11-7-08 Letting, Item 063

PROJECT ENGINEER: REBECCA MARRUFFO

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

INDEX

STATE STANDARDS

280001-04	TEMPORARY EROSION CONTROL SYSTEMS
420401-06	BRIDGE APROACH PAVEMENT
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
515001-02	NAME PLATE FOR BRIDGES
542406	METAL END SECTION FOR PIPE ARCHES
630001-07	STEEL PLATE BEAM GUARDRAIL
630301-04	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-06	TRAFFIC BARRIER TERMINAL, TYPE 6
635001	DELINEATORS
635006-02	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-01	REFLECTOR MARKER AND MOUNTING DETAIL
666001	RIGHT-OF-WAY MARKERS
667101	PERMANENT SURVEY MARKERS
701001-01	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 4.5M (15') AWAY
701006-02	OFF-ROAD OPERATIONS, 2L, 2W, 4.5M (15') TO 600 MM (24") FROM PAVEMENT EDGE
701011-01	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-02	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45MPH
701301-02	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-02	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS, DAY ONLY
701321-09	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-02	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS > 45MPH
701901	TRAFFIC CONTROL DEVICES
704001-04	TEMPORARY CONCRETE BARRIER
720011	METAL POSTS FOR SIGNS, MARKERS AND DELINIATORS
728001	TELESCOPING STEEL SIGN SUPPORT
729001	APPLICATIONS OF TYPES A AND 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
BLR 21-7	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-01	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
601101	CONCRETE HEADWALL FOR PIPE DRAIN

0 100' 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
OR 811

CONTRACT NO. 64C25

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

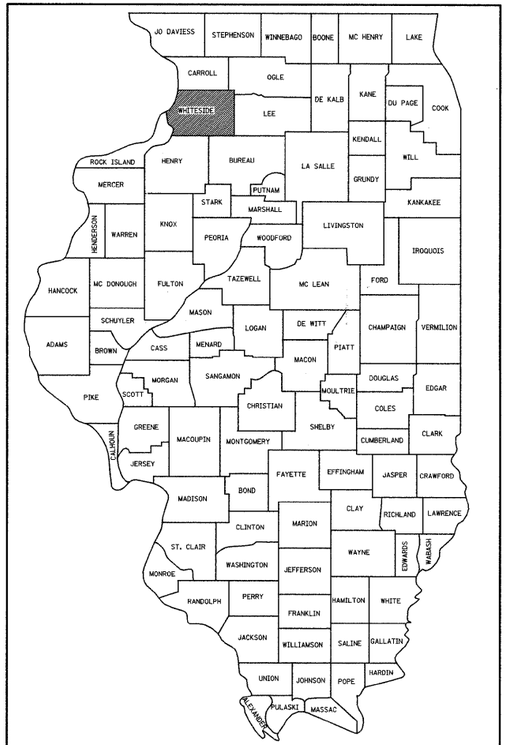
PROPOSED
HIGHWAY PLANS

FAP ROUTE 308 (IL 84)
SECTION 109BR-5
PROJECT ACNHF-0308(033)
WHITESIDE COUNTY

C-92-122-06

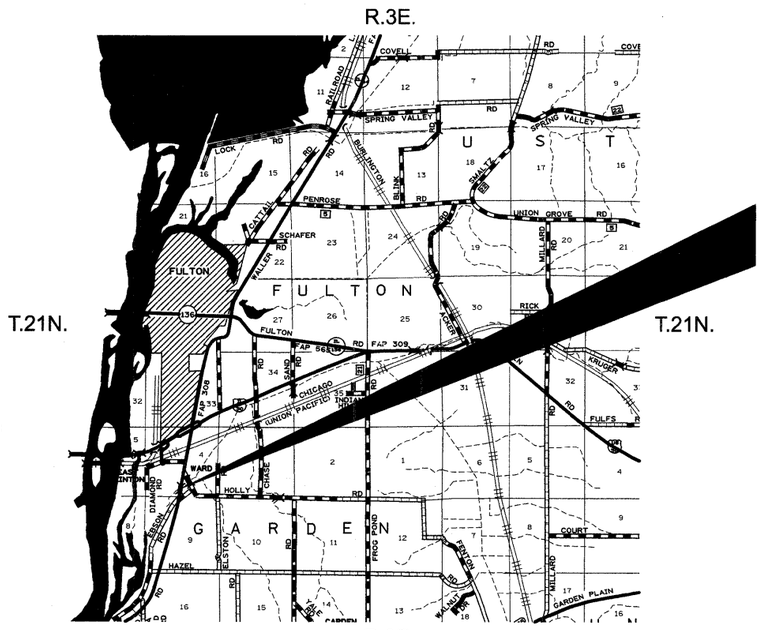
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 64C25		

D-92-060-06



LOCATION OF SECTION INDICATED THUS: –

N



IMPROVEMENT BEGINS
STA. 325 + 80

SECTION BEGINS
STA. 339 + 00
INCLUDES THE REMOVAL AND REPLACEMENT OF THE STRUCTURE CARRYING IL 84 OVER CATTAIL CREEK STA 344 + 76
EXISTING SN-098-0021
PROPOSED SN-098-0114

SECTION ENDS
STA. 348 + 55

IMPROVEMENT ENDS
STA. 360 + 70

GARDEN PLAIN TOWNSHIP, SECTIONS 4,9
GROSS LENGTH = 3,490 FT. = 0.66 MILES
NET LENGTH = 3,490 FT. = 0.66 MILES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 8/1 20 08
George E. Ryan
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
October 3, 20 08
Erie E. Harm (R)
Interim ENGINEER OF DESIGN AND ENVIRONMENT
October 3, 20 08
Christine M. Reed (R)
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

SUMMARY OF QUANTITIES

CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	ROADWAY I000 80% FED 20% STATE	X020-2A
20101000	TEMPORARY FENCE	FOOT	2306	2306	
20100500	TREE REMOVAL, ACRES	ACRE	0.55	0.55	
20200100	EARTH EXCAVATION	CU YD	1035	1035	
20400800	FURNISHED EXCAVATION	CU YD	2222	2222	
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	83		83
21101625	TOPSOIL FURNISH AND PLACE, 6"	SQ YD	9811	9811	
25000210	SEEDING, CLASS 2A	ACRE	2	2	
25100105	MULCH, METHOD 1	ACRE	0.5	0.5	
25100630	EROSION CONTROL BLANKET	SQ YD	7906	7906	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	805	805	
28000400	PERIMETER EROSION BARRIER	FOOT	4175	4175	
28000500	INLET AND PIPE PROTECTION	EACH	1	1	
28100107	STONE RIPRAP, CLASS A4	SQ YD	1283	28	1255
28200200	FILTER FABRIC	SQ YD	1283	28	1255
35101400	AGGREGATE BASE COURSE, TYPE B	TON	864	864	
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	6	6	
40600300	AGGREGATE (PRIME COAT)	TON	22	22	
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	1224	1224	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	144	144	
40600990	TEMPORARY RAMP	SQ YD	73	73	
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	350	350	
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	205	205	
40800050	INCIDENTIAL HOT-MIX ASPHALT SURFACING	TON	225	225	
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	288	288	
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	58	58	
48101200	AGGREGATE SHOULDERS, TYPE B	TON	94	94	
48203023	HOT-MIX ASPHALT SHOULDERS, 6 1/2"	SQ YD	4464	4464	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
50105200	REMOVE EXISTING CULVERTS	EACH	1		1
50200100	STRUCTURE EXCAVATION	CU YD	148		148
50300225	CONCRETE STRUCTURES	CU YD	182.4		182.4
50300255	CONCRETE SUPERSTRUCTURE	CU YD	310.4		310.4
50300260	BRIDGE DECK GROOVING	SQ YD	439		439
50300280	CONCRETE ENCASEMENT	CU YD	11		11
50300300	PROTECTIVE COAT	SQ YD	548		548
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	71420		71420

* SPECIALITY ITEM

FILE NAME = c:\projects\p206006\d06006cvr.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 13:03:47 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	2
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

	CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	ROADWAY I000 80% FED 20% STATE	X020-2A
	50800515	BAR SPLICERS	EACH	285		285
	51200959	FURNISHING METAL SHELL PILES 14" x 0.312"	FOOT	1867		1867
	51202305	DRIVING PILES	FOOT	1867		1867
	51203200	TEST PILE METAL SHELLS	EACH	2		2
	51205200	TEMPORARY SHEET PILING	SQ FT	967		967
	51500100	NAME PLATES	EACH	1		1
	54208665	PIPE CULVERTS, TYPE 2, CORRUGATED STEEL, EQUIVALENT ROUND-SIZE 60"	FOOT	84	84	
	54215805	METAL END SECTIONS, EQUIVALENT ROUND-SIZE 60"	EACH	2	2	
	59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	52		52
	60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	160		160
	63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	3100	3100	
	63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4	
	63200310	GUARDRAIL REMOVAL	FOOT	3340	3340	
	63500105	DELINEATORS	EACH	6	6	
	66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	25	25	
	66700305	PERMANENT SURVEY MARKERS, TYPE II	EACH	2	2	
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6	
	67100100	MOBILIZATION	L SUM	1	1	
	70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1	
	70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1	
	70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1	
	70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1	1	
	70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	20	20	
	70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1	
	70300100	SHORT-TERM PAVEMENT MARKING	FOOT	493	493	
	70300220	TEMPORARY PAVEMENT MARKING-LINE 4"	FOOT	6184	6184	
	70300280	TEMPORARY PAVEMENT MARKING-LINE 24"	FOOT	76	76	
	70301000	WORKZONE PAVEMENT MARKING REMOVAL	SQ FT	2252	2252	
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	1200	1200	
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1125	1125	
*	78001110	PAINT PAVEMENT MARKING LINE - 4"	FOOT	11,803	11,803	
*	78001180	PAINT PAVEMENT MARKING LINE - 24"	FOOT	146	146	
*	78100100	RAISED REFLECTIVE PAVEMENT MARKERS	EACH	13	13	
*	78200410	GUARDRAIL MARKERS, TYPE A	EACH	47	47	

FILE NAME = c:\projects\p206006\d06006cvr.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 13:03:48 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	3
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

	CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY	ROADWAY I000 80% FED 20% STATE	X020-2A
*	78200520	BARRIER WALL MARKERS, TYPE B	EACH	6	6	
*	78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
	78300100	PAVEMENT MARKING REMOVAL	SQ FT	808	808	
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	13	13	
	Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	40		40
☢	Z0005300	BOX CULVERTS TO BE CLEANED	EACH	1	1	
	Z0010555	DITCH CLEANING	FOOT	2640	2640	
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
	Z0030250	IMPACT ATTENUATORS, TEMPORARY (NONREDIRECTIVE), TEST LEVEL 3	EACH	2	2	
	Z0030350	IMPACT ATTENUATORS, RELOCATE (NONREDIRECTIVE), TEST LEVEL 3	EACH	2	2	
*	A2006514	TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 1-3/4" CALIPER, BALLED AND BURLAPPED	EACH	55	55	
	X0712400	TEMPORARY PAVEMENT	SQ YD	709	709	
	X0919000	TEMPORARY PAVEMENT REMOVAL	SQ YD	709	709	
	X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	1		1
	X5020502	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2	EACH	1		1

* SPECIALITY ITEM

☢ NP 100% STATE

FILE NAME = c:\projects\p206006\d06006cvr.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 13:03:48 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	4
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308 (IL 84)	109BR-5	Whiteside	83	5
FED ROAD DIST. NO.	ILLINOIS	PROJECT		
Contract #64C25				

The removal of Bituminous Surfacing not on a rigid type base removed in conjunction with the base shall be removed as EARTH EXCAVATION. The removal of Bituminous Surfacing on a rigid type base removed in conjunction with the base shall be included in the contract unit price for PAVEMENT REMOVAL of the type specified.

The final top 100 mm (six 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.

It is estimated that 2,222 cubic yards of earth will be hauled to the job from outside the project limits. A shrinkage factor of 25% has been used.

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.

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

The Contractor shall seed all disturbed areas within the project limits. Seeding Class 2A shall be used.

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.

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.

Except for the top 75 mm (3"), all aggregate bases and subbases 300 mm (12") in thickness shall be constructed of aggregate gradation CA-2. If the specified thickness exceeds 300 mm (12"), the bases or subbases shall be constructed of topsize 150 mm (6") breaker-run crushed stone with 70% to 90% by weight, passing the 4" sieve and 15% to 40% by weight, passing the 50 mm (2") size sieve, except for the top 75 mm (3"). The breaker-run crushed stone shall be reasonably uniformly graded from coarse to fine and be taken from a quarry ledge capable of producing Class "D" quality aggregate. The top 75 mm (3") shall be gradation CA-6 or CA-10 regardless of thickness. The water necessary to achieve compaction in all but the top 75 mm (3") layer may be added after the subbase or base course is placed on the grade.

The following Mixture Requirements are applicable for this project:

Mixture Uses(s):	Surface & Level Binder (top lift)	Level Binder (bottom lift)	Top Shoulder	Bottom Shoulder
PG:	PG 64-22	PG 64-22	PG 58-22	PG 58-22
Design Air Voids	4.0 @ N50	4.0 @ N50	3.0 @ N50	2.0 @ N50
Mixture Composition (Gradation Mixture)	IL 9.5 or 12.5	IL 9.5	IL 9.5 or 12.5	BAM
Friction Aggregate	D	N/A	C	N/A
20 Year ESAL	1.6	1.6	N/A	N/A

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.

To help avoid excess drop offs at the edge of pavement, the existing aggregate wedge or shoulder is to be pulled up and rolled to match the edge of pavement before placing any bituminous material. All costs associated with pulling up the shoulders shall be considered included in the contract unit price per TON for HOT-MIX ASPHALT SURFACE COURSE of the type specified.

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 LEVELING BINDER (MACHINE METHOD) of the type specified.

A Nationwide 404 Permit has been issued for this project and the conditions of that permit must be adhered to.

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.

Reflector Markers Type B shall be installed on the top of bridge parapet walls. The markers shall be according to Standard 635011 and the color and spacing according to Standard 635006, except the minimum is 2 per side.

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.

The Contractor shall clean out all AR culverts and stream flows to the right-of-way lines on the entire section. The cost shall be included in the contract unit price for BOX CULVERTS TO BE CLEANED.

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.

The excavated materials from earth excavation widening, grading and shaping ditches, and excavating and grading shoulders shall be used to build up the shoulder throughout the job to conform with the typical sections and shoulder widening for terminals as shown on the plans.

Embankment quantities for the construction of the Traffic Barrier Terminals as shown in the plans are included in quantities for Earth Excavation.

The Contractor shall supply the Resident Engineer with the manufacturer's installation requirements for the type of Steel Plate Beam Guardrail Terminal Type 1 Special (Tangent) or Steel Plate Beam Guardrail Terminal Type I Special (Flared).

One 16d galvanized nail shall be used to toe nail the wood block out to the wood post on all Traffic Barrier Terminal Type I Specials.

Delineators shall be installed as shown in Standard 635001, except that the post shall be rotated 180° and only metal-backed delineators shall be permitted.

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.

GENERAL NOTES

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308 (IL 84)	109BR-5	Whiteside	83	6
FED ROAD DIST. NO.	ILLINOIS	PROJECT		
Contract #64C25				

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

1. All words, such as ONLY, shall be 2.4 m (8 feet) high.
2. All non-freeway arrows shall be the large size.
3. 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: 2 Each.

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

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

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.

Predator Protection: Within seven days after planting, the trees shall be wrapped from the ground line to a height of three feet with a one-half inch square mesh, galvanized, steel wire with a minimum gauge of 19 (hardware cloth) at a diameter of 14 inches, measured from the center of the trunk with a four inch overlap. The screen wire shall be secured with a minimum of four steel staples (hog rings).

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.

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:

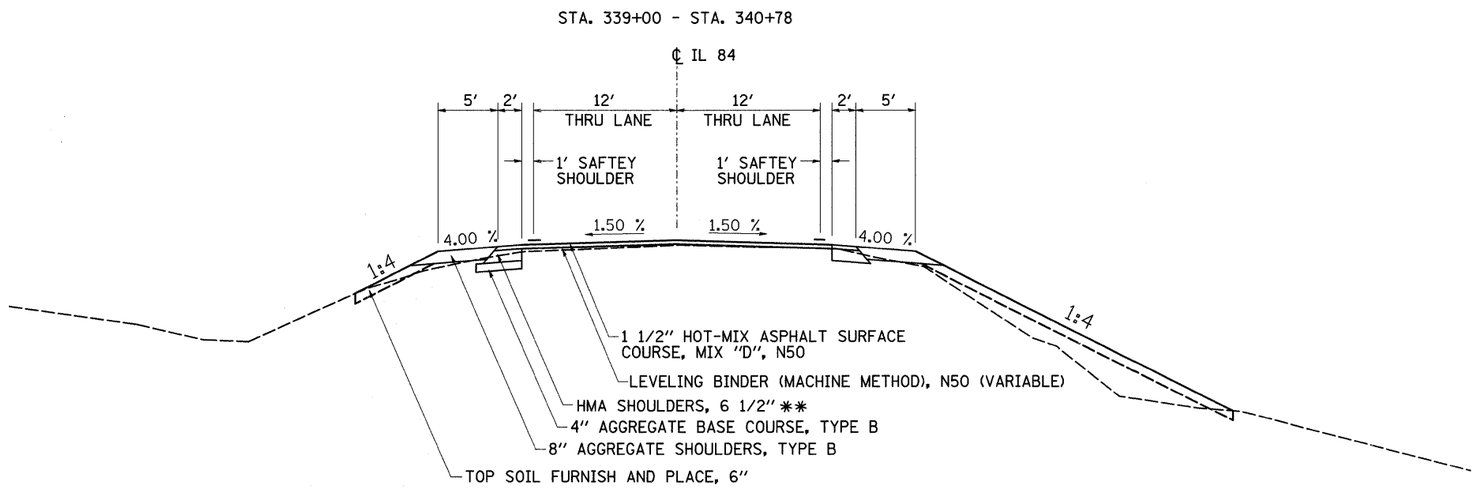
Mediacom
Jo-Carroll Energy
US Sprint
Commonwealth Edison Co.
Frontier/Citizens

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 new number for the structure at Sta. 344+76 will be 098-0114.

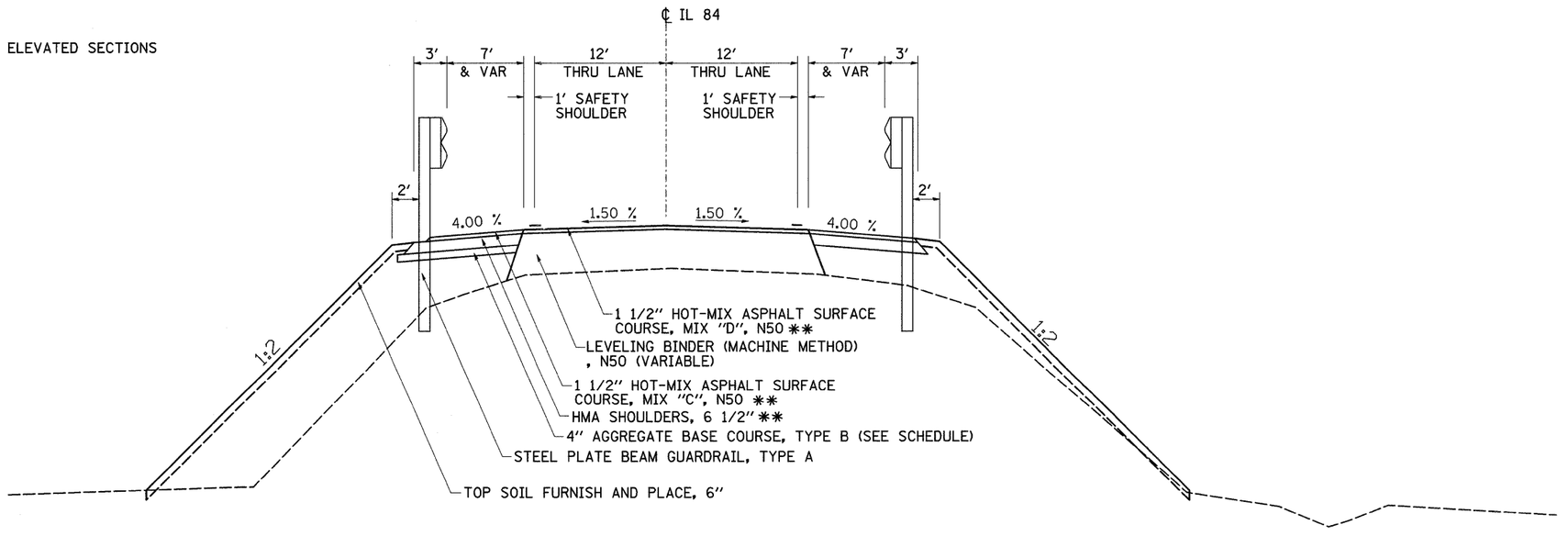
TYPICAL SECTIONS

STA. 339+00 - STA. 340+78



STA. 340+78 - STA. 348+48

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



FILE NAME = c:\projects\p206006\d06006typ.dgn	USER NAME = nensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ′ / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 09:19:31 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

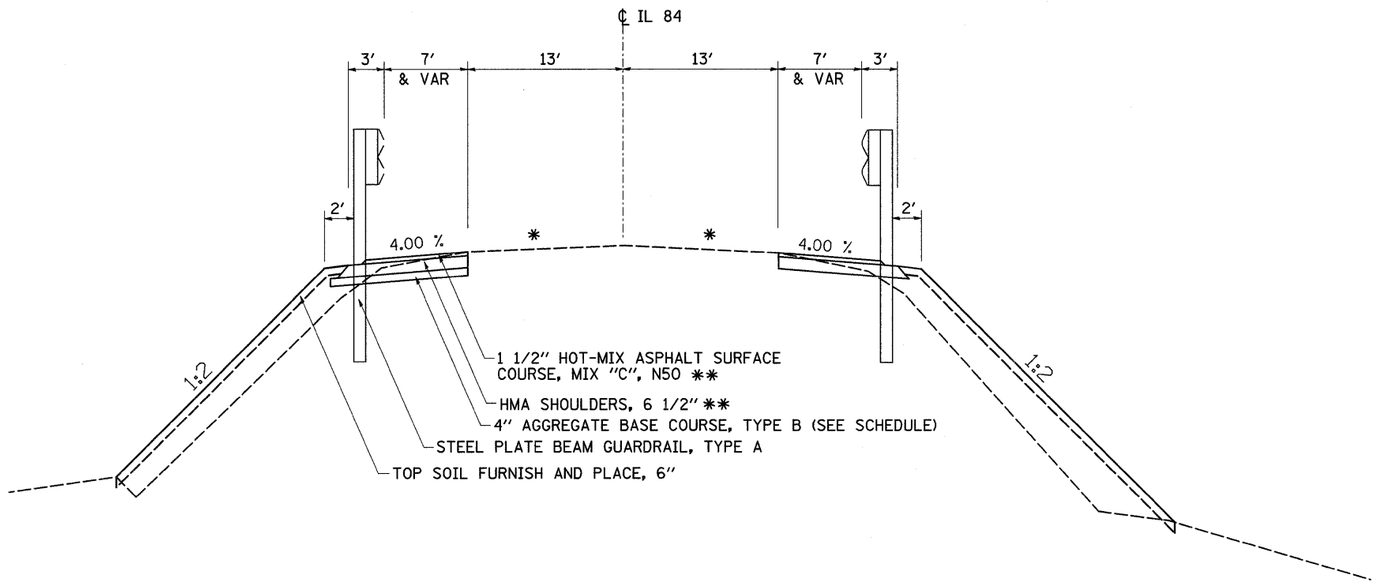
TYPICAL SECTIONS

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	7
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

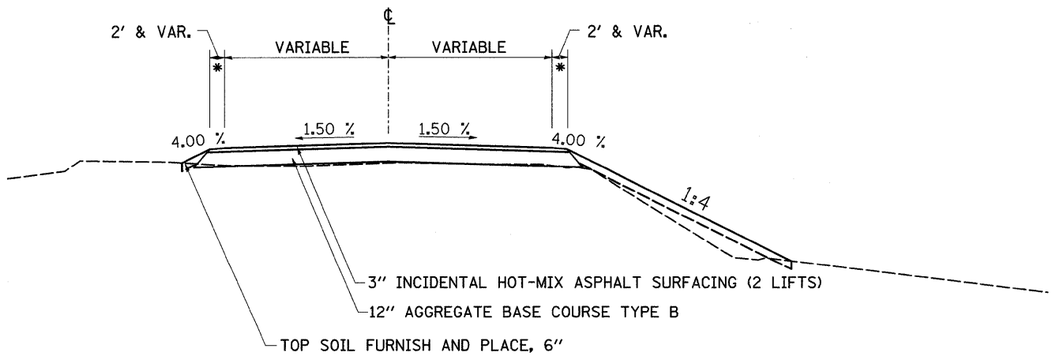
TYPICAL SECTIONS

STA. 348+55 - STA. 360+70

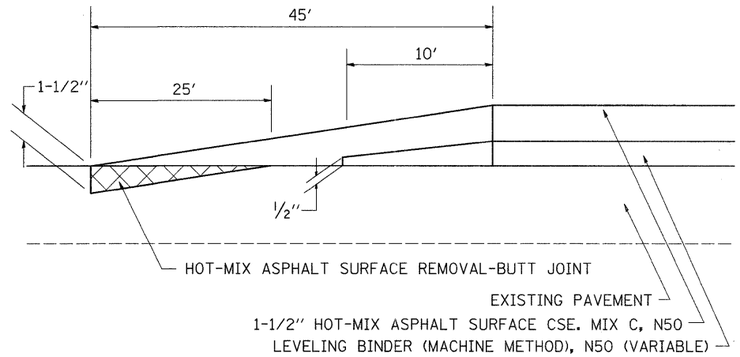


* MATCH EXISTING MAINLINE SLOPE
** 112 LB/SQ YD IN

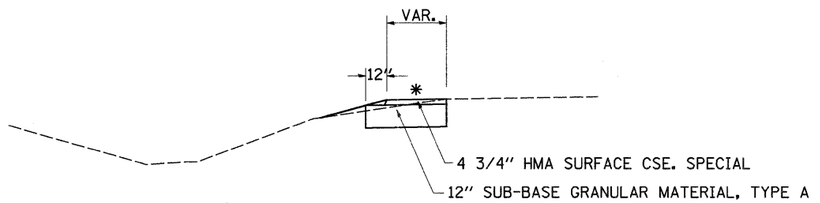
EAST EBSON RD
WEST EBSON RD



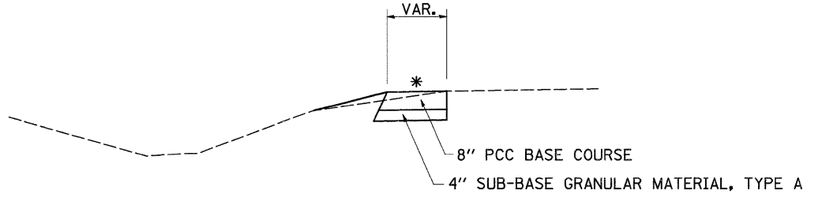
HMA SURFACE REMOVAL-BUTT JOINT TYPICAL
STA 338+55 TO STA 339+00
STA 348+55 TO STA 349+00



TEMPORARY PAVEMENT (ASPHALT OPTION)
IL 84



TEMPORARY PAVEMENT (PCC OPTION)
IL 84



FILE NAME = c:\projects\p206006\d06006typ.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 09:19:31 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

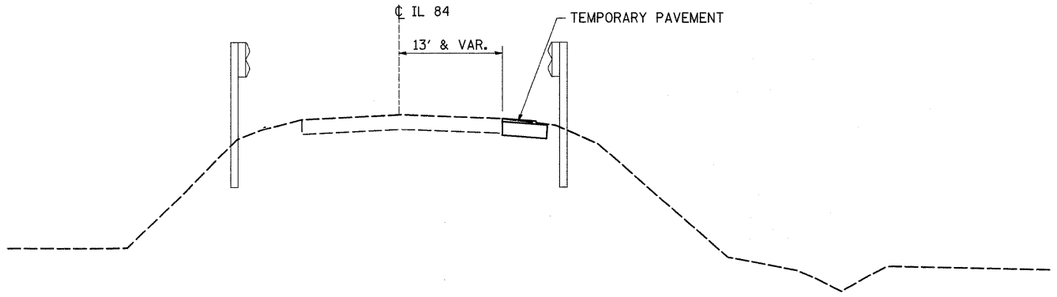
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	8
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGING TYPICAL SECTIONS

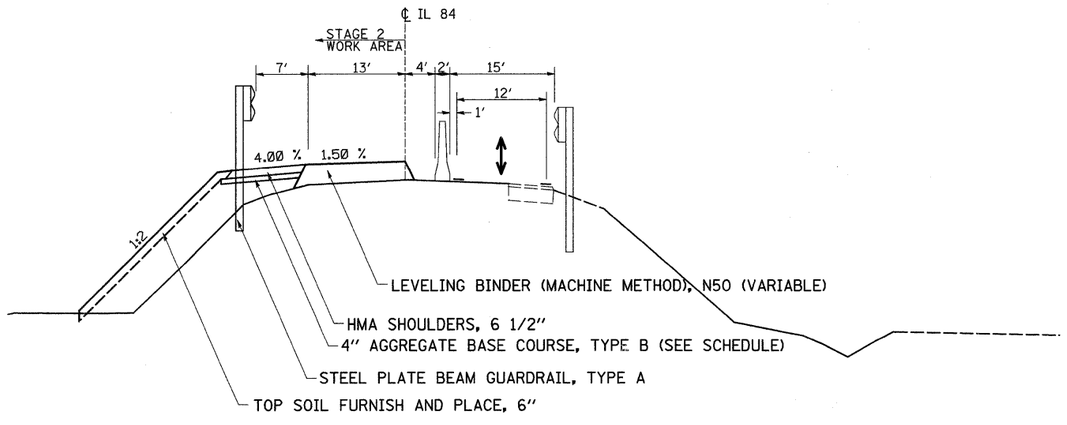
STAGE 1

STA. 341+78.90 - STA. 344+50.71
STA. 345+70.00 - STA. 349+89.94



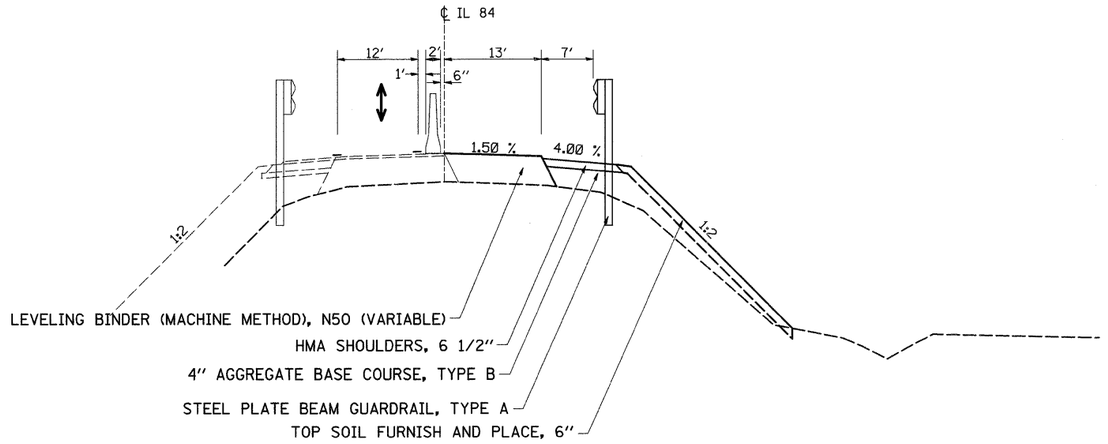
STAGE 2

STA. 342+95 - STA. 343+95
STA. 345+58.61 - STA. 348+55



STAGE 3

STA. 342+95 - STA. 343+95
STA. 345+58.61 - STA. 348+55



FILE NAME = c:\projects\p206006\d06006typ.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ′ / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 09:19:32 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	9
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

20101000 TEMPORARY FENCE

FOOT		LOCATION				REMARK'S
295	RT	342+	28 TO	344+	94	Provide protection of Wetlands
479	RT	345+	30 TO	349+	95	Provide protection of Wetlands
373	LT	340+	95 TO	344+	34	Provide protection of Wetlands
615	LT	344+	85 TO	350+	72	Provide protection of Wetlands
371	LT	351+	47 TO	354+	85	Provide protection of Wetlands
173	LT	355+	8 TO	356+	68	Provide protection of Wetlands
2306	TOTAL					

20100500 TREE REMOVAL, ACRES

ACRES		LOCATION				REMARK'S
0.55	LT/RT	339+	10 TO	359+	8	
0.55	TOTAL					

25100630 EROSION CONTROL BLANKET

SQ YD		LOCATION				REMARK'S
817.8	LT. STA.	341+	0 TO	344+	0	
407.4	RT. STA.	342+	0 TO	344+	0	
3225.7	LT. STA.	345+	50 TO	360+	70	
3455.3	RT. STA.	345+	50 TO	360+	70	
7906.2	TOTAL					

28000400 PERIMETER EROSION BARRIER

FOOT		LOCATION				REMARK'S
91	LT. STA.	339+	0 TO	1202+	43	SW Quad (W. Ebson Rd.)
343	RT. STA.	339+	0 TO	1001+	77	SE Quad (E. Ebson Rd.)
410	LT. STA.	1202+	43 TO	343+	97	NW Quad (W. Ebson Rd.)
250	RT. STA.	1001+	26 TO	344+	32	NE Quad (E. Ebson Rd.)
1556	LT. STA.	345+	23 TO	360+	71	Along IL 84
1525	RT. STA.	345+	63 TO	360+	71	Along IL 84
4175	TOTAL					

28000500 INLET AND PIPE PROTECTION

EACH		LOCATION		REMARK'S
1	RT. STA.	1000+	75	E. Ebson Rd.
1	TOTAL			

28100107 STONE RIPRAP, CLASS A4

SQ YD		LOCATION		REMARK'S
27.8	LT. STA.	1000+	75	E. Ebson Rd.
27.8	TOTAL			

28200200 FILTER FABRIC

SQ YD		LOCATION		REMARK'S
27.8	LT. STA.	1000+	75	E. Ebson Rd.
27.8	TOTAL			

42001165 BRIDGE APPROACH PAVEMENT

SQ YD	LOCATION				REMARK'S
144	343+	95 TO	344+	25	
144	345+	29 TO	345+	59	
288	TOTAL				

42001430 BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)

SQ YD	LOCATION				REMARK'S
29	343+	89 TO	343+	95	
29	345+	59 TO	345+	65	
58	TOTAL				

54208665 PIPE CULVERTS, TYPE 2, CORRUGATED STEEL, EQUIVALENT ROUND SIZE 60"

FOOT		LOCATION		REMARK'S
84		1000+	75	E. Ebson Rd.
84	TOTAL			

54215805 METAL END SECTIONS, EQUIVALENT ROUND-SIZE 60"

EACH		LOCATION		REMARK'S
2	LT/RT	1000+	75	E. Ebson Rd.
2	TOTAL			

63000000 STEEL PLATE BEAM GUARD RAIL, TYPE A

FOOT		LOCATION				REMARK'S
262.5	LT. STA.	341+	8 TO	343+	70	
162.5	RT. STA.	342+	31 TO	343+	93	
1337.5	LT. STA.	345+	60 TO	358+	98	
1337.5	RT. STA.	345+	83 TO	359+	21	
3100	TOTAL					

63100085 TRAFFIC BARRIER TERMINAL, TYPE 6

EACH		LOCATION				REMARK'S
1	LT. STA.	343+	70 TO	344+	14	SW Corner Departing
1	RT. STA.	343+	93 TO	344+	37	SE Corner Approach
1	LT. STA.	345+	16 TO	345+	60	NW Corner Approach
1	RT. STA.	345+	40 TO	345+	83	NE Corner Departing
4	TOTAL					

63100167 TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT

EACH		LOCATION				REMARK'S
1	LT. STA.	340+	58 TO	341+	8	
1	RT. STA.	341+	81 TO	342+	31	
1	LT. STA.	358+	98 TO	359+	48	
1	RT. STA.	359+	21 TO	359+	71	
4	TOTAL					

63200310 GUARDRAIL REMOVAL

FOOT		LOCATION				REMARK'S
264	LT. STA.	341+	60 TO	344+	24	
126	LT. STA.	343+	26 TO	344+	52	
1501	RT. STA.	345+	2 TO	360+	3	
1449	LT. STA.	345+	31 TO	359+	80	
3340	TOTAL					

63500105 DELINEATORS

EACH		LOCATION				REMARK'S
2	LT/RT	1000+	75			AR Culvert 76" x 48" CMP Elliptical Pipe (60" EQRS)
1	LT. STA.	340+	58			At End of Type 1 (Special) Tangent
1	RT. STA.	341+	81			At End of Type 1 (Special) Tangent
1	LT. STA.	359+	48			At End of Type 1 (Special) Tangent
1	RT. STA.	359+	71			At End of Type 1 (Special) Tangent
6	TOTAL					

FILE NAME = c:\projects\p206006\d06006cvr.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 13:03:48 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	10
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

66600105 FURNISHING AND ERECTING RIGHT OF WAY MARKERS

EACH	LOCATION			REMARK'S
1	337+	97.83 @	47' RT.	
1	339+	0.00 @	55' RT.	
1	339+	50.00 @	40' LT.	
1	340+	0.00 @	90' LT.	
1	340+	0.00 @	60' RT.	
1	340+	50.00 @	65' RT.	
1	341+	0.00 @	60' LT.	
1	342+	50.00 @	60' RT.	
1	343+	0.00 @	60' LT.	
1	343+	75.00 @	75' LT.	
1	345+	0.00 @	75' LT.	
1	345+	50.00 @	60' LT.	
1	347+	79.89 @	60' RT.	
1	348+	0.00 @	60' RT.	
1	349+	0.00 @	55' RT.	
1	350+	0.00 @	60' LT.	
1	351+	0.00 @	55' LT.	
1	356+	0.00 @	55' LT.	
1	358+	50.00 @	50' LT.	
1	359+	0.00 @	40' LT.	
1	359+	50.00 @	55 RT.	
1	1116+	0.00 @	20' LT.	Holly Rd.
1	1001+	0.00 @	50' RT.	E. Ebson Rd.
1	1001+	50.00 @	19.56' LT.	E. Ebson Rd.
1	1001+	50.00 @	20.44' RT.	E. Ebson Rd.
25	TOTAL			

66700305 PERMANENT SURVEY MARKERS, TYPE II

EACH	LOCATION			REMARK'S
2	LT/RT	344+	58	Structure No. 098-0114
2	TOTAL			

70106500 TEMPORARY BRIDGE TRAFFIC SIGNALS

EACH	LOCATION					REMARK'S
1	RT/LT	336+	69 TO	351+	83	Stage 2 & Stage 3
1	TOTAL					

70300100 SHORT TERM PAVEMENT MARKING

FOOT	LOCATION				REMARK'S
493		336+	34 TO	361+	0
493	TOTAL				

70300220 TEMPORARY PAVEMENT MARKING – LINE 4"

FOOT	LOCATION					REMARK'S
	STAGE 2					
568	LT/RT	336+	34 TO	342+	0	Lt. Edge Line
600	RT	342+	0 TO	348+	0	Lt. Edge Line
372	RT/LT	348+	0 TO	351+	83	Lt. Edge Line
568	RT	336+	34 TO	342+	0	Rt. Edge Line
600	RT	342+	0 TO	348+	0	Rt. Edge Line
372	RT	348+	0 TO	351+	83	Rt. Edge Line
	STAGE 3					
568	RT/LT	336+	34 TO	342+	0	Rt. Edge Line
600	LT	342+	0 TO	348+	0	Rt. Edge Line
384	LT/RT	348+	0 TO	351+	83	Rt. Edge Line
568	LT	336+	34 TO	342+	0	Lt. Edge Line
600	LT	342+	0 TO	348+	0	Lt. Edge Line
384	LT	348+	0 TO	351+	83	Lt. Edge Line
6184	TOTAL					

70300280 TEMPORARY PAVEMENT MARKING – LINE 24"

FOOT	LOCATION			REMARK'S
	STAGE 2 & STAGE 3			
12	RT. STA.	336+	44	
12	LT. STA.	351+	83	
32	LT. STA.	1000+	28	E Ebson Rd. stage 2
20	LT. STA.	1203+	0	W Ebson Rd. stage 3
76	TOTAL			

70301000 WORKZONE PAVEMENT MARKING REMOVAL

SQ FT	LOCATION					REMARK'S
	STAGE 2					
189.3	LT/RT	336+	34 TO	342+	0	Lt. Edge Line
200.0	RT	342+	0 TO	348+	0	Lt. Edge Line
124.0	RT/LT	348+	0 TO	351+	83	Lt. Edge Line
189.3	RT	336+	34 TO	342+	0	Rt. Edge Line
200.0	RT	342+	0 TO	348+	0	Rt. Edge Line
128.0	RT	348+	0 TO	351+	83	Rt. Edge Line
	STAGE 3					
189.3	RT/LT	336+	34 TO	342+	0	Rt. Edge Line
200.0	LT	342+	0 TO	348+	0	Rt. Edge Line
128.0	LT/RT	348+	0 TO	351+	83	Rt. Edge Line
189.3	LT	336+	34 TO	342+	0	Lt. Edge Line
200.0	LT	342+	0 TO	348+	0	Lt. Edge Line
128.0	LT	348+	0 TO	351+	83	Lt. Edge Line
64.0	RT. STA.	1000	28			Stop Bar E. Ebson Rd.
40.0	RT. STA.	1203	0			Stop Bar W. Ebson Rd.
	STAGE 4					
82.2		336+	34 TO	361+	0	Removal of Short Term Skips on Final Surface
2251.5	TOTAL					

70400100 TEMPORARY CONCRETE BARRIER

FOOT	LOCATION				REMARK'S
125		338+	3 TO	339+	27	Taper Section – Stage 2
950		339+	27 TO	348+	77	Tangent Section – Stage 2
125		348+	77 TO	350+	2	Taper Section – Stage 2
1200	TOTAL					

70400200 RELOCATE TEMPORARY CONCRETE BARRIER

FOOT	LOCATION				REMARK'S
87.5		338+	40 TO	339+	27	
950		339+	27 TO	348+	77	
87.5		348+	77 TO	349+	65	
1125	TOTAL					

78001110 PAINT PAVEMENT MARKING LINE – 4"

FOOT	LOCATION					REMARK'S
	WHITE					
695	RT. STA.	336+	44 TO	1001+	95	Edge Line around SE Quad of E. Ebson Rd.
376	LT. STA.	336+	44 TO	1202+	46	Edge Line around SW Quad of W. Ebson Rd.
136	LT. STA.	1202+	46 TO	341+	2	Edge Line around NW Quad of W. Ebson Rd.
182	RT. STA.	1001+	95 TO	341+	99	Edge Line around NE Quad of E. Ebson Rd.
1998	LT. STA.	341+	2 TO	361+	0	
1901	RT. STA.	341+	99 TO	361+	0	
	YELLOW					
614	CL	336+	44 TO	361+	0	Skip Dashes
11803	TOTAL (2 Applications)					

78001180 PAINT PAVEMENT MARKING LINE – 24"

FOOT	LOCATION				REMARK'S
37	RT. STA.	1203+	0		W. Ebson Rd. – Stop Bar
36	LT. STA.	1000+	28		E. Ebson Rd. – Stop Bar
146	TOTAL (2 Applications)				

78100100 RAISED REFLECTIVE PAVEMENT MARKERS

EACH	LOCATION				REMARK'S
13	CL	339+	0 TO	348+	55
13	TOTAL				

FILE NAME = c:\projects\p206006\d06006cvr.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 13:03:48 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	11
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCHEDULE OF QUANTITIES

78200410 GUARDRAIL MARKERS, TYPE A

EACH		LOCATION				REMARK'S
5	LT. STA.	341+	8 TO	344+	14	@ 80' spacing
19	LT. STA.	345+	16 TO	358+	98	@ 80' spacing
4	RT. STA.	342+	31 TO	344+	37	@ 80' spacing
19	RT. STA.	345+	40 TO	359+	21	@ 80' spacing
47	TOTAL					

78200520 BARRIER WALL MARKERS, TYPE B

EACH	LOCATION			REMARK'S
6		344+	76	3 on each parapet wall
6	TOTAL			

78201000 TERMINAL MARKERS (DIRECT APPLIED)

EACH		LOCATION		REMARK'S
1	LT. STA.	340+	58	
1	RT. STA.	341+	81	
1	LT. STA.	359+	48	
1	RT. STA.	359+	71	
4	TOTAL			

78300100 PAVEMENT MARKING REMOVAL

SQ. FT		LOCATION				REMARK'S
		STAGE 2				
26.3	CL	336+	34 TO	339+	50	Skips – Stage 2
394.8	RT. STA.	338+	7 TO	349+	92	Edge Line – Stage 2
17.4	CL	349+	50 TO	351+	59	Skips – Stage 2
		STAGE 3				
369.3		338+	55 TO	349+	63	Edge Line – Stage 3
807.9	TOTAL					

78300200 RAISED REFLECTIVE PAVEMENT MARKER REMOVAL

EACH		LOCATION				REMARK'S
13	CL	339+	0 TO	348+	55	
13	TOTAL					

Z0005300 BOX CULVERTS TO BE CLEANED

EACH		LOCATION		REMARK'S
1	LT/RT	338+	45	Existing 4' x 2' box culvert
1	TOTAL			

Z0010555 DITCH CLEANING

FOOT		LOCATION				REMARK'S
1320.0	LT. STA.	325+	80 TO	339+	0	
1320.0	RT. STA.	325+	80 TO	339+	0	
2640.0	TOTAL					

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

EACH		LOCATION		REMARK'S
1	LT. STA.	338+	3	Stage 2
1	LT. STA.	350+	2	Stage 2
2	TOTAL			

Z0030335 IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3

EACH		LOCATION		REMARK'S
1	RT. STA.	338+	40	Stage 3
1	RT. STA.	349+	65	Stage 3
2	TOTAL			

FILE NAME = c:\projects\p206006\d06006ovr.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 13:03:48 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	12
		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BITUMINOUS SCHEDULE

BITUMINOUS SCHEDULE

Location					Remarks	Length	Proposed Surface		Cross-sectional Area Var. Depth Level Binder	40600200 Bituminous Materials Prime Coat	40600300 Aggregate Prime Coat	40600625 Leveling Binder Machine Method ,N50	40600982 HMA Surface Removal – Butt Joint	40603310 Hot-Mix Asphalt Surface Cse, Mix "C", N50	40603335 Hot-Mix Asphalt Surface, Cse Mix "D", N50	40800050 Incidental Hot-Mix Asphalt Surfacing	48203023 Hot-Mix Asphalt Shoulders, 6.5"	35101400 Aggregate Base Course, Type B	48101200 Aggregate shoulders, Type B	X0712400 Temporary Pavement	X0919000 Temporary Pavement Removal	40600990 Temporary Ramp
						Ft	Width	Sq Yd	Sq Ft	Ton	Ton	Ton	(Sq Yd)	Ton	Ton	Ton	Sq Yd	Ton	Ton	Sq Yd	Sq Yd	Sq. Yd.
IL 84 (Cattail Creek)																						
Lt & Rt Sta	338+	55–	339+	0	Butt Joint	45	26	130.00		0.04	0.39	1.01	72.2		9.71							
Lt & Rt Sta	339+	0–	339+	50	Main Line	50	26	144.44	1.24	0.17	0.43	4.61			12.13							
Lt & Rt Sta	339+	50–	340+	0	Main Line	50	26	144.44	1.84	0.17	0.43	6.85			12.13							
Lt & Rt Sta	340 +	0 –	340+	50	Main Line	50	26	144.44	5.54	0.17	0.43	20.66			12.13							
Lt & Rt Sta	340+	50–	341+	0	Main Line	50	26	144.44	11.92	0.17	0.43	44.50			12.13							
Lt & Rt Sta	341+	0–	341+	50	Main Line	50	26	144.44	18.91	0.17	0.43	70.58			12.13							
Lt & Rt Sta	341+	50–	342+	0	Main Line	50	26	144.44	31.52	0.17	0.43	117.66			12.13							
Lt & Rt Sta	342+	0–	342+	50	Main Line	50	26	144.44	43.94	0.17	0.43	164.04			12.13							
Lt & Rt Sta	342+	50–	343+	0	Main Line	50	26	144.44	50.90	0.17	0.43	190.03			12.13							
Lt & Rt Sta	343+	0–	343+	50	Main Line	50	26	144.44	52.23	0.08	0.43	194.99			12.13							
Lt & Rt Sta	343+	50–	344+	0	Main Line	50	26	144.44	47.30	0.08	0.43	176.57			12.13							
Lt & Rt Sta	343+	95–	345+	59	Bridge Omission	164																
Lt & Rt Sta	345+	50–	346+	0	Main Line	50	26	144.44	24.88	0.08	0.43	92.89			12.13							
Lt & Rt Sta	346+	0–	346+	50	Main Line	50	26	144.44	17.81	0.08	0.43	66.47			12.13							
Lt & Rt Sta	346+	50–	347+	0	Main Line	50	26	144.44	10.59	0.08	0.43	39.54			12.13							
Lt & Rt Sta	347+	0–	347+	50	Main Line	50	26	144.44	5.75	0.08	0.43	21.45			12.13							
Lt & Rt Sta	347+	50–	348+	0	Main Line	50	26	144.44	3.26	0.08	0.43	12.17			12.13							
Lt & Rt Sta	348+	0	348+	55	Main Line	55	26	158.89		0.09	0.48				13.35							
Lt & Rt Sta	348+	55	349+	0	Butt Joint	45	26	130.00		0.04	0.39	1.01	72.2		9.71							
STAGING QUANT.																						
Rt Sta	337+	97–	340+	85	Main Line – Stage 1	288	5.55	177.82												178	178	
Rt Sta	341+	77–	344+	51	Main Line – Stage 1	274	5.5	167.40												167	167	
Rt Sta	345+	27–	350+	2	Main Line – Stage 1	475	5.5	289.97												290	290	
Lt Sta	338+	45–	339+	54	Main Line – Stage 2	109	3	36.17												36	36	
Lt. Sta.	348+	60–	349+	73	Main Line – Stage 2	113	3	37.80												38	38	
Lt. Sta.	343+	90–	343+	95	Temp. Ramp – Stage 2	5	23	12.78														13
Lt & Rt Sta	345+	59–	345+	64	Temp. Ramp – Stage 2	5	23	12.78														13
Lt & Rt Sta	348+	55–	348+	60	Temp. Ramp – Stage 2	5	20	11.11														11
Lt & Rt Sta	343+	90–	343+	95	Temp. Ramp – Stage 3	5	23	12.78														13
Lt & Rt Sta	345+	59–	345+	64	Temp. Ramp – Stage 3	5	23	12.78														13
Lt & Rt Sta	348+	55–	348+	60	Temp. Ramp – Stage 3	5	20	11.11														11
SIDE ROAD'S																						
E. Ebson Rd.	1000+	13–	1001+	95	Main Line	181.89	VAR	708		0.41						138.9		484				
W. Ebson Rd.	1202+	55–	1203+	17	Main Line	61.63	VAR	322		0.55						63.0		220				
SHOULDER'S																						
Rt. Sta	339+	0–	340+	78	Aggregate – Mainline	178	5	99											68			
Lt. Sta	339+	0–	339+	69	Aggregate – Mainline	69	5	38											26			
Rt. Sta	339+	0–	340+	53	Bitumin. – Main Line	153.00	2	34		0.02	0.10			2.9			34					
Lt. Sta	339+	0–	339+	54	Bitumin. – Main Line	53.50	2	12		0.01	0.04			1.0			12					
Lt. Sta	340	43	343	87	Bitumin. – Main Line	344.71	VAR	311			0.93						311	71				
Rt. Sta	341+	74–	344+	8	Bitumin. – Main Line	234.00	VAR	465		0.27	1.40			39.1			465					
Lt. Sta	1000	41	1001	95	Bitumin. – E. Ebson Rd.	146	2	32								6.4						
Rt. Sta	340	53	1001	95	Bitumin. – E. Ebson Rd.	240	2	53								10.5						
Rt. Sta	339	54	1202	46	Bitumin. – W. Ebson Rd.	64	2	14								2.8						
Rt. Sta	1202+	46–	1203+	10	Bitumin. – W. Ebson Rd.	71	2	16		0.01				1.3		3.1						
Lt. Sta	345+	45–	359+	60	Bitumin. – Main Line	1415	10	1572		0.90	4.72			132.1			1572.2					
Lt. Sta	345+	45–	348+	60	Bitumin. – Main Line	315	10	350		0.20	1.05			29.4			350.0	89				
Lt. Sta	359+	60–	360+	70	Bitumin. – Main Line	110	VAR	81		0.05	0.24			6.8			81.2					
Rt. Sta	345+	66–	359+	85	Bitumin. – Main Line	1419	10	1577		0.90	4.73			132.4			1576.7					
Rt. Sta	359+	85–	360+	70	Bitumin. – Main Line	85	VAR	62		0.04	0.19			5.2			61.8					
	Subtotal																					
	TOTALS									5.41	21.15	1.224	144.4	350	205	225	4,464	864	94	709	709	73

FILE NAME = c:\projects\p206006\d06006cvr.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 13:03:49 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BITUMINOUS SCHEDULE

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	13
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EARTHWORK SCHEDULE

	LOCATION	20200100 EARTH EXCAVATION (CU YD)	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (CU YD)	EMBANKMENT (FILL) (CU YD)	EARTHWORK BALANCE WASTE (+) SHORTAGE (–) (CU YD)	20400800 FURNISHED EXCAVATION (CU YD)	25000210 SEEDING CLASS 2A (ACRE)	25100105 MULCH, METHOD 1 (ACRE)	28000250 TEMPORARY EROSION CONTROL SEEDING (POUND)	21101625 TOPSOIL FURNISH & PLACE, 6" (SQ YD)
Mainline (IL 84)										
	339+00 TO 343+00	174.7	131.0	711.8	–580.8	580.8	0.39	0.23	157.7	1975.2
	343+00 TO 349+00	98.3	73.7	1004.8	–931.1	931.1	0.54		215.9	2612.9
	349+00 TO 355+00	332.0	249.0	661.5	–412.5	412.5	0.56		222.7	2694.9
	355+00 TO 360+70	290.7	218.0	369.5	–151.5	151.5	0.41	0.07	165.2	1999.3
W. Ebson Rd.	1202+46.02 TO 1203+00	53.9	40.4	3.8	36.6	36.6	0.02	0.02	7.1	86.4
E. Ebson Rd.	1000+50 TO 1001+95	85.8	64.4	246.6	–182.3	182.3	0.09	0.09	36.6	442.7
	TOTALS	1035.4	776.6	2998.0	–2221.5	2221.5	2.01	0.40	805.4	9811.4

FILE NAME = c:\projects\p206006\d06006cvr.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 13:03:49 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EARTHWORK SCHEDULE

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	14
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

HORIZONTAL & VERTICAL CONTROL

Chain IL84 contains:
24 CUR 200 CUR 210 CUR 220 4070

Beginning chain IL84 description
Feature:
==========

Point 24 N 1,866,836.4120 E 2,284,042.1130 Sta 128+29.0967

Course from 24 to PC 200 72° 05′ 55.6500″ Dist 3,706.2501′

Curve Data

Curve 200
Feature:
P.I. Station 167+95.4916 N 1,868,055.5893 E 2,287,816.4865
Delta = 10° 47′ 18.2719″ (LT)
Degree = 2° 04′ 46.8731″
Tangent = 260.1448′
Length = 518.7516′
Radius = 2,755.0194′
External = 12.2549′
Long Chord = 517.9856′
Mid. Ord. = 12.2007′
P.C. Station 165+35.3468 N 1,867,975.6269 E 2,287,568.9358
P.T. Station 170+54.0983 N 1,868,180.4756 E 2,288,044.6942
C.C. N 1,870,597.2700 E 2,286,722.1071

Course from PT 200 to PC 210 61° 18′ 37.3781″ Dist 7,502.7941′

Curve Data

Curve 210
Feature:
P.I. Station 261+34.6741 N 1,872,539.7381 E 2,296,010.4765
Delta = 44° 52′ 18.5688″ (LT)
Degree = 1° 29′ 57.9272″
Tangent = 1,577.7817′
Length = 2,992.6037′
Radius = 3,821.1854′
External = 312.9231′
Long Chord = 2,916.7093′
Mid. Ord. = 289.2370′
P.C. Station 245+56.8924 N 1,871,782.3010 E 2,294,626.3941
P.T. Station 275+49.4962 N 1,874,053.0259 E 2,296,456.9681
C.C. N 1,875,134.3716 E 2,292,791.9784

Course from PT 210 to PC 220 16° 26′ 18.8093″ Dist 5,634.0577′

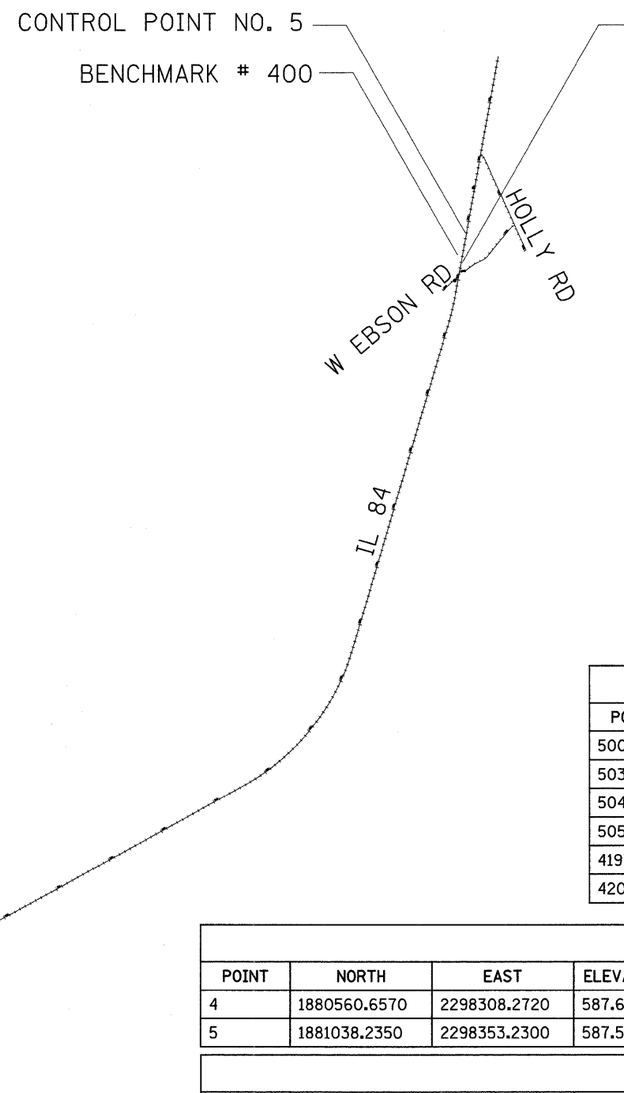
Curve Data

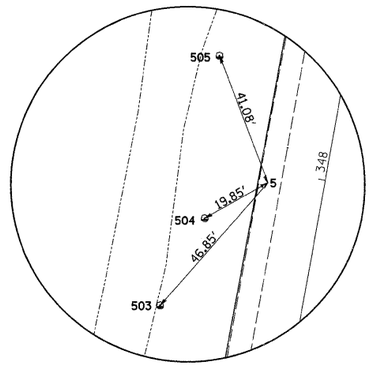
Curve 220
Feature:
P.I. Station 334+90.9894 N 1,879,751.6532 E 2,298,138.3334
Delta = 6° 11′ 01.8291″ (LT)
Degree = 1° 00′ 24.0877″
Tangent = 307.4355′
Length = 614.2740′
Radius = 5,691.4959′
External = 8.2973′
Long Chord = 613.9759′
Mid. Ord. = 8.2852′
P.C. Station 331+83.5539 N 1,879,456.7845 E 2,298,051.3331
P.T. Station 337+97.8279 N 1,880,054.1777 E 2,298,193.0644
C.C. N 1,881,067.4037 E 2,292,592.4842

Course from PT 220 to 4070 10° 15′ 16.9802″ Dist 3,981.3878′

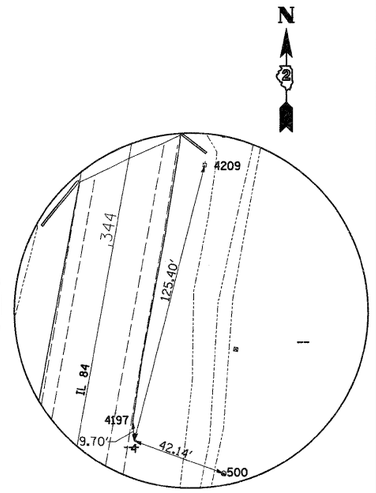
Point 4070 N 1,883,971.9670 E 2,298,901.8492 Sta 377+79.2157

==========
Ending chain IL84 description





HORIZONTAL CONTROL POINT NO. 5



HORIZONTAL CONTROL POINT NO. 4

CURVE POINT NUMBERS

CHAIN	CURVE	PI	CC	PC	PT
IL84	200	200	201	202	203
IL84	210	210	211	212	213
IL84	220	220	221	222	223

REFERENCE TIES

POINT	CHAIN	STATION	OFFSET	DESCRIPTION
500	IL84	343+11.3666	64.9979′ RT	SHINER, TREE
503	IL84	347+54.5172	41.7664′ LT	SHINER, TREE
504	IL84	347+82.5023	33.3149′ LT	SHINER, TREE
505	IL84	348+30.5836	37.5504′ LT	SHINER, TREE
4197	IL84	343+26.36	22.05′ RT	STEEL PLATE BEAM GUARDRAIL
4209	IL84	344+41.74	32.96′ RT	POWER POLE

HORIZONTAL CONTROL POINTS

POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
4	1880560.6570	2298308.2720	587.6700	IL84	343+16.7265	28.3305′ RT	PIN TOPO SURVEY POINT
5	1881038.2350	2298353.2300	587.5580	IL84	347+94.6793	17.7942′ LT	PIN TOPO SURVEY POINT

SURVEY WORK POINTS

POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
6	1880940.1100	2298372.3160	587.7880	IL84	347+01.5195	28.2043′ RT	NAIL TOPO SURVEY POINT
7	1800531.9110	2298261.2200	587.5790	IL84	342+80.0632	29.7641′ LT	NAIL TOPO SURVEY POINT

BENCH MARKS

POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
400	1880674.4682	2298219.9551	586.4771	IL84	344+12.9971	83.9658′ LT	**

FILE NAME = c:\projects\p206006\d06006hvc.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 1250.0000 ′ / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 09:21:03 2008	DATE -	REVISED -

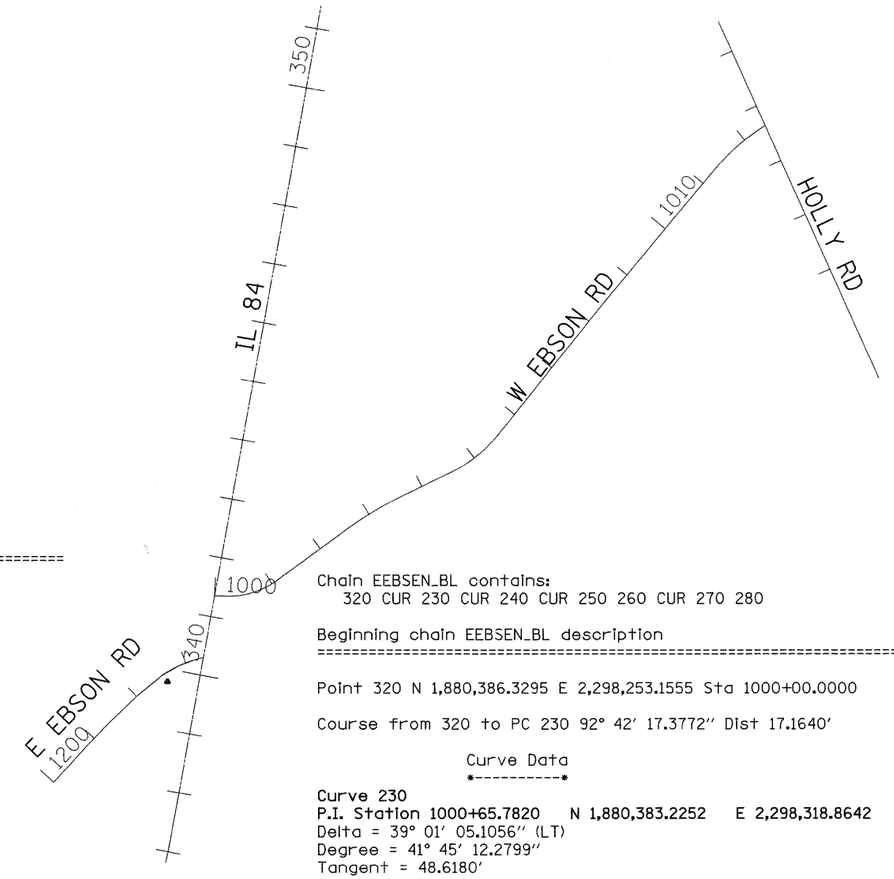
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HVC SHEET

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	15
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

HORIZONTAL CONTROL



Chain WEBSEN_BL contains:
CUR 330 4811 4154 CUR 340

Beginning chain WEBSEN_BL description

Curve Data

Curve 330
P.I. Station 1199+42.4811 N 1,880,033.5963 E 2,297,942.0958
Delta = 4° 56′ 06.8256″ (RT)
Degree = 1° 17′ 33.3008″
Tangent = 191.0237′
Length = 381.8112′
Radius = 4,432.6558′
External = 4.1141′
Long Chord = 381.6932′
Mid. Ord. = 4.1103′
P.C. Station 1197+51.4574 N 1,879,885.0758 E 2,297,821.9637
P.T. Station 1201+33.2686 N 1,880,171.2313 E 2,298,074.5597
C.C. N 1,877,097.4414 E 2,301,268.3432

Course from PT 330 to 4811 46° 04′ 07.0600″ Dist 70.1149′

Point 4811 N 1,880,219.8767 E 2,298,125.0544 Sta 1202+03.3835

Course from 4811 to 4154 50° 44′ 10.2320″ Dist 49.9534′

Point 4154 N 1,880,251.4918 E 2,298,163.7303 Sta 1202+53.3369

Course from 4154 to PC 340 245° 26′ 41.6959″ Dist 0.0000′

Curve Data

Curve 340
P.I. Station 1202+92.6561 N 1,880,273.9439 E 2,298,196.0088
Delta = 22° 11′ 57.6780″ (RT)
Degree = 28° 35′ 17.5406″
Tangent = 39.3192′
Length = 77.6521′
Radius = 200.4175′
External = 3.8205′
Long Chord = 77.1673′
Mid. Ord. = 3.7491′
P.C. Station 1202+53.3369 N 1,880,251.4918 E 2,298,163.7303
P.T. Station 1203+30.9890 N 1,880,282.5360 E 2,298,234.3777
C.C. N 1,880,086.9620 E 2,298,278.1731

Ending chain WEBSEN_BL description

Chain EEBSEN_BL contains:
320 CUR 230 CUR 240 CUR 250 260 CUR 270 280

Beginning chain EEBSEN_BL description

Point 320 N 1,880,386.3295 E 2,298,253.1555 Sta 1000+00.0000

Course from 320 to PC 230 92° 42′ 17.3772″ Dist 17.1640′

Curve Data

Curve 230
P.I. Station 1000+65.7820 N 1,880,383.2252 E 2,298,318.8642
Delta = 39° 01′ 05.1056″ (LT)
Degree = 41° 45′ 12.2799″
Tangent = 48.6180′
Length = 93.4489′
Radius = 137.2242′
External = 8.3581′
Long Chord = 91.6536′
Mid. Ord. = 7.8782′
P.C. Station 1000+17.1640 N 1,880,385.5195 E 2,298,270.3003
P.T. Station 1001+10.6128 N 1,880,412.0168 E 2,298,358.0401
C.C. N 1,880,522.5908 E 2,298,276.7760

Course from PT 230 to PC 240 53° 41′ 12.2716″ Dist 139.5578′

Curve Data

Curve 240
P.I. Station 1003+08.4614 N 1,880,529.1826 E 2,298,517.4648
Delta = 10° 25′ 22.8490″ (RT)
Degree = 8° 57′ 54.9466″
Tangent = 58.2908′
Length = 116.2600′
Radius = 639.0864′
External = 2.6528′
Long Chord = 116.0997′
Mid. Ord. = 2.6419′
P.C. Station 1002+50.1706 N 1,880,494.6628 E 2,298,470.4946
P.T. Station 1003+66.4306 N 1,880,554.6352 E 2,298,569.9051
C.C. N 1,879,979.6925 E 2,298,848.9613

Course from PT 240 to PC 250 64° 06′ 35.1206″ Dist 90.9889′

Curve Data

Curve 250
P.I. Station 1005+07.4004 N 1,880,616.1895 E 2,298,696.7261
Delta = 25° 28′ 50.3212″ (LT)
Degree = 25° 55′ 08.3879″
Tangent = 49.9809′
Length = 98.3088′
Radius = 221.0571′
External = 5.5799′
Long Chord = 97.5006′
Mid. Ord. = 5.4425′
P.C. Station 1004+57.4195 N 1,880,594.3654 E 2,298,651.7617
P.T. Station 1005+55.7283 N 1,880,655.2347 E 2,298,727.9280
C.C. N 1,880,793.2355 E 2,298,555.2374

Course from PT 250 to 260 38° 37′ 44.7994″ Dist 272.5720′

Point 260 N 1,880,868.1689 E 2,298,898.0883 Sta 1008+28.3003

Course from 260 to PC 270 39° 40′ 45.4051″ Dist 296.1311′

Curve Data

Curve 270
P.I. Station 1011+77.9407 N 1,881,137.2628 E 2,299,121.3300
Delta = 16° 28′ 45.9761″ (RT)
Degree = 15° 30′ 20.5830″
Tangent = 53.5093′
Length = 106.2798′
Radius = 369.5139′
External = 3.8542′
Long Chord = 105.9138′
Mid. Ord. = 3.8144′
P.C. Station 1011+24.4314 N 1,881,096.0804 E 2,299,087.1649
P.T. Station 1012+30.7112 N 1,881,167.0618 E 2,299,165.7739
C.C. N 1,880,860.1497 E 2,299,371.5541

Course from PT 270 to 280 56° 09′ 31.3812″ Dist 11.6107′

Point 280 N 1,881,173.5277 E 2,299,175.4176 Sta 1012+42.3219

Ending chain EEBSEN_BL description

FILE NAME = c:\projects\p206006\d06006hvc.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 1250.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 09:21:03 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HVC SHEET

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	16
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

WILLIAM A. SNYDER &
JOYCE SNYDER

RICHARD A. GREEN, JR. &
JODY A. GREEN

* DITCH CLEANING FROM
STA. 325+80 - 339+00 RT/LT

PROPOSED 5' AGGREGATE SHOULDER
PROPOSED 2' HMA SHOULDER

IMPROVEMENT BEGINS
STA. 325+80

SECTION BEGINS
STA. 339+00

339+50.00
40.00 LT

340+00.00
90.00 LT

202 W EBSON RD

TEMPORARY FENCE

HMA SHOULDERS, 6 1/2"

341+00.00
60.00 LT

STEEL PLATE BEAM GUARDRAIL, TYPE A

343+00.00
60.00 LT

GUARDRAIL REMOVAL

50' TRAFFIC BARRIER TERMINAL,
TYPE 1 (SPECIAL) TANGENT

PROPOSED ROW

CONSTRUCTION LIMITS

EXISTING ROW

340+42.48
31.36' LT

339+69.43
19.97' LT

1203

EXISTING ROW

4' X 2' ELLIPTICAL

45' BUTT JOINT

IL 84 | 338 | 339 | 340+00 | 341 | 342 IL 84

13'

13'

1000+00

MATCHLINE STA. 343+00

340+78.40
20.00' RT

341+74.10
30.67' RT

50' TRAFFIC BARRIER TERMINAL,
TYPE 1 (SPECIAL) TANGENT

CONSTRUCTION LIMITS

EXISTING ROW

PROPOSED ROW

337+97.83
47.00 RT

339+00.00
55.00 RT

340+00.00
60.00 RT

340+50.00
65.00 RT

342+50.00
60.00 RT

TEMPORARY FENCE

LEGEND

TREE REMOVAL, ACRES

EXIST. CURVE 230
PI STA. = 1000+65.78
Δ = 39° 01' 05" (LT)
D = 41° 45' 12"
R = 137.22'
T = 48.62'
L = 93.45'
E = 8.36'
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA. = 1000+17.16
P.T. STA. = 1001+10.61

STA. 1000+75
REMOVE EXISTING 5'x3' ELLIPTICAL PIPE
84' PIPE CULVERTS, TYPE 2, CORRUGATED STEEL, EQRS 60"
38' RT - 46' LT
℄ 576.86 - 576.23
2 EA. METAL END SECTIONS, EQRS 60"
RIP-RAP CLASS A-4 10' x 25'

FENCE REMOVAL
STA. 338+00 TO STA. 1001+50
INCLUDED IN EARTH EXCAVATION

E EBSON RD 1001

WILLIAM M. ABBOTT &
BETTY B. ABBOTT

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
REVISED AND CHECKED
CADD FILE NAME
NOTE BOOK
NO.
DATE
BY

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
REVISED
SIGNATURE NOTATIONS CHKD
NOTE BOOK
NO.
DATE
BY

600
595
590
585
580
575
570

45' BUTT JOINT

588.32

ex = 0.22'
K = 187
180.00' V.C.

+75.00 EL. 588.38

+55.00 EL. 589.50

+67.50 EL. 589.64

VPI STA. 342+90.00
ELEVATION 590.94

+1.10%

-0.50%

+0.06%

+0.10%

+0.14%

+0.14%

+1.10%

VPI STA. 339+50.00
ELEVATION 588.35

VPI STA. 339+75.00
ELEVATION 588.36

VPI STA. 340+65.00
ELEVATION 588.51

ex = -0.49
K = 153
245.00' V.C.

STA. 339+00 to 343+00
EARTH EX. = 174.7 CU.YDS.
EMB. = 711.8 CU.YDS.
HAUL IN = 580.8 CU.YDS.

588.21 588.43
588.30 588.63
588.35 588.97
588.39 589.44
588.44 589.96
588.49 590.33
588.57 590.53

340+00 340+50 341+00 341+50 342+00 342+50 343+00

FILE NAME = c:\projects\p206006\d06006pln.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 09:38:27 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	17
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

RICHARD A. GREEN, JR. &
JODY A. GREEN

RICHARD L. SHELLY &
JUDITH L. SHELLY

343+75.00
75.00 LT

343+00.00
60.00 LT

345+00.00
75.00 LT

345+50.00
60.00 LT

TRAFFIC BARRIER
TERMINAL, TYPE 6

EXISTING STRUCTURE NO. 098-0021
PROPOSED STRUCTURE NO. 098-0114

HMA SHOULDERS, 6 1/2"

STEEL PLATE BEAM GUARDRAIL, TYPE A

GUARDRAIL REMOVAL

TEMPORARY FENCE

SECTION ENDS
STA 348+55 END OF
MAINLINE PAVING

SHOULDER AND GUARDRAIL
WORK LT & RT

PROPOSED ROW

CONSTRUCTION LIMITS

EXISTING ROW

TRAFFIC BARRIER
TERMINAL, TYPE 6

MATCHLINE STA. 343+00

MATCHLINE STA. 349+00

343 | 344 | 345+00 | 346 | 347 | 348

40' BRIDGE WIDTH

13'

13'

IL 84

45' BUTT JOINT

CATTAIL CREEK

CONSTRUCTION LIMITS

EXISTING ROW

PROPOSED ROW

TEMPORARY FENCE

347+79.89
60.00 RT

348+00.00
60.00 RT

349+00.00
55.00 LT

LEGEND

TREE REMOVAL, ACRES

WILLIAM M. ABBOTT &
BETTY B. ABBOTT

KEITH L. PRICE &
ANNE M. PRICE

600
595
590
585
580
575
570

-50%

ex = -0.49'
K = 153
245.00' V.C.

+2.50 EL. 590.36

+25.00 EL. 589.32

ex = 0.11'
K = 354
180.00' V.C.

VPI STA. 347+15.00
ELEVATION 588.87

VPI STA. 348+05.00
ELEVATION 588.87

+0.01%

-0.06%

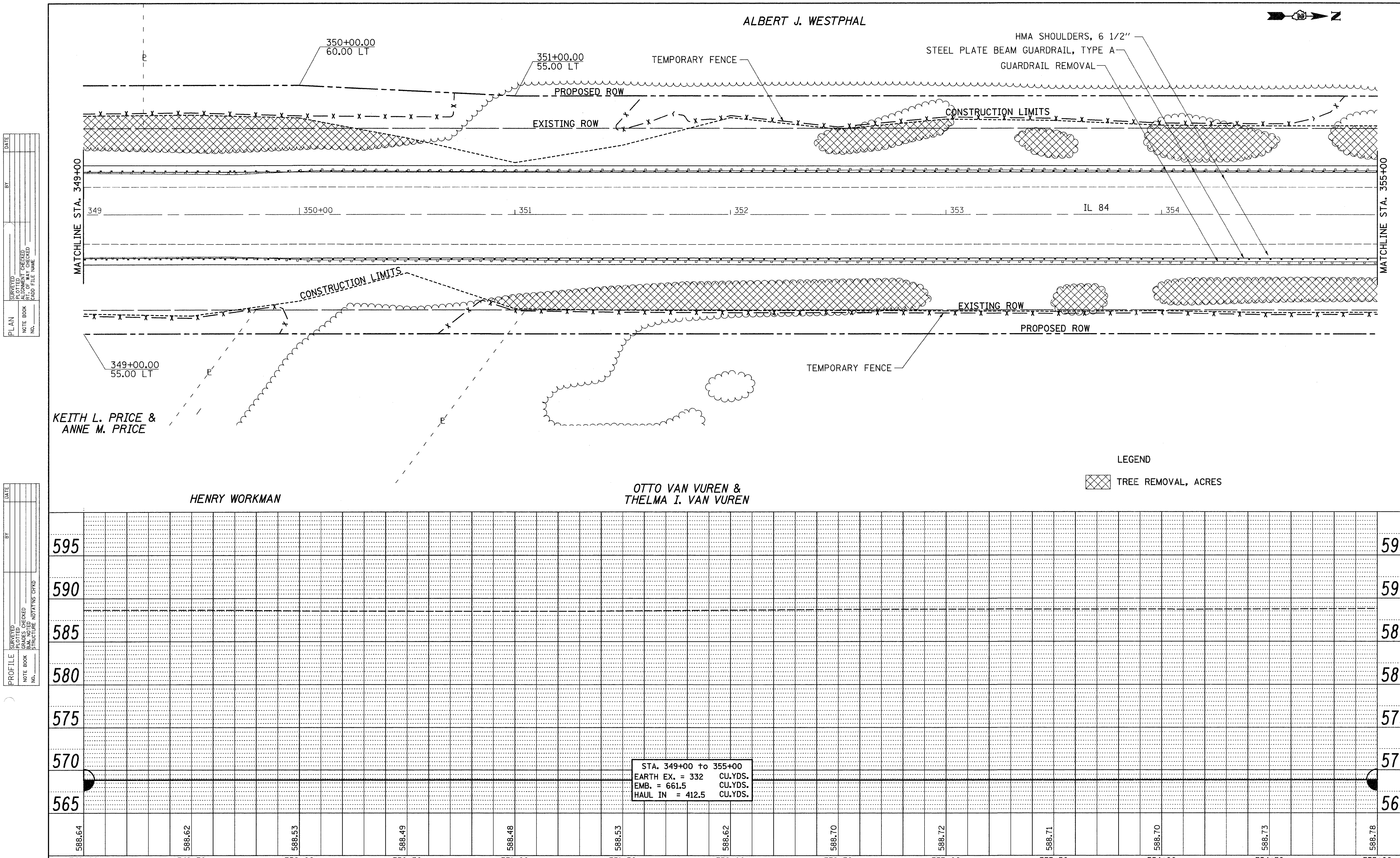
-0.50%

+0.01%

588.84'

45' BUTT JOINT

| | | |


ALBERT J. WESTPHAL
N
HMA SHOULDERS, 6 1/2"
STEEL PLATE BEAM GUARDRAIL, TYPE A
GUARDRAIL REMOVAL
TEMPORARY FENCE
350+00.00
60.00 LT
351+00.00
55.00 LT
PROPOSED ROW
EXISTING ROW
CONSTRUCTION LIMITS
MATCHLINE STA. 349+00
MATCHLINE STA. 355+00
349
350+00
351
352
353
IL 84
354
CONSTRUCTION LIMITS
EXISTING ROW
PROPOSED ROW
349+00.00
55.00 LT
TEMPORARY FENCE
KEITH L. PRICE &
ANNE M. PRICE
LEGEND
TREE REMOVAL, ACRES
HENRY WORKMAN
OTTO VAN VUREN &
THELMA I. VAN VUREN
595
590
585
580
575
570
565
STA. 349+00 to 355+00
EARTH EX. = 332 CU.YDS.
EMB. = 661.5 CU.YDS.
HAUL IN = 412.5 CU.YDS.
588.64
588.62
588.53
588.49
588.48
588.53
588.62
588.70
588.72
588.71
588.70
588.73
588.78
349+00
349+50
350+00
350+50
351+00
351+50
352+00
352+50
353+00
353+50
354+00
354+50
355+00
PLAN
NOTE BOOK
NO.
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
BY
DATE
PROFILE
GRADES CHECKED
B.M. NOTED
STRUCTURE NOTATIONS CHECKED

FILE NAME = c:\projects\p206006\d06006pln.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 '/ IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 09:38:26 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

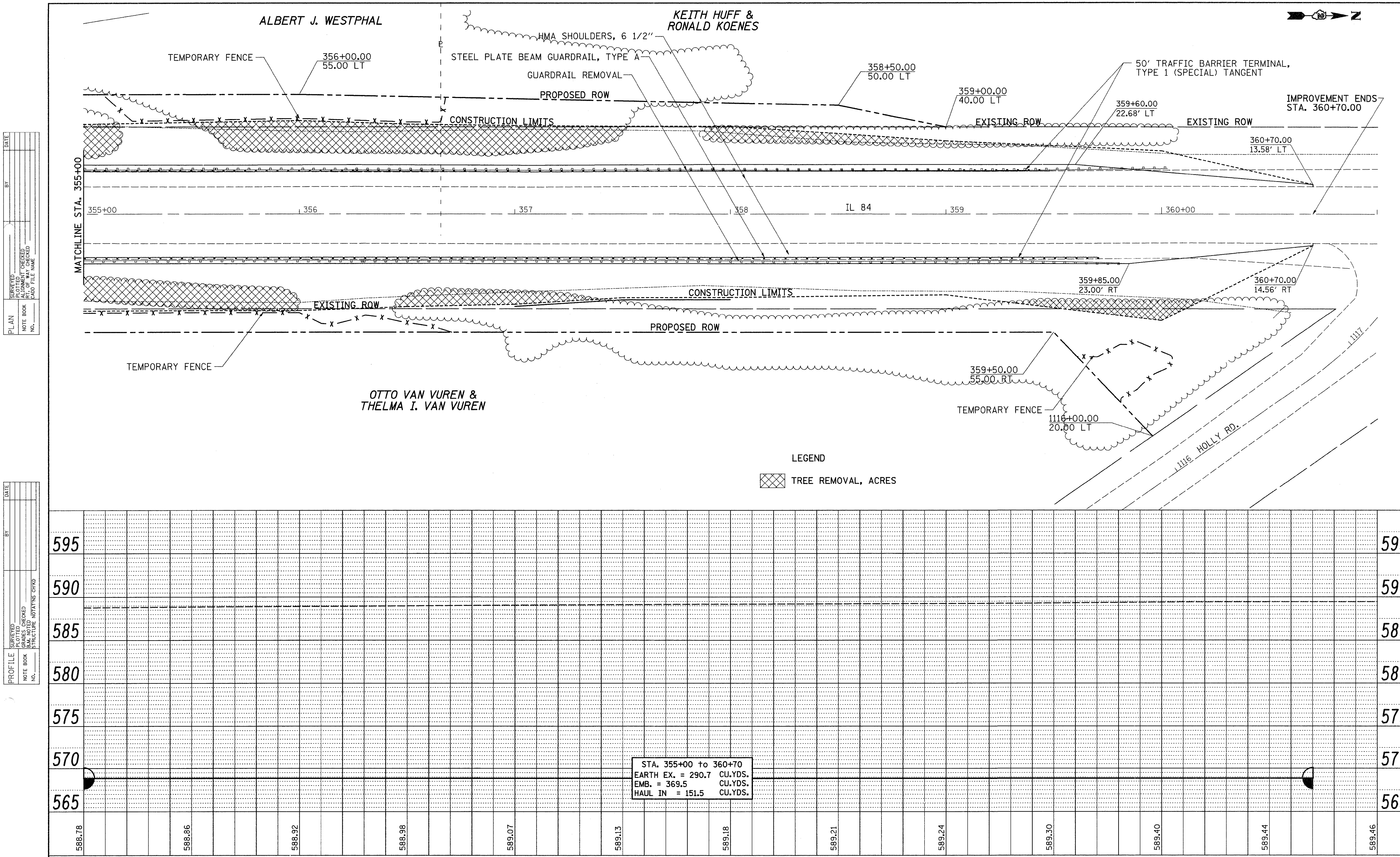
PLAN & PROFILE

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	19

CONTRACT NO. 64C25

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



ALBERT J. WESTPHAL
KEITH HUFF &
RONALD KOENES
HMA SHOULDERS, 6 1/2"
TEMPORARY FENCE
356+00.00
55.00 LT
STEEL PLATE BEAM GUARDRAIL, TYPE A
GUARDRAIL REMOVAL
358+50.00
50.00 LT
50' TRAFFIC BARRIER TERMINAL,
TYPE 1 (SPECIAL) TANGENT
PROPOSED ROW
359+00.00
40.00 LT
359+60.00
22.68' LT
IMPROVEMENT ENDS
STA. 360+70.00
CONSTRUCTION LIMITS
EXISTING ROW
EXISTING ROW
360+70.00
13.58' LT
MATCHLINE STA. 355+00
355+00
356
357
358
IL 84
359
360+00
359+85.00
23.00' RT
360+70.00
14.56' RT
CONSTRUCTION LIMITS
EXISTING ROW
PROPOSED ROW
TEMPORARY FENCE
1117
359+50.00
55.00 RT
OTTO VAN VUREN &
THELMA I. VAN VUREN
TEMPORARY FENCE
1116+00.00
20.00 LT
1116 HOLLY RD.
LEGEND
TREE REMOVAL, ACRES
595
590
585
580
575
570
565
STA. 355+00 to 360+70
EARTH EX. = 290.7 CU.YDS.
EMB. = 369.5 CU.YDS.
HAUL IN = 151.5 CU.YDS.
588.78
588.86
588.92
588.98
589.07
589.13
589.18
589.21
589.24
589.30
589.40
589.44
589.46
355+00
355+50
356+00
356+50
357+00
357+50
358+00
358+50
359+00
359+50
360+00
360+50
361+00
PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE
PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
B.M. NOTED
STRUCTURE NOTATIONS CHK'D
NOTE BOOK
NO.
BY
DATE

FILE NAME = c:\projects\p206006\d06006pln.dgn	USER NAME = hensonke	DESIGNED -	REVISED -	
		DRAWN -	REVISED -	
	PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -	
	PLOT DATE = Thu Jul 31 09:38:27 2008	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

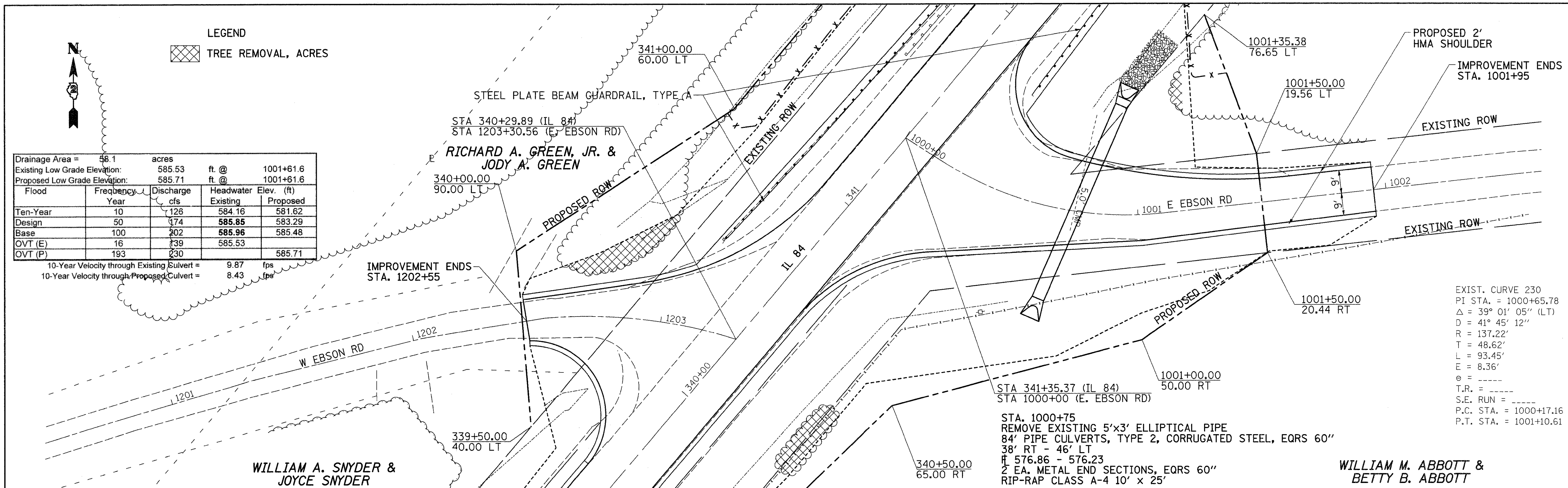
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	20
		CONTRACT NO. 64C25		

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

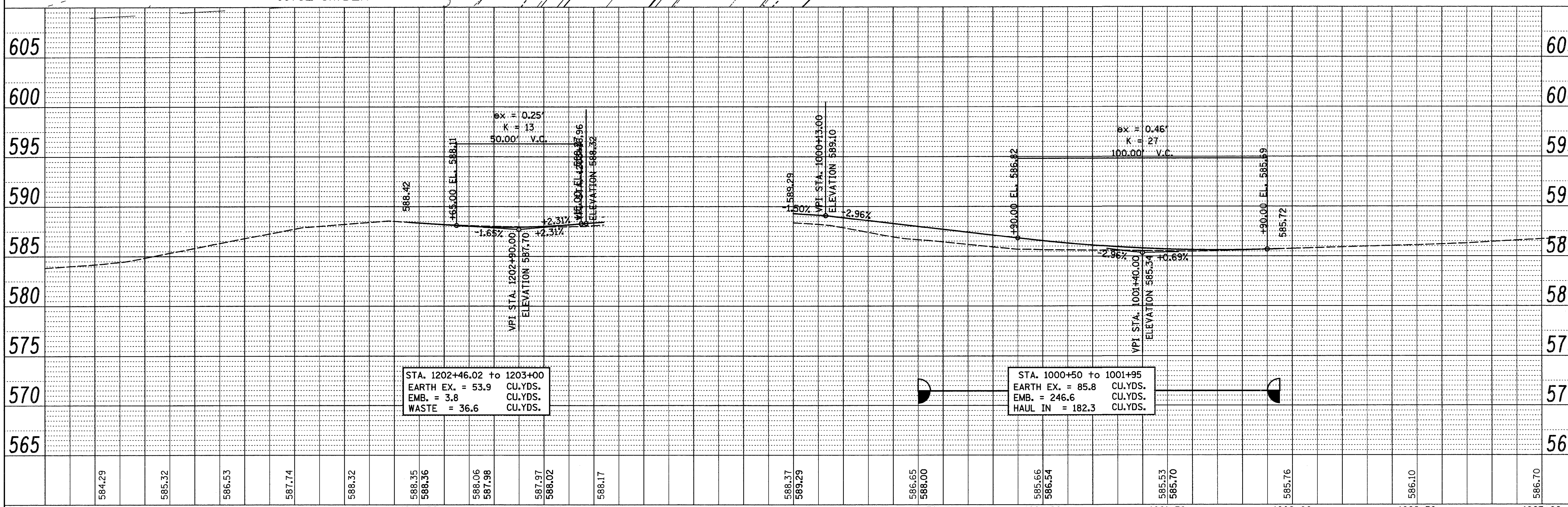
Drainage Area =	58.1	acres		
Existing Low Grade Elevation:		585.53	ft. @	1001+61.6
Proposed Low Grade Elevation:		585.71	ft. @	1001+61.6

Flood	Frequency Year	Discharge cfs	Headwater Elev. (ft) Existing	Headwater Elev. (ft) Proposed
Ten-Year	10	126	584.16	581.62
Design	50	174	**585.85**	583.29
Base	100	202	**585.96**	585.48
OVT (E)	16	139	585.53	
OVT (P)	193	230		585.71

10-Year Velocity through Existing Culvert = 9.87 fps
10-Year Velocity through Proposed Culvert = 8.43 fps



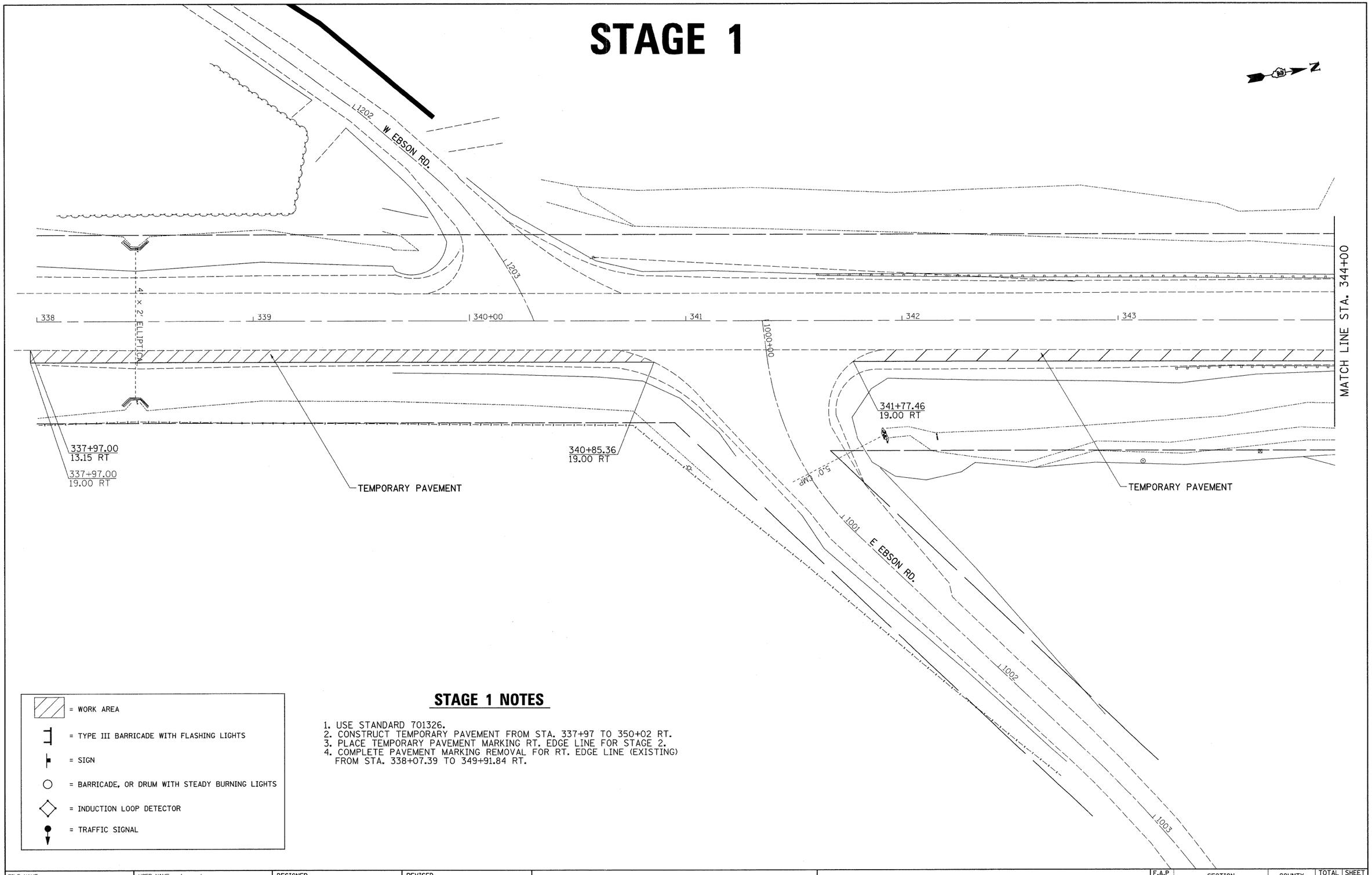
LEGEND
TREE REMOVAL, ACRES
N
STEEL PLATE BEAM GUARDRAIL, TYPE A
341+00.00
60.00 LT
STA 340+29.89 (IL 84)
STA 1203+30.56 (E. EBSON RD)
RICHARD A. GREEN, JR. &
JODY A. GREEN
340+00.00
90.00 LT
EXISTING ROW
PROPOSED ROW
IMPROVEMENT ENDS
STA. 1202+55
IL 84
W EBSON RD
339+50.00
40.00 LT
WILLIAM A. SNYDER &
JOYCE SNYDER
1001+35.38
76.65 LT
1001+50.00
19.56 LT
PROPOSED 2'
HMA SHOULDER
IMPROVEMENT ENDS
STA. 1001+95
EXISTING ROW
E EBSON RD
1001+50.00
20.44 RT
1001+00.00
50.00 RT
STA 341+35.37 (IL 84)
STA 1000+00 (E. EBSON RD)
340+50.00
65.00 RT
STA. 1000+75
REMOVE EXISTING 5'x3' ELLIPTICAL PIPE
84' PIPE CULVERTS, TYPE 2, CORRUGATED STEEL, EQRS 60"
38' RT - 46' LT
℄ 576.86 - 576.23
2 EA. METAL END SECTIONS, EQRS 60"
RIP-RAP CLASS A-4 10' x 25'
WILLIAM M. ABBOTT &
BETTY B. ABBOTT
EXIST. CURVE 230
PI STA. = 1000+65.78
Δ = 39° 01' 05" (LT)
D = 41° 45' 12"
R = 137.22'
T = 48.62'
L = 93.45'
E = 8.36'
P.C. STA. = 1000+17.16
P.T. STA. = 1001+10.61



ex = 0.25'
K = 13
50.00' V.C.
VPI STA. 1202+90.00
ELEVATION 587.70
-1.65%
+2.31%
ex = 0.46'
K = 27
100.00' V.C.
VPI STA. 1000+13.00
ELEVATION 589.10
-1.50%
-2.96%
VPI STA. 1001+40.00
ELEVATION 585.34
+0.69%
STA. 1202+46.02 to 1203+00
EARTH EX. = 53.9 CU.YDS.
EMB. = 3.8 CU.YDS.
WASTE = 36.6 CU.YDS.
STA. 1000+50 to 1001+95
EARTH EX. = 85.8 CU.YDS.
EMB. = 246.6 CU.YDS.
HAUL IN = 182.3 CU.YDS.
605
600
595
590
585
580
575
570
565
1201+00
1201+50
1202+00
1202+50
1203+00
1000+00
1000+50
1001+00
1001+50
1002+00
1002+50
1003+00

FILE NAME = c:\projects\p206006\d06006pln.dgn	USER NAME = hensonke	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN & PROFILE	F.A.P. RTE. 308	SECTION 109BR-5	COUNTY WHITESIDE	TOTAL SHEETS 83	SHEET NO. 21
	PLOT SCALE = 20.0000 ' / IN.	DRAWN -	REVISED -					CONTRACT NO. 64C25		
	PLOT DATE = Thu Jul 31 09:38:27 2008	CHECKED -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		DATE -	REVISED -							

STAGE 1



= WORK AREA

= TYPE III BARRICADE WITH FLASHING LIGHTS

= SIGN

= BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS

= INDUCTION LOOP DETECTOR

= TRAFFIC SIGNAL

STAGE 1 NOTES

1. USE STANDARD 701326.
2. CONSTRUCT TEMPORARY PAVEMENT FROM STA. 337+97 TO 350+02 RT.
3. PLACE TEMPORARY PAVEMENT MARKING RT. EDGE LINE FOR STAGE 2.
4. COMPLETE PAVEMENT MARKING REMOVAL FOR RT. EDGE LINE (EXISTING) FROM STA. 338+07.39 TO 349+91.84 RT.

FILE NAME = c:\projects\p206006\d06006stg.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ft / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 09:41:11 2008	DATE -	REVISED -

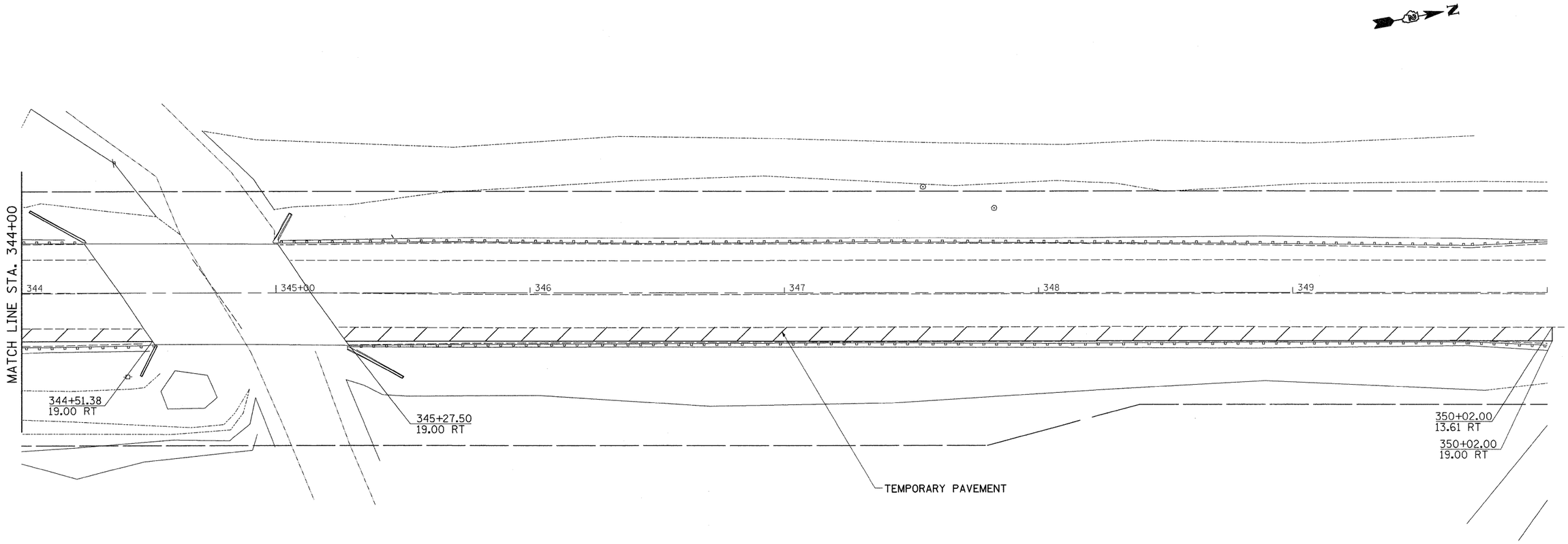
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGING PLANS

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	22
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGE 1



= WORK AREA

= TYPE III BARRICADE WITH FLASHING LIGHTS

= SIGN

= BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS

= INDUCTION LOOP DETECTOR

= TRAFFIC SIGNAL

STAGE 1 NOTES

1. USE STANDARD 701326.
2. CONSTRUCT TEMPORARY PAVEMENT FROM STA. 337+97 TO 350+02 RT.
3. PLACE TEMPORARY PAVEMENT MARKING RT. EDGE LINE FOR STAGE 2.
4. COMPLETE PAVEMENT MARKING REMOVAL FOR RT. EDGE LINE (EXISTING) FROM STA. 338+07.39 TO 349+91.84 RT.

FILE NAME = c:\projects\p206006\d06006stg.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ft / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 09:41:11 2008	DATE -	REVISED -

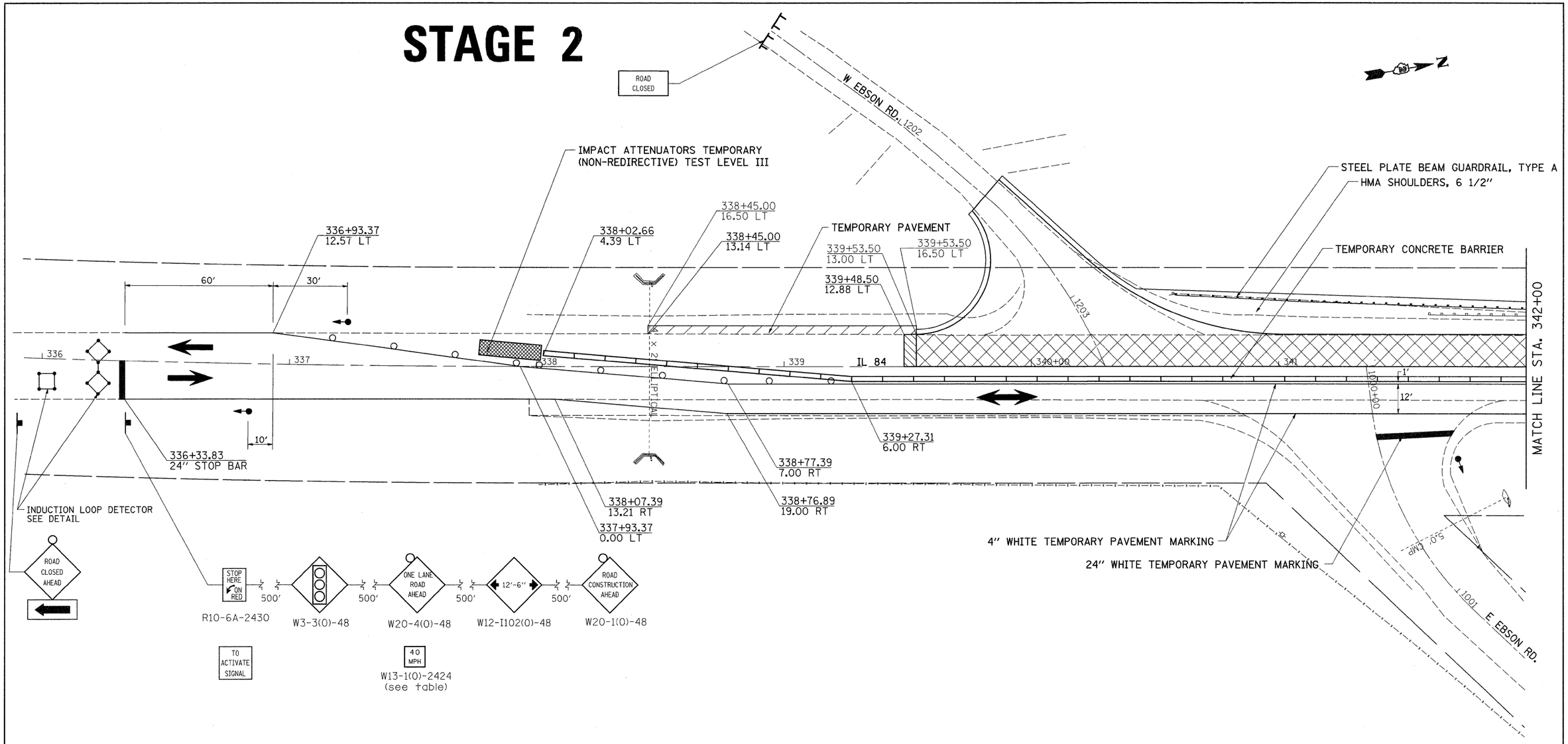
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGING PLANS

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	23
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGE 2



= WORK AREA

= TYPE III BARRICADE WITH FLASHING LIGHTS

= SIGN

= BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS

= INDUCTION LOOP DETECTOR

= TRAFFIC SIGNAL

STAGE 2 NOTES

1. USE STANDARD 701321.
2. CLOSE W. EBSON RD.
3. CONSTRUCT BRIDGE LT TO STAGE CONSTRUCTION LINE.
4. CONSTRUCT LEVEL BINDER (MACHINE METHOD).
5. CONSTRUCT FULL WIDTH SHOULDERS AND GUARDRAIL FROM STA. 339+53.50 LT TO STA. 348+60.00 LT
6. CONSTRUCT TEMPORARY RAMPS.
7. CONSTRUCT TEMPORARY PAVEMENT.
8. INSTALL GUARDRAIL.

TEMPORARY RAMP
STA 343+90 TO STA 343+95
STA 345+58.61 TO STA 345+63.61
STA 348+55 TO STA 348+60
STA. 339+48.50 TO STA. 339+53.50

TEMPORARY PAVEMENT
STA 338+45 TO STA 339+53.50
STA 348+60 TO STA 349+73.40

LEVEL BINDER (MACHINE METHOD)
STA 339+53.50 TO STA 343+95
STA 345+58.61 TO 348+55

FILE NAME = c:\projects\p206006\d06006stg.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ft / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 09:41:11 2008	DATE -	REVISED -

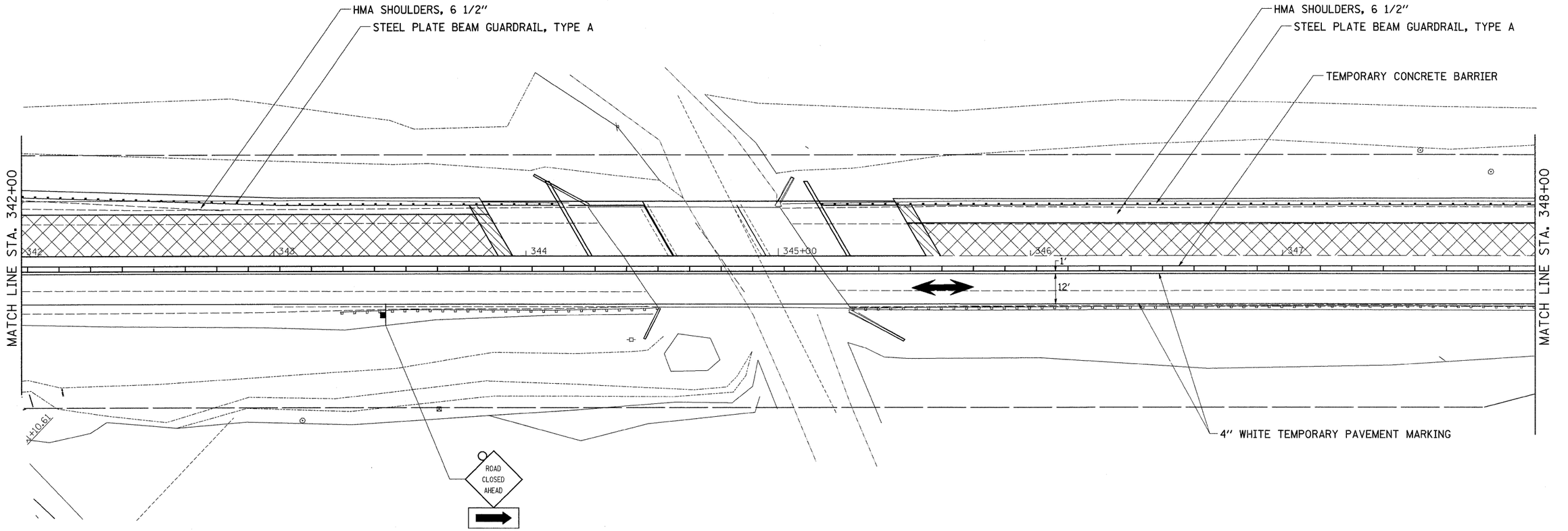
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGING PLANS

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	24
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGE 2



= WORK AREA

= TYPE III BARRICADE WITH FLASHING LIGHTS

= SIGN

= BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS

= INDUCTION LOOP DETECTOR

= TRAFFIC SIGNAL

STAGE 2 NOTES

1. USE STANDARD 701321.
2. CLOSE W. EBSON RD.
3. CONSTRUCT BRIDGE LT TO STAGE CONSTRUCTION LINE.
4. CONSTRUCT LEVEL BINDER (MACHINE METHOD).
5. CONSTRUCT FULL WIDTH SHOULDERS AND GUARDRAIL FROM STA. 339+53.50 LT TO STA. 348+60.00 LT
6. CONSTRUCT TEMPORARY RAMPS.
7. CONSTRUCT TEMPORARY PAVEMENT.
8. INSTALL GUARDRAIL.

TEMPORARY RAMP
STA 343+90 TO STA 343+95
STA 345+58.61 TO STA 345+63.61
STA 348+55 TO STA 348+60
STA. 339+48.50 TO STA. 339+53.50

TEMPORARY PAVEMENT
STA 338+45 TO STA 339+53.50
STA 348+60 TO STA 349+73.40

LEVEL BINDER (MACHINE METHOD)
STA 339+53.50 TO STA 343+95
STA 345+58.61 TO 348+55

FILE NAME = c:\projects\p206006\d06006stg.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ft / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 09:41:11 2008	DATE -	REVISED -

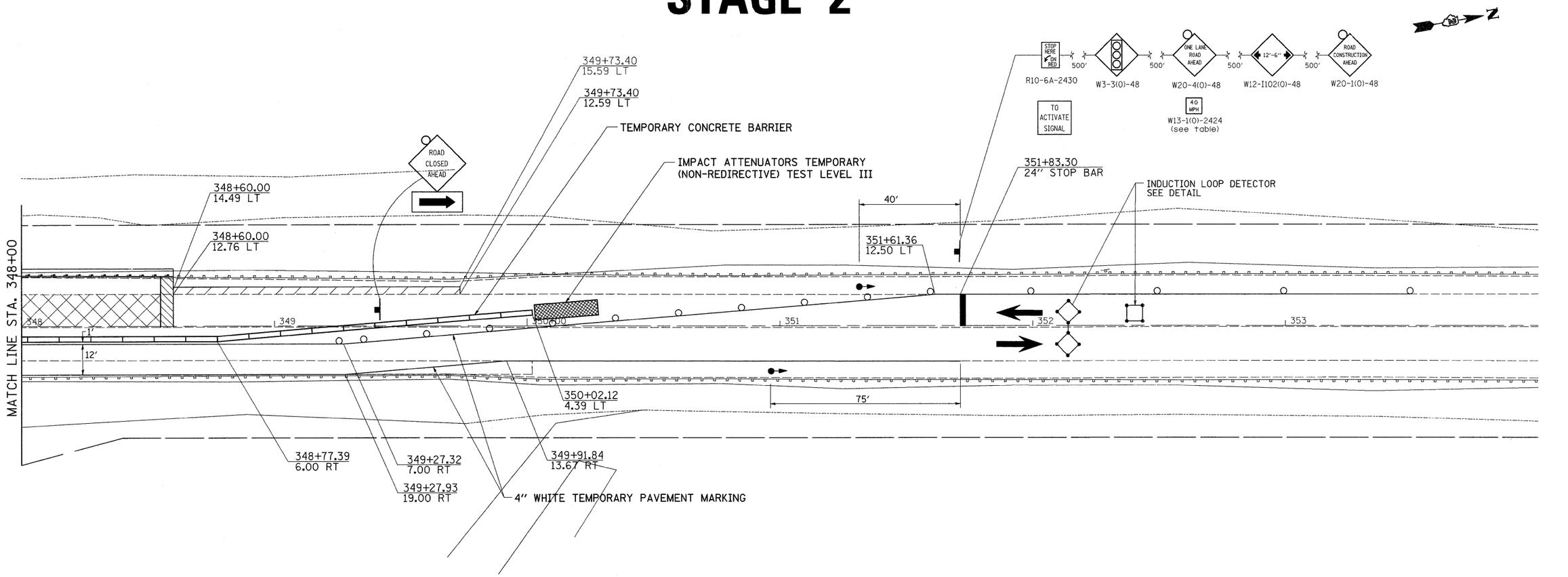
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGING PLANS

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	25
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGE 2



= WORK AREA

= TYPE III BARRICADE WITH FLASHING LIGHTS

= SIGN

= BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS

= INDUCTION LOOP DETECTOR

= TRAFFIC SIGNAL

STAGE 2 NOTES

1. USE STANDARD 701321.
2. CLOSE W. EBSON RD.
3. CONSTRUCT BRIDGE LT TO STAGE CONSTRUCTION LINE.
4. CONSTRUCT LEVEL BINDER (MACHINE METHOD).
5. CONSTRUCT FULL WIDTH SHOULDERS AND GUARDRAIL FROM STA. 339+53.50 LT TO STA. 348+60.00 LT
6. CONSTRUCT TEMPORARY RAMPS.
7. CONSTRUCT TEMPORARY PAVEMENT.
8. INSTALL GUARDRAIL.

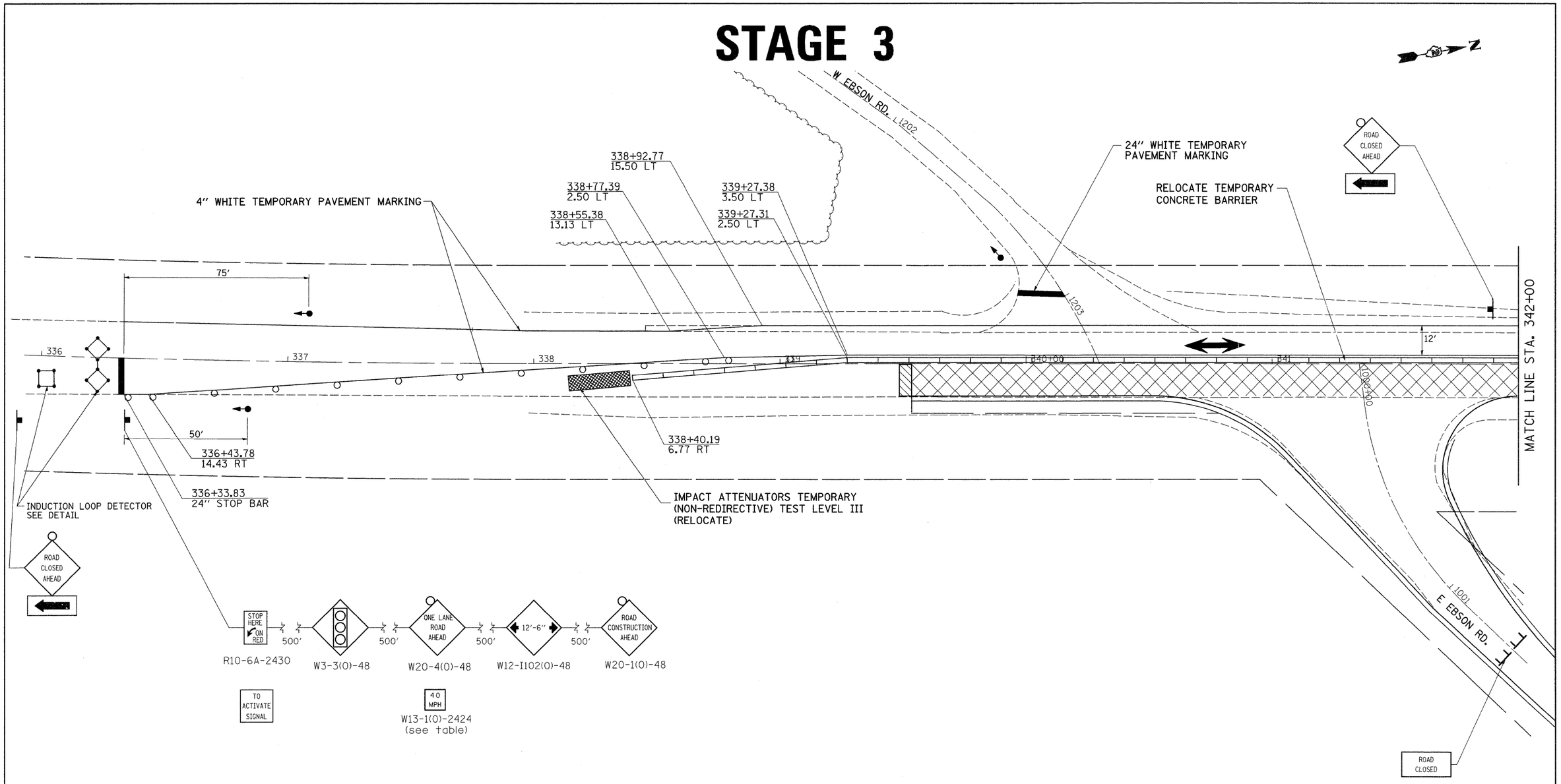
TEMPORARY RAMP
STA 343+90 TO STA 343+95
STA 345+58.61 TO STA 345+63.61
STA 348+55 TO STA 348+60
STA. 339+48.50 TO STA. 339+53.50

TEMPORARY PAVEMENT
STA 338+45 TO STA 339+53.50
STA 348+60 TO STA 349+73.40

LEVEL BINDER (MACHINE METHOD)
STA 339+53.50 TO STA 343+95
STA 345+58.61 TO 348+55

FILE NAME = c:\projects\p206006\d06006stg.dgn	USER NAME = hensonke	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGING PLANS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -			308	109BR-5	WHITESIDE	83	26
	PLOT SCALE = 20.0000 ft / IN.	CHECKED -	REVISED -					CONTRACT NO. 64C25		
	PLOT DATE = Thu Jul 31 09:41:11 2008	DATE -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGE 3



= WORK AREA

= TYPE III BARRICADE WITH FLASHING LIGHTS

= SIGN

= BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS

= INDUCTION LOOP DETECTOR

= TRAFFIC SIGNAL

STAGE 3 NOTES

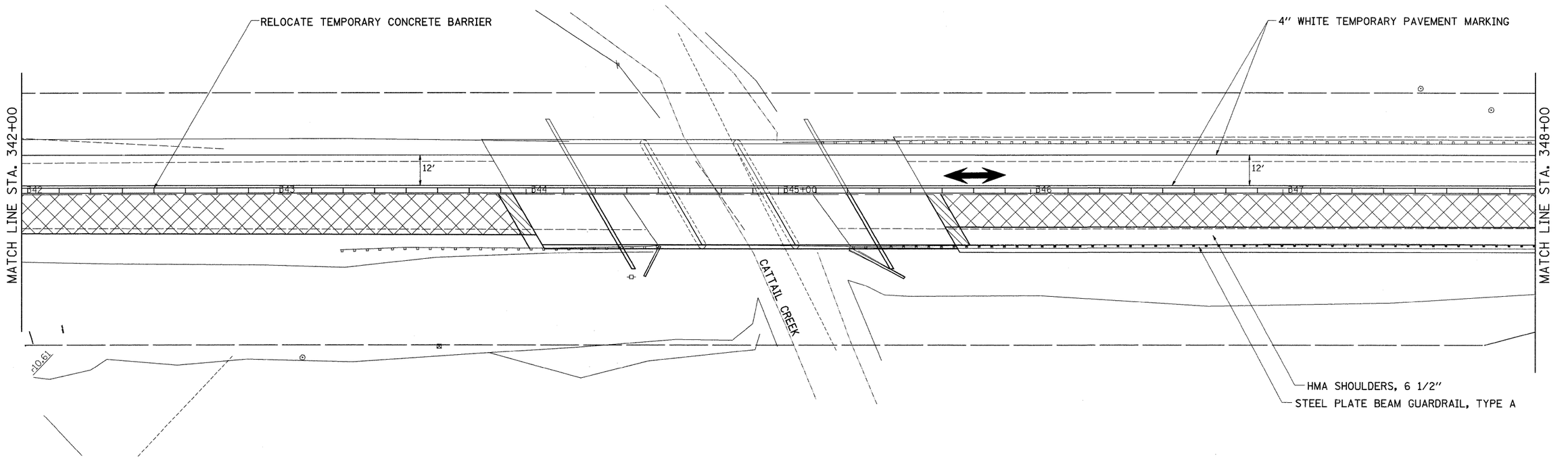
1. USE STANDARD 701321.
2. CLOSE E. EBSON RD.
3. CONSTRUCT BRIDGE RT FROM STAGE CONSTRUCTION LINE.
4. CONSTRUCT FULL DEPTH PAVEMENT FROM STA. 345+58.61 RT TO STA. 348+55 RT
5. CONSTRUCT FULL WIDTH SHOULDERS AND GUARDRAIL FROM STA. 340+52.22 RT TO STA. 348+55.00 RT
6. CONSTRUCT TEMPORARY RAMPS.
7. INSTALL GUARDRAIL.
8. BARRIER WALL TO BE PINNED IN 6 LOCATIONS EACH SIDE OF THE BRIDGE.
9. STAGE 4 WILL CONSIST OF FINAL SURFACE COURSE AND PAVEMENT MARKINGS DONE UNDER FLAGGERS.

TEMPORARY RAMP
STA 343+90 TO STA 343+95
STA 345+58.61 TO STA 345+63.61
STA 348+55 TO STA 348+60
STA. 339+48.50 TO STA. 339+53.50

LEVEL BINDER (MACHINE METHOD)
STA 339+53.50 TO STA 343+95

FILE NAME = c:\projects\p206006\d06006stg.dgn	USER NAME = hensonke	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGING PLANS	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -			308	109BR-5	WHITESIDE	83	27
	PLOT SCALE = 20.0000 ft / IN.	CHECKED -	REVISED -					CONTRACT NO. 64C25		
	PLOT DATE = Thu Jul 31 09:41:12 2008	DATE -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGE 3



TEMPORARY RAMP
STA 343+90 TO STA 343+95
STA 345+58.61 TO STA 345+63.61
STA 348+55 TO STA 348+60
STA. 339+48.50 TO STA. 339+53.50

LEVEL BINDER (MACHINE METHOD)
STA 342+95 TO STA 343+95
STA 345+58.61 TO STA 348+55

= WORK AREA

= TYPE III BARRICADE WITH FLASHING LIGHTS

= SIGN

= BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS

= INDUCTION LOOP DETECTOR

= TRAFFIC SIGNAL

STAGE 3 NOTES

1. USE STANDARD 701321.
2. CLOSE E. EBSON RD.
3. CONSTRUCT BRIDGE RT FROM STAGE CONSTRUCTION LINE.
4. CONSTRUCT FULL DEPTH PAVEMENT FROM STA. 345+58.61 RT TO STA. 348+55 RT
5. CONSTRUCT FULL WIDTH SHOULDERS AND GUARDRAIL FROM STA. 340+52.22 RT TO STA. 348+55.00 RT
6. CONSTRUCT TEMPORARY RAMPS.
7. INSTALL GUARDRAIL.
8. BARRIER WALL TO BE PINNED IN 6 LOCATIONS EACH SIDE OF THE BRIDGE.
9. STAGE 4 WILL CONSIST OF FINAL SURFACE COURSE AND PAVEMENT MARKINGS DONE UNDER FLAGGERS.

FILE NAME = c:\projects\p206006\d06006stg.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ft / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 09:41:12 2008	DATE -	REVISED -

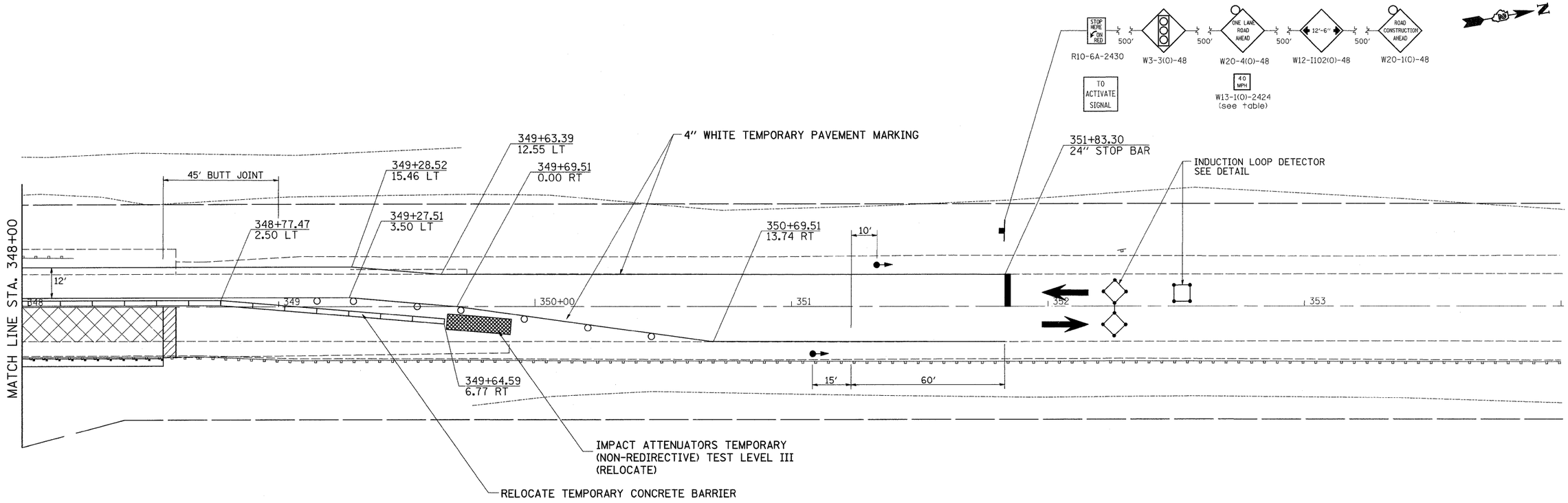
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGING PLANS

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	28
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGE 3



= WORK AREA

= TYPE III BARRICADE WITH FLASHING LIGHTS

= SIGN

= BARRICADE, OR DRUM WITH STEADY BURNING LIGHTS

= INDUCTION LOOP DETECTOR

= TRAFFIC SIGNAL

STAGE 3 NOTES

1. USE STANDARD 701321.
2. CLOSE E. EBSON RD.
3. CONSTRUCT BRIDGE RT FROM STAGE CONSTRUCTION LINE.
4. CONSTRUCT FULL DEPTH PAVEMENT FROM STA. 345+58.61 RT TO STA. 348+55 RT
5. CONSTRUCT FULL WIDTH SHOULDERS AND GUARDRAIL FROM STA. 340+52.22 RT TO STA. 348+55.00 RT
6. CONSTRUCT TEMPORARY RAMPS.
7. INSTALL GUARDRAIL.
8. BARRIER WALL TO BE PINNED IN 6 LOCATIONS EACH SIDE OF THE BRIDGE.
9. STAGE 4 WILL CONSIST OF FINAL SURFACE COURSE AND PAVEMENT MARKINGS DONE UNDER FLAGGERS.

TEMPORARY RAMP
STA 343+90 TO STA 343+95
STA 345+58.61 TO STA 345+63.61
STA 348+55 TO STA 348+60
STA. 339+48.50 TO STA. 339+53.50

LEVEL BINDER (MACHINE METHOD)
STA 342+95 TO STA 343+95
STA 345+58.61 TO STA 348+55

FILE NAME = c:\projects\p206006\d06006stg.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ft / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 09:41:12 2008	DATE -	REVISED -

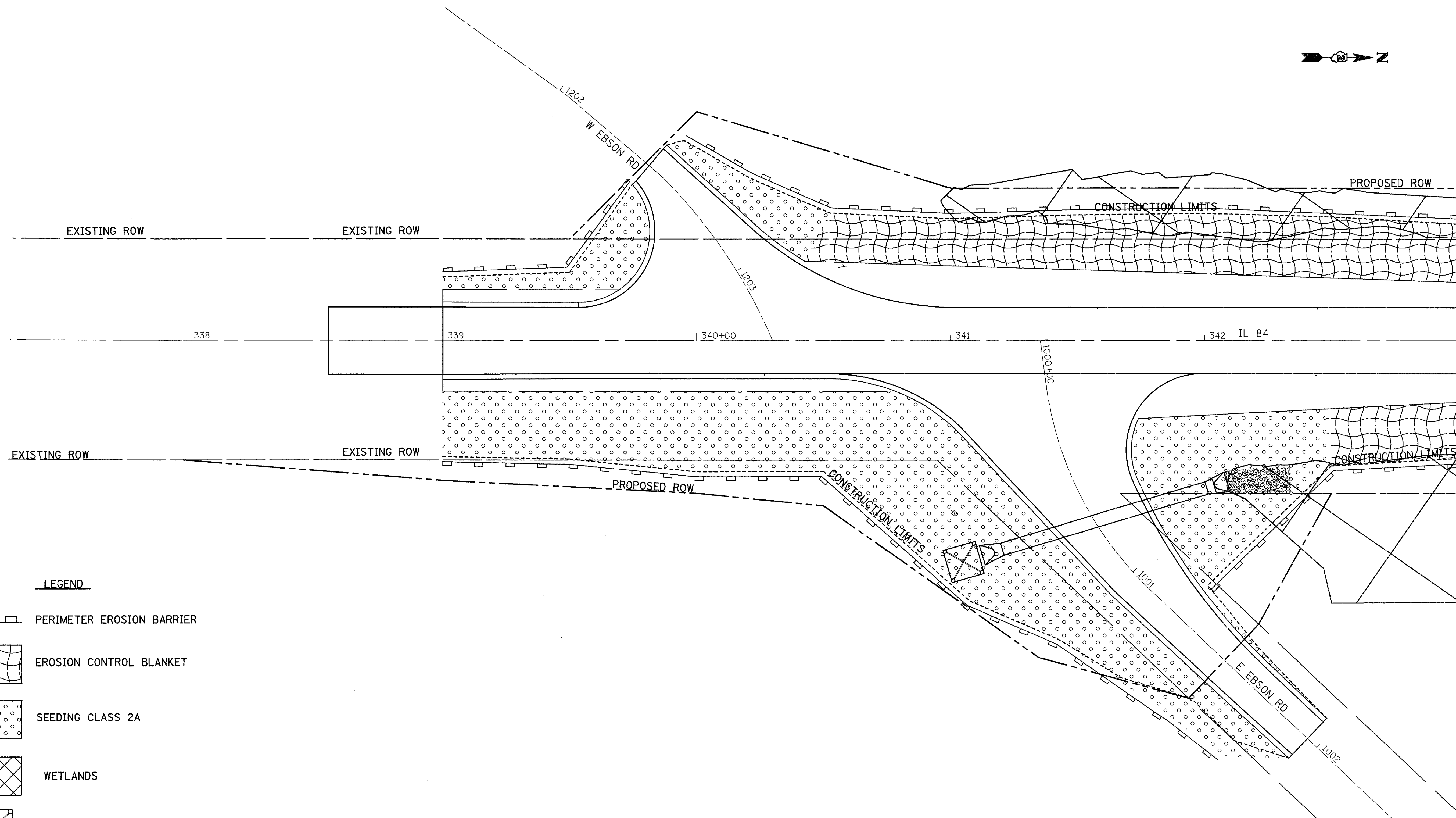
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGING PLANS

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	29
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EROSION CONTROL /SEEDING DETAILS



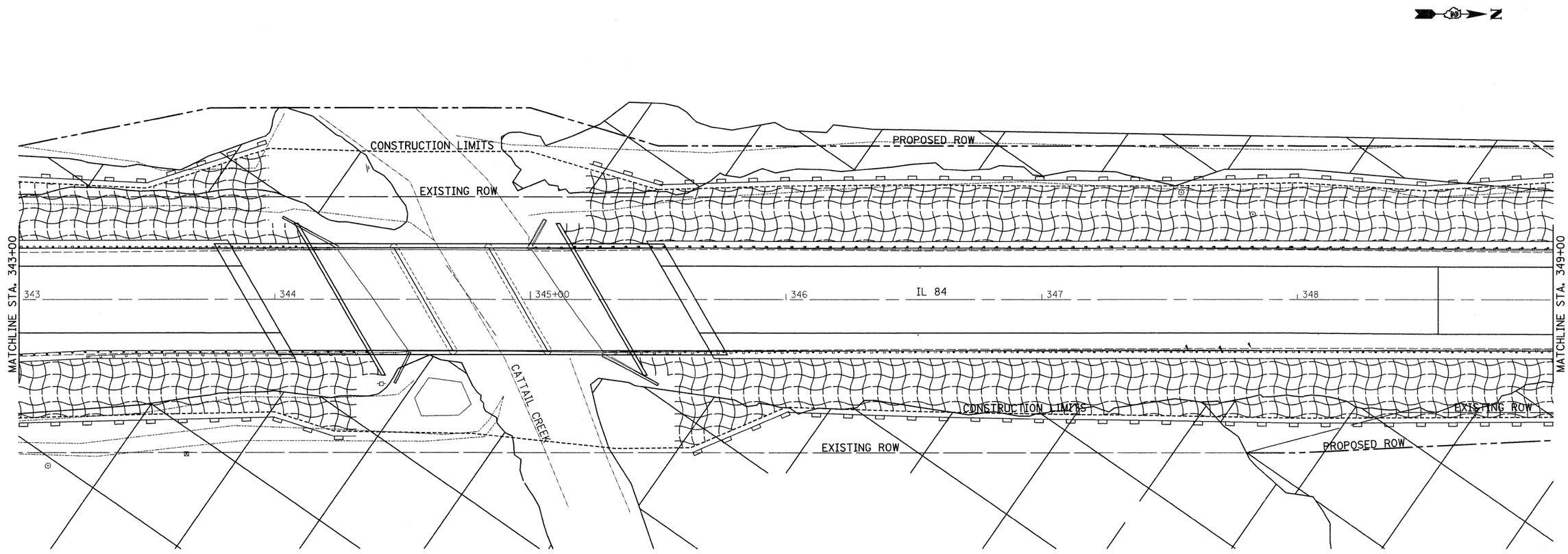
LEGEND

- PERIMETER EROSION BARRIER
- EROSION CONTROL BLANKET
- SEEDING CLASS 2A
- WETLANDS
- INLET AND PIPE PROTECTION

FILE NAME = c:\projects\p206006\d06006er.dgn	USER NAME = hensonke	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EROSION CONTROL /SEEDING DETAILS	F.A.P RTE. 308	SECTION 109BR-5	COUNTY WHITESIDE	TOTAL SHEETS 83	SHEET NO. 30
	PLOT SCALE = 20.0000 ' / IN.	DRAWN -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.	CONTRACT NO. 64C25				
	PLOT DATE = Thu Jul 31 09:47:06 2008	CHECKED -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
		DATE -	REVISED -							

PLAN | SURVEYED | PLOTTED | ALIGNMENT CHECKED | RT. OF WAY CHECKED | CADD FILE NAME | NOTE BOOK NO. | BY | DATE

EROSION CONTROL /SEEDING DETAILS



LEGEND

PERIMETER EROSION BARRIER

EROSION CONTROL BLANKET

SEEDING CLASS 2A

WETLANDS

FILE NAME = c:\projects\p206206\d06006er.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 09:47:07 2008	DATE -	REVISED -

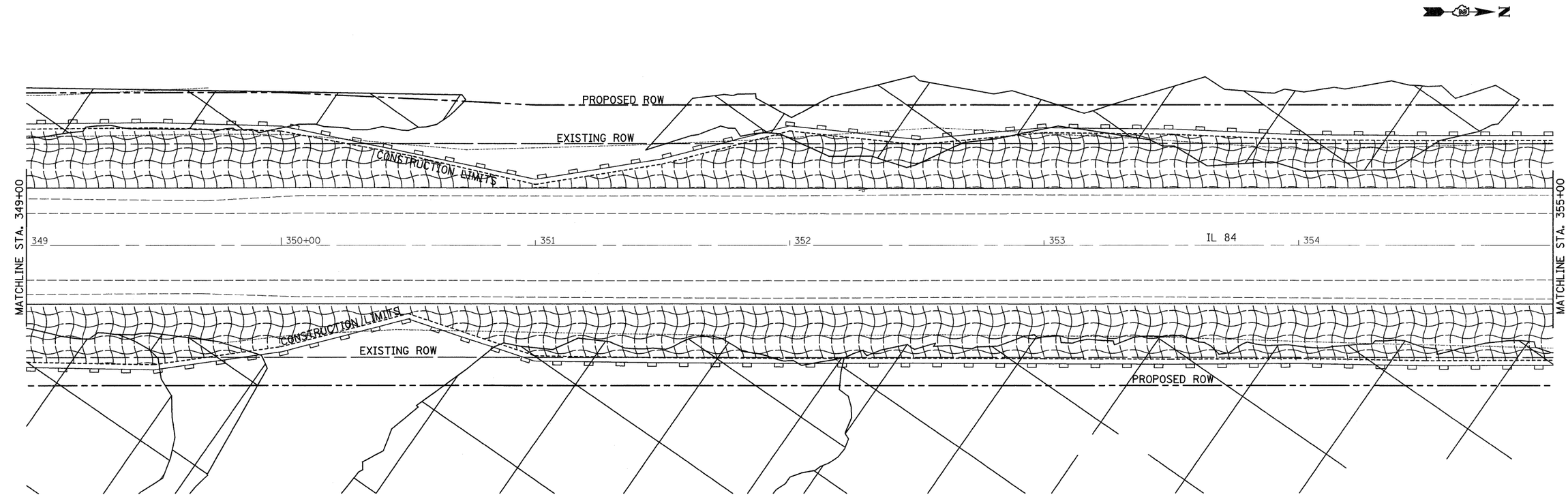
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL /SEEDING DETAILS

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	31
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EROSION CONTROL /SEEDING DETAILS



LEGEND

PERIMETER EROSION BARRIER

EROSION CONTROL BLANKET

SEEDING CLASS 2A

WETLANDS

FILE NAME = c:\projects\p206006\d06006er.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 09:47:07 2008	DATE -	REVISED -

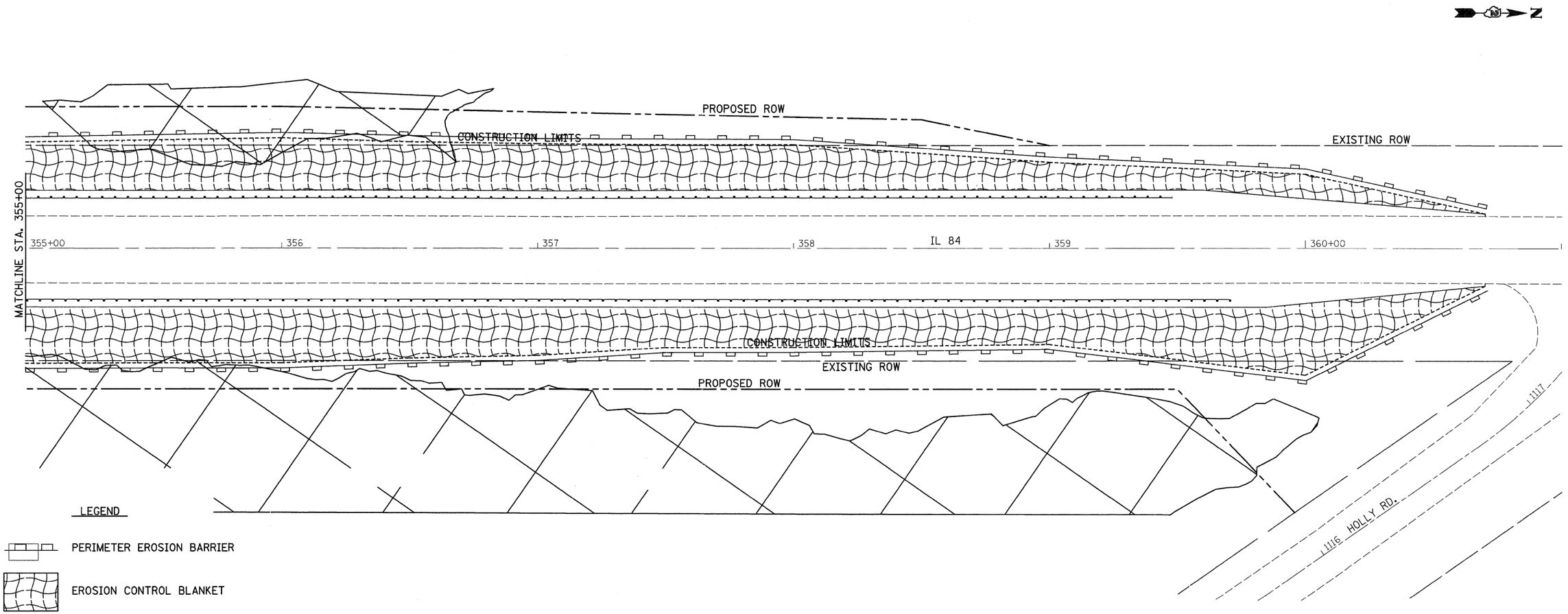
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL /SEEDING DETAILS

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	32
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EROSION CONTROL /SEEDING DETAILS



LEGEND

PERIMETER EROSION BARRIER

EROSION CONTROL BLANKET

SEEDING CLASS 2A

WETLANDS

FILE NAME = c:\projects\p206006\d06006er.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 09:47:07 2008	DATE -	REVISED -

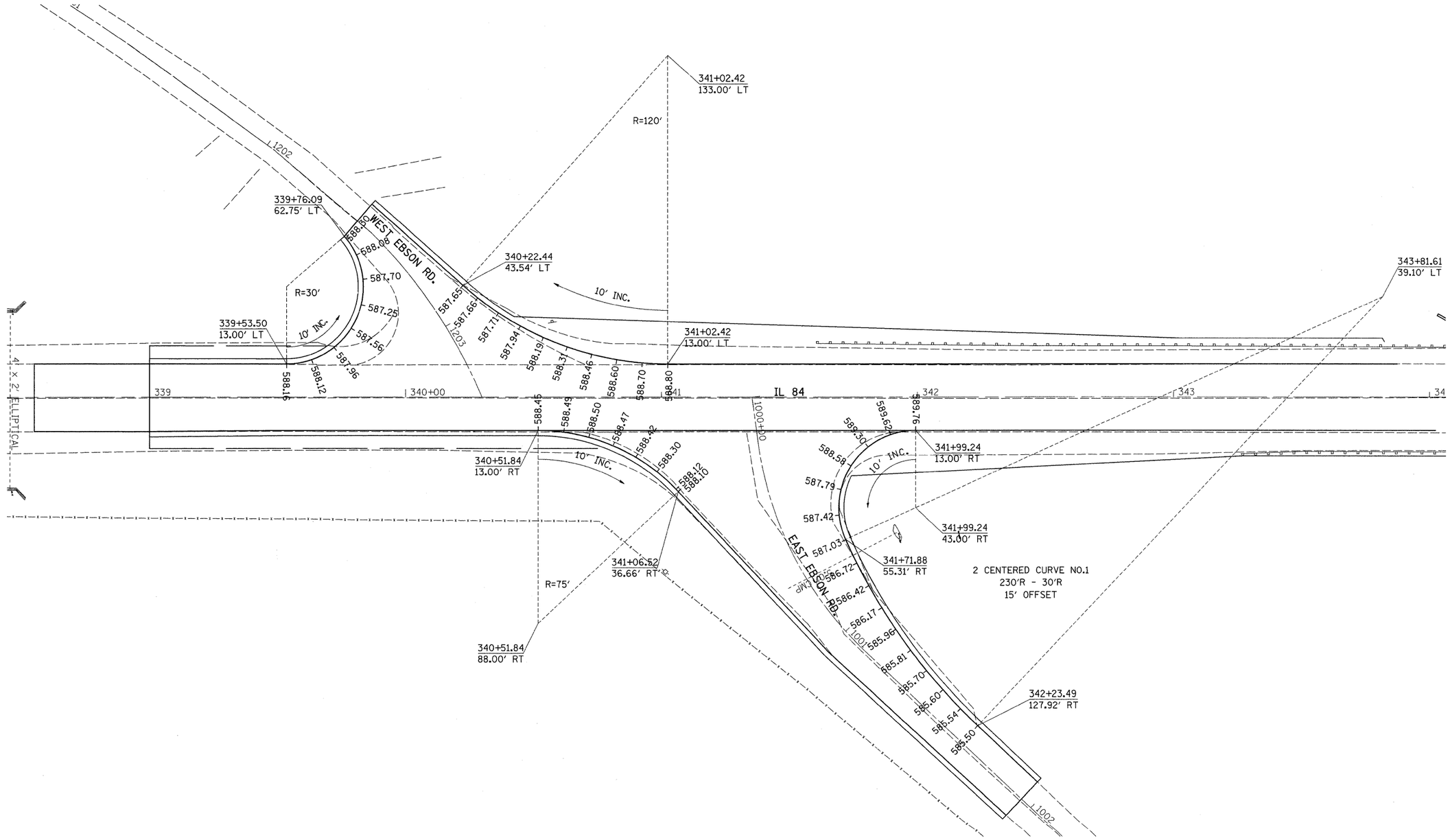
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL /SEEDING DETAILS

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	33
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PAVEMENT ELEVATIONS



FILE NAME = c:\projects\p206006\d06006el.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 09:48:17 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT ELEVATIONS

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	34
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Bench Mark: Top of RR bridge pier. Sta. 344+13.00. O/S 83.97 LT., Elev. 586.45

Existing Structure: S.N. 098-0021 built in 1932 as S.B.I. Route 80, Section 109-B. Superstructure replaced and substructure widened in 1972 as S.B.I. Route 80, Section 109BR. Structure consists of two span PPC deck beams on closed abutments and a solid tapered pier. 77'-4" back-to-back abutments. 40'-0" out-to-out deck. Existing Structure is to be removed and replaced. One lane of traffic will be maintained utilizing Stage Construction.

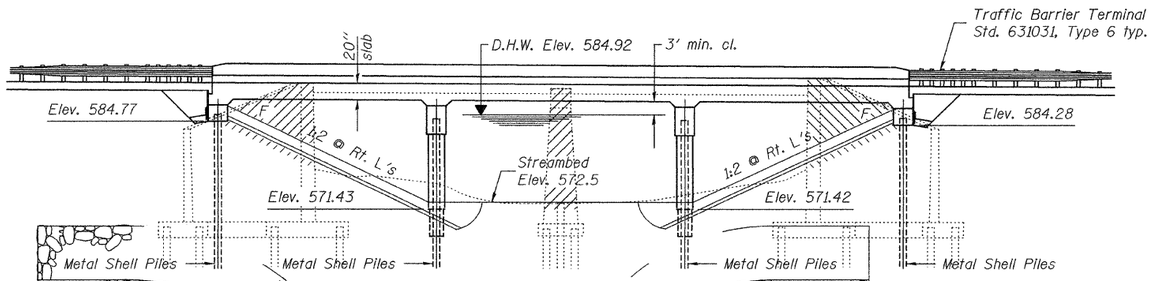
No Salvage

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	109BR-5	WHITESIDE	83	35
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

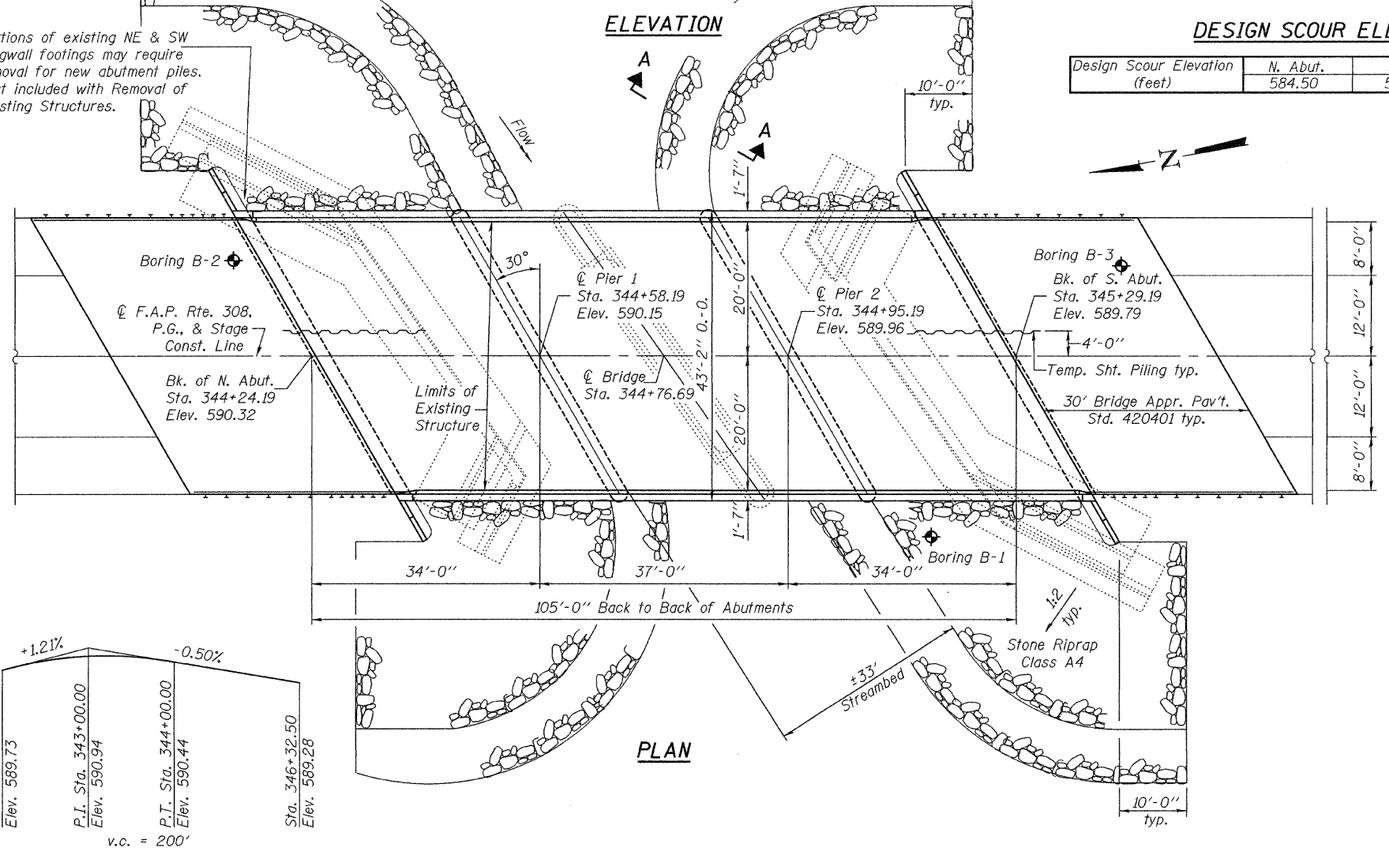
SHEET NO. 1
19 SHEETS

Contract #64C25



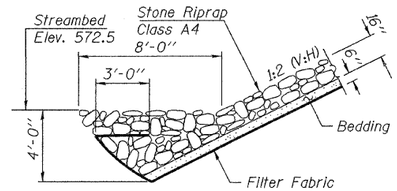
ELEVATION

Portions of existing NE & SW wingwall footings may require removal for new abutment piles. Cost included with Removal of Existing Structures.



PLAN

PROFILE GRADE
(along ℄ Rdwy.)



SECTION A-A

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (feet)	N. Abut.	Pier 1	Pier 2	S. Abut.
	584.50	557.46	557.46	583.95

INDEX OF SHEETS

LOADING HL-93

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

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications, 4th. Edition

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Bedrock Acceleration Coefficient (A) = 3.3%g
Site Coefficient (S) = 1.0

STATION 344+76.69
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. ROUTE 308 - SECTION 109BR-5
LOADING HL-93
STRUCTURE NO. 098-0114

NAME PLATE

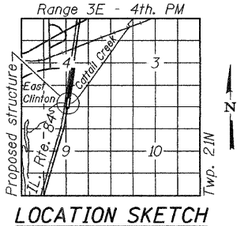
See Std. 515001

WATERWAY INFORMATION

Exist. Low Grade Elev. 587.7 ft. @ Sta. 339+65
Drainage Area = 36.4 sq. mi. Prop. Low Grade Elev. 587.7 ft. @ Sta. 339+65

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Ten-Year	10	2308	482	539	584.91	0.73	0.69	585.6	585.6
Design	50	3393	483	540	584.92	1.47	1.41	586.4	586.3
Base	100	3836	484	540	584.93	1.83	1.76	586.8	586.7
Max. Calc.	500	4870	484	541	584.94	2.77	2.67	587.7	587.6

10 Year Velocity through Existing Bridge = 4.7 fps
10 Year Velocity through Prop. Bridge = 4.2 fps



LOCATION SKETCH

DESIGNED	Danny H. Coultas
CHECKED	Stephen M. Ryan
DRAWN	W.D. Collins BML
CHECKED	DHC / SMR

September 2, 2008
EXAMINED Thomas Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS WAYNE E. ANDERSON 081-004625 REGISTERED LICENSED STRUCTURAL ENGINEER

EXPIRES 11-30-2008

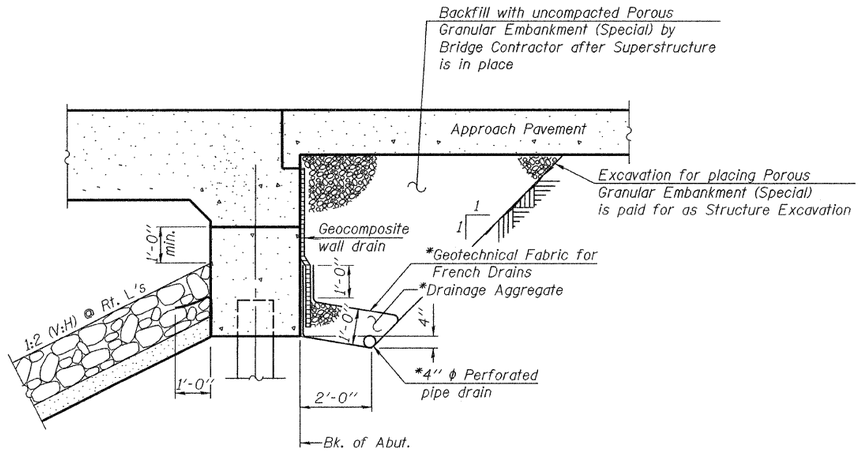
GENERAL PLAN
IL. ROUTE 84 OVER
CATTAIL CREEK
F.A.P. ROUTE 308 - SECTION 109BR-5
WHITESIDE COUNTY
STATION 344+76.69
STRUCTURE NO. 098-0114

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	109BR-5	WHITESIDE	83	36
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 2
19 SHEETS

Contract #64C25



SECTION THRU INTEGRAL ABUTMENT

(Horiz. dim. @ Rt. L's)

* Included in the cost of Pipe Underdrains for Structures 4".

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

GENERAL NOTES

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

Reinforcement bars designated (E) shall be epoxy coated.

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

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.

The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework. Forms for deck slab shall be removed prior to placement of bridge approach pavement.

The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal of the existing superstructure.

If the Contractor's procedures for existing deck beam removal involves placement of heavy equipment on the existing deck beams, a detailed procedure shall be submitted to the Engineer for approval. This procedure shall include calculations, sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the deck beams for the proposed loads. Cost included with Removal of Existing Structures.

Slipforming of the parapets is not allowed.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.		83	83
Stone Riprap, Class A4	Sq. Yd.		1,255	1,255
Filter Fabric	Sq. Yd.		1,255	1,255
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		148	148
Concrete Structures	Cu. Yd.		182.4	182.4
Concrete Superstructure	Cu. Yd.	310.4		310.4
Bridge Deck Grooving	Sq. Yd.	439		439
Concrete Encasement	Cu. Yd.		11.0	11.0
Protective Coat	Sq. Yd.	548		548
Reinforcement Bars, Epoxy Coated	Pound	57,000	14,420	71,420
Bar Splicers	Each	193	92	285
Furnishing Metal Shell Piles 14"x0.312"	Foot		1,867	1,867
Driving Piles	Foot		1,867	1,867
Test Pile Metal Shells	Each		2	2
Temporary Sheet Piling	Sq. Ft.		967	967
Name Plates	Each		1	1
Geocomposite Wall Drain	Sq. Yd.		52	52
Pipe Underdrains for Structures 4"	Foot		160	160
Underwater Structure Excavtion Protection - Location 1	Each		1	1
Underwater Structure Excavtion Protection - Location 2	Each		1	1
Asbestos Bearing Pad Removal	Each			40

DESIGNED	Dewey H. Coultas
CHECKED	Stephen M. Ryan
DRAWN	BECKY M. LEACH
CHECKED	DHC/SMR

September 2, 2008
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

GENERAL DATA
F.A.P. ROUTE 308 - SECTION 109BR-5
WHITESIDE COUNTY
STATION 344+76.69
STRUCTURE NO. 098-0114

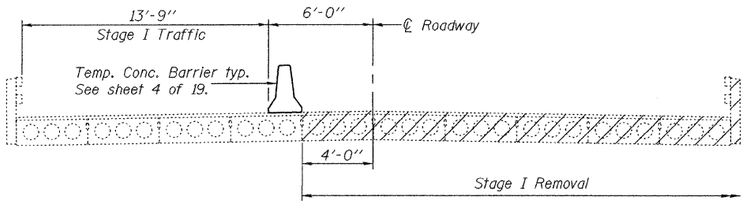
...\projects\hwl000029\0398114.dgn 09/02/2008 1:10:33 PM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

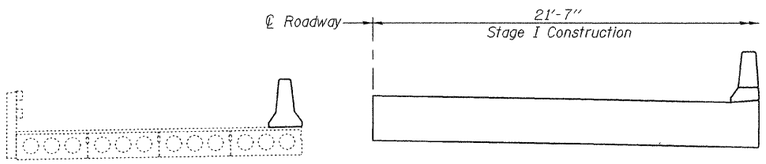
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	109BR-5	WHITESIDE	83	37
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 3
19 SHEETS

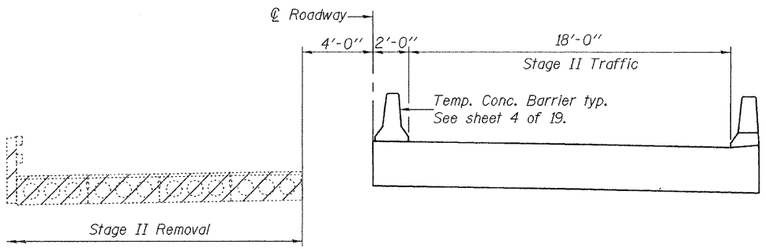
Contract #64C25



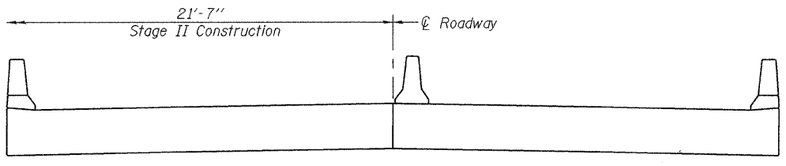
STAGE I REMOVAL



STAGE I CONSTRUCTION

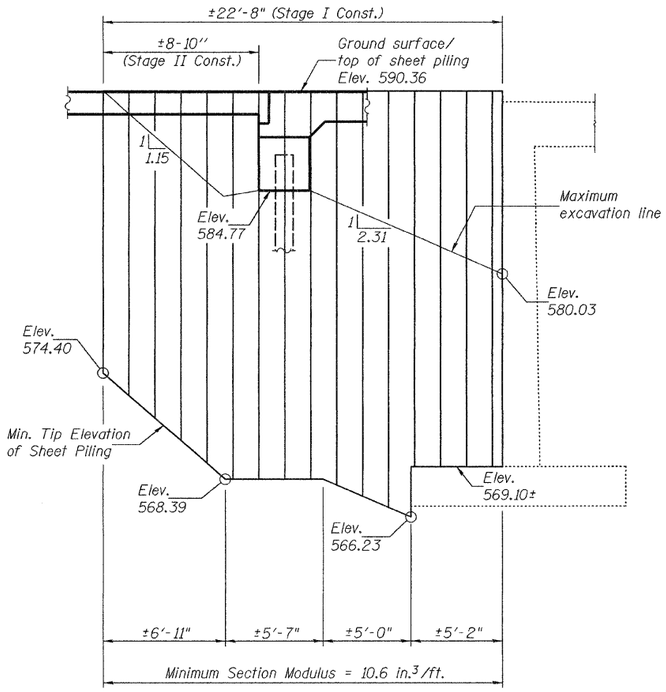


STAGE II REMOVAL



STAGE II CONSTRUCTION

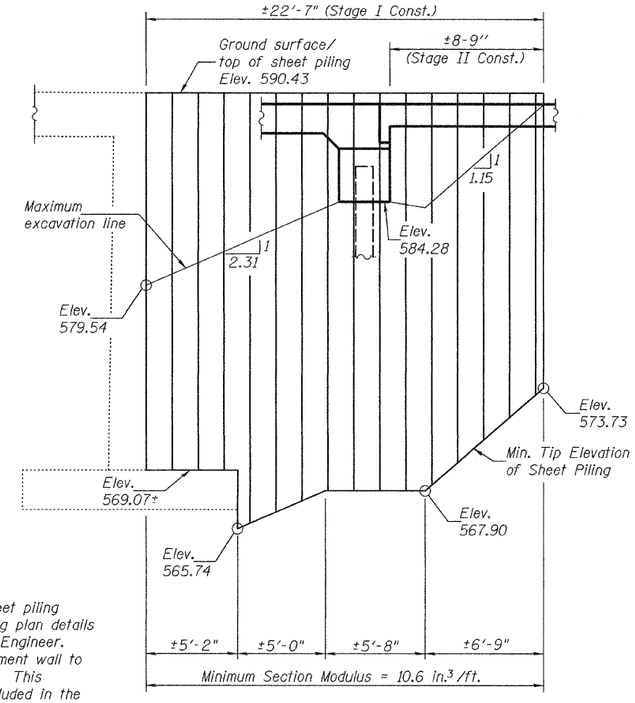
Notes:
Hatched areas indicate Removal of Existing Structures.
For quantity of Temporary Concrete Barrier, see Roadway Plans.
All cross sections are looking South.



NORTH ABUTMENT SHEET PILING

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.

The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.



SOUTH ABUTMENT SHEET PILING

DESIGNED	Dewey H. Coultas
CHECKED	Stephen M. Ryan
DRAWN	BECKY M. LEACH
CHECKED	DHC/SMR

September 2, 2008
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STAGE CONSTRUCTION DETAILS
F.A.P. ROUTE 308 - SECTION 109BR-5
WHITESIDE COUNTY
STATION 344+76.69
STRUCTURE NO. 098-0114

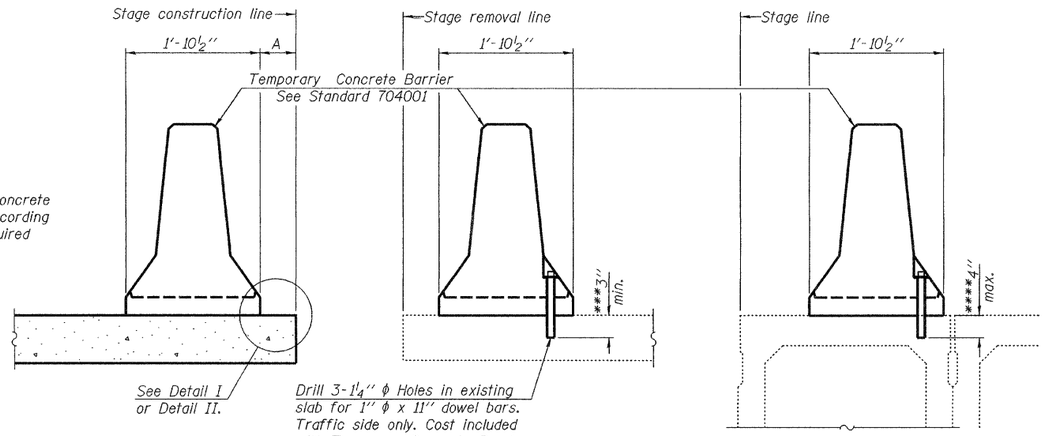
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	109BR-5	WHITESIDE	83	38
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 4
19 SHEETS

Contract #64C25

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 ℙ 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 ℙ 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.

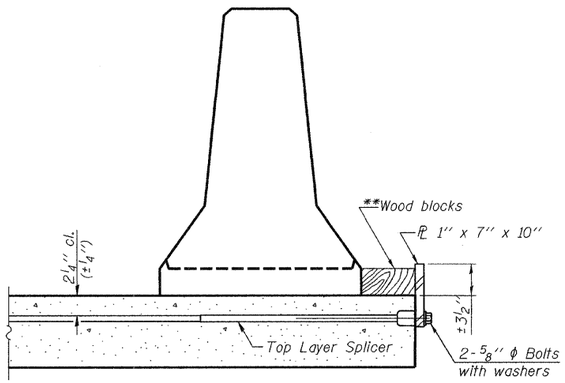
Cost of anchorage is included with Temporary Concrete Barrier.

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.

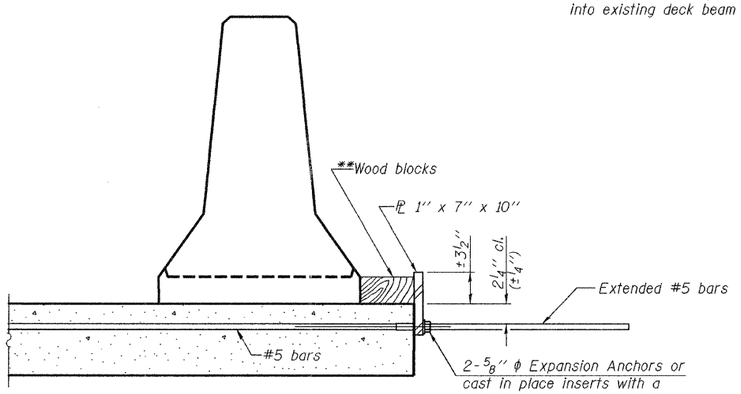
SECTIONS THRU SLAB OR DECK BEAM

***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.

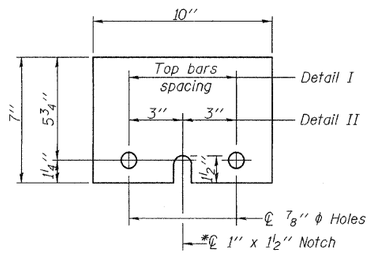


DETAIL I



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 ℙ 1" x 7" x 10"

*Required only with Detail II

DESIGNED	Dewey H. Coultas
CHECKED	Stephen M. Ryan
DRAWN	BECKY M. LEACH
CHECKED	DHC/SMR

R-27 5-16-08

September 2, 2008
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
F.A.P. ROUTE 308 - SECTION 109BR-5
WHITESIDE COUNTY
STATION 344+76.69
STRUCTURE NO. 098-0114

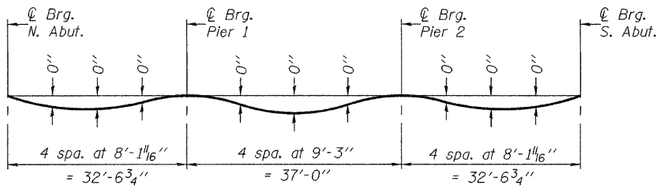
...\projects\bm100029\0980114.dgn 09/02/2008 1:10:33 PM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	109BR-5	WHITESIDE	83	39
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 5
19 SHEETS

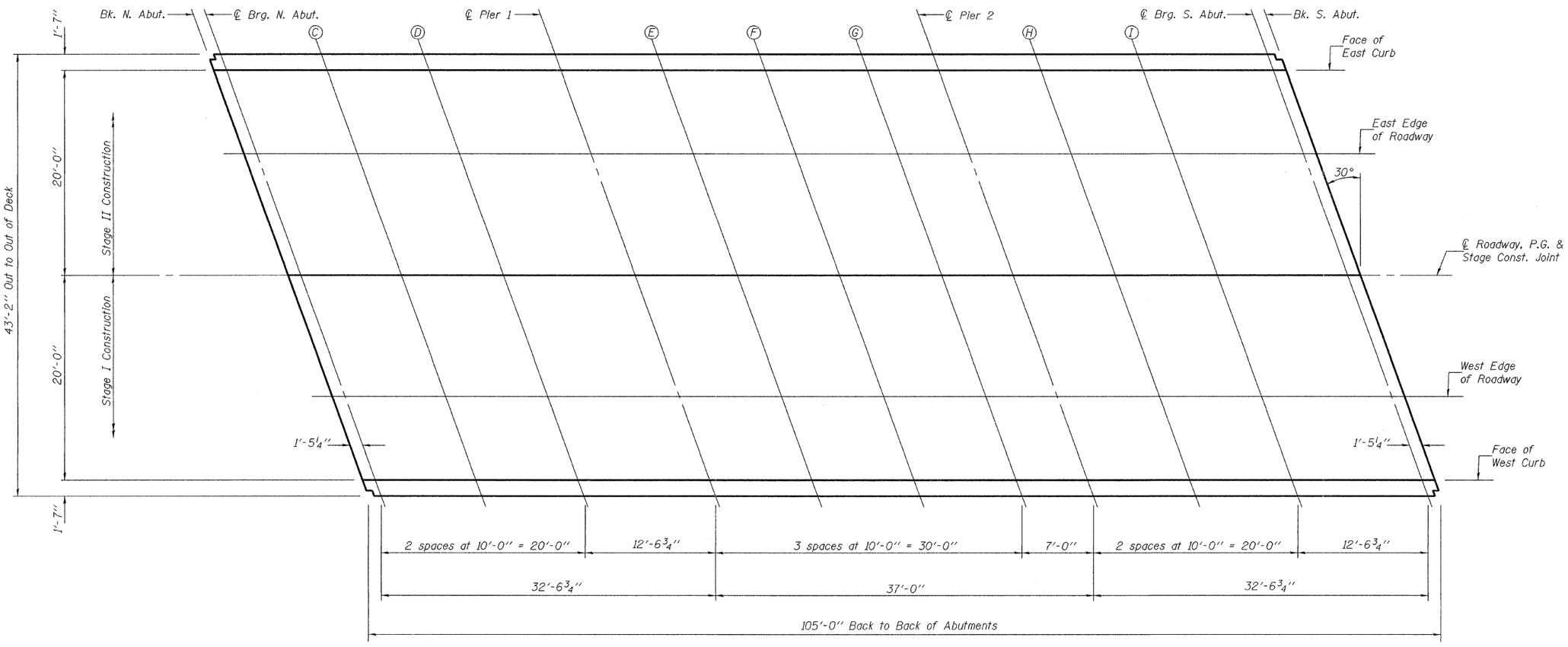
Contract #64C25



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheet 6 of 19.



PLAN

DESIGNED	Dewey H. Coultas
CHECKED	Stephen M. Ryan
DRAWN	BECKY M. LEACH
CHECKED	DHC/SMR

September 2, 2008
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

TOP OF SLAB ELEVATIONS
F.A.P. ROUTE 308 - SECTION 109BR-5
WHITESIDE COUNTY
STATION 344+76.69
STRUCTURE NO. 098-0114

...\projects\bm100029\098O114.dgn 09/02/2008 1:10:33 PM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	109BR-5	WHITESIDE	83	40
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 6
19 SHEETS

Contract #64C25

FACE OF EAST CURB

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	344+12.64	-20.00	590.02	590.02
℄ Brg. N. Abut.	344+14.09	-20.00	590.02	590.02
C	344+24.09	-20.00	589.97	589.97
D	344+34.09	-20.00	589.92	589.92
℄ Brg. Pier 1	344+46.64	-20.00	589.85	589.85
E	344+56.64	-20.00	589.80	589.80
F	344+66.64	-20.00	589.75	589.75
G	344+76.64	-20.00	589.70	589.70
℄ Brg. Pier 2	344+83.64	-20.00	589.67	589.67
H	344+93.64	-20.00	589.62	589.62
I	345+03.64	-20.00	589.57	589.57
℄ Brg. S. Abut.	345+16.20	-20.00	589.50	589.50
Bk. S. Abut.	345+17.64	-20.00	589.50	589.50

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	344+17.26	-12.00	590.17	590.17
℄ Brg. N. Abut.	344+18.71	-12.00	590.16	590.16
C	344+28.71	-12.00	590.11	590.11
D	344+38.71	-12.00	590.06	590.06
℄ Brg. Pier 1	344+51.26	-12.00	590.00	590.00
E	344+61.26	-12.00	589.95	589.95
F	344+71.26	-12.00	589.90	589.90
G	344+81.26	-12.00	589.85	589.85
℄ Brg. Pier 2	344+88.26	-12.00	589.81	589.81
H	344+98.26	-12.00	589.76	589.76
I	345+08.26	-12.00	589.71	589.71
℄ Brg. S. Abut.	345+20.82	-12.00	589.65	589.65
Bk. S. Abut.	345+22.26	-12.00	589.64	589.64

℄ ROADWAY, PROFILE GRADE, & STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	344+24.19	0.00	590.32	590.32
℄ Brg. N. Abut.	344+25.63	0.00	590.31	590.31
C	344+35.63	0.00	590.26	590.26
D	344+45.63	0.00	590.21	590.21
℄ Brg. Pier 1	344+58.19	0.00	590.15	590.15
E	344+68.19	0.00	590.10	590.10
F	344+78.19	0.00	590.05	590.05
G	344+88.19	0.00	590.00	590.00
℄ Brg. Pier 2	344+95.19	0.00	589.96	589.96
H	345+05.19	0.00	589.91	589.91
I	345+15.19	0.00	589.86	589.86
℄ Brg. S. Abut.	345+27.75	0.00	589.80	589.80
Bk. S. Abut.	345+29.19	0.00	589.79	589.79

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	344+31.12	12.00	590.10	590.10
℄ Brg. N. Abut.	344+32.56	12.00	590.09	590.09
C	344+42.56	12.00	590.04	590.04
D	344+52.56	12.00	589.99	589.99
℄ Brg. Pier 1	344+65.12	12.00	589.93	589.93
E	344+75.12	12.00	589.88	589.88
F	344+85.12	12.00	589.83	589.83
G	344+95.12	12.00	589.78	589.78
℄ Brg. Pier 2	345+02.12	12.00	589.74	589.74
H	345+12.12	12.00	589.69	589.69
I	345+22.12	12.00	589.64	589.64
℄ Brg. S. Abut.	345+34.67	12.00	589.58	589.58
Bk. S. Abut.	345+36.12	12.00	589.57	589.57

FACE OF WEST CURB

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	344+35.74	20.00	589.91	589.91
℄ Brg. N. Abut.	344+37.18	20.00	589.90	589.90
C	344+47.18	20.00	589.85	589.85
D	344+57.18	20.00	589.80	589.80
℄ Brg. Pier 1	344+69.74	20.00	589.74	589.74
E	344+79.74	20.00	589.69	589.69
F	344+89.74	20.00	589.64	589.64
G	344+99.74	20.00	589.59	589.59
℄ Brg. Pier 2	345+06.74	20.00	589.55	589.55
H	345+16.74	20.00	589.50	589.50
I	345+26.74	20.00	589.45	589.45
℄ Brg. S. Abut.	345+39.29	20.00	589.39	589.39
Bk. S. Abut.	345+40.74	20.00	589.38	589.38

DESIGNED	Dewey H. Coultas
CHECKED	Stephen M. Ryan
DRAWN	BECKY M. LEACH
CHECKED	DHC/SMR

September 2, 2008
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

TOP OF SLAB ELEVATIONS
F.A.P. ROUTE 308 - SECTION 109BR-5
WHITESIDE COUNTY
STATION 344+76.69
STRUCTURE NO. 098-0114

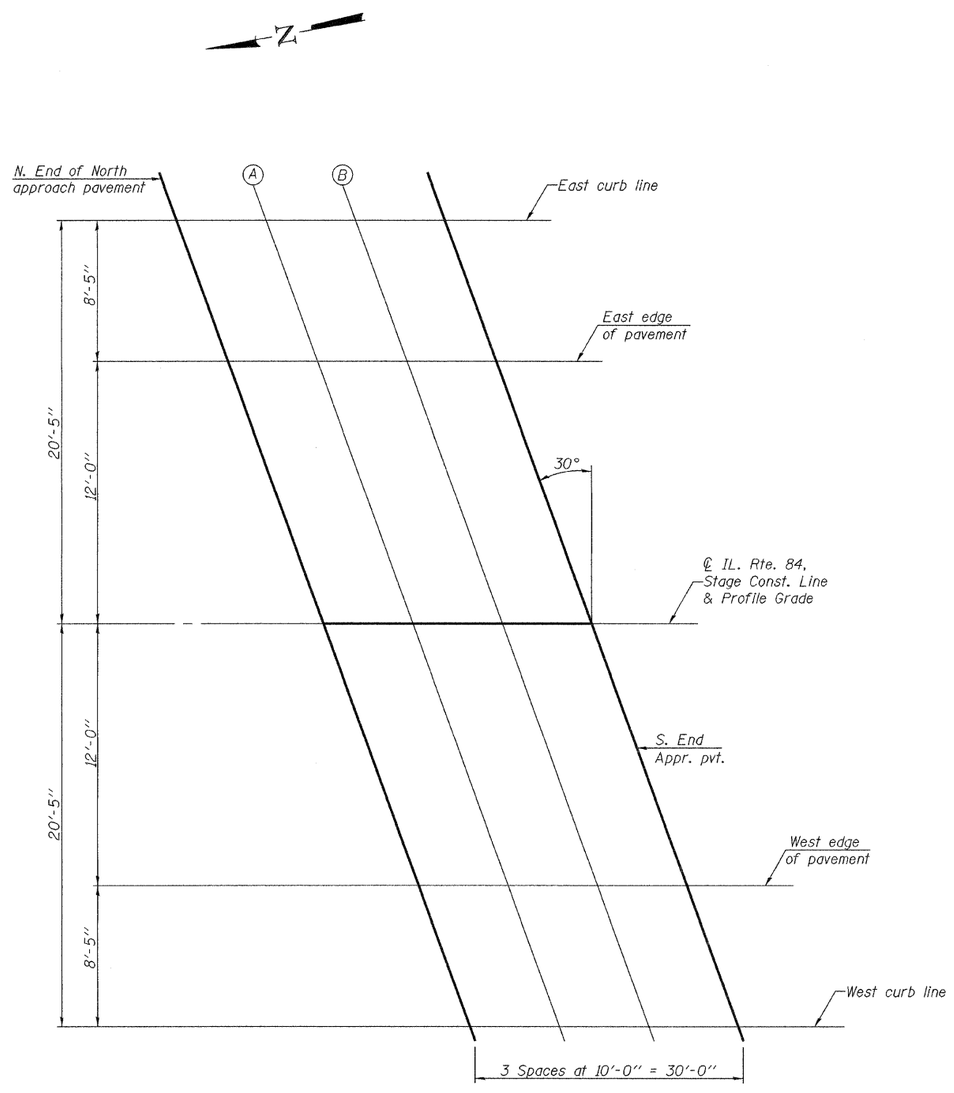
...\projects\be1000\29\0980114.dgn 09/02/2008 1:10:34 PM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	109BR-5	WHITESIDE	83	41
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 7
19 SHEETS

Contract #64C25



PLAN

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Pav't.	343+82.98	-20.42	590.15
A	343+92.98	-20.42	590.11
B	344+02.98	-20.42	590.06
S. End of N. Appr. Pav't.	344+12.98	-20.42	590.01

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Pav't.	343+87.84	-12.00	590.31
A	343+97.84	-12.00	590.26
B	344+07.84	-12.00	590.21
S. End of N. Appr. Pav't.	344+17.84	-12.00	590.16

℄ ROADWAY, P.G. & STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Pav't.	343+94.77	0.00	590.46
A	344+04.77	0.00	590.42
B	344+14.77	0.00	590.37
S. End of N. Appr. Pav't.	344+24.77	0.00	590.32

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Pav't.	344+10.70	12.00	590.24
A	344+11.70	12.00	590.19
B	344+21.70	12.00	590.14
S. End of N. Appr. Pav't.	344+31.70	12.00	590.09

WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Pav't.	344+06.55	20.42	590.04
A	344+16.55	20.42	589.99
B	344+26.55	20.42	589.94
S. End of N. Appr. Pav't.	344+36.55	20.42	589.89

DESIGNED	Dewey H. Coultas
CHECKED	Stephen M. Ryan
DRAWN	BECKY M. LEACH
CHECKED	DHC/SMR

September 2, 2008
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

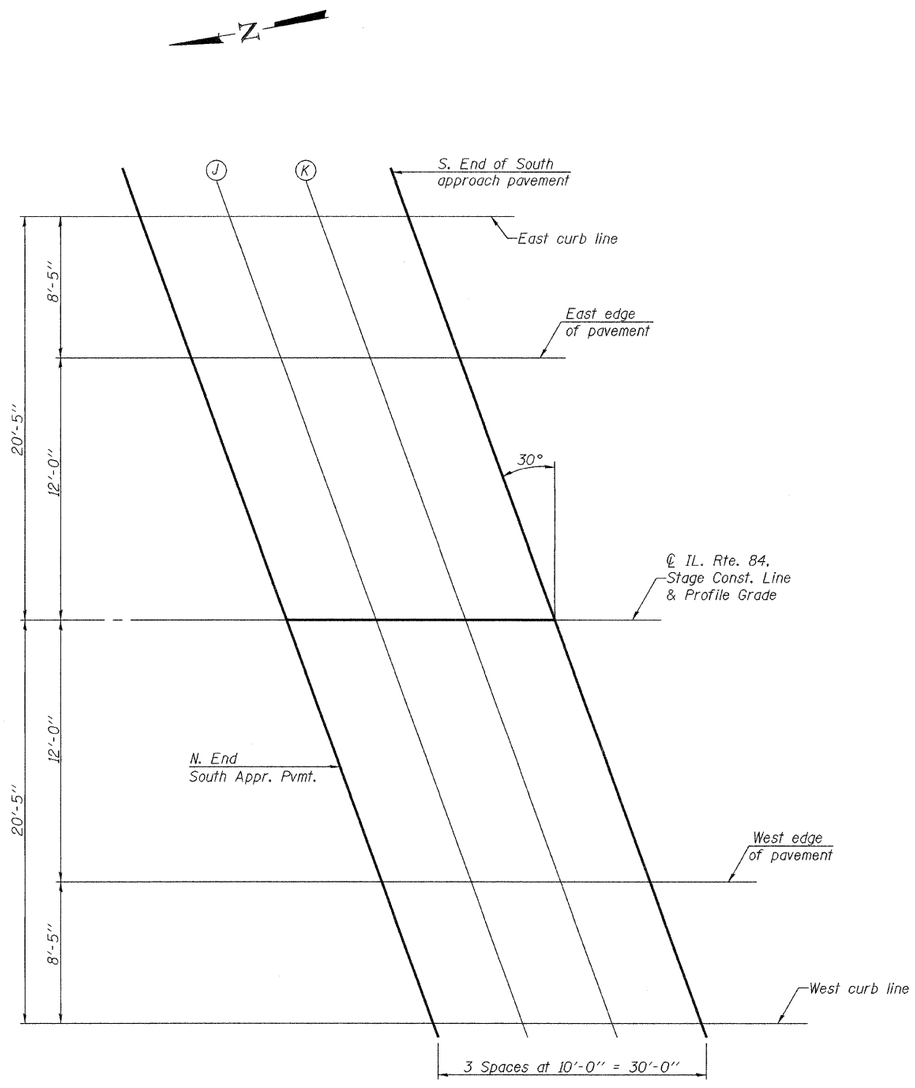
NORTH APPROACH
TOP OF SLAB ELEVATIONS
F.A.P. ROUTE 308 - SECTION 109BR-5
WHITESIDE COUNTY
STATION 344+76.69
STRUCTURE NO. 098-0114

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	109BR-5	WHITESIDE	83	42
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 8
19 SHEETS

Contract #64C25



PLAN

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
N. End S. Appr. Pav't.	345+16.83	-20.42	589.49
J	345+26.83	-20.42	589.44
K	345+36.83	-20.42	589.39
S. End of S. Appr. Pav't.	345+46.83	-20.42	589.34

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End S. Appr. Pav't.	345+21.68	-12.00	589.64
J	345+31.68	-12.00	589.59
K	345+41.68	-12.00	589.54
S. End of S. Appr. Pav't.	345+51.68	-12.00	589.49

℄ ROADWAY, P.G. & STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
N. End S. Appr. Pav't.	345+28.61	0.00	589.80
J	345+38.61	0.00	589.75
K	345+48.61	0.00	589.70
S. End of S. Appr. Pav't.	345+58.61	0.00	589.65

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End S. Appr. Pav't.	345+35.54	12.00	589.57
J	345+45.54	12.00	589.52
K	345+55.54	12.00	589.47
S. End of S. Appr. Pav't.	345+65.54	12.00	589.42

WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
N. End S. Appr. Pav't.	345+40.40	20.42	589.38
J	345+50.40	20.42	589.33
K	345+60.40	20.42	589.28
S. End of S. Appr. Pav't.	345+70.40	20.42	589.23

DESIGNED	Dewey H. Coultas
CHECKED	Stephen M. Ryan
DRAWN	BECKY M. LEACH
CHECKED	DHC/SMR

September 2, 2008
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

SOUTH APPROACH
TOP OF SLAB ELEVATIONS
F.A.P. ROUTE 308 - SECTION 109BR-5
WHITESIDE COUNTY
STATION 344+76.69
STRUCTURE NO. 098-0114

...\projects\ba100029\0980114.dgn 09/02/2008 1:10:34 PM

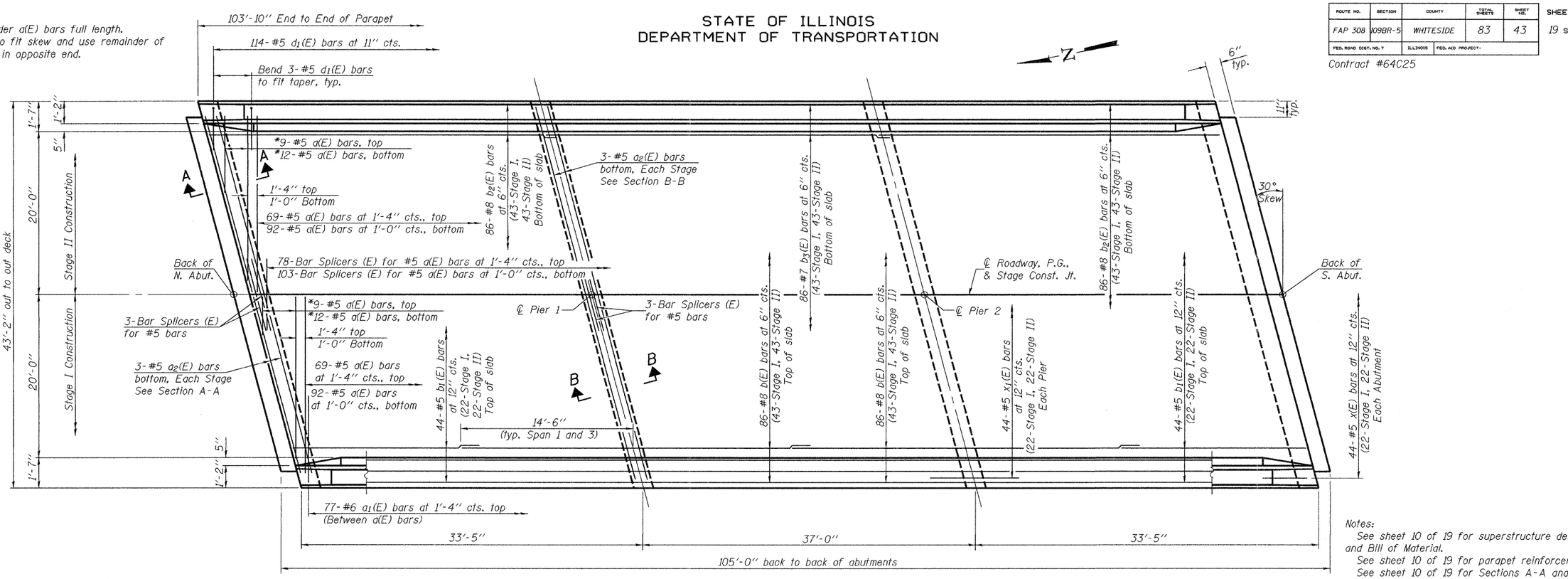
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	109BR-5	WHITESIDE	83	43
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 9
19 SHEETS

Contract #64C25

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

* Order a(E) bars full length.
Cut to fit skew and use remainder of bars in opposite end.

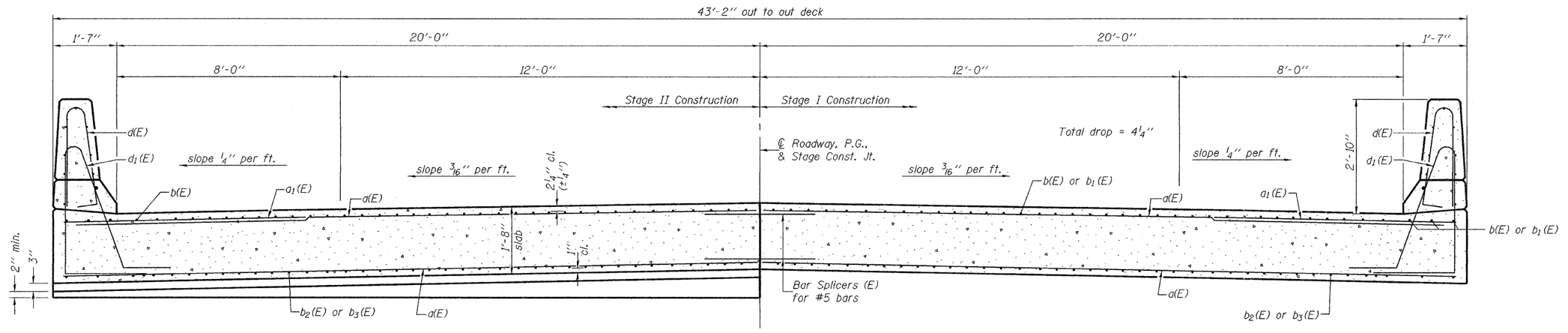


Notes:
See sheet 10 of 19 for superstructure details and Bill of Material.
See sheet 10 of 19 for parapet reinforcement.
See sheet 10 of 19 for Sections A-A and B-B.

MIN. BAR LAPS

#5 bars = 1'-10"
#8 bars = 3'-5"

PLAN



NEAR PIER

NEAR MIDSPAN

CROSS SECTION
(Looking South)

DESIGNED	Dewey H. Coultas
CHECKED	Stephen M. Ryan
DRAWN	BECKY M. LEACH
CHECKED	DHC/SMR

September 2, 2008
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

SUPERSTRUCTURE
F.A.P. ROUTE 308 - SECTION 109BR-5
WHITESIDE COUNTY
STATION 344+76.69
STRUCTURE NO. 098-0114

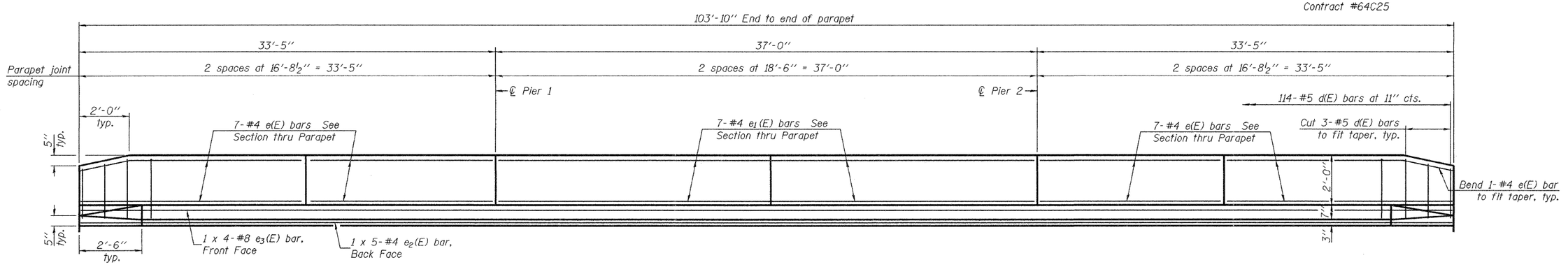
...\projects\bm100029\098O114.dgn 09/02/2008 1:10:35 PM

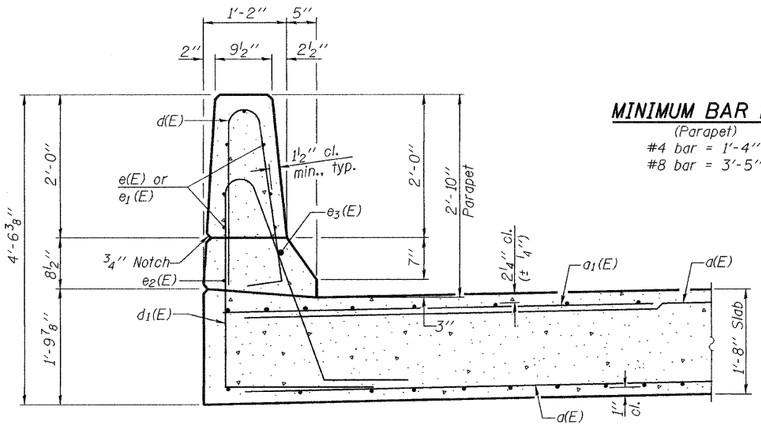
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	109BR-5	WHITESIDE	83	44
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 10
19 SHEETS

Contract #64C25



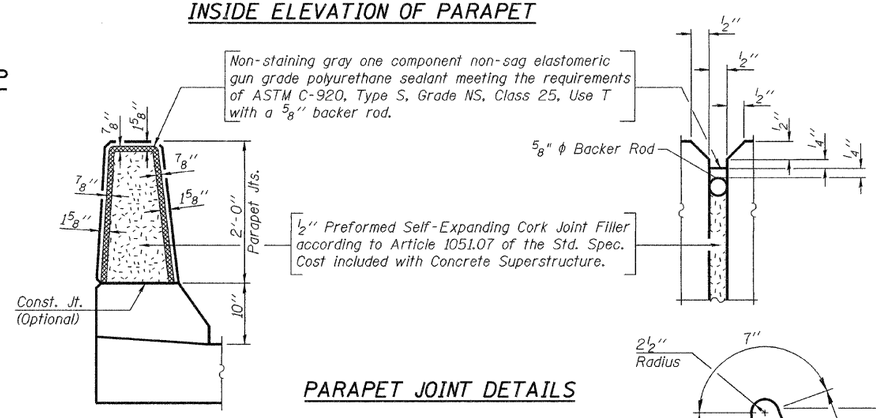


SECTION THRU PARAPET

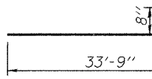
MINIMUM BAR LAP

(Parapet)
#4 bar = 1'-4"
#8 bar = 3'-5"

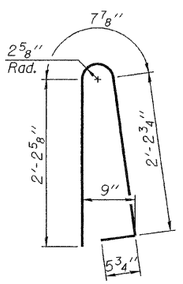
INSIDE ELEVATION OF PARAPET



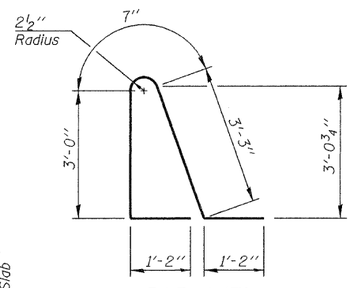
PARAPET JOINT DETAILS



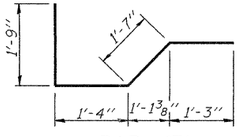
BAR b2(E)



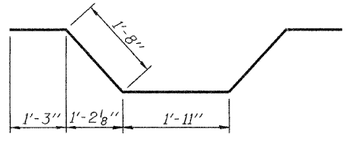
BAR d(E)



BAR d1(E)



BAR x(E)

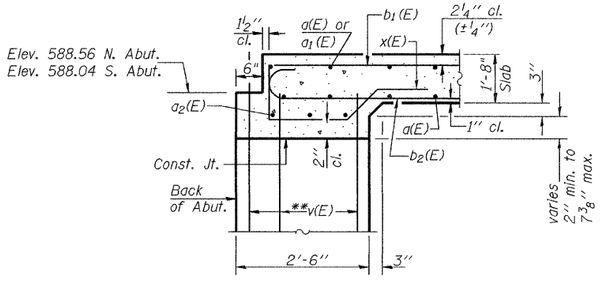


BAR x1(E)

SUPERSTRUCTURE BILL OF MATERIAL

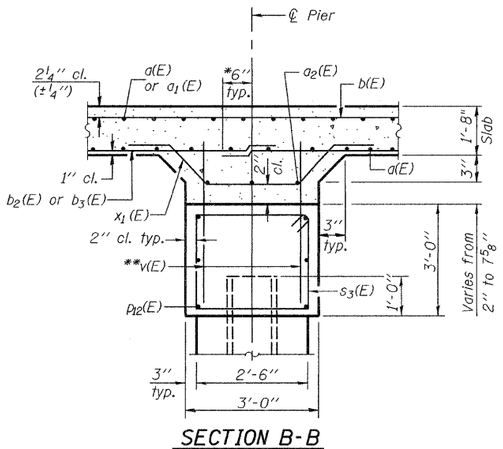
Bar	No.	Size	Length	Shape
a(E)	364	#5	21'-3"	
a1(E)	154	#6	6'-0"	
a2(E)	24	#5	24'-6"	
b(E)	172	#8	34'-9"	
b1(E)	88	#5	20'-8"	
b2(E)	172	#8	34'-8"	
b3(E)	86	#7	38'-0"	
d(E)	228	#5	5'-7"	
d1(E)	228	#5	9'-2"	
e(E)	56	#4	16'-5"	
e1(E)	28	#4	18'-2"	
e2(E)	10	#4	21'-10"	
e3(E)	8	#8	28'-6"	
x(E)	88	#5	5'-11"	
x1(E)	88	#5	7'-9"	
Reinforcement Bars, Epoxy Coated			Pound	57,000
Concrete Superstructure			Cu. Yds.	310.4

Bars indicated thus 1 x 4 -#8 etc. indicates 1 line of bars with 4 lengths per line.



SECTION A-A

**v(E) bars billed with abutments.
Horizontal Dimemsions @ Rt. L's to Abutments.



SECTION B-B

*Measured along ℄ Roadway
**v(E) bars billed with piers.
Horizontal Dimemsions @ Rt. L's to Pier

DESIGNED	Dewey H. Coultas
CHECKED	Stephen M. Ryan
DRAWN	BECKY M. LEACH
CHECKED	DHC/SMR

September 2, 2008
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

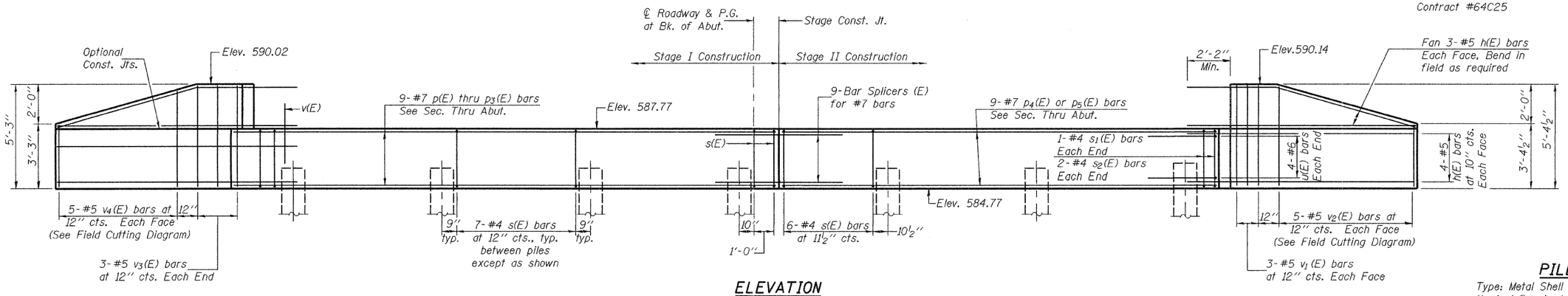
SUPERSTRUCTURE DETAILS
F.A.P. ROUTE 308 - SECTION 109BR-5
WHITESIDE COUNTY
STATION 344+76.69
STRUCTURE NO. 098-0114

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

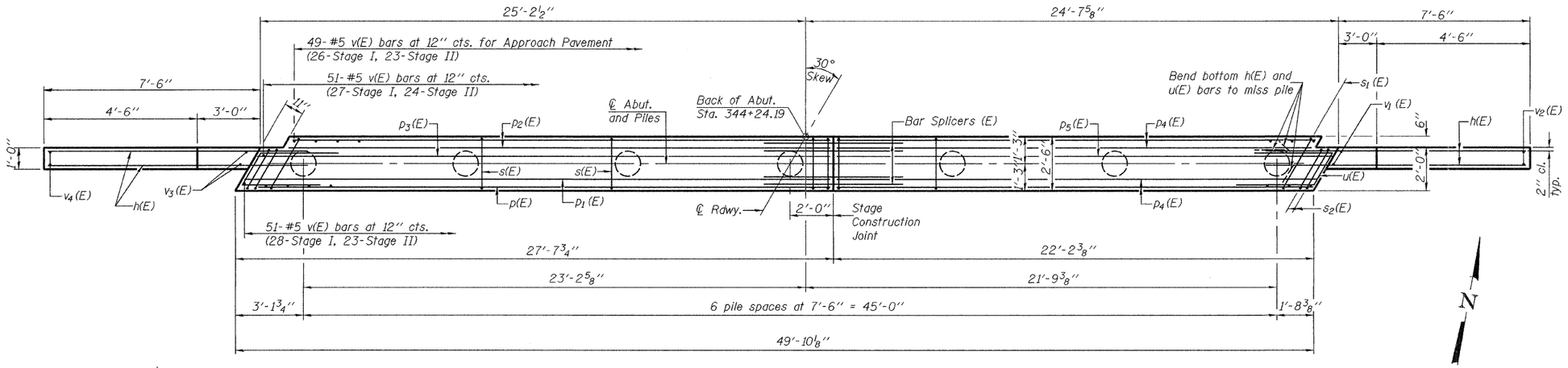
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	109BR-5	WHITESIDE	83	45
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 11
19 SHEETS

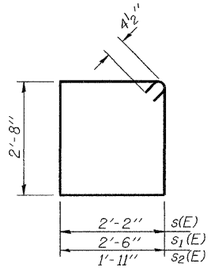
Contract #64C25



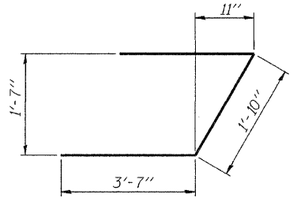
ELEVATION



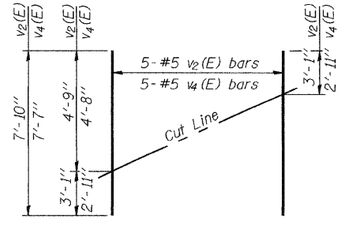
PLAN



BARS s(E), s1(E) & s2(E)

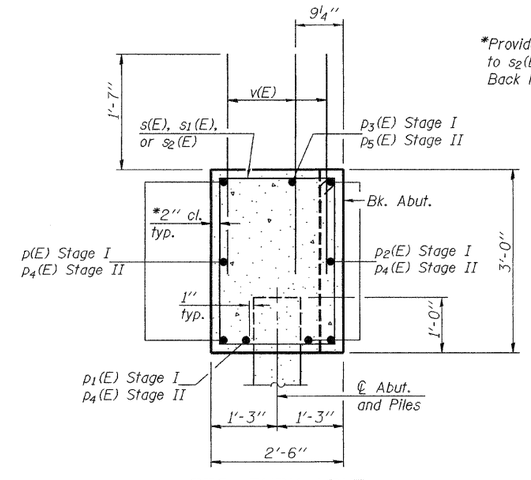


BAR u(E)



FIELD CUTTING DIAGRAM

Order $v_2(E)$ and $v_4(E)$ full length. Cut as shown and use remainder of bars in opposite face.



SEC. THRU ABUT.

*Provide 1½" cl. to $s_2(E)$ bars at Back Face.

PILE DATA

Type: Metal Shell 14" x 0.312"
Nominal Required Bearing: 270 kips
Factored Resistance Available: 135 kips
Est. Length: 48 ft.
No. Production Piles: 7
No. Test Piles: 0

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	28	#5	10'-0"	
p(E)	3	#7	27'-2"	
p1(E)	1	#7	26'-11"	
p2(E)	4	#7	24'-11"	
p3(E)	1	#7	26'-4"	
p4(E)	8	#7	22'-0"	
p5(E)	1	#7	22'-9"	
s(E)	43	#4	10'-5"	
s1(E)	2	#4	11'-1"	
s2(E)	4	#4	9'-11"	
u(E)	8	#6	9'-0"	
v(E)	151	#5	3'-2"	
v1(E)	6	#5	4'-11"	
v2(E)	5	#5	7'-10"	
v3(E)	6	#5	4'-10"	
v4(E)	5	#5	7'-7"	
Structure Excavation		Cu. Yd.	61	
Concrete Structures		Cu. Yd.	16.4	
Reinforcement Bars, Epoxy Coated		Pound	2,270	
Furnishing Metal Shell Piles 14"x0.312"		Foot	336	
Driving Piles		Foot	336	

For details of Bar Splicers, see sheet 16 of 19.
For details of piles, see sheet 15 of 19.

DESIGNED	Dewey H. Coultas
CHECKED	Stephen M. Ryan
DRAWN	BECKY M. LEACH
CHECKED	DHC/SMR

September 2, 2008
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

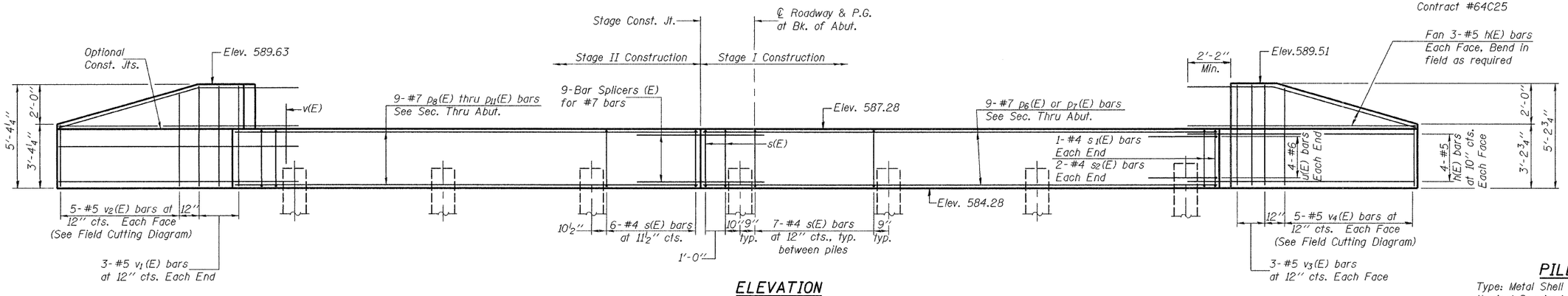
NORTH ABUTMENT
F.A.P. ROUTE 308 - SECTION 109BR-5
WHITESIDE COUNTY
STATION 344+76.69
STRUCTURE NO. 098-0114

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

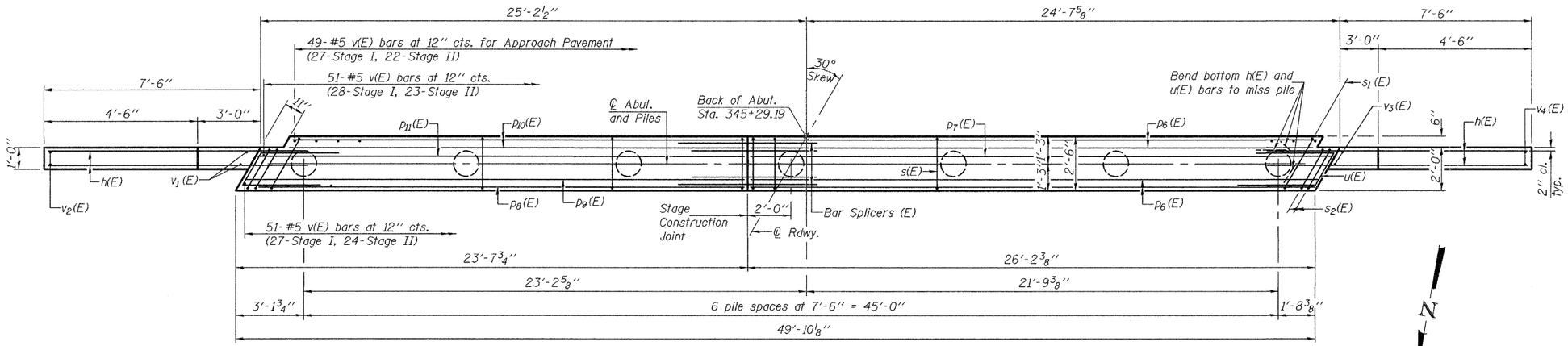
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	109BR-5	WHITESIDE	83	46
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 12
19 SHEETS

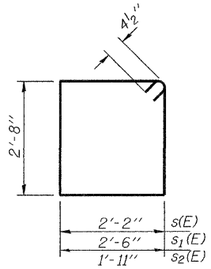
Contract #64C25



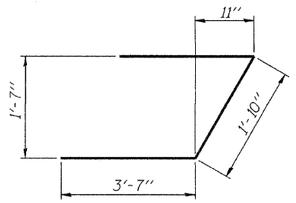
ELEVATION



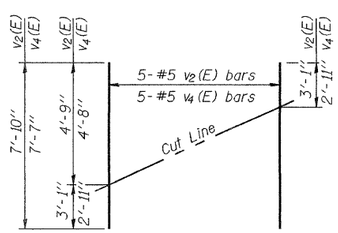
PLAN



BARS s(E), s1(E) & s2(E)

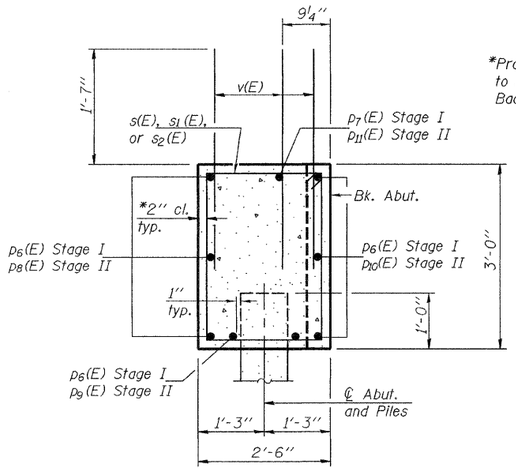


BAR u(E)



FIELD CUTTING DIAGRAM

Order $v_2(E)$ and $v_4(E)$ full length.
Cut as shown and use remainder of bars in opposite face.



*Provide 1½" cl. to $s_2(E)$ bars at Back Face.

SEC. THRU ABUT.

PILE DATA

Type: Metal Shell 14" x 0.312"
Nominal Required Bearing: 270 kips
Factored Resistance Available: 135 kips
Est. Length: 43 ft.
No. Production Piles: 6
No. Test Piles: 1

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	28	#5	10'-0"	
p6(E)	8	#7	26'-0"	
p7(E)	1	#7	26'-9"	
p8(E)	3	#7	23'-1"	
p9(E)	1	#7	22'-11"	
p10(E)	4	#7	20'-11"	
p11(E)	1	#7	22'-3"	
s(E)	43	#4	10'-5"	
s1(E)	2	#4	11'-1"	
s2(E)	4	#4	9'-11"	
u(E)	8	#6	9'-0"	
v(E)	151	#5	3'-2"	
v1(E)	6	#5	4'-11"	
v2(E)	5	#5	7'-10"	
v3(E)	6	#5	4'-10"	
v4(E)	5	#5	7'-7"	
Structure Excavation		Cu. Yd.		61
Concrete Structures		Cu. Yd.		16.3
Reinforcement Bars, Epoxy Coated		Pound		2,270
Furnishing Metal Shell Piles 14"x0.312"		Foot		258
Driving Piles		Foot		258
Test Pile Metal Shells		Each		1

For details of Bar Splicers, see sheet 16 of 19.
For details of piles, see sheet 15 of 19.

DESIGNED	Dewey H. Coultas
CHECKED	Stephen M. Ryan
DRAWN	BECKY M. LEACH
CHECKED	DHC/SMR

September 2, 2008
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

SOUTH ABUTMENT
F.A.P. ROUTE 308 - SECTION 109BR-5
WHITESIDE COUNTY
STATION 344+76.69
STRUCTURE NO. 098-0114

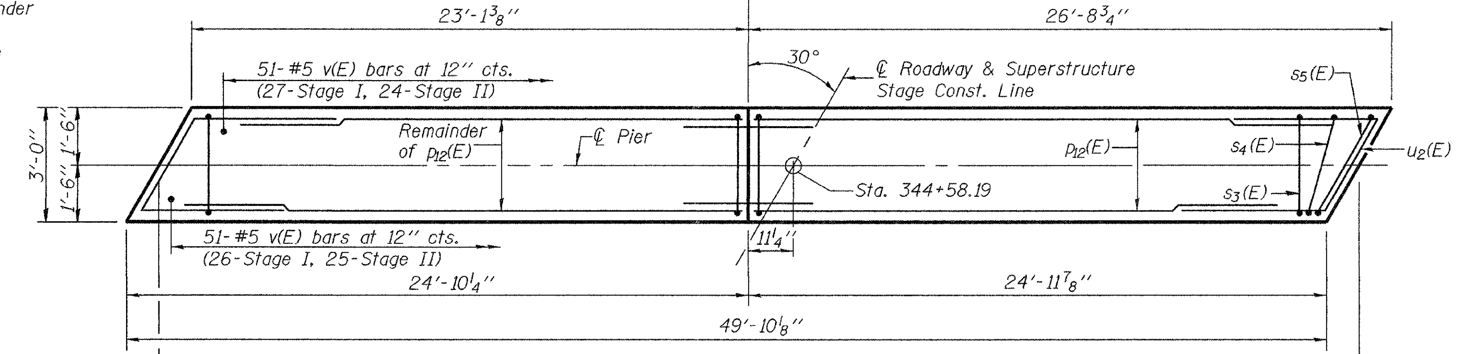
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	109BR-5	WHITESIDE	83	47
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 13
19 SHEETS

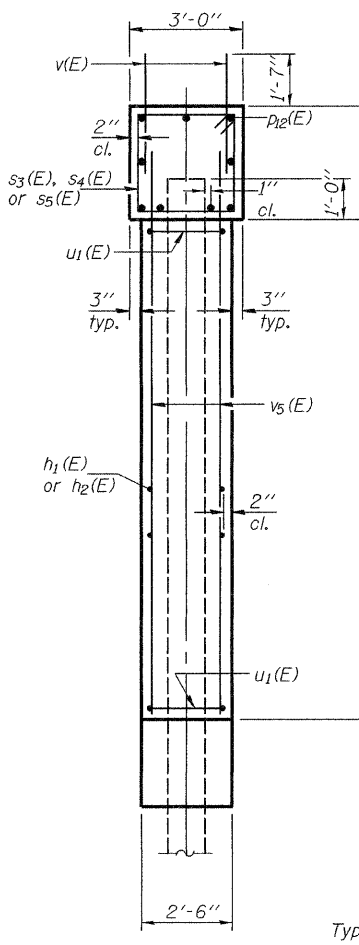
Contract #64C25

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

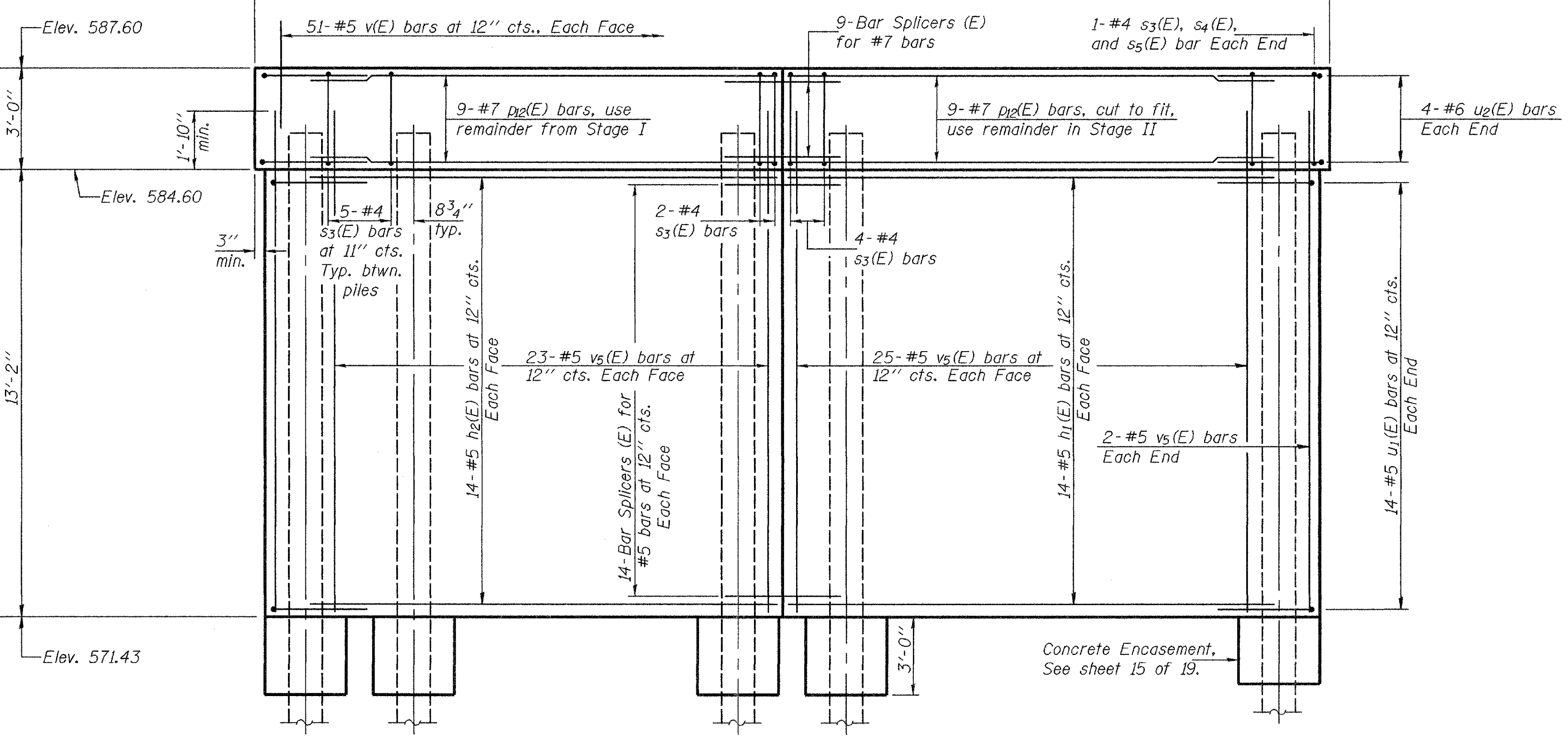
Note:
Pier piles shall be driven to a tip elevation of at least 542.5 regardless of the attainment of Nominal Required Bearing.
For details of piles, see sheet 15 of 19.
For Bar Splicer Assembly details, see sheet 16 of 19.
If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.



TOP PLAN



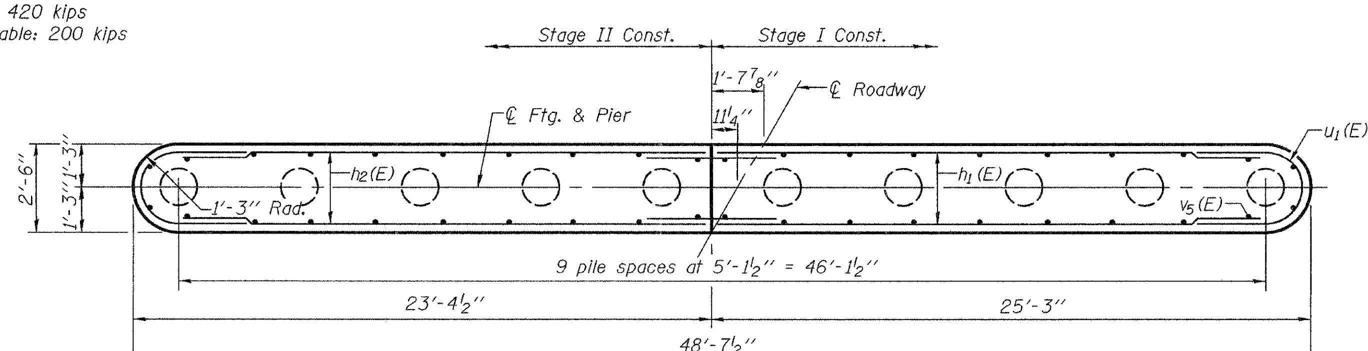
END VIEW



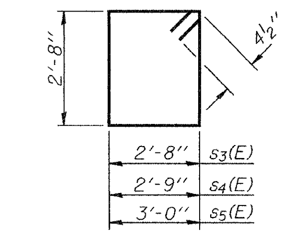
ELEVATION
(Looking South)

PILE DATA

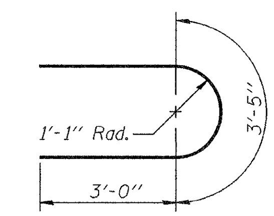
Type: Metal Shell 14" x 0.312"
Nominal Required Bearing: 420 kips
Factored Resistance Available: 200 kips
Est. Length: 67 ft.
No. Production Piles: 9
No. Test Piles: 1



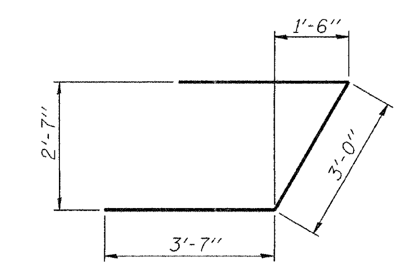
FOOTING PLAN



BAR s3(E), s4(E), and s5(E)



BARS u1(E)



BAR u2(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1(E)	28	#5	23'-10"	—
h2(E)	28	#5	22'-0"	—
p12(E)	9	#7	49'-1"	—
s3(E)	48	#4	11'-5"	◻
s4(E)	2	#4	11'-7"	◻
s5(E)	2	#4	12'-1"	◻
u1(E)	28	#5	9'-5"	⊃
u2(E)	8	#6	10'-2"	⊐
v(E)	102	#5	3'-2"	—
v5(E)	100	#5	15'-0"	—

Item	Unit	Quantity
Structure Excavation	Cu. Yd.	13
Concrete Structures	Cu. Yd.	75.2
Reinforcement Bars, Epoxy Coated	Pound	4,940
Furnishing Metal Shell Piles 14"x0.312"	Foot	603
Driving Piles	Foot	603
Test Pile Metal Shells	Each	1
Concrete Encasement	Cu. Yd.	5.5
Underwater Structure Excavation Protection -Location 1	Each	1

DESIGNED	Dewey H. Coultas
CHECKED	Stephen M. Ryan
DRAWN	BECKY M. LEACH
CHECKED	DHC/SMR

September 2, 2008
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

PIER 1
F.A.P. ROUTE 308 - SECTION 109BR-5
WHITESIDE COUNTY
STATION 344+76.69
STRUCTURE NO. 098-0114

\projects\bn100029\0980114.dgn 09/02/2008 1:10:36 PM

Note:

Pier piles shall be driven to a tip elevation of at least 542.5 regardless of the attainment of Nominal Required Bearing.

For details of piles, see sheet 15 of 19.

For Bar Splicer Assembly details, see sheet 16 of 19.

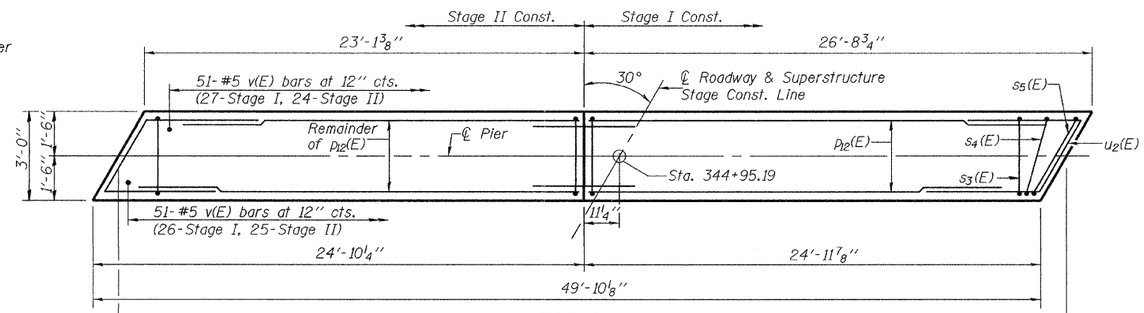
If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

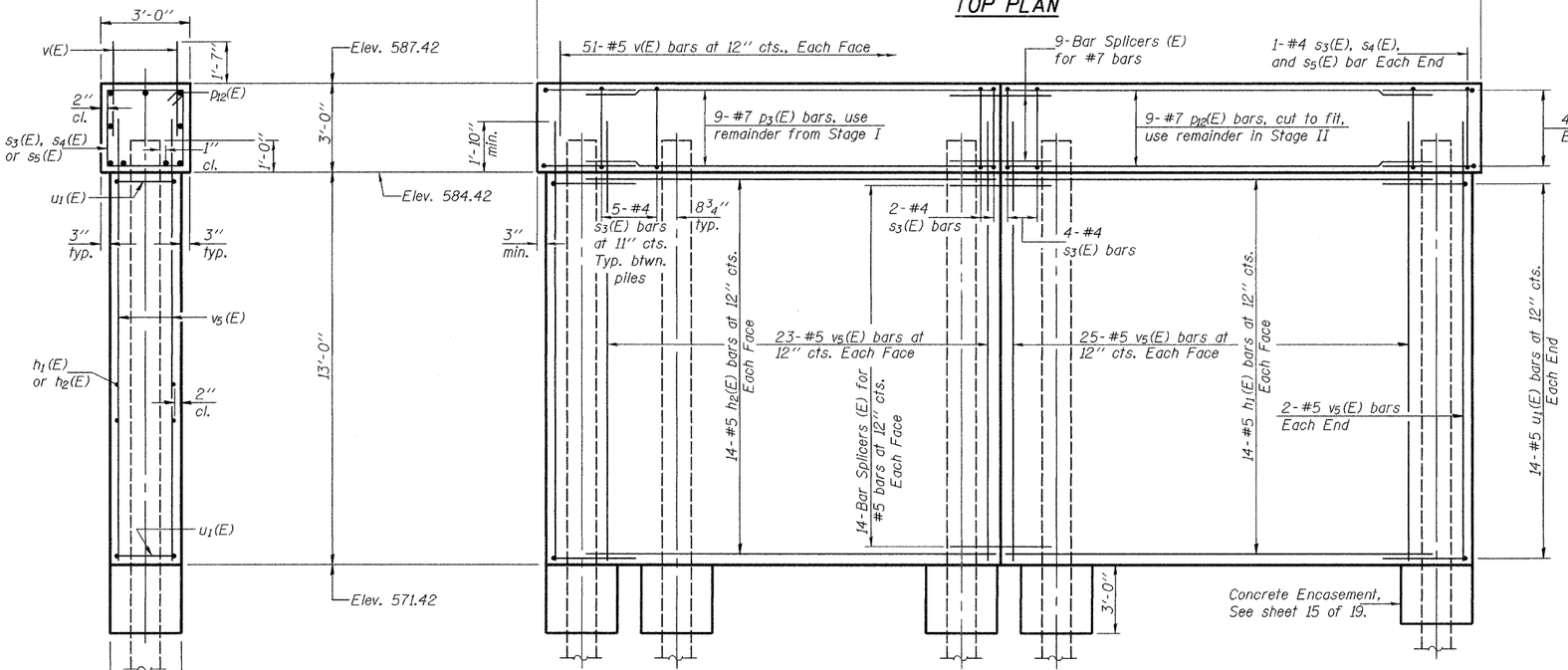
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	109BR-5	WHITESIDE	83	48
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 14
19 SHEETS

Contract #64C25



TOP PLAN

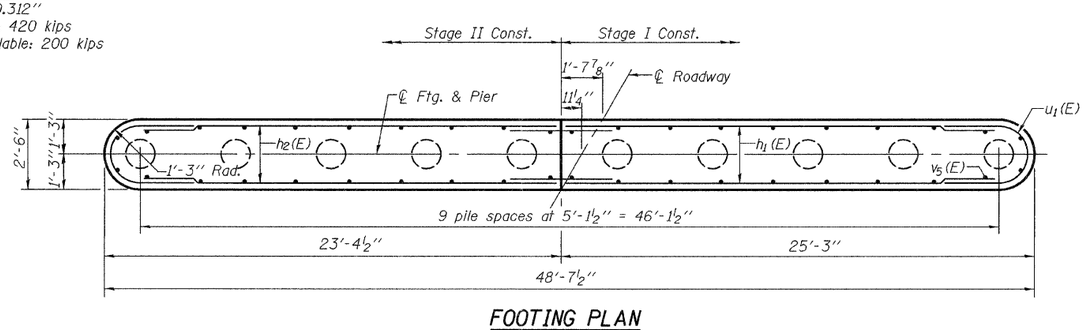


ELEVATION
(Looking South)

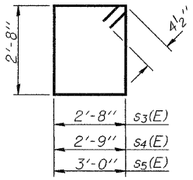
END VIEW

PILE DATA

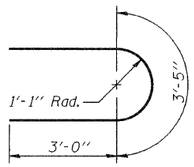
Type: Metal Shell 14" x 0.312"
Nominal Required Bearing: 420 kips
Factored Resistance Available: 200 kips
Est. Length: 67 ft.
No. Production Piles: 10
No. Test Piles: 0



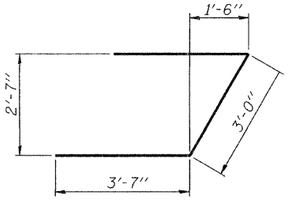
FOOTING PLAN



BAR s3(E), s4(E), and s5(E)



BARS u1(E)



BAR u2(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1(E)	28	#5	23'-10"	——
h2(E)	28	#5	22'-0"	——
p12(E)	9	#7	49'-1"	——
s3(E)	48	#4	11'-5"	⌐
s4(E)	2	#4	11'-7"	⌐
s5(E)	2	#4	12'-1"	⌐
u1(E)	28	#5	9'-5"	⊃
u2(E)	8	#6	10'-2"	⊐
v(E)	102	#5	3'-2"	——
v5(E)	100	#5	15'-0"	——
Structure Excavation		Cu. Yd.	13	
Concrete Structures		Cu. Yd.	74.5	
Reinforcement Bars, Epoxy Coated		Pound	4,940	
Furnishing Metal Shell Piles 14"x0.312"		Foot	670	
Driving Piles		Foot	670	
Concrete Encasement		Cu. Yd.	5.5	
Underwater Structure Excavation Protection -Location 2		Each	1	

DESIGNED	Dewey H. Coultas
CHECKED	Stephen M. Ryan
DRAWN	BECKY M. LEACH
CHECKED	DHC/SMR

September 2, 2008
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

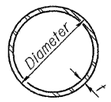
PIER 2
F.A.P. ROUTE 308 - SECTION 109BR-5
WHITESIDE COUNTY
STATION 344+76.69
STRUCTURE NO. 098-0114

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	109BR-5	WHITESIDE	83	49
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

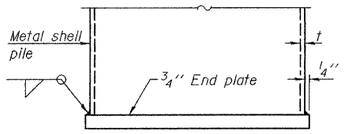
SHEET NO. 15
19 SHEETS

Contract #64C25

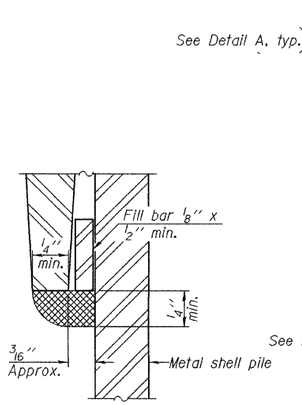


METAL SHELL PILE TABLE

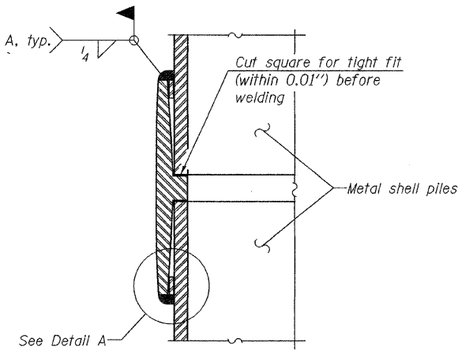
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd.³/ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



END PLATE ATTACHMENT

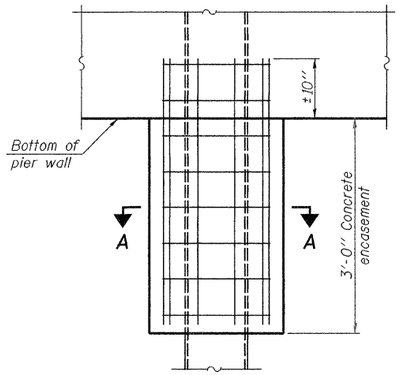


DETAIL A

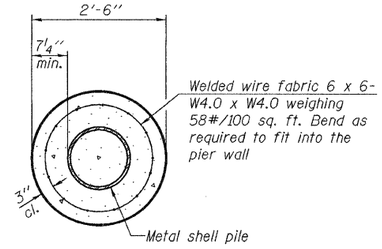


Notes:
The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE



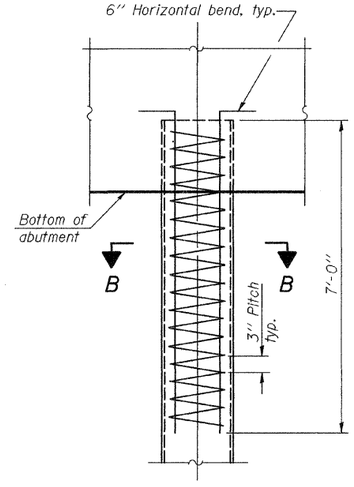
ELEVATION



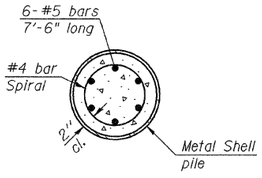
SECTION A-A

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

CONCRETE ENCASEMENT AT PIERS

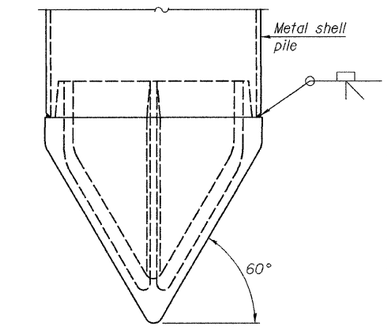


ELEVATION



SECTION B-B

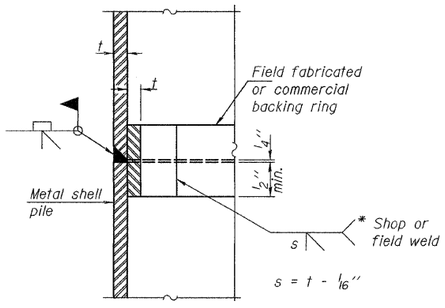
METAL SHELL REINFORCEMENT AT ABUTMENTS



Note A:
When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.

METAL SHELL PILE SHOE ATTACHMENT

(See Note A)



COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.

Note: The metal shell piles shall be according to ASTM A 252 Grade 3.

DESIGNED	Dewey H. Coultas
CHECKED	Stephen M. Ryan
DRAWN	BECKY M. LEACH
CHECKED	DHC/SMR

F-MS 5-16-08

September 2, 2008
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

METAL SHELL PILE DETAILS
F.A.P. ROUTE 308 - SECTION 109BR-5
WHITESIDE COUNTY
STATION 344+76.69
STRUCTURE NO. 098-0114

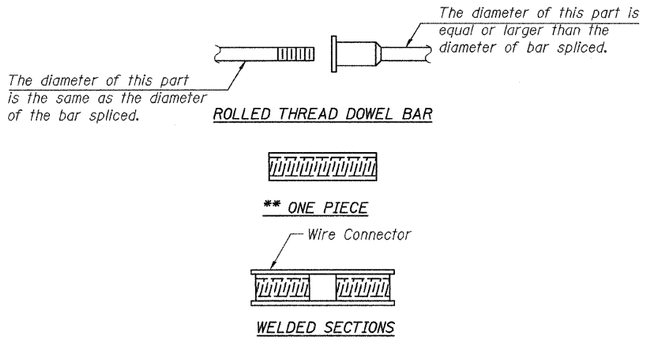
...\projects\bm100025\0980114.dgn 09/02/2008 1:10:35 PM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	109BR-5	WHITESIDE	83	50
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

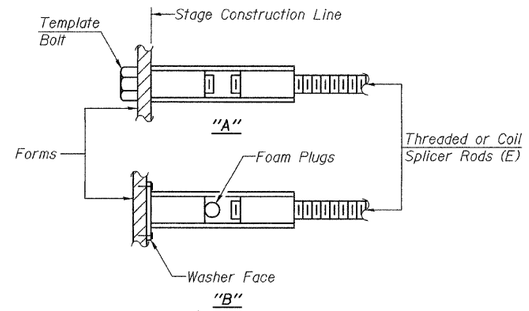
SHEET NO. 16
19 SHEETS

Contract #64C25



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.

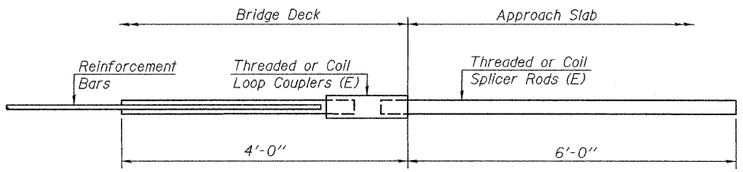
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$

② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$

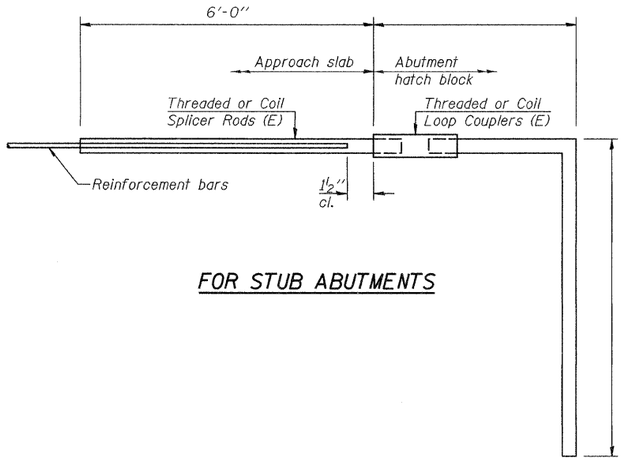
Where f_y = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

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



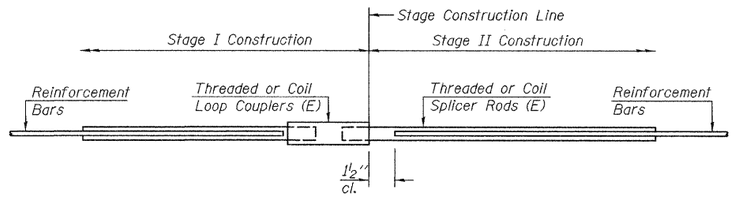
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

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	193	Slab
#7	18	Abutments
#7	18	Pier Caps
#5	56	Pier Wall

DESIGNED	Dewey H. Coultas
CHECKED	Stephen M. Ryan
DRAWN	BECKY M. LEACH
CHECKED	DHC/SMR

BSD-1 5-16-08

September 2, 2008
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

BAR SPLICER ASSEMBLY DETAILS
F.A.P. ROUTE 308 - SECTION 109BR-5
WHITESIDE COUNTY
STATION 344+76.69
STRUCTURE NO. 098-0114

...\projects\bm100029\0980114.dgn 09/02/2008 1:10:37 PM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	109BR-5	WHITESIDE	83	51
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 17
19 SHEETS

Contract #64C25

Illinois Department of Transportation
Division of Highways
District – Materials

SOIL BORING LOG

Page 1 of 2

ROUTE FAP 308 DESCRIPTION P92-060-06 Bridge on IL 84 over Cattail Creek, .9 m. S. of US 30 LOGGED BY W. Garza
Date 8/24/06
SECTION 109 BR-5 LOCATION Garden Plain Twp. - 4 SW. SEC., TWP. 21N. RNG. 3E
COUNTY Whiteside DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic
STRUCT. NO.
Station 1016+04
BORING NO. B-1
Station 1016+34
Offset 25.00ft Rt CL
Ground Surface Elev. 90.00 ft
Surface Water Elev. 85.00 ft
Stream Bed Elev. 84.50 ft
Groundwater Elev.:
First Encounter 77.5 ft
Upon Completion Wash ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)		DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
VERY SOFT brown SILTY LOAM		0.2 P	32.0	Wash MEDIUM gray clean medium coarse SAND		4 8 11		
87.50				68.50				
SOFT dark gray SILTY LOAM	1 1 1	0.3 B	36.0	Wash MEDIUM gray clean medium coarse SAND		4 9 12		
86.00				65.00				
SOFT dark gray SILTY LOAM	0 1 1	0.3 B	35.0	Wash MEDIUM gray clean medium coarse SAND		5 6 7		
83.50				63.50				
VERY SOFT gray SILTY LOAM with 8% ORGANICS	0 0 1	0.2 P	57.0	Wash MEDIUM gray fine SAND		4 5 12		
81.00				61.00				
VERY SOFT gray SILTY LOAM with 10% ORGANICS	0 0 1	0.2 B	59.0	Wash MEDIUM gray clean medium coarse SAND with GRAVEL		5 8 15		
78.50				58.50				
VERY SOFT gray SILTY LOAM	0 0 1	0.2 B	40.0	Wash MEDIUM gray clean medium coarse SAND with GRAVEL		8 10 15		
75.50				56.00				
LOOSE gray clean medium coarse SAND	4 3 4			Wash MEDIUM gray fine SAND		4 6 10		
73.50				53.50				
Wash MEDIUM gray fine SAND	3 5 7			Wash DENSE gray clean medium coarse SAND		9 14 19		
71.00				51.00				

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)

Illinois Department of Transportation
Division of Highways
District – Materials

SOIL BORING LOG

Page 2 of 2

ROUTE FAP 308 DESCRIPTION P92-060-06 Bridge on IL 84 over Cattail Creek, .9 m. S. of US 30 LOGGED BY W. Garza
Date 8/24/06
SECTION 109 BR-5 LOCATION Garden Plain Twp. - 4 SW. SEC., TWP. 21N. RNG. 3E
COUNTY Whiteside DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic
STRUCT. NO.
Station 1016+04
BORING NO. B-1
Station 1016+34
Offset 25.00ft Rt CL
Ground Surface Elev. 90.00 ft
Surface Water Elev. 85.00 ft
Stream Bed Elev. 84.50 ft
Groundwater Elev.:
First Encounter 77.5 ft
Upon Completion Wash ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)		DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Wash MEDIUM gray clean medium coarse SAND	6 7 10			Wash DENSE/VERY DENSE gray fine SAND		7 19 31		
48.50				28.50				
Wash MEDIUM gray clean medium coarse SAND	5 8 12			Wash VERY DENSE gray fine SAND		20 32 47		
46.00				26.00				
Wash MEDIUM gray fine SAND	5 8 10			End of Boring				
43.50								
Wash MEDIUM gray clean medium coarse SAND	6 8 11							
41.00								
Wash MEDIUM gray fine SAND	6 8 9							
38.50								
MEDIUM gray clean medium coarse SAND	11 16 17							
36.00								
Wash MEDIUM gray fine SAND	5 6 12							
33.50								
Wash DENSE gray fine SAND	13 16 18							
31.00								

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)

Note:
Sta. 1016+34 = Sta. 345+11.69 on proposed ℄.

BORING LOGS
F.A.P. ROUTE 308 - SECTION 109BR-5
WHITESIDE COUNTY
STATION 344+76.69
STRUCTURE NO. 098-0114

...\projects\bm100229\098014.dgn 09/02/2008 1:10:37 PM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	109BR-5	WHITESIDE	83	52
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 18
19 SHEETS

Contract #64C25

Illinois Department of Transportation
Division of Highways
District – Materials

SOIL BORING LOG

Page 1 of 4

ROUTE FAP 308 DESCRIPTION P92-060-06 Bridge on IL 84 over Cattail Creek, .9 m. S. of US 30 LOGGED BY W. Garza Date 8/29/06

SECTION 109 BR-5 LOCATION Garden Plain Twp. - 4 SW, SEC. , TWP. 21N, RNG. 3E

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

STRUCT. NO.
Station 1016+04

BORING NO. B-2
Station 344+29
Offset 12.00ft L1 CL
Ground Surface Elev. 199.00 ft

Surface Water Elev. 85.00 ft
Stream Bed Elev. 84.50 ft
Groundwater Elev.:
First Encounter 179.0 ft ▼
Upon Completion Wash ft
After ___ Hrs. ___ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
19" Asphalt				
DRY tan fine SAND				
	196.50	2		
STIFF redish brown LOAM with SAND lens		2	1.4	
	195.00	4	P	
LOOSE brown fine SAND	-5-	2		
		3		
	192.50	4		
LOOSE brown fine SAND		1		
		3		
	189.50	4		
	-10-	3		
MEDIUM redish brown CLAY LOAM with SAND lens		2	0.8	17.0
	187.50	5	P	
MEDIUM dark gray SILTY LOAM		1		
		2	0.6	32.0
	185.00	2	P	
	-15-	1		
MEDIUM gray SILTY LOAM		1	0.6	23.0
	182.50	2	B	
MEDIUM gray SILTY LOAM, concrete footing		1		
		100/6"	1.0	28.0
	180.00		P	
	-20-			

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
MEDIUM gray SILTY CLAY		1		
		1	0.7	37.0
	177.00	1	B	
LOOSE gray fine SAND		1		
	175.00	3		
	-25-	5		
MEDIUM gray fine SAND		2		
		4		
		8		
	169.00	-30-		
Wash MEDIUM gray clean medium coarse SAND		8		
		9		
		11		
	164.00	-35-		
MEDIUM gray clean medium coarse SAND with GRAVEL		7		
		7		
		8		
	159.00	-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)

Illinois Department of Transportation
Division of Highways
District – Materials

SOIL BORING LOG

Page 2 of 4

ROUTE FAP 308 DESCRIPTION P92-060-06 Bridge on IL 84 over Cattail Creek, .9 m. S. of US 30 LOGGED BY W. Garza Date 8/29/06

SECTION 109 BR-5 LOCATION Garden Plain Twp. - 4 SW, SEC. , TWP. 21N, RNG. 3E

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

STRUCT. NO.
Station 1016+04

BORING NO. B-2
Station 344+29
Offset 12.00ft L1 CL
Ground Surface Elev. 199.00 ft

Surface Water Elev. 85.00 ft
Stream Bed Elev. 84.50 ft
Groundwater Elev.:
First Encounter 179.0 ft ▼
Upon Completion Wash ft
After ___ Hrs. ___ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
MEDIUM gray clean medium coarse SAND		7		
		8		
		12		
	154.00	-45-		
Wash MEDIUM gray clean medium coarse SAND		7		
		8		
		9		
	149.00	-50-		
Wash MEDIUM gray clean medium coarse SAND with GRAVEL		8		
		9		
		8		
	144.00	-55-		
Wash MEDIUM gray fine SAND		5		
		6		
		9		
	139.00	-60-		

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Wash MEDIUM gray fine SAND with GRAVEL		7		
		9		
		14		
	134.00	-65-		
Wash DENSE gray clean medium coarse SAND		11		
		16		
		17		
	129.00	-70-		
Wash VERY DENSE gray SAND with GRAVEL		15		
	127.50			
		27		
		28		
Extended on 6/13/07				
Wash MEDIUM gray clean medium coarse SAND		9		
		10		
	125.00	-75-		
		13		
Wash DENSE gray clean medium coarse SAND		10		
		18		
	122.50			
		16		
Wash MEDIUM tan/gray fine SAND		3		
		4		
	120.00	9		
	-80-			

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)

Illinois Department of Transportation
Division of Highways
District – Materials

SOIL BORING LOG

Page 3 of 4

ROUTE FAP 308 DESCRIPTION P92-060-06 Bridge on IL 84 over Cattail Creek, .9 m. S. of US 30 LOGGED BY W. Garza Date 8/29/06

SECTION 109 BR-5 LOCATION Garden Plain Twp. - 4 SW, SEC. , TWP. 21N, RNG. 3E

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

STRUCT. NO.
Station 1016+04

BORING NO. B-2
Station 344+29
Offset 12.00ft L1 CL
Ground Surface Elev. 199.00 ft

Surface Water Elev. 85.00 ft
Stream Bed Elev. 84.50 ft
Groundwater Elev.:
First Encounter 179.0 ft ▼
Upon Completion Wash ft
After ___ Hrs. ___ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Wash		6		
MEDIUM/DENSE gray fine SAND		15		
	117.50	17		
	115.00	-85-		
Wash MEDIUM gray fine SAND		9		
		12		
	112.50	12		
	110.00	-90-		
Wash MEDIUM gray fine SAND		4		
		7		
	107.50	12		
	105.00	-95-	2.3	
No Recovery			100/6.5"	
	102.50			
	100.00	-100-		

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Wash		19		
No Recovery		25		
	97.50	16		
	95.00	-105-		
Wash DENSE gray clean medium coarse SAND		5		
		13		
	92.50	17		
	90.00	-110-		
No Recovery		6		
		9		
	87.50	11		
	85.00	-115-		
Wash Resists auger rotation No Recovery		14		
		13		
	82.50	11		
	80.00	-120-		

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)

Illinois Department of Transportation
Division of Highways
District – Materials

SOIL BORING LOG

Page 4 of 4

ROUTE FAP 308 DESCRIPTION P92-060-06 Bridge on IL 84 over Cattail Creek, .9 m. S. of US 30 LOGGED BY W. Garza Date 8/29/06

SECTION 109 BR-5 LOCATION Garden Plain Twp. - 4 SW, SEC. , TWP. 21N, RNG. 3E

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

STRUCT. NO.
Station 1016+04

BORING NO. B-2
Station 344+29
Offset 12.00ft L1 CL
Ground Surface Elev. 199.00 ft

Surface Water Elev. 85.00 ft
Stream Bed Elev. 84.50 ft
Groundwater Elev.:
First Encounter 179.0 ft ▼
Upon Completion Wash ft
After ___ Hrs. ___ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Rocks auger rotation				
	77.50			
	75.00	-125-		
Wash		11		
DENSE tan/gray clean medium coarse SAND with medium GRAVEL	72.50	19		
		22		
End of Boring				
		-140-		

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)

BORING LOGS
F.A.P. ROUTE 308 - SECTION 109BR-5
WHITESIDE COUNTY
STATION 344+76.69
STRUCTURE NO. 098-0114

...\projects\dm100029\0980114.dgn 09/03/2008 1:10:37 PM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 308	109BR-5	WHITESIDE	83	53
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 19
19 SHEETS

Contract #64C25

Illinois Department of Transportation
Division of Highways
District – Materials

SOIL BORING LOG

Page 1 of 2

Date 8/30/06

ROUTE FAP 308 DESCRIPTION P92-060-06 Bridge on IL 84 over Cattail Creek, .9 m. S. of US 30 LOGGED BY W. Garza

SECTION 109 BR-5 LOCATION Garden Plain Twp. - 4 SW. SEC. , TWP. 21N. RNG. 3E

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

STRUCT. NO.
Station 1016+04

BORING NO. B-3
Station 1016+67
Offset 110.0Ft Lt CL
Ground Surface Elev. 99.30 ft

Surface Water Elev. 85.00 ft
Stream Bed Elev. 84.50 ft

Groundwater Elev.:
First Encounter 79.3 ft ▼
Upon Completion Wash ft
After ___ Hrs. ___ ft

DEPTH	BLOWS (/6")	UCS Qu (tsf)	MOIST CO (%)	DEPTH	BLOWS (/6")	UCS Qu (tsf)	MOIST CO (%)
18" Asphalt				LOOSE gray fine SAND	1		
moist brown SAND			8.0		1		
					5		
96.80				77.80			
LOOSE/MEDIUM brown fine SAND	3			VERY LOOSE/LOOSE gray fine SAND with GRAVEL	1		
	4				0		
95.30	6			75.30	4		
-5-				-25-			
VERY STIFF redish brown CLAY LOAM with SAND lens	1			LOOSE/MEDIUM gray clean medium coarse SAND with GRAVEL	0		
	2	2.5	23.0		2		
92.80	3	B		72.80	8		
MEDIUM redish brown SANDY LOAM	2			Wash	6		
	1	0.8	13.0	MEDIUM gray clean medium coarse SAND with medium GRAVEL	10		
90.30	4	P		70.30	14		
-10-				-30-			
SOFT dark gray SILTY LOAM	1			MEDIUM gray clean medium coarse SAND with GRAVEL	4		
	1	0.4	32.0		5		
87.80	3	B			9		
MEDIUM dark gray SILTY LOAM with ORGANICS	0						
	1	0.6	35.0				
85.30	2	B					
-15-				-35-			
MEDIUM gray SILTY LOAM with SX ORGANICS	1			MEDIUM gray clean medium coarse SAND	4		
	2	0.7	42.0		8		
	2	B			12		
82.30							
LOOSE gray moist fine SAND	1						
	3						
80.30	3						
-20-				59.30 -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)

Illinois Department of Transportation
Division of Highways
District – Materials

SOIL BORING LOG

Page 2 of 2

Date 8/30/06

ROUTE FAP 308 DESCRIPTION P92-060-06 Bridge on IL 84 over Cattail Creek, .9 m. S. of US 30 LOGGED BY W. Garza

SECTION 109 BR-5 LOCATION Garden Plain Twp. - 4 SW. SEC. , TWP. 21N. RNG. 3E

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

STRUCT. NO.
Station 1016+04

BORING NO. B-3
Station 1016+67
Offset 110.0Ft Lt CL
Ground Surface Elev. 99.30 ft

Surface Water Elev. 85.00 ft
Stream Bed Elev. 84.50 ft

Groundwater Elev.:
First Encounter 79.3 ft ▼
Upon Completion Wash ft
After ___ Hrs. ___ ft

DEPTH	BLOWS (/6")	UCS Qu (tsf)	MOIST CO (%)	DEPTH	BLOWS (/6")	UCS Qu (tsf)	MOIST CO (%)
Wash	5			Wash	1		
MEDIUM gray SAND & GRAVEL	6			MEDIUM gray clean medium coarse SAND	4		
	12				7		
54.30 -45-				34.30 -65-			
Wash	4			Wash	3		
MEDIUM gray clean medium coarse SAND	7			MEDIUM gray clean medium coarse SAND with medium GRAVEL	10		
	10				16		
49.30 -50-				29.30 -70-			
Wash	2			Wash	10		
MEDIUM gray clean medium coarse SAND	7			DENSE gray clean medium coarse SAND	18		
	13				20		
44.30 -55-				24.30 -75-			
Wash	9			Wash	11		
MEDIUM gray fine SAND with medium GRAVEL	10			MEDIUM gray clean medium coarse SAND with medium GRAVEL	11		
	12				14		
				22.80			
				End of Boring			
39.30 -60-				-80-			

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)

Note:
Sta. 1016+67 = Sta. 345+44.69 on proposed ℄.

BORING LOGS
F.A.P. ROUTE 308 - SECTION 109BR-5
WHITESIDE COUNTY
STATION 344+76.69
STRUCTURE NO. 098-0114

...\projects\bm100025\0980114.dgn 09/02/2008 1:10:38 PM

EXISTING STRUCTURE PLANS
(FOR REFERENCE ONLY)

Ref Line C

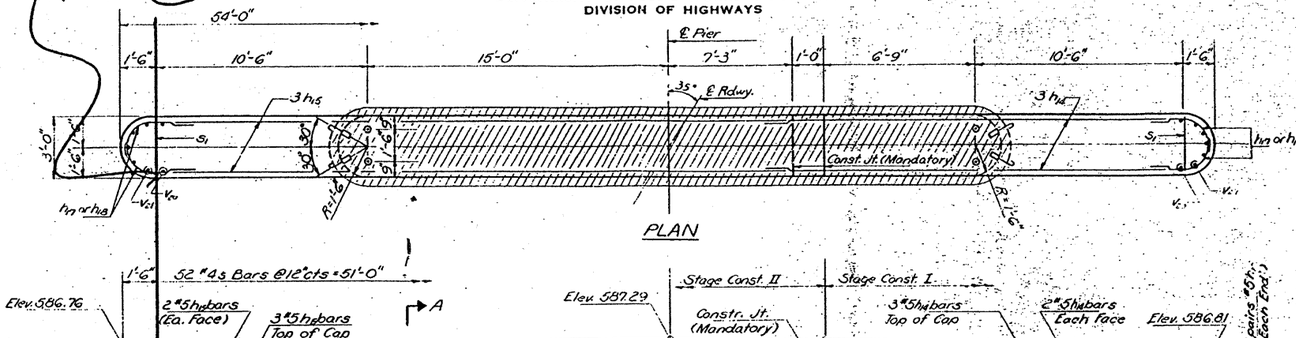
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
... 80	109BR	WHITESIDE	10	10
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

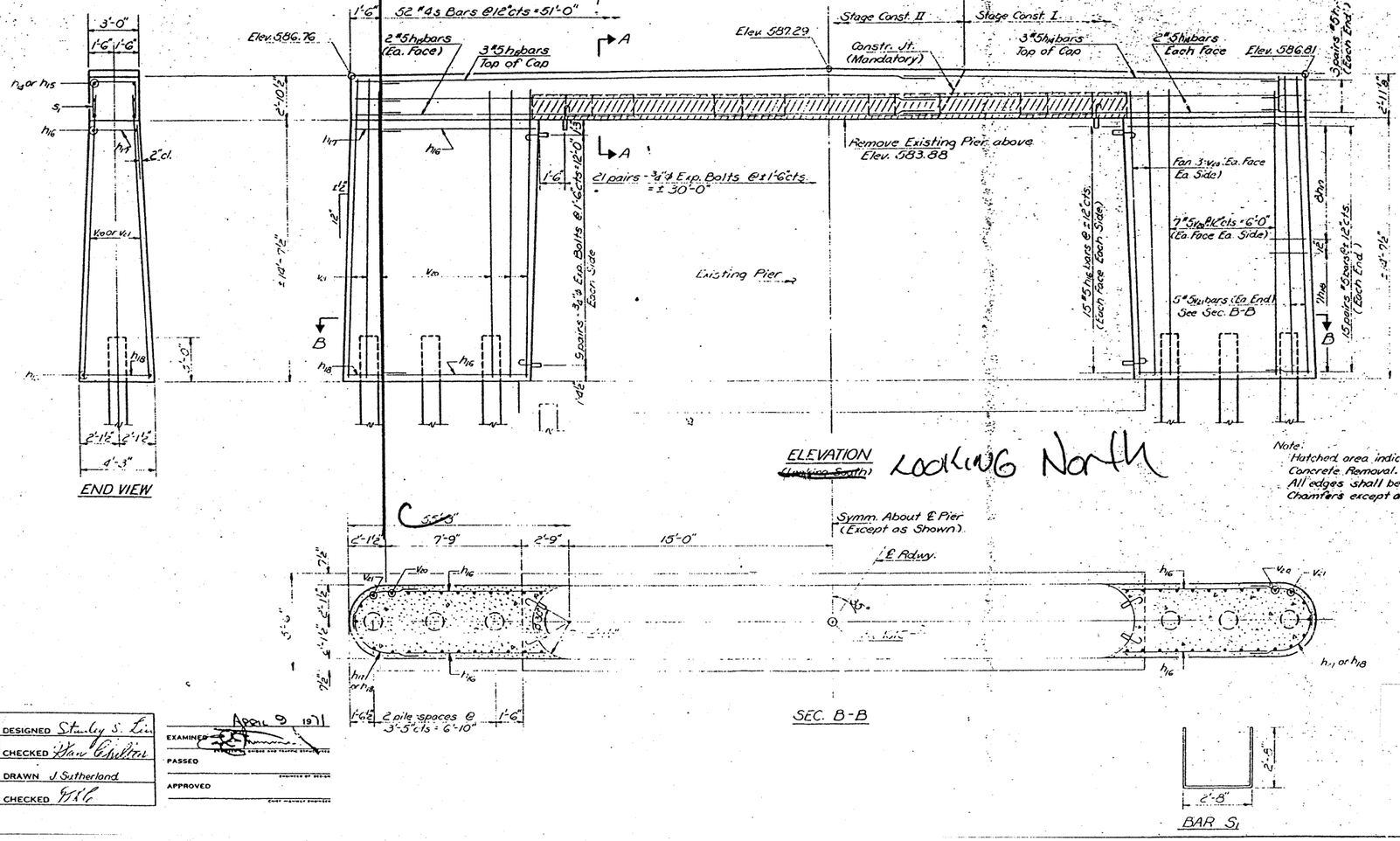
SHEET NO. 8
8 SHEETS

PILE DATA

Type:	Untreated
Capacity:	20 Tons
Est. Length:	34'
No. Required:	6



PLAN

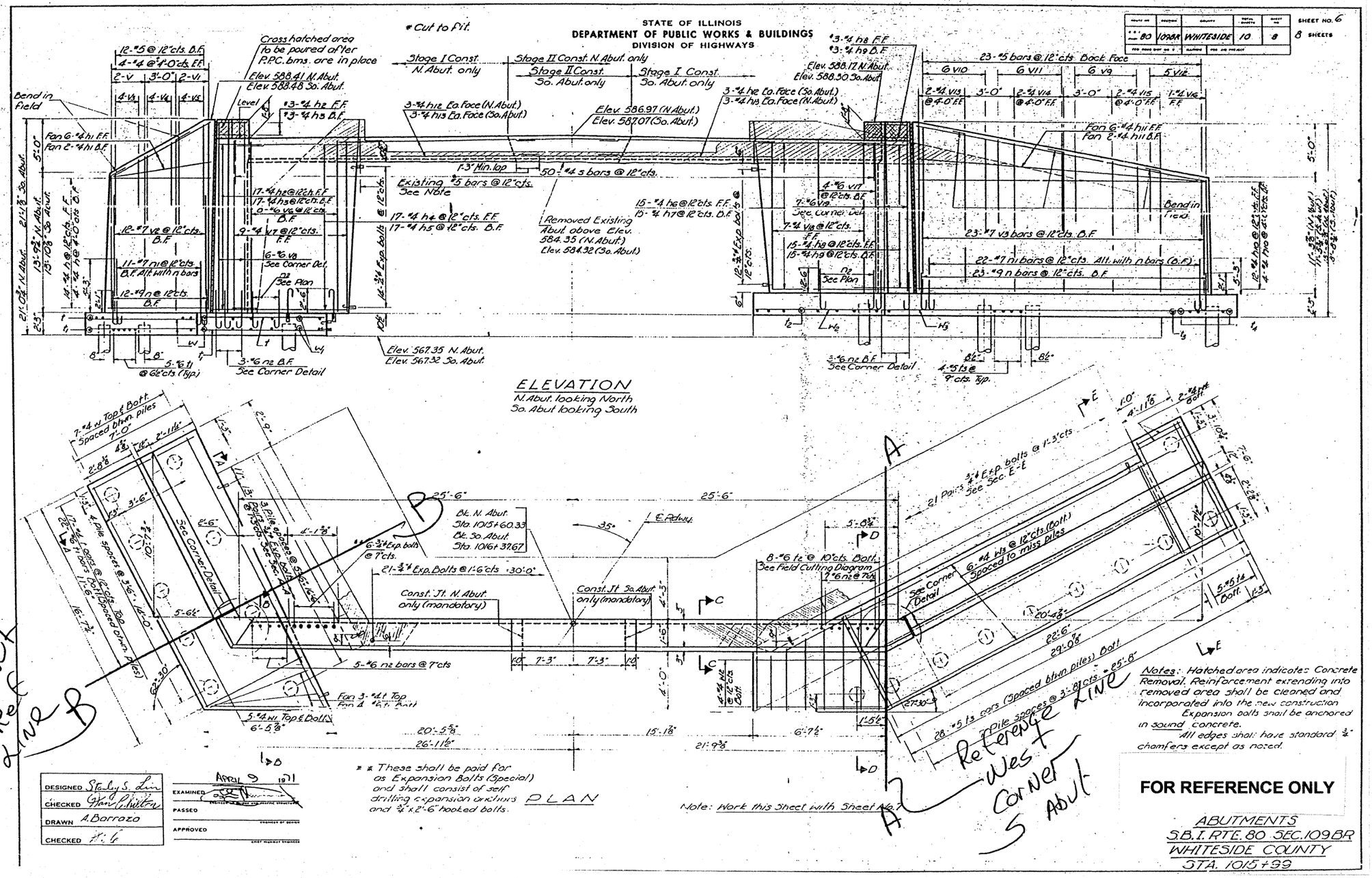

3'-0"
1'-6" 1'-6"
h_{18} or h_{15}
S
h_{16}
h_{17}
2"cl.
V_{2a} or V_{2c}
2'-10½"
2'-1½"
2'-1½"
4'-3"
h_{18}
2'-0"
h_{15}
1'-6"
52 "4's Bars @12"cts=51'-0"
2"5's bars (Ea. Face)
3"5's bars Top of Cap
Elev. 586.76
Elev. 587.29
Stage Const. II
Stage Const. I
Constr. Jt. (Mandatory)
3"5's bars Top of Cap
2"5's bars Each Face
Elev. 586.81
3 pairs #5's (Each End)
A
B
21 pairs - ¾"ø Exp. Bolts @1'6"cts =30'-0"
Remove Existing Pier above Elev. 583.88
Existing Pier
Fan 3-¾"ø Ea. Face Ea. Side)
7"5's@1'6"cts=6'-0" (Ea. Face Ea. Side)
5"5's bars (Ea. End) See Sec. B-B
15"5's bars @12"cts. (Each Face Each Side)
15 pairs #5's @12"cts. (Each End)
2'-11½"
1'-6"
12"
V_{2c}
V_{2d}
V_{2b}
V_{2a}
V_{2d}
V_{2c}
V_{2b}
V_{2a}
2'-1½"
2'-1½"
2'-1½"

EXISTING STRUCTURE PLANS
(FOR REFERENCE ONLY)

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	RAILROAD	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	109BR	WHITESIDE	10	8

SHEET NO. 6
8 SHEETS



DESIGNED	Stanley S. Lin
CHECKED	Glen C. Wilson
DRAWN	A. Borrazo
CHECKED	K. G.

EXAMINED — April 9, 1971
PASSED
APPROVED

FOR REFERENCE ONLY

ABUTMENTS
S.B.I. RTE. 80 SEC. 109BR
WHITESIDE COUNTY
STA. 1015+99

FILE NAME = c:\projects\p206006\d06006spl.dgn	USER NAME = hensonke	DESIGNED -	REVISED - 5-12-04
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 14:49:18 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	55
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

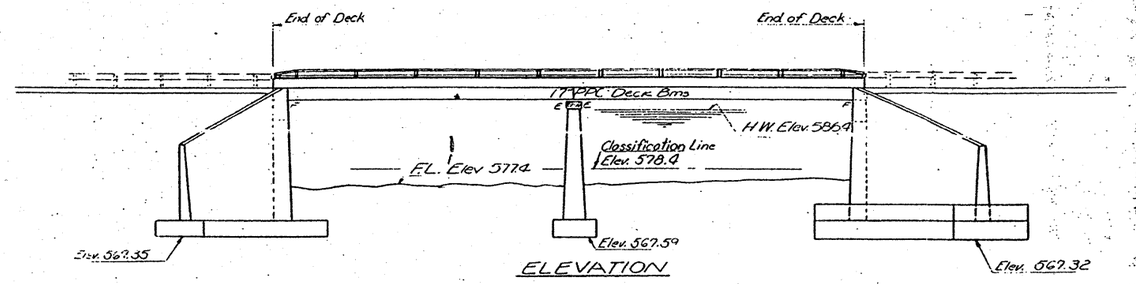
EXISTING STRUCTURE PLANS
(FOR REFERENCE ONLY)

B.M. - Top of Bolt in conc. base of Power Inlet, 100' RT. Sta. 1015+04, Elevation 590.69
Existing Structure: Built as SBI. 80 Sec. 109B Sta. 1015+99 in 1931. Superstr. is R.C. Deck Girder Substr. is R.C. Abuts and R.C. solid pier.
Superstr. to be removed with staged construction. No Salvage. Traffic to be maintained.

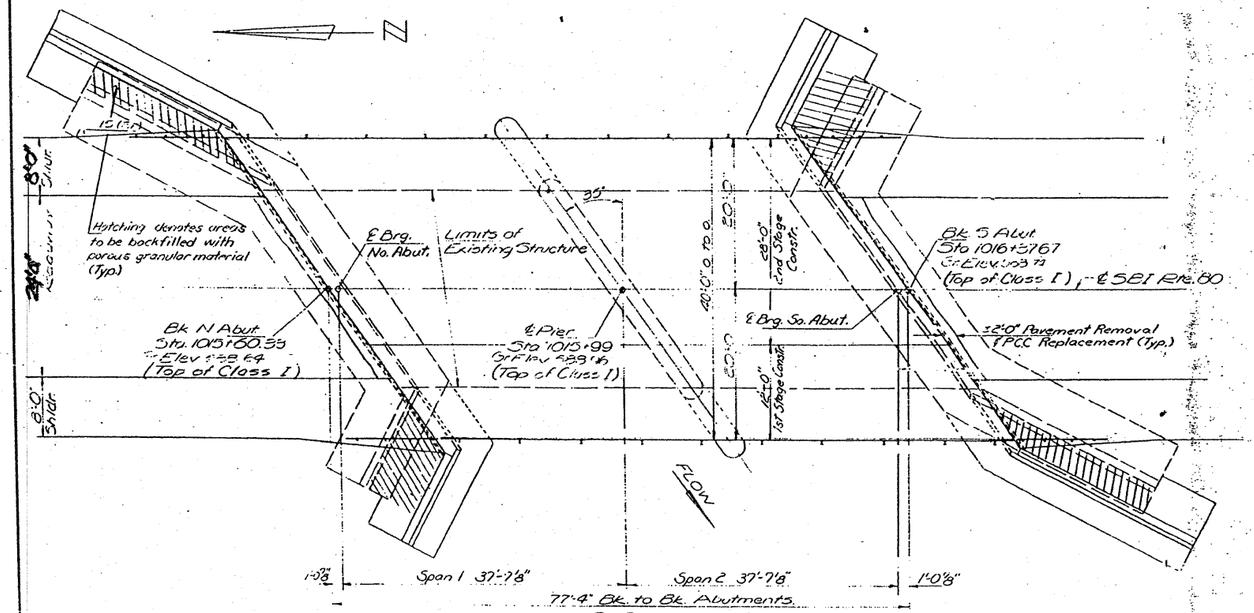
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-80	109BR	WHITESIDE	10	3
FED. ROAD DIST. NO. 9	ILLINOIS	FED. AID PROJECT		

SHEET NO. 1
8 SHEETS



ELEVATION



PLAN

DESIGN STRESSES

FIELD UNITS	PRECAST PRESTR.
fc: 1400 psi (Super)	fc: 5000 psi
fc: 1000 psi (Sub)	fci: 4000 psi
fs: 20000 psi (Reinf)	fs: 24,000 psi
vc: 75 psi (Iffqs)	fsi: 173,000 psi
n: 10	
Allowable future WS 85#/Sq.Ft.	
Design Specifications 1969 AASHO (as applicable)	

WATERWAY INFORMATION

Drainage Area	533 Sq. Mi.
Character	Rolling, sandy, level
Present Opening	480 Sq. Ft.
Road Opening	480 Sq. Ft.
Proposed Opening	480 Sq. Ft.
Q(100)	3847 cfs

LOADING H520-44

DESIGNED	St. of Ill.	
CHECKED		
DRAWN		
CHECKED		

EXAMINED — APRIL 9 1971
PASSED
APPROVED

GENERAL NOTES

All reinforcement bars shall be lapped 24 diameters unless otherwise shown.

It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field, prior to construction and ordering of materials.

An alternate strand pattern using Extra High Strength Prestressing strand (270 K.S.I.) is permitted.

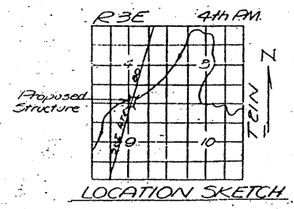
Unless otherwise noted, Expansion Bolts shall consist of self drilling expansion anchors and ¾" Ø x L hooked bolts.

Limits of Coal Tar Interlayer Protective Coat shall be back to back of Abutments and out to out of deck.

Shoulder transition to Wingwall shall be shaped with broken concrete. Cost Incidental.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Bituminous Concrete Surface Course Class I	Ton	47		47
Removal of Existing Superstructure	Each	1		1
Concrete Removal	Cu. Yd.		16	16
Expansion Bolts ¾" Ø	Each		308	308
Class X Concrete	Cu. Yd.		196.5	196.5
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	3060		3060
Reinforcement Bars	Pound		13,150	13,150
Coal Tar Interlayer Protective Coat	Sq. Yd.	339		339
Pavement Removal (PCC)	Sq. Yd.	11		11
Replacement, Type II (10")				
Steel Railing Type N	Lin. Ft.	153		153
Neoprene Expansion Joint (2")	Lin. Ft.	49		49
Temporary Guardrail	Lin. Ft.	78		78
Class A Concrete	Cu. Yd.		59.3	59.3
Expansion Bolts (Special)	Each		12	12
Untreated Piles up to 30°	Lin. Ft.		1104	1104
Untreated Piles 30.1 to 45°	Lin. Ft.		204	204
Porous Granular Embankment	Cu. Yd.		130	130
Class A Excavation for Structure	Cu. Yd.		80	80
Class B Excavation for Structure	Cu. Yd.		460	460



LOCATION SKETCH

FOR REFERENCE ONLY

GENERAL PLAN & ELEVATION
SBI 80 over CATTAIL CREEK
SBI RTE 80-SEC 109BR
WHITESIDE COUNTY
STA. 1015+39

098-0021

FILE NAME = c:\projects\p206006\d06006apl.dgn	USER NAME = hensonke	DESIGNED -	REVISED - 5-12-04
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 14:49:18 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

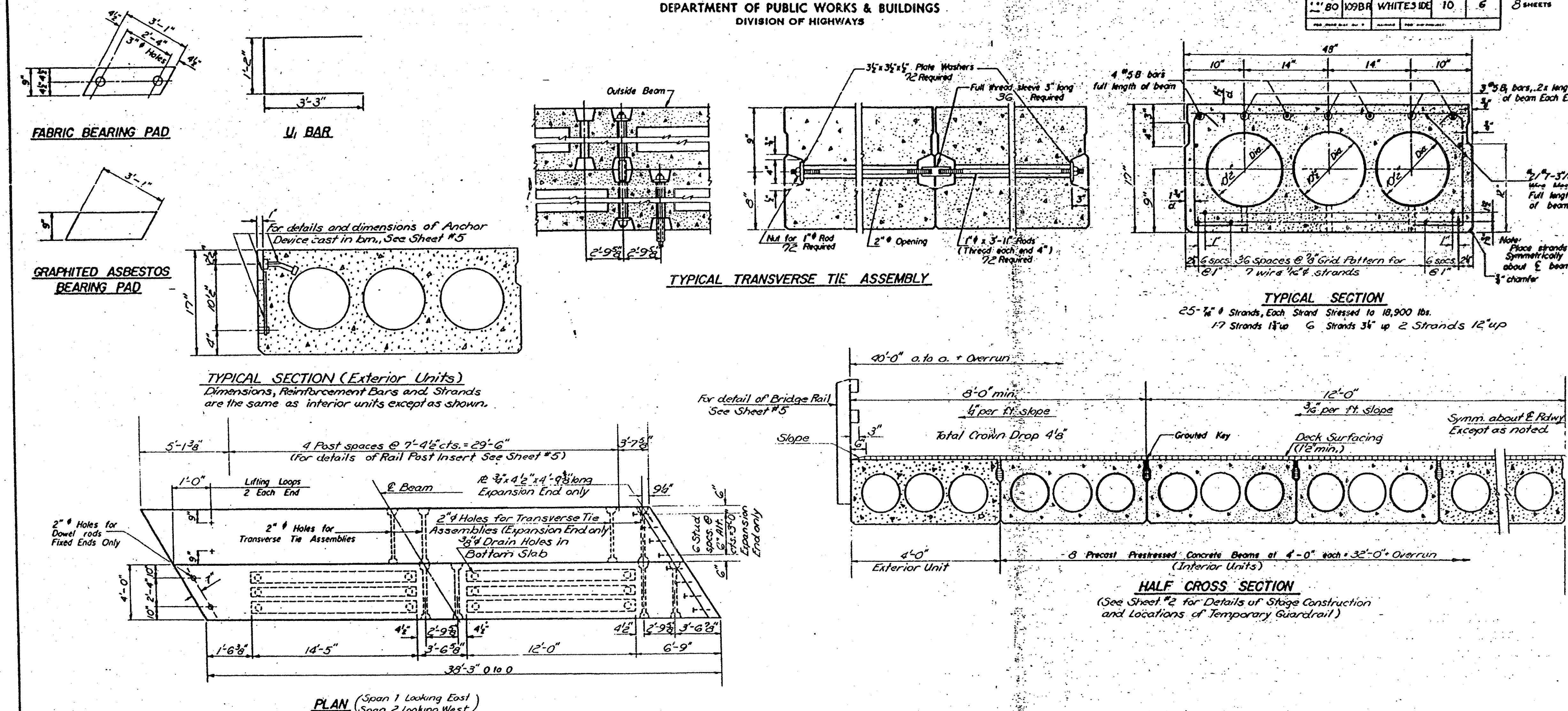
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	56
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

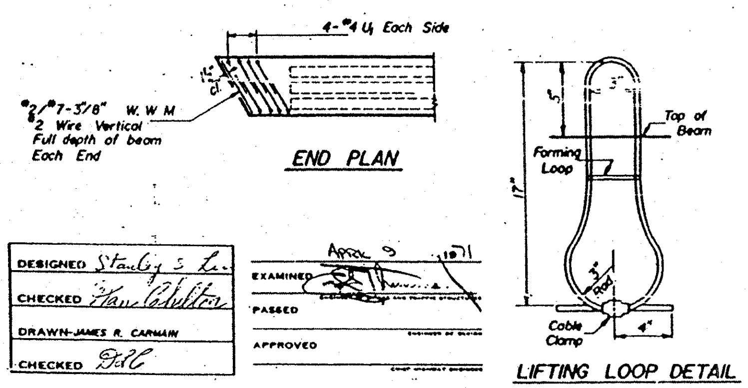
EXISTING STRUCTURE PLANS
(FOR REFERENCE ONLY)

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
"80	109BR	WHITESIDE	10	6

SHEET NO. 4
8 SHEETS





DESIGNED	Stanley S. L.
CHECKED	Hau Culetton
DRAWN	JAMES R. CAPMAN
CHECKED	G.C.

EXAMINED — April 9, 1971
PASSED
APPROVED

PD-2-R 11-19-65 Rev. 5-20-68

GENERAL NOTES

Prestressing steel shall be non-galvanized, high strength, stress-relieved 7-wire strand.

The nominal diameter shall be 7/16" and the nominal cross-sectional area shall be 0.109 sq. in.. Lifting loops shall be [illegible] diameter, 6x19 class wire rope with fiber core and shall have a minimum ultimate tensile strength of 21,400 lbs.

The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside beam shall be filled with grout after transverse tie assembly is in place.

Longitudinal shear keys shall be packed with a very dry mix of 2:1 sand and P.C. mortar.

After beams have been erected, holes for the dowel anchors shall be drilled into the sub-structure and the anchor dowels shall be grouted in place.

Dowel Rods shall be ASTM A-306 or ASTM A-615. Transverse Tie Rods shall be ASTM A-306, Grade 70-80.

After fabrication the transverse tie assemblies (tie rods, nuts, washers and sleeves) shall be hot-dipped galvanized in accordance with A.S.T.M. Designation: A153.

Cost of reinforcement and accessories cast into the beam, of bearing pads, of armor angles, and of grouting longitudinal shear keys is included in unit price bid for "Precast Prestressed Concrete Deck Beams."

FOR REFERENCE ONLY

BILL OF MATERIAL

Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	3060

17"x48" DECK BEAM DETAILS
S.B.I. RT. 80 SEC. 109BR
WHITESIDE COUNTY
STA. 1015+99

FILE NAME = c:\projects\p206006\d06006spl.dgn	USER NAME = hensonke	DESIGNED -	REVISED - 5-12-04
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 14:49:18 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS

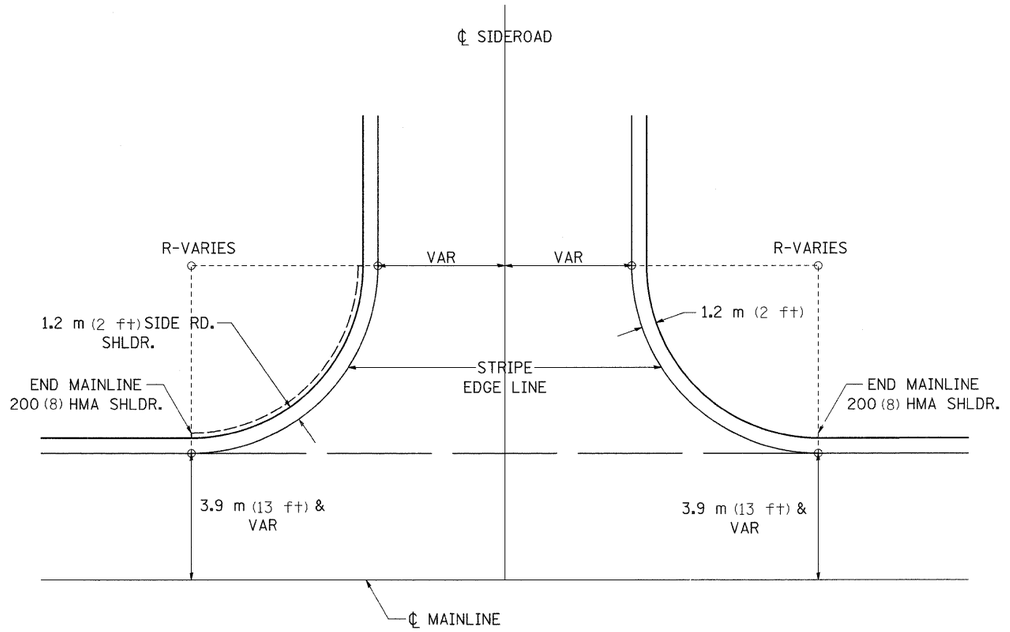
SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

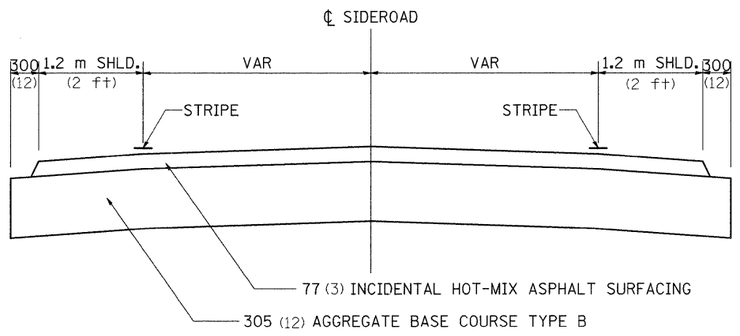
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	57

CONTRACT NO. 64C25

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

TYPICAL AGGREGATE BASE SIDEROAD DETAIL





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

FILE NAME = c:\projects\p206006\d06006spl.dgn	USER NAME = hensonke	DESIGNED -	REVISED - 5-12-04
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 14:49:18 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL AGGREGATE BASE SIDEROAD DETAIL

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	58
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BORING LOGS

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation/D-2

SOIL BORING LOG

Date 8/24/06

ROUTE FAP 308 DESCRIPTION P92-060-06 Bridge on IL 84 over Cattail Creek, .9 m. S. of US 30 LOGGED BY W. Garza

SECTION 109 BR-5 LOCATION Garden Plain Twp. - 4 SW, SEC. , TWP. 21N, RNG. 3E

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

STRUCT. NO.
Station 1016+04

BORING NO. B-1
Station 1016+34
Offset 25.00ft Rt CL
Ground Surface Elev. 90.00 ft

Surface Water Elev. 85.00 ft
Stream Bed Elev. 84.50 ft

Groundwater Elev.:
First Encounter 77.5 ft ▼
Upon Completion Wash ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
				VERY SOFT brown SILTY LOAM
		0.2 P	32.0	
87.50				
	1			SOFT dark gray SILTY LOAM
	1	0.3 B	36.0	
86.00	1			
-5	0			SOFT dark gray SILTY LOAM
	1	0.3 B	35.0	
83.50	1			
	0			VERY SOFT gray SILTY LOAM with 8% ORGANICS
	0	0.2 P	57.0	
81.00	1			
-10	0			VERY SOFT gray SILTY LOAM with 10% ORGANICS
	0	0.2 B	59.0	
78.50	1			
▼	0			VERY SOFT gray SILTY LOAM
	0	0.2 B	40.0	
75.50	1			
-15	4			LOOSE gray clean medium coarse SAND
	3			
73.50	4			
	3			Wash MEDUM gray fine SAND
	5			
71.00	7			
-20				
	4			Wash MEDIUM gray clean medium coarse SAND
	8			
68.50	11			
	4			Wash MEDIUM gray clean medium coarse SAND
	9			
66.00	12			
-25	5			Wash MEDIUM gray clean medium coarse SAND
	6			
63.50	7			
	4			Wash MEDIUM gray fine SAND
	5			
61.00	12			
-30	5			Wash MEDIUM gray clean medium coarse SAND with GRAVEL
	8			
58.50	15			
	8			Wash MEDIUM gray clean medium coarse SAND with GRAVEL
	10			
56.00	15			
-35	4			Wash MEDIUM gray fine SAND
	6			
53.50	10			
	9			Wash DENSE gray clean medium coarse SAND
	14			
51.00	19			
-40				

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation/D-2

SOIL BORING LOG

Date 8/24/06

ROUTE FAP 308 DESCRIPTION P92-060-06 Bridge on IL 84 over Cattail Creek, .9 m. S. of US 30 LOGGED BY W. Garza

SECTION 109 BR-5 LOCATION Garden Plain Twp. - 4 SW, SEC. , TWP. 21N, RNG. 3E

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

STRUCT. NO.
Station 1016+04

BORING NO. B-1
Station 1016+34
Offset 25.00ft Rt CL
Ground Surface Elev. 90.00 ft

Surface Water Elev. 85.00 ft
Stream Bed Elev. 84.50 ft

Groundwater Elev.:
First Encounter 77.5 ft ▼
Upon Completion Wash ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
	6			Wash MEDIUM gray clean medium coarse SAND
	7			
48.50	10			
	5			Wash MEDIUM gray clean medium coarse SAND
	8			
46.00	12			
-45	5			Wash MEDIUM gray fine SAND
	8			
43.50	10			
	6			Wash MEDIUM gray clean medium coarse SAND
	8			
41.00	11			
-50	6			Wash MEDIUM gray fine SAND
	8			
38.50	9			
	11			MEDIUM gray clean medium coarse SAND
	16			
36.00	17			
-55	5			Wash MEDIUM gray fine SAND
	6			
33.50	12			
	13			Wash DENSE gray fine SAND
	16			
31.00	18			
-60				
	7			Wash DENSE/VERY DENSE gray fine SAND
	19			
28.50	31			
	20			Wash VERY DENSE gray fine SAND
	32			
26.00	47			
-65				End of Boring
-70				
-75				
-80				

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)

FILE NAME = c:\projects\p206006\d0600blogs.dgn	USER NAME = hensonke	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BORING LOGS				
		DRAWN -	REVISED -						
	PLOT SCALE = 157.5000 ' / IN.	CHECKED -	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA.	TO STA.	
	PLOT DATE = Thu Jul 31 10:54:00 2008	DATE -	REVISED -						

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	59
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BORING LOGS

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation/D-2

SOIL BORING LOG

Date 8/29/06

ROUTE FAP 308 DESCRIPTION P92-060-06 Bridge on IL 84 over Cattail Creek, .9 m. S. of US 30 LOGGED BY W. Garza

SECTION 109 BR-5 LOCATION Garden Plain Twp. - 4 SW, SEC. , TWP. 21N, RNG. 3E

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

STRUCT. NO.
Station 1016+04

BORING NO. B-2
Station 344+09
Offset 12.00ft Lt CL
Ground Surface Elev. 199.00 ft

Surface Water Elev. 85.00 ft
Stream Bed Elev. 84.50 ft

Groundwater Elev.:
First Encounter 179.0 ft ▼
Upon Completion Wash ft
After ___ Hrs. ___ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				19" Asphalt
	1			DRY tan fine SAND
	1	0.7	37.0	
	1	B		
196.50				
	2			STIFF redish brown LOAM with SAND lens
	2	1.4		
195.00	4	P		
-5				
	2			LOOSE brown fine SAND
	3			
192.50	4			
				LOOSE brown fine SAND
	1			
	3			
189.50	4			
-10				
	3			MEDIUM redish brown CLAY LOAM with SAND lens
	2	0.8	17.0	
187.50	5	P		
				MEDIUM dark gray SILTY LOAM
	1			
	2	0.6	32.0	
185.00	2	P		
-15				
	1			MEDIUM gray SILTY LOAM
	1	0.6	29.0	
182.50	2	B		
				MEDIUM gray SILTY LOAM, concrete footing
	1			
	100/6"	1.0	28.0	
180.00		P		
▼-20				

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
	1			MEDIUM gray SILTY CLAY
	1	0.7	37.0	
	1	B		
177.00				
	1			LOOSE gray fine SAND
175.00	3			
-25	5			
	2			MEDIUM gray fine SAND
	4			
	8			
169.00 -30				
	8			Wash
	9			MEDIUM gray clean medium coarse SAND
	11			
164.00 -35				
	7			MEDIUM gray clean medium coarse SAND with GRAVEL
	7			
	8			
159.00 -40				

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation/D-2

SOIL BORING LOG

Date 8/29/06

ROUTE FAP 308 DESCRIPTION P92-060-06 Bridge on IL 84 over Cattail Creek, .9 m. S. of US 30 LOGGED BY W. Garza

SECTION 109 BR-5 LOCATION Garden Plain Twp. - 4 SW, SEC. , TWP. 21N, RNG. 3E

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

STRUCT. NO.
Station 1016+04

BORING NO. B-2
Station 344+09
Offset 12.00ft Lt CL
Ground Surface Elev. 199.00 ft

Surface Water Elev. 85.00 ft
Stream Bed Elev. 84.50 ft

Groundwater Elev.:
First Encounter 179.0 ft ▼
Upon Completion Wash ft
After ___ Hrs. ___ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
	7			MEDIUM gray clean medium coarse SAND
	8			
	12			
154.00 -45				
	7			Wash
	8			MEDIUM gray clean medium coarse SAND
	9			
149.00 -50				
	8			Wash
	9			MEDIUM gray clean medium corase SAND with GRAVEL
	8			
144.00 -55				
	5			Wash
	6			MEDIUM gray fine SAND
	9			
139.00 -60				

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
	7			Wash
	9			MEDIUM gray fine SAND with GRAVEL
	14			
134.00 -65				
	11			Wash
	16			DENSE gray clean medium coarse SAND
	17			
129.00 -70				
	15			Wash
	27			VERY DENSE gray SAND with GRAVEL
127.50	28			
	9			Extended on 6/13/07
	10			Wash
	13			MEDIUM gray clean medium coarse SAND
125.00				
-75				
	10			Wash
	18			DENSE gray clean medium coarse SAND
122.50	16			
	3			Wash
	4			MEDIUM tanish/gray fine SAND
120.00	9			
-80				

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)

FILE NAME = c:\projects\p206006\d06006logs.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 157.5000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 10:54:01 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	60
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BORING LOGS

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation/D-2

SOIL BORING LOG

Date 8/29/06

ROUTE FAP 308 DESCRIPTION P92-060-06 Bridge on IL 84 over Cattail Creek, .9 m. S. of US 30 LOGGED BY W. Garza

SECTION 109 BR-5 LOCATION Garden Plain Twp. - 4 SW, SEC. , TWP. 21N, RNG. 3E

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

STRUCT. NO.
Station 1016+04

BORING NO. B-2
Station 344+09
Offset 12.00ft Lt CL
Ground Surface Elev. 199.00 ft

Surface Water Elev. 85.00 ft
Stream Bed Elev. 84.50 ft

Groundwater Elev.:
First Encounter 179.0 ft ▼
Upon Completion Wash ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
	6			Wash
	13			MEDIUM/DENSE gray fine SAND
117.50	17			
115.00				
-85	9			Wash
	12			MEDIUM gray fine SAND
112.50	12			
110.00				
-90	4			Wash
	7			MEDIUM gray fine SAND
107.50	12			
105.00				
-95	23			No Recovery
	100/6.5"			
102.50				
100.00				
-100				

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
	19			Wash
	25			No Recovery
97.50	16			
95.00				
-105	5			Wash
	13			DENSE gray clean medium
92.50	17			coarse SAND
90.00				
-110	6			No Recovery
	9			
87.50	11			
85.00				
-115	14			Wash
	13			Resists auger rotation
82.50	11			No Recovery
80.00				
-120				

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation/D-2

SOIL BORING LOG

Date 8/29/06

ROUTE FAP 308 DESCRIPTION P92-060-06 Bridge on IL 84 over Cattail Creek, .9 m. S. of US 30 LOGGED BY W. Garza

SECTION 109 BR-5 LOCATION Garden Plain Twp. - 4 SW, SEC. , TWP. 21N, RNG. 3E

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

STRUCT. NO.
Station 1016+04

BORING NO. B-2
Station 344+09
Offset 12.00ft Lt CL
Ground Surface Elev. 199.00 ft

Surface Water Elev. 85.00 ft
Stream Bed Elev. 84.50 ft

Groundwater Elev.:
First Encounter 179.0 ft ▼
Upon Completion Wash ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Description
				Resists auger rotation
77.50				
75.00				
-125	11			Wash
	19			DENSE tan/gray clean medium
72.50	22			coarse SAND with medium GRAVEL
				End of Boring
-130				
-135				
-140				

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)

FILE NAME = c:\projects\p206006\d06006logs.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 157.5000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 10:54:01 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	61
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BORING LOGS

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation/D-2

SOIL BORING LOG

Date 8/30/06

ROUTE FAP 308 DESCRIPTION P92-060-06 Bridge on IL 84 over Cattail Creek, .9 m. S. of US 30 LOGGED BY W. Garza

SECTION 109 BR-5 LOCATION Garden Plain Twp. - 4 SW, SEC. , TWP. 21N, RNG. 3E

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

STRUCT. NO.
Station 1016+04

BORING NO. B-3
Station 1016+67
Offset 11.00ft Lt CL
Ground Surface Elev. 99.30 ft

Surface Water Elev. 85.00 ft
Stream Bed Elev. 84.50 ft

Groundwater Elev.:
First Encounter 79.3 ft ▼
Upon Completion Wash ft
After ____ Hrs. ____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
18" Asphalt				
moist brown SAND				8.0
	96.80			
LOOSE/MEDIUM brown fine SAND		3		
		4		
	95.30	6		
	-5			
VERY STIFF redish brown CLAY LOAM with SAND lens		1		
		2	2.5	23.0
	92.80	3	B	
MEDIUM redish brown SANDY LOAM		2		
		1	0.8	13.0
	90.30	4	P	
	-10			
SOFT dark gray SILTY LOAM		1		
		1	0.4	32.0
	87.80	3	B	
MEDIUM dark gray SILTY LOAM with ORGANICS		0		
		1	0.6	36.0
	85.30	2	B	
	-15			
MEDIUM gray SILTY LOAM with 8% ORGANICS		1		
		2	0.7	42.0
	82.30	2	B	
LOOSE gray moist fine SAND		1		
		3		
	80.30	3		
	▼-20			

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
LOOSE gray fine SAND		1		
		1		
	77.80	5		
VERY LOOSE/LOOSE gray fine SAND with GRAVEL		1		
		0		
	75.30	4		
	-25			
LOOSE/MEDIUM gray clean medium coarse SAND with GRAVEL		0		
		2		
	72.80	8		
Wash		6		
MEDIUM gray clean medium coarse SAND with medium GRAVEL		10		
		14		
	70.30			
	-30			
MEDIUM gray clean medium coarse SAND with GRAVEL		4		
		5		
		9		
	64.30	-35		
MEDIUM gray clean medium coarse SAND		4		
		8		
		12		
	59.30	-40		

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation/D-2

SOIL BORING LOG

Date 8/30/06

ROUTE FAP 308 DESCRIPTION P92-060-06 Bridge on IL 84 over Cattail Creek, .9 m. S. of US 30 LOGGED BY W. Garza

SECTION 109 BR-5 LOCATION Garden Plain Twp. - 4 SW, SEC. , TWP. 21N, RNG. 3E

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

STRUCT. NO.
Station 1016+04

BORING NO. B-3
Station 1016+67
Offset 11.00ft Lt CL
Ground Surface Elev. 99.30 ft

Surface Water Elev. 85.00 ft
Stream Bed Elev. 84.50 ft

Groundwater Elev.:
First Encounter 79.3 ft ▼
Upon Completion Wash ft
After ____ Hrs. ____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Wash		5		
MEDIUM gray SAND & GRAVEL		6		
		12		
	54.30	-45		
Wash		4		
MEDIUM gray clean medium coarse SAND		7		
		10		
	49.30	-50		
Wash		2		
MEDIUM gray clean medium coarse SAND		7		
		13		
	44.30	-55		
Wash		9		
MEDIUM gray fine SAND with medium GRAVEL		10		
		12		
	39.30	-60		

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Wash		1		
MEDIUM gray clean medium coarse SAND		4		
		7		
	34.30	-65		
Wash		3		
MEDIUM gray clean medium coarse SAND with medium GRAVEL		10		
		16		
	29.30	-70		
Wash		10		
DENSE gray clean medium coarse SAND		18		
		20		
	24.30	-75		
Wash		11		
MEDIUM gray clean medium coarse SAND with medium GRAVEL		11		
	22.80	14		
End of Boring				
		-80		

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)

FILE NAME = c:\projects\p206006\d06006logs.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 157.5000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 10:54:01 2008	DATE -	REVISED -

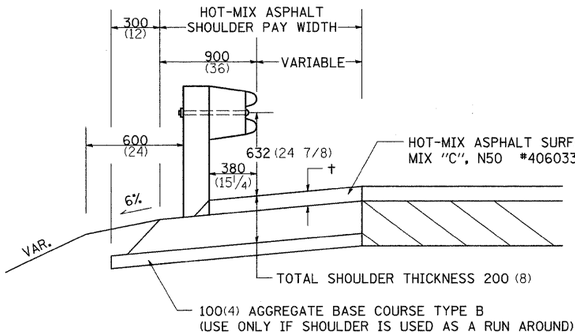
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	62
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DETAIL OF HOT–MIX ASPHALT SHOULDER AT GUARD RAIL



† = SEE TYPICAL SECTIONS FOR THICKNESS

GENERAL NOTES

THE TOP LIFT SHALL NOT BE PLACED BEHIND THE GUARDRAIL POSTS. WHEN PLACING THE TOP LIFT THE RAIL MUST BE REMOVED FROM THE POSTS. THE POST SHALL NOT BE REMOVED.

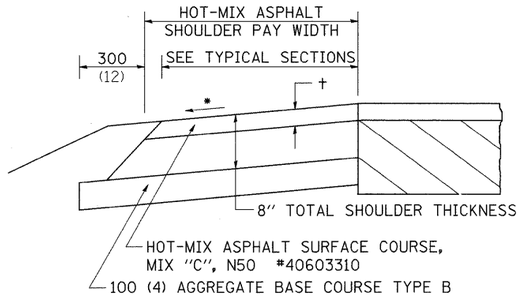
THE HEIGHT OF THE GUARD RAIL SHALL BE SET **632** (24⅞) FROM THE FINISHED SURFACE.

THE HOT-MIX ASPHALT SHOULDER SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 482 EXCEPT THE TOP LIFT SHALL BE HOT-MIX ASPHALT SURFACE COURSE, MIXTURE C, N50. THE WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE, MIXTURE "C", N50 AND SQUARE METER (SQUARE YARD) FOR HOT-MIX ASPHALT SHOULDERS OF THE THICKNESS SPECIFIED. THE REMOVAL & REINSTALLATION OF THE GUARDRAIL WILL BE INCLUDED IN THE COST OF THE HOT-MIX ASPHALT SURFACE COURSE, MIXTURE C, N50.

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

REVISED - 11-01-07

HOT–MIX ASPHALT SHOULDER



† = SEE TYPICAL SECTIONS FOR THICKNESS

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.

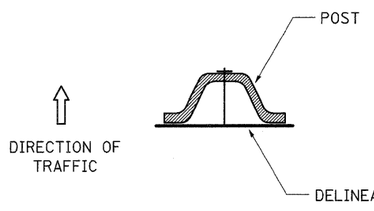
REMOVAL OF MATERIAL FOR PLACEMENT OF THE HOT-MIX ASPHALT SHOULDER TO BE PAID FOR IN UNITS FOR EXCAVATING AND GRADING EXISTING SHOULDERS OR IN CUBIC YARDS FOR EARTH EXCAVATION OR EARTH EXCAVATION WIDENING.

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

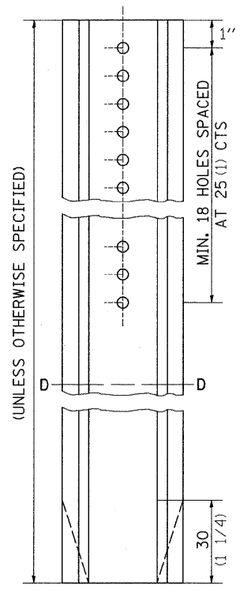
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

REVISED - 11-01-07

DELINEATOR AND POST ORIENTATION



SECTION D-D

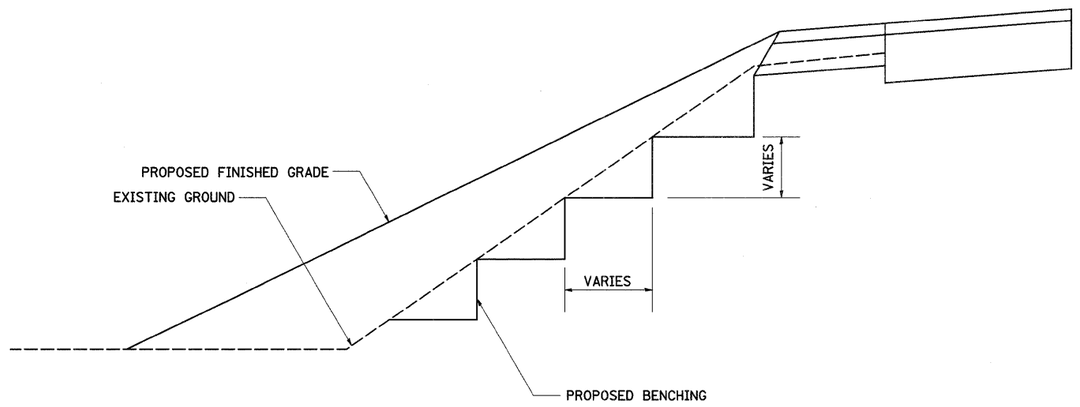


DELINEATORS SHALL BE INSTALLED ACCORDING TO STANDARD 635001 EXCEPT THAT THE POST SHALL BE ROTATED 180° . THE POST WILL HAVE THE WIDE SIDE FACING TRAFFIC AND THE DELINEATOR ATTACHECD AS SHOWN ABOVE.

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

REVISED - 11-01-07

TYPICAL BENCHING ON EXISTING EMBANKMENT



REVISED - 2-22-06	REGION 2 / DISTRICT 2 STANDARD		F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
REVISED -			308	109BR-5	WHITESIDE	83	63
REVISED -					CONTRACT NO. 64C25		
REVISED -	SCALE: 50.0000 ' / IN.	SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PLOT DATE = Thu Jul 31 14:49:17 2008

LETTERING FOR NAME PLATE

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

SEE STD. 515001

STATION	STRUCTURE NO.
344+76	098-0114

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

REVISED - 11-01-07

LETTERING FOR NAME PLATE 89.4

TREE REPLACEMENT SCHEDULE

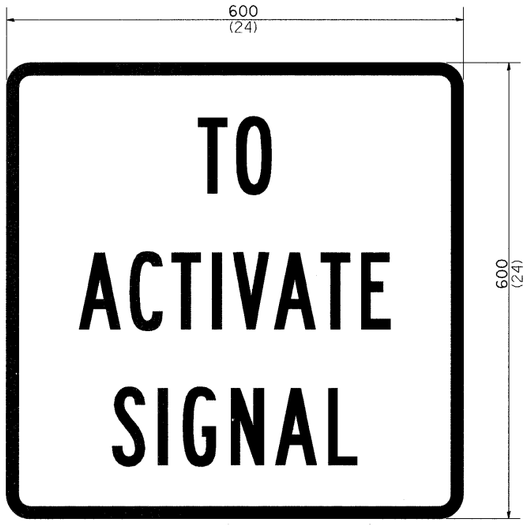
CODE NUMBER	SCIENTIFIC NAME	COMMON NAME	SIZE	UNIT	QUANTITY
A2006514	QUERCUS BICOLOR	SWAMP WHITE OAK	1 3/4" BALLED AND BURLAPPED	EACH	55

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

REVISED - 8-10-05

TREE REPLACEMENT SCHEDULE 90.4

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.

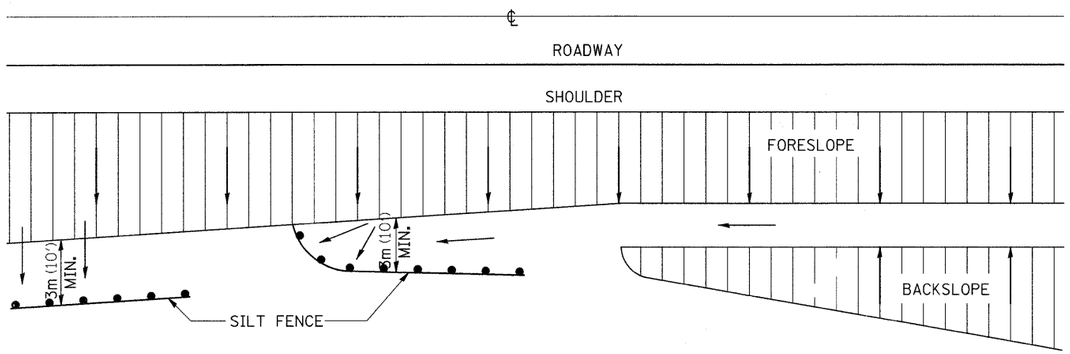
REVISED - 1-22-07

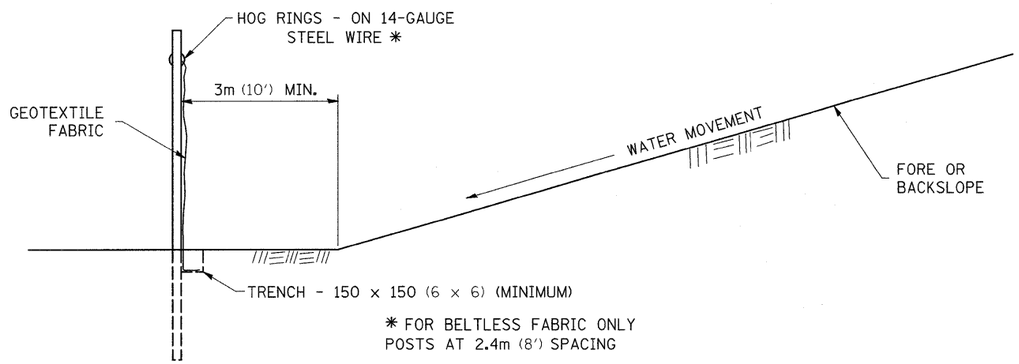
STOP LINE SIGN FOR TEMPORARY SIGNALS 99.4

REVISED -	REGION 2 / DISTRICT 2 STANDARD	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
REVISED -		308	109BR-5	WHITESIDE	83	64
REVISED -				CONTRACT NO. 64C25		
REVISED -	SCALE: 50.0000 ' / IN. SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PLOT DATE = Thu Jul 31 14:49:17 2008

EROSION CONTROL DETAILS FOR SILT FENCE



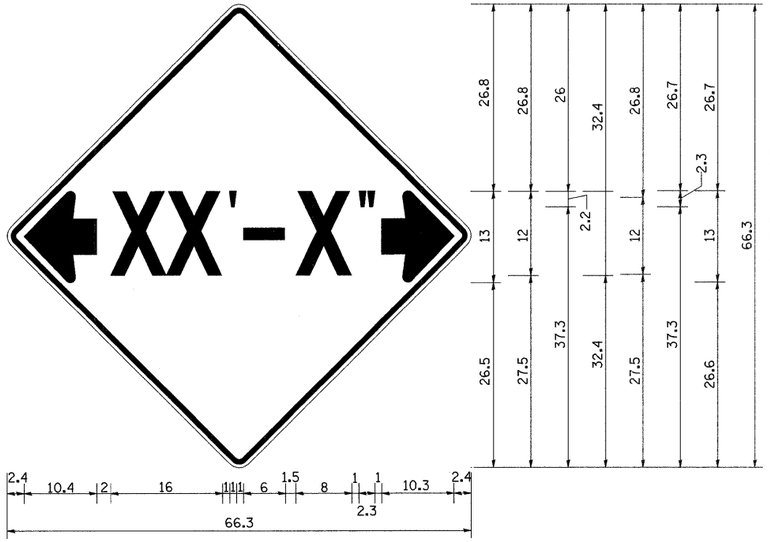


DETAILS OF SILT FENCE

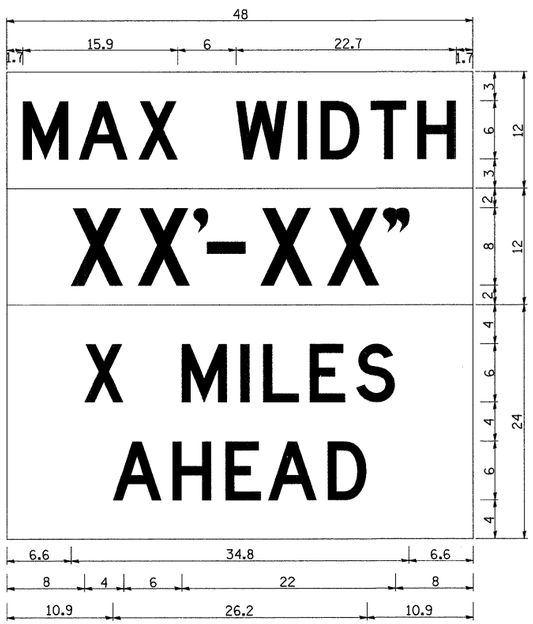
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

REVISED - 10-22-01

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;

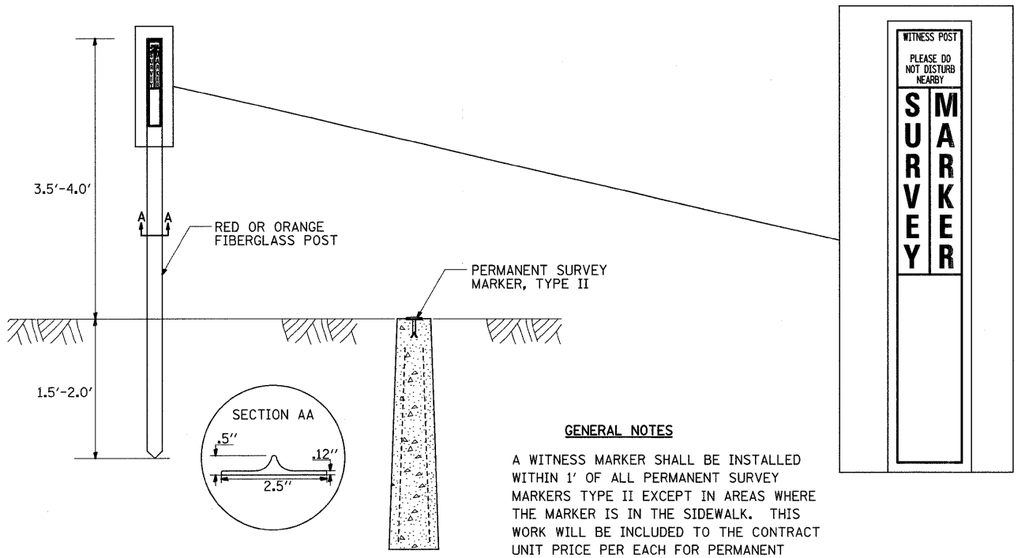
All work to furnish and install these signs shall be included in the cost of the Traffic Control Standards and shall not be paid for separately.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

REVISED ~~REVISED~~ -08	REGION 2 / DISTRICT 2 STANDARD	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
REVISED -		308	109BR-5	WHITESIDE	83 / 65
REVISED -				CONTRACT NO. 64C25	
REVISED -	SCALE: 50.0000 ' / IN. SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

PLOT DATE = Thu Jul 31 14:49:17 2008

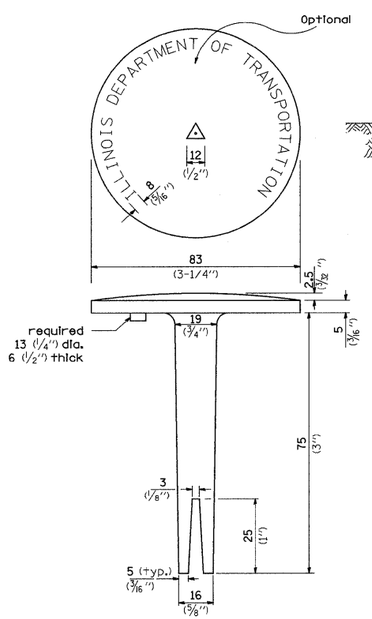
WITNESS MARKER FOR PERMANENT SURVEY MARKERS, TYPE II



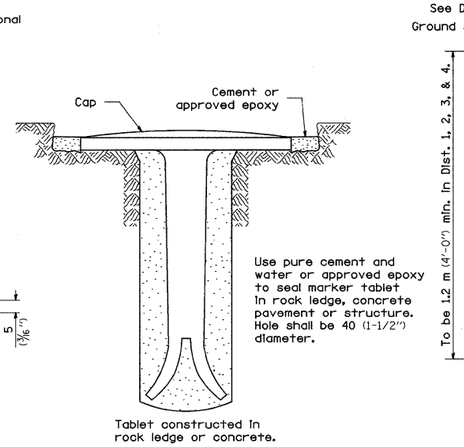
GENERAL NOTES

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.

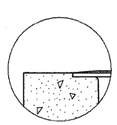
PERMANENT SURVEY MARKERS, TYPE II



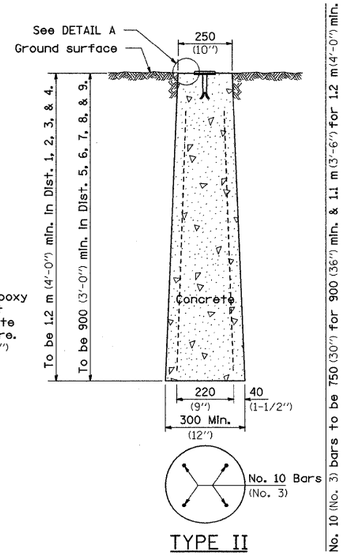
BRASS OR ALUMINUM TABLET



TYPE II



DETAIL A



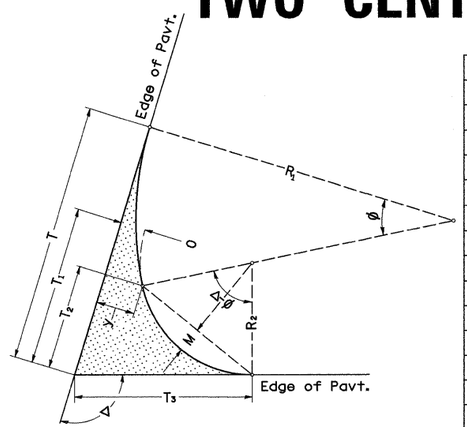
TYPE II

CAST-IN-PLACE MARKER

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

REVISED - 6-26-06

TWO CENTER CURVE DATA



TWO CENTER CURVES

CURVE #	1						
R_1	230.00						
R_2	30.00						
O	15.00						
Δ	136.20						
T	166.26						
T_1	90.27						
T_2	78.87						
T_3	96.30						
y	17.25						
$\frac{4y}{9}$	7.67						
$\frac{y}{9}$	1.92						
M	13.63						
$\frac{15M}{16}$	12.78						
$\frac{3M}{4}$	10.22						
$\frac{7M}{16}$	5.96						
C	50.28						

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

REVISED - 3-22-90	REGION 2 / DISTRICT 2 STANDARD	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
REVISED -		308	109BR-5	WHITESIDE	83 / 66
REVISED -				CONTRACT NO. 64C25	
REVISED -	SCALE: 50.0000 ' / IN. SHEET NO. OF SHEETS 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 A STRUCTURE CARRYING IL 84 OVER CATTAIL CREEK LOCATED 0.9 MILES SOUTH OF US 30.

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) 4.86 ACRES
PROPOSED R.O.W (TOTAL PARCEL AREA) 1.39 ACRES
DISTURBED BY EXCAVATION (E.O.P TO CONSTRUCTION LIMIT) 3.19 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

CATTAIL CREEK TO A PROTECTIVE LEVEE AND PUMP STATION AND ON TO THE MISSISSIPPI RIVER.

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. SEEDINC 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.

FILE NAME = c:\projects\p286006\d86006spl.dgn	USER NAME = hensonke	DESIGNED -	REVISED - 5-12-04
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 14:49:18 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

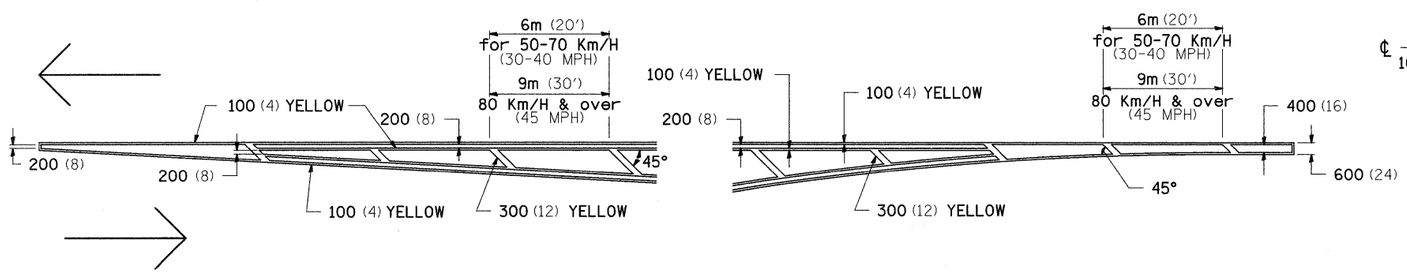
REGION 2 / DISTRICT 2 STANDARD

SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

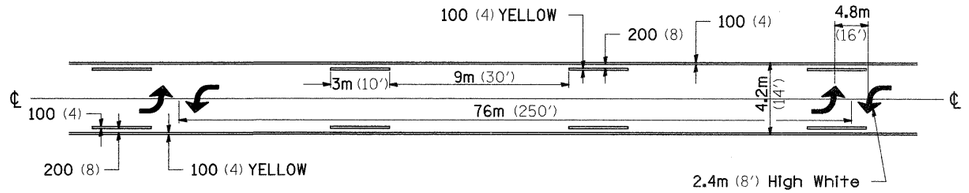
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	67
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TYPICAL PAVEMENT MARKINGS

TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN AT LEFT TURN LANE

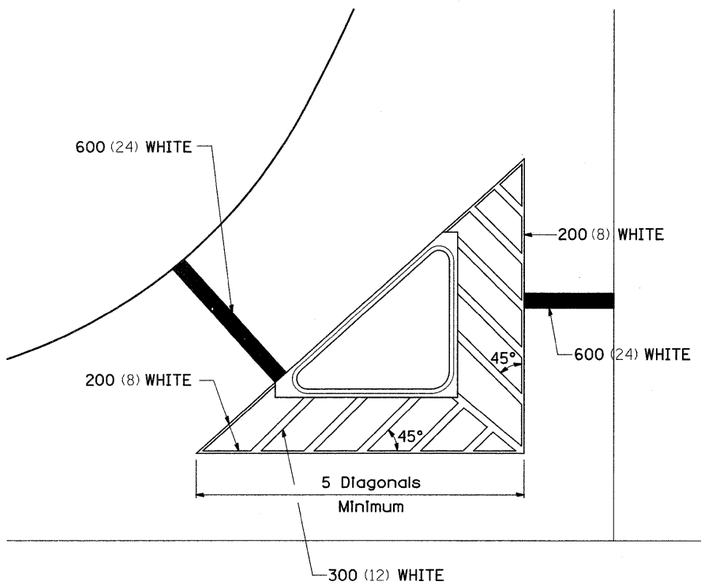


MEDIAN PAVEMENT MARKING

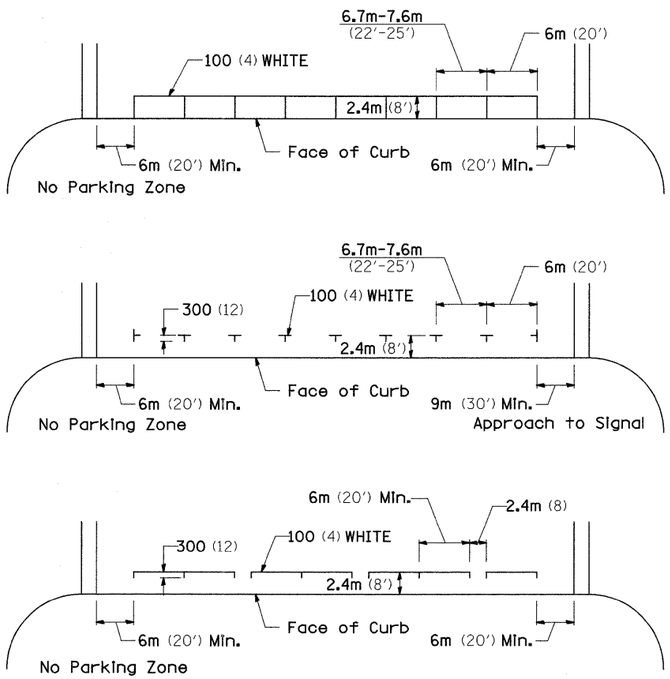


** ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

TYPICAL ISLAND OFFSET SHOULDER WIDTH

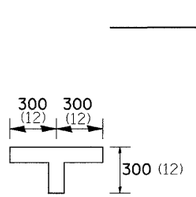


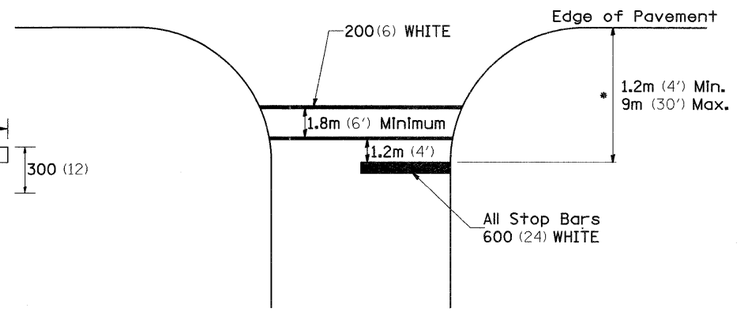
TYPICAL PARKING SPACING



STANDARD CROSSWALK MARKING

See Schedules for Locations





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

FILE NAME = c:\projects\p206006\d06006spl.dgn	USER NAME = hensonke	DESIGNED -	REVISED - 1-11-08
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 14:49:17 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

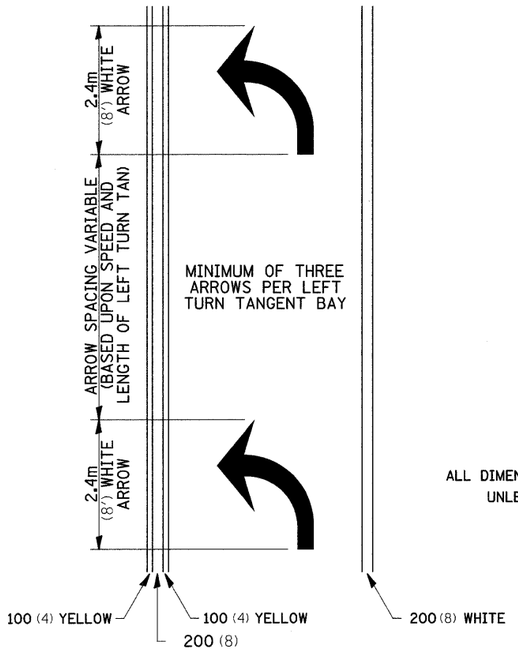
REGION 2 / DISTRICT 2 STANDARD

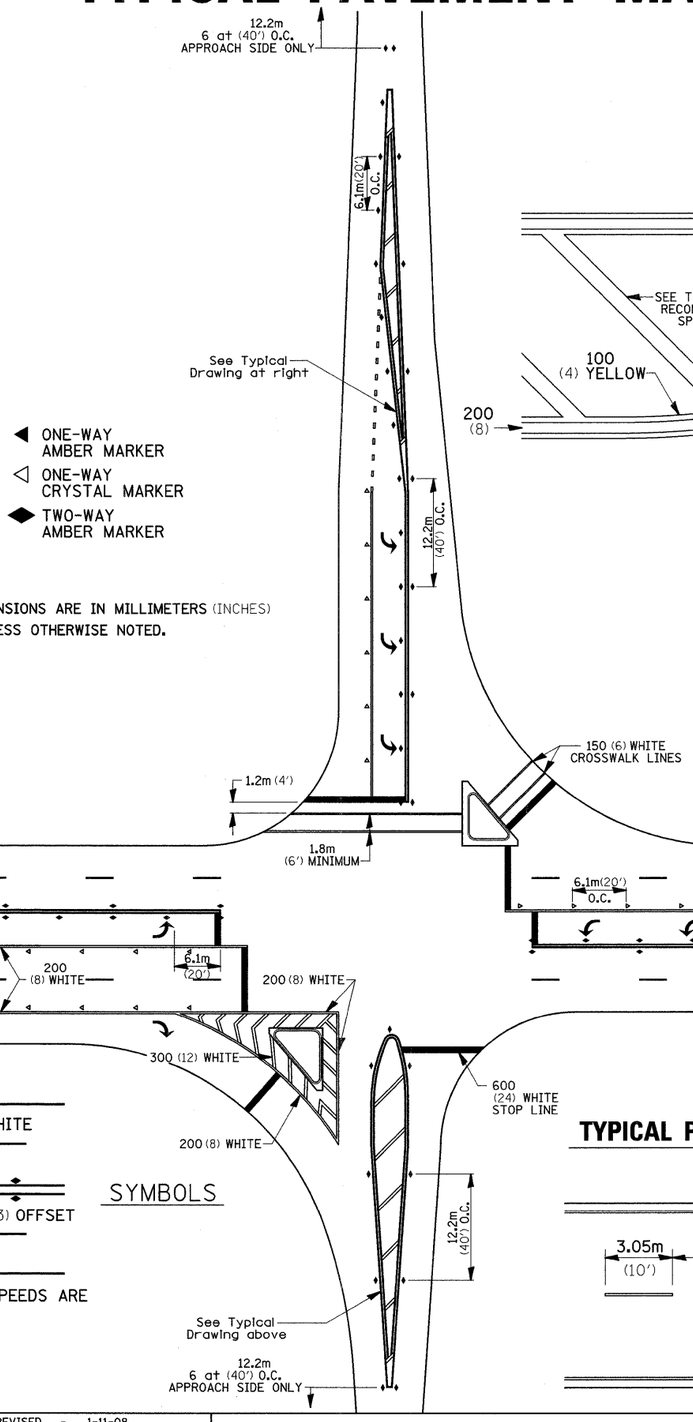
SCALE: | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	68
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TYPICAL PAVEMENT MARKINGS

ARROW LAYOUT



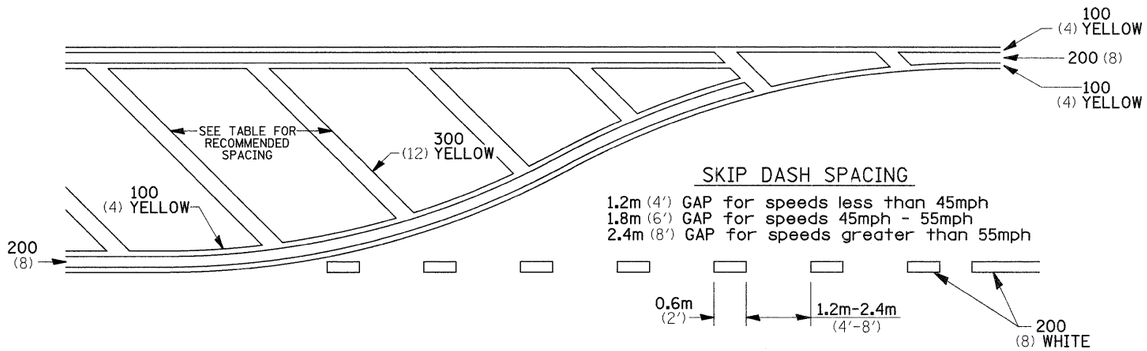


* REDUCE TO 12.2m (40') O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 15Km/H (10MPH) LOWER THAN POSTED SPEEDS.

** USE DOUBLE MARKERS WHEN ADT ≥ 25,000

MULTI-LANE / UNDIVIDED

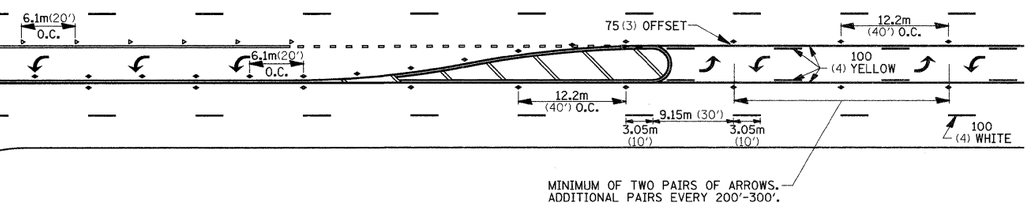
TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN



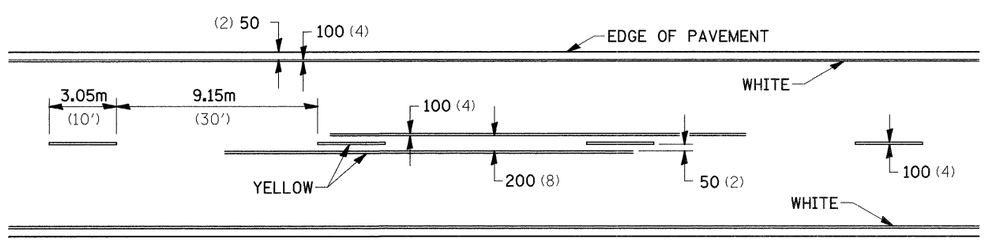
RECOMMENDED SPACING BETWEEN DIAGONALS (IN FEET)

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.



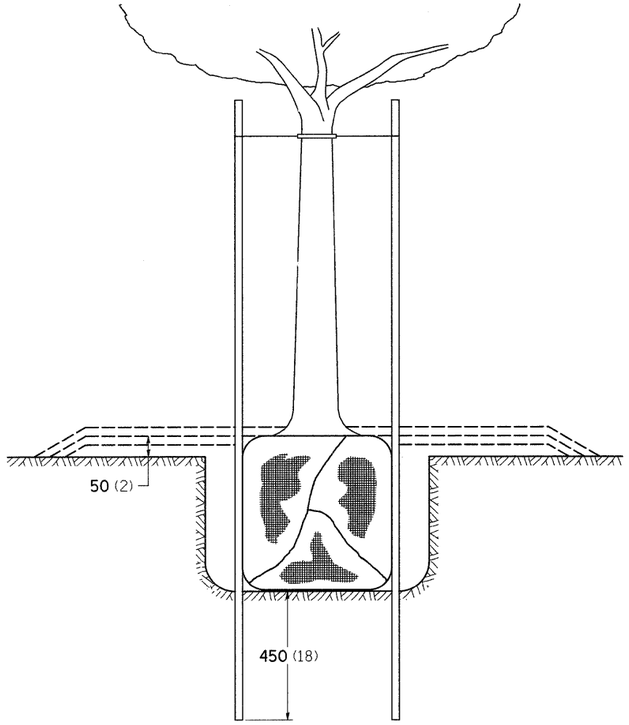
TYPICAL PAVEMENT MARKING FOR TWO LANE SECTION – NO PASSING ZONES



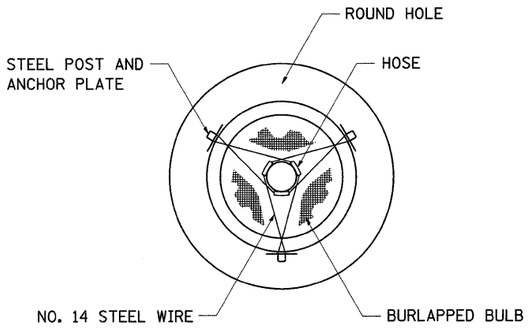
FILE NAME = c:\projects\p206006\d26006spl.dgn	USER NAME = hensonke	DESIGNED -	REVISED - 1-11-08	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2 / DISTRICT 2 STANDARD
		DRAWN -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -		
	PLOT DATE = Thu Jul 31 14:49:18 2008	DATE -	REVISED -		

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	69
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DETAILS OF PLANTING AND BRACING TREES

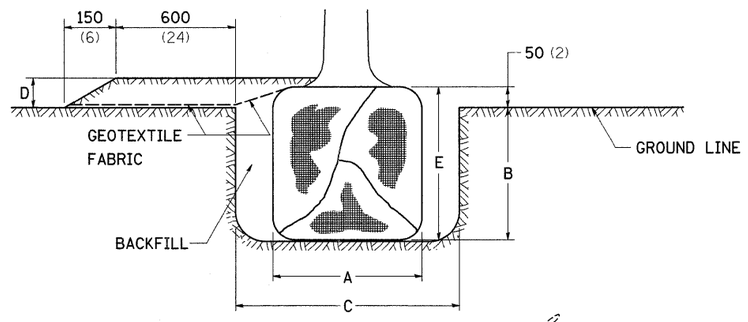


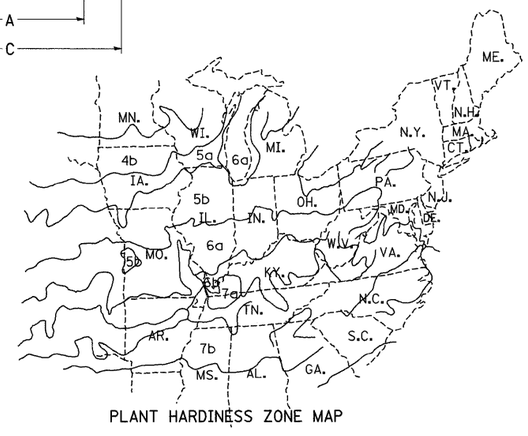
TREES SMALLER THAN 115 ($4\frac{1}{2}$) IN DIAMETER



SMALL TREE SIZE	A DIAMETER OF BALL OR ROOT SYS.	B DEPTH OF HOLE EXCAVATION	C WIDTH OF HOLE EXCAVATION	D THICKNESS OF MULCH COVER	E DEPTH OF BALL OR ROOT SYS.	F 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)

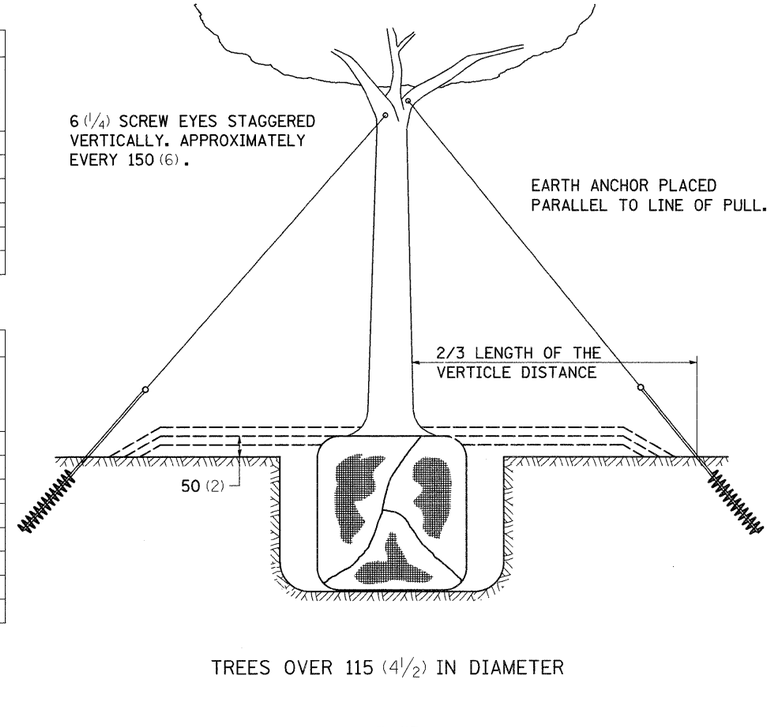
LARGE TREE SIZE	A DIAMETER OF BALL OR ROOT SYS.	B DEPTH OF HOLE EXCAVATION	C WIDTH OF HOLE EXCAVATION	D THICKNESS OF MULCH COVER	E DEPTH OF BALL OR ROOT SYS.	F VOLUME OF MULCH COVER m^3 (CU. YDS.)
0-50 (0-2)	500 (20)	275 (11)	900 (36)	100 (4)	325 (13)	0.47 (0.61)
50-65 ($2-2\frac{1}{2}$)BB	600 (24)	350 (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)



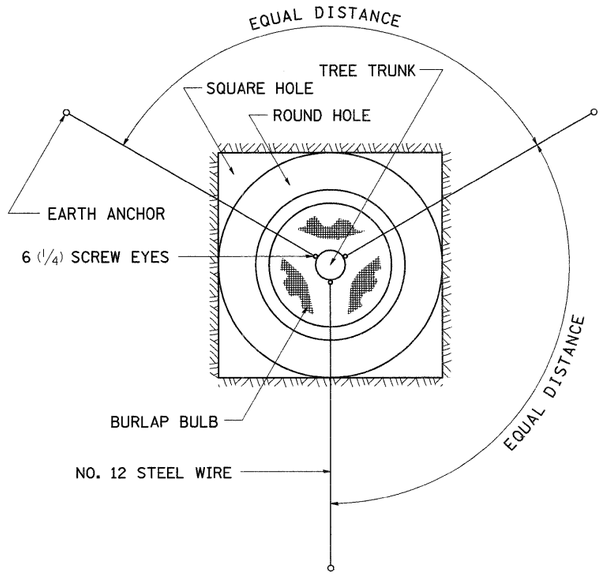


PLANT HARDINESS ZONE MAP

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



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



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

FILE NAME = c:\projects\p206006\d06006spl.dgn	USER NAME = hensonke	DESIGNED -	REVISED - 10-15-04
		DRAWN -	REVISED -
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 14:49:18 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

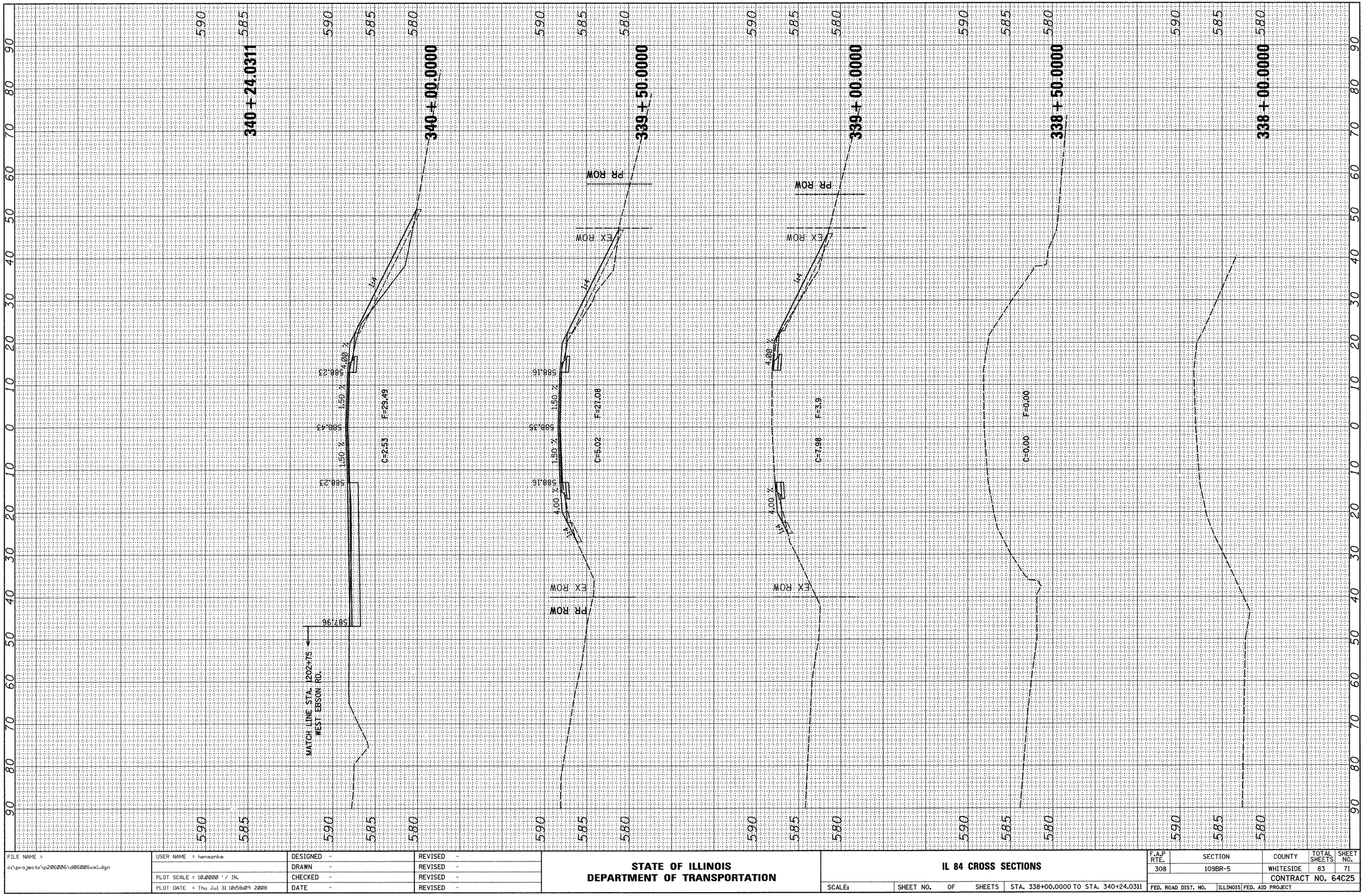
REGION 2 / DISTRICT 2 STANDARD

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	70
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DETAILS OF PLANTING AND BRACING TREES 92.1

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		

FILE NAME = c:\projects\p206026\d06006xml.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 10:58:09 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

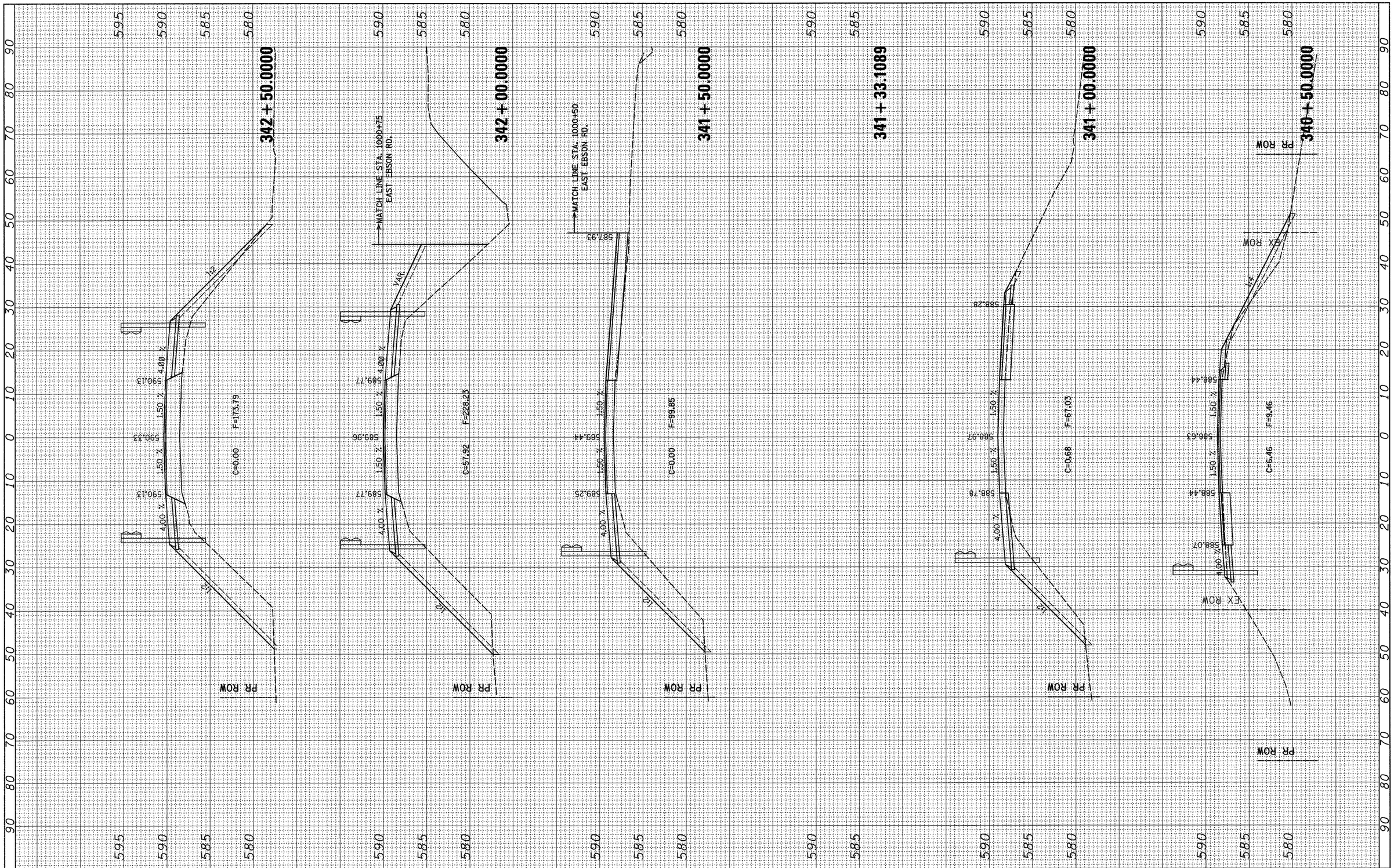
IL 84 CROSS SECTIONS

SCALE: | SHEET NO. OF SHEETS | STA. 338+00.0000 TO STA. 340+24.0311

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	71
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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		



FILE NAME =	USER NAME = hensonke	DESIGNED -	REVISED -
c:\projects\p206026\d06006xml.dgn		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 10:58:09 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

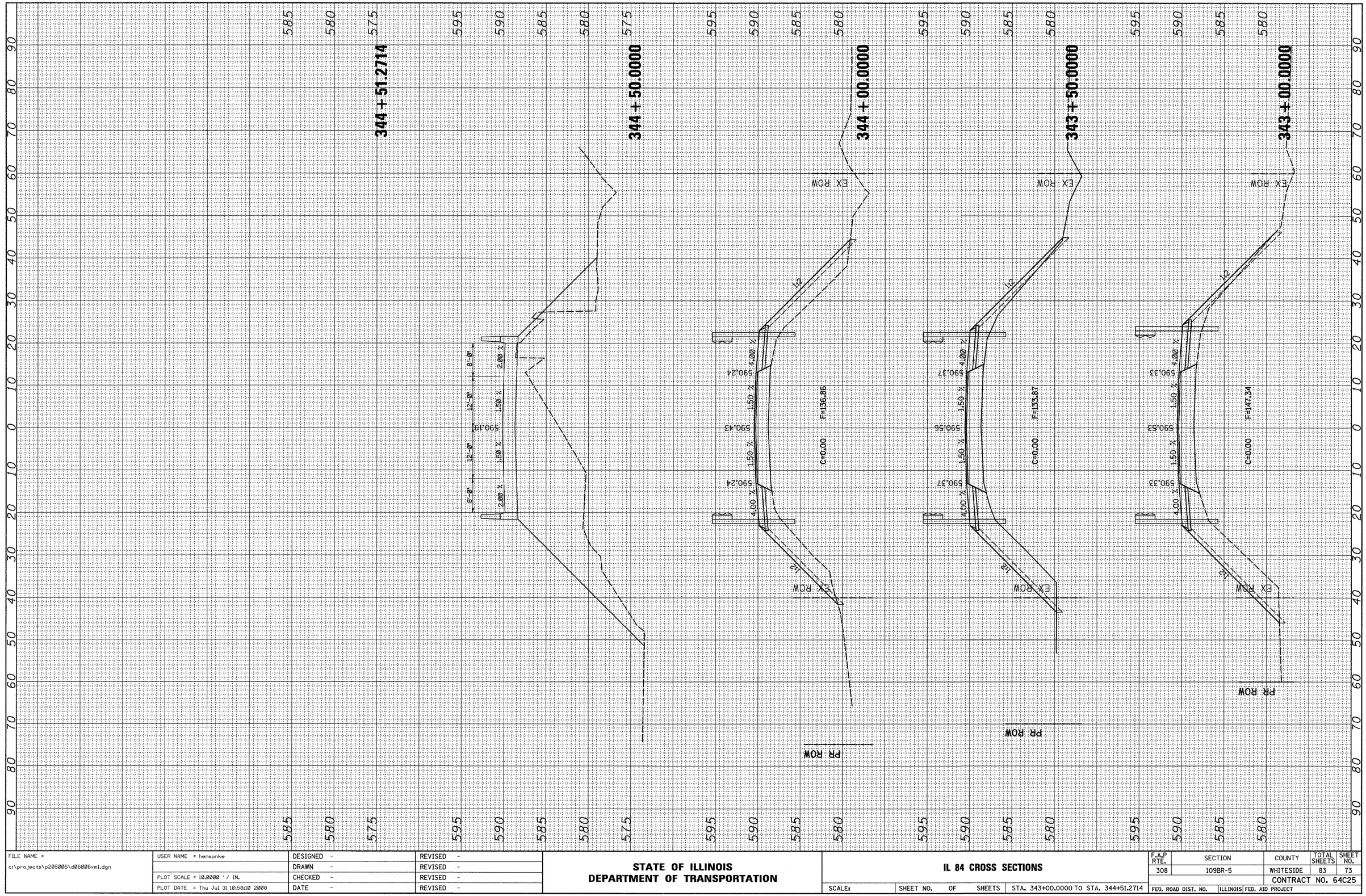
IL 84 CROSS SECTIONS

SCALE: | SHEET NO. OF SHEETS | STA. 340+50.0000 TO STA. 342+50.0000

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	72
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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



FILE NAME = c:\projects\p205006\d06006xml.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 10:58:10 2008	DATE -	REVISED -

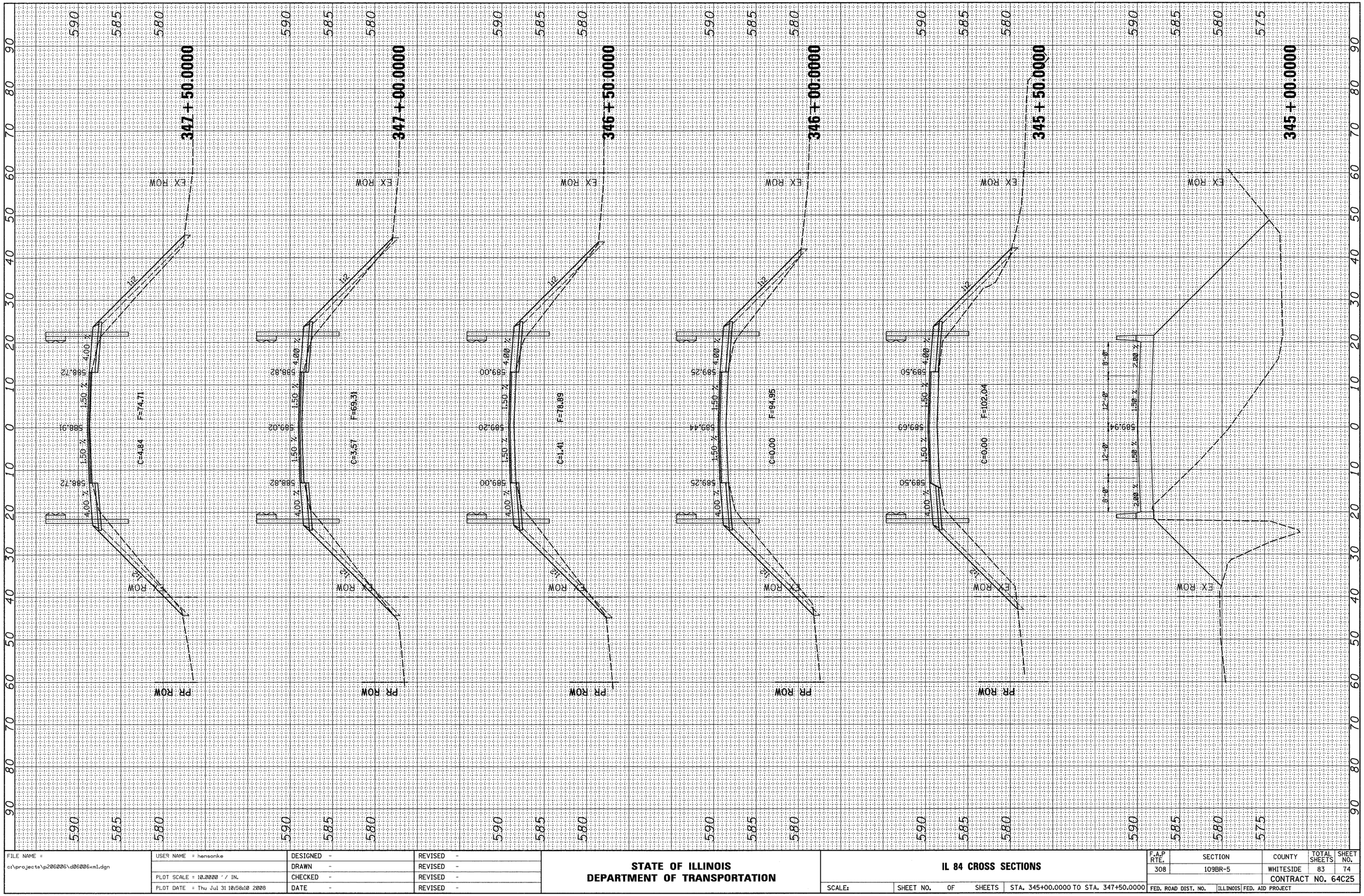
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 84 CROSS SECTIONS

SCALE: | SHEET NO. OF SHEETS | STA. 343+00.0000 TO STA. 344+51.2714

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	73
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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		

FILE NAME = c:\projects\p206026\d06026xml.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 10:58:10 2008	DATE -	REVISED -

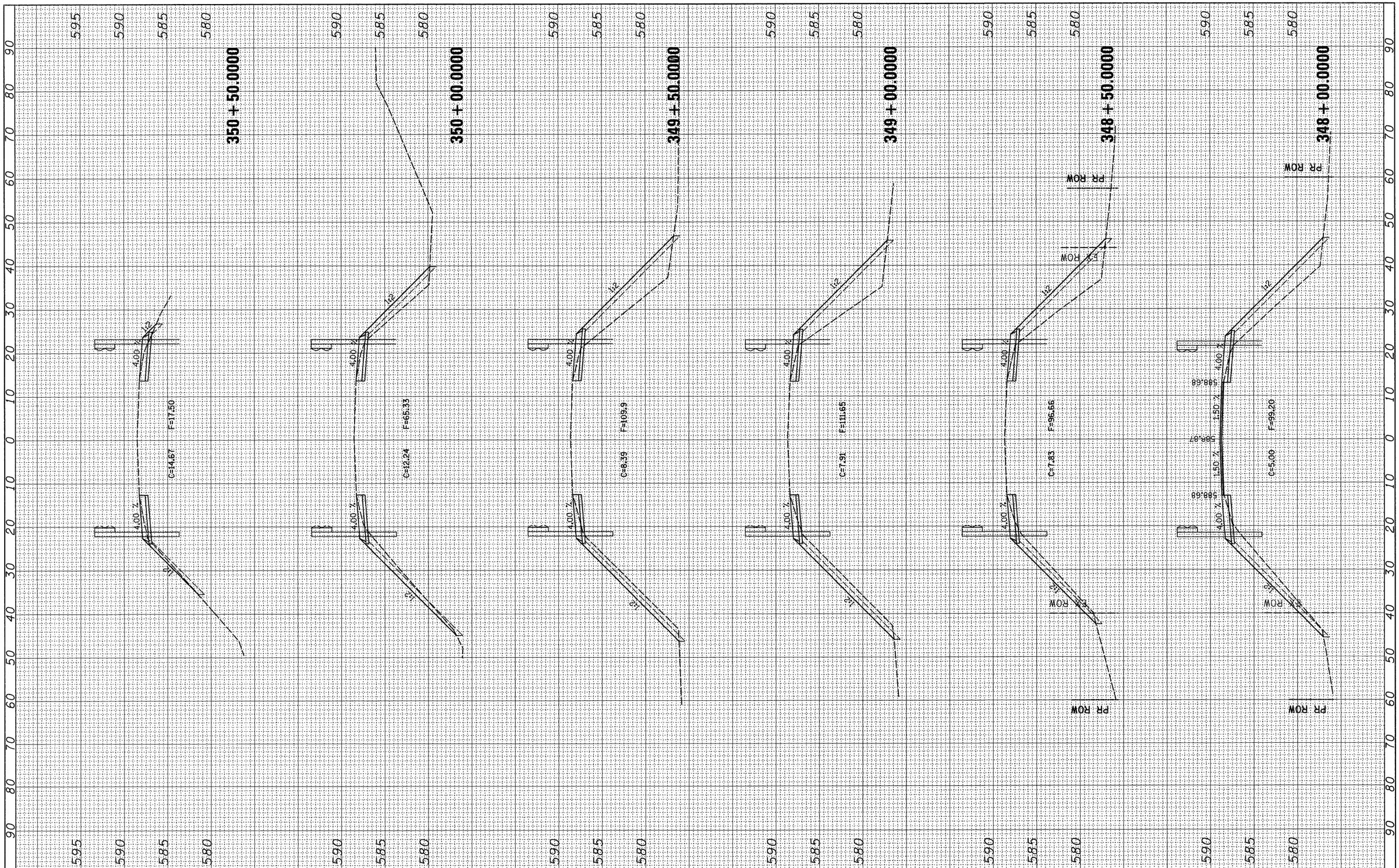
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 84 CROSS SECTIONS

SCALE: | SHEET NO. OF SHEETS | STA. 345+00.0000 TO STA. 347+50.0000

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	74
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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		

FILE NAME = c:\projects\p206006\d06006xml.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 10:58:10 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

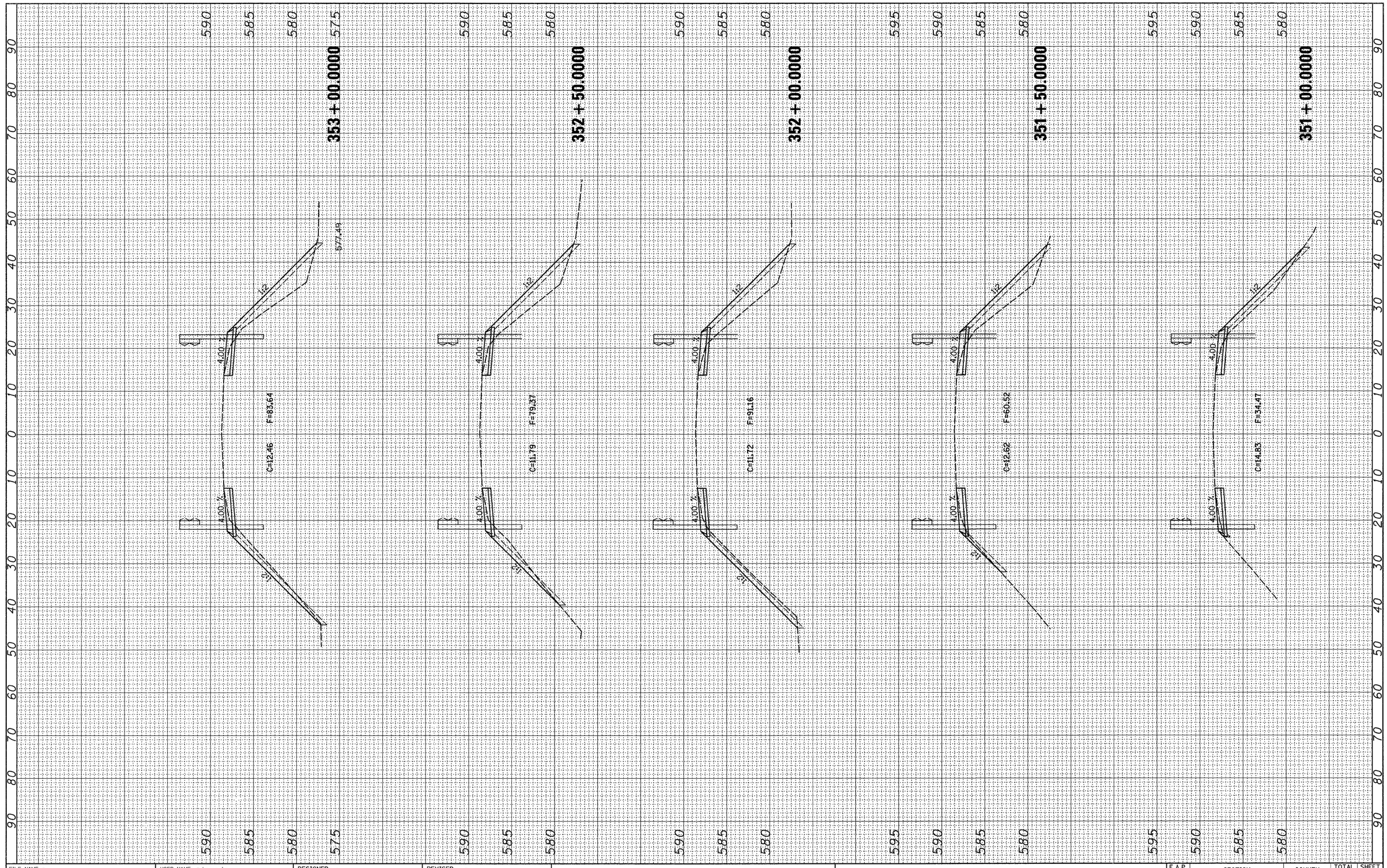
IL 84 CROSS SECTIONS

SCALE: | SHEET NO. OF SHEETS | STA. 348+00.0000 TO STA. 350+50.0000

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	75
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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



FILE NAME = c:\projects\p206026\d06006xml.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 10:58:10 2008	DATE -	REVISED -

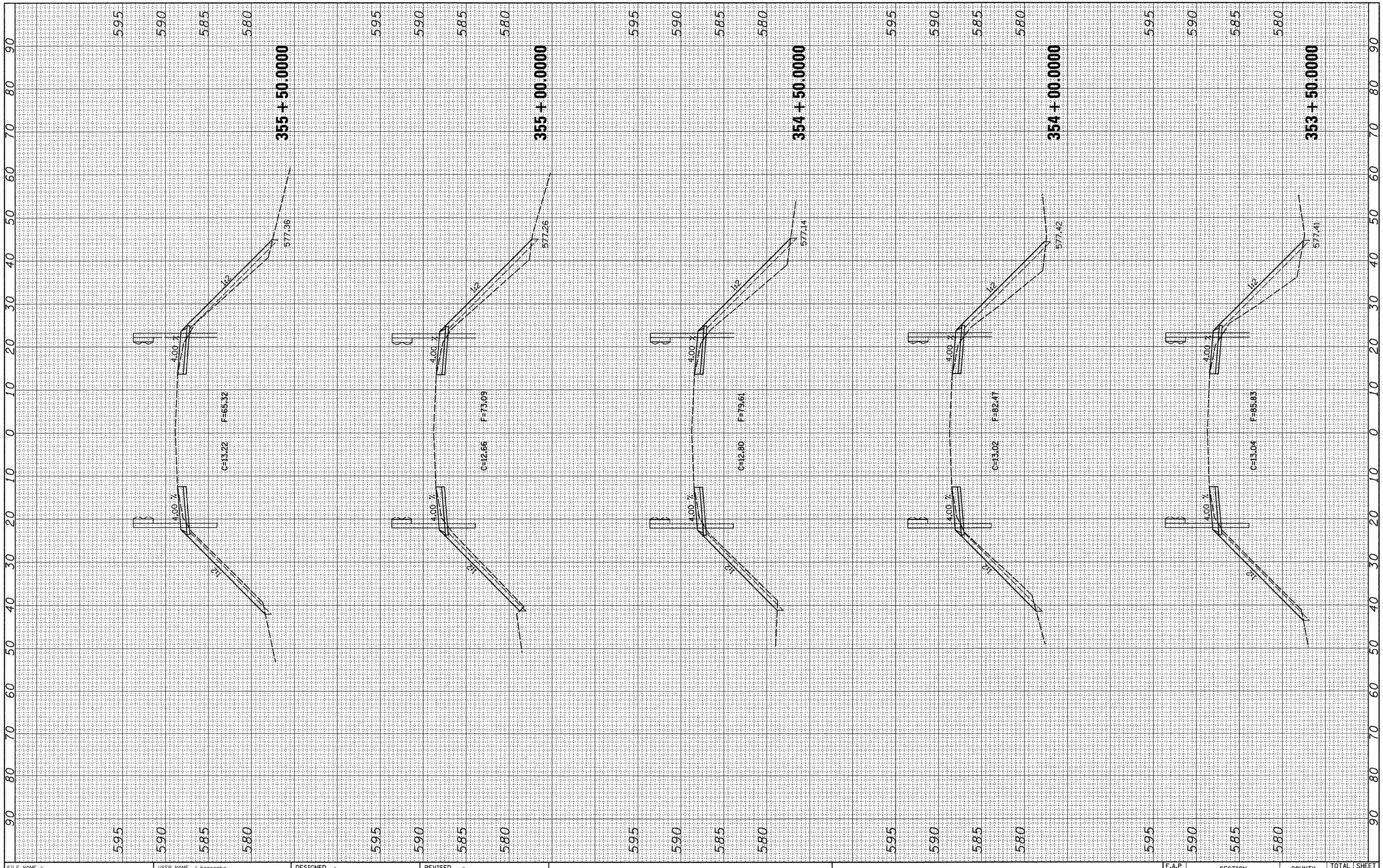
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 84 CROSS SECTIONS

SCALE: | SHEET NO. OF SHEETS | STA. 351+00.0000 TO STA. 353+00.0000

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	76
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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



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

FILE NAME = c:\projects\p206006\d06006xml.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 10:58:11 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

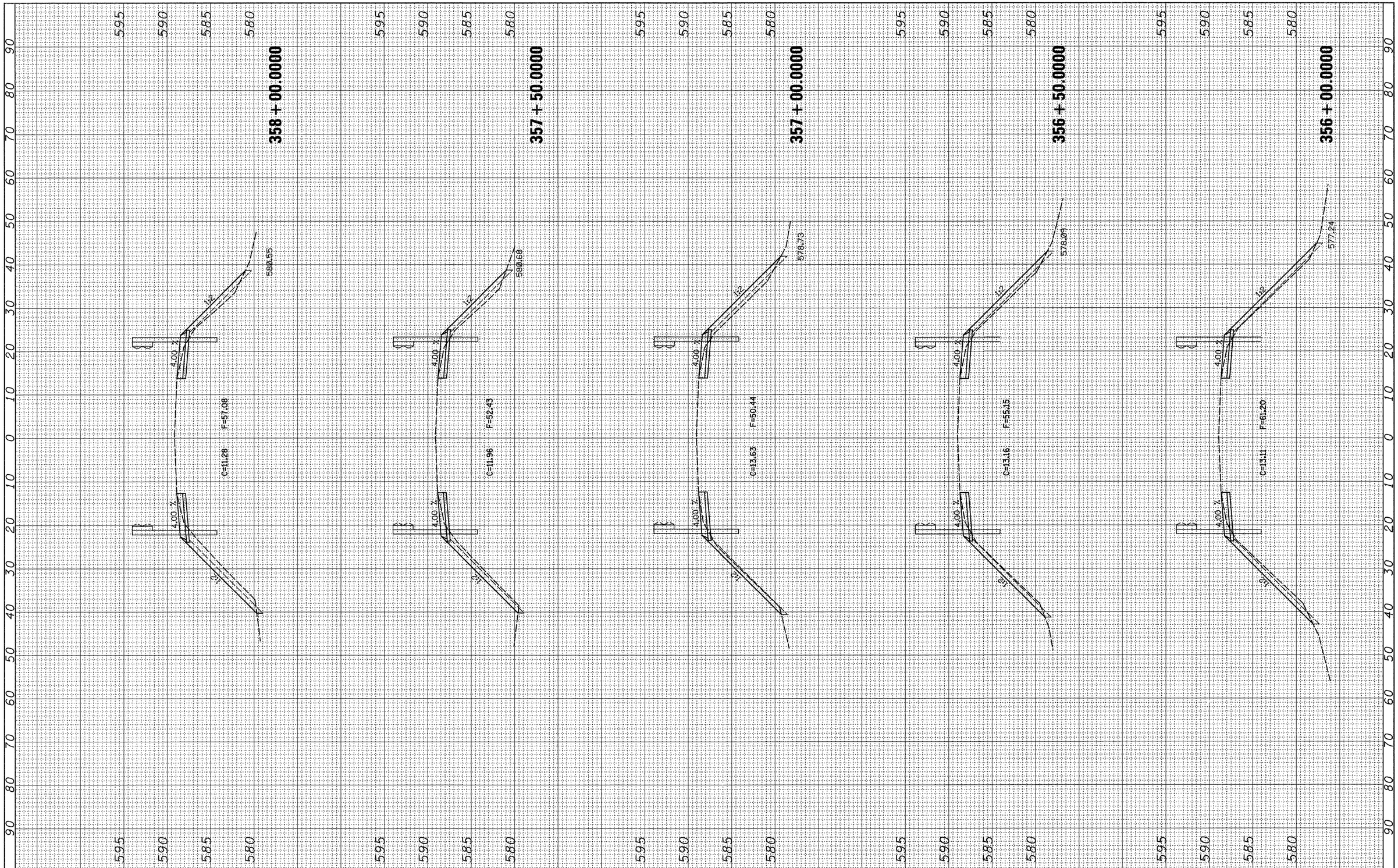
IL 84 CROSS SECTIONS

SCALE: | SHEET NO. OF SHEETS | STA. 353+50.0000 TO STA. 355+50.0000

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	77
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

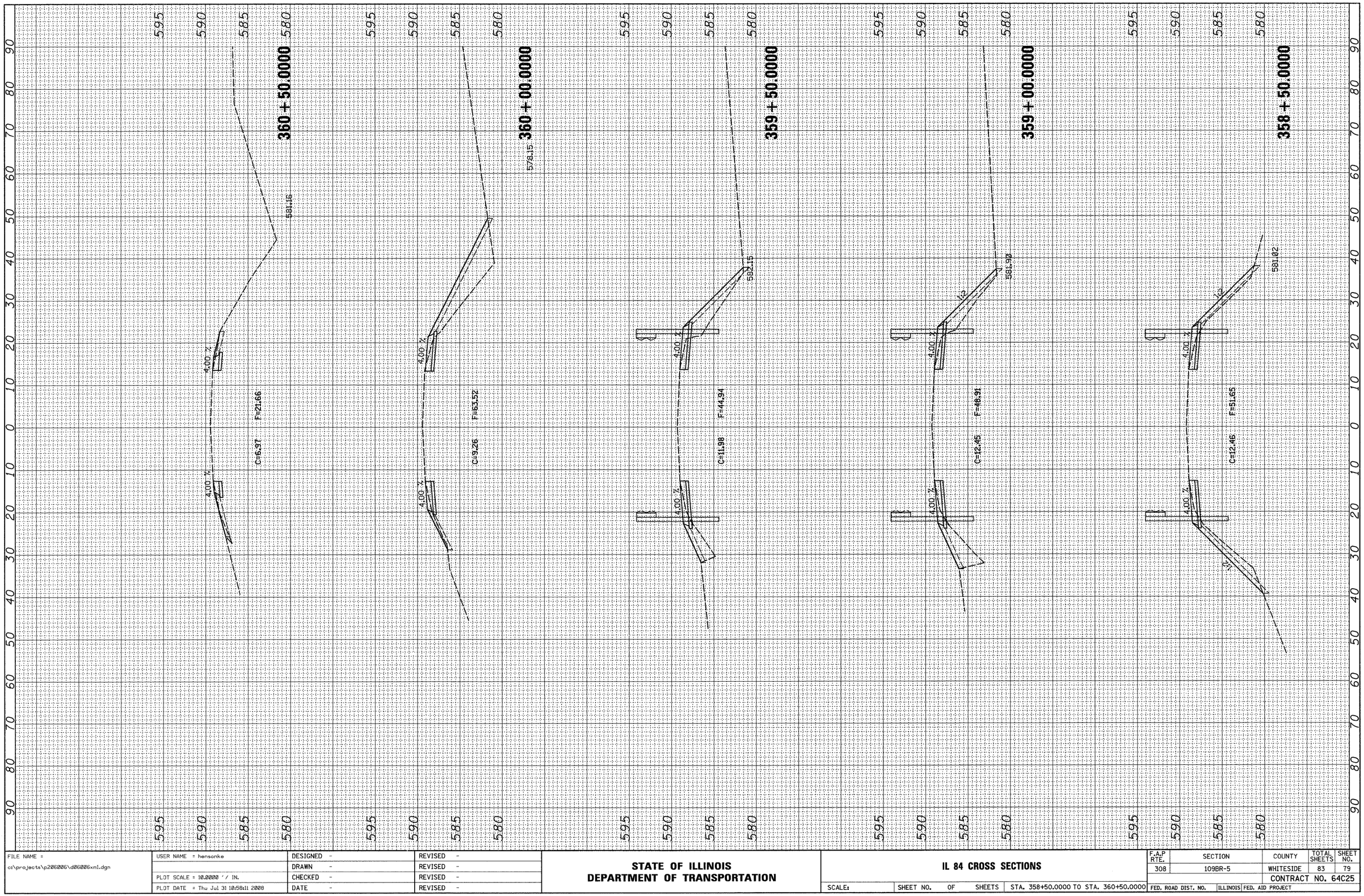
FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		

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


358+00.0000
357+50.0000
357+00.0000
356+50.0000
356+00.0000
4.00 %
4.00 %
4.00 %

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

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



FILE NAME = c:\projects\p206006\d06006xml.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 10:58:11 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

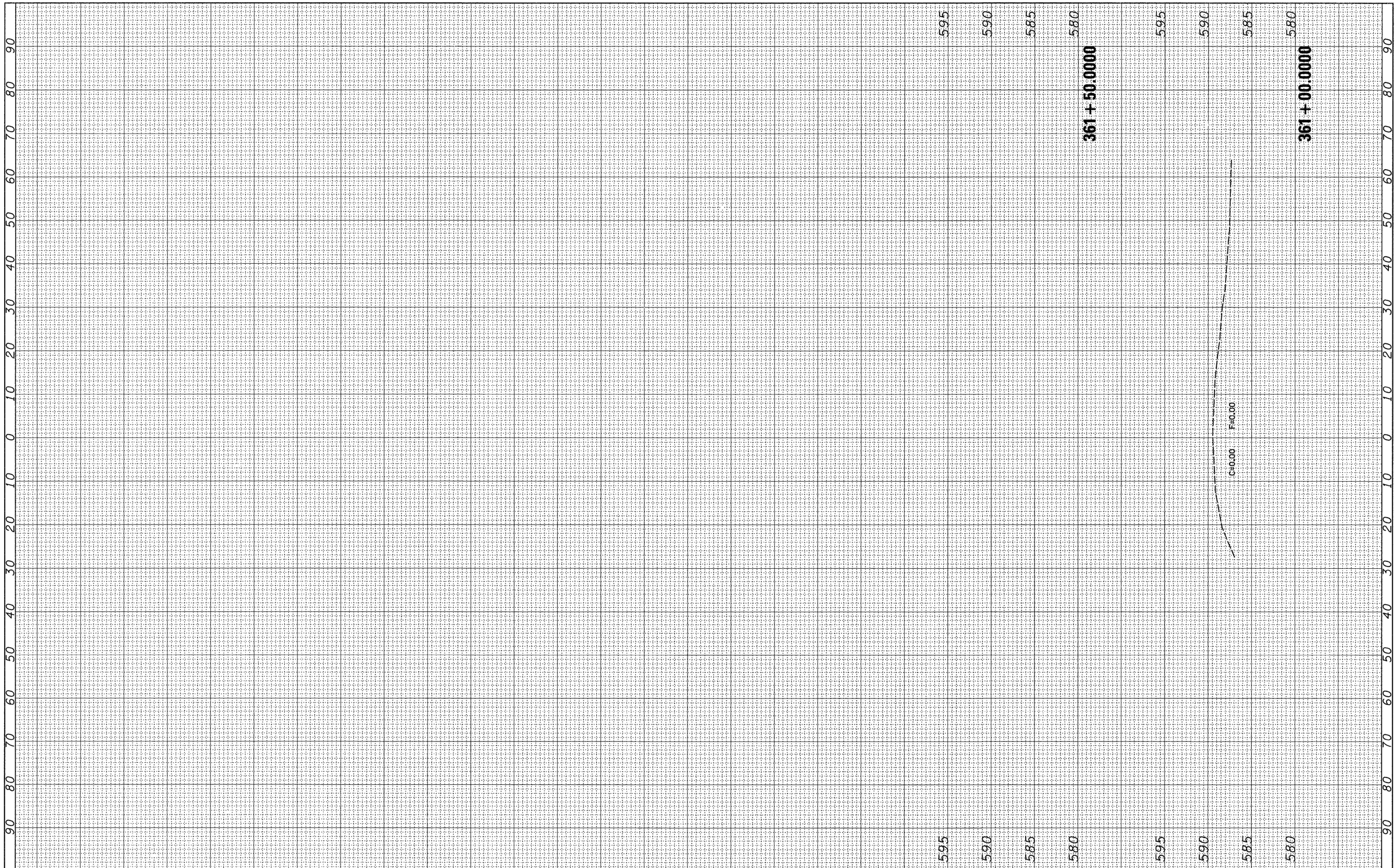
IL 84 CROSS SECTIONS

SCALE: | SHEET NO. OF SHEETS | STA. 358+50.0000 TO STA. 360+50.0000

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	79
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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		



FILE NAME = c:\projects\p206026\d06026xml.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 10:58:11 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

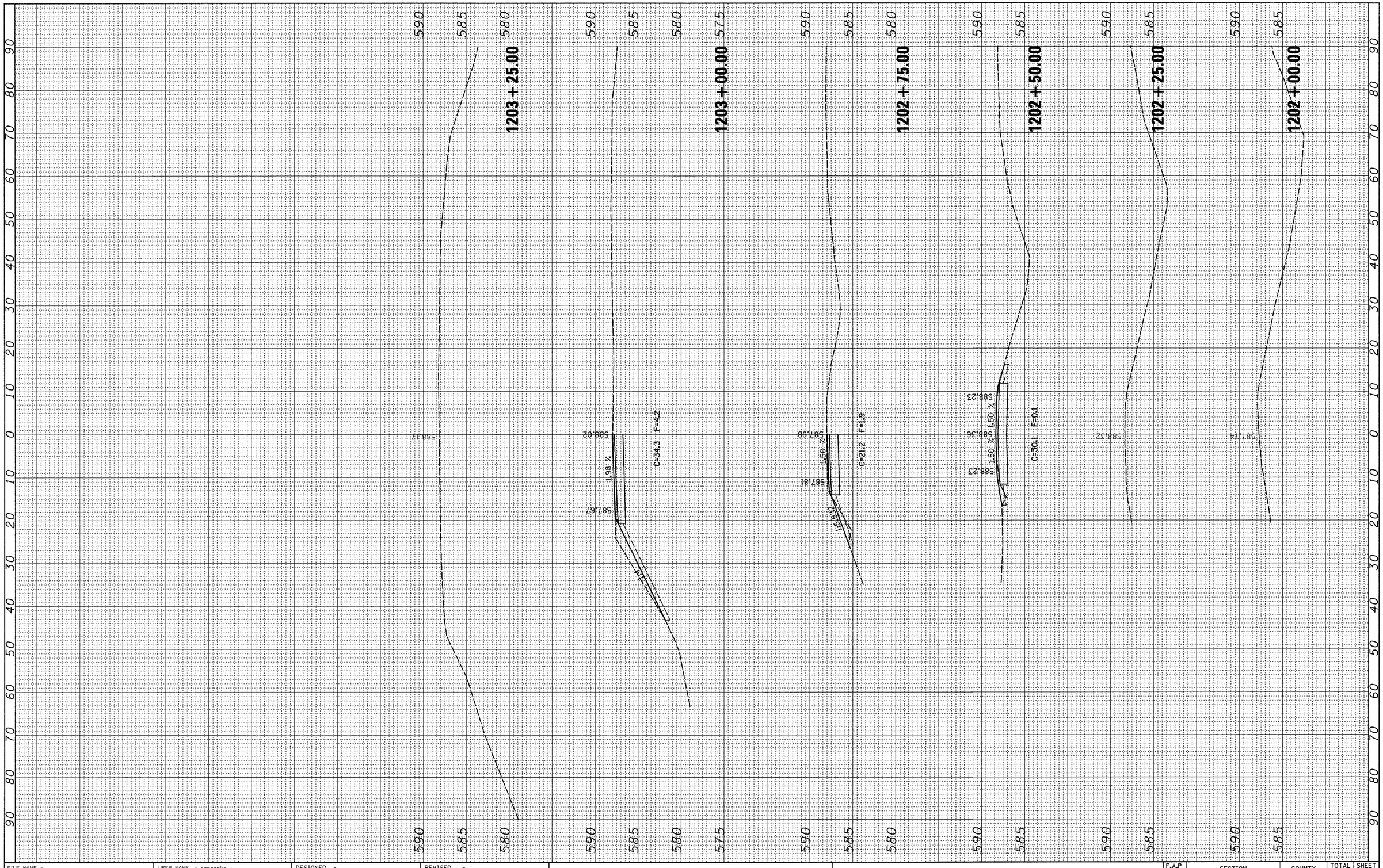
IL 84 CROSS SECTIONS

SCALE: | SHEET NO. OF SHEETS | STA. 361+00.0000 TO STA. 361+50.0000

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	80
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

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



FILE NAME =	USER NAME = hensonke	DESIGNED -	REVISED -
c:\projects\p206006\d06026xsl.dgn		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 10:59:45 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

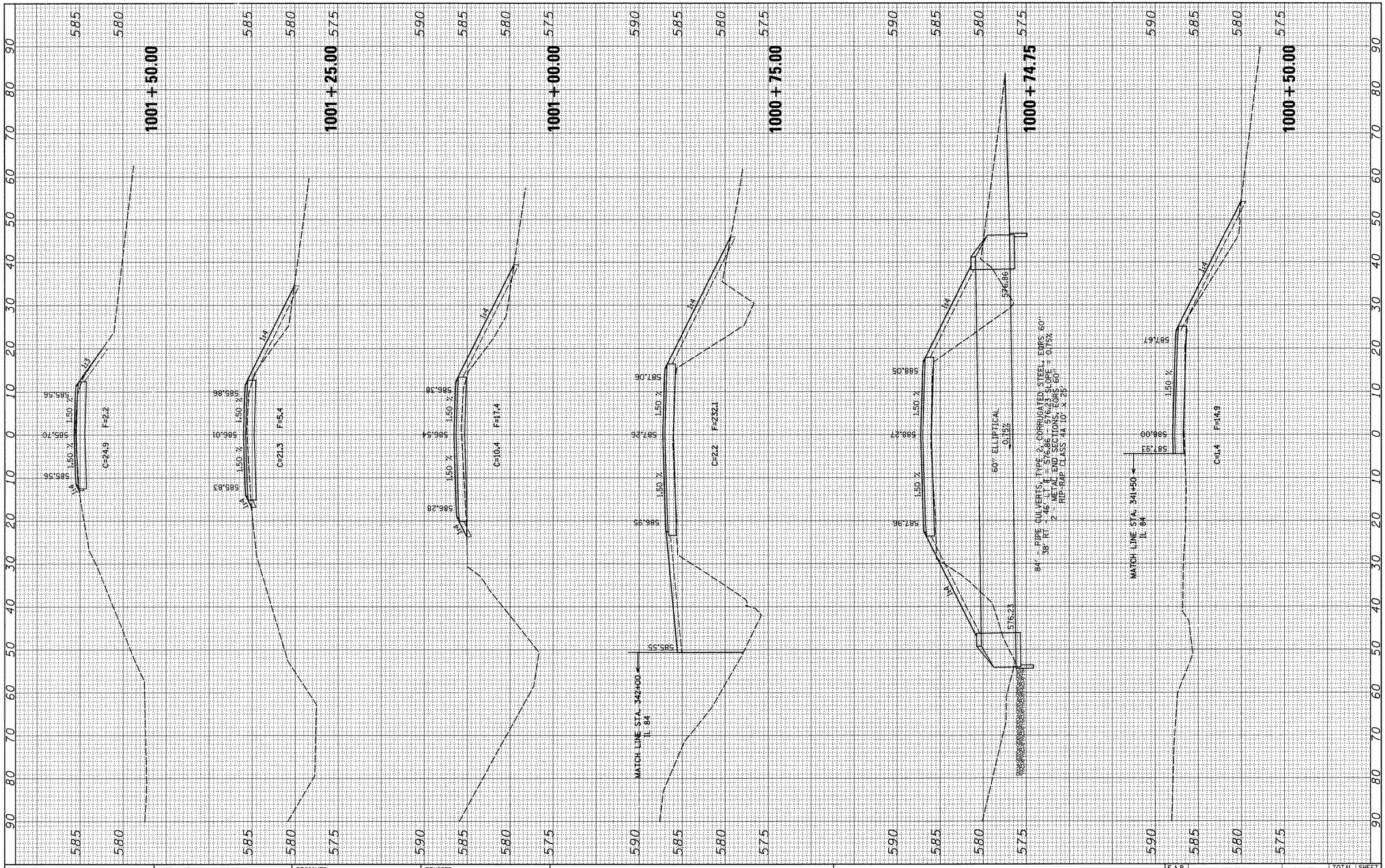
W EBSON CROSS SECTIONS

SCALE: | SHEET NO. OF SHEETS | STA. 1202+00.00 TO STA. 1203+25.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	81
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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		



FILE NAME =	USER NAME = hensonke	DESIGNED -	REVISED -
c:\projects\p206006\d06006xsl.dgn		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 10:59:45 2008	DATE -	REVISED -

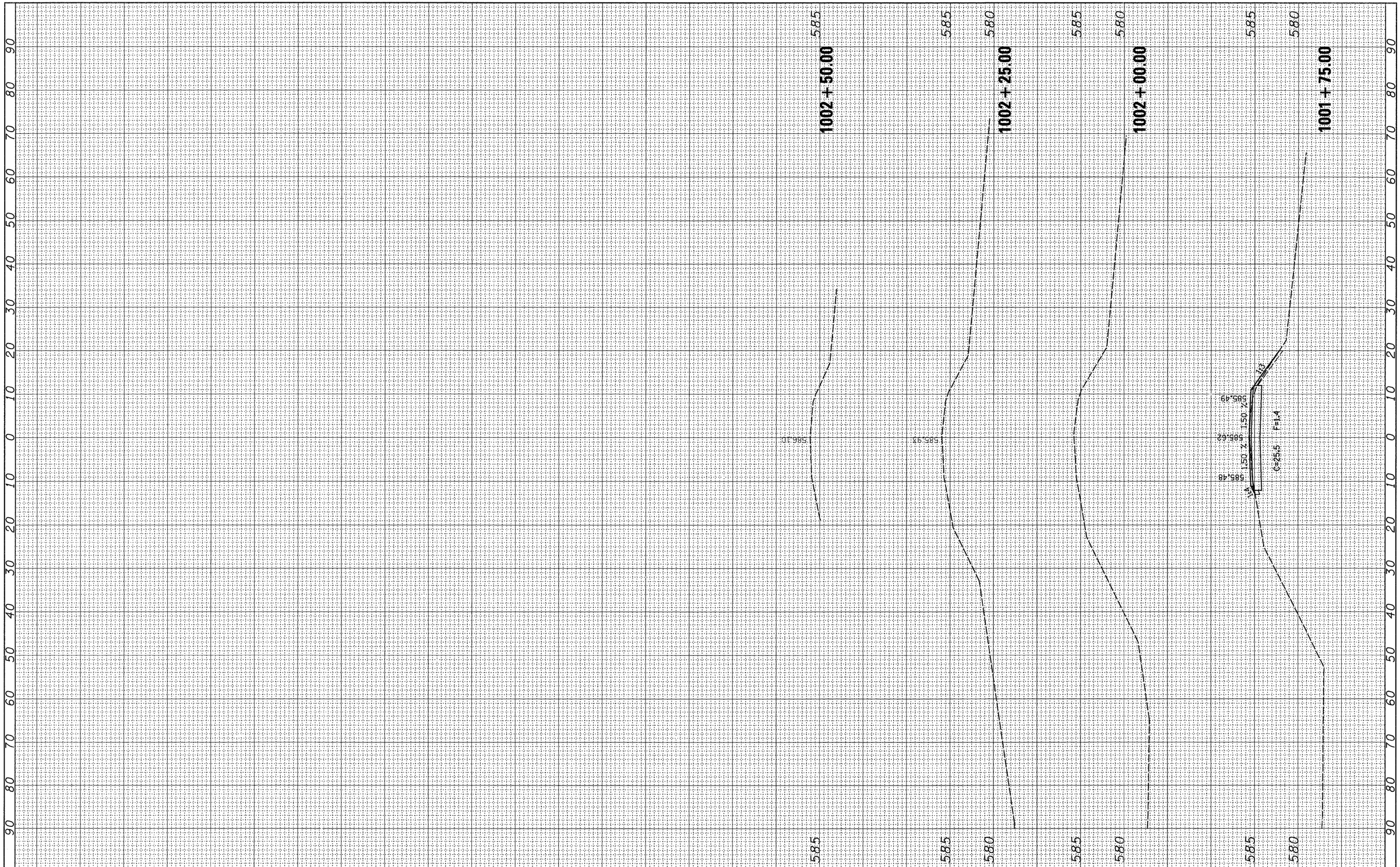
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

E EBSON CROSS SECTIONS

SCALE: | SHEET NO. OF SHEETS | STA. 1000+50.00 TO STA. 1001+50.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	82
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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		

FILE NAME = c:\projects\p206006\d06006xsl.dgn	USER NAME = hensonke	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 10.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Thu Jul 31 10:59:45 2008	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

E EBSON CROSS SECTIONS

SCALE: | SHEET NO. OF SHEETS | STA. 1001+75.00 TO STA. 1002+50.00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	109BR-5	WHITESIDE	83	83
		CONTRACT NO. 64C25		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		