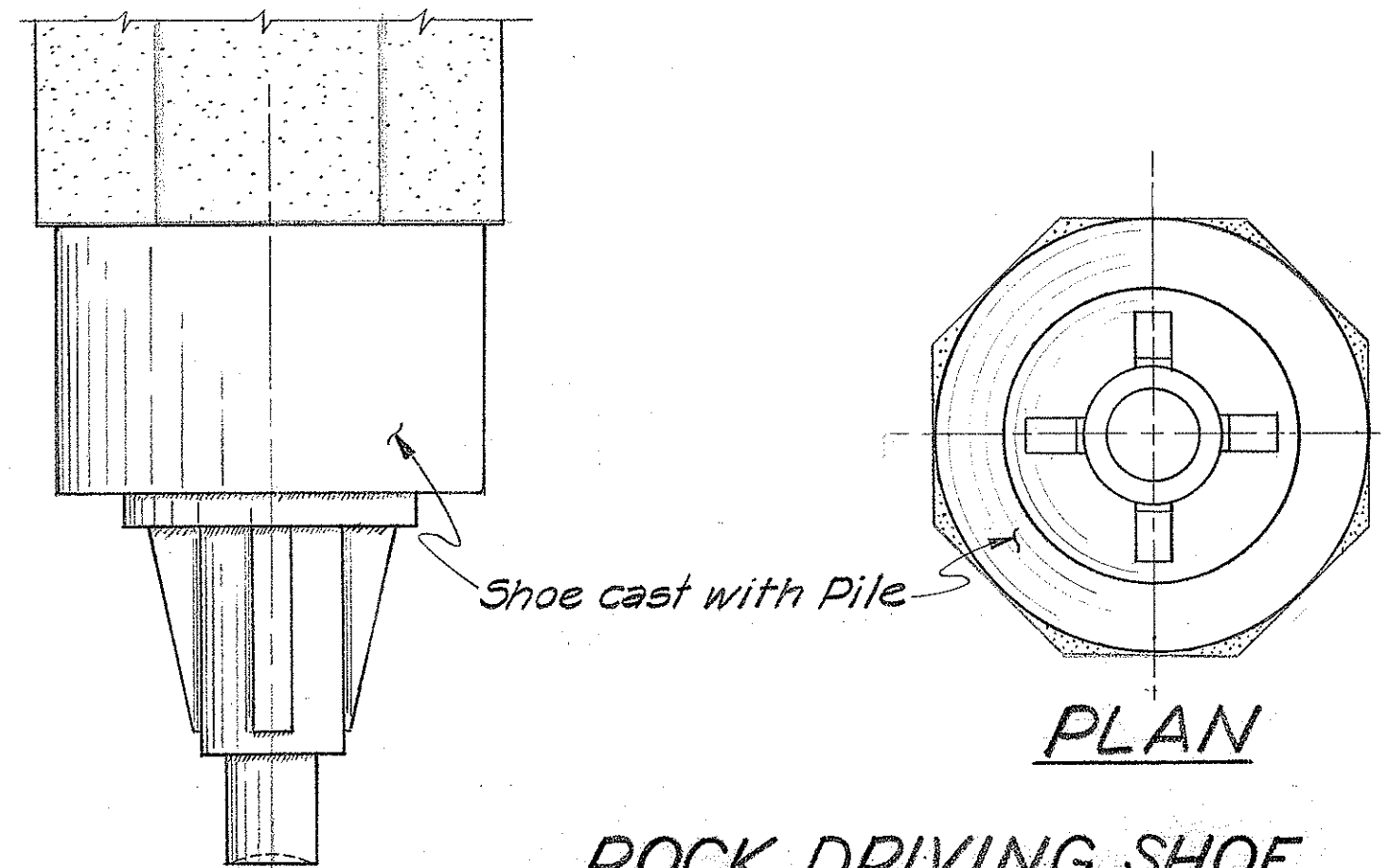


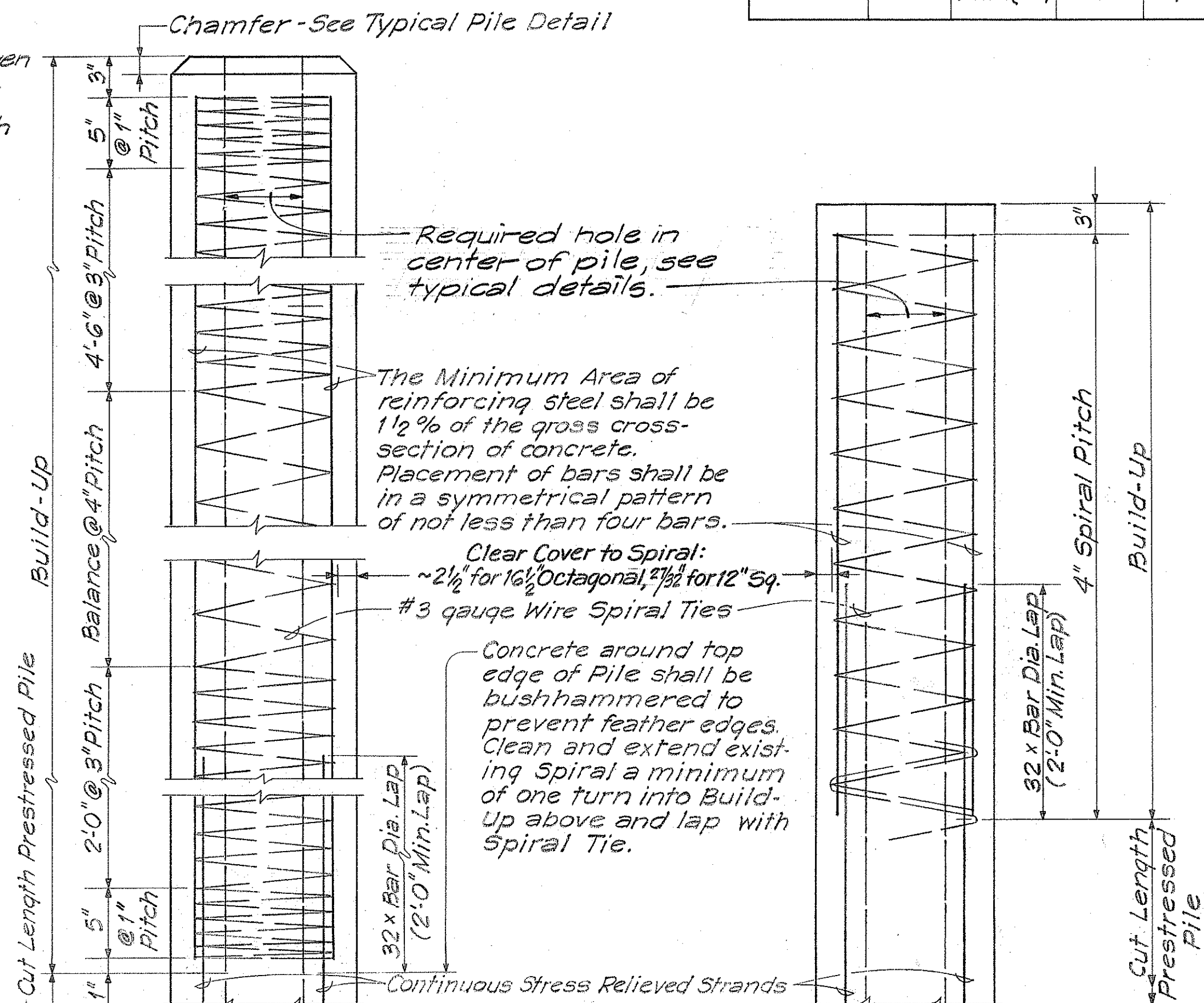
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H-1(85)	1970	7	38

Grind Strands
Flush With Pile
Head & Pile Tip

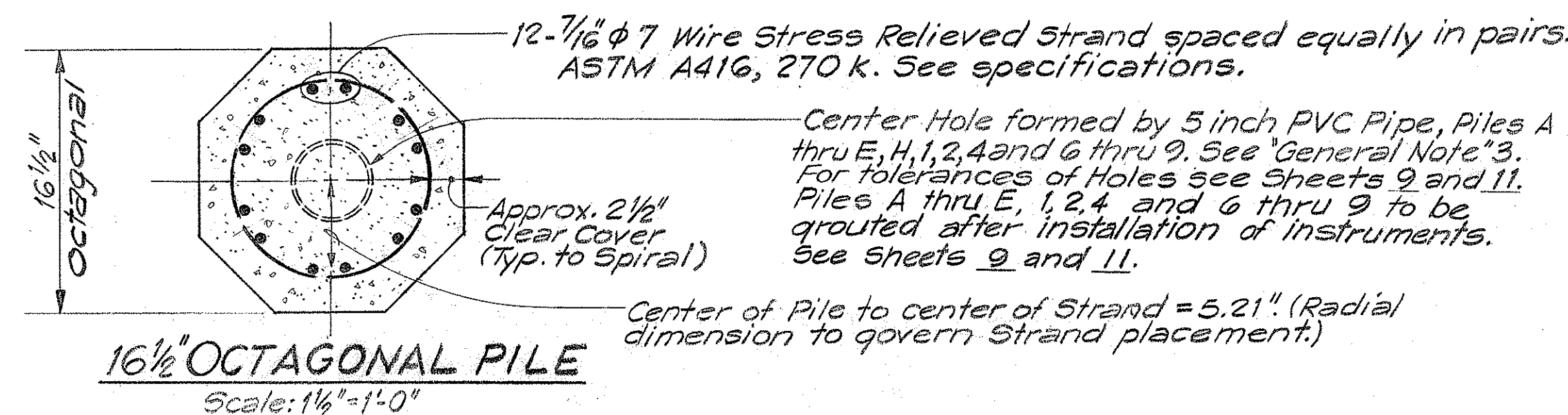


ROCK DRIVING SHOE
TO BE USED ON MECHANICALLY
SPliced PILES ONLY.
N.T.S.

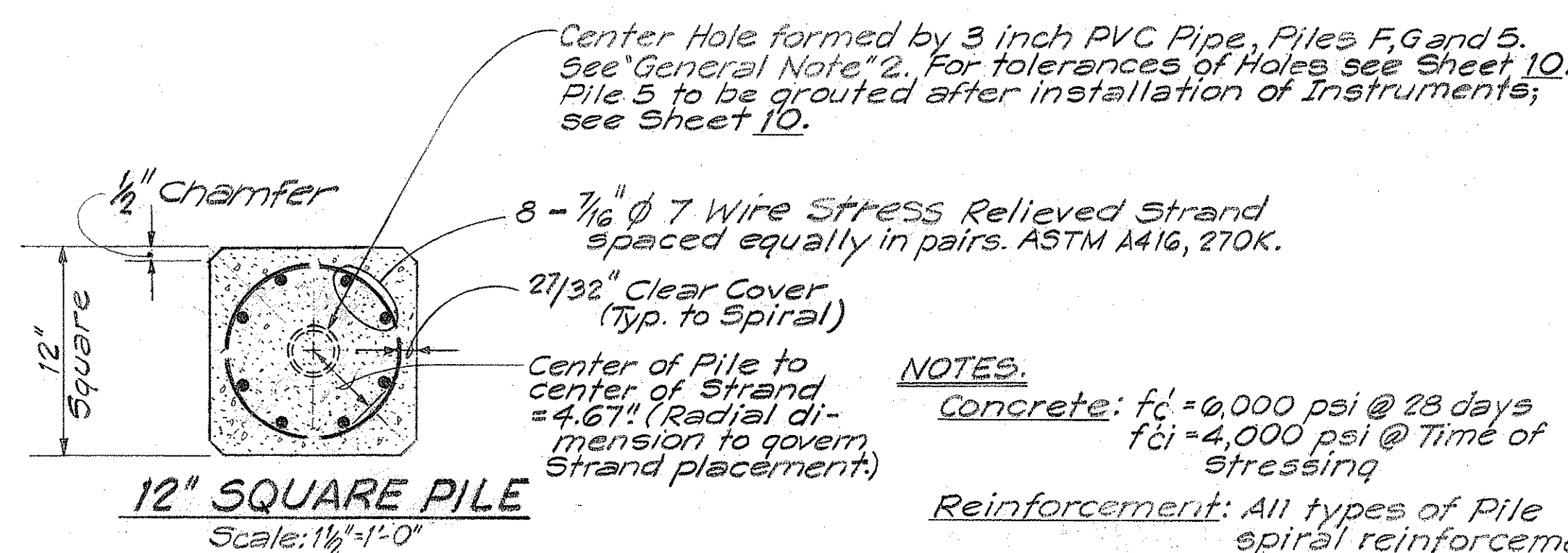
Note: Concrete in pile build-ups w/out driving shall be Class A. Concrete in pile build-ups with driving shall have a min. comp. cyl. strength f'_c of 6000 psi at 28 days. Build-ups may be driven if the specimen of concrete from which the piles were poured develops a strength of at least 5500 psi, but not earlier than 21 days. Pile build-ups will be made only in the event of damage during driving, i.e., Pile will never be over-driven. No Pile tips will be driven below El. -215 (-225 for Piles 3 & J). If a build up is required because of damage to a Pile, the expense of that build up shall be the Contractors.



TYPICAL PILE BUILD-UP DETAILS
N.T.S.

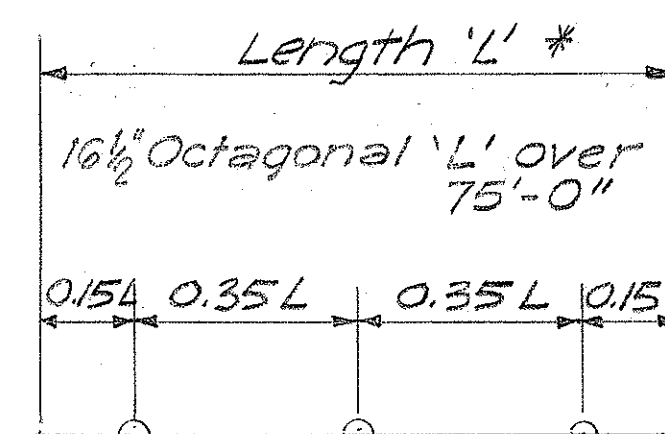
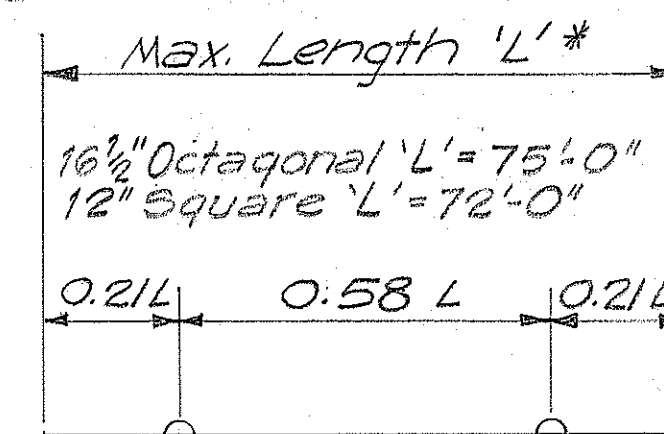
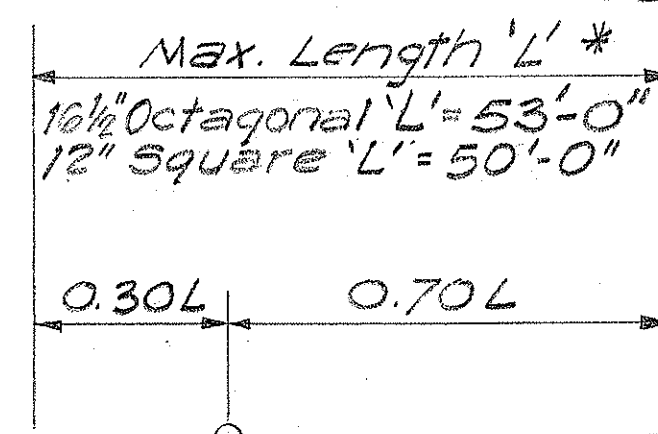


16 1/2" OCTAGONAL PILE
Scale: 1 1/2" = 1'-0"

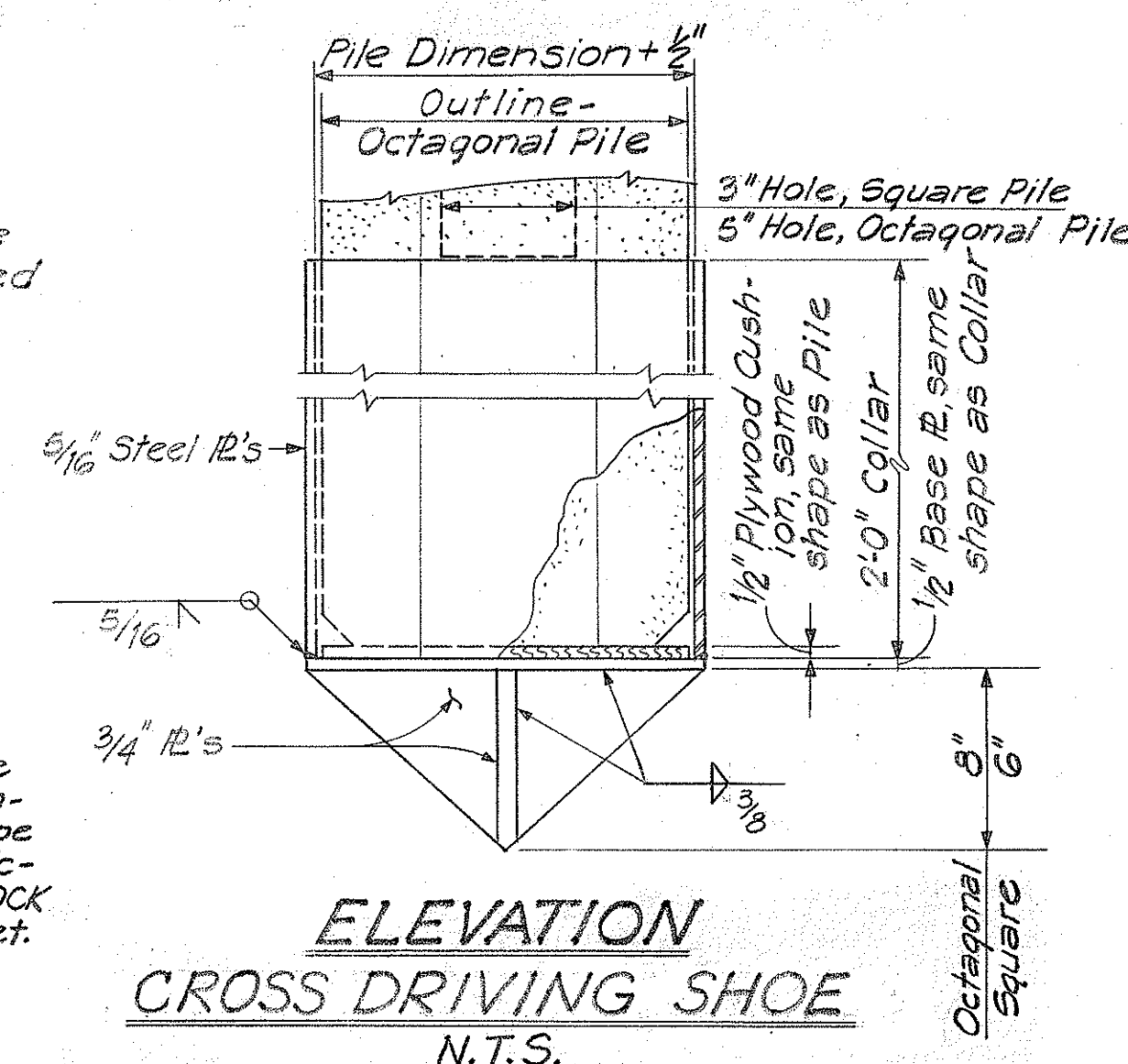


12" SQUARE PILE
Scale: 1 1/2" = 1'-0"

TYPICAL SECTIONS THRU PILES
Scale: 1 1/2" = 1'-0"



CROSS DRIVING SHOE
N.T.S. NOTE:



ELEVATION CROSS DRIVING SHOE
N.T.S.

GENERAL NOTES:

- Work of cutting off prestressed concrete piles or concrete build-ups shall be performed in such a manner as to avoid spalling or damaging the pile below cut-off. Special precautions shall be taken to prevent damage to instrument cables and tubes during cutting off or building up piles. In case of such damage the pile shall be replaced or repaired by the Contractor at his expense as directed by the Engineer.
- 3 inch PVC Pipe shall be Schedule 40 (3.500" O.D., 3.063" I.D.) Rigid, PVC Pipe with Socket Couplings.
- 3 inch PVC Pipe shall be Schedule 40 (5.563" O.D., 5.047" I.D.) Rigid, PVC Pipe with Socket Couplings.

*The Length 'L' is The Distance, End-to-End of Pile Before Cut-off

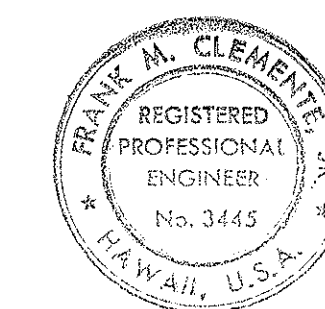
1-POINT PICK-UP

NOTE:

Unless special lifting devices are attached for pick-up points, pick-up points shall be plainly marked on all piles after removal of the forms, and all lifting shall be done at these points. The use of special embedded or attached lifting devices, the employment of other pick-up points, or any other method of pick-up shall be subject to approval by Engineer.

2-POINT PICK-UP

3-POINT PICK-UP

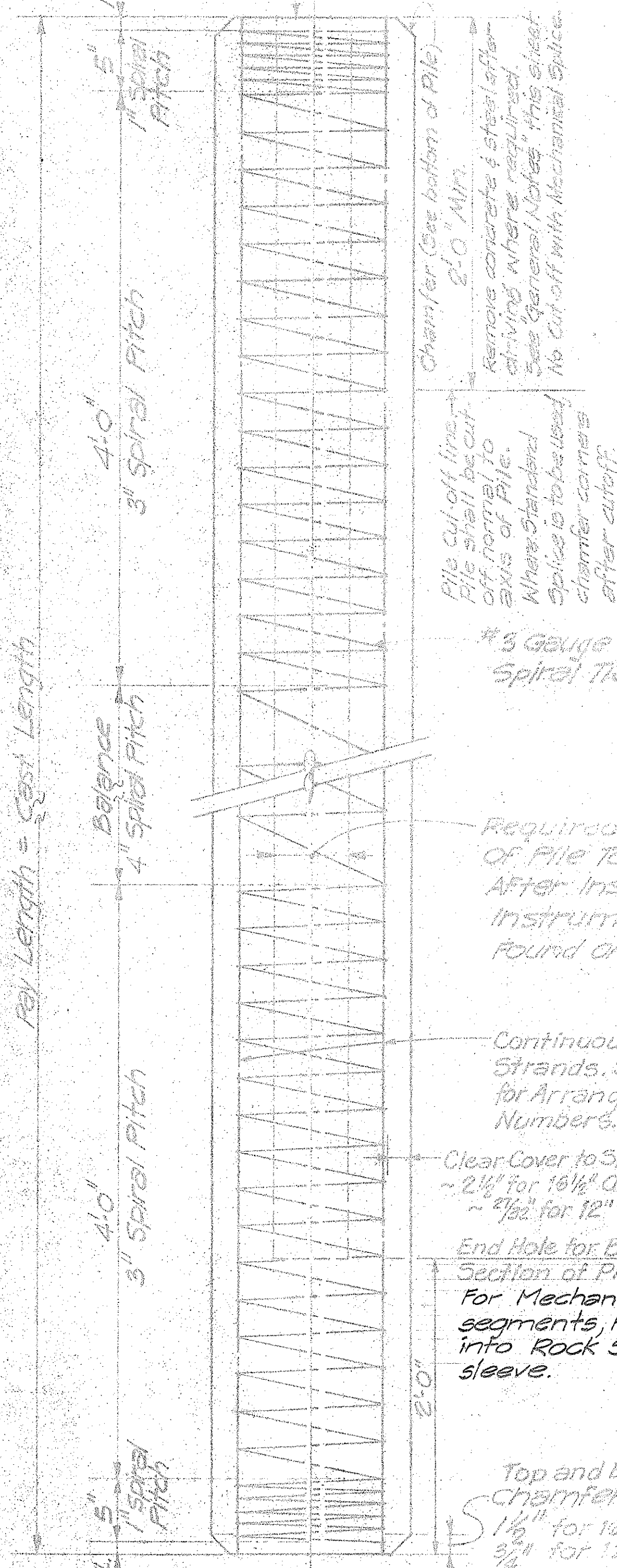


THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
Frank A. Clemente

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
KEEHI INTERCHANGE
FIELD TESTING PROGRAM
TYPICAL PILE DETAILS FOR
12" SQUARE & 16 1/2" OCTAGONAL
PILES
INTERSTATE ROUTE H-1
PROJECT NO. I-H-1(85)
SCALE: AS SHOWN DATE: 2/21/70
SHEET No. 7 OF 35 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H-1(85)	1970	7	38

Grind Strands
Flush With Pile
Head & Pile Tip



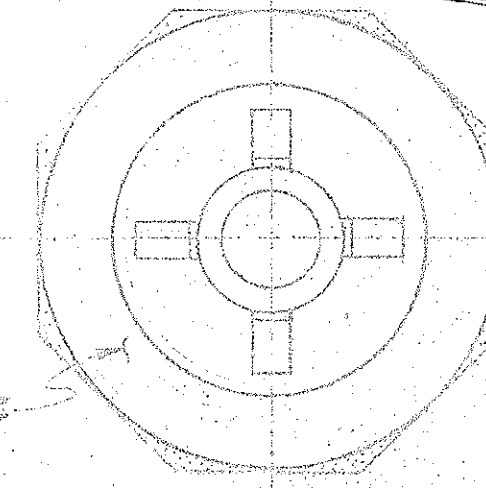
ELEVATION

ROCK DRIVING SHOE

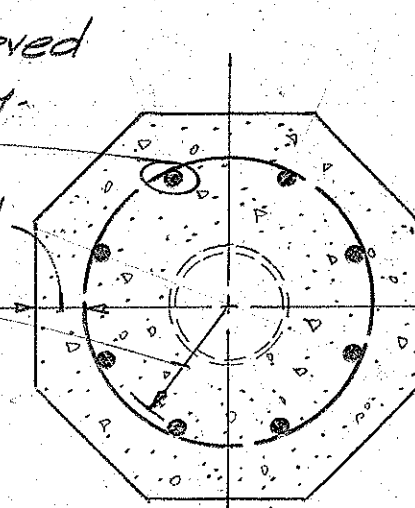
TO BE USED ON MECHANICALLY
SPICED PILES ONLY.
N.T.S.

8-1/2" Wire Stress Relieved
Strands spaced equally.
ASTM A416, 270 k.

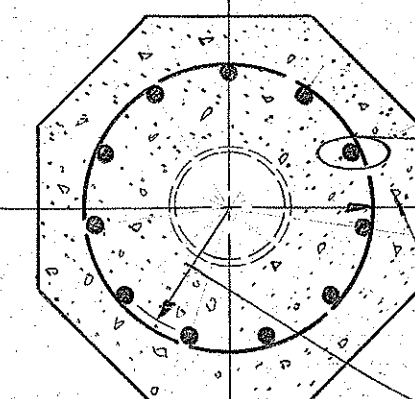
Approx. 2 1/2" Clear Cover to Spiral
5.21" Radial Dim.



PLAN



OR



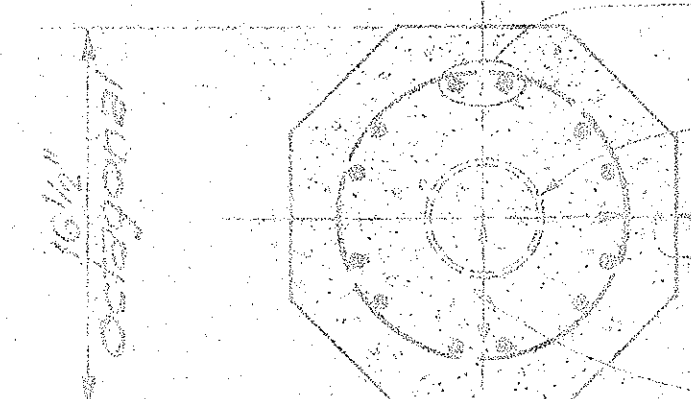
Note: Concrete in pile build-ups
without driving shall be Class A.
Concrete in pile build-ups with
driving shall have a min. comp.
cyl. strength of 6000 psi at
28 days. Build-ups may be driven
if the specimen of concrete
from which the piles were
poured develops a strength
of at least 5500 psi, but
not earlier than 21 days.
Pile build-ups will be made
only in the event of damage
during driving, i.e. Pile will
never be over-driven. No Pile
tips will be driven below El. -215
(-225 for Piles 3 & 4).
If a build up is required be-
cause of damage to a Pile, the
expense of that build up shall
be the Contractor's.

11-7/16" Wire Stress Relieved
Strands spaced equally.
ASTM A416, 270 k.

Approx. 2 1/2" Clear Cover (Typ. to Spiral)
5.21" Radial dimension

16 1/2" OCTAGONAL PILE 1

Scale: 1 1/2" = 1'-0"



16 1/2" OCTAGONAL PILE

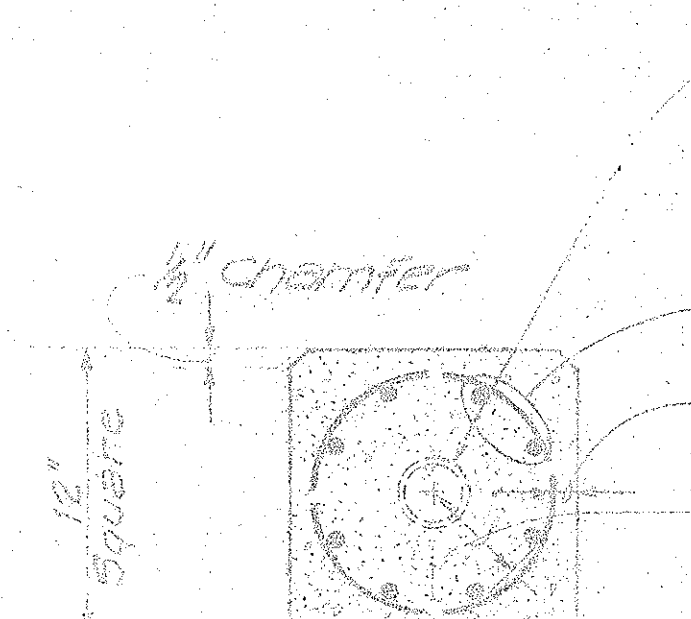
Scale: 1 1/2" = 1'-0"

12-7/16" Wire Stress Relieved Strands spaced equally in pairs.
ASTM A416, 270 k. See specifications.

Center holes formed by 3 inch PVC Pipe and C0355-1
5" Corrugated Plastic Pipe (See Sht. 59). Piles A
thru E, H, I, J, K and L thru S. See General Notes.
For tolerances of holes see Sheet 59 and 60.
Piles A thru E, H, I, J, K and L thru S to be
grouted after installation of instruments.
See Sheet 59 and 60.

Approx. 2 1/2" Clear Cover
(Typ. to Spiral)

Center of Pile to center of Strand = 5.21" (Radial
dimension to govern Strand placement)



12" SQUARE PILE

Scale: 1 1/2" = 1'-0"

Center Hole formed by 3 inch PVC Pipe, Piles F, G and S.
See General Note 2. For tolerances of holes see Sheet 59.
Pile S to be grouted after installation of instruments.
See Sheet 60.

8-7/16" Wire Stress Relieved Strands
spaced equally in pairs. ASTM A416, 270 k.

2 1/2" Clear Cover
(Typ. to Spiral)

Center of Pile to
center of Strand
= 4.67" (Radial di-
mension to govern
Strand placement)

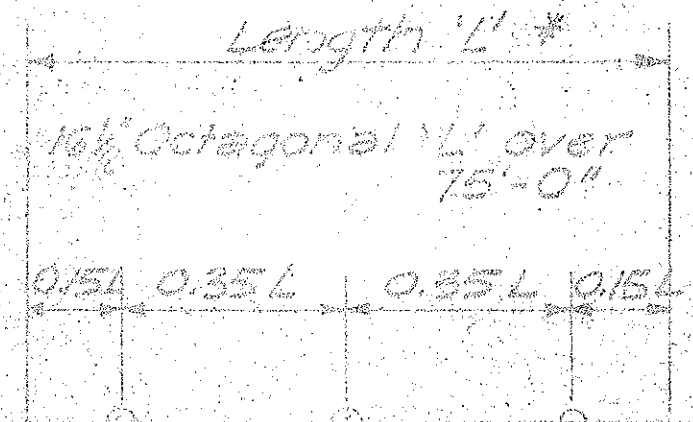
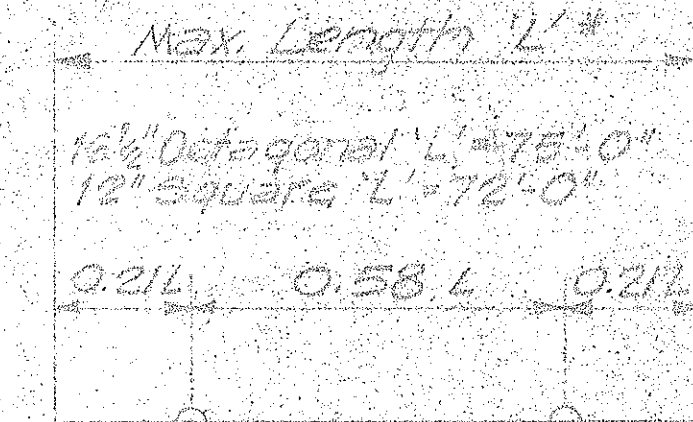
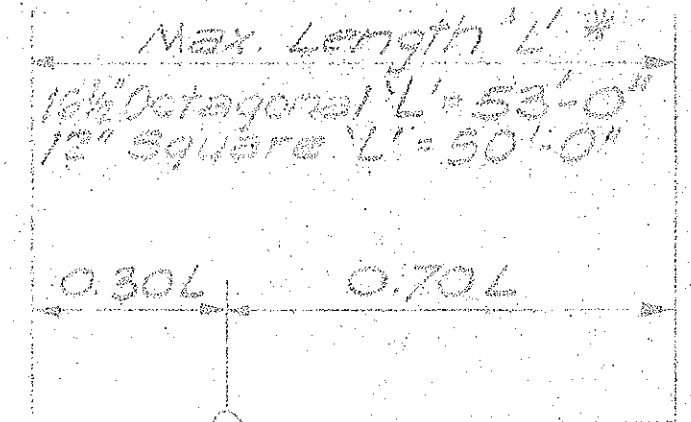
NOTES

Concrete: $f'_c = 6,000$ psi @ 28 days
 $f_{ci} = 4,000$ psi @ Time of
Stressing

Reinforcement: All types of Pile
spiral reinforcement
shall be Cold Drawn
Steel Wire ASTM A62

TYPICAL SECTIONS THRU PILES

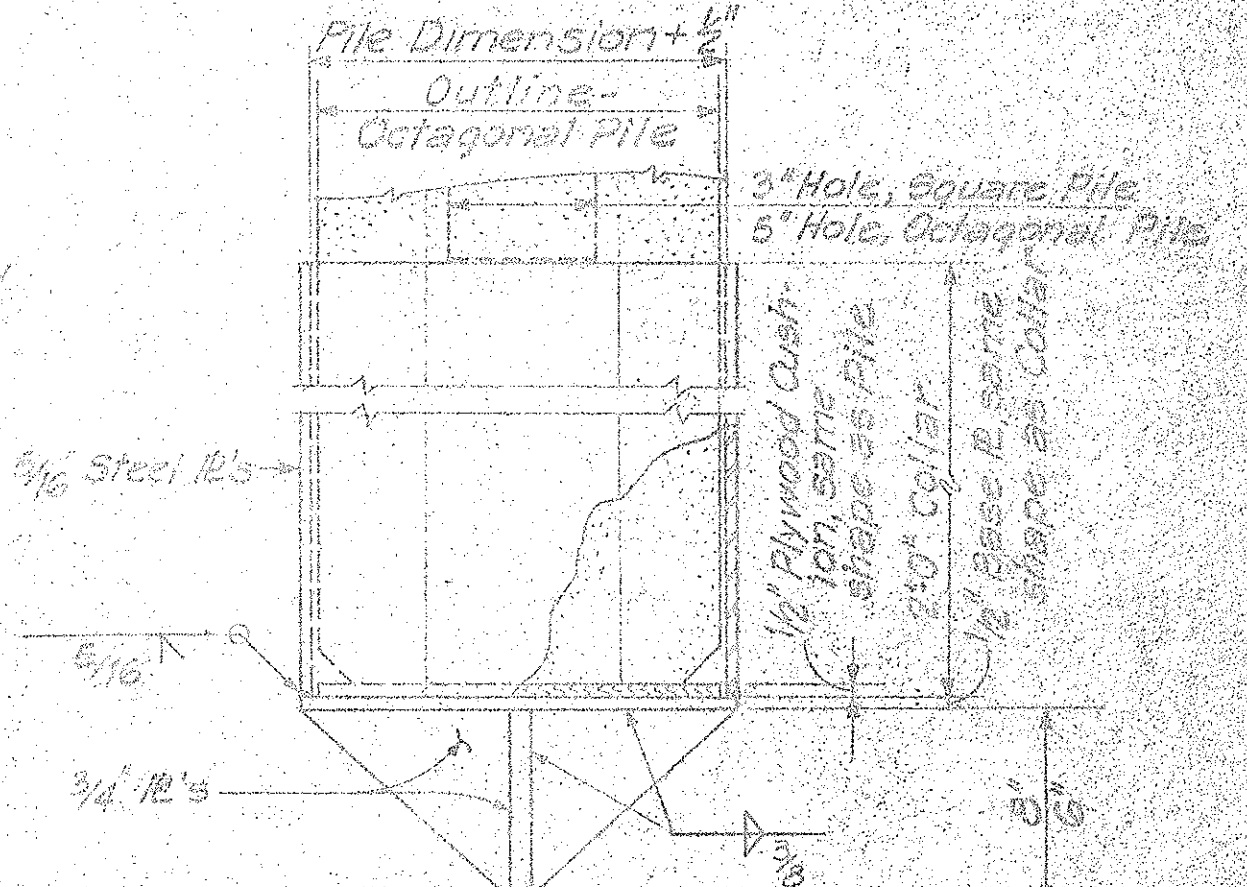
Scale: 1 1/2" = 1'-0"



PLAN CROSS DRIVING SHOE

N.T.S. NOTE

This Driving Shoe is to be
used with Dowel and Stan-
dard Spliced Piles. For Shoe
to be used with Mechanic-
ally Spliced Piles see "ROCK
DRIVING SHOE" this sheet.



ELEVATION CROSS DRIVING SHOE

N.T.S.

GENERAL NOTES

1. Work on cutting off prestressed concrete piles or concrete
build-ups shall be performed in such a manner as to avoid
spalling or damaging the pile below cut-off. Special precautions
shall be taken to prevent damage to instrument cables and
tubes during cutting off or building up piles. In case of such
damage the pile shall be replaced or repaired by the Contractor
at his expense as directed by the Engineer.
2. 3 inch PVC Pipe shall be Schedule 40 (3.530" O.D., 3.063" I.D.) Rigid, PVC Pipe with
Socket Couplings.
3. 5 inch PVC Pipe shall be Schedule 40 (5.363" O.D., 5.047" I.D.) Rigid, PVC Pipe with
Socket Couplings.

*The Length 'L' is The Distance, End-to-End of Pile Before Cut-off

1-POINT PICK-UP

2-POINT PICK-UP

3-POINT PICK-UP

NOTE

Unless special lifting devices are attached for pick-up points, pick-up points shall be plainly
marked on all piles after removal of the forms, and all lifting shall be done at these
points. The use of special embedded or attached lifting devices, the employment of other
pick-up points, or any other method of pick-up shall be subject to approval by Engineer.

Revision: Pile 1 reinforcement pattern
changed.



THIS WORK WAS PREPARED BY
THIS OFFICE UNDER MY SUPERVISION
Signature: [Signature]

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
KEEHI INTERCHANGE
FIELD TESTING PROGRAM
TYPICAL PILE DETAILS FOR
12" SQUARE & 16 1/2" OCTAGONAL
PILES
INTERSTATE ROUTE H-1
PROJECT NO. I-H-1(85)
SCALE: AS SHOWN DATE: 9/15/70
SHEET NO. 7 OF 36 SHEETS