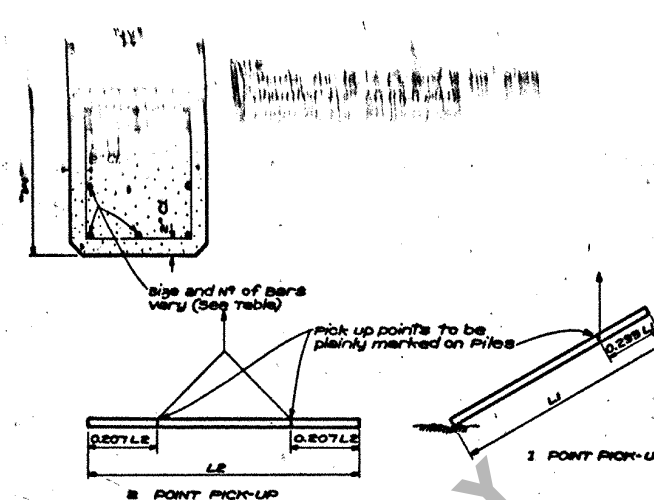




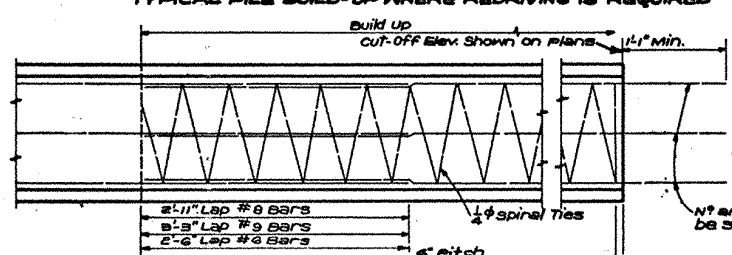
deep scoring formed with
Chamfer strips on all sides.

After driving is completed, the concrete at the end of the pile shall be cut away and the reinforcing exposed.

DETAIL OF PILE HEAD

NOTE:
order Length furnished by the engineer
will not include the 1'-3" driving head, and
no direct payment will be made for
the driving head, nor will the driving
head be included in measurement
of cut-off.

TYPICAL - FILE BUILD-UP WHERE RECEIVING IS REQUIRED



N^o and Size of Bars to be same as in Pile

TYPICAL PILE BUILD-UP WHERE REDRIVING IS NOT REQUIRED

L1 AND L2 = PILE CASTING LENGTHS = ORDER LENGTHS + 1'-0"

PILE SIZE "W"	WEIGHT PER FOOT POUNDS		I (TRANS SECTION) IN. ⁴	KD IN.	SIZE OF REIN.	N° OF BARS EA. FACE	TOTAL N° OF BARS	MAXIMUM PILE CASTING LENGTHS	
	UPPER CONCRETE	LOWER CONCRETE						1 FT. PICK-UP L1	2 FT. PICK-UP L2
12	150	100	476	2.98	#6	2	4	35'-3"	44'-3"
14	204	136	1149	3.82	#8	2	4	41'-8"	56'-3"
16	237	173	1716	4.00	#9	2	4	41'-8"	61'-3"
18	348	225	4298	5.59	#9	3	6	55'-3"	76'-3"
20	417	278	6365	6.02	#8	4	12	57'-3"	81'-3"

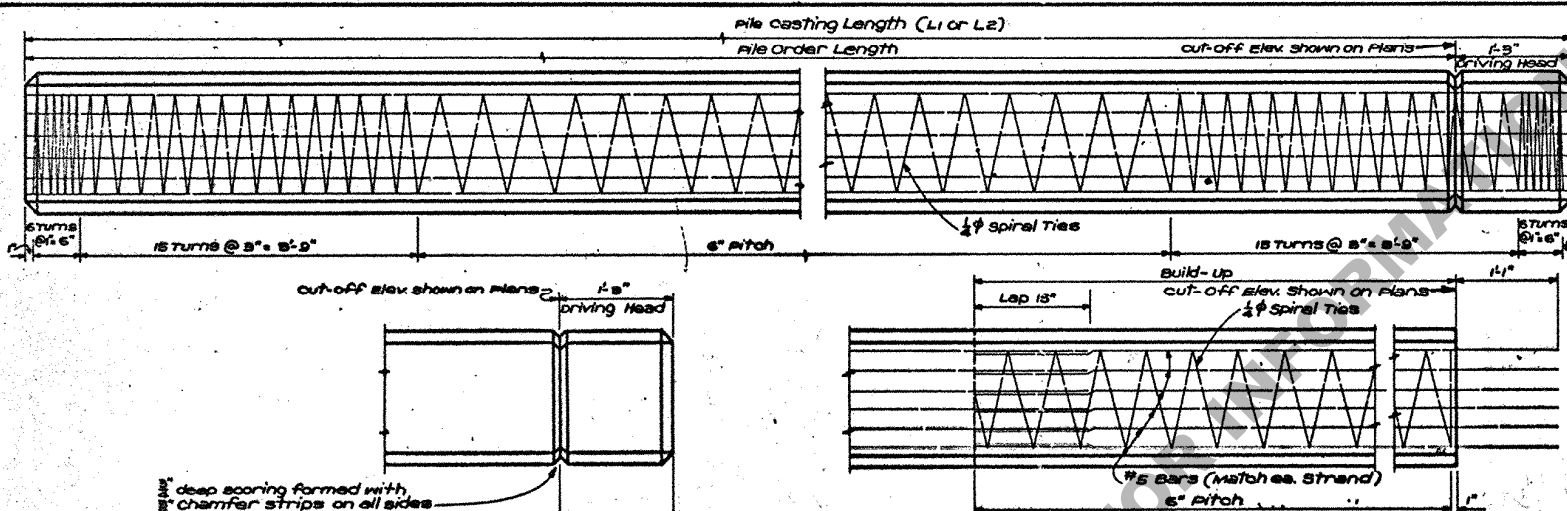
GENERAL NOTES: PRECAST REINFORCED CONCRETE PILES.
Construction Specifications: Latest Approved Lb. Dept. of Highways.
and Special Design Specifications: A.A.S.H.O. and. Specs. for Hwy. Bridges,
1955 as amended to Dec. 31, 1955.
Concrete to be Class "A" or Class "V" concrete at the Contractor's
option.
Dimensions to Reinforcing Steel are to Bar Faces.
Reinforcing Steel to be intermediate or hard grade
A.S.T.M. A15, or Rail Steel A.S.T.M. A16 and shall conform to A.S.T.M. A305.
3. Spiral ties shall be intermediate, structural or hard grade A.S.T.M.

Splices of reinforcement Bars will not be permitted in Piles under 4'-0" in length. One Splice per bar will be permitted in Piles 4'-0" up to 6'-0" in length and two Splices per bar will be permitted in Piles over 6'-0" long. Not more than two Bars of the same size shall be spliced at the same location. The length of the Pile may be spliced at one section; the splice shall be not less than 4'-0" on centers; the bars shall be lapped 35 diameters at each splice, except that corner bars to be spliced shall be lapped 45 diameters. No Bar shall be longer than another bar of equal size and not less than 10 diameters.

All exposed concrete corners to be chamfered as noted. Pick-up lengths have been computed using values of $f_s = 18,000$ p.s.i. and $f_c = 12,000$ p.s.i. with an allowance of 50% for impact and are based on careful handling. Rotation of pile in the sling is to be prevented until pile is in near vertical position.

The Contractor may use the Reinforced or prestressed pile at his option.

DETAILS OF 12-14-16-18 & 20 INCH SQ. PRECAST REINFORCED CONCRETE PILES



deep scoring formed with
chamfer strips on all sides

After driving is completed, the concrete at the end of the pile shall be cut away and the reinforcing exposed.

DETAIL OF FILE HEAD

NOTE:
order Length furnished by the engineer
will not include the 1/2" driving head, and
no direct payment will be made for the
driving head, nor will the driving
head be included in measurement
of cut-off.

Diagram illustrating the cross-section of a square pile. The outer dimensions are 14" x 14". The inner dimensions are 12" x 12". The thickness of the pile wall is 1". The chamfer radius is 1/2". The diagram shows a 2" diameter hole in the center. The chamfer is specified for 12, 14, 16, and 18 inch piles, and for 20 inch piles.

NOTE:
 1/2" chamfer for 12, 14, 16, and 18 inch piles
 1" chamfer for 20 inch piles.

Size and N^o of Strands
 (see Table)

pick-up points to be plainly marked on Piles

Diagram illustrating a beam with two point loads, each labeled $Q.807 L.8$, separated by a distance $L.8$.

100

2 POINT PICK-UP 1 POINT PICK-UP

L1 AND L2: PILE CASTING LENGTHS: ORDER LENGTHS + 1'-0"

PILE SIZE IN.	WEIGHT PER FOOT POUNDS		SECTION MODULUS IN. ⁴	SIZE OF STRANDS	N° OF STRANDS EA. PILE	TOTAL N° OF STRANDS	MAXIMUM PILE CASTING LENGTH	
	GRAVEL AND COARSE SAND (100% MAX)	SOFT CLAY (75% MAX)					1 FT. PICK-UP L.	2 FT. PICK-UP L.
12	150	100	288	3/8	3	8	85'-3"	46'-3"
14	204	136	457	3/8	4	12	41'-3"	56'-3"
16	267	178	688	3/8	5	16	41'-3"	61'-3"
18	355	225	972	3/8	6	20	55'-3"	76'-3"
20	417	270	1333	7/16	6	20	57'-3"	81'-3"

GENERAL NOTES: PRECAST PRESTRESSED CONCRETE PILES.
Construction Specifications: Latest Approved L.S. Dept. of Highw.
Std. Specs.
Design Specifications: A.A.S.H.O. Std. Specs. for Hwy. Bridges,
1955 as amended to Dec. 31, 1955.
Concrete shall be of the same strength as the concrete. The use of Light Weight
Aggregates will be permitted.
Dimensions to reinforcement are for Bar Faces.
All pile caps shall be of intermediate, structural or hard grade
4,500 P.S.I. concrete.

Each tensioning steel shall consist of 7-wire stress relieved cable strands. An initial tensile force of 13,900 pounds shall be applied to each $\frac{1}{2}$ strand, 13,000 pounds shall be applied to each $\frac{1}{4}$ strand and 10,150 pounds shall be applied to each $\frac{1}{8}$ strand. The strands are spaced as shown on the drawing. The strands pick-up lengths have been computed on basis of no tension in the concrete with an allowance of 50 % for impact and are based on careful handling. Reinforcing of pile in the filling is to be prevented until pile is in near vertical position. Pick-up points for all piles to be clearly marked on pile. Piles may be made at a Central Plant and transported to the Bridge Site in Trucks. The Contractor may use the Reinforced or Prestressed pile in his option.

DISCARDED
4/21/61
(Retraced)
R. G. Smith

DETAILS OF 12-14-16-18/20 INCH SQ. PRECAST PRESTRESSED CONCRETE PILES

11-14-61 18" A.C. PILE "ADDED & 18" A.C. PILE STRANDS USED CHANGES			11-14-61 20" P.C. PILE ADDED			L.D./S.L.B.		
E.O./L.C.Y.			GENERAL NOTES REVISED			L.B./L.B.		
7-10-59 CON. ACHES 6 BAR 1.25 K.H.T.			10-21-57 NOTES REGARDING ORDER					
8-20-59 Pile Wts for Light Wt. Conc.			AND CASTING LENGTHS					
12-28-58 REVISED CHAMBER SIZE			AND DRIVING HEADS			S.L.P./L.B.		
DATE DESCRIPTION BY			DATE DESCRIPTION BY			DESIGNED <i>P. Raymond</i> DETAILED <i>P. Raymond</i> TRACED <i>A. Chapman</i>		
REVISIONS			REVISIONS			CHECKED <i>P. Raymond</i> CHECKED <i>P. Raymond</i> CHECKED <i>P. Raymond</i>		

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