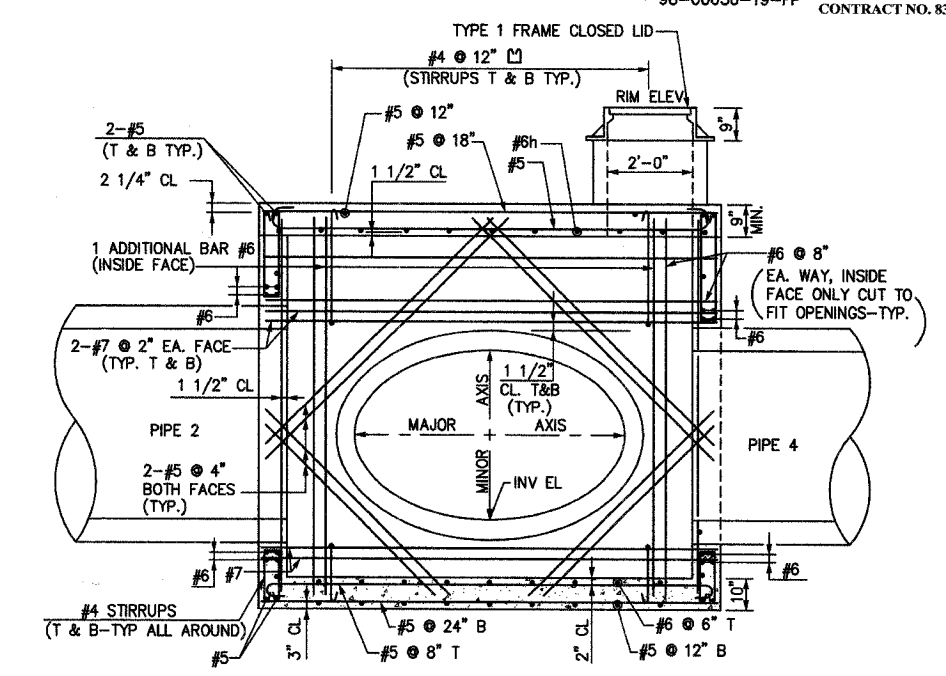
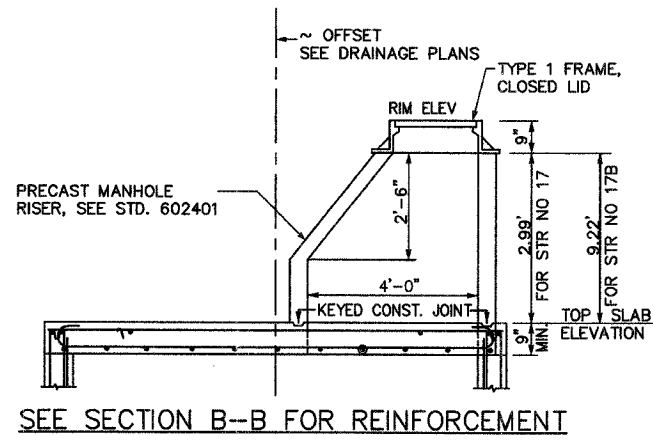
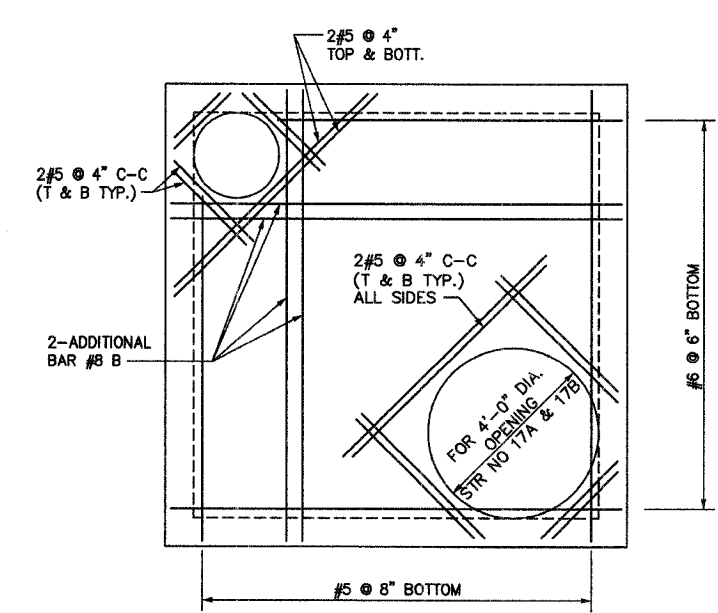
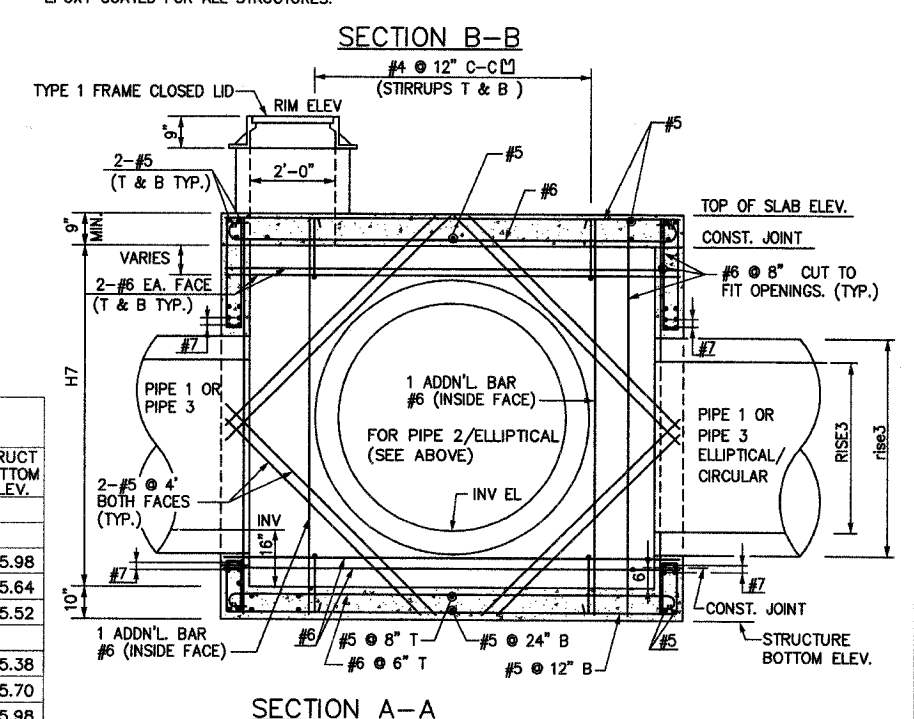


- NOTES:**
1. THE CONTRACTOR SHALL FURNISH AND INSTALL CAST IRON STEPS IN ACCORDANCE W/ STANDARD 602701 @ 12"-16" CENTERS.
 2. THE CONTRACTOR SHALL FURNISH SHOP DRAWINGS IN ACCORDANCE WITH ARTICLE 105.04 OF THE STANDARD SPECIFICATIONS.
 3. THE CONTRACTOR SHALL REFER TO DRAINAGE PLANS FOR LOCATION OF MANHOLE RIM OPENINGS.



- NOTES:**
1. TOP REINFORCEMENT OF ROOF SLAB SHALL BE PROVIDED FOR ALL STRUCTURES.
 2. TOP & BOTTOM REINFORCEMENT OF ROOF SLAB SHALL BE EPOXY COATED FOR ALL STRUCTURES.



BASIS OF PAYMENT:
TO BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR JUNCTION CHAMBER NO. 2

DRAWING NO.	STR. NO.	LOCATION	PIPE 1 - ELLIPTICAL/CIRCULAR				PIPE 2		PIPE 3 - ELLIPTICAL/CIRCULAR				PIPE 4		H1	H2	H3	H4	H5	H6	H7	TOP SLAB ELEV.	RIM ELEV.	STRUCT BOTTOM ELEV.								
			span1/d1	SPAN1/D1	INVERT	rise1	RISE1	d2	INVERT	D2	span3/d3	SPAN3/D3	INVERT	rise3											RISE3	d4	INVERT	D4				
DRN8	17B	STA 159+00, 20' LT.	106"	91"	638.15	73"	58"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12"	-	-	635.98							
DRN8	17A	STA 161+50, 20' LT.	-	-	-	-	-	-	-	106"	91"	637.91	73"	58"	30"	637.81	24"	-	-	12"	15"	12'-2"	6'-4"	8.11	645.33	648.19	635.64					
DRN8	17	STA 161+50, CL	106"	91"	637.69	73"	58"	30"	637.79	24"	19 9"	15"	640.18	-	-	-	-	-	-	-	-	12"	-	46 9"	-	12'-2"	6'-4"	7.76	644.86	648.60	635.52	
DRN9	8	STA 162+60, CL	106"	91"	637.55	73"	58"	16"	640.80	12"	106"	91"	637.65	73"	58"	16"	640.80	12"	12"	16"	12"	16"	12'-2"	5'-4"	7.86	644.82	646.24	635.38				
DRN9	11	STA 163+76, CL	106"	91"	637.87	73"	58"	16"	639.70	12"	106"	91"	637.97	73"	58"	16"	639.70	12"	12"	16"	12"	16"	12'-2"	5'-4"	7.25	644.53	645.36	635.70				
DRN9	16	STA 164+80, CL	-	-	-	-	-	-	-	-	106"	91"	638.15	73"	58"	-	-	-	-	-	-	-	12"	-	-	-	12'-2"	5'-4"	7.21	644.77	645.60	635.98
DRN3	J1	STA 92+85, CL	30"	24"	623.30	30"	24"	16"	625.05	12"	95"	83"	622.55	67"	53"	16"	625.05	12"	45.5"	16"	12"	6'-11 1/2"	5'-4"	6.92	628.80	629.72	620.30					
DRN3	J2	STA 93+95, CL	97"	83"	622.44	67"	53"	16"	624.94	12"	95"	83"	622.44	67"	53"	16"	624.94	12"	12"	16"	12"	7'-3 1/2"	5'-4"	7.25	629.02	630.56	620.19					
DRN3	J3	STA 96+15, CL	97"	83"	622.23	67"	53"	16"	624.73	12"	95"	83"	622.23	67"	53"	-	-	-	-	-	-	6'-11 1/2"	5'-4"	7.40	628.45	630.17	619.87					

WILL COUNTY DEPARTMENT OF HIGHWAYS
PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
ROADWAY RECONSTRUCTION
DRAINAGE DETAILS
JUNCTION CHAMBER, NO. 2

McDonough Associates Inc.
Engineers/Architects

DESIGNED BY: NJL
CHECKED BY: JTF
DRAWN BY: JTF

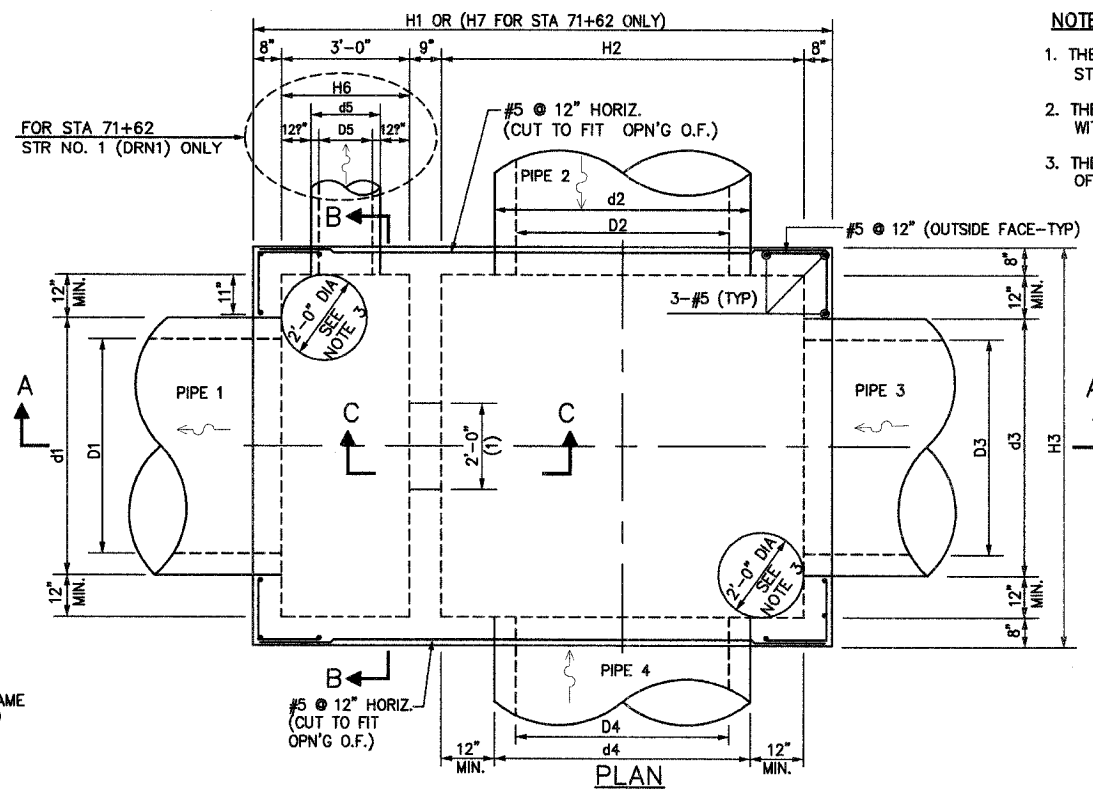
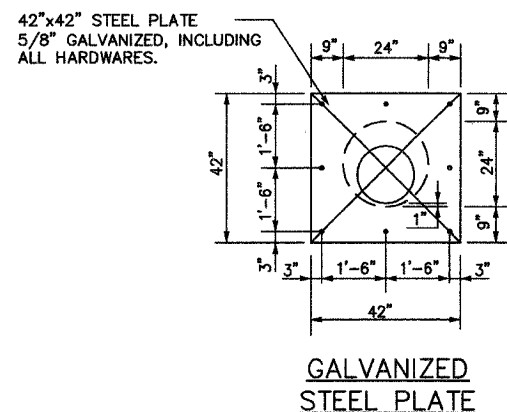
SCALE: N.T.S.

STRUCTURE DETAILS AND DIMENSIONS

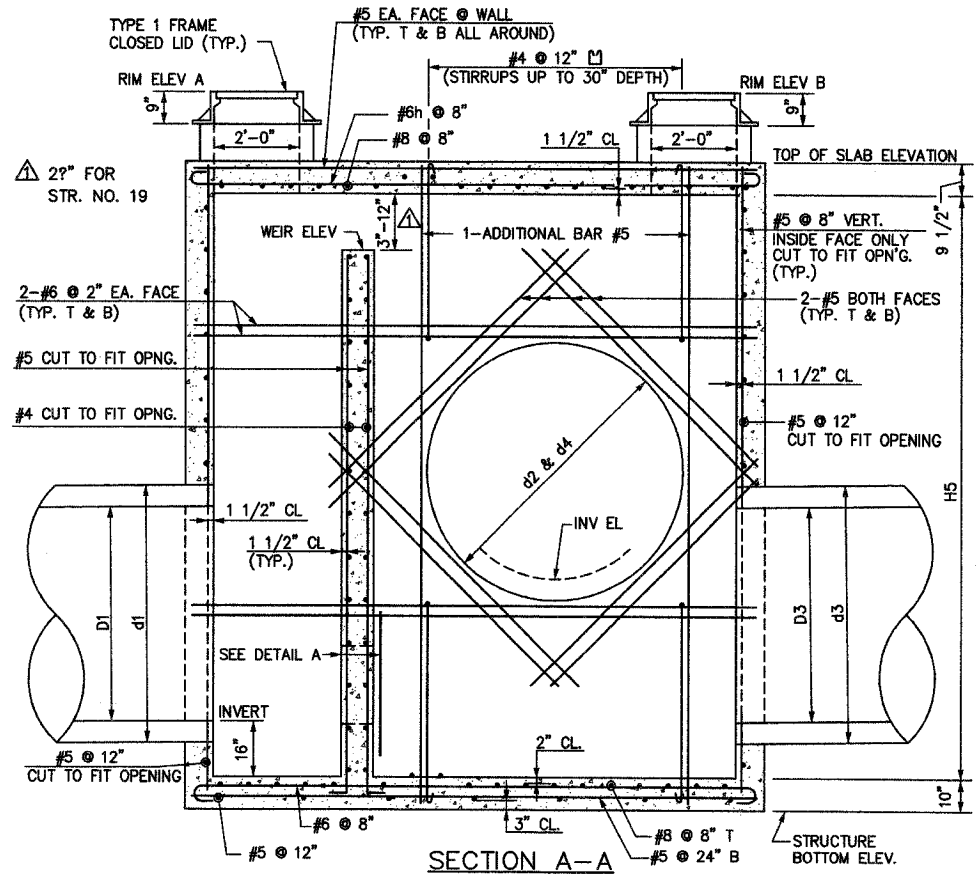
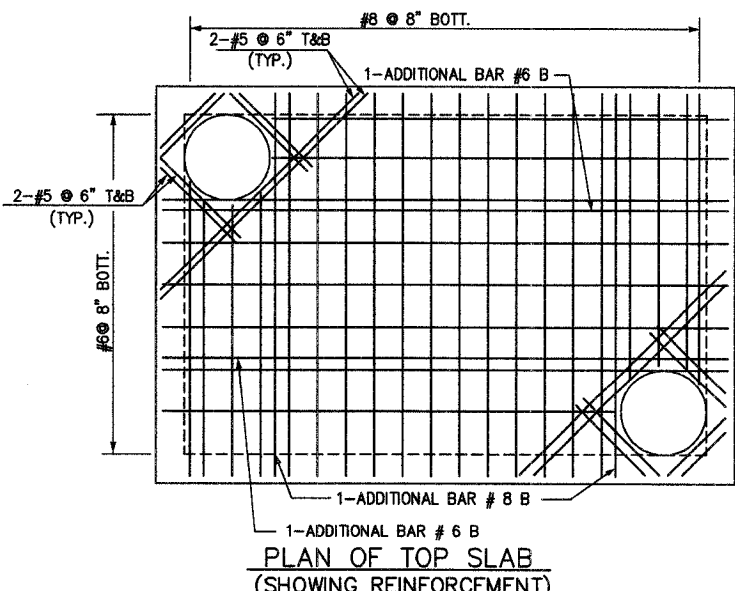
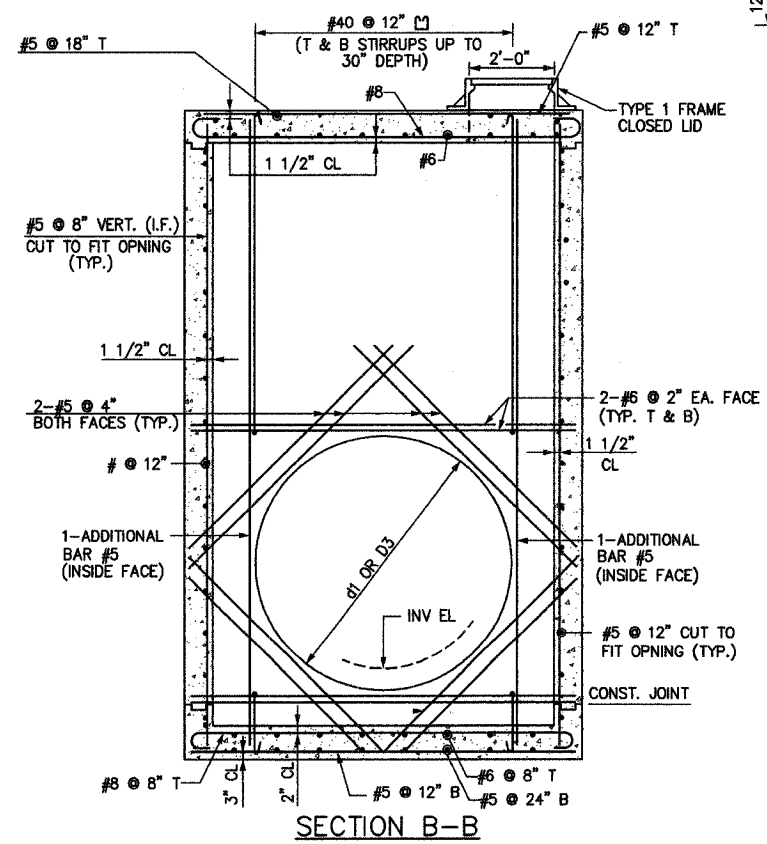
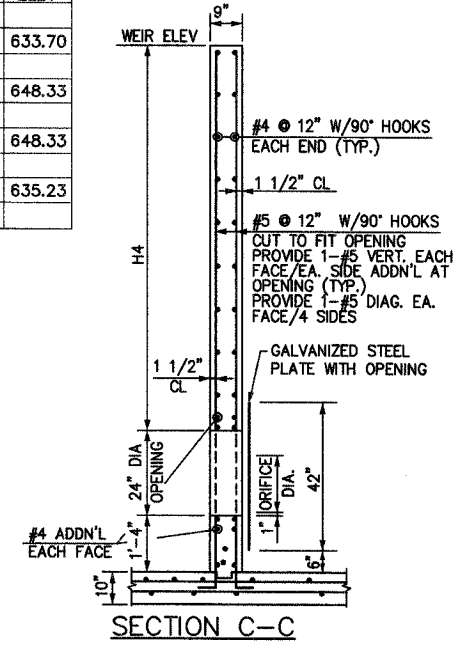
DRAWING NO.	STR. NO.	LOCATION	PIPE 1		PIPE 2		PIPE 3		PIPE 4		PIPE 5		ORIFICE DIA.	ORIFICE INV.	RIM ELEV "A"	RIM ELEV "B"	WEIR ELEV	T/SLAB ELEV	H1	H2	H3	H4	H5	H6	H7	STR. BOTTOM ELEV											
			d1	INVERT	D1	d2	INVERT	D2	rise2	RISE2	d3	INVERT															D3	rise3	RISE3	d4	INVERT	D4	rise4	RISE4	d5	INVERT	D5
DRN1	1	STA 71+62, ~	22"	635.87	18"	16"	636.74	12"			30"	635.97	24"			33"	635.87	27"			19"	636.97	15"	2"	635.87	640.28	640.36	638.49	639.53		4'-10"	5'-10"	7'9"	4.20'	3'-8"	10'-7"	633.70
DRN7	5	STA 149+25, 6' LT	22"	650.50	18"						80"	650.60	68"	55"	43"	16"	652.10	12"						2"	650.50	656.65	656.50	654.56	655.72	9'-1"	4'-0"	10'-0"	2'-0"	5.77'			648.33
DRN8	19	STA 150+07, 6' LT	22"	650.50	18"	16"	652.10	12"			80"	650.60	68"	55"	43"	16"	652.10	12"						2"	650.50	656.44	656.30	654.56	655.55	9'-1"	4'-0"	10'-0"	2'-0"	5.60'			648.33
DRN9	1	STA 162+30, ~	30"	637.40	24"	106"	637.50	91"	73"	58"						106"	637.50	91"	73"	58"				2"	637.40	646.76	646.79	642.98	644.77	15'-11"	10'-10"	5'-10"	3'-7"	7.92'			635.23

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2545	*	WILL	147	102

FEDERAL DIST. NO. 7 ILLINOIS I.D. NO. PROJECT: * 98-00036-19-FP CONTRACT NO. 83896



- NOTES:**
1. THE CONTRACTOR SHALL FURNISH AND INSTALL CAST IRON STEPS IN ACCORDANCE W/ STANDARD 602701 @ 12"-16" CENTERS.
 2. THE CONTRACTOR SHALL FURNISH SHOP DRAWINGS IN ACCORDANCE WITH ARTICLE 105.04 OF THE STANDARD SPECIFICATIONS.
 3. THE CONTRACTOR SHALL REFER TO DRAINAGE PLANS FOR LOCATION OF MANHOLE RIM OPENINGS.



BASIS OF PAYMENT:
TO BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR JUNCTION CHAMBER, SPECIAL.

NO.	DATE	REVISION	BY

WILL COUNTY DEPARTMENT OF HIGHWAYS

PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
ROADWAY RECONSTRUCTION
DRAINAGE DETAILS
JUNCTION CHAMBERS, SPECIAL

McDonough Associates Inc.
Engineers/Architects

DESIGNED BY: NJL
CHECKED BY: JTF
DRAWN BY: JTF

SCALE: N.T.S.

P3
DRAWING ID: G:\20030023 - Plainfield-Naperville Road\dwg\DR DET JC.dwg
PLOT DATE: 07/08/05 - 14:55

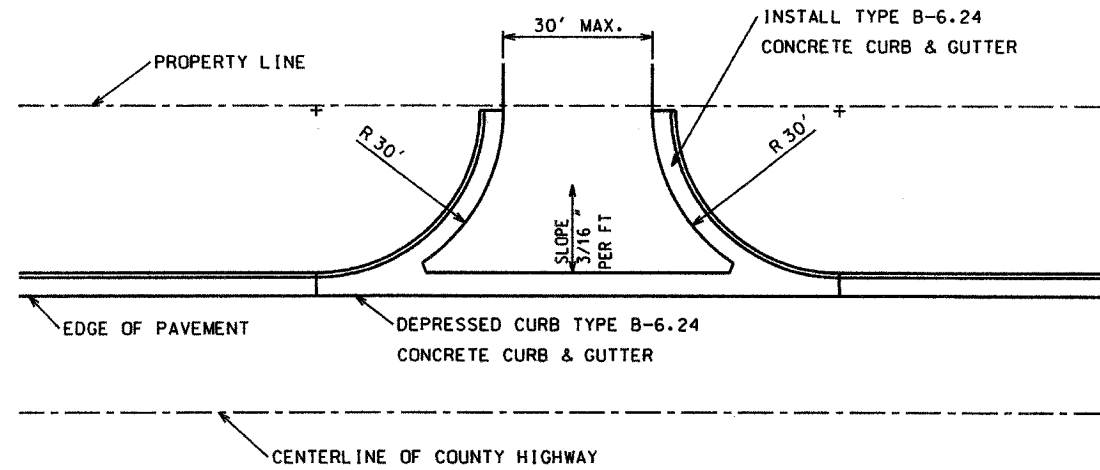
COUNTY OF WILL
COMMERCIAL ENTRANCE

PERMIT: EXXXX

NOTE: ALL CONSTRUCTION TO BE DONE ACCORDING TO STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION"

ALL GROUND AREAS DISTURBED SHALL BE RESEDED AND MULCHED OR JUTE MATTED AS SOON AFTER CONSTRUCTION AS POSSIBLE

CUT OUT DIRT ON SHOULDER AND INSTALL 15" AGGREGATE BASE COURSE 2" BITUMINOUS BINDER COURSE AND 2" BITUMINOUS SURFACE COURSE



COUNTY OF WILL
PRIVATE ENTRANCE

PERMIT: XXXXX

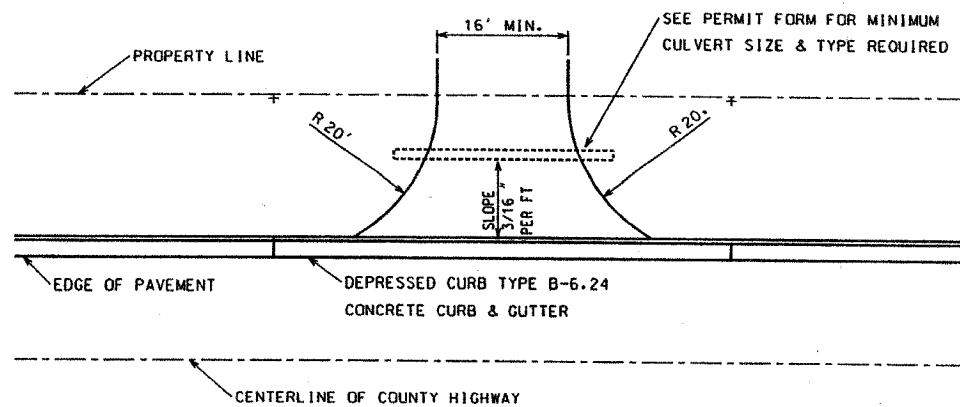
NOTE: ALL CONSTRUCTION TO BE DONE ACCORDING TO STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION"

ALL GROUND AREAS DISTURBED SHALL BE RESEDED AND MULCHED OR JUTE MATTED AS SOON AFTER CONSTRUCTION AS POSSIBLE

CUT OUT DIRT ON SHOULDER AND INSTALL 4" AGGREGATE BASE COURSE AND 8" PORTLAND CEMENT CONCRETE

OR

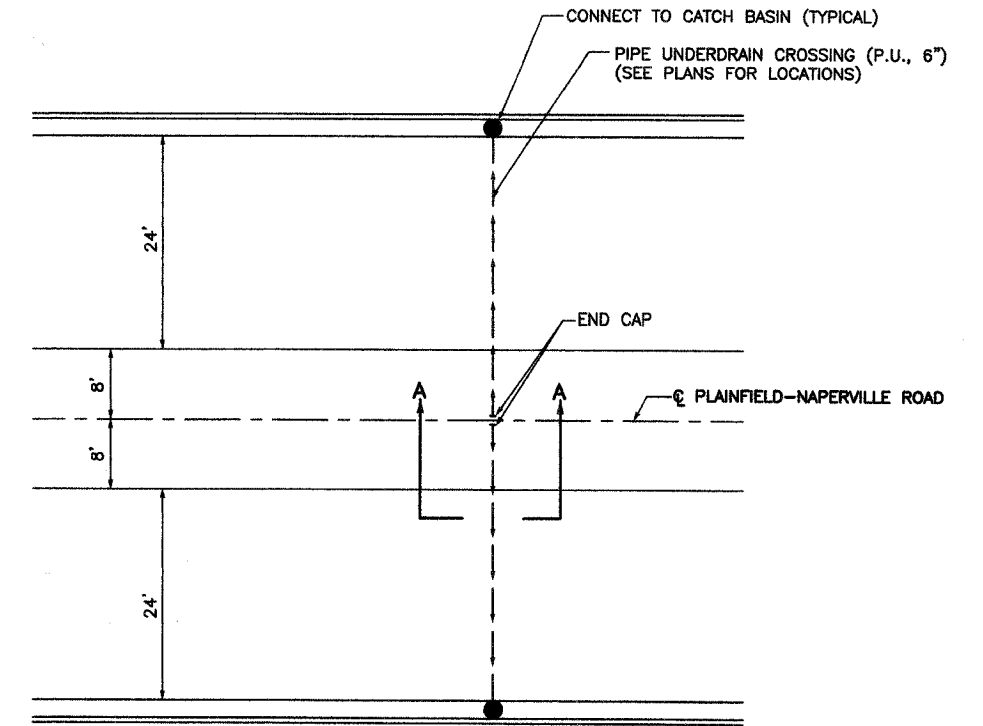
CUT OUT DIRT ON SHOULDER AND INSTALL 12" AGGREGATE BASE COURSE AND 2 1/2" BITUMINOUS SURFACE COURSE



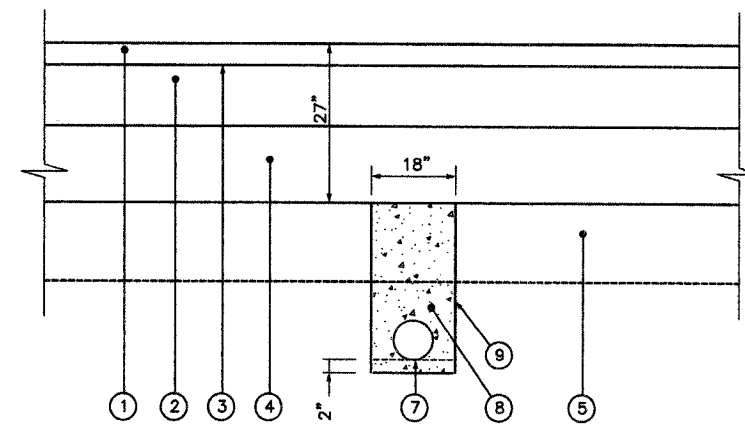
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2545	*	WILL	147	103

FEDERAL AID DIST. NO. 7
* 98-00036-19-FP CONTRACT NO. 83896

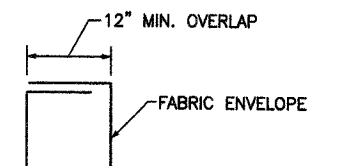
PLAINFIELD-NAPERVILLE RD PIPE UNDERDRAIN DETAIL



PLAN



SECTION A-A
PIPE UNDERDRAIN CROSSING



FABRIC 18" ENVELOPE DETAIL

LEGEND

- ① BITUMINOUS CONCRETE SURFACE COURSE, 2"
- ② BITUMINOUS CONCRETE BINDER COURSE, 13"
- ③ BITUMINOUS MATERIALS (PRIME COAT)
- ④ AGGREGATE SUBGRADE, 12"
- ⑤ POROUS GRANULAR EMBANKMENT SUBGRADE (DEPTH VARIES) (AT LOCATIONS SHOWN IN CROSS SECTIONS)
- ⑦ PIPE UNDERDRAIN, 6"
- ⑧ FA1 OR FA2 BACKFILL
- ⑨ FABRIC ENVELOPE

NO.	DATE	REVISION	BY

WILL COUNTY DEPARTMENT OF HIGHWAYS
PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
ROADWAY RECONSTRUCTION
DRIVEWAY AND PIPE UNDERDRAIN DETAILS

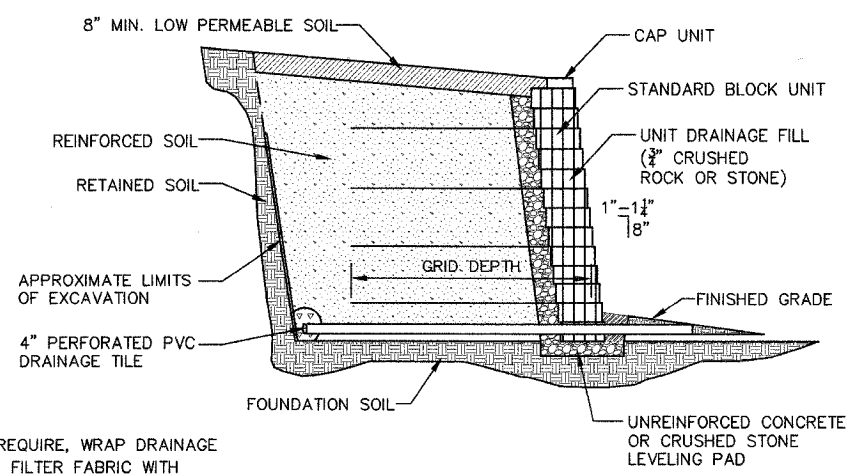
McDonough Associates Inc.
Engineers/Architects

DESIGNED BY: NKU
CHECKED BY: NJL
DRAWN BY: JTF

SCALE:
NTS

DRAWING ID: G:\20030023 - Plainfield-Naperville Road\dwg\DRV PUD DET.dwg
PLOT DATE: 07/08/05 - 14:59

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2545	*	WILL	147	103A
FEDERAL DIST. NO. 7		BLANK	FED. AID PROJECT	
* 98-00036-19-FP			CONTRACT NO. 83896	



NOTES:

1. WHEN SITE CONDITIONS REQUIRE, WRAP DRAINAGE TILE IN 3/4\"/>

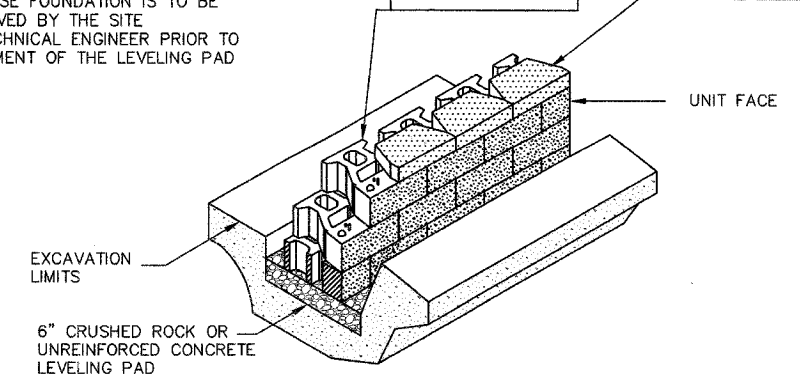
TYPICAL REINFORCED WALL SECTION N.T.S.
STANDARD UNIT - 1\"/>

BASE LEVELING PAD NOTES

1. THE LEVELING PAD IS TO CONSTRUCTED OF CRUSHED STONE OR 2,000 PSI UNREINFORCED CONCRETE
2. THE BASE FOUNDATION IS TO BE APPROVED BY THE SITE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF THE LEVELING PAD

STANDARD UNIT	
WIDTH:	18"
DEPTH:	18"
HEIGHT:	8"
WEIGHT:	108 LBS

CAP UNIT	
WIDTH:	18"
DEPTH:	10 1/2"
HEIGHT:	4"
WEIGHT:	50 LBS

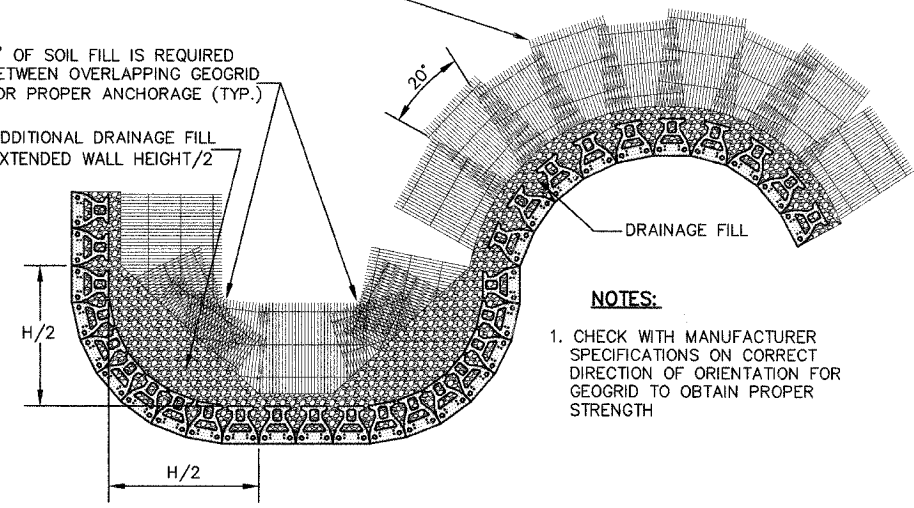


STANDARD UNIT/BASE PAD ISOMETRIC SECTION VIEW
* DIMENSIONS & WEIGHT MAY VARY BY REGION

PLACE ADDITIONAL PIECES OF GEOGRID WHEN ANGLE EXCEEDS 20°

3" OF SOIL FILL IS REQUIRED BETWEEN OVERLAPPING GEOGRID FOR PROPER ANCHORAGE (TYP.)

ADDITIONAL DRAINAGE FILL EXTENDED WALL HEIGHT/2



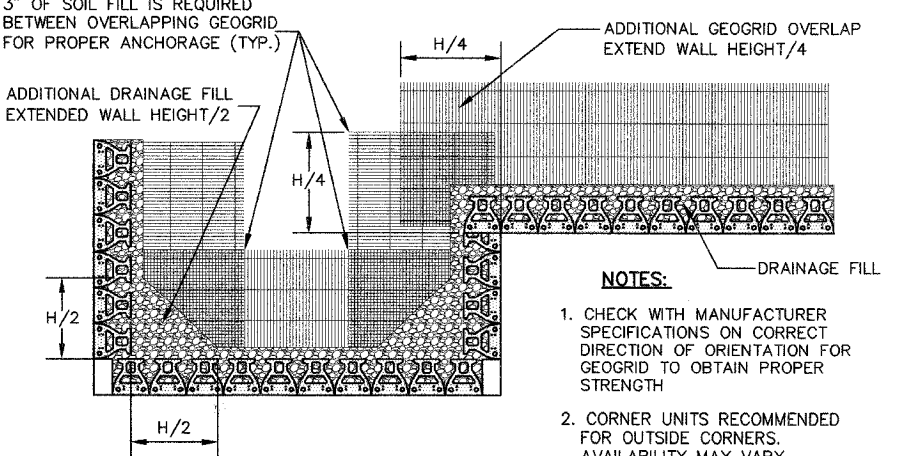
NOTES:

1. CHECK WITH MANUFACTURER SPECIFICATIONS ON CORRECT DIRECTION OF ORIENTATION FOR GEOGRID TO OBTAIN PROPER STRENGTH

GEOGRID INSTALLATION ON CURVES

3" OF SOIL FILL IS REQUIRED BETWEEN OVERLAPPING GEOGRID FOR PROPER ANCHORAGE (TYP.)

ADDITIONAL DRAINAGE FILL EXTENDED WALL HEIGHT/2

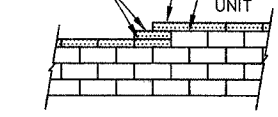


NOTES:

1. CHECK WITH MANUFACTURER SPECIFICATIONS ON CORRECT DIRECTION OF ORIENTATION FOR GEOGRID TO OBTAIN PROPER STRENGTH
2. CORNER UNITS RECOMMENDED FOR OUTSIDE CORNERS. AVAILABILITY MAY VARY

GEOGRID INSTALLATION AT CORNERS

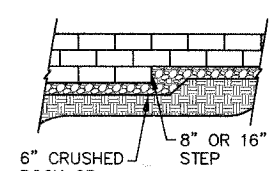
(2)-4" CAP UNITS OR (1)-8" CAP UNIT



NOTES:

1. SECURE ALL CAP UNITS WITH KEYSTONE KAPSEAL OR EQUAL

TOP OF WALL STEPS

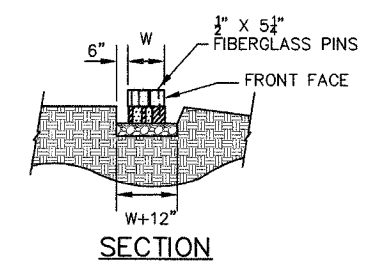


6" CRUSHED ROCK OR UNREINFORCED CONCRETE LEVELING PAD

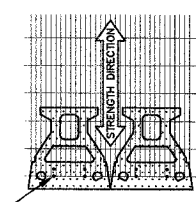
ELEVATION

NOTES:

1. THE LEVELING PAD IS TO BE CONSTRUCTED OF CRUCHED STONE OR 2000 PSI ± UNREINFRCETE

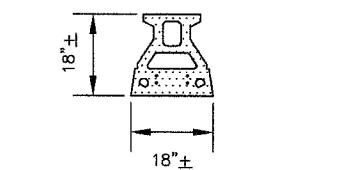
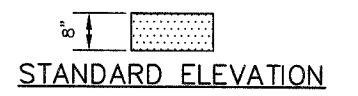


LEVELING PAD DETAIL



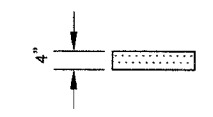
GEOGRID IS TO BE PLACED ON LEVEL BACKFILL AND EXTENDED OVER THE FIBERGLASS PINS. PLACE NEXT UNIT. PULL GRID TAUGHT AND BACKFILL STAKE AS REQUIRED.

GRID AND PIN CONNECTION

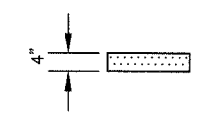


STANDARD PLAN

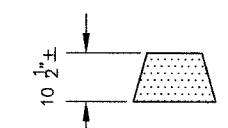
STANDARD UNIT
*DIMENSIONS MAY VARY BY REGION



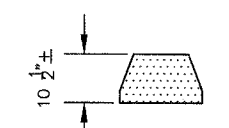
CAP UNIT ELEVATION



CAP UNIT ELEVATION



CAP UNIT PLAN



CAP UNIT PLAN

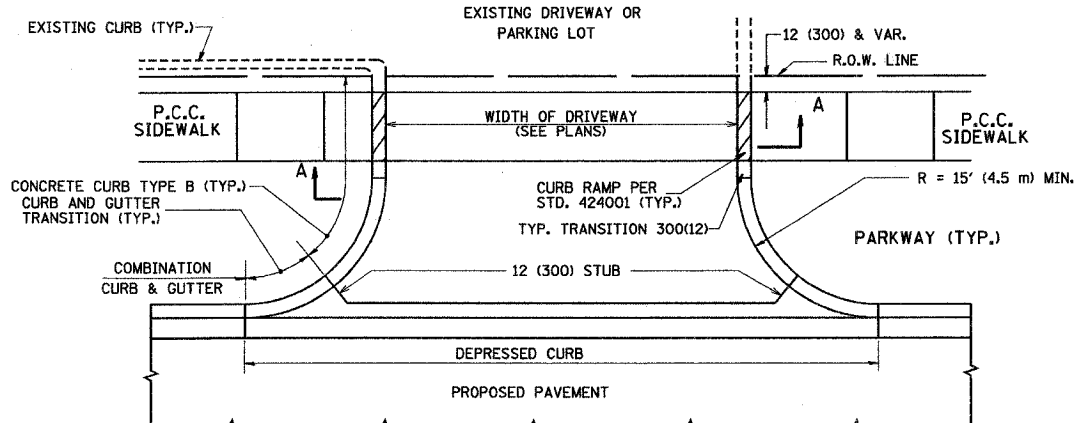
UNIVERSAL CAP UNIT OPTION
*DIMENSIONS & AVAILABILITY WILL VARY BY REGION

STRAIGHT SPLIT CAP UNIT OPTION
*DIMENSIONS & AVAILABILITY WILL VARY BY REGION

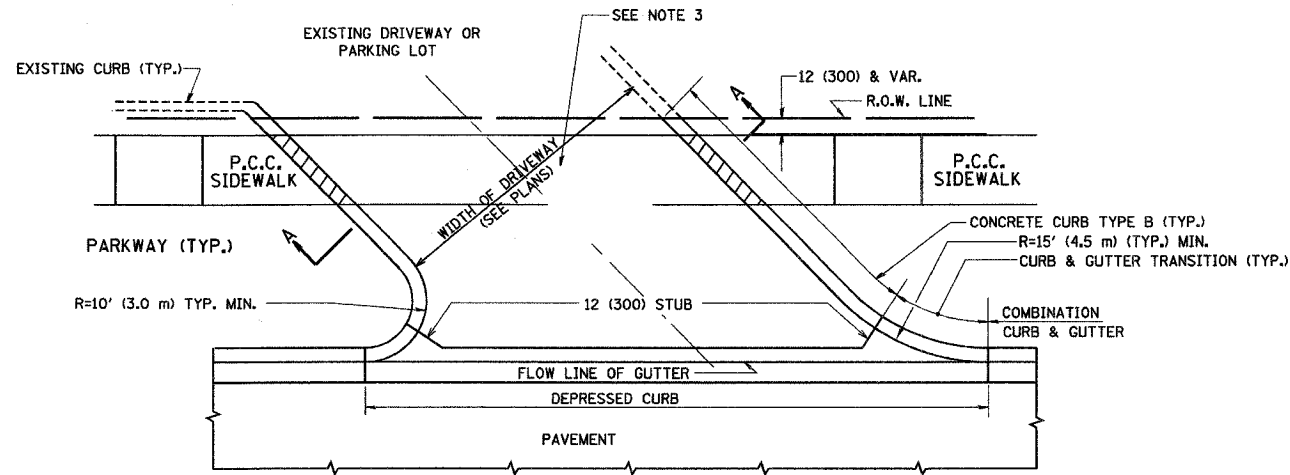
P1 DRAWING ID: G:\20030023 - Plainfield-Naperville Road\dwg\KEYSTONE DETAIL.dwg PLOT DATE: 06/23/05 - 07:47

WILL COUNTY DEPARTMENT OF HIGHWAYS			
PLAINFIELD-NAPERVILLE ROAD (C.H. 14) ROADWAY RECONSTRUCTION BLOCK RETAINING WALL DETAILS			
McDonough Associates Inc. Engineers/Architects		DESIGNED BY: RJE CHECKED BY: DRAWN BY: RJE	SCALE: N.T.S.
NO.	DATE	REVISION	BY

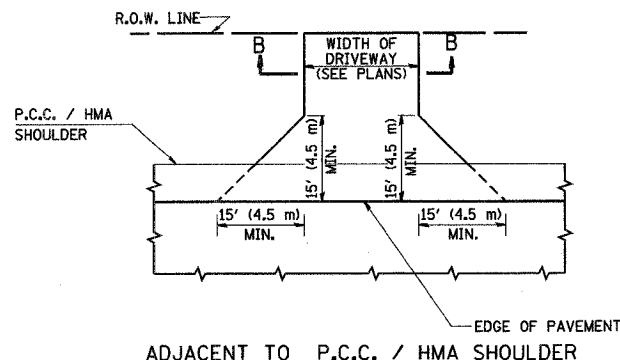
CONTRACT NO. 83896			
F.A. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
2545	98-00036-19-FP	WILL	147 / 104
STA.		TO STA.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			



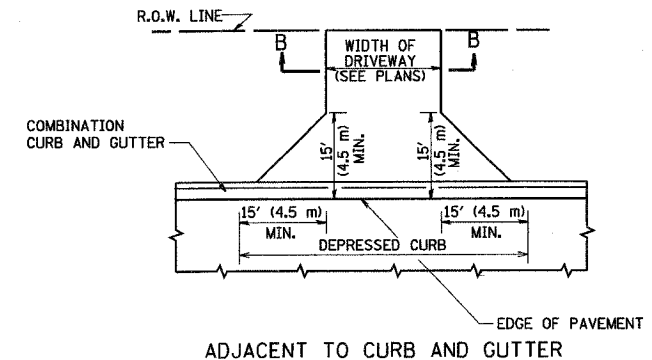
WITH CONCRETE CURB, TYPE B



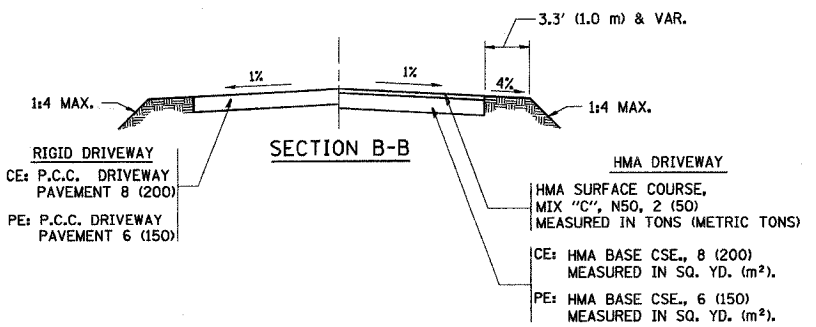
WITH CONCRETE CURB, TYPE B



ADJACENT TO P.C.C. / HMA SHOULDER



ADJACENT TO CURB AND GUTTER



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.

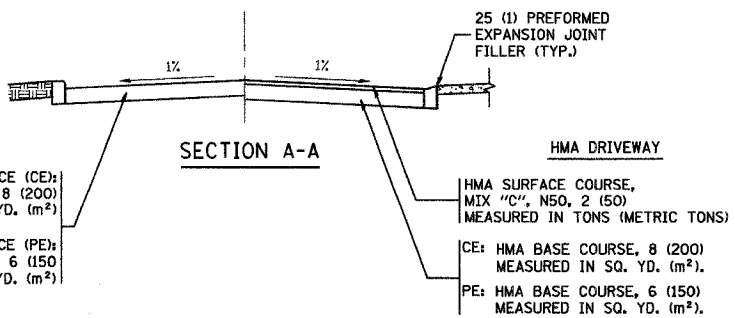
COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

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.



SECTION A-A

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE NOTED

REVISIONS	
NAME	DATE
R. SHAH	11-04-95
J. POLLASTRINI	08-12-96
J. POLLASTRINI	12-14-96
A. ABBAS	03-21-97
T. HOLTZ	04-08-97
M. GOMEZ	04-06-01
P. LaFLEUR	04-15-03
R. BORO	01-01-07

ILLINOIS DEPARTMENT OF TRANSPORTATION
DRIVEWAY DETAILS
 DISTANCE BETWEEN R.O.W. AND FACE OF CURB & EDGE OF SHOULDER >= 15' (4.5 m)

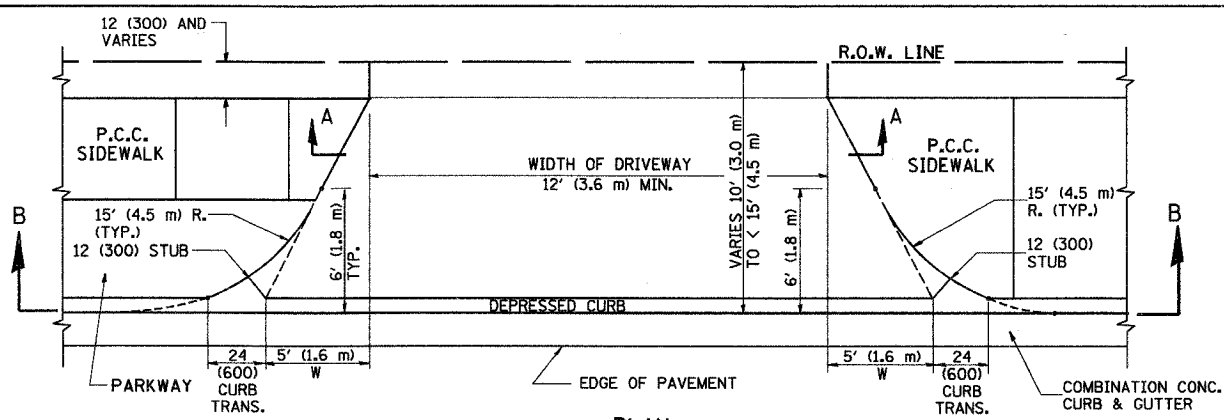
SCALE: VERT. NONE
 HORIZ. 1"=10'
 PLOT DATE: 1/18/2007

DRAWN BY
 CHECKED BY

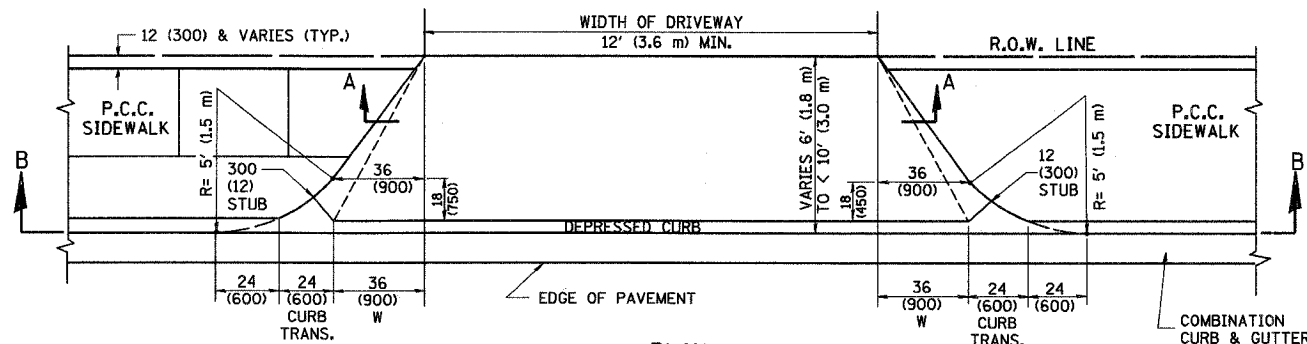
BDO156-07 (BD-01)
 REVISION DATE: 01/01/07

PLOT DATE = 1/18/2007
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 USER NAME = d156\jg

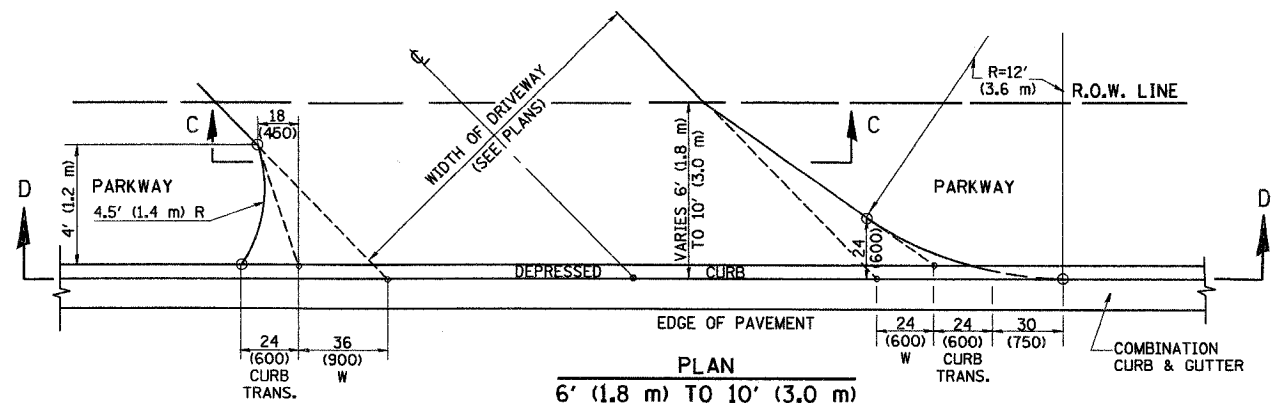
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



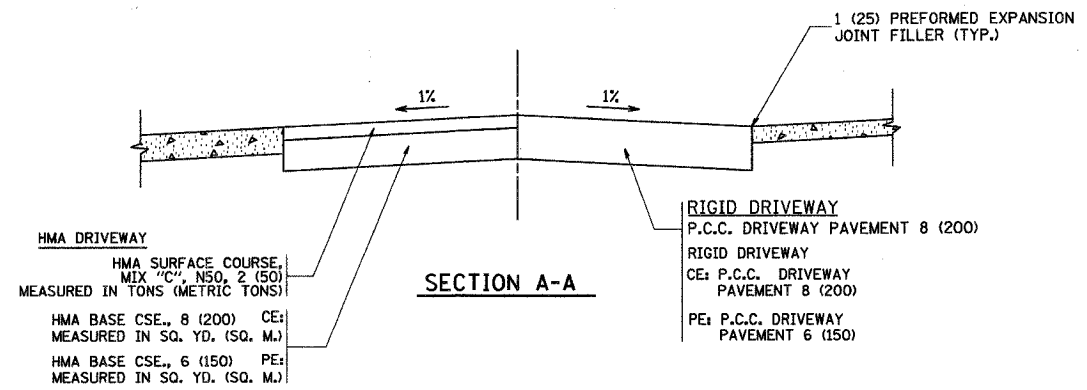
PLAN
10' (3.0 m) TO < 15' (4.5 m)



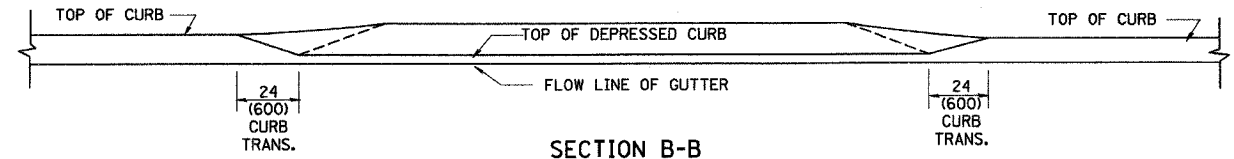
PLAN
6' (1.8 m) TO < 10' (3.0 m)



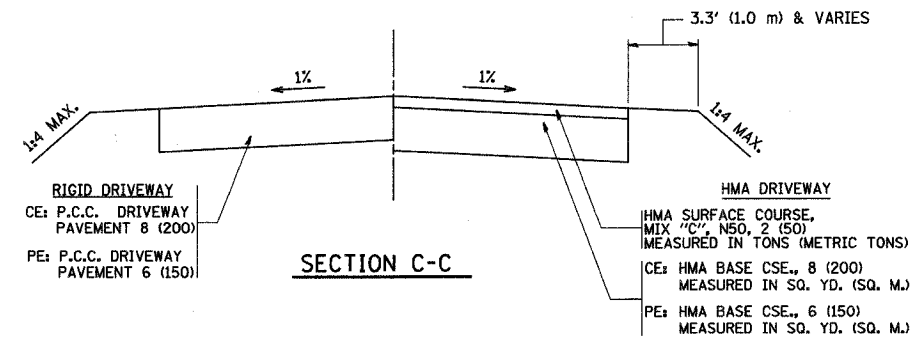
PLAN
6' (1.8 m) TO 10' (3.0 m)



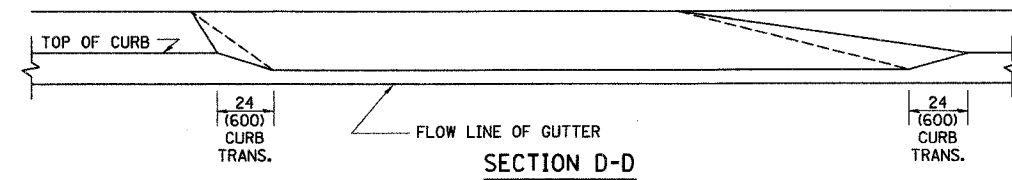
SECTION A-A



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.

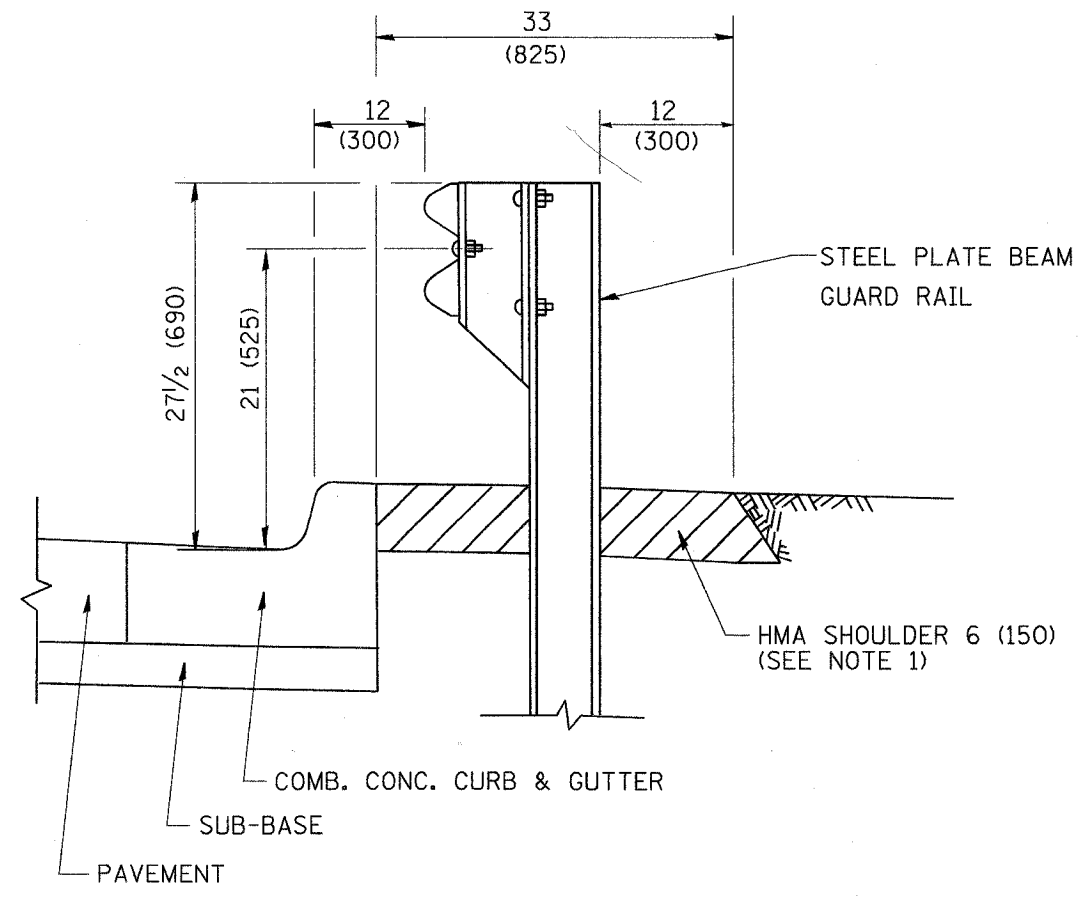
ILLINOIS DEPARTMENT OF TRANSPORTATION
DRIVEWAY DETAILS
DISTANCE BETWEEN ROW AND FACE OF CURB < 15' (4.5 m)

REVISIONS	
NAME	DATE
R. SHAH	11/06/95
J. POLLASTRINI	08/12/96
J. POLLASTRINI	12/14/96
A. ABBAS	03/21/97
T. HOLTZ	04/08/97
M. GOMEZ	04/06/01
P. LOFLEUR	04/15/03
R. BORO	01/01/07

SCALE: VERT.
HORIZ.
DATE PLOTTED: 1/18/2007

DRAWN BY
CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

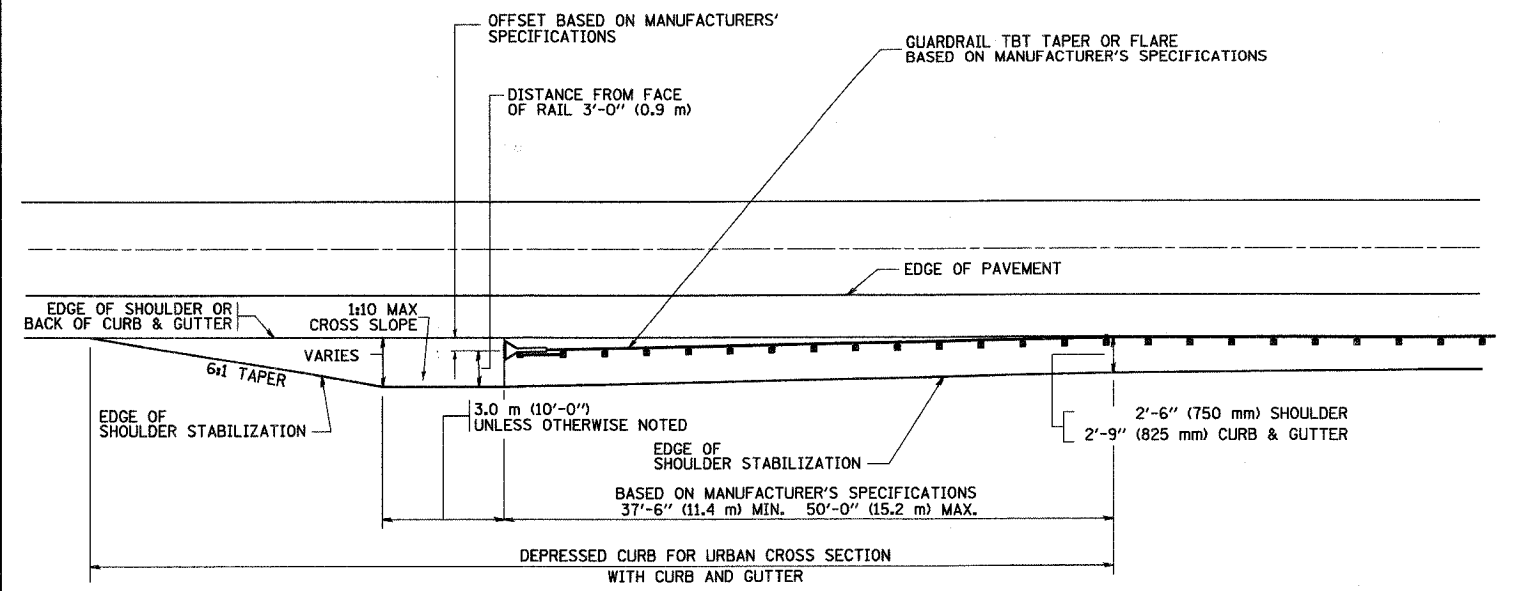


- NOTES:
1. THE HMA SHOULDER SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL
 2. GUARD RAIL MAY BE PLACED AT THE BACK OF CURB WHEN DIRECTED BY THE ENGINEER.

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.

REVISIONS	
NAME	DATE
M. DE YONG	09-22-90
M. DE YONG	07-14-92
R. SHAH	09/09/94
R. SHAH	10/25/94
R. SHAH	02/23/95
A. ABBAS	03/21/97
E. GOMEZ	08/28/00
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION
**DETAILS FOR
STEEL PLATE BEAM GUARD RAIL
ADJACENT TO CURB AND GUTTER
STABILIZATION AT TBT TY 1 SPL.**
SCALE: VERT. NONE
HORIZ. 1"=10'
PLOT DATE: 1/18/2007
DRAWN BY Jjs
CHECKED BY

PLOT DATE = 1/18/2007
 FILE NAME = c:\p\jjs\jjs\jjs\jjs\jjs.dgn
 USER = jjs
 USER NAME = jjs

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2545	98-00036-19-FP	WILL.	147	108
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

GENERAL NOTES

ALTERNATE MATERIAL FOR THE WALLS MAY BE CONCRETE MASONRY UNITS, PRECAST REINFORCED CONCRETE SECTIONS OR CAST-IN-PLACE CONCRETE. THE CAST IRON STEPS AS DETAILED HEREON ARE TYPICAL. STEPS OF OTHER DESIGN AND MATERIAL THAT CONFORM TO THE MINIMUM REQUIREMENTS OF THE SPECIFIED BACKFILL MATERIAL, AND FURNISHING AND INSTALLING FLAT SLAB TOP.

CAST IRON STEPS SHALL BE GRAY IRON CONFORMING TO THE REQUIREMENTS OF ARTICLE 1006.14 OF THE STANDARD SPECIFICATIONS.

STEPS SHALL BE EMBEDDED INTO THE WALL A MINIMUM OF THREE (3) INCHES. STEPS SHALL NOT BE EXTENDED ON THE OUTSIDE.

STEPS SHALL BE OMITTED FOR WORK IN COOK COUNTY WHEN THE DEPTH OF THE MANHOLE IS TEN (10') OR LESS.

IN ADDITION TO THE REQUIREMENTS OF ARTICLE 612.13 OF THE STANDARD SPECIFICATIONS, THE CONTRACT UNIT PRICE FOR MANHOLES, TYPE A, 7'-DIAMETER SHALL INCLUDE THE SAND CUSHION WHEN REQUIRED, FURNISHING AND INSTALLING STEPS WHEN REQUIRED, FURNISHING AND COMPACTING THE SPECIFIED BACKFILL MATERIAL, AND FURNISHING AND INSTALLING FLAT SLAB TOP.

PRECAST FLAT SLAB TOP SHALL CONFORM TO ARTICLES 505.01 THRU 505.05 OF THE STANDARD SPECIFICATIONS EXCEPT THAT THE CONCRETE STRENGTH SHALL BE 4000 PSI AFTER 28 DAYS. REINFORCEMENT BARS AND WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ARTICLE 1006.10. ONLY GRADE 60 REINFORCEMENT BARS WILL BE PERMITTED.

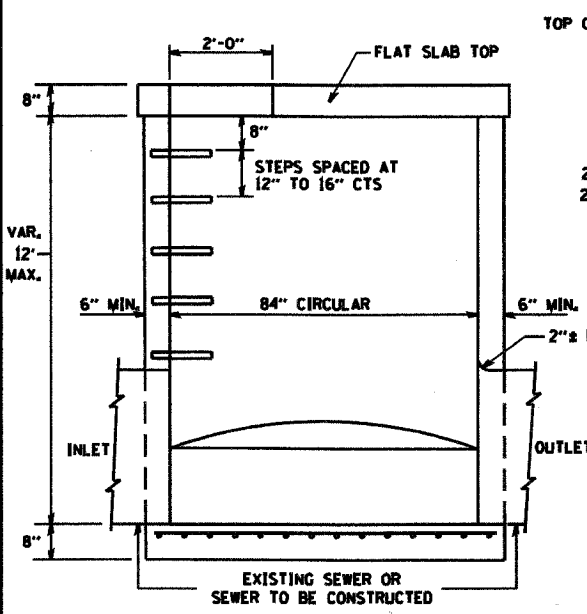
BOTTOM SLAB SHALL BE REINFORCED BY EITHER REINFORCEMENT BARS OR WELDED WIRE FABRIC. THE MINIMUM REINFORCEMENT SHALL BE 0.46 SQUARE INCH PER LINEAR FOOT IN BOTH DIRECTIONS.

JOINT CONFIGURATION AND DIMENSIONS OF FLAT SLAB TOP SHALL MATCH AND FIT THE RISER JOINT DETAIL.

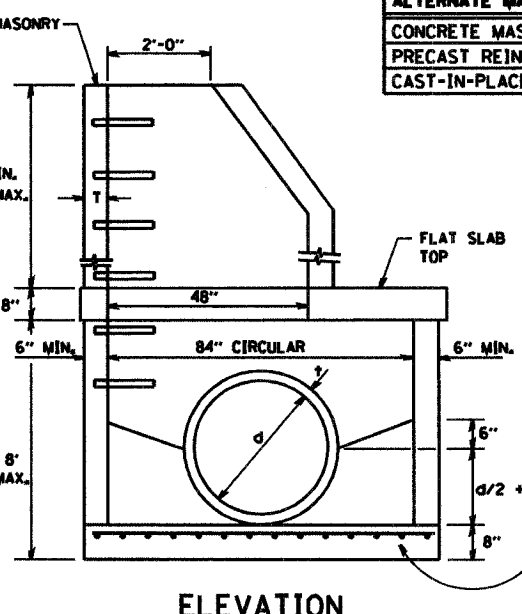
LIFTING DEVICES SHALL BE APPROVED BY THE ENGINEER.

ALTERNATE MATERIALS FOR RISERS

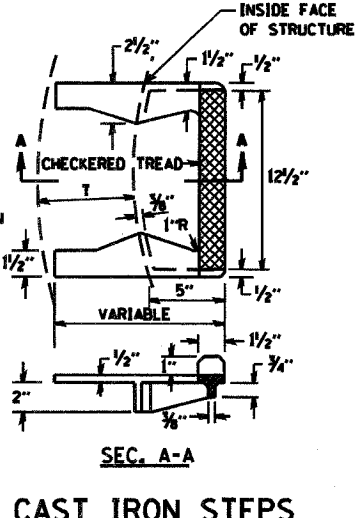
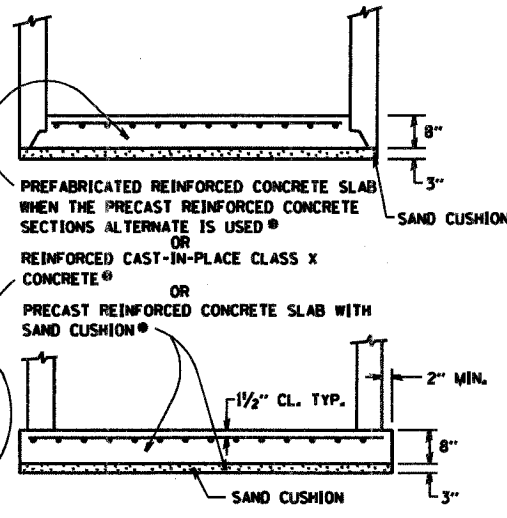
	(MIN.)
CONCRETE MASONRY UNITS	5"
PRECAST REINFORCED CONCRETE SECTIONS	4"
CAST-IN-PLACE CONCRETE	6"



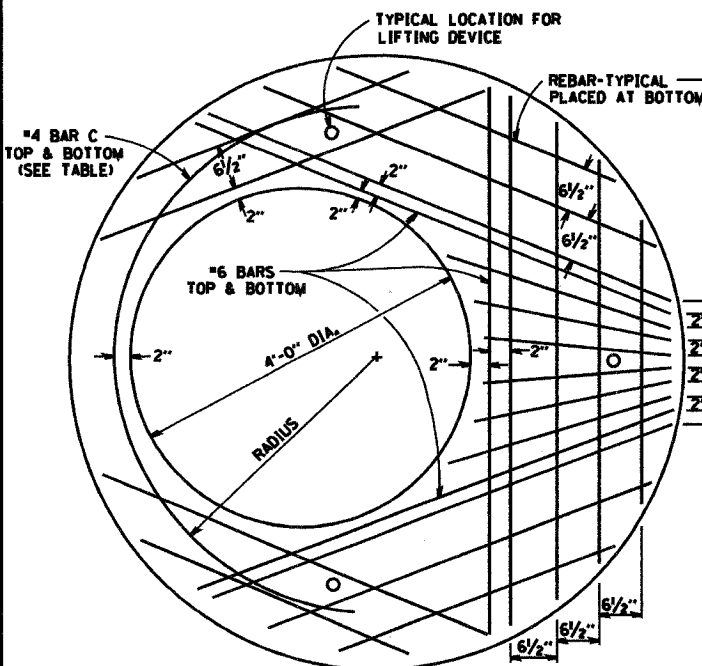
ELEVATION



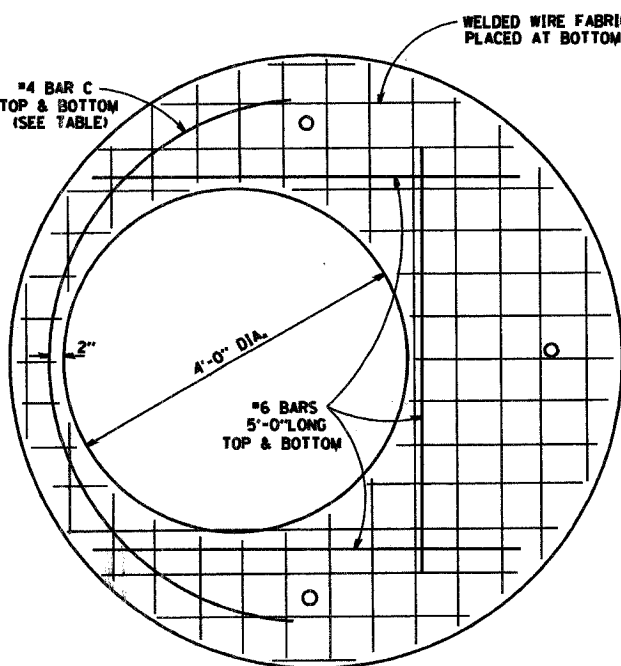
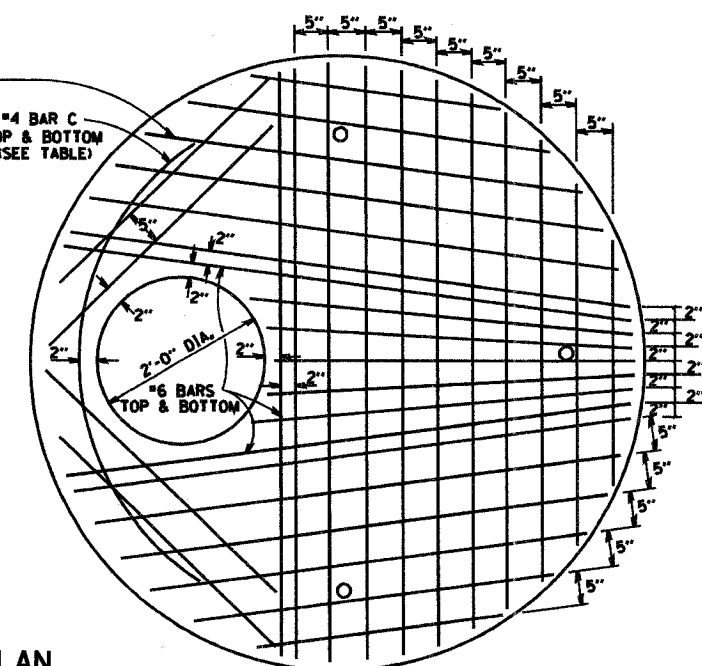
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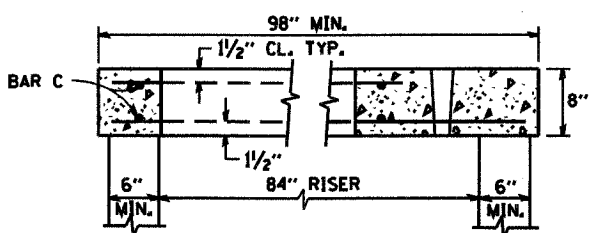
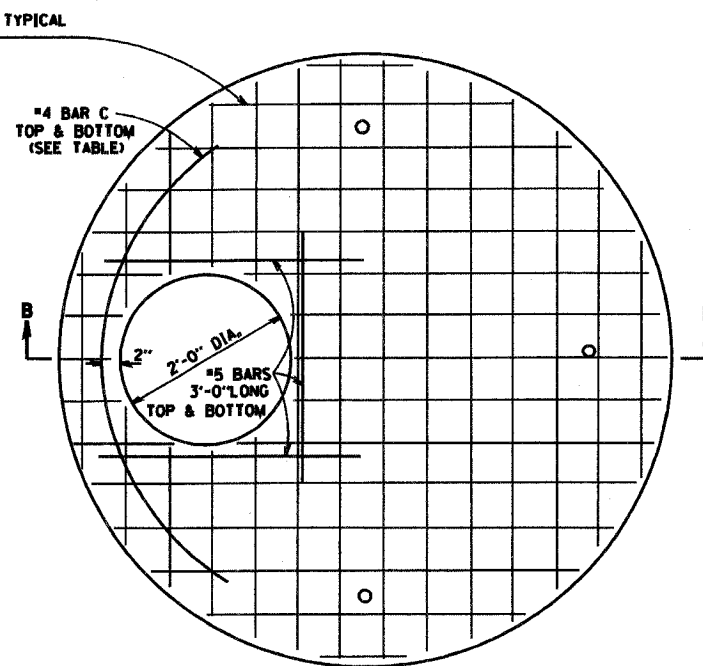
CAST IRON STEPS



PLAN
SHOWING REBAR REINFORCEMENT



PLAN
SHOWING WELDED WIRE FABRIC REINFORCEMENT



SECTION B-B

TABLE

DIAMETER OF OPENING	REINFORCEMENT "A" S' WWF OR BAR SIZE	BAR C			
		SIZE	LENGTH	RADIUS	
2'-0"	1.06 SQ.IN./LIN.FT.	#6	#4	6'-0"	38"
4'-0"	0.82 SQ.IN./LIN.FT.	#6	#4	9'-0"	38"

NOTE: THIS STRUCTURE SHOULD BE USED WITH PIPES SIZE 54" DIA. OR SMALLER.

REVISIONS

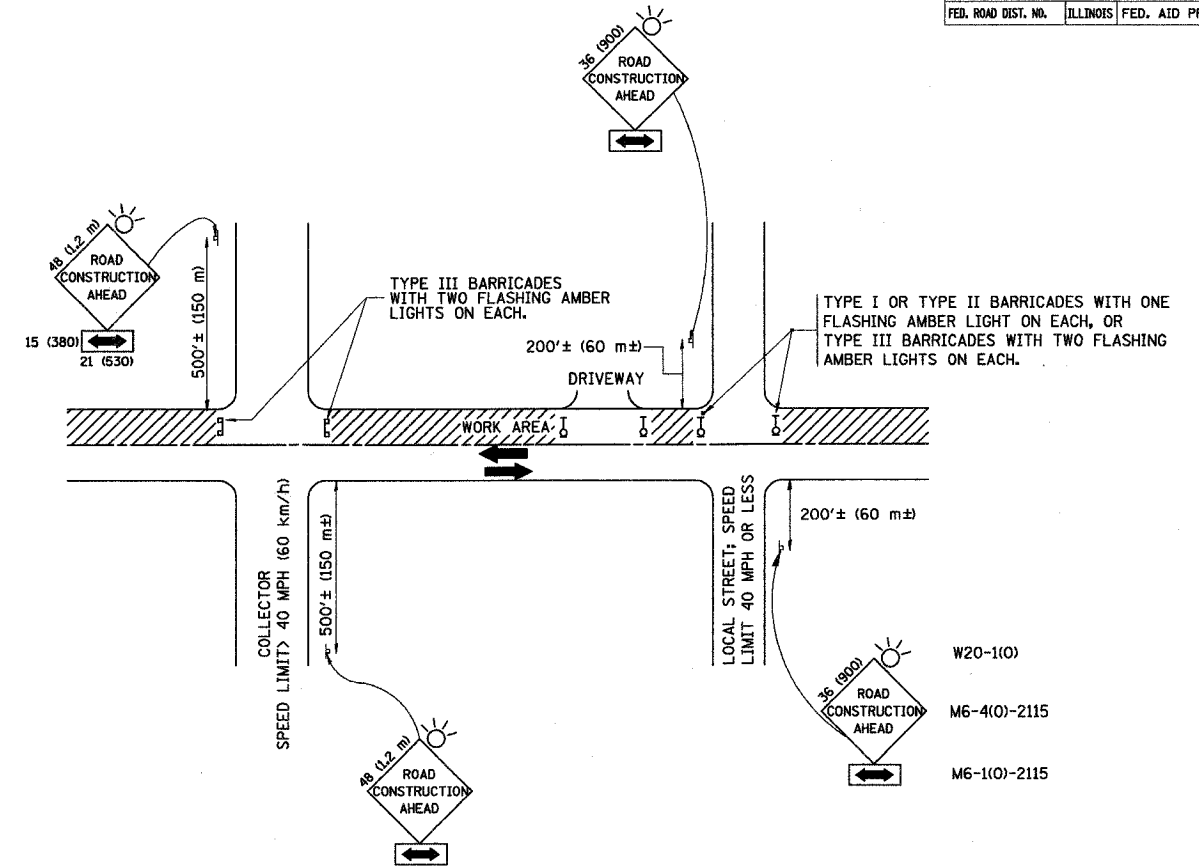
NO.	DATE	DESCRIPTION

ILLINOIS DEPARTMENT OF TRANSPORTATION
MANHOLE TYPE A
7 FOOT DIAMETER

SCALE: VERT. 1"=4'-0"
HORIZ. 1"=10'-0"
DATE: 1/18/2007
DRAWN BY: [Blank]
CHECKED BY: [Blank]
BO600-11 (BD-37)
REVISION DATE: [Blank]

PLAT DATE: 1/18/2007
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USER NAME: [Blank]

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2545	98-00036-19-FP	WILL	147	109
STA. TO STA.				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



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

NOTES:

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

- 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:
 - 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.
 - 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.
- SIDE ROAD WITH A SPEED LIMIT GREATER THAN 60 km/h (40 MPH) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - 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.
 - 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.
- 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.
- ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
 - 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.

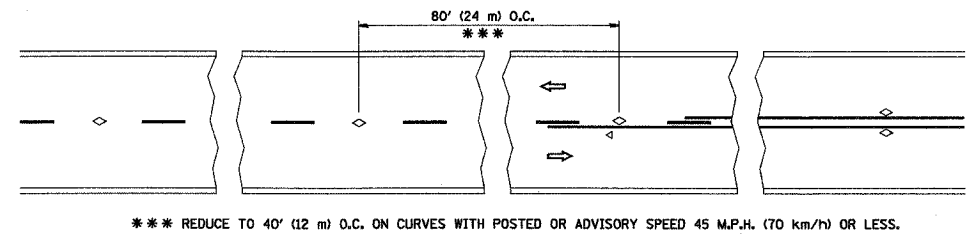
REVISIONS	
NAME	DATE
LHA	6/89
T. RAMMACHER	09/08/94
J. OBERLE	10/18/95
A. HOUSEH	03/06/96
A. HOUSEH	10/15/96
T. RAMMACHER	01/06/00

ILLINOIS DEPARTMENT OF TRANSPORTATION
 TRAFFIC CONTROL AND PROTECTION
 FOR
 SIDE ROADS, INTERSECTIONS, AND
 DRIVEWAYS

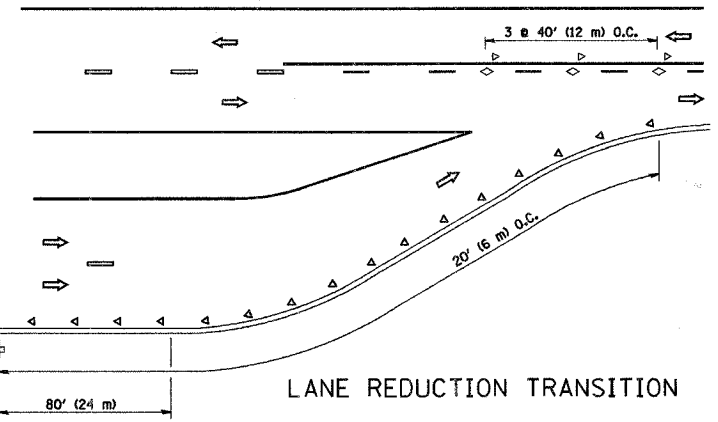
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 DATE: 1/17/2007

DRAWN BY
 CHECKED BY
 TC-10
 REVISION DATE: 01/06/00

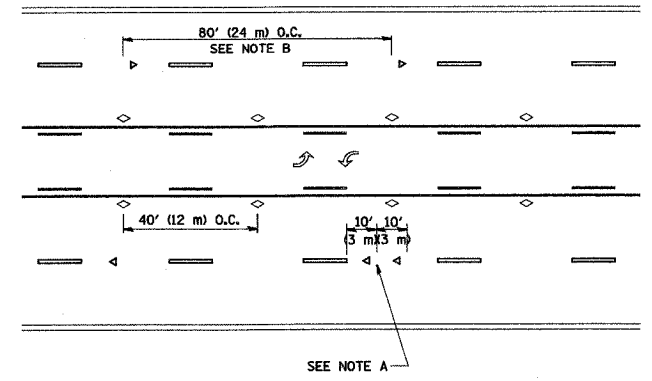
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



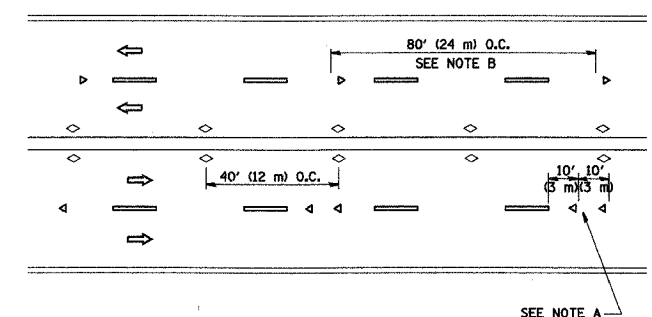
TWO-LANE/TWO-WAY



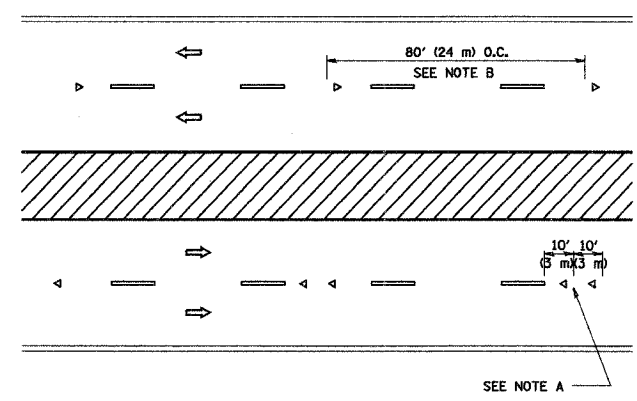
LANE REDUCTION TRANSITION



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

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- 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.

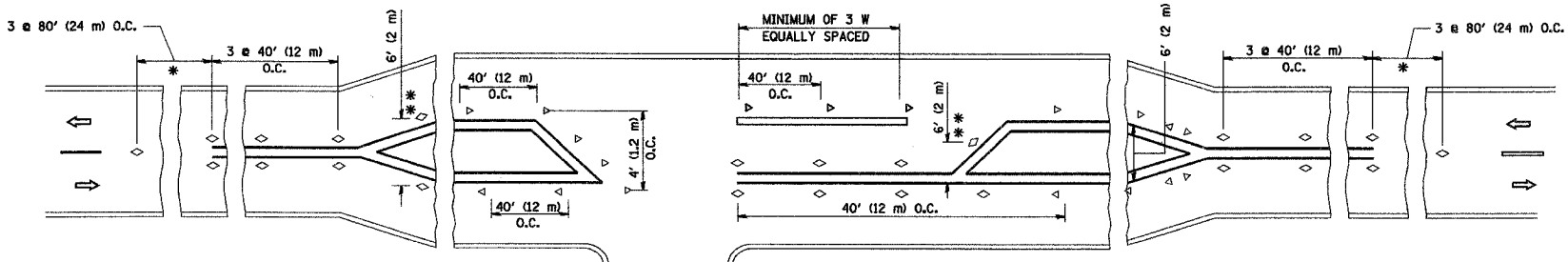
SYMBOLS

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

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

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



LEFT TURN

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

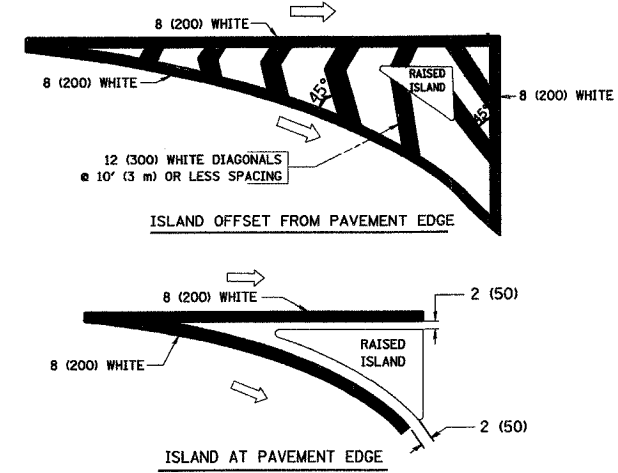
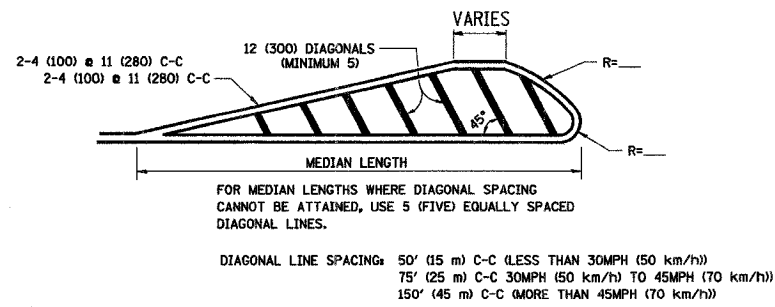
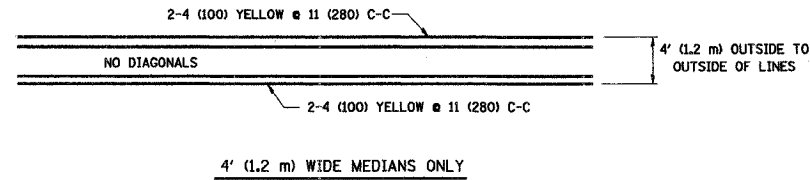
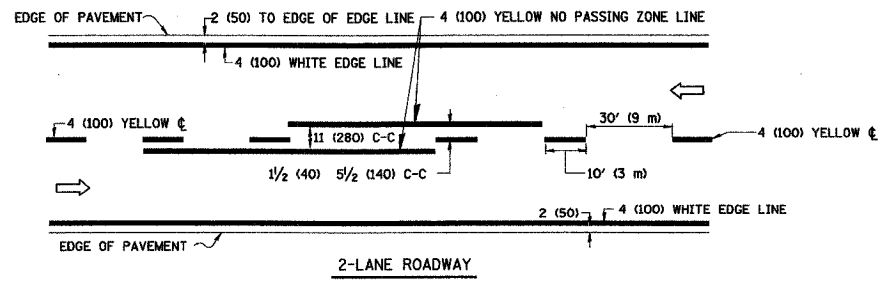
REVISIONS	
NAME	DATE
T. RAMMACHER	09-19-94
T. RAMMACHER	03-12-99
T. RAMMACHER	01-06-00

ILLINOIS DEPARTMENT OF TRANSPORTATION
TYPICAL APPLICATIONS
 RAISED REFLECTIVE PAVEMENT
 MARKERS (SNOW-PLOW RESISTANT)

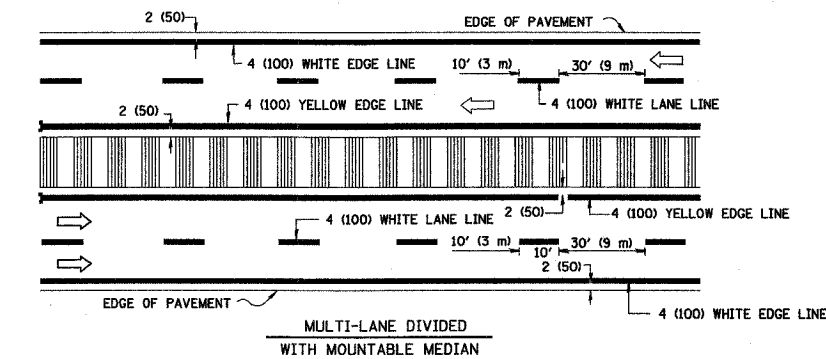
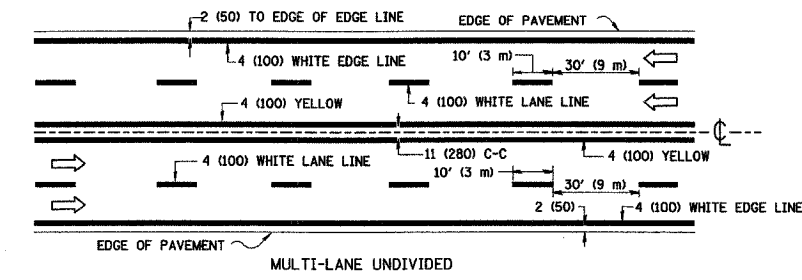
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 DATE: 1/17/2007
 DRAWN BY CADD
 CHECKED BY
 TC-11

PLT DATE = 1/17/2007
 FILE NAME = K:\data\2007\110.dgn
 USER NAME = rammer / IN

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2545	98-00036-19-FP	WILL.	47	111
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

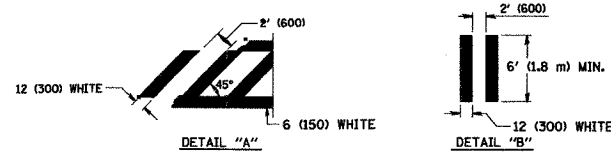
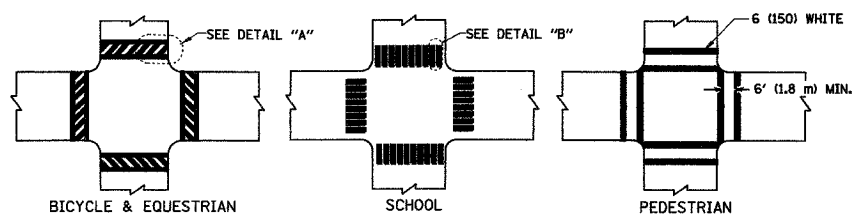


TYPICAL ISLAND MARKING

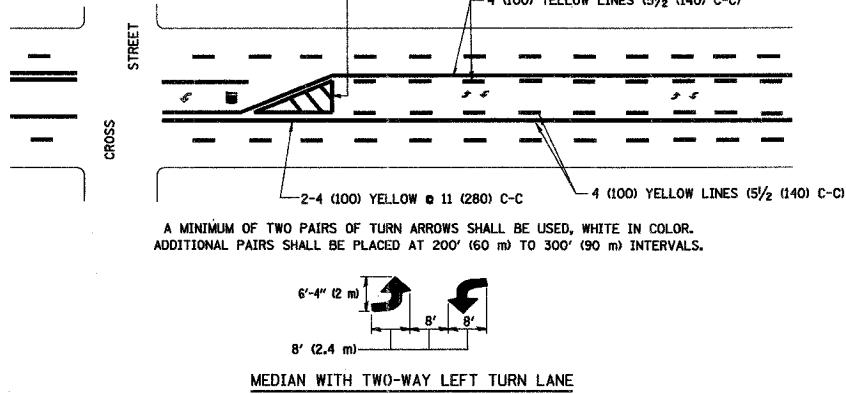


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

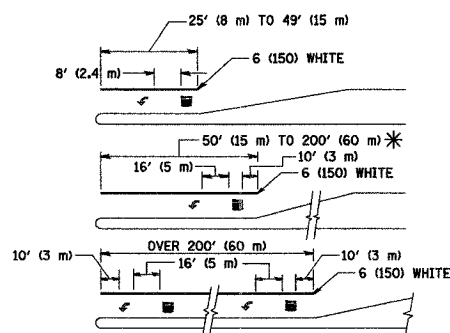
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING



TYPICAL PAINTED MEDIAN MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
AREA = 15.6 SQ. FT. (1.5 m²) AREA = 20.8 SQ. FT. (1.9 m²)

* 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

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 UNDIVIDED 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	5/2 (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; 5/2 (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.

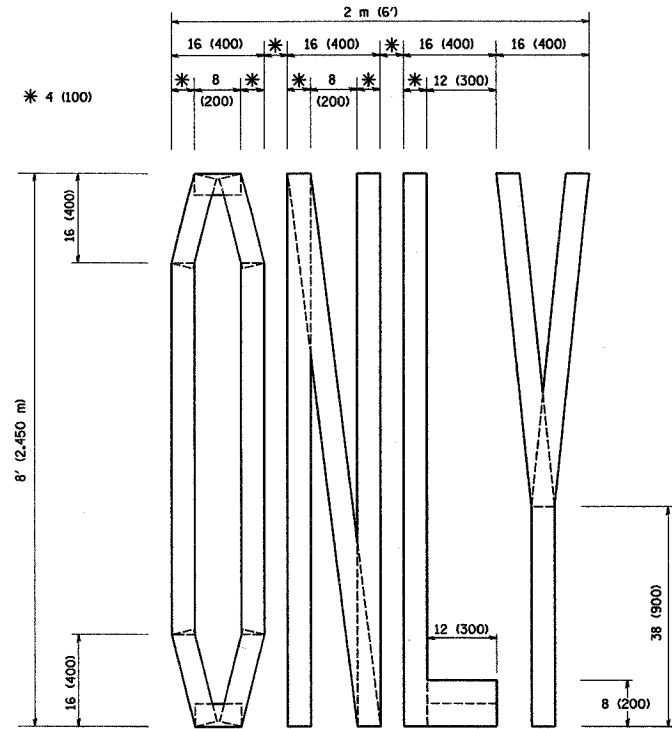
All dimensions are in millimeters (Inches) unless otherwise shown.

REVISIONS	
NAME	DATE
EVERS	03-19-90
T. RAMMACHER	10-27-94
ALEX HOUSEH	10-09-96
ALEX HOUSEH	10-17-96
T. RAMMACHER	01-06-00

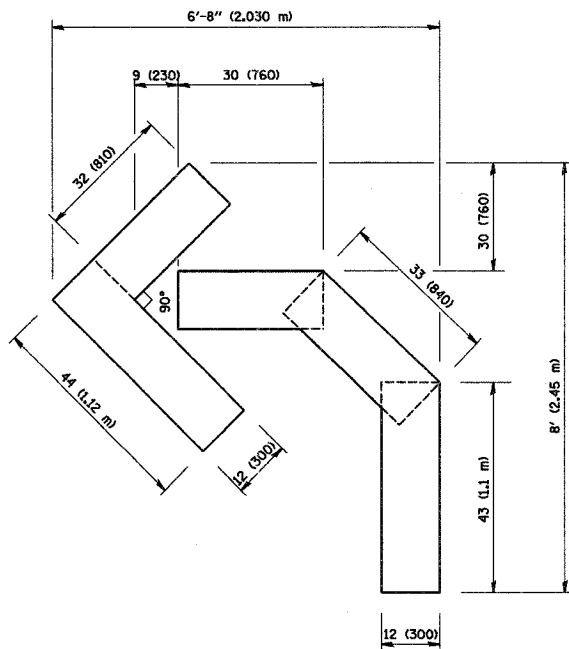
ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

SCALE: NONE
DATE: 1/17/2007
DRAWN BY CADD
CHECKED BY

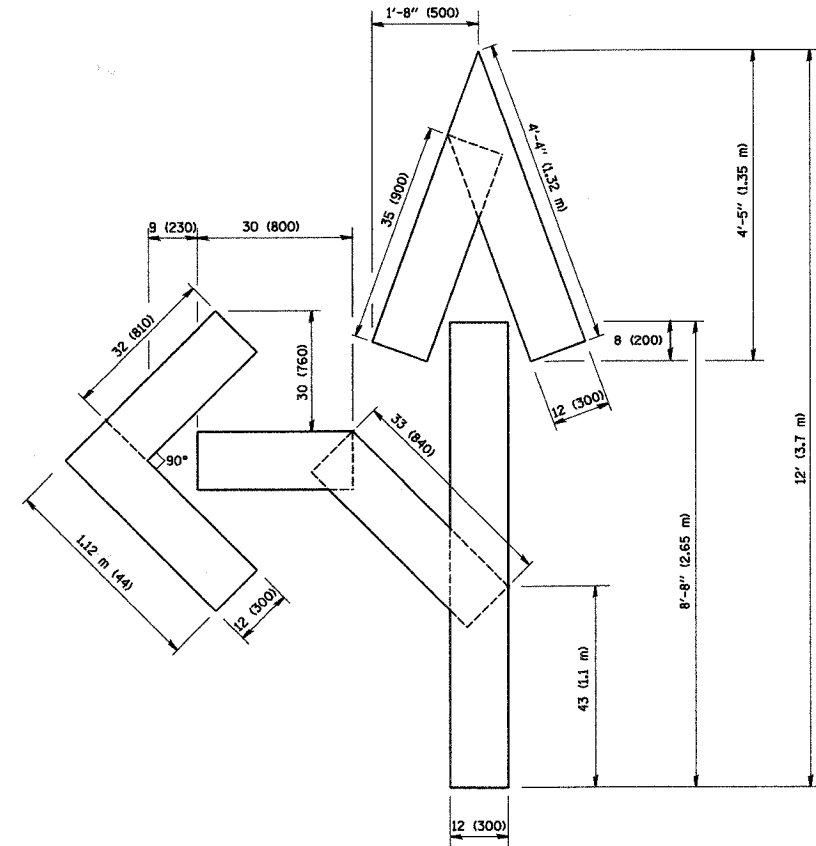
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2545	88-00036-19-FP	WILL	147	112
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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



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



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

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

REVISIONS	
NAME	DATE
T. RAMMACHER	09/18/94
J. OBERLE	06/01/96
T. RAMMACHER	06/05/96
T. RAMMACHER	11/04/97
T. RAMMACHER	03/02/98
E. GOMEZ	08/28/00

ILLINOIS DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKING
 LETTERS AND SYMBOLS
 FOR TRAFFIC STAGING**

SCALE: NONE
 DATE: 1/17/2007

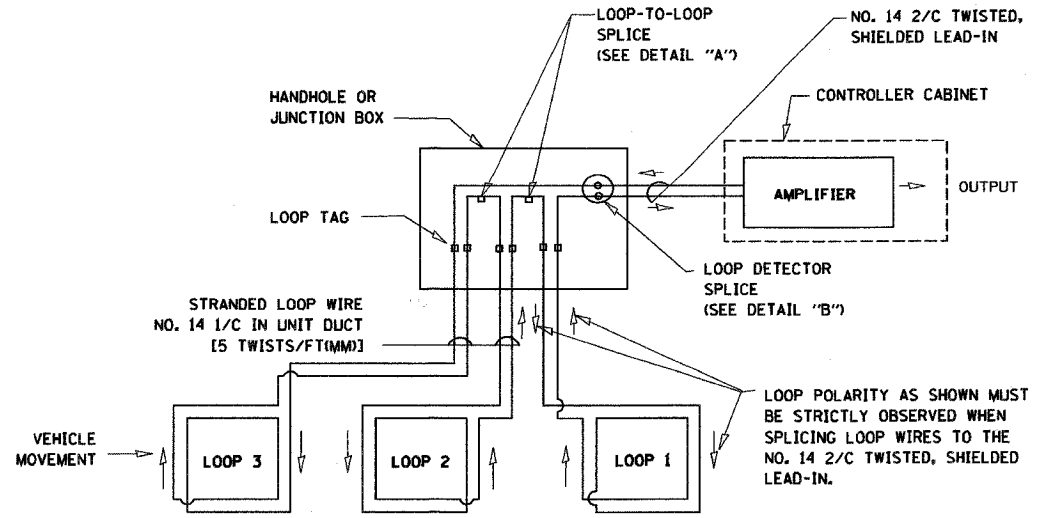
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 TC-16

REVISION DATE: 08/28/00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2545	98-00036-19-PP	WILL	147	115
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

LOOP DETECTOR NOTES

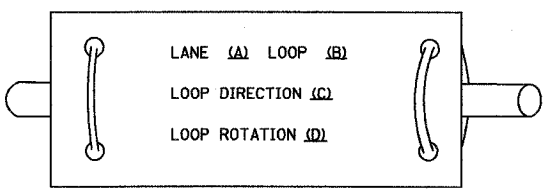
1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED 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 DIVESHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
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.



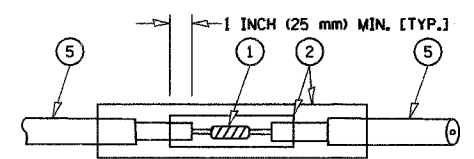
DETECTOR LOOP WIRING SCHEMATIC

- 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.

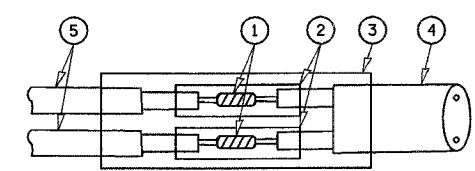
LOOP LEAD-IN CABLE TAG



- 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.



**DETAIL "A"
LOOP-TO-LOOP SPLICE**



**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 LENGTH 6" (150 mm), UNDERWATER GRADE.
- 4 NO. 14 2/C TWISTED, SHIELDED CABLE.
- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
**DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS**

SCALE: NONE
DATE: 2/15/2006

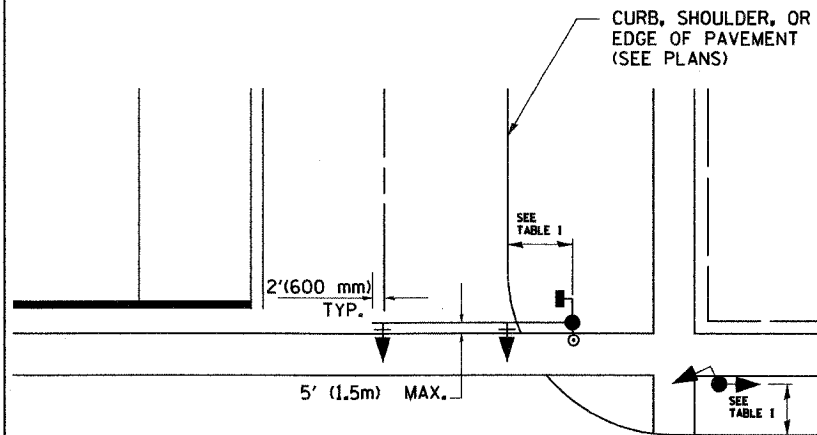
DRAWN BY: RWP
DESIGNED BY: DAZ
CHECKED BY: DAZ
SHEET 1 OF 4

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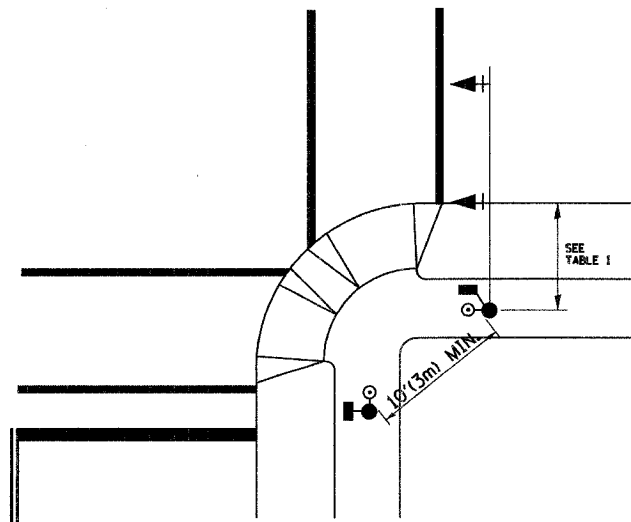
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2545	9B-00036-19-FP	WILL	147	118
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

TRAFFIC SIGNAL MAST ARM AND POST

MAST ARM MOUNTED SIGNAL IN PROPOSED & FUTURE SIDEWALK AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNAL AND PUSHBUTTON DETECTOR



PEDESTRIAN SIGNAL PUSHBUTTON



RECOMMENDED PUSHBUTTON LOCATIONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHALL BE IN ACCORDANCE WITH THE CURRENT MUTCD (SEE NOTE 1). TO MEET MUTCD REQUIREMENTS, PEDESTRIAN SIGNAL PUSHBUTTONS MAY HAVE TO BE MOUNTED ON A SEPARATE POST.

NOTES:

- AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION, EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.

AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.

PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:
 A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.
 B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.
 C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
 D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).
 E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK
- PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006. (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

PEDESTRIAN SIGNAL POST

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

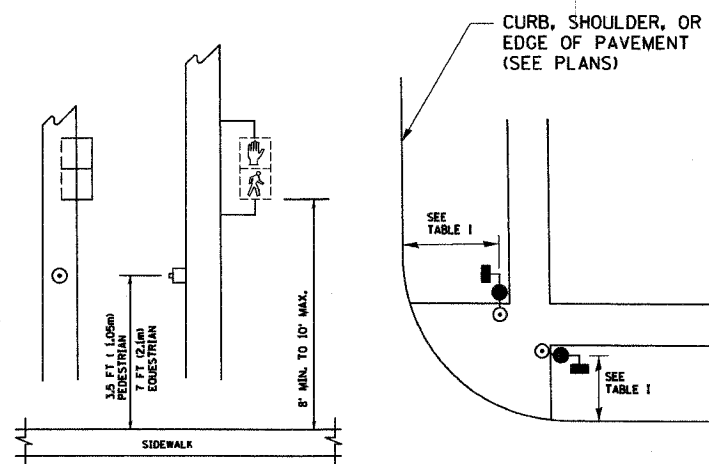


TABLE I

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MIN. DIST. FROM BACK OF CURB)	SHOULDER/NON-CURBED AREA (MIN. DIST. FROM EDGE OF PAVEMENT)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN PUSHBUTTON	SEE NOTE 1	SEE NOTE 1

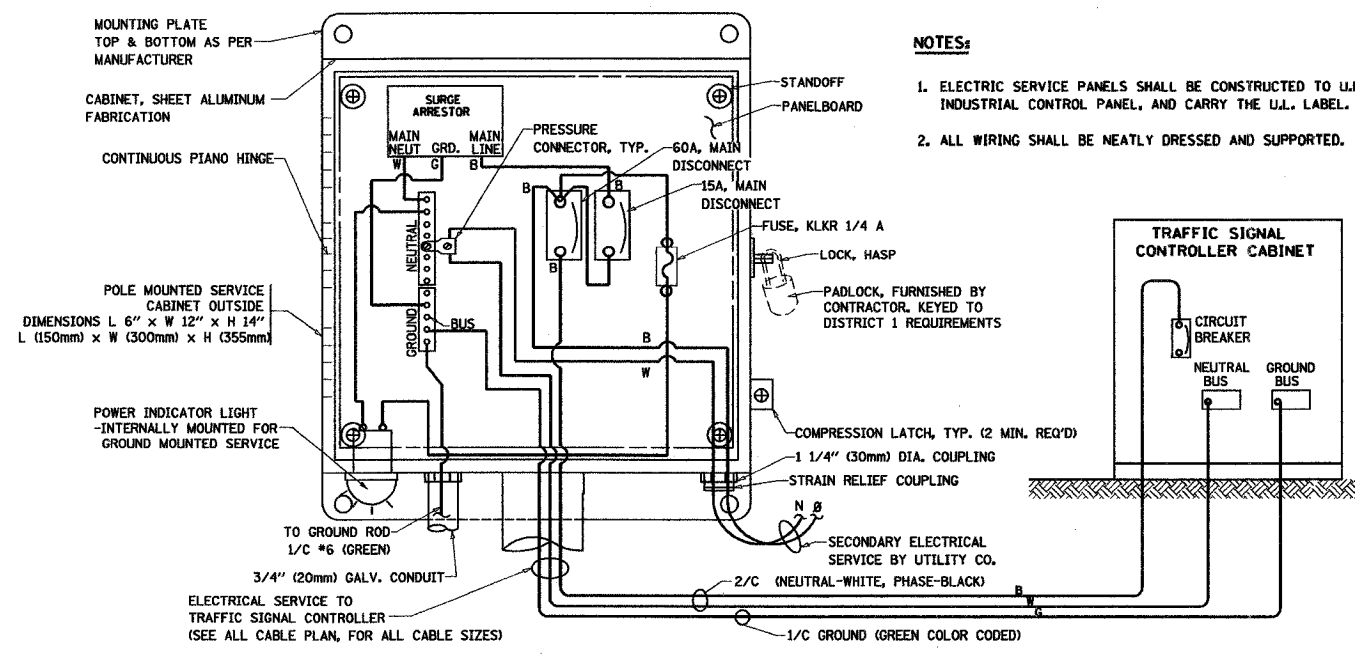
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REVISIONS	
NAME	DATE
BUREAU OF TRAFFIC	1/01/02

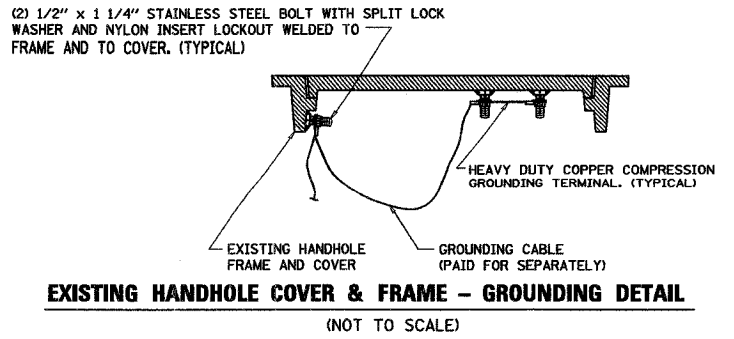
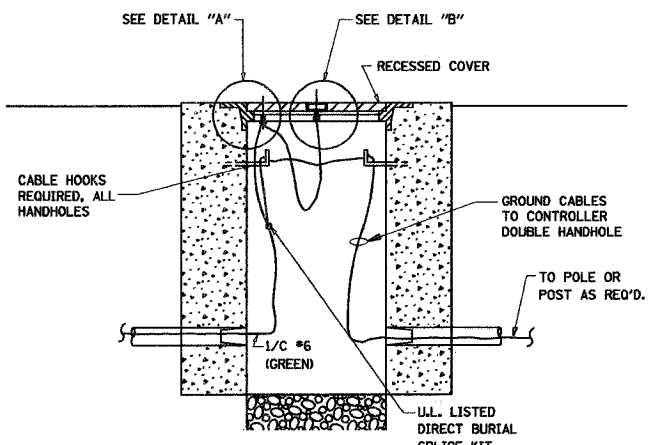
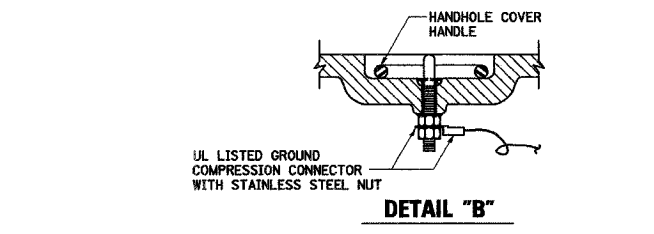
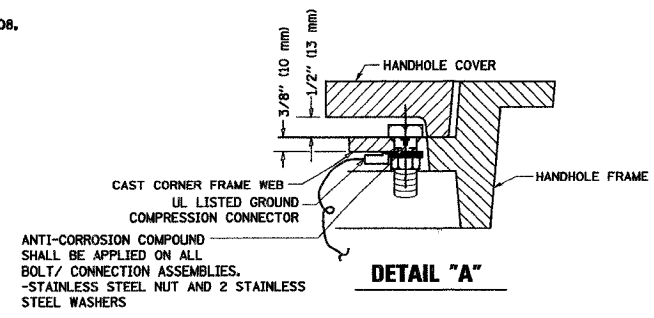
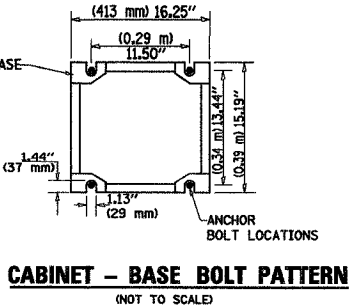
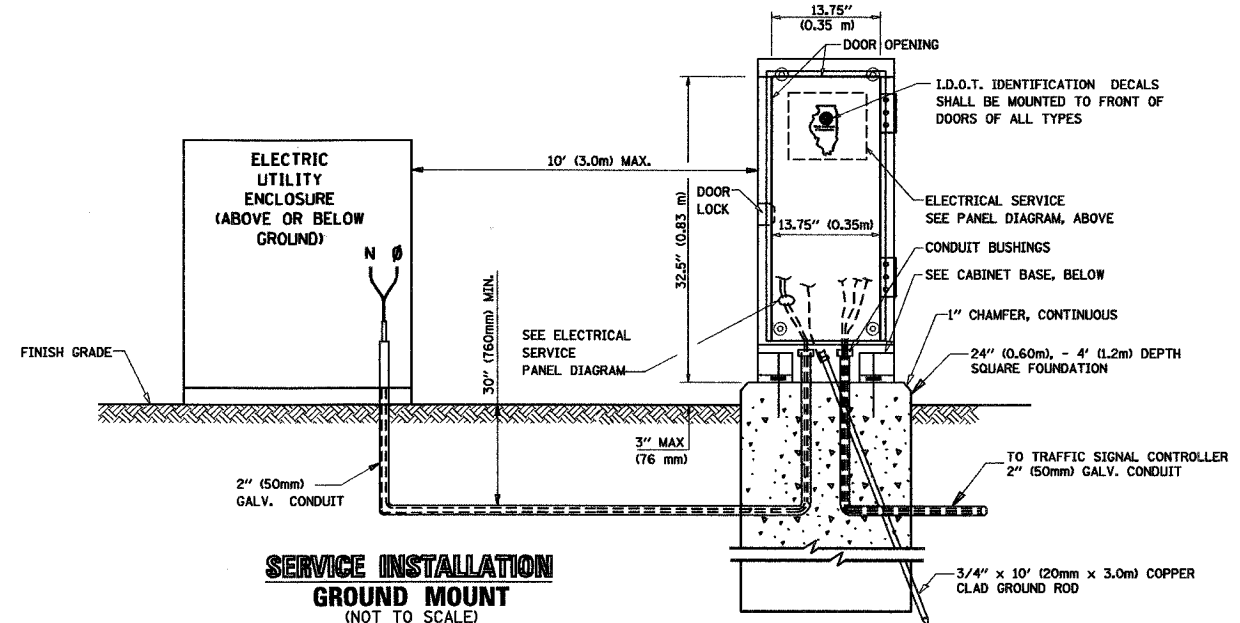
ILLINOIS DEPARTMENT OF TRANSPORTATION
 DISTRICT 1
 STANDARD TRAFFIC SIGNAL
 DESIGN DETAILS

SCALE: NONE
 DATE: 1/17/2007
 DRAWN BY: RWP
 DESIGNED BY: DAD
 CHECKED BY: DAZ
 SHEET 2 OF 4

F.A. SHEETS NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2545	98-00036-19-FP	WILL.	147	117
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



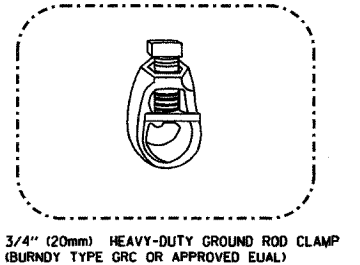
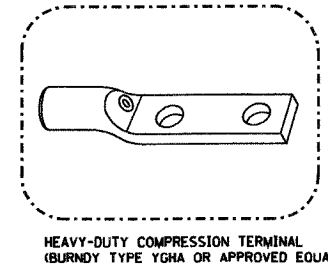
ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
 (NOT TO SCALE)



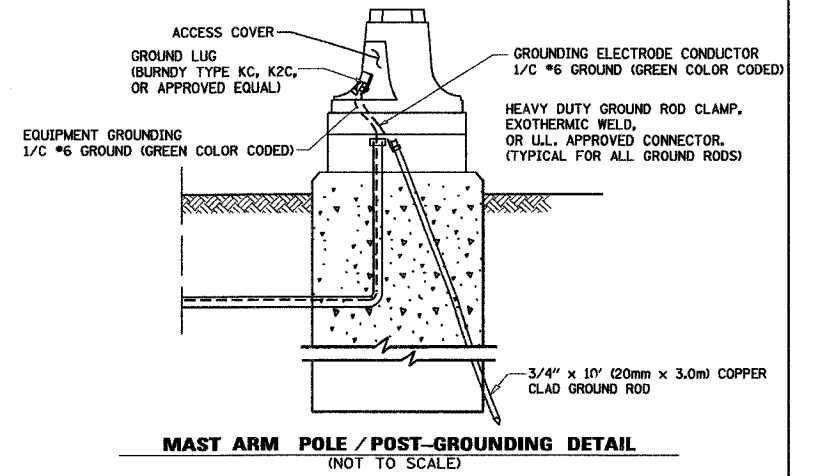
NOTES:

GROUNDING SYSTEM

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



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



REVISIONS

NAME	DATE
CADD	5/30/00
CADD	3/15/01
BUREAU OF TRAFFIC	1/01/02

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

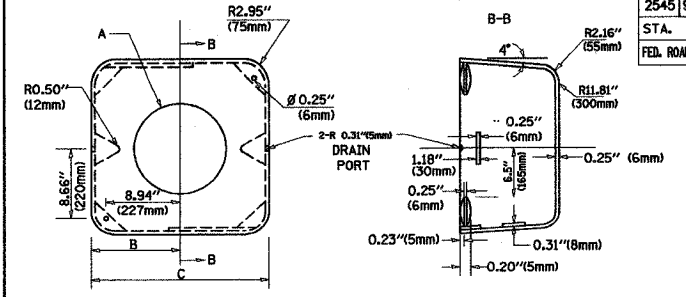
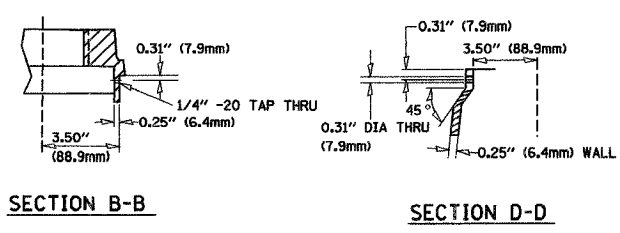
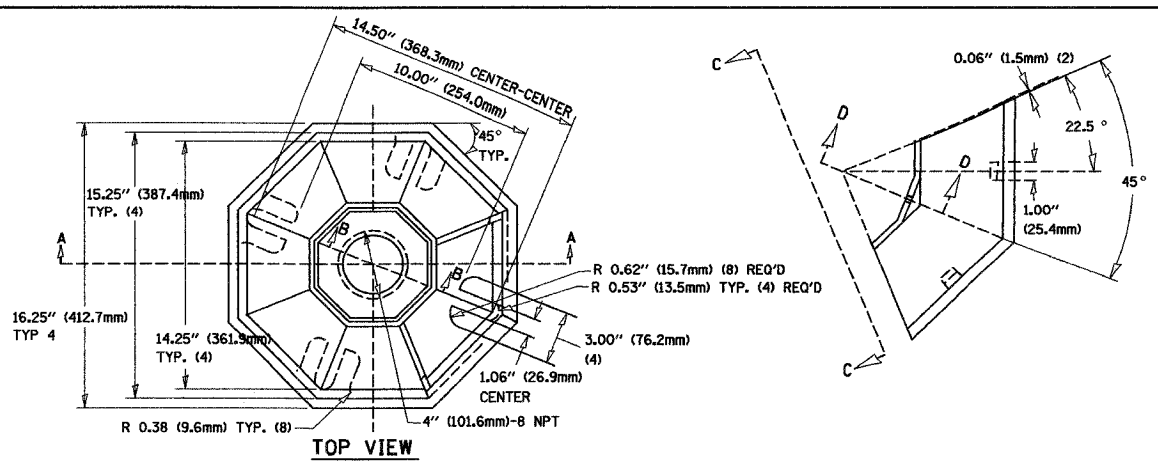
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DRAWN BY: RWP
 DESIGNED BY: DAD
 CHECKED BY: DAZ
 SHEET 3 OF 4

TS05
 REVISION DATE: 01/01/02

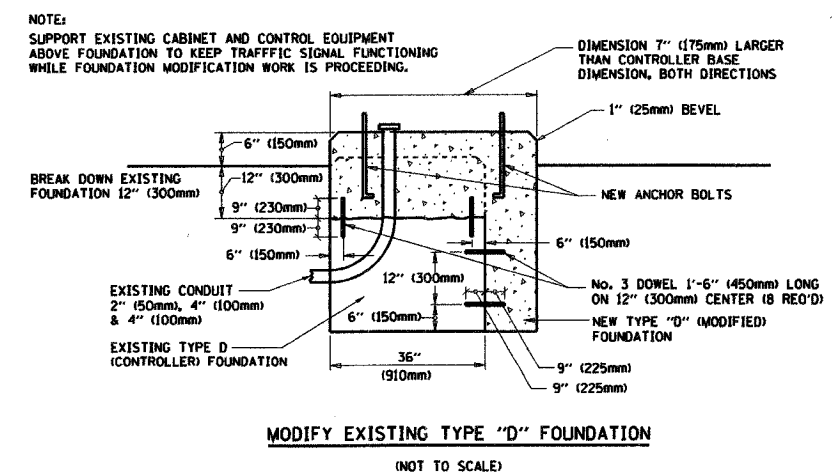
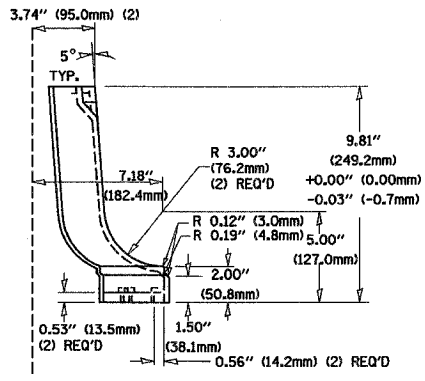
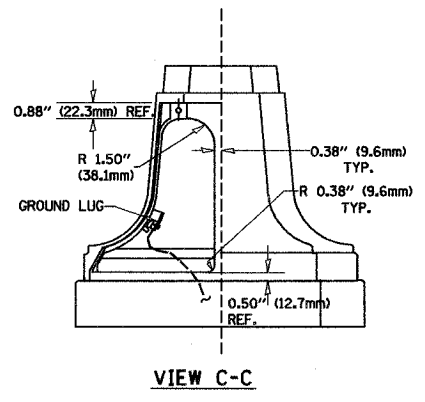
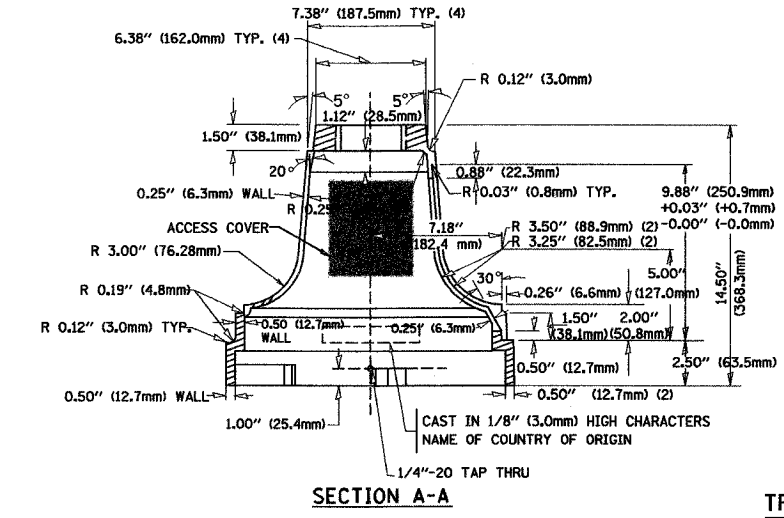
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 PLOT SCALE = 1/8" = 1'-0"
 USER NAME = gpluarobt

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2545	98-00036-19-FP	WILL	147	118
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

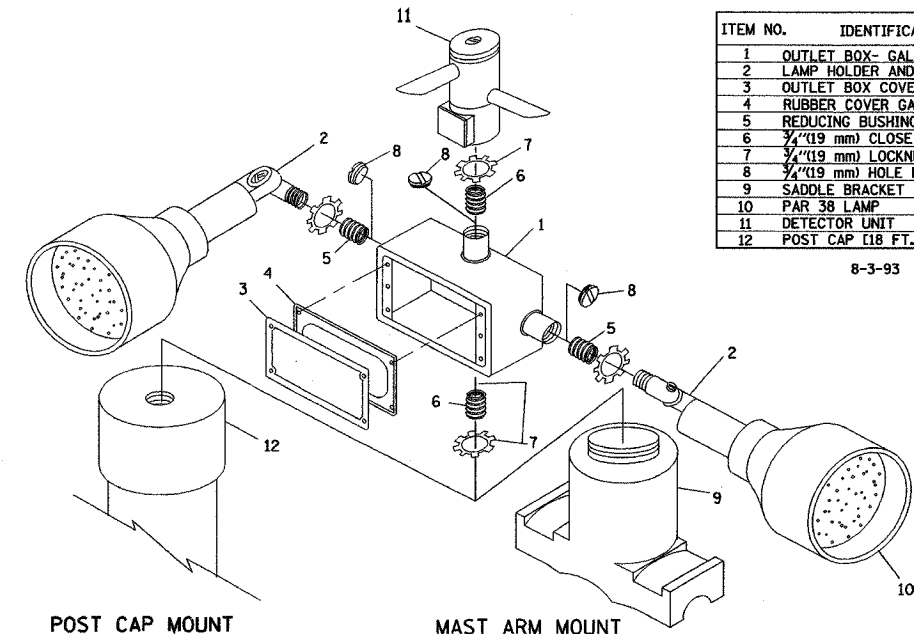


TYPE	A	B	C	HEIGHT	WEIGHT
I	Ø 10.125\"(257mm)	9.5\"(241mm)	19\"(483mm)	12\"(300mm)	24kg
II	Ø 11.125\"(283mm)	10.75\"(273mm)	21.5\"(546mm)	12\"(300mm)	26kg

MATERIAL:
 - ASTM A48 CLASS 30 GREY IRON
 - ASTM A123 HOT DIPPED GALVANIZED

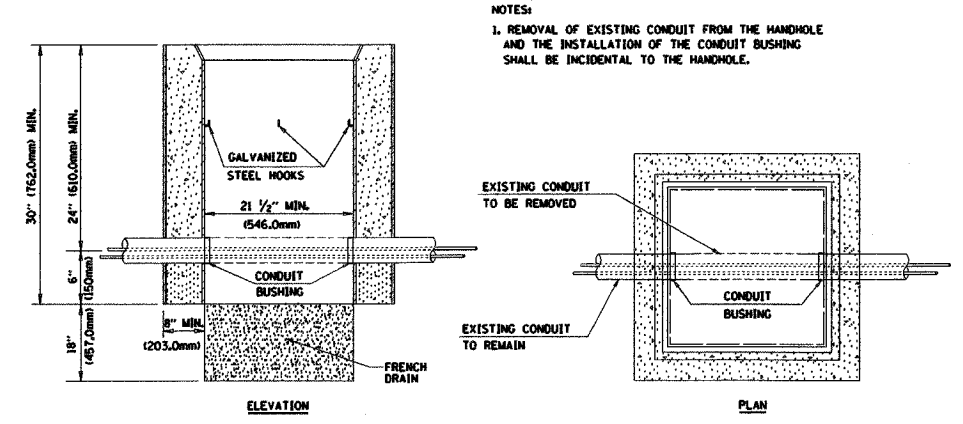
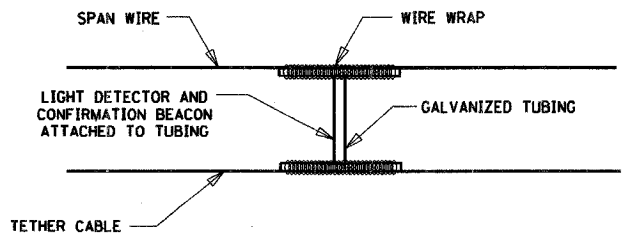


NOTE:
 SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



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	PAR 38 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.

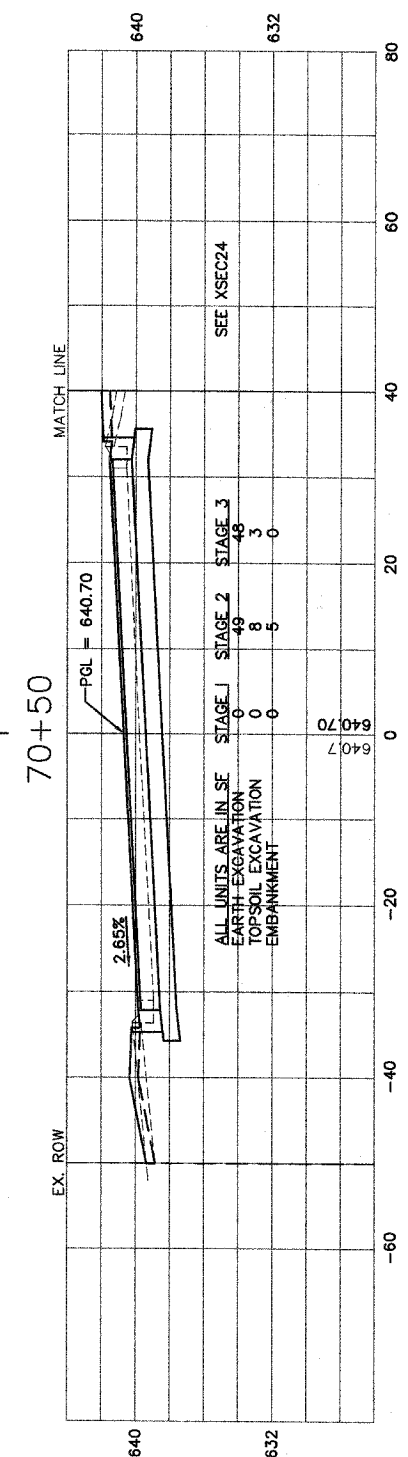
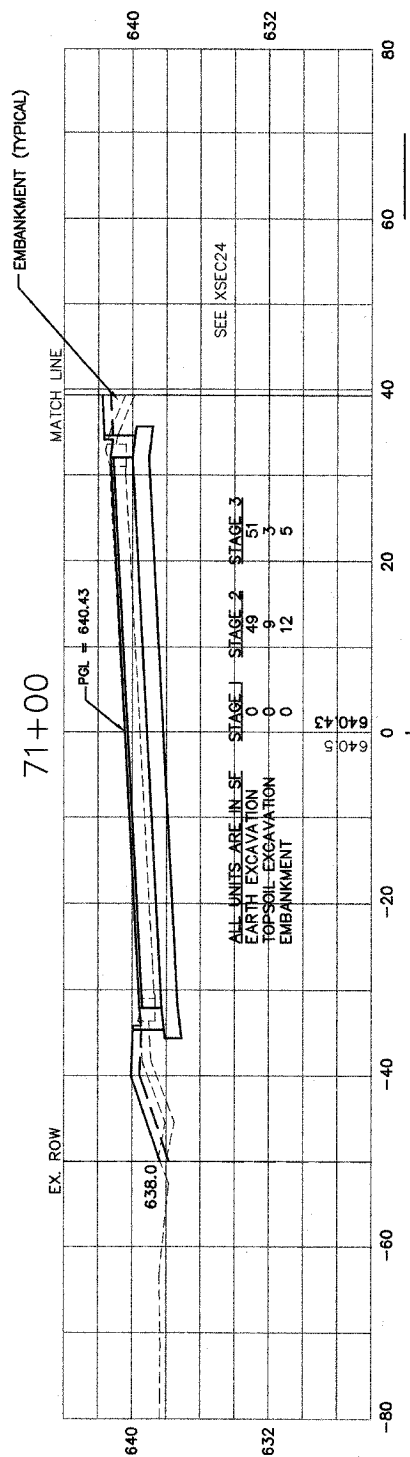
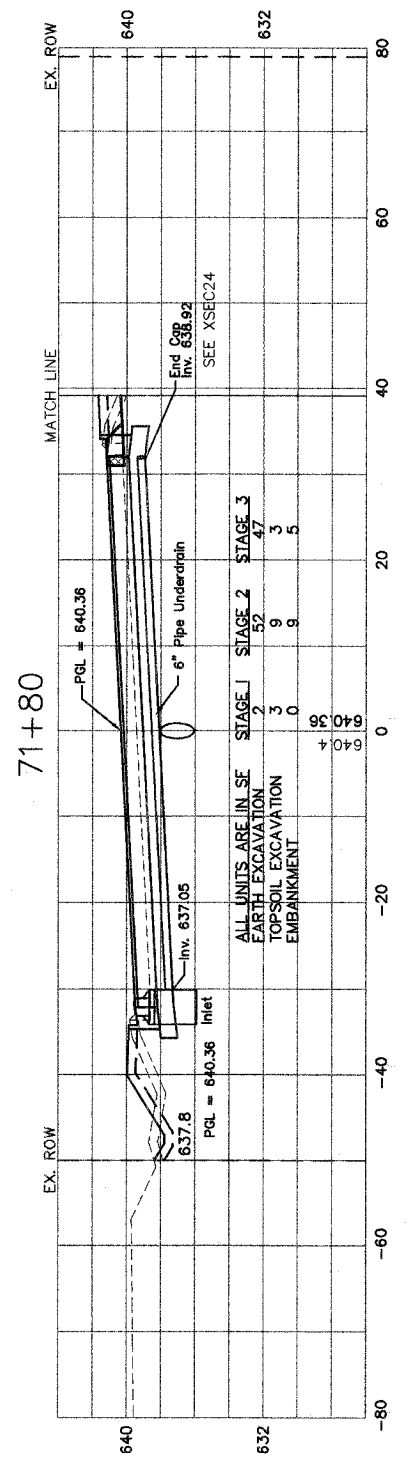
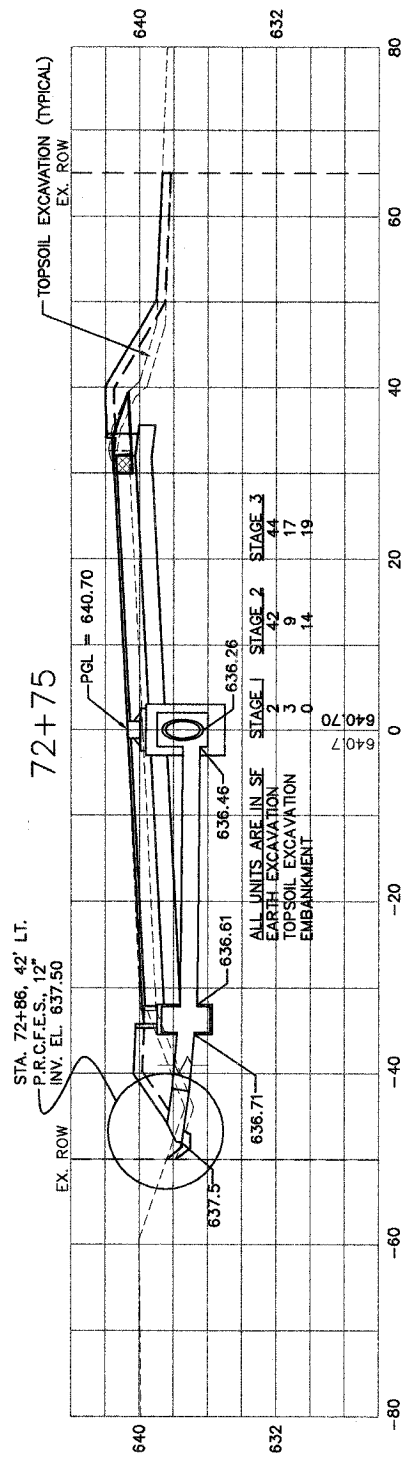
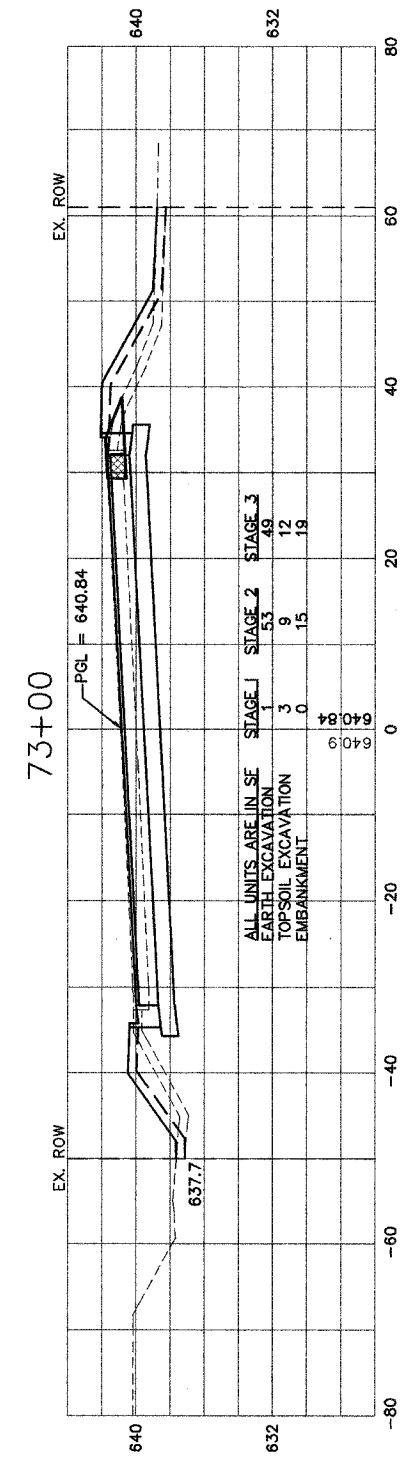
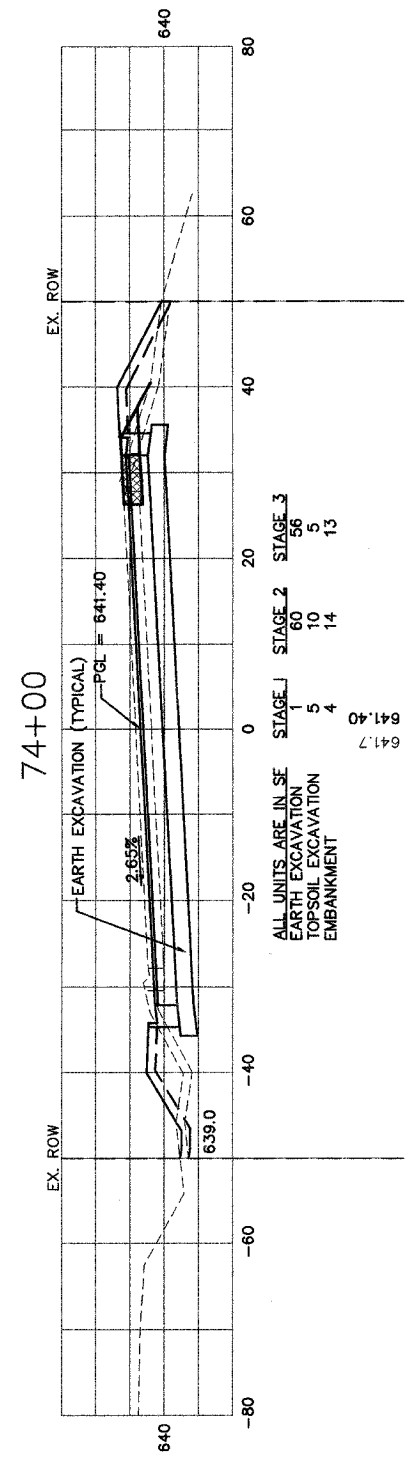


REVISIONS	
NAME	DATE
BUREAU OF TRAFFIC	5/30/00
BUREAU OF TRAFFIC	3/15/01
BUREAU OF TRAFFIC	11/12/01
BUREAU OF TRAFFIC	1-01-02

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DISTRICT ONE
 STANDARD TRAFFIC SIGNAL
 DESIGN DETAILS
 SCALE: NONE
 DATE: 2/15/2006
 DRAWN BY: RWP
 DESIGNED BY: DAD
 CHECKED BY: DAZ
 SHEET 4 OF 4
 TS05
 REVISION DATE: 01/01/02

PLOT DATE = 2/15/2006
 FILE NAME = m:\data\ts\veg\tdp
 PLOT SCALE = 1/8\"/>

DRAWING ID: G:\20030023 - Plainfield-Naperville Road\dwg\CROSS SECTIONS 1-8.dwg
 PLOT DATE: 07/08/05 - 15:45



TEMPORARY PAVEMENT
 ID INTERIM DRAINAGE

NO.	DATE	REVISION	BY

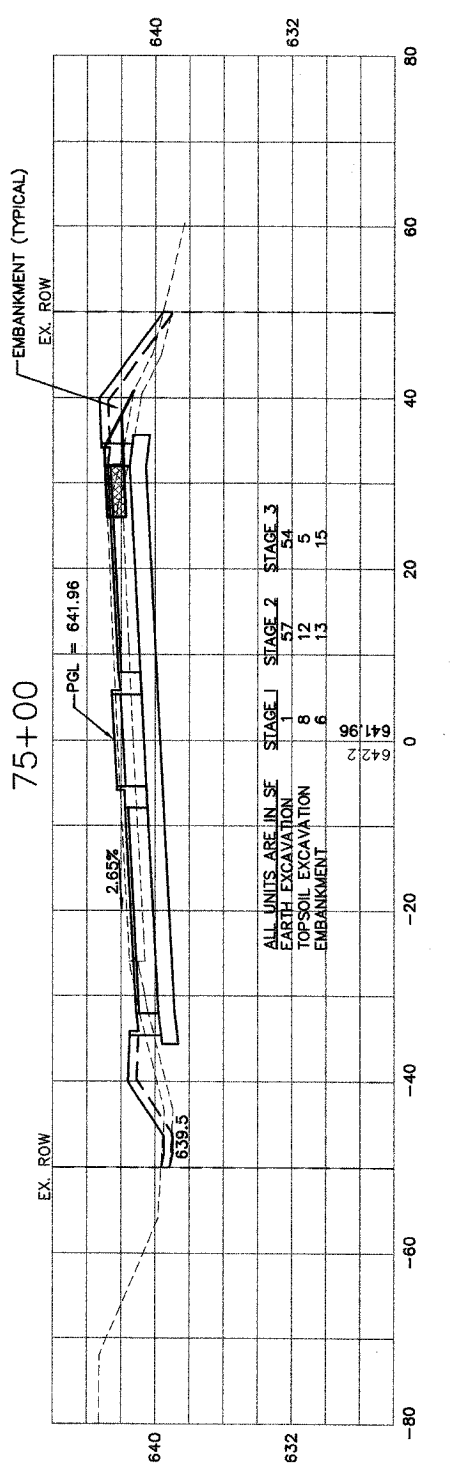
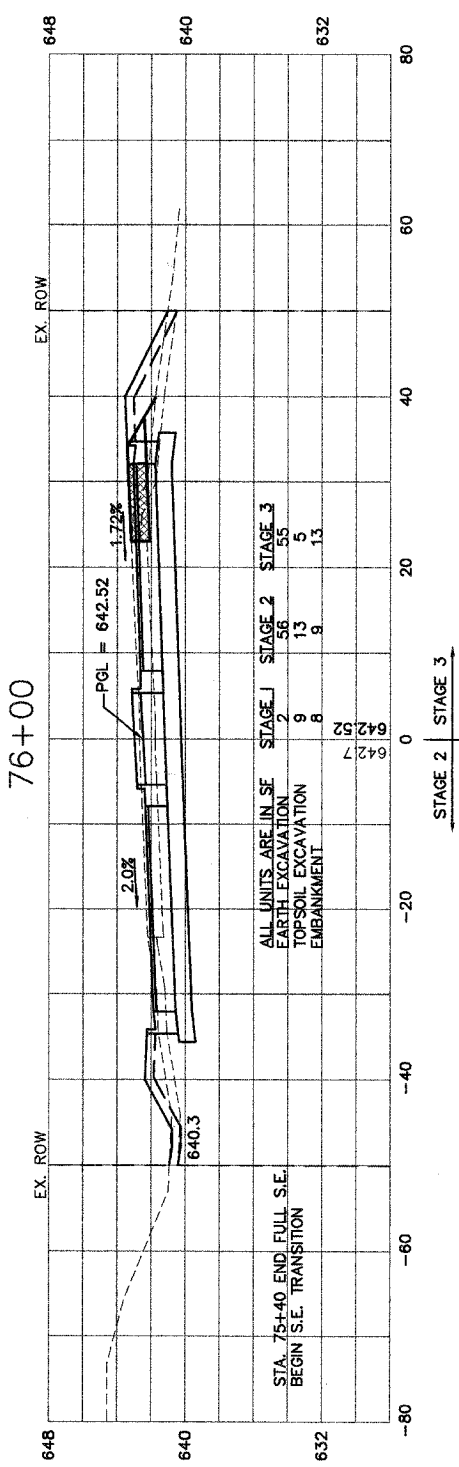
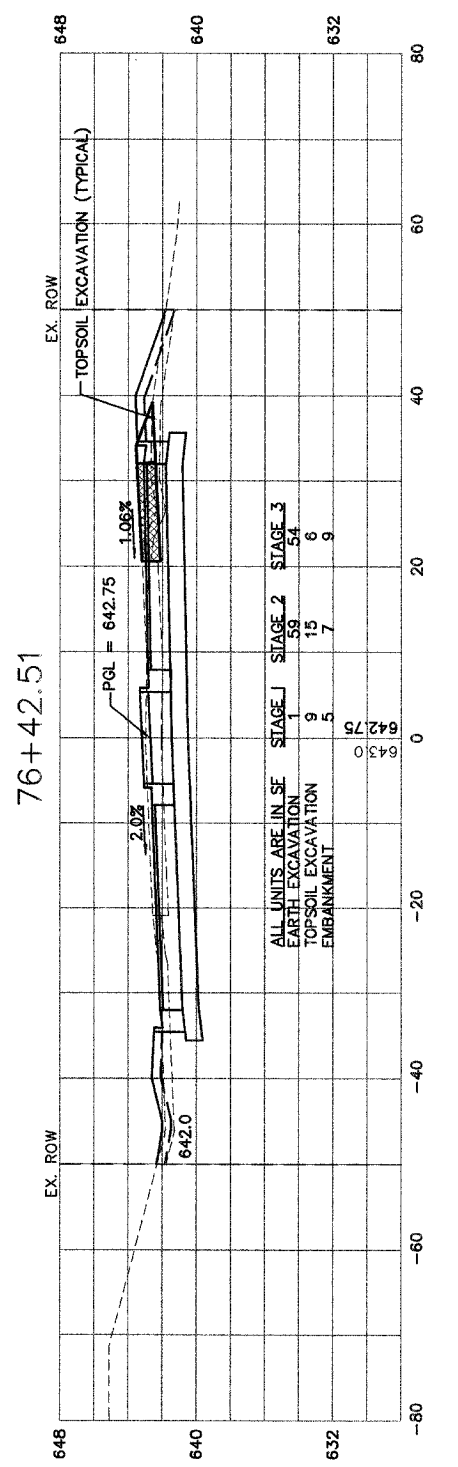
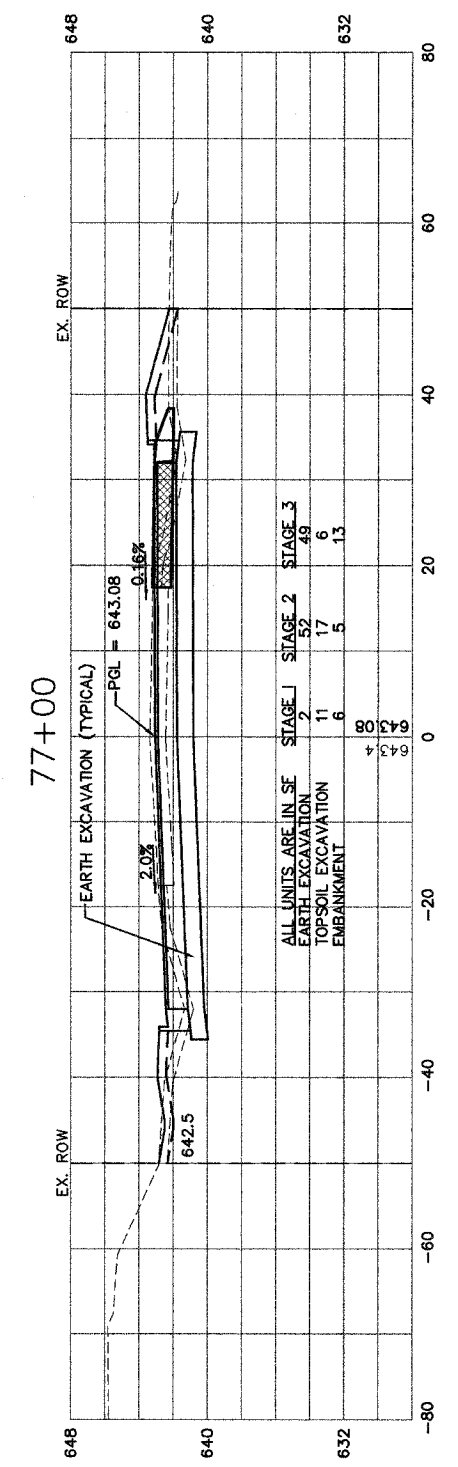
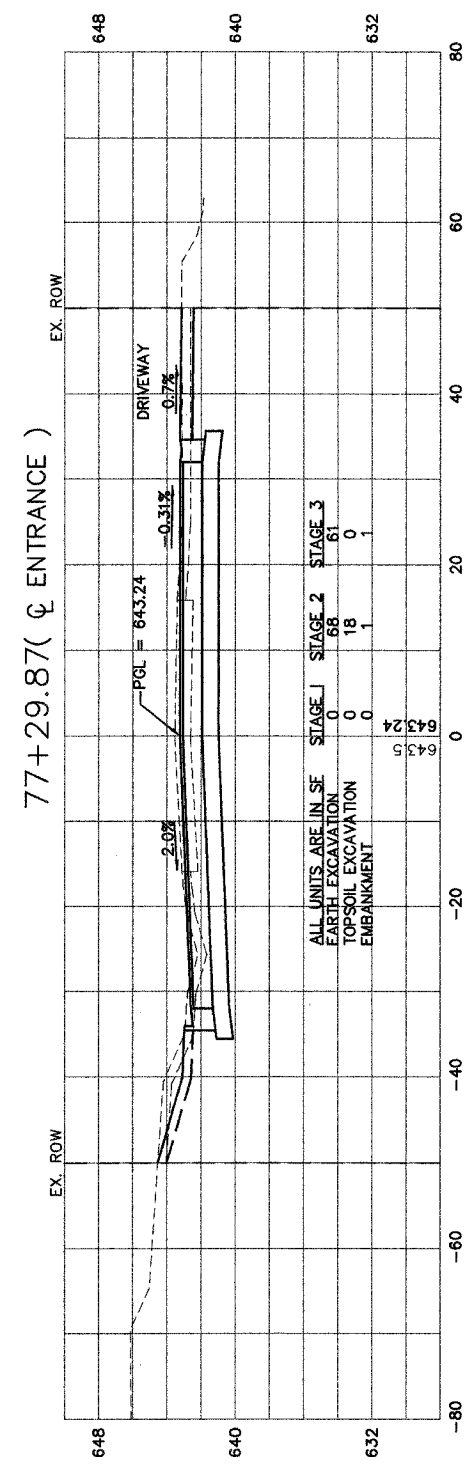
WILL COUNTY DEPARTMENT OF HIGHWAYS
 PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
 ROADWAY RECONSTRUCTION
 CROSS SECTIONS
 STA 70+50 TO STA 74+00

McDonough Associates Inc.
 Engineers/Architects

DESIGNED BY: RJE
 CHECKED BY: NJL
 DRAWN BY: RJE

SCALE:
 HORIZ: 1"=10'
 VERT: 1"=5'

DRAWING ID: G:\20030023 - Plainfield-Naperville Road\dwg\CROSS SECTIONS 1-8.dwg
 PLOT DATE: 07/05/05 - 15:45



NO.	DATE	REVISION	BY

WILL COUNTY DEPARTMENT OF HIGHWAYS
 PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
 ROADWAY RECONSTRUCTION
 CROSS SECTIONS
 STA 75+00 TO STA 77+29.87

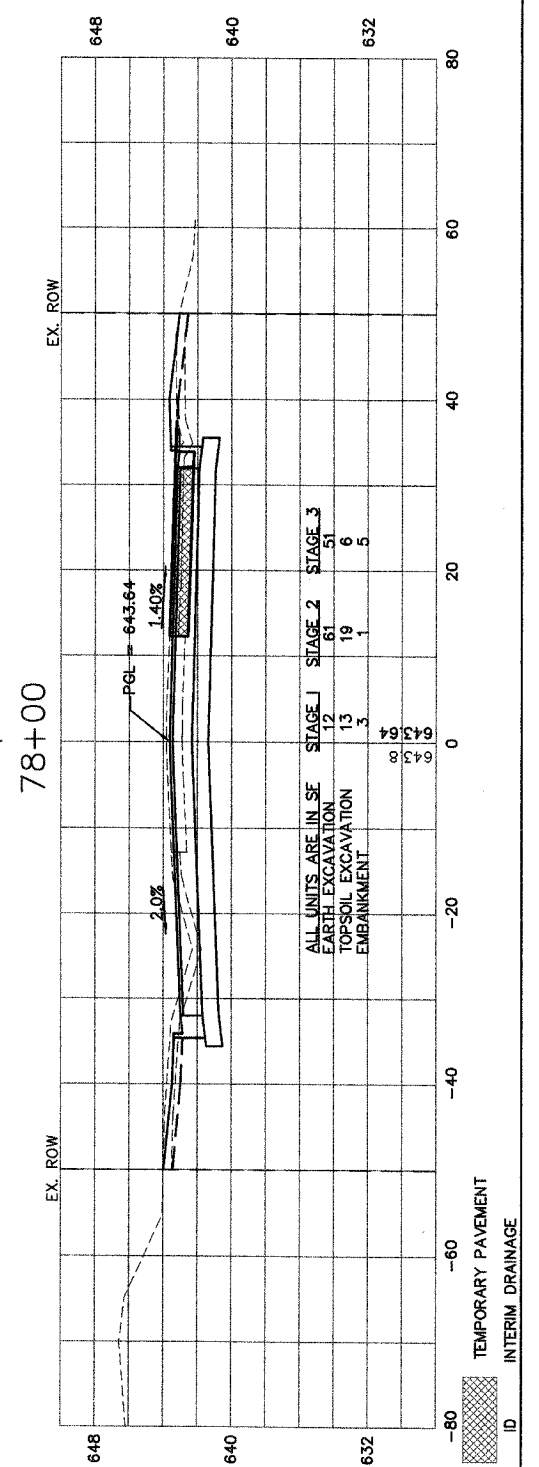
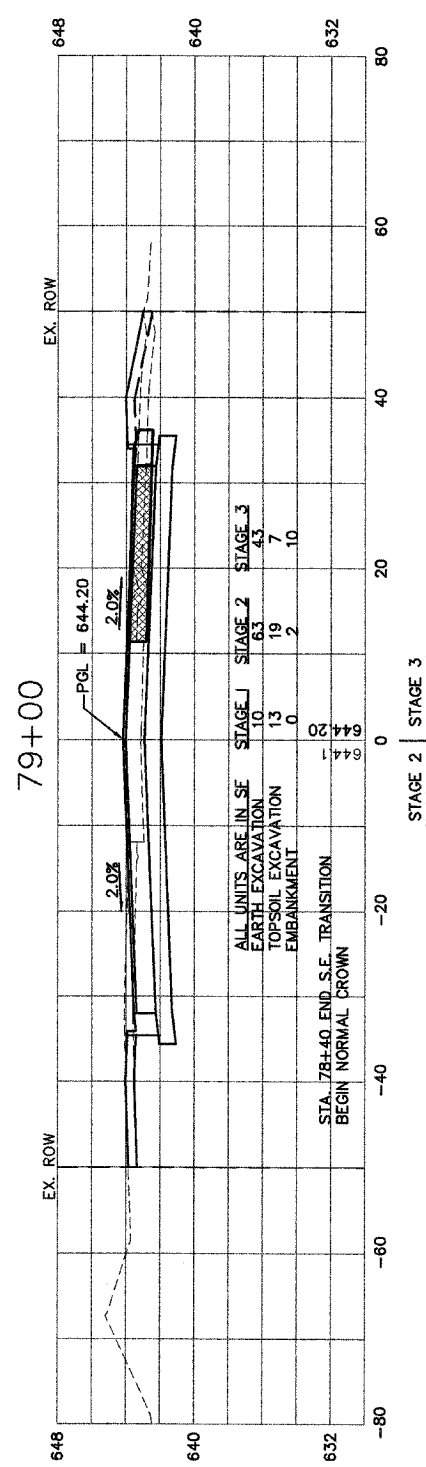
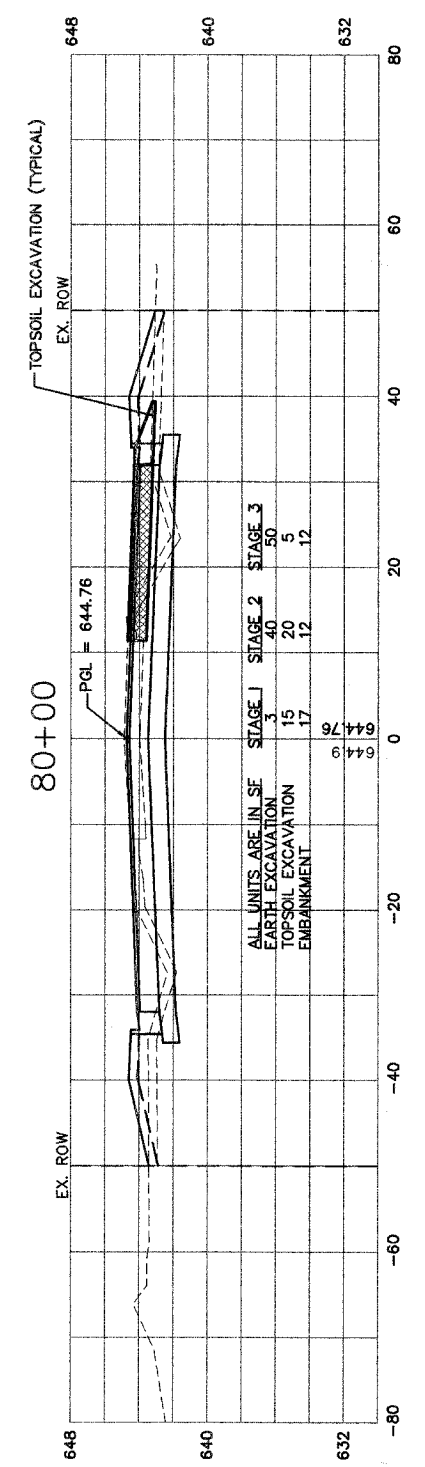
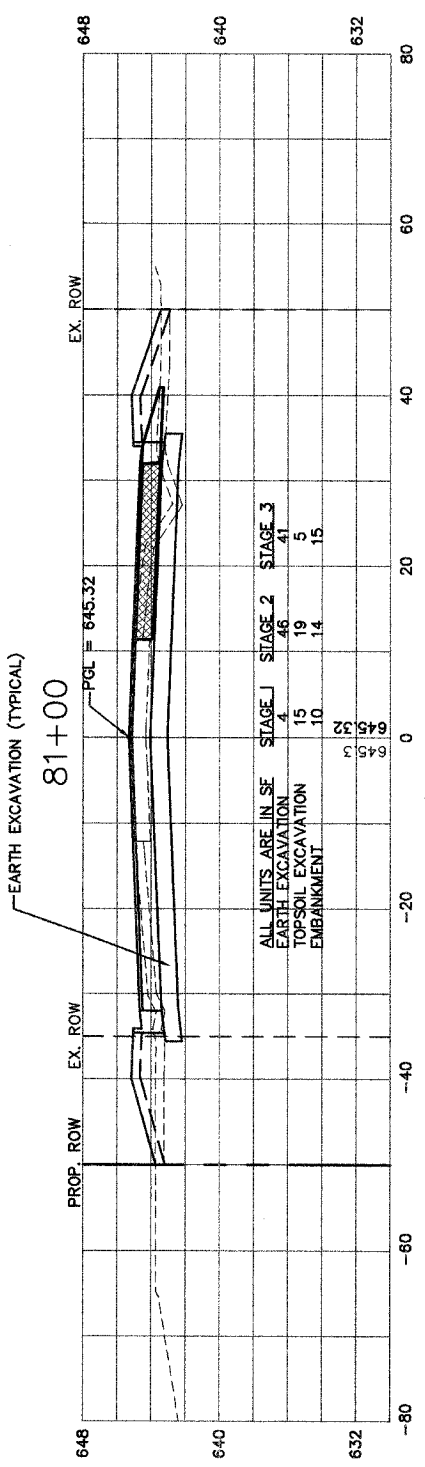
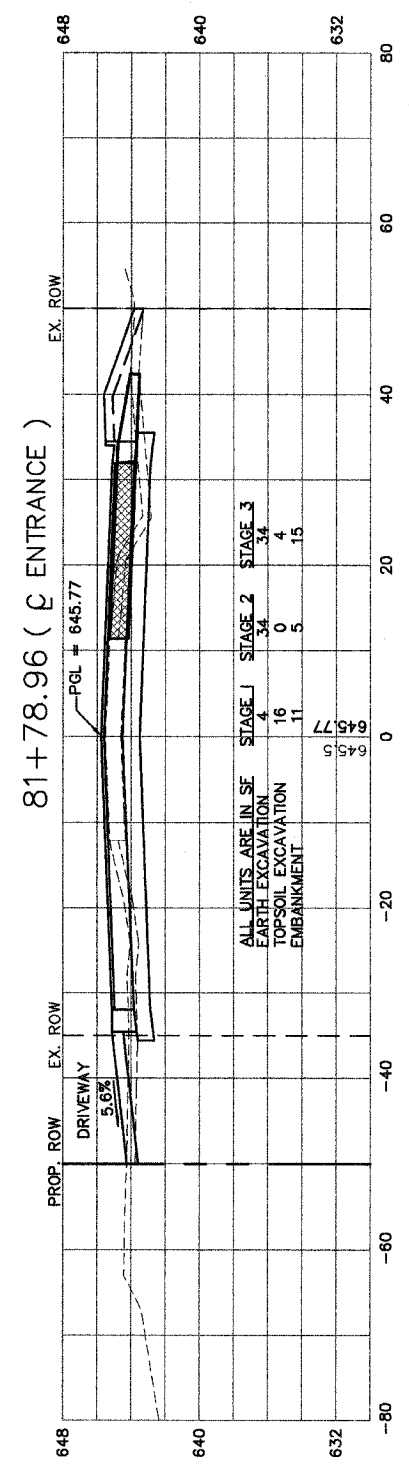
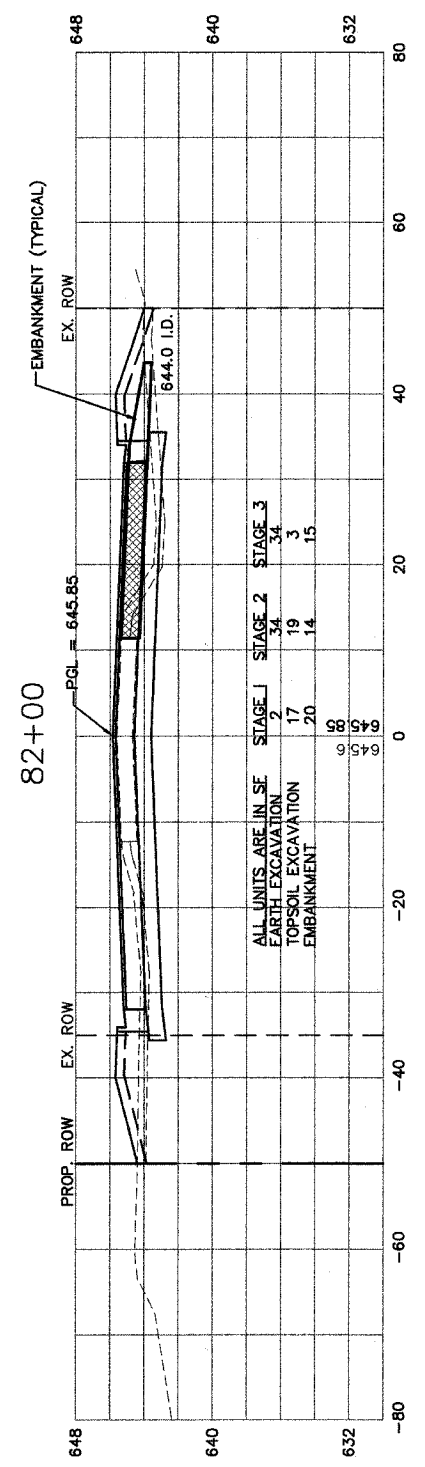
McDonough Associates Inc.
 Engineers/Architects

DESIGNED BY: RJE
 CHECKED BY: NJL
 DRAWN BY: RJE

SCALE:
 HORIZ: 1"=10'
 VERT: 1"=5'

TEMPORARY PAVEMENT
 INTERIM DRAINAGE

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2545	*	WILL	147	121
FEDERAL AID PROJ. NO. 7		ELIGIBLE	FED. AID PROJECT	
* 98-00036-19-FP		CONTRACT NO. 83896		



DRAWING ID: G:\20030023 - Plainfield-Naperville Road\dwg\CROSS SECTIONS 1--8.dwg
PLOT DATE: 07/08/05 - 15:45

NO.	DATE	REVISION	BY

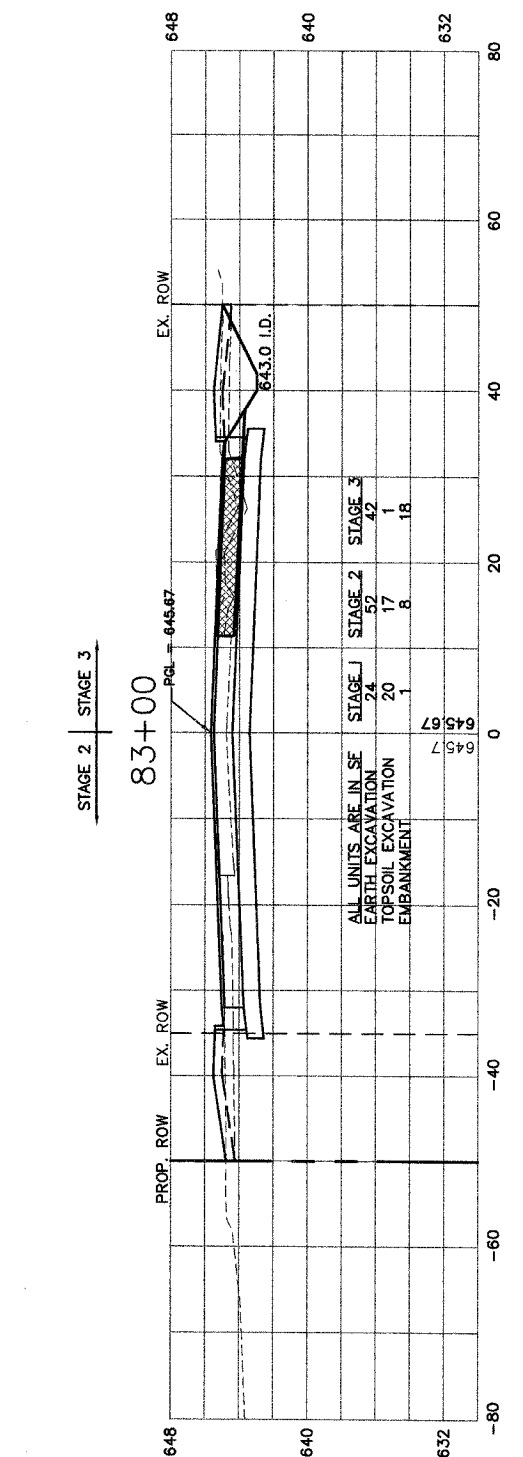
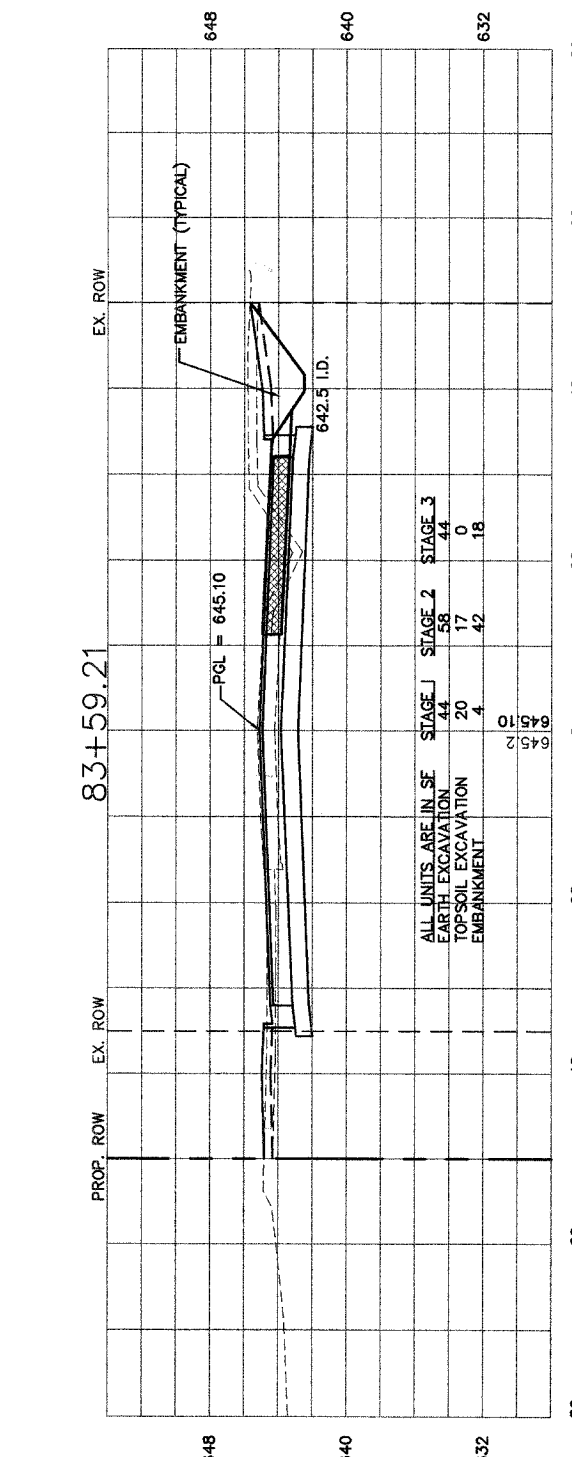
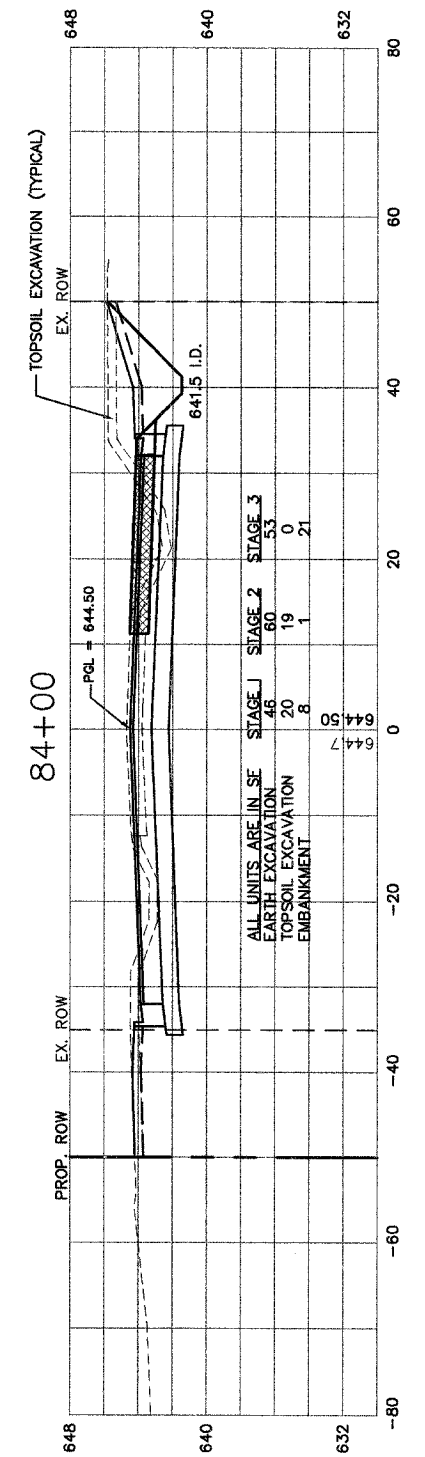
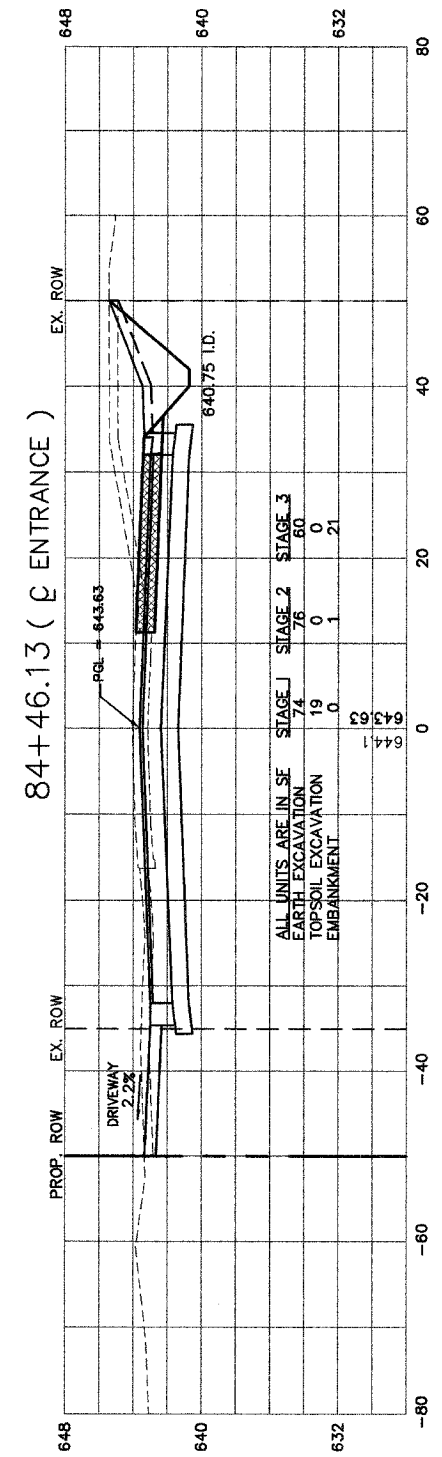
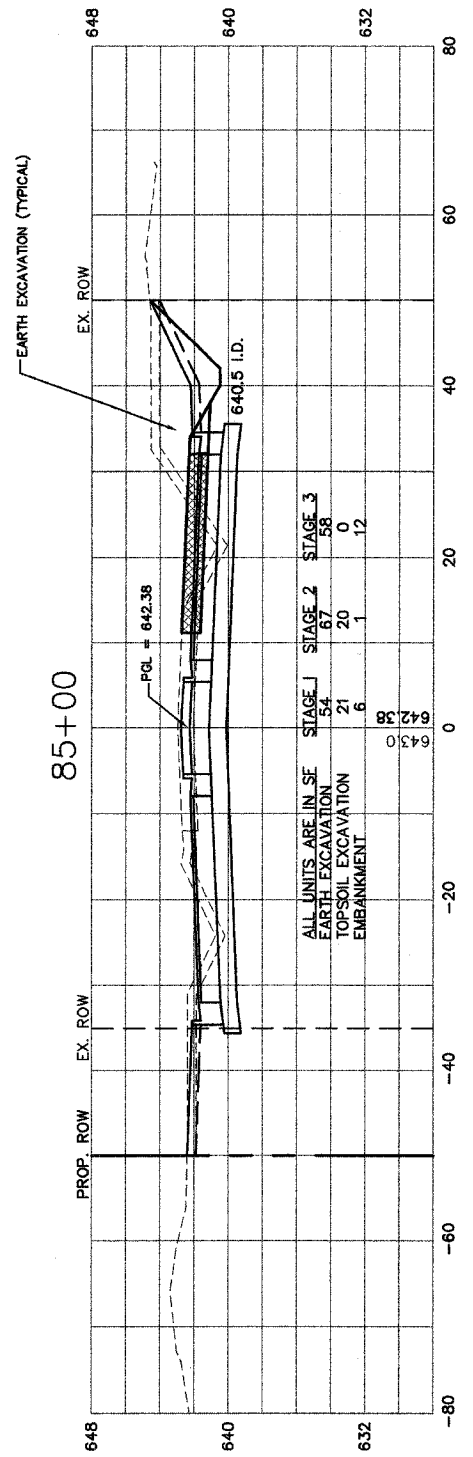
WILL COUNTY DEPARTMENT OF HIGHWAYS
PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
ROADWAY RECONSTRUCTION
CROSS SECTIONS
STA 78+00 TO STA 82+00

McDonough Associates Inc.
Engineers/Architects

DESIGNED BY: RJE
CHECKED BY: NAL
DRAWN BY: RJE

SCALE:
HORIZ: 1"=10'
VERT: 1"=5'

DRAWING ID: G:\20030023 - Plainfield-Naperville Road\dwg\CROSS SECTIONS 1-8.dwg
 PLOT DATE: 07/08/05 - 15:45



TEMPORARY PAVEMENT
 ID
 INTERIM DRAINAGE

NO.	DATE	REVISION	BY

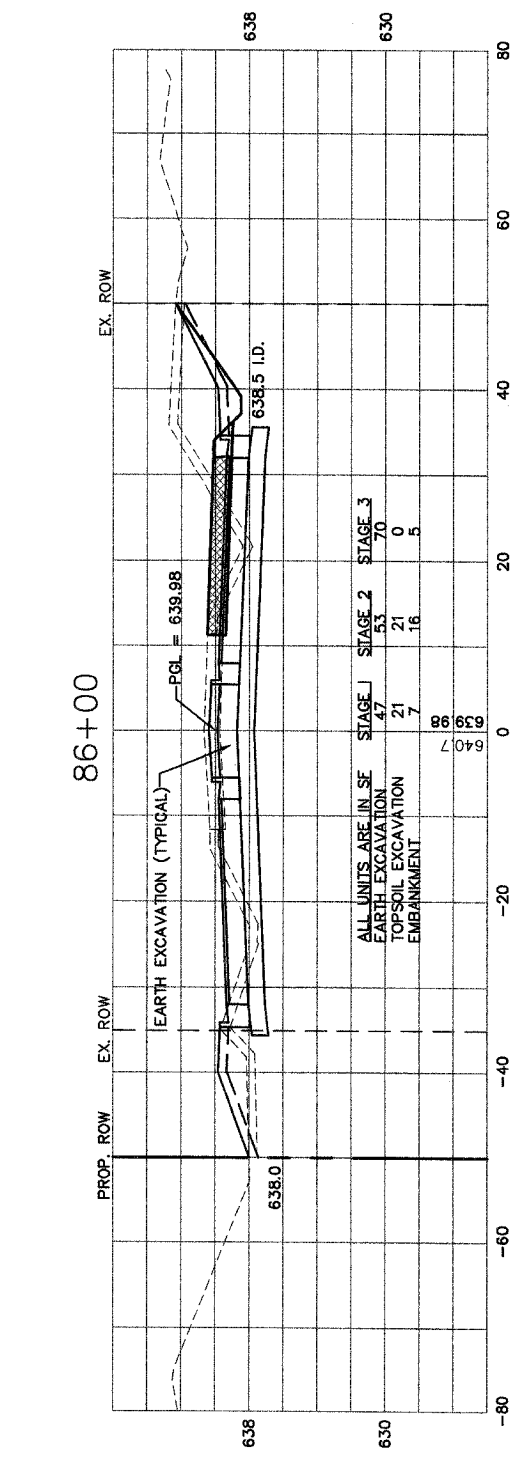
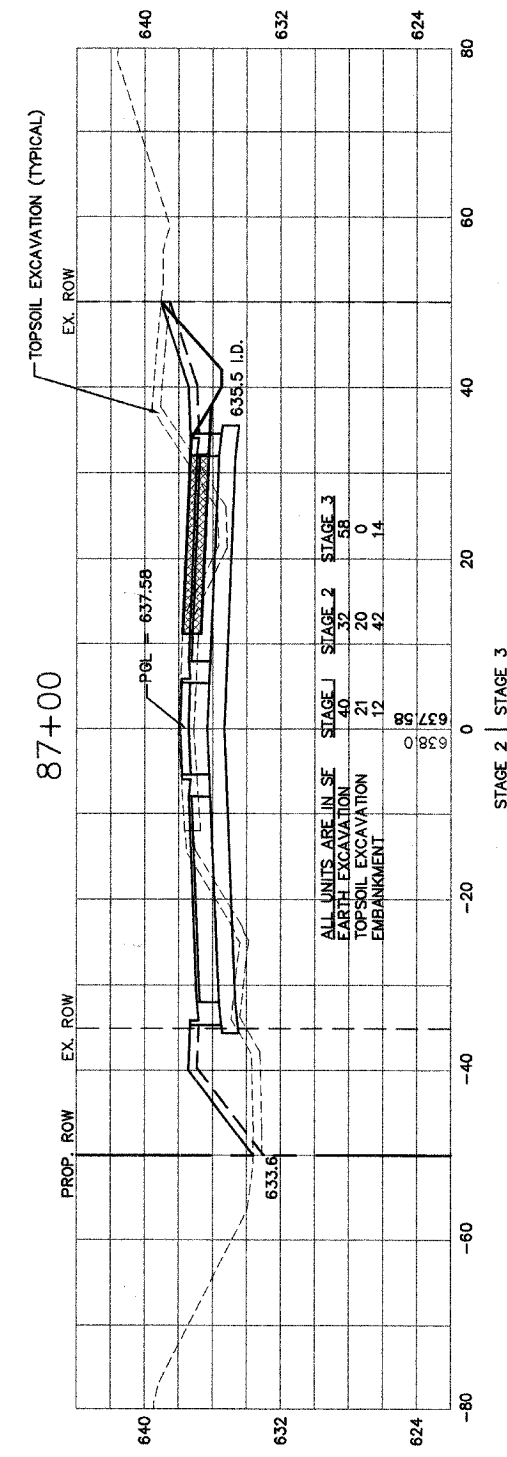
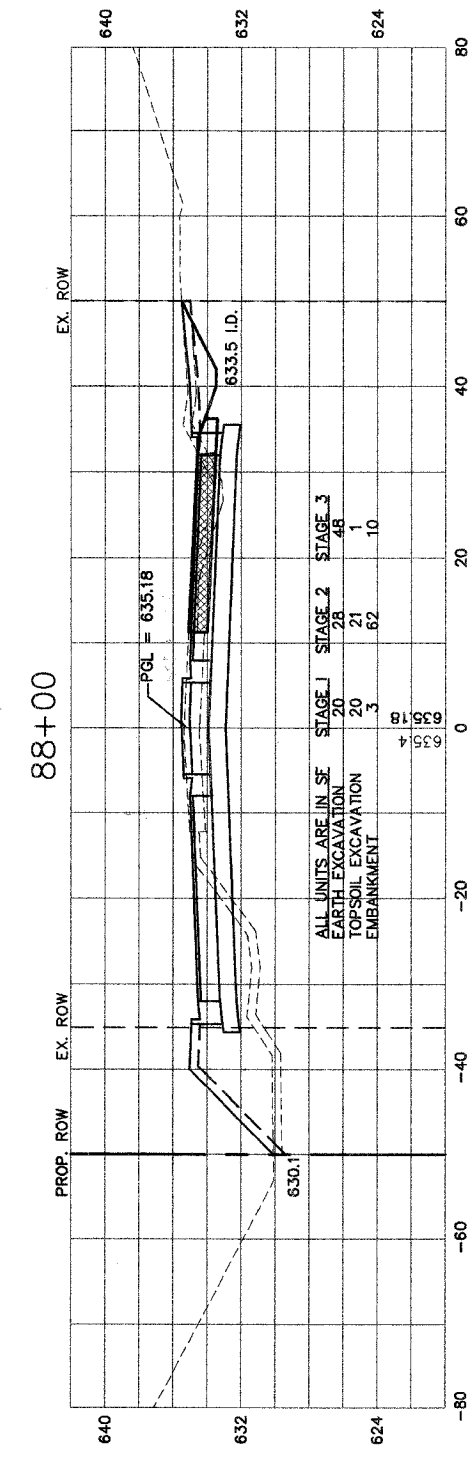
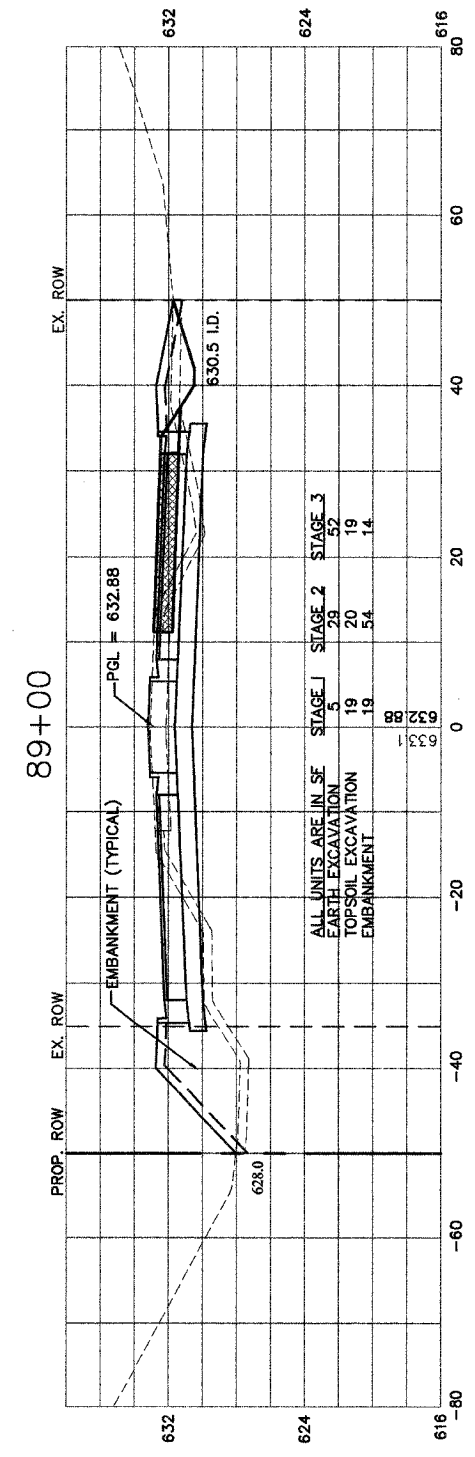
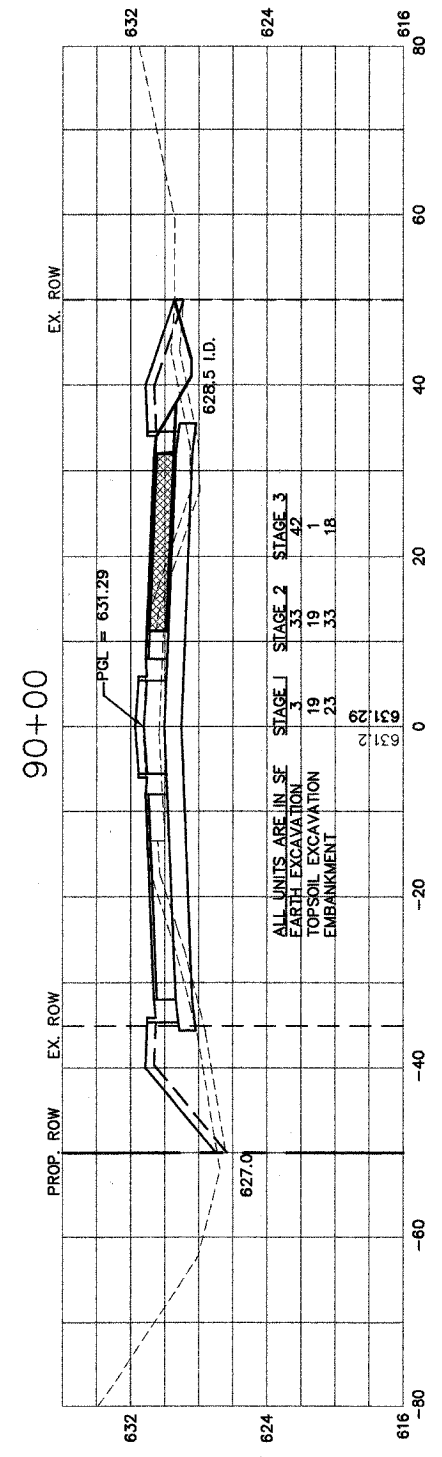
WILL COUNTY DEPARTMENT OF HIGHWAYS
 PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
 ROADWAY RECONSTRUCTION
 CROSS SECTIONS
 STA 83+00 TO STA 86+00

McDonough Associates Inc.
 Engineers/Architects

DESIGNED BY: RJE
 CHECKED BY: N.J.L.
 DRAWN BY: RJE

SCALE:
 HORIZ: 1"=10'
 VERT: 1"=5'

DRAWING ID: G:\20030023 - Plainfield-Naperville Road\dwg\CROSS SECTIONS 1-8.dwg
 PLOT DATE: 07/08/05 - 15:45



NO.	DATE	REVISION	BY

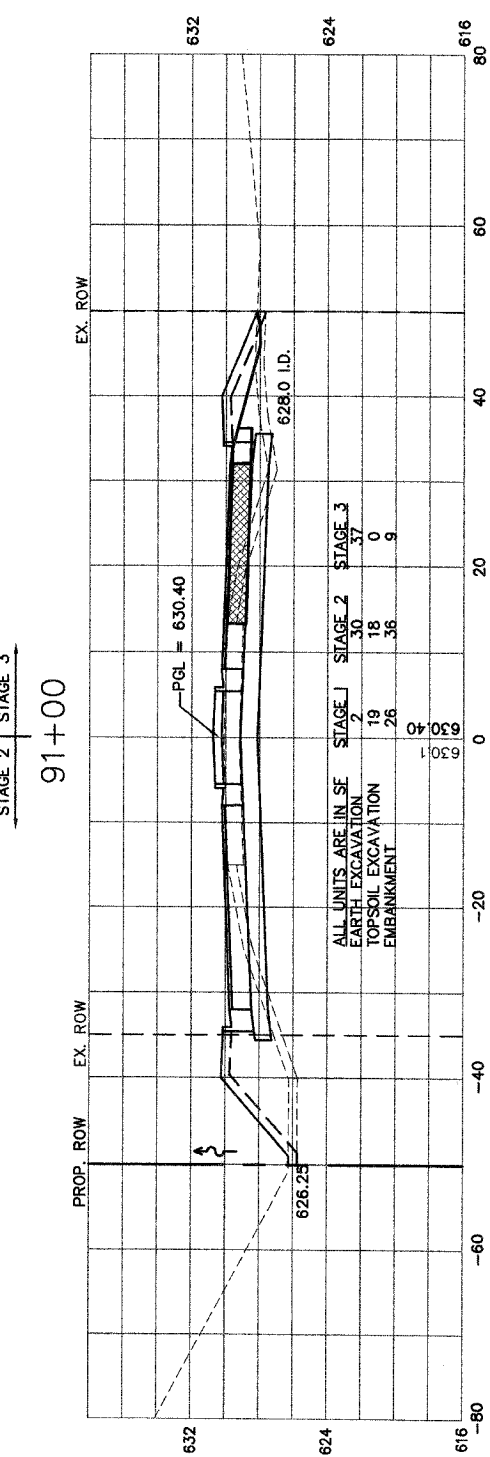
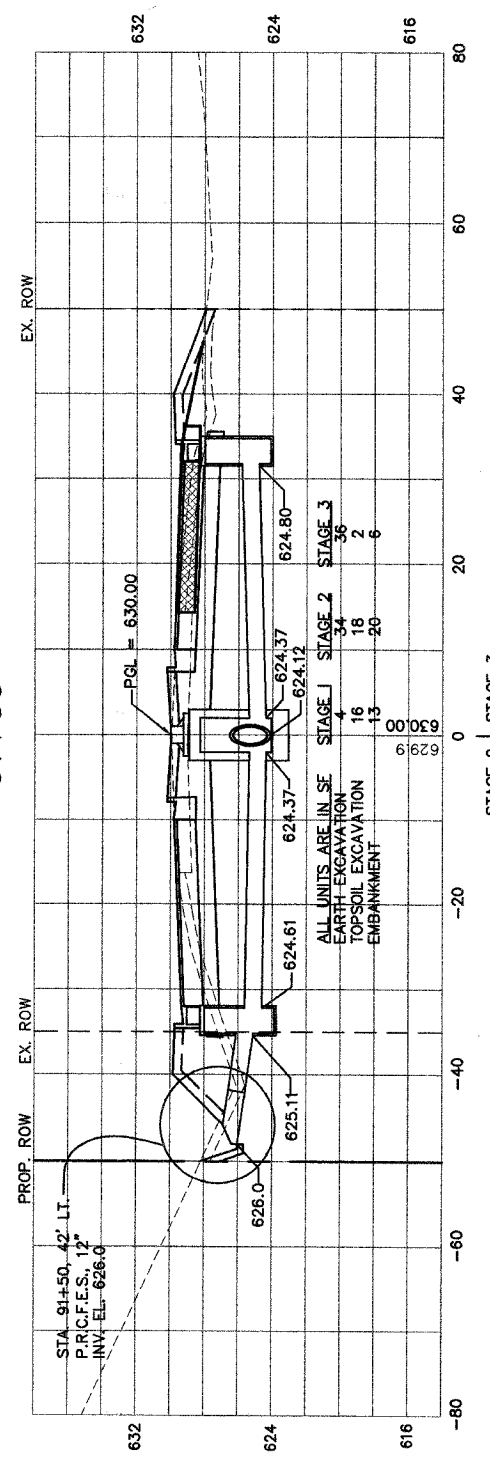
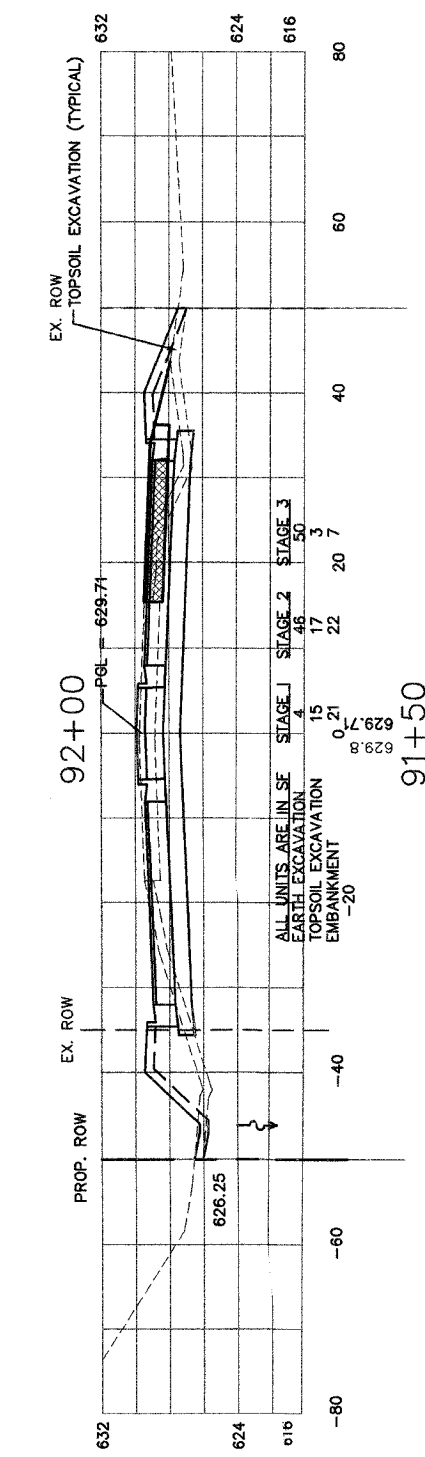
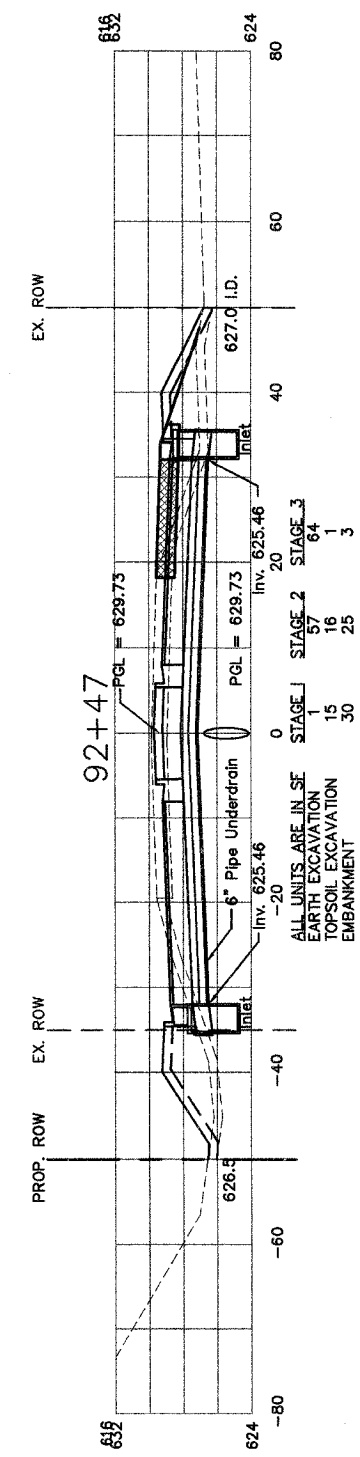
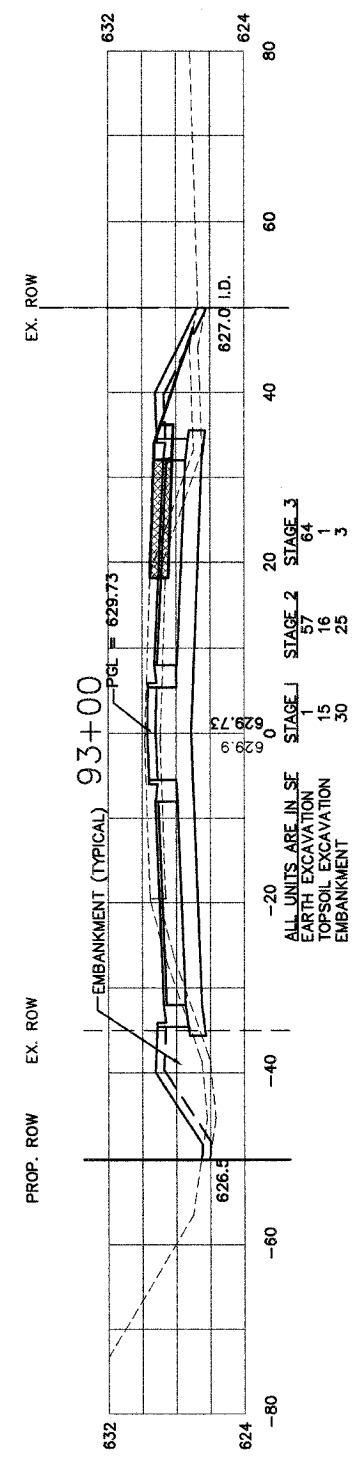
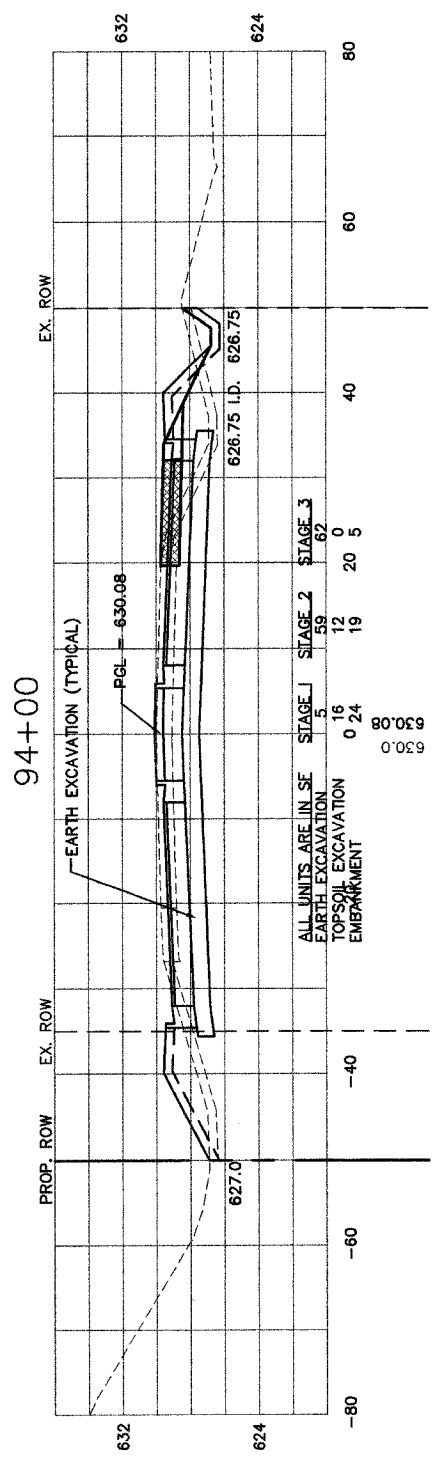
WILL COUNTY DEPARTMENT OF HIGHWAYS
 PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
 ROADWAY RECONSTRUCTION
 CROSS SECTIONS
 STA 86+71 TO STA 90+00

McDonough Associates Inc.
 Engineers/Architects

DESIGNED BY: RJE
 CHECKED BY: NJL
 DRAWN BY: RJE

SCALE:
 HORIZ: 1"=10'
 VERT: 1"=5'

DRAWING ID: G:\20030023 - Plainfield-Naperville Road\dwg\CROSS SECTIONS 1-8.dwg
 PLOT DATE: 07/08/05 - 15:45



TEMPORARY PAVEMENT
 ID
 INTERIM DRAINAGE

NO.	DATE	REVISION	BY

WILL COUNTY DEPARTMENT OF HIGHWAYS
 PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
 ROADWAY RECONSTRUCTION
 CROSS SECTIONS
 STA 91+00 TO 94+00

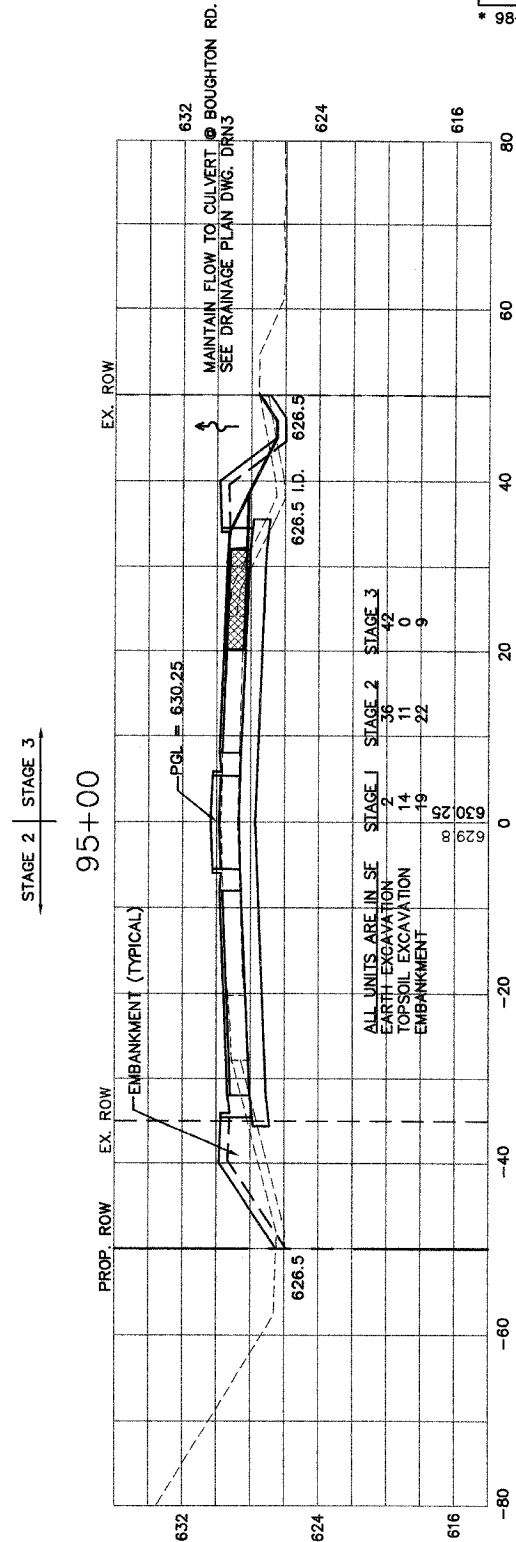
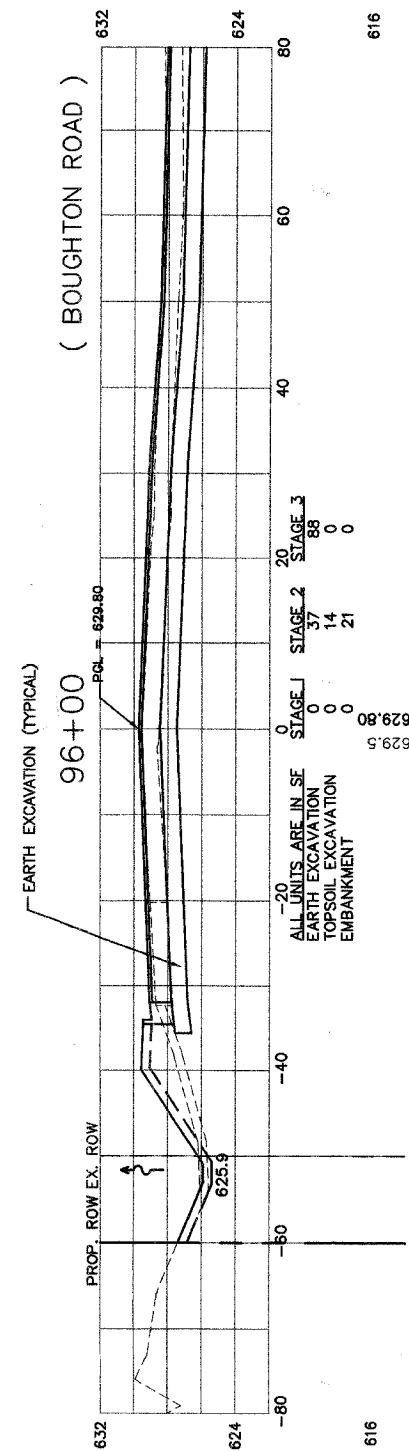
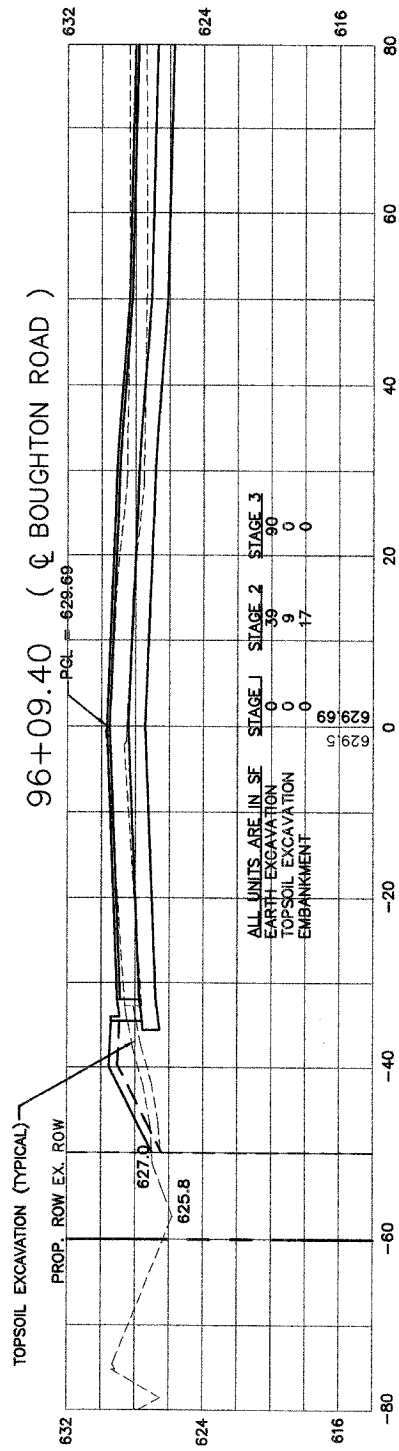
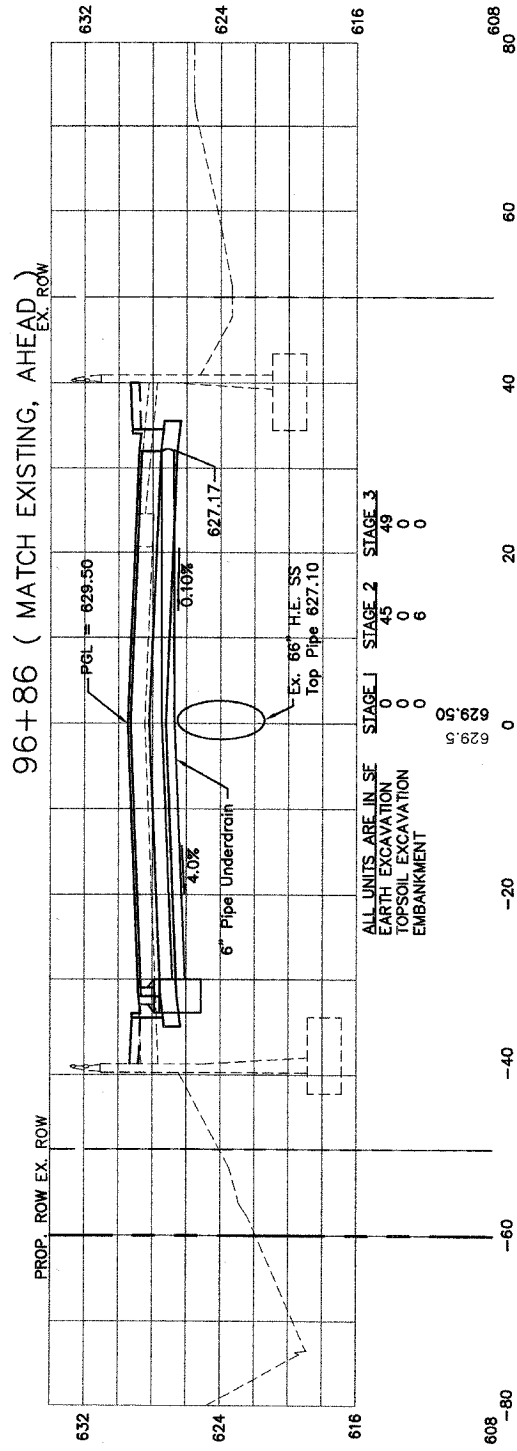
McDonough Associates Inc.
 Engineers/Architects

DESIGNED BY: RJE
 CHECKED BY: N.J.L.
 DRAWN BY: RJE

SCALE:
 HORIZ: 1"=10'
 VERT: 1"=5'

DRAWING ID: G:\20030023 - Plainfield-Naperville Road\dwg\CROSS SECTIONS 1--8.dwg
 PLOT DATE: 07/08/05 - 15:45

*CONTRACT OMISSION STA. 97+00 TO 107+00



TEMPORARY PAVEMENT
 ID
 INTERIM DRAINAGE

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2545	*	WILL	147	125
FED. ROAD DIST. NO. 7	ALIGNMENT	FED. AID PROJECT		

* 98-00036-19-FP CONTRACT NO. 83896

NO.	DATE	REVISION	BY

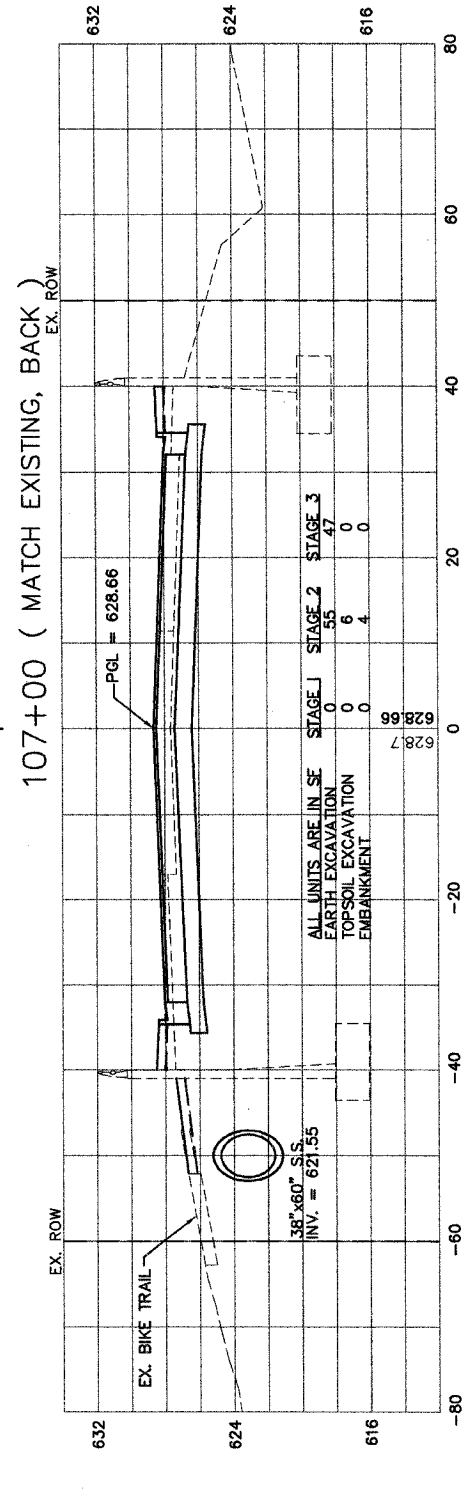
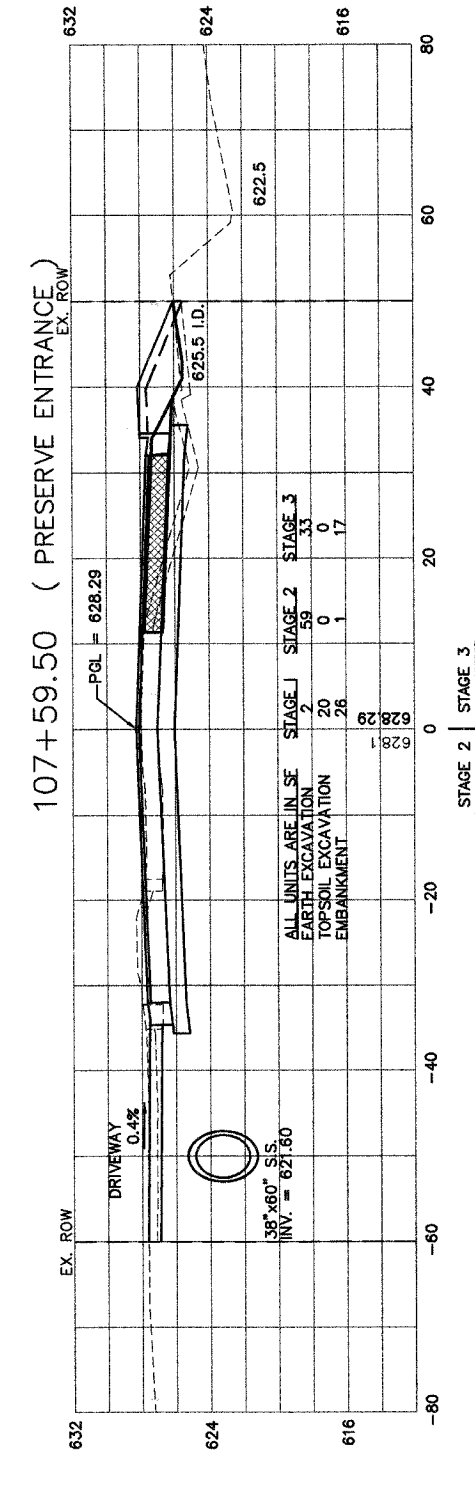
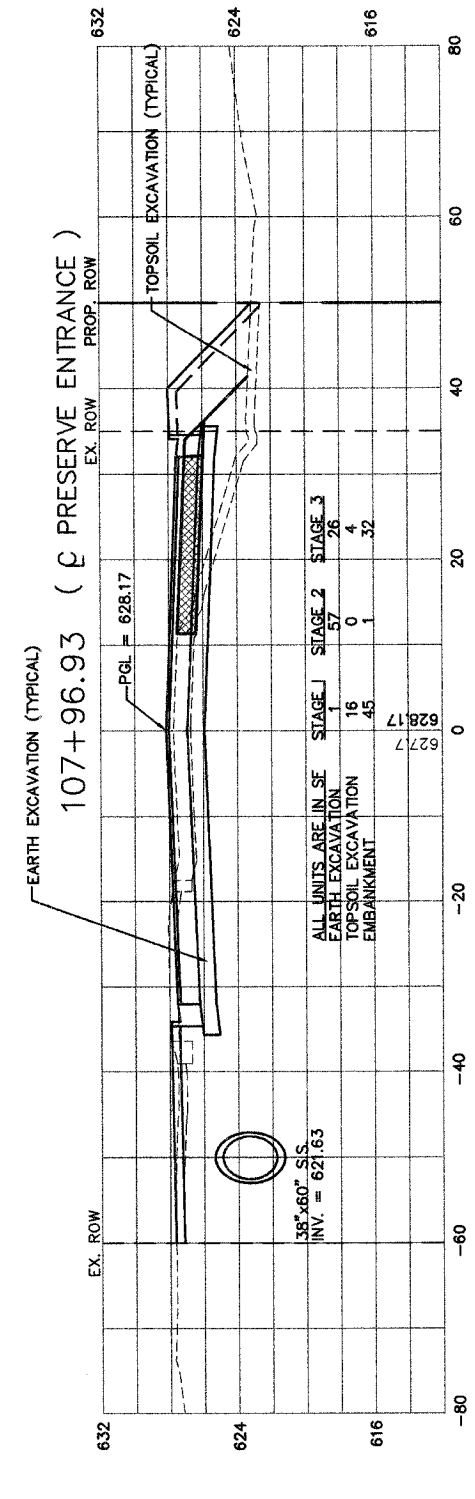
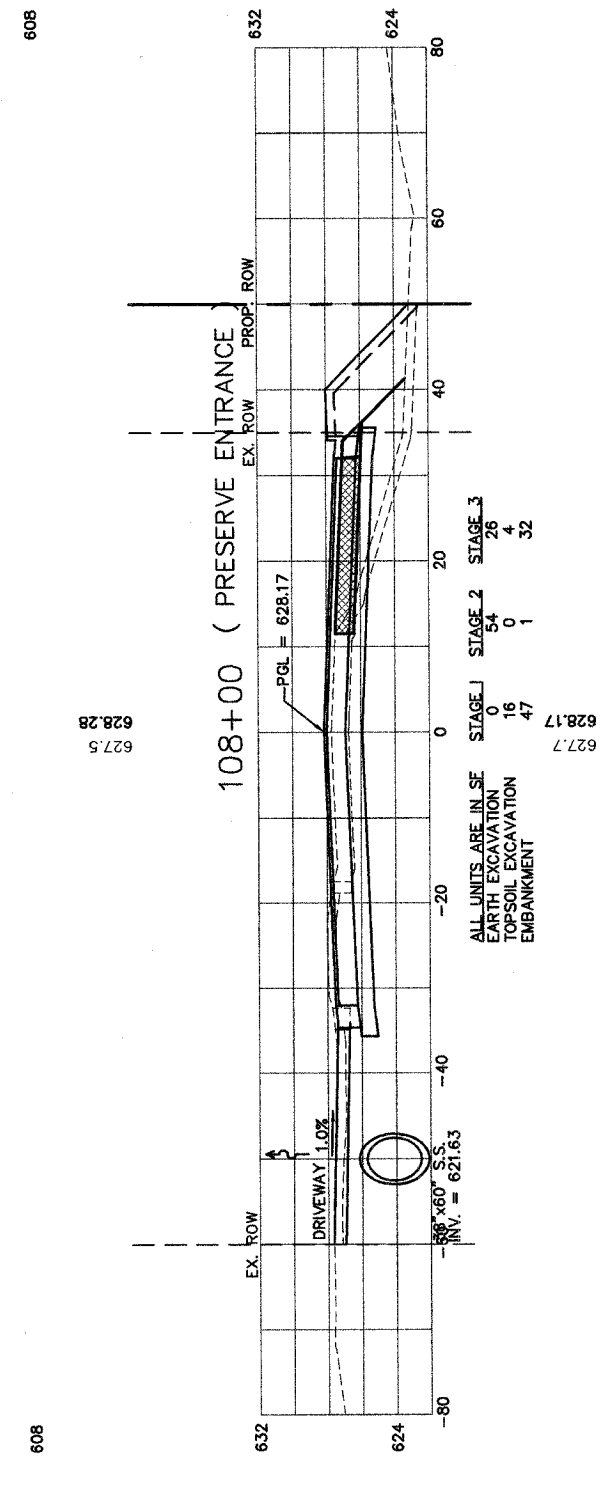
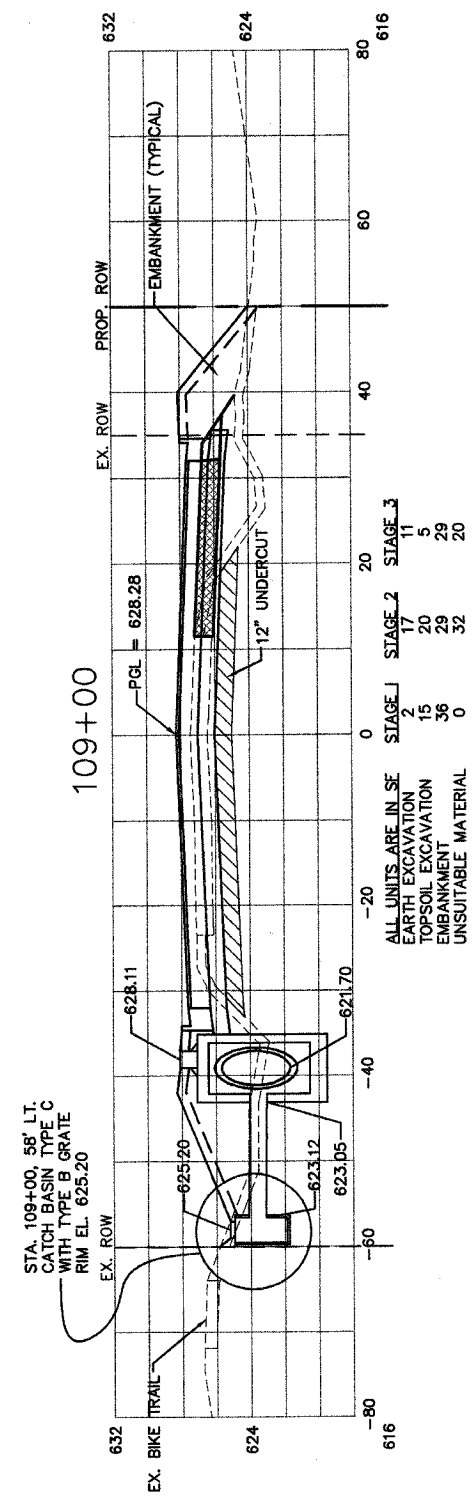
WILL COUNTY DEPARTMENT OF HIGHWAYS
 PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
 ROADWAY RECONSTRUCTION
 CROSS SECTIONS
 STA 95+00 TO STA 97+00

McDonough Associates Inc.
 Engineers/Architects

DESIGNED BY: RJE
 CHECKED BY: N.J.
 DRAWN BY: RJE

SCALE:
 HORIZ: 1"=10'
 VERT: 1"=5'

DRAWING ID: G:\20030023 - Plainfield-Naperville Road\dwg\GROSS SECTIONS 1-8.dwg
 PLOT DATE: 07/08/05 - 15:45



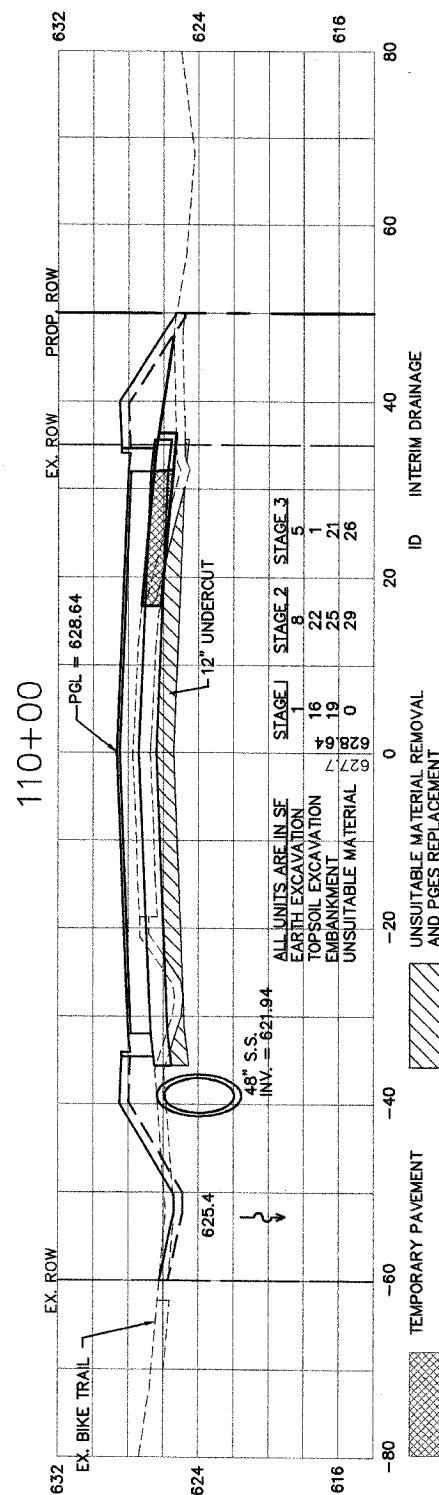
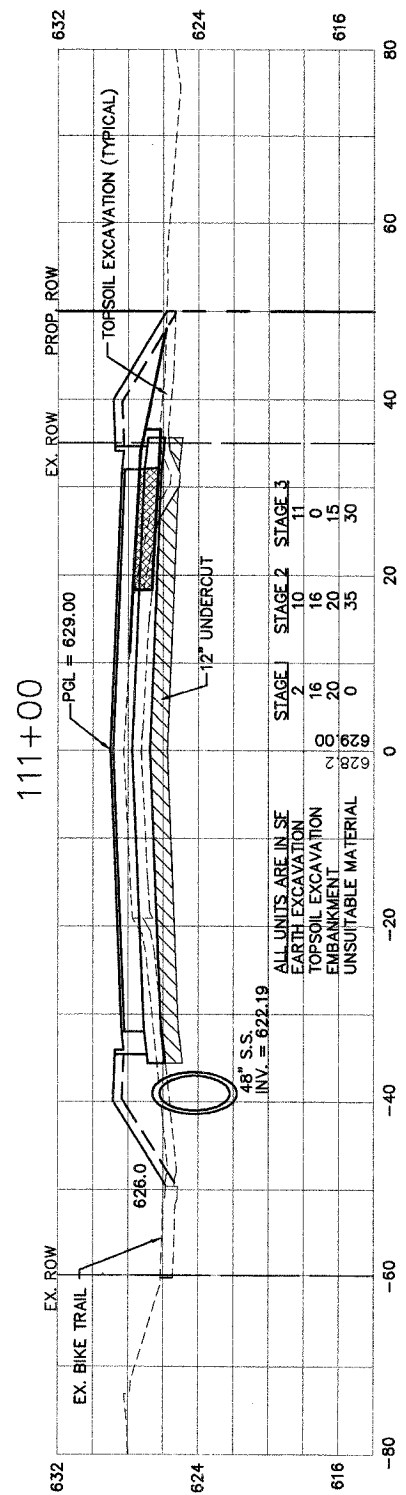
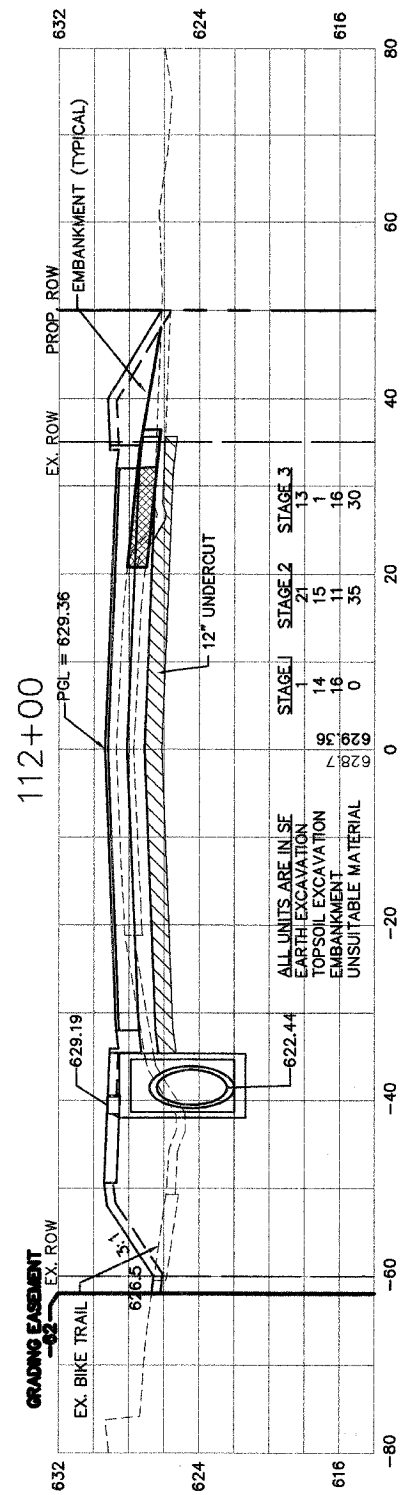
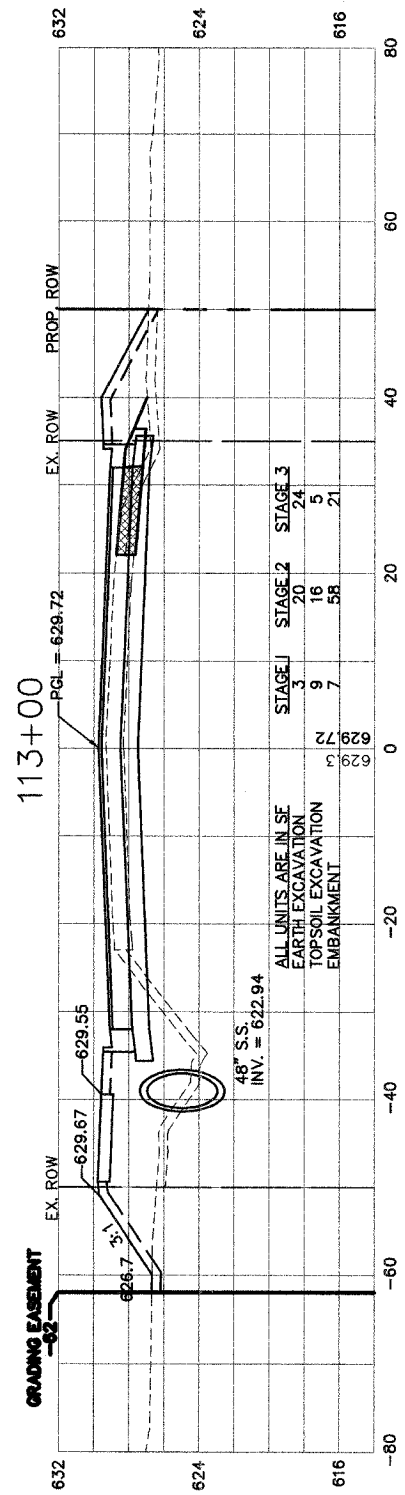
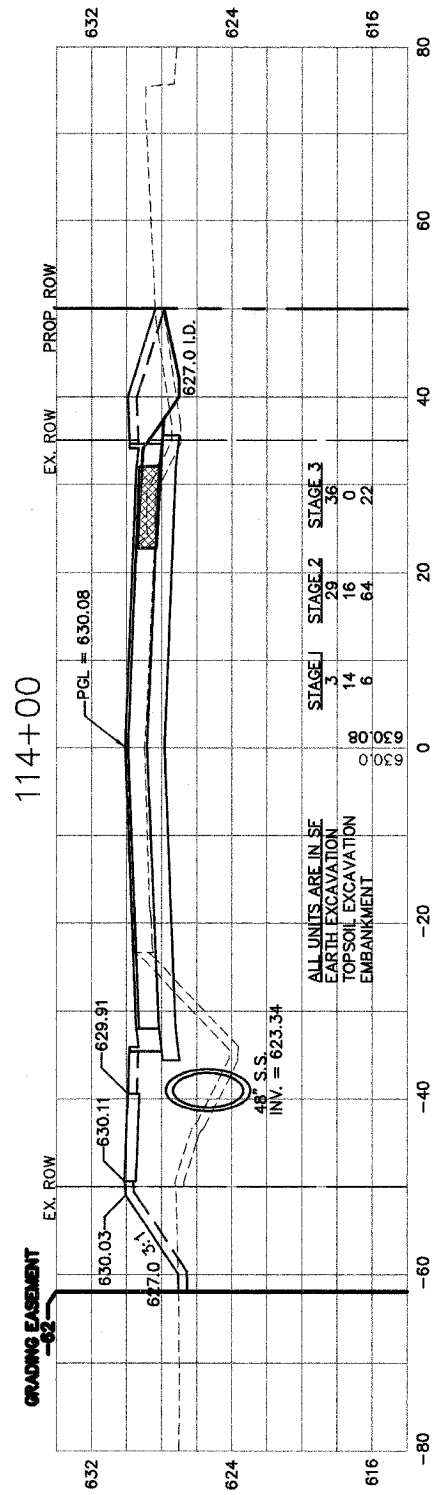
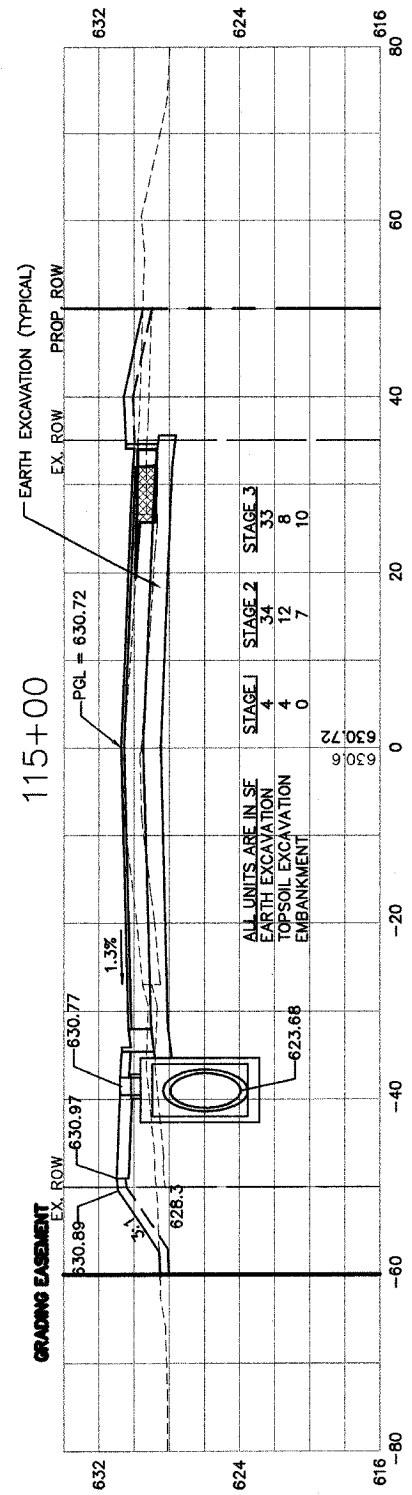
*CONTRACT OMISSION STA. 97+00 TO 107+00

UNSUITABLE MATERIAL REMOVAL AND PGES REPLACEMENT
 TEMPORARY PAVEMENT
 INTERIM DRAINAGE

WILL COUNTY DEPARTMENT OF HIGHWAYS			
PLAINFIELD-NAPERVILLE ROAD (C.H. 14)			
ROADWAY RECONSTRUCTION			
CROSS SECTIONS			
STA 107+00 TO STA 109+00			
DESIGNED BY: RJE	CHECKED BY: N.J.	SCALE: HORIZ: 1"=10'	
DRAWN BY: RJE	BY: RJE		VERT: 1"=5'

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2545	*	WILL	147	127
FED. AID DIST. NO. 7		ALIAS	FED. AID PROJECT	

* 98-00036-19-FP CONTRACT NO. 83896



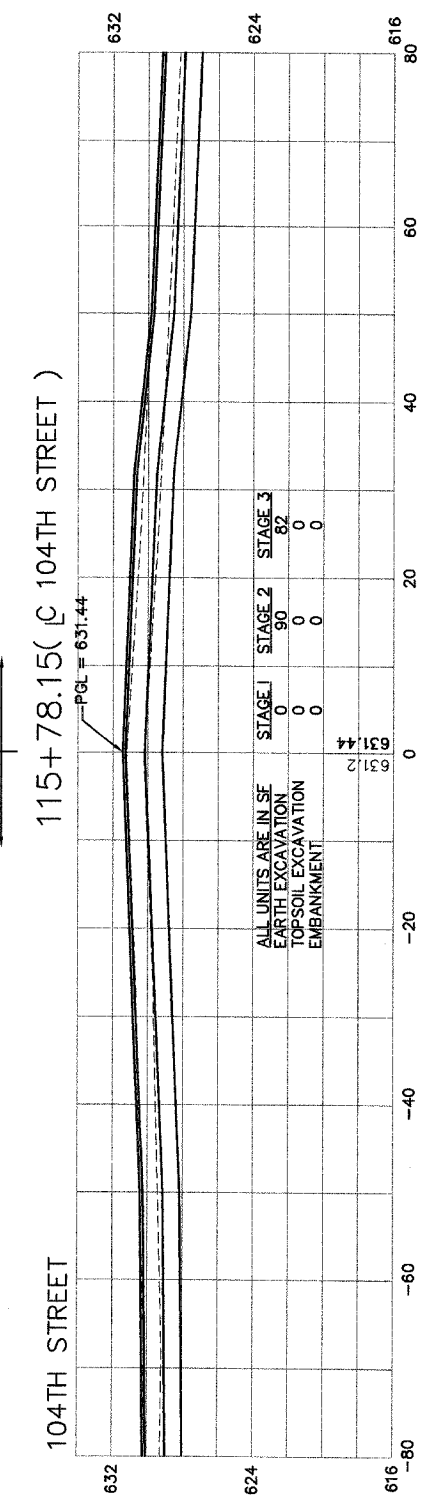
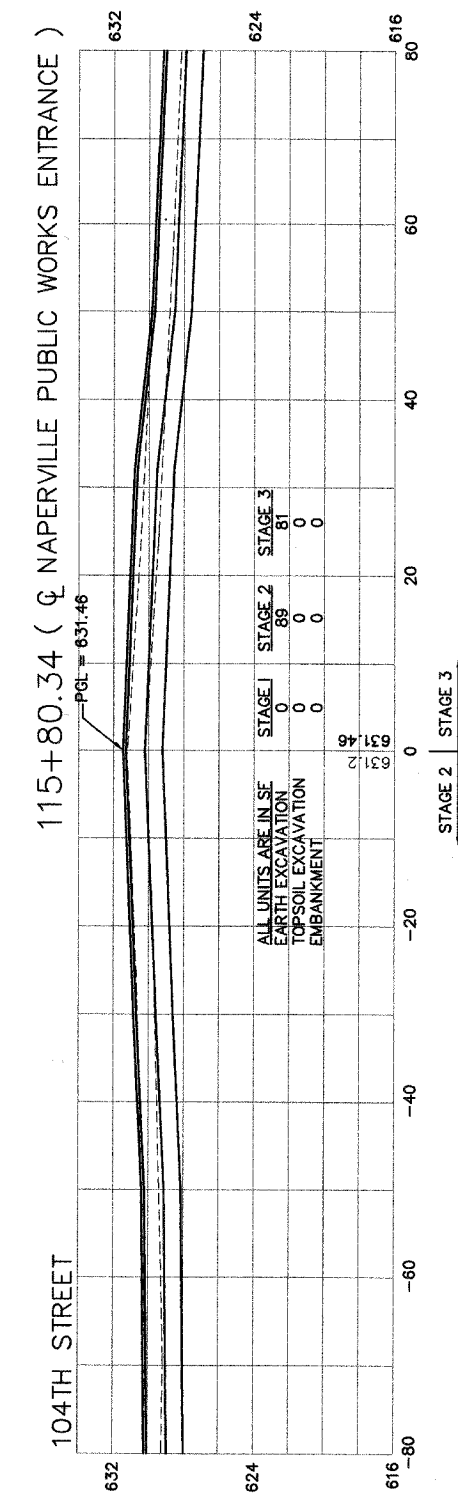
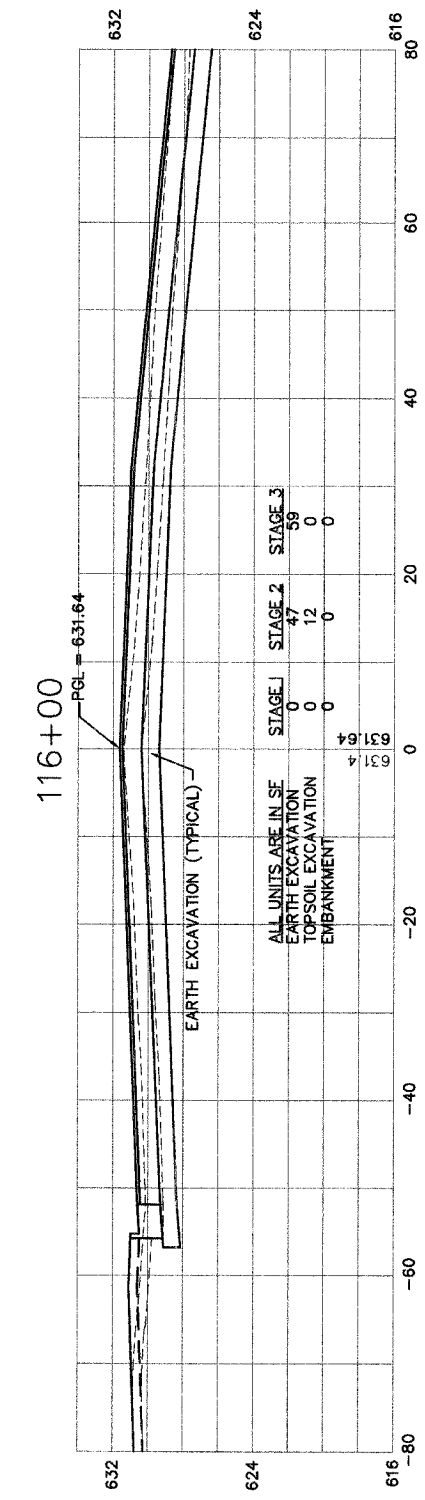
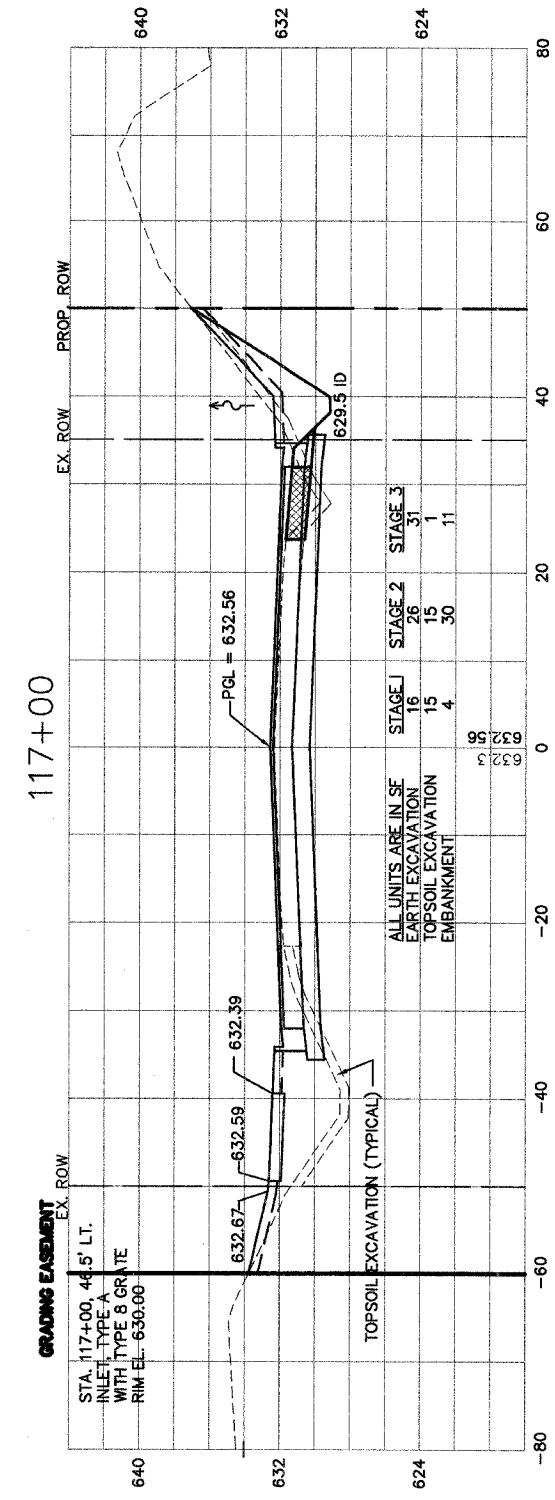
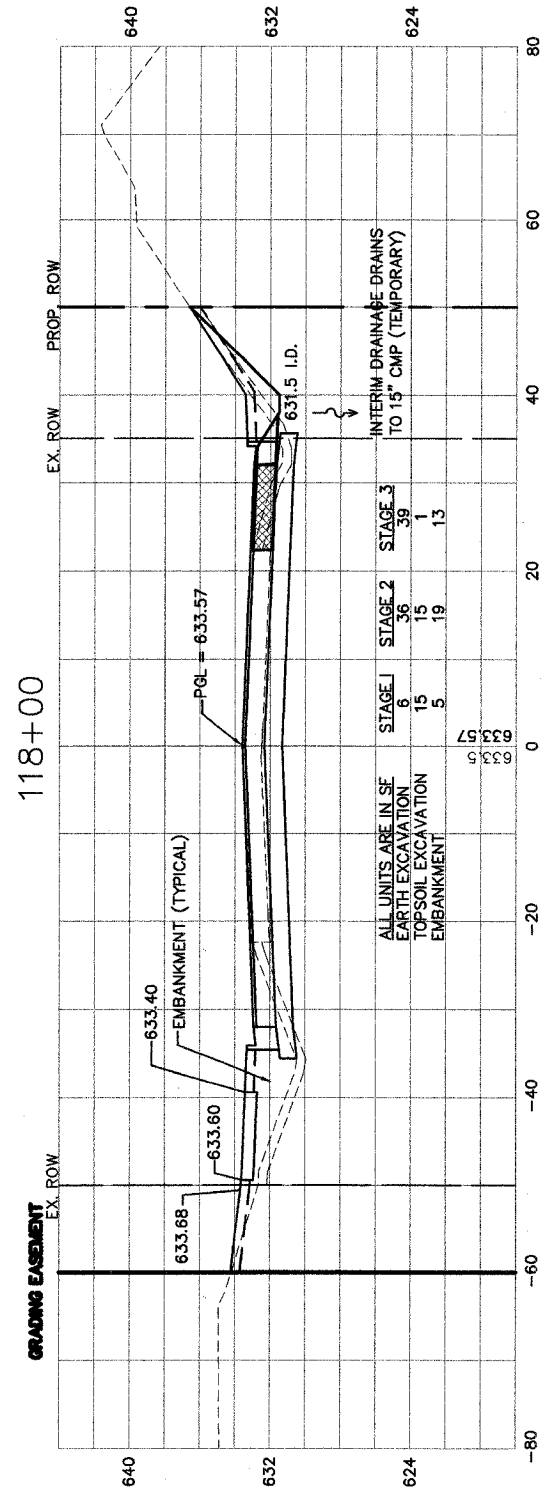
WILL COUNTY DEPARTMENT OF HIGHWAYS			
PLAINFIELD-NAPERVILLE ROAD (C.H. 14)			
ROADWAY RECONSTRUCTION			
CROSS SECTIONS			
STA 110+00 TO STA 115+00			
DESIGNED BY: RJE		SCALE: HORIZ: 1"=10'	
CHECKED BY: NJL		VERT: 1"=5'	
DRAWN BY: RJE			

McDonough Associates Inc. Engineers/Architects

NO.	DATE	REVISION	BY

DRAWING ID: G:\20030023 - Plainfield-Naperville Road\dwg\CROSS SECTIONS 9-16.dwg
 PLOT DATE: 07/08/05 - 08.42

ROUTE NO. FAU 2545	SECTION *	COUNTY WILL	TOTAL SHEETS 147	SHEET NO. 128
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	
* 98-00036-19-FP CONTRACT NO. 83896				



TEMPORARY PAVEMENT
 ID INTERIM DRAINAGE

NO.	DATE	REVISION	BY

WILL COUNTY DEPARTMENT OF HIGHWAYS
 PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
 ROADWAY RECONSTRUCTION
 CROSS SECTIONS
 STA 115+78.15 TO STA 118+00

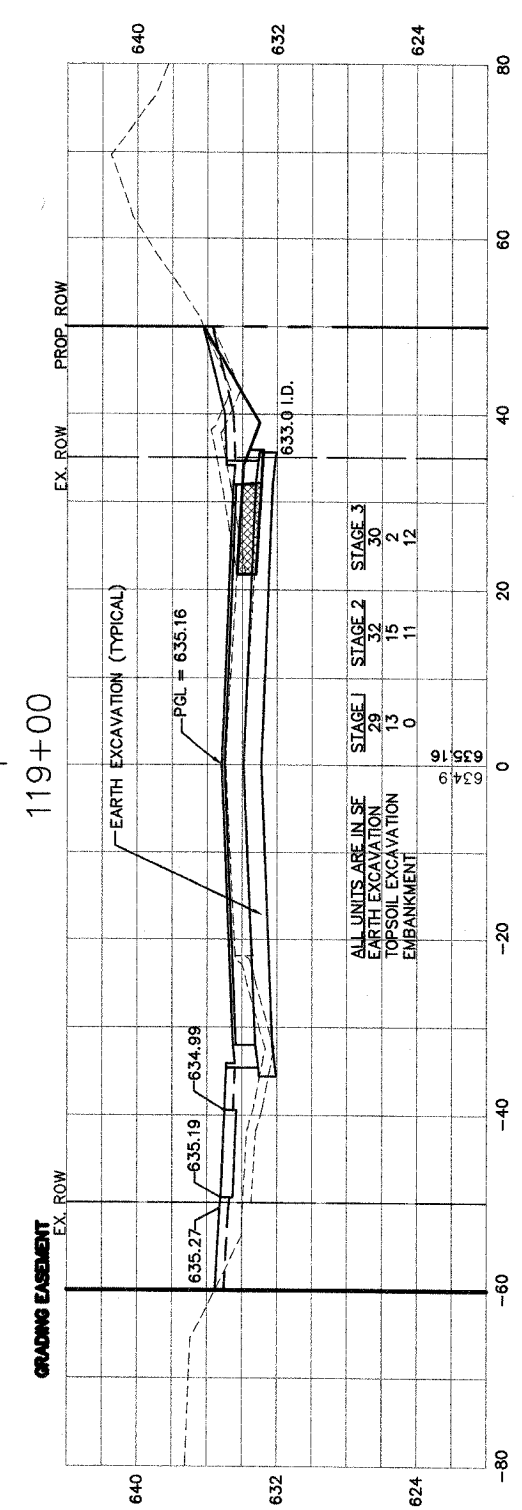
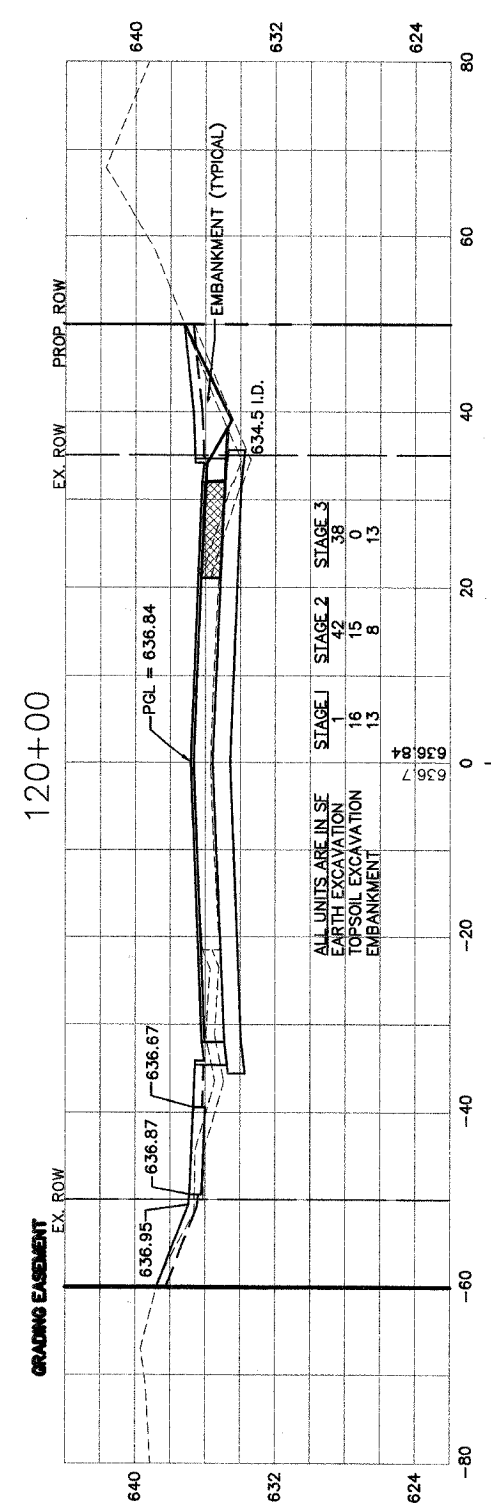
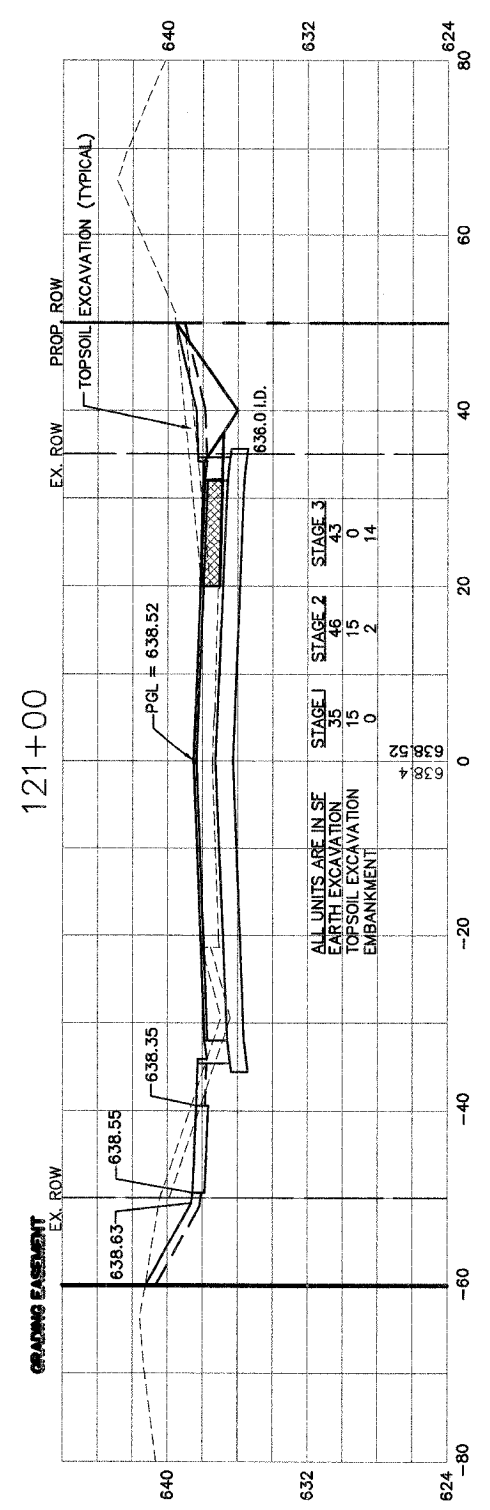
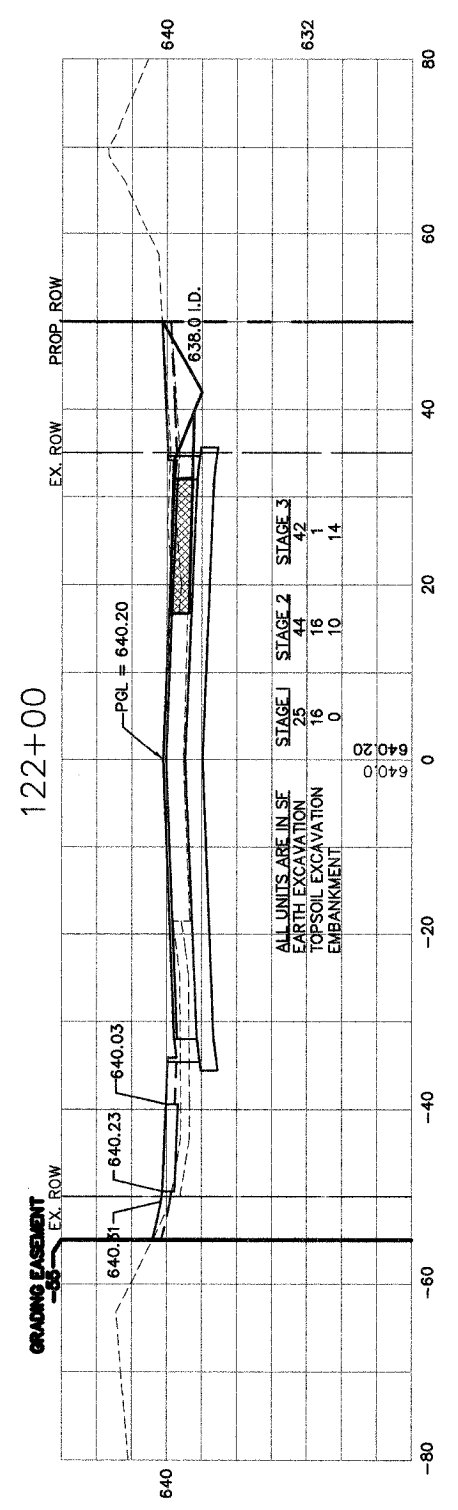
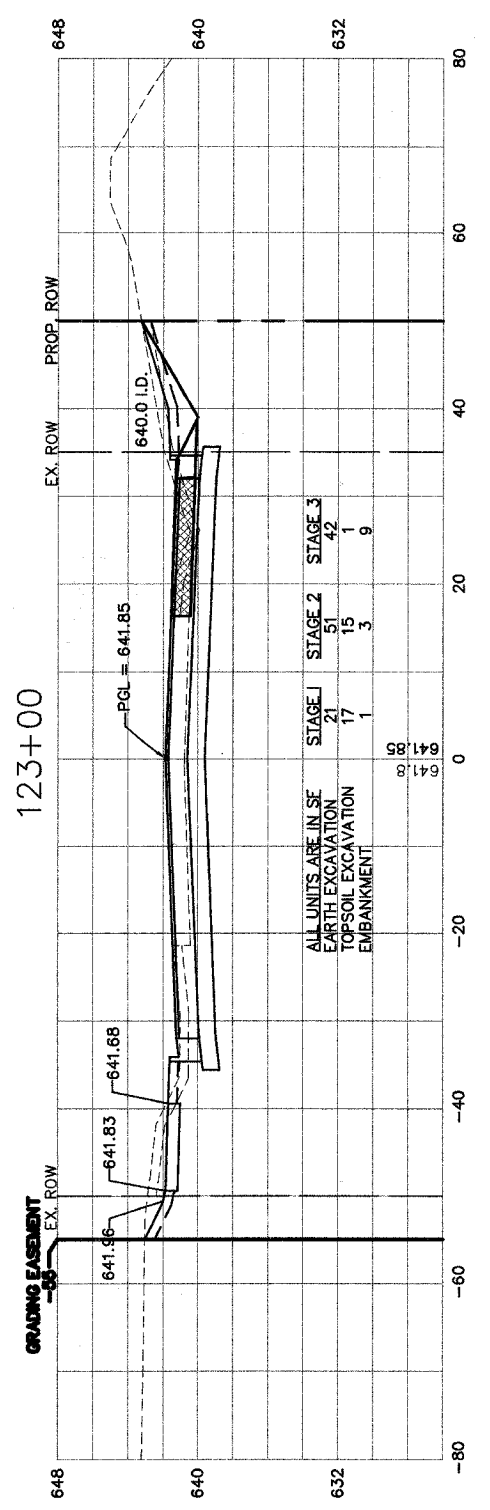
McDonough Associates Inc.
 Engineers/Architects

DESIGNED BY: RJE
 CHECKED BY: N.J.L.
 DRAWN BY: RJE

SCALE:
 HORIZ: 1"=10'
 VERT: 1"=5'

DRAWING ID: G:\20030023 - Plainfield-Naperville Road\dwg\CROSS SECTIONS 9-16.dwg
 PLOT DATE: 07/08/05 - 08:42

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2545	*	WILL	147	129
FEDERAL DIST. NO. 7		ALIGNED	FED. AID PROJECT	
* 98-00036-19-FP CONTRACT NO. 83896				



NO.	DATE	REVISION	BY

WILL COUNTY DEPARTMENT OF HIGHWAYS
 PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
 ROADWAY RECONSTRUCTION
 CROSS SECTIONS
 STA 119+00 TO STA 123+00

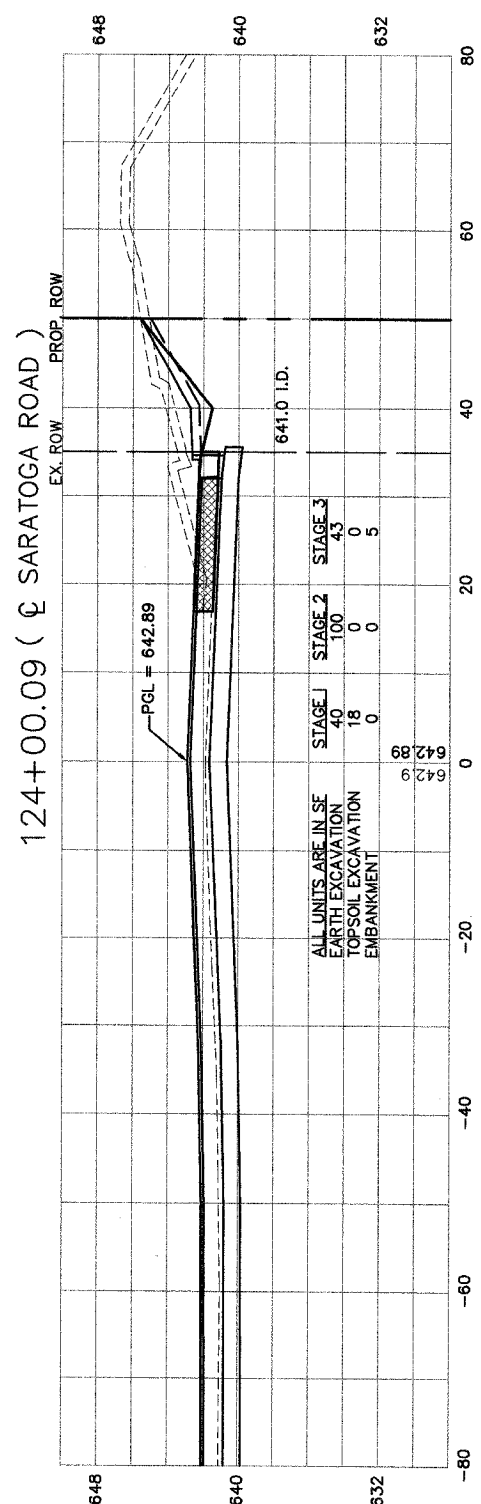
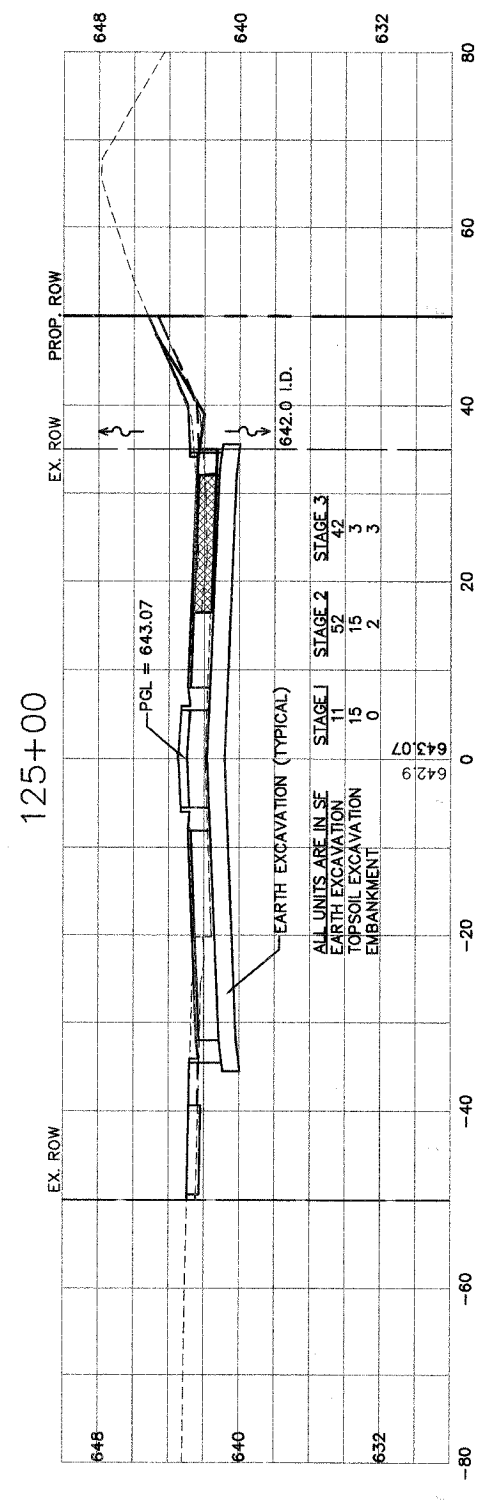
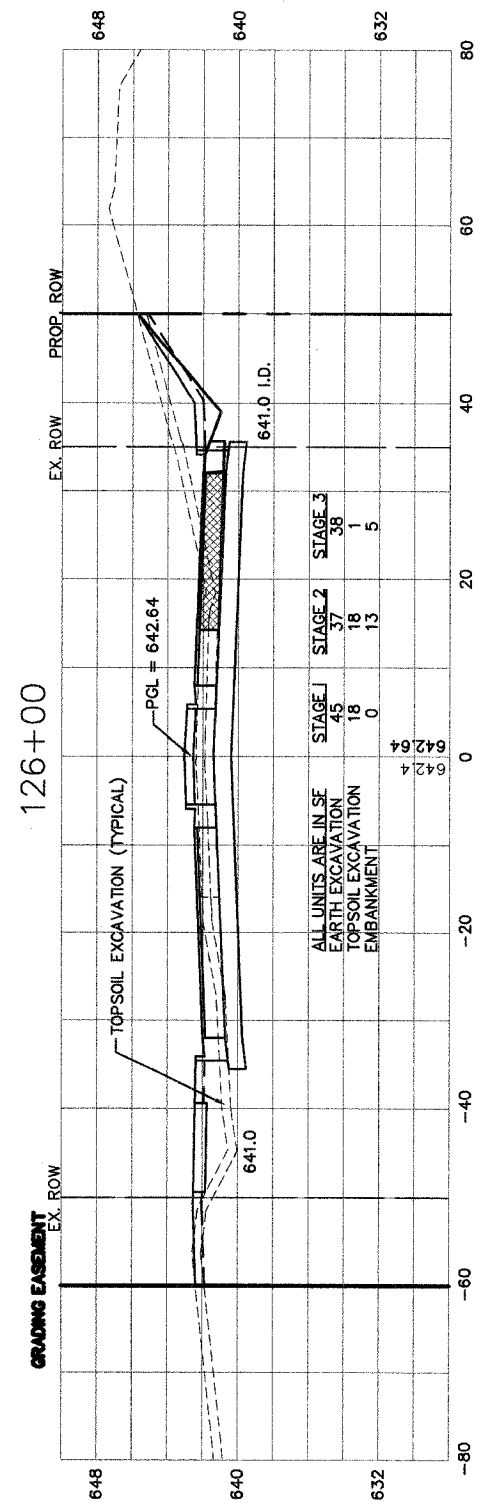
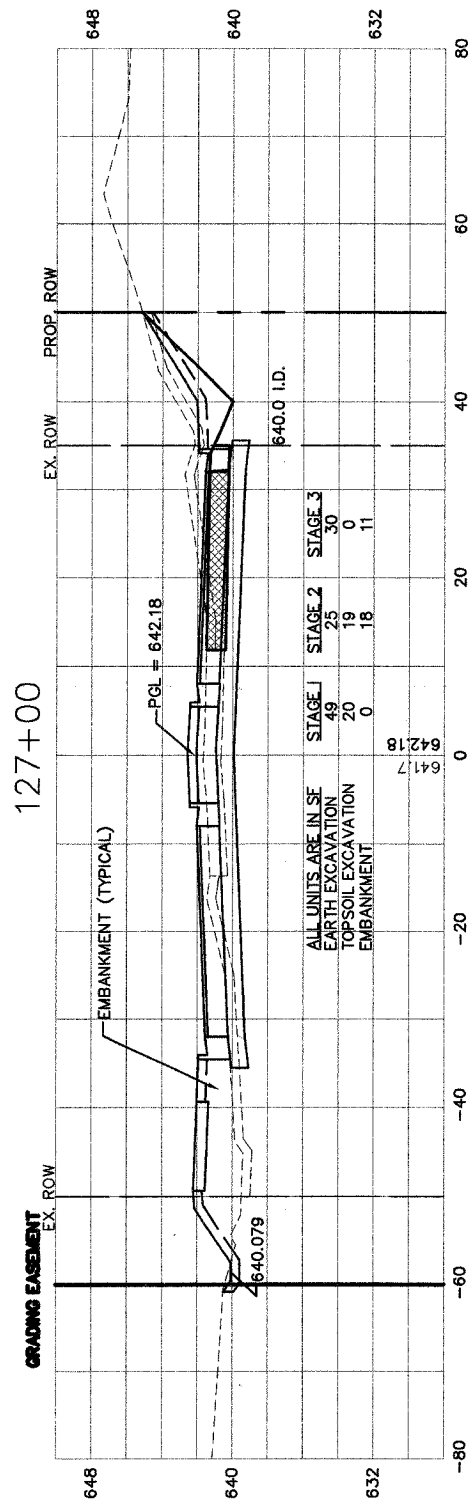
McDonough Associates Inc.
 Engineers/Architects

DESIGNED BY: RJE
 CHECKED BY: NLL
 DRAWN BY: RJE

SCALE:
 HORIZ: 1"=10'
 VERT: 1"=5'

DRAWING ID: G:\20030023 - Plainfield-Naperville Road\dwg\CROSS SECTIONS 9-16.dwg
 PLOT DATE: 07/08/05 - 08:42

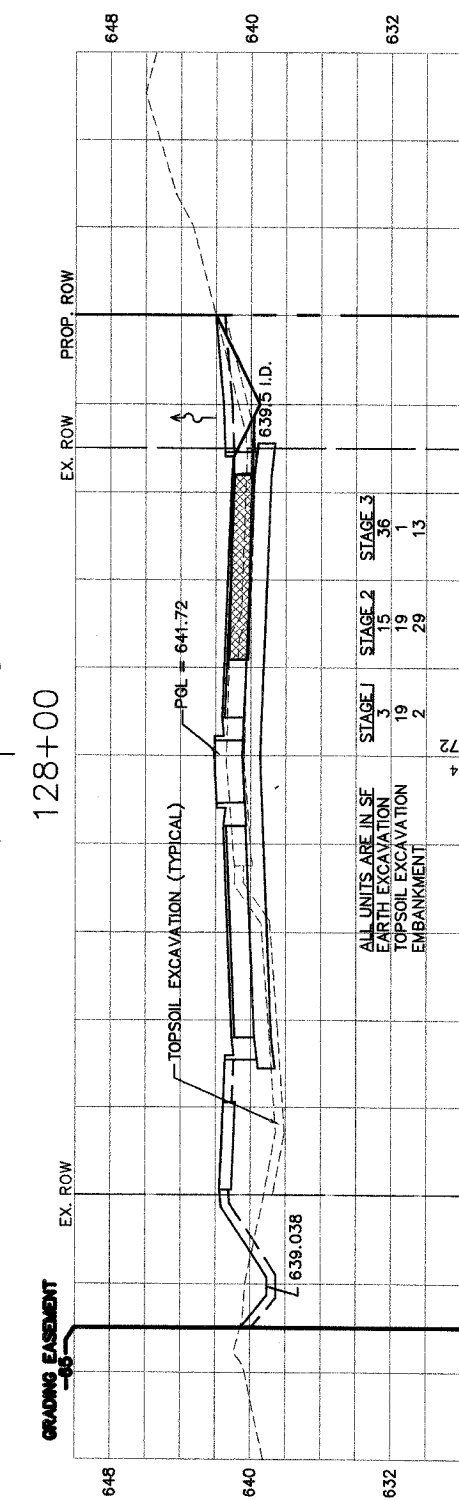
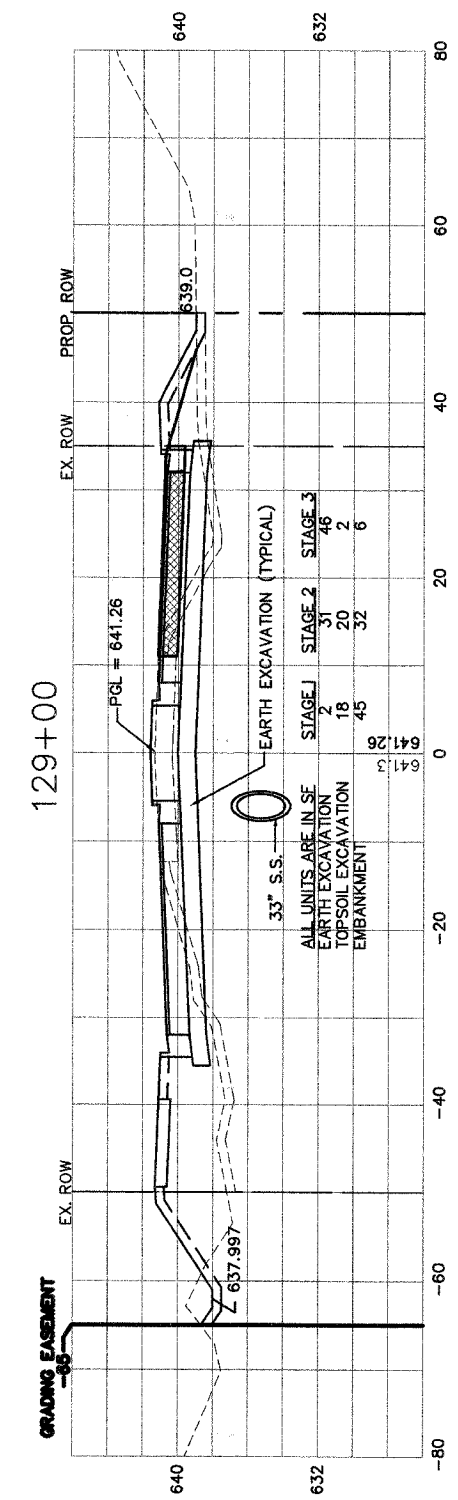
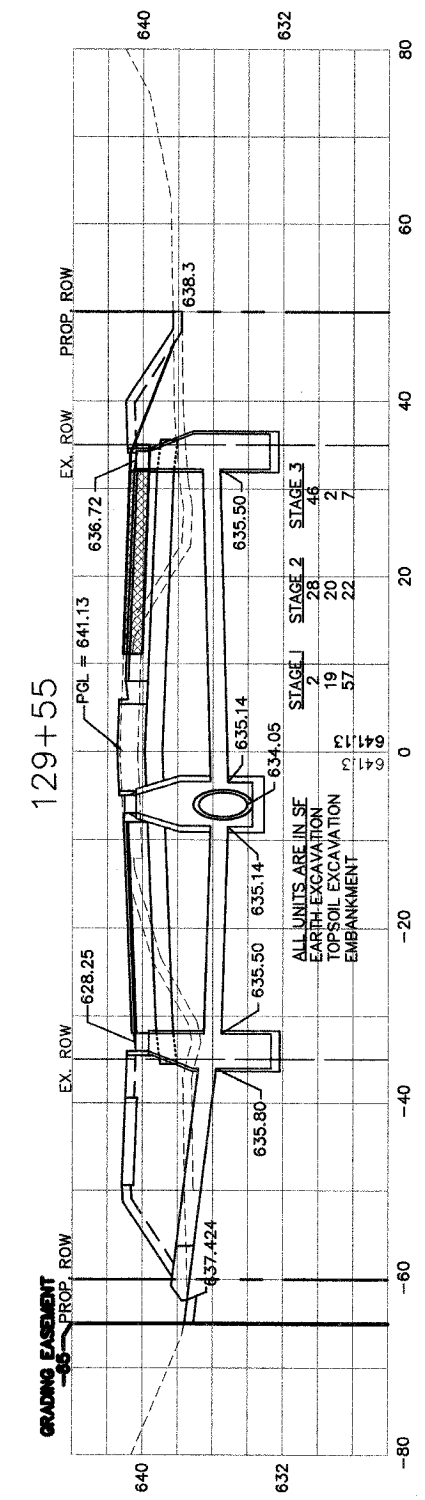
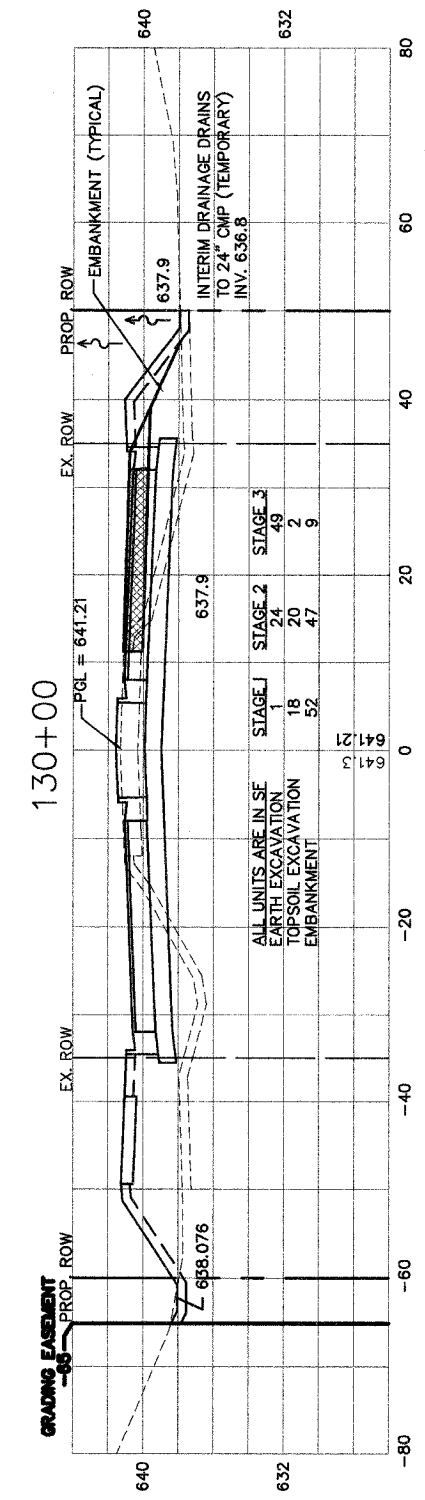
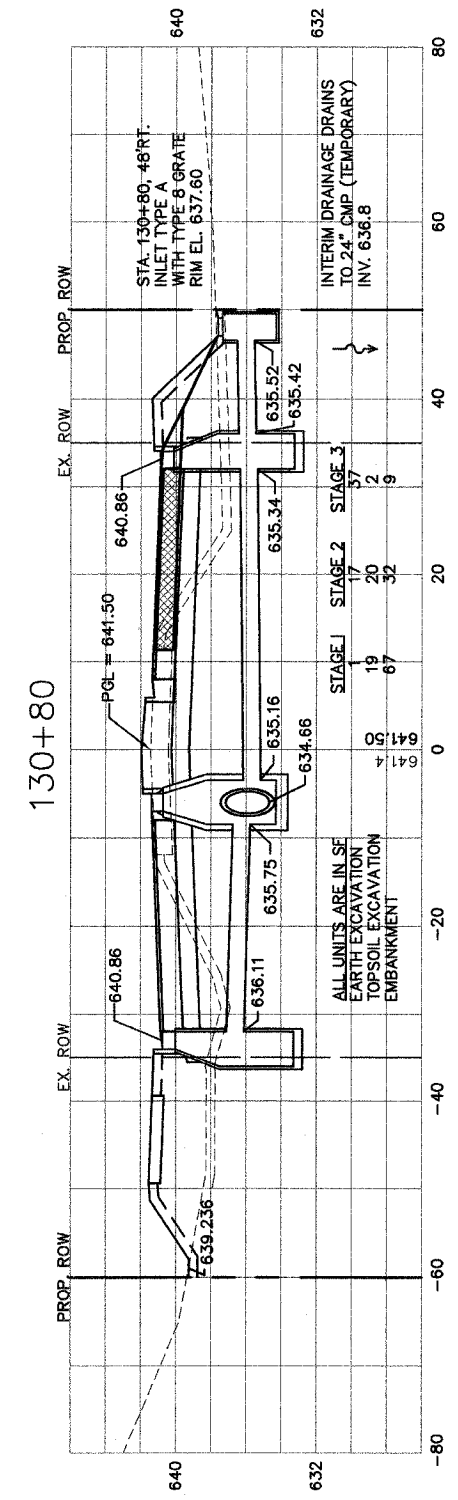
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2545	*	WILL	147	130
FED. ROAD DIST. NO. 7		ALMERS	FED. AID PROJECT	
* 98-00036-19-FP CONTRACT NO. 83896				



TEMPORARY PAVEMENT
 ID INTERIM DRAINAGE

WILL COUNTY DEPARTMENT OF HIGHWAYS			
PLAINFIELD-NAPERVILLE ROAD (C.H. 14)			
ROADWAY RECONSTRUCTION			
CROSS SECTIONS			
STA 124+00 TO STA 127+00			
McDonough Associates Inc. Engineers/Architects		DESIGNED BY: RJE CHECKED BY: NJL DRAWN BY: RJE	SCALE: HORIZ: 1"=10' VERT: 1"=5'
NO.	DATE	REVISION	BY

DRAWING ID: G:\20030023 - Plainfield-Naperville Road\dwg\CROSS SECTIONS 9-16.dwg
 PLOT DATE: 07/08/05 - 08:42



TEMPORARY PAVEMENT
ID INTERIM DRAINAGE

NO.	DATE	REVISION	BY

WILL COUNTY DEPARTMENT OF HIGHWAYS
 PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
 ROADWAY RECONSTRUCTION
 CROSS SECTIONS
 STA 128+00 TO STA 130+80

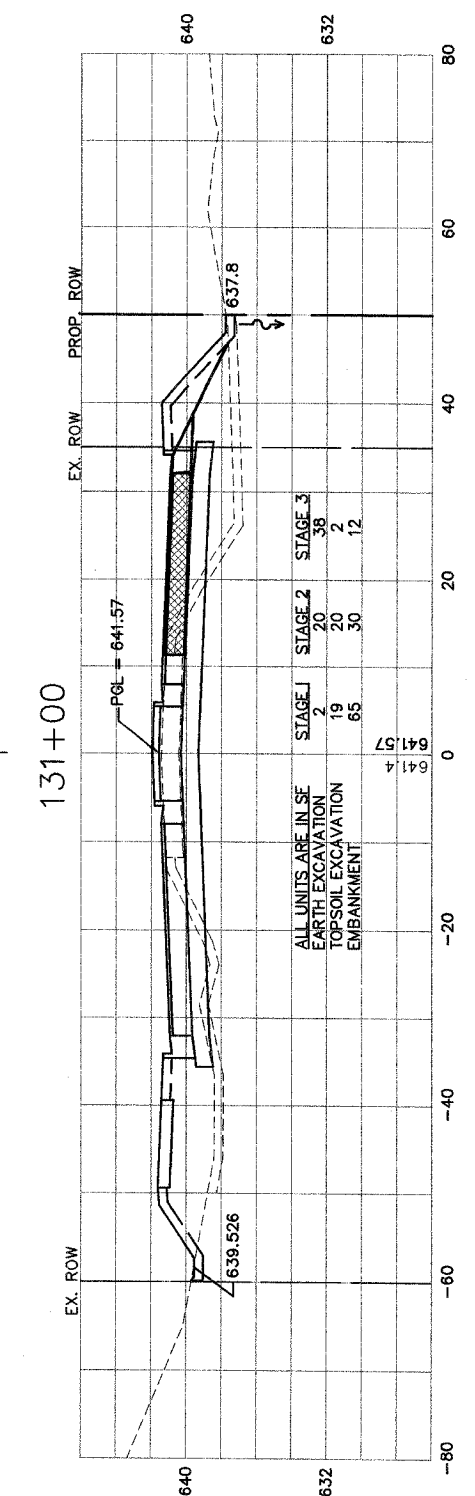
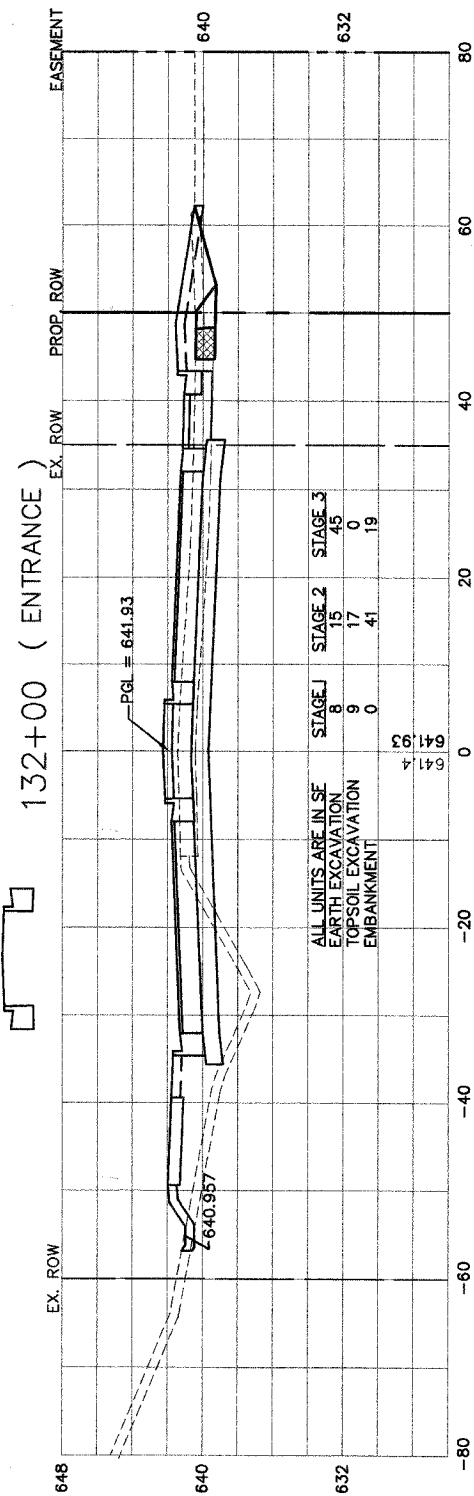
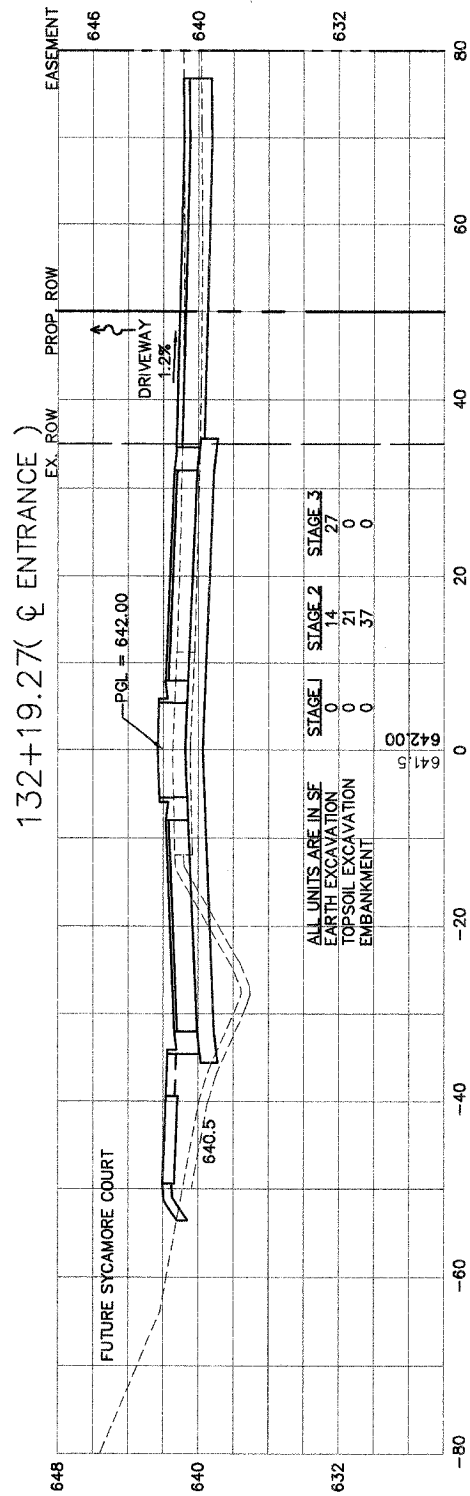
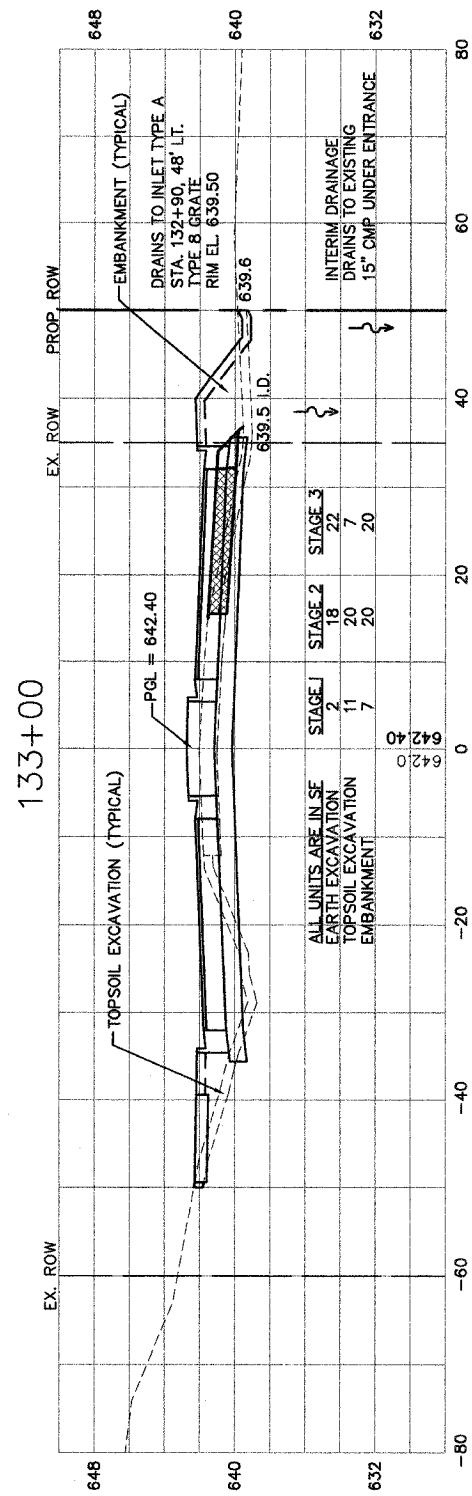
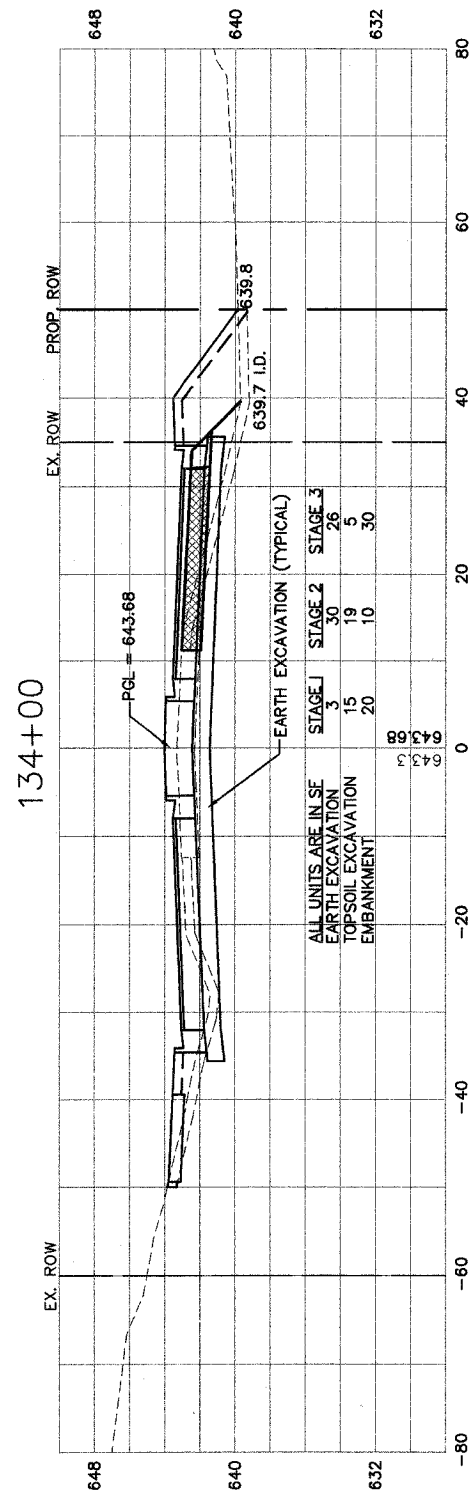
McDonough Associates Inc.
 Engineers/Architects

DESIGNED BY: RJE
 CHECKED BY: NAL
 DRAWN BY: RJE

SCALE:
 HORIZ: 1"=10'
 VERT: 1"=5'

DRAWING ID: G:\20030023 - Plainfield-Naperville Road\dwg\CROSS SECTIONS 9-16.dwg
 PLOT DATE: 07/08/05 - 08:42

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2545	*	WILL	147	132
FEDERAL DIST. NO. 7		ILLINOIS	FED. AID PROJECT	
* 98-00036-19-FP CONTRACT NO. 83896				



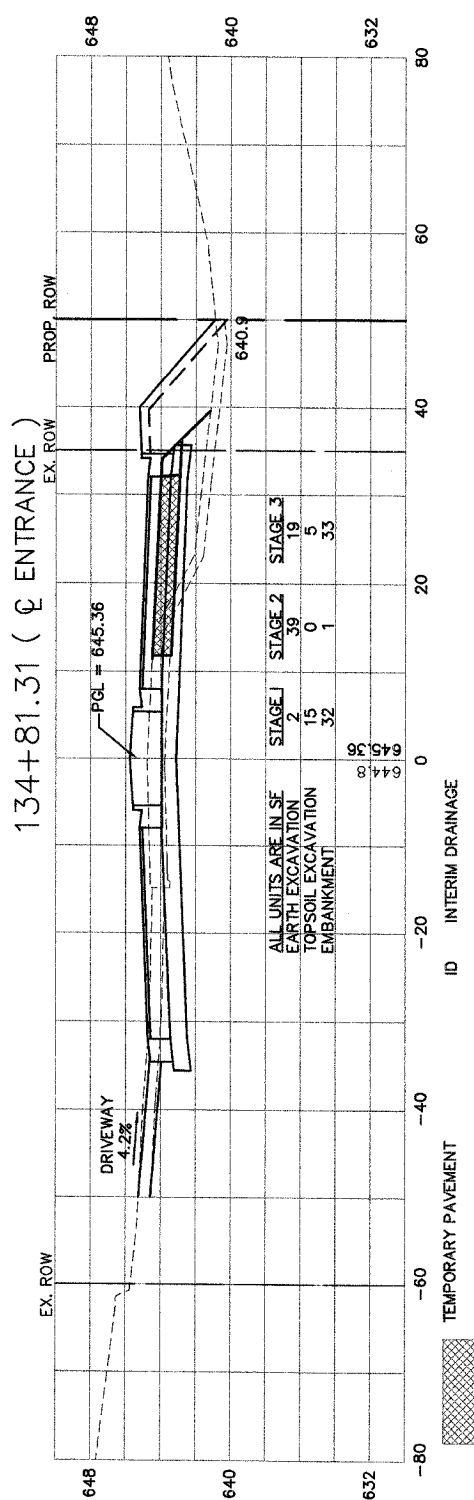
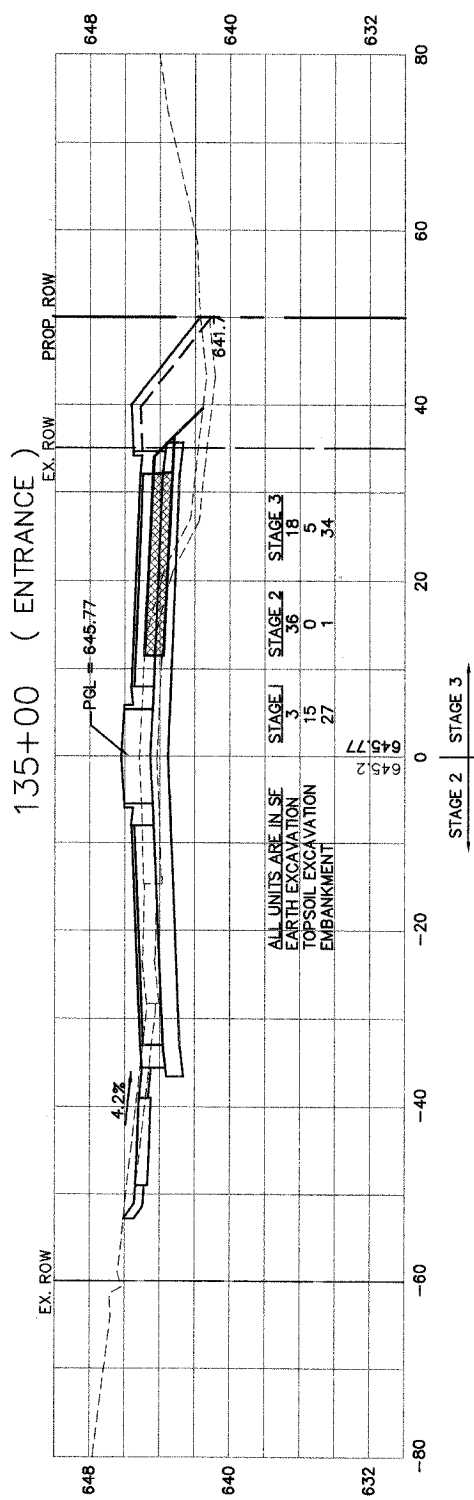
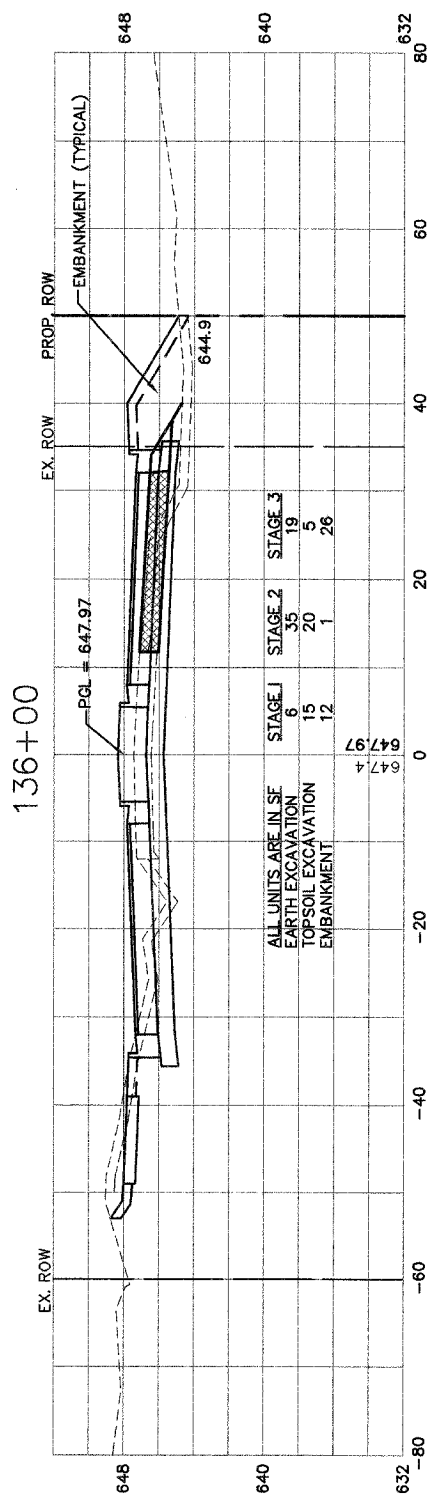
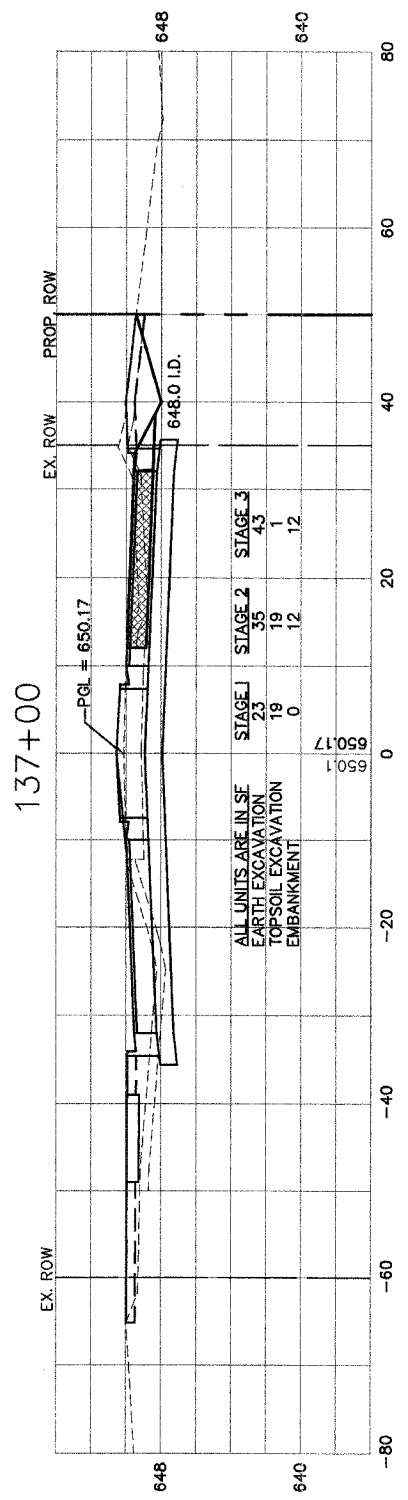
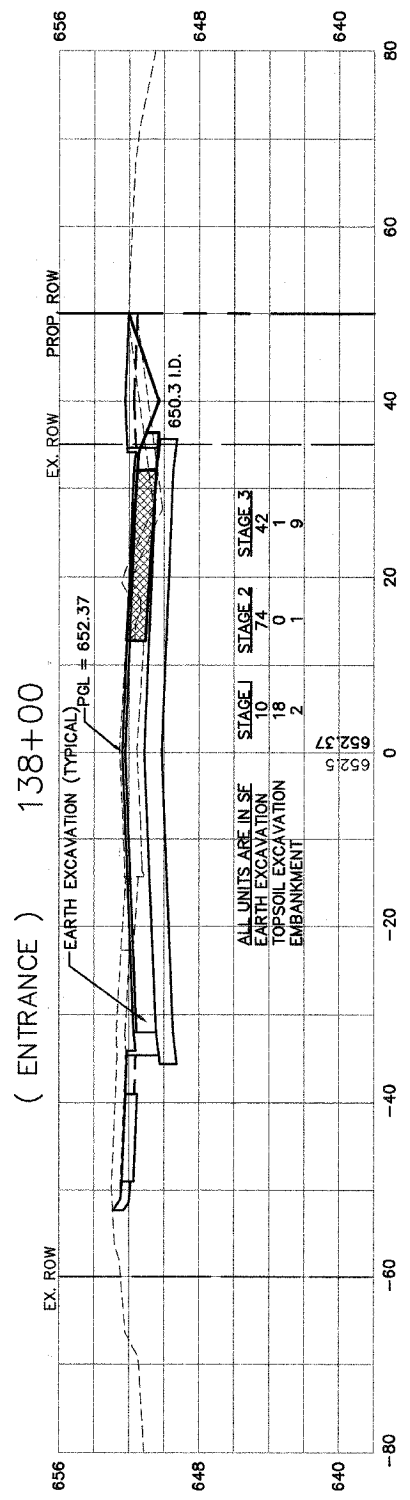
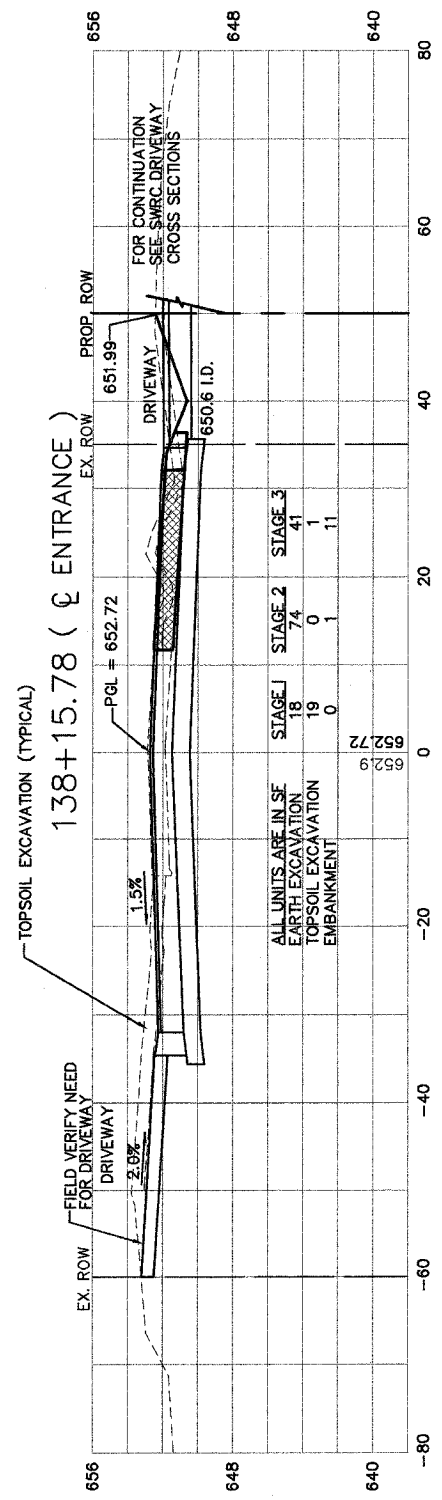
TEMPORARY PAVEMENT
 ID INTERIM DRAINAGE

WILL COUNTY DEPARTMENT OF HIGHWAYS			
PLAINFIELD-NAPERVILLE ROAD (C.H. 14)			
ROADWAY RECONSTRUCTION			
CROSS SECTIONS			
STA 131+00 TO STA 134+00			
DESIGNED BY: RJE		SCALE: HORIZ: 1"=10'	
CHECKED BY: N.J.L.		VERT: 1"=5'	
DRAWN BY: RJE			
NO.	DATE	REVISION	BY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2545	*	WILL	147	133
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

* 98-00036-19-FP CONTRACT NO. 83896

DRAWING ID: G:\20030023 - Plainfield-Naperville Road\dwg\CROSS SECTIONS 9--16.dwg
 PLOT DATE: 07/08/05 - 08:42



NO.	DATE	REVISION	BY

WILL COUNTY DEPARTMENT OF HIGHWAYS
 PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
 ROADWAY RECONSTRUCTION
 CROSS SECTIONS
 STA 134+81.31 TO STA 138+15.78

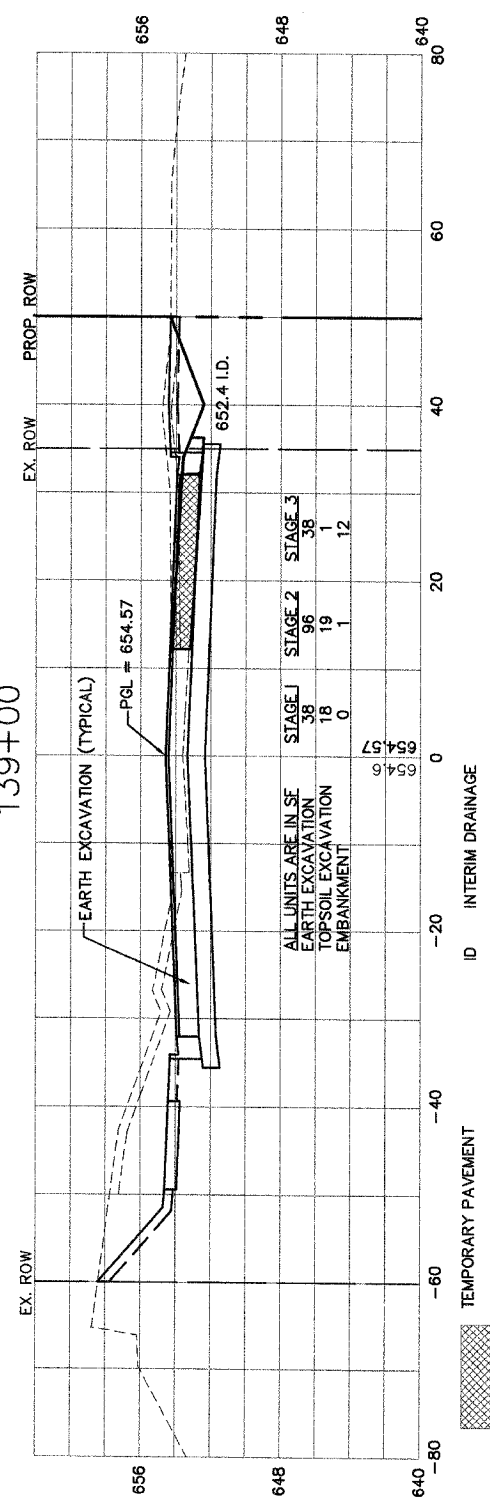
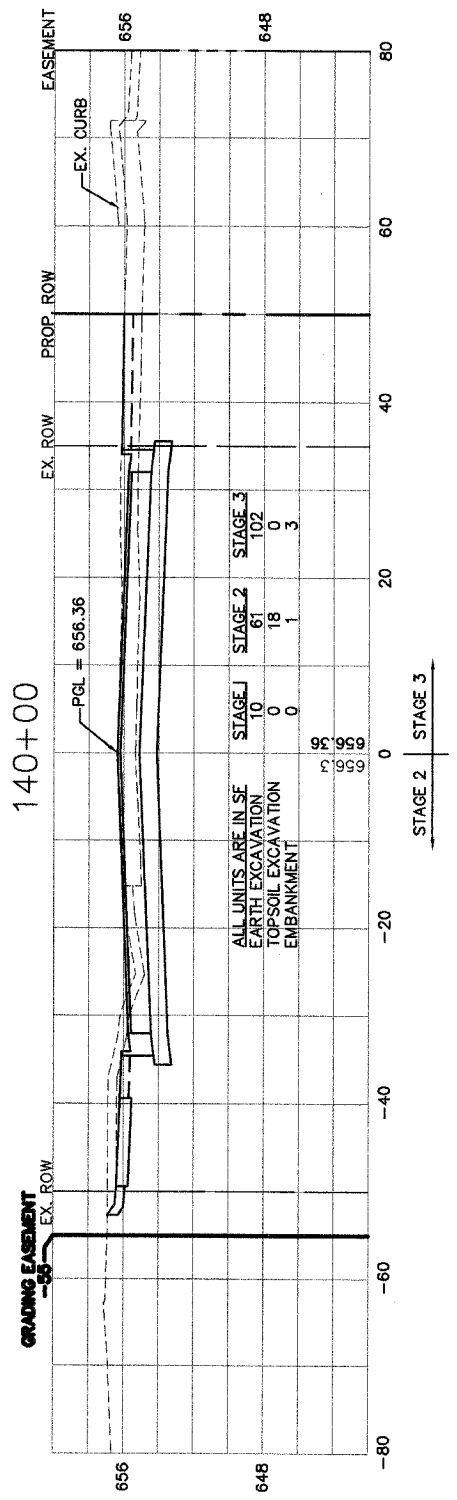
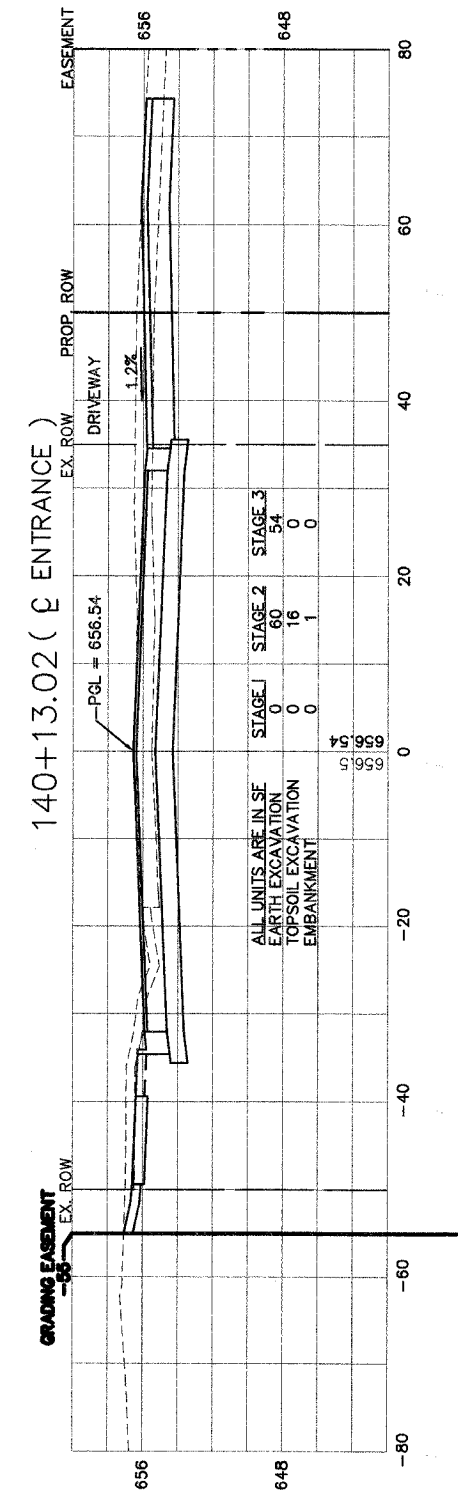
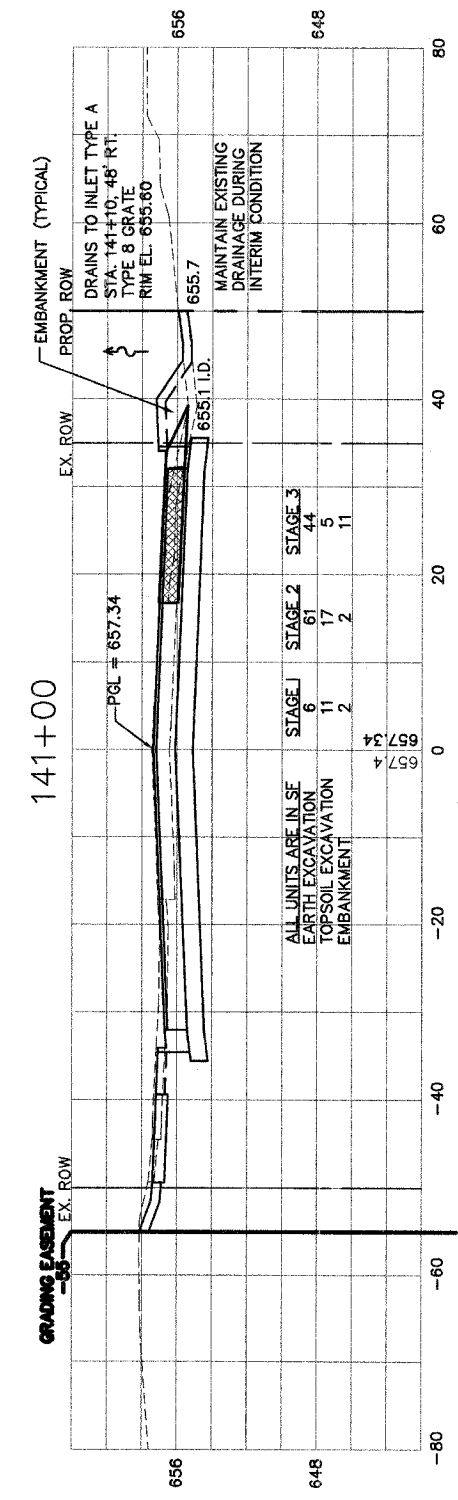
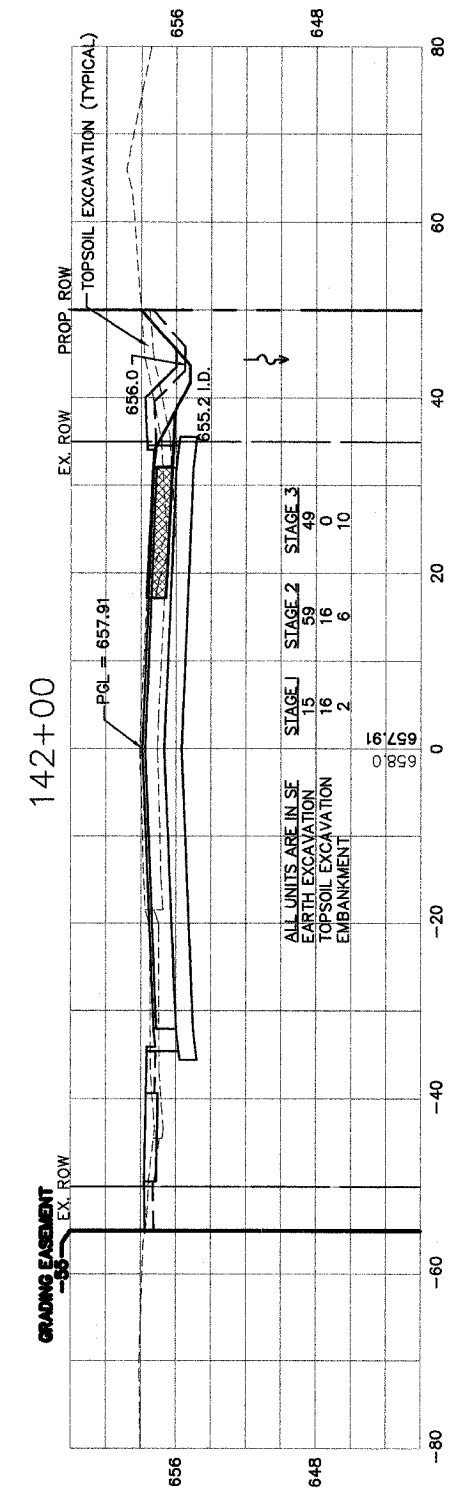
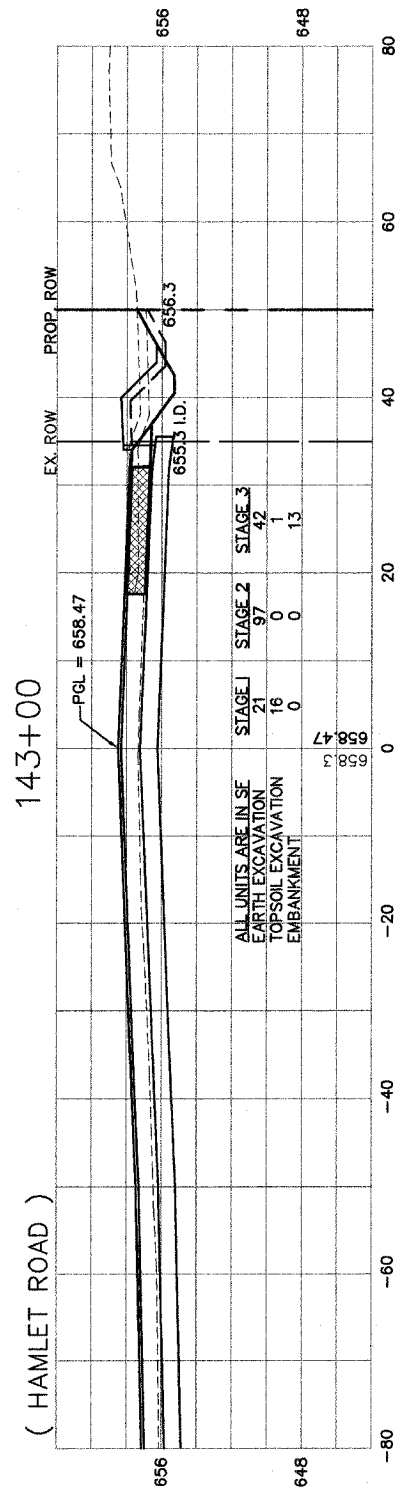
McDonough Associates Inc.
 Engineers/Architects

DESIGNED BY: RJE
 CHECKED BY: NAL
 DRAWN BY: RJE

SCALE:
 HORIZ: 1"=10'
 VERT: 1"=5'

DRAWING ID: G:\20030023 - Plainfield-Naperville Road\dwg\CROSS SECTIONS 9--16.dwg
 PLOT DATE: 07/08/05 - 08:42

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2545	*	WILL	147	134
FED. ROAD DIST. NO. 7	LINE	FED. AID PROJECT		
* 98-00036-19-FP CONTRACT NO. 83896				



NO.	DATE	REVISION	BY

WILL COUNTY DEPARTMENT OF HIGHWAYS
 PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
 ROADWAY RECONSTRUCTION
 CROSS SECTIONS
 STA 139+00 TO STA 143+00

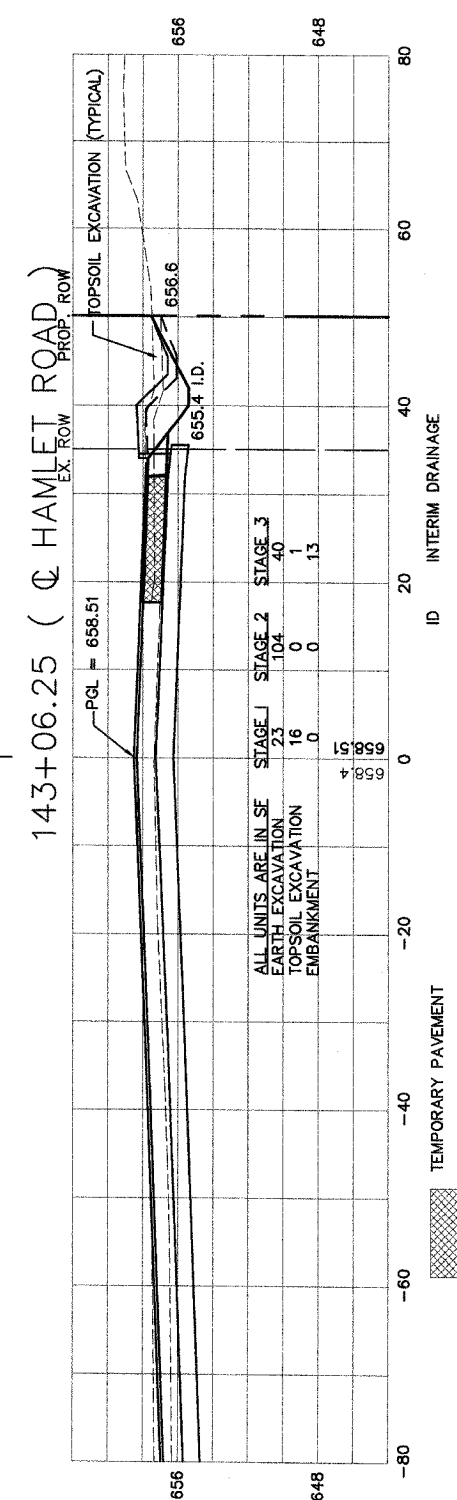
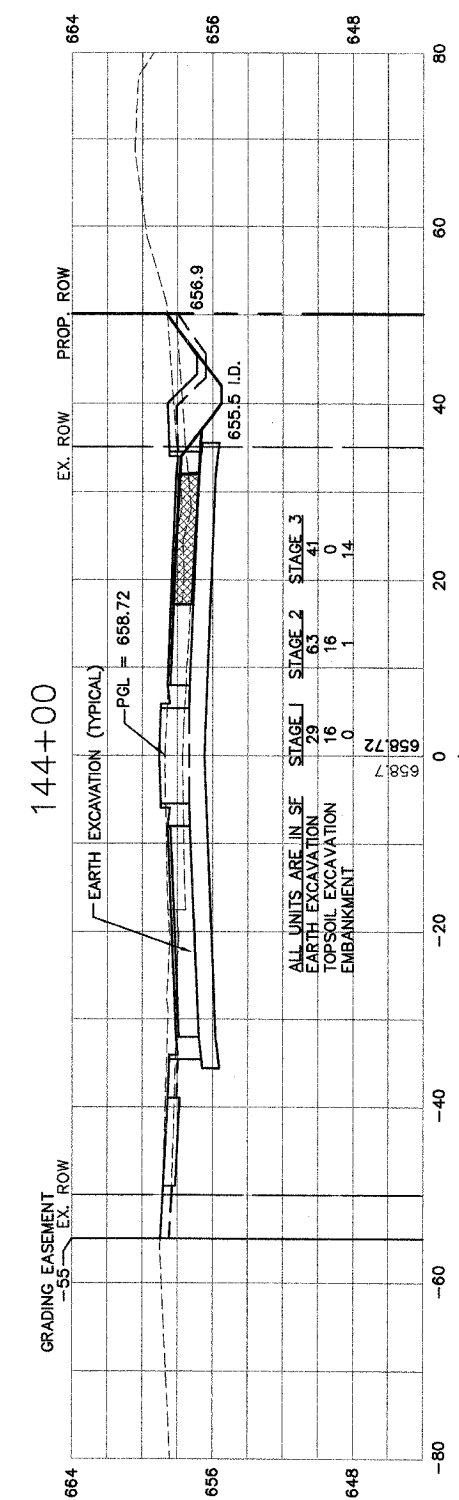
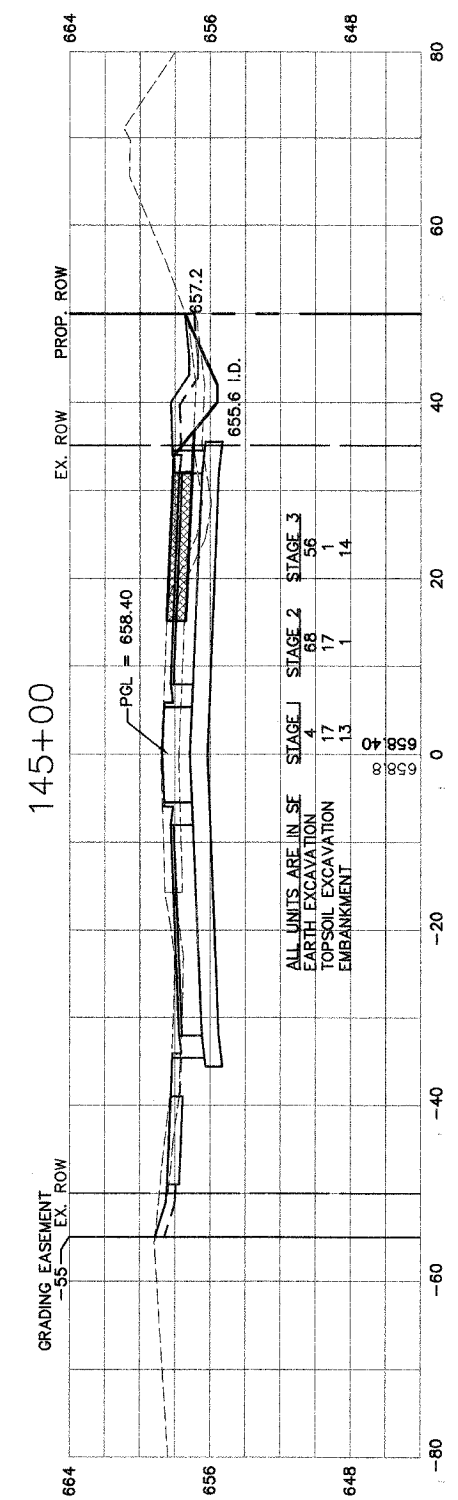
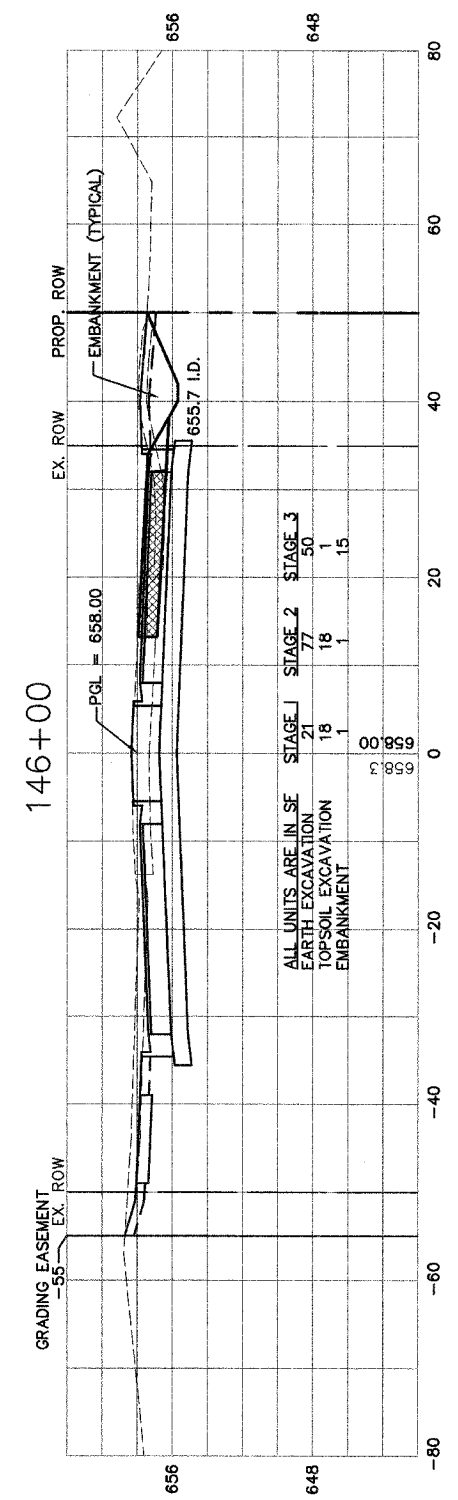
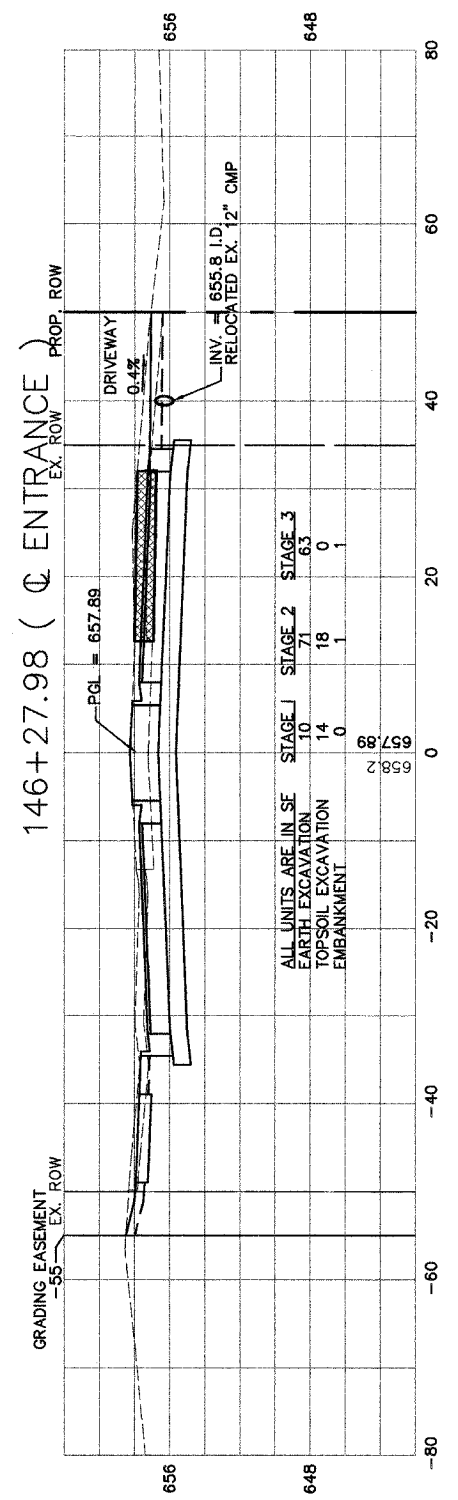
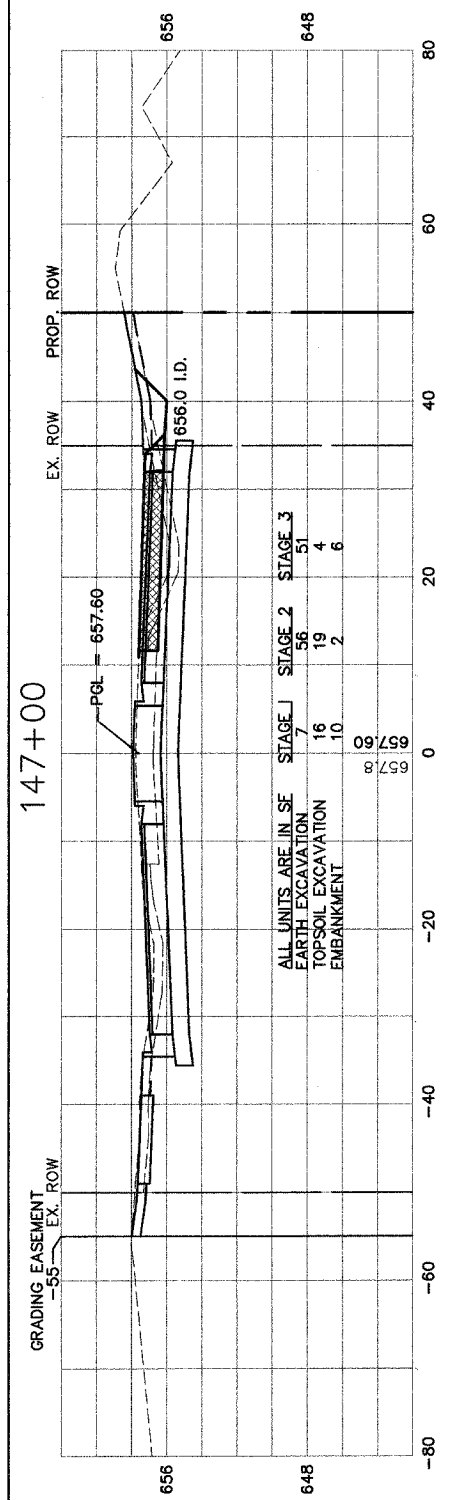
McDonough Associates Inc.
 Engineers/Architects

DESIGNED BY: RJE
 CHECKED BY: NAL
 DRAWN BY: RJE

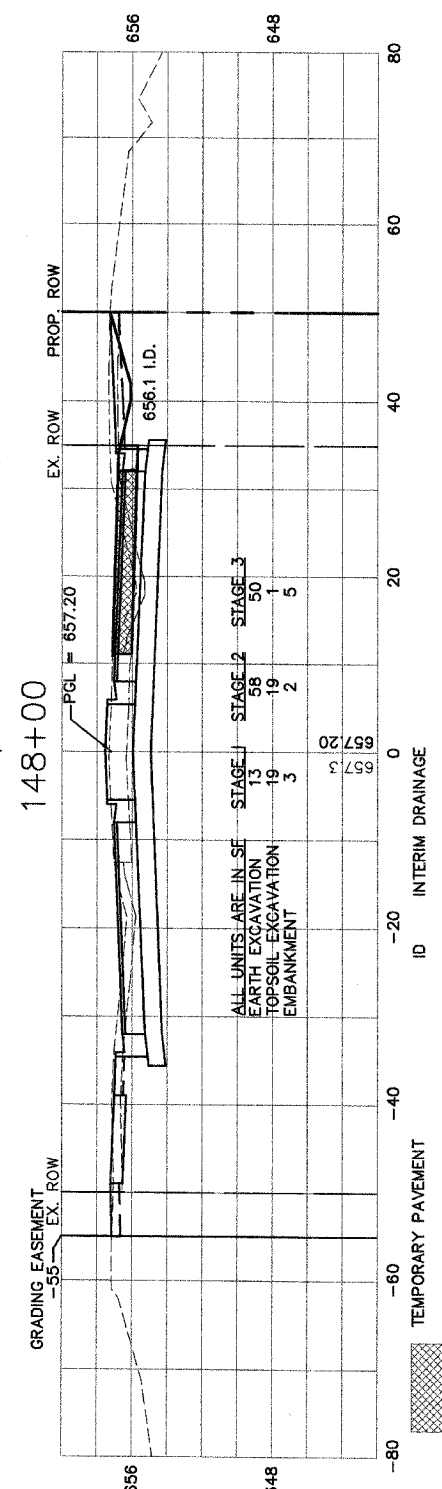
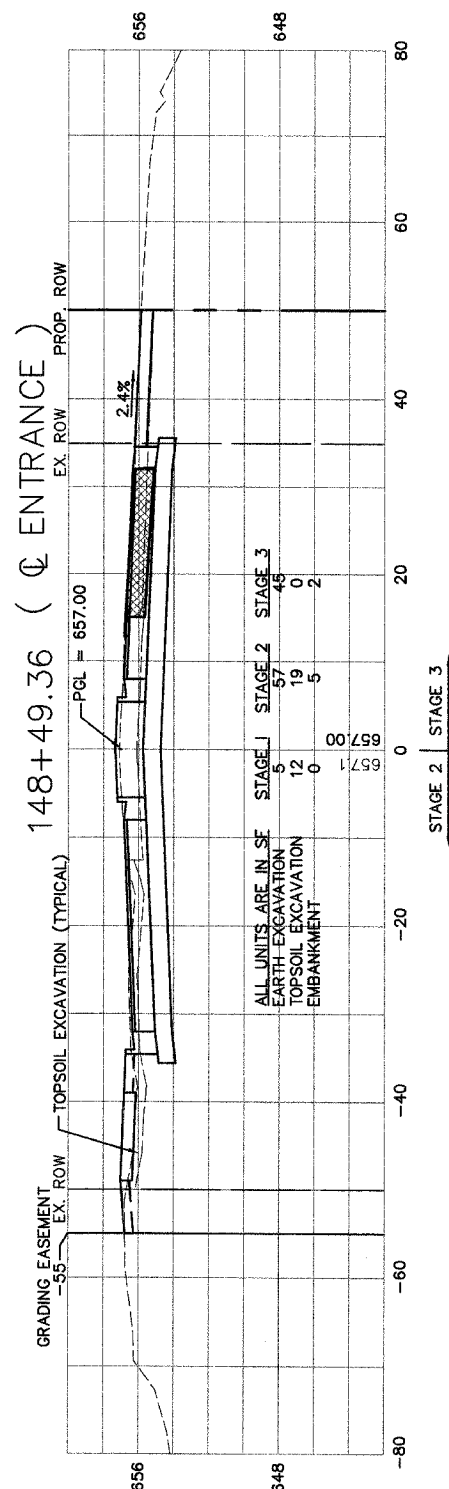
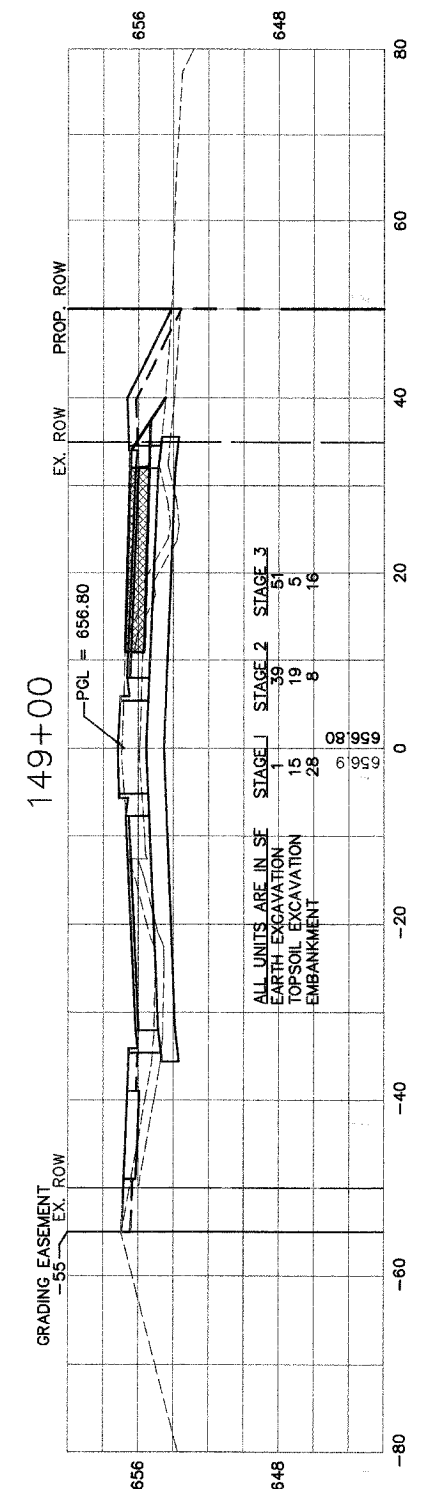
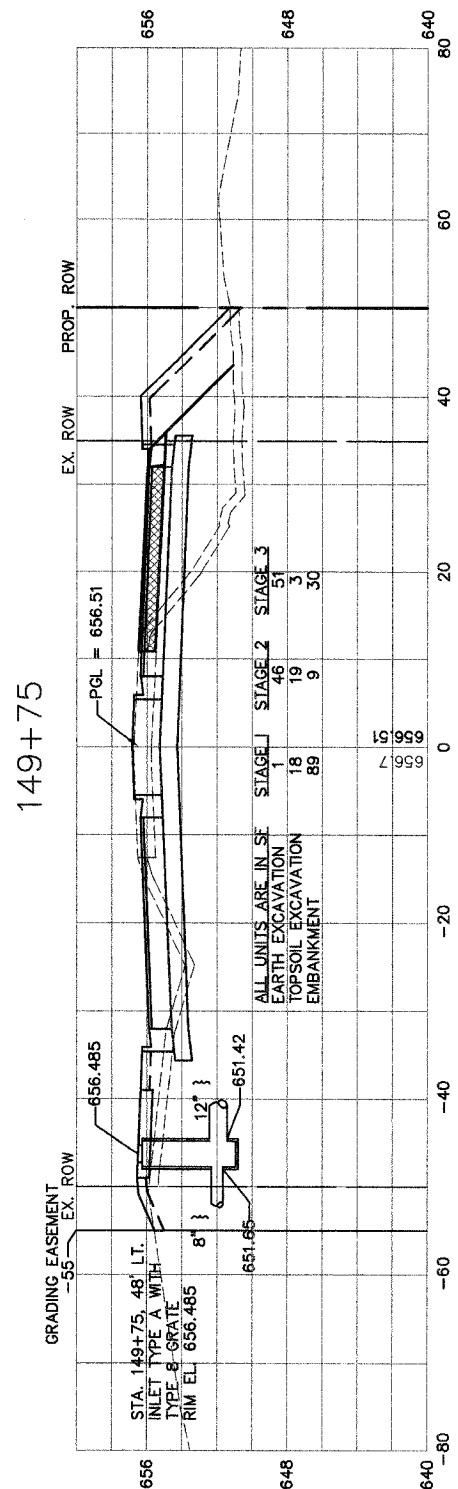
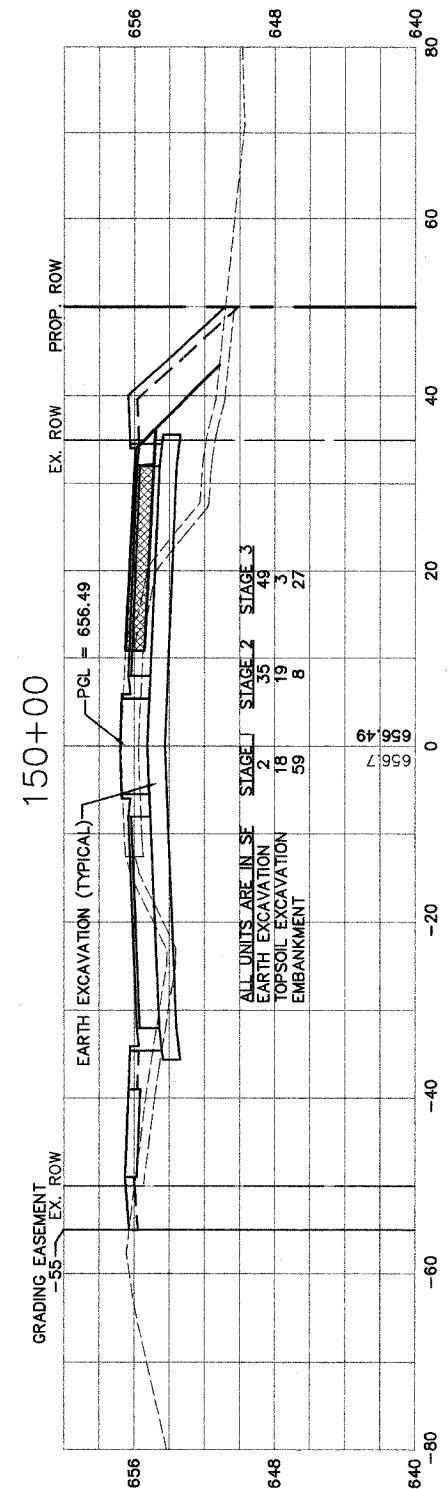
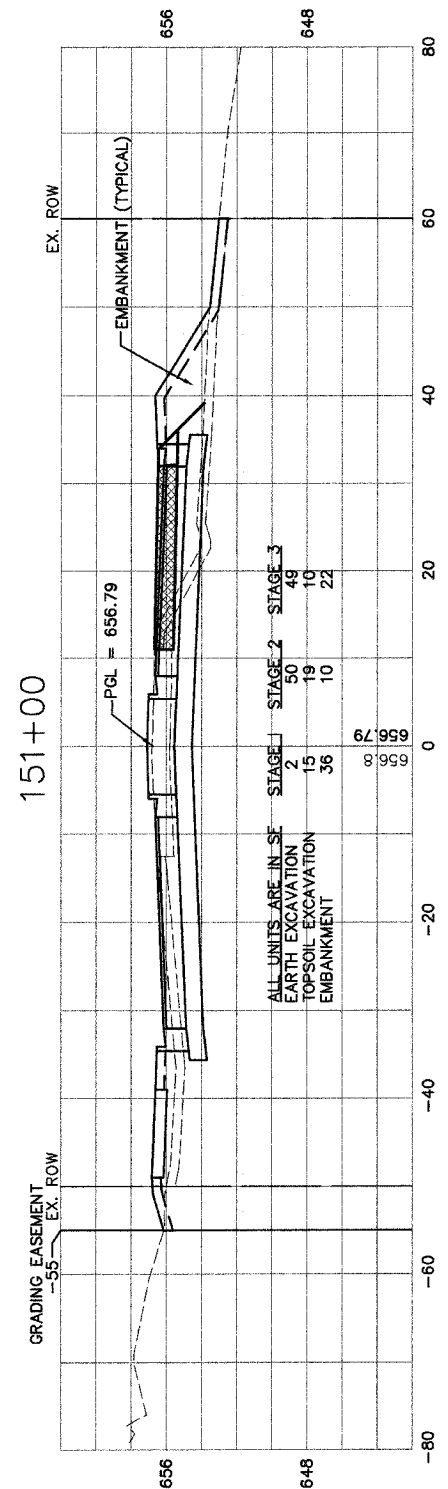
SCALE:
 HORIZ: 1"=10'
 VERT: 1"=5'

DRAWING ID: G:\20030023 - Plainfield-Naperville Road\dwg\CROSS SECTIONS 17-24.dwg
 PLOT DATE: 06/16/05 - 11:43

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2545	*	WILL	147	135
FED. ROAD DIST. NO. 7		ALIGNED	FED. AID PROJECT:	
* 98-00036-19-FP CONTRACT NO. 83896				



WILL COUNTY DEPARTMENT OF HIGHWAYS			
PLAINFIELD-NAPERVILLE ROAD (C.H. 14)			
ROADWAY RECONSTRUCTION			
CROSS SECTIONS			
STA 143+06.25 TO STA 147+00			
McDonough Associates Inc. Engineers/Architects		DESIGNED BY: RJE CHECKED BY: NUL DRAWN BY: RJE	SCALE: HORIZ: 1"=10' VERT: 1"=5'



NO.	DATE	REVISION	BY

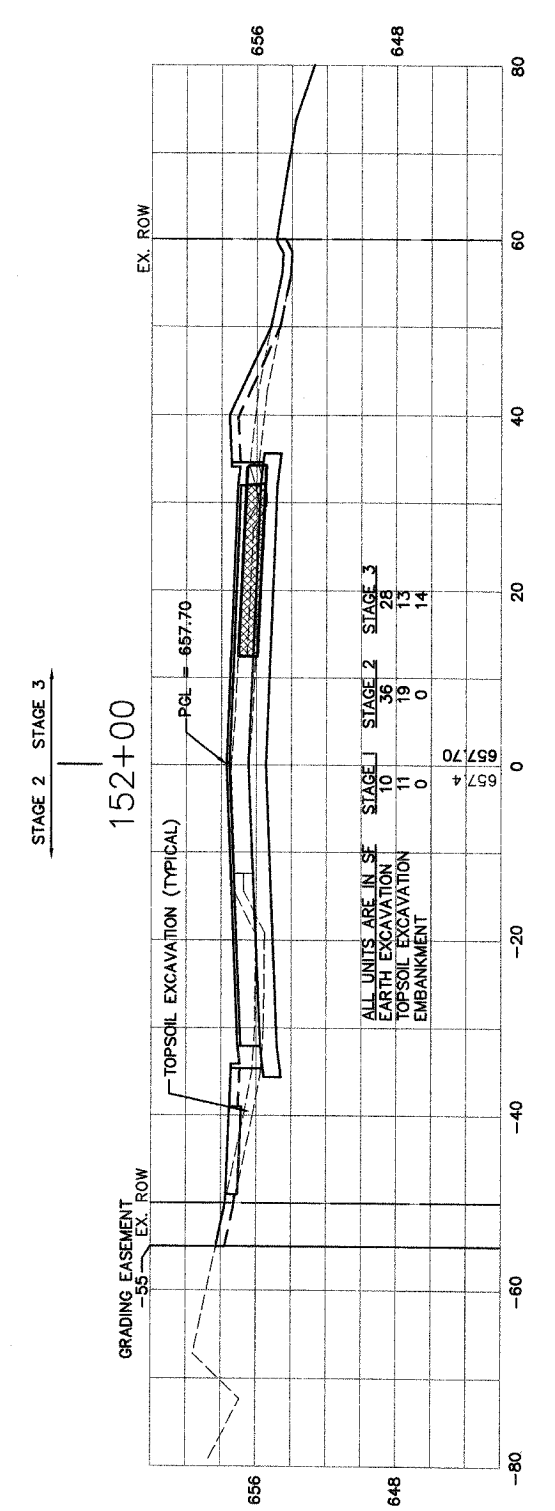
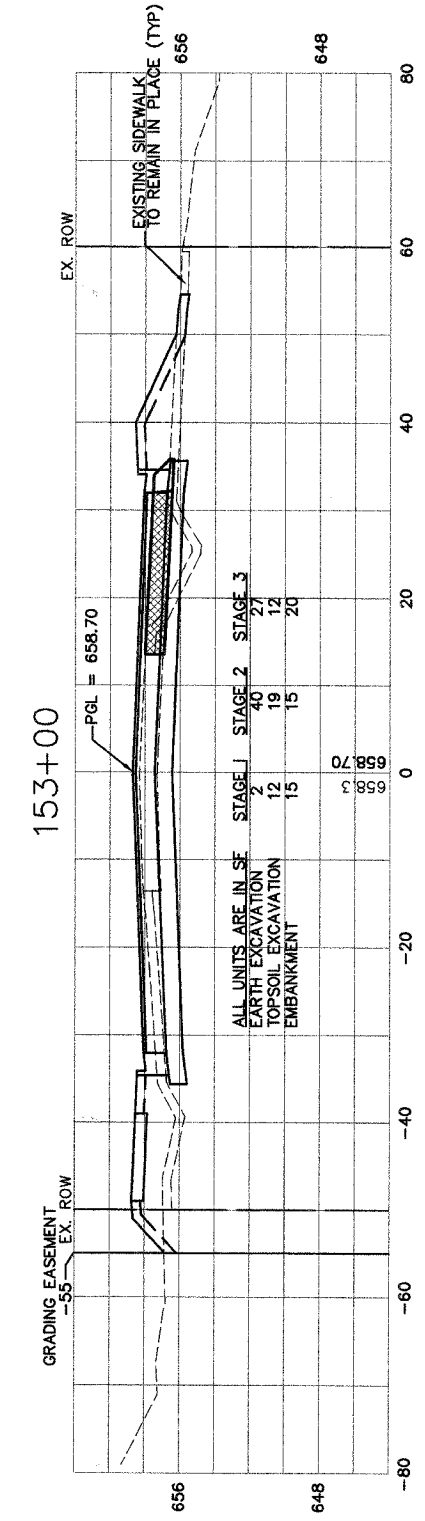
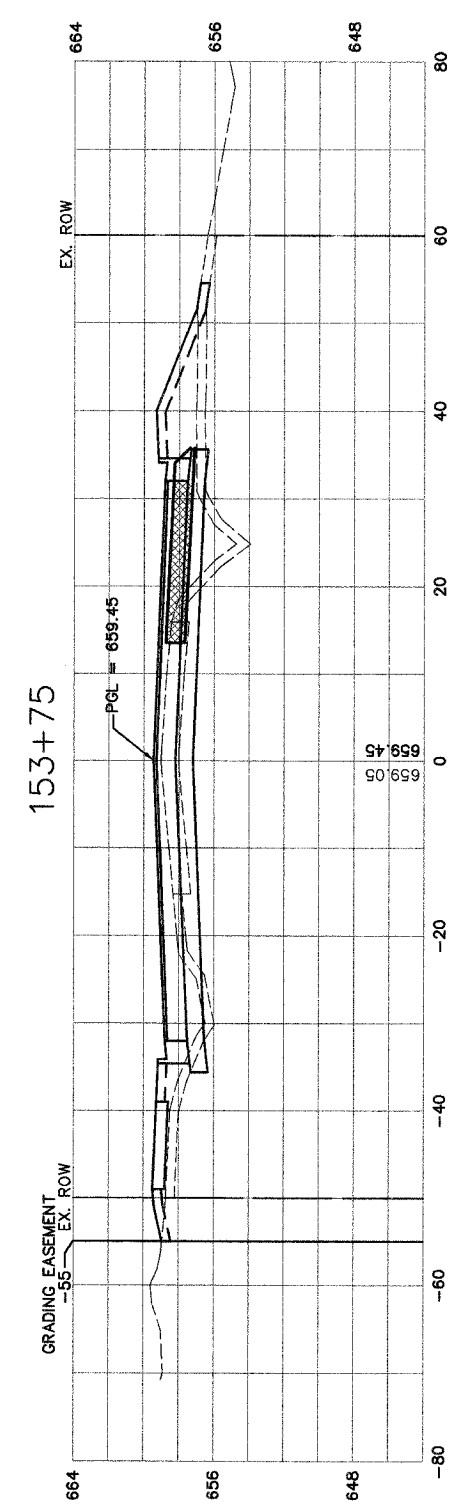
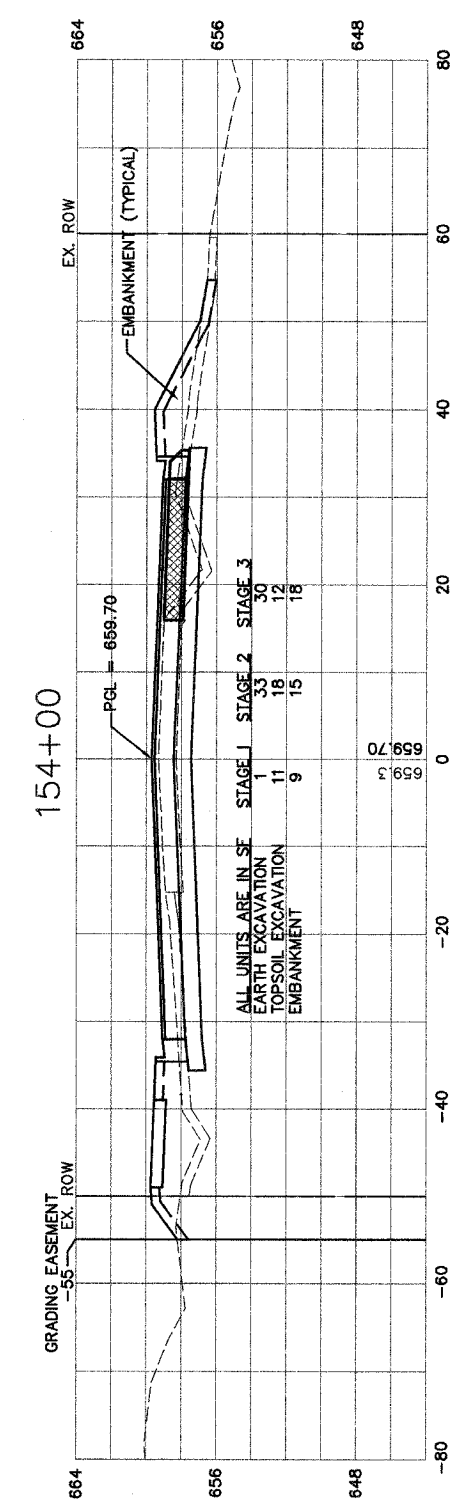
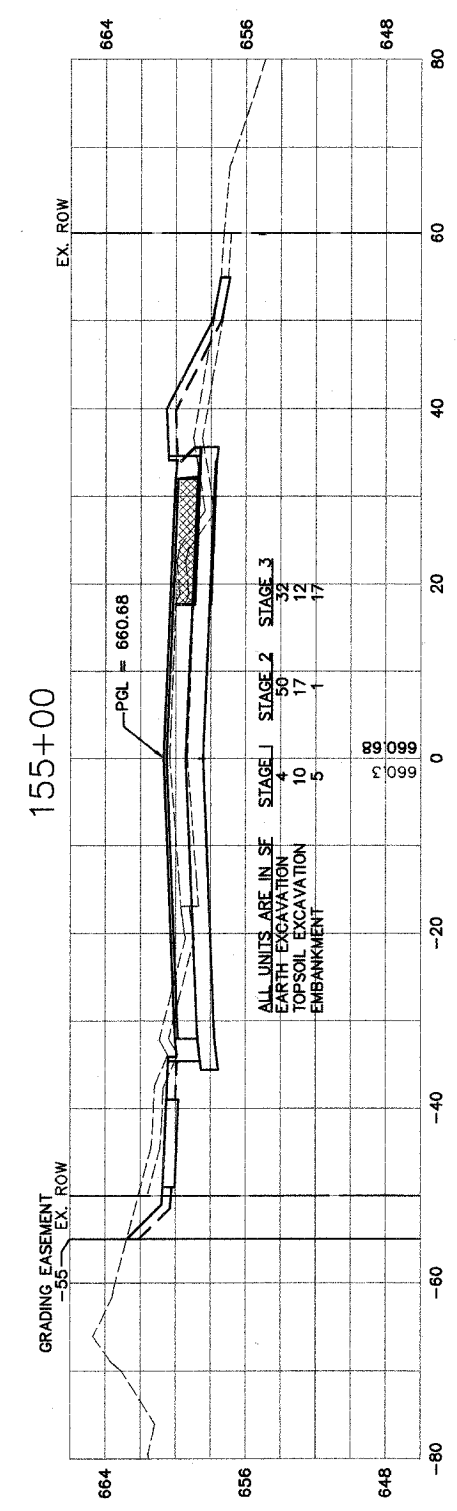
WILL COUNTY DEPARTMENT OF HIGHWAYS
 PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
 ROADWAY RECONSTRUCTION
 CROSS SECTIONS
 STA 148+00 TO STA 151+00

McDonough Associates Inc.
 Engineers/Architects

DESIGNED BY: RJE
 CHECKED BY: N/L
 DRAWN BY: RJE

SCALE:
 HORIZ: 1"=10'
 VERT: 1"=5'

DRAWING ID: G:\20030023 - Plainfield-Naperville Road\dwg\CROSS SECTIONS 17-24.dwg
 PLOT DATE: 06/16/05 - 11:43



TEMPORARY PAVEMENT ID INTERIM DRAINAGE

WILL COUNTY DEPARTMENT OF HIGHWAYS			
PLAINFIELD-NAPERVILLE ROAD (C.H. 14)			
ROADWAY RECONSTRUCTION			
CROSS SECTIONS			
STA 152+00 TO STA 155+00			
DESIGNED BY: RJE		SCALE: HORIZ: 1"=10'	
CHECKED BY: N.L.		VERT: 1"=5'	
DRAWN BY: RJE			

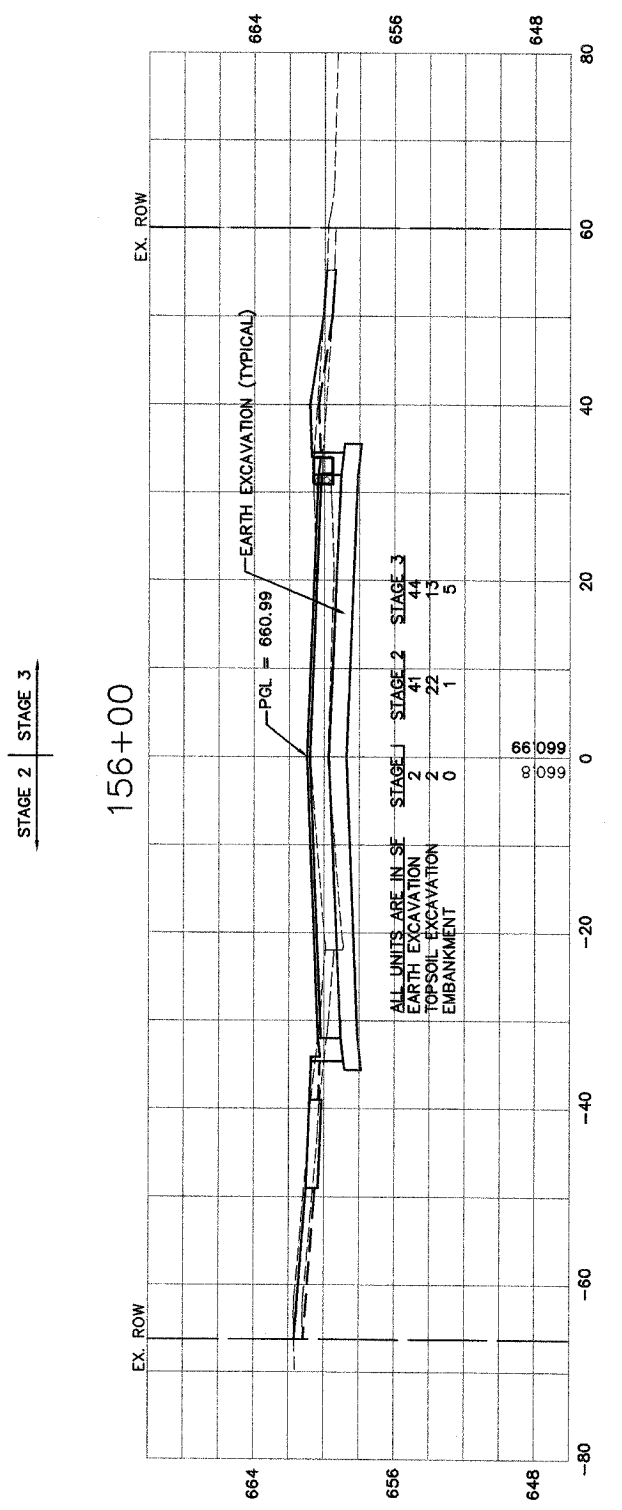
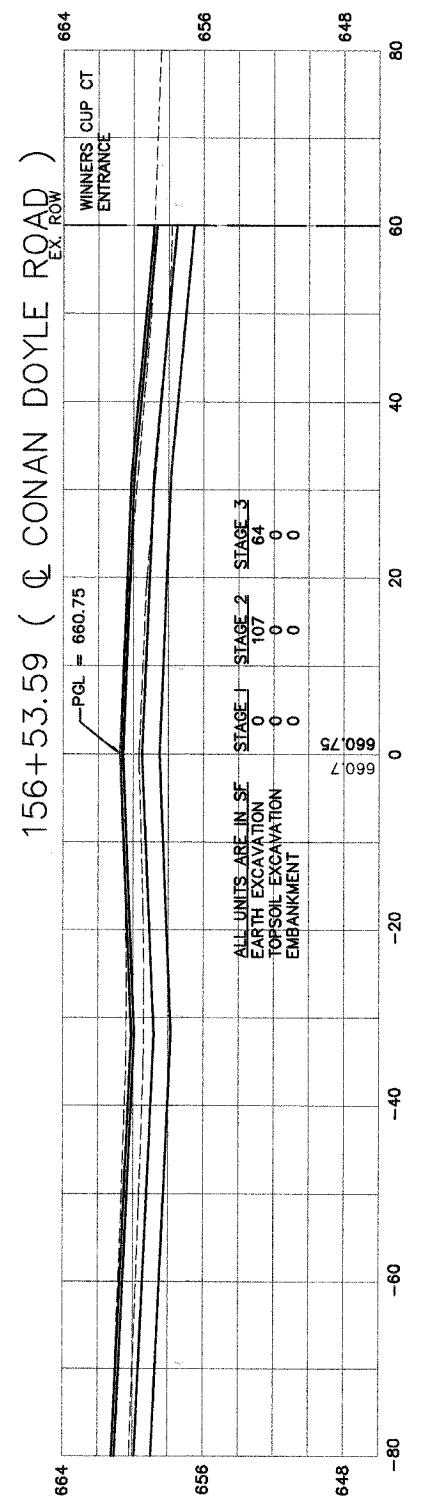
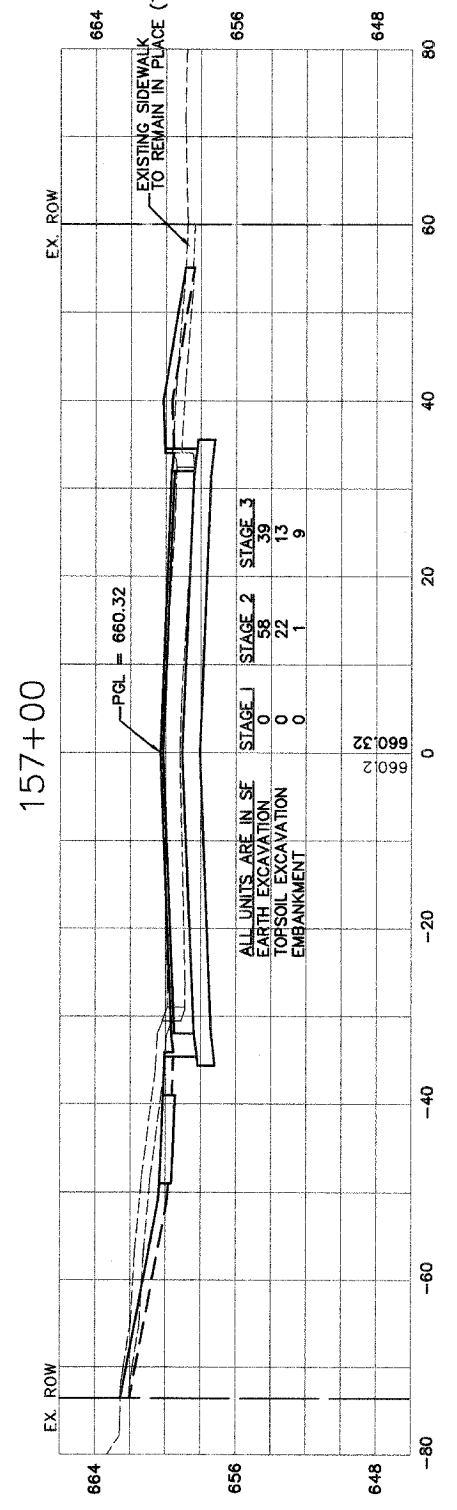
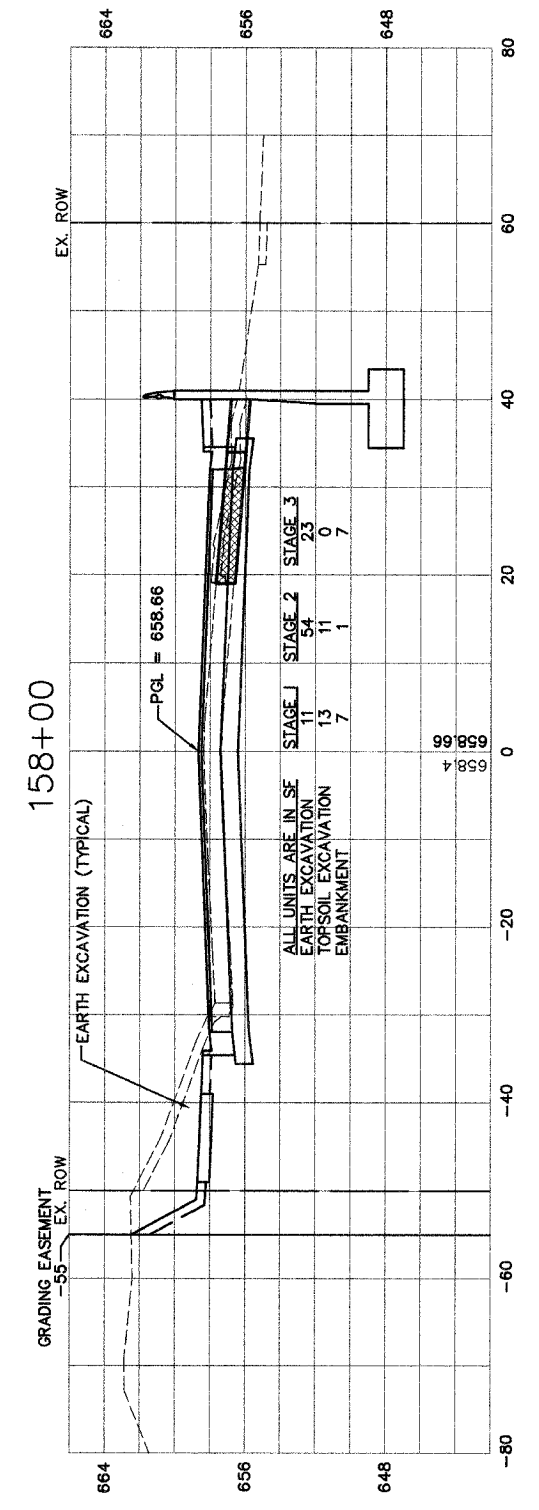
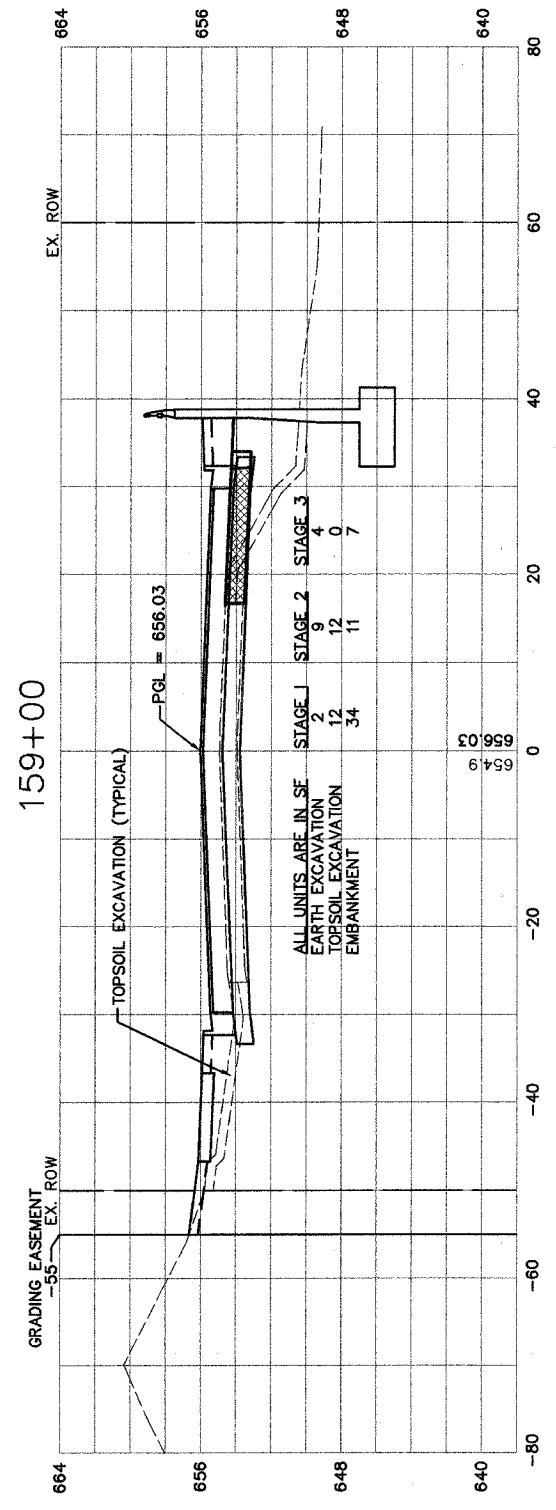
McDonough Associates Inc. Engineers/Architects

NO.	DATE	REVISION	BY

DRAWING ID: G:\20030023 - Plainfield-Naperville Road\dwg\CROSS SECTIONS 17-24.dwg
 PLOT DATE: 06/16/05 - 11:43

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2545	*	WILL	147	13B
FED. ROAD DIST. NO. 7	LINE	FED. AID PROJECT		

* 98-00036-19-FP CONTRACT NO. 83896



TEMPORARY PAVEMENT ID INTERIM DRAINAGE

NO.	DATE	REVISION	BY

WILL COUNTY DEPARTMENT OF HIGHWAYS
 PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
 ROADWAY RECONSTRUCTION
 CROSS SECTIONS
 STA 156+00 TO 159+00

McDonough Associates Inc.
 Engineers/Architects

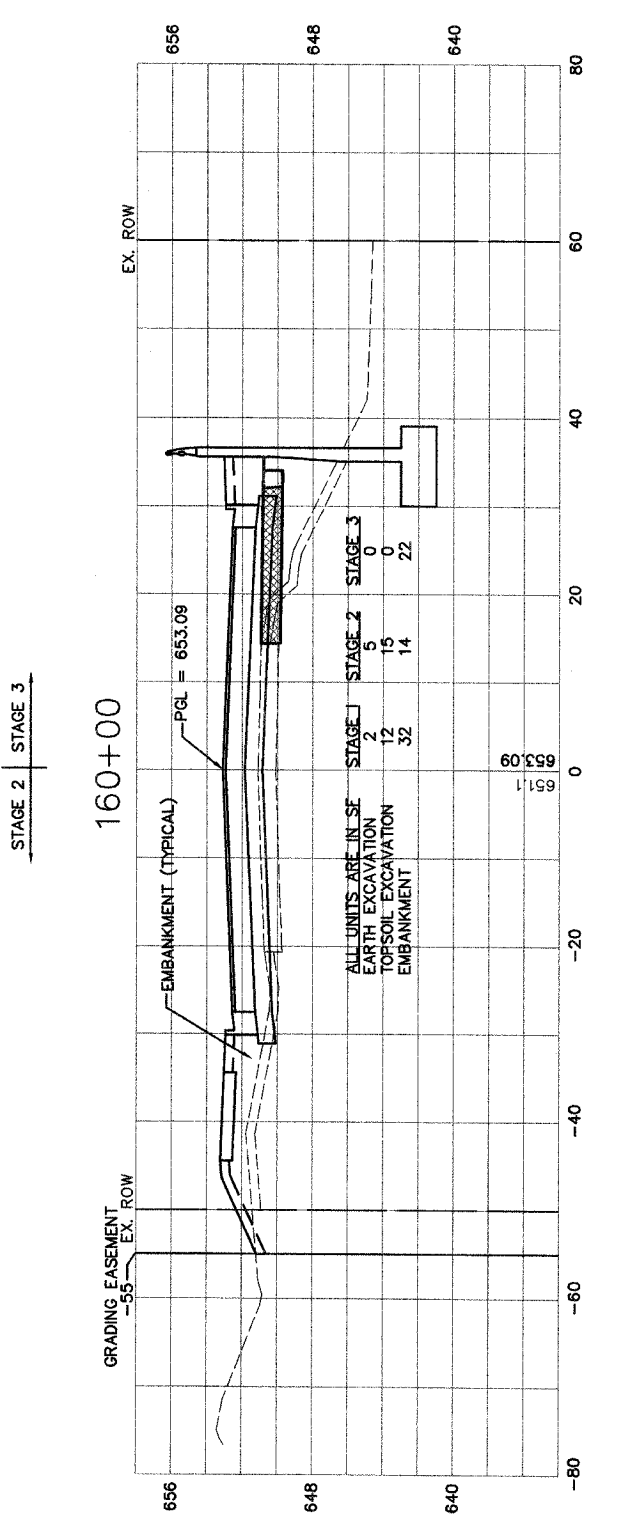
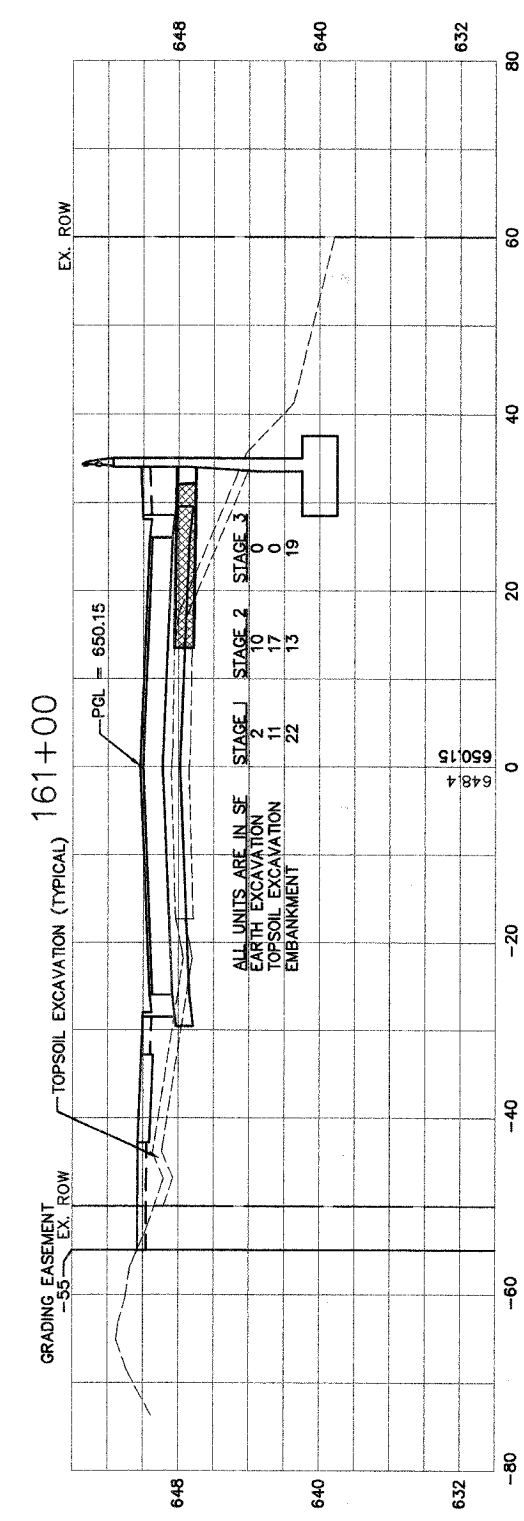
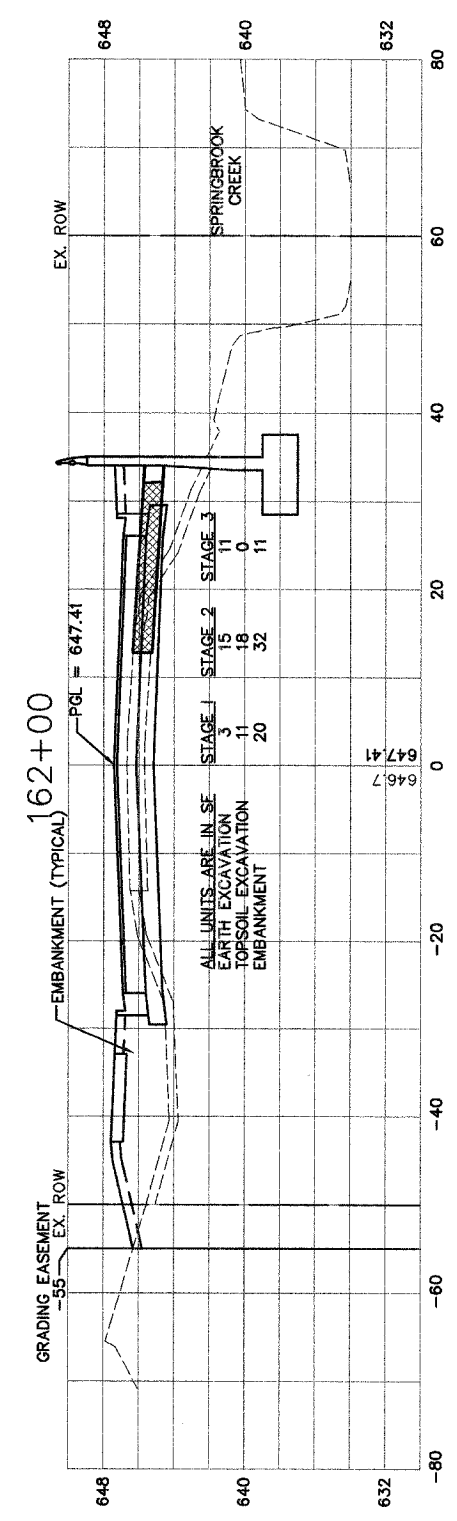
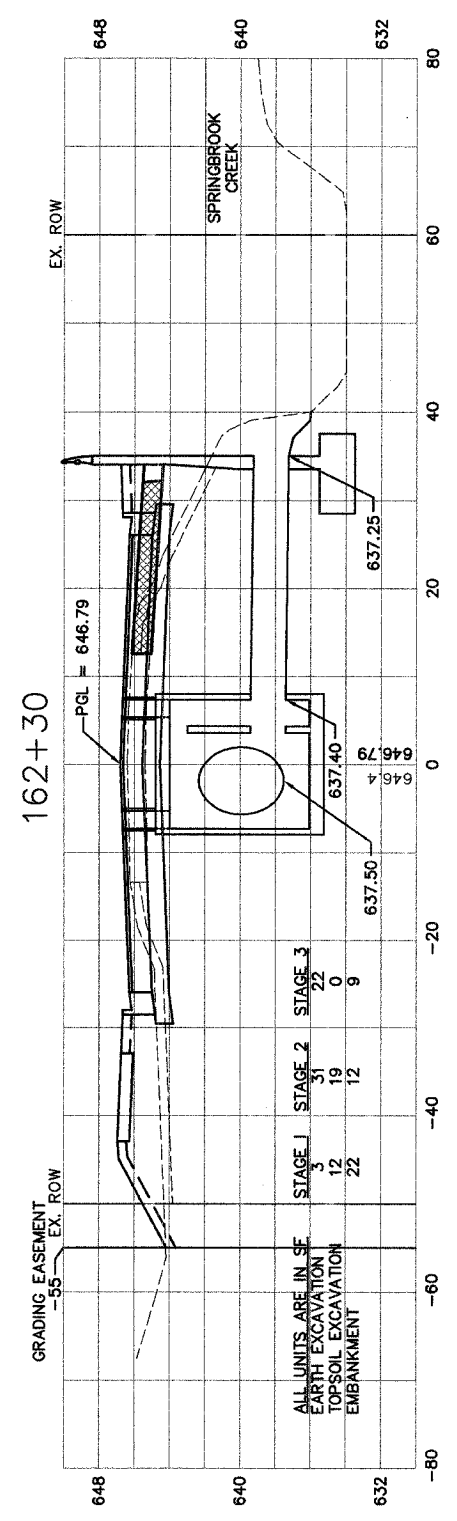
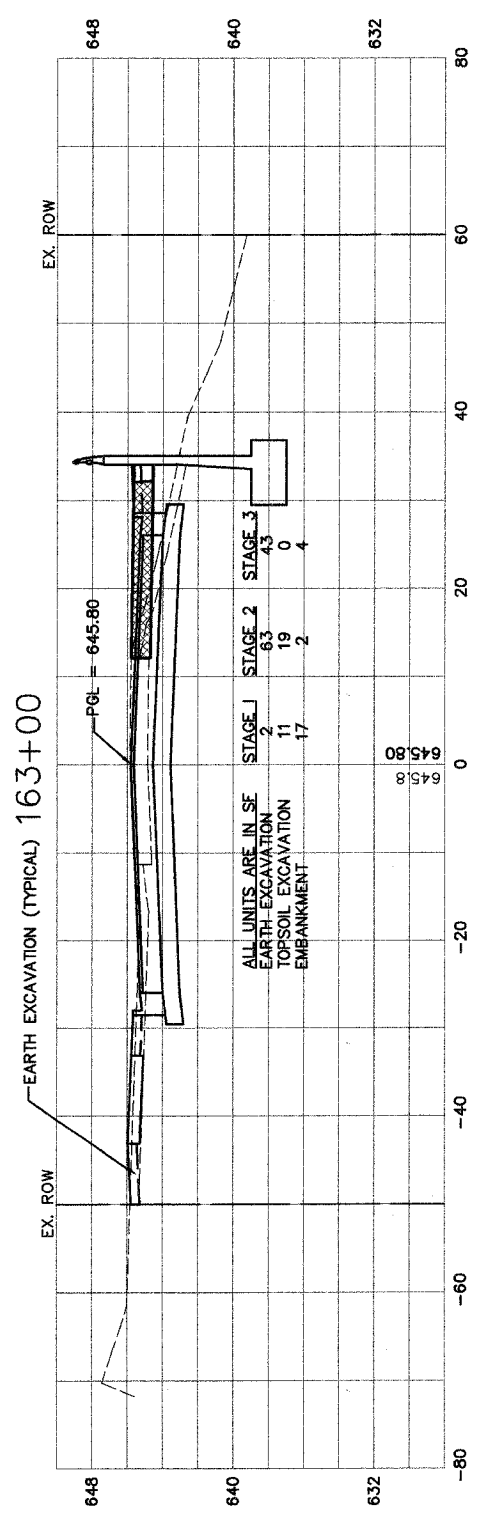
DESIGNED BY: RJE
 CHECKED BY: NJL
 DRAWN BY: RJE

SCALE:
 HORIZ: 1"=10'
 VERT: 1"=5'

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2545	*	WILL	147	139
FEDERAL DIST. NO. 7	ALABAMA	FED. AID PROJECT		

* 98-00036-19-FP CONTRACT NO. 83896

DRAWING ID: G:\20030023 - Plainfield-Naperville Road\dwg\CROSS SECTIONS 17-24.dwg
 PLOT DATE: 06/16/05 - 11:43



TEMPORARY PAVEMENT
 ID
 INTERIM DRAINAGE

NO.	DATE	REVISION	BY

WILL COUNTY DEPARTMENT OF HIGHWAYS
 PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
 ROADWAY RECONSTRUCTION
 CROSS SECTIONS
 STA 160+00 TO STA 163+00

McDonough Associates Inc.
 Engineers/Architects

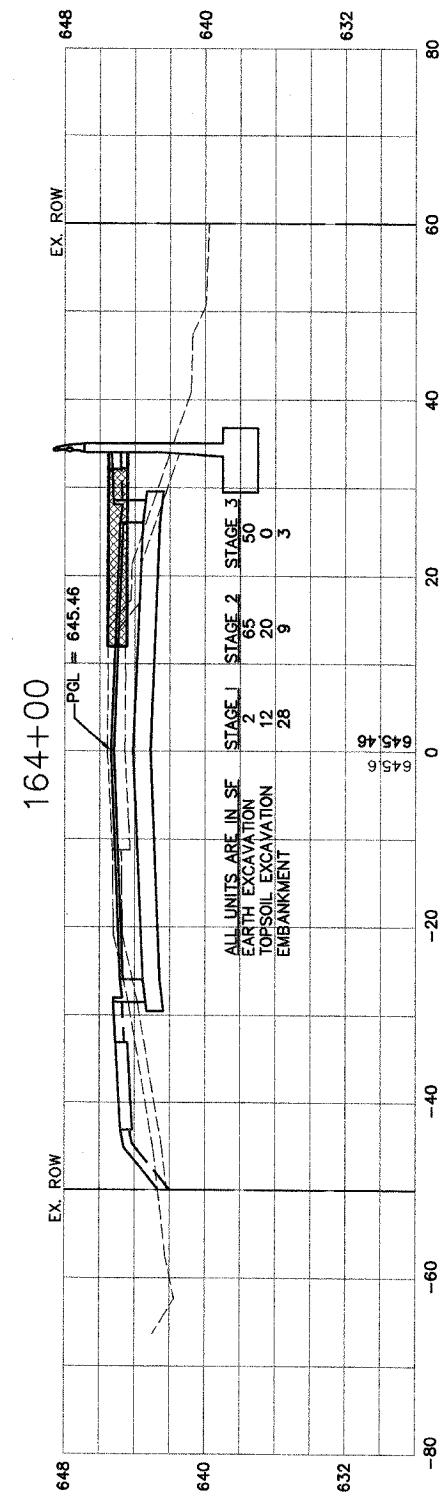
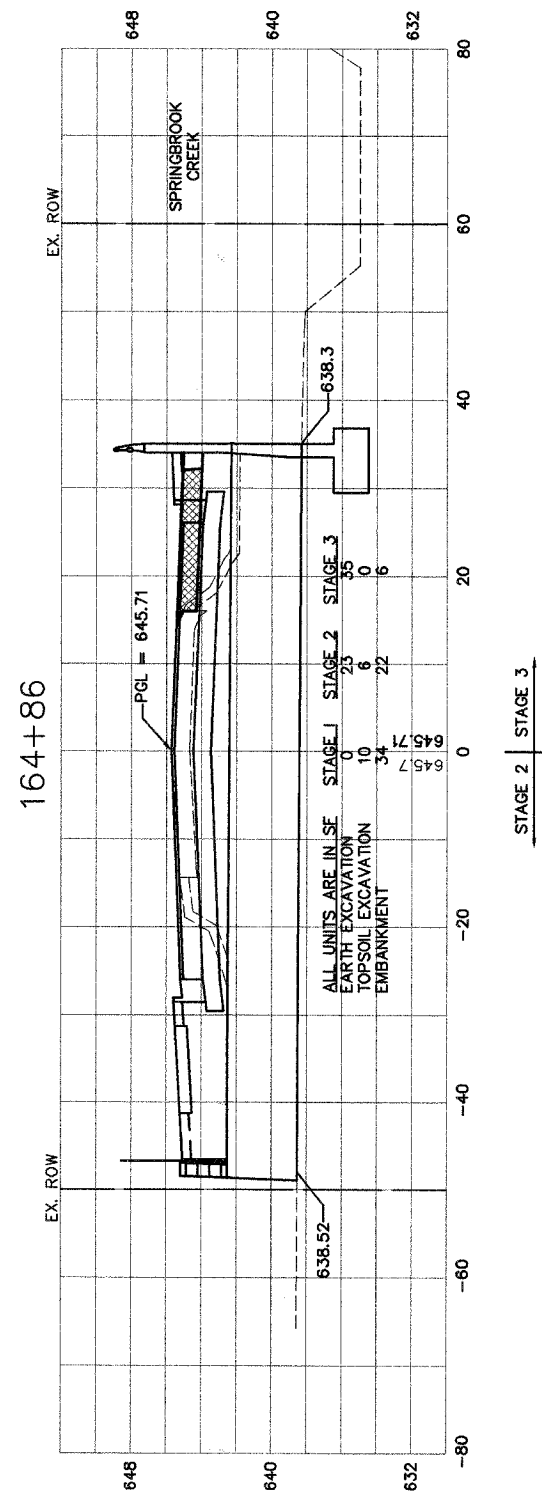
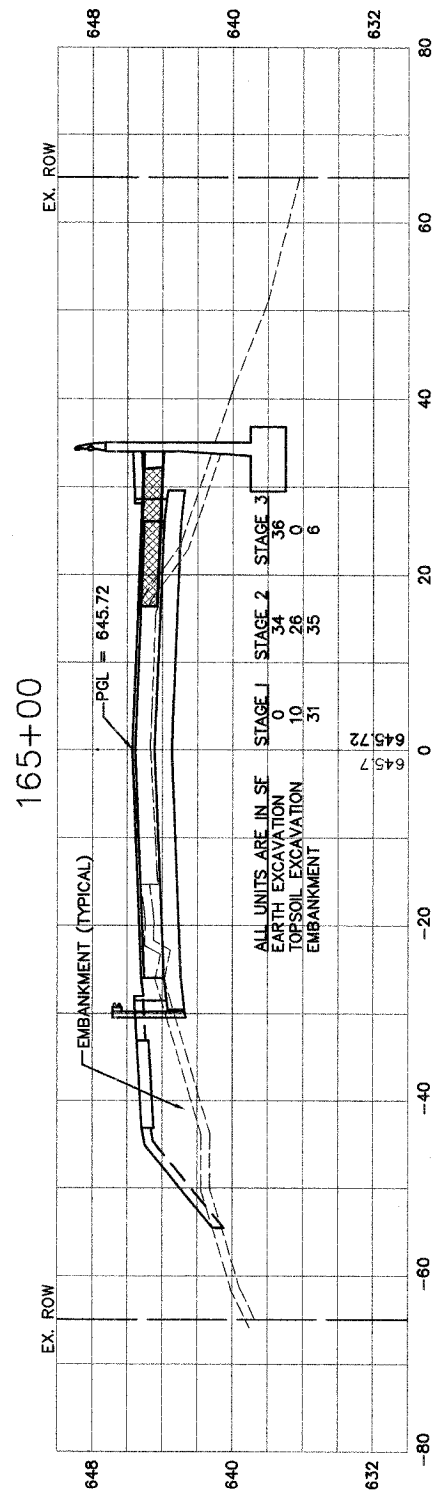
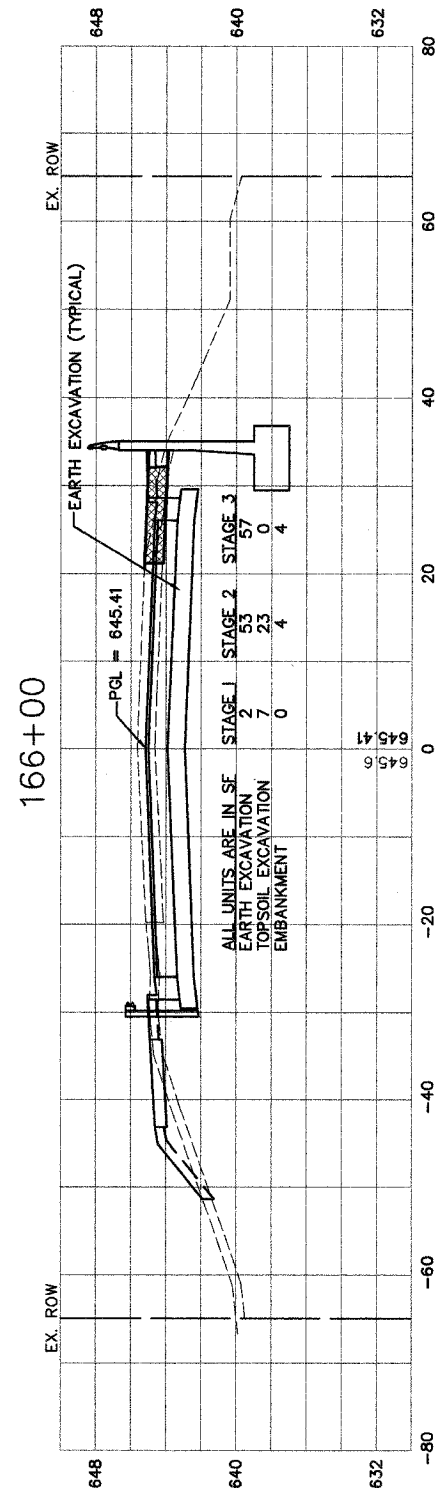
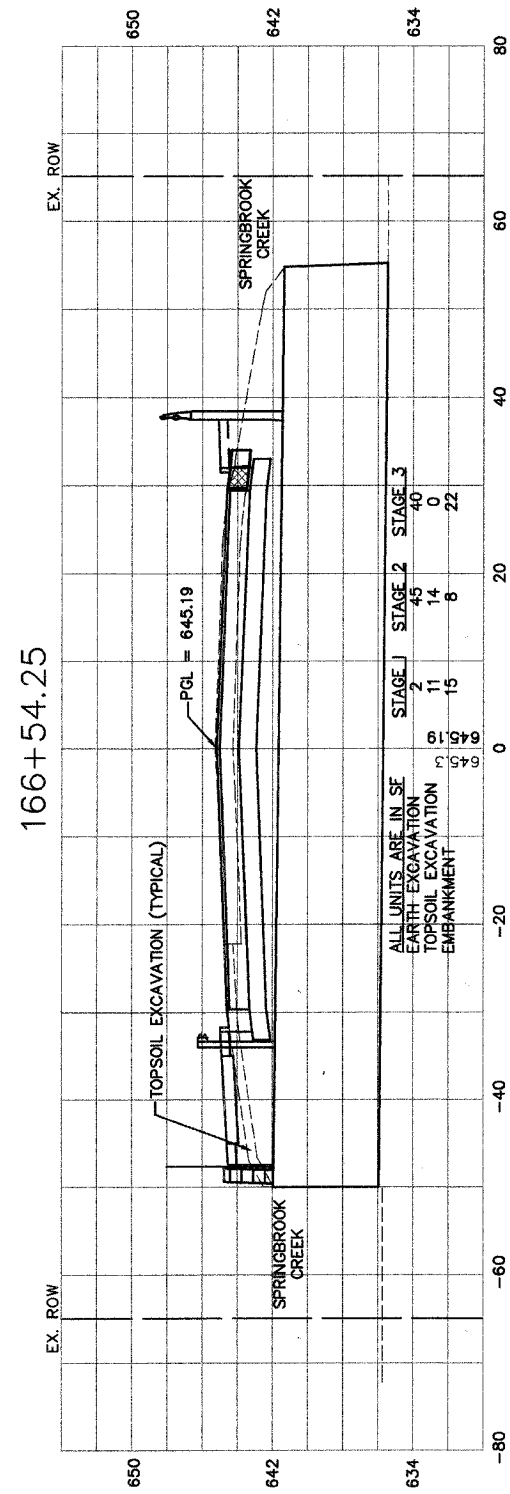
DESIGNED BY: RJE
 CHECKED BY: N.E.
 DRAWN BY: RJE

SCALE:
 HORIZ: 1"=10'
 VERT: 1"=5'

DRAWING ID: G:\20030023 - Plainfield-Naperville Road\dwg\CROSS SECTIONS 17-24.dwg
 PLOT DATE: 06/16/05 - 11:43

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2545	*	WILL	147	140
FED. ROAD DIST. NO. 7		BLANKS	FED. AID PROJECT	

* 98-00036-19-FP CONTRACT NO. 83896



TEMPORARY PAVEMENT
 ID
 INTERIM DRAINAGE

NO.	DATE	REVISION	BY

WILL COUNTY DEPARTMENT OF HIGHWAYS
 PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
 ROADWAY RECONSTRUCTION
 CROSS SECTIONS
 STA 164+00 TO STA 166+54.25

McDonough Associates Inc.
 Engineers/Architects

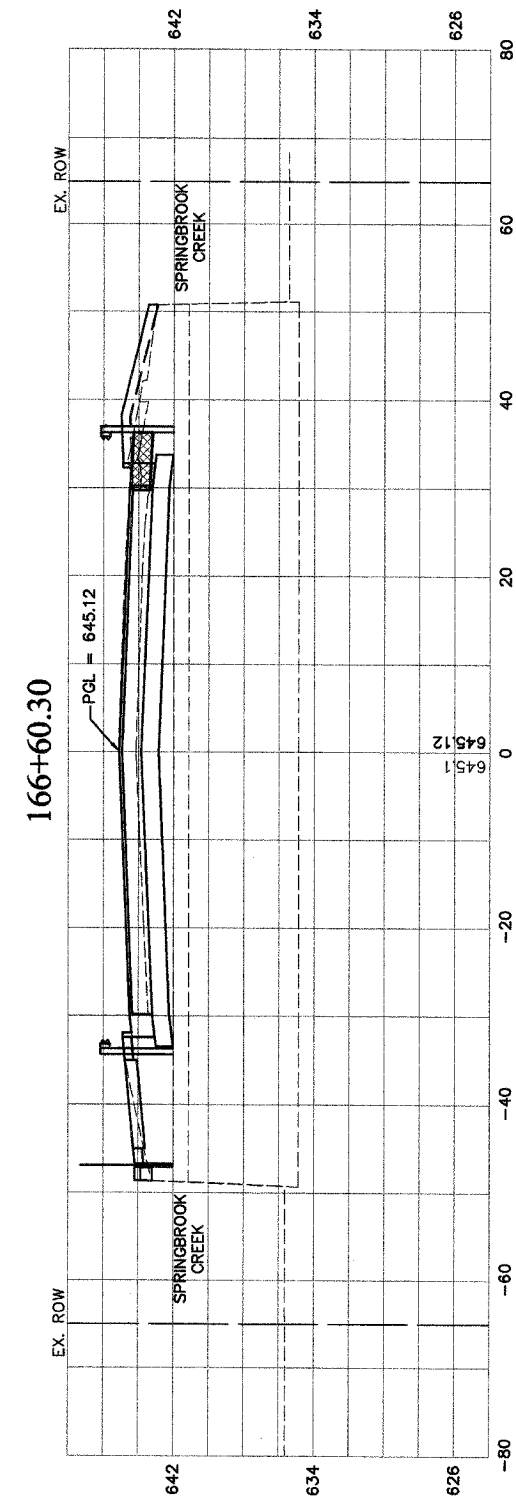
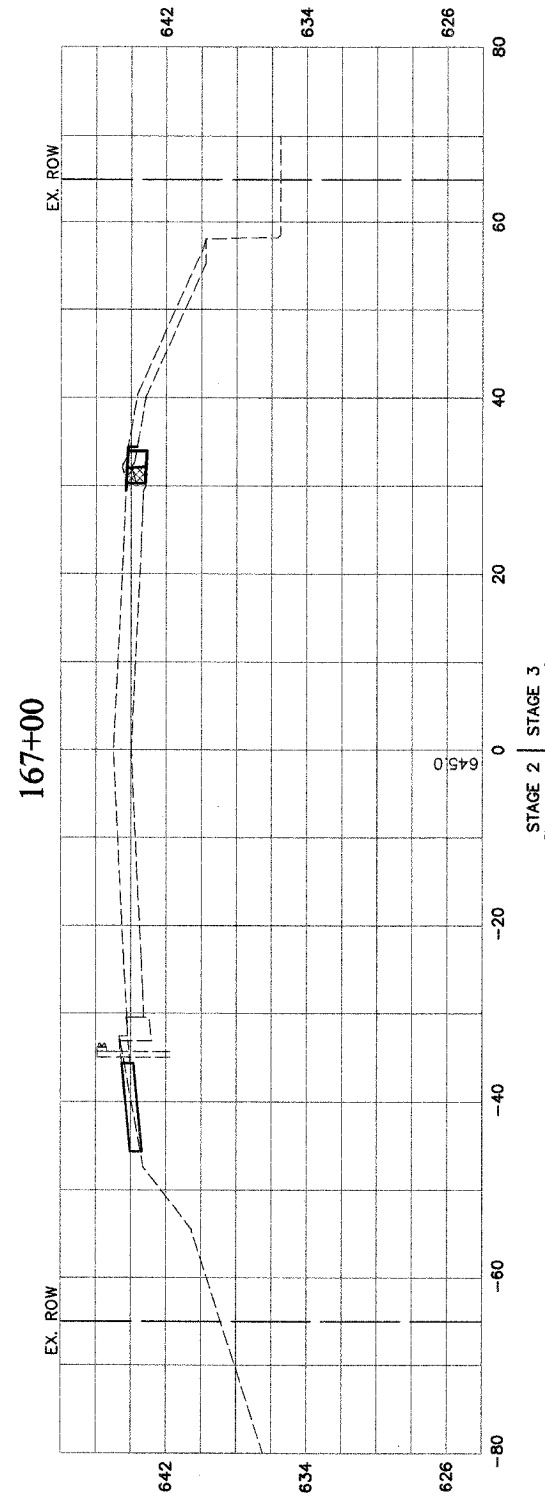
DESIGNED BY: RJE
 CHECKED BY: JNL
 DRAWN BY: RJE

SCALE:
 HORIZ: 1"=10'
 VERT: 1"=5'

DRAWING ID: G:\20030023 - Plainfield-Naperville Road\dwg\CROSS SECTIONS 17-24.dwg
 PLOT DATE: 06/16/05 - 11:43

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2545	*	WILL	147	141
FED. ROAD DIST. NO. 7	ELLINGS	FED. AID PROJECT		

* 98-00036-19-FP CONTRACT NO. 83896



TEMPORARY PAVEMENT
 ID INTERIM DRAINAGE

NO.	DATE	REVISION	BY

WILL COUNTY DEPARTMENT OF HIGHWAYS
 PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
 ROADWAY RECONSTRUCTION
 CROSS SECTIONS
 STA 166+60.30 TO STA 167+00

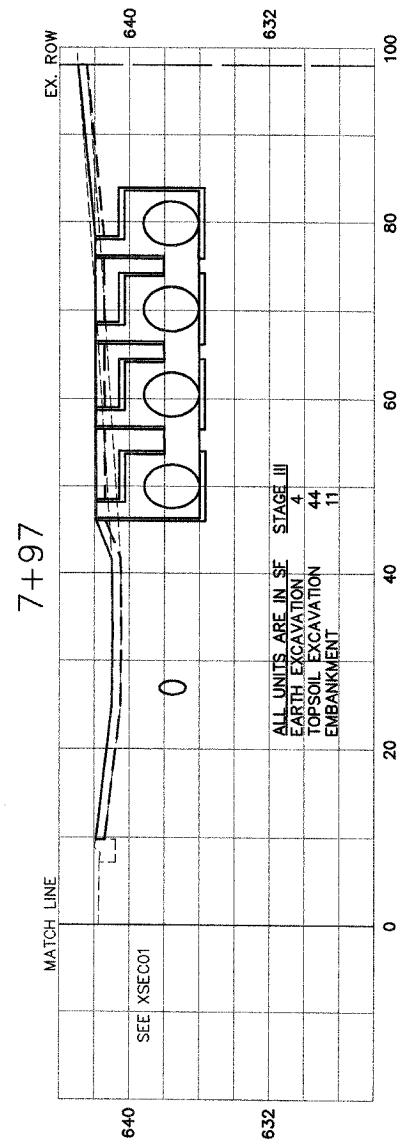
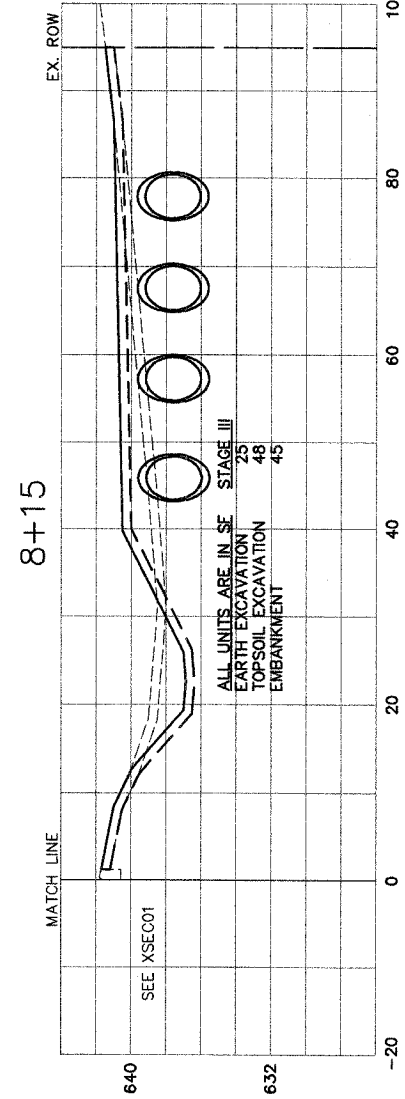
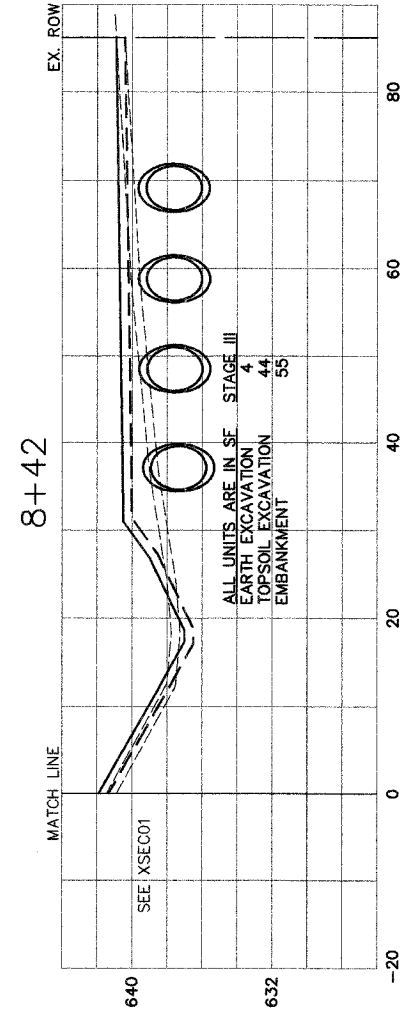
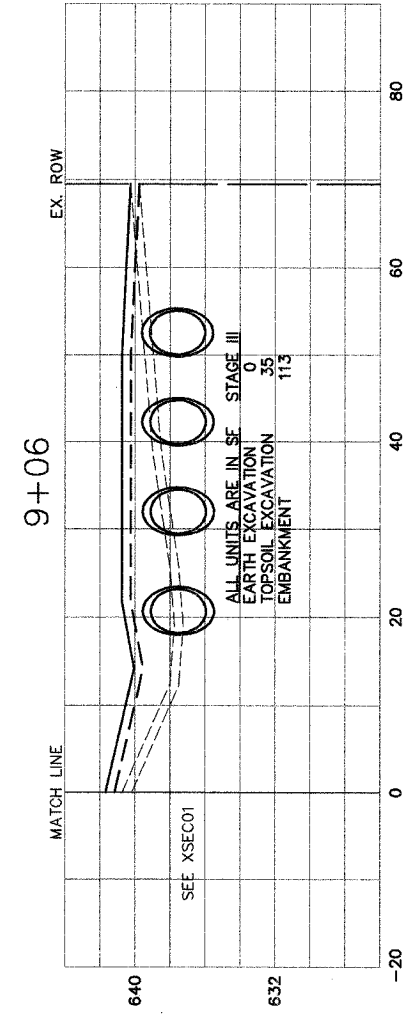
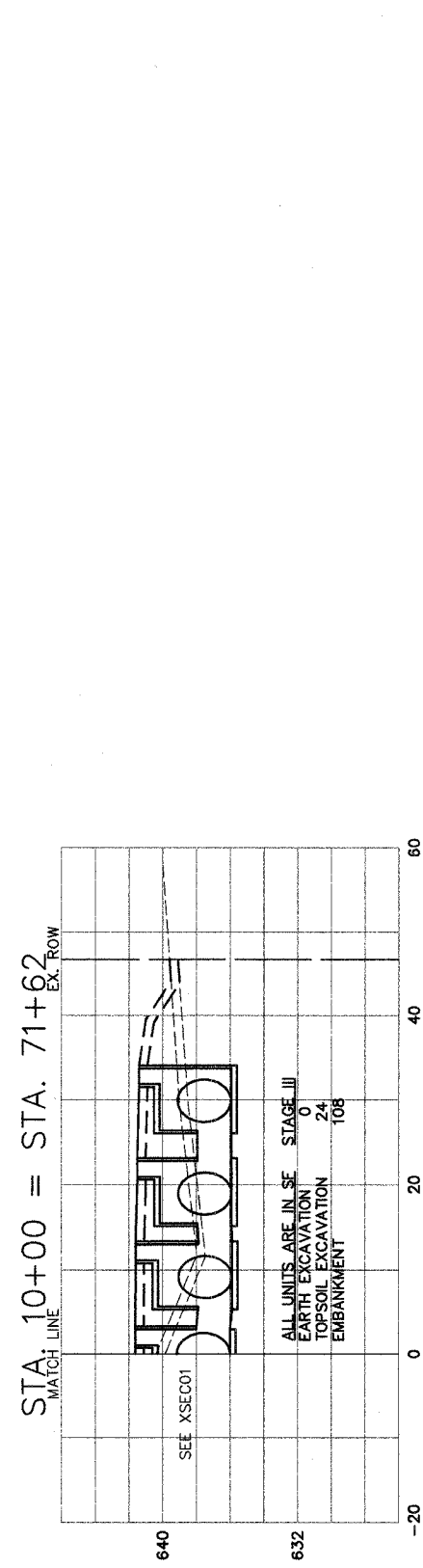
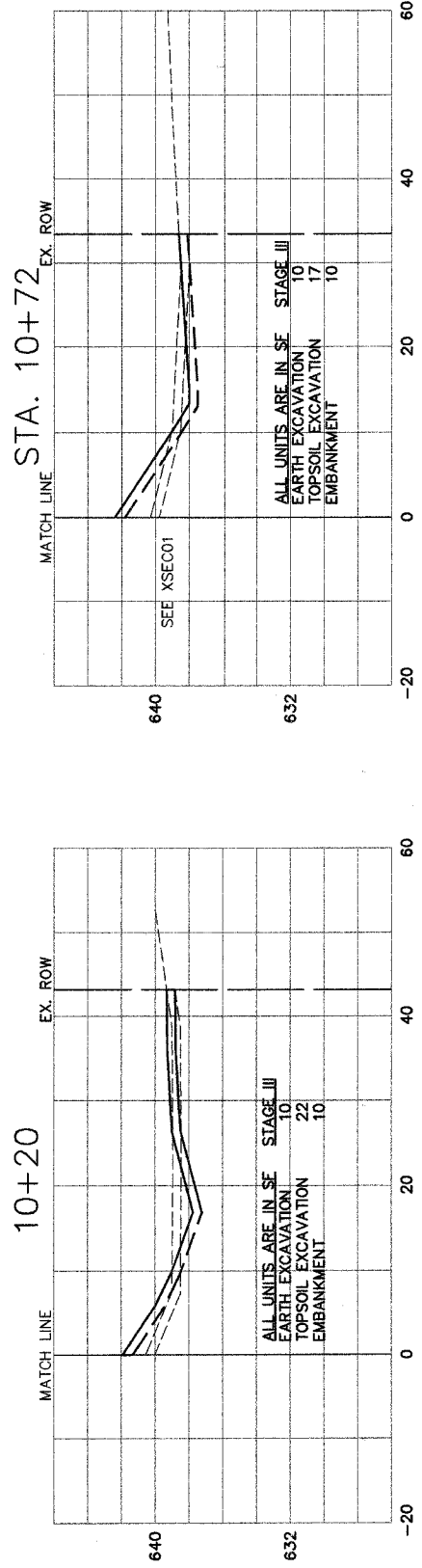
McDonough Associates Inc.
 Engineers/Architects

DESIGNED BY: RJE
 CHECKED BY: N.J.L.
 DRAWN BY: RJE

SCALE:
 HORIZ: 1"=10'
 VERT: 1"=5'

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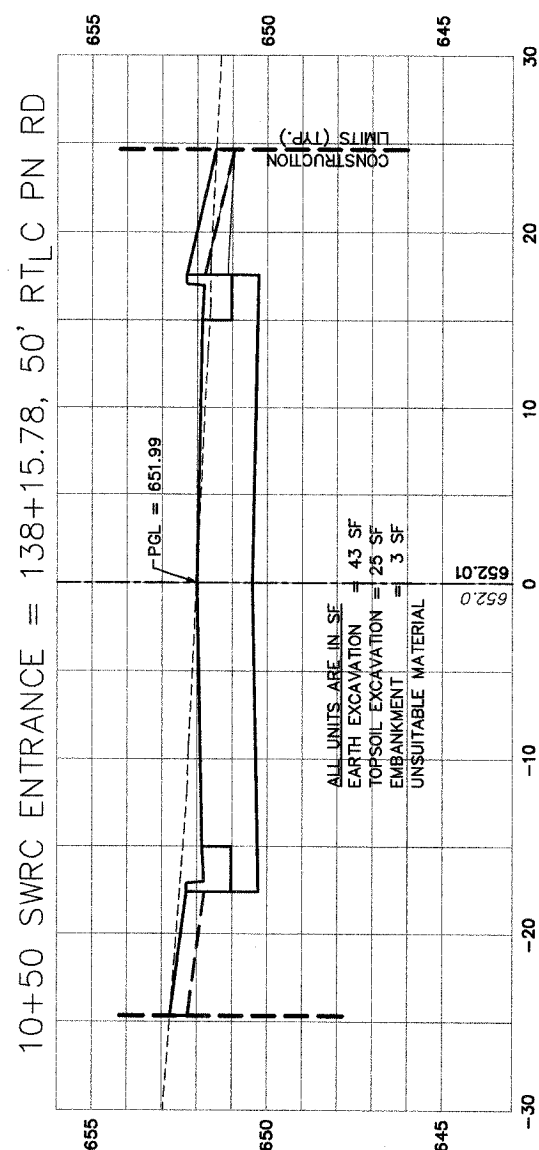
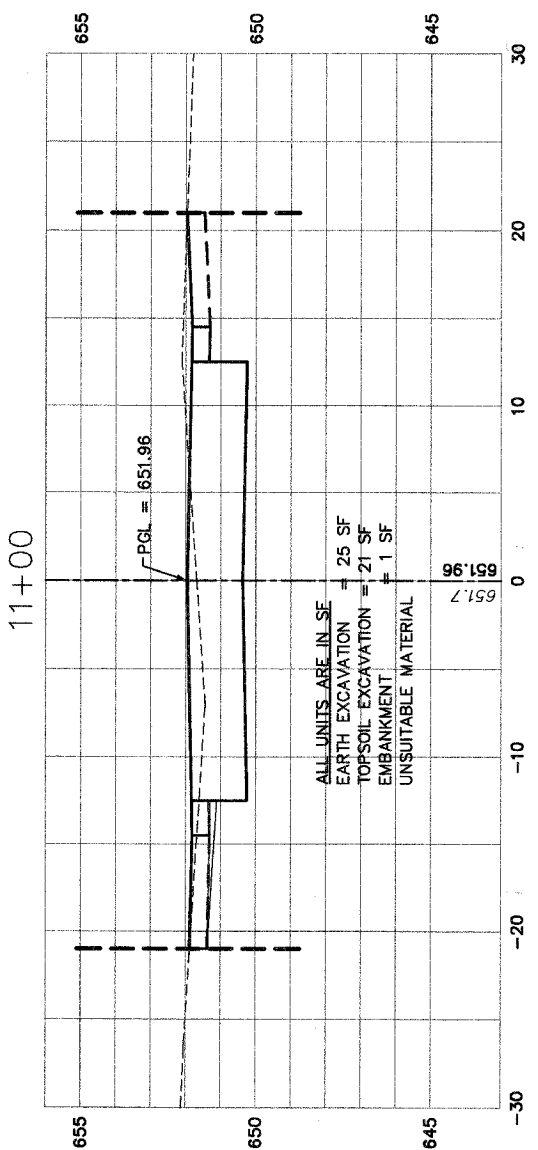
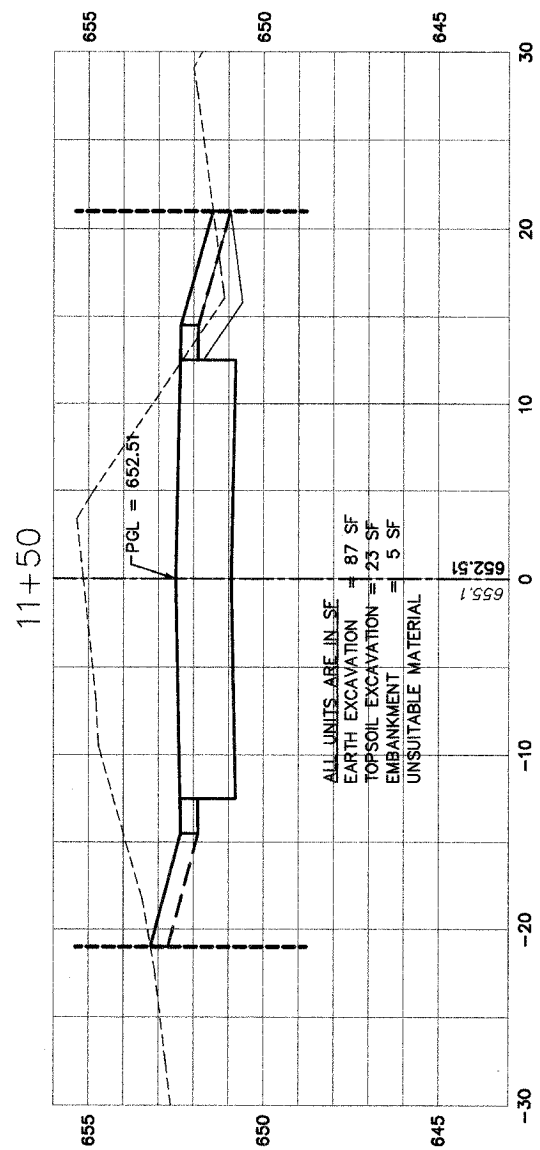
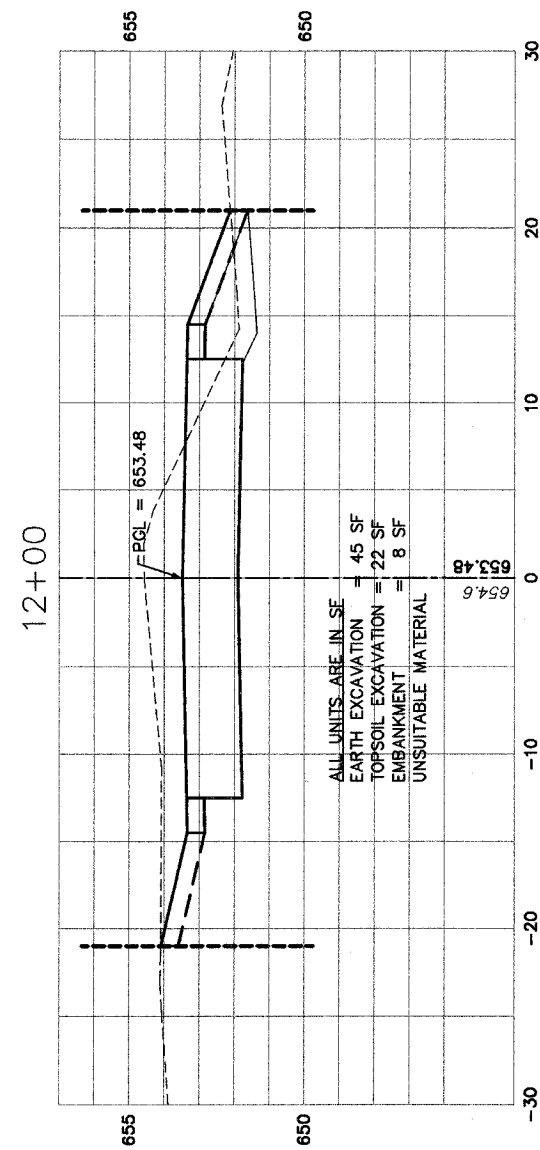
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FAU 2545	*	WILL	147	142
FEDERAL DIST. NO. 7		BLDG. NO.	FED. AID PROJECT	
* 98-00036-19-FP CONTRACT NO. 83896				



WILL COUNTY DEPARTMENT OF HIGHWAYS			
PLAINFIELD-NAPERVILLE ROAD (C.H. 14)			
ROADWAY RECONSTRUCTION			
CROSS SECTIONS			
ALTERNATE DRAINAGE GRADING			
DESIGNED BY: RJE		SCALE: HORIZ: 1"=10'	
CHECKED BY: N.L.		VERT: 1"=5'	
DRAWN BY: RJE			

ROUTE NO.	SECTION	QUANTITY	TOTAL SHEETS	SHEET NO.
FAU 2545	*	WILL	147	142A

RELAYED DIST. NO. 7
 * 98-00036-19-FP
 CONTRACT NO. 83896



NOTE: SEE PN RD. CROSS SECTION FOR MATCH LINE OF STA 10+50 AND STA 138+15.78, 50' RT

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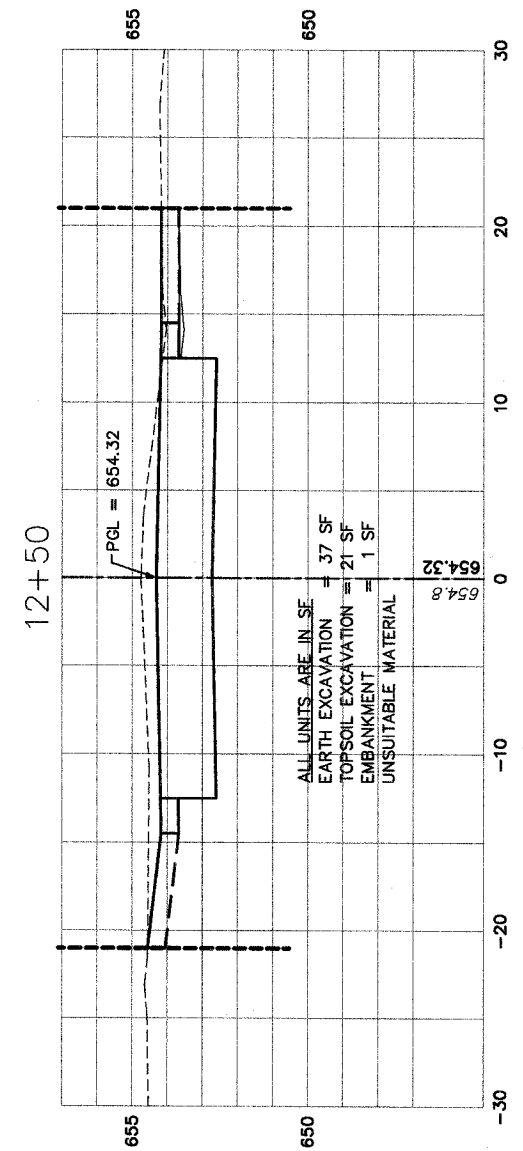
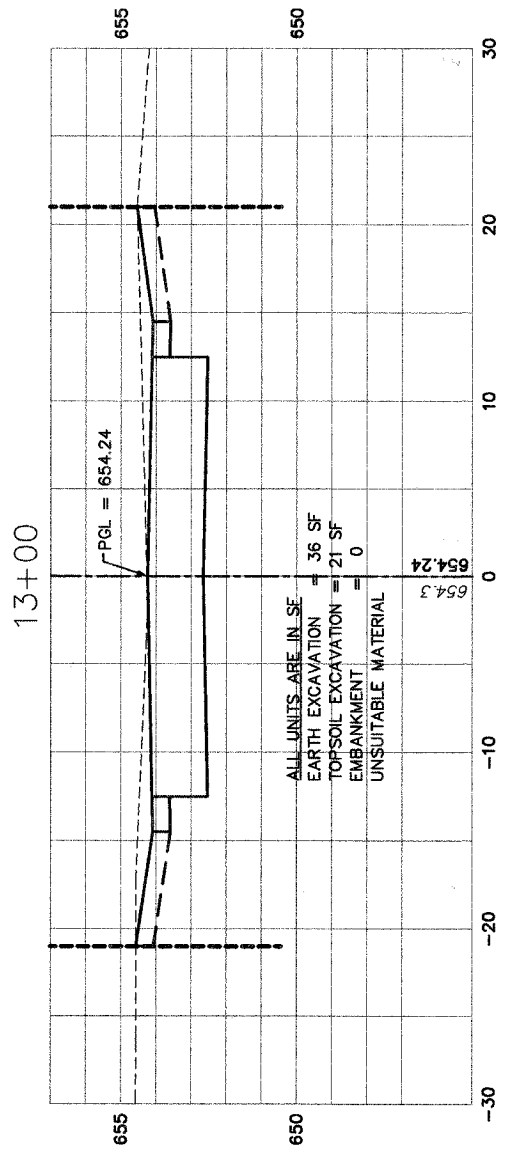
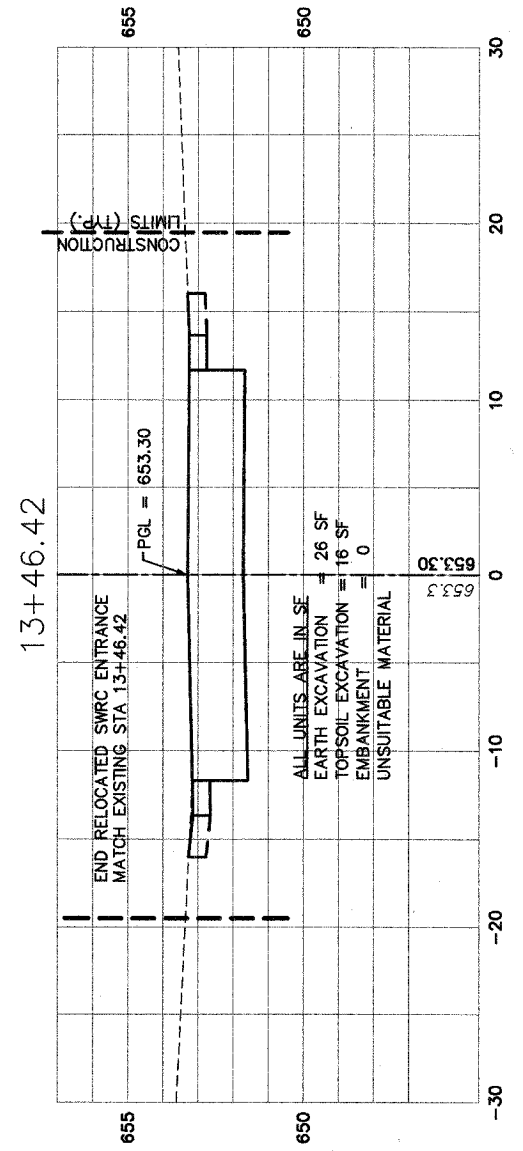
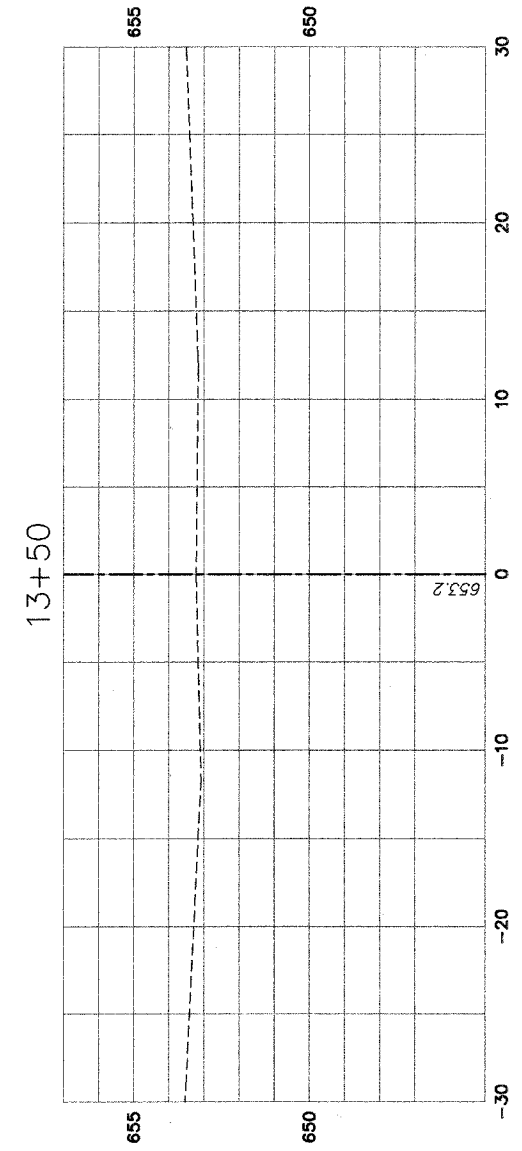
NO.	DATE	REVISION	BY

WILL COUNTY DEPARTMENT OF HIGHWAYS
 PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
 ROADWAY RECONSTRUCTION
 SWRC ENTRANCE - CROSS SECTIONS
 STA 10+50 TO STA 11+50

McDonough Associates Inc. Engineers/Architects	DESIGNED BY:	SCALE:
	CHECKED BY:	HORIZ: 1"=5'
DRAWN BY:	VERT: 1"=2.5'	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2545	*	WILL	147	142B

FED. ROAD DIST. NO. 7 KILGORE FED. AID PROJECT.
 * 98-00036-19-FP CONTRACT NO. 83896



H3
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 PLOT DATE: 07/27/05 - 14:42

NO.	DATE	REVISION	BY

WILL COUNTY DEPARTMENT OF HIGHWAYS
 PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
 ROADWAY RECONSTRUCTION
 SWRC ENTRANCE - CROSS SECTIONS
 STA 12+00 TO STA 13+50

McDonough Associates Inc.
 Engineers/Architects

DESIGNED BY:
 CHECKED BY:
 DRAWN BY:

SCALE:
 HORIZ: 1"=5'
 VERT: 1"=2.5'

GENERAL NOTES:

- ALL WORK AND MATERIAL SHALL COMPLY WITH THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ADOPTED JANUARY 1, 2007.
- CONSULT AND COORDINATE WITH ALL TRADES AND AUTHORITIES INVOLVED TO AVOID INTERFERENCE WITH EXISTING AND NEW UNDERGROUND UTILITIES.
- THE CONTRACTOR SHALL EXERCISE UTMOST CARE IN EXCAVATING AND BACKFILLING THE TRENCHES TO AVOID CUTTING OR DAMAGING EXISTING UNDERGROUND UTILITIES AS SHOWN ON COMPOSITE UTILITIES.
- ALL CONDUIT, EQUIPMENT AND APPURTENANCES ARE ILLUSTRATED DIAGRAMMATICALLY. THE ACTUAL LOCATION IN THE FIELD SHALL MEET THE APPROVAL OF THE ENGINEER.
- WHERE THE CONTRACTOR'S EXCAVATION MEETS AN OBSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR DIRECTIONS IN WRITING PRIOR TO FURTHER EXCAVATION. THE CONTRACTOR SHALL RESTORE ANY DAMAGE TO EXISTING SYSTEMS OR UTILITIES TO THE SATISFACTION OF THE ENGINEER. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THIS CONTRACT.
- ALL LUMINAIRES SHALL BE ORIENTED WITH THE OPTICS PERPENDICULAR TO THE ROADWAY UNLESS OTHERWISE INDICATED OR DIRECTED BY THE ENGINEER. THE LUMINAIRES MAY REQUIRE NIGHTTIME OPTICAL ADJUSTMENT UPON INSPECTION BY THE ENGINEER. THIS WORK SHALL BE CONSIDERED INCLUDED IN THE APPROPRIATE LUMINAIRE PAY ITEM.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO ASCERTAIN EXISTING FIELD CONDITIONS BEFORE BIDDING ON THIS PROJECT.
- CONDUIT AND UNIT DUCT SHALL BE INSTALLED AT A MINIMUM DEPTH OF 30 INCHES BELOW GRADE AND POSITIONED IN THE FIELD TO AVOID CONFLICT WITH ROADWAY UNDERDRAINS AND OTHER EXISTING AND PROPOSED UTILITIES. THE CONTRACTOR SHALL INCREASE DEPTH OF UNIT DUCTS AND CONDUIT AS REQUIRED AT NO ADDITIONAL COST TO THE CITY. COORDINATE RACEWAY DEPTHS WITH THE DETAILS AND THE ENGINEER.
- CONDUIT PUSHED AND IN TRENCH SHALL EXTEND (2') BEYOND THE SHOULDER, CURB, BARRIER WALL AND/OR GUARDRAIL, AS APPLICABLE.
- WHERE THE MULTIPLE CONDUITS ADJACENT TO EACH OTHER ARE INSTALLED IN A COMMON TRENCH, TRENCH AND BACKFILL WILL NOT BE PAID FOR EACH CONDUIT, BUT WILL BE PAID FOR THE LENGTH OF THE COMMON TRENCH ONLY.
- ALL PITS USED FOR INSTALLING PUSHED (JACKED) STEEL CONDUITS UNDER EXISTING ROADWAYS SHALL BE LOCATED 5'-0" (MINIMUM) CLEAR FROM THE EDGE OF SHOULDER. LOCATIONS OF THE CONDUIT CROSSINGS SHOWN ARE APPROXIMATE AND MAY BE SHIFTED AS NECESSARY TO MEET THE MOTORISTS. THE CONTRACTOR SHALL SUBMIT PLANS FOR THE LOCATION AND SIZE OF EACH PIT AND MAINTENANCE AND PROTECTION OF TRAFFIC AT THE SITE OF EACH PIT FOR THE APPROVAL OF THE ENGINEER BEFORE THE EXCAVATION OF ANY PIT MAY BEGIN.
- ALL EXISTING AREAS THAT ARE DAMAGED AS PART OF THIS WORK, INCLUDING BUT NOT LIMITED TO FENCING, CURB AND CUTTER, SIDEWALKS, AND WHERE RESTORATION IS NOT COVERED BY APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS, SHALL BE RESTORED TO THE SATISFACTION OF THE ENGINEER. THIS WORK SHALL BE CONSIDERED INCLUDED IN THE COST OF THIS CONTRACT. SEPARATE PAYMENT WILL NOT BE MADE.
- ALL CONDUCTORS SHALL RUN CONTINUOUS WITHOUT ANY UNDERGROUND SPLICES. SPLICING OF CONDUCTORS WILL BE PERMITTED ONLY IN THE BASE OF THE LIGHTING UNITS.
- GROUNDING CONNECTIONS AT ALL EQUIPMENT FOUNDATIONS SHALL BE EXOTHERMICALLY WELDED, UNLESS NOTED OTHERWISE, AS SPECIFIED, AND SHALL BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO POURING CONCRETE OR BACKFILLING, AS APPLICABLE.
- THE QUANTITIES OF RIGID GALVANIZED STEEL CONDUIT WHERE INDICATED ON THESE PLAN DRAWINGS ARE APPROXIMATIONS ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL LENGTHS AND SHALL INSTALL RACEWAYS IN COMPLIANCE WITH THE SPECIFIED REQUIREMENTS.
- THE CONTRACTOR SHALL COMPLY WITH THE COMED REQUIREMENTS FOR MAINTAINING THE MINIMUM CLEARANCE BETWEEN THE TEMPORARY AND PROPOSED LIGHTING UNITS AND EXISTING COMED POWER POLES AND LINES. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THIS CONTRACT. NO SEPARATE PAYMENT WILL BE MADE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL ABOVE AND BELOW GROUND UTILITIES, EVEN THOUGH THEY MAY NOT APPEAR ON THE PLANS. ANY DAMAGE DONE TO EXISTING UTILITIES BY THE CONTRACTOR SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO COMMENCING WORK AND COMPLY WITH STATE REGULATIONS REGARDING AIR, WATER AND NOISE POLLUTION.
- WHEN ARTIFICIAL LIGHTING IS USED IN NIGHT OPERATIONS THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.
- NO EQUIPMENT OR MATERIAL SHALL BE DELIVERED TO THE JOB SITE PRIOR TO THE APPROVAL AND INSPECTION OF THE ENGINEER. ANY EQUIPMENT OR MATERIAL DELIVERED TO THE JOB SITE PRIOR TO APPROVAL AND INSPECTION SHALL BE REMOVED FROM THE JOB SITE AT THE CONTRACTOR'S EXPENSE.
- PROPOSED ROADWAY LIGHTS SHALL HAVE A SETBACK OF 6'-0" FROM THE EDGE OF PROPOSED PAVEMENT TO THE FRONT OF THE LIGHT POLES, UNLESS OTHERWISE DIRECTED BY ENGINEER.
- THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENT FOR BURIED WARNING TAPE, SPECIFIED AS PART OF "TRENCH AND BACKFILL FOR ELECTRICAL WORK". THE INSTALLATION OF THE TAPE SHALL BE INSPECTED AND APPROVED BY THE RESIDENT ENGINEER PRIOR TO BACKFILLING OR DURING PLOWING OPERATIONS, AS APPLICABLE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ESTABLISHMENT OF FINISHED GRADE. THE RESIDENT ENGINEER MAY ASSIST THE CONTRACTOR AS APPLICABLE, BUT THE RESPONSIBILITY FOR COORDINATING THE FINISHED GRADE ELEVATION WITH THE TOP OF THE FOUNDATION HEIGHTS AND THE LIGHT SHALL REMAIN WITH THE CONTRACTOR.

- NO POLES SHALL BE ERECTED UNTIL THE RESPECTIVE FOUNDATIONS HAVE BEEN CURED, AS APPROVED BY THE ENGINEER.
- TO MAINTAIN THE STRUCTURAL INTEGRITY OF ALUMINUM POLES WITH MAST ARMS, THEY SHALL NOT BE ERECTED AND LEFT TO STAND WITHOUT LUMINAIRES. NOTE THAT THE CONTRACTOR SHALL NOT BE PAID FOR POLES UNTIL LUMINAIRES ARE INSTALLED.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2545	*	WILL	147	143
FED/STATE DIST. NO. 7		LANES	FED. AID PROJECT	

* 98-00036-19-FP

CONTRACT NO. 83896

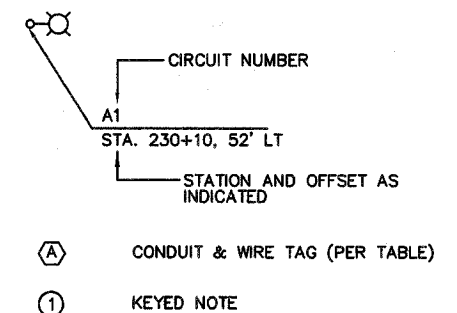
ABBREVIATIONS

SYMBOL	DESCRIPTION
A	AMPERE
A/C	AERIAL CABLE
AFG	ABOVE FINISHED GRADE
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CAL.	CALENDAR
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CL	CENTERLINE
C.E.CO.	COMMONWEALTH EDISON COMPANY
DIA.	DIAMETER
DWG	DRAWING
E	EXISTING UNIT TO REMAIN
ER	EXISTING UNIT TO BE REPLACED
ELEC.	ELECTRICAL
EQUIP.	EQUIPMENT
FT	FEET OR FOOT
FU	FUSE
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
HID	HIGH INTENSITY DISCHARGE
HPS	HIGH PRESSURE SODIUM
JB	JUNCTION BOX
KVA	KILOVOLT-AMPERE
KW	KILOWATTS
LT	LIGHT
LTG	LIGHTING
MA	MAST ARM
MISC.	MISCELLANEOUS
MO.	MONTH
MTG HT	MOUNTING HEIGHT
MTD	MOUNTED
MW	MESSANGER WIRE
NIC	NOT IN CONTRACT
NO, #	NUMBER
NTS	NOT TO SCALE
P	POLE
PH, ∅	PHASE
PNL	PANEL
PRI.	PRIMARY
R	EXISTING UNIT TO BE REMOVED
RR	EXISTING UNIT TO BE REMOVED AND RELOCATED
RGSC	RIGID GALVANIZED STEEL CONDUIT
SEC.	SECONDARY
S.S.	STAINLESS STEEL
STA.	STATION
TYP.	TYPICAL
UD	UNIT DUCT
U.N.O.	UNLESS NOTED OTHERWISE
V	VOLTS
W	WATTS
WP	WEATHERPROOF
XFMR	TRANSFORMER

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	LIGHTING UNIT; POLE MOUNTED, SINGLE, TRUSS ARM AND 310W HPS LUMINAIRE. SEE DRAWING E-4 FOR LIGHT POLE DETAIL. 35 FT MOUNTING HEIGHT; 15 FT MAST ARM
	TEMPORARY LIGHTING UNIT 60 FT. CLASS 4, WOOD LIGHTING POLE WITH 15 FT TRUSS TYPE MAST ARM, AND 310W HPS LUMINAIRE
	EXISTING LIGHTING UNIT TO REMAIN
	UNIT DUCT IN TRENCH
	CONCEALED UNDERGROUND CONDUIT, PUSHED
	AERIAL CABLE WITH MESSENGER WIRE
	FREE STANDING LIGHTING CONTROL CABINET (DOOR SIDE AS INDICATED)
	WOOD POLE
	ELECTRIC UTILITY POLE
	CONNECTION TO GROUND ROD
	MOLDED CASE CIRCUIT BREAKER (600V, THERMAL-MAGNETIC TRIP, 1 POLE)
	MOLDED CASE CIRCUIT BREAKER (600V, THERMAL-MAGNETIC TRIP, 2 POLE)
	FUSE
	PHOTO-ELECTRIC CELL
	NORMALLY OPEN CONTACT
	NORMALLY CLOSED CONTACT

CALL-OUT SAMPLES



BILL OF MATERIALS			
IDOT PAY ITEM #	DESCRIPTION	UNIT	QUANTITY
81603200	UNIT DUCT, WITH 3-1/C NO. 2 & 1/C NO. 4 GND, 600V (EPR TYPE RHW), 1 1/4" POLYETHYLENE	FT	2056
81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FT	362
83007600	LIGHT POLE, ALUMINUM, 35 FT. M.H., 15 FT. MAST ARM	EA	7
83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FT	77
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FT	1567
82102310	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 310W	EA	7
84100110	REMOVAL OF TEMPORARY LIGHTING UNITS	EA	8
83800205	BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE	EA	7
X0323574	MAINTENANCE OF LIGHTING SYSTEM	CAL. MO.	24

CONDUIT AND WIRE TABLE			
TAG	WIRE	CONDUIT	REMARKS
A	UNIT DUCT WITH 3-1/C #2 & 1-1/C #4 GND. IN 1-1/2" C		TRENCHED, UNIT DUCT W/ EPR INSULATED CABLES
B	UNIT DUCT WITH 3-1/C #2 & 1-1/C #4 GND. IN 1-1/2" C	4" RGSC	PUSHED, UNIT DUCT W/ EPR INSULATED CABLES
C	-	4" RGSC	EMPTY PUSHED CONDUIT

NO.	DATE	REVISION	BY

WILL COUNTY DEPARTMENT OF HIGHWAYS

PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
ROADWAY RECONSTRUCTION
GENERAL NOTES, SYMBOLS AND ABBREVIATIONS

	DESIGNED BY: JES CHECKED BY: KMY DRAWN BY: JES	SCALE: N.T.S.
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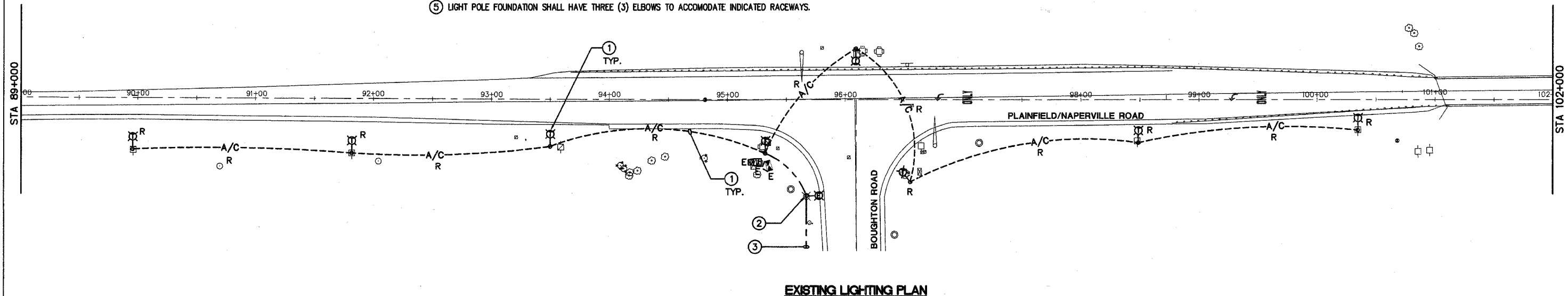
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FAU 2545	*	WILL	147	144
FEDERAL DIST. NO. 7		ILLINOIS	FED. AID PROJECT	
* 98-00036-19-FP			CONTRACT NO. 83896	

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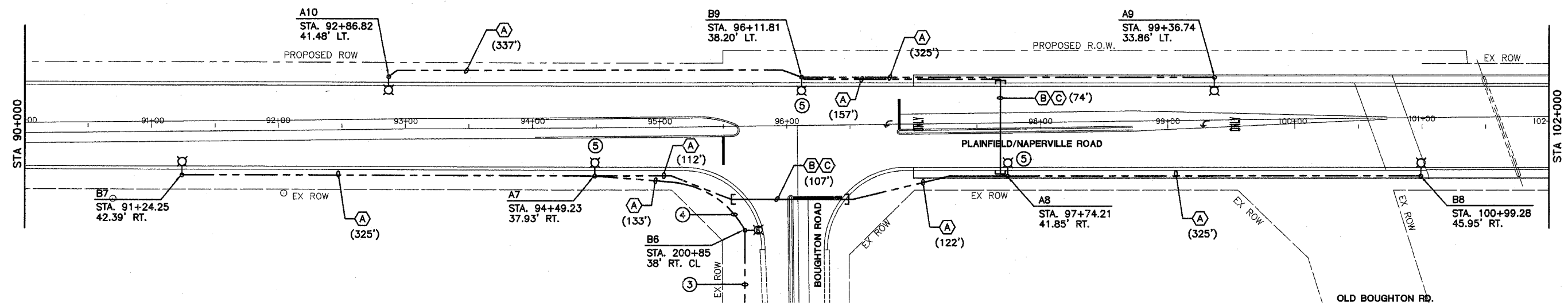
1. REFER TO DRAWING E-1 FOR CONDUIT AND WIRE TABLE.
2. REFER TO DRAWING E-3 FOR EXISTING LIGHTING CONTROLLER "C" WIRING DIAGRAM.
3. REFER TO DRAWING E-4 FOR LIGHT POLE AND FOUNDATION DETAILS.

KEYED NOTES:

- ① DISCONNECT AND REMOVE EXISTING TEMPORARY LIGHTING UNITS AND ASSOCIATED AERIAL CABLES FROM EXISTING LIGHTING CONTROLLER "C" AFTER ALL PROPOSED PERMANENT LIGHTING UNITS ON PLAINFIELD/NAPERVILLE ROAD ARE IN PLACE, TESTED AND APPROVED BY ENGINEER AND AFTER ALL LIGHTING UNITS (BOTH EXISTING TO REMAIN AND NEW) ON CONTROLLER "C" ARE ENERGIZED. EXISTING TEMPORARY LIGHTING UNITS SHALL BE RETURNED TO THE VILLAGE OF BOLINGBROOK. REMOVAL OF TEMPORARY LIGHTING UNITS AND ASSOCIATED AERIAL CABLE SHALL BE INCLUDED IN THE "REMOVAL OF TEMPORARY LIGHTING UNITS" PAY ITEM, NO SEPARATE PAYMENT WILL BE MADE.
- ② EXISTING LIGHTING UNIT SHALL REMAIN.
- ③ EXISTING UNIT DUCT TO REMAIN.
- ④ PROPOSED LIGHTING UNITS SHALL BE POWERED FROM EXISTING LIGHTING CONTROLLER "C", CIRCUITS A AND B. EXTEND EXISTING WIRE AND CONDUIT TO PROPOSED LIGHTING UNITS. EXISTING LIGHTING CONTROLLER "C" IS LOCATED ON BOUGHTON ROAD AT STA. 222+40, 38' RT. CL.
- ⑤ LIGHT POLE FOUNDATION SHALL HAVE THREE (3) ELBOWS TO ACCOMMODATE INDICATED RACEWAYS.



EXISTING LIGHTING PLAN



PROPOSED LIGHTING PLAN



DRAWING ID: 0
PLOT DATE: 0

NO.	DATE	REVISION	BY

WILL COUNTY DEPARTMENT OF HIGHWAYS
PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
ROADWAY RECONSTRUCTION
EXISTING AND PROPOSED LIGHTING PLANS

McDonough Associates Inc.
 Engineers/Architects

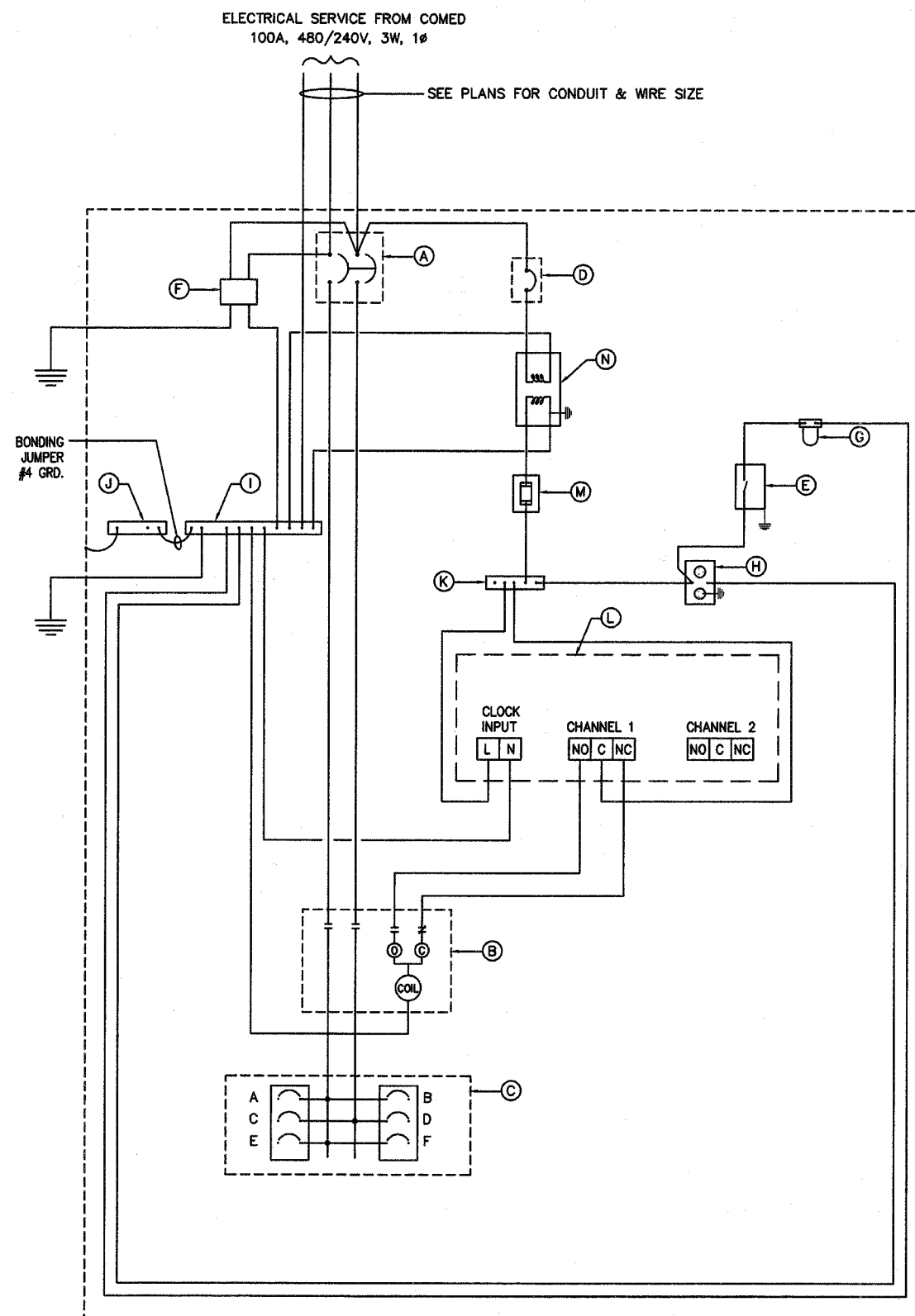
DESIGNED BY: JES
 CHECKED BY: KMY
 DRAWN BY: JES

SCALE:
 1" = 40'

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2545	*	WILL	147	145
FED/ROAD DIST. NO. 7	BLANDS	FED. AID PROJECT		

* 98-00036-19-FP

CONTRACT NO. 83896



EXISTING CONTROL CABINET WIRING DIAGRAM
NOT TO SCALE

BILL OF MATERIALS		
ITEM	QTY.	DESCRIPTION
(A)	1	MAIN CIRCUIT BREAKER, MOLDED CASE, THERMAL MAGNETIC, 2-POLE, 600V, 100A FRAME, 100A NON-INTERCHANGEABLE TRIP, INTERRUPTING RATING OF NOT LESS THAN 65,000 RMS SYMMETRICAL AMPS AT 480V
(B)	1	REMOTE CONTROL SWITCH, ELECTRICALLY OPERATED, MECHANICALLY HELD, 2-POLE, SINGLE THROW, 100A, 480V, ASCO 920, MOUNTED ON SUB PANEL, 120V COIL
(C)	1	PANELBOARD INTERIOR ONLY, 240/480V, SINGLE PHASE WITH 200A COPPER MAINS (6) 1P-50A BOLT-ON BRANCH CIRCUIT BREAKERS EACH RATED 277V WITH INTERRUPTING CAPACITY OF NOT LESS THAN 65,000 RMS AMPERES AT 480V.
(D)	1	CONTROL CIRCUIT CIRCUIT BREAKER, 1-POLE, 277V, 100A FRAME, 20A NON-INTERCHANGEABLE TRIP, INTERRUPTING RATING OF NOT LESS THAN 65,000 RMS SYMMETRICAL AMPERES AT 480V.
(E)	1	MICRO SWITCH (MOUNT WITH ACTUATOR TO SWITCH WHEN DOOR OPENED)
(F)	1	BRACKET MOUNTED SURGE ARRESTER FOR 240/480V, 3W SERVICE
(G)	1	60W, VAPOR-TIGHT INCANDESCENT LTG. FIXTURE WITH GLOBE, GUARD AND MOUNTING BOX
(H)	1	GFI RECEPTACLE, 120V, 15A, PREMIUM SPEC. GRADE, NEMA REF. 5-15R IN WP BOX W/ FLAP TYPE COVER
(I)	1	NEUTRAL BUS 1/4"x1"x12" WITH LUGS & SPARE LUGS
(J)	1	GROUND BUS, 1/4"x1"x12" WITH LUGS & SPARE LUGS
(K)	1	BUS 1/4"x1"x12" WITH LUGS & SPARE LUGS
(L)	1	2 CHANNEL, 7 DAY DIGITAL TIME SWITCH WITH ASTRONOMIC OPTION. TIMER SHALL BE TORK MODEL #DZS200A.
(M)	1	20 AMP, 120V FUSE
(N)	1	1.5KVA, SINGLE PHASE, ENCAPSULATED TRANSFORMER 240/480V PRIMARY, 120/240V SECONDARY, 60 HZ.

FOR INFORMATION ONLY

DRAWING ID: 0
PLOT DATE: 0

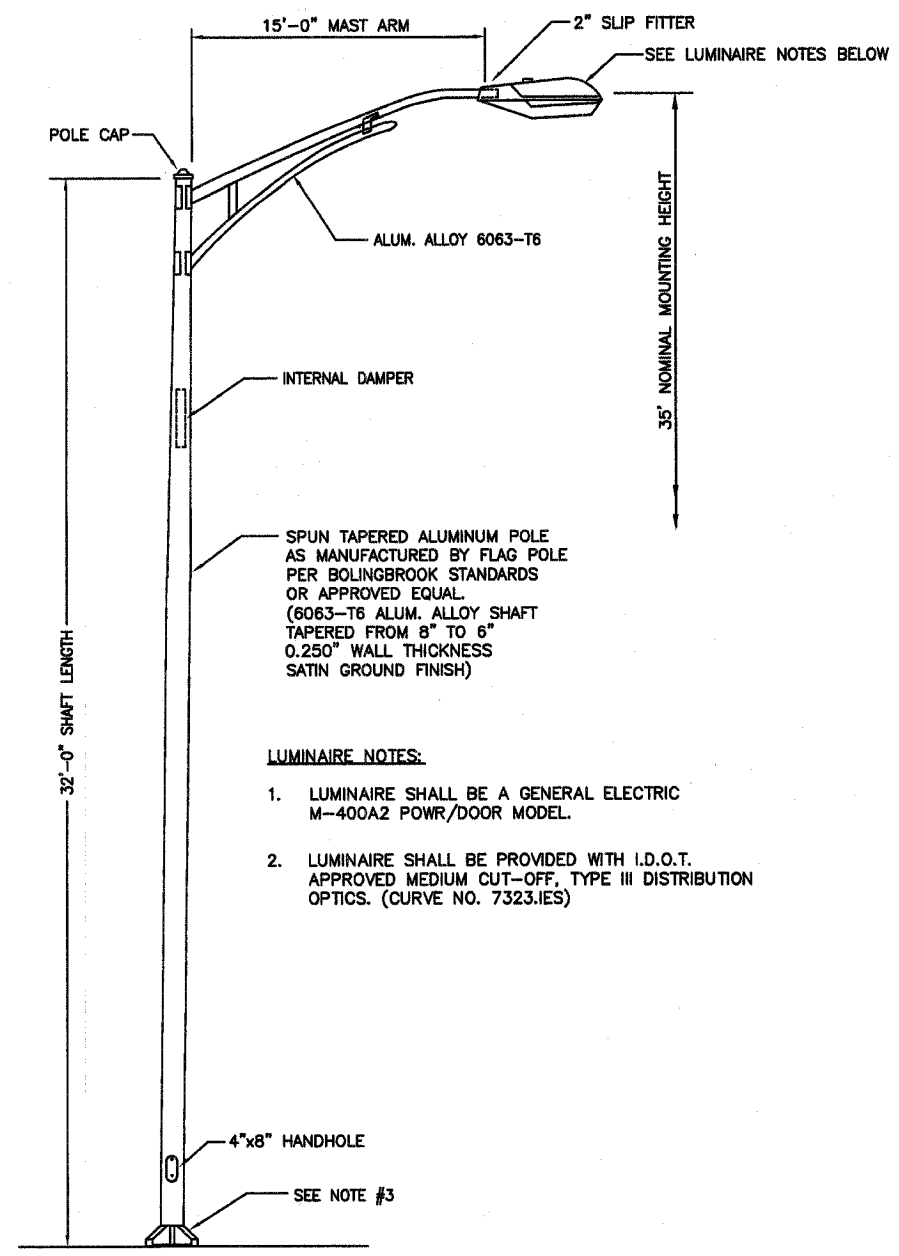
NO.	DATE	REVISION	BY

WILL COUNTY DEPARTMENT OF HIGHWAYS
PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
ROADWAY RECONSTRUCTION
EXISTING LIGHTING CONTROLLER WIRING DIAGRAM

McDonough Associates Inc.
Engineers/Architects

DESIGNED BY: JES
CHECKED BY: KMY
DRAWN BY: JES

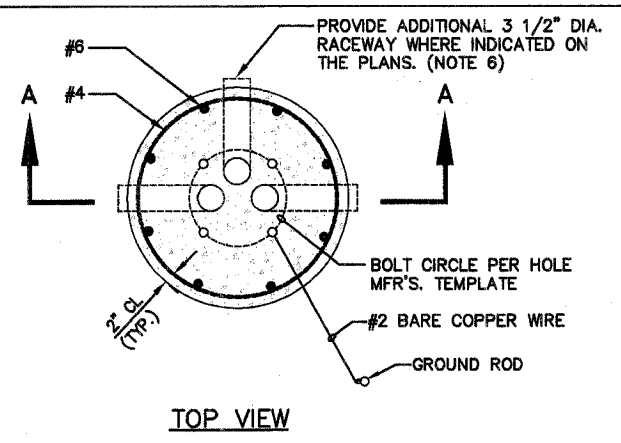
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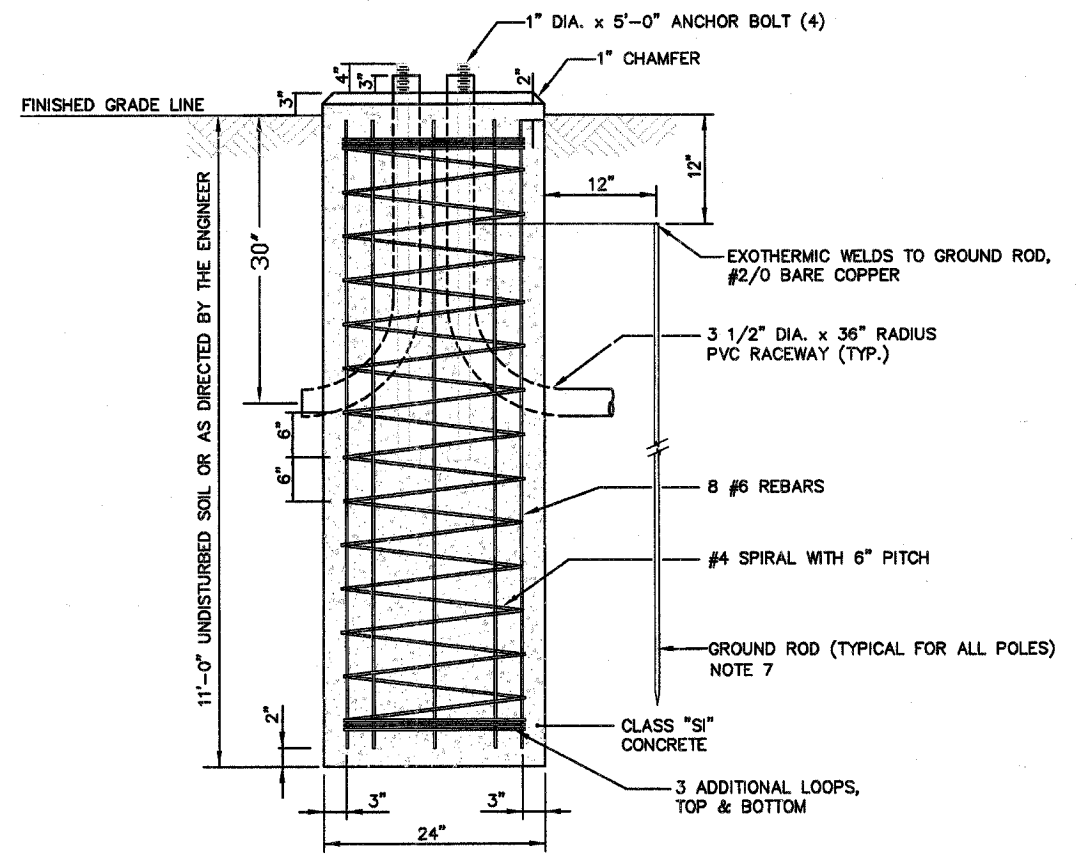
- LUMINAIRE NOTES:**
- LUMINAIRE SHALL BE A GENERAL ELECTRIC M-400A2 POWR/DOOR MODEL.
 - LUMINAIRE SHALL BE PROVIDED WITH I.D.O.T. APPROVED MEDIUM CUT-OFF, TYPE III DISTRIBUTION OPTICS. (CURVE NO. 7323.IES)

LIGHT POLE DETAIL
N.T.S.

- LIGHT POLE NOTES:**
- HEAT TREATMENT SHALL BE APPLIED AFTER WELDING.
 - DESIGN SHALL CONFORM WITH THE LATEST EDITION OF A.A.S.H.T.O. "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS" FOR 80 M.P.H. WIND SPEED.
 - ALL POLES SHALL BE PROVIDED WITH BOLT COVERS AND A SKIRT IN ACCORDANCE WITH BOLINGBROOK STANDARDS.



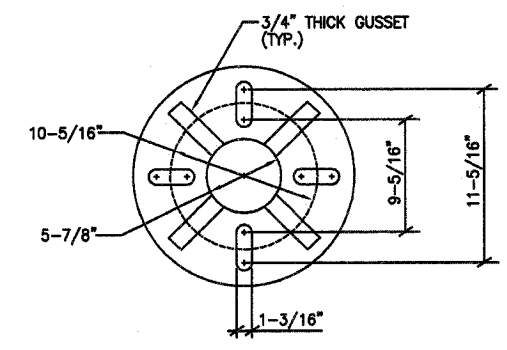
TOP VIEW



SECTION A-A

LIGHT POLE FOUNDATION DETAIL
N.T.S.
(SEE NOTES 1 THROUGH 5)

- LIGHT POLE FOUNDATION NOTES:**
- MINIMUM UNCONFINED COMPRESSIVE STRENGTH FOR COHESIVE SOILS $Q_{u1} = .8$ TONS PER SQ. FT. MINIMUM STANDARD PENETRATION TEST VALUE FOR GRANULAR SOILS $N = 10$ BLOWS PER FOOT.
 - MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 3500 PSI AT THE END OF 28 DAYS.
 - ALL REINFORCEMENT SHALL BE EPOXY COATED WITH A MINIMUM YIELD POINT OF 60000 PSI.
 - THE ANCHOR BOLTS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED IN FORMS.
 - EXCAVATION FOR THE POLE FOUNDATION SHALL BE WITH AN AUGER 24 INCHES IN DIAMETER.
 - THE COST OF ADDITIONAL RACEWAY SHALL BE INCLUDED IN THE COST OF "LIGHT POLE FOUNDATION" PAY ITEM.
 - THE COST OF GROUND ROD AND MISCELLANEOUS GROUND WIRE SHALL BE INCLUDED IN THE COST OF "LIGHT POLE FOUNDATION" PAY ITEM.



- THE BASE SHALL BE SLOTTED TO FIT 1" BASE BOLTS SET FROM 9-5/16" TO 11-5/16" ON CENTER DIAGONALLY.
- ANCHOR BOLTS SHALL BE MINIMUM 1" X 5'-0", 4" HOOK, THREADED AND TOP 10" HOT DIP GALVANIZED. (ANCHOR BOLT SIZES SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS).
- ALL NUTS AND WASHERS SHALL BE HOT DIP GALVANIZED.

BOLINGBROOK STANDARD
LIGHT POLE BASE DETAIL
N.T.S.

NO.	DATE	REVISION	BY

WILL COUNTY DEPARTMENT OF HIGHWAYS
PLAINFIELD-NAPERVILLE ROAD (C.H. 14)
ROADWAY RECONSTRUCTION
LIGHT POLE AND FOUNDATION DETAILS

McDonough Associates Inc.
Engineers/Architects

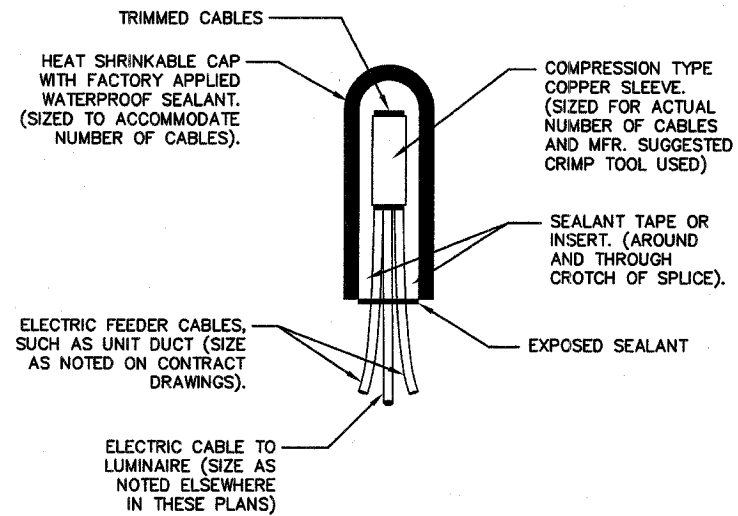
DESIGNED BY: JES
CHECKED BY: KMY
DRAWN BY: JES

SCALE:
N.T.S.

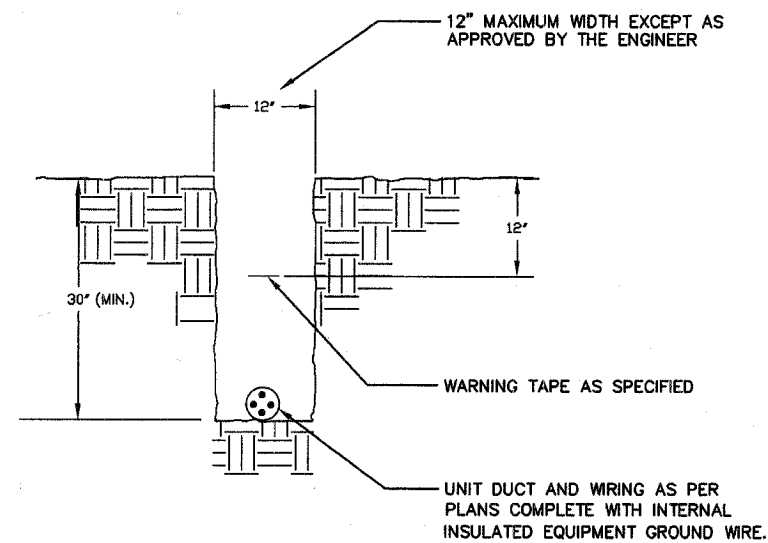
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2545	*	WILL	147	147
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

* 98-00036-19-FP

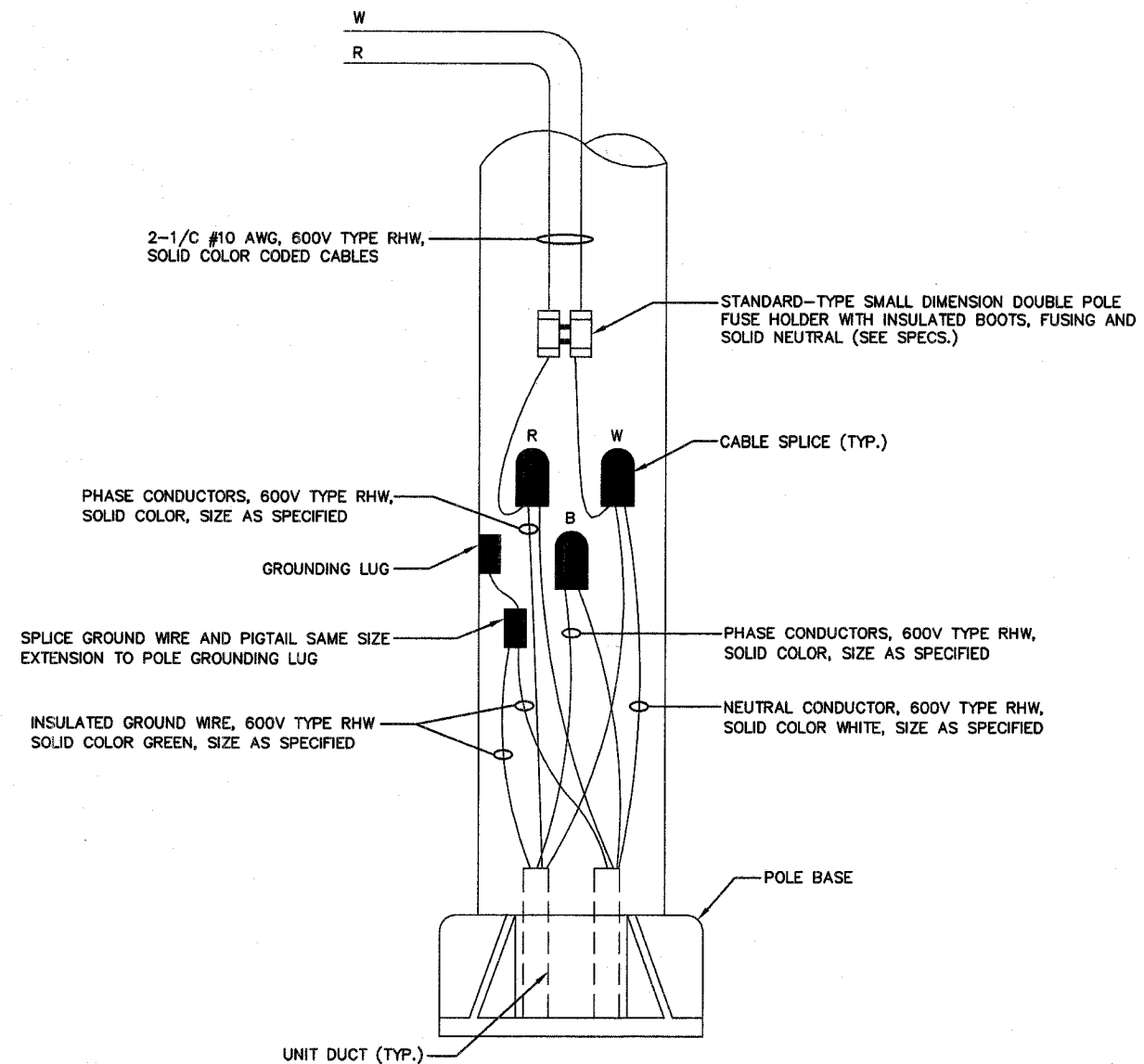
CONTRACT NO. 83896



SPLICING ELECTRIC CABLES
BASIC MATERIALS AND METHODS
N.T.S.



TYPICAL WIRING IN TRENCH - DETAIL
N.T.S.



POLE WIRING DETAIL
N.T.S.

DRAWING ID: 0
PLOT DATE: 0

NO.	DATE	REVISION	BY

WILL COUNTY DEPARTMENT OF HIGHWAYS	
PLAINFIELD-NAPERVILLE ROAD (C.H. 14)	
ROADWAY RECONSTRUCTION	
ELECTRICAL DETAILS	
McDonough Associates Inc. Engineers/Architects	DESIGNED BY: JES CHECKED BY: KMY DRAWN BY: JES
SCALE: N.T.S.	