

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
SURFACE TRANSPORTATION PROGRAM – RURAL

PROJECT RS-0175(031)
SECTION 10-00164-00-BR
STARK COUNTY

C.H. 17 / HOLMES ROAD
PROPOSED STRUCTURE NO. 088-3117
C-94-064-14

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 17	10-00164-00-BR	STARK	18	1
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 89671	

INDEX OF SHEETS

SHEET NO. DESCRIPTION

1. COVER SHEET
2. SUMMARY OF QUANTITIES & GENERAL NOTES
3. QUANTITY TABLES
4. TYPICAL CROSS SECTIONS
5. PLAN & PROFILE
- 6-8. CULVERT PLANS
9. BORING
- 10-18. STATION CROSS SECTIONS

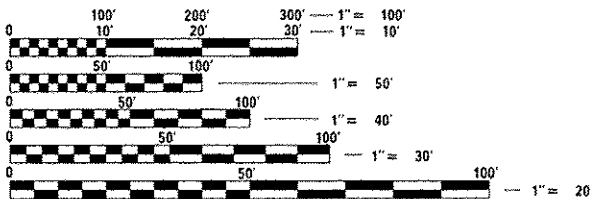
HIGHWAY STANDARDS:

000001-06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
515001-03	NAME PLATE FOR BRIDGES
630001-10	STEEL PLATE BEAM GUARDRAIL
630101-09	GUARDRAIL MOUNTED ON EXISTING CULVERTS
630301-06	GUARDRAIL WIDENING FOR TYPE 1, (SPECIAL) GUARDRAIL TERMINALS
635006-03	REFLECTOR & TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701901-03	TRAFFIC CONTROL DEVICES
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

UTILITIES

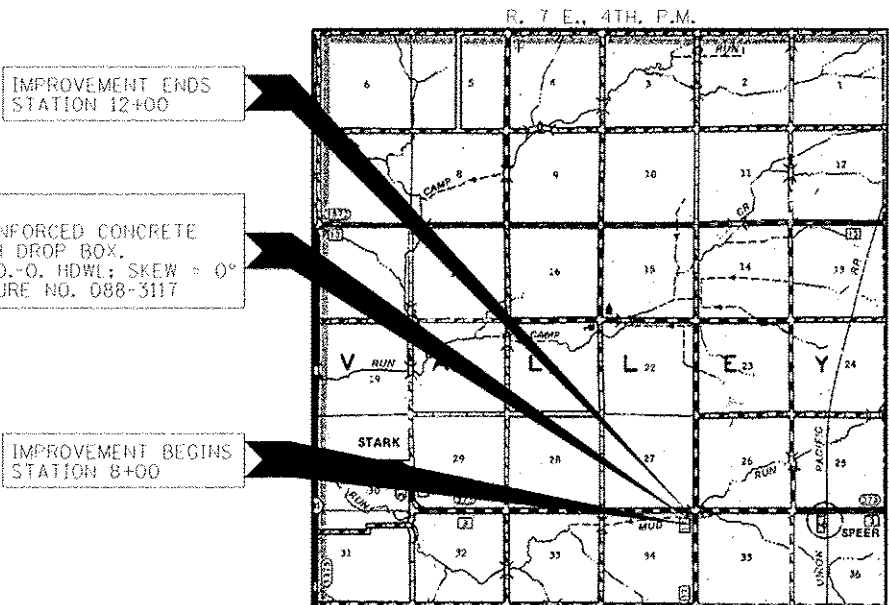
FRONTIER COMMUNICATIONS
104 MULBERRY
NORMAL, IL 61761
ATTN: ENGINEERING DEPARTMENT

AMEREN
300 LIBERTY STREET
PEORIA, IL 61602



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

CATALOG NO. 035089-00
CONTRACT NO. 89671



LOCATION MAP

APPROXIMATE SCALE: 0 1 MILE
NET LENGTH OF SECTION = 350.00 FEET = 0.666 MILES



FUNCTIONAL CLASSIFICATION: MAJOR COLLECTOR
DESIGN SPEED: 50 MPH
DESIGN TRAFFIC: 670 ADT (2030)



ILLINOIS DEPARTMENT OF TRANSPORTATION	
APPROVED	April 8, 2014 County Engineer
PASSED	April 9, 2014 District Engineer of Local Roads & Streets
Releasing For Bid Based on Limited Review	0409 2014 Deputy Director of Highways Region Three Engineer State of Illinois Department of Transportation



HAMP顿, LENZINI AND RENWICK, INC.
CIVIL ENGINEERS - STRUCTURAL ENGINEERS - LAND SURVEYORS
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
217.546.3400 www.hlrengineering.com
194.029959
ILLINOIS PROFESSIONAL DESIGN FIRM L.S./P.E./S.E. CORPORATION

PROJECT NUMBER: 10.0002.130 DATE: 04/04/14

SUMMARY OF QUANTITIES			
CODE NO.	ITEM	CONSTRUCTION CODE	
		0008	
		UNIT	TOTAL
20200100	EARTH EXCAVATION	CU YD	140
20400800	FURNISHED EXCAVATION	CU YD	60
A 20700110	POROUS GRANULAR EMBANKMENT	TON	860
28100209	STONE RIPRAP, CLASS A5	TON	300
28200200	FILTER FABRIC	SQ YD	258
35101400	AGGREGATE BASE COURSE, TYPE B	TON	170
40600115	POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT)	GALLON	190
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	146
40600990	TEMPORARY RAMP	SQ YD	24
40603212	POLYMERIZED HOT MIX ASPHALT BINDER COURSE, IL-12.5, N50	TON	34
40603510	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	73
48101200	AGGREGATE SHOULDERS, TYPE B	TON	157
A 50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50800105	REINFORCEMENT BARS	POUND	38540
51500100	NAME PLATES	EACH	1
54003000	CONCRETE BOX CULVERTS	CU YD	170.8
* 63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	112.5
* 63000025	STEEL PLATE BEAM GUARDRAIL, ATTACHED TO STRUCTURES	FOOT	37.5
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4
67100100	MOBILIZATION	L SUM	1
A 70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	790
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	8
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
A X2090210	POROUS GRANULAR BACKFILL, SPECIAL	CU YD	390
A X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.2

A SEE SPECIAL PROVISIONS

* SPECIALTY ITEMS

GENERAL NOTES

- 1) ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ADOPTED JANUARY 1, 2012", (HERE IN AFTER REFERRED TO AS THE STANDARD SPECIFICATIONS; THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" ADOPTED JANUARY 1, 2014; THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS"; THE DETAILS IN THE PLANS AND THE "SPECIAL PROVISIONS" INCLUDED IN THE DOCUMENTS.
- 2) WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
- 3) ANY REFERENCE TO A STANDARD THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO BE THE LATEST STANDARD OF THE DEPARTMENT.
- 4) THE LOCATION ON THE PLANS OF EXISTING DRAINAGE STRUCTURES, TELEPHONE LINES, ELECTRIC LINES, WATER SERVICE LINES, GAS MAINS, AND OTHER UTILITY FACILITIES AS SHOWN ON THE PLANS ARE BASED ON FIELD INVESTIGATIONS AND THE BEST INFORMATION AVAILABLE, BUT THE LOCATIONS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE INDIVIDUAL UTILITY COMPANIES AND BY FIELD INSPECTION.
- 5) THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES
- | | |
|----------------------------|-----------------|
| STONE RIPRAP, CLASS A5 | 1.75 TON/CU YD |
| AGGREGATE BASE COURSE | 2.05 TON/CU YD |
| HOT MIX ASPHALT | 112 LB/IN/SQ YD |
| POROUS GRANULAR EMBANKMENT | 2.00 TON/CU YD |
- 6) THE AREA TO BE SEEDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT OF WAY OR AS DIRECTED BY THE ENGINEER. SEEDING, CLASS 2 (SPECIAL) = 0.2 ACRES
- 7) THE FINAL SURFACE OF ALL EMBANKMENT AREAS SHALL BE SEEDED. THE TOP 4 INCHES OF THE SEEDED AREAS SHALL BE VEGETATIVE SUSTAINING SOIL SUBJECT TO THE APPROVAL OF THE ENGINEER. THE COST OF SHAPING THE SLOPES AND PROVIDING VEGETATION SUSTAINING SOIL WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF FURNISHED EXCAVATION.
- 8) ALL WASTE MATERIAL FROM EXCAVATIONS SHALL BE DISPOSED OF BY THE CONTRACTOR. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT) RATES

SURFACE TYPE	ESTIMATED TRUCK APPLICATION RATE	RESIDUAL RATE
MILLED (HMA OR PCC)	0.10 GAL/SY (0.0004 TON/SY)	0.05 GAL/SY
EXISTING HMA PAVEMENT	0.10 GAL/SY (0.0004 TON/SY)	0.05 GAL/SY
AGGREGATE BASE	0.35 GAL/SY (0.00022 TON/SY)	0.175 GAL/SY
FOG COAT (BETWEEN LIFTS)	0.05 GAL/SY (0.00022 TON/SY)	0.025 GAL/SY

NOTE: ESTIMATED TRUCK APPLICATION RATE IS USED FOR ESTIMATING QUANTITIES

MIXTURE REQUIREMENTS	
LOCATION(S):	CH17 HOLMES ROAD
MIXTURE USE(S):	POLYMERIZED HMA SURF. CSE, MIX "C", N50
AC/PG:	SBS OR SBR 76-22
RAP % (MAX):	SEE SPECIAL PROVISION
DESIGN AIR VOIDS:	4% @ Ndes 50
MIXTURE COMPOSITION:	IL 9.5 OR IL 12.5
(GRADATION MIXTURE):	
FRICTION AGGREGATE:	MIXTURE C
MIXTURE WEIGHTS:	112 LBS \ SY \ INCH THICKNESS

MIXTURE REQUIREMENTS	
LOCATION(S):	CH17 HOLMES ROAD
MIXTURE USE(S):	HOT-MIX ASPHALT BINDER COURSE,
AC/PG:	PG 64-22
RAP % (MAX):	SEE SPECIAL PROVISION
DESIGN AIR VOIDS:	4% @ Ndes 50
MIXTURE COMPOSITION:	IL 19.0
(GRADATION MIXTURE):	
FRICTION AGGREGATE:	NONE
MIXTURE WEIGHTS:	112 LBS \ SY \ INCH THICKNESS

ROADWAY SCHEDULE								
LOCATION	AGGREGATE BASE COURSE TYPE B	POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT) TACK COAT	POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT) FOG COAT	HOT-MIX ASPHALT SURFACE REMOVAL BUTT JOINT	TEMPORARY RAMP	POLYMERIZED HOT-MIX ASPHALT BINDER COURSE IL 12.5 , N50	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE MIX "C", N50	AGGREGATE SHOULDER TYPE B
	40200800	40600115	40600115	40600982	40600990	40603212	40603510	48102100
	TON	GAL	GAL	SQ YD	SQ YD	TON	TON	TON
CH 17 / HOLMES ROAD								
STA 8+50 TO STA 9+50		24	12	73	12		21	43
STA 9+50 TO STA 10+50	167	86	12			34	21	50
STA 10+50 TO STA 12+00		37	19	73	12		31	64
SUB TOTAL	167	147	43	146	24	34	73	157
TOTAL	170	190		146	24	34	73	157

GUARDRAIL SCHEDULE					
LOCATION	STEEL PLATE BEAM GUARD RAIL TYPE A 9 FOOT POSTS	STEEL PLATE BEAM GUARD RAIL ATTACHED TO STRUCTURES	TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL (TANGENT)	TERMINAL MARKER DIRECT APPLIED	GUARDRAIL MARKERS TYPE A
	63000003	63000025	63100167	78201000	78200410
CH 17 / HOLMES ROAD	FOOT	FOOT	EACH	EACH	EACH
LT. STA 9+40.63 TO LT. STA 10+59.38	50	18.75	2	2	4
RT. STA 8+78.13 TO RT. STA 10+59.38	62.5	18.75	2	2	4
TOTAL	112.5	37.5	4	4	8

EARTHWORK SUMMARY						
LOCATION	EARTH EXCAVATION	SHRINKAGE FACTOR	% USED	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE(25%)	EMBANKMENT REQUIRED	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CU YD			CU YD	CU YD	CU YD
CH 17 / HOLMES ROAD						
STA 8+50 TO STA 9+50	57	25.00%	100.00%	43	134	-91
STA 9+50 TO STA 10+50	14	25.00%	100.00%	11	252	-241
STA 10+50 TO STA 12+00	65	25.00%	100.00%	49	155	-106
EXCAVATION FROM CULVERT AND P.G.E (845 CU YD)		25.00%	60.00%	380	0	380
TOTAL	136			483	541	-58
USE	140					60
				FURNISHED	60	CU.YD.

FILE NAME : 100002-sht-schedule.dgn

USER NAME : USER09

DESIGNED : L.A.P.

REVISED : -

HAMPTON, LENZINI AND RENWICK, INC.

DRAWN : D.A.B.

REVISED : -

100002-sht-schedule.dgn

PLOT SCALE : 1"=40'

CHECKED : S.W.M.

REVISED : -

100002-sht-schedule.dgn

PLOT DATE : 4/4/2014

DATE : 04/04/14

REVISED : -

STATE OF ILLINOIS
STARK COUNTY HIGHWAY DEPARTMENT

SCHEDULE OF QUANTITIES
HOLMES ROAD

SCALE:

SHEET NO. 1 OF 1 SHEETS

STA.

TO STA.

C.H.

SECTION

COUNTY

TOTAL
SHEETS

SHEET
NO.

17

10-00164-00-BR

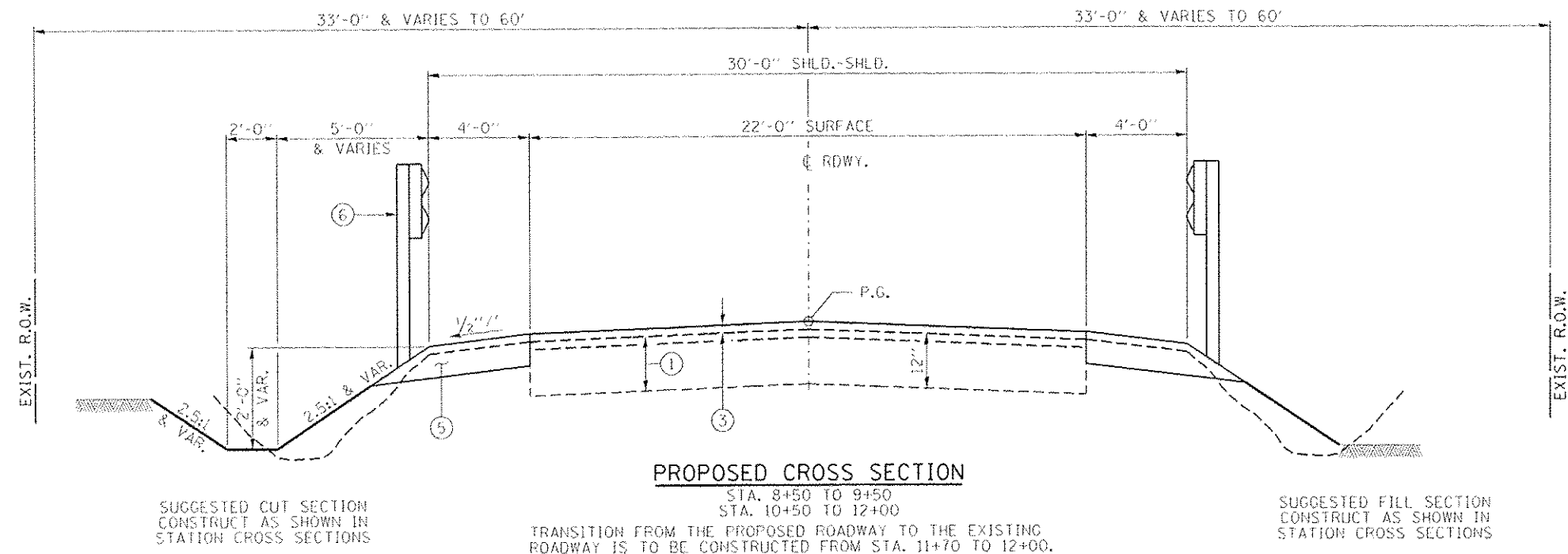
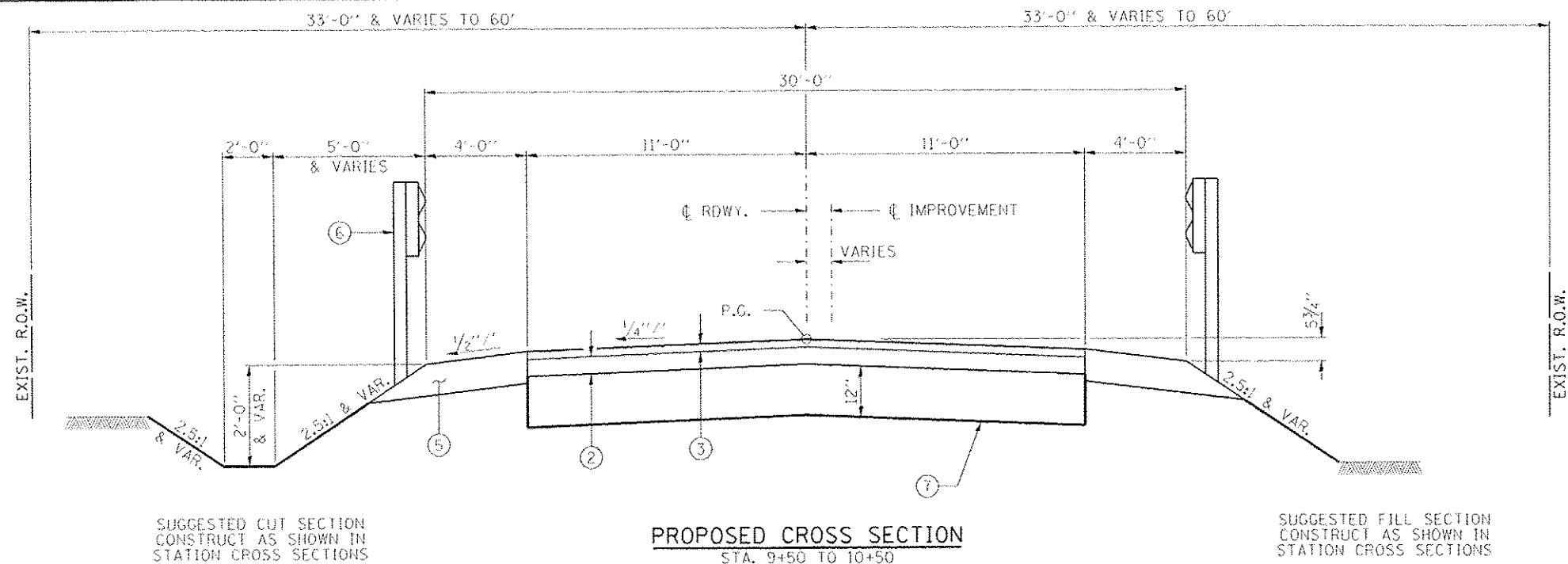
STARK

18

3

CONTRACT NO. 89671

ILLINOIS FED. AID PROJECT

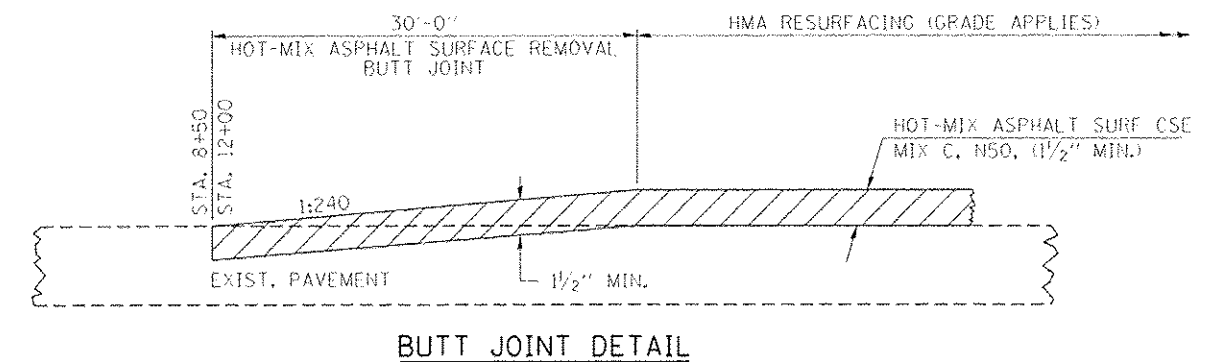


LEGEND

- ① EXISTING AGGREGATE BASE WITH HMA SURFACE
- ② HOT-MIX ASPHALT BINDER COURSE, 11-12.5, N50 2 1/2"
- ③ POLYMERIZED HOT MIX ASPHALT SURFACE COURSE, MIX "C", N50 1 1/2"
- ④ HOT MIX ASPHALT SURFACE REMOVAL 1"
- ⑤ AGGREGATE SHOULDER, TYPE B
- ⑥ PROPOSED STEEL PLATE BEAM GUARDRAIL / TRAFFIC BARRIER TERMINAL.
- ⑦ AGGREGATE BASE COURSE

PAVEMENT DESIGN (MECHANISTIC)

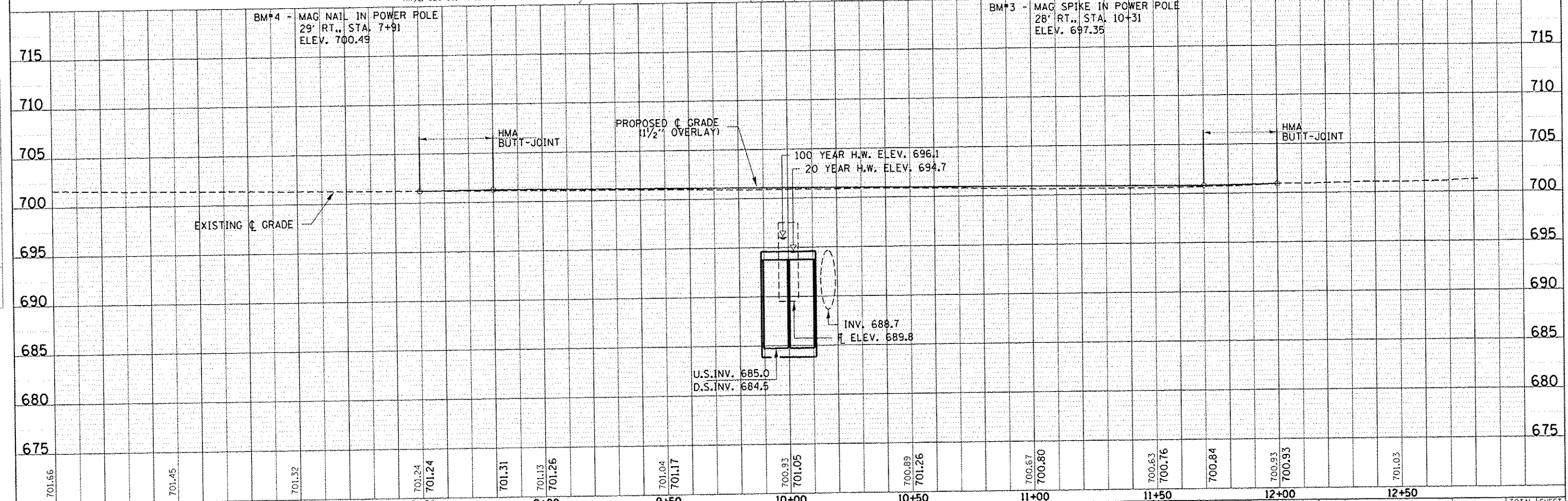
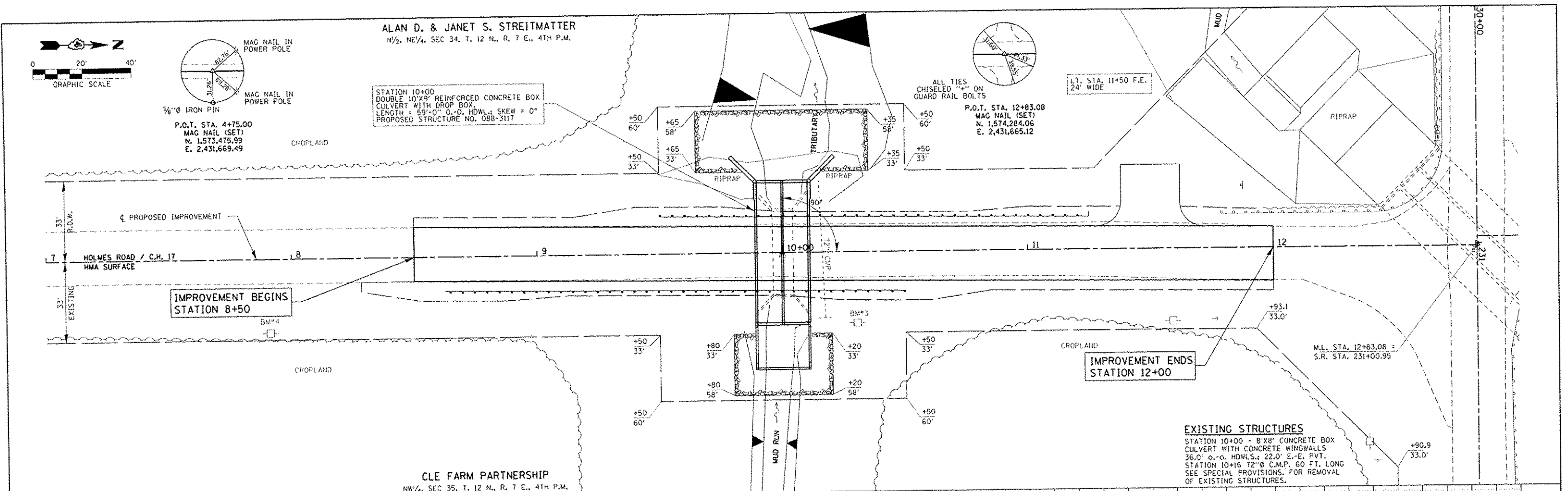
DESIGN PERIOD 15 YEARS 0
 STRUCTURAL DESIGN TRAFFIC (SDT) = 2022 (563)
 PV = 484 SU = 45 MU = 34
 ROAD/STREET CLASSIFICATION: CLASS III
 PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE
 P = 50% S = 50% MU = 50%
 TRAFFIC FACTOR ACTUAL TF 0.14 AC TYPE 64-22
 MINIMUM TF
 PG GRADE: BINDER = 64-22 SURFACE = 64-22

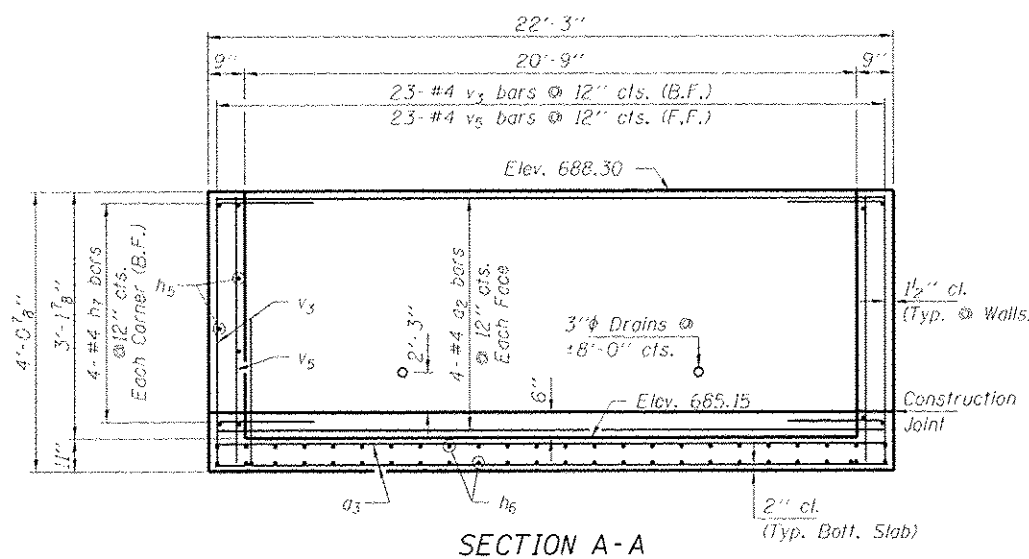
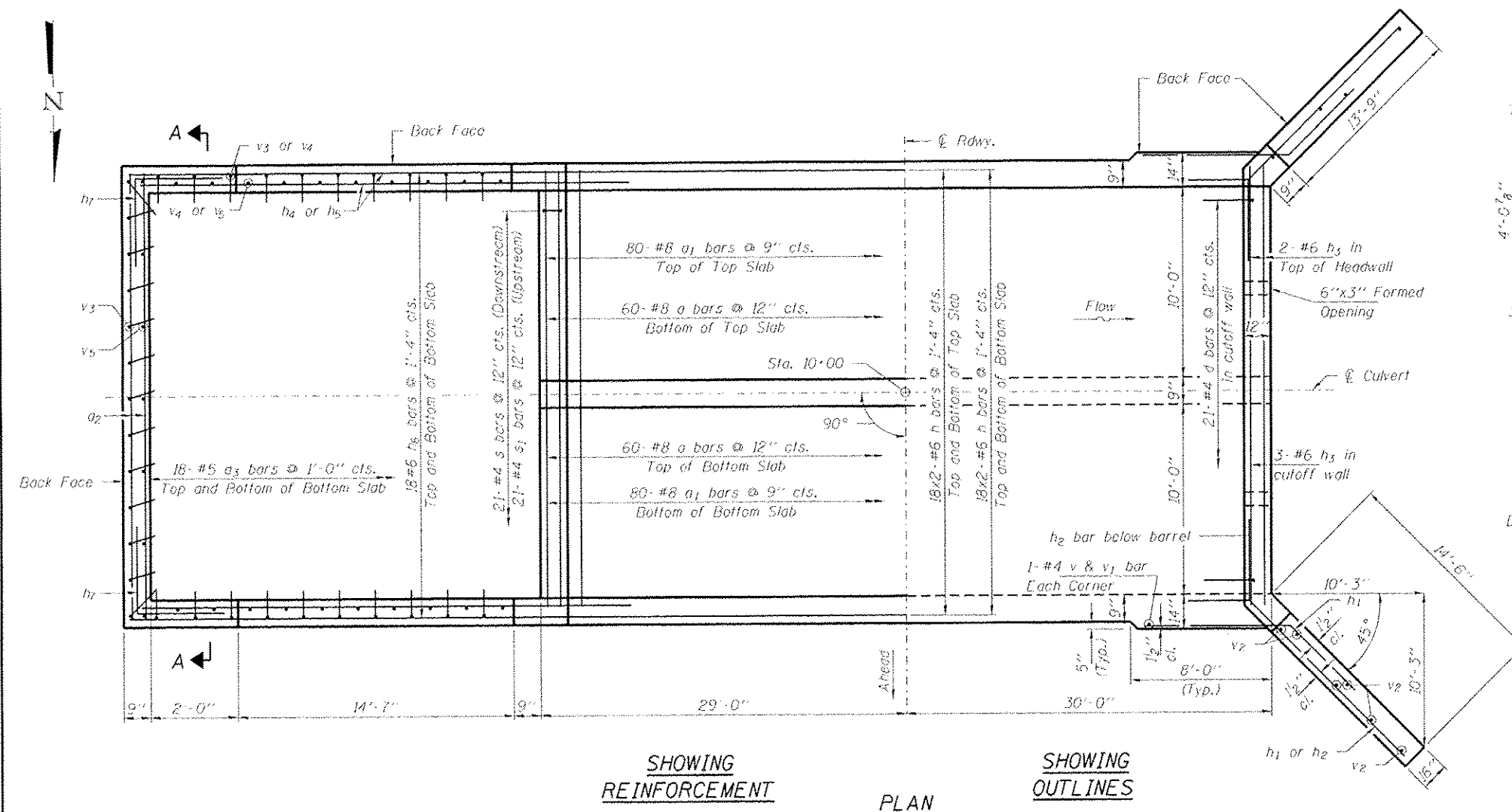
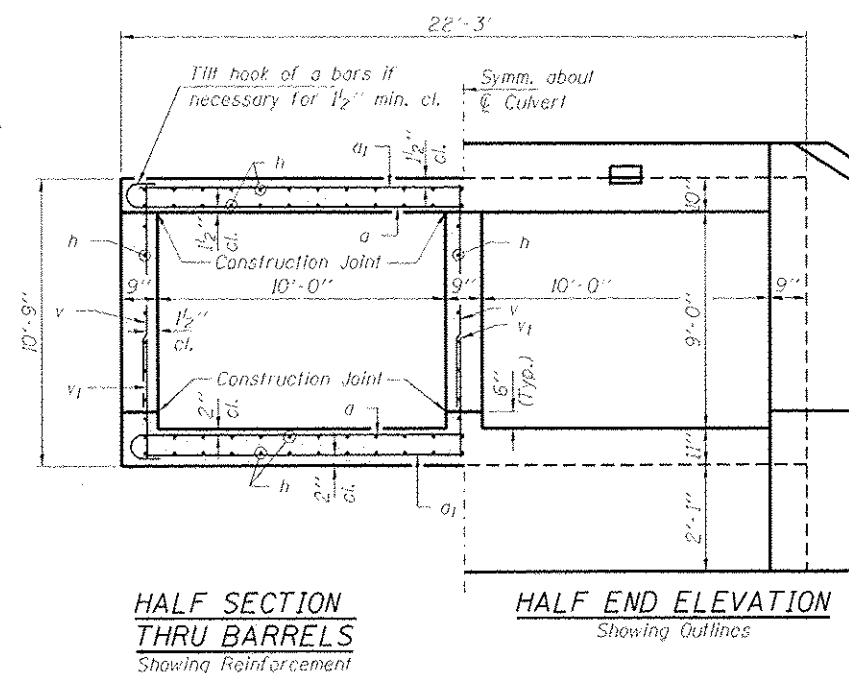
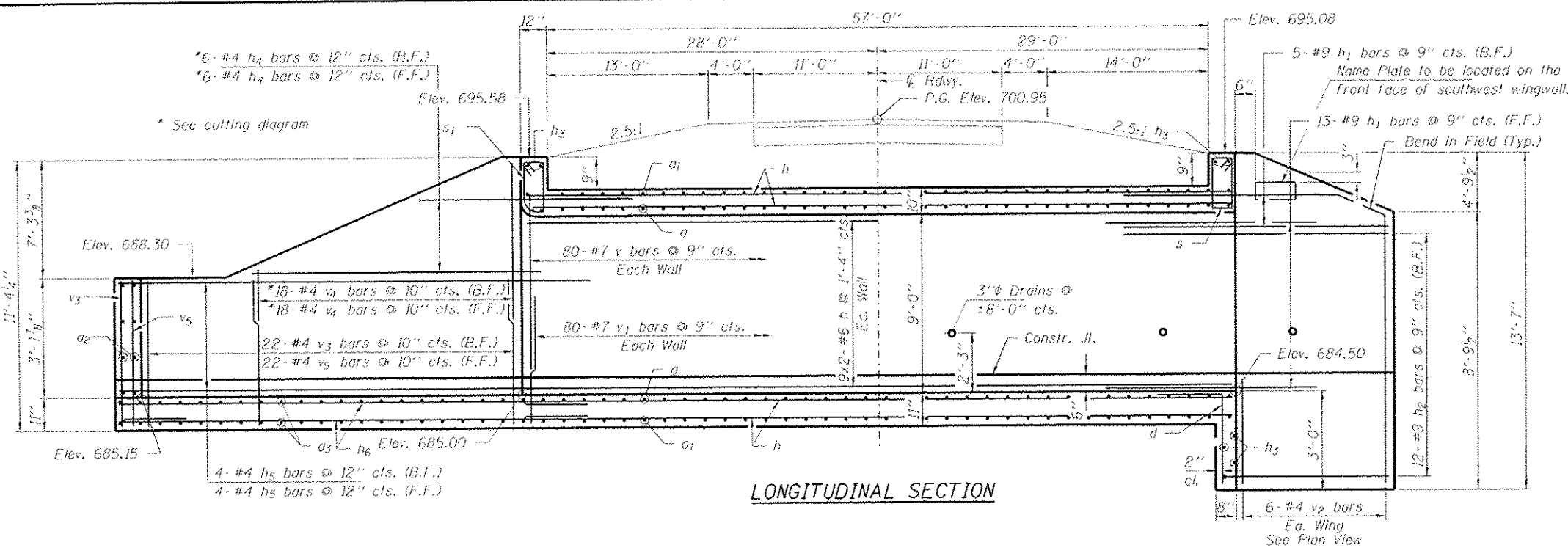


FILE NAME : 100802-shr-tysections.dgn	USER NAME : RUSERS	DESIGNED : L.A.P.	REVISED : -	STATE OF ILLINOIS STARK COUNTY HIGHWAY DEPARTMENT				TYPICAL CROSS SECTIONS HOLMES ROAD				C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND REANWICK, INC.	505 STEPHENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62763	DRAWN : D.A.B.	REVISED : -									17	10-00164-00-BR	STARK	18	4
ILLINOIS PROFESSIONAL DESIGN FIRM 12 ETC 167-0001 144-00252	PLOT SCALE : 1"=40'	CHECKED : S.W.M.	REVISED : -									CONTRACT NO. 89671				
	PLOT DATE : 4/4/2014	DATE : 04/04/14	REVISED : -									ILLINOIS FED. AID PROJECT				
				SCALE: SHEET NO. 1 OF 1 SHEETS STA. TO STA.												

PLAN
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BY
NOTES
1. ALL TIES CHISELED "4" ON GUARD RAIL BOLTS
2. MAG NAIL IN POWER POLE
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PROFILE
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DESIGN STRESSES

$f'_c = 3,500 \text{ psi}$
 $f_y = 60,000 \text{ psi (Reinf.)}$

LOADING HL-93
Design Specifications: 2012 AASHTO LRFD
with all applicable Interims.

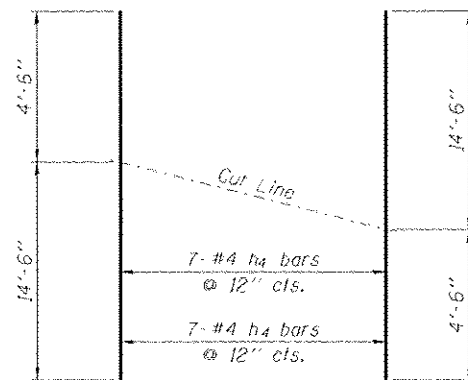
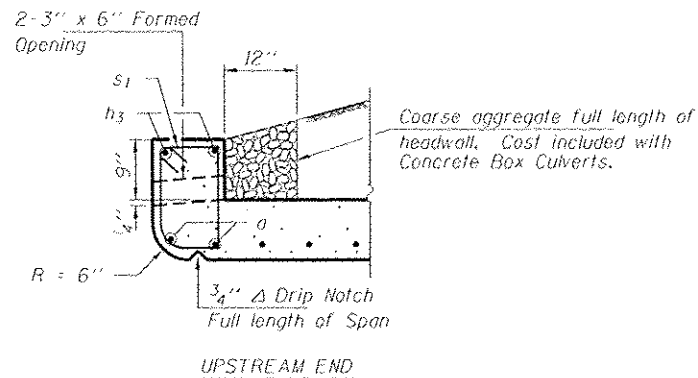
INDEX OF STRUCTURE SHEETS

I certify that to the best of my knowledge, information and belief, this culvert design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO LRFD Specifications."

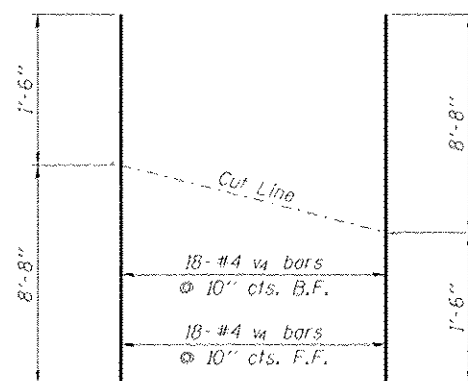
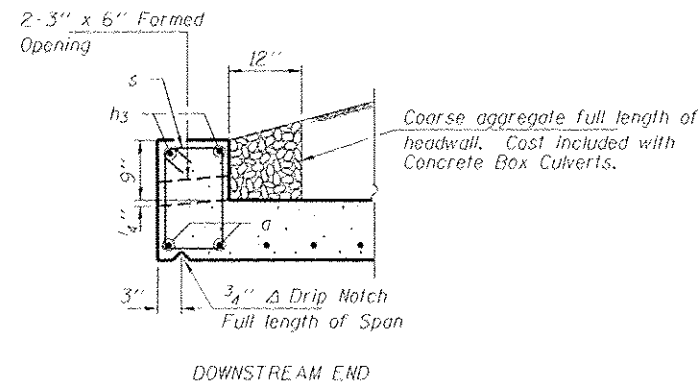
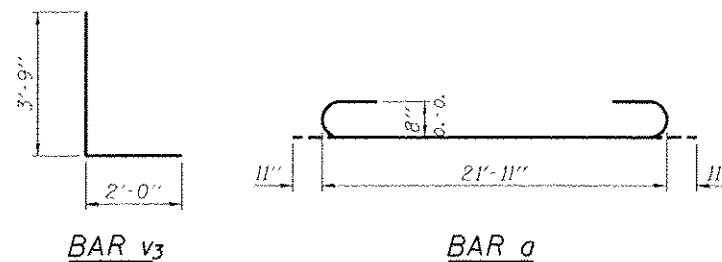
Steven W. Megginson 04/04/2014
ILLINOIS STRUCTURAL NO. 081-6064

Expires 11-30-2014

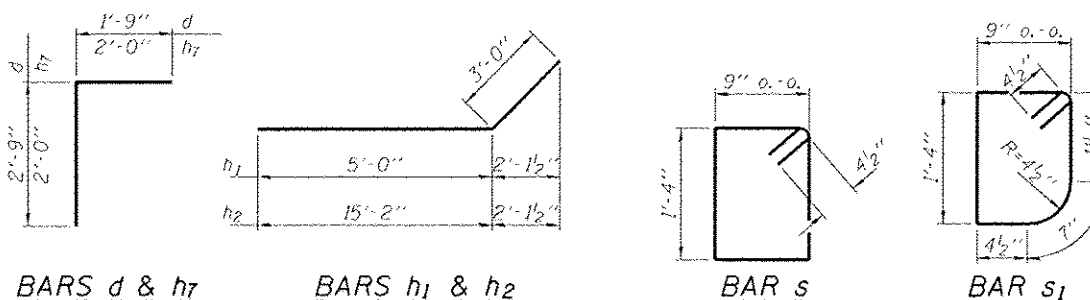
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HAMPTON, LENZI AND RENWICK, INC. 501 STEVENSON DRIVE SUITE 201 SPRINGFIELD, ILLINOIS 62761 ILLINOIS PROFESSIONAL DESIGNER LICENSE #00000000	PLOT SCALE = 1"=40'	CHECKED - S.W.M.	REVISED -	17		10-00164-00-BR	STARK	18	6			
	PLOT DATE = 4/2/2014	DRAWN - D.A.B.	REVISED -	CONTRACT NO. 89671								
	CHECKED - S.W.M.	REVISED -	SHEET NO. 1 OF 4 SHEETS									
ILLINOIS FED. AID PROJECT												



CUTTING DIAGRAM
Order #4 bars full length. Cut as shown and use the remainder in opposite face.



CUTTING DIAGRAM
Order #4 bars full length. Cut as shown and use the remainder in opposite face.



NOTES

Exposed edges shall be beveled $\frac{3}{4}$ ".
For backfilling and embankment, see Standard Specifications, except that Porous Granular Embankment shall be placed as shown in backfill detail for the full length of the culvert.
Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60. See Special Provisions.
It shall be the responsibility of the Contractor to divert flow during construction in order to keep construction areas free of water. The method of water diversion shall be subject to the approval of the Engineer and shall be included in the cost of Concrete Box Culverts.
All construction joints shall be bonded.
Precast concrete box culverts will not be allowed.
Bars indicated thus 18x2-#6 etc. indicates 18 lines of bars with 2 lengths per line.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	120	#8	23'-9"	U
a1	160	#8	21'-11"	U
a2	8	#4	21'-11"	U
a3	36	#5	21'-11"	U
d	21	#4	4'-6"	L
h	198	#6	30'-4"	U
h1	36	#9	8'-0"	U
h2	24	#9	18'-2"	U
h3	7	#6	22'-0"	U
h4	12	#4	19'-0"	U
h5	16	#4	19'-7"	U
h6	36	#6	20'-1"	U
h7	8	#4	4'-0"	L
s	21	#4	4'-11"	U
s1	21	#4	4'-9"	U
v	242	#7	9'-8"	U
v1	242	#7	3'-5"	U
v2	12	#4	13'-0"	U
v3	67	#4	5'-9"	U
v4	36	#4	10'-2"	U
v5	67	#4	3'-9"	U
Porous Granular Embankment				Ton 860
Stone Riprap, Class A5				Ton 300
Filter Fabric				Sq. Yd. 258
Reinforcement Bars				Pounds 38,540
Name Plates				Each 1
Concrete Box Culverts				Cu. Yd. 170.8
Porous Granular Backfill (Special)				Cu. Yd. 390

WATERWAY INFORMATION

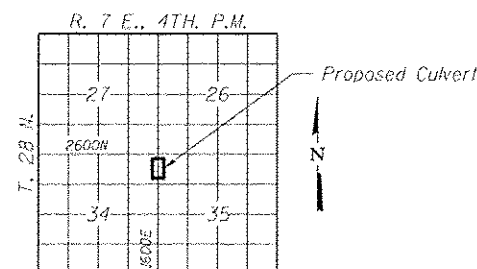
Flood		Frq. Yr.	Q C.F.S.	Opening Sq. Ft.	Natural Head - Ft.	Head - Ft.	Headwater El.
				Exist.	Prop.	Exist.	Prop.
Design		10	801	50	178	693.91	4.75
Base		100	1500	78	180	696.10	5.32
Max. Calc.		500	2020	87	180	697.06	4.65

Existing Low Grade Elev. 700.6 @ Sta. 11+50
Proposed Low Grade Elev. 700.6 @ Sta. 11+50

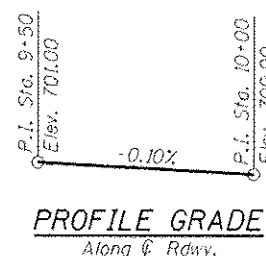
10 Year Velocity through Existing Bridge = 16.0 fps
10 Year Velocity through Proposed Bridge = 4.5 fps

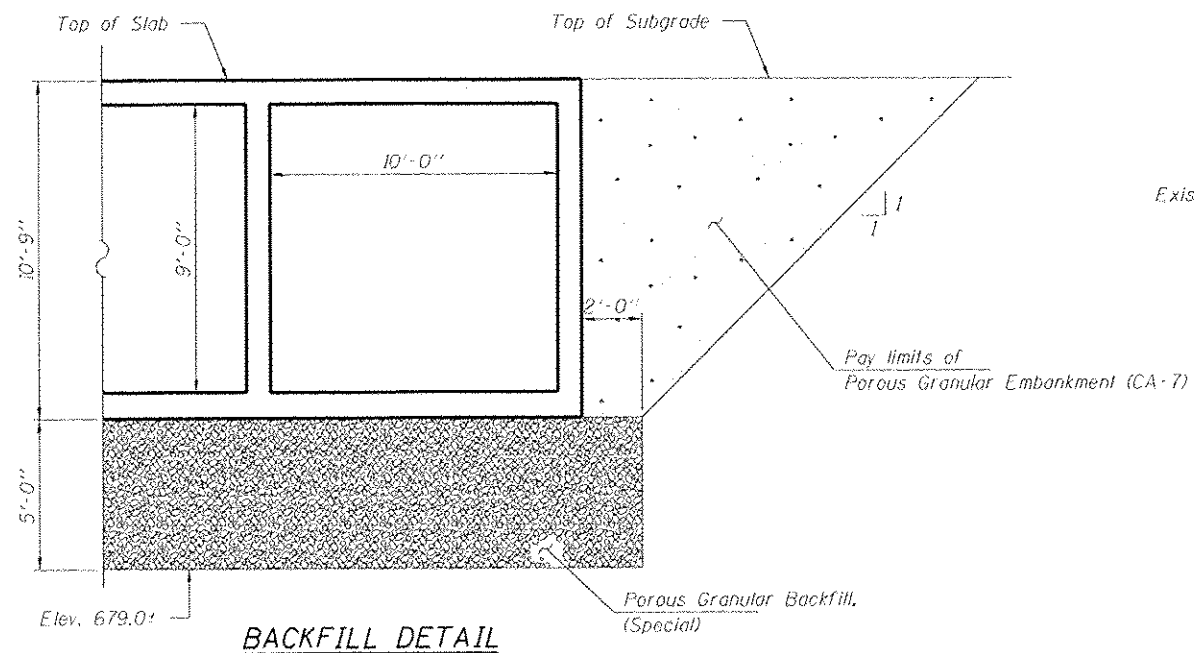
BUILT 2011 BY
STARK COUNTY
SEC. 10-00164-00-BR
C.H. 17
STR. NO. 088-3117
LOADING HL-93

NAME PLATE
See Std. 515001

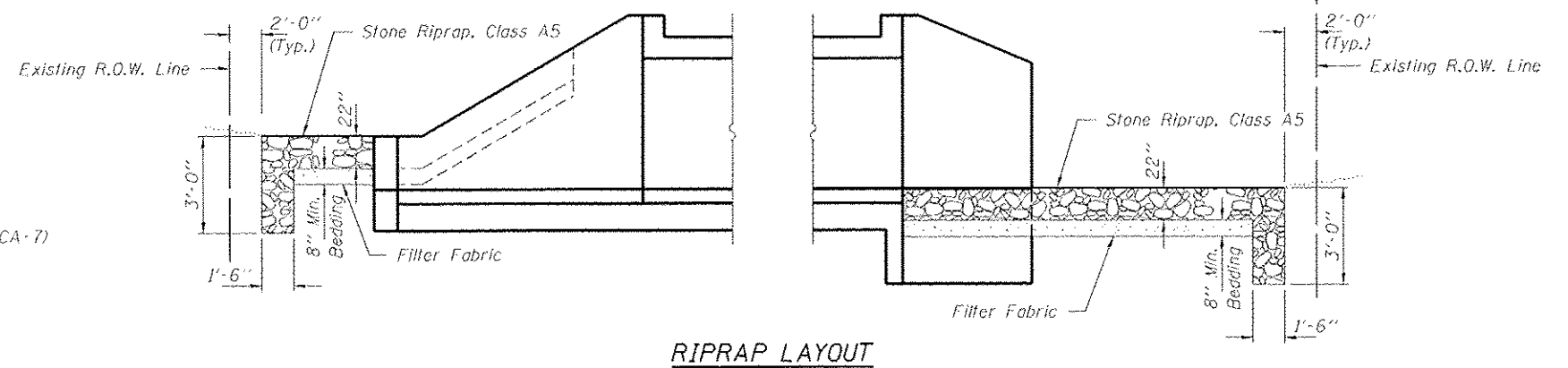


MIN. BAR LAP
#4 bars = 1'-4"
#6 bars = 2'-0"
#7 bars = 2'-8"





Note:
A 2.0' earth embankment cap shall be constructed at the ends of the downstream wingwalls. See Special Provisions.



FILE NAME : 100002-881-culvert.dgn	USER NAME : RUGER	DESIGNED - L.A.P.	REVISED -	STATE OF ILLINOIS STARK COUNTY HIGHWAY DEPARTMENT	CULVERT DETAILS STRUCTURE NO. 088-3117	SHEET NO. 3 OF 4 SHEETS	C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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100002-881-culvert.dgn		DRAWN - D.A.B.	REVISED -				CONTRACT NO. 89671				
ILLINOIS PROFESSIONAL DESIGN FIRM		CHECKED - S.W.M.	REVISED -				ILLINOIS FED. AID PROJECT				

BORING LOG

BORING NO. B-03
DATE 04-28-10
SHEET 7 OF 9
W. & A. FILE NO. 5277

WHITNEY & ASSOCIATES
2406 West Nebraska Avenue
PEORIA, ILLINOIS 61604

BORING LOG

PROJECT STARK COUNTY BRIDGE - SECTION NO. 10-00164-00-BR
LOCATION Stark County, Illinois
BORING LOCATION See Plot Plan Sheet
BORING TYPE Hollow Stem Auger
SOIL CLASSIFICATION SYSTEM U.S.B.S.C.
GROUND SURFACE ELEVATION 0.0
BORING DISCONTINUED AT ELEVATION (-) 61.0 FT.

WEATHER CONDITIONS Partly Cloudy & Mild
SEEPAGE WATER ENCOUNTERED AT ELEVATION (-) 17.5 FT.
GROUND WATER ELEVATION AT COMPLETION (-) 12.1 FT.

DESCRIPTION	Elev.	DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Ds	Mc
OIL AND CHIPS	700.9	1"						
OLD BITUMINOUS CONCRETE	700.17	10"						
OLD OIL AND CHIPS	699.91	13"						
Very Stiff, Dark Brown CLAY LOAM (Slight Petroleum Odor)	696.75	04	SS	2 3 4(7)	3.0	2.8	103	20
Stiff, Dark Brown SILTY CLAY LOAM (Fill)	693.75		SS	5 5(10)	1.3	1.1	97	25
Soft, Dark Brown SILTY CLAY LOAM With Some Fine-Grained Gravel (Fill)	689.5	08	SS	1 2(3)	0.5	0.4	95	27
Medium, Dark Brown SILTY CLAY With Some Coarse-Grained Sand And Fine-Grained Gravel (Fill)	686.75	12	SS	2 2(4)	0.6	0.3	90	31
Medium, Dark Gray And Gray SANDY CLAY With Some Fine-Grained Gravel (Fill)	684	16	SS	2 3 2(5)	0.8	0.5	96	21
Soft, Dark Gray And Gray SANDY CLAY With Some Fine-Grained Gravel (Fill)	681.75	20	SS	3 4 5(9)	0.5	-	-	24
Loose, Gray-Brown, Medium- To Coarse-Grained SAND, Fine-Grained GRAVEL And SILTY CLAY	679		SS	7 8 10(18)	-	-	-	-
Medium-Density, Gray-Brown, Medium- To Coarse-Grained SAND, Fine- To Coarse-Grained GRAVEL With Considerable Silty Clay	676.75	24	SS	11 12(23)	-	-	-	-
Medium-Density, Brown, Fine- To Medium-Grained SAND With Some Fine-Grained Gravel			SS					

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
SS - SPLIT SPOON SAMPLE
ST - SHELBY TUBE SAMPLE
Qp - CALIBRATED PENETROMETER READING - T.S.F.
Qu - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
Ds - NATURAL DRY DENSITY - P.C.F.
Mc - NATURAL MOISTURE CONTENT - %

WHITNEY & ASSOCIATES
PEORIA, ILLINOIS

BORING LOG

BORING NO. B-03
DATE 04-28-10
SHEET 8 OF 9
W. & A. FILE NO. 5277

BORING LOG

PROJECT STARK COUNTY BRIDGE; SECTION #10-00164-00-BR
LOCATION Stark County, Illinois

DESCRIPTION	DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Ds	Mc
See Sheet 7 of 9							
Very Stiff, Gray And Brown, Weathered GLACIAL SILTY CLAY TILL	672.75	SS	10 12 13(25)	3.5	3.3	121	13
	667.25	SS	10 14 16(30)	3.5	3.2	120	14
Very Stiff, Gray, Unweathered GLACIAL SILTY CLAY TILL	663.5	SS	4 5 5(10)	3.0	2.6	118	14
Medium-Density, Brown, Fine- To Medium-Grained SAND	658	SS	9 11 12(23)	-	-	-	-
Dense, Brown, Fine- To Coarse-Grained SAND With Some Fine-Grained Gravel	648.25	SS	10 15 20(35)	-	-	-	-
		SS	15 18 24(42)	-	-	-	-
Dense, Brown, Medium- To Coarse-Grained SAND With Considerable Fine-Grained Gravel		SS	15 22 23(45)	-	-	-	-

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER FALLING 30 INCHES
SS - SPLIT SPOON SAMPLE
ST - SHELBY TUBE SAMPLE
Qp - CALIBRATED PENETROMETER READING - T.S.F.
Qu - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
Ds - NATURAL DRY DENSITY - P.C.F.
Mc - NATURAL MOISTURE CONTENT - %

WHITNEY & ASSOCIATES
PEORIA, ILLINOIS

BORING LOG

BORING NO. B-03
DATE 04-28-10
SHEET 9 OF 9
W. & A. FILE NO. 5277

BORING LOG

PROJECT STARK COUNTY BRIDGE; SECTION #10-00164-00-BR
LOCATION Stark County, Illinois

DESCRIPTION	DEPTH IN FEET	SAMPLE TYPE	N	Qp	Qu	Ds	Mc
See Sheet 8 of 9							
	640	SS	14 18 26(45)	-	-	-	-
EXPLORATORY BORING DISCONTINUED							
	64						
	68						
	72						
	76						
	80						
	84						

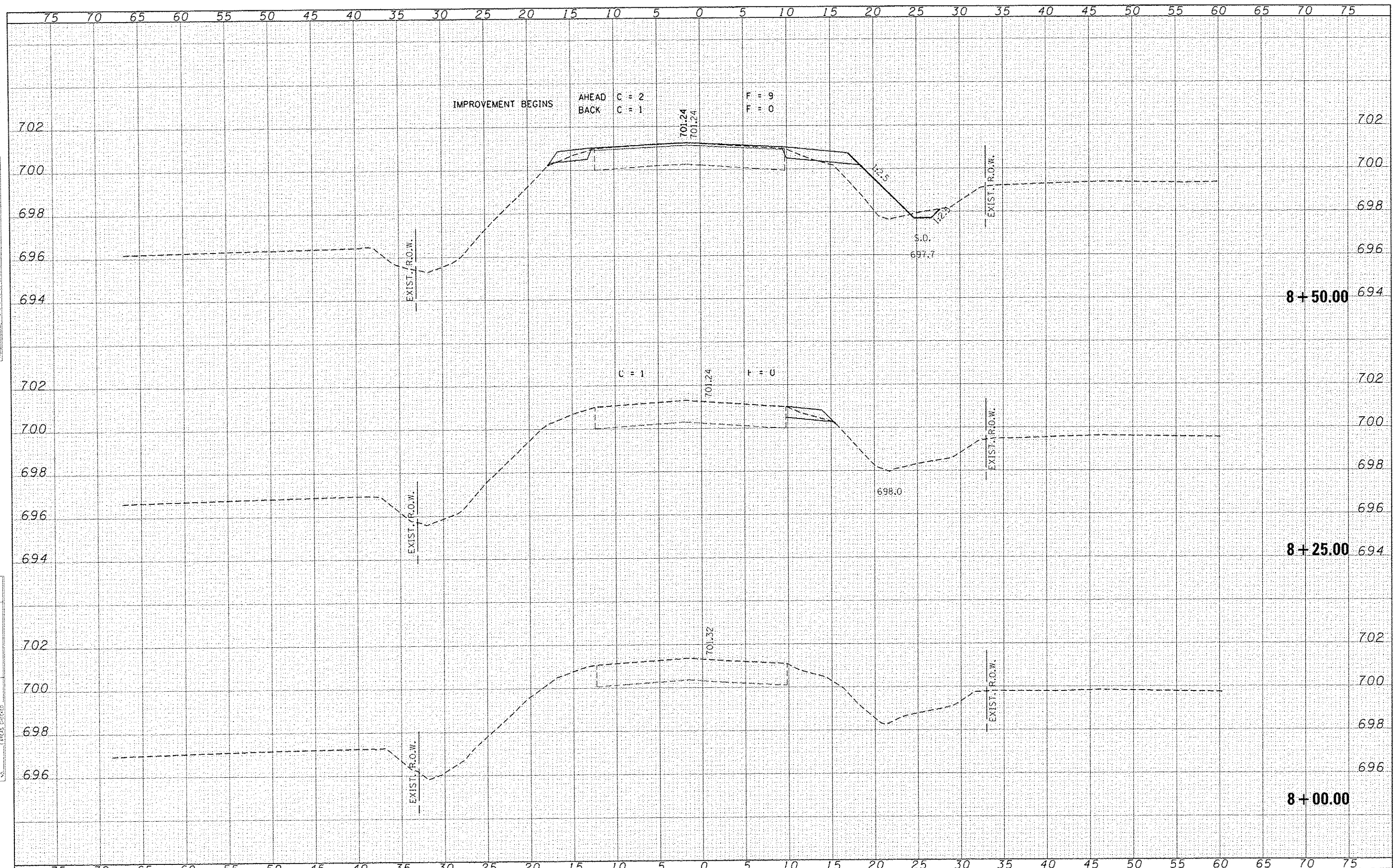
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SS - SPLIT SPOON SAMPLE
ST - SHELBY TUBE SAMPLE
Qp - CALIBRATED PENETROMETER READING - T.S.F.
Qu - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.
Ds - NATURAL DRY DENSITY - P.C.F.
Mc - NATURAL MOISTURE CONTENT - %

WHITNEY & ASSOCIATES
PEORIA, ILLINOIS

B-03

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DATE	

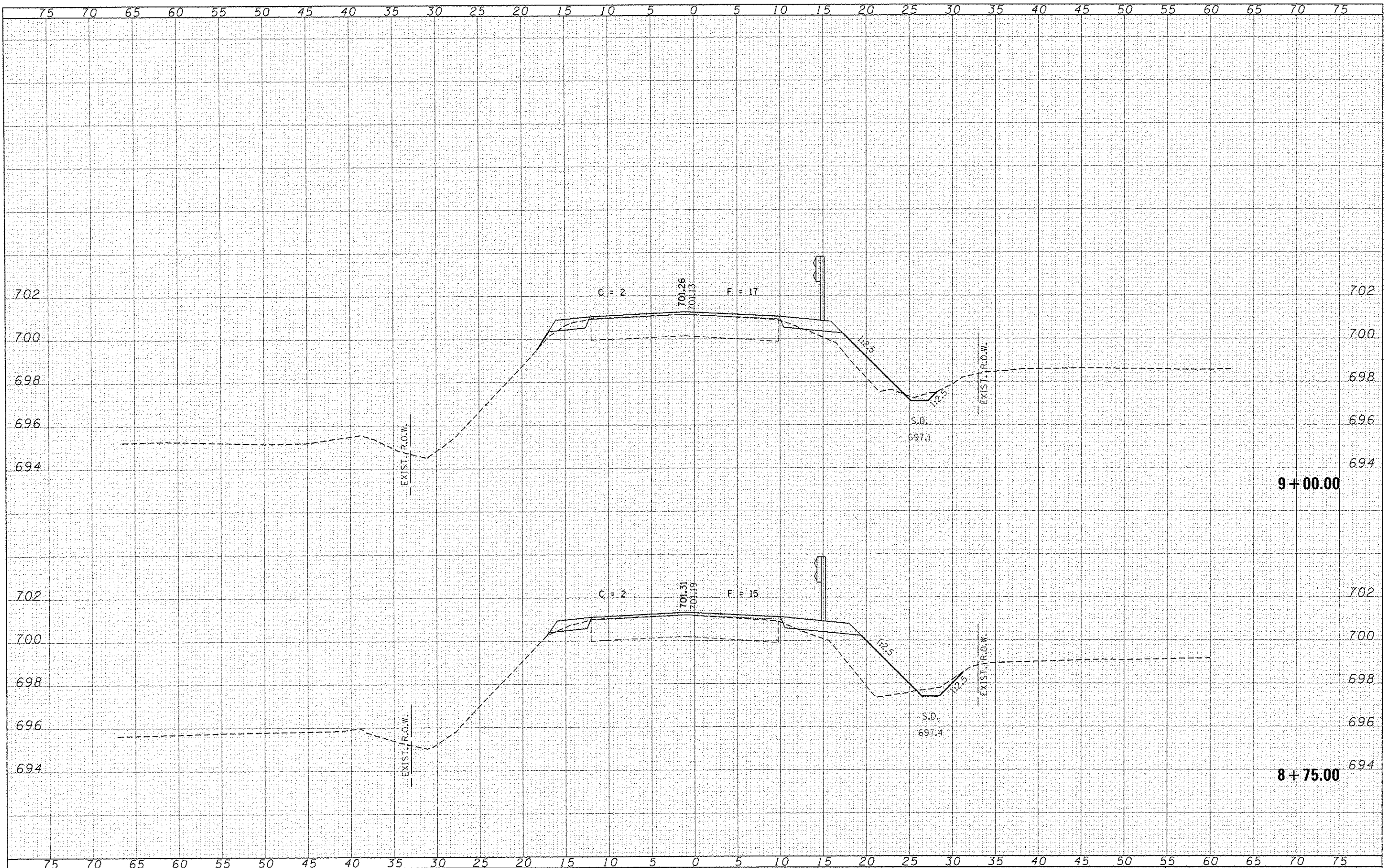
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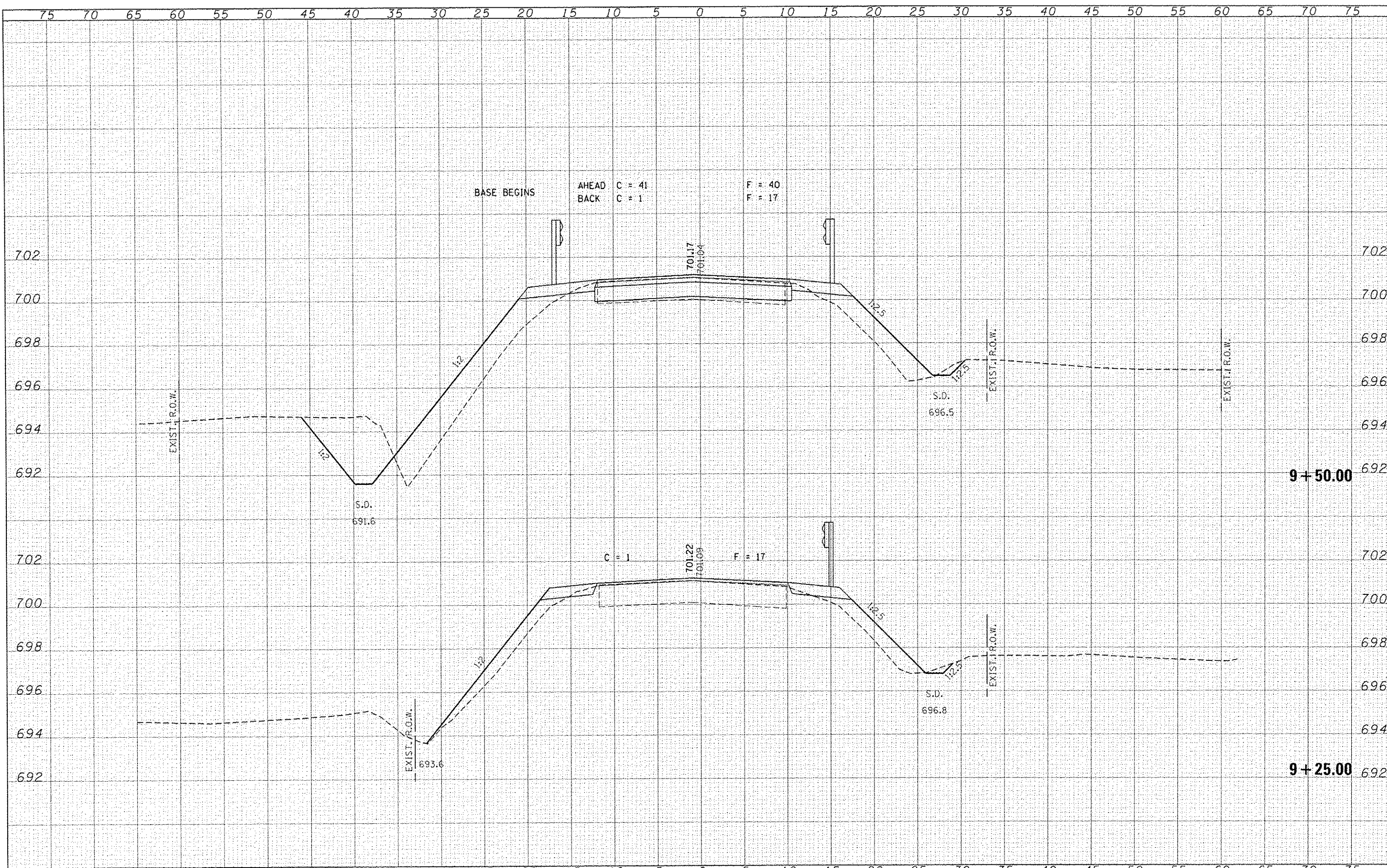
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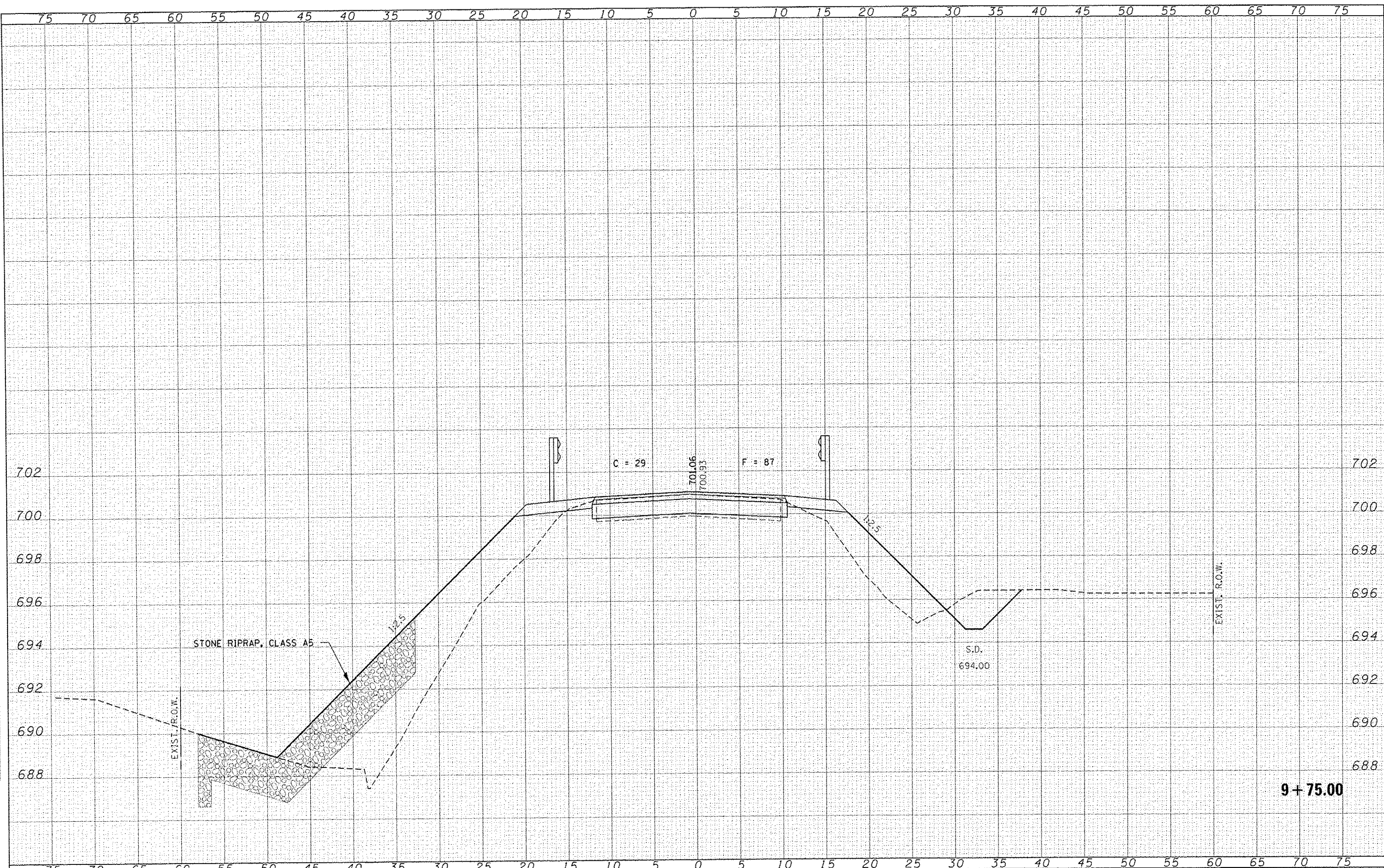
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NOTED	APPROVED
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NOTED	APPROVED
NO.	

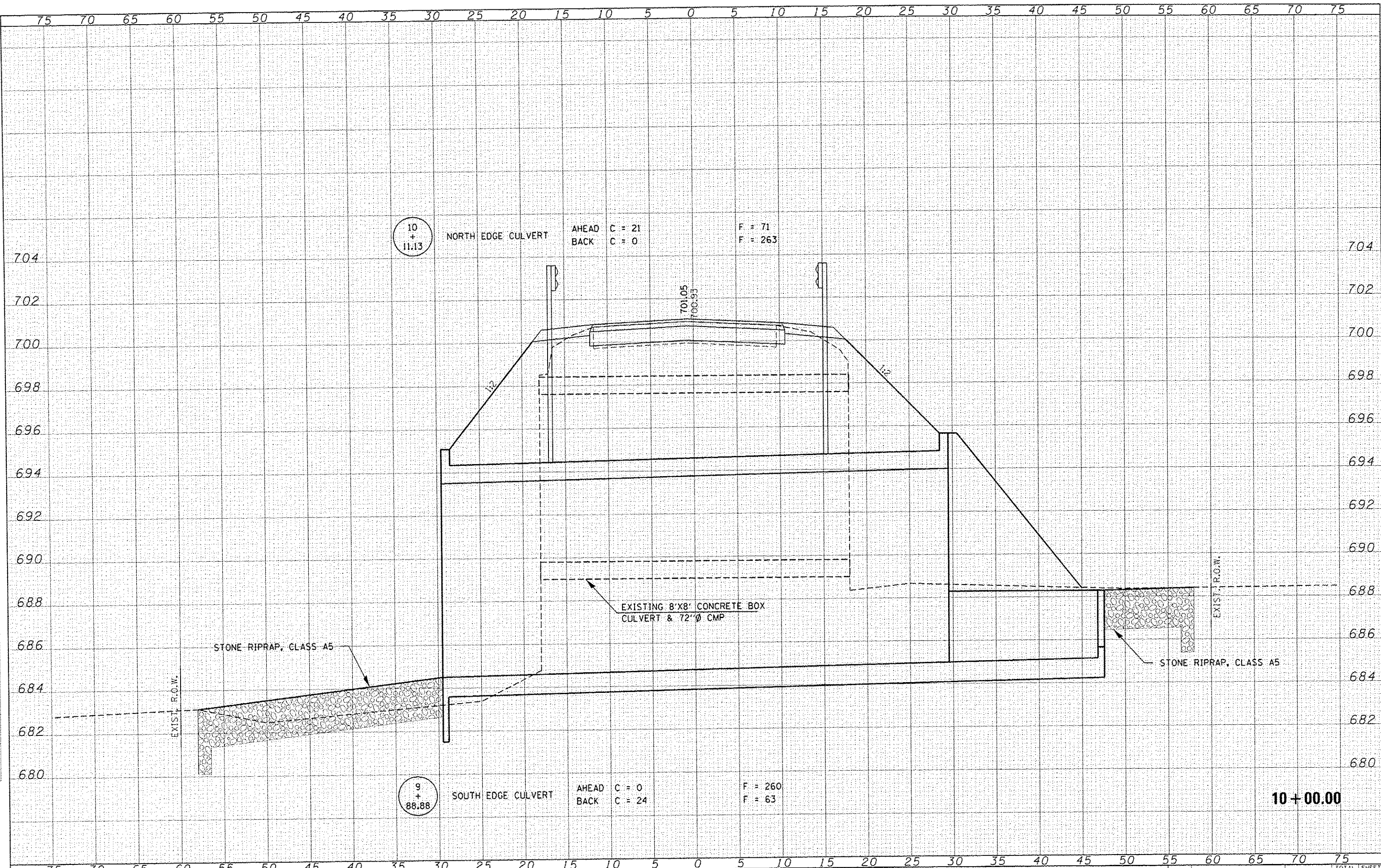


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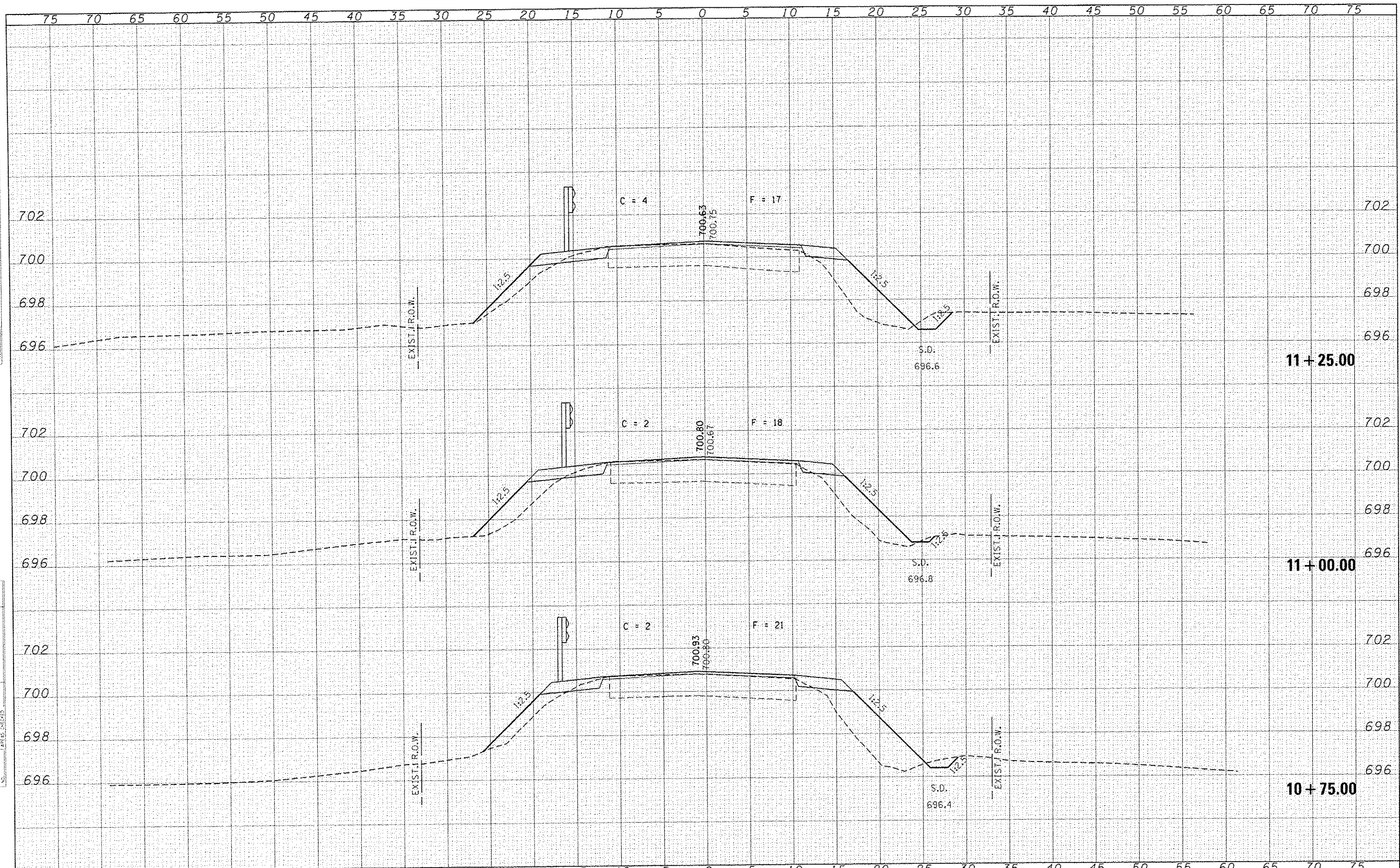
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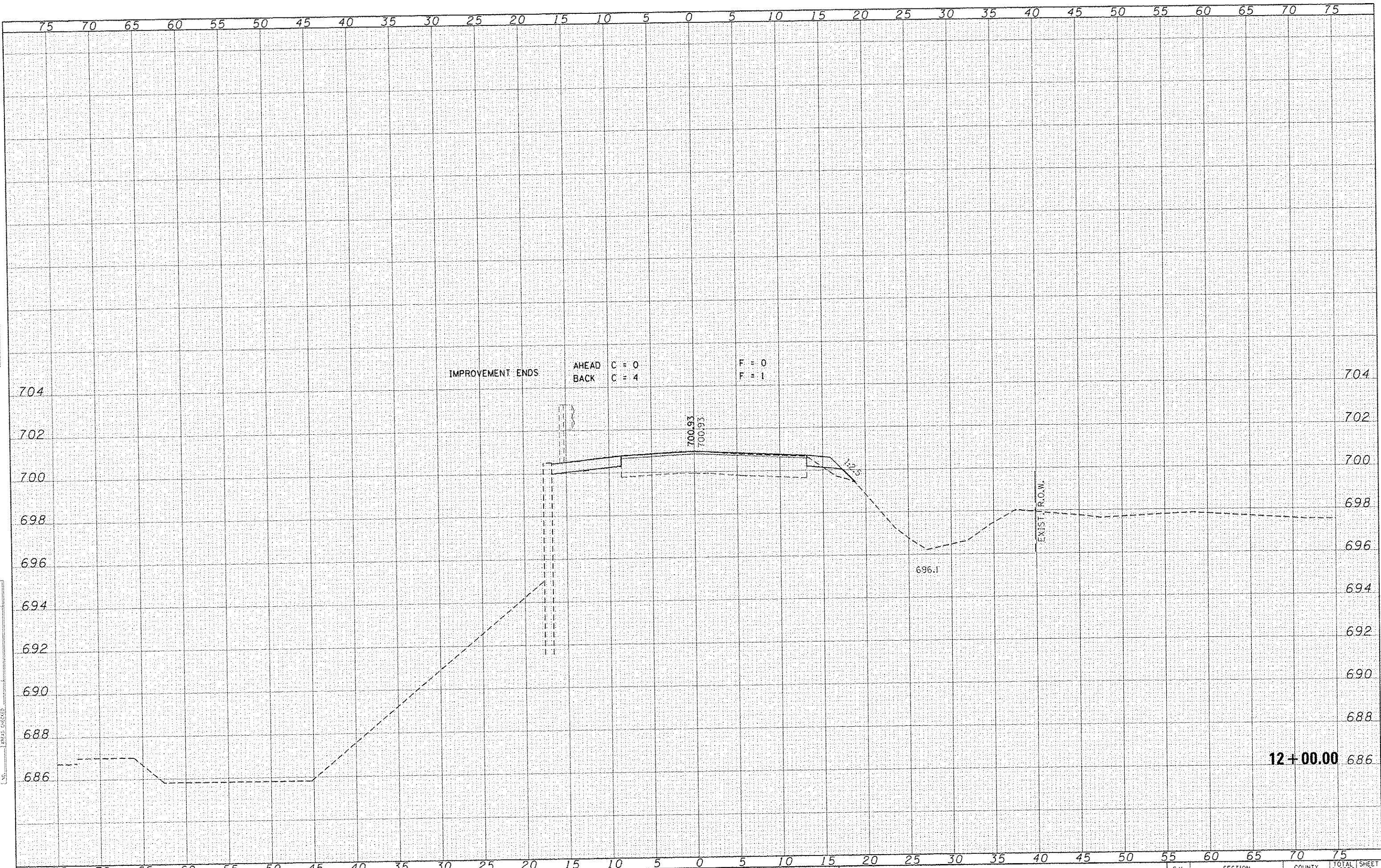


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