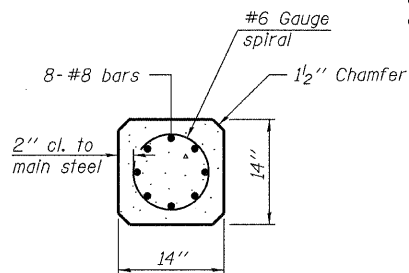
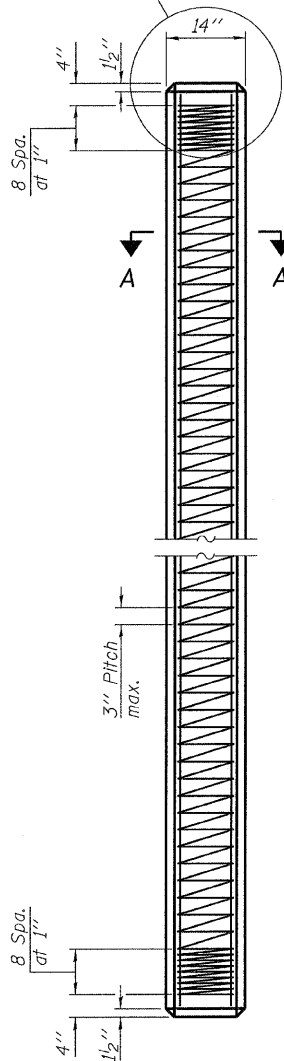


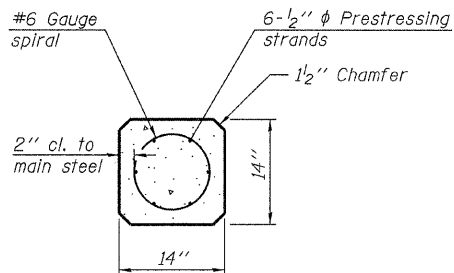
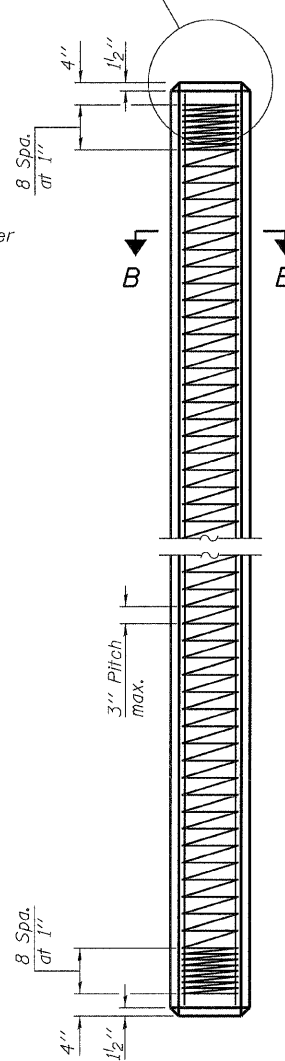
See End Plan and End Elevation for end reinforcement, typ.



SECTION A-A

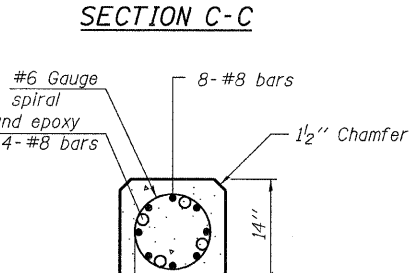
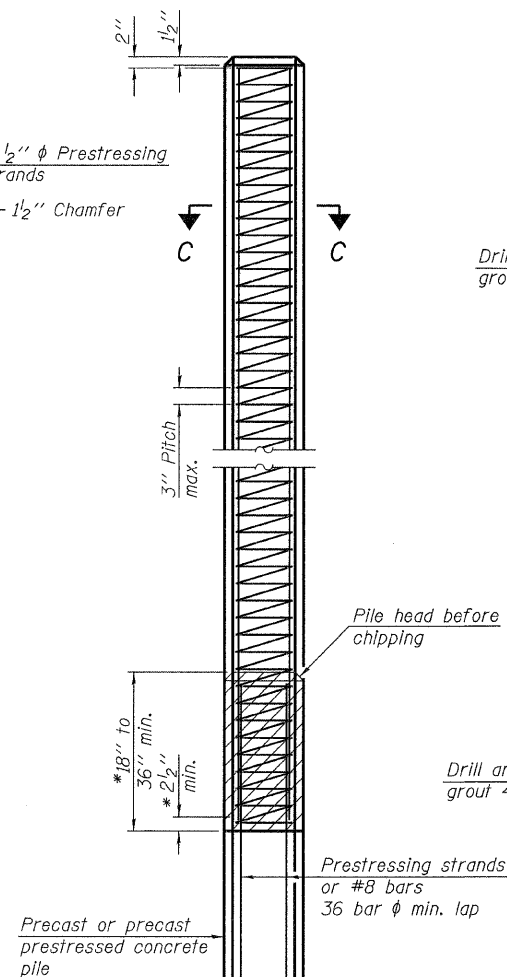
PRECAST CONCRETE PILE

See End Plan and End Elevation for end reinforcement, typ.

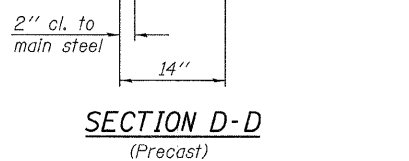


SECTION B-B

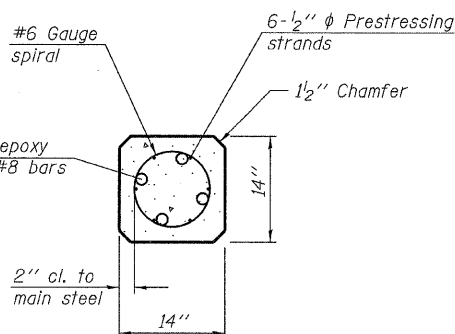
PRECAST PRESTRESSED CONCRETE PILE



SECTION C-C

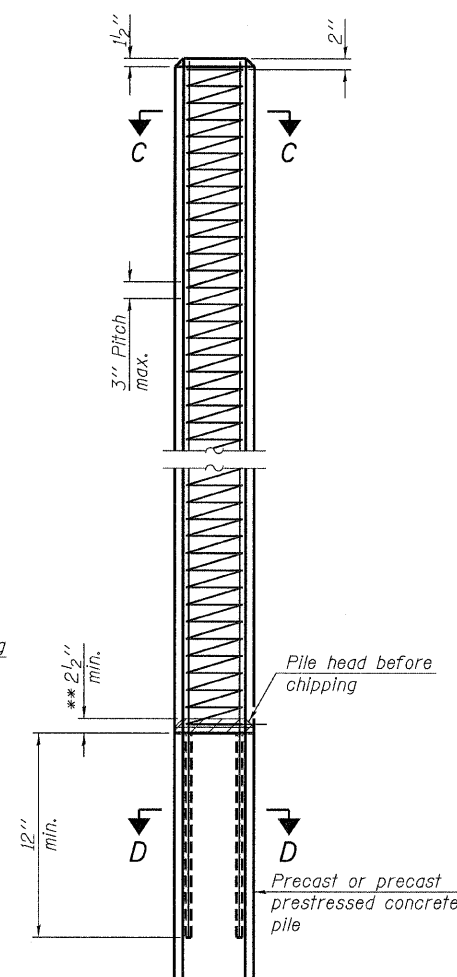


SECTION D-D (Precast)

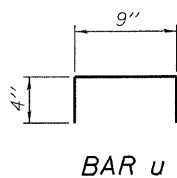


SECTION D-D (Precast prestressed)

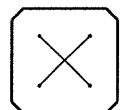
STANDARD PILE EXTENSION



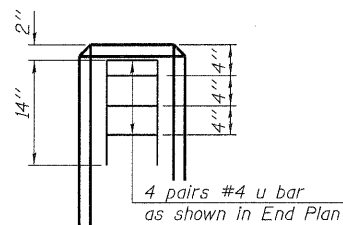
ALTERNATE PILE EXTENSION



BAR U



END PLAN (End reinforcement only)



END ELEVATION (End reinforcement only)

NOTES

Prestressing steel shall be uncoated high strength, low-relaxation 7-wire strand. The nominal diameter shall be 1/2" with a cross-sectional area of 0.153 in².
 For Pile lengths up to 65', use two slings placed at a distance of 0.21 L* from each end. For Piles longer than 65', use three slings placed at a distance of 0.12 L* from each end and at midpoint of pile. *L= Overall length of pile to be handled.
 For handling pile lengths up to 45', use two slings placed at a distance of 0.21 L from each end. For handling piles longer than 45', use three slings placed at a distance of 0.12 L from each end and at midpoint of pile.

- * To construct pile extension, chip top of pile back 36 bar ϕ min. to expose vertical bars and lap vertical buildup bars. Remove spiral to 2 1/2" min. above chipping and provide full strength lap weld exterior face (4" min. length).
- ** To construct pile extension, chip top of pile back 2 1/2" to expose wire spiral and provide full strength lap weld exterior face (4" min. length).

DESIGN STRESSES

f'_c = 5,000 p.s.i. (prestressed)
 f'_c = 4,500 p.s.i. (precast)
 f'_{cl} = 4,000 p.s.i.
 f'_s = 270,000 p.s.i. (41,300 lbs.-1/2" ϕ)
 f_{sl} = 189,000 p.s.i. (28,900 lbs.-1/2" ϕ)

F-PC

7-1-10

FILE NAME = 120353-shr-bridge.dgn	USER NAME =	DESIGNED - A.S.L.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3345 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703		CHECKED - S.W.M.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM L.S./P.E./S.E. CORP. 184.000559	PLOT SCALE =	DRAWN - D.T.M.	REVISED -
	PLOT DATE = 3/2/2011	CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS
 McLEAN COUNTY HIGHWAY DEPARTMENT

PRECAST PILE DETAILS
 STRUCTURE NO. 057-3519

SHEET NO. 7 OF 9 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
221A	10-07133-00-BR	McLEAN	19	17
SCHULTZ BRIDGE		CONTRACT NO. 91455		
ILLINOIS FED. AID PROJECT BR05-0113034				