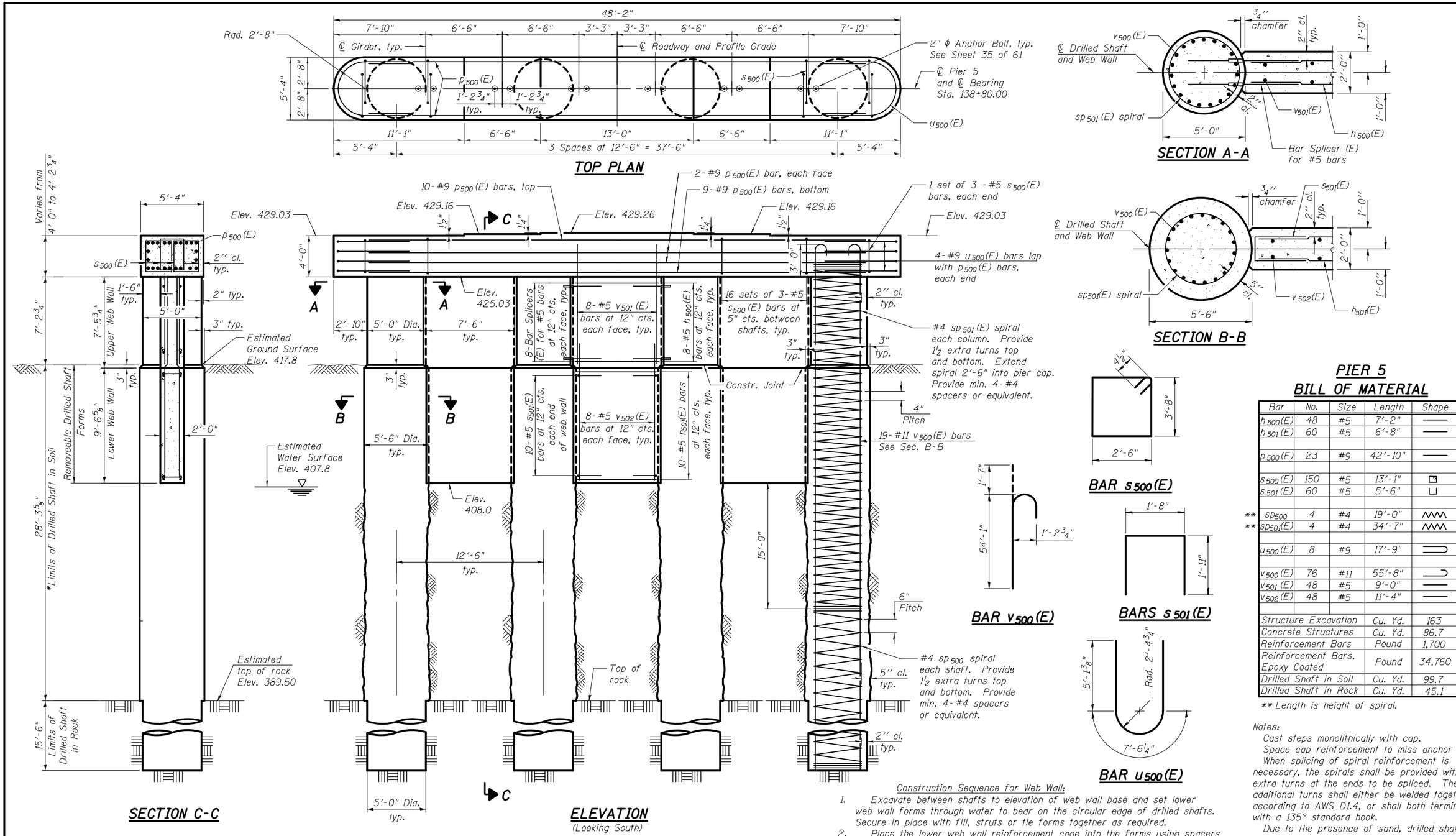

PIER 5
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_{500}(E)	48	#5	7'-2"	——
h_{501}(E)	60	#5	6'-8"	——
p_{500}(E)	23	#9	42'-10"	——
s_{500}(E)	150	#5	13'-1"	⊏
s_{501}(E)	60	#5	5'-6"	⊔
** sp_{500}	4	#4	19'-0"	∿∿∿
** sp_{501}(E)	4	#4	34'-7"	∿∿∿
u_{500}(E)	8	#9	17'-9"	⊐
v_{500}(E)	76	#11	55'-8"	⊐
v_{501}(E)	48	#5	9'-0"	——
v_{502}(E)	48	#5	11'-4"	——
Structure Excavation		Cu. Yd.	163	
Concrete Structures		Cu. Yd.	86.7	
Reinforcement Bars		Pound	1,700	
Reinforcement Bars, Epoxy Coated		Pound	34,760	
Drilled Shaft in Soil		Cu. Yd.	99.7	
Drilled Shaft in Rock		Cu. Yd.	45.1	

** Length is height of spiral.

Notes:

Cast steps monolithically with cap.

Space cap reinforcement to miss anchor bolts.

When splicing of spiral reinforcement is necessary, the spirals shall be provided with 1 1/2 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.

Due to the presence of sand, drilled shaft construction will need to employ the use of slurry or casing to construct the shafts; the method chosen should be left up to the Contractor.

See Heat of Hydration Control for Concrete Structures special provision for drilled shaft concrete placement requirements.

* If the prevailing water surface elevation during construction is consistently different than estimated on the plans, the Contractor may propose an adjustment to the top of the drilled shaft elevation as part of their installation procedure. The top of all drilled shafts within a substructure unit shall be constructed to the same elevation and extend above the prevailing water surface. The quantities and reinforcement detailing are based on the top of shaft and the estimated elevations shown and may change based on the actual elevations encountered at each shaft and the final top of shaft elevation.

Construction Sequence for Web Wall:

1. Excavate between shafts to elevation of web wall base and set lower web wall forms through water to bear on the circular edge of drilled shafts. Secure in place with fill, struts or tie forms together as required.
2. Place the lower web wall reinforcement cage into the forms using spacers to maintain proper clearances.
3. If the forms can be sealed against the shafts and streambed to allow dewatering, the reinforcement and the concrete placement may be completed in the dry. Alternatively, the rebar cage can be lowered into position through water and the concrete discharged at the base of the excavation through a tremie pipe or pump hose, displacing water, sediment, and tainted concrete out the top of the forms.
4. Construct Columns.
5. Construct upper web walls.

MODJESKI and MASTERS Experience great bridges.	USER NAME =	DESIGNED - RLM	REVISED
		CHECKED - JTH	REVISED
	PLOT SCALE =	DRAWN - AEC	REVISED
	PLOT DATE = 2/1/2013	CHECKED - RLM	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 5
STRUCTURE NO. 014-0033
SHEET NO. 45 OF 61 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	1-1BR-2	CLINTON	159	114
		CONTRACT NO. 76479		
	ILLINOIS FED. AID PROJECT			