**Prestressing Strands**

**3" Cover (Typ.)**

**11'-0" Solid Section**

**Sprial Ties**

**3" x 3" Chamfer or 3/4" x 3/4" Chamfer**

**1" x 1" Chamfer or 1/2" x 1/2" Chamfer**

**4" Pitch**

**4 Turns @ 1/2" Pitch**

**4 Turns @ 1/3" Pitch**

**16 Turns @ 2" Pitch**

**16 - No. 6 CFRP Bars (Full length)**

**0.2" Ø CFRP Strand Spiral Ties**

**0.2" Ø CFRP Strand**

**10 Diagonal Ties @ 6" (Ties not shown in Elevation)**

**11'-0" Solid Section**

**3" Cover (Typ.)**

**3" Cover (Typ.)**

**0.2" Ø CFRP Diagonal Ties**

**(See Nondrivable Unforeseen Reinforced Precast Pile Build-Up Detail)**

**0.2" Ø DIAGONAL TIE DETAIL**

1. Any of the given Strand Patterns may be utilized. The strands shall be located as follows:
   - Place one strand at each corner and place the remaining strands equally spaced between the corner strands. The total strand pattern shall be concentric with the nominal concrete section of the pile.
   - CONTRACTOR OPTION: The 30" pile may be cast SOLID by omitting the 18" Ø void. In this event, the Contractor shall submit calculations for approval and a proposed strand configuration that provide net prestressing after losses equal to 1000 psi. Alternate configurations for the Diagonal Ties, to maintain the position of the 4 ~ #6 Bars, may be approved by the Engineer.
   - Work this Index with Index 455-101 - Typical Details and Notes for Square CFRP & SS Prestressed Concrete Piles and Index 455-102 - Square CFRP & SS Prestressed Concrete Pile Splices.

**SECTION B-B**

(See Pile Splice Reinforcement Details)

**SECTION C-C**

(See Pile Splice Reinforcement Details)

**SECTION D-D**

(See Nondrivable Unforeseen Reinforced Precast Pile Build-Up Detail)

**SECTION E-E**

(See Drivable Preplanned Prestressed Precast Pile Splice Detail)

**SECTION F-F**

(See Drivable Preplanned Prestressed Precast Pile Splice Detail)

**CFRP PILE SPICE DETAILS**

20 ~ No. 6 CFRP 7-Strand at 38 kips
20 ~ 1/2" Ø, CFRP Single-Strand at 37 kips

20 ~ 0.6" Ø, CFRP 7-Strand at 38 kips
20 ~ 1/2" Ø, CFRP Single-Strand at 37 kips
SS PILE SPlice DETAILS

SS PREStRESSED Pile DETAILS

SECtion D-D

(See Nondrivable Unforeseen Reinforced Precast Pile Build-Up Detail)

SECtion F-F

(See Drivable Preplanned Prestressed Precast Pile Splice Detail)

** W4.0 SS Diagonal Ties
6" ctrs. (See Detail)

W4.0 SS Spiral Ties

See Strand Pattern

** Omit 4 ~ No. 8 Bars and Diagonal Ties in pre-planned mechanical splice.

3" Cover (Typ.)

12 - No. 10 Dowers (Full Length)

12 - No. 10 Dowers

12 - No. 10 Bars

Spiral Ties

3" Cover (Typ.)

3' Pile

Prestressing Strands

30°

18" Ø Void

W4.0 Spiral Ties

3" Cover (Typ.)

W4.0 Diagonal Tie Detail

** W4.0 SS Diagonal Ties
6" ctrs. (See Detail)

No. 8 Bars (6'-0" long)

90°

135°

32 ~ ½" Ø, HSSS at 26 kips

Notes:
1. Any of the given Strand Patterns may be utilized. The strands shall be located as follows:
   Place one strand at each corner and place the remaining strands equally spaced between the corner strands. The local strand pattern shall be concentric with the nominal concrete section of the pile.
2. CONTRACTOR OPTION: The 30" pile may be cast SOLID by omitting the 18" Ø void. In this event, the Contractor shall submit calculations for approval and a proposed strand configuration that provide net prestressing after losses equal to 1000 psi. Alternate configurations for the Diagonal Ties, to maintain the position of the 4 ~ #8 Bars, may be approved by the Engineer.
3. Work this Index with Index 455-101 - Typical Details and Notes for Square CFRP & SS Prestressed Concrete Piles and Index 455-102 - Square CFRP & SS Prestressed Concrete Pile Splices.

30°

18" Ø Void

W4.0 Spiral Ties

3" Cover (Typ.)

See Strand Pattern

SECTION E-E

(See Drivable Prestressed Precast Pile Splice Detail)

SECTION D-D

(See Nondrivable Unforeseen Reinforced Precast Pile Build-Up Detail)

SECTION F-F

(See Drivable Preplanned Prestressed Precast Pile Splice Detail)

W4.0 Spiral Ties

3" Cover (Typ.)

12 - No. 10 Dowers (Full Length)

12 - No. 10 Dowers

12 - No. 10 Bars

Spiral Ties

3" Cover (Typ.)

3' Pile

Prestressing Strands

30°

18" Ø Void

W4.0 Spiral Ties

3" Cover (Typ.)

W4.0 Diagonal Tie Detail

** W4.0 SS Diagonal Ties
6" ctrs. (See Detail)

No. 8 Bars (6'-0" long)

90°

135°

32 ~ ½" Ø, HSSS at 26 kips

Notes:
1. Any of the given Strand Patterns may be utilized. The strands shall be located as follows:
   Place one strand at each corner and place the remaining strands equally spaced between the corner strands. The local strand pattern shall be concentric with the nominal concrete section of the pile.
2. CONTRACTOR OPTION: The 30" pile may be cast SOLID by omitting the 18" Ø void. In this event, the Contractor shall submit calculations for approval and a proposed strand configuration that provide net prestressing after losses equal to 1000 psi. Alternate configurations for the Diagonal Ties, to maintain the position of the 4 ~ #8 Bars, may be approved by the Engineer.
3. Work this Index with Index 455-101 - Typical Details and Notes for Square CFRP & SS Prestressed Concrete Piles and Index 455-102 - Square CFRP & SS Prestressed Concrete Pile Splices.