

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 1.6  
PJACK (KIPS): 44  
Approval 1/25/1989  
Concrete strength: 3500 psi  
TENDON SIZE: 1  
STRAND DIAMETER: 0.6"  
ULTIMATE (KIPS): 58.6

**WEDGES**

WEDGE LENGTH: 1.865'  
WEDGE ANGLE: 7 Deg 5'+5'  
WEDGE INSIDE DIAMETER:  
Material  
AISI 11L17 R15N89-93  
RA 79-83

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 2 1/4" DIA X 2.5"	C 1040-1045	1/25/89
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.15"      STRAND HOLE DIA: 0.68"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 4"X4"X5/8"	ASTM A-36	1/25/1989
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 0.750"      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 1.5"  
PJACK (KIPS): 31  
Approval 1/25/1989  
Concrete strength: 3500 psi  
TENDON SIZE: 1  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 41.3

**WEDGES**

WEDGE LENGTH: 1.46"  
WEDGE ANGLE: 7 Deg 10'  
WEDGE INSIDE DIAMETER:  
Material  
AISI 11L17 Rc 59-63

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 1 3/4" DIA X 2.5"	C1040 -1045	1/25/89
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.035"      STRAND HOLE DIA: 0.57"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 3 1/2" X 3 1/2" X 1/2"	ASTM A-36	1/25/1989
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 0.625"      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 3.5  
PJACK (KIPS): 93  
Approval  
Concrete strength: 3500 psi  
TENDON SIZE: 3  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 123.9

**WEDGES**

WEDGE LENGTH: 1.46"  
WEDGE ANGLE: 7 Deg 10'  
WEDGE INSIDE DIAMETER:  
Material  
AISI 11L17 Rc 59-63

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 3 1/2" DIA X 23/8"	C1045 H.R.	12/18/85
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.035"      STRAND HOLE DIA: 0.63"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 5 1/2" Square x 5/8"	ASTM A-36	2/14/1985
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 2".0      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 6".0	24 Gage Galvanized	2/14/1985
#2: 6".0	Polyethylene .06"	2/14/1985
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 1-3/4" ID	26 Gage	2/14/1985
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: C4.6  
PJACK (KIPS): 176

Approval  
Concrete strength: 3500 psi

TENDON SIZE: 4  
STRAND DIAMETER: 0.6"  
ULTIMATE (KIPS): 234.4

---

**WEDGES**

WEDGE LENGTH: 1.80"  
WEDGE ANGLE: 7 Deg 10'  
WEDGE INSIDE DIAMETER:

Material  
AISI 11 L 17 RA 79-83

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 3 1/8 "X 4 1/4"X 2 1/2"	ASTM A-536 80-55-06	8/22/89
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.16"      STRAND HOLE DIA: 0.70"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 4 5/8" X 10.5" X 5/16"	ASTM A-536 80-55-06	8/22/1989
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 1 7/8 X 3 3/8      Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 4" ID		
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 4.5  
PJACK (KIPS): 124  
Approval  
Concrete strength: 3500 psi  
TENDON SIZE: 4  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 165.2

**WEDGES**

WEDGE LENGTH: 1.46"  
WEDGE ANGLE: 7 Deg 10'  
WEDGE INSIDE DIAMETER:  
Material  
AISI 11L17 Rc 59-63

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 31/2" DIA x 23/8"	C1045 H.R. Normalized	12/18/85
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.035"      STRAND HOLE DIA: 0.63"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 61/4"Square x 7/8"	ASTM A-36	2/14/1985
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 2-3/8"      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 6.0"	24 Gage Galvanized	2/14/1985
#2: 6.0"	Polyethylene .06"	2/14/1985
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 1-3/4" ID	26 Gage	2/14/1985
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: MP-7.5 / 4.6  
PJACK (KIPS): 176  
TENDON SIZE: 4  
Approval 12/17/2009  
Concrete strength: 3500 psi  
STRAND DIAMETER: 0.6"  
ULTIMATE (KIPS): 234

**WEDGES**

WEDGE LENGTH: 1.80" (2 or 3 part)  
WEDGE ANGLE: 6° 55'  
WEDGE INSIDE DIAMETER: 0.62"  
Material  
AISI 12L25 or 11L17

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 4.5" DIA. x 2.75"	ASTM 536 Gr 80-55-06	12/17/09
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 6° 55'      WEDGE HOLE DIA: 1.16"      STRAND HOLE DIA: 0.68"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 6.5" Square x 5.25" (MP)	ASTM-A536 Gr 80-55-06	12/17/1996
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 2-15/16"      Spiral size and turns:

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 5.5  
PJACK (KIPS): 155  
Approval  
Concrete strength: 3500 psi  
TENDON SIZE: 5  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 206.5

**WEDGES**

WEDGE LENGTH: 1.46"  
WEDGE ANGLE: 7 Deg 10'  
WEDGE INSIDE DIAMETER:  
Material  
AISI 11L17 Rc 59-63

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 4" DIA x 23/8"	C1045 H.R. Normalized	12/18/85
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.035"      STRAND HOLE DIA: 0.63"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 63/4" Square x 7/8"	ASTM A-36	2/14/1985
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 2-5/8"      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 6.0"	24 Gage Galvanized	2/14/1985
#2: 6.0"	Polyethylene .06"	2/14/1985
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 2-1/16 "ID	26 Gage	2/14/1985
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 7.5  
PJACK (KIPS): 217  
Approval  
Concrete strength: 3500 psi  
TENDON SIZE: 7  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 289.1

**WEDGES**

WEDGE LENGTH: 1.46"  
WEDGE ANGLE: 7 Deg 10'  
WEDGE INSIDE DIAMETER:  
Material  
AISI 11L17 Rc 59-63

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 4 1/2" DIA x 23/8"	C1045 H.R. Normalized	12/18/85
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.035"      STRAND HOLE DIA: 0.63"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 8 1/4" Square x 1 1/4"	ASTM A-36	10/29/1985
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 2-7/8"      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 8.0"	24 Gage Galvanized	10/29/1985
#2: 8.0"	Polyethylene .06"	10/29/1985
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 2-1/16" ID	26 Gage	10/29/1985
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 7.5 TD  
PJACK (KIPS): 216.8  
TENDON SIZE: 7  
STRAND DIAMETER: 1/2"  
Approval  
Concrete strength: 3500 psi  
ULTIMATE (KIPS): 289.1

**WEDGES**

WEDGE LENGTH: 1.46"  
WEDGE ANGLE: 7 Deg 10' +5'  
WEDGE INSIDE DIAMETER:  
Material  
AISI 11 L 17 Rc 59-63

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 6" Square x 2 1/2"(w/4 hole )	C1040-1045 H.R. Plate	3/16/92
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.00"      STRAND HOLE DIA: 0.62"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 6" Square X 1 1/2"(Retainer PL)	ASTM A-36	3/16/1992
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 4 1/2"      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY :	AVAR		TENDON SIZE:	7
SYSTEM NAME:	ACS 7.5	Approval	STRAND DIAMETER:	1/2"
PJACK (KIPS):	217	Concrete strength:	3500 psi	ULTIMATE (KIPS): 289.1

---

**WEDGES**

WEDGE LENGTH:	1.46 (Two part )	Material
WEDGE ANGLE:	7 Deg	AISI 11 L17 Or 12 L 14
WEDGE INSIDE DIAMETER:		

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 4.500" DIA X 2.750"	ASTM -A536 Gr 80-55-06	12/17/96
#2:		
#3:		
#4:		
WEDGE HOLE ANGLE: 6Deg 55'	WEDGE HOLE DIA: 1.035"	STRAND HOLE DIA: 0.562"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 6.500" Square X 5.250" (MP )	ASTM-A536 Gr 80-55-06	12/17/1996
#2:		
#3:		
#4:		
#5:		
BEARING HOLE DIA: 2.937"	Spiral size and turns: #3-5Turn	

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

---

Spiral : #3 Rebar 8" O.D , 5 Turn @ 2" Pitch

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 8.5 TD  
PJACK (KIPS): 247.8  
TENDON SIZE: 8  
STRAND DIAMETER: 1/2"  
Approval  
Concrete strength: 3500 psi  
ULTIMATE (KIPS): 330.4

**WEDGES**

WEDGE LENGTH: 1.46"  
WEDGE ANGLE: 7 Deg 10' +5'  
WEDGE INSIDE DIAMETER:  
Material  
AISI 11 L 17 Rc 59-63

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 6" Square x 2 1/2"(w/4 hole )	C1040-1045 H.R. Plate	9/26/94
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.00"      STRAND HOLE DIA: 0.62"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 12" Square X 2"	ASTM A-36	9/26/1994
#2: 6" Square X 1 1/2"(Retainer PL)	ASTM A-36	9/26/1994
#3:		
#4:		
#5:		

BEARING HOLE DIA: 4 1/2"      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 9.5 TD  
PJACK (KIPS): 278.7

Approval  
Concrete strength: 3500 psi

TENDON SIZE: 9  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 371.7

**WEDGES**

WEDGE LENGTH: 1.46"  
WEDGE ANGLE: 7 Deg 10' +5'  
WEDGE INSIDE DIAMETER:

Material  
AISI 11 L17 Rc 59-63

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 6" Square x 2 1/2"(w/4 hole )	C1040-1045 H.R. Plate	3/16/92
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.00"      STRAND HOLE DIA: 0.62"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 6" Square X 1 1/2"(Ret Plate)	ASTM A-36	3/16/1992
#2: 13" Square X 2"	ASTM A-36	3/16/1992
#3:		
#4:		
#5:		

BEARING HOLE DIA: 4 1/2"      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 10.5 TD  
PJACK (KIPS): 309.8  
TENDON SIZE: 10  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 413  
Approval  
Concrete strength: 3500 psi

**WEDGES**

WEDGE LENGTH: 1.46"  
WEDGE ANGLE: 7 Deg 10' +5'  
WEDGE INSIDE DIAMETER:  
Material  
AISI 11 L17 Rc 59-63

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 6" Square x 2 1/2"(w/4 hole )	C1040-1045 H.R. Plate	9/26/94
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.00"      STRAND HOLE DIA: 0.62"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 13" Square X 2 1/4"	ASTM A-36	9/26/1994
#2: 6" Square X 1 3/4"(Ret Plate)	ASTM A-36	9/26/1994
#3:		
#4:		
#5:		

BEARING HOLE DIA: 4 1/2"      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 12.6  
PJACK (KIPS): 528  
Approval 8/9/2000  
Concrete strength: 3500 psi  
TENDON SIZE: 12  
STRAND DIAMETER: 0.6"  
ULTIMATE (KIPS): 703.2

---

**WEDGES**

WEDGE LENGTH: 1.80" (Two or Three part)  
WEDGE ANGLE: 6 Deg 55'±10'  
WEDGE INSIDE DIAMETER: 0.62"  
Material  
AISI 12L14 or 11L17

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 7.250" Dia x 3.375"	ASTM A 536 Gr 80-55-06	8/9/00
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 6 Deg 55'      WEDGE HOLE DIA: 1.16"      STRAND HOLE DIA: 0.68"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 13.750" Square x 3"	ASTM A536 Gr 80-55-06	3/23/1994
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 5 1/2"      Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 13.00"	HDPE	
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: ID 3 1/2"		
#2:		

Spiral :

---

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 12.5  
PJACK (KIPS): 372  
Approval  
Concrete strength: 3500 psi  
TENDON SIZE: 12  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 495.6

**WEDGES**

WEDGE LENGTH: 1.46"  
WEDGE ANGLE: 7 Deg 10'  
WEDGE INSIDE DIAMETER:  
Material  
AISI 11L17 Rc 59-63

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 6" DIA x 23/8"	C1045 H.R. Normalized	1/16/86
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.035"      STRAND HOLE DIA: 0.63"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 103/4" Square x 11/2"	ASTM A-36	1/16/1986
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 41/8"      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 12"	24 Gage Galvanized	1/16/1986
#2: 12"	POLYETHYLENE .06"	1/16/1986
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 2-5/8" ID	26 Gage	1/16/1986
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 12.5  
PJACK (KIPS): 372  
Approval  
Concrete strength: 3500 psi  
TENDON SIZE: 12  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 495.6

**WEDGES**

WEDGE LENGTH: 1.46"  
WEDGE ANGLE: 7 Deg 10'  
WEDGE INSIDE DIAMETER:  
Material  
AISI 11L17 Rc 59-63

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 61/4" DIA X 23/4"	ASTM A536 Gr 80-55-06	12/7/95
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 6 Deg 55'      WEDGE HOLE DIA: 1.035"      STRAND HOLE DIA: 0.56"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 103/4" Square x 11/2"	ASTM A-36	1/16/1986
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 41/8"      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 12"	24 Gage Galvanized	1/16/1986
#2: 12"	POLYETHYLENE .06"	1/16/1986
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 2-5/8" ID	26 Gage	1/16/1986
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY :	AVAR		TENDON SIZE:	12
SYSTEM NAME:	ACS 12.5	Approval	STRAND DIAMETER:	1/2"
PJACK (KIPS):	372	Concrete strength:	3500 psi	ULTIMATE (KIPS): 495.6

---

**WEDGES**

WEDGE LENGTH:	1.46 (Two part )	Material	AISI 11 L 17 Or 12 L 14
WEDGE ANGLE:	7 Deg		
WEDGE INSIDE DIAMETER:			

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 6.250" DIA X 2.750"	ASTM- A536 Gr 80-55-06	12/17/96
#2:		
#3:		
#4:		
WEDGE HOLE ANGLE: 6 Deg 55'	WEDGE HOLE DIA: 1.035"	STRAND HOLE DIA: 0.562"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 9.00" Square X 7.00" (MP )	ASTM-A536 Gr 80-55-06	12/17/1996
#2:		
#3:		
#4:		
#5:		
BEARING HOLE DIA: 4 3/16"	Spiral size and turns: #4-7turn	

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

---

Spiral : # 4 Rebar, 10" O.D 7 Turns @ Pitch

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 19.6  
PJACK (KIPS): 836  
Approval 2/27/2001  
Concrete strength: 3500 psi  
TENDON SIZE: 19  
STRAND DIAMETER: 0.6"  
ULTIMATE (KIPS): 1113.4

**WEDGES**

WEDGE LENGTH: 1.80" ( 2&3 part )  
WEDGE ANGLE: 6 Deg 55'±10'  
WEDGE INSIDE DIAMETER: 0.62"  
Material  
AISI 12L14 or 11L17

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 8fl" dia x 4fl"	ASTM-A 536 Gr 80-55-06	2/27/01
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 6 Deg 55'±10"      WEDGE HOLE DIA: 1.16"      STRAND HOLE DIA: 0.87"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 17fl" x 16fl" x 3.00"	ASTM-A 536 Gr 80-55-06	2/27/2001
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 7 1/16"      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 18"	HDPE	
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: ID. 4.00"		
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 19 M.5"  
PJACK (KIPS): 588.5

Approval  
Concrete strength: 3500 psi

TENDON SIZE: 19  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 784.7

---

**WEDGES**

WEDGE LENGTH: 1.46"  
WEDGE ANGLE: 7 Deg 10'  
WEDGE INSIDE DIAMETER:

Material  
AISI 11 L17

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 7.00" DIA X 3 1/4"	C 1040-1045 H.R BAR	3/23/94
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.035"      STRAND HOLE DIA: 0.625"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 13.750" Square X 3.00"	ASTM-A536 Gr 80-55-06	3/23/1994
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 5 1/2"      Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 13.00"		3/23/1994
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

---

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 19 .5"  
PJACK (KIPS): 588.5

Approval  
Concrete strength: 3500 psi

TENDON SIZE: 19  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 784.7

---

**WEDGES**

WEDGE LENGTH: 1.46"  
WEDGE ANGLE: 7 Deg 10'  
WEDGE INSIDE DIAMETER:

Material  
AISI 11 L17

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 7 3/8" DIA X 3 3/8"	ASTM A-536 Gr 80-55-06	1/17/96
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.035"      STRAND HOLE DIA: 0.56"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 13.750" Square X 3.00"	ASTM-A536 Gr 80-55-06	3/23/1994
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 5 1/2"      Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 13.00"		3/23/1994
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

---

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 22.6  
PJACK (KIPS): 968  
Approval  
Concrete strength: 3500 psi  
TENDON SIZE: 22  
STRAND DIAMETER: 0.6"  
ULTIMATE (KIPS): 1289.2

**WEDGES**

WEDGE LENGTH: 1.80" ( 2 & 3 part )  
WEDGE ANGLE: 6 Deg 55' $\pm$ 10'  
WEDGE INSIDE DIAMETER: 0.62"  
Material  
AISI 12L14 or 11L17

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 9" x 4 1/8"	ASTM-A 536 Gr 80-55-06	2/1/02
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 6 Deg 55' $\pm$ 10'      WEDGE HOLE DIA: 1.16"      STRAND HOLE DIA: 0.87"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 17-1/4" x 16-1/4" x 3"	ASTM-A 536 Gr 80-55-06	2/1/2002
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: ID. 7 1/16"      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 18"	HDPE	
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 22.5  
PJACK (KIPS): 682  
Approval  
Concrete strength: 3500 psi  
TENDON SIZE: 22  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 908.6

**WEDGES**

WEDGE LENGTH: 1.46"  
WEDGE ANGLE: 7 Deg 5'  
WEDGE INSIDE DIAMETER:  
Material  
AISI 11L17 Rc 59-63

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 7"Square x 3 1/2"	C1040 /45 H.R.Plate	1/14/91
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.035"      STRAND HOLE DIA: 0.63"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 14 1/2" Square x 2"	ASTM A-36	4/19/1985
#2: 12"Square X 12"	ASTM A 536 Gr 80-55-06	1/14/1991
#3:		
#4:		
#5:		

BEARING HOLE DIA: 6"      Spiral size and turns: #4-7turn

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 18"	24 Gage Galvanized	4/19/1985
#2: 18"	Polyethylene .06"	4/19/1985
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 3-1/2" ID	26 Gage	4/19/1985
#2:		

Spiral : FOR CAST BEARING PLATE: #4 SPIRAL, 13" OD., 7 TURNS AT 2.5" PITCH, TIE FIRST TWO TURNS

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 24.5  
PJACK (KIPS): 743.4  
Approval  
Concrete strength: 3500 psi  
TENDON SIZE: 24  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 991.2

**WEDGES**

WEDGE LENGTH: 1.46 (Two Part )  
WEDGE ANGLE: 7 Deg + 10  
WEDGE INSIDE DIAMETER: .529"  
Material  
AISI 11 L 17

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 81/4" Square X 31/2"	C 1040-1045 H.R. Plate	3/26/92
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.035"      STRAND HOLE DIA: 0.62"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 151/2" Square x 2"	ASTM A-36	3/26/1992
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 71/4"      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 22"		3/26/1992
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 4" O.D		
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 27.6"  
PJACK (KIPS): 1188  
Approval 2/27/2001  
Concrete strength: 3500 psi  
TENDON SIZE: 27  
STRAND DIAMETER: 0.6"  
ULTIMATE (KIPS): 1582.2

**WEDGES**

WEDGE LENGTH: 1.80" ( 2&3 part )  
WEDGE ANGLE: 6 Deg 55'±10'  
WEDGE INSIDE DIAMETER: 0.62"  
Material  
AISI 12L14 or 11L17

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 9 5/8" dia. x 4 3/8"	ASTM-A 536 Gr 80-55-06	2/27/01
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 6 Deg 55'±10"      WEDGE HOLE DIA: 1.16"      STRAND HOLE DIA: 0.877"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 19fl" sq. x 3fl"	ASTM-A 536 Gr 80-55-06	2/27/2001
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 7 13/16"      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 19l"	HDPE	
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: ID. 4.375"		
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 37.5  
PJACK (KIPS): 837  
Approval  
Concrete strength: 3500 psi  
TENDON SIZE: 27  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 1115

**WEDGES**

WEDGE LENGTH: 1.46"( Two Part )  
WEDGE ANGLE: 7 Deg 10'  
WEDGE INSIDE DIAMETER: 0.525"  
Material  
AISI 11L17

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 10" DIA X 4.750"	ASTM A-536 Gr 80-55-06	7/27/95
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 6 Deg 55'      WEDGE HOLE DIA: 1.035"      STRAND HOLE DIA: 0.625"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 17.250" Square x 16.250"	ASTM A-536 Gr 80-55-06	5/29/1996
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 7 1/16"      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 18"	HDPE	5/29/1996
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 4"		
#2:		

Spiral : NO SPIRAL

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 28.5  
PJACK (KIPS): 867.3  
TENDON SIZE: 28  
STRAND DIAMETER: 1/2"  
Approval  
Concrete strength: 3500 psi  
ULTIMATE (KIPS): 1156.4

---

**WEDGES**

WEDGE LENGTH: 1.46 (Two Part )  
WEDGE ANGLE: 7 Deg + 10  
WEDGE INSIDE DIAMETER: .529"  
Material  
AISI 11 L 17

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 9" Square X 33/4"	C 1040-1045 H.R. Plate	3/26/92
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.035"      STRAND HOLE DIA: 0.62"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 161/2" Square x 21/4"	ASTM A36	3/26/1992
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 75/8"      Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 213/4"		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 4" O.D		
#2:		

Spiral :

---

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 34.5  
PJACK (KIPS): 1054  
Approval  
Concrete strength: 3500 psi  
TENDON SIZE: 34  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 1404.2

**WEDGES**

WEDGE LENGTH: 1.46"  
WEDGE ANGLE: 7 Deg 5'  
WEDGE INSIDE DIAMETER:  
Material  
AISI 11L17 Rc 59-63

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 9" Square x 4"	C1040-1045 H.R. Normalized	1/14/91
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.035"      STRAND HOLE DIA: 0.63"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 18" Square x 2 1/2"	ASTM A-36	4/19/1985
#2: 15" Square X15"	ASTM A-536 Gr 80-55-06	1/14/1991
#3:		
#4:		
#5:		

BEARING HOLE DIA: 75/8"      Spiral size and turns: #4-9turn

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 24"	24 Gage Galvanized	4/19/1985
#2: 24"	Polyethylene .06"	4/19/1985
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 4" ID	24 Gage	4/19/1985
#2:		

Spiral : FRO CAST BEARING PLATE: #4 SPIRAL, 17 OD., 9 TURNS AT 2,5" PITCH, TIE FIRST 2 TURNS

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 37 M .5  
PJACK (KIPS): 1146.0  
Approval  
Concrete strength: 3500 psi  
TENDON SIZE: 37  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 1528.1

**WEDGES**

WEDGE LENGTH: 1.46"( Two Part )  
WEDGE ANGLE: 7 Deg 10'  
WEDGE INSIDE DIAMETER:  
Material  
AISI 11L17

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 10.00" DIA X 4.500"	C1040-1045 H.R. Bar	3/23/94
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.035"      STRAND HOLE DIA: 0.625"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 19.250" Square x 3.250"	ASTM A-536 Gr 80-55-06	3/23/1994
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 7.812"      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 19.750"	HDPE	3/23/1994
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: ID 4 3/8"		3/23/1994
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 37.5  
PJACK (KIPS): 1146.0  
Approval  
Concrete strength: 3500 psi  
TENDON SIZE: 37  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 1528.1

**WEDGES**

WEDGE LENGTH: 1.46"( Two Part )  
WEDGE ANGLE: 7 Deg 10'  
WEDGE INSIDE DIAMETER:  
Material  
AISI 11L17

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 10" DIA X 4.750"	ASTM A-536 Gr 80-55-06	7/27/95
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 6 Deg 55'      WEDGE HOLE DIA: 1.035"      STRAND HOLE DIA: 0.625"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 19.250" Square x 3.250"	ASTM A-536 Gr 80-55-06	3/23/1994
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 7.812      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 19.750"	HDPE	3/23/1994
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: ID 4 3/8"		3/23/1994
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 44.5  
PJACK (KIPS): 1363  
TENDON SIZE: 44  
STRAND DIAMETER: 1/2"  
Approval  
Concrete strength: 3500 psi  
ULTIMATE (KIPS): 1817.2

**WEDGES**

WEDGE LENGTH: 1.46"( Two Part )  
WEDGE ANGLE: 7 Deg 10'  
WEDGE INSIDE DIAMETER:  
Material  
AISI 11L17 Rc 59-63

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 11" Square x 5 1/2"	C1040-1045 H.R. Plate	9/1/93
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.035"      STRAND HOLE DIA: 0.63"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 21" Square x 3"	ASTM A-36	9/1/1993
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 8.875"      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 20"		9/1/1993
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 5" O.D		9/1/1993
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR  
SYSTEM NAME: ACS 13.5 TD  
PJACK (KIPS): 402.6  
TENDON SIZE: 13  
STRAND DIAMETER: 1/2"  
Approval  
Concrete strength: 3500 psi  
ULTIMATE (KIPS): 536.9

**WEDGES**

WEDGE LENGTH: 1.46"  
WEDGE ANGLE: 7 Deg 10'  
WEDGE INSIDE DIAMETER:  
Material  
AISI 11 L17 Rc 59-63

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 7" Square X 3 1/2"	C 1040-1045 H.R Plate	3/16/92
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: WEDGE HOLE DIA: 1.00" STRAND HOLE DIA: 0.62"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 7" Square X 2"(Retainer Plate )	ASTM A 36	3/16/1992
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 6.00" Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR (approved for use by SDI ) TENDON SIZE: 4  
SYSTEM NAME: Avar C-4.6 Approval 9/27/2002 STRAND DIAMETER: 0.6  
PJACK (KIPS): 176 Concrete strength: 3500 psi Lt.Wt. ULTIMATE (KIPS): 234

---

**WEDGES**

WEDGE LENGTH: 1.81" Material  
Aisi 12L14 or 11L17  
WEDGE ANGLE: 7 Deg.  
WEDGE INSIDE DIAMETER: .63"

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 10.5" x 4.61" x 2.52"	A536 Gr. 80-55-06	9/27/02
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: WEDGE HOLE DIA: STRAND HOLE DIA: .71"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:	HDPE	
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 25 x 75 mm	galvanized spiro duct	
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : AVAR (approved for use by SDI) TENDON SIZE: 22  
SYSTEM NAME: AVAR ACS-22.6 Approval 10/7/2002 STRAND DIAMETER: 0.6"  
PJACK (KIPS): 968 Concrete strength: 3500 psi Lt.Wt. ULTIMATE (KIPS): 1289

---

**WEDGES**

Material  
WEDGE LENGTH: 1.81"  
WEDGE ANGLE: 7 Deg.  
WEDGE INSIDE DIAMETER: .63

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 9.02" x 4.25"	A536 GR. 80-55-06	10/7/02
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: WEDGE HOLE DIA: 1.18" STRAND HOLE DIA: 0.87"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 17.25" x 16.25" x 3"	A536 GR. 80-55-06	10/7/2002
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 7.05" Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 18" x 7"	HDPE	
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 108mm	Galvanized Spiro	
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : CONTECH  
SYSTEM NAME: CTS 47.6  
PJACK (KIPS): 2065.7

Approval  
Concrete strength: 3500 psi

TENDON SIZE: 47  
STRAND DIAMETER: .6"  
ULTIMATE (KIPS): 2754.2

**WEDGES**

WEDGE LENGTH: 1.875 (Two part )  
WEDGE ANGLE: 7 Deg 10'  
WEDGE INSIDE DIAMETER: 0.620"

Material  
AISI 12 L 14

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 14 1/4 DIA X 7.00"	ASTM 1040/1045	4/7/97
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.15"      STRAND HOLE DIA: 0.687"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: NOT INCLUDED OF		
#2: APPROVAL		
#3:		
#4:		
#5:		

BEARING HOLE DIA:      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

**State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing**

updated: 8/12/2010

**GENERAL**

COMPANY :	CONTECH (T D )	TENDON SIZE:	4		
SYSTEM NAME:	4-0.6 (using 7-0.6 anchor      Approval	STRAND DIAMETER:	0.6"		
PJACK (KIPS):	176	Concrete strength:	3500 psi	ULTIMATE (KIPS):	234.4

---

**WEDGES**

WEDGE LENGTH:	1.875" (3 PC Gripper )	Material	12L14 Rc 59-65
WEDGE ANGLE:	7 Deg10'+10'		
WEDGE INSIDE DIAMETER:	0.620 X 4 Deg		

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 51/8" DIA X 23/8"	Ductile Iron ASTM A-536-80-55-06	4/20/92
#2:		
#3:		
#4:		
WEDGE HOLE ANGLE: 7 Deg	WEDGE HOLE DIA: 1.250"	STRAND HOLE DIA: 0.62"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 7"x7"x1 1/2"(Restrainer Plate)	A-36	4/20/1992
#2:		
#3:		
#4:		
#5:		
BEARING HOLE DIA: 4"	Spiral size and turns: none	

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

---

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : CONTECH (Tie Back )      TENDON SIZE: 4  
SYSTEM NAME: 4-0.6      Approval      STRAND DIAMETER: 0.6"  
PJACK (KIPS): 176      Concrete strength: 3500 psi      ULTIMATE (KIPS): 234.4

---

**WEDGES**

WEDGE LENGTH: 1.875" (3 PC Gripper )      Material  
12L14 Rc 59-65  
WEDGE ANGLE: 7 Deg 10'+10'  
WEDGE INSIDE DIAMETER: 0.620 X 4 Deg

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 51/8" DIA X 23/8"	Ductile Iron ASTM A-536-80-55-06	11/7/89
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.250"      STRAND HOLE DIA: 0.62"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 81/2" Square X 11/2"	Steel AAHSTO MI83 C.T.S.	11/7/1989
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA:      Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:	ASTM A-36	10/23/1989
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

---

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : CONTECH (Tie Back )      TENDON SIZE: 7  
SYSTEM NAME: 7-0.6      Approval      STRAND DIAMETER: 0.6"  
PJACK (KIPS): 307      Concrete strength: 3500 psi      ULTIMATE (KIPS): 410.2

---

**WEDGES**

WEDGE LENGTH: 1.875" (3 PC Gripper )      Material  
WEDGE ANGLE: 7 Deg 10'+10'      12L14 Rc59-65  
WEDGE INSIDE DIAMETER: 0.620 X 4 Deg

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 57/16" DIA X 23/8"	Ductile Iron ASTM A-536-80-55-06	10/20/88
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.250"      STRAND HOLE DIA: 0.62"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 14" X 14" X 2"	Steel AAHSTO MI83 C.T.S.	
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 4"      Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

---

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : CONTECH (Tie Back )      TENDON SIZE: 9  
SYSTEM NAME: 9-0.6      Approval      STRAND DIAMETER: 0.6"  
PJACK (KIPS): 395.5      Concrete strength: 3500 psi      ULTIMATE (KIPS): 527.4

---

**WEDGES**

WEDGE LENGTH: 1.875" (3 PC Gripper )      Material  
WEDGE ANGLE: 7 Deg10'+10'      12L14 Rc59-65  
WEDGE INSIDE DIAMETER: 0.620 X 4 Deg

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 5 1/2" DIA X 2 1/2"	AISI 1040/1045	11/23/90
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 14 Deg      WEDGE HOLE DIA: 1.160"      STRAND HOLE DIA: 0.687"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 14" X 14" X 4"	A36 Galvanized	10/30/1990
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 4.5"-8 strand      Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

---

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : CONTECH (Tie Back )      TENDON SIZE: 9  
SYSTEM NAME: CTS 9.06      Approval      11/5/2003      STRAND DIAMETER: 0.6"  
PJACK (KIPS): 396      Concrete strength: 3500 psi      ULTIMATE (KIPS): 528

---

**WEDGES**

WEDGE LENGTH: 1.875" 2 Part      Material  
12 L 14  
WEDGE ANGLE: 7 Deg±10'  
WEDGE INSIDE DIAMETER: 0.620"

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 5.875" x 2.750"	A536 Gr. 80-55-06	11/5/03
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 deg.      WEDGE HOLE DIA: 1.18"      STRAND HOLE DIA: .7"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: various	A36	
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA:      Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

---

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : CONTECH (Tie Back )  
SYSTEM NAME: 12-0.6 (Lang anchor head ) Approval  
PJACK (KIPS): 506.3 Concrete strength: 3500 psi  
TENDON SIZE: 12  
STRAND DIAMETER: 0.6"  
ULTIMATE (KIPS): 703.2

**WEDGES**

WEDGE LENGTH: 1.875" (Two part )  
WEDGE ANGLE: 7 Deg 10'+10'  
WEDGE INSIDE DIAMETER: 0.620 X 4 Deg  
Material  
12 L 14 (10/31/95 )

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 7.30" DIA X 3.25"	Cast 65-45-12 Ductile Iron	9/29/95
#2: Without 1 1/8" center hole		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.17"      STRAND HOLE DIA: ..0.66"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 17" X 17" X 21/2"	ASTM A-36 (Bearing plate was not included of approval )	
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 5.625"      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral : NOTE: Bearing plate approved for the job by prestressing committee, our result reported to prestressing committee not to vender

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Dywidag  
SYSTEM NAME: 1-0.6" Epoxy  
PJACK (KIPS): 44  
Approval 6/21/2003  
Concrete strength: 3500 psi  
TENDON SIZE: 1  
STRAND DIAMETER: 0.6"  
ULTIMATE (KIPS): 58.6

**WEDGES**

WEDGE LENGTH: 2.0" & 1.97" (3 Part )  
WEDGE ANGLE: 7 Deg ±5'  
WEDGE INSIDE DIAMETER: .687"  
Material  
12 L14 or 11 L 17

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 3.86" DIA X 7.874"	A536 GR. 65-45-12	6/21/03
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.339"      STRAND HOLE DIA: .788"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA:      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Dywidag  
SYSTEM NAME: 2-0.6"  
PJACK (KIPS): 88

Approval  
Concrete strength: 3500 psi

TENDON SIZE: 2  
STRAND DIAMETER: 0.6"  
ULTIMATE (KIPS): 117.2

---

**WEDGES**

WEDGE LENGTH: 1.654" (3 Part )  
WEDGE ANGLE: 7 Deg 30'  
WEDGE INSIDE DIAMETER: .56"

Material  
12 L14 or 11 L 17

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 3 1/2" DIA X 2.00"	AISI 1045-1050	9/3/92
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.122"      STRAND HOLE DIA: .669"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA:      Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

---

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Dywidag  
SYSTEM NAME: 3-0.6"  
PJACK (KIPS): 131.8

Approval  
Concrete strength: 3500 psi

TENDON SIZE: 3  
STRAND DIAMETER: 0.6"  
ULTIMATE (KIPS): 175.8

---

**WEDGES**

WEDGE LENGTH: 1.654" (3 Part )  
WEDGE ANGLE: 7 Deg 30'  
WEDGE INSIDE DIAMETER: .56"

Material  
12 L 14 or 11 L 17

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 4 1/2" DIA X 2.00"	AISI 1045 - 1050	9/3/92
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.122"      STRAND HOLE DIA: .669"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA:      Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

---

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Dywidag  
SYSTEM NAME: 4-0.6" 4" x 13" Approval  
PJACK (KIPS): 176 Concrete strength: 3500 psi  
TENDON SIZE: 4  
STRAND DIAMETER: 0.6"  
ULTIMATE (KIPS): 234.4

**WEDGES**

WEDGE LENGTH: 1.875" Material  
WEDGE ANGLE: 7 Deg 10' +5 AISI C12L14 Rc 58-67  
WEDGE INSIDE DIAMETER:

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 4" x 13" x 2.25"	ASTM A-536,Gr 80-55-06	4/21/86
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg WEDGE HOLE DIA: 1.160" STRAND HOLE DIA: 0.71"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: Integral		4/21/1986
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: ..... Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 11-1/2"	Polyethylene	4/21/1986
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 3" X 1" ID	22 GAGE	4/21/1986
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Dywidag  
SYSTEM NAME: 4-0.6  
PJACK (KIPS): 176  
TENDON SIZE: 4  
STRAND DIAMETER: 0.6"  
ULTIMATE (KIPS): 234.4  
Approval  
Concrete strength: 3500 psi

**WEDGES**

WEDGE LENGTH: 1.875"-1.654" (3 Part )  
WEDGE ANGLE: 7 Deg 10'+5'  
WEDGE INSIDE DIAMETER:  
Material  
AISI C12L14 Rc 58-67  
AISI 12L14 -11L17

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 4" Square X 2"	C1045	9/12/79
#2: 4 1/2" DIA X 2"	AISI 1045-1050	10/28/1992
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.160"-1.122      STRAND HOLE DIA: 0.71"-0.669

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 7 3/8" Square X 1 1/8"	ASTM A-36	9/12/1979
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 3 1/4"      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 8"	22 Gage	9/12/1979
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 2" ID		9/12/1979
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Dywidag  
SYSTEM NAME: 4-0.6 TD  
PJACK (KIPS): 176  
Approval  
Concrete strength: 3500 psi  
TENDON SIZE: 4  
STRAND DIAMETER: 0.6"  
ULTIMATE (KIPS): 234.4

**WEDGES**

WEDGE LENGTH: 1.875"  
WEDGE ANGLE: 7 Deg 10'+5'  
WEDGE INSIDE DIAMETER:  
Material  
AISI C12L14 Rc 58-67

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 4" Square X 2"(w/4 Hole)	C1045-1050	3/26/92
#2: 4"Square x 13/4"(Ret Plate)	A-36 Steel Plate	3/26/1992
#3: 4"Square x 1" (Ret Plate)	A-36 Steel Plate	3/26/1992
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.16"      STRAND HOLE DIA: 0.70"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA:      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

**State of California**  
**Prestress / Post-Tensioning Strand Systems**  
**Approved Hardware Listing**

updated: 8/12/2010

**GENERAL**

COMPANY :	Dywidag	TENDON SIZE:	5
SYSTEM NAME:	5-0.6"	Approval	STRAND DIAMETER: 0.6"
PJACK (KIPS):	220	Concrete strength:	3500 psi
		ULTIMATE (KIPS):	293.0

---

**WEDGES**

WEDGE LENGTH:	1.77"	Material	AISI C12L14 Rc 58-67
WEDGE ANGLE:	7 Deg 20'+ 5		11L17
WEDGE INSIDE DIAMETER:			

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 5" Square x 2 1/2"	AISI 1045	6/25/80
#2: 5 1/8" DIA X 2.559" (MPA)	Cast ASTM A-536 Gr 80-55-06	3/27/1991
#3:		
#4:		
WEDGE HOLE ANGLE: 6 Deg	WEDGE HOLE DIA: 1.102"	STRAND HOLE DIA: 0.669"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 8 1/4" Square x 1 1/8"	ASTM A-36	6/25/1980
#2: 5.9" x 3.543" round	A536 Gr. 65-45-12	3/27/1991
#3:		
#4:		
#5:		
BEARING HOLE DIA: 3.543"	Spiral size and turns: none	

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 9.842"	PE Hard	3/27/1991
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		
Spiral :		

---

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Dywidag  
SYSTEM NAME: 6-0.6"  
PJACK (KIPS): 264  
Approval  
Concrete strength: 3500 psi  
TENDON SIZE: 6  
STRAND DIAMETER: 0.6"  
ULTIMATE (KIPS): 351.6

**WEDGES**

WEDGE LENGTH: 1.875" -1.654" (3 Part )  
WEDGE ANGLE: 7 Deg 10' +5 -- 7 Dag 30'  
WEDGE INSIDE DIAMETER: .56"  
Material  
AISI C12L14 Rc 58-67  
12 L14 or 11 L 17

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 6" Square x 2 1/2"	AISI C1045-C1050	12/4/84
#2: 5 3/4" DIA X 2 1/2"	AISI C1045-C1050	9/3/1992
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.160"-1.122      STRAND HOLE DIA: 0.71"-.669

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 9 1/16" Square x 1"	ASTM A-36	12/4/1984
#2: 8" x 10 1/4" x 13/8"	ASTM A-36	12/4/1984
#3: 7" x 11 3/4" x 17/8"	ASTM A-36	12/4/1984
#4: 12" Square x 1-3/8"	ASTM A-36	12/4/1984
#5:		

BEARING HOLE DIA: 4 1/4"      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

**State of California  
 Prestress / Post-Tensioning Strand Systems  
 Approved Hardware Listing**

updated: 8/12/2010

**GENERAL**

COMPANY : Dywidag		TENDON SIZE: 9
SYSTEM NAME: 9-0.6	Approval	STRAND DIAMETER: 0.6"
PJACK (KIPS): 396	Concrete strength: 3500 psi	ULTIMATE (KIPS): 527.4

**WEDGES**

	<b>Material</b>
WEDGE LENGTH: 1.654"	AISI C12L14 Rc 58-67
WEDGE ANGLE: 7 Deg 30'+10	Or 11 L 17
WEDGE INSIDE DIAMETER: .56"+.003	

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 5.512" DIA x2.165"	ASTM A-521-76 (Forged )	9/17/91
#2: 7" DIA x 23/8"	AISI C1045-C1050	4/21/1986
#3: 5.750" DIA X 2.441"	AISI C 1045 (Hot roll)	3/27/1991
#4:		
WEDGE HOLE ANGLE: 7 Deg	WEDGE HOLE DIA: 1.102"-1.122	STRAND HOLE DIA: 0.669"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 111/8"Square x 15/8"	ASTM A-36	3/16/1979
#2: 111/8" Square X11/2"	ASTM A-36	1/18/1991
#3: 7.480 Dia x4.921 (MPA)	ASTM A-536 Gr 65-45-12	9/5/1991
#4:		
#5:		
BEARING HOLE DIA: 4.449"	Spiral size and turns: none	

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 13.980"	Hard Polyethylene	9/5/1991
#2: 19"	ASTM D-1788 ABS .10"	2/20/1981
#3: 17"	Polyethylene .08"	5/8/1984
#4: 25"	Polyethylene .08"	5/8/1984
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 27/8" OD	26 Gage	3/16/1979
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Dywidag  
SYSTEM NAME: 12-0.6  
PJACK (KIPS): 527.4  
Approval  
Concrete strength: 3500 psi  
TENDON SIZE: 12  
STRAND DIAMETER: 0.6"  
ULTIMATE (KIPS): 703.2

**WEDGES**

WEDGE LENGTH: 1.77" (3 PART)  
WEDGE ANGLE: 7 Deg 20'+5  
WEDGE INSIDE DIAMETER:  
Material  
C11L17 Rc 57-67  
C12L14 Rc 57-67

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 6.5" DIA x 2.716	AISI 1045	1/21/88
#2: 6.300" DIA X 2.560"	ASTM A 521-76 (Forged )	9/17/1991
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg +10'      WEDGE HOLE DIA: 1.102"      STRAND HOLE DIA: .669"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 8.661" DIA x 7.086"	ASTM A536 GRADE 65-45-12	1/21/1988
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 5.039"      Spiral size and turns: #5-6turn

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 14.252"	0.098" Thick P.E. (Hard )	1/21/1988
#2: 20"	Hard Polyethylene	3/27/1991
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 3.4" OD-3.228" ID	28 Gage Steel	1/21/1988
#2:		

Spiral : #5 REBAR ASTM A615 GRADE 60, OD. 11.250", 2.250" PITCH, 6 TURNS

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY :	Dywidag			TENDON SIZE:	12
SYSTEM NAME:	12-0.6" Hex	Approval	11/16/2007	STRAND DIAMETER:	0.6"
PJACK (KIPS):	527	Concrete strength:	3500	ULTIMATE (KIPS):	703

---

**WEDGES**

WEDGE LENGTH:	1.654" (3 part)	Material	12L14 A108
WEDGE ANGLE:	7°30' ±10'		
WEDGE INSIDE DIAMETER:	0.56"±.003		

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 6.25" round x 2.75"	HR C1045	11/16/07
#2:		
#3:		
#4:		
WEDGE HOLE ANGLE: 7° ±10'	WEDGE HOLE DIA: 1.122"±0.008	STRAND HOLE DIA: 0.669"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 8.661"±.079" x 7.086"±.079"	ASTM A536 GR. 65-45-12	11/16/2007
#2:		
#3:		
#4:		
#5:		
BEARING HOLE DIA: 5.039"±.079	Spiral size and turns: #6 6 turns	

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 16.929" x 4.724"	Hard Polyethylene	11/16/2007
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 3.375" O.D.	Galvanized spiro Steel	11/16/2007
#2:		

---

Spiral : A615 GR. 60 #6 2.25"±.5 pitch 11.25"±.5 O.D. 6 turns

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Dywidag  
SYSTEM NAME: 15-0.6  
PJACK (KIPS): 659.2  
Approval  
Concrete strength: 3500 psi  
TENDON SIZE: 15  
STRAND DIAMETER: 0.6"  
ULTIMATE (KIPS): 879

**WEDGES**

WEDGE LENGTH: 1.770" (3 Part )  
WEDGE ANGLE: 7 Deg 20'+5'  
WEDGE INSIDE DIAMETER:  
Material  
C11L17-C12L14  
Rc 60-64

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 7.087" DIA X 2.756"	ASTM A521-76 (Forged )	9/17/91
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg +10'      WEDGE HOLE DIA: 1.102"      STRAND HOLE DIA: 0.669"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 9.843" DIA X 7.874"	ASTM A536 Gr 65-45-12	9/17/1991
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 5.827"      Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 27.5/8"	Hard Polyethylene	3/27/1991
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

**State of California  
 Prestress / Post-Tensioning Strand Systems  
 Approved Hardware Listing**

updated: 8/12/2010

**GENERAL**

COMPANY : Dywidag		TENDON SIZE: 19
SYSTEM NAME: 19-0.6	Approval	STRAND DIAMETER: 0.6"
PJACK (KIPS): 836	Concrete strength: 3500 psi	ULTIMATE (KIPS): 1113.4

**WEDGES**

WEDGE LENGTH: 1.770 (3Part )-1.654(3part)	Material
WEDGE ANGLE: 7 Deg 20'+5'	AISI C12L14 Rc 60-64
WEDGE INSIDE DIAMETER: .56"+.003	C 11 L 17

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 7.874" DIA x 3.425"	ASTM A-521-76 (Forged)	9/17/91
#2: 10" DIA x 33/4"	AISI C1045-C1050	7/5/1986
#3: 8" DIA X 3.622"	AISI C 1045	3/27/1991
#4:		
WEDGE HOLE ANGLE: 7 Deg	WEDGE HOLE DIA: 1.102"-1.122	STRAND HOLE DIA: 0.669"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 16 "Square x 2"	ASTM A-36	7/5/1986
#2: 151/8" x 17" x 21/4"	ASTM A-36	7/5/1986
#3: 141/2" x 173/4" x 21/2"	ASTM A-36	7/5/1986
#4: 11.024" DIA X 8.66"	ASTM A 536 Gr 65-45-12	1/21/1988
#5:		
BEARING HOLE DIA: 6.378"	Spiral size and turns: #5-7turn	

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 24"	ASTM D-1788 ABS .10"	2/20/1981
#2: 30"	24 Gage	7/5/1986
#3: 28"	Polyethylene .10"	5/8/1984
#4: 36"	Polyethylene .10"	7/5/1986
#5: 25.3/16"	Hard Polyethylene	09/17/91

**DUCTS**

Duct Size	Material	Approval Date
#1: 33/4" ID	26 Gage	6/6/1982
#2: 3.93" OD (3.780" )	26 Gage	1/21/1988

**Spiral :** ASTM A 615 Grade 60 # 5 @ 17/8" Pitch 14.5" O.D. 7 Full Turn

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Dywidag  
SYSTEM NAME: 19-0.6" Hex  
PJACK (KIPS): 835  
Approval 11/16/2007  
Concrete strength: 3500  
TENDON SIZE: 19  
STRAND DIAMETER: 0.6"  
ULTIMATE (KIPS): 1113

**WEDGES**

WEDGE LENGTH: 1.654" (3 part)  
WEDGE ANGLE: 7°30' ±10'  
WEDGE INSIDE DIAMETER: 0.56"±.003  
Material  
12L14 A108

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 7.75" round x 3.875"	HR C1045	11/16/07
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7° ±10'      WEDGE HOLE DIA: 1.122"±0.008      STRAND HOLE DIA: 0.669"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 11.024"±.08" x 8.661"±.08"	ASTM A536 GR. 65-45-12	11/16/2007
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 6.378"±.079      Spiral size and turns: #6 7 turns

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 17.764" x 5.71"	Hard Polyethylene	11/16/2007
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 3.875" O.D.	Galvanized Spiro Steel	11/16/2007
#2:		

Spiral : A615 GR. 60 #6 1.875"±.5 pitch 14.5"±.5 O.D. 7 turns

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : DYWIDAG  
SYSTEM NAME: 20-0.5 MA  
PJACK (KIPS): 620

Approval  
Concrete strength:

TENDON SIZE: 20  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 826

---

**WEDGES**

WEDGE LENGTH: 1.575" (3 Part )  
WEDGE ANGLE: 7 Deg 30'±10'  
WEDGE INSIDE DIAMETER:

Material  
AISI 12L 14 Or 11 L 17

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 7.087" DIA X 2.756"	ASTM-A521-76 (Forged )	9/3/97
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7Deg      WEDGE HOLE DIA: 0.984"      STRAND HOLE DIA: 0.551"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 9.843" DIA X 7.874" (MPA)	ASTM-A536 Gr 65-45-12	9/17/1991
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 5.827"      Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 15.719	H.D.P.E	
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 3.720 OD		
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Dywidag  
SYSTEM NAME: 27-0.6  
PJACK (KIPS): 1188

Approval  
Concrete strength:

TENDON SIZE: 27  
STRAND DIAMETER: 0.6"  
ULTIMATE (KIPS): 1582.2

---

**WEDGES**

WEDGE LENGTH: 1.770" (3 part)      Material  
C11L17 Rc-57-67  
WEDGE ANGLE: 7° 20' ±5'      C12L14  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 9.5" Dia X 4.527"	AISI 1045 (hot rolled)	3/27/91
#2: 9.449" Dia x 4.134"	ASTM A-521-76 (forged)	9/17/1991
#3:		
#4:		

WEDGE HOLE ANGLE: 7° ±10'      WEDGE HOLE DIA: 1.102"      STRAND HOLE DIA: 0.669"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 12.402" Dia x 9.449"	ASTM A536 GR 65-45-12	1/21/1988
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 7.490"      Spiral size and turns:

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 26.26"	0.138" Thick P.E (hard)	1/21/1988
#2: 27.875"	Hard Polyethylene	3/27/1991
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 4.61" O.D.	26 Gage Steel	1/21/1988
#2:		

---

Spiral : A615 grade 60 #6 21.25" pitch 17" O.D. 7 turns

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Dywidag  
SYSTEM NAME: 27-0.6" Hex  
PJACK (KIPS): 1187  
Approval 10/18/2007  
Concrete strength: 3500  
TENDON SIZE: 27  
STRAND DIAMETER: 0.6"  
ULTIMATE (KIPS): 1582.2

**WEDGES**

WEDGE LENGTH: 1.654" (3 part)  
WEDGE ANGLE: 7°30' ±10'  
WEDGE INSIDE DIAMETER: 0.56"±.003  
Material  
12L14 A108

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 9.5" round x 4.75"	HR C1045	10/18/07
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7° ±10'      WEDGE HOLE DIA: 1.122"±0.008      STRAND HOLE DIA: 0.669"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 12.402"±.079" x 9.449"±.118"	ASTM A536 GR. 65-45-12	10/18/2007
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 7.49"±.079      Spiral size and turns: #6 7 turns

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 22.625" x 6.339"	Hard Polyethylene	10/18/2007
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 4.375" O.D.	Galvanized Spiro Steel	10/18/2007
#2:		

Spiral : A615 GR. 60 #6 2.25"±.5 pitch 17"±.5 O.D. 7 turns

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Dywidag  
SYSTEM NAME: 27-0.5 MA  
PJACK (KIPS): 836.3

Approval  
Concrete strength:

TENDON SIZE: 27  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 1115.1

---

**WEDGES**

WEDGE LENGTH: 1.575" (3 Part )  
WEDGE ANGLE: 7 Deg 30'±10'  
WEDGE INSIDE DIAMETER:

Material  
AISI 12 L 14 Or 11 L 17

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 7.874" DIA X 3.425"	ASTM A521-76 (Forged)	9/3/97
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 0.984"      STRAND HOLE DIA: 0.551"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 11.024" DIA X 8.66" (MPA)	ASTM-A536 Gr 65-45-12	1/21/1988
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 6.378"      Spiral size and turns: #5-7 turns

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 17.764"	Hard P.E.	
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 3.900" OD		
#2:		

---

Spiral : ASTM A615 Gr 60 # 5 rebar ,1.875" pitch. 14.500 OD, 7 full turn.

**State of California**  
**Prestress / Post-Tensioning Strand Systems**  
**Approved Hardware Listing**

updated: 8/12/2010

**GENERAL**

COMPANY : Dywidag  
SYSTEM NAME: 31-0.5  
PJACK (KIPS): 961

Approval  
Concrete strength:

TENDON SIZE: 31  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 1280.3

---

**WEDGES**

WEDGE LENGTH: 1.375",1.470" Material  
AISI C12L14 CD Rc 58-67  
WEDGE ANGLE: 7 Deg 10'+5'  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 10" Square x 3 1/2"	AISI C1045-C1050	5/29/85
#2: 10" DIA x 3 3/4"	AISI C1045-C1050	5/29/1986
#3:		
#4:		

WEDGE HOLE ANGLE: 6.5 Deg      WEDGE HOLE DIA: 0.92"      STRAND HOLE DIA: 0.59"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 17" Square x 2 1/4"	ASTM A-36	7/5/1986
#2: 16 1/4" x 17 13/16" x 2 1/2"	ASTM A-36	7/5/1986
#3: 15 9/16" x 18 9/16" x 2 3/4"	ASTM A-36	7/5/1986
#4:		
#5:		

BEARING HOLE DIA: 7 1/4"      Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 30"	24 Gage	5/29/1985
#2: 28"	Polyethylene .10"	5/29/1985
#3: 36"	Polyethylene .10"	5/29/1985
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 3 15/16" ID	26 Gage	5/29/1985
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : DYWIDAG  
SYSTEM NAME: 37-0.6 (MPA)  
PJACK (KIPS): 1626.2

Approval  
Concrete strength:

TENDON SIZE: 37  
STRAND DIAMETER: 0.6"  
ULTIMATE (KIPS): 2168.2

**WEDGES**

WEDGE LENGTH: 1.654" (3 Part )  
WEDGE ANGLE: 7 Deg 30'+10'  
WEDGE INSIDE DIAMETER: .560"

Material  
AISI C12L14 -11L17

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 10.774" DIA X 5.315"	ASTM A-521-76(Forged)	2/27/95
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg +10'      WEDGE HOLE DIA: 1.142"      STRAND HOLE DIA: .669"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 15.354" Square X 13.780"	ASTM A536 Gr 60-42-10	2/27/1995
#2: 24.5" Square X 4"	A36 Steel Plate	4/6/1995
#3:		
#4:		
#5:		

BEARING HOLE DIA: 8.465"      Spiral size and turns: #6-8 turns

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 24.608"	H.D.P.E	2/27/1995
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1:	U.S std Gauge 26(Galv Corrugated )	2/27/1995
#2:		

Spiral : ASTM-A 615 Grad 60 #6 @ 2.625 pitch 20" O.D. 8 full turn

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : DYWIDAG

SYSTEM NAME: 37-0.5

PJACK (KIPS): 1146

Approval

Concrete strength:

TENDON SIZE: 37

STRAND DIAMETER: 1/2"

ULTIMATE (KIPS): 1548.7

---

**WEDGES**

WEDGE LENGTH: 1.575" (3 Part )

WEDGE ANGLE: 7 Deg 30'+10'

WEDGE INSIDE DIAMETER:

Material  
AISI C12 L 14-11 L 17

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 9.449" DIA X 4.134"(Forged)	ASTM A521-76 CI CC	9/17/91
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg +10'

WEDGE HOLE DIA: 1.102"

STRAND HOLE DIA: 0.669"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 12.402" DIA X 9.449"	ASTM A536 GR65-45-12	1/21/1988
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 7.490"

Spiral size and turns: #6-7 turns

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 26.26"	0.138" Thick P.E. (Hard )	1/21/1988
#2: 27.7/8"	Hard Polyethylene	3/27/1991
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 4.61" O.D.	26 Gage Steel	1/21/1988
#2:		

---

Spiral : ASTM A 615 gr 60 # 6 21/4" pitch 17" O.D. 7 full turns

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : DYWIDAG  
SYSTEM NAME: 46 mm Bar-Anchor Nut      Approval      5/20/2004  
PJACK (KIPS): 300      Concrete strength: 4500 psi      ULTIMATE (KIPS): 400  
TENDON SIZE: 46 mm  
STRAND DIAMETER:

---

**WEDGES**

WEDGE LENGTH:      Material  
WEDGE ANGLE:  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 3.5" x 3.5" Anchor Nut	Forged C1144	5/20/04
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE:      WEDGE HOLE DIA:      STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 9" x 9" x 2"	A36 Chamfered	5/20/2004
#2: various		
#3:		
#4:		
#5:		

BEARING HOLE DIA:      Spiral size and turns:

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : DYWIDAG  
SYSTEM NAME: 46 mm Bar-Coupler-Hex Approval 5/20/2004  
PJACK (KIPS): 300 Concrete strength: 4500 psi

TENDON SIZE: 46 mm  
STRAND DIAMETER:  
ULTIMATE (KIPS): 400

---

**WEDGES**

WEDGE LENGTH: Material  
WEDGE ANGLE:  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 3" x 3" Hex Nut	Cold Drawn C1144	5/20/04
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: WEDGE HOLE DIA: STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 9" x 9" x 2"	A36	5/20/2004
#2: various		
#3:		
#4:		
#5:		

BEARING HOLE DIA: Spiral size and turns:

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Dywidag (TD)

TENDON SIZE: 8

SYSTEM NAME: 8-0.6

Approval

STRAND DIAMETER: 0.6"

PJACK (KIPS): 351.6

Concrete strength:

ULTIMATE (KIPS): 468.8

---

**WEDGES**

WEDGE LENGTH: 1.875" (2 Part )

Material

AISI-C12L14 CD

WEDGE ANGLE: 7Deg 10' +5'

WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size

Material

Approval Date

#1: 7" DIA X 2-3/8" (w / 4 Hole )

AISI C1045-C1050

12/19/90

#2:

#3:

#4:

WEDGE HOLE ANGLE: 6.5 Deg

WEDGE HOLE DIA: 1.16"

STRAND HOLE DIA: 0.71"

---

**BEARING PLATES**

Bearing Plate Size

Material

Approval Date

#1:

#2:

#3:

#4:

#5:

BEARING HOLE DIA:

Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size

Material

Approval Date

#1:

#2:

#3:

#4:

#5:

---

**DUCTS**

Duct Size

Material

Approval Date

#1:

#2:

---

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : LANG  
SYSTEM NAME: 4-0.6  
PJACK (KIPS): 176

Approval  
Concrete strength:

TENDON SIZE: 4  
STRAND DIAMETER: 0.6"  
ULTIMATE (KIPS): 234.4

---

**WEDGES**

WEDGE LENGTH: 1.595" (2 part wedge )      Material  
WEDGE ANGLE: 7 Deg 5' +5'      12 L14  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 4.70" DIA x 2.00"	Cast from 80-55-06 Ductile iron	8/22/90
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: .....      WEDGE HOLE DIA: .....      STRAND HOLE DIA: 0.72"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 7.00" Square x 1.1/2"	ASTM A-36	8/22/1990
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 3.7/8"      Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : LANG  
SYSTEM NAME: 7-0.6(Approved for 6 strand Approval  
PJACK (KIPS): 263.7 Concrete strength:

TENDON SIZE: 6  
STRAND DIAMETER: .6"  
ULTIMATE (KIPS): 351.6

---

**WEDGES**

WEDGE LENGTH: 1.595" Material  
12L14  
WEDGE ANGLE: 7 Deg 10'  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 5.40" DIA x 3.150"	ASTM A536 80-55-06	6/6/86
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg WEDGE HOLE DIA: STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 7" Square x 13/4"	ASTM A-36	6/6/1986
#2: 12" x 13" x 2"	ASTM A-36	6/6/1986
#3:		
#4:		
#5:		

BEARING HOLE DIA: 4.0" Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc  
SYSTEM NAME: SDI 12.6-8  
P/JACK (KIPS): 527  
Approval 11/27/2002  
Concrete strength: 4500psi Lt.Wt.  
TENDON SIZE: 12  
STRAND DIAMETER: 0.6"  
ULTIMATE (KIPS): 703

---

**WEDGES**

WEDGE LENGTH: 1.80"  
WEDGE ANGLE: 7°  
WEDGE INSIDE DIAMETER: 0.62"  
Material

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 7fl" x 3 3/8"	A536 GR. 80-55-06	11/27/02
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 6° 55'      WEDGE HOLE DIA: 1.16"      STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1:	A536 GR. 80-55-06	11/27/2002
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 5 3/8"      Spiral size and turns: #4-6 turn

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 14" x 5 7/16" o.d. x 3 3/8" i.d.	HDPE	
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 3fl" o.d.	galvanized spiro	
#2:		

---

Spiral : #4 spiral 13" o.d. , 6 turns @ 3" pitch

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc  
SYSTEM NAME: SDI 22.6-8  
P/JACK (KIPS): 967  
Approval 12/13/2002  
Concrete strength: 3500 psi Lt.Wt.

TENDON SIZE: 22  
STRAND DIAMETER: 0.6"  
ULTIMATE (KIPS): 1289

---

**WEDGES**

WEDGE LENGTH: 1.8" 2 part  
WEDGE ANGLE: 7°  
WEDGE INSIDE DIAMETER: 0.62"

Material

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 9" x4 1/8" Avar	A536 GR. 80-55-06	12/13/02
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE:                      WEDGE HOLE DIA: 1.16"                      STRAND HOLE DIA: .87"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1:	A536 GR. 80-55-06	12/13/2002
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 6 7/8"                      Spiral size and turns: #5- 7 turn

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 1' 6" x 7" o.d x 4" i.d.	HDPE	
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:	galvanized spiro	
#2:		

---

Spiral : #5 spiral @ 19" , 7 turns @ 3" pitch

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 1 bar  
SYSTEM NAME: 36mm Type S3 bar system Approval 7/7/2004 STRAND DIAMETER: 1.375" bar  
PJACK (KIPS): 178 Concrete strength: 6500 psi. Lt. Wt. ULTIMATE (KIPS): 237

---

**WEDGES**

Material  
WEDGE LENGTH: none  
WEDGE ANGLE:  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: none		
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: WEDGE HOLE DIA: STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 7" x 5" x 2"	ASTM A572 Gr. 50	7/7/2004
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 2" Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 3" ID	galvanized spiro	
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 1 bar  
SYSTEM NAME: 36mm Type ED bar system Approval STRAND DIAMETER: 1.375" bar  
PJACK (KIPS): 178 Concrete strength: 6500 psi. Lt. Wt. ULTIMATE (KIPS): 237

---

**WEDGES**

WEDGE LENGTH: none Material  
WEDGE ANGLE:  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: none		
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: WEDGE HOLE DIA: STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 7" x 7" x 2"	ASTM A36	7/7/2004
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 2" Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 3" ID	galvanized spiro	
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 1 bar  
SYSTEM NAME: 36mm Type ED-A bar Approval STRAND DIAMETER: 1.375" bar  
PJACK (KIPS): 178 Concrete strength: 3500 psi. ULTIMATE (KIPS): 237

---

**WEDGES**

WEDGE LENGTH: none Material  
WEDGE ANGLE:  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: none		
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: WEDGE HOLE DIA: STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 5" x 5" x 1"	ASTM A36	2/28/2005
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 1 11/16" Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 2" O.D.	galvanized spiro	
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 1 bar  
SYSTEM NAME: 36mm Type SE-A bar Approval STRAND DIAMETER: 1.375" bar  
PJACK (KIPS): 178 Concrete strength: 3500 psi. ULTIMATE (KIPS): 237

---

**WEDGES**

WEDGE LENGTH: none Material  
WEDGE ANGLE:  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: none		
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: WEDGE HOLE DIA: STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 5" x 6" x 1.25" w/ 2" x 6" pipe	ASTM A36	2/28/2005
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 2" Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 2" OD	galvanized spiro	
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 1 bar  
SYSTEM NAME: 46mm Type SE-A bar Approval STRAND DIAMETER: 1.75" bar  
PJACK (KIPS): 300 Concrete strength: 6000 psi. ULTIMATE (KIPS): 400

---

**WEDGES**

Material  
WEDGE LENGTH: none  
WEDGE ANGLE:  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: none		
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: WEDGE HOLE DIA: STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 7" x 7" x 1.75"	ASTM A36	3/18/2005
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 2.0625" Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 2.5" O.D.	galvanized spiro	
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 1 bar  
SYSTEM NAME: 46mm Type ED-A bar Approval STRAND DIAMETER: 1.75" bar  
PJACK (KIPS): 300 Concrete strength: 6000 psi. ULTIMATE (KIPS): 400

---

**WEDGES**

WEDGE LENGTH: none Material  
WEDGE ANGLE:  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: none		
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: WEDGE HOLE DIA: STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 6" x 6" x 1.5"	ASTM A36	3/18/2005
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 2.0625" Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 2.5" O.D.	galvanized spiro	
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 1 bar  
SYSTEM NAME: 65mm bar system Approval STRAND DIAMETER: 2.5" bar  
PJACK (KIPS): 586 Concrete strength: 6000 psi. ULTIMATE (KIPS): 781

---

**WEDGES**

WEDGE LENGTH: none Material  
WEDGE ANGLE:  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: WEDGE HOLE DIA: STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 9" dia. x 2.5"	ASTM A36	7/23/2003
#2: attached 4" x 6" sch.40 pipe		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 2.875 Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 3" ID	galvanized spiro	
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 1 bar  
SYSTEM NAME: 75mm A722 bar system Approval STRAND DIAMETER: 3" bar  
PJACK (KIPS): 738 Concrete strength: 6000 psi. ULTIMATE (KIPS): 984

---

**WEDGES**

WEDGE LENGTH: none Material  
WEDGE ANGLE:  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: WEDGE HOLE DIA: STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 10" x 2.5" Round	ASTM A36	11/3/2003
#2: attached 4.5" x 4" sch.40 pipe		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 2.875 Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 4" ID	galvanized spiro	
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 1 bar  
SYSTEM NAME: 75mm 4140 bar anchorage Approval STRAND DIAMETER: 3" bar  
PJACK (KIPS): 738 Concrete strength: 6000 psi. ULTIMATE (KIPS): 984

---

**WEDGES**

WEDGE LENGTH: none Material  
WEDGE ANGLE:  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 10" x 2.5" Round	ASTM A36	12/22/03
#2: attached 4.5" x 4" sch.40 pipe		
#3:		
#4:		

WEDGE HOLE ANGLE: WEDGE HOLE DIA: STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 10" x 2.5" Round	ASTM A36	12/22/2003
#2: attached 4.5" x 4" sch.40 pipe		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 2.875 Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 4" ID	galvanized spiro	
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 4  
SYSTEM NAME: SDI D4.6 Long Tail Approval STRAND DIAMETER: 0.6"  
PJACK (KIPS): 176 Concrete strength: 4500 psi Lt.Wt. ULTIMATE (KIPS): 234

**WEDGES**

WEDGE LENGTH: 1.81" Material  
Aisi 12L14 , 11L17  
WEDGE ANGLE: 7 Deg 5'  
WEDGE INSIDE DIAMETER: .63

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 2.13" x 2.05"	A536 Gr.80-55-06	9/27/02
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: WEDGE HOLE DIA: 1.14" STRAND HOLE DIA: .75"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 25 x 75	Galvanized spiro duct	
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 4  
SYSTEM NAME: SDI D4.6 Short Tail Approval STRAND DIAMETER: 0.6"  
PJACK (KIPS): 176 Concrete strength: 4500 psi Lt.Wt. ULTIMATE (KIPS): 234

**WEDGES**

WEDGE LENGTH: 1.81" Material  
Aisi 12L14 , 11L17  
WEDGE ANGLE: 7 Deg. 5'  
WEDGE INSIDE DIAMETER: .63"

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 2.13" x 2.05"	A536 Gr. 80-55-06	9/27/02
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: WEDGE HOLE DIA: 1.14" STRAND HOLE DIA: .75"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 25 x 75mm	Galvanized spiro duct	
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc.

TENDON SIZE: 4

SYSTEM NAME: SDI C4.6

Approval

STRAND DIAMETER: 0.6"

PJACK (KIPS): 176

Concrete strength: 4500 psi Lt.Wt.

ULTIMATE (KIPS): 234

---

**WEDGES**

WEDGE LENGTH: 1.80" 2 part

Material

WEDGE ANGLE: 7°

WEDGE INSIDE DIAMETER: 0.62"

---

**ANCHOR HEADS**

Anchor Size

Material

Approval Date

#1: 5 1/2" x 2 1/8"

A536 GR. 80-55-06

11/27/02

#2:

#3:

#4:

WEDGE HOLE ANGLE:

WEDGE HOLE DIA:

STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size

Material

Approval Date

#1: none used

#2:

#3:

#4:

#5:

BEARING HOLE DIA:

Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size

Material

Approval Date

#1: 1'2" x 2 7/8"

galvanized steel

#2:

#3:

#4:

#5:

---

**DUCTS**

Duct Size

Material

Approval Date

#1:

#2:

Spiral : 4 #5 stirrups

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 4  
SYSTEM NAME: SDI D4.6-8s C4.6D Approval STRAND DIAMETER: 0.6"  
PJACK (KIPS): 105 45% Concrete strength: 8000 psi ULTIMATE (KIPS): 234

---

**WEDGES**

WEDGE LENGTH: 1.80" 2 part Material  
WEDGE ANGLE:  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 5.5" x 2.5"	A536 GR. 80-55-06	1/20/03
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: WEDGE HOLE DIA: STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 6.5" x 3"	HDPE	
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 2" I.D.	galvanized spiro	
#2:		

Spiral : 7-#6 stirrups

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 4  
SYSTEM NAME: SDI C4.6 (D) Approval 3/24/2003 STRAND DIAMETER: 0.6"  
PJACK (KIPS): 176 Concrete strength: 6000 psi ULTIMATE (KIPS): 234

**WEDGES**

Material  
WEDGE LENGTH: 1.80" 2-part  
WEDGE ANGLE: 7°  
WEDGE INSIDE DIAMETER: 0.62"

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1:	ASTM A536 GR 80-55-06	4/23/03
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: WEDGE HOLE DIA: STRAND HOLE DIA:

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:	galvanized steel	
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 2" I.D.	galvanized spiro	
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 4  
SYSTEM NAME: SDI C4.6 Approval 9/19/2007 STRAND DIAMETER: 0.6"  
PJACK (KIPS): 176 Concrete strength: 3500 psi ULTIMATE (KIPS): 234

---

**WEDGES**

WEDGE LENGTH: 1.80" 2 part Material  
WEDGE ANGLE: 7°  
WEDGE INSIDE DIAMETER: 0.62"

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 5 3/4" x 2 1/8"	A536 GR. 80-55-06	9/19/07
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7° WEDGE HOLE DIA: 1 1/8" STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: none used		
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 13" x 3 1/4" transition	HDPE plastic	9/19/2007
#2: 8 7/16" x 2 11/16	HDPE plastic	9/19/2007
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 2" i.d.	Plastic	9/19/2007
#2: 1 x 3	Galvanized spiro	9/19/2007

Spiral : 4 #5 stirrups

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 4  
SYSTEM NAME: SDI D4.6 Short Tail Approval 9/19/2007 STRAND DIAMETER: 0.6"  
PJACK (KIPS): 176 Concrete strength: 3500 psi ULTIMATE (KIPS): 234

**WEDGES**

WEDGE LENGTH: 1.81" Material  
Aisi 12L14 , 11L17  
WEDGE ANGLE: 7 Deg. 5'  
WEDGE INSIDE DIAMETER: .63"

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 2 x 2	A536 Gr. 80-55-06	9/19/07
#2: 2 x 2	C1045 OR C1050	9/19/2007
#3:		
#4:		

WEDGE HOLE ANGLE: 7° WEDGE HOLE DIA: 1.14" STRAND HOLE DIA: .75"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 2"	plastic	9/19/2007
#2: 1" x 3"	Galvanized spiro duct	9/19/2007

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc.		TENDON SIZE: 4
SYSTEM NAME: SDI 4.6F	Approval 4/22/2009	STRAND DIAMETER: 0.6"
PJACK (KIPS): 176	Concrete strength: 3500 psi	ULTIMATE (KIPS): 234

---

**WEDGES**

WEDGE LENGTH: 1.77" (2 part)		Material AISI 11L17 or 12L14
WEDGE ANGLE: 7°		
WEDGE INSIDE DIAMETER:		

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 4.31"W x 8" L x 2.12"H; 3.15"OD	ASTM 536 Grade 80-55-06	
#2:		
#3:		
#4:		
WEDGE HOLE ANGLE: 7°	WEDGE HOLE DIA: 1.16"	STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		
BEARING HOLE DIA:	Spiral size and turns:	

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 13" x 3-1/4" wide x 2-11/16" ID	HDPE	
#2: 8-7/16"x 2-11/16" ID x 2-5/16"ID	HDPE	
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 2" ID		
#2: 1" x 3"		
Spiral :		

---

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 12  
SYSTEM NAME: SDI 12.6-8 Approval STRAND DIAMETER: 0.6"  
PJACK (KIPS): 527 Concrete strength: 6500 psi ULTIMATE (KIPS): 703

---

**WEDGES**

WEDGE LENGTH: 1.80" 2 part Material  
WEDGE ANGLE: 7°  
WEDGE INSIDE DIAMETER: .62"

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 7.25" x 3.375"	A536 GR. 80-55-06	11/25/02
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 6° 55' WEDGE HOLE DIA: 1.16" STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 11.5" x 3" round	A536 GR. 80-55-06	11/25/2002
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 5.375" Spiral size and turns: #4 -4.4 turn

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 14" x 5 7/16"	HDPE	
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 3.25" O.D.	galvanized spiro	
#2:		

---

Spiral : #4 spiral @ 13" o.d. , 4.4 turns @ 4" pitch

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 12  
SYSTEM NAME: SDI P12.6-8s Approval STRAND DIAMETER: 0.6"  
PJACK (KIPS): 316 45% Concrete strength: 8000 psi ULTIMATE (KIPS): 703

---

**WEDGES**

WEDGE LENGTH: 1.80" 2 part Material  
WEDGE ANGLE: 7 Deg  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 7.25" x 3.375"	A536 GR. 80-55-06	1/24/03
#2: Avar Acs 12.6		
#3:		
#4:		

WEDGE HOLE ANGLE: WEDGE HOLE DIA: STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 8.750" x 3" Rd.	A536 GR. 80-55-06	1/24/2003
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 5.25" Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 14" x 5.4375"	HDPE	
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 76mm	galvanized spiro	
#2:		

---

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 12  
SYSTEM NAME: SDI C12.6-8-S Approval STRAND DIAMETER: 0.6"  
PJACK (KIPS): 527 Concrete strength: 6500 psi ULTIMATE (KIPS): 703

---

**WEDGES**

WEDGE LENGTH: 1.80" 2 part Material  
WEDGE ANGLE: 7°  
WEDGE INSIDE DIAMETER: .62"

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 7.25" x 3.375" w/ step	A536 GR. 80-55-06	12/10/04
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 6° 55' WEDGE HOLE DIA: 1.16" STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 11.5" x 3" round	A536 GR. 80-55-06	11/25/2002
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 5.375" Spiral size and turns: #4 -4.4 turn

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 14" x 5 7/16"	HDPE	
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 3.25" O.D.	galvanized spiro	
#2:		

---

Spiral : #4 spiral @ 13" o.d. , 4.4 turns @ 4" pitch

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 12  
SYSTEM NAME: SDI 12.6-PC Approval 8/20/2009 STRAND DIAMETER: 0.6"  
PJACK (KIPS): 527 Concrete strength: 3500 psi ULTIMATE (KIPS): 703

**WEDGES**

WEDGE LENGTH: 1.77" (2 part) Material  
WEDGE ANGLE: 7° AISI 11L17 or 12L14  
WEDGE INSIDE DIAMETER:

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 5.20" OD x 3.00"	ASTM 536 Grade 80-55-06	
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7° WEDGE HOLE DIA: 1.16" STRAND HOLE DIA:

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 11.50" OD x 5.50" ID x 3.00"	ASTM 536 Grade 80-55-06	
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: Spiral size and turns:

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 14" x 5-7/16" OD x 3-3/8" ID	HDPE	
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 3" ID		
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 19  
SYSTEM NAME: SDI D19.6 Approval 3/24/2003 STRAND DIAMETER: 0.6"  
PJACK (KIPS): 835 Concrete strength: 5000 psi ULTIMATE (KIPS): 1113

---

**WEDGES**

WEDGE LENGTH: 1.80" 2-part Material  
WEDGE ANGLE: 7°  
WEDGE INSIDE DIAMETER: 0.62"

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 2" x 2 1/16"	SAE J434 D-5506	4/23/03
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7° ± 5' WEDGE HOLE DIA: 1.13" STRAND HOLE DIA: 0.70"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 4fl" O.D.	galvanized spiro	4/23/2003
#2:		

Spiral : none

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 19  
SYSTEM NAME: SDI 19.6-8 Approval STRAND DIAMETER: 0.6"  
PJACK (KIPS): 835 Concrete strength: 6500 psi ULTIMATE (KIPS): 1113

---

**WEDGES**

WEDGE LENGTH: 1.80" x 1.12" 2 part Material  
WEDGE ANGLE: 7°  
WEDGE INSIDE DIAMETER: 0.62"

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 8.25" x 4"	A536 GR. 80-55-06	1/20/03
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 6° 55' WEDGE HOLE DIA: 1.16" STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 14.5" x 3" RD	A536 GR. 80-55-06	1/20/2003
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 6.25" Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 15.5" x 7"	HDPE	
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 4.25" O.D.	galvanized spiro	
#2:		

---

Spiral : 9-#6 stirrups

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 19  
SYSTEM NAME: SDI 19.6-S Approval 8/13/2007 STRAND DIAMETER: 0.6"  
PJACK (KIPS): 835 Concrete strength: 3500 psi ULTIMATE (KIPS): 1113

**WEDGES**

Material  
WEDGE LENGTH: 1.80" x 1.12" 2 part  
WEDGE ANGLE: 7°  
WEDGE INSIDE DIAMETER: 0.62"

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: Avar 8.25" x 4" w/ step	A536 GR. 80-55-06	12/10/04
#2: SDI 8.125" x 3.8" w/step	A536 GR. 80-55-06	08/13/2007
#3:		
#4:		

WEDGE HOLE ANGLE: 6° 55' WEDGE HOLE DIA: 1.16" STRAND HOLE DIA:

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 14.5" x 3" RD	A536 GR. 80-55-06	1/20/2003
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 6.25" Spiral size and turns: #4-4.5 turns

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 15.5" x 7"	HDPE	
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 4.25" O.D.	galvanized spiro	
#2:		

Spiral : #4 spiral 17" O.D. 4.5 turns@ 4° pitch

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 19  
SYSTEM NAME: SDI 19.6 P.C. Approval 8/13/2007 STRAND DIAMETER: 0.6"  
PJACK (KIPS): 835 Concrete strength: 3500 psi ULTIMATE (KIPS): 1113

**WEDGES**

Material  
WEDGE LENGTH: 1.80" x 1.12" 2 part  
WEDGE ANGLE: 7°  
WEDGE INSIDE DIAMETER: 0.62"

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: Avar 8.25" x 4" w/ step Avar	A536 GR. 80-55-06	7/14/05
#2: SDI 8.125" x 3.8" w/step	A536 GR. 80-55-06	8/13/2007
#3:		
#4:		

WEDGE HOLE ANGLE: 6° 55' WEDGE HOLE DIA: 1.16" STRAND HOLE DIA:

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 13" x 3" RD	A536 GR. 80-55-06	7/14/2005
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 6.25" Spiral size and turns: #5-7-turns

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 19.94" x 6.5"	HDPE	
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 4.25" O.D.	galvanized spiro	
#2:		

Spiral : #5 spiral 17" od 7-turns @ 3" pitch

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 22  
SYSTEM NAME: SDI 22.6-8 Approval STRAND DIAMETER: 0.6"  
PJACK (KIPS): 968 Concrete strength: 6,500 PSI ULTIMATE (KIPS): 1289.2

---

**WEDGES**

WEDGE LENGTH: 1.80" 2 Part Material  
WEDGE ANGLE: 7 Deg.  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 9" x 4 1/8"	A536 GR. 80-55-06	10/7/02
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg. WEDGE HOLE DIA: 1.16" STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1:	A536 GR. 80-55-06	10/7/2002
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 6 7/8" Spiral size and turns: #4-4.5

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 14" x 7"	HDPE	
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:	Galvanized Spiro	
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 22  
SYSTEM NAME: SDI 22.6-S Approval STRAND DIAMETER: 0.6"  
PJACK (KIPS): 968 Concrete strength: 6,500 PSI ULTIMATE (KIPS): 1289.2

---

**WEDGES**

WEDGE LENGTH: 1.80" 2 Part Material  
WEDGE ANGLE: 7 Deg.  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 9" x 4 1/8" w/step	A536 GR. 80-55-06	12/16/04
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg. WEDGE HOLE DIA: 1.16" STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1:	A536 GR. 80-55-06	10/7/2002
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 6 7/8" Spiral size and turns: #4-4.5

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 14" x 7"	HDPE	
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:	Galvanized Spiro	
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 27  
SYSTEM NAME: SDI 27.6-8 Approval STRAND DIAMETER: 0.6"  
PJACK (KIPS): 1187 Concrete strength: 6500 psi. ULTIMATE (KIPS): 1582

---

**WEDGES**

WEDGE LENGTH: 1.80" 2 part Material  
WEDGE ANGLE: 7 Deg.  
WEDGE INSIDE DIAMETER: 0.62"

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 9 5/8" x 43/8"	A536 GR. 80-55-06	11/7/02
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 6 Deg. 55' WEDGE HOLE DIA: 1.16" STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 17" x 3fl"	A536 GR. 80-55-06	11/7/2002
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 7 5/8" Spiral size and turns: #5-4.2 turn

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:	HDPE	
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 4 1/2" O.D.	galvanized spiro	
#2:		

---

Spiral : #5 spiro @ 18" 4.2 turn @ 4" pitch

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 27  
SYSTEM NAME: SDI D27.6 Approval 9/18/2007 STRAND DIAMETER: 0.6"  
PJACK (KIPS): 1187 Concrete strength: 3500 psi ULTIMATE (KIPS): 1582

**WEDGES**

Material  
WEDGE LENGTH: 1.80" 2-part  
WEDGE ANGLE: 7°  
WEDGE INSIDE DIAMETER: 0.62"

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 2" x 2"	SAE J434 D-5506	4/23/03
#2: 2 x 2	A536 gr. 80-55-06	9/18/2007
#3: 2 x 2	C1045 or C1050	9/18/2007
#4:		

WEDGE HOLE ANGLE: 7° ±5' WEDGE HOLE DIA: 1.13" STRAND HOLE DIA: 0.70"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: Spiral size and turns: none

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 4 <sup>3</sup> / <sub>4</sub> "	galvanized spiro duct	
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 27  
SYSTEM NAME: SDI 27.6-S Approval 8/14/2006 STRAND DIAMETER: 0.6"  
PJACK (KIPS): 1187 Concrete strength: 3500 psi. ULTIMATE (KIPS): 1582

**WEDGES**

Material  
WEDGE LENGTH: 1.80" 2 part  
WEDGE ANGLE: 7 Deg.  
WEDGE INSIDE DIAMETER: 0.62"

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 9 5/8" x 43/8" w/step	A536 GR. 80-55-06	12/16/04
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 6 Deg. 55' WEDGE HOLE DIA: 1.16" STRAND HOLE DIA:

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 17" x 3fl"	A536 GR. 80-55-06	11/7/2002
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 7 5/8" Spiral size and turns: #5-4.2 turn

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:	HDPE	
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 4 1/2" O.D.	galvanized spiro	
#2:		

Spiral : #5 spiro @ 18" 4.2 turn @ 4" pitch

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 27  
SYSTEM NAME: SDI 27.6 Approval 11/15/2007 STRAND DIAMETER: 0.6"  
PJACK (KIPS): 1187 Concrete strength: 3500 psi. ULTIMATE (KIPS): 1582

---

**WEDGES**

WEDGE LENGTH: 1.8125" 2 part Material  
WEDGE ANGLE: 7 Deg.  
WEDGE INSIDE DIAMETER: 0.62"

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 9 5/8" x 4" w/step	A536 GR. 80-55-06	11/15/07
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: WEDGE HOLE DIA: 1.1875" STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 17"dia. x 3.25"	A536 GR. 80-55-06	11/15/2007
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 7 5/8" Spiral size and turns: #5-4.2 turn

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 1'6.5"	HDPE	
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 4.75" O.D.	galvanized spiro	
#2:		

---

Spiral : #5 spiro @ 18" 4.2 turn @ 4" pitch

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 27  
SYSTEM NAME: SDI 27.6-P.C. Approval 11/15/2007 STRAND DIAMETER: 0.6"  
PJACK (KIPS): 1187 Concrete strength: 3500 psi. ULTIMATE (KIPS): 1582

---

**WEDGES**

WEDGE LENGTH: 1.8125" 2 part Material  
WEDGE ANGLE: 7 Deg.  
WEDGE INSIDE DIAMETER: 0.62"

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 9 5/8" x 4" w/step	A536 GR. 80-55-06	11/15/07
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: WEDGE HOLE DIA: 1.1875" STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 17"dia. x 3.25" P.C.	A536 GR. 80-55-06	11/15/2007
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 7 5/8" Spiral size and turns: #5-4.2 turn

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 1'6.5"	HDPE	
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 4.75" O.D.	galvanized spiro	
#2:		

---

Spiral : #5 spiro @ 18" 4.2 turn @ 4" pitch

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 31  
SYSTEM NAME: SDI 31.6-8 & C31.6-8 Approval STRAND DIAMETER: 0.6"  
PJACK (KIPS): 1362 Concrete strength: 3500 psi. ULTIMATE (KIPS): 1817

**WEDGES**

Material  
WEDGE LENGTH: 1.80" 2 Part  
WEDGE ANGLE: 7 °  
WEDGE INSIDE DIAMETER:

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 10.25" x 4.25"	AISI 1040/1045 HR	11/25/02
#2: 10.625 x 4.875	A536 GR. 80-55-06	8/6/2003
#3:		
#4:		

WEDGE HOLE ANGLE: 6° 55' WEDGE HOLE DIA: 1.16" STRAND HOLE DIA: 11/16"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 18" x 3" Round	A536 GR. 80-55-06	11/25/2002
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 8.125" Spiral size and turns: #5-5.7 turn

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 8 5/16" x 18.5"	HDPE	
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 127 mm o.d.	galvanized spiro	
#2:		

Spiral : #5 spiral @ 20" 5.7 turns @ 3" pitch

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 31  
SYSTEM NAME: C31.6-8-S Approval STRAND DIAMETER: 0.6"  
PJACK (KIPS): 1362 Concrete strength: 6500 psi. ULTIMATE (KIPS): 1817

---

**WEDGES**

WEDGE LENGTH: 1.80" 2 Part Material  
WEDGE ANGLE: 7 °  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1:		
#2: 10.625 x 4.875 w/step	A536 GR. 80-55-06	12/10/2004
#3:		
#4:		
WEDGE HOLE ANGLE: 6° 55'	WEDGE HOLE DIA: 1.16"	STRAND HOLE DIA: 11/16"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 18" x 3" Round	A536 GR. 80-55-06	11/25/2002
#2:		
#3:		
#4:		
#5:		
BEARING HOLE DIA: 8 .125"	Spiral size and turns: #5-5.7 turn	

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 8 5/16" x 18.5"	HDPE	
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 127 mm o.d.	galvanized spiro	
#2:		

---

Spiral : #5 spiral @ 20" 5.7 turns @ 3" pitch

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 37  
SYSTEM NAME: SDI C37.6-8 Approval STRAND DIAMETER: 0.6"  
PJACK (KIPS): 1626 Concrete strength: 3500 psi ULTIMATE (KIPS): 2168

**WEDGES**

Material  
WEDGE LENGTH: 1.80" 2 Part  
WEDGE ANGLE: 7 Deg.  
WEDGE INSIDE DIAMETER: 0.62"

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1:	AISI C1045 H.R. Normalized	11/7/02
#2:	Machined Head	
#3:		
#4:		

WEDGE HOLE ANGLE: 6 Deg. 55' WEDGE HOLE DIA: 1 3/16" STRAND HOLE DIA: 11/16"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 20" Dia. x 3"	A536 GR. 80-55-06	11/7/2002
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 9 1/8" Spiral size and turns: #5-5.2 turns

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 23" long 9 5/16" O.D. 5 13/16 id	HDPE	
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 5 1/2" O.D.	galvanized spiro	
#2:		

Spiral : #5 spiro @ 22" 5.2 turn @ 4" pitch

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : Schwager Davis Inc. TENDON SIZE: 37  
SYSTEM NAME: SDI C37.6-8-S Approval STRAND DIAMETER: 0.6"  
PJACK (KIPS): 1626 Concrete strength: 6500 psi ULTIMATE (KIPS): 2168

**WEDGES**

Material  
WEDGE LENGTH: 1.80" 2 Part  
WEDGE ANGLE: 7 Deg.  
WEDGE INSIDE DIAMETER: 0.62"

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1:	AISI C1045 H.R. Normalized	12/10/04
#2:	Machined Head	
#3:		
#4:		

WEDGE HOLE ANGLE: 6 Deg. 55' WEDGE HOLE DIA: 1 3/16" STRAND HOLE DIA: 11/16"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 20" Dia. x 3"	A536 GR. 80-55-06	11/7/2002
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 9 1/8" Spiral size and turns: #5-5.2 turns

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 23" long 9 5/16" O.D. 5 13/16 id	HDPE	
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 5 1/2" O.D.	galvanized spiro	
#2:		

Spiral : #5 spiro @ 22" 5.2 turn @ 4" pitch

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : VSL  
SYSTEM NAME: E5-1  
PJACK (KIPS): 31

Approval  
Concrete strength:

TENDON SIZE: 1  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 41.3

---

**WEDGES**

WEDGE LENGTH: 1.570"  
WEDGE ANGLE: 7 Deg  
WEDGE INSIDE DIAMETER:

Material  
86L20 Rc 59-62

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 13/4" Square x 1.62"	C1117, C11L17	5/15/86
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.035"      STRAND HOLE DIA: 0.57"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 31/2" Square x 3/8"	ASTM A-36 42 KSI (Min yield )	5/15/1986
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 3/4      Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:	1" Pipe	5/15/1986
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 1" OD		5/15/1986
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : VSL  
SYSTEM NAME: E5-3S  
PJACK (KIPS): 93

Approval  
Concrete strength:

TENDON SIZE: 3  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 123.9

---

**WEDGES**

WEDGE LENGTH: 1.570"  
WEDGE ANGLE: 7 Deg  
WEDGE INSIDE DIAMETER:

Material  
86L20 Rc 59-62

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 33/4" DIA x 2.40"	C1050 HR	
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.035"      STRAND HOLE DIA: 0.570"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA:      Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :





State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : VSL  
SYSTEM NAME: S06-4 (using 1/2" strand ) Approval  
PJACK (KIPS): 123.9 Concrete strength:

TENDON SIZE: 4  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 165.2

---

**WEDGES**

WEDGE LENGTH: 1.500"(two part ) Material  
WEDGE ANGLE: 7 Deg 10' AISI 11 L 17  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 11.0"x4 1/2"x2.968"	ASTM A536 Gr 80-55-06	3/26/93
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg WEDGE HOLE DIA: 1.150" STRAND HOLE DIA: .720"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 8.12"	High density polyethylene	6/3/1988
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : VSL  
SYSTEM NAME: E5-7  
PJACK (KIPS): 217

Approval  
Concrete strength:

TENDON SIZE: 7  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 289.1

---

**WEDGES**

WEDGE LENGTH: 1.570"  
WEDGE ANGLE: 7 Deg  
WEDGE INSIDE DIAMETER:

Material  
86L20 Rc 59-62

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 4 1/2" DIA x 2.4"	C1050	12/5/75
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg

WEDGE HOLE DIA: 1.035"

STRAND HOLE DIA: 0.57"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 8 1/4" Square x 1 1/4"	ASTM A-36 42 KSI (Min yield )	
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 27/8"

Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 12"	16 Gage	
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 2 1/4" OD		
#2:		

---

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : VSL  
SYSTEM NAME: EC5-7  
PJACK (KIPS): 217

Approval  
Concrete strength:

TENDON SIZE: 7  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 289.1

---

**WEDGES**

WEDGE LENGTH: 1.570"  
WEDGE ANGLE: 7 Deg  
WEDGE INSIDE DIAMETER:

Material  
86L20 Rc 59-62

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 4 1/2" DIA x 2.562"	ASTM- A536 Gr 80-55-06	6/3/88
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: WEDGE HOLE DIA: STRAND HOLE DIA: 0.57"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

---

Spiral :



State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : VSL  
SYSTEM NAME: EC5-12  
PJACK (KIPS): 372

Approval  
Concrete strength:

TENDON SIZE: 12  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 495.6

---

**WEDGES**

WEDGE LENGTH: 1.570"  
WEDGE ANGLE: 7 Deg  
WEDGE INSIDE DIAMETER:

Material  
86L20 Rc 59-62

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 6" DIA x 2.4"	ASTM A536,Gr 80-55-06	6/22/81
#2: 6" DIA x 2.562"	ASTM A536,Gr 80-55-06	6/3/1988
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg

WEDGE HOLE DIA: 1.035"

STRAND HOLE DIA: 0.57"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 8.86" Square x 7.086"	ASTM A536,Gr 80-55-06	12/18/1980
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 4.33"

Spiral size and turns: #4-6 turns

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: Integral	ASTM A536,Gr 80-55-06	
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 31/8" OD	22 Gage	
#2:		

---

Spiral : #4 @ 21/5" x 11" O.D. dia - total 6 turns

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : VSL  
SYSTEM NAME: E5-12  
PJACK (KIPS): 372

Approval  
Concrete strength:

TENDON SIZE: 12  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 495.6

---

**WEDGES**

WEDGE LENGTH: 1.570"  
WEDGE ANGLE: 7 Deg  
WEDGE INSIDE DIAMETER:

Material  
86L20 Rc 59-62

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 6" DIA x 2.4"	C1050 HR	12/5/75
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.035"      STRAND HOLE DIA: 0.57"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 103/4" Square x 11/2"	ASTM A-36 42 KSI (Min yield )	6/12/1981
#2: 123/4" x 87/8" x 2"	ASTM A-36 42 KSI ( Min yield )	6/12/1981
#3:		
#4:		
#5:		

BEARING HOLE DIA: 41/8"      Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 18"	16 Gage	
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 25/8" OD		
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : VSL  
SYSTEM NAME: E5-19  
PJACK (KIPS): 589

Approval  
Concrete strength:

TENDON SIZE: 19  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 784.7

---

**WEDGES**

WEDGE LENGTH: 1.570"  
WEDGE ANGLE: 7 Deg  
WEDGE INSIDE DIAMETER:

Material  
86L20 Rc 59-62

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 7" DIA x 2.95"	ASTM A-536 Gr 80-55-06	6/22/81
#2: 7" DIA X 2.95"	C 1050 HR	12/5/1975
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg

WEDGE HOLE DIA: 1.035"

STRAND HOLE DIA: 0.57"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 131/2" SQUARE X 13/4"	ASTM A-36 . 42 KSI (Min yield )	
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 5.315"

Spiral size and turns:

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 22"	16 Gage	
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 31/4" OD		
#2:		

---

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : VSL  
SYSTEM NAME: EC5-19  
PJACK (KIPS): 589

Approval  
Concrete strength:

TENDON SIZE: 19  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 784.7

---

**WEDGES**

WEDGE LENGTH: 1.570"  
WEDGE ANGLE: 7 Deg  
WEDGE INSIDE DIAMETER:

Material  
AISI 86L20 Rc 59-62

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 7" DIA x 2.95"	ASTM A-536 Gr 80-55-06	6/22/81
#2: 7" DIA x 3.156"	ASTM A-536 Gr 80-55-06	6/3/1988
#3:		
#4:		

WEDGE HOLE ANGLE: WEDGE HOLE DIA: STRAND HOLE DIA: .570"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 11" Square x 10.236"	ASTM A536, Gr 80-55-06	4/16/1984
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 5.315" Spiral size and turns:

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: Integral	ASTM A536, Gr 80-55-06	4/16/1984
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

---

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : VSL  
SYSTEM NAME: E5-12D  
PJACK (KIPS): 744

Approval  
Concrete strength:

TENDON SIZE: 24  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 991.2

---

**WEDGES**

WEDGE LENGTH: 1.500"  
WEDGE ANGLE: 7 Deg  
WEDGE INSIDE DIAMETER:

Material  
AISI 86L20 Rc 59-62

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 6" DIA x 2.4"	C1050	
#2: 8" Square x 3.0"	C1045, 1144	12/3/1982
#3:		
#4:		

WEDGE HOLE ANGLE:                      WEDGE HOLE DIA:                      STRAND HOLE DIA:

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 183/4" x 121/2" x 13/4"	AISI 1040 , 42 KSI (Min yield )	2/2/1972
#2: 151/4" Square x 2.0"	ASTM A-36	3/26/1984
#3:		
#4:		
#5:		

BEARING HOLE DIA: 63/4"                      Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 35"	20 Gage	12/3/1982
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 39/16" OD	26 Gage	12/3/1982
#2:		

---

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : VSL  
SYSTEM NAME: EC5-27  
PJACK (KIPS): 837

Approval  
Concrete strength:

TENDON SIZE: 27  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 1115.1

---

**WEDGES**

WEDGE LENGTH: 1.570"  
WEDGE ANGLE: 7 Deg  
WEDGE INSIDE DIAMETER:

Material  
AISI 86L20 Rc 59-62

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 9" DIA x 3.95"	AISI C1050 HR	2/26/85
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg

WEDGE HOLE DIA: 1.035"

STRAND HOLE DIA: 0.570"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 12.375" Square x 13.385"	ASTM A-536,Gr 80-55-06	2/26/1985
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 7.007"

Spiral size and turns:

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: Integral		2/26/1985
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

---

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : VSL  
SYSTEM NAME: E5-31  
PJACK (KIPS): 961

Approval  
Concrete strength:

TENDON SIZE: 31  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 1280.3

---

**WEDGES**

WEDGE LENGTH: 1.570"      Material  
WEDGE ANGLE: 7 Deg      AISI 86L20 Rc 59-62  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 9" DIA x 3.95"	C1050 HR	12/5/75
#2: 9" DIA X 4"	C1050 HR,C1045	10/28/1991
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.035"      STRAND HOLE DIA: 0.57"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 17 1/2" Square x 2 1/4"	ASTM A-36 42 KSI (Min yield )	1/28/1991
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 6 3/4"      Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 22"	16 Gage	
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 315/16		
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : VSL  
SYSTEM NAME: EC5-31  
PJACK (KIPS): 961

Approval  
Concrete strength:

TENDON SIZE: 31  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 1280.3

---

**WEDGES**

WEDGE LENGTH: 1.570"  
WEDGE ANGLE: 7 Deg  
WEDGE INSIDE DIAMETER:

Material  
AISI 86L20 Rc 59-62

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 9" DIA x 3.95"	C1050 HR	2/26/85
#2: 9" DIA X 4"	ASTM A536 Gr 80-55-06	10/28/1991
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg

WEDGE HOLE DIA: 1.035"

STRAND HOLE DIA: 0.625"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 14" Square X 13.385"	ASTM A 536,Gr 80-55-06	2/26/1985
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 7".00

Spiral size and turns: #4- 8 turns

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: Integral	ASTM A536,Gr 80-55-06	
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 4 1/4" OD	22 Gage	
#2:		

---

Spiral : #4 17"OD, 2" pitch, 8 turn , grad 60 for EC 5-31

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : VSL  
SYSTEM NAME: L 5-31/42 Loop Anchorage Approval  
PJACK (KIPS): 961 Concrete strength:

TENDON SIZE: 31  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 1280.3

---

**WEDGES**

WEDGE LENGTH: 1.47" Material  
WEDGE ANGLE: 7 Deg +10' AISI -11L17  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: EC5-31 (9" DIA X 4" )	ASTM A536 Gr 80-55-06	1/28/91
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg +5'-15 WEDGE HOLE DIA: 1.035" STRAND HOLE DIA: 0.625"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: E5-31 (17 1/2" DIA X 2 1/4" )	ASTM A-36	1/28/1991
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 63/4" Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:		
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : VSL  
SYSTEM NAME: ECP5-31 (Bearing plate ) Approval  
PJACK (KIPS): 960 Concrete strength:

TENDON SIZE: 31  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 1280

---

**WEDGES**

WEDGE LENGTH: 1.47" Material  
WEDGE ANGLE: 7 Deg 10'+5' AISI 11L17  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 9"DIA x 4" (EC5-31 )	ASTM A536 Gr 80-55-06	10/28/91
#2: 9"DIA x 4" (E5-31 )	C1050 -C 1045 H.R	10/28/1991
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg WEDGE HOLE DIA: 1.035" STRAND HOLE DIA: 0.625"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 17.5" x17.5" x2.5"	ASTM A536 Gr 80-55-06	7/3/1991
#2:		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 7" Spiral size and turns: none

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1:	16 Gage Carbon Steel	7/3/1991
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1:		
#2:		

Spiral :

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : VSL  
SYSTEM NAME: CS 5-31 (Revoke) Approval  
PJACK (KIPS): 960 Concrete strength:  
TENDON SIZE: 31  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 1280

**WEDGES**

WEDGE LENGTH: 1.47" Material  
WEDGE ANGLE: 7 Deg 10'+5' AISI 11L17  
WEDGE INSIDE DIAMETER:

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 9.00"DIA x 3 1/4"	ASTM A897-90 Gr 125-80-10 (REVOKE)	3/28/94
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg WEDGE HOLE DIA: 1.035" STRAND HOLE DIA: 0.562"

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 12.60" DIA X2.05"(Metal)	ASTM -A536 Gr 80-55-06	3/28/1994
#2: Total with concrete 3.94"	REVOKE for this anchorhead	4/6/1995
#3:		
#4:		
#5:		

BEARING HOLE DIA: 6.89" Spiral size and turns: #5 -7 turns

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 22.44"	P. E	3/28/1994
#2:		
#3:		
#4:		
#5:		

**DUCTS**

Duct Size	Material	Approval Date
#1: 4 1/8"O.D		3/28/1994
#2:		

Spiral : #5- 18"O.D. 2" Pitch, 7 turn, Gr 60 for CS5-31

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : VSL  
SYSTEM NAME: CS/EC5-31  
PJACK (KIPS): 960.2

Approval  
Concrete strength:

TENDON SIZE: 31  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 1280.3

---

**WEDGES**

WEDGE LENGTH: 1.47" Material  
WEDGE ANGLE: 7 Deg 10'+5' AISI 11L17  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 9.00"DIA x 4.00"	ASTM A536 Gr 80-55-06	1/3/96
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg WEDGE HOLE DIA: 1.035" STRAND HOLE DIA: 0.63"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 12.60" DIA X2.05"(Metal)	ASTM -A536 Gr 80-55-06	1/3/1996
#2: Total with concrete 3.94"		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 6.89" Spiral size and turns: #5- 7 turns

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 22.44"	P. E	3/28/1994
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 4 1/8"O.D		3/28/1994
#2:		

---

Spiral : #5- 18"O.D. 2" Pitch, 7 turn, Gr 60 for CS5-31

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : VSL  
SYSTEM NAME: CS5-43  
PJACK (KIPS): 1331.9

Approval  
Concrete strength:

TENDON SIZE: 43  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 1775.9

---

**WEDGES**

WEDGE LENGTH: 1.47"  
WEDGE ANGLE: 7 Deg 10'+5'  
WEDGE INSIDE DIAMETER:

Material  
AISI 86 L20 RC 59-62

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 11.00"DIAX4.00" Austempered	ASTM A897 Gr 155-120-08, SUS.	JUN 9, 97 6/17/96
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.035"      STRAND HOLE DIA: 0.562"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 15.35"DIAX4.72" High strenght	ASTM A536 Gr 80-55-06	6/17/1996
#2: Mortar Cast to the Back		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 9.11"      Spiral size and turns: #5- 8 turns

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 34 3/4"	P.E	6/17/1996
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 5 1/2"		6/17/1996
#2:		

Spiral : #5 OD 18", 2" Pitch , 8 Turns

State of California  
Prestress / Post-Tensioning Strand Systems  
Approved Hardware Listing

updated: 8/12/2010

**GENERAL**

COMPANY : VSL  
SYSTEM NAME: ES5-43  
PJACK (KIPS): 1332

Approval  
Concrete strength:

TENDON SIZE: 43  
STRAND DIAMETER: 1/2"  
ULTIMATE (KIPS): 1775.9

---

**WEDGES**

WEDGE LENGTH: 1.47"(2 Part)      Material  
WEDGE ANGLE: 7Deg10'      AISI 11 L 17  
WEDGE INSIDE DIAMETER:

---

**ANCHOR HEADS**

Anchor Size	Material	Approval Date
#1: 11.1" DIA X 5.250"	C1050 Forged	11/4/96
#2:		
#3:		
#4:		

WEDGE HOLE ANGLE: 7 Deg      WEDGE HOLE DIA: 1.035"      STRAND HOLE DIA: 0.562"

---

**BEARING PLATES**

Bearing Plate Size	Material	Approval Date
#1: 15.35"DIA X 4.72" High strenght	ASTM A536 Gr 80-55-06	6/17/1996
#2: Mortar Cast to the Back		
#3:		
#4:		
#5:		

BEARING HOLE DIA: 9.11"      Spiral size and turns: #5 - 8 turns

---

**TRUMPETS**

Trumpet Size	Material	Approval Date
#1: 343/4"	P.E	6/17/1996
#2:		
#3:		
#4:		
#5:		

---

**DUCTS**

Duct Size	Material	Approval Date
#1: 5 1/2"		6/17/1996
#2:		

Spiral : #5 OD 18", 2" Pitch , 8 Turns