9-22-06 Letting, Item 007

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	1

* 144SBR-2 & 22VBR-1

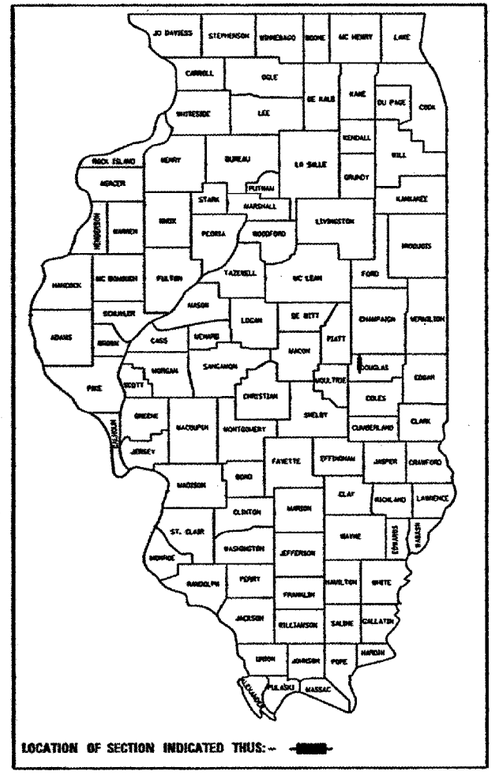
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

F.A.S. ROUTE 1671 (U.S. RTE. 45)
SECTION 144SBR-2 & 22VBR-1
PROJECT BRS-1671(108)
DOUGLAS COUNTY

C-95-100-02
BRIDGE REPLACEMENT
OVER UP & CSX RR & OVER U.S. 36 AT TUSCOLA

D-95-052-02



LOCATION OF SECTION INDICATED THUS:- ■

PROJECT ENGINEER: KEVIN TRAPP (217)465-4111

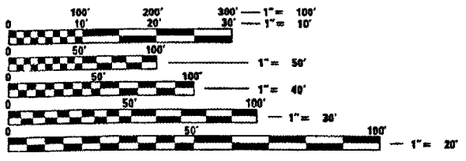
SQUAD LEADER: CHRIS GREESON

CURRENT ADT

F.A.S. 1671 (U.S. RTE. 45) = 2650 (2003)

DESIGN DESIGNATION

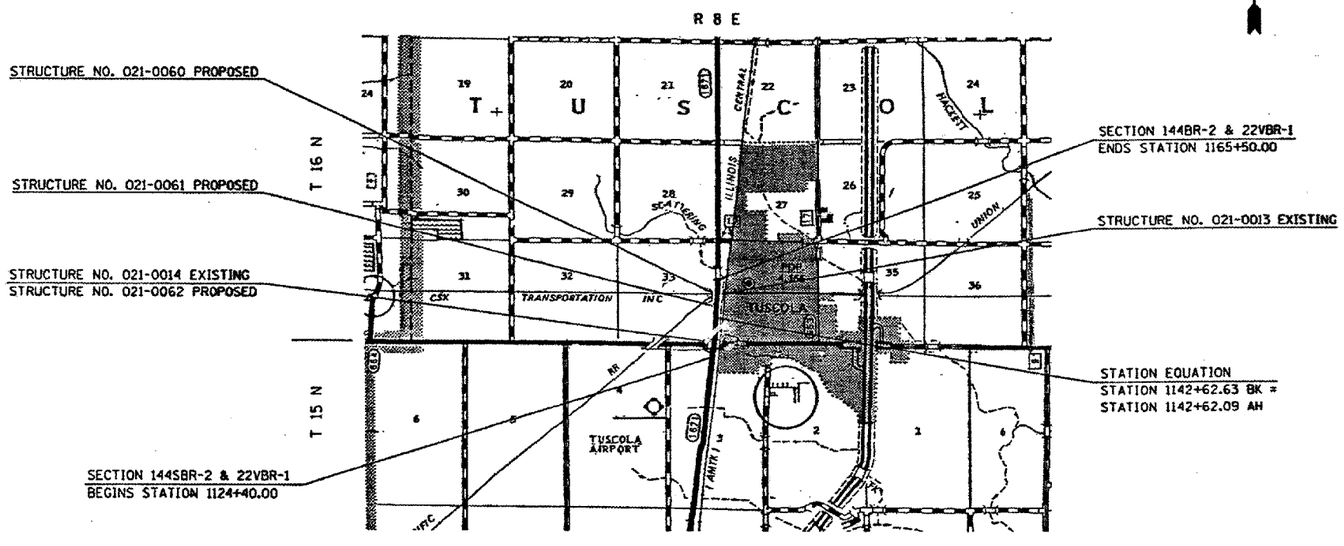
2910 (17) COLLECTOR 3.81 (FD-20)



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 TUSCOLA TOWNSHIP

CONTRACT NO. 70258



TOTAL LENGTH OF SECTION & PROJECT = 4,110.54 FEET = 0.779 MILES
NET LENGTH OF SECTION & PROJECT = 4,110.54 FEET = 0.779 MILES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED JULY 5, 20 06

DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

August 18, 20 06
Mike Hine
ENGINEER OF DESIGN AND ENVIRONMENT

August 18, 20 06
Milton R. Sees, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

PLOT DATE = 7/5/2006
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CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	2
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1

INDEX OF SHEETS

LIST OF STANDARDS

STANDARD NO.	DESCRIPTION
000001-04	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-02	TEMPORARY EROSION CONTROL SYSTEMS
420001-06	PAVEMENT JOINTS
420101-03	7.2 M (24') JOINTED PCC PAVEMENT
420401-05	BRIDGE APPROACH PAVEMENT
421001-01	BAR REINFORCEMENT FOR CRC PAVEMENTS
482001	BITUMINOUS SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
482006-01	BITUMINOUS SHOULDER ADJACENT TO RIGID PAVEMENT
482011-01	BIT. SHOULDER STRIPS/SHOULDERS WITH RESURFACING OR WIDENING AND RESURFACING PROJECTS
483001-02	PCC SHOULDER
515001-02	NAME PLATE FOR BRIDGES
542101	REINFORCED CONCRETE END SECTIONS FOR PIPE CULVERTS 375 MM (15") THRU 900 MM (36") DIAMETER AT RIGHT ANGLES WITH ROADWAY
542201	REINFORCED CONCRETE END SECTIONS FOR PIPE CULVERTS, 375 MM (15") THRU 900 MM (36") DIAMETER SKEWED WITH ROADWAY
542401	METAL END SECTION FOR PIPE CULVERTS
602011	CATCH BASIN, TYPE C
604091-01	FRAME AND GRATE, TYPE 24
606001-02	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
606201	TYPE B GUTTER (INLET, OUTLET, AND ENTRANCE)
606301-02	PC CONCRETE ISLANDS AND MEDIANS
610001-02	SHOULDER INLET WITH CURB
630001-06	STEEL PLATE BEAM GUARDRAIL
630301-03	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631011-02	TRAFFIC BARRIER TERMINAL, TYPE 2
631031-05	TRAFFIC BARRIER TERMINAL, TYPE 6
631032-02	TRAFFIC BARRIER TERMINAL, TYPE 6A
635001	DELINEATORS
635006-02	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-01	REFLECTOR MARKER AND MOUNTING DETAILS
666001	RIGHT-OF-WAY MARKERS
667101	PERMANENT SURVEY MARKERS
701001-01	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 4.5 M (15') AWAY
701006-02	OFF-ROAD OPERATIONS, 2L, 2W, 4.5 M (15') TO 600 MM (24") FROM PAVEMENT EDGE
701201-02	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS >= 45 MPH
701301-02	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
702001-06	TRAFFIC CONTROL DEVICES
720011-01	METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS
780001-01	TYPICAL PAVEMENT MARKINGS
781001-02	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

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USER NAME = piersonbr

ILLINOIS DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS &
LIST OF STANDARDS

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: NOT TO SCALE — DRAWN BY: B.B.P.
DATE: 06/19/06 — CHECKED BY: C.R.G.

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	3
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1

GENERAL NOTES

SHEET 1 OF 2

G.N. -100
ENGLISH UNITS OF MEASUREMENT SHALL GOVERN OVER AND SUPERSEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.

G.N. -105.09A
ALL ELEVATIONS SHOWN IN THE PLANS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988. (NAVD 88)

G.N. -107.12
THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE LOCAL RAILROAD CONTACT IS:

CN/IC

Mr. Hardy Taylor
1907 Marion Ave
Mattoon, IL 61938
(217) 238-2443

CSX Transportation

Mr. Gale Free
Roadmaster
CSX Transportation
564 CSX Lane
Danville, IL 61834

Union Pacific Railroad

Mr. David W. McKernan
Manager Industry & Public Projects
Union Pacific Railroad Company
100 North Broadway, Suite 1500
St. Louis, MO 63102
(314) 331-0682

SPECIAL ATTENTION IS CALLED TO ARTICLE 107.12 REGARDING RAILROAD FLAGGERS. THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE RAILROAD CONTACT PERSON FOR FLAGGERS IS:

CN/IC

Mr. Tom Tucker
2800 Livernois Rd.
Troy, MI 48083
(248) 740-6227

CSX Transportation

David Clifford
CSX Transportation
1700 West 167th Street
Calumet City, IL 60409
(708) 832-2170

Union Pacific Railroad

Mr. S J Iman
Union Pacific Railroad
853 Edgewood Road
Salem, IL 62881
(618) 548-7154

G.N. -107.31
UTILITY LINES WERE PLOTTED FROM INFORMATION FURNISHED BY THE VARIOUS UTILITY COMPANIES INVOLVED (QUALITY LEVEL C &/OR QUALITY LEVEL D) AND THE ACCURACY SHOULD BE CONSIDERED APPROXIMATE ONLY.

UTLILITY COMPANIES MAY BE ADJUSTING THEIR FACILITIES DURING CONSTRUCTION. THE CONTRACTOR SHALL COOPERATE WITH THESE ORGANIZATIONS WHILE THESE ADJUSTMENTS ARE BEING PERFORMED. J.U.L.I.E. - JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS SYSTEM (800)892-0123.

G.N. -201
TREES THAT INTERFERE WITH THE CONSTRUCTION OPERATIONS SHALL BE REMOVED AS DIRECTED BY THE ENGINEER. ANY TREE DUE TO ITS LOCATION AND DEEMED SUITABLE FOR SAVING BY THE ENGINEER SHALL BE PROTECTED DURING CLEARING AND SUBSEQUENT CONSTRUCTION OPERATIONS.

G.N. -205
BENCHING PROCEDURES SHALL BE USED IN AREAS WHERE EXISTING EMBANKMENTS ARE WIDENED FOR THE PROPOSED PAVEMENT. STEPS SHALL BE CUT INTO THE EXISTING EMBANKMENT SLOPES AND SHALL HAVE THE FOLLOWING DIMENSIONS:

1:2 SLOPES	HORIZONTAL:	1
	VERTICAL:	2
1:3 SLOPES	HORIZONTAL:	1
	VERTICAL:	3

G.N. -302
WHERE SMALL QUANTITIES OF LIME MODIFICATION ARE SHOWN IN THE PLANS, SUBBASE GRANULAR MATERIAL, TYPE A MAY BE SUBSTITUTED AND CONSTRUCTED ACCORDING TO THE APPLICABLE PORTIONS OF SECTION 311. THE DEPTH OF THE SUBBASE GRANULAR MATERIAL SHALL BE THE SAME AS THE PROPOSED DEPTH OF THE LIME MODIFICATION. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR PROCESSING LIME MODIFIED SOILS OF THE DEPTH SPECIFIED. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

G.N. -406
THE QUANTITIES INCLUDED IN THE PLANS FOR BITUMINOUS CONCRETE RESURFACING ARE INTENDED TO GIVE THE COVERAGE SHOWN ON THE TYPICAL CROSS SECTIONS. IT IS NOT INTENDED TO INCREASE THE THICKNESS OF THE BITUMINOUS MIXTURE IN ORDER TO USE ALL OF THE QUANTITIES INCLUDED IN THE CONTRACT.

G.N. -406D
ALL LEVELING BINDER OR BINDER SHALL BE GIVEN A FOG COAT OF PRIME BEFORE THE SURFACE COURSE IS PLACED WHEN DIRECTED BY THE ENGINEER.

THE FOG COAT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER GALLON FOR BITUMINOUS MATERIAL (PRIME COAT) AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES
F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY
Sheet 1 of 2

SCALE: NOT TO SCALE — DRAWN BY: B.B.P.
DATE: 06/19/06 — CHECKED BY: C.R.G.

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FILE NAME = c:\projects\d505202 (v8)\70258text.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = plersonbr

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	4
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

GENERAL NOTES

SHEET 2 OF 2

G. N. -406H

MIXTURE REQUIREMENTS

The following mixture requirements are applicable for this project:

Location(s):	US 45	US 45	US45	US45
Mixture Use(s):	Flex Conn, Binder & Bottom 11.25" of F.D. Pvmt.	Incidental, Surface & Top 2" of F.D. Pvmt.	Bottom 6" of Bit Shldr 8"	Top 2" Bit Shldr 8"
AC/PG:	PG 64-22	PG 64-22	PG 58-22	PG 58-22
RAP %: (Max)••	25	15	30	30
Design Air Voids:	4.0% @ Ndes=50	4.0% @ Ndes=50	2.0% @ Ndes=30	3.0% @ Ndes=30
Mixture Composition: (Gradation Mixture)	IL 19.0	IL 9.5	B.A.M.	IL 9.5L
Friction Aggregate:	N.A	Mix C	N.A.	MixC

G. N. -482
ALL MATERIAL PLACED AS BITUMINOUS SHOULDERS SUPERPAVE SHALL BE COMPACTED TO 94.0-98.4 PERCENT OF THE MAXIMUM THEORETICAL DENSITY. THIS REQUIREMENT SHALL APPLY TO BOTH B.A.M. AND IL 9.5L GRADATION SHOULDER MIXES. THIS MAXIMUM DENSITY SHALL BE DETERMINED FROM THE MOVING AVERAGE OF FOUR TESTS AS IN OTHER QC/QA TESTING. A NUCLEAR GAUGE DENSITY/CORE CORRELATION SHALL BE PERFORMED FOR BOTH THE B.A.M. AND IL 9.5L MIXES USING STANDARD CORRELATION PROCEDURES.

G. N. -502.10
THE CUBICAL DEPOSIT OF COARSE AGGREGATE SHALL BE COMPLETELY ENCLOSED IN A FABRIC ENVELOPE. THE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF THE APPLICABLE PORTIONS OF SECTION 1080 AND SECTION 282 WITH EITHER THE 6 OZ. OR 8 OZ. PER SQUARE YARD MATERIAL ALLOWED. FREE EDGES SHALL OVERLAP BY 12 INCHES.

THIS REQUIREMENT WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS INCLUDED IN THE VARIOUS ITEMS REQUIRING PLACEMENT OF THE CUBICAL DEPOSITS OF COARSE AGGREGATE.

G. N. -540
THE CONTRACTOR SHALL ASSEMBLE AND MATCH-MARK THE PRECAST BOX CULVERT SECTIONS AND END SECTIONS PRIOR TO SHIPMENT OF THESE COMPONENTS FROM THE MANUFACTURER, AND AS DIRECTED BY THE ENGINEER IN ORDER TO SECURE A PROPER FIT ON EACH JOINT. ANY SECTIONS OR END SECTIONS WHICH DO NOT PROVIDE A PROPER FIT AT THE JOINT SHALL BE REJECTED BY THE ENGINEER AND REPLACED BY THE CONTRACTOR WITH NO ADDITIONAL COMPENSATION BEING ALLOWED.

THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER FOOT FOR PRECAST CONCRETE BOX CULVERTS OF THE SIZE SPECIFIED.

G. N. -540A
CAST IN PLACE END SECTIONS, HEADWALLS, AND COLLARS ARE REQUIRED FOR PRECAST BOX CULVERTS. SHOP PLANS WILL NOT BE REQUIRED WITH CAST IN PLACE ITEMS CONSTRUCTED AS SHOWN IN THE PLANS. SHOP PLANS SHALL BE SUBMITTED FOR CHANGED OR MODIFIED CAST IN PLACE DETAILS IN ACCORDANCE WITH ARTICLE 540.06

G. N. -542
BEFORE ORDERING PIPE CULVERTS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR THE EXACT LENGTHS.

G. N. -631
IF THE CONTRACTOR ELECTS TO USE THE ALTERNATE MOUNTING METHOD OF THRU DRILLING THE MOUNTING HOLES FOR THE TRAFFIC BARRIER TERMINALS, TYPE 6, THE HOLES SHALL BE DRILLED USING A CORE DRILL. A HAMMER DRILL WILL NOT BE ALLOWED.

G. N. -667
THE RESIDENT ENGINEER SHALL CONTACT THE PROGRAM DEVELOPMENT CHIEF OF SURVEYS PRIOR TO THE PRE-CONSTRUCTION CONFERENCE FOR INSTRUCTION AS TO SETTING OF TEMPORARY OR PERMANENT TIES FOR CENTERLINE ALIGNMENT CONTROL SURVEY MARKERS (PCs PTs AND PIs). PROJECT IMPLEMENTATION PERSONNEL WILL BE RESPONSIBLE FOR SETTING THESE MARKERS.

G. N. -781
RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH STANDARD 781001, AND THE DETAILS SHOWN IN THE PLANS. IF THERE IS ANY DISCREPANCY BETWEEN THE STANDARD AND THE DETAILS IN THE PLANS, THE DETAILS IN THE PLANS SHALL GOVERN. THE FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING THE RAISED REFLECTIVE PAVEMENT MARKERS AND THE RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED MIDWAY IN THE 30 FOOT (9 m) SPACE BETWEEN THE DASHED CENTERLINE STRIPES (WHEN APPLICABLE).

G. N. -1004.01
COARSE AGGREGATE GRADATION CA-10 MAY BE USED WHENEVER COARSE AGGREGATE CA-6 IS SPECIFIED IN THE STANDARD SPECIFICATIONS.

G. N. -1004.03
REVISE ARTICLE 1004.03 (c) NOTE 5/ OF THE STANDARD SPECIFICATIONS TO READ:

'5/ GRADATION CA-16 SHALL BE USED IN LIEU OF CA-13 WHEN THE SURFACE COURSE IS LESS THAN 1 3/4 INCHES IN THICKNESS. CA-13 OR CA-16 MAY BE USED WHEN THE SURFACE COURSE IS 1 3/4 INCHES OR MORE IN THICKNESS.'

G. N. -Z0038
AN ALUMINUM TABLET OF THE TYPE SHOWN ON STANDARD 667101 SHALL BE PLACED ON THE PROPOSED STRUCTURE AS DIRECTED BY THE ENGINEER. THE BENCH MARK ELEVATION WILL BE ESTABLISHED AND MARKED BY THE DEPARTMENT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR PERMANENT BENCH MARKS.

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY
Sheet 2 of 2

SCALE: NOT TO SCALE — DRAWN BY: B.B.P.
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CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	5
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1

SUMMARY OF QUANTITIES

SHEET 1 OF 4

X181-5B X171-5B

LOCATION OF WORK:				FAS 1671 RURAL	FAS 1671 BRIDGE	FAS 1671 BRIDGE	FAS 1671 BRIDGE
				2L2W	SN 021-0062	SN 021-0061	SN 021-0060
FUNDING BREAKOUT				FED 80%	FED 80%	FED 80%	FED 80%
				STATE 20%	STATE 20%	STATE 20%	STATE 20%
CONSTRUCTION TYPE CODE:				1000-2A	X280-2A	X181-2A	X171-2A
				1124+40 - 1130+20.93	1130+20.93	1150+67.00	1154+06.5
				1131+24.93 - 1139+69.33	TO	TO	TO
				1139+69.33 - 1150+67.00	1131+24.93	1152+69.00	1155+98.50
				1155+98.5 - 1165+50.00			
CODE NO	ITEM	UNIT	TOTAL QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	102.0	102.0			
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	172.0	172.0			
20200100	EARTH EXCAVATION	CU YD	870.0	870.0			
20200500	EARTH EXCAVATION (WIDENING)	CU YD	60.0	60.0			
20400100	BORROW EXCAVATION	CU YD	88,330.0	88,330.0			
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	345.0		74.0	161.0	110.0
20800150	TRENCH BACKFILL	CU YD	13.0	13.0			
25000200	SEEDING, CLASS 2	ACRE	6.0	6.0			
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	540.0	540.0			
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	540.0	540.0			
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	540.0	540.0			
25100115	MULCH, METHOD 2	ACRE	6.0	6.0			
25100630	EROSION CONTROL BLANKET	SQ YD	11,879.0	11,879.0			
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	3,000.0	3,000.0			
28000300	TEMPORARY DITCH CHECKS	EACH	10.0	10.0			
28000400	PERIMETER EROSION BARRIER	FOOT	2,632.0	2,632.0			
28000500	INLET AND PIPE PROTECTION	EACH	3.0	3.0			
28100105	STONE RIPRAP, CLASS A3	SQ YD	27.5	27.5			
30200650	PROCESSING MODIFIED SOILS 12"	SQ YD	5,180.0	5,180.0			
30201500	LIME	TON	116.6	116.6			
31100300	SUB-BASE GRANULAR MATERIAL, TYPE A 4"	SQ YD	233.0	233.0			
31102200	SUB-BASE GRANULAR MATERIAL, TYPE C 5"	SQ YD	1,528.0	1,528.0			
35400300	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 8"	SQ YD	155.0	155.0			
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	933.5	933.5			
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	639.0	639.0			
40600980	BITUMINOUS SURFACE REMOVAL - BUTT JOINT	SQ YD	846.0	846.0			
40800010	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	106.0	106.0			
40800040	INCIDENTAL BITUMINOUS SURFACING	TON	156.0	156.0			
42000501	PORTLAND CEMENT CONCRETE PAVEMENT 10" (JOINTED)	SQ YD	207.0	207.0			
42001400	BRIDGE APPROACH PAVEMENT (SPECIAL)	SQ YD	680.0	680.0			
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	334.0	334.0			

* SPECIALTY ITEMS

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ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY
Sheet 1 of 4

SCALE: NOT TO SCALE DRAWN BY: B.B.P.
DATE: 06/20/06 CHECKED BY: C.R.G.

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	6
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1

SUMMARY OF QUANTITIES

SHEET 2 OF 4

X181-5B X171-5B

LOCATION OF WORK:				FAS 1671 RURAL	FAS 1671 BRIDGE	FAS 1671 BRIDGE	FAS 1671 BRIDGE
				2L2W	SN 021-0062	SN 021-0061	SN 021-0060
FUNDING BREAKOUT				FED 80% STATE 20%	FED 80% STATE 20%	FED 80% STATE 20%	FED 80% STATE 20%
CONSTRUCTION TYPE CODE:				I000-2A	X280-2A	X181-2A	X171-2A
				1124+40 - 1130+20.93	1130+20.93	1150+67.00	1154+06.5
				1131+24.93 - 1139+69.33	TO	TO	TO
				1139+69.33 - 1150+67.00	1131+24.93	1152+69.00	1155+98.50
				1155+98.5 - 1165+50.00			
CODE NO	ITEM	UNIT	TOTAL QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
44000100	PAVEMENT REMOVAL	SQ YD	1,580.0	1,580.0			
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	1,569.0	1,569.0			
44000700	APPROACH SLAB REMOVAL	SQ YD	387.0	387.0			
44003100	MEDIAN REMOVAL	SQ FT	153.0	153.0			
44004250	PAVED SHOULDER REMOVAL	SQ YD	73.0	73.0			
44004300	PAVEMENT BREAKING	SQ YD	1,435.0	1,435.0			
48101200	AGGREGATE SHOULDERS, TYPE B	TON	112.0	112.0			
48202600	BITUMINOUS SHOULDERS SUPERPAVE 8"	SQ YD	1,528.0	1,528.0			
48300500	PORTLAND CEMENT CONCRETE SHOULDERS 10"	SQ YD	69.0	69.0			
50100300	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1.0		1.0		
50100400	REMOVAL OF EXISTING STRUCTURES NO. 2	EACH	1.0			.5	.5
50104000	BRIDGE RAIL REMOVAL	FOOT	1,381.0		181.0	600.0	600.0
50200100	STRUCTURE EXCAVATION	CU YD	803.0		221.0	346.0	236.0
50300225	CONCRETE STRUCTURES	CU YD	662.8		141.4	289.8	231.6
50300255	CONCRETE SUPERSTRUCTURE	CU YD	495.2			262.9	232.3
50300260	BRIDGE DECK GROOVING	SQ YD	1,693.0		380.0	673.0	640.0
50300300	PROTECTIVE COAT	SQ YD	1,730.0			887.0	843.0
50301200	CONCRETE WEARING SURFACE	SQ YD	403.9		403.9		
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	3,629.5		3,629.5		
50400905	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 42 IN.	FOOT	1,195.0			1,195.0	
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1.0				1.0
50500505	STUD SHEAR CONNECTORS	EACH	3,330.0				3,330.0
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	155,450.0		17,800.0	72,300.0	65,350.0
*50901005	STEEL BRIDGE RAIL, TYPE SM	FOOT	205.0		205.0		
51100100	SLOPE WALL 4 INCH	SQ YD	416.0		359.0	30.0	27.0
51100500	BITUMINOUS COATED AGGREGATE SLOPEWALL 6"	SQ YD	1,105.0			616.0	489.0
51201600	FURNISHING STEEL PILES HP12X53	FOOT	2,720.0		585.0	1,490.0	645.0
51201610	FURNISHING STEEL PILES HP12X63	FOOT	325.0			325.0	
51201700	FURNISHING STEEL PILES HP12X74	FOOT	695.0				695.0
51202700	DRIVING STEEL PILES	FOOT	3,740.0		585.0	1,815.0	1,340.0
51203600	TEST PILE STEEL HP12X53	EACH	9.0		4.0	3.0	2.0
51203610	TEST PILE STEEL HP12X63	EACH	1.0			1.0	

* SPECIALTY ITEMS

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SUMMARY OF QUANTITIES
Sheet 2 of 4

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	7
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1

SUMMARY OF QUANTITIES

SHEET 3 OF 4

X181-5B X171-5B

LOCATION OF WORK:			FAS 1671 RURAL 2L2W	FAS 1671 BRIDGE SN 021-0062	FAS 1671 BRIDGE SN 021-0061	FAS 1671 BRIDGE SN 021-0060
FUNDING BREAKOUT			FED 80% STATE 20%	FED 80% STATE 20%	FED 80% STATE 20%	FED 80% STATE 20%
CONSTRUCTION TYPE CODE:			1000-2A	X280-2A	X181-2A	X171-2A
			1124+40 - 1130+20.93	1130+20.93	1150+67.00	1154+06.5
			1131+24.93 - 1139+69.33	TO	TO	TO
			1139+69.33 - 1150+67.00	1131+24.93	1152+69.00	1155+98.50
			1155+98.5 - 1165+50.00			
CODE NO	ITEM	UNIT	TOTAL QUANTITY	QUANTITY	QUANTITY	QUANTITY
51203700	TEST PILE STEEL HP12X74	EACH	2.0			2.0
51205200	TEMPORARY SHEET PILING	SQ FT	416.0		86.0	330.0
51500100	NAME PLATES	EACH	3.0	1.0	1.0	1.0
54001000	BOX CULVERT END SECTIONS	EACH	2.0	2.0		
54002020	EXPANSION BOLTS 3/4 INCH	EACH	4.0	4.0		
54010503	PRECAST CONCRETE BOX CULVERT 5' X 3'	FOOT	156.0	156.0		
54213447	END SECTIONS 12"	EACH	11.0	11.0		
54215415	CAST-IN-PLACE REINFORCED CONCRETE END SECTIONS 15"	EACH	3.0	3.0		
54248510	CONCRETE COLLAR	CU YD	0.8	0.8		
542A1060	PIPE CULVERTS, CLASS A, TYPE 2 15"	FOOT	217.0	217.0		
55100500	STORM SEWER REMOVAL 12"	FOOT	90.0	90.0		
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	195.0		47.0	86.0	62.0
60100945	PIPE DRAINS 12"	FOOT	675.0	675.0		
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	412.0		126.0	154.0	132.0
60208240	CATCH BASINS, TYPE C, TYPE 24 FRAME AND GRATE	EACH	15.0	15.0		
60404400	FRAMES AND GRATES, TYPE 4	EACH	1.0	1.0		
60500060	REMOVING INLETS	EACH	4.0	4.0		
60600095	CLASS SI CONCRETE (OUTLET)	CU YD	21.3	21.3		
60602800	CONCRETE GUTTER, TYPE B	FOOT	131.0	131.0		
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	265.0	265.0		
60622354	CONCRETE MEDIAN, TYPE SM-6 (DOWELLED)	SQ FT	153.0	153.0		
60900515	CONCRETE THRUST BLOCKS	EACH	11.0	11.0		
*63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	2,575.0	2,575.0		
*63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1.0	1.0		
*63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	8.0	8.0		
*63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4.0	4.0		
*63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	1.0	1.0		
*63100169	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (FLARED)	EACH	10.0	10.0		
*63200305	STEEL PLATE BEAM GUARD RAIL REMOVAL	FOOT	3,025.0	3,025.0		
66101120	BITUMINOUS SHOULDER CURB	FOOT	1,868.0	1,868.0		
66201120	CONCRETE SHOULDER CURB	FOOT	155.0	155.0		

* SPECIALTY ITEMS

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ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY
Sheet 3 of 4

SCALE: NOT TO SCALE DRAWN BY: B.B.P.
DATE: 06/20/06 CHECKED BY: C.R.G.

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	8
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1

SUMMARY OF QUANTITIES

SHEET 4 OF 4

X181-5B X171-5B

LOCATION OF WORK:				FAS 1671 RURAL 2L2W	FAS 1671 BRIDGE SN 021-0062	FAS 1671 BRIDGE SN 021-0061	FAS 1671 BRIDGE SN 021-0060
FUNDING BREAKOUT				FED 80% STATE 20%	FED 80% STATE 20%	FED 80% STATE 20%	FED 80% STATE 20%
CONSTRUCTION TYPE CODE:				1000-2A	X280-2A	X181-2A	X171-2A
				1124+40 - 1130+20.93 1131+24.93 - 1139+69.33 1139+69.33 - 1150+67.00 1155+98.5 - 1165+50.00	1130+20.93 TO 1131+24.93	1150+67.00 TO 1152+69.00	1154+06.5 TO 1155+98.50
CODE NO	ITEM	UNIT	TOTAL QUANTITY	QUANTITY	QUANTITY	QUANTITY	QUANTITY
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12.0	12.0			
67100100	MOBILIZATION	L SUM	1.0	1.0			
70100450	TRAFFIC CONT. AND PROTECTION STANDARD 701201	L SUM	1.0				
70101900	TRAFFIC CONTROL AND PROTECTION (DETOUR 1)	L SUM	1.0	.2	1.0.2	.3	.3
*70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	78.0	78.0			
*70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	17,430.0	17,430.0			
*70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	360.0	360.0			
*70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	93.0	93.0			
*70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	710.0	710.0			
*78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	78.0	78.0			
*78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	4,914.0	4,914.0			
*78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	155.0	155.0			
*78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	62.0	62.0			
*78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	8,403.0	8,403.0			
*78008310	POLYUREA PAVEMENT MARKING TYPE II - LINE 4"	FOOT	2,904.0	2,904.0			
*78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	54.0	54.0			
*78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	9.0		3.0	3.0	3.0
*78200410	GUARDRAIL MARKERS, TYPE A	EACH	31.0	31.0			
*78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	11.0	11.0			
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	52.0	52.0			
X0322379	CONCRETE SEALER	SQ YD	39.3	39.3			
X0324865	DIAMOND GRINDING (BRIDGE SECTION)	SQ YD	2,520.2	241.0	606.2	852.0	821.0
X4066414	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "C", N50	TON	536.0	536.0			
X4066614	BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19.0, N50	TON	1,229.0	1,229.0			
X4073146	BITUMINOUS CONCRETE PAVEMENT (FULL-DEPTH), SUPERPAVE, 13 1/4"	SQ YD	4,607.0	4,607.0			
X7011005	TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR	L SUM	1.0		1.0		
XX004094	CONCRETE SLOPEWALL	SQ FT	3,227.0		3,227.0		
Z0002600	BAR SPLICERS	EACH	200.0		72.0	64.0	64.0
Z0038700	PERMANENT BENCH MARKS	EACH	2.0		1.0		1.0
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1.0			.5	.5

* SPECIALTY ITEMS

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CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	9
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1

STRUCTURAL PAVEMENT DESIGN INFORMATION

F.A.S. 1671 (U.S. ROUTE 45)
PROPOSED TYPICAL SECTION ③

STRUCTURAL DESIGN TRAFFIC: 2,910 Year 2017

PV = 2,532 SU = 166 MU = 212

ROAD/STREET CLASSIFICATION: Major Collector

P = 50% S = 50% M = 50%

TRAFFIC FACTOR: Actual TF = 1.01 AC Type = 20

Minimum TF = 3.81

PG GRADE: Binder = PG 64-22 Binder = PG 64-22
Surface = PG 64-22

PAVEMENT TYPE: Bituminous Concrete Pavement
(Full-Depth), Superpave 1 3/4"

SUBGRADE SUPPORT RATING:

SSR = Poor (Sta. 1139+69.33 to Sta. 1150+37.00)
SSR = Poor (Sta. 1156+28.50 to Sta. 1164+50.00)

F.A.S. 1671 (U.S. ROUTE 45)
PROPOSED TYPICAL SECTION ⑤

STRUCTURAL DESIGN TRAFFIC: 2,910 Year 2017

PV = 2,532 SU = 166 MU = 212

ROAD/STREET CLASSIFICATION: Major Collector

P = 50% S = 50% M = 50%

TRAFFIC FACTOR: Actual TF = 1.43 AC Type = N/A

Minimum TF = 5.51

PAVEMENT TYPE: P.C.C. Pavement, 10" (Jointed)

SUBGRADE SUPPORT RATING:

SSR = Poor (Sta. 1152+39.00 to Sta. 1153+76.50)

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ILLINOIS DEPARTMENT OF TRANSPORTATION

STRUCTURAL PAVEMENT
DESIGN INFORMATION

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: NOT TO SCALE DRAWN BY: B.B.P.

DATE: 05/23/06 CHECKED BY: C.R.G.

CONTRACT NO. 70258

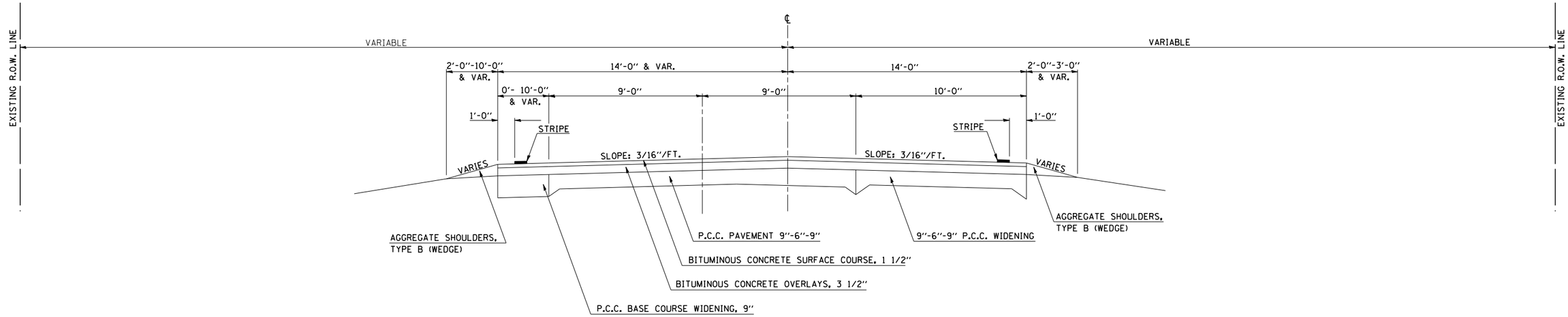
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	10
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

Ⓐ EXISTING TYPICAL CROSS SECTION

U.S. ROUTE 45

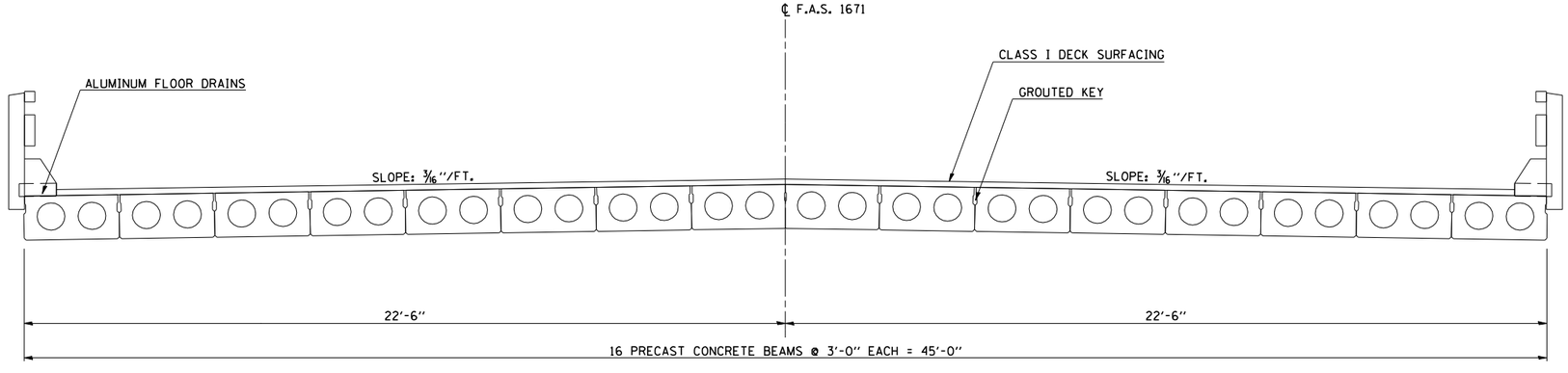
STATION	TO	STATION
1124+40.00		1130+25.16Ⓑ
Ⓑ1131+20.70		1142+62.63Ⓒ



Ⓑ EXISTING TYPICAL CROSS SECTION

STRUCTURE NO. 021-0014

STATION	TO	STATION
Ⓐ 1130+25.16		1131+20.70 Ⓐ



ILLINOIS DEPARTMENT OF TRANSPORTATION

EXISTING TYPICAL CROSS SECTIONS

F.A.S. 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: NOT TO SCALE — DRAWN BY: B.B.P.
DATE: 06/07/06 — CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
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CONTRACT NO. 70258

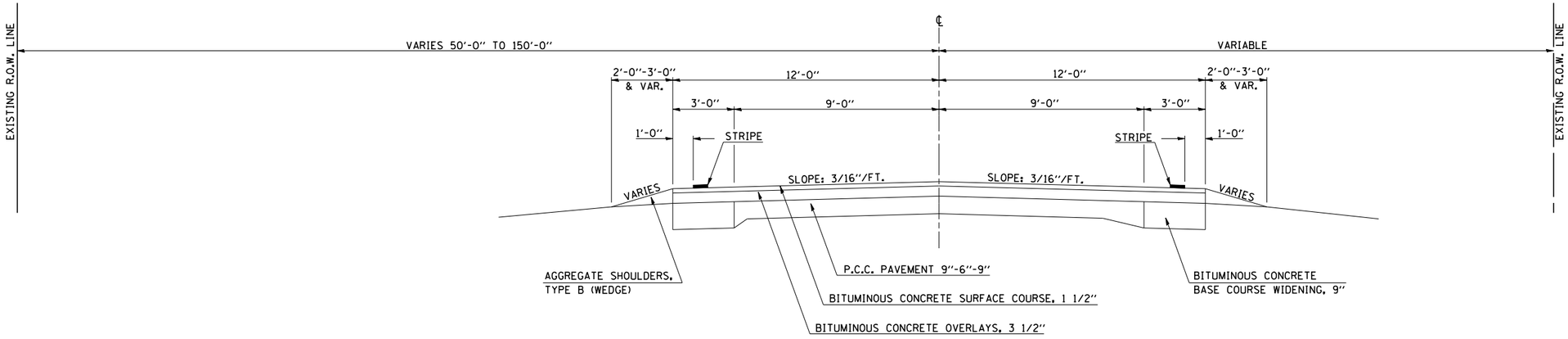
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	11
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

Ⓒ EXISTING TYPICAL CROSS SECTION

U.S. ROUTE 45

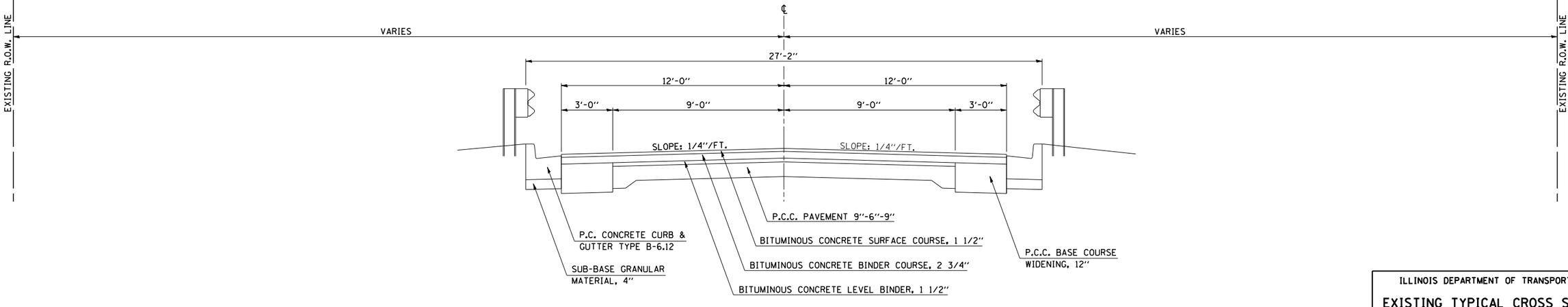
STATION	TO	STATION
Ⓐ 1142+62.63		1145+64.16 Ⓓ
Ⓓ 1163+01.16		1165+50.00



Ⓓ EXISTING TYPICAL CROSS SECTION

U.S. ROUTE 45

STATION	TO	STATION
Ⓒ 1145+64.16		1150+88.90 Ⓔ
Ⓔ 1156+83.89		1163+01.16



ILLINOIS DEPARTMENT OF TRANSPORTATION

EXISTING TYPICAL CROSS SECTIONS

F.A.S. 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: NOT TO SCALE — DRAWN BY: B.B.P.
DATE: 06/07/06 — CHECKED BY: C.R.G.

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CONTRACT NO. 70258

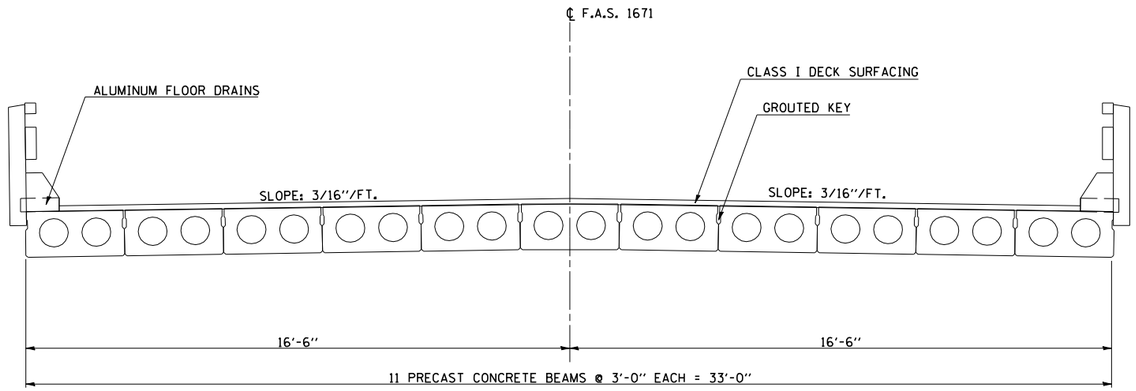
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	12
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1

Ⓔ EXISTING TYPICAL CROSS SECTION

STRUCTURE NO. 021-0013

STATION	TO	STATION
Ⓓ 1150+88.90		1156+83.89 Ⓓ



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ILLINOIS DEPARTMENT OF TRANSPORTATION

EXISTING TYPICAL CROSS SECTIONS

F.A.S. 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: NOT TO SCALE — DRAWN BY: B.B.P.
DATE: 06/07/06 — CHECKED BY: C.R.G.

CONTRACT NO. 70258

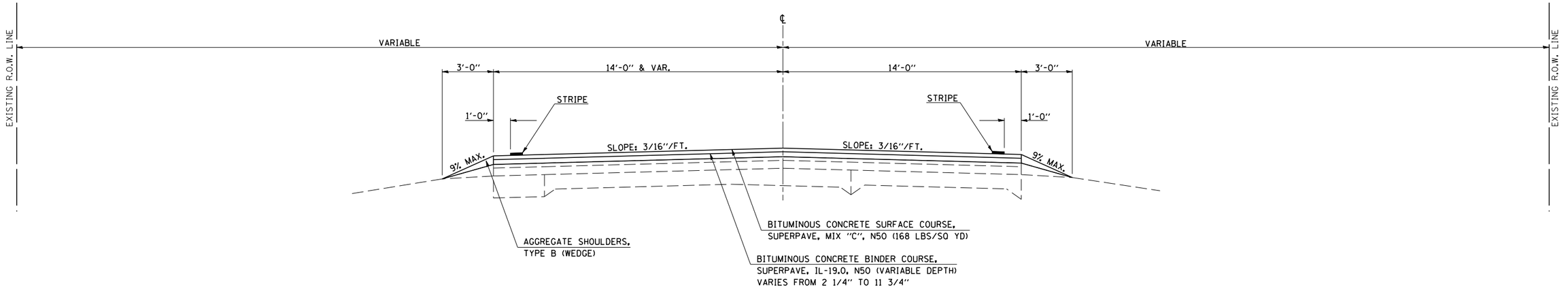
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	13
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

① PROPOSED TYPICAL CROSS SECTION

U.S. ROUTE 45

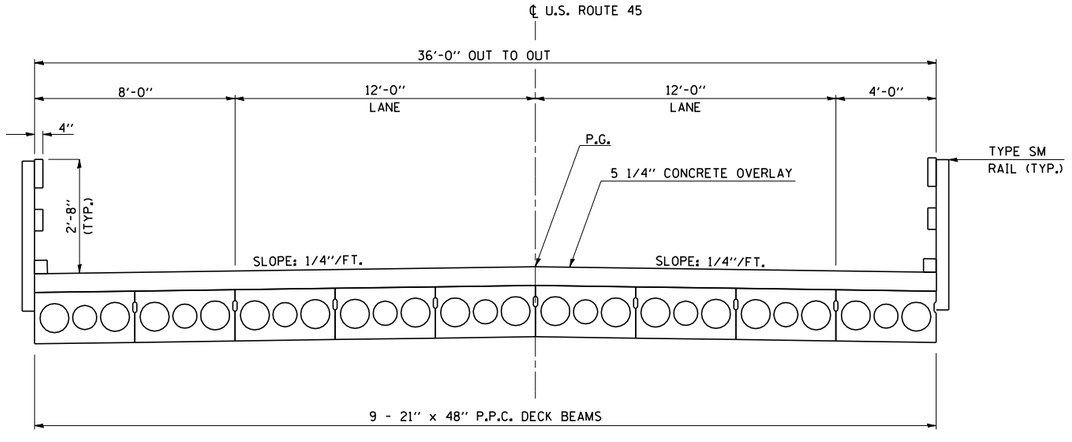
	STATION	TO	STATION
	1124+40.00		1129+90.93 BRIDGE APPROACH PAVEMENT
BRIDGE APPROACH PAVEMENT	1131+54.93		1141+40.00③



② PROPOSED TYPICAL CROSS SECTION

U.S. ROUTE 45 (STRUCTURE NO. 021-0062)

	STATION	TO	STATION
BRIDGE APPROACH PAVEMENT	1130+20.93		1131+24.93 BRIDGE APPROACH PAVEMENT



ILLINOIS DEPARTMENT OF TRANSPORTATION

PROPOSED TYPICAL CROSS SECTIONS
F.A.S. 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: NOT TO SCALE — DRAWN BY: B.B.P.
DATE: 06/07/06 — CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
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USER NAME = pierson

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	14
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

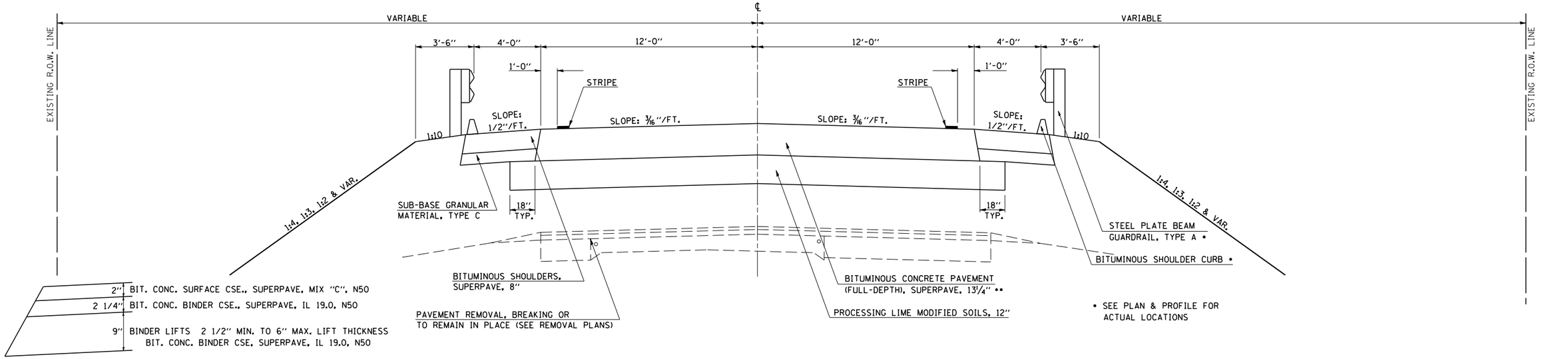
③ PROPOSED TYPICAL CROSS SECTION

U.S. ROUTE 45

STATION TO STATION

①1140+00.00 1150+37.00 BRIDGE APPROACH PAVEMENT

BRIDGE APPROACH PAVEMENT 1156+28.50 1164+50.00⑥



LIFT THICKNESS & MIXTURE REQUIREMENT

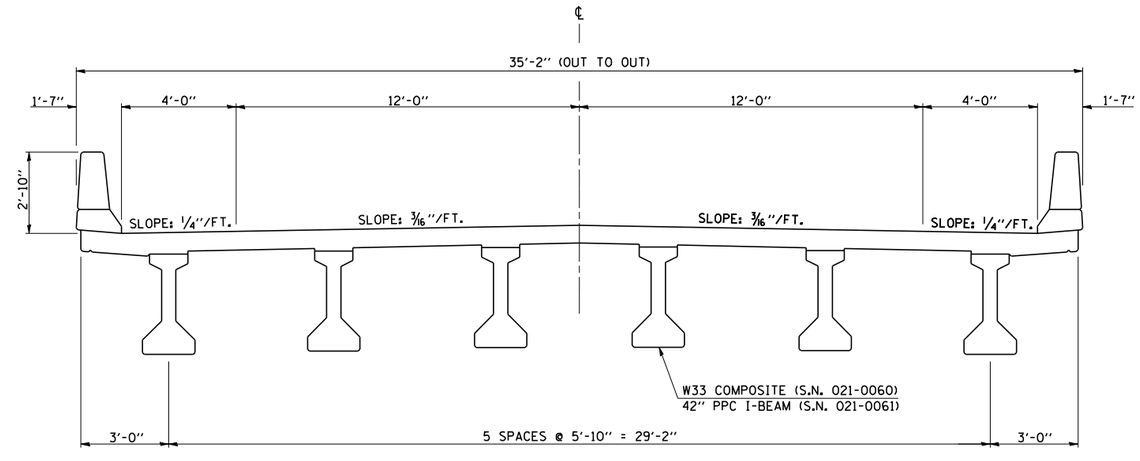
•• FULL-DEPTH PAVEMENT DETAIL

④ PROPOSED TYPICAL CROSS SECTION

U.S. ROUTE 45

BRIDGE APPROACH PAVEMENT STATION 1150+67.00 TO STATION 1152+69.00 (SOUTH STRUCTURE NO. 021-0061) BRIDGE APPROACH PAVEMENT

BRIDGE APPROACH PAVEMENT STATION 1154+06.50 TO STATION 1155+98.50 (NORTH STRUCTURE NO. 021-0060) BRIDGE APPROACH PAVEMENT



ILLINOIS DEPARTMENT OF TRANSPORTATION

PROPOSED TYPICAL CROSS SECTIONS

F.A.S. 1671 (U.S. ROUTE 45)

SECTION 144SBR-2 & 22VBR-1

DOUGLAS COUNTY

SCALE: NOT TO SCALE DRAWN BY: B.B.P.

DATE: 06/07/06 CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258typicals.dgn
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USER NAME = pierson

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	15
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

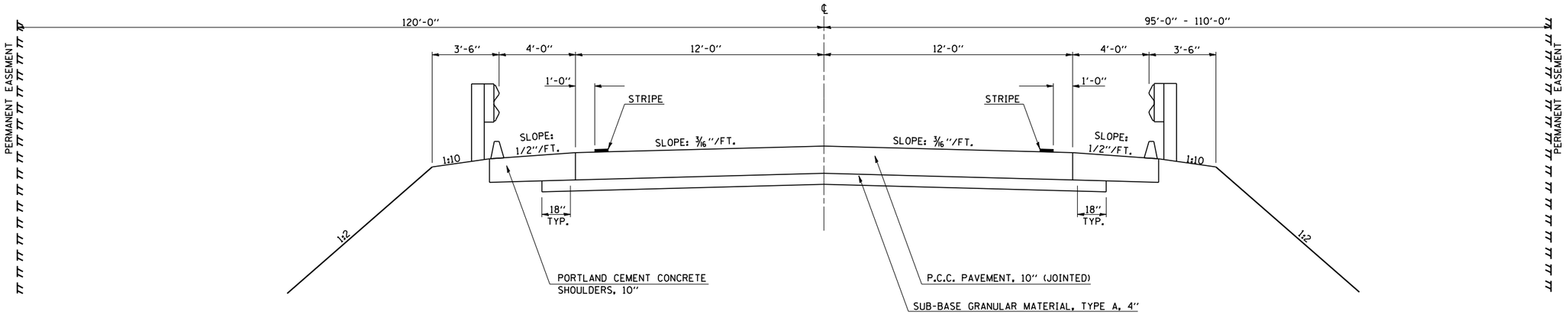
• 144SBR-2 & 22VBR-1

⑤ PROPOSED TYPICAL CROSS SECTION

U.S. ROUTE 45

STATION TO STATION

BRIDGE APPROACH PAVEMENT 1152+99.00 1153+76.50 BRIDGE APPROACH PAVEMENT

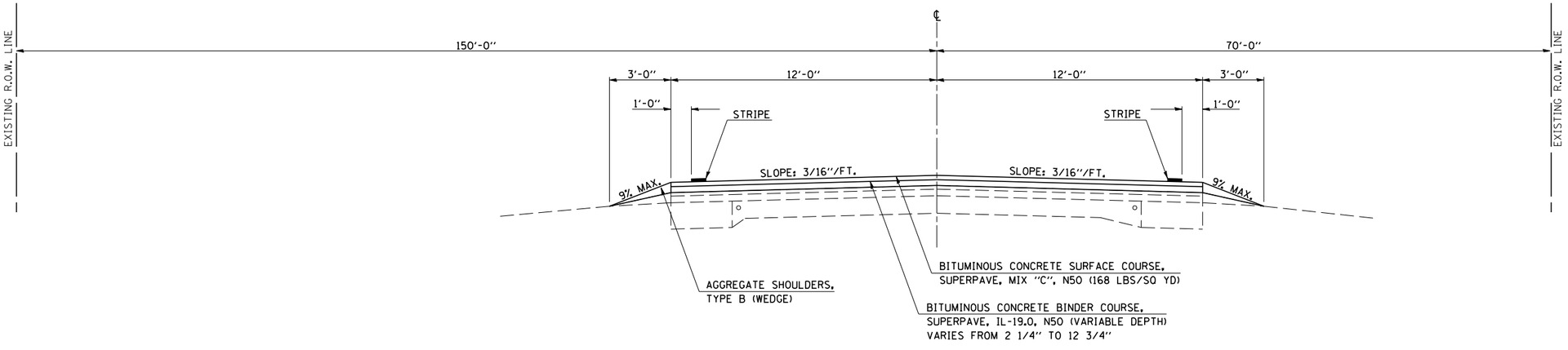


⑥ PROPOSED TYPICAL CROSS SECTION

U.S. ROUTE 45

STATION TO STATION

③ 1164+25.00 1165+50.00



ILLINOIS DEPARTMENT OF TRANSPORTATION

PROPOSED TYPICAL CROSS SECTIONS

F.A.S. 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: NOT TO SCALE DRAWN BY: B.B.P.

DATE: 06/07/06 CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d5005202 (v8)\70258typicals.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = pierson

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	16
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1

SCHEDULE OF QUANTITIES

SHEET 1 OF 2

BITUMINOUS SURFACE REMOVAL - BUTT JOINT

STATION	TO	STATION	SQ YD
1124+40.00		1125+10.00	320.0
1126+21.18 LT			243.0
1134+07.97 LT			146.0
1165+00.00		1165+50.00	137.0
		TOTAL =	846.0

PAVEMENT REMOVAL
PCC BASE COURSE WIDENING 8" / PAVEMENT REMOVAL

STATION	TO	STATION	SQ YD
1129+50.00		1130+02.92	162.0
1131+42.52		1132+00.00	173.0
1141+40.00		1142+25.00	243.0
1157+13.52		1159+50.00	647.0
1163+50.00		1164+25.00	200.0
South Ramp Prestage			155.0
		TOTAL =	1580.0

COMBINATION CURB AND GUTTER REMOVAL

STATION	TO	STATION	FT
1150+60		1150+90 LT/RT	60.0
1156+84		1157+50 LT/RT	133.0
1157+50		1159+50 LT/RT	400.0
1159+50		1163+01 LT	351.0
1159+50		1163+10 RT	360.0
South Ramp Prestage			265.0
		TOTAL =	1569.0

APPROACH SLAB REMOVAL

STATION	TO	STATION	SQ YD
1130+03		1130+26	113.5
1131+19		1131+43	111.5
1150+60		1150+90	81.0
1156+83		1157+13	81.0
		TOTAL =	387.0

PAVED SHOULDER REMOVAL

STATION	TO	STATION	SQ YD
1129+50 LT		1130+03 LT	21.8
1129+50 RT		1130+03 RT	15.6
1131+43 LT		1132+00 LT	21.2
1131+43 RT		1132+50 RT	14.4
		TOTAL =	73.0

PAVEMENT BREAKING

STATION	TO	STATION	SQ YD
1142+25		1143+60	368.0
1159+50		1163+50	1067.0
		TOTAL =	1435.0

PRE-STAGE
EARTH EXCAVATION (WIDENING)

LOCATION	CU YD
SOUTH RAMP	60

PRE-STAGE
PCC BASE COURSE WIDENING 8" / PAVEMENT REMOVAL

LOCATION	SQ YD
SOUTH RAMP	155

PRE-STAGE
FRAMES & GRATES TYPE 4

LOCATION	QTY
SOUTH RAMP	1

PRE-STAGE
CURB & GUTTER REMOVAL &
COMBINATION CONCRETE CURB & GUTTER TYPE B-6.24

LOCATION	FT
SOUTH RAMP	265

PRE-STAGE
CONCRETE MEDIAN, TYPE SM-6 (DOWELLED) &
MEDIAN REMOVAL

LOCATION	SQ FT
SOUTH RAMP	153

PRE-STAGE
TEMPORARY PAVEMENT MARKING - LINE 4"

LOCATION	FT	
SOUTH RAMP	440	YELLOW
SOUTH RAMP	770	WHITE
TOTAL =	1210	

TREE REMOVAL (OVER 15 UNITS DIA)

STATION	DIAMETER
1146+10 LT	24
1146+20 LT	27
1146+50 LT	25
1146+90 LT	24
1163+75 LT	40
1163+95 RT	32
TOTAL =	172

TREE REMOVAL (6-15 UNITS DIA)

STATION	DIAMETER
1156+29 LT	11
1159+95 RT	8
1160+20 RT	9
1163+40 RT	8
1163+40 RT	7
1163+40 RT	8
1163+40 RT	5
1163+40 RT	8
1163+40 RT	6
1163+40 RT	8
1163+40 RT	8
1163+40 RT	8
1163+40 RT	8
TOTAL =	102

STEEL PLATE BEAM GUARD RAIL REMOVAL

STATION	TO	STATION	FT
1129+23 LT		1130+23 LT	100.0
1129+28 RT		1130+28 RT	100.0
1131+17 LT		1132+17 LT	100.0
1131+23 RT		1132+23 RT	100.0
1145+89 LT		1150+89 LT	500.0
1145+88 RT		1150+88 RT	500.0
1156+83 LT		1162+48 LT	575.0
1156+83 RT		1165+63 RT	880.0
1164+71 LT		1166+35 LT	164.0
		TOTAL =	3019.0
		USE	3025.0

STEEL PLATE BEAM GUARD RAIL TYPE A

STATION	TO	STATION	FT
S.N. 021-0062 (SEE DETAIL SHT)			237.5
1145+16 RT		1150+28 RT	512.5
1146+09 LT		1150+47 LT	437.5
1152+67 RT		1153+67 RT	100.0
1153+00 LT		1153+75 LT	75.0
1156+24 LT		1162+24 LT	600.0
1162+24 LT		1162+40 LT	25.0
1165+19 LT		1165+94 LT	75.0
1156+30 RT		1159+05 RT	275.0
1162+96 RT		1165+33 RT	237.5
		TOTAL =	2575.0

TRAFFIC BARRIER TERMINAL TYPE 2

STATION	QTY
1162+40 LT (END OF RADIUS)	1.0

TRAFFIC BARRIER TERMINAL TYPE 6

STATION	STATION	QTY
1150+47 LT	1150+77 LT	1.0
1150+29 RT	1150+59 RT	1.0
1152+70 LT	1153+00 LT	1.0
1152+37 RT	1152+67 RT	1.0
1153+75 LT	1154+05 LT	1.0
1153+67 RT	1153+98 RT	1.0
1155+94 LT	1162+24 LT	1.0
1156+00 RT	1156+30 RT	1.0
	TOTAL =	8.0

TRAFFIC BARRIER TERMINAL TYPE 6A

LOCATION	QTY
S.N. 021-0062 (SEE DETAIL SHT)	4.0

TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)

LOCATION	QTY
1145+59 LT	1.0

TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (FLARED)

STATION	STATION	QTY
S.N. 021-0062 (SEE DETAIL SHT)		4.0
1144+66 RT	1145+16 RT	1.0
1159+05 RT	1159+55 RT	1.0
1162+46 RT	1162+96 RT	1.0
1162+79 LT	1163+29 LT	1.0
1163+29 LT	1163+79 LT	1.0
1164+69 LT	1165+19 LT	1.0
	TOTAL =	10.0

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES
F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY
Sheet 1 of 2

SCALE: NOT TO SCALE — DRAWN BY: B.B.P.
DATE: 07/06/06 — CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258text.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = piersonbr

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	17
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1

SCHEDULE OF QUANTITIES

SHEET 2 OF 2

CATCH BASIN TYPE C W / TYPE 24 FRAME AND GRATE

STATION	QTY
1129+85 20' LT	1.0
1129+85 16' RT	1.0
1131+62 20' LT	1.0
1131+62 16' RT	1.0
1145+72 16' LT	1.0
1145+72 16' RT	1.0
1147+85 16' LT	1.0
1147+85 16' RT	1.0
1150+00 16' LT	1.0
1150+00 16' RT	1.0
1156+50 16' LT	1.0
1156+50 16' RT	1.0
1159+38 16' LT	1.0
1159+38 16' RT	1.0
1162+20 16' LT	1.0
TOTAL =	15.0

STONE RIPRAP, CLASS A3

STATION	SQ YD
1145+72 65' LT	2.5
1145+72 48' RT	2.5
1147+85 70' LT	2.5
1147+85 58' RT	2.5
1150+00 70' LT	2.5
1150+00 57' RT	2.5
1156+50 72' LT	2.5
1156+50 66' RT	2.5
1159+38 57' LT	2.5
1159+38 56' RT	2.5
1162+20 45' LT	2.5
TOTAL =	27.5

CONCRETE THRUST BLOCKS

STATION	QTY
1145+72 65' LT	1.0
1145+72 48' RT	1.0
1147+85 70' LT	1.0
1147+85 58' RT	1.0
1150+00 70' LT	1.0
1150+00 57' RT	1.0
1156+50 72' LT	1.0
1156+50 66' RT	1.0
1159+38 57' LT	1.0
1159+38 56' RT	1.0
1162+20 45' LT	1.0
TOTAL =	11.0

END SECTIONS 12"

STATION	QTY
1145+72 65' LT	1.0
1145+72 48' RT	1.0
1147+85 70' LT	1.0
1147+85 58' RT	1.0
1150+00 70' LT	1.0
1150+00 57' RT	1.0
1156+50 72' LT	1.0
1156+50 66' RT	1.0
1159+38 57' LT	1.0
1159+38 56' RT	1.0
1162+20 45' LT	1.0
TOTAL =	11.0

CONCRETE COLLAR

STATION	CU YD
1130+20 RT	0.25
1131+35 RT	0.25
1146+00 LT	0.30
TOTAL =	0.80

EXPANSION BOLTS 3/4"

STATION	QTY
1146+00 LT	4.0

PIPE CULVERTS CLASS A TYPE 2 15"

STATION	FT
1154+53.02 LT, RT	177.0
1146+00.50 LT	40.0
TOTAL =	217.0

C-I-P REINFORCED CONCRETE END SECTIONS 15"

STATION	QTY
1154+53.02 LT, RT	2.0
1146+00.50 LT	1.0
TOTAL =	3.0

CONCRETE GUTTER TYPE B

STATION	STATION	FT
1144+76.00 RT	1145+16.00 R	40.0
1145+65.41 LT	1146+10.00 L	44.6
1159+06.25 RT	1159+38.00 R	31.8
1162+24.00 LT	1162+38.55 L	14.6
QUANTITY =		131.0

CLASS SI CONCRETE (OUTLET)

STATION	STATION	CU YD
1144+18.72 RT	1144+76.00 R	3.9
1145+08.00 LT	1145+65.41 L	3.9
1159+38.00 RT	1160+01.28 R	4.3
1162+38.55 LT	1162+82.55 L	4.5
1162+82.55 LT	1163+52.28 L	4.7
TOTAL =		21.3

BITUMINOUS SHOULDER CURB

STATION	STATION	FT
1146+10 LT	1150+46 LT	436.0
1145+15 RT	1150+28 RT	512.0
1156+25 LT	1162+24 LT	599.0
1156+32 RT	1159+06 RT	274.0
1129+80 LT	1129+90 LT	10.0
1129+80 RT	1129+93 RT	13.0
1131+53 LT	1131+68 LT	15.0
1131+57 RT	1131+66 LT	9.0
TOTAL =		1868.0

CONCRETE SHOULDER CURB

STATION	STATION	FT
1153+08 LT	1153+73 LT	65.0
1152+90 RT	1153+80 RT	90.0
TOTAL =		155.0

PIPE DRAINS 12"

STATION	STATION	FT
1129+85 LT, RT		36.0
1129+85 RT	1130+18 RT	33.5
1131+62 LT, RT		36.0
1131+34 RT	1131+62 RT	28.5
1145+72 16' LT	1145+72 65' L	55.0
1145+72 16' RT	1145+72 48' R	36.0
1147+70 16' LT	1147+70 70' L	60.0
1147+70 16' RT	1147+70 58' R	47.0
1150+00 16' LT	1150+00 70' L	60.0
1150+00 16' RT	1150+00 57' R	46.0
1156+50 16' LT	1156+50 72' L	63.0
1156+50 16' RT	1156+50 66' R	56.0
1159+38 16' LT	1159+38 57' L	44.0
1159+38 16' RT	1159+38 56' R	44.0
1162+20 16' LT	1162+20 45' L	30.0
TOTAL =		675.0

THERMOPLASTIC PAVEMENT MARKING LETTERS & SYMBOLS

STATION	SQ FT
1126+80 LT	15.6
1127+60 LT	15.6
1134+90 LT	15.6
1135+60 LT	15.6
1136+60 LT	15.6
TOTAL =	78.0 (WHITE)

THERMOPLASTIC PAVEMENT MARKING LINE - 4"

STATION	STATION	FT	
1124+40	1129+91	1210.0	YELLOW
1124+40	1129+91	1339.0	WHITE
1131+55	1136+50	1204.0	YELLOW
1131+55	1136+50	1161.0	WHITE
TOTAL WHITE		2500.0	
TOTAL YELLOW		2414.0	
TOTAL =		4914.0	

THERMOPLASTIC PAVEMENT MARKING - LINE 12"

LOCATION	FT	
SOUTH RAMP	60.0	WHITE
SOUTH RAMP	12.0	YELLOW
NORTH RAMP	60.0	WHITE
NORTH RAMP	23.0	YELLOW
TOTAL WHITE	120.0	
TOTAL YELLOW	35.0	
TOTAL =	155.0	

THERMOPLASTIC PAVEMENT MARKING - LINE 24"

LOCATION	FT	
STOP BARS	62.0	WHITE

PAINT PAVEMENT MARKING - LINE 4"

STATION	STATION	FT	
1136+50	1150+37	2774.0	YELLOW
1136+50	1150+37	2774.0	WHITE
1156+28.5	1164+00	772.0	YELLOW
1156+28.5	1164+00	240.0	YELLOW
1156+28.5	1164+00	1843.0	WHITE
TOTAL WHITE		4617.0	
TOTAL YELLOW		3786.0	
TOTAL =		8403.0	

POLYUREA PAVEMENT MARKING TYPE II - LINE 4"

STATION	STATION	FT	STRUCTURE	
1129+90.93	1131+54.93	328.0	021-0062	YELLOW
1129+90.93	1131+54.93	328.0	021-0062	WHITE
1150+37.00	1153+37.00	600.0	021-0061	YELLOW
1150+37.00	1153+37.00	600.0	021-0061	WHITE
1153+37.00	1156+28.50	465.0	021-0060	YELLOW
1153+37.00	1156+28.50	583.0	021-0060	WHITE
TOTAL WHITE		1511.0		
TOTAL YELLOW		1393.0		
TOTAL =		2904.0		

RAISED REFLECTIVE PAVEMENT MARKER

AMBER BI-DIRECTIONAL	45.0	EACH
CRYSTAL MONODIRECTIONAL	9.0	EACH
TOTAL =	54.0	EACH

RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)

AMBER BI-DIRECTIONAL	9.0	EACH

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY
Sheet 2 of 2

SCALE: NOT TO SCALE — DRAWN BY: B.B.P.
DATE: 07/06/06 — CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d5052o2 (v8)\70258text.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = pfersonbr

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	18
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1

EARTHWORK SUMMARY

LOCATION	EARTH EXCAVATION	EXCAVATION TO BE USED AS EMBANKMENT ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE
	CU YD	CU YD	CU YD	CU YD
1124+40.00 to 1130+20.93	0.5	0.4	10.1	-9.7
1130+96.93 to 1151+34.00	810.9	608.2	26078.9	-25470.7
1152+02.00 to 1154+65.00	0.0	0.0	25243.0	-25243.0
1155+49.00 to 1165+50.00	55.5	41.6	15561.6	-15520.0
TOTALS =	866.9	650.2	66893.6	-66243.4

SHRINKAGE FACTOR (SF) = 25%

BORROW = 66243.4 / .75 = 88330 Cu Yd

PLOT DATE = 7/13/2006
FILE NAME = c:\projects\d505202 (v8)\70258text.dgn
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ILLINOIS DEPARTMENT OF TRANSPORTATION

EARTHWORK SUMMARY

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: NOT TO SCALE
DRAWN BY: B.B.P.
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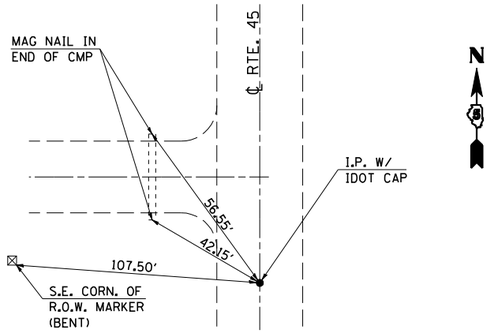
CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	19
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

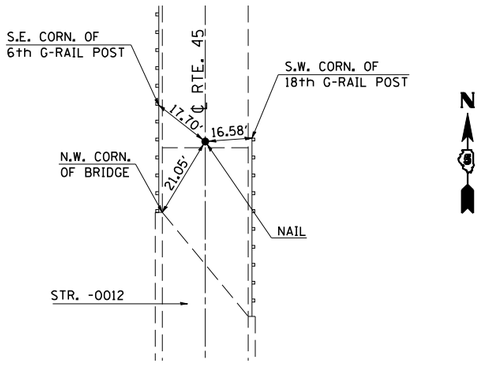
* 144SBR-2 & 22VBR-1

TIE POINTS

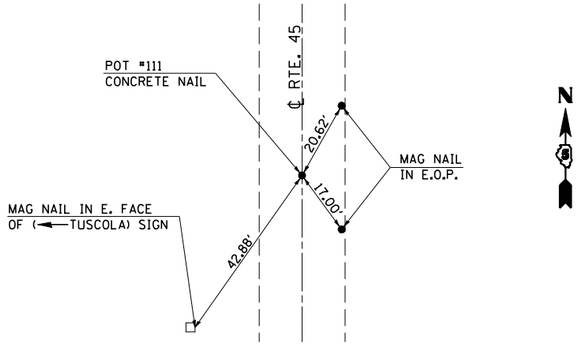
P.O.T. #1
STATION EQUATION:
STATION 1142+62.09 AH = STATION 1142+62.63 BK



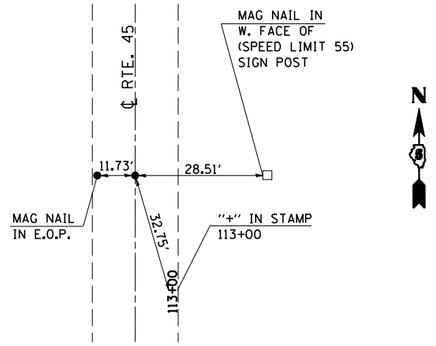
P.O.T. #4
STATION 1167+30.89



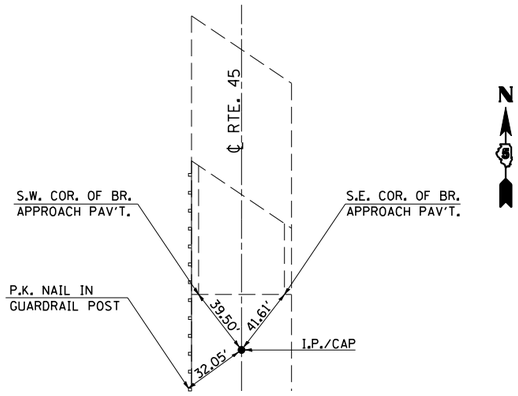
P.O.T. #111
STATION 1189+39.30



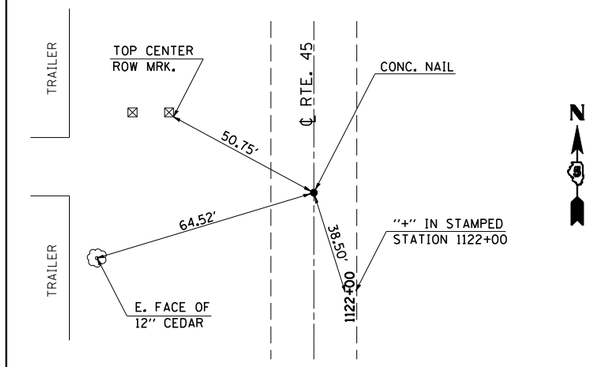
P.O.T. #93
STATION 1113+01.93



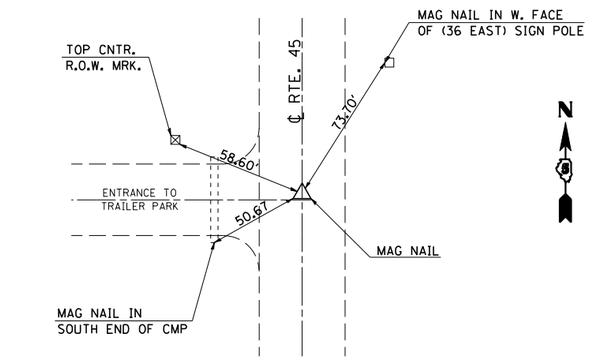
P.O.T STATION 1165+00



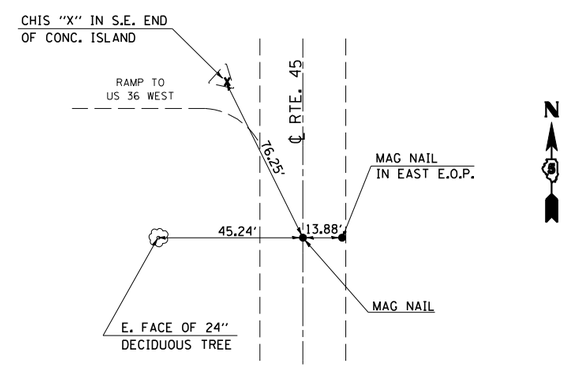
P.I. KINK #54
STATION 1122+00.00



P.I. KINK #55
STATION 1125+00.04



P.C. #59
STATION 1133+02.47



BENCHMARKS

B.M. 4660-1 — CHISELED SQUARE
ON TOP OF S.E. WINGWALL OF BRIDGE.
STATION 1150+88.42, 17.10' RT., ELEVATION 674.665

B.M. 4660-2 — CHISELED SQUARE
ON TOP OF N.E. WINGWALL OF BRIDGE.
STATION 1156+83.92, 17.02' RT., ELEVATION 680.865

ILLINOIS DEPARTMENT OF TRANSPORTATION

TIE POINTS & BENCHMARKS

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY
Sheet 1 of 2

SCALE: NOT TO SCALE — DRAWN BY: B.B.P.
DATE: 06/09/06 — CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258details.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = plersonbr

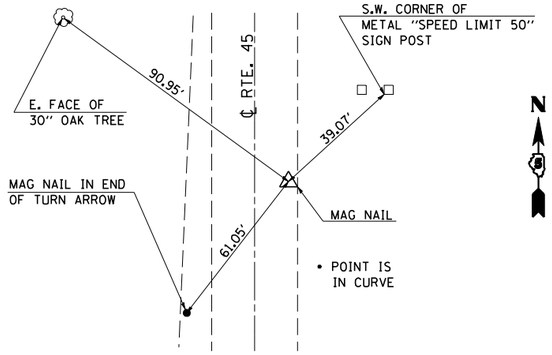
CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	20
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

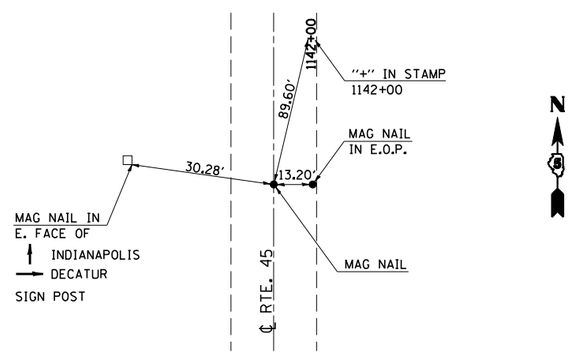
* 144SBR-2 & 22VBR-1

TIE POINTS

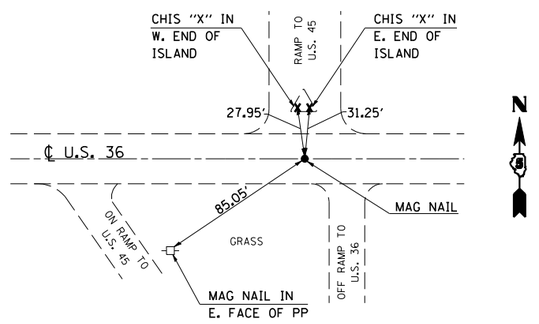
P.I. #58
STATION 1137+10.26 /11.93' RT.



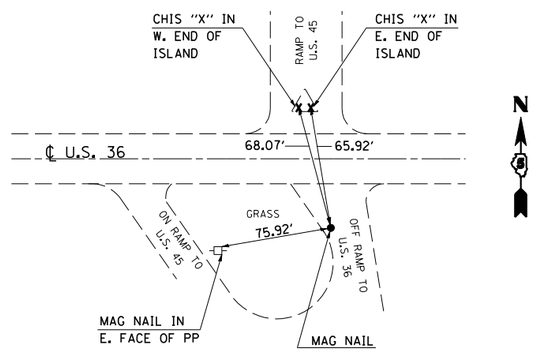
P.T. #60
STATION 1141+17.12



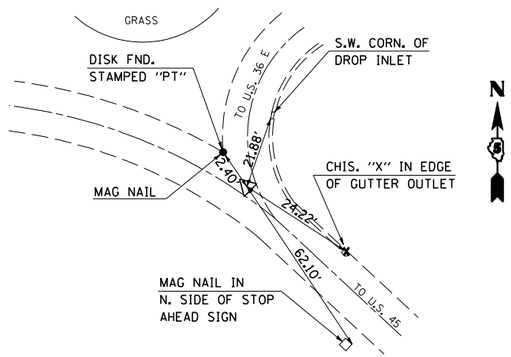
P.O.T. #6400
STATION 550+00



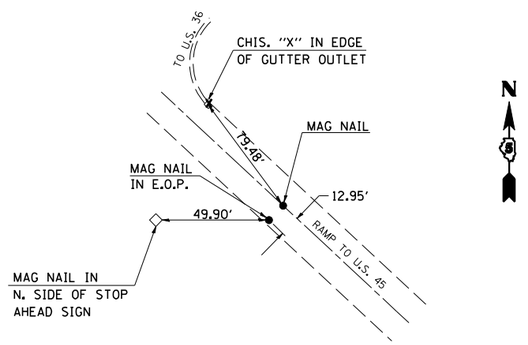
P.C.
STATION 550+41.41



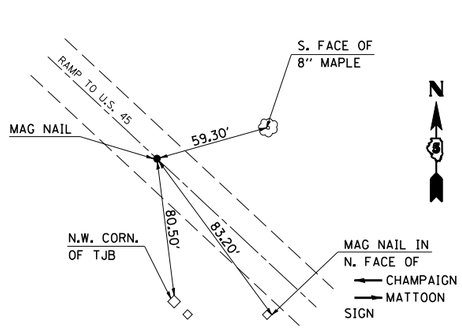
P.I. #58
STATION 551+40.51



P.T.
STATION 552+32.14



P.O.T. #6401
STATION 553+67.64



PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\T0258details.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = piersonbr

ILLINOIS DEPARTMENT OF TRANSPORTATION

TIE POINTS & BENCHMARKS

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY
Sheet 2 of 2

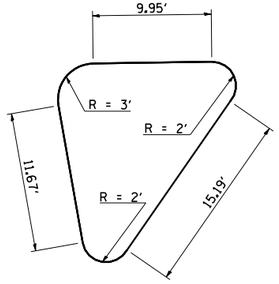
SCALE: NOT TO SCALE — DRAWN BY: B.B.P.
DATE: 06/09/06 — CHECKED BY: C.R.G.

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	21
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

PRE-STAGE PLAN



DETAIL OF CONCRETE MEDIAN TYPE SM-6 (DOWELLED)

1"=30'

0' 15' 30' 45' 60'

N

STA. 113+11.89 (US 36) =
STA. 550+00 (S. RAMP TEMPORARY ALIGNMENT)

CONCRETE MEDIAN TYPE SM-6 (DOWELLED) - SEE DETAIL THIS SHEET

POT Sta 550+00.00

79°-58'-57"

70' - 500'
23' O.S.

8'

15'

PC Sta 550+41.41

65' - 350'
11' O.S.

FRAME & GRATE, TYPE 4

PT Sta 552+32.14

13'

POT Sta 553+67.64

STA. 56+00 (SOUTH RAMP) =
STA. 553+66.65 (S. RAMP TEMPORARY ALIGNMENT)

PROP. CURVE TEMPRMP-1
P.I. STA. = 551+40.51
Δ = 38°-20'-38" (LT.)
D = 20°-06'-14"
R = 285.00'
T = 99.09'
L = 190.73'
E = 16.74'
e =
T.R. =
P.C. STA. = 550+41.41
P.T. STA. = 552+32.14

LEGEND

EARTH EXCAVATION (WIDENING) & PORTLAND CEMENT CONCRETE BASE COURSE WIDENING, 8 INCHES

CURB AND GUTTER REMOVAL

GENERAL NOTES

GRADE BASE COURSE WIDENING TO DRAIN.

WHEN DETOUR IS NO LONGER NECESSARY, INTERSECTION WILL BE RETURNED TO ITS ORIGINAL CONDITION.

1. REMOVAL OF BASE COURSE WIDENING WILL BE PAID FOR AS "PAVEMENT REMOVAL", RETURNING EARTH SURFACES TO THEIR ORIGINAL LINES AND GRADES WILL NOT BE PAID FOR SEPARATELY.
2. THE ORIGINAL FRAME AND GRATE WILL BE RE-USED, AND THE NEW TYPE 4 WILL BECOME THE PROPERTY OF THE STATE.
3. REMOVAL OF CONCRETE MEDIAN TYPE SM-6 (DOWELLED) WILL BE PAID FOR AS "MEDIAN REMOVAL".
4. CURB AND GUTTER WILL BE REPLACED AND BE PAID FOR AS "COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.24".
5. BARE EARTH WILL BE SEEDED USING THE VARIOUS SEEDING ITEMS INCLUDED ELSEWHERE IN THE PLANS.

ILLINOIS DEPARTMENT OF TRANSPORTATION

PRE-STAGE PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 30' DRAWN BY: B.B.P.
DATE: 06/14/06 CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d5005202 (v8)\70258trafficcontrol.dgn
PLOT SCALE = 63.529411 / IN.
USER NAME = piersonbr

CONTRACT NO. 70258

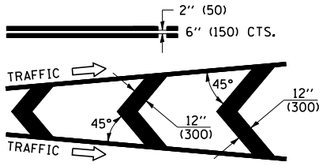
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	22
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

PRE-STAGE TRAFFIC CONTROL

TYPICAL PAVEMENT MARKING LEGEND

- LIGHTED DRUMS ON 50' CENTERS
- TYPE 3 BARRICADE WITH LIGHTS
- [4] 4" (100) DOUBLE YELLOW (NARROW)
- [8] 4" (100) SOLID (WHITE)
- [9] 12" (300) DIAGONAL (WHITE)
- [11] 24" (600) STOP BAR (WHITE)



STRIPING WILL BE PAID FOR AS "TEMPORARY PAVEMENT MARKING" OF THE WIDTH SPECIFIED.

ALL SIGNS, DRUMS BARRICADES AND LIGHTS TO BE INCLUDED IN "TRAFFIC CONTROL & PROTECTION (DETOUR 1)"

1"=30'

0' 15' 30' 60' 90'

N

EXISTING CURVE
PI STA. = 31+90.84
Δ = 70° 01' 28" (RT)
D = 44° 01' 11"
R = 130.16'
T = 91.18'
L = 159.08'
E = 28.76'
P.C. STA. = 30+99.66
P.T. STA. = 32+58.73

COVER RIGHT TURN SIGN BELOW "SOUTH 45" SIGN WITH

STA. 113+11.89 (US 36) =
STA. 550+00 (S. RAMP TEMPORARY ALIGNMENT)

LIGHTED DRUMS @ 50' CENTERS

℄ U.S. ROUTE 36

℄ N. RAMP

POT Sta 550+00.00

79°-58'-57"

8'

10' TYP.

70' - 500'
23' O.S.

65' - 350'
11' O.S.

PC Sta 550+41.41

TIE INTO EXISTING STRIPE

COVER "NO LEFT TURN" SIGN. COVER SOUTH 45 RIGHT PRETURN SIGN WITH

REMOVE "NO LEFT TURN" SIGN AND RE-ERECT ONCE DETOUR IS NO LONGER USED

RELOCATE EXISTING "STOP" SIGN TO TEMPORARY ISLAND

RELOCATE "DETOUR 45 NORTH RIGHT" & "EAST 36 RIGHT" SIGNS TO NEW TEMPORARY ISLAND

EXISTING CURVE
PI STA. = 51+90.06
Δ = 41° 45' 33" (RT)
D = 11° 29' 58"
R = 498.25'
T = 190.06'
L = 363.14'
E = 35.02'
P.C. STA. = 50+00.00
P.T. STA. = 53+63.14

COVER EXISTING "DO NOT ENTER", "NO LEFT TURN", & "KEEP RIGHT" SIGNS

ERECT WEST 36

PT Sta 552+32.14

PT Sta 553+63.14

1' (TYP.)

POT Sta 553+67.64

STA. 56+00 (SOUTH RAMP) =
STA. 553+66.65 (S. RAMP TEMPORARY ALIGNMENT)

PROP. CURVE TEMPRMP-1
P.I. STA. = 551+40.51
Δ = 38°-20'-38" (LT.)
D = 20°-06'-14"
R = 285.00'
T = 99.09'
L = 190.73'
E = 16.74'
e =
T.R. =
P.C. STA. = 550+41.41
P.T. STA. = 552+32.14

ILLINOIS DEPARTMENT OF TRANSPORTATION

PRE-STAGE TRAFFIC CONTROL

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

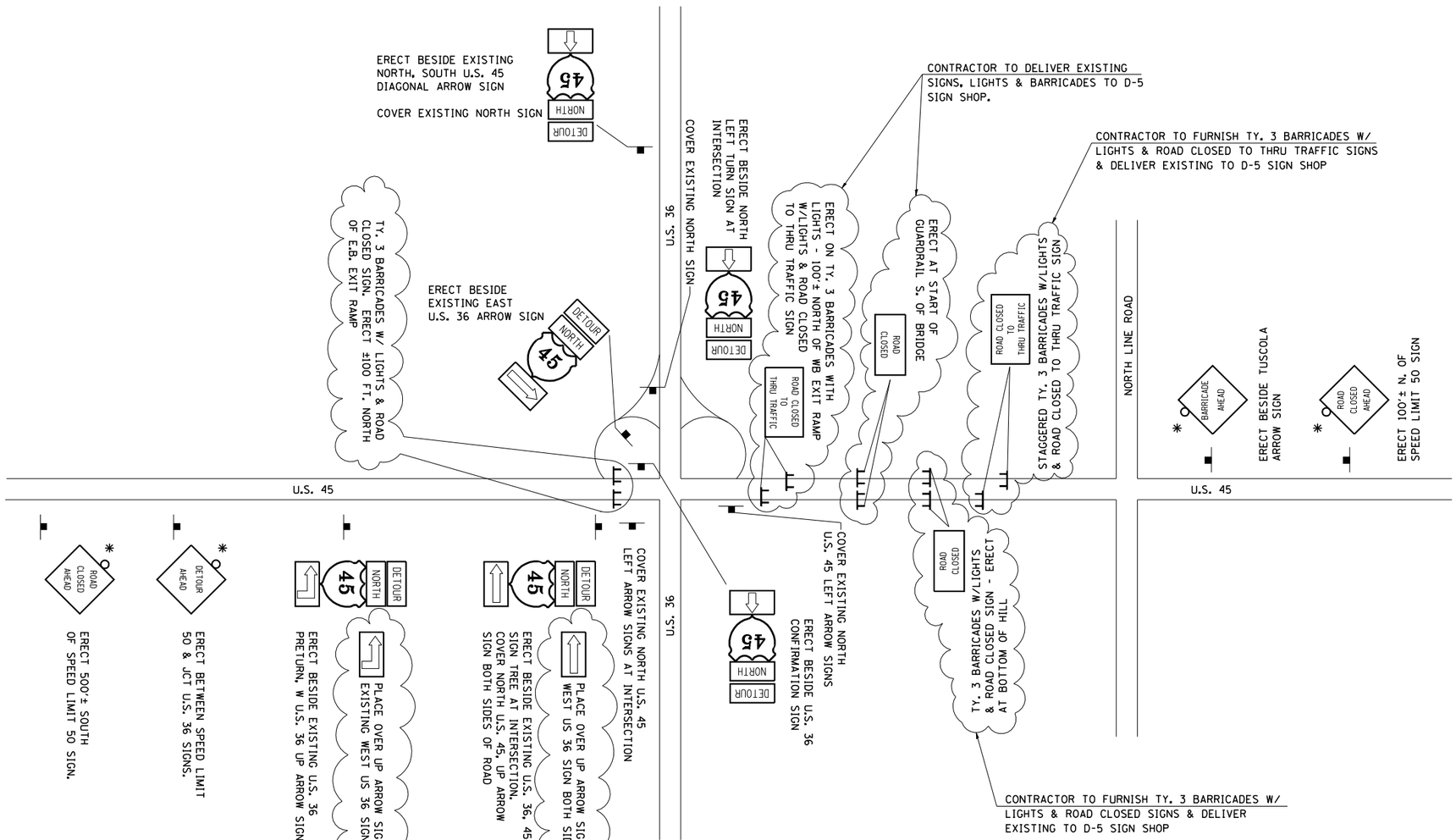
SCALE: 1" = 30'
DRAWN BY: B.B.P.
DATE: 06/14/06
CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258traffiecontrol.dgn
PLOT SCALE = 63.5294 / IN.
USER NAME = pierson

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	23
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1



ITEMS DENOTED BY ☁ INDICATE SIGNS TO BE ERECTED OR REMOVED BY CONTRACTOR PRIOR TO START OF CONSTRUCTION. ALL OTHER SIGNS ARE EXISTING SIGNS ERECTED BY THE STATE WHICH ARE TO REMAIN IN PLACE FOR DURATION OF DETOUR.

* CONTRACTOR TO FURNISH LIGHTS & DELIVER EXISTING LIGHTS TO D-5 SIGN SHOP.

THIS WORK TO BE PAID FOR AS:
"TRAFFIC CONTROL & PROTECTION (DETOUR)"

FOR OTHER SIGNS ON U.S. 36, SEE PRE-STAGE PLANS.

ILLINOIS DEPARTMENT OF TRANSPORTATION

DETOUR SIGNING DETAIL
U.S. 45 AT U.S. 36 - TUSCOLA

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

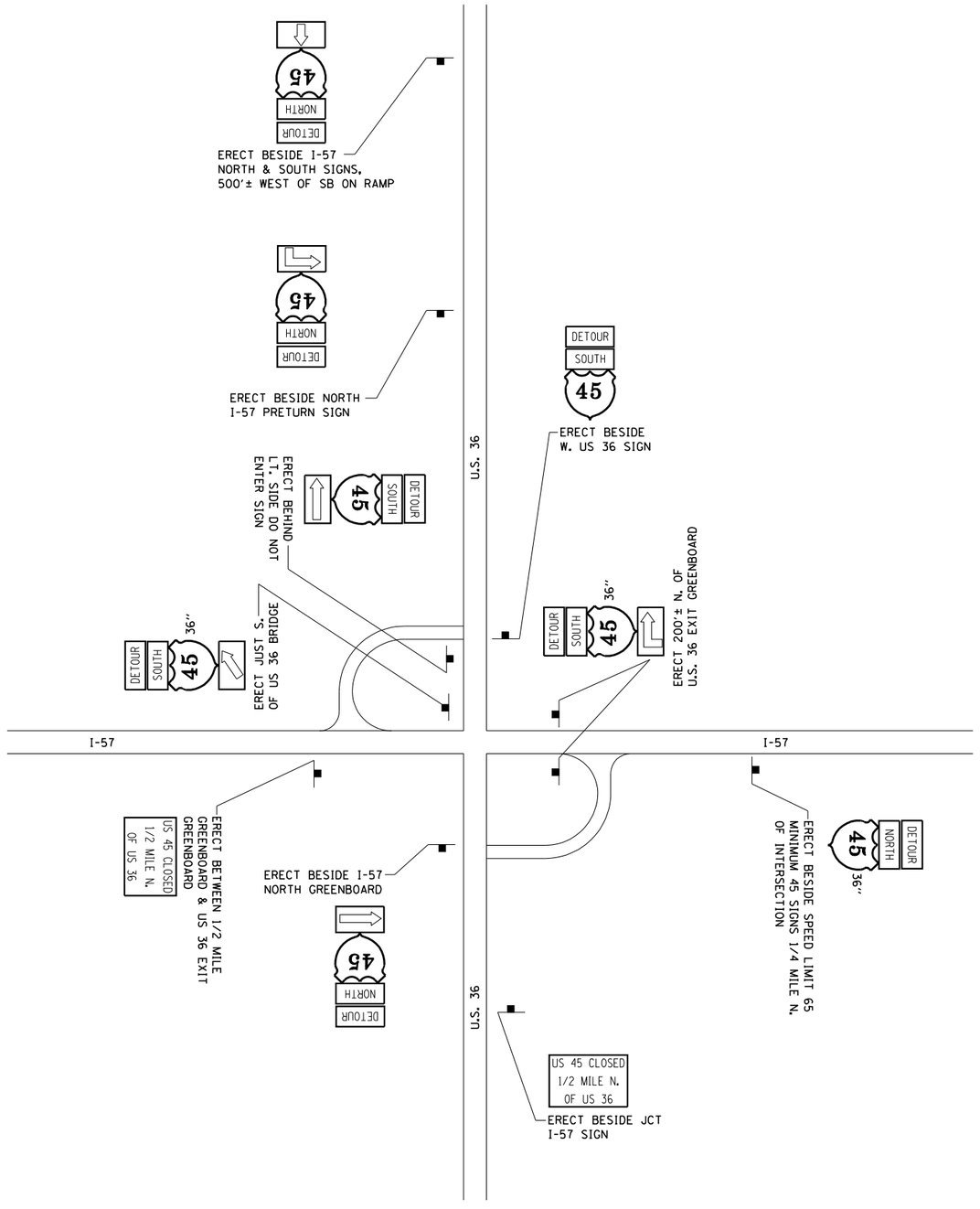
SCALE: NOT TO SCALE — DRAWN BY: B.B.P.
DATE: 06/05/06 — CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258details.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = dlersonbr

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	24
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1



ITEMS DENOTED BY ☁ INDICATE SIGNS TO BE ERECTED OR REMOVED BY CONTRACTOR PRIOR TO START OF CONSTRUCTION. ALL OTHER SIGNS ARE EXISTING SIGNS ERECTED BY THE STATE WHICH ARE TO REMAIN IN PLACE FOR DURATION OF DETOUR.

THIS WORK TO BE PAID FOR AS:
"TRAFFIC CONTROL & PROTECTION (DETOUR)"

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258details.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = plersonbr

ILLINOIS DEPARTMENT OF TRANSPORTATION

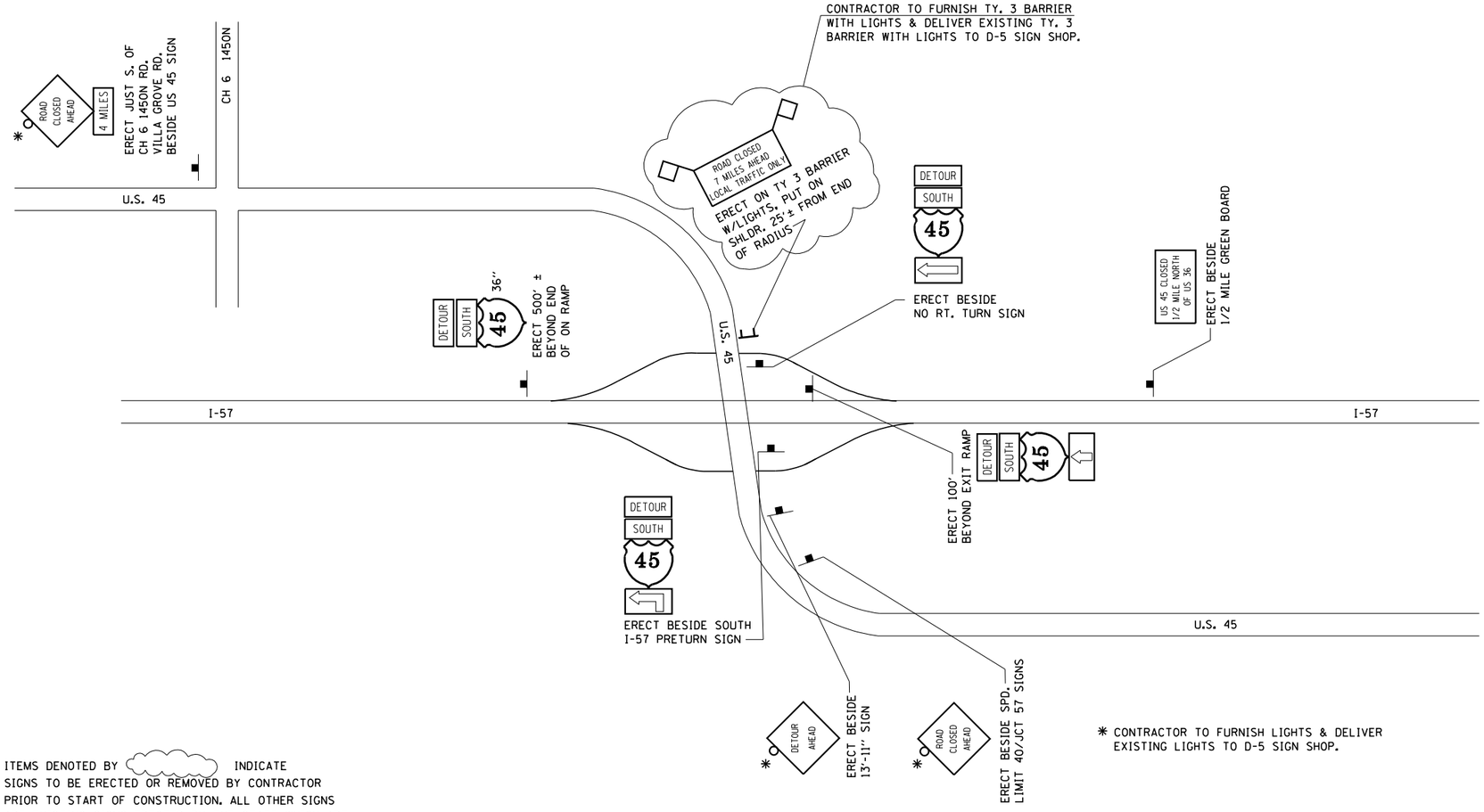
DETOUR SIGNING DETAIL
U.S. 36 AT F.A.I. 57 - TUSCOLA
F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: NOT TO SCALE — DRAWN BY: B.B.P.
DATE: 06/05/06 — CHECKED BY: C.R.G.

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	25
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1



ITEMS DENOTED BY ☁ INDICATE SIGNS TO BE ERECTED OR REMOVED BY CONTRACTOR PRIOR TO START OF CONSTRUCTION. ALL OTHER SIGNS ARE EXISTING SIGNS ERECTED BY THE STATE WHICH ARE TO REMAIN IN PLACE FOR DURATION OF DETOUR.

THIS WORK TO PAID FOR AS:
"TRAFFIC CONTROL & PROTECTION (DETOUR)"

* CONTRACTOR TO FURNISH LIGHTS & DELIVER EXISTING LIGHTS TO D-5 SIGN SHOP.

ILLINOIS DEPARTMENT OF TRANSPORTATION

DETOUR SIGNING DETAIL
U.S. 45 AT F.A.I. 57 - PESOTUM

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: NOT TO SCALE — DRAWN BY: B.B.P.
DATE: 06/05/06 — CHECKED BY: C.R.G.

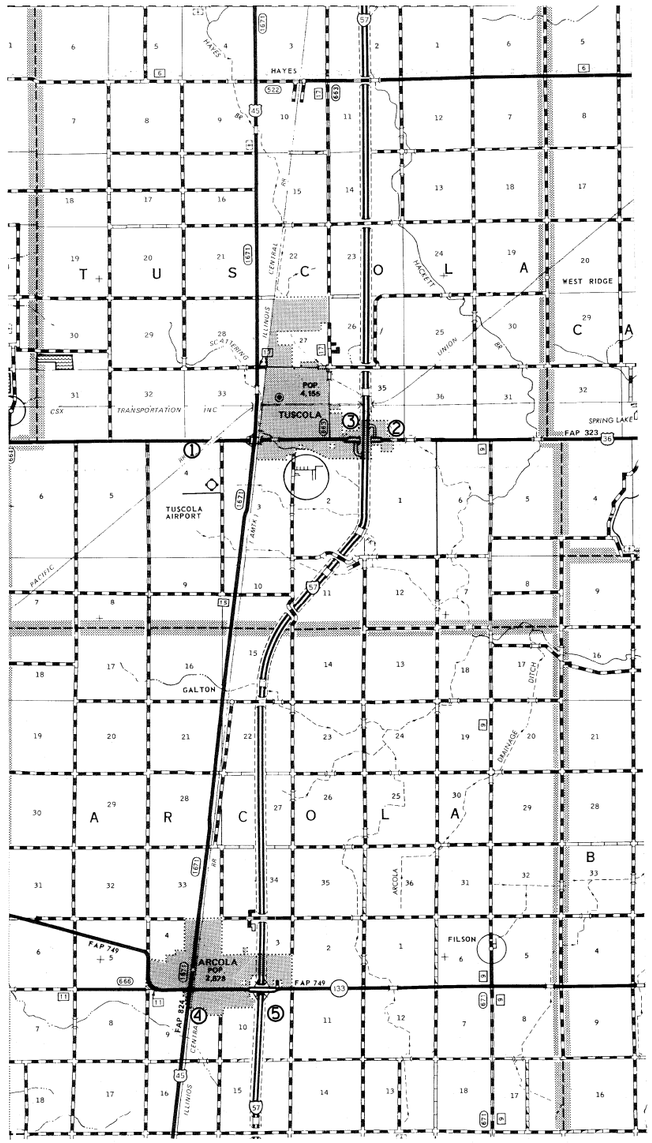
PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258details.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = plersonbr

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	26
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1

SPECIAL DETAIL FOR TRAFFIC CONTROL & PROTECTION FOR TEMPORARY DETOUR



MESSAGE BOARD NO.	PLACEMENT OF MESSAGE BOARDS	SUGGESTED ORDER OF MESSAGES	
1	E. B. ON U. S. 36 APPROX. 1000 FT. WEST OF UPRR SUBWAY	U. S. 36 CLOSED AHEAD	11:00 PM TO 5:00 AM
2	W. B. ON U. S. 36 APPROX. 1/4 MILE EAST OF I-57	U. S. 36 CLOSED 1 1/2 MILES	11:00 PM TO 5:00 AM
3	S. B. ON I-57 APPROX. 1/4 MILE NORTH OF TUSCOLA OFF RAMP	WEST U. S. 36 CLOSED AT U. S. 45	11:00 PM TO 5:00 AM
4	N. B. ON U. S. 45 JUST SOUTH OF IL 133 INTERSECTION	U. S. 36 CLOSED UNDER U. S. 45	11:00 PM TO 5:00 AM
5	N. B. ON I-57 APPROX. 1/4 MILE SOUTH OF IL 133 INTERSECTION	U. S. 36 CLOSED UNDER U. S. 45	11:00 PM TO 5:00 AM

ILLINOIS DEPARTMENT OF TRANSPORTATION

SPECIAL DETAIL FOR TRAFFIC CONTROL & PROTECTION FOR TEMP. DETOUR

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

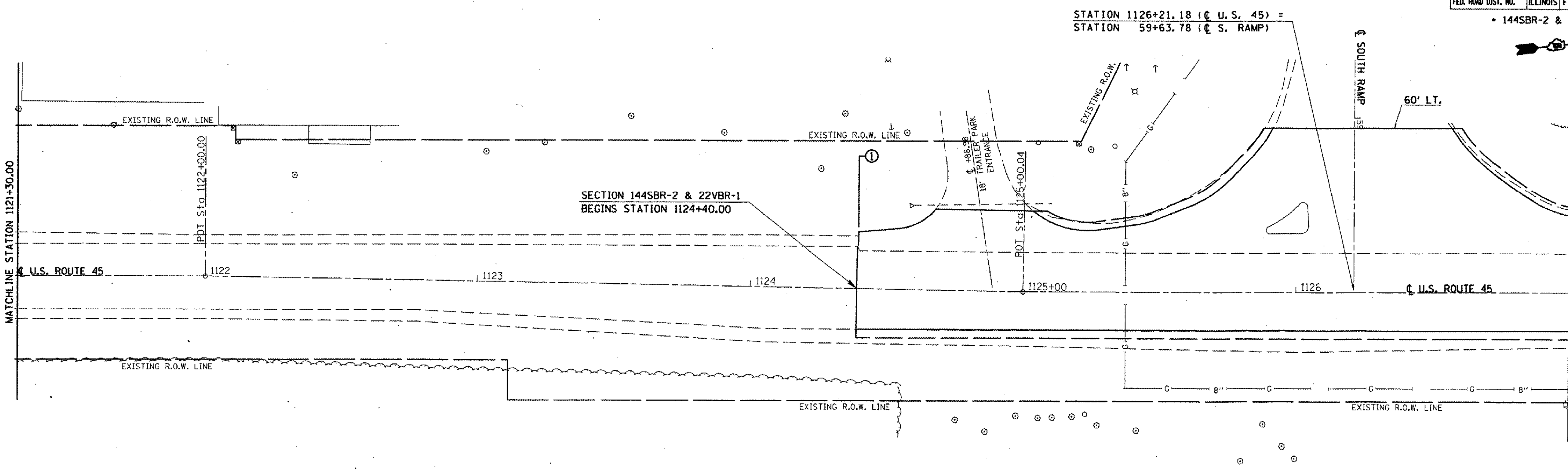
SCALE: NOT TO SCALE — DRAWN BY: B.B.P.
DATE: 06/19/06 — CHECKED BY: C.R.G.

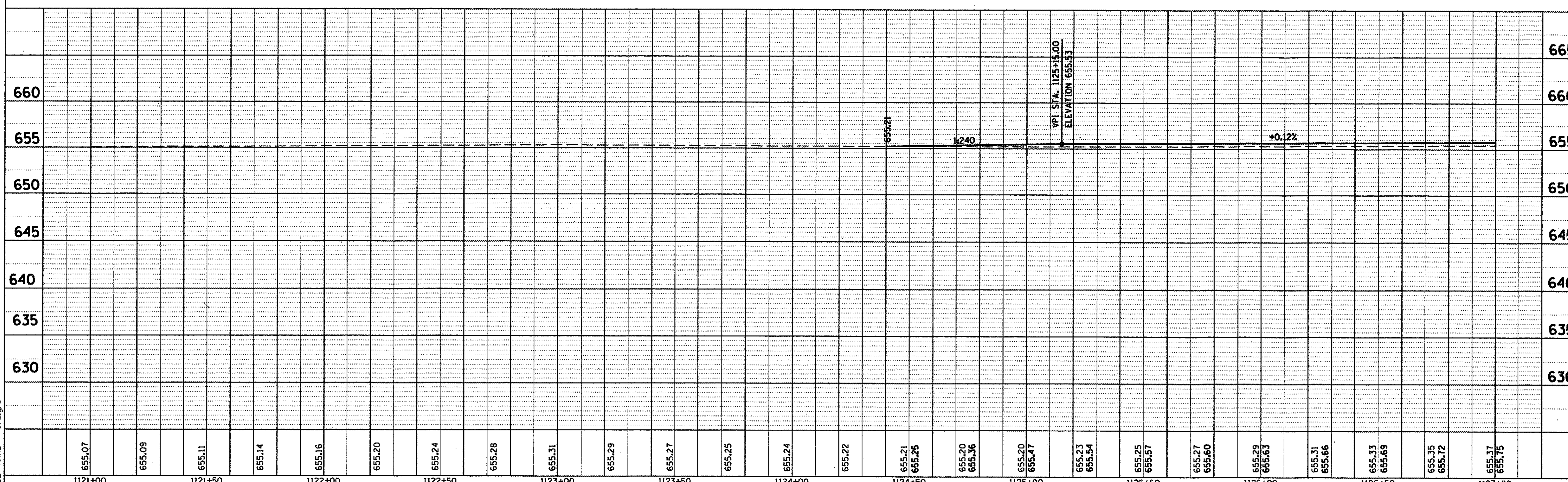
PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258details.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = piersonbr

CONTRACT NO. 70258

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	27
STA. 1121+00	TO STA. 1127+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1





PLAN — NOTE BOOK NO. — SURVEYED / PLOTTED / ALIGNMENT CHECKED / R.T. OF WAY CHECKED / CADD FILE NAME — BY — DATE

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

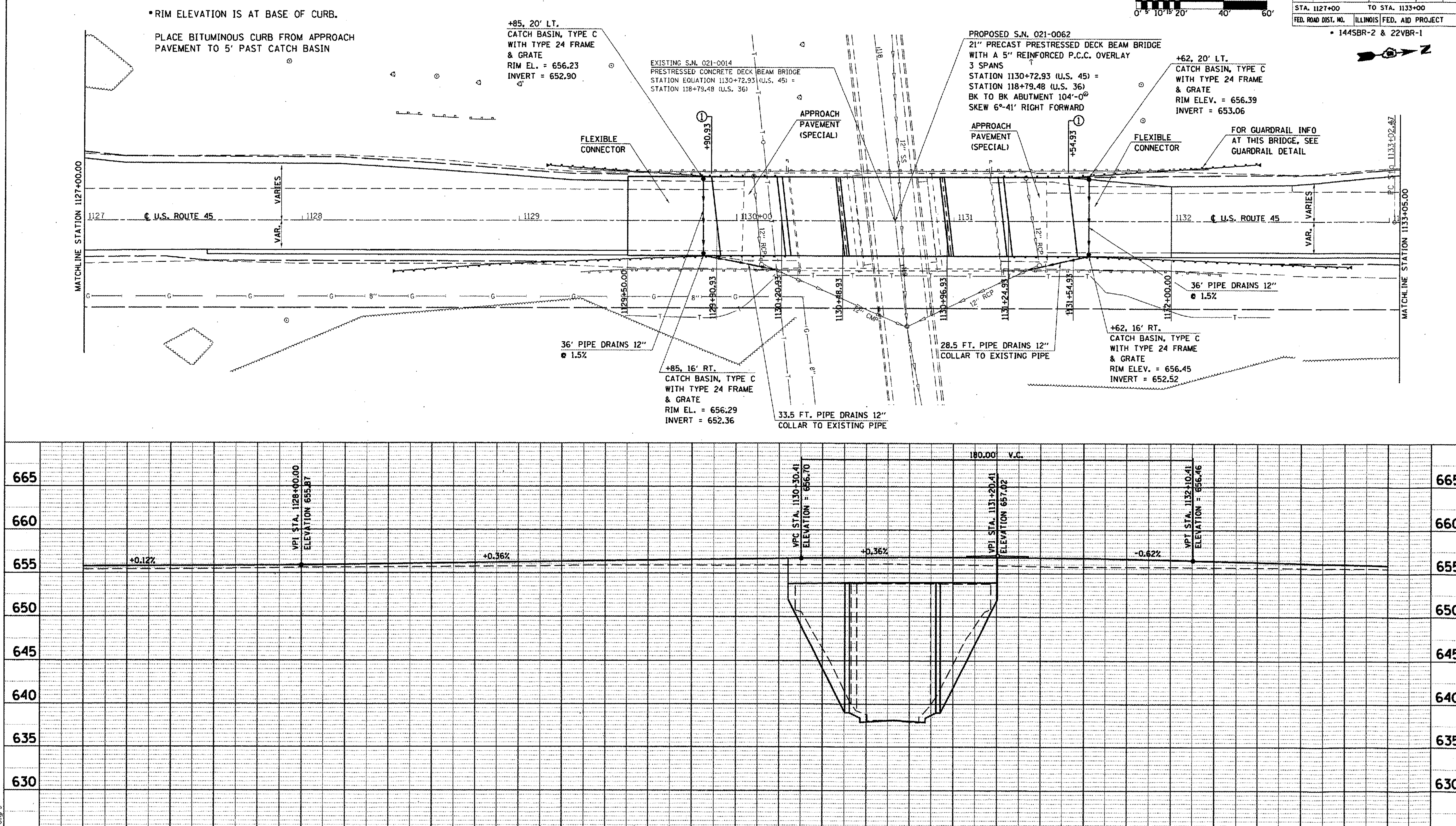
PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\pl&pr20.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = craigre

STA 1121+00 TO STA 1127+00

CONTRACT NO. 70258

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	28
STA. 1127+00	TO STA. 1133+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1



Station		
1127+00	655.37	655.75
	655.40	655.78
1127+50	655.43	655.81
	655.52	655.84
1128+00	655.61	655.87
	655.64	655.96
1128+50	655.68	656.05
	655.71	656.14
1129+00	655.75	656.23
	655.83	656.32
1129+50	655.90	656.41
	655.89	656.50
1130+00	655.87	656.59
	655.94	656.68
1130+50	655.99	656.76
	656.03	656.80
1131+00	655.97	656.82
	655.87	656.79
1131+50	655.73	656.74
	655.73	656.65
1132+00	655.72	656.52
	655.68	656.37
1132+50	655.64	656.22
	655.59	656.06
1133+00	655.54	655.91

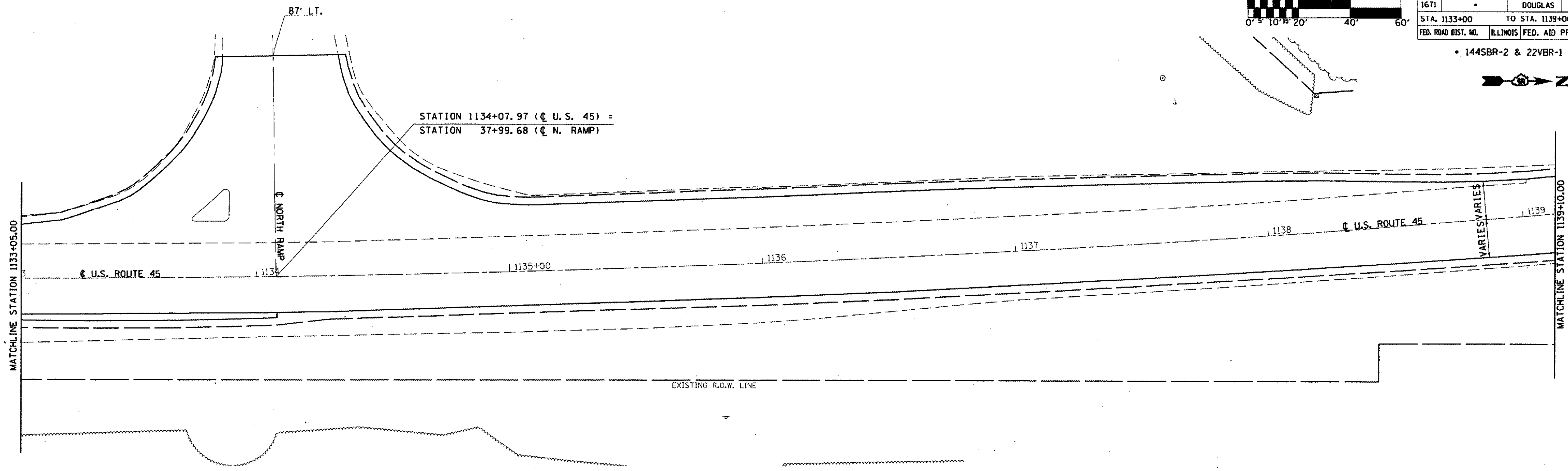
PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\pl&p-20.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = croigre

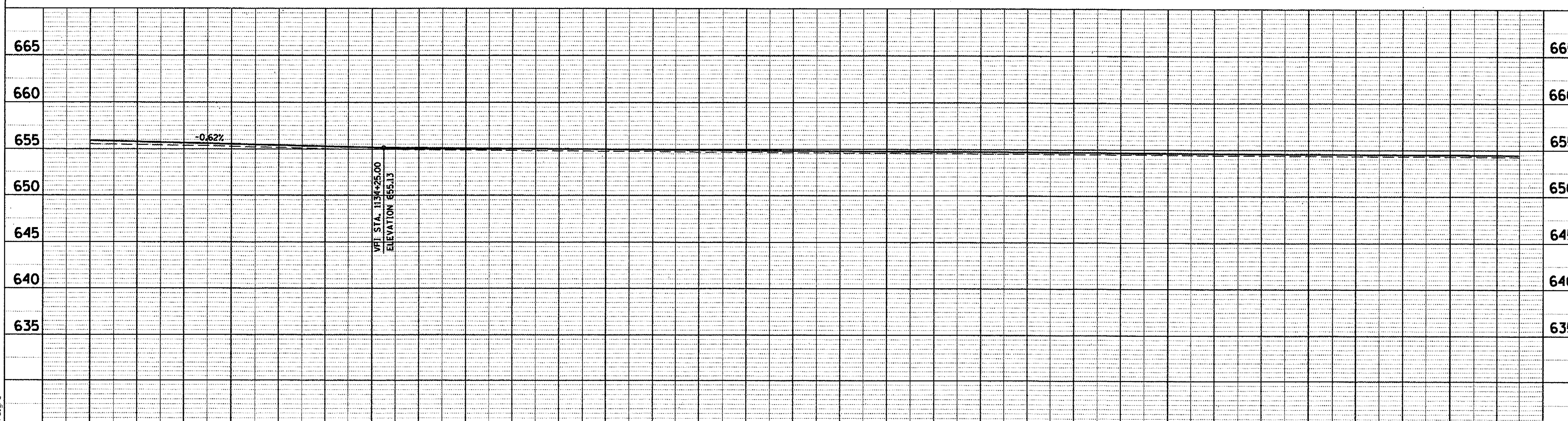
CONTRACT NO. 70258

F.A.S RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	29
STA. 1133+00	TO STA. 1139+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

1"=20'





Station		
1133+00	655.54	655.91
	655.44	655.75
1133+50	655.35	655.60
	655.19	655.44
1134+00	655.04	655.29
	654.96	655.13
1134+50	654.91	655.10
	654.87	655.06
1135+00	654.82	655.01
	654.77	654.96
1135+50	654.72	654.91
	654.67	654.86
1136+00	654.63	654.82
	654.60	654.79
1136+50	654.57	654.76
	654.55	654.74
1137+00	654.52	654.71
	654.48	654.67
1137+50	654.45	654.64
	654.41	654.60
1138+00	654.37	654.56
	654.35	654.54
1138+50	654.32	654.51
	654.30	654.49
1139+00	654.27	654.46

PLAN — NOTE BOOK NO. — SURVEYED, PLOTTED, ALIGNMENT CHECKED, R.O.W. CHECKED, CADD FILE NAME — BY — DATE

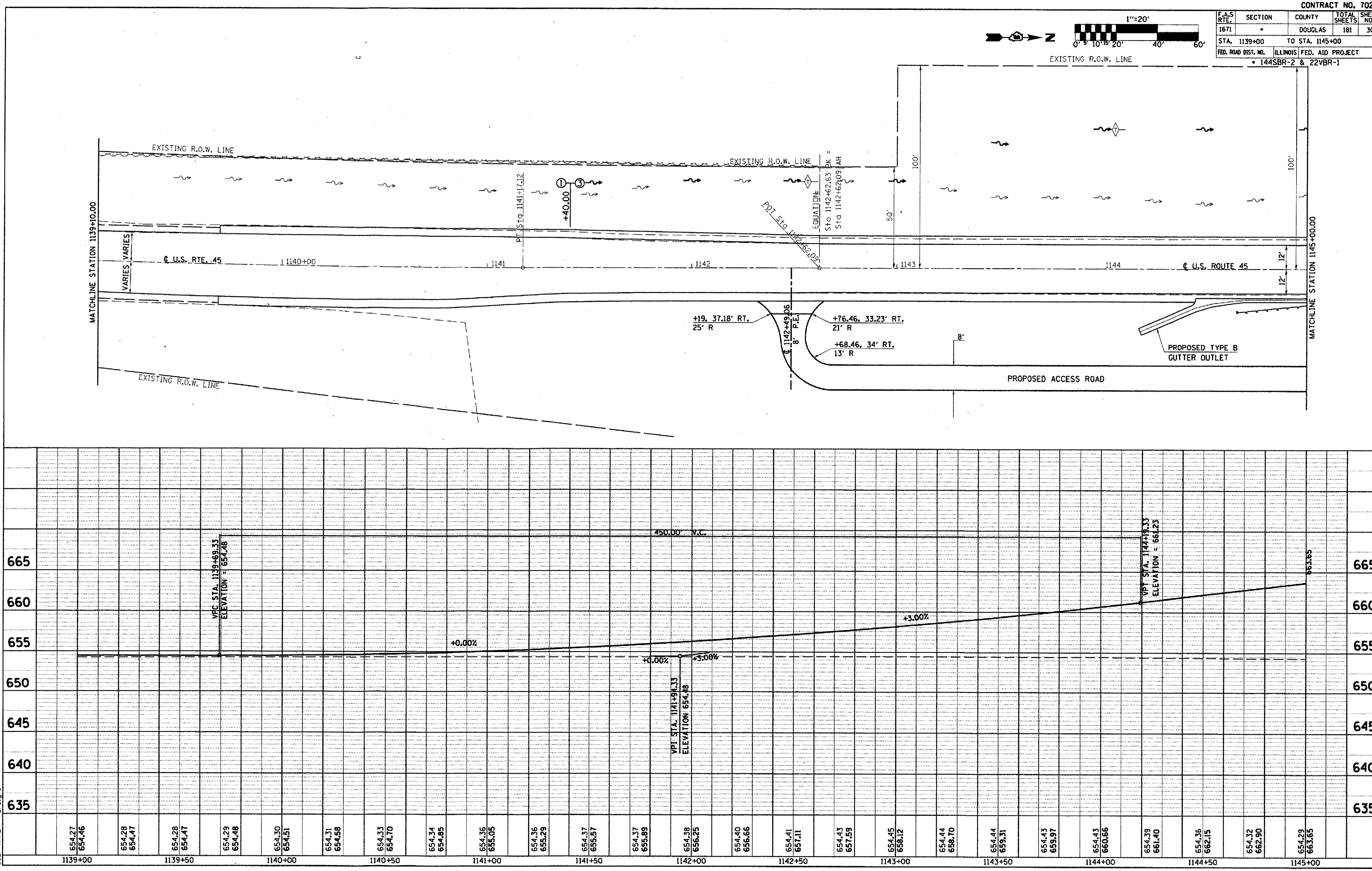
PROFILE — NOTE BOOK NO. — SURVEYED, PLOTTED, GRADE CHECKED, B.M. NOTED, STRUCTURE NOTATIONS CHKD — BY — DATE

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\c505202 (v8)\pl&p-28.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = craigre

CONTRACT NO. 70258

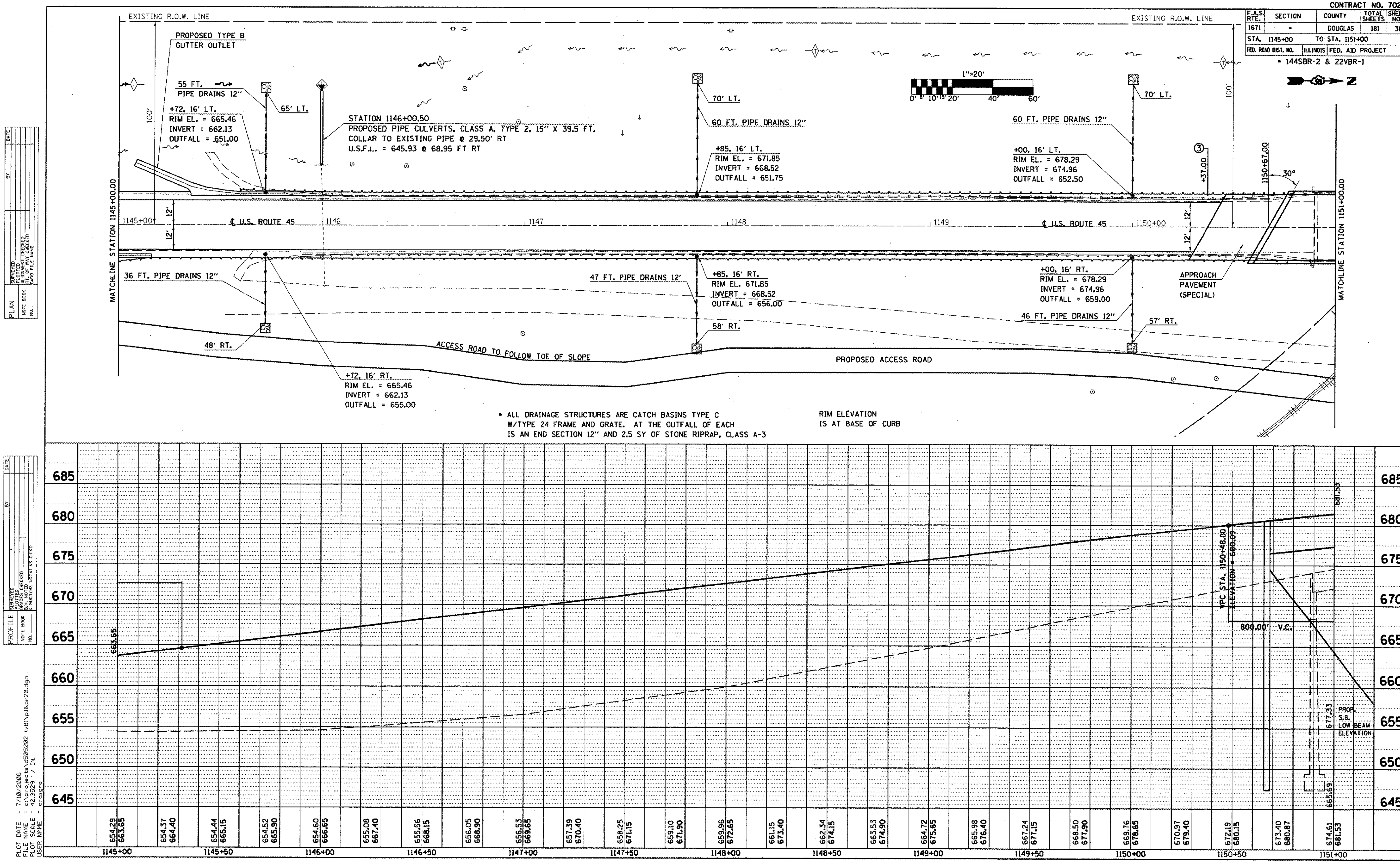
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	30
STA. 1139+00	TO STA. 1145+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1



PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v9)\pl8pr20.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = creigre

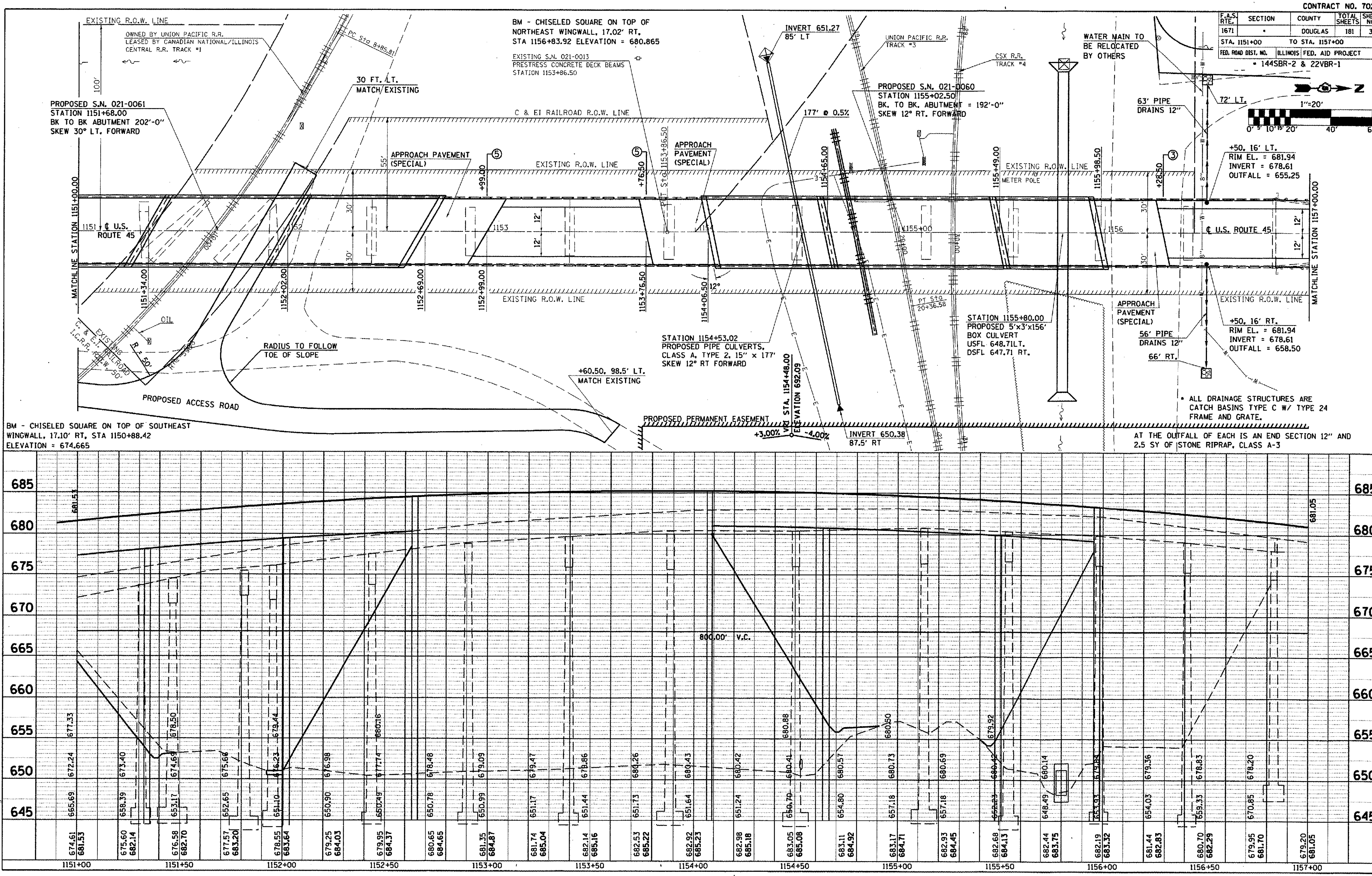
STA. 1139+00 TO STA. 1145+00


CONTRACT NO. 70258
F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO.
1671 | * | DOUGLAS | 181 | 31
STA. 1145+00 TO STA. 1151+00
FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT
* 144SBR-2 & 22VBR-1
1"=20'
EXISTING R.O.W. LINE
PROPOSED TYPE B GUTTER OUTLET
55 FT. PIPE DRAINS 12"
65' LT.
+72, 16' LT.
RIM EL. = 665.46
INVERT = 662.13
OUTFALL = 651.00
STATION 1146+00.50
PROPOSED PIPE CULVERTS, CLASS A, TYPE 2, 15" X 39.5 FT.
COLLAR TO EXISTING PIPE @ 29.50' RT
U.S.F.L. = 645.93 @ 68.95 FT RT
70' LT.
60 FT. PIPE DRAINS 12"
+85, 16' LT.
RIM EL. = 671.85
INVERT = 668.52
OUTFALL = 651.75
60 FT. PIPE DRAINS 12"
70' LT.
+00, 16' LT.
RIM EL. = 678.29
INVERT = 674.96
OUTFALL = 652.50
+37.00
1150+67.00
30°
MATCHLINE STATION 1145+00.00
MATCHLINE STATION 1151+00.00
℄ U.S. ROUTE 45
36 FT. PIPE DRAINS 12"
48' RT.
47 FT. PIPE DRAINS 12'
+85, 16' RT.
RIM EL. 671.85
INVERT = 668.52
OUTFALL = 656.00
58' RT.
+00, 16' RT.
RIM EL. = 678.29
INVERT = 674.96
OUTFALL = 659.00
46 FT. PIPE DRAINS 12"
57' RT.
APPROACH PAVEMENT (SPECIAL)
ACCESS ROAD TO FOLLOW TOE OF SLOPE
PROPOSED ACCESS ROAD
+72, 16' RT.
RIM EL. = 665.46
INVERT = 662.13
OUTFALL = 655.00
* ALL DRAINAGE STRUCTURES ARE CATCH BASINS TYPE C W/TYPE 24 FRAME AND GRATE. AT THE OUTFALL OF EACH IS AN END SECTION 12" AND 2.5 SY OF STONE RIPRAP, CLASS A-3
RIM ELEVATION IS AT BASE OF CURB
PLAN
PROFILE
VPC STA. 1150+48.00
ELEVATION = 680.09
800.00' V.C.
681.53
663.65
677.33
665.69
PROP. S.B. LOW BEAM ELEVATION
654.29 663.65
654.37 664.40
654.44 665.15
654.52 665.90
654.60 666.65
655.08 667.40
655.56 668.15
656.05 668.90
656.53 669.65
657.39 670.40
658.25 671.15
659.10 671.90
659.96 672.65
661.15 673.40
662.34 674.15
663.53 674.90
664.72 675.65
665.98 676.40
667.24 677.15
668.50 677.90
669.76 678.65
670.97 679.40
672.19 680.15
673.40 680.87
674.61 681.53
1145+00
1145+50
1146+00
1146+50
1147+00
1147+50
1148+00
1148+50
1149+00
1149+50
1150+00
1150+50
1151+00
PLOT DATE = 7/10/2006
PLOT SCALE = 42.3529 ' / IN.
USER NAME = craigre

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	32
STA. 1151+00	TO STA. 1157+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1



PLOT DATE = 7/10/2006
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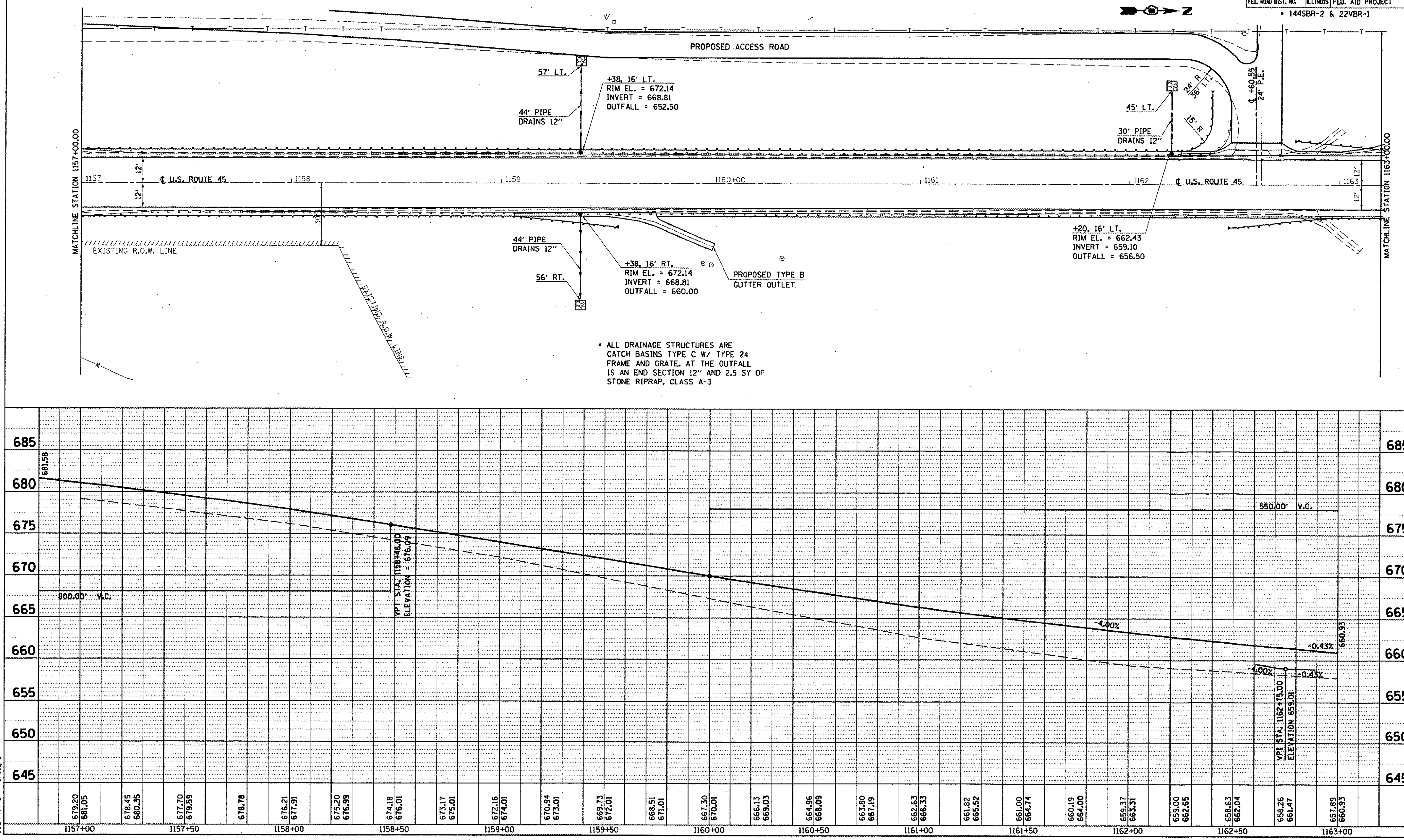
PLOT SCALE = 42.3529 ' / IN.
USER NAME = craigre

STA. 1151+00 TO STA. 1157+00

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	33
STA. 1157+00	TO STA. 1163+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1



* ALL DRAINAGE STRUCTURES ARE CATCH BASINS TYPE C W/ TYPE 24 FRAME AND GRATE. AT THE OUTFALL IS AN END SECTION 12" AND 2.5 SY OF STONE RIPRAP, CLASS A-3

PLOT DATE = 7/10/2006
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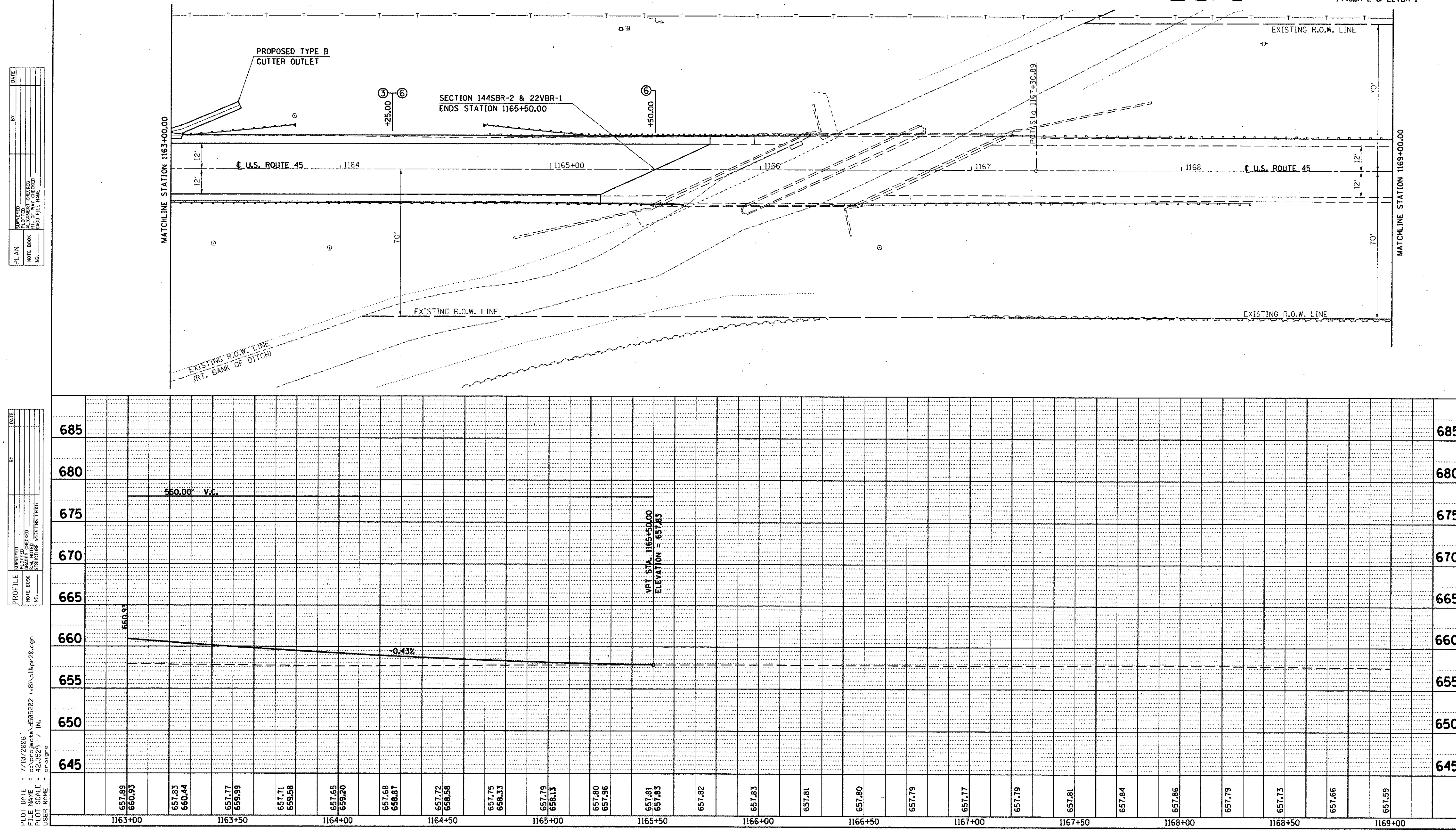
PLOT SCALE = 42.3529 ' / IN.
USER NAME = craigre

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	(22VBR)BR	DOUGLAS	181	34
STA. 1163+00	TO STA. 1169+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1



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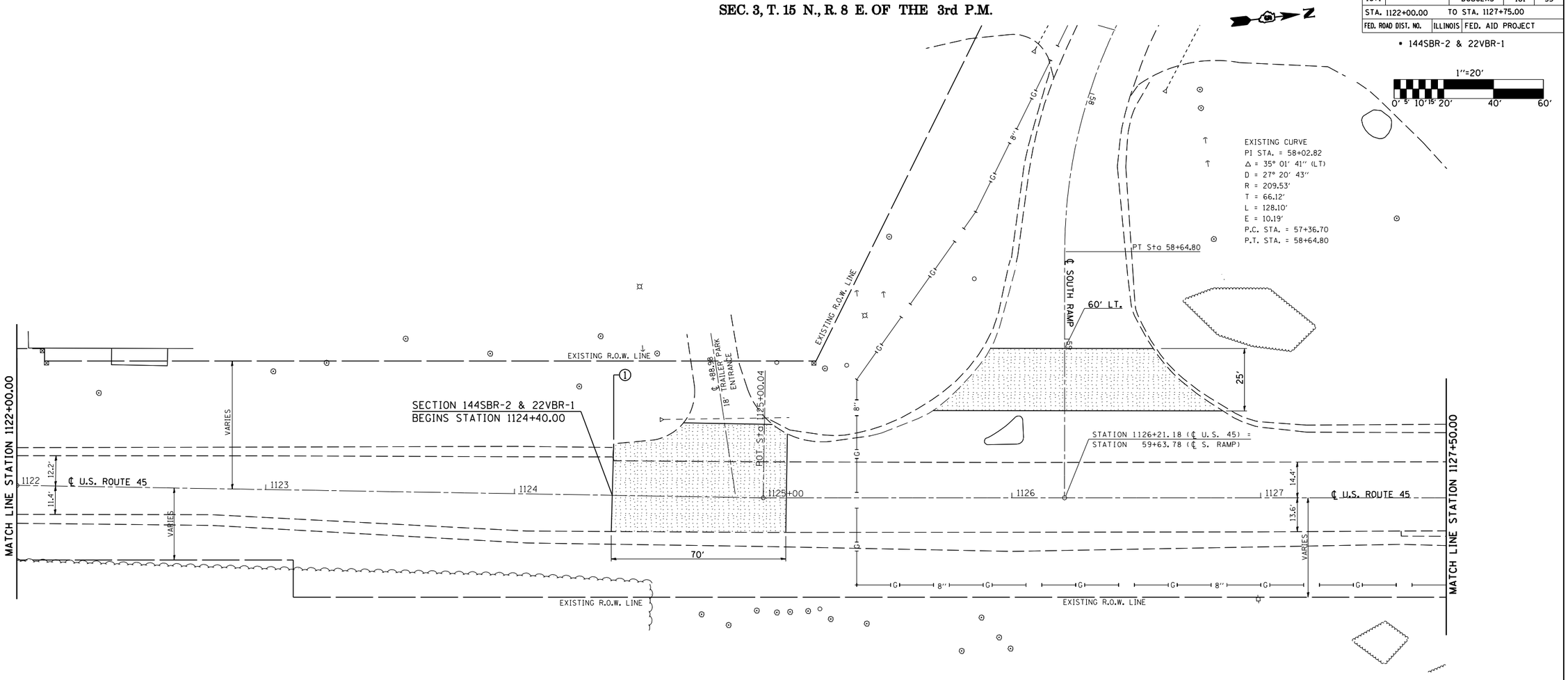
PLOT SCALE = 42.3529 '/ IN.
USER NAME = craigre

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	35
STA. 1122+00.00		TO STA. 1127+75.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

SEC. 3, T. 15 N., R. 8 E. OF THE 3rd P.M.



BITUMINOUS SURFACE REMOVAL - BUTT JOINT

SEC. 3, T. 15 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

REMOVAL PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.
DATE: 05/31/06 CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258removal.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = craigre

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	36

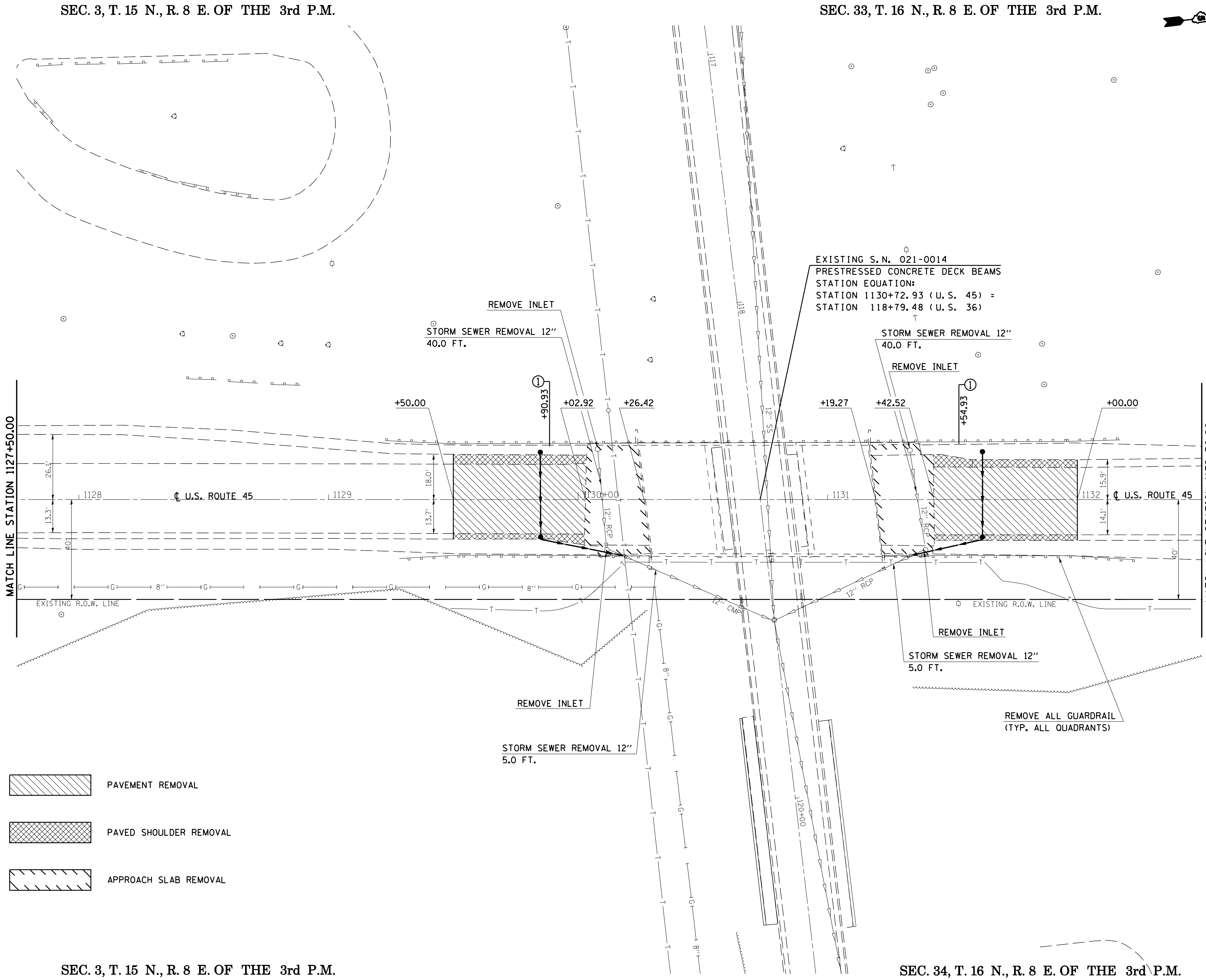
STA. 1127+75.00 TO STA. 1132+50.00

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

• 144SBR-2 & 22VBR-1

1″=20′

0′ 5′ 10′ 15′ 20′ 40′ 60′



ILLINOIS DEPARTMENT OF TRANSPORTATION

REMOVAL PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1″ = 20′-0″ DRAWN BY: B.B.P.
DATE: 05/31/06 CHECKED BY: C.R.G.

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	37
STA. 1132+50.00	TO STA. 1138+50.57			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

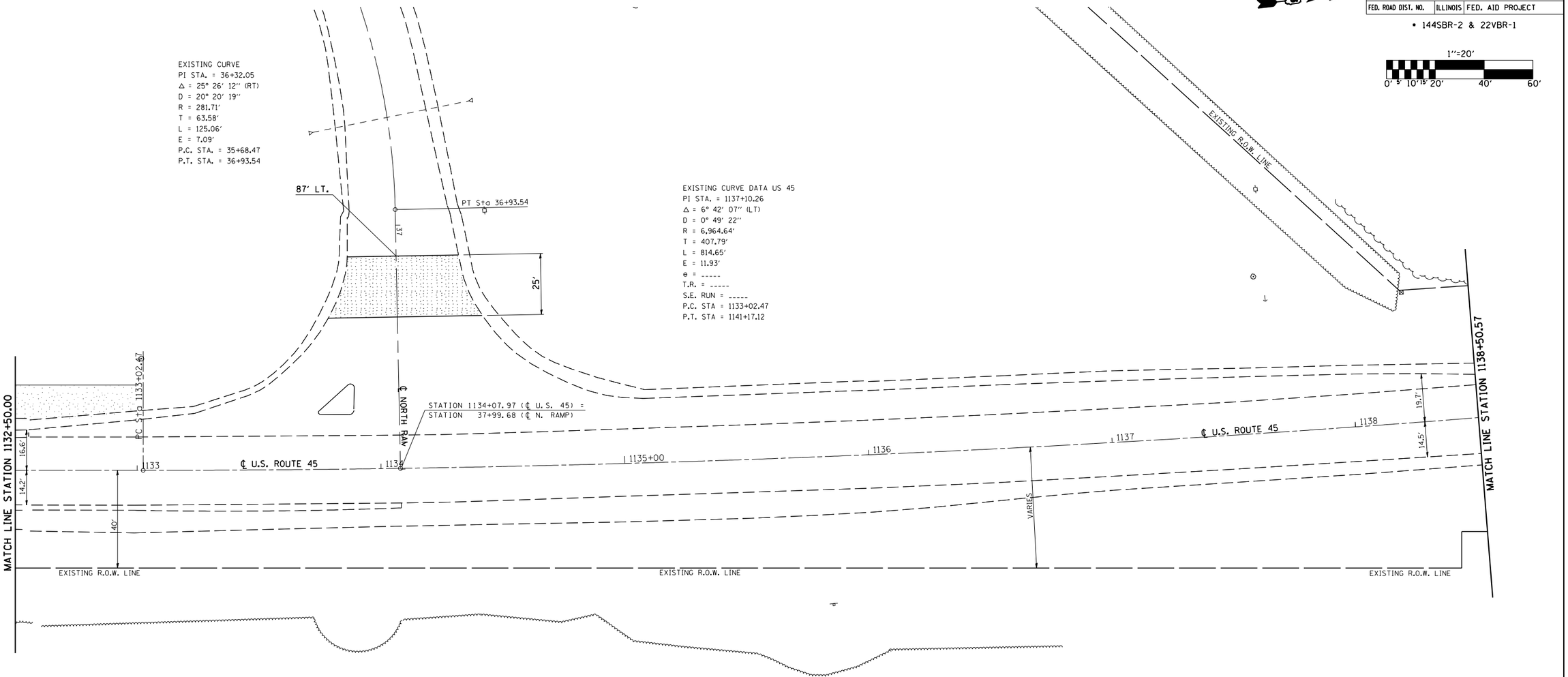
1"=20'

0' 5' 10' 15' 20' 40' 60'

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.

EXISTING CURVE
PI STA. = 36+32.05
Δ = 25° 26' 12" (RT)
D = 20° 20' 19"
R = 281.71'
T = 63.58'
L = 125.06'
E = 7.09'
P.C. STA. = 35+68.47
P.T. STA. = 36+93.54

EXISTING CURVE DATA US 45
PI STA. = 1137+10.26
Δ = 6° 42' 07" (LT)
D = 0° 49' 22"
R = 6,964.64'
T = 407.79'
L = 814.65'
E = 11.93'
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA = 1133+02.47
P.T. STA = 1141+17.12



BITUMINOUS SURFACE REMOVAL - BUTT JOINT

SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

REMOVAL PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.
DATE: 05/31/06 CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8i)\70258removal.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = crdgre

CONTRACT NO. 70258

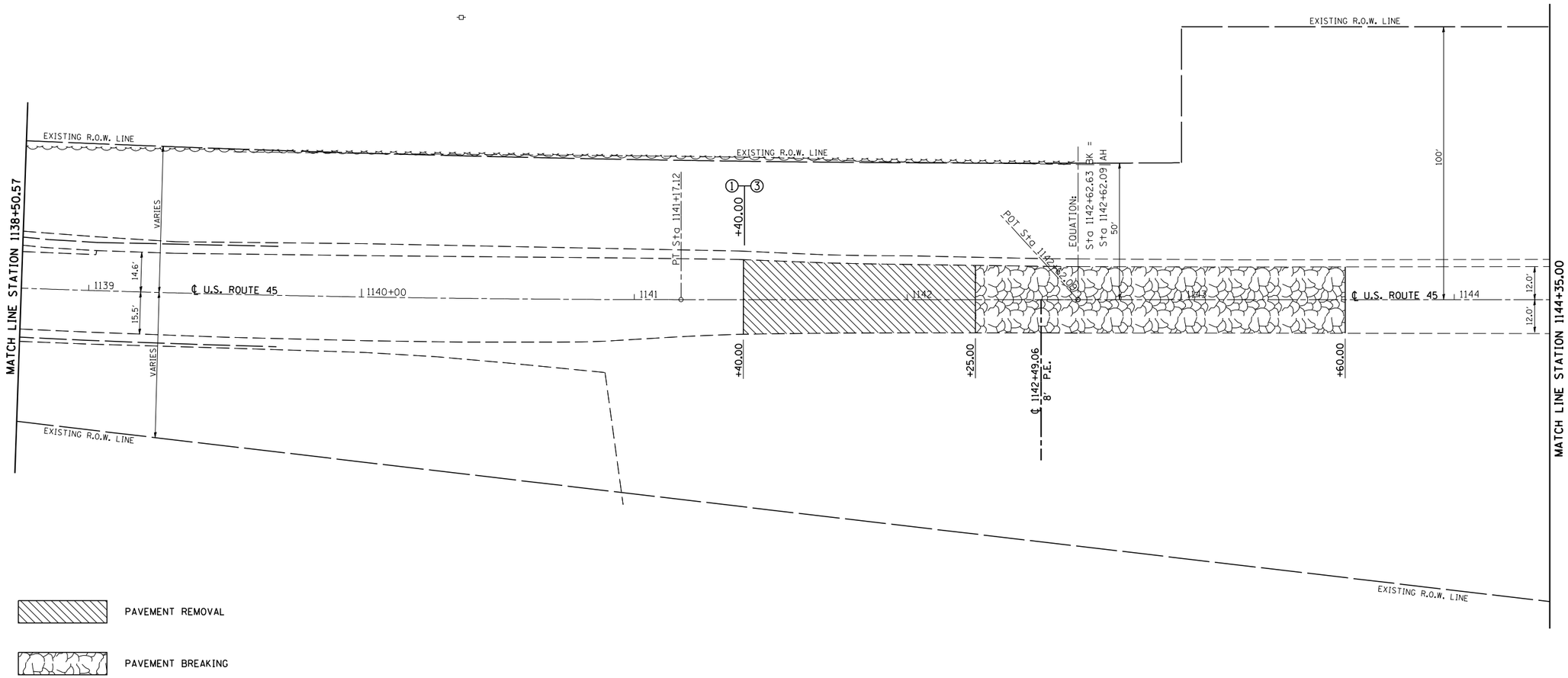
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	38
STA. 1138+50.57		TO STA. 1144+35.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1

1"=20'

0' 5' 10' 15' 20' 40' 60'

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.



SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258removal.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = crdigre

ILLINOIS DEPARTMENT OF TRANSPORTATION

REMOVAL PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.
DATE: 05/31/06 CHECKED BY: C.R.G.

CONTRACT NO. 70258

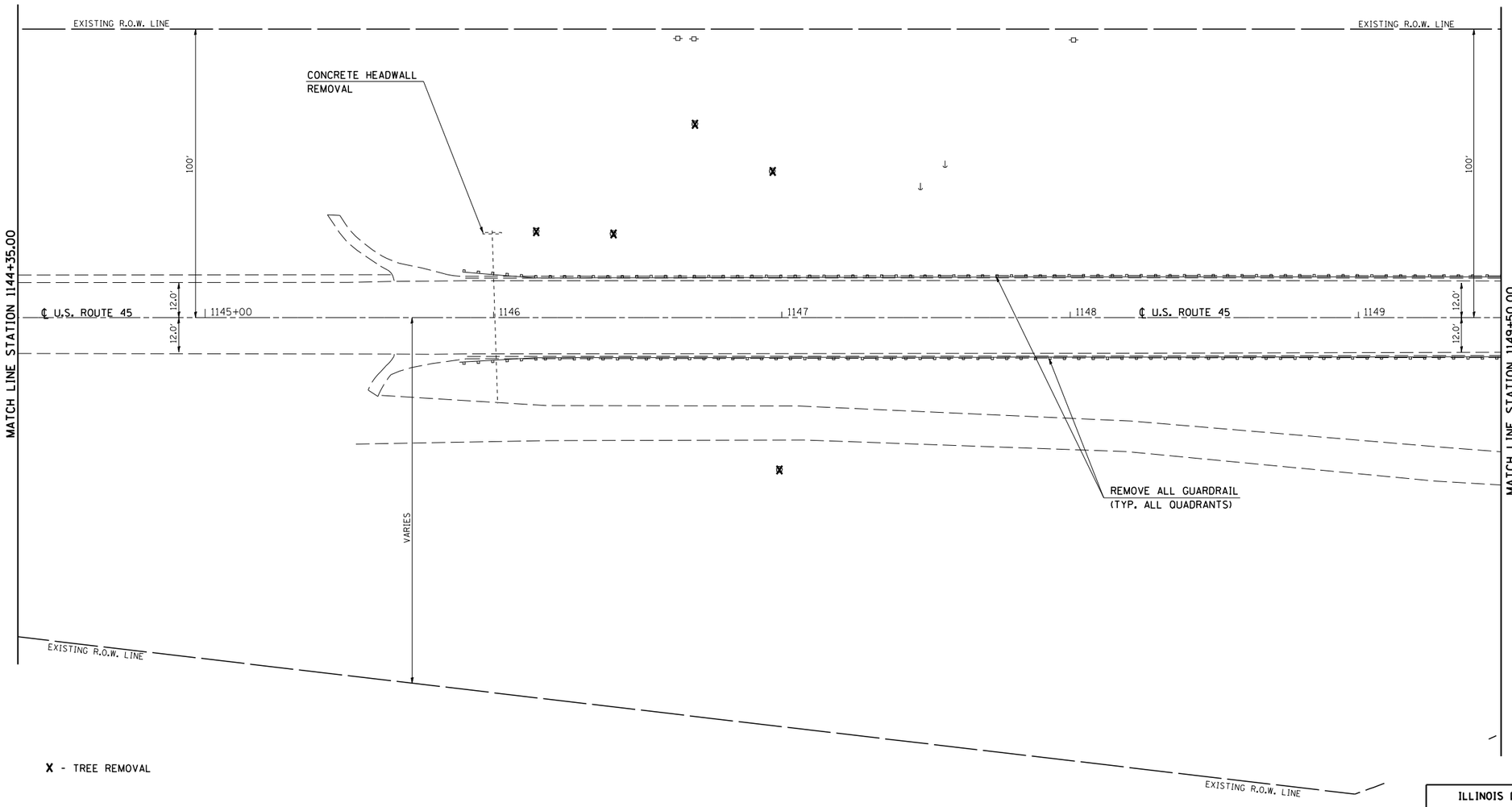
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	39
STA. 1144+35.00		TO STA. 1149+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

1"=20'

0' 5' 10' 15' 20' 40' 60'

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.



X - TREE REMOVAL

SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

REMOVAL PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.

DATE: 05/31/06 CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258removal.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = crdgre

CONTRACT NO. 70258

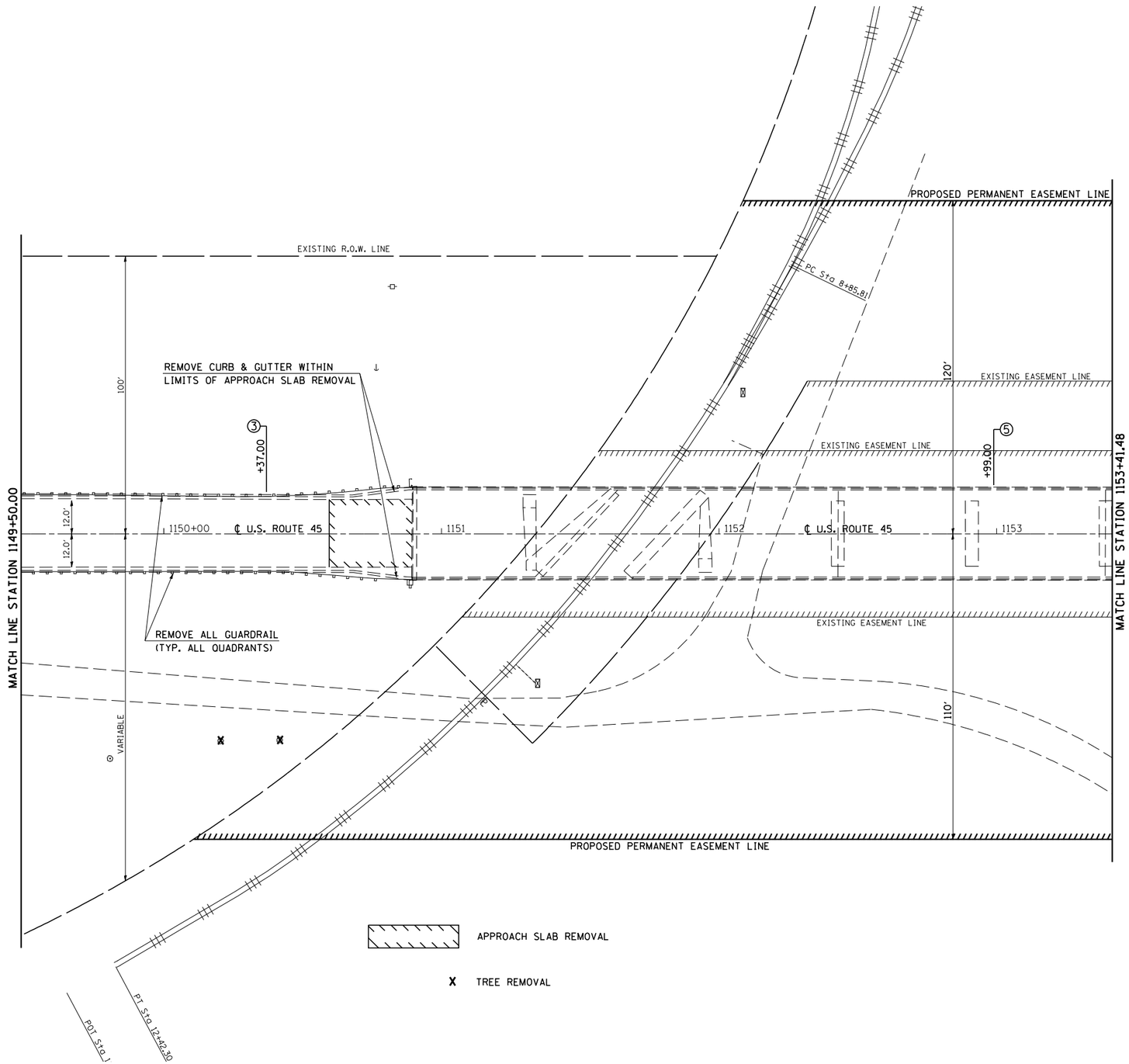
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	40
STA. 1149+50.00		TO STA. 1153+41.48		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

1"=20'

0' 5' 10' 15' 20' 40' 60'

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.



SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

REMOVAL PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.

DATE: 05/31/06 CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258removal.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = crdigre

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	41
STA. 1153+41.48		TO STA. 1157+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

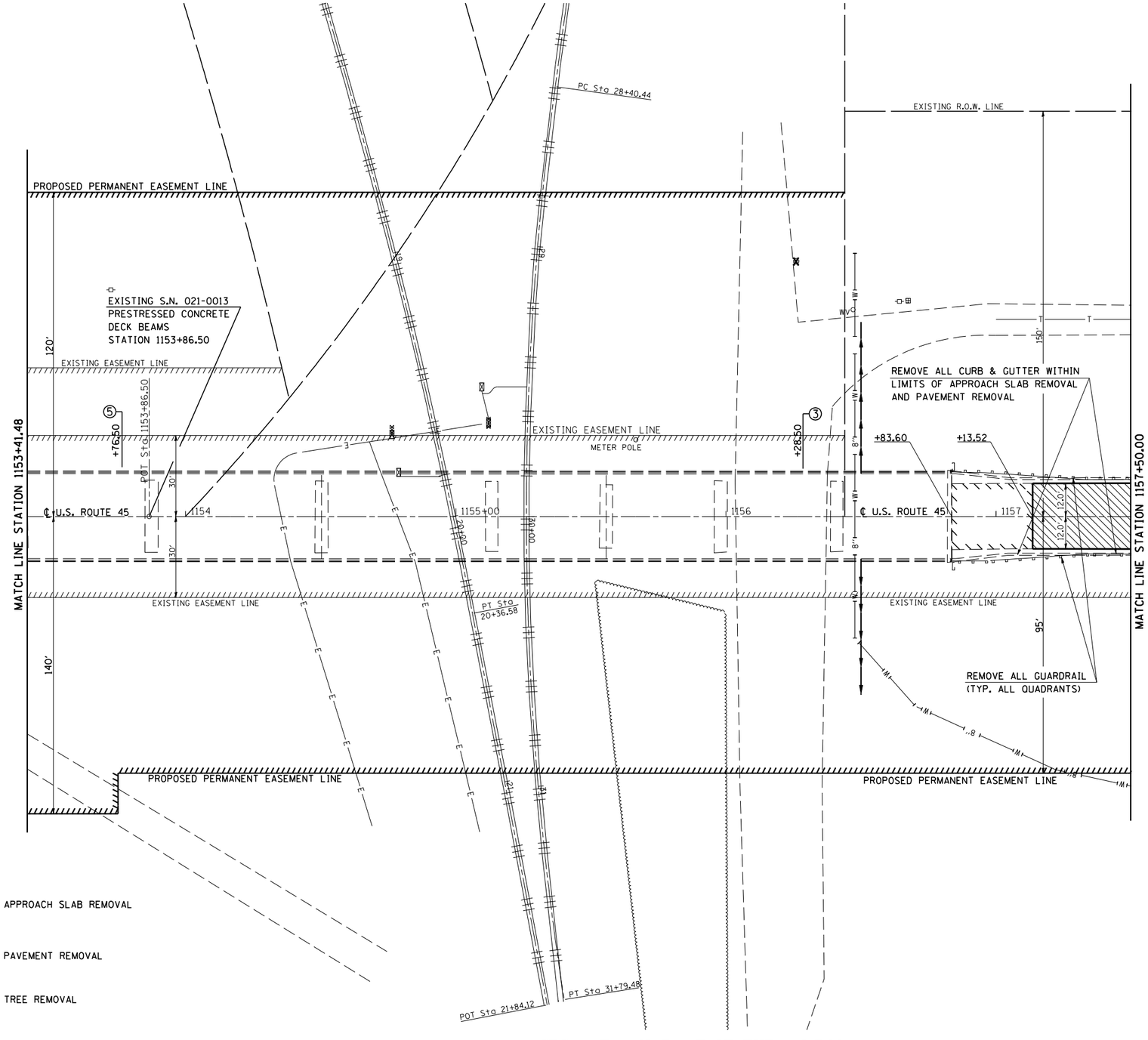
• 144SBR-2 & 22VBR-1

1"=20'

0' 5' 10' 15' 20' 40' 60'

N

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.



SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

REMOVAL PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.

DATE: 05/31/06 CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258removal.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = crdgre

CONTRACT NO. 70258

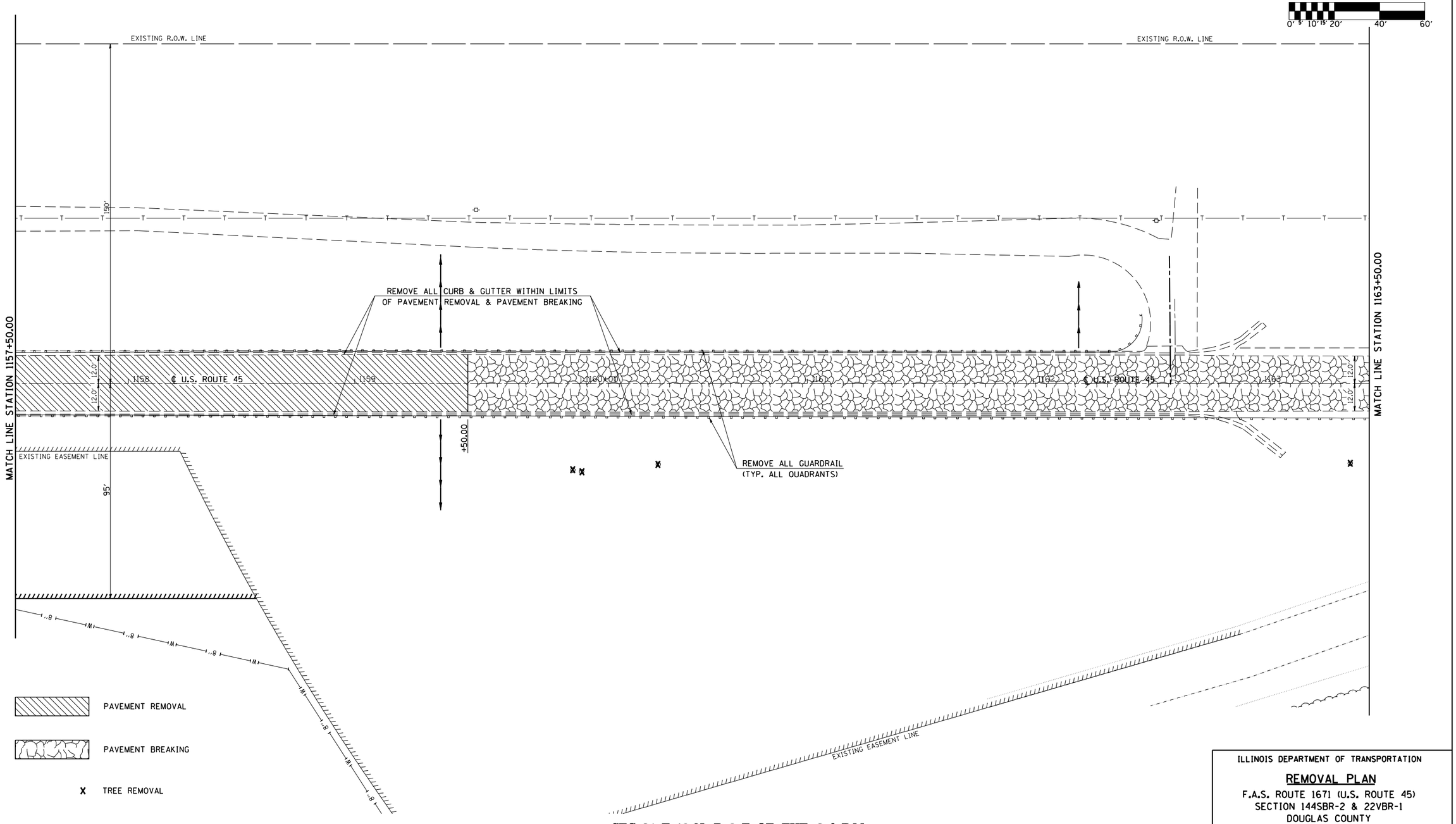
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	42
STA. 1157+50.00		TO STA. 1163+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.

1"=20'

0' 5' 10' 15' 20' 40' 60'



SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

REMOVAL PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.

DATE: 05/31/06 CHECKED BY: C.R.G.

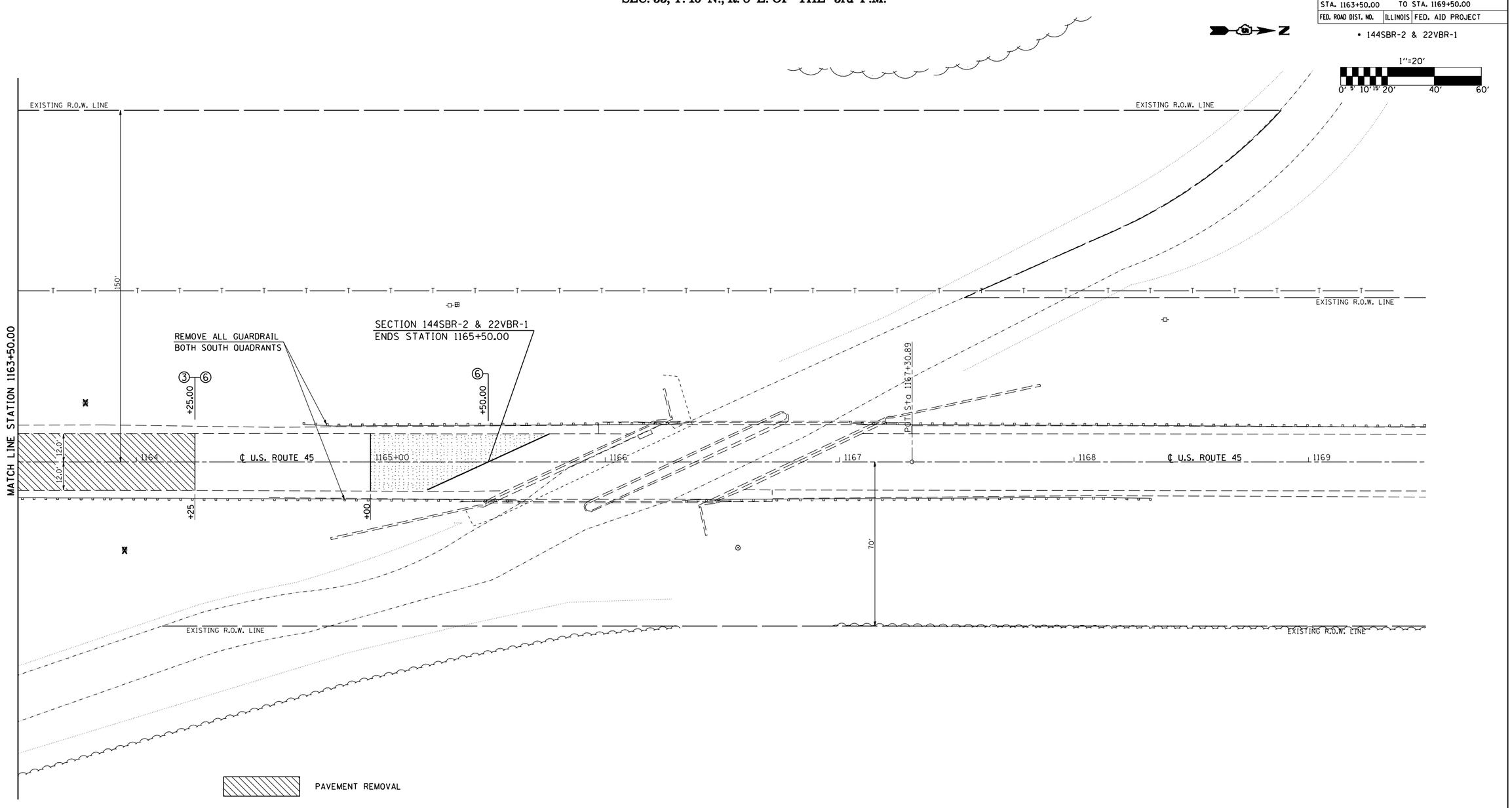
PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258removal.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = crolgre

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	43
STA. 1163+50.00		TO STA. 1169+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.



SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

REMOVAL PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.
DATE: 05/31/06 CHECKED BY: C.R.G.

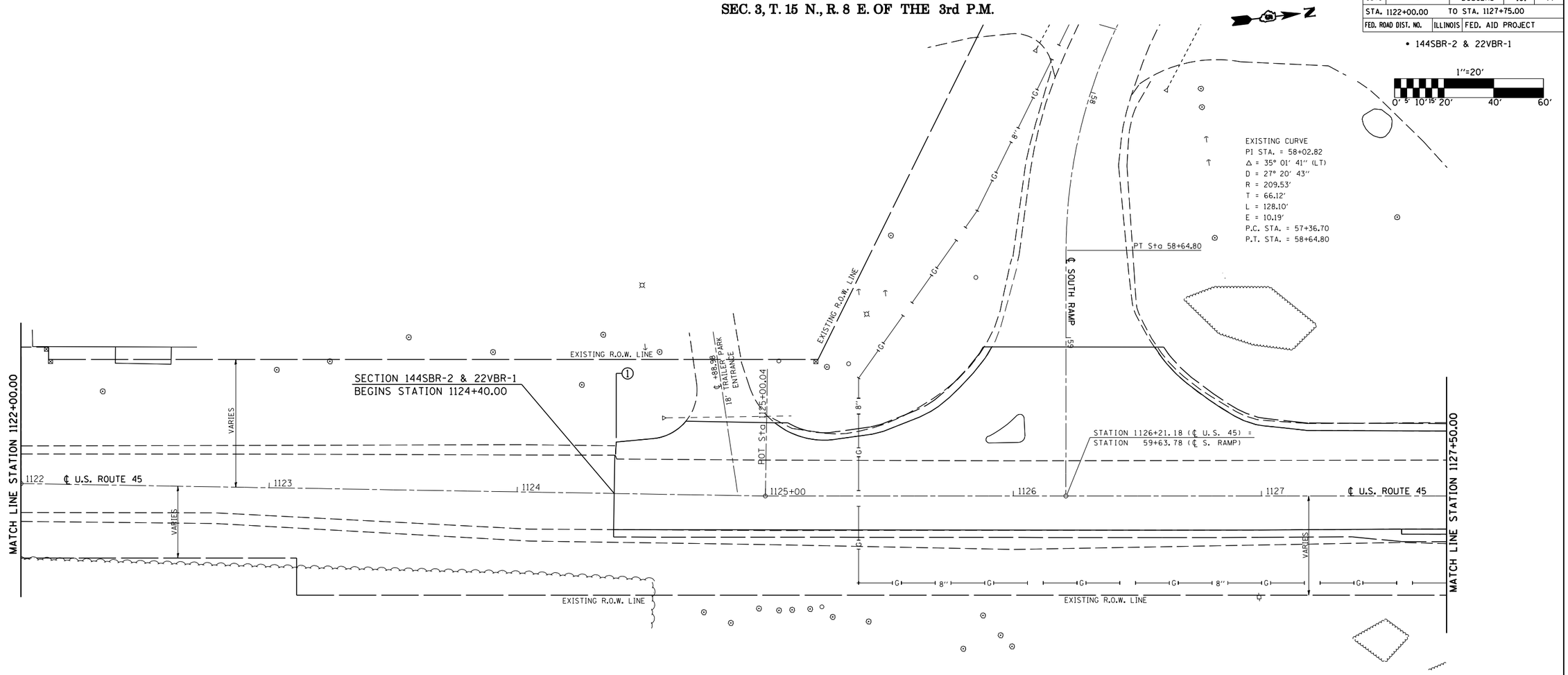
PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258removal.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = crolgre

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	44
STA. 1122+00.00		TO STA. 1127+75.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

SEC. 3, T. 15 N., R. 8 E. OF THE 3rd P.M.



SEC. 3, T. 15 N., R. 8 E. OF THE 3rd P.M.

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USER NAME = craigre

ILLINOIS DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.
DATE: 06/02/06 CHECKED BY: C.R.G.

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	45
STA. 1127+75.00		TO STA. 1132+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

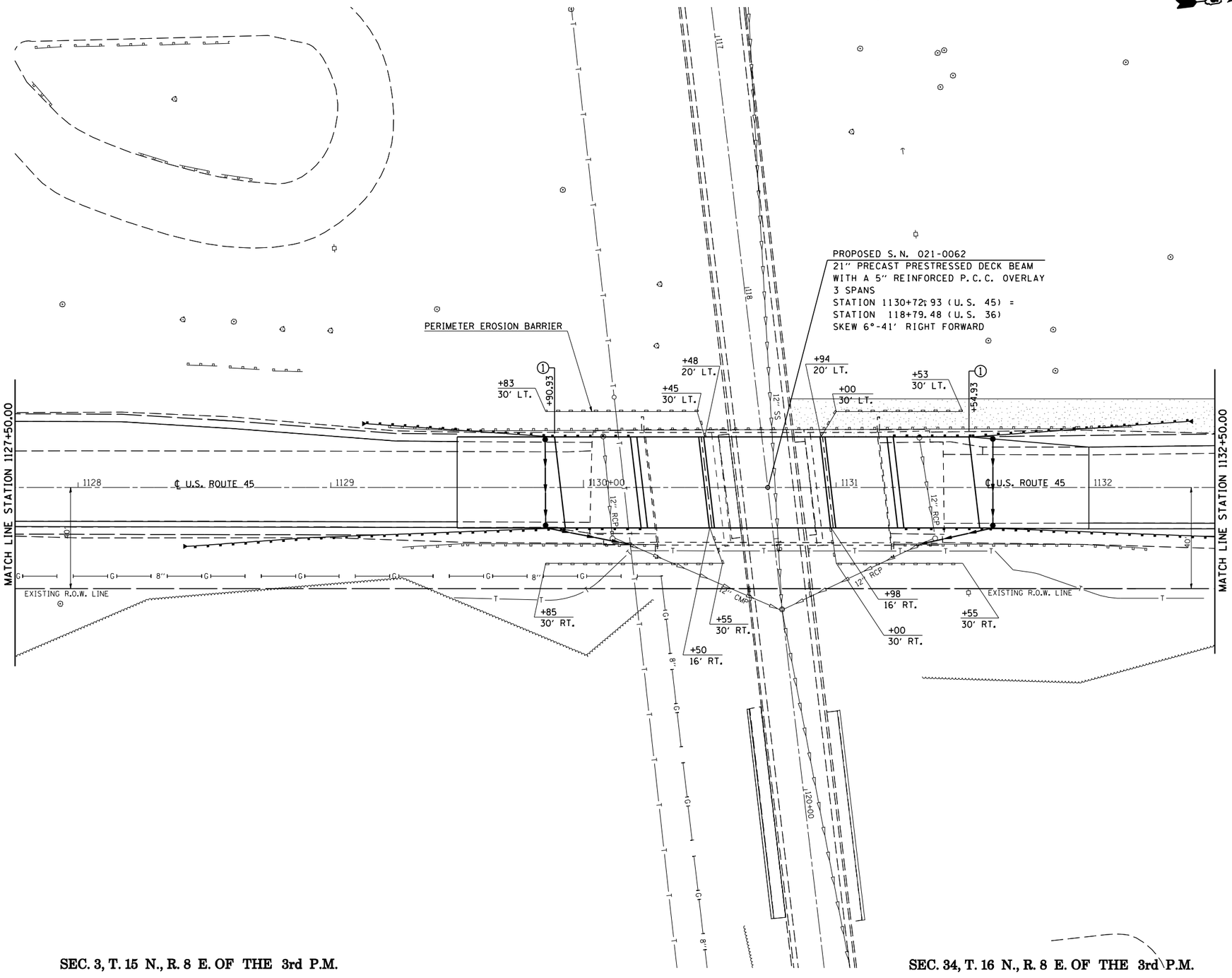
1"=20'

0' 5' 10' 15' 20' 40' 60'

SEC. 3, T. 15 N., R. 8 E. OF THE 3rd P.M.

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.

N



SEC. 3, T. 15 N., R. 8 E. OF THE 3rd P.M.

SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.

DATE: 06/02/06 CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258erosion.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = crolgre

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	46
STA. 1132+50.00		TO STA. 1138+50.57		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1

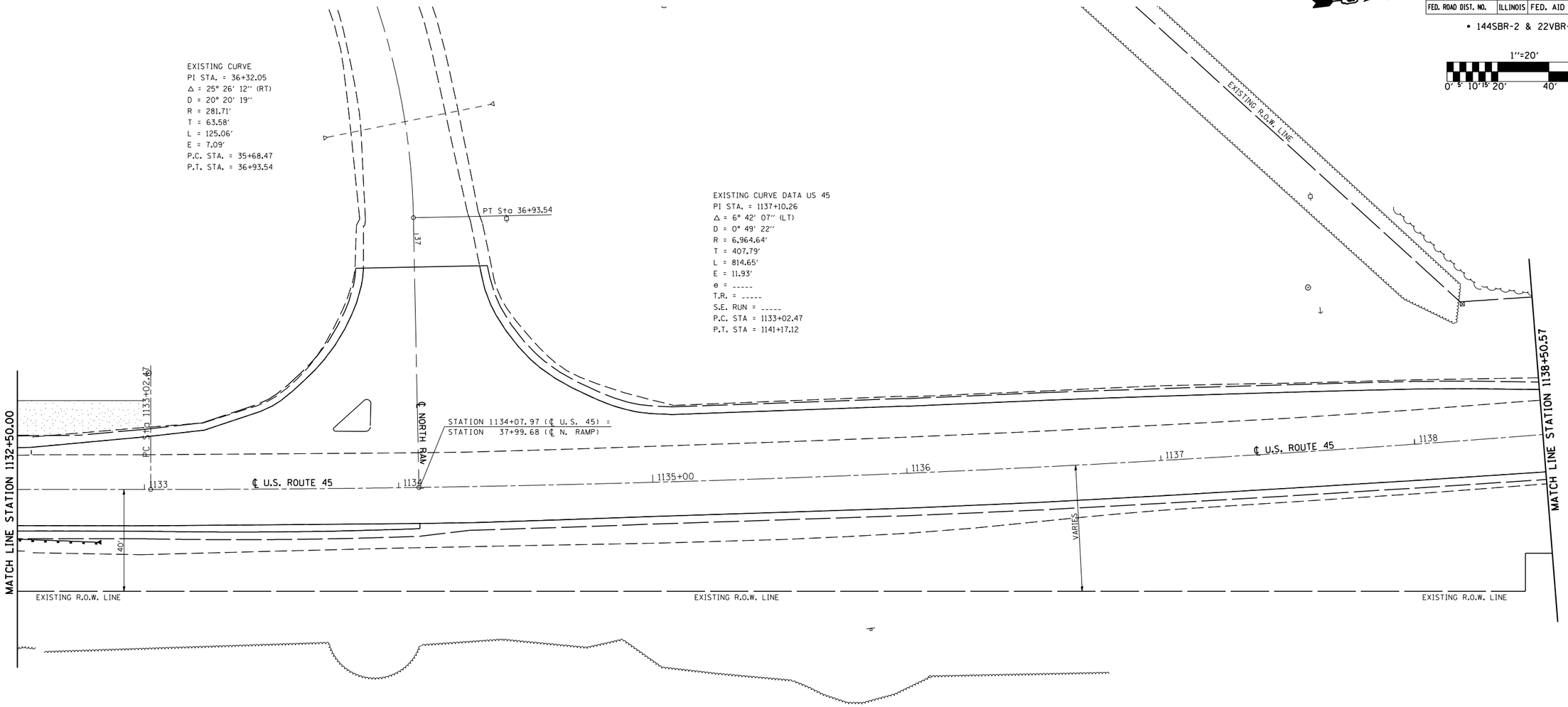
1"=20'

0' 5' 10' 15' 20' 40' 60'

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.

EXISTING CURVE
PI STA. = 36+32.05
Δ = 25° 26' 12" (RT)
D = 20° 20' 19"
R = 281.71'
T = 63.58'
L = 125.06'
E = 7.09'
P.C. STA. = 35+68.47
P.T. STA. = 36+93.54

EXISTING CURVE DATA US 45
PI STA. = 1137+10.26
Δ = 6° 42' 07" (LT)
D = 0° 49' 22"
R = 6,964.64'
T = 407.79'
L = 814.65'
E = 11.93'
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA = 1133+02.47
P.T. STA = 1141+17.12



SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.

DATE: 06/02/06 CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8i\70258erosion.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = crdgre

CONTRACT NO. 70258

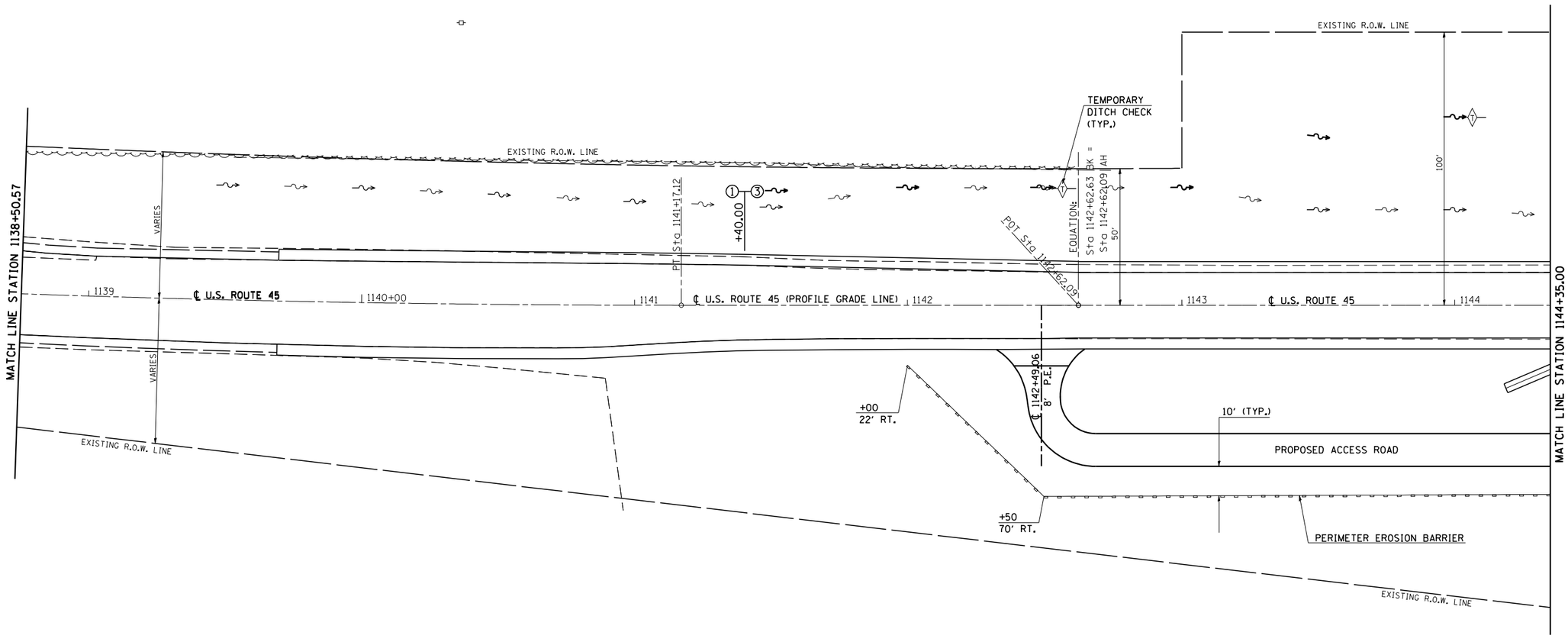
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	47
STA. 1138+50.57		TO STA. 1144+35.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

1"=20'

0' 5' 10' 15' 20' 40' 60'

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.



SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.

DATE: 06/02/06 CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258erosion.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = crdigre

CONTRACT NO. 70258

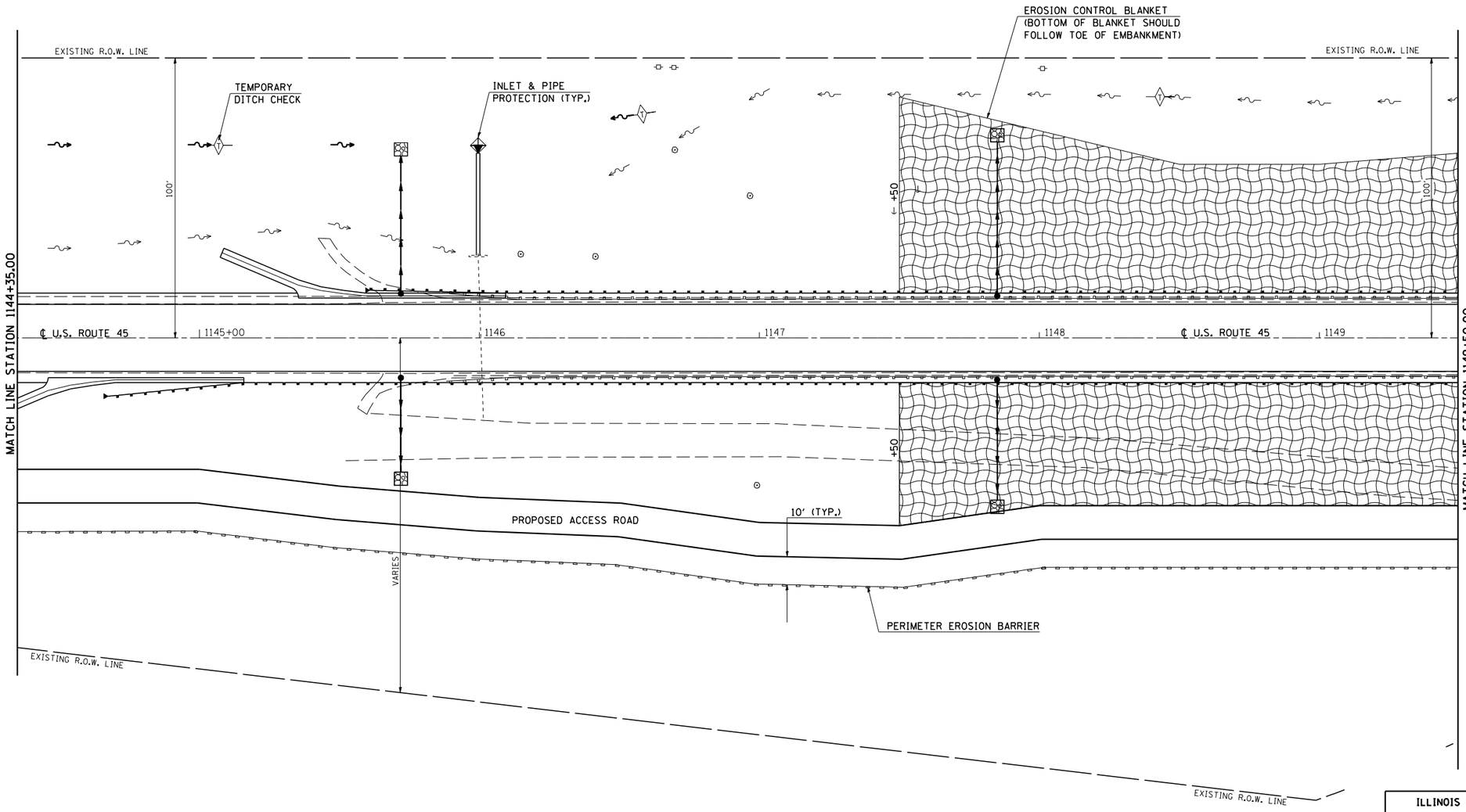
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	48
STA. 1144+35.00		TO STA. 1149+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1

1"=20'

0' 5' 10' 15' 20' 40' 60'

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.



SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.

DATE: 06/02/06 CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258erosion.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = crdlgr

CONTRACT NO. 70258

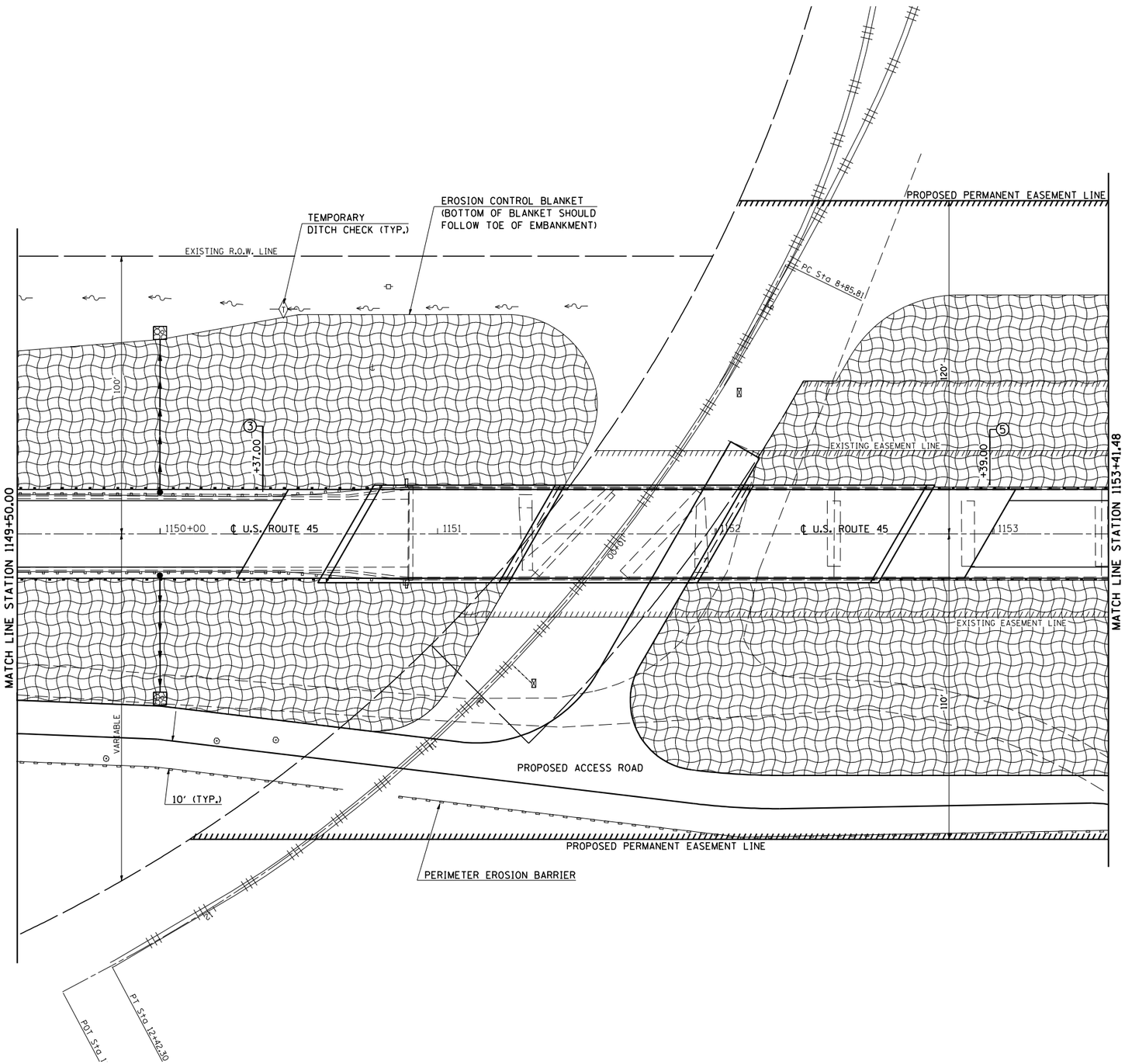
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	49
STA. 1149+50.00		TO STA. 1153+41.48		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

1"=20'

0' 5' 10' 15' 20' 40' 60'

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.



SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.

DATE: 06/02/06 CHECKED BY: C.R.G.

PLOT DATE = 7/0/2006
FILE NAME = c:\projects\d505202 (v8)\70258erosion.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = crolgre

CONTRACT NO. 70258

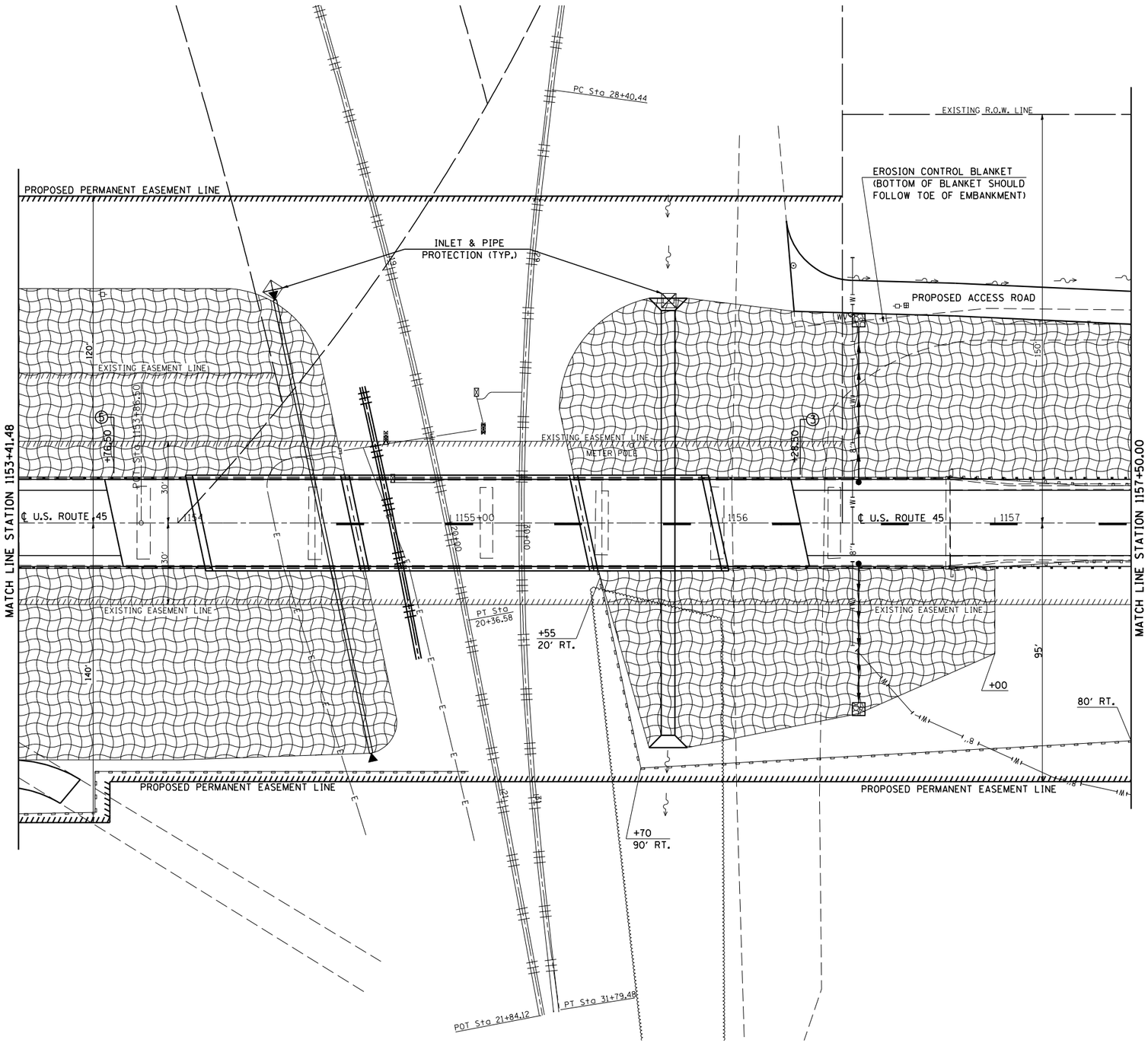
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	50
STA. 1153+41.48		TO STA. 1157+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

1"=20'

0' 5' 10' 15' 20' 40' 60'

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.



SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.

DATE: 06/02/06 CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258erosion.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = crdigre

CONTRACT NO. 70258

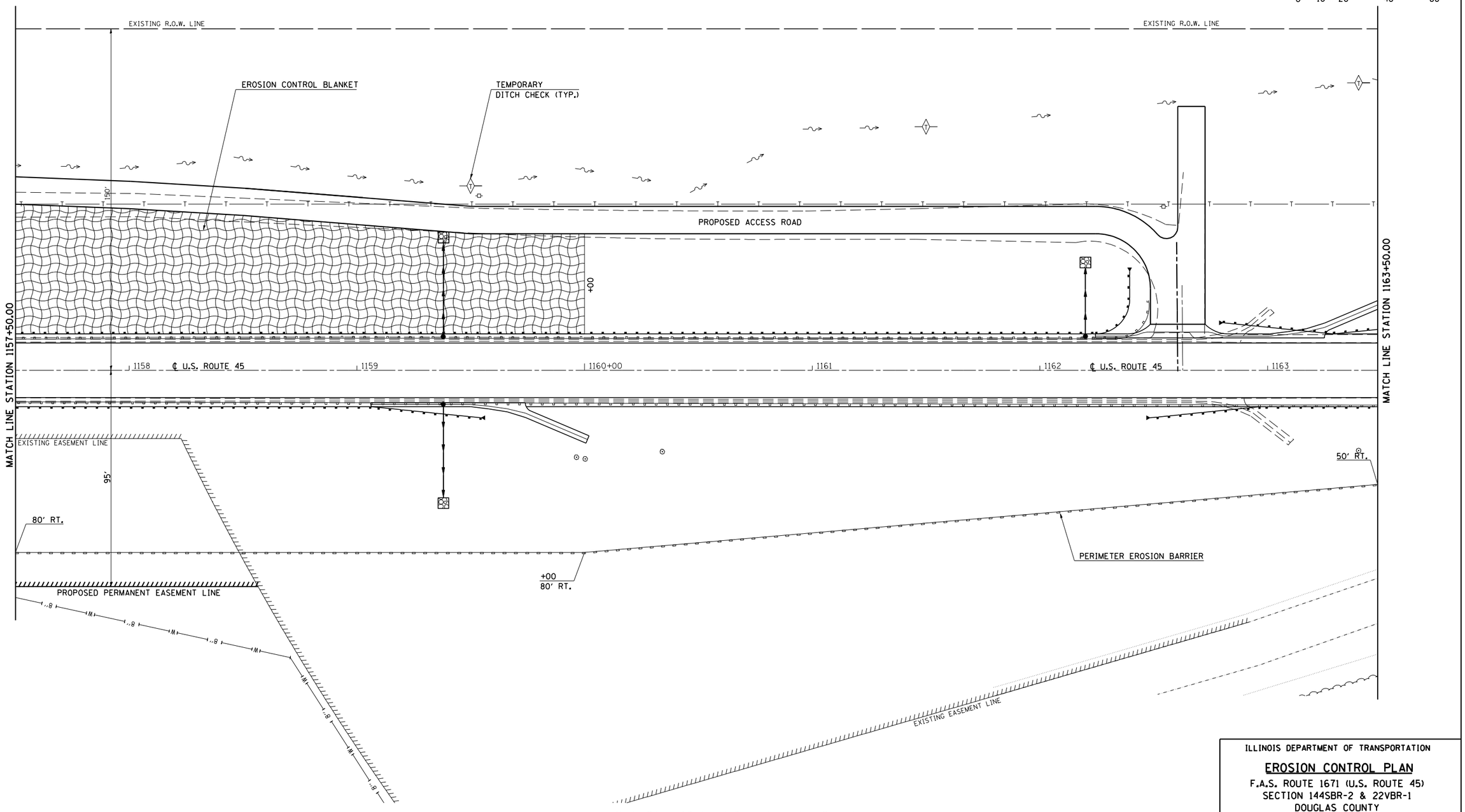
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	51
STA. 1157+50.00		TO STA. 1163+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1

1"=20'

0' 5' 10' 15' 20' 40' 60'

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.



SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.

DATE: 06/02/06 CHECKED BY: C.R.G.

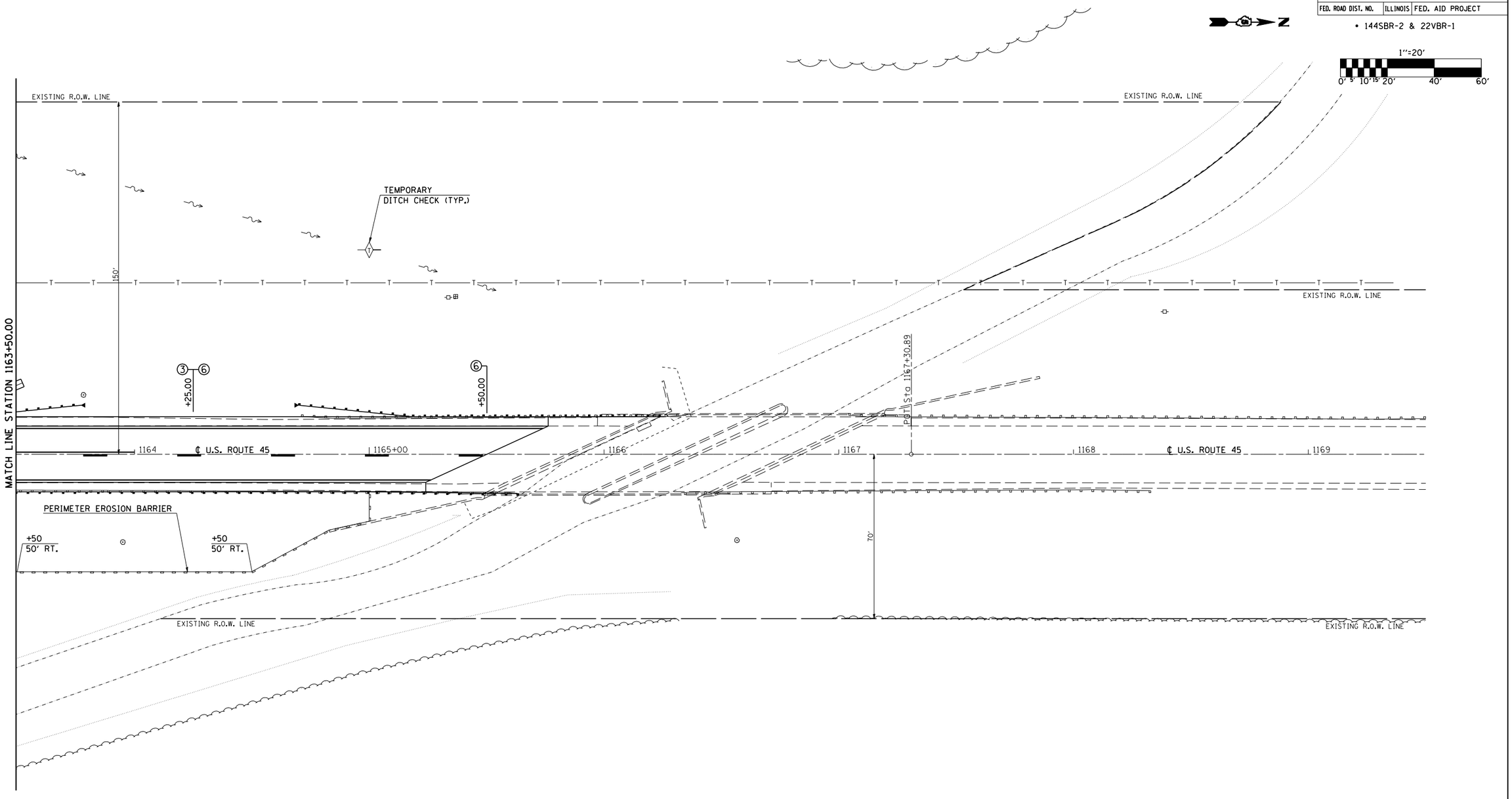
PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258erosion.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = crolgre

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	52
STA. 1163+50.00		TO STA. 1169+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.



SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258erosion.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = crolgre

ILLINOIS DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

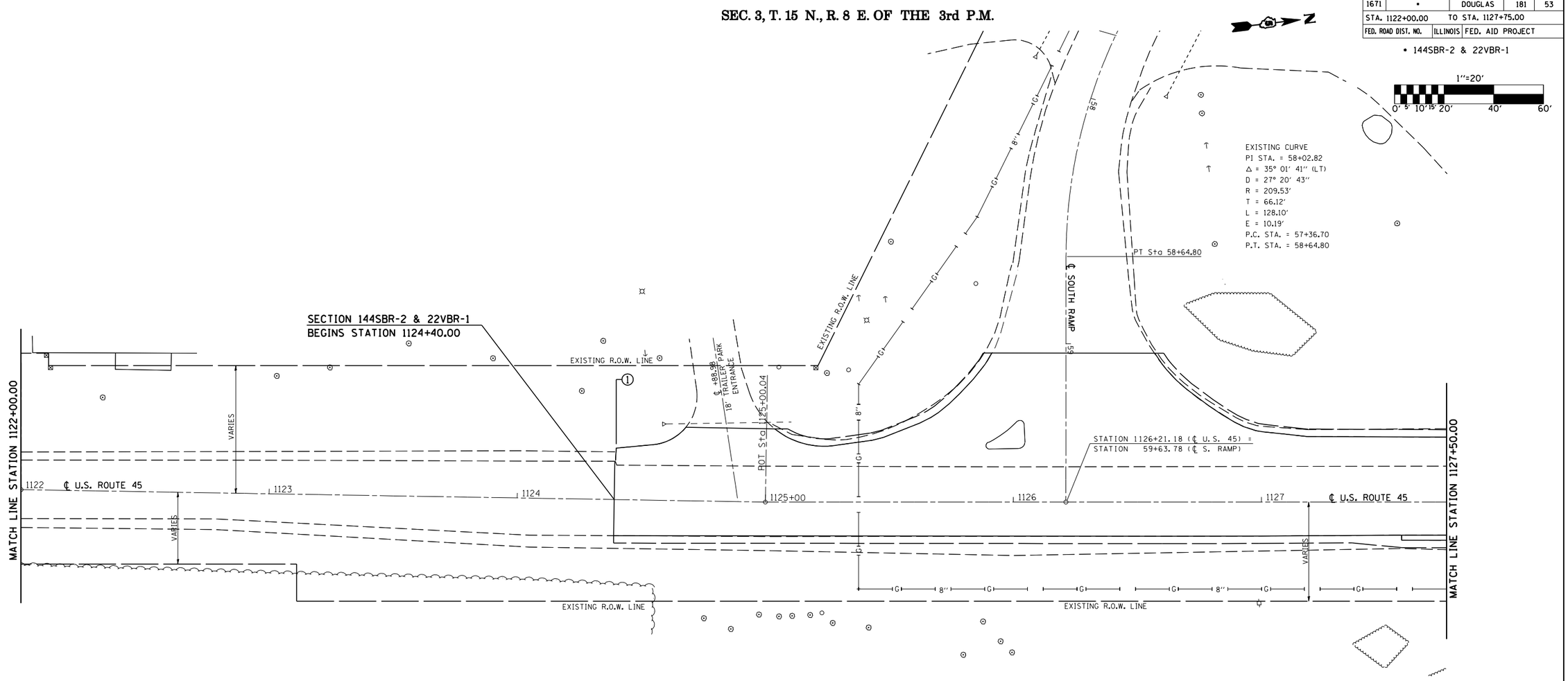
SCALE: 1'' = 20'-0'' DRAWN BY: B.B.P.
DATE: 06/02/06 CHECKED BY: C.R.G.

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	53
STA. 1122+00.00		TO STA. 1127+75.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

SEC. 3, T. 15 N., R. 8 E. OF THE 3rd P.M.



SEC. 3, T. 15 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

SEEDING PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.
DATE: 06/05/06 CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\T0258landscape.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = craigre

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	54
STA. 1127+75.00		TO STA. 1132+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

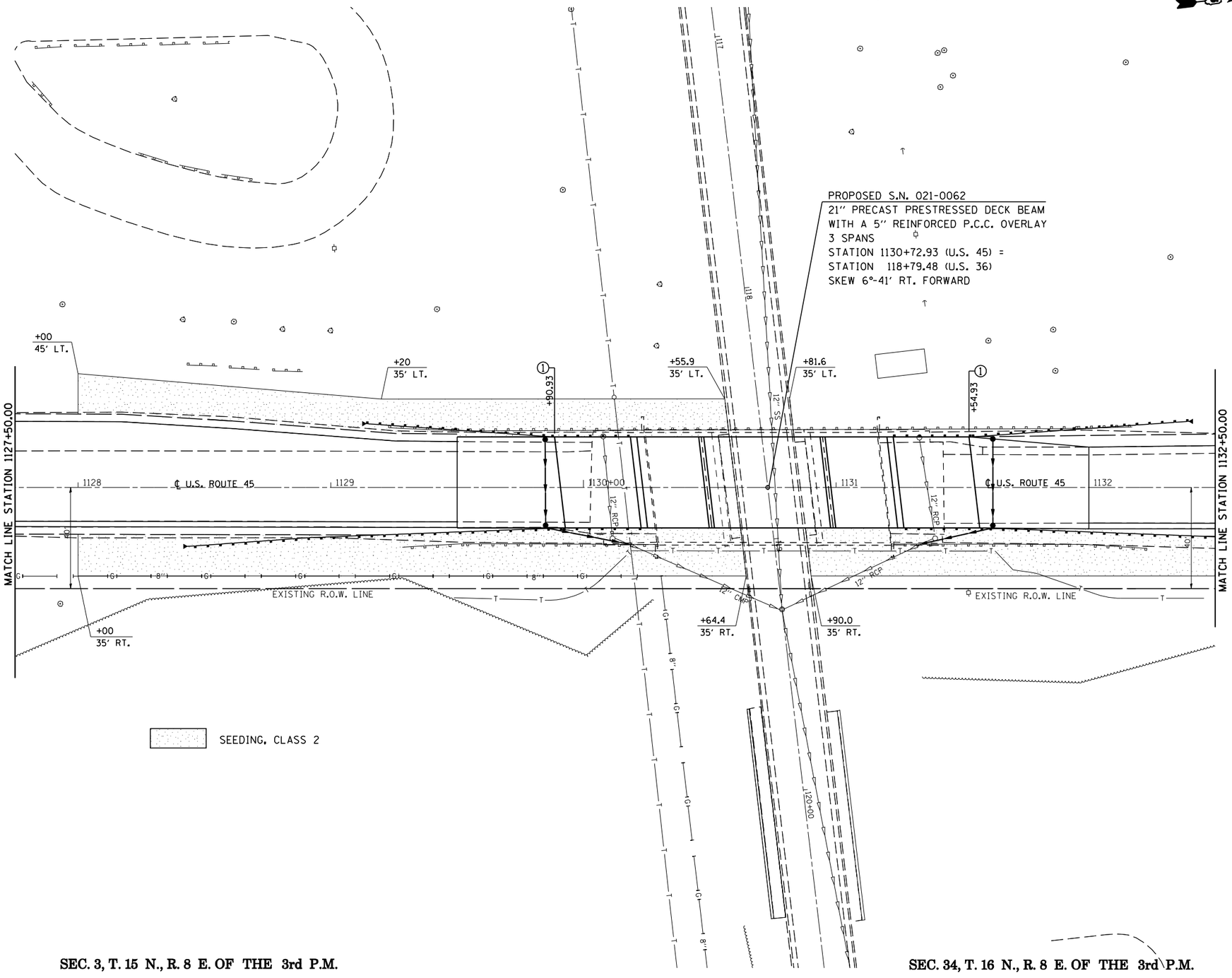
• 144SBR-2 & 22VBR-1

1"=20'

0' 5' 10' 15' 20' 40' 60'

SEC. 3, T. 15 N., R. 8 E. OF THE 3rd P.M.

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.



SEC. 3, T. 15 N., R. 8 E. OF THE 3rd P.M.

SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

SEEDING PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.

DATE: 06/05/06 CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258landscape.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = craigre

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	55
STA. 1132+50.00		TO STA. 1138+50.57		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1

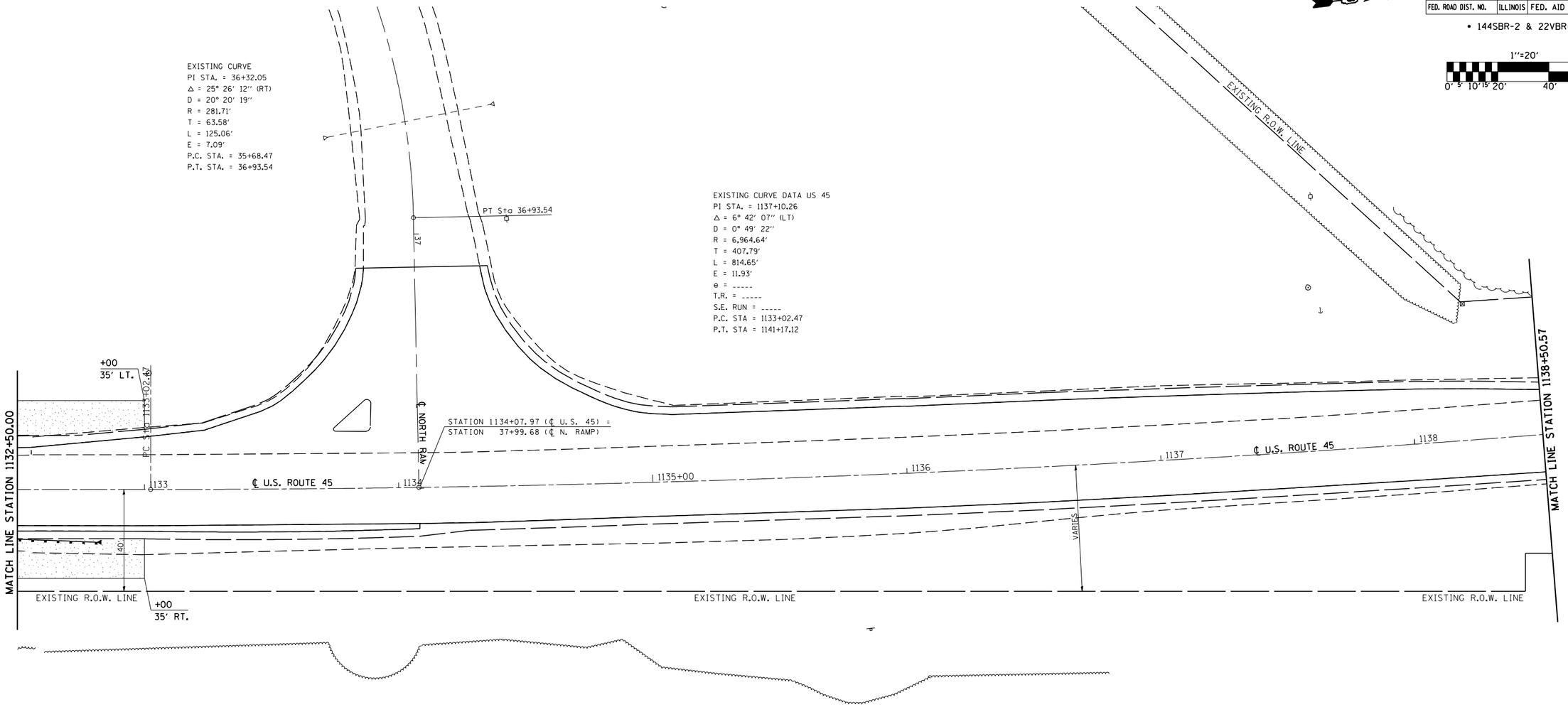
1"=20'

0' 5' 10' 15' 20' 40' 60'

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.

EXISTING CURVE
PI STA. = 36+32.05
Δ = 25° 26' 12" (RT)
D = 20° 20' 19"
R = 281.71'
T = 63.58'
L = 125.06'
E = 7.09'
P.C. STA. = 35+68.47
P.T. STA. = 36+93.54

EXISTING CURVE DATA US 45
PI STA. = 1137+10.26
Δ = 6° 42' 07" (LT)
D = 0° 49' 22"
R = 6,964.64'
T = 407.79'
L = 814.65'
E = 11.93'
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA = 1133+02.47
P.T. STA = 1141+17.12



SEEDING, CLASS 2

SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

PLOT DATE = 7/0/2006
FILE NAME = c:\projects\d505202 (v8i\70258landscape.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = crdlgre

ILLINOIS DEPARTMENT OF TRANSPORTATION

SEEDING PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.
DATE: 06/05/06 CHECKED BY: C.R.G.

CONTRACT NO. 70258

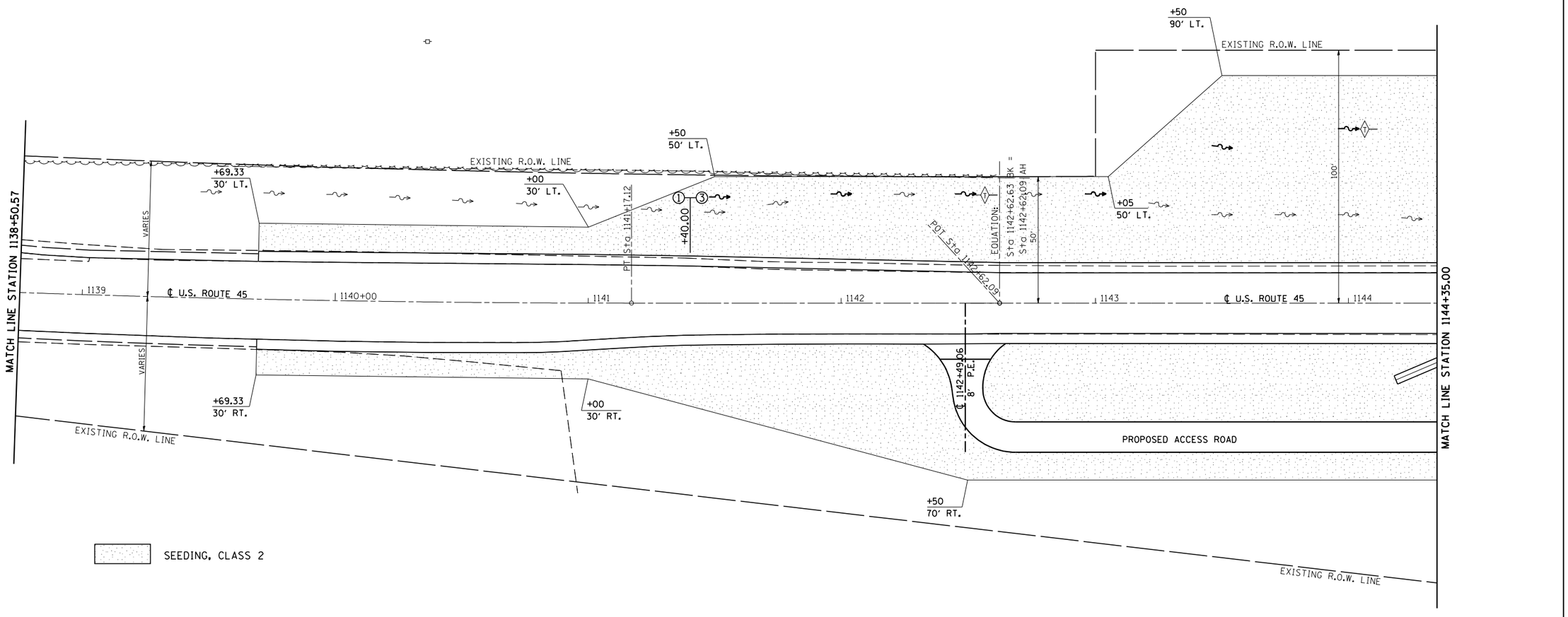
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	56
STA. 1138+50.57		TO STA. 1144+35.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

1"=20'

0' 5' 10' 15' 20' 40' 60'

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.



SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

SEEDING PLAN

F.A.S. 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.
DATE: 06/05/06 CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258landscape.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = crdigre

CONTRACT NO. 70258

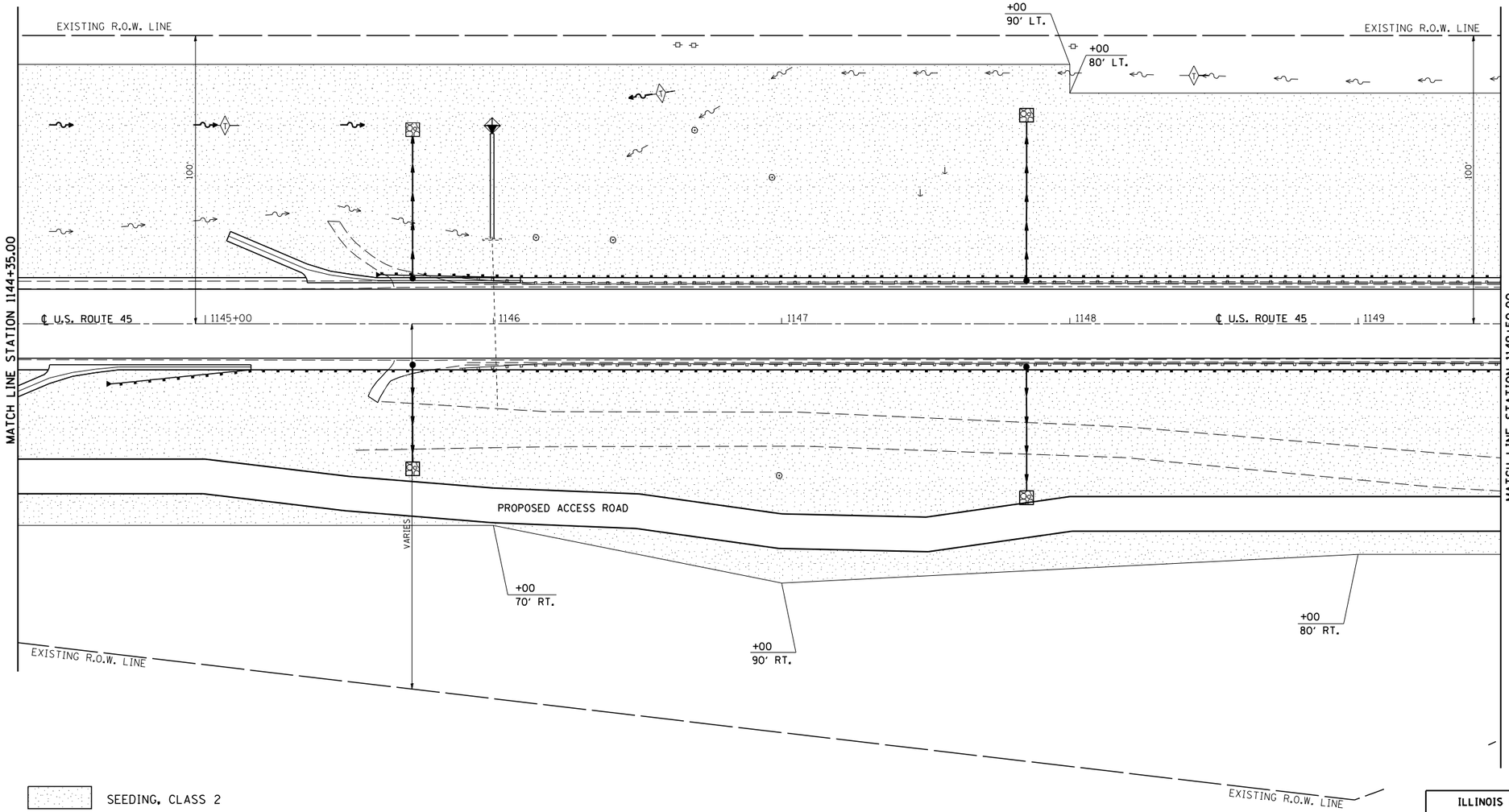
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	57
STA. 1144+35.00		TO STA. 1149+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

1"=20'

0' 5' 10' 15' 20' 40' 60'

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.



SEEDING, CLASS 2

SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

SEEDING PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.

DATE: 06/05/06 CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258landscape.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = crdgre

CONTRACT NO. 70258

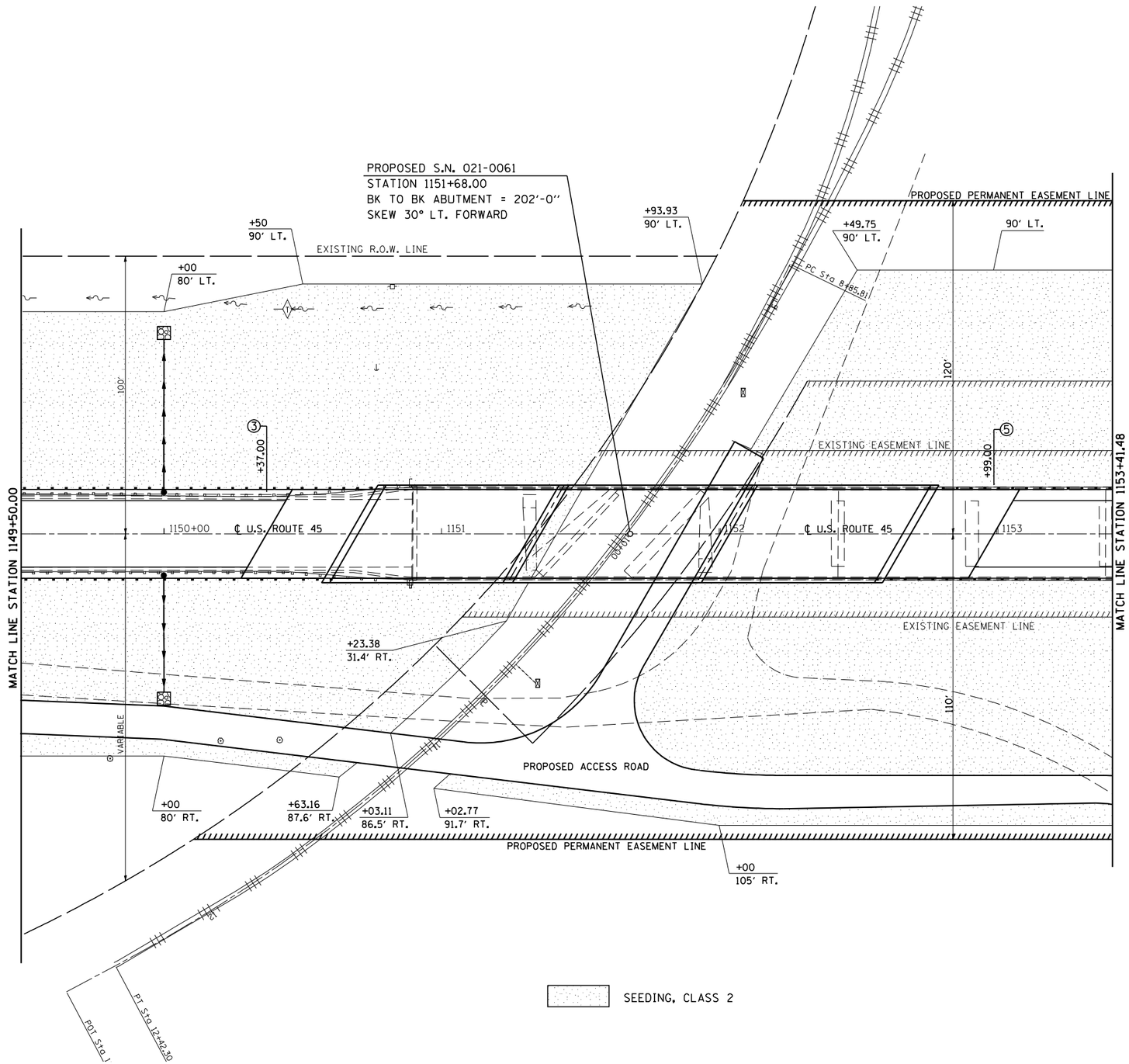
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	58
STA. 1149+50.00	TO STA. 1153+41.48			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

1"=20'

0' 5' 10' 15' 20' 40' 60'

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.



SEEDING, CLASS 2

SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

SEEDING PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.

DATE: 06/05/06 CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258landscape.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = crdigre

CONTRACT NO. 70258

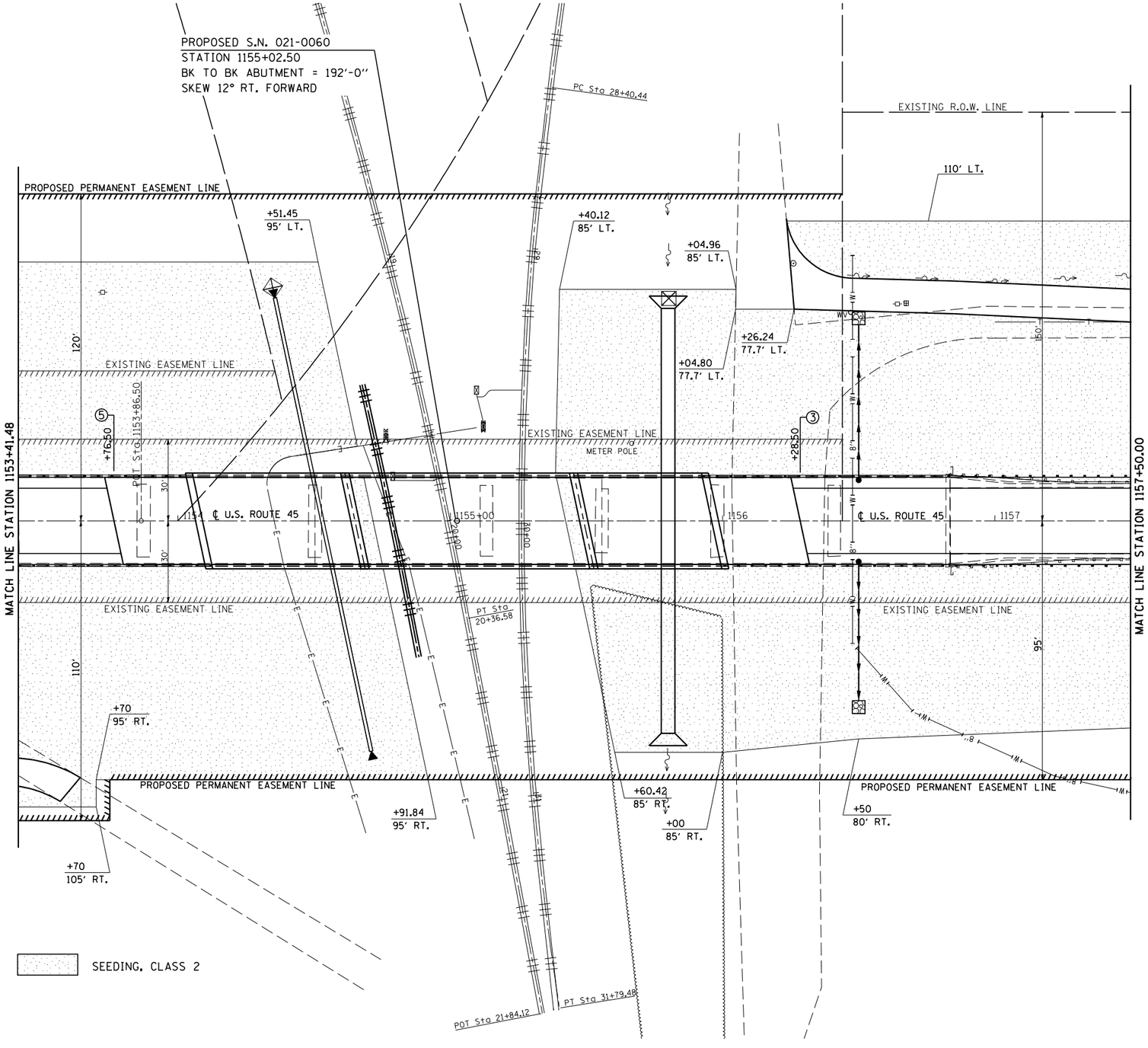
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	59
STA. 1153+41.48		TO STA. 1157+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

1"=20'

0' 5' 10' 15' 20' 40' 60'

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.



SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8i\70258landscape.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = crdlgr

ILLINOIS DEPARTMENT OF TRANSPORTATION

SEEDING PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.
DATE: 06/05/06 CHECKED BY: C.R.G.

CONTRACT NO. 70258

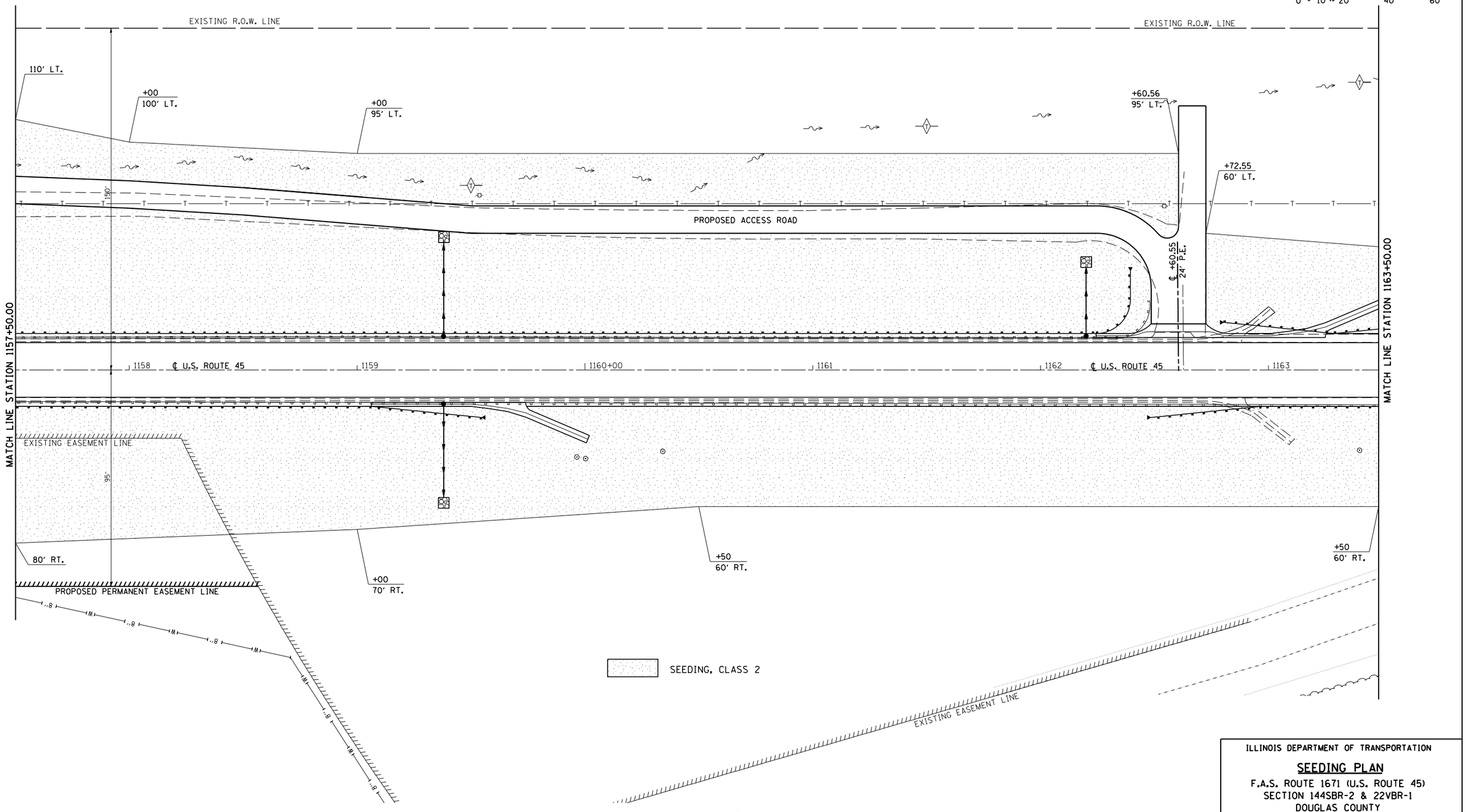
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	60
STA. 1157+50.00		TO STA. 1163+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1

1"=20'

0' 5' 10' 15' 20' 40' 60'

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.



SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

SEEDING PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.

DATE: 06/05/06 CHECKED BY: C.R.G.

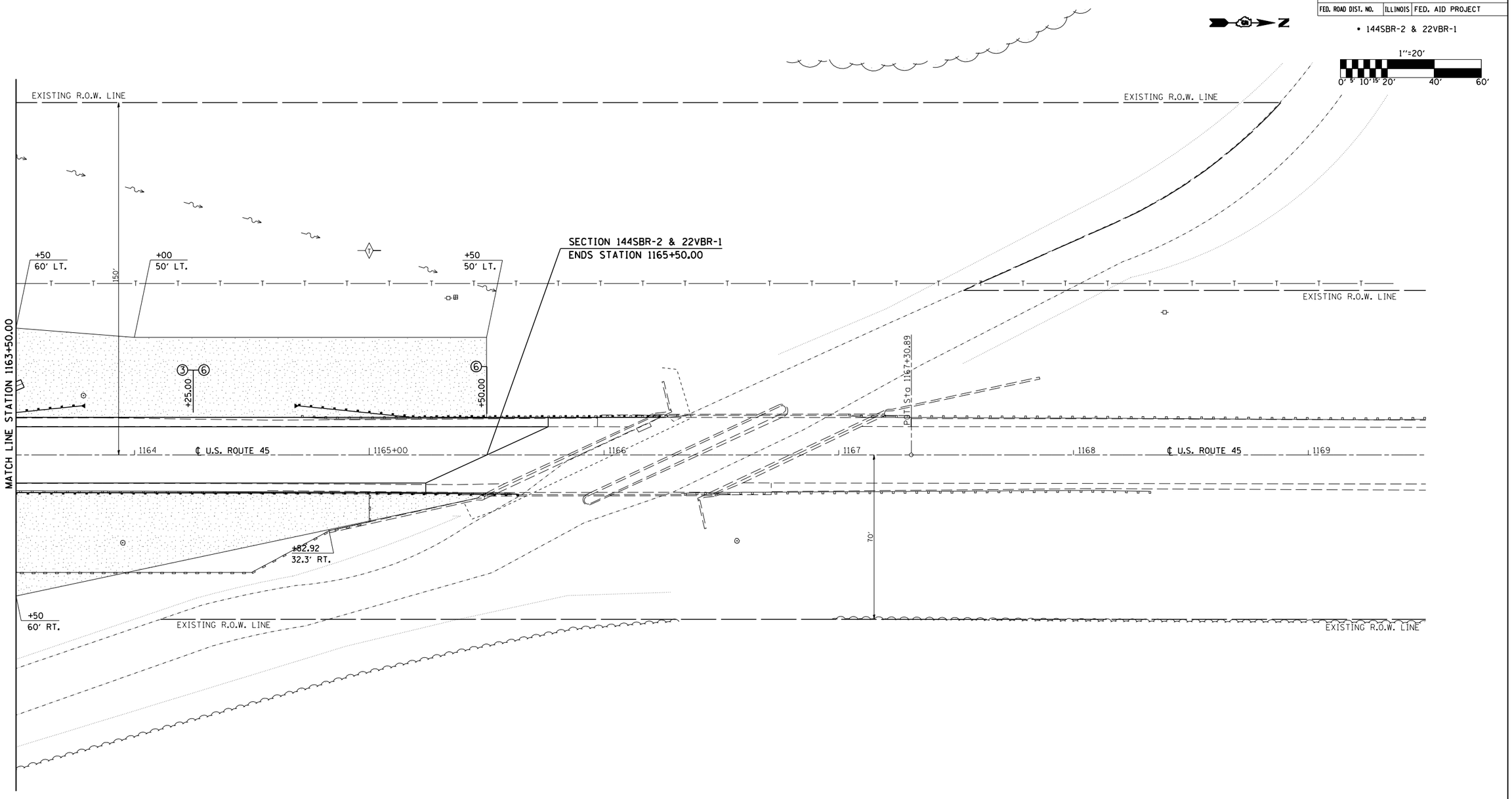
PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258landscape.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = crolgre

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	61
STA. 1163+50.00		TO STA. 1169+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.



SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

SEEDING PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.
DATE: 06/05/06 CHECKED BY: C.R.G.

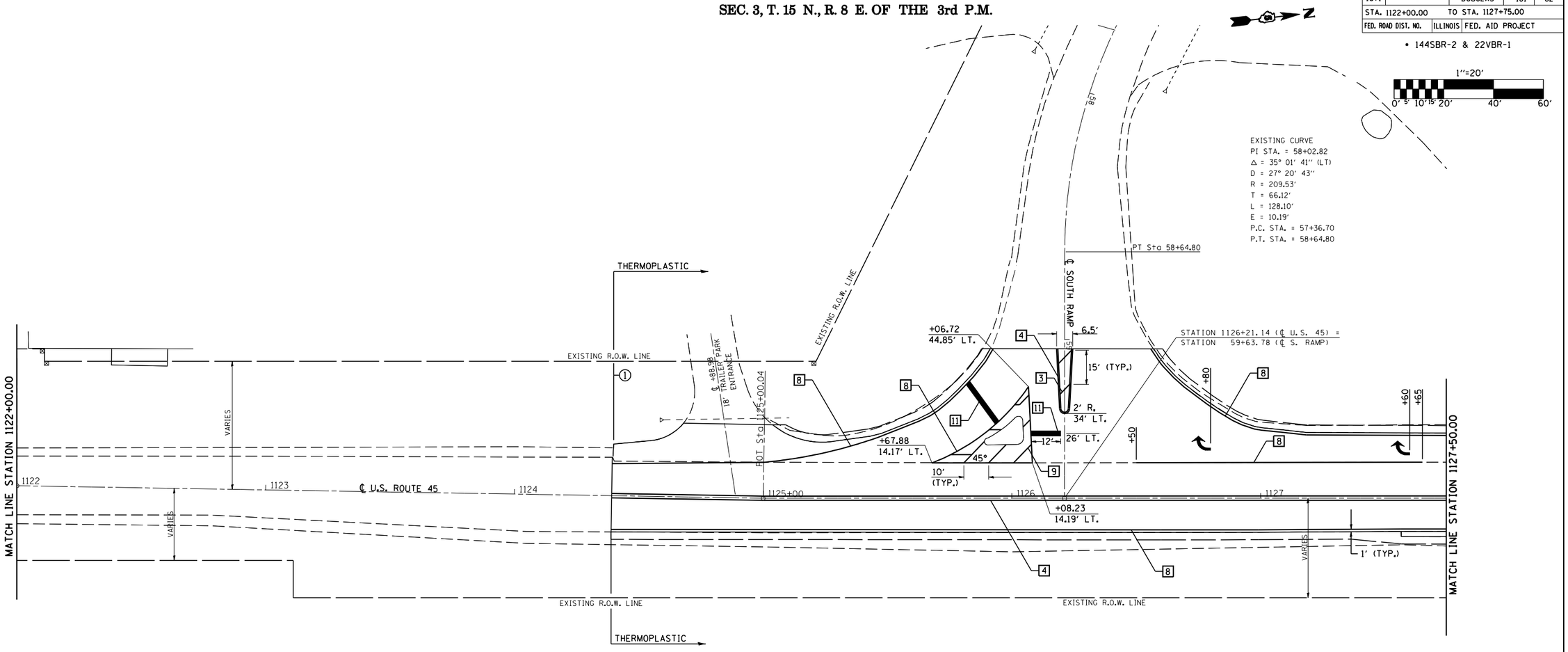
PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258landscape.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = craigre

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	62
STA. 1122+00.00		TO STA. 1127+75.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

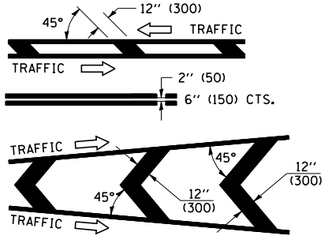
• 144SBR-2 & 22VBR-1

SEC. 3, T. 15 N., R. 8 E. OF THE 3rd P.M.



TYPICAL PAVEMENT MARKING LEGEND

- 3 12" (300) DIAGONAL (YELLOW)
- 4 4" (100) DOUBLE YELLOW (NARROW)
- 8 4" (100) SOLID (WHITE)
- 9 12" (300) DIAGONAL (WHITE)
- 11 24" (600) STOP BAR (WHITE)



SEC. 3, T. 15 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.
DATE: 06/08/06 CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258pavmark.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = piersonbr

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	63
STA. 1127+75.00		TO STA. 1132+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

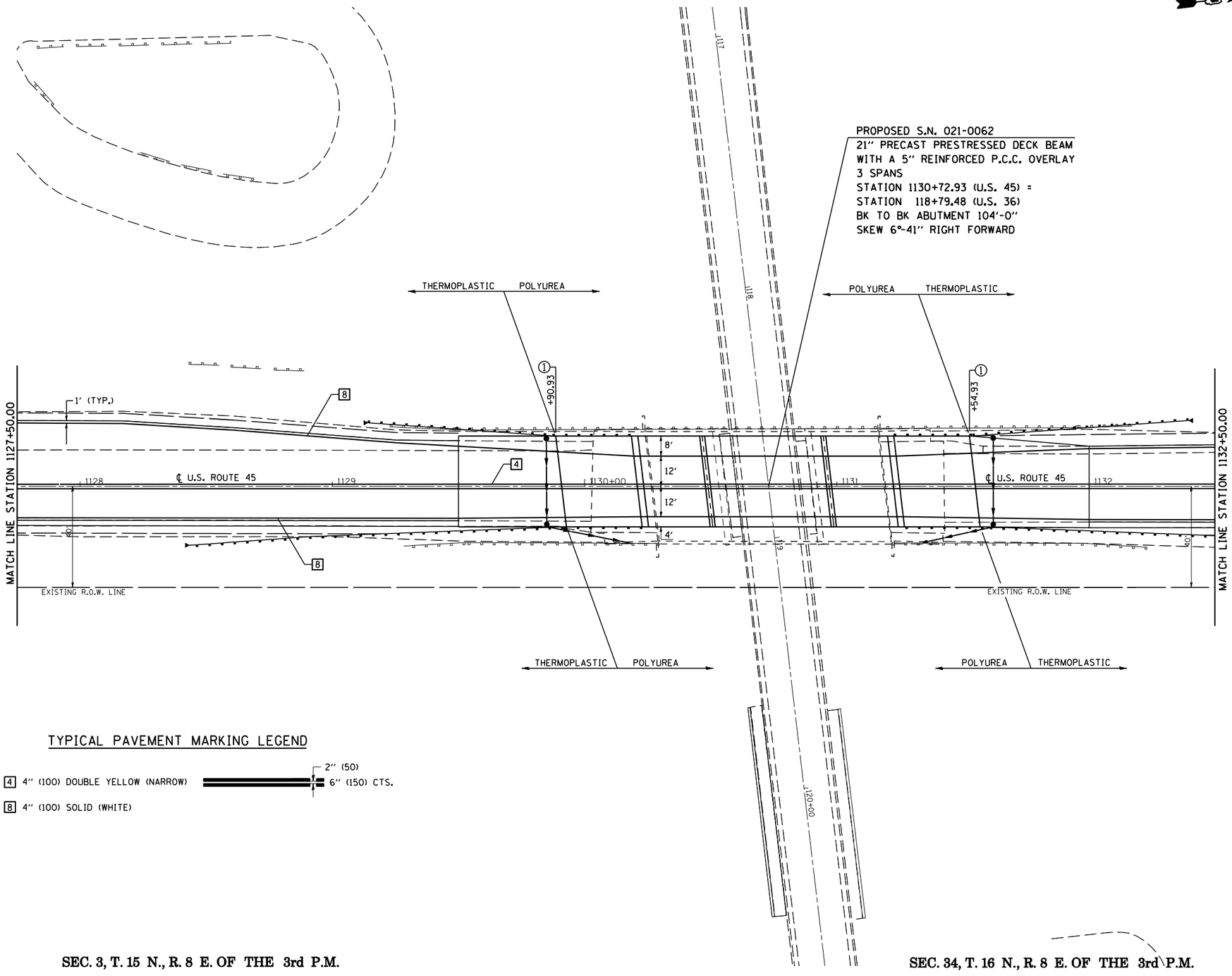
• 144SBR-2 & 22VBR-1

1"=20'

0' 5' 10' 15' 20' 40' 60'

SEC. 3, T. 15 N., R. 8 E. OF THE 3rd P.M.

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.



TYPICAL PAVEMENT MARKING LEGEND

4 4" (100) DOUBLE YELLOW (NARROW) — 2" (50) / 6" (150) CTS.

8 4" (100) SOLID (WHITE)

SEC. 3, T. 15 N., R. 8 E. OF THE 3rd P.M.

SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.

DATE: 06/08/06 CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258pavmark.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = pfersonbr

CONTRACT NO. 70258

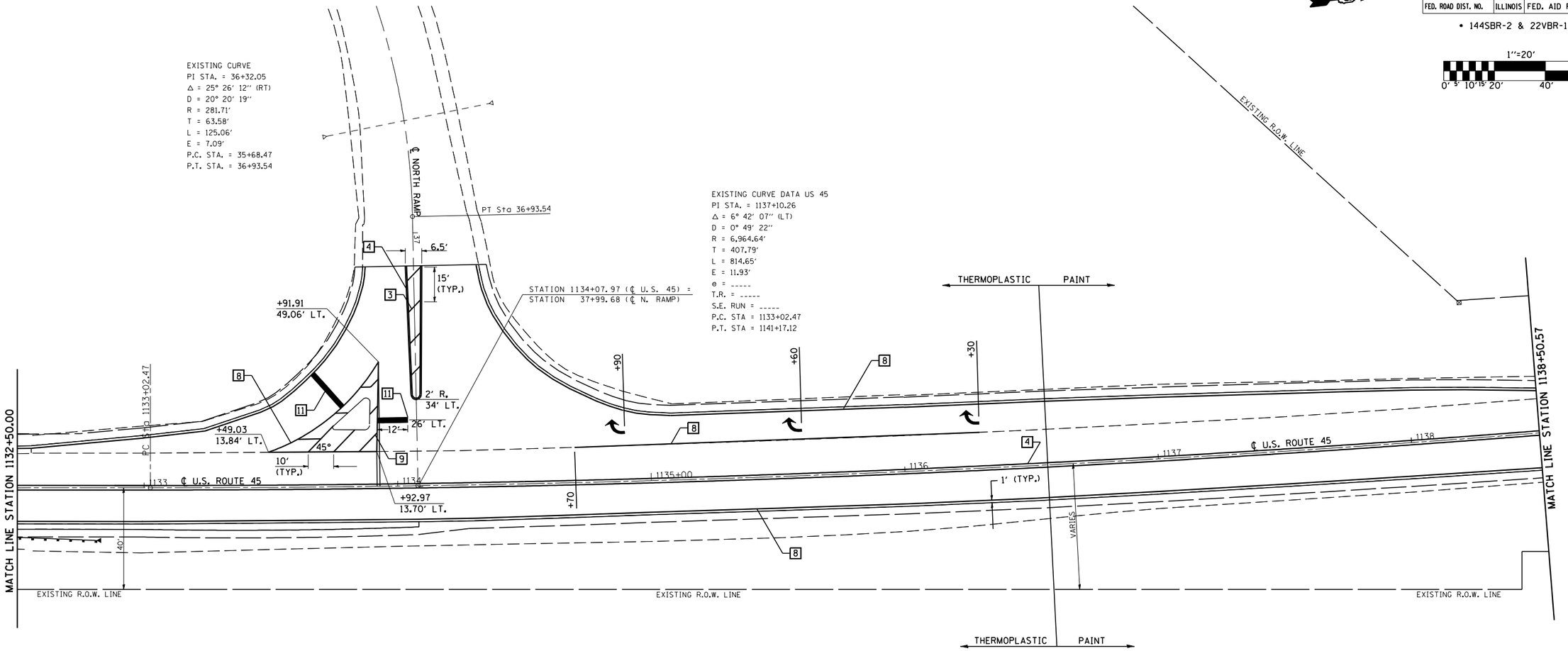
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	*	DOUGLAS	181	64
STA. 1132+50.00		TO STA. 1138+50.57		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

1"=20'

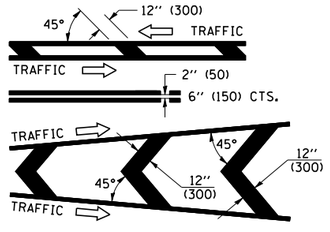
0' 5' 10' 15' 20' 40' 60'

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.



TYPICAL PAVEMENT MARKING LEGEND

- 3 12" (300) DIAGONAL (YELLOW)
- 4 4" (100) DOUBLE YELLOW (NARROW)
- 8 4" (100) SOLID (WHITE)
- 9 12" (300) DIAGONAL (WHITE)
- 11 24" (600) STOP BAR (WHITE)



SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.

DATE: 06/08/06 CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258pavmark.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = pfersonbr

CONTRACT NO. 70258

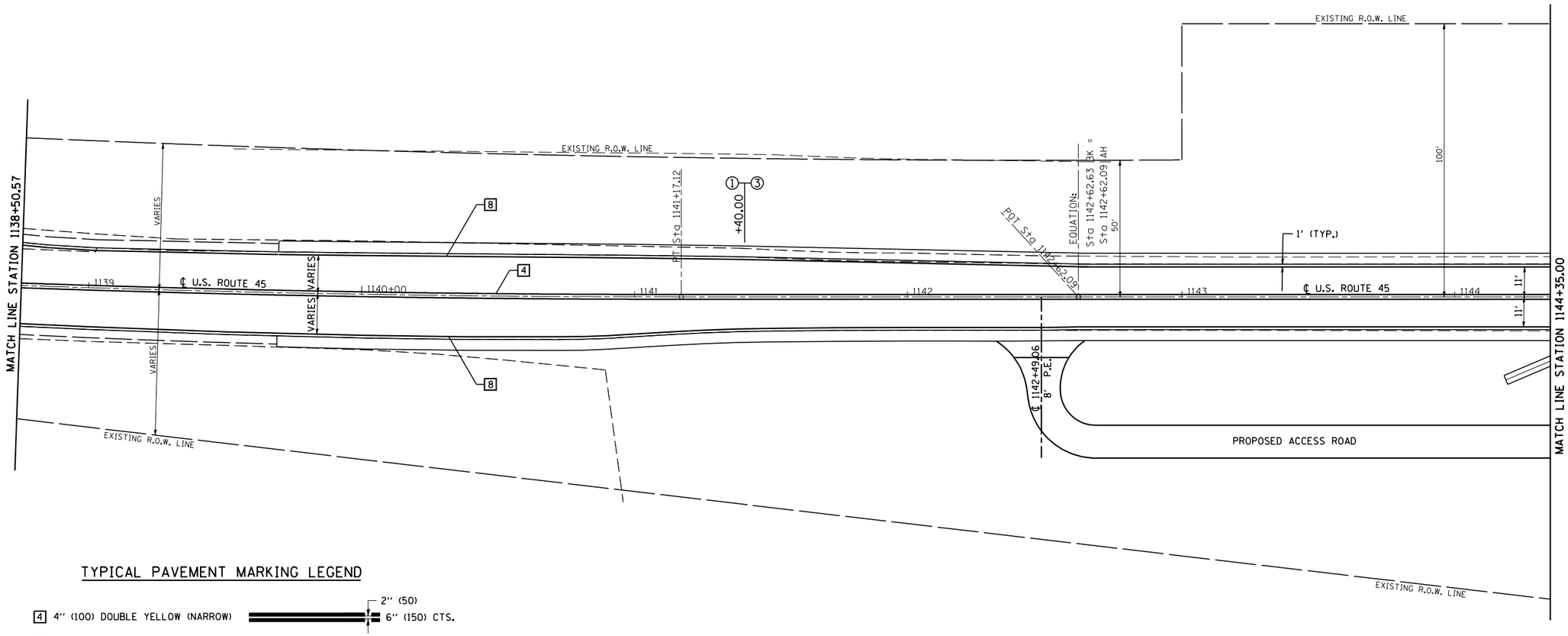
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	65
STA. 1138+50.57		TO STA. 1144+35.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

1"=20'

0' 5' 10' 15' 20' 40' 60'

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.



TYPICAL PAVEMENT MARKING LEGEND

4 4" (100) DOUBLE YELLOW (NARROW) — 2" (50) / 6" (150) CTS.

8 4" (100) SOLID (WHITE)

SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.

DATE: 06/08/06 CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258pavmark.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = piersonbr

CONTRACT NO. 70258

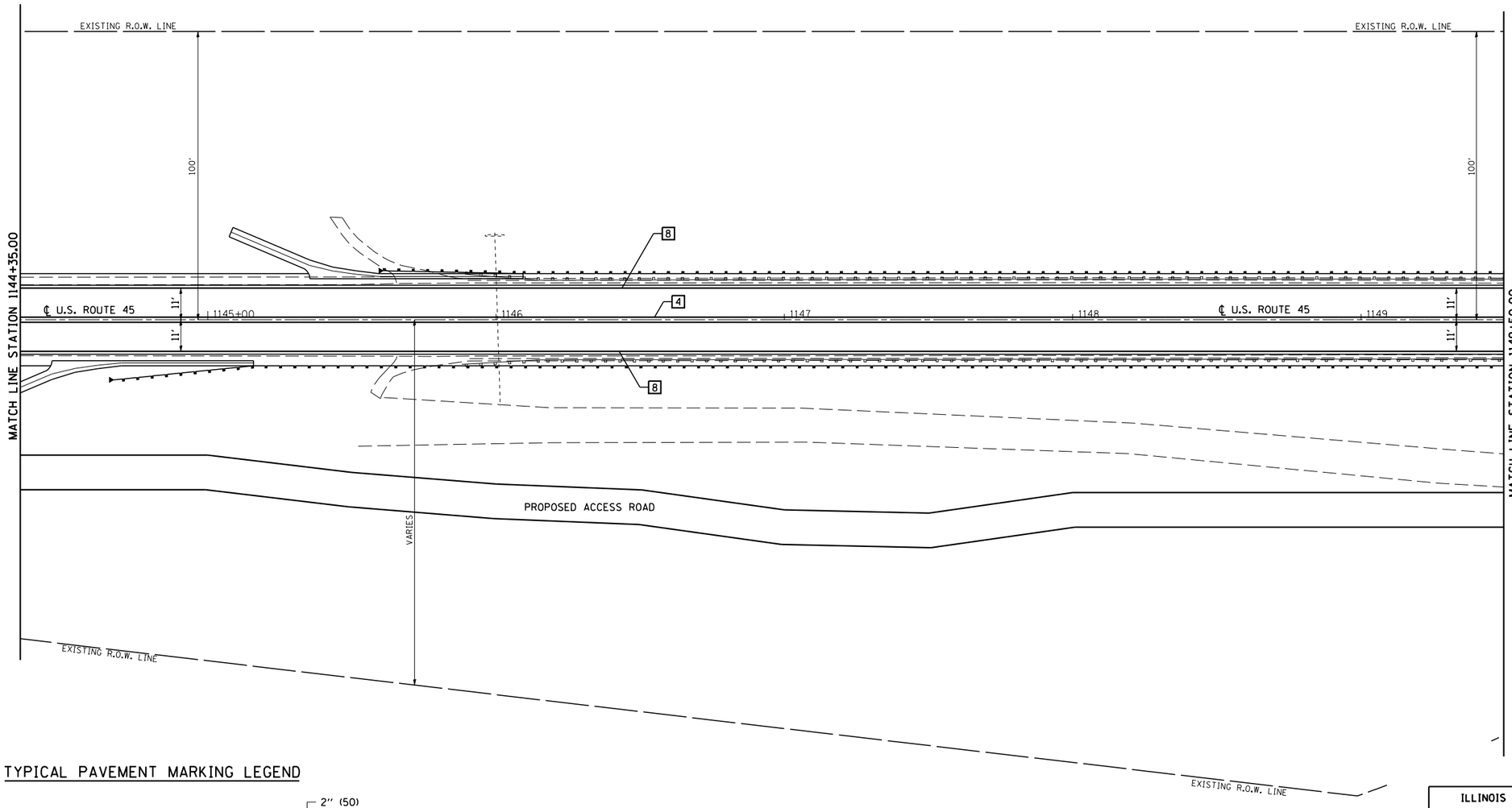
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	66
STA. 1144+35.00		TO STA. 1149+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

1"=20'

0' 5' 10' 15' 20' 40' 60'

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.



TYPICAL PAVEMENT MARKING LEGEND

4 4" (100) DOUBLE YELLOW (NARROW) — 2" (50) / 6" (150) CTS.

8 4" (100) SOLID (WHITE)

SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.

DATE: 06/08/06 CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258pavmark.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = plersonbr

CONTRACT NO. 70258

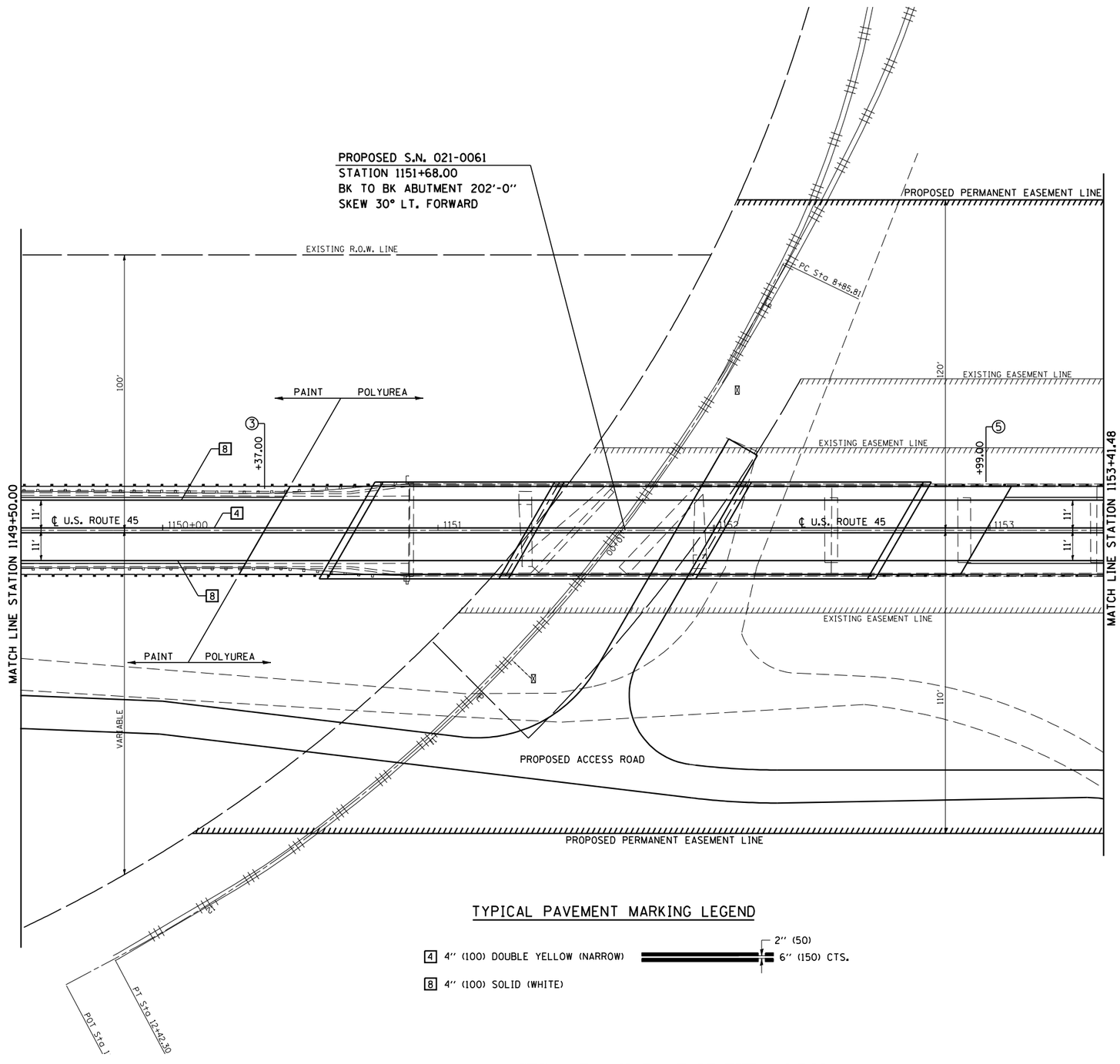
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1571	*	DOUGLAS	181	67
STA. 1149+50.00		TO STA. 1153+41.48		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 144SBR-2 & 22VBR-1

1"=20'

0' 5' 10' 15' 20' 40' 60'

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.



TYPICAL PAVEMENT MARKING LEGEND

[4] 4" (100) DOUBLE YELLOW (NARROW) — 2" (50) / 6" (150) CTS.

[8] 4" (100) SOLID (WHITE)

SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN

F.A.S. 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.

DATE: 06/08/06 CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
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PLOT SCALE = 42.3529 ' / IN.
USER NAME = plersonbr

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	68
STA. 1153+41.48		TO STA. 1157+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

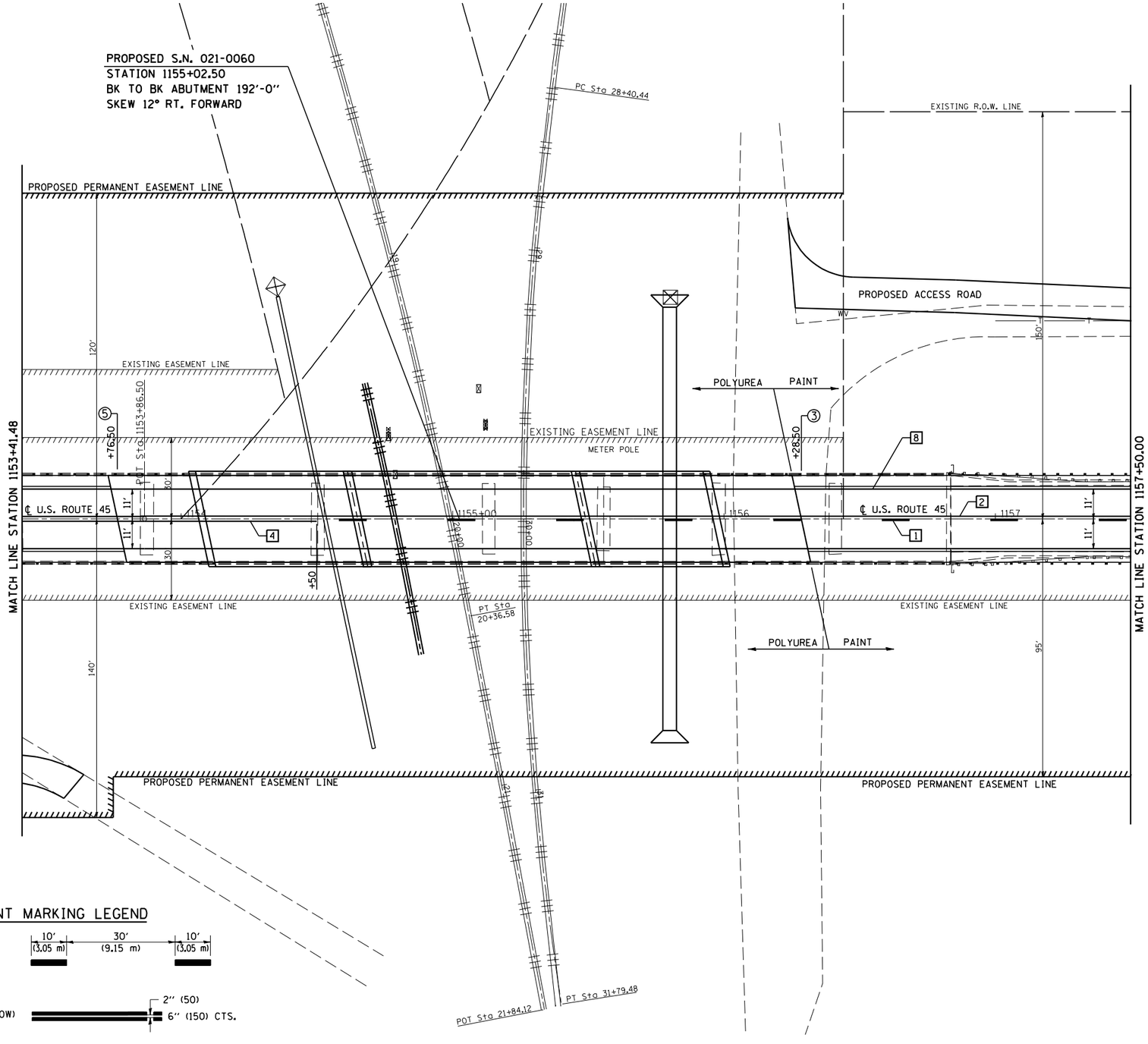
• 144SBR-2 & 22VBR-1

1"=20'

0' 5' 10' 15' 20' 40' 60'

N

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.



TYPICAL PAVEMENT MARKING LEGEND

1 4" (100) SKIP-DASH (YELLOW)

2 4" (100) SOLID (YELLOW)

4 4" (100) DOUBLE YELLOW (NARROW)

8 4" (100) SOLID (WHITE)

SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.

DATE: 06/08/06 CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258pavmark.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = plersonbr

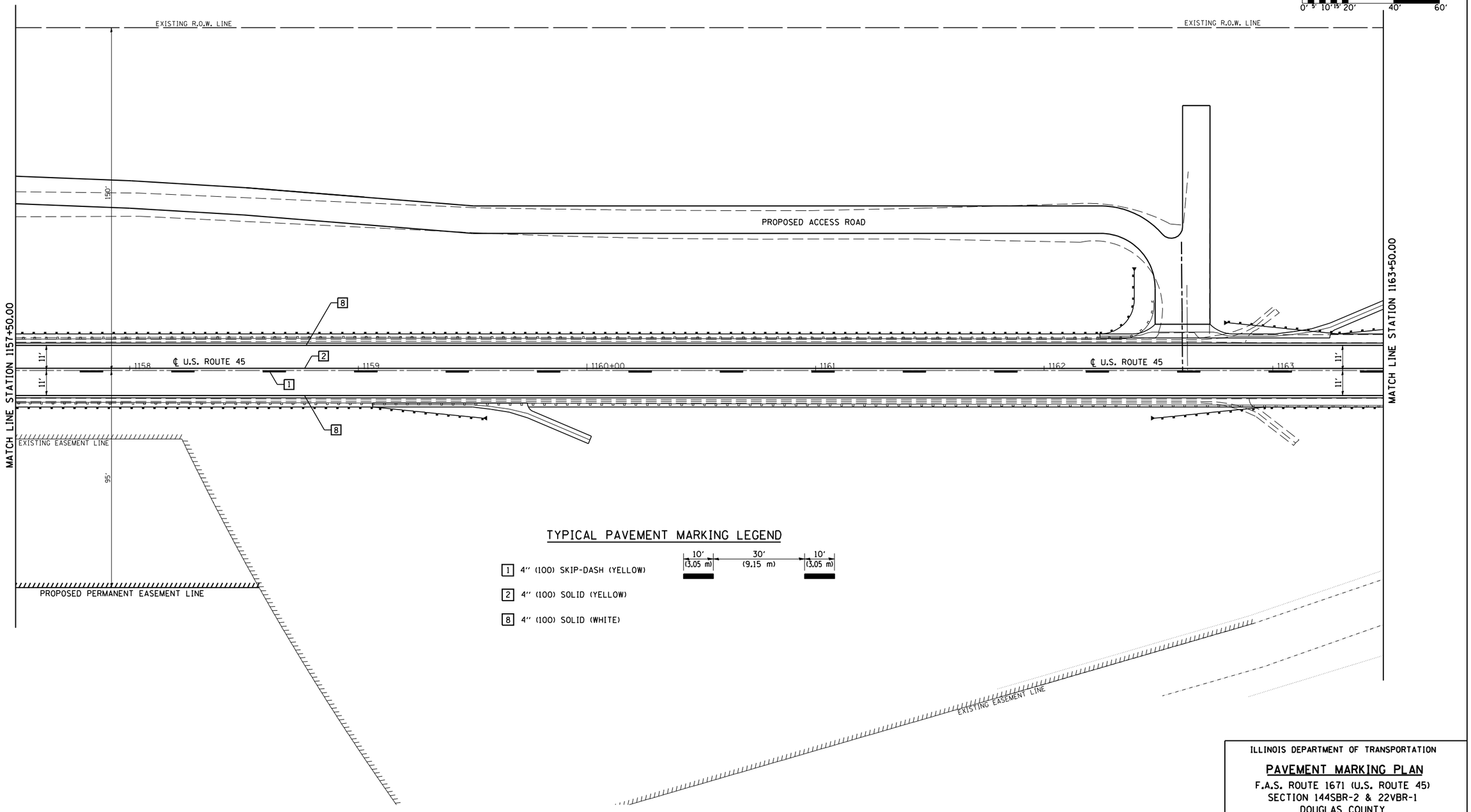
CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	69
STA. 1157+50.00		TO STA. 1163+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.

1"=20'
0' 5' 10' 15' 20' 40' 60'



TYPICAL PAVEMENT MARKING LEGEND

10' (3.05 m) | 30' (9.15 m) | 10' (3.05 m)

1 4" (100) SKIP-DASH (YELLOW)

2 4" (100) SOLID (YELLOW)

8 4" (100) SOLID (WHITE)

SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" DRAWN BY: B.B.P.
DATE: 06/08/06 CHECKED BY: C.R.G.

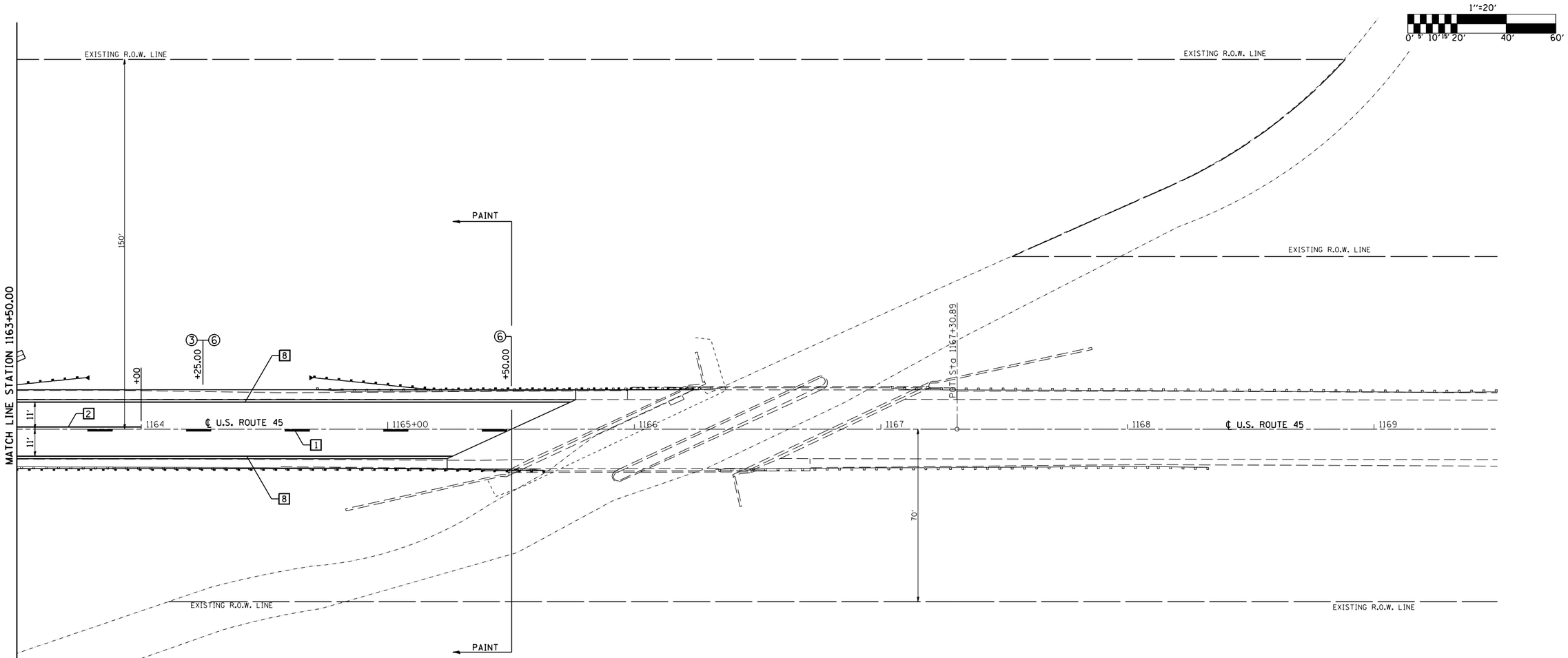
PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258pavmark.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = plersonbr

CONTRACT NO. 70258

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1671	•	DOUGLAS	181	70
STA. 1163+50.00		TO STA. 1169+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• 144SBR-2 & 22VBR-1

SEC. 33, T. 16 N., R. 8 E. OF THE 3rd P.M.



TYPICAL PAVEMENT MARKING LEGEND

10' (3.05 m) | 30' (9.15 m) | 10' (3.05 m)

[1] 4" (100) SKIP-DASH (YELLOW)

[2] 4" (100) SOLID (YELLOW)

[8] 4" (100) SOLID (WHITE)

SEC. 34, T. 16 N., R. 8 E. OF THE 3rd P.M.

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN

F.A.S. ROUTE 1671 (U.S. ROUTE 45)
SECTION 144SBR-2 & 22VBR-1
DOUGLAS COUNTY

SCALE: 1" = 20'-0" | DRAWN BY: B.B.P.
DATE: 06/08/06 | CHECKED BY: C.R.G.

PLOT DATE = 7/10/2006
FILE NAME = c:\projects\d505202 (v8)\70258pavmark.dgn
PLOT SCALE = 42.3529 ' / IN.
USER NAME = plersonbr

Bench Mark: Chiseled square on top of the northwest wingwall, 18.81' left @ Sta. 1131+16.98. Elevation = 656.32

Existing Structure: S.N. 021-0014, originally built in 1938 as S.B.I. Route 121, Section 144SB-1-FAGH, 144SF-1-FAGH as a three span wide flange structure. In 1974, the superstructure was replaced with PPC deck beams and the substructure was widened. The substructure consists of stub abutments and three-column piers on spread footings. The existing structure measures 95'-6½" back to back of abutments and 45'-0" out to out of deck. The existing structure is to be removed and replaced. Traffic will be detoured.

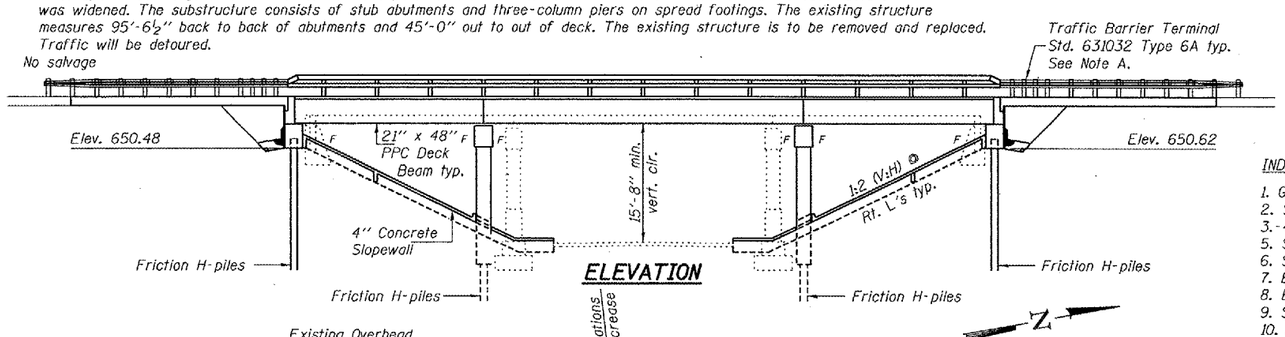
No salvage

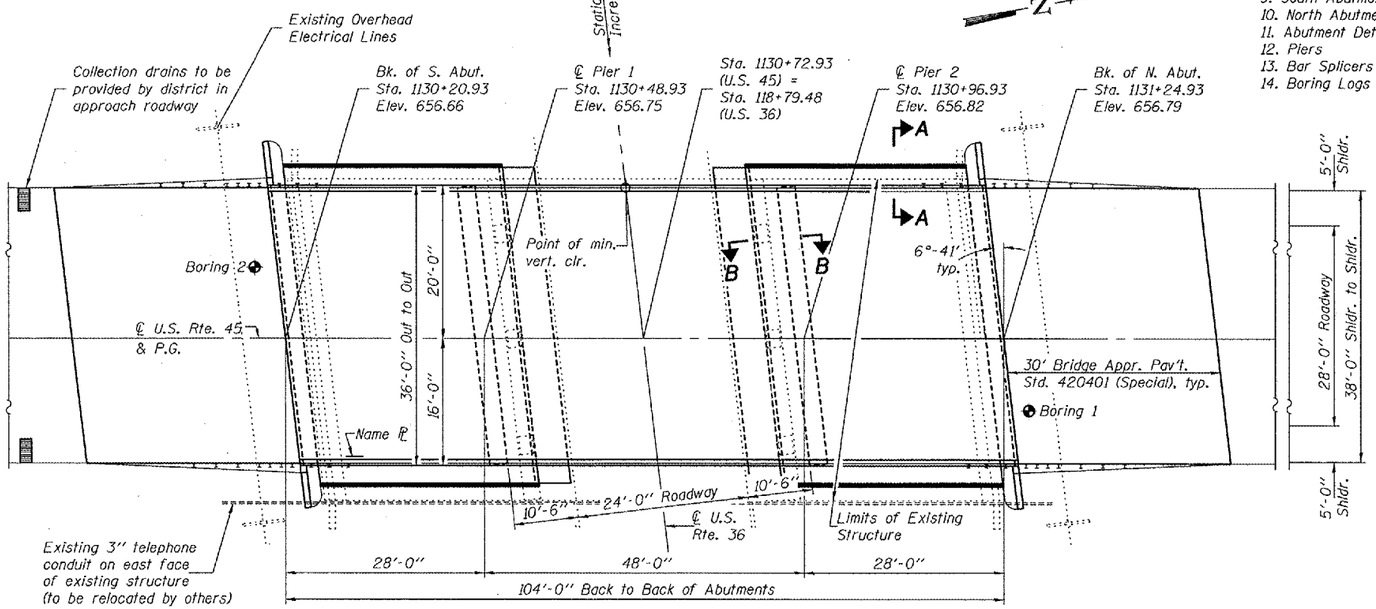
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 1671	**	DOUGLAS	181	71
FED. ROAD DIST. NO. 9		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 1
14 SHEETS

Contract #70258 **144SBR-2 & 22VBR-1

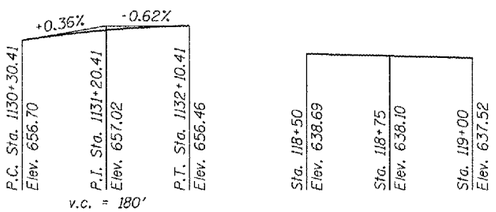




PLAN

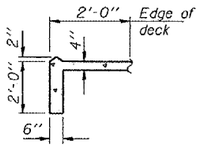
Notes:
The profile grade shows the final elevations after grinding.
Up to ¼" will be ground off the bridge slab and the bridge approach pavement.

Note A: Additional post required adjacent to back of abutment. See Roadway Plans.

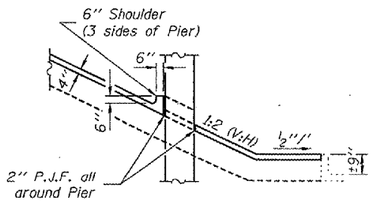


PROFILE GRADE U.S. ROUTE 45
(along ℄ roadway)

PROFILE GRADE U.S. ROUTE 36
(along ℄ roadway)



SECTION A-A



SECTION B-B

DESIGNED	Stephen M. Ryan
CHECKED	Philip R. Stoffel
DRAWN	BECKY M. LEACH
CHECKED	SMR/PRL

August 4, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

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

EXPIRES 11-30-2006

INDEX OF SHEETS

GENERAL NOTES

Reinforcement bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.

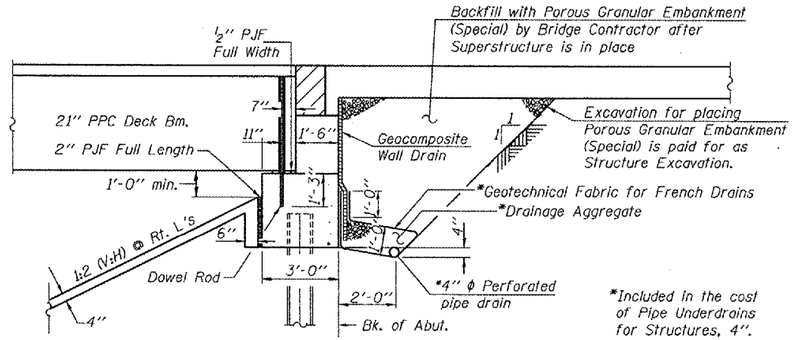
Concrete sealer shall be applied to exterior vertical face of each fascia beam.

The Contractor shall drive four steel HP12x53 test piles in a permanent location, one at each substructure unit, as directed by the Engineer before ordering remainder of piles.

All construction joints shall be bonded.

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 procedures for removal of the existing structure. Before starting work, the Contractor shall submit a demolition procedure for the removal of the existing structure to the Engineer for approval. The demolition procedure is to be prepared by and Illinois Licensed Structural Engineer. Cost included with Removal of Existing Structures, No. 1.

Slope wall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.



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

SECTION THRU ABUTMENT

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

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).

STATION 1130+72.93
BUILT 200 BY
STATE OF ILLINOIS
FAS ROUTE 1671 - SEC 144SBR-2
LOADING HS20
STR. NO. 021-0062

NAME PLATE

See Std. 515001

LOADING HS20-44

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

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi (substructure)
f_y = 60,000 psi (reinforcement)
f'_c = 5,000 psi (concrete wearing surface)

PRECAST PRESTRESSED UNITS

f'_c = 5,000 psi
f_{ci} = 4,000 psi
f_s = 270,000 psi (½" low relax. strands)
f_{si} = 201,960 psi (½" low relax. strands)

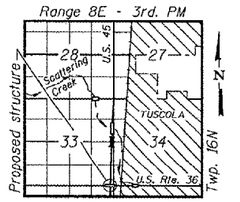
SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 4.97%g
Site Coefficient (S) = 1.0

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures No. 1	Each	1		1
Structure Excavation	Cu. Yd.		221	221
Concrete Structures	Cu. Yd.		141.4	141.4
Diamond Grinding (Bridge Section)	Sq. Yd.	606.2		606.2
Concrete Wearing Surface	Sq. Yd.	403.9		403.9
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	3629.5		3629.5
Reinforcement Bars, Epoxy Coated	Pound	5370	12430	17800
Furnishing Steel Piles HP12x53	Foot		585	585
Driving Steel Piles	Foot		585	585
Test Pile Steel HP12x53	Each		4	4
Name Plates	Each	1		1
Slopewall, 4"	Sq. Yd.		359	359
Steel Bridge Rail, Type SM	Foot	205		205
Pipe Underdrains for Structures, 4"	Foot		126	126
Geocomposite Wall Drain	Sq. Yd.		47	47
Concrete Sealer	Sq. Yd.	39.3		39.3
Porous Granular Embankment (Special)	Cu. Yd.		74	74
Bar Splicers	Each		72	72
Bridge Deck Grooving	Sq. Yd.	380		380

Range 8E - 3rd. PM



LOCATION SKETCH

GENERAL PLAN & ELEVATION
U.S. ROUTE 45 OVER
U.S. ROUTE 36
F.A.S. ROUTE 1671 - SECTION 144SBR-2
DOUGLAS COUNTY
STATION 1130+72.93
STRUCTURE NO. 021-0062

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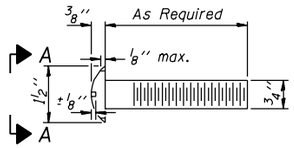
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

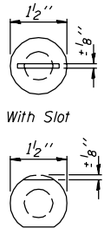
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 1671	**	DOUGLAS	181	72
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 2
14 SHEETS

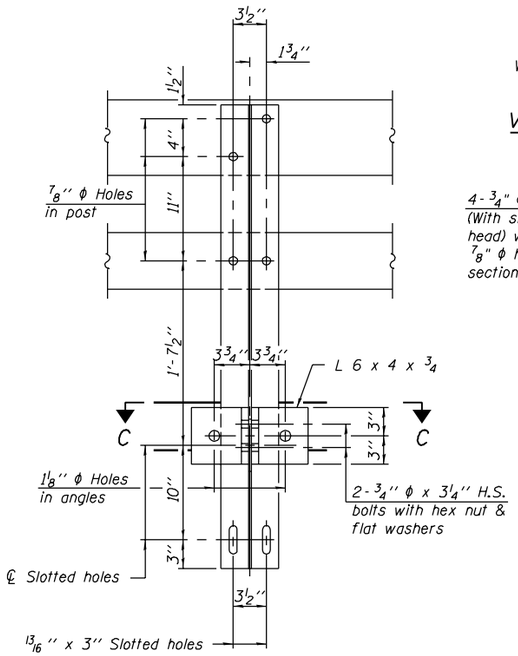
Contract #70258 **144SBR-2 & 22VBR-1



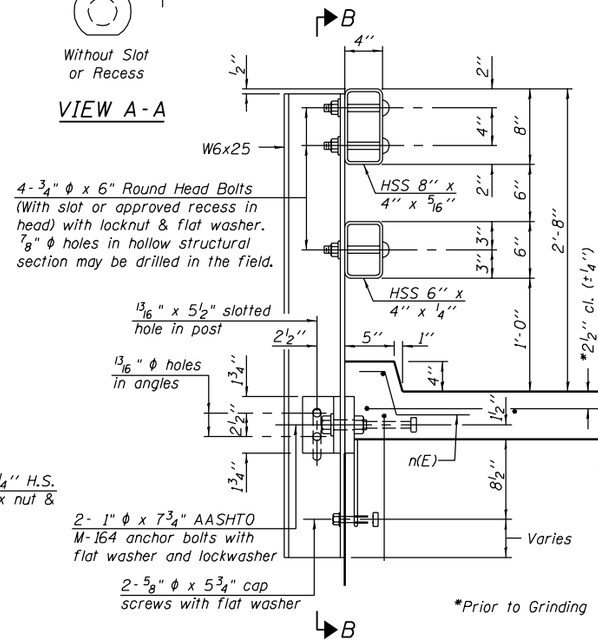
DETAIL OF 3/4" ϕ ROUND HEAD BOLT



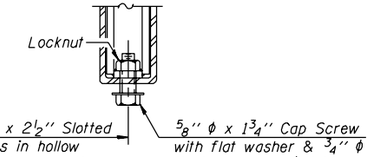
VIEW A-A



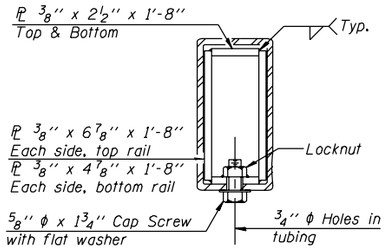
SECTION B-B



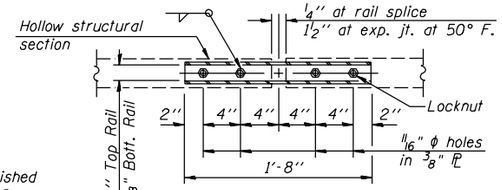
SECTION AT RAIL POST



RAIL SPLICE CONNECTION AT EXPANSION JT.

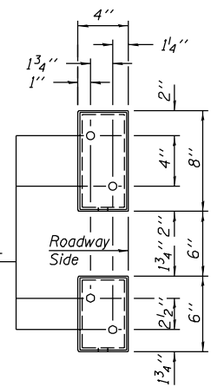


SECTION AT RAIL SPLICE

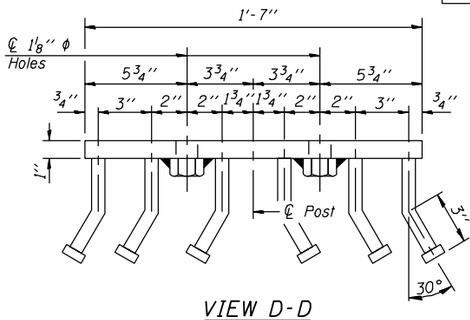


PLAN-BOTT. SPLICE PL TYPICAL

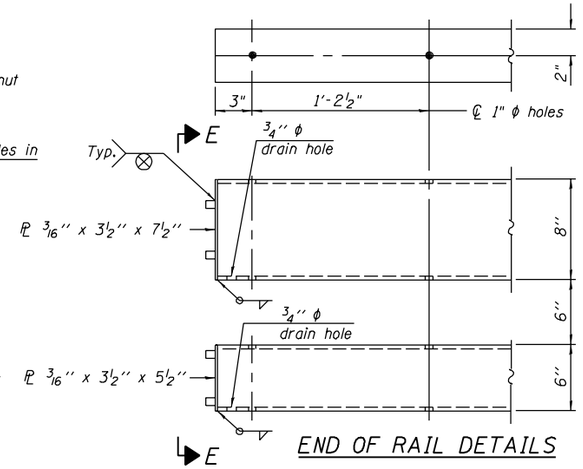
℄ - 5/8" reduced base welded studs. Provide 4 - 5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032



VIEW E-E



VIEW D-D



END OF RAIL DETAILS

NOTES

Hollow structural sections shall conform to the requirements of ASTM designation A 500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs at 0° F.

All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36 except posts and angles shall conform to AASHTO M 270, Grade 50.

Bolts, cap screws, and nuts shall conform to the requirements of ASTM designation A 307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M 164.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized according to AASHTO M 232.

All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Galvanized rail shall not be painted.

Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for Steel Bridge Rail, Type SM.

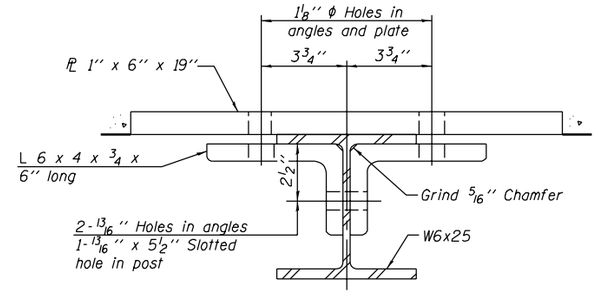
All field drilled holes shall be coated with an approved zinc rich paint before erection.

For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Bridge Rail, Type SM.

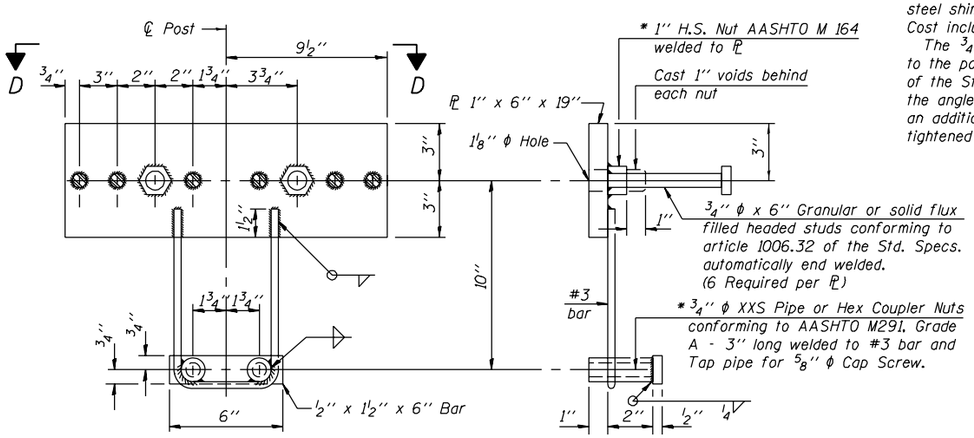
The 3/4" ϕ high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened according to Article 505.04(f)(2) of the Standard Specifications. The 1" ϕ high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/8 turn. The 5/8" ϕ cap screws in bottom of posts shall be tightened to a snug fit only.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Bridge Rail, Type SM	Foot	205.0



SECTION C-C



ANCHOR DEVICE

* Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

DESIGNED	SMR
CHECKED	PRL
DRAWN	BECKY M. LEACH
CHECKED	SMR/PRL

August 4, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

(6'-3" Maximum Post Spacing) (5" minimum to 7 1/8" maximum CWS thickness)

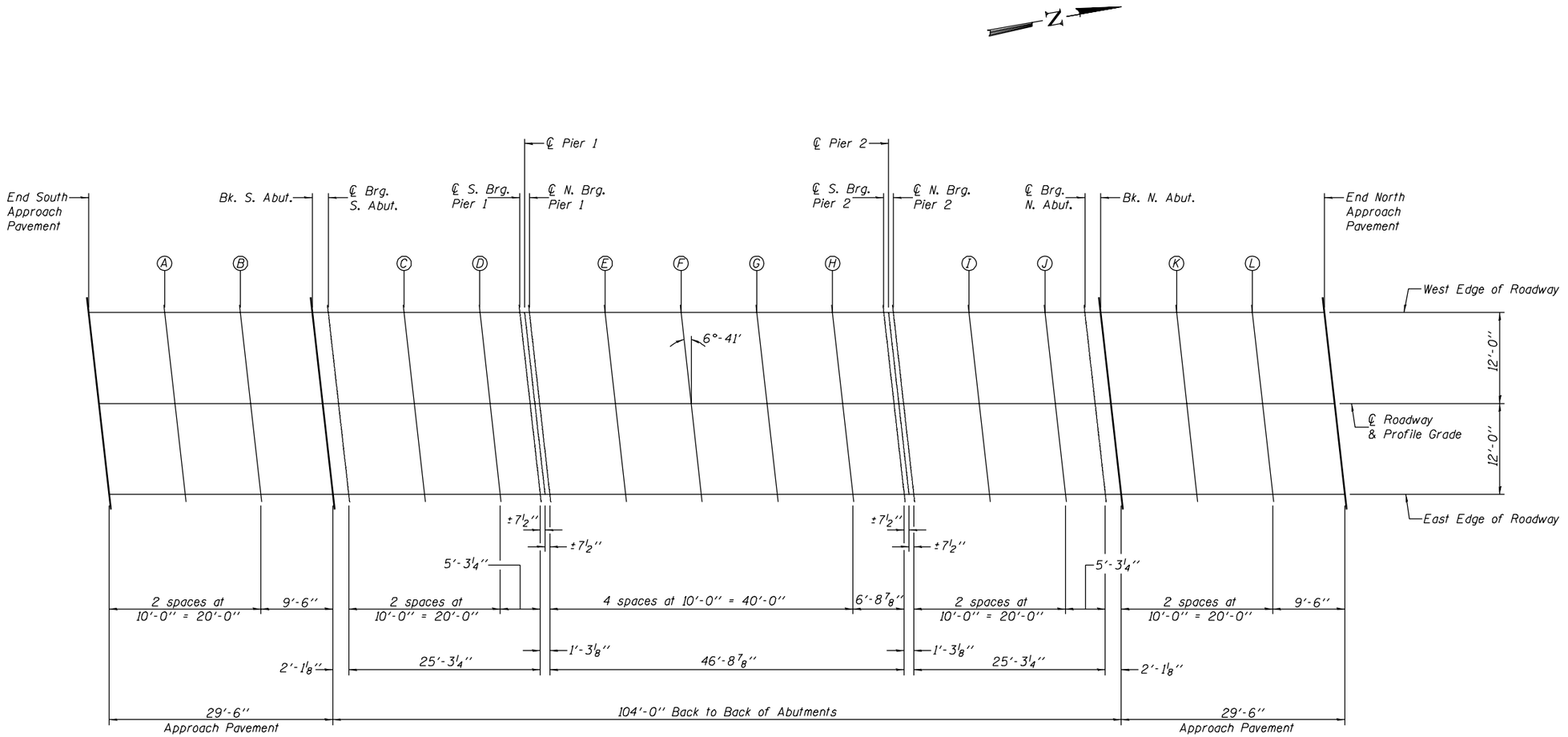
TYPE SM
STEEL BRIDGE RAIL SIDE MOUNTED WITH CONCRETE WEARING SURFACE
F.A.S. ROUTE 1671 - SECTION 144SBR-2
DOUGLAS COUNTY
STATION 1130+72.93
STRUCTURE NO. 021-0062

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 1671	*	DOUGLAS	181	73
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 3
14 SHEETS

Contract #70258 *144SBR-2 & 22VBR-1



PLAN

DESIGNED	SMR
CHECKED	PRL
DRAWN	BECKY M. LEACH
CHECKED	SMR/PRL

August 4, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

TOP OF SLAB ELEVATIONS
F.A.S. ROUTE 1671 - SECTION 144SBR-2
DOUGLAS COUNTY
STATION 1130+72.93
STRUCTURE NO. 021-0062

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 1671	*	DOUGLAS	181	74
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 4
14 SHEETS

Contract #70258 *144SBR-2 & 22VBR-1

WEST EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
End S. Appr. Pvmt.	112990.02	-12.00	656.30	656.32
A	113000.02	-12.00	656.34	656.36
B	113010.02	-12.00	656.37	656.39
Bk. S. Abut.	113019.52	-12.00	656.41	656.43
℄ Brg. S. Abut.	113021.62	-12.00	656.41	656.43
C	113031.62	-12.00	656.45	656.47
D	113041.62	-12.00	656.48	656.50
℄ S. Brg. Pier 1	113046.89	-12.00	656.50	656.52
℄ Pier 1	113047.52	-12.00	656.50	656.52
℄ N. Brg. Pier 1	113048.15	-12.00	656.50	656.52
E	113058.15	-12.00	656.52	656.54
F	113068.15	-12.00	656.54	656.56
G	113078.15	-12.00	656.56	656.58
H	113088.15	-12.00	656.56	656.58
℄ S. Brg. Pier 2	113094.89	-12.00	656.56	656.58
℄ Pier 2	113095.52	-12.00	656.56	656.58
℄ N. Brg. Pier 2	113096.15	-12.00	656.57	656.59
I	113106.15	-12.00	656.56	656.58
J	113116.15	-12.00	656.55	656.57
℄ Brg. N. Abut.	113121.42	-12.00	656.55	656.57
Bk. N. Abut.	113123.52	-12.00	656.55	656.57
K	113133.52	-12.00	656.53	656.55
L	113143.52	-12.00	656.50	656.52
End N. Appr. Pvmt.	113153.02	-12.00	656.48	656.50

℄ ROADWAY & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
End S. Appr. Pvmt.	112991.43	0.00	656.56	656.58
A	113001.43	0.00	656.59	656.61
B	113011.43	0.00	656.63	656.65
Bk. S. Abut.	113020.93	0.00	656.66	656.68
℄ Brg. S. Abut.	113023.02	0.00	656.67	656.69
C	113033.02	0.00	656.71	656.73
D	113043.02	0.00	656.74	656.76
℄ S. Brg. Pier 1	113048.3	0.00	656.75	656.77
℄ Pier 1	113048.93	0.00	656.75	656.77
℄ N. Brg. Pier 1	113049.56	0.00	656.75	656.77
E	113059.56	0.00	656.78	656.80
F	113069.56	0.00	656.80	656.82
G	113079.56	0.00	656.81	656.83
H	113089.56	0.00	656.81	656.83
℄ S. Brg. Pier 2	113096.3	0.00	656.82	656.84
℄ Pier 2	113096.93	0.00	656.82	656.84
℄ N. Brg. Pier 2	113097.55	0.00	656.81	656.83
I	113107.55	0.00	656.81	656.83
J	113117.55	0.00	656.80	656.82
℄ Brg. N. Abut.	113122.83	0.00	656.80	656.82
Bk. N. Abut.	113124.93	0.00	656.79	656.81
K	113134.93	0.00	656.77	656.79
L	113144.93	0.00	656.75	656.77
End N. Appr. Pvmt.	113154.42	0.00	656.72	656.74

EAST EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
End S. Appr. Pvmt.	112992.84	12.00	656.31	656.33
A	113002.84	12.00	656.35	656.37
B	113012.84	12.00	656.38	656.40
Bk. S. Abut.	113022.33	12.00	656.42	656.44
℄ Brg. S. Abut.	113024.43	12.00	656.42	656.44
C	113034.43	12.00	656.46	656.48
D	113044.43	12.00	656.49	656.51
℄ S. Brg. Pier 1	113049.7	12.00	656.51	656.53
℄ Pier 1	113050.33	12.00	656.51	656.53
℄ N. Brg. Pier 1	113050.96	12.00	656.51	656.53
E	113060.96	12.00	656.53	656.55
F	113070.96	12.00	656.55	656.57
G	113080.96	12.00	656.56	656.58
H	113090.96	12.00	656.56	656.58
℄ S. Brg. Pier 2	113097.7	12.00	656.56	656.58
℄ Pier 2	113098.33	12.00	656.56	656.58
℄ N. Brg. Pier 2	113098.96	12.00	656.56	656.58
I	113108.96	12.00	656.56	656.58
J	113118.96	12.00	656.55	656.57
℄ Brg. N. Abut.	113124.23	12.00	656.54	656.56
Bk. N. Abut.	113126.33	12.00	656.54	656.56
K	113136.33	12.00	656.52	656.54
L	113146.33	12.00	656.50	656.52
End N. Appr. Pvmt.	113155.83	12.00	656.47	656.49

DESIGNED	SMR
CHECKED	PRL
DRAWN	BECKY M. LEACH
CHECKED	SMR/PRL

August 4, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

TOP OF SLAB ELEVATIONS
F.A.S. ROUTE 1671 - SECTION 144SBR-2
DOUGLAS COUNTY
STATION 1130+72.93
STRUCTURE NO. 021-0062

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

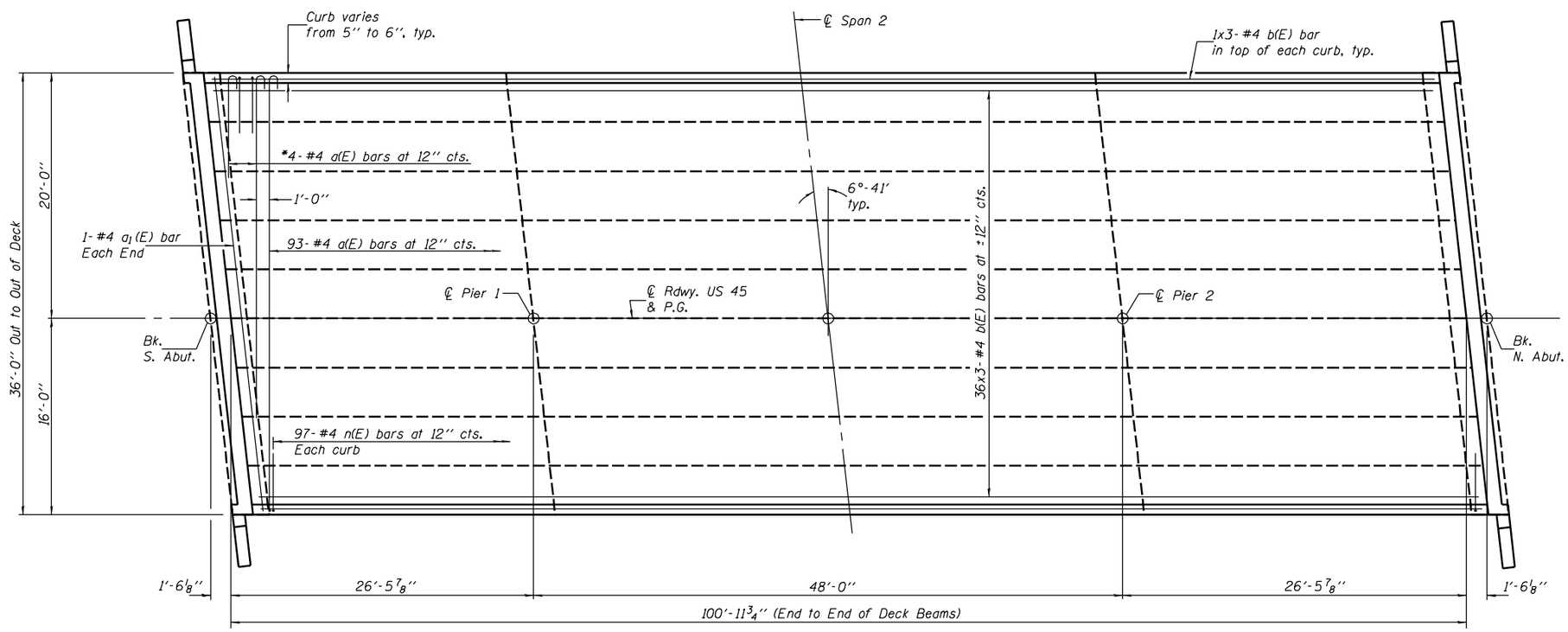
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 1671	**	DOUGLAS	181	75
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 5
14 SHEETS

Contract #70258 **144SBR-2 & 22VBR-1

MIN. BAR LAP

#4 bar = 1'-8"



PLAN

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

Notes:
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 35x3-#4 etc. indicates 35 lines of bars with 3 lengths per line.

DESIGNED	SMR
CHECKED	PRL
DRAWN	BECKY M. LEACH
CHECKED	SMR/PRL

August 4. 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

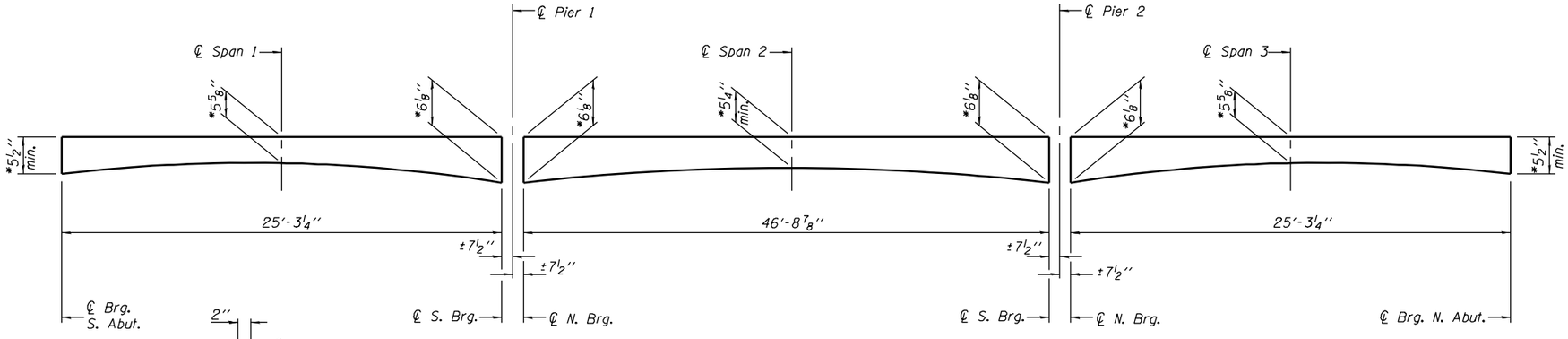
SUPERSTRUCTURE
F.A.S. ROUTE 1671 - SECTION 144SBR-2
DOUGLAS COUNTY
STATION 1130+72.93
STRUCTURE NO. 021-0062

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 1671	**	DOUGLAS	181	76
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

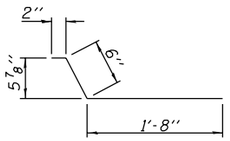
SHEET NO. 6
14 SHEETS

Contract #70258 **144SBR-2 & 22VBR-1

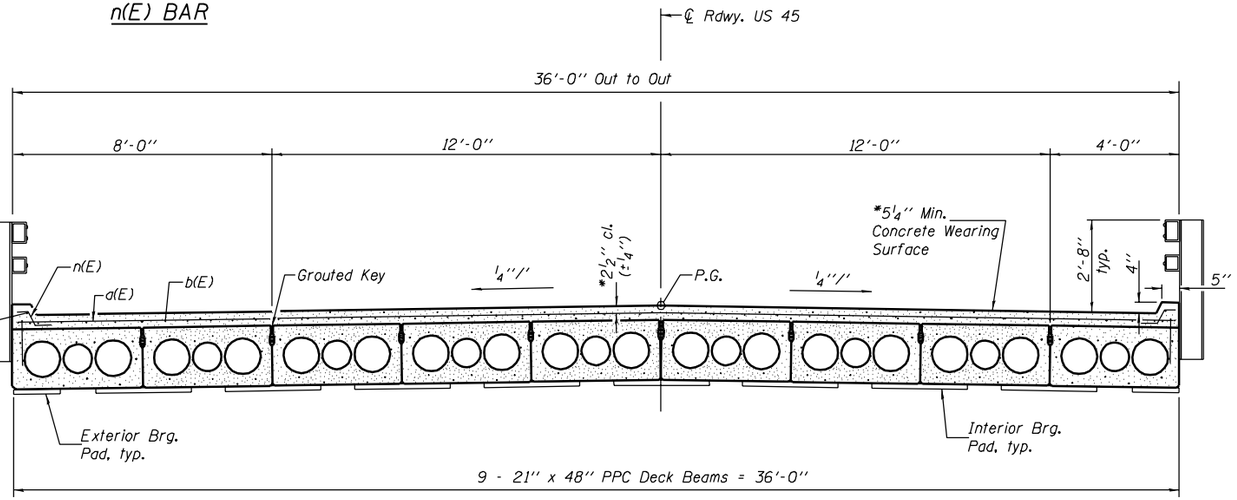


REINFORCED CONCRETE WEARING SURFACE PROFILE

*Prior to grinding

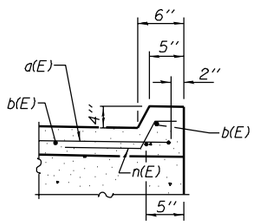


n(E) BAR



CROSS SECTION

(Looking North)



CURB DETAIL

MIN. BAR LAP

#4 bar = 1'-8"

Notes:

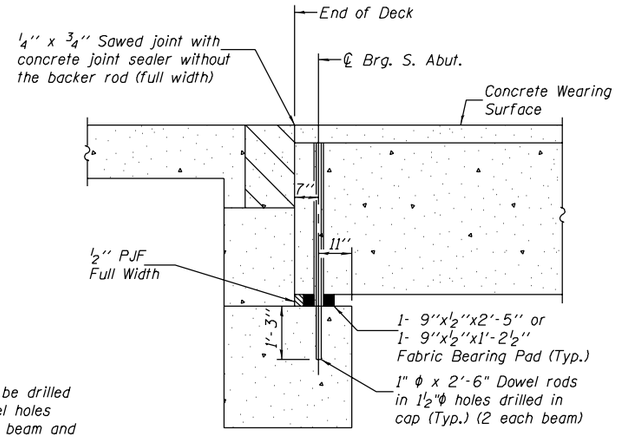
After beams have been erected, holes shall be drilled into substructure and dowel rods placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hours prior to grouting the shear keys.

See sheets 7 and 8 of 14 for Fabric Bearing Pad Details.

Concrete Wearing Surface to be poured after grouting the shear keys.

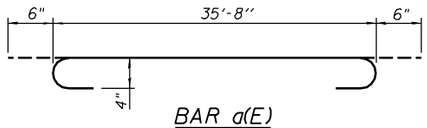
Dowel rods drilled in cap are included in the cost of Precast Prestressed Concrete Deck Beams (21" Depth).

Hatched areas to be poured after concrete wearing surface is in place. Quantity included with Concrete Structures on sheet 11 of 14.

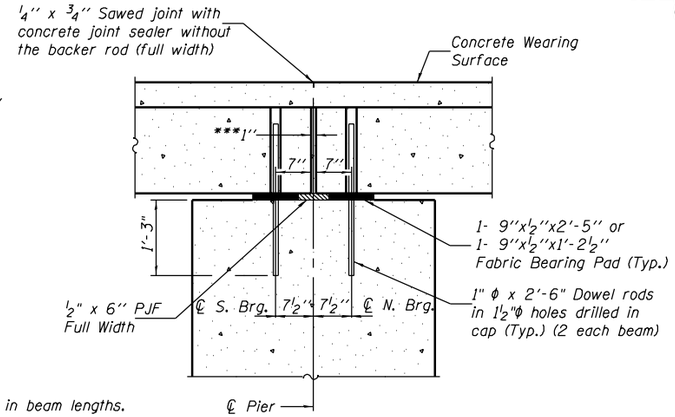


SECTION THRU SOUTH ABUTMENT

(Dimensions measured at right angles)
(North Abutment similiar by rotation)



BAR d(E)



TYPICAL PIER SECTION

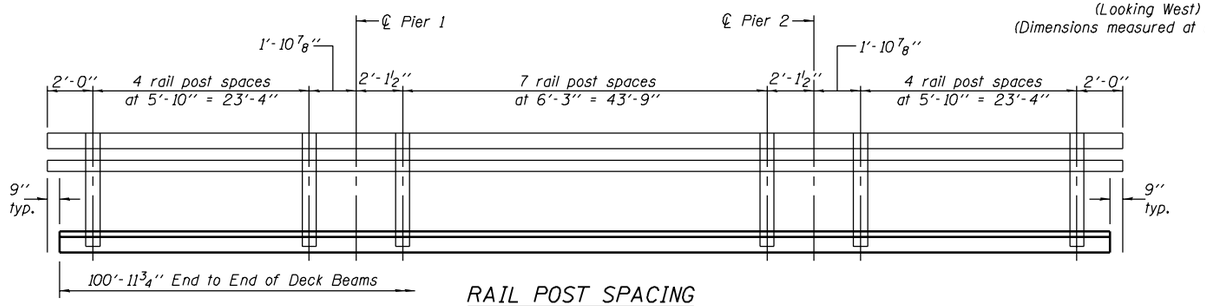
(Looking West)
(Dimensions measured at rt. angles)

***1" Joint shall be filled with non-shrink grout.
1" dimension may vary to accommodate tolerance in beam lengths.

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	97	#4	36'-8"	
d_1(E)	2	#4	35'-11"	
b(E)	114	#4	34'-8"	
n(E)	194	#4	2'-4"	
Reinforcement Bars. Epoxy Coated			Pound	5370
Concrete Wearing Surface			Sq. Yd.	403.9

Reinforcement bars designated (E) shall be epoxy coated.



RAIL POST SPACING

DESIGNED	SMR
CHECKED	PRL
DRAWN	BECKY M. LEACH
CHECKED	SMR/PRL

August 4, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

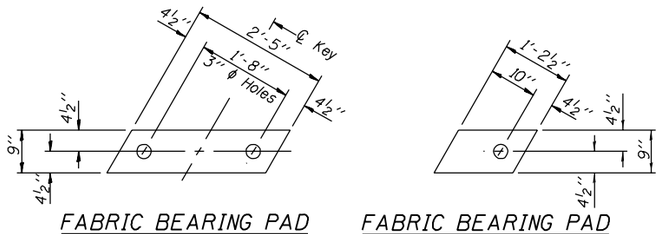
SUPERSTRUCTURE DETAILS
F.A.S. ROUTE 1671 - SECTION 144SBR-2
DOUGLAS COUNTY
STATION 1130+72.93
STRUCTURE NO. 021-0062

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 1671	**	DOUGLAS	181	77
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 7
14 SHEETS

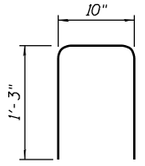
Contract #70258 **144SBR-2 & 22VBR-1



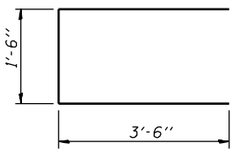
FABRIC BEARING PAD
(Interior)

FABRIC BEARING PAD
(Exterior)

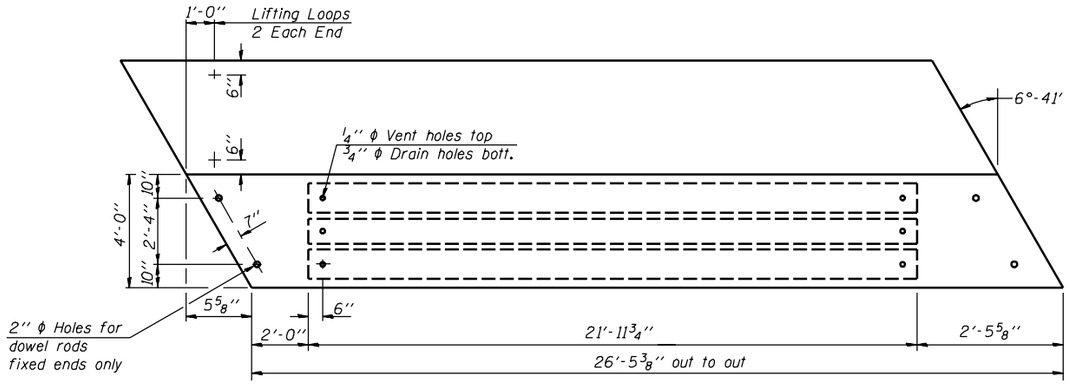
FIXED



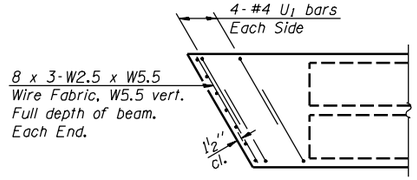
BAR $D_1(E)$



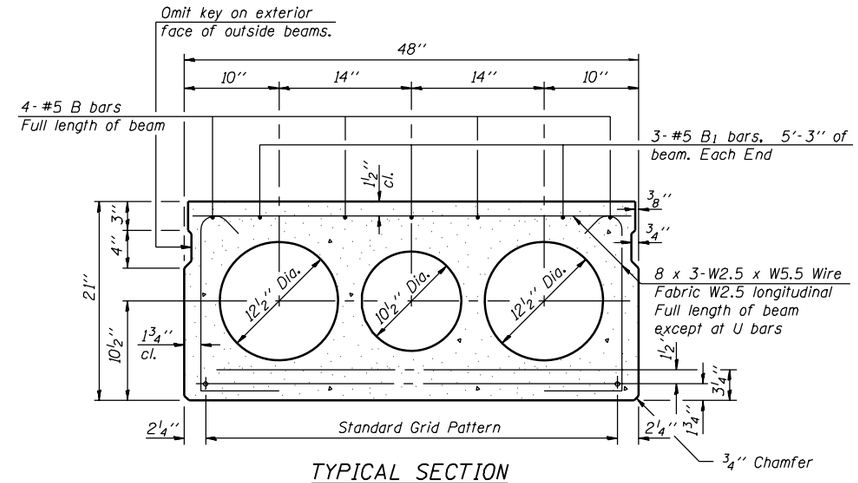
BAR U_1



PLAN



END PLAN



TYPICAL SECTION

½" ϕ Strands, Each Strand
Stressed to 30,900 Lbs.
7-Strands 1¾" up

Note:
Place strands symmetrically
about ℄ of beam.

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.

Lifting loops shall be 2-½" ϕ-270 ksi strands, as shown.

Non prestressing steel shall conform to AASHTO M-31 or M322 Grade 60.

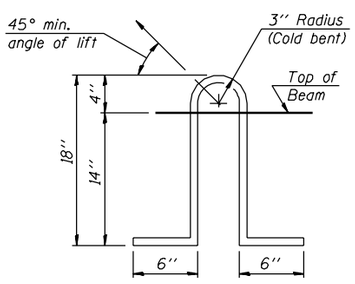
The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two ⅛" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.

Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.

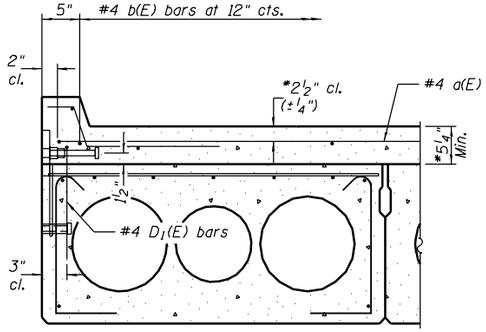
Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

Required Release Strength, f'ci, shall be 4,000 p.s.i.

$D_1(E)$ bars only in reinforcement of anchorage of SM Railing on exterior beams, See Section A-A.



LIFTING LOOP DETAIL

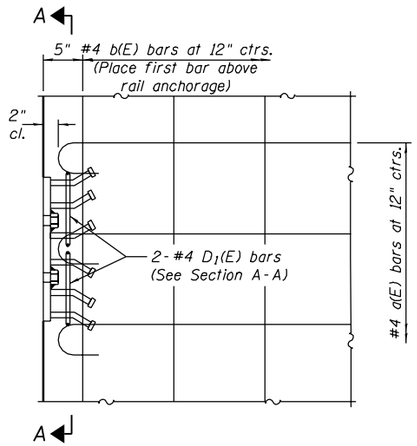


*Prior to grinding

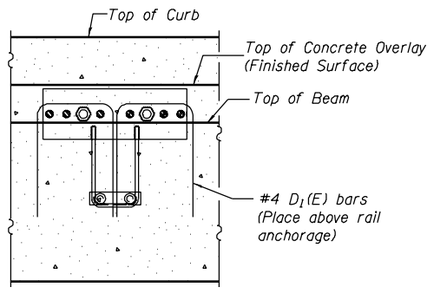
FASCIA BEAM

Rail anchorage shall be cast in precast beams. See typical section for dimensions, strand pattern, and bar callouts not shown.

Formwork necessary for the wearing surface may be secured utilizing the bottom rail inserts and/or additional inserts cast into the beam. Drilling into the beam will not be permitted.



PARTIAL DECK PLAN AT
RAIL ANCHORAGE
(curb not shown)



SECTION A-A

BAR LIST (ONE BEAM)

	Bar	No.	Size	Length	Shape
	B	4	#5	26'-0"	——
	B_1	5	#5	5'-3"	——
***	D_1	10	#4	3'-4"	⊃
	U_1	16	#4	8'-6"	⊐

***Exterior beams only

BILL OF MATERIAL

Precast Prestressed Conc. Deck Beams (21" Depth)	Sq. Ft.	1904.5

DESIGNED	SMR
CHECKED	PRL
DRAWN	BECKY M. LEACH
CHECKED	SMR/PRL

August 4, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

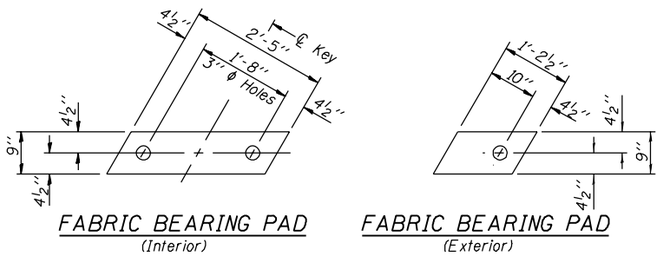
BEAM DETAILS - SPANS 1 & 3
F.A.S. ROUTE 1671 - SECTION 144SBR-2
DOUGLAS COUNTY
STATION 1130+72.93
STRUCTURE NO. 021-0062

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 1671	**	DOUGLAS	181	78
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 8
14 SHEETS

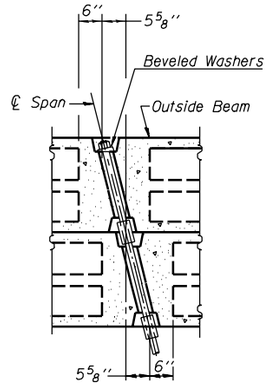
Contract #70258 **144SBR-2 & 22VBR-1

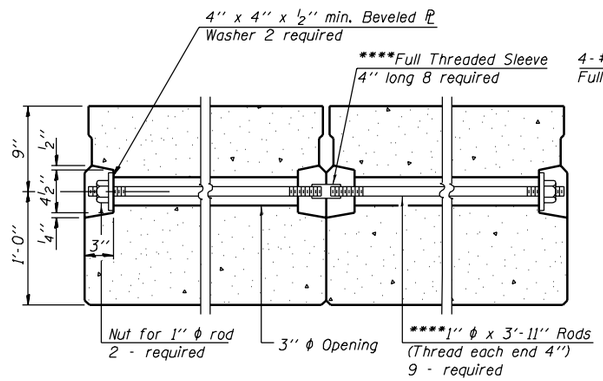


FABRIC BEARING PAD (Interior)

FABRIC BEARING PAD (Exterior)

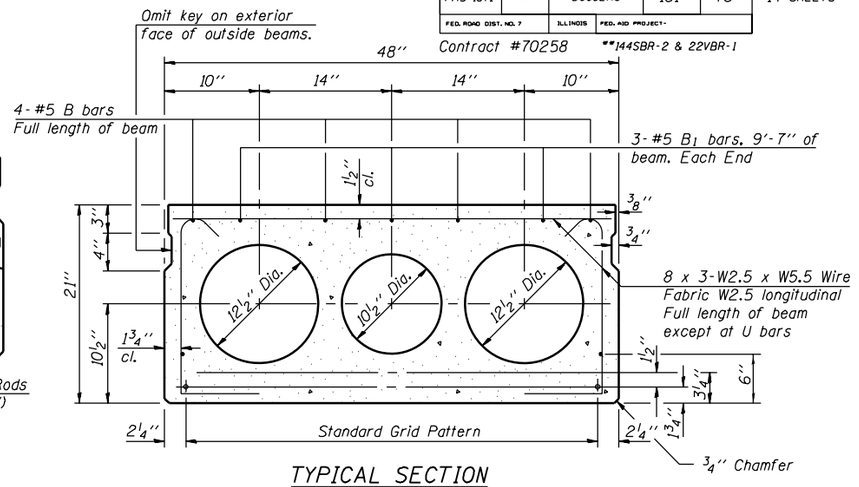
FIXED





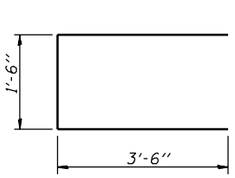
TYPICAL TRANSVERSE TIE ASSEMBLY

****Alternate approved transverse tie rods of increased segmental length are acceptable.

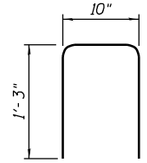


TYPICAL SECTION

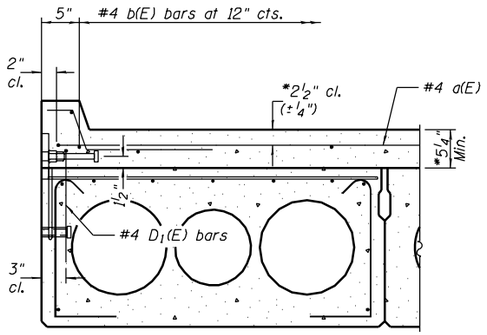
½" ϕ Strands, Each Strand Stressed to 30,900 Lbs.
8-Strands 1¾" up, 7-Strands 3¼" up, 2-Strands 6" up



BAR U1

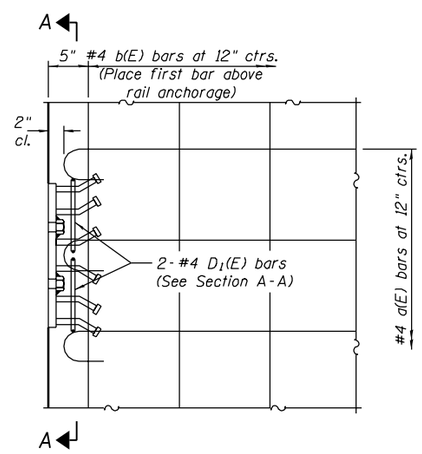


BAR D1(E)

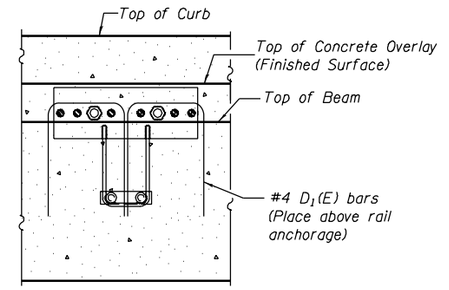


FASCIA BEAM

Rail anchorage shall be cast in precast beams.
See typical section for dimensions, strand pattern, and bar callouts not shown.
Formwork necessary for the wearing surface may be secured utilizing the bottom rail inserts and/or additional inserts cast into the beam. Drilling into the beam will not be permitted.

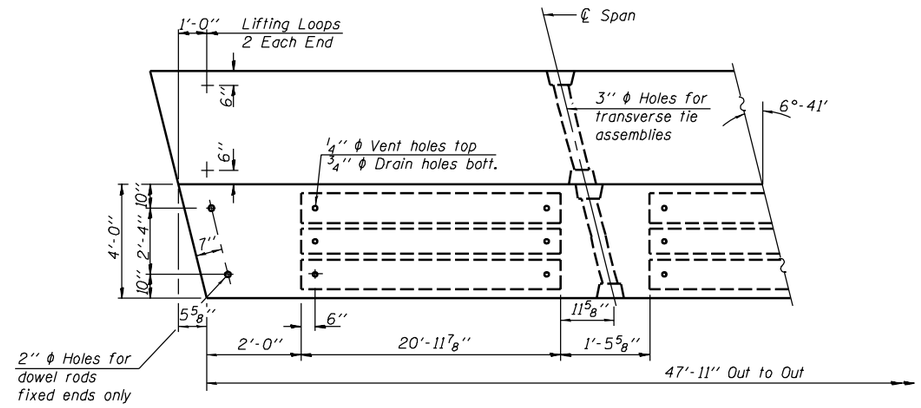


PARTIAL DECK PLAN AT RAIL ANCHORAGE
(Curb not shown)

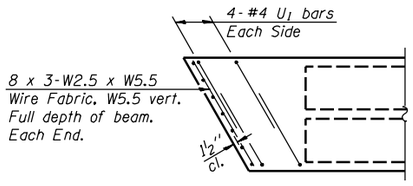


SECTION A-A

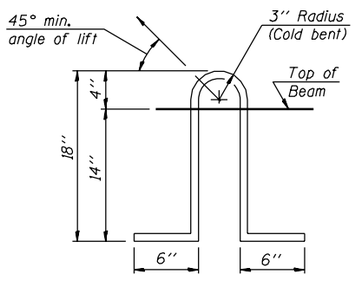
Note:
Place strands symmetrically about ℄ of beam.



PLAN



END PLAN



LIFTING LOOP DETAIL

*Prior to grinding

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.
Lifting loops shall be 2 - ½" ϕ-270 ksi strands, as shown.
The 1" ϕ 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 shall be filled with grout after transverse tie assembly is in place.
Non prestressing steel shall conform to AASHTO M-31 or M-322 Grade 60.
The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two ⅛" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.
Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.
Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.
Required Release Strength, f'ci, shall be 4,000 p.s.i.
D1(E) bars only in reinforcement of anchorage of SM Railing on exterior beams. See Section A-A.

BAR LIST (ONE BEAM)

	Bar	No.	Size	Length	Shape
	B	4	#5	47'-7"	——
	B1	6	#5	9'-7"	——
***	D1	16	#4	3'-4"	⊃
	U1	16	#4	8'-6"	⊐

***Exterior beams only

BILL OF MATERIAL

Precast Prestressed Conc. Deck Beams (21" Depth)	Sq. Ft.	1725

DESIGNED	SMR
CHECKED	PRL
DRAWN	BECKY M. LEACH
CHECKED	SMR/PRL

August 4, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

PD-4-R 10-22-04

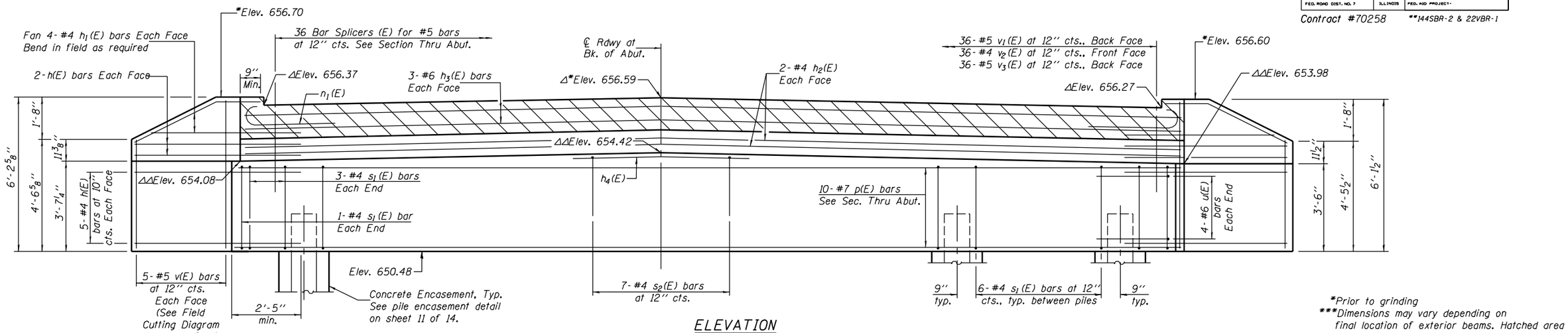
BEAM DETAILS - SPAN 2
F.A.S. ROUTE 1671 - SECTION 144SBR-2
DOUGLAS COUNTY
STATION 1130+72.93
STRUCTURE NO. 021-0062

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 1671	**	DOUGLAS	181	79
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 9
14 SHEETS

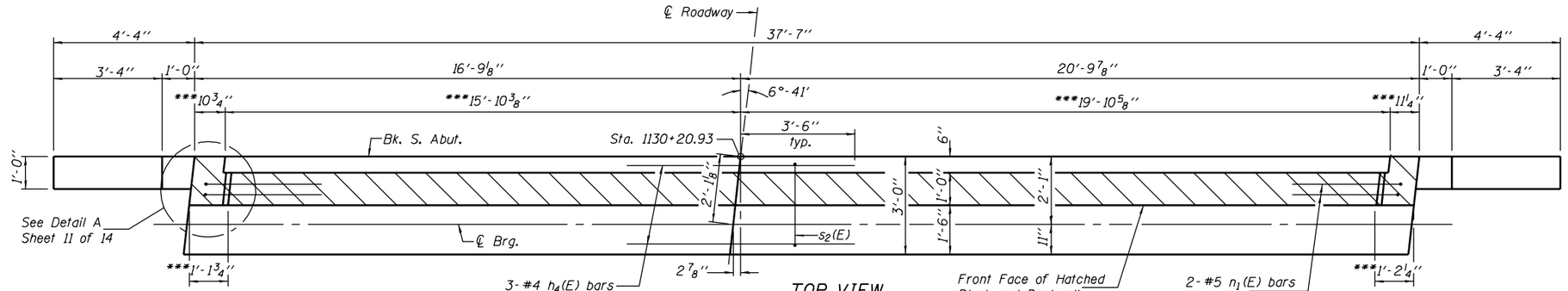
Contract #70258 **144SBR-2 & 22VBR-1



ELEVATION
(Looking South at South Abutment)

*Prior to grinding
***Dimensions may vary depending on final location of exterior beams. Hatched area and backwall to be poured after Concrete Wearing Surface is in place and cured.

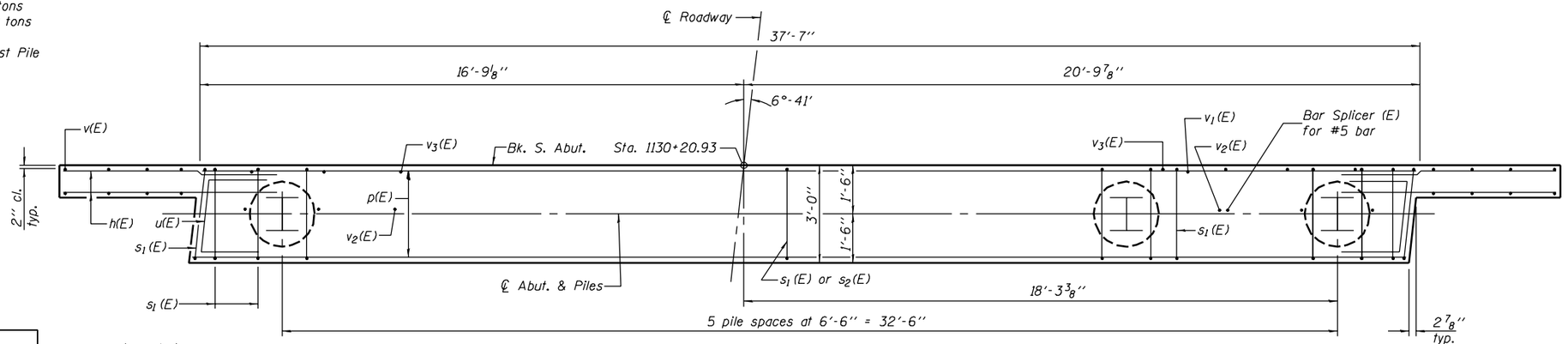
Δ Elevation at Front Face of Hatch Block.
ΔΔ Elevation at Front Face of Backwall.



TOP VIEW

PILE DATA

Type: HP12x53
Design Capacity: 40 tons
Required Bearing: 60 tons
Est. Length: 24 ft.
No. Required: 5+1 Test Pile



PLAN

DESIGNED	SMR
CHECKED	PRL
DRAWN	BECKY M. LEACH
CHECKED	SMR/PRL

August 4, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

Notes: For Bar Splicer details see sheet 13 of 14.
Reinforcement bars designated (E) shall be epoxy coated.
Space reinforcement in cap to miss dowel rods.

SOUTH ABUTMENT
F.A.S. ROUTE 1671 - SECTION 144SBR-2
DOUGLAS COUNTY
STATION 1130+72.93
STRUCTURE NO. 021-0062

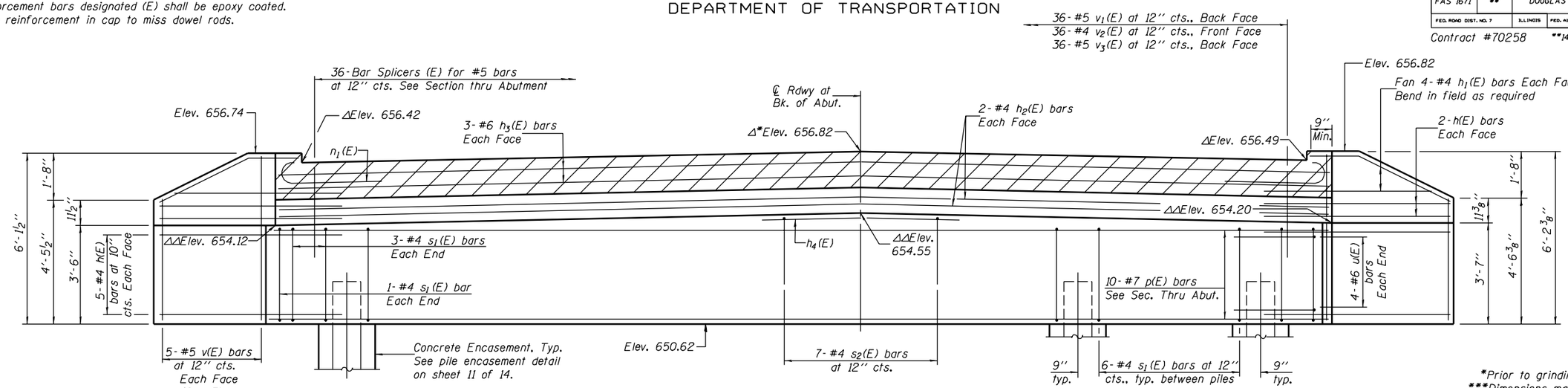
Notes: For Bar Splicer details see sheet 13 of 14.
Reinforcement bars designated (E) shall be epoxy coated.
Space reinforcement in cap to miss dowel rods.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 1671	**	DOUGLAS	181	80
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 10
14 SHEETS

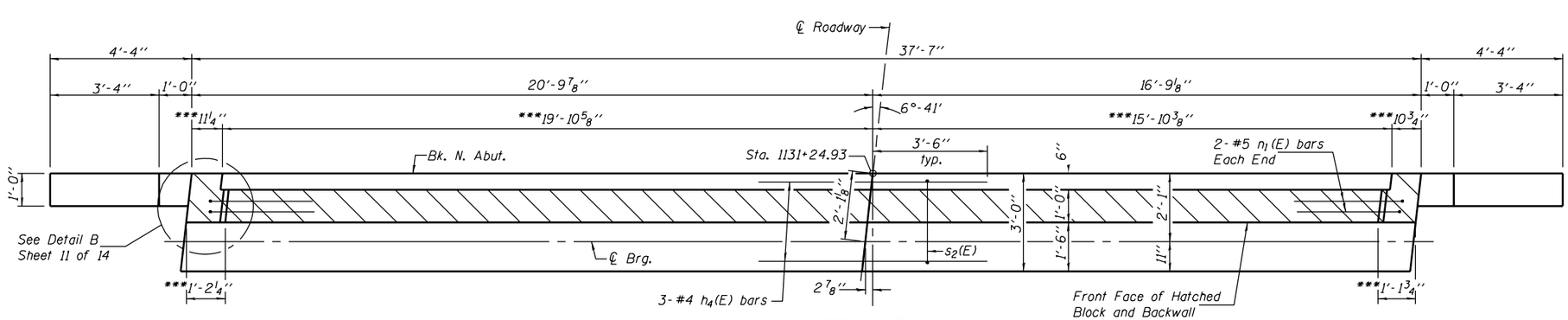
Contract #70258 **144SBR-2 & 22VBR-1



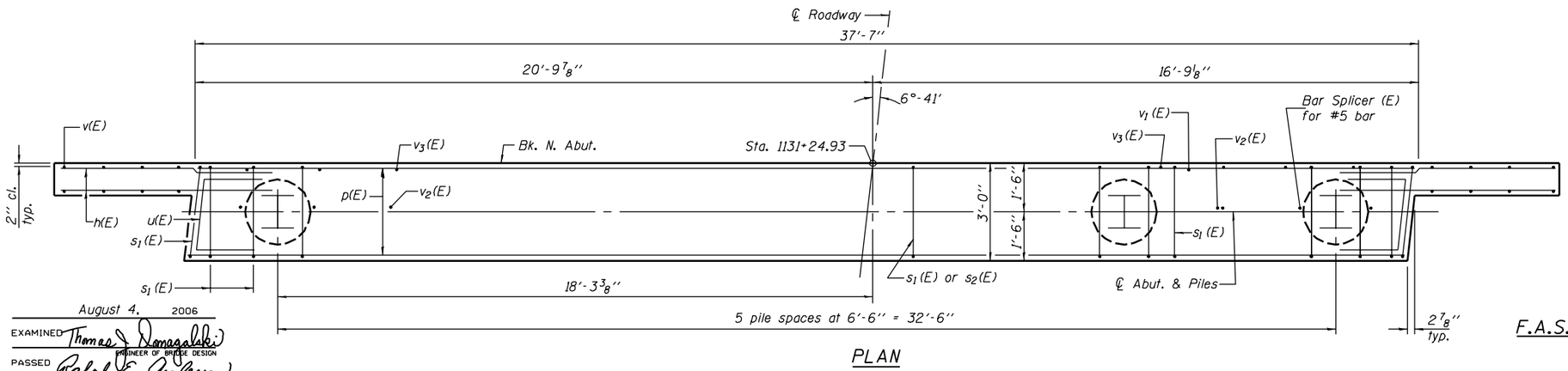
ELEVATION
(Looking North at North Abutment)

*Prior to grinding
***Dimensions may vary depending on final location of exterior beams. Hatched area and backwall to be poured after Concrete Wearing Surface is in place and cured.

Δ Elevation at Front Face of Hatch Block.
ΔΔ Elevation at Front Face of Backwall.



TOP VIEW



PLAN

PILE DATA

Type: HP12x53
Design Capacity: 40 tons
Required Bearing: 60 tons
Est. Length: 24 ft.
No. Required: 5+1 Test Pile

DESIGNED	SMR
CHECKED	PRL
DRAWN	BECKY M. LEACH
CHECKED	SMR/PRL

August 4, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

NORTH ABUTMENT
F.A.S. ROUTE 1671 - SECTION 144SBR-2
DOUGLAS COUNTY
STATION 1130+72.93
STRUCTURE NO. 021-0062

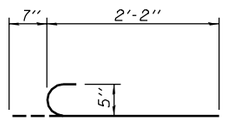
Notes: For Bar Splicer details see sheet 13 of 14.
Reinforcement bars designated (E) shall be epoxy coated.
Space reinforcement in cap to miss dowel rods.
Hatched area and Backwall to be poured after Concrete Wearing Surface is in place and cured.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

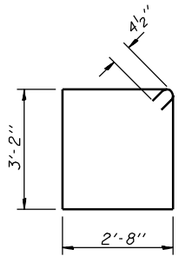
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 1671	**	DOUGLAS	181	81
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 11
14 SHEETS

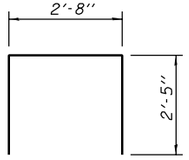
Contract #70258 **144SBR-2 & 22VBR-1



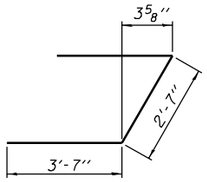
n_1(E) BAR



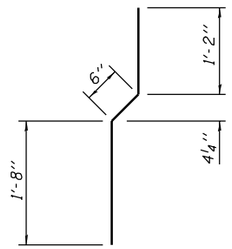
BAR s_1(E)



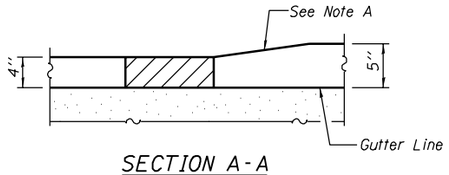
s_2(E) BAR



BAR u(E)

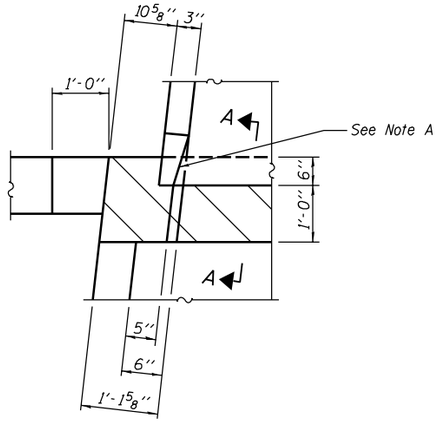


BAR v_1(E)



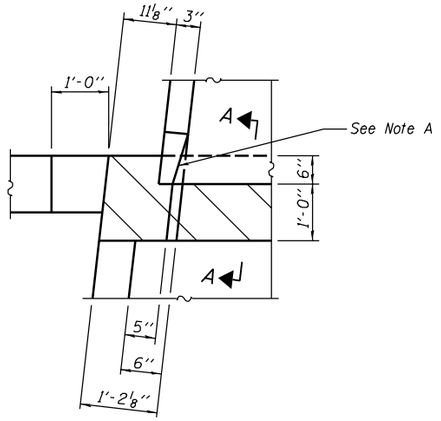
SECTION A-A

Note A:
This portion of the curb on Bridge Approach may be feathered to transition from curb shape on structure.



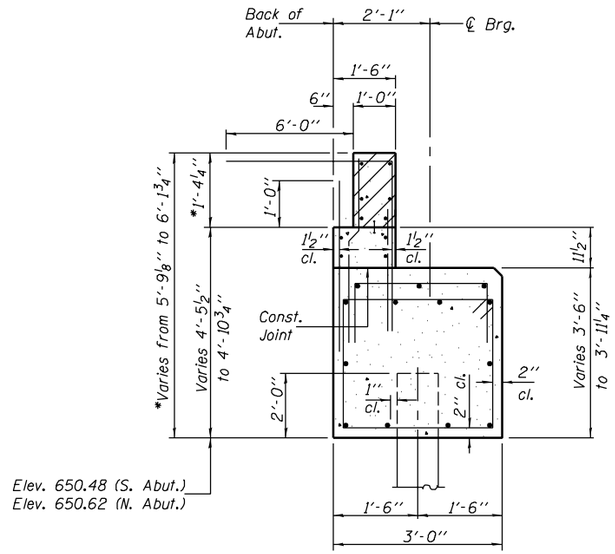
DETAIL A

Curb on East side of South Abutment shown.
Curb on East side of North Abutment similar.



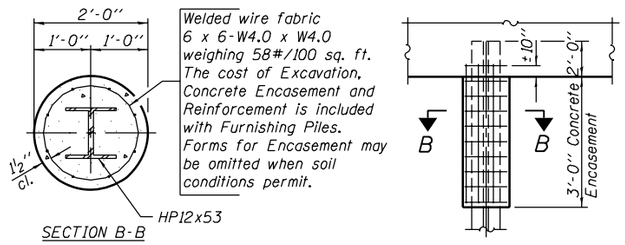
DETAIL B

Curb on West side of North Abutment shown.
Curb on West side of South Abutment similar.



SECTION THRU ABUTMENT
(Showing Dimensions at Rt. L's)

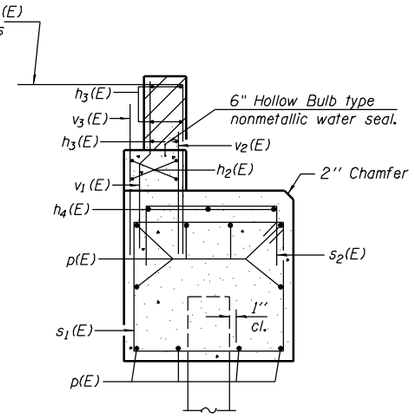
*Prior to grinding



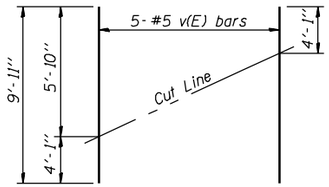
SECTION B-B

PILE ENCASEMENT DETAIL

Bar splicer (E) for #5 bars



SECTION THRU ABUTMENT
(Showing Reinforcement at Rt. L's)



FIELD CUTTING DIAGRAM

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

BILL OF MATERIAL
FOR TWO ABUTMENTS

Bar	No.	Size	Length	Shape
h(E)	56	#4	6'-7"	
h_1(E)	32	#4	7'-2"	
h_2(E)	8	#4	37'-3"	
h_3(E)	12	#6	37'-3"	
h_4(E)	6	#4	7'-0"	
n_1(E)	8	#5	2'-9"	
p(E)	20	#7	37'-3"	
s_1(E)	76	#4	12'-5"	
s_2(E)	14	#4	7'-6"	
u(E)	16	#6	9'-9"	
v(E)	20	#5	9'-11"	
v_1(E)	72	#5	3'-4"	
v_2(E)	72	#4	2'-11"	
v_3(E)	72	#5	2'-11"	
Concrete Structures			Cu. Yd.	42.4
Reinforcement Bars, Epoxy Coated			Pound	4600
Structure Excavation			Cu. Yd.	156
Furnishing Steel Piles HP12x53			Foot	240
Driving Steel Piles			Foot	240
Test Pile Steel HP12x53			Each	2

DESIGNED	SMR
CHECKED	PRL
DRAWN	BECKY M. LEACH
CHECKED	SMR/PRL

August 4, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

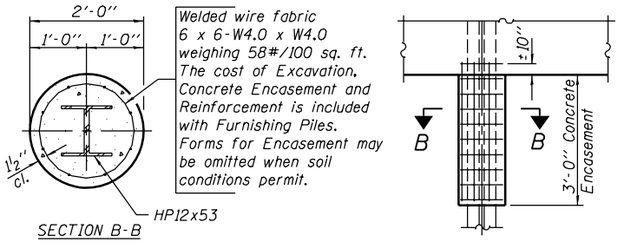
ABUTMENT DETAILS
F.A.S. ROUTE 1671 - SECTION 144SBR-2
DOUGLAS COUNTY
STATION 1130+72.93
STRUCTURE NO. 021-0062

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 1671	*	DOUGLAS	181	82
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

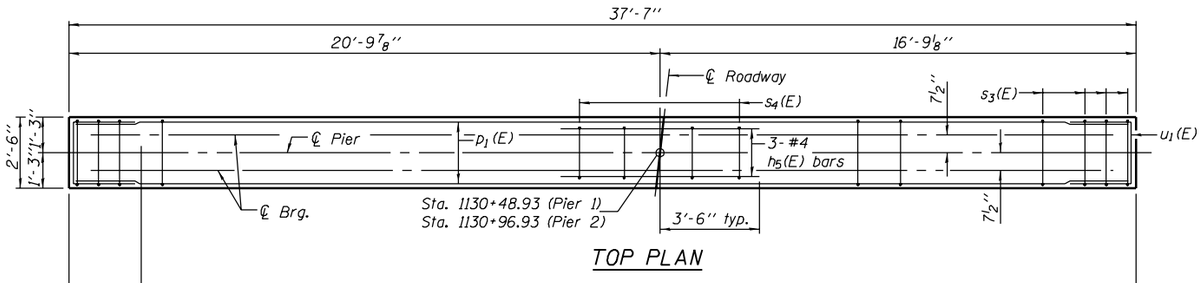
SHEET NO. 12
14 SHEETS

Contract #70258 *144SBR-2 & 22VBR-1

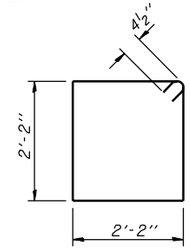


SECTION B-B

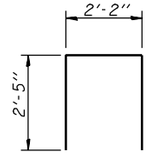
PILE ENCASEMENT DETAIL



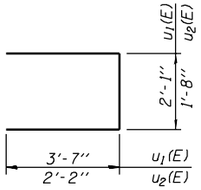
TOP PLAN



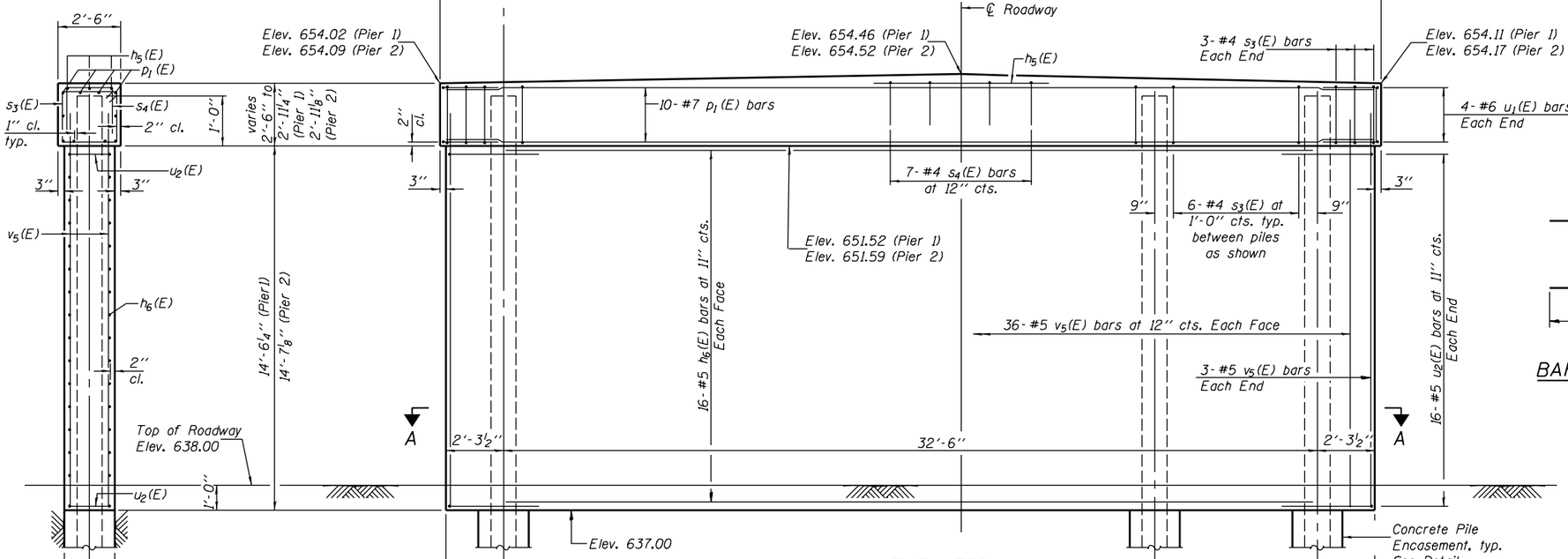
BAR $s_3(E)$



BAR $s_4(E)$

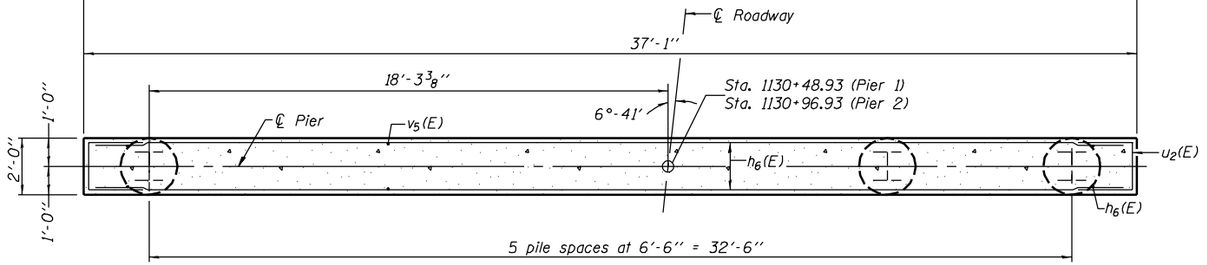


BARS $u_1(E)$ & $u_2(E)$



ELEVATION
(Looking North)

END VIEW



SECTION A-A

Notes:
Space reinforcement in cap to miss dowel rods.

PILE DATA

Type: HP12x53
Design Capacity: 51.4 tons
Required Bearing: 77.1 tons
Est. Length: 33 ft. (Pier 1) - 36 ft. (Pier 2)
No. Req'd: 5+1 test pile (Pier 1)
5+1 test pile (Pier 2)

BILL OF MATERIAL
FOR TWO PIERS

Bar	No.	Size	Length	Shape
$h_5(E)$	6	#4	7'-0"	——
$h_6(E)$	64	#5	36'-9"	——
$p_1(E)$	20	#7	37'-3"	——
$s_3(E)$	72	#4	9'-5"	⌐
$s_4(E)$	14	#4	7'-0"	⌐
$u_1(E)$	16	#6	9'-3"	▭
$u_2(E)$	64	#5	6'-0"	▭
$v_5(E)$	156	#5	16'-6"	——
Concrete Structures			Cu. Yd.	99.0
Reinforcement Bars, Epoxy Coated			Pound	7830
Structure Excavation			Cu. Yd.	65
Furnishing Steel Piles HP12x53			Foot	345
Driving Steel Piles			Foot	345
Test Pile Steel HP12x53			Each	2

Reinforcement Bars designated (E) shall be epoxy coated.

DESIGNED	SMR
CHECKED	PRL
DRAWN	BECKY M. LEACH
CHECKED	SMR/PRL

August 4, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

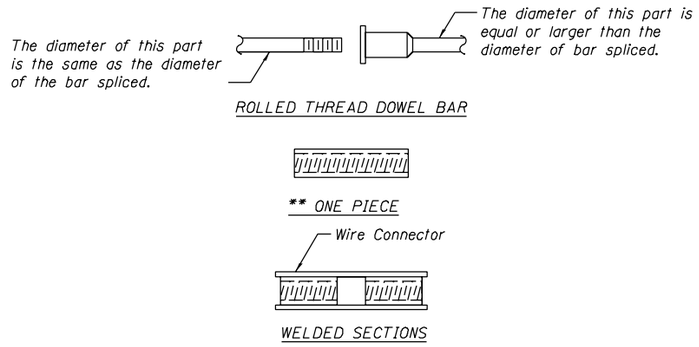
PIERS
F.A.S. ROUTE 1671 - SECTION 144SBR-2
DOUGLAS COUNTY
STATION 1130+72.93
STRUCTURE NO. 021-0062

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 1671	***	DOUGLAS	181	83
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

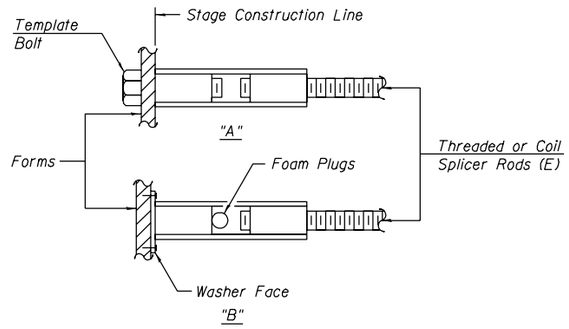
SHEET NO. 13
14 SHEETS

Contract #70258 ***144SBR-2 & 22VBR-1



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:

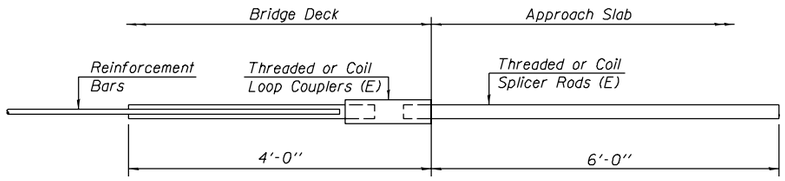
① Minimum Capacity (Tension in kips) = $1.25 \times fy \times A_t$

② Minimum *Pull-out Strength (Tension in kips) = $1.25 \times fs_{allow} \times A_t$

Where fy = Yield strength of lapped reinforcement bars in ksi.
fs_{allow} = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

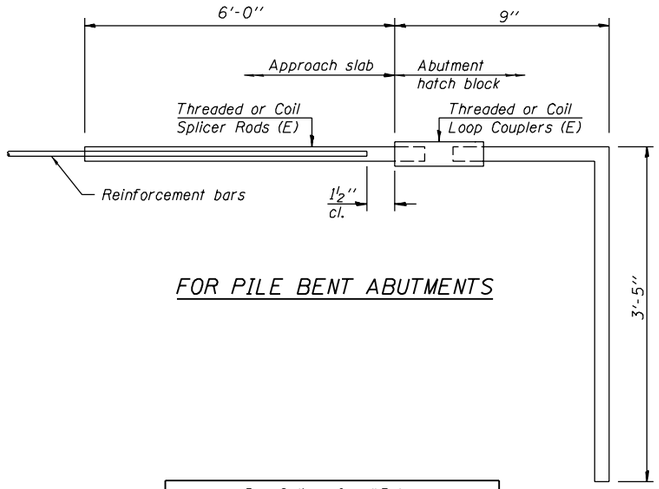
BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0
#11	9'-0"	117.4	46.8

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."



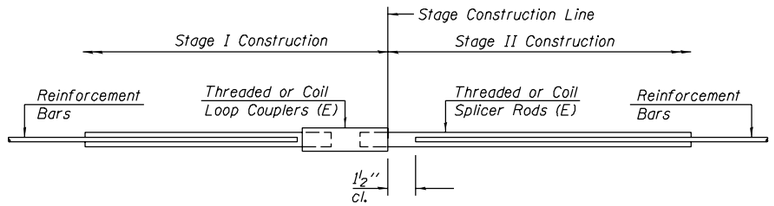
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required =



FOR PILE BENT ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = 72



STANDARD

Bar Size	No. Assemblies Required	Location

DESIGNED	SMR
CHECKED	PRL
DRAWN	BECKY M. LEACH
CHECKED	SMR/PRL

August 4, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

BSD-1 10-22-04

BAR SPLICER ASSEMBLY DETAILS
F.A.S. ROUTE 1671 - SECTION 144SBR-2
DOUGLAS COUNTY
STATION 1130+72.93
STRUCTURE NO. 021-0062

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 1671	*	DOUGLAS	181	84
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 14
14 SHEETS

Contract #70258 *144SBR-2 & 22VBR-1

Illinois Department of Transportation
Division of Highways
District 9 Materials

SOIL BORING LOG

Page 1 of 2

Date 1904

ROUTE FAS 1671 (US 45) DESCRIPTION Rt. 45 over US 36 LOGGED BY CNA

SECTION (22VBR)BR LOCATION SE, SEC. 33, TWP. 16N, RNG. 8E, 3rd PM

COUNTY Douglas DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 021-0014
Station 1130+72.31

BORING NO. 1 North Abut.
Station 1131+28.4
Offset 10.0 ft Rt.
Ground Surface Elev. 657.0 ft

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

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

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
Pavement 657.0			
655.5			
Brown Mottled Silty Clay Loam	3		
	4 5	2.1 B	25
650.0			
Brown Clay Loam Till	3		
	5 9	3.9 S	13
	4		
645.0	9 16	6.1 S	12
Gray Clay Loam Till	6		
	9 13	6.2 B	11
	4		
	10 13	7.2 S	11
	4		
	9 12	7.2 S	11
Gray Clay Loam Till (continued)			
	2		
	6 7	5.3 S	13
631.0			
Brown Sand Loam Till	38		
	50-5"		7
625.0			
Gray Sandy Clay Loam Till	18		
	34 43		7
(Boring Deepened Below 35' on December 17, 2004)			
	30		
	35 41		7

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.

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)

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Illinois Department of Transportation
Division of Highways
District 9 Materials

SOIL BORING LOG

Page 2 of 2

Date 1904

ROUTE FAS 1671 (US 45) DESCRIPTION Rt. 45 over US 36 LOGGED BY CNA

SECTION (22VBR)BR LOCATION SE, SEC. 33, TWP. 16N, RNG. 8E, 3rd PM

COUNTY Douglas DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 021-0014
Station 1130+72.31

BORING NO. 1 North Abut.
Station 1131+28.4
Offset 10.0 ft Rt.
Ground Surface Elev. 657.0 ft

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

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

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
Gray Sandy Clay Loam Till (continued)			
	15		
	26 35	9.6 S	8
	20		
(Gray Very Coarse Sand Seam) 607.0	31 34		8
End of Boring			

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.

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)

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Illinois Department of Transportation
Division of Highways
District 9 Materials

SOIL BORING LOG

Page 1 of 1

Date 1904

ROUTE FAS 1671 (US 45) DESCRIPTION Rt. 45 over US 36 LOGGED BY CNA

SECTION (22VBR)BR LOCATION SE, SEC. 33, TWP. 16N, RNG. 8E, 3rd PM

COUNTY Douglas DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO. 021-0014
Station 1130+72.31

BORING NO. 2 South Abut.
Station 1130+17.4
Offset 10.0 ft Lt.
Ground Surface Elev. 656.9 ft

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

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

DEPTH (ft)	BLOWS (6")	UCS Qu (tsf)	MOIST (%)
Pavement			
655.4			
Brown Mottled Silty Clay Loam (Wet)	2		
	2 3	1.5 S	29
	1		
	1 2	1.0 B	22
648.9			
Brown Clay Loam Till	1		
	4 9	5.9 B	14
	4		
644.9	13 14	5.9 B	12
Gray Clay Loam Till	4		
	11 13	7.0 S	11
	6		
	10 12	7.4 S	11
	4		
	8 10	7.9 S	11
Gray Clay Loam Till (continued)			
	2		
	5 7	4.7 B	13
630.4			
Brown Sand Loam Till	48		
	50-4"		7
623.9			
Gray Sandy Clay Loam Till	8		
	28 32	8.3 S	7
621.9			
End of Boring			

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.

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)

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BORING LOGS
F.A.S. ROUTE 1671 - SECTION 144SBR-2
DOUGLAS COUNTY
STATION 1130+72.93
STRUCTURE NO. 021-0062

Bench Mark: Chiseled "□" top of northeast wingwall of S.N. 021-0013. Elevation 680.86.

Existing Structure: S.N. 021-0013 built 1927 as S.B.I. Route 25, Section 22V at Station 1153+86.5. Superstructure replaced in 1975 as F.A. Route 26, Section 22 VBR. Structure consists of 14 span pre-cast deck beams on multi-column piers and spill-thru counterfort abuts. 594'-11¾" back-to-back abutments. 33'-0" out-to-out deck. Structure to be removed and replaced. Road to be closed and traffic detoured during construction.

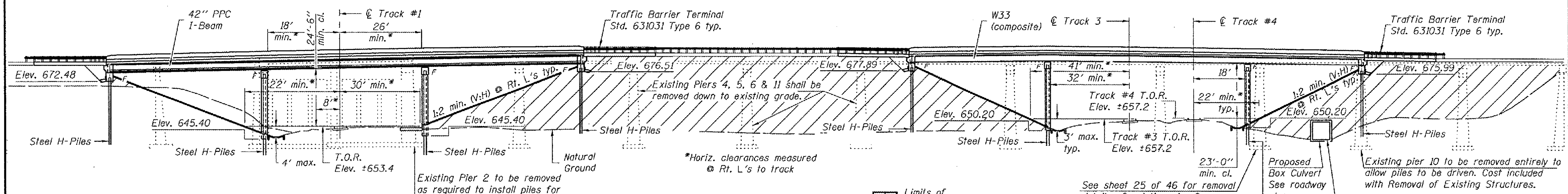
No salvage

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

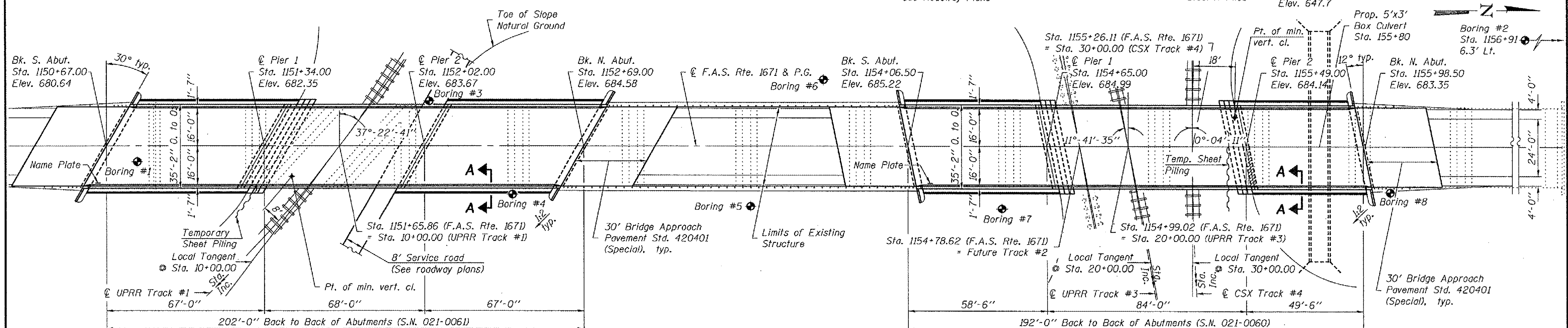
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1671	‡	DOUGLAS	181	85
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 1
46 SHEETS

Contract #70258
‡ 22VBR-1 and 144SBR-2



ELEVATION



PLAN

Notes:
See sheet 2 of 46 for Section A-A.
Up to ¼" will be ground off the bridge slab and the bridge approach pavement.
The profile grade shows the final elevations after grinding.

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)
f_y = 50,000 psi (AASHTO M270 Grade 50W)

PRECAST PRESTRESSED UNITS

f'_c = 6,000 psi
f'_{ci} = 5,000 psi
f'_s = 270,000 psi (½" φ low lax strands)
f_{si} = 201,960 psi (½" φ low lax strands)

SEISMIC DATA

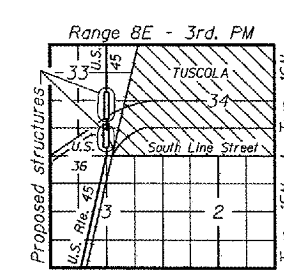
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 4.9%g
Site Coefficient (S) = 1.2

LOADING HS20-44

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

DESIGN SPECIFICATIONS

2002 AASHTO



LOCATION SKETCH

DESIGNED	
CHECKED	
DRAWN	W.D.C. / M.B.M.
CHECKED	

August 4, 2006
EXAMINED — ENGINEER OF BRIDGE DESIGN
PASSED — ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS — 081-004625 — LICENSED STRUCTURAL ENGINEER — SPRINGFIELD

EXPIRES 11-30-2006

GENERAL PLAN & ELEVATION
U.S. ROUTE 45 OVER
UNION PACIFIC & CSX RAILROADS
F.A.S. ROUTE 1671 - SEC. 22VBR-1
DOUGLAS COUNTY
STATION 1151+65.86 (SOUTH)
STATION 1154+99.02 (NORTH)
STRUCTURE NO. 021-0061 (SOUTH)
STRUCTURE NO. 021-0060 (NORTH)

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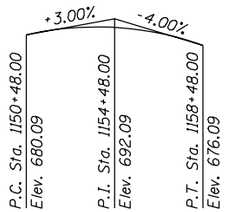
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

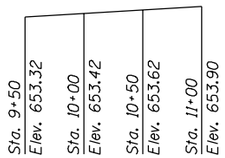
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1671	‡	DOUGLAS	181	86
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 2
46 SHEETS

Contract #70258
‡ 22VBR-1 and 144SBR-2



PROFILE GRADE
(along ℄ F.A.S. Rte. 1671)



PROFILE GRADE
(TOR UPRR Track #1)

PROFILE GRADE
(TOR UPRR Track #3)

PROFILE GRADE
(TOR CSX Track #4)

CURVE DATA
(℄ UPRR Track #1)
P.I. Sta. = 10+70.24
△ = 36°-13'-31"
D = 10°-09'-42"
R = 563.85'
T = 184.43'
L = 356.49'
P.C. Sta. = 8+85.81
P.T. Sta. = 12+42.30

CURVE DATA
(℄ UPRR Track #3)
P.I. Sta. = 18+53.36
△ = 8°-50'-20"
D = 2°-24'-26"
R = 2,380.04'
T = 183.95'
L = 367.16'
P.C. Sta. = 16+69.42
P.T. Sta. = 20+36.58

CURVE DATA
(℄ CSX Track #4)
P.I. Sta. = 30+11.16
△ = 16°-36'-20"
D = 4°-53'-52"
R = 1,169.81'
T = 170.72'
L = 339.04'
P.C. Sta. = 28+40.44
P.T. Sta. = 31+79.48

INDEX OF SHEETS
(both structures)

GENERAL NOTES FOR BOTH STRUCTURES

Reinforcement bars shall conform to the requirements of AASHTO M 31 or M 322 Grade 60.

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

All Construction joints shall be bonded.

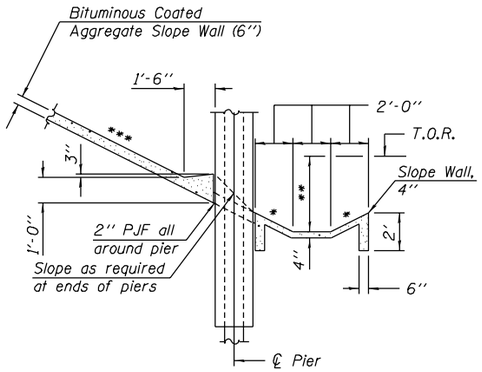
Slopewall 4" shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 Lbs. per 100 sq. ft.

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 procedures for removal of the existing structure. Before starting work, the contractor shall submit a demolition procedure for the removal of the existing structure to the Engineer for approval. The demolition procedure is to be prepared by an Illinois licensed structural engineer. Cost included with Removal of Existing Structures.

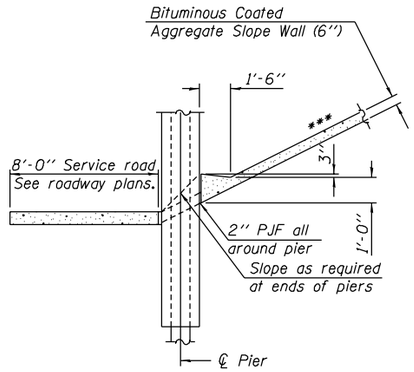
Embankment between the bridges shall be placed prior to any bridge construction.

BOTH STRUCTURES
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.		271	271
Removal of Existing Structures No. 2	Each			1.0
Structure Excavation	Cu. Yd.		582	582
Driving Steel Piles	Foot		3155	3155
Concrete Structures	Cu. Yd.		521.4	521.4
Concrete Superstructure	Cu. Yd.	495.2		495.2
Bridge Deck Grooving	Sq. Yd.	1313		1313
Protective Coat	Sq. Yd.	1730		1730
Furnishing and Erecting Precast Prestressed Concrete I Beams, 42"	Foot	1195		1195
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	3330		3330
Reinforcement Bars, Epoxy Coated	Pound	100990	36660	137650
Slopewall 4"	Sq. Yd.		57	57
Bituminous Coated Aggregate Slopewall 6"	Sq. Yd.		1105	1105
Furnishing Steel Piles HP 12x53	Foot		2135	2135
Furnishing Steel Piles HP 12x63	Foot		325	325
Furnishing Steel Piles HP 12x74	Foot		695	695
Test Pile Steel HP 12x53	Each		5	5
Test Pile Steel HP 12x63	Each		1	1
Test Pile Steel HP 12x74	Each		2	2
Temporary Sheet Piling	Sq. Ft.		416	416
Name Plates	Each	2		2
Geocomposite Wall Drain	Sq. Yd.		148	148
Pipe Underdrains for Structures, 4"	Foot		286	286
Diamond Grinding (Bridge Section)	Sq. Yd.	1673		1673
Bar Splicers	Each	128		128



SECTION THRU SLOPEWALL
Horiz. dim. @ Rt. L's
(At Pier 1 of 021-0061 and Piers 1 and 2 of 021-0060).

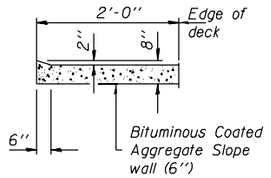


SECTION THRU SLOPEWALL
Horiz. dim. @ Rt. L's
(At Pier 2 of 021-0061).

* 1:4 (V:H)

** 4'-0" Max. (021-0061)
3'-0" Max. (021-0060)

*** 1:2 (V:H) minimum slope at right angles. Slope bituminous coated aggregate slopewall to match the concrete slopewall.



SECTION A-A

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.T.

August 4, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

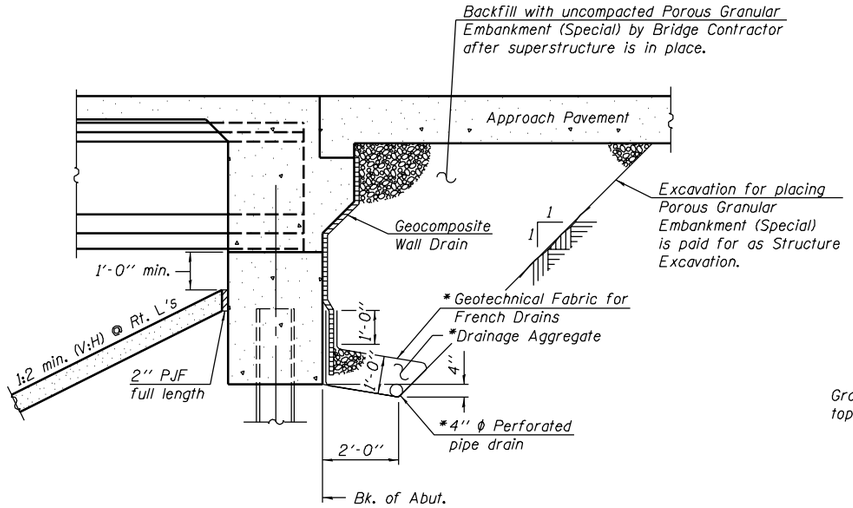
DETAILS
U.S. ROUTE 45 OVER
UNION PACIFIC & CSX RAILROADS
F.A.S. ROUTE 1671 - SEC. 22VBR-1
DOUGLAS COUNTY
STATION 1151+65.86 (SOUTH)
STATION 1154+99.02 (NORTH)
STRUCTURE NO. 021-0061 (SOUTH)
STRUCTURE NO. 021-0060 (NORTH)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1671	‡	DOUGLAS	181	87
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 3
46 SHEETS

Contract #70258
‡ 22VBR-1 and 144SBR-2



SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)

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

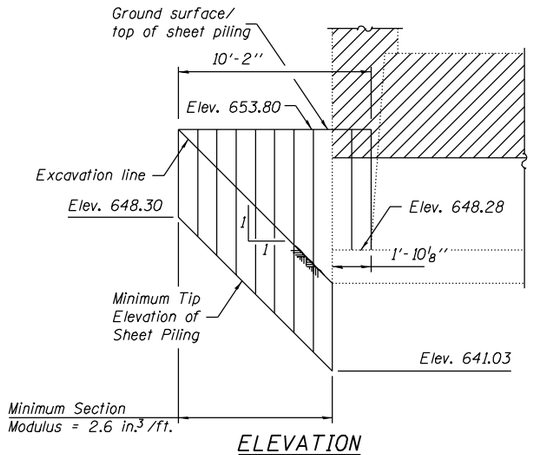
Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

STATION 1151+65.86
BUILT 200 BY
STATE OF ILLINOIS
F.A.S. RT. 1671 SEC. 22VBR-1
LOADING HS20-44
STR. NO. 021-0061

NAME PLATE
See Std. 515001

INDEX OF SHEETS
(for 021-0061)

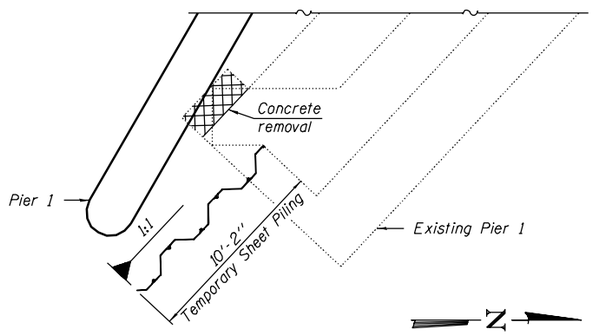
GENERAL NOTES
The Contractor shall drive three (3) HP 12x53 test piles in a permanent location, one at the South Abutment and one at each pier, and one (1) HP 12x63 test pile in a permanent location at the North Abutment as directed by the Engineer before ordering the remainder of the piles.



ELEVATION

Hatched area indicates Removal of Existing Structures.

Cross-hatched area indicates concrete to be removed as required to install piles for proposed pier. Cost included with Removal of Existing Structures.



PLAN
(at Pier 1)

TEMPORARY SHEET PILING

Notes:
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 pier 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.

CONSTRUCTION SEQUENCE

1. Remove the superstructures on both sides of the existing Pier 1.
2. Drive temporary sheeting at the location shown and excavate to the limits shown on the plan and elevation view.
3. Remove the existing substructure per plans and Section 501 of the Standard Specifications.
4. Fill and compact excavation with embankment material per Section 205 of the Standard Specifications.
5. Remove temporary sheeting.

STRUCTURE NO. 021-0061
BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.		161	161
Removal of Existing Structures No. 2	Each			0.5
Structure Excavation	Cu. Yd.		346	346
Driving Steel Piles	Foot		1815	1815
Concrete Structures	Cu. Yd.		289.8	289.8
Concrete Superstructure	Cu. Yd.	262.9		262.9
Bridge Deck Grooving	Sq. Yd.	673		673
Protective Coat	Sq. Yd.	887		887
Furnishing and Erecting Precast Prestressed Concrete I Beams, 42"	Foot	1195		1195
Reinforcement Bars, Epoxy Coated	Pound	51390	20910	72300
Slopewall 4"	Sq. Yd.		30	30
Bituminous Coated Aggregate Slopewall 6"	Sq. Yd.		616	616
Furnishing Steel Piles HP 12x53	Foot		1490	1490
Furnishing Steel Piles HP 12x63	Foot		325	325
Test Pile Steel HP 12x53	Each		3	3
Test Pile Steel HP 12x63	Each		1	1
Temporary Sheet Piling	Sq. Ft.		86	86
Name Plates	Each	1		1
Geocomposite Wall Drain	Sq. Yd.		86	86
Pipe Underdrains for Structures, 4"	Foot		154	154
Diamond Grinding (Bridge Section)	Sq. Yd.	852		852
Bar Splicers	Each	64		64

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.T.

August 4, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

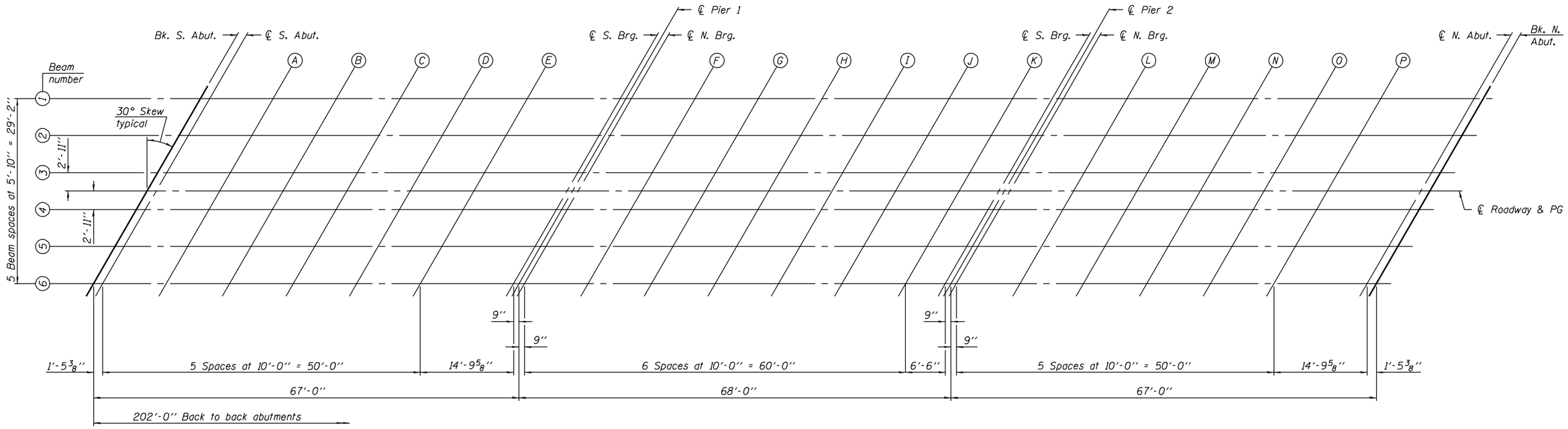
GENERAL DETAILS
F.A.S. RT. 1671 - SEC. 22VBR-1
DOUGLAS COUNTY
STATION 1151+65.86
STRUCTURE NO. 021-0061

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1671	‡	DOUGLAS	181	88
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 4
46 SHEETS

Contract #70258
‡ 22VBR-1 and 144SBR-2



PLAN

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.T.

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TOP OF SLAB ELEVATIONS
F.A.S. RT. 1671 - SEC. 22VBR-1
DOUGLAS COUNTY
STATION 1151+65.86
STRUCTURE NO. 021-0061

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1671	‡	DOUGLAS	181	89
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 5
46 SHEETS

Contract #70258
‡ 22VBR-1 and 144SBR-2

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	1150+75.42	-14.58	680.64	680.66
℄ S. Abut.	1150+76.86	-14.58	680.68	680.70
A	1150+86.86	-14.58	680.95	680.99
B	1150+96.86	-14.58	681.21	681.27
C	1151+06.86	-14.58	681.46	681.53
D	1151+16.86	-14.58	681.71	681.77
E	1151+26.86	-14.58	681.94	681.99
℄ S. Brg.	1151+41.67	-14.58	682.28	682.30
℄ Pier 1	1151+42.42	-14.58	682.29	682.31
℄ N. Brg.	1151+43.17	-14.58	682.31	682.33
F	1151+53.17	-14.58	682.52	682.56
G	1151+63.17	-14.58	682.72	682.79
H	1151+73.17	-14.58	682.92	682.99
I	1151+83.17	-14.58	683.11	683.17
J	1151+93.17	-14.58	683.28	683.34
K	1152+03.17	-14.58	683.45	683.49
℄ S. Brg.	1152+09.67	-14.58	683.56	683.58
℄ Pier 2	1152+10.42	-14.58	683.57	683.59
℄ N. Brg.	1152+11.17	-14.58	683.58	683.60
L	1152+21.17	-14.58	683.73	683.77
M	1152+31.17	-14.58	683.88	683.93
N	1152+41.17	-14.58	684.01	684.08
O	1152+51.17	-14.58	684.14	684.20
P	1152+61.17	-14.58	684.26	684.31
℄ N. Abut.	1152+75.98	-14.58	684.41	684.43
Bk. N. Abut.	1152+77.42	-14.58	684.43	684.45

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	1150+72.05	-8.75	680.65	680.67
℄ S. Abut.	1150+73.50	-8.75	680.69	680.71
A	1150+83.50	-8.75	680.96	681.01
B	1150+93.50	-8.75	681.23	681.29
C	1151+03.50	-8.75	681.48	681.55
D	1151+13.50	-8.75	681.73	681.79
E	1151+23.50	-8.75	681.97	682.02
℄ S. Brg.	1151+38.30	-8.75	682.31	682.33
℄ Pier 1	1151+39.05	-8.75	682.32	682.34
℄ N. Brg.	1151+39.80	-8.75	682.34	682.36
F	1151+49.80	-8.75	682.55	682.60
G	1151+59.80	-8.75	682.76	682.82
H	1151+69.80	-8.75	682.96	683.03
I	1151+79.80	-8.75	683.15	683.22
J	1151+89.80	-8.75	683.33	683.39
K	1151+99.80	-8.75	683.50	683.53
℄ S. Brg.	1152+06.30	-8.75	683.61	683.63
℄ Pier 2	1152+07.05	-8.75	683.62	683.64
℄ N. Brg.	1152+07.80	-8.75	683.63	683.65
L	1152+17.80	-8.75	683.79	683.83
M	1152+27.80	-8.75	683.93	683.99
N	1152+37.80	-8.75	684.07	684.14
O	1152+47.80	-8.75	684.20	684.26
P	1152+57.80	-8.75	684.32	684.37
℄ N. Abut.	1152+72.61	-8.75	684.48	684.50
Bk. N. Abut.	1152+74.05	-8.75	684.50	684.52

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	1150+68.68	-2.92	680.65	680.67
℄ S. Abut.	1150+70.13	-2.92	680.69	680.71
A	1150+80.13	-2.92	680.96	681.01
B	1150+90.13	-2.92	681.23	681.29
C	1151+00.13	-2.92	681.49	681.56
D	1151+10.13	-2.92	681.74	681.80
E	1151+20.13	-2.92	681.98	682.03
℄ S. Brg.	1151+34.93	-2.92	682.32	682.34
℄ Pier 1	1151+35.68	-2.92	682.34	682.36
℄ N. Brg.	1151+36.43	-2.92	682.36	682.38
F	1151+46.43	-2.92	682.57	682.62
G	1151+56.43	-2.92	682.78	682.85
H	1151+66.43	-2.92	682.98	683.06
I	1151+76.43	-2.92	683.18	683.24
J	1151+86.43	-2.92	683.36	683.42
K	1151+96.43	-2.92	683.53	683.57
℄ S. Brg.	1152+02.93	-2.92	683.64	683.66
℄ Pier 2	1152+03.68	-2.92	683.66	683.68
℄ N. Brg.	1152+04.43	-2.92	683.67	683.69
L	1152+14.43	-2.92	683.83	683.87
M	1152+24.43	-2.92	683.98	684.03
N	1152+34.43	-2.92	684.12	684.18
O	1152+44.43	-2.92	684.25	684.31
P	1152+54.43	-2.92	684.37	684.43
℄ N. Abut.	1152+69.24	-2.92	684.54	684.56
Bk. N. Abut.	1152+70.68	-2.92	684.56	684.58

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
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ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

TOP OF SLAB ELEVATIONS
F.A.S. RT. 1671 - SEC. 22VBR-1
DOUGLAS COUNTY
STATION 1151+65.86
STRUCTURE NO. 021-0061

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1671	‡	DOUGLAS	181	90
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 6
46 SHEETS

Contract #70258
‡ 22VBR-1 and 144SBR-2

℄ ROADWAY & PG

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	1150+67.00	0.00	680.64	680.66
℄ S. Abut.	1150+68.44	0.00	680.69	680.71
A	1150+78.44	0.00	680.96	681.00
B	1150+88.44	0.00	681.23	681.29
C	1150+98.44	0.00	681.49	681.56
D	1151+08.44	0.00	681.74	681.81
E	1151+18.44	0.00	681.99	682.04
℄ S. Brg.	1151+33.25	0.00	682.33	682.35
℄ Pier 1	1151+34.00	0.00	682.35	682.37
℄ N. Brg.	1151+34.75	0.00	682.36	682.38
F	1151+44.75	0.00	682.58	682.63
G	1151+54.75	0.00	682.79	682.86
H	1151+64.75	0.00	683.00	683.07
I	1151+74.75	0.00	683.19	683.26
J	1151+84.75	0.00	683.37	683.43
K	1151+94.75	0.00	683.55	683.59
℄ S. Brg.	1152+01.25	0.00	683.66	683.68
℄ Pier 2	1152+02.00	0.00	683.67	683.69
℄ N. Brg.	1152+02.75	0.00	683.69	683.71
L	1152+12.75	0.00	683.85	683.89
M	1152+22.75	0.00	684.00	684.05
N	1152+32.75	0.00	684.14	684.21
O	1152+42.75	0.00	684.27	684.34
P	1152+52.75	0.00	684.40	684.45
℄ N. Abut.	1152+67.56	0.00	684.57	684.59
Bk. N. Abut.	1152+69.00	0.00	684.58	684.60

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	1150+65.32	2.92	680.55	680.57
℄ S. Abut.	1150+66.76	2.92	680.59	680.61
A	1150+76.76	2.92	680.87	680.91
B	1150+86.76	2.92	681.14	681.20
C	1150+96.76	2.92	681.40	681.47
D	1151+06.76	2.92	681.66	681.72
E	1151+16.76	2.92	681.90	681.95
℄ S. Brg.	1151+31.57	2.92	682.25	682.27
℄ Pier 1	1151+32.32	2.92	682.26	682.28
℄ N. Brg.	1151+33.07	2.92	682.28	682.30
F	1151+43.07	2.92	682.50	682.54
G	1151+53.07	2.92	682.71	682.78
H	1151+63.07	2.92	682.92	682.99
I	1151+73.07	2.92	683.11	683.18
J	1151+83.07	2.92	683.30	683.36
K	1151+93.07	2.92	683.48	683.51
℄ S. Brg.	1151+99.57	2.92	683.59	683.61
℄ Pier 2	1152+00.32	2.92	683.60	683.62
℄ N. Brg.	1152+01.07	2.92	683.61	683.63
L	1152+11.07	2.92	683.77	683.81
M	1152+21.07	2.92	683.93	683.98
N	1152+31.07	2.92	684.07	684.14
O	1152+41.07	2.92	684.21	684.27
P	1152+51.07	2.92	684.33	684.38
℄ N. Abut.	1152+65.87	2.92	684.50	684.52
Bk. N. Abut.	1152+67.32	2.92	684.52	684.54

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	1150+61.95	8.75	680.36	680.38
℄ S. Abut.	1150+63.39	8.75	680.41	680.43
A	1150+73.39	8.75	680.69	680.73
B	1150+83.39	8.75	680.96	681.02
C	1150+93.39	8.75	681.23	681.29
D	1151+03.39	8.75	681.48	681.54
E	1151+13.39	8.75	681.73	681.78
℄ S. Brg.	1151+28.20	8.75	682.08	682.10
℄ Pier 1	1151+28.95	8.75	682.10	682.12
℄ N. Brg.	1151+29.70	8.75	682.11	682.13
F	1151+39.70	8.75	682.34	682.38
G	1151+49.70	8.75	682.55	682.61
H	1151+59.70	8.75	682.76	682.83
I	1151+69.70	8.75	682.96	683.02
J	1151+79.70	8.75	683.15	683.20
K	1151+89.70	8.75	683.33	683.36
℄ S. Brg.	1151+96.20	8.75	683.44	683.46
℄ Pier 2	1151+96.95	8.75	683.45	683.47
℄ N. Brg.	1151+97.70	8.75	683.46	683.48
L	1152+07.70	8.75	683.63	683.67
M	1152+17.70	8.75	683.78	683.84
N	1152+27.70	8.75	683.93	684.00
O	1152+37.70	8.75	684.07	684.13
P	1152+47.70	8.75	684.20	684.25
℄ N. Abut.	1152+62.51	8.75	684.38	684.40
Bk. N. Abut.	1152+63.95	8.75	684.39	684.41

DESIGNED	Curt M. Evoy
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DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.T.

August 4, 2006
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ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

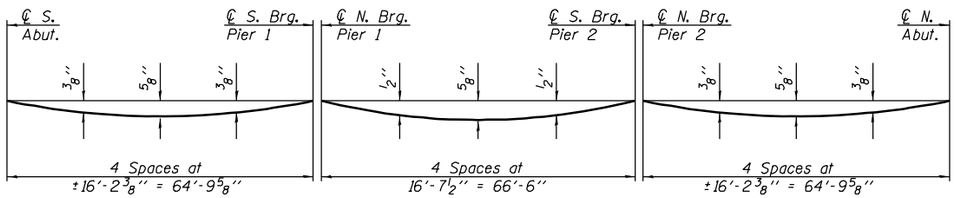
TOP OF SLAB ELEVATIONS
F.A.S. RT. 1671 - SEC. 22VBR-1
DOUGLAS COUNTY
STATION 1151+65.86
STRUCTURE NO. 021-0061

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1671	‡	DOUGLAS	181	91
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 7
46 SHEETS

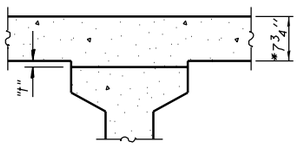
Contract #70258
‡ 22VBR-1 and 144SBR-2



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete, excluding beams).

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 and grinding as shown on sheets 5 through 7 of 46.



* Prior to grinding

To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown on sheet 4 of 46. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections and Grinding" shown on sheets 5 through 7 of 46, minus the $7\frac{3}{4}$" deck thickness, equals the fillet heights "t" above top flanges of beams. The slab is to be ground after curing to achieve smoothness, but the slab is not to be ground to elevations below the "Theoretical Grade Elevations" shown on sheets 5 through 7 of 46. For grinding the deck, see Special Provisions.

FILLET HEIGHTS

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection and Grinding
Bk. S. Abut.	1150+58.58	14.58	680.16	680.18
℄ S. Abut.	1150+60.02	14.58	680.20	680.22
A	1150+70.02	14.58	680.49	680.53
B	1150+80.02	14.58	680.77	680.82
C	1150+90.02	14.58	681.03	681.10
D	1151+00.02	14.58	681.29	681.35
E	1151+10.02	14.58	681.54	681.59
℄ S. Brg.	1151+24.83	14.58	681.90	681.92
℄ Pier 1	1151+25.58	14.58	681.91	681.93
℄ N. Brg.	1151+26.33	14.58	681.93	681.95
F	1151+36.33	14.58	682.16	682.20
G	1151+46.33	14.58	682.38	682.44
H	1151+56.33	14.58	682.59	682.66
I	1151+66.33	14.58	682.79	682.85
J	1151+76.33	14.58	682.98	683.04
K	1151+86.33	14.58	683.16	683.20
℄ S. Brg.	1151+92.83	14.58	683.28	683.30
℄ Pier 2	1151+93.58	14.58	683.29	683.31
℄ N. Brg.	1151+94.33	14.58	683.30	683.32
L	1152+04.33	14.58	683.47	683.51
M	1152+14.33	14.58	683.63	683.69
N	1152+24.33	14.58	683.78	683.85
O	1152+34.33	14.58	683.92	683.98
P	1152+44.33	14.58	684.05	684.10
℄ N. Abut.	1152+59.14	14.58	684.23	684.25
Bk. N. Abut.	1152+60.58	14.58	684.25	684.27

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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1671	‡	DOUGLAS	181	92
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 8
46 SHEETS

Contract #70258
‡ 22VBR-1 and 144SBR-2

WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
End S. Appr. Pav't.	1150+46.24	-16.00	679.77	679.79
A	1150+56.24	-16.00	680.06	680.08
B	1150+66.24	-16.00	680.35	680.37
Bk. S. Abut.	1150+76.24	-16.00	680.63	680.65

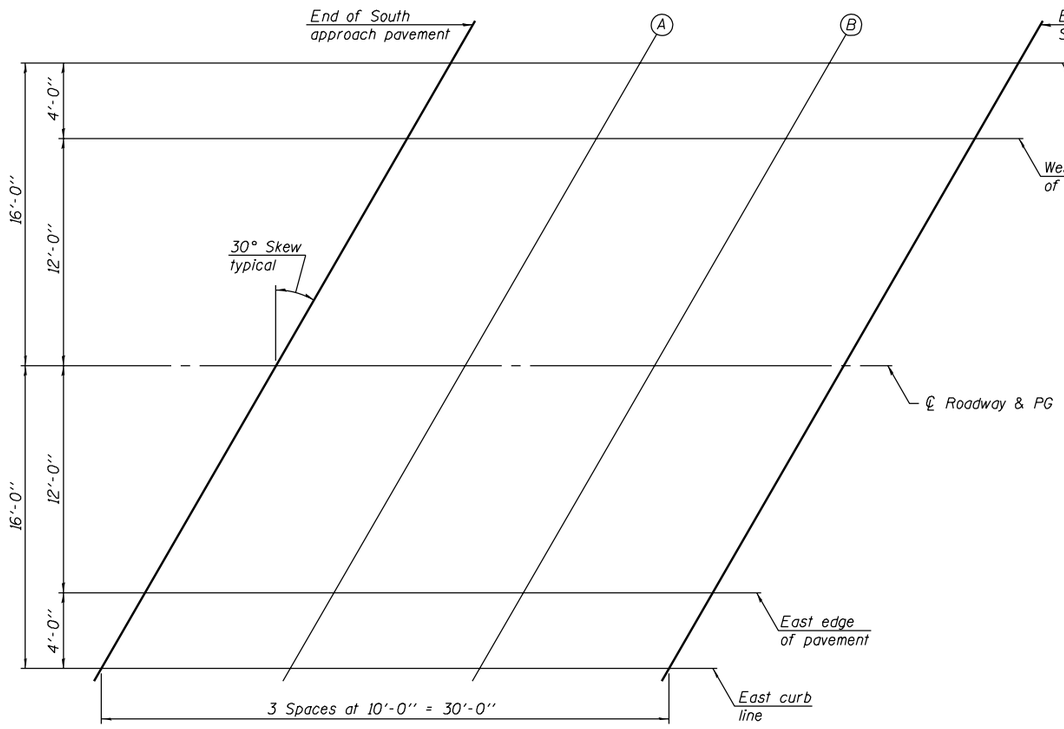
WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
End S. Appr. Pav't.	1150+43.93	-12.00	679.78	679.80
A	1150+53.93	-12.00	680.08	680.10
B	1150+63.93	-12.00	680.37	680.39
Bk. S. Abut.	1150+73.93	-12.00	680.65	680.67

℄ ROADWAY & PG

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
End S. Appr. Pav't.	1150+37.00	0.00	679.76	679.78
A	1150+47.00	0.00	680.06	680.08
B	1150+57.00	0.00	680.36	680.38
Bk. S. Abut.	1150+67.00	0.00	680.64	680.66

N



PLAN

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
End S. Appr. Pav't.	1150+30.07	12.00	679.36	679.38
A	1150+40.07	12.00	679.66	679.68
B	1150+50.07	12.00	679.96	679.98
Bk. S. Abut.	1150+60.07	12.00	680.26	680.28

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
End S. Appr. Pav't.	1150+27.76	16.00	679.21	679.23
A	1150+37.76	16.00	679.51	679.53
B	1150+47.76	16.00	679.81	679.83
Bk. S. Abut.	1150+57.76	16.00	680.11	680.13

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.T.

August 4, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

TOP OF SOUTH APPROACH
SLAB ELEVATIONS
F.A.S. RT. 1671 - SEC. 22VBR-1
DOUGLAS COUNTY
STATION 1151+65.86
STRUCTURE NO. 021-0061

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1671	‡	DOUGLAS	181	93
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 9
46 SHEETS

Contract #70258
‡ 22VBR-1 and 144SBR-2

WEST CURB LINE

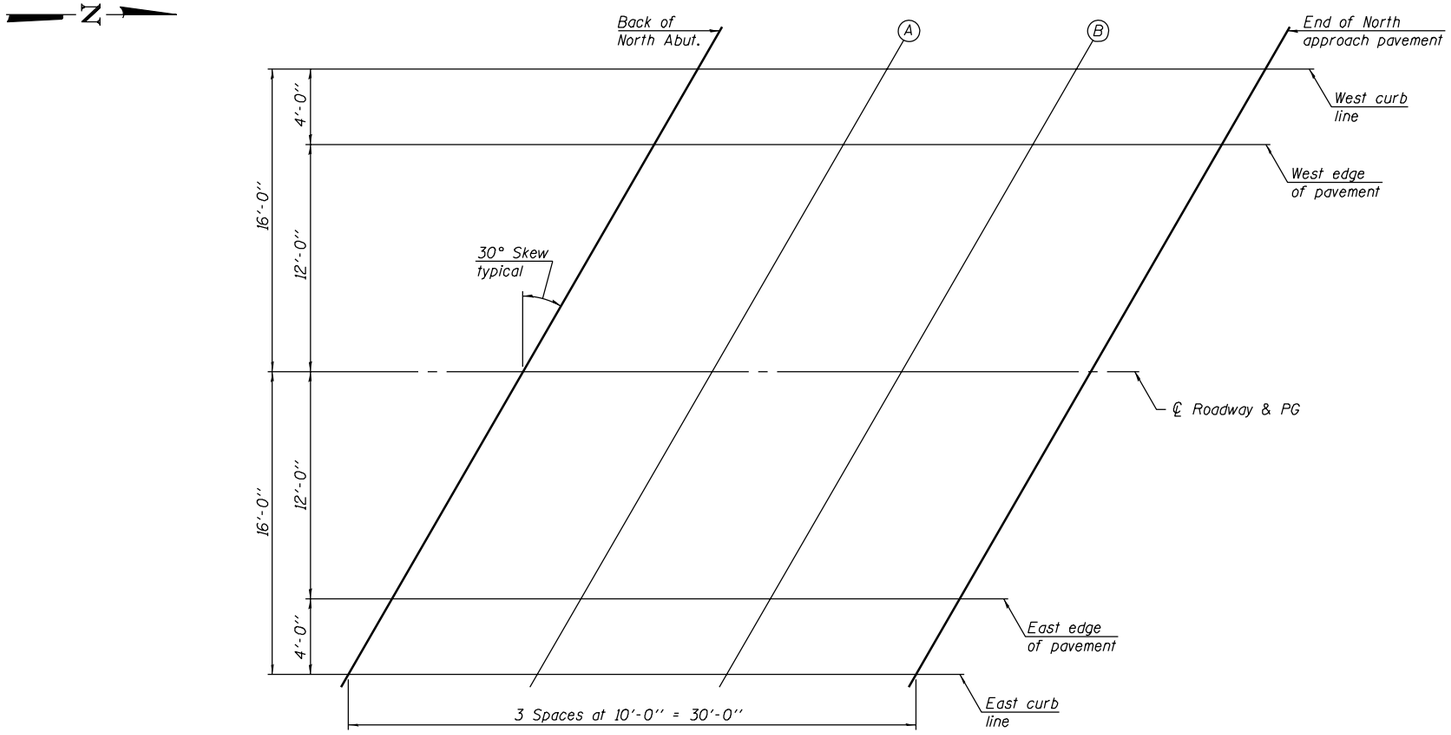
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
Bk. N. Abut.	1152+78.24	-16.00	684.41	684.43
A	1152+88.24	-16.00	684.50	684.52
B	1152+98.24	-16.00	684.59	684.61
End N. Appr. Pav't.	1153+08.24	-16.00	684.66	684.68

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
Bk. N. Abut.	1152+75.93	-12.00	684.47	684.49
A	1152+85.93	-12.00	684.56	684.58
B	1152+95.93	-12.00	684.65	684.67
End N. Appr. Pav't.	1153+05.93	-12.00	684.73	684.75

℄ ROADWAY & PG

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
Bk. N. Abut.	1152+69.00	0.00	684.58	684.60
A	1152+79.00	0.00	684.69	684.71
B	1152+89.00	0.00	684.78	684.80
End N. Appr. Pav't.	1152+99.00	0.00	684.86	684.88



PLAN

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
Bk. N. Abut.	1152+62.07	12.00	684.32	684.34
A	1152+72.07	12.00	684.43	684.45
B	1152+82.07	12.00	684.53	684.55
End N. Appr. Pav't.	1152+92.07	12.00	684.62	684.64

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Grinding
Bk. N. Abut.	1152+59.76	16.00	684.21	684.23
A	1152+69.76	16.00	684.32	684.34
B	1152+79.76	16.00	684.42	684.44
End N. Appr. Pav't.	1152+89.76	16.00	684.52	684.54

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August 4, 2006
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ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

TOP OF NORTH APPROACH
SLAB ELEVATIONS
F.A.S. RT. 1671 - SEC. 22VBR-1
DOUGLAS COUNTY
STATION 1151+65.86
STRUCTURE NO. 021-0061

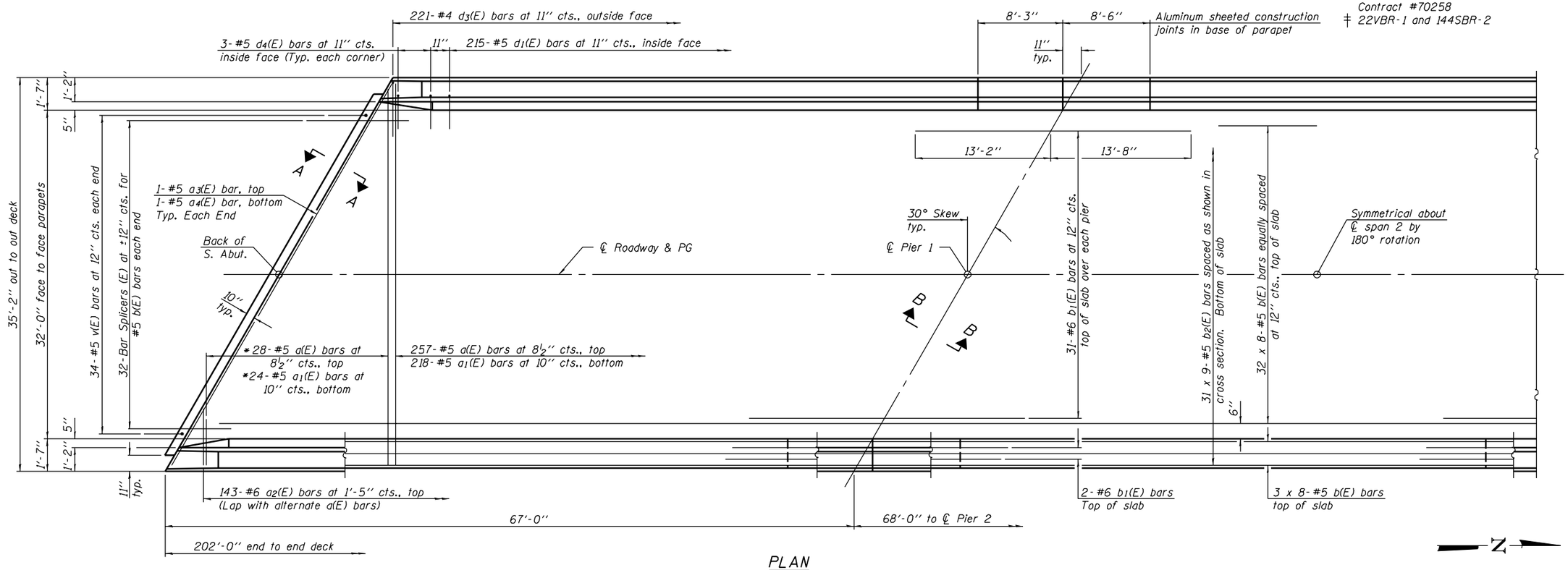
* Order a(E) and a_1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

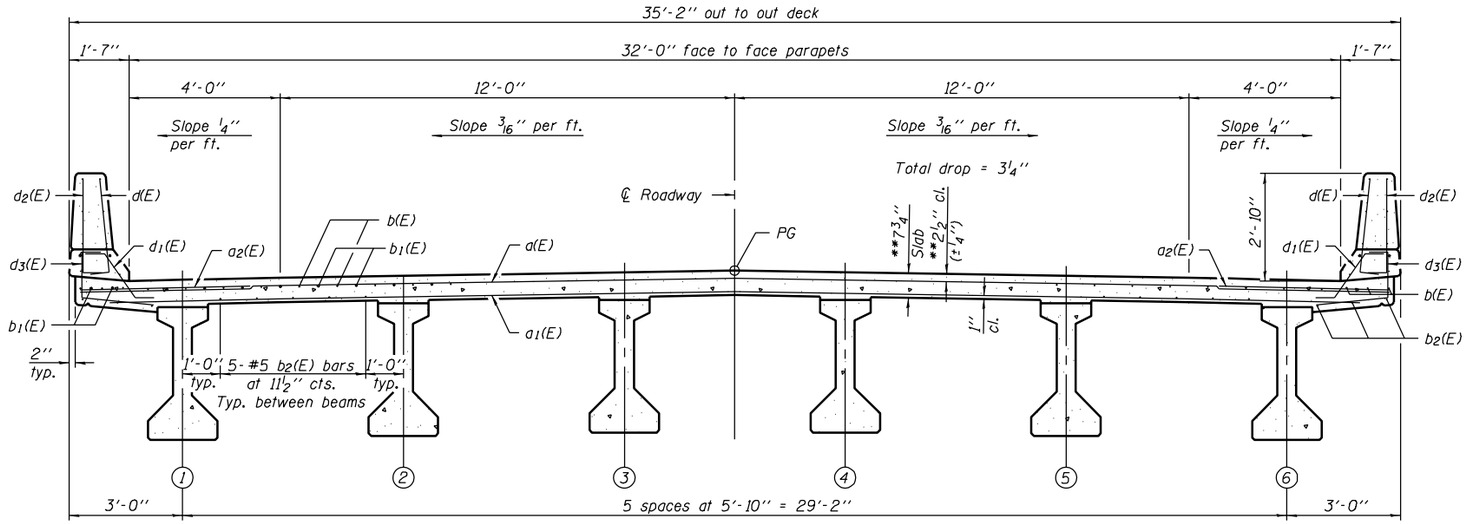
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1671	‡	DOUGLAS	181	94
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 10
46 SHEETS

Contract #70258
‡ 22VBR-1 and 144SBR-2



PLAN



NEAR PIER NEAR MIDSPAN

CROSS SECTION
(Looking North)

Notes:
See sheet 11 of 46 for superstructure details and Bill of Material.
For diaphragm details, see sheets 12 and 13 of 46.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 31 x 9-#5 etc. indicates 31 lines of bars with 9 lengths per line.
See sheet 11 of 46 for parapet reinforcement.
For bar splicer details, see sheet 24 of 46.
For Sections A-A and B-B, see sheet 13 of 46
See sheet 11 of 46 for details of v(E) bars.

** Prior to grinding

MINIMUM BAR LAP
(Slab)
#5 bar = 2'-2''

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.T.

August 4, 2006
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ENGINEER OF BRIDGE DESIGN
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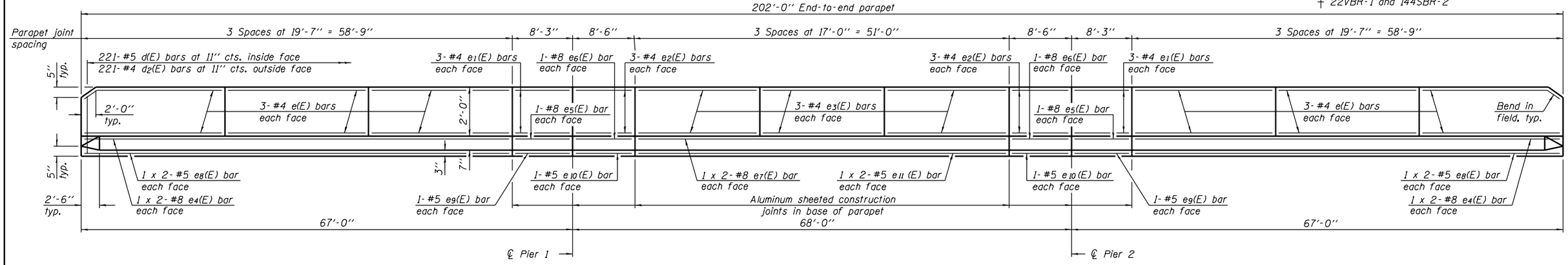
SUPERSTRUCTURE
F.A.S. RT. 1671 - SEC. 22VBR-1
DOUGLAS COUNTY
STATION 1151+65.86
STRUCTURE NO. 021-0061

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1671	‡	DOUGLAS	181	95
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

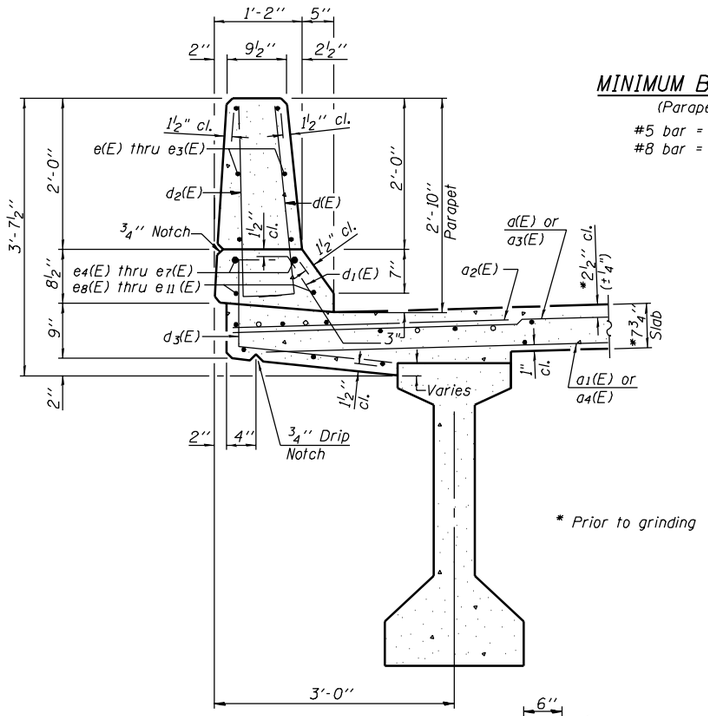
SHEET NO. 11
46 SHEETS

Contract #70258
‡ 22VBR-1 and 144SBR-2



INSIDE ELEVATION OF PARAPET

(West parapet shown. East parapet similar)

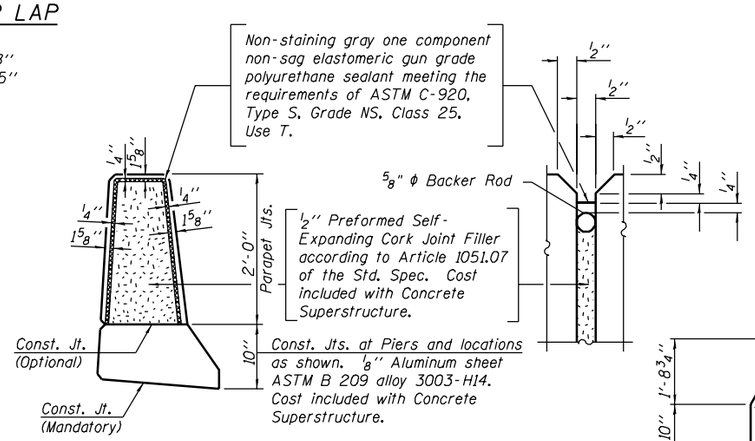


SECTION THRU PARAPET

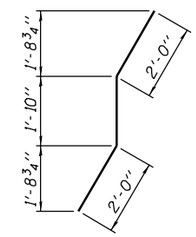
MINIMUM BAR LAP

(Parapet)

#5 bar = 1'-8"
#8 bar = 3'-5"



PARAPET JOINT DETAILS



BAR m6(E)

SUPERSTRUCTURE BILL OF MATERIAL

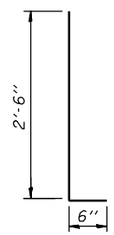
Bar	No.	Size	Length	Shape
a(E)	285	#5	34'-7"	———
a1(E)	242	#5	32'-10"	———
a2(E)	286	#6	4'-6"	———
a3(E)	2	#5	39'-10"	———
a4(E)	2	#5	37'-10"	———
b(E)	304	#5	27'-2"	———
b1(E)	70	#6	26'-10"	———
b2(E)	279	#5	24'-4"	———
d(E)	442	#5	3'-0"	⌐¬
d1(E)	430	#5	2'-5"	⌐
d2(E)	442	#4	3'-0"	⌐¬
d3(E)	442	#4	3'-6"	⌐
d4(E)	12	#5	2'-2"	⌐
e(E)	72	#4	19'-3"	———
e1(E)	24	#4	7'-11"	———
e2(E)	24	#4	8'-2"	———
e3(E)	36	#4	16'-8"	———
e4(E)	16	#8	30'-11"	———
e5(E)	8	#8	7'-11"	———
e6(E)	8	#8	8'-2"	———
e7(E)	8	#8	27'-1"	———
e8(E)	16	#5	30'-1"	———

Bar	No.	Size	Length	Shape
e9(E)	8	#5	7'-11"	———
e10 (E)	8	#5	8'-2"	———
e11 (E)	8	#5	26'-2"	———
m(E)	4	#6	38'-2"	———
m1(E)	6	#6	40'-3"	———
m2(E)	24	#6	9'-6"	———
m3(E)	30	#6	4'-3"	———
m4(E)	4	#6	2'-0"	———
m5(E)	40	#4	5'-9"	———
m6(E)	12	#8	5'-10"	⌒
s(E)	72	#5	7'-10"	⊐
s1(E)	62	#4	11'-0"	⊏⊐
s2(E)	50	#4	10'-7"	⊔
v(E)	68	#5	3'-4"	⌐¬
Reinforcement Bars, Epoxy Coated			Pound	51390
Concrete Superstructure			Cu. Yds.	262.9

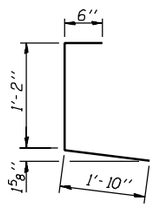
Reinforcement bars designated (E) shall be epoxy coated.

Bars indicated thus 1 x 2-#5 etc. indicates 1 line of bars with 2 lengths per line.

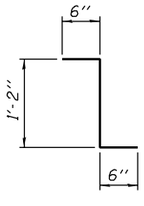
BAR d1(E)



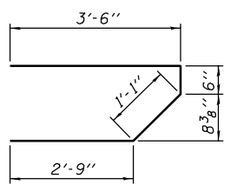
BARS d(E) & d2(E)



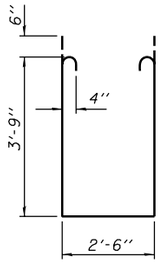
BAR d3(E)



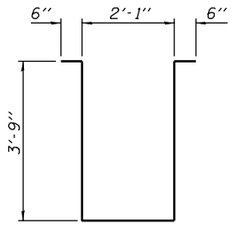
BAR d4(E)



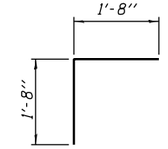
BAR s(E)



BAR s1(E)



BAR s2(E)



BAR v(E)

SUPERSTRUCTURE DETAILS
F.A.S. RT. 1671 - SEC. 22VBR-1
DOUGLAS COUNTY
STATION 1151+65.86
STRUCTURE NO. 021-0061

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.T.

August 4, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

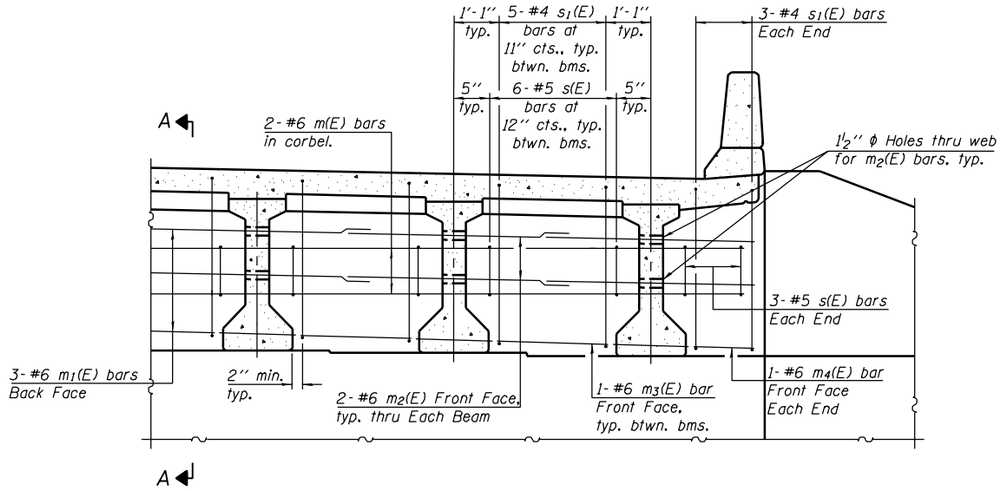
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1671	‡	DOUGLAS	181	96
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

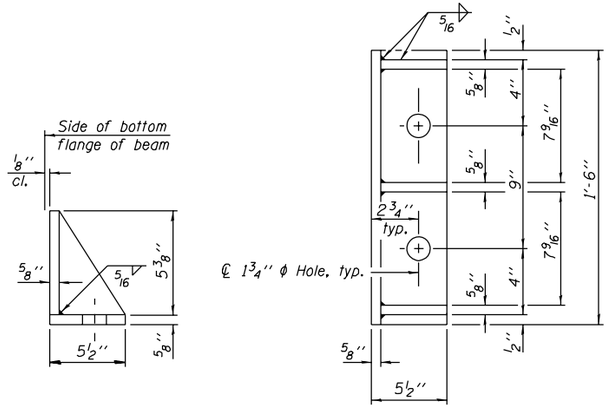
SHEET NO. 12
46 SHEETS

Contract #70258
‡ 22VBR-1 and 144SBR-2

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet 11 of 46.
Concrete in diaphragm is included with Concrete Superstructure on sheet 11 of 46.
For details of bars s(E), s_1(E) and s_2(E) see sheet 11 of 46.
The s(E), s_1(E) and s_2(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
See sheet 13 of 46 for Sections A-A and B-B.
Cost of 90 Lb. roofing felt, PJF and fabric bearing pads is included with Concrete Superstructure.
The side retainer shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Cost of side retainer and anchor bolts shall be included with Concrete Structures.
See sheet 18 of 46 for anchor bolt details.
See sheet 15 of 46 for holes thru web for m_2(E) bars.

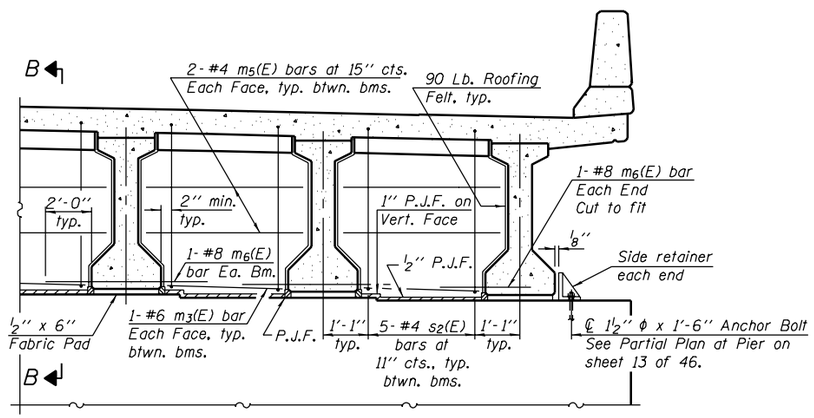


DIAPHRAGM ELEVATION AT ABUTMENT



SIDE RETAINER
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

MIN. BAR LAP
#6 bar = 2'-9"



DIAPHRAGM AT PIER

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.T.

August 4, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

PI-2DI 10-22-04

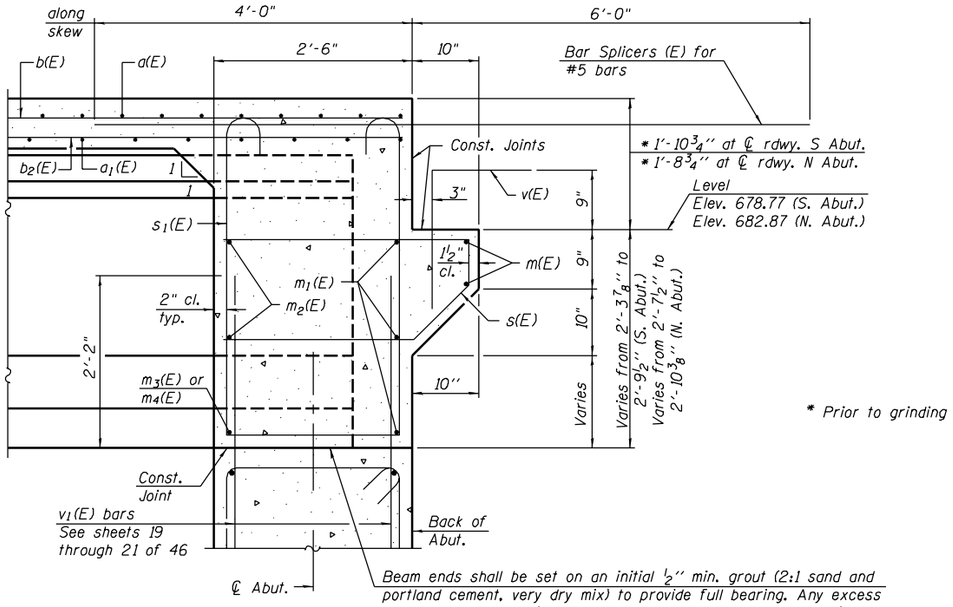
DIAPHRAGM DETAILS
F.A.S. RT. 1671 - SEC. 22VBR-1
DOUGLAS COUNTY
STATION 1151+65.86
STRUCTURE NO. 021-0061

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1671	‡	DOUGLAS	181	97
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 13
46 SHEETS

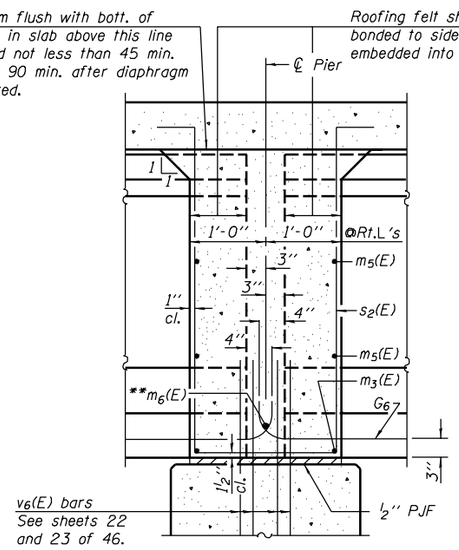
Contract #70258
‡ 22VBR-1 and 144SBR-2



* Prior to grinding

SECTION A-A

Dimensions at right angles to abutment, except as shown.

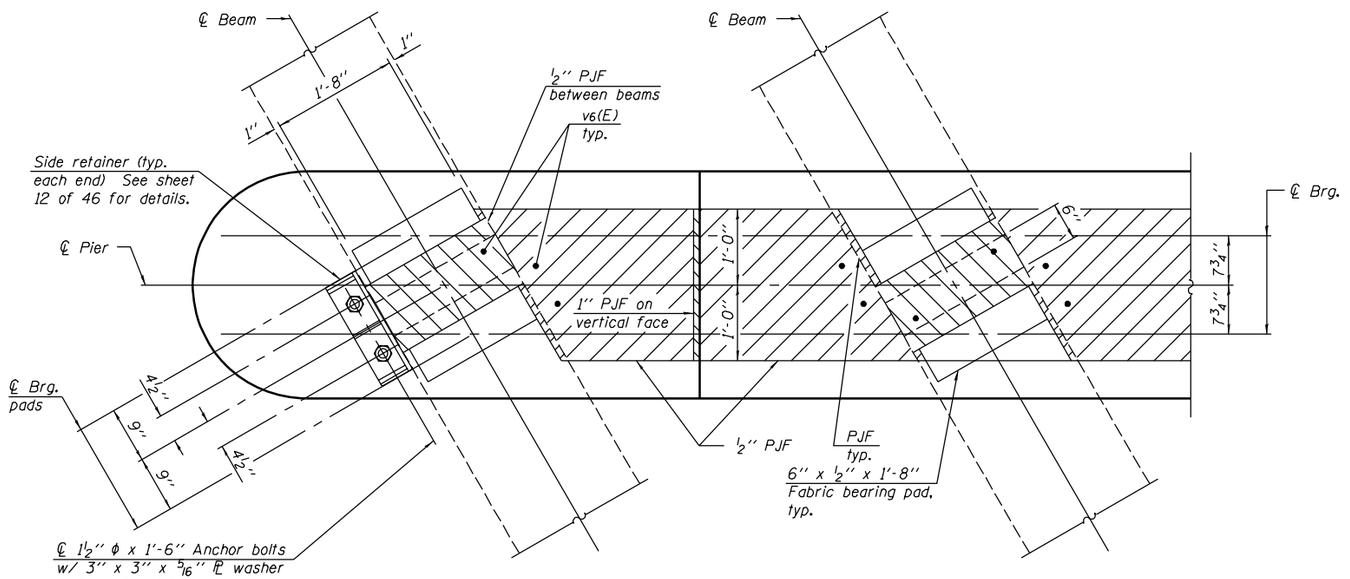


** Tightly fasten the #8 bars together with No. 9 wire ties.

SECTION B-B

Dimensions along ℄ of beam, except as shown.

Note:
See sheet 12 of 46 for location of Sections A-A and B-B.
For v6(E) bars, see sheets 22 and 23 of 46.



PARTIAL PLAN AT PIER

(Showing bearing pad and PJF details)

DIAPHRAGM DETAILS
F.A.S. RT. 1671 - SEC. 22VBR-1
DOUGLAS COUNTY
STATION 1151+65.86
STRUCTURE NO. 021-0061

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August 4, 2006
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ENGINEER OF BRIDGE DESIGN
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ENGINEER OF BRIDGES AND STRUCTURES

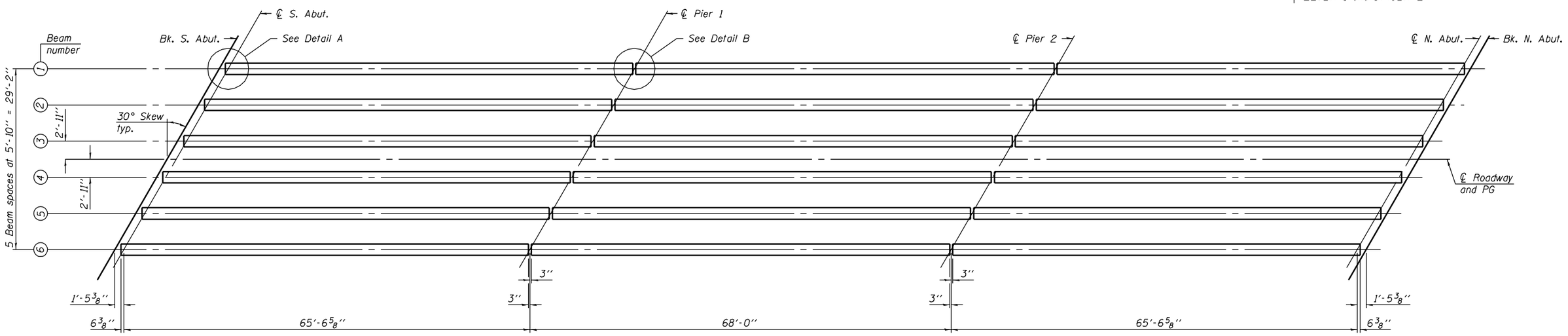
PI-2DDI 11-30-05

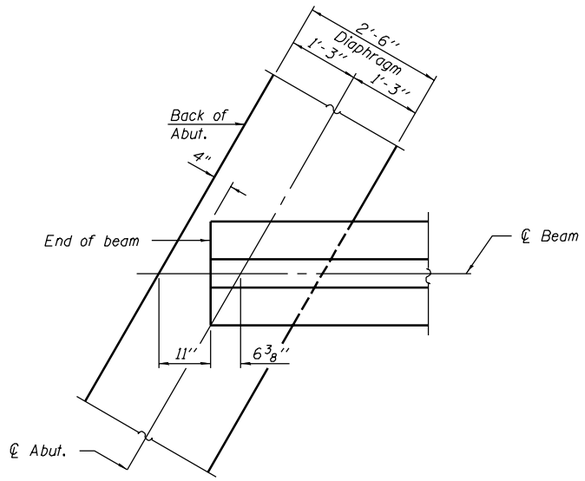
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1671	‡	DOUGLAS	181	98
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

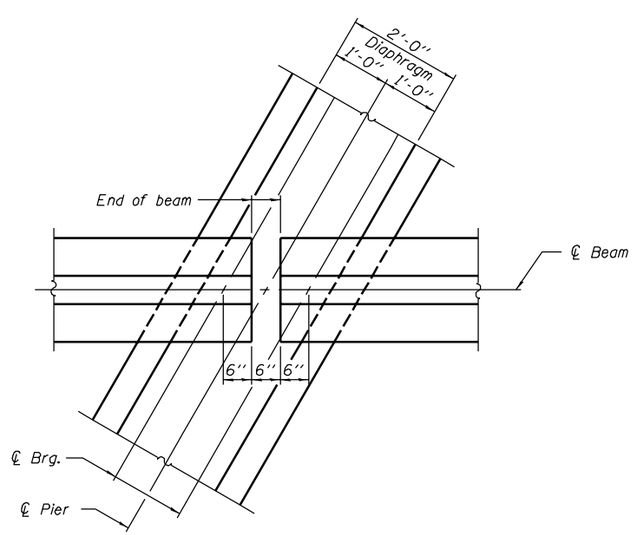
SHEET NO. 14
46 SHEETS

Contract #70258
‡ 22VBR-1 and 144SBR-2





DETAIL A



DETAIL B

INTERIOR BEAM MOMENT TABLE				
		0.4 Span 1 0.6 Span 3	Pier 1 or 2	0.5 Sp. 2
I	(in^4)	90955.6		90955.6
I'	(in^4)	262303		262303
S_b	(in^3)	5152.7		5152.7
S_b'	(in^3)	8557		8557
S_t	(in^3)	3735.6		3735.6
S_t'	(in^3)	23079		23079
D_ℓ	(k/')	1.062		1.062
M_ℓ	('k)	557		587
s_ℓ	(k/')	0.442	0.442	0.442
Ms_ℓ	('k)	149	197	59
M_L	('k)	382	291	321
M (Imp)	('k)	99	76	84

INTERIOR BEAM REACTION TABLE				
		Abut.	Pier 1 Span 1 Pier 2 Span 3	Pier 1 Span 2 Pier 2 Span 2
R_ℓ	(k)	34.8	34.8	36.1
Rs_ℓ	(k)	11.5	16.3	16.3
R_L	(k)	31.4	20.5	20.4
Imp.	(k)	8.2	5.3	5.3
R (Total)	(k)	85.9	76.9	78.1

I and I' are the moment of inertia and composite moment of inertia of the beam section.
S_b and S_b' are the non-composite and composite section modulus for the bottom fiber of the prestressed beam.
S_t and S_t' are the non-composite and composite section modulus for the top fiber of the prestressed beam.
M_ℓ is the moment due to dead loads on the non-composite prestressed beam. It is conservatively calculated at 0.5 of the span.
Ms_ℓ is the moment due to dead loads on the composite section.
M_L is the moment due to live load on the composite section.
M (Imp) is the moment due to live load impact on the composite section.

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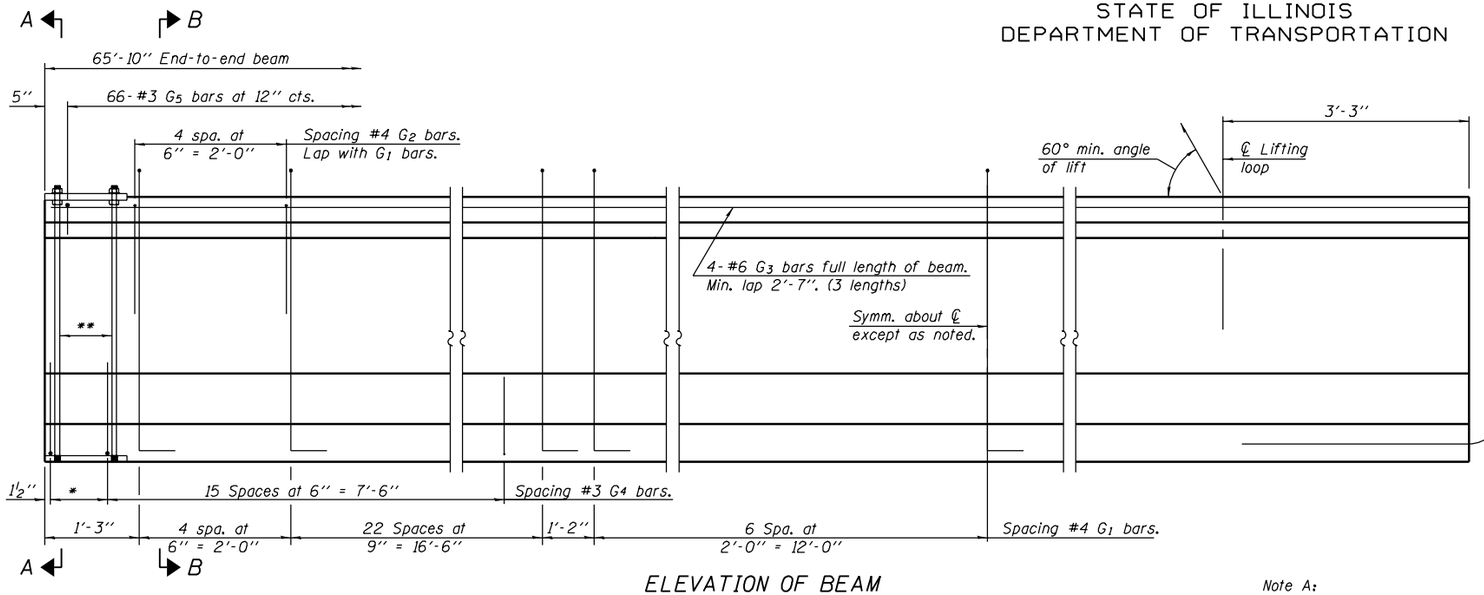
FRAMING PLAN
F.A.S. RT. 1671 - SEC. 22VBR-1
DOUGLAS COUNTY
STATION 1151+65.86
STRUCTURE NO. 021-0061

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1671	‡	DOUGLAS	181	99
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 15
46 SHEETS

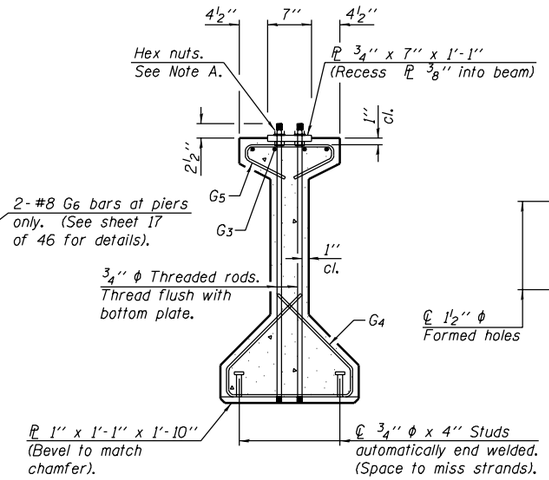
Contract #70258
‡ 22VBR-1 and 144SBR-2



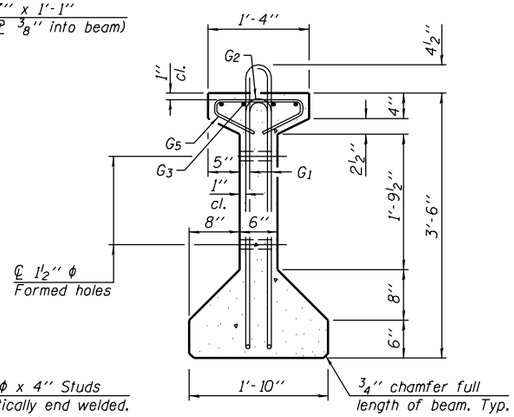
ELEVATION OF BEAM
(Showing reinforcement & dimensions)

* 3 spaces at 3" = 9".
** 4-¾" ϕ threaded dowel rods at 3" cts., each face.

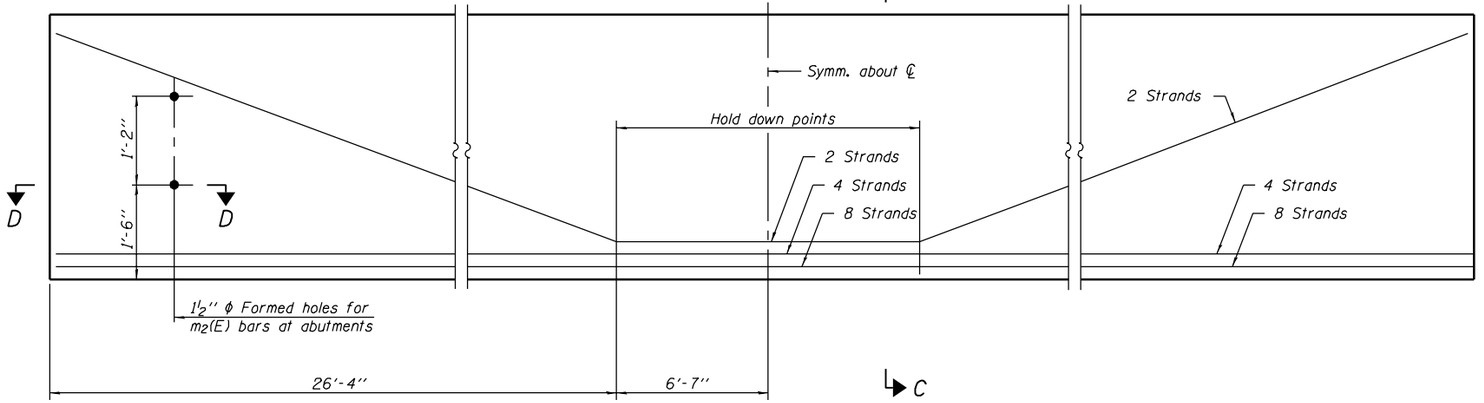
Note A:
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



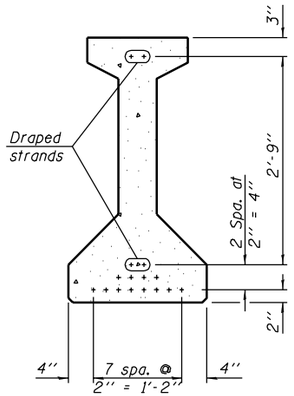
SECTION A-A



SECTION B-B



ELEVATION OF BEAM
(Showing prestressing steel)

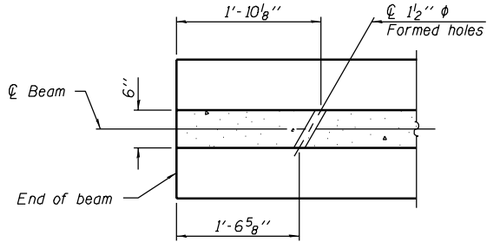


SECTION C-C

BAR LIST
ONE BEAM ONLY

Bar	No.	Size	Length	Shape
G_1	67	#4	8'-5"	
G_2	10	#4	4'-4"	
G_3	12	#6	23'-7"	
G_4	38	#3	4'-11"	
G_5	66	#3	2'-6"	
G_6	2	#8	3'-9"	

Notes:
See sheet 17 of 46 for additional details and Bill of Material.
Required release strength, f'ci, shall be 5000 psi.



SECTION D-D

DESIGNED	Curt M. Evoy
CHECKED	Rebecca L. Tharp
DRAWN	Michael B. Mossman
CHECKED	C.M.E. / R.L.T.

August 4, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

PI-4-42 7-15-05

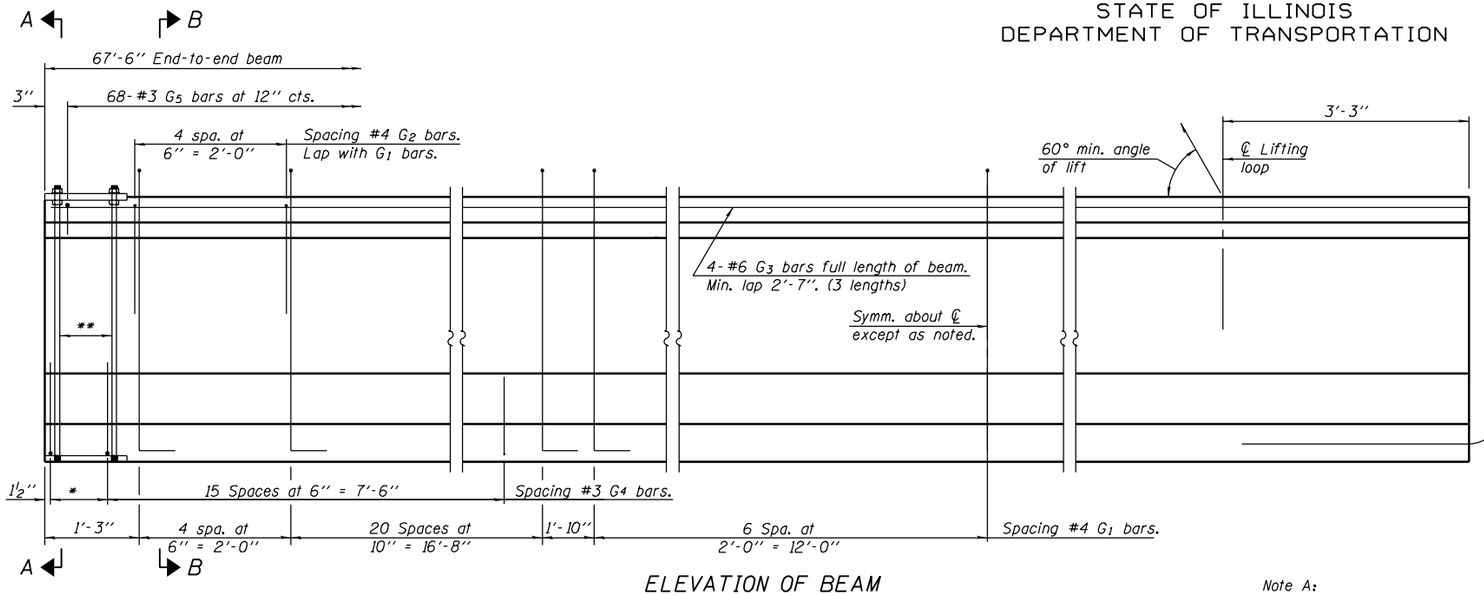
42" PPC I-BEAM (SPANS 1 & 3)
F.A.S. RT. 1671 - SEC. 22VBR-1
DOUGLAS COUNTY
STATION 1151+65.86
STRUCTURE NO. 021-0061

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 1671	‡	DOUGLAS	181	100
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 16
46 SHEETS

Contract #70258
‡ 22VBR-1 and 144SBR-2



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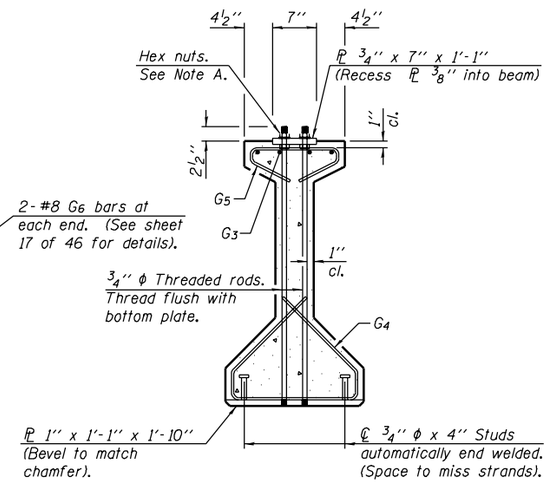
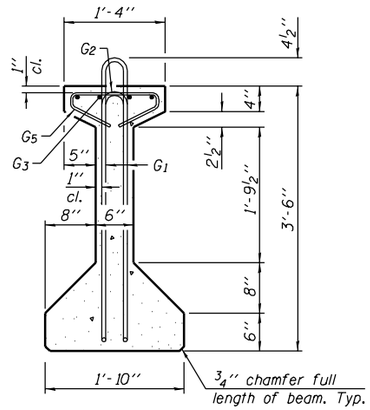
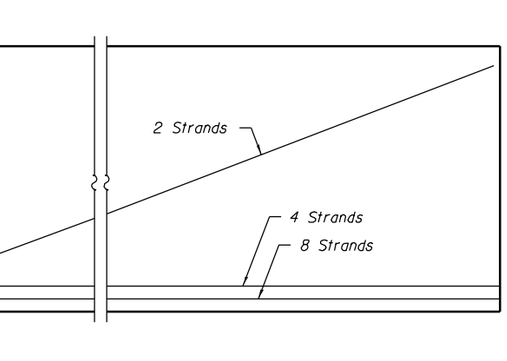


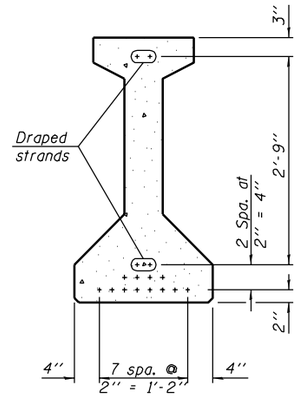
SECTION A-A



SECTION B-B



ELEVATION OF BEAM
(Showing prestressing steel)



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CHECKED	Rebecca L. Tharp
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August 4, 2006
EXAMINED Thomas J. Domagalski
ENGINEER OF BRIDGE DESIGN
PASSED Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

PI-4-42 7-15-05

42" PPC I-BEAM (SPAN 2)
F.A.S. RT. 1671 - SEC. 22VBR-1
DOUGLAS COUNTY
STATION 1151+65.86
STRUCTURE NO. 021-0061