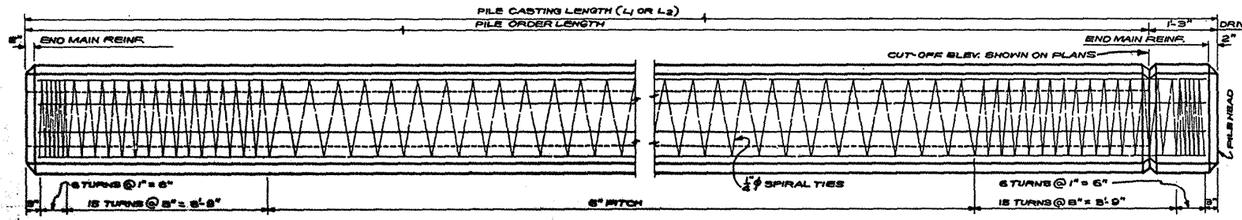
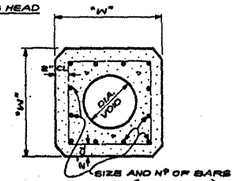
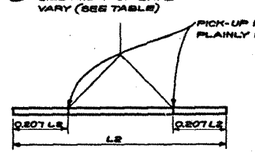
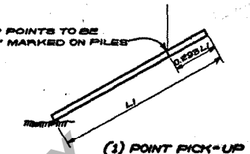
| STATE PROJECT | PARISH | SHEET Nº |
|---|---|---|
| | | |



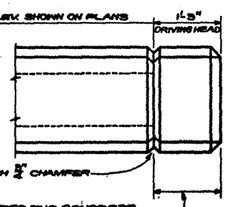



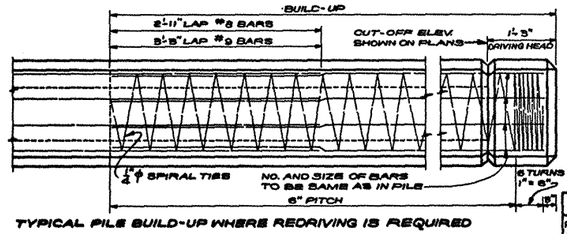

(2) POINT PICK-UP



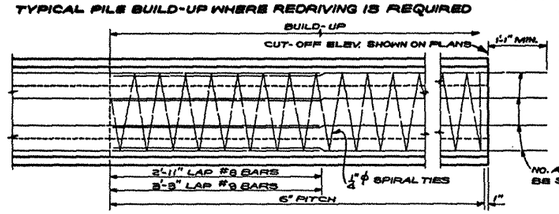

(1) POINT PICK-UP




DETAIL OF PILE HEAD




TYPICAL PILE BUILD-UP WHERE REDRIVING IS REQUIRED




TYPICAL PILE BUILD-UP WHERE REDRIVING IS NOT REQUIRED

**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.

## DETAILS OF 24-30 & 36 INCH SQ. PRECAST REINFORCED CONCRETE PILES

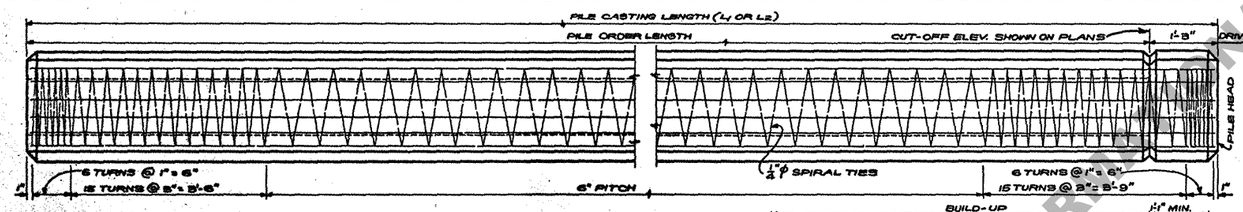
**TABLE OF PILE ELEMENTS**

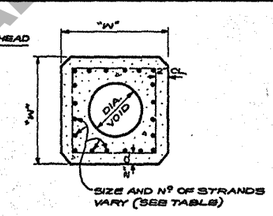
| PILE SIZES "W" IN. | DIA. VOID "D" IN. | WEIGHT PER FT. LBS. | I (TRANSF. SECTION) $IN^4$ | KD IN. | SIZE OF REINF. | NO. OF BARS EA. FACE | TOTAL NO. OF BARS | MAXIMUM PILE LENGTHS (1) PT. PICK-UP L1 (FT.) | (2) PT. PICK-UP L2 (FT.) |
|---|---|---|---|---|---|---|---|---|---|
| 24 | 12" | 322 | 17571 | 7.84 | #9 | 4 | 12 | 71'-3" | 101'-3" |
| 30 | 18" | 450 | 32724 | 9.01 | #8 | 5 | 16 | 71'-3" | 101'-3" |
| 36 | 24" | 586 | 62669 | 10.65 | #8 | 6 | 20 | 71'-3" | 101'-3" |

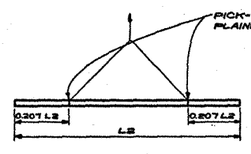
**GENERAL NOTES:** PRECAST REINFORCED CONC. PILES

CONSTRUCTION SPECIFICATIONS: LATEST APPROVED LA. DEPT. OF HWYS. STD. SPECS.
DESIGN SPECIFICATIONS: A.A.S.H.O. STD. SPEC'S. FOR HWY. BRIDGES 1953 AS AMENDED TO DEC. 31, 1955.
CONCRETE TO BE CLASS "Y" CONCRETE.
DIMENSIONS TO REINFORCING STEEL ARE TO BAR FACES.
DEFORMED 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.
1/4"ϕ SPIRAL TIES SHALL BE INTERMEDIATE, STRUCTURAL OR HARD GRADE A.S.T.M. A15.
TWO SPLICES PER BAR WILL BE PERMITTED, BUT NOT MORE THAN TWO BARS MAY BE SPLICED AT ANY SECTION AND NO TWO BARS MAY BE SPLICED IN ONE FACE AT ANY SECTION. THE SPLICES SHALL BE NOT LESS THAN 4' ON CENTERS. THE BARS SHALL BE LAPPED 35 DIAMETERS AT EACH SPLICE EXCEPT THAT CORNER BARS SHALL BE BUTTED TOGETHER IN LINE AND SPLICED WITH A BAR OF EQUAL SIZE AND NOT LESS THAN 70 DIAMETERS LONG.
ALL EXPOSED CONCRETE CORNERS TO HAVE 1/8" CHAMFER.
PICK-UP LENGTHS HAVE BEEN COMPUTED USING VALUES OF $f'_s = 18,000$ P.S.I. AND $f'_c = 1200$ 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.
PICK-UP POINTS FOR ALL PILES TO BE CLEARLY MARKED ON PILE.
THE CONTRACTOR WILL NOT BE ALLOWED TO TRANSPORT PILES IN TRUCKS. THE CONTRACTOR MAY USE THE REINFORCED OR PRESTRESSED PILE AT HIS OPTION.

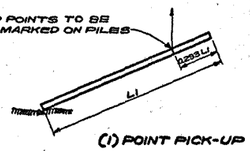
FOR INFORMATIONAL PURPOSES ONLY



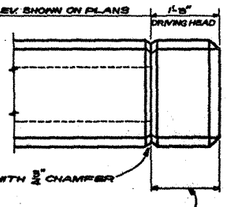



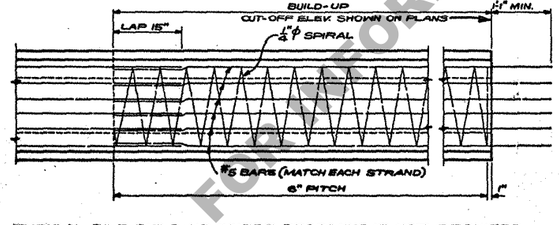

(2) POINT PICK-UP




(1) POINT PICK-UP




DETAIL OF PILE HEAD




TYPICAL PILE BUILD-UP WHERE REDRIVING IS NOT REQUIRED

**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.

## DETAILS OF 24-30 & 36 INCH SQ. PRECAST PRESTRESSED CONCRETE PILES

**TABLE OF PILE ELEMENTS**

| PILE SIZE "W" IN. | DIA. VOID "D" IN. | WEIGHT PER FT. LBS. | SECTION MODULUS $IN^3$ | SIZE OF STRANDS | NO. OF STRANDS EA. FACE | TOTAL NO. OF STRANDS | MAXIMUM PILE LENGTHS (1) PT. PICK-UP L1 (FT.) | (2) PT. PICK-UP L2 (FT.) |
|---|---|---|---|---|---|---|---|---|
| 24 | 12 | 322 | 2219 | 7/16 | 6 | 20 | 79'-3" | 101'-3" |
| 30 | 18 | 450 | 4186 | 7/16 | 9 | 32 | 95'-3" | 101'-3" |
| 36 | 24 | 586 | 6871 | 7/16 | 11 | 40 | 101'-3" | — |

**GENERAL NOTES:** PRECAST PRESTRESSED CONCRETE PILES

CONSTRUCTION SPECIFICATIONS: LATEST APPROVED LA. DEPT. OF HWYS. STD. SPECS.
DESIGN SPECIFICATIONS: A.A.S.H.O. STD. SPEC'S. FOR HWY. BRIDGES 1953 AS AMENDED TO DEC. 31, 1955.
CONCRETE SHALL BE CLASS "P" CONCRETE. THE USE OF LIGHTWEIGHT AGGREGATES SHALL BE MANDATORY.
DIMENSIONS TO REINFORCEMENT ARE TO BAR FACES.
1/4"ϕ SPIRAL TIES SHALL BE INTERMEDIATE, STRUCTURAL OR HARD GRADE A.S.T.M. A15.
PRE-TENSIONING STEEL SHALL CONSIST OF 7-WIRE STRESS RELIEVED CABLE STRANDS.
AN INITIAL TENSILE FORCE OF 18,900 LBS. SHALL BE APPLIED TO EACH 7/16" STRAND.
ALL EXPOSED CONCRETE CORNERS TO HAVE 1/8" CHAMFER.
PICK-UP LENGTHS HAVE BEEN COMPUTED ON BASIS OF NO TENSION IN THE CONCRETE WITH 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.
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 AT HIS OPTION.

VOID
REVISED NOTES

| DATE | DESCRIPTION | BY |
|---|---|---|
| | REVISIONS | |

STANDARD PLAN
**24-30 AND 36 INCH PRECAST CONCRETE PILES (REINFORCED OR PRESTRESSED)**
DATED OCT. 7 1957

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

| | | |
|---|---|---|
| DESIGNED S.L.P. | DETAILED Acevedo | TRACED A. Chapman |
| CHECKED M.G. CRANEY | CHECKED S.L.P. | CHECKED S.L.P. |

BRIDGE DESIGN SECTION