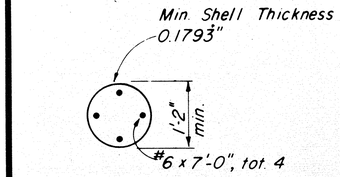
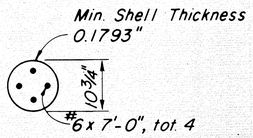
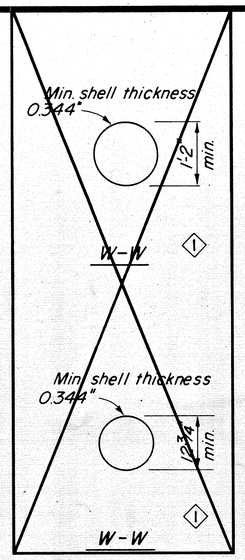


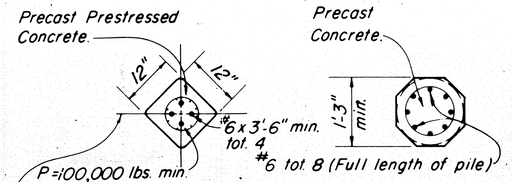
U-U

NOTE
When "ALTERNATIVE U" is driven with mandrel, shell thickness may be reduced to 0.134"

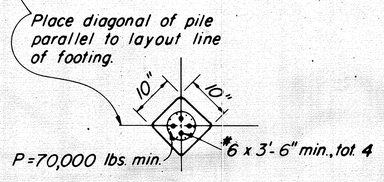


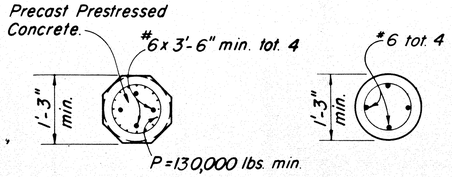
U-U



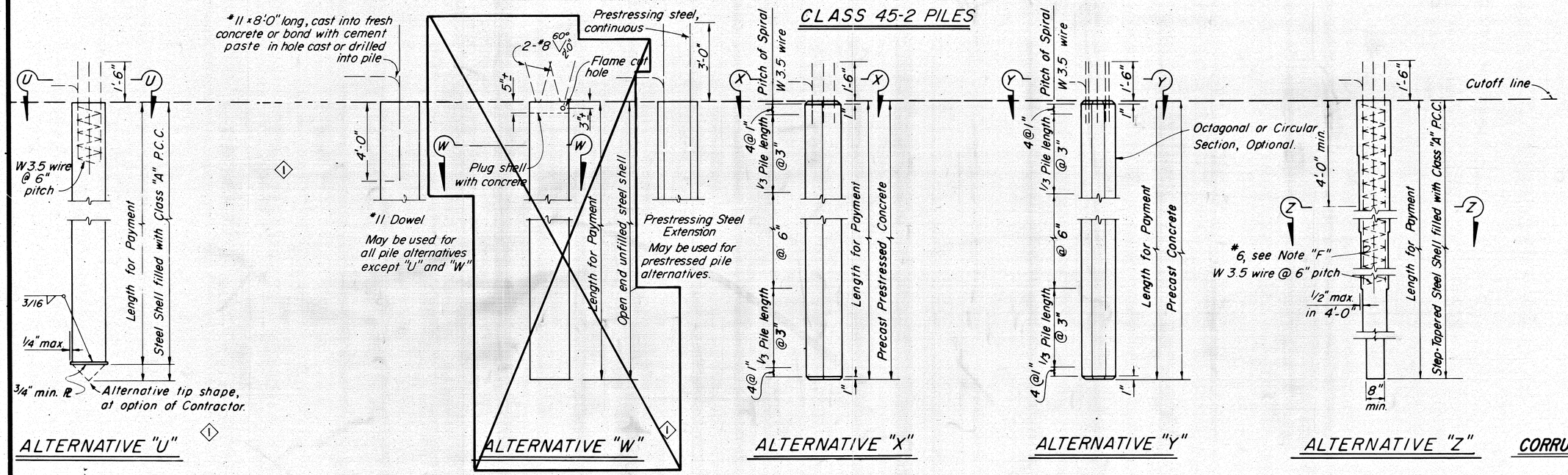


CLASS 45-1 PILES





CLASS 45-2 PILES



PRECAST PRESTRESSED PILES:
P = Prestressing Force (After losses)
Concrete Strength: f'c @ 28 days = 6,000 p.s.i. (Alternative "X")
4,500 p.s.i. (Alternative "Y")

If section used is larger than the min. section shown, then "P" shall provide 700 psi min.

NOTE F: In Alternative "Z" the No. 6 bars shall extend to:
1. Bottom of pile for bridges over water courses.
2. 12'-0" below the lowest of the following for bridges not over water course.
   a. Bottom of footing
   b. Top of final ground surface.
   c. Top of original ground surface when holes are drilled through embankment constructed by Contractor.
   d. Bottom of pre-drilled holes greater than pile diameter.

NOTES: Class 45-1 piles may be substituted for Class 45-2.
A 10" minimum diameter pipe extension (thickness = 0.1793" min.) may be used at the tip of Alternative "Z" when taper is 30' or more in length.
All dowels or bars extending into pier footing shall be hooked.

NOTES: (Cont.)
Cement for concrete piling shall be Type V
Alternative "W" piles shall not be considered applicable to the project.

DESIGN LOADING = 45 TONS

ORANGE COUNTY ROAD DEPARTMENT
ADAPTED FROM STATE STANDARD PLANS
MICHELSON DRIVE BRIDGE (SD-25) ACROSS SAN JOAQUIN CHANNEL
PILE DETAILS
SCALE None
SHEET BR2-4 OF 7