4-25-08 Letting, Item 105

CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	1

PROJECT ENGINEER: REBECCA MARRUFFO

SQUAD LEADER: KEVIN HENSON (815)-284-5971

INDEX

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701301-02	LANE CLOSURE 2L, 2W, SHORT TIME OPERATIONS
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701321-09	LANE CLOSURE 2L, 2W, BRIDGE REPAIR WITH BARRIER
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729001	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
780001-01	TYPICAL PAVEMENT MARKINGS
781001-02	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
886001	DETECTOR LOOP INSTALLATIONS
886006	TYPICAL LAYOUT FOR DETECTOR LOOPS
000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-01	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT

100' 200' 300' — 1"= 100'
0 10' 20' 30' — 1"= 10'
0 50' 100' — 1"= 50'
0 50' 100' — 1"= 40'
0 50' 100' — 1"= 30'
0 50' 100' — 1"= 20'

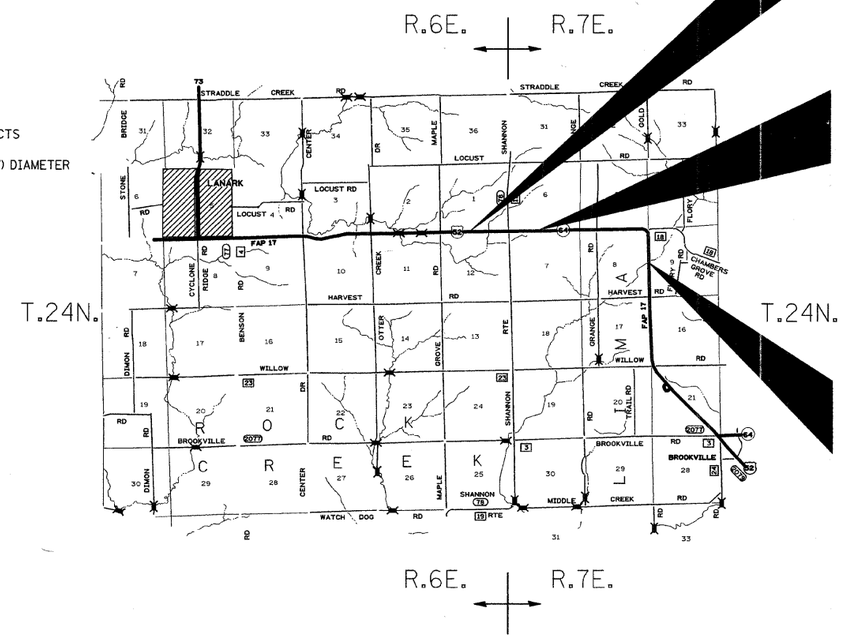
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

CONTRACT NO. 64C35

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

FAP ROUTE 17 (IL 64)
SECTION 15T-2
PROJECT ACF-0017(124)
CARROLL COUNTY
C-92-023-08



N

D-92-078-06

LOCATION OF SECTION INDICATED THUS: –

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED JAN 28 2008
George F. Ryan
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
March 21, 2008
Eric E. Harm PE
Interim ENGINEER OF DESIGN AND ENVIRONMENT
March 21, 2008
Christine M. Reed PE
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

ROCK CREEK TOWNSHIP T.24N.-R.6E. SECTIONS 1,12

LIMA TOWNSHIP T.24N.-R.7E. SECTIONS 6,7,8,9

GROSS LENGTH OF PROJECT = 15,154 LIN. FT. = 2.87 MILES
NET LENGTH OF PROJECT = 1,299.21 LIN. FT. = 0.25 MILES

CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	2
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

RURAL

SUMMARY OF QUANTITES					Y007	Y007
					80% FED/ 20%STATE	80% FED/ 20%STATE
CODE NUMBER	ITEM	UNIT		TOTAL QUANTITY		
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT		11	11	
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT		424	424	
20200100	EARTH EXCAVATION	CU YD		1,533	1,225	308
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD		839	509	330
20400800	FURNISHED EXCAVATION	CU YD		2,114	1,460	654
* 25000210	SEEDING, CLASS 2A	ACRE		1.90	1.50	0.40
* 25000310	SEEDING, CLASS 4	ACRE		0.36	0.25	0.11
■ 25000750	MOWING	ACRE		1.90	1.50	0.40
25100115	MULCH, METHOD 2	ACRE		1.90	1.50	0.40
25100630	EROSION CONTROL BLANKET	SQ YD		320		320
25100900	TURF REINFORCEMENT MAT	SQ YD		1,018	742	276
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND		1,400	920	480
28000300	TEMPORARY DITCH CHECKS	EACH		53	34	19
28000400	PERIMETER EROSION BARRIER	FOOT		897	557	340
28000500	INLET AND PIPE PROTECTION	EACH		4	4	
28100107	STONE RIPRAP, CLASS A4	SQ YD		162	103	59
28200200	FILTER FABRIC	SQ YD		162	103	59
35101400	AGGREGATE BASE COURSE, TYPE B	TON		290	290	
40600627	LEVELING BINDER (MACHINE METHOD), IL-9.5FG, N50	TON		37	20	17

*SPECIALTY ITEMS ■ NP-100% STATE

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USER NAME = hensonke

SUMMARY OF QUANTITIES

CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	3
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITES					RURAL Y007 80% FED/ 20%STATE	Y007 80% FED/ 20%STATE
CODE NUMBER	ITEM	UNIT		TOTAL QUANTITY		
40600990	TEMPORARY RAMP	SQ YD		184	76	108
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX"C", N50	TON		139	103	36
44004250	PAVED SHOULDER REMOVAL	SQ YD		240	240	
44201359	CLASS C PATCHES, TYPE IV, 10 INCH	SQ YD		655	361	294
44213200	SAW CUTS	FOOT		443	443	
48101200	AGGREGATE SHOULDERS, TYPE B	TON		57	57	
48203023	HOT-MIX ASPHALT SHOULDERS, 6 1/2"	SQ YD		976	633	343
50100300	REMOVAL OF EXISTING STRUCTURES NO.1	EACH		1	1	
50100400	REMOVAL OF EXISTING STRUCTURES NO.2	EACH		1	1	
50300225	CONCRETE STRUCTURES	CY YD		78	78	
50800105	REINFORCEMENT BARS	POUND		35,630	12,370	23,260
50901760	PIPE HANDRAIL	FOOT		37	37	
51205200	TEMPORARY SHEET PILING	SQ FT		5,224	3,513	1,711
51500100	NAME PLATES	EACH		3	2	1
54003000	CONCRETE BOX CULVERTS	CY YD		143		143
54010808	PRECAST CONCRETE BOX CULVERT 8' X 8'	FOOT		100	100	
54213717	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 72"	EACH		2	2	
54215550	METAL END SECTIONS 15"	EACH		4	4	
542A0277	PIPE CULVERTS, CLASS A, TYPE 1 72"	FOOT		83	83	
	*SPECIALTY ITEMS					

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SUMMARY OF QUANTITIES

CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	4
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITES

CODE NUMBER	ITEM	UNIT		TOTAL QUANTITY	RURAL Y007 80% FED/ 20%STATE	Y007 80% FED/ 20%STATE
542D0220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT		110	110	
60100080	FRENCH DRAINS	CY YD		9		9
60100925	PIPE DRAINS 8"	FOOT		34		34
61100500	EXPLORATION TRENCH 52" DEPTH	FOOT		144	74	70
61101013	STORM SEWERS PROTECTED, CLASS A, 12"	FOOT		85		85
61133100	FIELD TILE JUNCTION VAULTS, 2' DIA.	EACH		6	3	3
* 63100240	TRAFFIC BARRIER TERMINAL, TYPE 11 (SPECIAL)	EACH		1		1
63200310	GUARDRAIL REMOVAL	FOOT		1,319	1118	201
63300575	REMOVE AND RE-ERECT RAIL ELEMENT OF EXISTING GUARDRAIL	FOOT		108		108
63500105	DELINEATORS	EACH		6	4	2
66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH		30	21	9
66700305	PERMANENT SURVEY MARKERS, TYPE II	EACH		6	4	2
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO		6		
67100100	MOBILIZATION	L SUM		1		
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH		3	2	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM		1		
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA		30		
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH		3	2	1
70106700	TEMPORARY RUMBLE STRIP	EACH		18	12	6
	*SPECIALTY ITEMS					

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CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	5
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

RURAL

	SUMMARY OF QUANTITES				Y007 80% FED/ 20%STATE	Y007 80% FED/ 20%STATE
CODE NUMBER	ITEM	UNIT		TOTAL QUANTITY		
70300100	SHORT-TERM PAVEMENT MARKING	FOOT		6,883	4,892	1,991
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT		2,336	1,639	697
70400100	TEMPORARY CONCRETE BARRIER	FOOT		1,361	713	648
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT		975	613	362
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT		10,772	8,550	2,222
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH		23	20	3
78300100	PAVEMENT MARKING REMOVAL	SQ FT		865	603	262
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH		23	20	3
* A2006514	TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 1-3/4" CALIPER, BALLED AND BURLAPPED	EACH		11	11	
X4810100	TEMPORARY SHOULDERS	SQ YD		526	252	274
XX005298	REMOVE EXISTING TIMBER WALL	FOOT		105		105
Z0005400	BREAKER-RUN CRUSHED STONE	TON		1,538	1044	494
Z0013798	CONSTRUCTION LAYOUT	L SUM		1	1	0
Z0023600	FILLING EXISTING CULVERTS	EACH		1		1
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH		9	6	3
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH		4	2	2

*SPECIALTY ITEMS

PLOT DATE = Mon Jan 28 10:32:41 2008
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ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 17 (IL 64)	15T-2	Carroll	71	6
FED ROAD DIST. NO.	ILLINOIS	PROJECT		
Contract #64C35				

GENERAL NOTES

See cross sections for special ditches and backslopes.

The final top 100 mm (four inches) of soil in any right-of-way area disturbed by the Contractor must be capable of supporting vegetation. The soil must be from the A horizon (zero to 2' deep) of soil profiles of local soils.

All Borrow/Waste/Use sites must be approved by the Department prior to removing any material from the project or initiating any earthmoving activities, including temporary stockpiling outside the limits of construction.

The Contractor shall seed all disturbed areas within the project limits. Seeding Class 4 or 2A shall be used, except in front of properties where the grass will be mowed, then use Seeding, Class 1. Class 2A shall be used on front slopes and ditch bottoms. Class 4 shall be used behind Type A gutter, on all backslopes and areas behind the backslope, and beyond the toe of front slope on fill sections without ditches.

Program #5
(Arch. Size)
Enlarge
200%
Enlarge 107%

Fertilizer Nutrients shall be applied at the rate specified in Sections 250 and 252 of the Standard Specifications. This shall be included in the cost of the SEEDING or SODDING.

Placement and compaction of the backfill for proposed across road culverts and existing across road culverts that are removed shall conform to Section 502.10 of the Standard Specifications, except that the material shall conform to Article 208.02 of the Standard Specifications, and shall be compacted to a minimum of 95% of the standard laboratory density. Any material conforming to the requirements of Article 1003.04 or 1004.05 which has been excavated from the trenches shall be used for backfilling the trenches. The entire excavation, within 2 feet outside of each shoulder, shall be backfilled with trench backfill material to the bottom of the proposed subgrade. This trench backfill material will not be measured for payment, but shall be included in the contract unit price for the class of concrete involved or other unit price item of the work for which it is required.

The following Mixture Requirements are applicable for this project:

Mixture Uses(s):	Top Shoulder	Bottom Shoulder	Surface	Level Binder
PG:	PG 58-22	PG 58-22	PG 64-22	PG 64-22
Design Air Voids	3 @ N50	2 @ N50	4.0 @ N50	4.0 @ N50
Mixture Composition (Gradation Mixture)	IL 9.5 or 12.5	BAM	IL 9.5 or 12.5	IL 9.5
Friction Aggregate	C	N/A	C	D
20 Year ESAL	N/A	N/A	2.3	1.5

The Contractor will be required to furnish 140 mm (5 1/2") high brass stencils as approved by the Engineer and install stationing at 250' intervals. Stationing shall be placed on both lanes of 2-lane highways and on the outside lanes in both directions on 4-lane highways. The stations shall be placed 150 mm (6") inside the pavement marking edge so they can be read from the shoulder. This work will be included in the cost of the final pavement surface.

Bituminous and Aggregate prime coat shall be placed in accordance with Section 406 of the Standard Specifications. The cost of the prime coats shall be included in the contract unit price per metric ton (ton) for HOT-MIX ASPHALT SURFACE COURSE of the type specified.

The new number for the structure at Sta. 1211+65 will be 008-1097
Sta. 1240+74 will be 008-1098
Sta. 1359+16.80 will be 008-1099

The contractor shall submit four copies of the required shop drawings for review and approval to the Bureau of Bridges and Structures, 2300 South Dirksen Parkway, Springfield, IL 62764. After approval of initial submittal, the contractor shall submit one set of shop drawings to Dave Lippert, Engineer of Materials, 126 East Ash Street, Springfield, IL 62706, and eight (8) sets of shop drawings to be distributed to:

District 2 District Engineer (1)
Fabricator (1)
Contractor (2)
Resident Engineer (2)
District 2 Bureau of Materials (2)

The review and approval of temporary sheet piling will require 4 to 6 weeks. The Contractor shall schedule his work accordingly.

The boring logs for this structure indicate that groundwater levels may encroach on the construction limits of this culvert. It shall be the responsibility of the contractor to control the ground water and divert the stream flow during construction in order to keep the construction area free of water. The method of controlling the water shall be subject to approval of the Engineer and the cost shall be included in the contract unit price for Precast Concrete Box Culverts.

Culvert & bridge flows must be maintained throughout the project. Normal flow shall be allowed to pass at the rate it enters the jobsite. High flows shall be allowed to pass without causing damage to upstream properties.

Box culverts that are stage constructed and undercut by more than 600 mm (2 feet) shall have lean concrete placed on the rock fill at the stage line. The concrete shall retain the rock fill until the second stage rock fill is placed. This work will be included in the pay item for the type of rock fill used.

Precast grated inlet specials may be substituted in lieu of cast-in-place units with floors upon receipt of manufacturer's shop drawings which have been approved by the Department. The Contractor shall be responsible for verifying necessary dimensions on the existing drainage structure required for the attachment. No additional cost for this substitution shall be allowed.

A Precast Box Culvert is not an option at Sta. 1240+74 on the project due to soil conditions.

The proposed pipes for entrances and side roads shall be placed in line with the existing or proposed ditch line.

Connecting bands for corrugated metal pipes shall be metal and shall be coated with the same material as the pipe sections. The connecting bands shall be a minimum of 18" wide.

Where field tile is encountered, storm sewer or pipe drain will be used in accordance with Section 611. The minimum size for replacement will be 150 mm (6") for Pipe Drains and 200 mm (8") for Storm Sewer, but the size must be at least 50 mm (2") larger than the adjoining tile. A Field Tile Junction Vault will be constructed at the right of way to connect the tile and storm sewer. See the Summary of Quantities for the estimated quantities.

Delineators shall be placed at the ends of approach guardrail terminal sections, and at each headwall or end section of AR Culverts. This work will be paid for at the contract unit price each for DELINEATORS.

Pavement Marking shall be done according to Standard 780001, except as follows:

1. The distance between yellow no-passing lines shall be 200 mm (8"), not 180 mm (7") as shown in the detail of Typical Lane and Edge Lines.

PERMANENT SURVEY MARKERS, TYPE II, shall be set at intervals of 1.6 Km (1 mile) or as directed by the Engineer. Bridge or culvert projects shall have one survey marker placed near the structure. Estimated: 6 Each.

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 17 (IL 64)	15T-2	Carroll	71	7
FED ROAD DIST. NO.	ILLINOIS	PROJECT		
Contract #64C35				

GENERAL NOTES

Permanent Survey Markers, Type II shall be cast-in-place as shown on Highway Standard 667101.

The Contractor shall submit to the Engineer a description of location, elevation, and coordinates for each permanent survey marker. The Engineer shall submit this information to the Survey Crew.

Tree planting layout shall be performed by the District Landscape Architect. Mulch shall be placed 4" thick in a 5 foot diameter around the tree. The mulch shall be hardwood wood chips placed on weed barrier fabric. This work shall be included in the cost of the tree.

Right-of-way markers will be erected with the back face of the marker on the right-of-way line unless the new right-of-way line has been surveyed and pinned, in which instance the right-of-way markers will be erected 300 mm (12 inches) inside the new right-of-way line.

Program #5
(Arch. Size)
Enlarge
200%
Enlarge 107%

The Contractor shall be responsible for protecting utility property during construction operations as outlined in Article 107.31 of the Standard Specifications. A minimum of 48 hours advance notice is required for non-emergency work. The JULIE number is 800-892-0123. The following listed utilities located within the project limits or immediately adjacent to the project construction limits are members of JULIE:

Commonwealth Edison Co. Frontier/Citizens

CADD data will be available to Contractors and Consultants working on this project. This information will be provided upon request as MicroStation CADD files and Geopak coordinate geometry files ONLY. If data is required in other formats it will be your responsibility to make these conversions. If any discrepancy or inconsistency arises between the electronic data and the information on the hard copy, the information on the hard copy should be used. Contact the District's Project Engineer to request these files.

The contractor shall use a Narrow Impact Attenuator at the following locations in Stage 3 of construction of the culverts:

Sta. 1212+77.42 LT
Sta. 1239+38 LT
Sta. 1239+55 RT
Sta. 1242+73 LT
Sta. 1360+23.05 RT

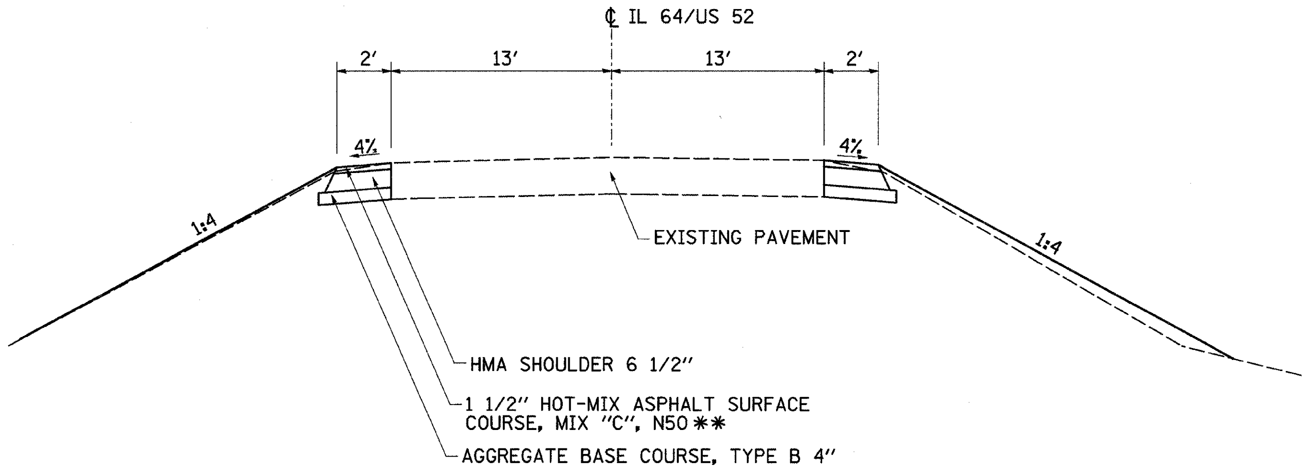
The Contractor or RE shall notify property owner Jim Ludwig when the proposed field tile, storm sewer protected pipe and French drain is being installed. The Contractor shall allow Mr. Ludwig or his designated representatives to field verify that the elevations of these drainage elements are such that they shall drain properly.

CONTRACT NO. 64C35

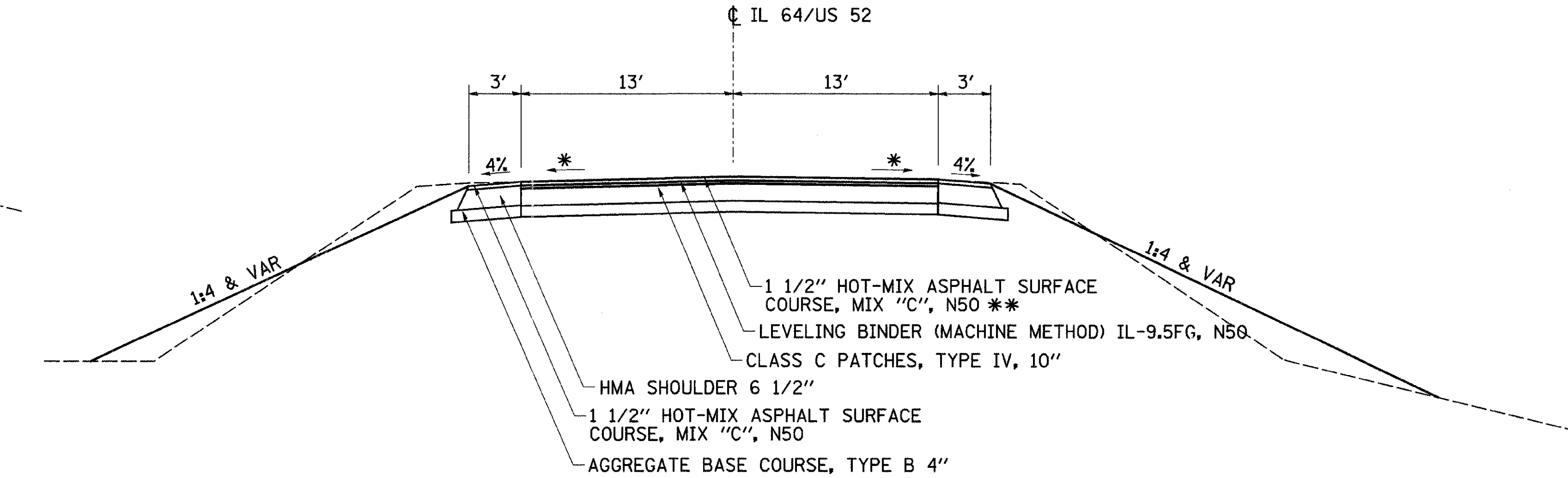
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	8
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TYPICAL SECTIONS

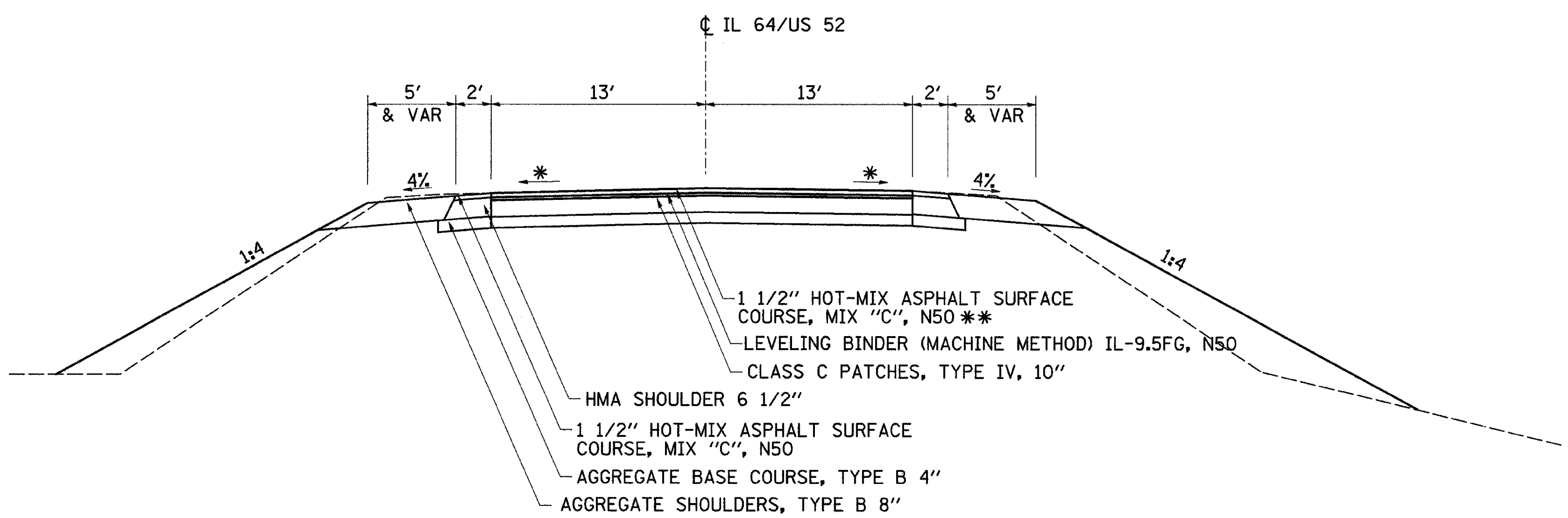
STA. 1209+70 TO STA. 1210+71.47
STA. 1212+59.28 TO STA. 1213+80



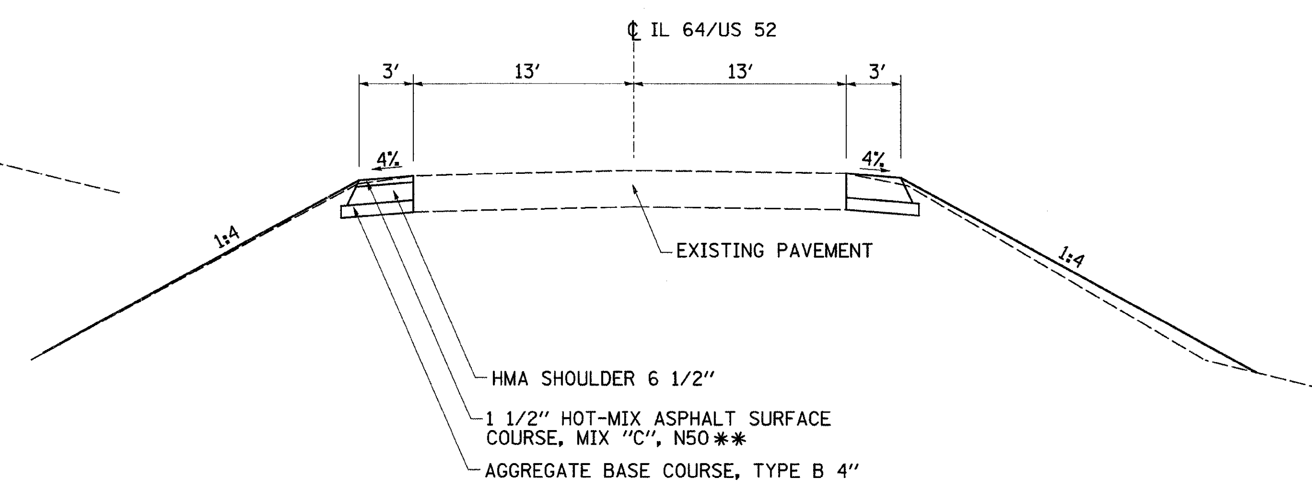
STA. 1239+00 - STA. 1241+50
STA. 1358+90 - STA. 1359+43



STA. 1210+71.47 - STA. 1212+59.28



STA. 1356+64 TO STA. 1358+90
STA. 1359+43 TO STA. 1360+75



* MATCH EXISTING MAINLINE SLOPE IN SUPER ELEVATED SECTIONS
** 112 LB/SQ YD IN

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USER NAME = hensonke

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

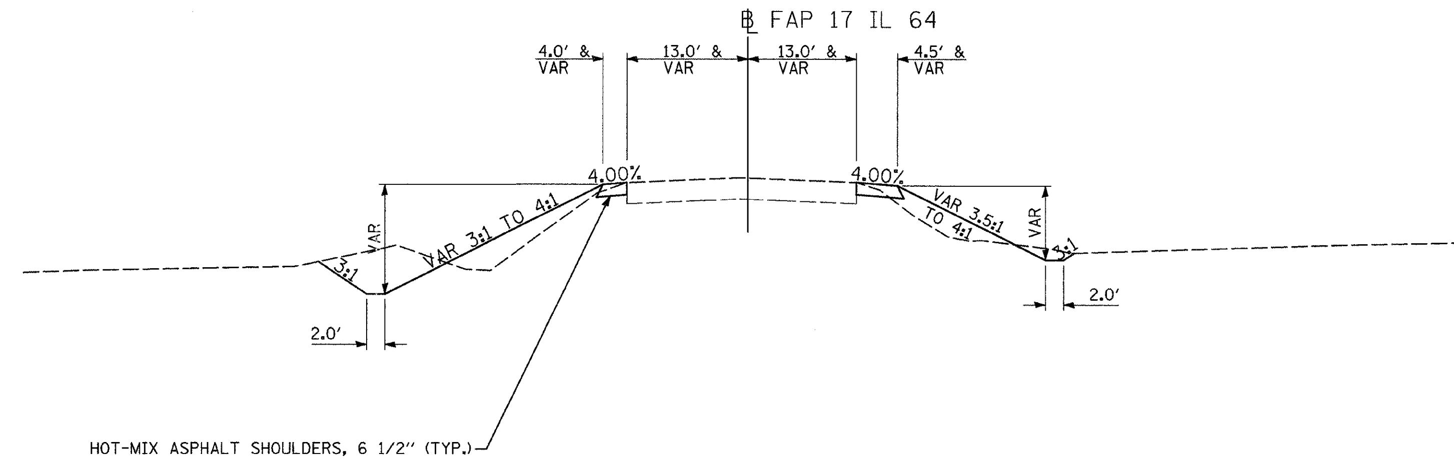
SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

TYPICAL SECTIONS

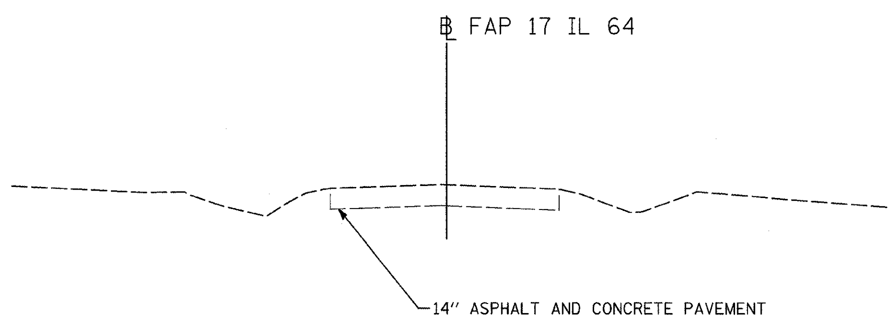
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	9
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TYPICAL SECTIONS

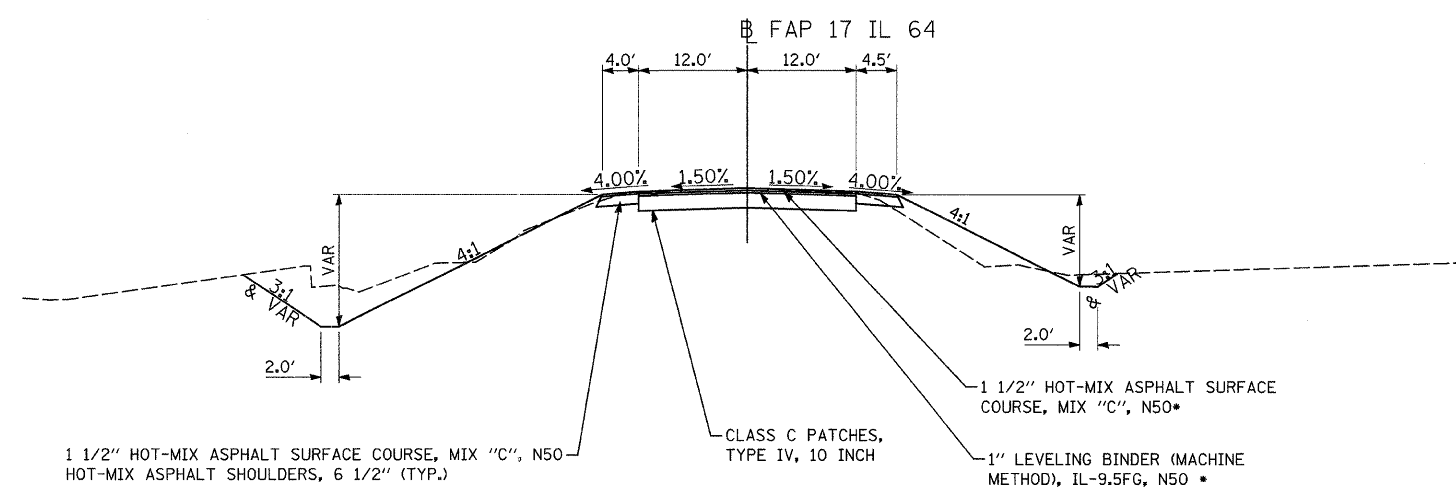
PROPOSED TYPICAL SECTION
IL RTE 64
LT. STA 1239+51 TO STA 1240+20 AND 1241+30 TO 1243+16
RT. STA 1239+60 TO STA 1240+20 AND 1241+30 TO 1243+19



EXISTING TYPICAL SECTION
IL RTE 64
STA 1239+51 TO STA 1243+19



PROPOSED TYPICAL SECTION
IL RTE 64
STA 1240+20 TO STA 1241+30



•112 LB/SQ YD/IN

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.
DATE

DRAWN BY RAW
CHECKED BY RJA

MAURER STUTZ, INC. ENGINEERS SURVEYORS

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USER NAME = hensonke

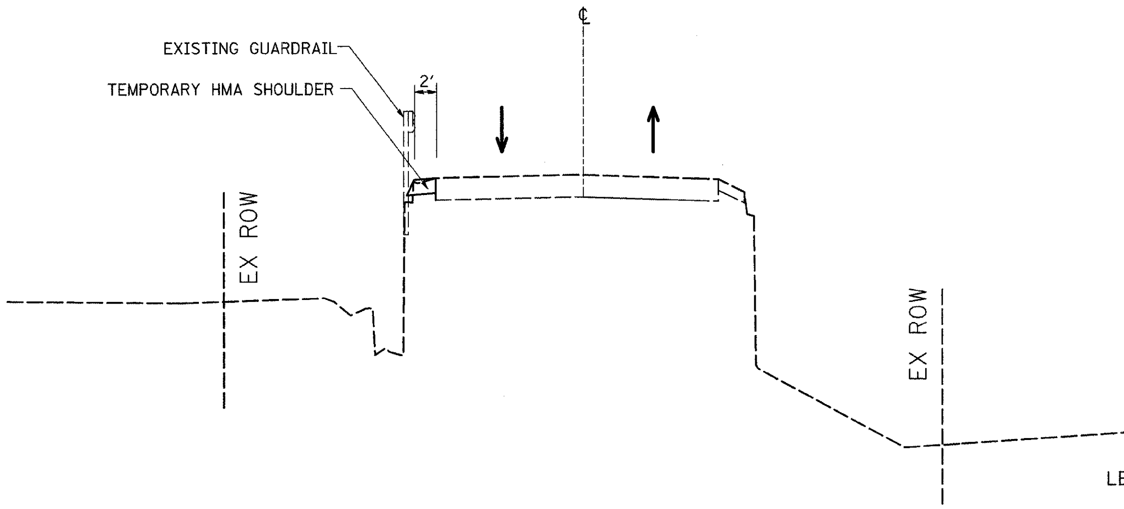
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	10
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGING CULVERT TYPICALS

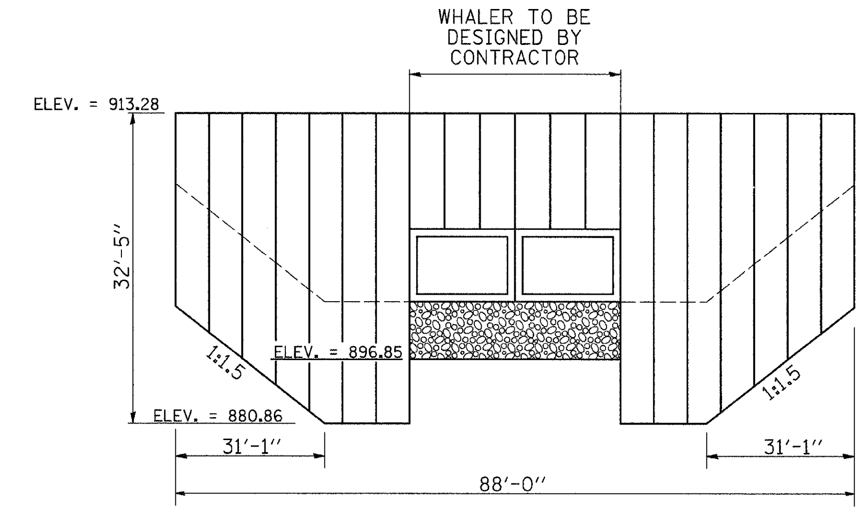
8'x8' Box Culvert @ 0° Skew

STA. 1211 + 65

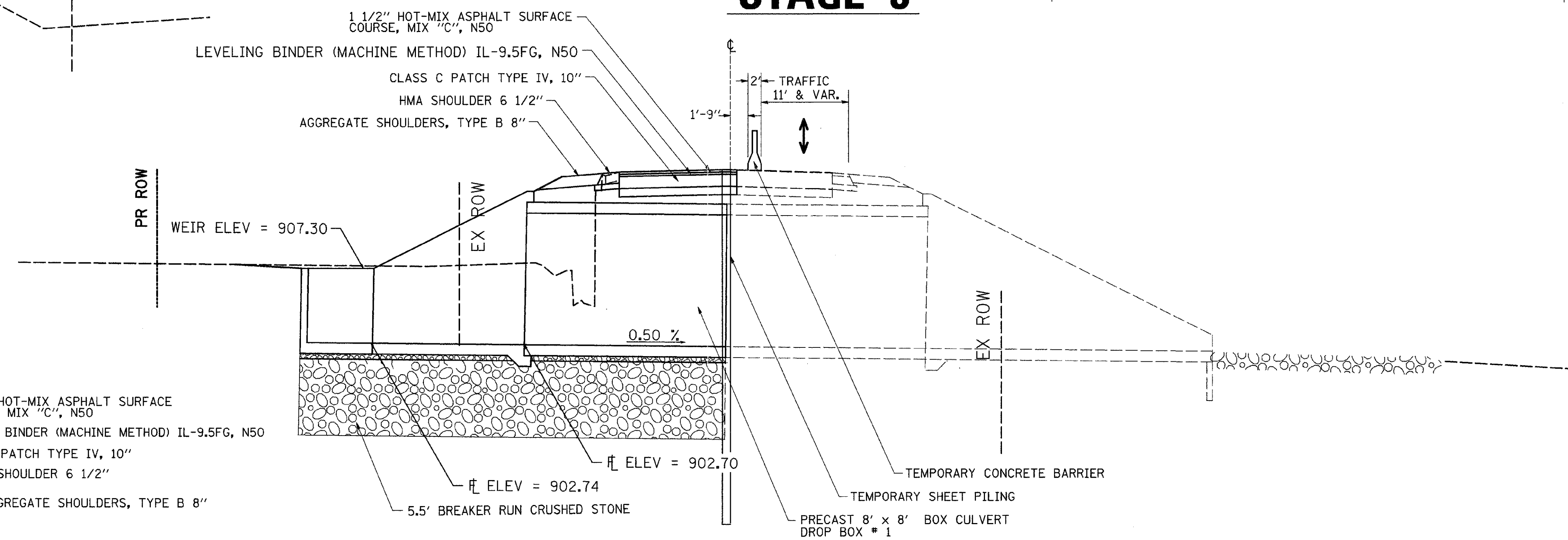
STAGE 1



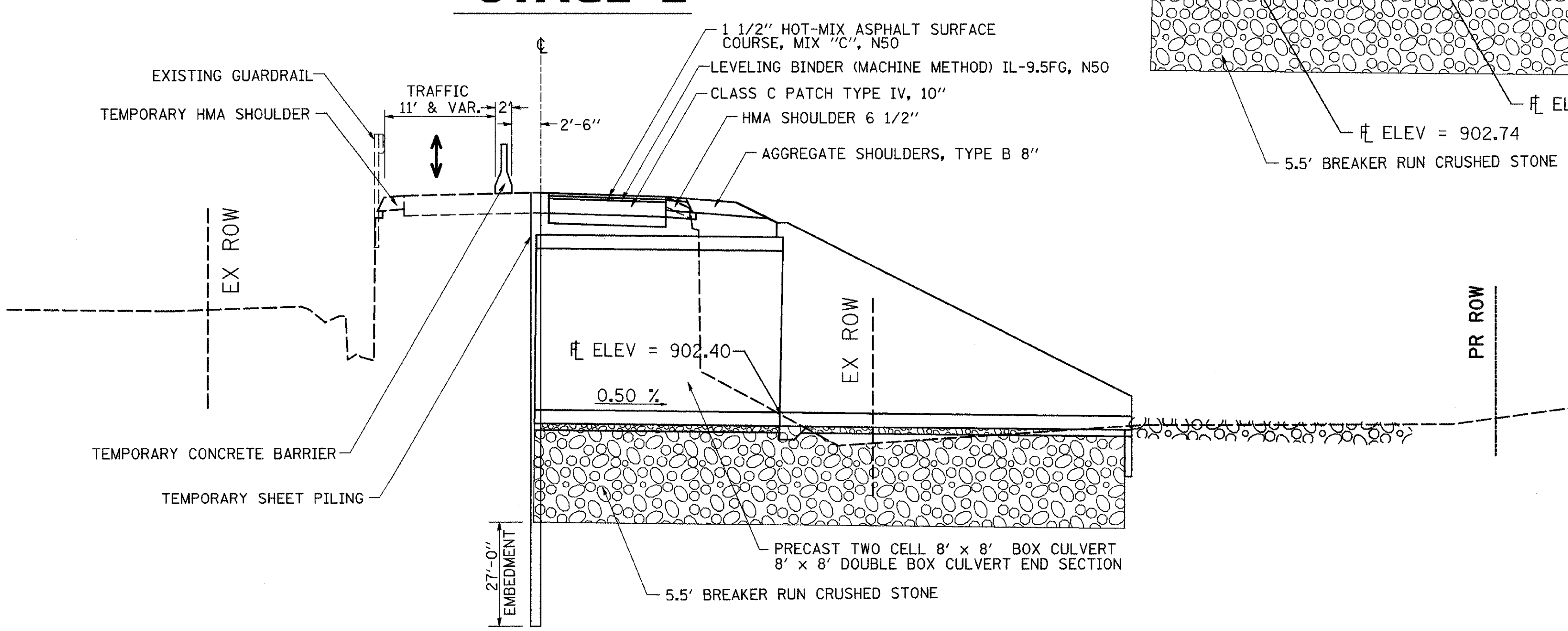
TEMPORARY SHEET PILING



STAGE 3



STAGE 2



GENERAL NOTES:

1) TRAFFIC CONTROL TO BE SET UP AND PAID FOR ACCORDING TO TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

2) THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING FLOW IN A MANNER ACCEPTABLE TO THE ENGINEER.

4) BARRIER WALL AND IMPACT ATTENUATORS SHALL BE SET UP AS SHOWN IN STANDARD 701321

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

STAGING TYPICAL SECTIONS

PLOT DATE = Mon Jan 28 07:51:02 2008
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USER NAME = hanscke

CONTRACT NO. 64C35

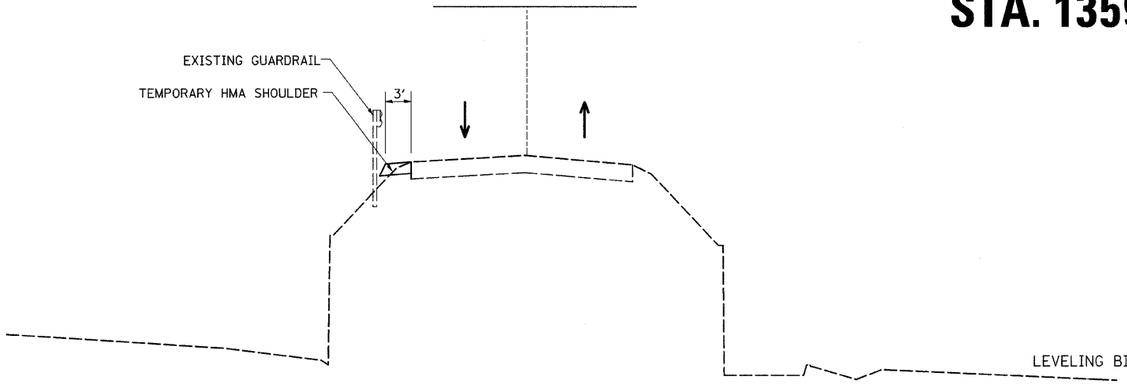
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	11
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGING CULVERT TYPICALS

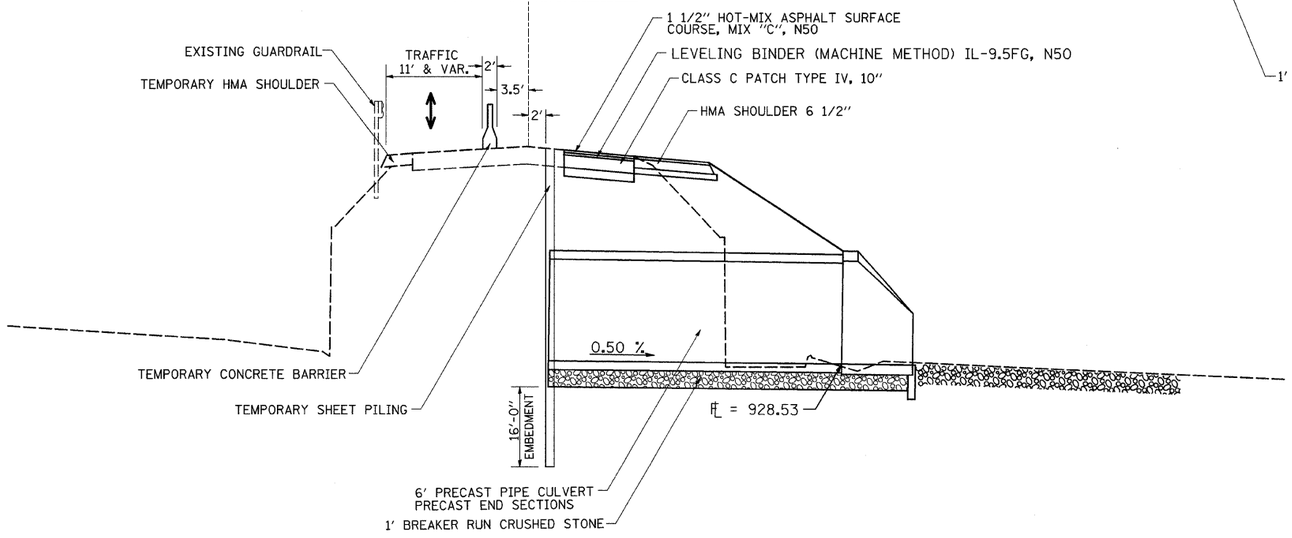
6' Pipe Culvert @ 0° Skew

STA. 1359+16

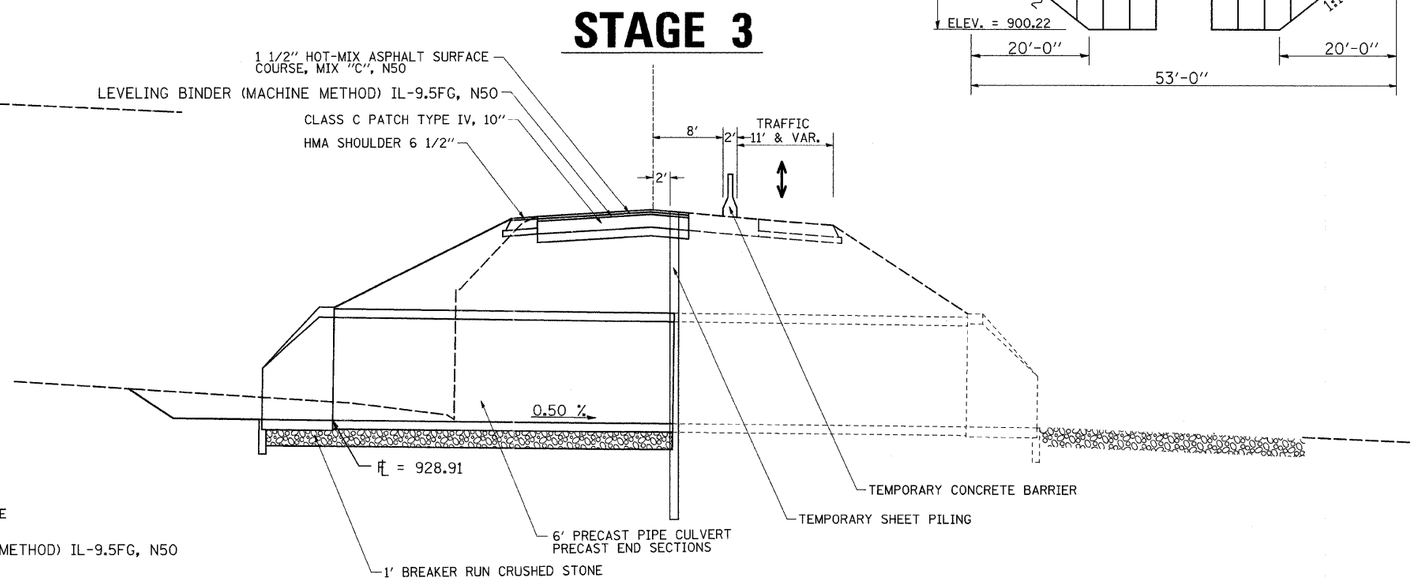
STAGE 1



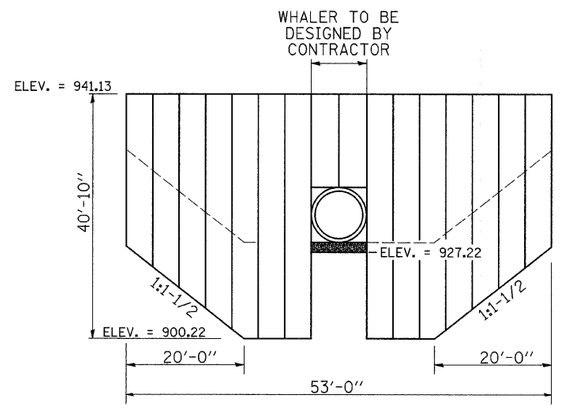
STAGE 2



STAGE 3



TEMPORARY SHEET PILING



GENERAL NOTES:

1) TRAFFIC CONTROL TO BE SET UP AND PAID FOR ACCORDING TO TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

2) THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING FLOW IN A MANNER ACCEPTABLE TO THE ENGINEER.

4) BARRIER WALL AND IMPACT ATTENUATORS SHALL BE SET UP AS SHOWN IN STANDARD 701321

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.

DATE

DRAWN BY

CHECKED BY

STAGING TYPICAL SECTIONS

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USER NAME = hansonke

CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	12
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

20100110 TREE REMOVAL (6 TO 15 UNITS DIAMETER)

UNIT	LOCATION	OFFSET
11	1359 + 70	29' RT
11	TOTAL	

20100210 TREE REMOVAL (OVER 15 UNITS DIAMETER)

UNIT	LOCATION	OFFSET
45	1358 + 98	27'LT
45	1359 + 00	27'LT
50	1359 + 2	23' RT
35	1359 + 7	32' RT
36	1359 + 35	31LT
39	1359 + 35	32'LT
49	1359 + 64	29' RT
37	1359 + 96	27' RT
43	1360 + 11	28'LT
45	1360 + 36	24' RT
424	TOTAL	

25000210 SEEDING, CLASS 2 A

ACRE	LOCATION	
0.75	1209 + 70.0 - 1361 + 76	LT
0.21	1209 + 70.0 - 1242 + 76	LT
0.19	1209 + 70.0 - 1242 + 76	RT
0.75	1209 + 70.0 - 1361 + 76	RT
1.90	TOTAL	

25000310 SEEDING, CLASS 4

ACRE	LOCATION	
0.15	1209 + 70.0 - 1361 + 76	LT
0.09	1209 + 70.0 - 1242 + 76	LT
0.02	1209 + 70.0 - 1242 + 76	RT
0.10	1209 + 70.0 - 1361 + 76	RT
0.36	TOTAL	

25000750 MOWING

ACRE	LOCATION	
0.75	1209 + 70.0 - 1361 + 76	LT
0.21	1209 + 70.0 - 1242 + 76	LT
0.19	1209 + 70.0 - 1242 + 76	RT
0.75	1209 + 70.0 - 1361 + 76	RT
1.90	TOTAL	

25100115 MULCH, METHOD 2

ACRE	LOCATION	
0.75	1209 + 70.0 - 1361 + 76	LT
0.21	1209 + 70.0 - 1242 + 76	LT
0.19	1209 + 70.0 - 1242 + 76	RT
0.75	1209 + 70.0 - 1361 + 76	RT
1.90	TOTAL	

25100630 EROSION CONTROL BLANKET

SQ YD	LOCATION	
192	1238 + 00 - 1241 + 16	LT
27	1239 + 60.0 - 1240 + 11	LT
101	1242 + 00 - 1242 + 75	RT
320	TOTAL	

25100900 TURF REINFORCEMENT MAT

SQ YD	LOCATION	
102	1210 + 25.0 - 1211 + 53	RT
116	1211 + 72.0 - 1213 + 25	RT
69	1211 + 80.0 - 1213 + 00	LT
136	1241 + 37.0 - 1243 + 0	RT
140	1241 + 37.0 - 1243 + 0	LT
159	1357 + 00 - 1359 + 17	LT
179	1356 + 75.0 - 1359 + 15	RT
117	1359 + 17.0 - 1360 + 76	LT
1018	TOTAL	

28000250 TEMPORARY EROSION CONTROL SEEDING

POUND	LOCATION	
1400	1209 + 70.0 - 1361 + 76	RT & LT
1400.0	TOTAL	

28000300 TEMPORARY DITCH CHECKS

EACH	LOCATION	
1	1210 + 50.0	RT
1	1210 + 75.0	RT
1	1211 + 00	RT
2	1212 + 00	RT & LT
2	1212 + 25.0	RT & LT
2	1212 + 50.0	RT & LT
2	1212 + 75.0	RT & LT
1	1213 + 00	RT
1	1239 13.0	LT
1	1240 10.0	RT
1	1240 30.0	RT
1	1240 62.0	RT
1	1240 83.0	LT
1	1240 99.0	RT
1	1241 17.0	LT
1	1241 36.0	RT
1	1241 46.0	LT
1	1241 57.0	RT
1	1241 63.0	LT
1	1241 78.0	LT
1	1241 79.0	LT
1	1241 96.0	LT
1	1242 9.0	RT
1	1242 12.0	LT
1	1242 24.0	LT
1	1242 67.0	RT
1	1242 74.0	LT
2	1357 + 00	RT & LT
2	1357 + 25.0	RT & LT
2	1357 + 50.0	RT & LT
2	1357 + 75.0	RT & LT
2	1358 + 00	RT & LT
2	1358 + 25.0	RT & LT
2	1358 + 50.0	RT & LT
2	1358 + 75.0	RT & LT
1	1359 + 00	LT
1	1359 + 50.0	LT
1	1359 + 75.0	LT
1	1360 + 00	LT
1	1360 + 25.0	LT
1	1360 + 50.0	LT
53	TOTAL	

28000400 PERIMETER EROSION BARRIER

FOOT	LOCATION	
180	1209 + 81.0 - 1211 + 47	LT
193	1211 + 83.0 - 1213 + 64	LT
180	1241 + 45.0 - 1243 + 19	LT
160	1238 + 50.0 - 1240 + 0	RT
184	1359 + 27.0 - 1361 + 00	RT
897	TOTAL	

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USER NAME = hensonke

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	13

STA. TO STA.

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

SCHEDULE OF QUANTITIES

28000500 INLET AND PIPE PROTECTION

EACH	LOCATION	
1	1211 + 65.0	LT
1	1213 + 67.0	LT
1	1359 + 17.0	LT
1	1361 + 38.0	LT
4	TOTAL	

28100107 STONE RIPRAP, CLASS A4

SQ YD	LOCATION	
68	1211 + 65.0	RT
59	1240 + 74.0	RT & LT
35	1359 + 17.0	RT
162	TOTAL	

28200200 FILTER FABRIC

SQ YD	LOCATION	
68	1211 + 65.0	RT
59	1240 + 74.0	RT & LT
35	1359 + 17.0	RT
162	TOTAL	

44004250 PAVED SHOULDER REMOVAL

SQ YD	LOCATION	
240	1356 + 98.7 - 1361 + 41.93	RT
240	TOTAL	

44201359 CLASS C PATCHES, TYPE IV, 10 INCH

SQ YD	LOCATION
209	1211 + 29.00 - 1212 + 1
294	1240 + 20 - 1241 + 30
152	1358 + 90.00 - 1359 + 43
655	TOTAL

44213200 SAW CUTS

FOOT	LOCATION	
443	1356 + 98.7 - 1361 + 41.93	RT
443	TOTAL	

50100300 REMOVAL OF EXISTING STRUCTURES NO.1

EACH	LOCATION
1	1211 + 65
1	TOTAL

50100400 REMOVAL OF EXISTING STRUCTURES NO.2

EACH	LOCATION
1	1359 + 17
1	TOTAL

50300225 CONCRETE STRUCTURES

CY YD	LOCATION	
34.5	1211 + 65.00	LT
42.9	1211 + 65.00	RT
78	TOTAL	

50800105 REINFORCEMENT BARS

POUND	LOCATION
12370	1211 + 65.00
23260	1240 + 74
35630	TOTAL

50901760 PIPE HANDRAIL

FOOT	LOCATION	
37	1211 + 65.0	LT
37	TOTAL	

51205200 TEMPORARY SHEET PILING

SQ FT	LOCATION
1804	1211 + 21 - 1212 + 9
1711	1240 + 44 - 1241 + 3
1709	1358 + 90 - 1359 + 43
5224	TOTAL

51500100 NAME PLATES

EACH	LOCATION	
1	1211 + 65	SN # 008-1015
1	1359 + 17	SN # 008-1015
1	1240 + 74	SN # 008-1015
3	TOTAL	

54003000 CONCRETE BOX CULVERTS

CY YD	LOCATION	
143	1240 + 74.00	RT & LT
143	TOTAL	

54010808 PRECAST CONCRETE BOX CULVERT 8' X 8'

FOOT	LOCATION
100	1211 + 65
100	TOTAL

54213717 PRECAST REINFORCED CONCRETE FLARED END SECTIONS 72"

EACH	LOCATION	
2	1359 + 16.8	RT & LT
2	TOTAL	

54215550 METAL END SECTIONS 15"

EACH	LOCATION	
2	1213 + 31	RT
2	1361 + 8	RT
4	TOTAL	

542A0277 PIPE CULVERTS, CLASS A, TYPE 1 72"

FOOT	LOCATION
83	1359 + 16.8
83	TOTAL

542D0220 PIPE CULVERTS, CLASS D, TYPE 1 15"

FOOT	LOCATION	
56	1213 + 31	RT
54	1361 + 8	LT
110	TOTAL	

60100080 FRENCH DRAIN

CY YD	LOCATION	
9	1239 + 98	RT
9	TOTAL	

60100925 PIPE DRAINS 8"

34	1239 + 70 - 1239 + 98	RT
34	TOTAL	

61100500 EXPLORATION TRENCH 52" DEPTH

FOOT	LOCATION	
50	1211 + 40	LT
70	1239 + 31 - 1239 + 98	RT
24	1358 + 86	LT
144	TOTAL	

PLOT DATE = Wed Feb 06 14:02:21 2008
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USER NAME = hensonke

CONTRACT NO. 84888				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	14
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

61101013 STORM SEWERS PROTECTED, CLASS A, 12"

FOOT	LOCATION
85	1239 + 75
85	TOTAL

61133100 FIELD TILE JUNCTION VAULTS, 2' DIA.

EACH	LOCATION	
1	1211 + 50	LT
1	1211 + 75	LT
2	1239 + 75	RT
1	1239 + 75	LT
1	1358 + 95	LT
6	TOTAL	

63100110 TRAFFIC BARRIER TERMINAL, TYPE II

EACH	LOCATION	
1	1240 + 10	LT
1	TOTAL	

63200310 GUARDRAIL REMOVAL

FOOT	LOCATION					
277	1210 + 27.00	-	1213	+	4	RT
290	1210 + 27.00	-	1213	+	17	LT
100.5	1239 + 12.50	-	1240	+	13	RT
100.5	1239 + 34.50	-	1240	+	35	LT
275	1357 + 67.00	-	1360	+	42	RT
276	1357 + 79.00	-	1360	+	55	RT
1319.0	TOTAL					

63300575 REMOVE AND RE-ERECT RAIL ELEMENT OF EXISTING GUARDRAIL

FOOT	LOCATION					
55	1239 + 55	-	1240	+	10	LT
53	1239 + 60	-	1240	+	13	RT
108	TOTAL					

63500105 DELINEATORS

EACH	LOCATION	
2	1211 + 65.00	RT & LT
2	1240 + 74.00	RT & LT
2	1359 + 17.00	RT & LT
6	TOTAL	RT & LT

66600105 FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS

EACH	LOCATION	
2	1210 + 00	RT & LT
2	1211 + 00	RT & LT
2	1211 + 25.00	RT & LT
1	1211 + 45.00	LT
1	1211 + 85.00	RT
2	1212 + 50.00	RT & LT
2	1214 + 00	RT & LT
1	1238 + 50.00	LT
1	1239 + 50.00	RT
1	1240 + 00	RT
1	1240 + 50.00	RT
1	1241 + 00	LT
1	1241 + 50.00	LT
2	1242 + 00	RT & LT
1	1243 + 00	LT
2	1357 + 00	RT & LT
2	1358 + 75.00	RT & LT
1	1359 + 00	RT
2	1359 + 50.00	RT & LT
2	1361 + 00	RT & LT
30	TOTAL	

66700305 PERMANENT SURVEY MARKERS, TYPE II

EACH	LOCATION
6	2 at each culvert location determined by R.E.
6	TOTAL

70106500 TEMPORARY BRIDGE TRAFFIC SIGNALS

EACH	LOCATION
1	1211 + 65.00
1	1359 + 17.00
1	1214 + 00
3	TOTAL

70106700 TEMPORARY RUMBLE STRIP

EACH	LOCATION	
1	1191 + 16.00	1211+65
1	1196 + 16.00	1211+65
1	1201 + 16.00	1211+65
1	1219 + 61.00	1240+74
1	1222 + 13.00	1211+65
1	1224 61.00	1240+74
1	1221 + 3.00	1211+65
1	1226 3.00	1240+74
1	1231 + 3.00	1211+65
1	1251 34.00	1240+74
1	1256 34.00	1240+74
1	1261 34.00	1240+74
1	1338 + 84.00	1359+16
1	1343 + 84.00	1359+16
1	1348 + 84.00	1359+16
1	1370 + 21.00	1359+16
1	1375 + 21.00	1359+16
1	1380 + 21.00	1359+16
18	TOTAL	

70300100 SHORT-TERM PAVEMENT MARKING

FOOT	LOCATION						
846.3	1206 + 13.21	-	1214	+	57.31	Stage 2	4"
336.0	1209 + 94.03	-	1213	+	29.56	Stage 2	4"
639.8	1208 + 78.20	-	1215	+	15.86	Stage 3	4"
318.0	1209 + 99.03	-	1213	+	16.88	Stage 3	4"
222.0	1208 3.20	-	1215	+	15.86	CL	4"
24.0	1208 + 3.20					Stop Bar	12"
345.0	1239 61.00	-	1243	+	6	Stage 2	4"
627.0	1237 97.00	-	1244	+	24	Stage 2	4"
12.0	1237 87.00					Stop Bar	12"
12.0	1244 84.00					Stop Bar	12"
610.0	1238 63.00	-	1244	+	73	Stage 3	4"
339.0	1239 70.00	-	1243	+	9	Stage 3	4"
12.0	1238 3.00					Stop Bar	12"
12.0	1244 83.00					Stop Bar	12"
22.0	1240 20.00	-	1241	+	30	Stage 4	4"
661.0	1355 + 62.59	-	1362	+	22.81	Stage 2	4"
359.0	1357 + 32.82	-	1360	+	91.59	Stage 2	4"
777.7	1355 + 60.98	-	1363	+	36.41	Stage 3	4"
444.0	1356 + 98.68	-	1361	+	41.93	Stage 3	4"
240.0	1356 + 98.68					CL	4"
24.0	1355 + 1.00					Stop Bar	12"
6883	TOTAL						

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CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	15
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

70301000 WORK ZONE PAVEMENT MARKING REMOVAL

SQ FT	LOCATION							
282.1	1206	+	13.21	-	1214	+	57.31	Stage 2
112.0	1209	+	94.03	-	1213	+	29.56	Stage 2
213.3	1208	+	78.20	-	1215	+	15.86	Stage 3
106.0	1209	+	99.03	-	1213	+	16.88	Stage 3
74.0	1208		3.20	-	1215	+	15.86	CL
115.0	1208	+	3.20	-	1243		6	Stage 2
209.0	1239		61.00	-	1244		24	Stage 2
12.0	1237		97.00					Stop Bar
12.0	1244		84.00					Stop Bar
204.0	1238		63.00					Stage 3
113.0	1239		70.00					Stage 3
12.0	1238		3.00					Stop Bar
12.0	1244		83.00					Stop Bar
8.0	1240		20.00					Stage 4
220.3	1355	+	62.59	-	1362	+	22.81	Stage 2
119.7	1357	+	32.82	-	1360	+	91.59	Stage 2
259.2	1355	+	60.98	-	1363	+	36.41	Stage 3
148.0	1356	+	98.68	-	1361	+	41.93	Stage 3
80.0	1356	+	98.68	-	1361	+	41.93	Stage 3
24.0	1355	+	1.00					Stop Bar
2336	TOTAL							

70400100 TEMPORARY CONCRETE BARRIER

FOOT	LOCATION							
350	1209	+	90.0	-	1213	+	39	RT
374	1238	+	23.0	-	1243	+	30	RT & LT
274	1238	+	70.0	-	1242	+	84	LT
363	1357	+	35.0	-	1360	+	97	LT
1361	TOTAL							

70400200 RELOCATE TEMPORARY CONCRETE BARRIER

FOOT	LOCATION							
275	1210	+	2	-	1212	+	77	RT
362	1239	+	55.0	-	1243	+	17	RT & LT
338	1356	+	86.0	-	1360	+	23	RT
975	TOTAL							

78001110 PAINT PAVEMENT MARKING - LINE 4"

FOOT	LOCATION							
1000	1206	+	00	-	1216	+	00	RT EDGE LINE
250	1206	+	00	-	1216	+	00	CL
1000	1206	+	00	-	1216	+	00	LT EDGE LINE
936	1239	+	1.0	-	1243	+	69	RT EDGE LINE
175	1237	+	87.0	-	1244	+	84	CL
900	1355	+	00	-	1364	+	00	RT EDGE LINE
225	1355	+	00	-	1364	+	00	CL
900	1355	+	00	-	1364	+	00	LT EDGE LINE
5386	TOTAL		10772	Is two coats				

78100100 RAISED REFLECTIVE PAVEMENT MARKER

EACH	LOCATION							
9	1208	+	00	-	1215	+	00	CL
3	1240	+	20.00	-	1241	+	30	CL
11	1355	+	00	-	1364	+	00	CL
23	TOTAL							

78300100 PAVEMENT MARKING REMOVAL

SQ FT	LOCATION							
25.0	1208	+	00	-	1211	+	00	CL
112.0	1209	+	94.00	-	1213	+	30	LT Edge LI
26.3	1212	+	00	-	1215	+	16	CL
112.0	1209	+	99.00	-	1213	+	35	RT Edge LI
115.0	1239	+	61.00	-	1243	+	6	RT
14.0	1237	+	87.00	-	1239	+	56	RT
20.0	1242	+	50.00	-	1244	+	84	RT
113.0	1239	+	70.00	-	1243	+	9	RT
28.2	1355	+	62.00	-	1359	+	00	CL
120.0	1357	+	32.00	-	1360	+	92	LT Edge LI
31.4	1359	+	60.00	-	1363	+	37	CL
148.0	1356	+	98.00	-	1361	+	42	RT Edge LI
865	TOTAL							

78300200 RAISED REFLECTIVE PAVEMENT MARKER REMOVAL

EACH	LOCATION							
9	1208	+	00	-	1215	+	00	CL
3	1240	+	20.00	-	1241	+	30	CL
11	1355	+	00	-	1364	+	00	CL
23	TOTAL							

A2006514 TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 1-3/4" CALIPER, BALLED AND BURLAPPED

EACH	LOCATION
11	Landscape Engineer Will determine location
11	TOTAL

XX005298 REMOVE EXISTING TIMBER WALL

FOOT	LOCATION						
105	1239	+	86.00	-	1240	+	85LT
105	TOTAL						

Z0023600 FILLING EXISTING CULVERTS

EACH	LOCATION		
1	1239	+	73.0
1	TOTAL		

Z0030250 IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3

EACH	LOCATION				
1	1209	+	88.0	RT	
1	1213	+	42.0	RT	
1	1212	+	77.0	LT	NARROW
1	1239	+	56.0	RT	NARROW
1	1243	+	30.0	RT	
1	1242	+	84.0	LT	NARROW
1	1357	+	34.0	RT	
1	1360	+	99.0	RT	
1	1360	+	23.0	RT	NARROW
9	TOTAL				

Z0030350 IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3

EACH	LOCATION				
1	1209	+	98.0	LT	
1	1239	+	55.0	LT	NARROW
1	1243	+	17.0	LT	
1	1356	+	85.0	LT	
4	TOTAL				

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	16
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BITUMINOUS /EARTHWORK SCHEDULE

Location								Remarks	Length	Proposed Surface		48101200 (8") Aggregate Shoulder, Type B	35101400 Aggregate Base Course Type B	40600627 Leveling Binder (machine Method) IL-9.5FG, N50	Z0005400 BREAKER RUN CRUSHED STONE		48203023 Hot-Mix Asphalt Shoulders, 6 1/2"	40603310 HMA SC "C" N50	40600990 Temporary Ramp	X4810100 TEMPORARY SHOULDERS 3"
										Width	Sq Yd	Ton	Ton	Ton	INCHES	TON	Sq Yd	Ton	Sq Yd	Sq Yd
		IL 64																		
120970.00	121071.47	Lt & Rt Sta	1209	+	70	-	1210	+ 71	Shoulder	101	2	22		15.3			22	3.8		
121071.47	121259.28	Lt & Rt Sta	1210	+	71	-	1212	+ 59	Shoulder	188	2	42	57.1	28.5			42	7.0		
121259.28	121380.00	Lt & Rt Sta	1212	+	59	-	1213	+ 80	Shoulder	121	2	27		18.3			27	4.5		
123951.00	124316.00	Lt & Rt Sta	1239	+	51	-	1243	+ 16	Shoulder								163			
123960.00	124319.00	Lt & Rt Sta	1239	+	60	-	1243	+ 19	Shoulder								180			
135664.00	136077.00	Lt Sta	1356	+	64	-	1360	+ 77	Shoulder	413	3	138		94.0			138	23.1		
135664.00	136176.00	Rt Sta	1356	+	64	-	1361	+ 76	Shoulder	512	9' & VAR	404		112.0			404	33.9		
		Stage																		
120971.27	121344.55	Lt & Rt Sta	1209	+	71	-	1213	+ 45	Shoulder	373	3	124								124
123813.00	124262.00	Lt Sta	1238	+	13	-	1242	+ 62	Shoulder	449	4.75	274								274
135720.00	136105.00	Lt & Rt Sta	1357	+	20	-	1361	+ 5	Shoulder	385	3	128								128
121129.00	121201.00	Lt & Rt Sta	1211	+	29	-	1212	+ 1	Mainline - Patch area	72	26	208			12			17.5		
124020.00	124130.00	Lt & Rt Sta	1240	+	20	-	1241	+ 30	Mainline	95	26	274			17			33.0		
124020.00	124130.00	Lt & Rt Sta	1240	+	20	-	1241	+ 30	Slope Correction	443	24	1181						3.0		
135890.00	135943.00	Lt & Rt Sta	1358	+	90	-	1359	+ 43	Mainline - Patch area	53	26	153			8			12.9		
121129.00	121134.00	Lt & Rt Sta	1211	+	29	-	1211	+ 34	Temporary Ramp	5	30	17							17	
121196.00	121201.00	Lt & Rt Sta	1211	+	96	-	1212	+ 1	Temporary Ramp	5	30	17							17	
135890.00	135895.00	Lt & Rt Sta	1358	+	90	-	1358	+ 95	Temporary Ramp	5	38	21							21	
135938.00	135943.00	Lt & Rt Sta	1359	+	38	-	1359	+ 43	Temporary Ramp	5	38	21							21	
124020.00		Lt & Rt Sta	1240	+	20				Temporary Ramp										54	
124130.00		Lt & Rt Sta	1241	+	30				Temporary Ramp										54	
121165.00			1211	+	65				Culvert	112	21	261				66	983			
124074.00			1240	+	74				Culvert							38	494			
135917.00			1359	+	17				Culvert	100	8	89				12	61			
121334.00		Lt Sta	1213	+	34				Field Entrance		24	96		10.9						
136106.00		Lt Sta	1361		6				Field Entrance		24	105		10.9						
		Subtotal																		
		TOTALS											57	290	37		1,538	976	139	184 526

		20200100	20201200.0				20400800
	LOCATION	EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	REMOVAL AND DISPOSAL OF USUITABLE MATERIAL	EMBANKMENT	EARTHWORK BALANCE WASTE (+) SHORTAGE (-)	FURNISHED EXCAVATION
		(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)
PRE-STAGE	1239+55 TO 1242+66	11.7	8.8		72.6	-63.8	
STAGE II	1209+00 TO 1215+00	300.4	225.3		422.2	-196.9	
	1238+50 TO 1242+75	111.4	83.6		237.1	-153.6	
	1356+00 TO 1362+00	113.9	85.4		1384.9	-1299.5	
STAGE III	1209+00 TO 1215+00	71.0	53.3		235.5	-182.3	
	1238+50 TO 1242+75	130.0	97.5		159.4	-61.9	
	1356+00 TO 1362+00	253.1	189.8		395.0	-205.2	
STAGE IV	1238+50 TO 1242+75	54.1	40.5		415.5	-375.0	
	1356+00 TO 1362+00	486.9	365.2		5.3	359.9	
	1211+65			479.0			
	1240+74			330.0			
	1359+16.8			30.0			
	TOTALS	1532.5	1140.6	839.0	3254.9	-2114.4	2114.4

BITUMINOUS /EARTHWORK SCHEDULE

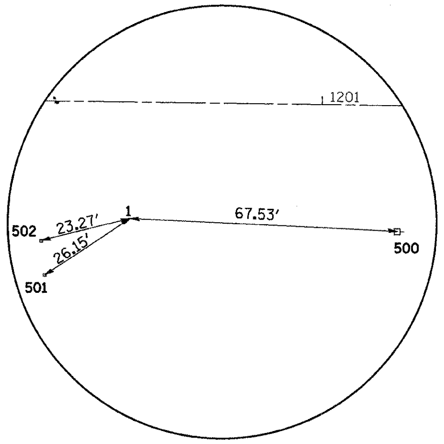
CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	17

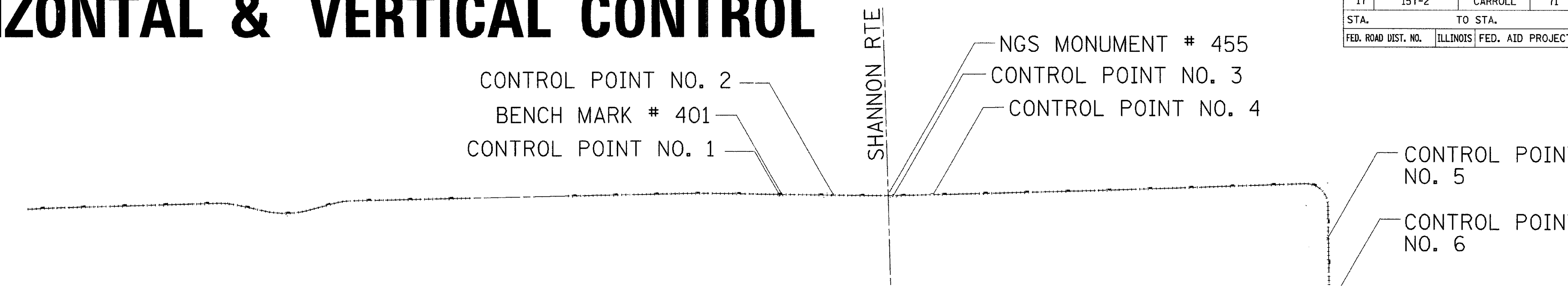
STA. TO STA.

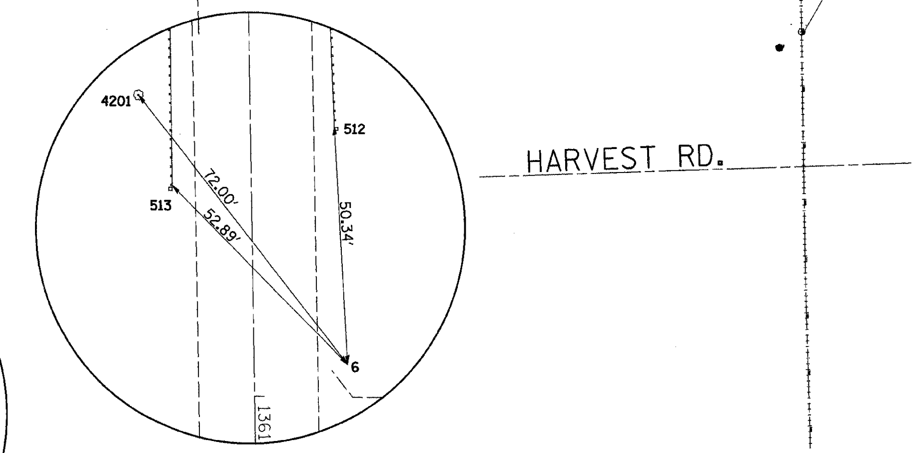
FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

HORIZONTAL & VERTICAL CONTROL



HORIZONTAL CONTROL POINT NO. 1





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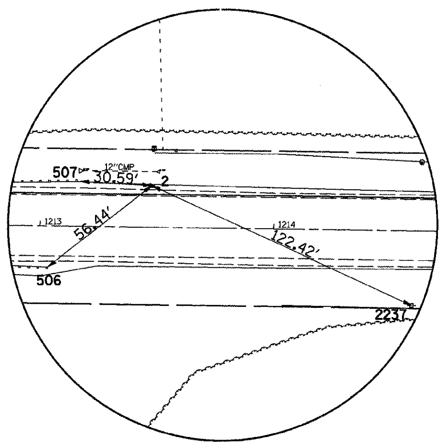

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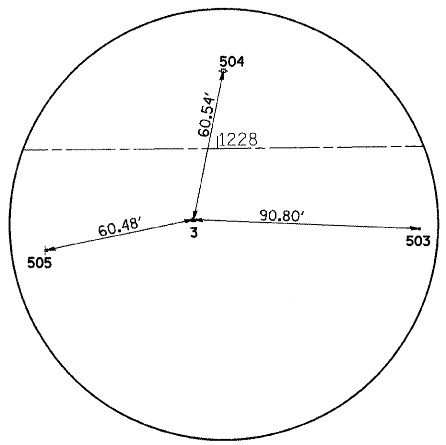

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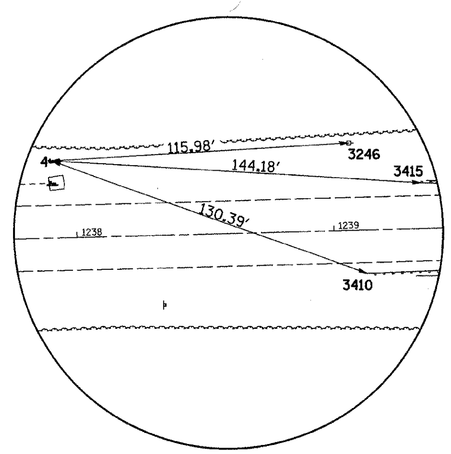

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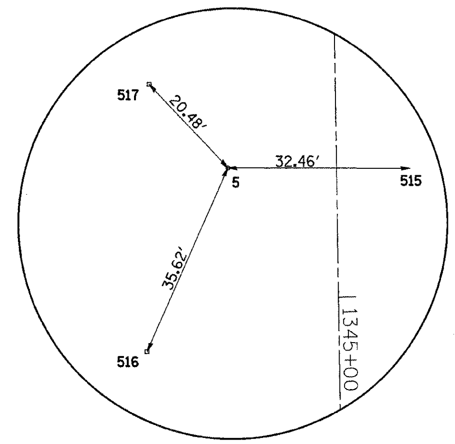

HORIZONTAL CONTROL POINT NO. 5

REFERENCE TIES

POINT	CHAIN	STATION	OFFSET	DESCRIPTION
500	IL64	1201+19.3163	31.3855' RT	POWER POLE
501	IL64	1200+30.5154	43.4428' RT	FENCE POST
502	IL64	1200+29.5012	34.8143' RT	FENCE POST
503	IL64	1228+80.7239	32.8917' RT	FENCE POST
504	IL64	1228+02.6414	31.032' LT	POWER POLE
505	IL64	1227+30.9105	40.0453' RT	SIGN
506	IL64	1213+03.7698	17.6512' RT	GUARDRAIL STEEL PLATE BEAM, END
507	IL64	1213+17.2446	19.9064' LT	GUARDRAIL STEEL PLATE BEAM, END
508	IL64	1213+48.3566	33.4121' LT	R.O.W. MARKER, BACK
509	IL64	1237+31.5863	29.4658' LT	POWER POLE
510	IL64	1237+62.7553	33.208' LT	PROPERTY CORNER, PIN
511	IL64	1237+90.9823	21.1615' LT	1.5' PIPE CULVERT, END
512	IL64	1360+43.9485	18.1549' LT	GUARDPOST
513	IL64	1360+56.0655	17.0881' RT	GUARDPOST
514	IL64	1360+10.5137	28.3457' LT	TREE DECIDUOUS
515	IL64	1344+77.3641	13.0646' LT	PAVEMENT
516	IL64	1345+09.1103	34.2919' RT	FENCE POST
517	IL64	1344+61.6465	33.2142' RT	FENCE POST, CORNER

BENCH MARKS

POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
401	1977954.4880	2408464.1200	932.6800	IL64	1200+51.8546	28.3305' RT	POWER POLE
455	1978048.8220	2411063.7220	932.4930	IL64	1227+19.6250	98.2152' LT	NGS MONUMENT

BENCH MARKS

POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
7	1978020.7240	2409543.5930	909.2300	IL64	1211+97.8643	53.7745' LT	NAIL
8	1977909.1770	2409466.8160	909.0310	IL64	1211+22.8033	58.9344' RT	NAIL
9	1975467.8710	2421836.5880	933.7850	IL64	1359+37.0115	82.9552' LT	NAIL
10	1975481.7850	2421571.9870	928.1250	IL64	1359+18.8534	181.3884' RT	NAIL

CURVE POINT NUMBERS

CHAIN	CURVE	PI	CC	PC	PT
IL64	200	200	201	202	203
IL64	210	210	211	212	213
IL64	220	220	221	222	223
IL64	230	230	231	232	233
IL64	240	240	241	242	243
IL64	250	250	251	252	253
IL64	260	260	261	262	263
IL64	270	270	271	272	273
IL64	280	280	281	282	283

HORIZONTAL CONTROL POINTS

POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
1	1977956.1660	2408396.4610	931.4030	IL64	1200+51.8546	28.3305' RT	GPS CONTROL POINT
2	1977982.4570	2409692.7290	913.9350	IL64	1213+47.5685	17.7942' LT	GPS CONTROL POINT
3	1977922.9870	2411135.1920	932.1630	IL64	1227+90.1443	28.2043' RT	GPS CONTROL POINT
4	1978003.4030	2412134.4590	926.4960	IL64	1237+90.7340	29.7641' LT	GPS CONTROL POINT
5	1976926.2980	2421710.8200	977.2410	IL64	1344+76.7542	19.3938' RT	GPS CONTROL POINT
6	1975310.2600	2421775.9190	940.0460	IL64	1360+93.6287	19.7649' LT	GPS CONTROL POINT

PLOT DATE = Mon Jan 28 07:53:44 2008
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USER NAME = hensonke

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.
DATE

DRAWN BY
CHECKED BY

HORIZONTAL & VERTICAL CONTROL

CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	18
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EXISTING CONTROL

Chain IL64 contains:
20 CUR 200 CUR 210 CUR 220 CUR 230 CUR 240 CUR 250 CUR 260 CUR 270 CUR 280 67

Beginning chain IL64 description
==========

Point 20 N 1,977,620.8680 E 2,390,095.1020 Sta 1016+91.2792

Course from 20 to PC 200 87° 16′ 45.3340″ Dist 218.5886′

Curve Data

Curve 200
P.I. Station 1024+09.8678 N 1,977,654.9780 E 2,390,812.8806
Delta = 1° 05′ 52.3105″ (RT)
Degree = 0° 06′ 35.2431″
Tangent = 500.0000′
Length = 999.9694′
Radius = 52,186.8141′
External = 2.3952′
Long Chord = 999.9541′
Mid. Ord. = 2.3951′
P.C. Station 1019+09.8678 N 1,977,631.2440 E 2,390,313.4442
P.T. Station 1029+09.8372 N 1,977,669.1384 E 2,391,312.6800
C.C. N 1,925,503.2570 E 2,392,790.6498

Course from PT 200 to PC 210 88° 22′ 37.6445″ Dist 3,372.2237′

Curve Data

Curve 210
P.I. Station 1065+58.4616 N 1,977,772.4702 E 2,394,959.8410
Delta = 13° 38′ 43.9351″ (RT)
Degree = 2° 28′ 48.6037″
Tangent = 276.4007′
Length = 550.1861′
Radius = 2,310.1575′
External = 16.4763′
Long Chord = 548.8867′
Mid. Ord. = 16.3597′
P.C. Station 1062+82.0609 N 1,977,764.6423 E 2,394,683.5511
P.T. Station 1068+32.2470 N 1,977,714.8963 E 2,395,230.1789
C.C. N 1,975,455.4114 E 2,394,748.9765

Course from PT 210 to PC 220 102° 01′ 21.5796″ Dist 662.8507′

Curve Data

Curve 220
P.I. Station 1080+41.2976 N 1,977,463.0528 E 2,396,412.7094
Delta = 26° 53′ 24.9378″ (LT)
Degree = 2° 30′ 28.0000″
Tangent = 546.1999′
Length = 1,072.2745′
Radius = 2,284.7232′
External = 64.3818′
Long Chord = 1,062.4605′
Mid. Ord. = 62.6173′
P.C. Station 1074+95.0977 N 1,977,576.8255 E 2,395,878.4902
P.T. Station 1085+67.3721 N 1,977,603.2002 E 2,396,940.6233
C.C. N 1,979,811.4339 E 2,396,354.3947

Course from PT 220 to PC 230 75° 07′ 56.6418″ Dist 579.1505′

Curve Data

Curve 230
P.I. Station 1094+18.5366 N 1,977,821.5973 E 2,397,763.2919
Delta = 13° 35′ 34.2243″ (RT)
Degree = 2° 30′ 37.2256″
Tangent = 272.0140′
Length = 541.4740′
Radius = 2,282.3908′
External = 16.1521′
Long Chord = 540.2050′
Mid. Ord. = 16.0386′
P.C. Station 1091+46.5226 N 1,977,751.8023 E 2,397,500.3846
P.T. Station 1096+87.9966 N 1,977,827.6488 E 2,398,035.2386
C.C. N 1,975,545.8229 E 2,398,086.0147

Course from PT 230 to PC 240 88° 43′ 30.8661″ Dist 7,945.4945′

Curve Data

Curve 240
P.I. Station 1180+88.6563 N 1,978,014.5375 E 2,406,433.8191
Delta = 2° 09′ 05.7206″ (RT)
Degree = 0° 14′ 10.9692″
Tangent = 455.1652′
Length = 910.2234′
Radius = 24,238.8102′
External = 4.2733′
Long Chord = 910.1699′
Mid. Ord. = 4.2725′
P.C. Station 1176+33.4911 N 1,978,004.4115 E 2,405,978.7666
P.T. Station 1185+43.7145 N 1,978,007.5722 E 2,406,888.9310
C.C. N 1,953,771.6003 E 2,406,518.0053

Course from PT 240 to PC 250 90° 52′ 36.5867″ Dist 3,552.8260′

Curve Data

Curve 250
P.I. Station 1226+80.8465 N 1,977,944.2618 E 2,411,025.5786
Delta = 2° 23′ 37.8683″ (LT)
Degree = 0° 12′ 17.5521″
Tangent = 584.3060′
Length = 1,168.4420′
Radius = 27,966.1346′
External = 6.1034′
Long Chord = 1,168.3570′
Mid. Ord. = 6.1021′
P.C. Station 1220+96.5405 N 1,977,953.2034 E 2,410,441.3410
P.T. Station 1232+64.9825 N 1,977,959.7307 E 2,411,609.6798
C.C. N 2,005,916.0632 E 2,410,869.3058

Course from PT 250 to PC 260 88° 28′ 58.7184″ Dist 4,021.6493′

Curve Data

Curve 260
P.I. Station 1277+86.6318 N 1,978,079.4366 E 2,416,129.7443
Delta = 0° 27′ 02.5867″ (LT)
Degree = 0° 02′ 42.2595″
Tangent = 500.0000′
Length = 999.9948′
Radius = 127,120.3218′
External = 0.9833′
Long Chord = 999.9923′
Mid. Ord. = 0.9833′
P.C. Station 1272+86.6318 N 1,978,066.1996 E 2,415,629.9195
P.T. Station 1282+86.6267 N 1,978,096.6050 E 2,416,629.4495
C.C. N 2,105,141.9662 E 2,412,264.5429

Course from PT 260 to PC 270 88° 01′ 56.1730″ Dist 4,543.8203′

Curve Data

Curve 270
P.I. Station 1333+68.8079 N 1,978,271.1099 E 2,421,708.6339
Delta = 91° 02′ 53.8411″ (RT)
Degree = 10° 50′ 20.9563″
Tangent = 538.3610′
Length = 839.9944′
Radius = 528.6001′
External = 225.8869′
Long Chord = 754.3607′
Mid. Ord. = 158.2583′
P.C. Station 1328+30.4470 N 1,978,252.6244 E 2,421,170.5904
P.T. Station 1336+70.4413 N 1,977,732.8182 E 2,421,717.2727
C.C. N 1,977,724.3360 E 2,421,188.7407

Course from PT 270 to PC 280 179° 04′ 50.0100″ Dist 6,201.6750′

Curve Data

Curve 280
P.I. Station 1403+72.1163 N 1,971,032.0061 E 2,421,824.8118
Delta = 0° 47′ 30.7860″ (LT)
Degree = 0° 04′ 45.0831″
Tangent = 500.0000′
Length = 999.9841′
Radius = 72,352.5110′
External = 1.7276′
Long Chord = 999.9761′
Mid. Ord. = 1.7276′
P.C. Station 1398+72.1163 N 1,971,531.9417 E 2,421,816.7885
P.T. Station 1408+72.1004 N 1,970,532.2291 E 2,421,839.7437
C.C. N 1,972,692.9532 E 2,494,159.9837

Course from PT 280 to 67 178° 17′ 19.2240″ Dist 2,502.5003′

Point 67 N 1,968,030.8450 E 2,421,914.4780 Sta 1433+74.6007

==========
Ending chain IL64 description

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

HORIZONTAL & VERTICAL CONTROL

PLOT DATE = Mon Jan 28 07:53:44 2008
FILE NAME = c:\projects\p267886\d87886hvcd.dgn
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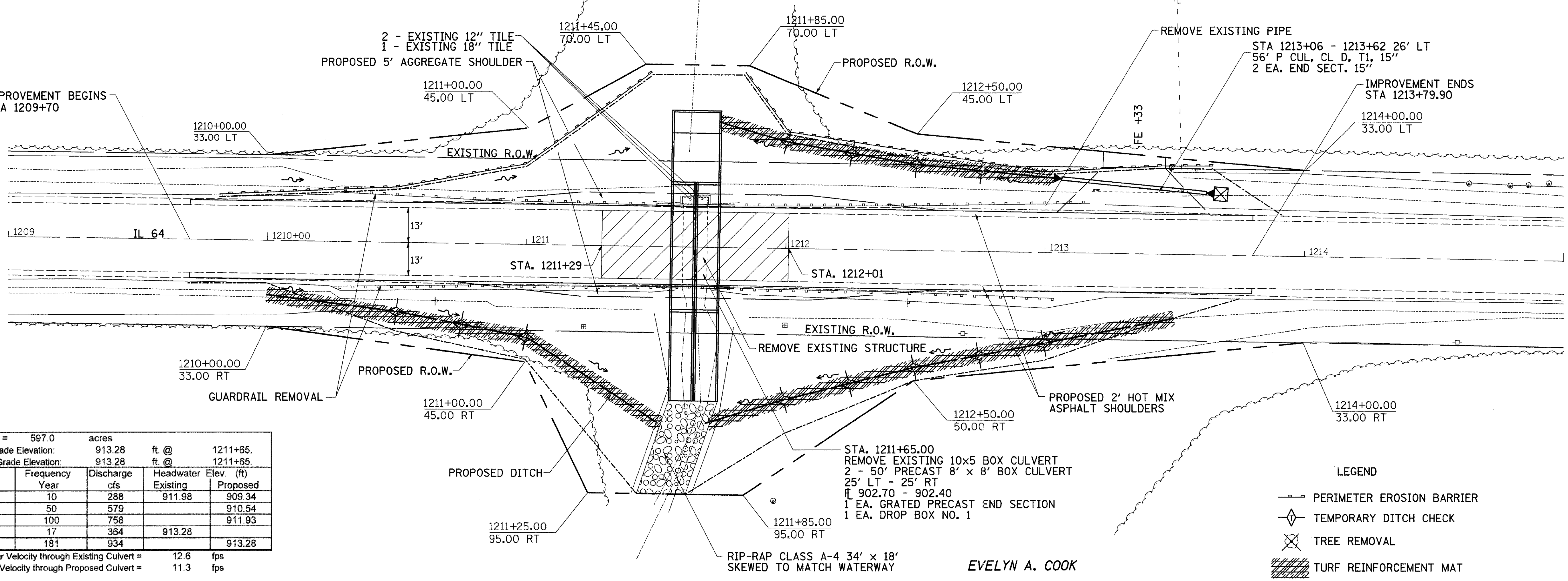
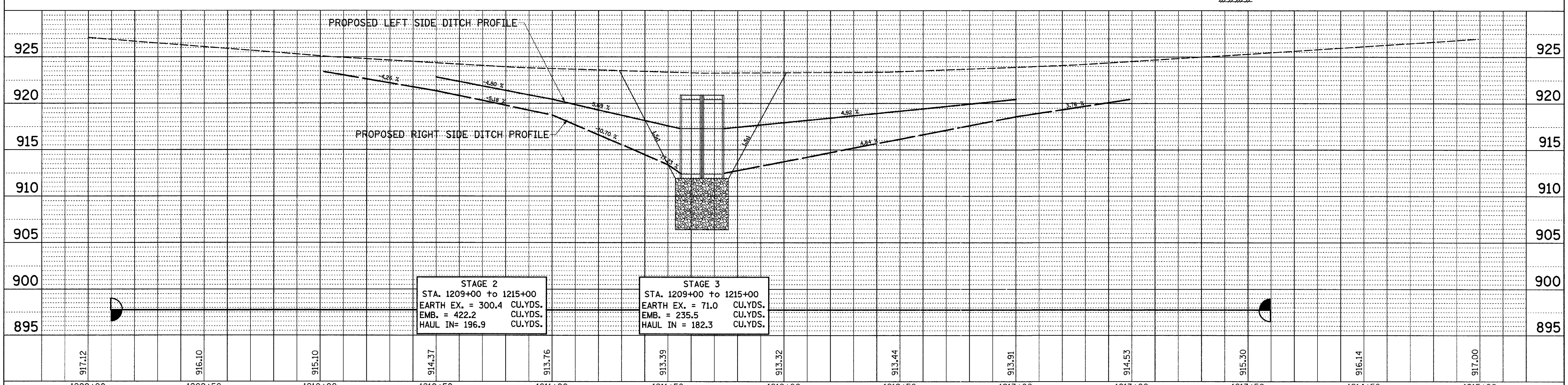
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	19
STA.		TO STA.		
FED. ROAD DIST. NO. 9	ILLINOIS	FED. AID PROJECT		

STA. 1211 + 65
TWO CELL 8' x 8' BOX CULVERT



Drainage Area =	597.0	acres		
Existing Low Grade Elevation:	913.28	ft. @	1211+65.	
Proposed Low Grade Elevation:	913.28	ft. @	1211+65.	
Flood	Frequency Year	Discharge cfs	Headwater Elev. (ft) Existing	Proposed
Ten-Year	10	288	911.98	909.34
Design	50	579		910.54
Base	100	758		911.93
OVT (E)	17	364	913.28	
OVT (P)	181	934		913.28
10-Year Velocity through Existing Culvert =			12.6	fps
10-Year Velocity through Proposed Culvert =			11.3	fps



STAGE 2	
STA. 1209+00 to 1215+00	
EARTH EX. = 300.4	CU.YDS.
EMB. = 422.2	CU.YDS.
HAUL IN= 196.9	CU.YDS.

STAGE 3	
STA. 1209+00 to 1215+00	
EARTH EX. = 71.0	CU.YDS.
EMB. = 235.5	CU.YDS.
HAUL IN = 182.3	CU.YDS.

PLAN — NOTE BOOK NO. / SUR. PLOTTED / ALIGNMENT CHECKED / RT. OF WAY CHECKED / CADD FILE NAME — BY — DATE

PROFILE — NOTE BOOK NO. / SURVEYED / PLOTTED / GRADE CHECKED / B.M. NOTED / STRUCTURE NOTATIONS CHKD — BY — DATE

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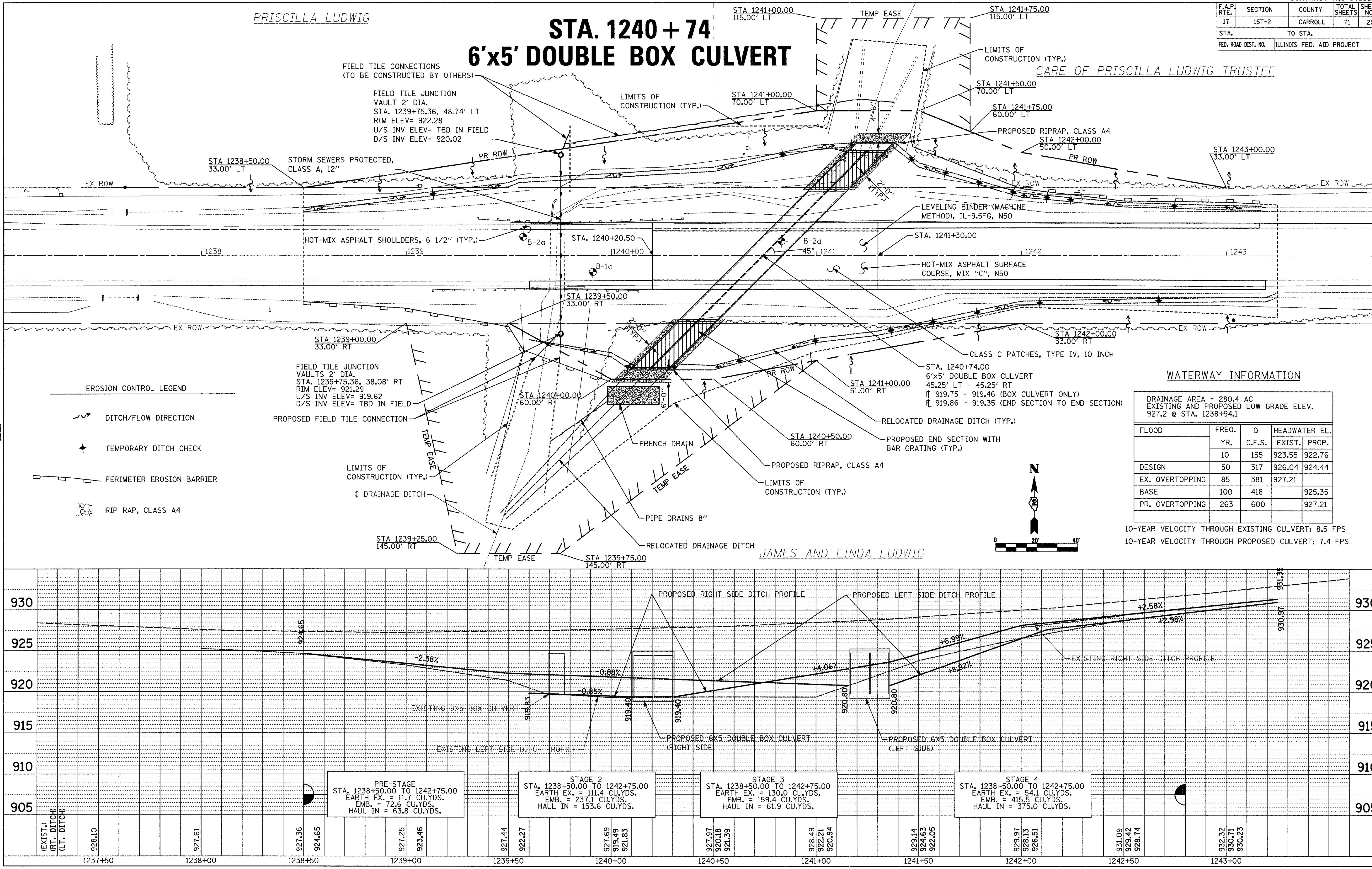
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	20
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STA. 1240 + 74
6'x5' DOUBLE BOX CULVERT


PRISCILLA LUDWIG
CARE OF PRISCILLA LUDWIG TRUSTEE
JAMES AND LINDA LUDWIG
FIELD TILE CONNECTIONS (TO BE CONSTRUCTED BY OTHERS)
FIELD TILE JUNCTION VAULT 2' DIA. STA. 1239+75.36, 48.74' LT RIM ELEV= 922.28 U/S INV ELEV= TBD IN FIELD D/S INV ELEV= 920.02
LIMITS OF CONSTRUCTION (TYP.)
STA 1238+50.00 33.00' LT
STORM SEWERS PROTECTED, CLASS A, 12"
PR ROW
EX ROW
TEMP EASE
STA 1241+00.00 115.00' LT
STA 1241+75.00 115.00' LT
STA 1241+00.00 70.00' LT
STA 1241+50.00 70.00' LT
STA 1241+75.00 60.00' LT
PROPOSED RIPRAP, CLASS A4
STA 1242+00.00 50.00' LT
STA 1243+00.00 33.00' LT
LEVELING BINDER (MACHINE METHOD), IL-9.5FG, N50
STA. 1241+30.00
HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50
HOT-MIX ASPHALT SHOULDERS, 6 1/2" (TYP.)
STA. 1240+20.50
B-2a
B-1a
B-2d
45°
1238
1239
1240+00
1241
1242
1243
STA 1239+50.00 33.00' RT
STA 1239+00.00 33.00' RT
STA 1242+00.00 33.00' RT
CLASS C PATCHES, TYPE IV, 10 INCH
STA. 1240+74.00 6'x5' DOUBLE BOX CULVERT 45.25' LT - 45.25' RT
℄ 919.75 - 919.46 (BOX CULVERT ONLY)
℄ 919.86 - 919.35 (END SECTION TO END SECTION)
FIELD TILE JUNCTION VAULTS 2' DIA. STA. 1239+75.36, 38.08' RT RIM ELEV= 921.29 U/S INV ELEV= 919.62 D/S INV ELEV= TBD IN FIELD
PROPOSED FIELD TILE CONNECTION
STA 1240+00.00 60.00' RT
STA 1241+00.00 51.00' RT
RELOCATED DRAINAGE DITCH (TYP.)
PROPOSED END SECTION WITH BAR GRATING (TYP.)
STA 1240+50.00 60.00' RT
FRENCH DRAIN
PROPOSED RIPRAP, CLASS A4
LIMITS OF CONSTRUCTION (TYP.)
℄ DRAINAGE DITCH
PIPE DRAINS 8"
RELOCATED DRAINAGE DITCH
STA 1239+25.00 145.00' RT
STA 1239+75.00 145.00' RT
2'-0" (TYP.)
6'-0"
4'-6"
N
0 20' 40'
EROSION CONTROL LEGEND
DITCH/FLOW DIRECTION
TEMPORARY DITCH CHECK
PERIMETER EROSION BARRIER
RIP RAP, CLASS A4
PROPOSED RIGHT SIDE DITCH PROFILE
PROPOSED LEFT SIDE DITCH PROFILE
EXISTING RIGHT SIDE DITCH PROFILE
EXISTING 8X5 BOX CULVERT
EXISTING LEFT SIDE DITCH PROFILE
PROPOSED 6X5 DOUBLE BOX CULVERT (RIGHT SIDE)
PROPOSED 6X5 DOUBLE BOX CULVERT (LEFT SIDE)
-2.38%
-0.88%
-0.85%
+4.06%
+6.99%
+8.92%
+2.58%
+2.98%
924.65
919.83
919.40
919.40
920.80
920.80
930.97
931.35
930
925
920
915
910
905
PRE-STAGE STA. 1238+50.00 TO 1242+75.00 EARTH EX. = 11.7 CU.YDS. EMB. = 72.6 CU.YDS. HAUL IN = 63.8 CU.YDS.
STAGE 2 STA. 1238+50.00 TO 1242+75.00 EARTH EX. = 111.4 CU.YDS. EMB. = 237.1 CU.YDS. HAUL IN = 153.6 CU.YDS.
STAGE 3 STA. 1238+50.00 TO 1242+75.00 EARTH EX. = 130.0 CU.YDS. EMB. = 159.4 CU.YDS. HAUL IN = 61.9 CU.YDS.
STAGE 4 STA. 1238+50.00 TO 1242+75.00 EARTH EX. = 54.1 CU.YDS. EMB. = 415.5 CU.YDS. HAUL IN = 375.0 CU.YDS.
(EXIST.)
(RT. DITCH)
(LT. DITCH)
928.10
927.61
927.36 924.65
927.25 923.46
927.44 922.27
927.69 919.49 921.83
927.97 920.18 921.39
928.49 922.21 920.94
929.14 924.63 922.05
929.97 928.13 926.51
931.09 929.42 928.74
932.32 930.71 930.23
1237+50
1238+00
1238+50
1239+00
1239+50
1240+00
1240+50
1241+00
1241+50
1242+00
1242+50
1243+00

WATERWAY INFORMATION

DRAINAGE AREA = 280.4 AC
EXISTING AND PROPOSED LOW GRADE ELEV.
927.2 @ STA. 1238+94.1

FLOOD	FREQ.	Q	HEADWATER EL.	
	YR.	C.F.S.	EXIST.	PROP.
	10	155	923.55	922.76
DESIGN	50	317	926.04	924.44
EX. OVERTOPPING	85	381	927.21	
BASE	100	418		925.35
PR. OVERTOPPING	263	600		927.21

10-YEAR VELOCITY THROUGH EXISTING CULVERT: 8.5 FPS
10-YEAR VELOCITY THROUGH PROPOSED CULVERT: 7.4 FPS

MAURER & STUTZ, INC. ENGINEERS SURVEYORS

PLAN: SUR. / PLOTTED / ALIGNMENT CHECKED / RT. OF WAY CHECKED / CADD FILE NAME / NOTE BOOK NO. — DATE / BY

PROFILE: SURVEYED / PLOTTED / GRADES CHECKED / STRUCTURE NOTATIONS CHKD / NOTE BOOK NO. — DATE / BY

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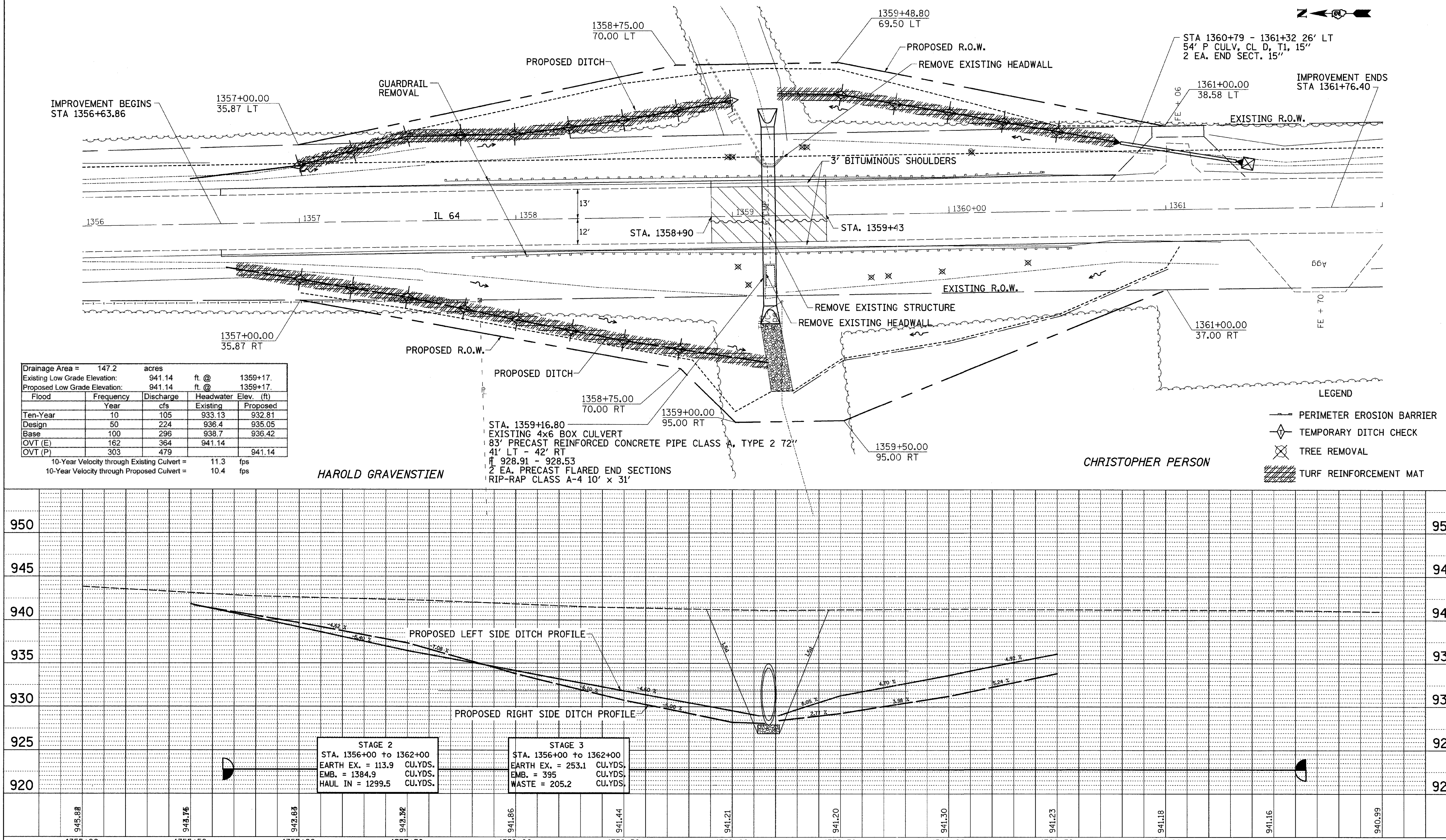
CONTRACT NO. 64C35

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	21
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STA. 1359 + 16.80
6' DIA. CONCRETE PIPE



JAMES & LINDA LUDWIG
1358+75.00
70.00 LT
1359+48.80
69.50 LT
PROPOSED R.O.W.
REMOVE EXISTING HEADWALL
STA 1360+79 - 1361+32 26' LT
54' P CULV. CL D, T1, 15"
2 EA. END SECT. 15"
IMPROVEMENT ENDS
STA 1361+76.40
PROPOSED DITCH
GUARDRAIL REMOVAL
IMPROVEMENT BEGINS
STA 1356+63.86
1357+00.00
35.87 LT
1361+00.00
38.58 LT
EXISTING R.O.W.
3' BITUMINOUS SHOULDERS
IL 64
1356
1357
1358
1359
1360+00
1361
13'
12'
STA. 1358+90
STA. 1359+43
EXISTING R.O.W.
REMOVE EXISTING STRUCTURE
REMOVE EXISTING HEADWALL
1357+00.00
35.87 RT
PROPOSED R.O.W.
PROPOSED DITCH
1361+00.00
37.00 RT
1358+75.00
70.00 RT
1359+00.00
95.00 RT
STA. 1359+16.80
EXISTING 4x6 BOX CULVERT
83' PRECAST REINFORCED CONCRETE PIPE CLASS A, TYPE 2 72"
41' LT - 42' RT
℄ 928.91 - 928.53
2 EA. PRECAST FLARED END SECTIONS
RIP-RAP CLASS A-4 10' x 31'
1359+50.00
95.00 RT
HAROLD GRAVENSTIEN
CHRISTOPHER PERSON
LEGEND
PERIMETER EROSION BARRIER
TEMPORARY DITCH CHECK
TREE REMOVAL
TURF REINFORCEMENT MAT
950
945
940
935
930
925
920
PROPOSED LEFT SIDE DITCH PROFILE
PROPOSED RIGHT SIDE DITCH PROFILE
STAGE 2
STA. 1356+00 to 1362+00
EARTH EX. = 113.9 CU.YDS.
EMB. = 1384.9 CU.YDS.
HAUL IN = 1299.5 CU.YDS.
STAGE 3
STA. 1356+00 to 1362+00
EARTH EX. = 253.1 CU.YDS.
EMB. = 395 CU.YDS.
WASTE = 205.2 CU.YDS.
941.86
941.44
941.21
941.20
941.30
941.23
941.18
941.16
940.99
1356+00
1356+50
1357+00
1357+50
1358+00
1358+50
1359+00
1359+50
1360+00
1360+50
1361+00
1361+50
1362+00

Drainage Area =	147.2	acres		
Existing Low Grade Elevation:	941.14	ft. @	1359+17.	
Proposed Low Grade Elevation:	941.14	ft. @	1359+17.	
Flood	Frequency	Discharge	Headwater Elev. (ft)	
	Year	cfs	Existing	Proposed
Ten-Year	10	105	933.13	932.81
Design	50	224	936.4	935.05
Base	100	296	938.7	936.42
OVT (E)	162	364	941.14	
OVT (P)	303	479		941.14

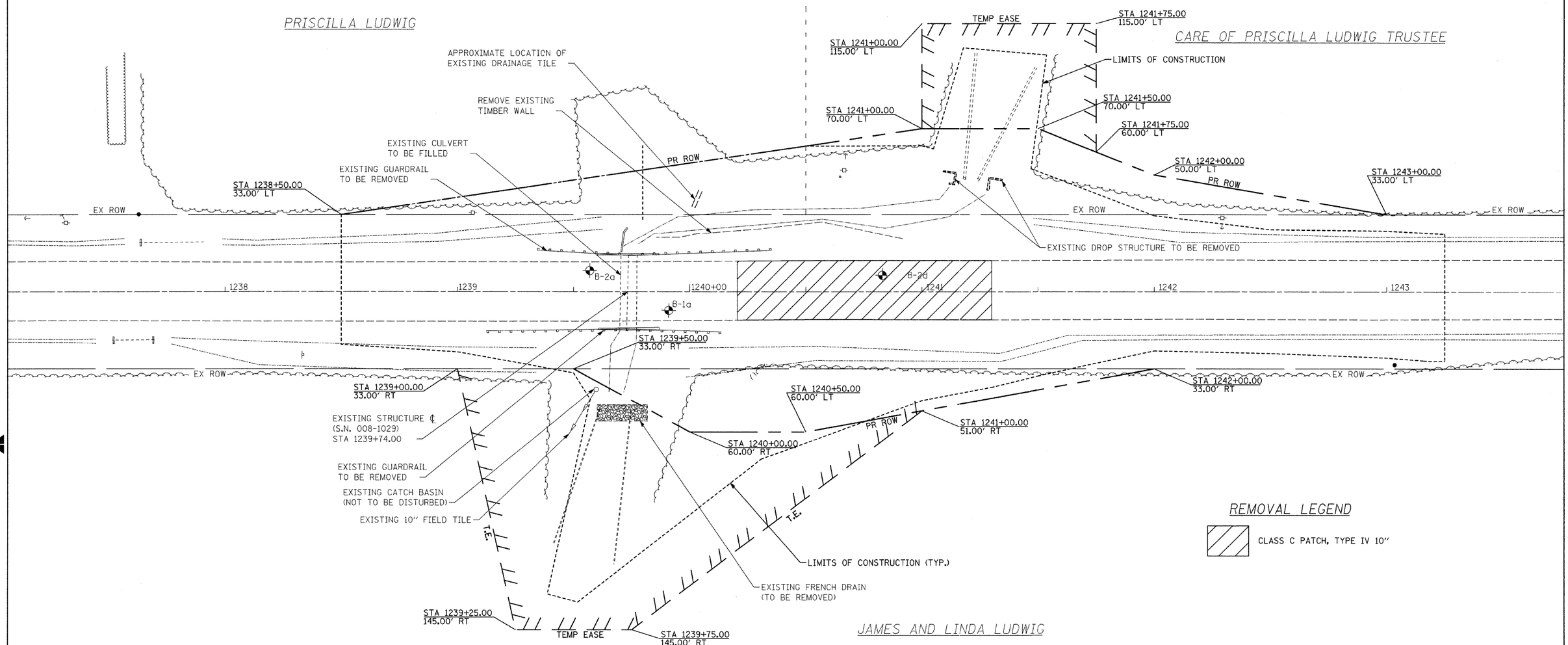
10-Year Velocity through Existing Culvert = 11.3 fps

10-Year Velocity through Proposed Culvert = 10.4 fps

CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	22
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STA. 1240 + 74
6'x5' DOUBLE BOX CULVERT



REMOVAL LEGEND

CLASS C PATCH, TYPE IV 10"

N

0 20' 40'

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.

DATE

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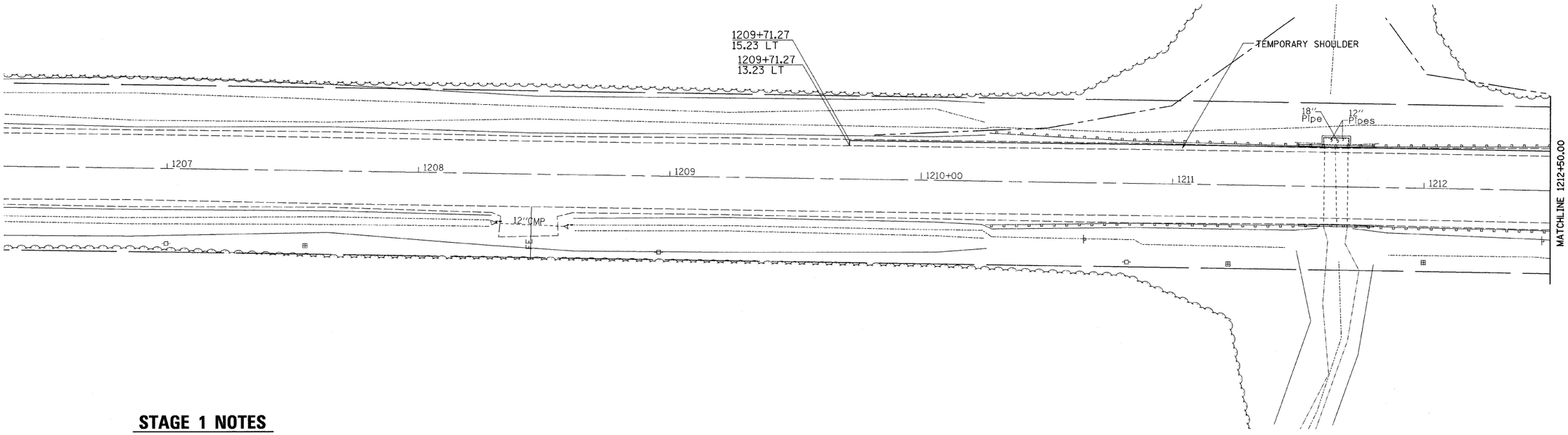
CHECKED BY RJA

REMOVAL PLAN

CONTRACT NO. 64C35

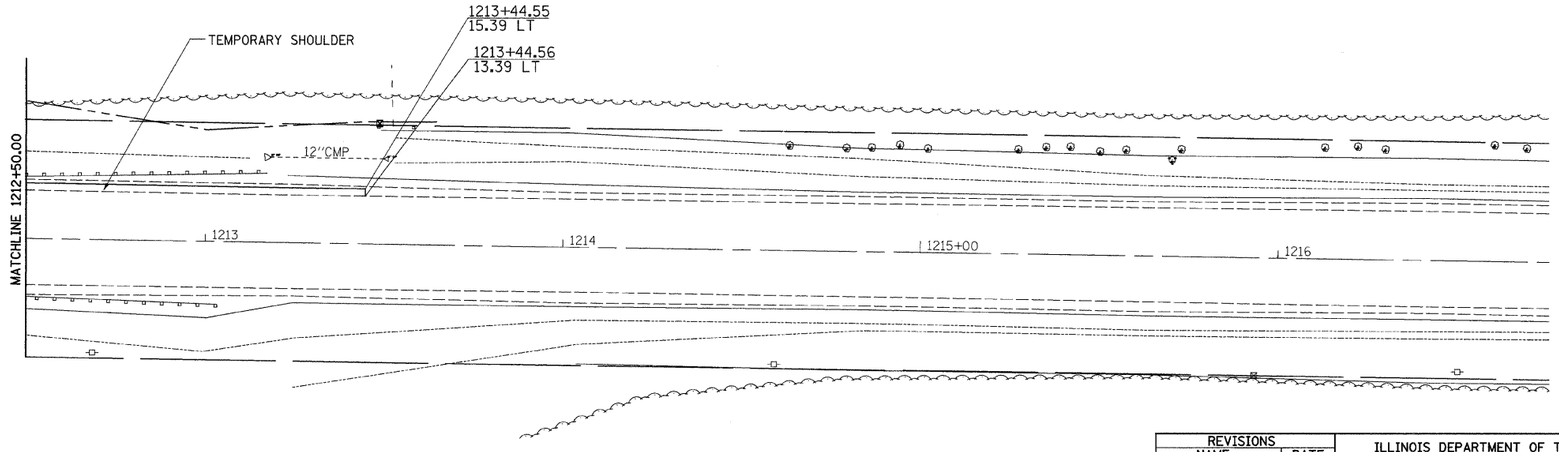
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	23
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGE 1
STA 1211+65



STAGE 1 NOTES

1. USE STANDARD 701201 FOR SHOULDER WORK.
2. PLACE 2' WIDE TEMPORARY SHOULDERS FROM LT STA. 1209+71.27 TO LT STA. 1213+44.56.



= WORK ZONE

= TYPE III BARRICADE WITH FLASHING LIGHTS

= SIGN

= BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS

= INDUCTION LOOP DETECTOR

= TRAFFIC SIGNAL

= TEMPORARY RUMBLE STRIPS

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REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

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DATE
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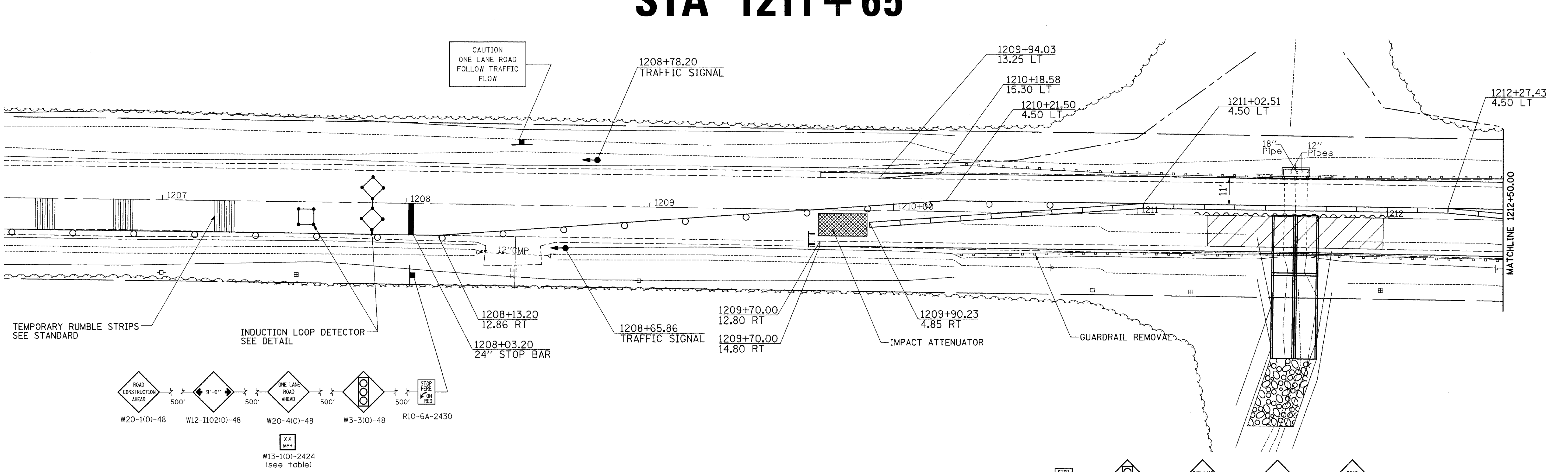
CHECKED BY

STAGING PLAN SHEETS

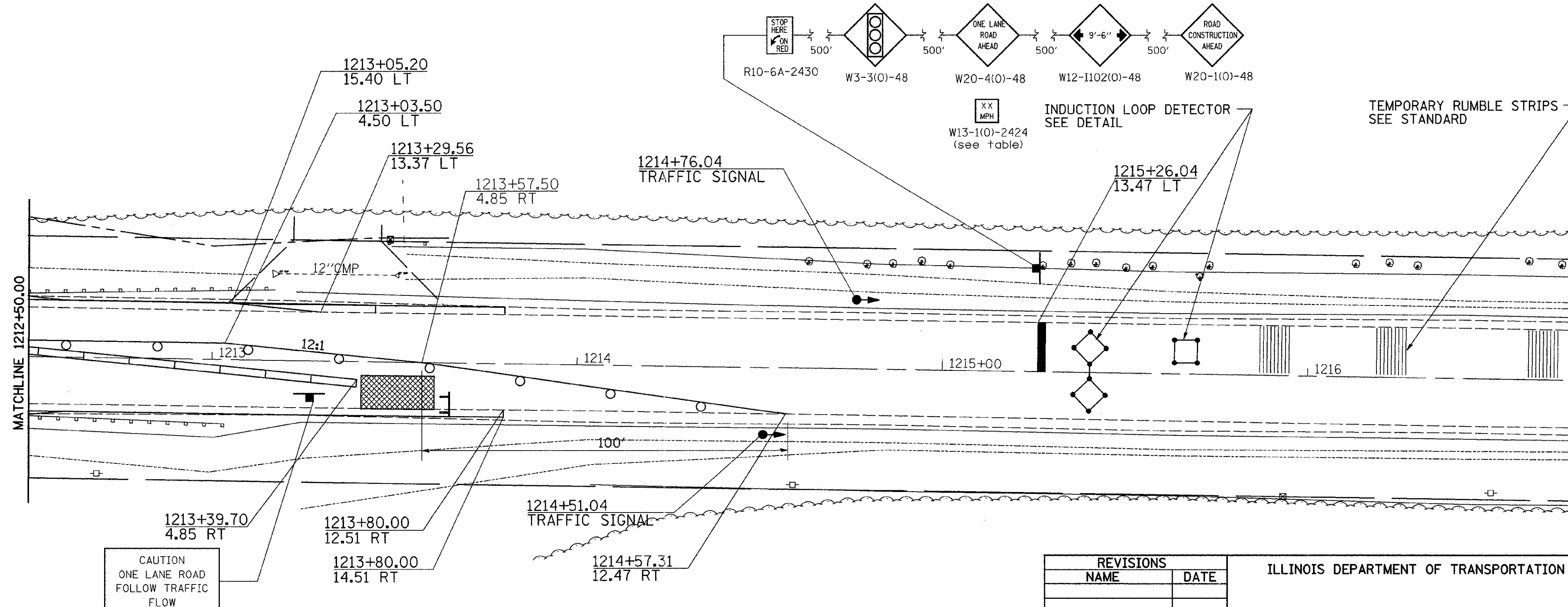
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	24
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGE 2
STA 1211+65



STAGE 2 NOTES

1. USE STANDARD 701321 FOR CULVERT WORK.
2. CONSTRUCT DOWNSTREAM SECTIONS OF CULVERTS INCLUDING END SECTIONS, RIP-RAP, AND EARTH WORK.
3. PLACE SHOULDERS AT FULL WIDTH IN PREPERATION FOR STAGE 3.
4. PLACE CLASS C PATCH AND BINDER OVER PATCH AREA. USE TEMPORARY RAMPS UNTIL STAGE 3 IS COMPLETE.



= WORK ZONE
= TYPE III BARRICADE WITH FLASHING LIGHTS
= SIGN
= BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS
= INDUCTION LOOP DETECTOR
= TRAFFIC SIGNAL
= TEMPORARY RUMBLE STRIPS

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NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

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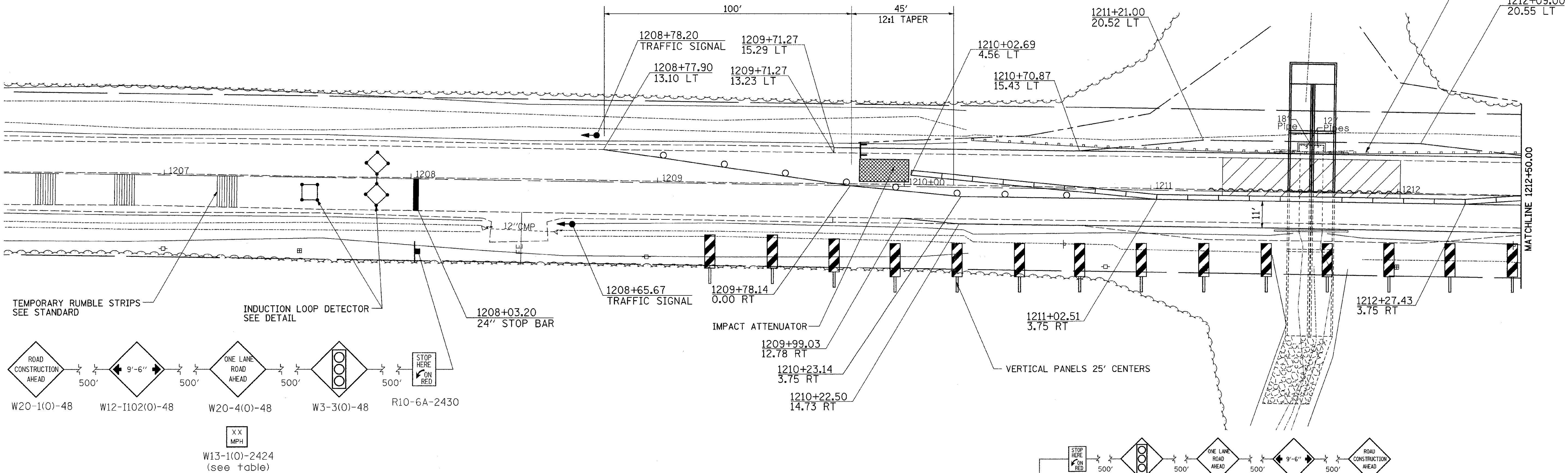
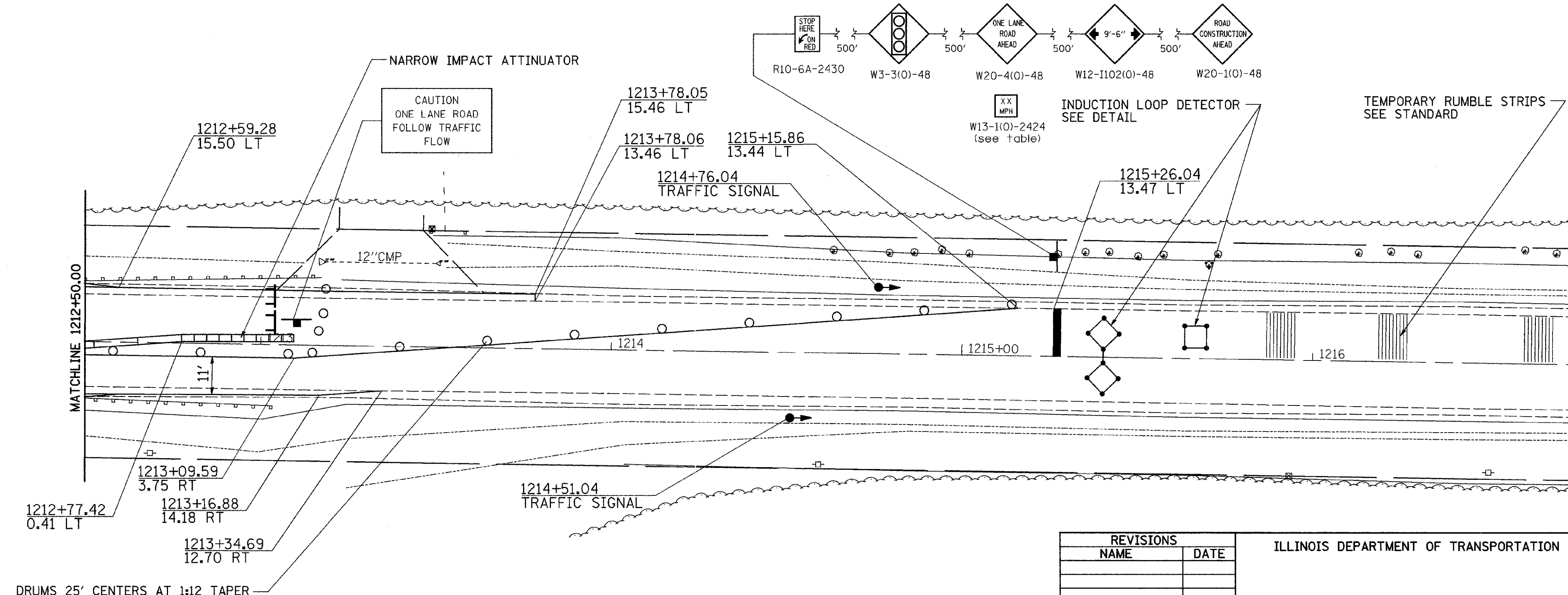
CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	25
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGE 3
STA 1211+65





STAGE 3 NOTES

1. USE STANDARD 701321 FOR CULVERT WORK.
2. REMOVE TEMPORARY SHOULDERS.
3. CONSTRUCT UPSTREAM SECTIONS OF CULVERTS INCLUDING END SECTIONS, RIP-RAP, AND EARTH WORK.
4. CONSTRUCT ENTRANCE AT STA. 1213+24 LT.
5. PLACE SURFACE COARSE OVER ENTIRE PATCH AREA AFTER STAGE 3 IS COMPLETED.

Legend:
- = WORK ZONE
- = TYPE III BARRICADE WITH FLASHING LIGHTS
- = SIGN
- = BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS
- = INDUCTION LOOP DETECTOR
- = TRAFFIC SIGNAL
- = TEMPORARY RUMBLE STRIPS

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NAME	DATE

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HORIZ.
DATE

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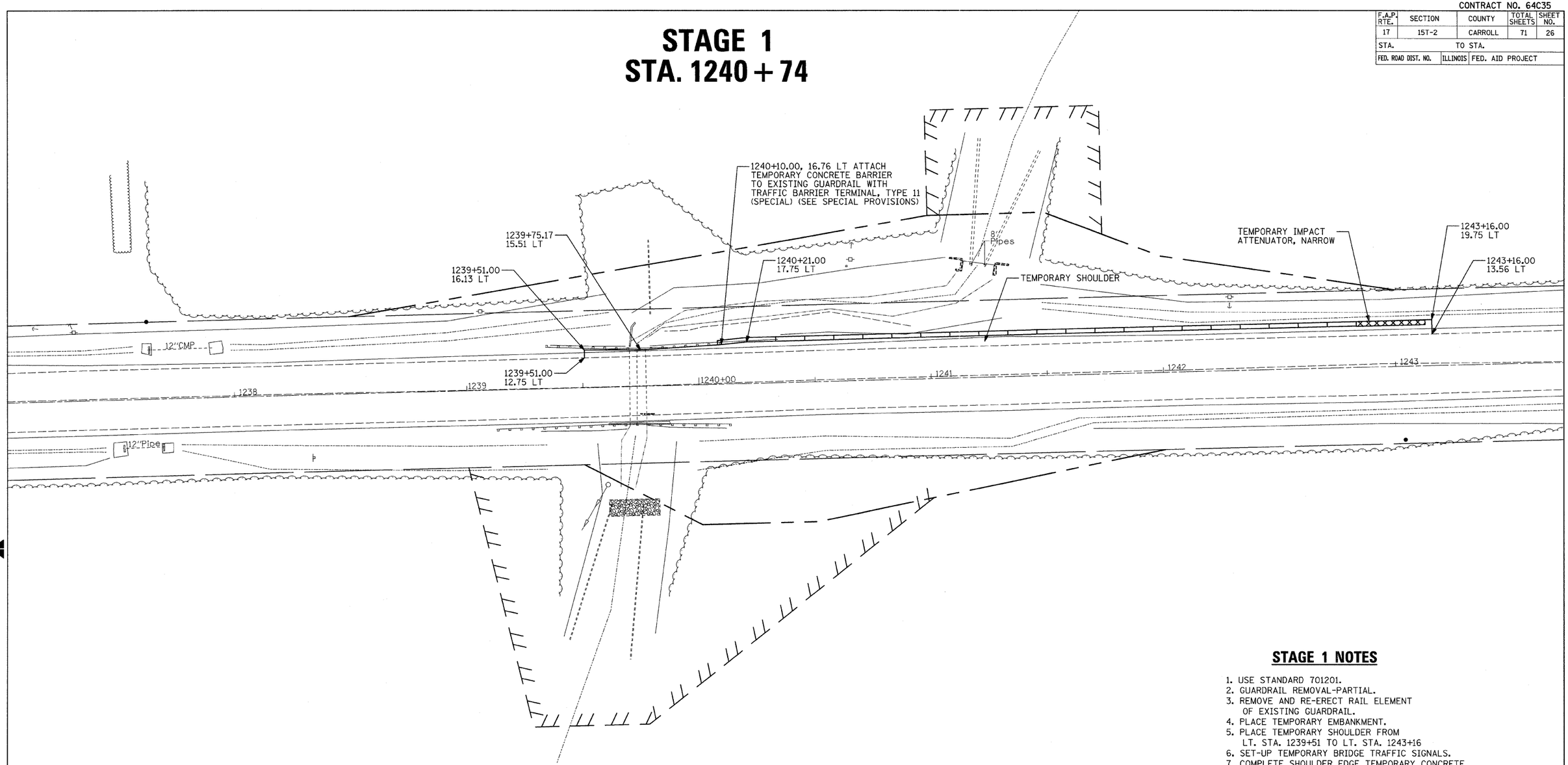
CHECKED BY

STAGING PLAN SHEETS

CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	26
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGE 1
STA. 1240 + 74



STAGE 1 NOTES

1. USE STANDARD 701201.
2. GUARDRAIL REMOVAL-PARTIAL.
3. REMOVE AND RE-ERECT RAIL ELEMENT OF EXISTING GUARDRAIL.
4. PLACE TEMPORARY EMBANKMENT.
5. PLACE TEMPORARY SHOULDER FROM LT. STA. 1239+51 TO LT. STA. 1243+16
6. SET-UP TEMPORARY BRIDGE TRAFFIC SIGNALS.
7. COMPLETE SHOULDER EDGE TEMPORARY CONCRETE BARRIER, TEMPORARY IMPACT ATTENUATOR, NARROW AND TRAFFIC BARRIER TERMINAL TYPE 11 (SPECIAL).

N

0 20' 40'

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

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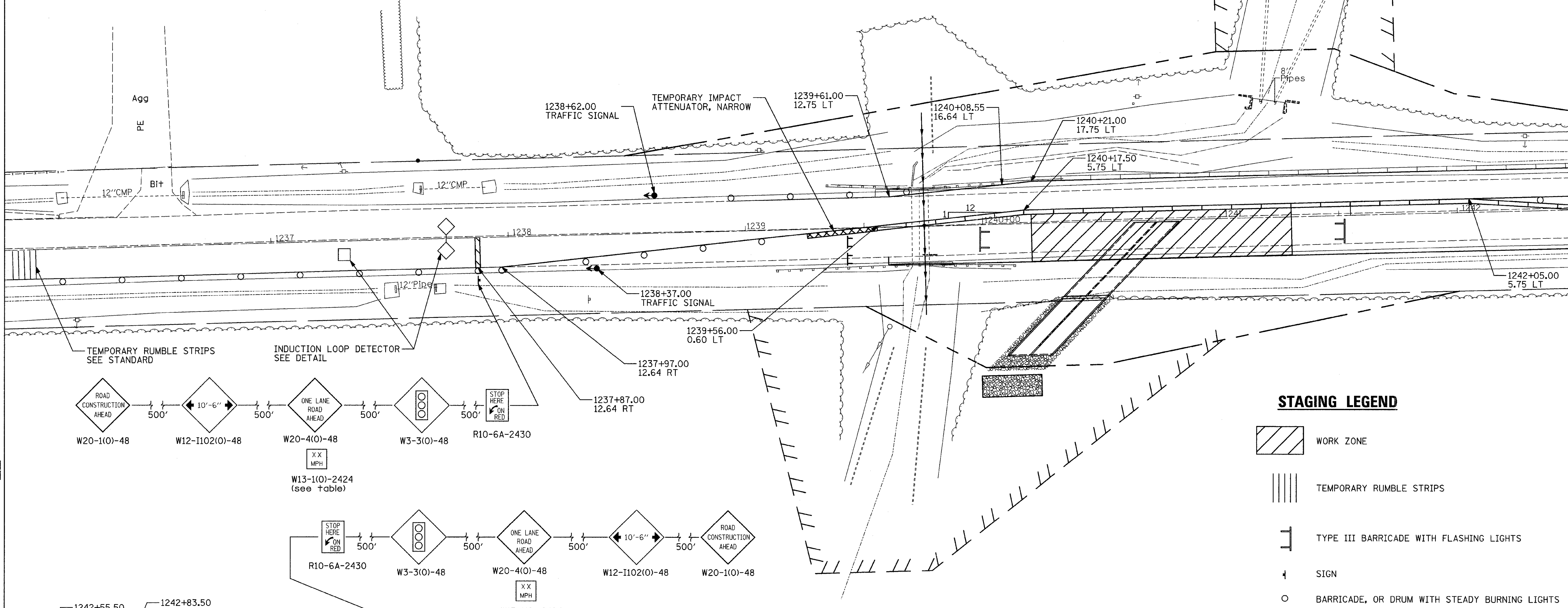
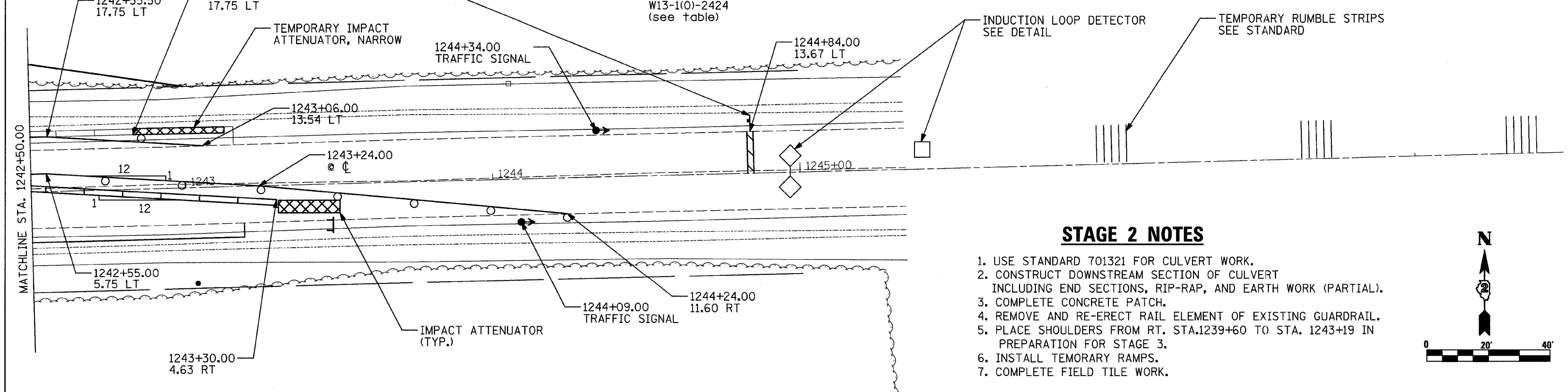
STAGING PLAN SHEETS

CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	27
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGE 2
STA. 1240 + 74





STAGE 2 NOTES

1. USE STANDARD 701321 FOR CULVERT WORK.
2. CONSTRUCT DOWNSTREAM SECTION OF CULVERT INCLUDING END SECTIONS, RIP-RAP, AND EARTH WORK (PARTIAL).
3. COMPLETE CONCRETE PATCH.
4. REMOVE AND RE-ERECT RAIL ELEMENT OF EXISTING GUARDRAIL.
5. PLACE SHOULDERS FROM RT. STA.1239+60 TO STA. 1243+19 IN PREPARATION FOR STAGE 3.
6. INSTALL TEMORARY RAMPS.
7. COMPLETE FIELD TILE WORK.

N
0 20' 40'

REVISIONS	
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ILLINOIS DEPARTMENT OF TRANSPORTATION

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STAGING PLAN SHEETS

MAURER ▲ STUTZ, INC. ENGINEERS SURVEYORS

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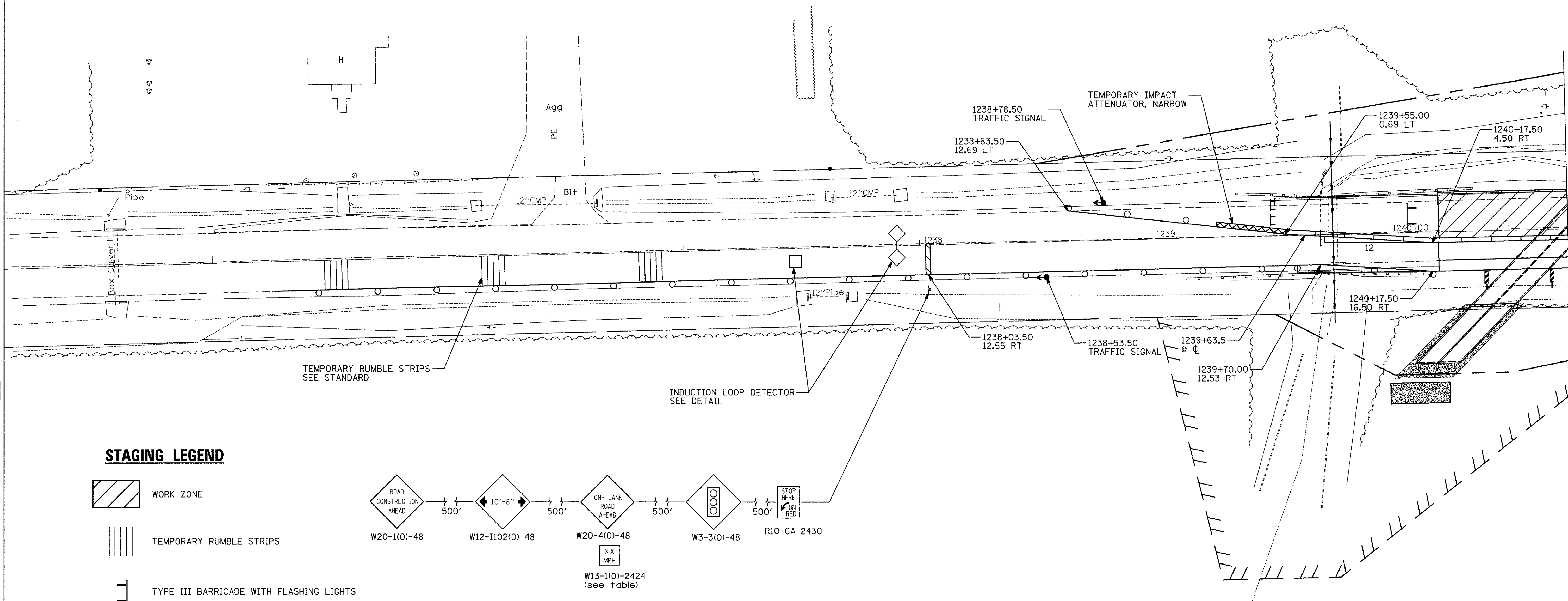
USER NAME = hansonke

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	28
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGE 3
STA. 1240 + 74



STAGING LEGEND

- WORK ZONE
- TEMPORARY RUMBLE STRIPS
- TYPE III BARRICADE WITH FLASHING LIGHTS
- SIGN
- BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS
- INDUCTION LOOP DETECTOR
- TRAFFIC SIGNAL
- TEMPORARY CONCRETE BARRIER
- DOUBLE VERTICAL PANELS
- TYPE II BARRICADE

STAGE 3 NOTES

1. USE STANDARD 701321 FOR CULVERT WORK.
2. CONSTRUCT UPSTREAM SECTIONS OF CULVERT INCLUDING END SECTIONS, RIP RAP, AND EARTH WORK (PARTIAL).
3. COMPLETE CONCRETE PATCH.
4. PLACE HOT-MIX ASPHALT SHOULDER LT STA. 1239+51 TO 1243+16
5. INSTALL TEMPORARY RAMPS.

N

0 20' 40'

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.

DATE

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STAGING PLAN SHEETS

MAURER ▲ STUTZ, INC. ENGINEERS SURVEYORS

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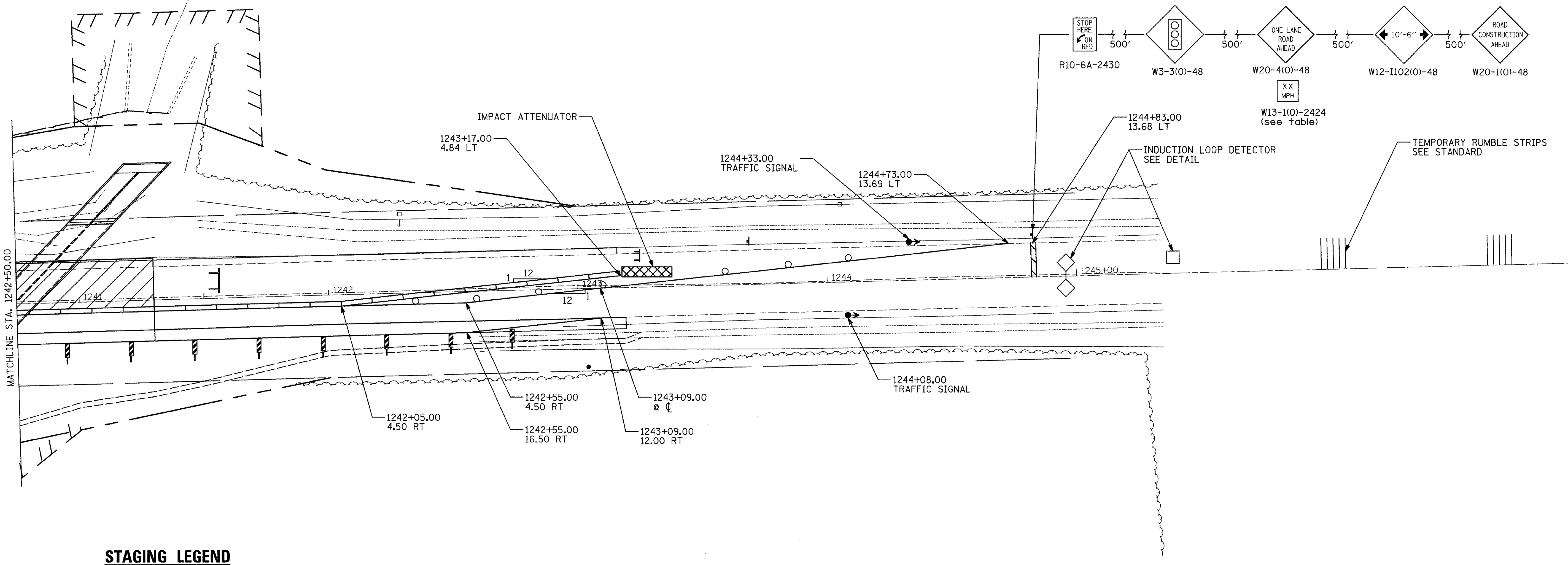
CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	29
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGE 3
STA. 1240 + 74



STAGING LEGEND

- WORK ZONE
- TEMPORARY RUMBLE STRIPS
- TYPE III BARRICADE WITH FLASHING LIGHTS
- SIGN
- BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS
- INDUCTION LOOP DETECTOR
- TRAFFIC SIGNAL
- TEMPORARY CONCRETE BARRIER
- DOUBLE VERTICAL PANELS
- TYPE II BARRICADE

STAGE 4 NOTES

1. USE STANDARD 701201.
2. FILL EXISTING CULVERT.
3. REMOVE EXISTING TIMBER WALL.
4. COMPLETE REMAINDER OF EARTHWORK.
5. COMPLETE SEEDING AND EROSION CONTROL ITEMS.
6. PLACE LEVELING BINDER (MACHINE METHOD) AND HMA SURFACE COURSE.
7. PLACE STRIPING AND RAISED REFLECTIVE MARKERS.

N

0 20' 40'

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.
DATE
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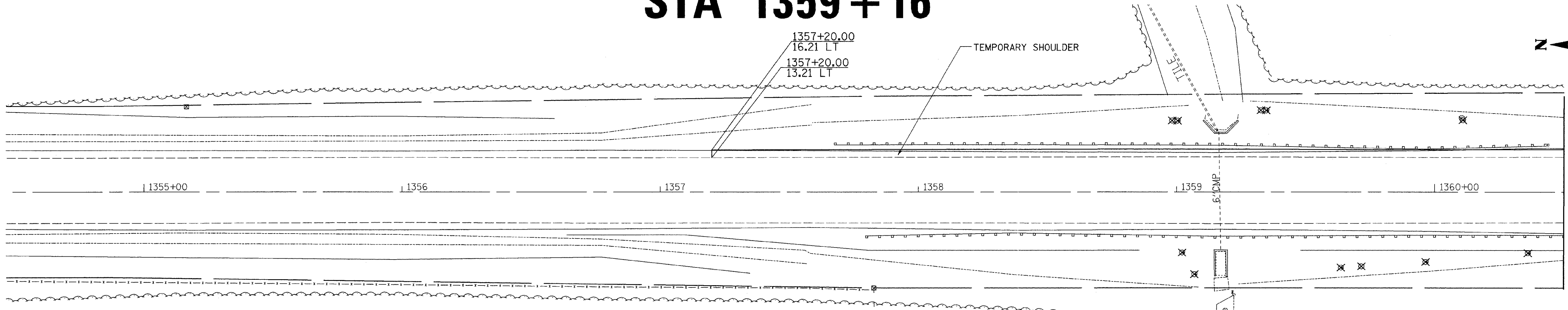
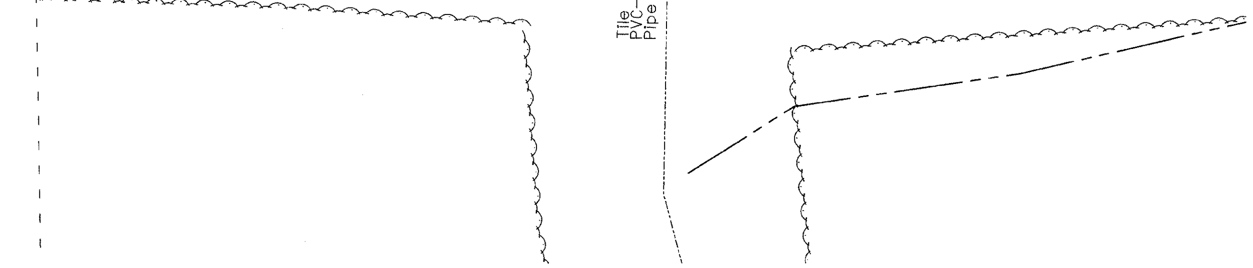
STAGING PLAN SHEETS

CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	30
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

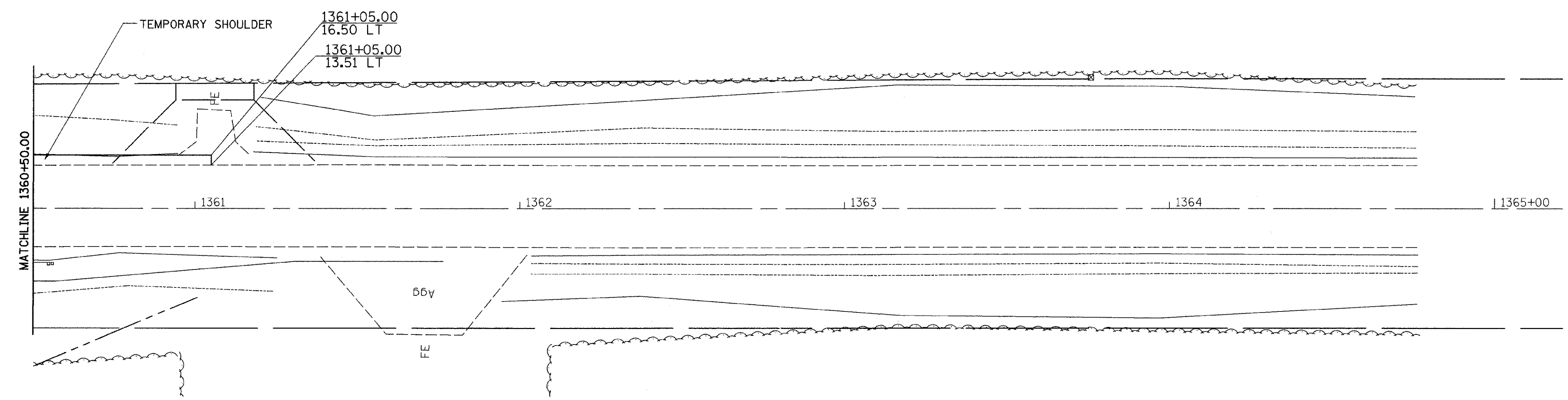
STAGE 1
STA 1359 + 16





STAGE 1 NOTES

1. USE STANDARD 701201 FOR SHOULDER WORK.
2. PLACE 3' WIDE HMA SHOULDERS FROM LT STA. 1357+20 TO LT STA. 1361+05.



- (hatched box) = WORK ZONE
- (barricade symbol) = TYPE III BARRICADE WITH FLASHING LIGHTS
- (sign symbol) = SIGN
- ○ = BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS
- ◇ = INDUCTION LOOP DETECTOR
- (signal symbol) = TRAFFIC SIGNAL
- (striped box) = TEMPORARY RUMBLE STRIPS

PLOT DATE = Mon Jan 28 07:52:35 2008
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PLOT SCALE = 20.0000 ' / IN.
USER NAME = hansonke

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT.
HORIZ.
DATE

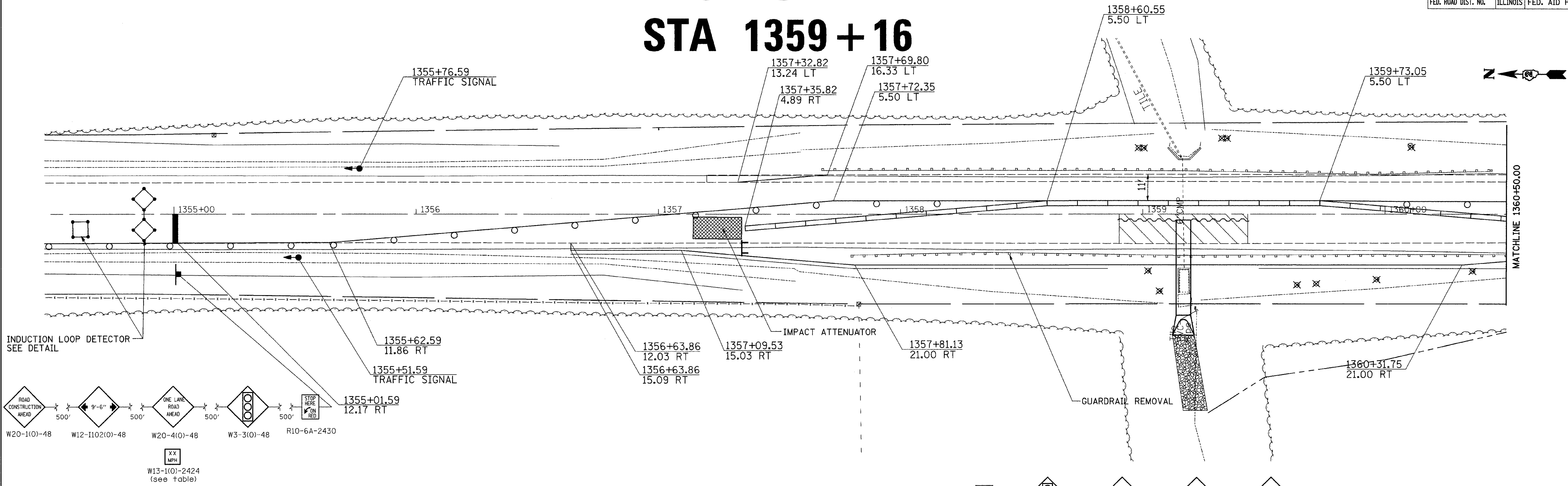
DRAWN BY
CHECKED BY

STAGING PLAN SHEETS

CONTRACT NO. 64C35

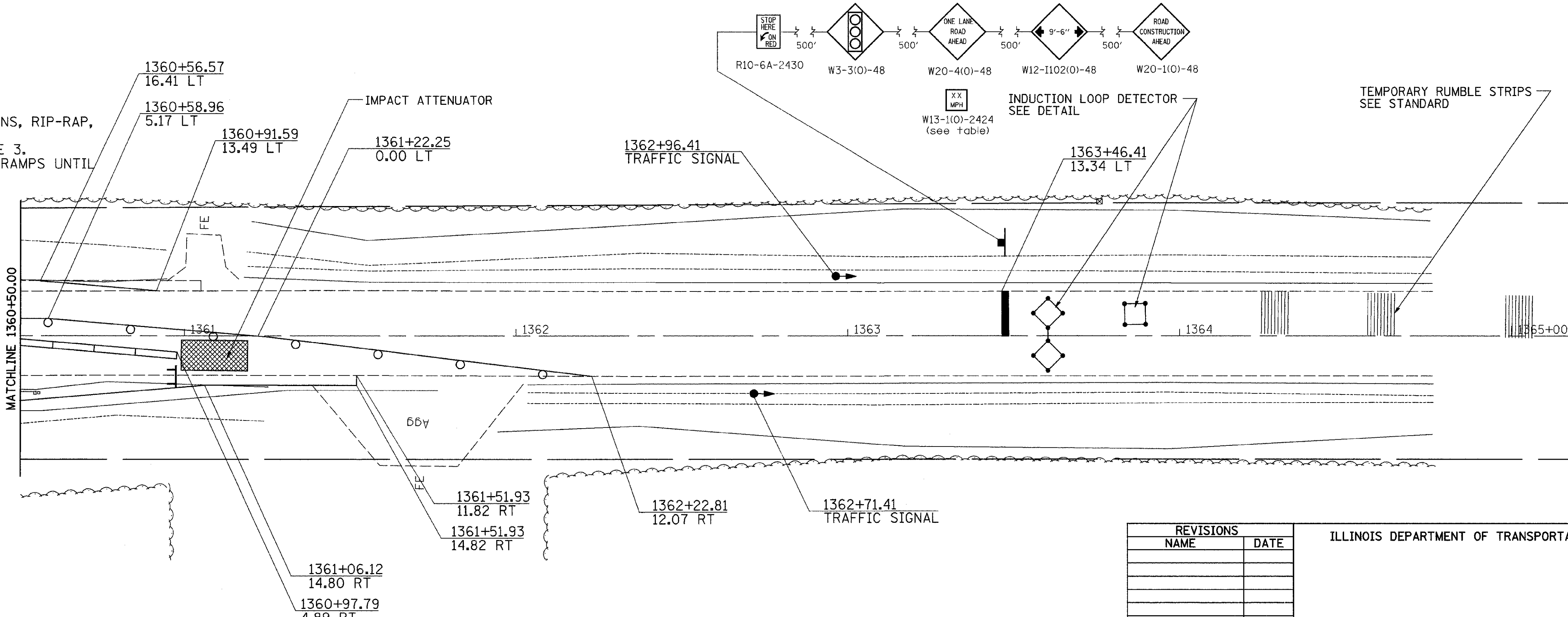
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	31
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGE 2
STA 1359+16



STAGE 2 NOTES

1. USE STANDARD 701321 FOR CULVERT WORK.
2. CONSTRUCT DOWNSTREAM SECTIONS OF CULVERTS INCLUDING END SECTIONS, RIP-RAP, AND EARTH WORK.
3. PLACE TEMPORARY WIDENING AT FULL WIDTH IN PREPERATION FOR STAGE 3.
4. PLACE CLASS C PATCH AND BINDER OVER PATCH AREA. USE TEMPORARY RAMPS UNTIL STAGE 3 IS COMPLETED.



Symbol	Meaning
(hatched box)	= WORK ZONE
(barricade symbol)	= TYPE III BARRICADE WITH FLASHING LIGHTS
(sign symbol)	= SIGN
○	= BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS
◇	= INDUCTION LOOP DETECTOR
(signal symbol)	= TRAFFIC SIGNAL
(striped box)	= TEMPORARY RUMBLE STRIPS

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USER NAME = hemsorke

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.

DATE

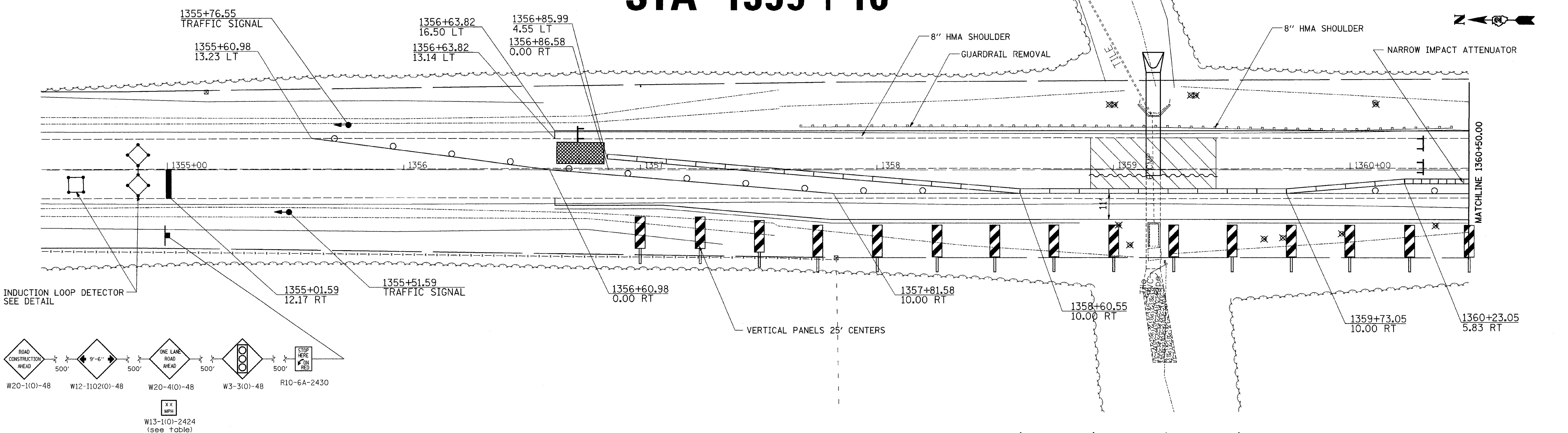
DRAWN BY

CHECKED BY

STAGING PLAN SHEETS

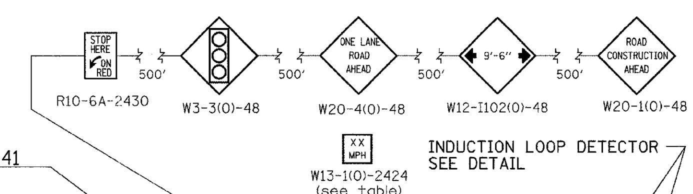
CONTRACT NO. 64C35				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	32
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

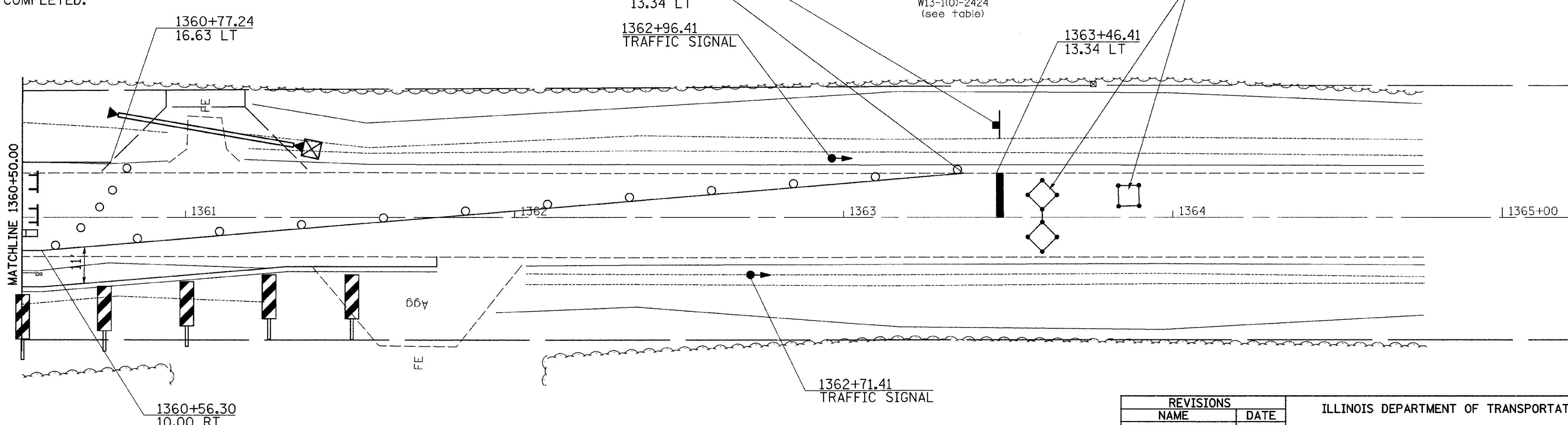
STAGE 3
STA 1359+16



STAGE 3 NOTES

1. USE STANDARD 701321 FOR CULVERT WORK.
2. REMOVE TEMPORARY SHOULDERS.
2. CONSTRUCT DOWNSTREAM SECTIONS OF CULVERTS INCLUDING END SECTIONS, RIP-RAP, AND EARTH WORK.
3. PLACE SURFACE COARSE OVER ENTIRE PATCH AREA AFTER STAGE 3 IS COMPLETED.





- = WORK ZONE
- = TYPE III BARRICADE WITH FLASHING LIGHTS
- = SIGN
- = BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS
- = INDUCTION LOOP DETECTOR
- = TRAFFIC SIGNAL
- = TEMPORARY RUMBLE STRIPS

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USER NAME = hansonke

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

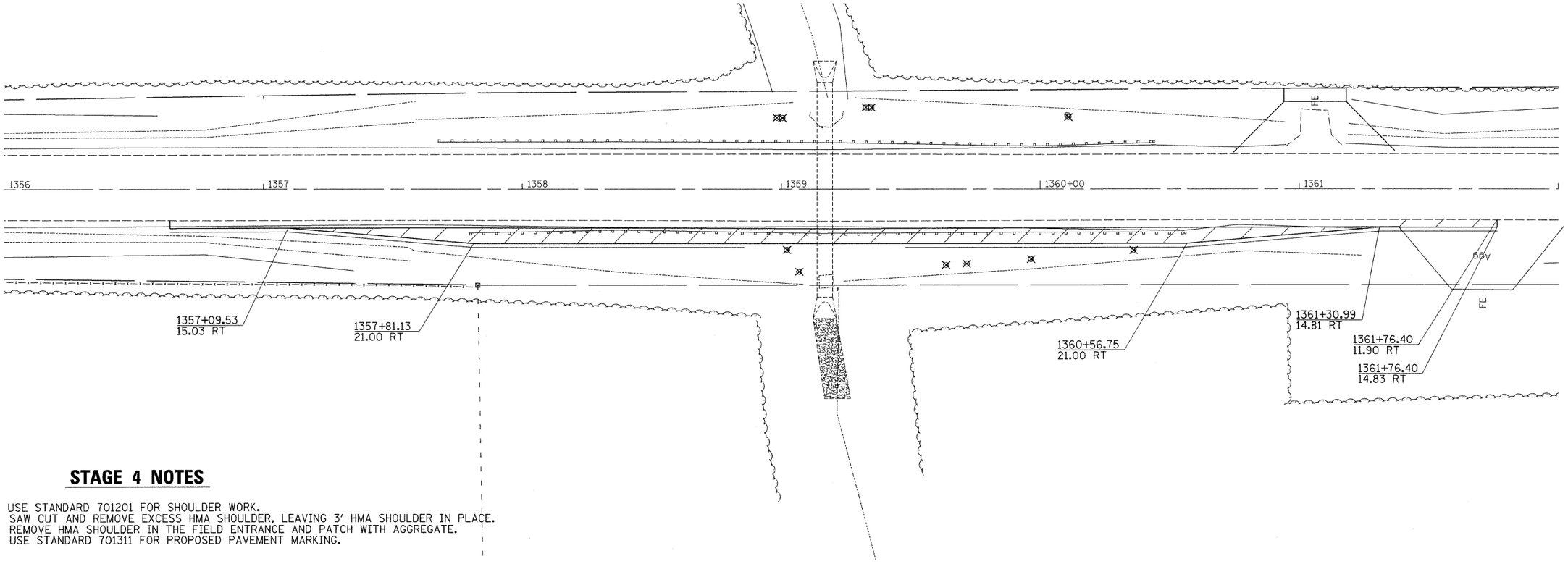
SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

STAGING PLAN SHEETS

CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	33
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGE 4
STA 1359+16



STAGE 4 NOTES

1. USE STANDARD 701201 FOR SHOULDER WORK.
2. SAW CUT AND REMOVE EXCESS HMA SHOULDER, LEAVING 3' HMA SHOULDER IN PLACE.
3. REMOVE HMA SHOULDER IN THE FIELD ENTRANCE AND PATCH WITH AGGREGATE.
5. USE STANDARD 701311 FOR PROPOSED PAVEMENT MARKING.

= WORK ZONE

= TYPE III BARRICADE WITH FLASHING LIGHTS

= SIGN

= BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS

= INDUCTION LOOP DETECTOR

= TRAFFIC SIGNAL

= TEMPORARY RUMBLE STRIPS

PLOT DATE = Mon Jan 28 07:52:35 2008
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USER NAME = hansonko

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT.
HORIZ.
DATE

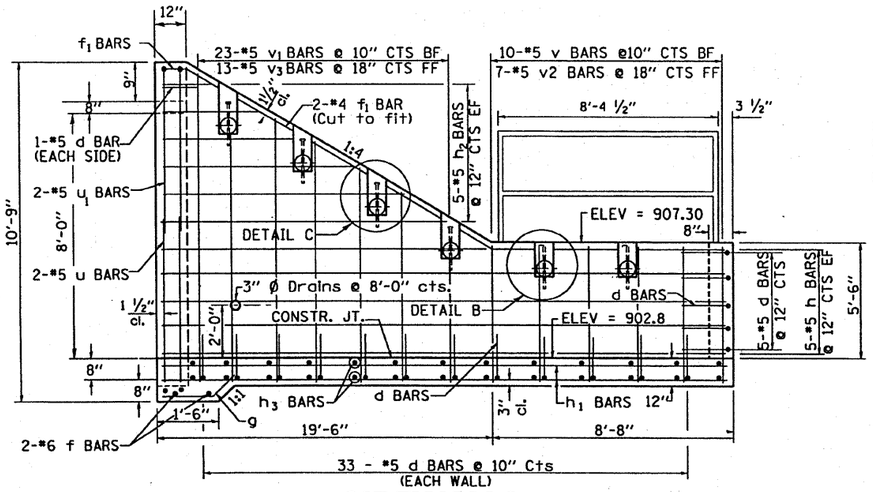
DRAWN BY
CHECKED BY

STAGING PLAN SHEETS

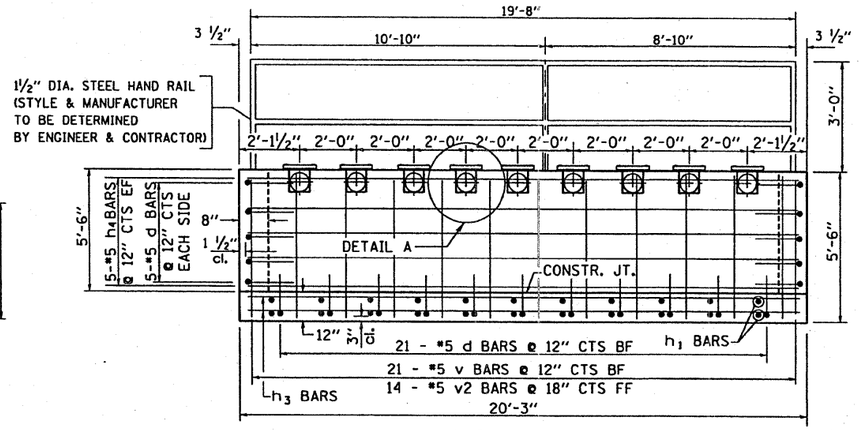
DROP BOX NO. 1

CONTRACT NO. 64C35				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	34
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET 1 OF 2



SIDEWALLS

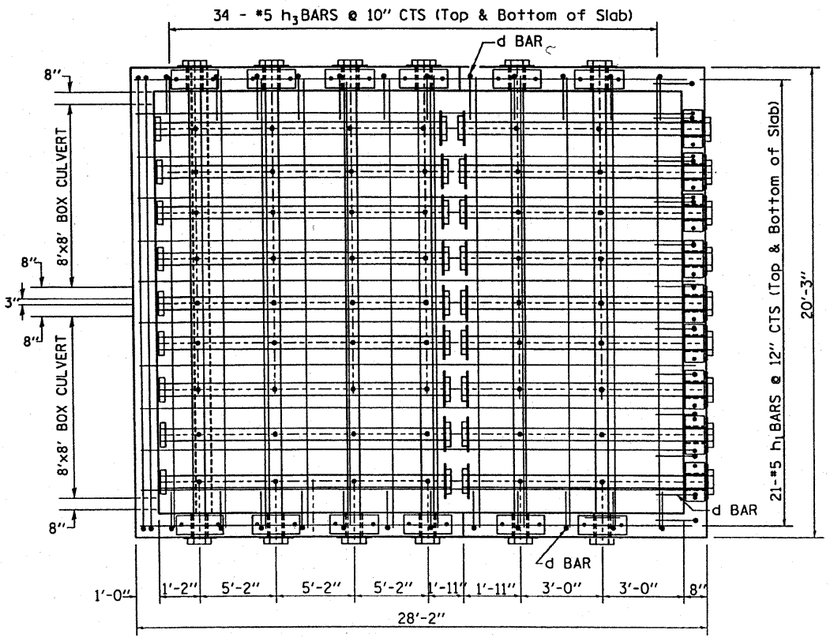


BACK WALL

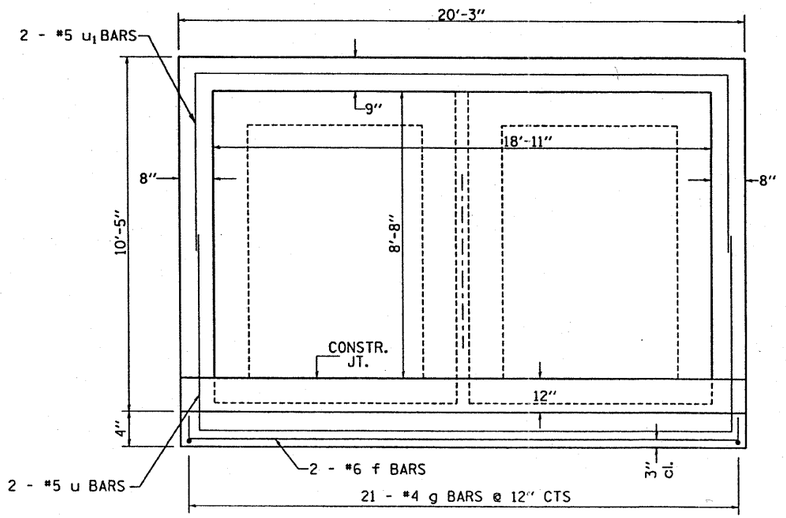
BILL OF MATERIAL
(For Information Only)

BAR	SIZE	NO.	LENGTH	SHAPE
d	5	97	5'-10"	
f	6	2	19'-11"	
f1	4	2	28'-4"	
g	4	21	2'-0"	
h	5	20	27'-11"	
h1	5	42	26'-11"	
h2	5	10	18'-3"	
h3	5	68	19'-11"	
h4	5	10	19'-11"	
v	5	41	5'-3"	
v1	5	46	13'-5"	
v2	5	28	5'-3"	
v3	5	26	13'-5"	
u	5	2	32'-5"	
u1	5	2	32'-9"	

DESCRIPTION	UNIT	QTY
PIPE HANDRAIL	FOOT	37
CONCRETE STRUCTURES	CU YD	34.5
REINFORCEMENT BARS	LB	5860



BOTTOM SLAB



HEADWALL

DESCRIPTION	UNIT	QTY.
4" GALVANIZED STEEL PIPE	6@	20'-3"
	9@	8'-8"
	9@	18'-8"
4" GALVANIZED PIPE CAPS	EACH	48
½"x4"x14" GALVANIZED STEEL PLATE	EACH	21
⅝"x9" GALVANIZED STEEL BOLTS	EACH	54
¼" GALVANIZED STEEL PLATE (9" NOMINAL)	EACH	21

JAMES O. HAMILTON 081-003668 LICENSED STRUCTURAL ENGINEER OF JACKSONVILLE, ILLINOIS

Expires 11/30/2008

James O. Hamilton 1/23/2008

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.

DATE

DRAWN BY

CHECKED BY

PLOT DATE = 1/23/2008
FILE NAME = V:\18-dgn\2244-HA\Drop Box & End Section - to IDOT.dgn
PLOT SCALE = 184.7248 ' / IN.
USER NAME = tcady

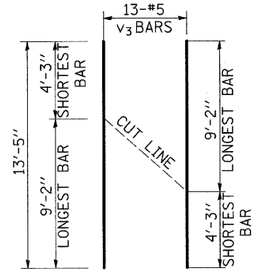
DROP BOX NO. 1

CONTRACT NO. 64C35

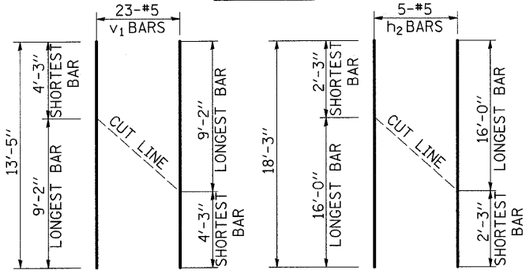
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	35
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET 2 OF 2

DROP BOX NO. 1



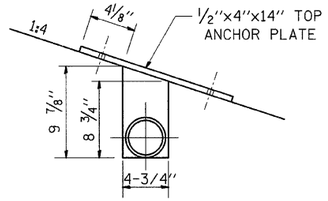
BAR v_3
CUT DIAGRAM



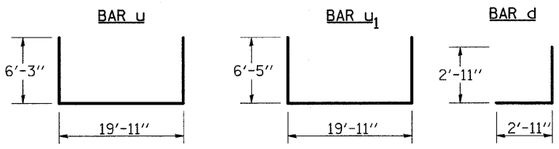
BAR v_1
CUT DIAGRAM

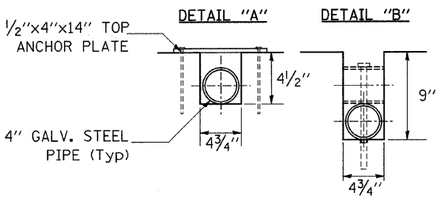
BAR h_2
CUT DIAGRAM

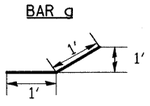
ORDER v_1 & h_2 BARS FULL LENGTH.
CUT AS SHOWN AND USE REMAINDER
OF BARS IN OPPOSITE WALL.

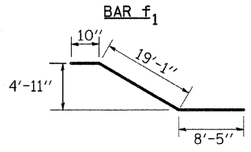


DETAIL "C"









GENERAL NOTES

This work shall be done according to the applicable portion of 503, 508, and 540 of the Standard Specifications.

Contractor shall field verify Galvanized pipe length.

Exposed edges shall be beveled 3/4".

The contract unit price "CU YD" for Concrete Structures shall include the Expansion Bolts, Galvanized Pipe, Class "SI" Concrete, Reinforcement Bars, Bolts, Nuts, Washers, Steel Plates, Pipe Handrail, earth excavation where required, and necessary grading to fit the inlet as shown in the cross sections or to the slope.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr. 60 (IL Modified). See Special Provisions.

Steel Plates shall conform to AASHTO M-183 and shall be galvanized conforming to AASHTO M-111.

Bolts, Nuts, and Washers shall be in accordance with Article 505 of the Standard Specification and shall be galvanized.

All handrail dimensions shall be verified by contractor prior to fabrication of pipe handrail, based upon final location of mounting bolts.

Handrail shall conform to Section 510 with the exception that all pipe and connections shall be welded galvanized or aluminum according to Article 1006.27, 1006.30, or 1000.34

The diameter of the gripping surface of the handrail shall be 1'-1/4" to 1-1/2"

Ends of handrail shall be rounded.

Hand & Safety Rails shall not rotate within their fittings.

Gripping surfaces shall be uninterrupted by Newel Posts, other construction elements, or obstructions.

See pipe Handrail Detail Sheet for more information.

See Plan & Profile Sheet for more information.

See Cross Section Sheet for more information.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

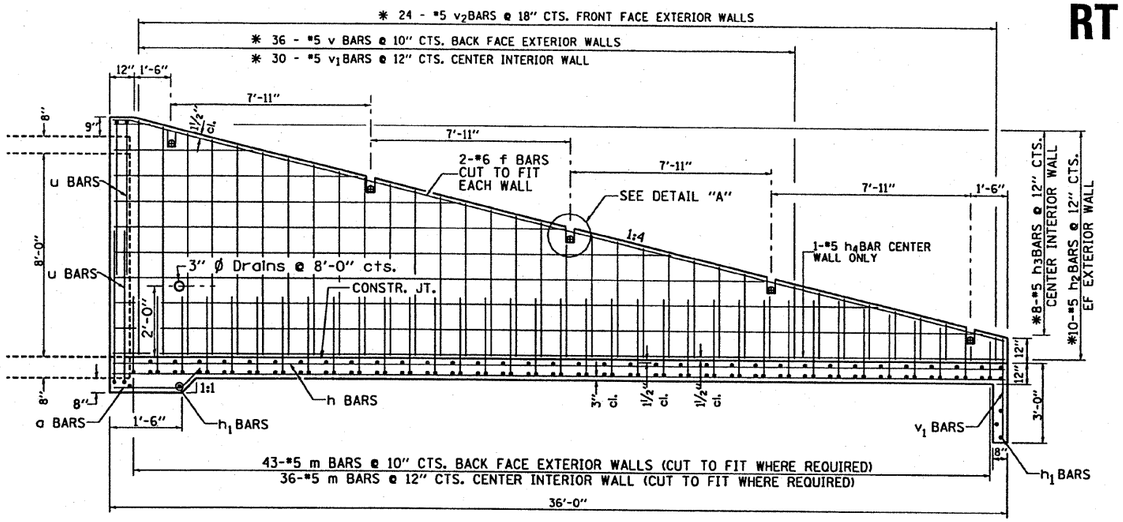
CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	36
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

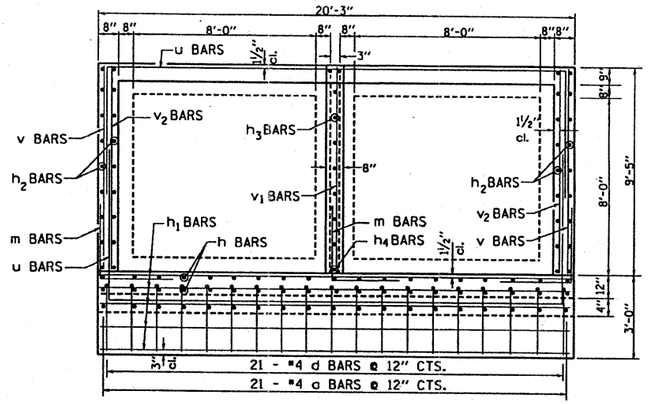
SHEET 1 OF 2

8'x8' Double Box Culvert End Section

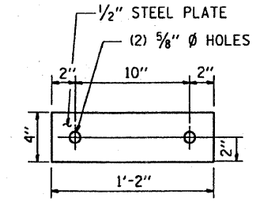
RT 1211+65



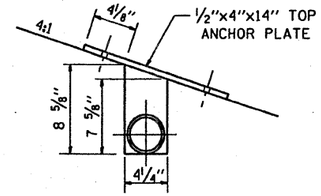
PROFILE VIEW



HEADWALL

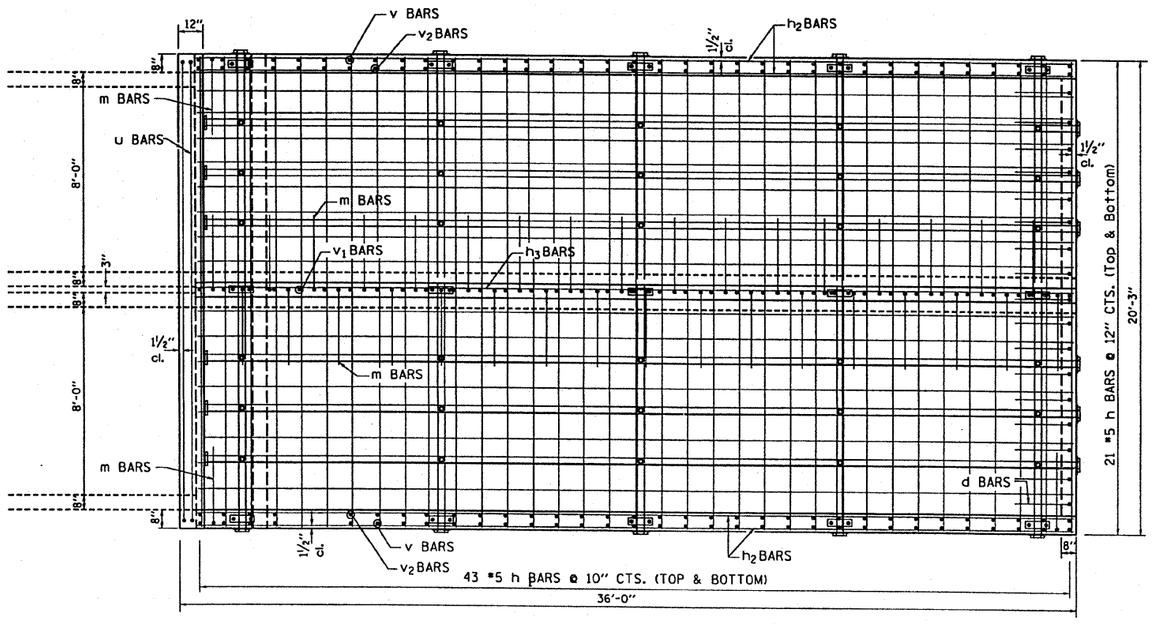


TOP ANCHOR PLATE

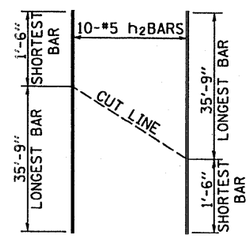


DETAIL "A"

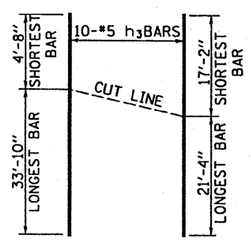
* *bars shall be ordered full length & cut to fit. Balance of bar to be used in opposite side of end section.*



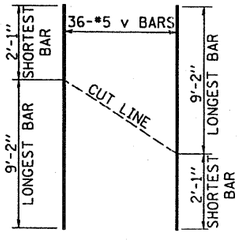
PLAN VIEW



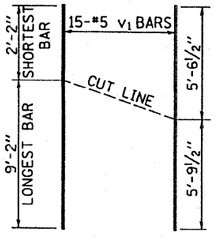
BAR h_2 CUT DIAGRAM



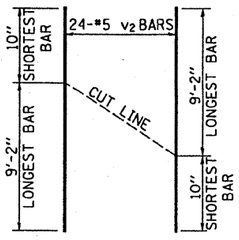
BAR h_3 CUT DIAGRAM



BAR v CUT DIAGRAM



BAR v_1 CUT DIAGRAM



BAR v_2 CUT DIAGRAM

JAMES D. HAMILTON
081-003666
LICENSED STRUCTURAL ENGINEER OF JACKSONVILLE, ILLINOIS

James D. Hamilton
1/23/2008
Expires: 11/30/2008

PLOT DATE = 1/23/2008
FILE NAME = V:\Bridge\2244-1\1\Drop Box & End Section - to 1007.dgn
PLOT SCALE = 184.7248 '/ IN.
USER NAME = scody

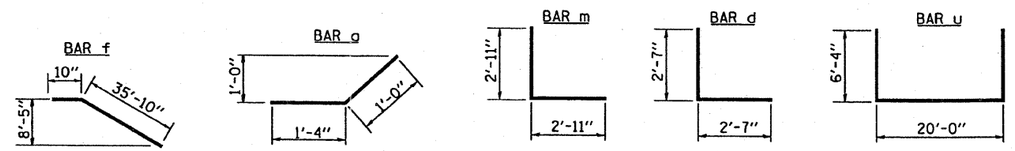
8' X 8' DOUBLE BOX CULVERT END SECTION DETAIL

CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	37
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHEET 2 OF 2

8'x8' Double Box Culvert End Section
RT 1211+65



GENERAL NOTES:

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr. 60 (IL Modified). See Special Provisions.

See Plan and Profile Sheet for more information.
See Cross Section Sheet for more information.

This work shall be done according to the applicable portions of 503, 508, and 540 of the Standard Specifications.

Exposed Edges shall be beveled $\frac{3}{4}$".

The Contract unit price "CU YD" for Concrete Structures shall include the Expansion Bolts, Galvanized Pipe, Anchor Bolts, Bolts, Nuts, Washers, Steel Plates, Earth Excavation where required, and necessary grading to fit the inlet as shown in the cross section or to the slope.

Bolts, Nuts, and Washers shall be in accordance with Article 505 of the Standard Specification and shall be galvanized.

Steel Pipes shall conform to A.S.T.M. A-53 Grade B or A.S.T.M. A501, and shall be galvanized conforming to AASHTO M111, and A.S.T.M. A385. Contractor shall field verify pipe length.

Slope Flow Line of the extension at the same rate as the Flow Line of the box.

Steel Plates shall conform to AASHTO M-183 and shall be galvanized conforming to AASHTO M-111.

BILL OF MATERIALS
(For Information Only)

BAR	NO.	SIZE	LENGTH	SHAPE
a	21	5	2'-4"	
d	21	5	5'-8"	
f	6	6	36'-8"	
h	42	5	34'-9"	
h_1	89	5	20'-0"	
h_2	20	5	37'-3"	
h_3	4	5	38'-6"	
h_4	1	5	34'-9"	
m	122	5	5'-10"	
u	4	5	32'-8"	
v	36	5	11'-3"	
v_1	15	5	11'-4"	
v_2	24	5	11'-0"	
CONCRETE STRUCTURES			CU YD	42.9
REINFORCEMENT BARS			LB	6510

DESCRIPTION	UNIT	QTY.
	5ø	20'-7"
3.5" GALVANIZED STEEL PIPE	6ø	35'-6"
3.5" GALVANIZED PIPE CAPS	EACH	22
1/2"x4"x14" GALVANIZED STEEL PLATE	EACH	15
5/8"x9" GALVANIZED STEEL BOLTS	EACH	30

PLOT DATE = 1/23/2008
FILE NAME = V:\Bridge\3244-14\D-rep Box & End Section - to IDOT.dgn
PLOT SCALE = 184.7248 ' / IN.
USER NAME = tcady

8' X 8' DOUBLE BOX CULVERT END SECTION DETAIL

B.M.- NGS Monument Sta 1227+20, 98' Lt., Elev. 932.49
Existing Structure- 008-1029. Built in 1925 as SBI 27, Section 15 at Station 1239+74 as a single-cell, 8x5 cast-in-place RC box culvert, 30'-0" face-to-face of curb with a culvert length of 31'-4". Existing culvert is to be filled. Traffic to be maintained utilizing stage construction.

No Salvage

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STA. 1240 + 74
6'x5' DOUBLE BOX CULVERT

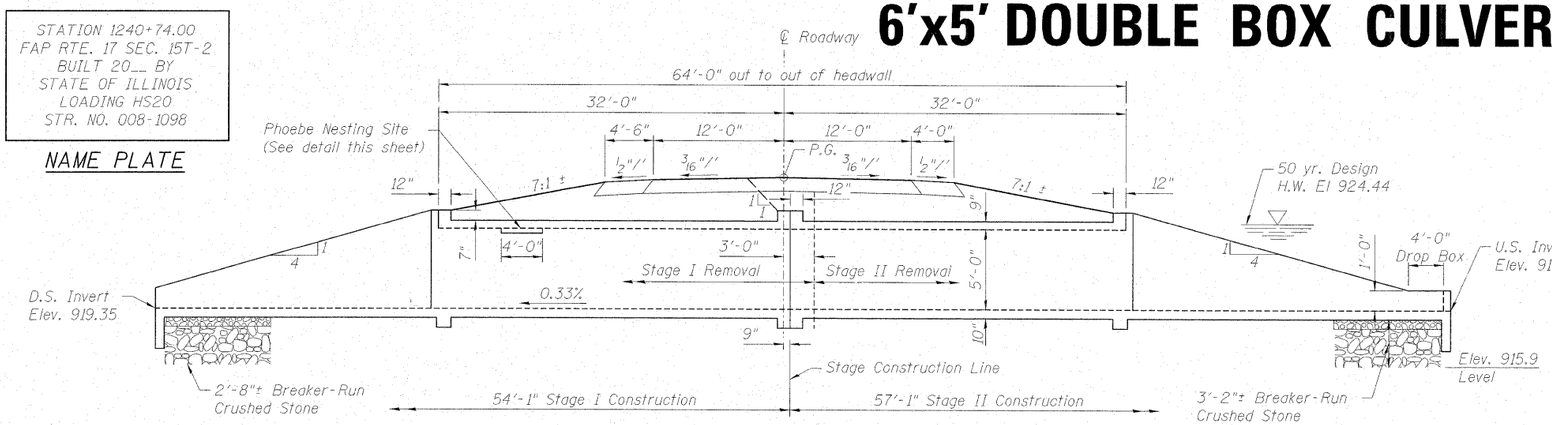
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 17	15T-2	CARROLL	71	38
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 1
6 SHEETS

Contract # 64C35

STATION 1240+74.00
FAP RTE. 17 SEC. 15T-2
BUILT 20__ BY
STATE OF ILLINOIS
LOADING HS20
STR. NO. 008-1098

NAME PLATE

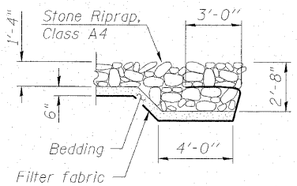


ELEVATION VIEW

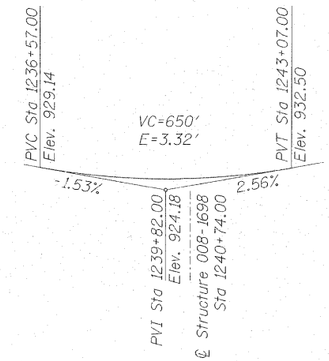
Dimensions are at right angles to ℄ Roadway
Looking West

Notes:
The limits and quantities of removal and replacement shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface conditions encountered in the field.

The Breaker-Run Crushed Stone shall be capped with 6 in. of CA7 and satisfy the Standard Specifications unless otherwise indicated in the Special Provisions. The cost of the capping material shall be included in the pay item for "Breaker-Run Crushed Stone".

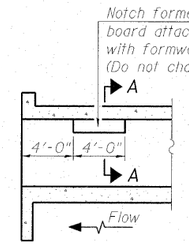


SECTION B-B



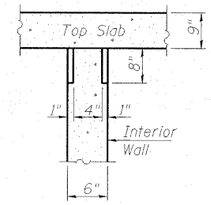
PROFILE GRADE

F.A.P. 17 (IL 64/US 52)
(Along ℄ of Roadway)



LONGITUDINAL SECTION

Notch formed by rough finished board attached to and removed with formwork, interior wall. (Do not chamfer).



SECTION A-A

PHOEBE NESTING SITE DETAILS

(Downstream End Only)

INDEX OF SHEETS

DESIGN SPECIFICATIONS

2002 AASHTO

LOADING HS 20-44

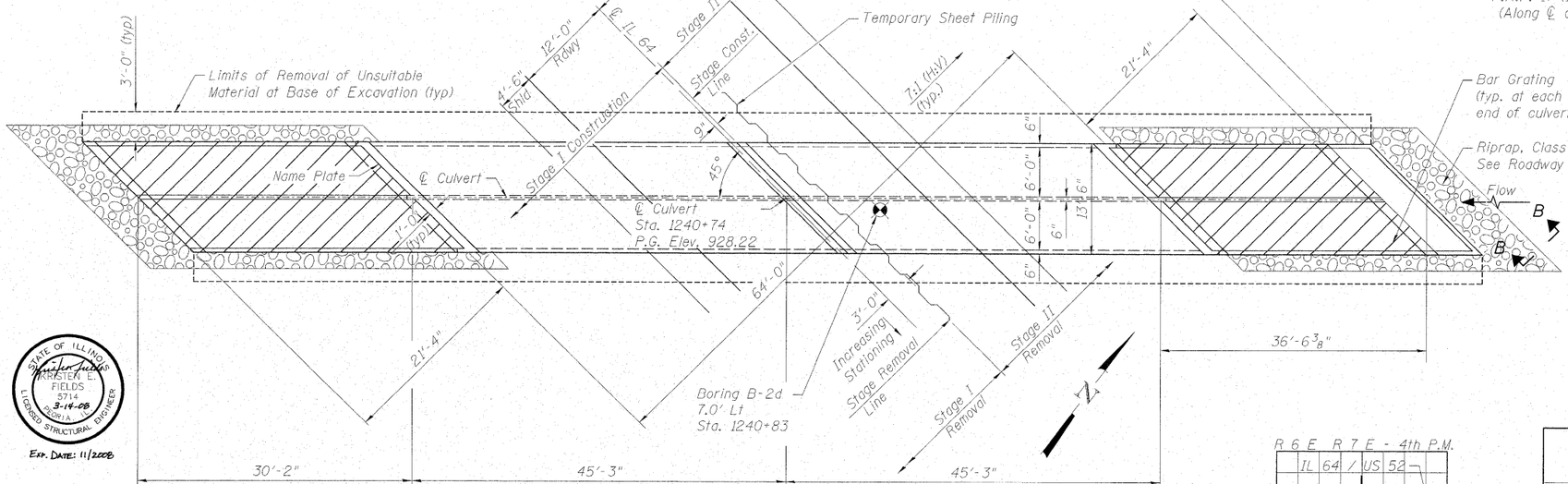
Allow 50#/sq. ft. for future wearing surface

DESIGN STRESSES

fy = 60,000 psi
f'c = 3,500 psi

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60, (IL modified). See Special Provisions.
2. For staging details, see sheet 2 of 6.
3. Precast alternate is not allowed.



PLAN VIEW

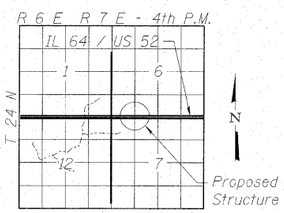
TOTAL BILL OF MATERIAL

PAY CODE	ITEM	UNIT	TOTAL
*20201200	Removal and Disposal of Unsuitable Material	Cu. Yd.	330
28100107	Stone Riprap, Class A4	Sq. Yd.	59
28200200	Filter Fabric	Sq. Yd.	59
50800105	Reinforcement Bars	Pound	23,260
*51205200	Temporary Sheet Piling	Sq. Ft.	1711
51500100	Name Plates	Each	1
54003000	Concrete Box Culverts	Cu. Yd.	142.9
*Z0005400	Breaker Run Crushed Stone	Ton	494
*Z0023600	Filling Existing Culvert	Each	1

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Upstream	Downstream
	916.86	916.35

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



LOCATION SKETCH

WATERWAY INFORMATION

Drainage Area = 280.4 ac
Existing and Proposed Low Grade Elev. 927.2 @ Sta. 1238+94.1

Flood	Freq. Yr.	Q C.F.S.	Headwater El. Exist.	Headwater El. Prop.
	10	155	923.55	922.76
Design	50	317	926.04	924.44
Ex Overtopping	85	381	927.21	
Base	100	418		925.35
Pr Overtopping	263	600		927.21

10-year velocity through existing culvert: 8.5 fps
10-year velocity thorugh proposed culvert: 7.4 fps

GENERAL PLAN & ELEVATION
IL ROUTE 64/US ROUTE 52
OVER UNNAMED TRIBUTARY
TO STRADDLE CREEK
FAP 17 - SECTION 15T-2
CARROLL COUNTY
STATION 1240+74
STRUCTURE NO. 008-1098

STATE OF ILLINOIS
KRISTEN E. FIELDS
5714
3-14-08
LICENSED STRUCTURAL ENGINEER
EXP. DATE: 11/2008

DESIGNED	BAS
CHECKED	-
DRAWN	LAD
CHECKED	BAS

MAURER ▲ STUTZ, INC.
ENGINEERS SURVEYORS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 17	15T-2	CARROLL	71	39
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 2
6 SHEETS

Contract # 64C35

STA. 1240 + 74
6'x5' DOUBLE BOX CULVERT

LEGEND

Indicates removal of existing

STAGE I REMOVAL

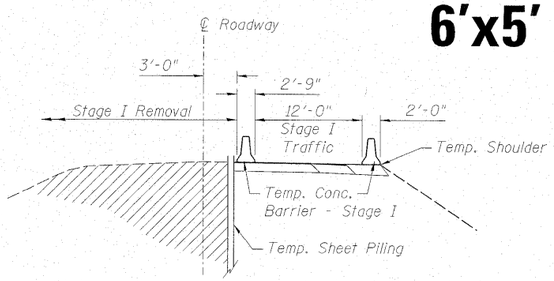
Construct temporary shoulder on north side of roadway as shown.

Install Temporary Concrete Barriers as shown to provide a single lane of traffic on the north side of the roadway.

Remove the pavement within the Stage I Removal limits.

Install Temporary Sheet Piling as shown.

Excavate embankment south of the Temporary Sheet Piling as required for construction of the new box culvert.



STAGE I REMOVAL
Looking West

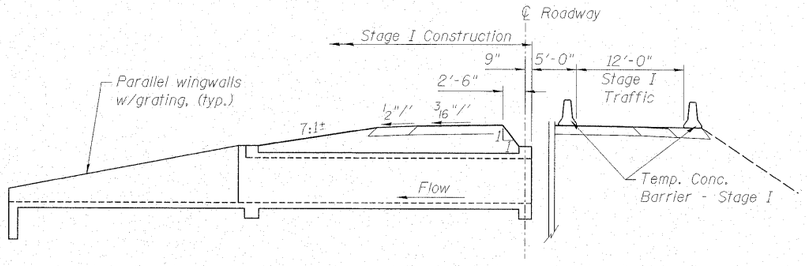
STAGE I CONSTRUCTION

Construct new box culvert to limits shown.

Install additional sheet piling outside the limits of the proposed culvert from the sheet piling to the constructed portion of the new culvert.

Place required backfill behind completed portion of box culvert for construction of roadway.

Construct proposed embankment and proposed roadway on south side of road as shown.



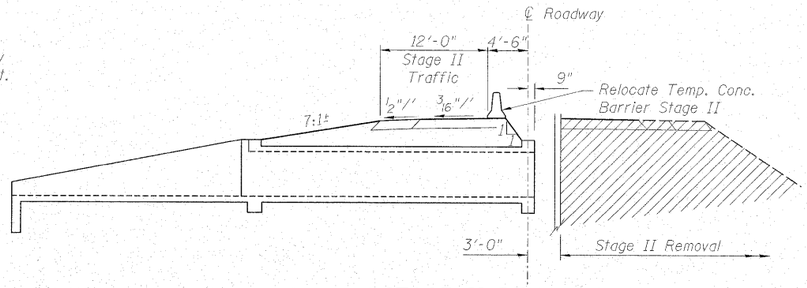
STAGE I CONSTRUCTION
Looking West

STAGE II REMOVAL

Reuse Temporary Concrete Barriers as shown to allow a single lane of traffic on west portion of new roadway completed in Stage I.

Excavate remainder of the embankment north of the Temporary Sheet Piling as needed for construction of the new box culvert.

Remove portion of sheet piling within the limits of the new box culvert as needed for construction of the culvert.



STAGE II REMOVAL
Looking West

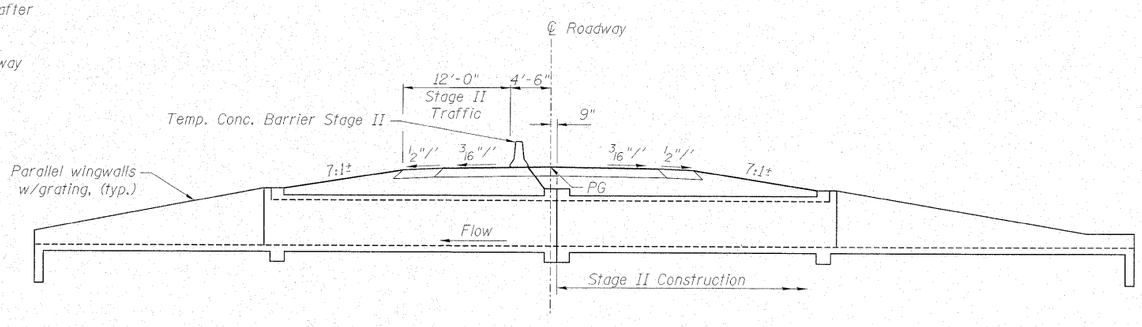
STAGE II CONSTRUCTION

Construct new box culvert to limits shown.

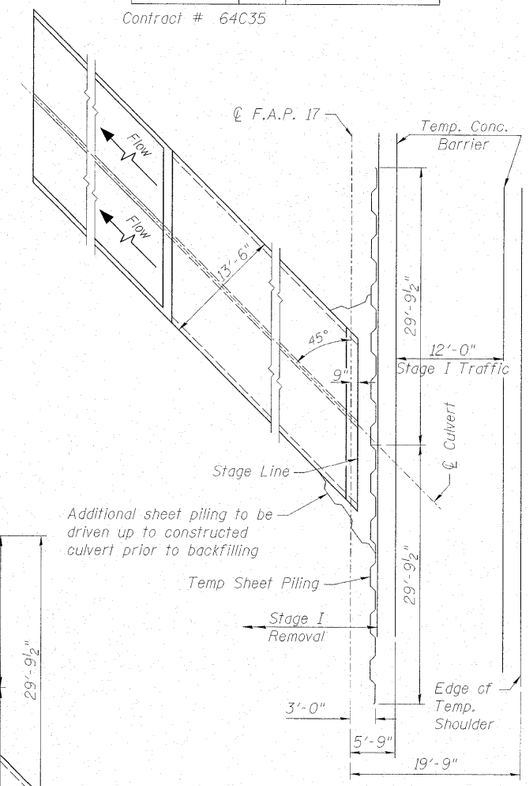
Complete required backfill behind box culvert for construction of roadway.

Remove Temporary Sheet Piling and timber lagging after completion of Stage II Construction.

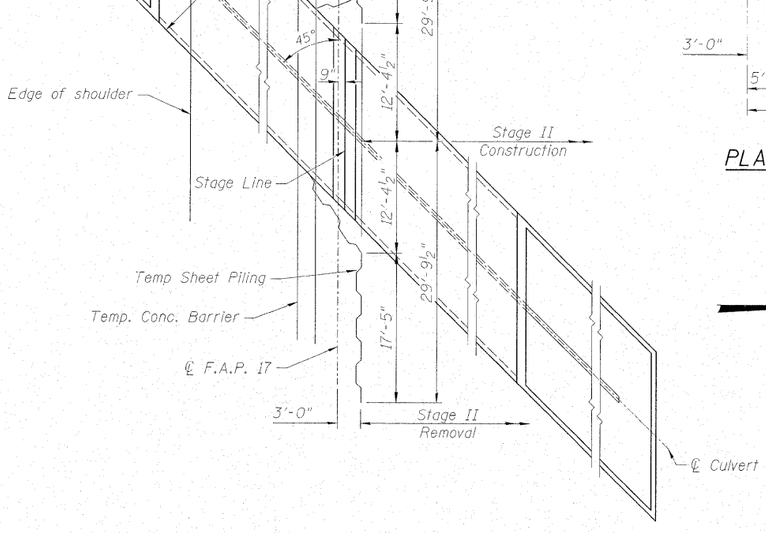
Construct proposed embankment and proposed roadway on north side of road as shown.



STAGE II CONSTRUCTION
Looking West



PLAN - STAGE I
(NTS)



PLAN - STAGE II
(NTS)

MAURER & STUTZ, INC.
ENGINEERS SURVEYORS

DESIGNED	- BAS
CHECKED	- KEF
DRAWN	- LAD
CHECKED	- RJA

STAGE CONSTRUCTION DETAILS
IL ROUTE 64/US ROUTE 52
OVER UNNAMED TRIBUTARY
TO STRADDLE CREEK
FAP 17 - SECTION 15T-2
CARROLL COUNTY
STATION 1240+74
STRUCTURE NO. 008-1098

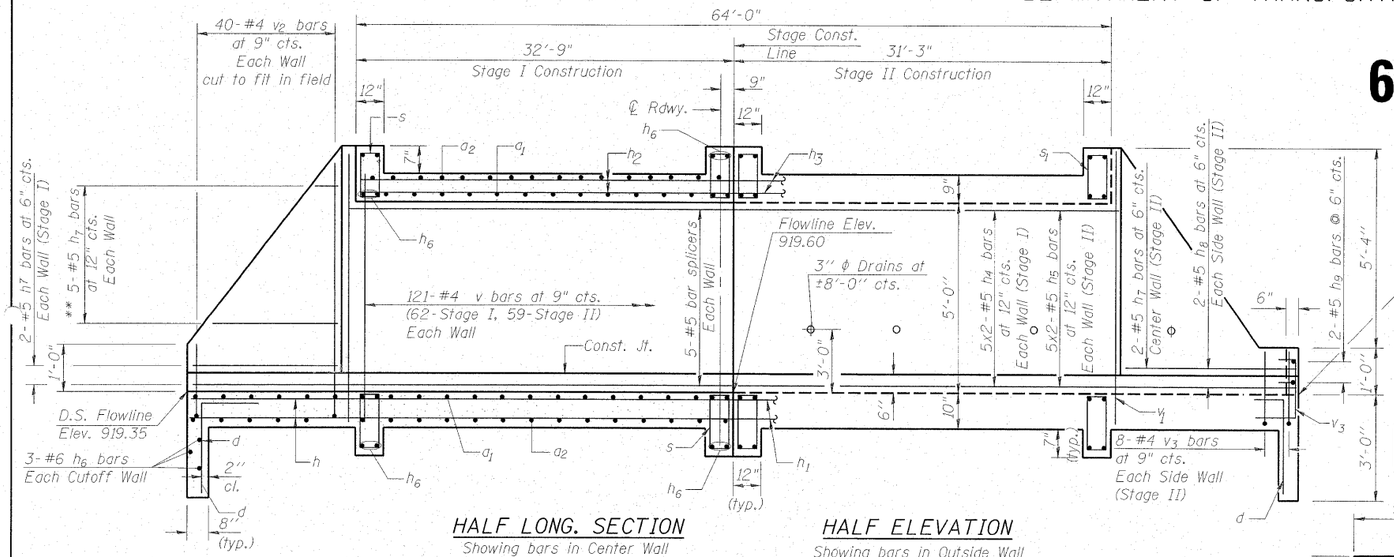
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 17	15T-2	CARROLL	71	40
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 3
6 SHEETS

Contract # 64C35

STA. 1240 + 74
6'x5' DOUBLE BOX CULVERT



HALF LONG. SECTION
Showing bars in Center Wall

HALF ELEVATION
Showing bars in Outside Wall

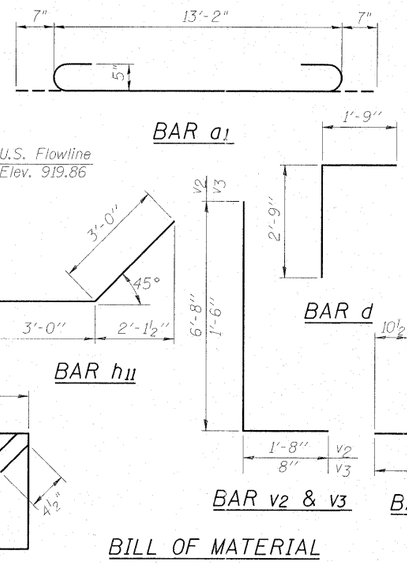
* a_2 bars in skew portion of slab shall be ordered full length & cut to fit. Balance of bar to be used in opposite end of staged culverts.

** order h_7 bars full length and cut to fit in Stage I. Balance of bar to be used in Stage II walls.

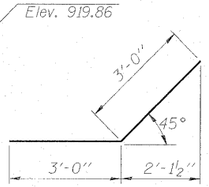
Dimensions are at right angles to ℄ Roadway

MIN. BAR LAP

#4 bar	1'-4"
#5 bar	1'-8"
#6 bar	2'-0"



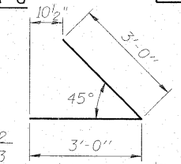
BAR a_1



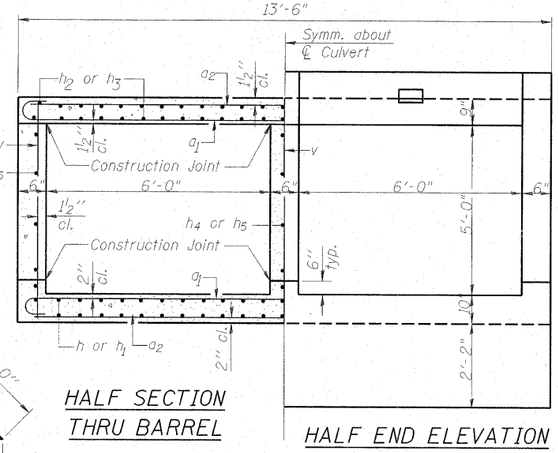
BAR h_{11}

BAR v_2 & v_3

BAR d

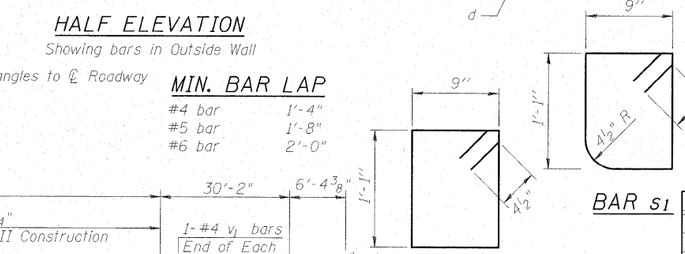


BAR h_{10}



HALF SECTION THRU BARREL

HALF END ELEVATION

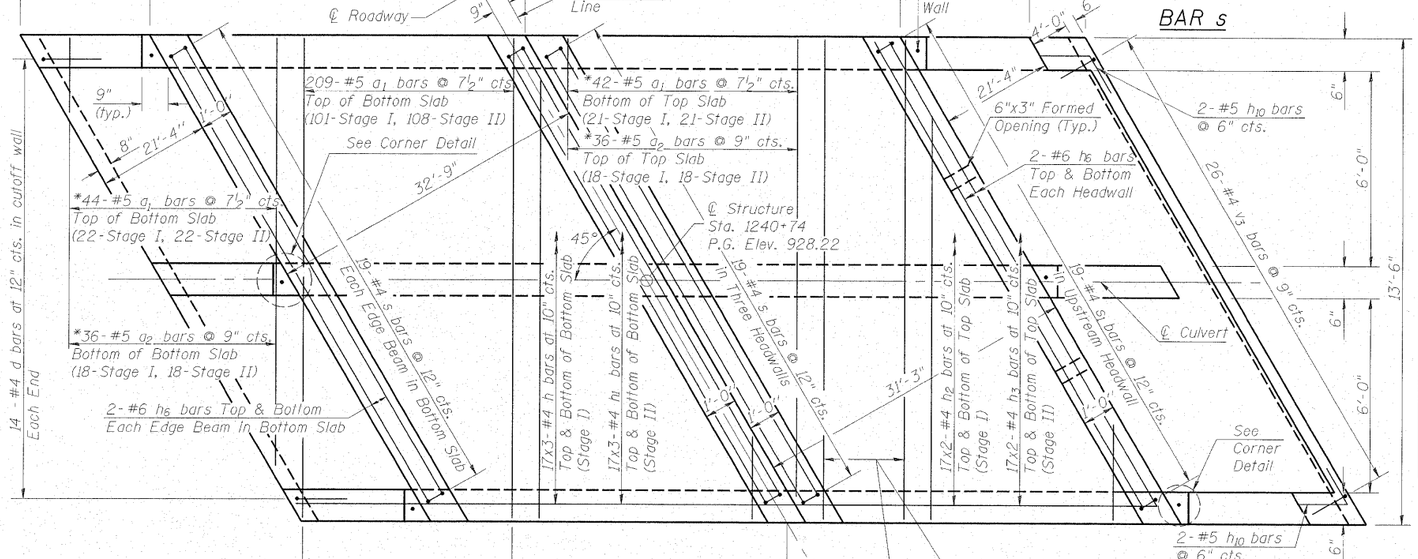


BAR s_1

BAR s

BILL OF MATERIAL

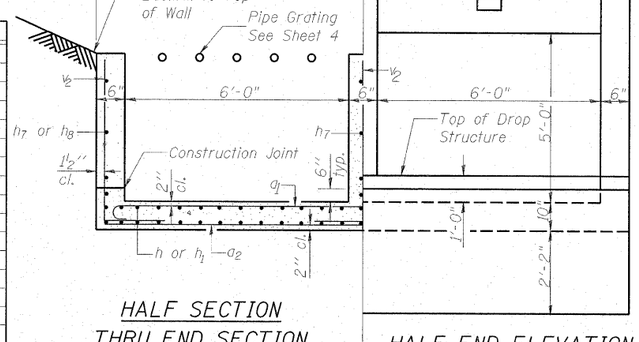
Bar	No.	Size	Length	Shape
a_1	398	#5	14'-4"	
a_2	331	#5	13'-2"	
d	28	#4	4'-6"	
h	102	#4	26'-5"	
h_1	102	#4	27'-10"	
h_2	68	#4	23'-10"	
h_3	68	#4	22'-9"	
h_4	30	#5	24'-5"	
h_5	30	#5	23'-4"	
h_6	38	#6	18'-9"	
h_7	23	#5	29'-4"	
h_8	4	#5	35'-9"	
h_9	2	#5	18'-9"	
h_{10}	2	#5	6'-0"	
h_{11}	2	#5	6'-0"	
s	133	#4	4'-5"	
s_1	19	#4	4'-5"	
v	363	#4	6'-3"	
v_1	6	#4	6'-10"	
v_2	240	#4	8'-4"	
v_3	42	#4	2'-2"	
Concrete Box Culverts			Cu. Yd.	142.9
Reinforcement Bars			Pound	23260



SHOWING REINF. (In Bottom Slab)

PLAN

SHOWING REINF. (In Top Slab)



HALF SECTION THRU END SECTION

HALF END ELEVATION
Showing Upstream Drop Structure

NOTES

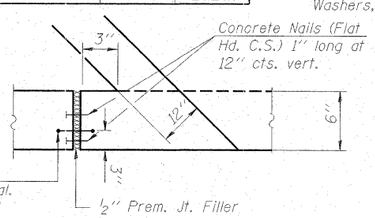
Reinforcement Bars shall conform to the requirements of ASTM A706, Grade 60, (IL modified.)

Bars indicated thus 12 x 4-#5 etc. indicates 12 lines of bars with 4 lengths per line.

All construction joints shall be bonded.

Class "SI" Concrete shall be used.

The contract unit price per Cu. Yd. for Concrete Box Culverts shall include the Expansion Bolts, J Bolts, Rebar Splicers, Anchor Bolts, Bolts, Nuts, Washers, Steel Plates, Earth Excavation and Backfilling as required.



CORNER DETAIL

DESIGNED	BAS
CHECKED	-
DRAWN	JDS
CHECKED	BAS

MAURER & STUTZ, INC. ENGINEERS SURVEYORS

CULVERT DETAILS
IL ROUTE 64/US ROUTE 52
OVER UNNAMED TRIBUTARY
TO STRADDLE CREEK
FAP 17 - SECTION 15T-2
CARROLL COUNTY
STATION 1240+74
STRUCTURE NO. 008-1098

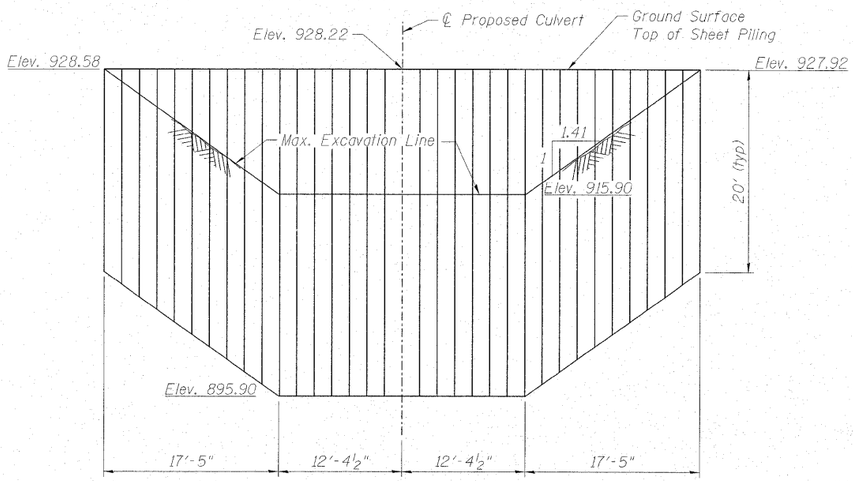
STA. 1240 + 74
6'x5' DOUBLE BOX CULVERT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 17	15T-2	CARROLL	71	41
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

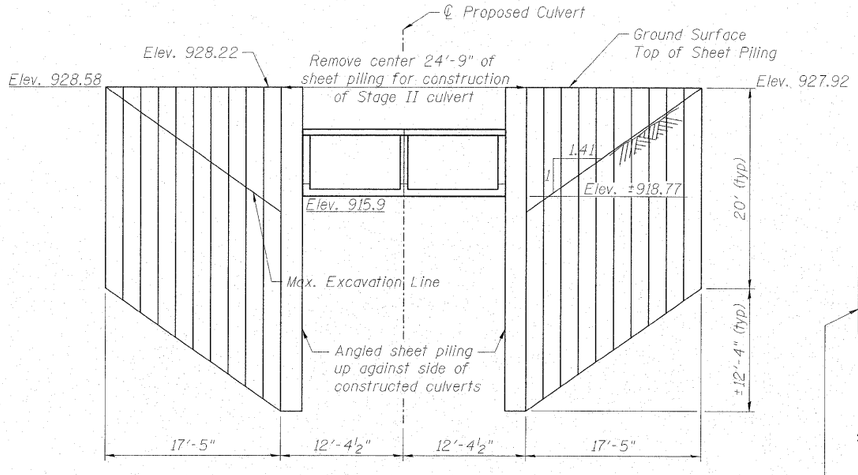
SHEET NO. 4
6 SHEETS

Contract # 64C35



STAGE I TEMPORARY SHEET PILING DETAIL

Looking South



STAGE II TEMPORARY SHEET PILING DETAIL

Looking South

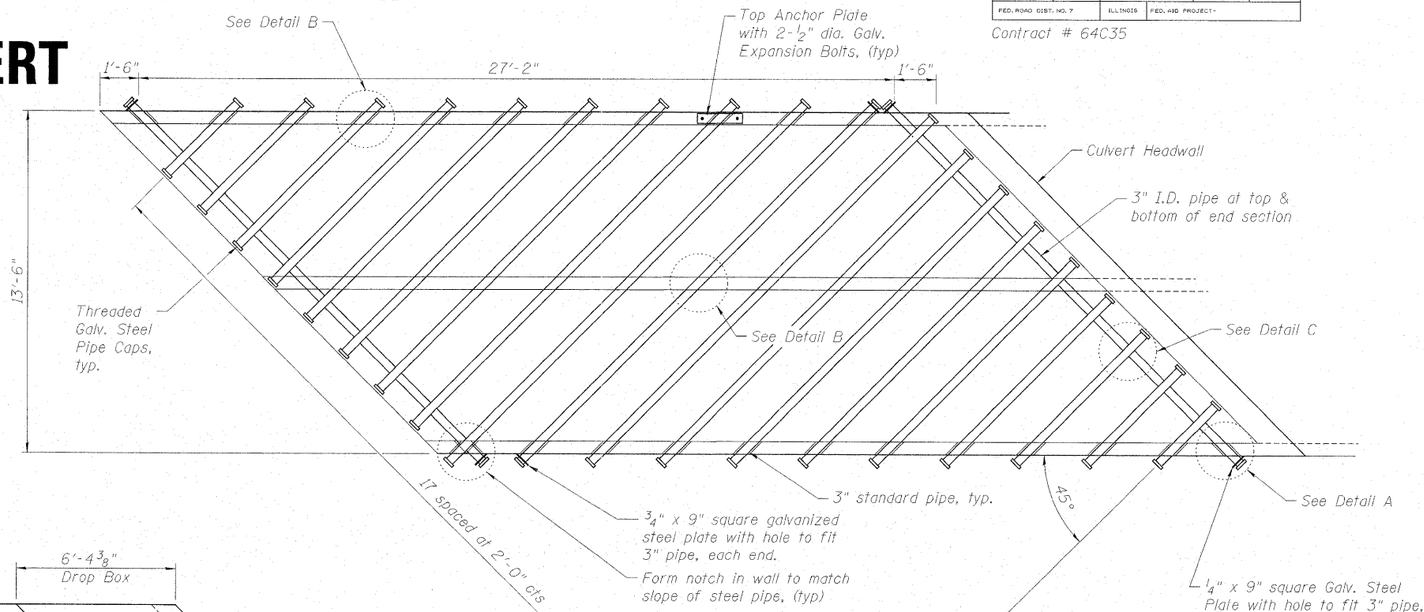
MAURER ▲ STUTZ, INC.
ENGINEERS SURVEYORS

DESIGNED	- BAS
CHECKED	-
DRAWN	- LAD
CHECKED	-

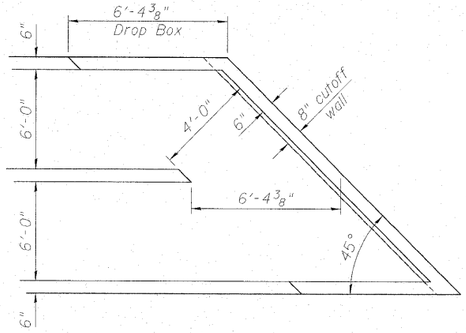
NOTE:
If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.

TEMPORARY SHEET PILING DATA

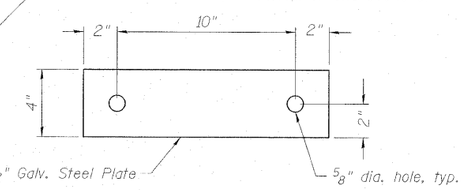
Embedment : 20'-0" beyond max. excavation
Min. Section Modulus : 28.6 in^3/ft
F_y : 38,500 psi



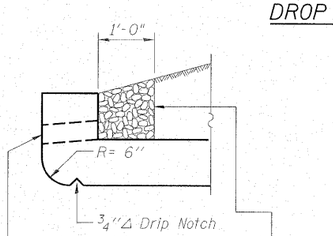
GRATING PLAN



DROP BOX PLAN

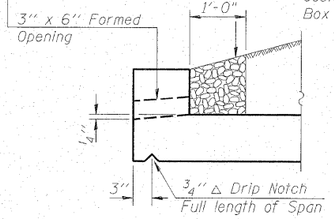


TOP ANCHOR PLATE



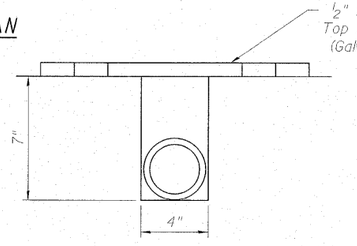
AT UPSTREAM END

Coarse aggregate full length of both headwalls. To be placed by Grading Contractor. Cost included with Concrete Box Culverts.

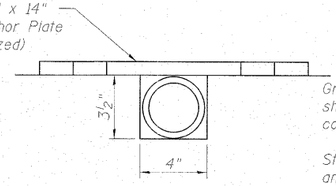


AT DOWNSTREAM END

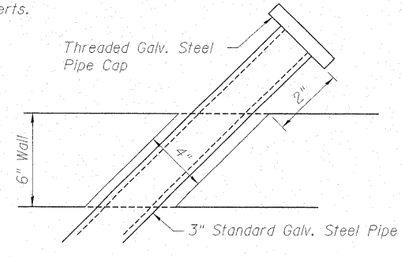
DRAIN DETAIL



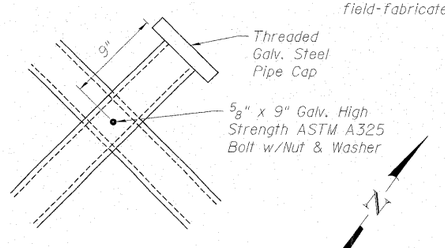
DETAIL A



DETAIL B



TYP. PIPE END DETAIL



DETAIL C

GRATING NOTES

Grating shall include the pipes, plates, and expansion bolts as shown for one end section and shall be included in the contract unit price per Cu. Yd. for Concrete Box Culverts.

Steel pipes shall conform to ASTM A53, Grade B, Schedule 40, and shall be galvanized conforming to ASTM A120.

Steel plates shall conform to AASHTO M-183 and shall be galvanized conforming to AASHTO M-111.

Bolts, nuts, and washers shall be in accordance with Article 1006.08 of the Standard Specifications and shall be galvanized.

Contractor shall provide galvanizing for holes, threads, ect. for field-fabricated grate assembly.

TEMPORARY SHEET PILING
AND GRATE DETAILS
IL ROUTE 64/US ROUTE 52
OVER UNNAMED TRIBUTARY
TO STRADDLE CREEK
FAP 17 - SECTION 15T-2
CARROLL COUNTY
STATION 1240+74
STRUCTURE NO. 008-1098

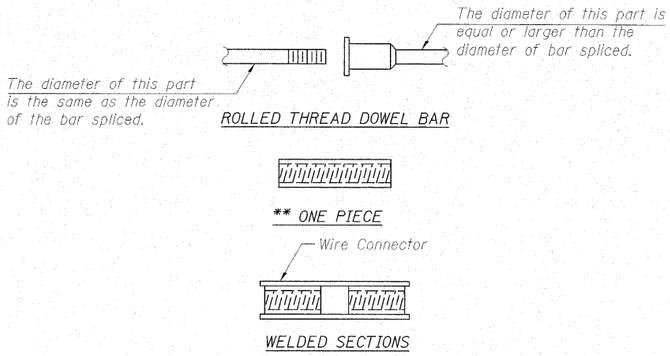
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 17	15T-2	CARROLL	71	42
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 5
6 SHEETS

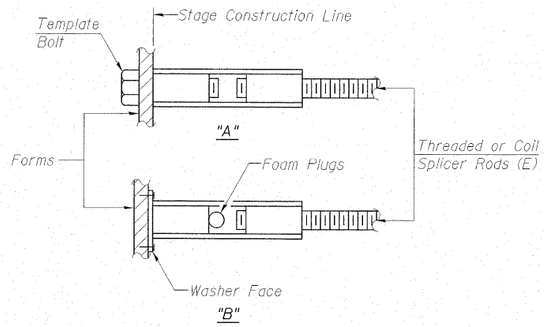
Contract # 64C35

STA. 1240 + 74
6'x5' DOUBLE BOX CULVERT



BAR SPLICER ASSEMBLY ALTERNATIVES

**Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.

All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

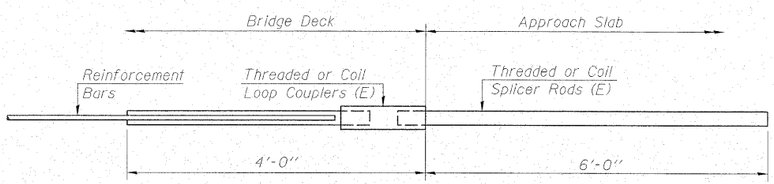
① Minimum Capacity (Tension in kips) = 1.25 x fy x A_t

② Minimum *Pull-out Strength (Tension in kips) = 0.66 x fy x A_t

Where fy = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

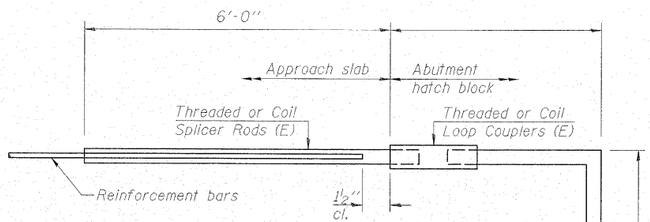
BAR SPLICER ASSEMBLIES

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



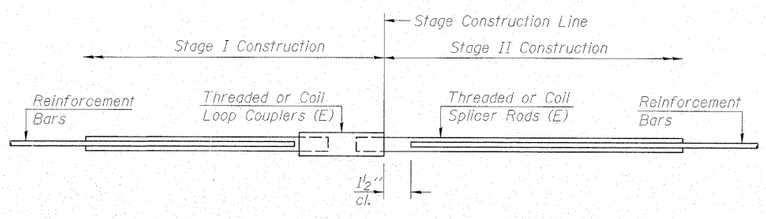
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



STANDARD

Bar Size	No. Assemblies Required	Location
#5	15	walls @ stage line
#4	34	top slab @ stage line
#4	34	bottom slab @ stage line

DESIGNED	BAS
CHECKED	-
DRAWN	JDS
CHECKED	BAS

MAURER & STUTZ, INC. ENGINEERS SURVEYORS

BSD-1 11-1-06

BAR SPLICER ASSEMBLY DETAILS
IL ROUTE 64/US ROUTE 52
OVER UNNAMED TRIBUTARY TO STRADDLE CREEK
FAP 17 - SECTION 15T-2
CARROLL COUNTY
STATION 1240+74
STRUCTURE NO. 008-1098

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

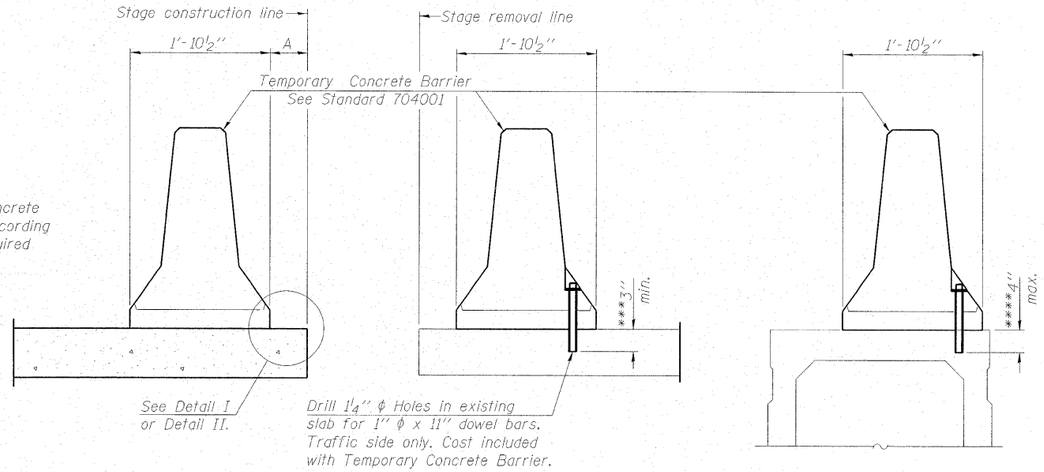
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 17	15T-2	CARROLL	71	43
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 6
6 SHEETS

Contract # 64C35

STA. 1240 + 74
6'x5' DOUBLE BOX CULVERT

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



NEW SLAB | EXISTING SLAB | EXISTING DECK BEAM

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel ℄ to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel ℄ to the concrete slab or concrete wearing surface with 2-⅝"ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

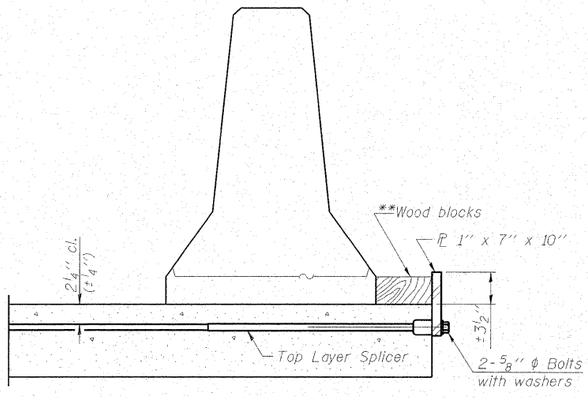
Cost of anchorage is included with Temporary Concrete Barrier.

The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

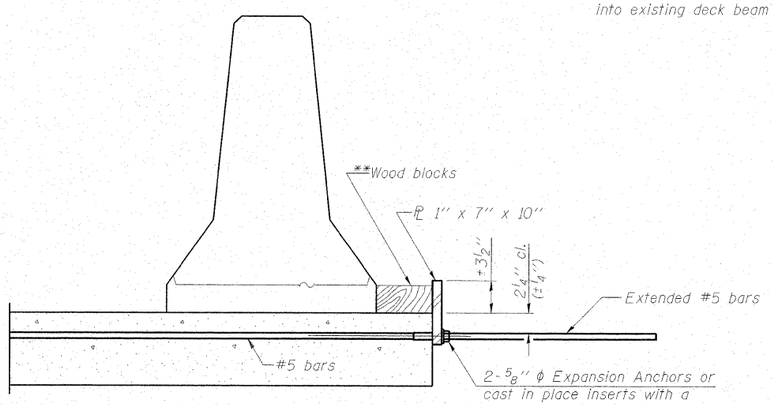
SECTIONS THRU SLAB OR DECK BEAM

***Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

****If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.

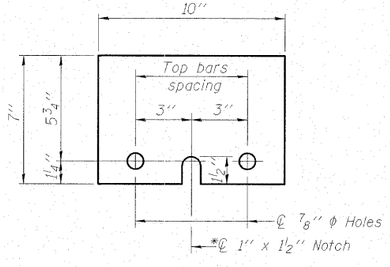


DETAIL I



DETAIL II

**Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.



STEEL RETAINER ℄ 1" x 7" x 10"

* Required only with Detail II

DESIGNED	BAS
CHECKED	-
DRAWN	JDS
CHECKED	BAS

MAURER ▲ STUTZ, INC. ENGINEERS SURVEYORS

R-27

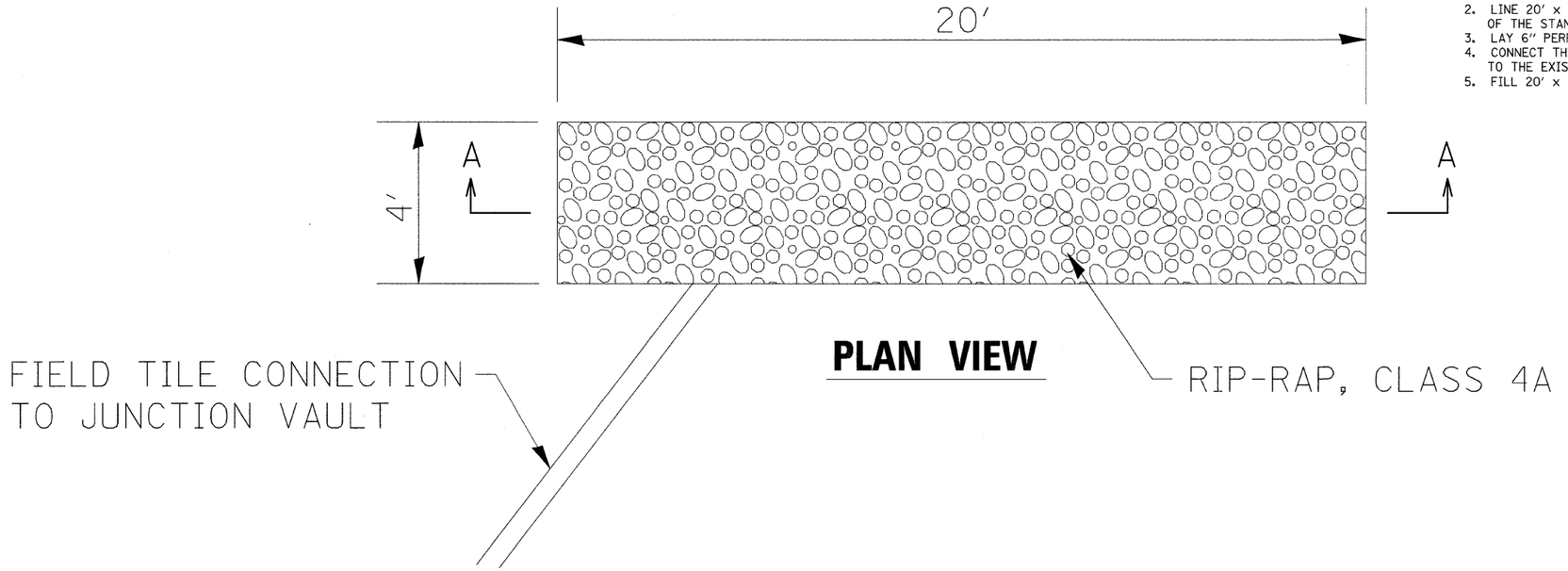
9-3-07

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
IL ROUTE 64/US ROUTE 52
OVER UNNAMED TRIBUTARY
TO STRADDLE CREEK
FAP 17 - SECTION 15T-2
CARROLL COUNTY
STATION 1240+74
STRUCTURE NO. 008-1098

CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	44
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FRENCH DRAIN DETAIL



PLAN VIEW

NOTES

1. DIG TRENCH 20' x 4' AND TRENCH TO CONNECT WITH JUNCTION VAULT.
2. LINE 20' x 4' TRENCH WITH GEOTECHNICAL FABRIC PER SECTION 601 OF THE STANDARD SPECIFICATIONS.
3. LAY 6" PERFORATED PIPE PER SECTION 601 OF THE STANDARD SPECIFICATIONS.
4. CONNECT THE END OF PERFORATED PIPE TO FIELD TILE. CONNECT FIELD TILE TO THE EXISTING FIELD TILE OR JUNCTION VAULT IF NEEDED.
5. FILL 20' x 4' TRENCH WITH RIPRAP PER SECTION 601 OF THE STANDARD SPECIFICATIONS.

GENERAL NOTES

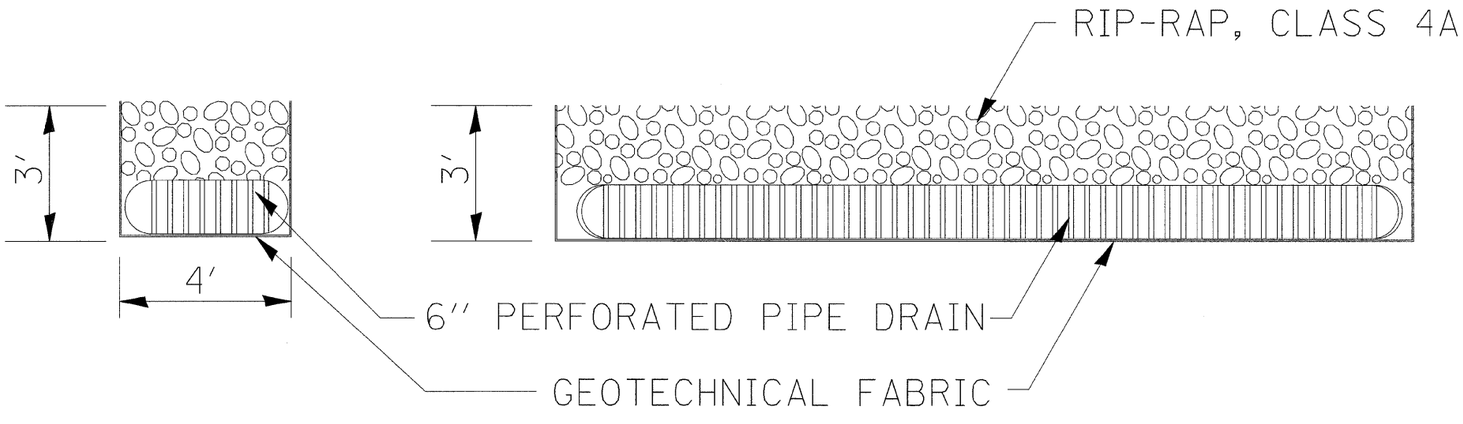
THIS WORK SHALL BE DONE IN ACCORDANCE TO SECTION 601 OF THE STANDARD SPECIFICATIONS.

THE CONTRACT UNIT PRICE "CU YD" FOR FRENCH DRAIN SHALL INCLUDE THE TRENCH EXCAVATION, GEOTECHNICAL FABRIC, PERFORATED DRAIN PIPE, RIP-RAP, AND THE FIELD TILE CONNECTION BETWEEN THE FRENCH DRAIN AND JUNCTION VAULT.

ELEVATIONS TO BE VERIFIED DURING CONSTRUCTION USING EXPLORATION TRENCH. FRENCH DRAIN TO BE BUILD TO ALLOW PROPER WATER FLOW TO THE EXISTING FIELD TILE.

BILL OF MATERIALS

PAY CODE	ITEM	UNIT	TOTAL
60100060	FRENCH DRAIN	CU YD	9



SIDE VIEW

SECTION A–A

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.

DATE

DRAWN BY

CHECKED BY

FRENCH DRAIN DETAIL

PLOT DATE = Mon Jan 28 07:47:11 2008
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PLOT SCALE = 64.0000 '/ IN.
USER NAME = hernanke

CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	45
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BORING LOGS

Illinois Department of Transportation — SOIL BORING LOG (B-1b)

Division of Highways
IDOT

Page 1 of 1

Date 6/12/06

ROUTE FAP 17 DESCRIPTION P92-078-06 Box culvert, IL 64 over a ditch, .2 m. W. of Shannon Road LOGGED BY W. Garza

SECTION 15 T-2 LOCATION Rock Creek Twp. - 1 SE, SEC. , TWP. 24N, RNG. 6E

COUNTY Carroll DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. ______
Station ______

BORING NO. B-1b
Station 19' W
Offset 9.00ft S CL
Ground Surface Elev. 99.6 ft

Surface Water Elev. ______ ft
Stream Bed Elev. 90.0 ft

Groundwater Elev.:
First Encounter 87.1 ft ▼
Upon Completion ______ ft
After 24 Hrs. 95.6 ft ▽

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
14" Asphalt & Concrete SOFT brown SILTY CLAY LOAM	97.10			0.4 P	25
STIFF brown SILTY CLAY LOAM	95.60 ▽	-5	3 3 6	2.1 P	22
MEDIUM dark brown SILTY LOAM	93.10		1 1 1	0.6 P	37
SOFT dark brown SILTY LOAM with 17% ORGANICS	90.60	-10	1 1 2	0.3 B	77
MEDIUM gray SILTY CLAY TILL	88.10	▼	1 1 2	.8 P	16
VERY SOFT gray SILTY LOAM TILL	85.60	-15	3 2 4	0.2 B	14
STIFF gray SILTY LOAM TILL	83.10		2 2 3	1.1 B	18
MEDIUM gray SILTY CLAY TILL	80.60	-20	1 2 4	0.8 B	17
STIFF gray SILTY CLAY TILL	78.10		3 3 5	1.2 B	18
STIFF gray SILTY CLAY TILL	75.60	-25	3 3 5	1.0 B	17
STIFF gray SILTY CLAY TILL	73.10		2 3 4	1.1 B	18
STIFF gray SILTY CLAY TILL	70.60	-30	2 4 6	1.7 B	18
STIFF gray SILTY CLAY TILL	68.10		3 5 7	1.4 B	16
STIFF gray SILTY CLAY TILL	65.60	-35	4 5 8	1.5 B	15
STIFF gray SILTY CLAY LOAM TILL	63.10		3 3 6	1.0 B	17
STIFF gray SILTY CLAY LOAM TILL with SAND lens	60.60		2 10 6	1.4 B	14
End of Boring		-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 — SOIL BORING LOG (B-2b)

Division of Highways
IDOT

Page 1 of 2

Date 6/13/06

ROUTE FAP 17 DESCRIPTION P92-078-06 Box culvert, IL 64 over ditch, .2 m. W. of Shannon Road LOGGED BY W. Garza

SECTION 15 T-2 LOCATION Rock Creek Twp. - 1 SE, SEC. , TWP. 24N, RNG. 6E

COUNTY Carroll DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. ______
Station ______

BORING NO. B-2b
Station 24' E
Offset 31.00ft N CL
Ground Surface Elev. 95.3 ft

Surface Water Elev. ______ ft
Stream Bed Elev. 90.0 ft

Groundwater Elev.:
First Encounter 83.3 ft ▼
Upon Completion 78.3 ft ▽
After ______ Hrs. ______ ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
STIFF brown SILTY CLAY LOAM	93.30			1.1 P	35
MEDIUM dark brown SILTY LOAM with 11% ORGANICS	91.80		2 2 2	0.5 P	46
SOFT gray SILTY CLAY	89.30	-5	2 2 2	0.4 B	30
SOFT gray SILTY LOAM	86.80		1 2 2	0.3 B	38
SOFT gray SILTY LOAM with SAND lens	84.30	-10	1 2 3	0.3 B	35
MEDIUM olive green SILTY CLAY TILL	81.80	▼	1 2 2	0.9 B	19
STIFF gray SILTY CLAY TILL	79.30	-15	2 4 4	1.2 B	19
STIFF gray SILTY CLAY TILL with SAND lens	76.30	▽	4 5 7	1.0 B	16
MEDIUM gray fine SAND		-20			
MEDIUM gray fine SAND (continued)	73.80		3 6 10		
STIFF gray SILT with SAND & GRAVEL lens	71.80		13 17 13	1.1 P	20
STIFF gray SILTY CLAY	69.30	-25	4 6 6	1.8 B	27
MEDIUM gray SILTY CLAY	66.80		3 4 6	0.8 B	29
MEDIUM gray SILTY CLAY	64.30	-30	2 3 6	0.6 B	28
VERY SOFT gray SILTY CLAY	61.80		1 2 3	0.2 B	27
SOFT gray SILTY CLAY	59.30	-35	2 2 3	0.3 B	26
	56.80				
		-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)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.
DATE

DRAWN BY
CHECKED BY

PLOT DATE = Mon Jan 28 07:44:30 2008
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PLOT SCALE = 2100.0042 in / IN.
USER NAME = hansonke

BORING LOGS

Illinois Department of Transportation — SOIL BORING LOG

Division of Highways
IDOT

Page 2 of 2

Date 6/13/06

ROUTE FAP 17 DESCRIPTION P92-078-06 Box culvert, IL 64 over ditch, .2 m. W. of Shannon Road LOGGED BY W. Garza

SECTION 15 T-2 LOCATION Rock Creek Twp. - 1 SE, SEC., TWP. 24N, RNG. 6E

COUNTY Carroll DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. ____
Station ____

BORING NO. B-2b
Station 24' E
Offset 31.00ft N CL
Ground Surface Elev. 95.3 ft

Surface Water Elev. ____ ft
Stream Bed Elev. 90.0 ft

Groundwater Elev.:
First Encounter 83.3 ft ▼
Upon Completion 78.3 ft ▽
After ____ Hrs. ____ ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
MEDIUM reddish brown CLAY LOAM TILL with weathered LIMESTONE fragments (continued)	54.30		9 10 11		
End of Boring		-45			
		-50			
		-55			
		-60			

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 — SOIL BORING LOG

Division of Highways
IDOT

Page 1 of 2

Date 6/2/06

ROUTE FAP 17 DESCRIPTION P92-078-06 Box Culvert, IL 64 over a ditch, 0.25 m. E. of Shannon Road LOGGED BY P. Drezen

SECTION 15 T-2 LOCATION Lima Twp. - 6 SW, SEC., TWP. 24N, RNG. 7E

COUNTY Carroll DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. 008-1029
Station 670+92

BORING NO. B-1a
Station 671+09 EB Lane
Offset 8.00ft S CL
Ground Surface Elev. 99.9 ft

Surface Water Elev. ____ ft
Stream Bed Elev. 92.50 ft

Groundwater Elev.:
First Encounter ____ ft
Upon Completion ____ ft
After ____ Hrs. ____ ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Asphalt & Coal (Patch with widening)	97.90				
MEDIUM brown SANDY CLAY LOAM	96.40		2 2 3	0.7 B	29
MEDIUM brown SANDY CLAY LOAM	93.90	-5	1 3 4	0.7 B	33
MEDIUM green SILTY CLAY with ORGANICS	91.40		1 2 4	0.9 B	30
STIFF green SILTY CLAY	88.40	-10	2 2 4	1.0 P	26
MEDIUM dirty SAND	85.90		4 7 7		
MEDIUM green SILTY CLAY	83.90	-15	2 2 4	0.8 B	23
SOFT gray SILTY CLAY	81.40		1 2 2	0.3 B	20
SOFT gray SILTY CLAY		-20			

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
SOFT gray SILTY CLAY (continued)	78.90		2 3 6	0.4 B	
STIFF green TILL	76.40		2 7 7	1.2 B	14
VERY STIFF gray/green TILL	73.90	-25	6 9 12	2.1 B	12
STIFF gray TILL	71.40		9 10 14	1.3 P	15
VERY STIFF gray SANDY TILL	68.40	-30	7 8 17	2.3 B	11
MEDIUM fine SAND	66.40		2 4 7		
Wash MEDIUM SAND & GRAVEL	63.40	-35	9 9 12		
Wash VERY STIFF gray TILL	60.90		4 7 10	2.1 B	14
MEDIUM SAND & GRAVEL		-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)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.
DATE

DRAWN BY
CHECKED BY

BORING LOGS

PLOT DATE = Mon Jan 28 07:44:30 2008
FILE NAME = C:\Projects\p287806\d87806logs.dgn
PLOT SCALE = 2100.0042 in / IN.
USER NAME = hansonke

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	47
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BORING LOGS

Illinois Department of Transportation — SOIL BORING LOG (B-1d)

Division of Highways
IDOT

Page 1 of 1

Date 4/2/07

ROUTE FAP 17 DESCRIPTION P92-078-06 Box Culvert - Relocation * US 52 culvert, 1/4 mile E. of N. Shannon Road LOGGED BY W. Garza

SECTION 15 T-2 LOCATION , SEC. , TWP. , RNG.

COUNTY Carroll DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. 008-1029 *
Station

BORING NO. B-1d
Station 40+45
Offset 9.00ft Rt CL
Ground Surface Elev. 99.7 ft

Surface Water Elev. ft
Stream Bed Elev. 95.0 ft

Groundwater Elev.:
First Encounter 84.7 ft ▼
Upon Completion Wash ft
After Hrs. ft

Description	Bottom Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
18" Pavement SOFT gray SILTY CLAY LOAM	97.20			.3 P	26
SOFT dark gray SILTY LOAM	95.70		1 2 2	0.4 P	33
MEDIUM gray SILTY LOAM	93.20	-5	2 2 4	0.8 B	29
MEDIUM dark gray SILTY CLAY LOAM	90.70		1 2 3	0.7 B	37
SOFT gray LOAM	88.20	-10	1 1 3	0.4 B	28
STIFF tan SILTY CLAY with GRAVEL lens	85.70		5 6 4	1.1 B	21
STIFF gray/tan SILTY CLAY with fine SAND lens	83.20	▼ -15	1 2 5	1.3 B	21
STIFF gray/tan SILTY CLAY	80.20	-20	2 3 5	1.2 B	21
Wash MEDIUM tan dirty SAND & GRAVEL	77.70		1 3 9		
STIFF gray LOAM TILL with GRAVEL	75.70		5 4 8	1.2 B	11
VERY STIFF gray LOAM TILL	72.70	-25	4 5 7	2.5 P	12
VERY DENSE gray GRAVEL	70.70		100/4"		
End of Boring		-30 -35 -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 — SOIL BORING LOG (B-2a)

Division of Highways
IDOT

Page 1 of 2

Date 6/2/06

ROUTE FAP 17 DESCRIPTION P92-078-06 Box culvert, IL 64 over a ditch, 0.25 m. E. of Shannon Road LOGGED BY P. Drezen

SECTION 15 T-2 LOCATION Lima Twp. - 6 SW, SEC. , TWP. 24N, RNG. 7E

COUNTY Carroll DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. 008-1029
Station 670+92

BORING NO. B-2a
Station 670+75 WB Lane
Offset 9.00ft N CL
Ground Surface Elev. 100.3 ft

Surface Water Elev. 92.75 ft
Stream Bed Elev. 92.25 ft

Groundwater Elev.:
First Encounter ft
Upon Completion ft
After Hrs. ft

Description	Bottom Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
MEDIUM black LOAM	98.30				24
STIFF black/brown LOAM	96.80		2 3 6	1.4 B	23
STIFF black LOAM	94.30	-5	3 4 4	1.5 P	54
MEDIUM black LOAM with ORGANICS	91.80		1 2 3	0.6 B	36
SOFT green SILTY CLAY LOAM	89.30	-10	1 1 3	0.4 B	28
SOFT green SILTY CLAY LOAM	86.80		1 2 1	0.5 P	25
SOFT green SILTY CLAY LOAM	83.80	-15	1 1 2	0.3 B	24
MEDIUM green dirty SAND	81.80		1 4 7		18
MEDIUM green dirty fine SAND		-20			
MEDIUM green dirty fine SAND (continued)	79.30		5 6 9		
No Recovery	76.80		3 5 8		
Wash No Recovery	74.30	-25	4 6 9		
Wash DENSE dirty fine SAND	71.30		6 13 19		
STIFF gray TILL	69.30	-30	4 5 10		10
HARD gray TILL	66.80		7 11 12	4.5 P	11
STIFF gray TILL	64.30	-35	2 3 6	1.5 B	14
VERY STIFF gray TILL	61.80		6 8 10	2.5 B	12
		-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)

PLOT DATE = Mon Jan 28 07:44:30 2008
FILE NAME = C:\Projects\p207806\d07806logs.dgn
PLOT SCALE = 2100.0042 in / IN.
USER NAME = hansonke

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.
DATE

DRAWN BY
CHECKED BY

CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	48
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BORING LOGS

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Page 2 of 2

Date 6/2/06

ROUTE FAP 17 DESCRIPTION P92-078-06 Box culvert, IL 64 over a ditch, 0.25 m. E. of Shannon Road LOGGED BY P. Drezen

SECTION 15 T-2 LOCATION Lima Twp. - 6 SW, SEC. , TWP. 24N, RNG. 7E

COUNTY Carroll DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. 008-1029
Station 670+92

BORING NO. B-2a
Station 670+75 WB Lane
Offset 9.00ft N CL
Ground Surface Elev. 100.3 ft

Surface Water Elev. 92.75 ft
Stream Bed Elev. 92.25 ft

Groundwater Elev.:
First Encounter ft
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Wash		1		14
STIFF gray TILL (continued)	59.30	4		
End of Boring		6		
	-45			
	-50			
	-55			
	-60			

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
IDOT

SOIL BORING LOG

Page 1 of 2

Date 4/2/07

ROUTE FAP 17 DESCRIPTION P92-078-06 Box culvert - Relocation * US 52 culvert, .25 m. E. of Shannon Road LOGGED BY W. Garza

SECTION 15 T-2 LOCATION , SEC. , TWP. , RNG.

COUNTY Carroll DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. 008-1029 *
Station

BORING NO. B-2d
Station 40+83
Offset 7.00ft Lt CL
Ground Surface Elev. 99.7 ft

Surface Water Elev. ft
Stream Bed Elev. 92.0 ft

Groundwater Elev.:
First Encounter 79.7 ft ▼
Upon Completion ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
20" Pavement				
SOFT dark gray SILTY CLAY LOAM			0.4 P	25
	97.20			
STIFF gray SILTY LOAM		1		
		3	2.1	20
	95.70	5	P	
	-5			
VERY STIFF gray SILTY LOAM		4		
		4	2.4	24
	93.20	6	S	
MEDIUM dark gray SILTY CLAY LOAM with ORGANICS		1		
		2	0.6	33
	90.70	3	B	
	-10			
SOFT gray SILTY LOAM		1		
		2	0.4	37
	87.70	3	B	
LOOSE gray moist dirty SAND		2		
		3		
	85.20	5		
	-15			
MEDIUM tan SILTY LOAM		1		
		2	0.6	24
	82.70	4	B	
MEDIUM gray dirty SAND		2		
		4		
	80.20	9		
	▼ -20			
STIFF gray LOAM TILL with SAND lens		2		
		4	1.2	14
	78.20	5	B	
STIFF gray LOAM TILL		4		
		5	1.9	12
	75.20	7	B	
	-25			
MEDIUM gray clean medium coarse SAND		3		
		4		
	73.20	6		
MEDIUM gray clean medium coarse SAND		4		
		13		
	70.20	16		
	-30			
STIFF gray LOAM TILL with SAND lens		5		
		5	1.6	16
	67.70	10	B	
MEDIUM gray dirty SAND		9		
		10		
	65.70	14		
	-35			
DENSE gray dirty SAND		10		
		13		
	62.70	20		
STIFF gray LOAM TILL		3		
		6	1.2	12
	60.70	9	B	
	-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)

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.
DATE

DRAWN BY
CHECKED BY

PLOT DATE = Mon Jan 28 07:44:38 2008
FILE NAME = c:\Projects\pc\078086\d078086logs.dgn
PLOT SCALE = 2.000000 '/ in.
USER NAME = herscoke

BORING LOGS

BORING LOGS

Illinois Department of Transportation — SOIL BORING LOG (Page 2 of 2)

Division of Highways
IDOT

Date 4/2/07

ROUTE FAP 17 DESCRIPTION P92-078-06 Box culvert - Relocation * US 52 culvert, .25 m. E. of Shannon Road LOGGED BY W. Garza

SECTION 15 T-2 LOCATION , SEC. , TWP. , RNG.

COUNTY Carroll DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO. 008-1029 *
Station

BORING NO. B-2d
Station 40+83
Offset 7.00ft Lt CL
Ground Surface Elev. 99.7 ft

Surface Water Elev. ft
Stream Bed Elev. 92.0 ft

Groundwater Elev.:
First Encounter 79.7 ft ▼
Upon Completion ft
After Hrs. ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
STIFF gray LOAM TILL			4		
			5	1.7	15
	58.20		7	B	
End of Boring					
		-45			
		-50			
		-55			
		-60			

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 — SOIL BORING LOG (Page 1 of 1)

Division of Highways
IDOT

Date 4/4/06

ROUTE FAP 17 DESCRIPTION P92-078-06 Box culvert, IL 64, .5 m. S. of Chambers Grove Road LOGGED BY J. Strating

SECTION 15 T-2 LOCATION Lima Twp. - 8 NE, SEC. , TWP. 24N, RNG. 7E

COUNTY Carroll DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO. 008-1032
Station 790+30

BORING NO. B-1c
Station 790+26
Offset 49.00ft Lt CL
Ground Surface Elev. 92.0 ft

Surface Water Elev. ft
Stream Bed Elev. 90.7 ft

Groundwater Elev.:
First Encounter 57.5 ft ▼
Upon Completion 57.5 ft ▽
After Hrs. ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
MEDIUM brown SILTY LOAM				0.8 P	26
	90.00				
MEDIUM brown SILTY LOAM			4		
			4	1.0	33
	88.50		6	P	
MEDIUM tan/brown SILTY LOAM		-5	1		
			2	1.0	28
	86.00		4	B	
MEDIUM tan/brown SILTY LOAM with LIMESTONE fragments			1		
			2	0.8	29
	83.50		7	B	
MEDIUM brown SILTY LOAM		-10	1		
			3	1.0	25
	81.00		4	B	
STIFF tan/brown SILTY LOAM			2		
			5	1.1	16
	78.50		7	S	
STIFF brown/gray SILTY CLAY LOAM TILL		-15	2		
			4	1.4	16
	76.00		5	B	
STIFF gray SILTY CLAY LOAM TILL			2		
			3	1.1	17
	73.50		5	B	
		-20			
MEDIUM gray SILTY CLAY LOAM TILL (continued)			2	0.7	17
	71.00		3	B	
			6		
STIFF gray SILTY CLAY LOAM TILL			3		
			3	1.2	16
	68.50		6	B	
STIFF gray SILTY CLAY LOAM TILL with SAND lens		-25	3		
			3	1.2	13
	66.00		9	B	
STIFF gray SILTY CLAY LOAM TILL			2		
			3	1.4	16
	63.50		7	B	
VERY STIFF gray CLAY LOAM		-30	3		
			4	2.7	23
	61.00		6	B	
STIFF gray CLAY			3		
			4	1.8	25
			13	B	
	58.00				
▼ VERY DENSE tan weathered LIMESTONE		-35	100/11"		
	56.00				
End of Boring					
		-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)

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.
DATE

DRAWN BY
CHECKED BY

PLOT DATE = Mon Jan 28 07:44:30 2008
FILE NAME = C:\Projects\p207806\d07806logs.dgn
PLOT SCALE = 2100.0042 in / IN.
USER NAME = hansonke

CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	50
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BORING LOGS

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Page 1 of 1

Date 4/4/06

ROUTE FAP 17 DESCRIPTION P92-078-06 Box culvert, IL 64 , .5 m. S. of Chambers Grove Road LOGGED BY J. Strating

SECTION 15 T-2 LOCATION Lima Twp. - 8 NE, SEC. , TWP. 24N, RNG. 7E

COUNTY Carroll DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME-45 Automatic

STRUCT. NO.
Station 790+30

BORING NO. B-2c
Station 790+23
Offset 50.00ft Rt CL
Ground Surface Elev. 91.3 ft

Surface Water Elev. ft
Stream Bed Elev. 90.7 ft

Groundwater Elev.:
First Encounter 57.8 ft ▼
Upon Completion 57.8 ft ▽
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
MEDIUM brown SILTY LOAM			0.8 P	29
	89.30			
MEDIUM brown SILTY LOAM		1 2 3	1.0 P	37
	87.80			
STIFF brown SILTY LOAM	-5	1 2 5	1.8 P	26
	85.30			
VERY STIFF brown SILTY LOAM		7 9 10	2.0 P	15
	82.80			
STIFF tan/brown SILTY LOAM	-10	2 3 3	1.6 B	20
	80.30			
MEDIUM tan/brown SILTY CLAY LOAM		2 2 2	0.6 B	25
	77.30			
MEDIUM tan/brown medium SAND	-15	3 7 8		
	75.30			
MEDIUM brown dirty medium SAND		5 3 7		
	72.80			
	-20			
MEDIUM tan/brown medium SAND (continued)		7 10 12		
	70.30			
DENSE tan/brown medium SAND		10 15 18		
	67.30			
VERY STIFF gray SILTY CLAY LOAM TILL	-25	11 8 7	2.4 B	16
	65.30			
VERY STIFF gray SILTY CLAY with SILT lens in bottom		4 5 18	2.2 B	20
	62.80			
STIFF gray SILTY LOAM TILL	-30	6 6 5	1.8 P	15
	59.80			
DENSE tan weathered LIMESTONE		3 10 38		
	57.80 ▼			
End of Boring				
	-35			
	-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)

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

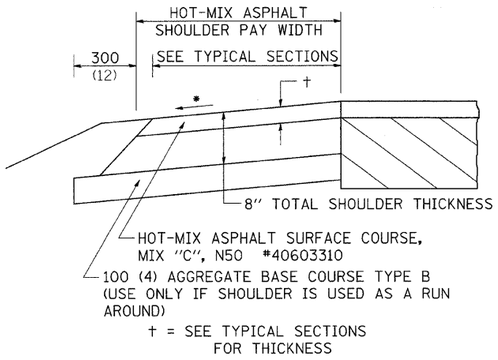
PLOT DATE = Mon Jan 28 07:44:31 2008
FILE NAME = c:\Projects\c247586\d078861logs.dgn
PLOT SCALE = 200.0000 ' / IN.
USER NAME = hamsonke

BORING LOGS

CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	51
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

HOT-MIX ASPHALT SHOULDER



GENERAL NOTES

THE HOT-MIX ASPHALT SHOULDER SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 482 EXCEPT THE TOP LIFT SHALL BE HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 #40603310. THE WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 #40603310 AND SQUARE YARD FOR HOT-MIX ASPHALT SHOULDERS OF THE THICKNESS SPECIFIED.

USE HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 #40603310. WHEN RESURFACING EXISTING HOT-MIX ASPHALT SHOULDERS. THE THICKNESS IS SHOWN ON THE TYPICAL SECTIONS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 #40603310.

REMOVAL OF MATERIAL FOR PLACEMENT OF THE HOT-MIX ASPHALT SHOULDER TO BE PAID FOR IN UNITS FOR EXCAVATING AND GRADING EXISTING SHOULDERS OR IN CUBIC YARDS FOR EARTH EXCAVATION OR EARTH EXCAVATION WIDENING.

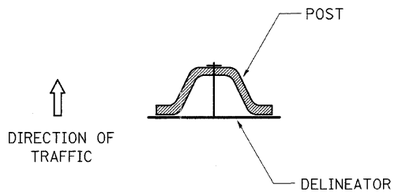
* 4% WHEN MAINLINE IS ON TANGENT. FOR CROSS SLOPE ON SUPERELEVATION SECTION, SEE HIGHWAY STANDARD 482001 OR 482006.

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

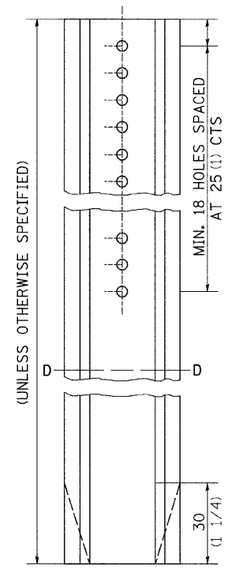
REVISED - 11-01-07

HOT-MIX ASPHALT SHOULDER 23.4a

DELINEATOR AND POST ORIENTATION



SECTION D-D



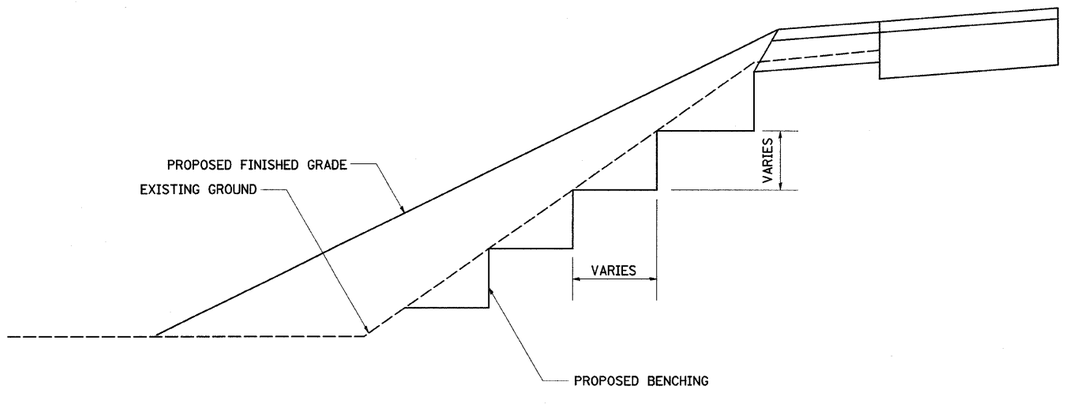
DELINEATORS SHALL BE INSTALLED ACCORDING TO STANDARD 635001 EXCEPT THAT THE POST SHALL BE ROTATED 180° . THE POST WILL HAVE THE WIDE SIDE FACING TRAFFIC AND THE DELINEATOR ATTACHECD AS SHOWN ABOVE.

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

DELINEATOR AND POST ORIENTATION 37.4

REVISED 1-31-00

TYPICAL BENCHING ON EXISTING EMBANKMENT



TYPICAL BENCHING ON EXISTING EMBANKMENT 50.4

REVISED 2-22-06

LETTERING FOR NAME PLATE

STATION
BUILT 200 BY
STATE OF ILLINOIS
RTE. SEC.
FA PROJECT
LOADING HS 20
STR. NO.

SEE STD. 515001

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

LETTERING FOR NAME PLATE 89.4

REVISED 10-15-04

TREE REPLACEMENT SCHEDULE

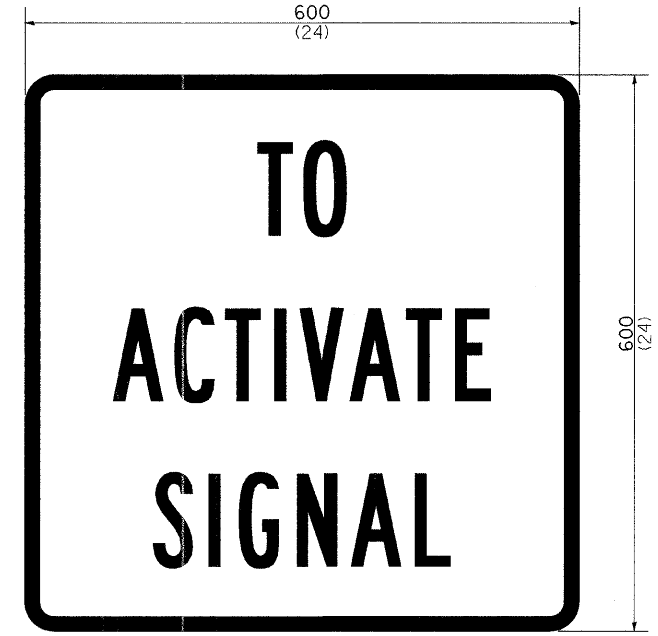
CODE NUMBER	SCIENTIFIC NAME	COMMON NAME	SIZE	UNIT	QUANTITY
A2006514	QUERCUS BICOLOR	SWAMP WHITE OAK	1-3/4" CALIPER, BALLED AND BURLAPPED	EACH	11

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

TREE REPLACEMENT SCHEDULE **90.4**

REVISED 8-10-05

STOP LINE SIGN FOR TEMPORARY SIGNALS



SIZE: 600(24) x 600(24)

100(4) CAPITAL LETTERS - BLACK

13(1/2) BORDER - BLACK

WHITE REFLECTIVE - TYPE AP
HIGH INTENSITY PRISMATIC SHEETING

GENERAL NOTE:

THIS SIGN SHALL BE INSTALLED AT THE STOP LINE AS DIRECTED BY ENGINEER.

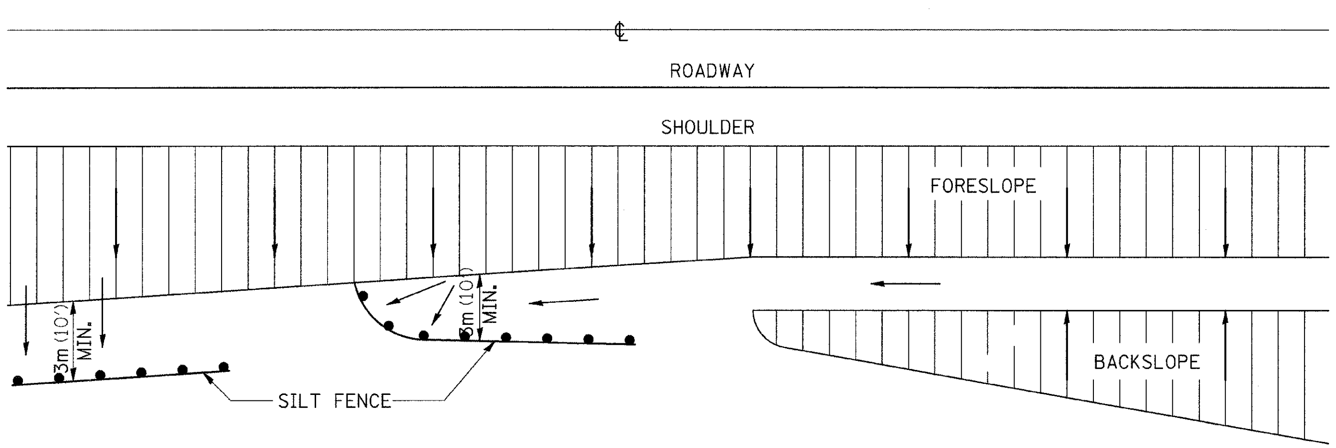
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

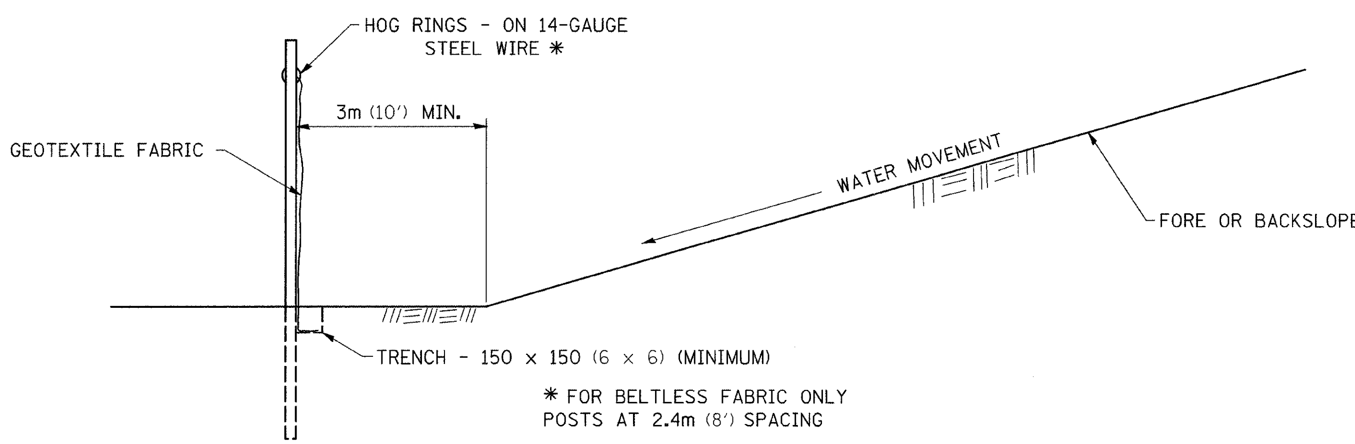
STOP LINE SIGN FOR TEMPORARY SIGNALS **99.4**

REVISED 1-22-07

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	53
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EROSION CONTROL DETAILS FOR SILT FENCE

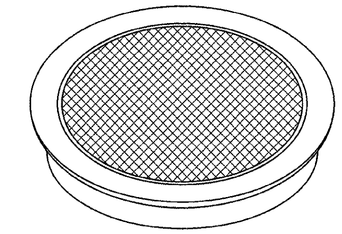


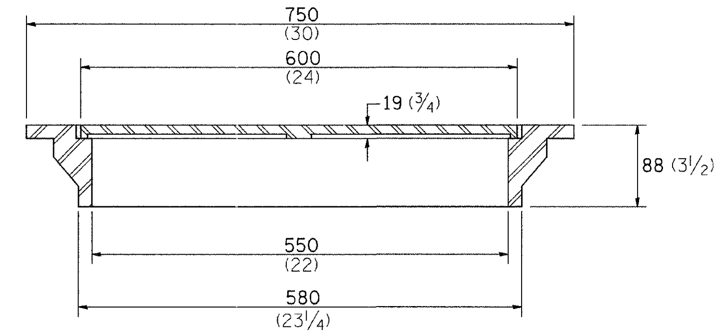


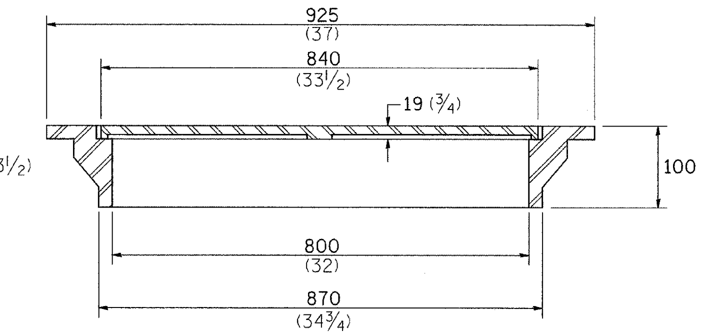
DETAILS OF SILT FENCE

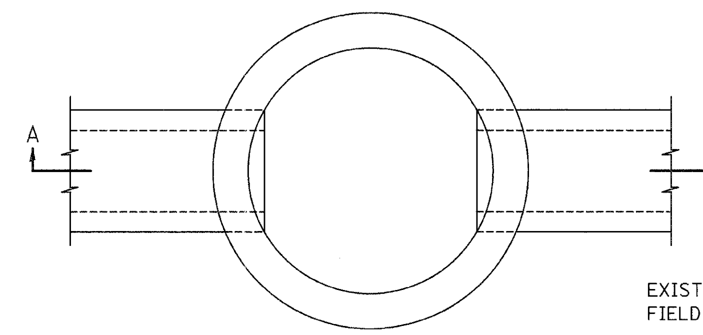
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

FIELD TILE JUNCTION VAULTS 600 (24) AND 900 (36) DIA.

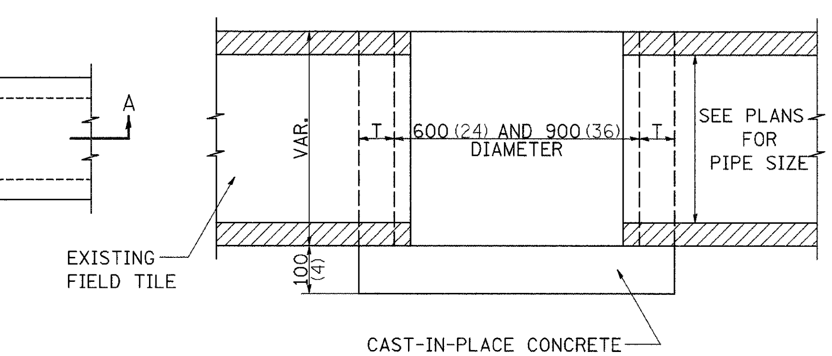








PLAN

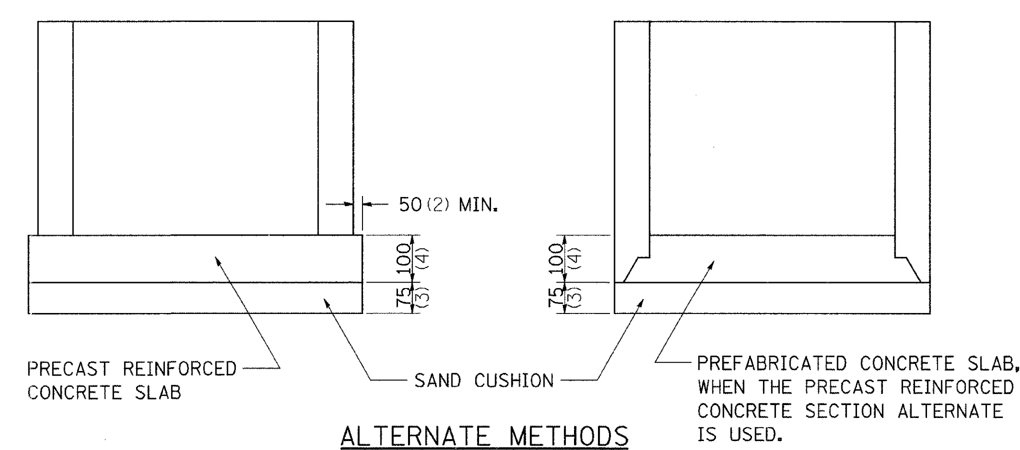


SECTION A-A

NOTE: THE FRAME AND LID IS REQUIRED ON ALL JUNCTION VAULTS.

ALTERNATE MATERIALS FOR WALLS	T
BRICK MASONRY	200 (8)
CAST-IN-PLACE CONCRETE	150 (6)
CONCRETE MASONRY UNIT	125 (5)
PRECAST REINFORCED CONCRETE SECTION	75 (3)

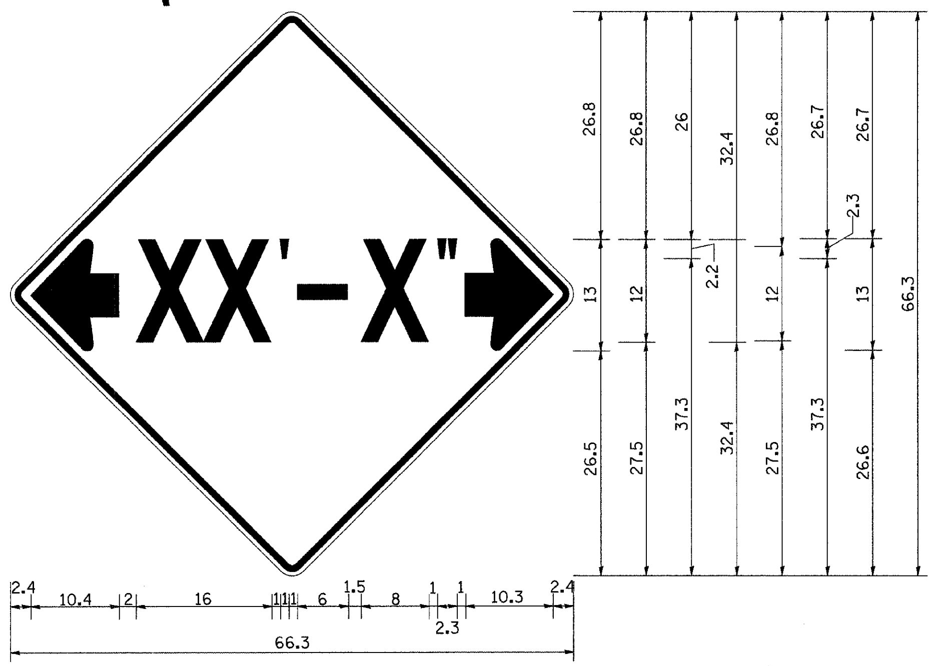
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.



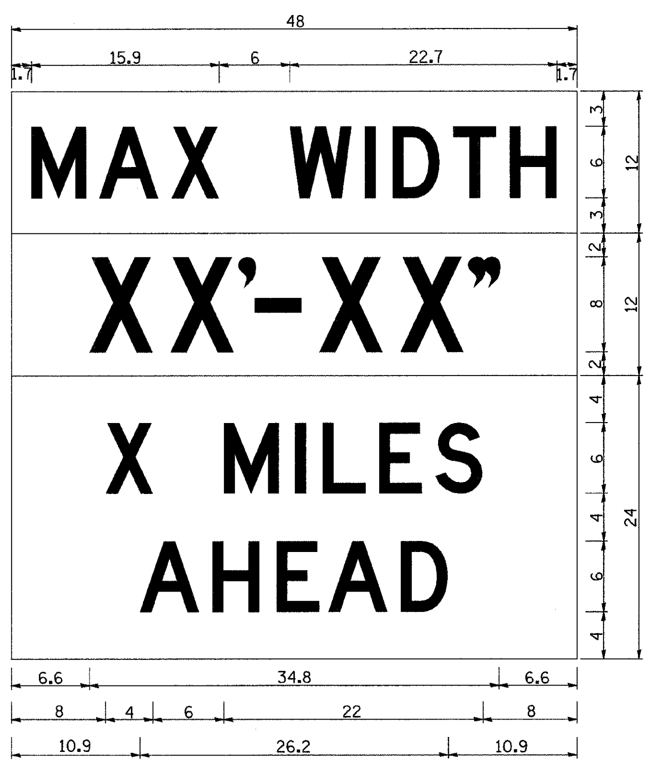
ALTERNATE METHODS

PLOT DATE = Mon Jan 28 07:47:09 2008
FILE NAME = C:\Projects\p207806\d07806spl.dgn
PLOT SCALE = 50.0000 ' / IN.
REFERENCE = REF

INFORMATIONAL WARNING SIGN (FOR NARROW TRAVEL LANES)



NOTES
W12-2 - Horizontal Clearance Sign
48.0" across sides, 1.9" Radius,
0.8" Border, 0.5" Indent, Black on
Orange; Standard Arrow Custom
10.4" X 8.1" 180° Black 11 Inch
D Series Lettering; Standard Arrow
Custom 10.4" X 8.1" 0°



W12-I103 (Width is 8D);
No border, Black on White;
[MAX WIDTH] D;

No border, Black on Orange;
[XX'-XX"] D;

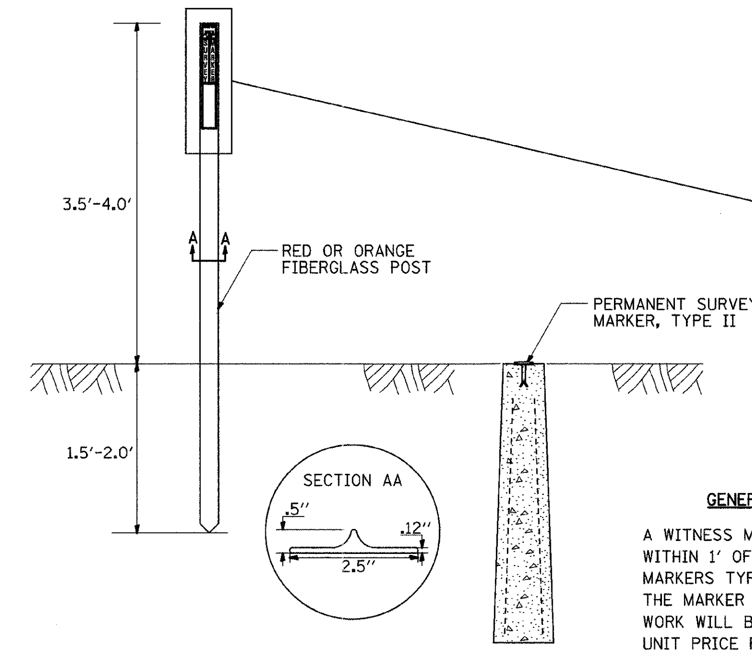
No border, Black on White;
[X MILES] D; [AHEAD] D;

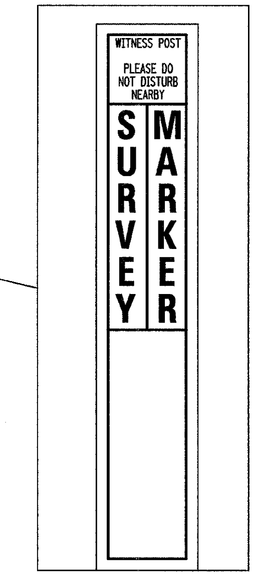
All work to furnish and install these signs shall be included in the cost of the Traffic Control Standards and shall not be paid for separately.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

REVISED - 1-9-08

WITNESS MARKER FOR PERMANENT SURVEY MARKERS, TYPE II

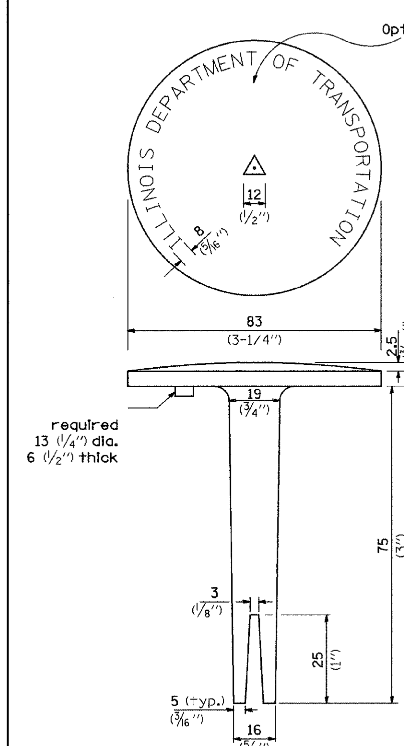




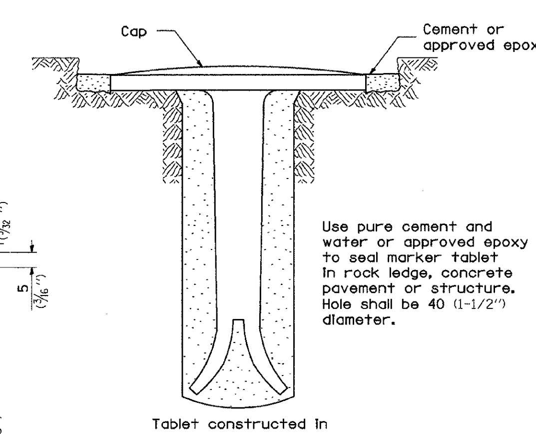
GENERAL NOTES

A WITNESS MARKER SHALL BE INSTALLED WITHIN 1' OF ALL PERMANENT SURVEY MARKERS TYPE II EXCEPT IN AREAS WHERE THE MARKER IS IN THE SIDEWALK. THIS WORK WILL BE INCLUDED TO THE CONTRACT UNIT PRICE PER EACH FOR PERMANENT SURVEY MARKERS, TYPE II.

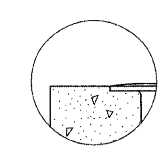
PERMANENT SURVEY MARKERS, TYPE II



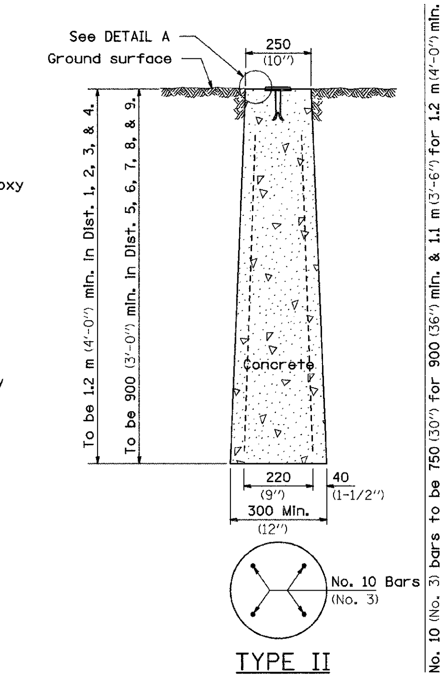
BRASS OR ALUMINUM TABLET



TYPE II



DETAIL A



TYPE II

CAST-IN-PLACE MARKER

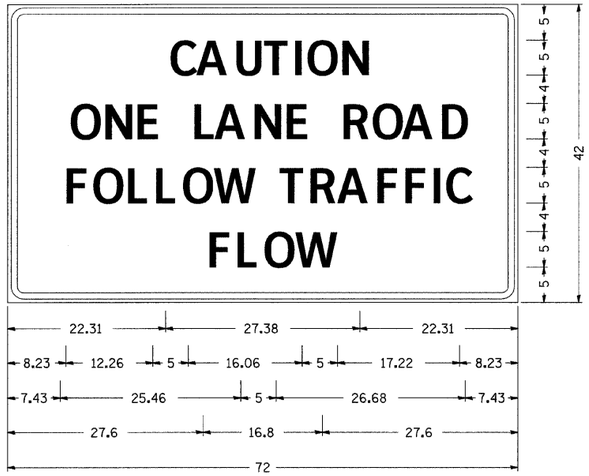
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

PLOT DATE = Mon Jan 28 07:47:18 2008
FILE NAME = C:\Projects\p287086\d87086sp1.dgn
PLOT SCALE = 50.0000 '/ IN.
REFERENCE = #REF#

CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	55
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ENTRANCE SIGN FOR USE WITH TEMPORARY SIGNALS



Type AA Fluorescent Orange Sheeting ;
2.25" Radius, 0.88" Border, 0.50" Indent, Black on Orange;
[CAUTION] D; [ONE LANE ROAD] D;
[FOLLOW TRAFFIC] D; [FLOW] D

Table Of Widths And Spaces

22.31	C 3.36	0.62	A 4.18	0.94	U 3.36	0.94	T 3.04	0.94	I 0.78	1.17	O 3.52	1.17	N 3.36	22.31		
8.23	O 3.51	1.17	N 3.36	1.18	E 3.04											
	5.00	L 3.05	0.31	A 4.18	0.94	N 3.36	1.17	E 3.05								
	5.00	R 3.36	0.93	O 3.52	0.94	A 4.18	0.93	D 3.36	8.23							
7.43	F 3.04	0.94	O 3.52	1.17	L 3.04	0.94	L 3.05	0.94	O 3.51	0.94	W 4.37					
	5.00	T 3.05	0.94	R 3.36	0.94	A 4.18	0.93	F 3.05	0.94	F 3.04	0.94	I 0.78	1.18	C 3.35	7.43	
27.60	F 3.05	0.94	L 3.04	0.94	O 3.52	0.93	W 4.38	27.60								

GENERAL NOTES

THIS SIGN SHALL BE INSTALLED AT ENTRANCES LOCATED BETWEEN THE TEMPORARY SIGNALS AS DIRECTED BY THE ENGINEER.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

THE COST TO FURNISH, INSTALL AND REMOVE THIS SIGN AT THE REQUIRED LOCATIONS SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

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

PLOT DATE = Mon Jan 28 07:47:18 2008
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PLOT SCALE = 64.0000 '/ IN.
REFERENCE = REF

CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	56
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STORM WATER POLLUTION PREVENTION PLAN
EROSION CONTROL PLAN

THE FOLLOWING PLAN WAS ESTABLISHED AND INCLUDED IN THESE PLANS TO DIRECT THE CONTRACTOR IN THE PLACEMENT OF TEMPORARY EROSION CONTROL SYSTEMS AND TO PROVIDE A STORM WATER POLLUTION PREVENTION PLAN FOR COMPLIANCE UNDER NPDES.

THE PURPOSE OF THIS PLAN IS TO MINIMIZE SILTATION WITHIN THE CONSTRUCTION ZONE AND TO ELIMINATE SEDIMENTS FROM ENTERING AND LEAVING THE CONSTRUCTION ZONE BY UTILIZING PROPER TEMPORARY EROSION CONTROL SYSTEMS AND PROVIDING GROUND COVER WITHIN A REASONABLE AMOUNT OF TIME.

CERTAIN ITEMS, AS SHOWN IN THIS PLAN AND REFERENCED BY THE LEGEND, SHALL BE PLACED BY THE CONTRACTOR AT THE BEGINNING OF CONSTRUCTION. OTHER ITEMS SHALL BE PLACED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER ON A CASE BY CASE SITUATION RESULTING FROM THE CONTRACTOR'S SEQUENCE OF ACTIVITIES, TIME OF YEAR, AND EXPECTED WEATHER CONDITIONS.

THE CONTRACTOR SHALL PLACE PERMANENT EROSION CONTROL SYSTEMS AND SEEDING WITHIN A REASONABLE AMOUNT OF TIME: THEREFORE, REDUCING THE AMOUNT OF AREA BEING OPEN TO THE POSSIBILITY OF EROSION AND REDUCING THE AMOUNT OF TEMPORARY SEEDING. THE RESIDENT ENGINEER WILL DETERMINE IF TEMPORARY EROSION CONTROL SYSTEMS SHOWN IN THE PLAN CAN BE DELETED, THE SIZE OF THE PROPOSED DITCH CHECKS, THE PROPER METHOD OF INSTALLATION, AND IF ANY ADDITIONAL TEMPORARY EROSION CONTROL SYSTEMS SHALL BE ADDED WHICH ARE NOT INCLUDED IN THE PLANS. THE CONTRACTOR SHALL PERFORM ALL WORK AS DIRECTED BY THE ENGINEER AND AS SHOWN IN STANDARD 280001 OF THE PLANS.

SITE DESCRIPTION
DESCRIPTION OF CONSTRUCTION ACTIVITY:

THIS PROJECT CONSISTS OF REMOVAL AND REPLACEMENT OF 3 CULVERTS

DESCRIPTION OF INTENDED SEQUENCE OF ACTIVITIES:
THE SEQUENCE OF EVENTS ARE AS FOLLOW: CLEARING, EMBANKMENT, EXCAVATION, GRADING AND PAVING. THIS PROJECT WILL BE CONSTRUCTED IN SEGMENTS AS SHOWN IN THE "STAGING PLANS".

TOTAL CONSTRUCTION SITE (CONSTRUCTION LIMIT TO CONSTRUCTION LIMIT) 2.94 ACRES

PROPOSED R.O.W (TOTAL PARCEL AREA) 3.65 ACRES

DISTURBED BY EXCAVATION (E.O.P TO CONSTRUCTION LIMIT) 2.06 ACRES

SUPPORTING REPORTS AND PLANS
THE FOLLOWING ASSISTED IN DEVELOPING THE EROSION CONTROL PLAN AS REFERENCED DOCUMENTS:

SOIL PROFILE SHEETS, SOILS REPORTS, BORING LOGS
USGS DRAINAGE MAPS, PROJECT PLAN DOCUMENTS

DRAINAGE TRIBUTARIES RECEIVING WATER FROM CONSTRUCTION SITE

UN-NAMED TRIBUTARY TO STRADDLE CREEK

UN-NAMED TRIBUTARY TO MIDDLE CREEK

EROSION CONTROLS AND SEDIMENT CONTROL PROCEDURES
STABILIZATION PRACTICES AT THE BEGINNING OF CONSTRUCTION:
PERIMETER EROSION CONTROL SHALL BE PLACED PRIOR TO BEGINNING EARTHWORK.

STABILIZATION PRACTICES DURING CONSTRUCTION:
AS EARTH EXCAVATION AND EMBANKMENT ARE BEING COMPLETED THE CONTRACTOR SHALL PLACE DITCH CHECKS, INLET AND PIPE PROTECTION, EROSION CONTROL BLANKET, AND SEEDING AS STAGES OF THE PROJECT ARE COMPLETED. PERIMETER EROSION BARRIER WILL BE INSTALLED AT ADDITIONAL LOCATIONS AS THE PROJECT PROGRESSES. SEEDING SHALL BE COMPLETED AS SPECIFIED IN THE EROSION CONTROL/ SEEDING MOBILIZATION AND TEMPORARY SEEDING SPECIAL PROVISION.

MAINTENANCE AFTER FINAL GRADING
TEMPORARY EROSION CONTROL SYSTEMS SHALL BE LEFT IN PLACE WITH PROPER MAINTENANCE UNTIL PERMANENT EROSION CONTROL IS IN PLACE AND WORKING PROPERLY AND ALL PROPOSED TURF AREAS SEEDED AND ESTABLISHED WITH THE PROPER STAND. ONCE PERMANENT EROSION CONTROL SYSTEMS AS PROPOSED IN THE PLANS ARE FUNCTIONAL AND ESTABLISHED, TEMPORARY ITEMS SHALL BE REMOVED, CLEANED UP AND DISTURBED TURF RESEEDED.

PLOT DATE = Mon Jan 28 08:19:44 2008
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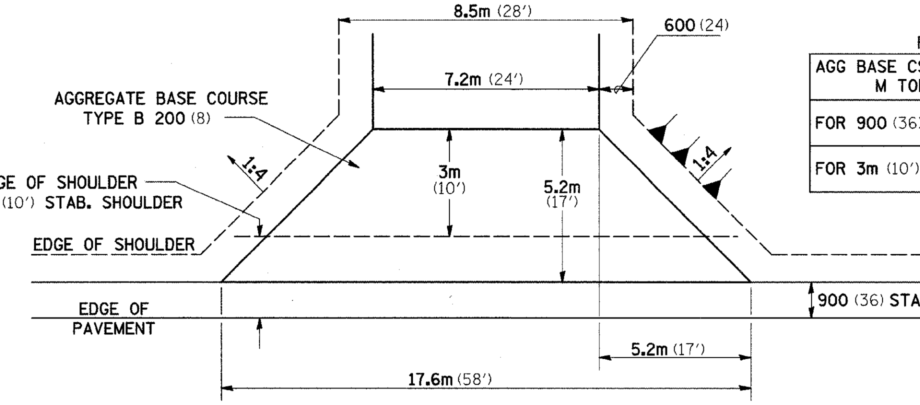
PLOT SCALE = 50.0000 ' / IN.
REFERENCE = REF

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	57
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

HOT-MIX ASPHALT APPROACHES & MAILBOX TURNOUTS



FIELD ENTRANCE

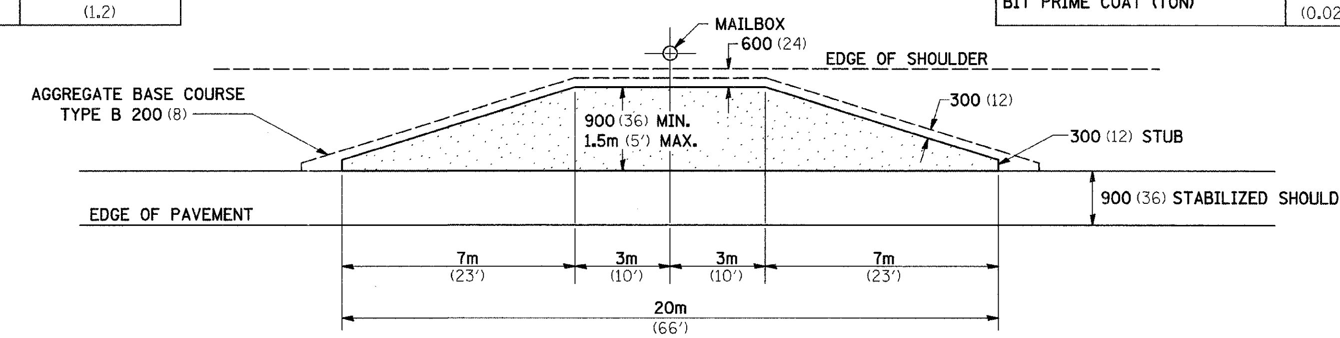
7.2m (24') FIELD ENTRANCE FOR 900 (36) & 3m (10') SHOULDERS

AGG BASE CSE TYPE B M TON (TON)	APRON M TON (TON)	PER METER (FOOT) ADD. RUN
FOR 900 (36) STAB SHLD.	31.3 (35.3)	3.5 (1.2)
FOR 3m (10') STAB SHLD.	14.9 (17.2)	3.5 (1.2)

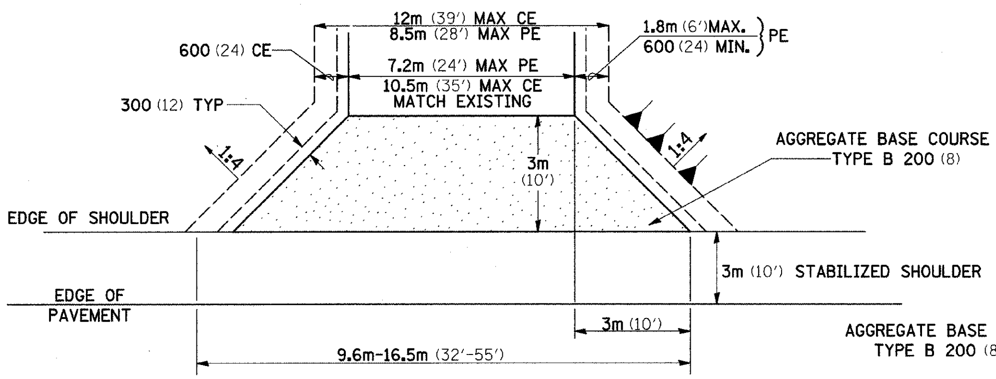
	900 (36)	1.5m (5')
AGG BASE CSE T-B (TON)	10.7 (11.8)	14.4 (15.9)
INC BIT SURF 50 (2) (TON)	2.2 (2.4)	3.4 (3.8)
BIT PRIME COAT (TON)	0.02 (0.02)	0.04 (0.04)

PE & CE FOR 3m (10') STAB. SHOULDER

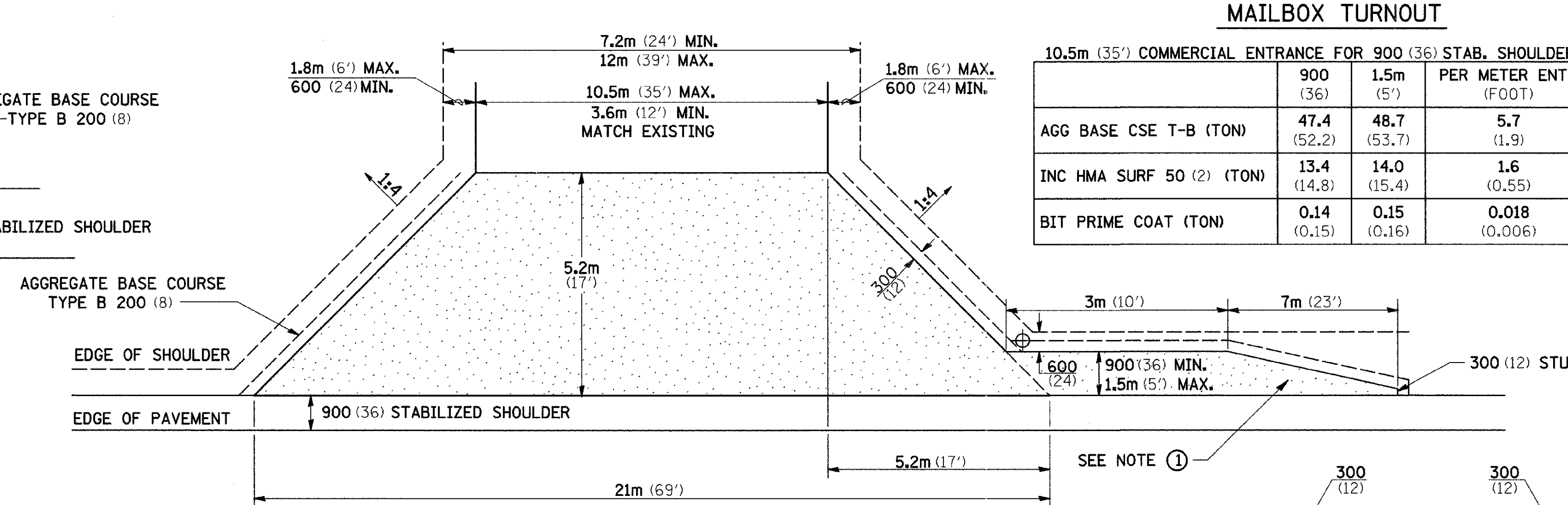
	3.6m PE (12')	10.5m CE (35')
AGG BASE CSE (TON)	11.4 (12.6)	21.9 (24.2)
INC HMA SURF (TON)	3.1 (3.4)	6.3 (7.0)
PRIME (TON)	0.04 (0.04)	0.06 (0.07)



MAILBOX TURNOUT



PE & CE FOR 3m (10') STAB. SHOULDERS



CE FOR 900 (36) STAB. SHOULDERS

10.5m (35') COMMERCIAL ENTRANCE FOR 900 (36) STAB. SHOULDER

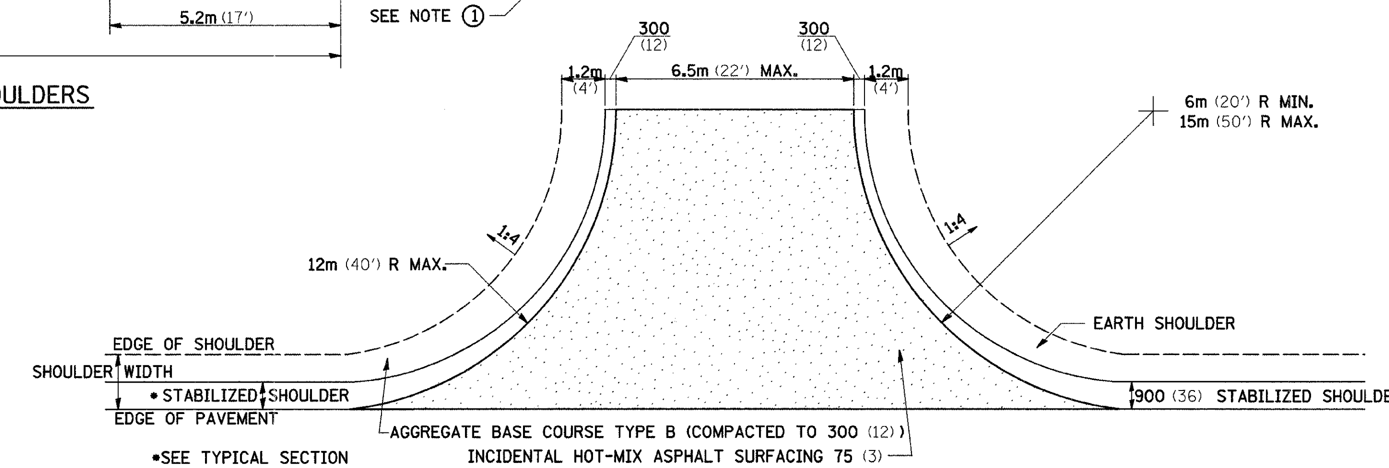
	900 (36)	1.5m (5')	PER METER ENTR (FOOT)
AGG BASE CSE T-B (TON)	47.4 (52.2)	48.7 (53.7)	5.7 (1.9)
INC HMA SURF 50 (2) (TON)	13.4 (14.8)	14.0 (15.4)	1.6 (0.55)
BIT PRIME COAT (TON)	0.14 (0.15)	0.15 (0.16)	0.018 (0.006)

NOTE

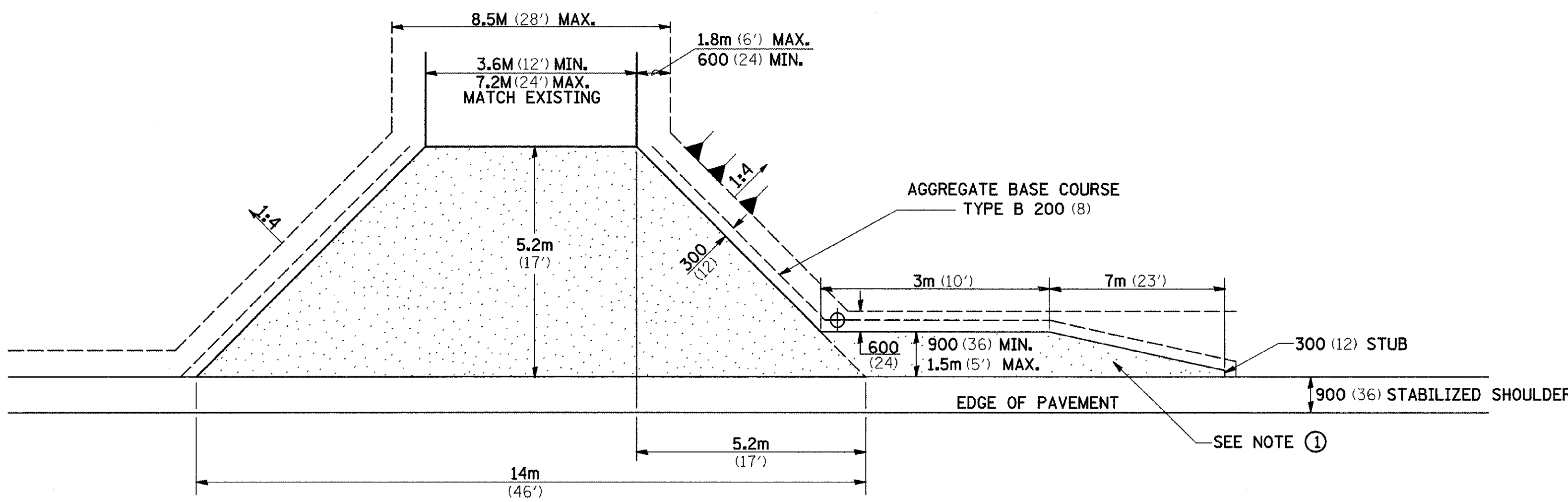
1. ALL ENTRANCES TO BE CONSTRUCTED WITH AN 8" AGGREGATE BASE COURSE, TYPE B AND WITH A 2" INCIDENTAL HOT-MIX ASPHALT SURFACING, UNLESS OTHERWISE NOTED.
2. TURNOUTS ARE TO BE CONSTRUCTED ON THE APPROACH SIDE OF ALL PE & CE REGARDLESS IF A MAILBOX IS PRESENT.
3. ALL PE & CE ARE TO BE SURFACED TO RIGHT OF WAY LINE. AREA BEHIND RIGHT OF WAY SHALL MATCH EXISTING SURFACE.
4. FE ARE TO BE AGGREGATE TO RIGHT OF WAY OR TOUCH DOWN WHICH EVER IS GREATER.
5. QUANTITIES SHOWN ARE FOR NEW CONSTRUCTION.
6. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

3.6m (12') PRIVATE ENTRANCE FOR 900 (36) STAB. SHOULDER

	900 (36)	1.5m (5')	PER METER ENTR (FOOT)
AGG BASE CSE (TON)	29.4 (32.4)	30.8 (33.9)	0.64 (0.7)
INC HMA SURF 50 (2) (TON)	7.8 (8.6)	8.4 (9.3)	0.17 (0.19)
BIT PRIME COAT (TON)	0.08 (0.09)	0.09 (0.10)	0.006 (0.002)



SIDE ROAD RETURN



PRIVATE ENTRANCE FOR 900 (36) STAB. SHOULDERS

	6m (20') RADIUS			9m (30') RADIUS			12m (40') RADIUS		
	5.5m (18')	6m (20')	6.5m (22')	5.5m (18')	6m (20')	6.5m (22')	5.5m (18')	6m (20')	6.5m (22')
AGG BASE CSE T-B (TON)	20 (22.1)	21.6 (23.8)	23.1 (25.5)	37 (40.8)	39.5 (43.5)	42 (46.3)	57.9 (63.8)	61.3 (67.6)	64.7 (71.3)
INC HMA SURF 75 (3) (TON)	5.5 (6.1)	6.2 (6.8)	6.6 (7.25)	10.5 (11.6)	11.2 (12.4)	12.1 (13.3)	16.7 (18.4)	17.7 (19.5)	18.7 (20.6)
BIT PRIME CSE T-B (TON)	0.05 (0.06)	0.06 (0.07)	0.06 (0.07)	0.11 (0.12)	0.11 (0.12)	0.12 (0.13)	0.16 (0.18)	0.18 (0.20)	0.19 (0.21)

NOTE: USE 50 (2) INC. HMA SURF. ON EXISTING RETURNS

PLOT DATE = Mon Jan 28 07:47:18 2008
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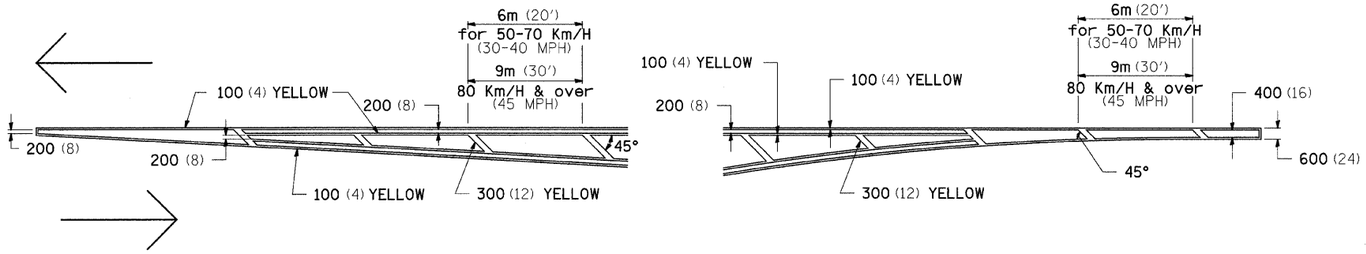
REVISED 10-10-06

CONTRACT NO. 64C35

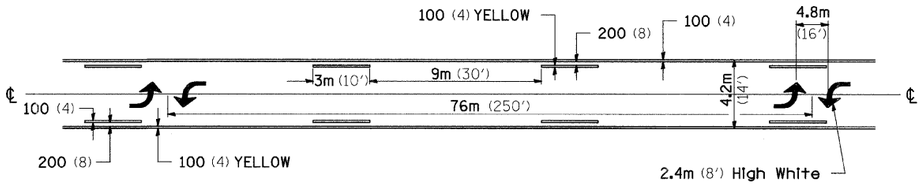
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	58
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TYPICAL PAVEMENT MARKINGS

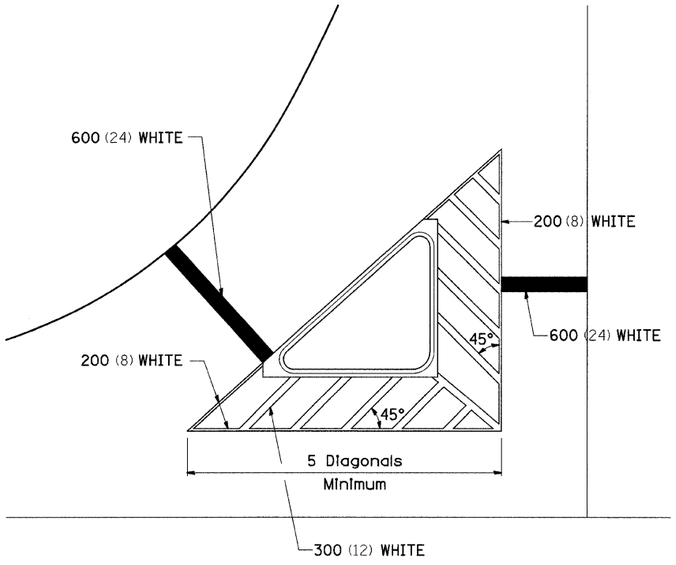
TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN AT LEFT TURN LANE



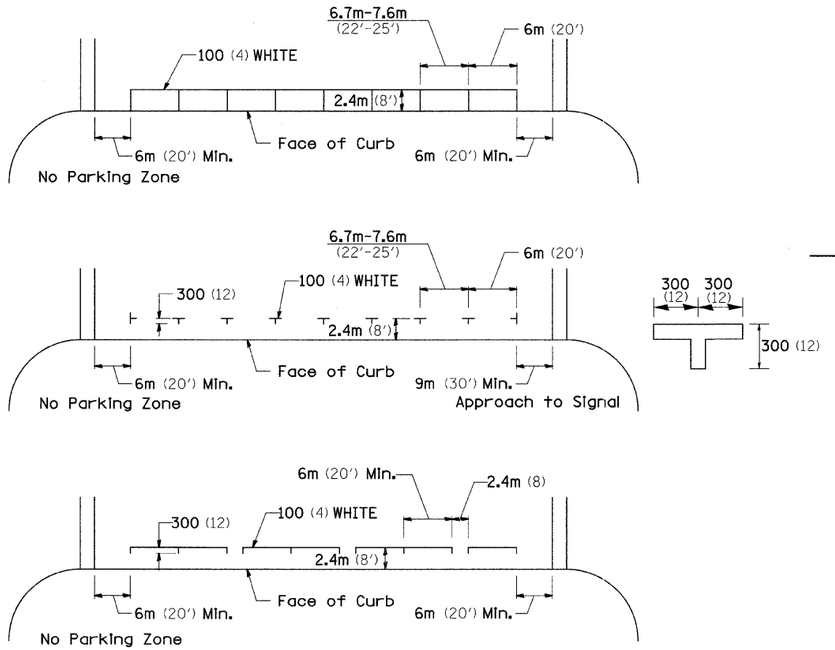
MEDIAN PAVEMENT MARKING



TYPICAL ISLAND OFFSET SHOULDER WIDTH



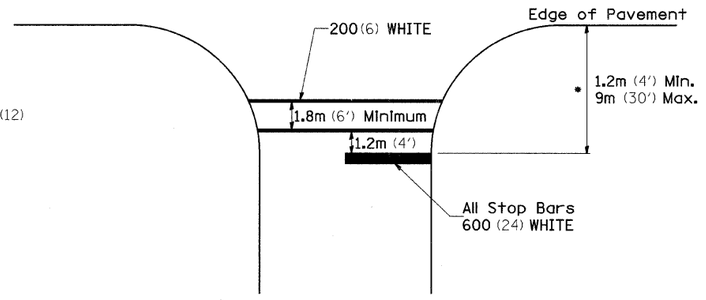
TYPICAL PARKING SPACING



** ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

STANDARD CROSSWALK MARKING

See Schedules for Locations



* Distance to the nearest edge of the intersecting roadway in the absence of a marked crosswalk.

PLOT DATE = Mon Jan 28 07:47:18 2008
FILE NAME = C:\Projects\pc207806\d07806sp1.dgn
PLOT SCALE = 50.0000 '/ IN.
REFERENCE = REF

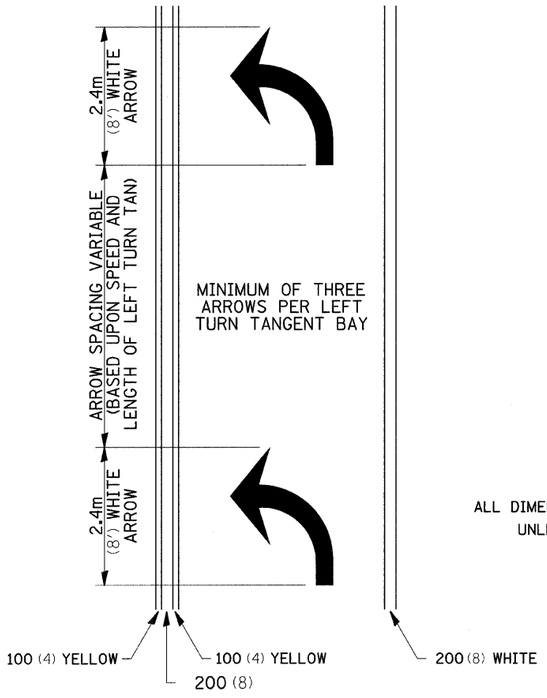
REVISED 7-20-06

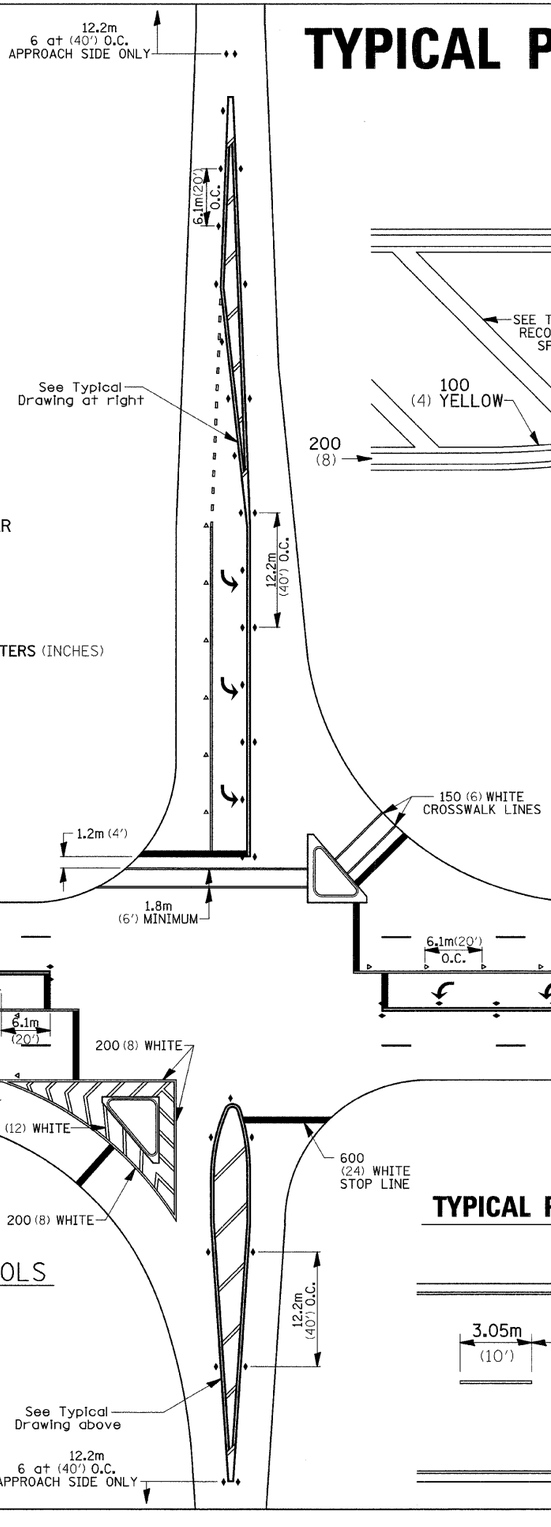
CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	59
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TYPICAL PAVEMENT MARKINGS

ARROW LAYOUT





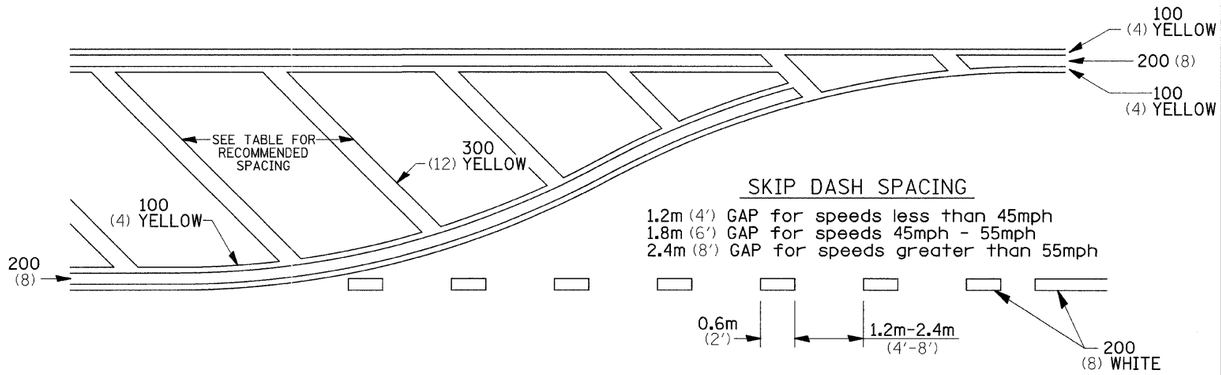
◀ ONE-WAY AMBER MARKER

◁ ONE-WAY CRYSTAL MARKER

◆ TWO-WAY AMBER MARKER

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

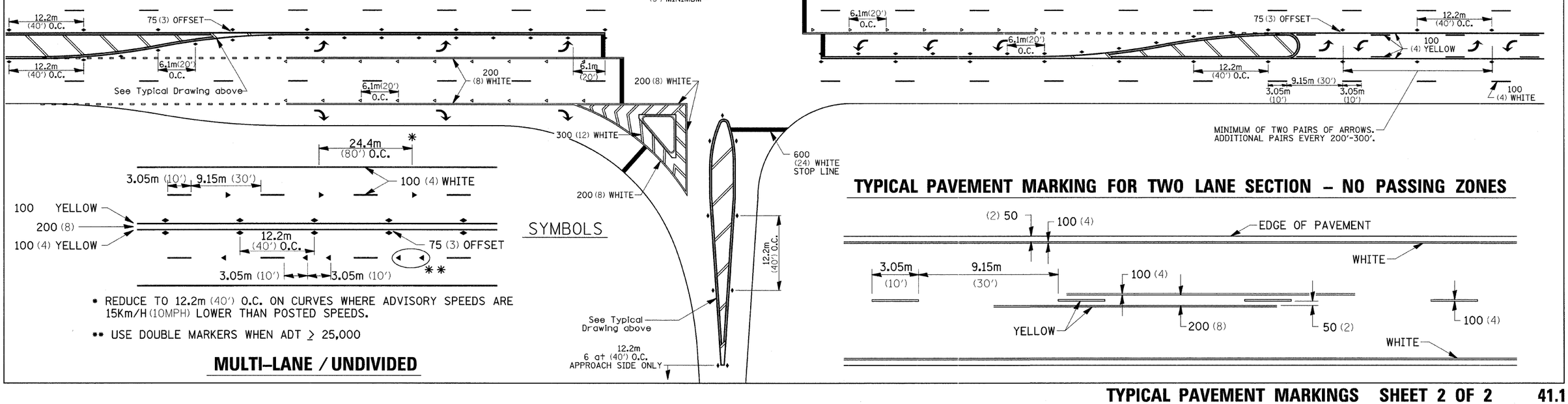
TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN



RECOMMENDED SPACING BETWEEN DIAGONALS (IN FEET)

Speed Limit Range	Continuous Median Area	Intersection Channelization	Objects (Islands)
less than 50Km/H (30MPH)	15.3m (50')	4.53m (15')	3.05m (10')
50-60Km/H (30-40MPH)	22.9m (75')	6.1m (20')	4.53m (15')
70Km/H (45MPH) & over	22.9m (75')	9.05m (30')	6.1m (20')

NOTE: If the spacing recommended in the Table does not permit at least five diagonal lines in the area being marked, the spacing from the next lowest speed range should be used. The recommended spacing is measured parallel to the pavement center line.



TYPICAL PAVEMENT MARKING FOR TWO LANE SECTION – NO PASSING ZONES

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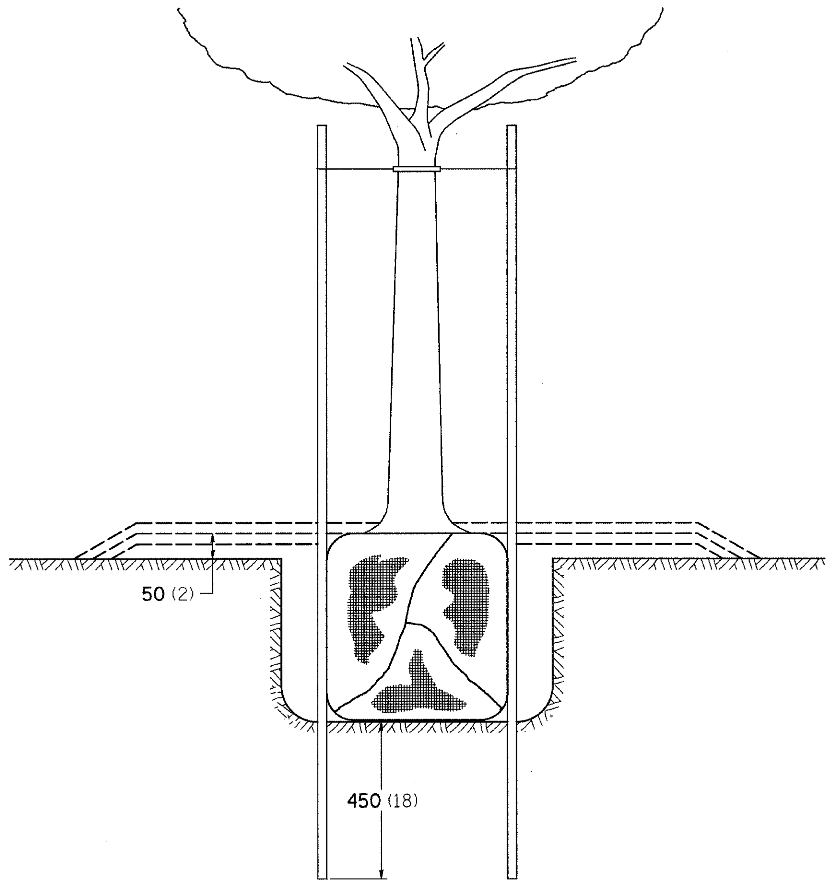
FILE NAME = c:\Projects\c207805\d07805pl.dgn
PLOT SCALE = 50.0000 '/ IN.
REFERENCE = REF

REVISED 7-20-06

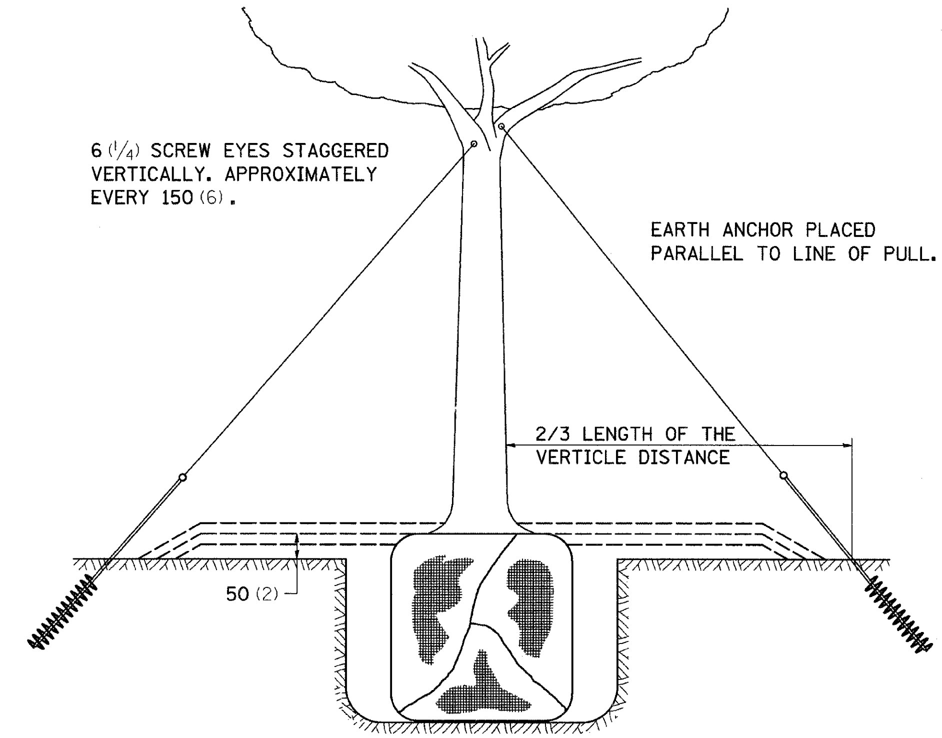
DETAILS OF PLANTING AND BRACING TREES



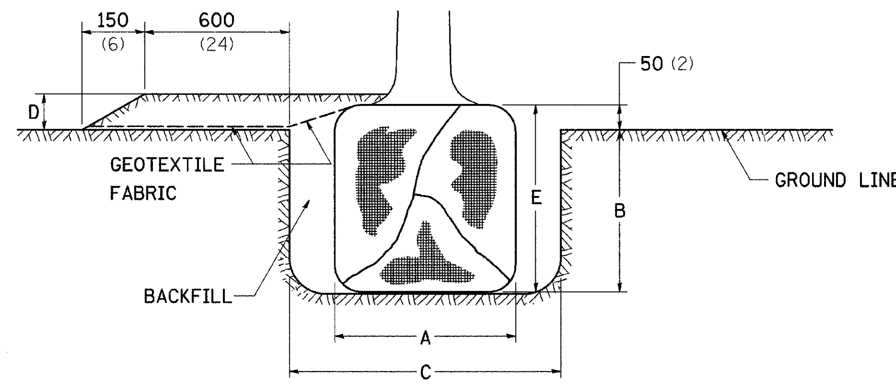
TREES SMALLER THAN 115 ($4\frac{1}{2}$) IN DIAMETER

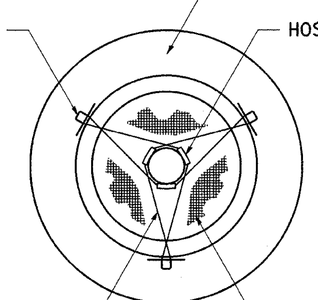
SMALL	A	B	C	D	E	F
TREE SIZE	DIAMETER OF BALL OR ROOT SYS.	DEPTH OF HOLE EXCAVATION	WIDTH OF HOLE EXCAVATION	THICKNESS OF MULCH COVER	DEPTH OF BALL OR ROOT SYS.	VOLUME OF MULCH COVER m^3 (CU. YDS.)
1.5-1.8m (5'-6')	400 (16)	250 (10)	750 (30)	100 (4)	300 (12)	0.41 (0.54)
1.5-1.8m (5'-6') BB	400 (16)	250 (10)	750 (30)	100 (4)	300 (12)	0.41 (0.54)
1.8-2.0m (6'-7') BB	450 (18)	300 (12)	750 (30)	100 (4)	350 (14)	0.41 (0.54)
2.0-2.4m (7'-8') BB	500 (20)	275 (11)	750 (30)	100 (4)	325 (13)	0.41 (0.54)
2.4-3.0m (8'-10') BB	600 (24)	350 (14)	900 (36)	100 (4)	400 (16)	0.47 (0.61)
3.0-3.6m (10'-12') BB	650 (26)	375 (15)	900 (36)	100 (4)	425 (17)	0.47 (0.61)

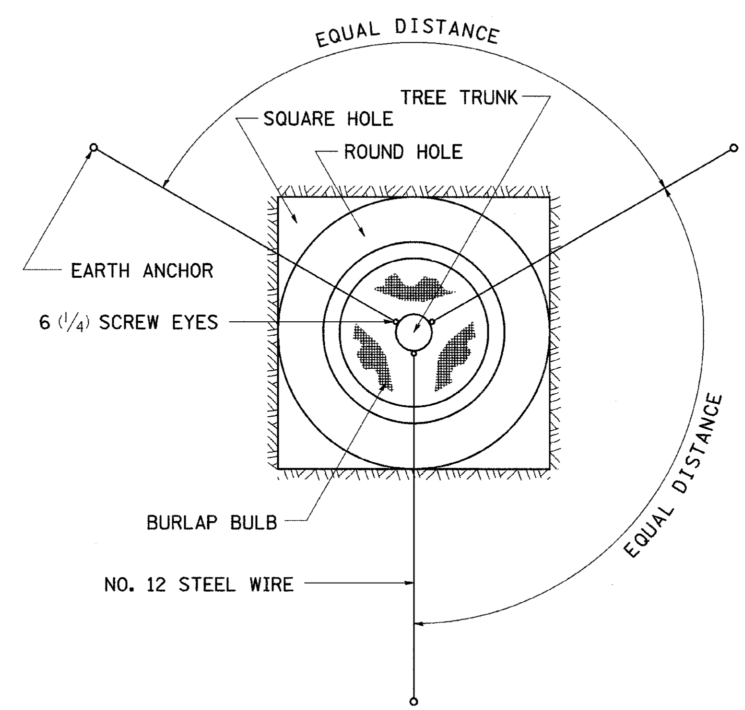
LARGE	A	B	C	D	E	F
TREE SIZE	DIAMETER OF BALL OR ROOT SYS.	DEPTH OF HOLE EXCAVATION	WIDTH OF HOLE EXCAVATION	THICKNESS OF MULCH COVER	DEPTH OF BALL OR ROOT SYS.	VOLUME OF MULCH COVER m^3 (CU. YDS.)
0-50 (0-2)	500 (20)	275 (11)	900 (36)	100 (4)	325 (13)	0.47 (0.61)
50-65 ($2-2\frac{1}{2}$)BB	600 (24)	350 (14)	1200 (48)	100 (4)	400 (16)	0.60 (0.78)
65-75 ($2\frac{1}{2}-3$)BB	700 (28)	425 (17)	1200 (48)	100 (4)	475 (19)	0.60 (0.78)
75-90 ($3-3\frac{1}{2}$) BB	800 (32)	425 (17)	1500 (60)	100 (4)	475 (19)	0.73 (0.96)
90-100 ($3\frac{1}{2}-4$) BB	900 (36)	500 (20)	1500 (60)	100 (4)	550 (22)	0.73 (0.96)
100-115 ($4-4\frac{1}{2}$) BB	1000 (40)	550 (22)	1800 (72)	100 (4)	600 (24)	0.89 (1.16)
115-125 ($4\frac{1}{2}-5$) BB	1100 (44)	600 (24)	1800 (72)	100 (4)	650 (26)	0.89 (1.16)
125-140 ($5-5\frac{1}{2}$) BB	1200 (48)	675 (27)	2100 (84)	100 (4)	725 (29)	1.06 (1.38)

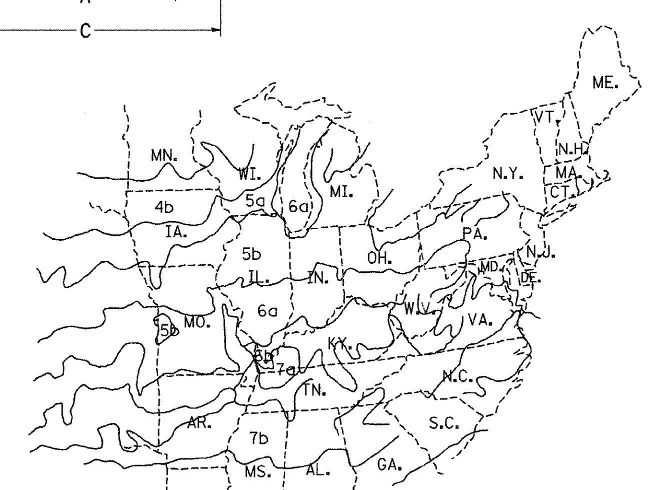


TREES OVER 115 ($4\frac{1}{2}$) IN DIAMETER









PLANT HARDINESS ZONE MAP

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
PUBLICATION NO. 814

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

PLOT DATE = Mon Jan 28 07:47:09 2008
FILE NAME = C:\Projects\p207806\d07806epl.dgn
PLOT SCALE = 50.0000 '/ IN.
REFERENCE = @REF@

CONTRACT NO. 64C35

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	61
STA. 120900.0000	TO STA. 121100.0000			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

915
910

PR ROW
EX ROW
C=2.5 F=11.9
915.76
C=14.5 F=13.0
EX ROW
PR ROW
908.76

121100.0000

915
910

STAGE III
C=2.5 F=0.3
914.37
STAGE II
C=11.2 F=0.3
EX ROW
PR ROW
911.35

121050.0000

920
915
910

PR
EX
STAGE III
C=2.5 F=0.1
915.10
STAGE II
C=2.5 F=0.1
EX
PR
EARTHWORK BEGINS
STA. 1209+70.00

121000.0000

920
915
910

EX ROW
916.10
EX ROW
C=0 F=0

120950.0000

920
915

EX ROW
917.12
EX ROW

120900.0000

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

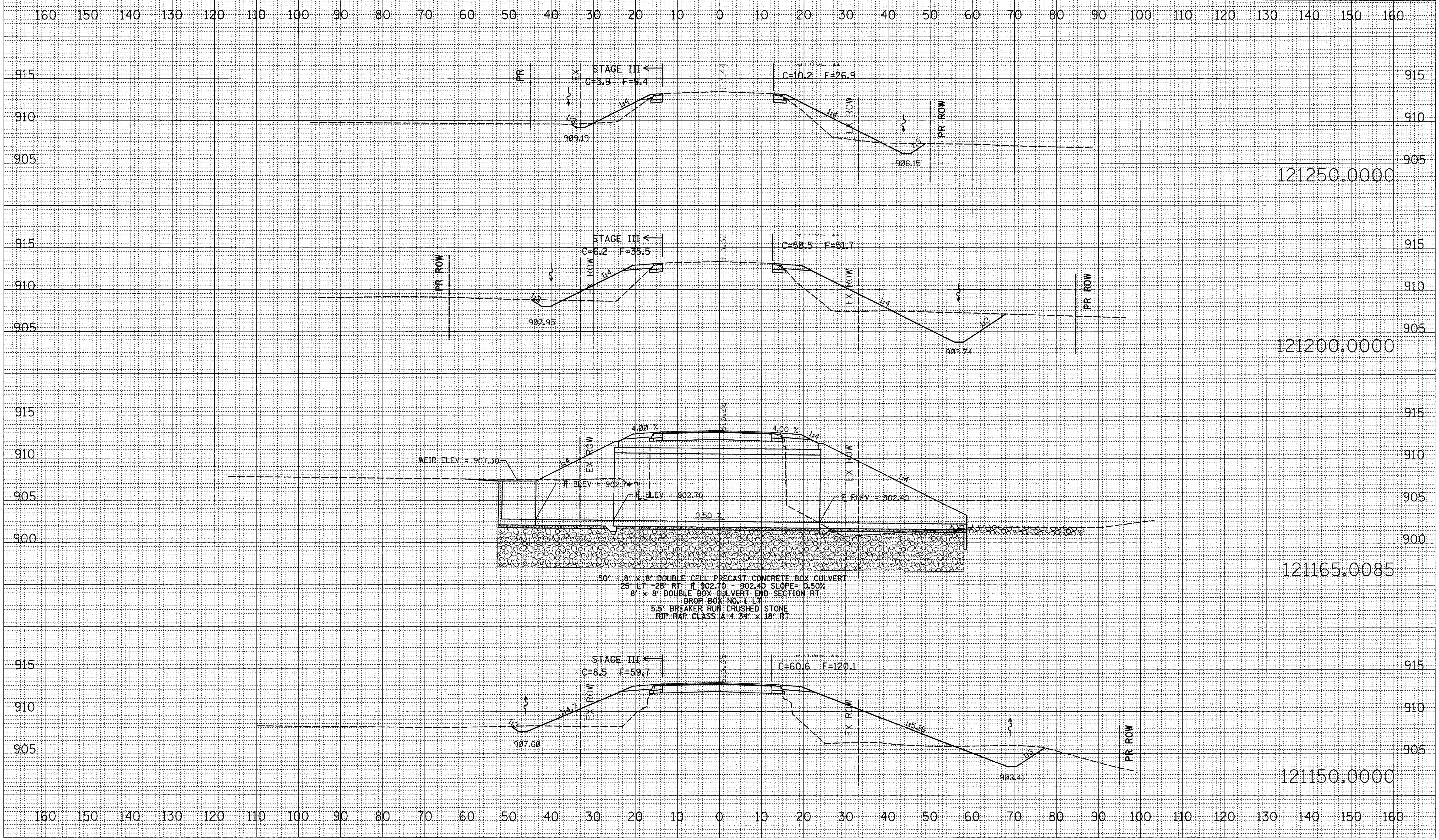
FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS —		
	AREAS CHECKED		

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

PLOT DATE = Mon Jan 28 07:42:18 2008
FILE NAME = C:\Projects\c287886\d07886sm1.dgn
PLOT SCALE = 10.0000 ' / IN.
USER NAME = Hernandez

CONTRACT NO. 64C35

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	62
STA. 121150.0000	TO STA. 121250.0000			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



FINAL SURVEY: SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK NO.

ORIGINAL SURVEY: SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK NO.

PLOT DATE = Mon Jan 28 07:42:17 2008
PLOT SCALE = 10.0000 ' / IN.
USER NAME = hansonke

CONTRACT NO. 64C35

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	63
STA. 121300.0000		TO STA. 121450.0000		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

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PLOT SCALE = 10.0000 ' / IN.
USER NAME = Hamanka

160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

920
915
910
905

121450.0000
121400.0000
121350.0000
121333.0000
121300.0000

EX ROW
PR ROW
PI 6.14
PI 5.30
PI 4.53
PI 4.28
PI 3.91
C=0 F=0
912.01
STAGE III
C=10.1 F=10.6
10.6%
4.1%
911.22
STAGE III
C=16.9 F=5.6
10.93 %
910.97
STAGE II
C=2.5 F=4.4
4%
STAGE III
C=2.5 F=6.8
4%
910.45
C=4.7 F=17.4
4%
5%
907.86

PLOT DATE = Mon Jan 28 07:36:40 2008
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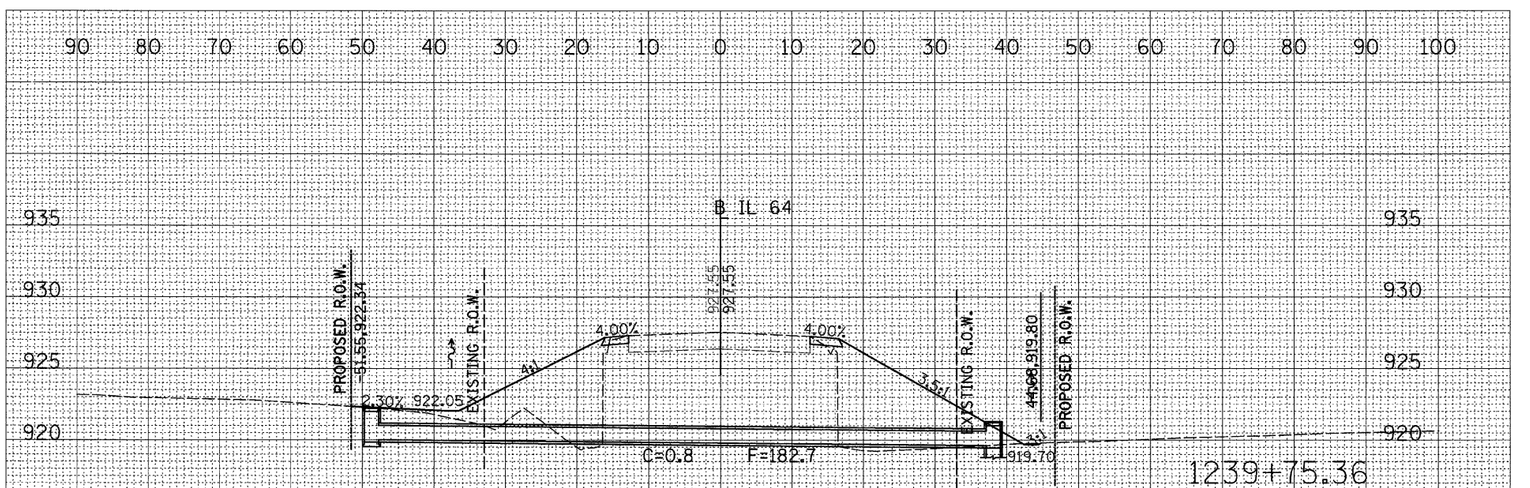
PLOT SCALE = 10.0000 ' / IN.
USER NAME = hensonke

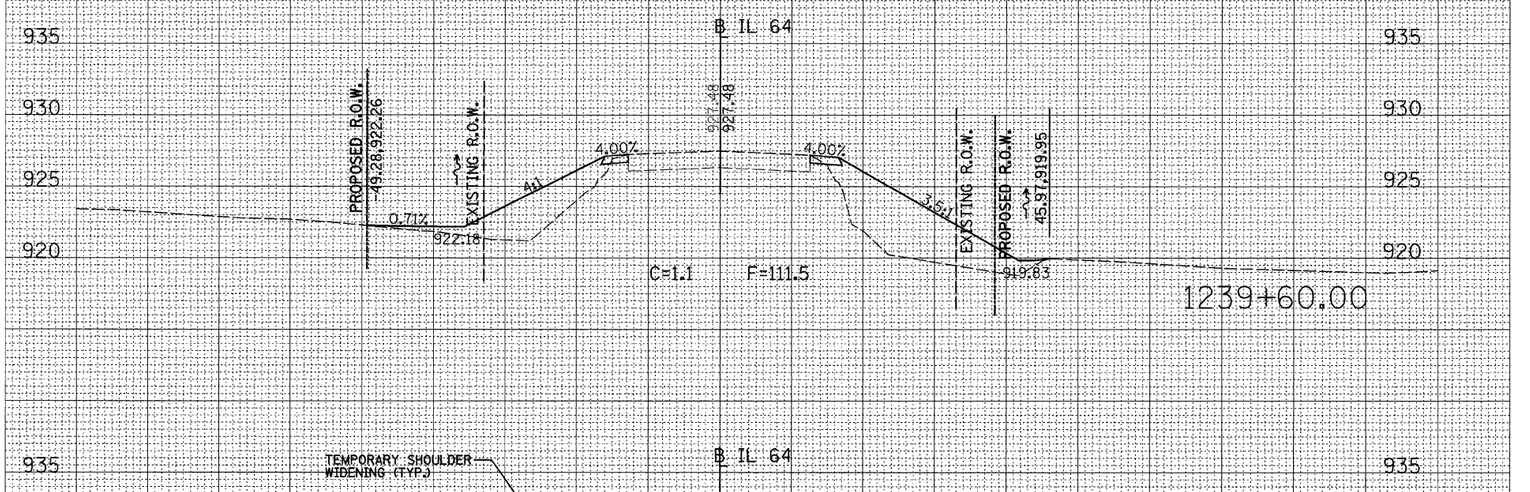
ORIGINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
	AREAS		
NO.	AREAS CHECKED		

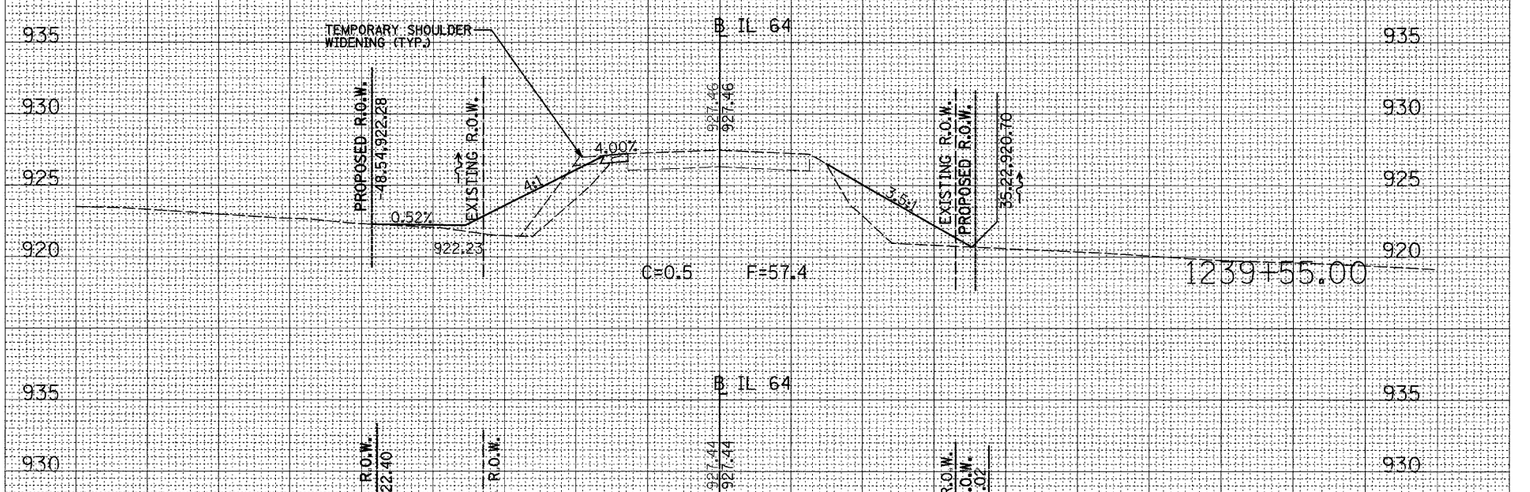
MAURER ▲ STUTZ, INC.
ENGINEERS SURVEYORS

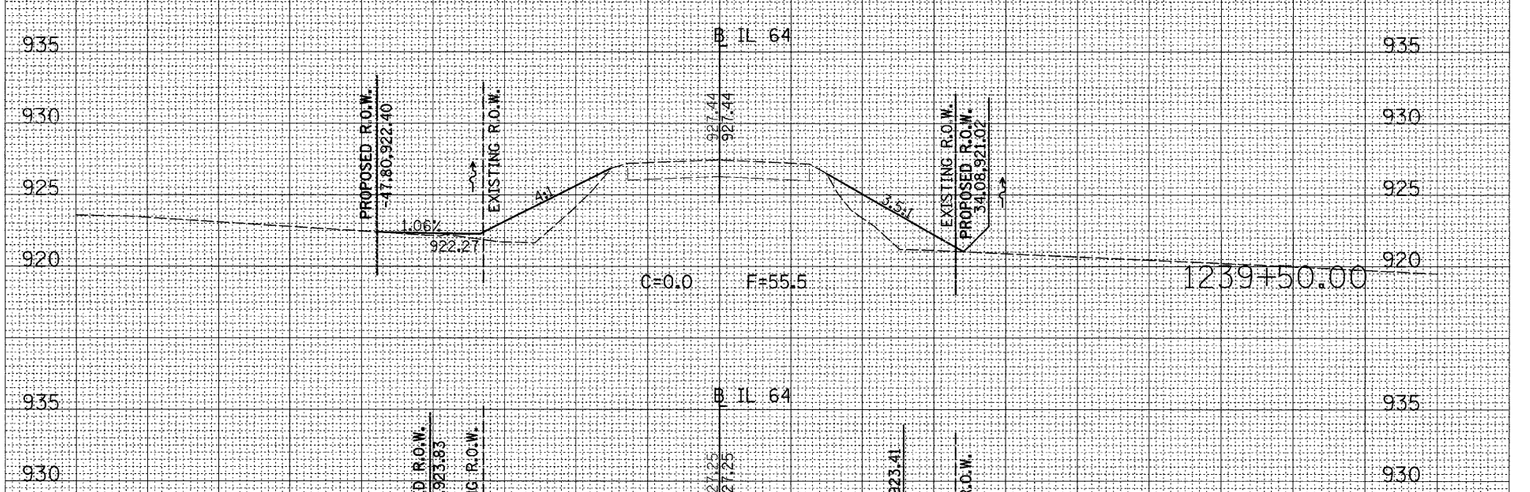
FINAL SURVEY		BY	DATE
	SURVEYED		
NOTE BOOK	PLOTTED		
	TEMPLATE		
	AREAS		
NO.	AREAS CHECKED		

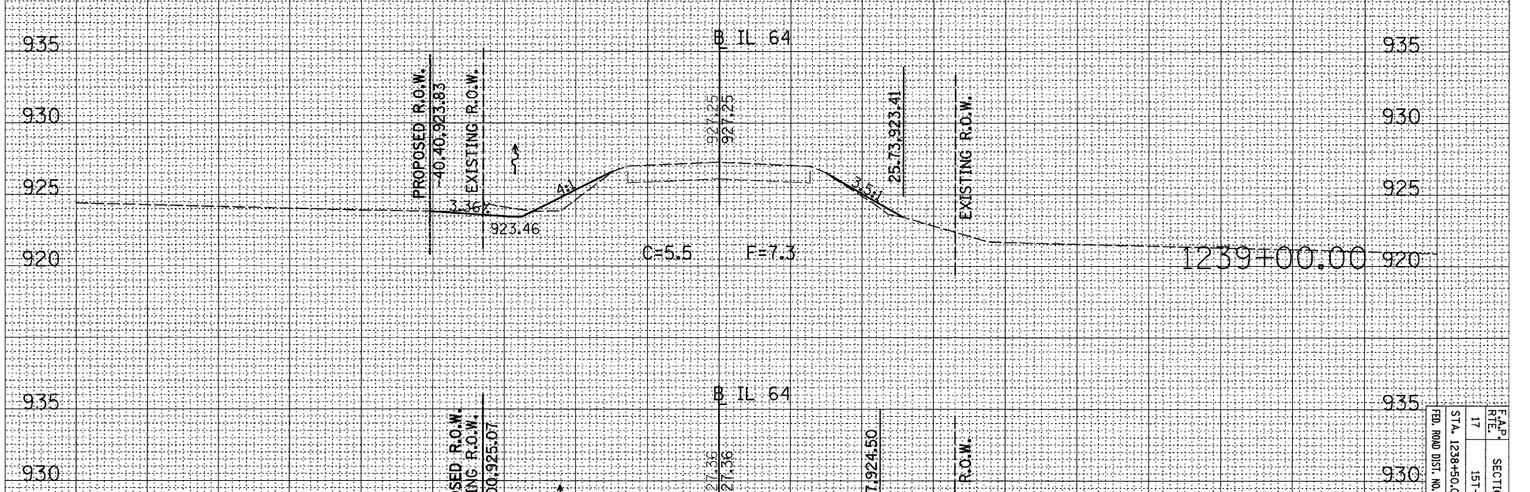


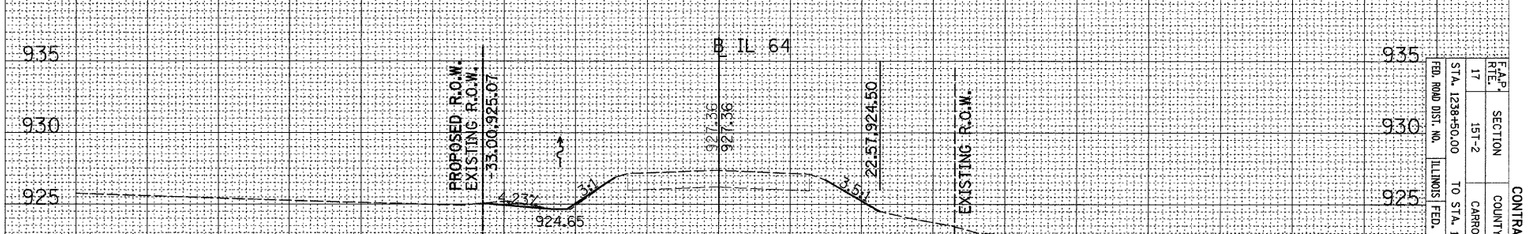
REFER TO PLAN SHEET FOR INVERT ELEVATIONS.











F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	64
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STA. 1238+50.00 TO STA. 1239+75.36

CONTRACT NO. 64C35

PLOT DATE = Mon Jan 28 07:36:41 2008
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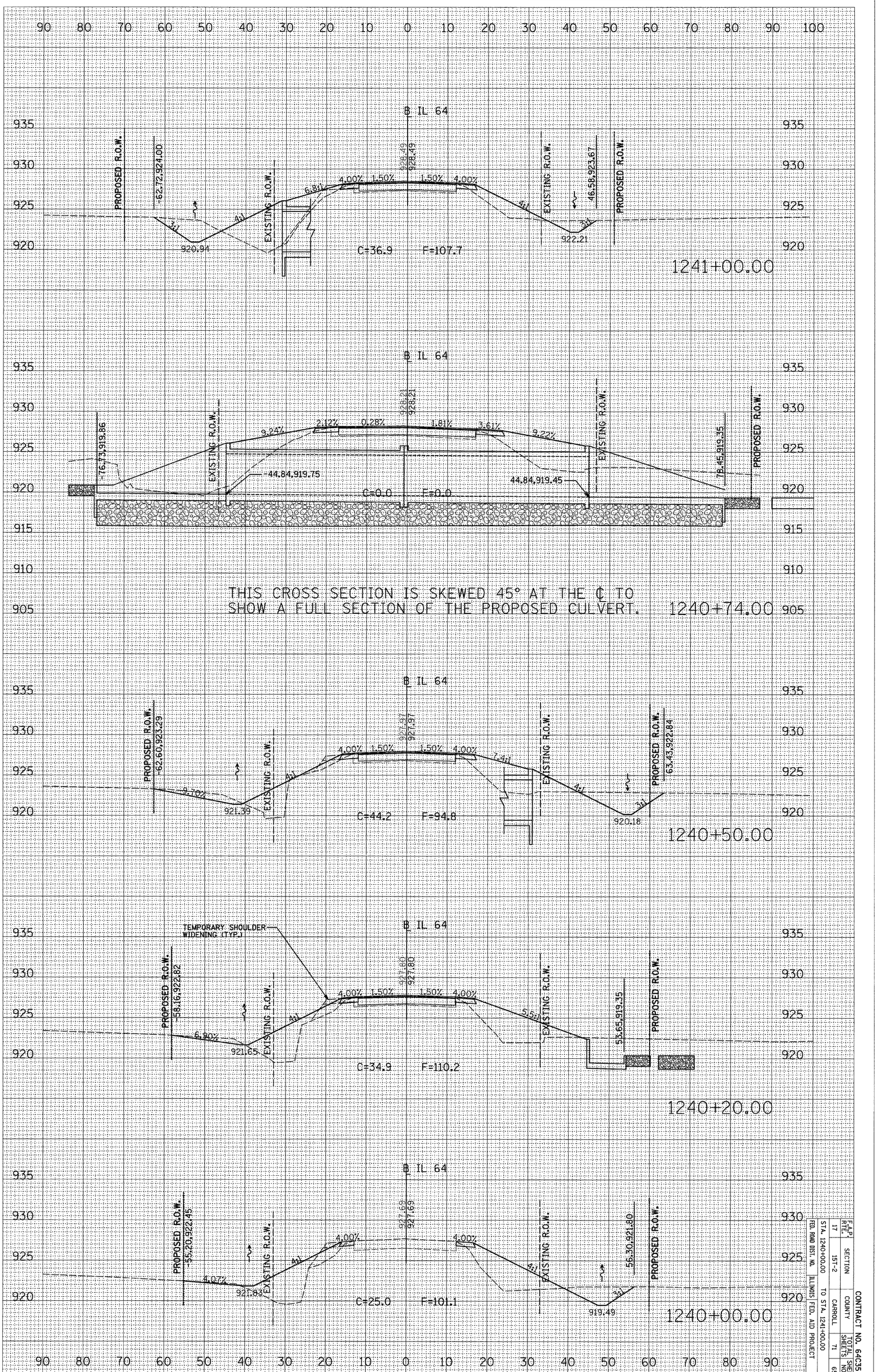
PLOT SCALE = 10.0000 ' / IN.
USER NAME = hensonke

ORIGINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
	AREAS		
NO.	AREAS CHECKED		

MAURER ▲ STUTZ, INC.
ENGINEERS SURVEYORS

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



CONTRACT NO. 64C35

FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	151-2	CARROLL	71	65

STA. 1240+00.00 TO STA. 1241+00.00

PLOT DATE = Mon Jan 28 07:36:41 2008
FILE NAME = K:\Projects\Carroll\64C35_IL64_IL78_to_Sole_plans\Henson_project_file\Maurer-Stutz\Final plans\Revised\Z07806XM1.dgn
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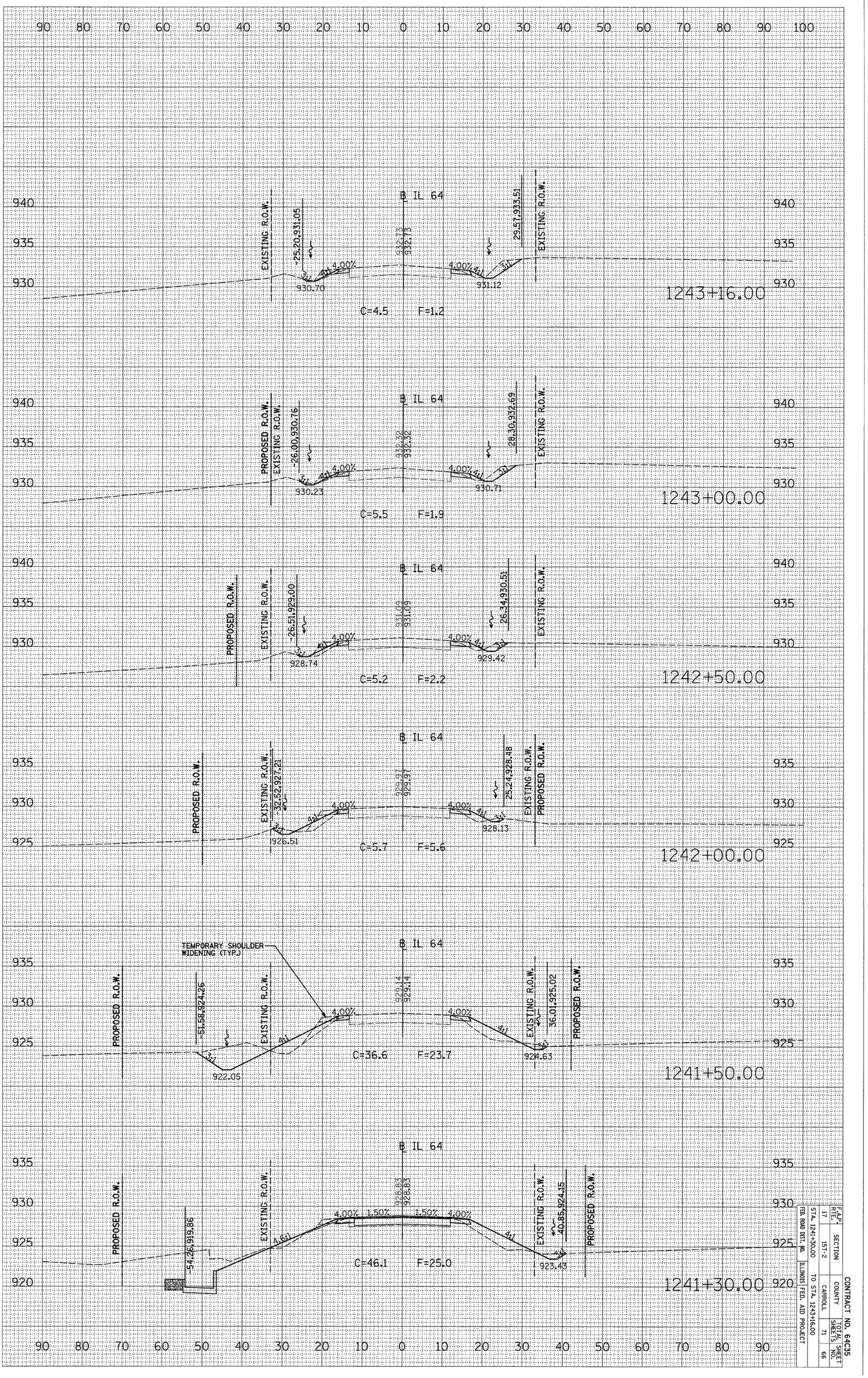
USER NAME = hansonke

ORIGINAL SURVEY		BY	DATE
	SURVEYED		
	PLOTTED		
	AREAS		
NO.	AREAS CHECKED		

MAURER ▲ STUTZ, INC.
ENGINEERS SURVEYORS

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



CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	1ST-2	CARROLL	71	66

STA. 1241+30.00 TO STA. 1243+16.00
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

PLOT DATE = Mon Jan 28 07:36:41 2008
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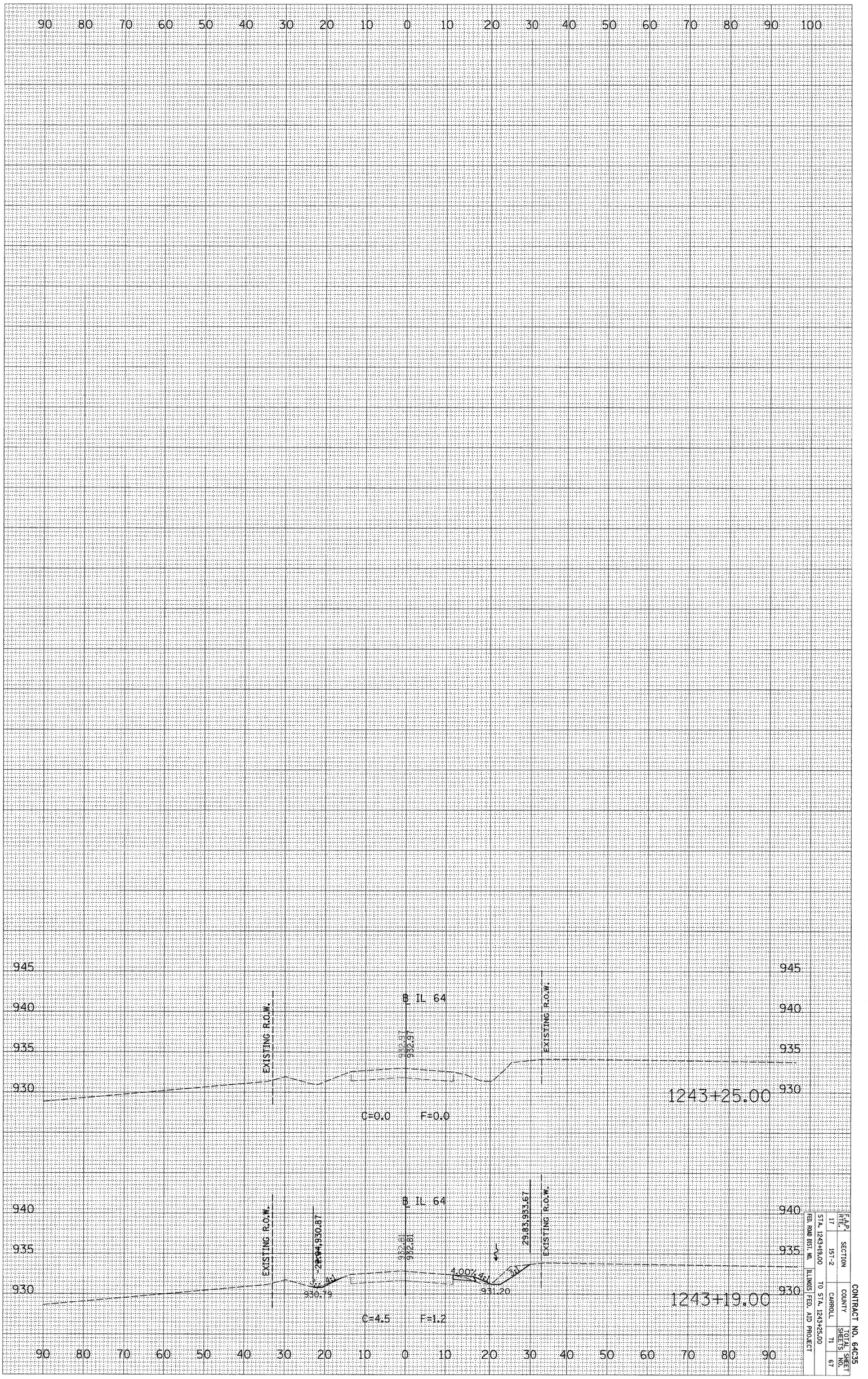
USER NAME = hensonke

ORIGINAL SURVEY		BY	DATE
NO.	SURVEYED		
	PLOTTED		
	AREAS		
	AREAS CHECKED		

MAURER ▲ STUTZ, INC.
ENGINEERS SURVEYORS

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



CONTRACT NO. 64C35

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	151-2	CARROLL	71	67

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

STA. 1243+19.00 TO STA. 1243+25.00

CONTRACT NO. 64C35

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	68
STA. 135499.9694	TO STA. 135699.9694			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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

PLOT DATE = Mon Jan 28 07:42:18 2008
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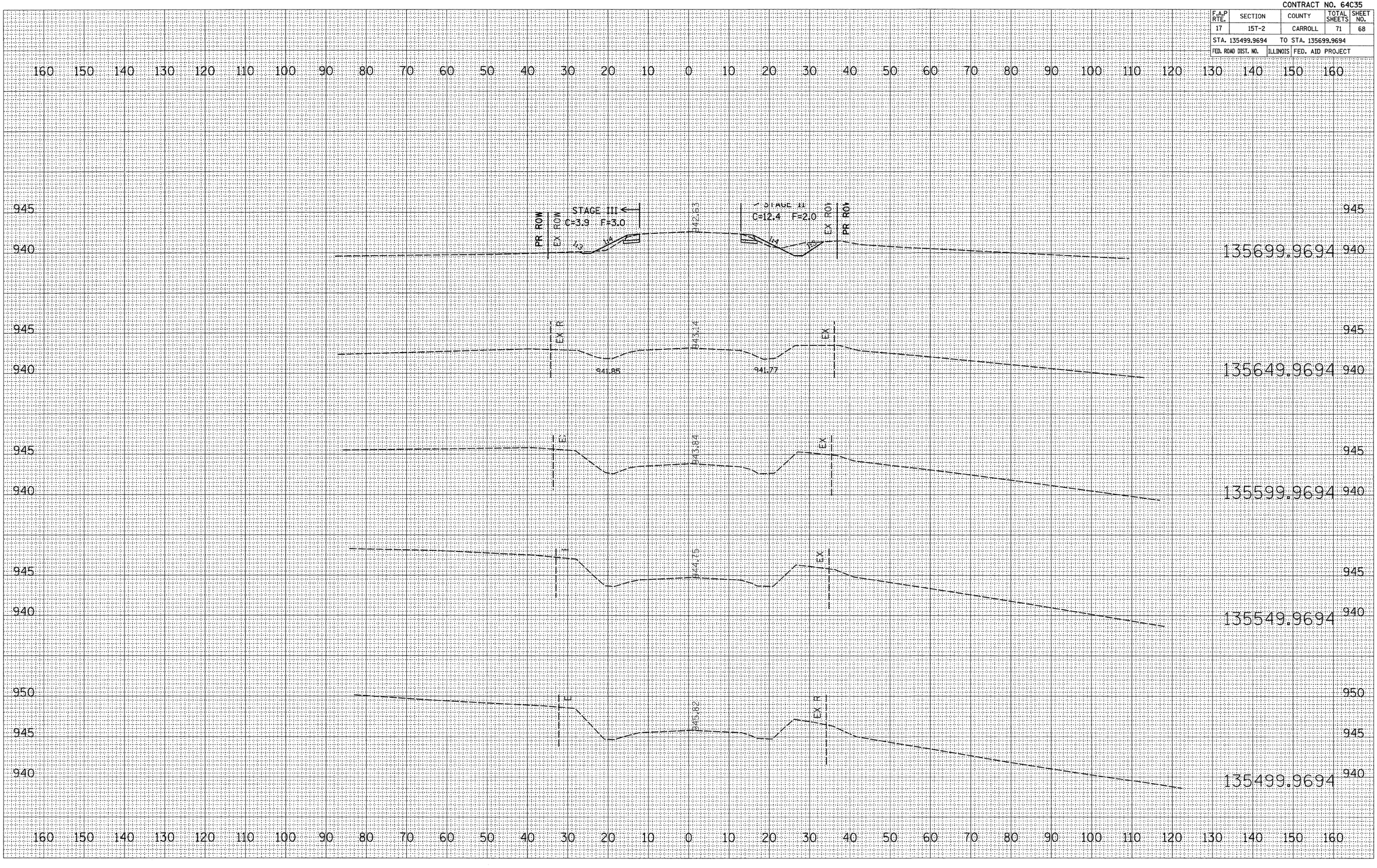
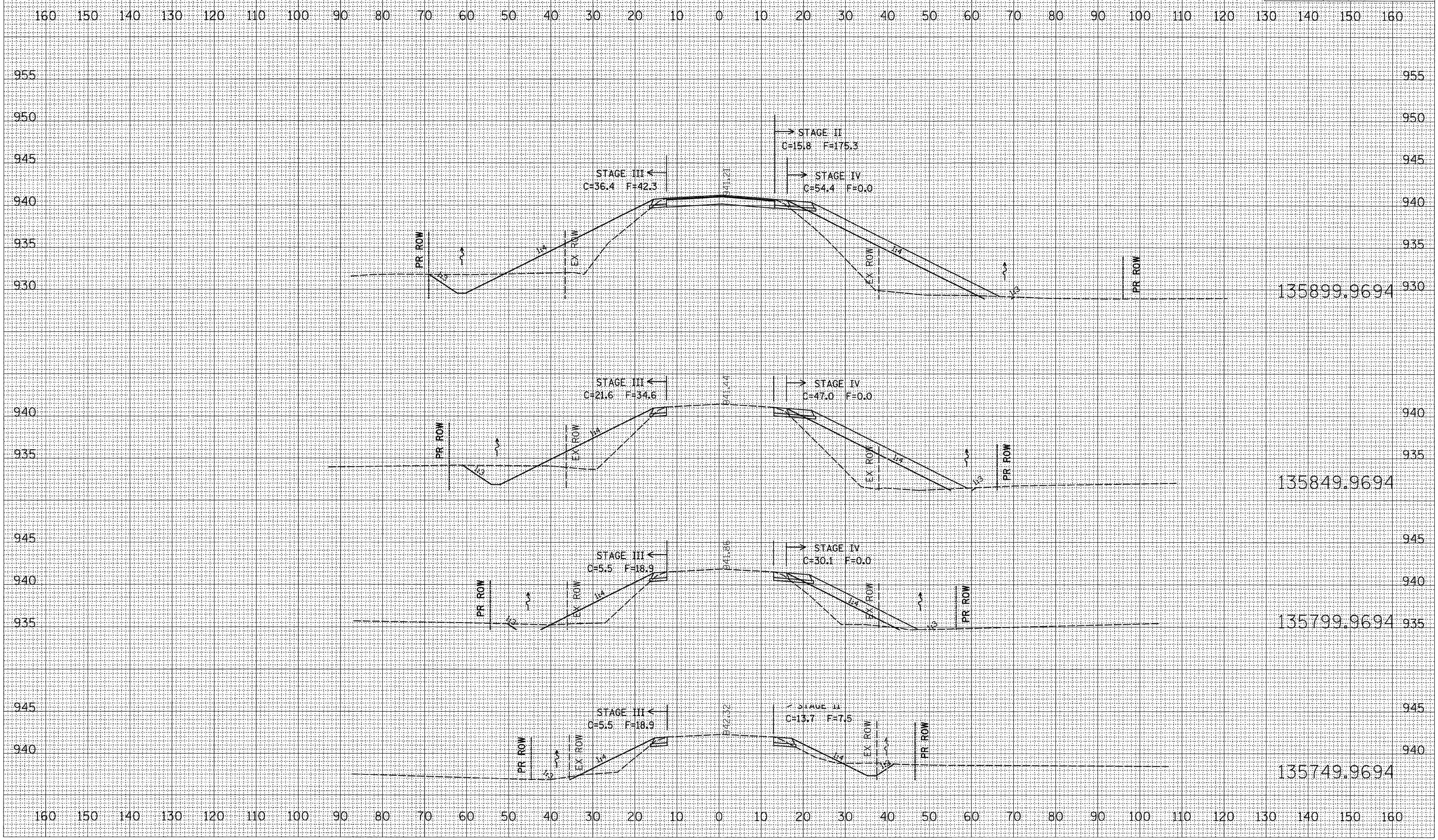
USER NAME = hansonke



CONTRACT NO. 64C35

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	69
STA. 135749.9694 TO STA. 135899.9694				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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

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

PLOT DATE = Mon Jan 28 07:42:16 2008
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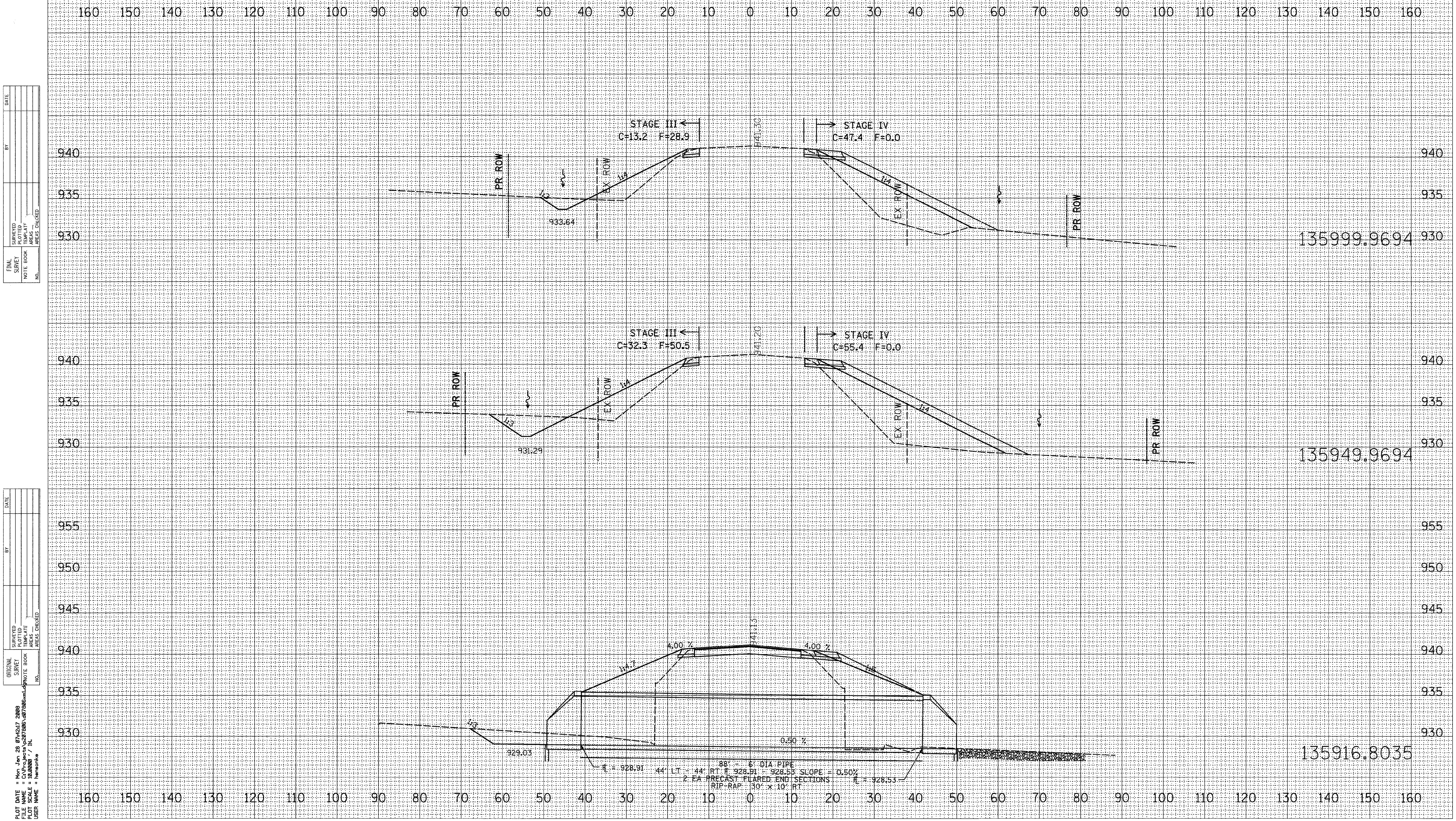
USER NAME = hansonke

CONTRACT NO. 64C35

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	70
STA. 135916.8035 TO STA. 135999.9694				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



CONTRACT NO. 64C35

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	15T-2	CARROLL	71	71
STA. 136049.9694	TO STA. 136249.9694			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT