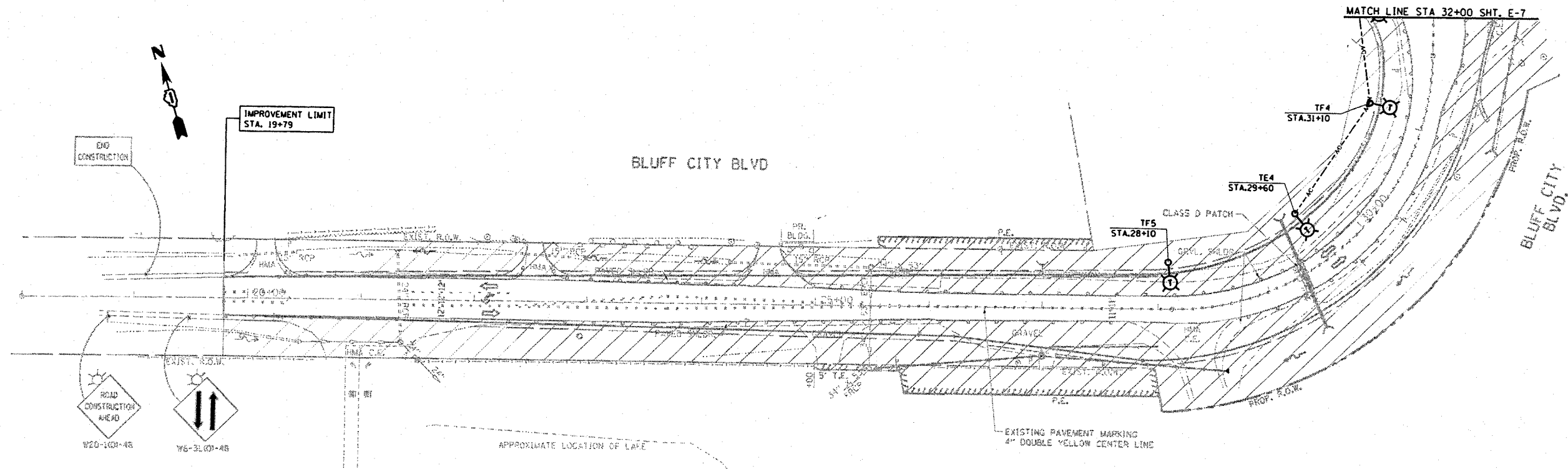


CONTRACT NO.				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	82-1-N-1	COOK	196	101
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



LEGEND

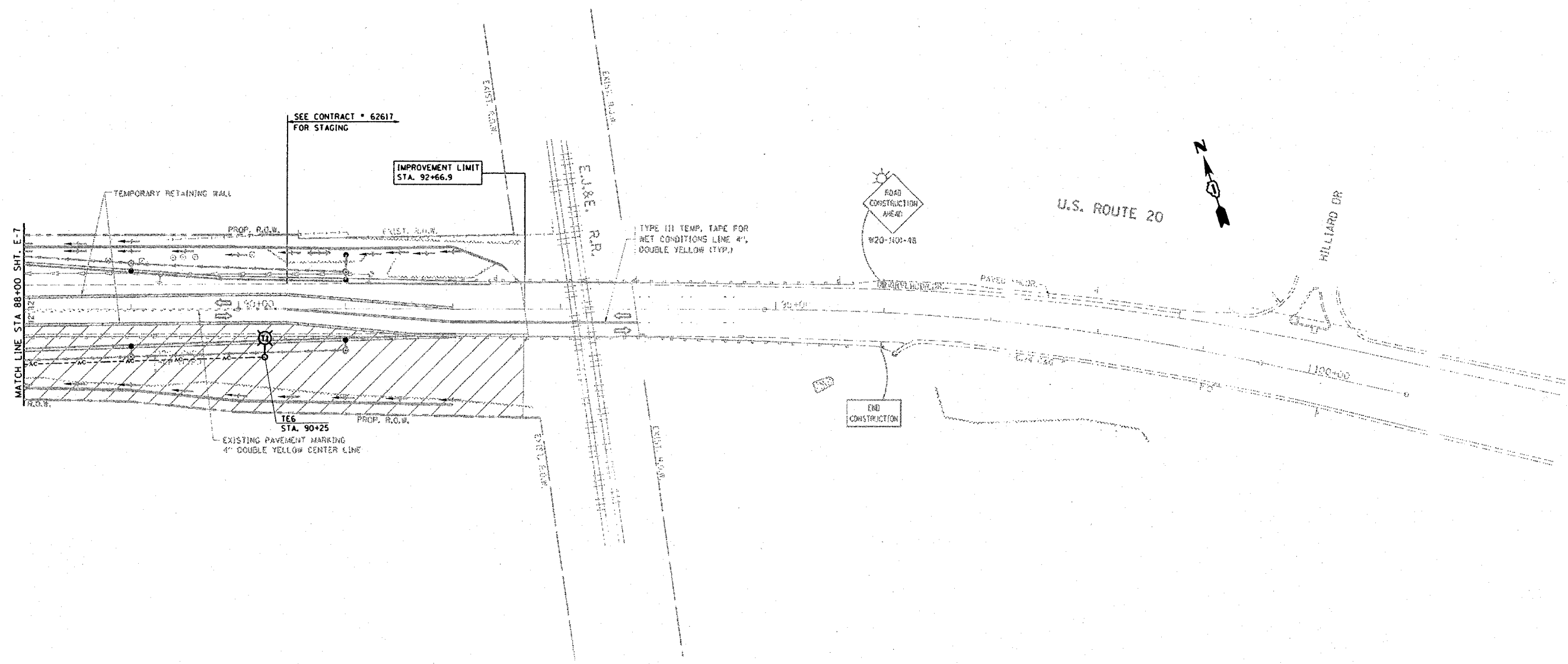
- SIGN
- DRUMS WITH STEADY BURN MONODIRECTIONAL LIGHT
- 50' C-C TANGENTS
- 25' C-C LANE SHIFTS & TAPERS
- 10' C-C RADII (TYP)
- WORK AREA

REVISIONS	
NAME	DATE




ILLINOIS DEPARTMENT OF TRANSPORTATION
STAGE I CONSTRUCTION LIGHTING PLAN 4
U.S. RTE. 20 @ SHALES PARKWAY AND BLUFF CITY BLVD.
 SCALE: VERT. 1"=50'
 HORIZ.
 DATE 3/25/2008
 DRAWN BY AC
 CHECKED BY MEA/MJ

PLOT DATE = 3/25/2008
 FILE NAME = c:\projects\113703\sh_stage.dgn
 PLOT SCALE = 1/8"=1'-0" / IN.
 USER NAME = goglianob

CONTRACT NO.				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-1-N-1	COOK	196	102
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



LEGEND

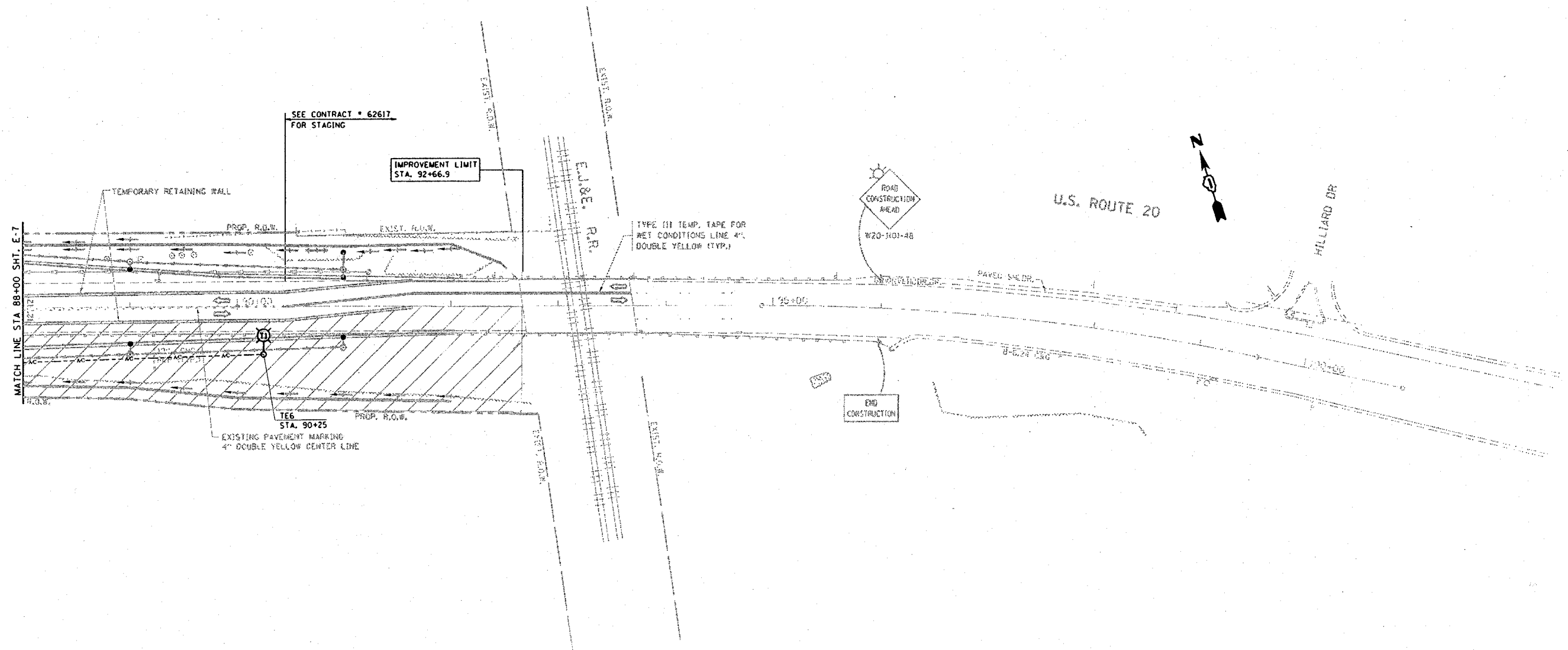
-  SIGN
-  DRUMS WITH STEADY BURN MONODIRECTIONAL LIGHT
- 50' C-C TANGENTS
- 25' C-C LANE SHIFTS & TAPERS
- 10' C-C RADII (TYP)
-  WORK AREA

PLOT DATE : 2/4/2008
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 PLOT SCALE : 1/8"=1'-0"
 USER NAME : gajitanob






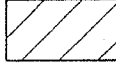
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
STAGE IA CONSTRUCTION LIGHTING PLAN
U.S. RTE. 20 @ SHALES PARKWAY AND BLUFF CITY BLVD.
 SCALE: VERT. 1"=50'
 HORIZ. 1"=50'
 DATE 2/4/2008
 DRAWN BY AC
 CHECKED BY MEA/MJ

CONTRACT NO.				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	8(R-1-N-1)	COOK	196	103
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



LEGEND

-  SIGN
-  DRUMS WITH STEADY BURN MONODIRECTIONAL LIGHT
-  50' C-C TANGENTS
-  25' C-C LANE SHIFTS & TAPERS
-  10' C-C RADII (TYP)
-  WORK AREA

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE 1B CONSTRUCTION LIGHTING PLAN

U.S. RTE. 20 @ SHALES PARKWAY AND BLUFF CITY BLVD.

SCALE: VERT. 1"=50'
HORIZ. 1"=100'

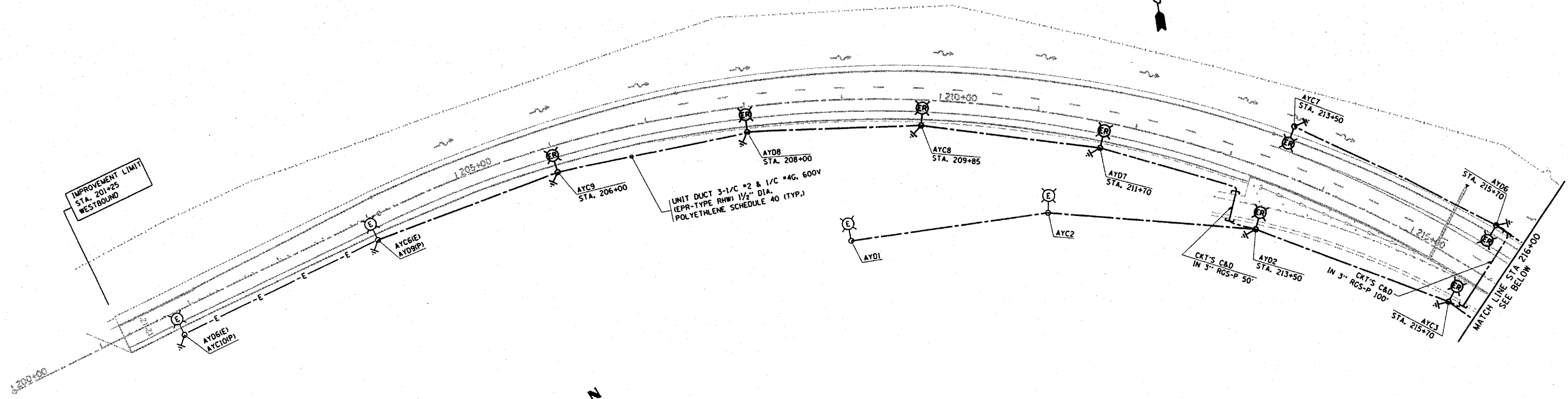
DATE 2/4/2008

DRAWN BY AC
CHECKED BY MEA/MJ

PLOT DATE: 2/4/2008
FILE NAME: c:\users\jessica\appdata\local\temp\dgn\113703\sh_1stage.dgn
SCALE: 1/8"=1'-0" / 1"=100'
USER NAME: jessica

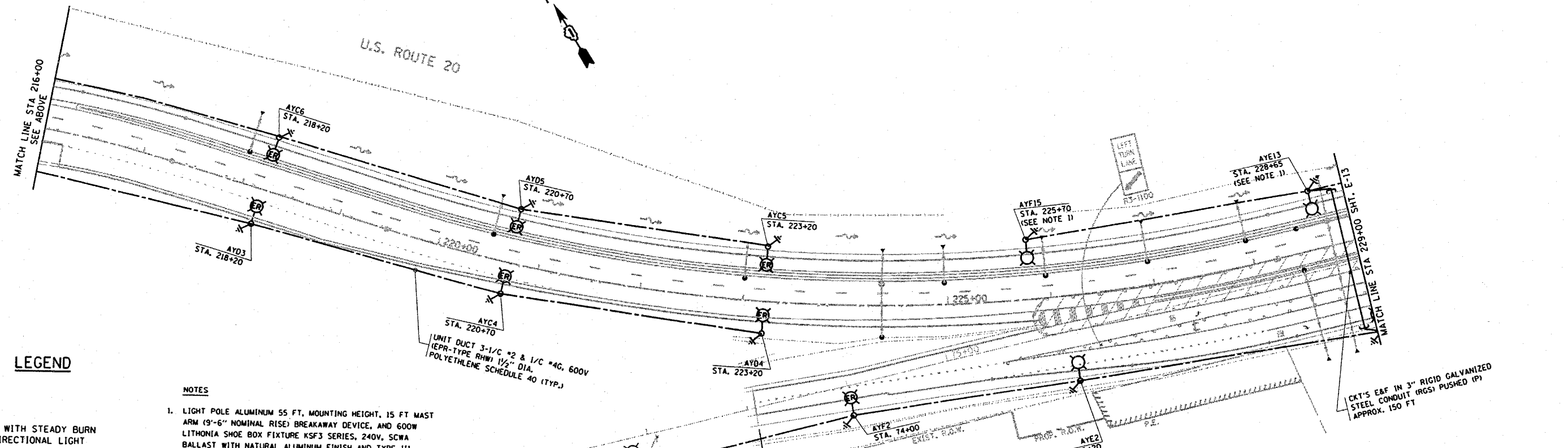
CONTRACT NO.			
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS
395	82-1-N-1	COOK	196
SHEET NO.		104	
STA.		TO STA.	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	

U.S. ROUTE 20



IMPROVEMENT LIMIT
STA. 201+25
WESTBOUND

U.S. ROUTE 20



LEGEND

- SIGN
- DRUMS WITH STEADY BURN MONODIRECTIONAL LIGHT
- 50' C-C TANGENTS
- 25' C-C LANE SHIFTS & TAPERS
- 10' C-C RADII (TYP)
- WORK AREA

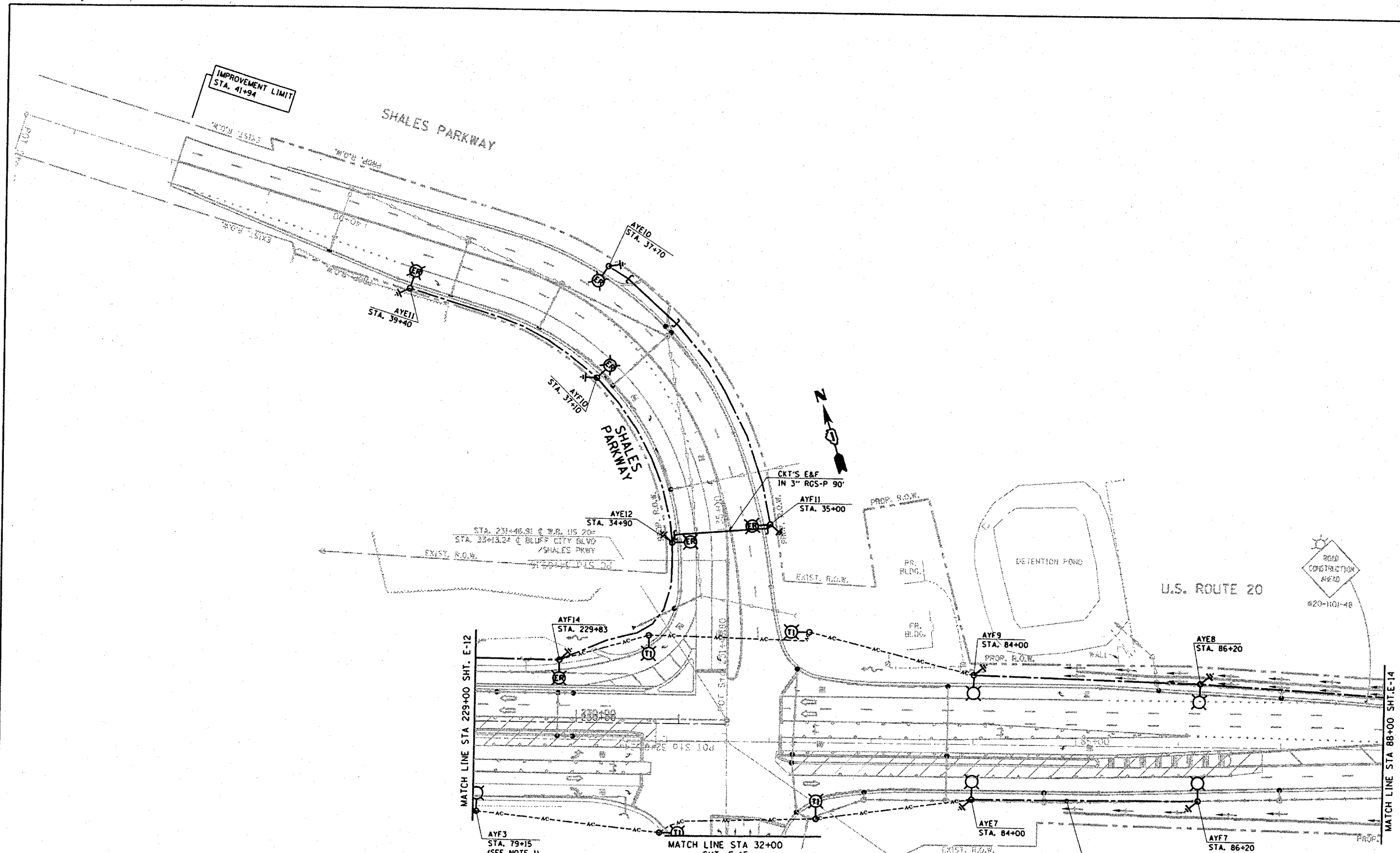
- NOTES**
- LIGHT POLE ALUMINUM 55 FT, MOUNTING HEIGHT, 15 FT MAST ARM (9'-6" NOMINAL RISE) BREAKAWAY DEVICE, AND 600W LITHONIA SHOE BOX FIXTURE KSF3 SERIES, 240V, SCWA BALLAST WITH NATURAL ALUMINUM FINISH AND TYPE III DISTRIBUTION OR APPROVED EQUAL.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
STAGE II CONSTRUCTION LIGHTING PLAN 1
U.S. RTE. 20 @ SHALES PARKWAY AND BLUFF CITY BLVD.
 SCALE: VERT. 1"=50'
 HORIZ. DATE 3/25/2008
 DRAWN BY AC
 CHECKED BY MEA/MJ

PLOT DATE = 3/25/2008
 FILE NAME = c:\projects\113703\sh_stage.dgn
 USER NAME = gaganobit

CONTRACT NO.				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	82-1-N-1	COOK	196	105
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



LEGEND

- SIGN
- DRUMS WITH STEADY BURN MONODIRECTIONAL LIGHT
- 50' C-C TANGENTS
- 25' C-C LANE SHIFTS & TAPERS
- 10' C-C RADII (TYP)
- WORK AREA

NOTES

1. LIGHT POLE ALUMINUM 55 FT. MOUNTING HEIGHT, 15 FT MAST ARM (9'-6" NOMINAL RISE) BREAKAWAY DEVICE, AND 600W LITHONIA SHOE BOX FIXTURE KSF3 SERIES, 240V, SCWA BALLAST WITH NATURAL ALUMINUM FINISH AND TYPE III DISTRIBUTION OR APPROVED EQUAL.

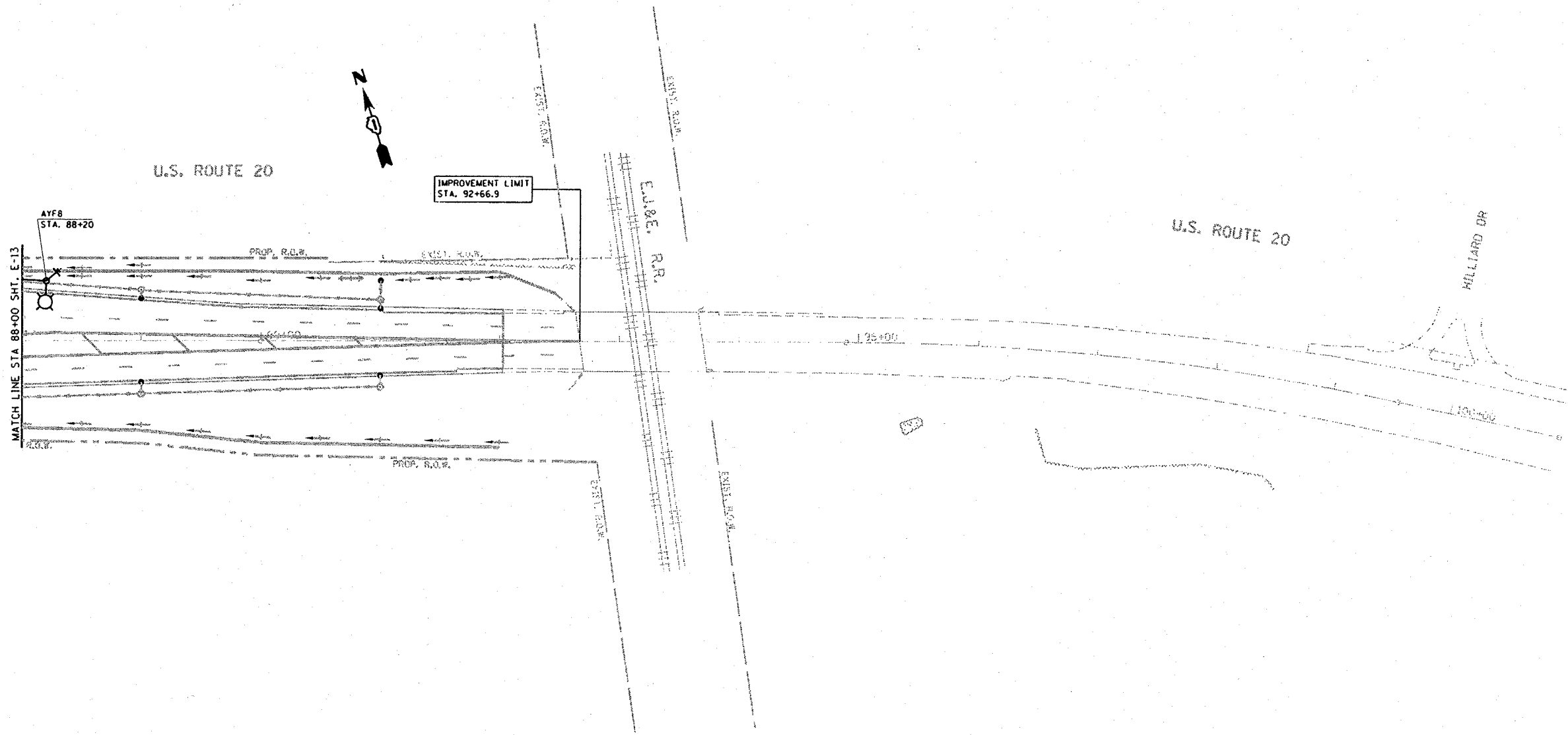
UNIT DUCT 3-1/2" * 2 & 1/2" * 4G, 600W (EPR-TYPE RHNI 1/2" DIA. POLYETHYLENE SCHEDULE 40 (TYP.))

REVISIONS	
NAME	DATE



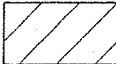
ILLINOIS DEPARTMENT OF TRANSPORTATION
STAGE II CONSTRUCTION LIGHTING PLAN 2
U.S. RTE. 20 @ SHALES PARKWAY AND BLUFF CITY BLVD.
 SCALE: VERT. 1"=50'
 HORIZ. DATE 3/27/2008
 DRAWN BY AC
 CHECKED BY MEA/MJ

PLOT DATE: 3/27/2008
 PLOT SCALE: 1/8"=1'-0"
 USER NAME: gregjordan

F.A. RYE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-1-N-1	COOK	196	106
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



LEGEND

-  SIGN
-  DRUMS WITH STEADY BURN MONODIRECTIONAL LIGHT
- 50' C-C TANGENTS
- 25' C-C LANE SHIFTS & TAPERS
- 10' C-C RADII (TYP)
-  WORK AREA

PLOT DATE : 2/4/2008
 PLOT SCALE : 1/4"=50'
 USER NAME : greglambert

REVISIONS	
NAME	DATE

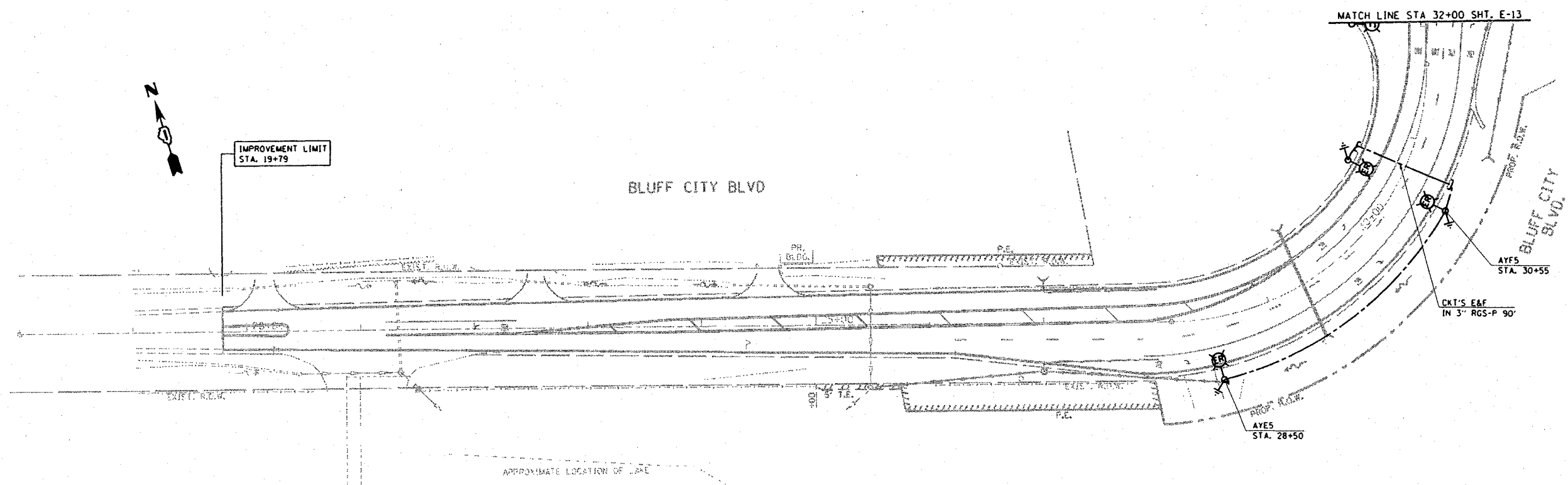
E-14

ILLINOIS DEPARTMENT OF TRANSPORTATION
STAGE II CONSTRUCTION
LIGHTING PLAN 3
U.S. RTE. 20 @
SHALES PARKWAY AND BLUFF CITY BLVD.




VERT. SCALE: 1"=50'
 HORIZ. SCALE: 1"=50'
 DATE: 2/4/2008

DRAWN BY AC
 CHECKED BY MEA/MJ

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	82-1-N-1	COOK	196	107
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



LEGEND

-  SIGN
-  DRUMS WITH STEADY BURN MONODIRECTIONAL LIGHT
- 50' C-C TANGENTS
- 25' C-C LANE SHIFTS & TAPERS
- 10' C-C RADII (TYP)
-  WORK AREA

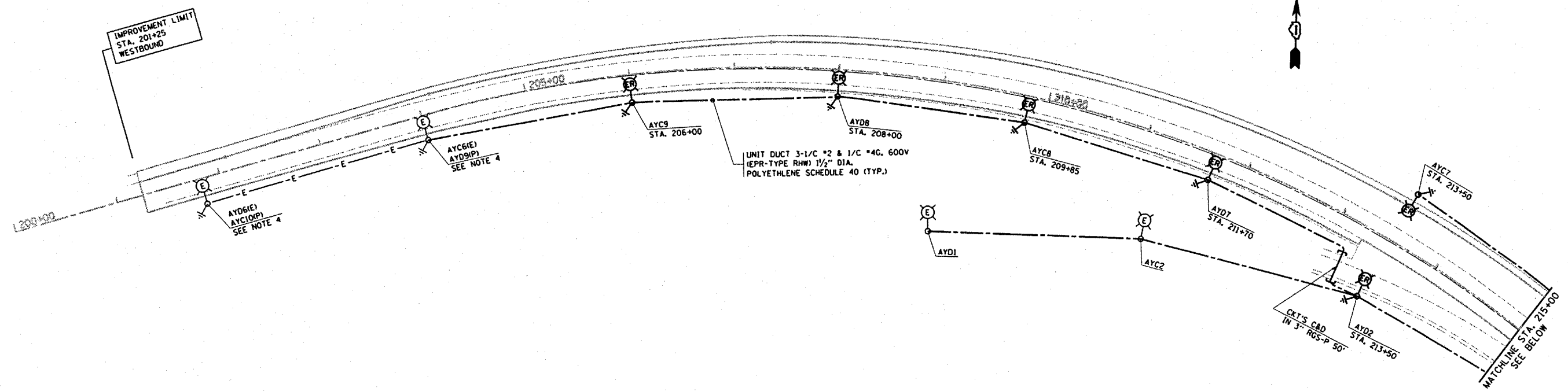
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 FILE NAME : c:\projects\113703\sh_stage.dgn
 PLOT SCALE : 1/8"=1'-0"
 USER NAME : gogginrob

REVISIONS	
NAME	DATE

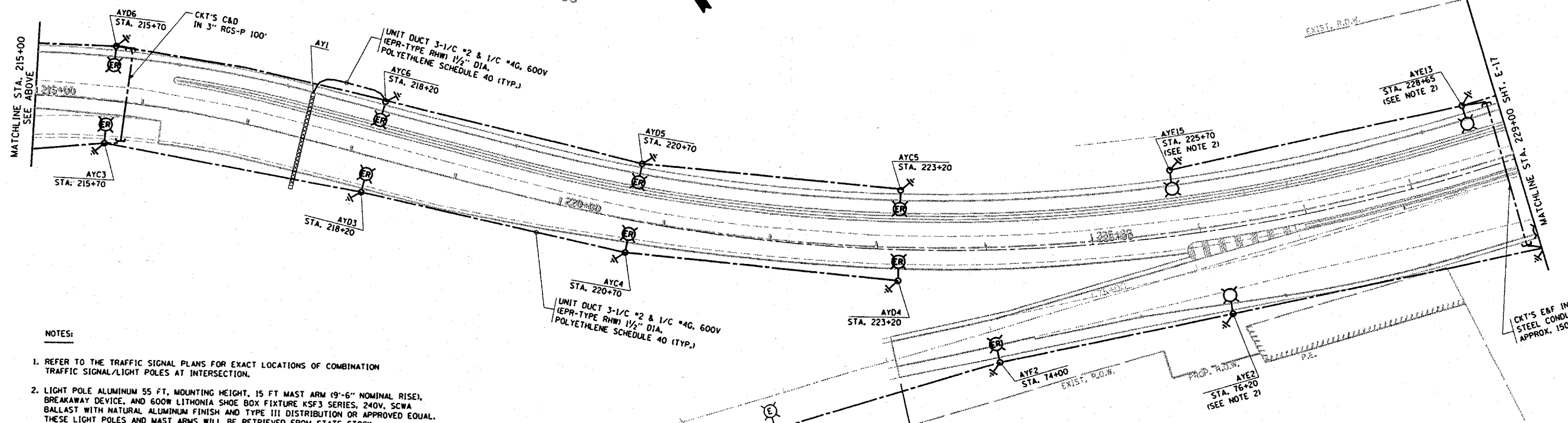
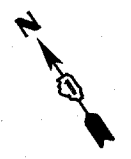
ILLINOIS DEPARTMENT OF TRANSPORTATION
STAGE II CONSTRUCTION LIGHTING PLAN 4
U.S. RTE. 20 @ SHALES PARKWAY AND BLUFF CITY BLVD.
 VERT. SCALE: 1"=50'
 HORIZ. SCALE: 1"=50'
 DATE 2/4/2008
 DRAWN BY AC
 CHECKED BY MEA/MJ

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-IN-1	COOK	196	108
STA. 201+25		TO STA. 229+00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

U.S. ROUTE 20



U.S. ROUTE 20



NOTES:

- REFER TO THE TRAFFIC SIGNAL PLANS FOR EXACT LOCATIONS OF COMBINATION TRAFFIC SIGNAL/LIGHT POLES AT INTERSECTION.
- LIGHT POLE ALUMINUM 55 FT. MOUNTING HEIGHT, 15 FT MAST ARM (9'-6" NOMINAL RISE), BREAKAWAY DEVICE, AND 600V LITHONIA SHOE BOX FIXTURE KSF3 SERIES, 240V, SCWA BALLAST WITH NATURAL ALUMINUM FINISH AND TYPE III DISTRIBUTION OR APPROVED EQUAL. THESE LIGHT POLES AND MAST ARMS WILL BE RETRIEVED FROM STATE STOCK.
- LIGHT POLES, AYE10, AYE11, AYE12, AYE10, AYE11, AYE12, AYE10, AYE11 AND ALL THE COMBINATION POLES SHALL HAVE A LUMINAIRE KEEPER INSTALLED.
- EXISTING LIGHTING UNITS C6 AND D6 SHALL BE RE-CIRCUITED AND RE-LABELLED AS SHOWN. THIS WORK SHALL BE INCLUDED IN THE COST OF "RELOCATE EXISTING LIGHTING UNIT".

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PROPOSED LIGHTING PLAN 1
U.S. ROUTE 20 @
SHALES PARKWAY

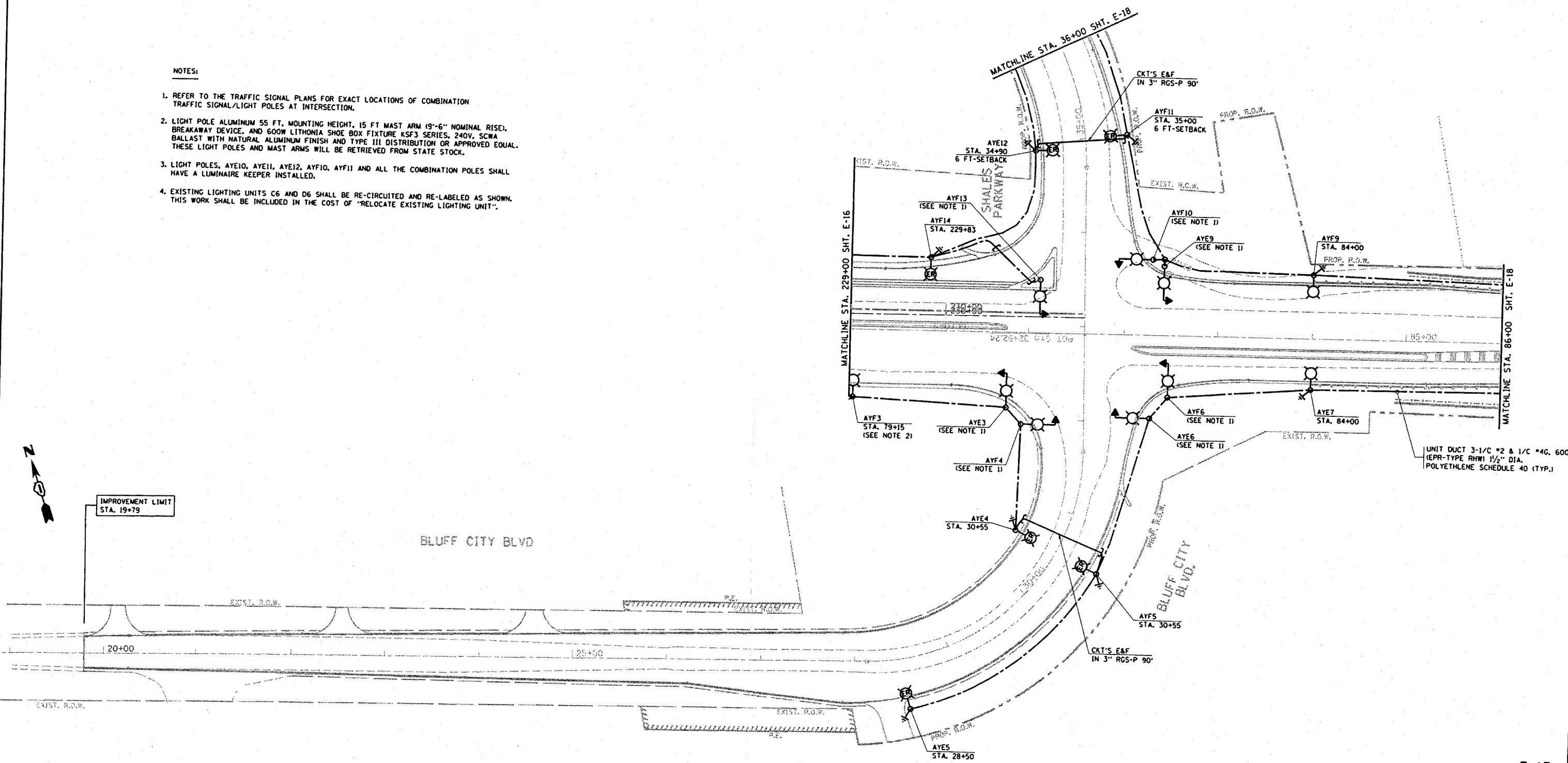
SCALE: VERT. 1"=50'
 HORIZ. 1"=50'
 DATE 3/25/2008
 DRAWN BY
 CHECKED BY MEA/MJ

PLOT DATE: 3/25/2008
 FILE NAME: c:\projects\1113703\sh_lighting.dgn
 PLOT SCALE: 1/8"=1'-0"
 USER NAME: gagi/anobl

CONTRACT NO. 62617			
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS
345	8R-IN-1	COOK	196
STA. 229+00		TO STA. 86+00	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

NOTES:

1. REFER TO THE TRAFFIC SIGNAL PLANS FOR EXACT LOCATIONS OF COMBINATION TRAFFIC SIGNAL/LIGHT POLES AT INTERSECTION.
2. LIGHT POLE ALUMINUM 55 FT. MOUNTING HEIGHT, 15 FT MAST ARM (9'-6" NOMINAL RISE), BREAKAWAY DEVICE, AND 600W LITHONIA SHOE BOX FIXTURE KSF3 SERIES, 240V, SCWA BALLAST WITH NATURAL ALUMINUM FINISH AND TYPE III DISTRIBUTION OR APPROVED EQUAL. THESE LIGHT POLES AND MAST ARMS WILL BE RETRIEVED FROM STATE STOCK.
3. LIGHT POLES, AYE10, AYE11, AYE12, AYE10, AYE11 AND ALL THE COMBINATION POLES SHALL HAVE A LUMINAIRE KEEPER INSTALLED.
4. EXISTING LIGHTING UNITS C6 AND D6 SHALL BE RE-CIRCUITED AND RE-LABELLED AS SHOWN. THIS WORK SHALL BE INCLUDED IN THE COST OF "RELOCATE EXISTING LIGHTING UNIT".



UNIT DUCT 3-1/4" #2 & 1/4" #4G, 600V (EPR-TYPE RHW) 1/2" DIA. POLYETHYLENE SCHEDULE 40 (TYP.)

E-17

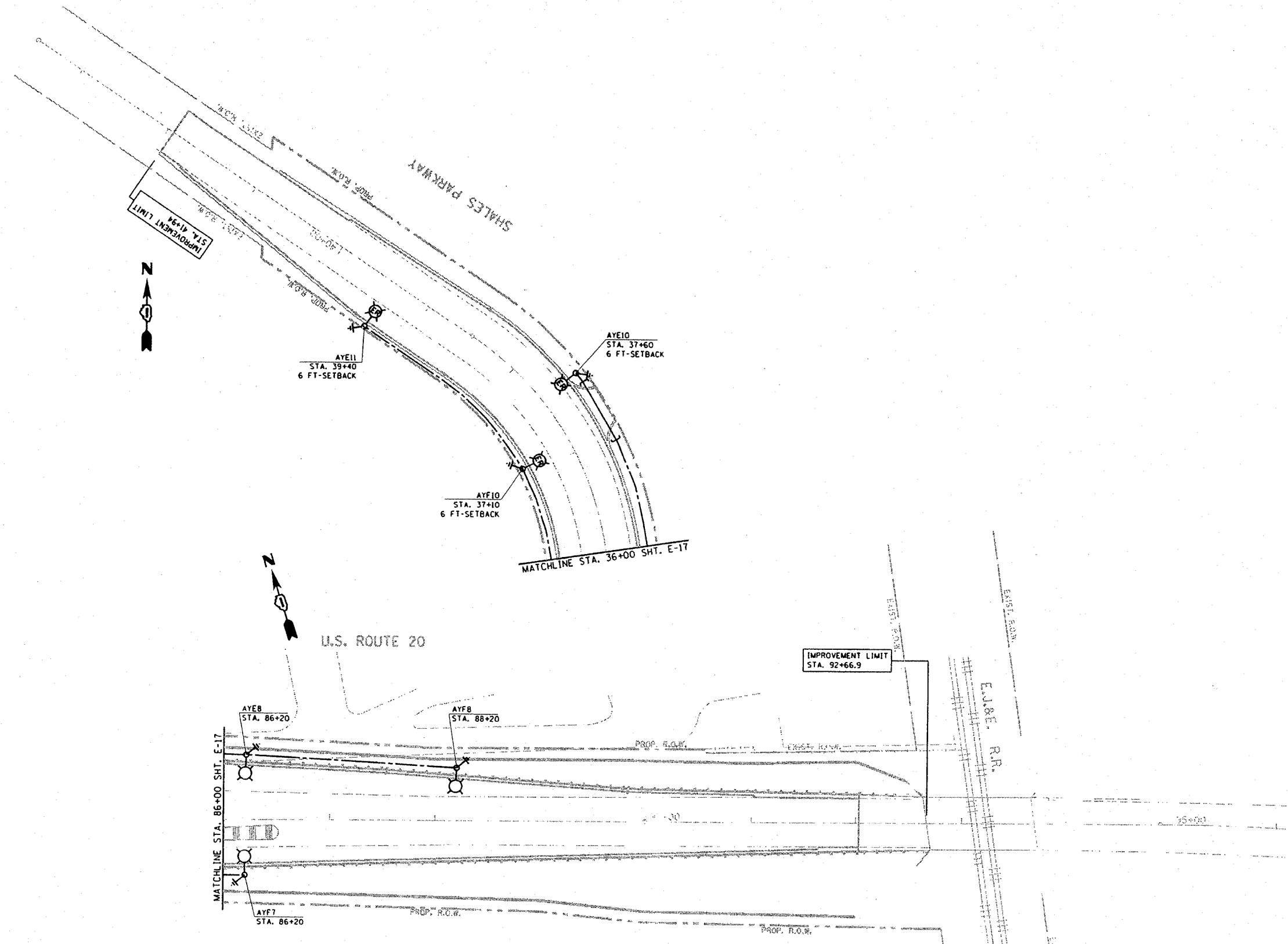
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PROPOSED LIGHTING PLAN 2
U.S. ROUTE 20 @
SHALES PARKWAY

SCALE: VERT. 1"=50'
 HORIZ. 1"=50'
 DATE 3/25/2008
 DRAWN BY AC
 CHECKED BY MEA/MJ

PLOT DATE: 3/25/2008
 FILE NAME: c:\p\projects\1113783\sh_lighting.dgn
 PLOT SCALE: 1/8"=1'-0"
 USER NAME: gpagliano

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-IN-1	COOK	196	110
STA. 86+00		TO STA. 92+66.9		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PROPOSED LIGHTING PLAN 3
U.S. ROUTE 20
SHALES PARKWAY

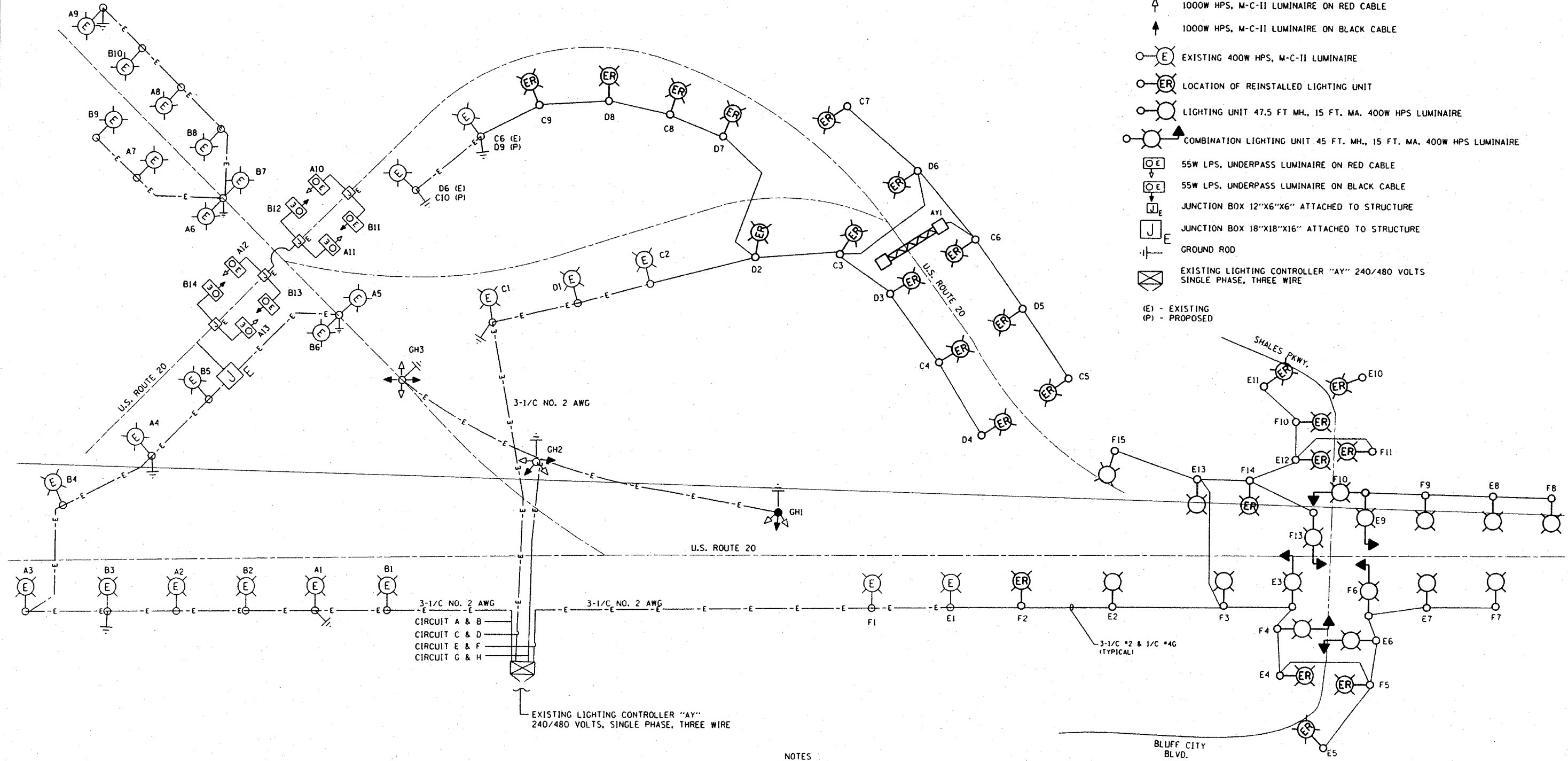
SCALE: VERT. 1"=50'
 HORIZ. DATE 2/4/2008

DRAWN BY AC
 CHECKED BY MEA/MJ

PLOT DATE : 2/4/2008
 PLOT SCALE : 1"=50'
 USER NAME : paglanob

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-IN-1	COOK	196	111
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

- ELECTRICAL SYMBOLS**
(UNLESS OTHERWISE NOTED)
- ↑ 1000W HPS, M-C-II LUMINAIRE ON RED CABLE
 - ↑ 1000W HPS, M-C-II LUMINAIRE ON BLACK CABLE
 - ⊙(E) EXISTING 400W HPS, M-C-II LUMINAIRE
 - ⊙(ER) LOCATION OF REINSTALLED LIGHTING UNIT
 - ⊙ LIGHTING UNIT 47.5 FT. MH., 15 FT. MA. 400W HPS LUMINAIRE
 - ⊙(↑) COMBINATION LIGHTING UNIT 45 FT. MH., 15 FT. MA. 400W HPS LUMINAIRE
 - ⊙(OE) 55W LPS, UNDERPASS LUMINAIRE ON RED CABLE
 - ⊙(OE) 55W LPS, UNDERPASS LUMINAIRE ON BLACK CABLE
 - ⊙(J) JUNCTION BOX 12"X6"X6" ATTACHED TO STRUCTURE
 - ⊙(J) JUNCTION BOX 18"X18"X16" ATTACHED TO STRUCTURE
 - ⊙(GR) GROUND ROD
 - ⊙(AY) EXISTING LIGHTING CONTROLLER "AY" 240/480 VOLTS SINGLE PHASE, THREE WIRE
- (E) - EXISTING
(P) - PROPOSED



- NOTES**
- LIGHTING UNITS E2, E13, F3, & F15 ARE 55 FT. MH., ALUMINUM POLES 15 FT. MA. AND 600W HPS LUMINAIRE
 - EXISTING LIGHTING UNITS C6 & D6 SHALL BE RE-CIRCUITED AND RE-LABELLED AS SHOWN. THIS WORK SHALL BE INCLUDED IN THE COST OF "RELOCATE EXISTING LIGHTING UNIT".

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PROPOSED U.S. ROUTE 20
SHALES PARKWAY
WIRING DIAGRAM

SCALE: VERT. 1"=50'
 HORIZ. 1"=50'
 DATE 2/4/2008

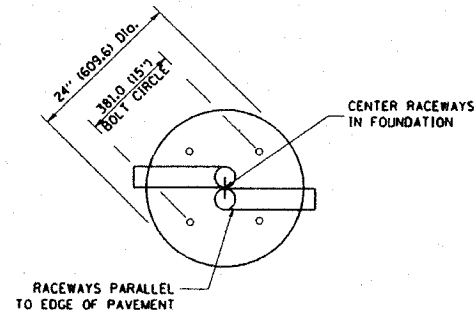
DRAWN BY AC
 CHECKED BY MEA/MJ

PLOT DATE: 2/4/2008
 FILE NAME: c:\projects\111783\shales_lighting.dwg
 USER NAME: driskobeg

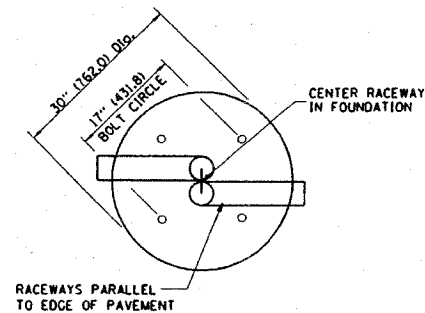
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
395	82-1-N-1	Cook	196	112
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT

LIGHT POLE FOUNDATION DEPTH TABLE
40 FT. (12.192 m) TO 47.5 FT. (14.478 m) MOUNTING HEIGHT

SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY Ou = 0.375 TON/SO. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY Ou = 0.75 TON/SO. FT.	9'-6" (2.93 m)	10'-9" (3.23 m)
STIFF CLAY Ou = 1.50 TON/SO. FT.	7'-0" (2.13 m)	8'-0" (2.44 m)
LOOSE SAND φ = 34°	9'-0" (2.74 m)	10'-0" (3.05 m)
MEDIUM SAND φ = 37.5°	8'-3" (2.52 m)	9'-0" (2.74 m)
DENSE SAND φ = 40°	7'-9" (2.36 m)	9'-0" (2.74 m)



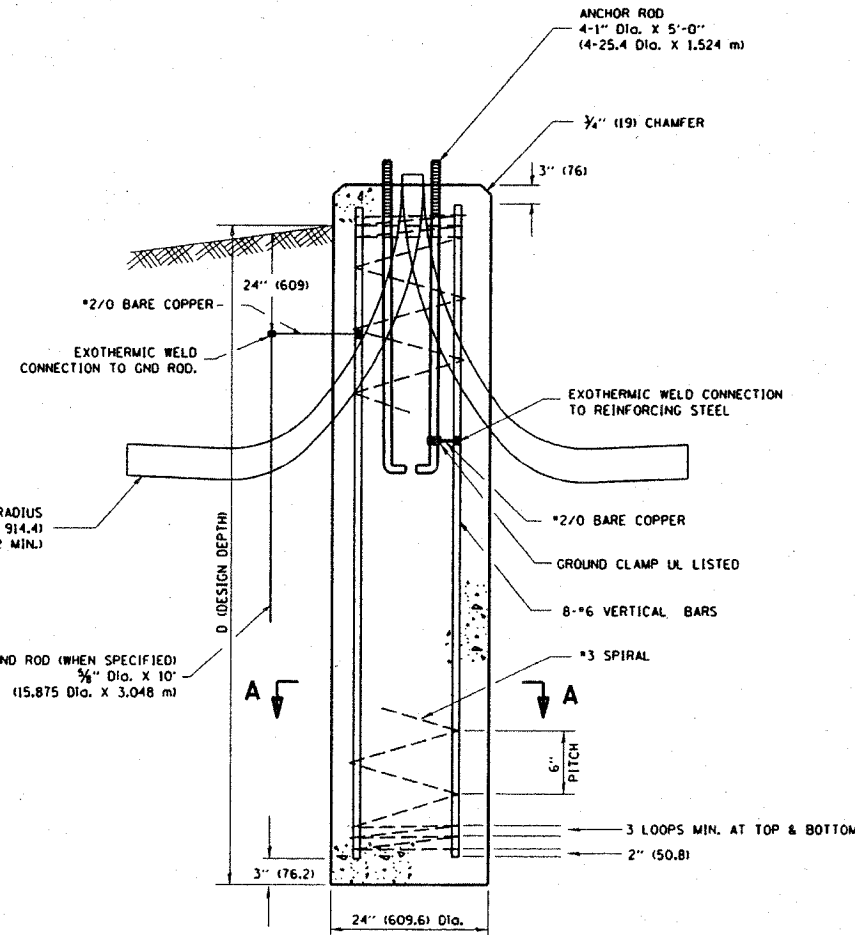
TOP VIEW



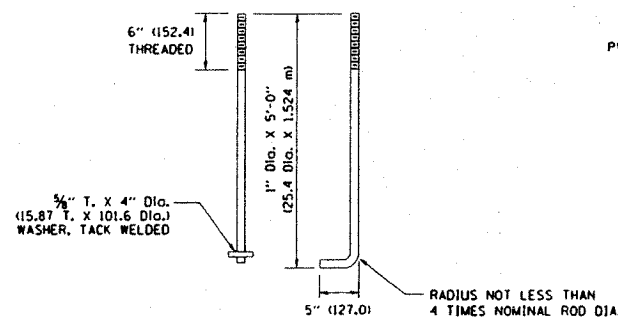
TOP VIEW

NOTES

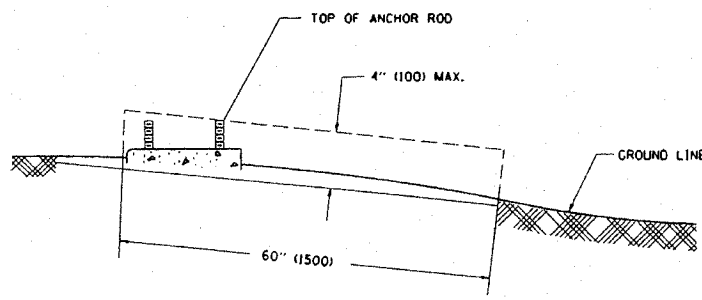
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4-IN. (20 mm).
- THE CONCRETE SHALL BE CLASS S1. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UMG MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 2 1/2" (63.5 mm) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.



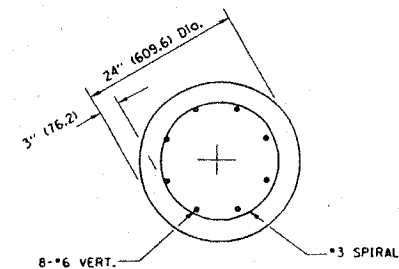
FOUNDATION DETAIL



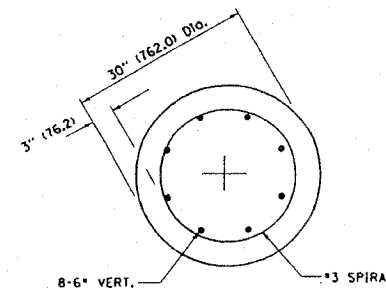
ANCHOR ROD DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A



SECTION A-A

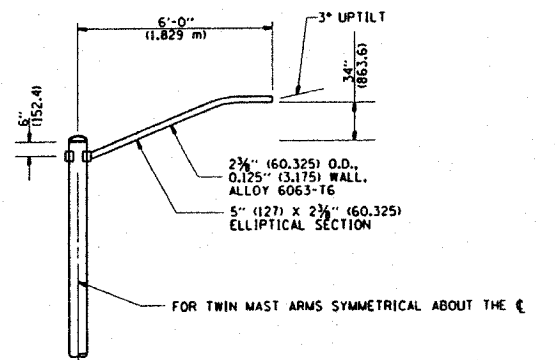
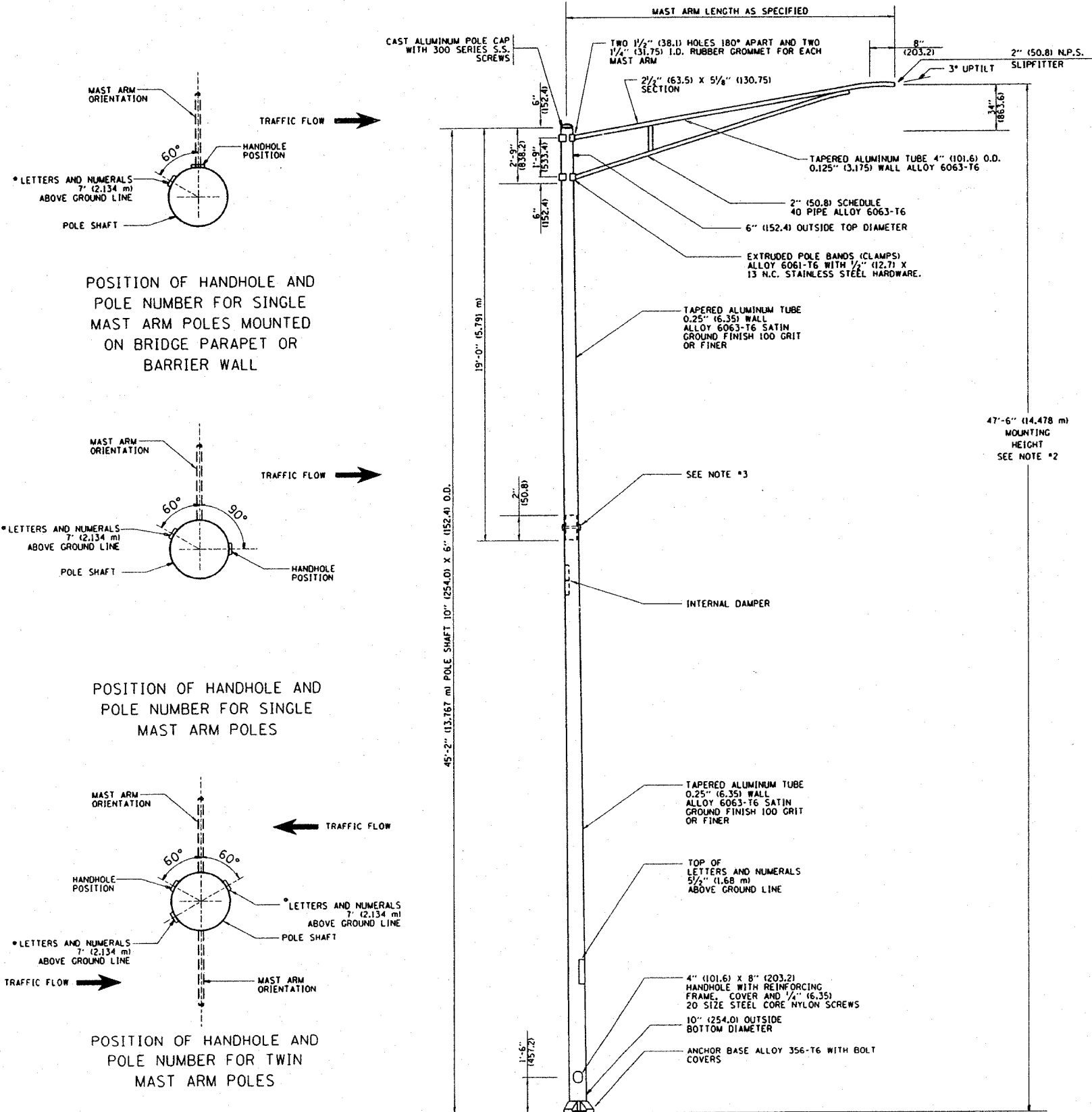
REVISIONS	
NAME	DATE
	04/22/02

ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHT POLE FOUNDATION
40' (12.192 m) TO 47 1/2' (14.478 m) M.H.
15" (381) BOLT CIRCLE

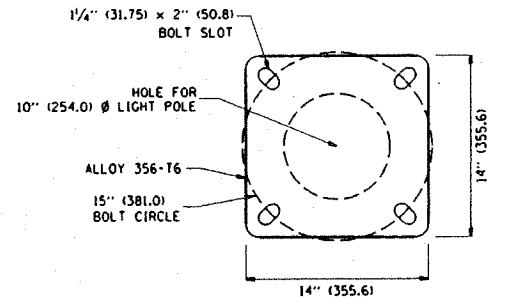
SCALE: NONE

DRAWN BY
CHECKED BY
E-301

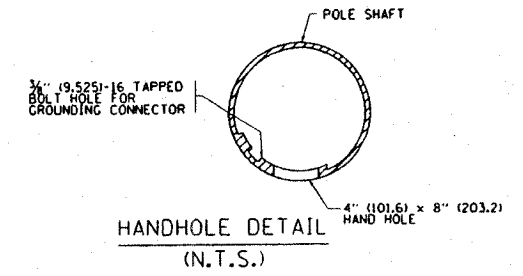
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
245	82-1-N-1	COOK	196	113
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



- NOTES:**
1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
 2. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
 3. TWO POLE SHAFTS WILL BE MATCHED MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF THE HOLES WILL NOT BE ALLOWED.
 4. THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
 5. THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR, BURNDY R2C23, T&B SP4DL OR APPROVED EQUAL.
 6. LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
 7. LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.
 8. LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.



LIGHT POLE BASE PLATE DETAIL
15 INCH (381.0) BOLT CIRCLE



REVISIONS	
NAME	DATE
R. TOMSONS	9-6-00
R. TOMSONS	9-3-03

ILLINOIS DEPARTMENT OF TRANSPORTATION

ALUMINUM LIGHT POLE
47'-6" (14.478 m)
MOUNTING HEIGHT

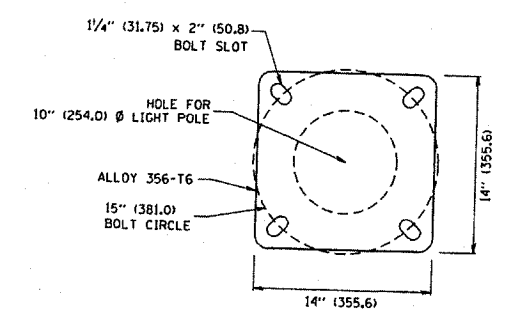
SCALE: NONE

DRAWN BY
CHECKED BY
BE-400

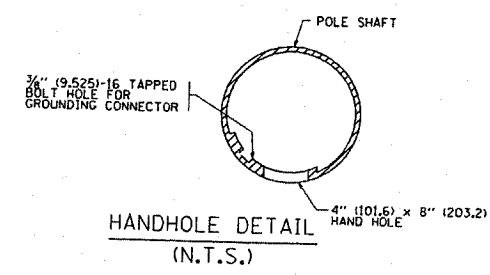
PLOT DATE: 2/4/2008
FILE NAME: W:\data\24-36\10808.dwg
USER: NAME
PLOT DEVICE: HP DesignJet 2430

CONTRACT NO.			
F.A. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
345	2R-1-N-1	Cook	196 113A
STA.		TO STA.	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	

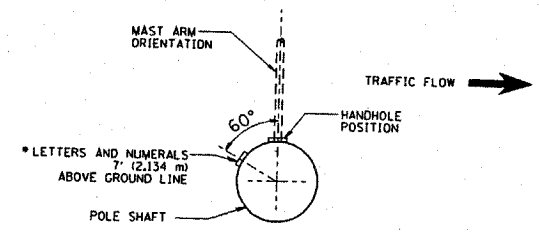
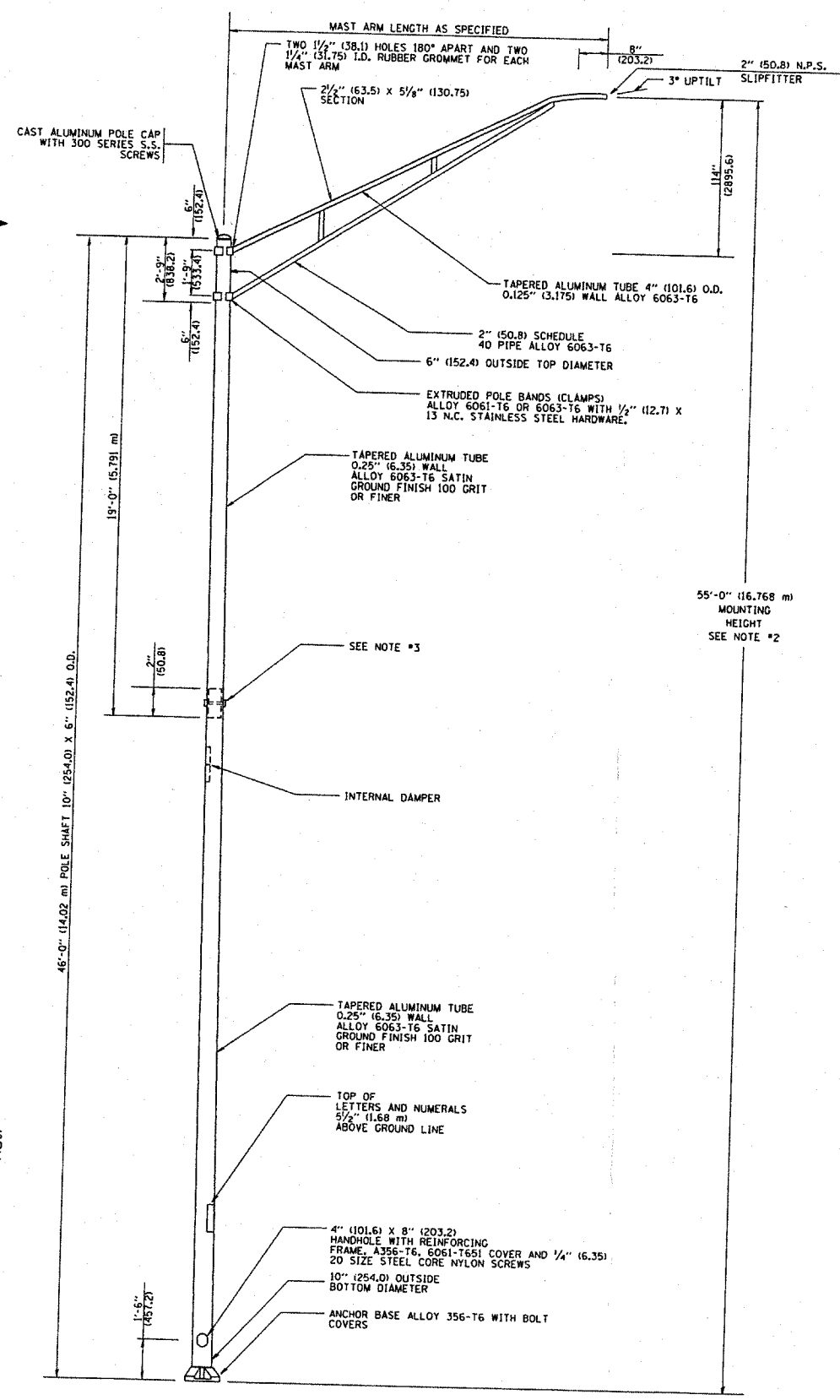
- NOTES:
1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
 2. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
 3. TWO PIECE SHAFT WILL BE MATCHED MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF THE HOLES WILL NOT BE ALLOWED.
 4. THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
 5. THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR, BURNDY K2C23, T&B SP4DL OR APPROVED EQUAL.
 6. LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
 7. LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.
 8. LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.



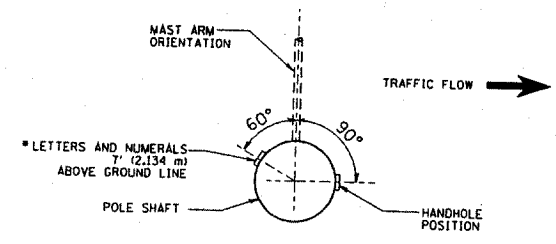
LIGHT POLE BASE PLATE DETAIL
15 INCH (381.0) BOLT CIRCLE



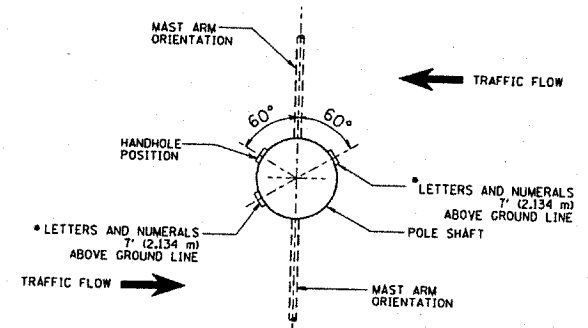
HANDHOLE DETAIL
(N.T.S.)



POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES MOUNTED ON BRIDGE PARAPET OR BARRIER WALL



POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES



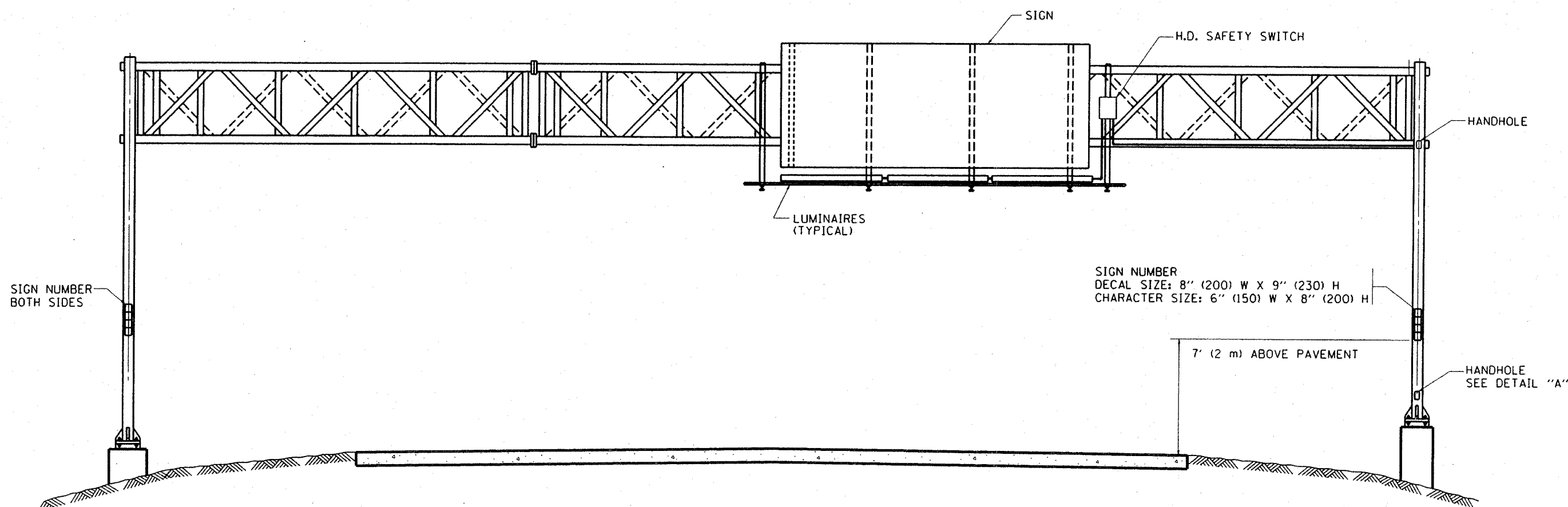
POSITION OF HANDHOLE AND POLE NUMBER FOR TWIN MAST ARM POLES

PLOT DATE : 3/27/2008
FILE NAME : I:\projects\24-36\new\481.dgn
PLOT SCALE : 50.000 / IN
USER NAME : bward

REVISIONS	
NAME	DATE

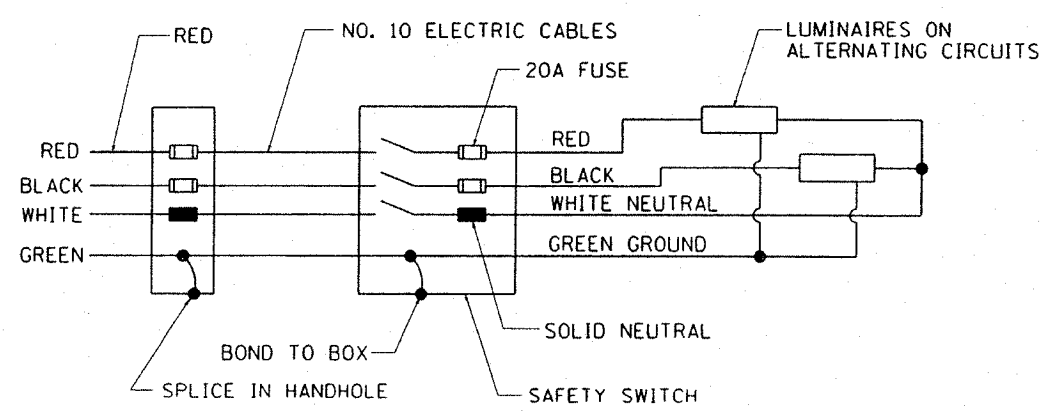
BE-404
ILLINOIS DEPARTMENT OF TRANSPORTATION
ALUMINUM LIGHT POLE
55'-0" (16.768 m)
MOUNTING HEIGHT
SCALE: NONE
DRAWN BY
CHECKED BY

CONTRACT NO. 62617				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-1-N-1	Cook	196	114
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

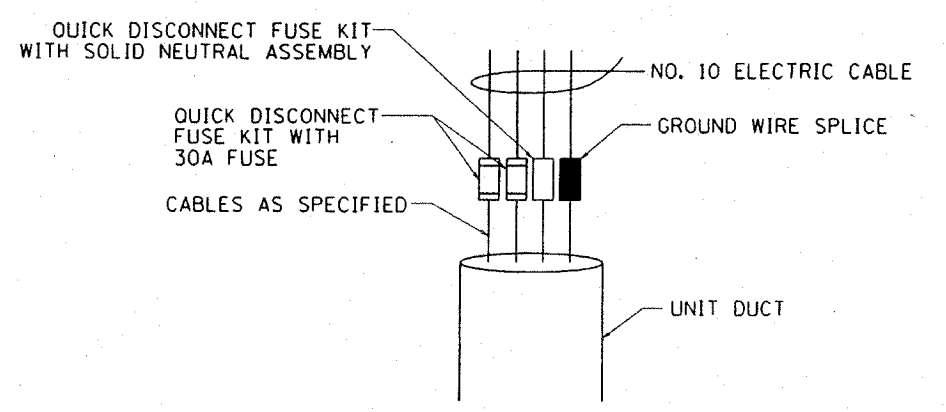


SIGN NUMBER
 DECAL SIZE: 8" (200) W X 9" (230) H
 CHARACTER SIZE: 6" (150) W X 8" (200) H

7' (2 m) ABOVE PAVEMENT



WIRING DIAGRAM



DETAIL A

NOTES:

1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN
2. ALL CONDUIT ATTACHED TO STRUCTURE SHALL BE GALVANIZED RIGID METALIC CONDUIT, PVC COATED (GRMC, PVC)
3. THE USE OF LIQUID TIGHT METAL CONDUIT (TYPE LFMC) SHALL BE LIMITED TO LOCATIONS WHERE MOVEMENT IS ANTICIPATED AND SHALL NOT EXCEED 5' (1.5 m) IN LENGTH
4. ALL WORK INDICATED SHALL BE INCLUDED IN THE PAY ITEM FOR ELECTRIC CONNECTION TO SIGN STRUCTURE
5. THE SAFETY SWITCH SHALL BE LOCATED ON THE SIDE OF THE SIGN STRUCTURE WHICH IS CLOSEST TO THE SHOULDER, OR EDGE OF PAVEMENT.

REVISIONS	
NAME	DATE
	08/19/04

ILLINOIS DEPARTMENT OF TRANSPORTATION

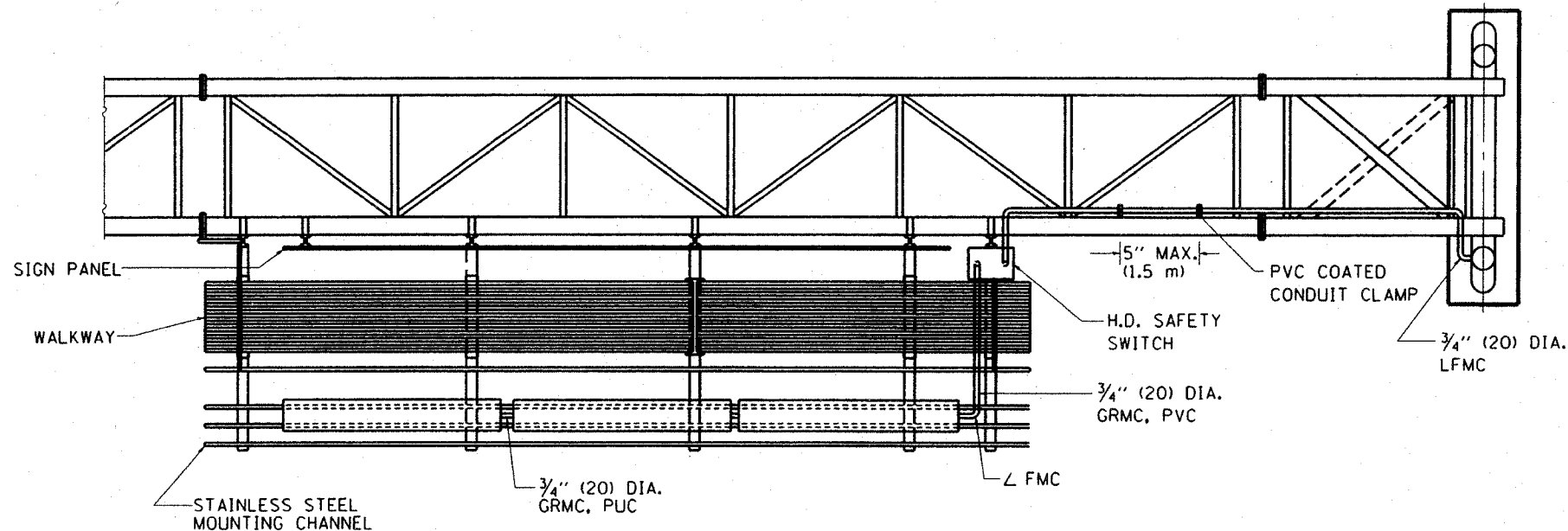
ELECTRIC CONNECTION
 TO SIGN STRUCTURE
 SPAN TYPE
 1 OF 2

SCALE: VERT. NONE
 HORIZ.

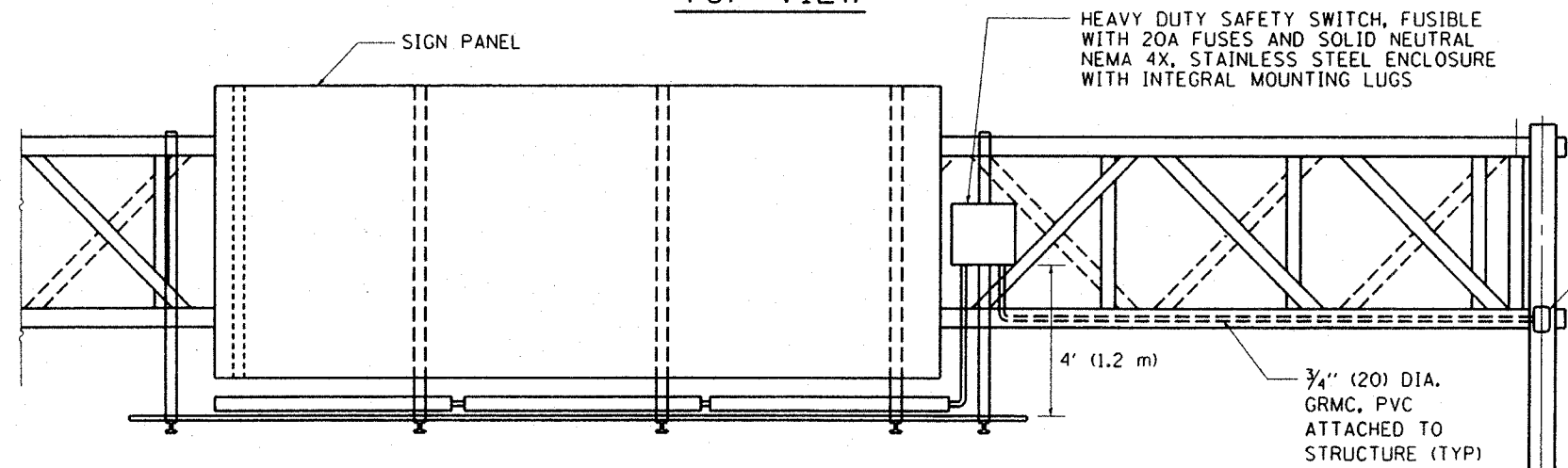
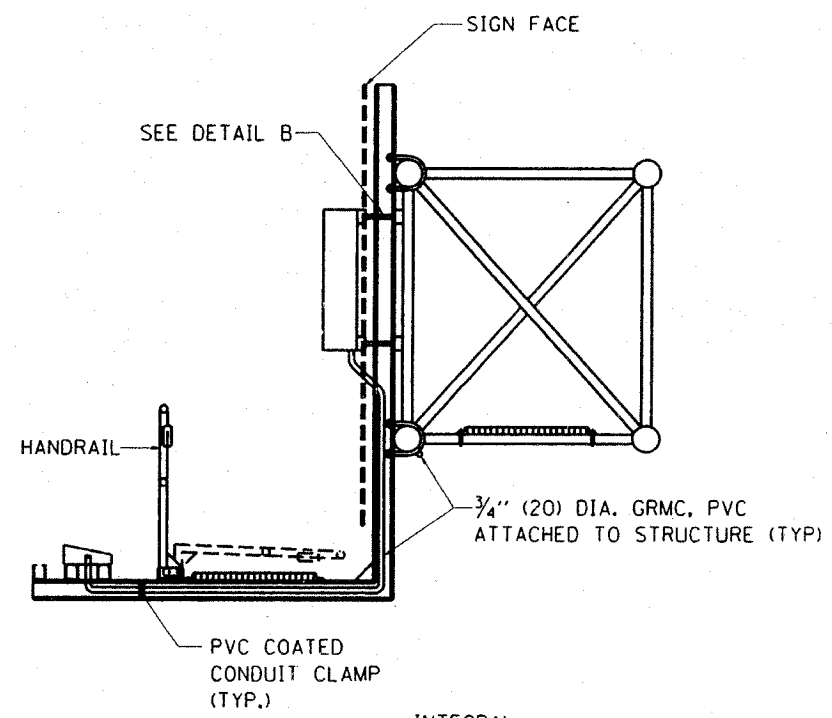
DRAWN BY
 CHECKED BY
 BE-600

PLOT DATE = 2/4/2008
 FILE NAME = W:\driv\114\24\36\114e608.dgn
 PLOT SCALE = 1/8" = 1' / IN.
 USER NAME = driv\dring

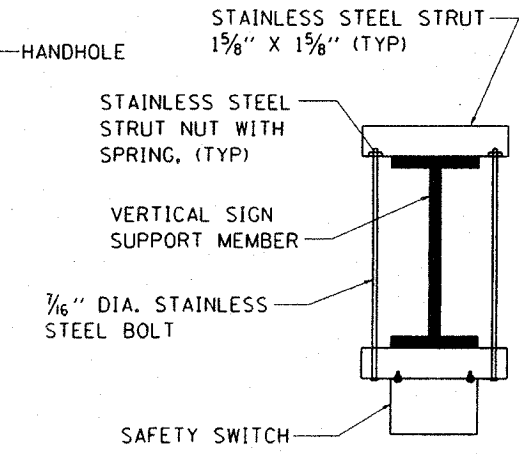
CONTRACT NO.				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-1-N-1	Cook	196	115
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



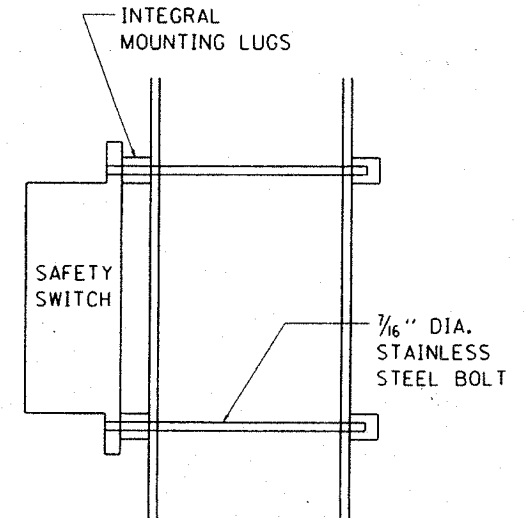
TOP VIEW



ELEVATION VIEW



TOP VIEW



SIDE VIEW

DETAIL B

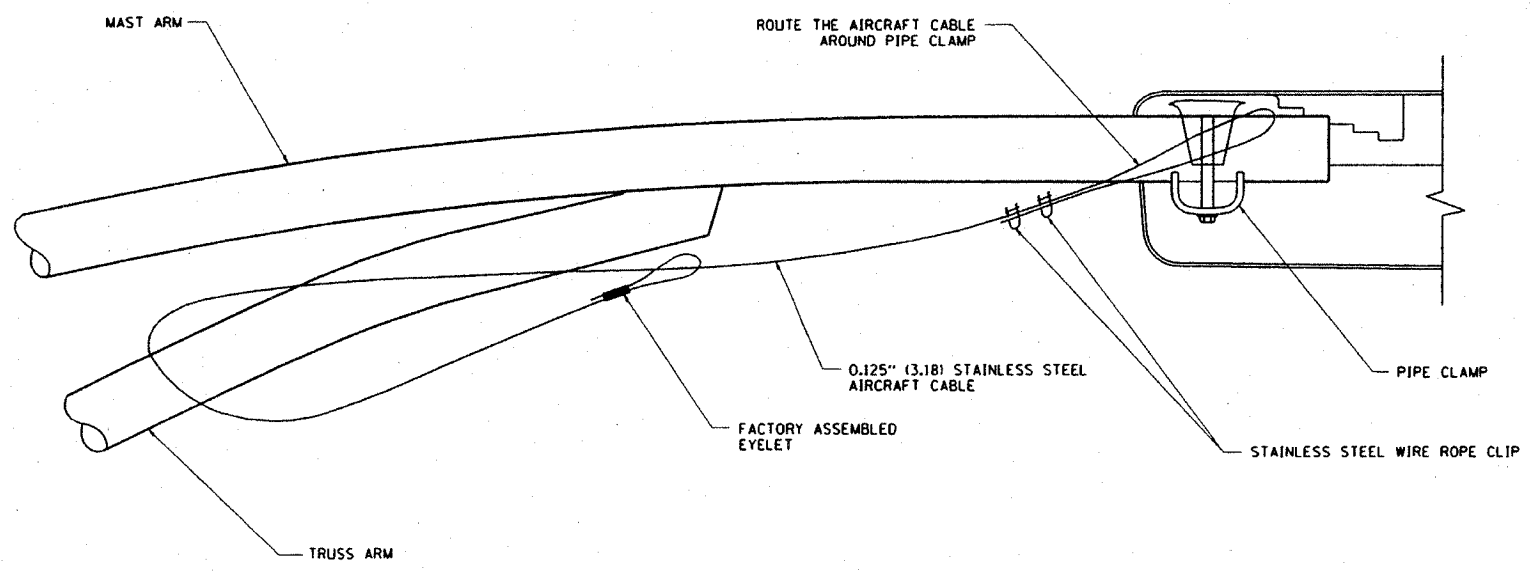
REVISIONS	
NAME	DATE
	08/19/04

ILLINOIS DEPARTMENT OF TRANSPORTATION
 ELECTRIC CONNECTION
 TO SIGN STRUCTURE
 SPAN TYPE
 2 OF 2

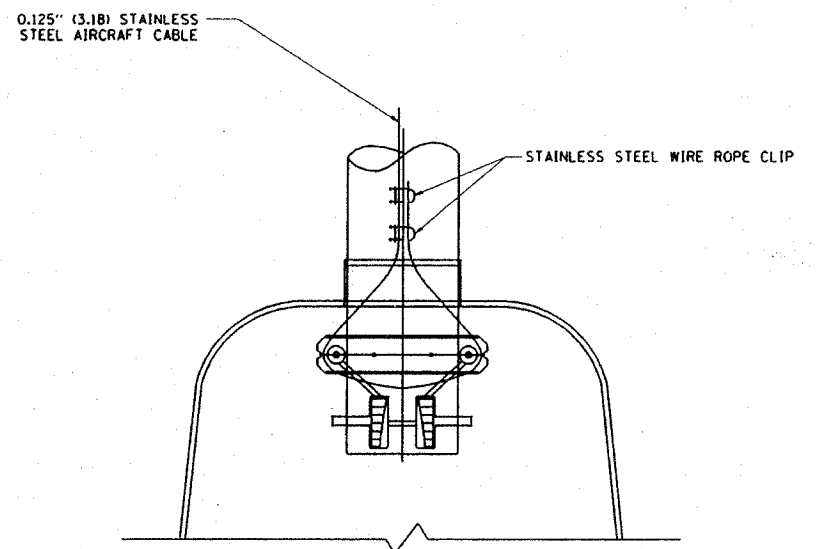
SCALE: VERT. NONE
 HORIZ.
 DRAWN BY
 CHECKED BY
 BE-600

PLOT DATE: 2/1/2008
 FILE NAME: M:\GIS\104\24-26\104686.dwg
 PLOT SCALE: 1/8"=1'-0"
 USER NAME: jdrivak

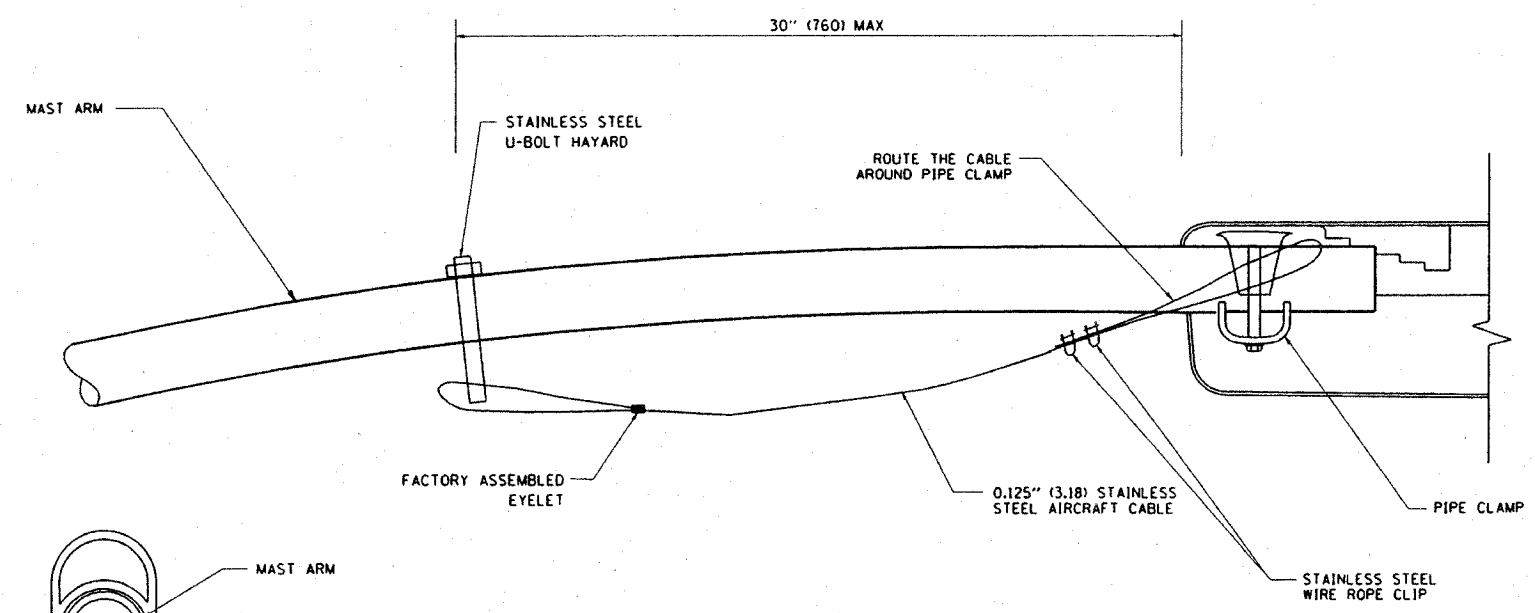
CONTRACT NO.				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-1-N-1	COOK	196	116
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



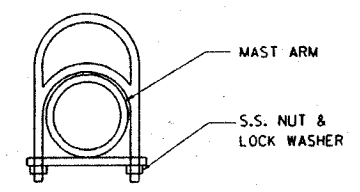
SIDE VIEW (TRUSS ARM)
N.T.S.



BOTTOM VIEW
N.T.S.



SIDE VIEW (SINGLE MEMBER OR DAVIT ARM)
N.T.S.



STAINLESS STEEL U-BOLT HAYARD

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
2. CONTRACTOR SHALL ADJUST THE WIRE CLIP TO ELIMINATE ANY SLACK FROM THE WIRE ROPE.
3. THE 0.125" (3.18) STAINLESS STEEL AIRCRAFT CABLE SHALL REMAIN VISIBLE FROM THE GROUND LEVEL.
4. THE BREAKING STRENGTH OF THE CABLE SHALL BE 1700 LBS. MIN.

REVISIONS	
NAME	DATE
	08/08/03

ILLINOIS DEPARTMENT OF TRANSPORTATION

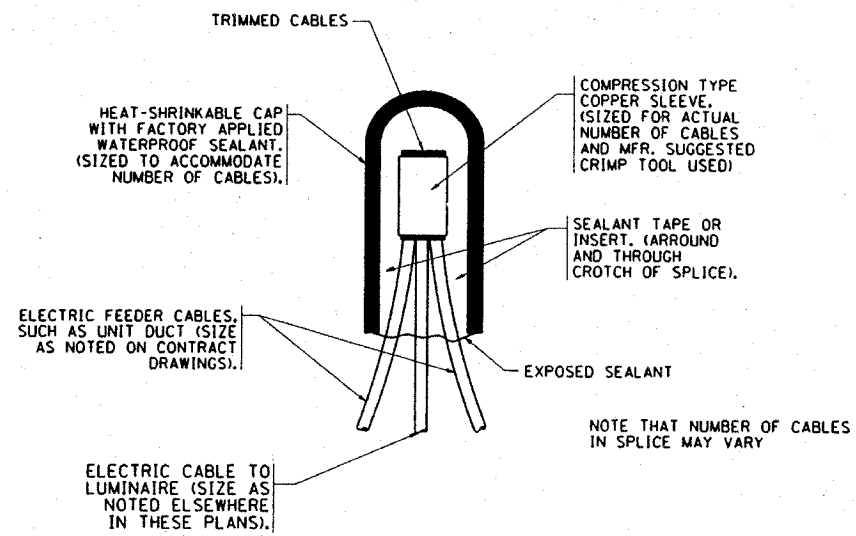
LUMINAIRE SAFETY CABLE ASSEMBLY

SCALE: VERT. NONE
HORIZ.

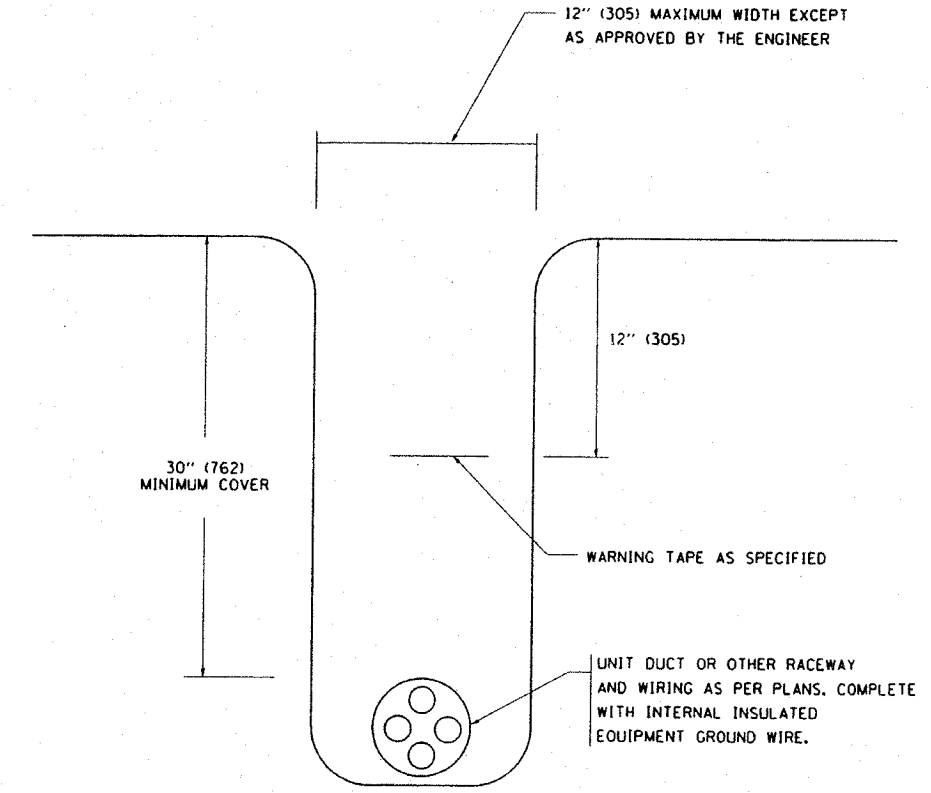
DRAWN BY
CHECKED BY
BE-701

PLOT DATE: 2/4/2008
PLOT SCALE: 1/8"=1'-0"
USER NAME: davis@idot.gov

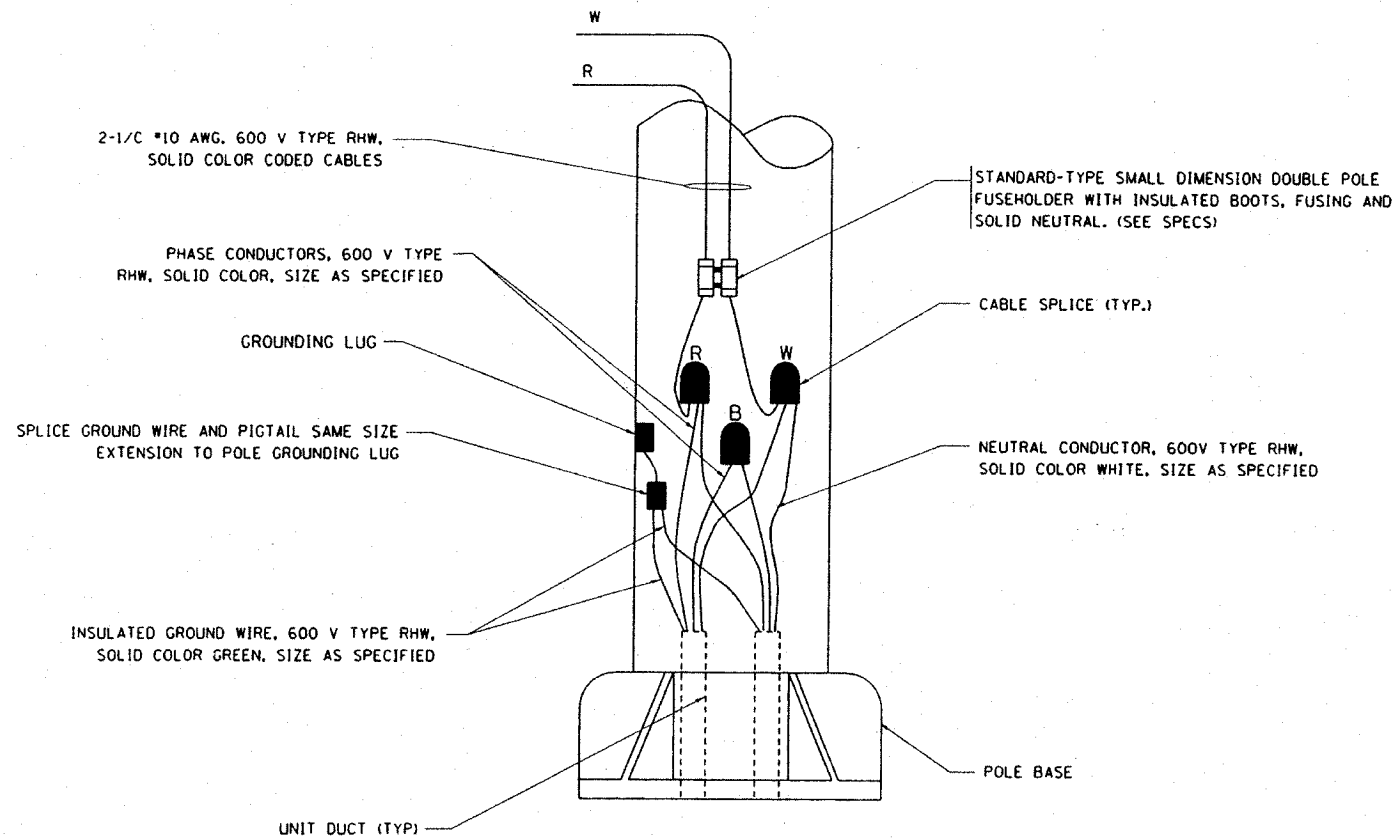
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34B	BR-1-N-1	Cook	196	117
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



TYPICAL SPLICE DETAIL
N.T.S.



TYPICAL WIRING IN TRENCH DETAIL
N.T.S.



POLE WIRING DETAIL
N.T.S.

PLOT DATE: 12/1/2008
 FILE NAME: I:\Missouri\24-35\782.dwg
 PLOT SCALE: 1/8\"/>

REVISIONS	
NAME	DATE
	08/08/03

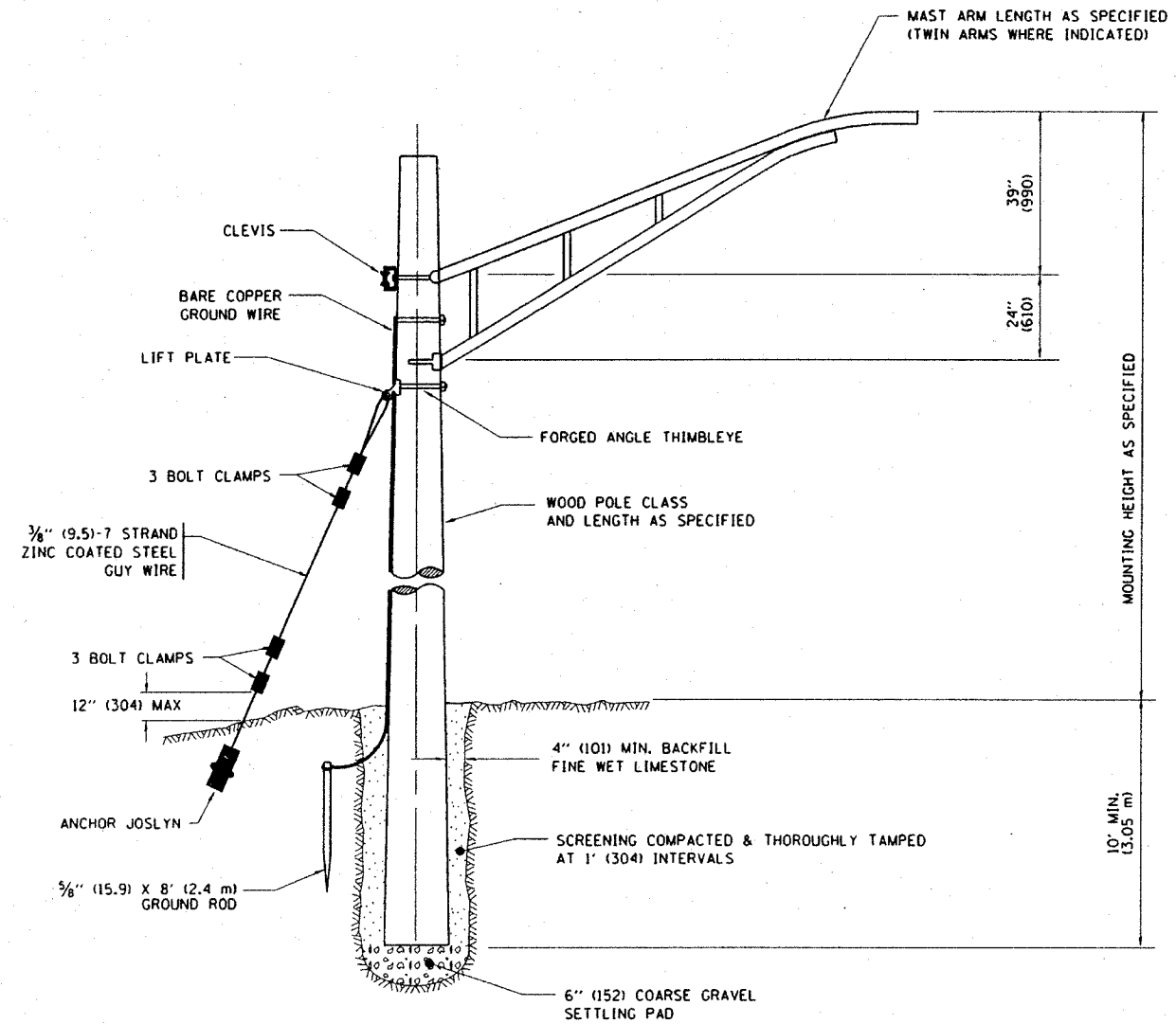
ILLINOIS DEPARTMENT OF TRANSPORTATION

MISC. ELECTRICAL DETAILS
SHEET A

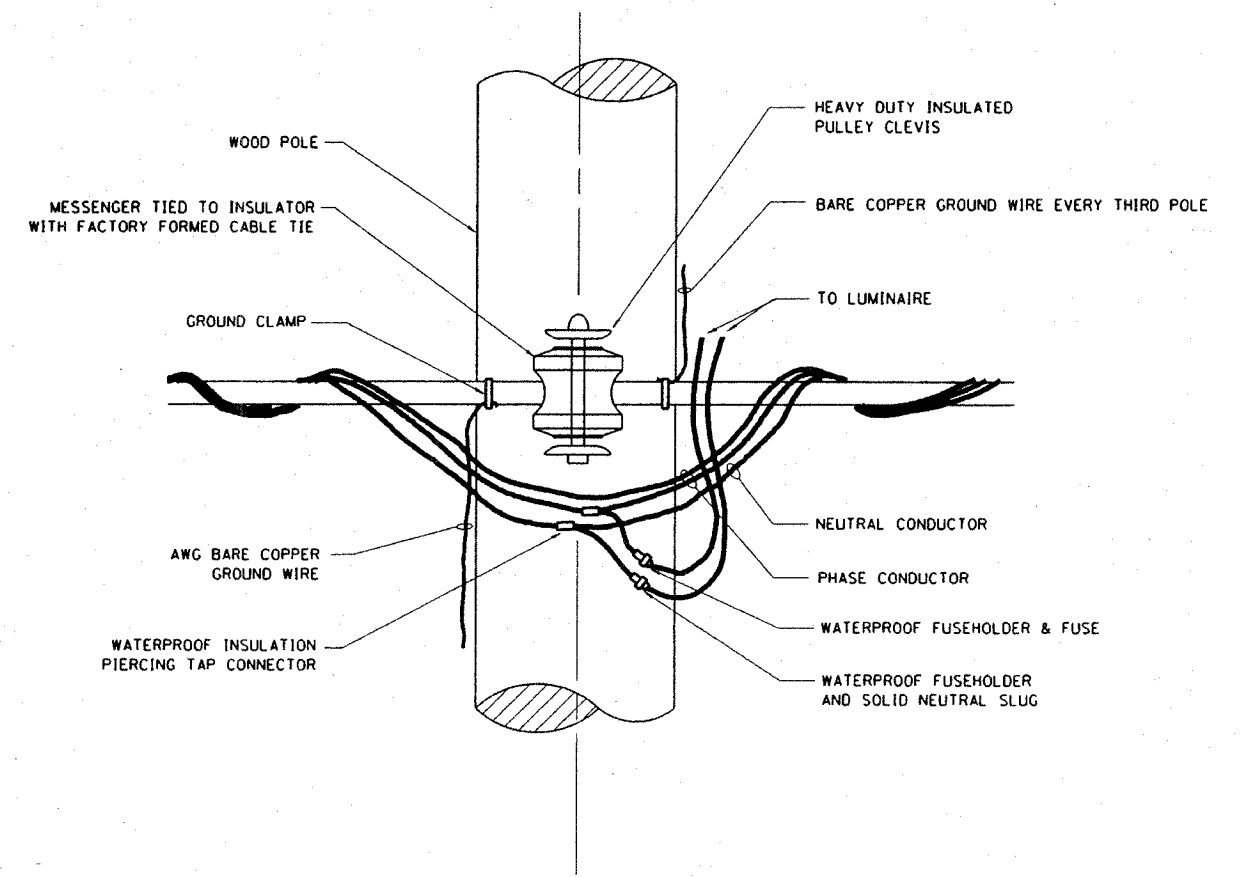
SCALE: VERT. NONE
HORIZ.

DRAWN BY
CHECKED BY
BE-702

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-1-N-1	Cook	196	118
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



TEMPORARY LIGHT POLE DETAIL



TEMPORARY LIGHT POLE ATTACHMENT DETAIL

NOTES:
 1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED

PLOT DATE: 2/1/2008
 FILE NAME: 24-35-1000.dgn
 PLOT SCALE: 1/8" = 1'-0"
 USER NAME: d...

REVISIONS	
NAME	DATE
	08/08/03

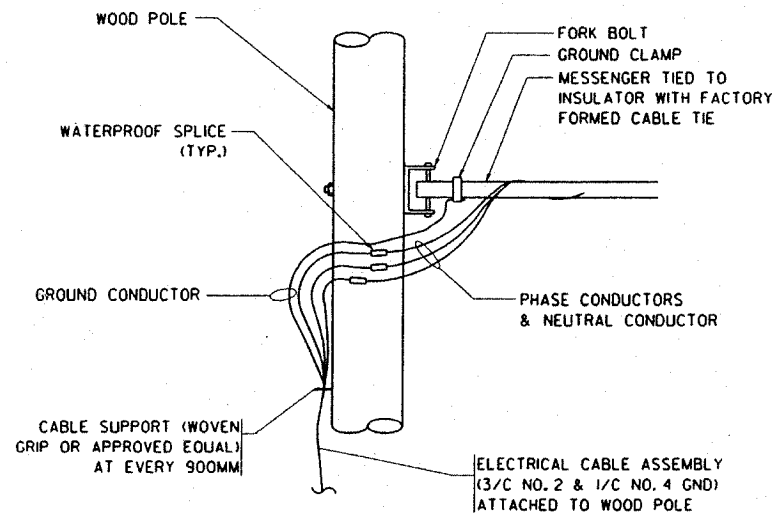
ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY LIGHT POLE DETAILS

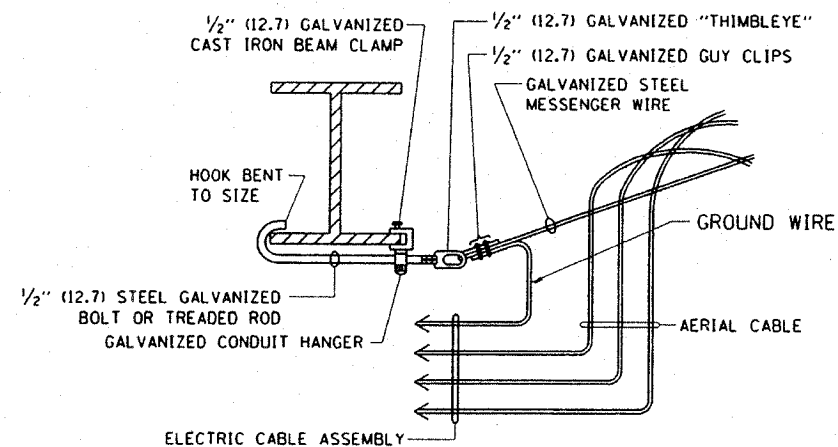
SCALE: VERT. NONE
 HORIZ.

DRAWN BY
 CHECKED BY
 BE-800

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
375	82-1-N-1	Cook	196	119
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



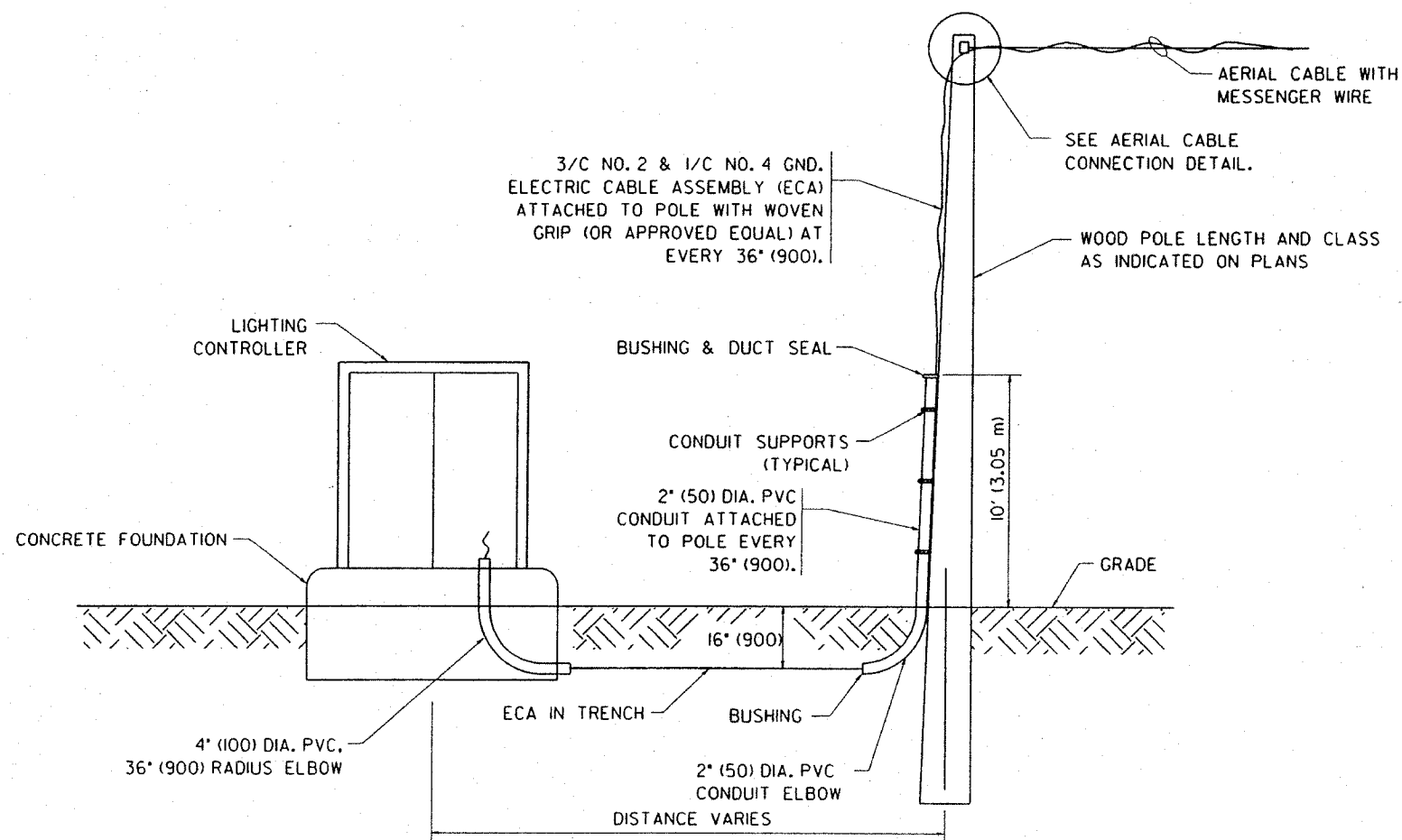
AERIAL CABLE CONNECTION DETAIL
N.T.S.



AERIAL CABLE ATTACHED TO STRUCTURE
NOT TO SCALE

NOTES:

1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED.
2. SEE PROPOSED LIGHTING PLAN FOR CONDUIT, CABLE AND ROUTING.
3. THE CONTRACTOR SHALL PROVIDE INTERMEDIATE SUPPORTS TO MAINTAIN MINIMUM CLEARANCES. REFER TO AERIAL AERIAL CABLE ATTACHED TO STRUCTURE DETAIL.
4. COST OF SPLICES AND MOUNTING HARDWARE SHALL BE INCLUDED IN THE UNIT PRICE FOR AERIAL CABLE.



WOOD POLE TO LIGHTING CONTROLLER WIRING CONNECTION DETAIL
N.T.S.

REVISIONS	
NAME	DATE
	08/08/03

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY AERIAL CABLE INSTALLATION

SCALE: VERT. NONE
HORIZ.

DRAWN BY
CHECKED BY
BE-801

BENCH MARK:

C.P. #12: Found Rebar with Cap 39.25' from N.E. corner of S.W. Wingwall, 31.50' along slope from S.W. corner of S.W. Wingwall & 2.50' from existing back of curb, El. 810.890

Existing Structure: None

F.A.P. No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	8R-1-N-1	COOK	196	120
STA. 85+00.00		TO STA. 92+46.15		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

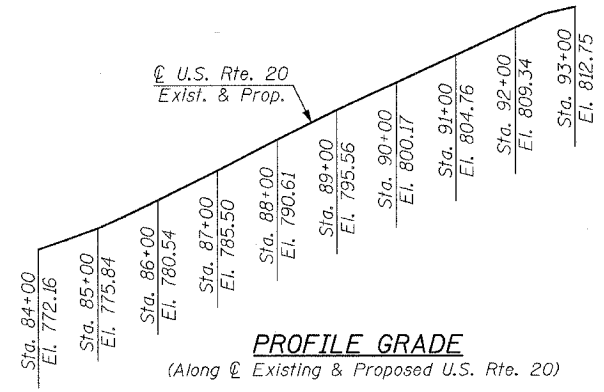
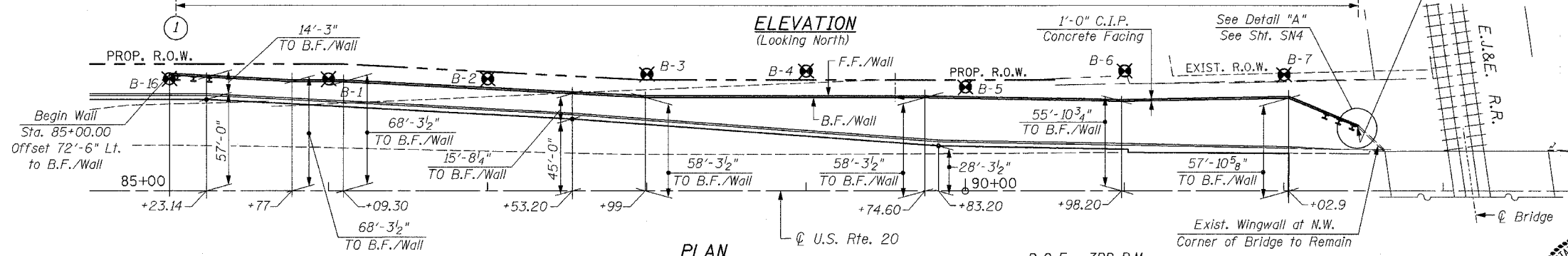
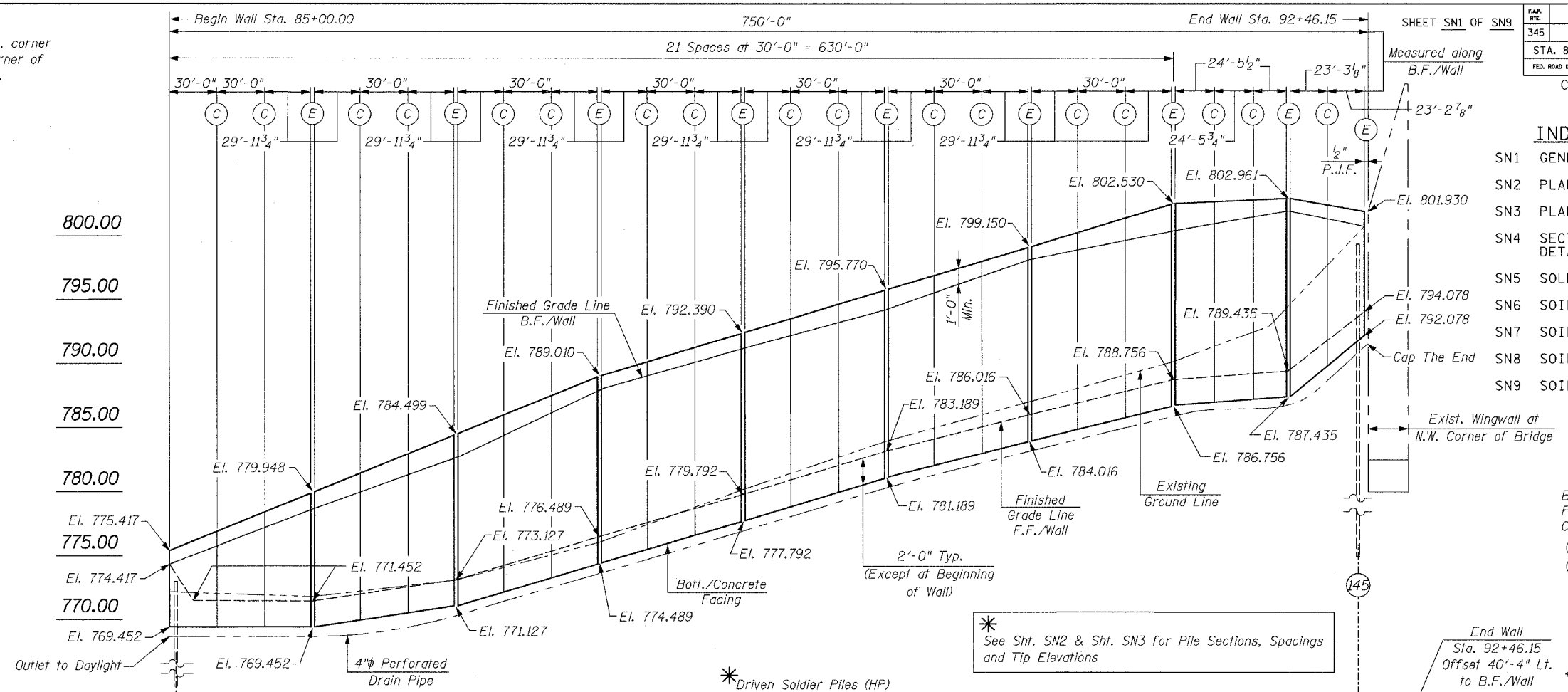
CONTRACT NO. 62617

INDEX OF SHEETS

- SN1 GENERAL PLAN & ELEVATION
- SN2 PLAN & ELEVATION-I
- SN3 PLAN & ELEVATION-II
- SN4 SECTION & RETAINING WALL DETAILS
- SN5 SOLDIER PILE SCHEDULE
- SN6 SOIL BORING LOGS-I
- SN7 SOIL BORING LOGS-II
- SN8 SOIL BORING LOGS-III
- SN9 SOIL BORING LOGS-IV

LEGEND:

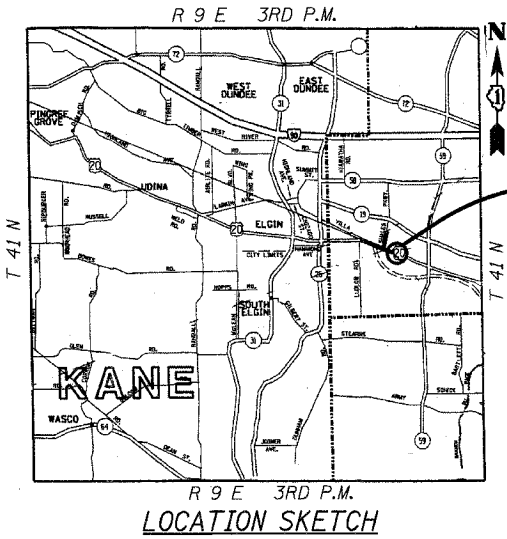
- B.F. = Back Face
- F.F. = Front Face
- C.I.P. = Cast-In-Place
- ⊙ = Construction Joint
- ⊕ = Expansion Joint
- ⊗ = Soil Boring Location



HIGHWAY CLASSIFICATION
 Route: F.A.P. 345 (U.S. Route 20)
 Class: Other Principal Arterial
 A.D.T.: 40,500 (Year 2005) 55,000 (Year 2010)
 D.H.V.: 2,450 (Year 2005) 3,300 (Year 2010)
 Design Speed: 50 mph
 Posted Speed: 50 mph

DESIGN SPECIFICATIONS
 AASHTO 17th Edition - 2002
DESIGN STRESSES
FIELD UNITS
 $f'_c = 3,500$ PSI (C.I.P. Concrete)
 $f_y = 60,000$ PSI (Reinforcement Grade 60)
 $f_y = 36,000$ PSI (Soldier Pile) AASHTO M270 Gr. 36

APPROVED
 FOR STRUCTURAL ADEQUACY ONLY
Repliv & Andrew
 ENGINEER OF BRIDGES AND STRUCTURES



REVISIONS	
NAME	DATE



J. Najdowski
 JEFFREY C. NAJDOWSKI
 LICENSED STRUCTURAL ENGINEER
 STATE OF ILLINOIS LIC. No. 081-006006
 EXPIRES: 11-30-08

ILLINOIS DEPARTMENT OF TRANSPORTATION
 GENERAL PLAN & ELEVATION
 U.S. RTE. 20
 AT BLUFF CITY / SHALES PARKWAY
 NORTH SOLDIER PILE RETAINING WALL
 F.A.P. 345 SECTION: 8R-1-N-1
 COOK COUNTY
 STRUCTURE NO. 016-W969
 SCALE: NONE
 DATE: FEBRUARY, 2008
 DRAWN BY: D.L./F.M.
 CHECKED BY: B.N.S./J.C.N.
CHRISTIANO-ROGE & ASSOC., INC.
 CHICAGO ILLINOIS

F.A.P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	8R-1-N-1	COOK	196	121
STA. 85+00.00		TO STA. 92+46.15		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62617

GENERAL NOTES:

1. Plan Dimensions and Details relative to Existing Plans are subject to routine variations. The Contractor shall field verify existing Dimensions and Details affecting new Construction and make necessary approved adjustments prior to Construction or ordering of Materials. Such variations shall not be cause for additional Compensation for a change in the scope of work; however, the Contractor will be paid for the quantity actually furnished at the Unit Price for the work.
2. The Contractor is responsible for the Design and Performance of the Lagging using no less than a 3 in. nominal rough-sawn thickness and Timber with a minimum allowable bending stress of 1000 psi.
3. Pipe Underdrain Outlet Pipes shall drain into Concrete Headwalls. See Article 601.05 of The Standard Specifications and see Highway Standard 601101.
4. Reinforcement Bars shall conform to the requirements of ASTM A706, GR. 60 (IL Modified). See Special Provisions.
5. All Exposed Concrete edges shall be chamfered 3/4" unless otherwise noted.
6. Reinforcement Bars designated (E) shall be Epoxy Coated.

TOTAL BILL OF MATERIAL

DESCRIPTION	UNIT	QUANTITY
Concrete Structures	Cu. Yd.	376.4
Pipe Underdrains for Structures 4"	Foot	758
Stud Shear Connectors	Each	7,862
Furnishing Soldier Piles (HP Section)	Foot	5,150
Driving Soldier Piles	Foot	5,150
Reinforcement Bars, Epoxy Coated	Lb.	72,610
Structure Excavation	Cu. Yd.	307
Untreated Timber Lagging	Sq. Ft.	8,662
Geocomposite Wall Drain	Sq. Yd.	722

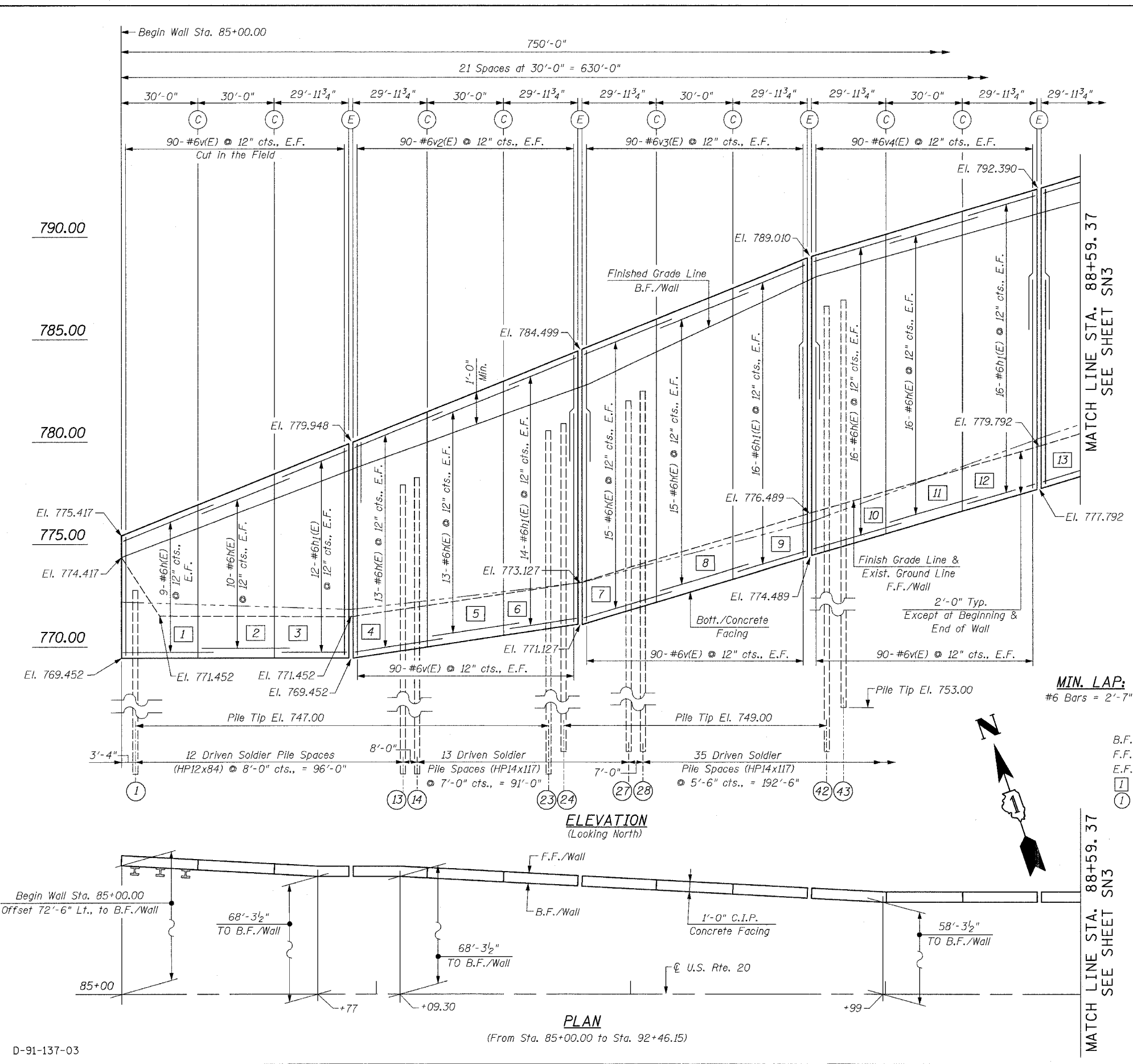
LEGEND:

- B.F. = Back Face
- F.F. = Front Face
- E.F. = Each Face
- 1 = Panel Numbers
- 1 = Pile Numbers

MIN. LAP:
#6 Bars = 2'-7"

MATCH LINE STA. 88+59.37
SEE SHEET SN3

MATCH LINE STA. 88+59.37
SEE SHEET SN3



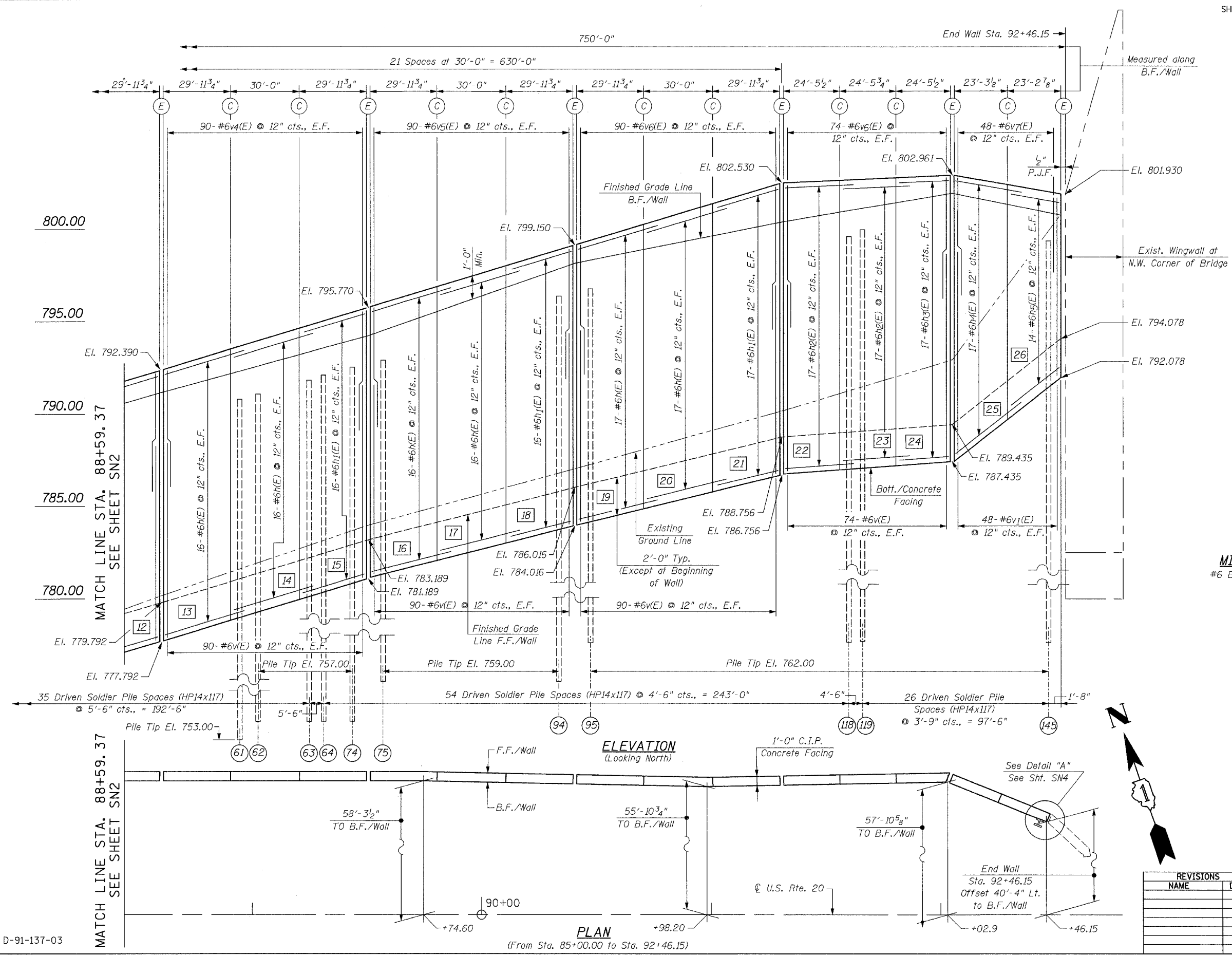
D-91-137-03

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN & ELEVATION
 U.S. RTE. 20
 AT BLUFF CITY / SHALES PARKWAY
 NORTH SOLDIER PILE RETAINING WALL
 F.A.P. 345 SECTION: 8R-1-N-1
 COOK COUNTY
 STRUCTURE NO. 016-W969
 SCALE: NONE
 DATE: FEBRUARY, 2008
 DRAWN BY: D.L./F.M.
 CHECKED BY: B.N.S./J.C.N.
CHRISTIAN-ROGE & ASSOC., INC.
 CHICAGO ILLINOIS

REVISIONS	
NAME	DATE

CAP. INT.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-1-N-1	COOK	104	122
STA. 85+00.00		TO STA. 92+46.15		
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT

CONTRACT NO. 62617



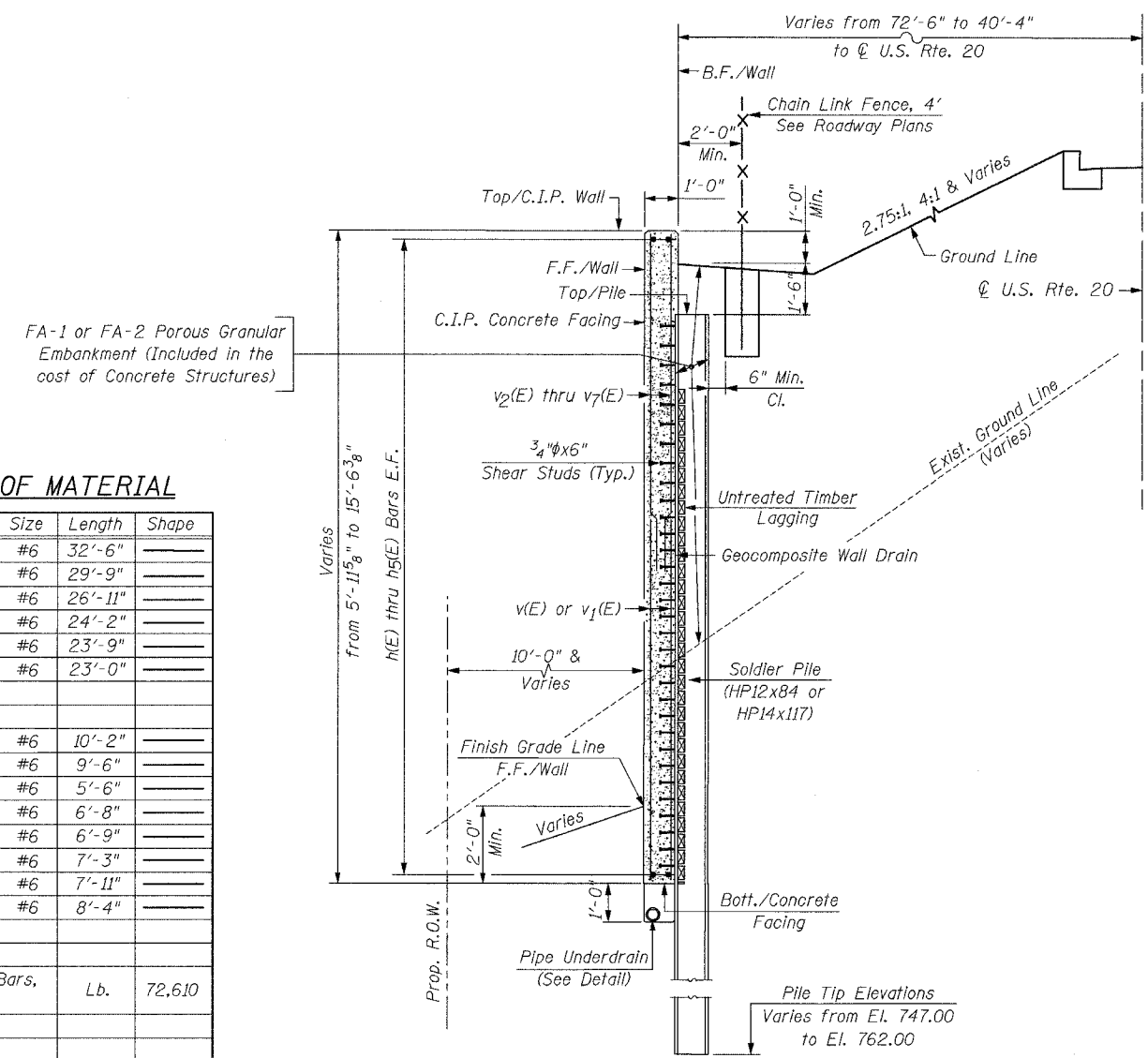
MIN. LAP:
#6 Bars = 2'-7"

- LEGEND:**
- B.F. = Back Face
 - F.F. = Front Face
 - E.F. = Each Face
 - [1] = Panel Numbers
 - ⊙ = Pile Numbers

ILLINOIS DEPARTMENT OF TRANSPORTATION
 GENERAL PLAN & ELEVATION
 U.S. RTE. 20
 AT BLUFF CITY / SHALES PARKWAY
 NORTH SOLDIER PILE RETAINING WALL
 F.A.P. 345 SECTION: BR-1-N-1
 COOK COUNTY
 STRUCTURE NO. 016-W969

REVISIONS	
NAME	DATE

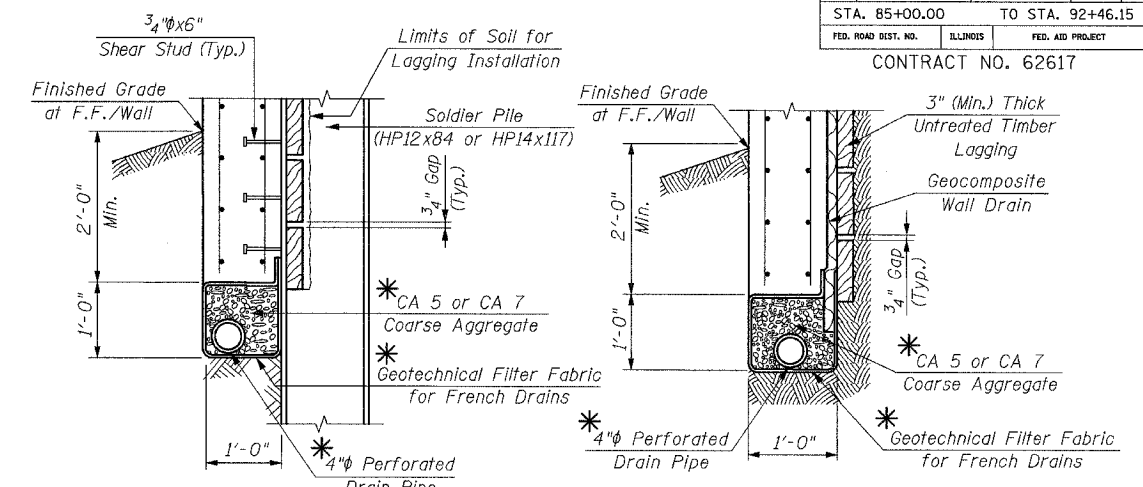
SCALE: NONE
 DATE: FEBRUARY, 2008
 DRAWN BY: D.L./F.M.
 CHECKED BY: B.N.S./J.C.N.
CHRISTIAN-ROGE & ASSOC., INC.
 CHICAGO ILLINOIS



**DRIVEN SOLDIER PILE
TYPICAL WALL SECTION**

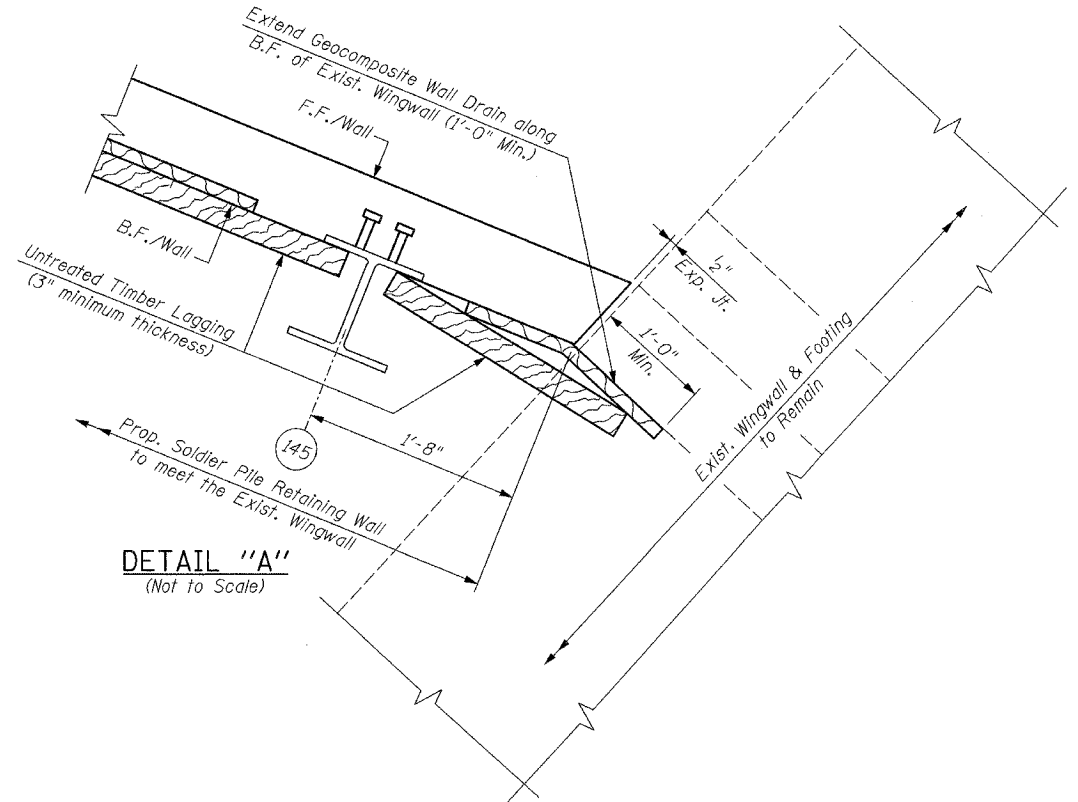
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	410	#6	32'-6"	
h1(E)	214	#6	29'-9"	
h2(E)	68	#6	26'-11"	
h3(E)	34	#6	24'-2"	
h4(E)	34	#6	23'-9"	
h5(E)	28	#6	23'-0"	
v(E)	1,408	#6	10'-2"	
v1(E)	96	#6	9'-6"	
v2(E)	180	#6	5'-6"	
v3(E)	180	#6	6'-8"	
v4(E)	360	#6	6'-9"	
v5(E)	180	#6	7'-3"	
v6(E)	328	#6	7'-11"	
v7(E)	96	#6	8'-4"	
Reinforcement Bars, Epoxy Coated			Lb.	72,610

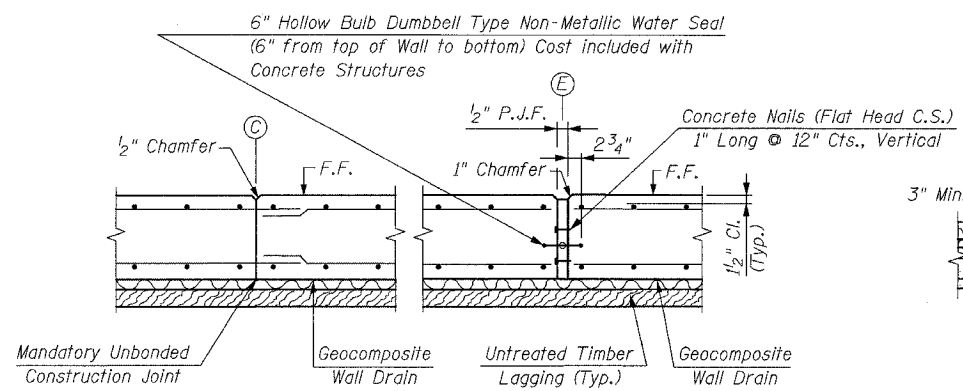


**PIPE UNDERDRAIN DETAIL
AT SOLDIER PILES**

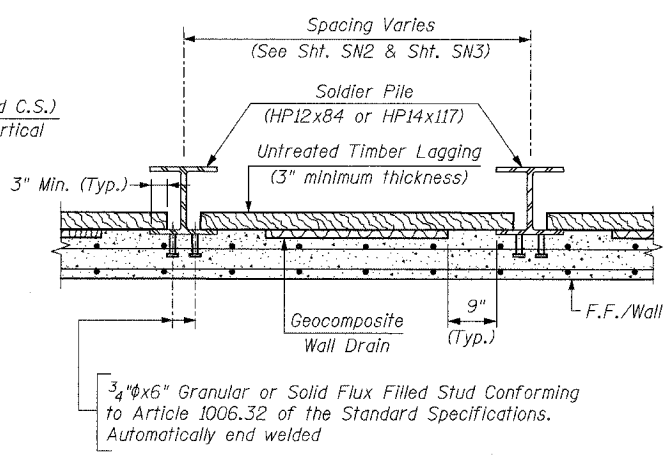
**PIPE UNDERDRAIN DETAIL
BETWEEN SOLDIER PILES**



DETAIL "A"
(Not to Scale)



**CONSTRUCTION JOINT EXPANSION JOINT
END OF PANEL DETAILS**



**TYPICAL SECTION THRU
SOLDIER PILE WALL**

REVISIONS

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SECTION & RETAINING WALL DETAILS
U.S. RTE. 20
AT BLUFF CITY / SHALES PARKWAY
NORTH SOLDIER PILE RETAINING WALL
F.A.P. 345 SECTION: 8R-1-N-1
COOK COUNTY
STRUCTURE NO. 016-W969

SCALE: NONE
DATE: FEBRUARY, 2008
DRAWN BY: D.L./F.M.
CHECKED BY: B.N.S./J.C.N.

CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS

F.A.P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	8R-1-N-1	COOK	196	124
STA. 85+00.00		TO STA. 92+46.15		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

**NORTH SOLDIER PILE RETAINING WALL
SOLDIER PILE SCHEDULE**

CONTRACT NO. 62617

PILE NO.	PILE SIZE	TOP/PILE ELEV.	TIP/PILE ELEV.	APPROX. PILE LENGTH (FT.)	NO. STUD PER PILE	STUD SPACING
1	HP 12x84	773.08	747.00	26.08	2 x 10 = 20	9 SPA. @ 4.50 IN = 3'- 4"
2	HP 12x84	773.49	747.00	26.49	2 x 11 = 22	10 SPA. @ 4.50 IN = 3'- 9"
3	HP 12x84	773.89	747.00	26.89	2 x 12 = 24	11 SPA. @ 4.63 IN = 4'- 2"
4	HP 12x84	774.29	747.00	27.29	2 x 13 = 26	12 SPA. @ 4.63 IN = 4'- 7"
5	HP 12x84	774.70	747.00	27.70	2 x 14 = 28	13 SPA. @ 4.63 IN = 5'- 0"
6	HP 12x84	775.10	747.00	28.10	2 x 15 = 30	14 SPA. @ 4.63 IN = 5'- 4"
7	HP 12x84	775.50	747.00	28.50	2 x 16 = 32	15 SPA. @ 4.63 IN = 5'- 9"
8	HP 12x84	775.91	747.00	28.91	2 x 17 = 34	16 SPA. @ 4.63 IN = 6'- 2"
9	HP 12x84	776.31	747.00	29.31	2 x 18 = 36	17 SPA. @ 4.63 IN = 6'- 6"
10	HP 12x84	776.71	747.00	29.71	2 x 19 = 38	18 SPA. @ 4.63 IN = 6'- 11"
11	HP 12x84	777.11	747.00	30.11	2 x 19 = 38	18 SPA. @ 4.75 IN = 7'- 1"
12	HP 12x84	777.52	747.00	30.52	2 x 19 = 38	18 SPA. @ 5.00 IN = 7'- 6"
13	HP 12x84	777.92	747.00	30.92	2 x 19 = 38	18 SPA. @ 5.25 IN = 7'- 10"
14	HP 14x117	778.33	747.00	31.33	2 x 22 = 44	21 SPA. @ 4.75 IN = 8'- 3"
15	HP 14x117	778.69	747.00	31.69	2 x 22 = 44	21 SPA. @ 4.75 IN = 8'- 3"
16	HP 14x117	779.04	747.00	32.04	2 x 23 = 46	22 SPA. @ 4.75 IN = 8'- 8"
17	HP 14x117	779.40	747.00	32.40	2 x 24 = 48	23 SPA. @ 4.63 IN = 8'- 10"
18	HP 14x117	779.75	747.00	32.75	2 x 24 = 48	23 SPA. @ 4.75 IN = 9'- 1"
19	HP 14x117	780.11	747.00	33.11	2 x 25 = 50	24 SPA. @ 4.63 IN = 9'- 3"
20	HP 14x117	780.46	747.00	33.46	2 x 25 = 50	24 SPA. @ 4.75 IN = 9'- 6"
21	HP 14x117	780.82	747.00	33.82	2 x 26 = 52	25 SPA. @ 4.75 IN = 9'- 10"
22	HP 14x117	781.18	747.00	34.18	2 x 26 = 52	25 SPA. @ 4.75 IN = 9'- 10"
23	HP 14x117	781.53	747.00	34.53	2 x 27 = 54	26 SPA. @ 4.75 IN = 10'- 3"
24	HP 14x117	781.89	749.00	32.89	2 x 27 = 54	26 SPA. @ 4.75 IN = 10'- 3"
25	HP 14x117	782.24	749.00	33.24	2 x 28 = 56	27 SPA. @ 4.75 IN = 10'- 8"
26	HP 14x117	782.59	749.00	33.59	2 x 28 = 56	27 SPA. @ 4.75 IN = 10'- 8"
27	HP 14x117	782.94	749.00	33.94	2 x 28 = 56	27 SPA. @ 4.75 IN = 10'- 8"
28	HP 14x117	783.29	749.00	34.29	2 x 28 = 56	27 SPA. @ 4.75 IN = 10'- 8"
29	HP 14x117	783.57	749.00	34.57	2 x 29 = 58	28 SPA. @ 4.75 IN = 11'- 1"
30	HP 14x117	783.85	749.00	34.85	2 x 29 = 58	28 SPA. @ 4.75 IN = 11'- 1"
31	HP 14x117	784.12	749.00	35.12	2 x 29 = 58	28 SPA. @ 4.75 IN = 11'- 1"
32	HP 14x117	784.40	749.00	35.40	2 x 29 = 58	28 SPA. @ 4.75 IN = 11'- 1"
33	HP 14x117	784.67	749.00	35.67	2 x 29 = 58	28 SPA. @ 4.75 IN = 11'- 1"
34	HP 14x117	784.95	749.00	35.95	2 x 29 = 58	28 SPA. @ 4.88 IN = 11'- 4"
35	HP 14x117	785.23	749.00	36.23	2 x 29 = 58	28 SPA. @ 4.88 IN = 11'- 4"
36	HP 14x117	785.50	749.00	36.50	2 x 29 = 58	28 SPA. @ 4.88 IN = 11'- 4"
37	HP 14x117	785.78	749.00	36.78	2 x 29 = 58	28 SPA. @ 4.88 IN = 11'- 4"
38	HP 14x117	786.05	749.00	37.05	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
39	HP 14x117	786.33	749.00	37.33	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
40	HP 14x117	786.58	749.00	37.58	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
41	HP 14x117	786.79	749.00	37.79	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
42	HP 14x117	787.00	749.00	38.00	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
43	HP 14x117	787.20	753.00	34.20	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
44	HP 14x117	787.41	753.00	34.41	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
45	HP 14x117	787.62	753.00	34.62	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
46	HP 14x117	787.82	753.00	34.82	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
47	HP 14x117	788.03	753.00	35.03	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
48	HP 14x117	788.24	753.00	35.24	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
49	HP 14x117	788.44	753.00	35.44	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
50	HP 14x117	788.65	753.00	35.65	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
51	HP 14x117	788.86	753.00	35.86	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
52	HP 14x117	789.06	753.00	36.06	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
53	HP 14x117	789.27	753.00	36.27	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"

PILE NO.	PILE SIZE	TOP/PILE ELEV.	TIP/PILE ELEV.	APPROX. PILE LENGTH (FT.)	NO. STUD PER PILE	STUD SPACING
54	HP 14x117	789.48	753.00	36.48	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
55	HP 14x117	789.68	753.00	36.68	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
56	HP 14x117	789.89	753.00	36.89	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
57	HP 14x117	790.10	753.00	37.10	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
58	HP 14x117	790.30	753.00	37.30	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
59	HP 14x117	790.51	753.00	37.51	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
60	HP 14x117	790.71	753.00	37.71	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
61	HP 14x117	790.92	753.00	37.92	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
62	HP 14x117	791.13	757.00	34.13	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
63	HP 14x117	791.33	757.00	34.33	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
64	HP 14x117	791.54	757.00	34.54	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
65	HP 14x117	791.71	757.00	34.71	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
66	HP 14x117	791.88	757.00	34.88	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
67	HP 14x117	792.05	757.00	35.05	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
68	HP 14x117	792.22	757.00	35.22	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
69	HP 14x117	792.39	757.00	35.39	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
70	HP 14x117	792.56	757.00	35.56	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
71	HP 14x117	792.72	757.00	35.72	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
72	HP 14x117	792.89	757.00	35.89	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
73	HP 14x117	793.06	757.00	36.06	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
74	HP 14x117	793.23	757.00	36.23	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
75	HP 14x117	793.40	759.00	34.40	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
76	HP 14x117	793.57	759.00	34.57	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
77	HP 14x117	793.74	759.00	34.74	2 x 29 = 58	28 SPA. @ 5.00 IN = 11'- 8"
78	HP 14x117	793.91	759.00	34.91	2 x 29 = 58	28 SPA. @ 5.13 IN = 11'- 11"
79	HP 14x117	794.08	759.00	35.08	2 x 29 = 58	28 SPA. @ 5.13 IN = 11'- 11"
80	HP 14x117	794.25	759.00	35.25	2 x 29 = 58	28 SPA. @ 5.13 IN = 11'- 11"
81	HP 14x117	794.41	759.00	35.41	2 x 29 = 58	28 SPA. @ 5.13 IN = 11'- 11"
82	HP 14x117	794.58	759.00	35.58	2 x 29 = 58	28 SPA. @ 5.13 IN = 11'- 11"
83	HP 14x117	794.75	759.00	35.75	2 x 29 = 58	28 SPA. @ 5.13 IN = 11'- 11"
84	HP 14x117	794.92	759.00	35.92	2 x 29 = 58	28 SPA. @ 5.13 IN = 11'- 11"
85	HP 14x117	795.09	759.00	36.09	2 x 29 = 58	28 SPA. @ 5.13 IN = 11'- 11"
86	HP 14x117	795.26	759.00	36.26	2 x 29 = 58	28 SPA. @ 5.13 IN = 11'- 11"
87	HP 14x117	795.43	759.00	36.43	2 x 29 = 58	28 SPA. @ 5.13 IN = 11'- 11"
88	HP 14x117	795.60	759.00	36.60	2 x 29 = 58	28 SPA. @ 5.13 IN = 11'- 11"
89	HP 14x117	795.77	759.00	36.77	2 x 29 = 58	28 SPA. @ 5.13 IN = 11'- 11"
90	HP 14x117	795.94	759.00	36.94	2 x 29 = 58	28 SPA. @ 5.25 IN = 12'- 3"
91	HP 14x117	796.10	759.00	37.10	2 x 29 = 58	28 SPA. @ 5.25 IN = 12'- 3"
92	HP 14x117	796.27	759.00	37.27	2 x 29 = 58	28 SPA. @ 5.25 IN = 12'- 3"
93	HP 14x117	796.44	759.00	37.44	2 x 29 = 58	28 SPA. @ 5.25 IN = 12'- 3"
94	HP 14x117	796.61	759.00	37.61	2 x 29 = 58	28 SPA. @ 5.25 IN = 12'- 3"
95	HP 14x117	796.78	762.00	34.78	2 x 29 = 58	28 SPA. @ 5.25 IN = 12'- 3"
96	HP 14x117	796.95	762.00	34.95	2 x 29 = 58	28 SPA. @ 5.25 IN = 12'- 3"
97	HP 14x117	797.12	762.00	35.12	2 x 29 = 58	28 SPA. @ 5.25 IN = 12'- 3"
98	HP 14x117	797.29	762.00	35.29	2 x 29 = 58	28 SPA. @ 5.25 IN = 12'- 3"
99	HP 14x117	797.46	762.00	35.46	2 x 29 = 58	28 SPA. @ 5.25 IN = 12'- 3"
100	HP 14x117	797.63	762.00	35.63	2 x 29 = 58	28 SPA. @ 5.38 IN = 12'- 6"
101	HP 14x117	797.80	762.00	35.80	2 x 29 = 58	28 SPA. @ 5.38 IN = 12'- 6"
102	HP 14x117	797.96	762.00	35.96	2 x 29 = 58	28 SPA. @ 5.38 IN = 12'- 6"
103	HP 14x117	798.13	762.00	36.13	2 x 29 = 58	28 SPA. @ 5.38 IN = 12'- 6"
104	HP 14x117	798.30	762.00	36.30	2 x 29 = 58	28 SPA. @ 5.38 IN = 12'- 6"
105	HP 14x117	798.47	762.00	36.47	2 x 29 = 58	28 SPA. @ 5.38 IN = 12'- 6"
106	HP 14x117	798.64	762.00	36.64	2 x 29 = 58	28 SPA. @ 5.50 IN = 12'- 10"

PILE NO.	PILE SIZE	TOP/PILE ELEV.	TIP/PILE ELEV.	APPROX. PILE LENGTH (FT.)	NO. STUD PER PILE	STUD SPACING
107	HP 14x117	798.81	762.00	36.81	2 x 29 = 58	28 SPA. @ 5.50 IN = 12'- 10"
108	HP 14x117	798.98	762.00	36.98	2 x 29 = 58	28 SPA. @ 5.50 IN = 12'- 10"
109	HP 14x117	799.15	762.00	37.15	2 x 29 = 58	28 SPA. @ 5.50 IN = 12'- 10"
110	HP 14x117	799.32	762.00	37.32	2 x 29 = 58	28 SPA. @ 5.50 IN = 12'- 10"
111	HP 14x117	799.49	762.00	37.49	2 x 29 = 58	28 SPA. @ 5.50 IN = 12'- 10"
112	HP 14x117	799.65	762.00	37.65	2 x 29 = 58	28 SPA. @ 5.50 IN = 12'- 10"
113	HP 14x117	799.82	762.00	37.82	2 x 29 = 58	28 SPA. @ 5.50 IN = 12'- 10"
114	HP 14x117	799.99	762.00	37.99	2 x 29 = 58	28 SPA. @ 5.50 IN = 12'- 10"
115	HP 14x117	800.05	762.00	38.05	2 x 29 = 58	28 SPA. @ 5.50 IN = 12'- 10"
116	HP 14x117	800.08	762.00	38.08	2 x 29 = 58	28 SPA. @ 5.50 IN = 12'- 10"
117	HP 14x117	800.10	762.00	38.10	2 x 29 = 58	28 SPA. @ 5.50 IN = 12'- 10"
118	HP 14x117	800.13	762.00	38.13	2 x 29 = 58	28 SPA. @ 5.50 IN = 12'- 10"
119	HP 14x117	800.16	762.00	38.16	2 x 29 = 58	28 SPA. @ 5.50 IN = 12'- 10"
120	HP 14x117	800.18	762.00	38.18	2 x 29 = 58	28 SPA. @ 5.50 IN = 12'- 10"
121	HP 14x117	800.20	762.00	38.20	2 x 29 = 58	28 SPA. @ 5.50 IN = 12'- 10"
122	HP 14x117	800.22	762.00	38.22	2 x 29 = 58	28 SPA. @ 5.50 IN = 12'- 10"
123	HP 14x117	800.24	762.00	38.24	2 x 29 = 58	28 SPA. @ 5.50 IN = 12'- 10"
124						

F.A.P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-1-N-1	COOK	19	12
STA. 85+00.00		TO STA. 92+46.15		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 62617



SOIL BORING LOG

Page 1 of 1

Date 6/21/04

ROUTE FAP 345 (US Rte. 20) DESCRIPTION North Retaining Wall LOGGED BY R. GROFF
 SECTION BR-1-N-1 LOCATION N side of Rte20 E of Bluff City Rd., SEC. 20, TWP. 41N, RNG. 9E
 COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	DEPTH	BULGE	UCS	MOISTURE	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	ft	ft	ft
B-03	88+00							DRY		
	73.00ft Left									
	Ground Surface Elev. 775.20									
ASPHALT (4.5")	774.82									
Gray fine to medium Crushed	774.74									
STONE (1") (fill)	774.20	3								
Black Silty CLAY and fine to medium GRAVEL (Organic) (fill)		4	1.4	20.0						
Brown Silty CLAY, trace fine to medoim Sand		6	B							
		6								
	770.70	6	-	5.0						
Brown fine to coarse SAND and GRAVEL		11								
		11								
		12	-	3.0						
		13								
		14								
		14	-	3.0						
		17								
	-10	17								
		18								
		15	-	4.0						
		18								
		12								
		11	-	2.0						
	-15	12								
		13								
		7	-	3.0						
		12								
		8								
		12	-	4.0						
	755.20	20								

End of Boring
 The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Page 1 of 1

Date 6/22/04

ROUTE FAP 345 (US Rte. 20) DESCRIPTION North Retaining Wall LOGGED BY R. GROFF
 SECTION BR-1-N-1 LOCATION N side of Rte20 E of Bluff City Rd., SEC. 20, TWP. 41N, RNG. 9E
 COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	DEPTH	BULGE	UCS	MOISTURE	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	ft	ft	ft
B-04	89+00							DRY		
	75.00ft Left									
	Ground Surface Elev. 778.20									
ASPHALT (4")	777.87									
Gray fine to medium Crushed	777.70									
STONE (2") (fill)	777.20	2								
Dark Brown Silty CLAY, trace fine to medium Sand (Buried Topsoil)		5	0.5	26.0						
Brown fine to coarse SAND and GRAVEL		22	S							
		40								
		21	-	4.0						
	-5	10								
		15								
		10	-	2.0						
		11								
		10								
		13	-	2.0						
	-10	10								
		6								
		8	-	4.0						
		11								
		10								
		15	-	2.0						
	-15	11								
		10								
		10	-	3.0						
		10								
		7								
		12	-	3.0						

End of Boring
 The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SOIL BORING LOGS-II
 U.S. RTE. 20
 AT BLUFF CITY / SHALES PARKWAY
 NORTH SOLDIER PILE RETAINING WALL
 F.A.P. 345 SECTION: BR-1-N-1
 COOK COUNTY
 STRUCTURE NO. 016-W969
 SCALE: NONE DRAWN BY: D.L./F.M.
 DATE: FEBRUARY, 2008 CHECKED BY: B.N.S./J.C.N.
CHRISTIAN-ROGE & ASSOC., INC.
 CHICAGO ILLINOIS

NORTH: 801134011 SURFING 11 016 2/15/2008 3:03:35 PM



SOIL BORING LOG

Page 1 of 1
Date 6/22/04

ROUTE FAP 345 (US Rte. 20) DESCRIPTION North Retaining Wall LOGGED BY R. GROFF
SECTION BR-1-N-1 LOCATION N side of Rte20 E of Bluff City Rd., SEC. 20, TWP. 41N, RNG. 9E
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	DEPTHS	BL	UCS	M	SOILS	Surface Water Elev.	DEPTHS	BL	UCS	M	SOILS
Station	H	S	Qu	T		ft	H	S	Qu	T	
BORING NO.						Groundwater Elev.:					
Station						First Encounter					
Offset						Upon Completion					
Ground Surface Elev.	ft	(ft)	(/6")	(tsf)	(%)	After	ft	(ft)	(/6")	(tsf)	(%)
ASPHALT (4")											
Black Silty CLAY and GRAVEL (4") (fill)											
Brown Silty CLAY, trace fine to medium Sand	1		0.8	18.0							
	3		B								
Brown fine to coarse SAND and GRAVEL	4			5.0							
	4										
	6										
	9			3.0							
	9										
	11										
	12			4.0							
	11										
	11										
	16			2.0							
	7										
	8										
	10			3.0							
	13										
	18										
	9			4.0							
	9										
	11										
	11										
	12			2.0							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Page 1 of 1
Date 6/22/04

ROUTE FAP 345 (US Rte. 20) DESCRIPTION North Retaining Wall LOGGED BY R. GROFF
SECTION BR-1-N-1 LOCATION N side of Rte20 E of Bluff City Rd., SEC. 20, TWP. 41N, RNG. 9E
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	DEPTHS	BL	UCS	M	SOILS	Surface Water Elev.	DEPTHS	BL	UCS	M	SOILS
Station	H	S	Qu	T		ft	H	S	Qu	T	
BORING NO.						Groundwater Elev.:					
Station						First Encounter					
Offset						Upon Completion					
Ground Surface Elev.	ft	(ft)	(/6")	(tsf)	(%)	After	ft	(ft)	(/6")	(tsf)	(%)
Black Silty CLAY, trace fine Sand and Gravel (Organic) (topsoil)											
Dark Brown to Black Silty CLAY (fill)	3		2.0	20.0							
	3		P								
Brown Silty CLAY, trace fine to medium Sand	2		1.1	20.0							
	3		B								
	5										
Brown fine to coarse SAND and GRAVEL	8			4.0							
	9										
	10										
	12			3.0							
	16										
	24										
	34			4.0							
	32										
	35										
	65			3.0							
	40/2"										
	14			3.0							
	26										
	38										
	24			4.0							
	75										

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL BORING LOGS-III
U.S. RTE. 20
AT BLUFF CITY / SHALES PARKWAY
NORTH SOLDIER PILE RETAINING WALL
F.A.P. 345 SECTION: 8R-1-N-1
COOK COUNTY
STRUCTURE NO. 016-W969
SCALE: NONE DRAWN BY: D.L./F.M.
DATE: FEBRUARY, 2008 CHECKED BY: B.N.S./J.C.N.
CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS

NORTH: 88113011 IMPROV-THE-808 2/19/2008 3:44:14 PM

F.A.P. No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-1-N-1	COOK	146	129
STA. 85+00.00		TO STA. 92+46.15		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62617



SOIL BORING LOG

Page 1 of 1

Date 6/22/04

ROUTE FAP 345 (US Rte. 20) DESCRIPTION North Retaining Wall LOGGED BY R. GROFF

SECTION BR-1-N-1 LOCATION N side of Rte20 E of Bluff City Rd., SEC. 20, TWP. 41N, RNG. 9E

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	DEPT H	BLOW S	UCS Qu	MOIST (%)	Surface Water Elev.	DEPT H	BLOW S	UCS Qu	MOIST (%)
Station					ft				
BORING NO. <u>B-07</u>					ft				
Station <u>92+00</u>					ft				
Offset <u>73.00ft Left</u>					ft				
Ground Surface Elev. <u>785.20</u>					ft				
ASPHALT (6.5")	784.66				785.20	-20	29		
Gray fine to medium crushed LIMESTONE (fill)	784.20	8							
Brown medium to coarse SANDY GRAVEL (fill)		10	3.0						
		9							
		13							
		13	4.0						
		15							
		3							
Dark Brown Silty CLAY (Buried Topsoil)	778.20	2	0.5	17.0					
		1	P						
Brown fine to coarse SAND and GRAVEL	776.70	12							
		13	4.0						
		21							
		19							
		30	2.0						
		21							
		20							
		16	3.0						
		18							
		21							
		16	3.0						
		18							
		27							
		27	2.0						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

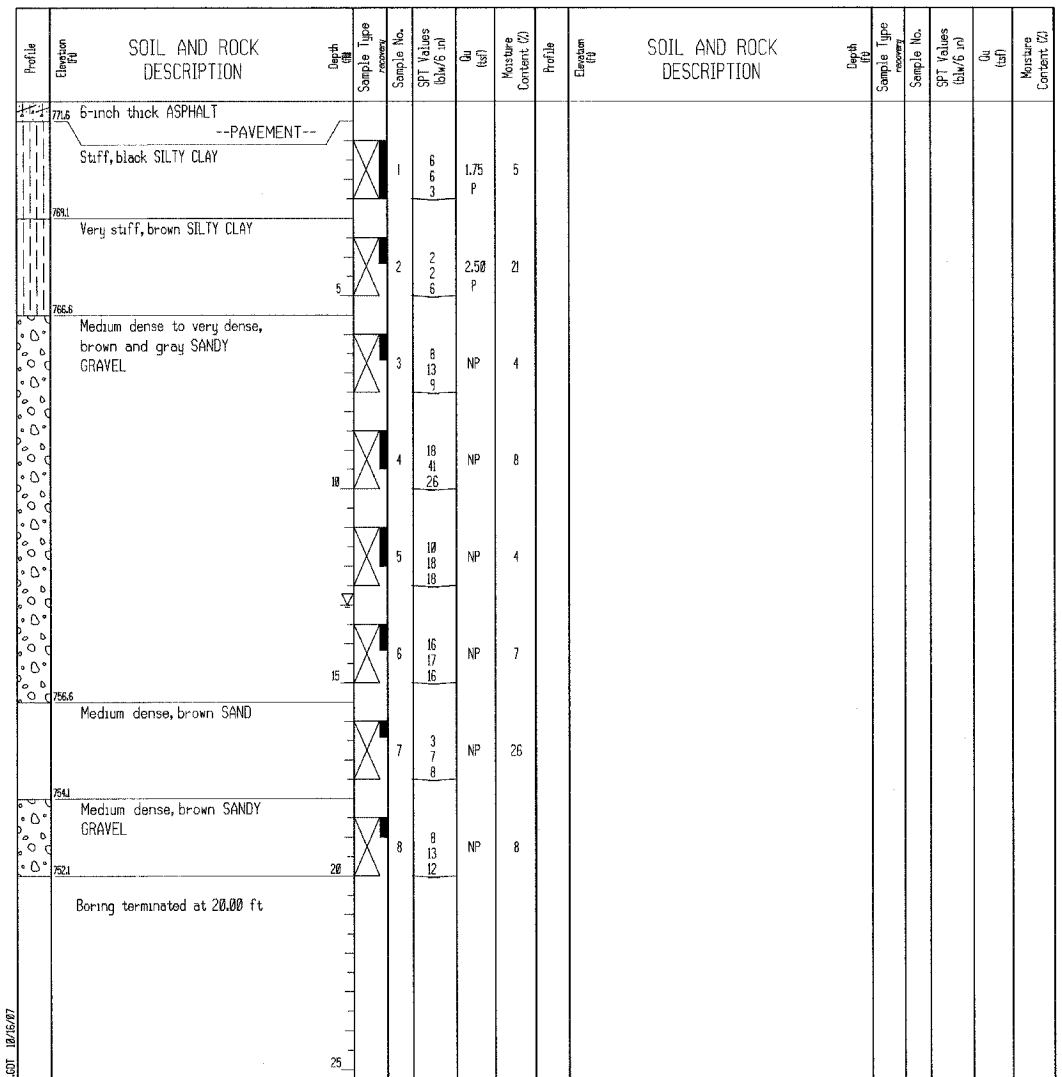
Wang Engineering, Inc.
Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9936

BORING LOG B-16

WEI Job No: 555-12-05

Client: IDOT, Division of Highways
Project: Retaining Walls at FAP 345 US Route 20
Location: Elgin, IL

Datum: NGVD
Elevation: 772.0 ft
North: ft
East: ft
Station: 05+00
Offset: 78 Lt



GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	10-08-2007	Complete Drilling	10-08-2007
Drilling Contractor	Ground Breaking Exploration	Drill Rig	CME-45 TMR
Driller	E & B	Logger	Y. Shu
Drilling Method	2.25 inches HSA	Checked by	S. Sugiarto
While Drilling	13.00 ft	At Completion of Drilling	DRY
Time After Drilling	NA	Depth to Water	NA

REVISIONS	
NAME	DATE

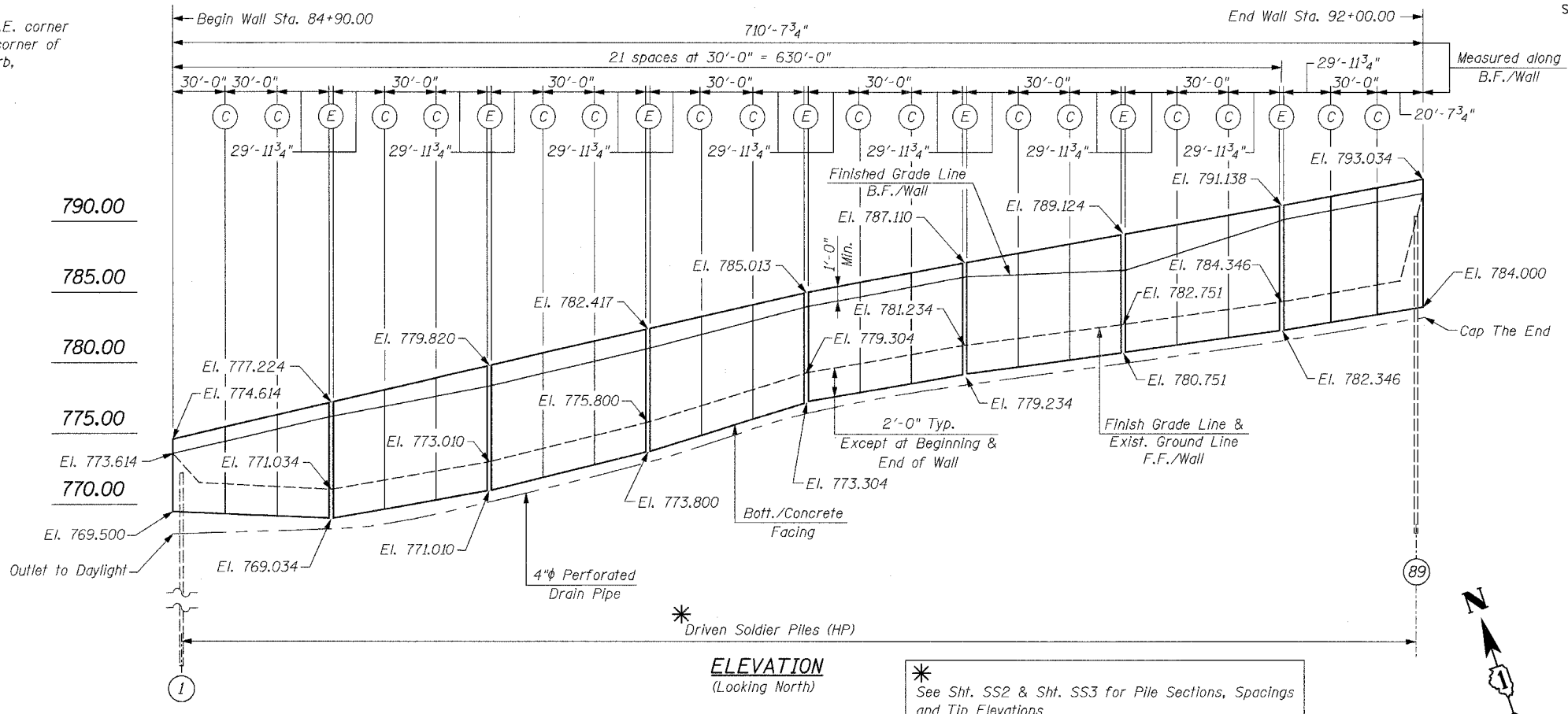
ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL BORING LOGS-IV
U.S. RTE. 20
AT BLUFF CITY / SHALES PARKWAY
NORTH SOLDIER PILE RETAINING WALL
F.A.P. 345 SECTION: BR-1-N-1
COOK COUNTY
STRUCTURE NO. 016-W969
SCALE: NONE DRAWN BY: D.L./F.M.
DATE: FEBRUARY, 2008 CHECKED BY: B.N.S./J.C.N.
CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS

BENCH MARK:

C.P. #12: Found Rebar with Cap 39.25' from N.E. corner of S.W. Wingwall, 31.50' along slope from S.W. corner of S.W. Wingwall & 2.50' from existing back of curb, El. 810.890

Existing Structure: None

SHEET SS1 OF SS10		F.A.P. NO. 345	SECTION BR-1-N-1	COUNTY COOK	TOTAL SHEETS 196	SHEET NO. 129
STA. 84+90.00 TO STA. 92+00.00		CONTRACT NO. 62617				

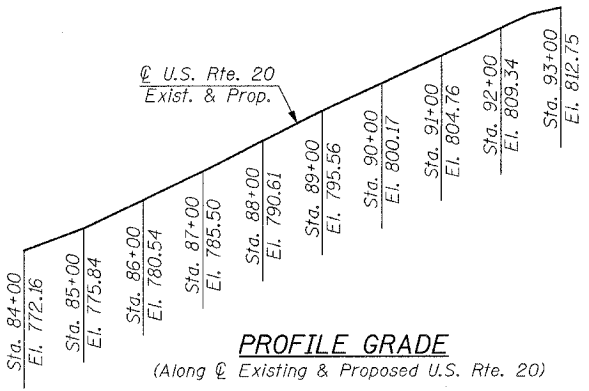
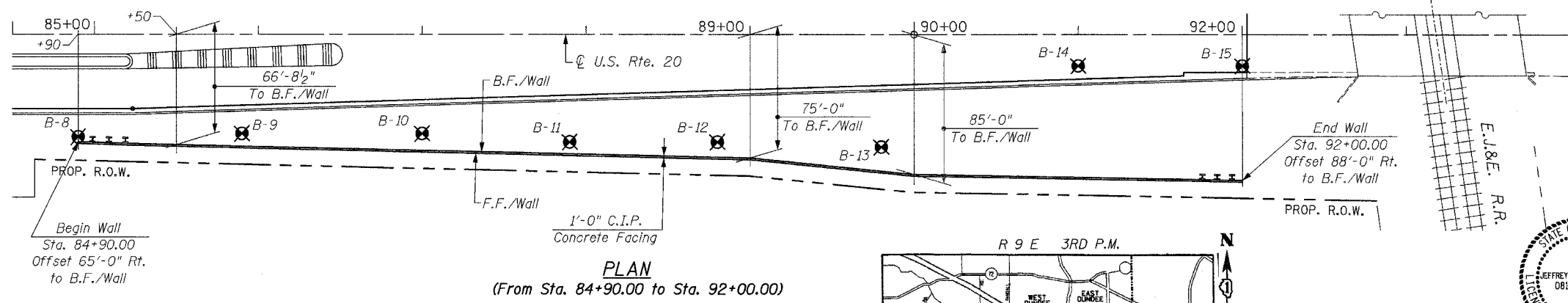


INDEX OF SHEETS

SS1	GENERAL PLAN & ELEVATION
SS2	PLAN & ELEVATION-I
SS3	PLAN & ELEVATION-II
SS4	SECTION & RETAINING WALL DETAILS
SS5	SOLDIER PILE SCHEDULE
SS6	SOIL BORING LOGS-I
SS7	SOIL BORING LOGS-II
SS8	SOIL BORING LOGS-III
SS9	SOIL BORING LOGS-IV
SS10	SOIL BORING LOGS-V

LEGEND:

- B.F. = Back Face
- F.F. = Front Face
- (C) = Construction Joint
- (E) = Expansion Joint
- (S) = Soil Boring Location
- (I) = Pile Numbers
- C.I.P. = Cast-In-Place



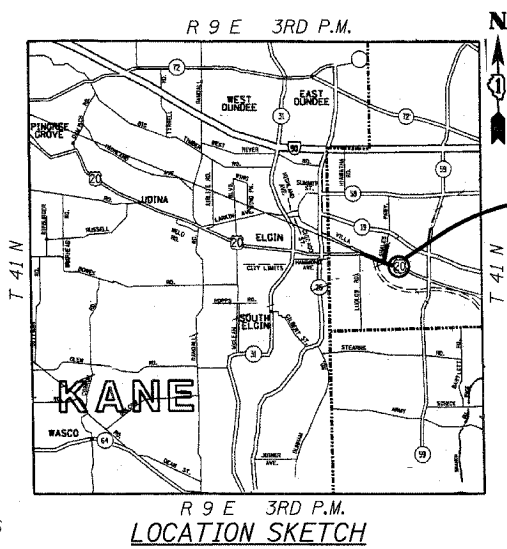
HIGHWAY CLASSIFICATION

Route: F.A.P. 345 (U.S. Route 20)
 Class: Other Principal Arterial
 A.D.T.: 40,500 (Year 2005) 55,000 (Year 2010)
 D.H.V.: 2,450 (Year 2005) 3,300 (Year 2010)
 Design Speed: 50 mph
 Posted Speed: 50 mph

DESIGN SPECIFICATIONS
 AASHTO 17th Edition - 2002

DESIGN STRESSES
FIELD UNITS

f'c = 3,500 PSI (C.I.P. Concrete)
 fy = 60,000 PSI (Reinforcement Grade 60)
 fy = 36,000 PSI (Soldier Pile) AASHTO M270 Gr. 36



REVISIONS

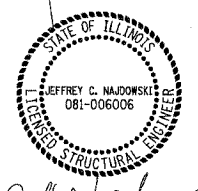
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

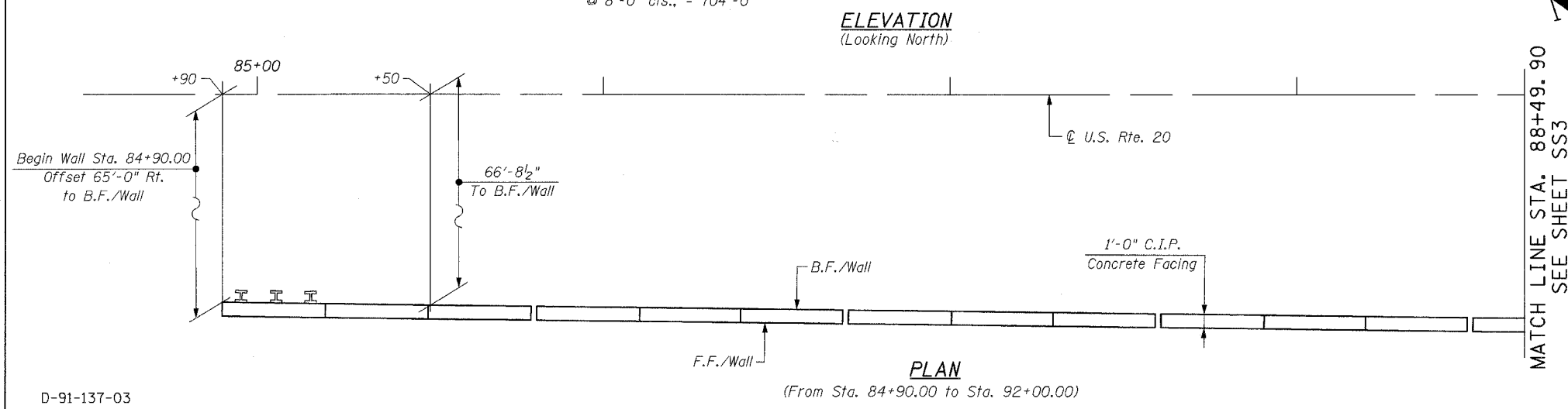
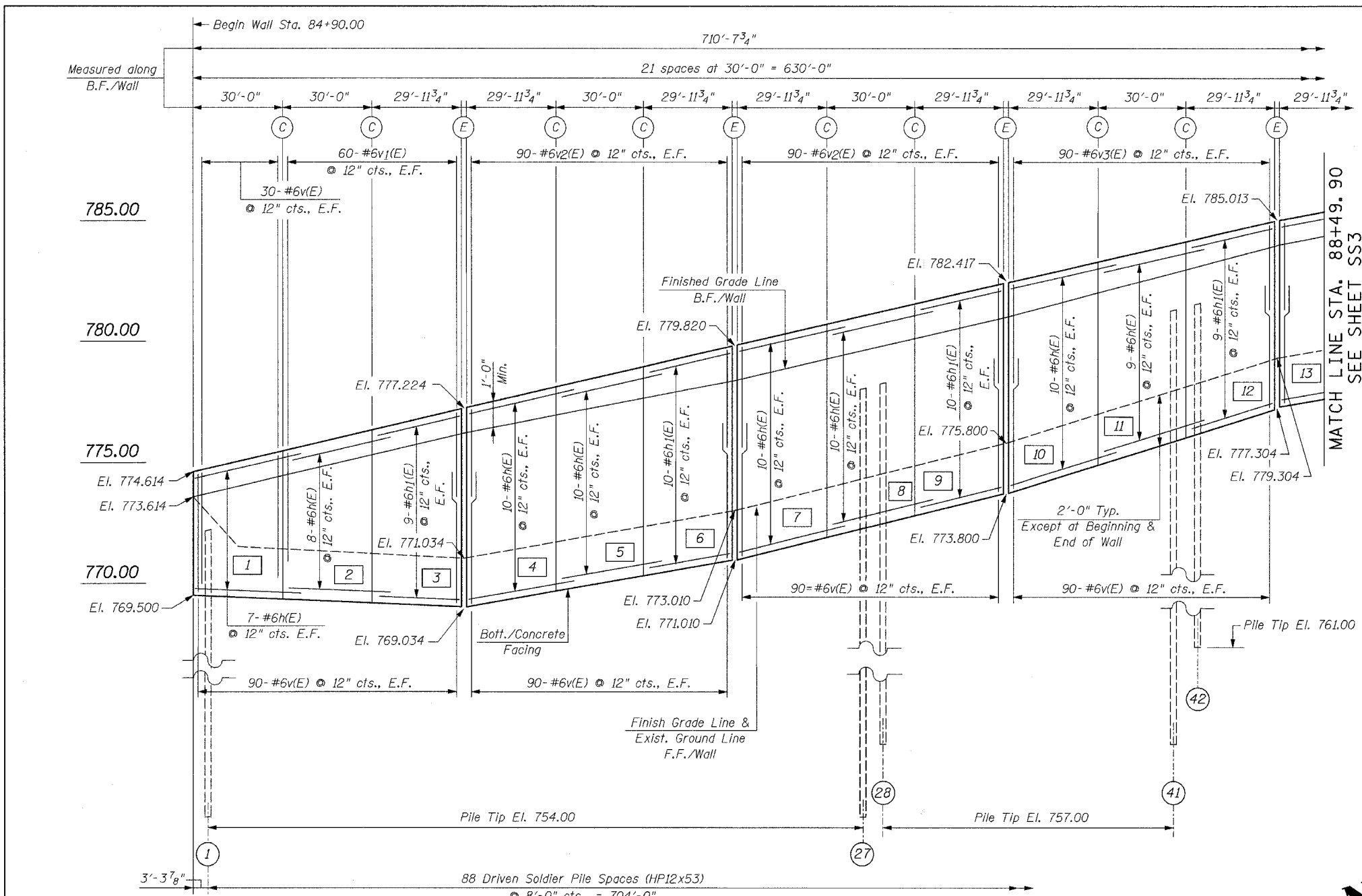
GENERAL PLAN & ELEVATION
 U.S. RTE. 20
 AT BLUFF CITY / SHALES PARKWAY
 SOUTH SOLDIER PILE RETAINING WALL
 F.A.P. 345 SECTION: BR-1-N-1
 COOK COUNTY
 STRUCTURE NO. 016-W968

SCALE: NONE
 DATE: FEBRUARY, 2008
 DRAWN BY: D.L./F.M.
 CHECKED BY: B.N.S./J.C.N.

CHRISTIAN-ROGE & ASSOC., INC.
 CHICAGO ILLINOIS



JEFFREY C. NAJDOWSKI
 LICENSED STRUCTURAL ENGINEER
 STATE OF ILLINOIS LIC. No. 081-006006
 EXPIRES: 11-30-08



GENERAL NOTES:

1. The Contractor is responsible for the Design and Performance of the Lagging using no less than a 3 in. nominal rough-sawn thickness and Timber with a minimum allowable bending stress of 1000 psi.
2. Pipe Underdrain Outlet Pipes shall drain into Concrete Headwalls. See Article 601.05 of The Standard Specifications and see Highway Standard 601101.
3. Reinforcement Bars shall conform to the requirements of ASTM A706, GR. 60 (IL. Modified). See Special Provisions.
4. All Exposed Concrete edges shall be chamfered 3/4" unless otherwise noted.
5. Reinforcement Bars designated (E) shall be Epoxy Coated.

TOTAL BILL OF MATERIAL

DESCRIPTION	UNIT	QUANTITY
Concrete Structures	Cu. Yd.	215.2
Reinforcement Bars, Epoxy Coated	Lb.	44,230
Pipe Underdrains for Structures 4"	Foot	718
Furnishing Soldier Piles (HP Section)	Foot	1,976
Driving Soldier Piles	Foot	1,976
Stud Shear Connectors	Each	2,418
Untreated Timber Lagging	Sq. Ft.	4,386
Geocomposite Wall Drain	Sq. Yd.	366
Structure Excavation	Cu. Yd.	225

LEGEND:

- B.F. = Back Face
 F.F. = Front Face
 E.F. = Each Face
 [1] = Panel Numbers
 (1) = Pile Numbers
- MIN. LAP:**
 #6 Bars = 2'-7"

MATCH LINE STA. 88+49.90
SEE SHEET SS3

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PLAN & ELEVATION-I
 U.S. RTE. 20
 AT BLUFF CITY / SHALES PARKWAY
 SOUTH SOLDIER PILE RETAINING WALL
 F.A.P. 345 SECTION: 8R-1-N-1
 COOK COUNTY
 STRUCTURE NO. 016-W968

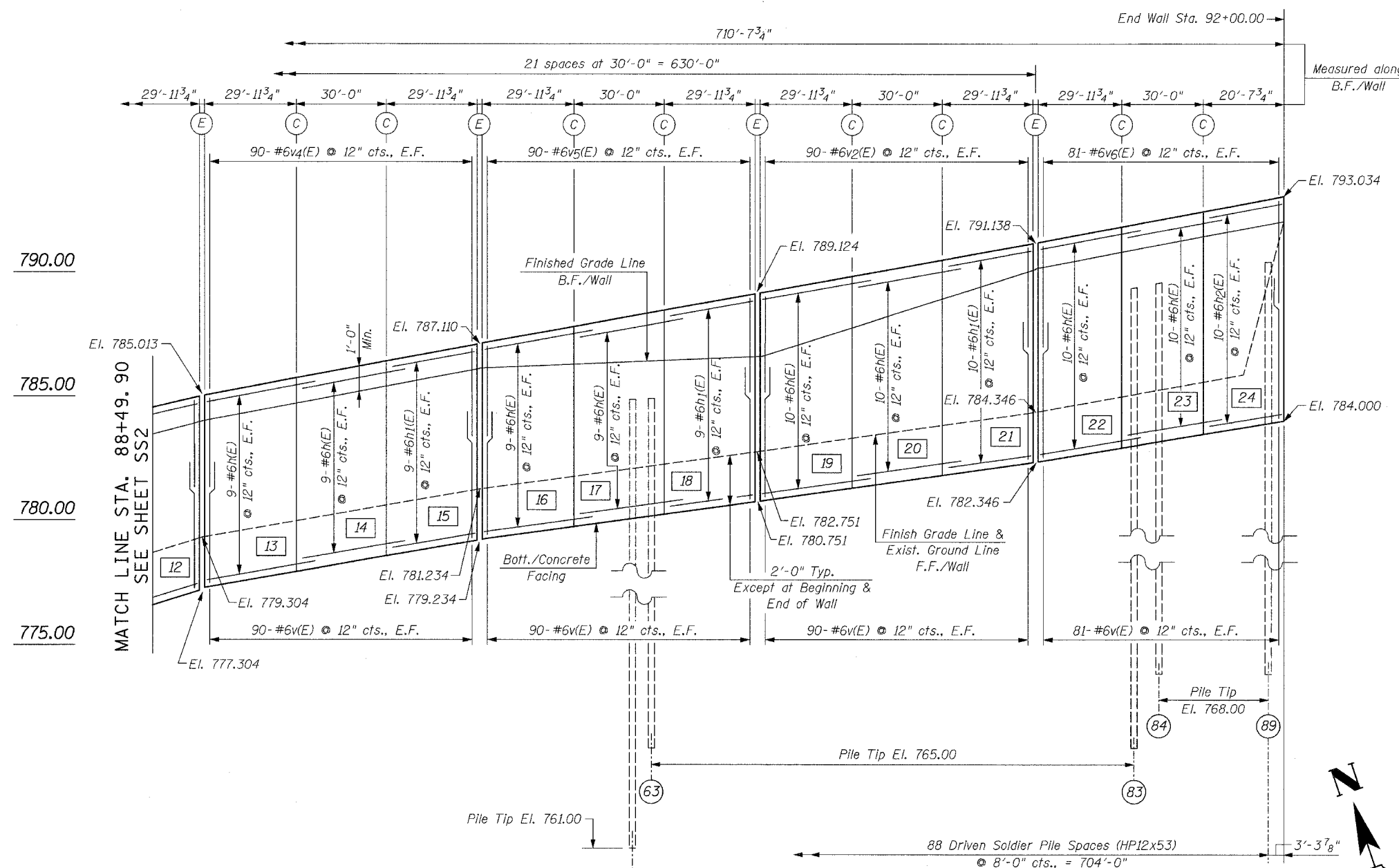
SCALE: NONE
 DATE: FEBRUARY, 2008

DRAWN BY: D.L./F.M.
 CHECKED BY: B.N.S./J.C.N.

CHRISTIAN-ROGE & ASSOC., INC.
 CHICAGO ILLINOIS

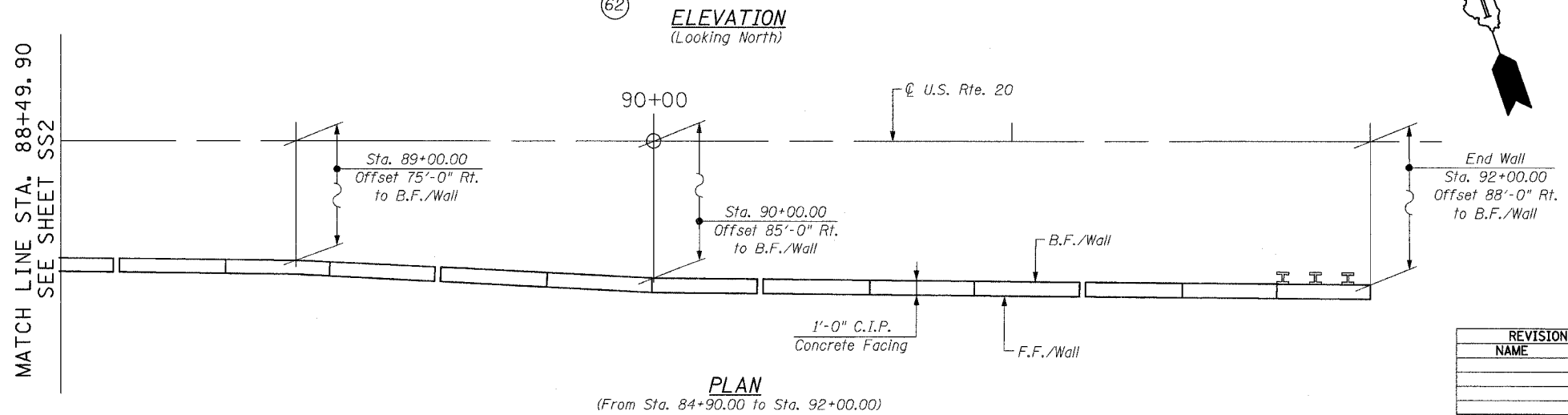
F.A.P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	8R-1-N-1	COOK	196	131
STA. 84+90.00		TO STA. 92+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62617



MIN. LAP:
#6 Bars = 2'-7"

- LEGEND:**
- B.F. = Back Face
 - F.F. = Front Face
 - E.F. = Each Face
 - [] = Panel Numbers
 - () = Pile Numbers



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PLAN & ELEVATION - II

U.S. RTE. 20

AT BLUFF CITY / SHALES PARKWAY

SOUTH SOLDIER PILE RETAINING WALL

F.A.P. 345 SECTION: 8R-1-N-1

COOK COUNTY

STRUCTURE NO. 016-W968

SCALE: NONE DRAWN BY: D.L./F.M.

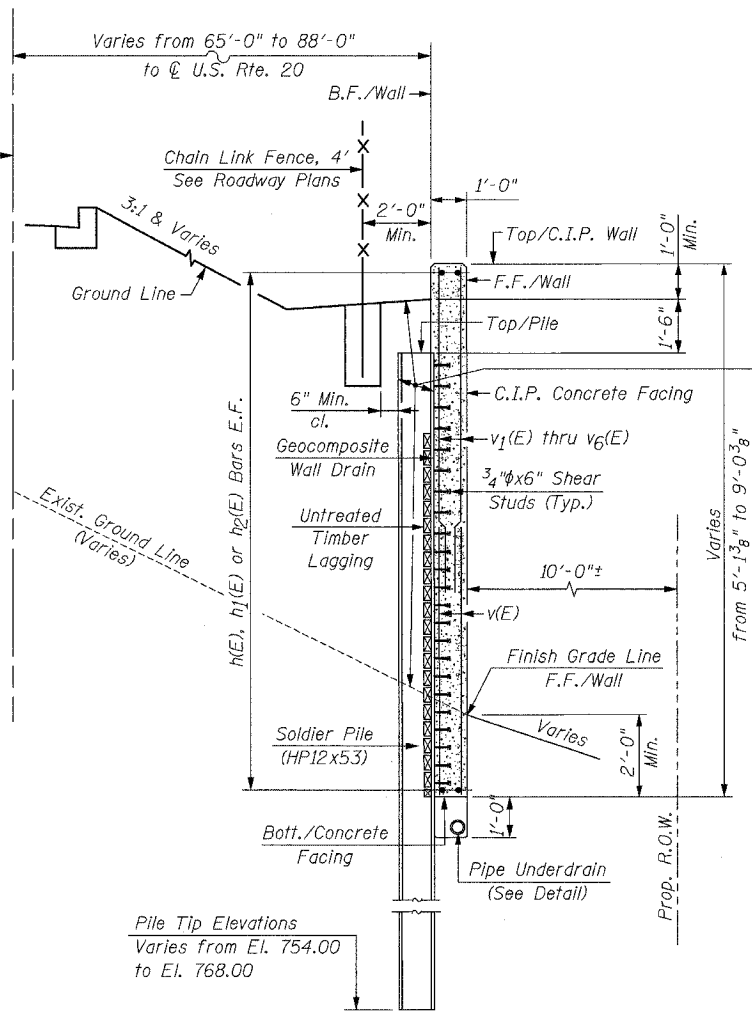
DATE: FEBRUARY, 2008 CHECKED BY: B.N.S./J.C.N.

CHRISTIAN-ROGE & ASSOC., INC.

CHICAGO ILLINOIS

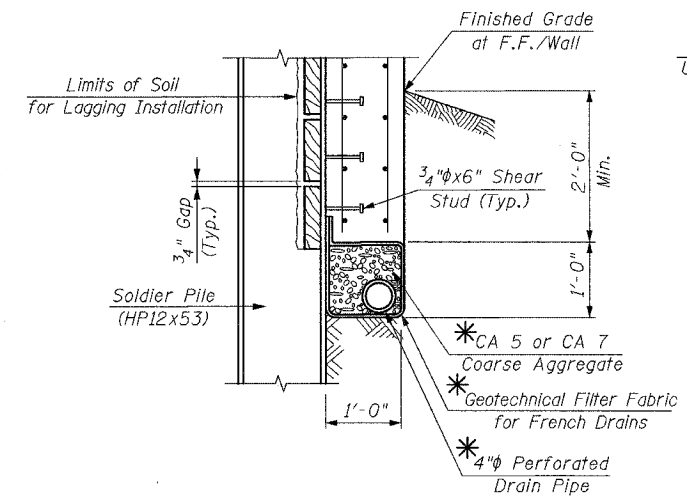
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	300	#6	32'-6"	—
h1(E)	132	#6	29'-9"	—
h2(E)	20	#6	20'-4"	—
v(E)	1,482	#6	4'-9"	—
v1(E)	120	#6	5'-9"	—
v2(E)	540	#6	6'-4"	—
v3(E)	180	#6	6'-2"	—
v4(E)	180	#6	5'-5"	—
v5(E)	180	#6	5'-11"	—
v6(E)	162	#6	6'-7"	—
Reinforcement Bars, Epoxy Coated		Lb.	44,230	

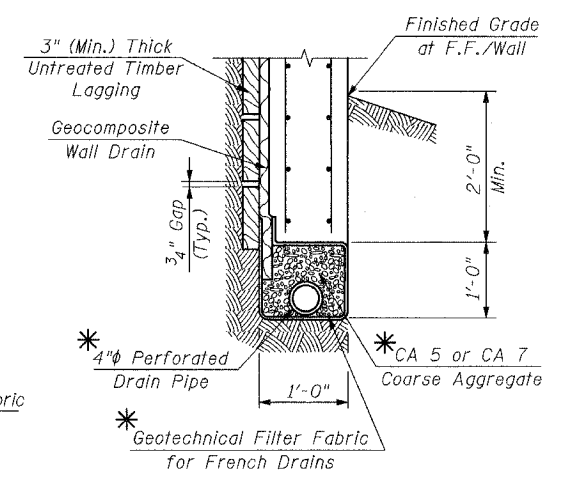


**DRIVEN SOLDIER PILE
TYPICAL WALL SECTION**
(Looking East)

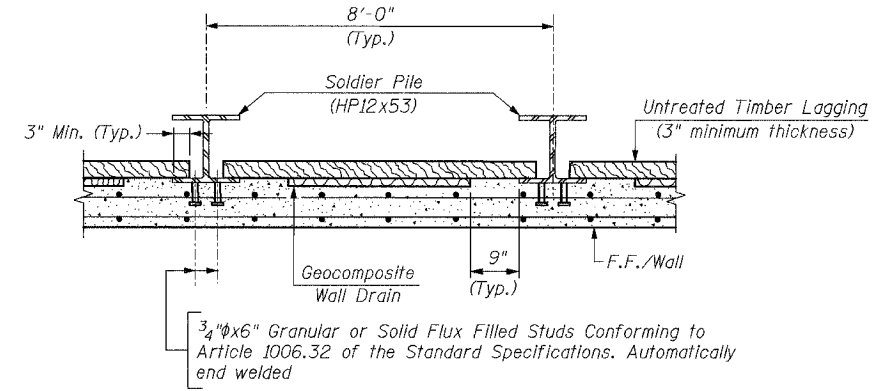
* Included in the cost of Pipe Underdrains for Structures



**PIPE UNDERDRAIN DETAIL
AT SOLDIER PILES**

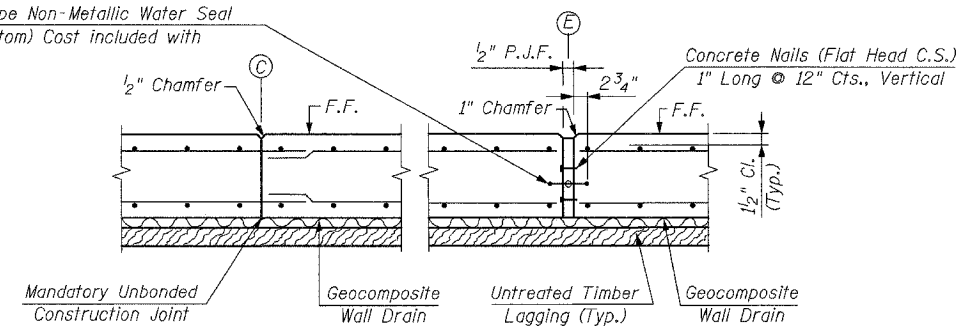


**PIPE UNDERDRAIN DETAIL
BETWEEN SOLDIER PILES**



**TYPICAL SECTION THRU
SOLDIER PILE WALL**

6" Hollow Bulb Dumbbell Type Non-Metallic Water Seal (6" from top of Wall to bottom) Cost included with Concrete Structures



**CONSTRUCTION JOINT EXPANSION JOINT
END OF PANEL DETAILS**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SECTION & RETAINING WALL DETAILS
U.S. RTE. 20
AT BLUFF CITY / SHALES PARKWAY
SOUTH SOLDIER PILE RETAINING WALL
F.A.P. 345 SECTION: BR-1-N-1
COOK COUNTY
STRUCTURE NO. 016-W968
SCALE: NONE DRAWN BY: D.L./F.M.
DATE: FEBRUARY, 2008 CHECKED BY: B.N.S./J.C.N.
CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS

F.A.P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-1-N-1	COOK	196	133
STA. 84+90.00		TO STA. 92+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

**SOUTH SOLDIER PILE RETAINING WALL
SOLDIER PILE SCHEDULE**

CONTRACT NO. 62617

PILE NO.	PILE SIZE	APPROX. TOP/PILE ELEV.	APPROX. TIP/PILE ELEV.	APPROX. PILE LENGTH (FT.)	NO. STUD PER PILE	STUD SPACING	PILE NO.	PILE SIZE	APPROX. TOP/PILE ELEV.	APPROX. TIP/PILE ELEV.	APPROX. PILE LENGTH (FT.)	NO. STUD PER PILE	STUD SPACING
1	HP12x53	772.21	754.00	18.21	2 x 7 = 14	6 SPA. @ 4.75 IN = 2'- 4"	46	HP12x53	782.59	761.00	21.59	2 x 14 = 28	13 SPA. @ 4.50 IN = 4'- 10"
2	HP12x53	772.44	754.00	18.44	2 x 8 = 16	7 SPA. @ 4.75 IN = 2'- 9"	47	HP12x53	782.78	761.00	21.78	2 x 14 = 28	13 SPA. @ 4.50 IN = 4'- 10"
3	HP12x53	772.67	754.00	18.67	2 x 9 = 18	8 SPA. @ 4.50 IN = 3'- 0"	48	HP12x53	782.97	761.00	21.97	2 x 14 = 28	13 SPA. @ 4.50 IN = 4'- 10"
4	HP12x53	772.91	754.00	18.91	2 x 9 = 18	8 SPA. @ 4.75 IN = 3'- 2"	49	HP12x53	783.15	761.00	22.15	2 x 14 = 28	13 SPA. @ 4.50 IN = 4'- 10"
5	HP12x53	773.14	754.00	19.14	2 x 10 = 20	9 SPA. @ 4.75 IN = 3'- 6"	50	HP12x53	783.34	761.00	22.34	2 x 14 = 28	13 SPA. @ 4.50 IN = 4'- 10"
6	HP12x53	773.37	754.00	19.37	2 x 11 = 22	10 SPA. @ 4.50 IN = 3'- 9"	51	HP12x53	783.53	761.00	22.53	2 x 14 = 28	13 SPA. @ 4.50 IN = 4'- 10"
7	HP12x53	773.60	754.00	19.60	2 x 11 = 22	10 SPA. @ 4.75 IN = 3'- 11"	52	HP12x53	783.71	761.00	22.71	2 x 14 = 28	13 SPA. @ 4.50 IN = 4'- 10"
8	HP12x53	773.83	754.00	19.83	2 x 12 = 24	11 SPA. @ 4.75 IN = 4'- 4"	53	HP12x53	783.90	761.00	22.90	2 x 14 = 28	13 SPA. @ 4.75 IN = 5'- 1"
9	HP12x53	774.07	754.00	20.07	2 x 13 = 26	12 SPA. @ 4.50 IN = 4'- 6"	54	HP12x53	784.09	761.00	23.09	2 x 14 = 28	13 SPA. @ 4.75 IN = 5'- 1"
10	HP12x53	774.30	754.00	20.30	2 x 13 = 26	12 SPA. @ 4.75 IN = 4'- 9"	55	HP12x53	784.27	761.00	23.27	2 x 14 = 28	13 SPA. @ 4.75 IN = 5'- 1"
11	HP12x53	774.53	754.00	20.53	2 x 14 = 28	13 SPA. @ 4.75 IN = 5'- 1"	56	HP12x53	784.46	761.00	23.46	2 x 14 = 28	13 SPA. @ 4.75 IN = 5'- 1"
12	HP12x53	774.76	754.00	20.76	2 x 14 = 28	13 SPA. @ 4.75 IN = 5'- 1"	57	HP12x53	784.65	761.00	23.65	2 x 14 = 28	13 SPA. @ 4.75 IN = 5'- 1"
13	HP12x53	774.99	754.00	20.99	2 x 14 = 28	13 SPA. @ 5.00 IN = 5'- 5"	58	HP12x53	784.82	761.00	23.82	2 x 14 = 28	13 SPA. @ 4.75 IN = 5'- 1"
14	HP12x53	775.22	754.00	21.22	2 x 14 = 28	13 SPA. @ 5.00 IN = 5'- 5"	59	HP12x53	785.00	761.00	24.00	2 x 14 = 28	13 SPA. @ 4.75 IN = 5'- 1"
15	HP12x53	775.46	754.00	21.46	2 x 14 = 28	13 SPA. @ 5.25 IN = 5'- 8"	60	HP12x53	785.18	761.00	24.18	2 x 14 = 28	13 SPA. @ 4.75 IN = 5'- 1"
16	HP12x53	775.69	754.00	21.69	2 x 14 = 28	13 SPA. @ 5.25 IN = 5'- 8"	61	HP12x53	785.36	761.00	24.36	2 x 14 = 28	13 SPA. @ 4.75 IN = 5'- 1"
17	HP12x53	775.92	754.00	21.92	2 x 14 = 28	13 SPA. @ 5.25 IN = 5'- 8"	62	HP12x53	785.54	761.00	24.54	2 x 14 = 28	13 SPA. @ 5.00 IN = 5'- 5"
18	HP12x53	776.15	754.00	22.15	2 x 14 = 28	13 SPA. @ 5.25 IN = 5'- 8"	63	HP12x53	785.72	765.00	20.72	2 x 14 = 28	13 SPA. @ 5.00 IN = 5'- 5"
19	HP12x53	776.38	754.00	22.38	2 x 14 = 28	13 SPA. @ 5.25 IN = 5'- 8"	64	HP12x53	785.90	765.00	20.90	2 x 14 = 28	13 SPA. @ 5.00 IN = 5'- 5"
20	HP12x53	776.61	754.00	22.61	2 x 14 = 28	13 SPA. @ 5.50 IN = 5'- 11"	65	HP12x53	786.08	765.00	21.08	2 x 14 = 28	13 SPA. @ 5.00 IN = 5'- 5"
21	HP12x53	776.84	754.00	22.84	2 x 14 = 28	13 SPA. @ 5.50 IN = 5'- 11"	66	HP12x53	786.26	765.00	21.26	2 x 14 = 28	13 SPA. @ 5.00 IN = 5'- 5"
22	HP12x53	777.07	754.00	23.07	2 x 14 = 28	13 SPA. @ 5.50 IN = 5'- 11"	67	HP12x53	786.44	765.00	21.44	2 x 14 = 28	13 SPA. @ 5.00 IN = 5'- 5"
23	HP12x53	777.30	754.00	23.30	2 x 14 = 28	13 SPA. @ 5.50 IN = 5'- 11"	68	HP12x53	786.62	765.00	21.62	2 x 14 = 28	13 SPA. @ 5.25 IN = 5'- 8"
24	HP12x53	777.53	754.00	23.53	2 x 14 = 28	13 SPA. @ 5.50 IN = 5'- 11"	69	HP12x53	786.80	765.00	21.80	2 x 14 = 28	13 SPA. @ 5.25 IN = 5'- 8"
25	HP12x53	777.76	754.00	23.76	2 x 14 = 28	13 SPA. @ 5.50 IN = 5'- 11"	70	HP12x53	786.98	765.00	21.98	2 x 14 = 28	13 SPA. @ 5.25 IN = 5'- 8"
26	HP12x53	777.99	754.00	23.99	2 x 14 = 28	13 SPA. @ 5.50 IN = 5'- 11"	71	HP12x53	787.16	765.00	22.16	2 x 14 = 28	13 SPA. @ 5.25 IN = 5'- 8"
27	HP12x53	778.23	754.00	24.23	2 x 14 = 28	13 SPA. @ 5.50 IN = 5'- 11"	72	HP12x53	787.34	765.00	22.34	2 x 14 = 28	13 SPA. @ 5.25 IN = 5'- 8"
28	HP12x53	778.46	757.00	21.46	2 x 14 = 28	13 SPA. @ 5.50 IN = 5'- 11"	73	HP12x53	787.52	765.00	22.52	2 x 14 = 28	13 SPA. @ 5.25 IN = 5'- 8"
29	HP12x53	778.69	757.00	21.69	2 x 14 = 28	13 SPA. @ 5.50 IN = 5'- 11"	74	HP12x53	787.70	765.00	22.70	2 x 14 = 28	13 SPA. @ 5.25 IN = 5'- 8"
30	HP12x53	778.92	757.00	21.92	2 x 14 = 28	13 SPA. @ 5.50 IN = 5'- 11"	75	HP12x53	787.88	765.00	22.88	2 x 14 = 28	13 SPA. @ 5.50 IN = 5'- 11"
31	HP12x53	779.15	757.00	22.15	2 x 14 = 28	13 SPA. @ 5.50 IN = 5'- 11"	76	HP12x53	788.06	765.00	23.06	2 x 14 = 28	13 SPA. @ 5.50 IN = 5'- 11"
32	HP12x53	779.38	757.00	22.38	2 x 14 = 28	13 SPA. @ 5.50 IN = 5'- 11"	77	HP12x53	788.23	765.00	23.23	2 x 14 = 28	13 SPA. @ 5.50 IN = 5'- 11"
33	HP12x53	779.61	757.00	22.61	2 x 14 = 28	13 SPA. @ 5.50 IN = 5'- 11"	78	HP12x53	788.41	765.00	23.41	2 x 14 = 28	13 SPA. @ 5.50 IN = 5'- 11"
34	HP12x53	779.84	757.00	22.84	2 x 14 = 28	13 SPA. @ 5.25 IN = 5'- 8"	79	HP12x53	788.59	765.00	23.59	2 x 14 = 28	13 SPA. @ 5.50 IN = 5'- 11"
35	HP12x53	780.07	757.00	23.07	2 x 14 = 28	13 SPA. @ 5.25 IN = 5'- 8"	80	HP12x53	788.78	765.00	23.78	2 x 14 = 28	13 SPA. @ 5.50 IN = 5'- 11"
36	HP12x53	780.30	757.00	23.30	2 x 14 = 28	13 SPA. @ 5.25 IN = 5'- 8"	81	HP12x53	788.97	765.00	23.97	2 x 14 = 28	13 SPA. @ 5.50 IN = 5'- 11"
37	HP12x53	780.53	757.00	23.53	2 x 14 = 28	13 SPA. @ 5.25 IN = 5'- 8"	82	HP12x53	789.15	765.00	24.15	2 x 14 = 28	13 SPA. @ 5.50 IN = 5'- 11"
38	HP12x53	780.77	757.00	23.77	2 x 14 = 28	13 SPA. @ 5.00 IN = 5'- 5"	83	HP12x53	789.34	765.00	24.34	2 x 14 = 28	13 SPA. @ 5.50 IN = 5'- 11"
39	HP12x53	781.00	757.00	24.00	2 x 14 = 28	13 SPA. @ 5.00 IN = 5'- 5"	84	HP12x53	789.53	768.00	21.53	2 x 14 = 28	13 SPA. @ 5.75 IN = 6'- 2"
40	HP12x53	781.23	757.00	24.23	2 x 14 = 28	13 SPA. @ 5.00 IN = 5'- 5"	85	HP12x53	789.72	768.00	21.72	2 x 14 = 28	13 SPA. @ 5.75 IN = 6'- 2"
41	HP12x53	781.46	757.00	24.46	2 x 14 = 28	13 SPA. @ 4.75 IN = 5'- 1"	86	HP12x53	789.91	768.00	21.91	2 x 14 = 28	13 SPA. @ 5.75 IN = 6'- 2"
42	HP12x53	781.69	761.00	20.69	2 x 14 = 28	13 SPA. @ 4.75 IN = 5'- 1"	87	HP12x53	790.09	768.00	22.09	2 x 14 = 28	13 SPA. @ 5.75 IN = 6'- 2"
43	HP12x53	781.92	761.00	20.92	2 x 14 = 28	13 SPA. @ 4.50 IN = 4'- 10"	88	HP12x53	790.28	768.00	22.28	2 x 14 = 28	13 SPA. @ 5.75 IN = 6'- 2"
44	HP12x53	782.15	761.00	21.15	2 x 14 = 28	13 SPA. @ 4.50 IN = 4'- 10"	89	HP12x53	790.46	768.00	22.46	2 x 14 = 28	13 SPA. @ 5.75 IN = 6'- 2"
45	HP12x53	782.38	761.00	21.38	2 x 14 = 28	13 SPA. @ 4.50 IN = 4'- 10"							

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOLDIER PILE SCHEDULE
U.S. RTE. 20
AT BLUFF CITY / SHALES PARKWAY
SOUTH SOLDIER PILE RETAINING WALL
F.A.P. 345 SECTION: BR-1-N-1
COOK COUNTY
STRUCTURE NO. 016-W968

SCALE: NONE DRAWN BY: D.L./F.M.
DATE: FEBRUARY, 2008 CHECKED BY: B.N.S./J.C.N.

CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS

ILLINOIS DEPARTMENT OF TRANSPORTATION



SOIL BORING LOG

Page 1 of 1

Date 6/22/04

ROUTE FAP 345 (US Rte. 20) DESCRIPTION South Retaining Wall LOGGED BY R. GROFF
 SECTION BR-1-N-1 LOCATION S side of Rte20 E of Bluff City Rd., SEC. 20, TWP. 41N, RNG. 9E
 COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	DEPTH	BLOW	UCS	MOIST	Surface Water Elev.	DEPTH	BLOW	UCS	MOIST
Station	H	S	Qu	T	ft	H	S	Qu	T
BORING NO. B-08					Groundwater Elev.:				
Station 84+90					First Encounter 752.9 ft				
Offset 62.00ft Right					Upon Completion Dry ft				
Ground Surface Elev. 771.40 ft					After Hrs. Cave in @11' ft				
Black Silty CLAY, trace fine Gravel (Organic) (Topsoil)					End of Boring				
	6								
Brown fine to coarse SAND and GRAVEL	24	-	3.0						
	42								
	11								
	8	-	5.0						
	13								
	7								
	8	-	3.0						
	9								
	19								
	16	-	2.0						
	15								
	16								
	11	-	4.0						
	10								
	9								
	12	-	3.0						
	14								
	10								
	13	-	5.0						
	12								
	3								
	3	-	8.0						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Page 1 of 1

Date 6/23/04

ROUTE FAP 345 (US Rte. 20) DESCRIPTION South Retaining Wall LOGGED BY R. GROFF
 SECTION BR-1-N-1 LOCATION S side of Rte20 E of Bluff City Rd., SEC. 20, TWP. 41N, RNG. 9E
 COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	DEPTH	BLOW	UCS	MOIST	Surface Water Elev.	DEPTH	BLOW	UCS	MOIST
Station	H	S	Qu	T	ft	H	S	Qu	T
BORING NO. B-09					Groundwater Elev.:				
Station 85+90					First Encounter 755.4 ft				
Offset 60.00ft Right					Upon Completion Dry ft				
Ground Surface Elev. 771.40 ft					After Hrs. Cave in @9' ft				
Dark Brown Silty CLAY with fine Gravel (fill)					End of Boring				
	16								
Brown fine to coarse SAND and GRAVEL (fill)	25	-	3.0						
	25								
	3								
Brown Silty CLAY, trace fine to medium Sand	3	1.8	11.0						
	5	B							
	3								
	4	2.0	17.0						
	5	P							
	11								
Brown fine to coarse SAND and GRAVEL	9	-	6.0						
	11								
	8								
	16	-	3.0						
	14								
	16								
	16	-	2.0						
	13								
	12								
	10	-	7.0						
	10								
	5								
	7	-	7.0						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SOIL BORING LOGS-I
 U.S. RTE. 20
 AT BLUFF CITY / SHALES PARKWAY
 SOUTH SOLDIER PILE RETAINING WALL
 F.A.P. 345 SECTION: 8R-1-N-1
 COOK COUNTY
 STRUCTURE NO. 016-W968
 SCALE: NONE DRAWN BY: D.L./F.M.
 DATE: FEBRUARY, 2008 CHECKED BY: B.N.S./J.C.N.
CHRISTIAN-ROGE & ASSOC., INC.
 CHICAGO ILLINOIS



SOIL BORING LOG

Page 1 of 1

Date 6/23/04

ROUTE FAP 345 (US Rte. 20) DESCRIPTION South Retaining Wall LOGGED BY R. GROFF
 SECTION BR-1-N-1 LOCATION S side of Rte20 E of Bluff City Rd., SEC. 20, TWP. 41N, RNG. 9E
 COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. Station	BORING NO. Station	Offset	Ground Surface Elev. ft	D (ft)	B (/6")	U (tsf)	M (%)	SOIL DESCRIPTION				Surface Water Elev. ft	Stream Bed Elev. ft	Groundwater Elev.: First Encounter DRY ft	Upon Completion ft	After Hrs.		
								DEPTH	LOSS	QU	TEST							
	B-12	88+80	779.40					Brown Silty CLAY some fine Gravel (fill)										
					11			Brown fine to coarse SAND and GRAVEL trace Brown Silty Clay (fill)										
			775.90					Brown Silty CLAY, trace fine to medium Sand										
					15			Brown fine to coarse SAND and GRAVEL										
			771.90					Brown fine to coarse SAND and GRAVEL										
					6			Brown Silty CLAY, trace fine to medium Sand										
					9			Brown fine to coarse SAND and GRAVEL										
					8			Brown Silty CLAY, trace fine to medium Sand										
					13			Brown fine to coarse SAND and GRAVEL										
					12			Brown Silty CLAY, trace fine to medium Sand										
					13			Brown fine to coarse SAND and GRAVEL										
					21			Brown Silty CLAY, trace fine to medium Sand										
					17			Brown fine to coarse SAND and GRAVEL										
					14			Brown Silty CLAY, trace fine to medium Sand										
					30			Brown fine to coarse SAND and GRAVEL										
					31			Brown Silty CLAY, trace fine to medium Sand										
					23			Brown fine to coarse SAND and GRAVEL										
					100			Brown Silty CLAY, trace fine to medium Sand										
					24			Brown fine to coarse SAND and GRAVEL										

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Page 1 of 1

Date 6/23/04

ROUTE FAP 345 (US Rte. 20) DESCRIPTION South Retaining Wall LOGGED BY R. GROFF
 SECTION BR-1-N-1 LOCATION S side of Rte20 E of Bluff City Rd., SEC. 20, TWP. 41N, RNG. 9E
 COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. Station	BORING NO. Station	Offset	Ground Surface Elev. ft	D (ft)	B (/6")	U (tsf)	M (%)	SOIL DESCRIPTION				Surface Water Elev. ft	Stream Bed Elev. ft	Groundwater Elev.: First Encounter DRY ft	Upon Completion ft	After Hrs.		
								DEPTH	LOSS	QU	TEST							
	B-13	89+80	782.50					Black Silty CLAY, some fine Gravel (topsoil)										
					7			Brown fine to medium SAND and GRAVEL mixed with Brown Silty Clay (fill)										
					7			Brown Silty CLAY, trace fine to medium Sand										
					11			Brown fine to coarse SAND and GRAVEL										
					5			Brown Silty CLAY, trace fine to medium Sand										
					4	3.5	22.0	Brown fine to coarse SAND and GRAVEL										
					3	P		Brown Silty CLAY, trace fine to medium Sand										
					2			Brown fine to coarse SAND and GRAVEL										
					2	3.0	20.0	Brown Silty CLAY, trace fine to medium Sand										
					1	P		Brown fine to coarse SAND and GRAVEL										
					9			Brown Silty CLAY, trace fine to medium Sand										
					8		3.0	Brown fine to coarse SAND and GRAVEL										
					8			Brown Silty CLAY, trace fine to medium Sand										
					13			Brown fine to coarse SAND and GRAVEL										
					12		4.0	Brown Silty CLAY, trace fine to medium Sand										
					10			Brown fine to coarse SAND and GRAVEL										
					6			Brown Silty CLAY, trace fine to medium Sand										
					6		2.0	Brown fine to coarse SAND and GRAVEL										
					10			Brown Silty CLAY, trace fine to medium Sand										
					12			Brown fine to coarse SAND and GRAVEL										
					20		2.0	Brown Silty CLAY, trace fine to medium Sand										
					37			Brown fine to coarse SAND and GRAVEL										
					15			Brown Silty CLAY, trace fine to medium Sand										
					13		4.0	Brown fine to coarse SAND and GRAVEL										

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SOIL BORING LOGS-III
 U.S. RTE. 20
 AT BLUFF CITY / SHALES PARKWAY
 SOUTH SOLDIER PILE RETAINING WALL
 F.A.P. 345 SECTION: 8R-1-N-1
 COOK COUNTY
 STRUCTURE NO. 016-W968
 SCALE: NONE DRAWN BY: D.L./F.M.
 DATE: FEBRUARY, 2008 CHECKED BY: B.N.S./J.C.N.
 CHRISTIAN-ROGE & ASSOC., INC.
 CHICAGO ILLINOIS

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BR-1-N-1	COOK	196	137
STA. 84+90.00 TO STA. 92+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 62617

BORING LOG B-14 Page 1 of 2

Wang Engineering, Inc.
1145 Main Street
Lombard, IL 68148
Telephone: 630 953-9928
Fax: 630 953-9938

Client: IDOT, Division of Highways
Project: Retaining Walls at FAP 345 US Route 20
Location: Elgin, IL

WEI Job No.: 555-12-05

Datum: NGVD
Elevation: 884.98 ft
North: ft
East: ft
Station: 91+00
Offset: 19 ft

BORING LOG B-14 Page 2 of 2

Wang Engineering, Inc.
1145 Main Street
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Telephone: 630 953-9928
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Client: IDOT, Division of Highways
Project: Retaining Walls at FAP 345 US Route 20
Location: Elgin, IL

WEI Job No.: 555-12-05

Datum: NGVD
Elevation: 884.98 ft
North: ft
East: ft
Station: 91+00
Offset: 19 ft

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	u (lb/ft)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	u (lb/ft)	Moisture Content (%)
884.98	16-inch thick ASPHALT over 6 inch thick CONCRETE --PAVEMENT--						884.98						
884.98	Medium stiff, brown CLAY LOAM, some gravel --FILL--	1	4	4	8.75	28	884.98	Medium dense to very dense, brown and gray SAND, some gravel	1	2	5	123	38
884.98		2	4	4	8.50	15	884.98		2	5	123	38	
884.98		3	4	4	8.50	15	884.98		3	5	123	38	
884.98	Medium dense, brown SAND, some gravel --FILL--	4	4	4	NP	7	884.98		4	5	NP	8	
884.98		5	4	4	NP	7	884.98		5	5	NP	8	
884.98	Stiff, brown SILTY CLAY, trace gravel --FILL--	6	4	4	NP	24	884.98		6	5	NP	4	
884.98		7	4	4	NP	24	884.98		7	5	NP	4	
884.98	Loose to medium dense, brown and gray SANDY LOAM, little gravel --FILL--	8	4	4	NP	9	884.98		8	5	NP	1	
884.98		9	4	4	NP	9	884.98		9	5	NP	1	
884.98		10	4	4	NP	9	884.98		10	5	NP	1	
884.98	Medium dense, brown and gray SANDY GRAVEL --FILL--	11	4	4	NP	5	884.98		11	5	NP	1	
884.98		12	4	4	NP	5	884.98		12	5	NP	1	
884.98		13	4	4	NP	11	884.98		13	5	NP	1	
884.98		14	4	4	NP	11	884.98		14	5	NP	1	
884.98		15	4	4	NP	5	884.98		15	5	NP	1	
884.98		16	4	4	NP	5	884.98		16	5	NP	1	
884.98	Medium stiff to stiff, brown SILTY CLAY	17	4	4	8.98	25	884.98	Dense to very dense, brown SANDY GRAVEL	17	5	24	NP	8
884.98		18	4	4	8.98	25	884.98		18	5	24	NP	8

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	u (lb/ft)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	u (lb/ft)	Moisture Content (%)
884.98							884.98						
884.98		17	17	17	NP	8	884.98		17	17	NP	8	
884.98		18	18	18	NP	8	884.98		18	18	NP	8	
884.98		19	19	19	NP	8	884.98		19	19	NP	8	
884.98		20	20	20	NP	8	884.98		20	20	NP	8	
884.98		21	21	21	NP	8	884.98		21	21	NP	8	
884.98		22	22	22	NP	8	884.98		22	22	NP	8	
884.98		23	23	23	NP	8	884.98		23	23	NP	8	
884.98		24	24	24	NP	8	884.98		24	24	NP	8	
884.98		25	25	25	NP	8	884.98		25	25	NP	8	
884.98		26	26	26	NP	8	884.98		26	26	NP	8	
884.98		27	27	27	NP	8	884.98		27	27	NP	8	
884.98		28	28	28	NP	8	884.98		28	28	NP	8	
884.98		29	29	29	NP	8	884.98		29	29	NP	8	
884.98		30	30	30	NP	8	884.98		30	30	NP	8	
884.98		31	31	31	NP	8	884.98		31	31	NP	8	
884.98		32	32	32	NP	8	884.98		32	32	NP	8	
884.98		33	33	33	NP	8	884.98		33	33	NP	8	
884.98		34	34	34	NP	8	884.98		34	34	NP	8	
884.98		35	35	35	NP	8	884.98		35	35	NP	8	
884.98		36	36	36	NP	8	884.98		36	36	NP	8	
884.98		37	37	37	NP	8	884.98		37	37	NP	8	
884.98		38	38	38	NP	8	884.98		38	38	NP	8	
884.98		39	39	39	NP	8	884.98		39	39	NP	8	
884.98		40	40	40	NP	8	884.98		40	40	NP	8	
884.98		41	41	41	NP	8	884.98		41	41	NP	8	
884.98		42	42	42	NP	8	884.98		42	42	NP	8	
884.98		43	43	43	NP	8	884.98		43	43	NP	8	
884.98		44	44	44	NP	8	884.98		44	44	NP	8	
884.98		45	45	45	NP	8	884.98		45	45	NP	8	
884.98		46	46	46	NP	8	884.98		46	46	NP	8	
884.98		47	47	47	NP	8	884.98		47	47	NP	8	
884.98		48	48	48	NP	8	884.98		48	48	NP	8	
884.98		49	49	49	NP	8	884.98		49	49	NP	8	
884.98		50	50	50	NP	8	884.98		50	50	NP	8	
884.98		51	51	51	NP	8	884.98		51	51	NP	8	
884.98		52	52	52	NP	8	884.98		52	52	NP	8	
884.98		53	53	53	NP	8	884.98		53	53	NP	8	
884.98		54	54	54	NP	8	884.98		54	54	NP	8	
884.98		55	55	55	NP	8	884.98		55	55	NP	8	

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	10-08-2007	Complete Drilling	10-08-2007	Water Drilling	47.00 ft		
Drilling Contractor	Ground Breaking Exploration	Drill Rig	CME-45 TMR	At Completion of Drilling	DRY		
Driller	E & B	Logger	Y. Shiu	Time After Drilling	NA		
Drilling Method	2.25 inches HSA	Checked by	S. Sugarco	Depth to Water	NA		

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	10-08-2007	Complete Drilling	10-08-2007	Water Drilling	47.00 ft		
Drilling Contractor	Ground Breaking Exploration	Drill Rig	CME-45 TMR	At Completion of Drilling	DRY		
Driller	E & B	Logger	Y. Shiu	Time After Drilling	NA		
Drilling Method	2.25 inches HSA	Checked by	S. Sugarco	Depth to Water	NA		

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL BORING LOGS-IV
U.S. RTE. 20
AT BLUFF CITY / SHALES PARKWAY
SOUTH SOLDIER PILE RETAINING WALL
F.A.P. 345 SECTION: BR-1-N-1
COOK COUNTY
STRUCTURE NO. 016-W968

SCALE: NONE
DATE: FEBRUARY, 2008
DRAWN BY: D.L./F.M.
CHECKED BY: B.N.S./J.C.N.
CHRISTIAN-ROGE & ASSOC., INC.
CHICAGO ILLINOIS

REVISIONS	
NAME	DATE

Wang Engineering, INC.
 Consulting Geotechnical and Environmental Engineers
 wangeng3@wangeng.com
 1145 Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG B-15
 WEI Job No.: 555-12-05
 Client: IDOT, Division of Highways
 Project: Retaining Walls at FAP 345 US Route 20
 Location: Elgin, IL

Datum: NGVD
 Elevation: 809.30 ft
 North: ft
 East: ft
 Station: 92+00
 Offset: 19 ft

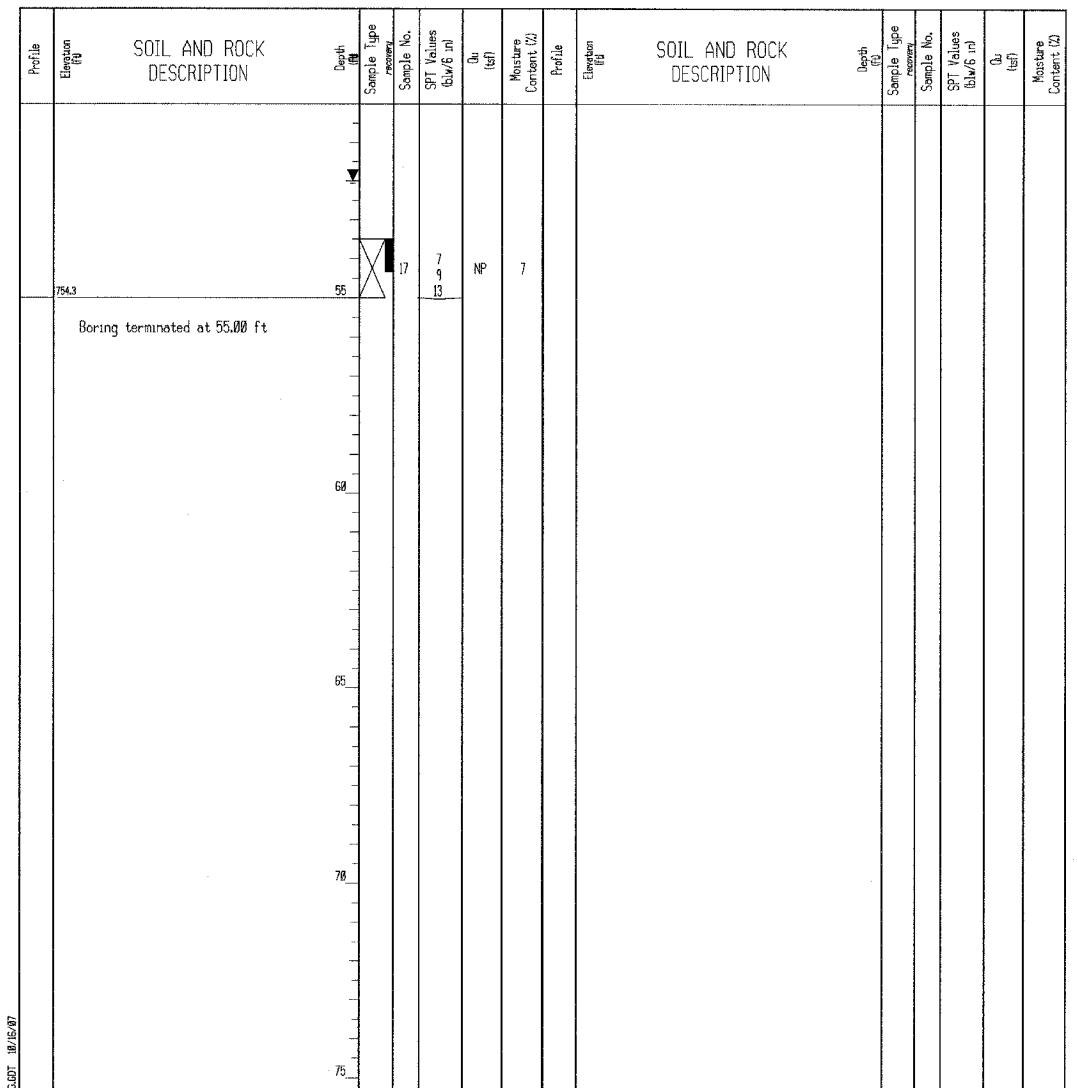
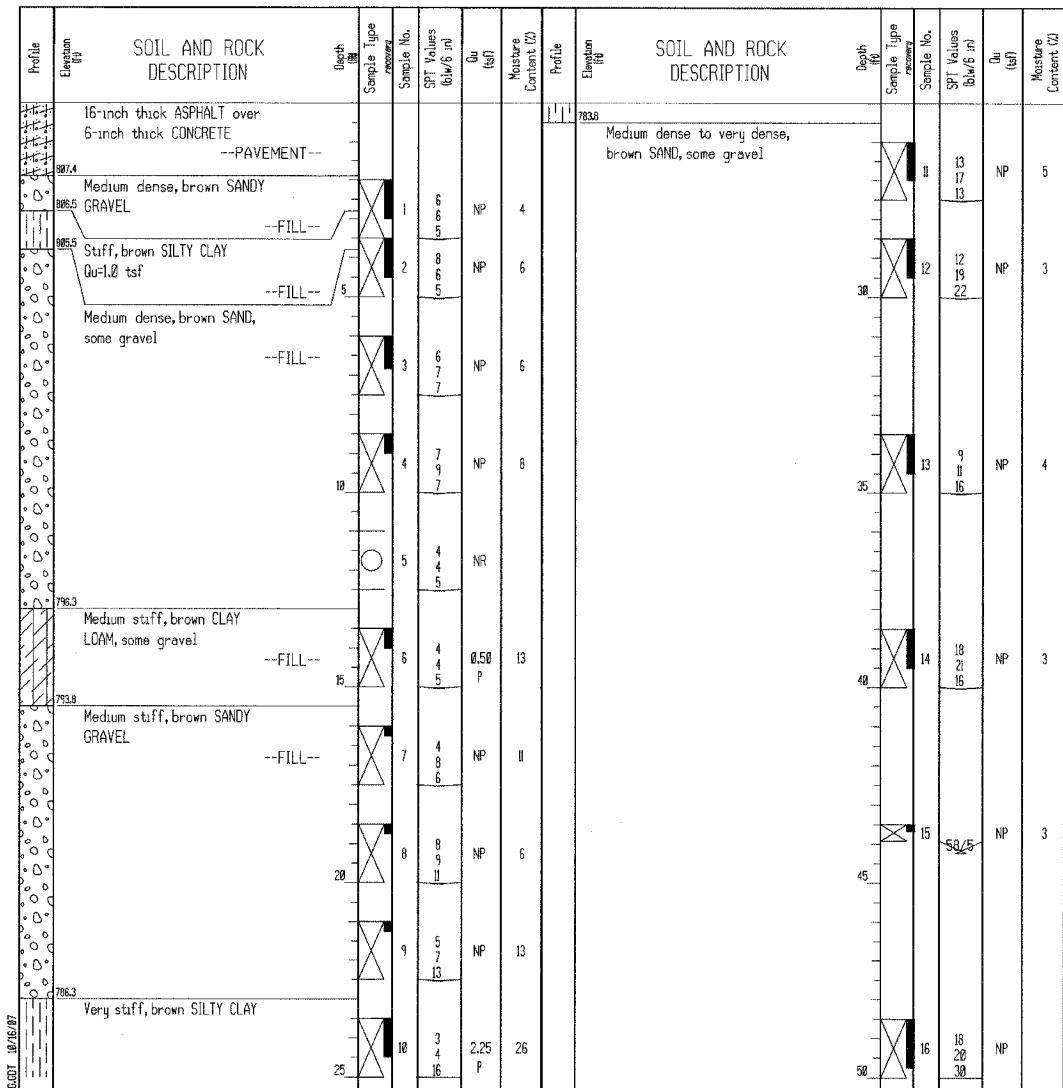
Page 1 of 2

Wang Engineering, INC.
 Consulting Geotechnical and Environmental Engineers
 wangeng3@wangeng.com
 1145 Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG B-15
 WEI Job No.: 555-12-05
 Client: IDOT, Division of Highways
 Project: Retaining Walls at FAP 345 US Route 20
 Location: Elgin, IL

Datum: NGVD
 Elevation: 809.30 ft
 North: ft
 East: ft
 Station: 92+00
 Offset: 19 ft

Page 2 of 2



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	10-08-2007	Complete Drilling	10-08-2007	While Drilling	52.00 ft	At Completion of Drilling	DRY
Drilling Contractor	Ground Breaking Exploration	Drill Rig	CME-45 TMR	Time After Drilling	NA	Depth to Water	NA
Driller	E & B	Logger	Y. Shu	The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			
Drilling Method	2.25 inches HSA						

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	10-08-2007	Complete Drilling	10-08-2007	While Drilling	52.00 ft	At Completion of Drilling	DRY
Drilling Contractor	Ground Breaking Exploration	Drill Rig	CME-45 TMR	Time After Drilling	NA	Depth to Water	NA
Driller	E & B	Logger	Y. Shu	The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			
Drilling Method	2.25 inches HSA						

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SOIL BORING LOGS-V
 U.S. RTE. 20
 AT BLUFF CITY / SHALES PARKWAY
 SOUTH SOLDIER PILE RETAINING WALL
 F.A.P. 345 SECTION: 8R-1-N-1
 COOK COUNTY
 STRUCTURE NO. 016-W968

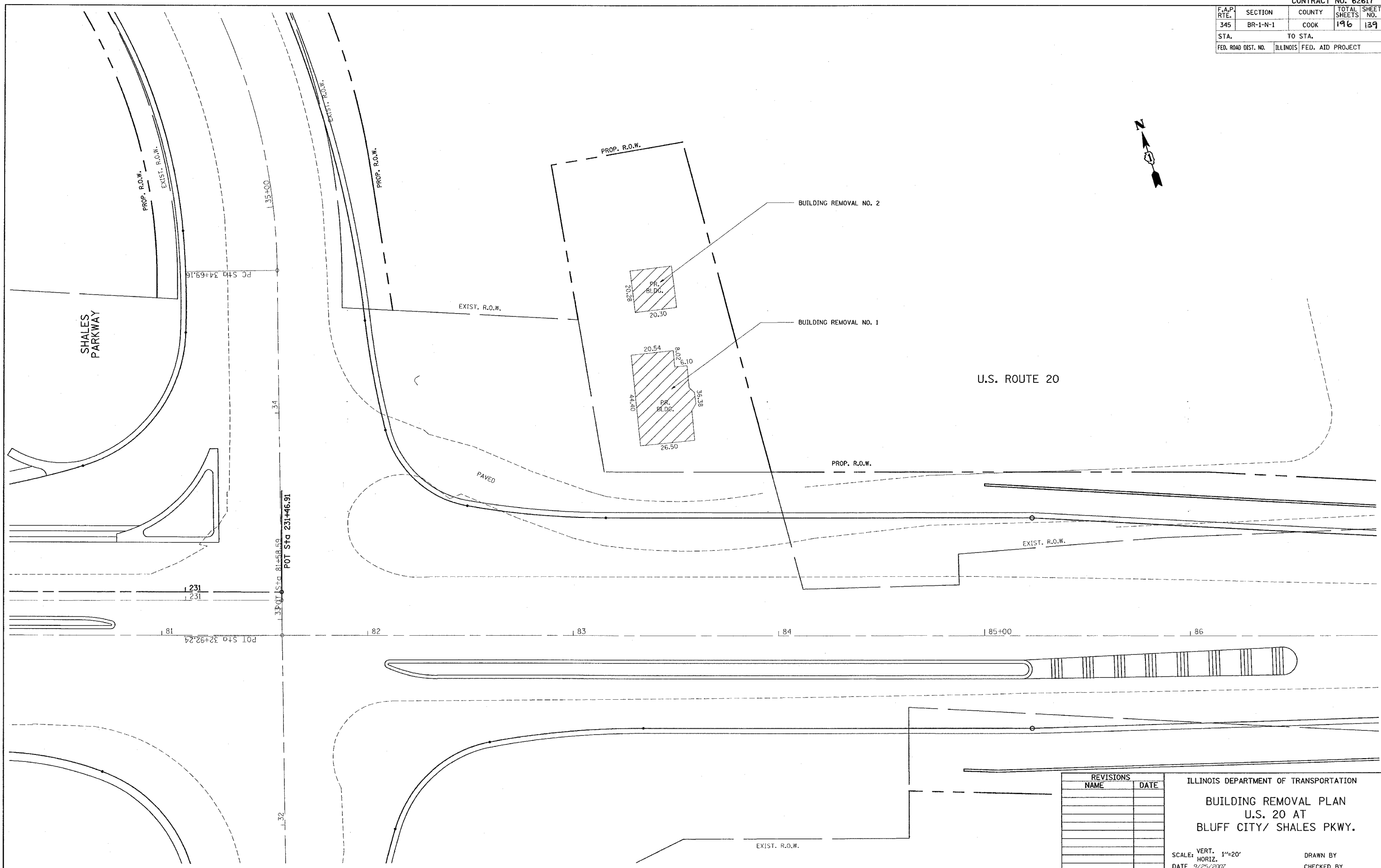
SCALE: NONE
 DATE: FEBRUARY, 2008
 DRAWN BY: D.L./F.M.
 CHECKED BY: B.N.S./J.C.N.

CHRISTIAN-ROGE & ASSOC., INC.
 CHICAGO ILLINOIS

REVISIONS	
NAME	DATE

CONTRACT NO. 62617

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-1-N-1	COOK	196	139
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PLOT DATE = 9/25/2007
 FILE NAME = c:\pcc\4113783\shales.dgn
 PLOT SCALE = 28.0000' / 1" IN.
 USER NAME = drakecagn

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
BUILDING REMOVAL PLAN
U.S. 20 AT
BLUFF CITY/ SHALES PKWY.

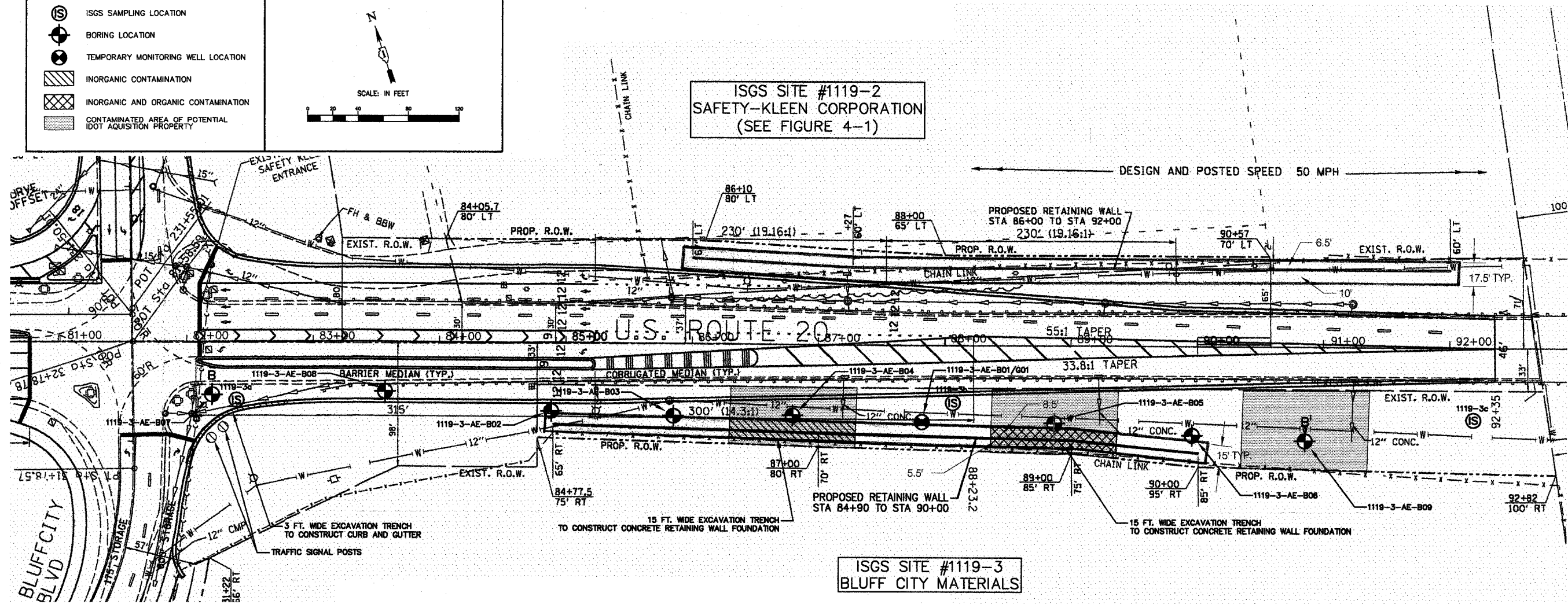
VERT. SCALE: 1"=20'
 HORIZ. SCALE: 1"=20'
 DATE: 9/25/2007

DRAWN BY
 CHECKED BY

LEGEND	PLAN VIEW SCALE
ISGS SAMPLING LOCATION	<p>SCALE: IN FEET</p>
BORING LOCATION	
TEMPORARY MONITORING WELL LOCATION	
INORGANIC CONTAMINATION	
INORGANIC AND ORGANIC CONTAMINATION	
CONTAMINATED AREA OF POTENTIAL IDOT ACQUISITION PROPERTY	

BORING AND CROSS SECTION LOCATIONS
ISGS SITE #1119-3

ISGS SITE #1119-2
SAFETY-KLEEN CORPORATION
(SEE FIGURE 4-1)

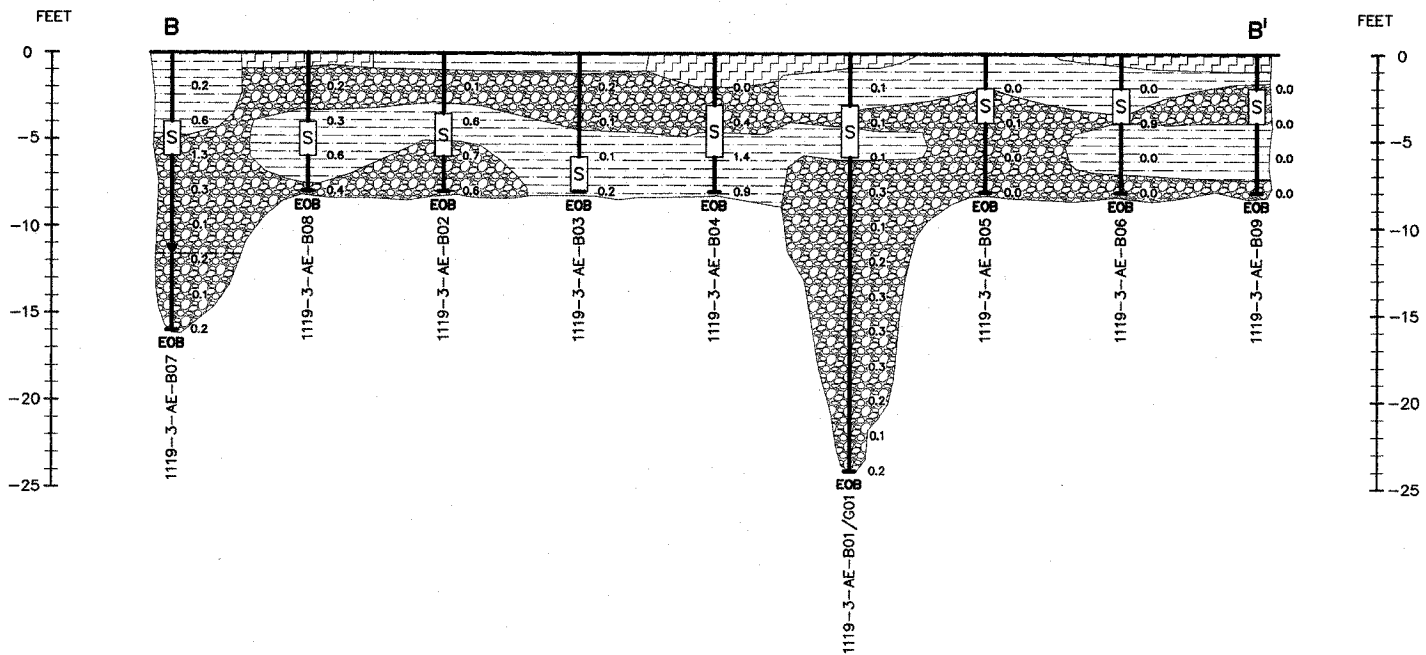


CONTAMINANTS OF CONCERN
ISGS SITE #1119-3

SITE	Bluff City Materials									
	1119-3AE-B01	1119-3AE-B02	1119-3AE-B03	1119-3AE-B04	1119-3AE-B05	1119-3AE-B06	1119-3AE-B07	1119-3AE-B08	1119-3AE-B09	1119-3AE-B09
SAMPLE NUMBER	1119-3AE-B01	1119-3AE-B02	1119-3AE-B03	1119-3AE-B04	1119-3AE-B05	1119-3AE-B06	1119-3AE-B07	1119-3AE-B08	1119-3AE-B09	1119-3AE-B09
MATRIX	soil	soil	soil	soil	soil	soil	soil	soil	soil	soil
ANALYTE GROUP (units/ANALYTE)										
Volatile Organic Compounds (soil: mg/kg, water: mg/L)										
Bromofom	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semivolatile Organics (soil: mg/kg, water: mg/L)										
Benzo (a) pyrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo (b) fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TCLP Inorganics (mg/L)										
Lead, TCLP	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SPLP Inorganics (mg/L)										
Lead, SPLP	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Inorganics (soil:mg/kg, water: mg/L)										
Lead	25.9	23.6	23.6	22.1	50.8	75	29.3	82.3	26.7	29

- Notes:
- This table shows any parameter detected above the applicable standard in one or more borings in the project and whose exceedance cannot be ruled out by some other method (see text).
 - This table shows any parameter whose detection limit exceeded the applicable standard in one or more borings in the project.
 - A shaded box indicates the Ingestion, Inhalation or Class I standard for residential properties was exceeded for soil samples, the Class I Standard was exceeded for groundwater samples, or the Class I or Regulatory Limit was exceeded for TCLP/SPLP analysis.
 - A result in bold indicates test results exceeded the ingestion or inhalation Standards for Construction Workers.
 - Non-detect results with detection limits greater than the applicable standard are shown on the table as an exceedance with the detection limit and an "ND". Results given as just "ND" (no detection limit listed) were not detected at detection limits lower than the applicable standard, i.e., not detected at the Reporting Limit.
 - M = Matrix interferences identified.

VOC HEADSPACE AND CROSS-SECTIONAL PROFILE
ISGS SITE #1119-3



CROSS-SECTIONAL PROFILE LEGEND			
	TOPSOIL		SOIL SAMPLE COLLECTED
	SILTY CLAY/SAND/TRACE GRAVEL		0.0 PID READING @ 2' INTERVAL
	GRAVEL/SANDY GRAVEL		GROUNDWATER ENCOUNTERED
	EOB		GROUND SURFACE

REVISIONS	DESCRIPTION	BY	DATE
1	REVISED PER IDOT REVIEW	BSS	10/13/04

ANDREWS ENVIRONMENTAL ENGINEERING INC.
1701 Quincy Avenue, Suite 25, Naperville, IL 60540
Tel: (630) 544-3332 Fax: (630) 544-3398
Springfield, IL • Pontiac, IL • Indianapolis, IN

DESIGNED BY: IDOT-BDE DRAWN BY: BSS
APPROVED BY: FRL

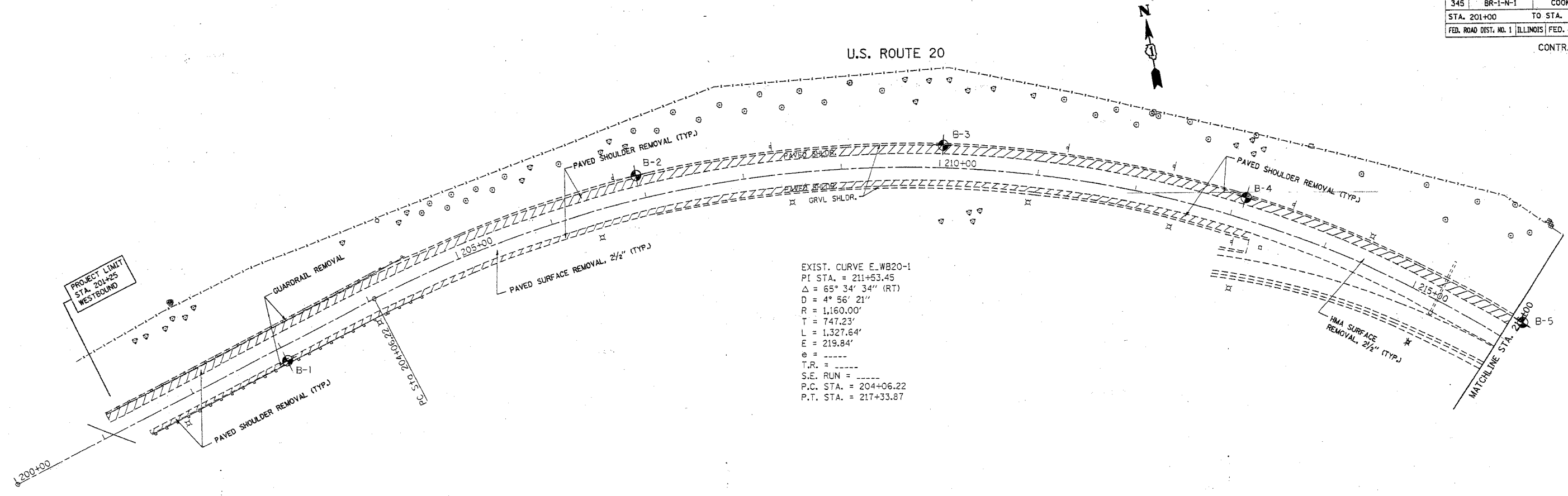
INVESTIGATION DATA SUMMARY - ISGS SITE #1119-3
PLANS PREPARED FOR
ILLINOIS DEPARTMENT OF TRANSPORTATION
ISGS SITES #1119-2 AND #1119-3
FAP 345
U.S. ROUTE 20 & SHALES PARKWAY
ELGIN, COOK COUNTY, ILLINOIS

DATE: APRIL 2004
PROJECT ID: IDOT WO 056
FILE: WO 056 PS (064).dwg
SHEET NUMBER:
FIGURE 4-2

*REF-10001
*REF-001

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-1-N-1	COOK	196	142
STA. 201+00		TO STA. 216+00		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

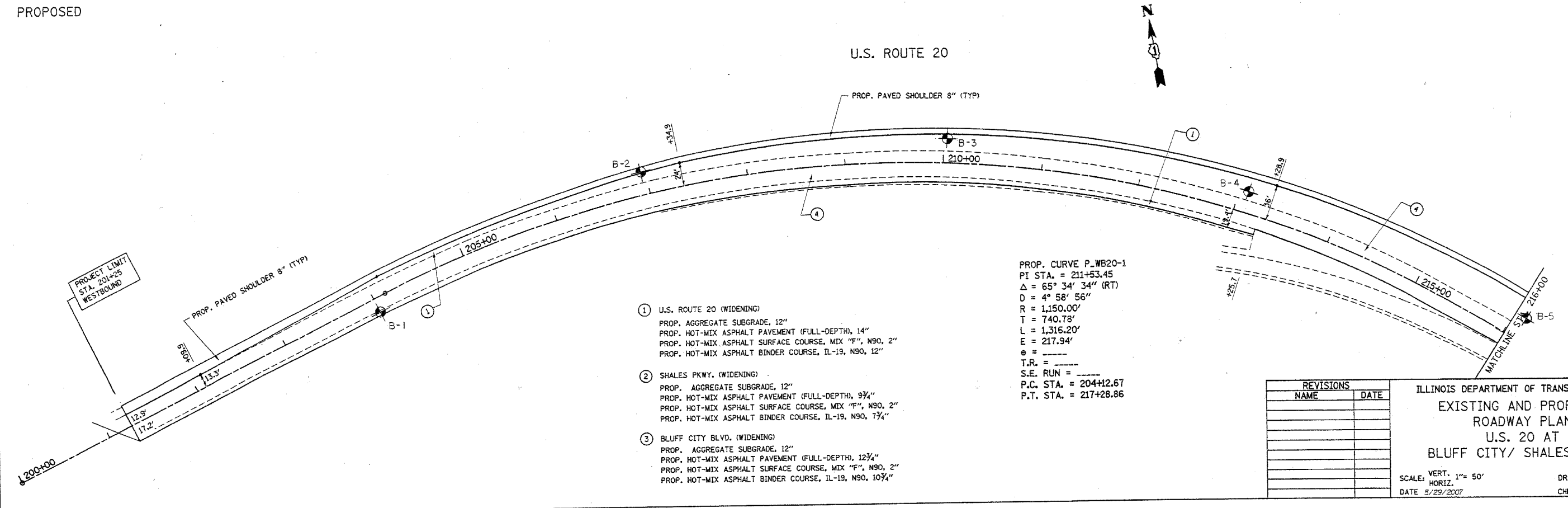
CONTRACT NO. 62617



EXIST. CURVE E.WB20-1
 PI STA. = 211+53.45
 Δ = 65° 34' 34" (RT)
 D = 4° 56' 21"
 R = 1,160.00'
 T = 747.23'
 L = 1,327.64'
 E = 219.84'
 e = -----
 T.R. = -----
 S.E. RUN = -----
 P.C. STA. = 204+06.22
 P.T. STA. = 217+33.87

EXISTING

PROPOSED



- ① U.S. ROUTE 20 (WIDENING)
 PROP. AGGREGATE SUBGRADE, 12"
 PROP. HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 14"
 PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 2"
 PROP. HOT-MIX ASPHALT BINDER COURSE, IL-19, N90, 12"
- ② SHALES PKWY. (WIDENING)
 PROP. AGGREGATE SUBGRADE, 12"
 PROP. HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 9 3/4"
 PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 2"
 PROP. HOT-MIX ASPHALT BINDER COURSE, IL-19, N90, 7 3/4"
- ③ BLUFF CITY BLVD. (WIDENING)
 PROP. AGGREGATE SUBGRADE, 12"
 PROP. HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 12 3/4"
 PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 2"
 PROP. HOT-MIX ASPHALT BINDER COURSE, IL-19, N90, 10 3/4"

PROP. CURVE P.WB20-1
 PI STA. = 211+53.45
 Δ = 65° 34' 34" (RT)
 D = 4° 58' 56"
 R = 1,150.00'
 T = 740.78'
 L = 1,316.20'
 E = 217.94'
 e = -----
 T.R. = -----
 S.E. RUN = -----
 P.C. STA. = 204+12.67
 P.T. STA. = 217+28.86

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 EXISTING AND PROPOSED
 ROADWAY PLAN
 U.S. 20 AT
 BLUFF CITY/ SHALES PKWY.

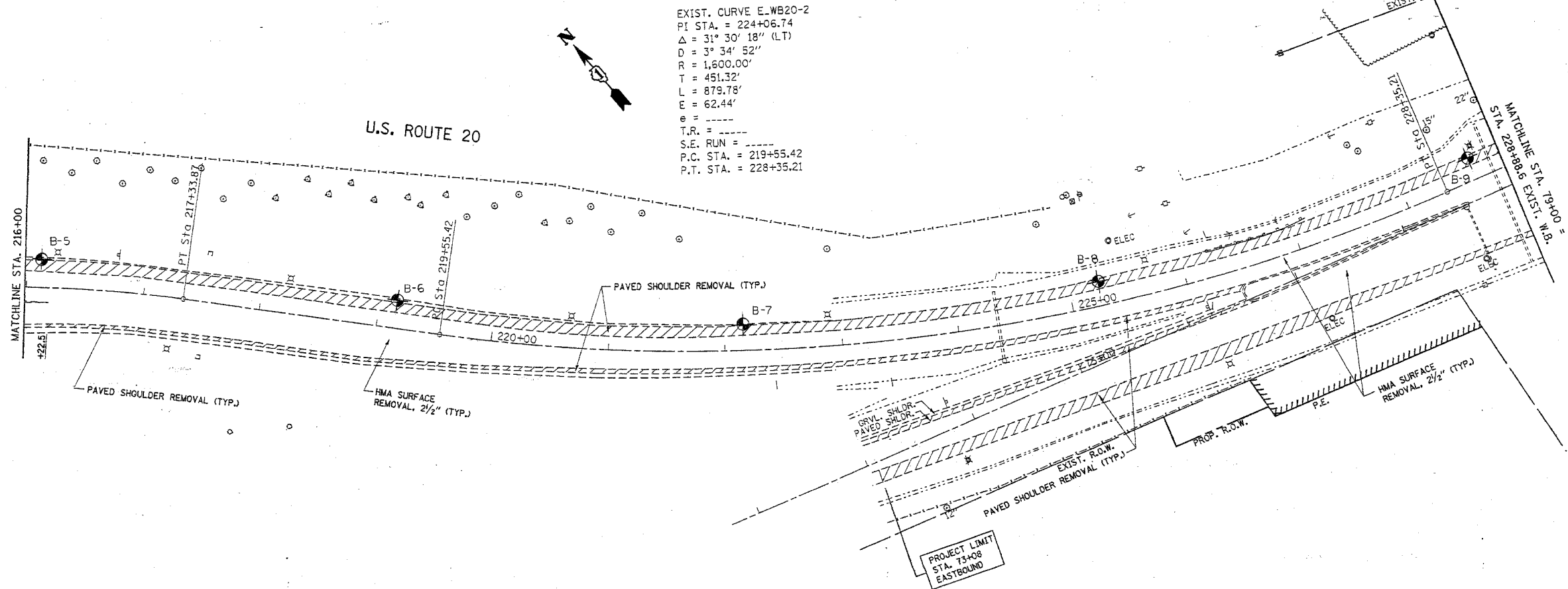
SCALE: VERT. 1" = 50'
 HORIZ. DATE 5/29/2007
 DRAWN BY
 CHECKED BY

*REF-topo02
*REF-pp02

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-1-N-1	COOK	196	143

STA. 216+00 WB 73+08 EB TO STA. 79+00=228+91.7
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

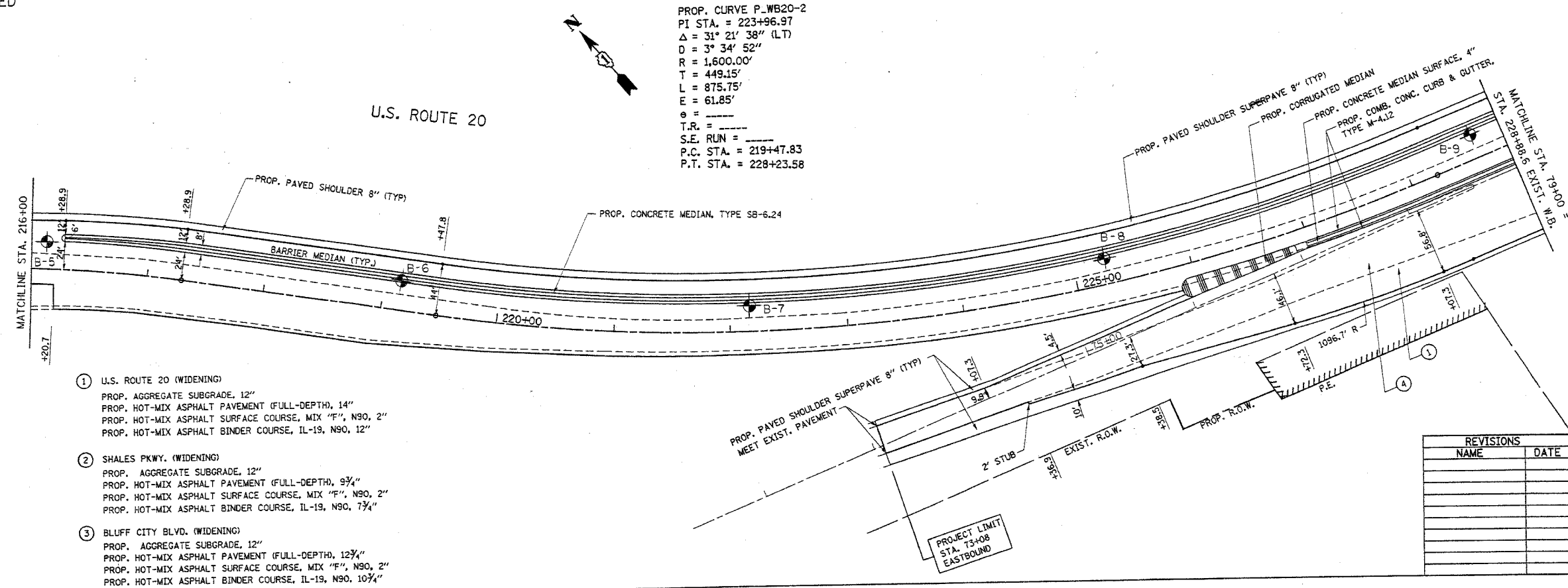
CONTRACT NO. 62617



EXIST. CURVE E-WB20-2
PI STA. = 224+06.74
 $\Delta = 31^\circ 30' 18''$ (LT)
 $D = 3^\circ 34' 52''$
 $R = 1,600.00'$
 $T = 451.32'$
 $L = 879.78'$
 $E = 62.44'$
 $e = \text{---}$
T.R. = ---
S.E. RUN = ---
P.C. STA. = 219+55.42
P.T. STA. = 228+35.21

EXISTING

PROPOSED



PROP. CURVE P-WB20-2
PI STA. = 223+96.97
 $\Delta = 31^\circ 21' 38''$ (LT)
 $D = 3^\circ 34' 52''$
 $R = 1,600.00'$
 $T = 449.15'$
 $L = 875.75'$
 $E = 61.85'$
 $e = \text{---}$
T.R. = ---
S.E. RUN = ---
P.C. STA. = 219+47.83
P.T. STA. = 228+23.58

- ① U.S. ROUTE 20 (WIDENING)
PROP. AGGREGATE SUBGRADE, 12"
PROP. HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 14"
PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 2"
PROP. HOT-MIX ASPHALT BINDER COURSE, IL-19, N90, 12"
- ② SHALES PKWY. (WIDENING)
PROP. AGGREGATE SUBGRADE, 12"
PROP. HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 9 3/4"
PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 2"
PROP. HOT-MIX ASPHALT BINDER COURSE, IL-19, N90, 7 3/4"
- ③ BLUFF CITY BLVD. (WIDENING)
PROP. AGGREGATE SUBGRADE, 12"
PROP. HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 12 3/4"
PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 2"
PROP. HOT-MIX ASPHALT BINDER COURSE, IL-19, N90, 10 3/4"

REVISIONS	
NAME	DATE

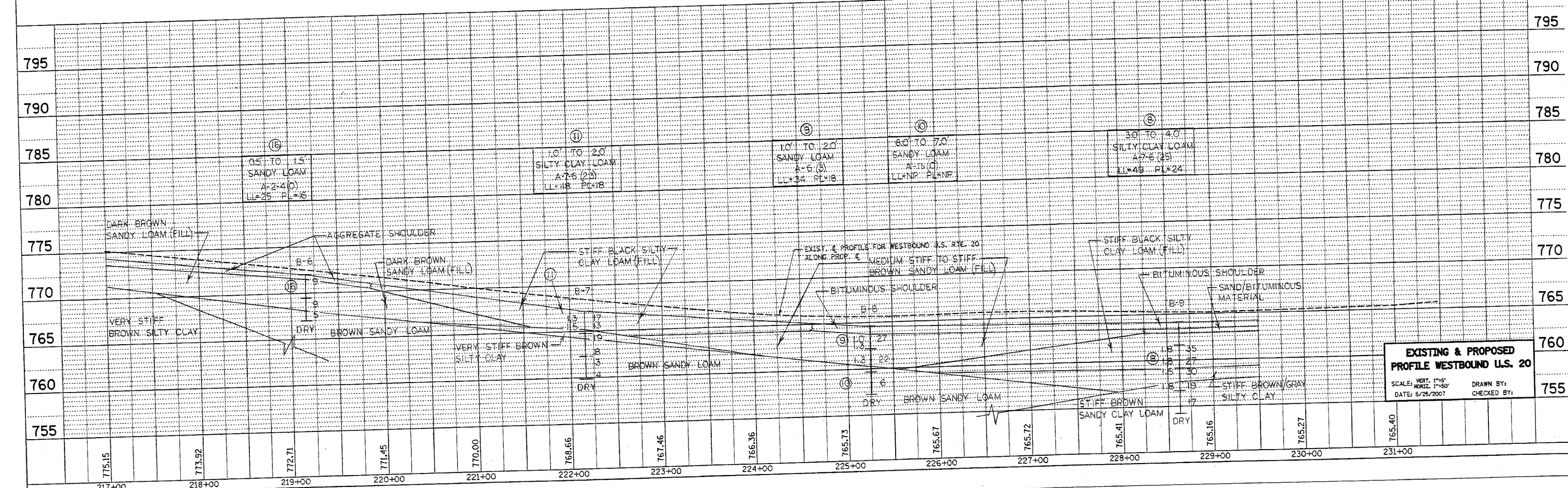
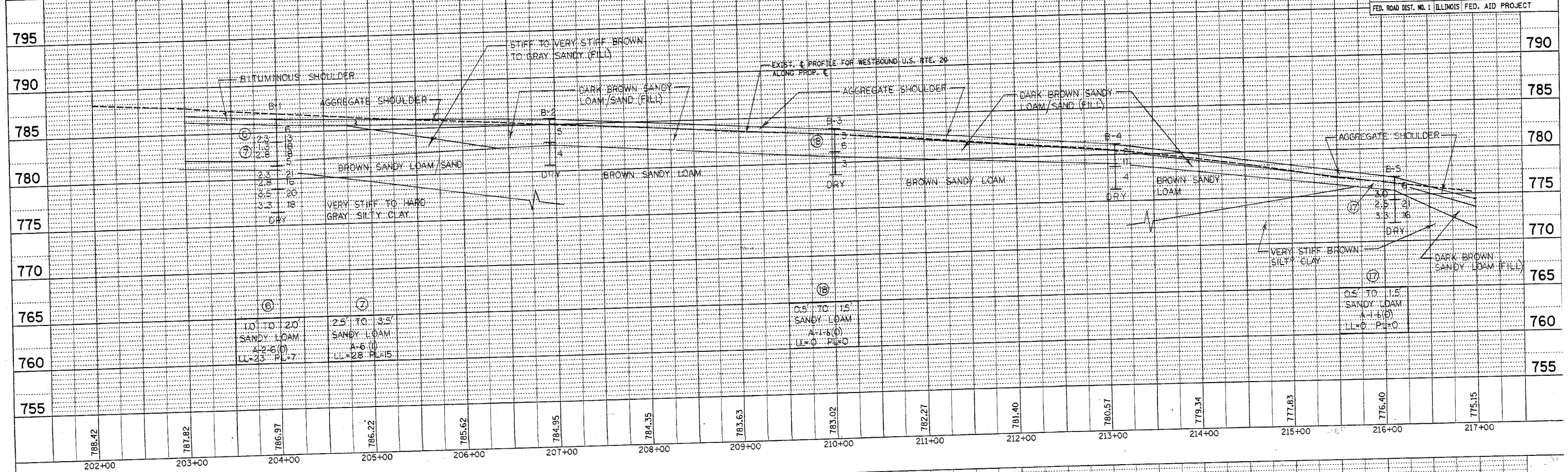
ILLINOIS DEPARTMENT OF TRANSPORTATION
EXISTING AND PROPOSED
ROADWAY PLAN
U.S. 20 AT
BLUFF CITY/ SHALES PKWY.

SCALE: VERT. 1"= 50'
HORIZ. 1"= 50'
DATE 5/29/2007

DRAWN BY
CHECKED BY

CONTRACT NO. 62617			
F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS NO.
345	BR-1-N-1	COOK	196 144
STA. 70+00		TO STA. 95+00	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			

*REF-prof03
*REF-prof04



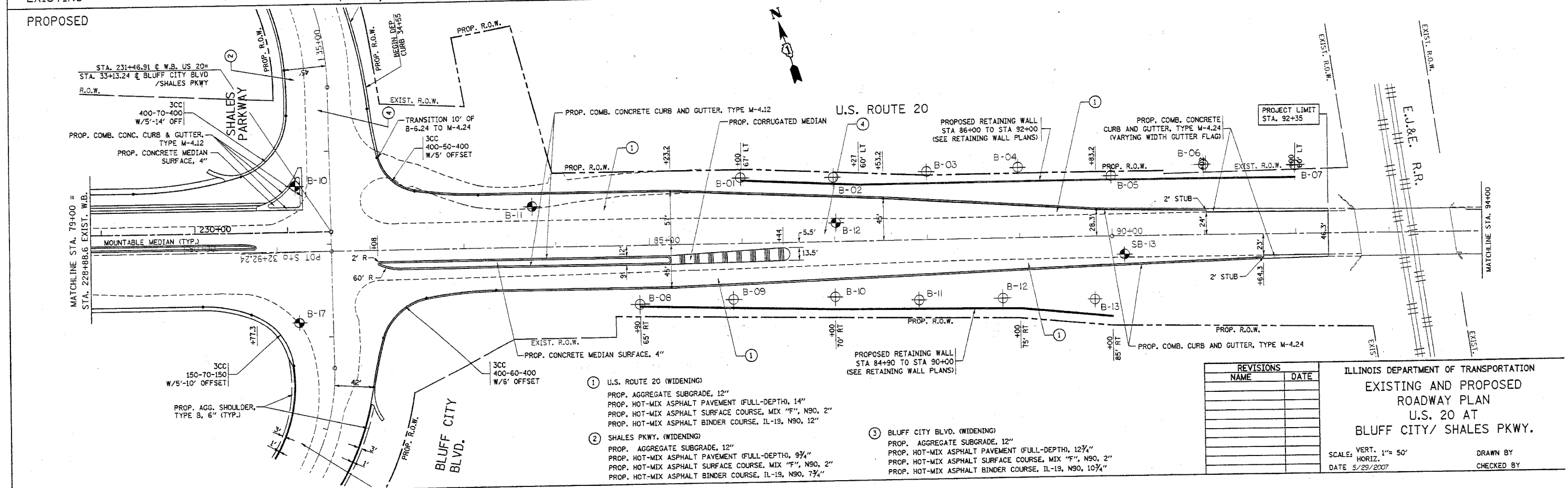
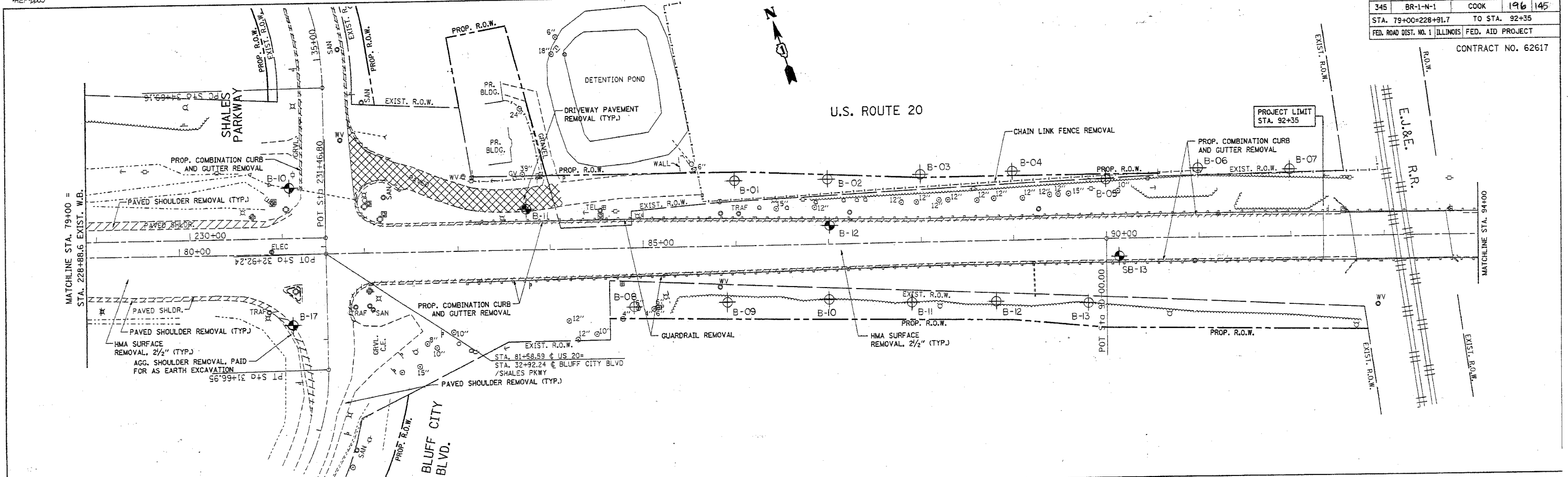
EXISTING & PROPOSED PROFILE WESTBOUND U.S. 20

SCALE: VERT. 1"=5'
HORIZ. 1"=50'

DATE: 5/25/2007

DRAWN BY: _____
CHECKED BY: _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-1-N-1	COOK	196	145
STA. 79+00=228+91.7		TO STA. 92+35		
FED. ROAD DIST. NO. 1 ILLINOIS		FED. AID PROJECT		
CONTRACT NO. 62617				



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
EXISTING AND PROPOSED
ROADWAY PLAN
U.S. 20 AT
BLUFF CITY/ SHALES PKWY.

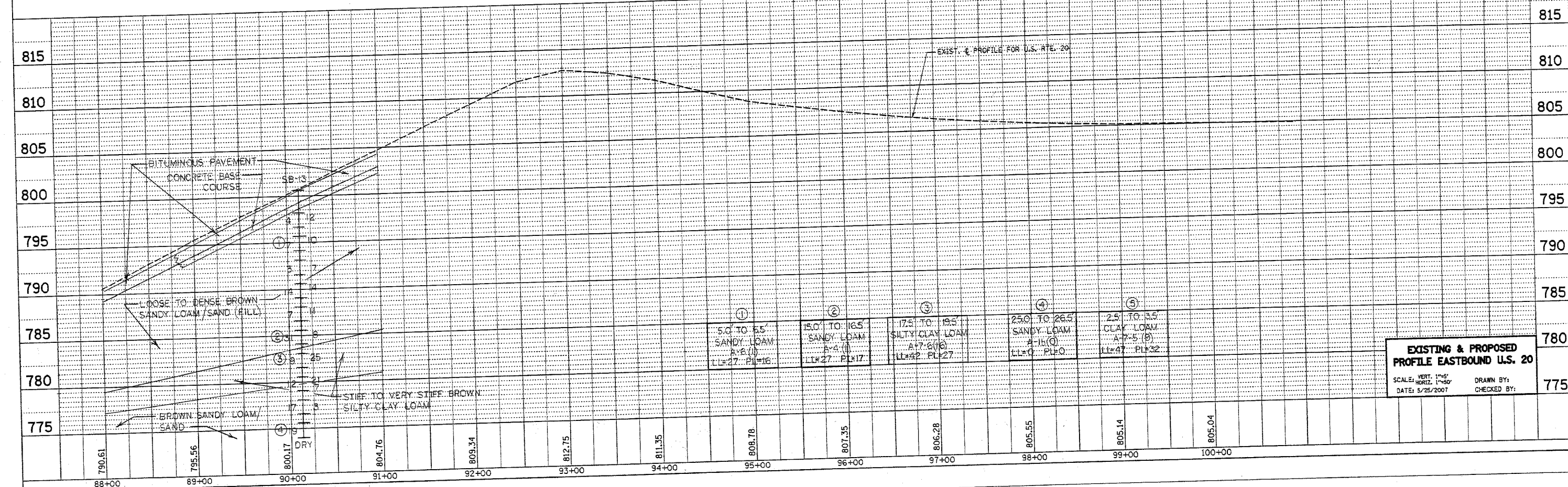
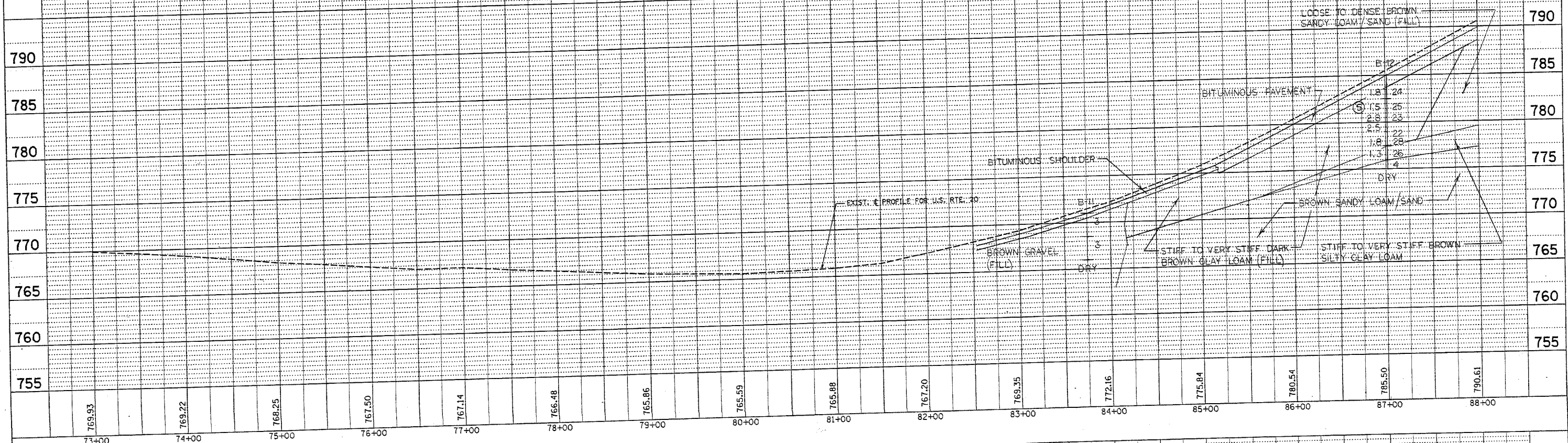
SCALE: VERT. 1" = 50'
HORIZ. 1" = 100'

DATE 5/29/2007

DRAWN BY
CHECKED BY

*REF-prd01
*REF-prd02

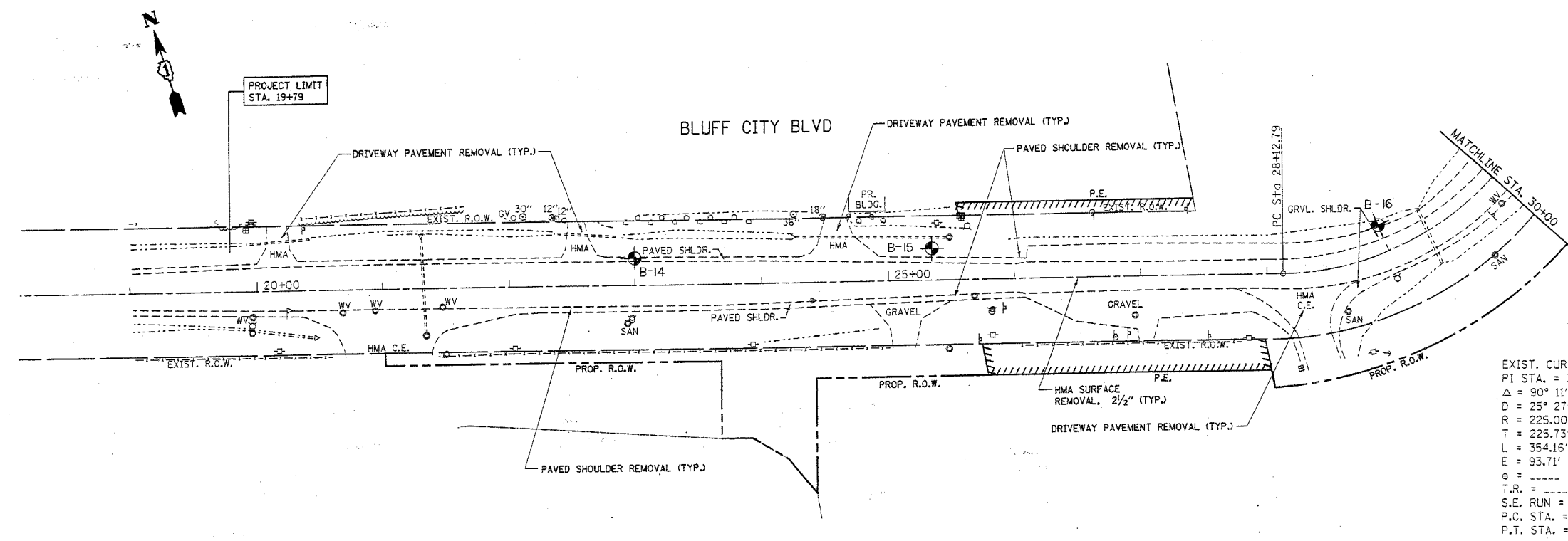
CONTRACT NO.: 62617				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-1-N-1	KANE	196	146
STA. 201+00		TO STA. 231+00		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



EXISTING & PROPOSED PROFILE EASTBOUND U.S. 29
 SCALE: VERT. 1"=5'
 HORIZ. 1"=50'
 DATE: 5/25/2007
 DRAWN BY:
 CHECKED BY:

*REF-100004
*REF-10004

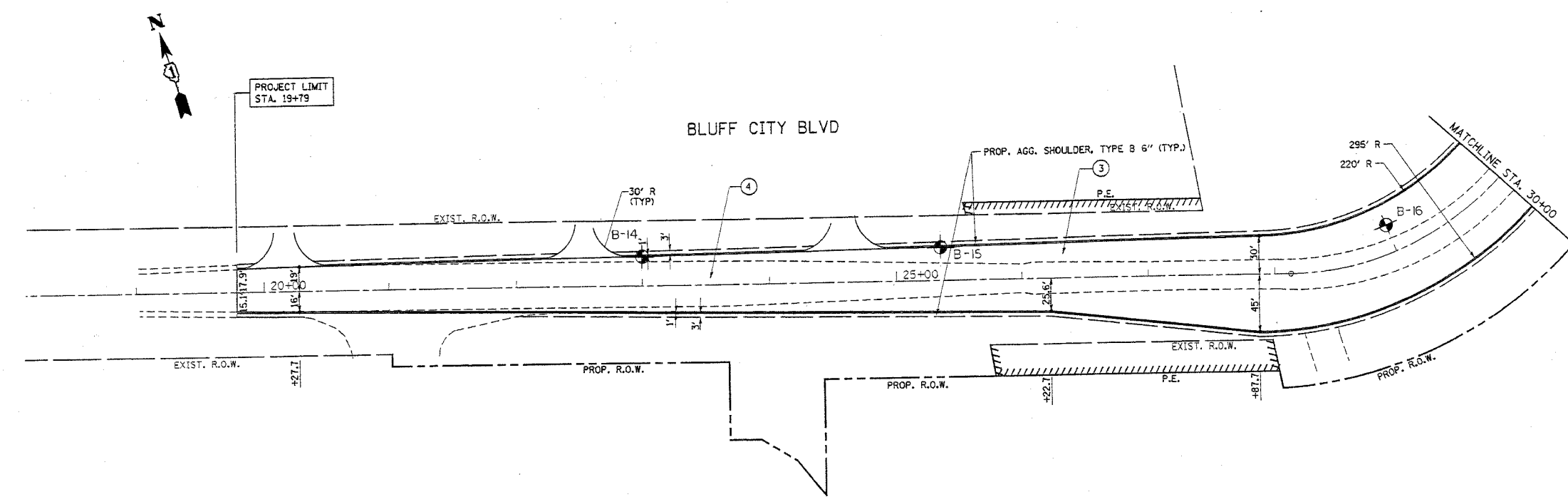
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-1-N-1	COOK	196	147
STA. 19+79		TO STA. 30+00		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT NO. 62617				



EXIST. CURVE E. BLUFF-1
 PI STA. = 30+38.52
 $\Delta = 90^\circ 11' 08''$ (LT)
 $D = 25^\circ 27' 53''$
 $R = 225.00'$
 $T = 225.73'$
 $L = 354.16'$
 $E = 93.71'$
 $e = \dots$
 $T.R. = \dots$
 $S.E. RUN = \dots$
 $P.C. STA. = 28+12.79$
 $P.T. STA. = 31+66.95$

EXISTING

PROPOSED



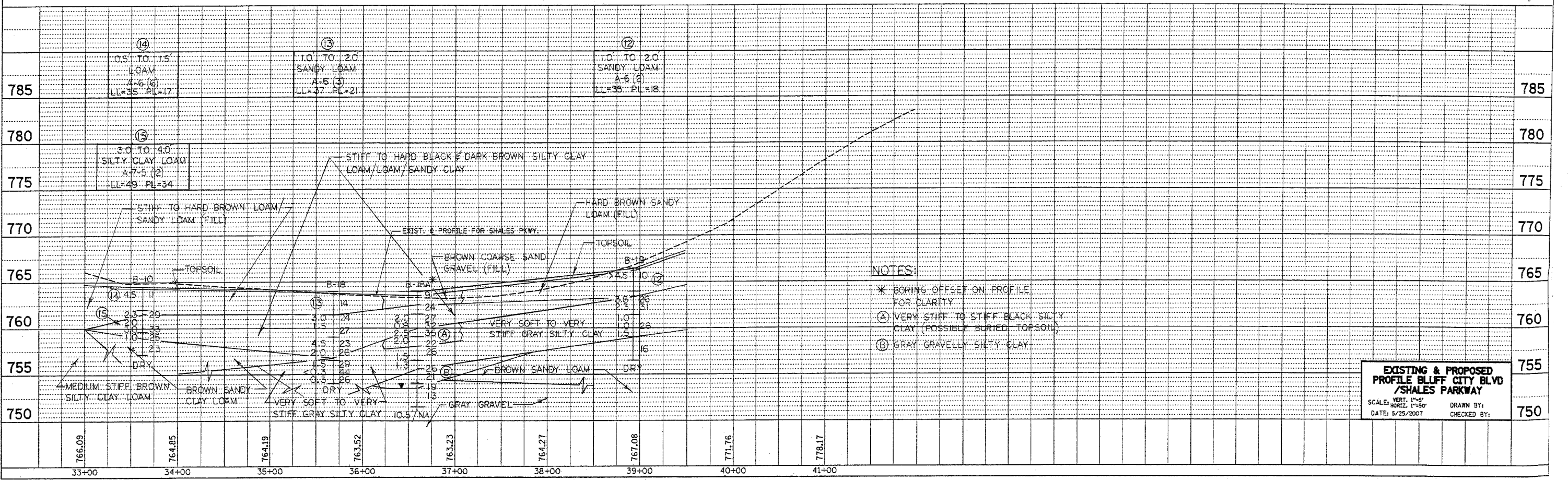
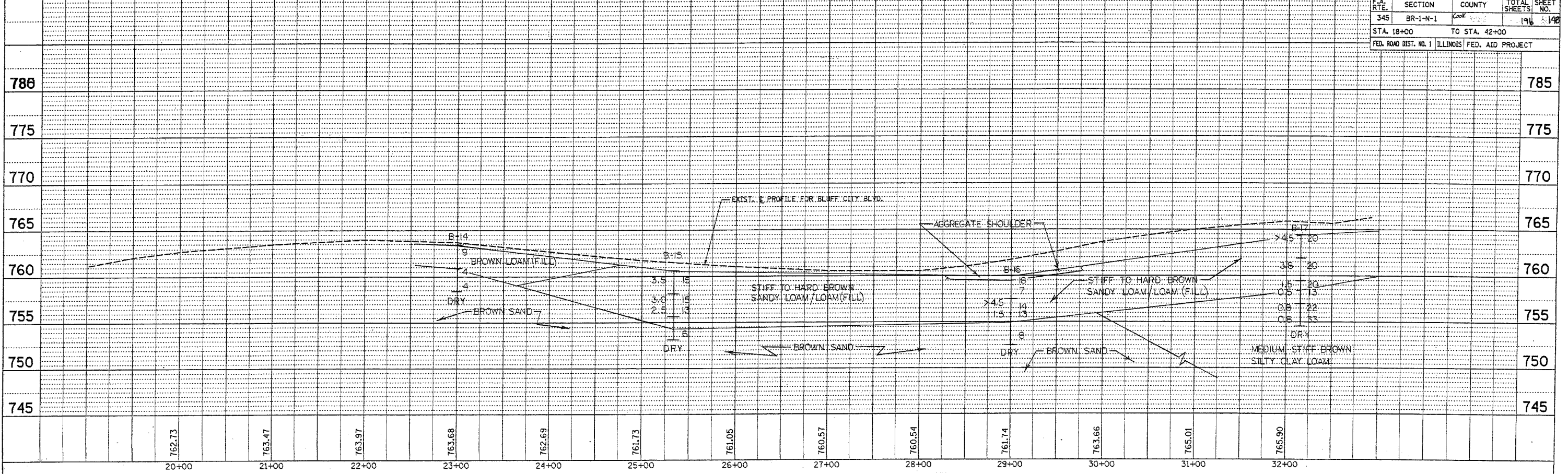
- ① U.S. ROUTE 20 (WIDENING)
 PROP. AGGREGATE SUBGRADE, 12"
 PROP. HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 14"
 PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 2"
 PROP. HOT-MIX ASPHALT BINDER COURSE, IL-19, N90, 12"
- ② SHALES PKWY. (WIDENING)
 PROP. AGGREGATE SUBGRADE, 12"
 PROP. HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 9 3/4"
 PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 2"
 PROP. HOT-MIX ASPHALT BINDER COURSE, IL-19, N90, 7 3/4"
- ③ BLUFF CITY BLVD. (WIDENING)
 PROP. AGGREGATE SUBGRADE, 12"
 PROP. HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 12 3/4"
 PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 2"
 PROP. HOT-MIX ASPHALT BINDER COURSE, IL-19, N90, 10 3/4"

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 EXISTING AND PROPOSED
 ROADWAY PLAN
 U.S. 20 AT
 BLUFF CITY/ SHALES PKWY.
 SCALE: VERT. 1" = 50'
 HORIZ. DATE 5/29/2007
 DRAWN BY
 CHECKED BY

*REF-prof05
*REF-prof06

CONTRACT NO.: 62617			
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS
345	BR-1-N-1	Cook	196
STA. 18+00		TO STA. 42+00	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			



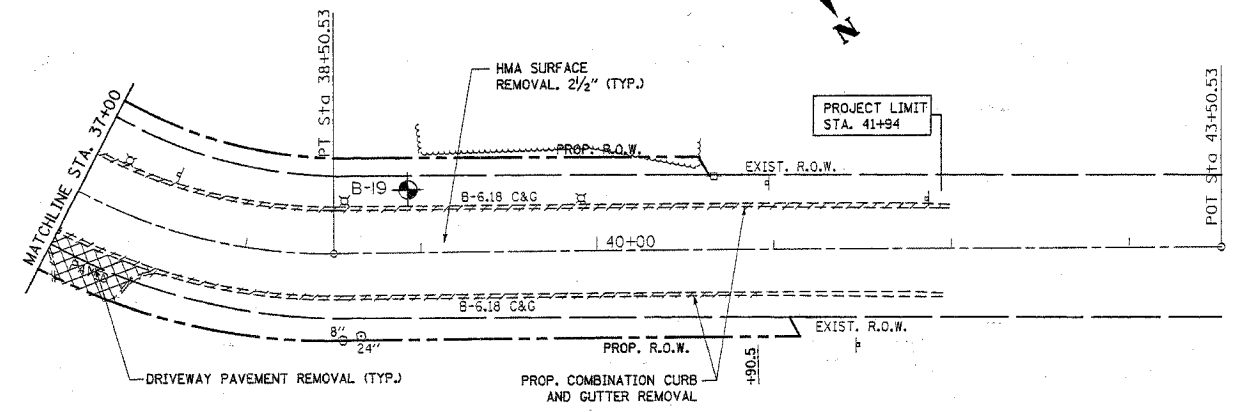
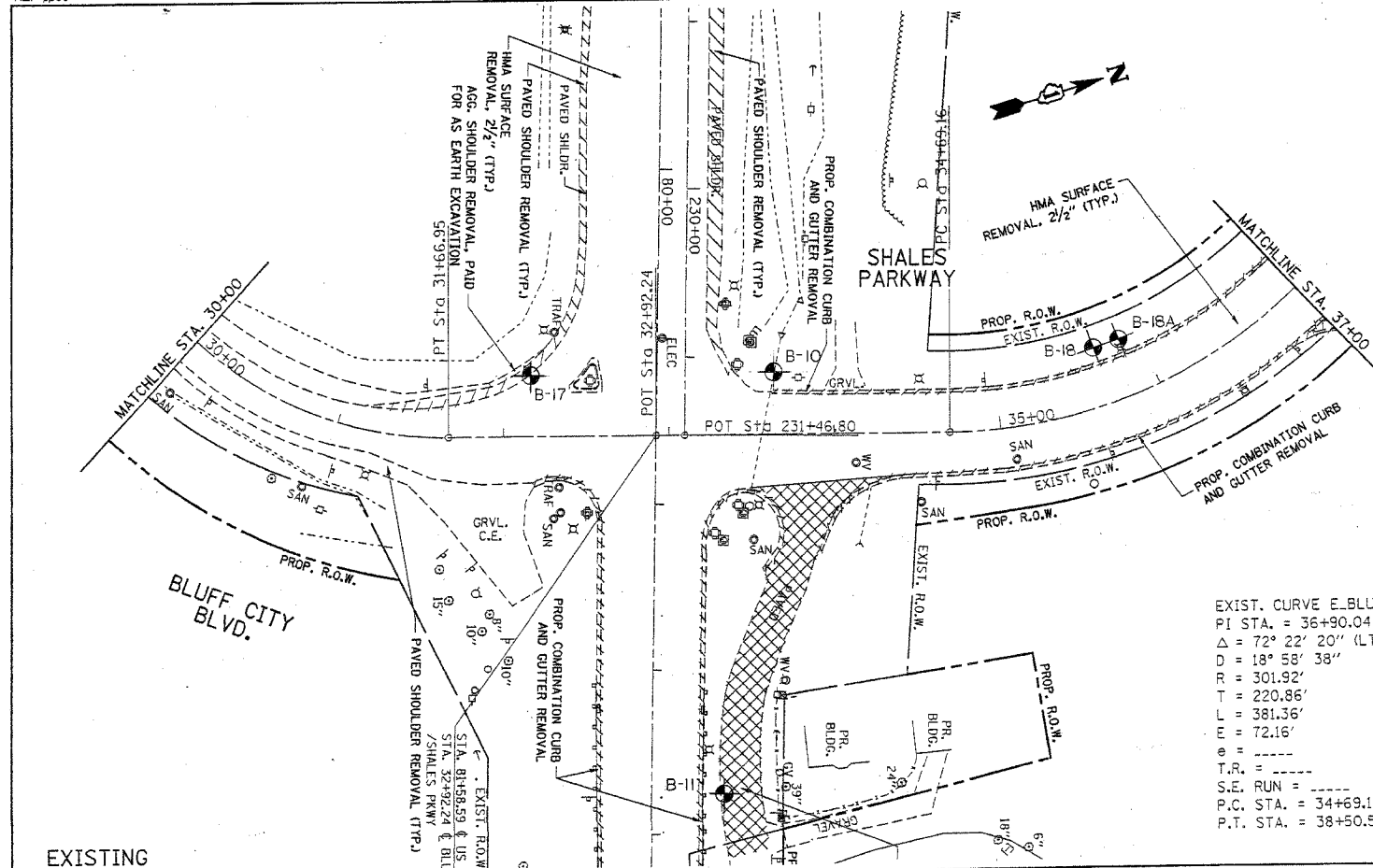
- NOTES:**
- * BORING OFFSET ON PROFILE FOR CLARITY
 - (A) VERY STIFF TO STIFF BLACK SILTY CLAY (POSSIBLE BURIED TOPSOIL)
 - (B) GRAY GRAVELLY SILTY CLAY

**EXISTING & PROPOSED
PROFILE BLUFF CITY BLVD
/SHALES PARKWAY**
SCALE: VERT. 1"=3'
DATE: 5/25/2007
DRAWN BY:
CHECKED BY:

*REF-10005
 *REF-10005
 *REF-10006
 *REF-10006

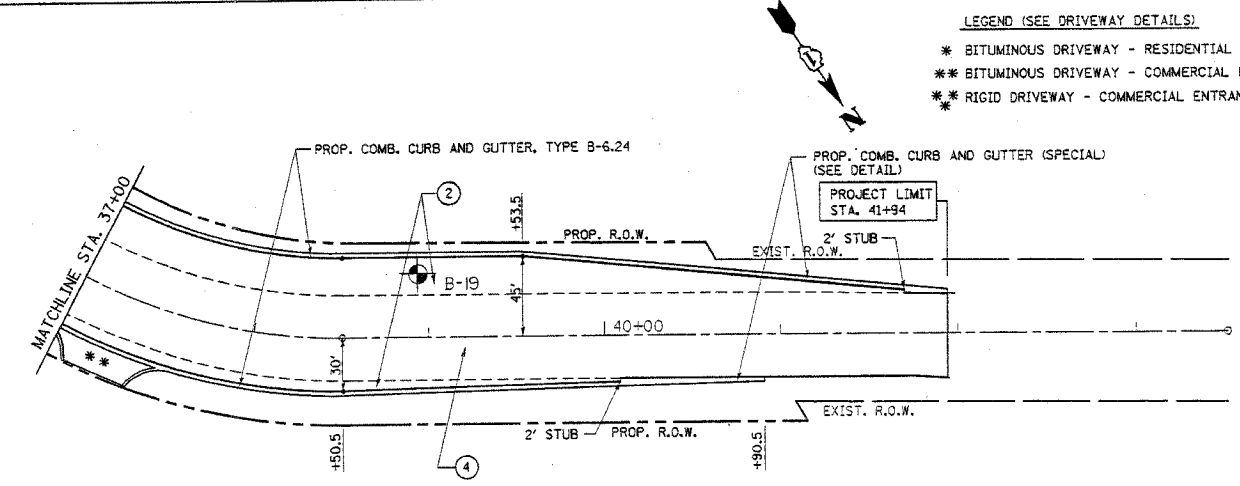
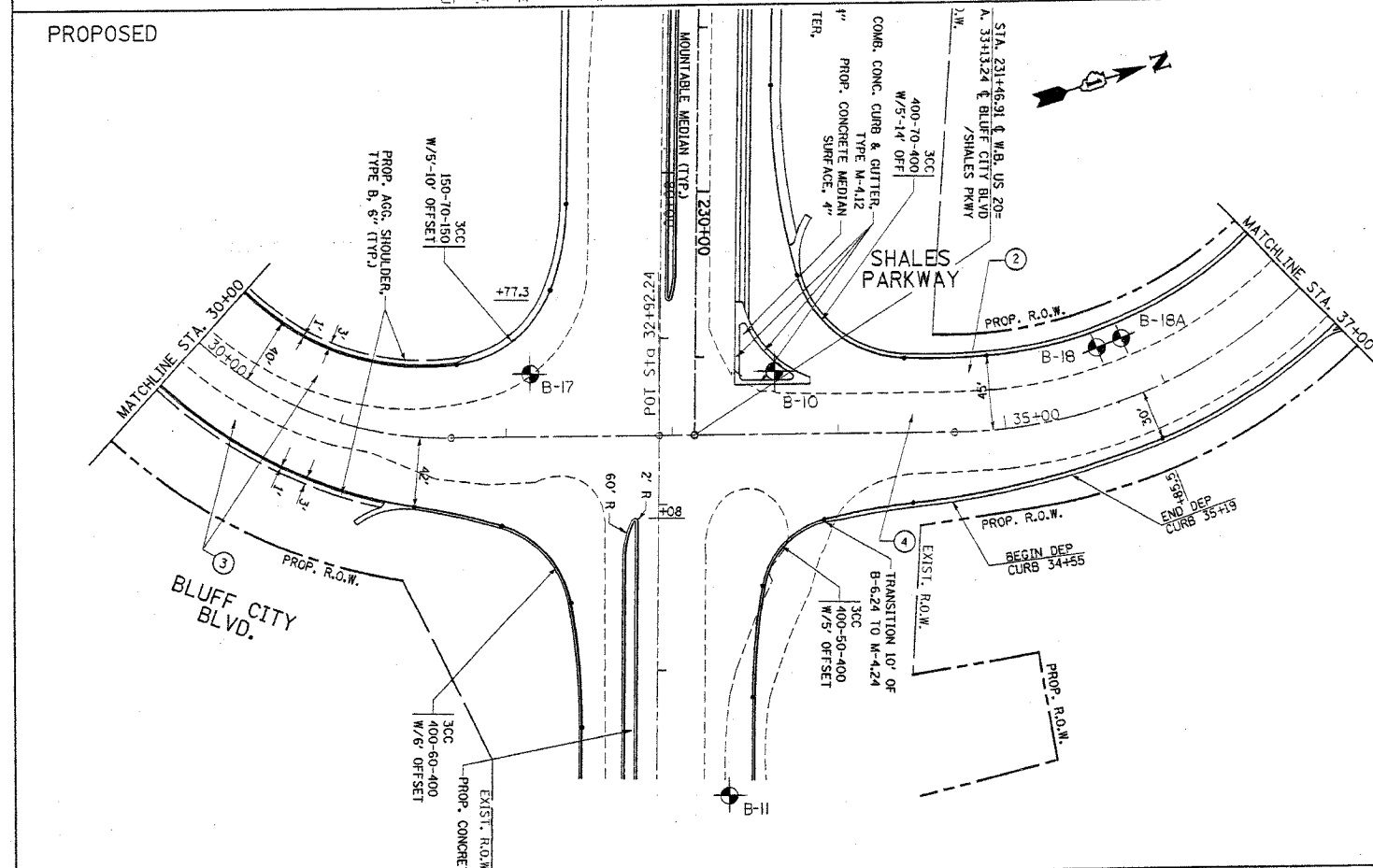
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-1-N-1	COOK	196	149
STA. 30+00		TO STA. 37+00		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

CONTRACT NO. 62617



EXIST. CURVE E-BLUFF-2
 PI STA. = 36+90.04
 $\Delta = 72^\circ 22' 20''$ (LT)
 $D = 18^\circ 58' 38''$
 $R = 301.92'$
 $T = 220.86'$
 $L = 381.36'$
 $e = 72.16'$
 $T.P. =$
 $S.E. RUN =$
 $P.C. STA. = 34+69.18$
 $P.T. STA. = 38+50.54$

EXISTING
 PROPOSED



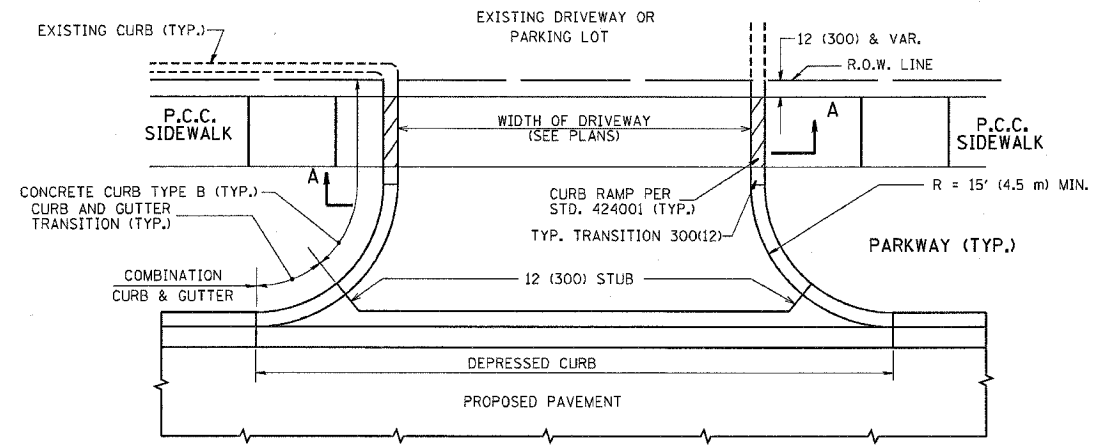
LEGEND (SEE DRIVEWAY DETAILS)
 * BITUMINOUS DRIVEWAY - RESIDENTIAL ENTRANCE
 ** BITUMINOUS DRIVEWAY - COMMERCIAL ENTRANCE
 *** RIGID DRIVEWAY - COMMERCIAL ENTRANCE

- ① U.S. ROUTE 20 (WIDENING)
 PROP. AGGREGATE SUBGRADE, 12"
 PROP. HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH, 14")
 PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 2"
 PROP. HOT-MIX ASPHALT BINDER COURSE, IL-19, N90, 12"
- ② SHALES PKWY. (WIDENING)
 PROP. AGGREGATE SUBGRADE, 12"
 PROP. HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH, 9 3/4")
 PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 2"
 PROP. HOT-MIX ASPHALT BINDER COURSE, IL-19, N90, 7 3/4"
- ③ BLUFF CITY BLVD. (WIDENING)
 PROP. AGGREGATE SUBGRADE, 12"
 PROP. HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH, 12 3/4")
 PROP. HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 2"
 PROP. HOT-MIX ASPHALT BINDER COURSE, IL-19, N90, 10 3/4"

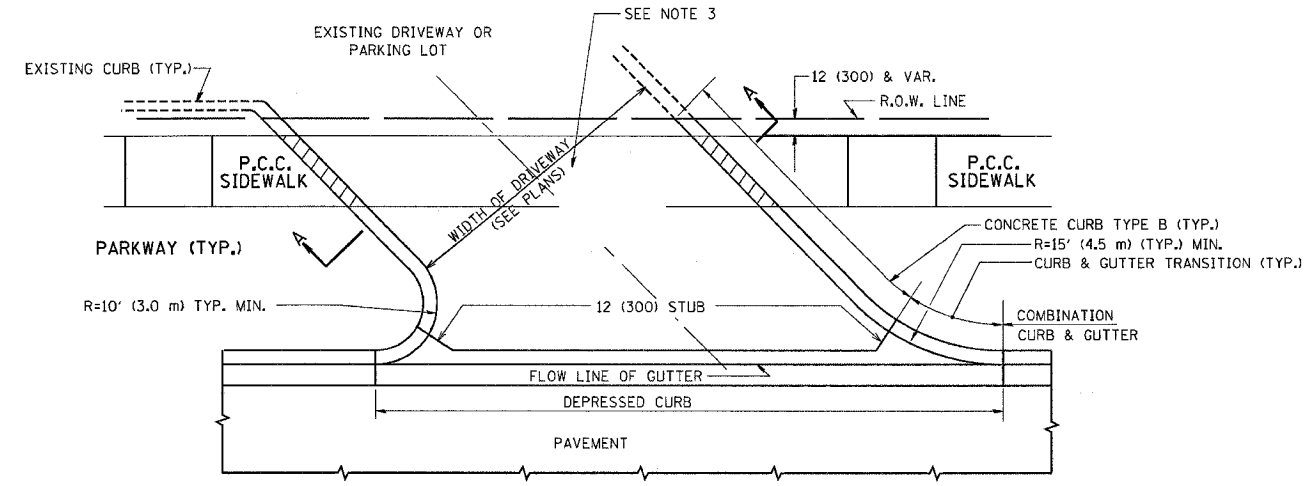
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 EXISTING AND PROPOSED
 ROADWAY PLAN
 U.S. 20 AT
 BLUFF CITY/ SHALES PKWY.
 SCALE: VERT. 1"= 50'
 HORIZ. DATE 5/29/2007
 DRAWN BY
 CHECKED BY

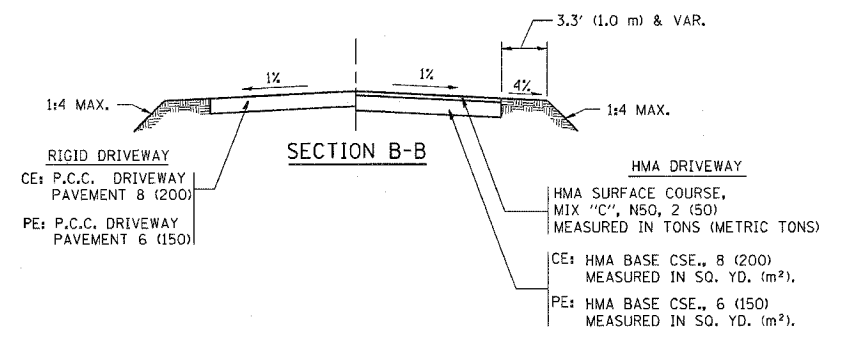
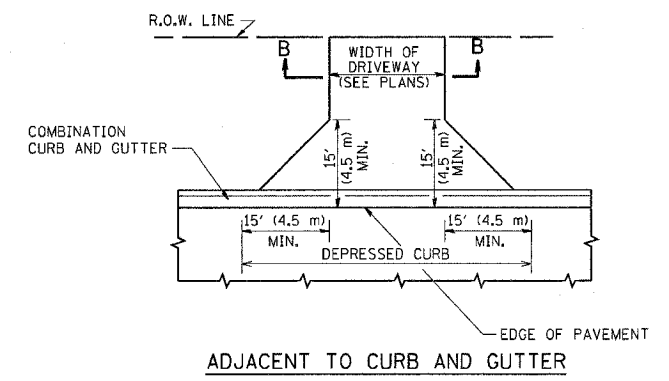
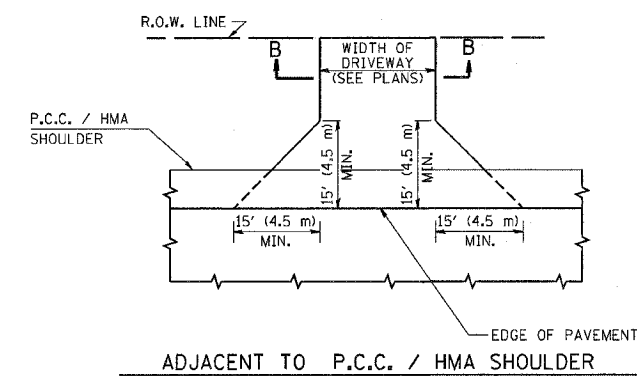
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	82-1-N-1	Cook	196	150
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



WITH CONCRETE CURB, TYPE B



WITH CONCRETE CURB, TYPE B



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.

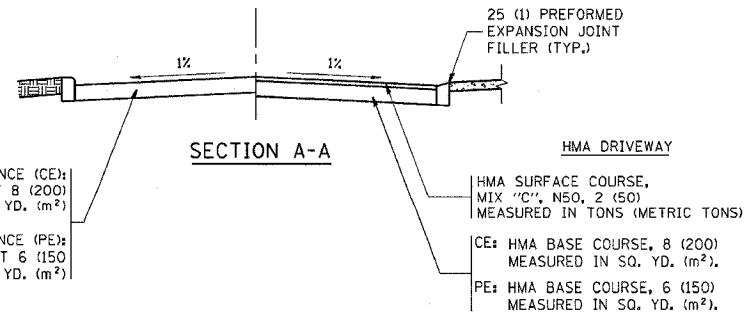
COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

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.



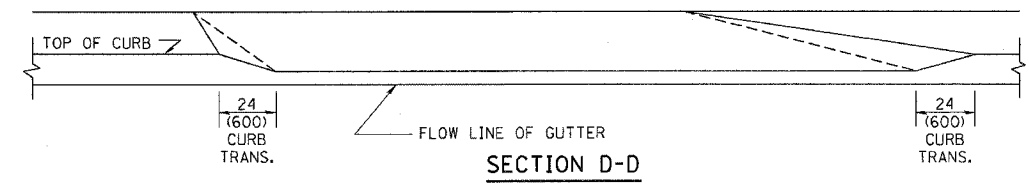
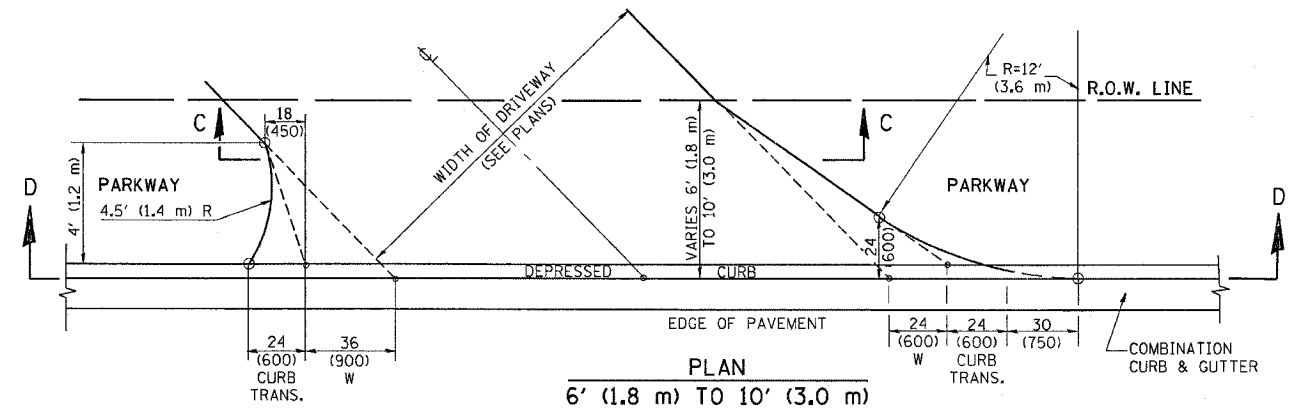
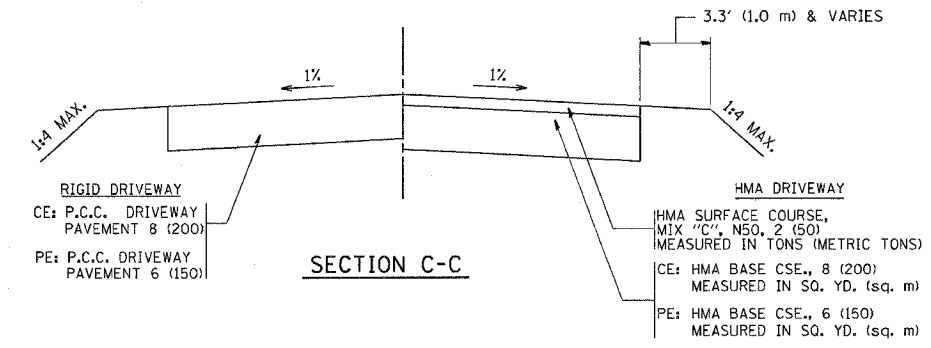
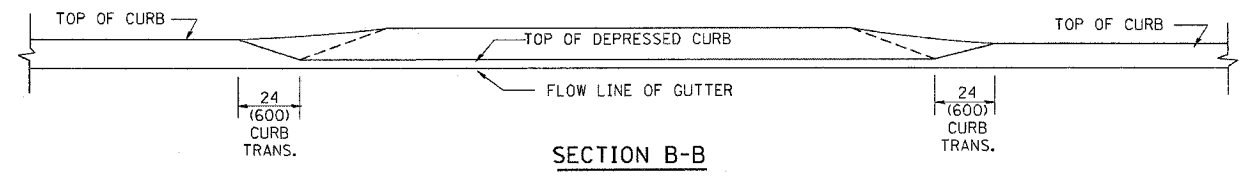
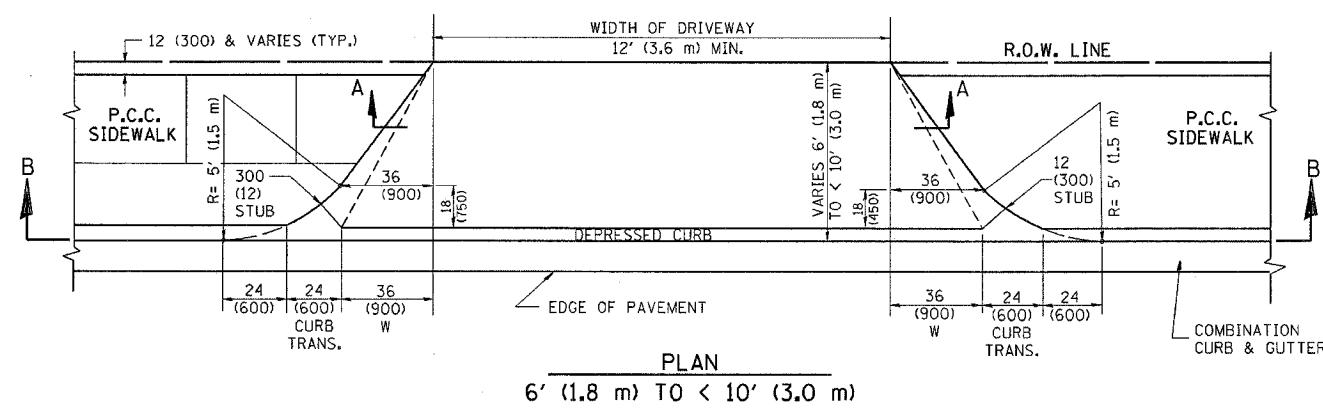
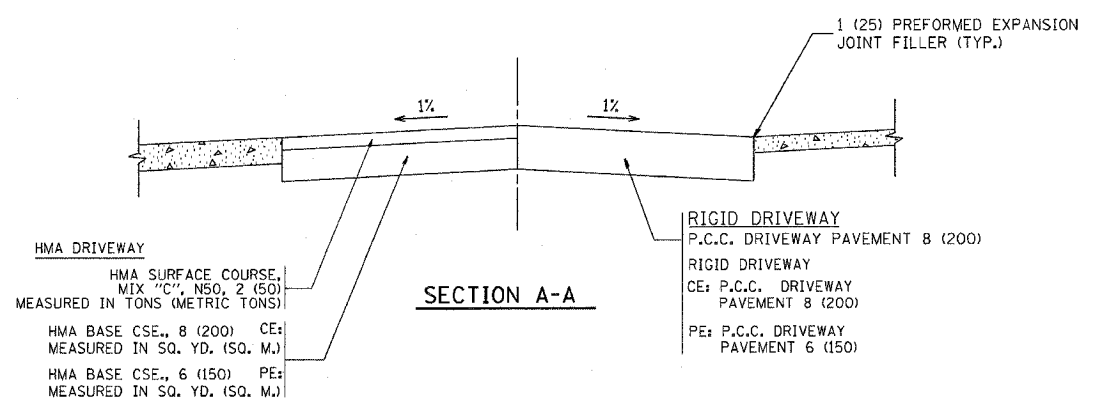
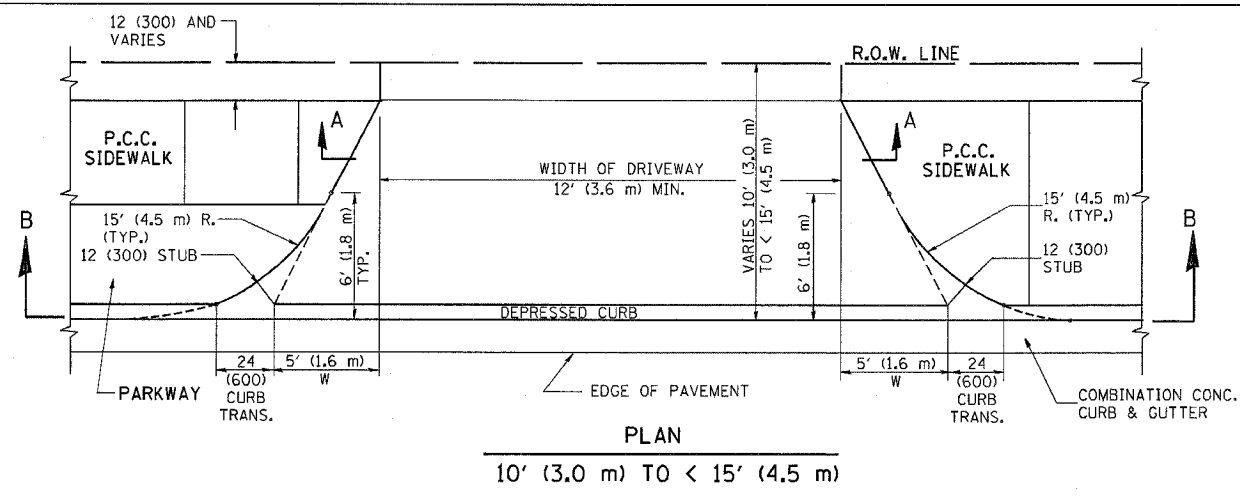
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE NOTED

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. LOFLEUR	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.
 DRAWN BY: _____
 CHECKED BY: _____

PLT DATE = 4/11/2007
 FILE NAME = 41112007.dwg
 PLOT SCALE = 48"=1'-0"
 USER NAME = drivkangn

F.A. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
245	82-1-N-1	Cook	196 151
STA.		TO STA.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			



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) PERFORMED 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.

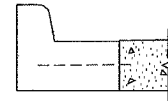
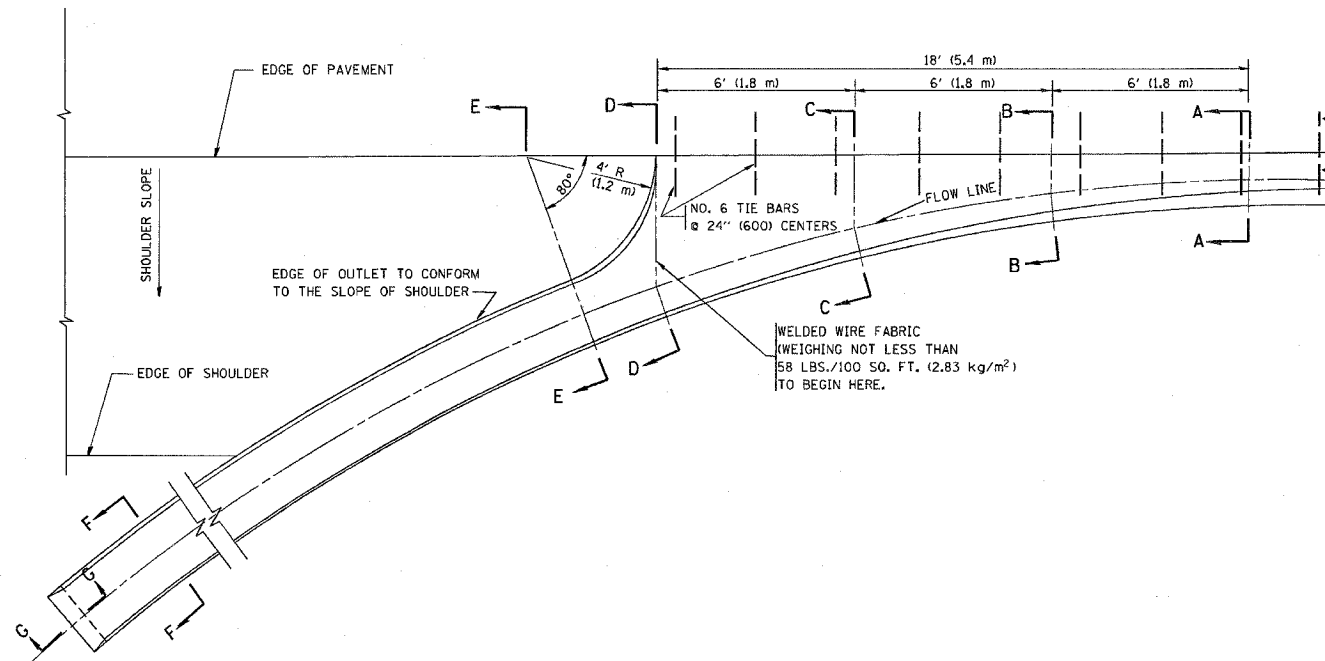
REVISIONS	
NAME	DATE
R. SHAH	11/06/95
L. POLLASTRINI	08/12/96
L. POLLASTRINI	12/14/96
A. ABBAS	03/21/97
T. HOLTZ	04/08/97
M. GOMEZ	04/06/01
P. LOFLEUR	04/15/03
R. BORO	01/01/07

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

SCALE: VERT. NONE
HORIZ. DRAWN BY
CHECKED BY

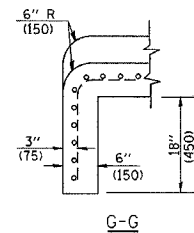
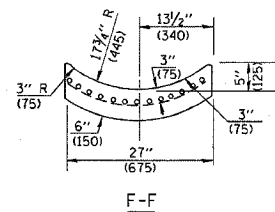
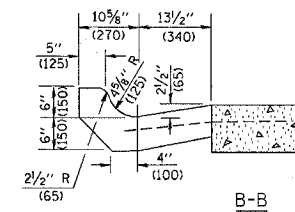
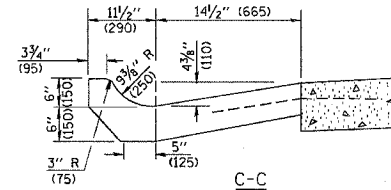
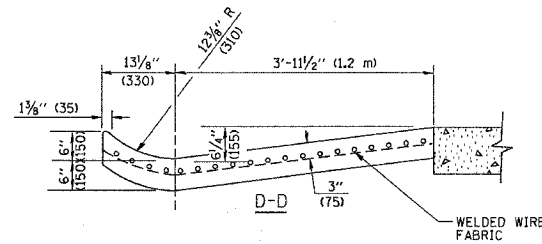
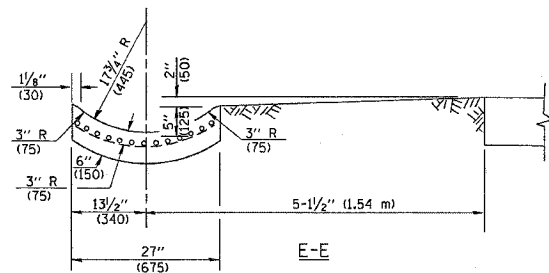
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PLOT SCALE = 5000000 / 1
USER NAME = bounardf

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34E	3E-1-N-1	COOK	196	162
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



A-A *

* DIMENSIONS OF THE CURB & GUTTER AT SECTION A-A ARE SHOWN ON STATE STANDARD 606001. FOR DETAILS OF OUTLET FOR CONCRETE CURB & GUTTER, TYPE B-6.24 (B-15.60) SEE STATE STANDARD 606006.



GENERAL NOTES

GUTTER OUTLET SHALL BE TIED TO THE PAVEMENT IN ACCORDANCE WITH DETAILS FOR LONGITUDINAL CONSTRUCTION JOINT SHOWN ON STANDARD 420001.

TIE BARS SHALL BE NO. 20 (NO.6) AT 24" (600) CENTERS UNLESS OTHERWISE SHOWN.

IF THE AVERAGE GRADE OF PAVEMENT FOR THE DISTANCE FROM SECTION A-A TO D-D EXCEEDS 2%, THIS DISTANCE SHALL BE INCREASED 6' (1.8 m) FOR EACH 1% INCREASE IN GRADE.

QUANTITIES

FOR SECTION A-A TO E-E AND CURTAIN WALL-
1.25 CU. YDS. (0.96 m³) CLASS SI CONCRETE (OUTLET) FOR 9" (225) PAVT.
1.27 CU. YDS. (0.96 m³) CLASS SI CONCRETE (OUTLET) FOR 10" (250) PAVT.
FOR SECTION F-F-
0.045 CU. YDS. (0.03 m³) CLASS SI CONCRETE PER FT. (m).

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

REVISIONS	
NAME	DATE
M. DE YONG	8/4/86
R. SHAH	09/09/94
R. SHAH	10/25/94
E. GOMEZ	12/21/00

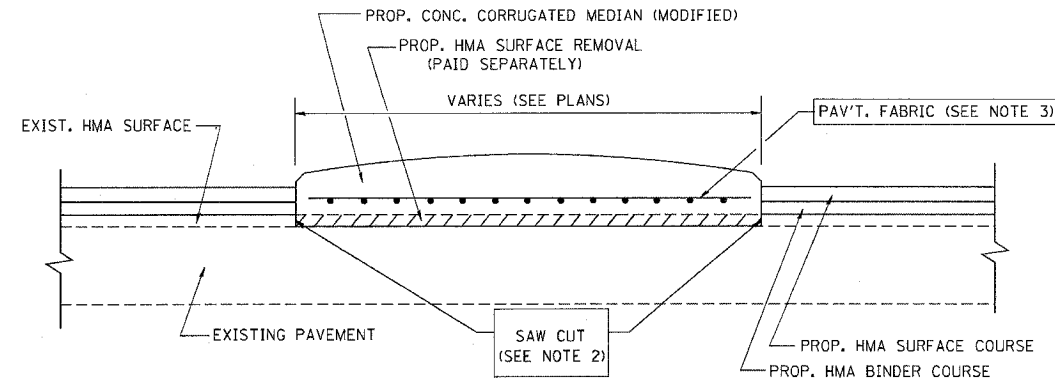
ILLINOIS DEPARTMENT OF TRANSPORTATION

OUTLET FOR CONCRETE CURB AND GUTTER

SCALE: VERT. NONE
HORIZ.

DRAWN BY
CHECKED BY

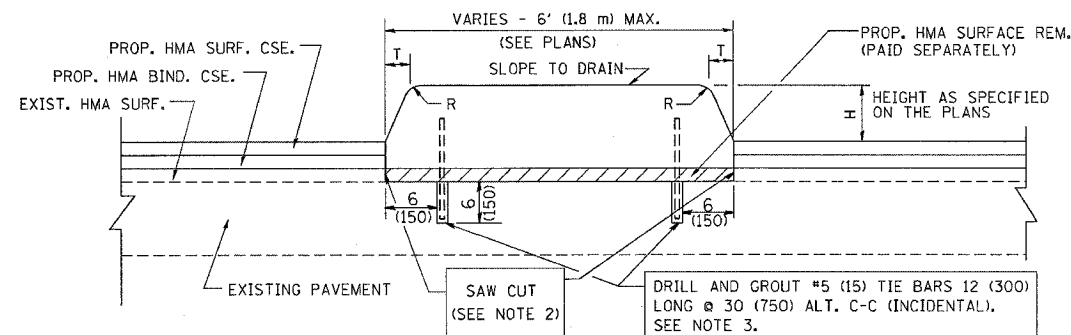
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	2R-1-N-1	Cook	196	153
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		



- NOTES:
1. CORRUGATED MEDIAN (MODIFIED) SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 606 OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE PORTIONS OF STATE STANDARD 606306.
 2. WITH THE APPROVAL OF THE ENGINEER, THE CONTRACTOR MAY DELETE THE SAW CUT IF A NEAT JOINT CAN BE OBTAINED BY MILLING THE HMA SURFACE TO BE REMOVED. SAW CUT WILL BE INCLUDED IN THE COST OF CORRUGATED MEDIAN (MODIFIED)
 3. PAVEMENT FABRIC WILL BE INCLUDED IN THE COST OF CORRUGATED MEDIAN (MODIFIED)

DETAILS FOR CORRUGATED MEDIAN (MODIFIED)

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT (SQUARE METER) FOR "CORRUGATED MEDIAN (MODIFIED)"



- NOTES:
1. CONCRETE MEDIAN TYPE SB (DOWELLED) SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF STATE STANDARD 606301 AND SECTION 606 OF THE STANDARD SPECIFICATIONS.
 2. WITH THE APPROVAL OF THE ENGINEER, THE CONTRACTOR MAY DELETE THE SAW CUT IF A NEAT JOINT CAN BE OBTAINED BY MILLING THE HMA SURFACE TO BE REMOVED. SAW CUT WILL BE INCLUDED IN THE COST OF "CONCRETE MEDIAN TYPE SB (DOWELLED)"
 3. FOR MEDIAN WIDTH LESS THAN 4' (1.2 m) USE ONE ROW OF #5 (15) BARS @ 30 (750) C-C ALONG THE MEDIAN CENTERLINE. TIE BARS WILL BE INCLUDED IN THE COST OF "CONCRETE MEDIAN TYPE SB (DOWELLED)"

H	R	T
6(150)	1(25)	1(25)
9(225)	1(25)	2(50)

DETAILS FOR CONCRETE MEDIAN TYPE SB (DOWELLED)

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT (SQUARE METER) FOR "CONCRETE MEDIAN TYPE SB (DOWELLED)"

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

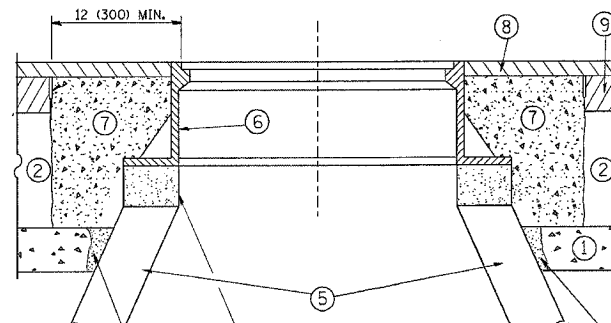
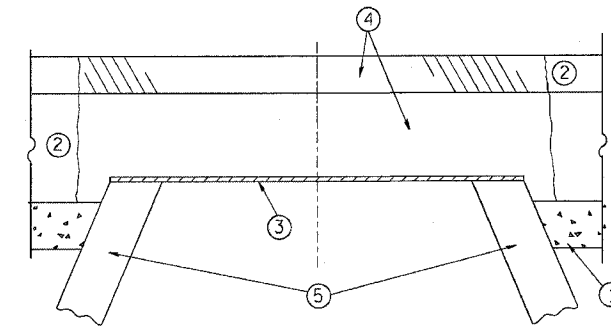
REVISIONS	
NAME	DATE
M. DE YONG	05/14/90
M. DE YONG	06/13/90
M. DE YONG	06/14/90
M. DE YONG	06/20/90
M. DE YONG	09/21/90
M. DE YONG	10/12/90
R. SHAH	09/09/94
R. SHAH	10/25/94
E. GOMEZ	08/28/00
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DETAILS FOR
 CONCRETE MEDIAN TYPE SB (DOWELLED)
 CORRUGATED MEDIAN (MODIFIED)

SCALE: VERT. NONE
 HORIZ.

DRAWN BY
 CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	82-1-N-1	Cook	196	154
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		



CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1 1/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS SI CONCRETE, OR HMA SURFACE COURSE OR HMA BINDER COURSE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS.

NOTES:

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

LEGEND

- ① SUB-BASE GRANULAR MATERIAL
- ② EXISTING PAVEMENT
- ③ 36 (900) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- ⑧ PROPOSED HMA SURFACE COURSE
- ⑨ PROPOSED HMA BINDER COURSE

LOCATION OF STRUCTURES:

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

BASIS OF PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL"

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

REVISIONS	
NAME	DATE
R. SHAH	10/25/94
R. SHAH	01/30/95
R. SHAH	03/10/95
A. ABBAS	03/21/97
R. WIEDEMAN	05/14/04
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION
**DETAILS FOR
 FRAMES AND LIDS ADJUSTMENT
 WITH MILLING**

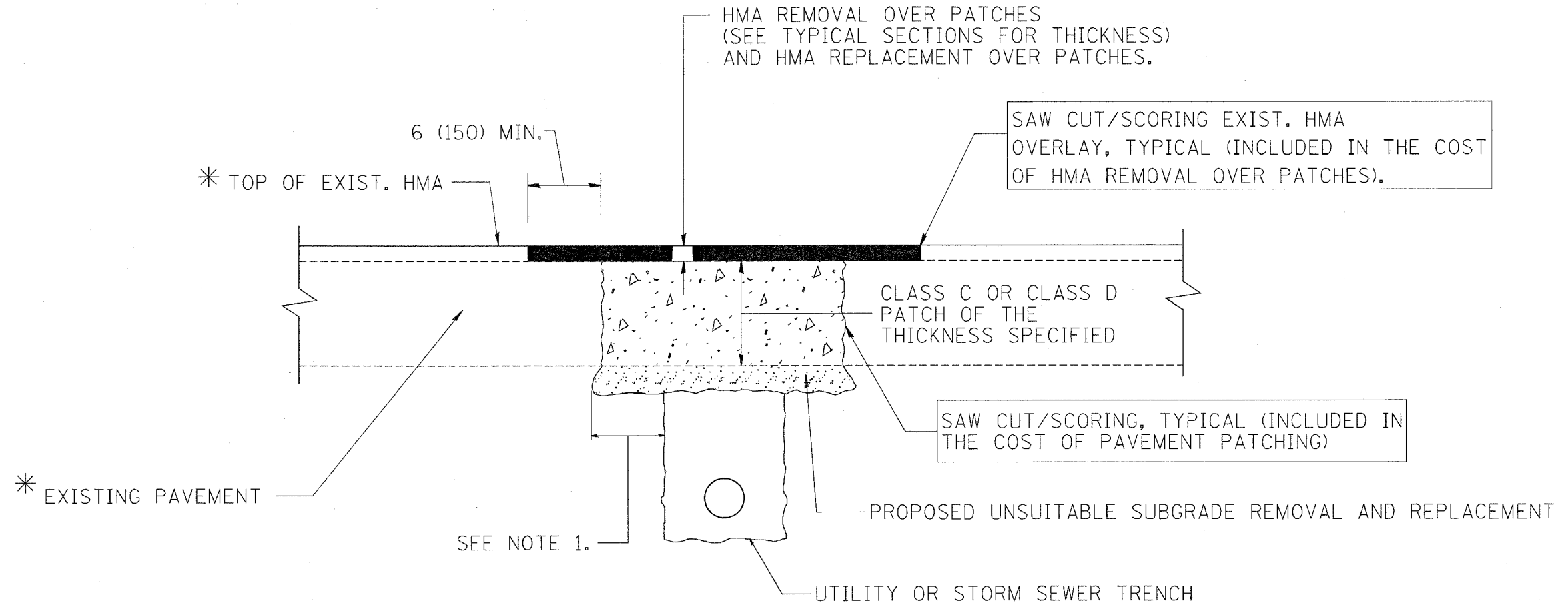
SCALE: VERT. NONE
 HORIZ.

DRAWN BY

CHECKED BY

BD600-03 (BD-8)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	82-1-N-1	Cook	196	155
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

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

SEQUENCE OF CONSTRUCTION

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE FULL DEPTH PATCHES
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

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

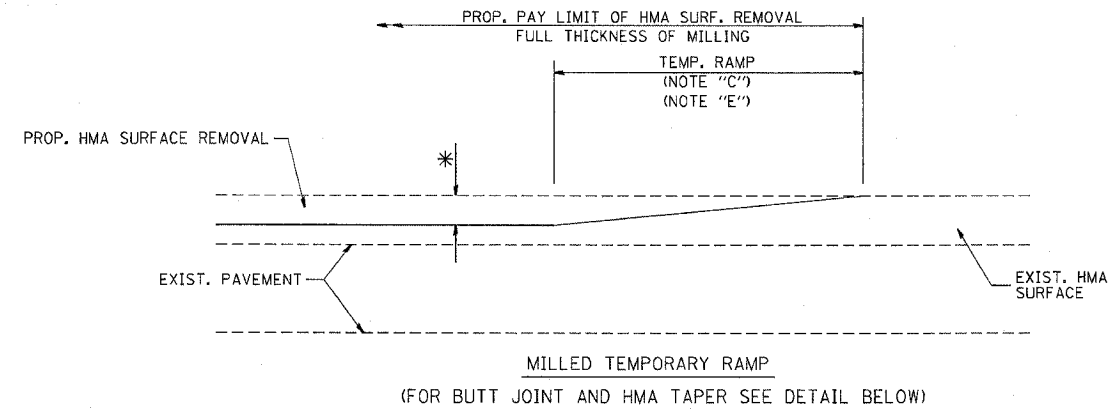
REVISIONS	
NAME	DATE
R. SHAH	10/25/94
R. SHAH	01/14/95
R. SHAH	03/23/95
R. SHAH	04/24/95
A. HOUSEH	03/15/96
A. ABBAS	03/21/97
A. ABBAS	01/20/98
ART ABBAS	04/27/98
R. BORO	01/01/07
R. BORO	09/04/07

ILLINOIS DEPARTMENT OF TRANSPORTATION
 PAVEMENT PATCHING FOR
 HMA SURFACED
 PAVEMENT

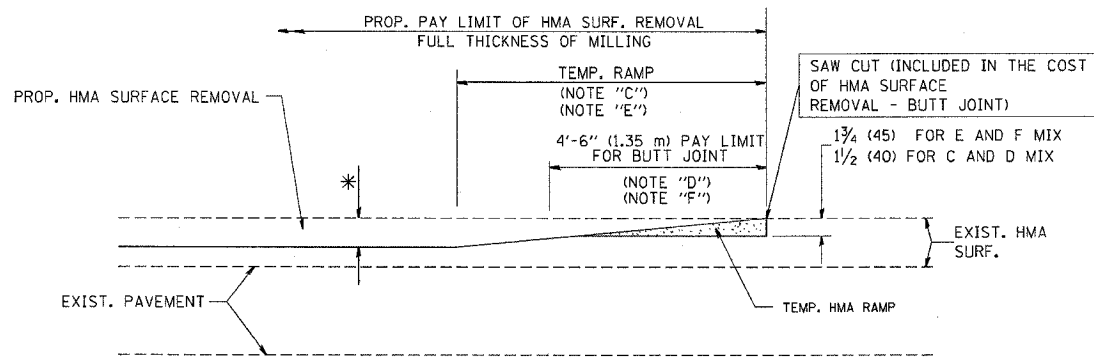
SCALE: VERT. NONE
 HORIZ.

DRAWN BY
 CHECKED BY
 BD400-04 (BD-22)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
245	8R-1-N-1	Cook	196	156
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

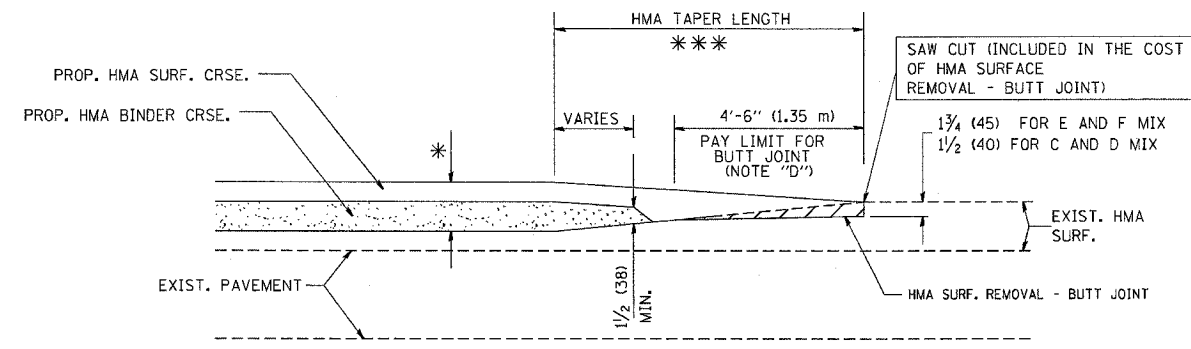


OPTION 1

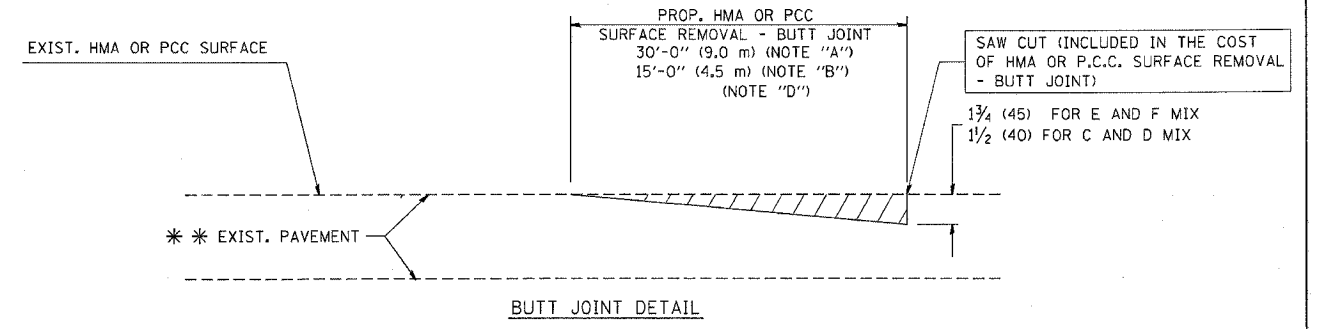


HMA CONSTRUCTED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

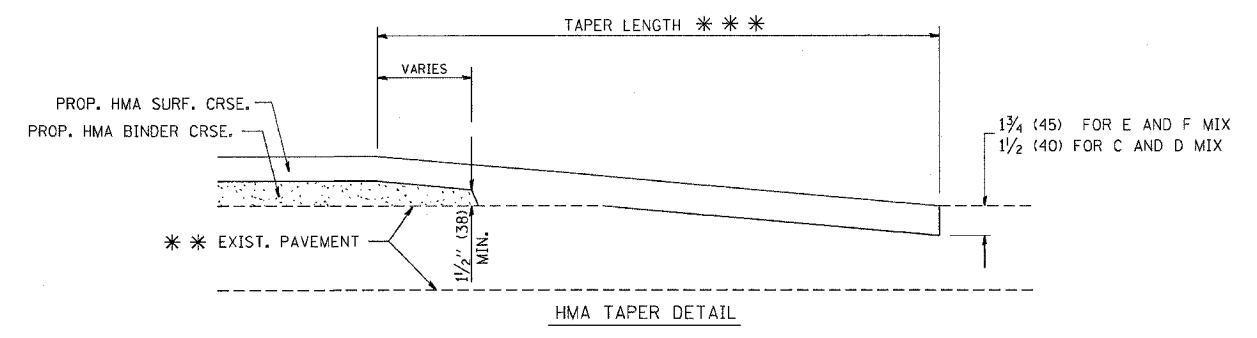
OPTION 2
TYPICAL TEMPORARY RAMP



BUTT JOINT AND HMA TAPER
TYPICAL BUTT JOINT AND HMA TAPER
FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL
TYPICAL BUTT JOINT AND HMA TAPER
FOR RESURFACING ONLY

*** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
 - B: MINOR SIDE ROADS.
 - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
 - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
 - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
 - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
 - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- *** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

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

BASIS OF PAYMENT:

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

REVISIONS	
NAME	DATE
M. DE YONG	6-13-90
M. DE YONG	7-3-90
M. DE YONG	3-27-92
R. SHAH	09/09/94
R. SHAH	10/25/94
A. ABBAS	03/21/97
M. GOMEZ	04/06/01
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

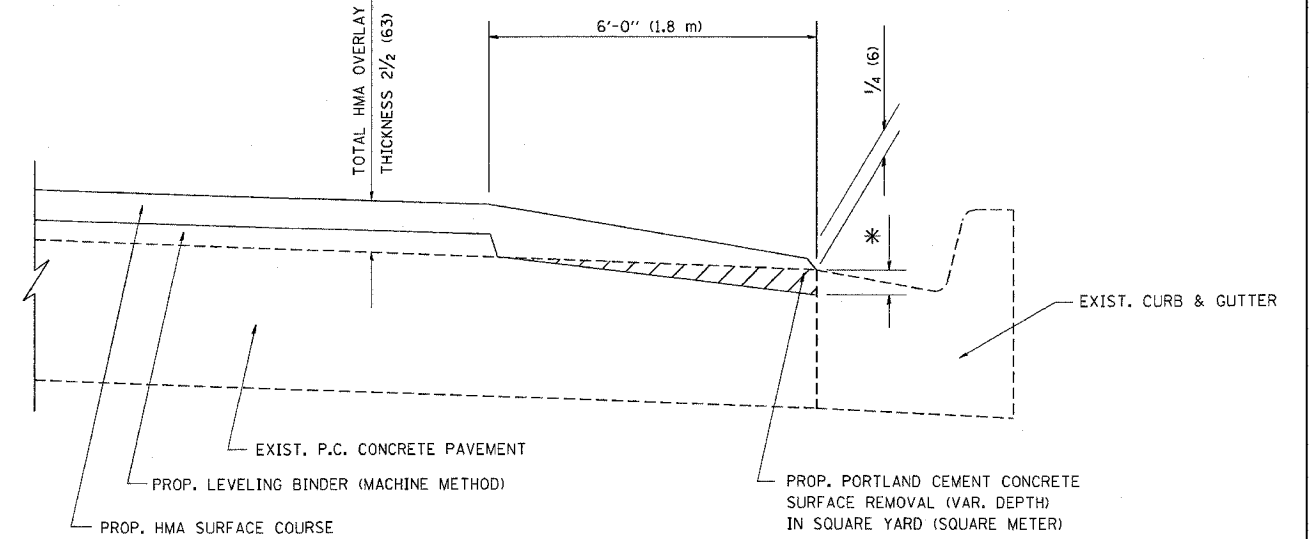
BUTT JOINT AND HMA TAPER DETAILS

SCALE: VERT. NONE
HORIZ. NONE

DRAWN BY
CHECKED BY

PLOT DATE = 3/5/2007
FILE NAME = K:\asst01\0432.dgn
USER NAME = bboraci

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
245	82-1-N-1	Cook	196	157
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		



HMA TAPER AT
EDGE OF P.C.C. PAVEMENT

HMA SURFACE		LEVELING BINDER		* MILLING AT GUTTER FLAG
MIX	THICKNESS	THICKNESS		
C OR D	1 1/2 (38)	1 (25)	1/4 (33)	
F	1 3/4 (44)	3/4 (19)	1/2 (38)	

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

REVISIONS	
NAME	DATE
R. SHAH	09/10/94
R. SHAH	10/25/94
A. ABBAS	05/05/99
E. GOMEZ	12/21/00
R. BORO	01/01/07

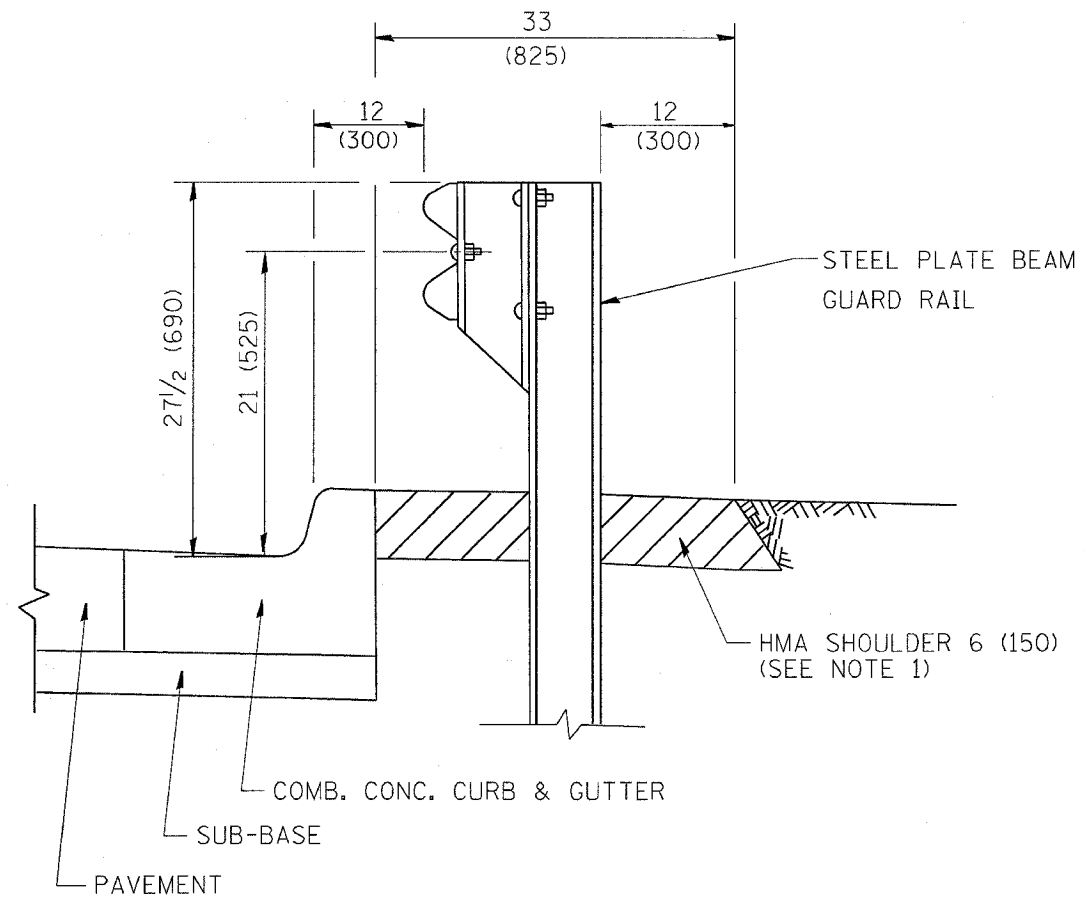
ILLINOIS DEPARTMENT OF TRANSPORTATION

HMA TAPER AT
EDGE OF P.C.C. PAVEMENT

SCALE: VERT. NONE
HORIZ. DRAWN BY Jls
CHECKED BY A. ABBAS

PLOT DATE = 3/5/2007
PLOT SCALE = 5/8"=1'-0"
USER NAME = bwan@di

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	82-1-N-1	Cook	196	158
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		

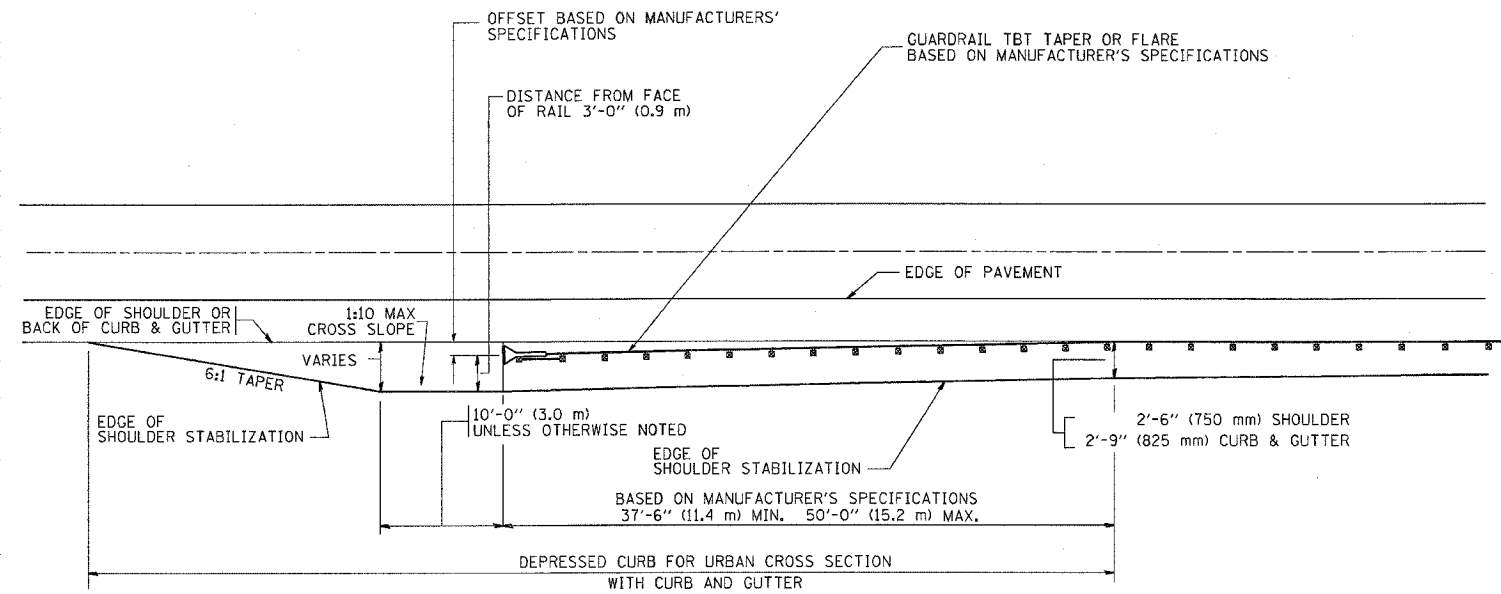


- NOTES: 1. THE HMA SHOULDER SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL
2. GUARD RAIL MAY BE PLACED AT THE BACK OF CURB WHEN DIRECTED BY THE ENGINEER.

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.

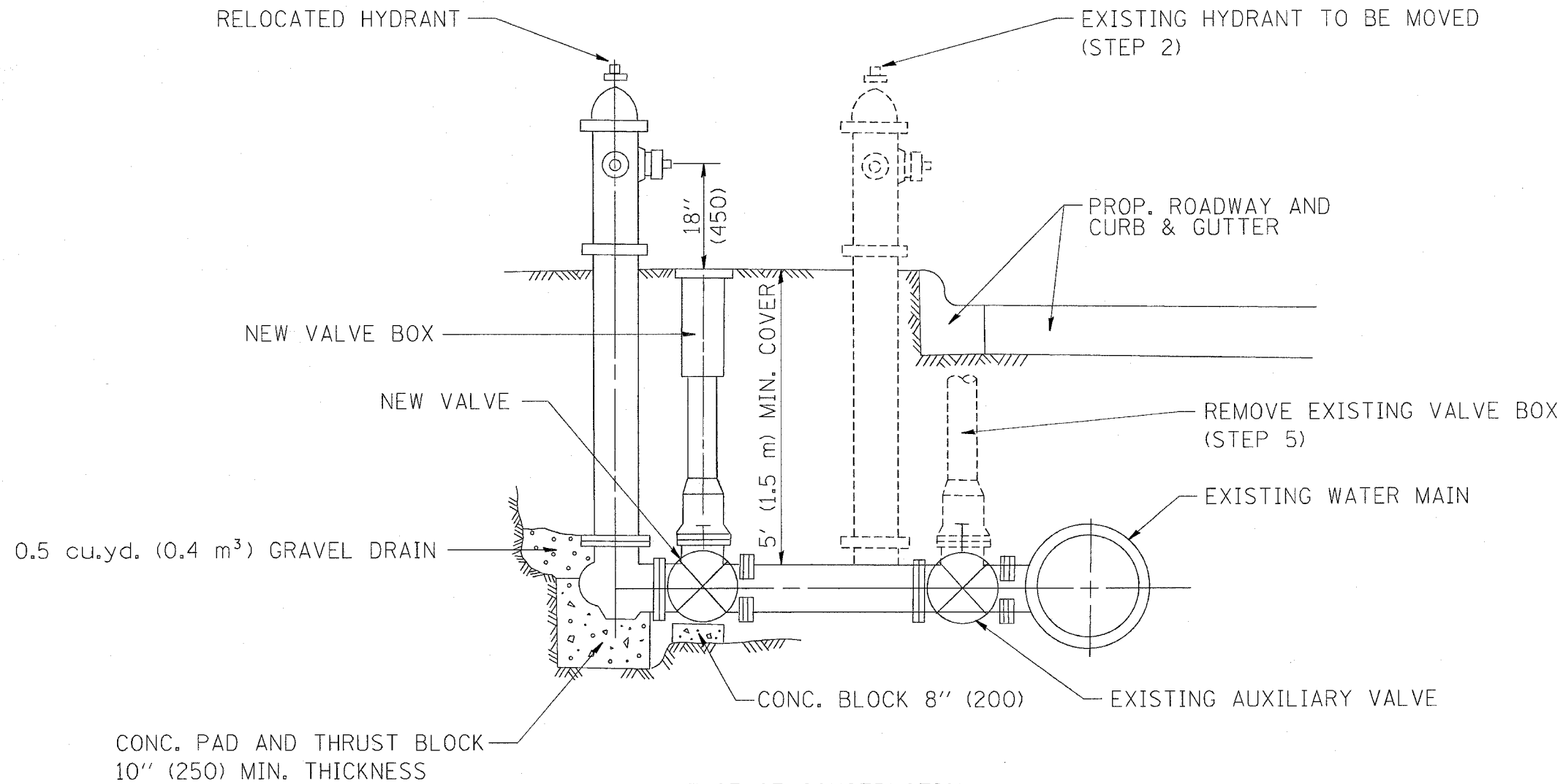
REVISIONS	
NAME	DATE
M. DE YONG	09-22-90
M. DE YONG	07-14-92
R. SHAH	09/09/94
R. SHAH	10/25/94
R. SHAH	02/23/95
A. ABBAS	03/21/97
E. GOMEZ	08/28/00
R. BORO	01/01/07

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. NONE
DRAWN BY Jls
CHECKED BY

PLOT DATE = 3/5/2007
FILE NAME = K:\data\350\350.dgn
PLOT SCALE = 50:1
USER NAME = dborndel

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-1-N-1	COOK	196	159
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



SEQUENCE OF CONSTRUCTION:

1. CLOSE EXISTING VALVE.
2. REMOVE EXISTING HYDRANT.
3. INSTALL HYDRANT EXTENSION AND NEW VALVE.
4. RELOCATE EXISTING HYDRANT.
5. OPEN EXISTING VALVE, REMOVE BOX.
6. BACKFILL.
7. FLUSH AND TEST FOR CHLORIDE RESIDUAL AND PROVIDE TEST.

ALL WORK TO BE DONE IN ACCORDANCE WITH ARTICLE 564 OF THE STANDARD SPECIFICATIONS. NEW VALVE AND BOX SHALL BE SAME MAKE AND MODEL AS EXISTING.

FIRE HYDRANT TO BE MOVED

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

REVISIONS	
NAME	DATE
R. SHAH	09/09/94
R. SHAH	10/25/94

ILLINOIS DEPARTMENT OF TRANSPORTATION

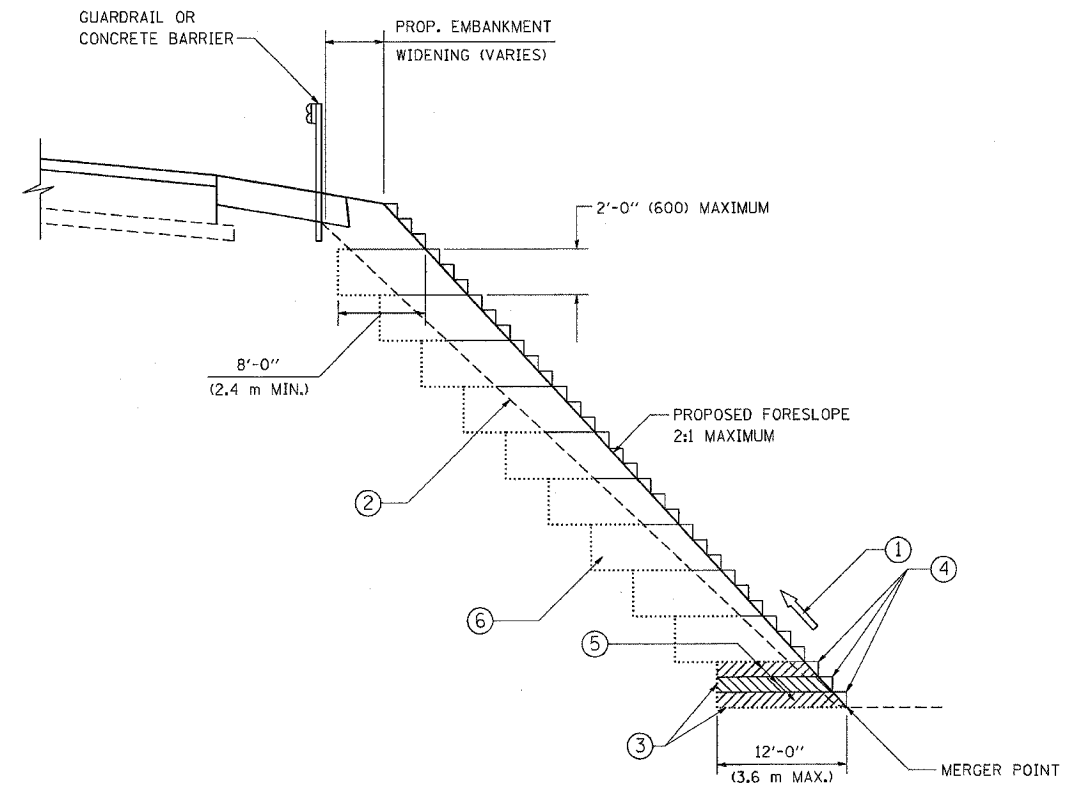
FIRE HYDRANT TO BE MOVED

SCALE: VERT. NONE
HORIZ.

DRAWN BY

CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	82-1-N-1	Cook	196	160
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TYPICAL BENCHING DETAIL FOR EMBANKMENT

NOTES:

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

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

REVISIONS	
NAME	DATE
	06/16/04

ILLINOIS DEPARTMENT OF TRANSPORTATION

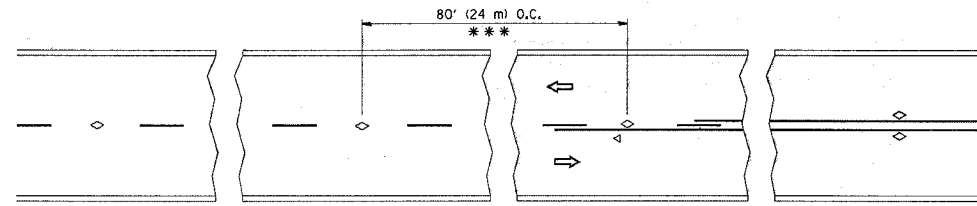
BENCHING DETAIL FOR EMBANKMENT WIDENING

SCALE: VERT. NONE
HORIZ.

DRAWN BY: CADD
CHECKED BY: S.E.B.

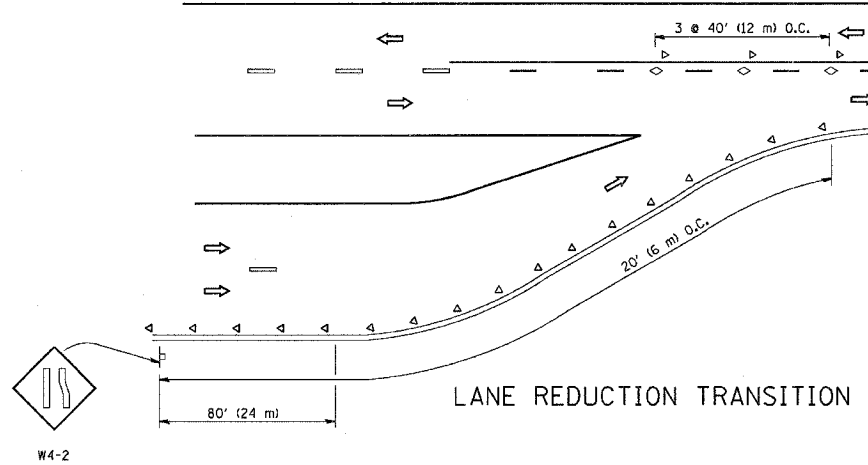
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USER NAME = baward

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

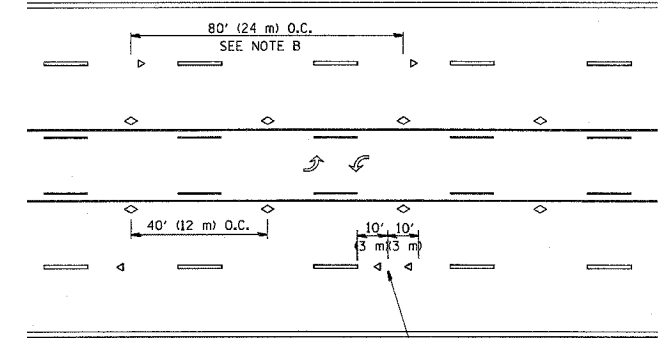


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

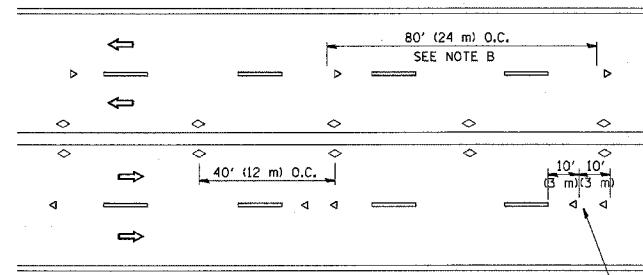
TWO-LANE/TWO-WAY



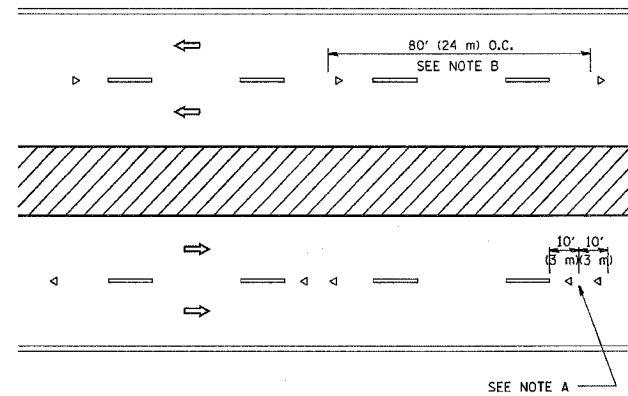
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

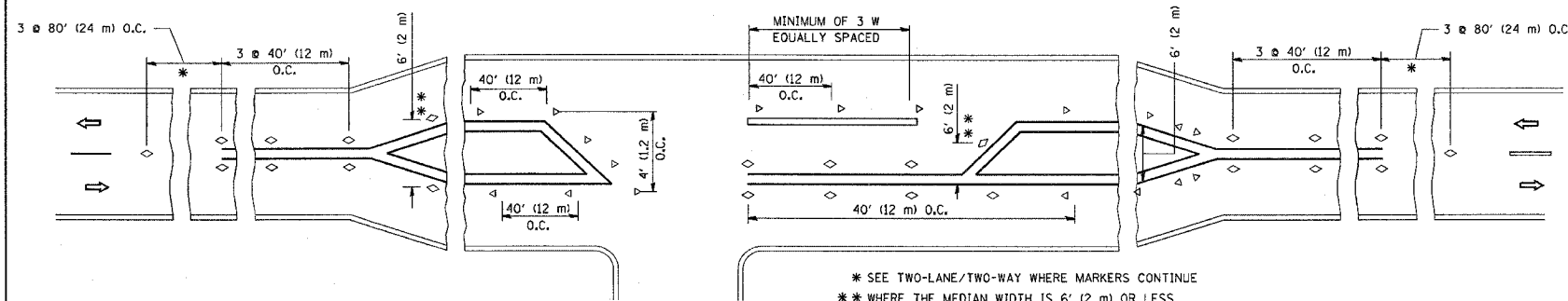
1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE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

SYMBOLS

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

LANE MARKER NOTES

- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.



LEFT TURN

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

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

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)

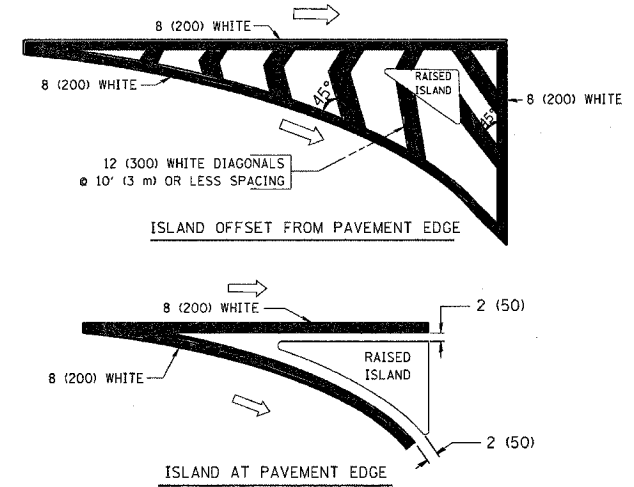
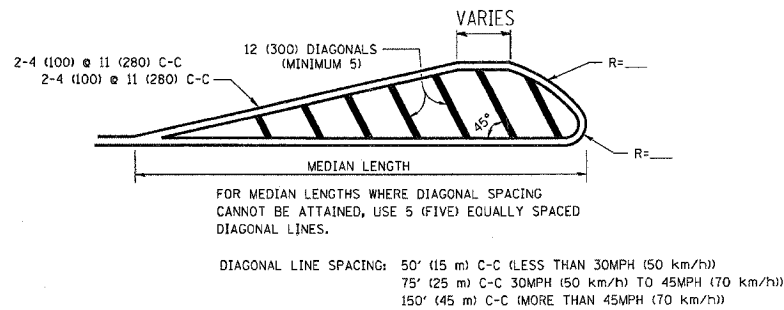
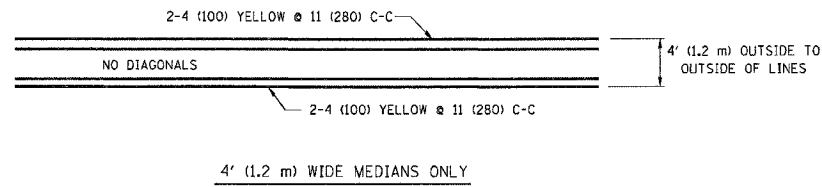
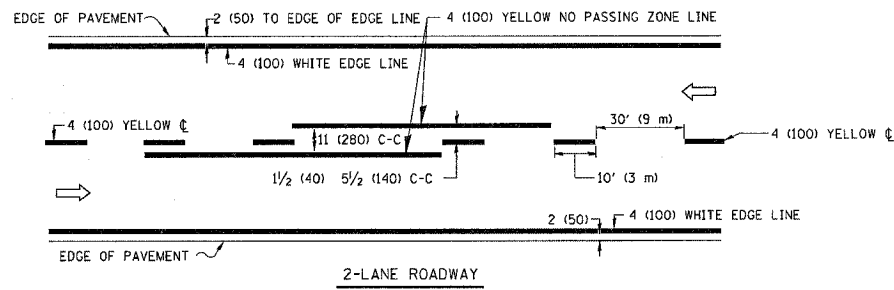
SCALE: NONE

DRAWN BY CADD

CHECKED BY

TC-11

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	82-1-N-1	Cook	196	163
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION	4 (100)	SOLID	YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE
FOR BOTH DIRECTIONS	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100)	SKIP-DASH	WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
(EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	5 (125) ON FREEWAYS	SKIP-DASH	WHITE	
DOTTED LINES	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	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN)	2 @ 6 (150)	SOLID	WHITE	NOT LESS THAN 6' (1.8 m) APART
A. DIAGONALS (BIKE & EQUESTRIAN)	12 (300) @ 45°	SOLID	WHITE	
B. LONGITUDINAL BARS (SCHOOL)	12 (300) @ 90°	SOLID	WHITE	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°	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 78000! 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 78000.

All dimensions are in inches (millimeters) 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

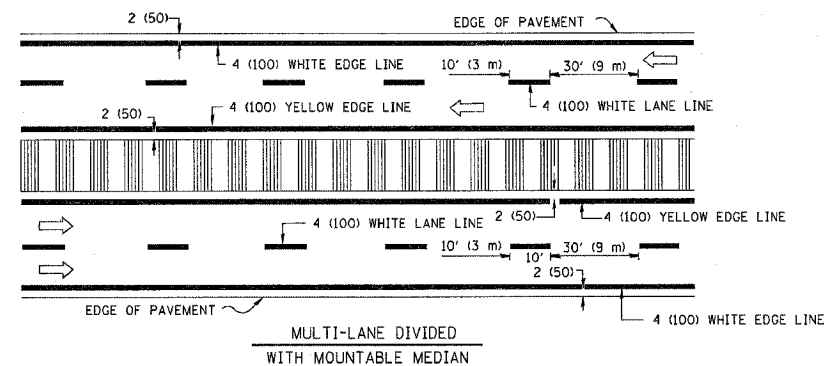
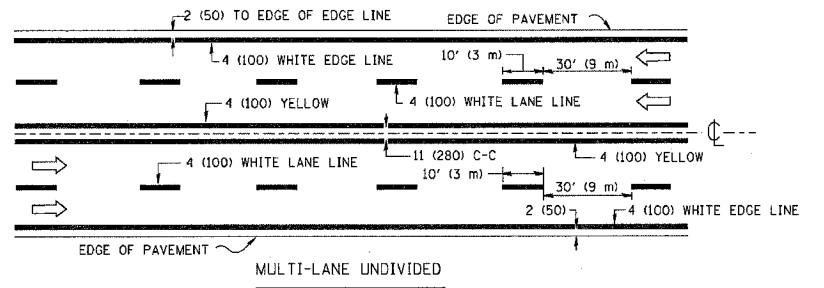
TYPICAL PAVEMENT MARKINGS

SCALE: NONE

DRAWN BY CADD

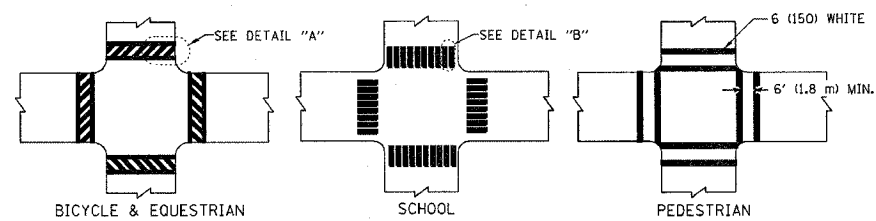
CHECKED BY

TC-13

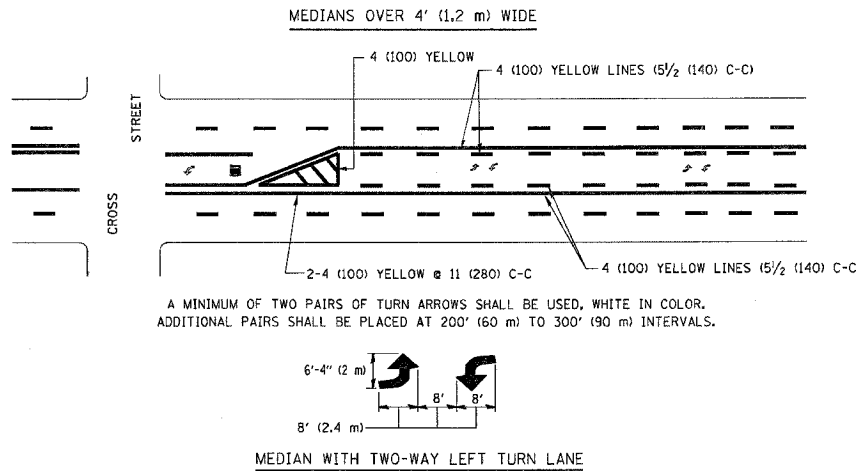


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

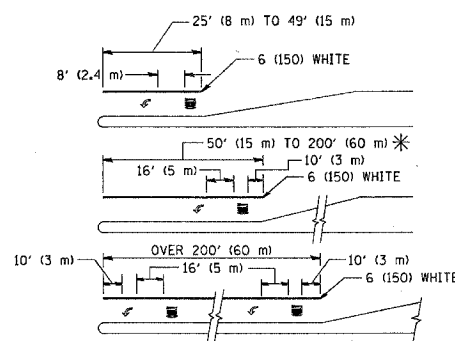
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING



TYPICAL PAINTED MEDIAN MARKING



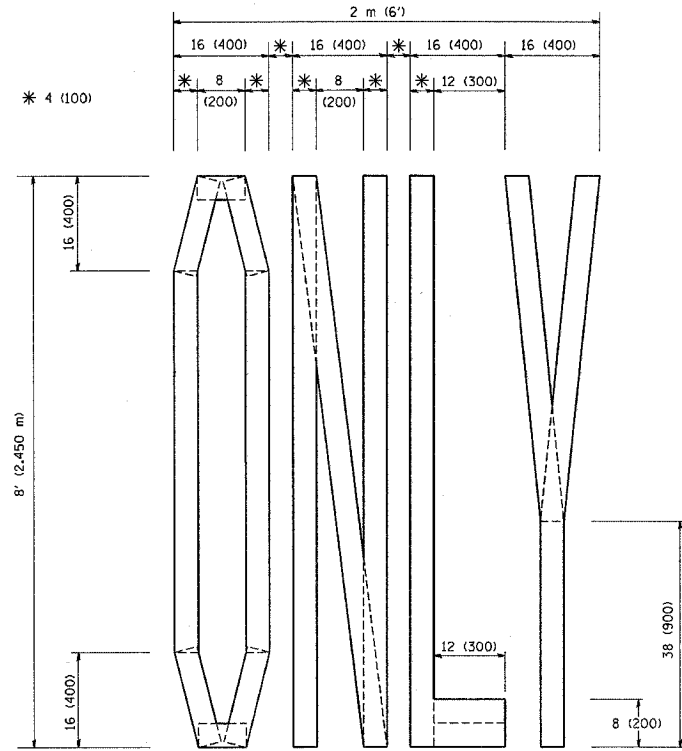
FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

* 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".

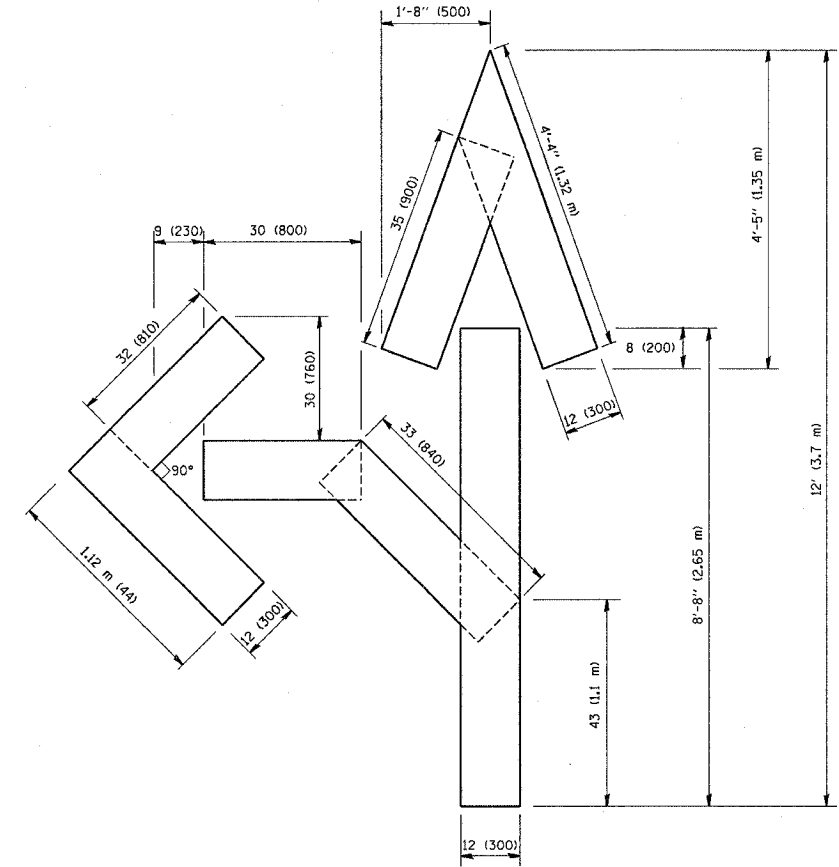
TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

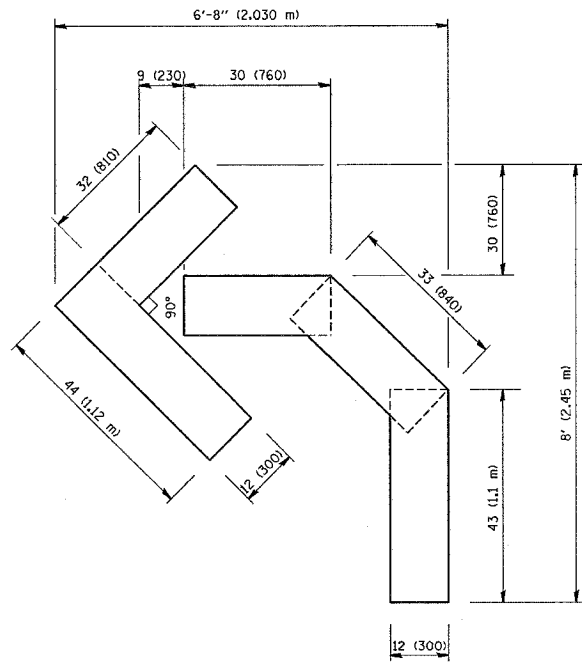
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
245	82-1-N-1	COOK	196	164
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



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



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



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

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

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

DRAWN BY CADD

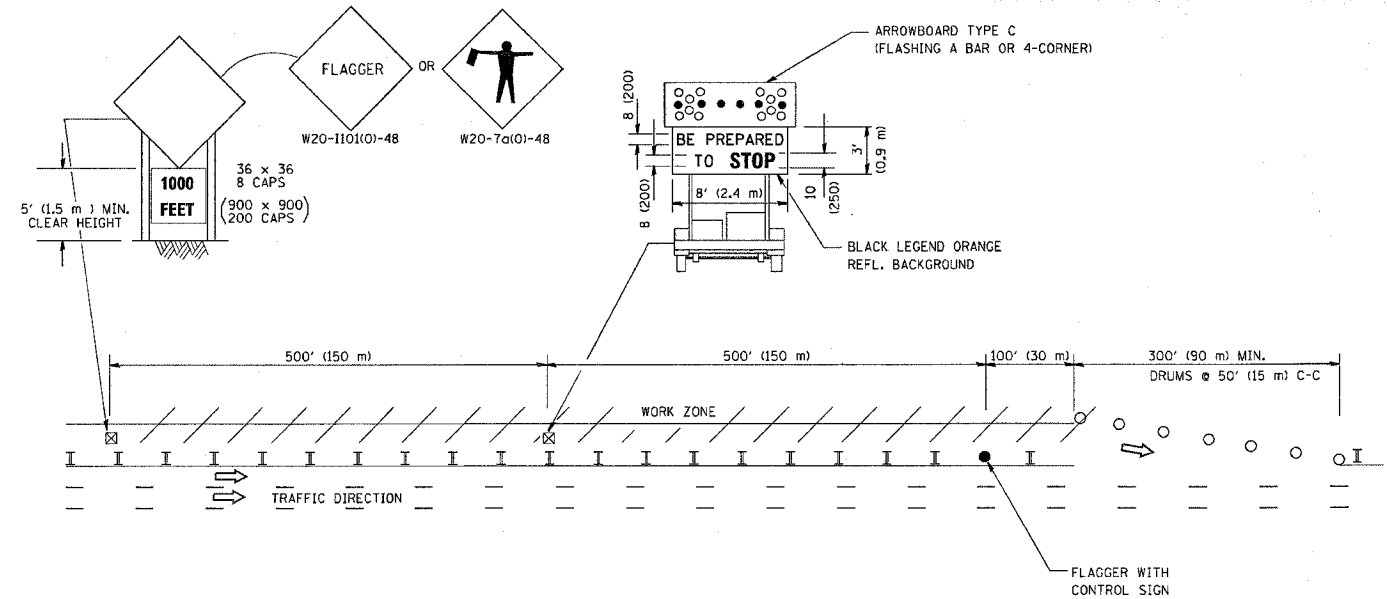
CHECKED BY

TC-16

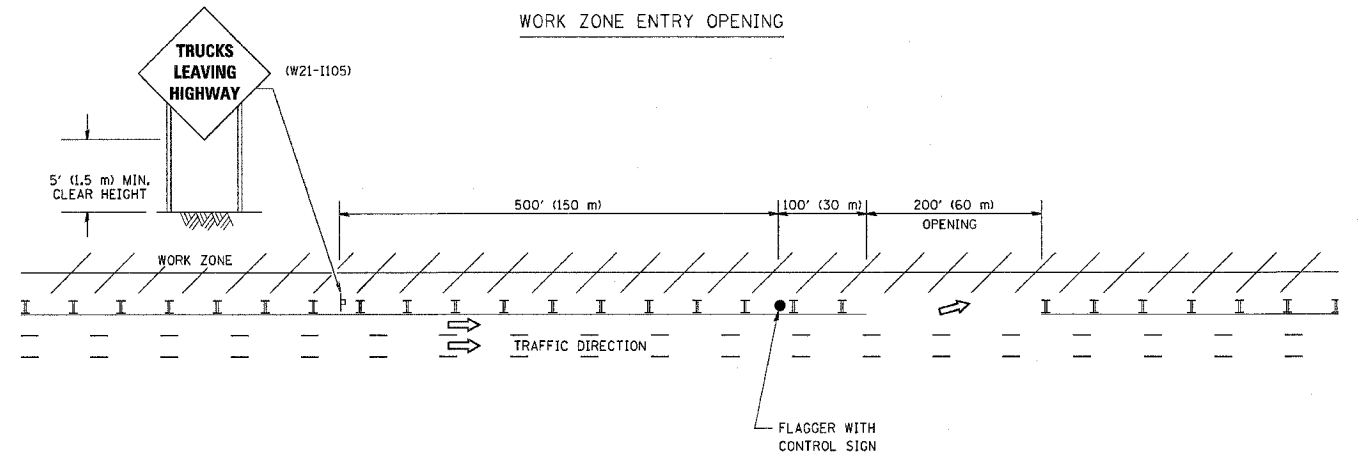
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
34B	82-1-N-1	COOK	196	165
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



NOTES:

1. The Arrowboard, the Flagger Ahead trailer mounted sign, and the Trucks Leaving Highway sign shall be removed or turned away from traffic and the exit and entry openings shall be closed when the flagging operation ceases.
2. Work Zone Exit Openings should be a minimum of one half mile apart.
3. Exiting the work zone at any place other than at a Work Zone Exit Opening will be prohibited.
4. All vehicles shall enter the work zone at entry openings, using their turn signals to warn motorists

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

REVISIONS	
NAME	DATE
DWS	8/98
JAF	4/03
JAF	2/06
SPB	1/07

ILLINOIS DEPARTMENT OF TRANSPORTATION
SIGNING FOR FLAGGING OPERATIONS
AT WORK ZONE OPENINGS

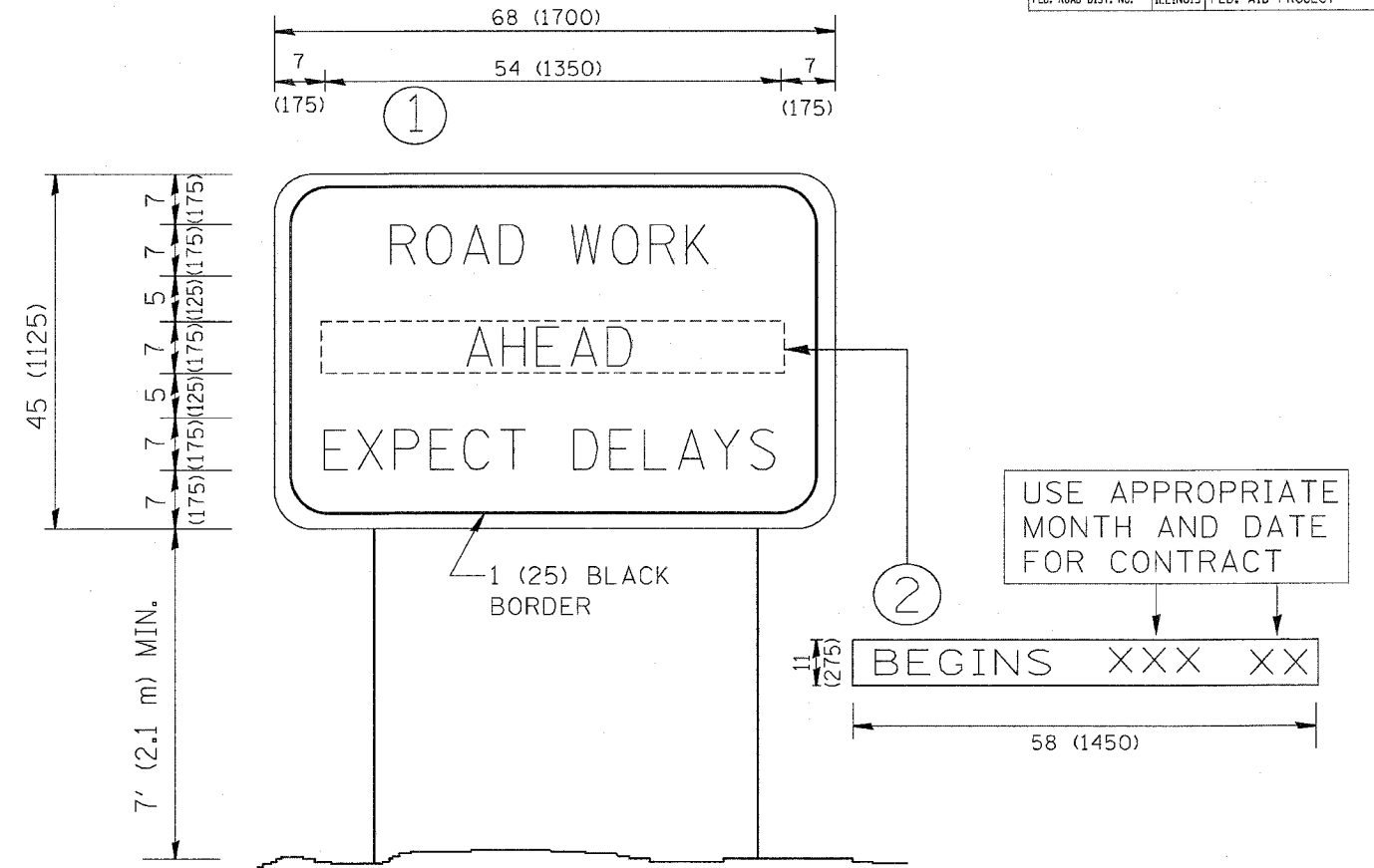
SCALE: NONE

DRAWN BY CADD

CHECKED BY

TC-18

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
245	82-1-N-1	Cook	196	166
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



NOTES:

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

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

REVISIONS	
NAME	DATE
R. MIRS	9-15-97
R. MIRS	12-11-97
T. RAMMACHER	2-2-99
C. JUCIUS	1-31-07

ILLINOIS DEPARTMENT OF TRANSPORTATION
ARTERIAL ROAD
INFORMATION SIGN

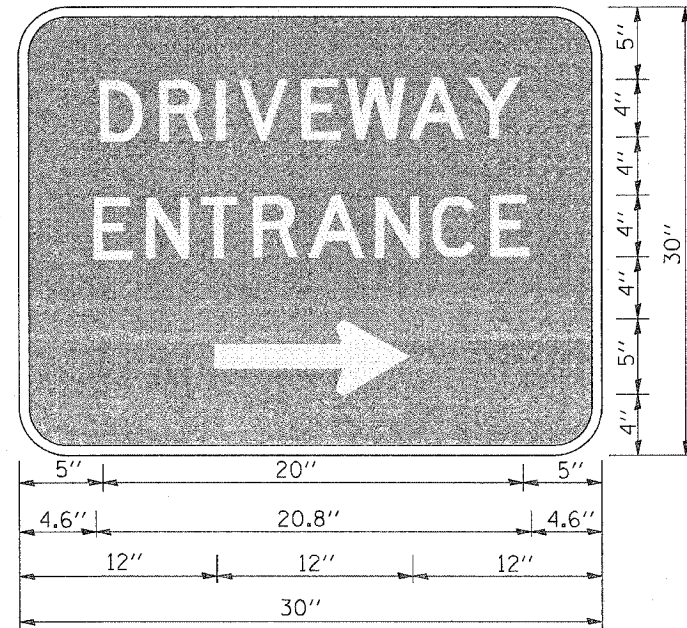
SCALE: NONE

DRAWN BY DESIGN
CHECKED BY

TC22

PLOT DATE = 3/6/2007
PLOT SCALE = 50:1
USER NAME = bawnd

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-1-N-1	Cook	196	167
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



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

NOTES:

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

PLOT DATE = 3/9/2007
 PLOT SCALE = 84000 / IN.
 USER NAME = Jajpa

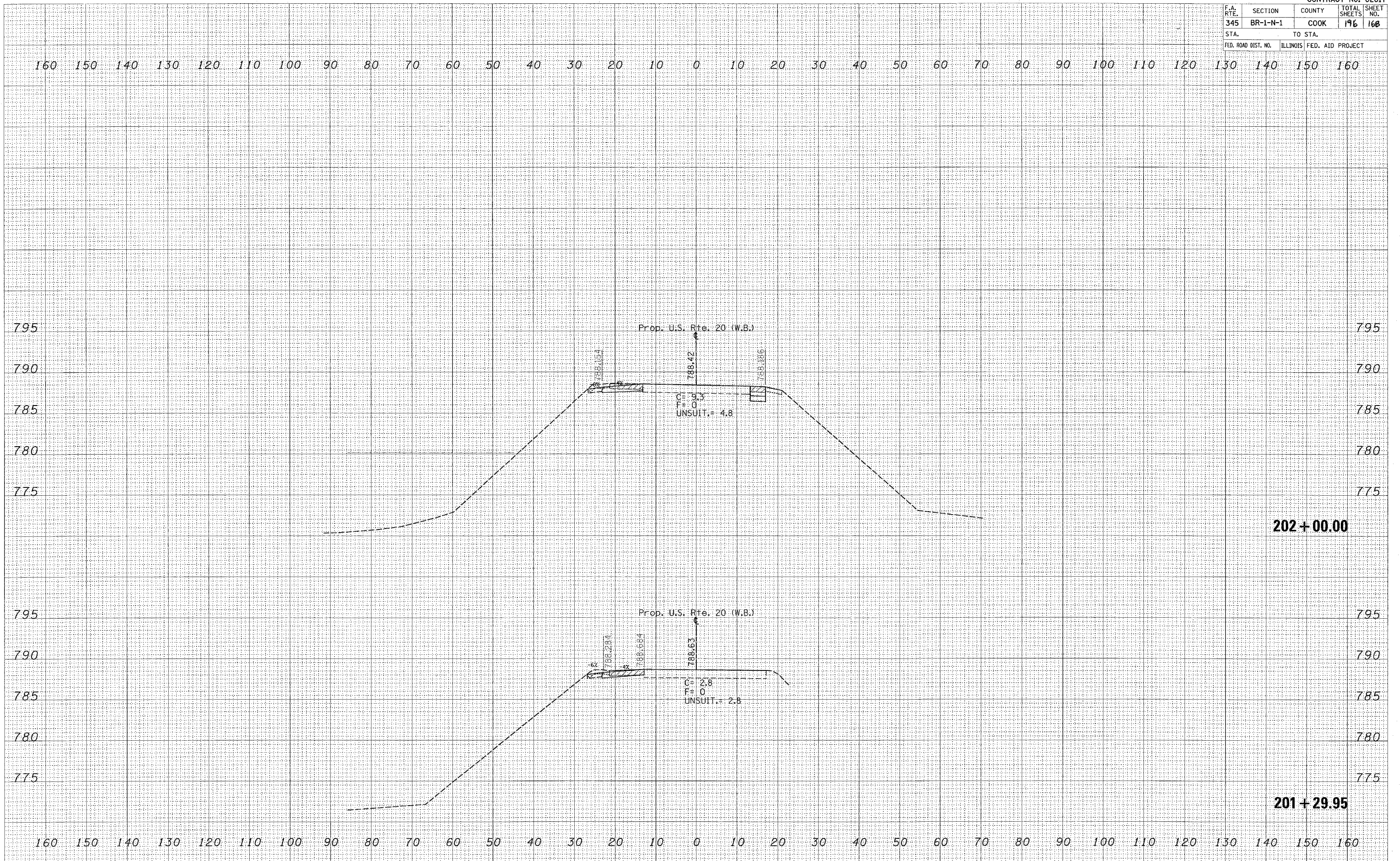
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
C. JUCIUS	02/15/07	DRIVEWAY ENTRANCE SIGNING SCALE: NONE DRAWN BY R.H. CHECKED BY TC-26

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-1-N-1	COOK	196	168
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

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

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

PLOT DATE = 2/16/2008
 FILE NAME = c:\pms\pms\113703\113703.dwg
 USER NAME = g00000

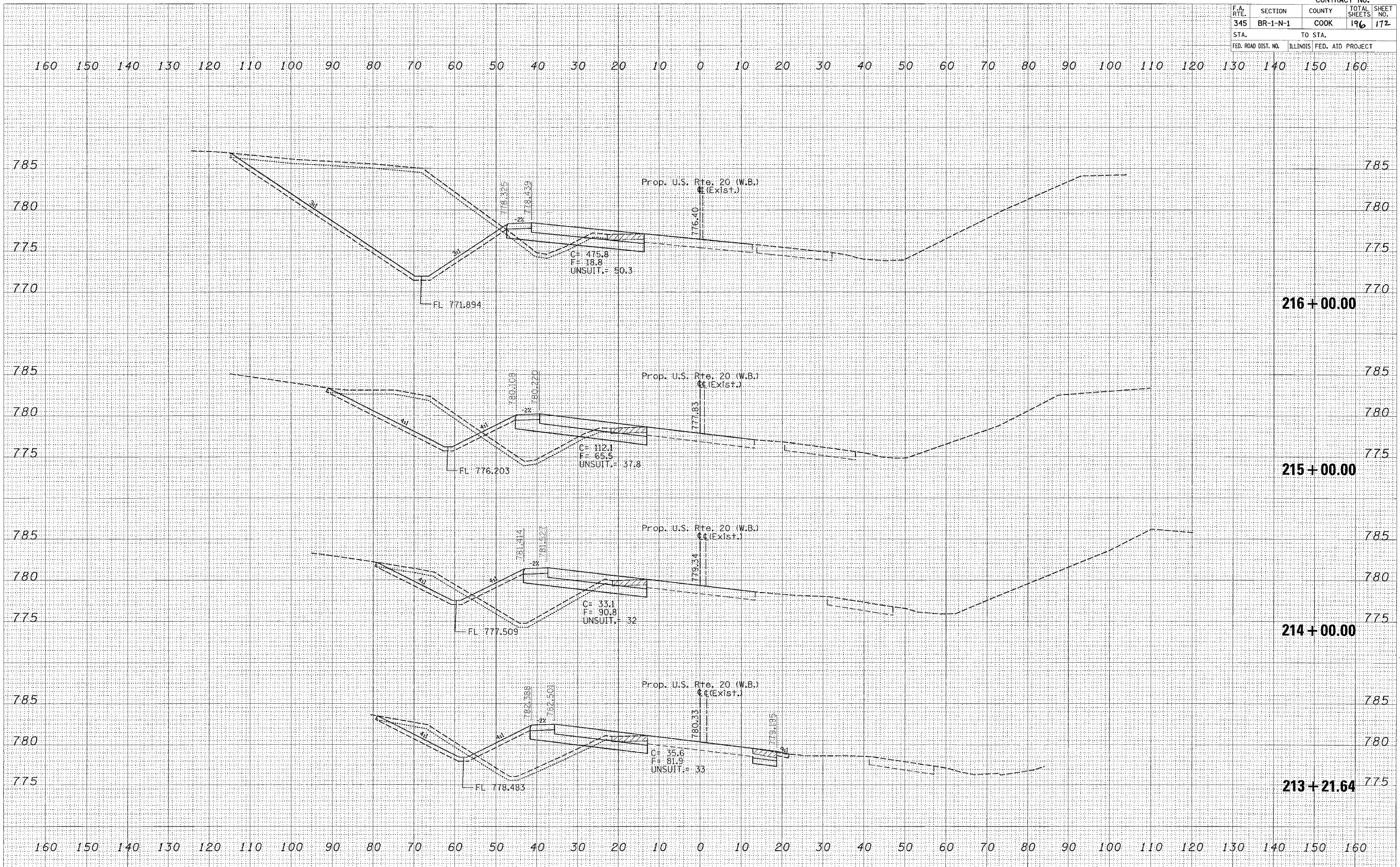


CONTRACT NO.				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-1-N-1	COOK	196	172
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

DATE	
BY	
SURVEYED	
NOTE BOOK	
TEMPLATE	
AREAS CHECKED	
AREAS CHECKED	

DATE	
BY	
SURVEYED	
NOTE BOOK	
TEMPLATE	
AREAS CHECKED	
AREAS CHECKED	

PLOT DATE = 2/15/2008
 FILE NAME = c:\p\p\p\p\13703\w\w26\w26.dwg
 PLOT SCALE = 1/8" = 100'
 USER NAME = abbeba

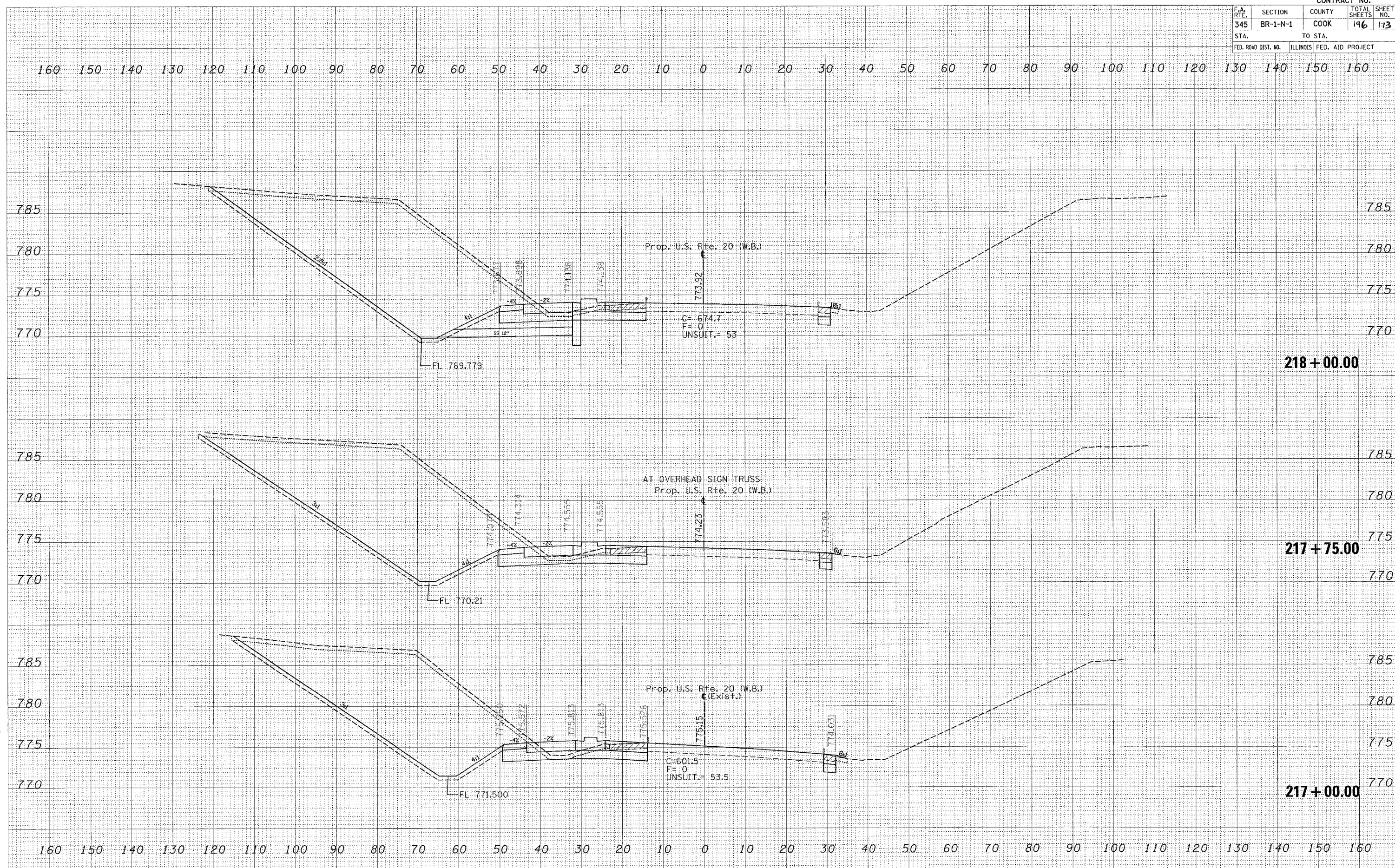


CONTRACT NO.				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-1-N-1	COOK	196	173
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

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

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

PLOT DATE = 2/16/2008
 FILE NAME = c:\pvc\pvc\13783\m-h28.mxd
 PLOT SCALE = 1/8" = 100'
 USER NAME = abbas

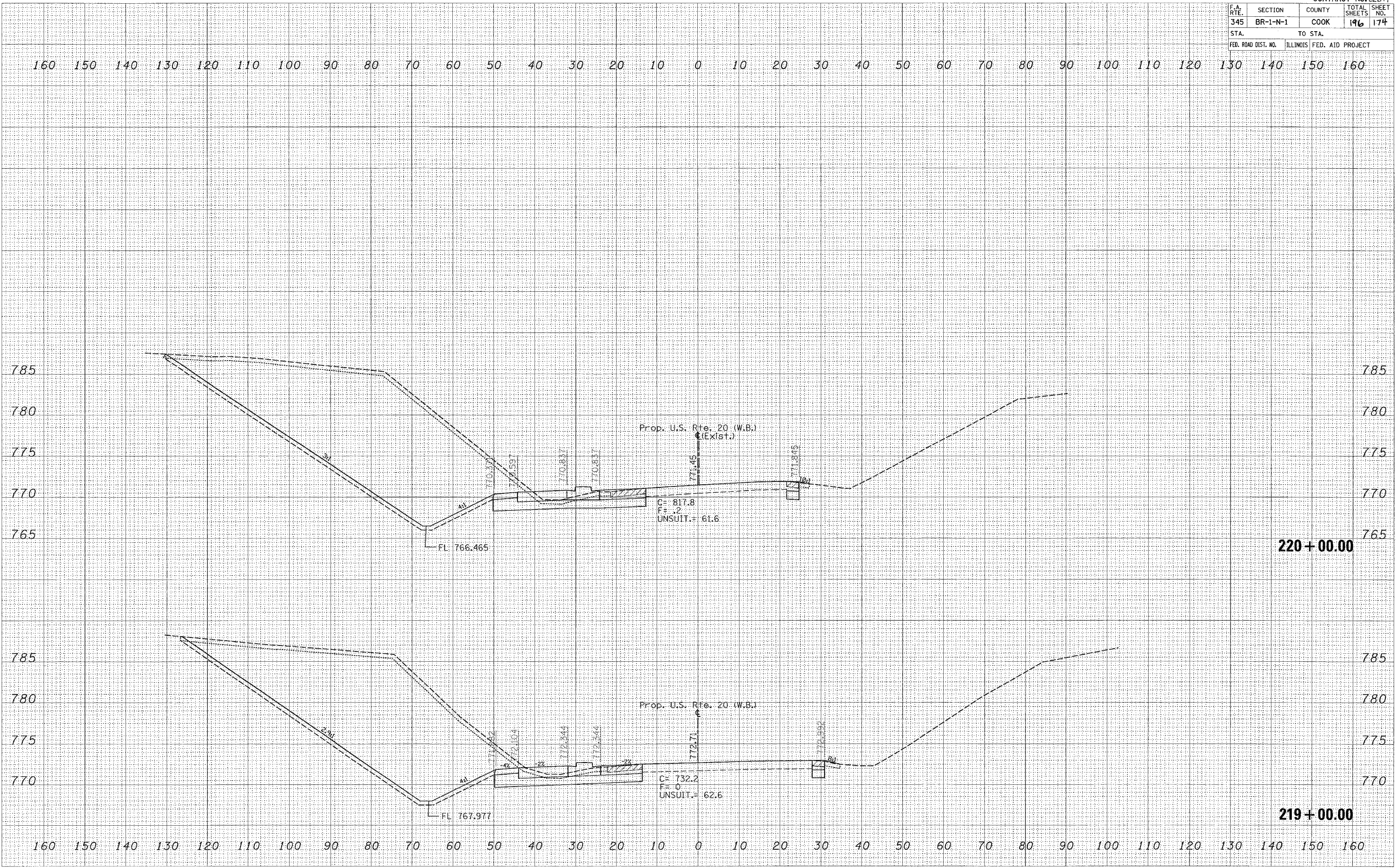


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-1-N-1	COOK	196	174
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	FORM LOG		
NO.	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	FORM LOG		
NO.	AREAS CHECKED		

PLOT DATE = 2/16/2008
 FILE NAME = c:\pvs\pvs\113703\w20.w20.mxd
 PLOT SCALE = 1/8" = 100'
 USER NAME = abbasw

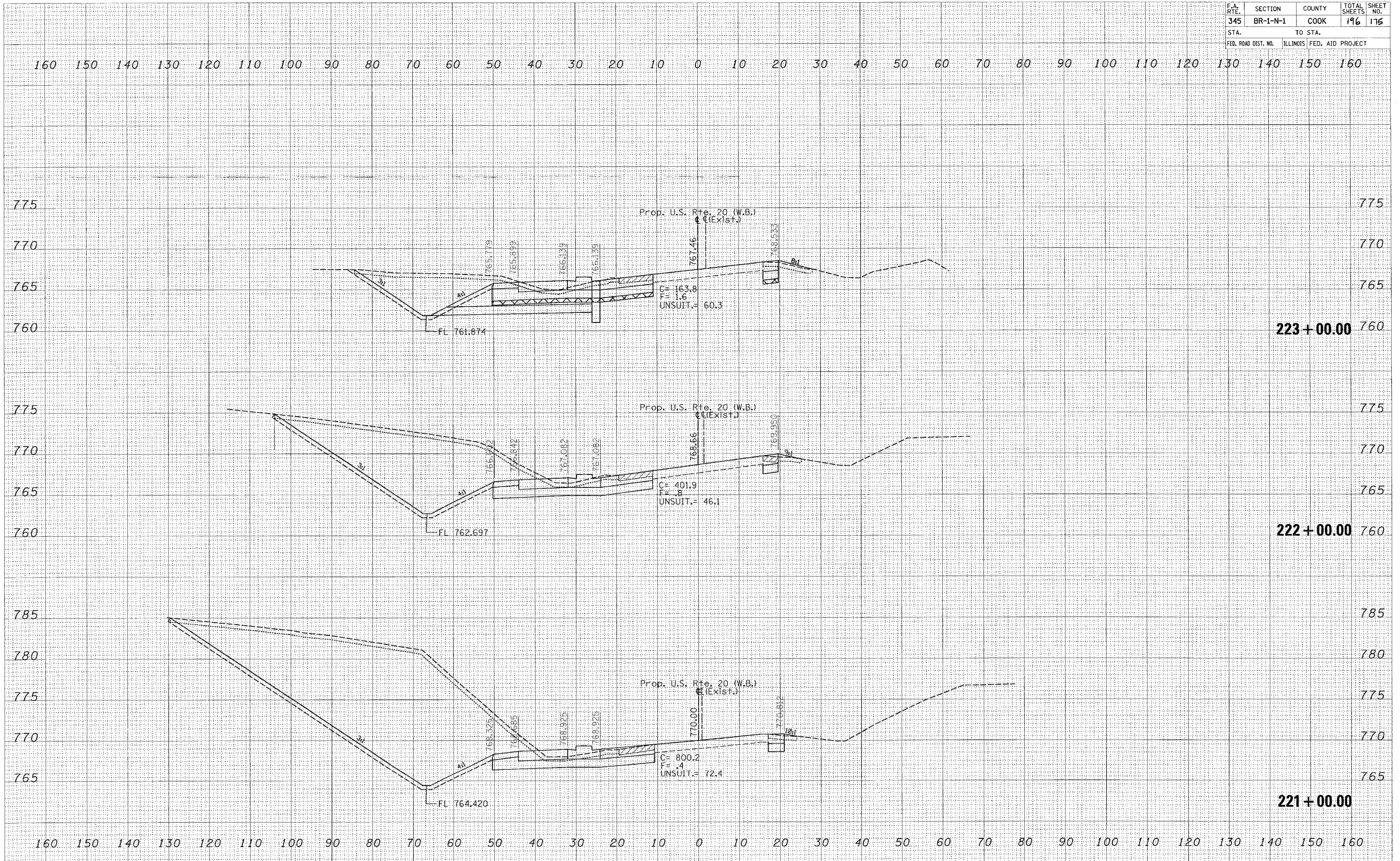


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-1-N-1	COOK	196	176
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

FINAL SURVEY	DATE
BY	
NO.	

ORIGINAL SURVEY	DATE
BY	
NO.	

PLOT DATE = 2/16/2008
 FILE NAME = c:\projects\113783\va_1622_ah.dwg
 PLOT SCALE = 10.0000 / IN.
 USER NAME = ahawes

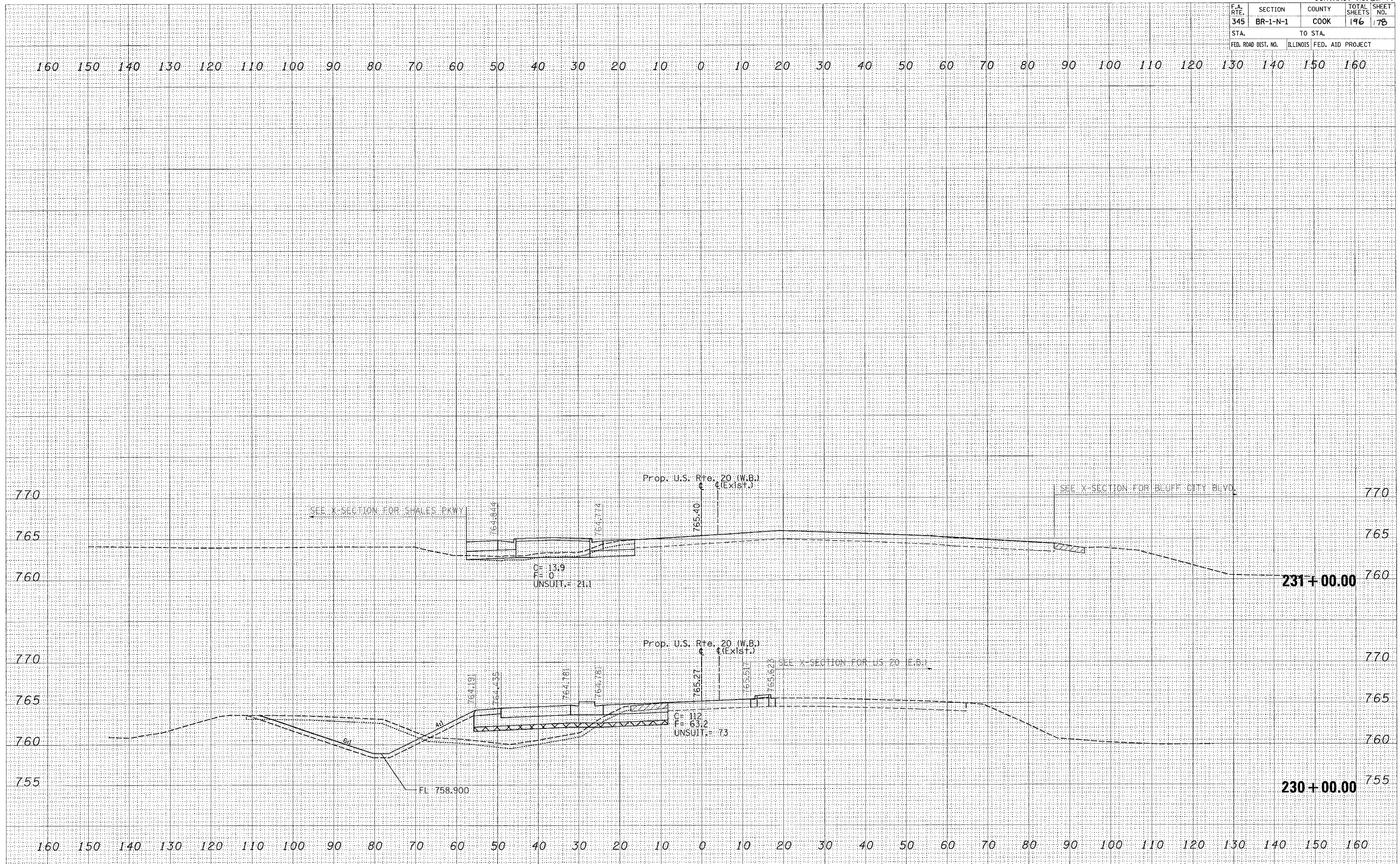


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	BR-1-N-1	COOK	196	178
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

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

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

PLOT DATE = 2/16/2008
 FILE NAME = c:\p\projects\113723\vs_b28_shd\pnotebook
 PLOT SCALE = 1/8" = 100'
 USER NAME = subans



SEE X-SECTION FOR SHALES PKWY

SEE X-SECTION FOR BLUFF CITY BLVD

SEE X-SECTION FOR US 20 (E.B.)

C = 13.9
 F = 0
 UNSUIT. = 21.1

C = 112
 F = 63.2
 UNSUIT. = 73

FL 758.900

231+00.00

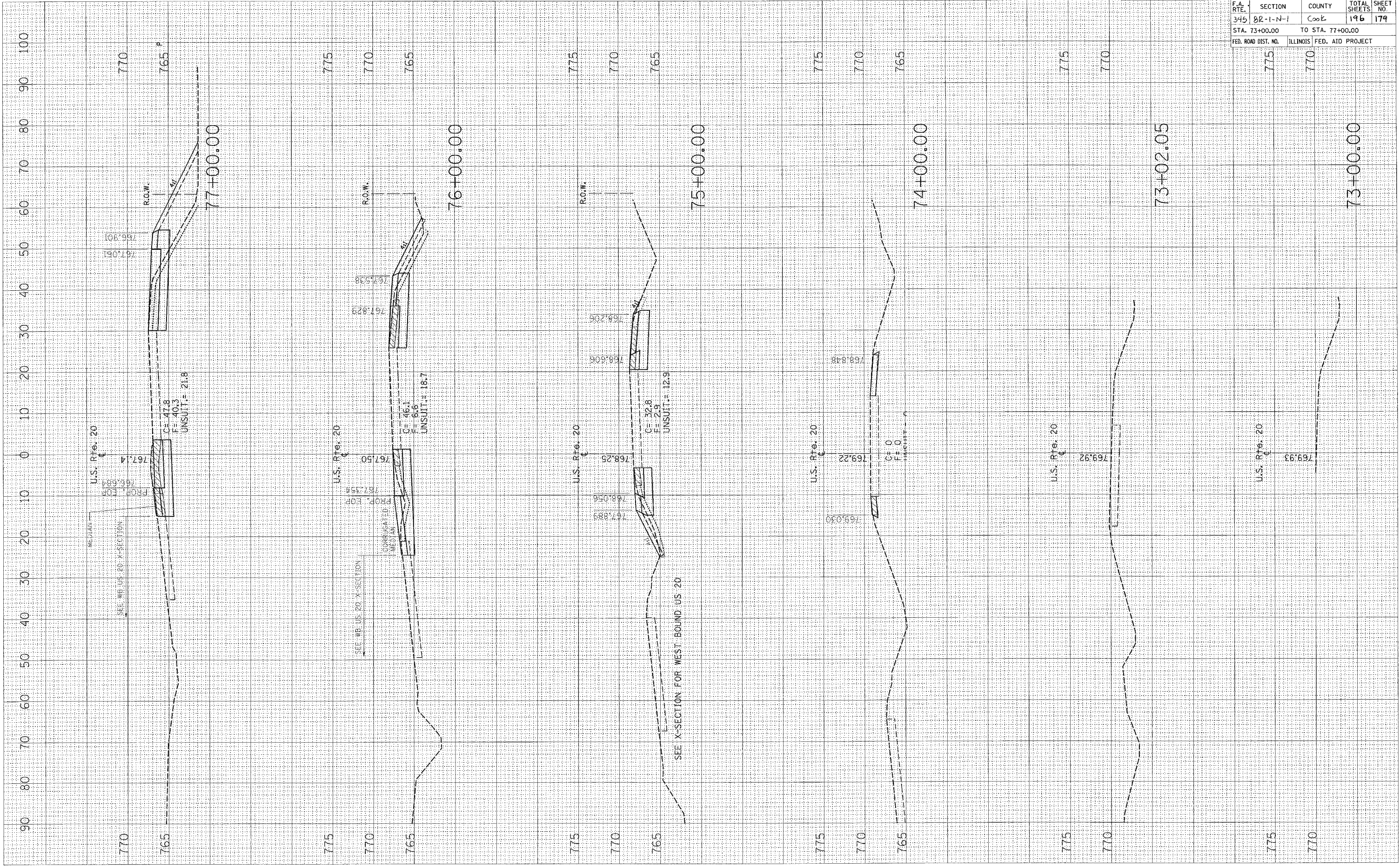
230+00.00

PLOT DATE = 11/15/2007
 FILE NAME = c:\p\projects\113783\un20_ah\p\p\notebook
 PLOT SCALE = 10.0000 / IN.
 USER NAME = abbas

ORIGINAL SURVEYED
 SURVEY BOOK TEMPLATE
 AREAS CHECKED

FINAL SURVEYED
 SURVEY BOOK TEMPLATE
 AREAS CHECKED

BY _____ DATE _____

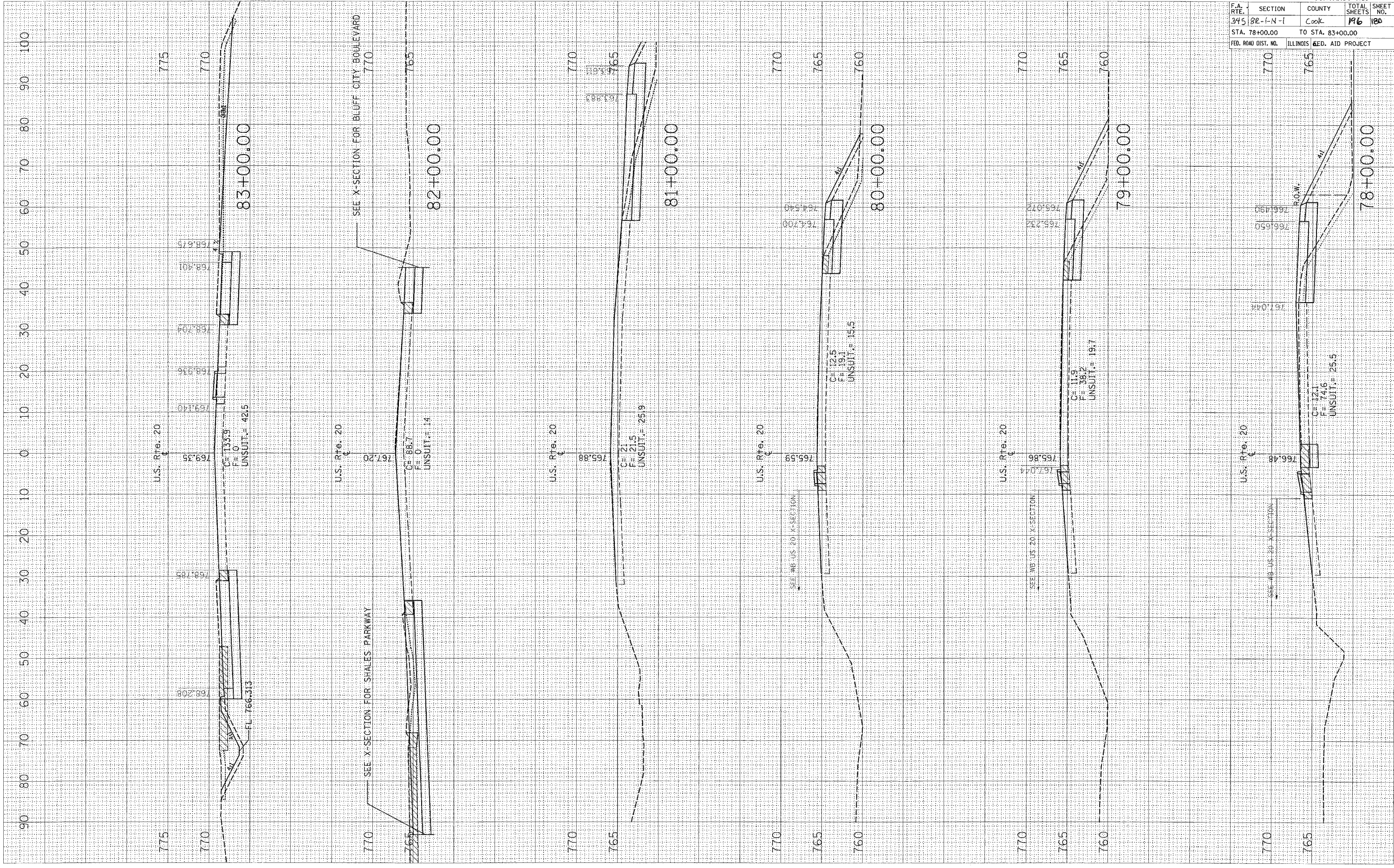


CONTRACT NO. 62617				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
245	82-1-N-1	Cook	196	179
STA. 73+00.00 TO STA. 77+00.00				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

PLOT DATE = 11/15/2007
 FILE NAME = c:\p\proj\sta\113783\va.un28.shd
 PLOT SCALE = 0.0000' / IN.
 USER NAME = abbeaux

ORIGINAL SURVEY BY DATE
 SURVEYED BY DATE
 SURVEYED BY DATE
 TEMPLATE NO.
 AREAS CHECKED
 AREAS CHECKED

FINAL SURVEY BY DATE
 SURVEYED BY DATE
 SURVEYED BY DATE
 TEMPLATE NO.
 AREAS CHECKED
 AREAS CHECKED

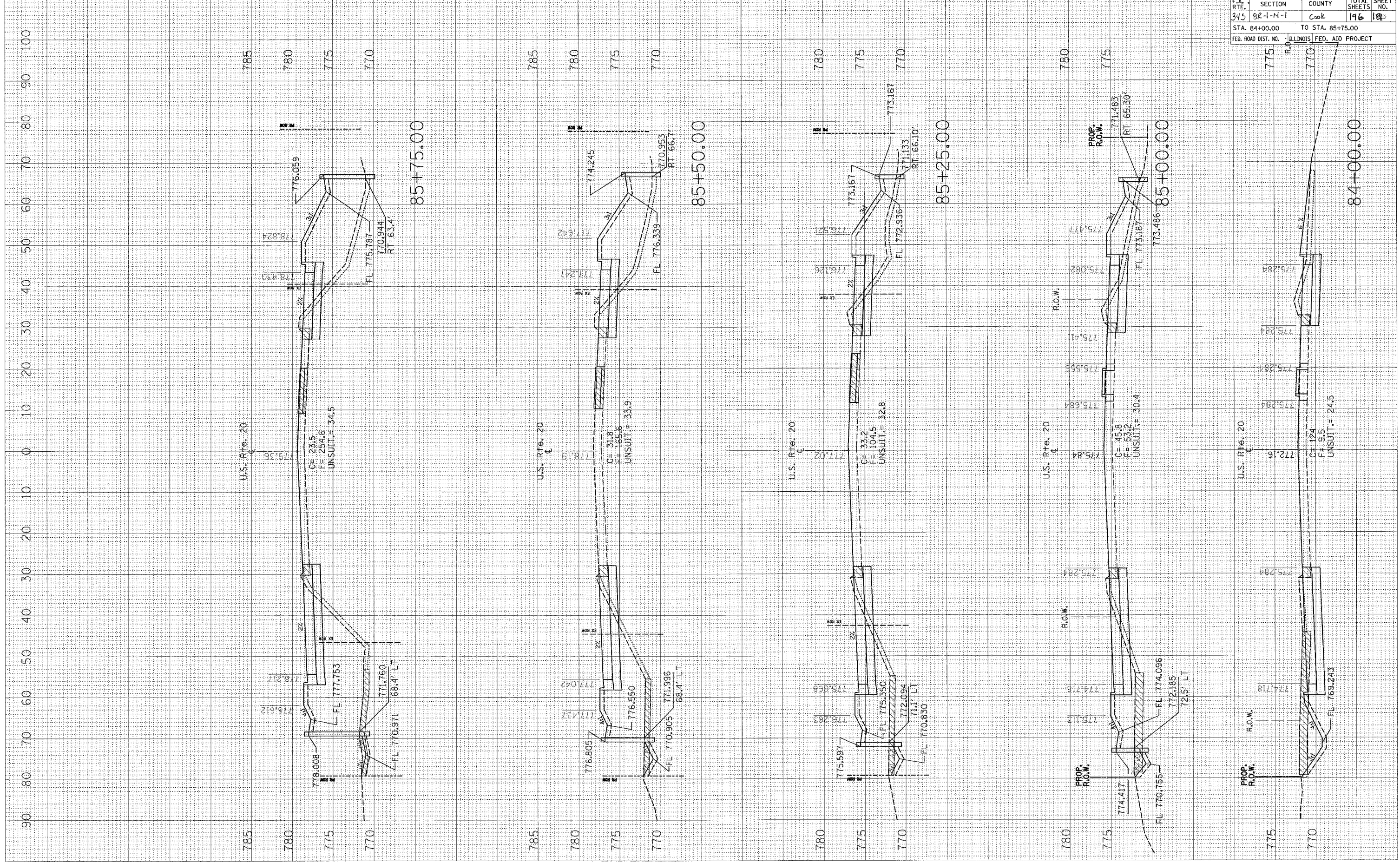


F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	82-1-N-1	Cook	196	180
STA. 78+00.00		TO STA. 83+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

PLOT DATE = 11/15/2007
 FILE NAME = s:\projects\13783\13783.dwg
 PLOT SCALE = 10.0000 / IN.
 USER NAME = abbas

ORIGINAL SURVEY
 SURVEYED BY
 PLOTTED BY
 TEMPLATE NO.
 PLOT DATE

FINAL SURVEY
 SURVEYED BY
 PLOTTED BY
 TEMPLATE NO.
 PLOT DATE



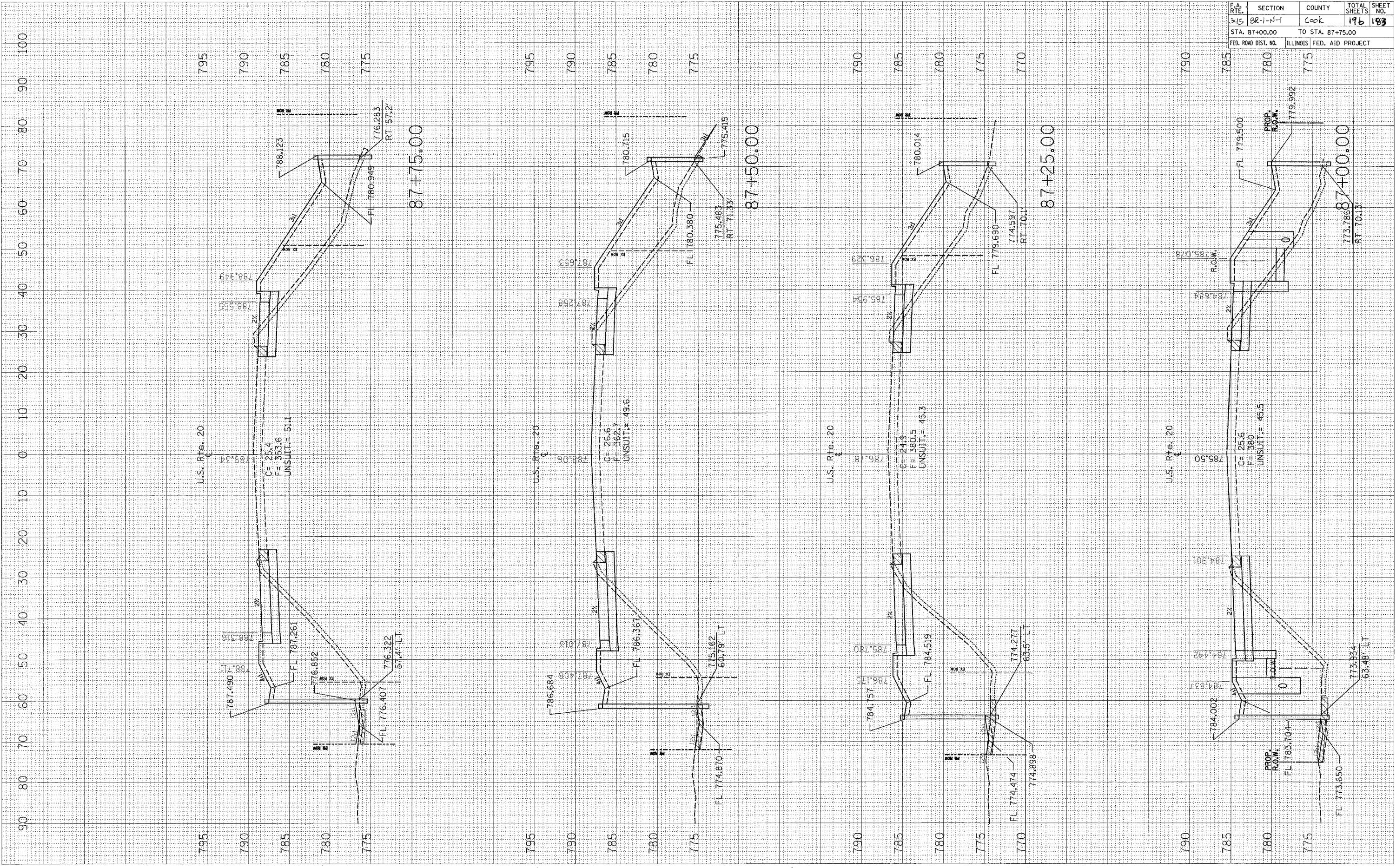
F.A. RTE.		SECTION		COUNTY		TOTAL SHEETS		SHEET NO.	
345		BR-1-N-1		Cook		196		120	
STA. 84+00.00				TO STA. 85+75.00					
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT							

CONTRACT NO. 62617

PLOT DATE = 11/15/2007
 FILE NAME = c:\pco\mets\dl13703\st.un20.dwg
 PLOT SCALE = 1/8" = 1' IN.
 USER NAME = ababbas

ORIGINAL SURVEY BY DATE
 SURVEYED BY DATE
 TEMPLATE NO.
 AREAS CHECKED

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



CONTRACT NO. 62617			
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS
345	8R-1-N-1	Cook	196
STA. 87+00.00		TO STA. 87+75.00	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	

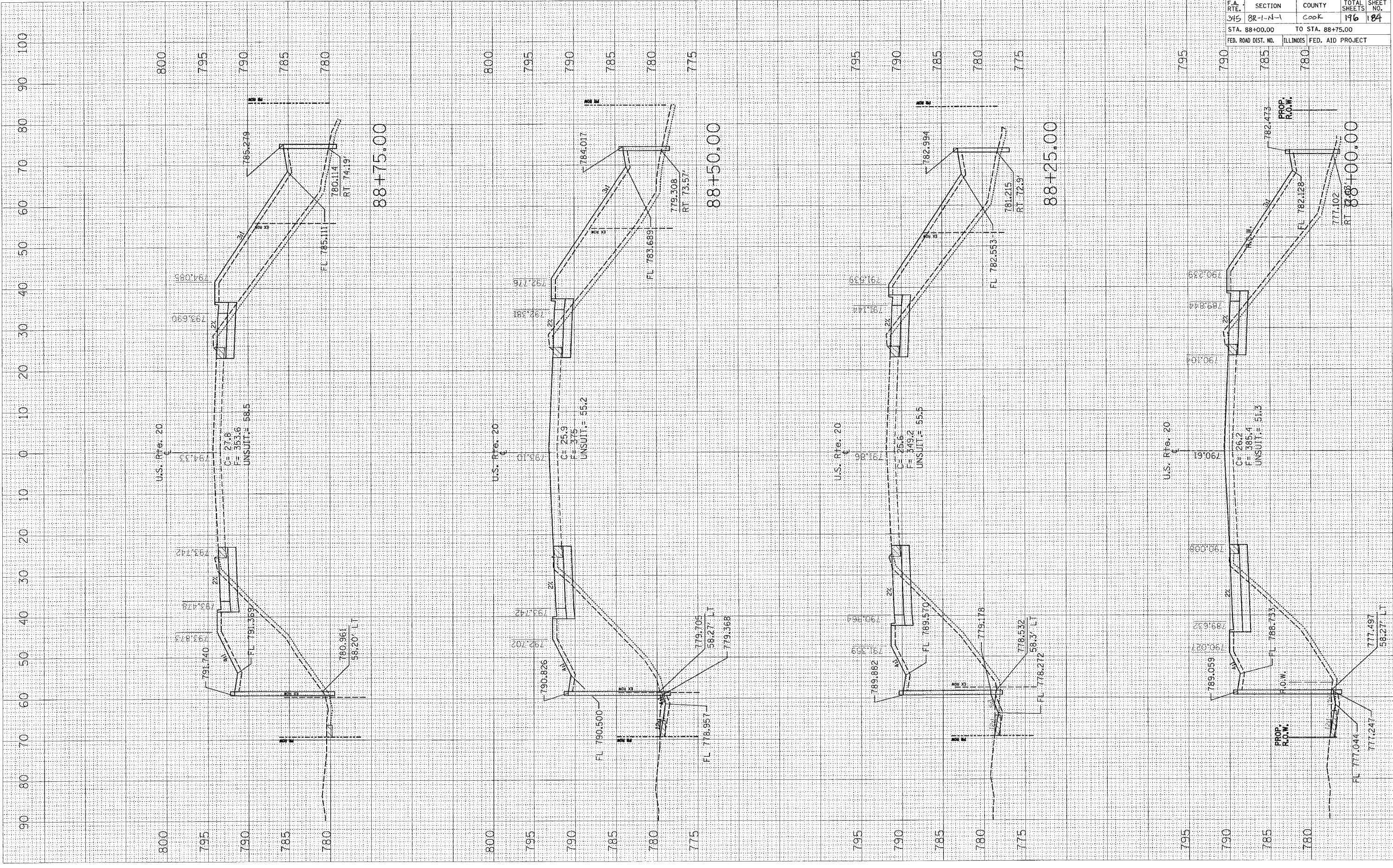
90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100
 795 790 785 780 775
 795 790 785 780 775
 790 785 780 775 770
 790 785 780 775

PLOT DATE = 11/15/2007
 FILE NAME = c:\pwc\projects\113783\asun28.sh\p1c1e.dwg
 PLOT SCALE = 10.0000 / IN.
 USER NAME = ababaw

ORIGINAL SURVEY PLOTTED
 SURVEY PLOTTED
 TEMPLATE AREAS CHECKED

FINAL SURVEY PLOTTED
 SURVEY PLOTTED
 TEMPLATE AREAS CHECKED

BY: _____ DATE: _____



CONTRACT NO. 62617			
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS
345	8R-1-N-1	COOK	196
STA. 88+00.00		TO STA. 88+75.00	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

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

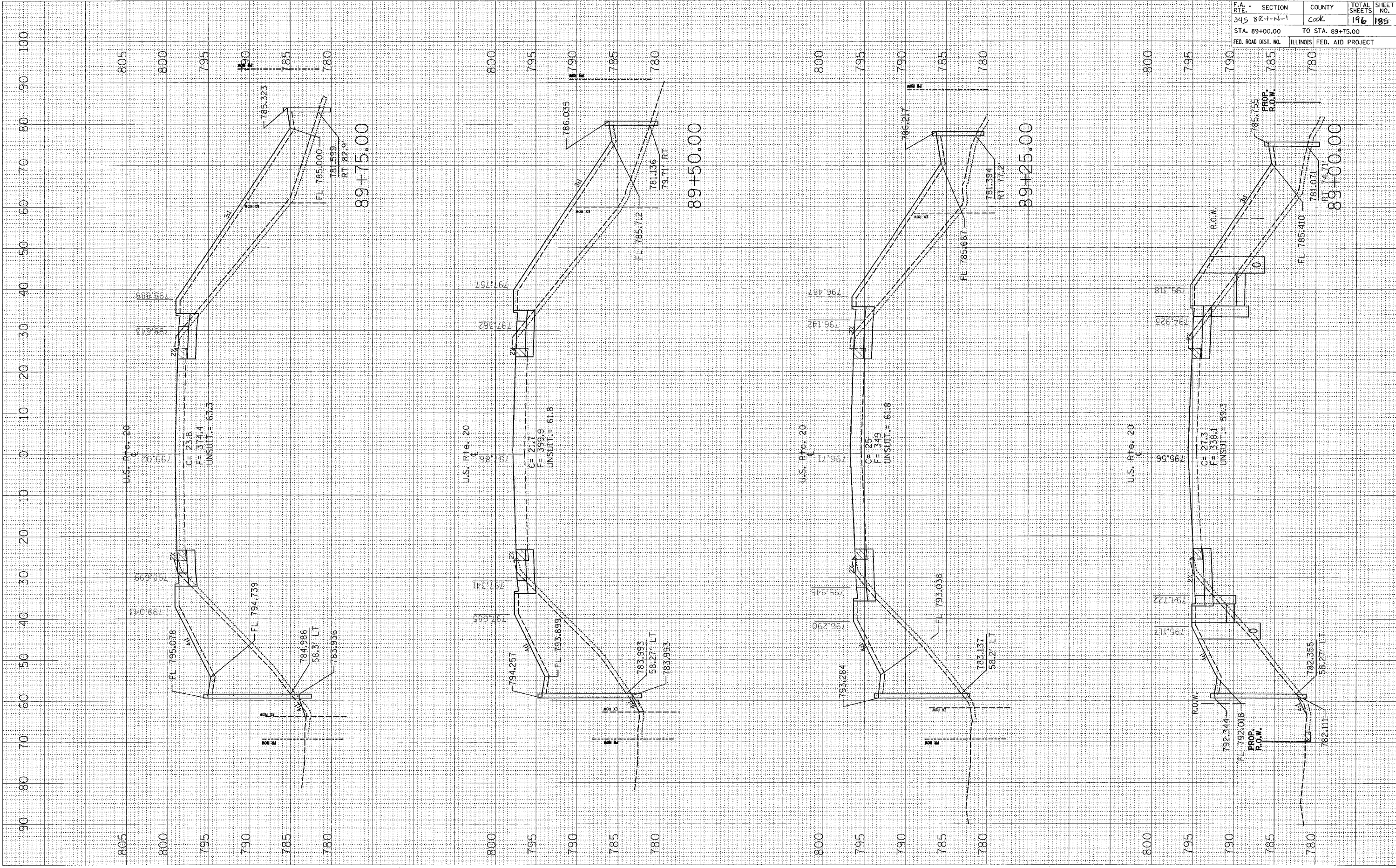
PLOT DATE = 11/15/2007
FILE NAME = c:\pbc\mets\d13783\re\m28.mxd
PLOT SCALE = 10.0000' / IN.
USER NAME = abibbas

ORIGINAL SURVEY
NO. _____
DATE _____
BY _____

QUANTITY
NO. _____
DATE _____
BY _____

FINAL SURVEY
NO. _____
DATE _____
BY _____

QUANTITY
NO. _____
DATE _____
BY _____



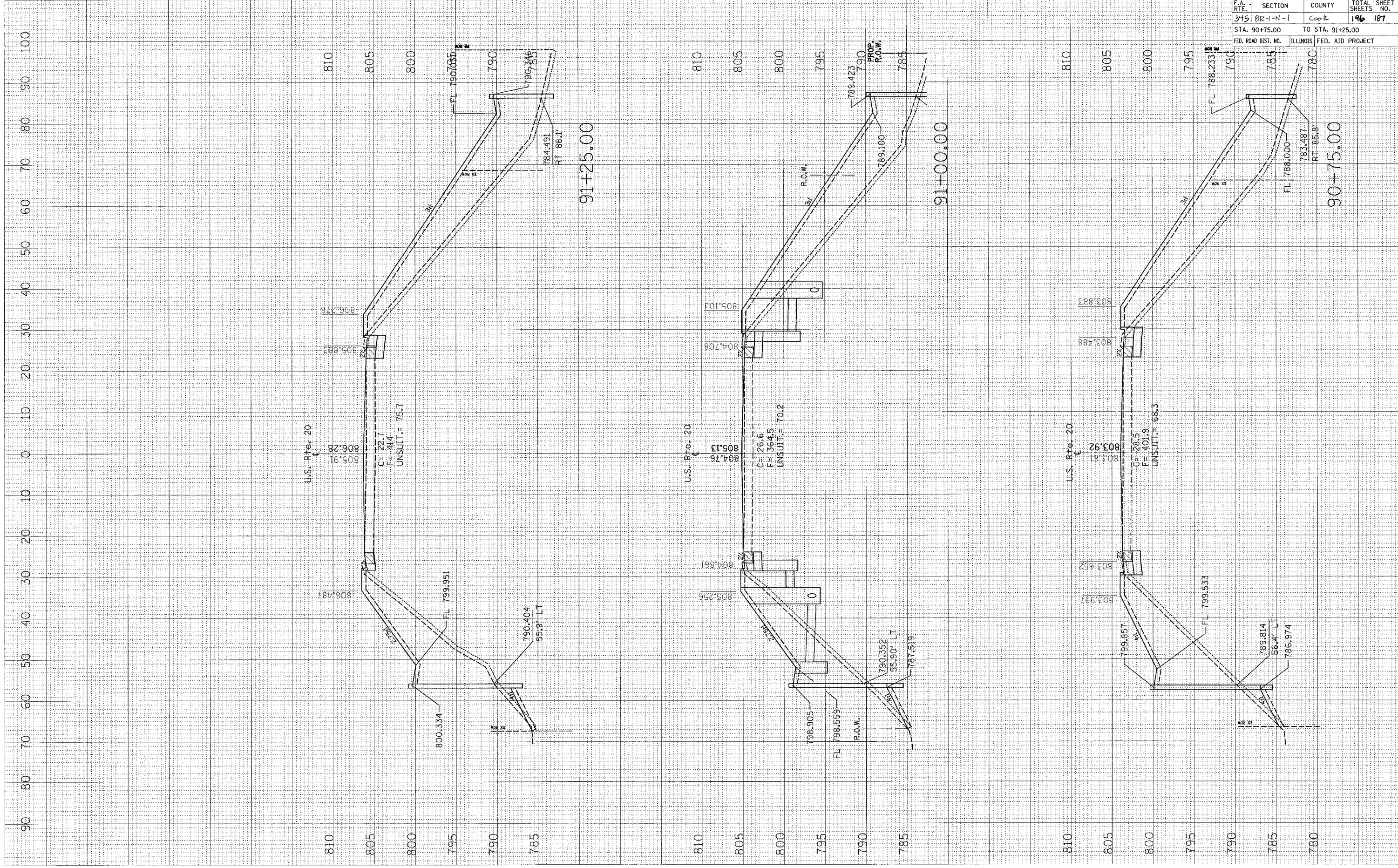
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	8R-1-N-1	Cook	196	185

STA. 89+00.00 TO STA. 89+75.00
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

PLOT DATE = 12/29/2007
 FILE NAME = c:\pco\pcsa\dl13783\un20.shd
 PLOT SCALE = 10.0000 / IN.
 USER NAME = abbase

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

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



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	8R-1-N-1	Cook	196	187
STA. 90+75.00 TO STA. 91+25.00		ILLINOIS FED. AID PROJECT		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

91+25.00

91+00.00

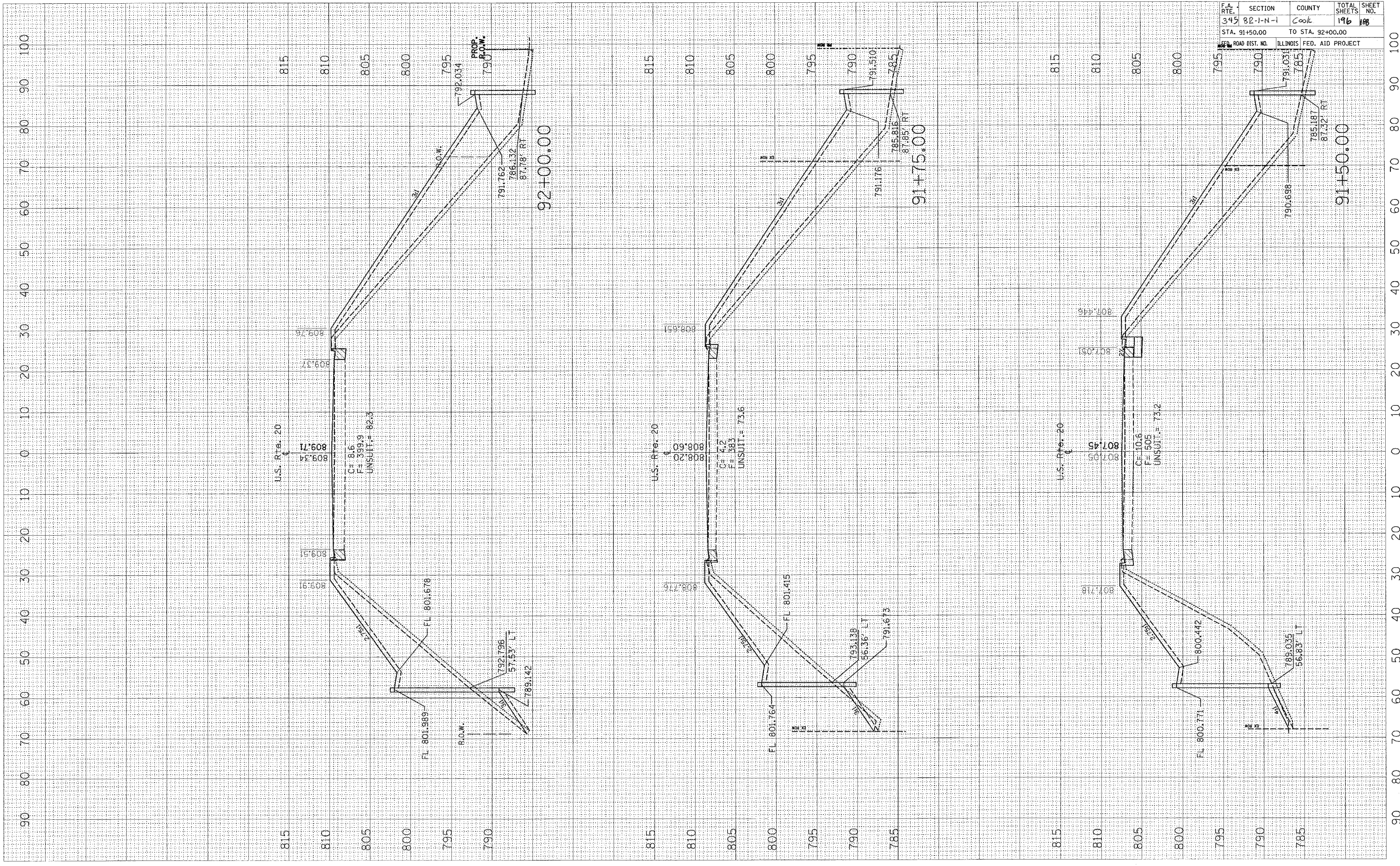
90+75.00

PLOT DATE = 12/01/2007
 FILE NAME = c:\pco\proj\ad13783\va_028.shp
 PLOT SCALE = 10.0000 / IN.
 USER NAME = abobans

ORIGINAL SURVEY
 SURVEY NOTE BOOK NO.
 TEMPLATE AREAS CHECKED

FINAL SURVEY
 SURVEY NOTE BOOK NO.
 TEMPLATE AREAS CHECKED

BY DATE



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	82-1-N-1	Cook	196	106
STA. 91+50.00		TO STA. 92+00.00		
ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

92+00.00

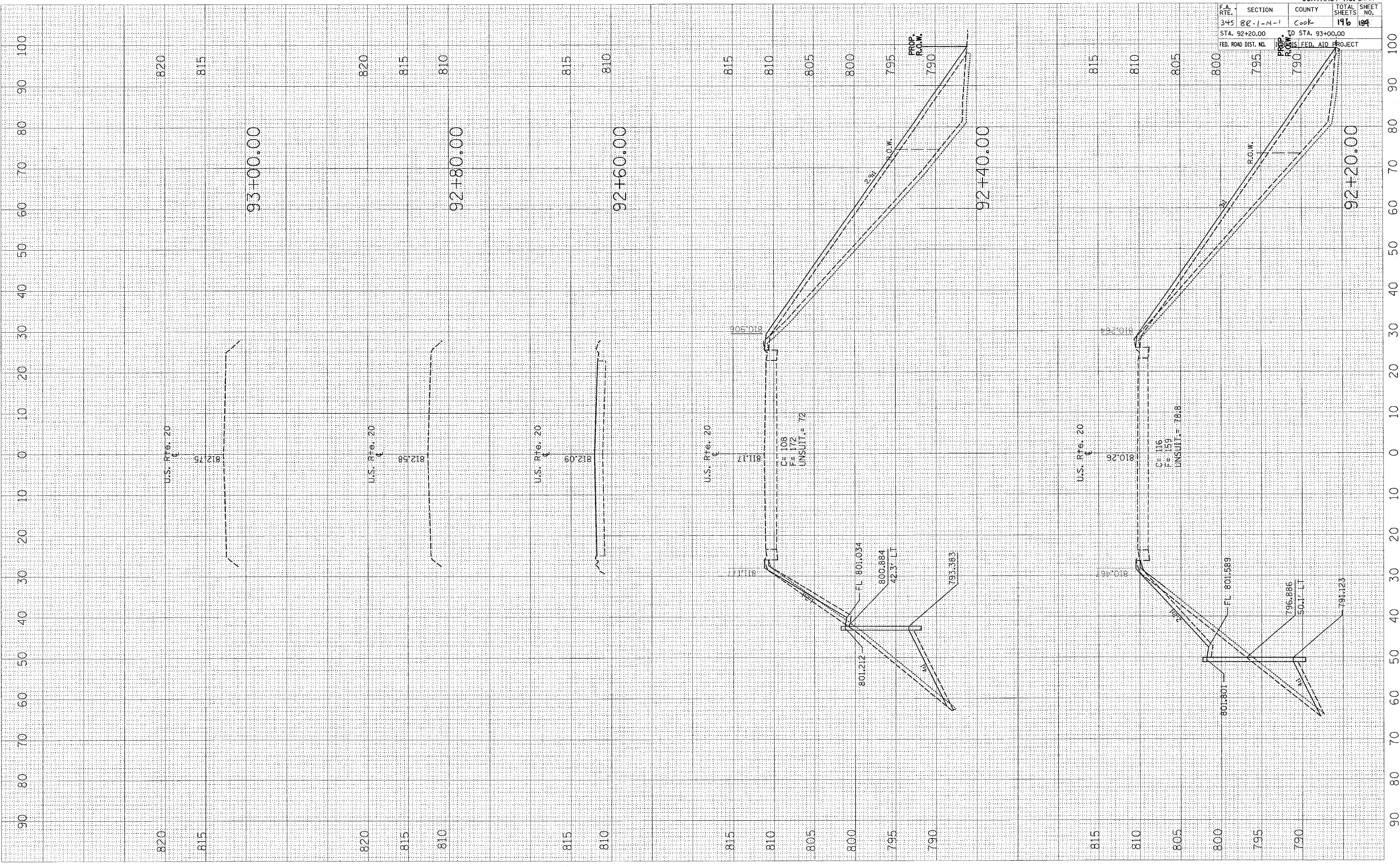
91+75.00

91+50.00

PLOT DATE = 12/8/2007
 FILE NAME = c:\proje\ah\13783\ah\ah28_ah.dwg
 PLOT SCALE = 1/8"=1'-0"
 USER NAME = abebans

ORIGINAL SURVEY BY DATE
 SURVEYED SURVEY NO.
 TEMPLATE NO.
 AREAS CHECKED

FINAL SURVEY BY DATE
 SURVEYED SURVEY NO.
 TEMPLATE NO.
 AREAS CHECKED



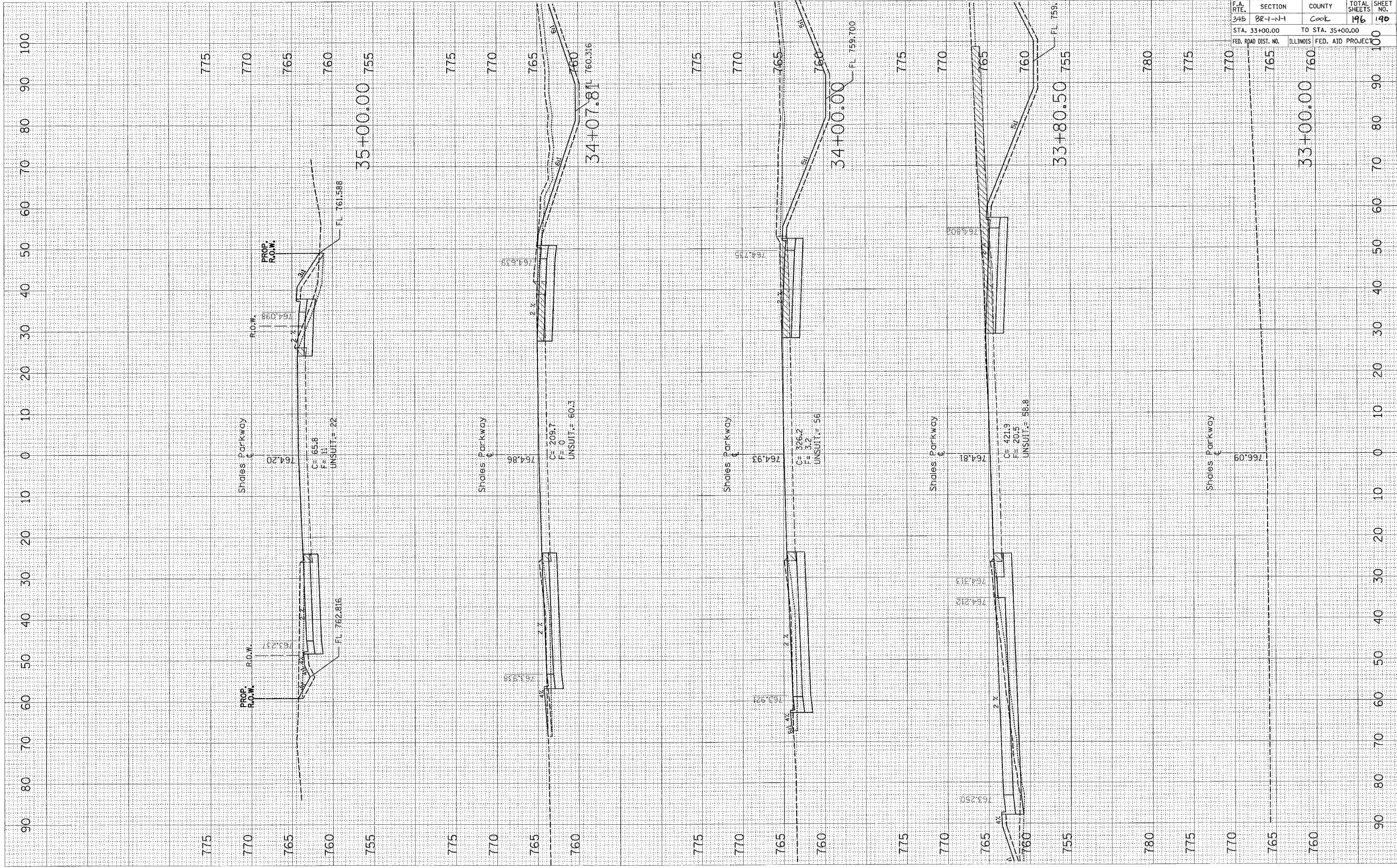
CONTRACT NO. 62417				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	82-1-4-1	Cook	196	184
STA. 92+20.00		TO STA. 93+00.00		
FED. ROAD DIST. NO.		PROJ. R.O.W. PROJECT		

PLOT DATE = 11/16/2007
 FILE NAME = c:\pco\jms\113703\va_shales.shp\pco.dwg
 PLOT SCALE = 18.0000 / IN.
 USER NAME = dabbas

ORIGINAL SURVEY PLOTTED AREAS CHECKED
 NO. _____

FINAL SURVEY PLOTTED AREAS CHECKED
 NO. _____

BY _____
 DATE _____



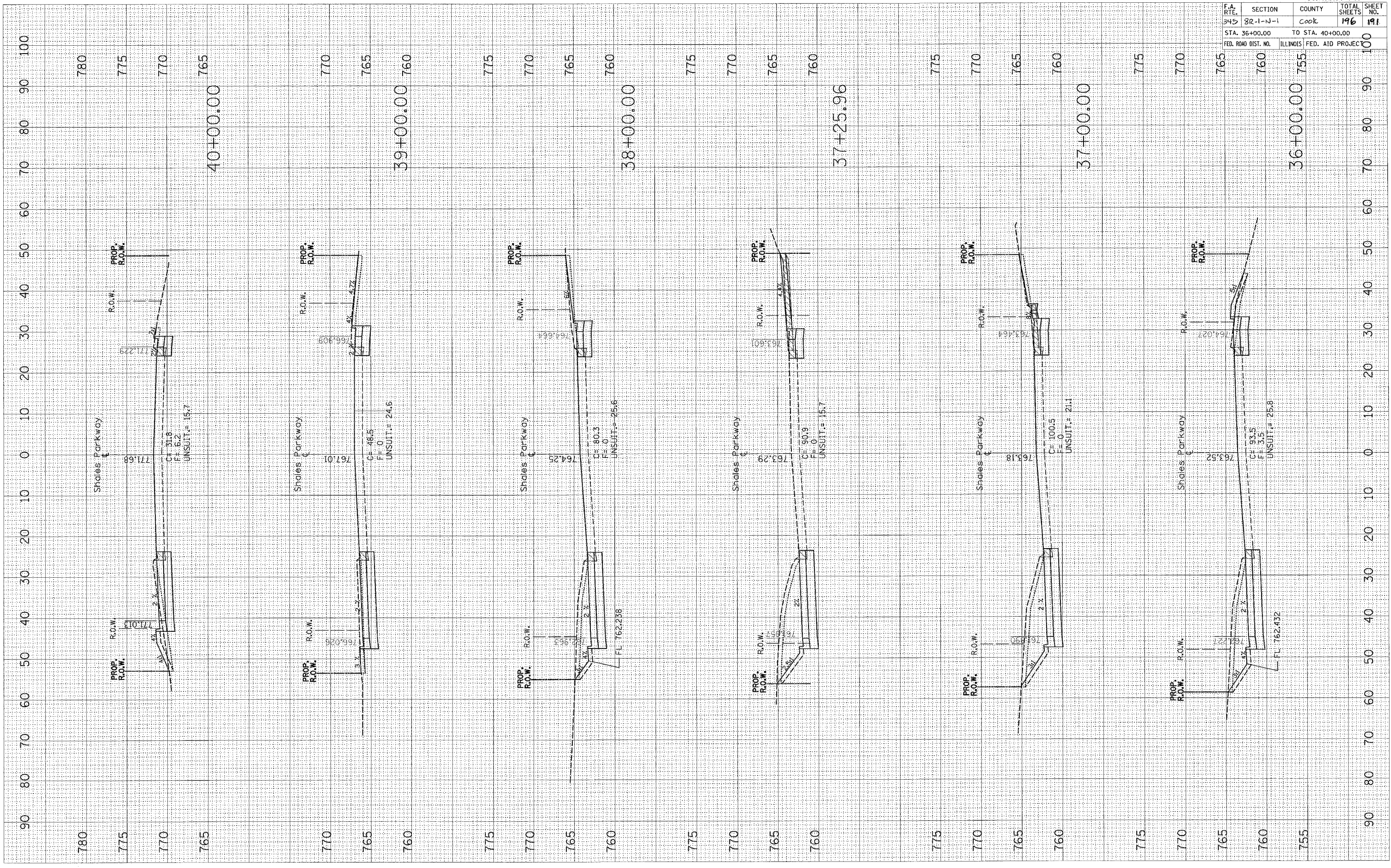
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	82-1-1-1	Cook	196	190
STA. 33+00.00		TO STA. 35+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

CONTRACT NO. 62617

PLOT DATE = 11/16/2007
 FILE NAME = c:\projet\112783\shales.dwg
 PLOT SCALE = 1/8" = 1' IN.
 USER NAME = ababbs

ORIGINAL SURVEY
 SURVEY NO. _____
 DATE _____
 SURVEYED BY _____
 TEMPLATE AREAS CHECKED _____

FINAL SURVEY
 SURVEY NO. _____
 DATE _____
 SURVEYED BY _____
 TEMPLATE AREAS CHECKED _____

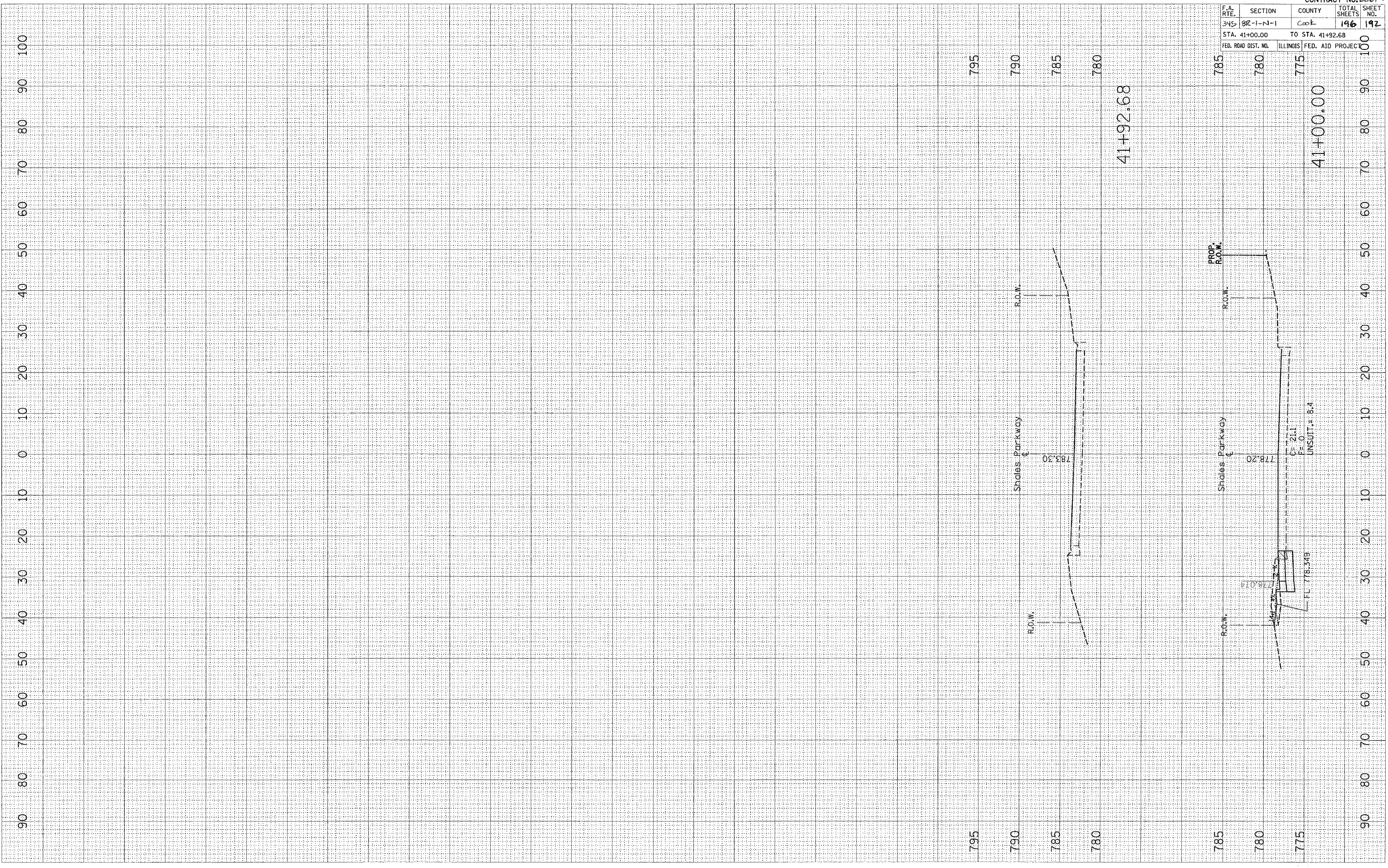


CONTRACT NO.				
F.A. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	82-1-N-1	Cook	196	191
STA. 36+00.00		TO STA. 40+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

PLOT DATE = 11/16/2007
 FILE NAME = c:\pro\pcta\dl13783\shales\shales.dwg
 PLOT SCALE = 10.0000' / 1"

ORIGINAL SURVEY NO. _____
 SURVEYED BY _____
 DATE _____
 TEMPLATE _____
 AREAS CHECKED _____

FINISH SURVEY NO. _____
 SURVEYED BY _____
 DATE _____
 TEMPLATE _____
 AREAS CHECKED _____

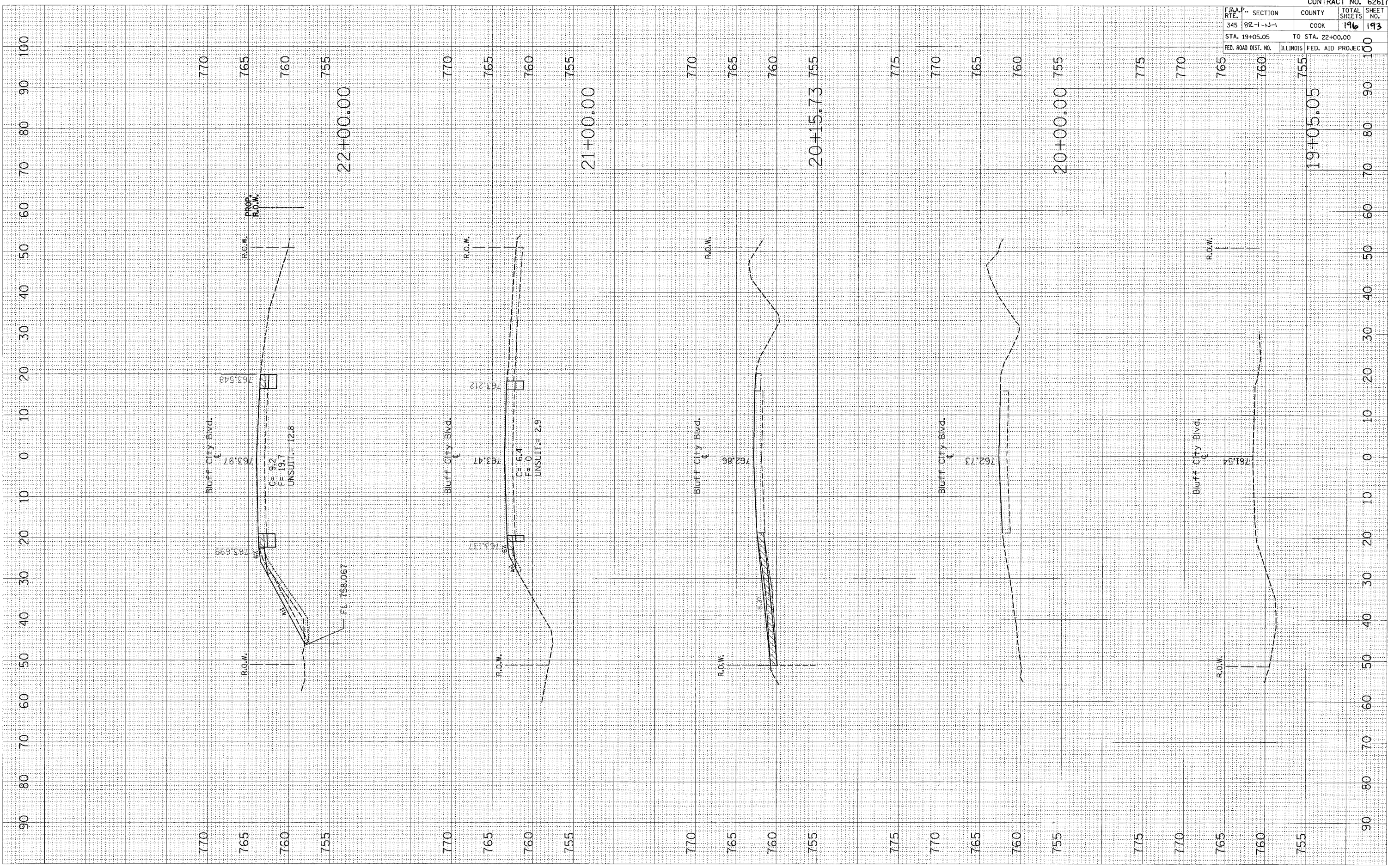


CONTRACT NO. 62617				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
245	82-1-N-1	Cook	196	192
STA. 41+00.00		TO STA. 41+92.68		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	100	

PLOT DATE = 11/16/2007
 FILE NAME = c:\pwork\msta\1103783\bluff_ah.dgn
 PLOT SCALE = 1/8"=1'-0"
 USER NAME = ababanc

ORIGINAL SURVEY SURVEYED PLOTTED DATE
 NOTE BOOK NO. AREAS CHECKED

FINAL SURVEY SURVEYED PLOTTED DATE
 NOTE BOOK NO. AREAS CHECKED



CONTRACT NO. 62617	
FAA.P. SECTION	COUNTY TOTAL SHEETS
345 8R-1-3-1	COOK 196 193
STA. 19+05.05	TO STA. 22+00.00
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT

19+05.05

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

770
765
760
755
22+00.00

770
765
760
755
21+00.00

770
765
760
755
20+15.73 755

775
770
765
760
755
20+00.00 755

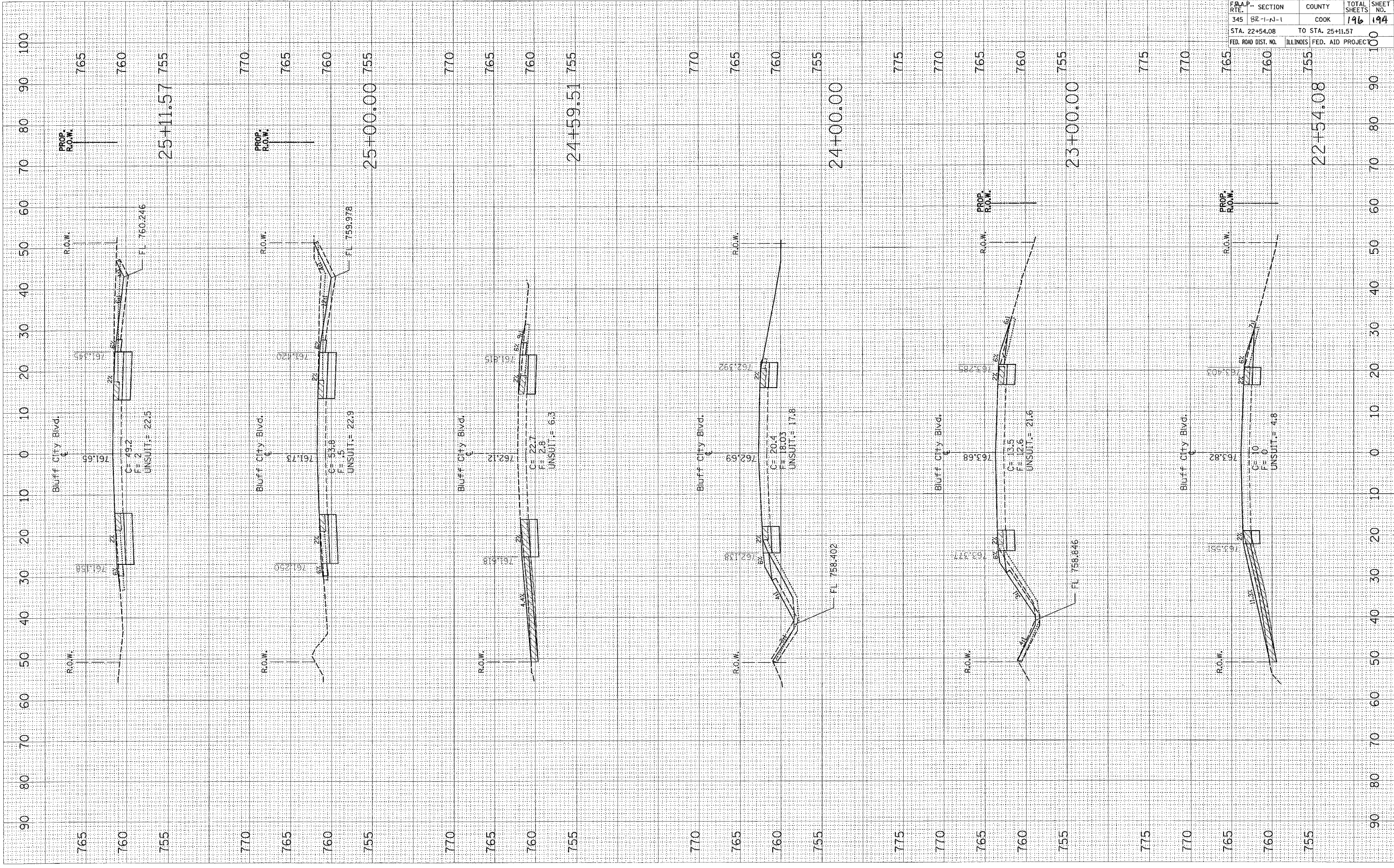
775
770
765
760
755
19+05.05

PLOT DATE = 11/16/2007
 FILE NAME = c:\pco\pco15\113783\vs.bluff_sh.dgn
 PLOT SCALE = 1/8" = 1'-0"

ORIGINAL SURVEY
 SURVEY PLOTTED
 TEMPLATE AREAS CHECKED

FINAL SURVEY
 SURVEY PLOTTED
 TEMPLATE AREAS CHECKED

BY: _____ DATE: _____



FAA.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	8R-1-AJ-1	COOK	196	194
STA. 22+54.08		TO STA. 25+11.57		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	100	

CONTRACT NO. 62617

22+54.08

23+00.00

24+00.00

24+59.51

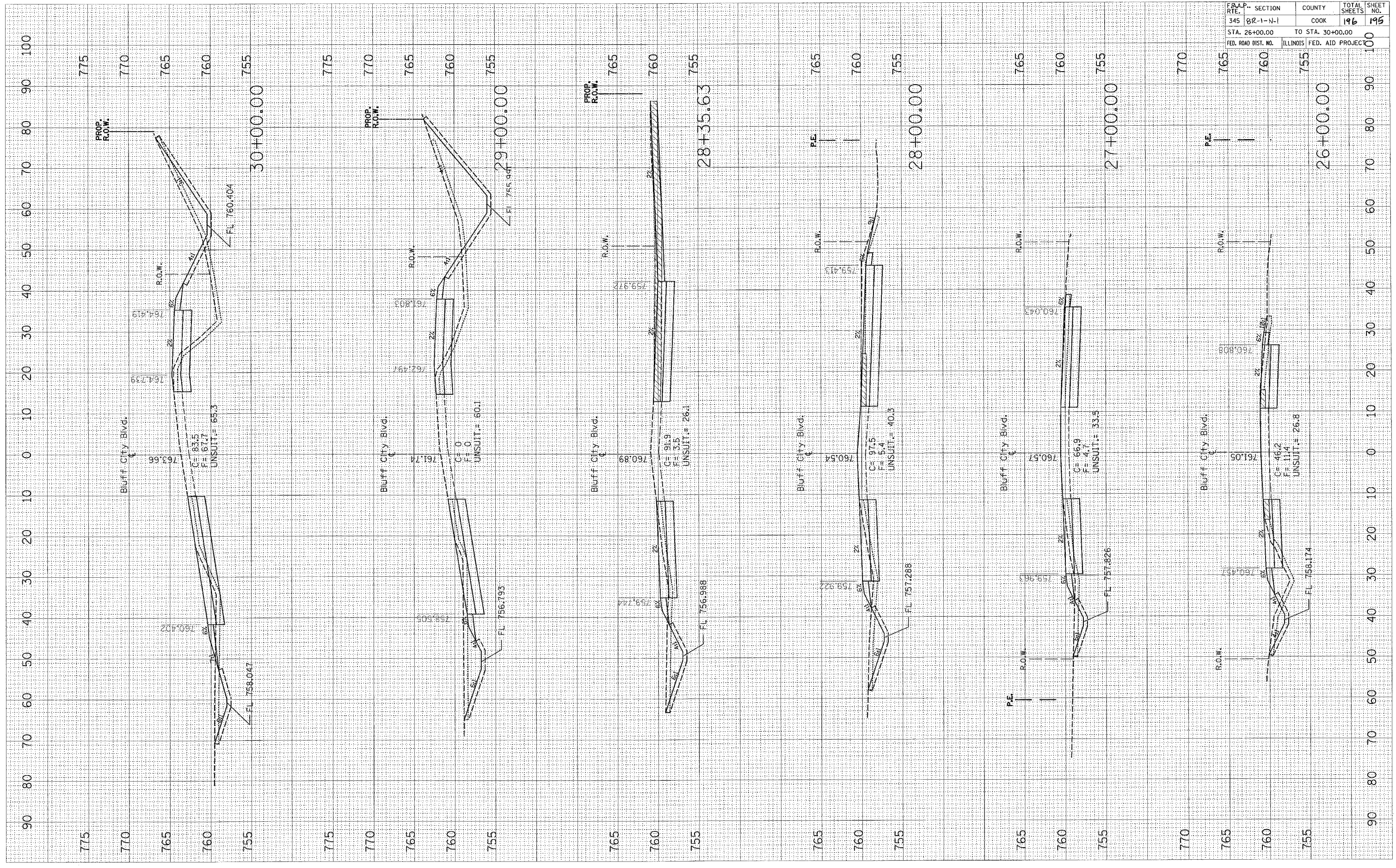
25+00.00

25+11.57

PLOT DATE = 11/16/2007
 FILE NAME = c:\projects\113703\bluff.dwg
 PLOT SCALE = 1/8" = 1'-0"
 USER NAME = ddbrown

ORIGINAL SURVEY PLOTTED
 SURVEY PLOTTED
 NOTE BOOK TEMPLATE
 AREAS CHECKED
 NO.

FINAL SURVEY PLOTTED
 SURVEY PLOTTED
 NOTE BOOK TEMPLATE
 AREAS CHECKED
 NO.



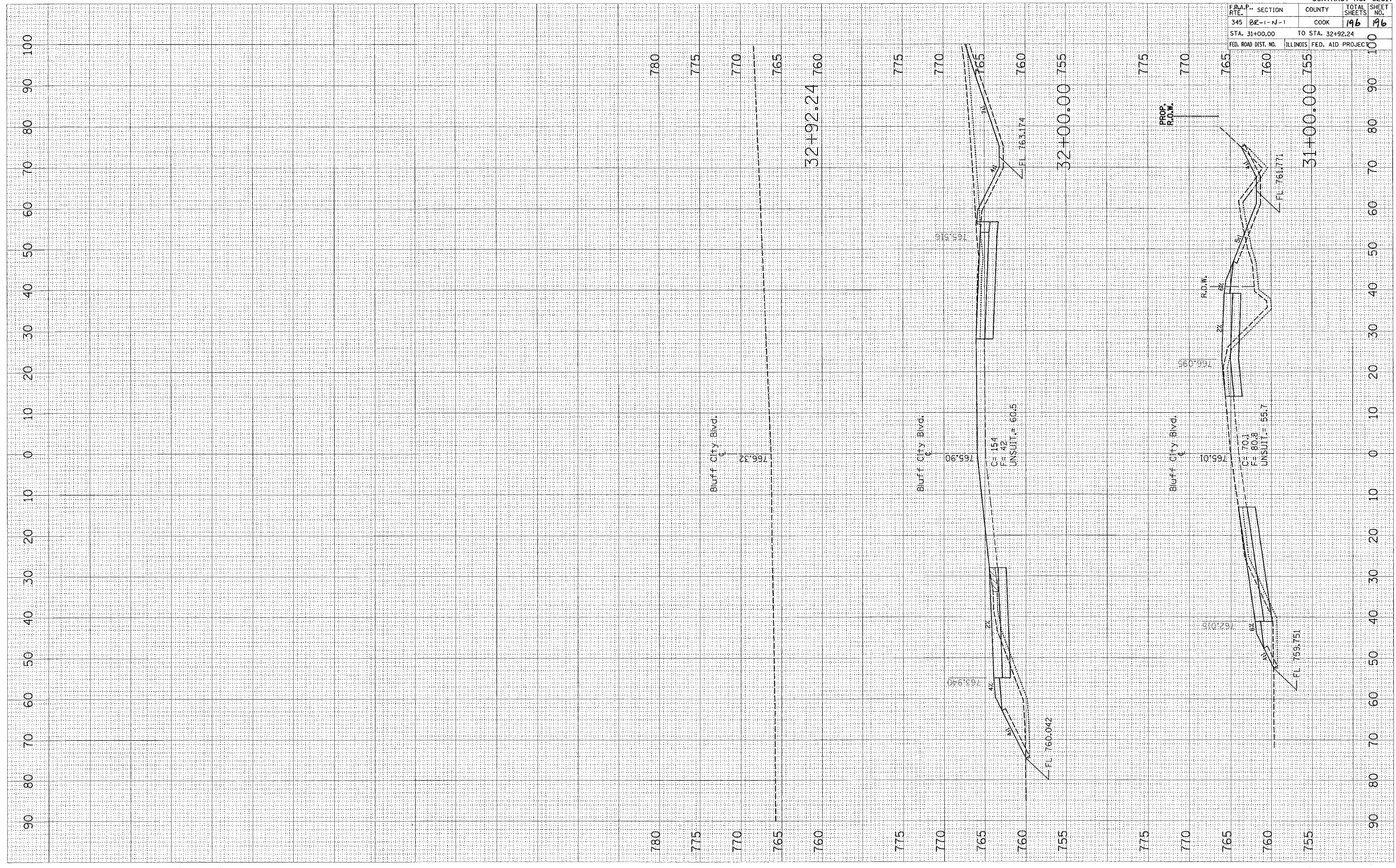
F.R.A.P. SECTION		COUNTY		TOTAL SHEETS	
345	82-1-N-1	COOK		196	195
STA. 26+00.00		TO STA. 30+00.00			
FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT	

CONTRACT NO. 62617

PLOT DATE = 11/16/2007
 FILE NAME = c:\proj\jct\1117203\va.bluff.sh\dwg\1117203.dwg
 PLOT SCALE = 1/8" = 1' IN.
 USER NAME = edebene

ORIGINAL SURVEY NO. _____
 SURVEY NO. _____
 DATE _____

FINAL SURVEY NO. _____
 SURVEY NO. _____
 DATE _____



F.A.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
345	02-1-N-1	COOK	196	196
STA. 31+00.00		TO STA. 32+92.24		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJEC		

CONTRACT NO. 62617