LOCATION OF WORK
F.A.I. ROUTE 57 (I-57)
STA. 166+50 TO 147+00, WILLIAMSON COUNTY
FUNDING BREAKOUT 90% FEDERAL 10% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY 0003 RURAL	BRIDGE 0013 RURAL
40701961	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 14"	SQ YD	58852	58852	
40702016	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 16 3/4"	SQ YD	2402	2402	
44000100	PAVEMENT REMOVAL	SQ YD	4061	4061	
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	7560	7560	
44004250	PAVED SHOULDER REMOVAL	SQ YD	33335	33335	
44300200	STRIP REFLECTIVE CRACK CONTROL TREATMENT	FOOT	901	901	
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	516	516	
48203037	HOT-MIX ASPHALT SHOULDERS, 10"	SQ YD	59598	59598	
48203064	HOT-MIX ASPHALT SHOULDERS, 16 3/4"	SQ YD	3268	3268	
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	2		2
50102400	CONCRETE REMOVAL	CU YD	87		87
50105220	PIPE CULVERT REMOVAL	FOOT	383	383	
50200100	STRUCTURE EXCAVATION	CU YD	2973		2973
50200300	COFFERDAM EXCAVATION	CU YD	450 (1)		450

LOCATION OF WORK
F.A.I. ROUTE 57 (I-57)
STA. 166+50 TO 147+00, WILLIAMSON COUNTY
FUNDING BREAKOUT 90% FEDERAL 10% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY 0003 RURAL	BRIDGE 0013 RURAL
50201121	COFFERDAM (TYPE 2) (LOCATION - 1)	EACH	1		1
50201122	COFFERDAM (TYPE 2) (LOCATION - 2)	EACH	1		1
50300225	CONCRETE STRUCTURES	CU YD	343.1		343.1
50300255	CONCRETE SUPERSTRUCTURE	CU YD	564.6		564.6
50300260	BRIDGE DECK GROOVING	SQ YD	1284		1284
50300300	PROTECTIVE COAT	SQ YD	1462		1462
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1
50500505	STUD SHEAR CONNECTORS	EACH	4560		4560
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	182910		182910
50800515	BAR SPLICERS	EACH	580		580
51500100	NAME PLATES	EACH	2		2
52100520	ANCHOR BOLTS, 1"	EACH	64		64
54213669	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24"	EACH	2	2	
54216982	REINFORCED CONCRETE PIPE TEE, 48" PIPE WITH 18" RISER	EACH	2	2	

(1) REVISED 4-16-13

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - JRD	REVISED -
		DRAWN - MSK	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - SLD	REVISED -
	PLOT DATE = $DATE$	DATE - 02/01/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N. T. S. | SHEET NO. 2 OF 5 SHEETS | STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(X)-6-2,X)-5,(X)-4-1BR-1)R-1	WILLIAMSON	202	5
		CONTRACT NO. 78334		
	ILLINOIS FED. AID PROJECT			

LOCATION OF WORK
F. A. I. ROUTE 57 (I-57)
STA. 166+50 TO 147+00, WILLIAMSON COUNTY
FUNDING BREAKOUT 90% FEDERAL 10% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY 0003 RURAL	BRIDGE 0013 RURAL
X2020110	GRADING AND SHAPING SHOULDERS	UNIT	1445	1445	
X2070304	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	5,485		5,485
X6024240	INLETS, SPECIAL	EACH	5	5	
X6350120	DELINEATOR REMOVAL	EACH	14	14	
X6432110	REPLACE IMPACT ATTENUATORS (NON- REDIRECTIVE), TEST LEVEL 3	EACH	1	1	
X6431120	REMOVE IMPACT ATTENUATOR SAND MODULE	EACH	4	4	
X6432120	REPLACE IMPACT ATTENUATORS (NON- REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	1	1	
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1	
X7830050	RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REMOVAL	EACH	639	639	
* X7830068	GROOVING FOR RECESSED PAVEMENT MARKING, LETTERS, NUMBERS AND SYMBOLS	SQ FT	83	83	
* X7830070	GROOVING FOR RECESSED PAVEMENT MARKING 5"	FOOT	6057	6057	
* X7830072	GROOVING FOR RECESSED PAVEMENT MARKING 6"	FOOT	11780	11780	
* X7830078	GROOVING FOR RECESSED PAVEMENT MARKING 13"	FOOT	34	34	
Z0034105	MATERIAL TRANSFER DEVICE	TON	52093	52093	

LOCATION OF WORK
F. A. I. ROUTE 57 (I-57)
STA. 166+50 TO 147+00, WILLIAMSON COUNTY
FUNDING BREAKOUT 90% FEDERAL 10% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY 0003 RURAL	BRIDGE 0013 RURAL
* Z0049100	RAISED PAVEMENT MARKER REFLECTOR REPLACEMENT	EACH	639	639	
Z0005216	HOT-MIX ASPHALT STABILIZATION 6" AT STEEL PLATE BEAM GUARD RAIL	SQ YD	1893	1893	
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
Z0026407	TEMPORARY SHEET PILING	SQ FT	2896		2896
~~Z0076600~~	~~TRAINEES~~	~~HOUR~~	~~0~~	~~0~~	

1 REVISED 4-16-13

* SPECIALTY ITEM

4

FILE NAME = $FILE$	USER NAME = $USER$	DESIGNED - JRD	REVISED -
		DRAWN - MSK	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - SLD	REVISED -
	PLOT DATE = $DATE$	DATE - 02/01/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

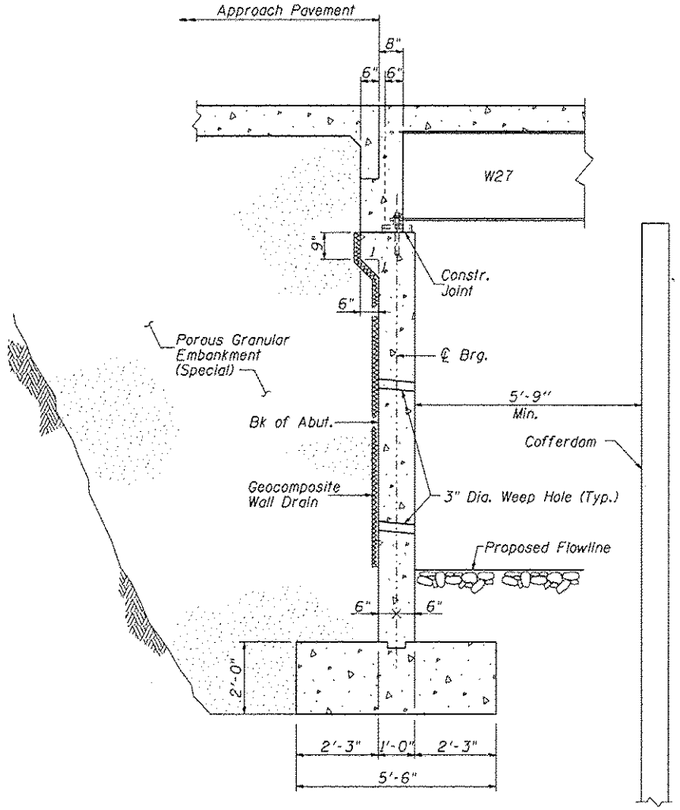
SCALE: N. T. S. | SHEET NO. 5 OF 5 SHEETS | STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(X)-6-2,X)-5,(X)-4-(BR-1)R-1	WILLIAMSON	202	8
		CONTRACT NO. 78334		
		ILLINOIS FED. AID PROJECT		

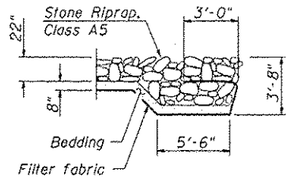
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

1. Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts in painted areas and M164 Type 3 in unpainted areas. Bolts $^{3}/_{4}$ in. ϕ, holes $^{15}/_{16}$ in. ϕ, unless otherwise noted.
2. Calculated weight of Structural Steel = 63,520 lb. (AASHTO M270 Grade 50W)
3. All structural steel shall be AASHTO M 270 Grade 50W.
4. No field welding is permitted except as specified in the contract documents.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. If the Contractor elects to use cantilever forming brackets on the exterior beams, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.
7. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
8. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $^{1}/_{8}$ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
9. Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 inches. Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not required.
10. Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
11. The embankment configuration shown shall be the minimum embankment that must be placed and compacted prior to construction of the abutments.
12. The concrete for bridge decks finished according to Article 503.16(a) of the Standard Specifications shall be placed and compacted parallel to the skew in uniform increments along centerline of bridge. The machine used for finishing shall be set parallel to the skew for striking off and screeding the concrete.
13. Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.
14. Slipforming of parapets is not allowed.



SECTION THRU CLOSED ABUTMENT



SECTION A-A
(See Sheet 1 for Plan location)

TOTAL BILL OF MATERIAL

	ITEM	UNIT	SUPER	SUB	TOTAL
⚠	Porous Granular Embankment, Special	Cu. Yd.		5485	5485
	Stone Riprap, Class A5	Sq. Yd.		885	885
	Filter Fabric	Sq. Yd.		885	885
	Removal of Existing Superstructures	Each	2		2
	Concrete Removal	Cu. Yd.		87.0	87.0
	Structure Excavation	Cu. Yd.	213	2760	2973
⚠	Cofferdam Excavation	Cu. Yd.		450	450
	Cofferdam (Type 2) (Location-1)	Each		1	1
	Cofferdam (Type 2) (Location-2)	Each		1	1
	Concrete Structures	Cu. Yd.	96.5	246.6	343.1
	Concrete Superstructure	Cu. Yd.	564.6		564.6
	Bridge Deck Grooving	Sq. Yd.	1284		1284
	Protective Coat	Sq. Yd.	1462		1462
	Furnishing and Erecting Structural Steel	L. Sum	1		1
	Stud Shear Connectors	Each	4560		4560
	Reinforcement Bars, Epoxy Coated	Pound	143,690	39,220	182,910
	Bar Splicers	Each	536	44	580
	Temporary Sheet Piling	Sq. Ft.		2896	2896
	Name Plates	Each	2		2
	Anchor Bolts, 1"	Each	64		64
	Geocomposite Wall Drain	Sq. Yd.		566	566

WATERWAY INFORMATION

Drainage Area = 2.87 sq. mi.
Exist. Low Grade Elev. 409.31 @ Sta. 231+50.00
Prop. Low Grade Elev. 409.64 @ Sta. 231+50.00

Flood	Freq. Yr.	Q (C.F.S.)	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	980	192.3	213.6	404.4	0.6	0.3	405.0	404.7
Design	50	1470	206.9	228.2	404.9	1.7	1.3	406.6	406.2
Base	100	1680	212.8	234.1	405.1	2.9	1.7	408.0	406.8
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	2170	221.5	242.9	405.4	3.4	3.5	408.8	408.9

Exist. 10-Year Velocity Through Bridge=5.0 fps Prop. 10-Year Velocity Through Bridge=4.6 fps

GENERAL DATA
F.A.I. RTE. 57 OVER
LAKE CREEK BRANCH
STATION 228+25.00
STRUCTURE NO. 100-0010 (N.B.)
STRUCTURE NO. 100-0011 (S.B.)

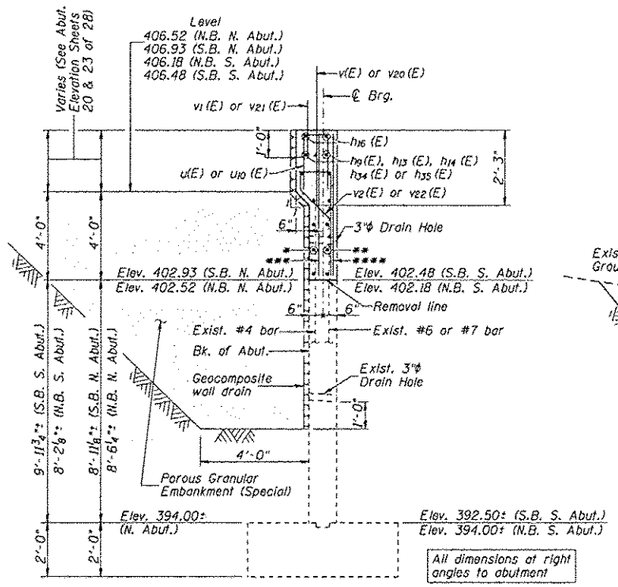
⚠ REVISED 4-16-13

CMT
CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL
DESIGNED BY: KEH
CHECKED BY: WLB
DRAWN BY: GLD
DATE: 4-16-13 ⚠

SHEET NO. 2
29 SHEETS

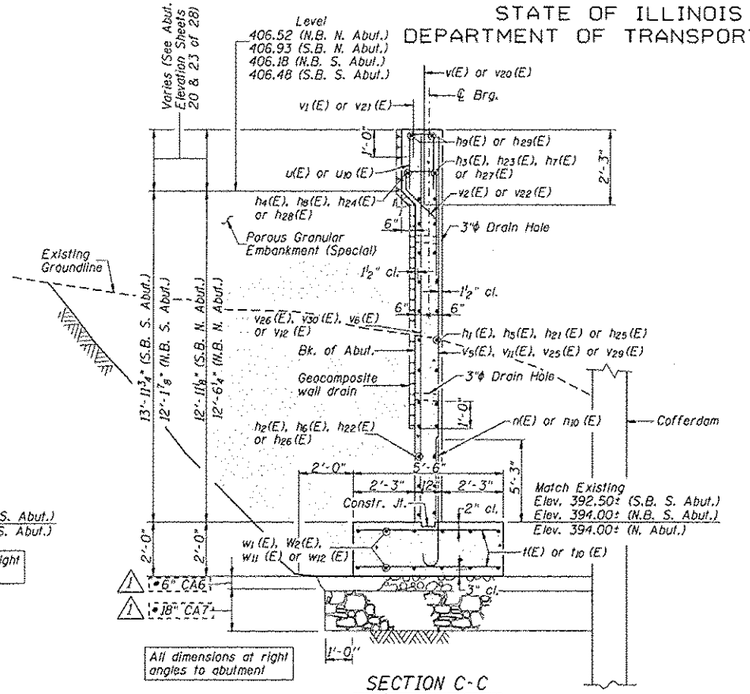
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-57	(X1-4-1) BR -1	WILLIAMSON	202	85
		CONTRACT NO. 78334		
FED. ROAD DIST. NO. 9	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



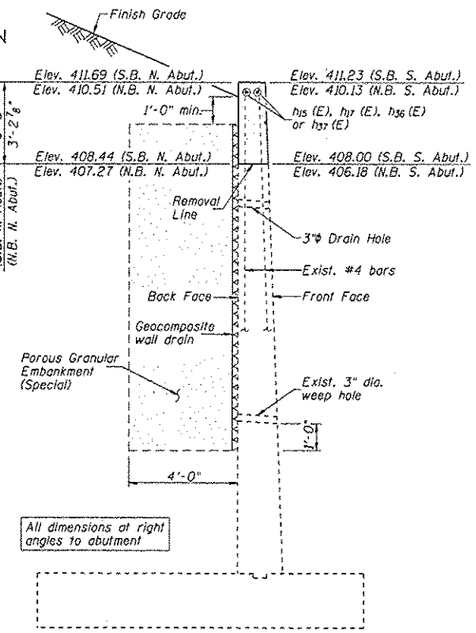
SECTION A-A

* h_{24}(E), h_{28}(E), h_{34}(E) h_4(E), h_8(E) or h_{13}(E)
** h_5(E), h_{12}(E), h_{17}(E) h_{23}(E), h_{27}(E) or h_{33}(E)
*** v_4(E), v_{10}(E), v_{24}(E) or v_{32}(E)
**** v_5(E), v_9(E), v_{23}(E) or v_{31}(E)

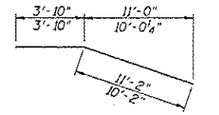


SECTION C-C

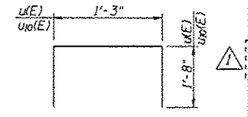
⚠1 •CA6 & CA7 SHALL BE PAID FOR AS POROUS GRANULAR EMBANKMENT, SPECIAL



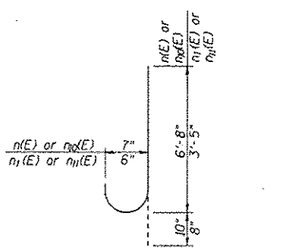
SECTION E-E



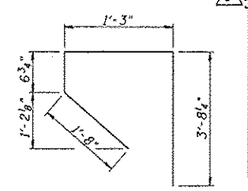
BAR h10(E) & h30 (E)



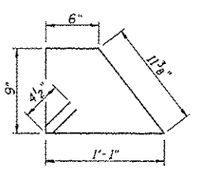
BAR u(E) & u10(E)



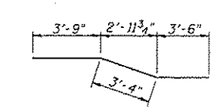
BAR n(E), n1(E), n10(E) & n11(E)



BAR v2(E) & v22(E)



BAR s(E) & s10(E)



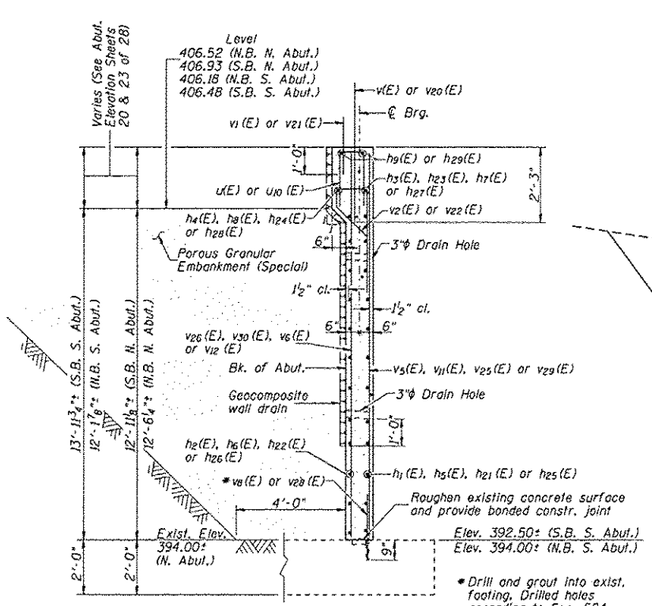
BAR w13(E)

NORTH ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h (E)	18	6	4'-0"	
h1 (E)	9	6	24'-7"	
h2 (E)	9	4	24'-7"	
h3 (E)	5	6	39'-1"	
h4 (E)	5	4	39'-1"	
h5 (E)	9	6	24'-5"	
h6 (E)	9	4	24'-5"	
h7 (E)	5	6	38'-1"	
h8 (E)	5	4	38'-1"	
h9 (E)	2	4	17'-3"	
h10 (E)	4	4	15'-0"	
h11 (E)	25	4	33'-8"	
h12 (E)	10	6	42'-1"	
h13 (E)	10	4	42'-1"	
h14 (E)	2	4	21'-10"	
h15 (E)	6	4	7'-9"	
h16 (E)	2	4	30'-1"	
h17 (E)	6	4	16'-8"	
h18 (E)	16	5	6'-0"	
n (E)	95	7	7'-6"	
n1 (E)	40	6	4'-1"	
s (E)	8	3	4'-1"	
t (E)	84	5	5'-2"	
t1 (E)	41	8	11'-8"	
t2 (E)	41	6	11'-8"	
t3 (E)	2	5	11'-8"	
u (E)	128	4	4'-9"	
v (E)	161	5	4'-6"	
v1 (E)	161	5	2'-0"	
v2 (E)	255	6	7'-2"	
v3 (E)	86	7	4'-5"	
v4 (E)	22	4	4'-6"	
v5 (E)	36	7	13'-2"	
v6 (E)	13	4	13'-2"	
v7 (E)	3	7	16'-5"	
v8 (E)	23	7	6'-1"	
v9 (E)	91	7	5'-1"	
v10 (E)	21	4	5'-1"	
v11 (E)	37	7	13'-5"	
v12 (E)	13	4	13'-5"	
v13 (E)	3	7	16'-8"	
v14 (E)	10	4	16'-8"	
v15 (E)	41	4	11'-6"	
v16 (E)	41	6	9'-0"	
v17 (E)	2	7	7'-8"	
v18 (E)	2	7	8'-6"	
w (E)	12	8	5'-0"	
w1 (E)	12	5	19'-11"	
w2 (E)	12	5	20'-4"	
w3 (E)	26	5	33'-7"	
Porous Granular Embankment, Special		Cu. Yd.	2608	
Concrete Removal		Cu. Yd.	43.2	
Structure Excavation		Cu. Yd.	1380	
Cofferdam Excavation		Cu. Yd.	225	
Cofferdam (Ty. 2) (Location-1)		Each	1	
Concrete Structures		Cu. Yd.	122.2	
Reinforcement Bars Epoxy Coated		Pound	19,340	
Bar Splicers		Each	22	
Geocomposite Wall Drain Epoxy Coated		Sq. Yd.	282	

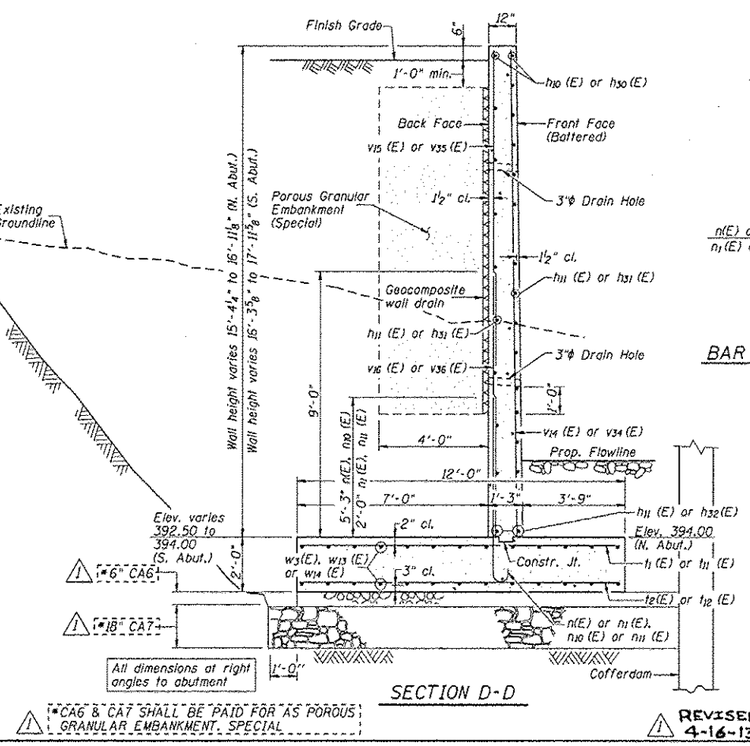
SOUTH ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h20(E)	18	6	4'-0"	
h21(E)	8	6	24'-5"	
h22(E)	8	4	24'-5"	
h23(E)	5	6	38'-1"	
h24(E)	5	4	38'-1"	
h25(E)	10	6	24'-7"	
h26(E)	10	4	24'-7"	
h27(E)	5	6	39'-1"	
h28(E)	5	4	39'-1"	
h29(E)	2	4	18'-0"	
h30(E)	4	4	14'-0"	
h31(E)	2,3	4	33'-8"	
h32(E)	3	4	26'-8"	
h33(E)	5	6	43'-7"	
h34(E)	5	4	43'-7"	
h35(E)	2	4	22'-8"	
h36(E)	6	4	25'-9"	
h37(E)	6	4	8'-7"	
h38(E)	5	6	42'-5"	
h39(E)	7	4	42'-5"	
n10(E)	95	7	7'-6"	
n11(E)	40	6	4'-1"	
s10(E)	8	3	4'-1"	
t10(E)	82	5	5'-2"	
t11(E)	41	8	11'-8"	
t12(E)	41	6	11'-8"	
t13(E)	2	5	11'-8"	
u10(E)	138	4	4'-9"	
v20(E)	161	5	4'-6"	
v21(E)	161	5	2'-0"	
v22(E)	262	6	7'-2"	
v23(E)	87	7	4'-5"	
v24(E)	22	4	4'-5"	
v25(E)	38	7	12'-9"	
v26(E)	14	4	12'-9"	
v27(E)	3	7	16'-0"	
v28(E)	25	7	6'-1"	
v29(E)	40	7	14'-5"	
v30(E)	14	4	14'-5"	
v31(E)	97	7	5'-3"	
v32(E)	22	4	5'-3"	
v33(E)	3	7	17'-8"	
v34(E)	10	4	17'-8"	
v35(E)	41	4	12'-6"	
v36(E)	41	6	9'-0"	
v37(E)	2	7	7'-8"	
v38(E)	2	7	8'-6"	
w10(E)	12	8	5'-0"	
w11(E)	12	5	20'-6"	
w12(E)	12	5	19'-1"	
w13(E)	26	5	10'-7"	
w14(E)	26	5	26'-7"	
Porous Granular Embankment, Special		Cu. Yd.	2877	
Concrete Removal		Cu. Yd.	43.8	
Structure Excavation		Cu. Yd.	1380	
Cofferdam Excavation		Cu. Yd.	225	
Cofferdam (Ty. 2) (Location-2)		Each	1	
Concrete Structures		Cu. Yd.	124.4	
Reinforcement Bars Epoxy Coated		Pound	19,880	
Bar Splicers		Each	22	
Geocomposite Wall Drain Epoxy Coated		Sq. Yd.	284	



SECTION B-B

* Drill and grout into exist. footing. Drilled holes according to Sec. 584 of the Std. Specifications.



SECTION D-D

⚠1 •CA6 & CA7 SHALL BE PAID FOR AS POROUS GRANULAR EMBANKMENT, SPECIAL

⚠1 REVISED 4-16-13

NOTES:
1. Work this sheet with sheets 21, 22, 24 and 25 of 29.

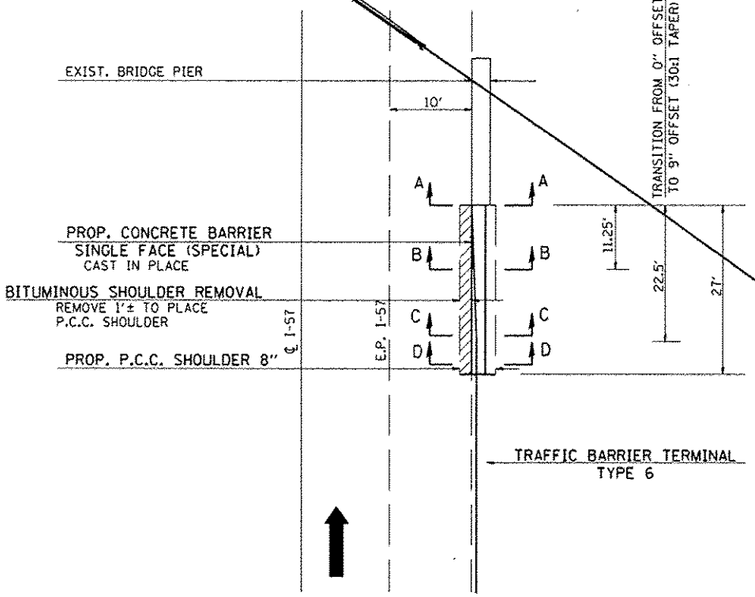
ABUTMENT DETAILS
F.A.I. RTE. 57 OVER
LAKE CREEK BRANCH
STATION 228+25.00
STRUCTURE NO. 100-0010 (N.B.)
STRUCTURE NO. 100-0011 (S.B.)

CMT
CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL
DESIGNED BY: CJW
CHECKED BY: WLB
DRAWN BY: GLD
DATE: 3/16/13 ⚠1

SHEET NO. 26
29 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-57	(X1-4-1) BR -1	WILLIAMSON	202	109
		CONTRACT NO. 78334		
FED. ROAD DIST. NO. 9	ILLINOIS	FED. AID PROJECT		

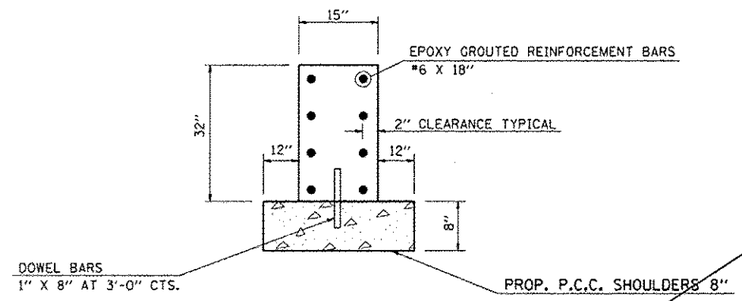
DETAIL: CONCRETE BARRIER SINGLE FACE, (SPECIAL)



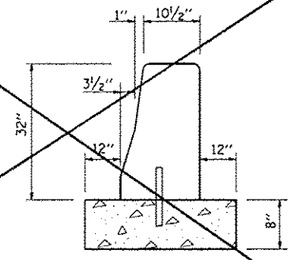
NOTE: FULL DEPTH SAW JOINT SHALL BE INCLUDED IN THE COST OF BITUMINOUS SHOULDER REMOVAL.

TO BE USED:

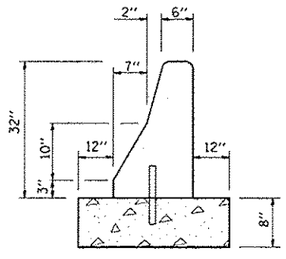
NB AND SB LANES S.N. 100-0044



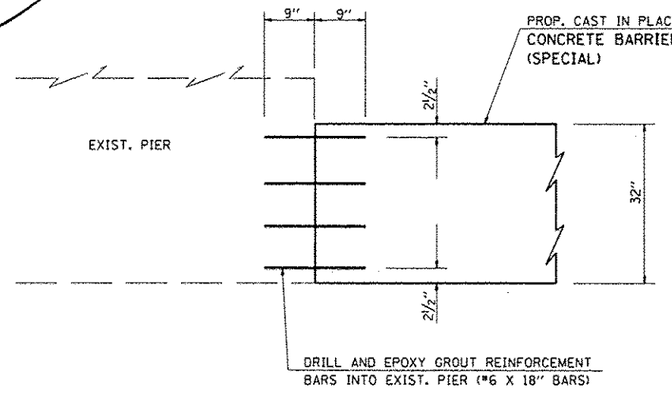
SECTION A-A



SECTION B-B



SECTION C-C
SECTION D-D



CONCRETE BARRIER ATTACHMENT DETAIL

NOTE:
NO ABOVE GRADE PORTION OF THE APPROACH END OF THE CONCRETE BARRRIER OR ATTACHED GUARDRAIL SHALL BE WITHIN 10' OF THE EDGE OF PAVEMENT.

EPOXY GROUTED REINFORCEMENT BARS AND DOWEL BARS TO BE INCLUDED IN THE COST PER FOOT OF CONCRETE BARRIER SINGLE FACE, (SPECIAL)

MATCH BARRIER SHAPE AND REINFORCEMENT AS SHOWN ON STANDARD 637001

⚠ SHEET DELETED 4-16-13

FILE NAME = $FILEL$	USER NAME = $USER$	DESIGNED - JRD	REVISED -
		DRAWN - MSK	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - SLD	REVISED -
	PLOT DATE = $DATE$	DATE - 02/01/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT DETAILS

SCALE: N. T. S. | SHEET NO. 1 OF 7 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	(X1-6-2,X1-5,(X1-4-1BR-1))R-1	WILLIAMSON	202	113
		CONTRACT NO. 78334		
		ILLINOIS FED. AID PROJECT		