUTT JOINT. BRUSH AND CLEAN ALL PIPES.
2. APPLY THE MASTIC JOINT SEALANT TO THE FIRST 6" (150) OF EACH PIPE.
3. BUTT THE PIPES TOGETHER LEAVING A MINIMUM OF 12' x 6' (300 x 150) DEEP EXCAVATION UNDER AND AROUND EACH PIPE END.
4. CUT A PIECE OF SHEET METAL GAGE NO. 19 L.I (0.0418) 18" (450) WIDE BY THE OUTSIDE CIRCUMFERANCE OF THE PIPE PLUS 3" (75) LONG.
5. WRAP THE SHEET METAL AROUND THE PIPES, 9" (225) ON EACH SIDE OF THE JOINT, STARTING AT THE TOP OF THE PIPE.
6. LAP THE SHEET METAL AT LEAST 3" (75) AT THE TOP OF THE PIPE AND PLACE THE MASTIC JOINT SEALANT BETWEEN THE LAP.
7. PLACE TWO METAL BANDS AROUND THE SHEET METAL AND TIGHTEN.
8. WIPE OFF ANY EXCESS MASTIC JOINT SEALANT THAT OOZES OUT FROM BETWEEN THE SHEET METAL AND THE PIPES.
9. PLACE CLASS SI CONCRETE AROUND THE JOINT.



DETAIL "C"

PROPOSED LATERAL
CONNECTION TO EXISTING SEWER
OF 30" (750) OR LARGER

NOTES

MATERIAL

MATERIAL USED FOR THE TEE OR WYE SECTION SHALL BE COMPATIBLE WITH THE EXISTING STORM SEWER OR THE PROPOSED STORM SEWER.

CONSTRUCTION METHODS

I. THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.

II. CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS:

A) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER SEE DETAIL "A" AND "B".

B) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER SEE DETAIL "C".

IF THE EXISTING SEWER PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR IN MAKING THE CIRCULAR OPENING, THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING SEWER, IN A CAREFUL WORKMANLIKE MANNER, WITHOUT EXTRA COMPENSATION.

GENERAL

CARE MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE SEWER. ALL DEBRIS WHICH ENTERS THE SEWER MUST BE REMOVED. THE SEWER MUST BE LEFT CLEAN AND UNOBSTRUCTED UPON COMPLETION OF THE CONTRACT.

CARE MUST BE TAKEN TO PREVENT ANY PART OF THE NEW PIPE CONNECTION FROM PROJECTING INTO THE EXISTING SEWER.

BASIS OF PAYMENT

TEE OR WYE CONNECTIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR STORM SEWER TEE OR WYE OF THE TYPE AND SIZE SPECIFIED IN THE PLANS, THIS PRICE SHALL INCLUDE ALL EXCAVATION OF THE TRENCH, REMOVAL OF THE EXISTING STORM SEWER, FURNISHING AND INSTALLING THE SPECIFIED TEE OR WYE SECTION, FURNISHING AND INSTALLING THE REQUIRED CONCRETE COLLAR, AND ALL OTHER MATERIAL NECESSARY TO COMPLETE THIS WORK AS SHOWN AND SPECIFIED.

REMOVAL AND REINSTALLATION OF EXISTING STORM SEWER ADJACENT TO THE PROPOSED TEE OR WYE SECTION, FOR THE PURPOSE OF FACILITATING THE INSTALLATION OF THE TEE OR WYE SECTION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE WORK.

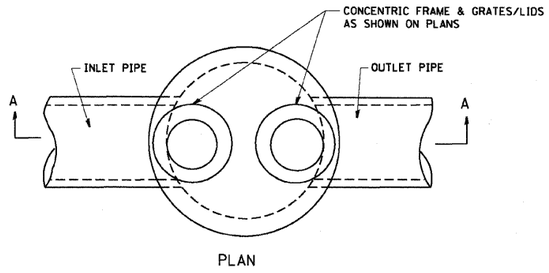
TRENCH BACKFILL, EXCAVATION IN ROCK AND REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL BELOW PLAN BEDDING GRADE WILL BE PAID FOR SEPARATELY.

CONCRETE COLLAR FOR CONNECTING A PROPOSED STORM SEWER TO AN EXISTING STORM SEWER WILL NOT BE PAID PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.

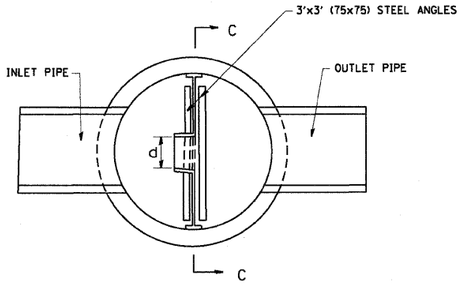
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = W:\diststd\22x34\bd07.dgn	USER NAME = gaglenobt	DESIGNED - M. DE YONG	REVISED - M. DE YONG 05-08-92	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAIL OF STORM SEWER CONNECTION TO EXISTING SEWER
		DRAWN -	REVISED - R. SHAH 09-09-94		
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - R. SHAH 10-25-94		
	PLOT DATE = 1/4/2008	DATE - 07-25-90	REVISED - R. SHAH 06-12-96		SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

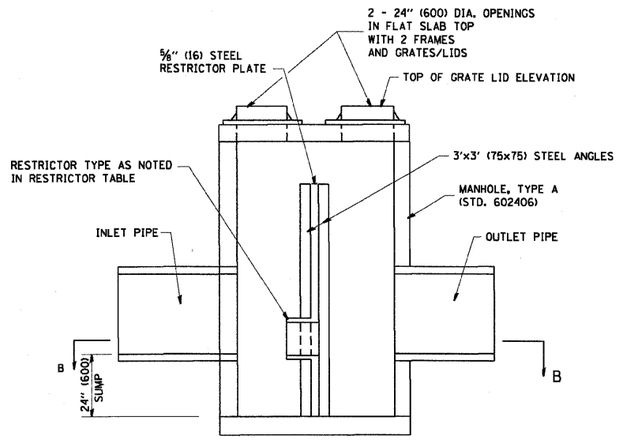
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47)WRS-2	LAKE	234	173
	BD500-01 (BD-7)	CONTRACT NO. 60956		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		



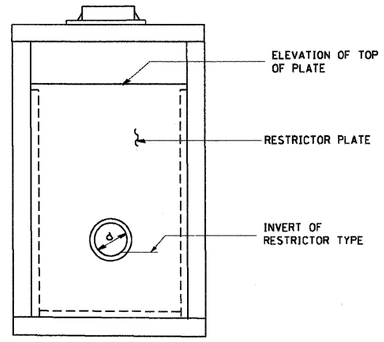
PLAN



SECTION B-B



SECTION A-A



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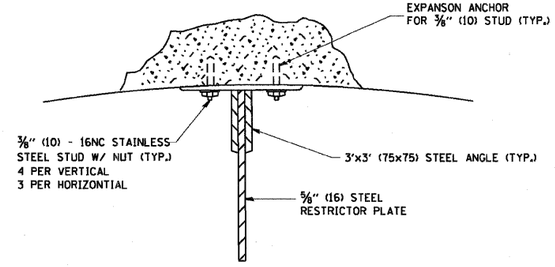
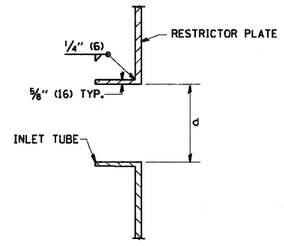


ANGLE FASTENER DETAIL

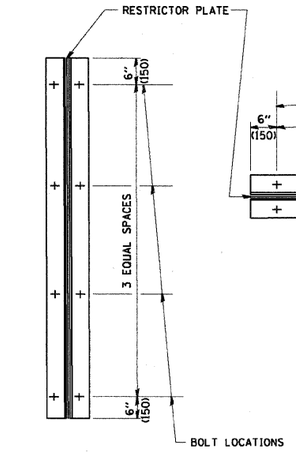
NOTES:

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, 6 FT. (1.8 m)-DIAMETER, TYPE 1 FRAME, CLOSED LID, RESTRICTOR PLATE" EACH

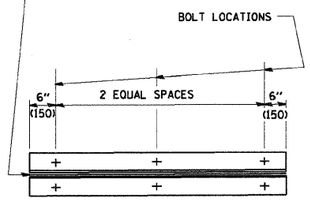


INLET TUBE DETAIL

STATION	MANHOLE DIAMETER	FRAME AND GRATE	RESTRICTOR TYPE	INSIDE RESTRICTOR TYPE DIAMETER in. (mm) (d)		INVERT OF RESTRICTOR TYPE		ELEVATION OF TOP OF PLATE OVERFLOW
				LOWER	UPPER	LOWER	UPPER	
1133+00	7'	TYPE 1	2	9.0	9.7	788.00	791.00	792.92
1181+30	7'	TYPE 1	2	14.1	11.3	768.96	771.21	774.16
98+55	7'	TYPE 1	2	17.0	21.7	767.66	771.16	773.45



TYPICAL VERTICAL ANGLES
LOOKING TOWARD MANHOLE WALL



TYPICAL HORIZONTIAL
ANGLES LOOKING TOWARD
BOTTOM OF MANHOLE

TOTAL BOLTS REQUIRED: 22

NOTE:

1. ANGLES SHOULD BE 3x3x⅜ (75x75x75)
2. VERTICAL ANGLES SHOULD EXTEND FROM THE BOTTOM OF THE RESTRICTOR PLATE TO THE TOP.
3. HORIZONTIAL ANGLES SHOULD EXTEND FROM VERTICAL ANGLE TO VERTICAL ANGLE.

RESTRICTOR TYPE					
1	2	3	4	5	6
RE-ENTRANT TUBE	SHARP EDGED	SQUARE EDGED	RE-ENTRANT TUBE	SQUARE EDGED	ROUNDED
LENGTH: ½ TO 1 DIA.		STREAM CLEARS SIDES	LENGTH: 2-½ DIA.	LENGTH: 2-½ DIA.	
C=.52	C=.61	C=.61	C=.73	C=.82	C=.98

VALUES OF "C" FOR CIRCULAR
AND SQUARE ORIFICES

STEEL ANGLE BOLTING DETAILS

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

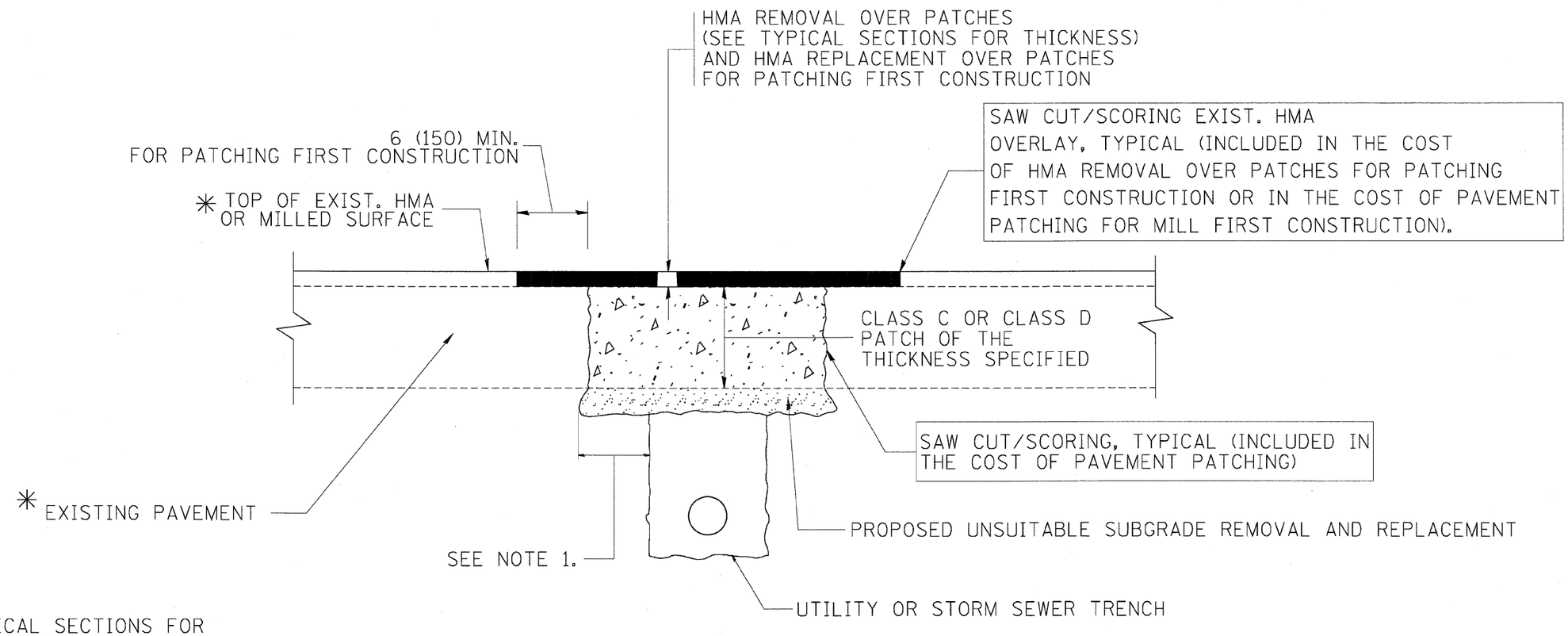
FILE NAME = W:\diststd\22x34\bd12.dgn	USER NAME = geglienobt	DESIGNED - R. SHAH	REVISED - R. SHAH 10-25-94
		DRAWN -	REVISED - E. GOMEZ 08-28-00
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - M. GOMEZ 01-08-01
	PLOT DATE = 1/4/2008	DATE - 09-09-94	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MANHOLE WITH RESTRICTOR PLATE

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&471)WRS-2	LAKE	234	174
	BD600-04 (BD-12)	CONTRACT NO. 60956		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

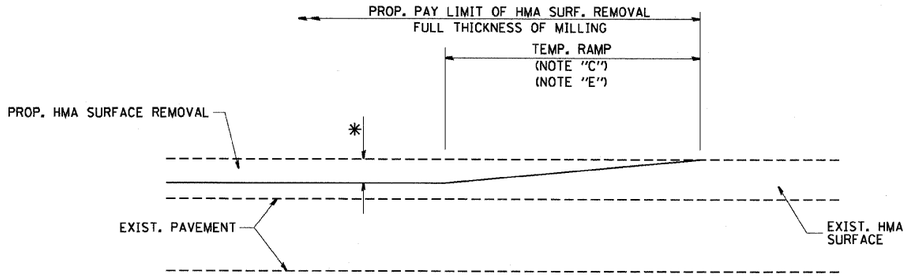
SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST $4\frac{1}{2}$ INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

FILE NAME = c:\projects\diststd22x34\bd22.dgn	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT**
		DRAWN -	REVISED - R. BORO 01-01-07		
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - R. BORO 09-04-07		SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.
	PLOT DATE = 10/27/2008	DATE - 10-25-94	REVISED - K. ENG 10-27-08		

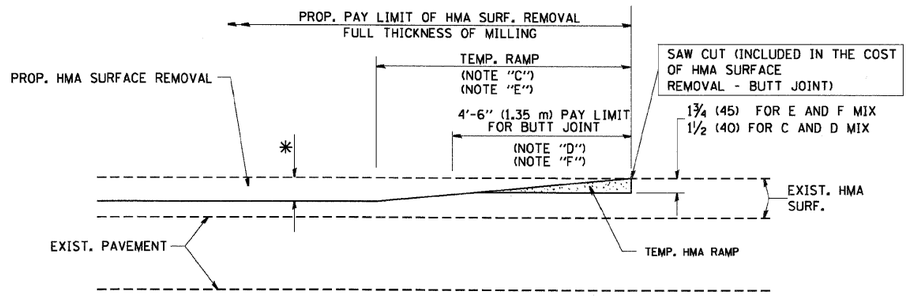
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-IS&47)WRS-2	LAKE	234	175
	BD400-04 (BD-22)	CONTRACT NO. 60956		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		



MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

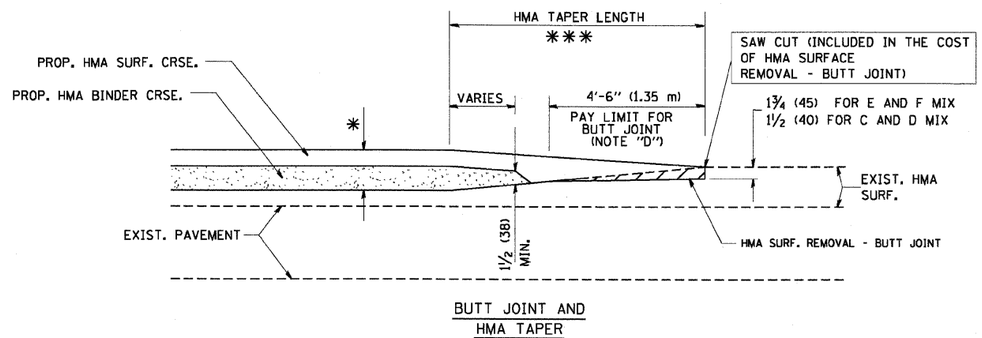


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

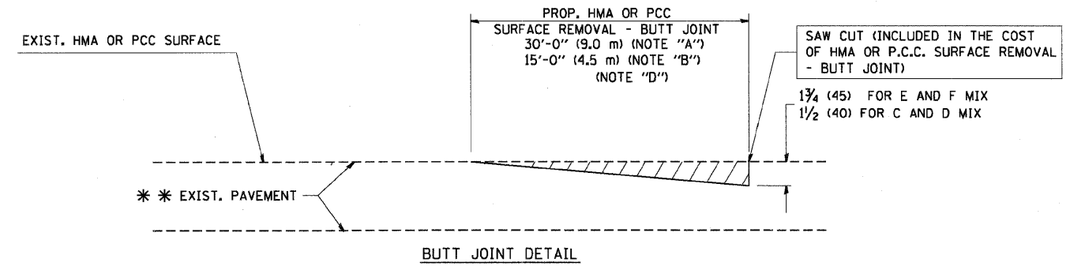
OPTION 2

TYPICAL TEMPORARY RAMP

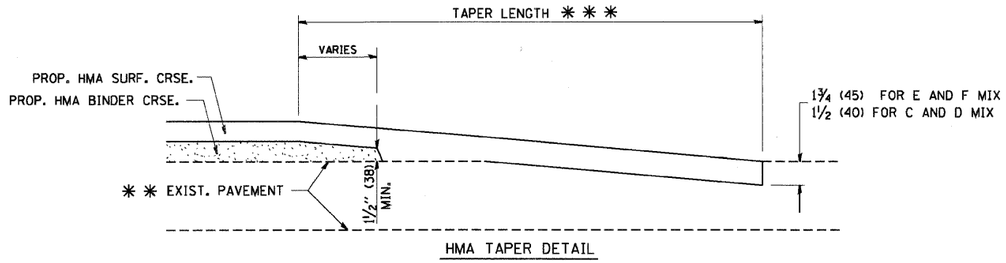


BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.

B: MINOR SIDE ROADS.

C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.

D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.

E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.

F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT

G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".

* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

*** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".

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

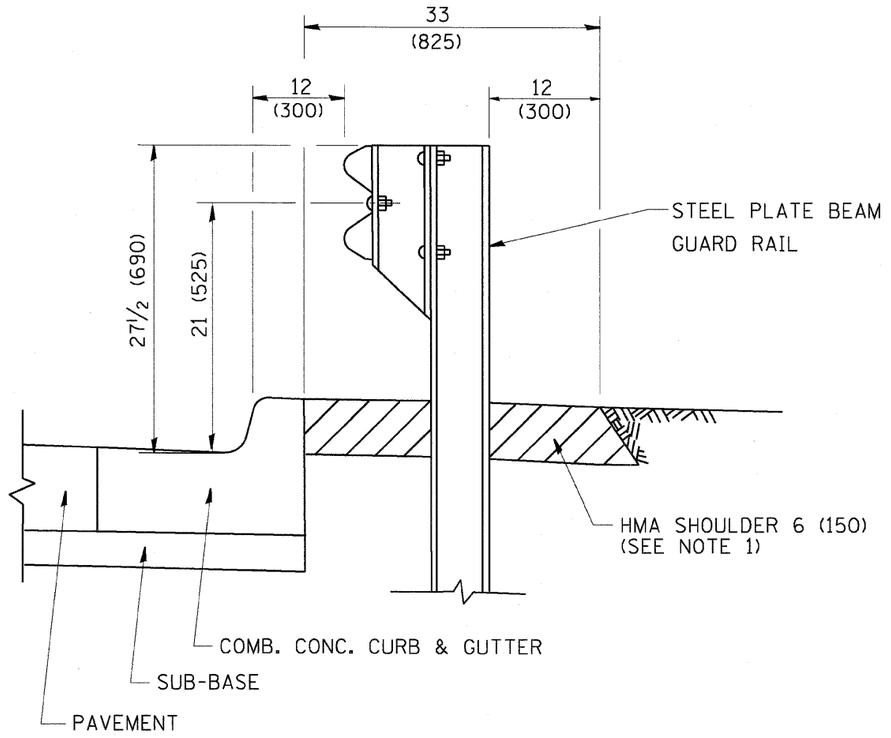
FILE NAME = W:\diststd\22x34\bd32.dgn	USER NAME = geglsenobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94	
		DRAWN -	REVISED - A. ABBAS 03-21-97	
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01	
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND HMA TAPER DETAILS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47)WRS-2	LAKE	234	176
	BD400-05 BD32	CONTRACT NO. 60956		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

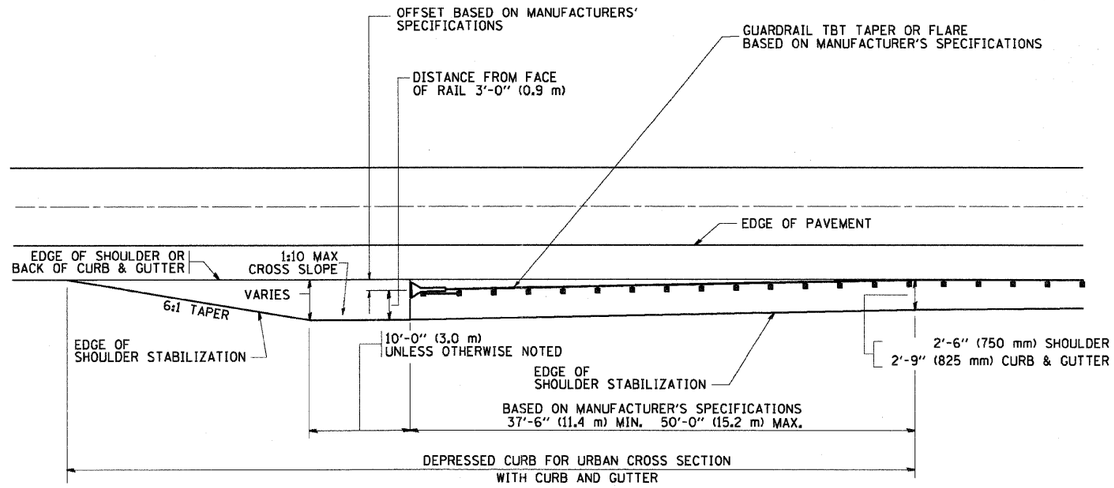


NOTES:
1. THE HMA SHOULDER SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL
2. GUARD RAIL MAY BE PLACED AT THE BACK OF CURB WHEN DIRECTED BY THE ENGINEER.

BASIS OF PAYMENT: HMA SHOULDER 6 (150) WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SHOULDER 6" (150 mm)".

STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

DETAILS FOR STEEL PLATE BEAM GUARD RAIL ADJACENT TO CURB AND GUTTER
[FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]



STABILIZATION AT TBT TY. 1 SPL.

TBT = TRAFFIC BARRIER TERMINAL

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

FILE NAME = W:\diststd\22x34\bd34.dgn	USER NAME = gaglionobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 02-23-95	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAILS FOR STEEL PLATE BEAM GUARD RAIL ADJACENT TO CURB AND GUTTER STABILIZATION AT TBT TY 1 SPL.
		DRAWN -	REVISED - A. ABBAS 03-21-97		
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - E. GOMEZ 08-28-00		
	PLOT DATE = 1/4/2008	DATE - 09-22-90	REVISED - R. BORO 01-01-07		SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

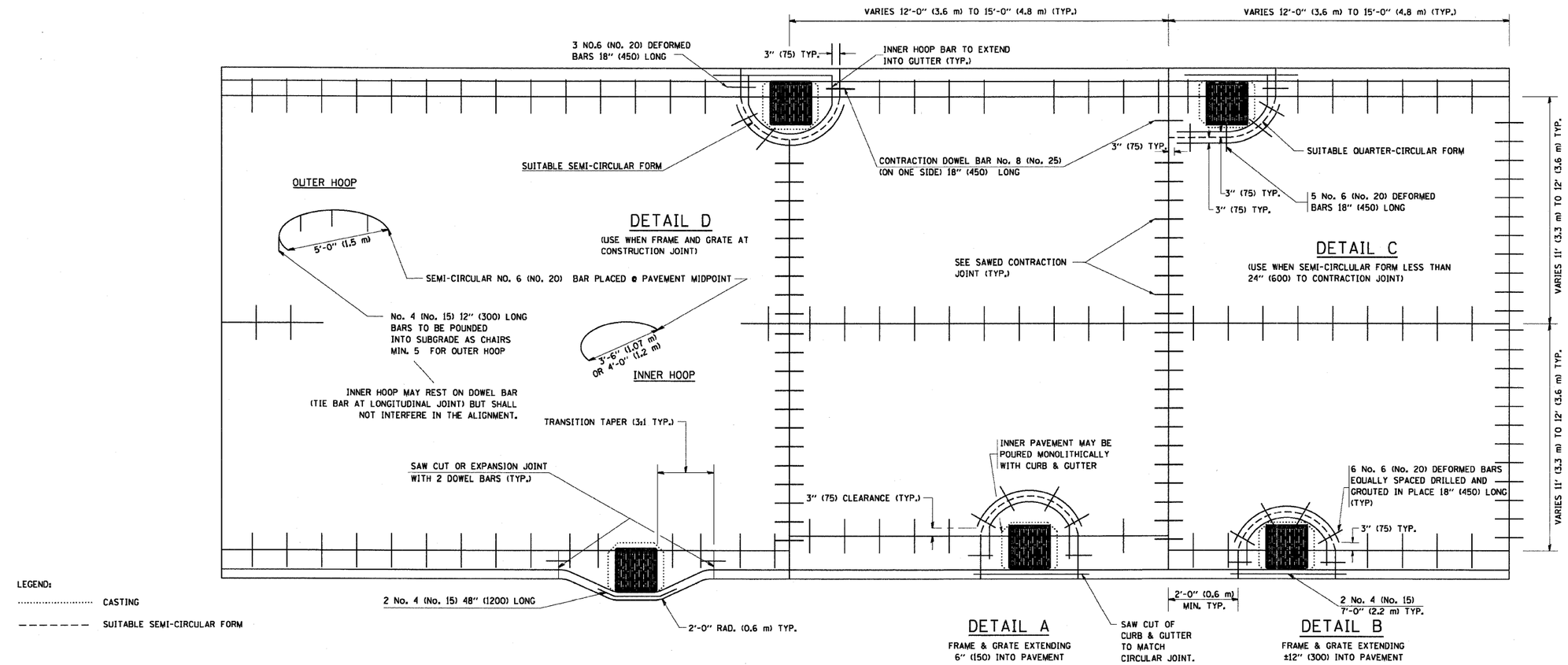
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47)WRS-2	LAKE	234	177
	BD600-10 (BD 34)	CONTRACT NO. 60956		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

FRAME EXTENSION INTO PAVEMENT	INNER HOOP REINFORCEMENT DIAMETER	SEMI CIRCULAR FORM DIAMETER	OUTER HOOP REINFORCEMENT DIAMETER
UP TO 8" (200)	3'-6" (1.1 m)	4'-0" (1.2 m)	5'-0" (1.5 m)
> 8" (200) TO 14" (360)	4'-0" (1.2 m)	4'-6" (1.4 m)	5'-0" (1.5 m)

DESIGNER NOTE:
THIS DETAIL IS TO BE USED WHEN THE GUTTER FLAG IS LESS THAN 24"

NOTES :

1. THE ROUNDOUT AND ADDED REINFORCEMENT WILL NOT BE PAID SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE PAVEMENT.
2. TRANSVERSE JOINTS MAY BE MOVED TO ACCOMMODATE ROUNDOUT, EDGE OF CIRCULAR JOINT SHALL BE MINIMUM 12" (300) FROM TRANSVERSE JOINT. RELOCATED TRANSVERSE JOINT SHALL BE CONTINUOUS FROM EDGE OF PAVEMENT TO EDGE OF PAVEMENT.
3. SEMI-CIRCULAR FORM SHALL BE REMOVED PRIOR TO DRILL AND GROUT OF TIE BARS.
4. ALL REINFORCED BARS SHALL BE EPOXY COATED.
5. DRILL AND GROUT IS PREFERRED, HOWEVER TIE BARS CAN BE POURED IN PLACE IF CLEARANCE IS PROVIDED TO OUTER EDGE OF FRAME. MINIMUM 2" (50) CLEARANCE.
6. WOOD SHIMS SHALL BE USED TO ADJUST ALL FRAMES. AFTER ADJUSTING MORTAR HAS CURED, THE WOOD SHIMS SHALL BE REMOVED AND THE VOIDS UNDER THE FRAMES FILLED WITH NON SHRINK GROUT.
7. HOOP REINFORCEMENT SHALL BE ONE PIECE CONSTRUCTION.
8. CIRCULAR FRAMES AND GRATES MAY BE SUBSTITUTED.
9. CURB DOWELS MUST BE PLACED LEVEL & TRUE TO ALLOW CONTRACTION MOVEMENT.



TRANSITION CURB & AND GUTTER INTO PARKWAY
(PREFERRED BECAUSE PAVING OF MAINLINE NOT AFFECTED.)

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE NOTED

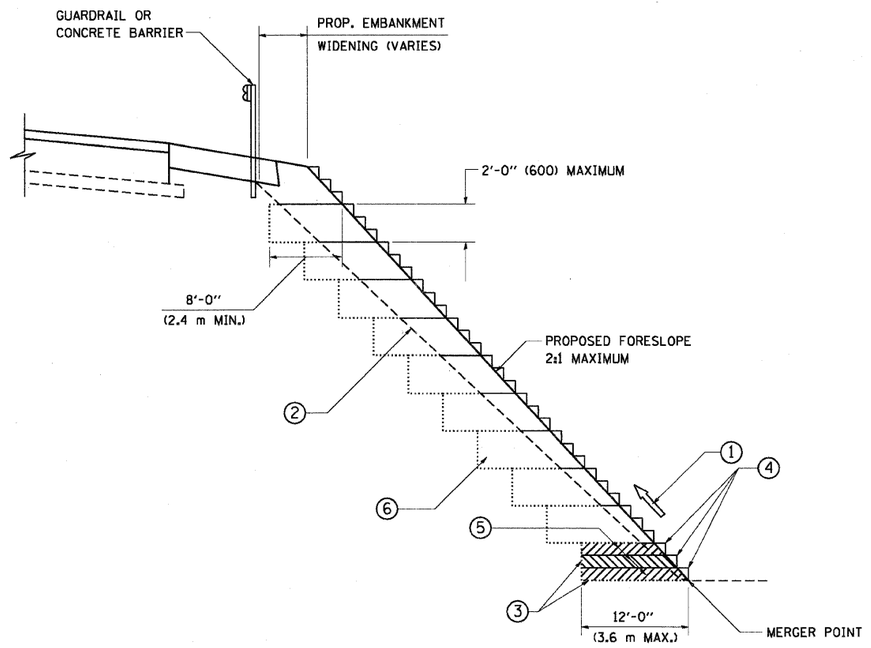
FILE NAME = W:\diststd\22x34\bd48.dgn	USER NAME = gaglianobt	DESIGNED - A. ABBAS	REVISED - T. MATOUSEK 08-28-00
		DRAWN - TOM MATOUSEK	REVISED - T. MATOUSEK 10-02-00
	PLOT SCALE = 50.0000 '/ IN.	CHECKED - A. ABBAS	REVISED - T. MATOUSEK 04-25-02
	PLOT DATE = 1/4/2008	DATE - 01-04-99	REVISED - P. LAFLEUR 08-27-02

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PCC PAVEMENT ROUNDOUTS AT CURB AND GUTTER

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47)WRS-2	LAKE	234	178
	BD-48	CONTRACT NO. 60956		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		



TYPICAL BENCHING DETAIL FOR EMBANKMENT

NOTES:

1. CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
2. EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
3. BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
4. TRIM TO FINAL SLOPE.
5. EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
6. EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
7. SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

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

FILE NAME = W:\diststd\22x34\bd51.dgn	USER NAME = gaglionabt	DESIGNED -	REVISED -
		DRAWN - CADD	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED - S.E.B.	REVISED -
	PLOT DATE = 1/4/2006	DATE - 06-16-04	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

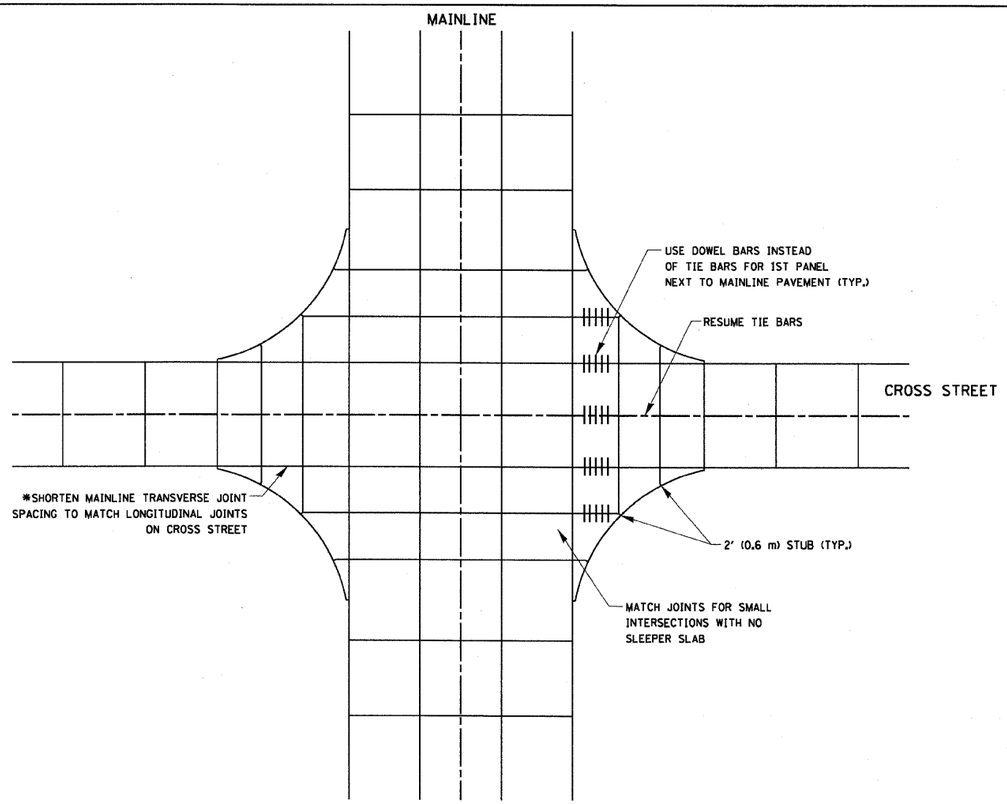
BENCHING DETAIL
FOR EMBANKMENT WIDENING

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

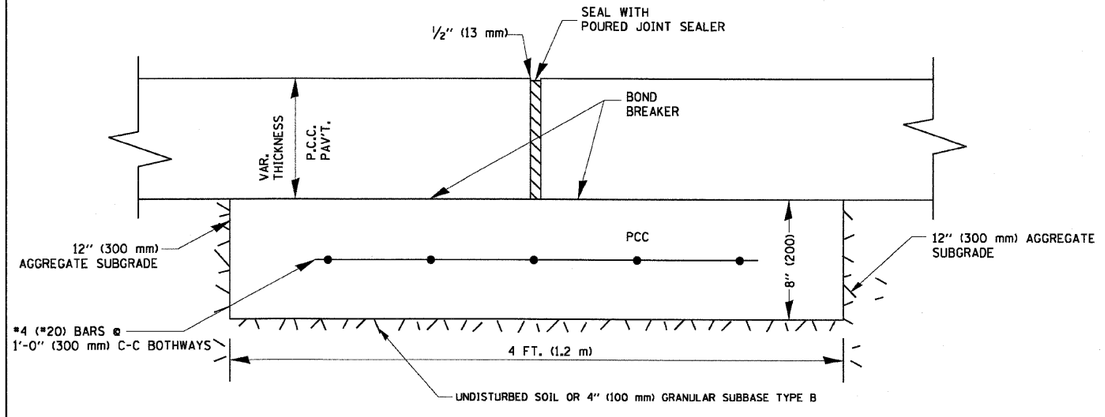
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47)WRS-2	LAKE	234	179
	BD-51	CONTRACT NO. 60956		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

F. A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
344	(46-1S&47)WRS-2	LAKE	234	180
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

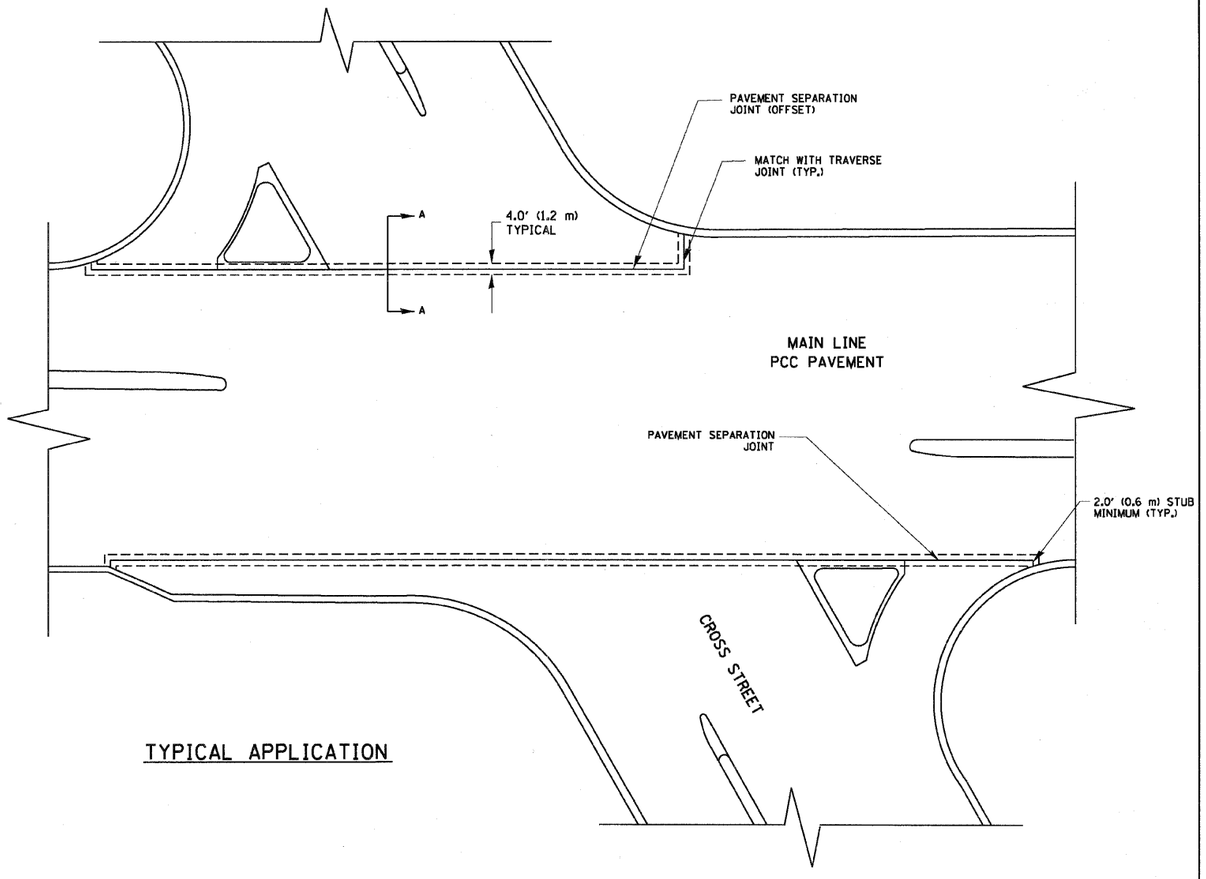
THE USE OF CROSS STREET PAVEMENT SEPARATION JOINTS FOR SKEWED OR LARGE INTERSECTIONS WHERE JOINTS MAY NOT MATCH



PLAN



PROPOSED SECTION A-A



TYPICAL APPLICATION

NOTE:

1. JOINT FILLER SHALL CONSIST OF A SHEET OF ½" (13 mm) BITUMINOUS PREFORMED FIBER JOINT FILLER CONFORMING TO ARTICLE 1051.03 OF THE STANDARD SPECIFICATIONS.
2. THE JOINT SHALL BE SEALED WITH A HOT POUR JOINT SEALER CONFORMING TO ARTICLE 1050.02 OF THE STANDARD SPECIFICATIONS.
3. A SINGLE LAYER OF FELT ROOFING PAPER SHALL SERVE AS A BOND BREAKER.
4. JOINT SHALL CONTINUE THROUGH COMBINATION CURB & GUTTER OR PCC SHOULDER.
5. PAVEMENT SEPARATION JOINT IS TO BE PAID FOR AS "SLEEPER SLAB" AND IS TO BE MEASURED IN PLACE BY THE LINEAL FOOT.
6. BOND BREAKER AND ½" (13 mm) JOINT AND FILLER SHALL BE INCIDENTAL TO THE PAY ITEM "SLEEPER SLAB".

REVISIONS	
NAME	DATE

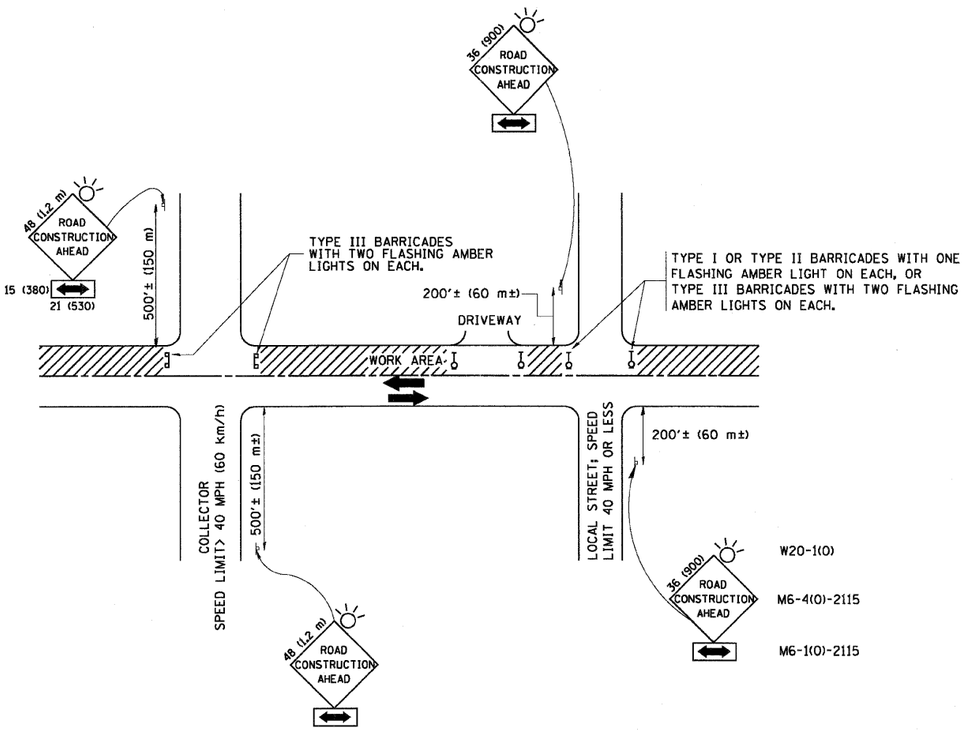
ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAIL OF PAVEMENT SEPARATION JOINT FOR JOINTED PCC PAVEMENTS AT INTERSECTIONS

SCALE: NONE
DATE 12/27/2006
DRAWN BY:
CHECKED BY:

BD52

ulricke
12/27/2006
c:\projects\districts\d52.dgn



TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

   a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.

   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.

2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

   a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.

   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.

3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

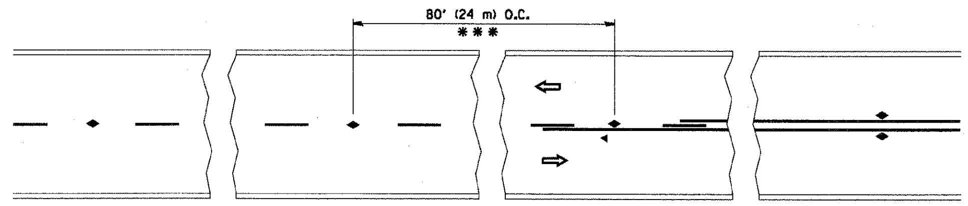
FILE NAME = W:\diststd\22x34\tc10.dgn	USER NAME = gaglionbt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

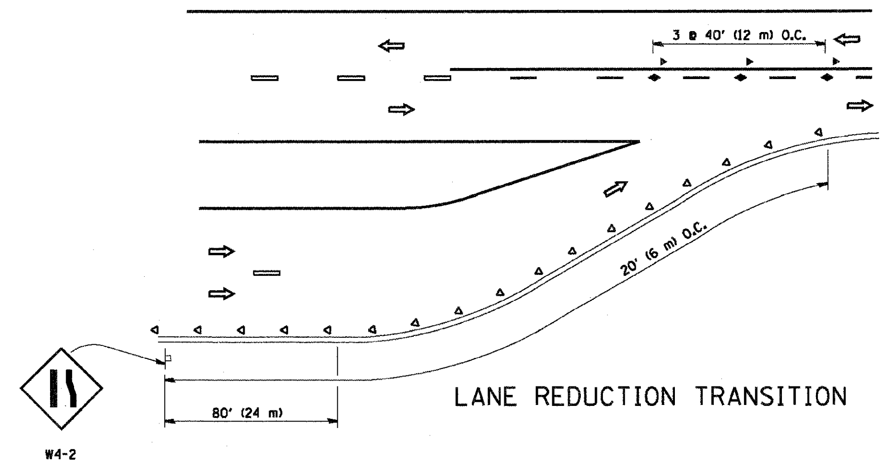
SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47)WRS-2	LAKE	234	181
	TC-10	CONTRACT NO. 60956		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

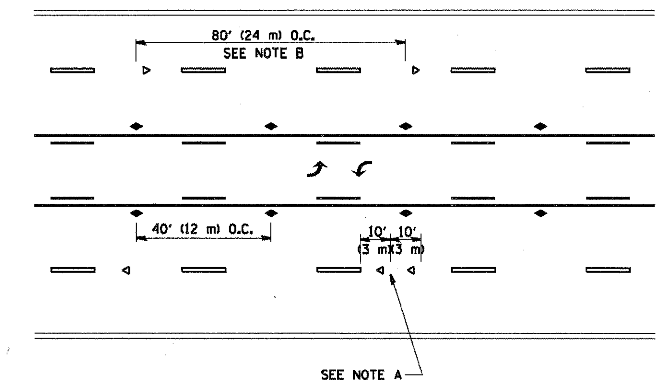


* * * REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

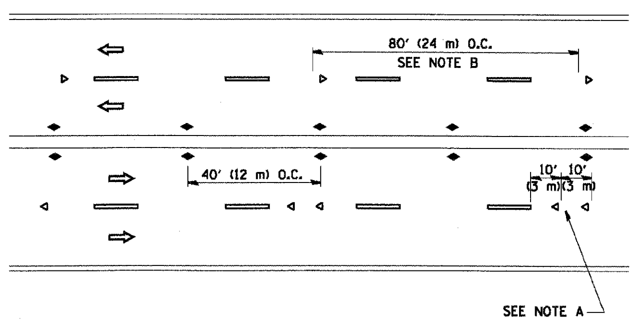
TWO-LANE/TWO-WAY



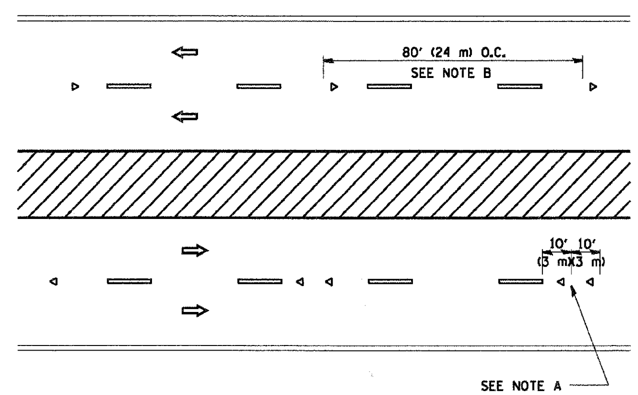
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

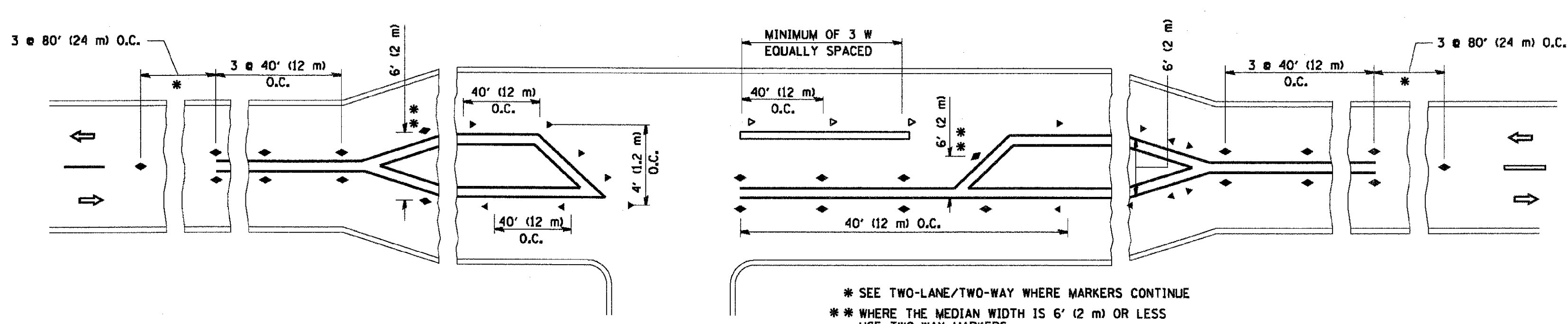
LANE MARKER NOTES

B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

SYMBOLS

- YELLOW STRIPE
- WHITE STRIPE
- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (W/O)
- TWO-WAY AMBER MARKER



* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE

* * WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

LEFT TURN

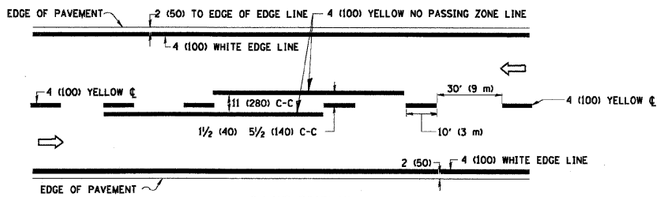
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME = W:\diststd\22x34\tc11.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED - T. RAMMACHER 09-19-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN -	REVISED - T. RAMMACHER 03-12-99	
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED - T. RAMMACHER 01-06-00	
	PLOT DATE = 1/4/2008	DATE -	REVISED -	

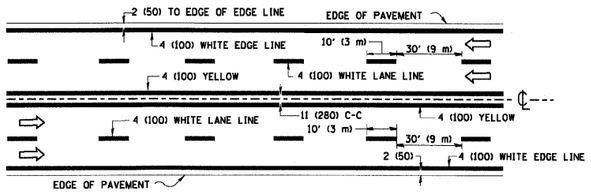
TYPICAL APPLICATIONS
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

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

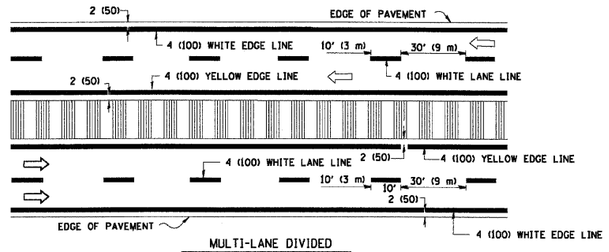
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47)WRS-2	LAKE	234	182
	TC-11	CONTRACT NO. 60956		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		



2-LANE ROADWAY



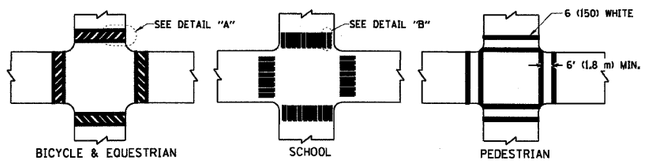
MULTI-LANE UNDIVIDED

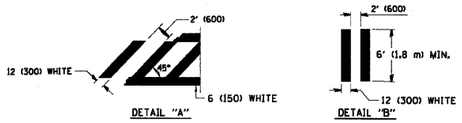


MULTI-LANE DIVIDED
WITH MOUNTABLE MEDIAN

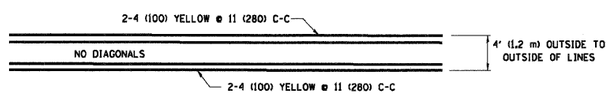
NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING

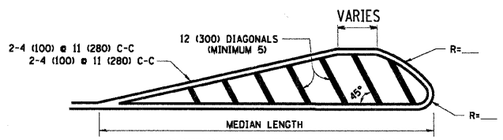




TYPICAL CROSSWALK MARKING



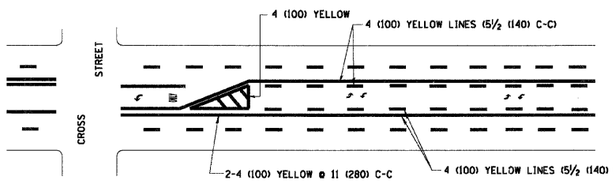
4' (1.2 m) WIDE MEDIANS ONLY



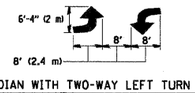
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

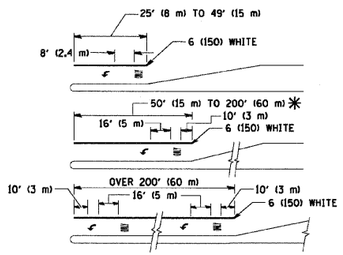


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

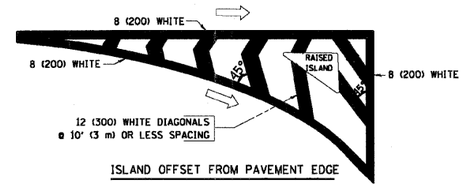


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m^2) ONLY AREA = 20.8 SQ. FT. (1.9 m^2)

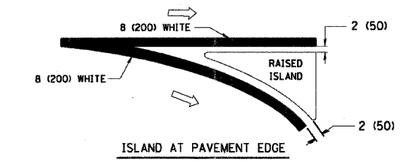
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVEDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m^2) EACH "X"=54.0 SQ. FT. (5.0 m^2)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

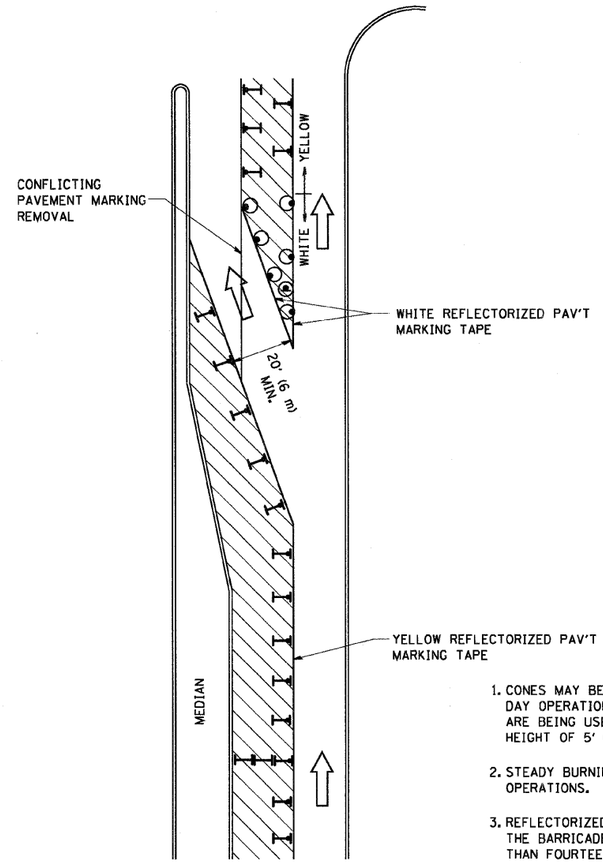
FILE NAME = W:\diststd\22x34\tcl3.dgn	USER NAME = gaglianobt	DESIGNED - EVERS	REVISED -T. RAMMACHER 10-27-94
		DRAWN -	REVISED -A. HOUSEH 10-09-96
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -A. HOUSEH 10-17-96
	PLOT DATE = 1/4/2000	DATE - 03-19-90	REVISED -T. RAMMACHER 01-06-00

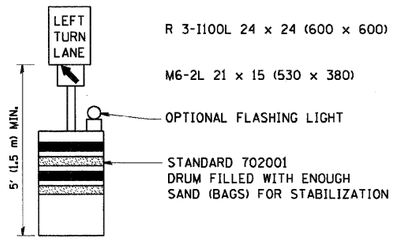
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47)WRS-2	LAKE	234	183
	TC-13	CONTRACT NO. 60956		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		





GENERAL NOTES

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM BT 725 IS REQUIRED.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

LEGEND

- WORK AREA
- LANE OPEN TO TRAFFIC
- TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
- DRUM WITH STEADY BURN LIGHT
- DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
- TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

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

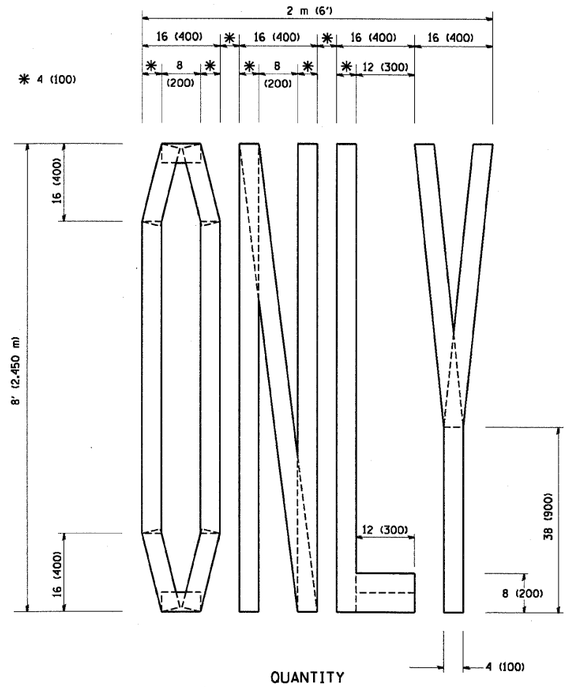
FILE NAME = W:\diststd\22x34\tc14.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED -T. RAMMACHER 09-08-94
		DRAWN -	REVISED - A. HOUSEH 11-07-95
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - A. HOUSEH 10-12-96
	PLOT DATE = 1/4/2008	DATE -	REVISED -T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

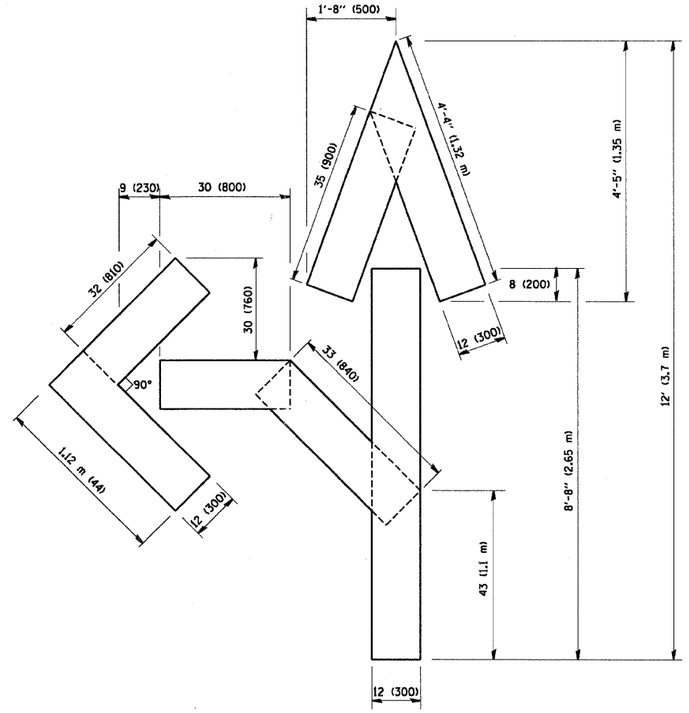
TRAFFIC CONTROL AND PROTECTION AT TURN BAYS
(TO REMAIN OPEN TO TRAFFIC)

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

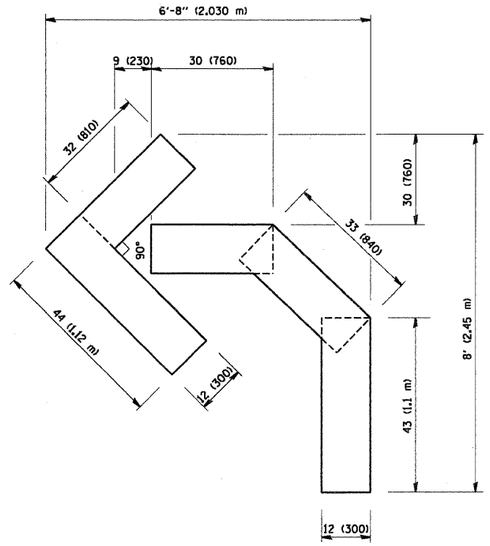
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47)WRS-2	LAKE	234	184
	TC-14	CONTRACT NO. 60956		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		



QUANTITY
4 (100) LINE = 64.1 ft. (19.7 m)
21.1 sq. ft. (1.97 sq. m)



QUANTITY
4 (100) LINE = 82.5 ft. (25.3 m)
27.5 sq. ft. (2.53 sq. m)



QUANTITY
4 (100) LINE = 45.5 ft. (13.9 m)
15.2 sq. ft. (1.39 sq. m)

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

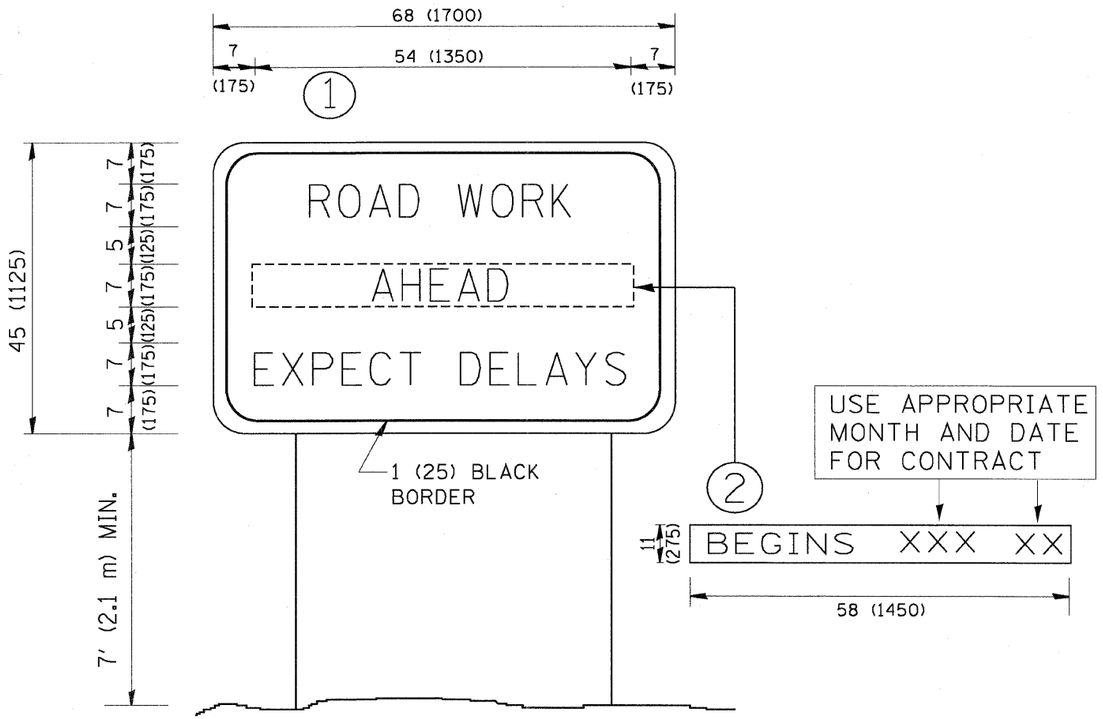
FILE NAME = W:\diststd\22x34\tc16.dgn	USER NAME = geglienobt	DESIGNED -	REVISED -T. RAMMACHER 06-05-96
		DRAWN -	REVISED -T. RAMMACHER 11-04-97
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98
	PLOT DATE = 1/4/2008	DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47)WRS-2	LAKE	234	185
	TC-16	CONTRACT NO. 60956		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN (1) WITH INSTALLED PANEL (2) ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL (2) SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

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

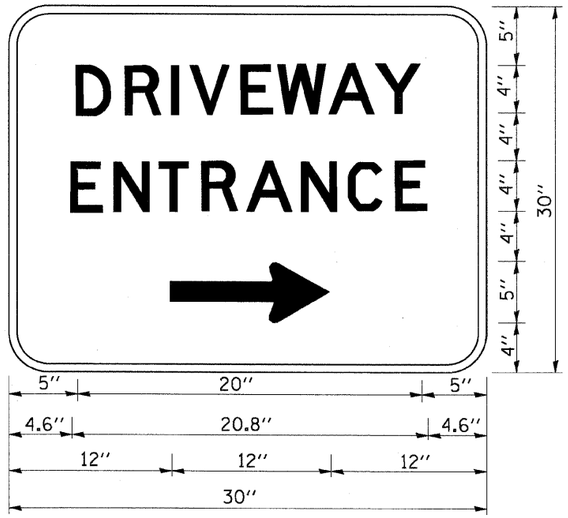
FILE NAME = W:\diststd\22x34\tc22.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47)WRS-2	LAKE	234	186
	TC-22	CONTRACT NO. 60956		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		



3.0'' RADIUS, 0.5'' BORDER, WHITE ON GREEN; REFLECTORIZED
''DRIVEWAY'' D; ''ENTRANCE'' D; STANDARD ARROW CUSTOM 12.0'' x 5.0''

NOTES:

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK: ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM ''TEMPORARY INFORMATION SIGNING''.

FILE NAME = W:\diststd\22x34\tc26.dgn	USER NAME = gaglionabt	DESIGNED -	REVISED - C. JUCIUS 02-15-07
		DRAWN -	REVISED -
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -
	PLOT DATE = 1/4/2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

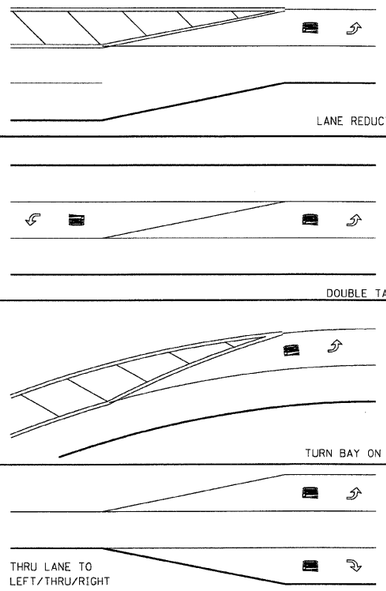
DRIVEWAY ENTRANCE SIGNING

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&4T)WRS-2	LAKE	234	187
	TC-26	CONTRACT NO. 60956		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

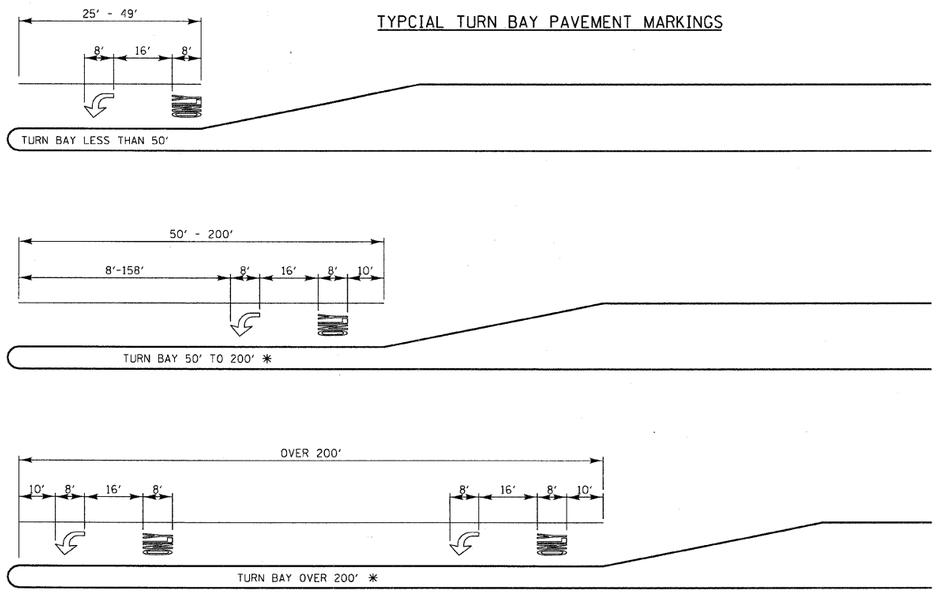
TYPICAL PAVEMENT MARKINGS

TYPICAL MINI-SKIP PAVEMENT MARKINGS



MINI-SKIPS ARE 2 FEET WHITE LINE WITH 6 FEET SPACING. THE MINI-SKIP IS THE SAME WIDTH AS THE PAVEMENT MARKING LINE, IT EXTENDS.

TYPCIAL TURN BAY PAVEMENT MARKINGS



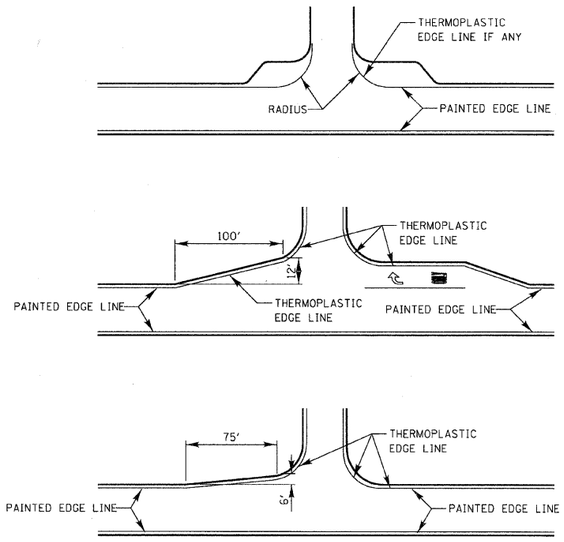
AREA = 15.6 SQ. FT.

AREA = 20.8 SQ FT.

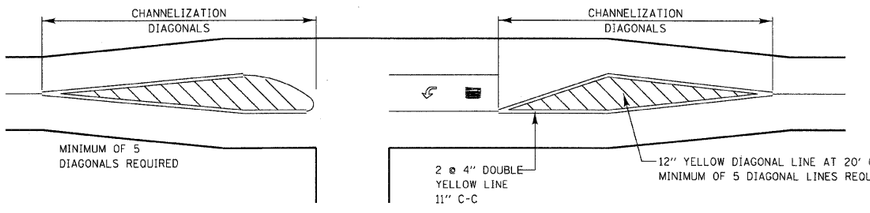
* AT INTERSECTIONS WITH VIDEO DETECTION, THE ARROW AND ONLY PAVEMENT MARKINGS SHALL BE A MINIMUM OF 30' BEHIND THE STOP BAR.

FULL SIZE LETTERS (8') AND ARROWS SHALL BE USED. TURN LANES IN EXCESS OF 400' IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW W/ "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW W/ "ONLY".

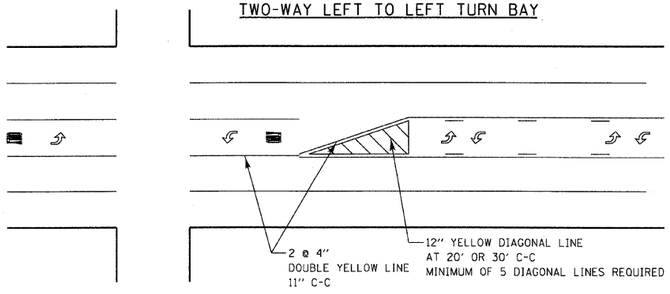
EDGE LINE RADII AT SIDE STREETS



TWO LANE ROAD



TWO-WAY LEFT TO LEFT TURN BAY



TYPICAL DIAGONAL SPACING

DIAGONAL SPACING

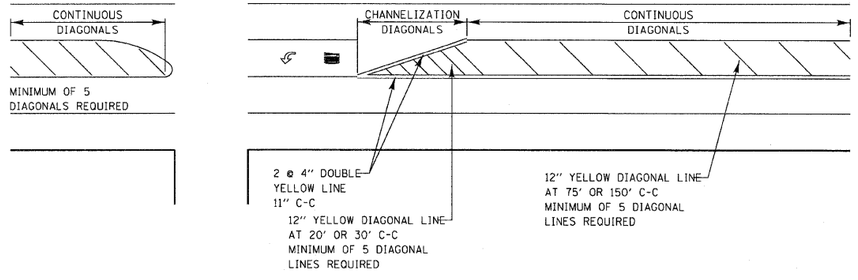
SPEED LIMIT RANGE	CONTINUOUS	INTERSECTION CHANNELIZATION
30-45 MPH	75 FT.	20 FT.
OVER 45 MPH	150 FT.	30 FT.

DUAL LEFT TURN ARROWS

31.2 SQ. FT. MINIMUM
OF 2 SETS REQUIRED

A MINIMUM OF TWO PAIRS OF DUAL LEFT TURN ARROWS SHALL BE USED. THE DUAL LEFT TURN ARROWS SHALL BE WHITE IN COLOR. THE INTERVAL BETWEEN SETS OF DUAL LEFT TURN ARROWS SHOULD BE 200' AND 300'.

3 TO 5 LANE ROAD



FOR USE ON GAGES LAKE ROAD AND WASHINGTON STREET ONLY.

REVISIONS	DATE
Seperated Railroad Sheet	6/2/2008

LakeCounty Division of Transportation

APPROVED BY: A. KHAWAJA
DATE: APRIL 1, 2007

TYPICAL PAVEMENT MARKINGS FOR COUNTY HIGHWAYS
SHEET 1 OF 2

LC7800

REVISIONS / REMARKS					
NO.	DESCRIPTION	DATE	BY	SURVEYOR:	/
		/ /		DSGNR/LIAISON:	
		/ /		PLOTTED BY:	$USRN$ $$DAT$$$$

LakeCounty Division of Transportation

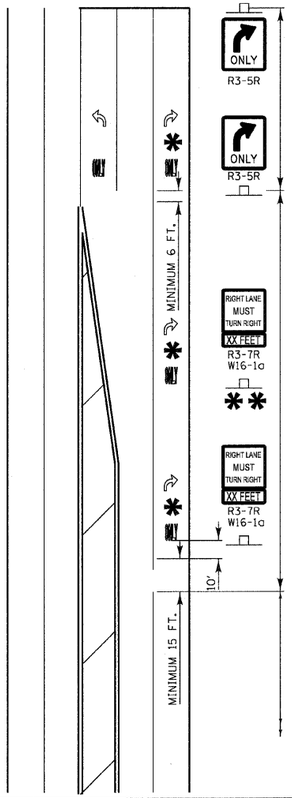
LAKE COUNTY STANDARDS & DETAILS

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
344		(46-1S&47)WRS-2	188	234

FILE NAME: g:$401$2008$0005302$cad$LC7800.sht

TYPICAL PAVEMENT MARKINGS AND RAISED PAVEMENT MARKERS

THRU LANE TO TURN LANE CONVERSION



TURN BAY
6" WHITE LINE
(ADDITIONAL PAV'T MARKINGS AS SHOWN ON SHEET ONE OF THE L.C.D.O.T PAV'T MARKINGS DETAIL SHEETS)

TRANSITION ZONE
6" WHITE 3'/12' SKIP DASH LANE LINE

MINIMUM TRANSITION ZONE LENGTH

POSTED SPEED	LENGTH
25 M.P.H.	255 FT.
30 M.P.H.	330 FT.
35 M.P.H.	405 FT.
40 M.P.H.	480 FT.
45 M.P.H.	555 FT.
50 M.P.H.	630 FT.
55 M.P.H.	705 FT.

✱ LOCATION OF PAV'T MARKINGS

(MEASURED FROM BEGINNING OF TRANSITION ZONE)

POSTED SPEED	LOCATION OF PAV'T MARKINGS
25 M.P.H.	10 FT., 260 FT.
30 M.P.H.	10 FT., 170 FT., 340 FT.
35 M.P.H.	10 FT., 210 FT., 410 FT.
40 M.P.H.	10 FT., 170FT., 330 FT., 490 FT.
45 M.P.H.	10 FT., 190 FT., 370 FT., 560 FT.
50 M.P.H.	10 FT., 170 FT., 330 FT., 490 FT., 640 FT
55 M.P.H.	10 FT., 180 FT., 350 FT., 520 FT., 710 FT.

THRU LANE
4 " WHITE 10'/30' SKIP DASH LANE LINE

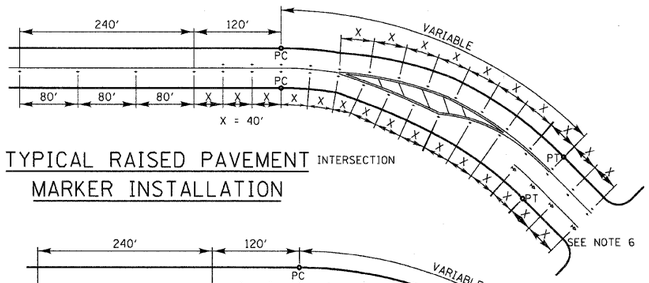
FOR POSTED SPEEDS 40 M.P.H. OR GREATER A SECOND R3-7/W16-1a SIGN INSTALLATION SHALL BE LOCATED HALFWAY BETWEEN THE BEGINNING OF THE TRANSITION ZONE AND THE BEGINNING OF THE TURN LANE

PAVEMENT MARKING GUIDELINES

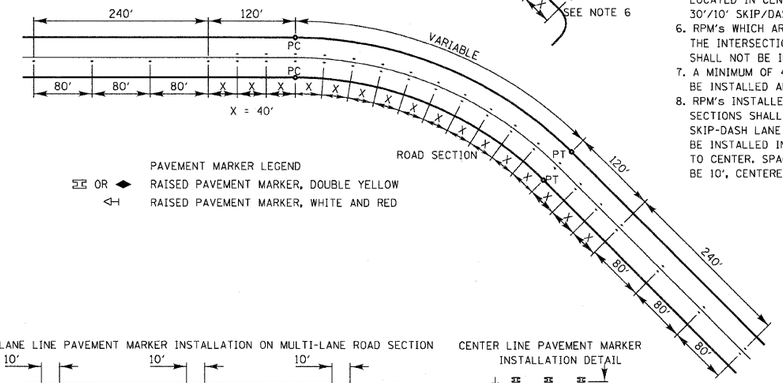
TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE OF 2 LANE PAVEMENT	4 IN.	SKIP-DASH	YELLOW	10 FT.LINE WITH 30 FT. SPACE
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 IN. 2 @ 4 IN.	SOLID SOLID	YELLOW YELLOW	5 1/2 IN.C-C FROM SKIP-DASH CENTERLINE 11 IN.C-C (OMIT SKIP-DASH CENTERLINE BETWEEN)
CENTERLINE ON MULTI-LANE UNDIVIDED	2 @ 4 IN.	SOLID	YELLOW	11 IN. C-C
LANE LINES	4 IN.	SKIP-DASH	WHITE	10 FT.LINE WITH 30 FT.SPACE
DOTTED LINES (EXTENSIONS OF CENTER,LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2 FT. LINE WITH 6 FT.SPACE
EDGE LINES	5 IN.WHITE 4 IN.YELLOW	SOLID	WHITE - RIGHT YELLOW - LEFT	OUTLINE RAISED MEDIANS IN YELLOW
TURN LANE MARKINGS	6 IN.LINE FULL SIZE LETTERS AND SYMBOLS (8 FT.)	SOLID	WHITE	TURN ARROW 15.6 SQ.FT. STRAIGHT ARROW 11.5 SQ.FT. ONLY 20.8 SQ.FT. COMB.ARROW 26.0 SQ.FT.
TWO WAY LEFT TURN MARKING	2 @ 4 IN.EACH DIRECTION 8 FT.LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10 FT.LINE WITH 30 FT.SPACE FOR SKIP-DASH 5 1/2 IN.C-C BETWEEN SKIP-DASH LINE AND SOLID LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK	12 IN.@ 90°	SOLID	WHITE	12 IN.LONGITUDINAL BAR WITH 24 IN.SPACE 6 FT.TO 12 FT.WIDE SEE TYPICAL CROSSWALK MARKING DETAIL
STOP BARS	24 IN.	SOLID	WHITE	PLACE 4 FT.IN ADVANCE OF AND PARALLEL TO CROSSWALK,IF PRESENT,OTHERWISE PLACE AT DESIRED STOPPING POINT.
PAINTED MEDIANS	2 @ 4 IN.WITH 11 IN. DIAGONALS @ 45° NO DIAGONALS USED FOR 4 FT.WIDE MEDIAN	SOLID	YELLOW - 2-WAY TRAFFIC WHITE - 1-WAY TRAFFIC	11 IN.C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING DETAIL MINIMUM OF 5 DIAGONALS
GORE MARKING AND CHANNELIZING LINES	8 IN.WITH 12 IN. DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS 15 FT.C-C (LESS THAN 30 M.P.H.) 20 FT.C-C (30 TO 45 M.P.H.) 30 FT.C-C (OVER 45 M.P.H.) MINIMUM OF 5 DIAGONALS
R.R. CROSSING	24 IN.TRANSVERSE LINES RR IS 6 FT.LETTER 16 IN.LINE FOR "X"	SOLID	WHITE	SEE I.D.O.T. STD.780001 SQ.FT. AREA OF: "R" - 36 SQ.FT./ "R" "X" - 54.0 SQ.FT.
SHOULDER DIAGONALS	12 IN.@ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50 FT.C-C (LESS THAN 30 M.P.H.) 75 FT.C-C (30 TO 45 M.P.H.) 150 FT.C-C (OVER 45 M.P.H.) MINIMUM OF 5 DIAGONALS

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO PART III "MARKINGS" IN THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AND I.D.O.T. HIGHWAY STANDARD 780001 EFFECTIVE JAN.9,1998.

TYPICAL RAISED PAVEMENT MARKER INSTALLATION



INTERSECTION



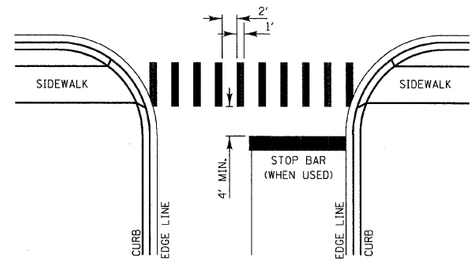
PAVEMENT MARKER LEGEND

⊐⊏ OR ◆ RAISED PAVEMENT MARKER, DOUBLE YELLOW

◁⊣ RAISED PAVEMENT MARKER, WHITE AND RED

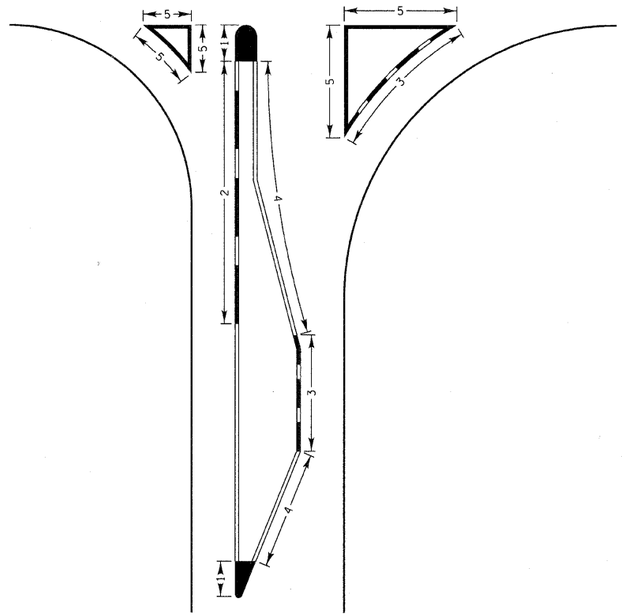
NOTES:
1. CENTERLINE RAISED PAVEMENT MARKERS (RPM's) SHALL BE PLACED ON ALL CURVES OVER 3 1/2 DEGREES ON ALL TWO AND THREE LANE HIGHWAYS, UNLESS DIRECTED OTHERWISE BY THE ENGINEER..
2. SPACING = 40' FOR CENTERLINE MARKERS.
3. ALL RPM's ON CENTERLINE ARE 2-WAY YELLOW. LANE LINE MARKERS ARE WHITE/RED.
4. MARKERS SHALL BE INSTALLED IN ACCORDANCE WITH F.H.W.A. MEMORANDUM HIO-21.
5. MARKERS SHALL BE FIELD ADJUSTED TO BE LOCATED IN CENTER OF THE 30' GAP OF A 30'/10' SKIP/DASH CENTERLINE.
6. RPM's WHICH ARE TO BE LOCATED WITHIN THE INTERSECTION OF A CROSS STREET, SHALL NOT BE INSTALLED.
7. A MINIMUM OF 4 WHITE/RED MARKERS SHALL BE INSTALLED ALONG THE TURN LANE LINE.
8. RPM's INSTALLED ON MULTI-LANE ROAD SECTIONS SHALL BE INSTALLED ON THE WHITE SKIP-DASH LANE LINE ONLY. THESE RPM's SHALL BE INSTALLED IN PAIRS AND SHALL BE 80' CENTER TO CENTER. SPACING WITHIN EACH PAIR SHALL BE 10', CENTERED WITHIN THE 30' SKIP.

CROSSWALKS



1. WIDTH OF THE CROSSWALK IS GENERALLY 6' EXCEPT AT SCHOOL CROSSINGS AND BICYCLE CROSSINGS, WHICH CAN BE 8' .
2. THE STOP BAR SHOULD BE INSTALLED A MINIMUM OF 4' IN ADVANCE OF THE CROSSWALK.

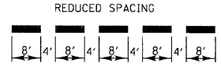
CURB MARKING



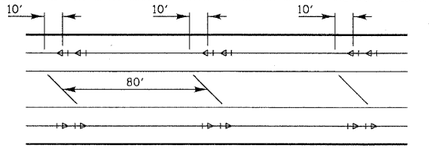
NOTES:
1. PAINT CURB AND NOSE SOLID FOR 10' OR RADIUS OF NOSE, WHICHEVER IS GREATER.
2. PAINT MINIMUM OF 3 STRIPES IN DIRECTION OF TRAFFIC.
3. REDUCED SPACING USED TO OBTAIN 3 STRIPE MINIMUM.
4. STRIPING RECOMMENDED ONLY WHERE OPERATIONAL PROBLEMS DICTATE.
5. PAINT SOLID WHERE A MINIMUM OF 3 STRIPES CANNOT BE PLACED.

NORMAL SPACING

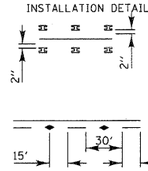
REDUCED SPACING



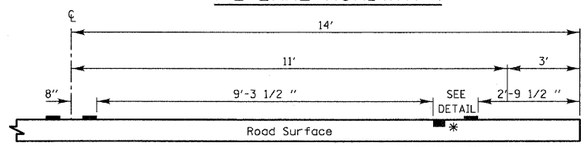
LANE LINE PAVEMENT MARKER INSTALLATION ON MULTI-LANE ROAD SECTION



CENTER LINE PAVEMENT MARKER INSTALLATION DETAIL

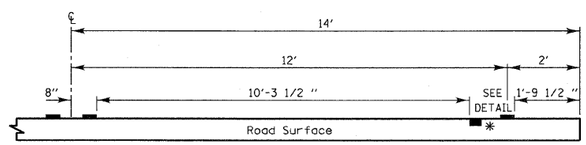


PAVEMENT CROSS SECTION SHOWING TYPICAL PAVEMENT MARKINGS (2-LANE ROADWAY)



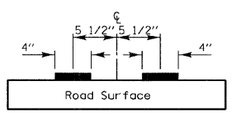
1 1' LANE WIDTH

✱ INLAYED PREFORMED PLASTIC STATION NUMBER

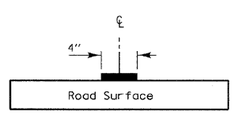


12' LANE WIDTH

✱ INLAYED PREFORMED PLASTIC STATION NUMBER



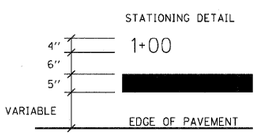
DOUBLE STRIPE CENTERLINE DETAIL



SINGLE STRIPE CENTERLINE DETAIL

Note:
Centerline markings are 4" lines at 11" centers.

STATIONING DETAIL



FOR USE ON GAGES LAKE ROAD AND WASHINGTON STREET ONLY.

REVISIONS	DATE
Seperated Railroad Sheet	6/2/2008

LakeCounty Division of Transportation

APPROVED BY: A. KHAWAJA
DATE: APRIL 1, 2007

TYPICAL PAVEMENT MARKINGS FOR COUNTY HIGHWAYS
SHEET 2 OF 2

LC7800

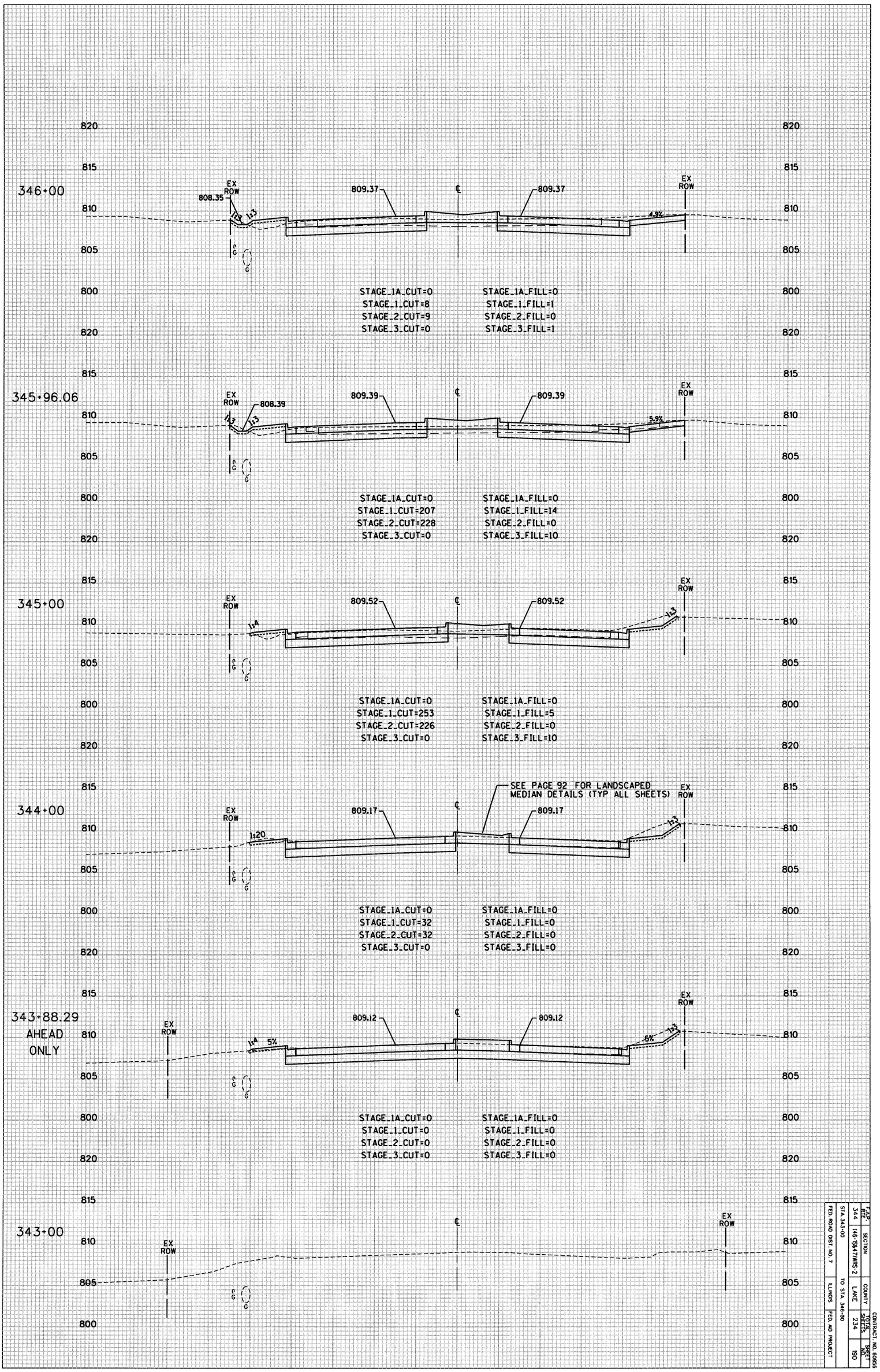
REVISIONS / REMARKS					
NO.	DESCRIPTION	DATE	BY	SURVEYOR:	/
		/ /		DSGNR/LIAISON:	
		/ /		PLOTTED BY:	$USRN$ $$DAT$$$$

LakeCounty Division of Transportation

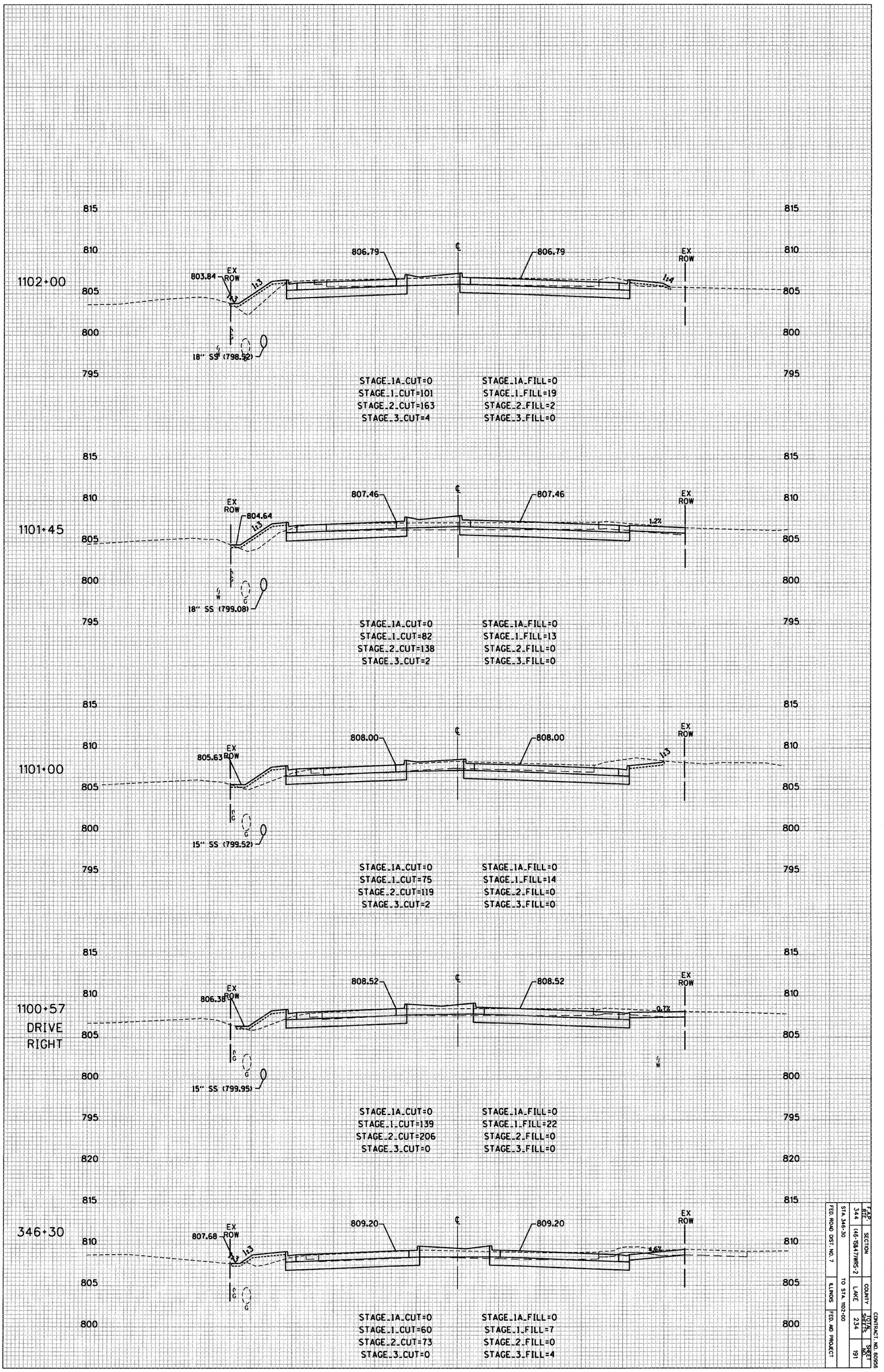
LAKE COUNTY STANDARDS & DETAILS

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
344		(46-1S&47)WRS-2	189	234

FILE NAME: g:\$401\$2000\$0005302\$cod\$LC7800.sht



F.A.P. RTE. 344	SECTION (46-15847)WRS-2	COUNTY LAKE	CONTRACT NO. 60955 SHEET NO. 234		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	STA. 343+00	TO STA. 346+00	SHEET NO. 190

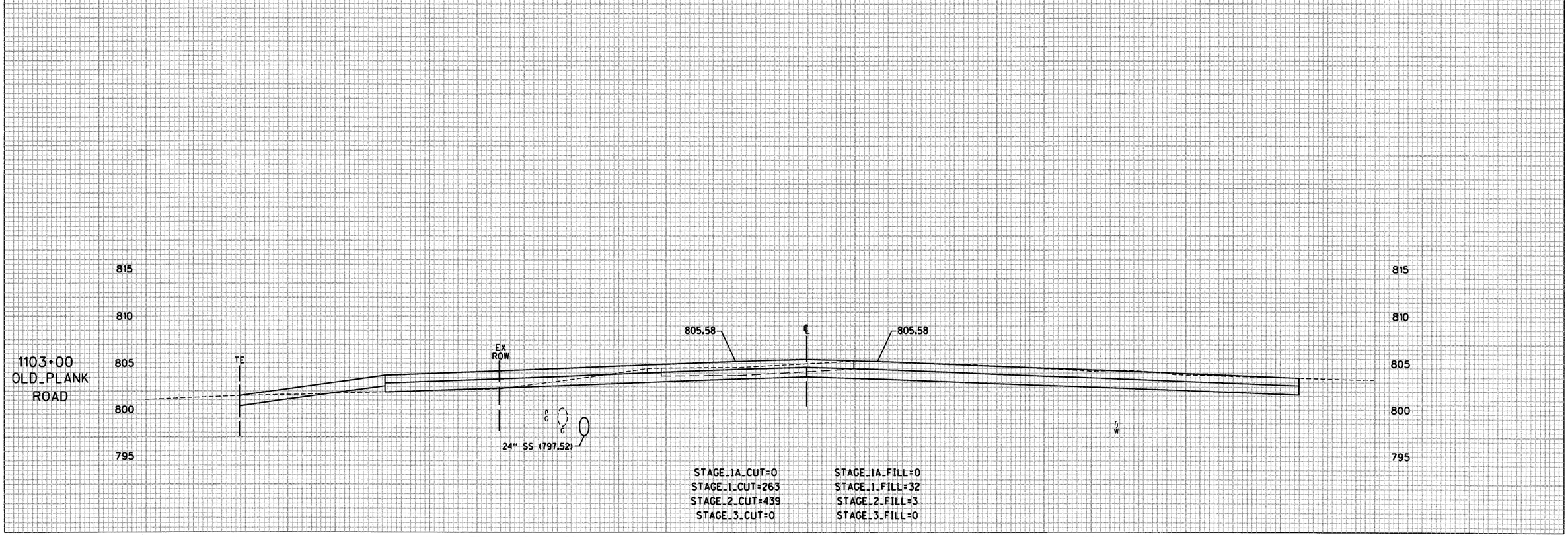


F.A.P. RTE.	SECTION		COUNTY	TOTAL SHTS.	SHT. NO.
344	(46-1584-7)WRS-2		LAKE	234	191
STA. 346+30		TO STA. 1102+00			
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 60956

CONTRACT. NO. 60956

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47)WRS-2	LAKE	234	192
STA. 1103+00		TO STA. 1103+00		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	



STAGE_1A_CUT=0
STAGE_1_CUT=263
STAGE_2_CUT=439
STAGE_3_CUT=0

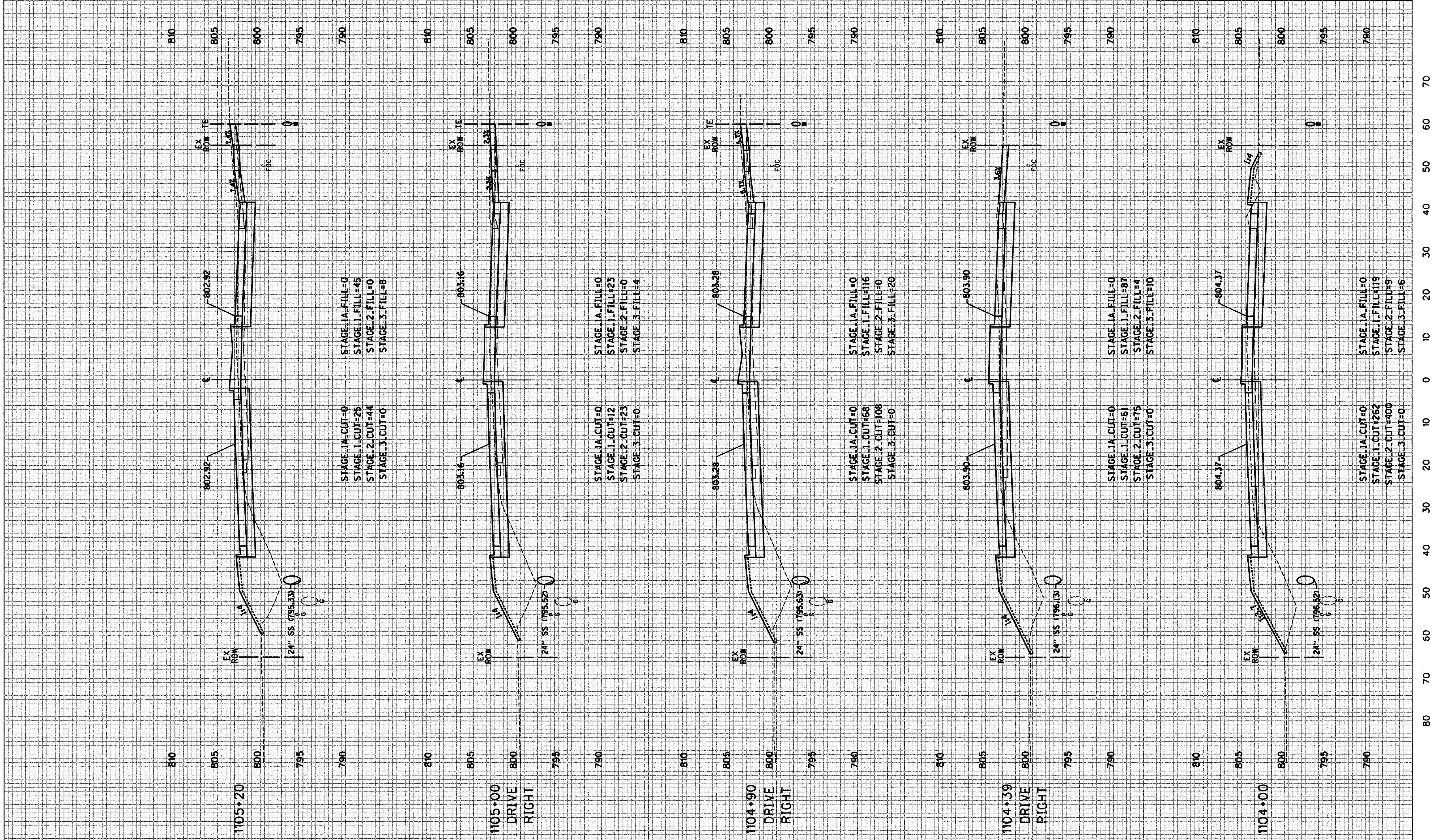
STAGE_1A_FILL=0
STAGE_1_FILL=32
STAGE_2_FILL=3
STAGE_3_FILL=0

SCALE: 1" = 10' HORZ

U.S. ROUTE 45

CONTRACT. NO. 60956

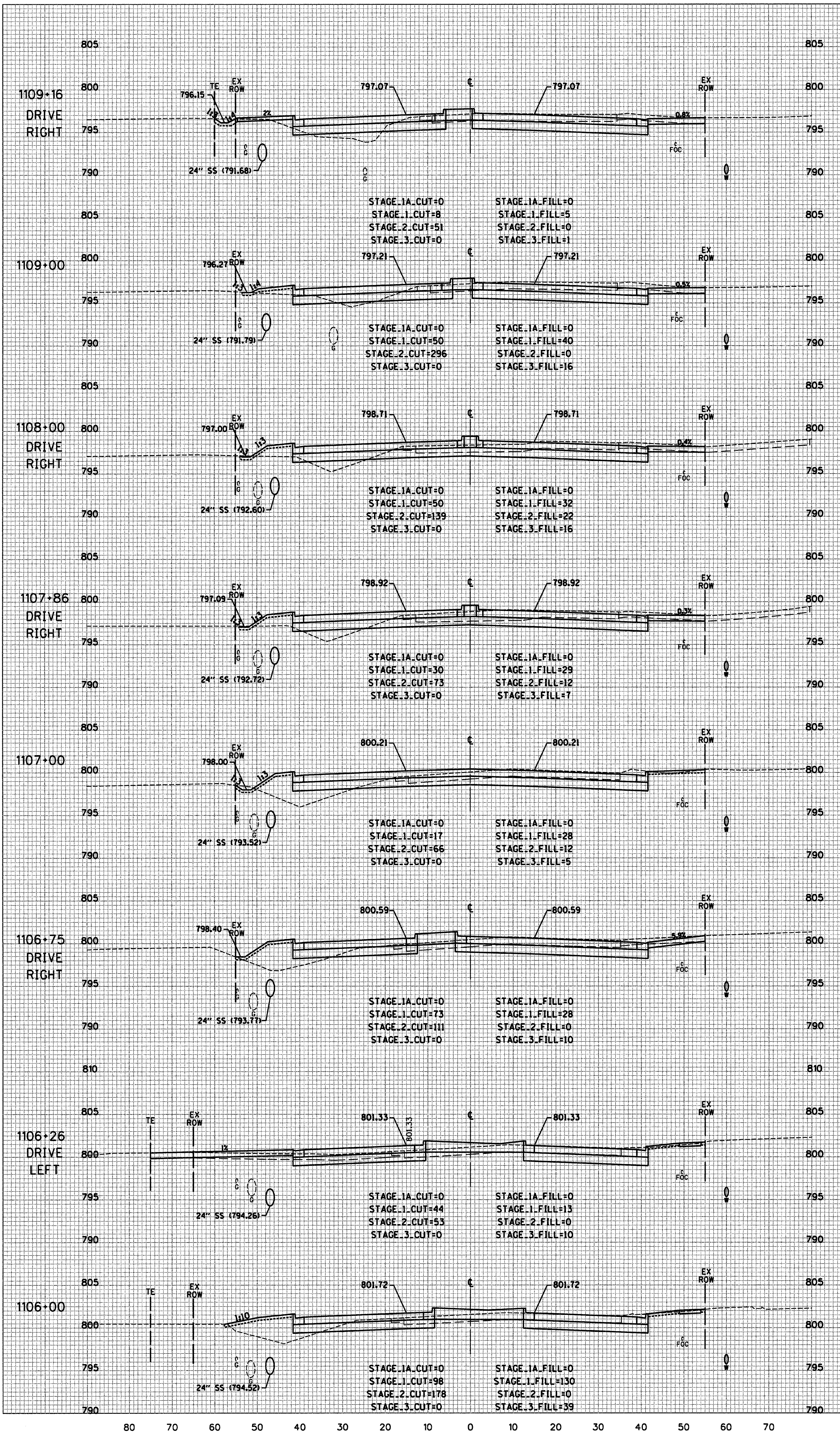
REVISIONS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
NAME	DATE	344	(46-1S&47)WRS-2	LAKE	234	193
		STA. 1104+00		TO STA. 1105+20		
		FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	



4/2/2010

CONTRACT. NO. 60956

REVISIONS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
NAME	DATE	344	(46-1S&47)WRS-2	LAKE	234	194
		STA. 1106+00		TO STA. 1109+16		
		FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

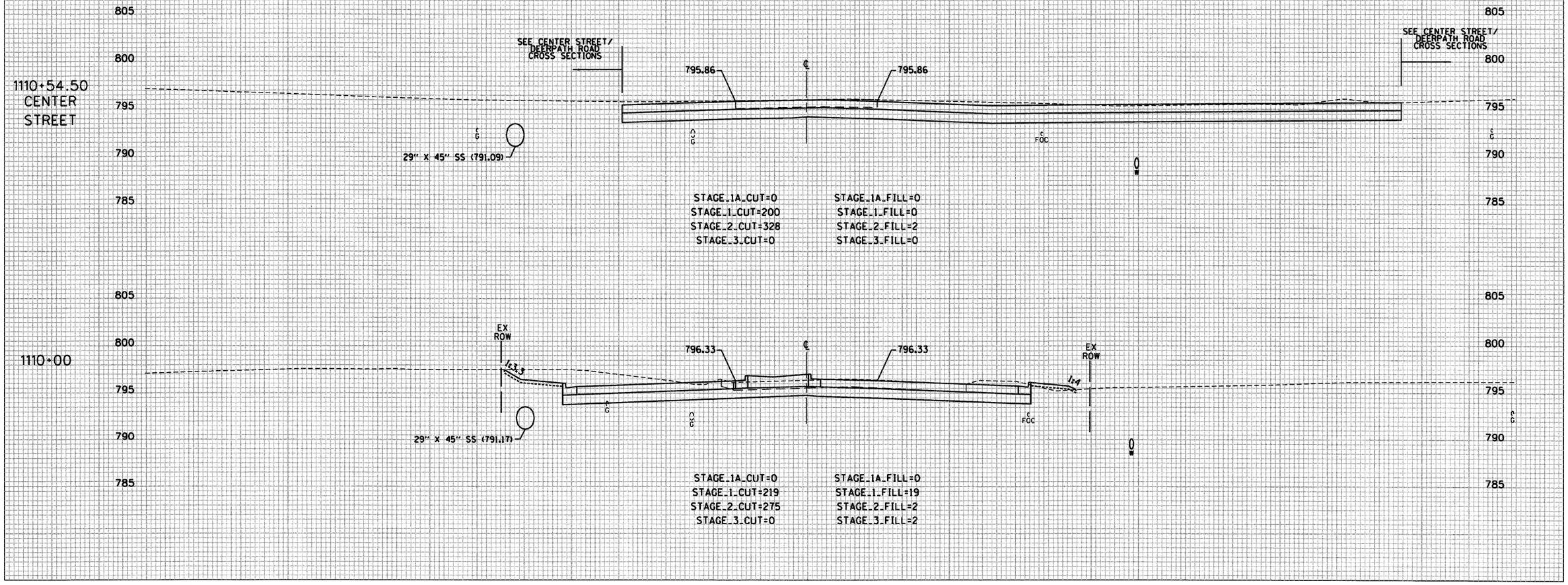


SCALE: 1" = 10' HORZ.

4/2/2010

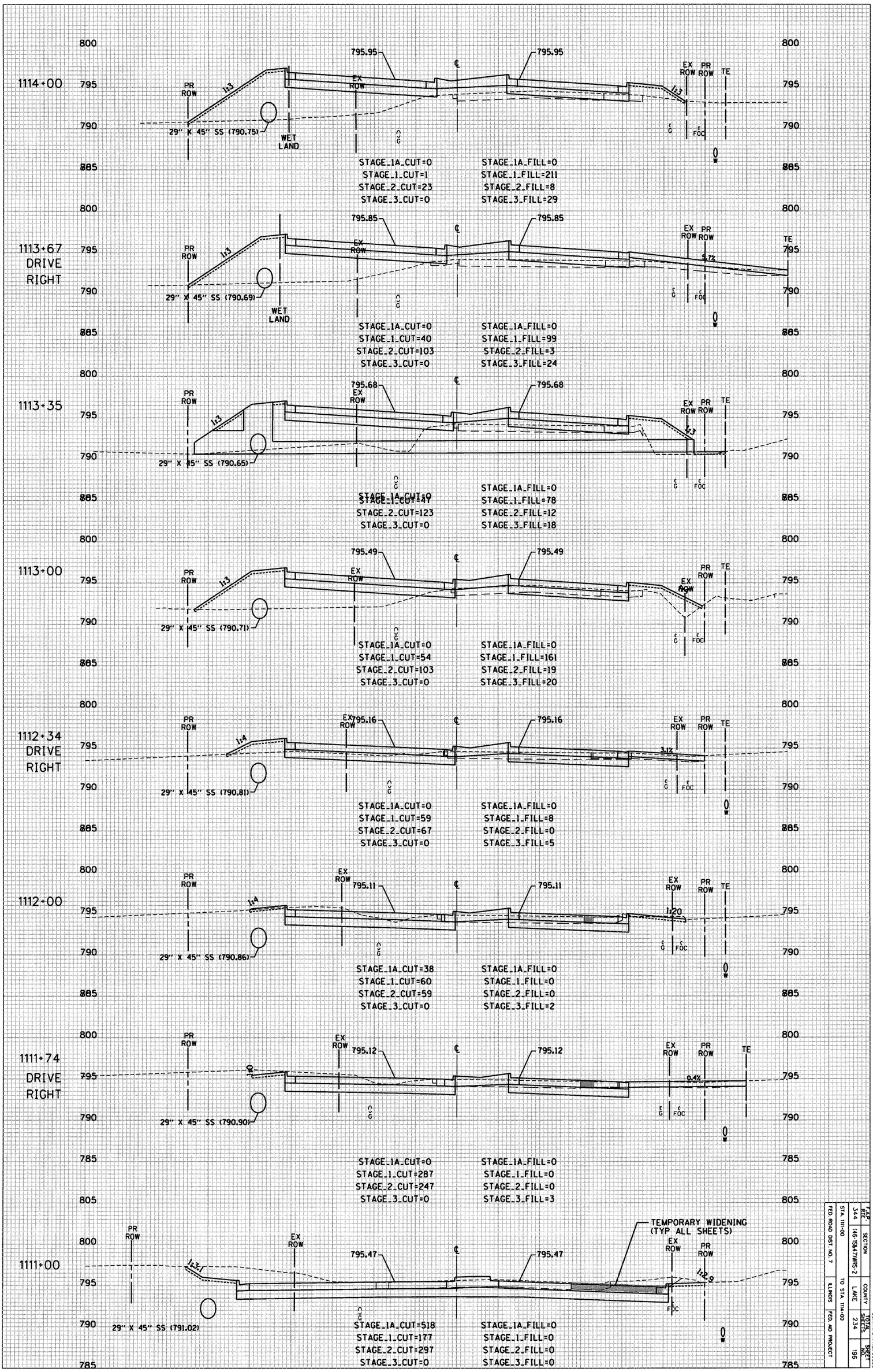
CONTRACT. NO. 60956

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47)WRS-2	LAKE	234	195
STA. 1110-00		TO STA1110-56.50		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	



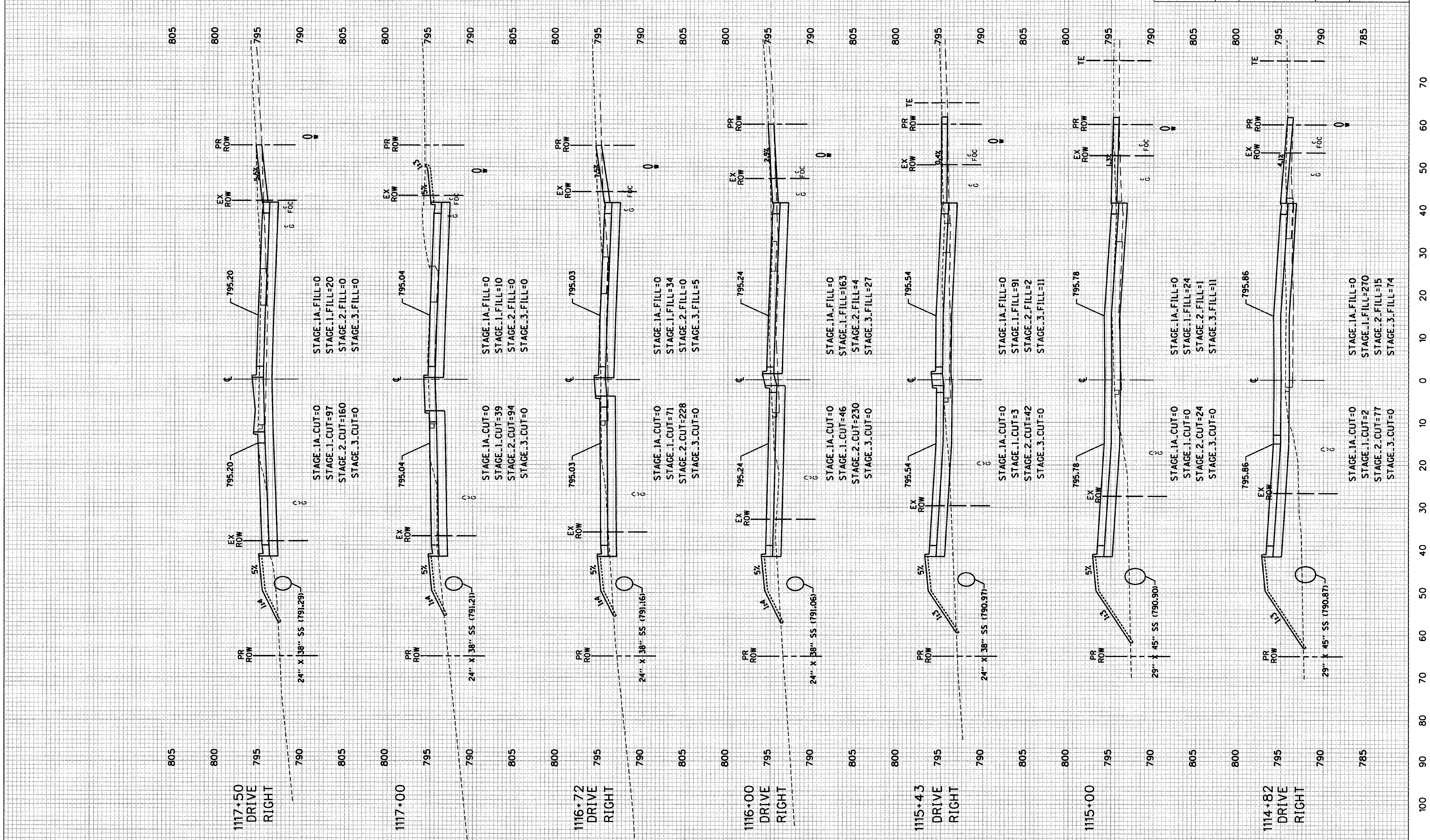
SCALE: 1" = 10' HORZ.

U.S. ROUTE 45


1114+00
PR ROW
1:3
29" X 45" SS (790.75)
WET LAND
795.95
EX ROW
795.95
PR ROW
TE
1:3
STAGE_1A_CUT=0
STAGE_1_CUT=1
STAGE_2_CUT=23
STAGE_3_CUT=0
STAGE_1A_FILL=0
STAGE_1_FILL=211
STAGE_2_FILL=8
STAGE_3_FILL=29
1113+67
DRIVE
RIGHT
PR ROW
1:3
29" X 45" SS (790.69)
WET LAND
795.85
EX ROW
795.85
EX ROW
PR ROW
TE
5.7%
STAGE_1A_CUT=0
STAGE_1_CUT=40
STAGE_2_CUT=103
STAGE_3_CUT=0
STAGE_1A_FILL=0
STAGE_1_FILL=99
STAGE_2_FILL=3
STAGE_3_FILL=24
1113+35
PR ROW
1:3
29" X 45" SS (790.65)
795.68
EX ROW
795.68
EX ROW
PR ROW
TE
1:3
STAGE_1A_CUT=0
STAGE_1_CUT=47
STAGE_2_CUT=123
STAGE_3_CUT=0
STAGE_1A_FILL=0
STAGE_1_FILL=78
STAGE_2_FILL=12
STAGE_3_FILL=18
1113+00
PR ROW
1:3
29" X 45" SS (790.71)
795.49
EX ROW
795.49
EX ROW
PR ROW
TE
STAGE_1A_CUT=0
STAGE_1_CUT=54
STAGE_2_CUT=103
STAGE_3_CUT=0
STAGE_1A_FILL=0
STAGE_1_FILL=161
STAGE_2_FILL=19
STAGE_3_FILL=20
1112+34
DRIVE
RIGHT
PR ROW
1:4
29" X 45" SS (790.81)
EX ROW
795.16
795.16
EX ROW
PR ROW
TE
3.1%
STAGE_1A_CUT=0
STAGE_1_CUT=59
STAGE_2_CUT=67
STAGE_3_CUT=0
STAGE_1A_FILL=0
STAGE_1_FILL=8
STAGE_2_FILL=0
STAGE_3_FILL=5
1112+00
PR ROW
1:4
29" X 45" SS (790.86)
EX ROW
795.11
795.11
EX ROW
PR ROW
TE
1.2%
STAGE_1A_CUT=38
STAGE_1_CUT=60
STAGE_2_CUT=59
STAGE_3_CUT=0
STAGE_1A_FILL=0
STAGE_1_FILL=0
STAGE_2_FILL=0
STAGE_3_FILL=2
1111+74
DRIVE
RIGHT
PR ROW
29" X 45" SS (790.90)
EX ROW
795.12
795.12
EX ROW
PR ROW
TE
0.4%
STAGE_1A_CUT=0
STAGE_1_CUT=287
STAGE_2_CUT=247
STAGE_3_CUT=0
STAGE_1A_FILL=0
STAGE_1_FILL=0
STAGE_2_FILL=0
STAGE_3_FILL=3
1111+00
PR ROW
1:3.1
29" X 45" SS (791.02)
EX ROW
795.47
795.47
TEMPORARY WIDENING
(TYP ALL SHEETS)
EX ROW
PR ROW
1:2.9
FOC
STAGE_1A_CUT=518
STAGE_1_CUT=177
STAGE_2_CUT=297
STAGE_3_CUT=0
STAGE_1A_FILL=0
STAGE_1_FILL=0
STAGE_2_FILL=0
STAGE_3_FILL=0
110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70
SCALE: 1" = 10' HORZ.
1" = 5' VERT.
F.A.P. RTE. 344
SECTION (46-1584-7)WRS-2
COUNTY LAKE
STA. 1111+00
TO STA. 1114+00
FED. ROAD DIST. NO. 7
ILLINOIS
FED. AID PROJECT
CONTRACT NO. 60956
TOTAL SHEETS 234
SHEET NO. 196
U.S. ROUTE 45

CONTRACT NO. 60956

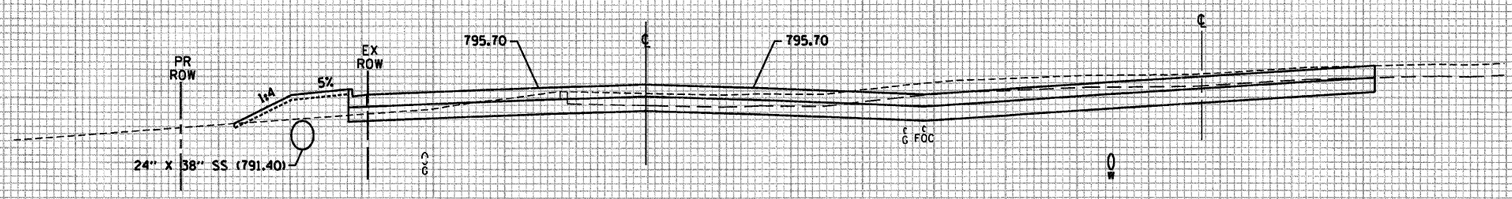
REVISIONS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
NAME	DATE	344	(46-1S&47)WRS-2	LAKE	234	197
		STA. 1114+82		TO STA. 1117+50		
		FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	



CONTRACT. NO. 60956

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47)WRS-2	LAKE	234	198
STA. 1118+00		TO STA. 1118+20		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

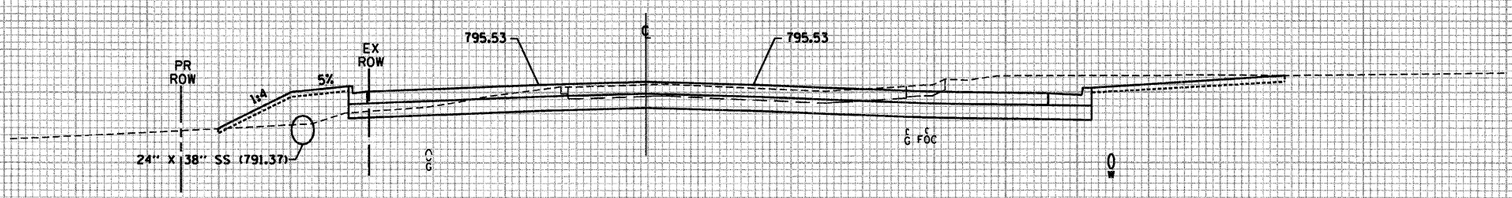
1118+20



STAGE_1A_CUT=0
STAGE_1_CUT=36
STAGE_2_CUT=127
STAGE_3_CUT=0

STAGE_1A_FILL=0
STAGE_1_FILL=14
STAGE_2_FILL=0
STAGE_3_FILL=0

1118+00



STAGE_1A_CUT=0
STAGE_1_CUT=103
STAGE_2_CUT=201
STAGE_3_CUT=0

STAGE_1A_FILL=0
STAGE_1_FILL=34
STAGE_2_FILL=0
STAGE_3_FILL=0

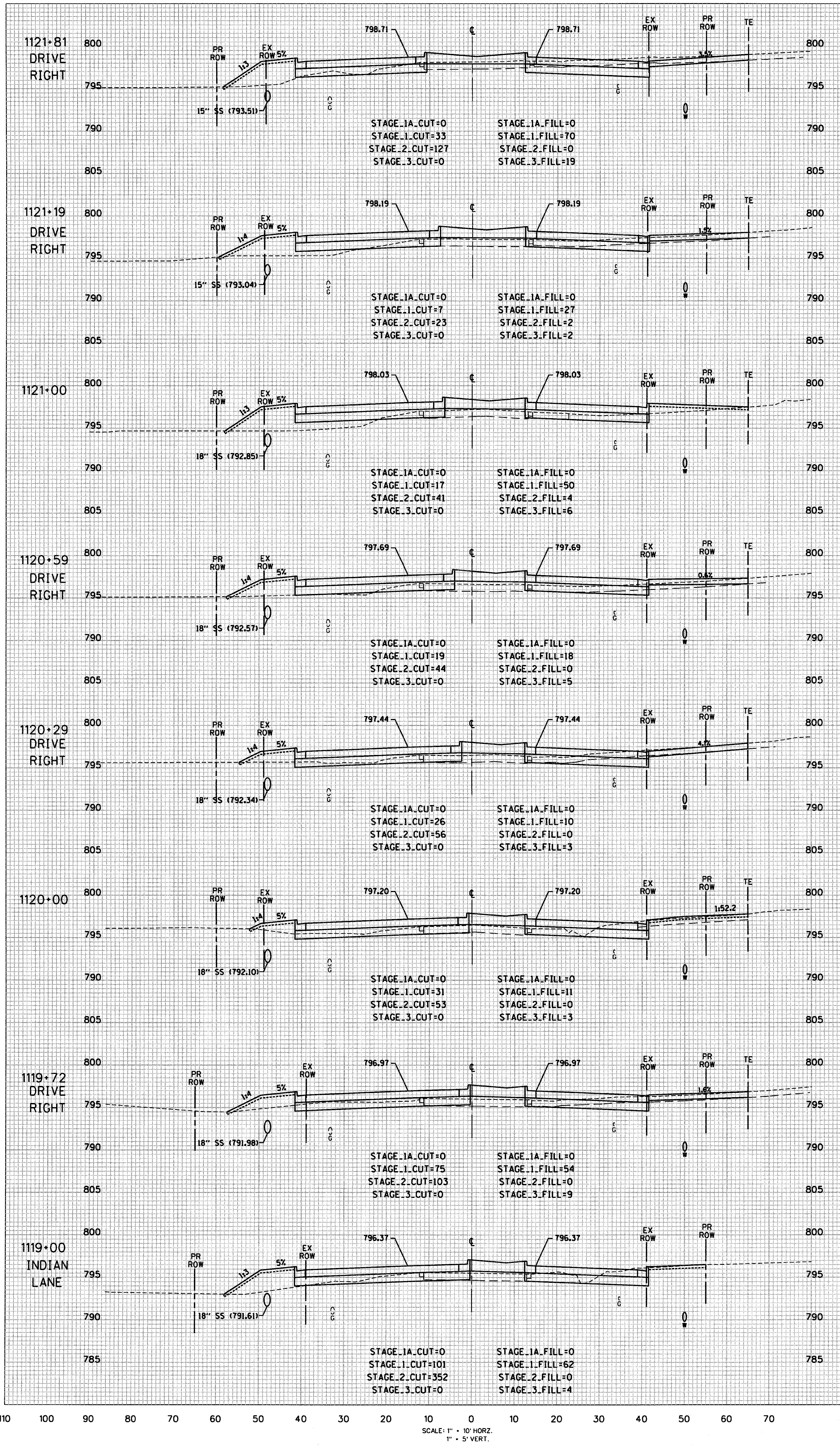
90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110

SCALE: 1" = 10' HORZ.

U.S. ROUTE 45

CONTRACT NO. 60956

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47)WRS-2	LAKE	234	199
STA. 1119+00		TO STA. 1121+81		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	



CONTRACT. NO. 60956

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
344	(46-1S&47)WRS-2	LAKE	234	200
STA. 1122+00		TO STA. 1124+33		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT