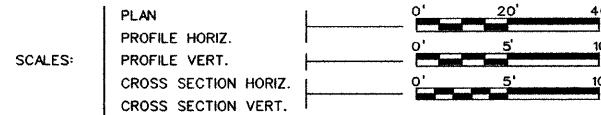


STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION PLANS FOR PROPOSED BRIDGE REPLACEMENT

INDEX OF SHEETS

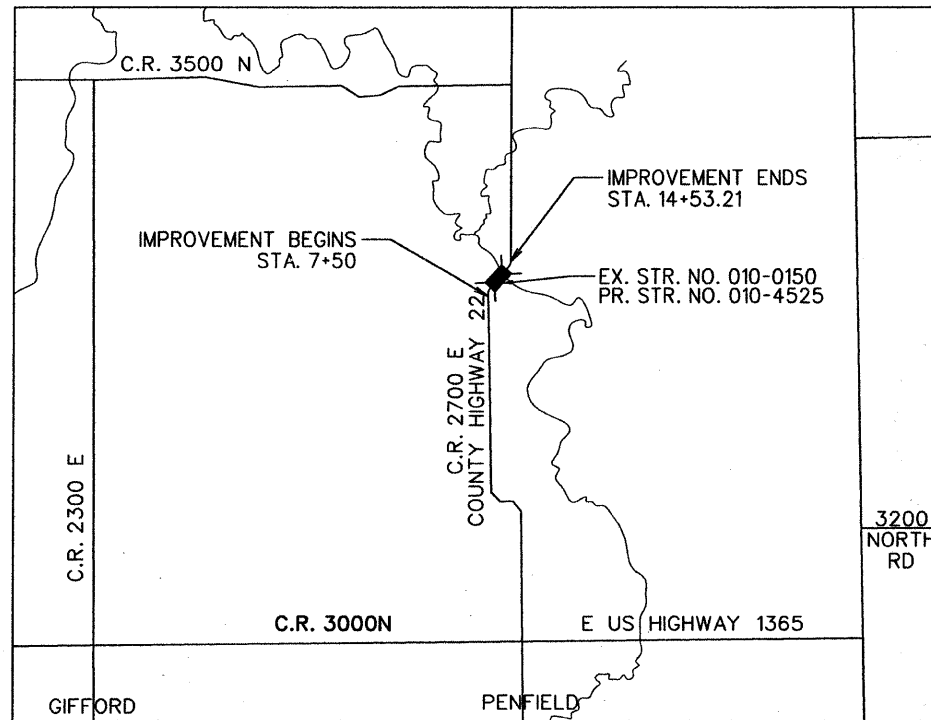
<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	COVER SHEET
2	GENERAL NOTES & TYPICAL SECTIONS
3	SUMMARY OF QUANTITIES
4	SCHEDULE OF QUANTITIES
5-6	TIE POINTS
7-8	PLAN AND PROFILE
9-10	EROSION CONTROL PLAN
11-17	BRIDGE PLANS
18-34	CROSS SECTIONS
35	DETAILS
36	PILING DETAILS



CHAMPAIGN COUNTY SECTION 05-00907-00-BR PROJECT NO. BRS-0515(105) JOB NO. C-95-329-08 STRUCTURE NO. 010-4525 C.H. 22 (F.A.S. 515) MAJOR BRIDGE PROGRAM & COUNTY BRIDGE FUNDS

ILLINOIS DEPT. OF TRANSPORTATION
HIGHWAY STANDARDS

<u>STANDARD NO.</u>	<u>DESCRIPTION</u>
280001-04	TEMPORARY EROSION CONTROL SYSTEMS
515001-03	NAME PLATE FOR BRIDGES
630001-08	STEEL PLATE BEAM GUARDRAIL
780001-02	TYPICAL PAVEMENT MARKINGS
701901-01	TRAFFIC CONTROL DEVICES
BLR 21-8	TRAFFIC APPLICATION OF TRAFFIC CONTROL DEVICES ON RURAL LOCAL HIGHWAYS
BLR 23-3	TRAFFIC BARRIER TERMINAL TYPE 1
BLR 27-1	TRAFFIC BARRIER TERMINAL TYPE 5A



LOCATION MAP
NOT TO SCALE

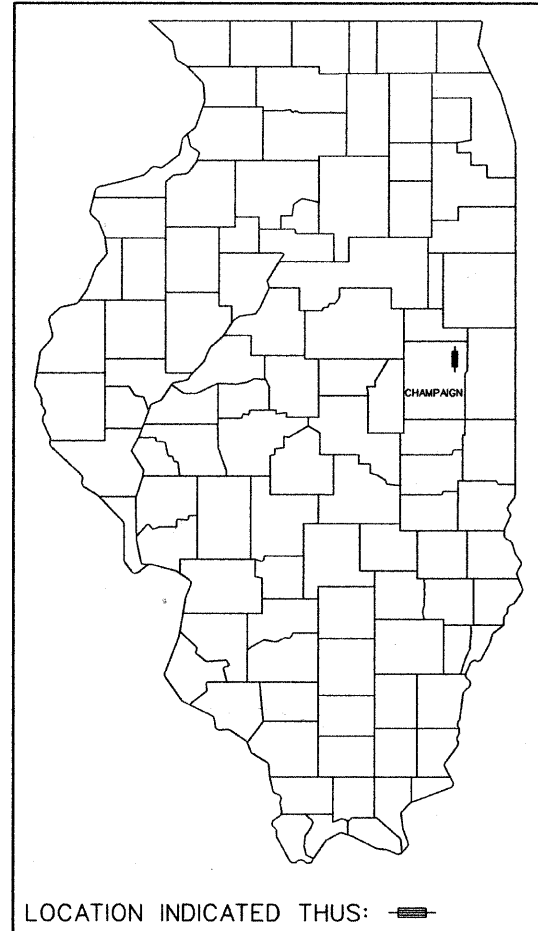
NET LENGTH OF SECTION - 703.21 FEET - 0.133 MILES
FUNCTIONAL CLASS- RURAL COLLECTOR, ADT- 400

Keith E. Brandau 08/26/09

KEITH E. BRANDAU
ILLINOIS REGISTERED PROFESSIONAL ENGINEER NO. 062-44096
LICENSE EXPIRES 11-30-09



Sodemann and Associates, Inc.
340 NORTH NEIL STREET
POST OFFICE BOX 557
CHAMPAIGN, ILLINOIS 61824-0557
TEL 217 352-7688 FAX 217 352-7922
ENGINEERING / ANALYSIS / MANAGEMENT



APPROVED 7-2 2009
[Signature]
CHAMPAIGN COUNTY ENGINEER

PASSED 7/22 2009
[Signature]
DISTRICT FIVE ENGINEER OF
LOCAL ROADS & STREETS

Released For
Bid Based on
Limited Review 7/22 2009
[Signature]
DEPUTY DIRECTOR OF HIGHWAYS,
REGION THREE ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	2
STA.		TO STA.		
F.H.W.A. REG.		ILLINOIS PROJECT		

GENERAL NOTES

ALL ELEVATIONS SHOWN ARE REFERRED TO THE U.S.G.S. DATUM.

WHEREVER IN THE PLANS OR SPECIFICATIONS THE TERM STANDARD SPECIFICATIONS IS USED, IT SHALL BE UNDERSTOOD BY THE CONTRACTOR TO MEAN THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS PREPARED BY THE DEPARTMENT OF TRANSPORTATION OF THE STATE OF ILLINOIS AND ADOPTED JANUARY 1, 2007.

ANY REFERENCE STANDARDS THROUGHOUT THE PLANS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE DEPARTMENT AS SHOWN ON THE SCHEDULE OF STANDARD DRAWINGS ON THE COVER SHEET.

ENGLISH UNITS OF MEASUREMENT SHALL GOVERN OVER AND SUPERSEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.

UTILITIES - THESE DRAWINGS ILLUSTRATE THE APPROXIMATE LOCATION OF ALL KNOWN UNDERGROUND UTILITIES. THE CONTRACTOR MAY EXPECT TO FIND SUCH UTILITIES WITHIN APPROXIMATELY FIVE FEET OF THE POSITION INDICATED ON THE DRAWINGS. BUT IN EVERY CASE THE CONTRACTOR SHALL LOCATE AND UNCOVER SUCH UTILITIES, WITH THE ASSISTANCE OF THE RESPECTIVE UTILITY COMPANIES, BEFORE ANY EXCAVATION IS STARTED.

CALL J.U.L.I.E. 1-800-892-0123 FOR UNDERGROUND UTILITY LOCATION MARKING PRIOR TO START OF CONSTRUCTION.

UTILITY COMPANIES MAY BE ADJUSTING THEIR FACILITIES AT THE TIME OF CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL COOPERATE WITH THOSE ORGANIZATIONS WHILE THEY PERFORM THEIR WORK.

DURING CONSTRUCTION THE CONTRACTOR MAY ENCOUNTER VARIOUS TYPES OF UNDERGROUND UTILITIES THAT MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL COOPERATE WITH THE ENGINEER AND THE OWNER OF THE UTILITY WHILE THE UTILITY COMPANY ADJUST THEIR FACILITIES IF NECESSARY. IF IT IS DETERMINED THAT THE UTILITY HAS BEEN ABANDONED, THE CONTRACTOR WILL BE DIRECTED TO REMOVE THE UTILITY LINES THAT CONFLICT WITH HIS WORK AND CAP OR PLUG THE LINES AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY AND WILL BE CONSIDERED AS INCLUDED IN THE CONTRACT.

THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 48 HOURS PRIOR TO EXCAVATION OPERATIONS.

THE EXCAVATION FOR THIS PROJECT IS CLASSIFIED AS EARTH EXCAVATION AND EARTH EXCAVATION (WIDENING) IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND AS PROVIDED IN THE CONTRACT SPECIFICATIONS. THE EARTH EXCAVATION SHALL INCLUDE THE REMOVAL OF THE EARTH AND UNCLASSIFIED MATERIALS. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 48 HOURS PRIOR TO EXCAVATION OPERATIONS.

GRADING SHALL BE DONE BY HAND AROUND LIGHT POLES, UTILITY POLES, SIGN POSTS, SHRUBS, TREES AND OTHER NATURAL OR MAN-MADE OBJECTS WHERE SHALLOW FILLS OR CUTS ARE ADJACENT TO THESE ITEMS. IT IS THE INTENT THAT ITEMS THAT DO NOT NEED TO BE DISTURBED BY THE CONSTRUCTION AND SHALL BE PRESERVED. THE DECISION AS TO ITEMS TO REMAIN IN PLACE SHALL BE AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICE PER CUBIC YARD OF EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

SEEDING SHALL BE DONE AT LOCATIONS SHOWN ON THE PLANS WHERE THE EXISTING EARTH HAS BEEN DISTURBED, AND AT LOCATIONS DIRECTED BY THE ENGINEER. ANY EXISTING AREAS OUTSIDE THE LIMITS OF CONSTRUCTION DAMAGED BY THE CONTRACTOR SHALL BE SEEDING AT HIS OWN EXPENSE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

SPECIAL ATTENTION IS CALLED TO ARTICLE 250.07 REGARDING SEEDING DATES.

A N.P.D.E.S. PERMIT WILL BE REQUIRED FOR THIS PROJECT FOR EROSION AND SEDIMENT CONTROL. TO SATISFY THIS REQUIREMENT THE CONTRACTOR WILL BE REQUIRED TO PROVIDE INLET AND PIPE PROTECTION AS SHOWN ON STANDARD 280001 AT LOCATIONS AS DIRECTED BY THE ENGINEER. AN ESTIMATED QUANTITY FOR INLET AND PIPE PROTECTION HAS BEEN INCLUDED IN THE PROJECT AND MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.

WHEN REQUIRED BY ARTICLE 420.21, A PROTECTIVE COAT SHALL BE APPLIED TO CONCRETE PAVEMENT, GUTTER FLAGS, CURB SURFACES AND OTHER CONCRETE APPURTENANCES ADJACENT TO THE PAVEMENT.

BEFORE ORDERING PIPE CULVERTS, THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER AS TO THE EXACT LENGTH AND QUANTITY REQUIRED.

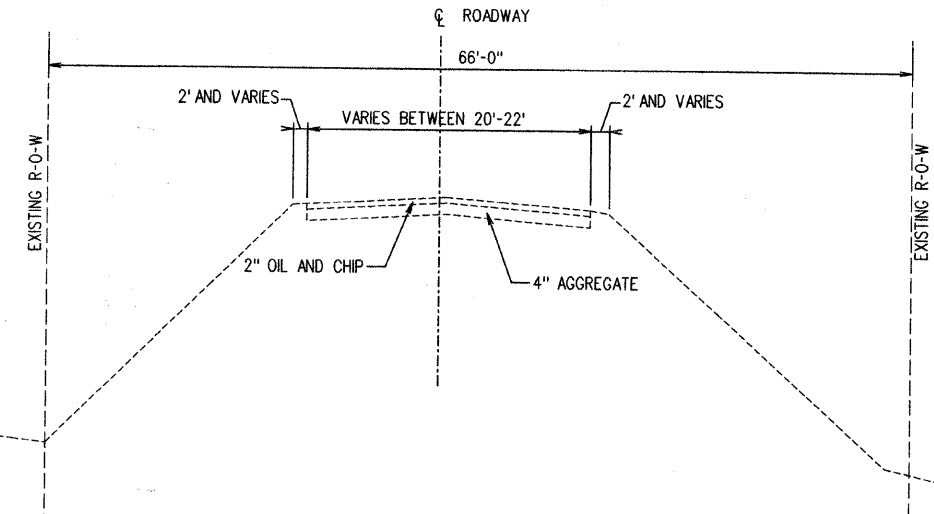
EXISTING PIPE CULVERTS TO BE REMOVED SHALL BE SALVAGED AND RETURNED TO THE CHAMPAIGN COUNTY HIGHWAY DEPARTMENT.

THE MATERIAL OF THE PIPE CULVERT END SECTIONS SHALL MATCH THE MATERIAL OF THE PIPE CULVERT ON WHICH THEY ARE TO BE INSTALLED.

THE CONTRACTOR SHALL NOT BEGIN ANY CONSTRUCTION OPERATIONS UNTIL ALL SURVEY MONUMENTS HAVE BEEN SUFFICIENTLY WITNESSED OR REFERENCED BY THE ENGINEER. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PRESERVE AND NOT DISTURB THE EXISTING IRON PIPE MONUMENTS OR RIGHT-OF-WAY MARKERS. ANY IRON PIPE MONUMENTS OR RIGHT-OF-WAY MARKERS SO DISTURBED BY THE CONTRACTOR SHALL BE RESET BY A REGISTERED ILLINOIS LAND SURVEYOR. THE COST FOR RESETTING THESE MONUMENTS SHALL BE PAID FOR BY THE CONTRACTOR.

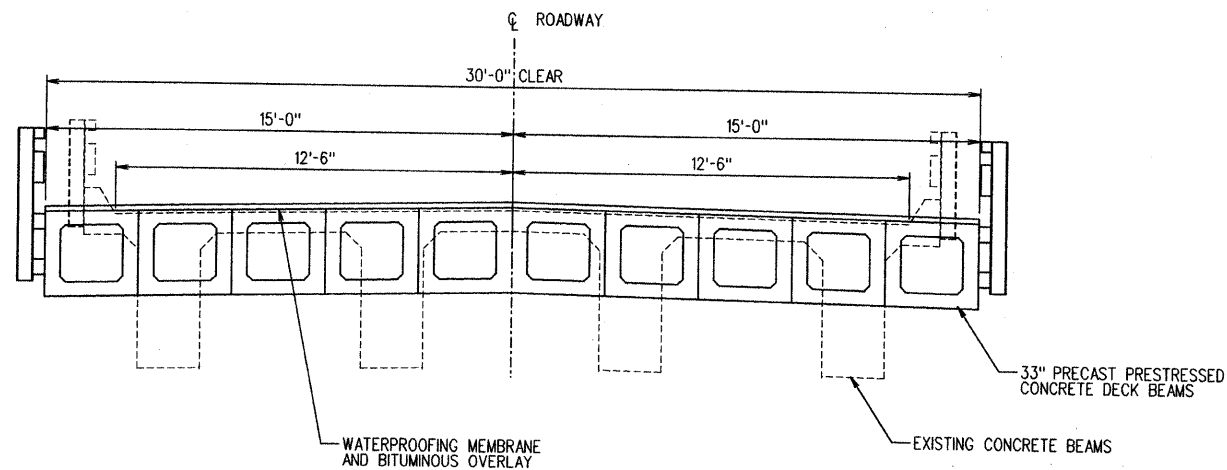
THE EXISTING TRAFFIC SIGNS AND DELINEATORS WHICH INTERFERE WITH THE CONSTRUCTION OPERATIONS SHALL BE REMOVED AND RESET AS DIRECTED BY THE ENGINEER. THE COST FOR DOING THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

EXISTING TYPICAL PAVEMENT SECTION

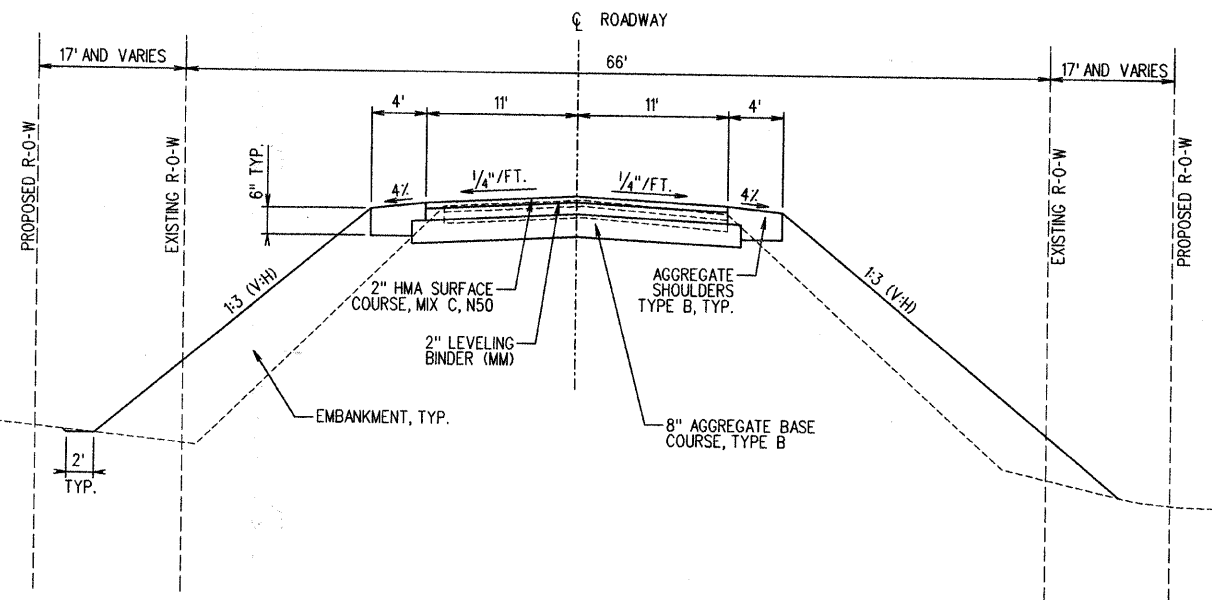


NOTES:
FUNCTIONAL CLASS - RURAL COLLECTOR
CURRENT ADT = 400
SEE PLAN AND PROFILE SHEETS FOR TAPERS.

PROPOSED TYPICAL STRUCTURE SECTION



PROPOSED TYPICAL PAVEMENT SECTION



TYPICAL SECTIONS
SECTION: 05-00907-00-BR
CHAMPAIGN COUNTY
CENTRAL STATION 10+00

SUMMARY OF QUANTITIES

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	3
STA.	TO STA.			
F.H.W.A. REG.	ILLINOIS	PROJECT		

NO.	ITEM	UNIT	MAJOR BRIDGE FUNDS	LOCAL FUNDS	TOTAL
			STA. 8+54 TO STA. 11+46 CODE X081-2A	STA. 7+50 TO STA. 8+54 STA. 11+46 TO STA. 14+53.21 CODE A000-2A-K000-2A	
20100500	TREE REMOVAL, ACRES	ACRES	0.01	0.17	0.18
20200100	EARTH EXCAVATION	CU. YD.	0	296	296
20400800	FURNISHED EXCAVATION	CU. YD.	0	488	488
25000200	SEEDING CLASS 2	ACRE	0	1.01	1.01
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	0	91	91
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	0	91	91
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	0	91	91
25100115	MULCH METHOD 2	ACRE	0	1.01	1.01
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	0	600	600
28000300	TEMPORARY DITCH CHECKS	EACH	0	10	10
28000400	PERIMETER EROSION BARRIER	FOOT	0	822	822
35102000	AGGREGATE BASE COURSE, TYPE B 8"	SQ. YD.	0	1009	1009
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	73	378	451
40600300	AGGREGATE (PRIME COAT)	TON	1.5	2.6	4.1
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	0	120	120
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C" N50	TON	106	110	216
44000100	PAVEMENT REMOVAL	SQ. YD.	0	954	954
48101500	AGGREGATE SHOULDERS, TYPE B-6"	SQ. YD.	0	357	357
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	0	1.0
50200100	STRUCTURE EXCAVATION	CU. YD.	219	0	219
50300225	CONCRETE STRUCTURES	CU. YD.	189.8	0	189.8
50400605	PRECAST PRESTRESSED CONCRETE DECK BEAMS (33" DEPTH)	SQ. FT.	8,713	0	8,713
50800105	REINFORCEMENT BARS	POUND	13,420	0	13,420
*50900205	STEEL RAILING, TYPE S-1	FOOT	584	0	584
51201600	FURNISHING STEEL PILES HP 12x53	FOOT	2,172	0	2,172
51202305	DRIVING PILES	FOOT	2,172	0	2,172
51203600	TEST PILE STEEL HP 12X53	EACH	3	0	3
51204650	PILE SHOES	EACH	44	0	44
51500100	NAME PLATES	EACH	1	0	1
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ. YD.	969	0	969
59300100	CONTROLLED LOW STRENGTH MATERIAL	CU. YD.	0	51	51
*63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	0	300	300
*63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	0	4	4
*63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	0	4	4

NO.	ITEM	UNIT	MAJOR BRIDGE FUNDS	LOCAL FUNDS	TOTAL
			STA. 8+54 TO STA. 11+46 CODE X081-2A	STA. 7+50 TO STA. 8+54 STA. 11+46 TO STA. 14+53.21 CODE A000-2A-K000-2A	
63200310	GUARDRAIL REMOVAL	FOOT	0	225	225
66502200	WOVEN WIRE FENCE (SPECIAL)	FOOT	0	773	773
66502300	WOVEN WIRE FENCE REMOVAL	FOOT	0	730	730
67100100	MOBILIZATION	L. SUM	0.7	0.3	1.0
*78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	584	823	1407
XX004565	GROUTED RIPRAP	SQ. YD.	1053	0	1053
XX004566	CONCRETE CUT-OFF WALL	CU. YD.	7.2	0	7.2

* SPECIALTY ITEMS

SUMMARY OF QUANTITIES
SECTION: 05-00907-00-BR
CHAMPAIGN COUNTY
STATION 10+00

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	4
STA.		TO STA.		
F.H.W.A. REG.		ILLINOIS PROJECT		

SCHEDULE OF QUANTITIES

AGGREGATE BASE COURSE, TYPE B 8"	35102000
LOCATION TO LOCATION	SQ YD
STA. 7+50 TO STA 8+54.67	256
STA. 11+45.33 TO STA 14+53.21	753
TOTAL	1009

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	63100167
LOCATION TO LOCATION	EACH
LT STA. 8+03.25 TO LT STA. 8+28.25	1.0
RT STA. 7+90.75 TO RT STA. 8+15.75	1.0
RT STA. 11+71.75 TO RT STA. 11+96.75	1.0
LT STA. 14+09.25 TO LT STA. 14+34.25	1.0
TOTAL	4.0

STEEL RAILING, TYPE S-1	50900205
LOCATION TO LOCATION	FOOT
LT 8+54 TO LT 11+46	292
RT 8+54 TO RT 11+46	292
TOTAL	584

THERMOPLASTIC PAVEMENT MARKING LINE, 4"	78000200	
LOCATION	WHITE FOOT	YELLOW FOOT
CENTERLINE - DOUBLE SOLID (NO PASSING)		1407
SUBTOTAL		1407
TOTAL		1407

PAVEMENT REMOVAL	44000100
LOCATION TO LOCATION	SQ YD
STA. 7+50 TO STA 8+54.67	239
STA. 11+45.33 TO STA 14+53.21	715
TOTAL	954

GUARDRAIL REMOVAL	63200310
LOCATION TO LOCATION	FOOT
LT STA. 8+32 TO LT STA. 8+98	66
RT STA. 8+64 TO RT STA. 9+04	40
LT STA. 11+14 TO LT STA. 11+80	66
RT STA. 11+21 TO RT STA. 11+74	53
TOTAL	225

TRAFFIC BARRIER TERMINAL, TYPE 5A	63100075
LOCATION TO LOCATION	EACH
LT STA. 8+40.75 TO LT STA. 8+54.00	1.0
RT STA. 8+40.75 TO RT STA. 8+54.00	1.0
LT STA. 11+46.00 TO LT STA. 11+59.25	1.0
RT STA. 11+46.00 TO RT STA. 11+59.25	1.0
TOTAL	4.0

SEEDING, CLASS 2	25000200
LOCATION TO LOCATION	ACRE
LT 7+50 TO BRIDGE	0.17
RT 7+50 TO BRIDGE	0.16
BRIDGE TO LT 14+53.21	0.37
BRIDGE TO RT 14+53.21	0.31
TOTAL	1.01

TREE REMOVAL	20100500
LOCATION TO LOCATION	EACH
STA. 8+75 RT TO STA. 8+89 RT	0.01
STA. 11+00 RT TO STA. 14+53 RT	0.13
STA. 11+17 LT TO STA. 12+39 LT	0.04
TOTAL	0.18

WOVEN WIRE FENCE (SPECIAL)	66502200
LOCATION TO LOCATION	FOOT
RT 33' STA. 7+50 TO RT 50' STA. 7+50	17
RT 50' STA. 7+50 TO RT 50' STA. 9+00	150
RT 50' STA. 11+86 TO RT 50' STA. 14+53.21	268
RT 50' STA. 14+53.21 TO RT 45' STA. 14+53.21	5
LT 28' STA. 11+52 TO LT 50' STA. 11+52	22
LT 50' STA. 11+52 TO LT 50' STA. 14+53.21	302
LT 50' STA. 14+53.21 TO LT 41' STA. 14+53.21	9
TOTAL	773

STEEL PLATE BEAM GUARDRAIL TYPE A, 6 FOOT POSTS	63000001
LOCATION TO LOCATION	FOOT
LT STA. 8+28.25 TO LT STA. 8+40.75	12.5
RT STA. 8+15.75 TO RT STA. 8+40.75	25
LT STA. 11+59.25 TO LT STA. 14+09.25	250
RT STA. 11+59.25 TO RT STA. 11+71.75	12.5
TOTAL	300

WOVEN WIRE FENCE REMOVAL	66502300
LOCATION TO LOCATION	FOOT
RT STA. 7+50 TO RT STA. 9+00	150
RT STA. 9+00 TO RT STA. 9+05	10
LT STA. 11+52 TO LT STA. 14+53.21	302
RT STA. 11+86 TO RT STA. 14+53.21	268
TOTAL	730

GROUTED RIPRAP	XX004565
LOCATION TO LOCATION	SQ. YD.
STA. 8+50 TO STA 8+89	526
STA. 11+12 TO STA. 11+51	527
TOTAL	1053

EARTHWORK SUMMARY

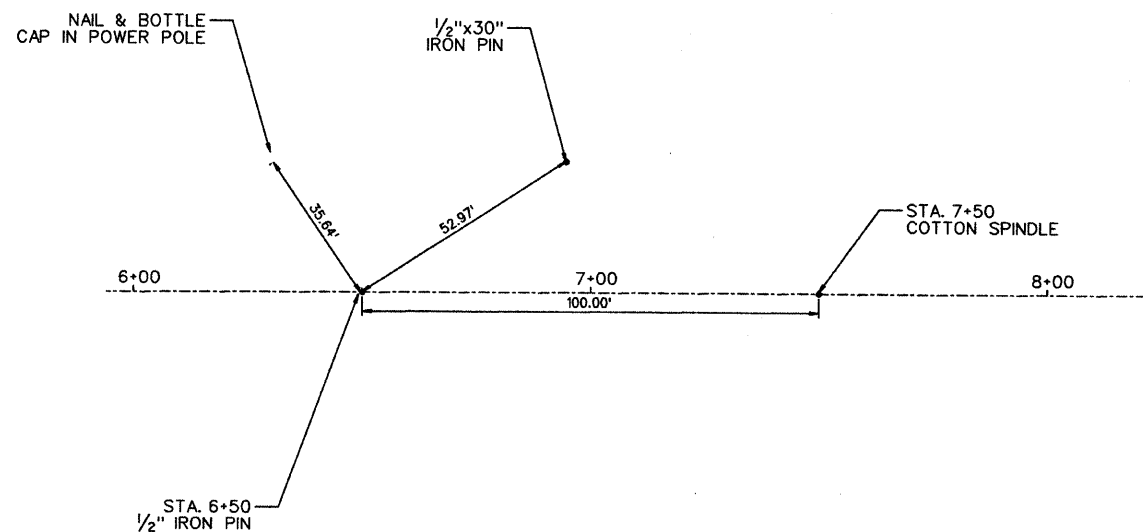
BITUMINOUS RESURFACING SCHEDULE									
STATION TO STATION	LENGTH (FT)	HOT MIX ASPHALT SURF. CSE. MIX "C," N50 (TON) 40603310			LEVEL BINDER MACHINE METHOD, N50 (TON) 40600625			BITUMINOUS MATERIALS PRIME COAT (GALLON) 40600100	AGGREGATE PRIME COAT (TON) 40600300
		WIDTH (FT)	AREA (SQ. FT)	QUANTITY (TON)	WIDTH (FT)	AREA (SQ. FT)	QUANTITY (TON)		
STA 7+50 TO STA 8+54.67	104.67	22'	2,303	28	22'		28	96	0.7
STA 8+54.67 TO STA 11+45.33	290.67	30'	8,720	106				73	1.5
STA 11+45.33 TO STA 14+53.21	307.88	22'	6,774	82	22'		82	282	1.9
TOTAL				216			120	451	4.1

EARTHWORK SCHEDULE	CU. YD.
EARTH EXCAVATION 20200100	296
STRUCTURE EXCAVATION 50200100	219
TOTAL CUT	515
EMBANKMENT	874
TOTAL FILL	874
BORROW= [EMBANK-(SUIT. EX.x(1-S.F.))]	488
BORROW - FURNISHED EXCAVATION 20400800	488
S.F. = SHRINKAGE FACTOR = 0.25	

LOCATION	CH22	CH22
MIXTURE USE	LEVEL BINDER	SURFACE
AC/PG	PG 64-22	PG 64-22
RAP% (MAX)	25	15
DESIGN AIR Voids	4.0% @ NDES=50	4.0% @ NDES=50
MIX COMP (GRADATION)	IL 9.5	IL 9.5
FRICTION AGGREGATE	MIX C	MIX C

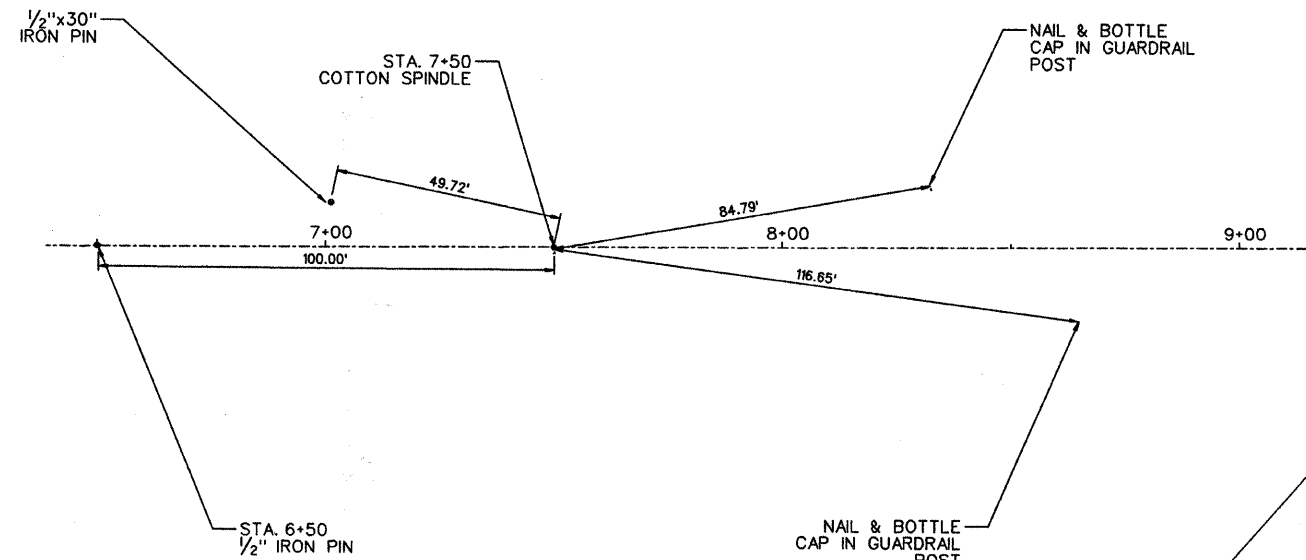
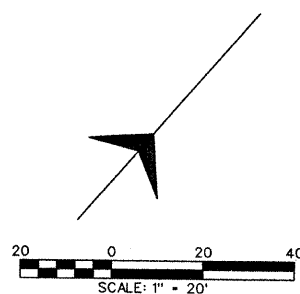
SCHEDULE OF QUANTITIES
SECTION: 05-00907-00-BR
CHAMPAIGN COUNTY
STATION 10+00

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	5
STA.		TO STA.		
F.H.W.A. REG.		ILLINOIS PROJECT		

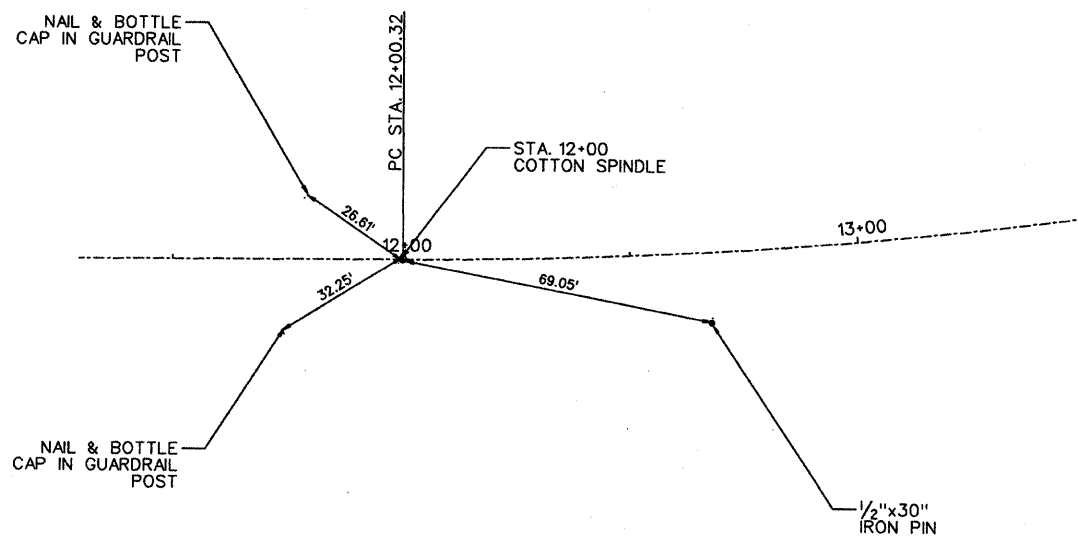
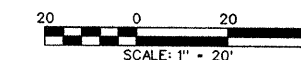


B.M. *06117-1 ELEV. 703.38
 CHROME SPIKE IN NORTH SIDE OF POWER
 POLE, 1.5' ABOVE GROUND, FIRST POLE WEST
 OF BRIDGE, NORTH SIDE OF ROADWAY
 STA. 6+29.83 29.4' LT.

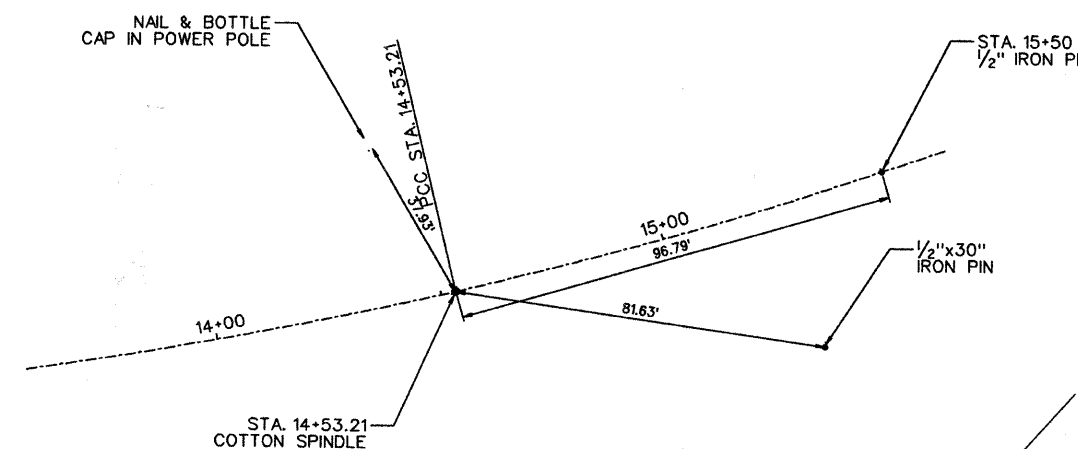
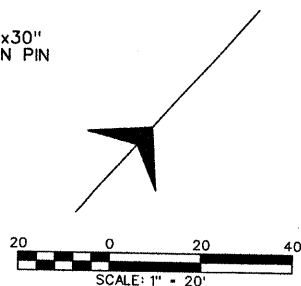
STATION 6+50
COTTON SPINDLE



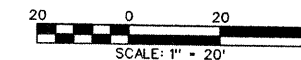
STATION 7+50
COTTON SPINDLE



STATION 12+00
COTTON SPINDLE

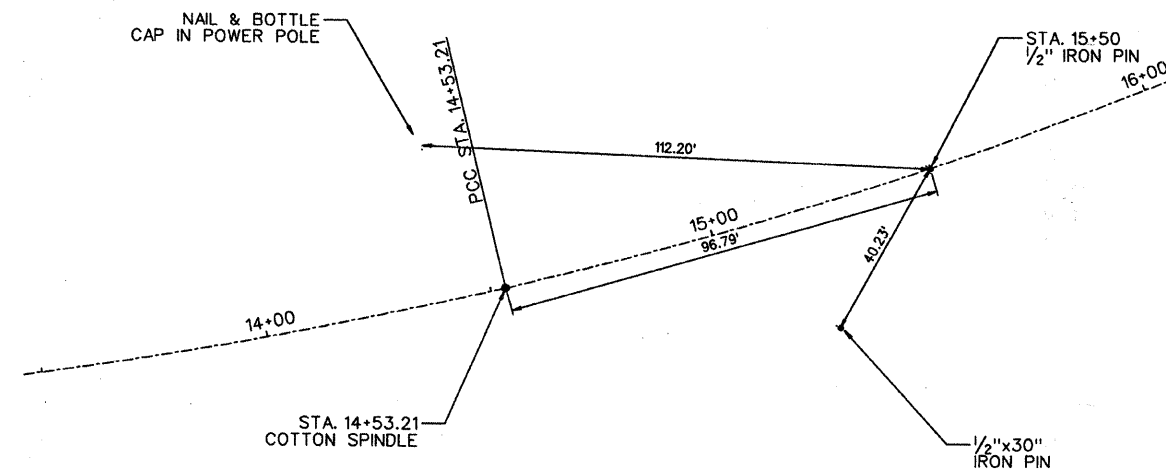
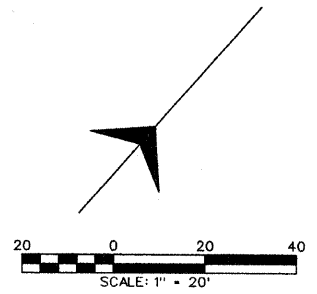


STATION 14+53.21
COTTON SPINDLE



TIE POINTS
 SECTION: 05-00907-00-BR
 CHAMPAIGN COUNTY
 Q. STATION 10+00

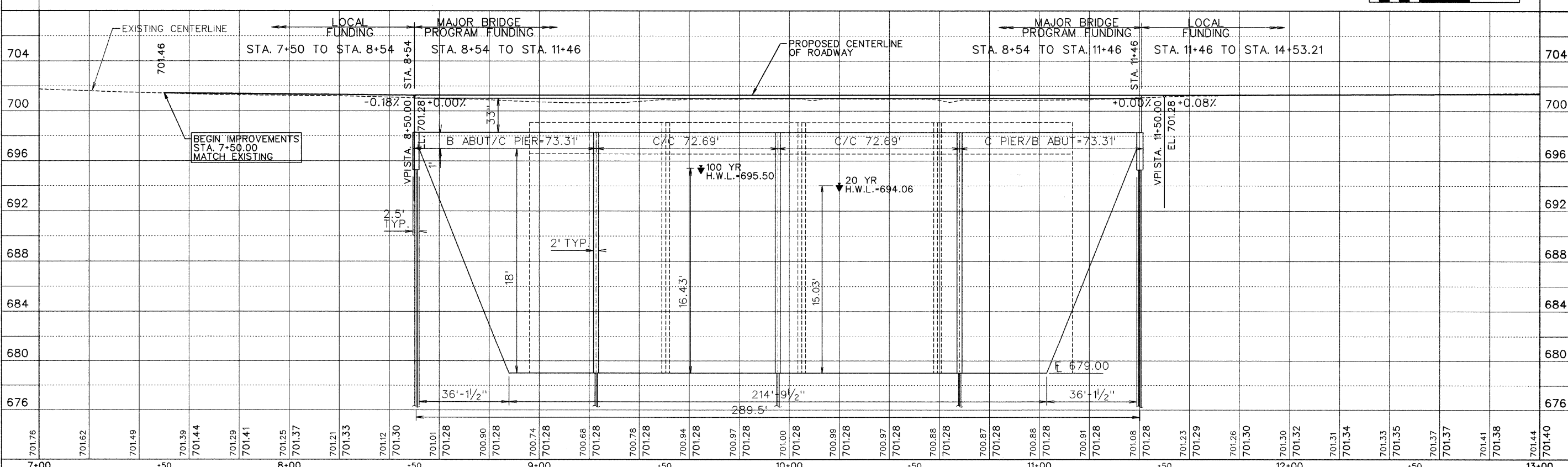
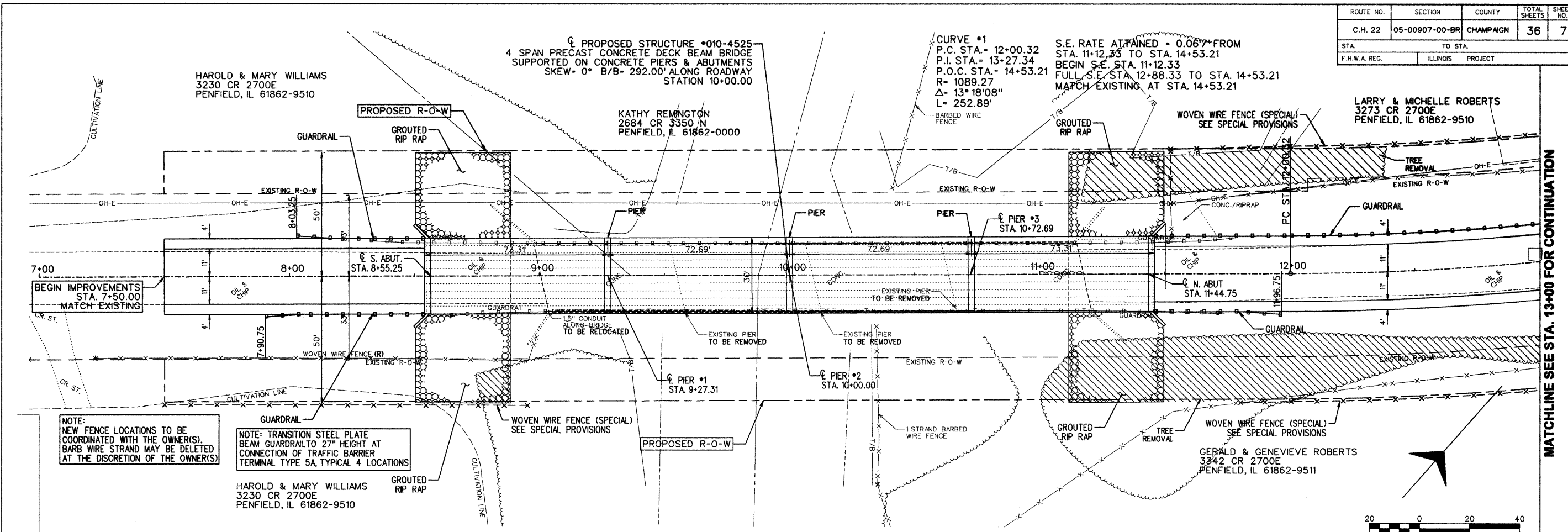
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	6
STA.		TO STA.		
F.H.W.A. REG.		ILLINOIS PROJECT		



STATION 15+50
COTTON SPINDLE

TIE POINTS
SECTION: 05-00907-00-BR
CHAMPAIGN COUNTY
Q STATION 10+00

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	7
STA.	TO STA.			
F.H.W.A. REG.	ILLINOIS PROJECT			



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	8
STA.		TO STA.		
F.H.W.A. REG.	ILLINOIS	PROJECT		

MATCHLINE SEE STA. 13+00 FOR CONTINUATION

LARRY & MICHELLE ROBERTS
3273 CR 2700E
PENFIELD, IL 61862-9510

GUARDRAIL

PROPOSED R-O-W

END IMPROVEMENTS
STA. 14+53.21
MATCH EXISTING

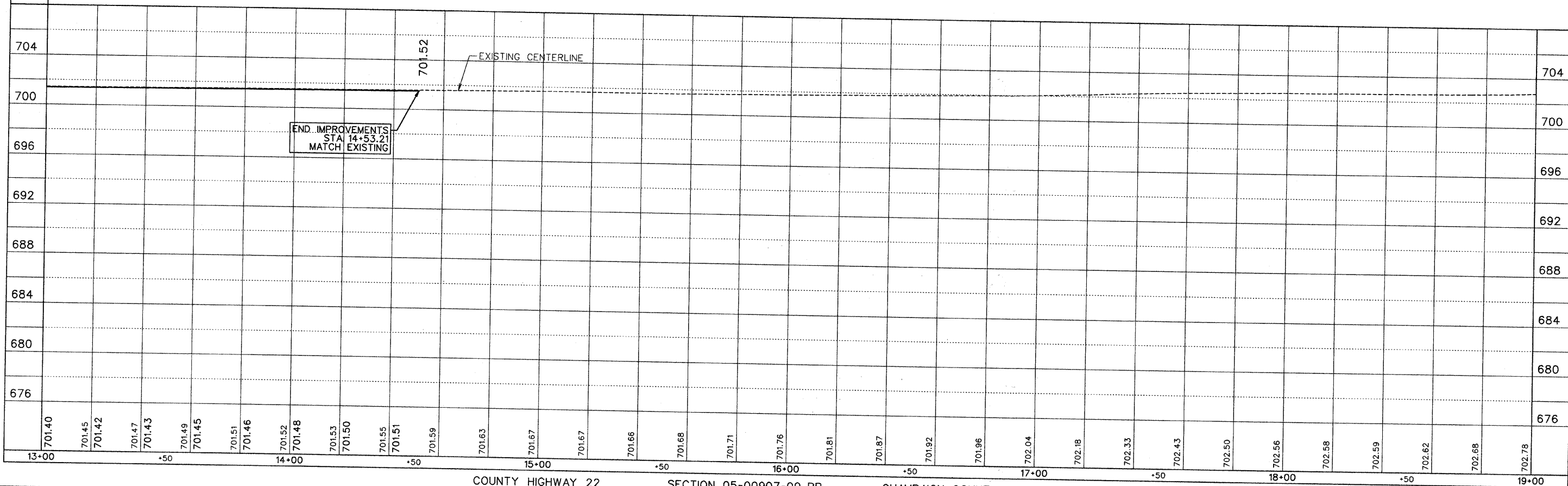
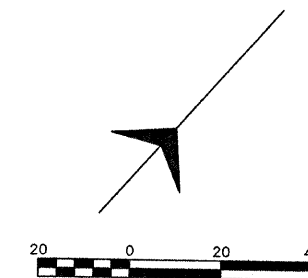
GERALD & GENEVIEVE ROBERTS
3342 CR 2700E
PENFIELD, IL 61862-9511

TREE REMOVAL

PROPOSED R-O-W

WOVEN WIRE FENCE (SPECIAL)
SEE SPECIAL PROVISIONS

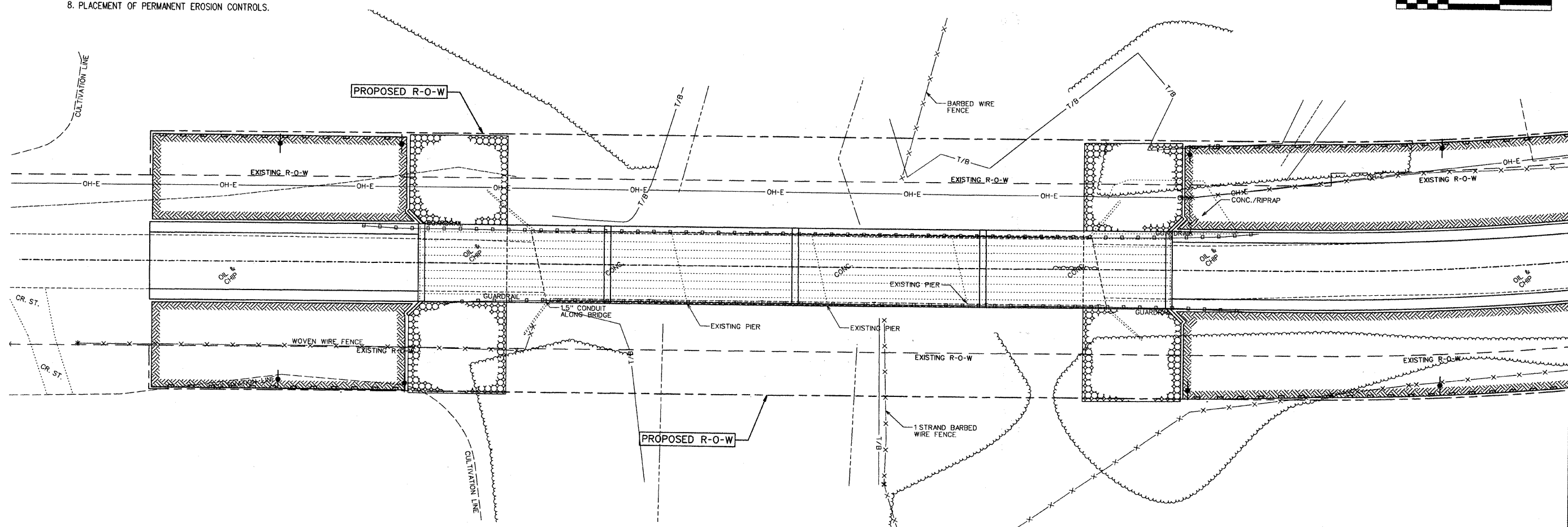
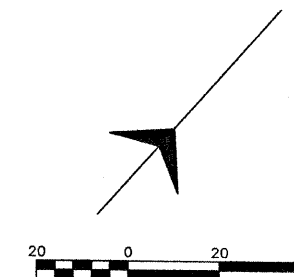
NOTE:
NEW FENCE LOCATIONS TO BE
COORDINATED WITH THE OWNER(S).
BARB WIRE STRAND MAY BE DELETED
AT THE DISCRETION OF THE OWNER(S)



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	9
STA.	TO STA.			
F.H.W.A. REG.	ILLINOIS	PROJECT		

INTENDED SEQUENCE

1. PLACEMENT OF PERIMETER EROSION CONTROL BARRIER PRIOR TO COMMENCEMENT OF ANY WORK. SEE STANDARD 28001.
2. REMOVAL OF THE EXISTING STRUCTURE.
3. CONSTRUCTION OF THE NEW SUB STRUCTURE.
4. CONSTRUCTION OF THE NEW SUPERSTRUCTURE.
5. THE PLACEMENT AND MAINTENANCE OF TEMPORARY EROSION CONTROLS.
6. FINAL GRADING AND SHAPING INCLUDING PLACEMENT OF AGGREGATE BASE COURSE & BITUMINOUS SURFACE.
7. REMOVAL & PROPER CLEAN UP OF TEMPORARY EROSION CONTROLS.
8. PLACEMENT OF PERMANENT EROSION CONTROLS.



MATCHLINE SEE STA. 13+00 FOR CONTINUATION

PERMANENT EROSION CONTROL

- GROUTED RIPRAP
- SEEDING, CLASS 2

TEMPORARY EROSION CONTROL

- PERIMETER EROSION BARRIER
- TEMPORARY DITCH CHECK

PERIMETER EROSION BARRIER

STA	OFFSET	TO	STA	OFFSET	LENGTH
7+50	50' LT		8+54	50' LT	104 FT
7+50	50' RT		8+54	50' RT	104 FT
11+46	50' LT		14+53	50' LT	307 FT
11+46	50' RT		14+53	50' RT	307 FT
TOTAL					822 FT

TEMPORARY DITCH CHECKS

STA	OFFSET	QUANTITY
8+00	48' RT	1 EACH
8+00	48' LT	1 EACH
8+50	48' RT	1 EACH
8+50	48' LT	1 EACH
11+50	48' RT	1 EACH
11+50	48' LT	1 EACH
12+50	48' RT	1 EACH
12+50	48' LT	1 EACH
13+50	48' RT	1 EACH
13+50	48' LT	1 EACH
TOTAL		10 EACH

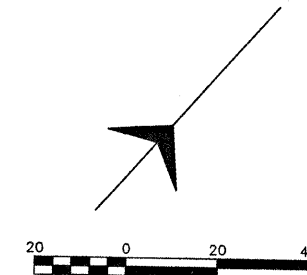
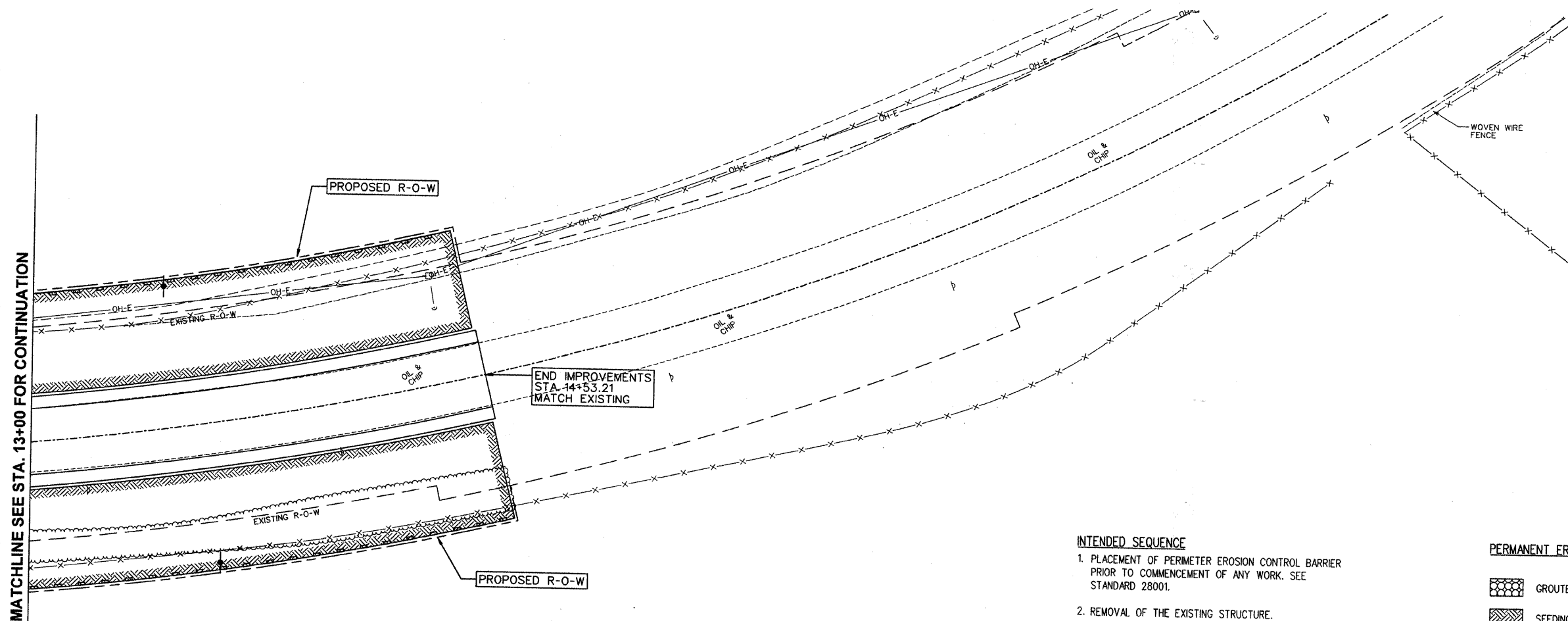
TEMPORARY EROSION CONTROL

THE FOLLOWING QUANTITIES ARE ESTIMATES ONLY. ACTUAL QUANTITIES FOR EROSION CONTROL WILL BE DETERMINED BY THE ENGINEER IN THE FIELD, AND THERE WILL BE NO CHANGE IN PRICE DUE TO A CHANGE IN PLAN QUANTITY.

TEMPORARY EROSION CONTROL BILL OF MATERIALS		
ITEM	UNIT	TOTALS
TEMPORARY EROSION CONTROL SEEDING	POUND	600
PERIMETER EROSION BARRIER	FOOT	822
TEMPORARY DITCH CHECKS	EACH	10

EROSION CONTROL PLAN



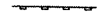

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	10
STA.		TO STA.		
F.H.W.A. REG.		ILLINOIS PROJECT		



MATCHLINE SEE STA. 13+00 FOR CONTINUATION

END IMPROVEMENTS
STA. 14+53.21
MATCH EXISTING

- INTENDED SEQUENCE**
1. PLACEMENT OF PERIMETER EROSION CONTROL BARRIER PRIOR TO COMMENCEMENT OF ANY WORK. SEE STANDARD 28001.
 2. REMOVAL OF THE EXISTING STRUCTURE.
 3. CONSTRUCTION OF THE NEW SUB STRUCTURE.
 4. CONSTRUCTION OF THE NEW SUPERSTRUCTURE.
 5. THE PLACEMENT AND MAINTENANCE OF TEMPORARY EROSION CONTROLS.
 6. FINAL GRADING AND SHAPING INCLUDING PLACEMENT OF AGGREGATE BASE COURSE & BITUMINOUS SURFACE.
 7. REMOVAL & PROPER CLEAN UP OF TEMPORARY EROSION CONTROLS.
 8. PLACEMENT OF PERMANENT EROSION CONTROLS.

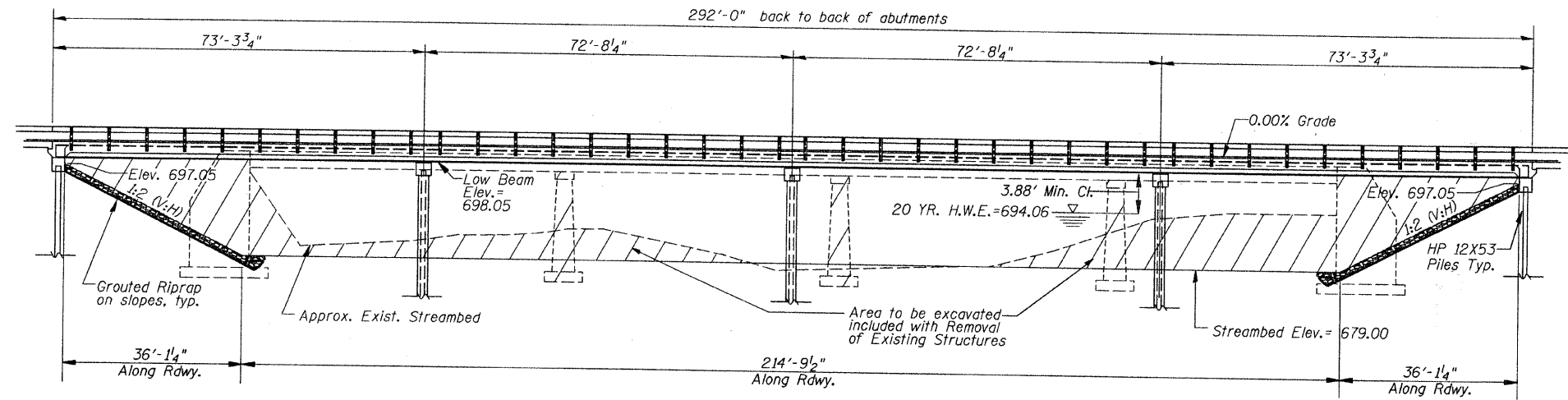
- PERMANENT EROSION CONTROL**
-  GRouted RIPRAP
 -  SEEDING, CLASS 2
- TEMPORARY EROSION CONTROL**
-  PERIMETER EROSION BARRIER
 -  TEMPORARY DITCH CHECK

EROSION CONTROL PLAN

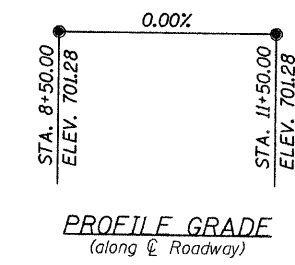
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	11
STA. TO STA.		F.H.W.A. REG. ILLINOIS PROJECT		

Benchmark 06117-1: Chrome spike in north side of Power Pole 5' above ground. First pole west of bridge north side of roadway, Elev. 703.38
Vertical Datum derived from NGS N 24 Reset 1959 NAVD 88

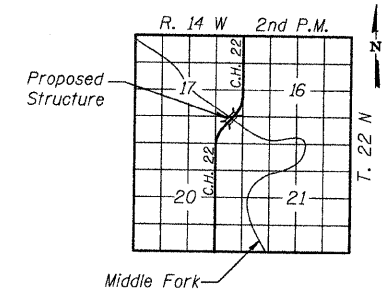
Existing Structure-Four span, reinforced concrete beam and slab, on closed concrete abutments and concrete piers. No salvage.



ELEVATION



PROFILE GRADE
(along ϕ Roadway)



LOCATION SKETCH

STATION 10+00
MIDDLE FORK VERMILION RIVER
SEC. 05-00907-00-BR BUILT 20
CHAMPAIGN COUNTY
LOADING HL-93
STR. NO. 010-4525

NAME PLATE
See Std. 515001

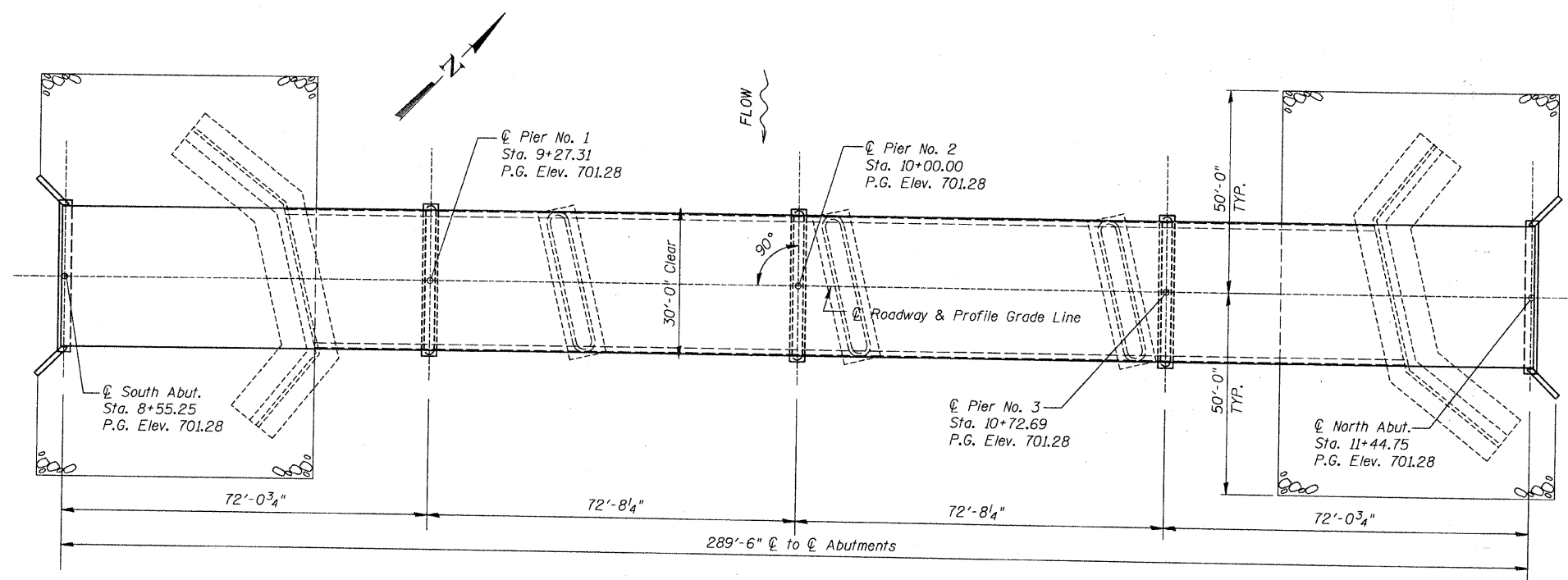
DESIGN SPECIFICATIONS
2007 AASHTO LRFD and applicable Interims

DESIGN LOADING
HL-93 and Allowance for
25 P.S.F. Future Wearing Surface

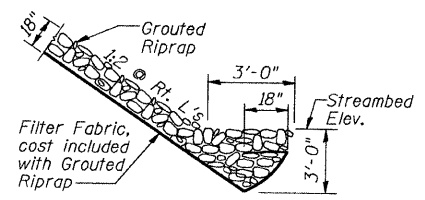
DESIGN STRESSES
 $f'_c = 3,500$ psi (Concrete)
 $f_y = 60,000$ psi (Reinforcement)

WATERWAY DATA

Drainage Area	230.8	Sq. Mi.
Existing Opening (20 Year)	2105	Sq. Ft.
Required Opening (20 Year)	2136	Sq. Ft.
Proposed Opening (20 Year)	2957	Sq. Ft.
Design Discharge (20 Year)	6208	C.F.S.
Computed Discharge (100 Year)	8505	C.F.S.
Created Head (20 Year)	0.01	Ft.
Created Head (100 Year)	0.02	Ft.



PLAN



SECTION B-B THRU TOE OF RIPRAP
R-0-W TO R-0-W

"This structure has been designed to be stable for scour conditions in accordance with the FHWA Technical Advisory - T 5140.23, "Evaluating Scour at Bridges" and Hydraulic Engineering Circular 18 - Evaluating Scour at Bridges.
I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on plans. The design is an economical one for the style of structure and complies with the requirements of the current "AASHTO Standard Specifications for Highway Bridges".



Keith E. Brandau
KEITH E. BRANDAU
Illinois Licensed Structural Engineer Number 4905
License Expires 11/30/10

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub.		Total
			Piers	Abuts.	
Removal of Existing Structures	Each				1
Concrete Structures	Cu. Yd.		169.4	20.4	189.8
Reinforcement Bars	Pound		11,190	2,230	13,420
Steel Bridge Rail Type S-1	Foot	584			584
Furnishing and Driving Steel Piles, HP12X53	Foot		1740	432	2172
Test Pile, Steel HP12X53	Each		1	2	3
Name Plates	Each				1
Concrete Cut-off Wall	Cu. Yd.			7.2	7.2
Controlled Low Strength Material	Cu. Yd.			51	51
Pile Shoes	Each		30	14	44
Structure Excavation	Cu. Yd.		94	125	219
Grouted Riprap	Sq. Yd.			1053	1053
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	8713			8713

GENERAL PLAN & ELEVATION
SECTION: 05-00907-00-BR
CHAMPAIGN COUNTY
 ϕ STATION 10+00

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	12
STA.		TO STA.		
F.H.W.A. REG.		ILLINOIS PROJECT		

GENERAL NOTES

Class MS or SI Concrete shall be used in the Piers and Abutments.

Boring Data is shown only as a guide to bidders in estimating soil conditions which may be encountered during construction.

Masonry material salvaged from the existing structure shall not be reused and shall be disposed of off site by the Contractor.

Riprap required to meet the limits shown on the plan shall be paid for as Riprap and shall be grouted. See Special Provisions.

Reinforcement bars shall conform to the requirements of AASHTO M-31, M-41, or M-53, Grade 60.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch. Adjustments shall be made either by grinding the surface or by shimming the bearing. Two 1/2" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.

The contractor shall drive 3 test piles in a permanent location, one at each abutment and 1 at pier #2 as directed by the Engineer before ordering the remainder of piles.

All construction joints shall be bonded.

PLAN	SURVEYED	DATE
	PLOTTED	BY
NOTE BOOK NO.	CHECKED	
	BY	
	RT. OF WAY CHECKED	
	BY	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
NOTE BOOK NO.	CHECKED	
	BY	
	STRUCTURE NOTATIONS CHKD	
	BY	

BORING DATA

N - Standard Penetration Test - Blows per foot to drive 2" O.D.

Split Spoon Sampler 12" with 140 lb. hammer falling 30"

Qu - Unconfined Compression Strength - Tons/Sq.Ft.

Mc - Water Content - Percentage of oven dry weight - %

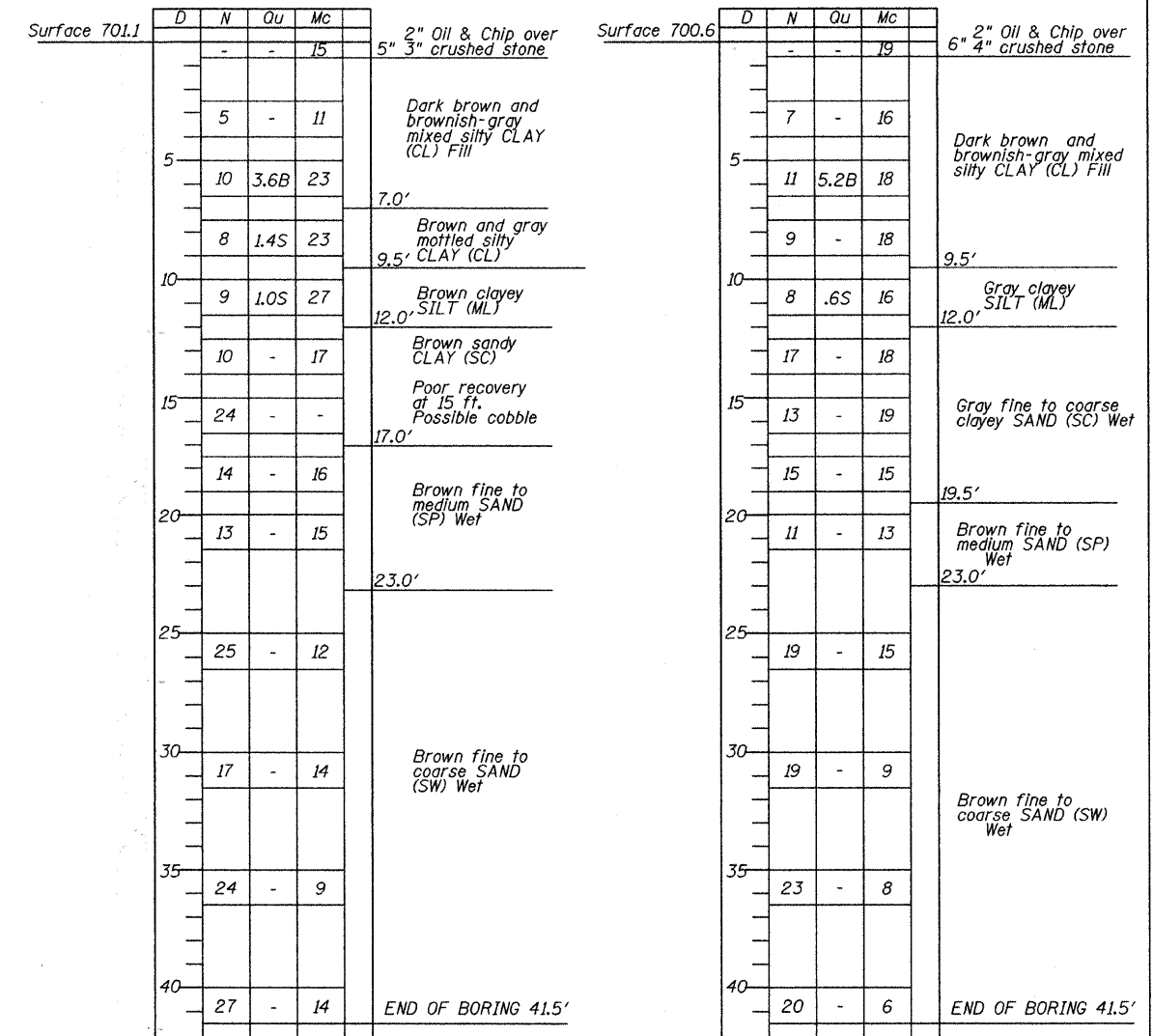
D - Depth

P - Penetrometer

B - Bulge Failure

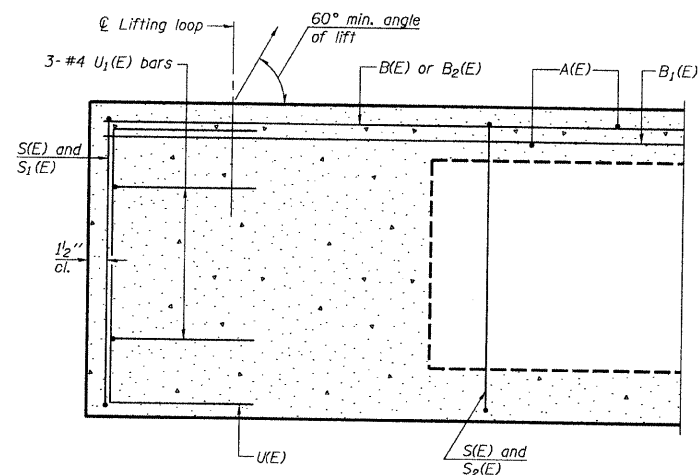
S - Shear Failure

E - Estimated Value

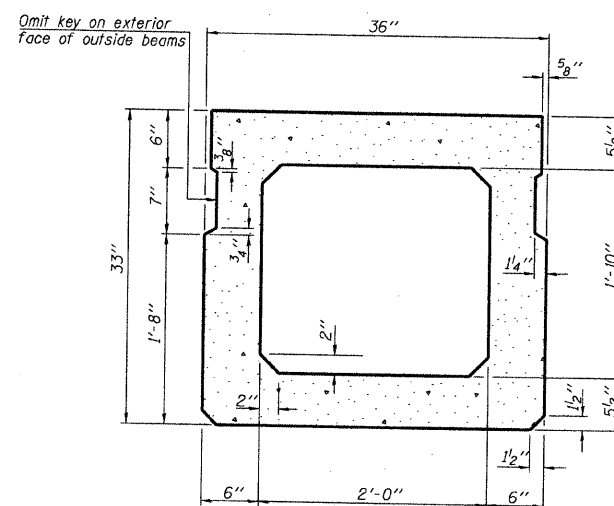


BORING LOGS AND NOTES
SECTION: 05-00907-00-BR
CHAMPAIGN COUNTY
STATION 10+00

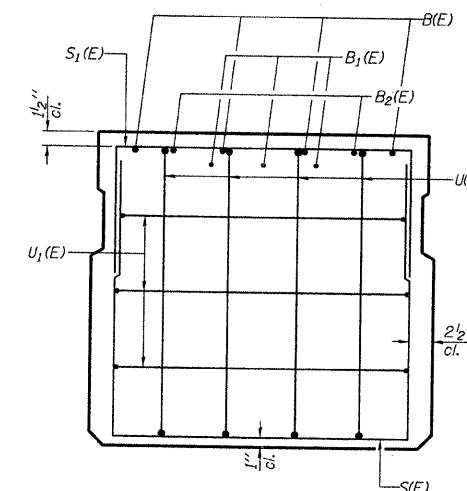
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	15
STA.	TO STA.			
F.H.W.A. REG.	ILLINOIS PROJECT			



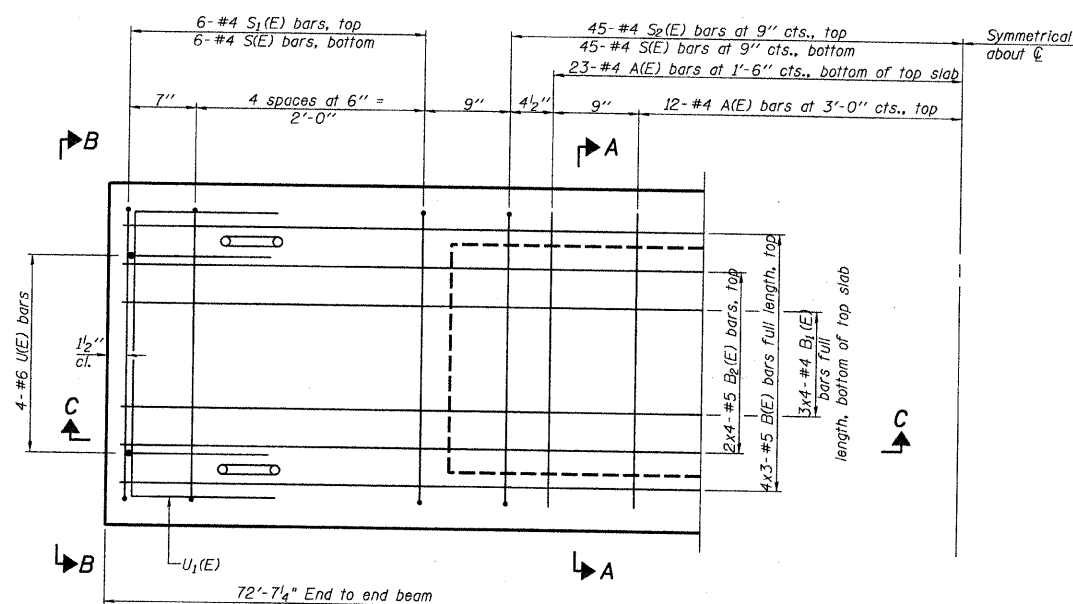
SECTION C-C



SECTION A-A
(Showing dimensions)

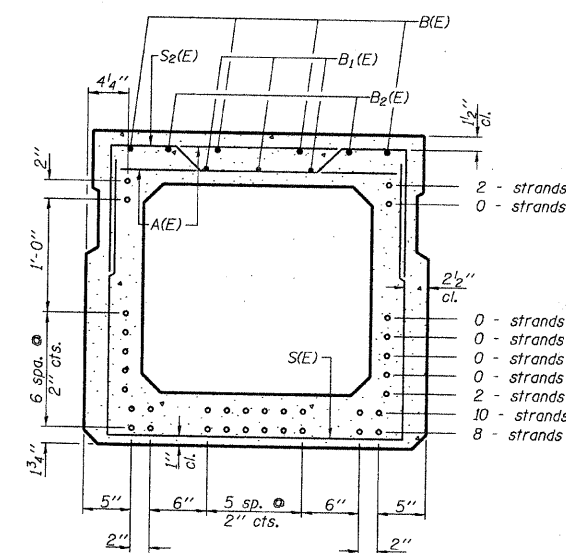


VIEW B-B



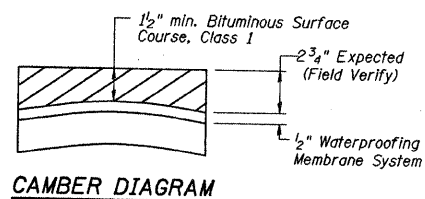
PLAN VIEW

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

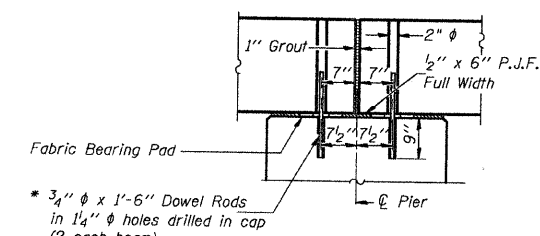


SECTION A-A
(Showing reinforcement and permissible strand locations)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.
Strand Pattern 22SS (8@1 3/4", 10@3 3/4", 2@5 3/4", 2@27 3/4")

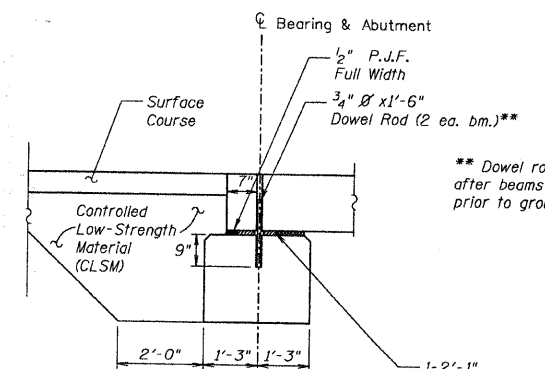


CAMBER DIAGRAM



SEC. THRU PIER

1" Joint shall be packed with a very dry mix of 2:1 sand and P.C. mortar. 1" dimension may vary plus or minus to accommodate tolerance in beam lengths.



SECTION AT ABUTMENTS

**BAR LIST
ONE BEAM ONLY**
(For Information only)

Bar	No.	Size	Length	Shape
A(E)	70	#4	2'-7"	—
B(E)	12	#5	25'-7"	—
B1(E)	12	#4	19'-7"	—
B2(E)	8	#5	19'-11"	—
S(E)	102	#4	7'-5"	—
S1(E)	12	#4	6'-3"	□
S2(E)	90	#4	6'-6"	□
U(E)	8	#6	5'-0"	□
U1(E)	6	#4	5'-0"	□

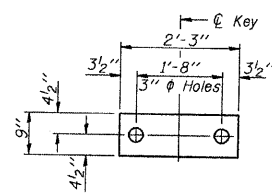
Note: See sheet 16 of 36 for additional details and Bill of Material.

33" x 36" PPC DECK BEAM

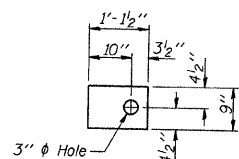
SPANS 1, 2, 3, & 4

SUPER STRUCTURE
SECTION: 05-00907-00-BR
CHAMPAIGN COUNTY
CENTRAL STATION 10+00

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	16
STA.		TO STA.		
F.H.W.A. REG.		ILLINOIS PROJECT		



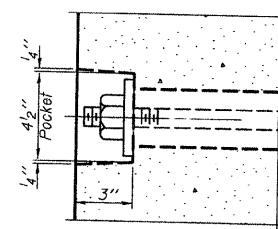
FABRIC BEARING PAD
(Interior)



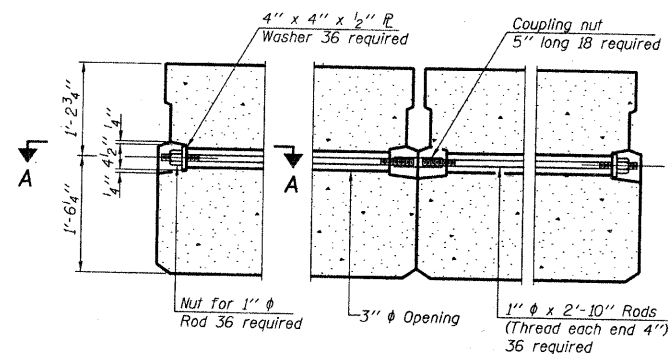
FABRIC BEARING PAD
(Exterior)

FIXED

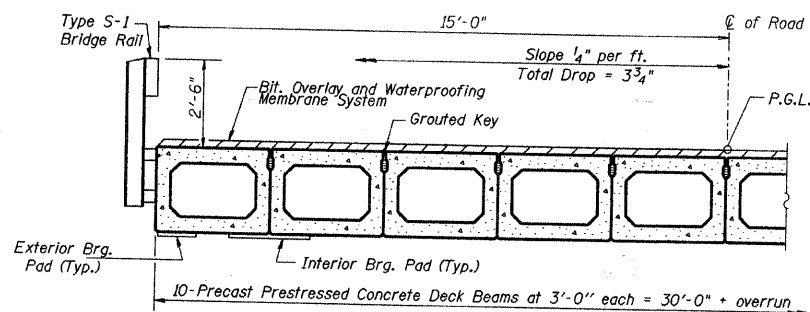
Note: Omit holes when using expansion bearings.



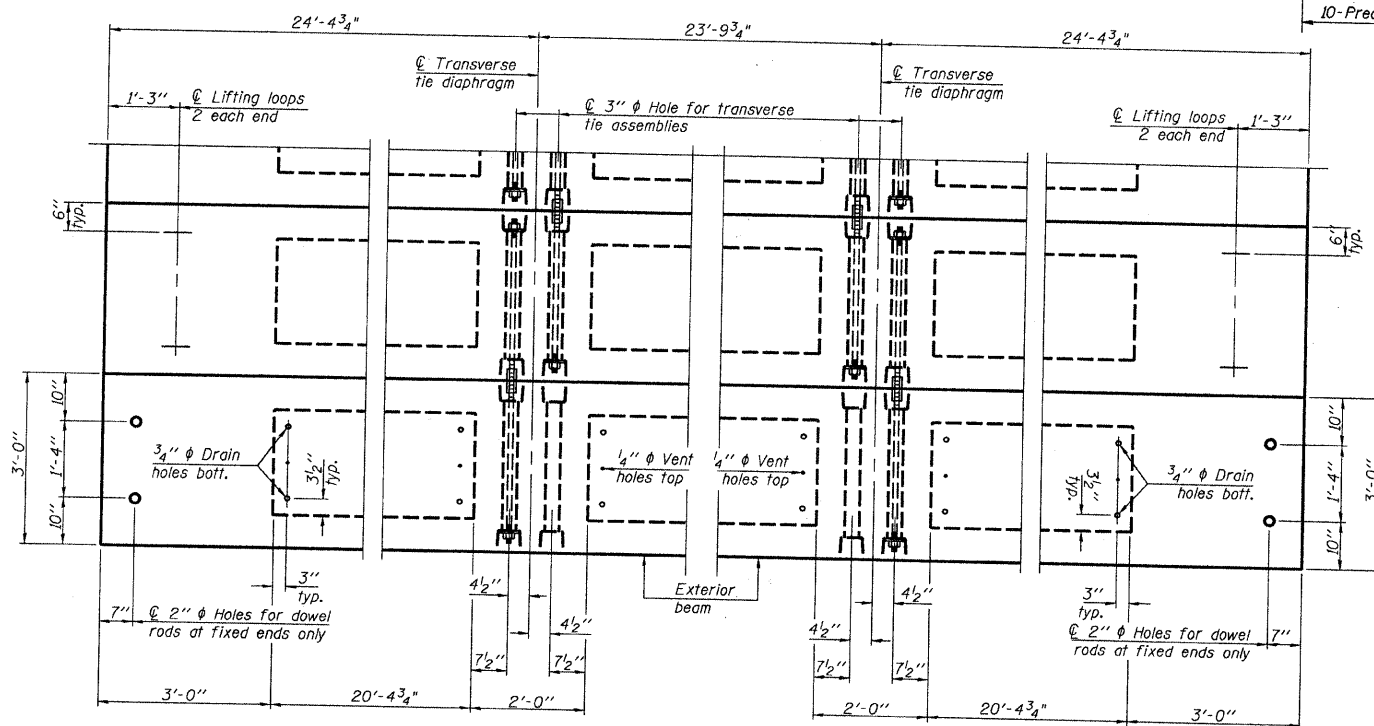
SECTION A-A



TYPICAL TRANSVERSE TIE ASSEMBLY

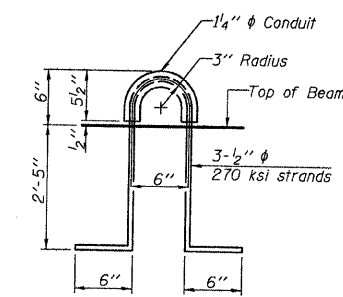
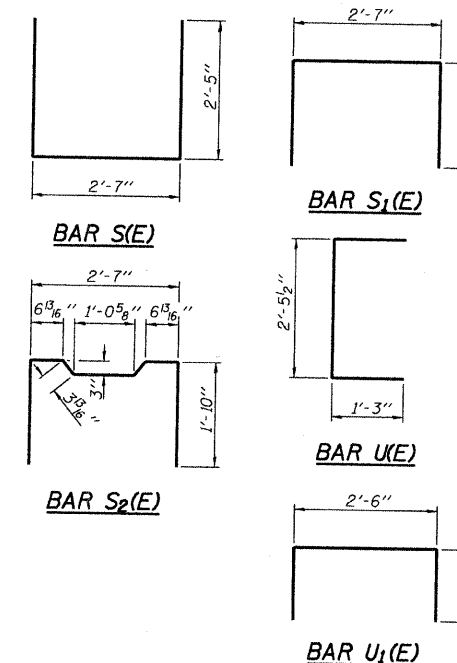


HALF CROSS SECTION



PLAN VIEW

Note: Connect beams in pairs with the transverse tie configuration shown.



LIFTING LOOP DETAIL

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" diameter rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.

Reinforcement bars shall conform to ASTM A 706 (IL MOD), Grade 60. (See Special Provisions) Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.

A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling.

Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.

Compressive strength of prestressed concrete, f'c, shall be 6000 psi.

Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (33" depth)	Sq. Ft.	8713
33" X 36" PPC DECK BEAM DETAILS		

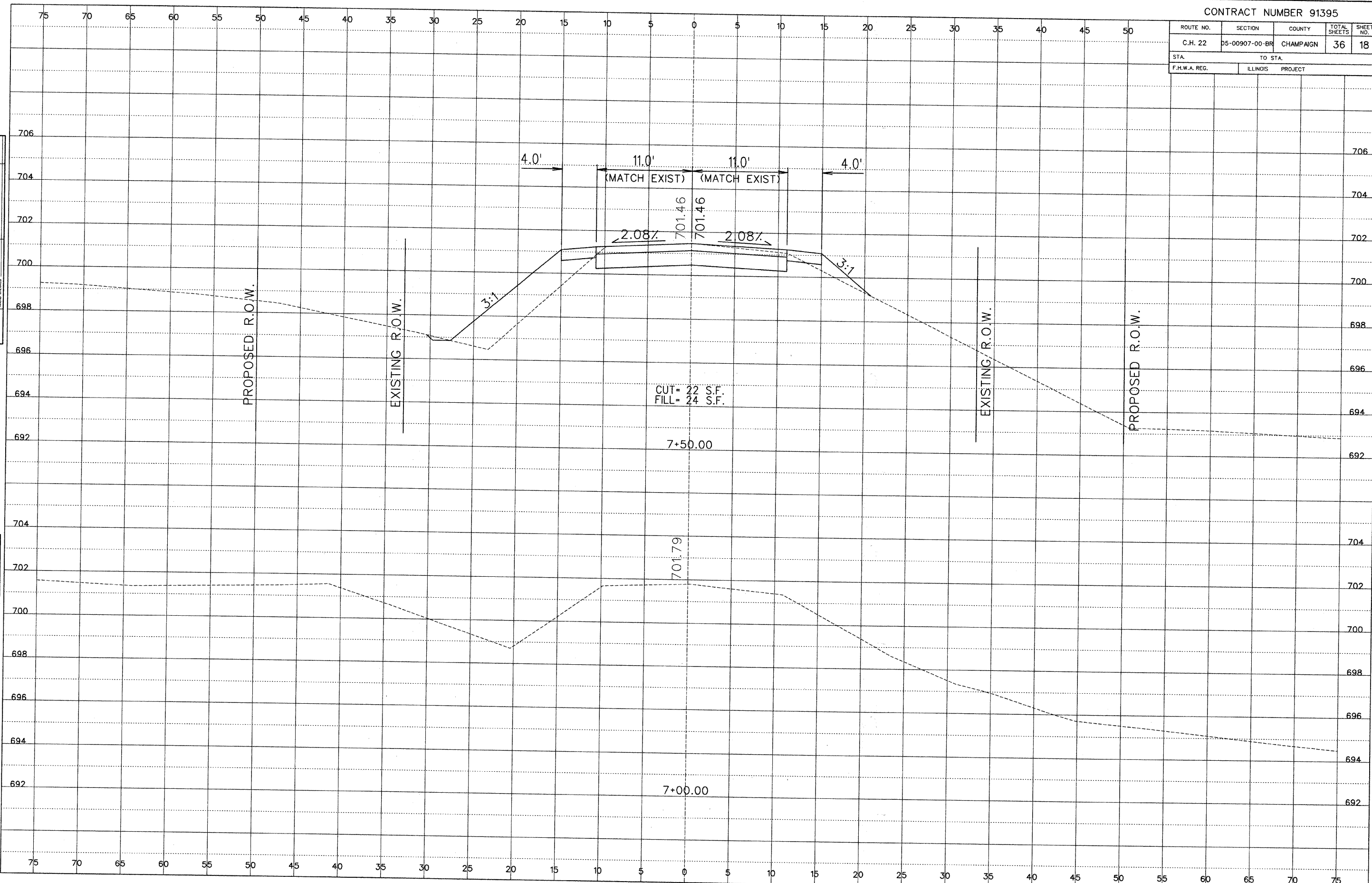
SPANS 1, 2, 3, & 4

SUPER STRUCTURE
SECTION: 05-00907-00-BR
CHAMPAIGN COUNTY
STATION 10+00

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	18
STA.		TO STA.		
F.H.W.A. REG.		ILLINOIS PROJECT		

DATE	BY
DATE	BY
DATE	BY
DATE	BY
DATE	BY

DATE	BY
DATE	BY
DATE	BY
DATE	BY
DATE	BY

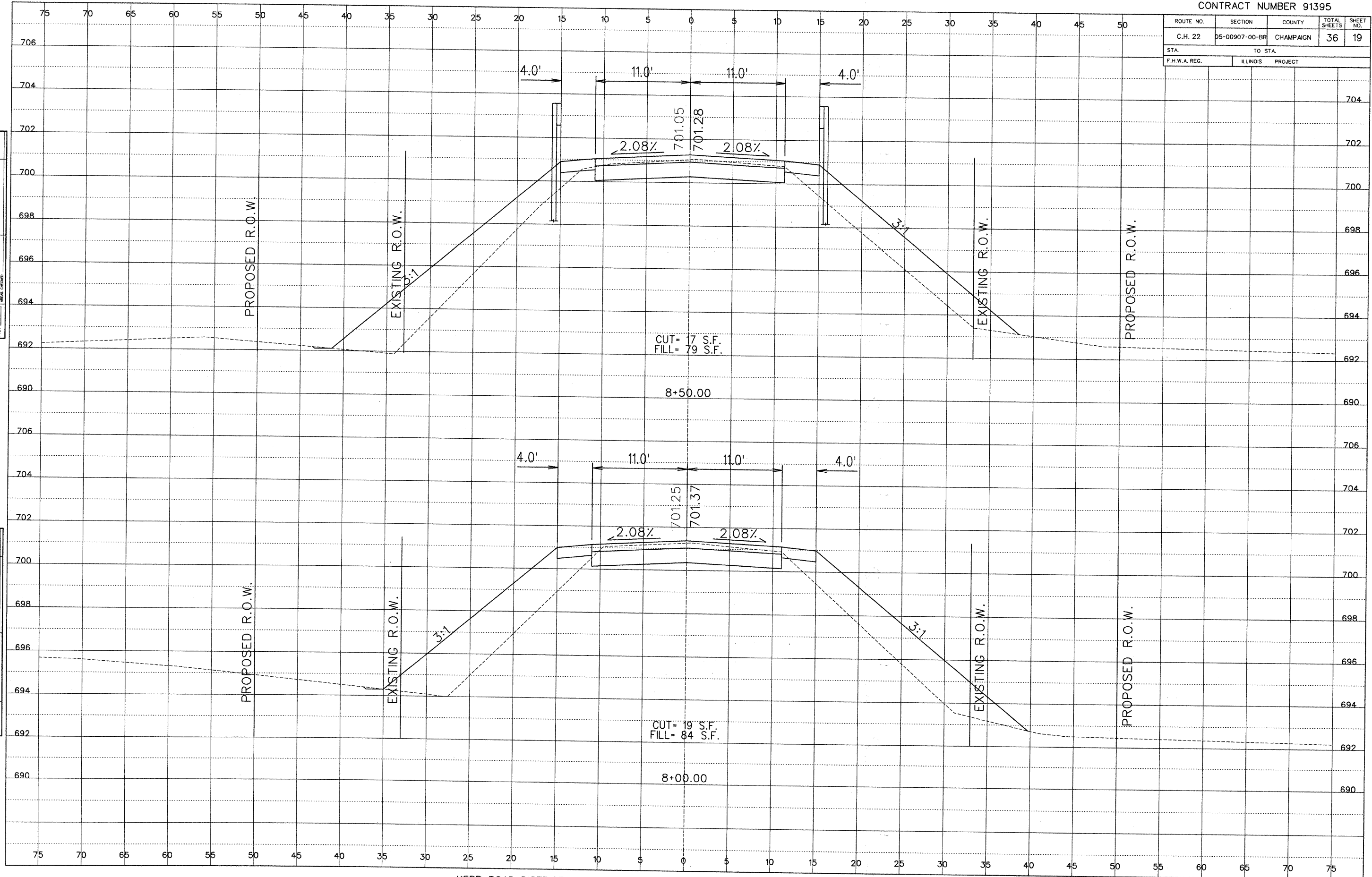


Cross Section Sheets.dgn 7/2/2009 7:32:09 AM

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	19
STA.		TO STA.		
F.H.W.A. REG.		ILLINOIS PROJECT		

DATE	
BY	
FINAL SURVEY	SAVED
NOTE BOOK NO.	PLOTTED
	TEMPORARY
	AREAS
	CHANGED

DATE	
BY	
ORIGINAL SURVEY	SAVED
NOTE BOOK NO.	PLOTTED
	TEMPORARY
	AREAS
	CHANGED



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	20
STA.		TO STA.		
F.H.W.A. REG.		ILLINOIS PROJECT		

FINAL SURVEY

DATE: _____

BY: _____

REVISIONS:

NO. _____ DATE _____

NOTE BOOK NO. _____

AREA DELETED _____

ORIGINAL SURVEY

DATE: _____

BY: _____

REVISIONS:

NO. _____ DATE _____

NOTE BOOK NO. _____

AREA DELETED _____

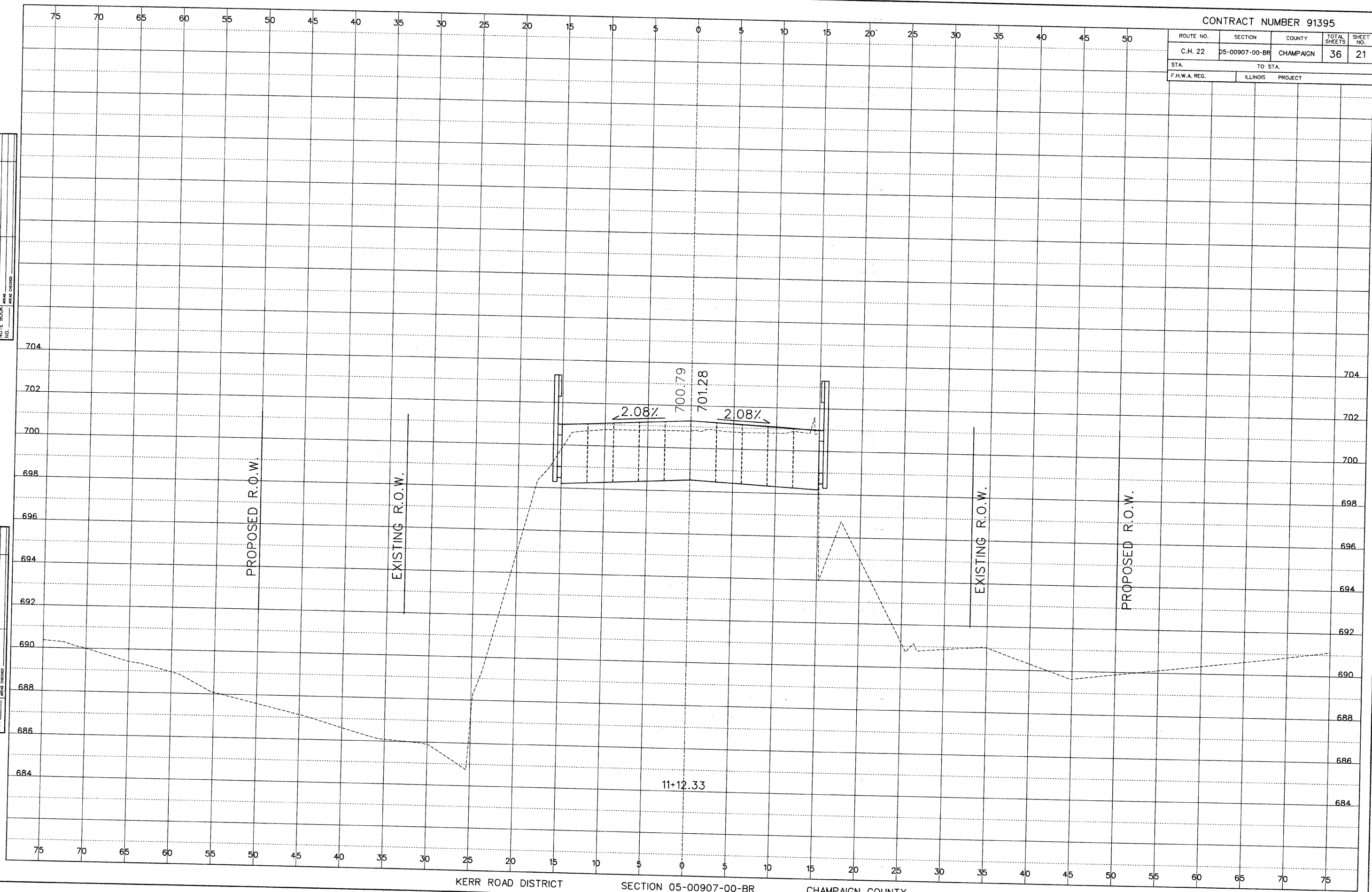


Cross Section Sheets.dgn 7/2/2009 7:32:14 AM

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	21
STA.		TO STA.		
F.H.W.A. REG.		ILLINOIS PROJECT		

DATE: _____
 BY: _____
 CHECKED: _____
 APPROVED: _____
 FINAL SURVEY NOTE BOOK NO. _____
 SURVEYED BY: _____
 PLOTTED BY: _____
 DATE: _____
 AREAS CHECKED: _____

DATE: _____
 BY: _____
 CHECKED: _____
 APPROVED: _____
 ORIGINAL SURVEY NOTE BOOK NO. _____
 SURVEYED BY: _____
 PLOTTED BY: _____
 DATE: _____
 AREAS CHECKED: _____

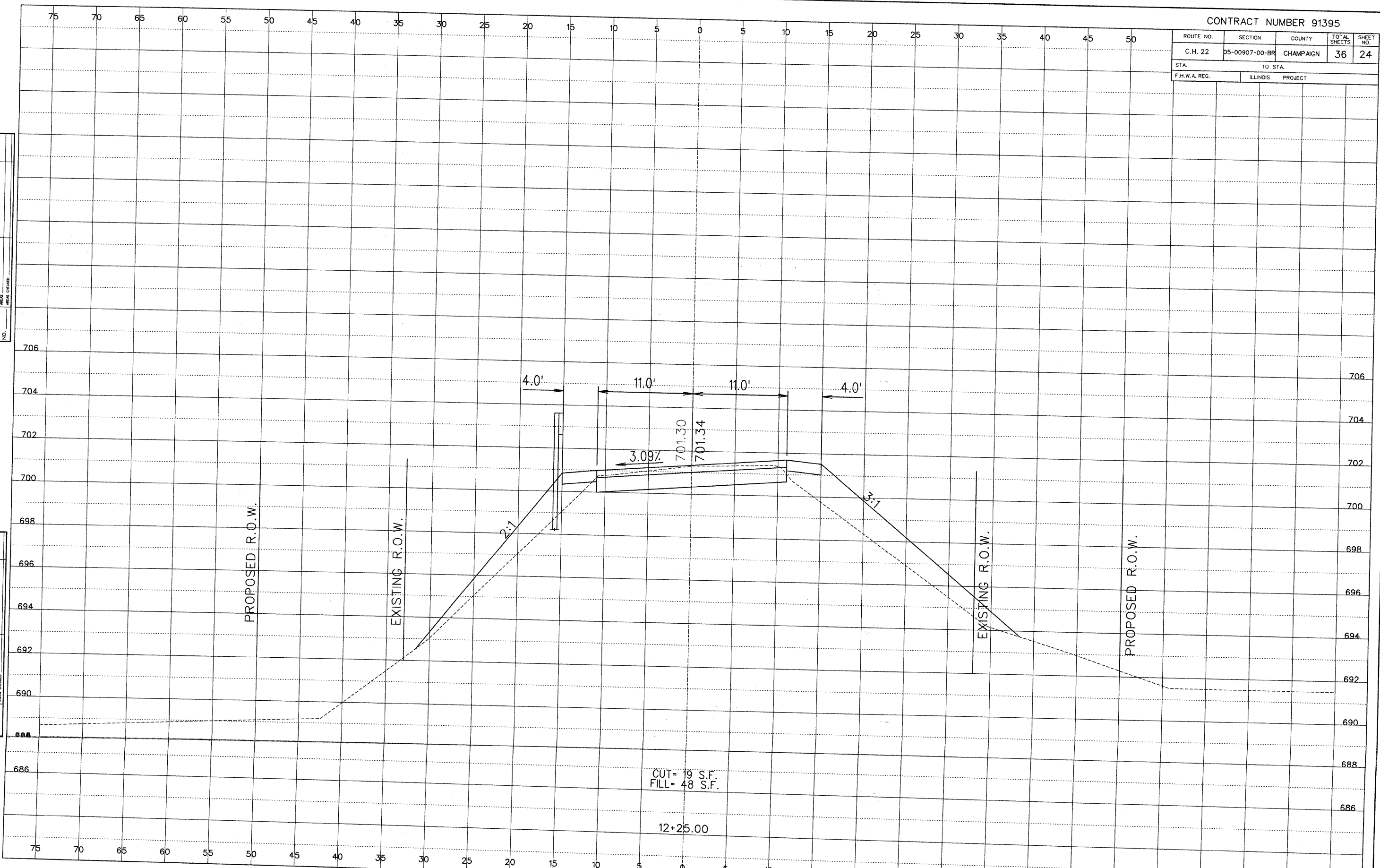


CONTRACT NUMBER 91395

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	24
STA.		TO STA.		
F.H.W.A. REG.		ILLINOIS PROJECT		

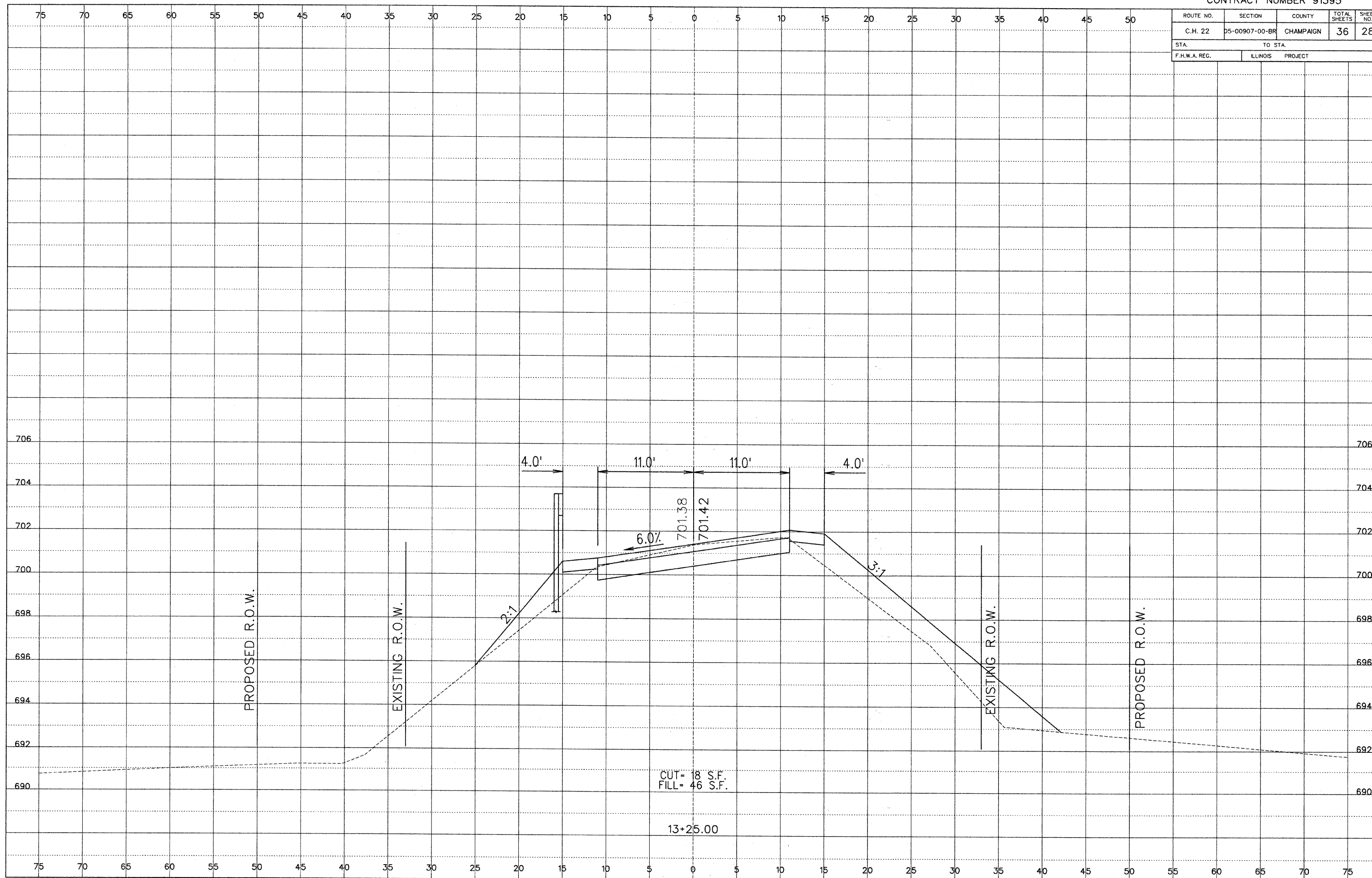
FINAL SURVEY
 DRAWN BY: _____
 CHECKED BY: _____
 DATE: _____
 NOTE BOOK NO. _____
 AREA SHEET NO. _____

ORIGINAL SURVEY
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 CHECKED BY: _____
 DATE: _____
 NOTE BOOK NO. _____
 AREA SHEET NO. _____

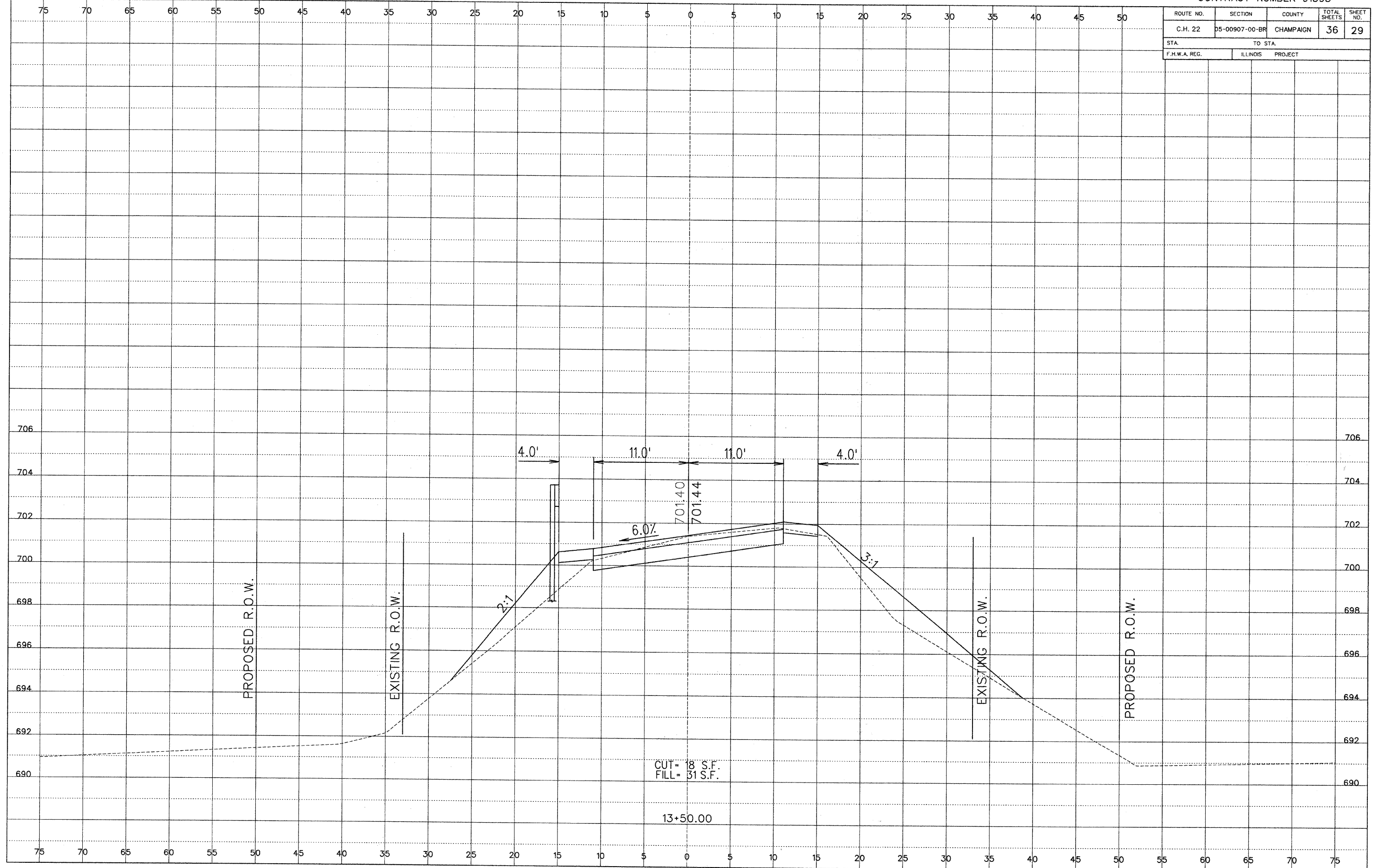


KERR ROAD DISTRICT SECTION 05-00907-00-BR CHAMPAIGN COUNTY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	28
STA.		TO STA.		
F.H.W.A. REG.		ILLINOIS PROJECT		



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	29
STA.		TO STA.		
F.H.W.A. REG.		ILLINOIS PROJECT		



4.0' 11.0' 11.0' 4.0'

6.0%
701.40
701.44

2:1

3:1

PROPOSED R.O.W.

EXISTING R.O.W.

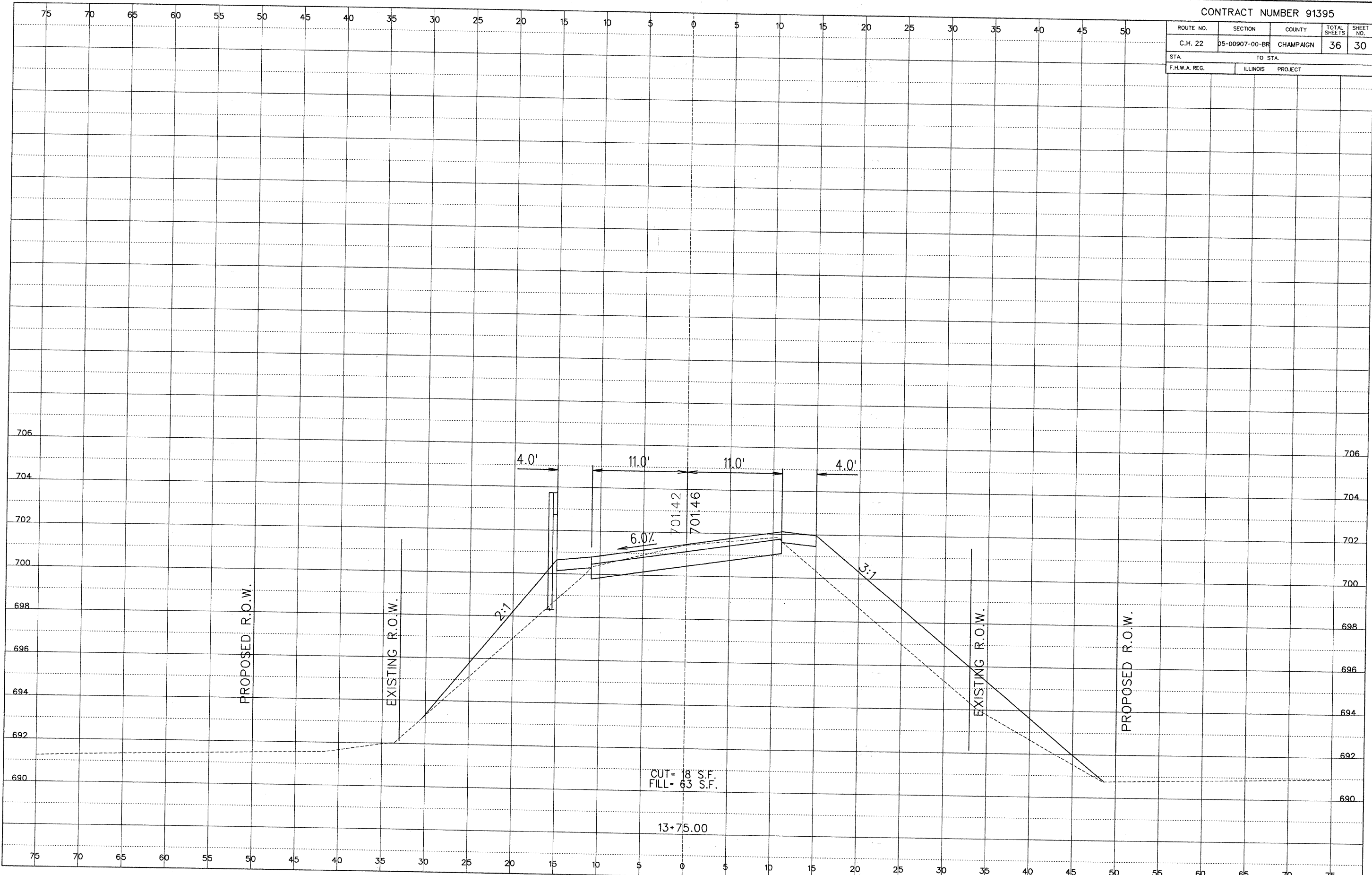
EXISTING R.O.W.

PROPOSED R.O.W.

CUT = 18 S.F.
FILL = 31 S.F.

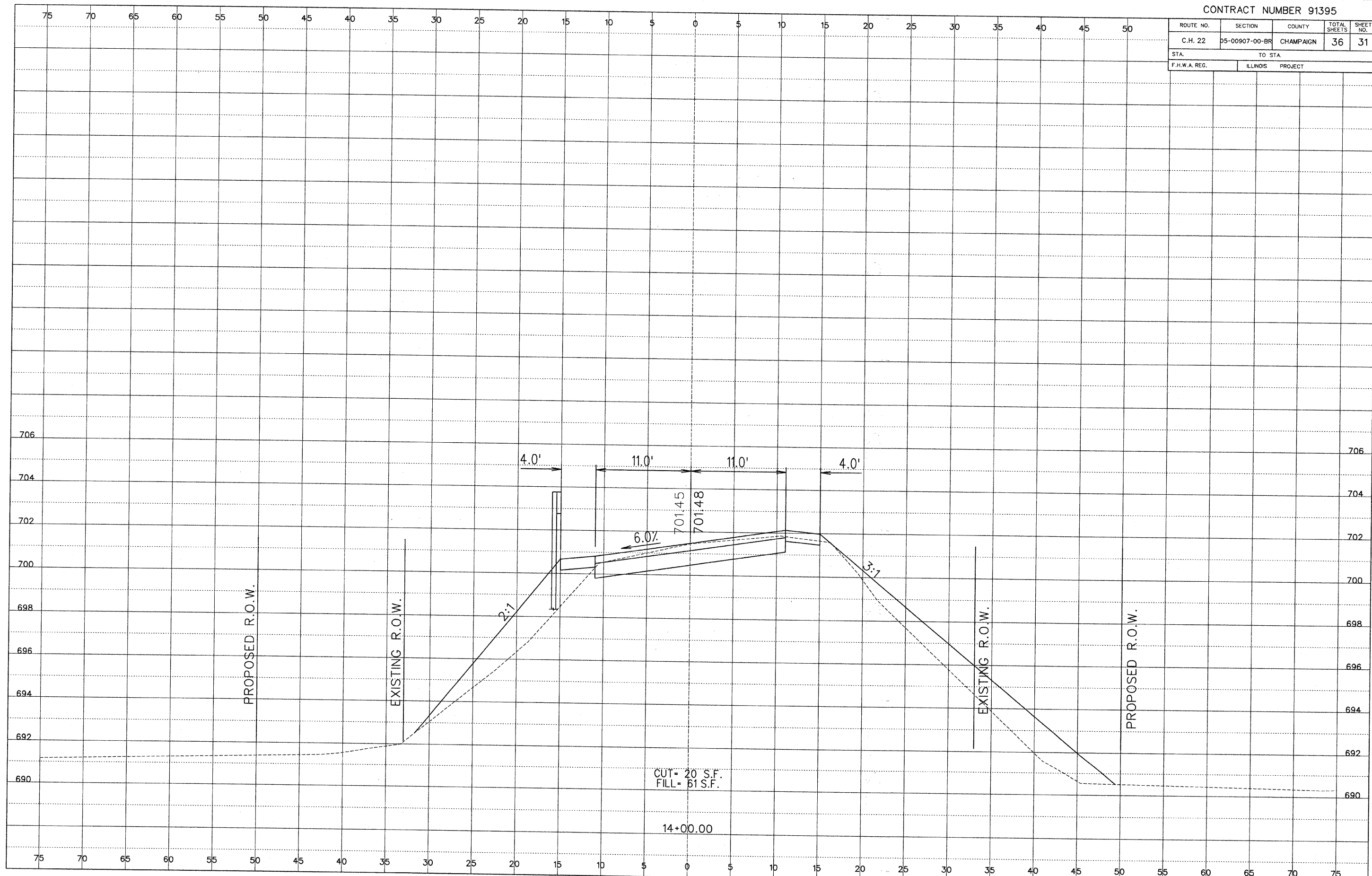
13+50.00

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	30
STA.		TO STA.		
F.H.W.A. REG.		ILLINOIS PROJECT		



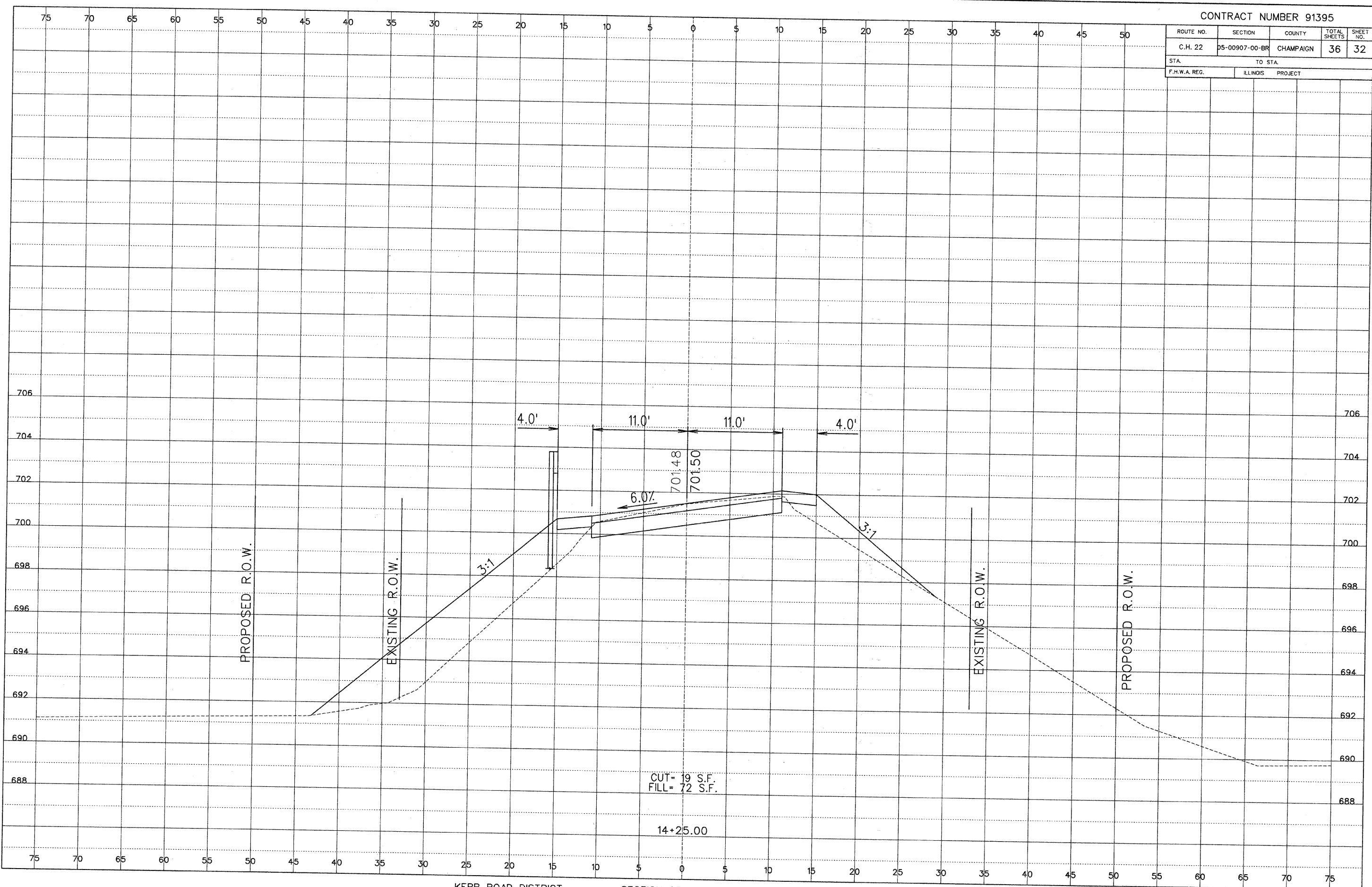
Cross Section Sheets.dgn 7/2/2009 7:32:36 AM

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	31
STA.		TO STA.		
F.H.W.A. REG.		ILLINOIS PROJECT		



Cross Section Sheets.dgn 7/2/2009 7:32:38 AM

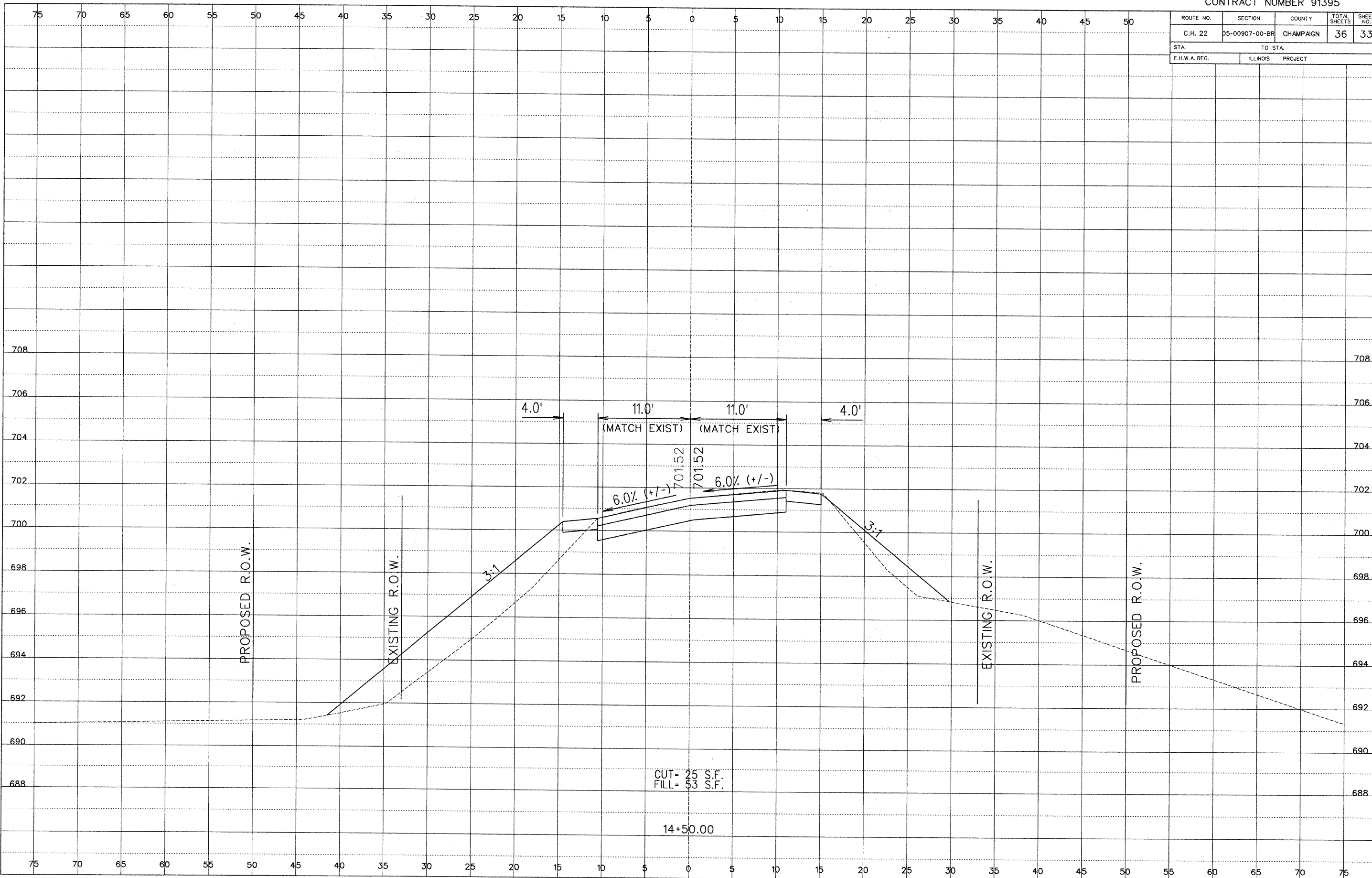
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	32
STA.		TO STA.		
F.H.W.A. REG.		ILLINOIS PROJECT		



KERR ROAD DISTRICT SECTION 05-00907-00-BR CHAMPAIGN COUNTY

Cross Section Sheets.dgn 7/2/2009 7:32:40 AM

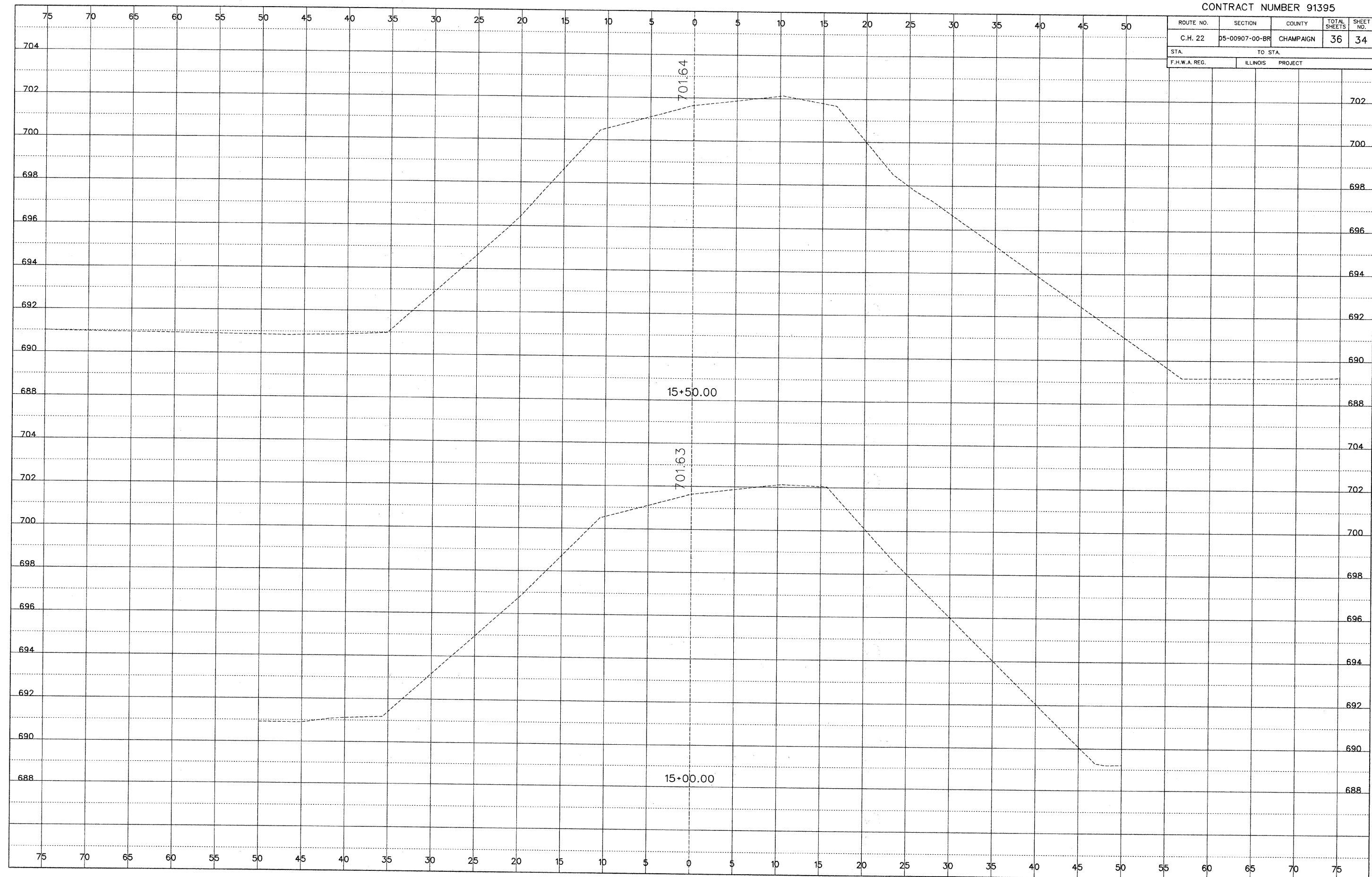
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	33
STA.		TO STA.		
F.H.W.A. REG.		ILLINOIS PROJECT		



CUT = 25 S.F.
FILL = 53 S.F.

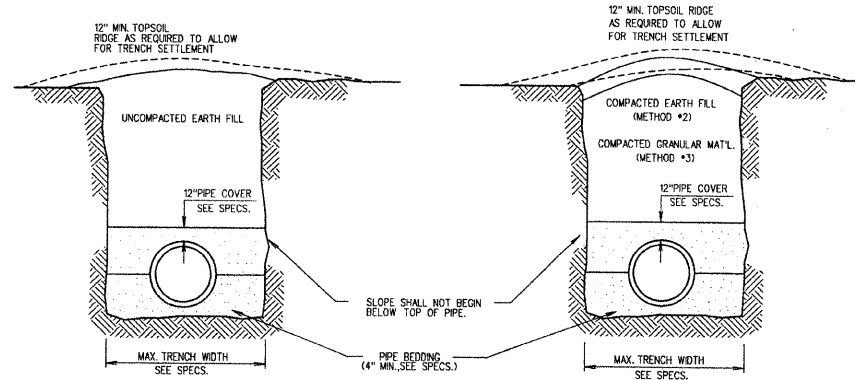
14+50.00

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	34
STA.		TO STA.		
F.H.W.A. REG.		ILLINOIS PROJECT		



Cross Section Sheets.dgn 7/2/2009 7:32:45 AM

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	35
STA.		TO STA.		
F.H.W.A. REG.	ILLINOIS	PROJECT		

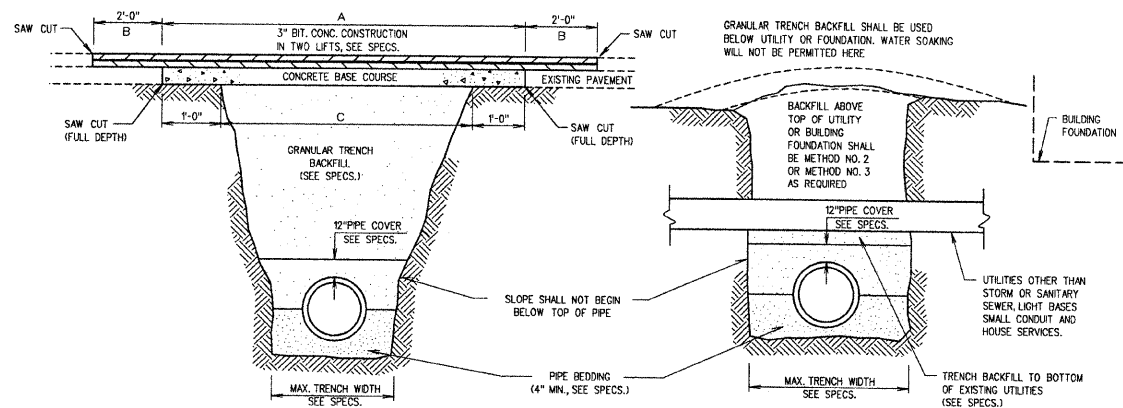


BACKFILL METHOD NO. 1

FOR BACKFILLING IN OPEN AREAS, SUCH AS CROPLAND OR OTHER ZONES WITH UNCLASSIFIED AND NON-IMPROVED SURFACES

BACKFILL METHOD NO. 2 OR 3

FOR BACKFILLING IN SOODING OR GRASSED AREAS (EXCEPT NEAR BUILDING FOUNDATIONS AND BENEATH OR ALONG NON-RIGID SURFACES)



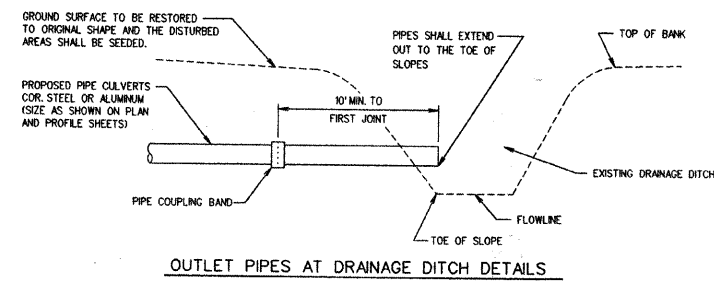
BACKFILL METHOD NO. 4

FOR BACKFILLING BENEATH CONCRETE, ASPHALT AND OIL & CHIP SURFACES, INCLUDING SIDEWALKS, DRIVES, PARKING AREAS, ETC.
 A. EXISTING SURFACE IN THIS AREA TO BE REMOVED FIRST (SAW CUT FULL DEPTH).
 B. ADDITIONAL BIT PAVEMENT TO BE REMOVED.
 C. GRANULAR TRENCH BACKFILL PAVEMENT WIDTH

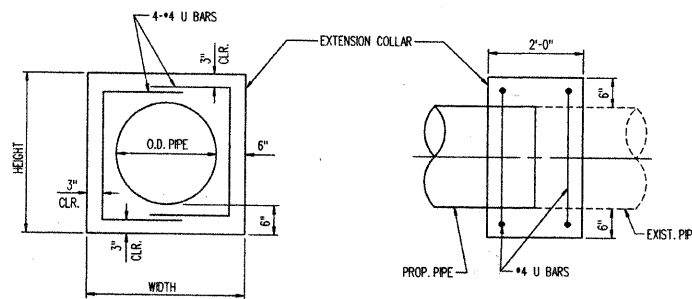
NOTE: FOR ACCEPTABLE GRANULAR TRENCH BACKFILL MATERIAL, SEE SPEC. SECTION 02222.

BACKFILL METHOD NO. 5

FOR BACKFILLING NEAR BUILDING FOUNDATIONS OR OTHER STRUCTURES OR UTILITIES PRESENTING SPECIAL HAZARDS.



OUTLET PIPES AT DRAINAGE DITCH DETAILS



FRONT VIEW

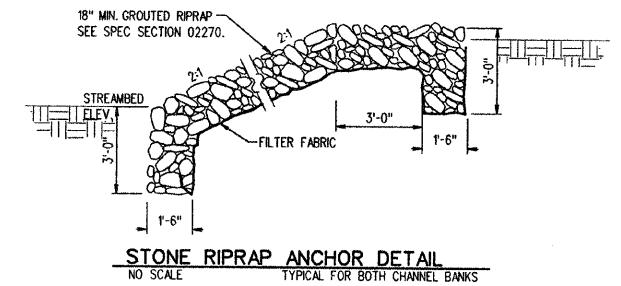
SIDE VIEW

U-BAR

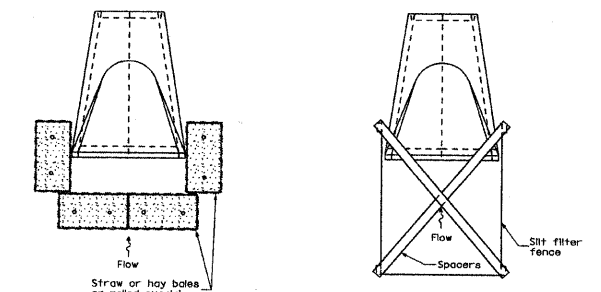
NOTE: THE COST OF THE CONCRETE COLLARS AND REINFORCEMENT BARS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH.

CULV. SIZE, DIA. IN.	EXTENSION COLLAR		U-BAR	
	WIDTH FEET	HEIGHT FEET	DMEN. "x"	DMEN. "x"
12"	2'-4"	2'-4"	1'-6"	1'-10"
15"	2'-7 1/2"	2'-7 1/2"	1'-9"	2'-1"
18"	2'-11"	2'-11"	2'-0"	2'-5"
21"	3'-2 1/2"	3'-2 1/2"	2'-2"	2'-8"
30"	4'-1"	4'-1"	2'-8"	3'-7"
36"	4'-8"	4'-8"	3'-0"	4'-2"

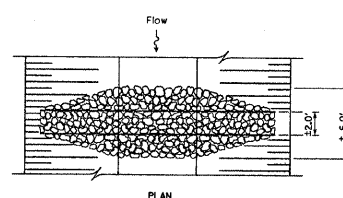
PIPE CULVERT CONNECTION COLLAR DETAILS



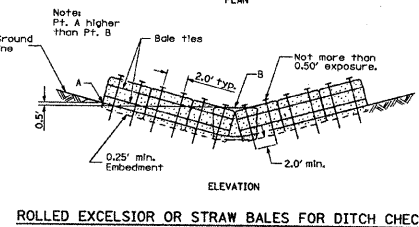
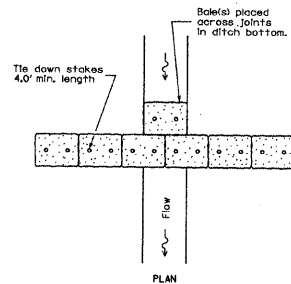
STONE RIPRAP ANCHOR DETAIL
NO SCALE TYPICAL FOR BOTH CHANNEL BANKS



INLET AND PIPE PROTECTION



AGGREGATE DITCH CHECK

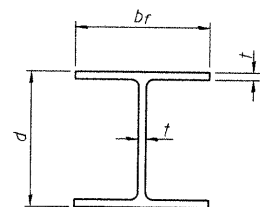


ROLLED EXCELSIOR OR STRAW BALES FOR DITCH CHECK

PLAN
 SURVEYED BY
 DATE
 ALIGNED CHECKED
 NO. RT. OF WAY
 CHECKED
 NO.

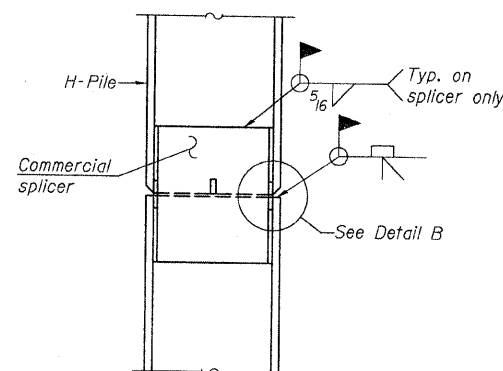
PROFILE
 SURVEYED BY
 DATE
 PLOTTED
 GRADES CHECKED
 NO. GRADES NOTED
 CHECKED
 NO. STRUCTURE NOTATIONS
 CHECKED

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 22	05-00907-00-BR	CHAMPAIGN	36	36
STA. TO STA.		ILLINOIS PROJECT		

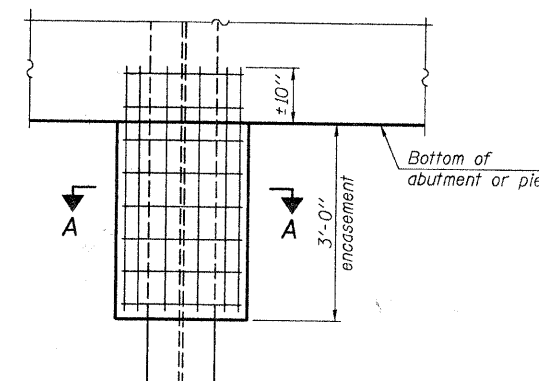


STEEL PILE TABLE

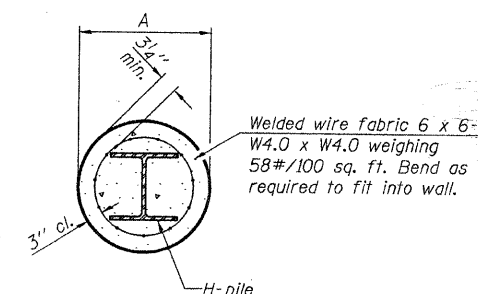
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION



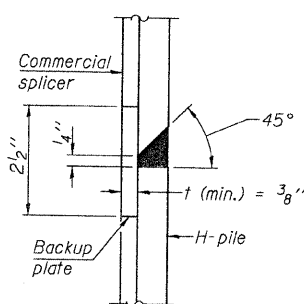
ELEVATION



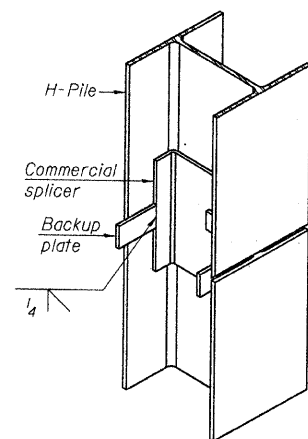
SECTION A-A

Note:
Forms for encasement may be omitted when soil conditions permit.

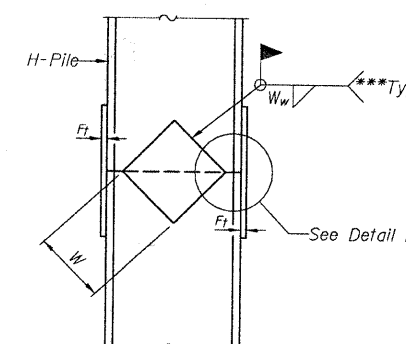
PILE ENCASEMENT (TO BE USED WHEN CUT-OFF WALLS ARE NOT SHOWN)



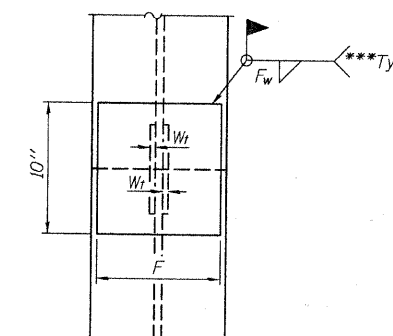
DETAIL "B"



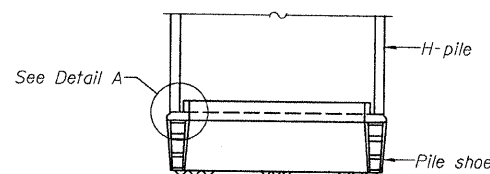
ISOMETRIC VIEW



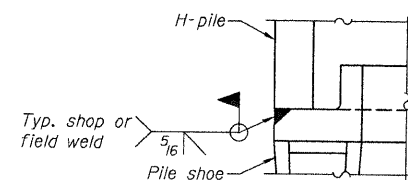
ELEVATION



END VIEW

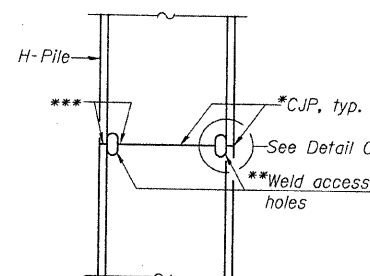


ELEVATION

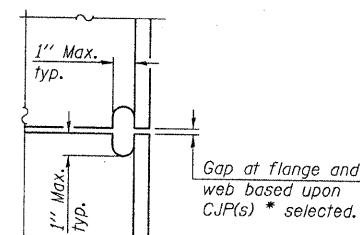


DETAIL A

H-PILE SHOE ATTACHMENT

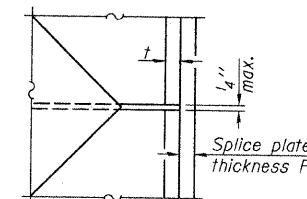


ELEVATION



DETAIL C

COMPLETE PENETRATION WELD SPLICE



DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

*Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.

**Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.

***Interrupt welds 1/4" from end of each pile.

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.