

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	(121)I-2	BUREAU	13	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 66732		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PROPOSED
HIGHWAY PLANS**

FAP ROUTE 646 (IL ROUTE 40)
SECTION (121)I-2

BUREAU COUNTY
C-93-001-08
BOX CULVERT REPAIR

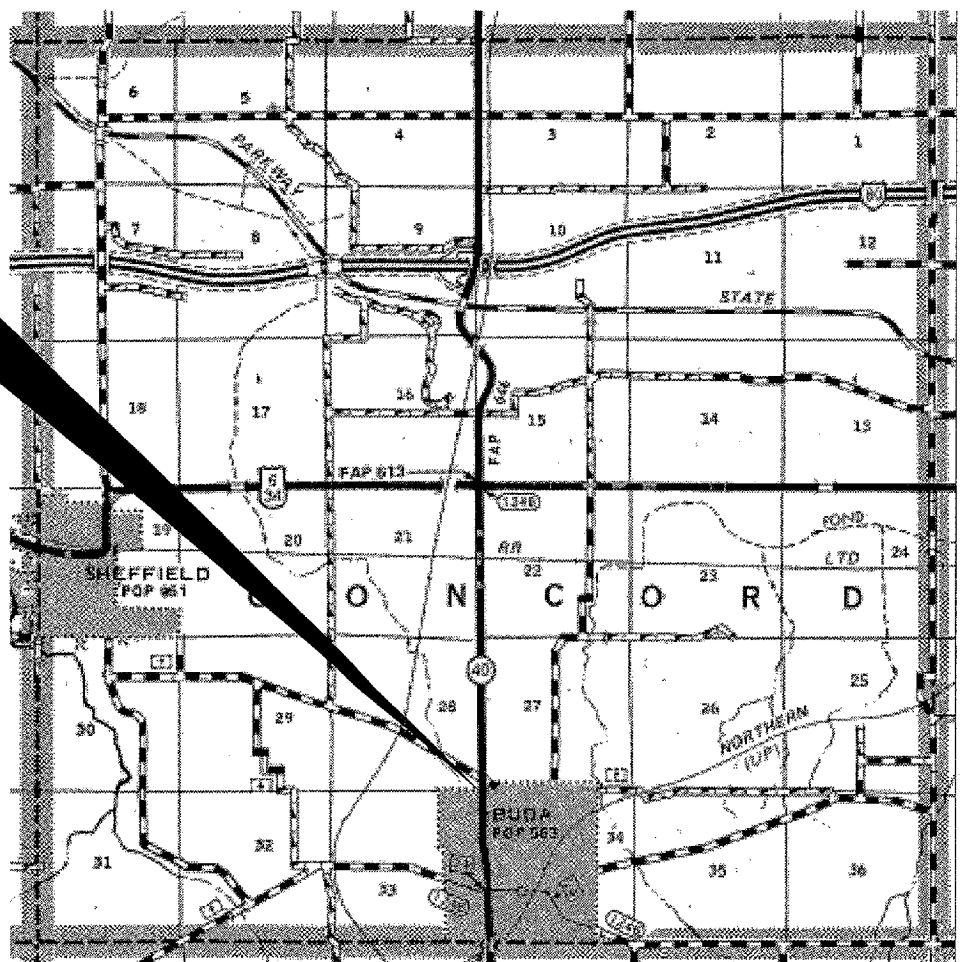
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11. CONCRETE BOX CULVERTS
12. WATERPROOFING DETAILS
13. EXISTING BOX CULVERT DETAILS

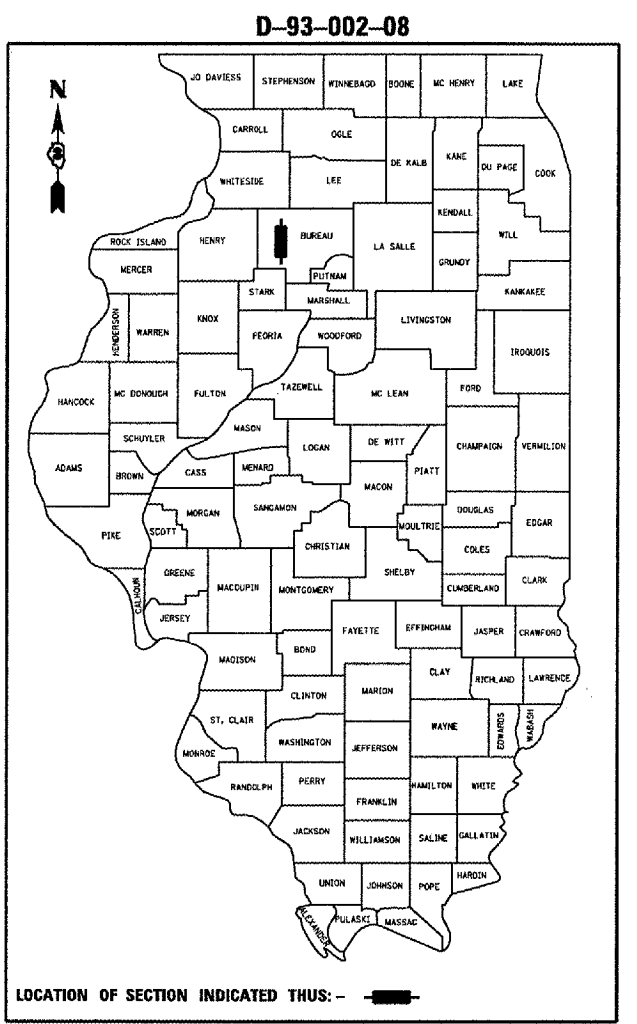
STANDARDS

- | | |
|-----------|--|
| 000001-05 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS |
| 001001-01 | AREAS OF REINFORCEMENT BARS |
| 001006 | DECIMAL OF AN INCH AND OF A FOOT |
| 482001-02 | HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT |
| 630001-07 | STEEL PLATE BEAM GUARDRAIL |
| 630101-07 | GUARDRAIL MOUNTED ON EXISTING CULVERTS |
| 635011-01 | REFLECTOR MARKER AND MOUNTING DETAILS |
| 701001-01 | OFF-ROAD OPERATIONS 2L, 2W, MORE THAN 4.5 m (15') AWAY |
| 701006-02 | OFF-ROAD OPERATIONS 2L, 2W, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE |
| 701201-02 | LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH |
| 701206-01 | LANE CLOSURE, 2L, 2W, NIGHT ONLY, FOR SPEEDS ≥ 45 MPH |
| 701316-03 | LANE CLOSURE, 2L, 2W, BRIDGE REPAIR, FOR SPEEDS ≥ 45 MPH |
| 701901 | TRAFFIC CONTROL DEVICES |

PROJECT LOCATION
SN 006-2523
8' X 6' BOX CULVERT
2.0 MI. SOUTH OF US ROUTE 6



LOCATION MAP
NOT TO SCALE
POINT LOCATION



FUNCTIONAL CLASSIFICATION
RURAL - MINOR ARTERIAL
F.A.P. ROUTE 646 (IL 40)
2005 ADT = 1800
P.V = 82.0% M.U. = 9.7% S.U. = 8.3%

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 12/20 20 07
George Lujan
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

February 1, 20 08
Eric E. Harm
ENGINEER OF DESIGN AND ENVIRONMENT

February 1, 20 08
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

MICROFILMED _____
REEL NUMBER _____
AWARDED _____
RESIDENT ENGINEER _____
AS BUILT CHANGES WERE MADE
ON THE FOLLOWING SHEETS _____

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123

DISTRICT 3 NO. (815) 434-6131
PROJECT ENGINEER: JOE KANNEL
UNIT CHIEF: RON WOODSHANK
TOWNSHIP: CONCORD
CONTRACT NO. 66732

GENERAL NOTES

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 THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED BASED UPON THE UNIT BID PRICE FOR THE WORK.

FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE "JULIE" NUMBER IS 1-800-892-0123. A MINIMUM OF FORTY-EIGHT (48) HOURS ADVANCE NOTICE IS REQUIRED.

THE COST OF ANY SAW CUTS MADE TO COMPLETE THE WORK AS DESCRIBED IN PLAN DETAILS, UNLESS OTHERWISE NOTED SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED WITH THE VARIOUS REMOVAL PAY ITEMS INVOLVED.

ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF STRUCTURE EXCAVATION.

EXISTING REINFORCEMENT BARS EXTENDING INTO REMOVAL AREA SHALL BE CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW CONSTRUCTION. ANY REINFORCEMENT BARS THAT ARE DAMAGED DURING CONCRETE REMOVAL SHALL BE REPLACED WITH AN APPROVED BAR SPLICER OR ANCHORAGE SYSTEM. COST INCLUDED WITH CONCRETE REMOVAL.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING FIELD TILE WITHIN THE LIMITS OF CONSTRUCTION. IF ANY FIELD TILE IS DAMAGED DUE TO THE CONTRACTOR'S OPERATIONS, THE TILE SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.

REPAIR OF EXISTING FIELD TILE ENCOUNTERED BELOW \pm GRADE SHALL BE ACCORDING TO SECTION 611 OF THE STANDARD SPECIFICATIONS. COST OF REPAIR SHALL BE ACCORDING TO SECTION 109.04 OF THE STANDARD SPECIFICATIONS

	HMA SHOULDERS
PG GRADE	PG58-22
MAX % RAP ALLOWABLE	** 50%
DESIGN AIR VOIDS	3.0% @ N50
MIXTURE COMPOSITION	IL 19.0
DENSITY TEST METHOD	.

*MATERIAL SHALL BE COMPACTED TO 93.0 TO 97.4 PERCENT OF THE MAXIMUM THEORETICAL DENSITY, EXCEPT THAT THE BOTTOM LIFT SHALL BE COMPACTED TO A MINIMUM OF 92.0 PERCENT. THE MAXIMUM THEORETICAL DENSITY SHALL BE DETERMINED FROM THE MOVING AVERAGE AS SPECIFIED IN THE QC/OA SPECIFICATION.

**IF RAP OPTION IS SELECTED, THE ASPHALT CEMENT GRADE MAY NEED TO BE ADJUSTED. THIS WILL BE DETERMINED BY THE ENGINEER.

DATE: 12-18-07

PREPARED BY: Pat Powell
DISTRICT STUDIES & PLANS ENGINEER

EXAMINED BY: Harold Jones
DISTRICT CONSTRUCTION ENGINEER

Jim J...
DISTRICT MATERIALS ENGINEER

Bruce A. Tucker
DISTRICT OPERATIONS ENGINEER

FILE NAME =	USER NAME = woodshankr1	DESIGNED - RON WOODSHANK	REVISED - 11/29/2007
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PLOT DATE = Dec 13, 2007 - 06:59:16 AM			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

SCALE: SHEET NO. 2 OF 7 SHEETS STA. 110+10 TO STA. 115+30

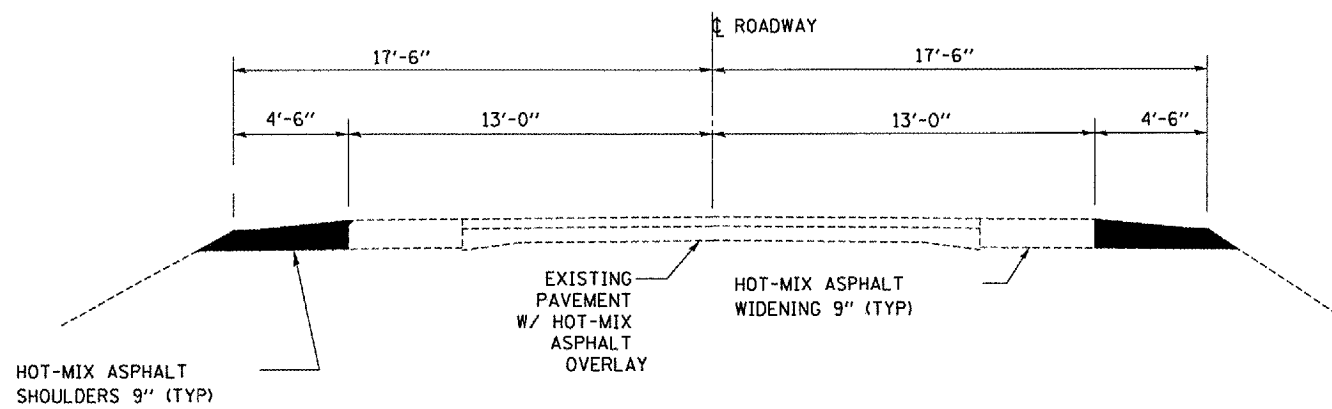
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
646	(12)H-2	BUREAU	13	2
FED. ROAD DIST. NO. - ILLINOIS			CONTRACT NO. 66732	

SUMMARY OF QUANTITIES

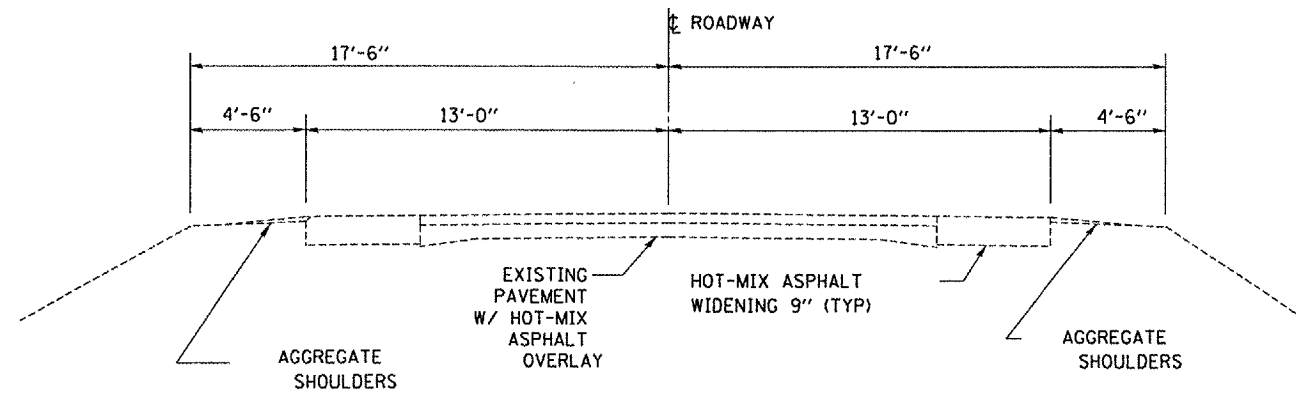
CONSTRUCTION CODE TYPE: Y007

CODE NO.	ITEM	UNIT	URBAN 100% STATE TOTAL QUANTITY
20200600	EXCAVATING AND GRADING EXISTING SHOULDER	UNIT	10.4
20400800	FURNISHED EXCAVATION	CU YD	372
25100635	HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	80
48203033	HOT-MIX ASPHALT SHOULDERS, 9"	SQ YD	520
50102400	CONCRETE REMOVAL	CU YD	38
50200100	STRUCTURE EXCAVATION	CU YD	372
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	7350
54003000	CONCRETE BOX CULVERTS	CU YD	44
* 63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	150
* 63000025	STEEL PLATE BEAM GUARD RAIL, ATTACHED TO STRUCTURES	FOOT	30
63200310	GUARDRAIL REMOVAL	FOOT	180
67100100	MOBILIZATION	L SUM	1
70100100	TRAFFIC CONTROL AND PROTECTION, STANDARD 701316	EACH	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
X0322121	SHEET WATERPROOFING MEMBRANE SYSTEM	SQ YD	120
X0323115	REFLECTOR MARKERS, TYPE A	EACH	8
X0323988	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	1368
X0321781	MECHANICAL SPLICE	EACH	68
Z0073400	TEMPORARY SUPPORT SYSTEM	EACH	2

*SPECIALTY ITEMS



TYPICAL SECTION 2
 STA. 110+10 TO STA. 115+30



TYPICAL SECTION 1
 STA. 109+00 TO STA. 110+10
 STA. 115+30 TO STA. 116+00

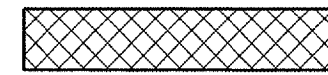
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE: _____ SHEET NO. 4 OF 7 SHEETS STA. 110+10 TO STA. 115+30

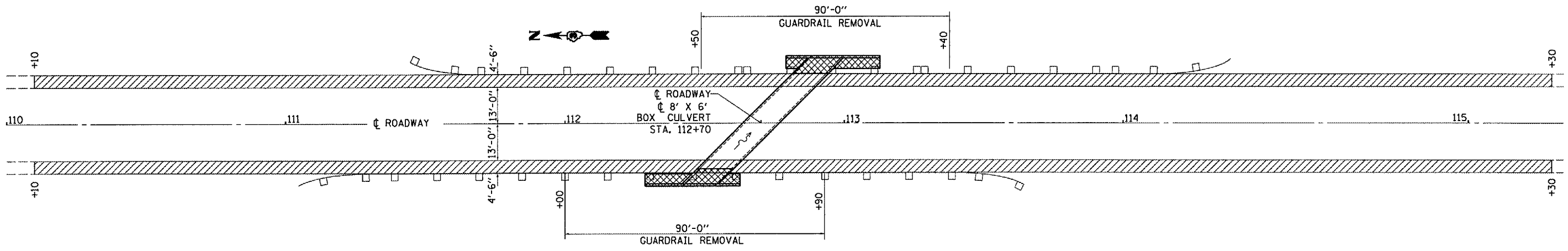
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646	(121)I-2	BUREAU	13	4
FED. ROAD DIST. NO. - [ILLINOIS]			CONTRACT NO. 66732	



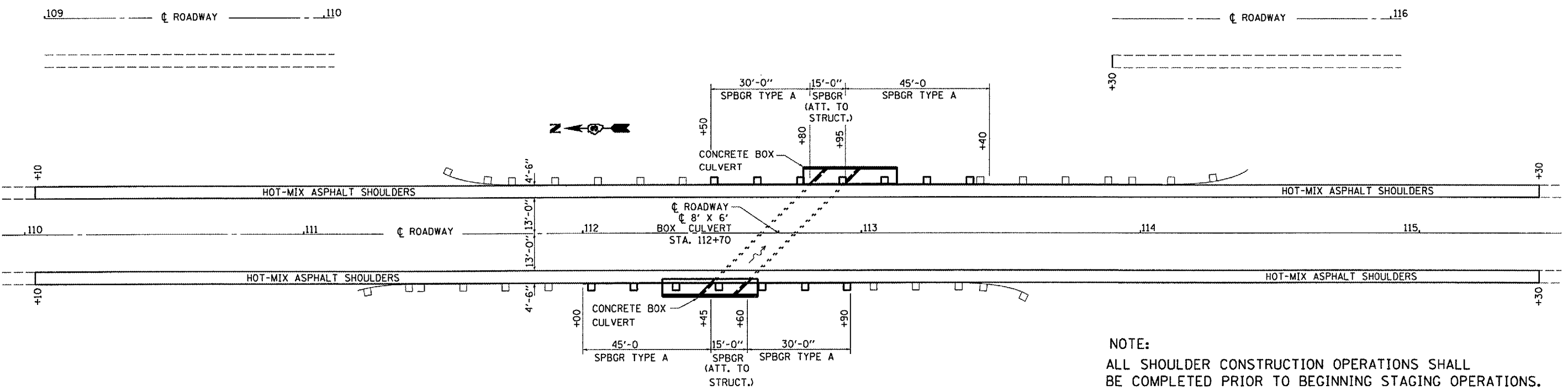
CONCRETE REMOVAL



EXCAVATING & GRADING EXISTING SHOULDER



EXISTING PLAN



PROPOSED PLAN

NOTE:
ALL SHOULDER CONSTRUCTION OPERATIONS SHALL
BE COMPLETED PRIOR TO BEGINNING STAGING OPERATIONS.

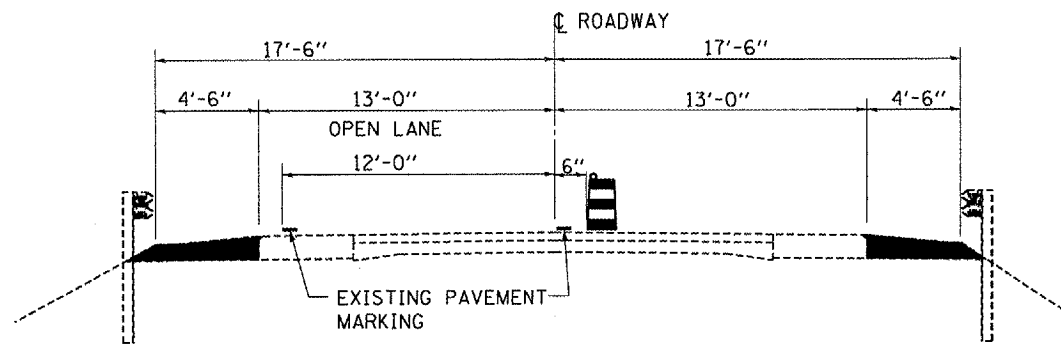
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

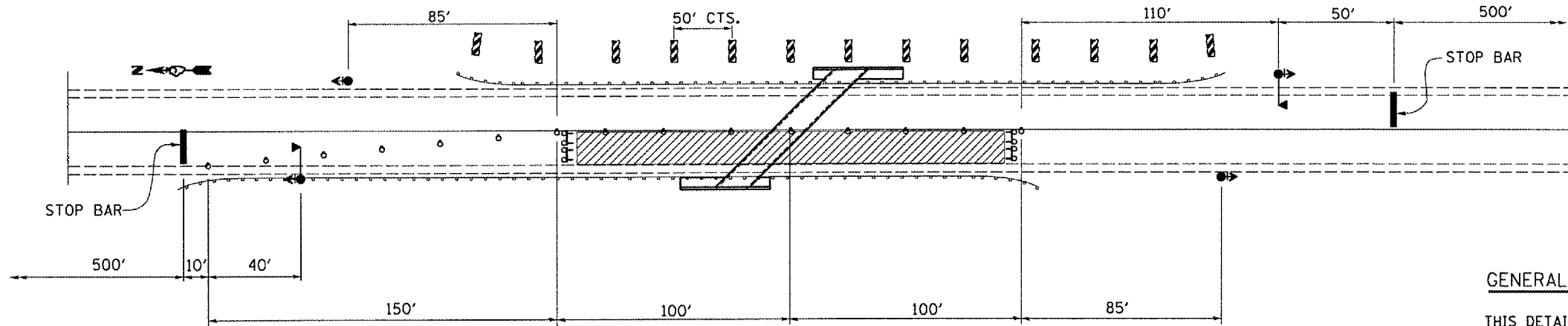
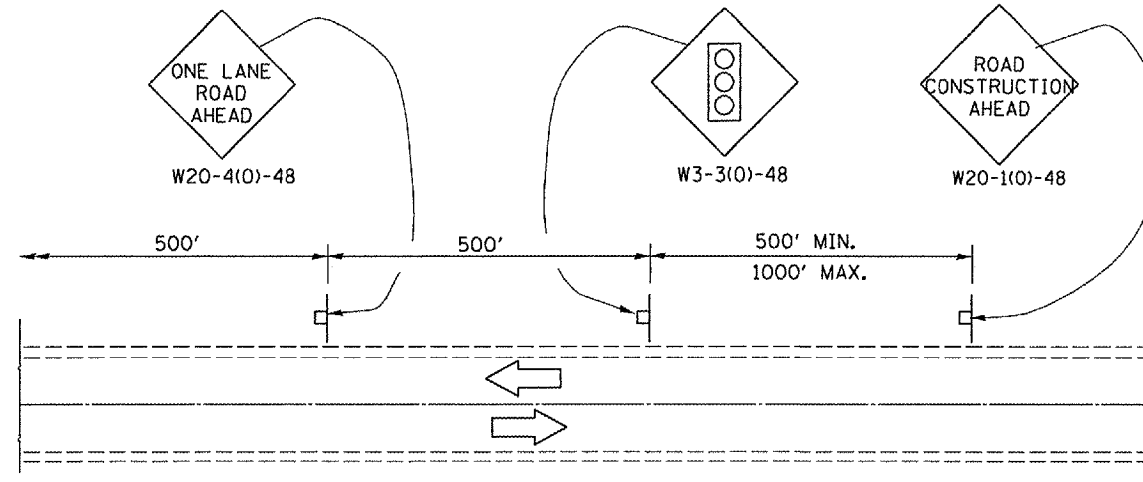
GENERAL PLAN

SCALE: _____ SHEET NO. 5 OF 7 SHEETS STA. 110+10 TO STA. 115+30

F.A.P. RTE. 646	SECTION (121)I-2	COUNTY BUREAU	TOTAL SHEETS 13	SHEET NO. 5
FED. ROAD DIST. NO. _____ ILLINOIS				CONTRACT NO. 66732



TYPICAL ROADWAY SECTION
LOOKING SOUTH



PLAN

GENERAL NOTES

THIS DETAIL SHALL BE USED WHERE, AT ANY TIME, ANY VEHICLE, EQUIPMENT, WORKERS, OR THEIR ACTIVITIES WILL ENCR OACH ON ONE LANE OF A 2L, 2W HIGHWAY OR BRIDGE. TRAFFIC SIGNALS SHALL BE REQUIRED. THIS DETAIL SHALL BE USED IN CONJUNCTION WITH TRAFFIC CONTROL AND PROTECTION STANDARD 701316.

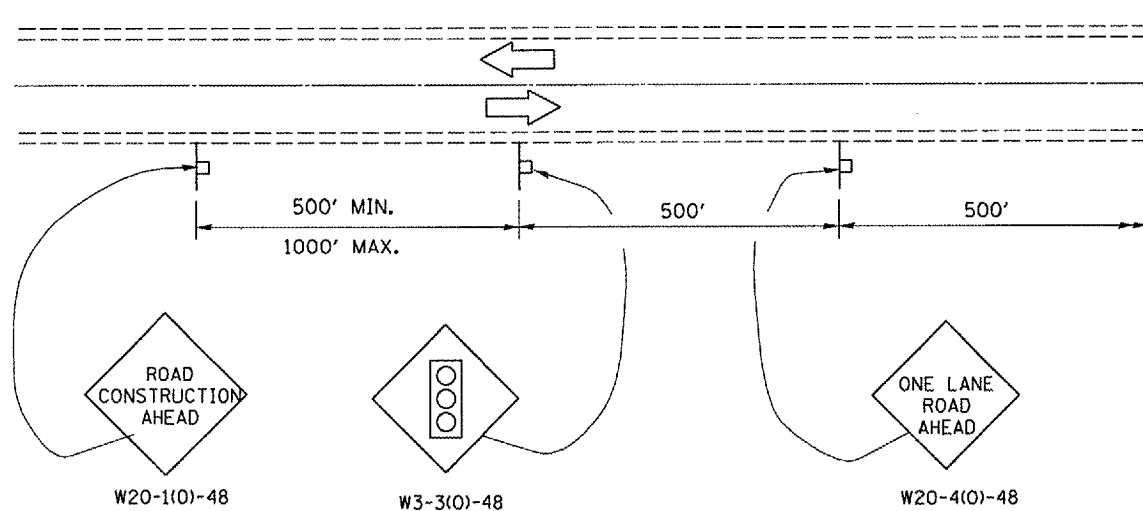
WHEN TRAFFIC SIGNALS ARE NOT IN OPERATION, FLAGGERS SHALL BE USED AND TRAFFIC CONTROL SHALL CONFORM TO TRAFFIC CONTROL AND PROTECTION STANDARDS 701201 OR 701206.

BI-DIRECTIONAL LIGHTS SHALL BE USED AT NIGHT ALONG THE CENTERLINE WHERE THE WORK AREA IS SEPERATED FROM THE TRAVEL LANE USING DRUMS. MONODIRECTIONAL LIGHTS SHALL BE USED AT NIGHT ON ALL OTHER DRUMS.

EXISTING OR TEMPORARY PAVEMENT MARKING SHALL BE ON BOTH SIDES OF THE OPEN LANE FROM STOP BAR TO STOP BAR.

SYMBOLS

- Work area
- Sign
- Type III barricade with steady burning light
- Drum with steady burning light
- Traffic signal
- Double vertical panel
- Microwave Detector



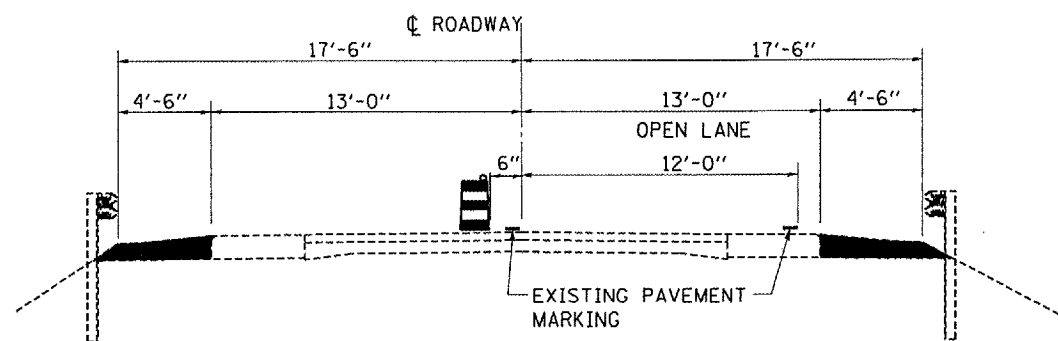
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

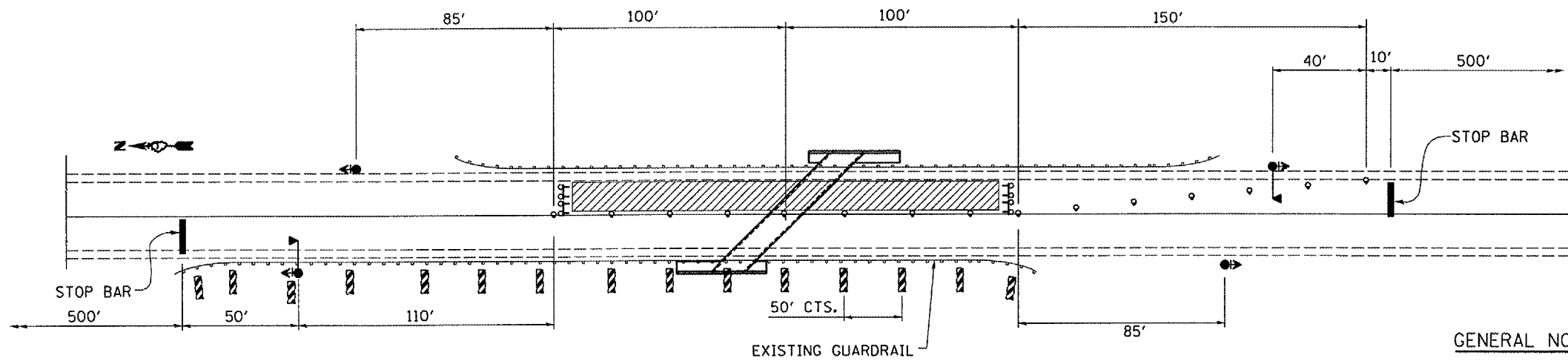
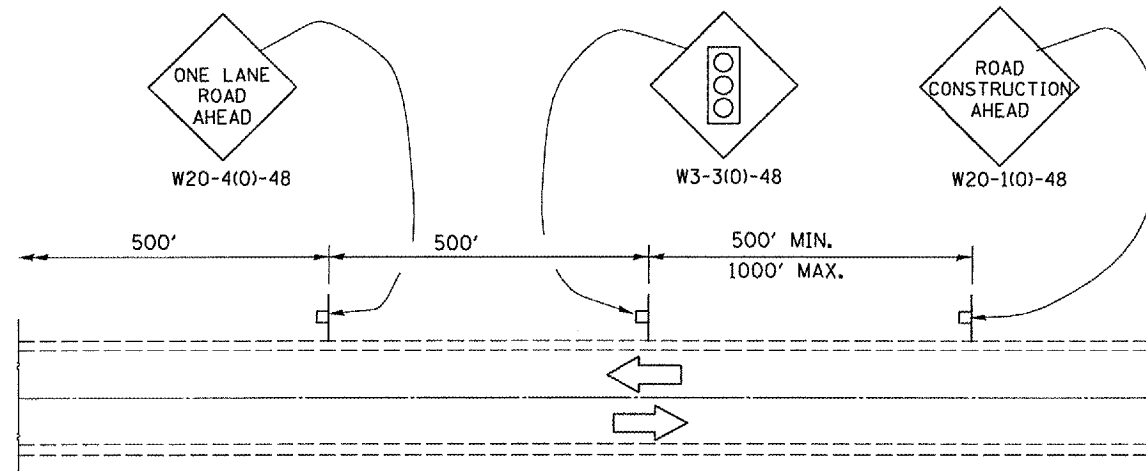
STAGING DETAILS - SB LANE

SCALE: SHEET NO. 6 OF 7 SHEETS STA. 110+10 TO STA. 115+30

F.A.P. RTE. 646	SECTION (121)-2	COUNTY BUREAU	TOTAL SHEETS 13	SHEET NO. 6
CONTRACT NO. 66732				
FED. ROAD DIST. NO. ILLINOIS				



TYPICAL ROADWAY SECTION
LOOKING SOUTH



PLAN

GENERAL NOTES

THIS DETAIL SHALL BE USED WHERE, AT ANY TIME, ANY VEHICLE, EQUIPMENT, WORKERS, OR THEIR ACTIVITIES WILL ENCROACH ON ONE LANE OF A 2L, 2W HIGHWAY OR BRIDGE. TRAFFIC SIGNALS SHALL BE REQUIRED. THIS DETAIL SHALL BE USED IN CONJUNCTION WITH TRAFFIC CONTROL AND PROTECTION STANDARD 701316.

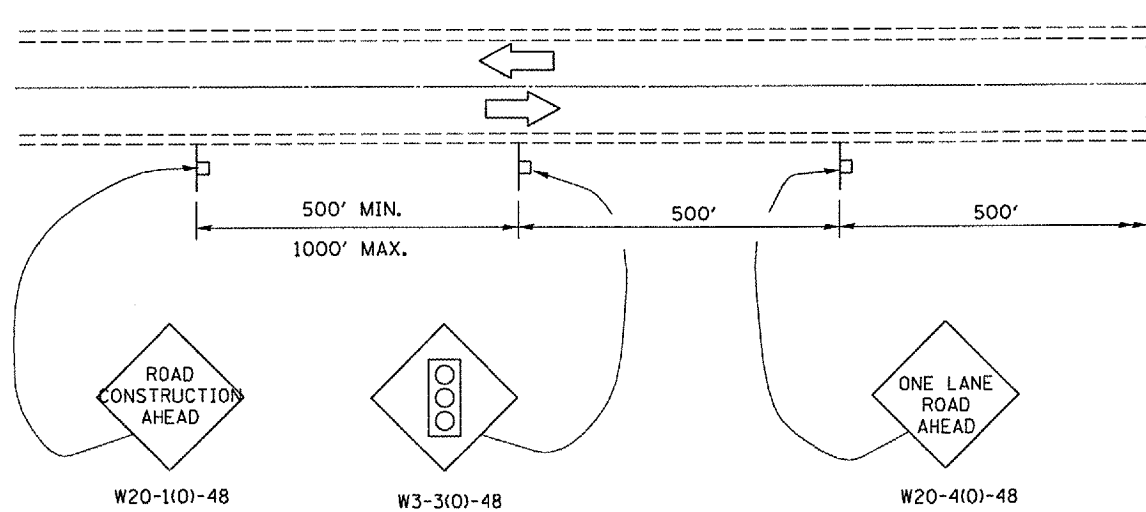
WHEN TRAFFIC SIGNALS ARE NOT IN OPERATION, FLAGGERS SHALL BE USED AND TRAFFIC CONTROL SHALL CONFORM TO TRAFFIC CONTROL AND PROTECTION STANDARDS 701201 OR 701206.

BI-DIRECTIONAL LIGHTS SHALL BE USED AT NIGHT ALONG THE CENTERLINE WHERE THE WORK AREA IS SEPARATED FROM THE TRAVEL LANE USING DRUMS. MONODIRECTIONAL LIGHTS SHALL BE USED AT NIGHT ON ALL OTHER DRUMS.

EXISTING OR TEMPORARY PAVEMENT MARKING SHALL BE ON BOTH SIDES OF THE OPEN LANE FROM STOP BAR TO STOP BAR.

SYMBOLS

- Work area
- Sign
- Type III barricade with steady burning light
- Drum with steady burning light
- Traffic signal with Backplate
- Double vertical panel
- Microwave Detector



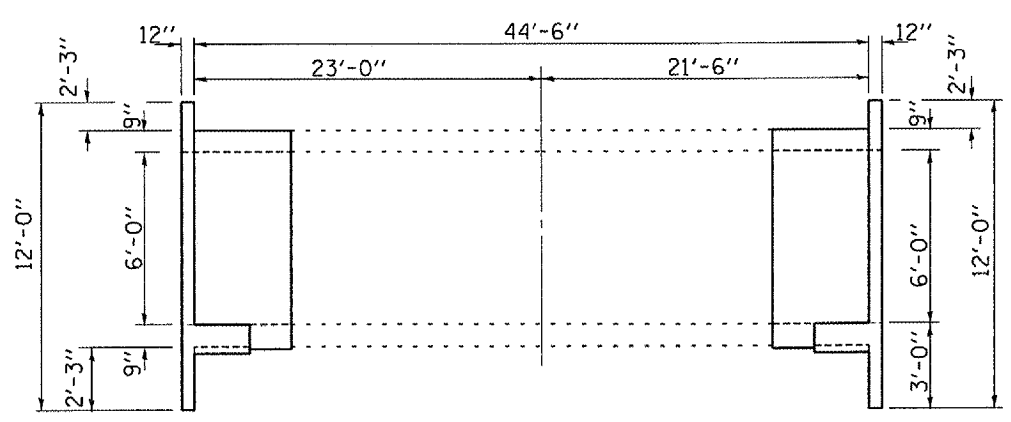
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

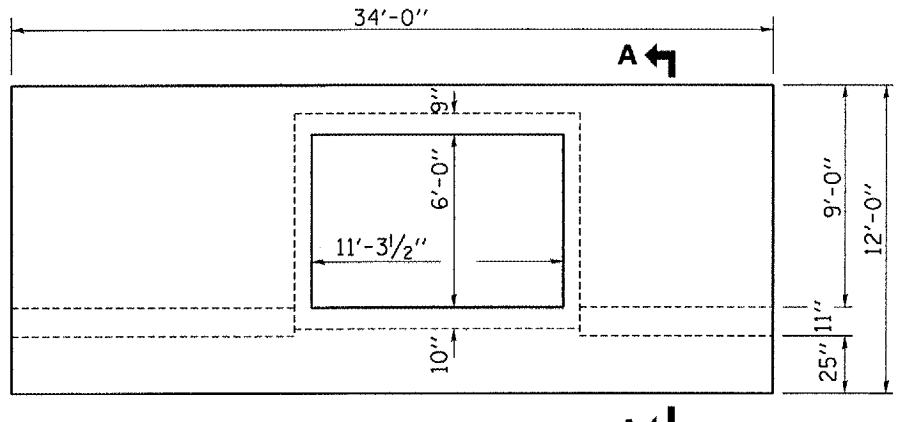
STAGING DETAILS - NB LANE

SCALE: _____ SHEET NO. 7 OF 7 SHEETS STA. 110+10 TO STA. 115+30

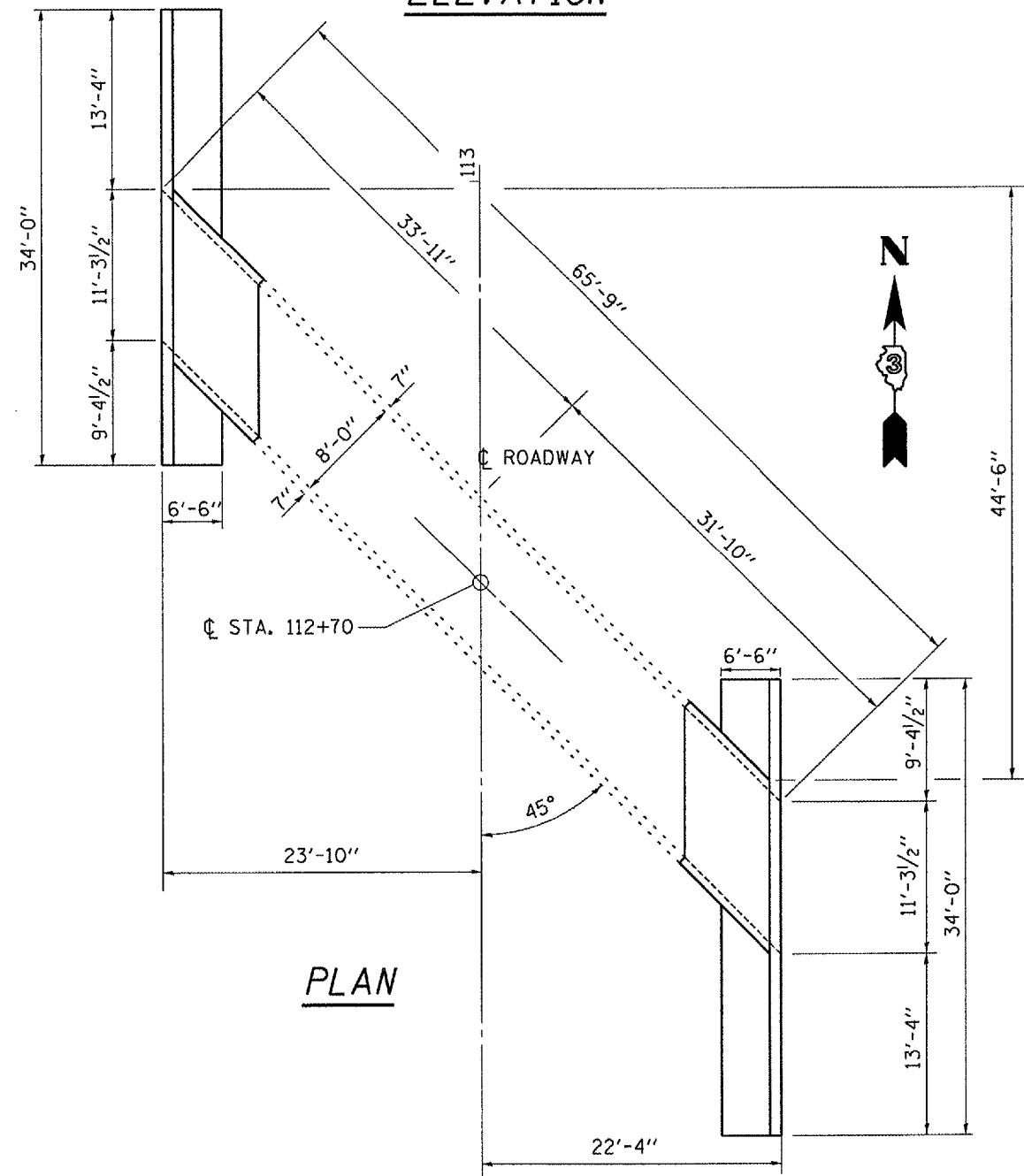
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FED. ROAD DIST. NO. _____ ILLINOIS				CONTRACT NO. 66732



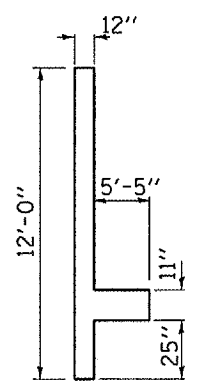
ELEVATION



END ELEVATION



PLAN



SECTION A-A

NOTES

REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706 GR 60 (IL MODIFIED). SEE SPECIAL PROVISIONS.

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

EXCAVATION BEHIND THE HEAD/WINGWALL SHALL NOT BE PERFORMED UNTIL THE TEMPORARY SOIL RETENTION SYSTEM HAS BEEN INSTALLED. THE CONTRACTOR SHALL EXPOSE THE EDGE OF THE BOX CULVERT PRIOR TO INSTALLING THE TEMPORARY SOIL RETENTION SYSTEM. IF PORTIONS OF THE BOX CULVERT TO REMAIN ARE DAMAGED DURING THE INSTALLATION OF THE TEMPORARY SOIL RETENTION SYSTEM OR DURING EXCAVATION, THE CONTRACTOR SHALL REPAIR OR REPLACE THE DAMAGED AREA TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

BACKFILL SHALL BE PLACED BEHIND THE WING/HEADWALL AFTER THE CONCRETE HAS BEEN POURED, CURED AND FALSEWORK REMOVED. SEE ARTICLE 502.10 OF THE STANDARD SPECIFICATIONS.

TOTAL BILL OF MATERIALS FOR TWO ENDS

ITEM	UNIT	UPSTR.	DNSTR.	TOTAL
TEMPORARY SOIL RETENTION SYSTEM	SQ. FT.	684	684	1368
STRUCTURE EXCAVATION	CU. YD.	186	186	372
CONCRETE REMOVAL	CU. YD.	19	19	38
CONCRETE BOX CULVERTS	CU. YD.	22	22	44
REINFORCEMENT BARS EPOXY COATED	POUNDS	3675	3675	7350
SHEET WATERPROOFING MEMBRANE SYSTEM	SQ. YD.	60	60	120
FURNISHED EXCAVATION	CU. YD.	186	186	372
TEMPORARY SUPPORT SYSTEM	EACH	2	1	2
MECHANICAL SPLICE	EACH	34	34	68

FAP ROUTE 646 (IL 40)
SECTION (12)11-1
BUREAU COUNTY
STA. 112+70
S.N. 006-2523

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING PLAN AND ELEVATION

SCALE: SHEET NO. 1 OF 6 SHEETS STA. 110+10 TO STA. 115+30

F.A.P. RTE. 646	SECTION (12)11-2	COUNTY BUREAU	TOTAL SHEETS 13	SHEET NO. 8
FED. ROAD DIST. NO. ILLINOIS			CONTRACT NO. 66732	



Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 4/20/07

ROUTE FAP 646 (IL 40) DESCRIPTION Rt 40 over stream- N edge of Buda LOGGED BY Larry Myers

SECTION (104,121,122)RS-4 LOCATION NE 14, SEC. 33, TWP. 16N, RNG. 07E

COUNTY Bureau DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 006-2523 D E L U M
Station **112+65.5 P L O C O
T W S I
H S Qu T
BORING NO. 2 NW Quad
Station 112+46.5
Offset 14.00ft Rt
Ground Surface Elev. *99.99 ft (ft) (6") (tsf) (%)

Soil Description	D (ft)	B (6")	U (tsf)	M (%)	Surface Water Elev. *89.30 ft	D (ft)	B (6")	U (tsf)	M (%)
Augered, black Milling, brown Shoulder Stone and black, Silty Clay- fill					Stream Bed Elev. _____ ft	6	2.1	13.2	
					Groundwater Elev.: _____ ft	8	B		
					First Encounter _____ ft				
					Upon Completion <u>dry</u> ft				
					After _____ Hrs. _____ ft				
Stiff, black and gray, Silty Clay- fill	2					5			
	3	1.5	25.1			6	2.5	13.4	
	3	P				9	B		
	-5	2				-25	5		
		1	1.0	27.3			7	2.5	13.3
		2	P				9	B	
		1					4		
		2	1.0	26.6			8	2.3	13.7
		3	P				9	B	
	-10	1				-30	5		
		1	1.0	29.4			6	2.5	13.9
		2	P				9	B	
Very stiff, brown, Sandy Clay Loam Till									
		5							
		6	2.7	13.8					
		7	B						
Hard, reddish gray, Sandy Clay Loam Till									
	-15	6				-35	6		
		7	4.3	12.5			7	2.7	13.6
		11	S				9	B	
Very stiff, reddish gray, Sandy Clay Loam Till									
		5							
		7	2.3	13.0					
		9	B						
* CL of structure set at an elevation of 100'									
** Estimated from Straight Line Diagram									
	-20	4				-40			

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)



Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Date 4/20/07

ROUTE FAP 646 (IL 40) DESCRIPTION Rt 40 over stream- N edge of Buda LOGGED BY Larry Myers

SECTION (104,121,122)RS-4 LOCATION NE 14, SEC. 33, TWP. 16N, RNG. 07E

COUNTY Bureau DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

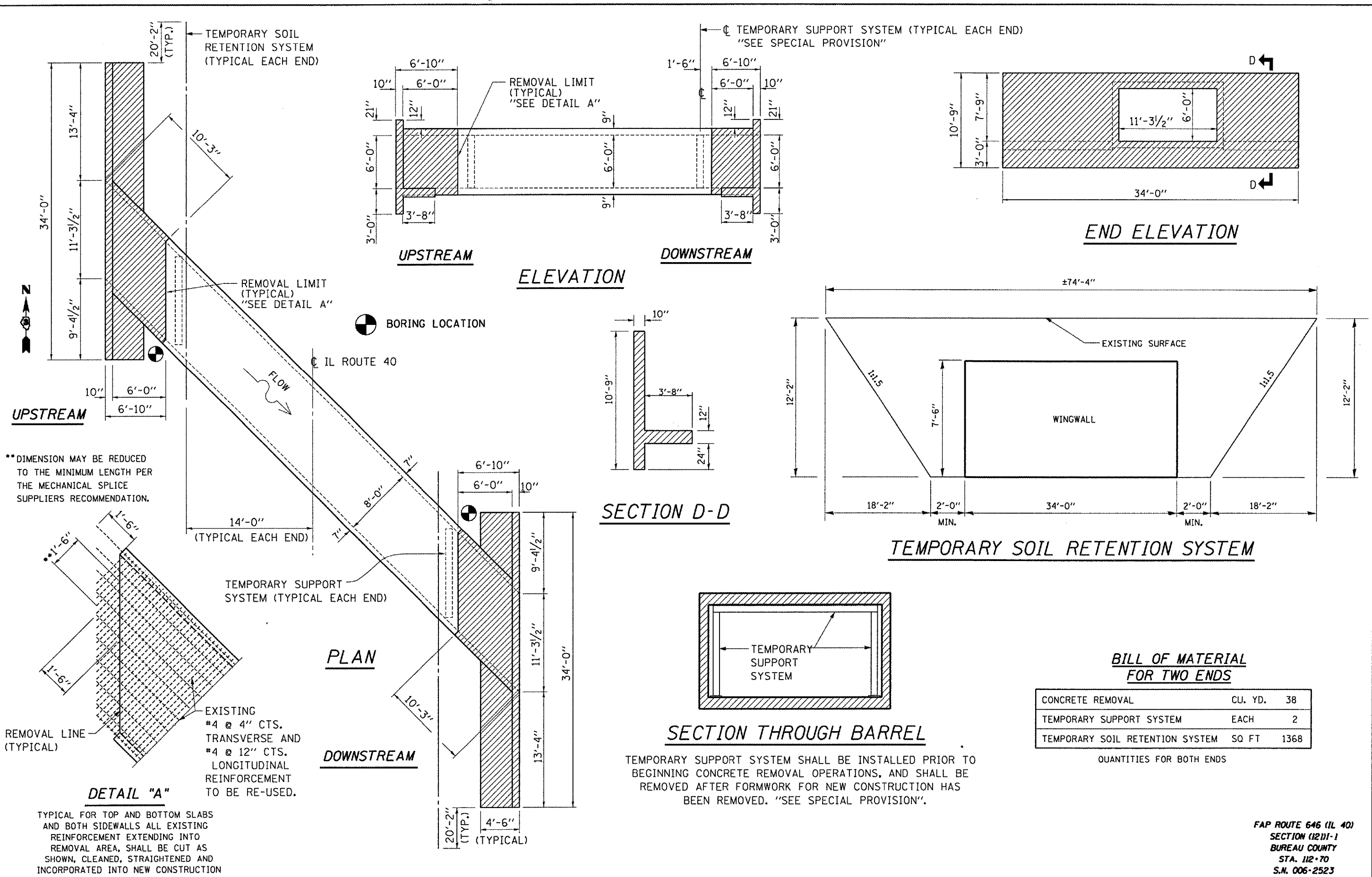
STRUCT. NO. 006-2523 D E L U M
Station **112+65.5 P L O C O
T W S I
H S Qu T
BORING NO. 1 SE Quad
Station 112+82.5
Offset 14.00ft Lt
Ground Surface Elev. *99.50 ft (ft) (6") (tsf) (%)

Soil Description	D (ft)	B (6")	U (tsf)	M (%)	Surface Water Elev. *89.30 ft	D (ft)	B (6")	U (tsf)	M (%)
Augered, Shoulder Stone, black brown and black Silty Clay- fill					Stream Bed Elev. _____ ft	8	2.4	12.9	
					Groundwater Elev.: _____ ft	10	B		
					First Encounter _____ ft				
					Upon Completion _____ ft				
					After _____ Hrs. _____ ft				
Stiff to medium, black gray, Silty Clay- fill	2					5			
	3	1.8	22.7			6	2.7	13.5	
	3	P				10	B		
	-5	2				-25	4		
		1	1.5	33.3			6	2.5	13.0
		2	P				10	B	
		2					4		
		2	1.0	19.8			6	2.7	13.4
		3	P				10	B	
Medium, black, Silty Loam with Gravel pieces- fill									
	-10	2				-30	5		
		1	1.0	25.0			7	2.7	13.0
		2	P				10	B	
Stiff, brown, Sandy Clay Loam Till									
		3							
		4	1.8	14.3					
		7	B						
Very stiff, reddish gray, Sandy Clay Loam Till									
	-15	3				-35	5		
		5	2.5	13.2			7	2.7	14.5
		8	B				10	B	
* CL of structure set at an elevation of 100'									
** Estimated from Straight Line Diagram									
		5							
		7	2.9	12.6					
		11	B						
	-20	4				-40			

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)

FAP ROUTE 646 (IL 40)
SECTION (121)-1
BUREAU COUNTY
STA. 112+70
S.N. 006-2523

FILE NAME = c:\projects\main08\com315\detail.dgn	USER NAME = woodshankr1	DESIGNED - RON WOODSHANK	REVISED - 11/29/2007	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BORING LOGS	F.A.P. RTE. 646	SECTION (121)-2	COUNTY BUREAU	TOTAL SHEETS 13	SHEET NO. 9	
PLOT SCALE = 1/4" = 1'-0"	CHECKED -	REVISOR -	SCALE: _____			SHEET NO. 2 OF 6 SHEETS	STA. 110+10 TO STA. 115+30	FED. ROAD DIST. NO. ILLINOIS	CONTRACT NO. 66732		
PLOT DATE = Dec 13, 2007 - 07:08:02 AM	DATE -	REVISOR -									



STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

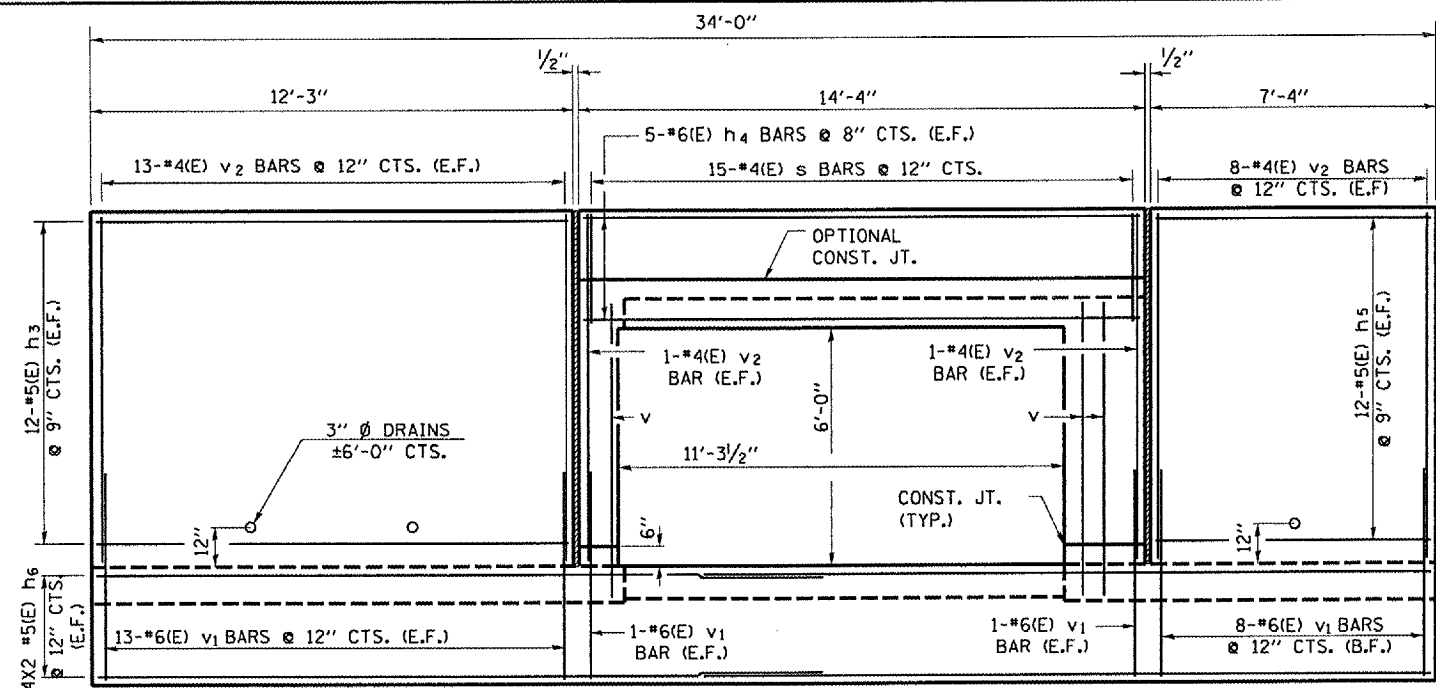
CONCRETE REMOVAL DETAILS

SCALE: SHEET NO. 3 OF 6 SHEETS STA. 110+10 TO STA. 115+30

FAP ROUTE 646 (IL 40)
 SECTION (1211-1)
 BUREAU COUNTY
 STA. 112+70
 S.N. 006-2523

FILE NAME =	USER NAME = woodshankr1	DESIGNED - RON WOODSHANK	REVISED - 11/29/2007
c:\projects\conain08\con315\details.dgn		DRAWN - RON WOODSHANK	REVISED -
	PLOT SCALE = 1/4" = 1'-0"	CHECKED -	REVISED -
	PLOT DATE = Dec 13, 2007 - 07:06:10 AM	DATE -	REVISED -

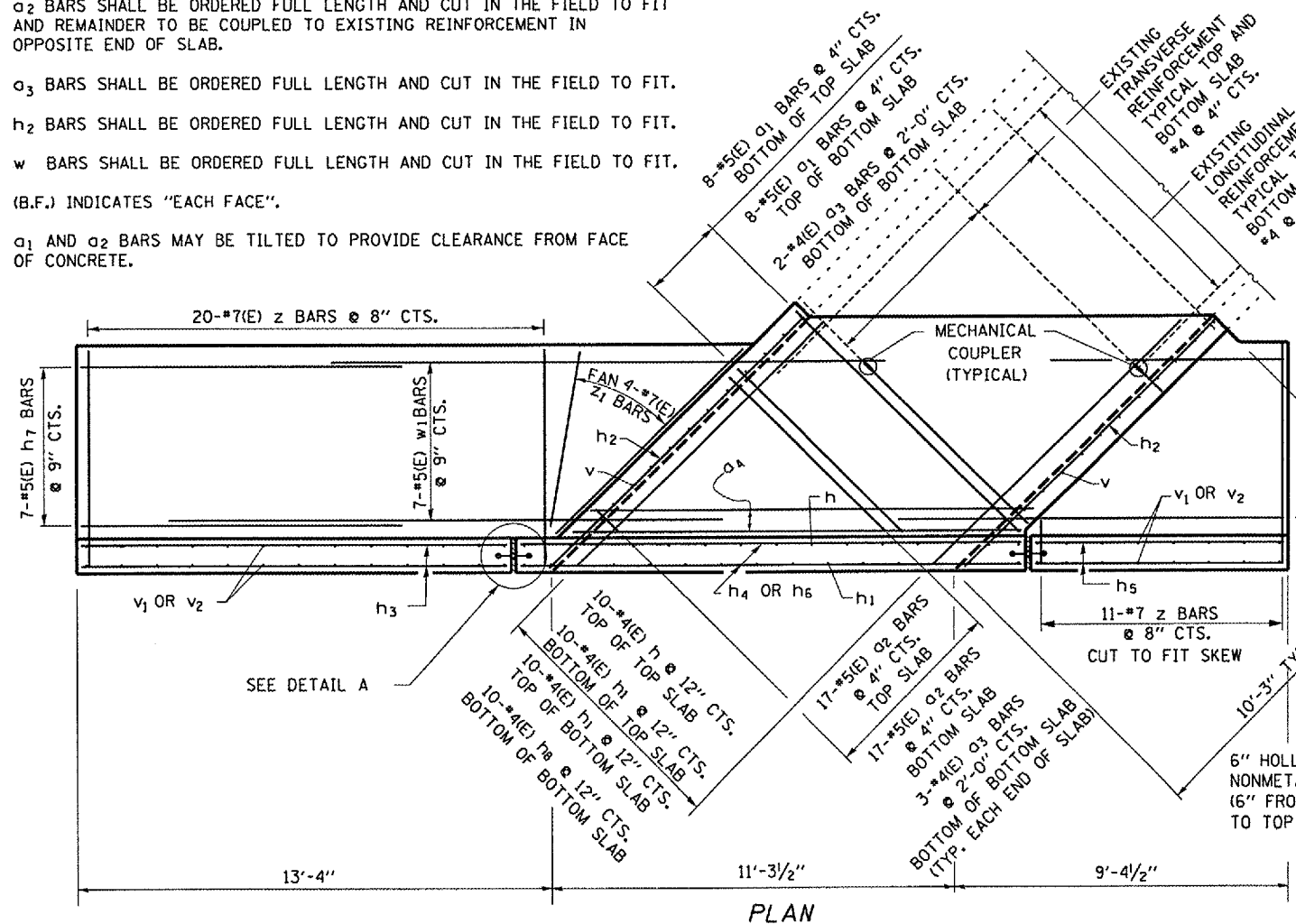
F.A.P. RTE. 646	SECTION 1211-2	COUNTY BUREAU	TOTAL SHEETS 13	SHEET NO. 10
FED. ROAD DIST. NO. ILLINOIS				CONTRACT NO. 66732



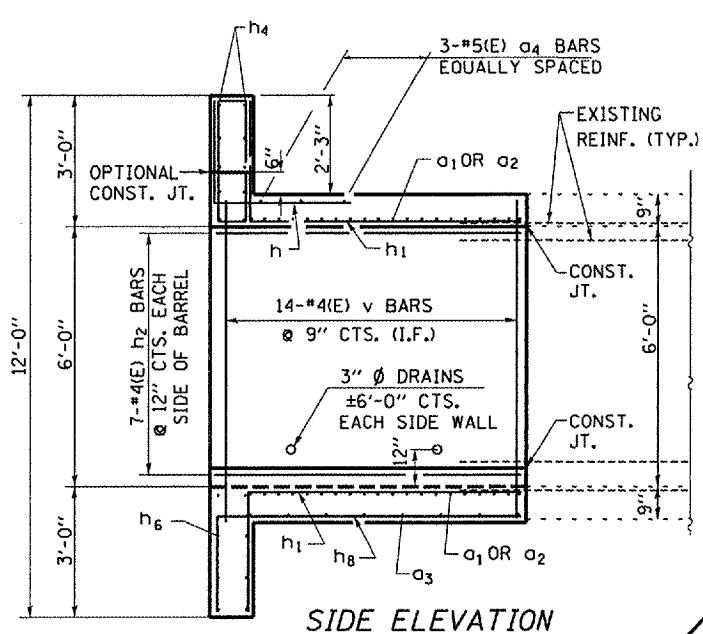
ELEVATION

NOTES

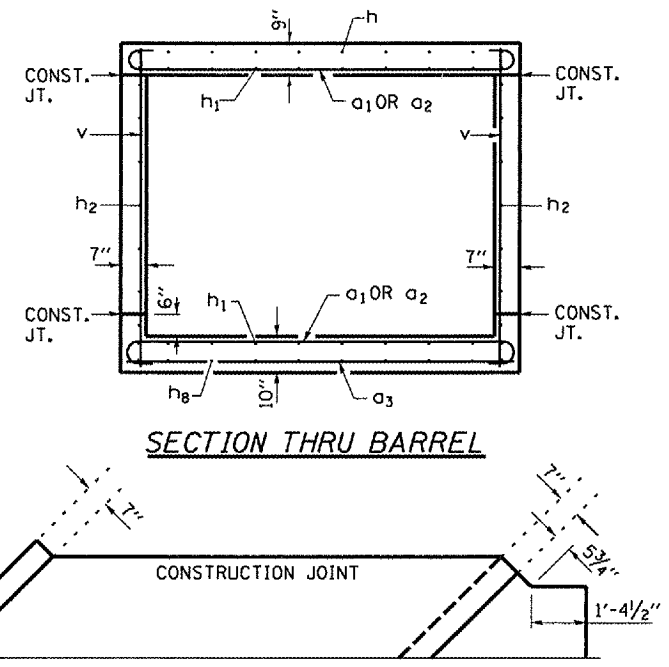
- o₁ BARS SHALL BE ORDERED FULL LENGTH AND CUT IN THE FIELD TO FIT.
- o₂ BARS SHALL BE ORDERED FULL LENGTH AND CUT IN THE FIELD TO FIT AND REMAINDER TO BE COUPLED TO EXISTING REINFORCEMENT IN OPPOSITE END OF SLAB.
- o₃ BARS SHALL BE ORDERED FULL LENGTH AND CUT IN THE FIELD TO FIT.
- h₂ BARS SHALL BE ORDERED FULL LENGTH AND CUT IN THE FIELD TO FIT.
- w BARS SHALL BE ORDERED FULL LENGTH AND CUT IN THE FIELD TO FIT.
- (B.F.) INDICATES "EACH FACE".
- o₁ AND o₂ BARS MAY BE TILTED TO PROVIDE CLEARANCE FROM FACE OF CONCRETE.



PLAN

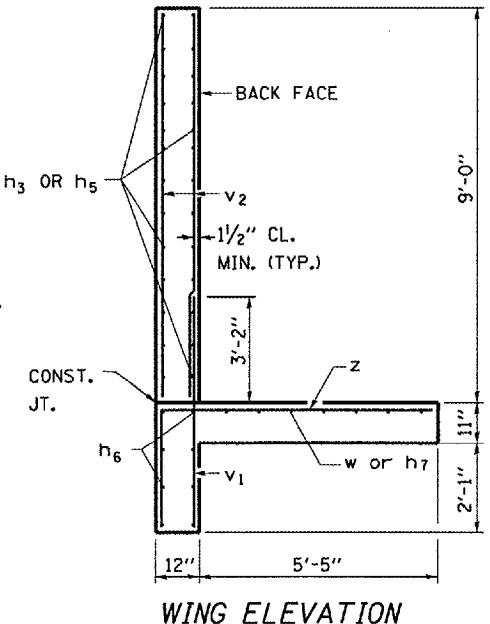


SIDE ELEVATION

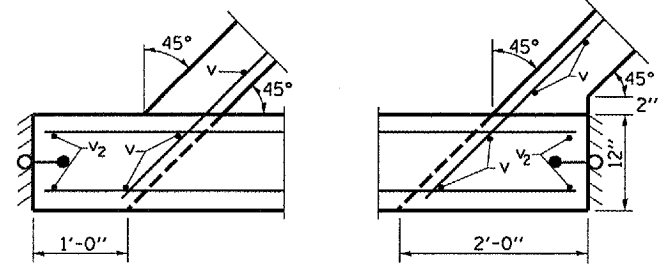


SECTION THRU BARREL

CONSTRUCTION JOINT



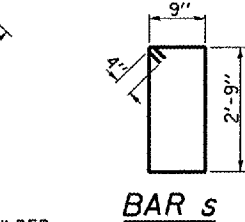
WING ELEVATION



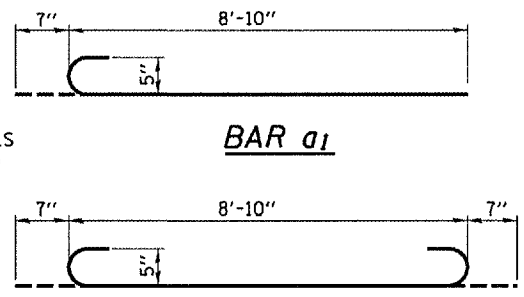
CORNER DETAILS

BAR h, h1, z

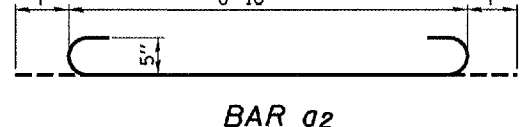
BAR h	2'-6"
BAR h1	9'-9"
BAR h2	10'-0"
BAR z	6'-0"



BAR s



BAR o1



BAR o2

BILL OF MATERIAL FOR TWO ENDS

BAR NO.	SIZE	LENGTH	SHAPE
o1	32 5(E)	9'-5"	[Symbol]
o2	68 5(E)	10'-0"	
o3	16 4(E)	8'-10"	
o4	6 5(E)	12'-0"	
h	20 4(E)	4'-10"	[Symbol]
h1	40 4(E)	11'-5"	
h2	28 4(E)	10'-0"	
h3	48 5(E)	12'-0"	
h4	20 6(E)	13'-10"	
h5	48 5(E)	7'-10"	
h6	32 5(E)	18'-3"	
h7	14 5(E)	9'-7"	
h8	20 4(E)	12'-2"	[Symbol]
s	30 4(E)	7'-8"	
v	56 4(E)	7'-4"	[Symbol]
v1	92 6(E)	5'-3"	
v2	92 4(E)	8'-9"	
w	14 5(E)	11'-0"	[Symbol]
w1	14 5(E)	15'-8"	
z	62 7(E)	8'-8"	[Symbol]
z1	8 7(E)	6'-0"	
MECHANICAL SPLICE EACH			68
CONCRETE BOX CULVERT			44
REINFORCEMENT BARS POUND			7350
EPOXY COATED			

(E) DENOTES EPOXY COATED

FAP ROUTE 646 (IL 40)
SECTION (12)1-1
BUREAU COUNTY
STA. 112+70
S.N. 006-2523

FILE NAME =	USER NAME = woodshankr1	DESIGNED - RON WOODSHANK	REVISED - 11/29/2007
c:\projects\main\28\con315\details.dgn		DRAWN - RON WOODSHANK	REVISED -
PLOT SCALE = 1/4" = 1'-0"		CHECKED -	REVISED -
PLOT DATE = Dec 13, 2007 - 07:08:15 AM		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE BOX CULVERT

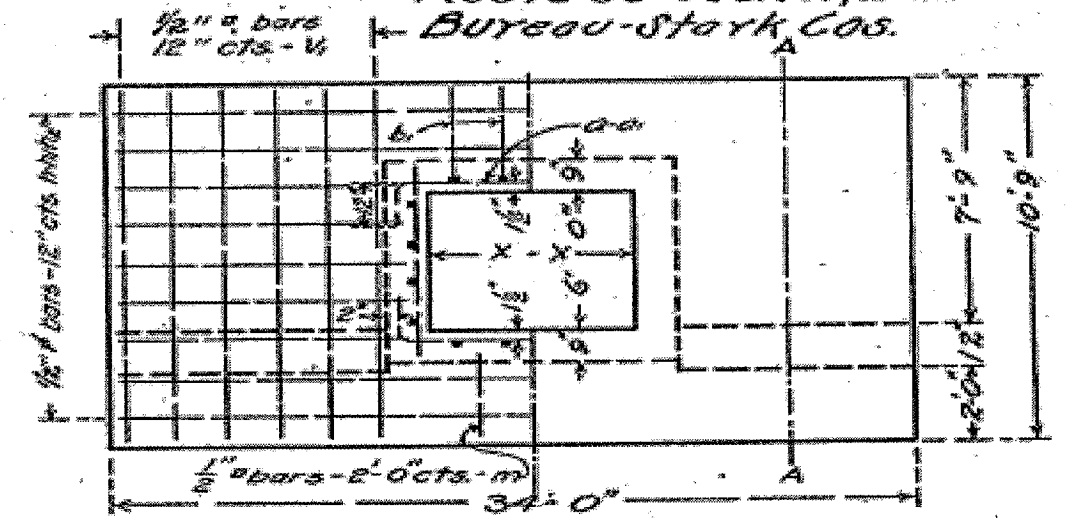
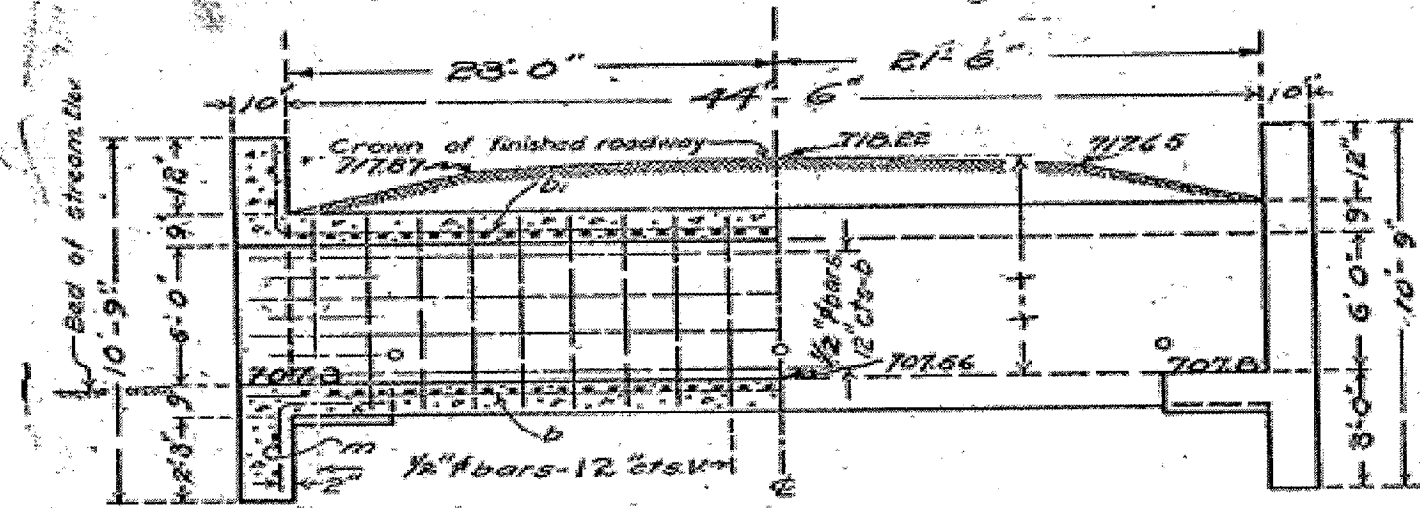
SCALE: SHEET NO. 4 OF 6 SHEETS STA. 110+10 TO STA. 115+30

F.A.P. RTE. 646	SECTION (12)1-2	COUNTY BUREAU	TOTAL SHEETS 13	SHEET NO. 11
FED. ROAD DIST. NO. [ILLINOIS]			CONTRACT NO. 66732	

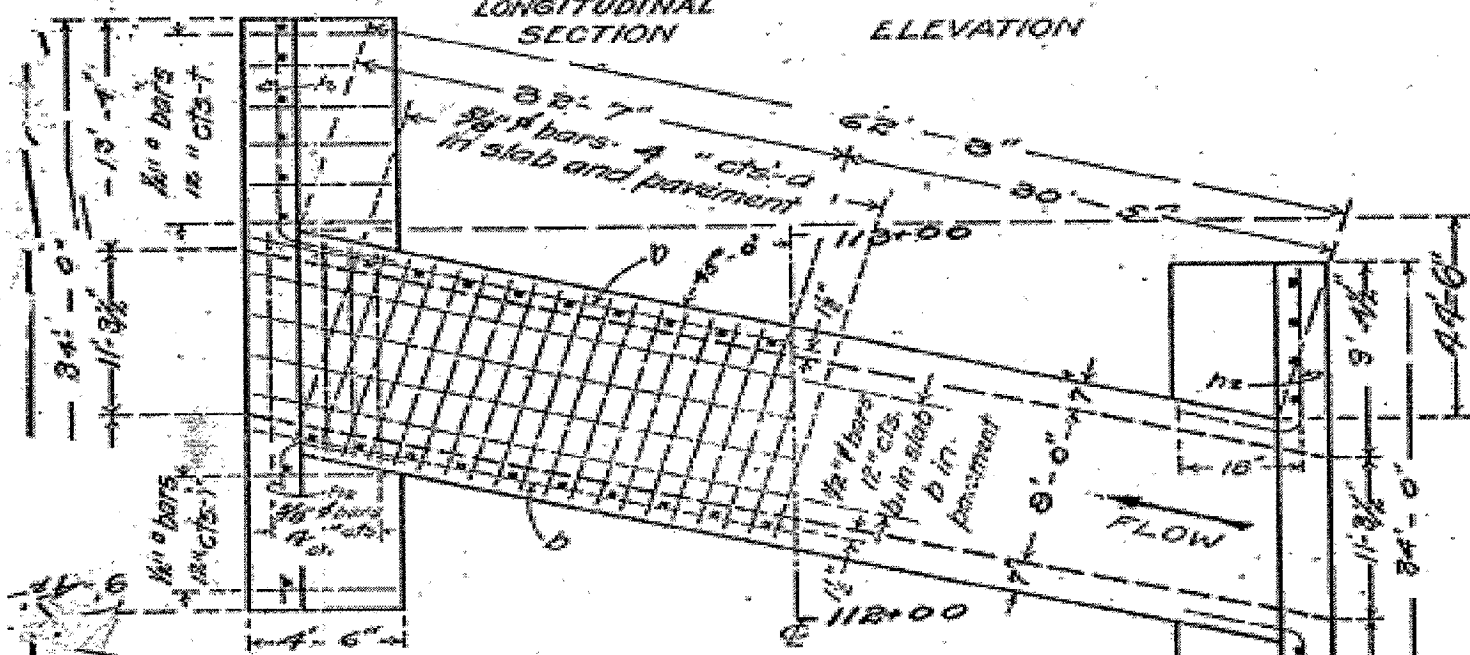
FED. ROAD DIST. NO.	STATE	FED-AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	ILL	150	1928	68	83

SHEET NO. 68 OF 83

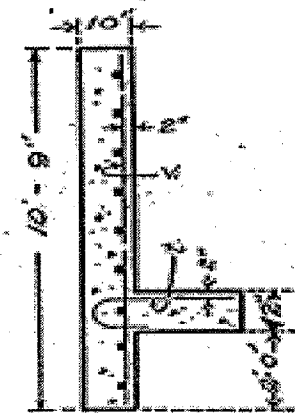
Route 88 Section B-122
Bureau-Stark Cos.



SHOWING REINFORCEMENT SHOWING OUTLINES



SHOWING REINFORCEMENT SHOWING OUTLINES



SECTION A-A

BUILD TOPS OF HEAD-WALLS
PARALLEL TO GRADE LINE.

BILL OF MATERIAL

Bars	No.	Size	Length
V	126	1/2"	7'-3"
VI	46	1/2"	10'-6"
h	20	1/2"	18'-0"
h	10	1/2"	14'-6"
h	10	1/2"	9'-6"
a	326	3/8"	10'-9"
a	84	3/8"	14'-6"
b	57	1/2"	28'-0"
b	27	1/2"	23'-6"
l	46	1/2"	4'-6"
m	5	1/2"	5'-0"
Steel-Lbs.			7840
Concrete-Cu.Yds.			71.7

Class A concrete to be used throughout. Proportions 1:2 1/2:4. Use 7m bars in downstream headwall only.

Sta. 112+70
State Bond Issue
Route 88 Section 122
Bureau County.

1118

83

DESIGNED - Ron Woodshank
DRAWN - Ron Woodshank
CHECKED -
DATE -

REVISOR -
REVISION -
DATE -

APPROVED -
DATE -

THIS SHEET FOR INFORMATION ONLY