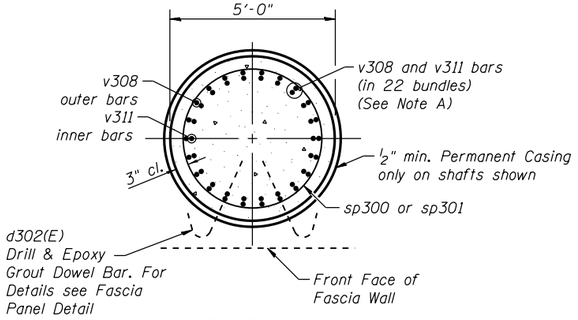
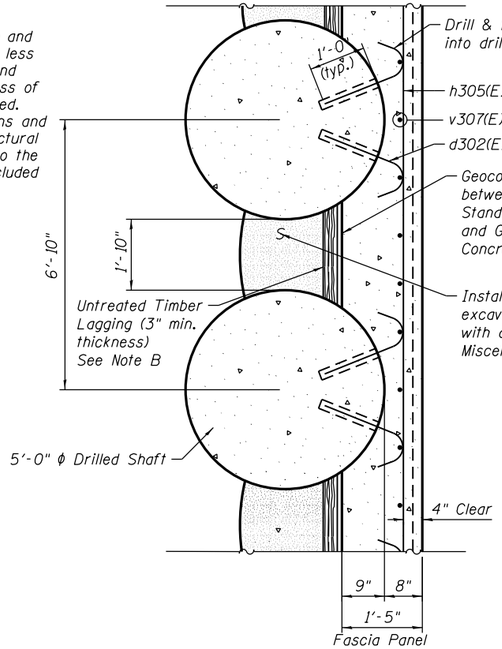


SECTION D-D

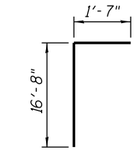
Note B:
The Contractor is responsible for the design and performance of the lagging system, using no less than a 3 in. nominal rough-sawn thickness and timber with a minimum allowable bending stress of 1,000 psi, until the concrete facing is installed. The Contractor shall submit design calculations and details prepared by an Illinois Licensed Structural Engineer for the attachment of the lagging to the shaft for approval by the Engineer. Cost Included with Class SI Concrete Miscellaneous.

NOTES:

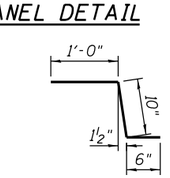
1. When splicing spiral reinforcement is necessary, the spiral shall be provided with 1½ extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4 or shall both terminate with a 135° standard hook.
2. Drilling and grouting of d302(E) bars included with Class SI Concrete Miscellaneous pay item.
3. Bars noted thus, 3x2-#5 indicates 3 lines of bars with 2 lengths of bars per line.
4. For details of Bar Splicers see sheet S-44.
5. Contractor to use Mechanical Splicers in drilled shafts that will fit between spirals.



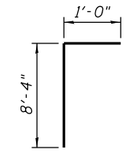
FASCIA PANEL DETAIL



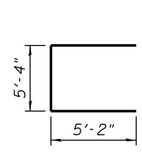
BAR h303(E)



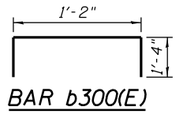
BAR a301(E)



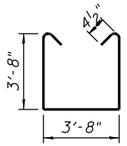
BAR h304(E)



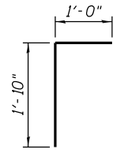
BAR u300(E)



BAR b300(E)



BAR s300(E)



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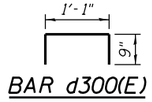
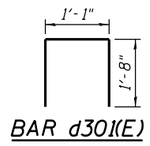


BAR d300(E)



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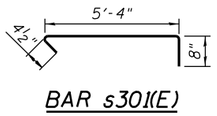

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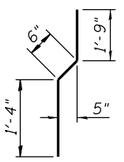

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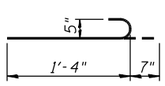
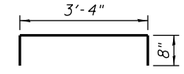
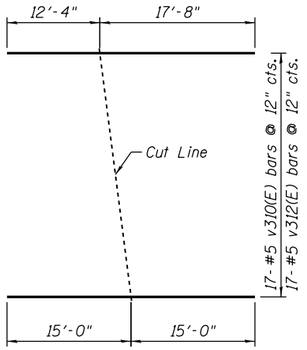


BAR d302(E)



BAR s302(E)

ABUTMENT SHAFT ELEVATION



FIELD CUTTING DIAGRAM

Order v310(E) & v312(E) bars full length. Cut as shown and use remainder of bars at opposite end.

Note A:
Bundle v308 outer bars with v311 inner bars.

*** Contractor may need to increase the casing thickness to withstand the installation process. See Article 516.06(d) of the Standard Specifications.

**** Quantity shown is for Geocomposite Wall Drain behind E. Abut and Soldier Pile and Lagging wall. Geocomposite Wall Drain between shafts shall be included with Class SI Concrete Miscellaneous. Estimated Quantity = 29 Sq. Yd.

* Length is height of spiral

** Shown for information only. Cost included with Class SI Concrete Miscellaneous

EAST ABUTMENT BILL OF MATERIAL

	Bar	No.	Size	Length	Shape
	a300(E)	4	#5	10'-4"	
	a301(E)	4	#5	2'-4"	
	b300(E)	22	#5	3'-10"	
	d300(E)	8	#4	2'-7"	
	d301(E)	7	#4	4'-5"	
**	d302(E)	380	#5	1'-11"	
	e300(E)	16	#4	16'-8"	
	e301(E)	16	#4	3'-7"	
	e302(E)	4	#4	2'-2"	
	e303(E)	4	#4	1'-7"	
	h300(E)	24	#5	24'-10"	
	h301(E)	15	#6	25'-3"	
	h302(E)	20	#4	5'-4"	
	h303(E)	28	#9	18'-3"	
	h304(E)	16	#6	9'-4"	
**	h305(E)	87	#5	24'-10"	
	h306(E)	24	#5	9'-6"	
	h307(E)	8	#5	5'-0"	
**	h308(E)	76	#5	18'-2"	
	h309(E)	16	#6	3'-7"	
	p300(E)	42	#7	26'-2"	
	p301(E)	18	#6	25'-3"	
	p302(E)	4	#5	22'-8"	
	s300(E)	138	#4	11'-9"	
	s301(E)	69	#4	6'-4½"	
	s302(E)	23	#4	4'-8"	
*	sp300	10	#6	20'-0"	
*	sp301	10	#6	65'-9"	
	u300(E)	10	#6	15'-8"	
	v300(E)	66	#5	2'-10"	
	v301(E)	66	#5	3'-7"	
	v302(E)	66	#6	6'-6"	
	v303(E)	66	#6	5'-1"	
	v304(E)	12	#6	10'-0"	
	v305(E)	24	#4	6'-0"	
	v306(E)	40	#6	11'-3"	
**	v307(E)	69	#5	13'-8"	
	v308	440	#14	44'-9"	
	v309(E)	24	#5	2'-2"	
**	v310(E)	17	#5	30'-0"	
	v311	440	#14	43'-0"	
**	v312(E)	17	#5	30'-0"	
	v313(E)	18	#6	6'-6"	

Granular Backfill for Structures	Cu. Yd.	113
Structure Excavation	Cu. Yd.	491
Concrete Structures	Cu. Yd.	82
Concrete Superstructure	Cu. Yd.	14
Protective Coat	Sq. Yd.	11
Reinforcement Bars	Pound	340,200
Reinforcement Bars, Epoxy Coated	Pound	11,480
Permanent Casing	Foot	698
Drilled Shaft In Soil	Cu. Yd.	626
Concrete Sealer	Sq. Ft.	2,147
**** Geocomposite Wall Drain	Sq. Yd.	97
Pipe Underdrain for Structures 4"	Foot	166
Class SI Concrete Miscellaneous	Cu. Yd.	69
Crosshole Sonic Logging	Each	1
Stud Shear Connectors	Each	82
Untreated Timber Lagging	Sq. Ft.	458
Drilling and Setting Soldier Piles (In Soil)	Cu. Ft.	3,101
Furnishing Soldier Piles (W Section)	Foot	323
Chain Link Fence, 42" Attached to Structure (Special)	Foot	33

AECOM

USER NAME = dabezicd	DESIGNED - BMR	REVISED	
	CHECKED - DEV	REVISED	
PLOT SCALE = N.T.S.	DRAWN - BRD	REVISED	
PLOT DATE = 3/19/2014	CHECKED - DEV	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT DETAILS
STRUCTURE NO. 016-1711
SHEET NO. S-39 OF S-47 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-036R	COOK	256	131
		CONTRACT NO. 60W71		
		ILLINOIS FED. AID PROJECT -NUMBER-		

0161711-60W71-S39-Abutment