ANCHORED RETAINING WALL "A"

	SOLDIER PILE SCHEDULE (2 BEAMS PER PILE)							ANCHOR SCHEDULE					
PILE NO.	BEAM SIZE	TOP OF CONCRETE FACING ELEV.	TOP OF PILE ELEV.	*TOP OF SOCKET ELEV.	PILE LENGTH ABOVE SOCKET (FT.)	MINIMUM TOTAL PILE LENGTH (FT.)	NO. OF STUDS PER BEAM	ANCHOR ELEV.	DESIGN LOAD (KIPS)	MINIMUM NO. OF STRANDS (0.6" DIA.)	MINIMUM FREE LENGTH (FT.)	**ESTIMATED BOND LENGTH IN ROCK (FT.)	ESTIMATED TOTAL LENGTH (FT.)
1	W14X30	601.60	600.6	592	8.6	13.6	6	—	—	—	—	—	—
2	W14X30	602.40	601.4	592	9.4	14.4	8	599.40	109	4	16	18	34
3	W14X30	603.20	602.2	592	10.2	15.2	10	600.20	109	4	16	18	34
4	W14X30	604.00	603.0	591	12.0	17.0	13	601.00	109	4	16	18	34
5	W14X30	604.02	603.0	591	12.0	17.0	14	601.02	109	4	16	18	34
6	W14X38	604.05	603.1	591	12.1	17.1	16	600.30	149	5	20	26	46
7	W14X38	604.07	603.1	591	12.1	17.1	16	600.32	149	5	20	26	46
8	W14X38	604.10	603.1	590	13.1	18.1	16	600.35	149	5	20	26	46
9	W14X38	604.12	603.1	590	13.1	18.1	16	600.37	149	5	20	26	46
10	W14X38	604.12	603.1	590	13.1	18.1	16	600.37	149	5	20	26	46
11	W14X38	604.11	603.1	590	13.1	18.1	16	600.36	149	5	20	26	46
12	W14X38	604.09	603.1	591	12.1	17.1	16	600.34	149	5	20	26	46
13	W14X38	604.07	603.1	591	12.1	17.1	16	600.32	149	5	20	26	46
14	W14X38	604.06	603.1	591	12.1	17.1	15	600.31	149	5	20	26	46
15	W14X30	604.04	603.0	592	11.0	16.0	13	601.04	109	4	15	18	33
16	W14X30	604.02	603.0	592	11.0	16.0	10	601.02	109	4	15	18	33
17	W14X30	604.00	603.0	592	11.0	16.0	7	—	—	—	—	—	—

*TOP-OF-SOCKET ELEVATIONS ARE APPROXIMATE ONLY.
**THE CONTRACTOR SHALL DETERMINE THE BOND LENGTH NECESSARY TO SATISFY THE LOAD TESTING REQUIRMENTS (AS PER SPECIAL PROVISIONS) AND SUBMIT TO ENGINEER FOR APPROVAL.

ANCHORED RETAINING WALL "B"

	SOLDIER PILE SCHEDULE (2 BEAMS PER PILE)							ANCHOR SCHEDULE					
PILE NO.	BEAM SIZE	TOP OF CONCRETE FACING ELEV.	TOP OF PILE ELEV.	*TOP OF SOCKET ELEV.	PILE LENGTH ABOVE SOCKET (FT.)	MINIMUM TOTAL PILE LENGTH (FT.)	NO. OF STUDS PER BEAM	ANCHOR ELEV.	DESIGN LOAD (KIPS)	MINIMUM NO. OF STRANDS (0.6" DIA.)	MINIMUM FREE LENGTH (FT.)	**ESTIMATED BOND LENGTH IN ROCK (FT.)	ESTIMATED TOTAL LENGTH (FT.)
1	W14X48	585.48	584.5	577	7.5	12.5	9	—	—	—	—	—	—
2	W14X48	587.41	586.4	577	9.4	14.4	9	583.41	160	5	16	28	44
3	W14X48	589.34	588.3	577	11.3	16.3	11	585.34	160	5	16	28	44
4	W14X48	591.27	590.3	577	13.3	18.3	13	587.27	160	5	16	28	44
5	W14X48	591.71	590.7	577	13.7	18.7	13	587.71	160	5	16	28	44
6	W14X48	591.95	591.0	576	15.0	20.0	13	587.95	160	5	16	28	44
7	W14X53	592.19	591.2	576	15.2	20.2	13	588.19	174	5	22	30	52
8	W14X53	592.42	591.4	575	16.4	21.4	13	588.42	174	5	22	30	52
9	W14X53	592.66	591.7	575	16.7	21.7	14	588.66	174	5	22	30	52
10	W14X53	592.90	591.9	574	17.9	22.9	14	588.90	174	5	22	30	52
11	W14X53	592.94	591.9	574	17.9	22.9	14	588.94	174	5	22	30	52
12	W14X53	592.88	591.9	574	17.9	22.9	13	588.88	174	5	22	30	52
13	W14X53	592.82	591.8	574	17.8	22.8	13	588.82	167	5	25	28	53
14	W14X53	592.76	591.8	573	18.8	23.8	13	588.76	167	5	25	28	53
15	W14X53	592.70	591.7	573	18.7	23.7	13	588.70	167	5	25	28	53
16	W14X53	592.64	591.6	573	18.6	23.6	13	588.64	167	5	25	28	53
17	W14X53	592.58	591.6	573	18.6	23.6	13	588.58	167	5	25	28	53
18	W14X53	592.52	591.5	573	18.5	23.5	12	588.52	167	5	25	28	53

GENERAL NOTES

1) CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN OF TIMBER LAGGING (PER SPECIAL PROVISIONS). LAGGING DESIGN SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL. QUANTITY SHOWN IN BILL OF MATERIALS IS AN ESTIMATE FOR BIDDING PURPOSES ONLY.
2) REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31, OR M322 GRADE 60.
3) ALL EXPOSED EDGES OF THE CONCRETE CAPS SHALL BE CHAMFERED 3/4".
4) SEE SPECIAL PROVISIONS FOR INSTALLATION AND TESTING OF PERMANENT GROUND ANCHORS.
5) PAVED DITCHES SHALL HAVE TRANSVERSE JOINTS CUT 1/3" DEEP EVERY 10'. JOINTS SHALL THEN BE SEALED WITH HOT POURED JOINT SEALER. PAVED DITCH CONSTRUCTION SHALL CONFORM TO SECTION 606. JOINT SEALER SHALL BE IN ACCORDANCE WITH SECTION 420.14. AND SECTION 1050.02.
6) FOR DRAINAGE DETAILS (INLETS, STORM SEWERS, PIPE DRAINS, ETC.) SEE ROADWAY PLAN AND PROFILE SHEET.

SUGGESTED SEQUENCE OF CONSTRUCTION

1) DRILL HOLES FOR SOLDIER PILES. DO NOT EXCAVATE NEAR THESE HOLES AT THIS STAGE.
2) SET SOLDIER PILES.
3) PLACE PILE ENCASEMENT CONCRETE
4) PLACE CONTROLLED LOW-STRENGTH MATERIAL (CLSM)
5) BEGIN EARTH EXCAVETION. REMOVE ONLY EARTH AND CLSM AS NECESSARY TO INSTALL TIMBER LAGGING.
6) INSTALL PERMANENT GROUND ANCHORS. EARTH EXCAVATION SHALL BE NO MORE THAN TWO FEET BELOW ANCHOR LOCATION.
7) TEST PERMANENT GROUND ANCHORS AND FILL COVER WITH ANTI- CORROSION GROUT.
8) COMPLETE REMAINING EARTH EXCAVATION AND INSTALLATION OF WALL COMPONENTS AS IN STEP #5.
9) INSTALL GEOCOMPOSITE WALL DRAIN.
10) INSTALL STUD SHEAR CONNECTORS.
11) BACKFILL TIMBER LAGGING.
12) CONSTRUCT CONCRETE FASCIA.

BILL OF MATERIALS

ITEM	Unit	WALL "A"	WALL "B"	WALL "C"	TOTAL
DRILLING AND SETTING SOLDIER PILES (IN ROCK)	CU FT	515	1070	———	1585
PERMANENT GROUND ANCHORS	EACH	15	17	———	32
CONCRETE STRUCTURES	CU YD	60.2	50.3	36	146.5
REINFORCEMENT BARS, EPOXY COATED	POUND	7770	8820	2140	18730
FURNISHING SOLDIER PILES (BUILD-UP SECTION)	FOOT	283.1	273.2	———	656.3
GEOCOMPOSITE WALL DRAIN	SQ YD	32	42	———	74
STUD SHEAR CONNECTORS	EACH	448	452	396	1296
PERMANENT STEEL SHEET PILING	SQ FT	———	———	2028	2028
PAVED DITCH (SPECIAL)	FOOT	132	140	165	437
UNTREATED TIMBER LAGGING	SQ FT	1514	1162	———	2676

W14x53: 50 ksi (AASHTO M270 GR. 50

DESIGN SPECIFICATIONS

1989 AASHTO Specifications With 1990 Through 1991 Interim Specifications.

DESIGN STRESSES

fu	(Anchor Strands)	= 270 ksi (AASHTO M203, Gr.270)
fy	(Structural Steel)	= 36 ksi (AASHTO M270,Gr.36) EXCEPT WHERE NOTED
fy	(Anchor Bearing Pl's)	= 50 ksi (AASHTO M270, Gr.50)
fy	(Reinforcement)	= 60 ksi (AASHTO M31, OR M322, Gr.60)
f'c	(Concrete)	= 3.5 ksi
f'c	(Grout)	= 4.0 ksi
fb	(Untreated Timber)	= 1.0 ksi
fy	(Sheet Piles)	= 39 ksi (AASHTO M202)
f'c	(ENCASEMENT CONCRETE)	= 4.0 ksi

SCHEDULES, GENERAL NOTES AND BILL OF MATERIALS

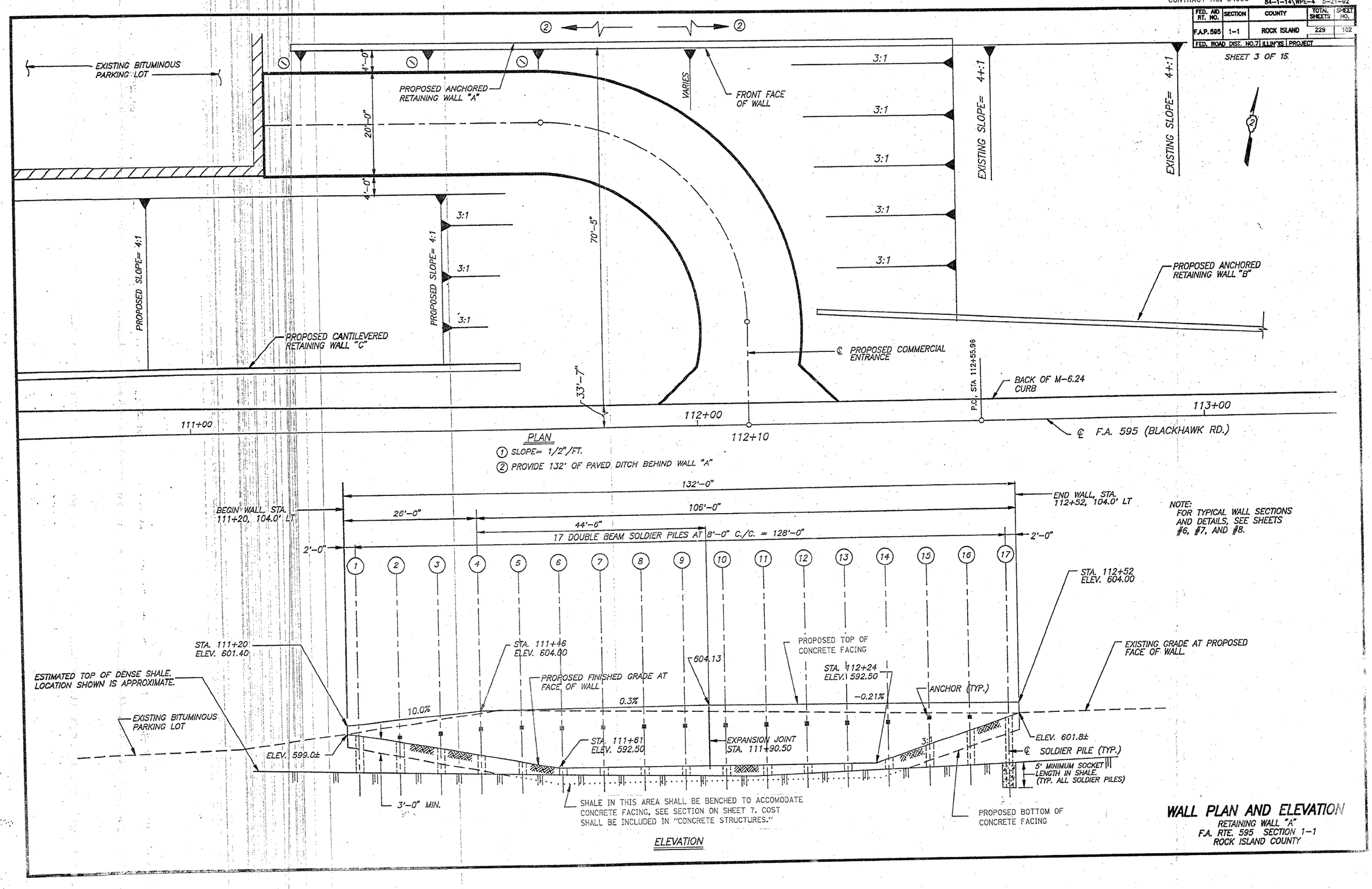
RETAINING WALLS "A", "B" & "C"
F.A. RTE. 595 SECTION 1-1
ROCK ISLAND COUNTY

CONTRACT NO. 84986

84-1-14\WPE-4 5-21-92

FED. AID RT. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-1	ROCK ISLAND	229	102
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET 3 OF 15.



NOTE:
FOR TYPICAL WALL SECTIONS AND DETAILS, SEE SHEETS #6, #7, AND #8.

WALL PLAN AND ELEVATION

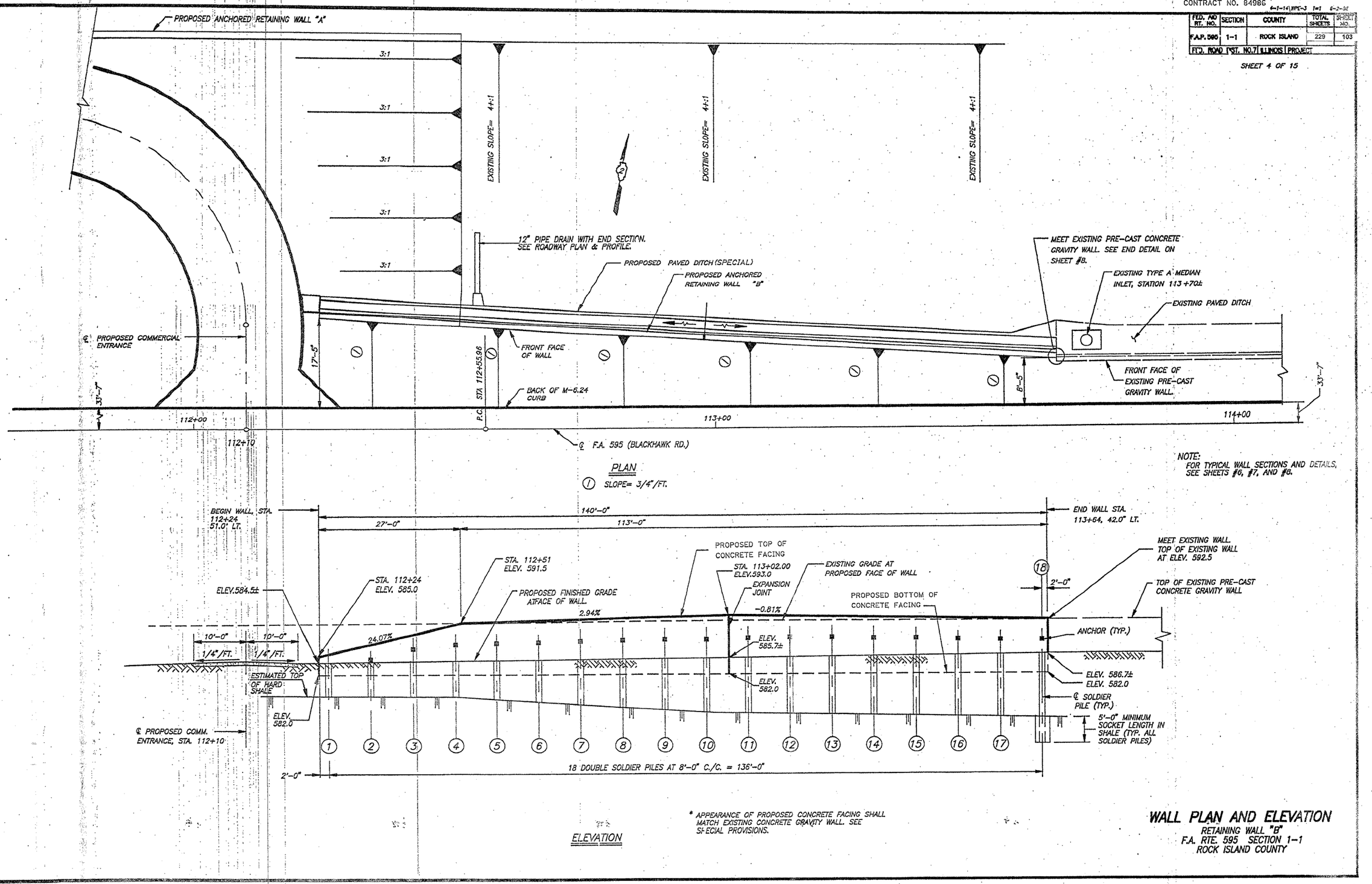
RETAINING WALL "A"
F.A. RTE. 595 SECTION 1-1
ROCK ISLAND COUNTY

CONTRACT NO. 84986

6-1-14\RPE-3 1=1 6-2-14

FED. AID RT. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-1	ROCK ISLAND	229	103
FED. ROAD DIST. NO.7	ILLINOIS	PROJECT		

SHEET 4 OF 15



WALL PLAN AND ELEVATION

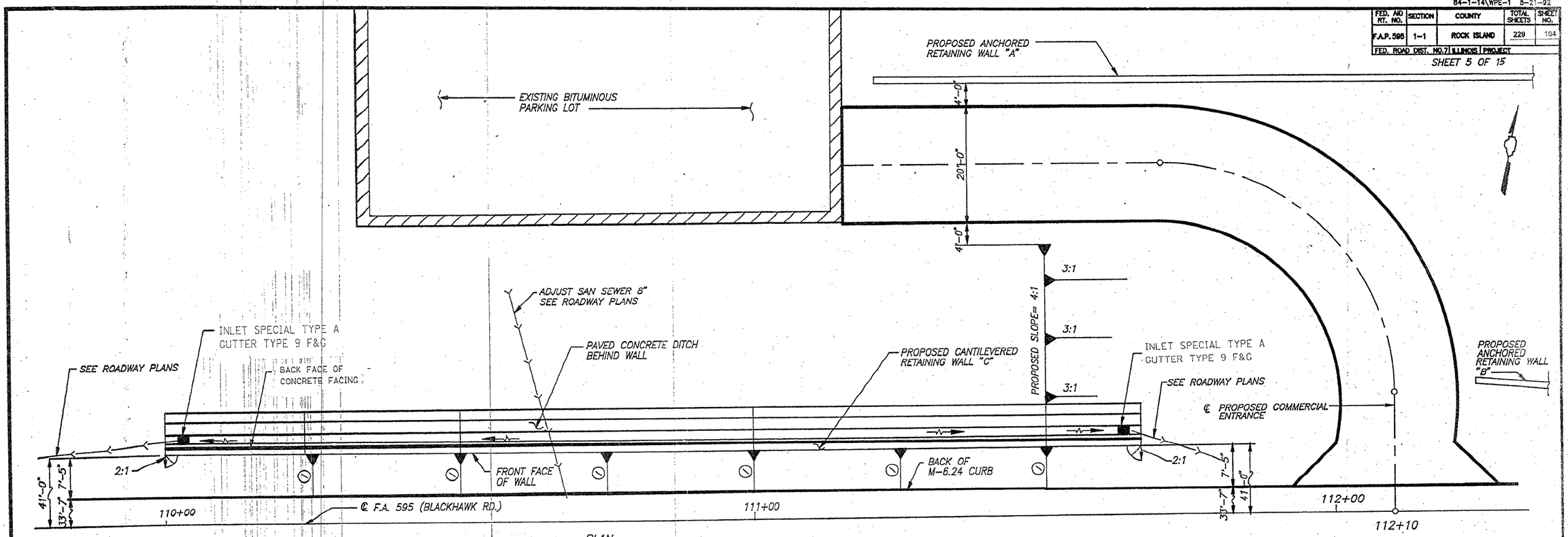
RETAINING WALL "B"
F.A. RTE. 595 SECTION 1-1
ROCK ISLAND COUNTY

CONTRACT NO. 84986

84-1-14\WPE-1 5-21-92

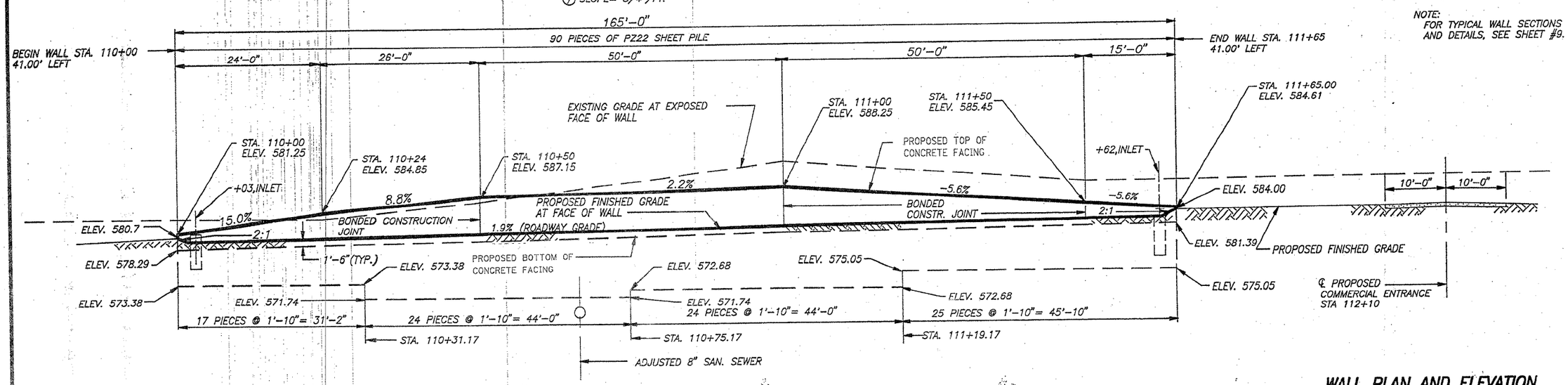
FED. AID RT. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-1	ROCK ISLAND	229	104
FED. ROAD DIST. NO.7	ILLINOIS	PROJECT		

SHEET 5 OF 15



PLAN

① SLOPE= 3/4"/FT.



ELEVATION

NOTE:
FOR TYPICAL WALL SECTIONS AND DETAILS, SEE SHEET #9.

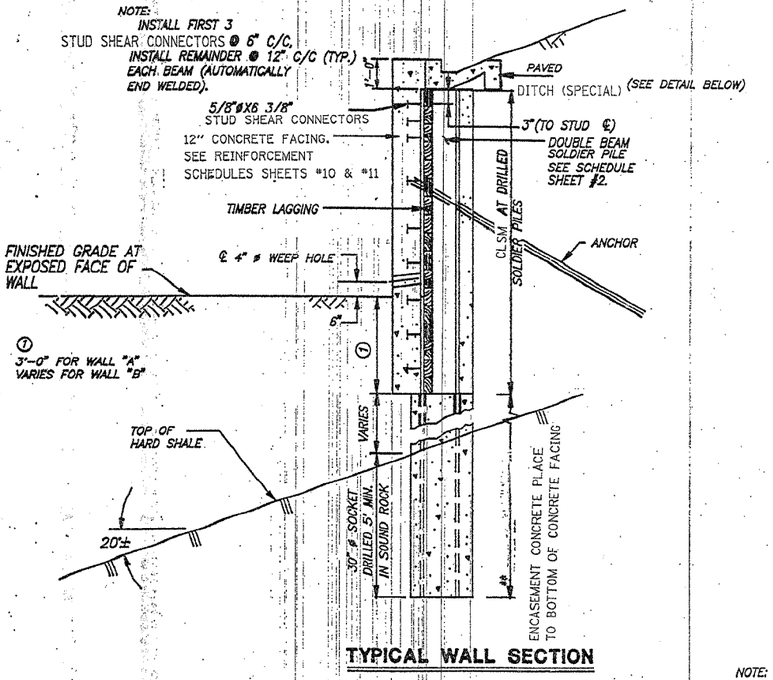
WALL PLAN AND ELEVATION

RETAINING WALL "C"
F.A. RTE. 595 SECTION 1-1
ROCK ISLAND COUNTY

CONTRACT NO. 84986 84-1-14\DET-2 1of1 8-2-85

FED. AID RT. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-1	ROCK ISLAND	229	105
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET 6 OF 15



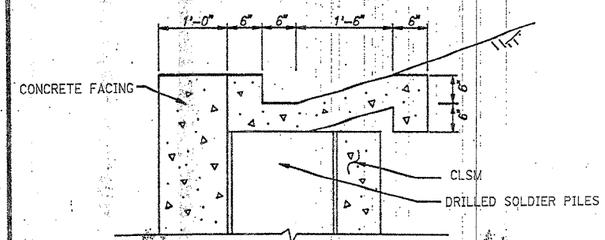
TYPICAL WALL SECTION

** THE COST OF ENCASEMENT CONCRETE IS INCLUDED IN "DRILLING AND SETTING SOLDIER PILES IN ROCK."

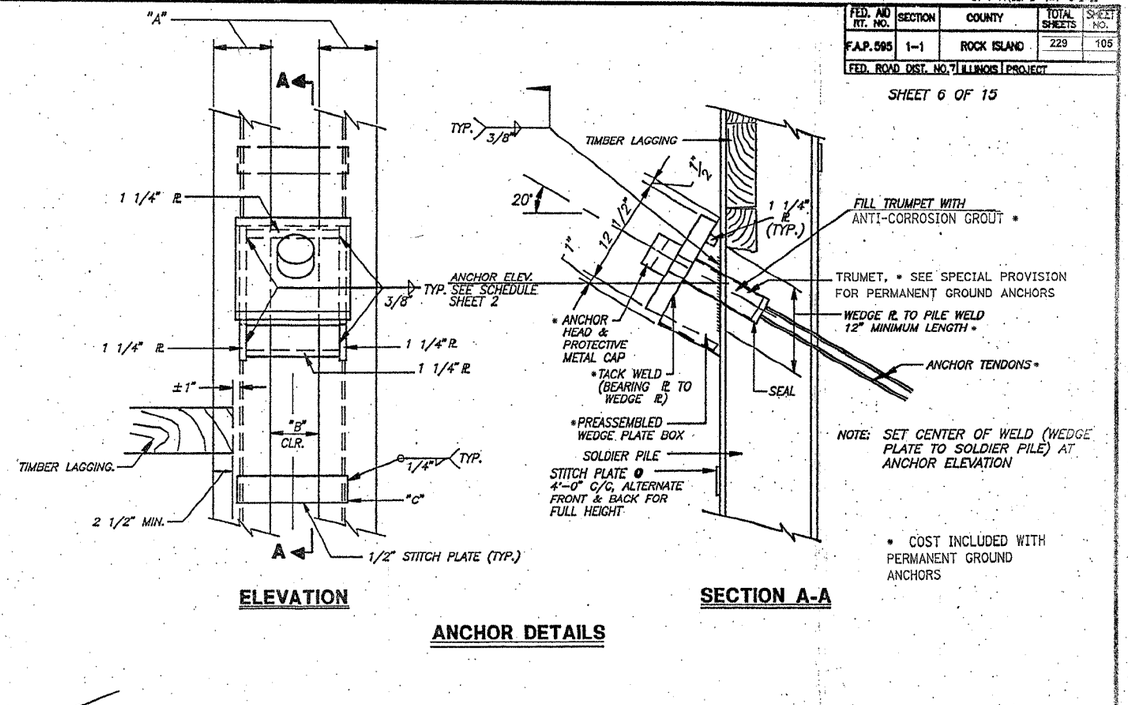
WALL "A" PILES #2 - #4 & #15 - #16
WALL "B", PILES #2 - #18

DOUBLE BEAM SOLDIER PILE	"A"	"B"	R "C"
W14x30	6 3/4"	6"	6"x1/2"x1'-3"
W14x38	6 3/4"	6"	6"x1/2"x1'-3"
W14x48	8"	6"	6"x1/2"x1'-3"

DIMENSIONS A,B & C



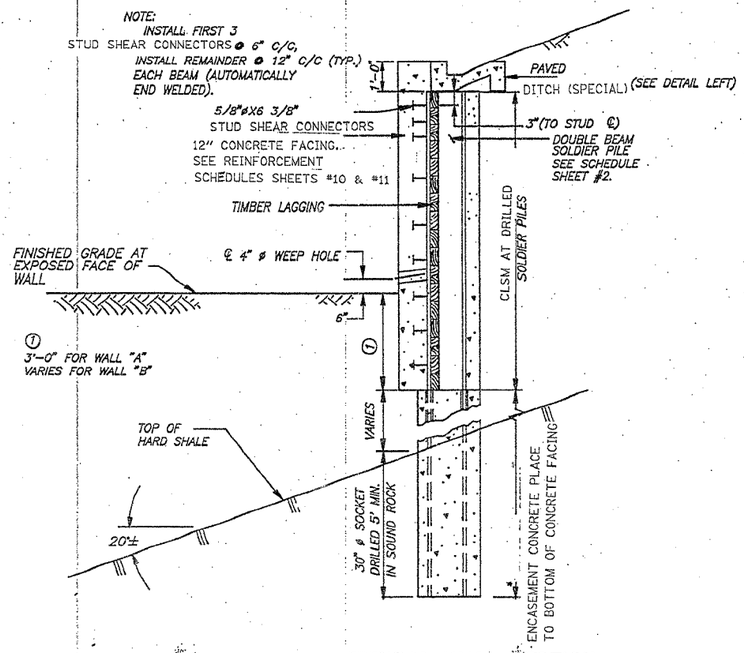
PAVED DITCH (SPECIAL)



ELEVATION

SECTION A-A

ANCHOR DETAILS



TYPICAL WALL SECTION

WALL "A", PILES #1 & #17
WALL "B", PILE #1

NOTES

THE TIMBER LAGGING SHALL BE INSTALLED AS EARTH EXCAVATION PROCEEDS DOWN THE WALL.

SOLDIER PILES SHALL CONSIST OF 2 WIDE FLANGE BEAMS AND STITCH PLATES AT THE SIZE AND SPACING SHOWN. STEEL FOR SOLDIER PILES SHALL BE AASHTO M270 GRADE 50. SEE SCHEDULES, SHEET #2. FLANGE BEAMS AND 1/2" STITCH PLATES SHALL BE PAID FOR AS "FURNISHING SOLDIER PILES".

COST OF FURNISHING, FABRICATING, AND ATTACHING ALL STRUCTURAL STEEL TO THE PILES IS INCIDENTAL TO "FURNISHING SOLDIER PILES".

THE COST OF CLSM IS INCLUDED IN "DRILLING AND SETTING SOLDIER PILES IN ROCK."

PERMANENT GROUND ANCHORS SHALL HAVE NON-GALVANIZED HIGH STRENGTH, STRESS-RELIEVED 7-WIRE STRANDS, GRADE 270. THE NOMINAL DIAMETER OF THE STRANDS SHALL BE 0.6" AND THE NOMINAL CROSS-SECTION AREA SHALL BE 0.217 SQ.IN.

DETAILS FOR THE ANCHOR BLOCKS AND ANCHOR PLATES SHALL BE SUBMITTED BY THE CONTRACTOR FOR THE ENGINEER'S APPROVAL COST INCLUDED IN "PERMANENT GROUND ANCHORS."

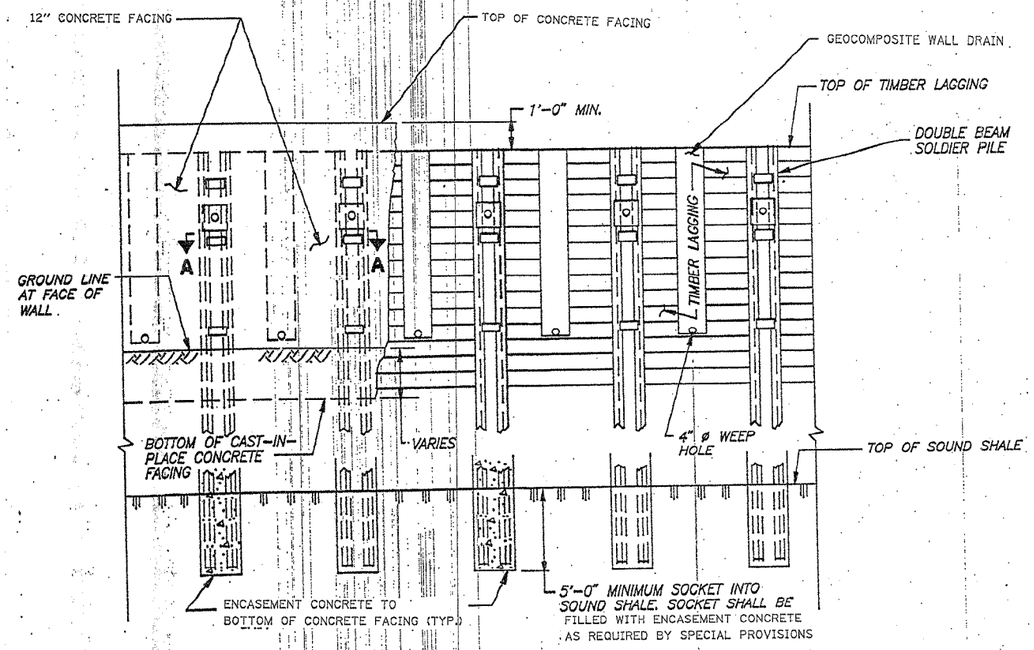
TYPICAL WALL SECTIONS AND DETAILS

RETAINING WALL "A" & "B"
F.A. RTE. 595 SECTION 1-1
ROCK ISLAND COUNTY

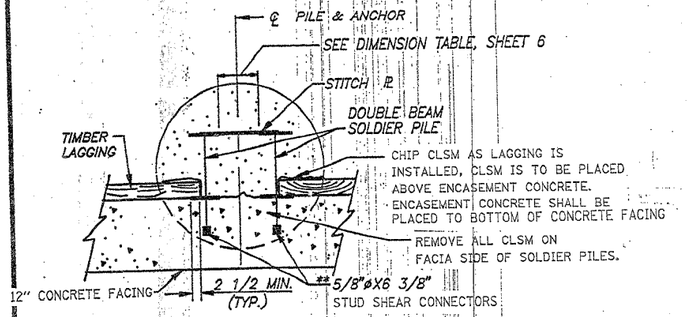
CONTRACT NO. 84986 D:\HWY\84-1-14\DET-3

FED. AID RT. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-1	ROCK ISLAND	229	106
FED. ROAD DIST. NO.7	ILLINOIS	PROJECT		

SHEET 7 OF 15

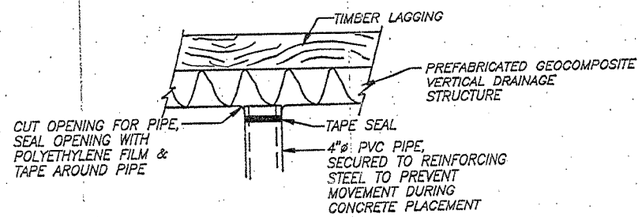


ELEVATION DETAIL



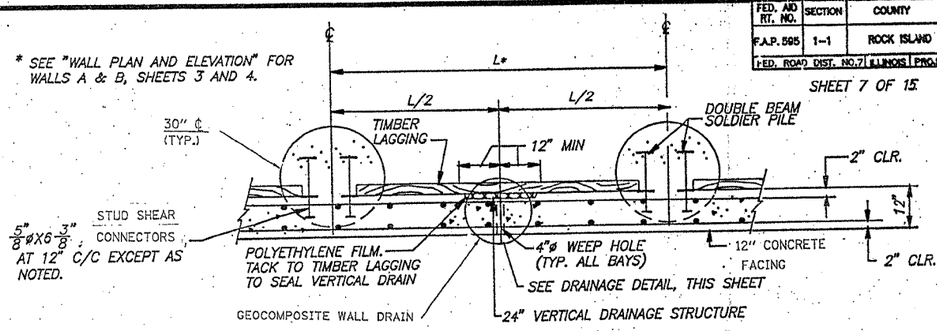
SOLDIER PILE DETAIL

** 5/8"øX6 3/8" GRANULAR OR SOLID FLUX FILLED HEADED STUDS CONFORMING TO ART. 1006.32 OF THE STANDARD SPECIFICATIONS. AUTOMATICALLY END WELDED (TYP.)



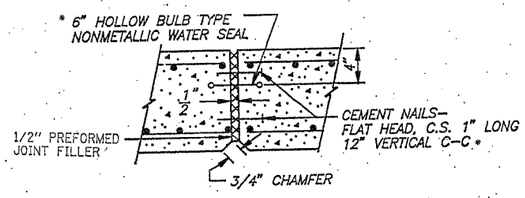
DRAINAGE DETAIL

ALL COSTS ASSOCIATED WITH PROVIDING AND ATTACHING 4"ø PVC PIPE TO VERTICAL DRAINAGE STRUCTURES SHALL BE INCIDENTAL TO "GEOCOMPOSITE WALL DRAIN".



SECTION A-A

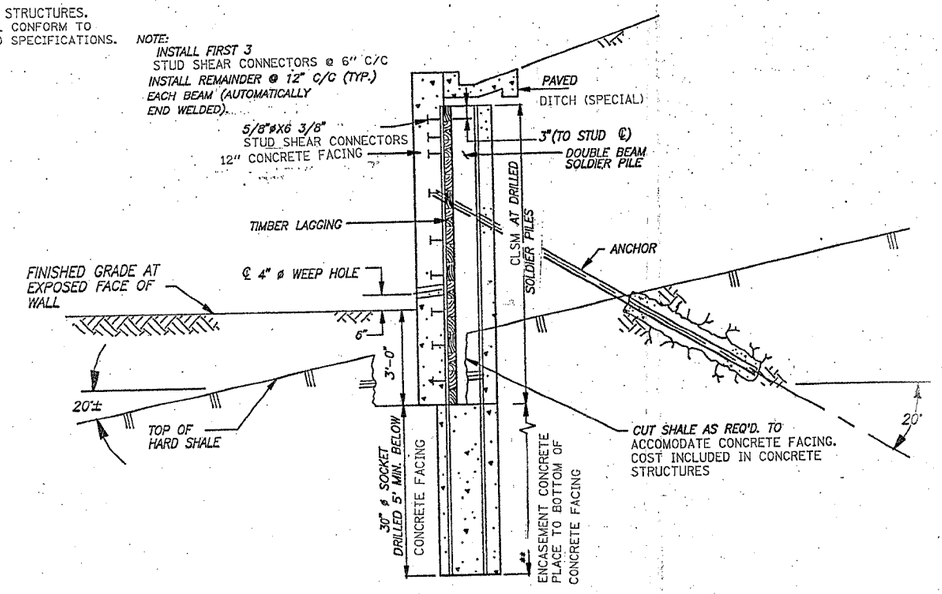
NOTE: SEE REINFORCEMENT BAR SCHEDULES FOR WALLS "A" & "B" FOR REINFORCING IN C.I.P. FACING ON SHEETS #10 AND #11.



EXPANSION JOINT DETAIL

SEE SHEETS #3 AND #4 FOR JOINT LOCATIONS

* COST INCLUDED IN CONCRETE STRUCTURES. PREFORMED JOINT FILLER SHALL CONFORM TO ARTICLE 1051 OF THE STANDARD SPECIFICATIONS.



TYPICAL WALL SECTION

(WALL "A", PILES #5 TO #14)

WALL DETAILS

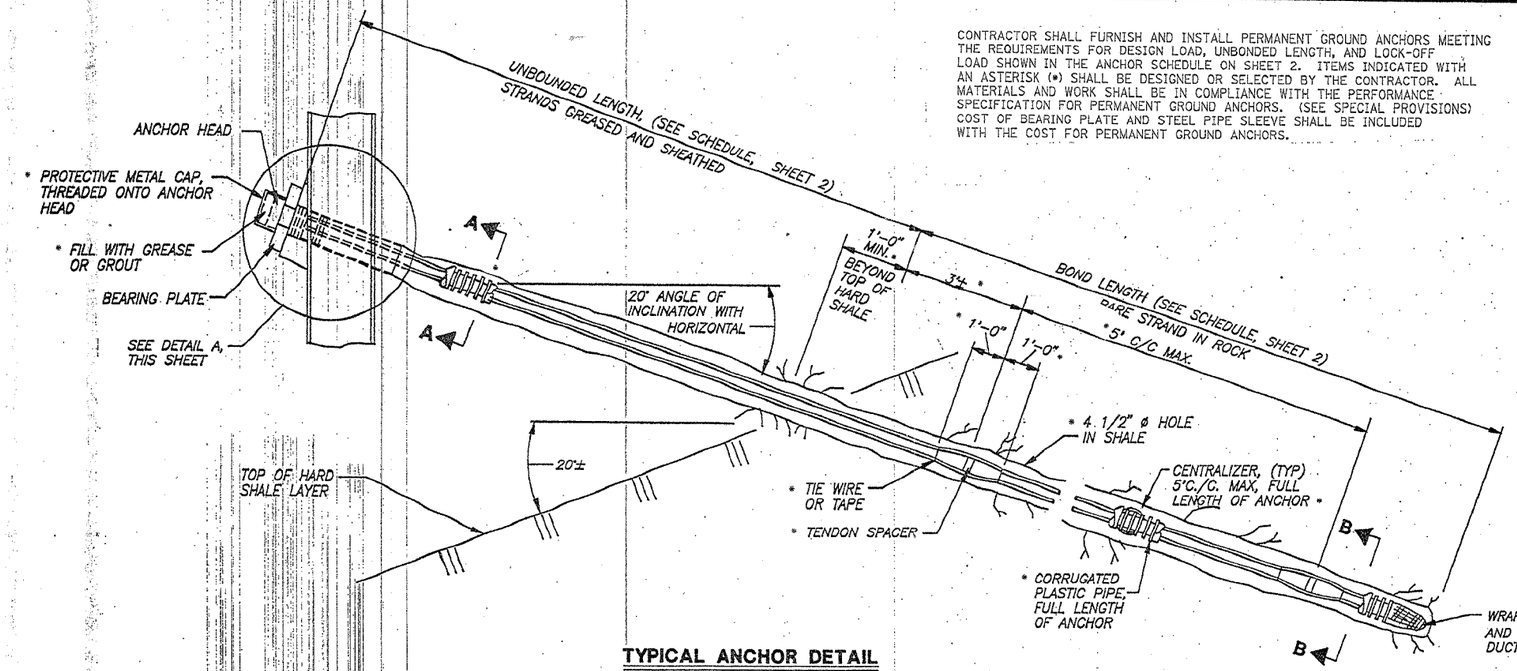
RETAINING WALL "A" & "B"
F.A. RTE. 595 SECTION 1-1
ROCK ISLAND COUNTY

CONTRACT NO. 84986 34-1-14\DET-4 5-21-92

FED. AID RT. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-1	ROCK ISLAND	229	107
FED. ROAD DIST. NO.7	ILLINOIS	PROJECT		

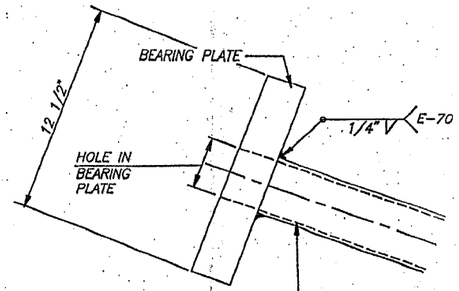
SHEET 8 OF 15

CONTRACTOR SHALL FURNISH AND INSTALL PERMANENT GROUND ANCHORS MEETING THE REQUIREMENTS FOR DESIGN LOAD, UNBONDED LENGTH, AND LOCK-OFF LOAD SHOWN IN THE ANCHOR SCHEDULE ON SHEET 2. ITEMS INDICATED WITH AN ASTERISK (*) SHALL BE DESIGNED OR SELECTED BY THE CONTRACTOR. ALL MATERIALS AND WORK SHALL BE IN COMPLIANCE WITH THE PERFORMANCE SPECIFICATION FOR PERMANENT GROUND ANCHORS. (SEE SPECIAL PROVISIONS) COST OF BEARING PLATE AND STEEL PIPE SLEEVE SHALL BE INCLUDED WITH THE COST FOR PERMANENT GROUND ANCHORS.

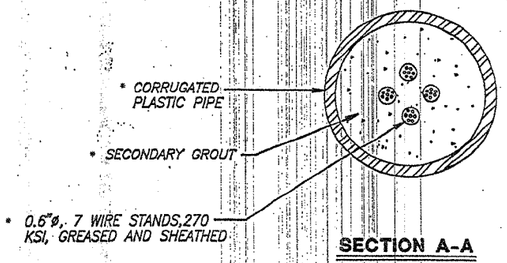


TYPICAL ANCHOR DETAIL

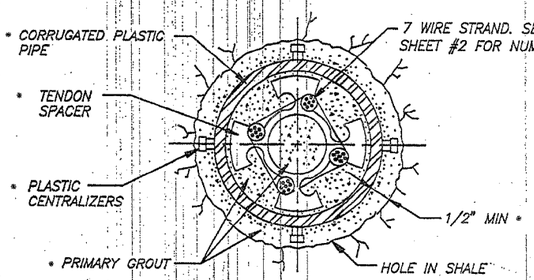
(FOR WALLS "A" AND "B")



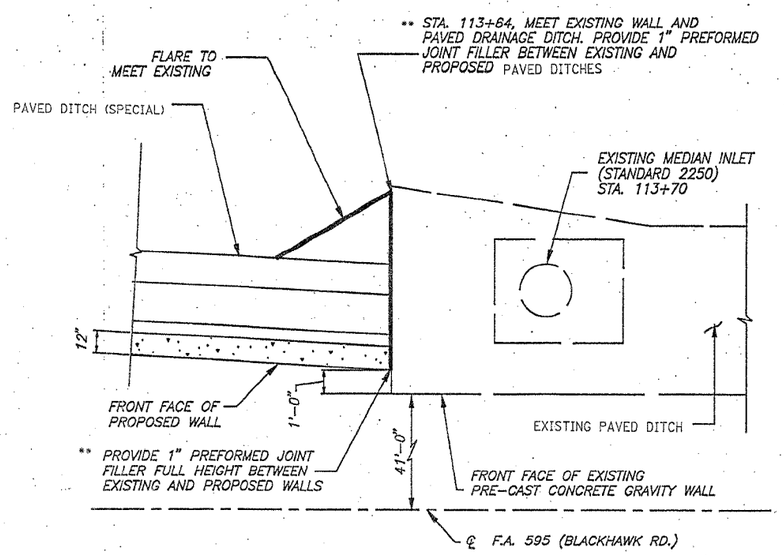
DETAIL "A"



SECTION A-A



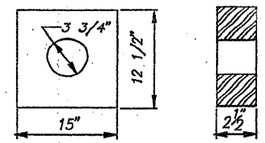
SECTION B-B



** PREFORMED JOINT FILLER SHALL CONFORM TO ARTICLE 1051 OF THE STANDARD SPECIFICATIONS. COST INCLUDED IN CONCRETE STRUCTURES.

END DETAIL

(PROPOSED WALL "B" MEETS EXISTING WALL)



BEARING PLATE DETAIL

(AASHTO M270, GR. 50)

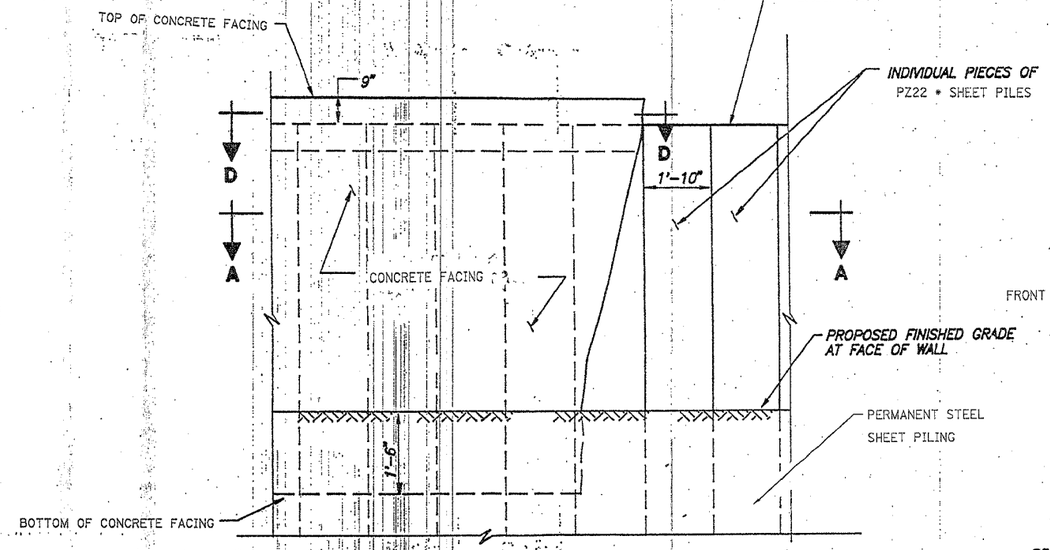
WALL DETAILS

RETAINING WALL "A" & "B"
F.A. RTE. 595 SECTION 1-1
ROCK ISLAND COUNTY

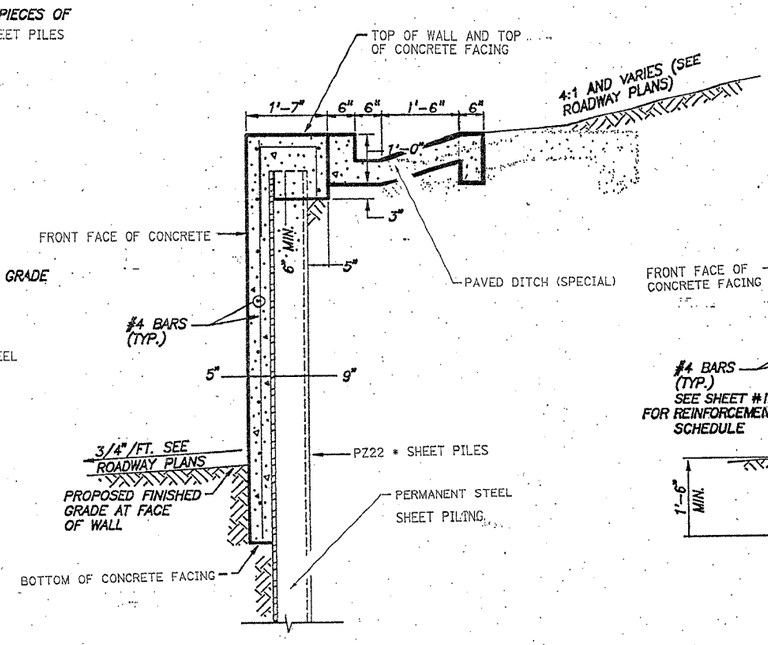
CONTRACT NO. 84986 D:\HWY\84-1-14\DET-1

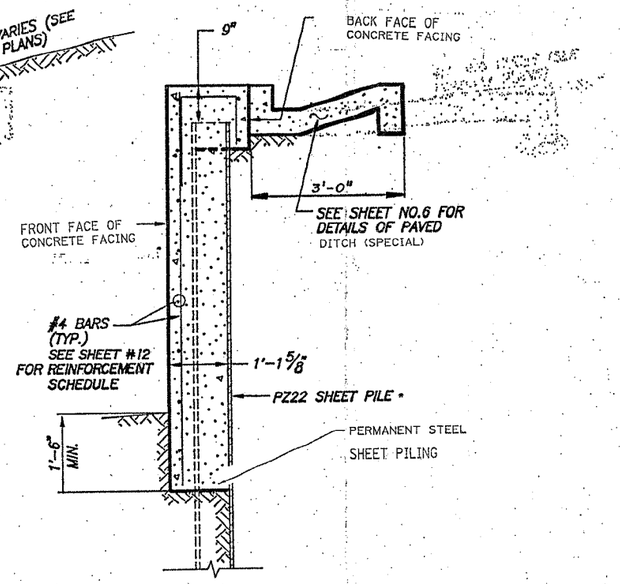
FED. AID RT. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-1	ROCK ISLAND	229	108
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

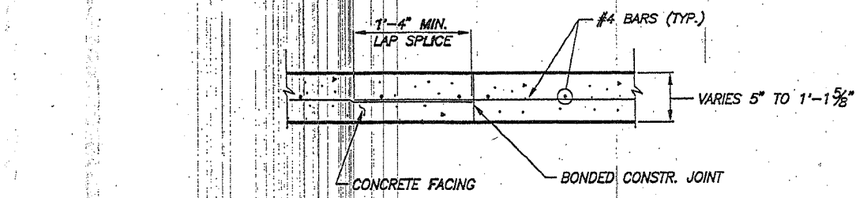
SHEET 9 OF 15



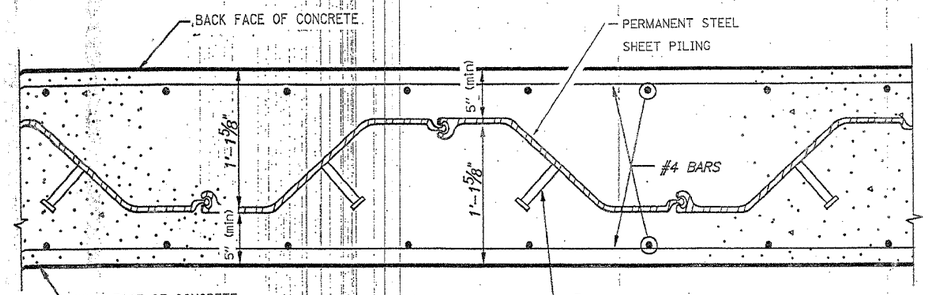
TYPICAL WALL ELEVATION





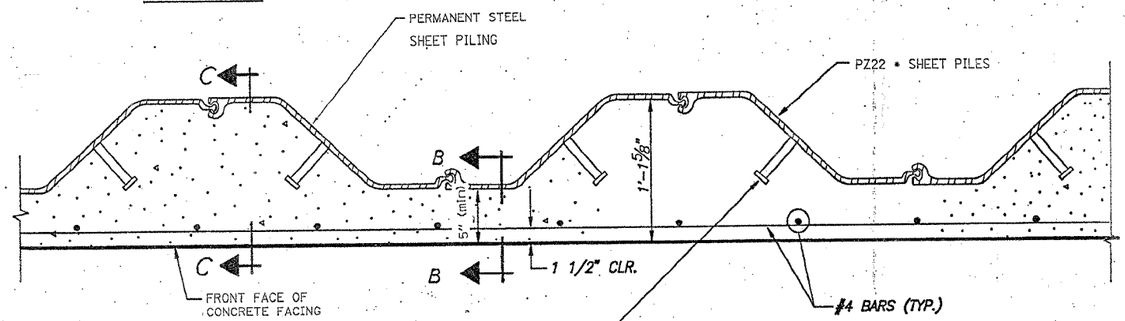


CONSTRUCTION JOINT DETAIL



SECTION D–D

SECTION B–B



SECTION C–C

SECTION A–A

* CONTRACTOR SHALL PROVIDE A MINIMUM SECTION MODULUS OF 15.3 CU IN/FT.

SECTIONS AND DETAILS

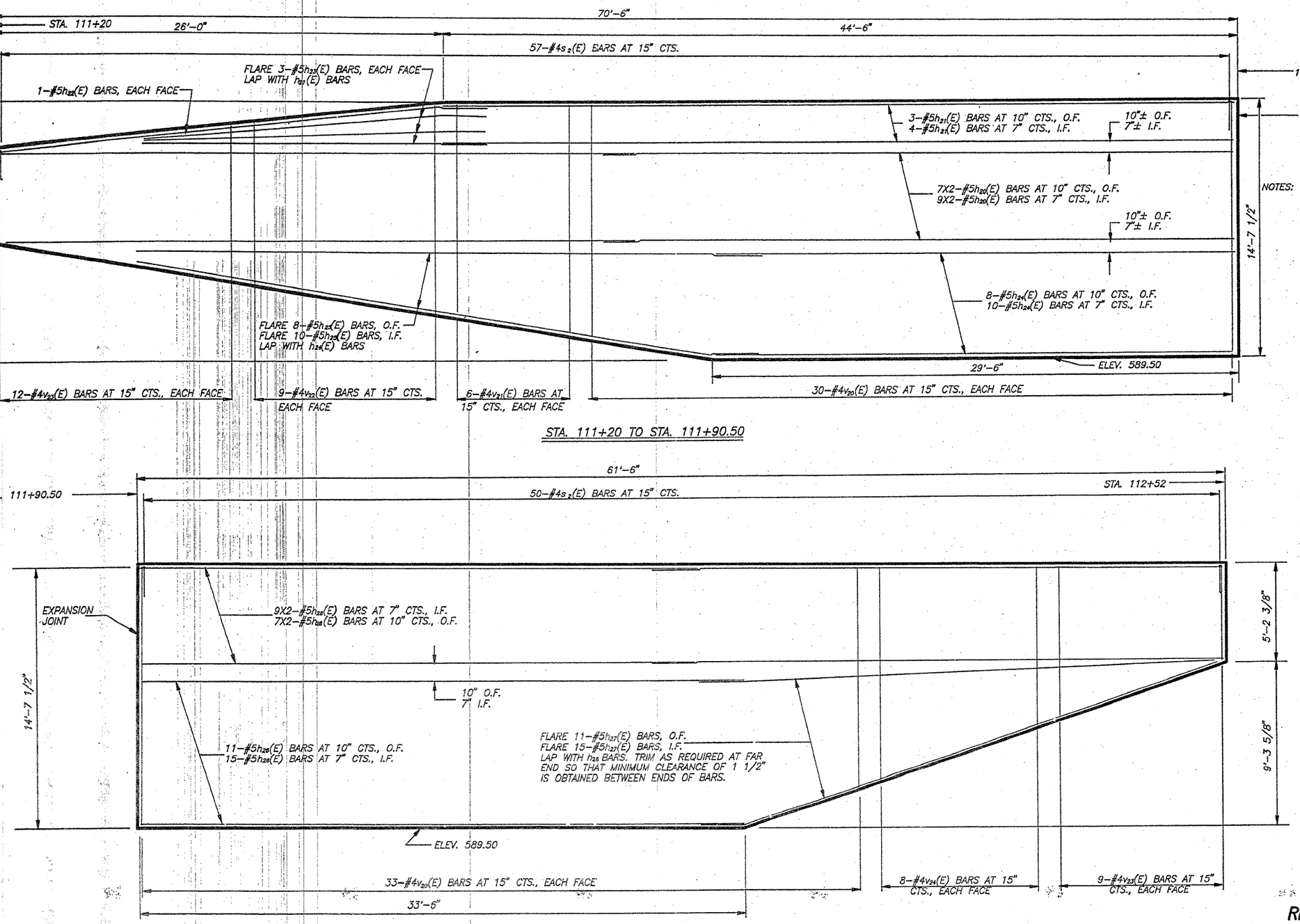
RETAINING WALL "C"
F.A. RTE. 595 SECTION 1-1
ROCK ISLAND COUNTY

CONTRACT NO. 84986 84-1-14\WPE-6 5-27-92

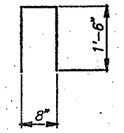
FED. AID RT. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-1	ROCK ISLAND	229	109
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		

SHEET 10 OF 15

STA. 111+20 TO STA. 111+90.50



STA. 111+90.50 TO STA. 112+52



BAR s_2(E)

NOTES: ELEVATION VIEWS ARE OF FRONT FACE, LOOKING NORTH.

BARS INDICATED THUS: "6X2-#4" INDICATES 6 LINES OF BARS WITH 2 LENGTHS PER LINE.

BARS INDICATED THUS: "FLARE 4-#4" INDICATES 4-#4 BARS EVENLY SPACED.

MINIMUM BAR LAP OF s_2 BARS WITH ALL v BARS = 1'-4".

MINIMUM LAP OF ALL #5 BARS= 1'-8".

TRIM ALL v_{20}(E) THRU v_{24}(E) BARS AS REQUIRED TO FIT.

h_{22}(E), h_{25}(E), AND h_{26}(E) BARS SHALL BE BENT OUT IN FIELD AS REQUIRED.

O.F. INDICATES "OUTSIDE FACE"
I.F. INDICATES "INSIDE FACE"

REINFORCEMENT BARS
RETAINING WALL "A"

BAR	NO.	SIZE	LENGTH	SHAPE
h_{20}(E)	32	#5	36'-0"	——
h_{21}(E)	7	#5	44'-1"	——
h_{22}(E)	2	#5	28'-3"	——
h_{23}(E)	6	#5	20'-6"	——
h_{24}(E)	18	#5	29'-0"	——
h_{25}(E)	18	#5	36'-3"	——
h_{26}(E)	26	#5	33'-4"	——
h_{27}(E)	26	#5	31'-0"	——
h_{28}(E)	32	#5	31'-6"	——
s_2(E)	107	#4	3'-8"	⊓
v_{20}(E)	126	#4	14'-2"	——
v_{21}(E)	12	#4	12'-9"	——
v_{22}(E)	18	#4	9'-6"	——
v_{23}(E)	42	#4	8'-6"	——
v_{24}(E)	16	#4	11'-6"	——
CONCRETE STRUCTURES			CU. YD.	60.2
REINFORCEMENT BARS EPOXY COATED			LBS.	7770

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

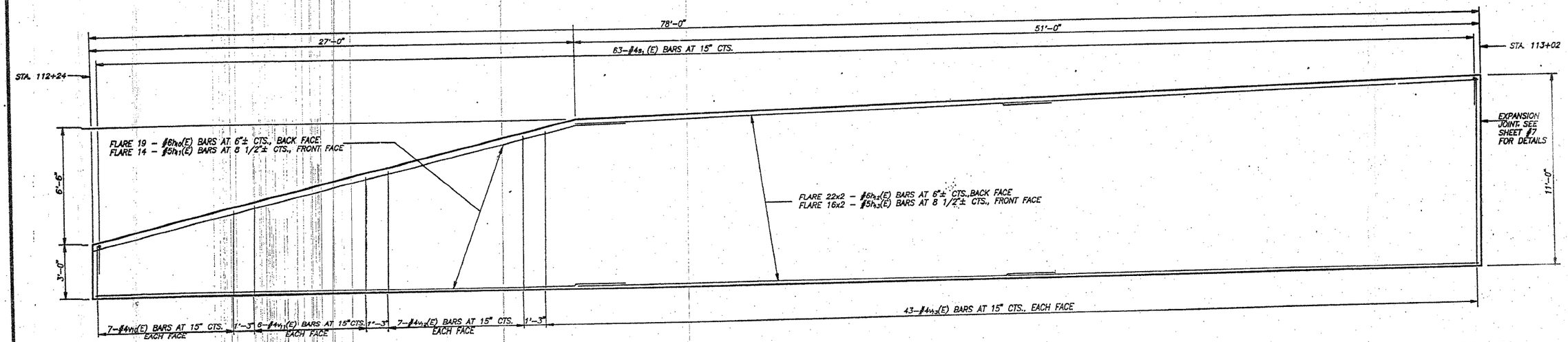
REINFORCEMENT BAR SCHEDULE

RETAINING WALL "A"
F.A. RTE. 595 SECTION 1-1
ROCK ISLAND COUNTY

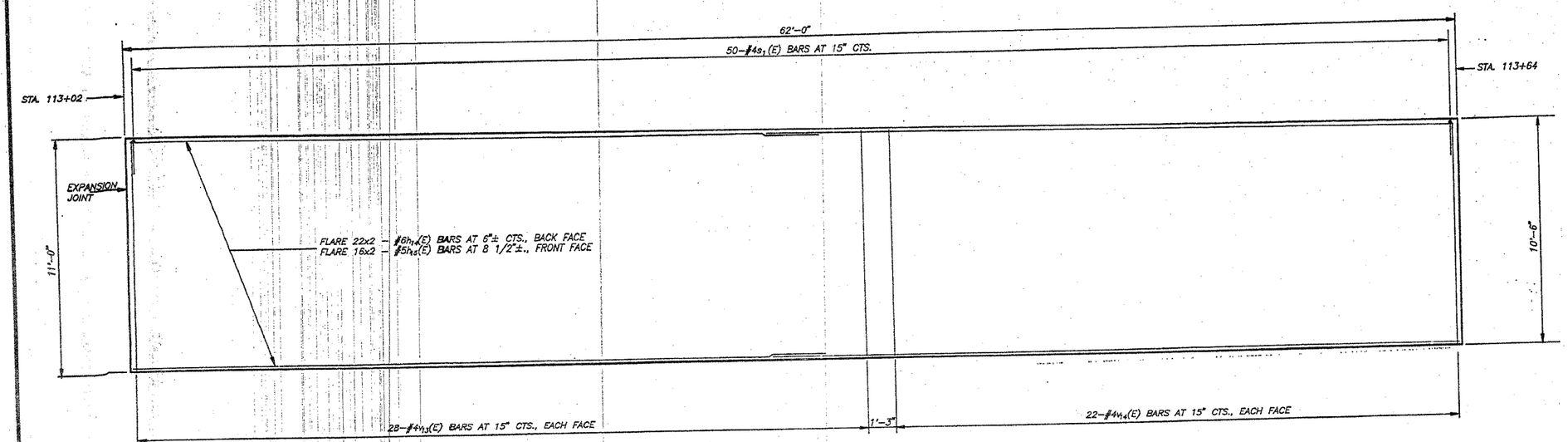
CONTRACT NO. 84986 84-1-14\WPE-5A 5-22-92

FED. AID RT. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-1	ROCK ISLAND	229	110
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

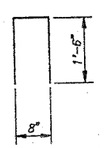
SHEET 11 OF 15



STA. 112+24 TO STA. 113+02



STA. 113+02 TO STA. 113+64



BAR s_1(E)

REINFORCEMENT BARS
RETAINING WALL "B"

BAR	NO.	SIZE	LENGTH	SHAPE
h_{10}(E)	19	#6	28'-9"	——
h_{11}(E)	14	#5	28'-5"	——
h_{12}(E)	44	#6	26'-6"	——
h_{13}(E)	32	#5	26'-6"	——
h_{14}(E)	44	#6	32'-0"	——
h_{15}(E)	32	#5	31'-10"	——
s_1(E)	113	#4	3'-8"	⊓
v_{10}(E)	14	#4	4'-9"	——
v_{11}(E)	12	#4	6'-6"	——
v_{12}(E)	14	#4	8'-6"	——
v_{13}(E)	142	#4	10'-8"	——
v_{14}(E)	44	#4	10'-5"	——
CONCRETE STRUCTURES		CU. YD.	50.3	
REINFORCEMENT BARS EPOXY COATED		LBS.	8820	

NOTES:

ELEVATION VIEWS ARE OF FRONT FACE, LOOKING NORTH.

BARS INDICATED THUS: "6x2-#4" INDICATES 6 LINES OF BARS WITH 2 LENGTHS PER LINE.

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

MINIMUM BAR LAP OF s_1 (E) BARS WITH ALL v BARS = 1'-4".

MINIMUM LAP OF ALL #5 BARS = 1'-8".

MINIMUM LAP OF ALL #6 BARS = 2'-0".

TRIM ALL v_{10}(E) THRU v_{14}(E) BARS AS REQUIRED TO FIT.

REINFORCEMENT BAR SCHEDULE

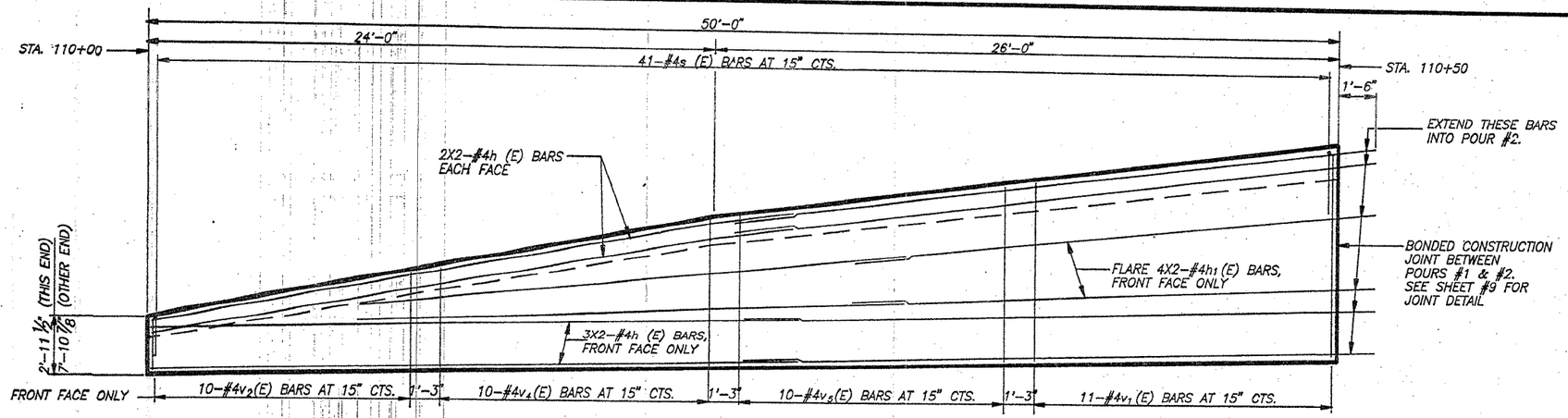
RETAINING WALL "B"
F.A. RTE. 595 SECTION 1-1
ROCK ISLAND COUNTY

CONTRACT NO. 84986

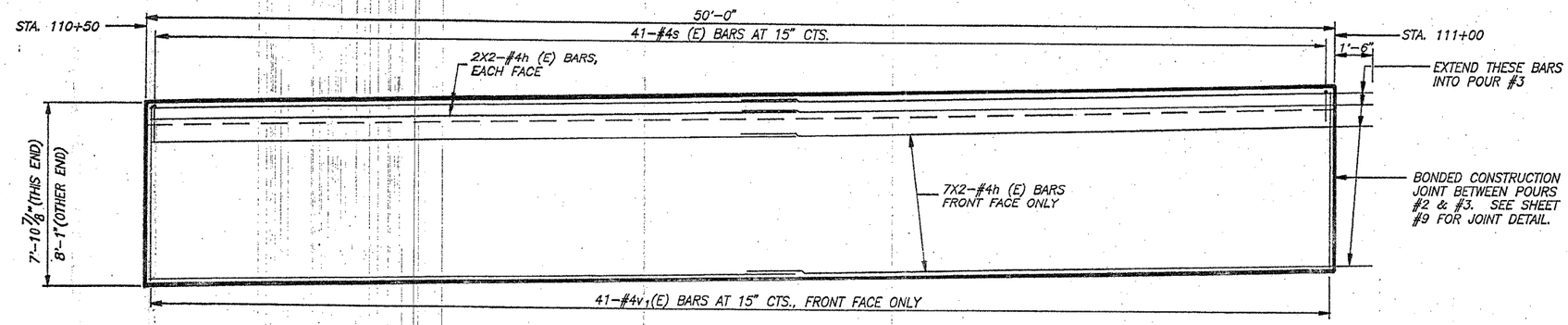
84-1-14\RPC-2 5-27-92

FED. AID RT. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 595	1-1	ROCK ISLAND	229	111
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

SHEET 12 OF 15



CONCRETE POUR NO. 1



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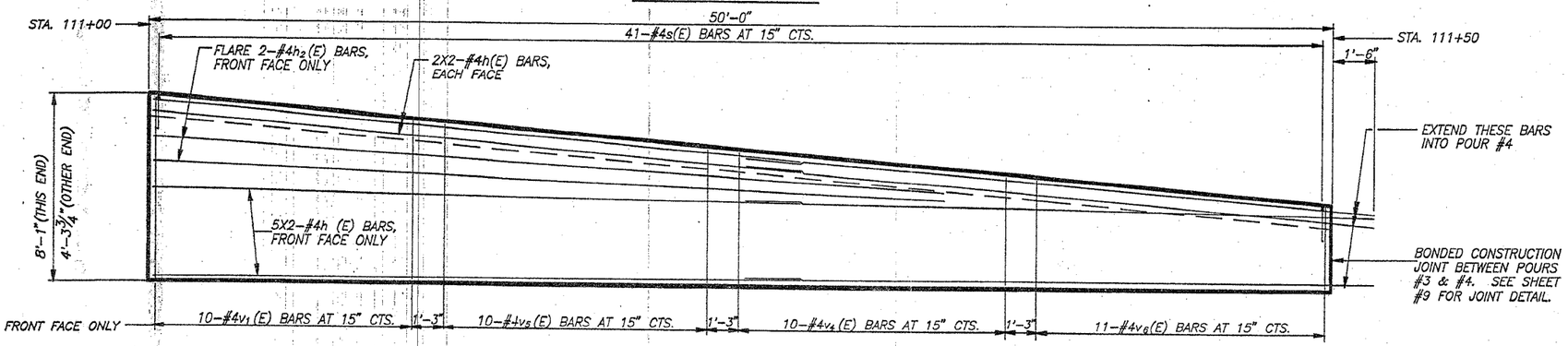
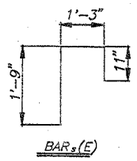
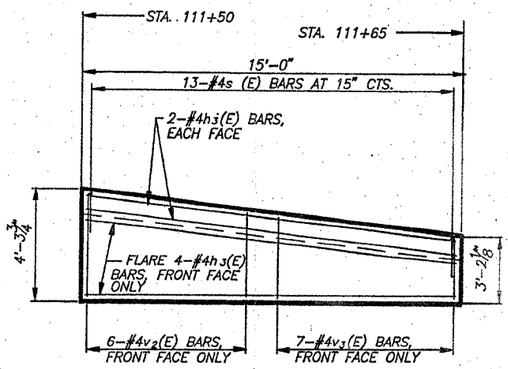


CONCRETE POUR NO. 3



BARS(E)



CONCRETE POUR NO. 4

BAR	NO.	SIZE	LENGTH	SHAPE
h (E)	54	#4	26'-6"	——
h1(E)	8	#4	22'-3"	——
h2(E)	2	#4	33'-0"	——
h3(E)	8	#4	14'-6"	——
s (E)	136	#4	3'-11"	⌐
v1(E)	62	#4	7'-9"	——
v2(E)	16	#4	4'-3"	——
v3(E)	7	#4	3'-6"	——
v4(E)	20	#4	5'-10"	——
v5(E)	20	#4	6'-9"	——
v6(E)	11	#4	4'-11"	——
CONCRETE STRUCTURES			CU.YD	36.0
REINFORCEMENT BARS EPOXY COATED			LBS	2140

REINFORCED BARS DESIGNATED (E) SHALL BE EPOXY COATED.

NOTES:

ELEVATION VIEWS ARE OF FRONT FACE LOOKING NORTH.

BARS INDICATED THUS: "6x2-#4" INDICATES 6 LINES OF BARS WITH 2 LENGTHS PER LINE.

BARS INDICATED THUS: "FLARE 4-#4" INDICATES 4-#4 BARS EVENLY SPACED.

MINIMUM BAR LAP OF s BARS WITH ALL v BARS = 1'-4".

MINIMUM LAP OF ALL #4 BARS = 1'-4".

CUT ALL v_1(E) THRU v_6(E) BARS AS REQUIRED TO FIT.

POUR CONCRETE FACING IN SEQUENCE INDICATED.

REINFORCEMENT BAR SCHEDULE

RETAINING WALL "C"
F.A. RTE. 595 SECTION 1-1
ROCK ISLAND COUNTY

Illinois Department of Transportation

Bridge Foundation Boring Log

Sh. 1 of 1 Sh.

PROJECT P92-042-84 BRIDGE Retaining Wall Date 6-6-84

ROUTE FA 595 Blackhawk Road Bored By D. Crofton

SEC. 1-1 & 2-1 STA. Checked By R. Wildman

COUNTY Rock Island

Boring No. [illegible] Station [illegible] Offset [illegible] C.L.

Surface Water El. —— Groundwater El. at Completion Dry Hole After ___ Hours

Description	Elevation	N	Qu t/s.f.	w (%)
Ground Surface 591.7	0			
[illegible] silty clay w/ shale.			1.5 2.5 P	17
588.2				
Very stiff yellow to gray shale		6 8 12	2.8 S	18
Same as above (1" silt lense)		8 10 13	4.8 S	21
Hard, Gray to black shale	-10	10 13 15	3.9 S	20
Same as above		4 8 12	7.4 S	18
Same as above — Wet Lense	-15	30 100 6"	7.8 S	12
Same as above		37 100 6"	7.2 S PEN	11
Same as above 571.7	-20	10 100 11"	8.0 S PEN	13
END OF BORING				

N-Standard Penetration Test- Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

Type failure: B - Bulge Failure; S - Shear Failure; E - Estimated Value; P - Penetrometer

BD 137 (Rev. 4-78)

③

Illinois Department of Transportation

Bridge Foundation Boring Log

Sh. 1 of 1 Sh.

PROJECT P92-042-84 BRIDGE Retaining Wall Date 6-11-84

ROUTE FA 595 Blackhawk Road Bored By D. Crofton

SEC. 1-1 & 2-1 STA. Checked By R. Wildman

COUNTY Rock Island

Boring No. B-10 Station 109+25 Offset 45'L C.L.

Surface Water El. —— Groundwater El. at Completion Dry Hole After ___ Hours

Description	Elevation	N	Qu t/s.f.	w (%)
Ground Surface 583.2	0			
Medium, brown silty clay			.75 1.0 P	17
Same as above	-5	5 6 8	1.8 P	21
Stiff dark brown silty clay		4 6 8	1.2 B	20
574.2				
Very stiff, brown to gray shaley clay	-10	4 6 11	3.1 B	19
Stiff gray-tan shaley clay		3 5 6	1.6 B	17
Very stiff, tan-gray shaley clay 568.7 Bottom 1" Shale	-15	5 8 13	3.3 B	22
Very stiff, gray shale		3 5 7	3.5 S	20
Same as above	-20	8 8 11	2.9 S	21
(3" Silt lense) Hard, black shale		15 100 11"	7.4 S PEN	14
Same as above 558.7		100 7"	7.2 S PEN	10
END OF BORING	-25			

N-Standard Penetration Test- Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

Type failure: B - Bulge Failure; S - Shear Failure; E - Estimated Value; P - Penetrometer

BD 137 (Rev. 4-78)

SHELBY TUBE TEST DATA

PAGE 1 OF 1

ROUTE FA 595 BORING B-8 SECTION 1-1 & 1-2 STATION [illegible] 50' L CL GROUND SURFACE ELEVATION [illegible] COUNTY Rock Island JOB NO. P-92-042-84

SPECIMEN	DEPTH FT.	*COMPR. STRENGTH	WATER %	WET WT. LBS./CU. FT.	DESCRIPTION
1-1	0.5	---	17.4	---	Brown SiL with small roots and stones.
1-2	1.0	Triaxial	19.7	120.6	Brown SiCL with SiL pockets and traces of sand.
1-3	1.5	0.90	20.6	119.1	Same
1-4	2.0	0.91	21.6	116.8	Same
2-1	3.0	---	29.8	---	Dark brown organic SiCL with rotten vegetation throughout.
2-2	3.5	0.86	25.3	122.9	Brown SiC with isolated SiL pockets.
2-3	4.0	0.63	26.1	122.0	Same
3-1	5.5	---	23.9	---	Brown SiC upper 1/2 to SiCL lower 1/2 root pieces at top.
3-2	6.0	1.45	23.0	126.0	Brown SiC with isolated SiCL pockets.
3-3	6.5	---	22.6	---	Dark brown SiCL.
4-1	8.0	---	29.5	---	Dark brown organic SiCL with rotten vegetation throughout.
4-2	8.5	---	20.4	---	Light brown SiCL with sand traces.
4-3	9.0	(1.8)	22.1	128.6	Light brown SiCL to SiC.
4-4	9.5	Triaxial	23.0	127.9	Light brown SiC.
5-1	10.5	0.92	23.5	123.6	Light brown SiC with SiCL pockets.
5-2	11.0	Triaxial	23.5	125.2	Same
5-3	11.5	1.56	23.2	126.6	Light brown SiC with Sand pocket.
6-1	13.0	0.71	22.0	126.6	Light brown SiC upper 1/2 to SiC Till lower 1/2.
6-2	13.5	1.49	18.3	131.0	Brown SiC Till.
7-1	15.5	---	35.2	---	Tan SiCL with stones throughout very wet and disturbed.
7-2	16.0	---	35.8	121.1	Same - very wet.
7-3	16.5	0.56	22.5	128.3	Tan SiCL with stones throughout.
7-4	17.0	Triaxial	21.8	129.9	Tan and gray clay with isolated small stones.
8-1	18.0	---	20.9	---	Tan SiC with SiCL layers and pockets and isolated small stones.
8-2	18.5	0.94	21.9	128.3	Tan and gray SiC with SiCL layer at top.
8-3	19.0	1.63	25.2	124.9	Black clay with SiC layer at top and Silt lens in center.

UU Triaxial Analysis

Specimen	Depth	C(PSF)	ϕ^o
1-2	1.0	1080	5.5°
4-4	9.5	1700	2.5°
5-2	11.0	1260	8.0°
7-4	17.0	1240	6.5°

Illinois Department of Transportation

Bridge Foundation Boring Log

Sh.1 of 1 Sh.

PROJECT BRIDGE Retaining Wall Date June 19, 1984

ROUTE FA 595 Bored By R. Wildman

SEC. 1-1, 2-1 STA. Checked By R. Wildman

COUNTY Rock Island

Boring No. B-11 Station 112+45 Offset 54'L

Surface Water El. —— Groundwater El. at Completion Dry Hole After ___ Hours

Description	Elevation	N	Qu t/s.f.	w (%)
Ground Surface 592.6	0			
Medium, silty clay loam with shale, brown to black				23
Soft, silty clay loam, rust to brown, Spoon Wet.	-5	2 5 6	0.5 E	24
Medium, sandy clay loam, Gray		2 5 6	0.9 B	21
Stiff, shaley clay, gray to tan	-10	5 6 6	1.5 S	26
Same as above		6 8 15	1.9 S	24
579.1				
Hard, shale, black & flakey	-15	20 100	12"	15 PEN
Hard, shale, Crumbly 575.6		30 100	6"	PEN
END BORING				

N-Standard Penetration Test- Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

Type failure: B - Bulge Failure; S - Shear Failure; E - Estimated Value; P - Penetrometer

BD 137 (Rev. 4-78)

⑨

Illinois Department of Transportation

Memorandum

To: W. D. Ost Attn: L. L. Bearman

From: J. G. Gehler By: R. F. Utboff

Subject: Slope Stability/Settlement Analysis*

Date: November 19, 1985

*Route: FA-595 ([illegible])
Section: 1-1 & 2-1
County: Rock Island
Project: Blackhawk Road Retaining Wall
Job No.: P-92-042-84

Attached is one copy of Shelby Tube Test data for each of the following borings. This and other appropriate data and test results have been analyzed for slope stability, and estimates of settlement, with the following results:

Slope Stability

Boring	Location	Slope/Ht.	OFS	Elev. Critical Surf.
B-7	Sta. 117+00	40' Lt. 3:1/19'	3.96	[illegible]
B-8	Sta. 110+30	50' Lt. 4:1/22.5	2.10	[illegible]
B-9	Sta. 108+60	46' Lt. 4:1/19.5	5.32	[illegible]

Settlement

Boring	Fill Ht.	Sum of Layers	Est. S	Est. t50	Est. t90
B-7	8'+	L=7	0.7	3.2 wks	3.4 mo.

Illinois Department of Transportation

Memorandum

To: W.D. Ost

From: Larry L. Bearman By: R. Wildman

Subject: Borings for Retaining Wall Design

Date: July 6, 1984

SUPPLEMENTS	LOCATION	ELEVATION	DESCRIPTION OF SOILS
B-5	Sta. 114+45, 82'L	604.0	0-3' silt loam 3'-12' Shaley clay 12'- Black Shale
B-8	Sta. 109+80, 96'L	593.3	0-4' Silt 4'-9' Clay loam 9'-15' Shaley clay 15'-23' Black shale
B-9	Sta. 108+80, 104'L	591.7	0-4' Silty clay loam 4'-12' Silt loam 12'-24' Clay loam till 24'-28' Black shale
B-12	Sta. 113+20, 88'L	599.4	0-8' Shaley clay 8'-9' Black shale Refusal at 9'

RAW/vm

cc: Missman, Stanley & Assoc. ✓
R.C. Davis
J.G. Gehler, Attn: Dave Smith
soils file

Larry L Bearman

⑫

PBM 158

BORING LOGS

RETAINING WALLS "A", "B" & "C"
F.A. RTE. 595 SECTION 1-1
ROCK ISLAND COUNTY

CONTRACT NO. 84986

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P.595	1-1	ROCK ISLAND	229	113
FED. RD. DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET 14 OF 15

Illinois Department of Transportation

Bridge Foundation Boring Log

Sh. / of / Sh.

PROJECT P92-053-83 BRIDGE Retaining Wall Date 09/12/85

ROUTE FA 595 Bored By D. Crofton

SEC. 1-1, 2-1 STA. Checked By C. Hage

COUNTY Rock Island

Boring No. 1985-6 Station 111+50 Offset 125' LT

Surface Water El.

Groundwater El. at Completion Dry Hole After Hours

Elevation		N	Qu t/s.f.	w (%)	
Ground Surface	0				
Stiff, Brown Silt Loam w/ Shale			1.0	13	
Stiff to Very Stiff, Tan mottled Silt Loam		7 8 9	1.0 3.4 S	-17	Went to this depth for first sample due to slope.
Top 6" Hard Shaley Clay-Stiff, to Very Stiff, Tan mottled Silt Loam	-10	12 12 17	4.0	27	
Very Stiff, Tan-Grey Silt Loam		14 14	3.0 S	20	
Same As Above		10 18 41	1.8	S 22	
Same As Above	-15	8 12 11	2.8 S	21	
Same As Above		10 18 18	2.4 S 3.2	16	
	572.0				
Hard Black Shale	-20	25 100 54	6.1 S P	S 19	
Same As Above		35 100	0.7 S	17	
	568.0				

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

Type failure:
B - Bulge Failure
S - Shear Failure
E - Estimated Value
P - Penetrometer

BD 137 (Rev. 4-78)

(92)

Illinois Department of Transportation

Bridge Foundation Boring Log

Sh. / of / Sh.

PROJECT P92-053-83 BRIDGE Retaining Wall Date 09/12/85

ROUTE FA 595 Bored By D. Crofton

SEC. 1-1, 2-1 STA. Checked By C. Hage

COUNTY Rock Island

Boring No. 1985-7 Station 111+50 Offset 110' LT

Surface Water El.

Groundwater El. at Completion Dry Hole After Hours

Elevation		N	Qu t/s.f.	w (%)	
Ground Surface	604.5				
Medium Brown to Tan Silt Loam, (W/ Shale Pieces)				17	
	601.0				
Hard grey Shaly Clay		5 5 4	4.6 S	20	
	598.4				
Medium Tan to Grey Silty Clay / W/ Shale Pieces		4 5 6	0.7 S	25	
	587.0				
Hard, Grey Shale	-10	6 18 25	2.0 6.2	17 S	(3" Lense Wet Silty Sand)
Same As Above		16 35 65	6.0 S 11.2	14	
	-15	25 100	9.6 6"	S P	
Hard Black Coal Shale	First Encounter	100 3"	10.0 S		Hard Drilling Auger Refusal
End Boring	587.0	PEN.			

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

Type failure:
B - Bulge Failure
S - Shear Failure
E - Estimated Value
P - Penetrometer

BD 137 (Rev. 4-78)

(93)

Illinois Department of Transportation

Bridge Foundation Boring Log

Sh.1 of 1 Sh.

PROJECT BRIDGE Retaining Wall Date June 19, 1984

ROUTE FA 595 Bored By R. Wildman

SEC. 1-1, 2-1 STA. Checked By R. Wildman

COUNTY Rock Island

Boring No. B-12 Station 113+40 Offset 54'L

Surface Water El.

Groundwater El. at Completion 579.3 After Hours

Elevation		N	Qu t/s.f.	w (%)	
Ground Surface	593.3				
Medium, silt loam-tan mixed with shale				12	
Stiff, silty clay loam, gray, tan mottled	-5	3 4 5	1.2 S	25	
Stiff, shaley clay, gray to yellow.		2 4 5	1.2 S	27	
	584.8				
Hard, shale, Rust to gray Spoon Wet	-10	15 20 22	4.3 S	16	
Same as above Rust to black		10 12 17	4.3 S	20	
Very stiff, shale black	-15	11 15 20	3.8 S	15	
Hard, shale, Flakey & dry Gray Couldn't test		100 8"	PEN	10	
Same as above	74.3	100 6"	PEN	10	
END BORING	-20				

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf

w - Water Content - percentage of oven dry weight-%.

Type failure:
B - Bulge Failure
S - Shear Failure
E - Estimated Value
P - Penetrometer

BD 137 (Rev. 4-78)

(94)

BORING LOGS

RETAINING WALLS "A", "B" & "C"
F.A. RTE. 595 SECTION 1-1
ROCK ISLAND COUNTY

CONTRACT NO. 84986

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P.595	1-1	ROCK ISLAND	229	114
FED. RD. DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET 15 OF 15

ILLINOIS DEPARTMENT OF TRANSPORTATION
BRIDGE FOUNDATION BORING LOG

Project ____ Bridge Retaining Wall Date 1-20-87
Route FA 595 Inclinometer Bored By C. Jenkins
Sec 1-1, 2-1 STA. Lt 117+00 Checked By C. Hage
County Rock Island Boring No. 1 Station 117+50 Offset 95' Lt

Surface Water El. ____ Groundwater El. at Completion Dry Hole After ____ Hours

	EL.	N	Qu	W%
Ground Surface 600.8	0			
Medium, brown moist silty loam.			1.0 P	23
Very stiff, gray dry shaley silt.		6 9 20	2.6 S	16
	5			
595.8		30		
Very dense, blue gray shale with land lenses		100 10" PEN		
583.8				
Very stiff, bluish black dry shaley silt.		22 24 26	3.9 S	20
580.8	20			
Very dense, gray to black wet shale and coal.		100 8" PEN		
Very dense, dry powdery gray shale. 587.8		100 6" PEN		
END OF BORING				
Piezometer Installed	15			

Type failure: B-Bulge Failure, S-Shear Failure, E-Estimated Value, P-Penetrometer

ILLINOIS DEPARTMENT OF TRANSPORTATION
BRIDGE FOUNDATION BORING LOG

Project ____ Bridge Retaining Wall Date 1-22-87
Route FA 595 Inclinometer Bored By C. Jenkins
Sec 1-1, 2-1 STA. Lt 113+00 Checked By C. Hage
County Rock Island Boring No. 2 Station 113+50 Offset 60' Lt

Surface Water El. ____ Groundwater El. at Completion Dry Hole After ____ Hours

	EL.	N	Qu	W%
Ground Surface 594.1	0			
Medium, black dry silty loam.			0.7 P	26
No sample		5 6 4		
	5			
First Encounter V Stiff, gray to yellow wet clay loam with coal lenses.		2 3 3	1.3 B	26
Very stiff, gray dry powdery shaley silt.		18 25 37	2.8 S	15
585.1	10			
Very dense, gray dry shale with silt lenses.		28 33 40		
Same as above		13 30 30		
579.1	15			
Very dense, dark gray dry shale.		38 100 6" PEN		
Same as above		100 8" PEN		
	20			
Same as above 573.1		30 100 8" PEN		
END OF BORING				

Type failure: B-Bulge Failure, S-Shear Failure, E-Estimated Value, P-Penetrometer

ILLINOIS DEPARTMENT OF TRANSPORTATION
BRIDGE FOUNDATION BORING LOG

Project ____ Bridge Retaining Wall Date 1-7?-87
Route FA 595 Inclinometer Bored By C. Jenkins
Sec 1-1, 2-1 STA. Lt 113+00 Checked By C. Hage
County Rock Island Boring No. 3 Station 114+50 Offset 100' Lt

Surface Water El. ____ Groundwater El. at Completion Dry Hole After ____ Hours

	EL.	N	Qu	W%
Ground Surface 607.8	0			
Medium brown dry silty loam.			1.0 P	25
Stiff, yellow gray damp silty loam.		5 8 13	1.8 S	16
Stiff gray dry moddled silty loam.	5	6 8 14	1.9 S	17
Very stiff, gray with yellow moist silty loam w/shale.		17 18 25	3.1 S	18
Very stiff gray with yellow moist silty loam.	10	17 21 26	2.1 B	15
Very stiff gray with yellow dry crumbly shaley silt.		26 30 40	3.2 S	19
Very dense gray powdery shale with coal lenses.	15	40 100 10" PEN		
Very dense gray dry shale.		100 10" PEN		
END OF BORING				
Installed 20' Inclinometer & 20' Piezometer	20			

Type failure: B-Bulge Failure, S-Shear Failure, E-Estimated Value, P-Penetrometer

ILLINOIS DEPARTMENT OF TRANSPORTATION
BRIDGE FOUNDATION BORING LOG

Project ____ Bridge Retaining Wall Date 1-22-87
Route FA 595 Inclinometer Bored By C. Jenkins
Sec 1-1, 2-1 STA. Lt 113+00 Checked By C. Hage
County Rock Island Boring No. 4 Station 114+50 Offset 60' Lt

Surface Water El. ____ Groundwater El. at Completion Dry Hole After ____ Hours

	EL.	N	Qu	W%
Ground Surface 596.4	0			
Medium, brownish tan moist silty loam.			0.8 P	22
Stiff, gray w/yellow and brown moist clay loam.		4 6 9	1.2 B	29
Stiff, dry crumbly gray with yellow silty loam.	5	8 14 16	1.9 S	15
Very stiff, dry crumbly yellow with gray silty loam.		17 27 35	2.5 S	16
First Encounter V Stiff, wet gray yellow silty loam with shale.	10	17 25 32	1.6 S	20
584.9				
Dense, blue-black dry shale.		13 15 25		
581.9	15			
Very dense blue-black dry shale.		40 100 8" PEN		
Same as above 578.4		40 100 6" PEN		
END OF BORING				

Type failure: B-Bulge Failure, S-Shear Failure, E-Estimated Value, P-Penetrometer

ILLINOIS DEPARTMENT OF TRANSPORTATION
BRIDGE FOUNDATION BORING LOG

7

Project ____ Bridge Retaining Wall Date 1-22-87
Route FA 595 Inclinometer Bored By C. Jenkins
Sec 1-1, 2-1 STA. Lt 115+00 Checked By C. Hage
County Rock Island Boring No. 5 Station 112+00 Offset 60' Lt

Surface Water El. ____ Groundwater El. at Completion Dry Hole After ____ Hours

	EL.	N	Qu	W%
Ground Surface 592.4	0			
Medium, wet black to gray silty loam.			0.9 P	27
Very stiff, black moist silty loam.		8 9 12	2.9 S	32
	5			
Very stiff, tan to yellow moist silty loam.		11 12 14	2.1 B	20
Stiff, yellow to gray moist silty clay loam.		8 10 12	1.6 S	25
	10			
Stiff, yellow brown damp silty clay loam till.		7 10 11	1.8 B	18
Stiff, yellow brown damp silty loam.		7 11 16	1.4 B	21
	15			
First Encounter V Very stiff, dry gray green w/orange silty loam w/shale.		17 20 25	2.5 S	22
574.4				
Very dense, dry flakey bluish black shale.		27 100 10" PEN		
	20			
Same as above 570.4		27 100 10" PEN		
END OF BORING				
20' Inclinometer Installed				

Type failure: B-Bulge Failure, S-Shear Failure, E-Estimated Value, P-Penetrometer

ILLINOIS DEPARTMENT OF TRANSPORTATION
BRIDGE FOUNDATION BORING LOG

6

Project ____ Bridge Retaining Wall Date 1-22-87
Route FA 595 Inclinometer Bored By C. Jenkins
Sec 1-1, 2-1 STA. Lt 113+00 Checked By C. Hage
County Rock Island Boring No. 6 Station 112+00 Offset 120' Lt

Surface Water El. ____ Groundwater El. at Completion Dry Hole After ____ Hours

	EL.	N	Qu	W%
Ground Surface 606.4	0			
Medium, black wet silty loam.			0.9 P	31
Stiff, yellow gray orange damp silt.		8 12 13	1.5 S	14
	5			
Hard, greenish gray dry crumbly shaley silt.		13 20 27	5.1 P	14
Hard, yellow black dry silt with shale.		17 27 40	5.4 S	15
595.9	10			
Very dense, bluish black shale.		27 100 12" PEN		
Very dense, bluish black shale w/yellow silt lenses.		27 100 11" PEN		
591.9	15			
END OF BORING				

Type failure: B-Bulge Failure, S-Shear Failure, E-Estimated Value, P-Penetrometer

INCLINOMETER BORING LOGS

RETAINING WALLS "A", "B" & "C"
F.A. RTE. 595 SECTION 1-1
ROCK ISLAND COUNTY

CONTRACT NO. 84986

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1 - 1	ROCK ISLAND	239	114A
STA.	76+46	TO STA.	96+00 (30TH ST.)	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES

1. The Contractor shall submit sample form liner and color sample to Project Implementation, (Construction Office) prior to ordering. The Construction Office will give the final approval on the liner and color to be used.

2. The Contractor shall add color admixtures to the Concrete Structure to give a final color finish matching one of the following:: Scofield: #C-25, Sombrero Buff
Solomon: #750, Desert Tan
or an equivalent color from the Manufacturer's regular production line.

3. All structural work performed on the retaining walls shall be completed according to structural drawings provided in the plans. Structural plans control.

4. Form liners shall be used on the outside exposed vertical area of the retaining wall. The form liners shall have no reveal, extend 6" below grade, and shall simulate the appearance of a limestone facade as shown on the plans. The contractor shall prepare at the job site, a mock surface constructed of his proposed form liner for approval of the Engineer prior to ordering the quantity or form liner required to complete the project. All work and materials incorporated in the construction of the liner will not be paid for separately but shall be included in the contract unit price per cubic yard for CONCRETE STRUCTURES.

SUGGESTED SEQUENCE OF CONSTRUCTION

1. Establish working platform and drill shaft excavation for soldier pile to tip elevation shown on the Summary Table. The side walls of the shaft excavation shall be supported as required to prevent collapse.

2. Remove any loose material and excess water from shaft. If the water inflow is excessive or pumping causes side wall caving, allow water to stabilize so the the concrete can be placed by pump or tremie.

3. Set soldier piles in the shaft of excavation and brace to maintain proper pile position. See Summary Table for location.

4. Place Soldier Pile Encasement Concrete around soldier pile to the bottom of the Proposed Concrete Facing elevation and C.L.S.M. to the top of pile.

5. After all the concrete has attained required strength, excavate in front of wall in stages. Backfill in low spots behind wall. Simultaneous to the excavation, remove the C.L.S.M. at the face of the soldier piles and remove only enough soil necessary to place each timber lagging snug against excavated surface.

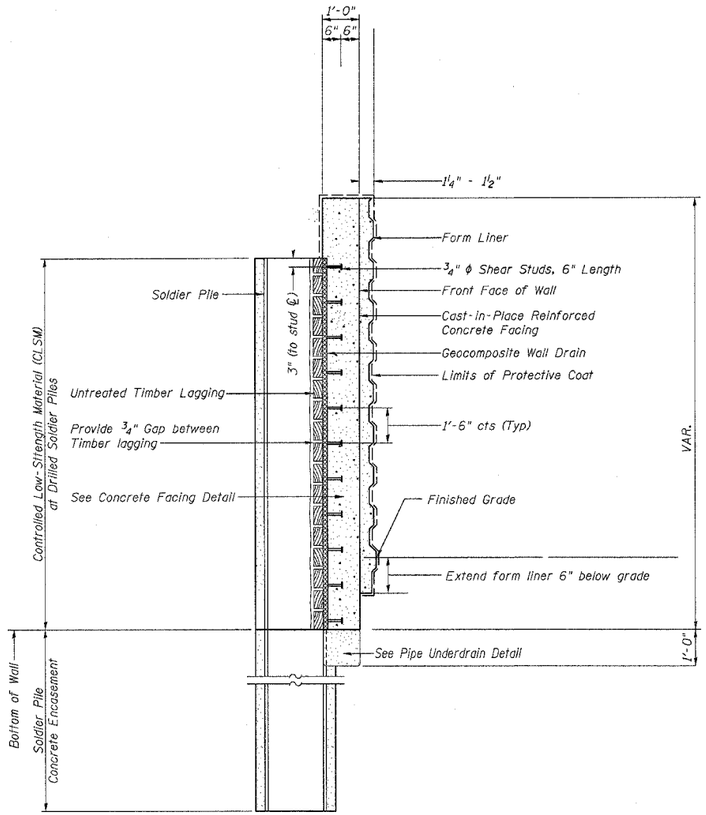
6. Complete untreated timber lagging placement to the depths shown on the plans.

7. Attach Geocomposite Wall Drain to cover the untreated timber lagging.

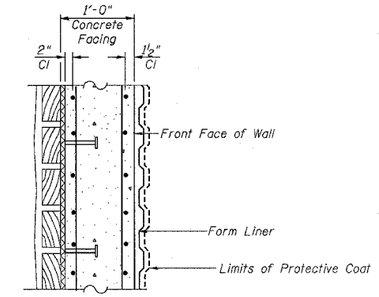
8. Construct Pipe Underdrain by excavating a trench, lining it with fabric, placing a pipe and aggregate such that the Geocomposite Wall Drain is connected as shown on the plans.

9. Attach shear studs on soldier piles, set reinforcement, form and pour Concrete Facing.

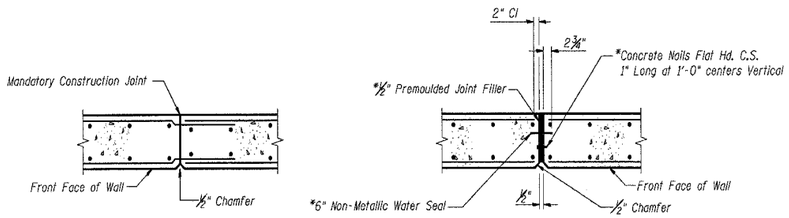
10. Complete final grading at the base and top of wall.



TYPICAL SECTION



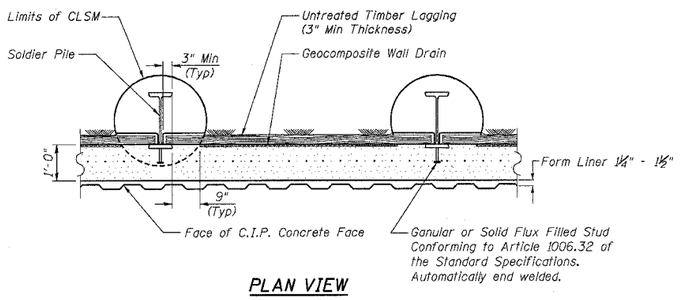
CONCRETE FACING DETAIL



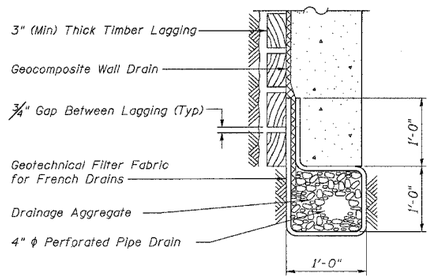
CONSTRUCTION JOINT DETAIL

EXPANSION JOINT DETAIL
* Cost Included With Concrete Structures

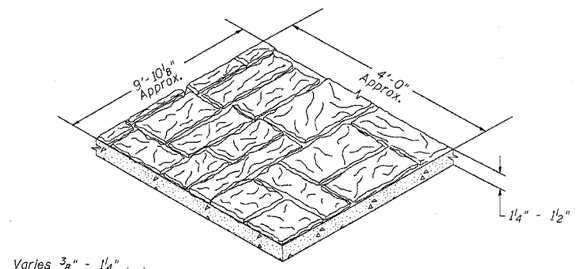
RETAINING WALL JOINT DETAILS



PLAN VIEW



PIPE UNDERDRAIN DETAIL



FORM LINER DETAIL
(See General Note 4)

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

FORM LINER DETAILS
FOR RETAINING WALLS
D, E, F

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

FORM LINER DETAILS

PLOT DATE = Mon Mar 13 11:40:55 2006
FILE NAME = P:\IL5 Rock Island\FTP DOWNLOAD\Finals As Submitted to Springfield (2-17-06)\w103-098-7001.dgn
PLOT SCALE = 1.0938 in / IN.
USER NAME = gatelfns

Bench Mark: B.M. Chiseled "□" End of SW Bridge Wingwall at Station 74+71.0, 26' Rt. Elevation = 580.39.
R.R. Spike in Power Pole at Station 82+56.00, 44.5' Rt. Elevation = 580.37.

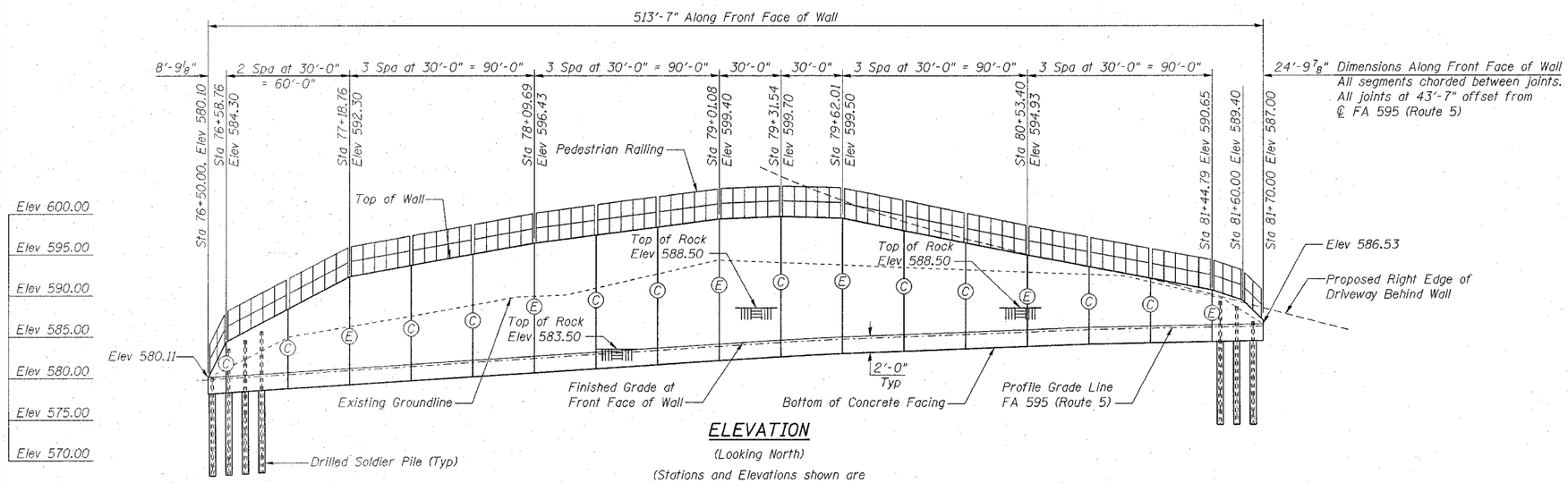
Existing Structure: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	115
FED. ROAD DIST. NO. 2		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 1
18 SHEETS

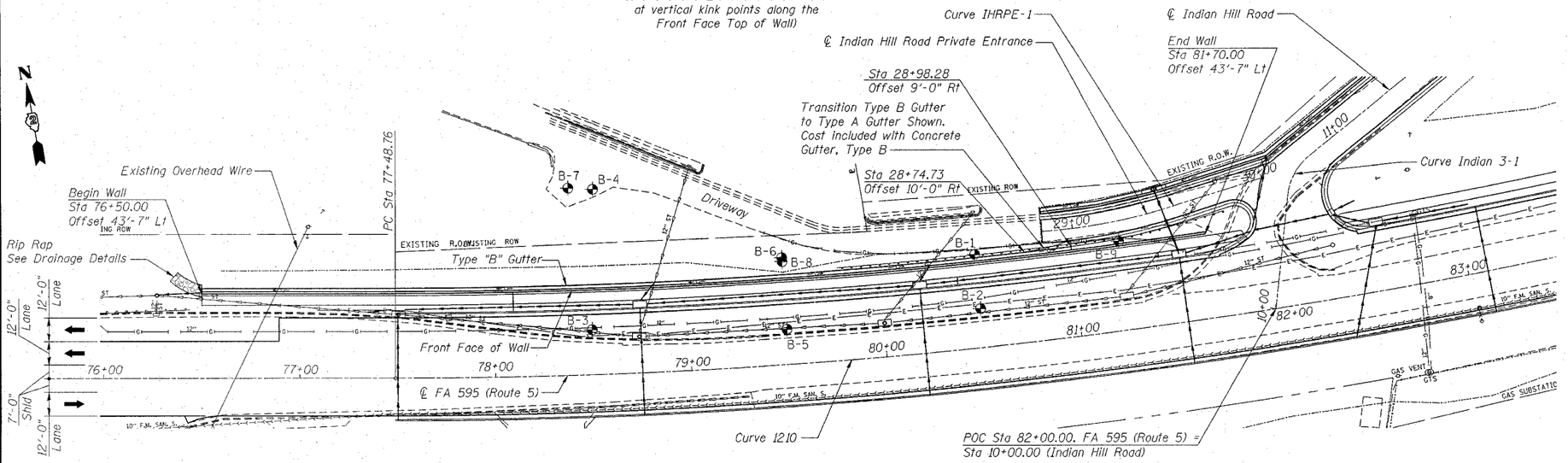
Contract No. 84986



ELEVATION

(Looking North)

(Stations and Elevations shown are at vertical kink points along the Front Face Top of Wall)



PLAN

CURVE 1210 DATA

℄ FA 595 (Route 5)

PI Sta = 82+57.71
Δ = 20° 08' 57" (Lt)
D = 2° 00' 01"
R = 2,864.59'
T = 508.95'
L = 1,007.39'
E = 44.86'
S.E. = N.C.
PC Sta = 77+48.76
PT Sta = 87+56.15

CURVE IHRPE-1 DATA

℄ Indian Hill Road Private Entrance

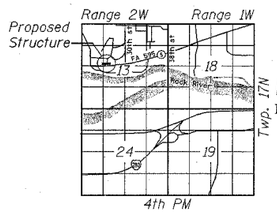
PI Sta = 29+18.50
Δ = 13° 37' 40" (Lt)
D = 20° 00' 00"
R = 286.48'
T = 34.23'
L = 68.14'
E = 2.04'
PC Sta = 28+84.26
PT Sta = 29+52.40

CURVE INDIAN 3-1 DATA

℄ Indian Hill Road

PI Sta = 10+70.59
Δ = 45° 07' 24" (Rt)
D = 190° 59' 09"
R = 30.00'
T = 12.46'
L = 23.63'
E = 2.49'
PC Sta = 10+58.13
PT Sta = 10+81.75

DESIGNED	-	NDR
CHECKED	-	DSE
DRAWN	-	RTT
CHECKED	-	DSE
DATE	-	JAN 31, 2006



LOCATION SKETCH

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi (Cast-in-Place Wall Facing)
f'_c = 4,000 psi (Soldier Pile Encasement Concrete)
f_y = 60,000 psi (reinforcement)
f_y = 50,000 psi (structural steel)

NOTES:

Existing Storm Pipes shown passing through the Proposed Retaining Wall shall be relocated and connected to new storm drain system as shown on the Roadway Plan and Profile sheets. Existing gas line shown passing through the Proposed Retaining Wall shall be relocated to miss wall structure.

LEGEND

- Ⓒ Construction Joint
- Ⓔ Expansion Joint
- E E Existing Electric
- 10" F.M. SAN. S. Existing 10" Forced Main Sanitary Sewer
- G 12" G Existing 12" Gas
- G 8" G Existing 8" Gas
- ℄ Existing Property Line
- 12" ST Existing 12" Storm
- B-4 Soil Boring Location
- W Existing Watermain
- Proposed Storm Sewer

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Rodyk E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
D. SCOTT ESHLEMAN
081-005155
CHICAGO
IL
LICENSED STRUCTURAL ENGINEER

EXPIRATION DATE: 11-30-06

DATE 2/1/06

Illinois Firm Registration No.: 184-001533

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

GENERAL PLAN AND ELEVATON
RETAINING WALL D ALONG
IL ROUTE 5
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 76+50.00 TO STA 81+70.00
STRUCTURE NO. 081-W006

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15-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 1	ROCK ISLAND	239	116
FED. ROAD DIST. NO. 6		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 2
18 SHEETS
Contract No. 84986

GENERAL NOTES

1) Contractor shall be responsible for design of timber lagging (per special provisions). Lagging design shall be submitted to Engineer for approval. Quantity shown in Bill of Materials is an estimate for bidding purposes only.

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

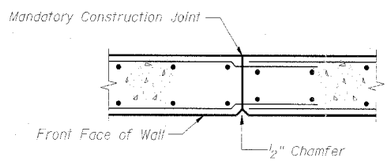
3) All exposed edges of the concrete caps shall be chamfered $\frac{3}{4}$" unless noted otherwise.

4) All soldier piles shall be AASHTO M 270 Grade 50.

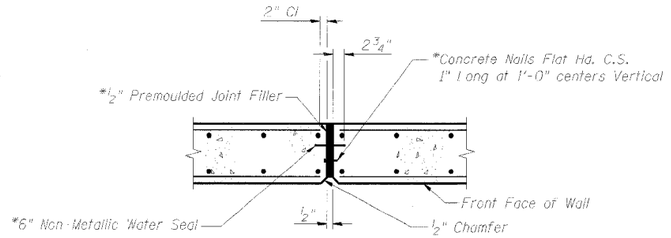
5) For drainage details (inlets, storm sewers, pipe drains, etc. See roadway plan and profile sheets and drainage and utility sheets.

6) Apply protective coat to all exposed concrete surfaces of the wall facing plus one foot below finished grade along the front of wall and one foot below top of wall along the back of wall.

7) All construction joints shall be bonded.



CONSTRUCTION JOINT DETAIL



EXPANSION JOINT DETAIL
* Cost Included With Concrete Structures

RETAINING WALL JOINT DETAILS

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu Yd	345.1
Rock Excavation for Structures	Cu Yd	150.6
Protective Coat	Sq Yd	264.7
Concrete Structures	Cu Ft	242.6
Stud Shear Connectors	Each	564
Untreated Timber Lagging	Sq Ft	5,694
Furnishing Soldier Piles (W Section)	Foot	1793.9
Reinforcement Bars, Epoxy Coated	Pound	31,330
Pedestrian Railing	Foot	515.8
Geocomposite Wall Drain	Sq Yd	632.7
Concrete Gutter, Type B	Foot	444.7
Drilling and Setting Soldiers Piles in Soil	Cu Ft	2,744
Drilling and Setting Soldiers Piles in Rock	Cu Ft	7,786
Pipe Underdrain for Structures 4"	Foot	513.6

INDEX OF DRAWINGS

SUGGESTED SEQUENCE OF CONSTRUCTION

1) Drill holes for soldier piles. Do not excavate near these holes at this stage.

2) Set Soldier Piles.

3) Fill hole with concrete to specified elevation.

4) Fill remainder of hole with controlled low strength material.

5) Begin earth excavation. Remove only earth and controlled low strength material as necessary to install timber lagging.

6) Install geocomposite wall drain and pipe underdrain.

7) Install stud shear connectors.

8) Construct concrete wall facing.

9) Install Pedestrian Railing.

DESIGNED -	NDR
CHECKED -	DSE
DRAWN -	RTT
CHECKED -	DSE
DATE -	JAN 31, 2006

Illinois Firm Registration No. 184-001533
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

GENERAL NOTES AND TOTAL BILL OF MATERIALS
RETAINING WALL D ALONG
IL ROUTE 5
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 76+50.00 TO STA 81+70.00
STRUCTURE NO. 081-W006

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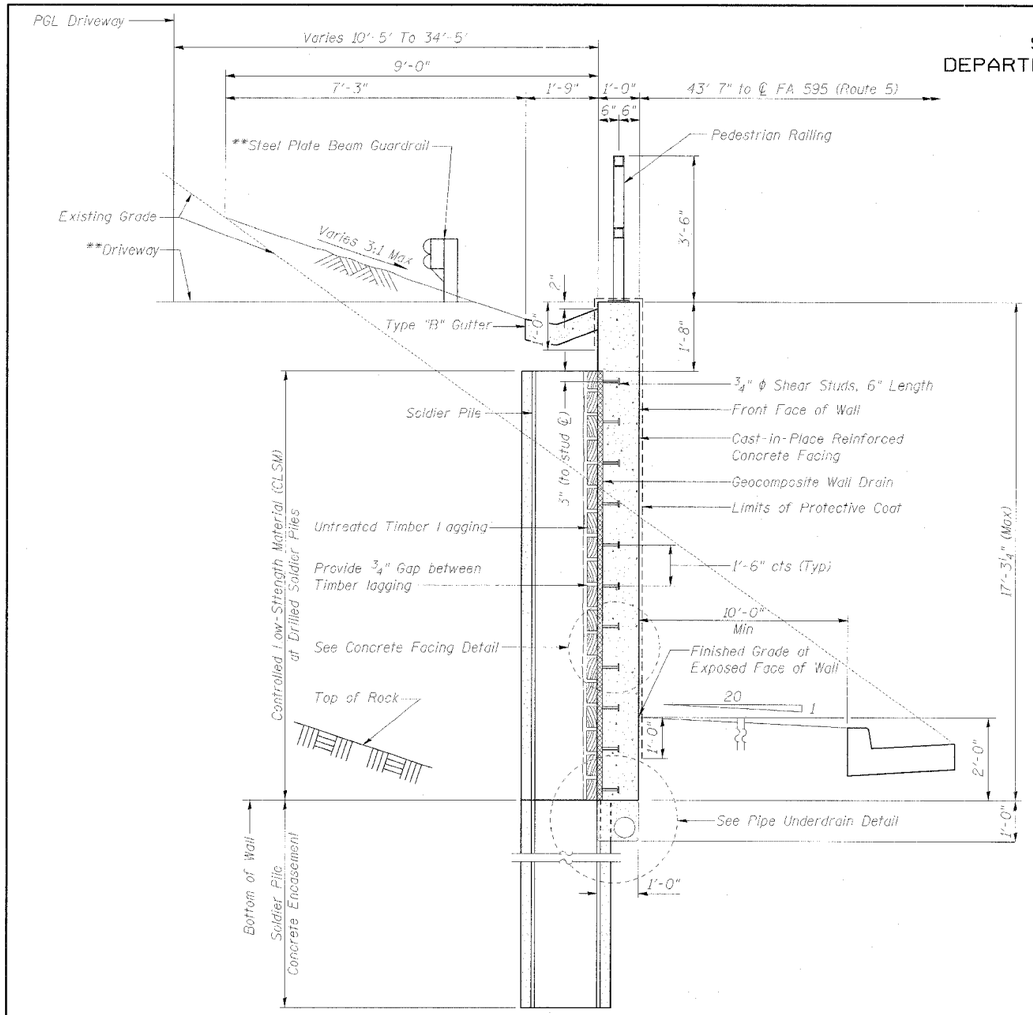
15-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

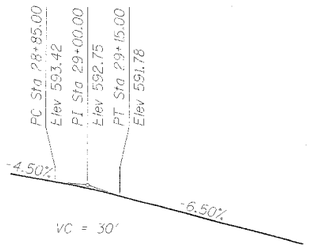
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	117
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT:		

SHEET NO. 3
18 SHEETS
Contract No. 84386

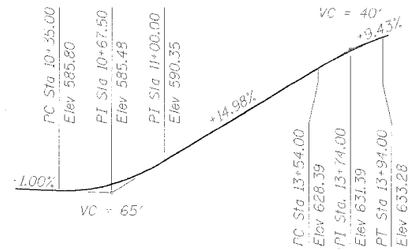


TYPICAL SECTION

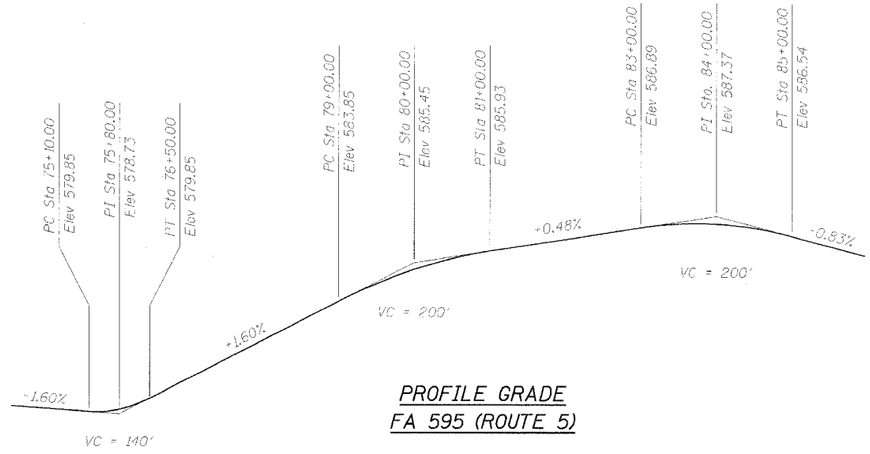
**For Driveway and Steel Plate Beam Guardrail locations see Roadway Plans



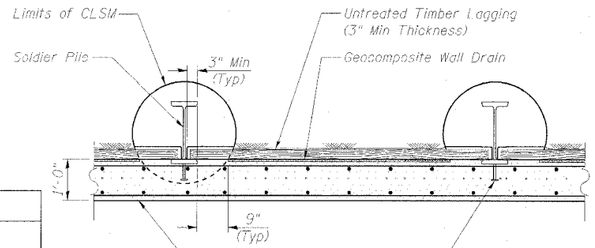
PROFILE GRADE
℄ INDIAN HILL ROAD
PRIVATE ENTRANCE



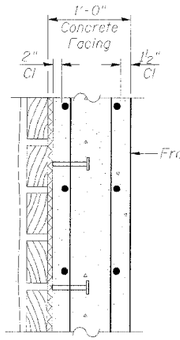
PROFILE GRADE
℄ INDIAN HILL ROAD



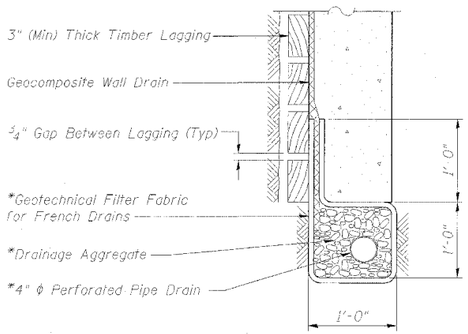
PROFILE GRADE
FA 595 (ROUTE 5)



PLAN VIEW



CONCRETE FACING DETAIL



PIPE UNDERDRAIN DETAIL

(Between piles shown, at piles similar.)

*Included in the cost of "Pipe Underdrain for Structures 4". See Note 1.

NOTES:

1. Pipe Underdrains, Aggregate for French Drains and Geotechnical Filter Fabric for French Drains shall be according to Section 601 of the Standard Specifications, except that this material will not be paid for seperately, but shall be paid for at the Contract Unit price per foot for Pipe Underdrain for Structures 4".

DESIGNED	NDR
CHECKED	DSE
DRAWN	RTT
CHECKED	DSE
DATE	JAN 31, 2006

Illinois Firm Registration No.: 184-001533
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

TYPICAL SECTION AND DETAILS
RETAINING WALL D ALONG
IL ROUTE 5
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 76+50.00 TO STA 81+70.00
STRUCTURE NO. 081-W006

Q:\idot\6570\walls_d_e_f\sht\300'03retd.dgn
15-FEB-2006

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	116
FED. ROAD DIST. NO.:		ILLINOIS	FED. AID PROJECT:	

SHEET NO. 4
18 SHEETS

Contract No. 84986

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL "D"

Soldier Pile Schedule

Pile No.	Pile Size	Station	Offset	Pile Tip Elevation	Approximate Top of Rock Elevation	Top of Pile Elevation	Length (ft)	Approximate Top of Concrete Encasement	No. of Studs Per Pile
1	W18 x 71	76+54.42	45.35	567.50	576.66	580.55	13.1	578.20	2
2	W18 x 71	76+62.51	45.35	567.50	576.96	583.13	15.6	578.30	4
3	W18 x 71	76+70.01	45.35	567.50	577.24	584.13	16.6	578.40	5
4	W18 x 71	76+77.51	45.35	567.50	577.52	585.13	17.6	578.60	5
5	W18 x 71	76+85.01	45.35	567.50	577.80	586.13	18.6	578.70	6
6	W18 x 71	76+92.51	45.35	567.50	578.08	587.13	19.6	578.80	6
7	W18 x 71	77+00.01	45.35	567.50	578.35	588.13	20.6	578.90	7
8	W18 x 71	77+07.51	45.35	567.50	578.63	589.13	21.6	579.00	8
9	W18 x 71	77+15.01	45.35	567.50	578.91	590.13	22.6	579.20	8
10	W27 x 94	77+22.51	45.70	562.80	579.19	590.81	28.0	579.30	9
11	W27 x 94	77+30.01	45.70	562.90	579.47	591.15	28.3	579.40	9
12	W27 x 94	77+37.51	45.70	563.00	579.75	591.49	28.5	579.50	9
13	W27 x 94	77+45.01	45.70	563.10	580.02	591.84	28.7	579.60	9
14	W27 x 94	77+52.56	45.71	563.30	580.30	592.18	28.9	579.80	9
15	W27 x 94	77+60.18	45.73	563.40	580.58	592.53	29.1	579.90	9
16	W27 x 94	77+67.81	45.73	563.50	580.86	592.87	29.4	580.00	9
17	W27 x 94	77+75.43	45.71	563.60	581.14	593.21	29.6	580.10	10
18	W27 x 94	77+83.03	45.71	563.70	581.41	593.56	29.9	580.20	10
19	W27 x 94	77+90.65	45.73	563.90	581.69	593.90	30.0	580.40	10
20	W27 x 94	77+98.27	45.73	564.00	581.97	594.25	30.3	580.50	10
21	W27 x 94	78+05.89	45.71	564.10	582.25	594.59	30.5	580.60	10
22	W27 x 114	78+13.49	45.73	564.45	582.53	594.89	30.4	580.70	10
23	W27 x 114	78+21.11	45.74	564.55	582.80	595.13	30.6	580.80	10
24	W27 x 114	78+28.73	45.75	564.75	583.08	595.38	30.6	581.00	10
25	W27 x 114	78+36.36	45.73	564.85	583.36	595.63	30.8	581.10	11
26	W27 x 114	78+43.95	45.73	564.95	583.71	595.88	30.9	581.20	11
27	W27 x 114	78+51.58	45.75	565.05	584.13	596.12	31.1	581.30	11
28	W27 x 114	78+59.20	45.75	565.25	584.54	596.37	31.1	581.50	11
29	W27 x 114	78+66.82	45.73	565.35	584.96	596.62	31.3	581.60	11
30	W27 x 114	78+74.42	45.73	565.45	585.38	596.87	31.4	581.70	11
31	W27 x 114	78+82.04	45.75	565.55	585.79	597.11	31.6	581.80	11
32	W27 x 114	78+89.66	45.75	565.65	586.21	597.36	31.7	581.90	11
33	W27 x 114	78+97.28	45.73	565.85	586.63	597.61	31.8	582.10	11
34	W27 x 114	79+04.88	45.73	565.95	587.04	597.77	31.8	582.20	11
35	W27 x 114	79+12.50	45.75	566.05	587.46	597.85	31.8	582.30	11
36	W27 x 114	79+20.12	45.75	566.15	587.88	597.92	31.8	582.40	11
37	W27 x 114	79+27.75	45.73	566.25	588.25	598.00	31.8	582.50	11
38	W27 x 114	79+35.34	45.73	566.35	588.50	598.01	31.7	582.60	11
39	W27 x 114	79+42.97	45.75	566.45	588.50	597.96	31.5	582.70	11
40	W27 x 114	79+50.59	45.75	566.55	588.50	597.91	31.4	582.80	11
41	W27 x 114	79+58.21	45.73	566.65	588.50	597.86	31.2	582.90	11
42	W27 x 114	79+65.81	45.73	565.25	588.50	597.64	32.4	583.00	11
43	W27 x 114	79+73.43	45.75	565.35	588.50	597.26	31.9	583.10	10
44	W27 x 114	79+81.05	45.75	565.45	588.50	596.88	31.4	583.20	10
45	W27 x 114	79+88.67	45.73	565.55	588.50	596.50	31.0	583.30	10
46	W27 x 94	79+96.27	45.73	565.65	588.50	596.12	30.5	583.40	9
47	W27 x 94	80+03.89	45.75	565.75	588.50	595.74	30.0	583.50	9
48	W27 x 94	80+11.52	45.75	565.75	588.50	595.36	29.6	583.50	9
49	W27 x 94	80+19.14	45.73	565.85	588.50	594.95	29.1	583.60	8
50	W27 x 94	80+26.74	45.73	565.95	588.50	594.60	28.7	583.70	8

RETAINING WALL "D"

Soldier Pile Schedule

Pile No.	Pile Size	Station	Offset	Pile Tip Elevation	Approximate Top of Rock Elevation	Top of Pile Elevation	Length (ft)	Approximate Top of Concrete Encasement	No. of Studs Per Pile
51	W27 x 94	80+34.36	45.75	565.95	588.50	594.22	28.3	583.70	8
52	W27 x 94	80+41.98	45.75	566.05	588.50	593.83	27.8	583.80	8
53	W27 x 94	80+49.60	45.73	566.15	588.50	593.45	27.3	583.90	7
54	W18 x 50	80+57.20	45.37	571.00	588.50	593.08	22.1	583.90	7
55	W18 x 50	80+64.82	45.39	571.00	588.50	592.73	21.7	584.00	7
56	W18 x 50	80+72.44	45.39	571.00	588.50	592.37	21.4	584.00	6
57	W18 x 50	80+80.06	45.37	571.00	588.50	592.01	21.0	584.10	6
58	W18 x 50	80+87.66	45.37	571.00	588.12	591.66	20.7	584.10	6
59	W18 x 50	80+95.29	45.39	571.00	587.37	591.30	20.3	584.20	6
60	W18 x 50	81+02.91	45.39	571.00	586.62	590.94	19.9	584.20	5
61	W18 x 50	81+10.53	45.37	571.00	585.87	590.59	19.6	584.20	5
62	W18 x 50	81+18.13	45.37	571.00	585.12	590.23	19.2	584.30	5
63	W18 x 50	81+35.75	45.39	571.00	584.37	589.87	18.9	584.30	5
64	W18 x 50	81+33.37	45.39	571.00	583.62	589.52	18.5	584.40	4
65	W18 x 50	81+40.99	45.37	571.00	582.86	589.16	18.2	584.40	4
66	W18 x 50	81+48.85	45.37	571.00	582.11	588.65	17.7	584.40	4
67	W18 x 50	81+56.98	45.38	571.00	581.36	588.00	17.0	584.50	3
68	W18 x 50	81+65.11	45.37	571.00	580.61	587.34	16.3	584.50	3

DESIGNED	-	NDR
CHECKED	-	DSE
DRAWN	-	RTT
CHECKED	-	DSE
DATE	-	JAN 31, 2006

Illinois Firm Registration No.: 184-001533

Stanley Consultants INC.

8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

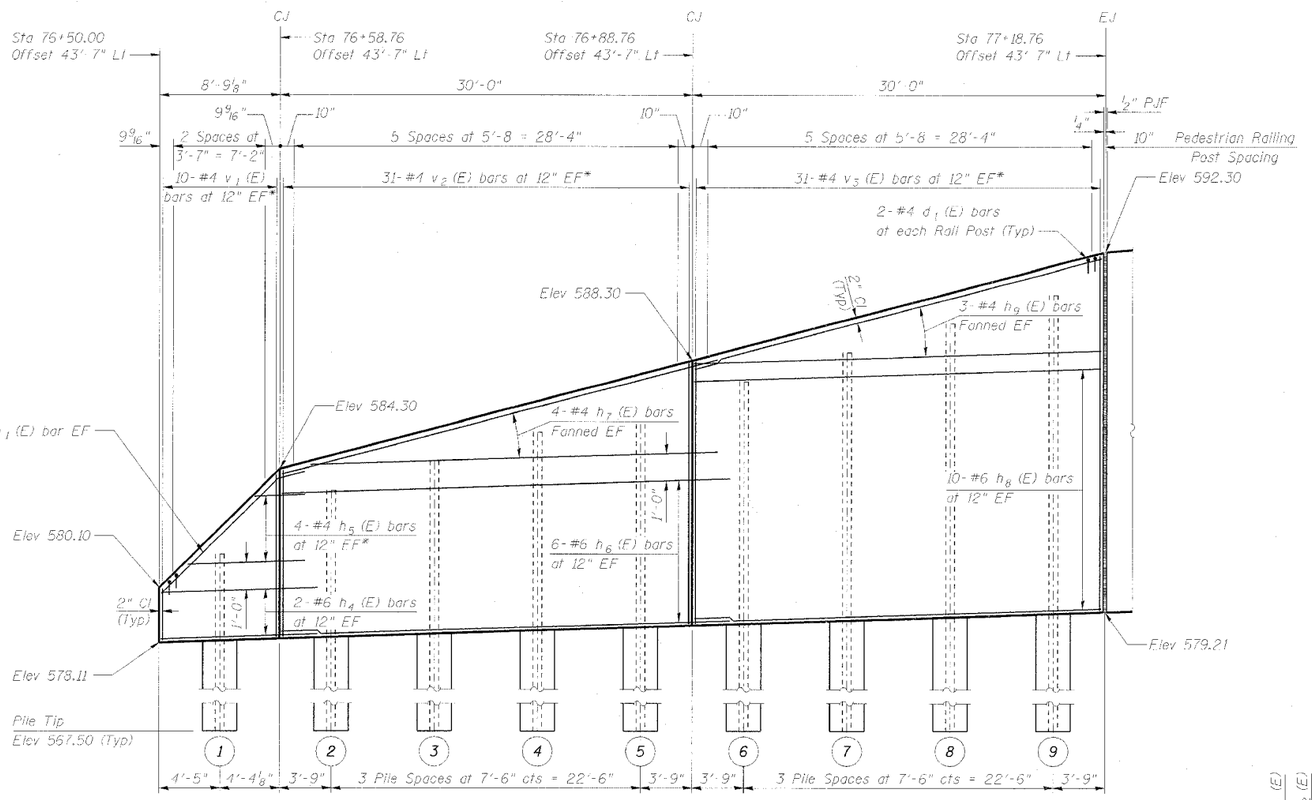
SOLDIER PILE SCHEDULE
RETAINING WALL D ALONG
IL ROUTE 5
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 76+50.00 TO STA 81+70.00
STRUCTURE NO. 081-W006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

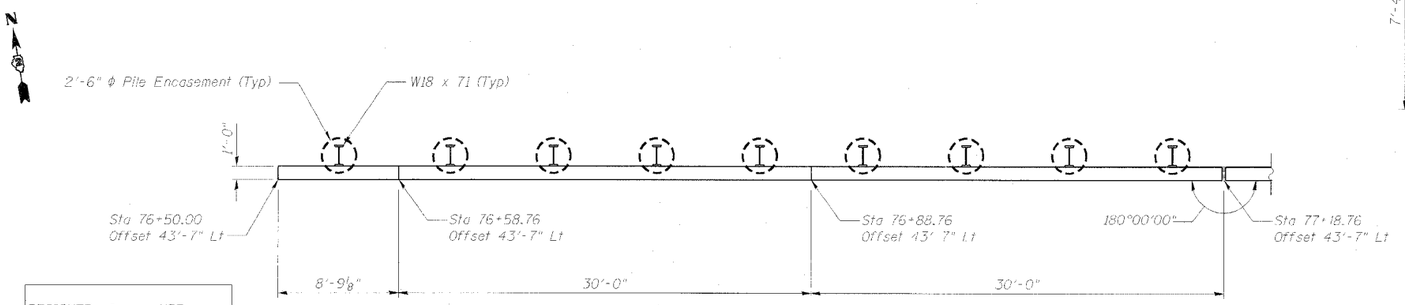
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	119
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 5
18 SHEETS

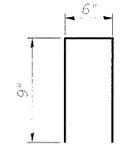
Contract No. 84935



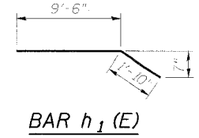
FRONT FACE ELEVATION



PLAN



BAR d_1 (E)



BAR h_1 (E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d1 (E)	30	#4	2'-0"	⊓
h1 (E)	2	#4	11'-4"	—
h4 (E)	4	#6	11'-2"	—
h5 (E)	4	#4	13'-2"	—
h6 (E)	12	#6	32'-7"	—
h7 (E)	8	#4	32'-0"	—
h8 (E)	20	#6	29'-8"	—
h9 (E)	5	#4	29'-8"	—
v1 (E)	10	#4	7'-4"	—
v2 (E)	31	#4	15'-0"	—
v3 (E)	31	#4	21'-6"	—
Structure Excavation			Cu Yd	37.1
Concrete Structures			Cu Yd	22.6
Reinforcement Bars, Epoxy Coated			Pound	2730

Reinforcement bars designated (E) shall be epoxy coated.

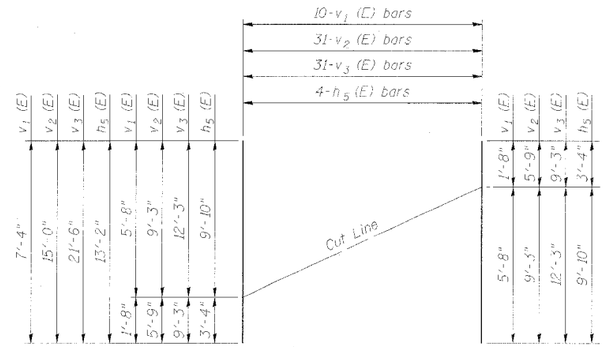
See Sheet 2 of 18 for Expansion Joint and Water Seal Placement Detail.

See Sheet 12 of 18 for Pedestrian Railing Details.

See Sheet 3 of 18 for Retaining Wall, Typical Section and Underdrain Details.

Min Lap Length: #4 bar = 1'-8"
#6 bar = 2'-7"

* See Field Cutting Diagram



FIELD CUTTING DIAGRAM

Order bars full length. Cut to fit as shown and place at one end of the dimension line shown on the plan. Use remainder of bars at opposite end of the dimension line on the opposite face of the Retaining Wall.

DESIGNED	-	NDR
CHECKED	-	DSE
DRAWN	-	RTT
CHECKED	-	DSE
DATE	-	JAN 31, 2006

Illinois Firm Registration No.: 184-001533
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

WALL PLAN AND ELEVATON
RETAINING WALL D ALONG
IL ROUTE 5
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 76+50.00 TO STA 81+70.00
STRUCTURE NO. 081-W006

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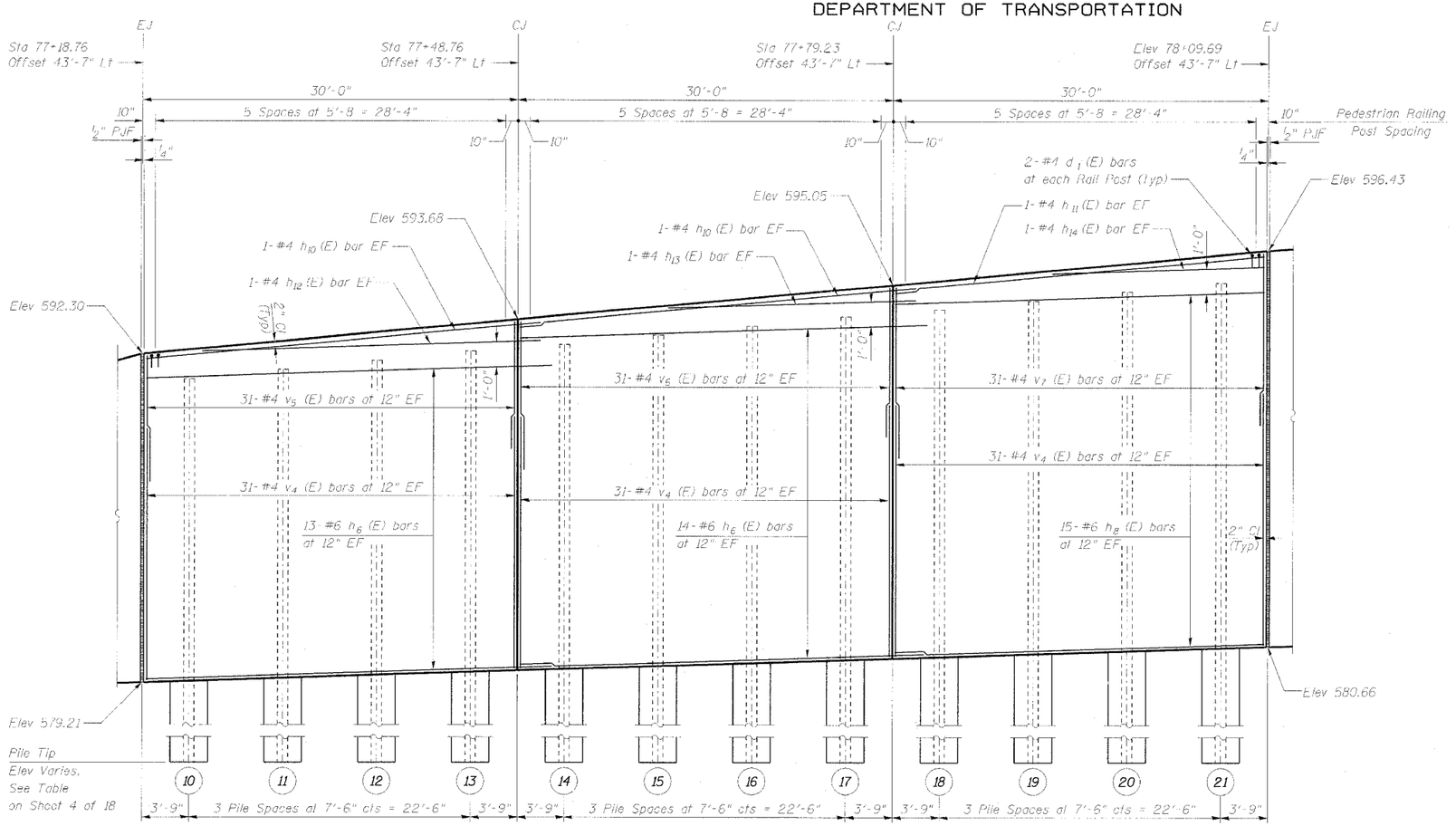
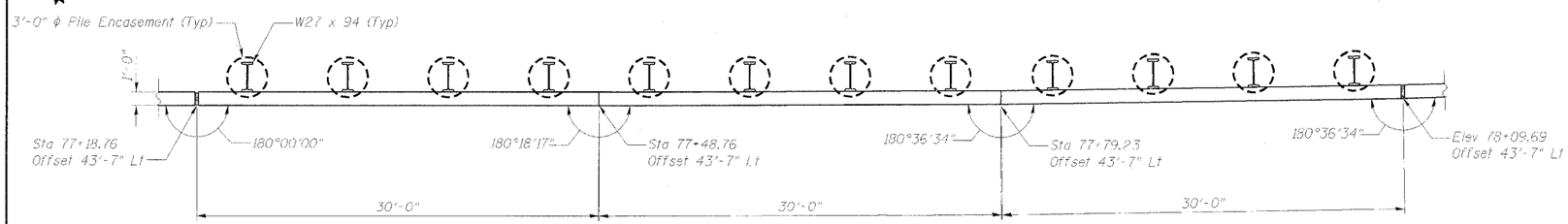
5-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FRONT FACE ELEVATION



PLAN

DESIGNED	-	NDR
CHECKED	-	DSE
DRAWN	-	RTT
CHECKED	-	DSE
DATE		JAN 31, 2006

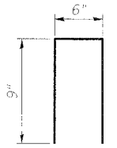
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	120
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT -		

SHEET NO. 6
18 SHEETS

Contract No. 84986

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d1 (L)	36	#4	2'-0"	⊓
h6 (E)	54	#6	32'-7"	—
h8 (E)	30	#6	29'-8"	—
h10 (E)	1	#4	31'-8"	—
h11 (E)	2	#4	29'-8"	—
h12 (E)	2	#4	27'-1"	—
h13 (E)	2	#4	19' 10"	—
h14 (E)	2	#4	14'-3"	—
v4 (E)	186	#4	10'-0"	—
v5 (E)	62	#4	5'-4"	—
v6 (E)	62	#4	6'-3"	—
v7 (E)	62	#4	7'-2"	—
Structure Excavation		Cu Yd	14.1	
Rock Excavation For Structures		Cu Yd	7.2	
Concrete Structures		Cu Yd	48.1	
Reinforcement Bars, Epoxy Coated		Pound	6250	



BAR d_1 (E)

Reinforcement bars designated (E) shall be epoxy coated.

See Sheet 2 of 18 for Expansion Joint and Water Seal Placement Detail.

See Sheet 12 of 18 for Pedestrian Railing Details.

See Sheet 3 of 18 for Retaining Wall, Typical Section and Underdrain Details.

Min Lap Length: #4 bar = 1'-8"
#6 bar = 2'-7"

Illinois Firm Registration No. 184-001533
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WALL PLAN AND ELEVATION
RETAINING WALL D ALONG
IL ROUTE 5
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 76+50.00 TO STA 81+70.00
STRUCTURE NO. 081-W006

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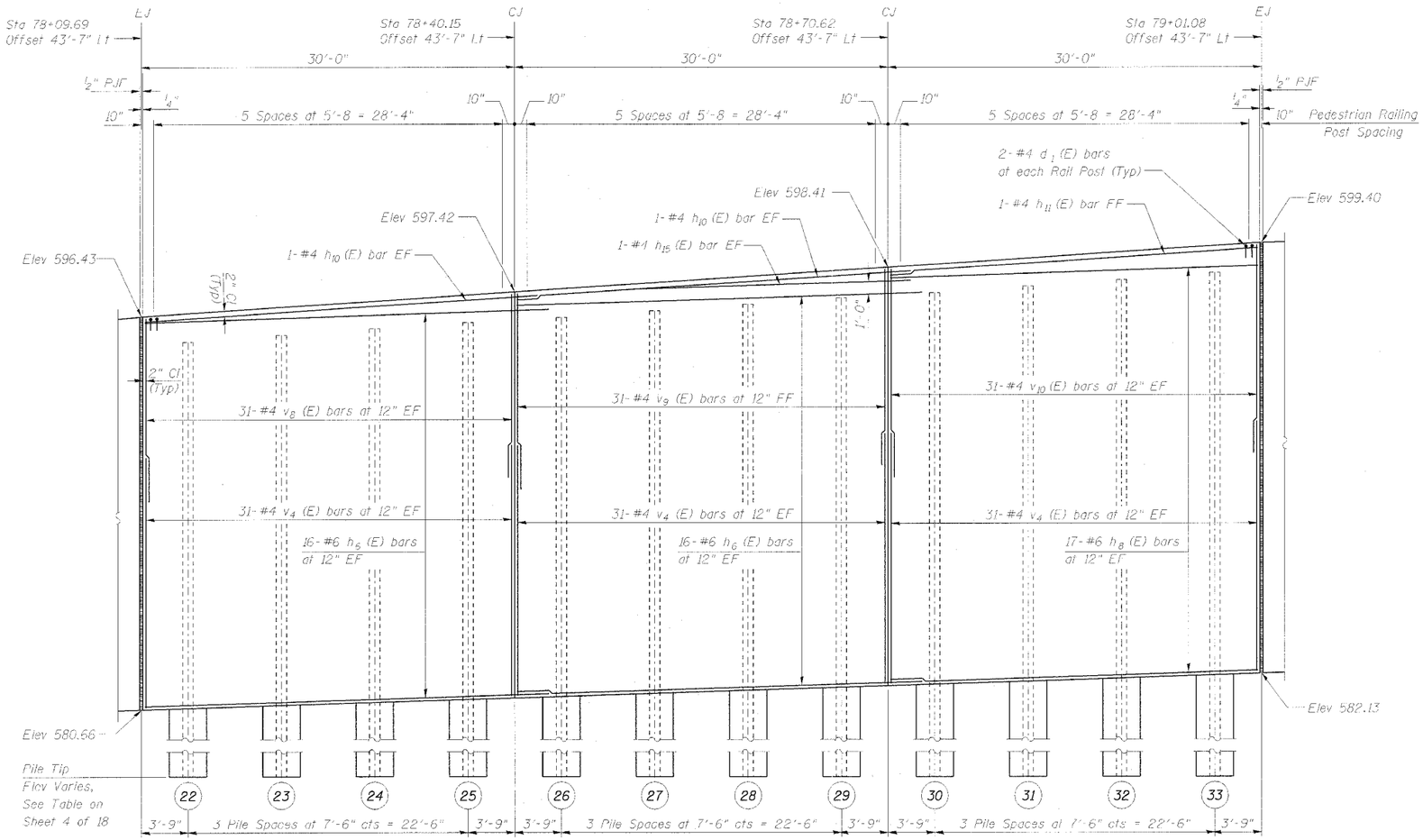
15-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

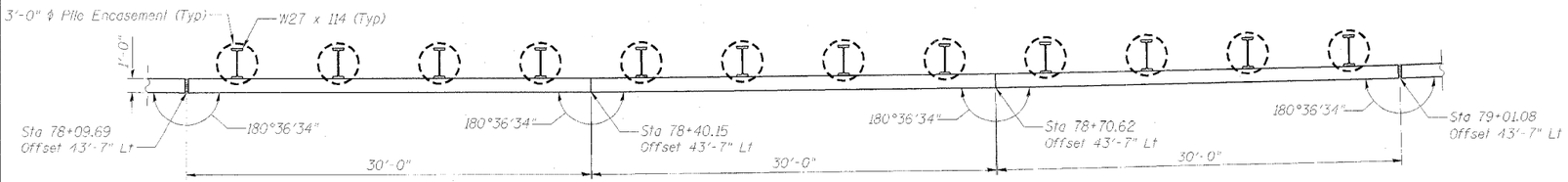
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	121
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 7
18 SHEETS

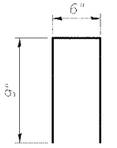
Contract No. 84985



FRONT FACE ELEVATION



PLAN



BAR d_1 (E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d1 (E)	36	#4	2'-0"	⊓
h5 (E)	64	#6	32'-7"	—
h8 (E)	34	#6	29'-8"	—
h10 (E)	4	#4	31'-8"	—
h11 (E)	2	#4	29'-8"	—
h15 (E)	2	#4	27'-10"	—
v4 (E)	186	#4	10'-0"	—
v8 (E)	62	#4	7'-8"	—
v9 (E)	62	#4	8'-2"	—
v10 (E)	62	#4	8'-8"	—
Structure Excavation		Cu Yd	77.0	
Rock Excavation For Structures		Cu Yd	29.2	
Concrete Structures		Cu Yd	55.1	
Reinforcement Bars, Epoxy Coated		Pound	7110	

Reinforcement bars designated (E) shall be epoxy coated.

See Sheet 2 of 18 for Expansion Joint and Water Seal Placement Detail.

See Sheet 12 of 18 for Pedestrian Railing Details.

See Sheet 3 of 18 for Retaining Wall, Typical Section and Underdrain Details.

Min Lap Length: #4 bar = 1'-8"
#6 bar = 2'-7"

DESIGNED	-	NDR
CHECKED	-	DSE
DRAWN	-	RTT
CHECKED	-	DSE
DATE	-	JAN 31, 2006

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WALL PLAN AND ELEVATION
RETAINING WALL D ALONG
IL ROUTE 5
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 76+50.00 TO STA 81+70.00
STRUCTURE NO. 081-W006

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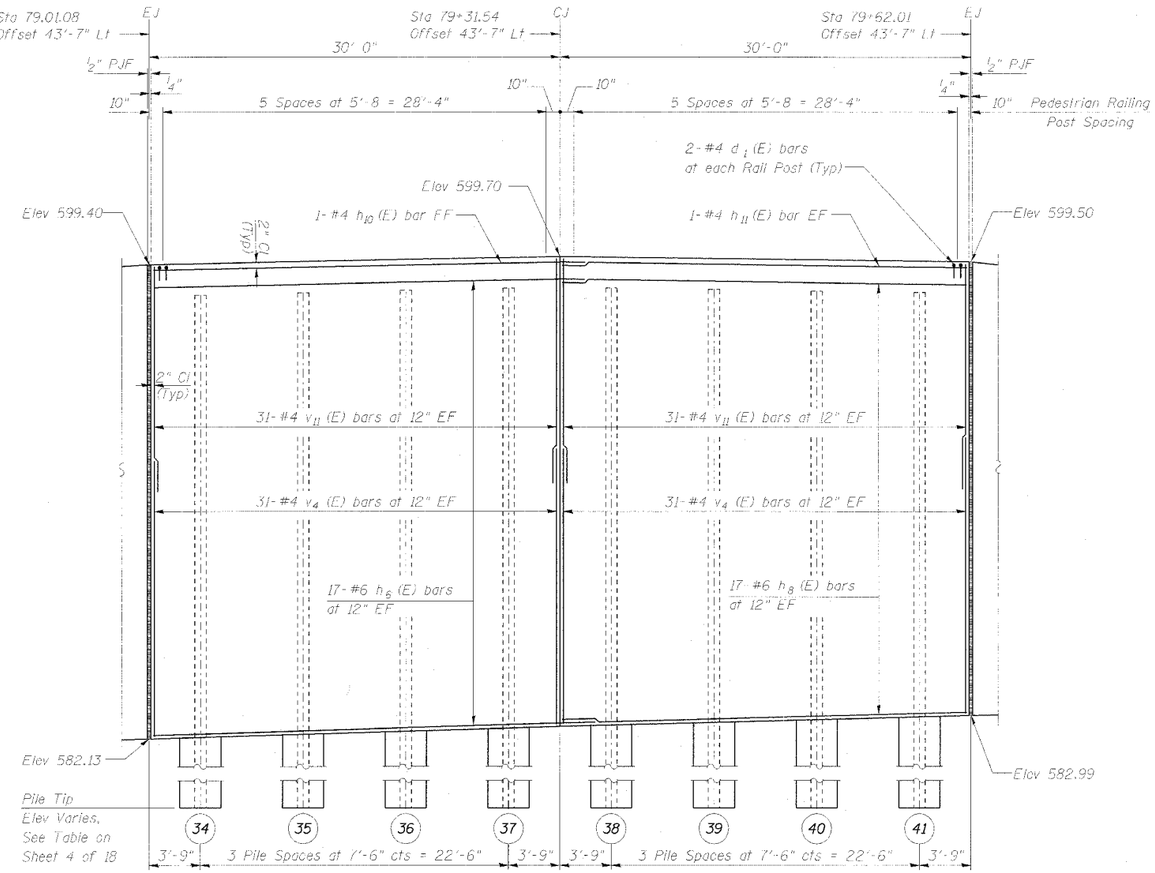
15-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

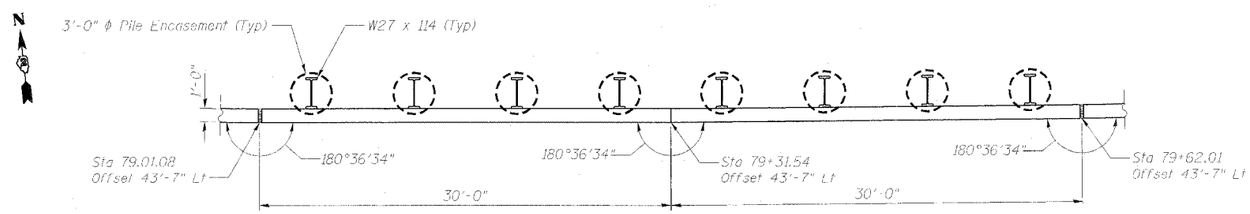
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	122
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT		

SHEET NO. 8
18 SHEETS

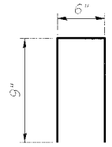
Contract No. 84986



FRONT FACE ELEVATION



PLAN



BAR d_1 (E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d1 (E)	24	#4	2'-0"	⊓
h6 (E)	34	#6	32'-7"	—
h8 (E)	34	#6	29'-8"	—
h10 (E)	2	#4	31'-8"	—
h11 (E)	2	#4	29'-8"	—
v4 (E)	124	#4	10'-0"	—
v11 (E)	124	#4	8'-6"	—
Structure Excavation			Cu Yd	40.8
Rock Excavation For Structures			Cu Yd	36.4
Concrete Structures			Cu Yd	37.8
Reinforcement Bars, Epoxy Coated			Pound	4830

Reinforcement bars designated (E) shall be epoxy coated.

See Sheet 2 of 18 for Expansion Joint and Water Seal Placement Detail.

See Sheet 12 of 18 for Pedestrian Railing Details.

See Sheet 3 of 18 for Retaining Wall, Typical Section and Underdrain Details.

Min Lap Length: #4 bar = 1'-6"
#6 bar = 2'-7"

DESIGNED	-	NDR
CHECKED	-	DSE
DRAWN	-	RTT
CHECKED	-	DSE
DATE	-	JAN 31, 2006

Illinois Firm Registration No. 184-001533
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

WALL PLAN AND ELEVATION
RETAINING WALL D ALONG
IL ROUTE 5
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 76+50.00 TO STA 81+70.00
STRUCTURE NO. 081-W006

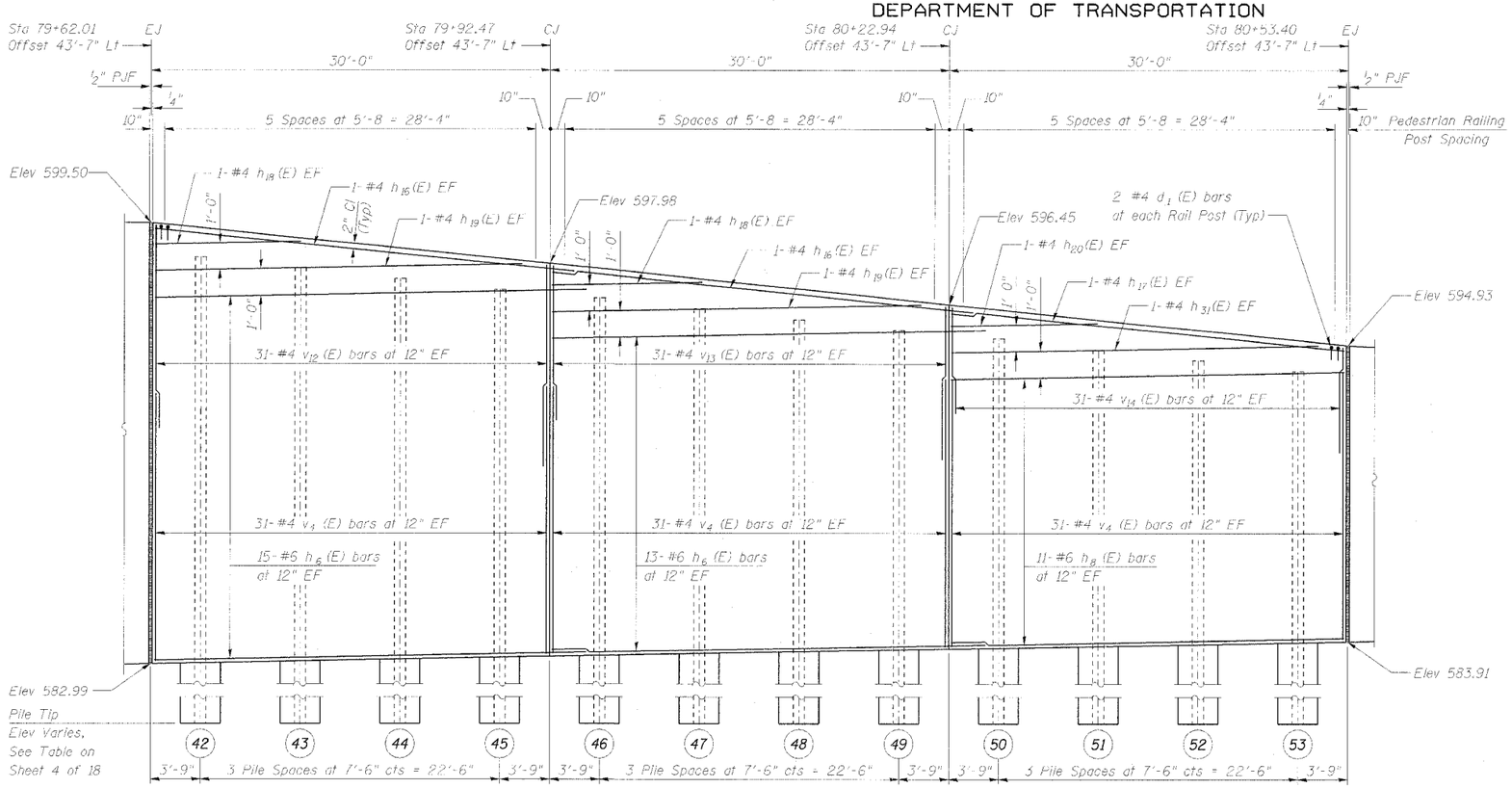
D:\idot\16570\walls_d_e_f\sht\D00C8retd.dgn
5-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	123
FED.ROAD DIST. NO. 2	ILL. RIVER	FED.AID PROJECT -		

SHEET NO. 9
18 SHEETS

Contract No. 84986



FRONT FACE ELEVATION

BAR d_1 (E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d1 (F)	36	#4	2'-0"	⊓
h6 (E)	54	#6	32'-7"	—
h8 (E)	22	#6	29'-8"	—
h16 (E)	4	#4	31'-9"	—
h17 (E)	2	#4	29'-9"	—
h18 (E)	4	#4	6'-1"	—
h19 (E)	4	#4	22'-8"	—
h20 (E)	2	#4	9'-4"	—
h31 (E)	2	#4	26'-8"	—
v4 (E)	186	#4	10'-0"	—
v12 (E)	62	#4	7'-6"	—
v13 (E)	62	#4	6'-1"	—
v14 (E)	62	#4	4'-3"	—
Structure Excavation			Cu Yd	48.5
Rock Excavation For Structures			Cu Yd	50.7
Concrete Structures			Cu Yd	45.8
Reinforcement Bars, Epoxy Coated			Pound	5900

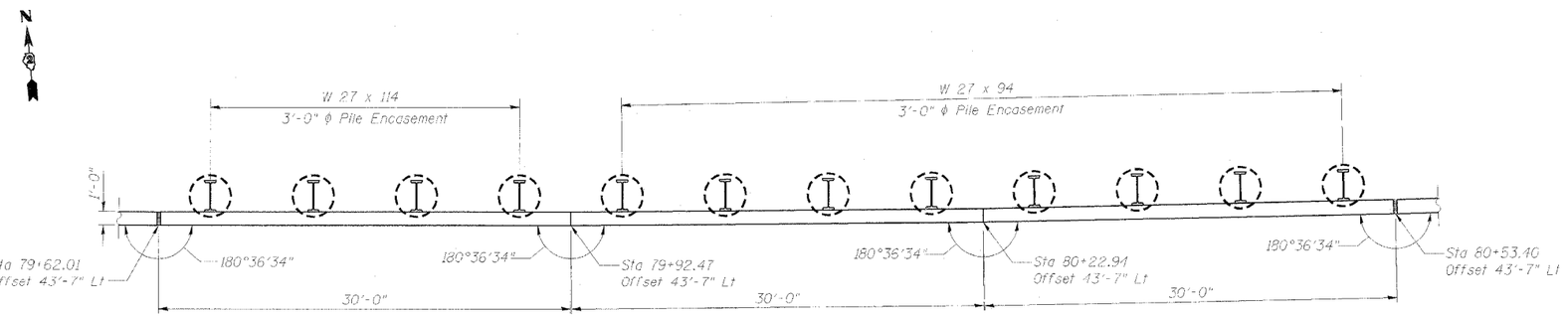
Reinforcement bars designated (E) shall be epoxy coated.

See Sheet 2 of 18 for Expansion Joint and Water Seal Placement Detail.

See Sheet 12 of 18 for Pedestrian Railing Details.

See Sheet 3 of 18 for Retaining Wall, Typical Section and Underdrain Details.

Min Lap Length: #4 bar = 1'-8"
#6 bar = 2'-7"



PLAN

DESIGNED	-	NDR
CHECKED	-	DSE
DRAWN	-	RTT
CHECKED	-	DSE
DATE	-	JAN 31, 2006

Illinois Firm Registration No.: 184-001533
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2804
www.stanleygroup.com

WALL PLAN AND ELEVATION
RETAINING WALL D ALONG
IL ROUTE 5
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 76+50.00 TO STA 81+70.00
STRUCTURE NO. 081-W006

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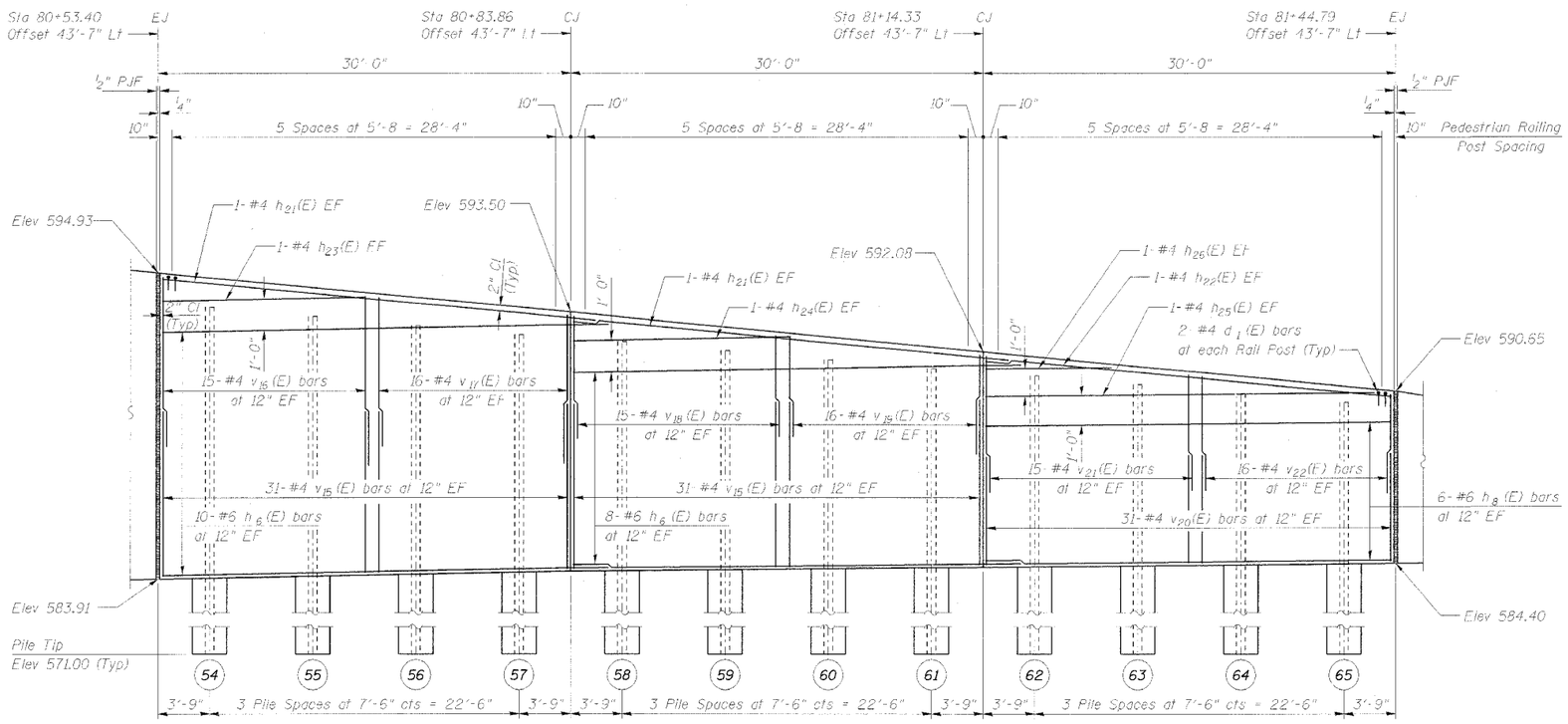
5-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

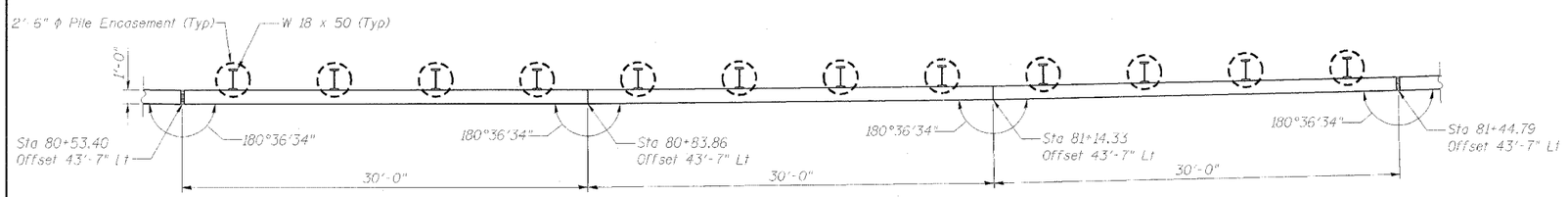
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1.1	ROCK ISLAND	239	124
FED. ROAD DIST. NO. 9	ILLINOIS	FED. AID PROJECT -		

SHEET NO. 10
18 SHEETS

Contract No. 84986

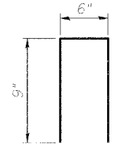


FRONT FACE ELEVATION



PLAN

DESIGNED	-	NDR
CHECKED	-	DSE
DRAWN	-	RTT
CHECKED	-	DSE
DATE	-	JAN 31, 2006



BAR d_1 (E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d1 (E)	36	#4	2'-0"	⊓
h5 (E)	36	#6	32'-7"	—
h8 (E)	14	#6	29'-8"	—
h21(E)	4	#4	31'-8"	—
h22(E)	2	#4	29'-8"	—
h23(E)	2	#4	13'-3"	—
h24(E)	2	#4	19'-11"	—
h25(E)	2	#4	28'-3"	—
h26(E)	2	#4	9'-1"	—
v15 (E)	124	#4	6'-0"	—
v16 (E)	30	#4	6'-6"	—
v17 (E)	32	#4	5'-7"	—
v18 (E)	30	#4	1'-9"	—
v19 (E)	32	#4	3'-11"	—
v20(E)	62	#4	4'-0"	—
v21 (E)	30	#4	5'-2"	—
v22(E)	32	#4	4'-4"	—
Structure Excavation			Cu Yd	51.1
Rock Excavation For Structures			Cu Yd	27.1
Concrete Structures			Cu Yd	28.7
Reinforcement Bars, Epoxy Coated			Pound	3940

Reinforcement bars designated (E) shall be epoxy coated.

See Sheet 2 of 18 for Expansion Joint and Water Seal Placement Detail.

See Sheet 12 of 18 for Pedestrian Railing Details.

See Sheet 3 of 18 for Retaining Wall, Typical Section and Underdrain Details.

Min Lap Length: #4 bar = 1'-8"
#6 bar = 2'-7"

Illinois Firm Registration No. 184-001533

Stanley Consultants INC.

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www.stanleygroup.com

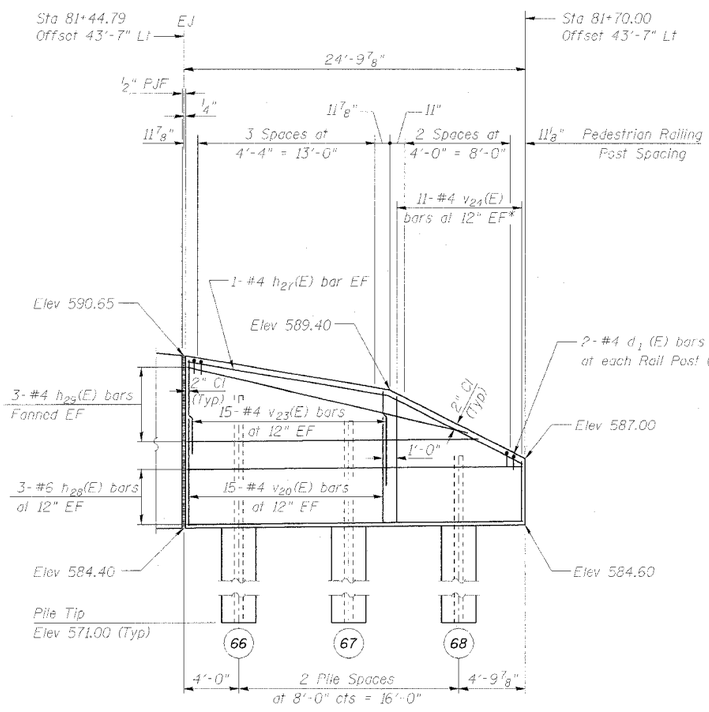
WALL PLAN AND ELEVATION
RETAINING WALL D ALONG
IL ROUTE 5
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 76+50.00 TO STA 81+70.00
STRUCTURE NO. 081-W006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

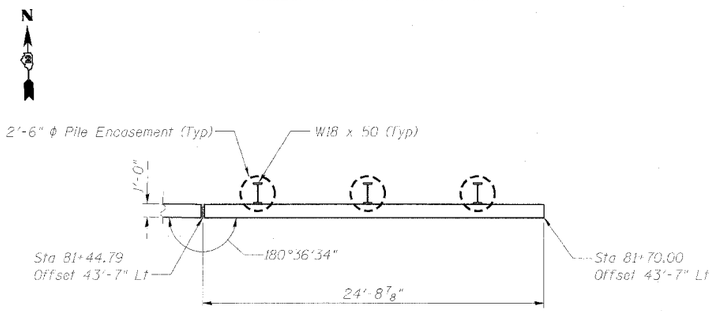
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	125
FED.ROAD DIST. NO. 9	ILLINOIS	FED. AID PROJECT -		

SHEET NO. 11
18 SHEETS

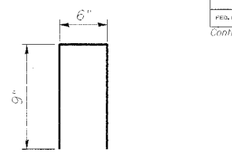
Contract No. 84986



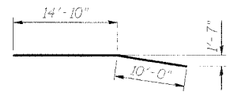
FRONT FACE ELEVATION



PLAN



BAR d_1 (E)



BAR h_{27}(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d1 (E)	12	#4	2'-0"	⊓
h27(E)	2	#4	24' 10"	—
h28(E)	6	#6	24'-4"	—
h29(E)	6	#4	24'-9"	—
v20(E)	30	#4	4'-0"	—
v23(E)	30	#4	3'-8"	—
v24(E)	11	#4	6'-8"	—
Structure Excavation		Cu Yd	16.5	
Concrete Structures		Cu Yd	4.5	
Reinforcement Bars, Epoxy Coated		Pound	570	

Reinforcement bars designated (E) shall be epoxy coated.

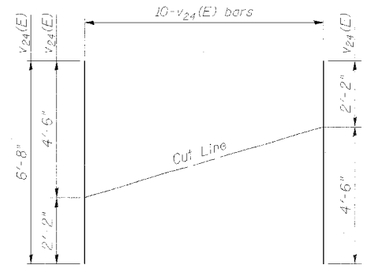
See Sheet 2 of 18 for Expansion Joint and Water Seal Placement Detail.

See Sheet 12 of 18 for Pedestrian Railing Details.

See Sheet 3 of 18 for Retaining Wall, Typical Section and Underdrain Details.

Min Lap Length: #4 bar = 1'-8"
#6 bar = 2'-7"

* See Field Cutting Diagram



FIELD CUTTING DIAGRAM

Order bars full length. Cut to fit as shown and place at one end of the dimension line shown on the plan. Use remainder of bars at opposite end of the dimension line on the opposite face of the Retaining Wall.

DESIGNED	NDR
CHECKED	DSE
DRAWN	RTT
CHECKED	DSE
DATE	JAN 31, 2006

Illinois Firm Registration No.: 184-001533
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

WALL PLAN AND ELEVATION
RETAINING WALL D ALONG
IL ROUTE 5
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 76+50.00 TO STA 81+70.00
STRUCTURE NO. 081-W006

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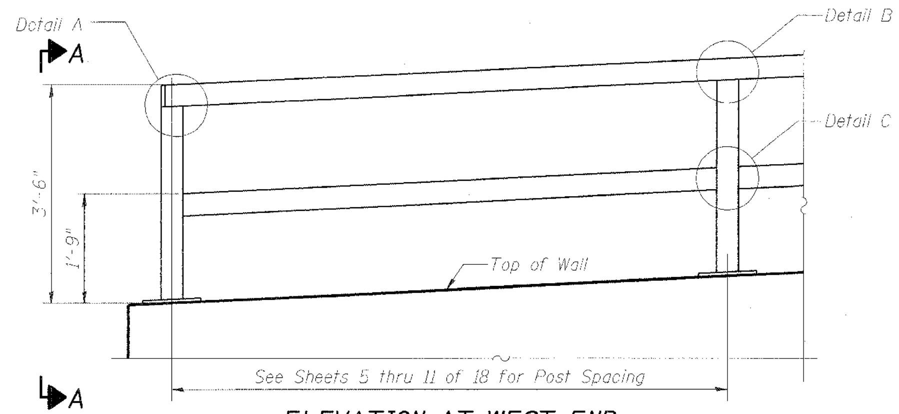
5-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

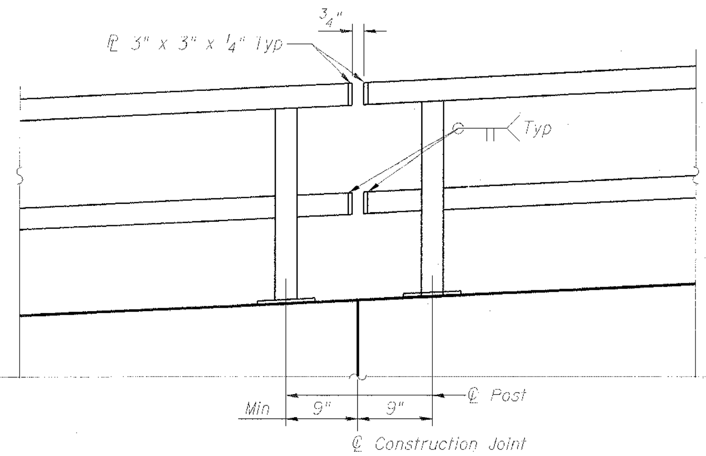
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	126
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT-		

Contract No. 84986

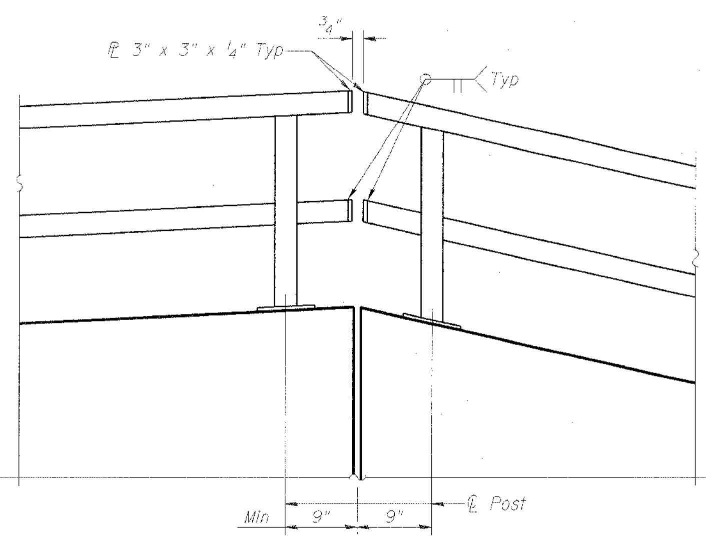
SHEET NO. 12
18 SHEETS



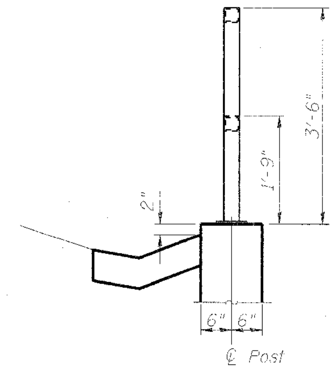
ELEVATION AT WEST END
(Looking North)



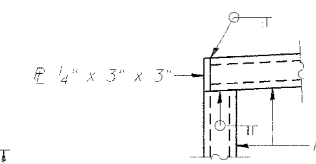
ELEVATION AT CONSTRUCTION JOINT



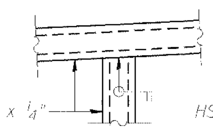
ELEVATION AT EXPANSION JOINT



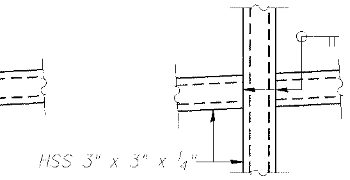
VIEW A-A



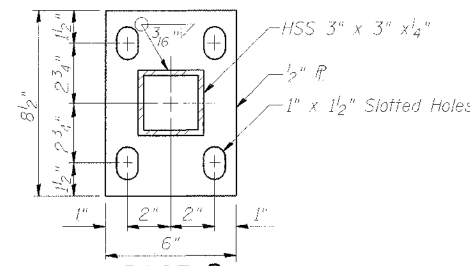
DETAIL A



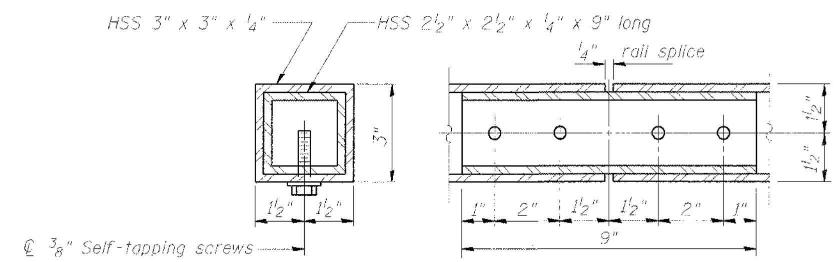
DETAIL B



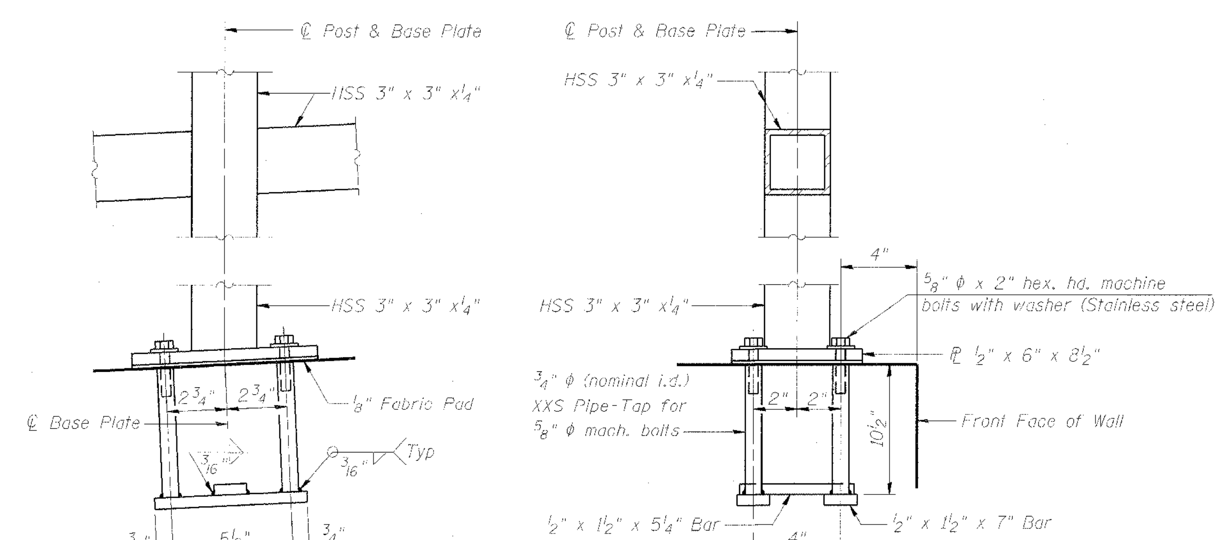
DETAIL C



BASE ℄



RAIL SPLICE



ANCHOR BOLT DETAILS
(In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and epoxy grouting ⅝" φ anchor rods. Embedment shall be according to the manufacturer's specifications.)

NOTES

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 meter for Pedestrian Railing.

Hollow structural steel tubing shall conform to the requirements of ASTM designation A 500, Grade B, structural steel tubing.

All other steel shapes and plates shall conform to the requirements of AASHTO M 270M Grade 250.

If the option of drilling and epoxy grouting the anchor rods is chosen, the Contractor shall use the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures. The capsule or the adhesive cartridge shall be sealed with premeasured amounts of the adhesive chemical.

Space reinforcement to miss anchor rods.

All posts, railing, splices, anchor devices, and bent plates shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. All bolts, nuts, washers and anchor rods shall be galvanized according to AASHTO M 232 except stainless steel bolts as noted.

Vent holes for galvanizing shall be placed in the posts and rails at locations that will not allow the accumulation of moisture in the members.

BILL OF MATERIAL

Item	Unit	Quantity
Pedestrian Railing	Foot	515.8

DESIGNED	- NDR
CHECKED	- DSE
DRAWN	- RTT
CHECKED	- DSE
DATE	- JAN 31, 2006

Illinois Firm Registration No. 184-00533
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

PEDESTRIAN RAILING
RETAINING WALL D ALONG
IL ROUTE 5
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 76+50.00 TO STA 81+70.00
STRUCTURE NO. 081-W006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	127
FED.ROAD DIST. NO. 2	ILLINOIS	F.A.U. ALT. PROJECT-		

SHEET NO. 13
18 SHEETS
Contract No. 84986

Illinois Department of Transportation
Division of Highways
District 2, Dixon

SOIL BORING LOG

Page 1 of 1

Date 7/25/03

ROUTE FA 595 DESCRIPTION D92-118-94 Retaining Wall, IL 5 Blackhawk Road in Rock Island LOGGED BY C. Jenkins

SECTION 1-1 LOCATION South Rock Island Twp. - 13SW, SEC. , TWP. 17N, RNG. 2W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. _____
Station _____

BORING NO. B-1
Station 80+50
Offset 48.00ft Lt CL
Ground Surface Elev. 594.8 ft

Surface Water Elev. None ft
Stream Bed Elev. None ft

Groundwater Elev.:
First Encounter 579.8 ft ▼
Upon Completion 575.3 ft ▽
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
MEDIUM tan SILTY LOAM		0.6 P	20
592.30			
MEDIUM brown SILTY CLAY	3 4 5	0.8 B	15
590.30			
-5			
DENSE tan very fine grained sugar SAND	5 11 20		
588.30			
VERY DENSE tan very fine grained sugar SAND (sandstone)	40 72 28		
585.60			
	100/8"		
-10	PEN		
Same as above	38 62 100/8"		
583.30			
	PEN		
	46 54 100/12"		
580.80			
	PEN		
▼-15			
VERY DENSE tan/gray mottled very fine SAND (sandstone)	40 47 53		
578.30			
	100/11"		
	PEN		
VERY DENSE tan/gray/green mottled very fine SAND (sandstone)	74 26 100/8"		
575.80			
▽	PEN		
-20			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Same as above			
574.30			
End of Boring	100/2" PEN		
-25			
-30			
-35			
-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 2, Dixon

SOIL BORING LOG

Page 1 of 1

Date 7/28/03

ROUTE FA 595 DESCRIPTION D92-118-94 Retaining Wall, IL 5 Blackhawk Road in Rock Island LOGGED BY C. Jenkins

SECTION 1-1 LOCATION South Rock Island Twp. - 13SW, SEC. , TWP. 17N, RNG. 2W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. _____
Station _____

BORING NO. B-2
Station 80+50
Offset 20.00ft Lt CL
Ground Surface Elev. 586.1 ft

Surface Water Elev. None ft
Stream Bed Elev. None ft

Groundwater Elev.:
First Encounter 576.6 ft ▼
Upon Completion 577.0 ft ▽
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
MEDIUM tan SILTY LOAM with some GRAVEL		0.6 P	16
584.10			
STIFF gray SILTY CLAY	3 13 7	1.9 P	15
582.10			
-5			
LOOSE gray fine grained sugar SAND (sandstone)	2 1 5		
580.10			
VERY DENSE tan fine grained sugar SAND (sandstone)	100/2"		
577.60	PEN		
▽ ▼			
-10			
VERY DENSE gray SHALE	30 51 49		
Auger Refusal			
575.10			
End of Boring	100/9" PEN		
-15			
-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Firm Registration No.: 184-001533

Stanley Consultants INC.
850 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

DESIGNED	NDR
CHECKED	DSE
DRAWN	RTT
CHECKED	DSE
DATE	JAN 31, 2006

SOIL BORING LOGS B-1 AND B-2
RETAINING WALL D ALONG
IL ROUTE 5
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 76+50.00 TO STA 81+70.00
STRUCTURE NO. 081-W006

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15-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	128
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 14
18 SHEETS
Contract No. 84986

Illinois Department of Transportation
Division of Highways
District 2, Dixon

SOIL BORING LOG

Page 1 of 1

Date 7/28/03

ROUTE FA 595 DESCRIPTION D92-118-94 Retaining Wall, IL 5 Blackhawk Road in Rock Island LOGGED BY C. Jenkins

SECTION 1-1 LOCATION South Rock Island Twp. - 13 SW, SEC. , TWP. 17N, RNG. 2W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. _____
Station _____

BORING NO. B-3
Station 78+50
Offset 23.00ft Lt CL
Ground Surface Elev. 583.9 ft

Surface Water Elev. None ft
Stream Bed Elev. None ft

Groundwater Elev.:
First Encounter 578.9 ft ▼
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
MEDIUM brown SILTY LOAM with GRAVEL			0.6 P	13
	581.40			
STIFF gray SILTY CLAY with a SAND & GRAVEL lens		2 3 6	1.6 P	17
	579.40			
	-5 ▼	9 15 21		
DENSE Gray fine grained sugar SAND (sandstone)	577.40			
VERY DENSE gray SHALE		45 37 63		
	574.90			
Auger Refusal	574.15	100/9" PEN		
End of Boring	-10			
	-15			
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 2, Dixon

SOIL BORING LOG

Page 1 of 1

Date 7/28/03

ROUTE FA 595 DESCRIPTION D92-118-94 Retaining Wall, IL 5 Blackhawk Road in Rock Island LOGGED BY C. Jenkins

SECTION 1-1 LOCATION South Rock Island Twp. - 13SW, SEC. , TWP. 17N, RNG. 2W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. _____
Station _____

BORING NO. B-4
Station 78+53
Offset 95.00ft Lt CL
Ground Surface Elev. 612.5 ft

Surface Water Elev. None ft
Stream Bed Elev. None ft

Groundwater Elev.:
First Encounter None ft
Upon Completion Dry ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
STIFF brown SILTY LOAM			1.6 P	10
	611.00			
MEDIUM tan SILT		2 3 5	0.6 S	13
	609.50			
HARD tan SILT		6 7 10	4.5+ P	10
	-5 607.00			
MEDIUM tan SILT		5 5 8	0.8 S	12
	604.00			
LOOSE tan fine grained sugar SAND (sandstone)	-10	5 4 5		
	602.00			
MEDIUM tan/gray fine grained sugar SAND (sandstone)		4 7 10		
	599.00			
VERY STIFF gray SILTY CLAY with ORGANICS	-15	6 5 8	3.9 S	15
	597.00			
STIFF gray SILTY LOAM with SAND lenses		5 9 9	1.4 S	13
	594.00			
MEDIUM orange SAND & GRAVEL	-20	10 10		
MEDIUM orange SAND & GRAVEL *(continued)*	591.50	14		
VERY DENSE gray SHALE		16 30 43		
	589.50			
VERY DENSE gray/black SHALE	-25	21 30 43		
	587.00			
Same as above		100/4" PEN		
	584.50			
VERY DENSE gray SHALE with a SAND lens	-30	17 100/3" PEN		
	582.00			
End of Boring	580.58	100/5" PEN		
	-35			
	-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

DESIGNED	NDR
CHECKED	DSE
DRAWN	RTT
CHECKED	DSE
DATE	JAN 31, 2006

Illinois Firm Registration No. 184-001533
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

SOIL BORING LOGS B-3 AND B-4
RETAINING WALL D ALONG
IL ROUTE 5
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 76+50.00 TO STA 81+70.00
STRUCTURE NO. 081-W006

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15-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	129
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 15
18 SHEETS
Contract No. 84986

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Page 1 of 1

Date 11/13/03

ROUTE FA 595 DESCRIPTION P92-118-94 Retaining Wall 250' west of Indian Hill Road along John Deere Road LOGGED BY C. Jenkins

SECTION 1-1 LOCATION S. Rock Island Twp. - NW, SEC. 13, TWP. 17N, RNG. 2W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE C-45

STRUCT. NO.
Station

BORING NO. B-5
Station 79+50
Offset 18.00ft Lt CL
Ground Surface Elev. 584.5 ft

Surface Water Elev. None ft
Stream Bed Elev. None ft

Groundwater Elev.:
First Encounter None ft
Upon Completion None ft
After ____ Hrs. ____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
STIFF brown SILTY LOAM			1.1 P	17
582.50				
STIFF brown SILTY LOAM over fine gray SAND		5 6 6	1.3 P	11
580.50				
LOOSE gray fine grained SAND (sandstone)	-5	3 2 7		
578.00				
VERY DENSE gray SHALE		50 50 100/8"		
576.00		PEN		
Same as above	-10	100/3"		
574.25		PEN		
Auger Refusal @ 10 1/4'				
End of Boring				
	-15			
	-20			

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Page 1 of 1

Date 11/14/03

ROUTE FA 595 DESCRIPTION P92-118-94 Retaining Wall 250' West of Indian Hill Road along John Deere Road LOGGED BY C. Jenkins

SECTION 1-1 LOCATION S Rock Island Twp. - NW, SEC. 13, TWP. 17N, RNG. 2W

COUNTY Rock Island DRILLING METHOD Hollow Stem Augar HAMMER TYPE C-45

STRUCT. NO.
Station

BORING NO. B-6
Station 79+50
Offset 55.00ft Lt CL
Ground Surface Elev. 600.4 ft

Surface Water Elev. None ft
Stream Bed Elev. None ft

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

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
MEDIUM brown SILTY LOAM			0.9 P	13
597.90				
STIFF tan SILT		8 8 7	1.7 S	7
596.40				
Same as above	-5	3 4 6	1.9 S	9
593.40				
DENSE gray SHALE		15 18 16		
590.90				
VERY DENSE very weathered tan LIMESTONE	-10	13 30 70		
588.40		100/11.5"		
VERY DENSE gray SHALE		PEN 51 38 62		
586.40		100/8"		
Same as above	-15	PEN 50		
584.80		50		
Auger Refusal at 15' 8"		100/8"		
End of Boring		PEN		
	-20			

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

BBS, from 137 (Rev. 8-99)

DESIGNED	NDR
CHECKED	DSE
DRAWN	RTT
CHECKED	DSE
DATE	JAN 31, 2006

Illinois Firm Registration No.: 184-001533
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

SOIL BORING LOGS B-5 AND B-6
RETAINING WALL D ALONG
IL ROUTE 5
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 76+50.00 TO STA 81+70.00
STRUCTURE NO. 081-W006

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15-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	130
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT -		

SHEET NO. 16
18 SHEETS
Contract No. 84986

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Page 1 of 1

Date 12/21/04

ROUTE FA 595 DESCRIPTION P92-118-94 Retaining Wall D, along John Deere Road LOGGED BY W. Garza

SECTION 1-1 LOCATION , SEC. , TWP. , RNG.

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

STRUCT. NO. 081-W006
Station

BORING NO. B-7
Station 78+40
Offset 96.00ft Lt CL
Ground Surface Elev. 611.8 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 (%)
SOFT tan/brown SILTY LOAM			0.3 P	21
	609.30			
MEDIUM brown SAND & GRAVEL		13 10 10		
	607.80			
	-5			
STIFF brown SILTY CLAY LOAM		1 2 4	1.4 B	20
	605.30			
LOOSE tan fine SAND		3 3 3		
	602.80			
	-10			
STIFF tan SILTY LOAM		3 4 6	1.1 S	21
	600.30			
MEDIUM tan fine SAND		4 6 7		
	597.80			
	-15			
HARD gray CLAY LOAM		4 9 13	4.6 S	17
	595.30			
MEDIUM gray/tan dirty SAND & medium GRAVEL		3 5 10		
	592.80			
	-20			

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
MEDIUM tan dirty SAND with LIMESTONE fragments and COAL lens		5 6 6		
	589.30			
DENSE gray SHALE		11 18 30		
	587.80			
	-25			
VERY DENSE gray SHALE		8 100/11"		
	585.30			
12/20/04 VERY DENSE gray SHALE		100/8"		
	582.80			
	-30			
VERY DENSE gray SHALE	581.30	100/6"		
Borehole continued with rock coring.				
	-40			

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
IDOT

ROCK CORE LOG

Page 1 of 1

Date 12/21/04

ROUTE FA 595 DESCRIPTION P92-118-94 Retaining Wall D, along John Deere Road LOGGED BY W. Garza

SECTION 1-1 LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island CORING METHOD

STRUCT. NO. 081-W006
Station

CORING BARREL TYPE & SIZE

BORING NO. B-7
Station 78+40
Offset 96.00ft Lt CL
Ground Surface Elev. 611.8 ft

Core Diameter 1.5 In
Top of Rock Elev. 569.30 ft
Begin Core Elev. 561.30 ft

	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
95% Recovery black & gray SHALE with COAL lens Shale: Dark gray, easily delaminates - 561.3 to 560.4 Sandstone: Gray, fine grained, hard and light - 560.4 to 579.7 Shale: Light gray, soft, blocky and easily delaminates - 579.7 to 576.3		1	95	43	1.8	
	576.30					
	-35					
100% Recovery Time: 14 min. gray weathered SHALE Shale: Medium gray, laminated in 1" - 3" segments - 575.3 to 572.1 Sandstone: Gray, well cemented and dense - one testable segment omitted as not representative - 572.1 to 571.3		2	100	13	2.8	
	571.30					
	-40					
End of Boring						
	-45					
	-50					

Color pictures of the cores
Cores will be stored for examination until
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

DESIGNED	NDR
CHECKED	DSE
DRAWN	RTT
CHECKED	DSE
DATE	JAN 31, 2006

Illinois Firm Registration No.: 184-00533
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

SOIL BORING AND ROCK CORE LOG B-7
RETAINING WALL D ALONG
IL ROUTE 5
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 76+50.00 TO STA 81+70.00
STRUCTURE NO. 081-W006

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15-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	131
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT=		

SHEET NO. 17
18 SHEETS

Contract No. 84986

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Page 1 of 1

Date 11/30/04

ROUTE FA 595 DESCRIPTION P92-118-94 Retaining Wall D, at John Deere Road and Indian Hill Road LOGGED BY W. Garza

SECTION 1-1 LOCATION , SEC. , TWP. , RNG.

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

STRUCT. NO. 081-W006
Station

BORING NO. B-8
Station 79+50
Offset 53.00ft Lt CL
Ground Surface Elev. 600.4 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 (%)
MEDIUM brown SILTY CLAY LOAM		0.8 P	20
597.90			
STIFF brown SILTY CLAY LOAM	3 5 7	1.3 B	19
596.40			
-5			
VERY STIFF brown SANDY LOAM with fine SAND lens	5 4 5	3.0 P	12
593.40			
MEDIUM dark gray weathered SHALE	10 9 15		
591.40			
-10			
VERY DENSE gray SHALE	18 20 36		
587.90			
Borehole continued with rock coring.			
-15			
-20			

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
IDOT

ROCK CORE LOG

Page 1 of 1

Date 11/30/04

ROUTE FA 595 DESCRIPTION P92-118-94 Retaining Wall D, at John Deere Road and Indian Hill Road LOGGED BY W. Garza

SECTION 1-1 LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island CORING METHOD

STRUCT. NO. 081-W006
Station

BORING NO. B-8
Station 79+50
Offset 53.00ft Lt CL
Ground Surface Elev. 600.4 ft

CORING BARREL TYPE & SIZE
Core Diameter 1.6 in
Top of Rock Elev. 593.40 ft
Begin Core Elev. 587.90 ft

DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Time: 8 min. 100% Recovery dark gray SHALE Shale: Gray, blocky, soft, easily delaminated - 587.9 to 584.9 Sandstone: Gray, fine grained, brittle and light, poorly bedded, with occasional shaley partings. T.S.F.: 584.9 to 584.2	1	100	70	1.6	307
-15 582.90					
Time: 8 min. 100% Recovery dark gray SHALE Shale: Gray & blocky - 582.9 to 580.8 Sandstone: As above, to 572.9	2	100	53	1.6	
-20 577.90					
Time: 9 min. 100% Recovery gray SHALE T.S.F. - 575.4 to 574.9	3	100	32	1.8	386
-25 572.90					
End of Boring					
-30					

Color pictures of the cores
Cores will be stored for examination until
The "Strength" column represents the unlaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

DESIGNED	NDR
CHECKED	DSE
DRAWN	RTT
CHECKED	DSE
DATE	JAN 31, 2006

Illinois Firm Registration No: 184-001533
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

SOIL BORING LOG AND ROCK CORE LOG B-8
RETAINING WALL D ALONG
IL ROUTE 5
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 76+50.00 TO STA 82+70.00
STRUCTURE NO. 081-W006

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15-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	132
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 18
18 SHEETS

Contract No. 84986

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Page 1 of 1

Date 12/3/04

ROUTE FA 595 DESCRIPTION P92-118-94 Retaining Wall D, at John Deere Road and Indian Hill Road LOGGED BY W. Garza

SECTION 1-1 LOCATION , SEC. , TWP. , RNG.

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

STRUCT. NO. 081-W006
Station

BORING NO. B-9
Station 81+25
Offset 46.00ft Lt CL
Ground Surface Elev. 591.5 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 (%)
MEDIUM brown SILTY CLAY LOAM			0.6 P	23
	589.00			
STIFF brown SILTY CLAY LOAM		1 3 4	1.4 B	18
	587.50			
	-5			
HARD brown/gray CLAY with SHALE		5 8 11	6.8 S	18
	585.00			
DENSE tan weathered SHALE		8 16 23		
	582.50			
	-10			
VERY DENSE tan weathered SHALE		14 20 54		
	580.00			
VERY DENSE gray weathered SHALE		22 37 34		
	577.50			
	-15			
VERY DENSE gray SHALE	576.00	100/7"		
Borehole continued with rock coring.				
	-20			

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
IDOT

ROCK CORE LOG

Page 1 of 1

Date 12/3/04

ROUTE FA 595 DESCRIPTION P92-118-94 Retaining Wall D, at John Deere Road and Indian Hill Road LOGGED BY W. Garza

SECTION 1-1 LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island CORING METHOD

STRUCT. NO. 081-W006
Station

CORING BARREL TYPE & SIZE

BORING NO. B-9
Station 81+25
Offset 46.00R Lt CL
Ground Surface Elev. 591.5 ft

Core Diameter 1.5 in
Top of Rock Elev. 584.00 ft
Begin Core Elev. 576.00 ft

	DEPTH (ft)	CORE (#)	RECOVERY (%)	RQD (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Time: 9 min. 100% Recovery gray/redish brown SHALE Shale: Brown, laminated, grading to blocky to 573.0		1	100	35	1.8	
	-20					
	570.00	2	100	67	1.6	1140
100% Recovery Sandstone: Light gray, fine grained, dense & poorly bedded with occasional shale partings. T.S.F. 570.7 to 570.1						
	-25					
		3	90	0	1.8	
	565.00					
90% Recovery Sandstone: as above, to 566.5 Shale: Light gray, argillaceous, blocky & soft to end of boring.						
	-30					
	560.00					
End of Boring						
	-35					

Color pictures of the cores
Cores will be stored for examination until
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

DESIGNED	NDR
CHECKED	DSE
DRAWN	RTT
CHECKED	DSE
DATE	JAN 31, 2006

Illinois Firm Registration No. 184-001533
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

SOIL BORING LOG AND ROCK CORE LOG B-9
RETAINING WALL D ALONG
IL ROUTE 5
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 76+50.00 TO STA 81+70.00
STRUCTURE NO. 081-W006

Bench Mark: B.M. R.R. Spike in Power Pole at Sta. 306+49.50, 61.5' Lt. Elevation = 635.87.

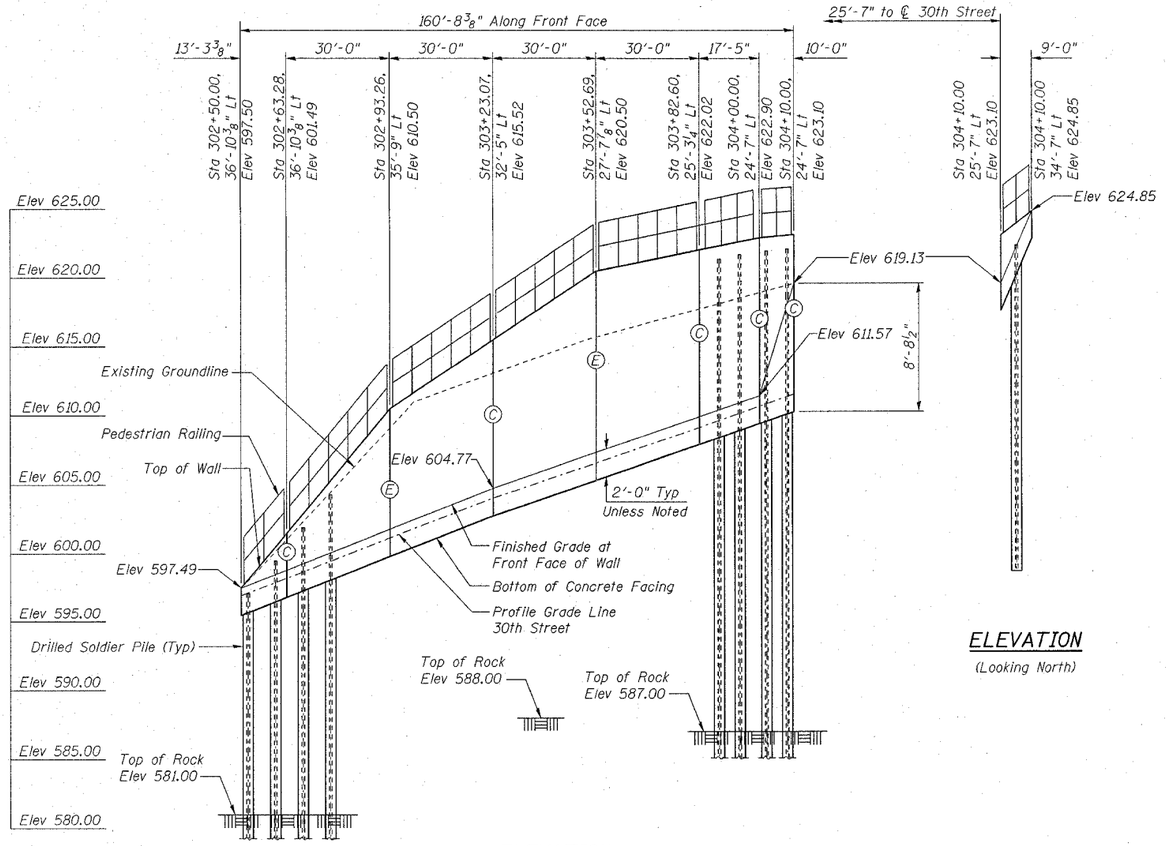
Existing Structure: None

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	133
FED. ROAD DIST. NO. 2		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 1
12 SHEETS

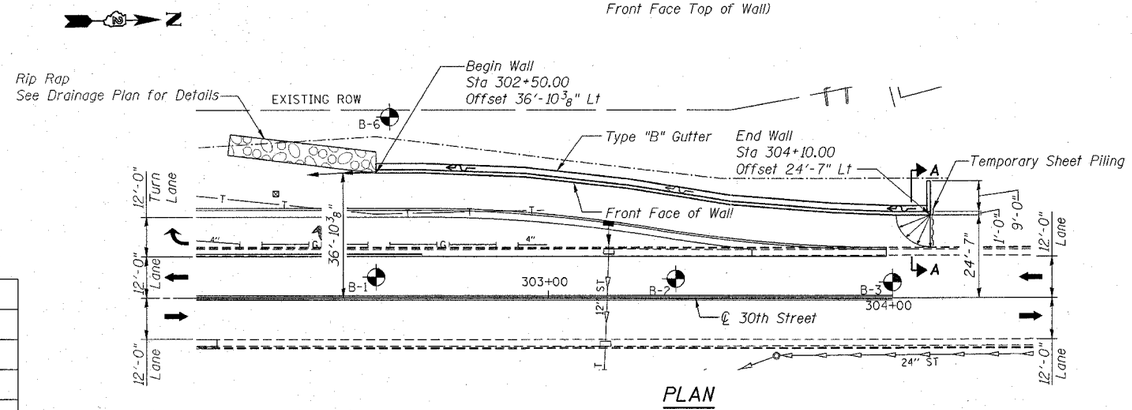
Contract No. 84986



ELEVATION
(Looking North)

ELEVATION
(Looking West)

(Stations, Offsets and Elevations shown are at vertical kink points along the Front Face Top of Wall)



PLAN

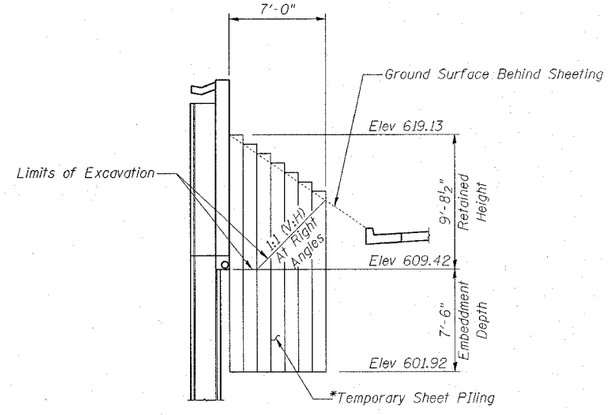
DESIGNED	- NDR
CHECKED	- DSE
DRAWN	- RTT
CHECKED	- DSE
DATE	- JAN 31, 2006

DESIGN SPECIFICATIONS
2002 AASHTO

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi (Cast-in-Place Wall Facing)
f'_c = 4,000 psi (Soldier Pile Encasement Concrete)
f_y = 60,000 psi (reinforcement)
f_y = 50,000 psi (structural steel)



SECTION A-A

*Minimum required section modulus per linear Foot of Sheet Piling = 5.8 in^3/ft

LEGEND

- Ⓒ Construction Joint
- Ⓔ Expansion Joint
- 4" G — Existing 4" Gas
- 24" ST — Existing 12" or 24" Storm
- B-4 — Soil Boring Location
- T — Existing Telelphone
- Proposed Storm Sewer

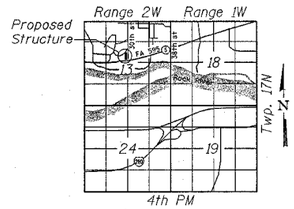
APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Robert E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
D. SCOTT ESHLEMAN
081-005155
CHICAGO
LICENSED STRUCTURAL ENGINEER

EXPIRATION DATE: 11-30-06

DATE 2/1/06



LOCATION SKETCH

Illinois Firm Registration No. 184-001533
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

GENERAL PLAN AND ELEVATION
RETAINING WALL E ALONG
30TH STREET
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 302+50.00 TO STA 304+10.00
STRUCTURE NO. 081-W007

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15-FEB-2006

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	134
FED. ROAD DIST. NO. 9	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 2
12 SHEETS

Contract No. 61986

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

1) Contractor shall be responsible for design of timber lagging (per special provisions). Lagging design shall be submitted to Engineer for approval. Quantity shown in Bill of Materials is an estimate for bidding purposes only.

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

3) All exposed edges of the concrete caps shall be chamfered $\frac{3}{4}$" unless noted otherwise.

4) All soldier piles shall be AASHTO M 270 Grade 50.

5) For drainage details (inlets, storm sewers, pipe drains, etc. See roadway plan and profile sheets and drainage and utility sheets.

6) Apply protective coat to all exposed concrete surfaces of the wall facing plus one foot below finished grade along the front of wall and one foot below top of wall along the back of wall.

7) All construction joints shall bonded.

SUGGESTED SEQUENCE OF CONSTRUCTION

1) Drill holes for soldier piles. Do not excavate near these holes at this stage.

2) Set Soldier Piles.

3) Fill hole with concrete to specified elevation.

4) Fill remainder of hole with controlled low strength material.

5) Begin earth excavation. Remove only earth and controlled low strength material as necessary to install timber lagging.

6) Install geocomposite wall drain and pipe underdrain.

7) Install stud shear connectors.

8) Construct concrete wall facing.

9) Install Pedestrian Railing.

RETAINING WALL "E"

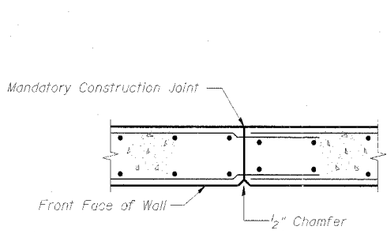
Soldier Pile Schedule

Pile No.	Pile Size	Station	Offset	Pile Tip Elevation	Approximate Top of Rock Elevation	Top of Pile Elevation	Length (ft)	Approximate Top of Concrete Encasement	No. of Studs Per Pile
1	W18x71	302+52.03	38.63	573.45	581.33	596.44	23.0	595.70	1
2	W18x71	302+59.53	38.63	574.25	582.54	598.70	24.5	596.50	2
3	W18x71	302+67.09	38.49	574.95	583.75	600.95	26.0	597.20	3
4	W18x71	302+74.59	38.21	575.75	584.97	603.20	27.5	598.00	4
5	W18x71	302+82.08	37.94	576.45	586.18	605.45	29.0	598.70	5
6	W18x71	302+89.57	37.66	577.25	587.39	607.71	30.5	599.50	6
7	W24x103	303+02.42	36.75	572.10	588.03	609.33	37.2	600.10	7
8	W24x103	303+08.39	36.08	572.70	588.08	610.34	37.6	600.70	7
9	W24x103	303+14.35	35.41	573.30	588.13	611.34	38.0	601.30	8
10	W24x103	303+20.31	34.75	573.90	588.18	612.34	38.4	601.90	8
11	W24x103	303+26.35	33.93	574.50	588.23	613.35	38.9	602.50	8
12	W24x103	303.32.27	32.97	575.00	588.23	614.35	39.4	603.00	8
13	W24x103	303+38.20	32.02	575.60	588.18	615.34	39.7	603.60	9
14	W24x103	303+44.12	31.07	576.20	588.13	616.34	40.1	604.20	9
15	W24x103	303+50.05	30.12	576.70	588.08	617.34	40.6	604.70	9
16	W24x103	303+55.84	29.42	577.30	588.03	618.33	41.0	605.30	10
17	W24x103	303+61.82	28.94	577.80	587.97	618.98	41.2	605.80	10
18	W24x103	303+67.80	28.47	578.30	587.92	619.29	41.0	606.30	9
19	W24x103	303+73.78	27.99	578.80	587.87	619.59	40.8	606.80	9
20	W24x103	303+79.76	27.51	579.30	587.82	619.90	40.6	607.30	9
21	W24x103	303+85.59	27.16	579.80	587.77	620.20	40.4	607.80	9
22	W24x103	303+91.59	26.92	580.30	587.67	620.47	40.2	608.30	9
23	W24x103	303+97.58	26.69	580.80	587.61	620.80	40.0	608.80	9
24	W24x103	304+02.50	26.59	581.20	587.53	621.11	39.9	609.20	9
25	W24x103	304+08.33	26.59	581.70	587.37	621.28	39.6	609.70	9
26	W24x103	304+08.33	26.59	582.30	587.08	621.40	39.1	610.30	8
27	W18x71	304+09.23	31.58	598.85	587.00	622.60	23.8	621.10	2

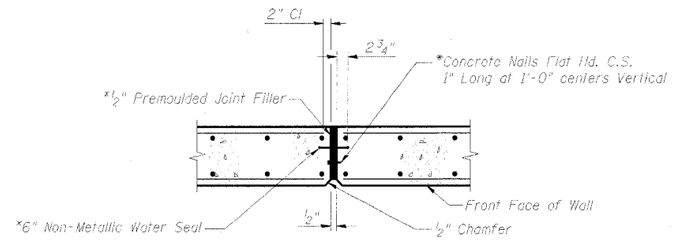
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu Yd	106.4
Protective Coat	Sq Yd	76.8
Concrete Structures	Cu Yd	69.5
Stud Shear Connectors	Each	196
Untreated Timber Lagging	Sq Ft	1,594
Furnishing Soldier Piles (W Section)	Foot	978.0
Reinforcement Bars, Epoxy Coated	Pound	9,990
Pedestrian Railing	Foot	172.7
Temporary Sheet Piling	Sq Ft	104
Geocomposite Wall Drain	Sq Yd	177.1
Concrete Gutter, Type B	Foot	163.5
Drilling and Setting Soldiers Piles in Soil	Cu Ft	2954
Drilling and Setting Soldiers Piles in Rock	Cu Ft	1298
Pipe Underdrain for Structures 4"	Foot	163.5

INDEX OF DRAWINGS



CONSTRUCTION JOINT DETAIL



EXPANSION JOINT DETAIL
* Cost Included With Concrete Structures

RETAINING WALL JOINT DETAILS

DESIGNED -	NDR
CHECKED -	DSE
DRAWN -	RTT
CHECKED -	DSE
DATE	JAN 31, 2006

Illinois Firm Registration No. 184-001533
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

GENERAL NOTES AND TOTAL BILL OF MATERIAL
RETAINING WALL E ALONG
30TH STREET
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 302+50.00 TO STA 304+10.00
STRUCTURE NO. 081-W007

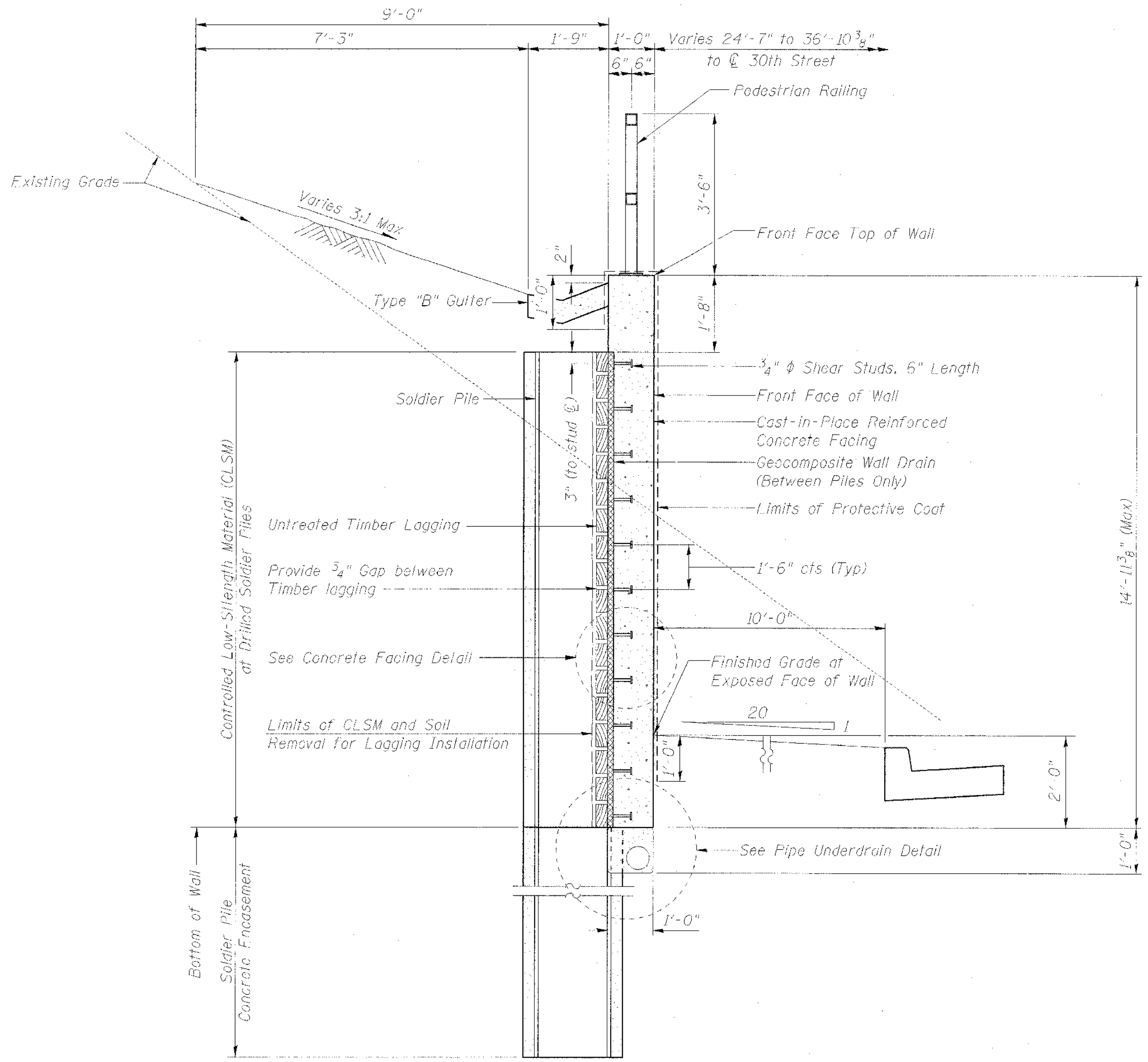
Q:\Idot\16570\walls_c_e_f\sht\D00202rete.dgn
15-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

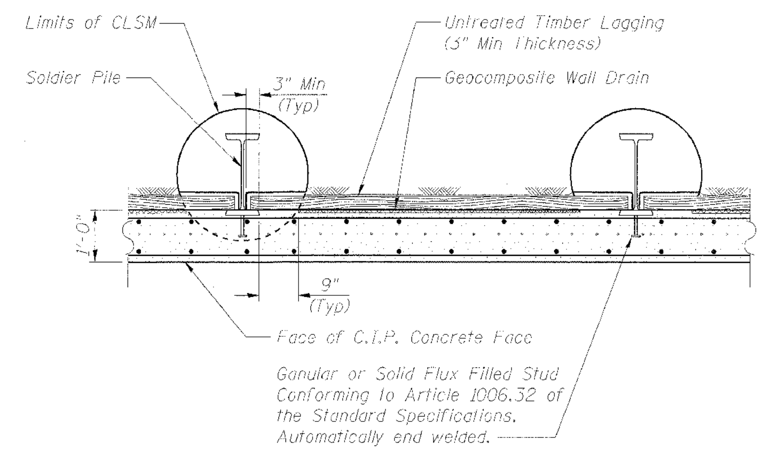
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	135
FED. ROAD DIST. NO. 2		ILLINOIS	FED. AID PROJECT-	

Contract No. 84986

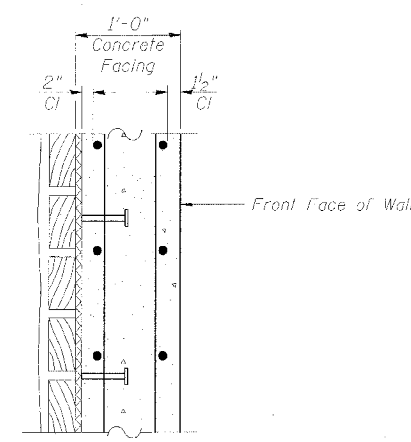
SHEET NO. 3
12 SHEETS



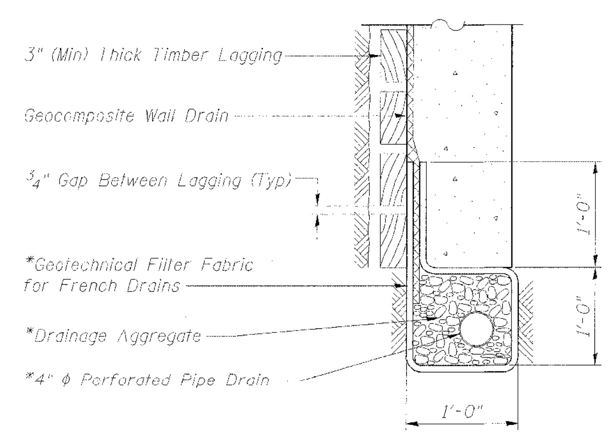
TYPICAL SECTION



PLAN VIEW



CONCRETE FACING DETAIL



PIPE UNDERDRAIN DETAIL

(Between piles shown, at piles similar. See Note 2.)

*Included in the cost of "Pipe Underdrain for Structures 4". See Note 1.

NOTES:

1. Pipe Underdrains, Aggregate for French Drains and Geotechnical Filter Fabric for French Drains shall be according to Section 601 of the Standard Specifications, except that this material will not be paid for seperately, but shall be paid for at the Contract Unit Price per foot for " Pipe Underdrain for Structures 4" ".
2. Pipe Underdrain for Structures 4" will only be installed under the wall running along 30th Street and not under the return wall at the north end of the retaining wall.

DESIGNED -	NDR
CHECKED	DSE
DRAWN -	RTT
CHECKED -	DSE
DATE -	JAN 31, 2006

Illinois Firm Registration No.: 184-001633
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

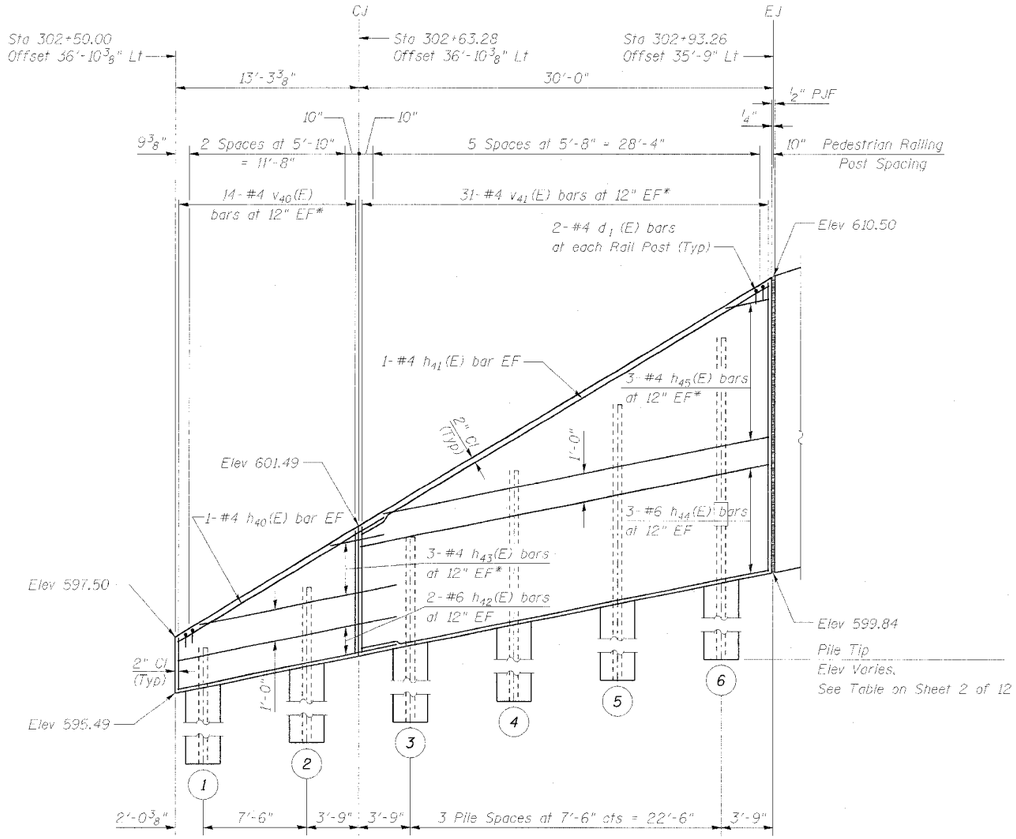
TYPICAL SECTION AND DETAIL
RETAINING WALL E ALONG
30TH STREET
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 302+50.00 TO STA 304+10.00
STRUCTURE NO. 081-W007

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	136
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT -		

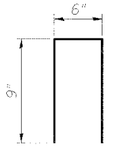
SHEET NO. 4
12 SHEETS

Contract No. 84986



FRONT FACE ELEVATION

PLAN



BAR d_1(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d1 (E)	12	#4	2'-0"	⊓
h40(E)	2	#4	11'-4"	—
h41(E)	2	#4	30'-11"	—
h42(E)	4	#6	15'-11"	—
h43(E)	3	#4	15'-10"	—
h44(E)	10	#6	29'-10"	—
h45(E)	6	#4	27'-5"	—
v40(E)	14	#4	6'-0"	—
v41(E)	31	#4	14'-7"	—
Structure Excavation		Cu Yd	23.4	
Concrete Structures		Cu Yd	10.1	
Reinforcement Bars, Epoxy Coated		Pound	1130	

Reinforcement bars designated (E) shall be epoxy coated.

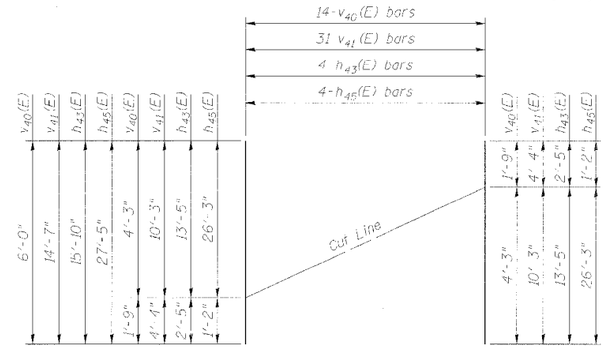
See Sheet 2 of 12 for Expansion Joint and Water Seal Placement Detail.

See Sheet 7 of 12 for Pedestrian Railing Details.

See Sheet 3 of 12 for Retaining Wall, Typical Section and Underdrain Details.

Min Lap Length: #4 bar = 1'-8"
#6 bar = 2'-7"

*See Field Cutting Diagram



FIELD CUTTING DIAGRAM

Order bars full length. Cut to fit as shown and place at one end of the dimension line shown on the plan. Use remainder of bars at opposite end of the dimension line on the opposite face of the Retaining Wall.

DESIGNED	NDR
CHECKED	DSE
DRAWN	RTT
CHECKED	DSE
DATE	JAN 31, 2006

Illinois Firm Registration No.: 184-006533
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

WALL PLAN AND ELEVATION
RETAINING WALL E ALONG
30TH STREET
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 302+50.00 TO STA 304+10.00
STRUCTURE NO. 081-W007

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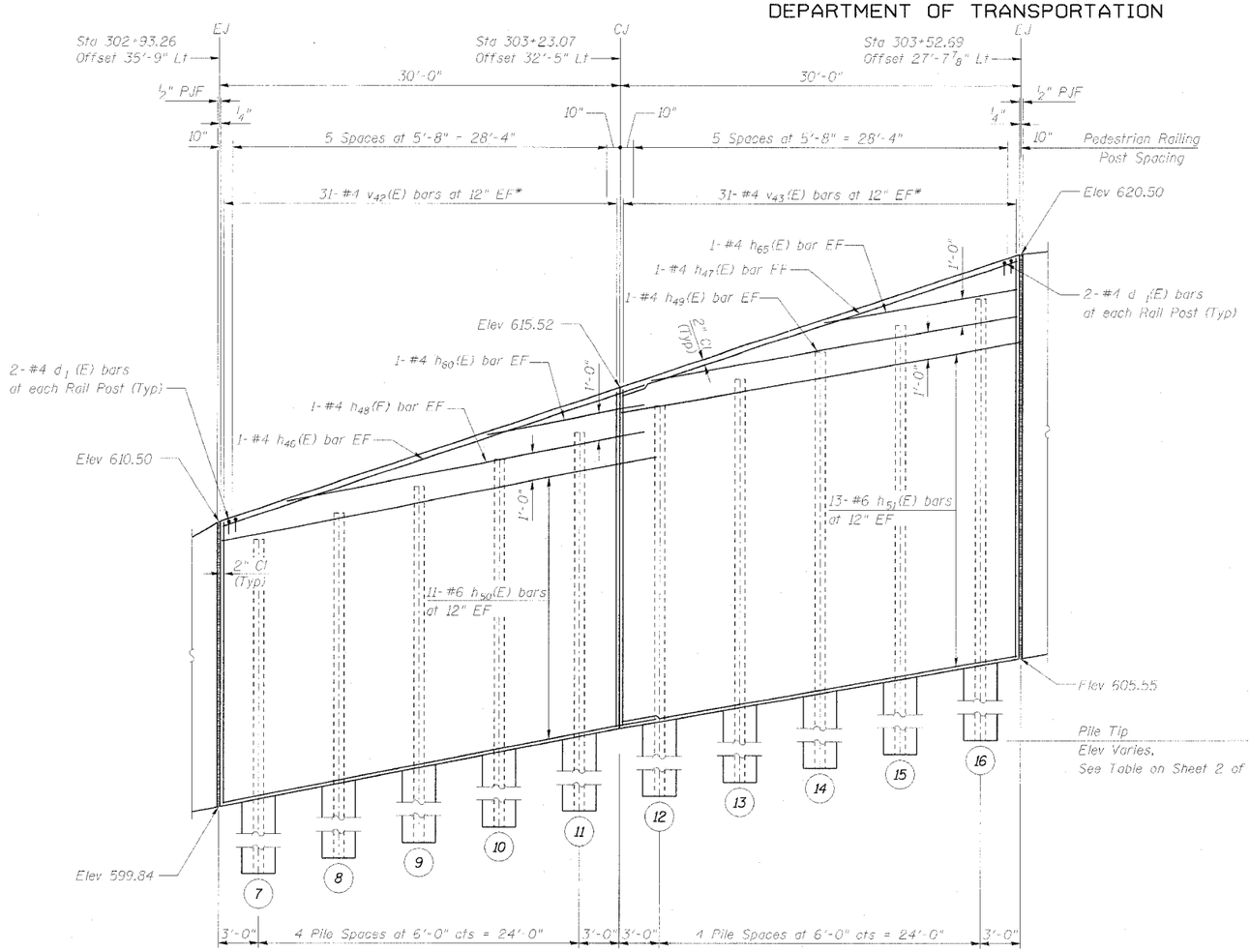
15-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

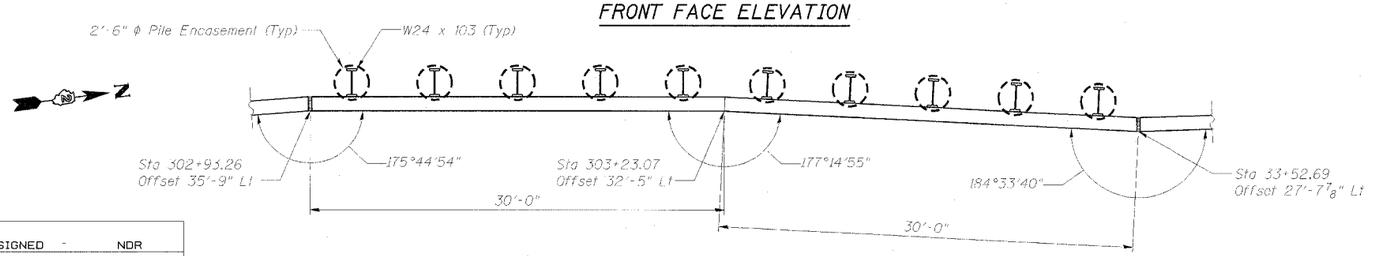
ENTRY NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	137
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 5
12 SHEETS

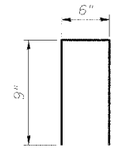
Contract No. 84986



FRONT FACE ELEVATION



PLAN



BAR d_1 (E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d1 (E)	24	#4	2'-0"	⊓
				—
h46(E)	2	#4	32'-2"	—
h47(E)	2	#4	30'-8"	—
h48(E)	2	#4	21'-4"	—
h49(E)	2	#4	29'-11"	—
h50(E)	22	#6	32'-9"	—
h51(E)	26	#6	29'-9"	—
h60(E)	2	#4	6'-9"	—
h65(E)	2	#4	7'-4"	—
v42(E)	31	#4	22'-8"	—
v43(E)	31	#4	27'-1"	—
Structure Excavation			Cu Yd	52.3
Concrete Structures			Cu Yd	28.4
Reinforcement Bars, Epoxy Coated			Pound	3480

Reinforcement bars designated (E) shall be epoxy coated.

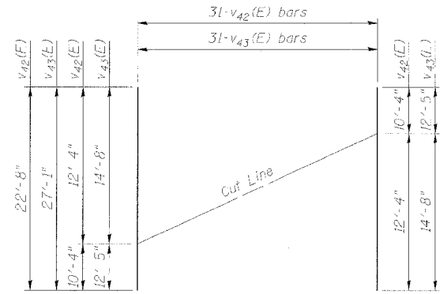
See Sheet 2 of 12 for Expansion Joint and Water Seal Placement Detail.

See Sheet 7 of 12 for Pedestrian Railing Details.

See Sheet 3 of 12 for Retaining Wall, Typical Section and Underdrain Details.

Min Lap Length: #4 bar = 1'-8"
#6 bar = 2'-7"

* See Field Cutting Diagram



FIELD CUTTING DIAGRAM

Order bars full length. Cut to fit as shown and place at one end of the dimension line shown on the plan. Use remainder of bars at opposite end of the dimension line on the opposite face of the Retaining Wall.

DESIGNED	NDR
CHECKED	DSE
DRAWN	RTT
CHECKED	DSE
DATE	JAN 31, 2006

Illinois Firm Registration No.: 184-001533
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2809
www.stanleygroup.com

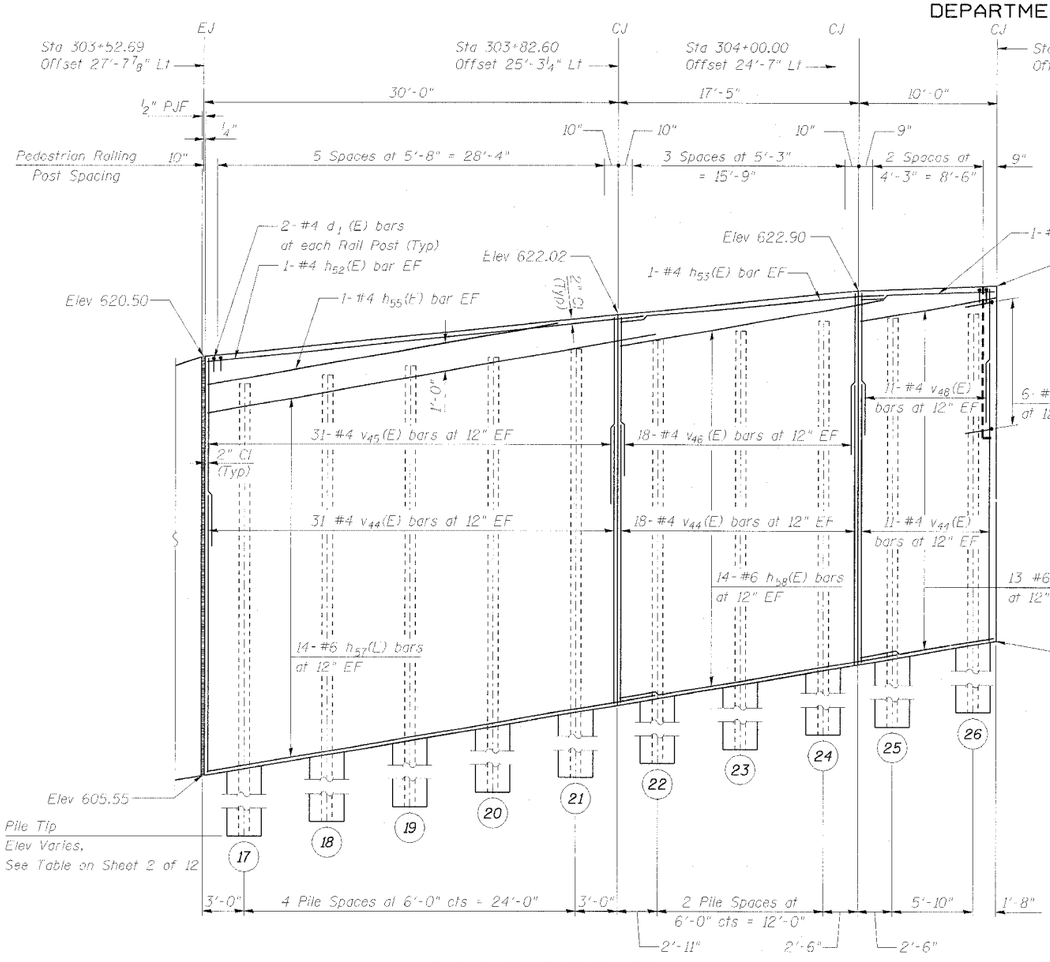
WALL PLAN AND ELEVATION
RETAINING WALL E ALONG
30TH STREET
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 302+50.00 TO STA 304+10.00
STRUCTURE NO. 081-W007

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

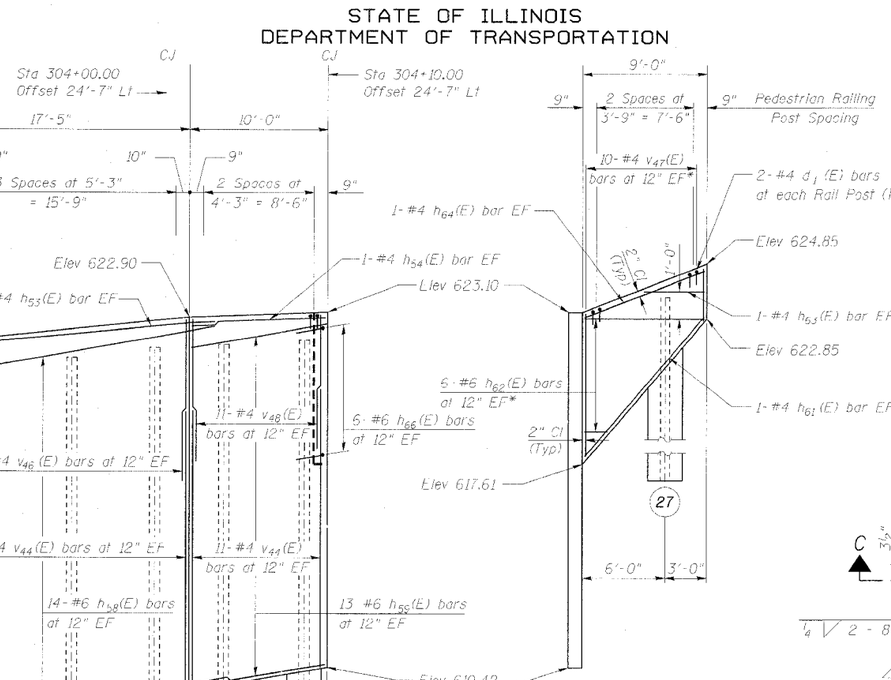
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	138
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT-		

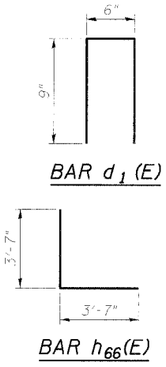
Contract No. 84986

SHEET NO. 6
12 SHEETS



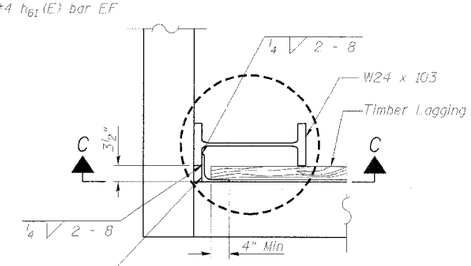
FRONT FACE ELEVATION





BAR d_1 (E)

BAR h_{66}(E)



Provide and attach L6 x 6 x 1/2" shape to W24 x 103 pile in order to support timber lagging. Cost included with Furnishing Soldier Piles W24 x 103.

DETAIL A

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d1 (E)	32	#4	2'-0"	⊓
h52(E)	2	#4	31'-9"	—
h53(E)	2	#4	17'-4"	—
h54(E)	2	#4	9'-8"	—
h55(E)	2	#4	16'-9"	—
h57(E)	52	#6	32'-8"	—
h58(E)	28	#6	18'-4"	—
h59(E)	26	#6	9'-9"	—
h61(E)	2	#6	10'-6"	—
h62(E)	6	#6	10'-1"	—
h63(E)	2	#4	3'-8"	—
h64(E)	2	#4	8'-10"	—
h66(E)	12	#6	7'-2"	L
v44(E)	120	#4	10'-0"	—
v45(E)	62	#4	6'-4"	—
v46(E)	36	#4	5'-4"	—
v47(E)	10	#4	6'-10"	—
v48(E)	22	#4	4'-8"	—
Structure Excavation		Cu Yd	30.8	
Concrete Structures		Cu Yd	31	
Reinforcement Bars, Epoxy Coated		Pound	5380	

Reinforcement bars designated (E) shall be epoxy coated.

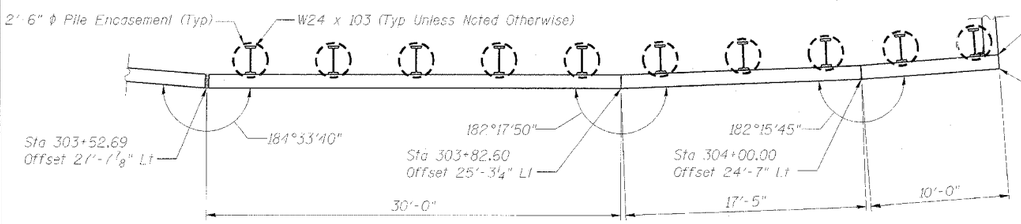
See Sheet 2 of 12 for Expansion Joint and Water Seal Placement Detail.

See Sheet 7 of 12 for Pedestrian Railing Details.

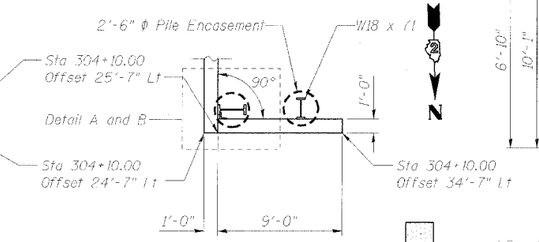
See Sheet 3 of 12 for Retaining Wall, Typical Section and Underdrain Details.

Min Lap Length: #4 bar = 1'-8"
#6 bar = 2'-7"

* See Field Cutting Diagram



PLAN



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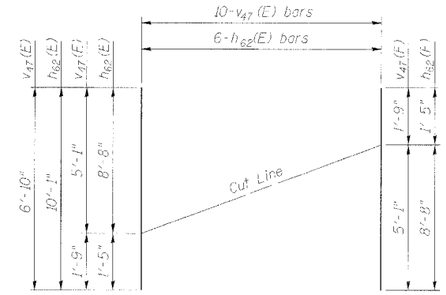
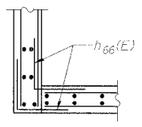
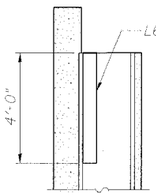


FIELD CUTTING DIAGRAM

Order bars full length. Cut to fit as shown and place at one end of the dimension line shown on the plan. Use remainder of bars at opposite end of the dimension line on the opposite face of the Retaining Wall.



DETAIL B



SECTION C-C

DESIGNED	NDR
CHECKED	DSE
DRAWN	RTT
CHECKED	DSE
DATE	JAN 31, 2006

Illinois Firm Registration No. 184-001533
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

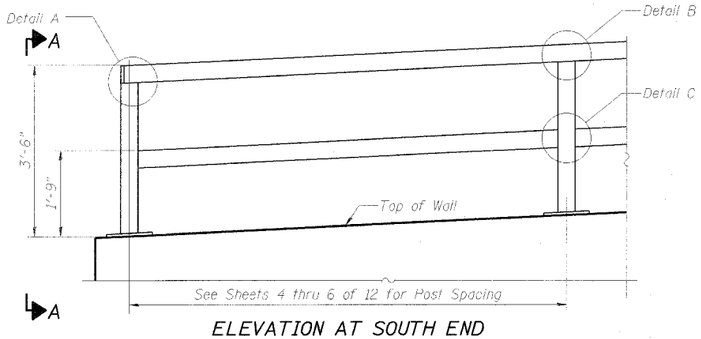
WALL PLAN AND ELEVATION
RETAINING WALL E ALONG
30TH STREET
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 302+50.00 TO STA 304+10.00
STRUCTURE NO. 081-W007

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

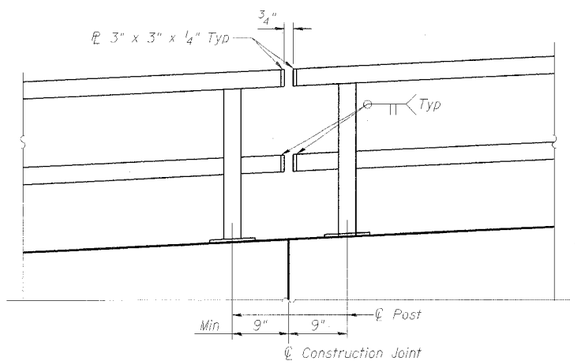
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	139
FED.ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT		

SHEET NO. 7
12 SHEETS

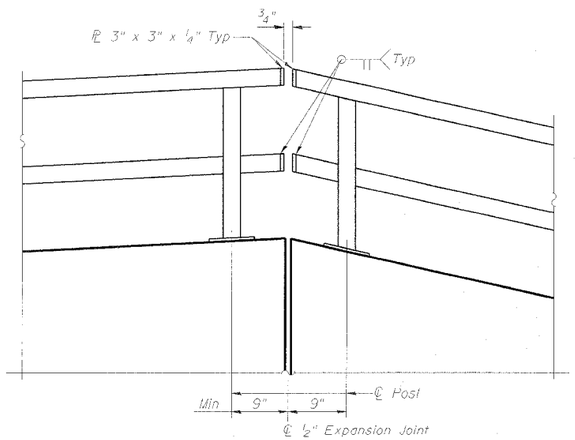
Contract No. 84986



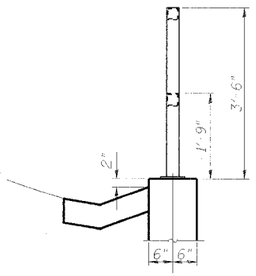
ELEVATION AT SOUTH END
(Looking West)



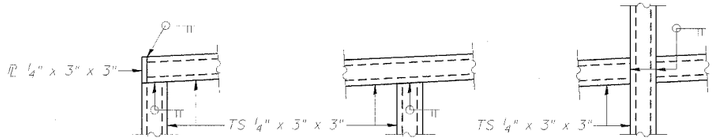
ELEVATION AT CONSTRUCTION JOINT



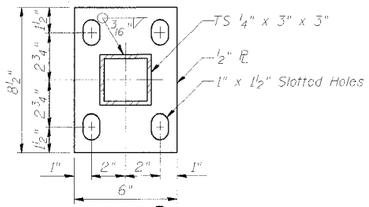
ELEVATION AT EXPANSION JOINT



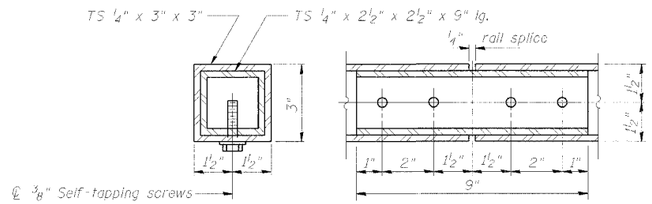
VIEW A-A



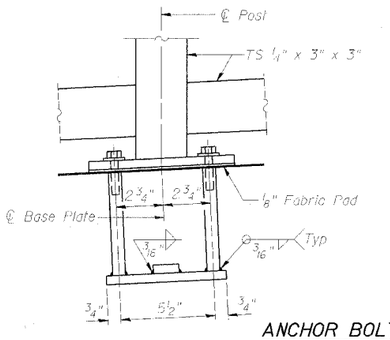
DETAIL A DETAIL B DETAIL C

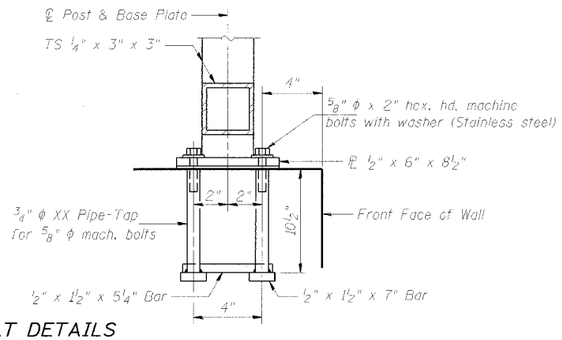


BASE ℄



RAIL SPLICE





ANCHOR BOLT DETAILS

(In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and epoxy grouting 5/8" ϕ anchor rods. Embedment shall be according to the manufacturer's specifications.)

NOTES

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 meter for Pedestrian Railing.

Hollow structural steel tubing shall conform to the requirements of ASTM designation A 500, Grade B, structural steel tubing.

All other steel shapes and plates shall conform to the requirements of AASHTO M 270M Grade 250.

If the option of drilling and epoxy grouting the anchor rods is chosen, the Contractor shall use the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures. The capsule or the adhesive cartridge shall be sealed with premeasured amounts of the adhesive chemical.

Space reinforcement to miss anchor rods.

All posts, railing, splices, anchor devices, and bent plates shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. All bolts, nuts, washers and anchor rods shall be galvanized according to AASHTO M 232 except stainless steel bolts as noted.

Vent holes for galvanizing shall be placed in the posts and rails at locations that will not allow the accumulation of moisture in the members.

BILL OF MATERIAL

Item	Unit	Quantity
Pedestrian Railing	Foot	1172.7

DESIGNED -	NDR
CHECKED -	DSE
DRAWN -	RTT
CHECKED -	DSE
DATE -	JAN 31, 2006

Illinois Firm Registration No. 184-001633
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

PEDESTRIAN RAILING
RETAINING WALL E ALONG
30TH STREET
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 302+50.00 TO STA 304+10.00
STRUCTURE NO. 081-W007

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15-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	140
FED. ROAD DIST. NO. 5	ILLINOIS	FED. AID PROJECT -		

SHEET NO. 8
12 SHEETS
Contract No. 84986

Illinois Department of Transportation
Division of Highways
District 2, Dixon

SOIL BORING LOG

Page 1 of 1

Date 9/25/03

ROUTE FA 595 DESCRIPTION P92-118-94 30th St. Retaining Wall @ John Deere Road, 30th St. in Rock Island LOGGED BY C. Jenkins

SECTION 1-1 LOCATION S. Rock Island Twp. - 13 SW & SE, SEC. , TWP. 17N, RNG. 2W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. ____
Station ____

BORING NO. B-1
Station 302+50
Offset 6.00ft Lt CL
Ground Surface Elev. 596.6 ft

Surface Water Elev. None ft
Stream Bed Elev. None ft

Groundwater Elev.:
First Encounter None ft
Upon Completion None ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Asphalt MEDIUM tan SILTY LOAM		0.8 E	11
593.60			
VERY STIFF tan/gray SILT 135.2 wet dens.	5 7 7	2.1 S	14
592.10			
-5			
Same as above 126.7 wet dens.	2 2 5	2.0 S	21
589.60			
VERY STIFF brown/black SILTY CLAY with a COAL lens 122.5 wet dens.	4 4 12	2.5 S	30
587.10			
-10			
VERY STIFF gray/tan SHALEY CLAY with a COAL lens 128.9 wet dens.	8 7 11	3.7 S	17
584.60			
Same as above 142.7 wet dens.	7 10 15	3.4 S	17
581.60			
-15			
DENSE gray/black SHALE	9 12 21		
579.60			
VERY DENSE gray/black SHALE	50 30 43		
577.10			
-20			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
VERY DENSE gray/black SHALE	15 24 44		
574.60			
Same as above	14 100/6" PEN		
572.10			
-25			
Same as above	30 70 100/11" PEN		
569.60			
Same as above	100/6" PEN		
567.10			
-30			
	100/6" PEN		
565.60			
End of Boring			
-35			
-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 2, Dixon

SOIL BORING LOG

Page 1 of 1

Date 9/26/03

ROUTE FA 595 DESCRIPTION P92-118-94 30th St. Retaining Wall John Deere Road, 30th St. in Rock Island LOGGED BY C. Jenkins

SECTION 1-1 LOCATION S. Rock Island Twp. - 13 SW & SE, SEC. , TWP. 17N, RNG. 2W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. ____
Station ____

BORING NO. B-2
Station 303+37
Offset 5.50ft Lt CL
Ground Surface Elev. 605.0 ft

Surface Water Elev. None ft
Stream Bed Elev. None ft

Groundwater Elev.:
First Encounter None ft
Upon Completion Dry ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Asphalt Concrete VERY STIFF tan SILT		2.2 P	15
602.00			
VERY STIFF tan SILTY CLAY TILL 140.6 wet dens.	4 3 6	3.1 S	16
600.50			
-5			
STIFF tan SILTY CLAY TILL 137.4 wet dens.	4 5 8	1.7 S	17
598.00			
VERY STIFF tan mottled SILTY CLAY TILL 142.7 wet dens.	5 6 8	3.9 S	15
595.50			
-10			
Same as above 138.4 wet dens.	6 7 9	3.1 S	15
593.00			
VERY STIFF gray/tan mottled SHALEY CLAY 154.4 wet dens.	5 6 9	3.7 S	16
590.50			
-15			
VERY STIFF olive green SILTY CLAY TILL over 4" SHALE 138.4 wet dens.	3 5 9	3.3 S	15
587.50			
VERY DENSE gray/black SHALE	12 100/3" PEN		
585.50			
-20			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
VERY DENSE gray/black SHALE	11 32 48		
583.00			
Same as above	42 58 100/10" PEN		
580.50			
-25			
VERY DENSE gray/black SHALE with 2" coal lens at bottom	100/5" PEN		
579.00			
End of Boring			
-30			
-35			
-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

DESIGNED	NDR
CHECKED	DSE
DRAWN	RTT
CHECKED	DSE
DATE	JAN 31, 2006

Illinois Firm Registration No.: 184-001533
Stanley Consultants INC.
850 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

SOIL BORING LOGS B-1 AND B-2
RETAINING WALL E ALONG
30TH STREET
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 302+50.00 TO STA 304+10.00
STRUCTURE NO. 081-W007

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15-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	141
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT		

SHEET NO. 9
12 SHEETS

Contract No. 84986

Illinois Department of Transportation
Division of Highways
IDOT

ROCK CORE LOG

Page 1 of 1

Date 9/26/03

ROUTE FA 595 DESCRIPTION P92-118-94 30th St. Retaining Wall E, John Deere Road, 30th St. in Rock Island LOGGED BY C. Jenkins

SECTION 1-1 LOCATION S. Rock Island Twp. - 13 SW & SE, SEC. , TWP. 17N, RNG. 2W

COUNTY Rock Island CORING METHOD

STRUCT. NO. 081-W007 CORING BARREL TYPE & SIZE
Station

Core Diameter 1.5 in
Top of Rock Elev. 587.50 ft
Begin Core Elev. 579.00 ft

BORING NO. B-2
Station 303+37
Offset 6.50ft Lt CL
Ground Surface Elev. 605.0 ft

	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Begin Coring - 580.0 VERY DENSE gray/black SHALE with 2" coal lens at bottom 90% Recovery - SHALE Time: 14 minutes SHALE: Dark gray, fissile, delaminated in 1/4" segments, turning light gray, flaky and fragile - no testable segments available.		1	90	33	2.8	
575.00 -30						
100% Recovery - SHALE Time: 14 minutes Shale: As above, medium gray, delaminated throughout.		2	100	40	2.8	
570.00 -35						
End of Boring						
-40						
-45						

Color pictures of the cores
Cores will be stored for examination until
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 2, Dixon

SOIL BORING LOG

Page 1 of 1

Date 9/29/03

ROUTE FA 595 DESCRIPTION P92-118-94 30th St. Retaining Wall @ John Deere Road, 30th St. in Rock Island LOGGED BY C. Jenkins

SECTION 1-1 LOCATION S. Rock Island Twp. - 13SW & SE, SEC. , TWP. 17N, RNG. 2W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.
Station

BORING NO. B-3
Station 304+00
Offset 4.50ft Lt CL
Ground Surface Elev. 610.9 ft

Surface Water Elev. None ft
Stream Bed Elev. None ft

Groundwater Elev.:
First Encounter 592.9 ft ▼
Upon Completion Dry ft
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
6" Asphalt 6.5" Concrete MEDIUM tan SILTY CLAY with GRAVEL			0.8 P	15
607.90				
STIFF tan/gray mottled SILTY CLAY 133.1 wet dens.		3 5 5	1.8 S	20
606.40 -5				
VERY STIFF brown/gray SILTY CLAY 135.2 wet dens.		4 4 4	3.5 B	14
603.90				
VERY STIFF brown/gray SILTY CLAY with some GRAVEL 141.6 wet dens.		3 6 9	3.7 S	15
601.40 -10				
Same as above 138.4 wet dens.		4 5 8	3.5 S	15
598.90				
HARD tan/gray SHALEY CLAY TILL 138.4 wet dens.		6 8 12	4.1 S	14
596.40 -15				
VERY STIFF tan/gray SILTY CLAY TILL 137.4 wet dens.		5 6 8	3.5 S	17
593.90 ▼				
VERY STIFF gray SHALEY CLAY TILL with a SAND lens 138.4 wet dens.		6 8 12	3.5 S	14
590.90 -20				

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
VERY STIFF gray SHALEY CLAY TILL with a SAND lens		4 5 9	2.3 S	13
588.90				
VERY DENSE gray/black SHALE		30 60 40		
586.40 -25		100/9" PEN		
Same as above		21 60 40		
Auger Refusal 583.90				
End of Boring		100/9" PEN		
-30				
-35				
-40				

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

BBS, from 137 (Rev. 8-99)

Illinois Firm Registration No.: 184-001533

Stanley Consultants INC.
3501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2806
www.stanleygroup.com

DESIGNED	NDR
CHECKED	DSE
DRAWN	RTT
CHECKED	DSE
DATE	JAN 31, 2006

ROCK CORE B-2 AND SOIL BORING LOG B-3
RETAINING WALL E ALONG
30TH STREET
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 302+50.00 TO STA 304+10.00
STRUCTURE NO. 081-W007

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15 FEB 2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	142
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT		

SHEET NO. 10
12 SHEETS
Contract No. 84986

Illinois Department of Transportation
Division of Highways
District 2, Dixon

SOIL BORING LOG

Page 1 of 1

Date 9/29/03

ROUTE FA 595 DESCRIPTION P92-118-94 30th St. Retaining Wall @ John Deere Road, 30th St. in Rock Island LOGGED BY C. Jenkins

SECTION 1-1 LOCATION S. Rock Island Twp. - 13 SW & SE, SEC. , TWP. 17N, RNG. 2W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.
Station

BORING NO. B-4
Station 304+75
Offset 6.00ft Lt CL
Ground Surface Elev. 616.1 ft

Surface Water Elev. None ft
Stream Bed Elev. None ft

Groundwater Elev.:
First Encounter None ft
Upon Completion Dry ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
		0.6 P	20	Asphalt Concrete MEDIUM tan SILTY CLAY
613.10				
	2 4 6	2.5 S	13	VERY STIFF tan SILTY CLAY TILL 139.5 wet dens.
611.60				
-5				
	7 5 5	2.9 S	14	VERY STIFF tan with gray mottled SILTY CLAY TILL 138.4 wet dens.
609.10				
	2 4 6	2.1 B	15	Same as above 137.4 wet dens.
606.60				
-10				
	4 5 6	1.6 S	14	STIFF gray SILTY CLAY TILL with a SAND lens 135.2 wet dens.
604.10				
	3 5 7	2.1 S	15	VERY STIFF gray SILTY CLAY TILL with some CHERT 140.6 wet dens.
601.60				
-15				
	3 5 8	2.9 B	14	VERY STIFF gray SILTY CLAY TILL 141.6 wet dens.
599.10				
	4 7 9	2.9 S	14	Same as above 140.6 wet dens.
596.60				
-20				
	5 6 11	2.7 S	14	VERY STIFF gray SILTY CLAY TILL 142.7 wet dens.
594.10				
	14 9 11	5.1 S	16	HARD gray SHALEY CLAY TILL with a SAND lens 137.4 wet dens.
591.10				
-25				
	4 10 29			DENSE gray/black SHALE
589.10				
	44 56 100/12"			VERY DENSE gray/black SHALE
586.60	PEN			
-30				
	24 40 50			Same as above
584.10				
-40				End of Boring

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 2, Dixon

SOIL BORING LOG

Page 1 of 1

Date 9/30/03

ROUTE FA 595 DESCRIPTION P92-118-94 30th St. Retaining Wall @ John Deere Road, 30th St. in Rock Island LOGGED BY C. Jenkins

SECTION 1-1 LOCATION S. Rock Island Twp. - 13 SW & SE, SEC. , TWP. 17N, RNG. 2W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.
Station

BORING NO. B-5
Station 305+51
Offset 43.50ft Lt CL
Ground Surface Elev. 631.5 ft

Surface Water Elev. None ft
Stream Bed Elev. None ft

Groundwater Elev.:
First Encounter None ft
Upon Completion Dry ft
After ____ Hrs. ____ ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	Material
		0.8 P	17	MEDIUM tan SILT
629.00				
	3 4 5	0.7 S	19	MEDIUM tan SILT with ORGANICS 116.1 wet dens.
627.50				
-5				
	2 3 5	0.9 S	24	MEDIUM tan/gray SILT with ORGANICS 148.9 wet dens.
625.00				
	3 4 5	1.9 S	24	STIFF brown SILTY CLAY with ORGANICS 121.4 wet dens.
622.50				
-10				
	4 4 5	1.8 S	17	STIFF brown/gray mottled SILTY CLAY TILL 126.7 wet dens.
620.00				
	4 6 9	1.9 S	21	STIFF tan with rust SILTY CLAY TILL 127.8 wet dens.
617.50				
-15				
	2 3 5	1.0 B	20	STIFF tan SILTY CLAY TILL 123.5 wet dens.
615.00				
	4 5 7	1.8 B	14	STIFF tan SILTY CLAY TILL 136.3 wet dens.
612.50				
-20				
	3 5 10	2.1 B	16	VERY STIFF tan SILTY CLAY TILL 135.2 wet dens.
610.00				
	4 6 9	2.3 S	15	VERY STIFF gray/brown SILTY CLAY TILL 133.1 wet dens.
607.50				
-25				
	2 4 8	1.6 B	15	STIFF gray/brown SILTY CLAY TILL 132.0 wet dens.
605.00				
	6 11 14	4.1 S	14	HARD brown SHALEY CLAY TILL 136.3 wet dens.
602.50				
-30				
	5 10 11	4.1 S	15	Same as above 135.2 wet dens.
600.00				
	6 11 16	4.5 B	13	HARD gray/tan SHALEY CLAY TILL 137.4 wet dens.
597.50				
-35				
	5 7 11	5.6 B	14	Same as above 138.4 wet dens.
594.50				
	5 23 52			VERY DENSE gray/black SHALE
592.50				
-40				End of Boring

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

DESIGNED	NDR
CHECKED	DSE
DRAWN	RTT
CHECKED	DSE
DATE	JAN 31, 2006

Illinois Firm Registration No. 184-001533
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

SOIL BORING LOGS B-4 AND B-5
RETAINING WALL E ALONG
30TH STREET
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 302+50.00 TO STA 304+10.00
STRUCTURE NO. 081-W007

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15-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	143
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT=		

SHEET NO. 11
12 SHEETS

Contract No. 84986

Illinois Department of Transportation
Division of Highways
District 2, Dixon

SOIL BORING LOG

Page 1 of 1

Date 10/6/03

ROUTE FA 595 DESCRIPTION P92-118-94 30th Street retaining wall, 30th St. in Rock Island LOGGED BY C. Jenkins

SECTION 1-1 LOCATION S. Rock Island Twp. - 13 SW & SE, SEC. , TWP. 17N, RNG. 2W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.
Station

BORING NO. B-6
Station 302+54
Offset 53.00ft Lt CL
Ground Surface Elev. 599.1 ft

Surface Water Elev. None ft
Stream Bed Elev. None ft

Groundwater Elev.:
First Encounter None ft
Upon Completion Dry ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
MEDIUM brown SILT		0.7 E	11
596.60			
STIFF tan SILT	6 7 7	1.5 S	11
595.10			
-5			
VERY STIFF tan with gray SILT	10 10 11	2.5 P	7
592.60			
VERY STIFF tan with gray and rust SILT	11 11 12	3.2 S	7
590.10			
-10			
DENSE gray/black SHALE with a COAL lens	13 15 24		
587.60			
VERY DENSE gray/black SHALE with a COAL lens	25 75 100/12" PEN		
585.10			
-15			
DENSE gray SHALE with a COAL lens	17 26 24		
582.60			
VERY DENSE gray SHALE	20 66 34 100/10" PEN		
580.10			
-20			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
VERY DENSE gray/black SHALE	12 37 53		
577.60			
Same as above	50 50 100/9" PEN		
575.10			
End of Boring			
-25			
-30			
-35			
-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
District 2, Dixon

SOIL BORING LOG

Page 1 of 2

Date 10/7/03

ROUTE FA 595 DESCRIPTION P92-118-94 30th Street retaining wall, 30th St. in Rock Island LOGGED BY C. Jenkins

SECTION 1-1 LOCATION S. Rock Island Twp. - 13 SW & SE, SEC. , TWP. 17N, RNG. 2W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.
Station

BORING NO. B-7
Station 304+50
Offset 70.00ft Lt CL
Ground Surface Elev. 645.9 ft

Surface Water Elev. None ft
Stream Bed Elev. None ft

Groundwater Elev.:
First Encounter 615.9 ft ▼
Upon Completion ft
After Hrs. ft

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
MEDIUM brown SILT		0.6 P	16
643.40			
MEDIUM tan SILT	6 5 8	0.7 S	8
641.90			
-5			
STIFF tan/gray SILT	7 6 7	2.0 P	7
639.40			
STIFF tan/gray SILT	7 6 7	1.3 P	8
636.90			
-10			
Same as above	6 7 8	1.1 S	8
634.40			
STIFF tan/gray with rust SILT	4 4 5	1.1 S	22
631.90			
-15			
STIFF gray SILT	6 7 8	1.1 S	23
629.40			
Same as above	3 3 5	1.2 S	27
626.90			
-20			

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
STIFF brown SILTY CLAY	2 3 4	1.3 B	22
624.40			
VERY STIFF gray/brown SILTY CLAY	7 9 11	3.5 S	19
621.90			
-25			
STIFF brown/gray SILTY CLAY TILL	3 3 7	1.9 S	16
619.40			
VERY STIFF brown SHALEY CLAY TILL with a SAND lens	4 7 13	2.9 S	13
616.90			
▼-30			
HARD gray/brown SHALEY CLAY TILL	5 7 9	4.1 S	12
614.40			
VERY DENSE brown SHALEY CLAY TILL	6 6 11	3.1 S	14
611.90			
-35			
STIFF gray SILTY CLAY TILL with CHERT	6 5 9	1.7 S	14
609.40			
Same as above	6 9 10	1.7 S	14
606.90			
-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

DESIGNED	-	NDR
CHECKED	-	DSE
DRAWN	-	RTT
CHECKED	-	DSE
DATE	-	JAN 31, 2006

Illinois Firm Registration No. 184-00533
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

SOIL BORING LOGS B-6 AND B-7
RETAINING WALL E ALONG
30TH STREET
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 302+50.00 TO STA 304+10.00
STRUCTURE NO. 081-W007

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15-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	144
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 12
12 SHEETS

Contract No. 84986

Illinois Department of Transportation
Division of Highways
District 2, Dixon

SOIL BORING LOG

Date 10/7/03

ROUTE FA 595 DESCRIPTION P92-118-94 30th Street retaining wall, 30th St. in Rock Island LOGGED BY C. Jenkins

SECTION 1-1 LOCATION S. Rock Island Twp. - 13 SW & SE, SEC. , TWP. 17N, RNG. 2W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. _____
Station _____

BORING NO. B-7
Station 304+50
Offset 70.00ft Lt CL
Ground Surface Elev. 645.9 ft

Surface Water Elev. None ft
Stream Bed Elev. None ft

Groundwater Elev.:
First Encounter 615.9 ft ▼
Upon Completion _____ ft
After _____ Hrs. _____ ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
VERY STIFF gray/brown SHALEY CLAY TILL		5 7 10	3.7 S	14
	604.40			
Same as above		5 8 11	5.4 S	13
	601.90			
	-45			
VERY STIFF gray/brown SHALEY CLAY TILL		4 7 9	3.1 S	13
	599.40			
HARD gray/green SHALEY CLAY TILL		11 15 22	5.1 S	14
	596.90			
	-60			
Same as above		5 7 11	4.3 S	14
	593.90			
VERY DENSE gray/black SHALE		10 19 62		
	591.90			
End of Boring				
	-65			
	-80			

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

BBS, from 137 (Rev. 8-99)

DESIGNED -	NDR
CHECKED -	DSE
DRAWN -	RTT
CHECKED -	DSE
DATE -	JAN 31, 2006

Illinois Firm Registration No. 184-00633

Stanley Consultants INC.
850 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

SOIL BORING LOG B-7
RETAINING WALL E ALONG
30TH STREET
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 302+50.00 TO STA 304+10.00
STRUCTURE NO. 081-W007

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5-FEB-2006

Bench Mark: B.M. Chiseled "□" End of SW Bridge Wingwall at Station 74+71.0, 26' Rt. Elevation = 580.39.
R.R. Spike in Power Pole at Station 82+56.00, 44.5' Rt. Elevation = 580.37.
B.M. " X " Spikes in Power Pole at Station 92+34.00, 59.5' Rt. Elevation = 577.08.

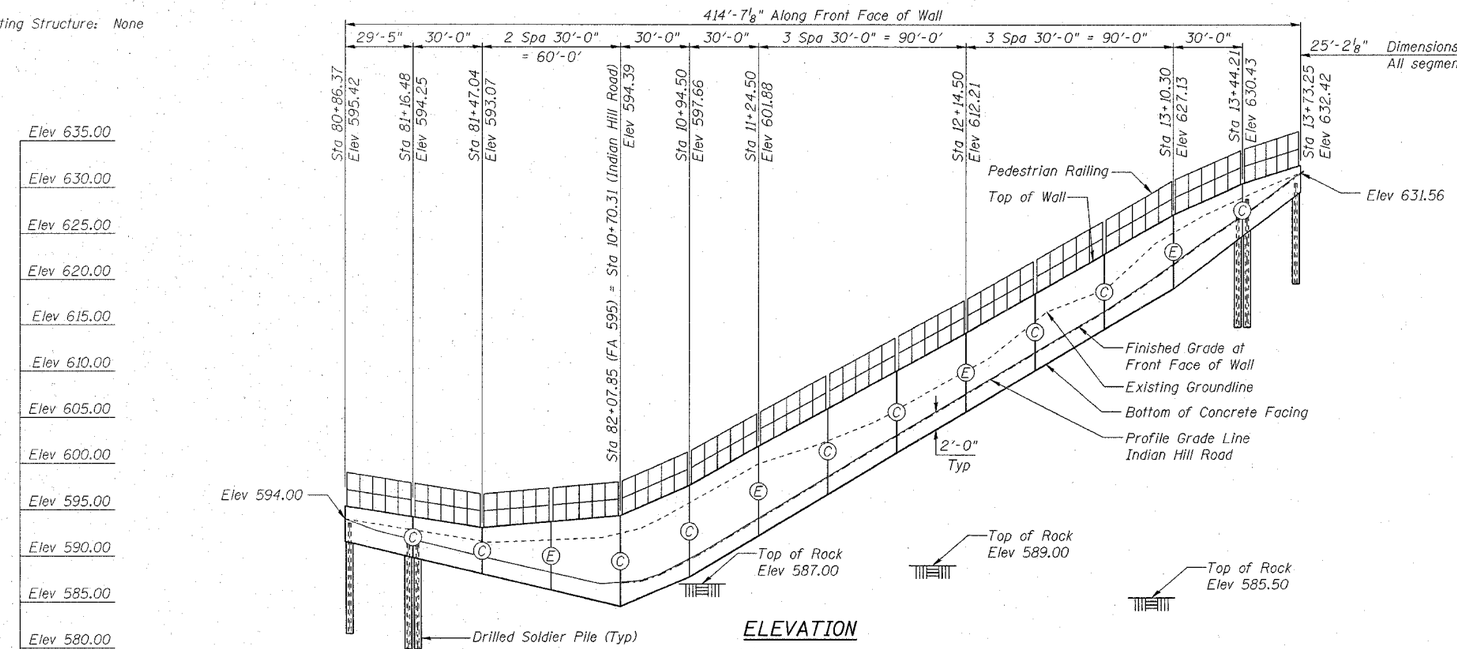
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	145
FED. ROAD DIST. NO. 2		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 1
13 SHEETS

Contract No. 84986

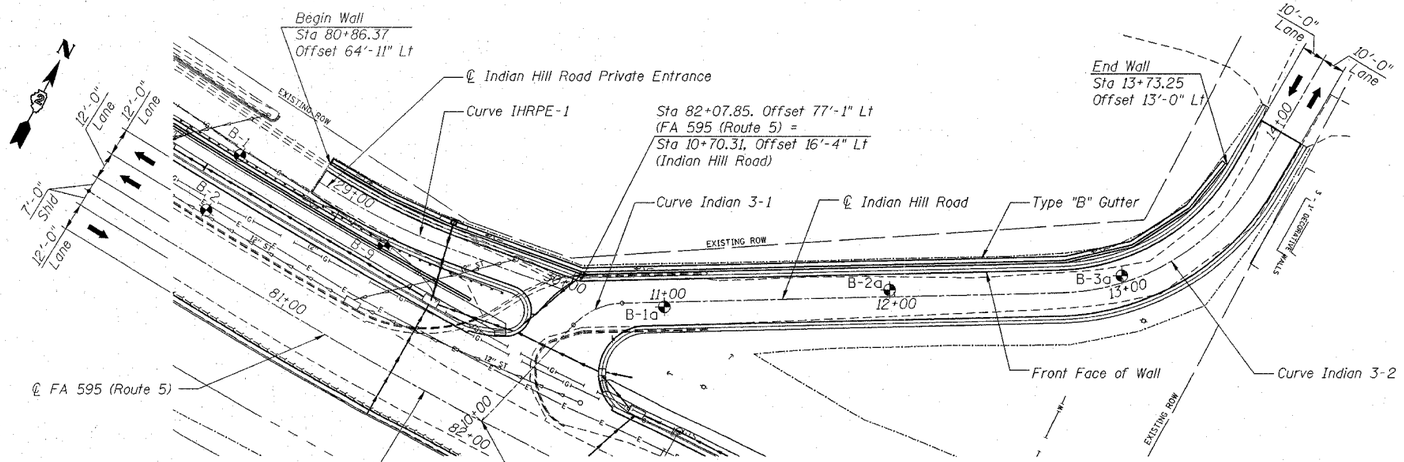
Existing Structure: None



ELEVATION

(Looking North)

(Stations and Elevations shown are at vertical kink points along the Front Face Top of Wall)



PLAN

DESIGNED	NLV
CHECKED	DSE
DRAWN	RD
CHECKED	DSE
DATE	JAN 31, 2006

CURVE 1210 DATA

℄ FA 595 (Route 5)
PI Sta = 82+57.71
Δ = 20° 08' 57" (Lt)
D = 2° 00' 01"
R = 2,864.59'
T = 508.95'
L = 1,007.39'
E = 44.86'
S.E. = N.C.
PC Sta = 77+48.76
PT Sta = 87+56.15

CURVE IHRPE-1 DATA

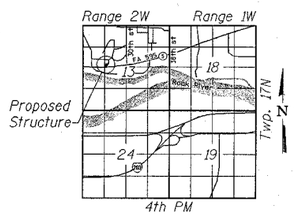
℄ Indian Hill Road Private Entrance
PI Sta = 29+18.50
Δ = 13° 37' 40" (Lt)
D = 20° 00' 00"
R = 286.48'
T = 34.23'
L = 68.14'
E = 2.04'
PC Sta = 28+84.26
PT Sta = 29+52.40

CURVE INDIAN 3-1 DATA

℄ Indian Hill Road
PI Sta = 10+70.59
Δ = 45° 07' 24" (Rt)
D = 190° 59' 09"
R = 30.00'
T = 12.46'
L = 23.63'
E = 2.49'
PC Sta = 10+58.13
PT Sta = 10+81.75

CURVE INDIAN 3-2 DATA

℄ Indian Hill Road
PI Sta = 13+27.38
Δ = 58° 06' 54" (Lt)
D = 57° 17' 45"
R = 100.00'
T = 55.56'
L = 101.43'
E = 14.40'
PC Sta = 12+71.82
PT Sta = 13+73.25



LOCATION SKETCH

HIGHWAY CLASSIFICATION

INDIAN HILL ROAD
Functional Class: Dead End Service Rd Servicing 2 Private Residences
ADT: N/A
DHV: N/A
Design Speed: N/A
Posted Speed: N/A

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges

DESIGN STRESSES

FIELD UNITS
f'_c = 3,500 psi (Cast-in-Place Wall Facing)
f'_c = 4,000 psi (Soldier Pile Encasement Concrete)
f_y = 60,000 psi (Reinforcement)
f_y = 50,000 psi (Structural Steel)

LEGEND

- (C) Construction Joint
- (E) Expansion Joint
- E—E Existing Electric
- 10" F.M. SAN. S. Existing 10" Forced Main Sanitary Sewer
- G—12"— Existing 12" Gas
- G—8"— Existing 8" Gas
- ℄ Existing Property Line
- 12" ST Existing 12" Storm
- B-4 Soil Boring Location
- W Existing Watermain
- Proposed Storm Sewer

STATE OF ILLINOIS
D. SCOTT ESHLEMAN
081-005155
CHICAGO, IL
LICENSED STRUCTURAL ENGINEER

EXPIRATION DATE: 11-30-06

DATE 2/1/06

Illinois Firm Registration No.: 184-00533

Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

GENERAL PLAN
RETAINING WALL F ALONG
INDIAN HILL ROAD
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 80+86.37 TO STA 13+73.25

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15-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	146
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 2
13 SHEETS

Contract No. 84986

GENERAL NOTES

1) Contractor shall be responsible for design of timber lagging (per special provisions). Lagging design shall be submitted to Engineer for approval. Quantity shown in Bill of Materials is an estimate for bidding purposes only.

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

3) All exposed edges of the concrete caps shall be chamfered $\frac{3}{4}$" unless noted otherwise.

4) All soldier piles shall be AASHTO M 270 Grade 50.

5) For drainage details (inlets, storm sewers, pipe drains, etc), see roadway plan and profile sheets and drainage and utility sheets.

6) Apply protective coat to all exposed concrete surfaces of the wall facing plus one foot below finished grade along the front of wall and one foot below top of wall along the back of wall.

7) All construction joints shall be bonded.

SUGGESTED SEQUENCE OF CONSTRUCTION

1) Drill holes for soldier piles. Do not excavate near these holes at this stage.

2) Set Soldier Piles.

3) Fill hole with concrete to specified elevation.

4) Fill remainder of hole with controlled low strength material.

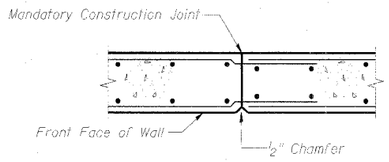
5) Begin earth excavation. Remove only earth and controlled low strength material as necessary to install timber lagging.

6) Install geocomposite wall drain and pipe underdrain.

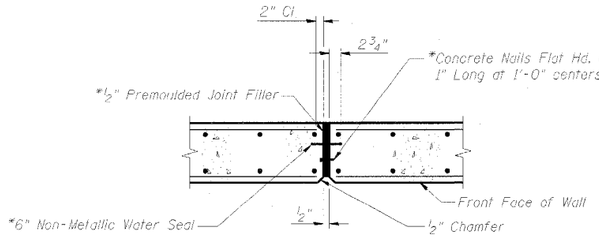
7) Install stud shear connectors.

8) Construct concrete wall facing.

9) Install Pedestrian Railing.



CONSTRUCTION JOINT DETAIL



EXPANSION JOINT DETAIL
* Cost Included With Concrete Structures

RETAINING WALL JOINT DETAILS

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Porous Granular Backfill	Cu Yd	11.9
Structural Excavation	Cu Yd	247.2
Rock Excavation for Structures	Cu Yd	17.5
Protective Coat	Sq Yd	129.8
Concrete Structures	Cu Ft	111.9
Stud Shear Connectors	Each	254
Untreated Timber Lagging	Sq Ft	2,390
Furnishing Soldier Piles (W Section)	Foot	1217.3
Reinforcement Bars, Epoxy Coated	Pound	16,070
Pedestrian Railing	Foot	417.2
Geocomposite Wall Drain	Sq Yd	265.6
Concrete Gutter, Type B	Foot	404.5
Drilling and Setting Soldiers Piles in Soil	Cu Ft	5,194
Drilling and Setting Soldiers Piles in Rock	Cu Ft	1,720
Pipe Underdrain for Structures 4"	Foot	418

INDEX OF DRAWINGS

DESIGNED	NLV
CHECKED -	DSE
DRAWN -	RTT
CHECKED -	DSE
DATE	JAN 31, 2006

Illinois Firm Registration No. 184-001533
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

GENERAL NOTES AND TOTAL BILL OF MATERIALS
RETAINING WALL F ALONG
INDIAN HILL ROAD
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 80+86.37 TO STA 13+73.25

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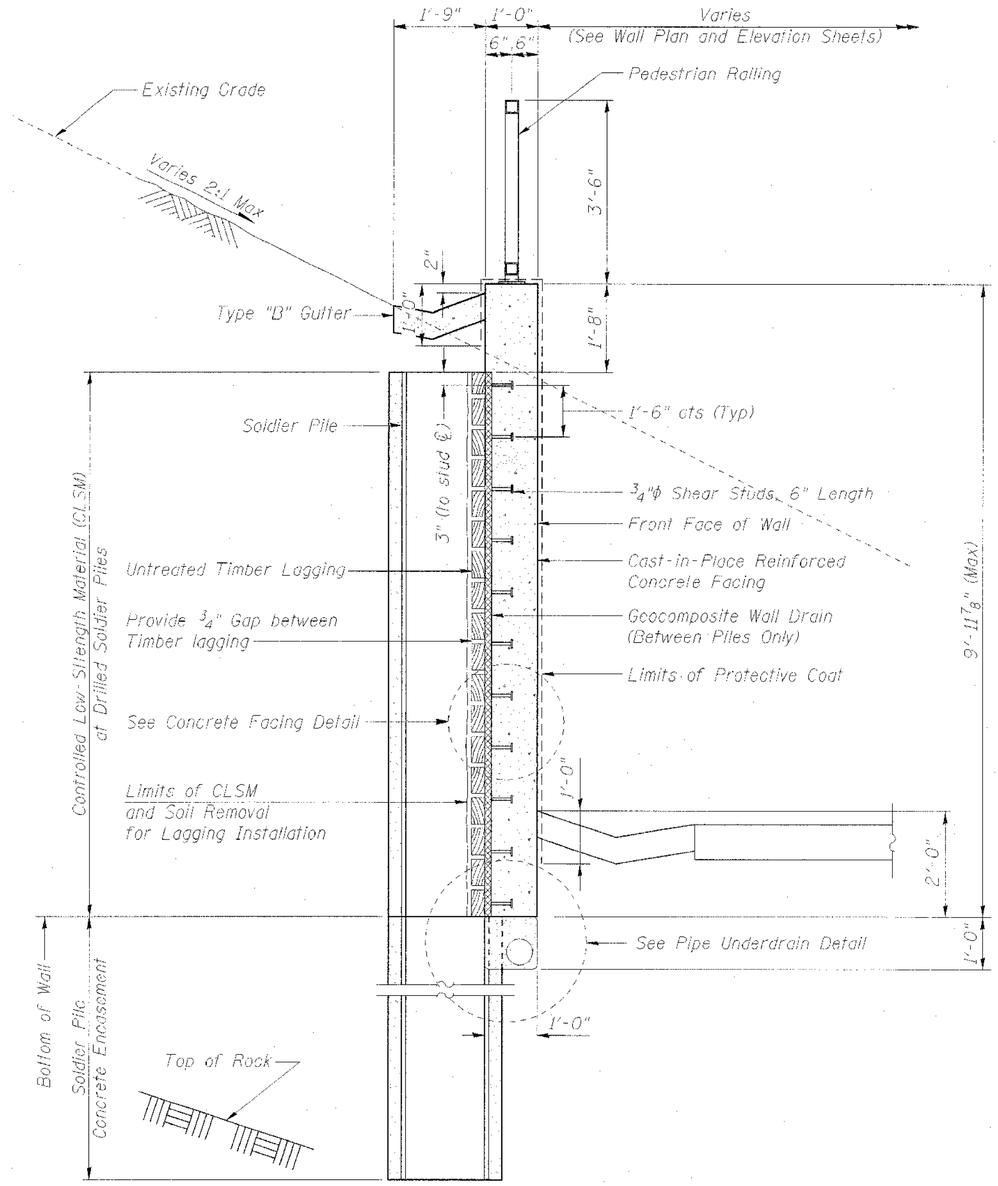
15-FEB-2006

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	147
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT-		

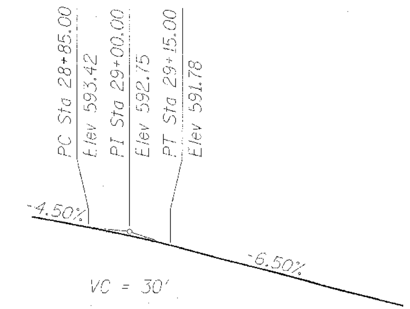
Contract No. 64986

SHEET NO. 3
13 SHEETS

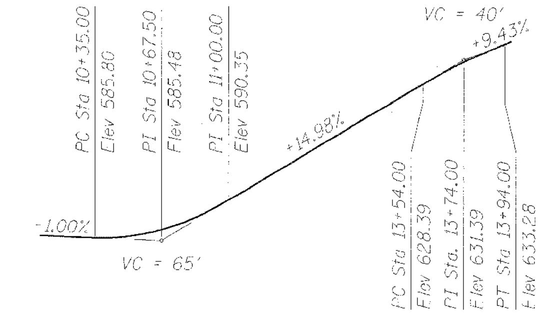
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



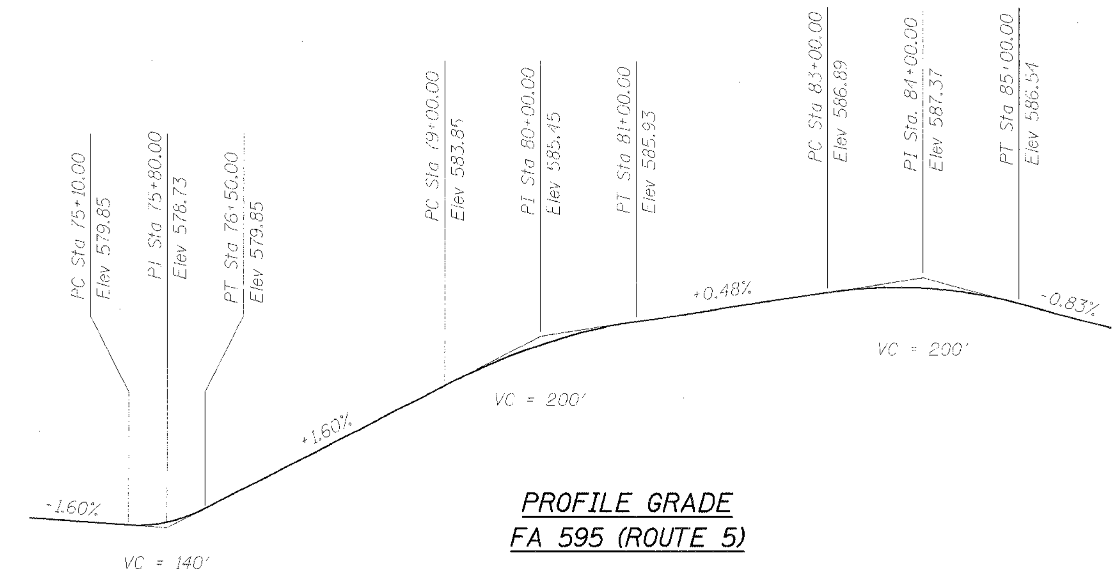
TYPICAL SECTION



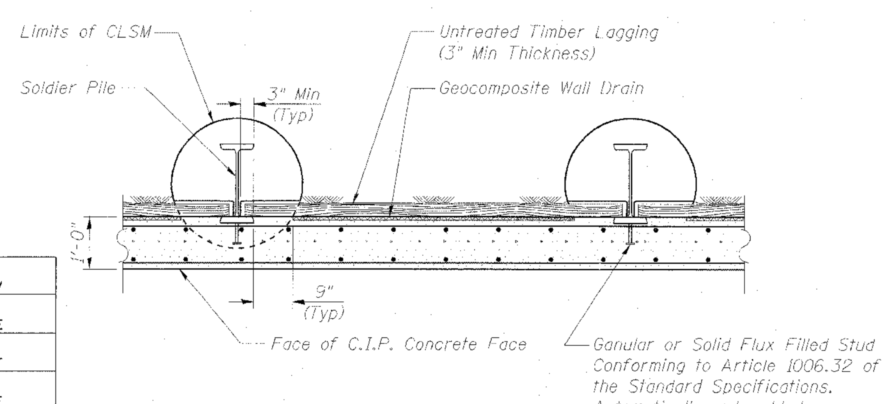
PROFILE GRADE
℄ INDIAN HILL ROAD
PRIVATE ENTRANCE



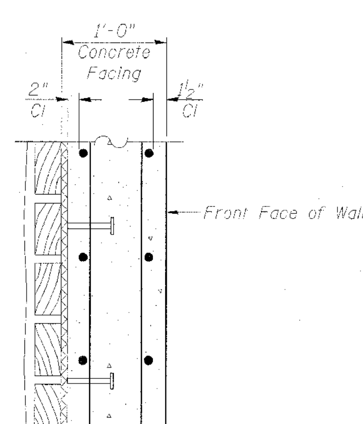
PROFILE GRADE
℄ INDIAN HILL ROAD



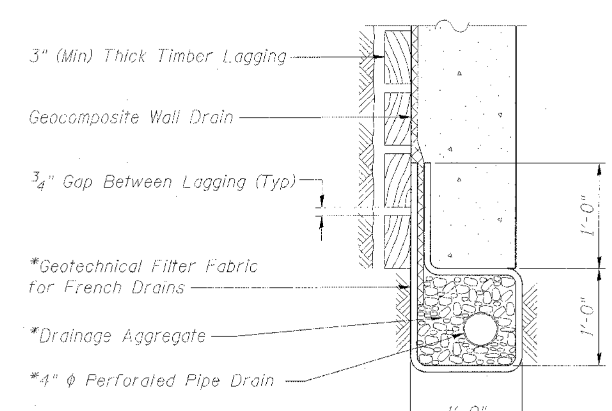
PROFILE GRADE
FA 595 (ROUTE 5)



PLAN VIEW



CONCRETE FACING DETAIL



PIPE UNDERDRAIN DETAIL
(Between piles shown, at piles similar.)

*Included in the cost of "Pipe Underdrain for Structures 4". See Note 1.

NOTES:

1. Pipe Underdrains, Aggregate for French Drains and Geotechnical Filter Fabric for French Drains shall be according to Section 601 of the Standard Specifications, except that this material will not be paid for seperately, but shall be paid for at the Contract Unit price per foot for Pipe Underdrain for Structures 4".

DESIGNED -	NLV
CHECKED -	DSE
DRAWN -	RTT
CHECKED -	DSE
DATE	JAN 31, 2006

Illinois Firm Registration No. 184-00633
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

TYPICAL SECTION AND DETAIL
RETAINING WALL F ALONG
INDIAN HILL ROAD
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 80+86.37 TO STA 13+73.25

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5-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	148
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT -		

SHEET NO. 4
13 SHEETS

Contract No. 84986

RETAINING WALL "F"

Soldier Pile Schedule

Pile No.	Pile Size	Station	Offset	Pile Tip Elevation	Approximate Top of Rock Elevation	Top of Pile Elevation	Length (ft)	Approximate Top of Concrete Encasement	No. of Studs Per Pile
1	W18 x 35	80+89.61	66.64	581.15	587.00	593.62	12.5	591.40	2
2	W18 x 35	80+97.29	66.66	580.65	587.00	593.33	12.7	590.90	2
3	W18 x 35	81+04.97	66.65	580.25	587.00	593.03	12.8	590.50	3
4	W18 x 35	81+12.64	66.62	579.75	587.00	592.74	13.0	590.00	3
5	W18 x 35	81+20.11	66.97	579.35	587.00	592.44	13.1	589.60	3
6	W18 x 35	81+27.76	67.71	578.85	587.00	592.14	13.3	589.10	3
7	W18 x 35	81+35.40	68.42	578.45	587.00	591.85	13.4	588.70	3
8	W36 x 135	81+42.98	69.88	574.75	587.00	591.55	16.8	588.20	3
9	W36 x 135	81+50.41	70.81	574.75	587.00	591.48	16.7	587.80	3
10	W18 x 35	81+58.13	71.28	578.42	587.00	591.65	13.2	587.30	4
11	W18 x 35	81+65.72	72.47	578.42	587.00	591.81	13.4	586.90	4
12	W18 x 35	81+73.33	73.65	578.42	587.00	591.98	13.6	586.40	5
13	W21 x 50	81+80.90	74.95	578.42	587.00	592.15	13.7	586.00	5
14	W21 x 50	81+88.52	76.11	578.42	587.00	592.31	13.9	585.50	5
15	W21 x 50	81+96.13	77.25	578.42	587.00	592.48	14.1	585.10	6
16	W21 x 50	82+03.76	78.37	578.42	587.00	592.64	14.2	584.60	6
17	W21 x 50	10+72.98	16.86	578.42	587.00	593.13	14.7	584.80	6
18	W21 x 50	10+77.76	15.27	578.42	587.00	593.95	15.5	585.60	6
19	W21 x 50	10+83.25	14.88	578.42	587.00	594.77	16.4	586.40	6
20	W21 x 50	10+90.75	14.88	578.42	587.00	595.58	17.2	587.30	6
21	W21 x 50	10+98.25	14.88	578.42	587.25	596.52	18.1	588.20	6
22	W21 x 50	11+05.75	14.88	578.42	587.75	597.57	19.2	589.30	6
23	W21 x 50	11+13.25	14.88	578.42	588.25	598.63	20.2	590.50	6
24	W21 x 50	11+20.75	14.88	578.42	588.75	599.68	21.3	591.60	6
25	W21 x 50	11+28.25	14.88	578.42	589.00	600.64	22.2	592.70	6
26	W21 x 50	11+35.75	14.88	578.42	589.00	601.50	23.1	593.80	6
27	W21 x 50	11+43.25	14.88	578.42	589.00	602.36	23.9	595.00	6
28	W21 x 50	11+50.75	14.88	578.42	589.00	603.23	24.8	596.10	6
29	W24 x 76	11+58.25	14.99	578.42	589.00	604.09	25.7	597.20	5
30	W24 x 76	11.65.75	14.99	578.80	589.00	604.95	26.2	598.30	5
31	W24 x 76	11+73.25	14.99	579.90	589.00	605.81	25.9	599.40	5
32	W24 x 76	11+80.75	14.99	581.10	589.00	606.67	25.6	600.60	5
33	W24 x 76	11+88.25	14.99	582.20	589.00	607.53	25.3	601.70	5
34	W24 x 76	11+95.75	14.99	583.30	589.00	608.39	25.1	602.80	5
35	W24 x 76	12+03.25	14.99	584.40	589.00	609.25	24.9	603.90	4
36	W24 x 76	12+10.75	14.99	585.50	589.00	610.11	24.6	605.00	4
37	W24 x 76	12+18.25	14.99	586.70	589.00	611.16	24.5	606.20	4
38	W24 x 76	12+25.75	14.99	587.80	589.00	612.41	24.6	607.30	4
39	W24 x 76	12+33.25	14.99	588.90	589.00	613.65	24.8	608.40	4
40	W24 x 76	12+40.75	14.99	590.00	589.00	614.89	24.9	609.50	4
41	W24 x 76	12+48.24	14.99	591.92	589.00	616.14	24.2	610.60	5
42	W24 x 76	12+55.74	15.00	591.92	589.00	617.38	25.5	611.80	5
43	W24 x 76	12+63.25	15.02	591.92	589.00	618.62	26.7	612.90	5
44	W24 x 76	12+70.74	15.03	591.92	589.00	619.87	28.0	614.00	5
45	W24 x 76	12+78.87	15.54	591.92	588.56	621.11	29.2	615.10	5
46	W24 x 76	12+87.75	16.21	591.92	587.69	622.35	30.4	616.20	5
47	W24 x 76	12+96.70	16.21	591.92	586.81	623.60	31.7	617.40	5
48	W24 x 76	13+05.59	15.54	593.50	585.94	624.84	31.3	618.50	5
49	W21 x 50	13+13.54	15.43	594.80	585.50	625.88	31.1	619.80	5
50	W21 x 50	13+22.41	16.09	596.20	585.50	626.70	30.5	621.20	5

RETAINING WALL "F"

Soldier Pile Schedule

Pile No.	Pile Size	Station	Offset	Pile Tip Elevation	Approximate Top of Rock Elevation	Top of Pile Elevation	Length (ft)	Approximate Top of Concrete Encasement	No. of Studs Per Pile
51	W21 x 50	13+31.35	16.09	597.60	585.50	627.53	29.9	622.60	4
52	W21 x 50	13+40.22	15.43	599.00	585.50	628.35	29.4	624.00	4
53	W21 x 50	13+48.27	15.33	600.50	585.50	629.06	28.6	625.50	3
54	W21 x 50	13+55.36	15.74	601.60	585.50	629.53	27.9	626.60	3
55	W21 x 50	13+62.48	15.73	602.80	585.50	630.01	27.2	627.80	2
56	W21 x 50	13+69.57	15.29	603.90	585.50	630.48	26.6	628.90	2

DESIGNED	-	NLV
CHECKED	-	DSE
DRAWN	-	RTT
CHECKED	-	DSE
DATE	-	JAN 31, 2006

Illinois Firm Registration No: 184-006533

Stanley Consultants INC.

8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

SOLDIER PILE SCHEDULE
RETAINING WALL F ALONG
INDIAN HILL ROAD
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 80+86.37 TO STA 13+73.25

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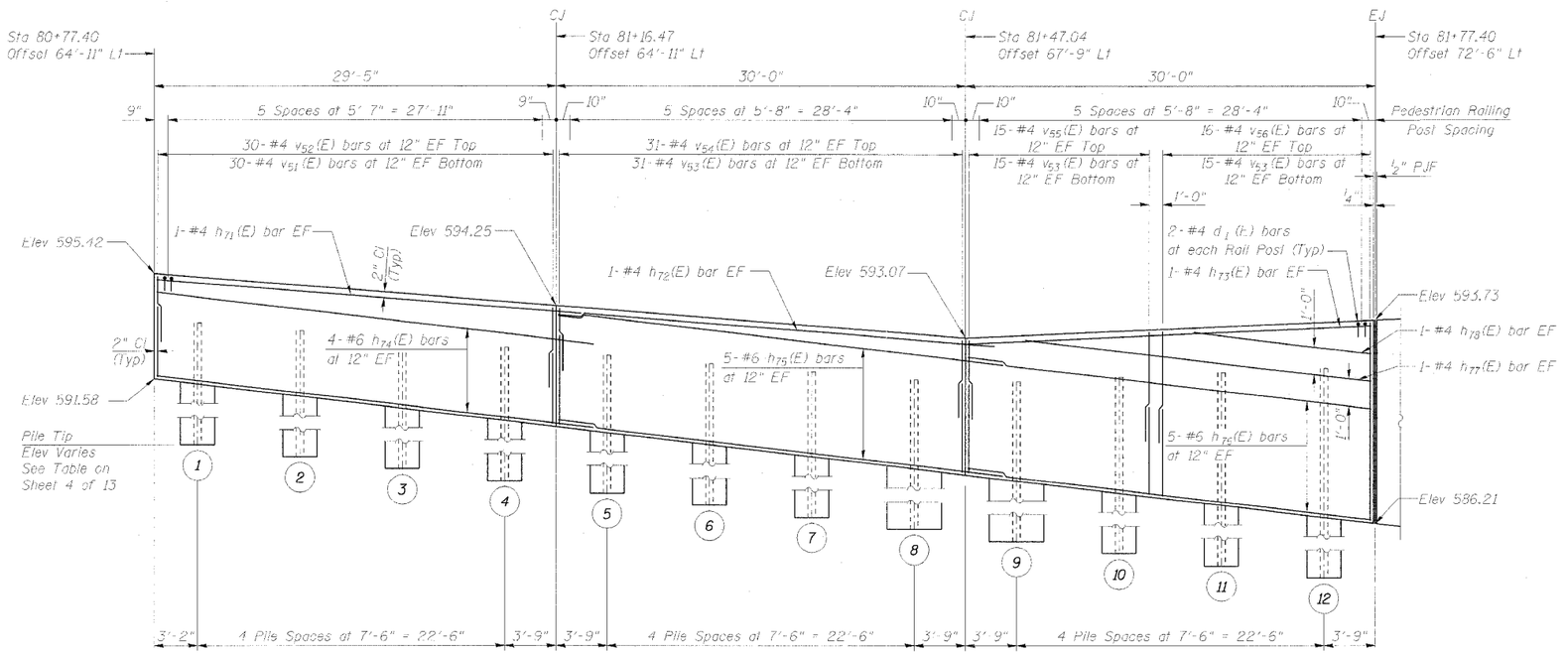
15-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

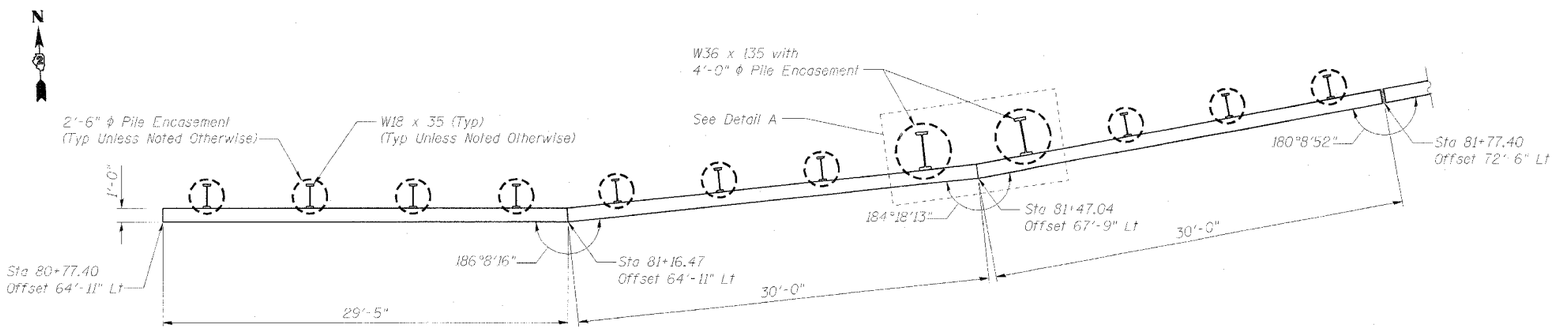
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	145
FED. ROAD DIST. NO. 2		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 5
13 SHEETS

Contract No. 84986

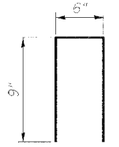


FRONT FACE ELEVATION



PLAN

DESIGNED	-	NLV
CHECKED	-	DSE
DRAWN	-	RTT
CHECKED	-	DSE
DATE	-	JAN 31, 2006



BAR d_1 (E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d1 (E)	36	#4	2'-0"	⊓
h71(E)	2	#4	31'-1"	—
h72(E)	2	#4	31'-8"	—
h73(E)	2	#4	29'-8"	—
h74(E)	8	#6	32'-1"	—
h75(E)	10	#6	32'-8"	—
h76(E)	10	#6	29'-9"	—
h77(E)	2	#4	25'-6"	—
h78(E)	2	#4	13'-2"	—
v51(E)	60	#4	3'-6"	—
v52(E)	60	#4	2'-4"	—
v53(E)	124	#4	4'-0"	—
v54(E)	62	#4	2'-5"	—
v55(E)	30	#4	3'-8"	—
v56(E)	32	#4	5'-0"	—
Porous Granular Backfill			Cu Yd	11.9
Structure Excavation			Cu Yd	40.5
Rock Excavation For Structures			Cu Yd	9.1
Concrete Structures			Cu Yd	16.8
Reinforcement Bars, Epoxy Coated			Pound	2390

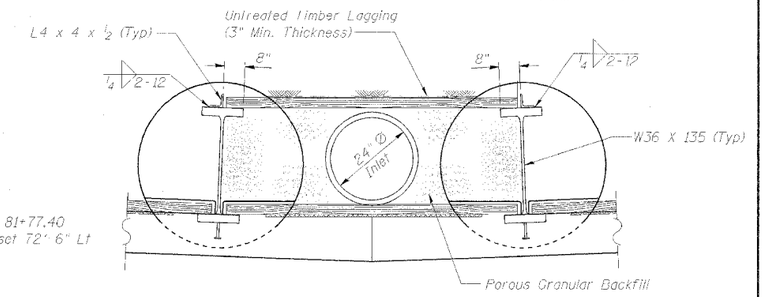
Reinforcement bars designated (E) shall be epoxy coated.

See Sheet 2 of 13 for Expansion Joint and Water Seal Placement Detail.

See Sheet 10 of 13 for Pedestrian Railing Details.

See Sheet 3 of 13 for Retaining Wall, Typical Section and Underdrain Details.

Min Lap Length: #4 bar = 1'-8"
#6 bar = 2'-7"



DETAIL A

NOTE:
Lagging and angles to extend from top of pile to base of rock bedding for inlet, as shown in Special Utility Details in Roadway Plans.

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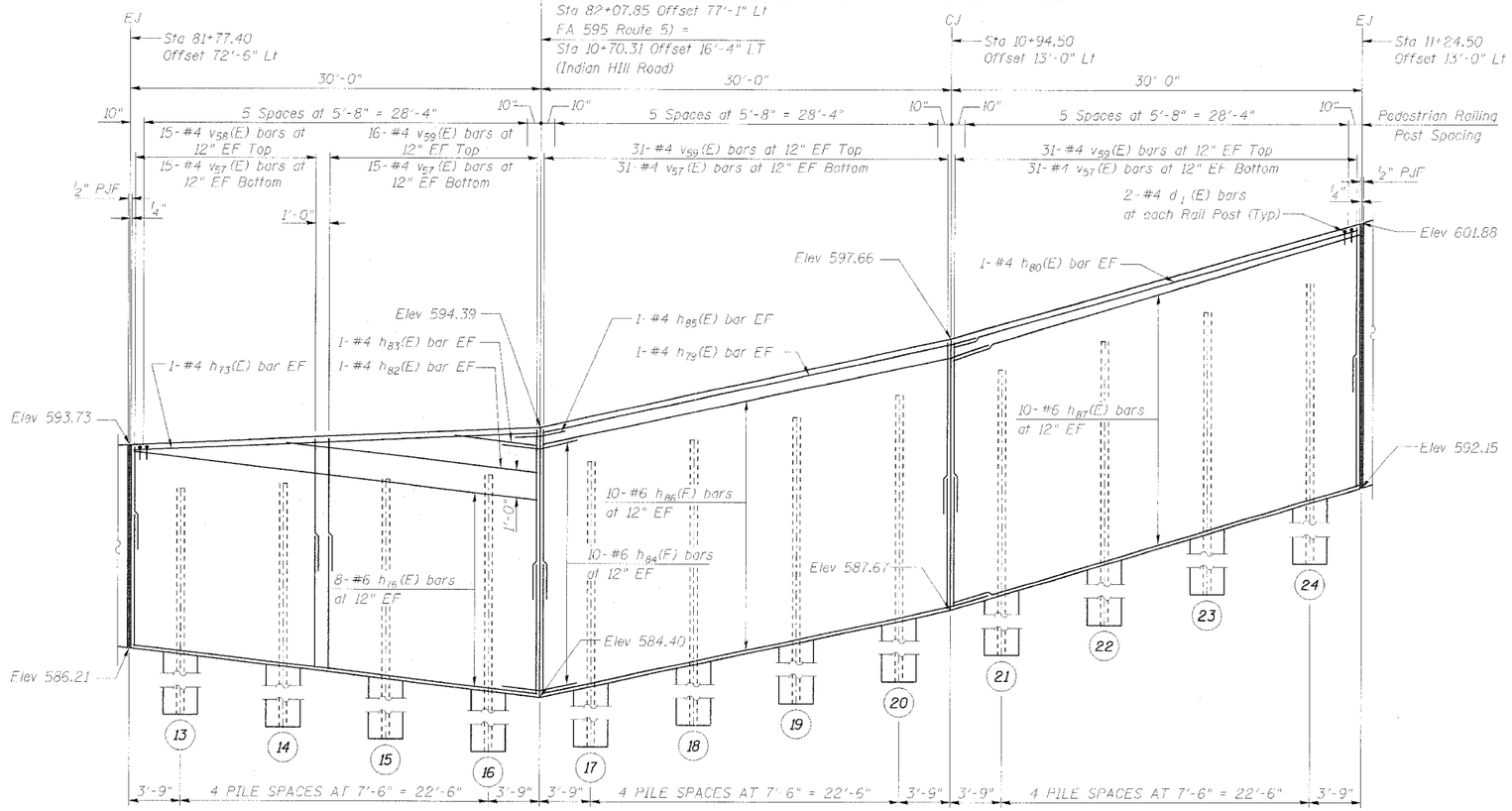
WALL PLAN AND ELEVATION
RETAINING WALL F ALONG
INDIAN HILL ROAD
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 80+86.37 TO STA 13+73.25

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

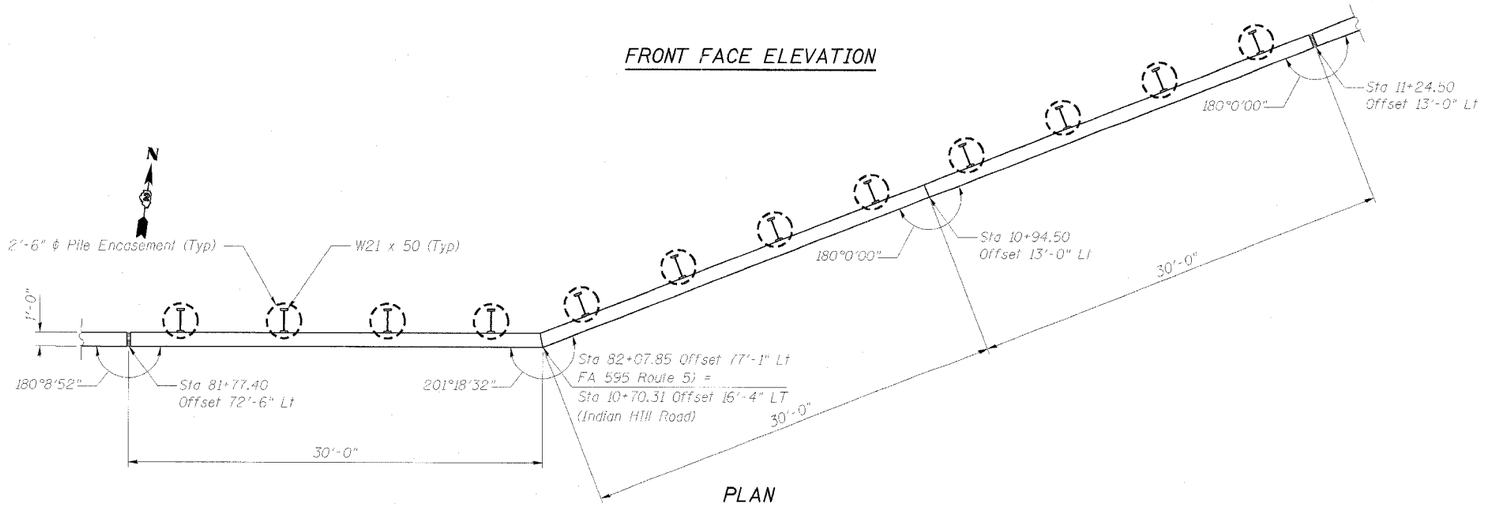
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	150
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT -		

SHEET NO. 6
13 SHEETS

Contract No. 84985



FRONT FACE ELEVATION



PLAN

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d1 (E)	36	#4	2'-0"	⊓
h73(E)	2	#4	29'-8"	—
h76(E)	16	#6	29'-9"	—
h79(E)	2	#4	31'-11"	—
h80(E)	2	#4	30'-0"	—
h82(E)	2	#4	18'-5"	—
h83(E)	2	#4	5'-1"	—
h84(E)	20	#6	5'-6"	—
h85(E)	2	#4	3'-8"	—
h86(E)	20	#6	32'-9"	—
h87(E)	20	#6	30'-0"	—
v57(E)	186	#4	6'-0"	—
v58(E)	30	#4	4'-1"	—
v59(E)	156	#4	5'-4"	—
Structure Excavation		Cu Yd		68.9
Rock Excavation For Structures		Cu Yd		9.4
Concrete Structures		Cu Yd		31.8
Reinforcement Bars, Epoxy Coated		Pound		4360

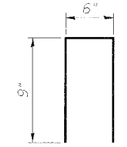
Reinforcement bars designated (E) shall be epoxy coated.

See Sheet 2 of 13 for Expansion Joint and Water Seal Placement Detail.

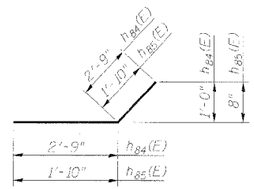
See Sheet 10 of 13 for Pedestrian Railing Details.

See Sheet 3 of 13 for Retaining Wall, Typical Section and Underdrain Details.

Min Lap Length: #4 bar = 1'-8"
#6 bar = 2'-7"



BAR d_1 (E)



BARS h_{84}(E) & h_{85}(E)

DESIGNED -	NLV
CHECKED -	DSE
DRAWN -	RTT
CHECKED -	DSE
DATE -	JAN 31, 2006

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WALL PLAN AND ELEVATION
RETAINING WALL F ALONG
INDIAN HILL ROAD
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 80+86.37 TO STA 13+73.25

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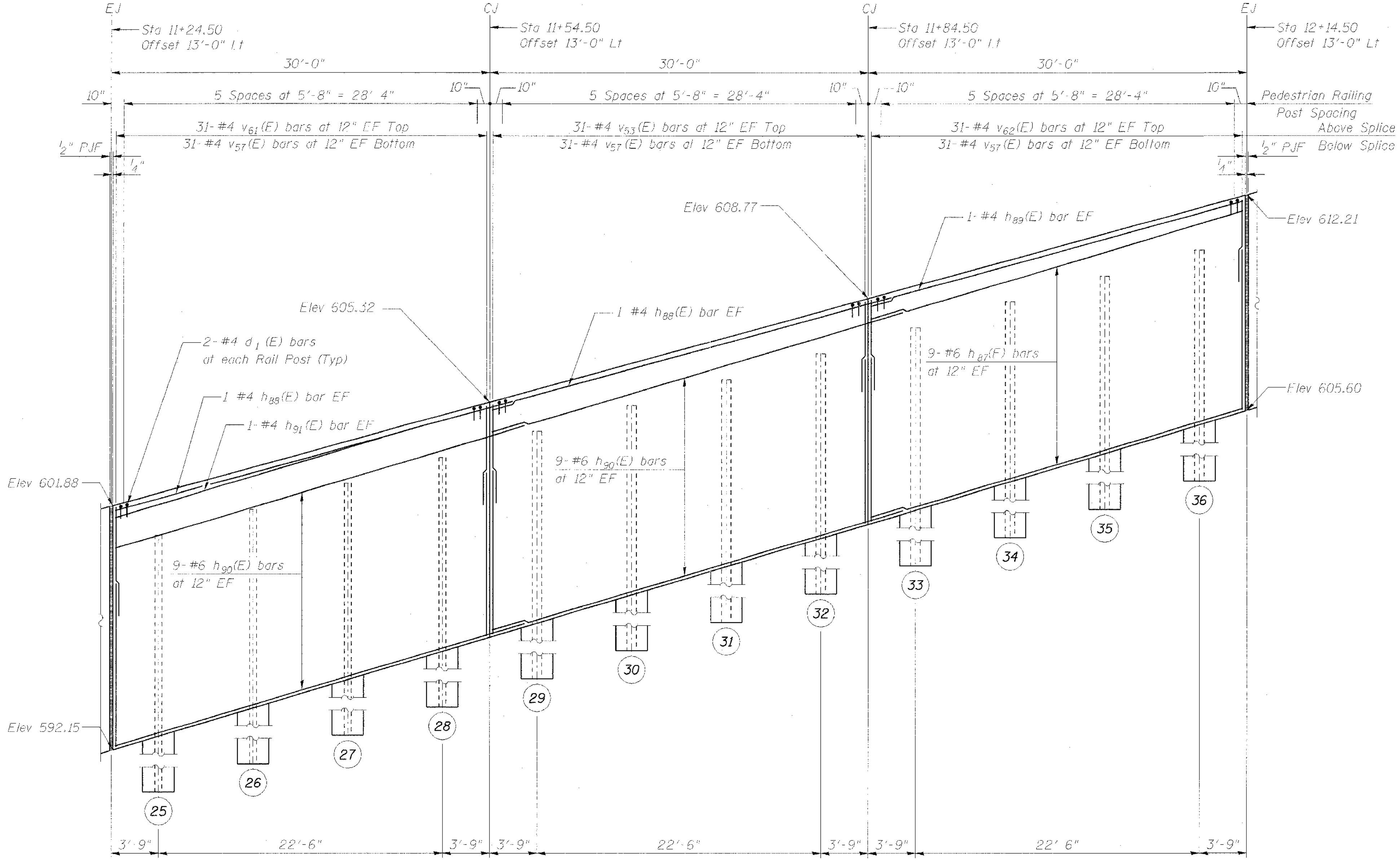
5-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

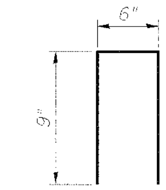
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	151
FED. ROAD DIST. NO. 2		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 7
13 SHEETS

Contract No. 84986



FRONT FACE ELEVATION



BAR d_1 (E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d1 (E)	36	#4	2'-0"	⊓
h87(E)	18	#6	30'-0"	——
h88(F)	4	#4	32'-0"	——
h89(E)	2	#4	29'-11"	——
h90(E)	36	#6	33'-2"	——
h91 (E)	2	#4	17'-10"	——
v53(E)	62	#4	4'-0"	——
v57(E)	186	#4	6'-0"	——
v61 (E)	62	#4	5' 1"	——
v62(E)	62	#4	3'-0"	——
Structure Excavation			Cu Yd	66.1
Concrete Structures			Cu Yd	27.2
Reinforcement Bars, Epoxy Coated			Pound	4050

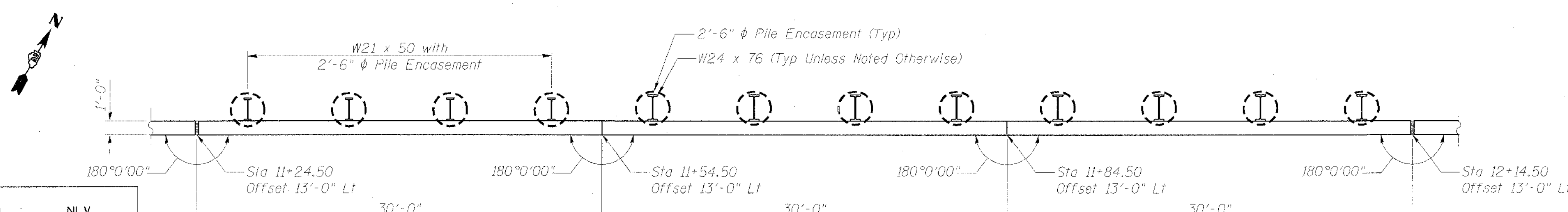
Reinforcement bars designated (E) shall be epoxy coated.

See Sheet 2 of 13 for Expansion Joint and Water Seal Placement Detail.

See Sheet 10 of 13 for Pedestrian Railing Details.

See Sheet 3 of 13 for Retaining Wall, Typical Section and Underdrain Details.

Min Lap Length: #4 bar - 1'-8"
#6 bar = 2'-7"



PLAN

DESIGNED	NLV
CHECKED	DSE
DRAWN	RTT
CHECKED	DSE
DATE	JAN 31, 2006

Illinois Firm Registration No. 184-00533

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8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
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WALL PLAN AND ELEVATION
RETAINING WALL F ALONG
INDIAN HILL ROAD
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 80+86.37 TO STA 13+73.25

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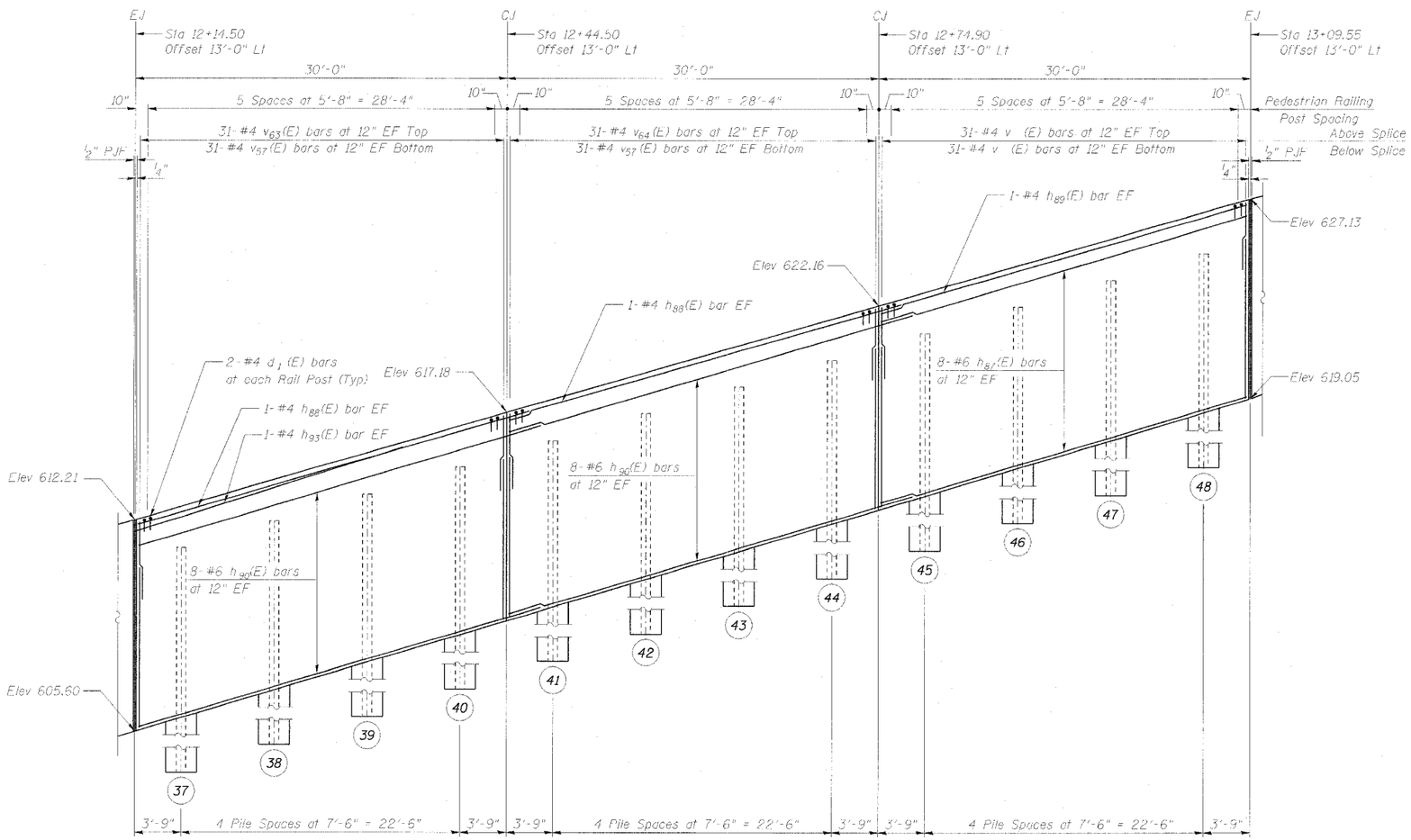
15-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

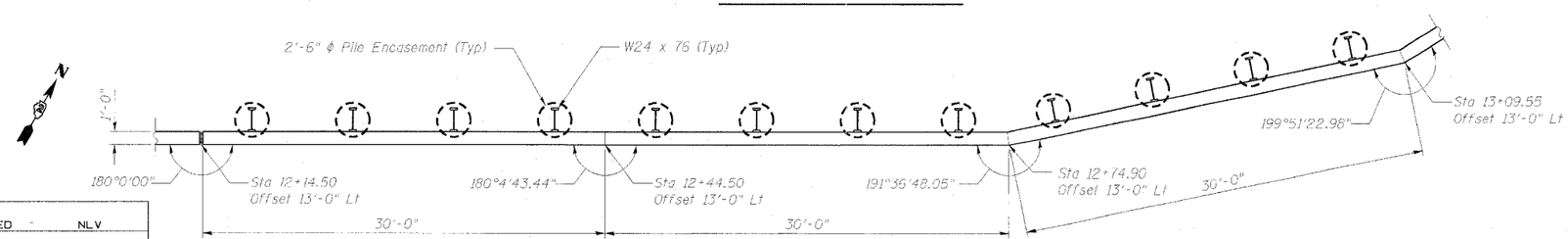
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	152
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 8
13 SHEETS

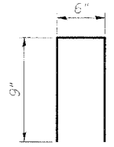
Contract No. 84986



FRONT FACE ELEVATION



PLAN



BAR d_1 (E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d1 (E)	36	#4	2'-0"	⊓
h87(E)	15	#6	30'-0"	—
h88(E)	1	#4	32'-0"	—
h89(E)	2	#4	29'-11"	—
h90(E)	32	#6	33'-2"	—
h93(E)	2	#4	21'-3"	—
v57(E)	186	#4	6'-0"	—
v62(E)	62	#4	3'-0"	—
v63(E)	62	#4	2'-0"	—
v64(E)	62	#4	2'-6"	—
Structure Excavation		Cu Yd	46.6	
Concrete Structures		Cu Yd	24.5	
Reinforcement Bars, Epoxy Coated		Pound	3570	

Reinforcement bars designated (E) shall be epoxy coated.

See Sheet 2 of 13 for Expansion Joint and Water Seal Placement Detail.

See Sheet 10 of 13 for Pedestrian Railing Details.

See Sheet 3 of 13 for Retaining Wall, Typical Section and Underdrain Details.

Min Lap Length: #4 bar = 1'-8"
#6 bar = 2'-7"

DESIGNED	-	NLV
CHECKED	-	DSE
DRAWN	-	RTT
CHECKED	-	DSE
DATE	-	JAN 31, 2006

Illinois Firm Registration No. 184-00633
Stanley Consultants INC.
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WALL PLAN AND ELEVATION
RETAINING WALL F ALONG
INDIAN HILL ROAD
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 80+86.37 TO STA 13+73.25

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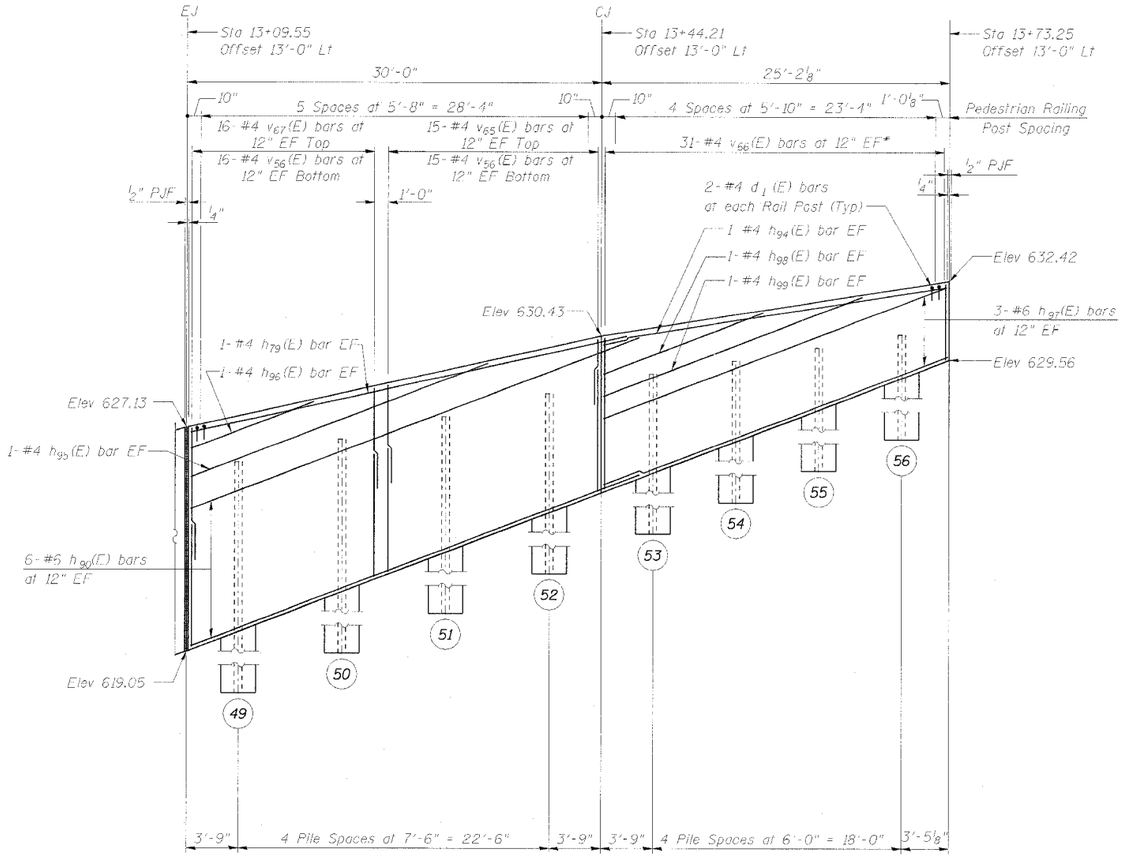
15-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

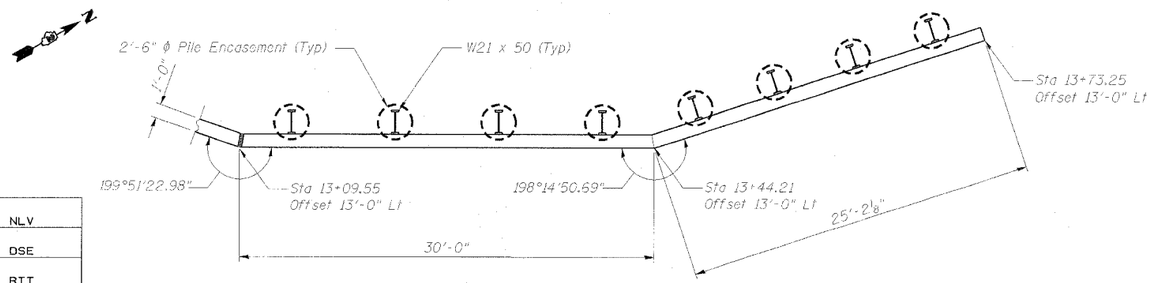
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	153
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT #		

SHEET NO. 9
13 SHEETS

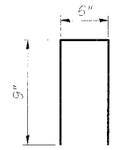
Contract No. 84986



FRONT FACE ELEVATION



PLAN



BAR d_1 (E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d1 (E)	22	#4	2'-0"	⊓
h79(F)	2	#4	31'-11"	—
h90(E)	12	#6	33'-2"	—
h94(E)	2	#4	24'-11"	—
h95(E)	2	#4	20' 5"	—
h96(E)	2	#4	7'-7"	—
h97(E)	6	#6	25'-4"	—
h98(E)	2	#4	20'-5"	—
h99(E)	2	#1	11'-2"	—
v56(E)	62	#4	5'-0"	—
v65(E)	30	#4	3'-3"	—
v66(E)	62	#4	7'-10"	—
v67(E)	32	#4	1'-6"	—
Structure Excavation		Cu Yd	25.1	
Concrete Structures		Cu Yd	11.6	
Reinforcement Bars, Epoxy Coated		Pound	1700	

Reinforcement bars designated (F) shall be epoxy coated.

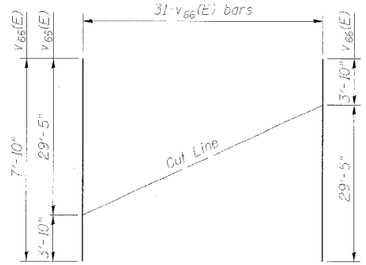
See Sheet 2 of 13 for Expansion Joint and Water Seal Placement Detail.

See Sheet 10 of 13 for Pedestrian Railing Details.

See Sheet 3 of 13 for Retaining Wall, Typical Section and Underdrain Details.

Min Lap Length: #4 bar = 1'-8"
#6 bar = 2'-7"

* See Field Cutting Diagram



FIELD CUTTING DIAGRAM

Order bars full length. Cut to fit as shown and place at one end of the dimension line shown on the plan. Use remainder of bars at opposite end of the dimension line on the opposite face of the Retaining Wall.

DESIGNED	NLV
CHECKED	DSE
DRAWN	RTT
CHECKED	DSE
DATE	JAN 31, 2006

Illinois Firm Registration No. 184-000533
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WALL PLAN AND ELEVATION
RETAINING WALL F ALONG
INDIAN HILL ROAD
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 80+86.37 TO STA 13+73.25

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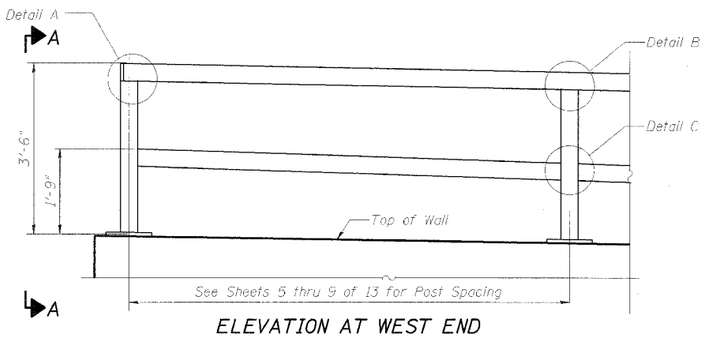
15--FEB-2006

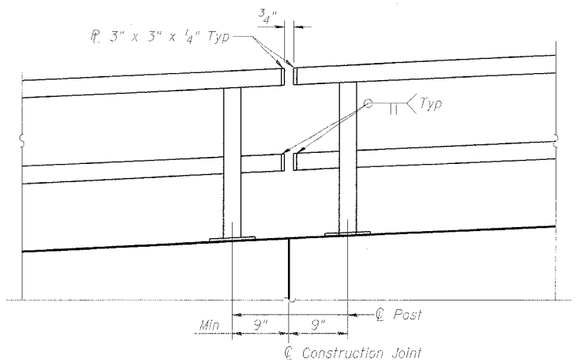
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	154
FED. ROAD DIST. NO. 2	ILL. ROUTE	FED. AID PROJECT -		

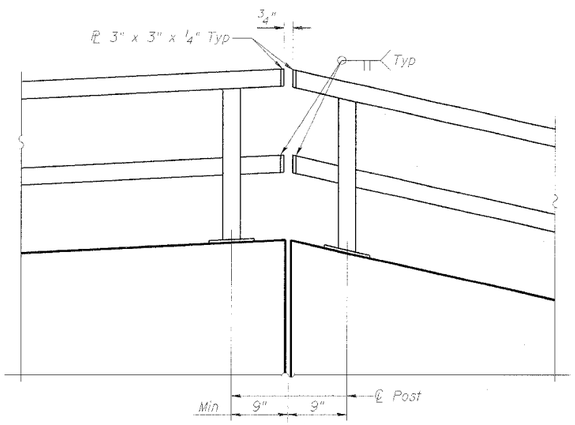
SHEET NO. 10
13 SHEETS
Contract No. 84986



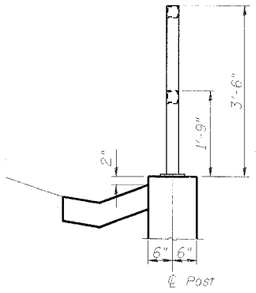
ELEVATION AT WEST END
(Looking North)



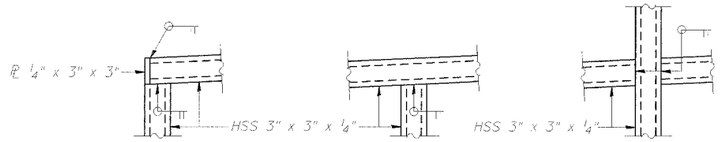
ELEVATION AT CONSTRUCTION JOINT



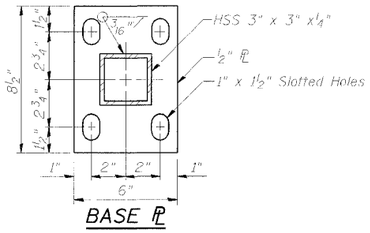
ELEVATION AT EXPANSION JOINT



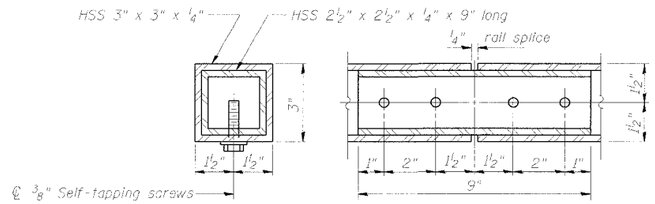
VIEW A-A



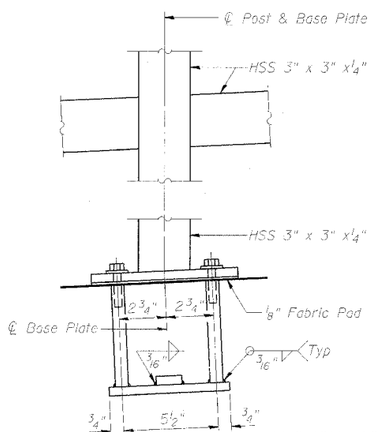
DETAIL A DETAIL B DETAIL C

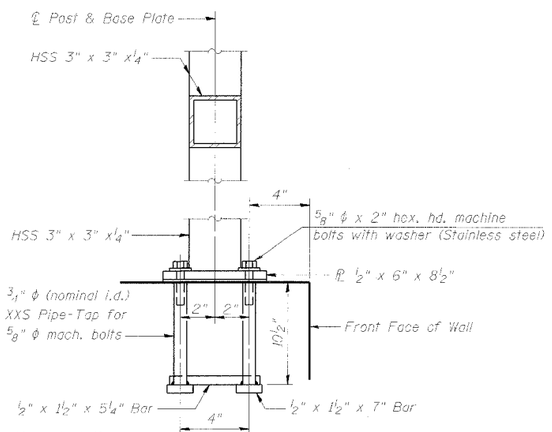


BASE ℄



RAIL SPLICE





ANCHOR BOLT DETAILS

(In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and epoxy grouting ⅝" ϕ anchor rods. Embedment shall be according to the manufacturer's specifications.)

NOTES

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 meter for Pedestrian Railing.

Hollow structural steel tubing shall conform to the requirements of ASTM designation A 500, Grade B, structural steel tubing.

All other steel shapes and plates shall conform to the requirements of AASHTO M 270M Grade 250.

If the option of drilling and epoxy grouting the anchor rods is chosen, the Contractor shall use the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures. The capsule or the adhesive cartridge shall be sealed with premeasured amounts of the adhesive chemical.

Space reinforcement to miss anchor rods.

All posts, railing, splices, anchor devices, and bent plates shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. All bolts, nuts, washers and anchor rods shall be galvanized according to AASHTO M 232 except stainless steel bolts as noted.

Vent holes for galvanizing shall be placed in the posts and rails at locations that will not allow the accumulation of moisture in the members.

BILL OF MATERIAL

Item	Unit	Quantity
Pedestrian Railing	Foot	417.2

DESIGNED	-	NLV
CHECKED	-	DSE
DRAWN	-	RTT
CHECKED	-	DSE
DATE	-	JAN 31, 2006

Illinois Firm Registration No. 184-001533
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www.stanleygroup.com

PEDESTRIAN RAILING
RETAINING WALL F ALONG
INDIAN HILL ROAD
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 80+86.37 TO STA 13+73.25

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15-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	155
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT		

SHEET NO. 11
13 SHEETS
Contract No. 84986

Illinois Department of Transportation
Division of Highways
District 2, Dixon

SOIL BORING LOG

Page 1 of 1

Date 7/25/03

ROUTE FA 595 DESCRIPTION D92-118-94 Retaining Wall, IL 5 Blackhawk Road in Rock Island LOGGED BY C. Jenkins

SECTION 1-1 LOCATION South Rock Island Twp. - 13SW, SEC. , TWP. 17N, RNG. 2W

COUNTY Rock Island DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.
Station

BORING NO. B-1
Station 80+50
Offset 48.00ft Lt CL
Ground Surface Elev. 594.8 ft

Surface Water Elev. None ft
Stream Bed Elev. None ft

Groundwater Elev.:
First Encounter 579.8 ft ▼
Upon Completion 575.3 ft ▽
After Hrs. ft

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
MEDIUM tan SILTY LOAM			0.6 P	20
	592.30			
MEDIUM brown SILTY CLAY		3 4 5	0.8 B	15
	590.30			
	-5			
DENSE tan very fine grained sugar SAND		5 11 20		
	588.30			
VERY DENSE tan very fine grained sugar SAND (sandstone)		40 72 28		
	585.80	100/8"		
	-10	PEN		
Same as above		38 62		
	583.30	100/8"		
		PEN		
		46 54		
	580.80	100/12"		
		PEN		
	▼-15			
VERY DENSE tan/gray mottled very fine SAND (sandstone)		40 47 53		
	578.30	100/11"		
		PEN		
VERY DENSE tan/gray/green mottled very fine SAND (sandstone)		74 26		
	575.80	100/8"		
	▽	PEN		
	-20			
Same as above	574.30	100/2"		
End of Boring		PEN		
	-25			
	-30			
	-35			
	-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Page 1 of 1

Date 12/14/05

ROUTE FA 595 DESCRIPTION D92-118-94 John Deere Road at Indian Hill Road retaining wall LOGGED BY W. Garza

SECTION 1-1 LOCATION Rock Island Twp. - 13NW, SEC. , TWP. 17N, RNG. 2W

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

STRUCT. NO.
Station 11+00

BORING NO. B-1a
Station 11+02
Offset 2.00ft Rt CL
Ground Surface Elev. 595.7 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 (%)
SOFT brown SILTY CLAY			0.4 P	22
	593.70			
STIFF brown SILTY CLAY		3 3 3	1.2 B	22
	592.20			
	-5			
STIFF brown SILTY CLAY LOAM		2 3 5	1.3 B	16
	589.70			
VERY STIFF tan/gray SHALEY CLAY		5 9 12	2.6 S	17
	586.70			
	-10			
VERY DENSE tan/gray SHALE		22 30 46		
	584.70			
VERY DENSE gray SHALE		18 40		
	582.20	50/5.5"		
	-15			
VERY DENSE gray SHALE		20 42 50/4"		
	578.70			
VERY DENSE gray SHALE		100/1"		
End of Boring				
	-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

DESIGNED	NLV
CHECKED	DSE
DRAWN	RTT
CHECKED	DSE
DATE	JAN 31, 2006

Illinois Firm Registration No. 184-00633
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2804
www.stanleygroup.com

SOIL BORING LOGS B-1 AND B-1a
RETAINING WALL F ALONG
INDIAN HILL ROAD
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 80+86.37 TO STA 13+73.25

D:\ildot\16570\walls_d_e_f\sht\D003lrgtf.dgn
15-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	156
FED. ROAD DIST. NO. 8	ILLINOIS	FED. AID PROJECT -		

SHEET NO. 12
13 SHEETS
Contract No. 84996

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Page 1 of 1

Date 12/14/05

ROUTE FA 595 DESCRIPTION D92-118-94 Indian Hill Road off of John Deere Road, retaining wall LOGGED BY W. Garza

SECTION 1-1 LOCATION Rock Island Twp. - 13 NW, SEC. , TWP. 17N, RNG. 2W

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

STRUCT. NO.
Station 12+00

BORING NO. B-2a
Station 11+98
Offset 3.00ft Lt CL
Ground Surface Elev. 607.6 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 (%)
SOFT brown SILTY CLAY			0.4 P	20
	605.60			
STIFF brown SANDY LOAM		4 3 4	1.1 P	12
	603.60			
MEDIUM brown medium dry SAND	-5	4 7 8		
	601.10			
VERY STIFF redish brown CLAY LOAM with SANDY LOAM lens		4 4 5	2.4 S	20
	599.10			
VERY STIFF brown CLAY LOAM TILL	-10	6 12 13	3.1 B	14
	596.60			
HARD gray/olive green SILTY CLAY LOAM TILL		8 10 16	6.2 B	12
	594.10			
HARD gray LOAM TILL	-15	7 10 17	4.5 B	10
	591.80			
HARD gray CLAY TILL with bottom 3" SANDSTONE		4 9 13	5.2 B	13
	588.60			
DENSE gray SHALE	-20			

	DEPTH (ft)	BLOWS (/6")	UCS Qu. (tsf)	MOIST (%)
DENSE gray SHALE *(continued)*		8 14 27		11
	586.60			
VERY DENSE gray SHALE		7 14 86/4"		
Auger Refusal at 24'				
	583.60			
End of Boring	-25			
	-30			
	-35			
	-40			

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Page 1 of 1

Date 12/14/05

ROUTE FA 595 DESCRIPTION D92-118-94 John Deere Road at Indian Hill Road, retaining wall LOGGED BY W. Garza

SECTION 1-1 LOCATION Rock Island Twp. - 13 NW, SEC. , TWP. 17N, RNG. 2W

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

STRUCT. NO.
Station 13+00

BORING NO. B-3a
Station 13+00
Offset 2.00ft Lt CL
Ground Surface Elev. 622.2 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 (%)
MEDIUM brown SILTY CLAY			0.5 P	18
	619.70			
STIFF brown SILTY LOAM		2 3 3	1.2 P	19
	618.20			
MEDIUM tan SILTY LOAM	-5	2 3 5	0.6 S	17
	615.70			
MEDIUM tan/light gray SILTY LOAM		2 3 3	0.5 B	24
	613.20			
STIFF light gray SILTY LOAM	-10	2 3 4	1.1 P	19
	610.20			
LOOSE tan fine dry SAND		3 3 4		
	608.20			
LOOSE/MEDIUM tan fine dry SAND with SILT lens	-15	3 4 6		
	605.70			
MEDIUM tan fine SAND with SILTY lens		4 6 10		
	603.20			
	-20			

	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
No sample				
	600.70			
MEDIUM/DENSE redish brown medium clean SAND		4 12 18		
	597.70			
MEDIUM gray CLAY TILL	-25	6 8 11		13
	595.70			
MEDIUM gray CLAY TILL		7 10 14		
	593.20			
MEDIUM gray CLAY TILL	-30	7 8 13		
	590.70			
MEDIUM gray CLAY TILL		7 8 11	3.5 S	13
	588.20			
MEDIUM gray CLAY TILL	-35	6 8 12		
Auger Refusal at 37', in SHALE				
	585.20			
End of Boring	-40			

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

BBS, from 137 (Rev. 8-99)

DESIGNED	NLV
CHECKED	DSE
DRAWN	RTT
CHECKED	DSE
DATE	JAN 31, 2006

Illinois Firm Registration No.: 184-001533

Stanley Consultants INC.
8501West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

SOIL BORING LOGS B-2a AND B-3a
RETAINING WALL F ALONG
INDIAN HILL ROAD
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 80+86.37 TO STA 13+73.25

Q:\rtdot\16570\walls_d_e_f\sht\D00312-etf.dgn
15-FEB-2006

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1-1	ROCK ISLAND	239	157
FED. ROAD DIST. NO. 2	ILLINOIS	FED. AID PROJECT -		

SHEET NO. 13
13 SHEETS

Contract No. 84986

Illinois Department of Transportation
Division of Highways
IDOT

SOIL BORING LOG

Page 1 of 1

Date 12/3/04

ROUTE FA 595 DESCRIPTION P92-118-94 Retaining Wall D, at John Deere Road and Indian Hill Road LOGGED BY W. Garza

SECTION 1-1 LOCATION , SEC. , TWP. , RNG.

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

STRUCT. NO. 081-W006
Station

BORING NO. B-9
Station 81+25
Offset 46.00ft Lt CL
Ground Surface Elev. 591.5 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 (%)
MEDIUM brown SILTY CLAY LOAM			0.6 P	23
	589.00			
STIFF brown SILTY CLAY LOAM		1 3 4	1.4 B	18
	587.50			
	-5			
HARD brown/gray CLAY with SHALE		5 8 11	6.8 S	18
	585.00			
DENSE tan weathered SHALE		8 16 23		
	582.50			
	-10			
VERY DENSE tan weathered SHALE		14 20 54		
	580.00			
VERY DENSE gray weathered SHALE		22 37 34		
	577.50			
	-15			
VERY DENSE gray SHALE	576.00	100/7"		
Borehole continued with rock coring.				
	-20			

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

BBS, from 137 (Rev. 8-99)

Illinois Department of Transportation
Division of Highways
IDOT

ROCK CORE LOG

Page 1 of 1

Date 12/3/04

ROUTE FA 595 DESCRIPTION P92-118-94 Retaining Wall D, at John Deere Road and Indian Hill Road LOGGED BY W. Garza

SECTION 1-1 LOCATION , SEC. , TWP. , RNG.

COUNTY Rock Island CORING METHOD

STRUCT. NO. 081-W006
Station

BORING NO. B-9
Station 81+25
Offset 46.00ft Lt CL
Ground Surface Elev. 591.5 ft

CORING BARREL TYPE & SIZE
Core Diameter 1.5 in
Top of Rock Elev. 584.00 ft
Begin Core Elev. 576.00 ft

	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Time: 9 min. 100% Recovery gray/redish brown SHALE Shale: Brown, laminated, grading to blocky to 573.0		1	100	35	1.8	
	-20					
	570.00	2	100	67	1.6	1140
100% Recovery Sandstone: Light gray, fine grained, dense & poorly bedded with occasional shale partings. T.S.F. 570.7 to 570.1						
	-25					
	565.00	3	90	0	1.8	
90% Recovery Sandstone: as above, to 566.5 Shale: Light gray, argillaceous, blocky & soft to end of boring.						
	-30					
	560.00					
End of Boring						
	-35					

Color pictures of the cores
Cores will be stored for examination until
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

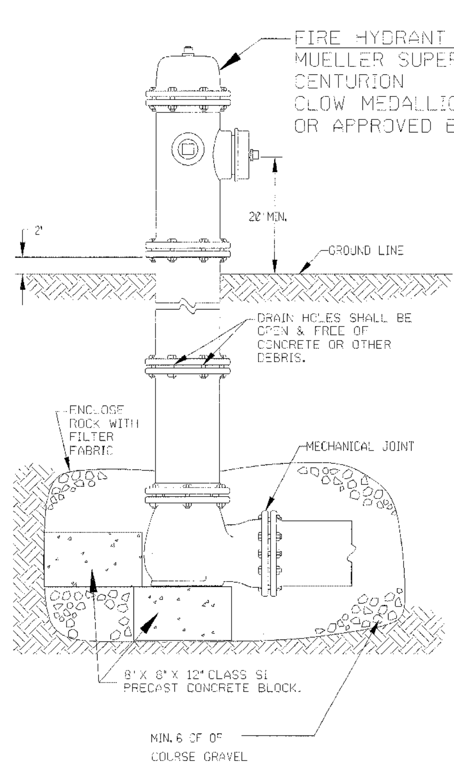
BBS, form 138 (Rev. 8-99)

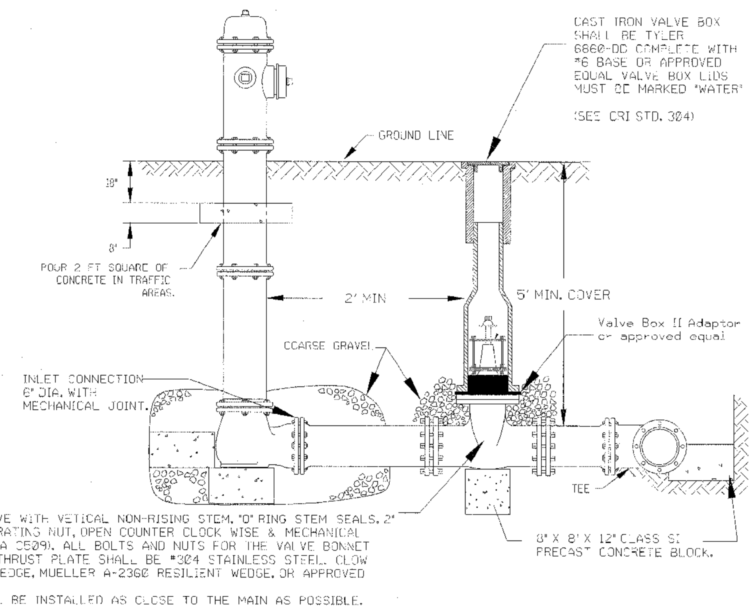
DESIGNED	NLV
CHECKED	DSE
DRAWN	RTT
CHECKED	DSE
DATE	JAN 31, 2006

Illinois Firm Registration No.: 184-00533
Stanley Consultants INC.
8501 West Higgins Road, Suite 730, Chicago, Illinois 60631-2801
www.stanleygroup.com

SOIL BORING LOG AND ROCK CORE LOG B-9
RETAINING WALL F ALONG
INDIAN HILL ROAD
FA 595 (IL ROUTE 5) SECTION 1-1
ROCK ISLAND COUNTY
STA 80+86.37 TO STA 13+73.25

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	158
STA 75+60.93	TO STA 79+00			
FED. RD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		





6" GATE VALVE WITH VETICAL NON-RISING STEM, "O" RING STEM SEALS, 2" SQUARE OPERATING NUT, OPEN COUNTER CLOCK WISE & MECHANICAL JOINTS (AWWA C509). ALL BOLTS AND NUTS FOR THE VALVE BONNET AND VALVE THRUST PLATE SHALL BE #304 STAINLESS STEEL. CLOW RESILIENT WEDGE, MUELLER A-2360 RESILIENT WEDGE, OR APPROVED EQUAL.
VALVE SHALL BE INSTALLED AS CLOSE TO THE MAIN AS POSSIBLE.

NOTE:

1. A COMPRESSION TYPE MAIN VALVE, CLOSING WITH STREAM FLOW. THE VALVE WILL BE DESIGNED TO BE HELD CLOSED IN COMPRESSION UNDER STATIC WATER PRESSURE. THE VALVE OPENING WILL BE 5.25" MINIMUM NOMINAL DIAMETER AND OPEN COUNTER-CLOCKWISE. OPERATING NUT SHALL BE 7/8" SQUARE IN SIZE.

2. THE INLET CONNECTION WILL BE 6" DIA. "CUT-IN" MECHANICAL JOINT (AS DESCRIBED IN SECTION II-2, CI) WITH RESTRAINING LUGS, FOOT PIECE BELL WILL ACCEPT PIPE OUTSIDE DIAMETERS IN THE 6.9" AND 7.1" RANGE.

3. ALL HYDRANT BOLTS AND NUTS FROM THE GRADE LINE MARK ON THE BARREL TO THE SHOE BOLTS AND NUTS SHALL BE #304 STAINLESS STEEL.

4. DELIVERY CLASSIFICATION - ONE PUMPER AND TWO HOSE NOZZLES. THESE NOZZLES SHALL BE 4.5" & 2.5" NOMINAL INSIDE DIA. RESPECTIVELY. THREADS SHALL BE OF NATIONAL STANDARD FIRE HOSE COUPLING SCREW DESIGN.

5. THE HYDRANTS WILL BE OF 'TRAFFIC BREAKAWAY DESIGN," WITH GROUND LINE FLANGE AND SAFETY STEM OPERATOR COUPLING. GRADE LINE SHALL BE POSITIVELY MARKED ON THE LOWER BARREL. THE CENTER LINE OF ALL PORTS SHALL BE A MINIMUM OF 18" ABOVE ESTABLISHED GRADE LINES.

6. HYDRANTS WILL BE PROVIDED WITH BRONZE-LINED OUTLETS TO ALLOW CORROSION RESISTANT DRAINAGE OF THE BARREL SECTIONS. SEAT AND DRAIN RINGS WILL BE OF BRONZE COMPOSITION AS PROVIDED IN THE STANDARD RECOMMENDATIONS.

7. NOZZLE CAPS WILL OPEN COUNTER-CLOCKWISE, HAVE NATIONAL STANDARD TREADS, AND BE PROVIDED WITH A SECURITY CHAIN. OPERATING NUT SHALL BE 7/8" SQUARE IN SIZE.

8. POSITIVE O-RINGS SEALS WILL BE PROVIDED TO PROTECT STEM AND OPERATING NUT THREADS, AND ALL BEARING SURFACES FROM THE ATMOSPHERE AND THE WATERWAY. THE TOP WILL HAVE AN AN OIL RESERVOIR OR GREASE CHAMBER TO INSURE AUTOMATIC LUBRICATION OF THE STEM THREADS DURING OPERATION.

9. PRIMARY COATING AND PAINTING MUST COMPLY WITH THE STANDARD RECOMMENDATIONS, AND A SAFETY FINISH COAT WILL BE APPLIED ABOVE THE GRADE LINE. FINISH COAT MUST BE SAFETY YELLOW IN COLOR.

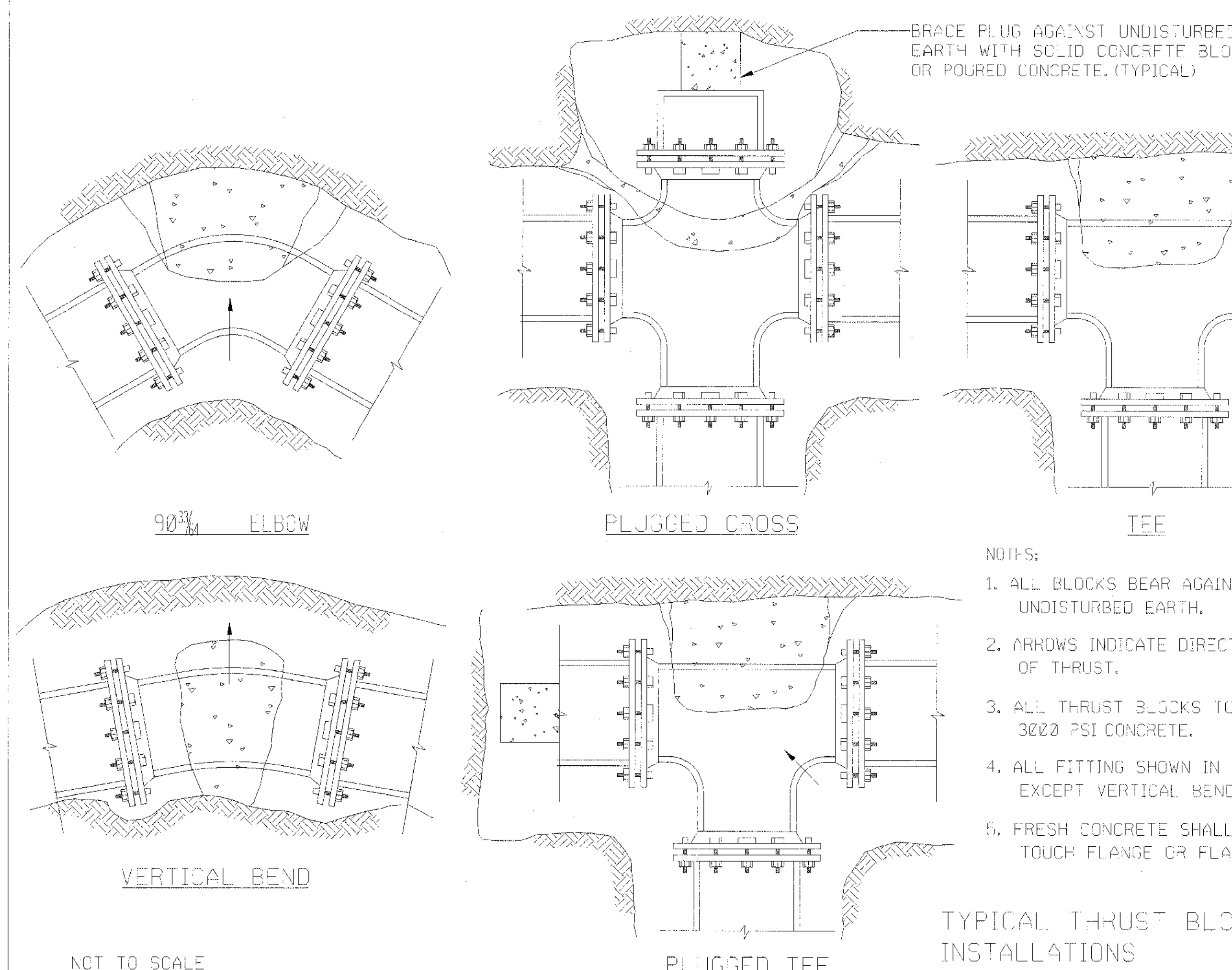
NOT TO SCALE

REVISION	BY	DATE
REVISED	MDW	07/15/05
REVISED	WLC	04/12/05
REVISED	CAM	04/03/02
REVISED	PJK	03/25/02
REVISED	MDW	01/05/00
REV. HYD. MODEL STD.	PMCJ	06/25/99
METRIC	PMCJ	01/27/97
REVISED	MDW	08/22/94
STAND301.DWG	MDM	03/91

S:\...\MISC\STANDARD\CRI STD\301.DWG

FIRE HYDRANT DETAIL

CITY OF ROCK ISLAND ENGINEERING DIVISION — STANDARD NO. 301



NOTES:

1. ALL BLOCKS BEAR AGAINST UNDISTURBED EARTH.
2. ARROWS INDICATE DIRECTION OF THRUST.
3. ALL THRUST BLOCKS TO BE 3000 PSI CONCRETE.
4. ALL FITTING SHOWN IN PLAN EXCEPT VERTICAL BEND.
5. FRESH CONCRETE SHALL NOT TOUCH FLANGE OR FLANGE BOLTS.

NOT TO SCALE

REVISION	BY	DATE
STANDARDIZED	PMCJ	10/03/94

TYPICAL THRUST BLOCK INSTALLATIONS

CITY OF ROCK ISLAND ENGINEERING DIVISION — STANDARD NO. 302

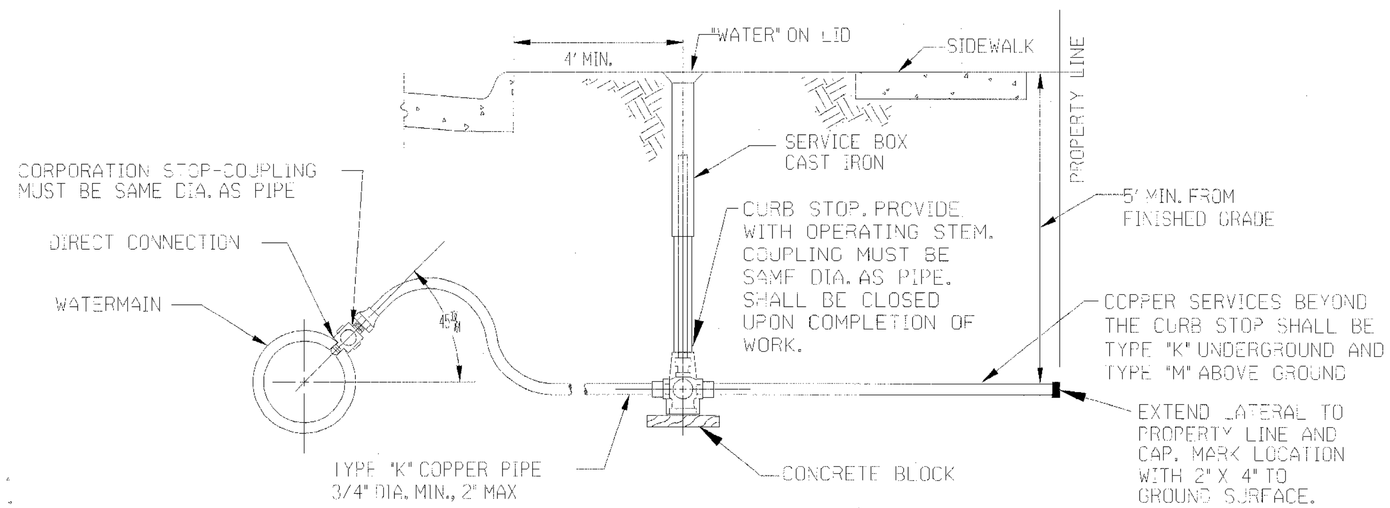
REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SPECIAL UTILITY DETAILS

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	159
STA		TO STA		
FED. RD DIST. NO.		ILLINOIS FED. AID PROJECT		
			CONTRACT # 84986	



MAIN DIA.	MAXIMUM RECOMMENDED DIRECT TAP SIZES MAX TAP SIZE BY MAIN MATERIAL TYPE CL 350 DIP & CAST IRON	ALL W/ SADDLE
3"	3/4"	3/4"
4"	3/4"	1"
6"	1"	1-1/2"
8"	1"	2"
10"	1"	2"
12"	1-1/4"	2"
14"	1-1/2"	2" *
16"	2"	2" *
18"	2"	2" *
20"	2"	2" *
24"	2"	2" *

NOTES:

1. THE SERVICE PIPE SHALL BE LAID IN THE TRENCH WITH SUFFICIENT HORIZONTAL WEAVING TO ALLOW NOT LESS THAN 1' EXTRA LENGTH IN ITS ENTIRE LENGTH.

2. SERVICE PIPES OVER 2" DIAMETER SHALL BE TAPPED LIVE THROUGH A SADDLE SLEEVE OR CUT IN TO THE MAIN WITH A SOLID SLEEVE. NOTIFY THE PUBLIC WORKS DEPARTMENT PRIOR TO PERFORMING SUCH A CONNECTION.

3. THE PIPING FROM TWO OR MORE SERVICES ON THE SAME PREMISES MUST BE KEPT SEPARATE, WITH NO CROSS CONNECTIONS.

4. CONTACT THE PLUMBING INSPECTOR FOR SPECIAL BEDDING AND INSTALLATION REQUIREMENTS FOR SERVICES IN ACID SOILS OR LANDFILLS.

5. CURB STOP SHALL BE 4' MIN FROM BACK OF CURB OR EDGE OF PAVEMENT AND 1' MIN FROM PROPERTY LINE, BUT IN EITHER CASE NOT IN A SIDEWALK WITHOUT APPROVAL OF THE PUBLIC WORKS DEPARTMENT.

6. IF A SADDLE IS PROVIDED FOR TAPPING OF DUCTILE IRON OR CAST IRON WATERMAINS, THE "ALL W/ SADDLE" FIGURES CAN BE USED FOR MAX. TAP SIZES.

7. MANUFACTURERS DO NOT RECOMMEND TAPPING C900 PVC OVER 12" DIAMETER.
* FOR PVC WATER MAINS OVER 12" THAT NEED TO BE TAPPED, CONTACT THE PUBLIC WORKS DEPARTMENT - D.I.P. OR A SPECIAL GRADE OF PVC MAY BE REQUIRED.

REVISED	TAG	4/2/02
REVISED	PMCJ	12/14/98
METRIC	PMCJ	01/27/97
STAND303.DWG	CWE	06/19/91
REVISION	BY	DATE

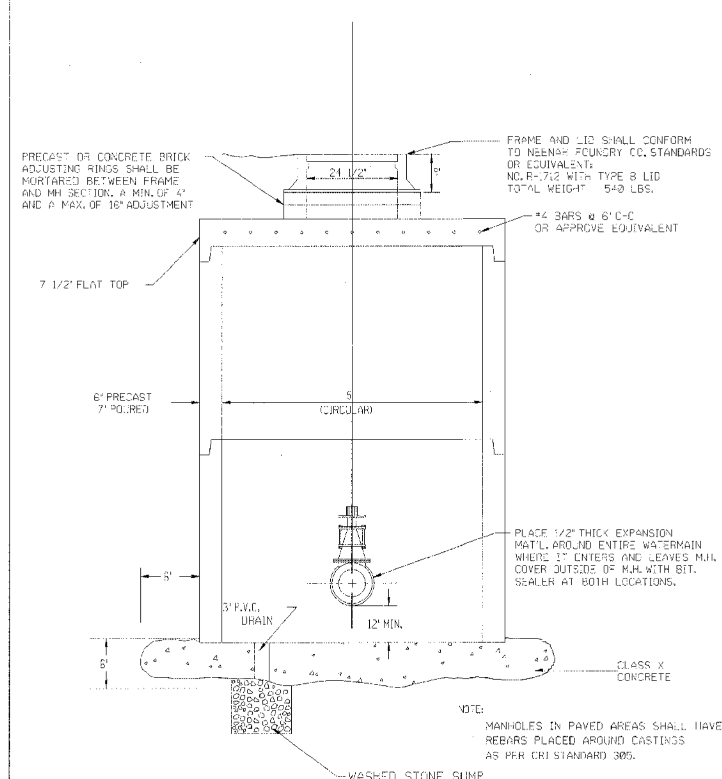
S:\...\MISC\STANDARD\CRI_STD\303.DWG

NOT TO SCALE

STANDARD TAP
SERVICE PIPING (COPPER)

CITY OF ROCK ISLAND ENGINEERING DIVISION — STANDARD NO. 303

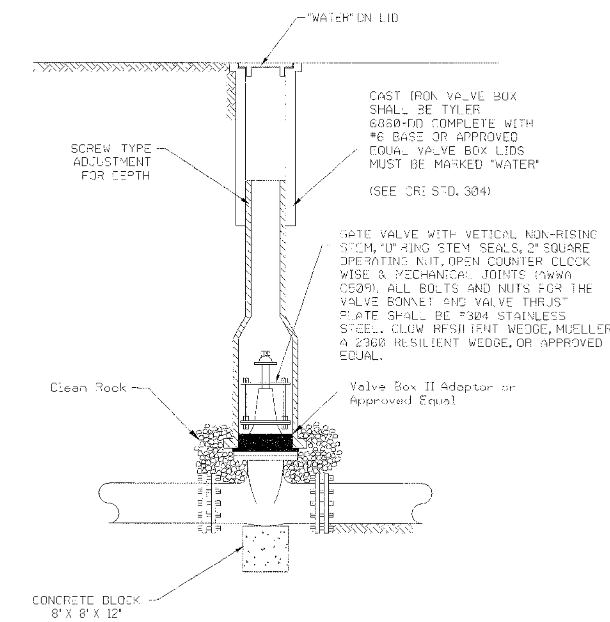
VALVE VAULT



NOTE:
MANHOLES IN PAVED AREAS SHALL HAVE REBARS PLACED AROUND CASTINGS AS PER CRI STANDARD 305.

REVISED	WLC	04/12/05
REVISED	CAM	04/03/02
REVISED	PJK	03/25/02
REVISED	TAB	03/14/00
STAND304.DWG	MDW	03/12/93

VALVE BOX



STANDARD VALVE VAULT & STANDARD VALVE BOX

CITY OF ROCK ISLAND ENGINEERING DIVISION — STANDARD NO. 304

REVISIONS NAME	DATE

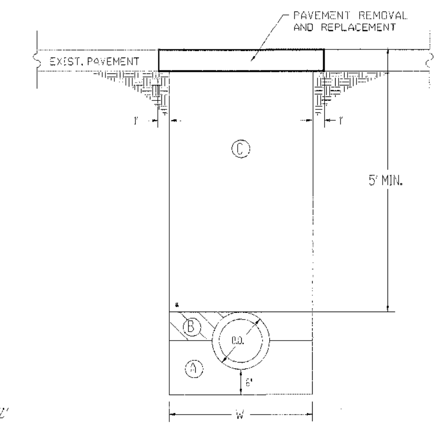
ILLINOIS DEPARTMENT OF TRANSPORTATION

SPECIAL UTILITY DETAILS

SCALE: VERT. HORIZ.
DATE
DRAWN BY
CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	160
STA		TO STA		
FED. RD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		

TRENCH DETAIL FOR ALL EXCAVATIONS UNDER OR WITHIN TWO FEET OF A PROPOSED OR EXISTING PAVEMENT



W = O.D. + 3.0'

AREA (A) FA-1 OR FA-2 BEDDING COMPACTED IN 8" LIFTS ACCORDING TO ART. 550.07

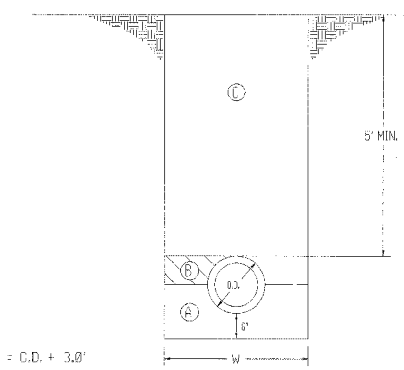
AREA (B) TRENCH BACKFILL (PAY ITEM) COMPACTED IN 8" LIFTS ACCORDING TO ART. 550.07

AREA (C) TRENCH BACKFILL (PAY ITEM). COMPACTED BY METHOD 1, 2, OR 3 ART. 550.07.

BEDDING, BACKFILLING AND COMPACTING AREA A ARE INCIDENTAL TO THE WATERMAIN CONSTRUCTION.

REVISION	BY	DATE
REVISED	MDW	08/22/94
STANDARDIZED	MEE	08/20/94

TRENCH DETAIL FOR EXCAVATIONS OUTSIDE PAVED AREAS



W = O.D. + 3.0'

AREA (A) FA-1 OR FA-2 BEDDING COMPACTED IN 8" LIFTS ACCORDING TO ART. 550.07

AREA (B) SELECT MATERIAL NATIVE SOIL EXCAVATED FROM THE TRENCH, FREE OF ROCKS, FOREIGN MATERIALS, AND FROZEN EARTH. COMPACTED IN 8" LIFTS ACCORDING TO ART. 550.07

AREA (C) EXCAVATED MATERIAL FREE OF ROCKS LARGER THAN 8" IN GREATEST DIMENSION COMPACTED BY METHOD 1, 2, OR 3 ART. 550.07

BEDDING, BACKFILLING AND COMPACTING AREAS A, B, AND C ARE INCIDENTAL TO THE WATERMAIN CONSTRUCTION.

TRENCH DETAILS FOR WATERMAIN INSTALLATION

CITY OF ROCK ISLAND ENGINEERING DIVISION	STANDARD NO. 306

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SPECIAL UTILITY DETAILS

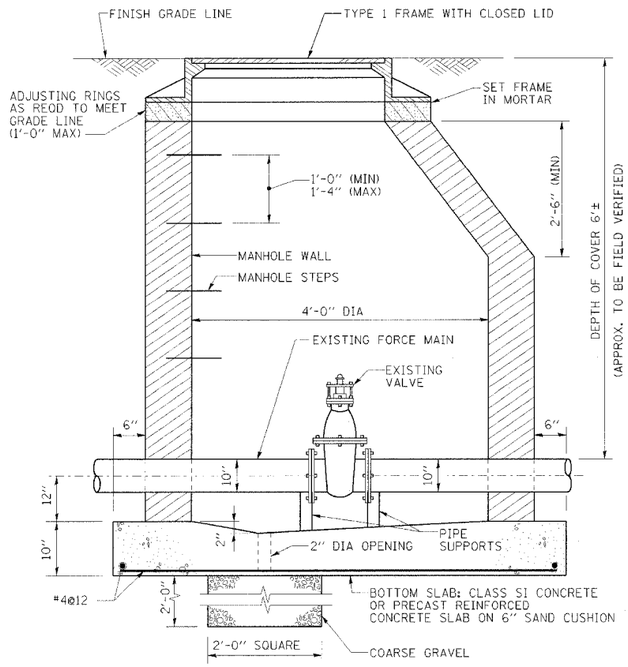
SCALE: VERT. HORIZ.

DATE

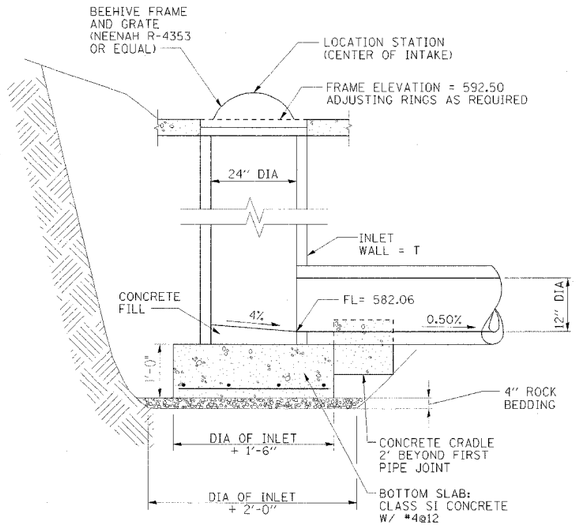
DRAWN BY

CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	161
STA	TO STA			
FED. RD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		

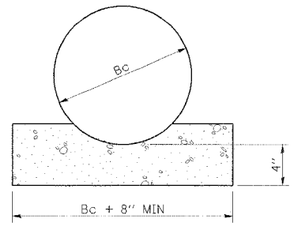


VALVE VAULT 4' DIAMETER
SCALE: NONE

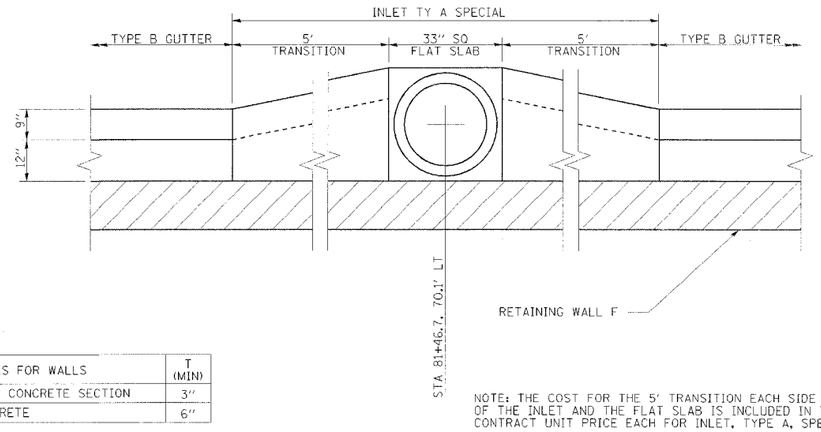


ALTERNATE MATERIALS FOR WALLS	T (MIN)
PRECAST REINFORCED CONCRETE SECTION	3"
CAST-IN-PLACE CONCRETE	6"

INLET, TYPE A, SPECIAL
SCALE: NONE



CONCRETE CRADLE
SCALE: NONE



NOTE: THE COST FOR THE 5' TRANSITION EACH SIDE OF THE INLET AND THE FLAT SLAB IS INCLUDED IN THE CONTRACT UNIT PRICE EACH FOR INLET, TYPE A, SPECIAL.

CURB TRANSITION
SCALE: NONE

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SPECIAL UTILITY DETAILS

SCALE: VERT.
HORIZ.
DATE

DRAWN BY
CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	162
STA		TO STA		
FED. RD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		

STORM WATER POLLUTION PREVENTION PLAN
EROSION CONTROL PLAN

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

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

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

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

SITE DESCRIPTION

DESCRIPTION OF CONSTRUCTION ACTIVITY:

THIS PROJECT CONSISTS OF PAVEMENT REMOVAL AND REPLACEMENT, NEW STORM SEWER, NEW CURB AND GUTTER, NEW SIDEWALK, PAVING, UTILITY RELOCATIONS, WATERMAIN IMPROVEMENTS, RETAINING WALL STRUCTURES FOR 3/4 MILE OF URBAN ROADWAY.

DESCRIPTION OF INTENDED SEQUENCE OF ACTIVITIES:

THE SEQUENCE OF EVENTS ARE AS FOLLOWS: CLEARING, EMBANKMENT, STORM SEWER REMOVAL AND REPLACEMENT, PAVEMENT REMOVAL, EXCAVATION, GRADING, PAVING, TOPSOIL PLACEMENT, FINAL SHAPING, SEEDING AND SODDING.

THIS PROJECT WILL BE CONSTRUCTED IN SEGMENTS AS SHOWN IN THE "STAGING PLANS".

TOTAL CONSTRUCTION SITE (CONSTRUCTION LIMIT TO CONSTRUCTION LIMIT) 18.8 ACRES

PROPOSED R.O.W (TOTAL PARCEL AREA) 18.8 ACRES

DISTURBED BY EXCAVATION (E.O.P TO CONSTRUCTION LIMIT) 10.5 ACRES

SUPPORTING REPORTS AND PLANS

THE FOLLOWING ASSISTED IN DEVELOPING THE EROSION CONTROL PLAN AS REFERENCED DOCUMENTS:

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

DRAINAGE TRIBUTARIES RECEIVING WATER FROM CONSTRUCTION SITE

ROCK RIVER

EROSION CONTROLS AND SEDIMENT CONTROL PROCEDURES

STABILIZATION PRACTICES AT THE BEGINNING OF CONSTRUCTION:

PERIMETER EROSION CONTROL SHALL BE PLACED PRIOR TO BEGINNING EARTHWORK.

STABILIZATION PRACTICES DURING CONSTRUCTION:

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

STRUCTURAL PRACTICES DURING CONSTRUCTION:

INLET AND PIPE PROTECTION

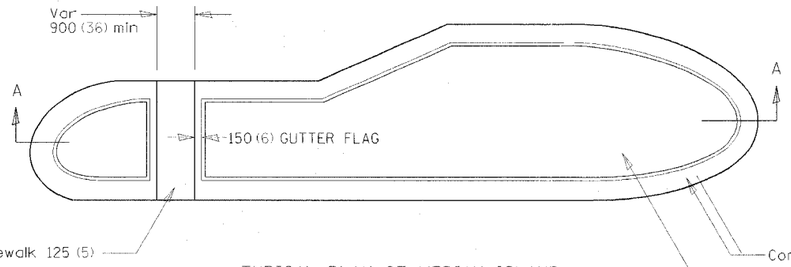
MAINTENANCE AFTER FINAL GRADING

MAINTENANCE WILL BE THE RESPONSIBILITY OF THE CONTRACTOR WITH SUFFICIENT INSPECTION BY THE RESIDENT ENGINEER. ALL MATERIAL SHALL BE KEPT IN GOOD CONDITION, FREE FROM SILT AND OTHER DEBRIS. TEMPORARY EROSION CONTROL SYSTEMS SHALL BE LEFT IN PLACE WITH PROPER MAINTENANCE UNTIL PERMANENT EROSION CONTROL IS IN PLACE AND WORKING PROPERLY AND ALL PROPOSED TURF AREAS SEEDED OR SODDED AND ESTABLISHED WITH THE PROPER STAND. ONCE PERMANENT EROSION CONTROL SYSTEMS AS PROPOSED IN THE PLANS ARE FUNCTIONAL AND ESTABLISHED, TEMPORARY ITEMS SHALL BE REMOVED, CLEANED UP AND DISTURBED TURF RESEEDED.

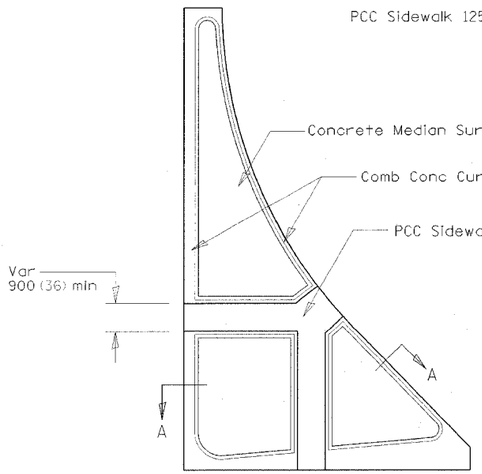
PLOT DATE = #DATE#
FILE NAME = #FILE#
PLOT SCALE = #SCALE#
REFERENCE = #REF#

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	163
STA		TO STA		
FED. RD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT = 84986		

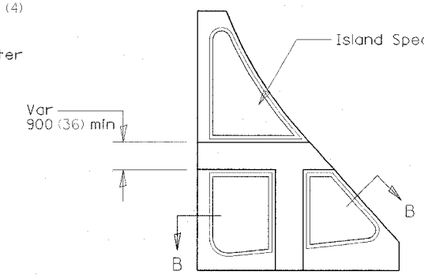
PC CONCRETE ISLANDS AND MEDIANS ACCESSIBLE TO THE DISABLED



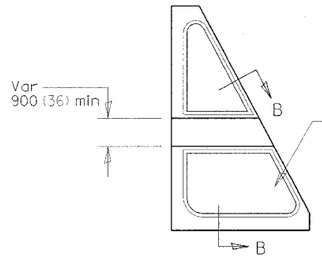
TYPICAL PLAN OF MEDIAN ISLAND



LARGE ISLAND
(Free Flow Design)

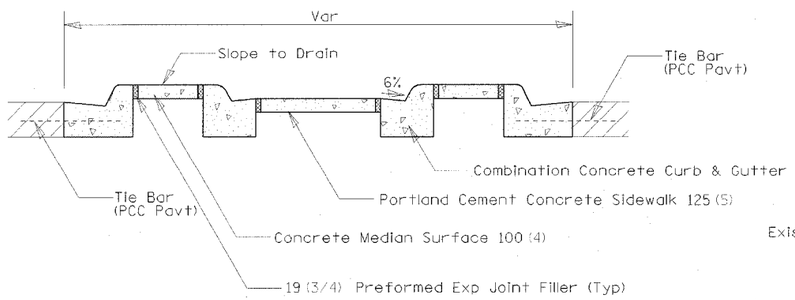


INTERMEDIATE ISLAND
(For Right Turn Lane Design)

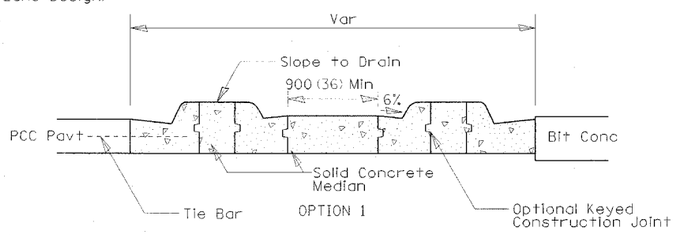


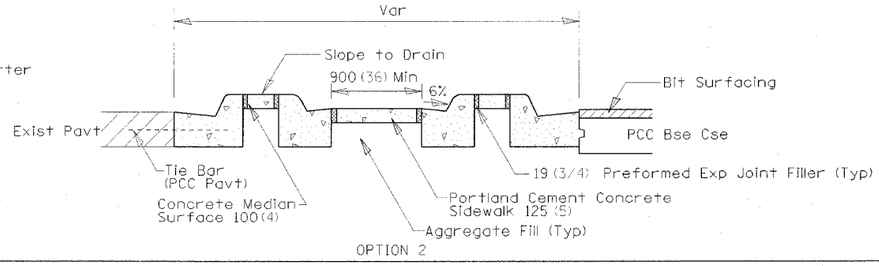
SMALL ISLAND
(For Typical Design)

SECTION A-A



SECTION B-B





General Notes:

See Standard 606301 and plan sheets for station & offsets, radii, dimensions, and details not shown.

The sidewalk should drain to the low side of the island. If necessary the sidewalk shall be sloped to drain at a maximum 2% grade.

See the plan general notes for the type of curb & gutter to be used on islands.

Curb & gutter adjacent to the walkway in the interior of the island shall have 150 (6) gutter flags.

The sidewalk should not be closer than 900 (36) from the corner of the island.

Keyed longitudinal construction joints shall be constructed without tie bars.

Medians and large islands shall consist of PCC Sidewalk 125 (5), Concrete Median Surface 100 (4), and Combination Concrete Curb & Gutter, Type M or B of the size specified. Median island can also be solid concrete medians.

Locations, layouts, and widths of the flush sidewalk area, shall be determined by the designer and shown on the plans.

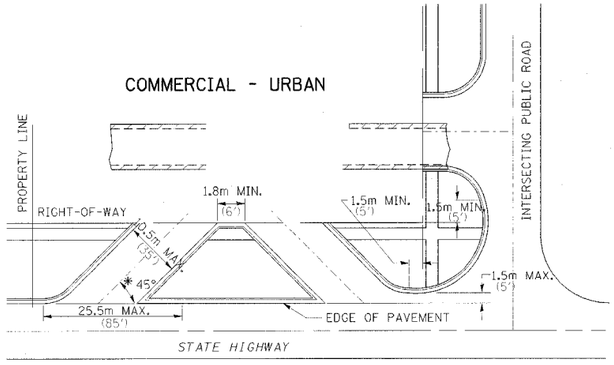
The intermediate and small islands will be measured for payment from E.O.P. to E.O.P. using either option 1 or option 2, as directed by the Engineer, and will be paid for at the contract unit price per SQ M (SQ YD) for ISLAND SPECIAL, which shall include the combination curb & gutter, sidewalk, aggregate fill, concrete median surface, and solid concrete median.

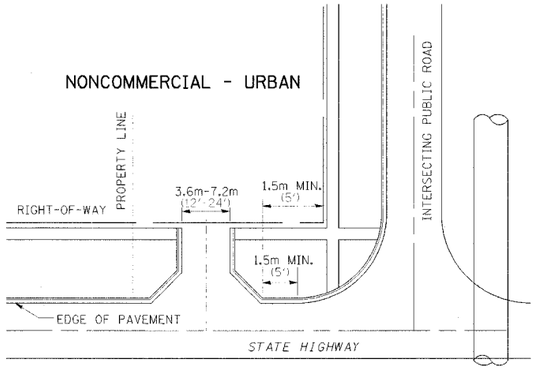
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	164
STA	TO STA			
FED. RD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		

ENTRANCE APPROACHES – URBAN AREA

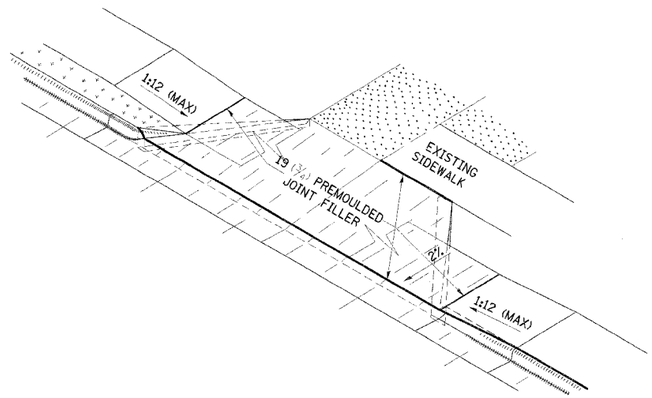
TYPICAL APPLICATION OF ENTRANCES

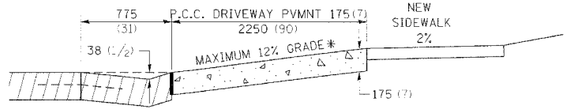




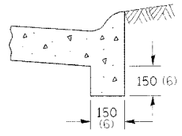
WHEN THE ISLAND BETWEEN DRIVES IS LESS THAN 7.5m (25') LONG OR LESS THAN 10 FEET WIDE, IT SHALL BE DEFINED BY CURBS, MASONRY, OR OTHER DEVICES.

* 45° MIN. ANGLE PERMITTED ONLY FOR ONE-WAY DRIVEWAYS. 60° MIN. ANGLE FOR TWO-WAY DRIVEWAYS.

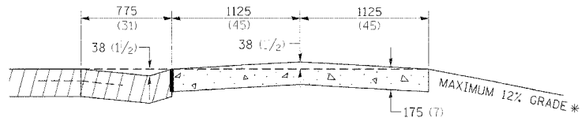




ASCENDING APPROACH

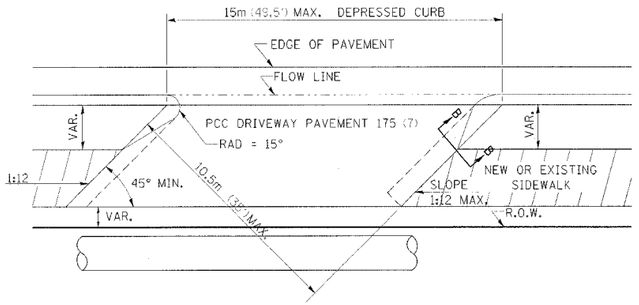


SEC B-B

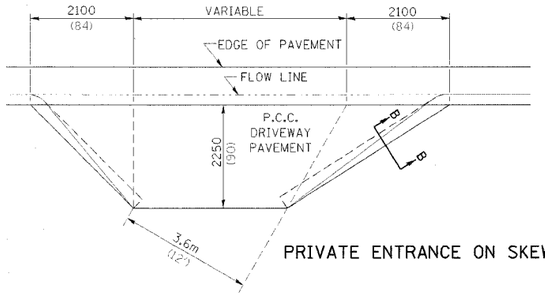


DESCENDING APPROACH

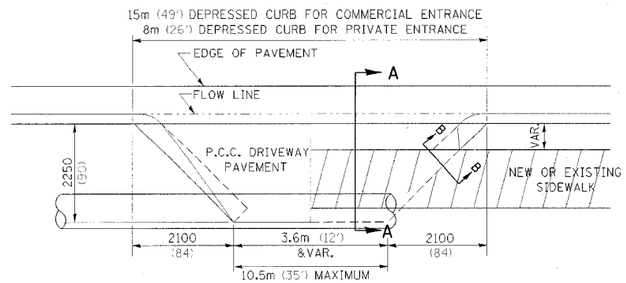
* IN CASES WHERE GRADE EXCEEDS 12%. THE RESIDENT ENGINEER SHALL CHECK WITH DISTRICT DESIGN OFFICE TO DETERMINE NEW APPROACH GRADE. PARTICULAR ATTENTION SHALL BE PAID TO THE NEGATIVE GRADE TO PREVENT DRAINAGE FROM OVER FLOWING INTO THE PRIVATE ENTRANCE.



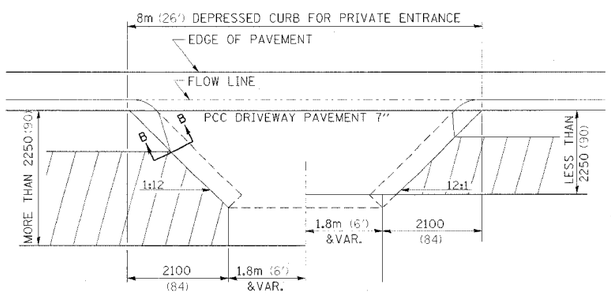
COMMERCIAL ENTRANCE



PRIVATE ENTRANCE ON SKEW

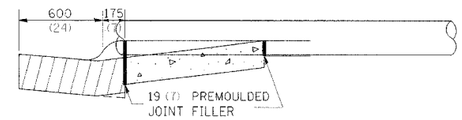


NO SIDEWALK EXISTING SIDEWALK



NEW SIDEWALK

SECTION A-A



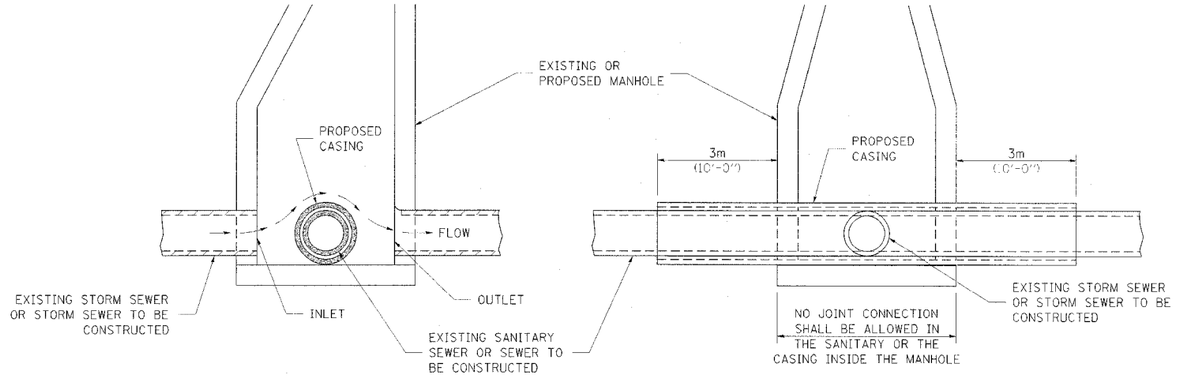
THE VARIABLE HEIGHT INTEGRAL CURB AND PREMOULDED JOINT FILLER WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF DRIVEWAY PAVEMENT OF THE THICKNESS SPECIFIED.

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

PLOT DATE = $DATE$
FILE NAME = $FILE$
PLOT SCALE = $SCALE$
REFERENCE = REF

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	165
STA	TO STA			
FED. RD DIST. NO.	ILLINOIS	FED. AID PROJECT		
			CONTRACT # 84986	

SEWER AND WATER MAIN CROSSINGS



ELEVATION - ECCENTRIC

ELEVATION - CONCENTRIC

CASING SHALL BE CAST IRON WITH AN INSIDE DIAMETER 50 (2) LARGER IN DIAMETER THAN ENCASED PIPE OUTSIDE DIAMETER WITH BOTH ENDS OF CASING SEALED

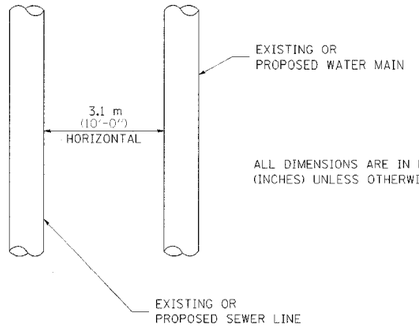
AT GRADE CROSSING OF SANITARY AND STORM SEWER

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED

THIS DETAIL IS FOR UNKNOWN UTILITIES UNLESS QUANTITIES ARE INCLUDED IN THE PLANS THE EXTRA WORK WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04.

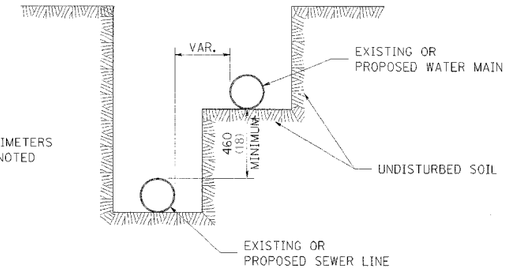
WHEN PROPOSED SEWER (OR WATER) IS LOCATED 3.1 m (10'-0") OR MORE FROM EXISTING WATER (OR SEWER) NO SPECIAL CONSTRUCTION REQUIRED.

WHEN PROPOSED SEWER (OR WATER) IS LOCATED LESS THAN 3.1 m (10'-0") FROM EXISTING WATER (OR SEWER) DETAILS BELOW SHALL APPLY.



PLAN VIEW

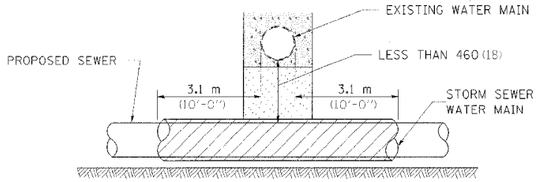
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED



WATER AND SEWER HORIZONTAL SEPARATION REQUIREMENTS

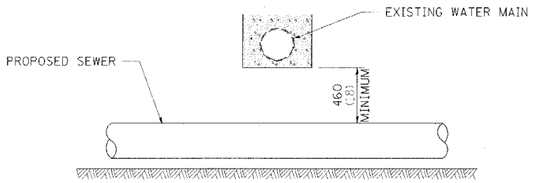
POINT LOADS SHALL NOT BE ALLOWED BETWEEN SEWER OR SEWER CASING AND WATER MAIN

PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH



PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH

MAINTAIN 460 (18) MINIMUM VERTICAL SEPARATION FOR 3.1m (10') HORIZONTALLY

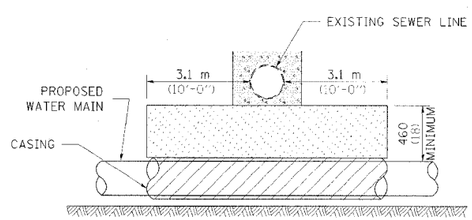


ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED

PROPOSED SEWER LINE BELOW EXISTING WATER MAIN

PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT DAMAGE DUE TO SETTLEMENT

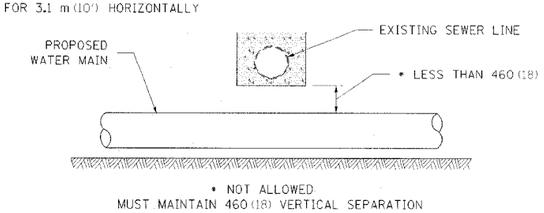
PLACE TRENCH BACKFILL FOR 3.1 m (10') ON EITHER SIDE OF SEWER LINE



CASING SHALL BE CAST IRON WITH AN INSIDE DIAMETER 50 (2) LARGER IN DIAMETER THAN ENCASED PIPE OUTSIDE DIAMETER WITH BOTH ENDS OF CASING SEALED

PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH

MAINTAIN 460 (18) MINIMUM VERTICAL SEPARATION FOR 3.1 m (10') HORIZONTALLY

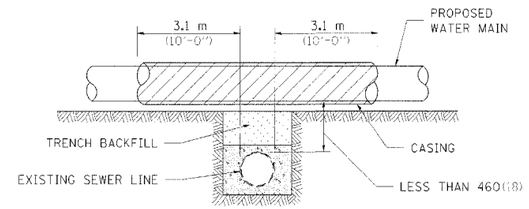


* NOT ALLOWED
MUST MAINTAIN 460 (18) VERTICAL SEPARATION

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED

PROPOSED WATER MAIN BELOW EXISTING SEWER LINE

POINT LOADS SHALL NOT BE ALLOWED BETWEEN WATER MAIN OR WATER MAIN CASING AND SEWER

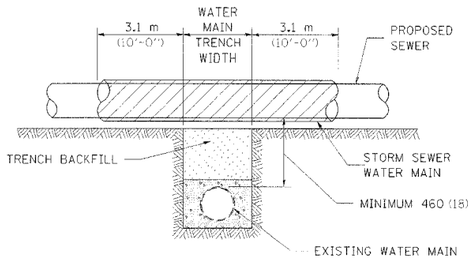


CASING SHALL BE CAST IRON WITH AN INSIDE DIAMETER 50 (2) LARGER IN DIAMETER THAN ENCASED PIPE OUTSIDE DIAMETER WITH BOTH ENDS OF CASING SEALED

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED

PROPOSED WATER MAIN ABOVE EXISTING SEWER LINE

PROVIDE ADEQUATE SUPPORT FOR SEWER TO PREVENT SETTLING AND BREAKING THE WATER MAIN.



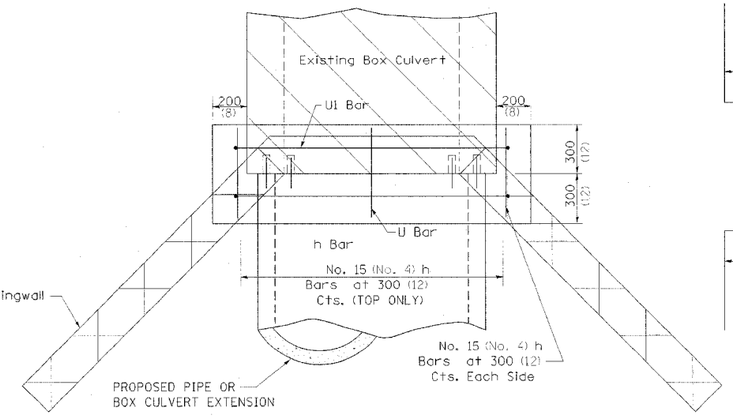
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED

EXISTING WATER MAIN BELOW PROPOSED SEWER LINE WITH MINIMUM 460 (18) VERTICAL SEPARATION

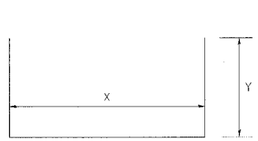
PLOT DATE = $DATE$
FILE NAME = $FILE$
FULL PATH = $FILE$
REFERENCE = REF

CONCRETE COLLARS FOR PIPE OR BOX CULVERT EXTENSIONS

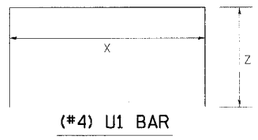
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	166
STA		TO STA		
FED. RD DIST. NO.	ILLINOIS	FED. AID PROJECT		
			CONTRACT # 84986	



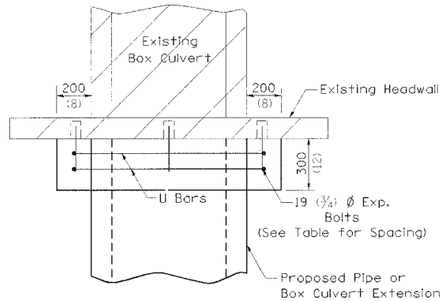
PLAN OF CULVERT WITH ANGLED WING WALLS



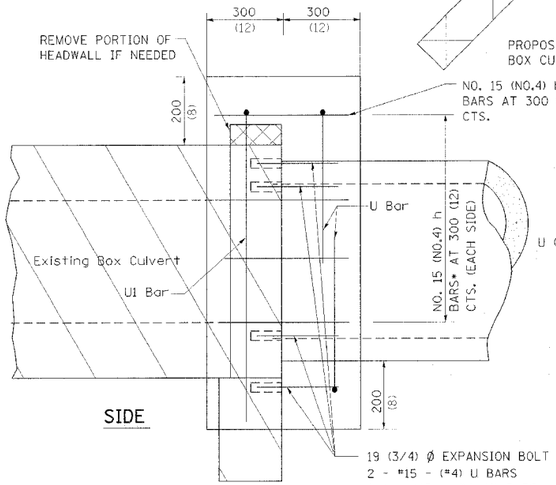
(#4) U BAR



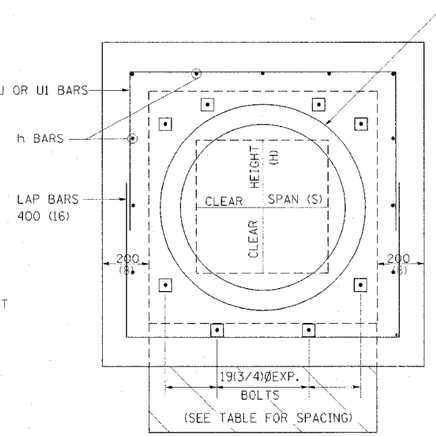
(#4) U1 BAR



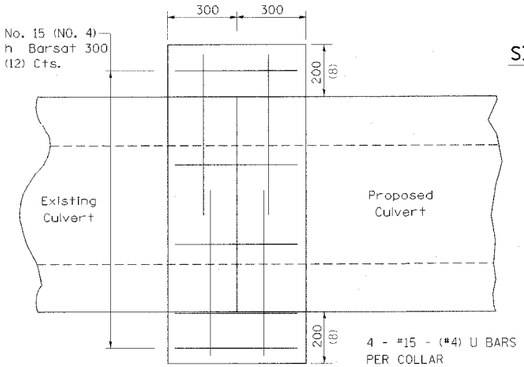
PLAN OF CULVERT WITH STRAIGHT HEADWALL



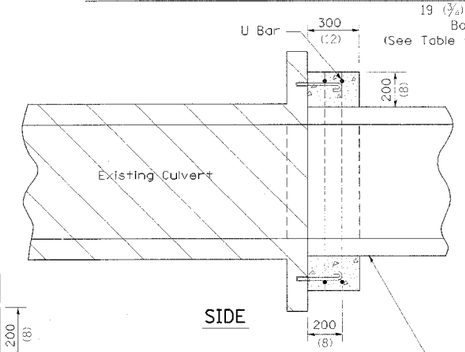
SIDE



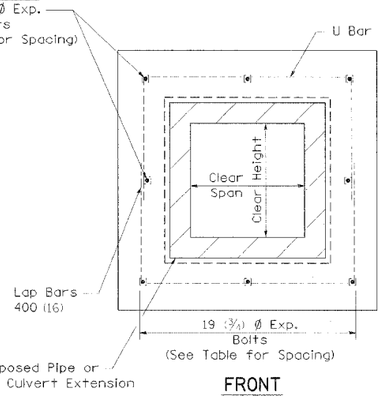
FRONT



CULVERT CONNECTION WITHOUT EXISTING HEADWALL



SIDE



FRONT

PLACEMENT DETAILS FOR EXPANSION BOLTS

H OR S	NUMBER OF EXPANSION BOLTS REQUIRED PER SIDE			
	EXTENSIONS < 4.57m (15')		EXTENSIONS > 4.57m (15')	
	NUMBER	SPACING	NUMBER	SPACING
600 (24)	*		*	
750 (30)	2	450 (18)	2	450 (18)
900 (36)	2	600 (24)	2	600 (24)
1200 (48)	3	450 (18)	3	450 (18)
1500 (60)	4	400 (16)	3	600 (24)
1800 (72)	5	375 (15)	4	500 (20)
2100 (84)	5	450 (18)	4	600 (24)
2400 (96)	6	375 (15)	5	525 (21)
2700 (108)	6	475 (19)	5	600 (24)
3000 (120)	7	450 (18)	6	525 (21)
3300 (132)	8	425 (17)	6	600 (24)
3600 (144)	8	475 (19)	7	550 (22)

* MINIMUM ONE PER SIDE

Bill of Materials

STATION	DIMENSIONS X	DIMENSIONS Y	h Bar No.	U Bar No.	U Bar Length	EXPANSION BOLTS No.	CONCRETE COLLAR Cu. YD.	REINF. BARS lbs
94+49 RT	72"	40"	16	2	152"	6	1.61	40
All h Bars 450 (18) Long					Total	6	1.6	40

General Notes

Concrete Collars shall be constructed of Class SI Concrete in accordance with Section 503 of the Standard Specifications

Reinforcement bars shall conform to Section 508 of the Standard Specifications.

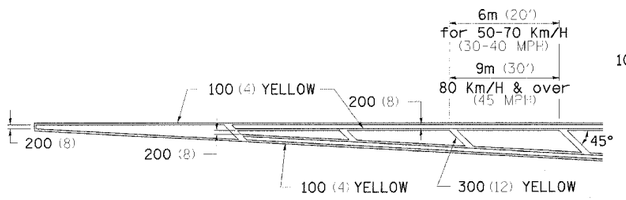
The concrete will be paid for at the contract unit price per cubic meter (cubic yard) for CONCRETE COLLAR. Reinforcement will be paid for at the contract unit price per kilogram (pound) for REINFORCEMENT BARS. Expansion Bolts, when required, will be paid for at the contract unit price each for EXPANSION BOLTS of the size indicated, which price shall include furnishing, drilling holes, and installing the expansion bolts complete in place. These bolts shall extend at least 200 (8 inches) into the new concrete.

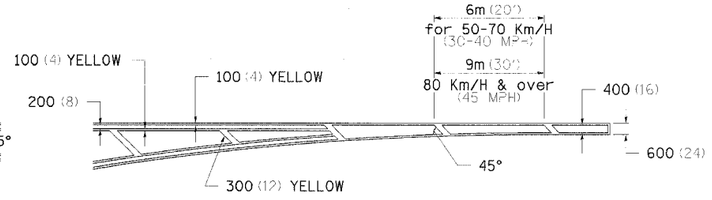
PLOT DATE = $DATE$
FILE NAME = $FILE$
PLOT SCALE = $SCALE$
REFERENCE = REF

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	167
STA		TO STA		
FED. RD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		

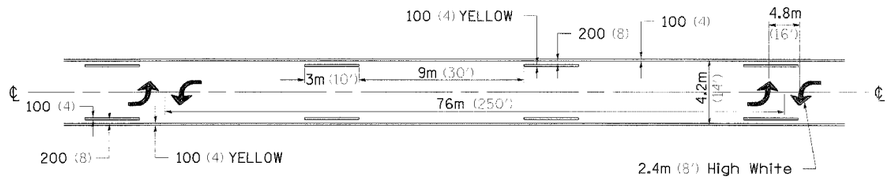
TYPICAL PAVEMENT MARKINGS

TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN

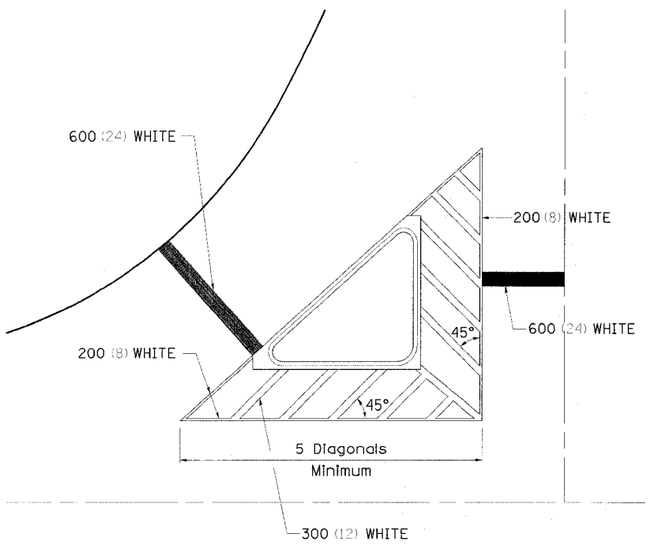




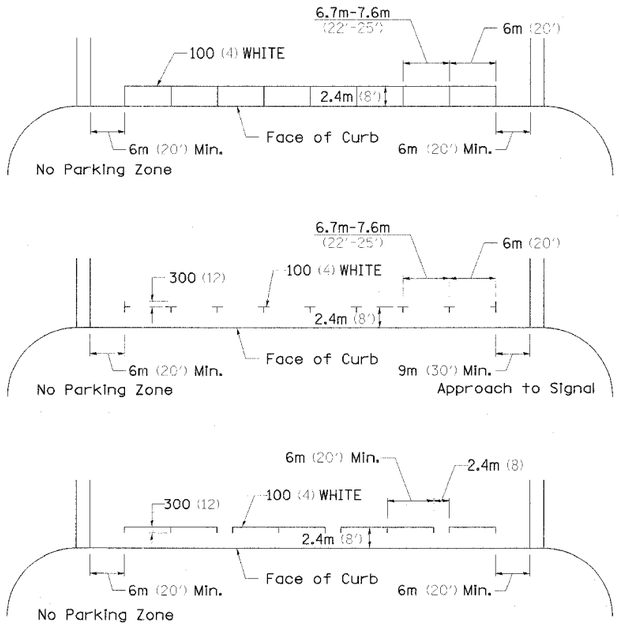
MEDIAN PAVEMENT MARKING



TYPICAL ISLAND OFFSET SHOULDER WIDTH



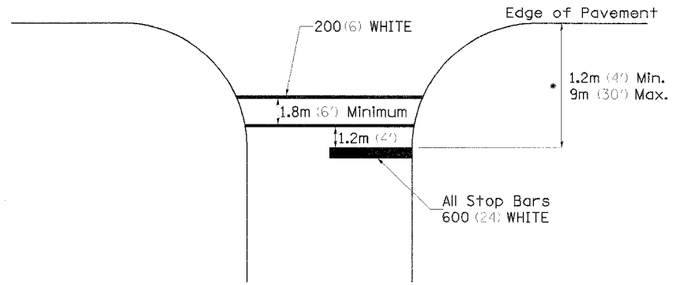
TYPICAL PARKING SPACING



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

STANDARD CROSSWALK MARKING

See Schedules for Locations



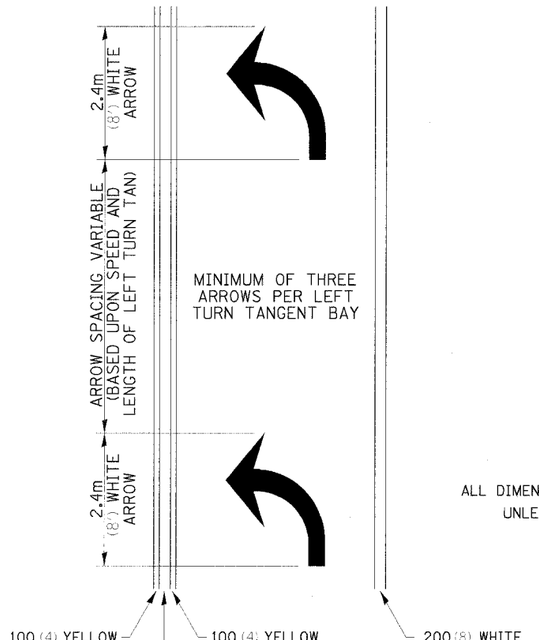
* Distance to the nearest edge of the intersecting roadway in the absence of a marked crosswalk.

TYPICAL PAVEMENT MARKINGS

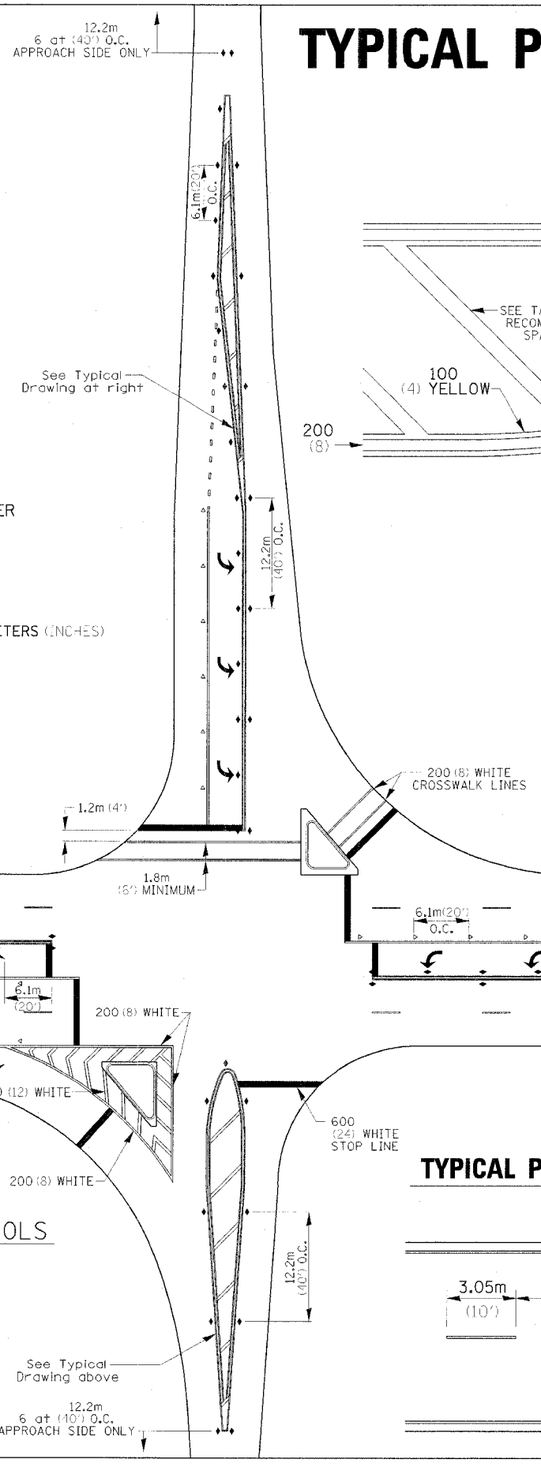
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	168
STA		TO STA		
FED. RD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT # 84986

ARROW LAYOUT

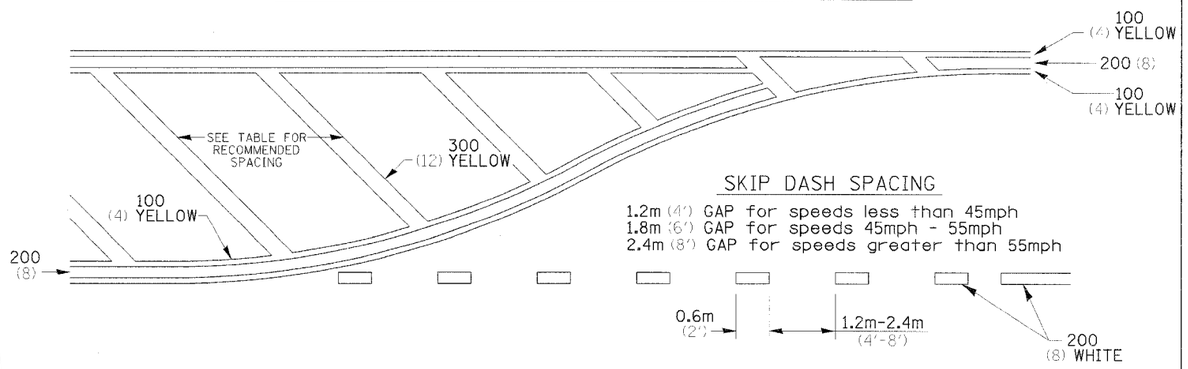


ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.



- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER
- ◆ TWO-WAY AMBER MARKER

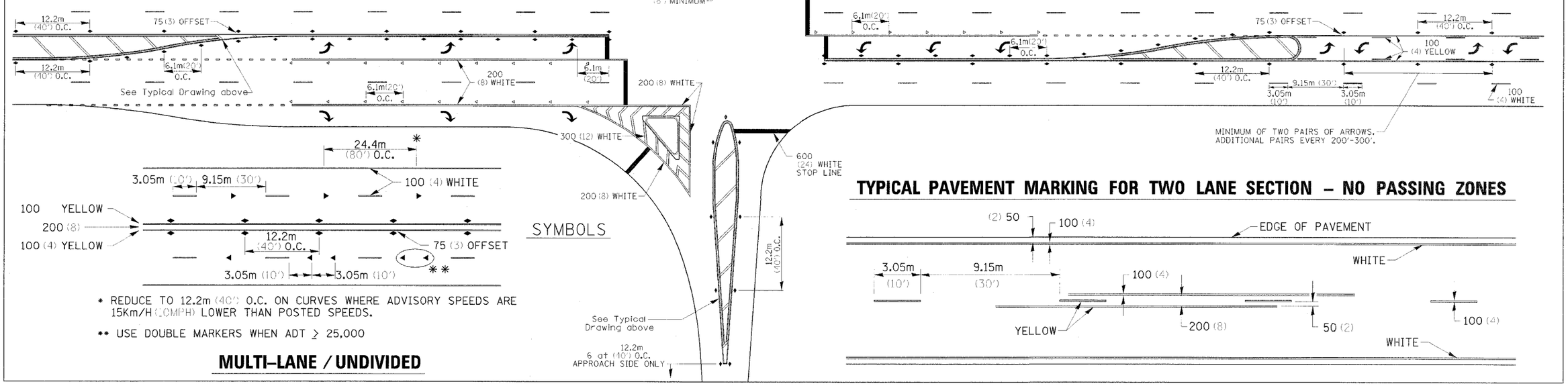
TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN



RECOMMENDED SPACING BETWEEN DIAGONALS (IN FEET)

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

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



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

** USE DOUBLE MARKERS WHEN ADT ≥ 25,000

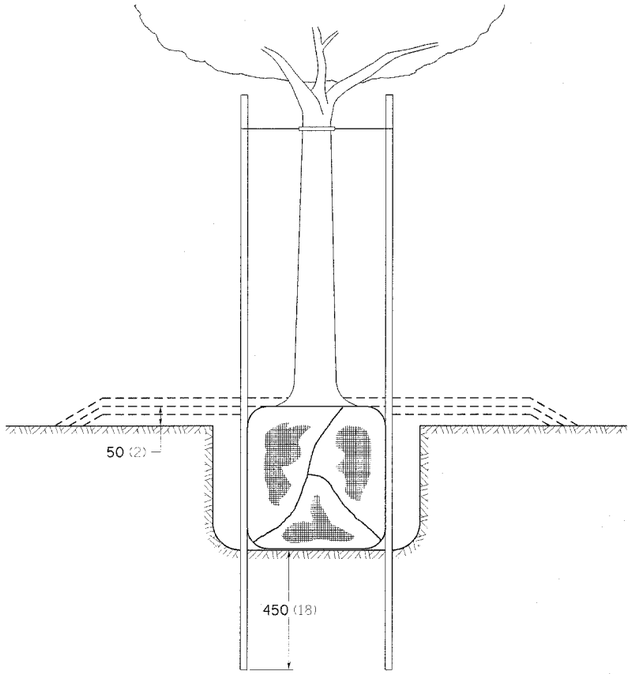
SYMBOLS

MULTI-LANE / UNDIVIDED

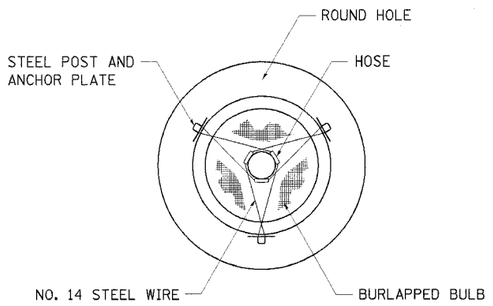
TYPICAL PAVEMENT MARKING FOR TWO LANE SECTION – NO PASSING ZONES

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	169
STA	TO STA			
FED. RD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		

DETAILS OF PLANTING AND BRACING TREES

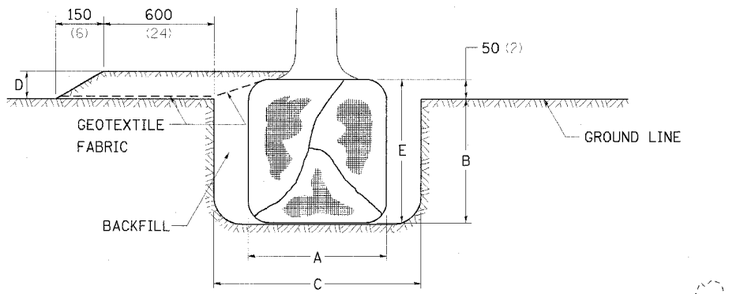


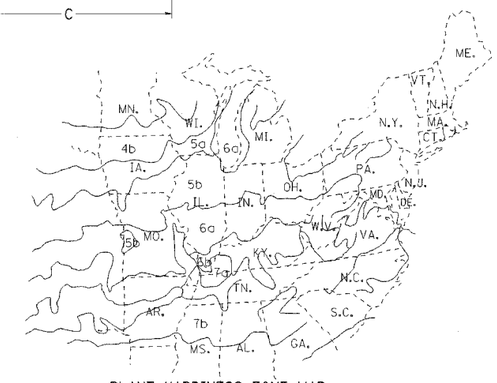
TREES SMALLER THAN 115 (4½) IN DIAMETER



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

LARGE TREE SIZE	A DIAMETER OF BALL OR ROOT SYS.	B DEPTH OF HOLE EXCAVATION	C WIDTH OF HOLE EXCAVATION	D THICKNESS OF MULCH COVER	E DEPTH OF BALL OR ROOT SYS.	F VOLUME OF MULCH COVER m^3 (CU. YDS.)
0-50 (0-2)	500 (20)	275 (11)	900 (36)	100 (4)	325 (13)	0.47 (0.61)
50-65 (2-2½) BB	600 (24)	350 (14)	1200 (48)	100 (4)	400 (16)	0.60 (0.78)
65-75 (2½-3) BB	700 (28)	425 (17)	1200 (48)	100 (4)	475 (19)	0.60 (0.78)
75-90 (3-3½) BB	800 (32)	425 (17)	1500 (60)	100 (4)	475 (19)	0.73 (0.96)
90-100 (3½-4) BB	900 (36)	500 (20)	1500 (60)	100 (4)	550 (22)	0.73 (0.96)
100-115 (4-4½) BB	1000 (40)	550 (22)	1800 (72)	100 (4)	600 (24)	0.89 (1.16)
115-125 (4½-5) BB	1100 (44)	600 (24)	1800 (72)	100 (4)	650 (26)	0.89 (1.16)
125-140 (5-5½) BB	1200 (48)	675 (27)	2100 (84)	100 (4)	725 (29)	1.06 (1.38)

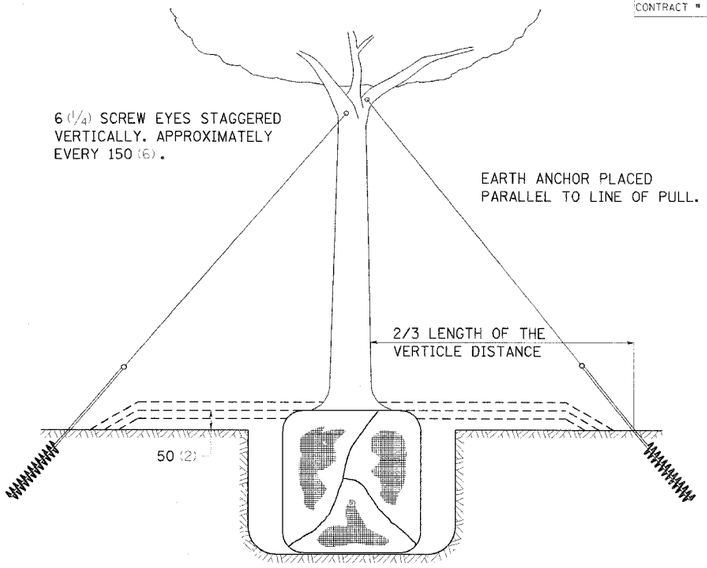


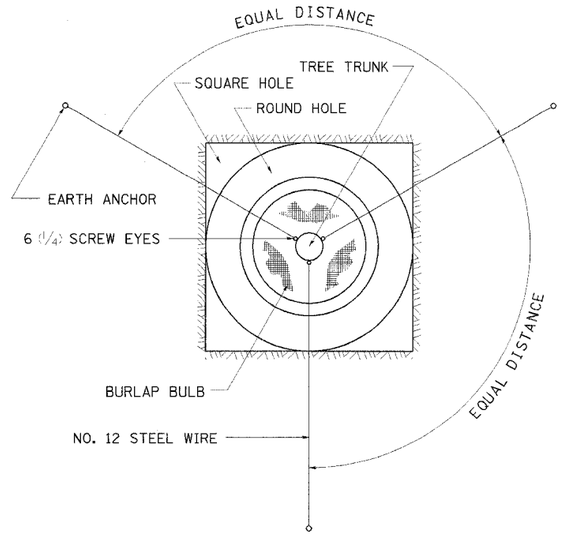


PLANT HARDINESS ZONE MAP

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

TREES OVER 115 (4½) IN DIAMETER (4)





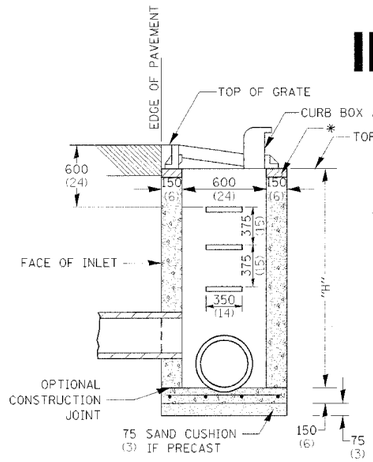
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

PLOT DATE = $DATE$
FILE NAME = $FILE$
PLOT SCALE = $SCALE$
REFERENCE = REF

DETAILS OF PLANTING AND BRACING TREES 92.1

REVISED 10-15-04

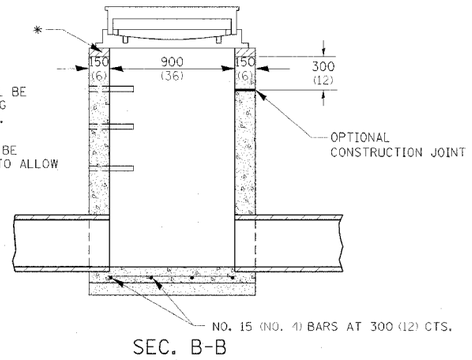
INLET SPECIAL



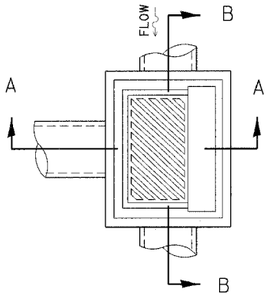
SEC. A-A

* THE WALL ADJUSTMENTS SHALL BE MADE WITH CONCRETE BUILDING BRICK OR CLASS SI CONCRETE.

THE HEIGHT OF THE BOX MAY BE CONSTRUCTED 150 (6) SHORT TO ALLOW FOR FIELD ADJUSTMENTS.



SEC. B-B



NOTES

SEE STANDARD 602701 FOR DETAILS OF STEPS.

EXCEPT AS NOTED HEREON INLET SPECIAL SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS.

THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTED SECTIONS.

ALL VOIDS AROUND PIPE ENTRANCE, BOTH INSIDE AND OUTSIDE, SHALL BE SEALED WITH MORTAR.

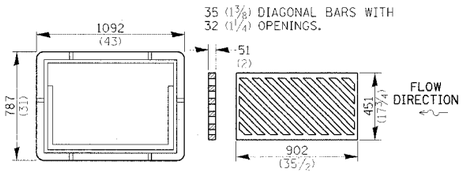
WEIGHT OF CAST IRON FRAME & GRATE = 240 kg (530 lbs.) ± . STEPS SHALL BE OMITTED WHEN DEPTH OF "H" IS LESS THAN 1.5 m (5 ft).

DETAIL OF FRAME & GRATE

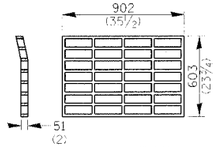
NOTES

CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED THROUGHOUT. PRECAST CONCRETE SHALL BE IN ACCORDANCE WITH SECTION 504.01 THRU 504.05 OF THE STANDARD SPECIFICATIONS EXCEPT THAT CONCRETE STRENGTH SHALL BE 27.5 MPa (4,000 psi) AFTER 28 DAYS.

THE CONTRACT UNIT PRICE EACH FOR INLET SPECIAL SHALL INCLUDE THE COST OF CONSTRUCTING THE INLET BOX, FURNISHING AND INSTALLING THE FRAME AND GRATE, THE CAST IRON STEPS (IF USED), THE PRECAST FLOOR SLABS, SAND CUSHION (WHEN USED) AND REINFORCEMENT BARS.

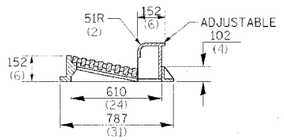


PLAN OF FRAME PLAN OF GRATE

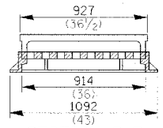


PLAN OF GRATE *

* THIS GRATE TO BE USED WITHOUT CURB BOX WHEN INLET IS IN DRIVEWAY.



SECTION A-A



SECTION B-B

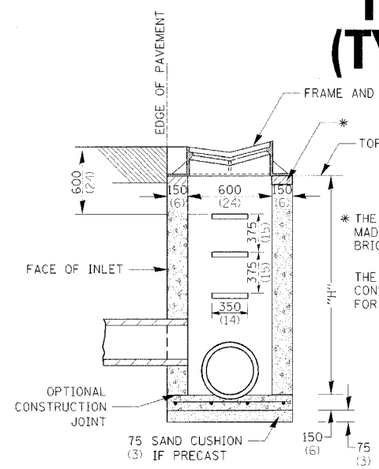
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

INLET SPECIAL 10.2

REVISED 11-10-94

INLET SPECIAL (TYPE A GUTTER)

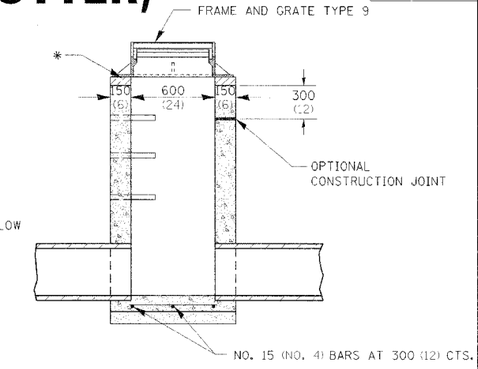
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	170
STA	TO STA			
FED. RD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		



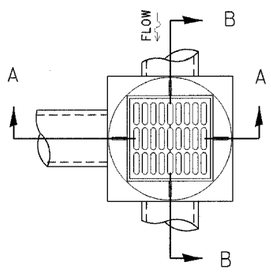
SEC. A-A

* THE WALL ADJUSTMENTS SHALL BE MADE WITH CONCRETE BUILDING BRICK OR CLASS SI CONCRETE.

THE HEIGHT OF THE BOX MAY BE CONSTRUCTED 150 (6) SHORT TO ALLOW FOR FIELD ADJUSTMENTS.



SEC. B-B



NOTES

SEE STANDARD 602701 FOR DETAILS OF STEPS.

EXCEPT AS NOTED HEREON INLET SPECIAL SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS.

THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTED SECTIONS.

ALL VOIDS AROUND PIPE ENTRANCE, BOTH INSIDE AND OUTSIDE, SHALL BE SEALED WITH MORTAR.

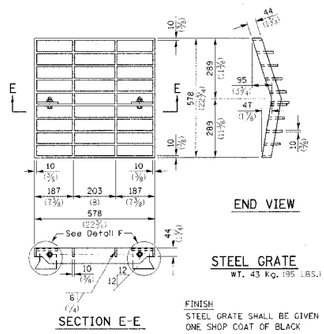
WEIGHT OF CAST IRON FRAME & GRATE = 200kg (440 LBS.).
STEPS SHALL BE OMITTED WHEN DEPTH OF "H" IS LESS THAN 1524 (60).

DETAIL OF FRAME & GRATE

NOTES

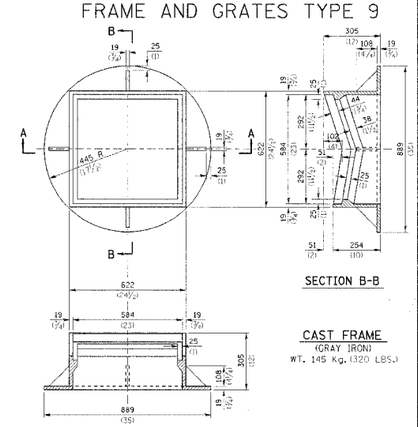
CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED THROUGHOUT. PRECAST CONCRETE SHALL BE IN ACCORDANCE WITH SECTION 504.01 THRU 504.05 OF THE STANDARD SPECIFICATIONS EXCEPT THAT CONCRETE STRENGTH SHALL BE 27.5 MPa (4,000 PSI) AFTER 28 DAYS.

THE CONTRACT UNIT PRICE EACH FOR INLET SPECIAL SHALL INCLUDE THE COST OF CONSTRUCTING THE INLET BOX, FURNISHING AND INSTALLING THE FRAME AND GRATE, THE CAST IRON STEPS (IF USED), THE PRECAST FLOOR SLAB, SAND CUSHION (WHEN USED) AND REINFORCEMENT BARS.

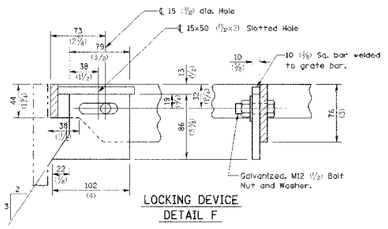


FINISH
STEEL GRATE SHALL BE GIVEN ONE SHOP COAT OF BLACK BITUMINOUS PAINT.

FRAME AND GRATES TYPE 9



CAST FRAME
(GRAY IRON)
WT. 145 kg. (320 LBS.)



LOCKING DEVICE
DETAIL F

GENERAL NOTES

THE MATERIAL FOR STEEL GRATE SHALL CONFORM TO ARTICLE 1006.04 OF THE STANDARD SPECIFICATIONS.

THE USE OF EITHER A CAST GRATE OR A STEEL GRATE WITH THE CAST FRAME SHALL BE THE OPTION OF THE CONTRACTOR.

THE CAST GRATE MAY BE MADE OF EITHER GRAY IRON OR DUCTILE IRON CONFORMING TO THE STANDARD SPECIFICATIONS. DUCTILE IRON CASTING SHALL BE GRADE 65-45-12

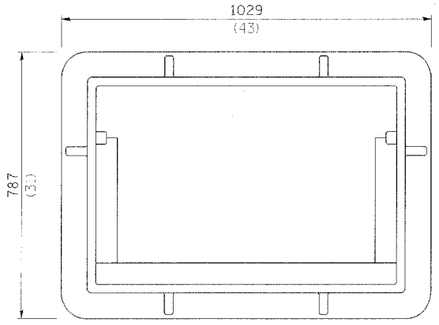
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

INLET SPECIAL (TYPE A GUTTER) 11.2

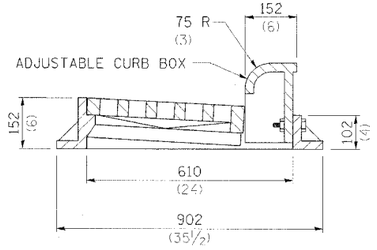
REVISED 1-27-00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	171
STA		TO STA		
FED. RD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		

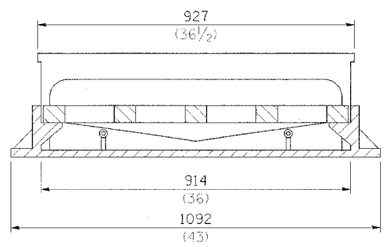
FRAME AND GRATE FOR INLET SPECIAL



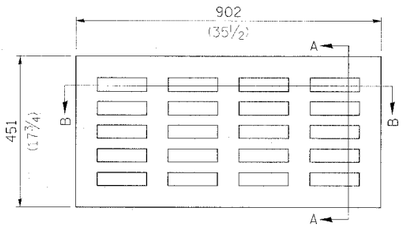
PLAN OF FRAME
WITHOUT GRATE AND CURB BOX



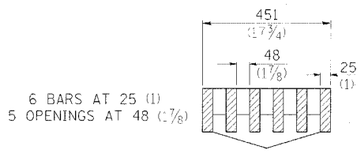
TRANSVERSE SECTION



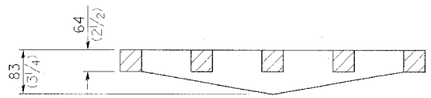
LONGITUDINAL SECTION



PLAN OF GRATE



SECTION A-A



SECTION B-B

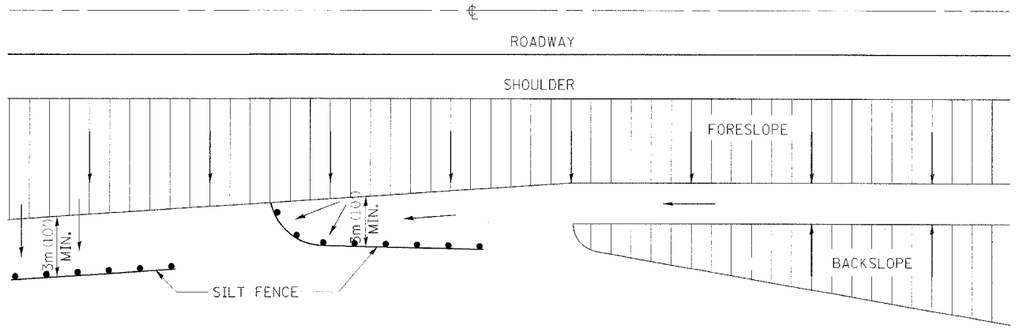
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

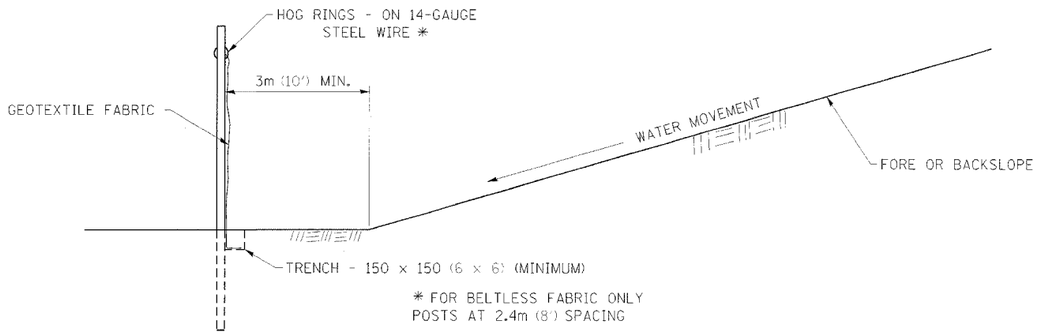
R 3246
APPROXIMATE WEIGHT - 225 Kg. (495 LBS.)

FRAME AND GRATE FOR INLET SPECIAL 13.2

REVISED 9-25-92

EROSION CONTROL DETAILS FOR SILT FENCE





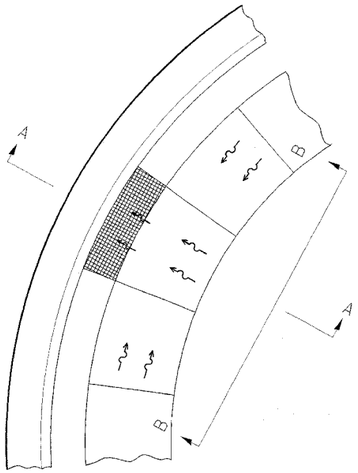
DETAILS OF SILT FENCE

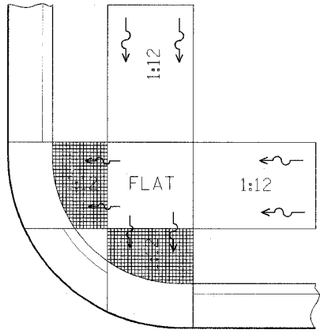
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

EROSION CONTROL DETAILS FOR SILT FENCE 29.2

REVISED 10-22-01

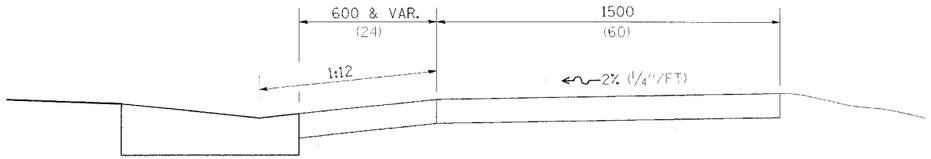
DISABLED RAMP DETAIL



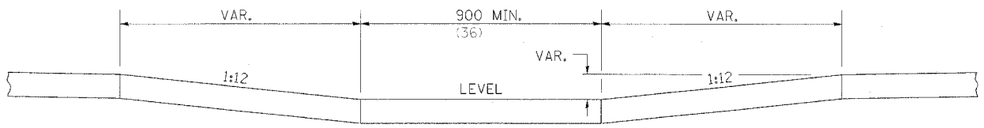


SEE STANDARD 424001
FOR SIDE FLARE DETAIL
& SEE PLANS FOR RAMP TYPE.

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



SECTION A-A



SECTION B-B

NOTES : THIS DETAIL TO BE USED IN CONJUNCTION WITH STATE STANDARD 424001.
THE MAXIMUM ALLOWABLE CROSS SLOPE FOR SIDEWALK IS 2% (1/4"/FT).
THE MAXIMUM ALLOWABLE SIDEWALK GRADE IS 8% (1/12"/FT). IF SPACE LIMITATIONS PROHIBIT THE USE OF THE 1:12 SLOPE, THEN SLOPES BETWEEN 1:10 ARE 1:12 ARE PERMITTED FOR A MAXIMUM RISE OF 150 (6). SLOPES 1:8 AND 1:10 ARE ALLOWED FOR A MAXIMUM RISE OF 75 (3). SLOPES STEEPER THAN 1:8 ARE NOT PERMITTED.
THE DEPRESSED CURB IS NOT STANDARD. THE RISE IS 13 (1/2) INSTEAD OF 40 (1 1/2).

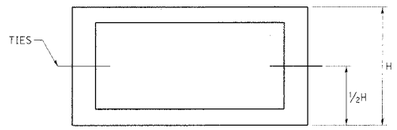
DISABLED RAMP DETAIL 60.2

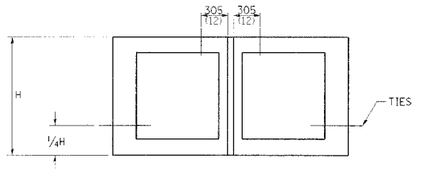
REVISED 9-19-05

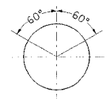
MECHANICAL JOINTS FOR CONCRETE PIPE AND BOX CULVERTS

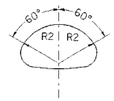
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - I	ROCK ISLAND	239	172
STA	TO STA			
FED. RD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		

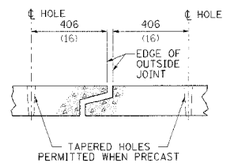
THE CULVERT TIES SHALL BE INCLUDED IN THE COST OF THE CONCRETE PIPE CULVERTS OR THE PRECAST CONCRETE BOX CULVERT. THE MECHANICAL TIES SHALL BE ON THE OUTSIDE OF THE CULVERT. THE NUTS AND WASHERS SHALL BE PLACED ON THE INSIDE OF OF THE CULVERT AND COVERED WITH MASTIC JOINT SEALER CONFORMING TO ARTICLES 1055 OR 1056 IN THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

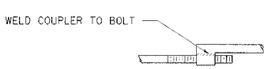




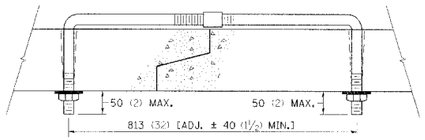








TOP VIEW

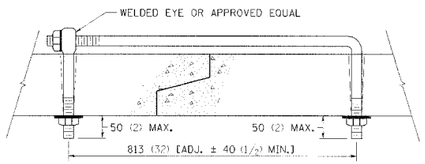


ADJUSTABLE TIE

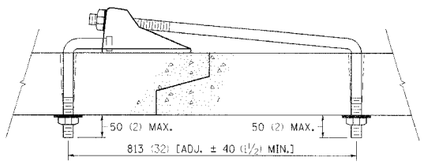
PLACEMENT OF HOLES		
BOX CULVERT METERS (FEET)	PIPE SIZE MILLIMETERS (INCHES)	THREAD DIAMETER
	300 (12)	16 (5/8) ROLLED THREADS (SEE NOTE 4)
	380 (15)	
	450 (18)	
	530 (21)	
	600 (24)	
	680 (27)	
	760 (30)	19 (3/4) CUT OR ROLLED
0.9x0.6 (3x2)	830 (33)	
0.9x0.9 (3x3)	910 (36)	
1.2x0.6 (4x2)	1060 (42)	
1.2x0.9 (4x3)	1210 (48)	
1.2x1.2 (4x4)	1370 (54)	
1.5x0.9 (5x3)	1520 (60)	
1.5x1.2 (5x4)	1670 (66)	
1.5x1.5 (5x5)	1820 (72)	25 (1) CUT OR ROLLED
1.8x * (6x *)	1980 (78)	
2.1x * (7x *)	2130 (84)	
2.4x * (8x *)	2280 (90)	
2.7x * (9x *)	2430 (96)	
3.0x * (10x *)	2590 (102)	
	2740 (108)	
	3040 (120)	
	3350 (132)	
3.4x * (11x *) AND GREATER	3500 (138) AND GREATER	35 (1 1/2)

NOTES:

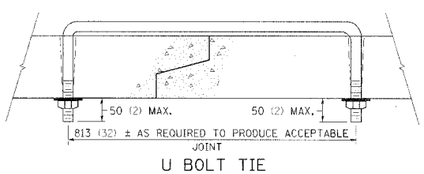
1. HOLES SHALL BE CAST-IN OR DRILLED 400 (16) FROM OUTSIDE EDGE OF JOINT.
2. NUTS AND WASHERS ARE NOT REQUIRED ON INSIDE OF 675 (27) DIAM. PIPE OR LESS.
3. TIES ARE NOT REQUIRED FOR BELL PIPE 600 (24) AND SMALLER. ON OTHER SIZES TIE MAY BE INSERTED FROM INSIDE.
4. CUT THREADS MAY BE USED IF WASHER AND NUT ARE USED.
5. PIPE SIZE LISTED IS INSIDE DIAM. OF ROUND PIPE OR EQUIVALENT DIAM. OF PIPE ARCH OR ELLIPTICAL.
6. GALVANIZING OF TIES IS REQUIRED.
7. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.



EYE BOLT TIE



CANOPY TIE

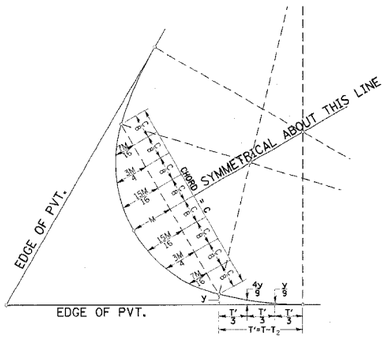


U BOLT TIE

MECHANICAL JOINTS FOR CONCRETE PIPE AND BOX CULVERTS 90.2

REVISED 2-1-00

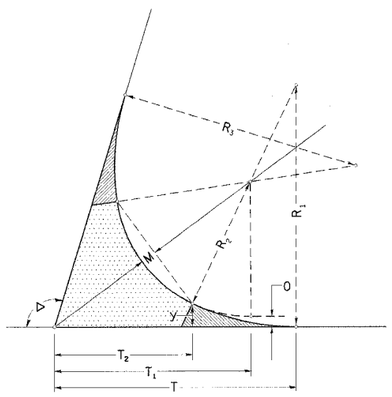
THREE CENTER CURVE DATA



FIELD LAYOUT METHOD

SYMMETRICAL CURVES

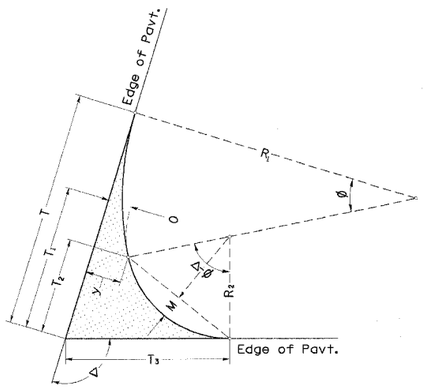
CURVE #							
R_1							
R_2							
R_3							
O							
Δ							
T							
T_1							
T_2							
T'							
y							
$\frac{4y}{9}$							
$\frac{y}{9}$							
M							
$\frac{15M}{16}$							
$\frac{3M}{4}$							
$\frac{7M}{16}$							
C							



FOR SYMMETRICAL CURVES

ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.

TWO CENTER CURVE DATA



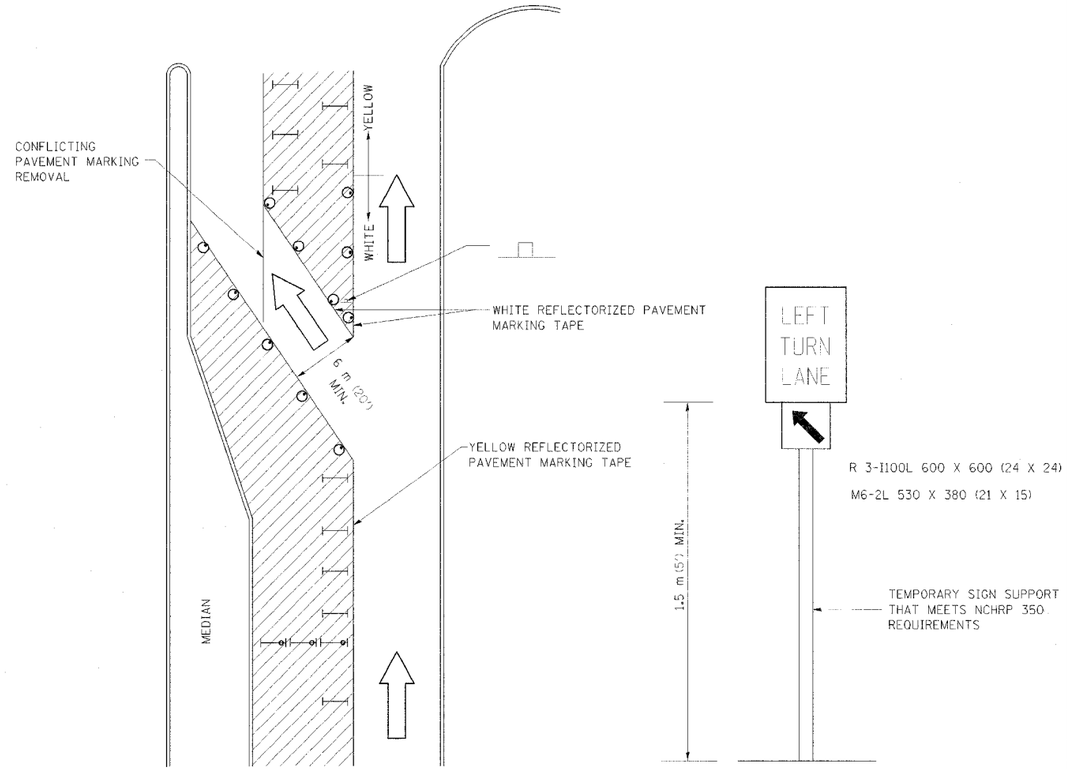
TWO CENTER CURVES

	30TH STREET INTERSECTION RADII			
CURVE #	SW	SE	NW	NE
R_1	150′	200′	320′	300′
R_2	50′	40′	80′	60′
O	10.65′	14.00′	16.00′	13.75′
Δ	101° 36′30″	78° 23′30″	78° 23′30″	101° 36′30″
T	108.40′	95.20′	148.11′	156.50′
T_1	63.50′	29.74′	61.95′	76.40′
T_2	41.05′	13.38′	33.23′	56.38′
T_3	72.18′	46.91′	81.57′	87.63′
y	15.97′	17.50′	21.33′	17.20′
$\frac{4y}{9}$	7.10′	7.78′	9.48′	7.64′
$\frac{y}{9}$	1.77′	1.94′	2.37′	1.91′
M	10.31′	4.40′	9.81′	14.76′
$\frac{15M}{16}$	9.67′	4.13′	9.20′	13.83′
$\frac{3M}{4}$	7.73′	3.30′	7.36′	11.07′
$\frac{7M}{16}$	4.51′	1.93′	4.29′	6.46′
C	60.83′	36.47	76.78′	78.82′

TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	173
STA		TO STA		
FED. RD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT # 84986



LEGEND

- WORK AREA
- LANE OPEN TO TRAFFIC
- TYPE I OR II BARRICADE OR DRUM WITH FLASHING BURNING LIGHT
- DRUM OR BARRICADE WITH STEADY BURN LIGHT
- SIGN (SEE DETAIL)
- TYPE I OR II CHECK BARRICADE WITH STEADY LIGHT BURN

GENERAL NOTES

CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF TIO (28) IN HEIGHT.

STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS WILL BE MONODIRECTIONAL.

REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.

THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 600 x 600 (24 X 24) AND M6-2R 530 X 380 (21 x 15) SHALL BE USED.

THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.

LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

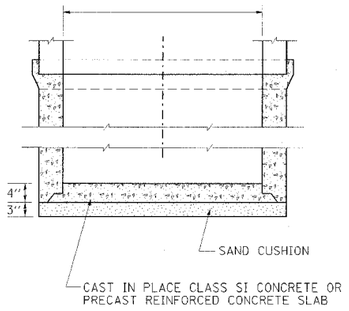
TWO AND THREE CENTER CURVE DATA 92.2

REVISED 3-22-90

TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) 94.2

REVISED 10-15-04

RISER FOR MEDIAN INLET



GENERAL NOTES

THE CONTRACT UNIT PRICE PER FOOT FOR PIPE CULVERT CLASS A, OF THE TYPE AND SIZE SPECIFIED SHALL INCLUDE THE SAND CUSHION AND CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE SLAB.

RISER FOR MEDIAN INLET 26.4

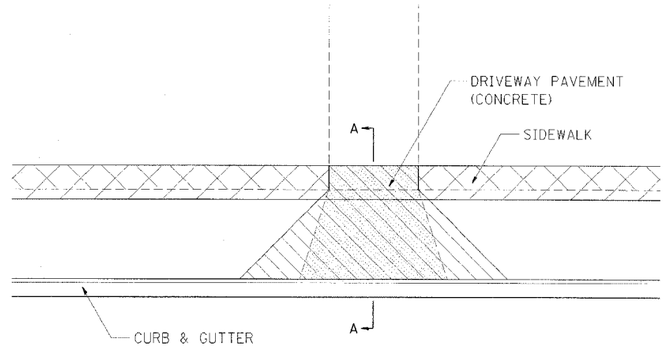
REVISED 9-19-05

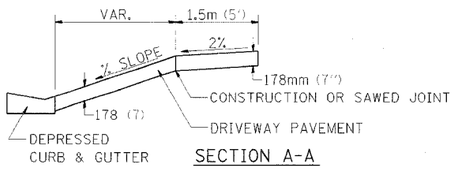
SIDEWALK AND DRIVEWAY PAVEMENT PAY AREAS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	174
STA		TO STA		
FED. RD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		

PAY FOR AS

- SIDEWALK REMOVAL
- DRIVEWAY PAVEMENT REMOVAL
- PCC SIDEWALK 127 (5)
- PCC DRIVEWAY PAVEMENT 178 (7)





SECTION A-A

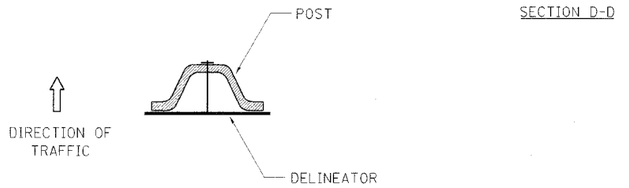
FOR DETAILS ON DIMENSIONS AND GRADES, SEE DISTRICT STANDARD 25.1 OR PLANS.

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

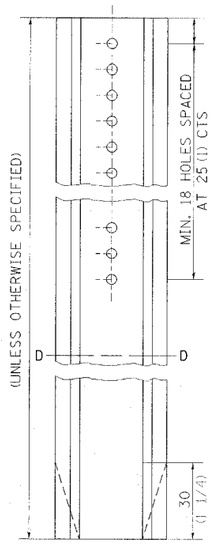
SIDEWALK AND DRIVEWAY PAVEMENT PAY AREAS 35.4

REVISED 10-15-04

DELINEATOR AND POST ORIENTATION



SECTION D-D



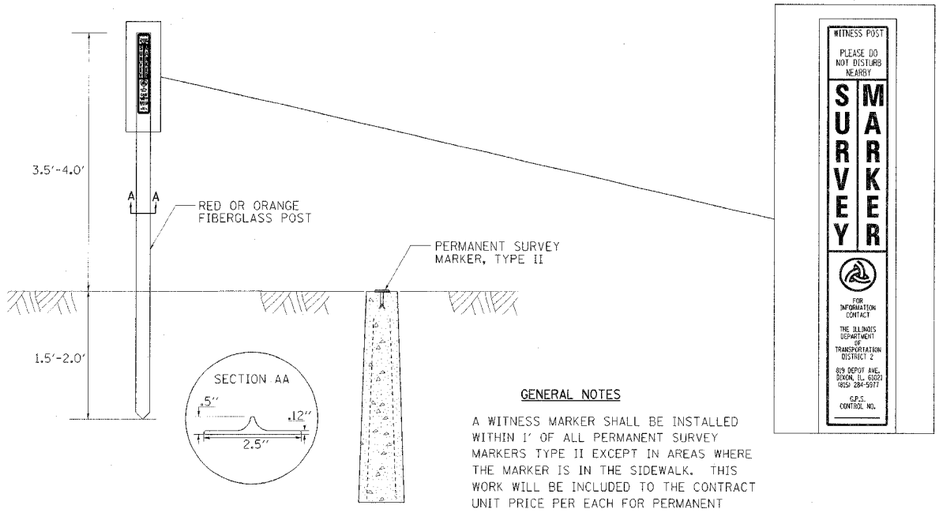
DELINEATORS SHALL BE INSTALLED ACCORDING TO STANDARD 635001 EXCEPT THAT THE POST SHALL BE ROTATED 180°. THE POST WILL HAVE THE WIDE SIDE FACING TRAFFIC AND THE DELINEATOR ATTACHECD AS SHOWN ABOVE.

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

DELINEATOR AND POST ORIENTATION 37.4

REVISED 1-31-00

WITNESS MARKER FOR PERMANENT SURVEY MARKERS TYPE II



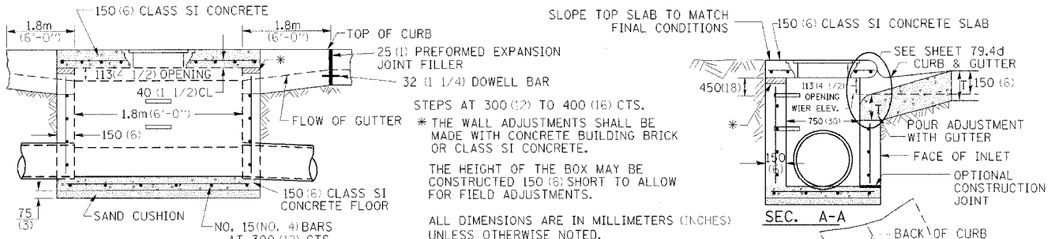
GENERAL NOTES

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

WITNESS MARKER FOR PERMANENT SURVEY MARKERS TYPE II 38.4

REVISED 1-31-00

INLET SPECIAL NO. 5



STEPS AT 300 (12) TO 400 (16) CTS.

* THE WALL ADJUSTMENTS SHALL BE MADE WITH CONCRETE BUILDING BRICK OR CLASS SI CONCRETE.

THE HEIGHT OF THE BOX MAY BE CONSTRUCTED 150 (6) SHORT TO ALLOW FOR FIELD ADJUSTMENTS.

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

NOTES

SEE STANDARD 602701 FOR DETAILS OF STEPS.

25 (1) PREFORMED EXPANSION JOINTS AS SHOWN SHALL BE PROVIDED ON EACH SIDE OF INLET.

CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED TROUGHOUT.

THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTAL SECTIONS.

REINFROCEMENT FOR INLET SPECIAL NO. 5 SHALL BE ACCORDING TO DISTRICT STANDARD 79.4e

STEPS SHALL BE OMITTED WHEN DEPTH OF INLET IS LESS THAN 1.5 m (5 ft.)

THE INLET SHALL BE CAST IN PLACE OR PRECAST.

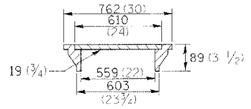
EXCEPT AS NOTED HEREON INLET SPECIAL NO. 5 SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS.

THE CONTRACT UNIT PRICE EACH FOR INLET SPECIAL NO. 5 SHALL INCLUDE THE COST OF FURNISHING AND INSTALLING THE FRAME, LID, REINFORCEMENT BARS, FLOOR AND TOP SLABS, CAST IRON STEPS (IF USED).

THE CURB AND GUTTER WILL BE PAID FOR SEPARATELY AND WILL BE MEASURED THROUGH THE INLET.

THE CURB AND GUTTER ADJACENT TO AND 1.8m (6 FT) ON EITHER SIDE OF THE INLET SHALL BE CONSTRUCTED AS SHOWN WITH NO ADDITIONAL COMPENSATION FOR THE TRANSITION.

LIGHT WEIGHT MANHOLE CASTING



TOTAL WEIGHT 73 KG. (160 LBS.)

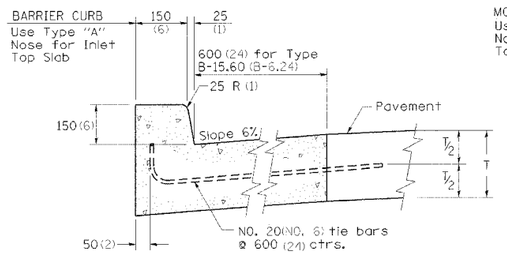
** WHEN INLET IS CONSTRUCTED IN RETURN, THE TOP OF SLAB SHALL CONFORM TO THE RADIUS OF THE RETURN.

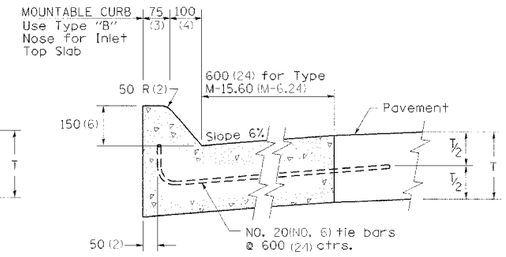
INLET SPECIAL NO. 5 **79.4b**

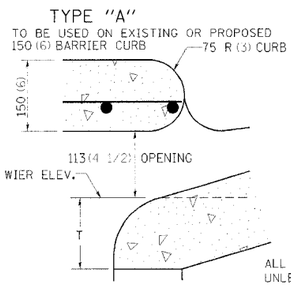
REVISED 4-4-05

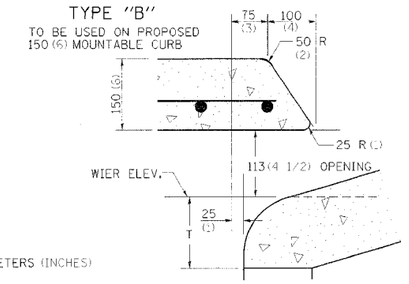
NOSE TYPE FOR INLET TOP SLAB

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	175
STA	TO STA			
FED. RD DIST. NO.	ILLINOIS	FED. AID PROJECT		
			CONTRACT # 84986	







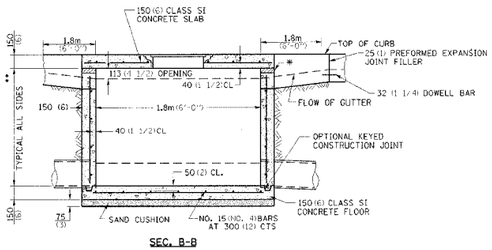


ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

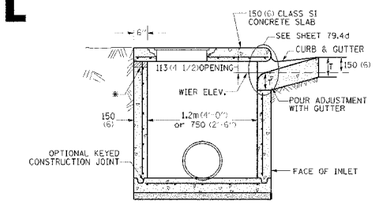
NOSE TYPE FOR INLET TOP SLAB **79.4d**

REVISED 2-14-95

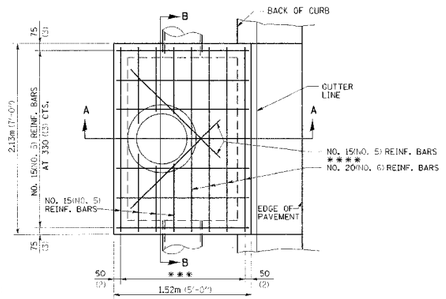
INLET SPECIAL NO. 3, 4, 5, 6 REINFORCEMENT DETAIL



SEC. B-B



SEC. A-A



TOP VIEW

* THE WALL ADJUSTMENTS SHALL BE MADE WITH CONCRETE BUILDING BRICK OR CLASS SI CONCRETE.

THE HEIGHT OF THE BOX MAY BE CONSTRUCTED 150 (6) SHORT TO ALLOW FOR FIELD ADJUSTMENTS.

** 1.2m (4'-0") TO 2.4m (8'-0") = NO. 15 (NO. 5) REINF. BARS AT 300 (12) CTS. E.W.
2.4m (8'-0") TO 4.0m (13'-0") = NO. 15 (NO. 5) REINF. BARS AT 250 (10) CTS. E.W.
4.0m (13'-0") TO 4.6m (15'-0") = NO. 15 (NO. 5) REINF. BARS AT 200 (8) CTS. E.W.

*** 7 SPA. AT 200 mm (8") INLET SPECIAL * 3, 4
5 SPA AT 208 mm (7 5/8") INLET SPECIAL * 5, 6

**** 2 REBARS FOR INLET SPECIAL 3 & 4
4 REBARS FOR INLET SPECIAL 5 & 6

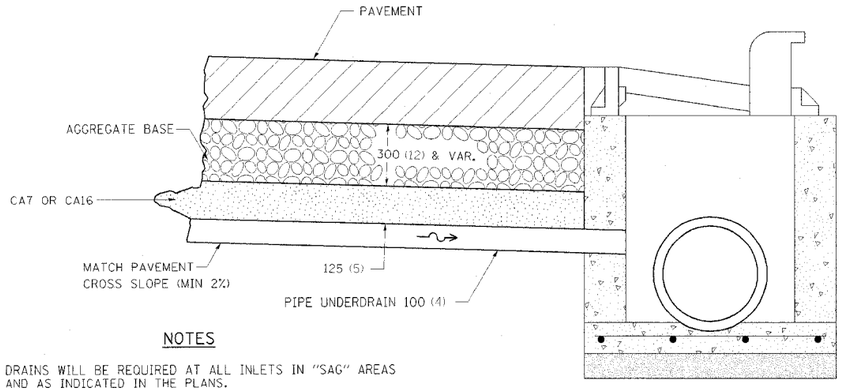
NOTES

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

TOP SLAB REINFORCEMENT TO BE EPOXY COATED BARS.

INLET SPECIAL NO. 3, 4, 5, 6 REINFORCEMENT DETAIL **79.4e**

DRAIN FOR AGGREGATE BASES IN URBAN AREAS



NOTES

DRAINS WILL BE REQUIRED AT ALL INLETS IN "SAG" AREAS AND AS INDICATED IN THE PLANS.

THIS WORK SHALL BE COMPLETED ACCORDING TO SECTION 601 OF THE STANDARD SPECIFICATIONS.

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER METER (FOOT) FOR PIPE UNDERDRAINS OF THE DIAMETER SPECIFIED WHICH PRICE SHALL INCLUDE THE CA7 OR CA16 AND THE CONNECTION TO THE INLET.

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

DRAIN FOR AGGREGATE BASES IN URBAN AREAS 88.4

REVISED 4-7-99

TREE REPLACEMENT SCHEDULE

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	176
STA		TO STA		
FED. RD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		

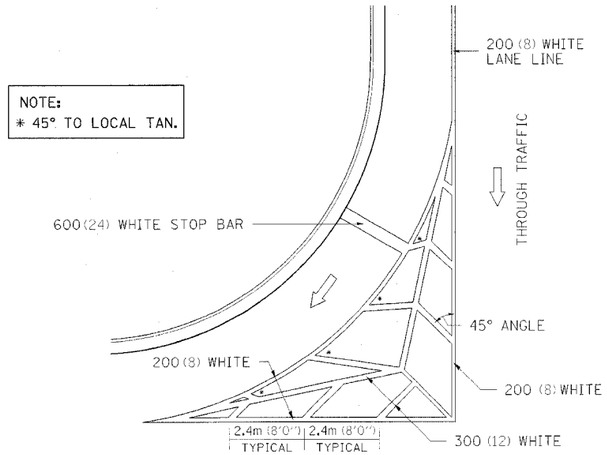
CODE NUMBER	SCIENTIFIC NAME	COMMON NAME	SIZE	UNIT	QUANTITY
A2000114	TREE, ACER X FREEMANII	AUTUMN BLAZE FREEMAN MAPLE	1¾" CALIPER, BALLED & BURLAPPED	EACH	15
A2001714	TREE, ACER SACCHARUM	SUGAR MAPLE	1¾" CALIPER, BALLED & BURLAPPED	EACH	15
A2003414	TREE, FRAXINUS AMERICANA AUTUMN BLAZE	AUTUMN BLAZE WHITE ASH	1¾" CALIPER, BALLED & BURLAPPED	EACH	15
A2006714	TREE, QUERCUS MACROCARPA	BUR OAK	1¾" CALIPER, BALLED & BURLAPPED	EACH	15
A2007114	TREE, QUERCUS RUBRA	RED OAK	1¾" CALIPER, BALLED & BURLAPPED	EACH	15
A2007814	TREE, TILIA AMERICANA	BASSWOOD	1¾" CALIPER, BALLED & BURLAPPED	EACH	15
B2000562	TREE, AMELANCHIER CANADENSIS	SHADBLOW SERVICE BERRY	4' HEIGHT, SHRUB FORM BALLED & BURLAPPED	EACH	30
B2001114	TREE, CERCIS CANADENSIS	EASTERN REDBUD	1¾" CALIPER, TREE FORM BALLED & BURLAPPED	EACH	15
B2002716	TREE, MALUS ADIRONDACK	ADIRONDACK CRABAPPLE	1¾" CALIPER, TREE FORM BALLED & BURLAPPED	EACH	10
B2004814	TREE, MALUS SARGENTII	SARGENT CRABAPPLE	1¾" CALIPER, TREE FORM BALLED & BURLAPPED	EACH	20
B2005214	TREE, MALUS SUTYZAM	SUGAR TYME CRABAPPLE	1¾" CALIPER, TREE FORM BALLED & BURLAPPED	EACH	20
C2012848	SHRUB, VIBURNUM TRILOBUM	AMERICANA CRANBERRY VIBURNUM	4' HEIGHT, BALLED & BURLAPPED	EACH	100
				TOTAL	285

NOTES:
1. LAYOUT SHALL BE PERFORMED BY THE DISTRICT LANDSCAPE ARCHITECT.
2. MULCH SHALL BE HARDWOOD WOOD CHIPS, 5 FOOT WIDTH, 4 INCHES THICK WITH WEED BARRIER FABRIC.

TREE REPLACEMENT SCHEDULE 90.4

REVISED 8-10-05

TYPICAL MARKING FOR PAINTED ISLANDS

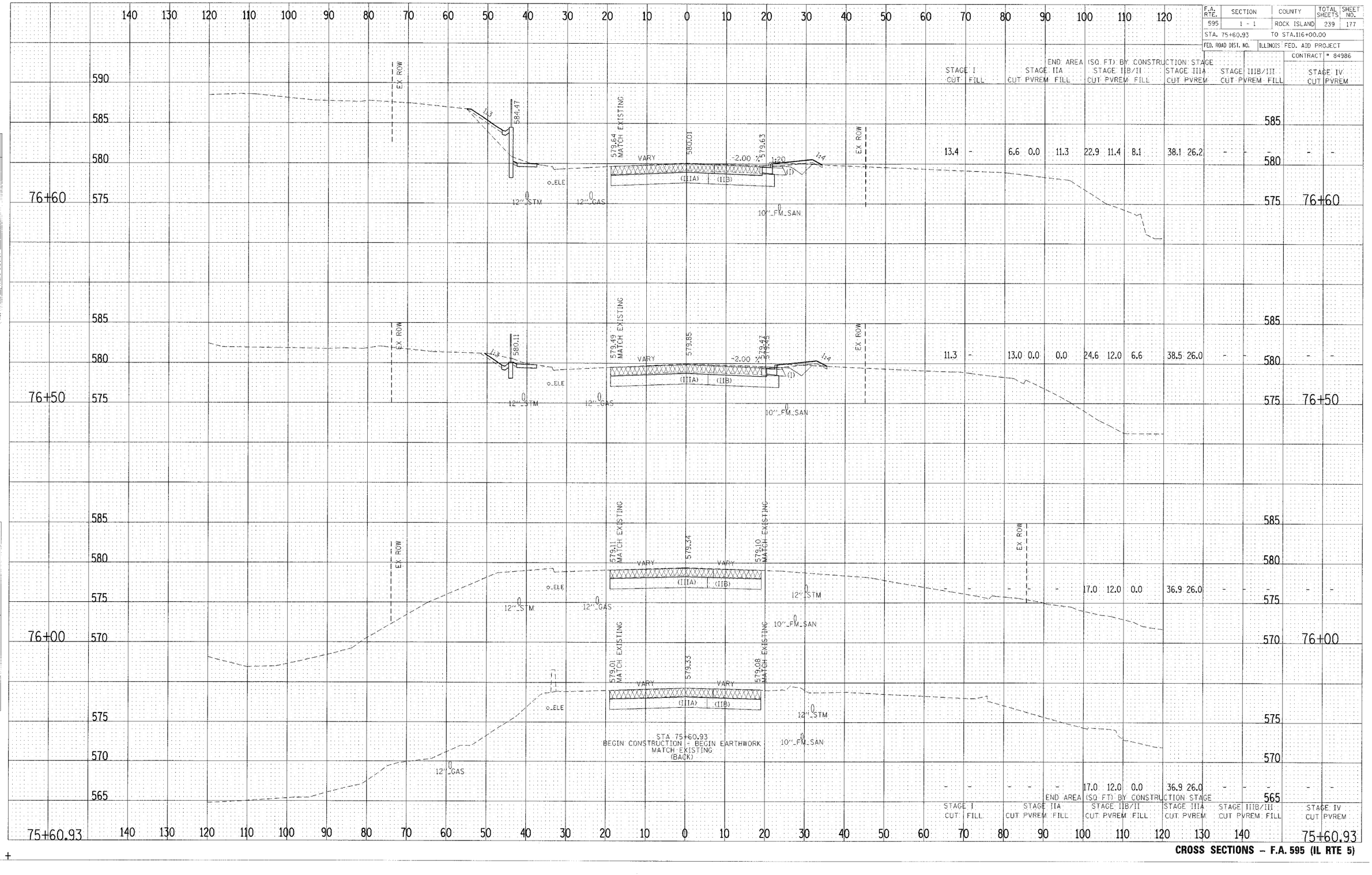


ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

TYPICAL MARKING FOR PAINTED ISLANDS 93.4

REVISED 2-7-05

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	177
STA. 75+60.93		TO STA.116+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT # 84986		

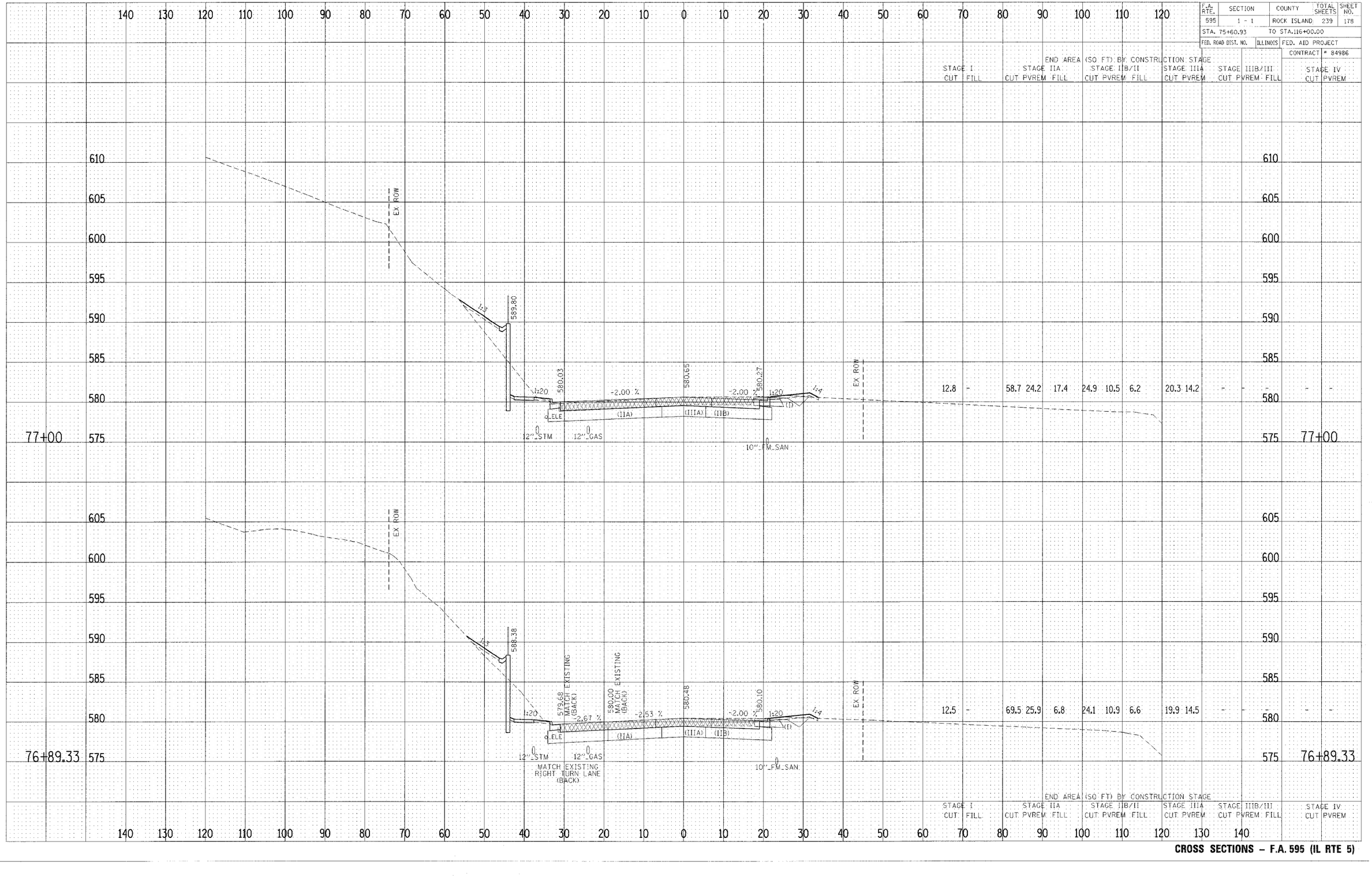


END AREA (SQ FT) BY CONSTRUCTION STAGE

	STAGE I		STAGE IIA		STAGE IIB/II		STAGE IIIA		STAGE IIIB/III		STAGE IV
	CUT	FILL	CUT	PVREM FILL	CUT	PVREM FILL	CUT	PVREM	CUT	PVREM FILL	CUT PVREM
76+60	13.4	-	6.6	0.0 11.3	22.9	11.4 8.1	38.1	26.2	-	- -	- -
76+50	11.3	-	13.0	0.0 0.0	24.6	12.0 6.6	38.5	26.0	-	- -	- -
76+00	-	-	-	- -	17.0	12.0 0.0	36.9	26.0	-	- -	- -
75+60.93	-	-	-	- -	17.0	12.0 0.0	36.9	26.0	-	- -	- -

CROSS SECTIONS – F.A. 595 (IL RTE 5)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	178
STA. 75+60.93	TO STA.116+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		

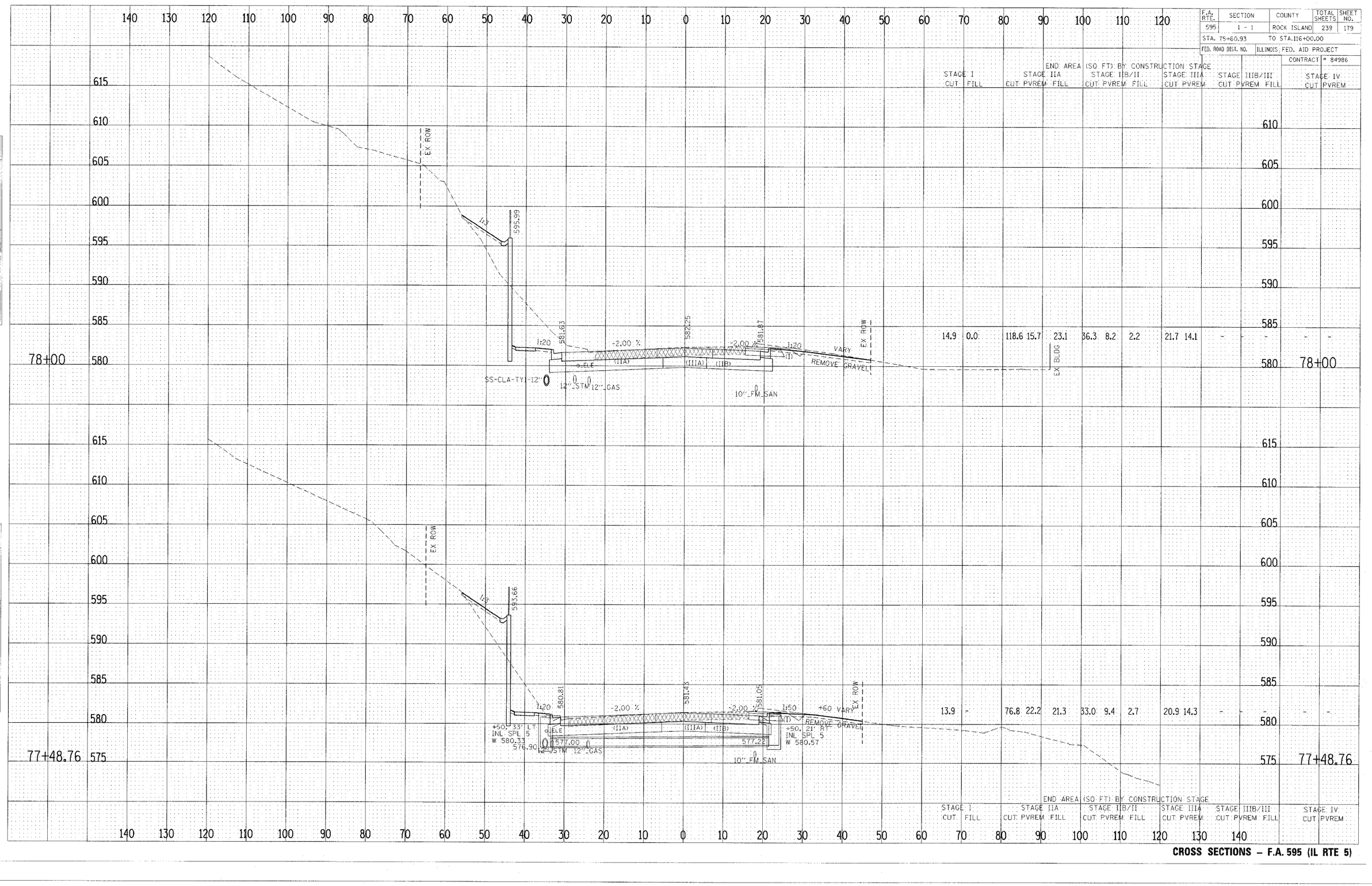


END AREA (SQ FT) BY CONSTRUCTION STAGE

	STAGE I		STAGE IIA			STAGE IIB/II			STAGE IIIA		STAGE IIIB/III		STAGE IV	
	CUT	FILL	CUT	PVREM	FILL	CUT	PVREM	FILL	CUT	PVREM	CUT	PVREM	CUT	PVREM
77+00	12.8	-	58.7	24.2	17.4	24.9	10.5	6.2	20.3	14.2	-	-	-	-
76+89.33	12.5	-	69.5	25.9	6.8	24.1	10.9	6.6	19.9	14.5	-	-	-	-

CROSS SECTIONS – F.A. 595 (IL RTE 5)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	179
STA. 75+60.93	TO STA. 116+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		

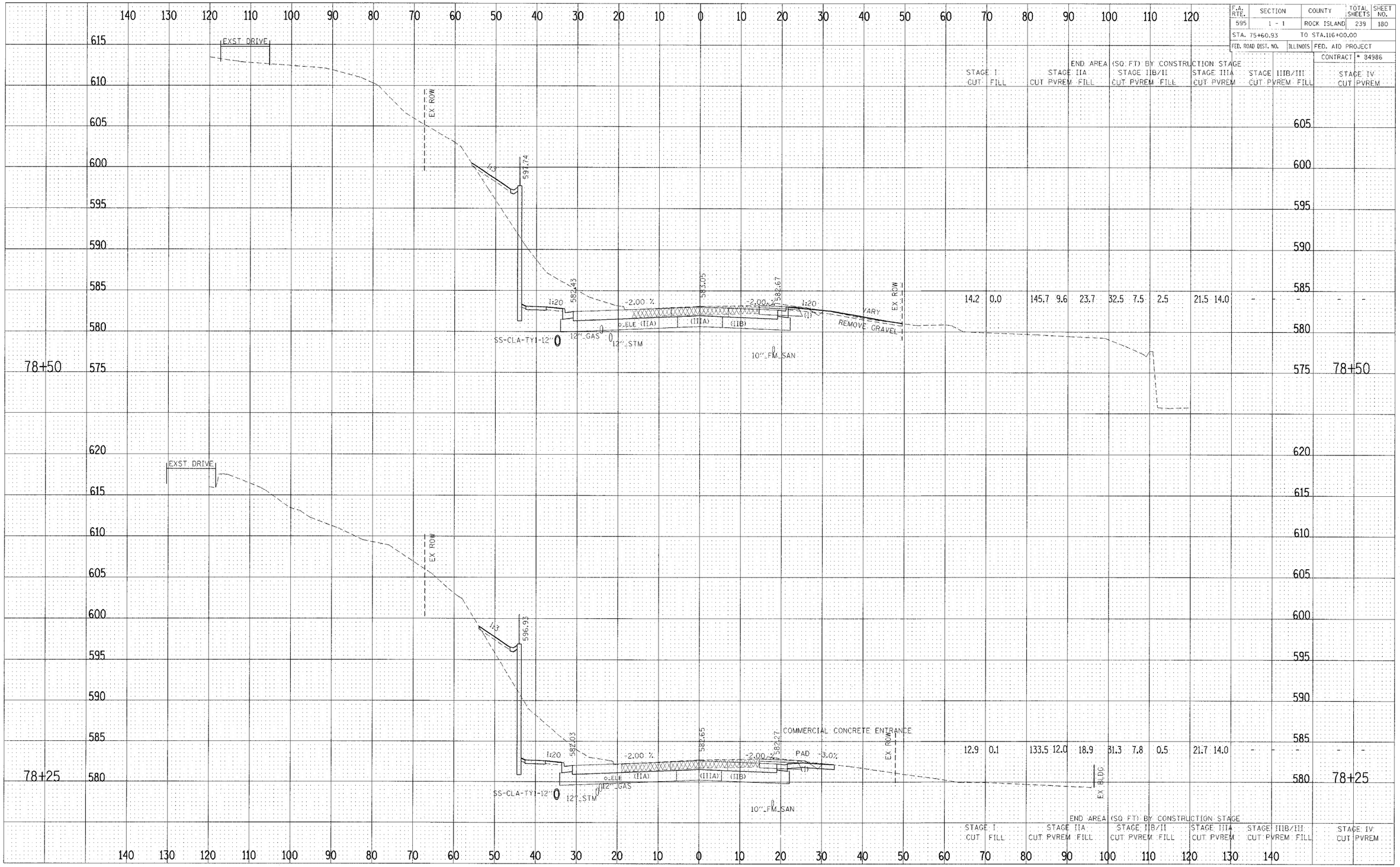


END AREA (SQ FT) BY CONSTRUCTION STAGE

	STAGE I		STAGE IIA		STAGE IIB/II		STAGE IIIA		STAGE IIIB/III		STAGE IV
	CUT	FILL	CUT	PVREM FILL	CUT	PVREM FILL	CUT	PVREM	CUT	PVREM FILL	CUT PVREM
78+00	14.9	0.0	118.6	15.7	23.1	36.3 8.2	2.2	21.7	14.1	- -	- - -
77+48.76	13.9	-	76.8	22.2	21.3	33.0 9.4	2.7	20.9	14.3	- -	- - -

CROSS SECTIONS – F.A. 595 (IL RTE 5)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	180
STA. 75+60.93	TO STA. 116+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		

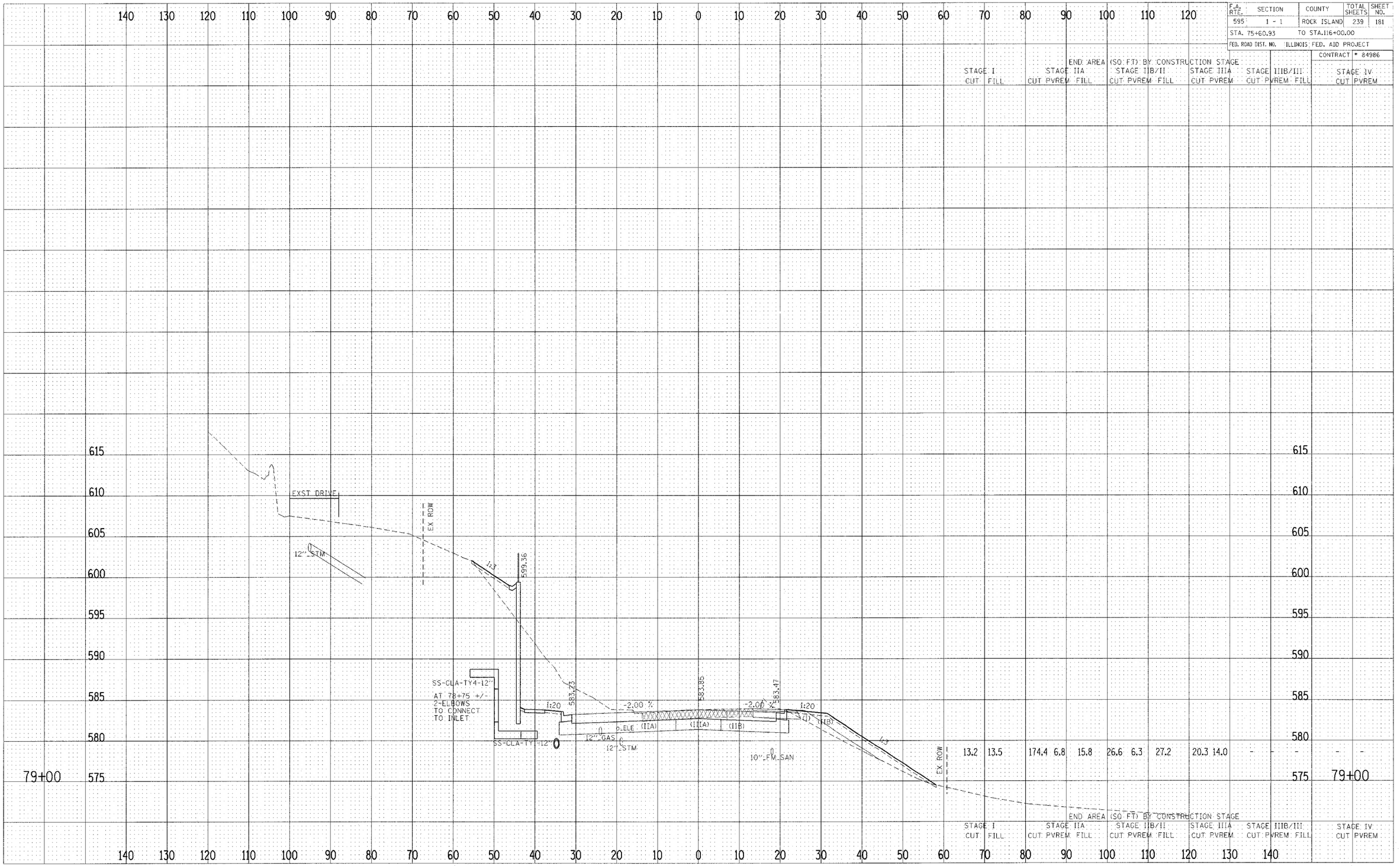


END AREA (SQ FT) BY CONSTRUCTION STAGE

STA	STAGE I CUT	STAGE I FILL	STAGE IIA CUT PVREM	STAGE IIA FILL	STAGE IIB/II CUT PVREM	STAGE IIB/II FILL	STAGE IIIA CUT PVREM	STAGE IIIB/III CUT PVREM	STAGE IIIB/III FILL	STAGE IV CUT PVREM
78+50	14.2	0.0	145.7	9.6	23.7	32.5	7.5	2.5	21.5	14.0
78+25	12.9	0.1	133.5	12.0	18.9	31.3	7.8	0.5	21.7	14.0

CROSS SECTIONS – F.A. 595 (IL RTE 5)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	181
STA. 75+60.93	TO STA.116+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		

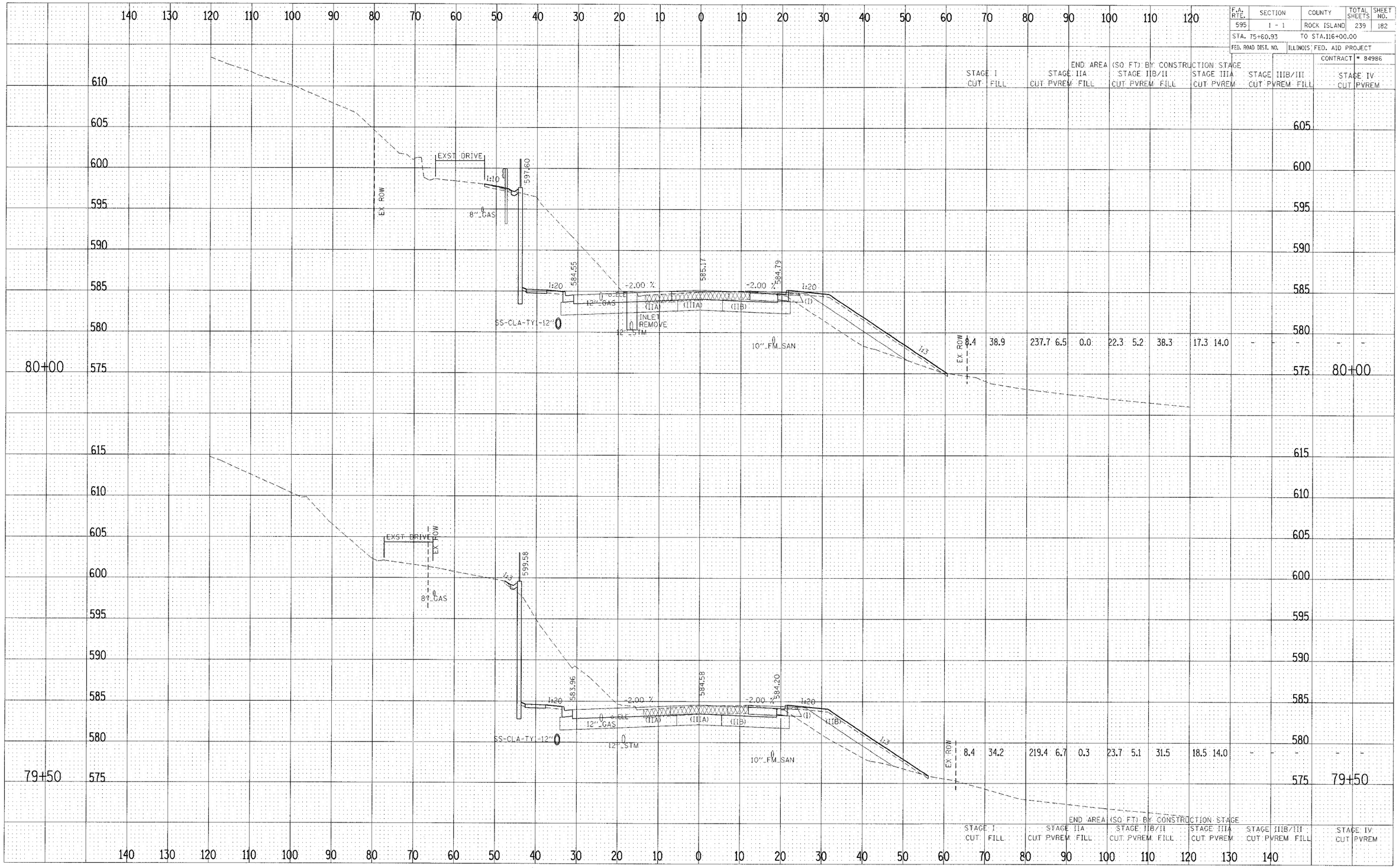


END AREA (SQ FT) BY CONSTRUCTION STAGE

STAGE I		STAGE IIA		STAGE IIB/II		STAGE IIIA		STAGE IIIB/III		STAGE IV
CUT	FILL	CUT	PVREM	FILL	CUT	PVREM	FILL	CUT	PVREM	FILL	CUT	PVREM
13.2	13.5	174.4	6.8	15.8	26.6	6.3	27.2	20.3	14.0	-	-	-	-	-

CROSS SECTIONS – F.A. 595 (IL RTE 5)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	182
STA. 75+60.93	TO STA.116+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
			CONTRACT # 84986	

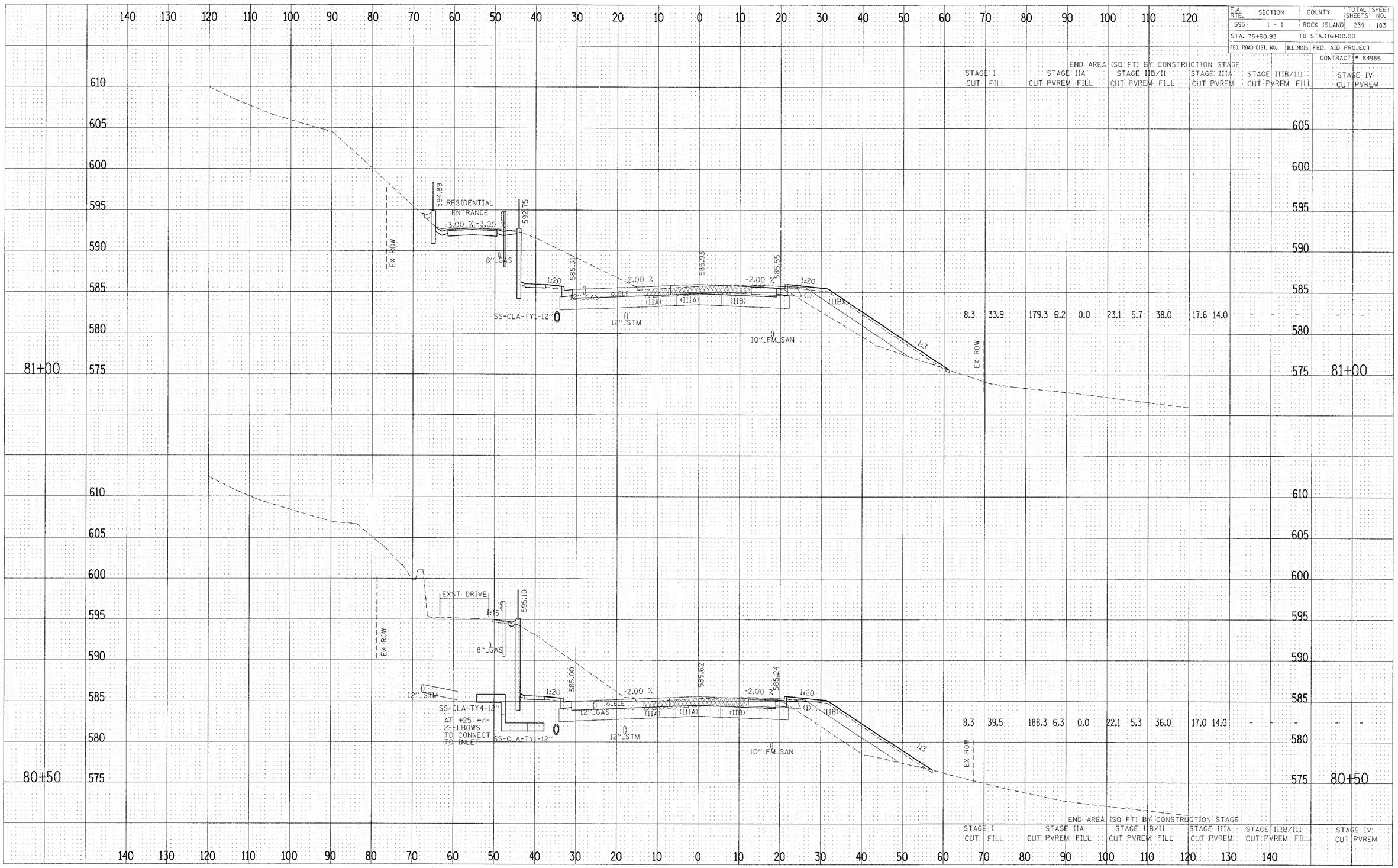


END AREA (SQ FT) BY CONSTRUCTION STAGE

STA	STAGE I CUT	STAGE I FILL	STAGE IIA CUT	STAGE IIA PVREM	STAGE IIA FILL	STAGE IIB/II CUT	STAGE IIB/II PVREM	STAGE IIB/II FILL	STAGE IIIA CUT	STAGE IIIA PVREM	STAGE IIIB/III CUT	STAGE IIIB/III PVREM	STAGE IIIB/III FILL	STAGE IV CUT	STAGE IV PVREM	STA
80+00	8.4	38.9	237.7	6.5	0.0	22.3	5.2	38.3	17.3	14.0	-	-	-	-	-	80+00
79+50	8.4	34.2	219.4	6.7	0.3	23.7	5.1	31.5	18.5	14.0	-	-	-	-	-	79+50

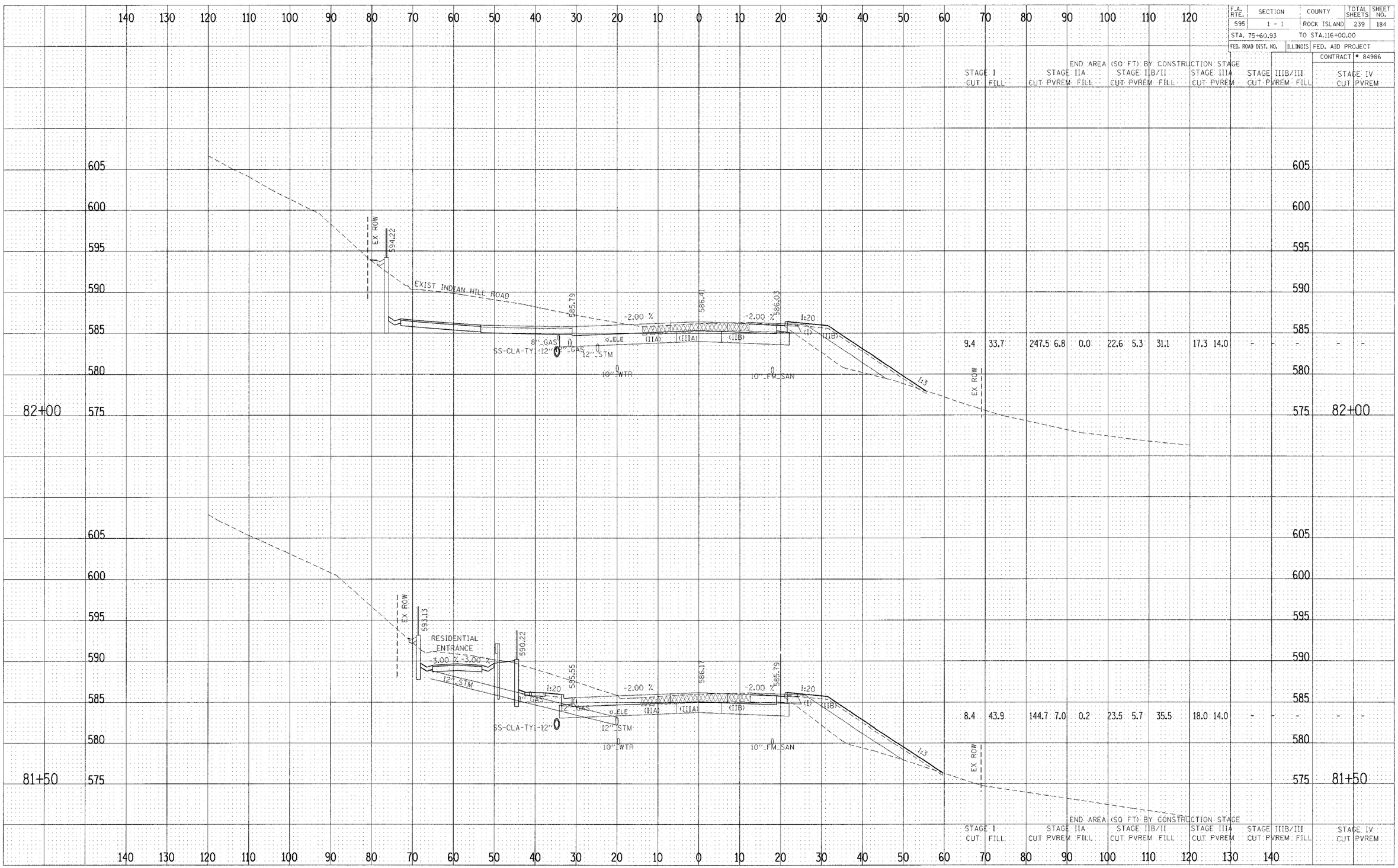
CROSS SECTIONS – F.A. 595 (IL RTE 5)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	183
STA. 75+60.93	TO STA.116+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		



CROSS SECTIONS – F.A. 595 (IL RTE 5)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	184
STA. 75+60.93	TO STA.116+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT * 84986		

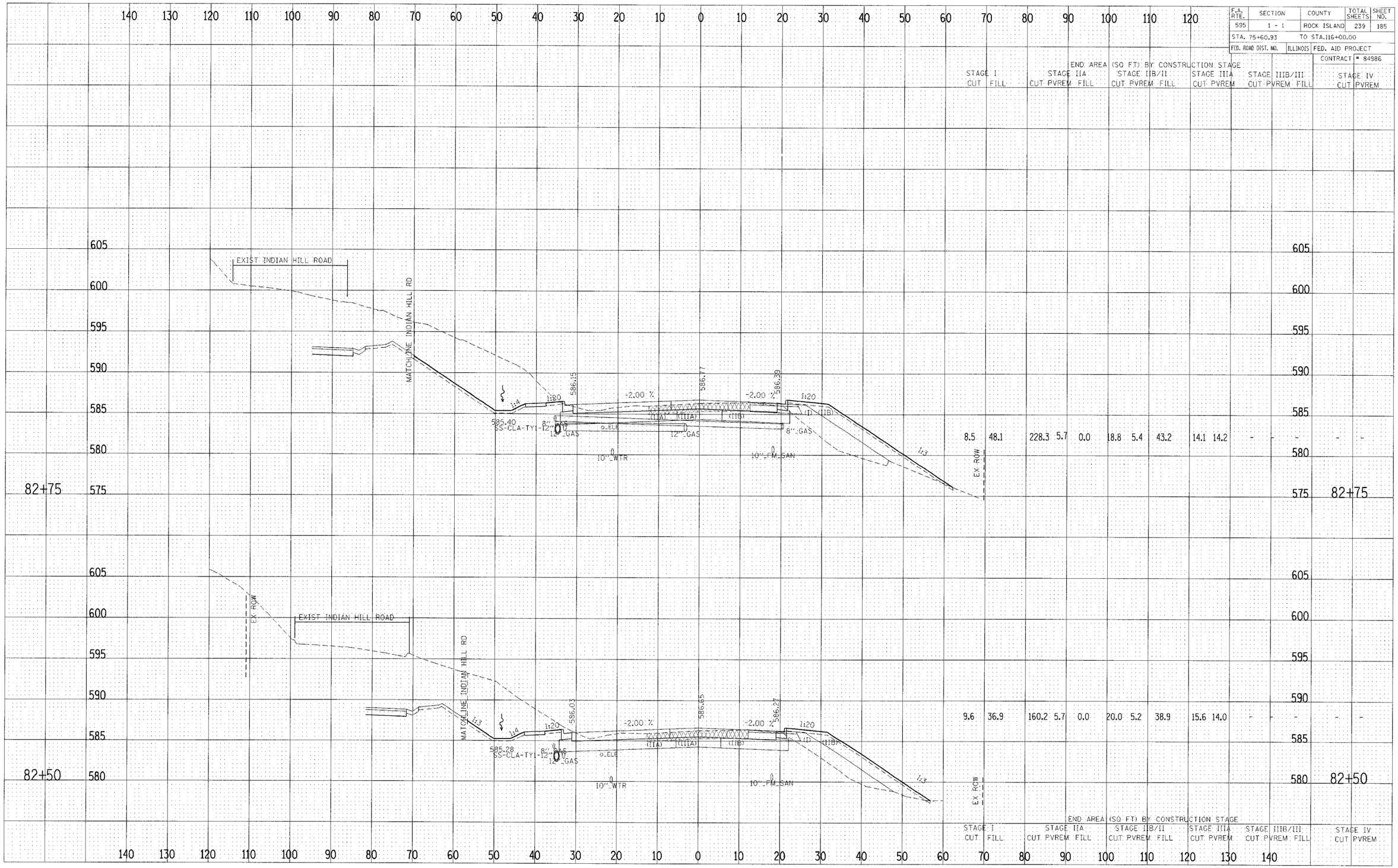


END AREA (SQ FT) BY CONSTRUCTION STAGE

	STAGE I		STAGE IIA		STAGE IIB/II		STAGE IIIA		STAGE IIIB/III		STAGE IV	
	CUT	FILL	CUT	PVREM	FILL	CUT	PVREM	FILL	CUT	PVREM	FILL	CUT	PVREM
82+00	9.4	33.7	247.5	6.8	0.0	22.6	5.3	31.1	17.3	14.0	-	-	-	-	-
81+50	8.4	43.9	144.7	7.0	0.2	23.5	5.7	35.5	18.0	14.0	-	-	-	-	-

CROSS SECTIONS – F.A. 595 (IL RTE 5)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	185
STA. 75+60.93	TO STA.116+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		

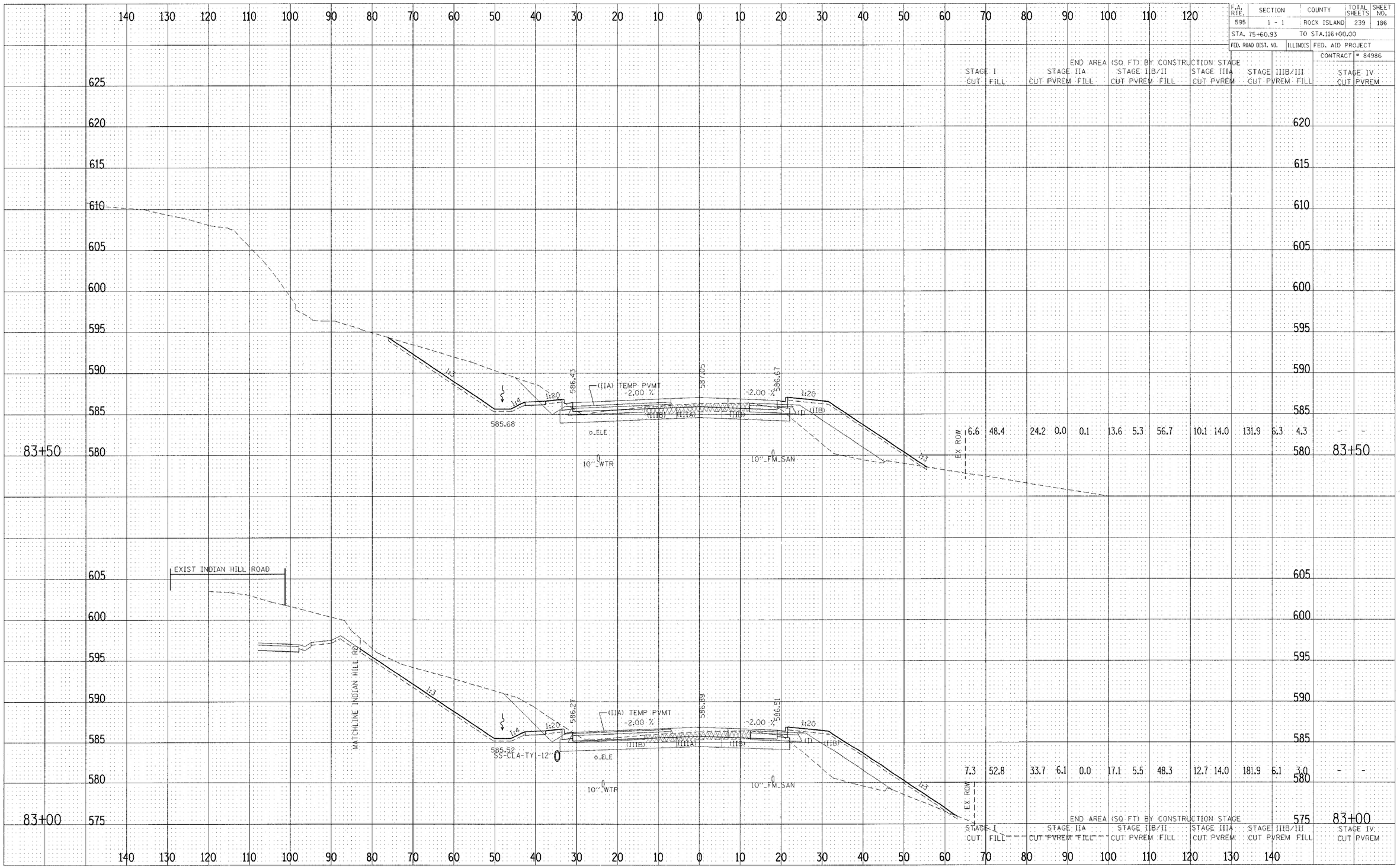


END AREA (SQ FT) BY CONSTRUCTION STAGE

STAGE I CUT	STAGE I FILL	STAGE IIA CUT	STAGE IIA PVREM	STAGE IIA FILL	STAGE IIB/II CUT	STAGE IIB/II PVREM	STAGE IIB/II FILL	STAGE IIIA CUT	STAGE IIIA PVREM	STAGE IIIB/III CUT	STAGE IIIB/III PVREM	STAGE IIIB/III FILL	STAGE IV CUT	STAGE IV PVREM
8.5	48.1	228.3	5.7	0.0	18.8	5.4	43.2	14.1	14.2	-	-	-	-	-
9.6	36.9	160.2	5.7	0.0	20.0	5.2	38.9	15.6	14.0	-	-	-	-	-

CROSS SECTIONS – F.A. 595 (IL RTE 5)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	186
STA. 75+60.93	TO STA.116+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		



END AREA (SQ FT) BY CONSTRUCTION STAGE

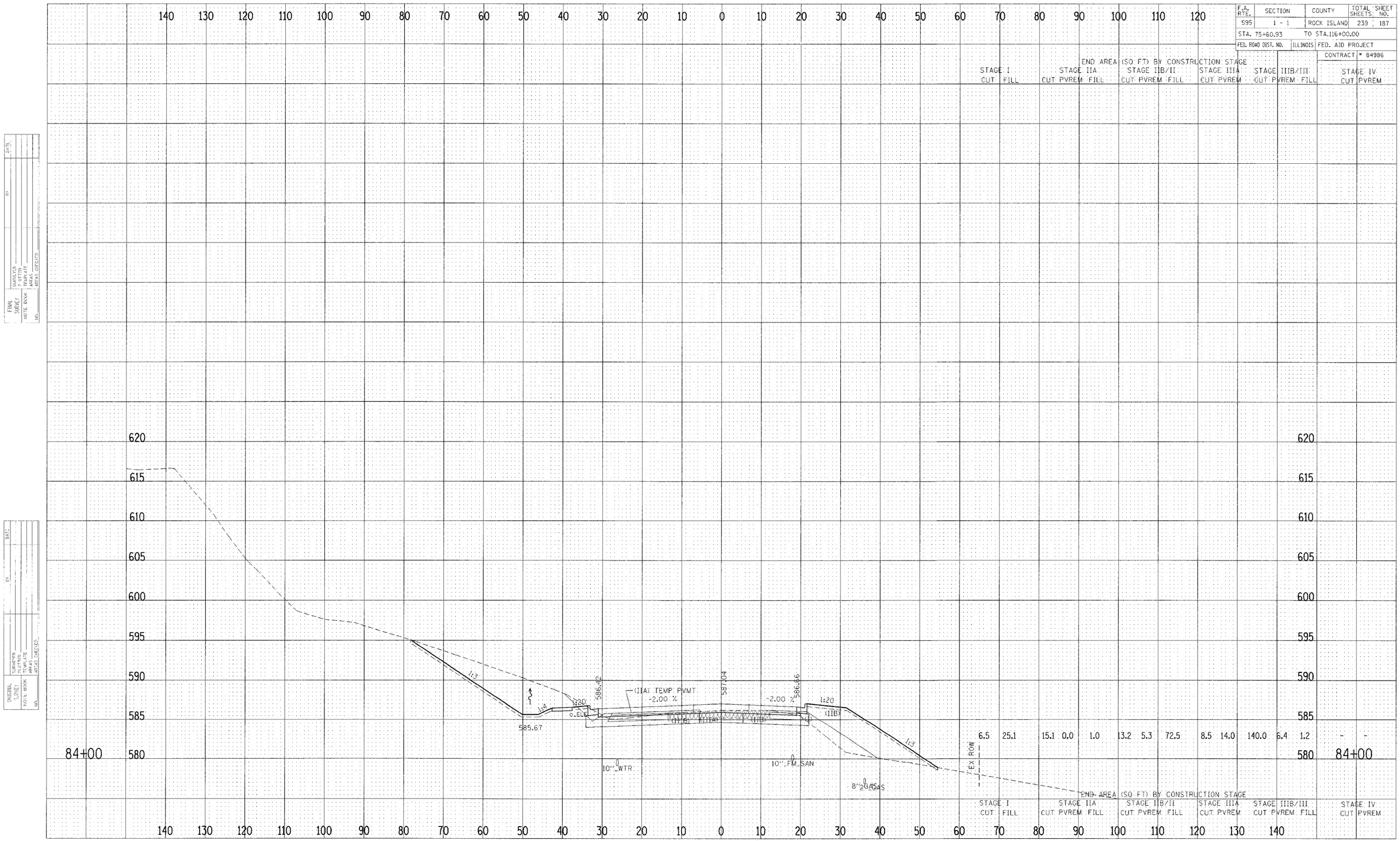
	STAGE I		STAGE IIA			STAGE IIB/II			STAGE IIIA		STAGE IIIB/III		STAGE IV	
	CUT	FILL	CUT	PVREM	FILL	CUT	PVREM	FILL	CUT	PVREM	CUT	PVREM	CUT	PVREM
83+50	6.6	48.4	24.2	0.0	0.1	13.6	5.3	56.7	10.1	14.0	131.9	6.3	4.3	- -
83+00	7.3	52.8	33.7	6.1	0.0	17.1	5.5	48.3	12.7	14.0	181.9	6.1	3.0	- -

CROSS SECTIONS – F.A. 595 (IL RTE 5)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	187
STA. 75+60.93	TO STA. 116+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		

END AREA (SQ FT) BY CONSTRUCTION STAGE

STAGE I		STAGE IIA		STAGE IIB/II		STAGE IIIA	STAGE IIIB/III		STAGE IV
CUT	FILL	CUT PVREM	FILL	CUT PVREM	FILL	CUT PVREM	CUT PVREM	FILL	CUT PVREM
6.5	25.1	15.1	0.0	1.0	13.2	5.3	72.5	8.5	14.0	140.0	6.4	1.2	-	-

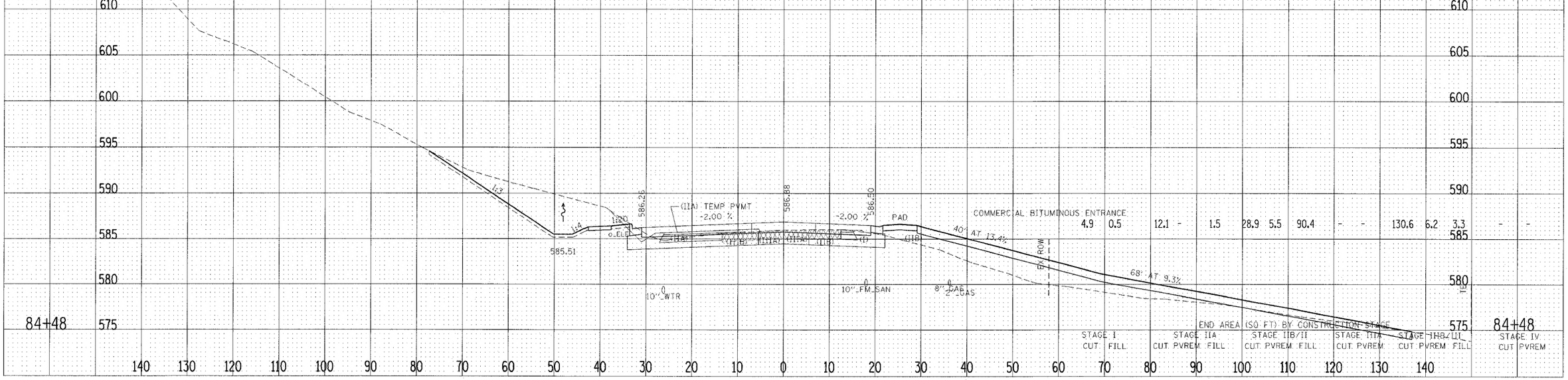


CROSS SECTIONS – F.A. 595 (IL RTE 5)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	188
STA. 75+60.93	TO STA.116+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT	# 84986	

END AREA (SQ. FT) BY CONSTRUCTION STAGE

STAGE I		STAGE IIA		STAGE IIB/II		STAGE IIIA		STAGE IIIB/III		STAGE IV	
CUT	FILL	CUT	PVREM	FILL	CUT	PVREM	FILL	CUT	PVREM	FILL	CUT	PVREM
COMMERCIAL BITUMINOUS ENTRANCE												
4.9	0.5	12.1	-	1.5	28.9	5.5	90.4	-	-	130.6	6.2	3.3
-	-											

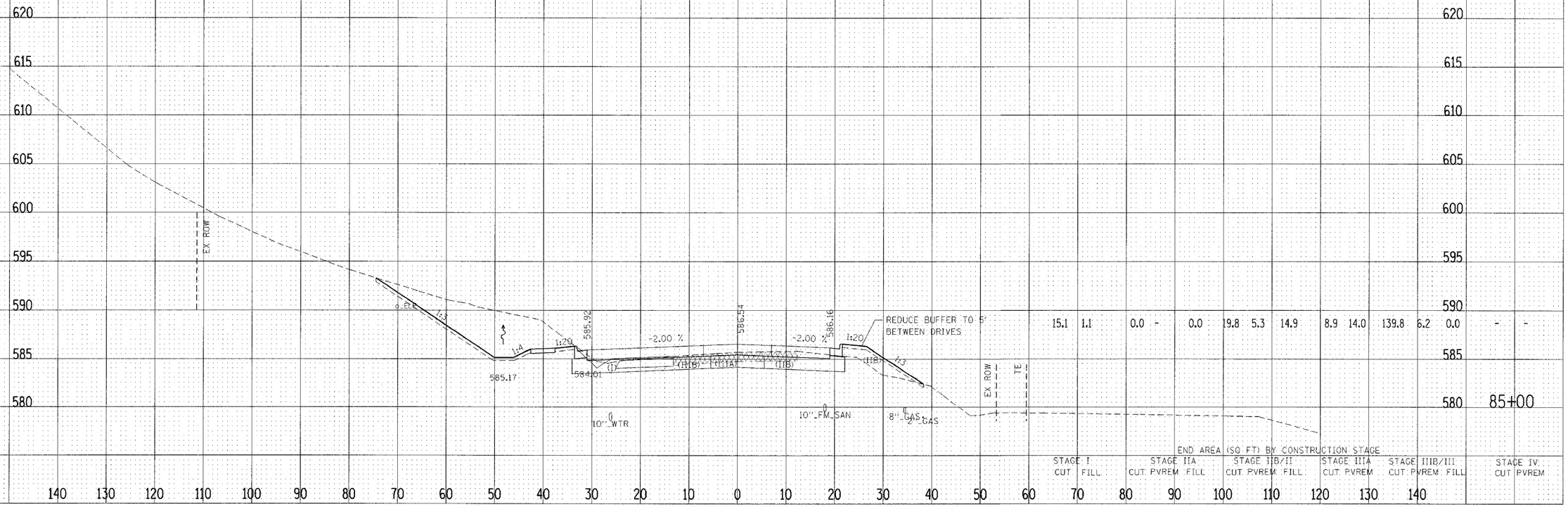


CROSS SECTIONS – F.A. 595 (IL RTE 5)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	189
STA. 75+60.93	TO STA.116+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT	* 84986	

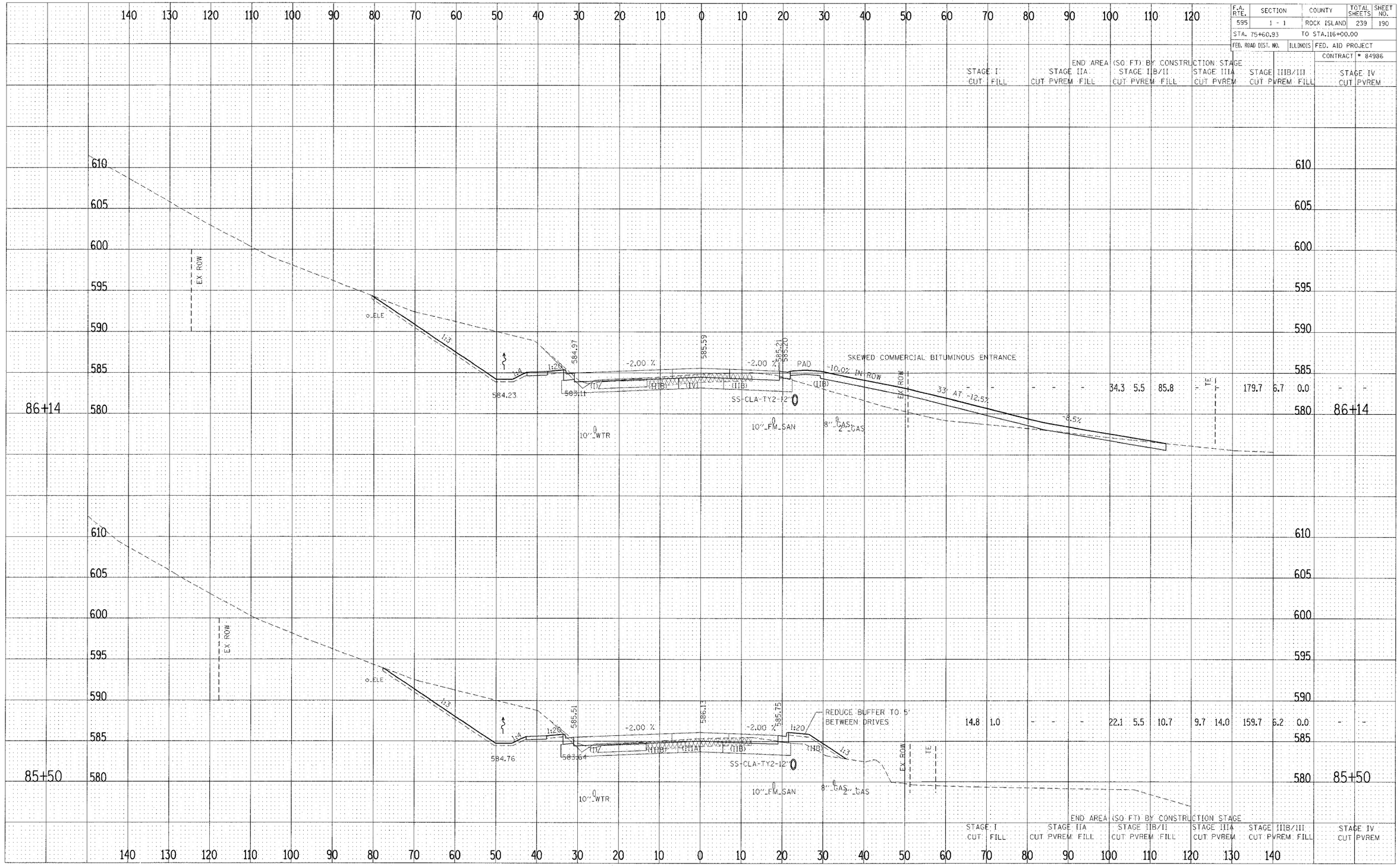
END AREA (SQ FT) BY CONSTRUCTION STAGE

STAGE I		STAGE IIA		STAGE IIB/II		STAGE IIIA	STAGE IIIB/III		STAGE IV
CUT	FILL	CUT PVREM	FILL	CUT PVREM	FILL	CUT PVREM	CUT PVREM	FILL	CUT PVREM
15.1	1.1	0.0	-	0.0	19.8	5.3	14.9	8.9	14.0	139.8	6.2	0.0	-	-



CROSS SECTIONS – F.A. 595 (IL RTE 5)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	190
STA. 75+60.93		TO STA. 116+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		

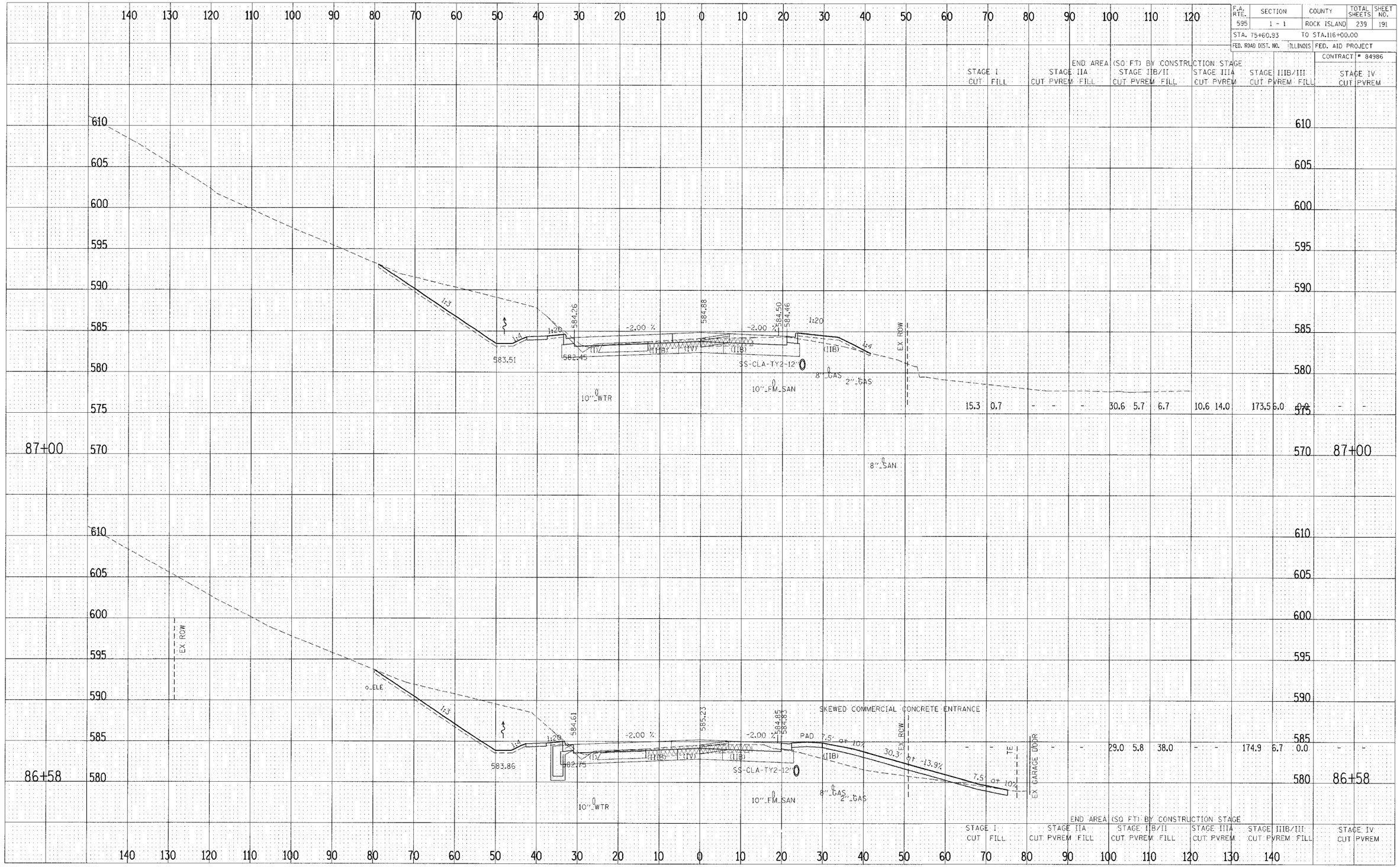


END AREA (SQ FT) BY CONSTRUCTION STAGE

	STAGE I CUT	STAGE I FILL	STAGE IIA CUT	STAGE IIA PVREM	STAGE IIA FILL	STAGE IIB/II CUT	STAGE IIB/II PVREM	STAGE IIB/II FILL	STAGE IIIA CUT	STAGE IIIA PVREM	STAGE IIIB/III CUT	STAGE IIIB/III PVREM	STAGE IIIB/III FILL	STAGE IV CUT	STAGE IV PVREM
86+14	-	-	-	-	-	34.3	5.5	85.8	-	-	179.7	6.7	0.0	-	-
85+50	14.8	1.0	-	-	-	22.1	5.5	10.7	9.7	14.0	159.7	6.2	0.0	-	-

CROSS SECTIONS – F.A. 595 (IL RTE 5)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	191
STA. 75+60.93	TO STA.116+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		

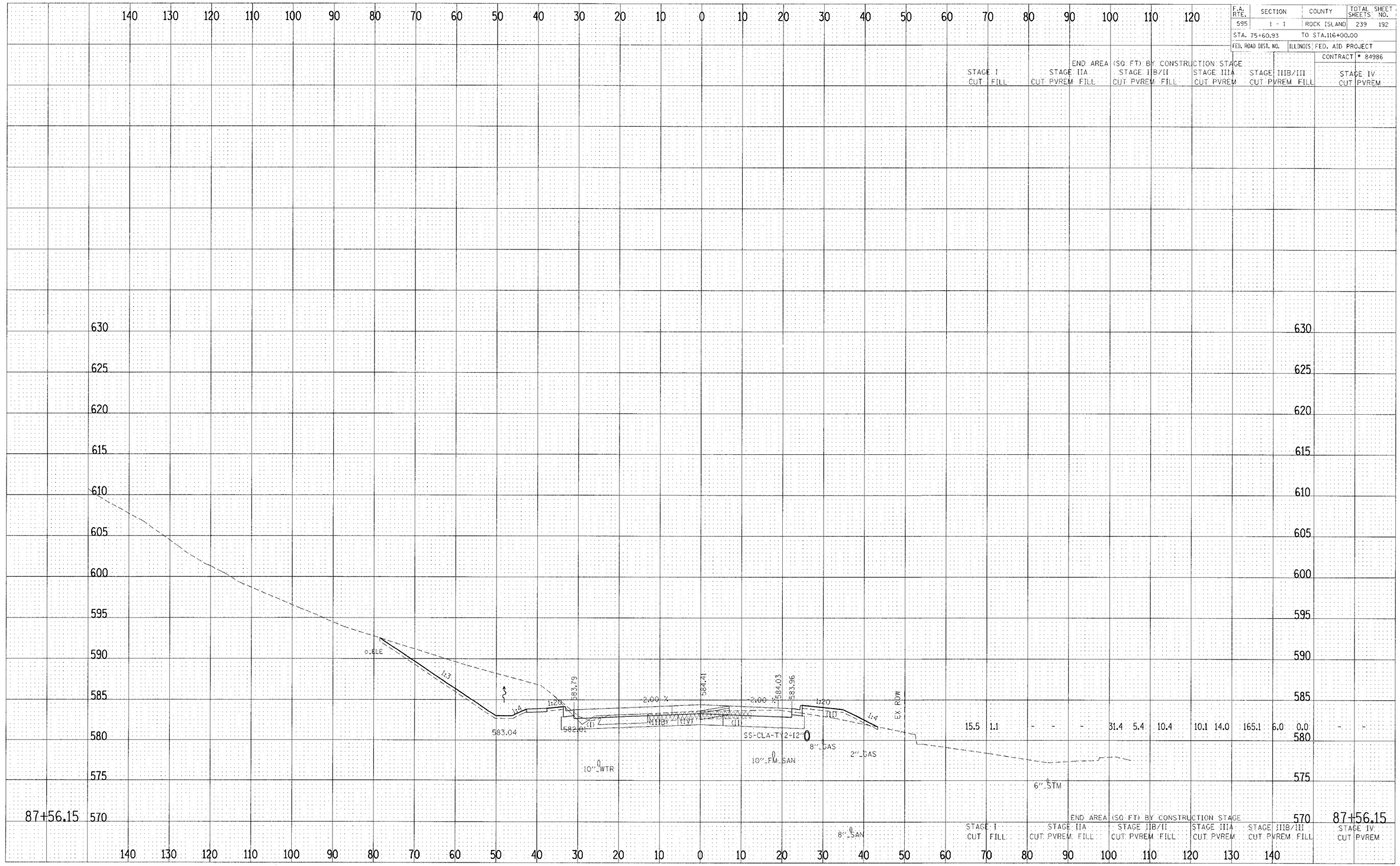


CROSS SECTIONS – F.A. 595 (IL RTE 5)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	192
STA. 75+60.93	TO STA.116+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT * 84986		

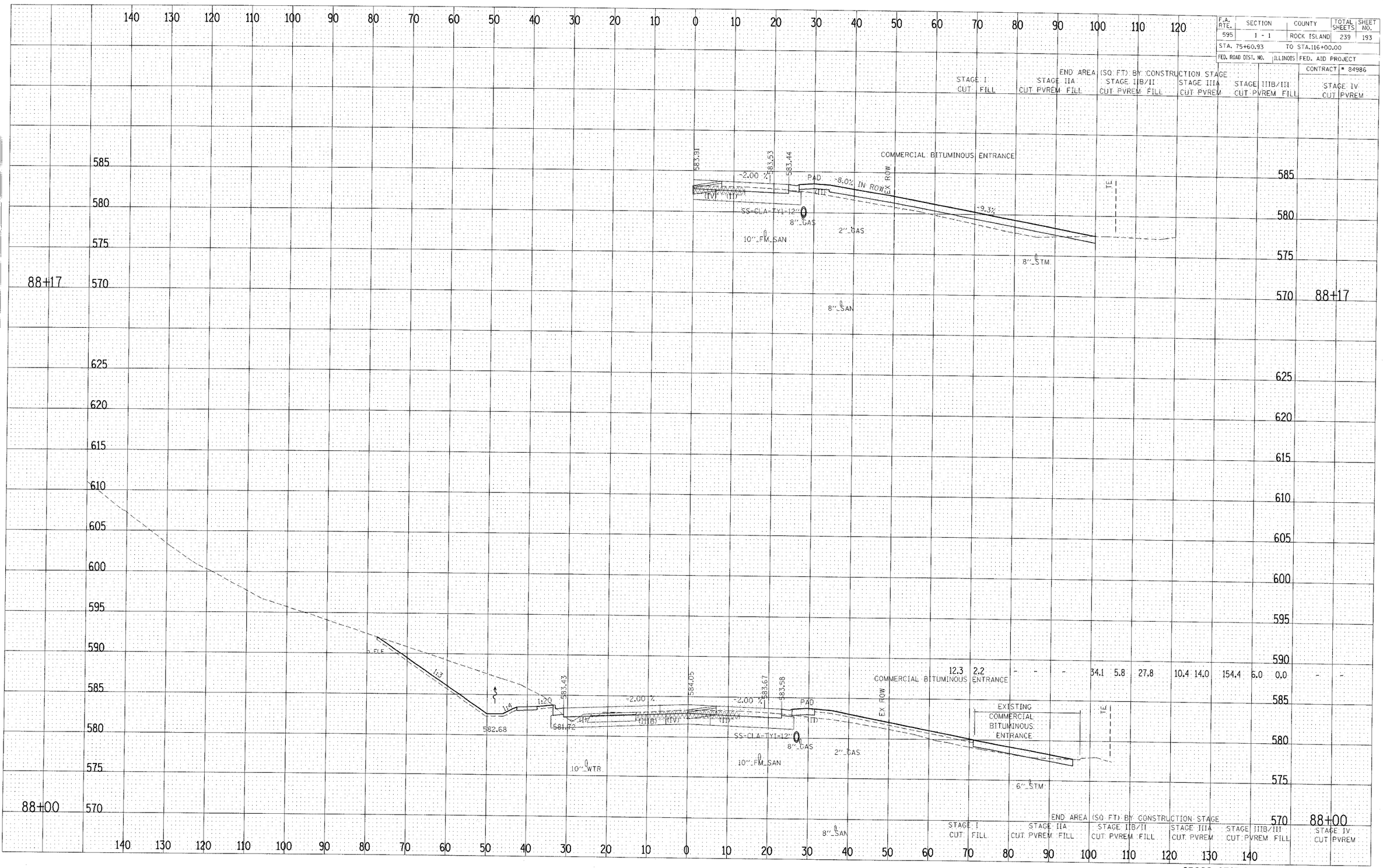
END AREA (SQ FT) BY CONSTRUCTION STAGE

STAGE I CUT	STAGE I FILL	STAGE IIA CUT	STAGE IIA PVREM	STAGE IIA FILL	STAGE IIB/II CUT	STAGE IIB/II PVREM	STAGE IIB/II FILL	STAGE IIIA CUT	STAGE IIIA PVREM	STAGE IIIB/III CUT	STAGE IIIB/III PVREM	STAGE IIIB/III FILL	STAGE IV CUT	STAGE IV PVREM
15.5	1.1	-	-	-	31.4	5.4	10.4	10.1	14.0	165.1	6.0	0.0	-	-



CROSS SECTIONS – F.A. 595 (IL RTE 5)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	193
STA. 75+60.93	TO STA. 116+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		



END AREA (SQ FT) BY CONSTRUCTION STAGE

STAGE I CUT	STAGE I FILL	STAGE IIA CUT PVREM	STAGE IIA FILL	STAGE IIB/II CUT PVREM	STAGE IIB/II FILL	STAGE IIIA CUT PVREM	STAGE IIIB/III CUT PVREM	STAGE IIIB/III FILL	STAGE IV CUT PVREM
12.3	2.2	-	-	-	34.1	5.8	27.8	10.4	14.0	154.4	6.0	0.0	-	-

CROSS SECTIONS – F.A. 595 (IL RTE 5)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	194

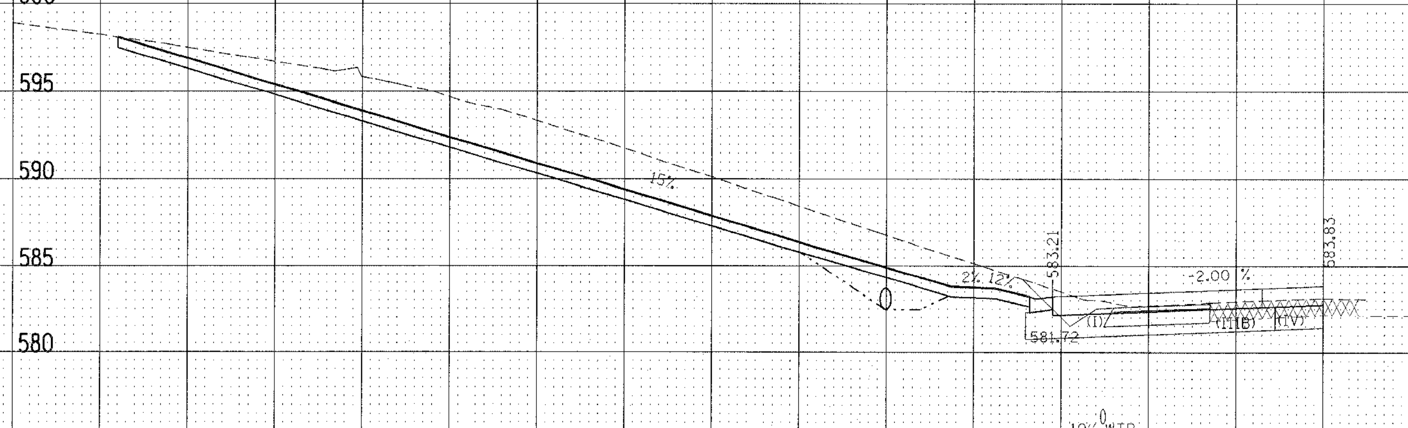
STA. 75+60.93 TO STA.116+00.00

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

CONTRACT # 84986

88+26.12

605
600
595
590
585
580



END AREA (SQ FT) BY CONSTRUCTION STAGE

STAGE I		STAGE IIA			STAGE IIB/II			STAGE IIIA		STAGE IIIB/III			STAGE IV	
CUT	FILL	CUT	PVREM	FILL	CUT	PVREM	FILL	CUT	PVREM	CUT	PVREM	FILL	CUT	PVREM
-	-	-	-	-	32.5	5.8	35.5	-	-	273.4	6.3	0.0	-	-

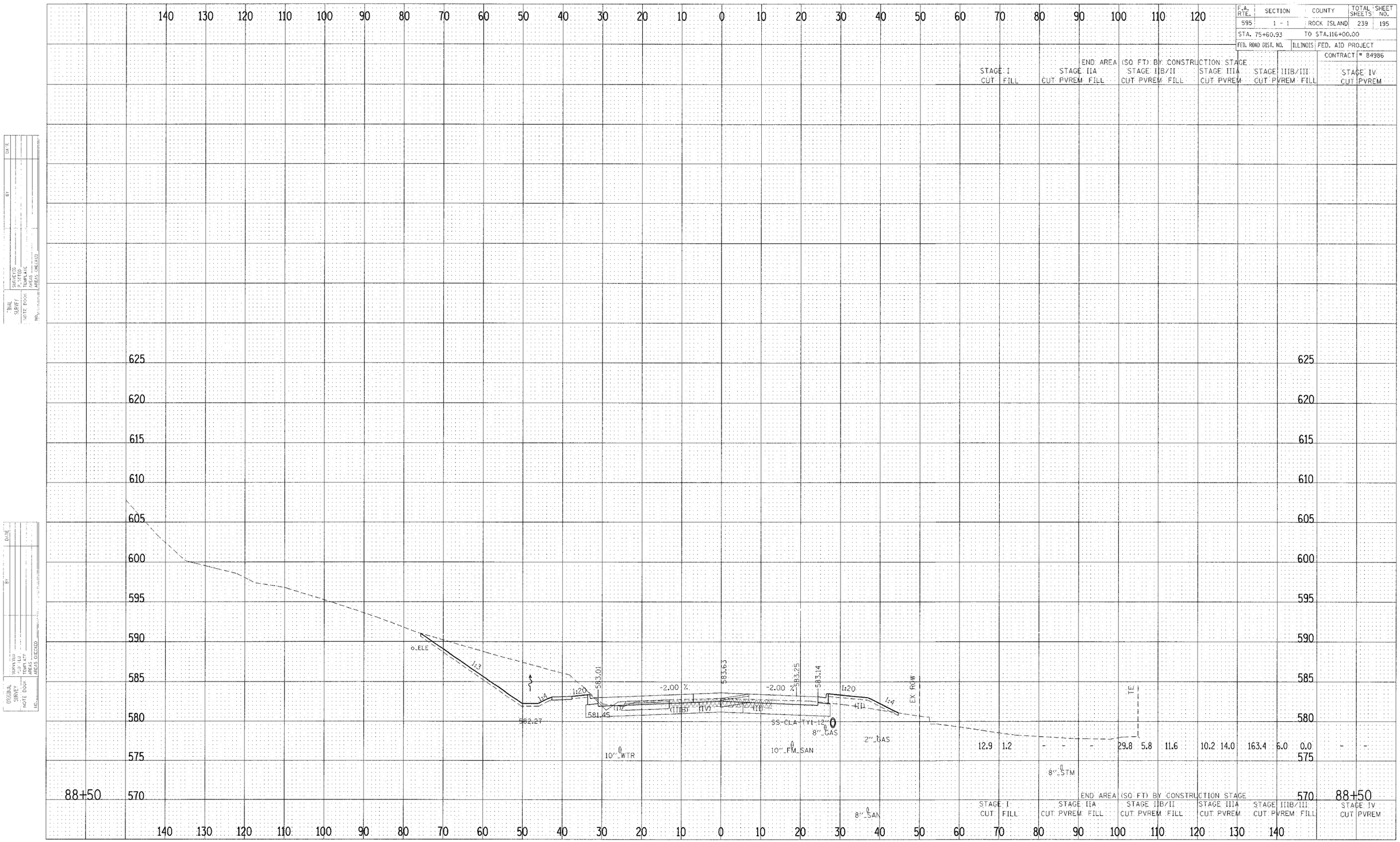
88+26.12

CROSS SECTIONS – F.A. 595 (IL RTE 5)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	195
STA. 75+60.93	TO STA.116+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		

END AREA (SQ FT) BY CONSTRUCTION STAGE

STAGE I		STAGE IIA		STAGE IIB/II		STAGE IIIA	STAGE IIIB/III		STAGE IV
CUT	FILL	CUT	PVREM FILL	CUT	PVREM FILL	CUT PVREM	CUT	PVREM FILL	CUT PVREM
12.9	1.2	-	-	-	-	29.8 5.8 11.6	10.2	14.0 163.4 6.0	0.0 - -

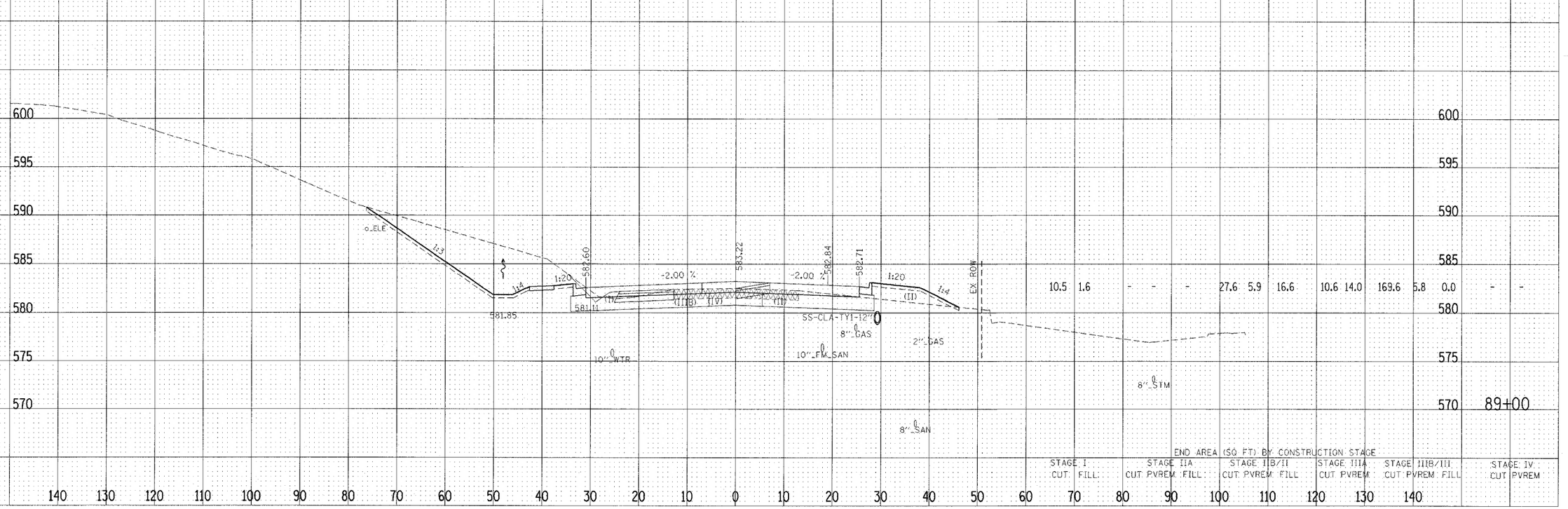


CROSS SECTIONS – F.A. 595 (IL RTE 5)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	196
STA. 75+60.93	TO STA.116+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT	# 84986	

END AREA (SQ FT) BY CONSTRUCTION STAGE

STAGE I		STAGE IIA		STAGE IIB/II		STAGE IIIA		STAGE IIIB/III		STAGE IV	
CUT	FILL	CUT	PVREM	FILL	CUT	PVREM	FILL	CUT	PVREM	FILL	CUT	PVREM
10.5	1.6	-	-	-	27.6	5.9	16.6	10.6	14.0	169.6	5.8	0.0	-	-



CROSS SECTIONS – F.A. 595 (IL RTE 5)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	197
STA. 75+60.93	TO STA. 116+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		

END AREA (SQ FT) BY CONSTRUCTION STAGE

STAGE I		STAGE IIA		STAGE IIB/II		STAGE IIIA		STAGE IIIB/III		STAGE IV	
CUT	FILL	CUT	PVREM	FILL	CUT	PVREM	FILL	CUT	PVREM	FILL	CUT	PVREM
12.8	1.2	-	-	-	28.7	6.0	17.7	11.4	14.0	145.1	5.8	0.0	-	-

CROSS SECTIONS – F.A. 595 (IL RTE 5)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	198
STA. 75+60.93		TO STA.116+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		

END AREA (SQ FT) BY CONSTRUCTION STAGE

STAGE I		STAGE IIA		STAGE IIB/II		STAGE IIIA	STAGE IIIB/III		STAGE IV
CUT	FILL	CUT	PVREM	FILL	CUT	PVREM	FILL	CUT	PVREM	FILL	CUT	PVREM
12.8	1.2	-	-	-	28.7	6.0	17.7	11.4	14.0	139.3	5.8	0.0	-	-

CROSS SECTIONS – F.A. 595 (IL RTE 5)

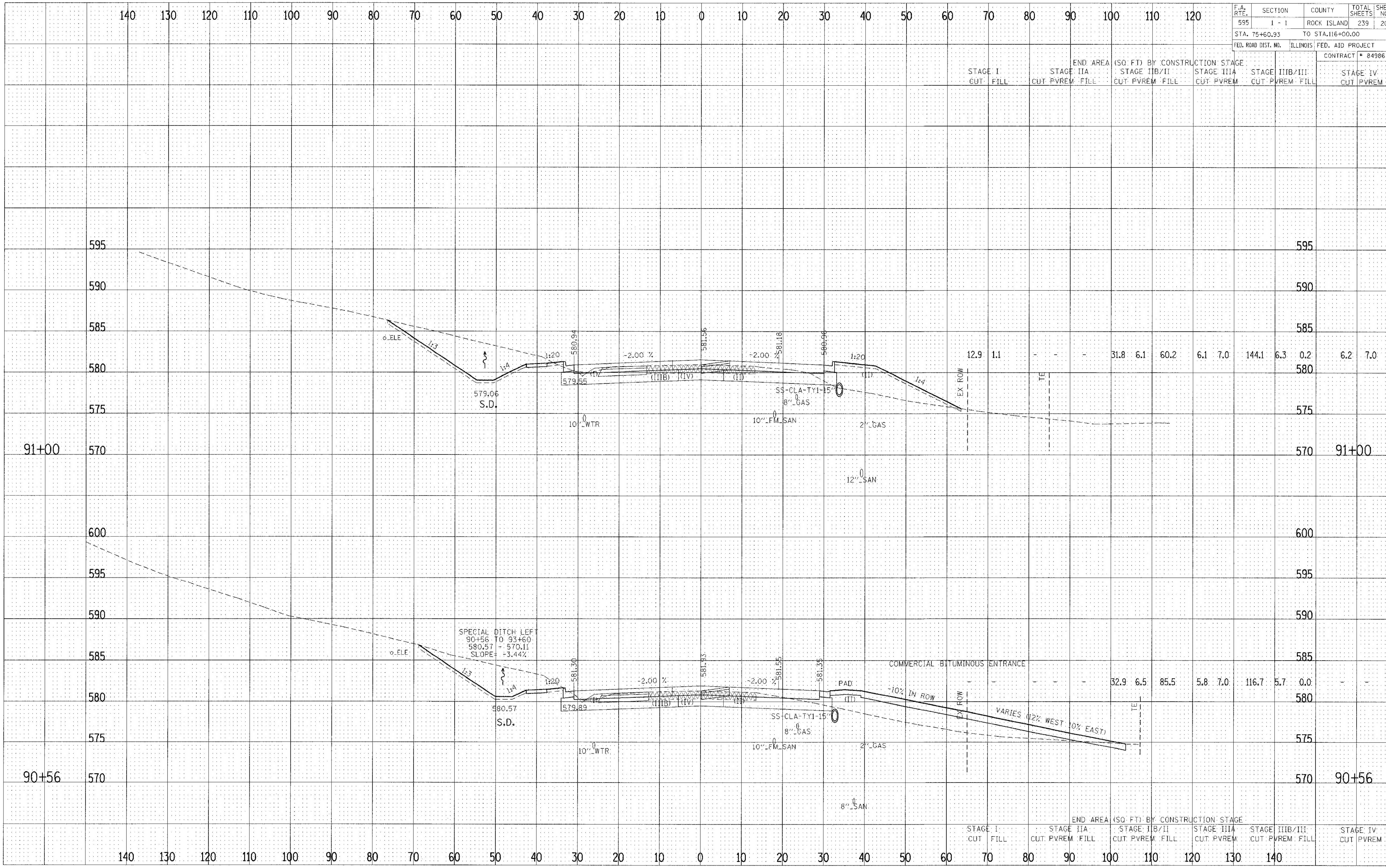
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	199
STA. 75+60.93		TO STA.116+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT # 84986		

END AREA (SQ FT) BY CONSTRUCTION STAGE

STAGE I CUT	STAGE I FILL	STAGE IIA CUT PVREM	STAGE IIA FILL	STAGE IIB/II CUT PVREM	STAGE IIB/II FILL	STAGE IIIA CUT PVREM	STAGE IIIB/III CUT PVREM	STAGE IIIB/III FILL	STAGE IV CUT PVREM
11.9	1.9	-	-	-	32.6	5.8	34.0	11.9	14.0	138.6	5.7	0.0	6.0	7.0

CROSS SECTIONS – F.A. 595 (IL RTE 5)

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
595	1 - 1	ROCK ISLAND	239	200
STA. 75+60.93	TO STA.116+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT	# 84986	



END AREA (SQ FT) BY CONSTRUCTION STAGE

Station	Stage I Cut	Stage I Fill	Stage IIA Cut	Stage IIA PVREM	Stage IIA Fill	Stage IIB/II Cut	Stage IIB/II PVREM	Stage IIB/II Fill	Stage IIIA Cut	Stage IIIA PVREM	Stage IIIB/III Cut	Stage IIIB/III PVREM	Stage IIIB/III Fill	Stage IV Cut	Stage IV PVREM
91+00	12.9	1.1	-	-	-	31.8	6.1	60.2	6.1	7.0	144.1	6.3	0.2	6.2	7.0
90+56	-	-	-	-	-	32.9	6.5	85.5	5.8	7.0	116.7	5.7	0.0	-	-