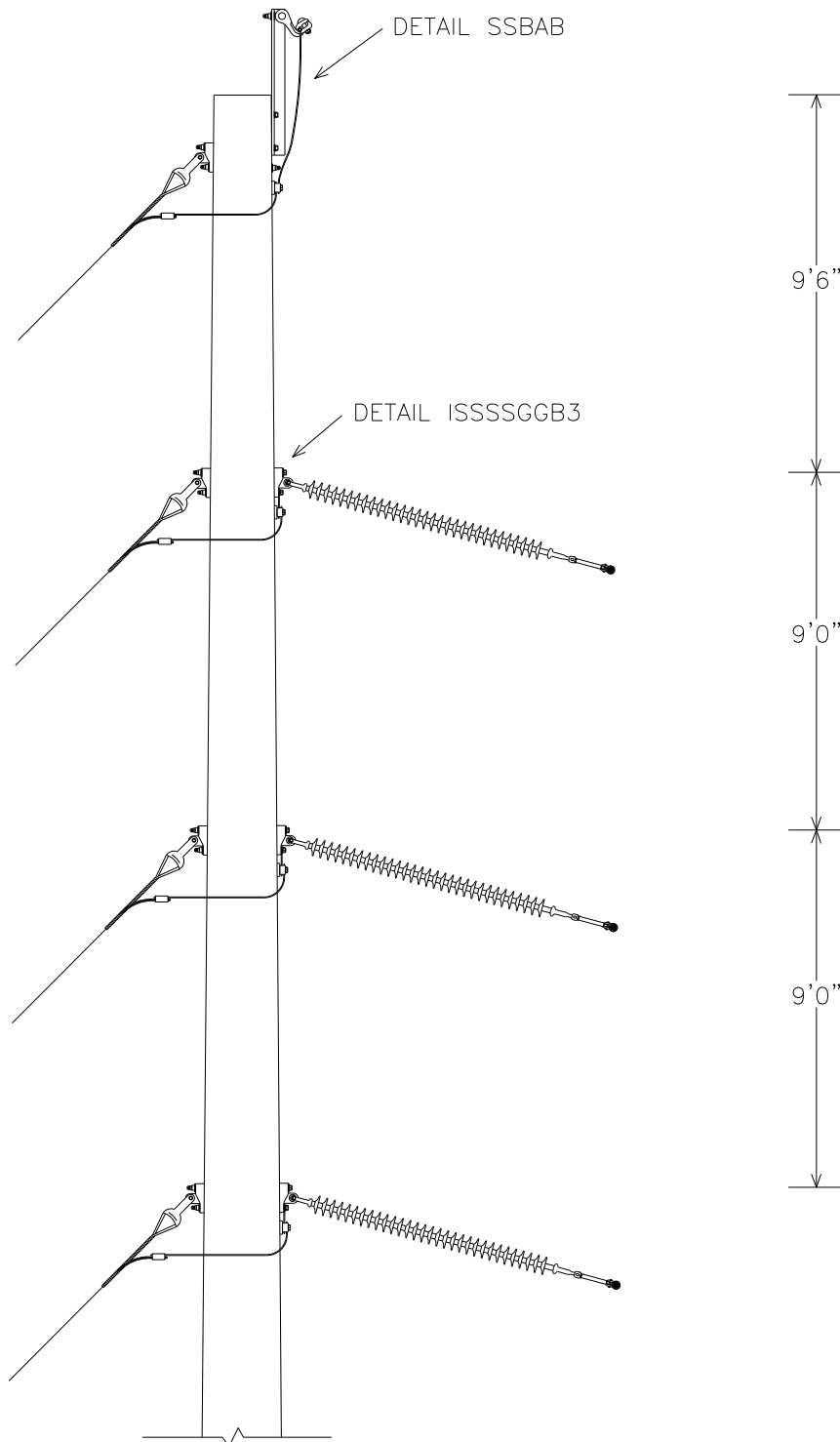


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# B1213

138KV, SINGLE SUSPENSION, SINGLE GRIP, GUYED, 3-PHASE  
CONDUCTOR OPTIONS: 954A, 954S, 1590



## B1213 PLATES

### B1213 BASE

| NO. | ITEM ID   | QTY   | DESCRIPTION  |
|-----|-----------|-------|--|
| 9   | BAYSW 003 | 1     | BAYONET FOR SHIELD WIRE, CORNER 40"  |
| 12  | BOLMS 032 | 1     | MACHINE BOLT, 3/4" X 6"  |
| 12  | BOLMS 039 | 1     | MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 040 | 2     | MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 053 | 1     | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 054 | 2     | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 055 | 2     | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 073 | 1     | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 16  | CLAA01    | 1     | ANGLE CLAMP FOR 4-SOL - 250MCM, 7000#  |
| 24  | CLATG 001 | 4     | CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.                                    |
| 26  | CLEHL 007 | 3     | SOCKET-EYE CLEVIS, CLASS 52-3/5, L = 10", EYE = 3/4 THICK WITH 13/16 OPENING, H. D. G.       |
| 31  | CNNCP 002 | 1     | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM |
| 36  | COBCO 028 | 15 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)  |
| 47  | GUALI 001 | 1     | ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"                                    |
| 56  | INSSU 008 | 3     | SUSPENSION SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 66 INCHES, CLASS 52-3/5            |
| 58  | LUGGR 002 | 3     | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 59  | NUTEY 003 | 1     | NUT EYE FOR 3/4" BOLT  |
| 62  | NUTSL 004 | 4     | SQUARE LOCK NUT FOR 3/4" BOLT, HOT DIPPED GALVANIZED   |
| 62  | NUTSL 005 | 6     | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                                     |
| 72  | TEEDE 003 | 7     | TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#                   |
| 76  | WASRD 005 | 8     | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |
| 76  | WASRD 006 | 12    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                      |
| 77  | WASSC 001 | 2     | SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |

### B1213\*954A

|    |           |   |  |
|----|-----------|---|--|
| 45 | GRISA 003 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82 INCHES, 1 3/16" GAP, 5/8" PIN |
|----|-----------|---|--|

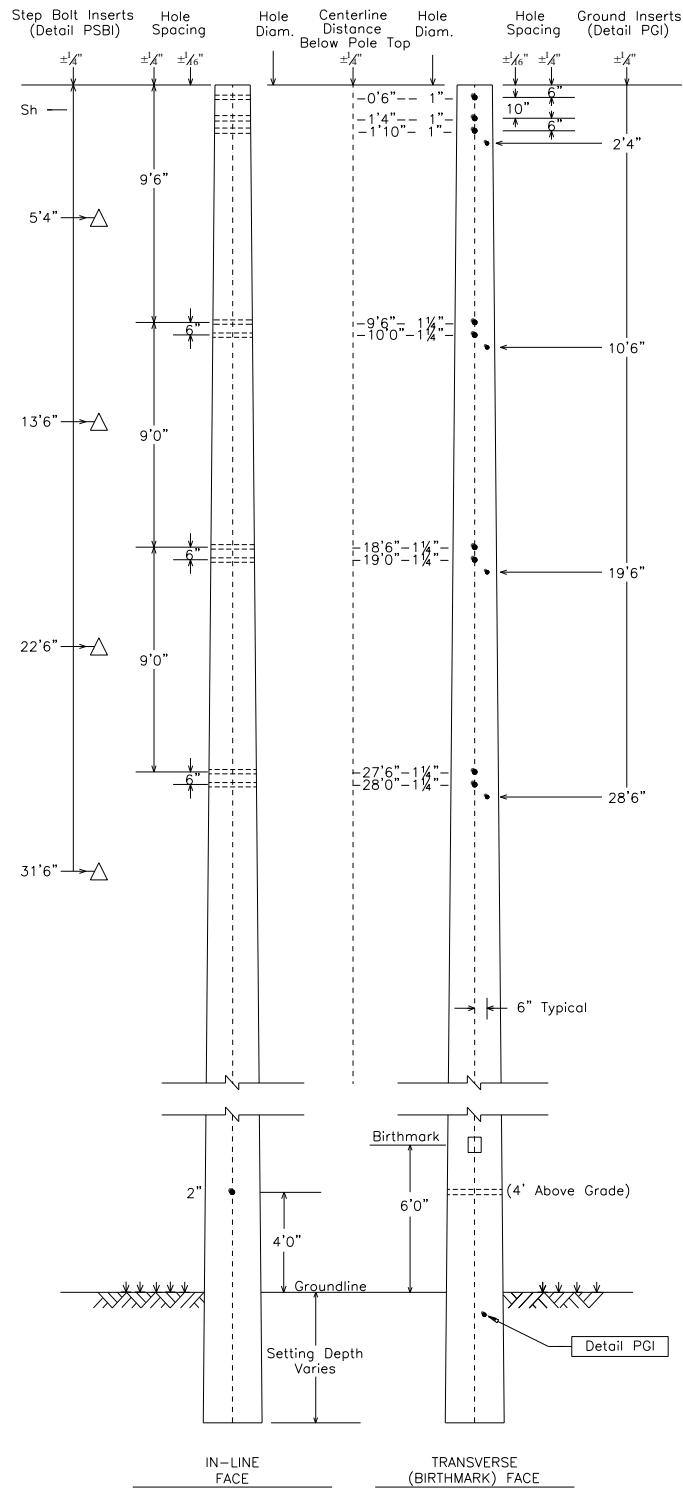
### B1213\*954S

|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 004 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82 INCHES, 1 3/16" GAP, 5/8" PIN |
|----|-----------|---|---|

### B1213\*1590

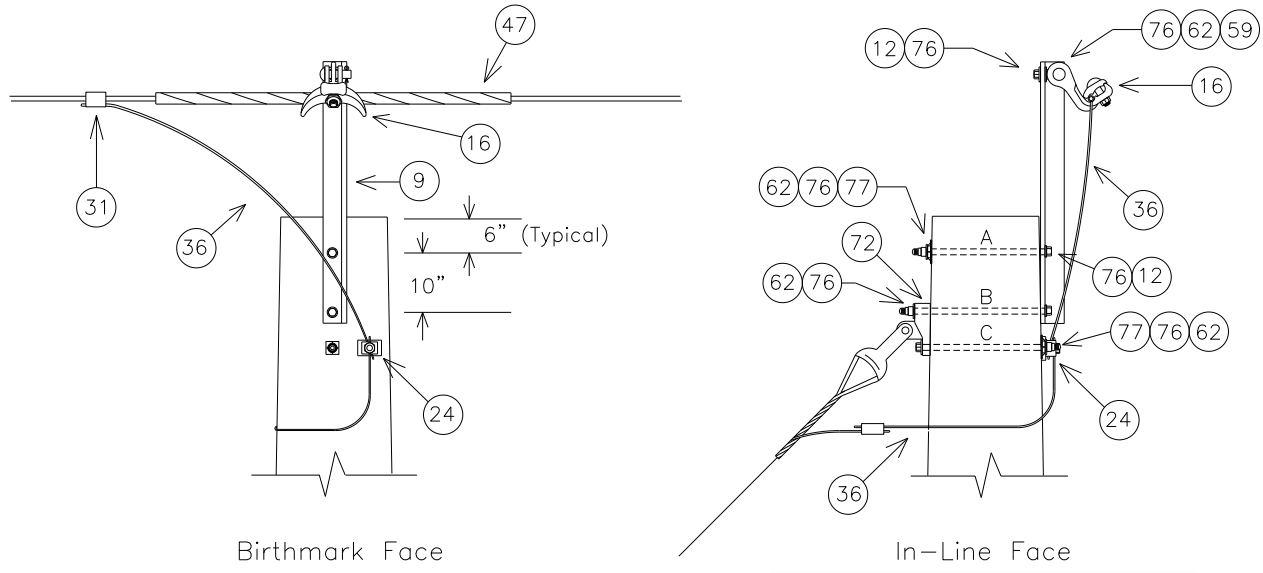
|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 005 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 1590 ACSR, 88 INCHES, 1 3/8" GAP, 3/4" PIN |
|----|-----------|---|---|

## B1213 DRILLING DETAIL



## SSBAB

SHIELD FOR SPUN CONCRETE POLES  
BAYONET WITH ANGLE CLAMP, BOTTOM GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

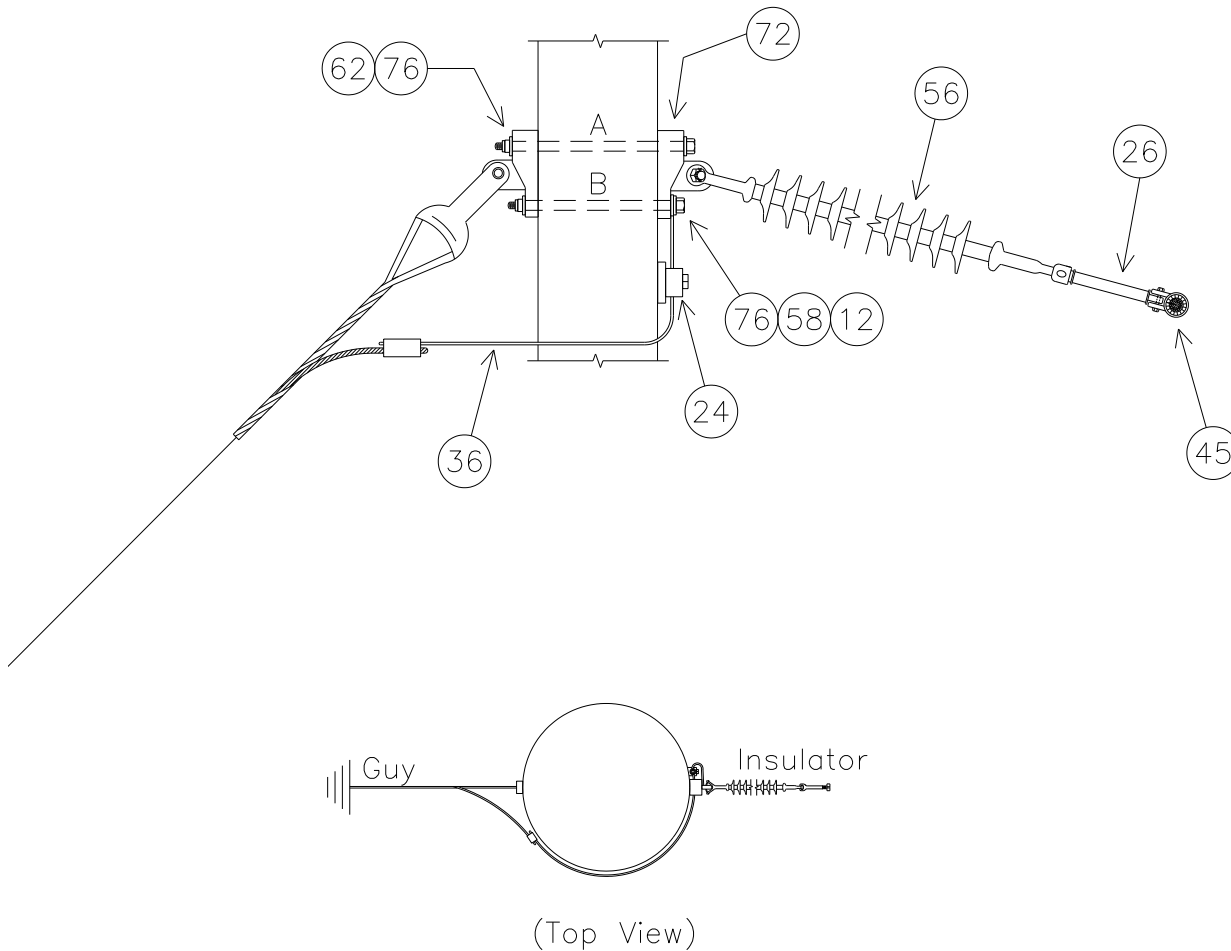
|   |      |
|---|------|
| MINIMUM REQUIRED BOLT LENGTH 'A' (INCHES) | 19.6 |
| MINIMUM REQUIRED BOLT LENGTH 'B' (INCHES) | 20.9 |
| MINIMUM REQUIRED BOLT LENGTH 'C' (INCHES) | 20.3 |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 9   | BAYSW 003 | 1    | BAYONET FOR SHIELD WIRE, CORNER 40"  |
| 12  | BOLMS 032 | 1    | MACHINE BOLT, 3/4" X 6", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                   |
| 12  | BOLMS 039 | 1    | MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 040 | 2    | MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 16  | CLAA 001  | 1    | ANGLE CLAMP FOR 4-SOL - 250MCM, 7000#  |
| 24  | CLATG 001 | 1    | CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.                                    |
| 31  | CNNCP 002 | 1    | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM |
| 36  | COBCO 028 | 6 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)  |
| 47  | GUALI 001 | 1    | ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"                                    |
| 59  | NUTEY 003 | 1    | NUT EYE FOR 3/4" BOLT  |
| 62  | NUTSL 004 | 4    | SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.  |
| 72  | TEEDE 003 | 1    | TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#                                |
| 76  | WASRD 005 | 8    | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |
| 77  | WASSC 001 | 2    | SQUARE CURVED WASHER FOR 5/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |

## ISSSSGGB3

**INSULATOR FOR SPUN CONCRETE POLES**  
**SINGLE SUSPENSION, SINGLE GRIP, GUYED, 138KV, 3-PHASE**  
 CONDUCTOR OPTIONS: 954A, 954S, 1590



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

| SUBSTRUCTURE                   | Top  | Mid  | Bottom |
|--------------------------------|------|------|--------|
| UPPER BOLT 'A' LENGTH (INCHES) | 24.7 | 26.6 | 28.5   |
| LOWER BOLT 'B' LENGTH (INCHES) | 23.0 | 24.9 | 26.9   |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

## ISSSSGGB3 PLATES

### ISSSSGGB3 BASE

| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 12  | BOLMS 053 | 1    | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED              |
| 12  | BOLMS 054 | 2    | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED              |
| 12  | BOLMS 055 | 2    | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED              |
| 12  | BOLMS 073 | 1    | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED              |
| 24  | CLATG 001 | 3    | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                  |
| 26  | CLEHL 007 | 3    | SOCKET-EYE CLEVIS, CLASS 52-3/5, L = 10", EYE = 3/4" THICK WITH 13/16" OPENING, H. D. G. |
| 36  | COBCO 028 | 9 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 56  | INSSU 008 | 3    | SUSPENSION SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 66", CLASS 52-3/5              |
| 58  | LUGGR 002 | 3    | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                          |
| 62  | NUTSL 005 | 6    | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.  |
| 72  | TEEDE 003 | 6    | TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#                           |
| 76  | WASRD 006 | 12   | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                  |

### ISSSSGGB3\*954A

|    |           |   |  |
|----|-----------|---|--|
| 45 | GRISA 003 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82", 1 3/16" GAP, 5/8" PIN |
|----|-----------|---|--|

### ISSSSGGB3\*954S

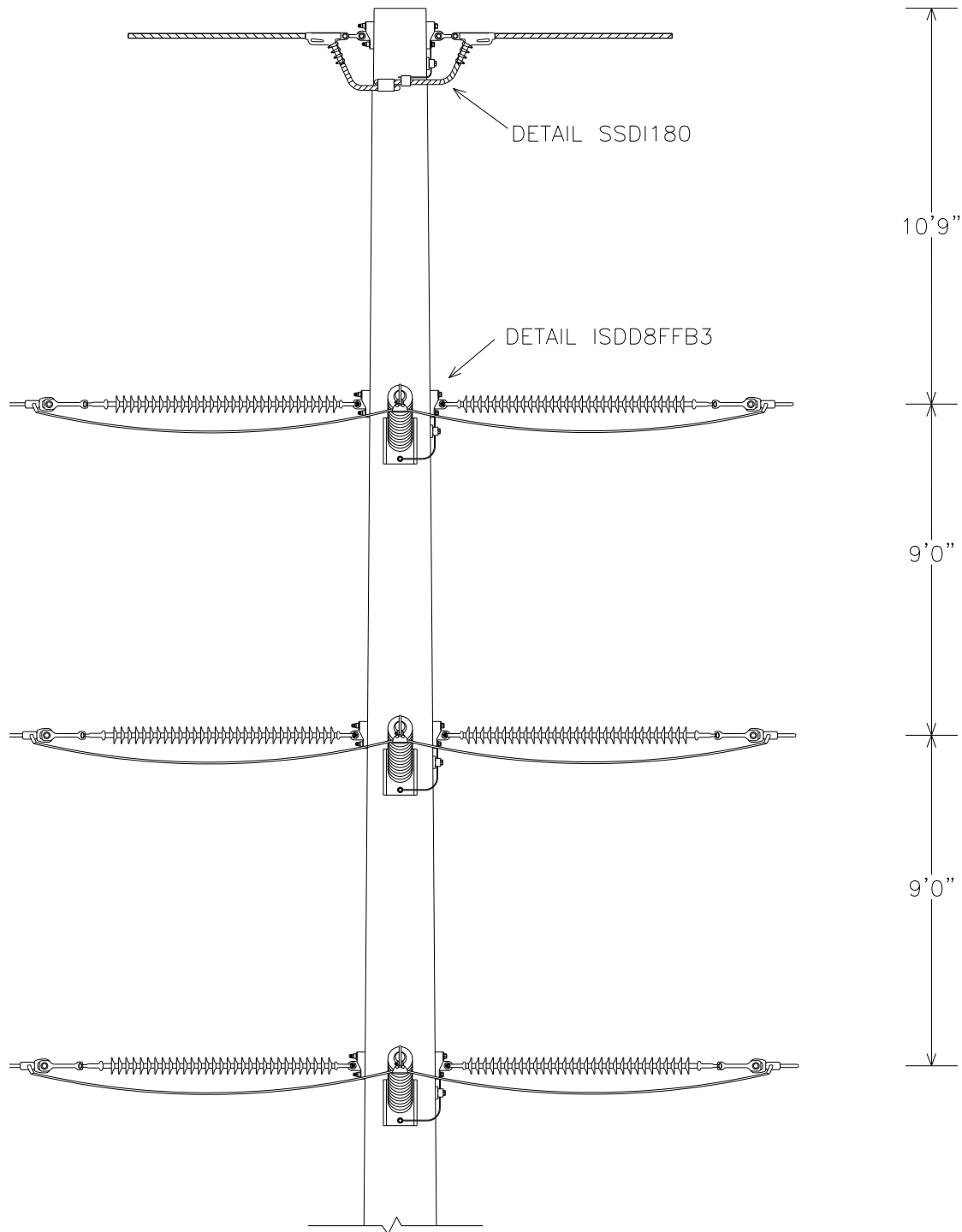
|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 004 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82", 1 3/16" GAP, 5/8" PIN |
|----|-----------|---|---|

### ISSSSGGB3\*1590

|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 005 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 1590 ACSR, 88", 1 3/8" GAP, 3/4" PIN |
|----|-----------|---|---|

## B1241C

138KV, DOUBLE DEADEND 180°, FULL TENSION TO FULL TENSION, 3-PHASE  
CONDUCTOR OPTIONS: 954S, 1590







## B1241C PLATES

### B1241C BASE

| NO. | ITEM ID   | QTY   | DESCRIPTION  |
|-----|-----------|-------|--|
| 1   | ADCVF 001 | 6     | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY  |
| 7   | BALF007   | 3     | BALL Y-CLEVIS, CLASS 52-3/5  |
| 12  | BOLMS 040 | 1     | MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 041 | 1     | MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 055 | 1     | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 073 | 2     | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 074 | 3     | MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 21  | CLAQD 008 | 2     | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW |
| 24  | CLATG 001 | 4     | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 26  | CLEHL 005 | 6     | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8, HOT DIPPED GALV.                         |
| 28  | CLETE 004 | 2     | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G. 90 DEG          |
| 31  | CNNCP 002 | 1     | COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM                                  |
| 31  | CNNCP 003 | 1     | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM                                |
| 36  | COBCO 028 | 15 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 50  | INSDE 003 | 6     | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89 INCHES, CLASS 52-8/11              |
| 51  | INSHP 023 | 3     | HORIZONTAL POST SILICONE INSULATOR, 138KV, L = 54 INCHES, GAIN BASE, 12 DEGREE RISE          |
| 58  | LUGGR 001 | 1     | LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 58  | LUGGR 002 | 3     | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 62  | NUTSL 004 | 2     | SQUARE LOCK NUT FOR 3/4 INCH BOLT, HOT DIPPED GALVANIZED                                     |
| 62  | NUTSL 005 | 6     | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                                     |
| 69  | SOCEY003  | 3     | SOCKET EYE, CLASS 52-3/5   |
| 72  | TEEDE 003 | 8     | TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#                   |
| 76  | WASRD 005 | 4     | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |
| 76  | WASRD 006 | 12    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                      |
| 77  | WASSC 002 | 6     | SQUARE CURVED WASHER FOR 7/8" BOLTS, GALVANIZED, 4" X 4" SIZE                                |

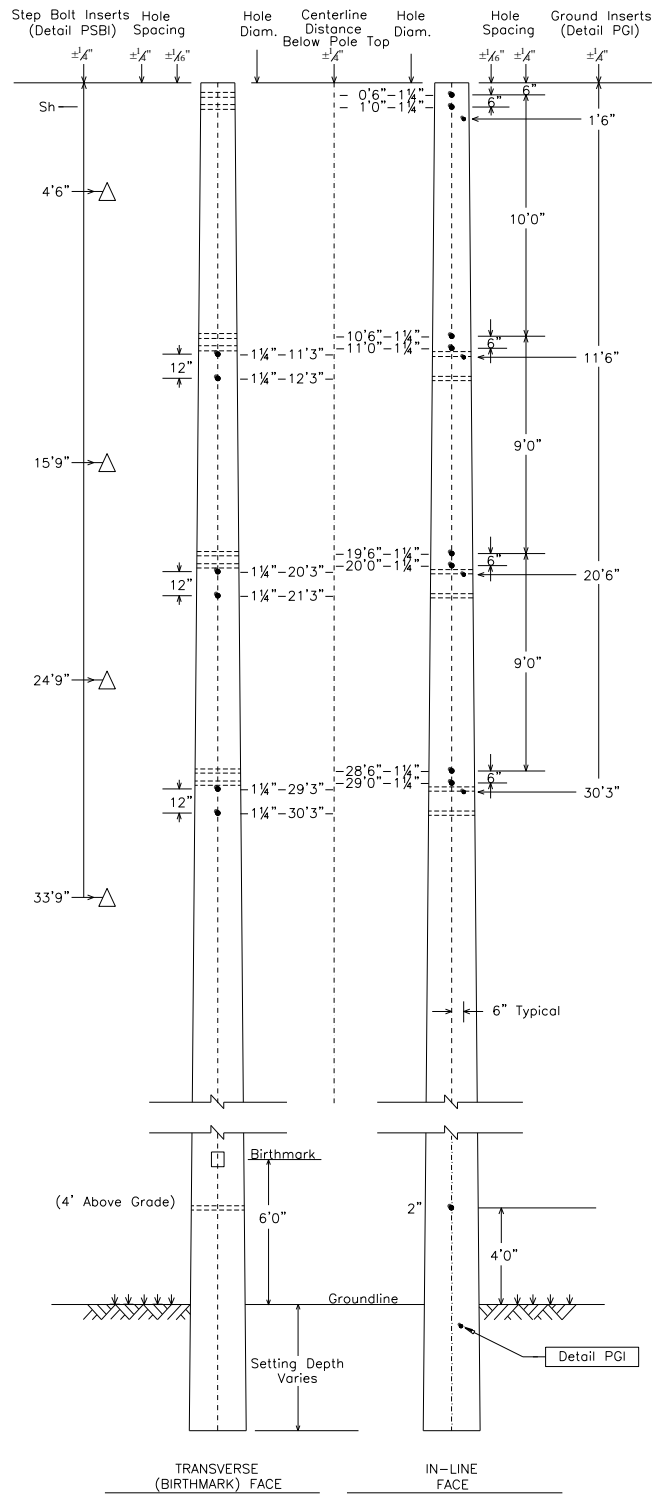
### B1241C\*954S

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 12  | BOLMS 053 | 1   | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 054 | 2   | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 055 | 2   | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 073 | 1   | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 20  | CLAJU 007 | 3   | CUSHION GRIP SUSPENSION CLAMP FOR 954 ACSR                                  |
| 42  | DEACB 005 | 6   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE                         |
| 58  | LUGGR 002 | 3   | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 005 | 6   | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                    |
| 76  | WASRD 006 | 12  | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |

### B1241C\*1590

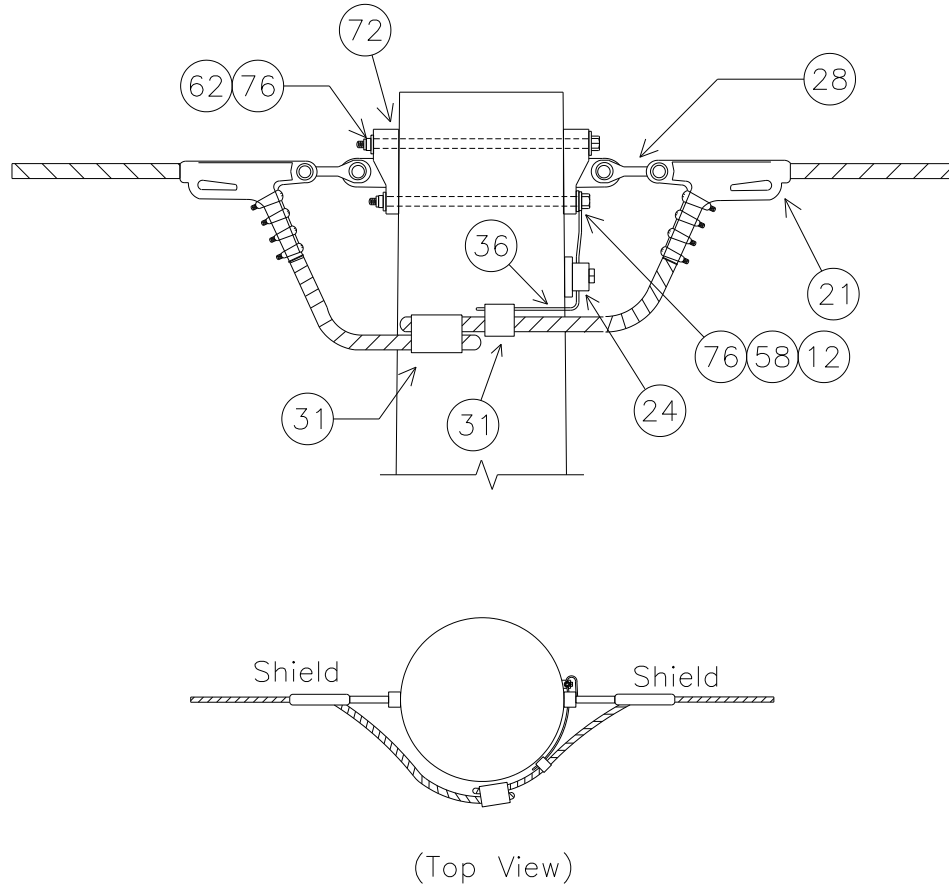
| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 12  | BOLMS 063 | 1   | MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 064 | 2   | MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 070 | 2   | MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 071 | 1   | MACHINE BOLT, 1" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 20  | CLAJU 008 | 3   | CUSHION GRIP SUSPENSION CLAMP FOR 1590 ACSR                               |
| 42  | DEACB 007 | 6   | DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE                      |
| 58  | LUGGR 003 | 3   | LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 006 | 6   | SQUARE LOCK NUT FOR 1 INCH BOLT, HOT DIPPED GALVANIZED                    |
| 76  | WASRD 007 | 12  | ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |

## B1241C DRILLING DETAIL



## SSDI180

SHIELD FOR SPUN CONCRETE POLES  
DOUBLE INLINE 180°



NOTE: SEE SUBSTRUCTURE DETAIL MBA1 FOR BOLT ASSEMBLY DETAILS

|                            |      |
|----------------------------|------|
| UPPER BOLT LENGTH (INCHES) | 22.6 |
| LOWER BOLT LENGTH (INCHES) | 20.9 |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

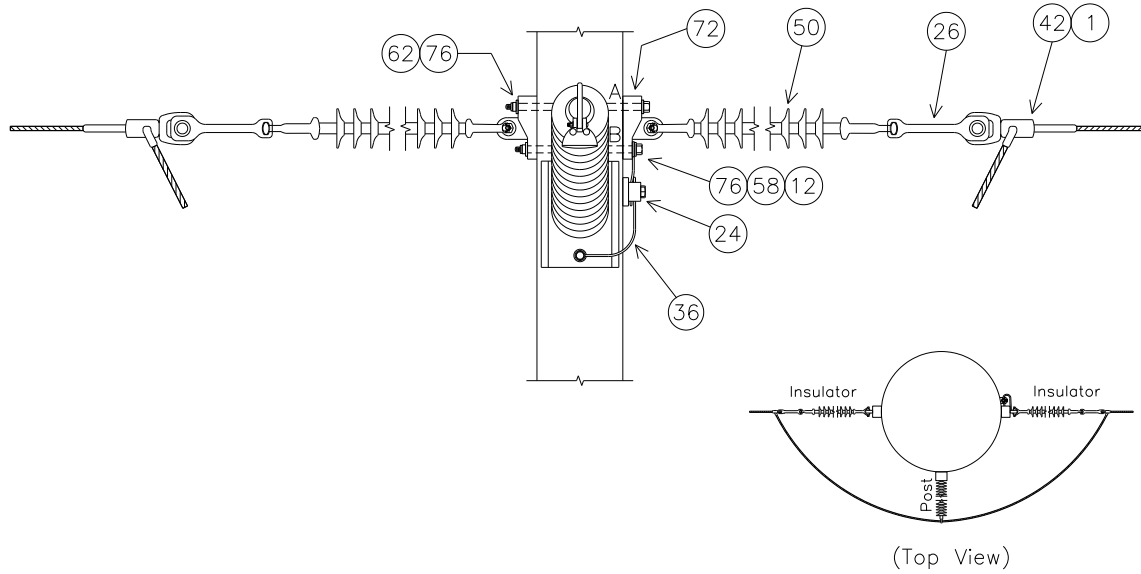
| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 12  | BOLMS 040 | 1    | MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 041 | 1    | MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 21  | CLAQD 008 | 2    | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW |
| 24  | CLATG 001 | 1    | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 28  | CLETE 004 | 2    | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G., 90 DEG         |
| 31  | CNNCP 002 | 1    | COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (3#6 AW), ALUMINUM                                 |
| 31  | CNNCP 003 | 1    | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM                                |
| 36  | COBCO 028 | 3 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 58  | LUGGR 001 | 1    | LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 62  | NUTSL 004 | 2    | SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.  |
| 72  | TEEDE 003 | 2    | TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#                                |
| 76  | WASRD 005 | 4    | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |

## ISDD8FFB3

INSULATOR FOR SPUN CONCRETE POLES

DOUBLE DEAD-END 180°, FULL TENSION TO FULL TENSION, 138KV, 3-PHASE

CONDUCTOR OPTIONS: 954S, 1590



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

| DEADEND INSULATOR              | TOP  | MIDDLE | BOTTOM |
|--------------------------------|------|--------|--------|
| UPPER BOLT 'A' LENGTH (INCHES) | 25.0 | 26.9   | 28.9   |
| LOWER BOLT 'B' LENGTH (INCHES) | 23.3 | 25.3   | 27.2   |

| POST INSULATOR                 | TOP  | MIDDLE | BOTTOM |
|--------------------------------|------|--------|--------|
| UPPER BOLT 'C' LENGTH (INCHES) | 27.8 | 29.7   | 31.7   |
| LOWER BOLT 'D' LENGTH (INCHES) | 28.3 | 30.2   | 32.1   |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

## ISDD8FFB3 PLATES

### ISDD8FFB3 BASE

| NO. | ITEM ID   | QTY   | DESCRIPTION   |
|-----|-----------|-------|---|
| 1   | ADCVF 001 | 6     | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY                                   |
| 7   | BALFI007  | 3     | BALL Y-CLEVIS, CLASS 52-3/5   |
| 12  | BOLMS 055 | 1     | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 073 | 2     | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 074 | 3     | MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 24  | CLATG 001 | 3     | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                     |
| 26  | CLEHL 005 | 6     | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8", H.D.G.                 |
| 36  | COBCO 028 | 12 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN                                  |
| 50  | INSDE 003 | 6     | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89", CLASS 52-8/11   |
| 51  | INSHP 023 | 3     | HORIZONTAL POST INSULATOR, 138KV, L = 54", GAIN BASE, 12" RISE              |
| 58  | LUGGR 002 | 3     | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 005 | 6     | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.                                       |
| 69  | SOCEY003  | 3     | SOCKET EYE, CLASS 52-3/5  |
| 72  | TEEDE 003 | 6     | TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#              |
| 76  | WASRD 006 | 12    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |
| 77  | WASSC 002 | 6     | SQUARE CURVED WASHER FOR 7/8" BOLTS, GALVANIZED, 4" X 4" SIZE               |

### ISDD8FFB3\*954S

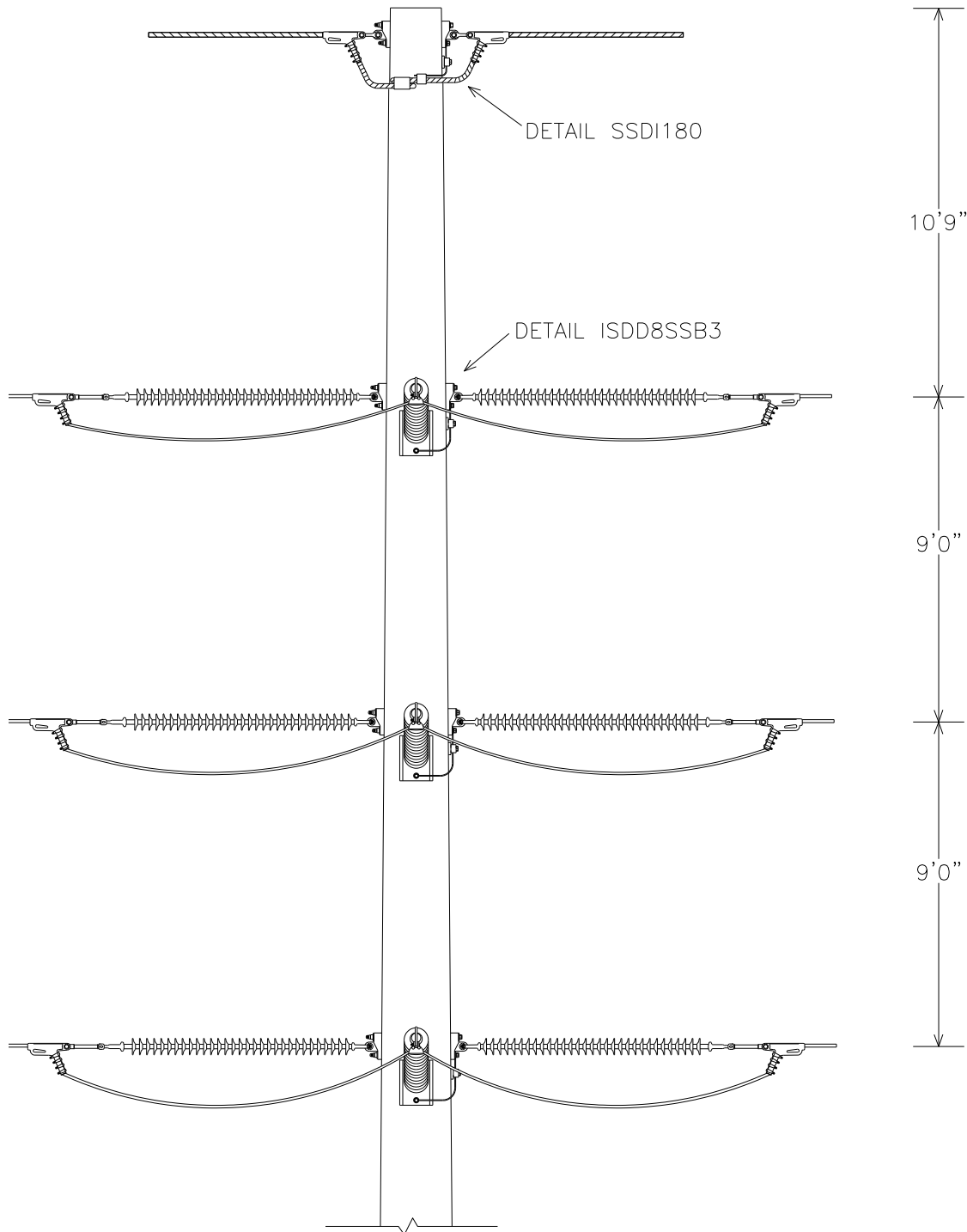
| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 12  | BOLMS 053 | 1   | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 054 | 2   | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 055 | 2   | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 073 | 1   | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 20  | CLAJU 007 | 3   | CUSHION GRIP SUSPENSION CLAMP FOR 954 ACSR                                  |
| 42  | DEACB 005 | 6   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE                         |
| 58  | LUGGR 002 | 3   | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 005 | 6   | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.                                       |
| 76  | WASRD 006 | 12  | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |

### ISDD8FFB3\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 12  | BOLMS 063 | 1   | MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 064 | 2   | MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 070 | 2   | MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 071 | 1   | MACHINE BOLT, 1" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 20  | CLAJU 008 | 3   | CUSHION GRIP SUSPENSION CLAMP FOR 1590 ACSR                               |
| 42  | DEACB 007 | 6   | DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE                      |
| 58  | LUGGR 003 | 3   | LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 006 | 6   | SQUARE LOCK NUT FOR 1" BOLT, H.D.G.                                       |
| 76  | WASRD 007 | 12  | ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |

# B1241Q

**138KV, DOUBLE DEADEND 180°, SLACK TENSION TO SLACK TENSION, 3-PHASE**  
**CONDUCTOR OPTIONS: 954A, 954S, 1590**



## B1241Q PLATES

### B1241Q BASE

| BASE | ITEM ID   | QTY   | DESCRIPTION  |
|------|-----------|-------|--|
| 7    | BALFI 007 | 3     | BALL Y-CLEVIS, CLASS 52-3/5  |
| 12   | BOLMS 040 | 1     | MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12   | BOLMS 041 | 1     | MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12   | BOLMS 053 | 1     | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12   | BOLMS 054 | 2     | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12   | BOLMS 055 | 3     | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12   | BOLMS 073 | 3     | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12   | BOLMS 074 | 3     | MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 21   | CLAQD 008 | 2     | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW |
| 24   | CLATG 001 | 4     | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 26   | CLEHL 008 | 6     | SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4 THICK W/ 13/16 OPENING, H. D. G.        |
| 28   | CLETE 004 | 2     | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G. 90 DEG          |
| 31   | CNNCP 002 | 1     | COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM                                  |
| 31   | CNNCP 003 | 1     | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM                                |
| 36   | COBCO 028 | 15 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 50   | INSDE 003 | 6     | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89 INCHES, CLASS 52-8/11              |
| 51   | INSHP 023 | 3     | HORIZONTAL POST SILICONE INSULATOR, 138KV, L = 54 INCHES, GAIN BASE, 12 DEGREE RISE          |
| 58   | LUGGR 001 | 1     | LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 58   | LUGGR 002 | 6     | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 62   | NUTSL 004 | 2     | SQUARE LOCK NUT FOR 3/4 INCH BOLT, HOT DIPPED GALVANIZED                                     |
| 62   | NUTSL 005 | 12    | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                                     |
| 69   | SOCEY 003 | 3     | SOCKET EYE, CLASS 52-3/5   |
| 72   | TEEDE 003 | 8     | TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#                   |
| 76   | WASRD 005 | 4     | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |
| 76   | WASRD 006 | 24    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                      |
| 77   | WASSC 002 | 6     | SQUARE CURVED WASHER FOR 7/8" BOLTS, GALVANIZED, 4" X 4" SIZE                                |

### B1241Q\*954A

| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 20  | CLAJU 006 | 3   | CUSHION GRIP SUSPENSION CLAMP FOR 954 AAC                                |
| 21  | CLAQD 005 | 6   | DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"   |
| 68  | SLEAJ 006 | 3   | ALUM. SLEEVE JUMPER FOR 954 AAC 61, COMPRESSION SPLICE, NON-TENSION ONLY |

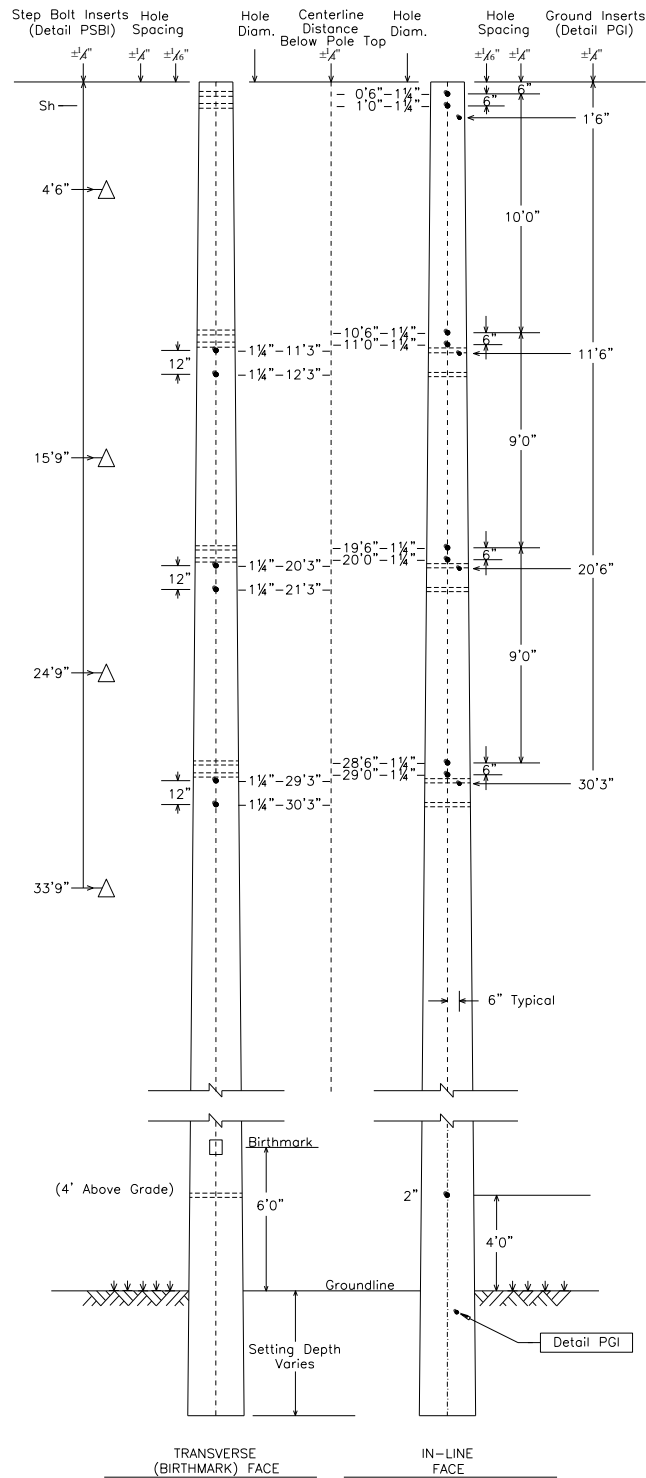
### B1241Q\*954S

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 20  | CLAJU 007 | 3   | CUSHION GRIP SUSPENSION CLAMP FOR 954 ACSR                                  |
| 21  | CLAQD 005 | 6   | DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"      |
| 68  | SLEAJ 005 | 3   | ALUM. SLEEVE JUMPER FOR 954 ACSR 54/7, COMPRESSION SPLICE, NON-TENSION ONLY |

### B1241Q\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 20  | CLAJU 008 | 3   | CUSHION GRIP SUSPENSION CLAMP FOR 1590 ACSR                                   |
| 21  | CLAQD 006 | 6   | DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4"           |
| 68  | SLEAJ 007 | 3   | ALUM. SLEEVE JUMPER FOR 1590 ACSR 54/19, COMPRESSION SPLICE, NON-TENSION ONLY |

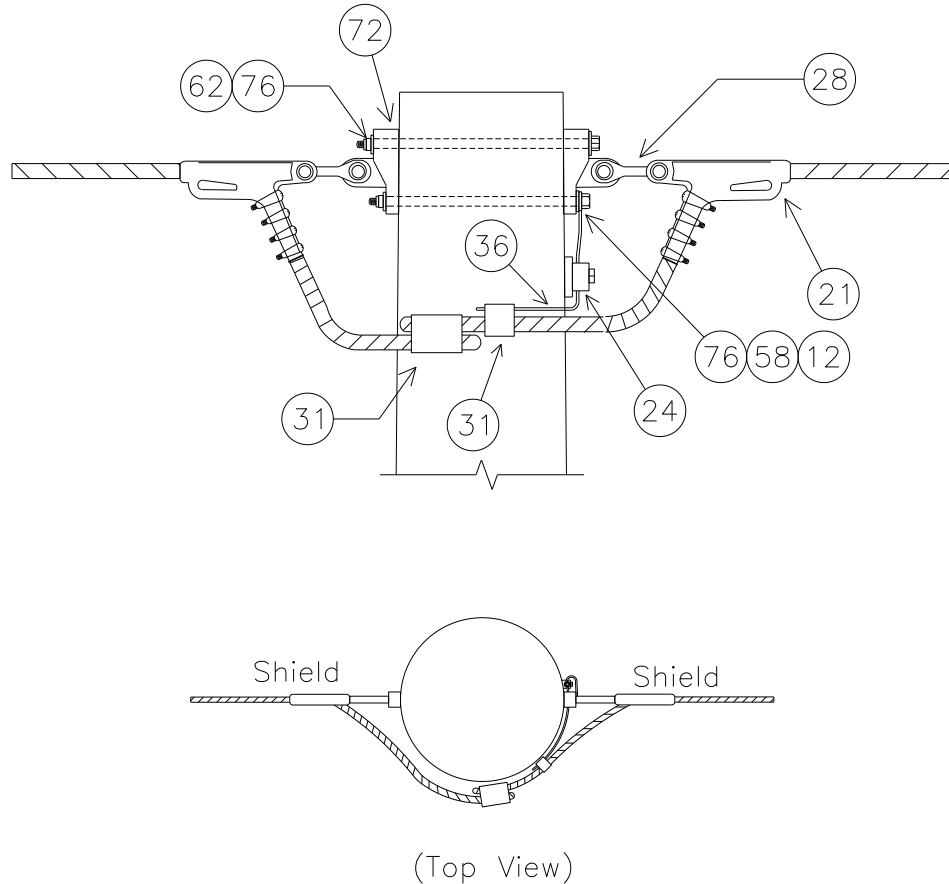
## B1241Q DRILLING DETAIL





## SSDI180

SHIELD FOR SPUN CONCRETE POLES  
DOUBLE INLINE 180°



NOTE: SEE SUBSTRUCTURE DETAIL MBA1 FOR BOLT ASSEMBLY DETAILS

|                            |      |
|----------------------------|------|
| UPPER BOLT LENGTH (INCHES) | 22.6 |
| LOWER BOLT LENGTH (INCHES) | 20.9 |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

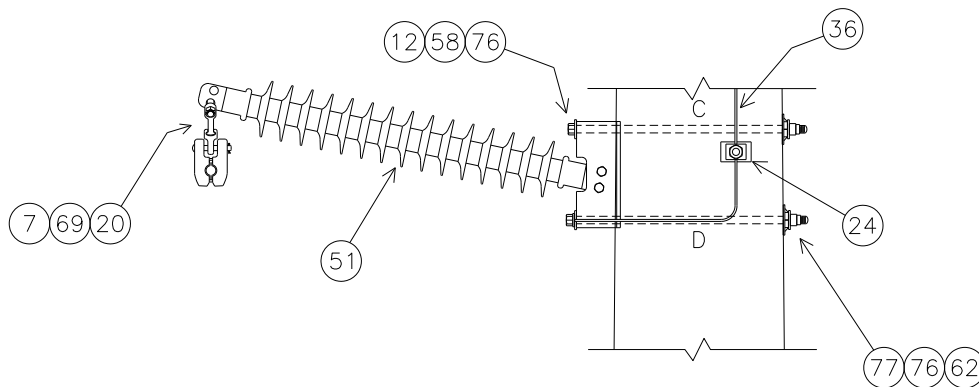
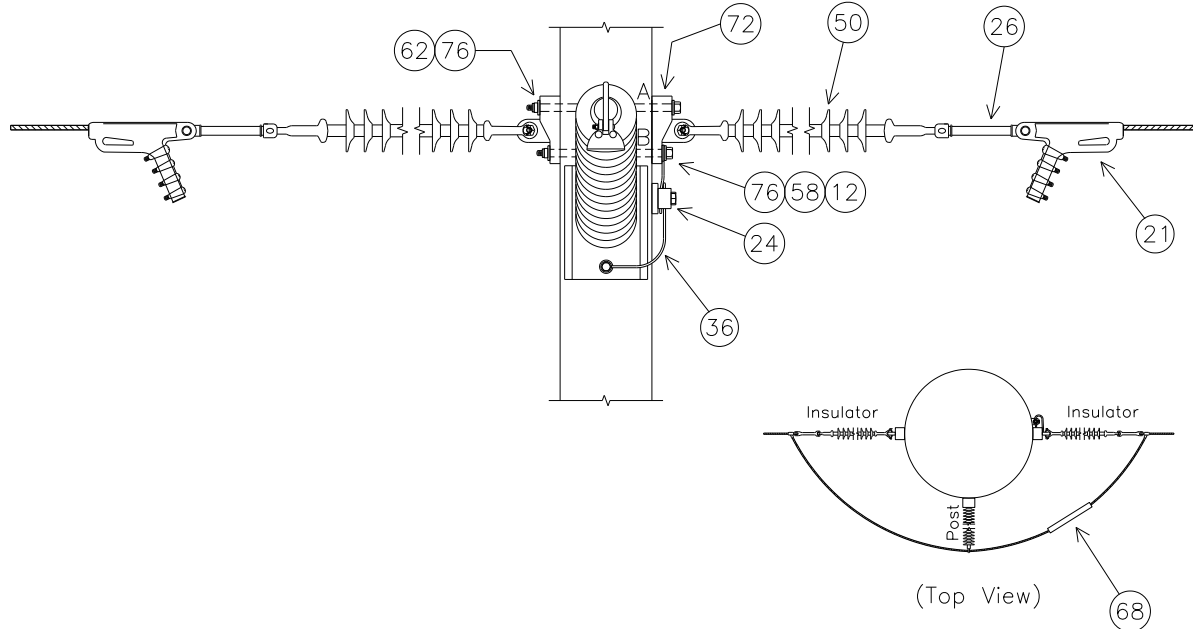
| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 12  | BOLMS 040 | 1    | MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 041 | 1    | MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 21  | CLAQD 008 | 2    | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW |
| 24  | CLATG 001 | 1    | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 28  | CLETE 004 | 2    | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G., 90 DEG         |
| 31  | CNNCP 002 | 1    | COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM                                  |
| 31  | CNNCP 003 | 1    | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM                                |
| 36  | COBCO 028 | 3 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 58  | LUGGR 001 | 1    | LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 62  | NUTSL 004 | 2    | SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.  |
| 72  | TEEDE 003 | 2    | TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#                                |
| 76  | WASRD 005 | 4    | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |

## ISDD8SSB3

INSULATOR FOR SPUN CONCRETE POLES

DOUBLE DEAD-END 180°, SLACK TENSION TO SLACK TENSION, 138KV, 3-PHASE

CONDUCTOR OPTIONS: 954A, 954S, 1590



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

| DEADEND INSULATOR              | TOP  | MIDDLE | BOTTOM |
|--------------------------------|------|--------|--------|
| UPPER BOLT 'A' LENGTH (INCHES) | 24.9 | 26.8   | 28.7   |
| LOWER BOLT 'B' LENGTH (INCHES) | 23.2 | 25.2   | 27.1   |

| POST INSULATOR                 | TOP  | MIDDLE | BOTTOM |
|--------------------------------|------|--------|--------|
| UPPER BOLT 'C' LENGTH (INCHES) | 27.8 | 29.7   | 31.7   |
| LOWER BOLT 'D' LENGTH (INCHES) | 28.3 | 30.2   | 32.1   |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

## ISDD8SSB3 PLATES

### ISDD8SSB3 BASE

| NO. | ITEM ID   | QTY   | DESCRIPTION   |
|-----|-----------|-------|---|
| 7   | BALFI 007 | 3     | BALL Y-CLEVIS, CLASS 52-3/5   |
| 12  | BOLMS 053 | 1     | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED               |
| 12  | BOLMS 054 | 2     | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED               |
| 12  | BOLMS 055 | 3     | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED               |
| 12  | BOLMS 073 | 3     | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED               |
| 12  | BOLMS 074 | 3     | MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED               |
| 24  | CLATG 001 | 3     | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                   |
| 26  | CLEHL 008 | 6     | SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4" THICK WITH 13/16" OPENING, H. D. G. |
| 36  | COBCO 028 | 12 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN  |
| 50  | INSDE 003 | 6     | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89", CLASS 52-8/11                 |
| 51  | INSHP 023 | 3     | HORIZONTAL POST INSULATOR, 138KV, L = 54", GAIN BASE, 12° RISE                            |
| 58  | LUGGR 002 | 6     | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATTED COPPER COMPRESSION                          |
| 62  | NUTSL 005 | 12    | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.   |
| 69  | SOCEY 003 | 3     | SOCKET EYE, CLASS 52-3/5  |
| 72  | TEEDE 003 | 6     | TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#                            |
| 76  | WASRD 006 | 24    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                   |
| 77  | WASSC 002 | 6     | SQUARE CURVED WASHER FOR 7/8" BOLTS, GALVANIZED, 4" X 4" SIZE                             |

### ISDD8SSB3\*954A

| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 20  | CLAJU 006 | 3   | CUSHION GRIP SUSPENSION CLAMP FOR 954 AAC                                |
| 21  | CLAQD 005 | 6   | DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"   |
| 68  | SLEAJ 006 | 3   | ALUM. SLEEVE JUMPER FOR 954 AAC 61, COMPRESSION SPLICE, NON-TENSION ONLY |

### ISDD8SSB3\*954S

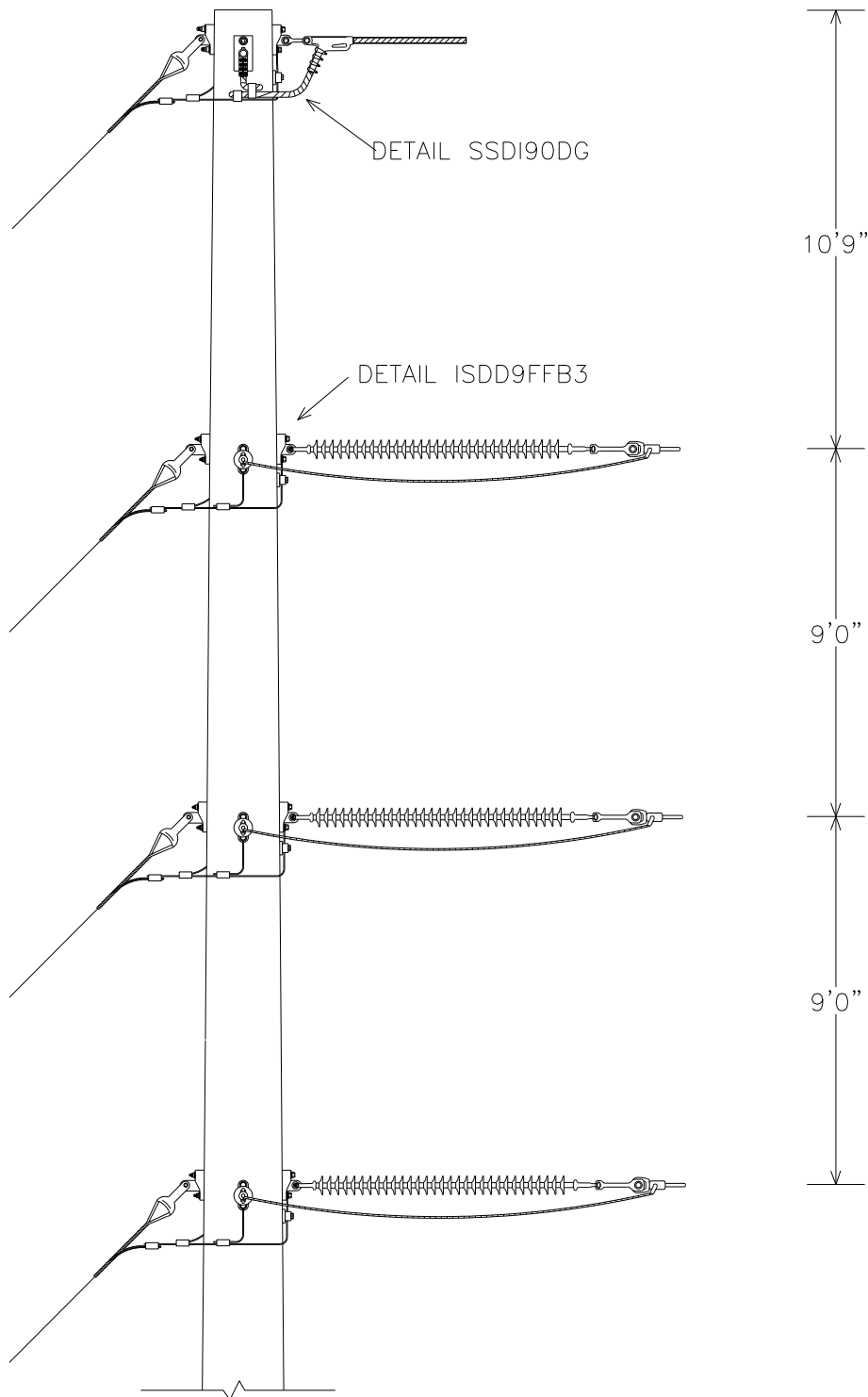
| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 20  | CLAJU 007 | 3   | CUSHION GRIP SUSPENSION CLAMP FOR 954 ACSR                                  |
| 21  | CLAQD 005 | 6   | DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"      |
| 68  | SLEAJ 005 | 3   | ALUM. SLEEVE JUMPER FOR 954 ACSR 54/7, COMPRESSION SPLICE, NON-TENSION ONLY |

### ISDD8SSB3\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 20  | CLAJU 008 | 3   | CUSHION GRIP SUSPENSION CLAMP FOR 1590 ACSR                                   |
| 21  | CLAQD 006 | 6   | DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4"           |
| 68  | SLEAJ 007 | 3   | ALUM. SLEEVE JUMPER FOR 1590 ACSR 54/19, COMPRESSION SPLICE, NON-TENSION ONLY |

## B1244C

138KV, DOUBLE DEADEND 90°, FULL TENSION TO FULL TENSION, 3-PHASE  
CONDUCTOR OPTIONS: 954H, 954S, 1590





# B1244C PLATES

## B1244C BASE

| NO. | ITEM ID   | QTY   | DESCRIPTION  |
|-----|-----------|-------|--|
| 12  | BOLMS 040 | 2     | MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 041 | 2     | MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 21  | CLAQD 008 | 2     | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW |
| 24  | CLATG 001 | 4     | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 26  | CLEHL 005 | 6     | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8, HOT DIPPED GALV.                         |
| 28  | CLETE 004 | 2     | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G. 90DEG           |
| 31  | CNNCP 002 | 1     | COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM                                  |
| 31  | CNNCP 003 | 1     | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM                                |
| 31  | CNNCP 016 | 7     | COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER                                    |
| 36  | COBCO 028 | 24 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 50  | INSDE 003 | 6     | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89 INCHES, CLASS 52-8/11              |
| 58  | LUGGR 001 | 2     | LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 62  | NUTSL 004 | 4     | SQUARE LOCK NUT FOR 3/4 INCH BOLT, HOT DIPPED GALVANIZED                                     |
| 72  | TEEDE 003 | 16    | TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#                   |
| 76  | WASRD 005 | 8     | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |

## B1244C\*954H

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 1   | ADCVF 002 | 6   | VOID FILLER COMPOUND FOR HIGH TEMPERATURE DEADEND ASSEMBLY                  |
| 12  | BOLMS 053 | 2   | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 054 | 4   | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 055 | 4   | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 073 | 2   | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 42  | DEACB 016 | 6   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSS, OVAL EYE                         |
| 58  | LUGGR 002 | 6   | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 005 | 12  | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                    |
| 76  | WASRD 006 | 24  | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |

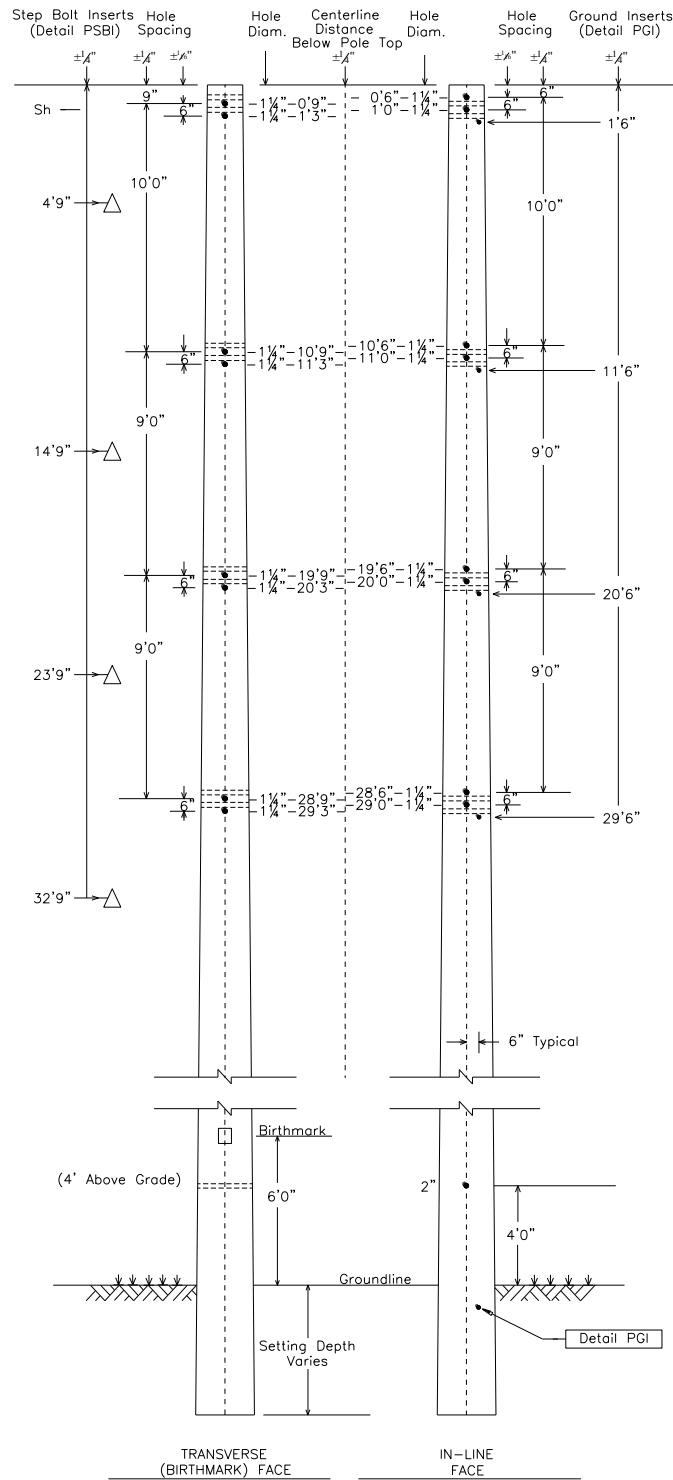
## B1244C\*954S

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 1   | ADCVF 001 | 6   | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY                                   |
| 12  | BOLMS 053 | 2   | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 054 | 4   | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 055 | 4   | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 073 | 2   | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 42  | DEACB 005 | 6   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE                         |
| 58  | LUGGR 002 | 6   | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 005 | 12  | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                    |
| 76  | WASRD 006 | 24  | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |

## B1244C\*1590

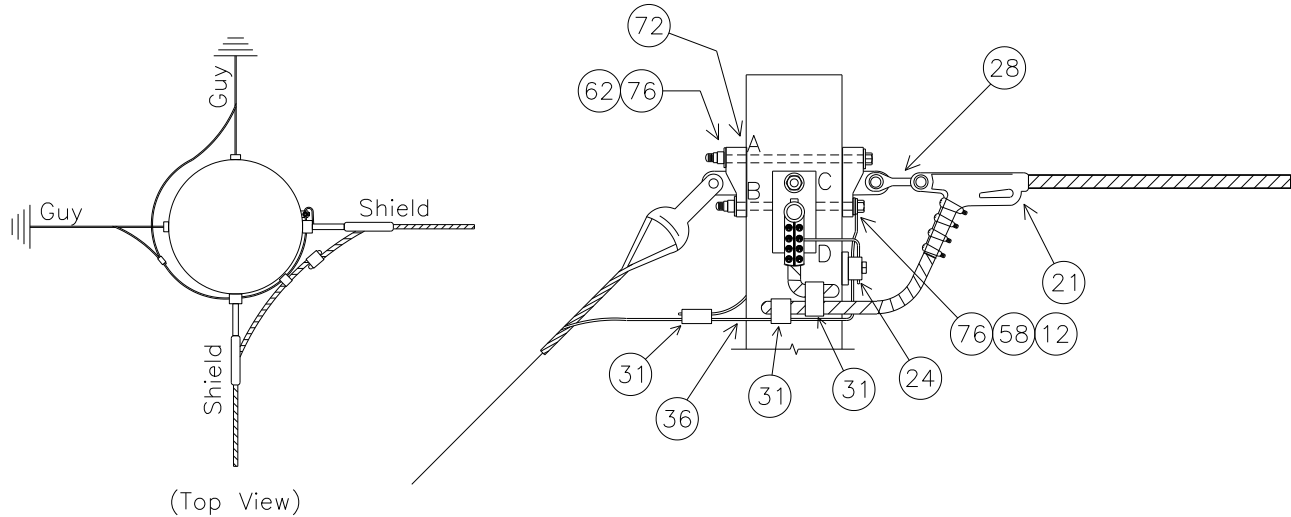
| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 1   | ADCVF 001 | 6   | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY                                 |
| 12  | BOLMS 063 | 2   | MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 064 | 4   | MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 070 | 4   | MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 071 | 2   | MACHINE BOLT, 1" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 42  | DEACB 007 | 6   | DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE                      |
| 58  | LUGGR 003 | 6   | LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 006 | 12  | SQUARE LOCK NUT FOR 1 INCH BOLT, HOT DIPPED GALVANIZED                    |
| 76  | WASRD 007 | 24  | ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |

## B1244C DRILLING DETAIL



## SSDI90DG

SHIELD FOR SPUN CONCRETE POLES  
DOUBLE IN-LINE 90°, DOUBLE GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

|   |      |
|---|------|
| MINIMUM REQUIRED BOLT LENGTH 'A' (INCHES) | 22.6 |
| MINIMUM REQUIRED BOLT LENGTH 'B' (INCHES) | 20.9 |
| MINIMUM REQUIRED BOLT LENGTH 'C' (INCHES) | 22.6 |
| MINIMUM REQUIRED BOLT LENGTH 'D' (INCHES) | 21.0 |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

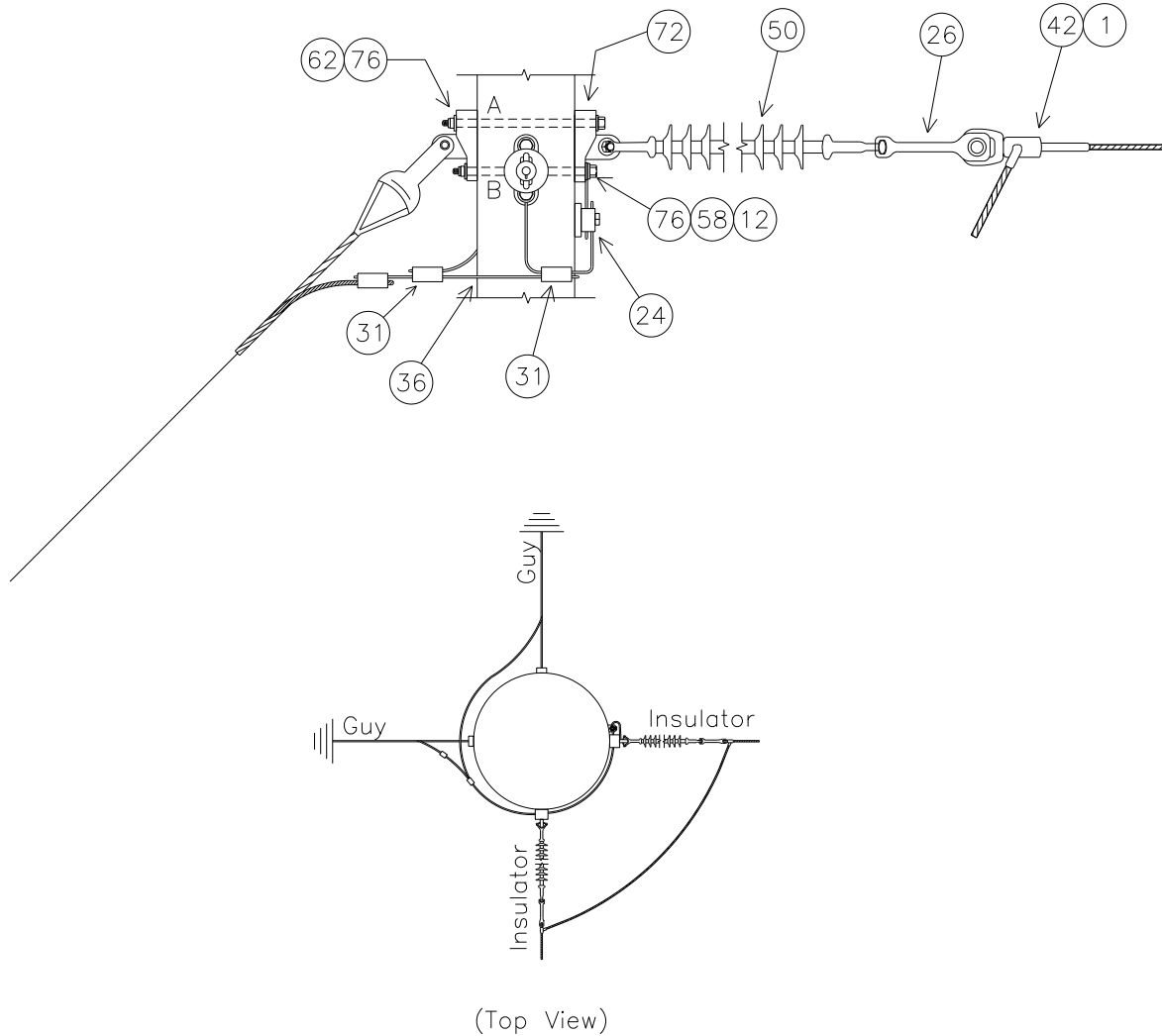
| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 12  | BOLMS 040 | 2    | MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 041 | 2    | MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 21  | CLAQD 008 | 2    | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW |
| 24  | CLATG 001 | 1    | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 28  | CLETE 004 | 2    | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G., 90 DEG         |
| 31  | CNNCP 002 | 1    | COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM                                  |
| 31  | CNNCP 003 | 1    | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM                                |
| 31  | CNNCP 016 | 1    | COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER, FOR CU CONNECTIONS ONLY           |
| 36  | COBCO 028 | 6 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 58  | LUGGR 001 | 2    | LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 62  | NUTSL 004 | 4    | SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.  |
| 72  | TEEDE 003 | 4    | TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#                                |
| 76  | WASRD 005 | 8    | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |

## ISDD9FFB3

INSULATOR FOR SPUN CONCRETE POLES

DOUBLE DEAD-END 90°, FULL TENSION TO FULL TENSION, 138KV, 3-PHASE

CONDUCTOR OPTIONS: 954H, 954S, 1590



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

| SUBSTRUCTURE                   | UPPER TEE |      |        | LOWER TEE |      |        |
|--------------------------------|-----------|------|--------|-----------|------|--------|
|                                | Top       | Mid  | Bottom | Top       | Mid  | Bottom |
| UPPER BOLT 'A' LENGTH (INCHES) | 25.0      | 26.9 | 28.9   | 25.0      | 27.0 | 28.9   |
| LOWER BOLT 'B' LENGTH (INCHES) | 23.3      | 25.3 | 27.2   | 23.4      | 25.3 | 27.3   |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER



## ISDD9FFB3 PLATES

### ISDD9FFB3 BASE

| NO. | ITEM ID   | QTY   | DESCRIPTION   |
|-----|-----------|-------|---|
| 24  | CLATG 001 | 3     | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                   |
| 26  | CLEHL 005 | 6     | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8", H.D.G.               |
| 31  | CNNCP 016 | 6     | COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER                 |
| 36  | COBCO 028 | 18 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN                                |
| 50  | INSDE 003 | 6     | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89", CLASS 52-8/11 |
| 72  | TEEDE 003 | 12    | TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#            |

### ISDD9FFB3\*954H

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 1   | ADCVF 002 | 6   | VOID FILLER COMPOUND FOR HIGH TEMPERATURE DEADEND ASSEMBLY                  |
| 12  | BOLMS 053 | 2   | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 054 | 4   | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 055 | 4   | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 073 | 2   | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 42  | DEACB 016 | 6   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSS, OVAL EYE                         |
| 58  | LUGGR 002 | 6   | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 005 | 12  | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.                                       |
| 76  | WASRD 006 | 24  | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |

### ISDD9FFB3\*954S

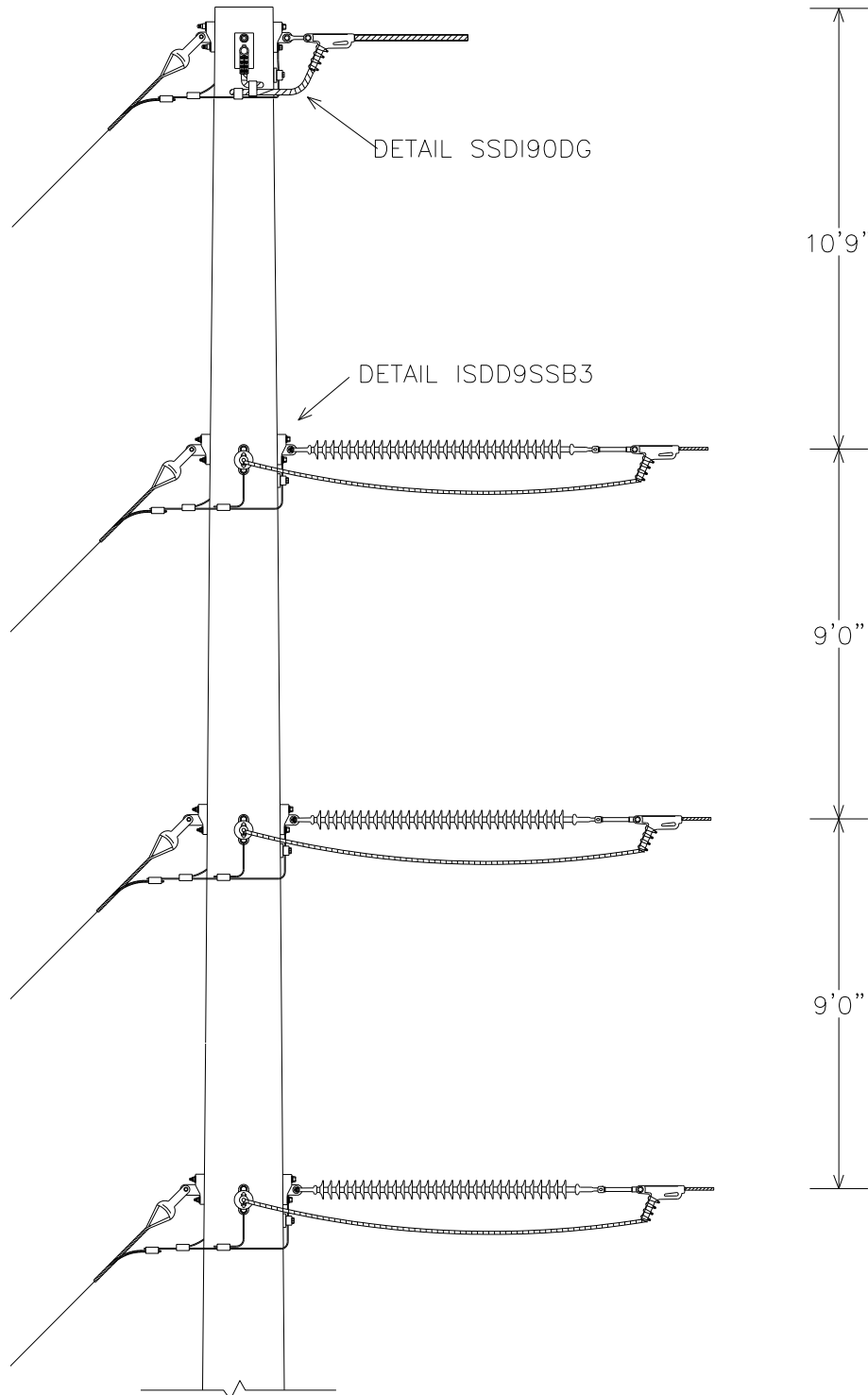
| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 1   | ADCVF 001 | 6   | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY                                   |
| 12  | BOLMS 053 | 2   | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 054 | 4   | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 055 | 4   | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 073 | 2   | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 42  | DEACB 005 | 6   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE                         |
| 58  | LUGGR 002 | 6   | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 005 | 12  | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.                                       |
| 76  | WASRD 006 | 24  | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |

### ISDD9FFB3\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 1   | ADCVF 001 | 6   | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY                                 |
| 12  | BOLMS 063 | 2   | MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 064 | 4   | MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 070 | 4   | MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 071 | 2   | MACHINE BOLT, 1" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 42  | DEACB 007 | 6   | DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE                      |
| 58  | LUGGR 003 | 6   | LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 006 | 12  | SQUARE LOCK NUT FOR 1" BOLT, H.D.G.                                       |
| 76  | WASRD 007 | 24  | ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |

## B1244Q

138KV, DOUBLE DEADEND 90°, SLACK TENSION TO SLACK TENSION, 3-PHASE  
CONDUCTOR OPTIONS: 954A, 954S, 1590



## B1244Q PLATES

### B1244Q BASE

| NO. | ITEM ID   | QTY   | DESCRIPTION  |
|-----|-----------|-------|--|
| 12  | BOLMS 040 | 2     | MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 041 | 2     | MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 053 | 2     | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 054 | 4     | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 055 | 4     | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 073 | 2     | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 21  | CLAQD 008 | 2     | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW |
| 24  | CLATG 001 | 4     | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 26  | CLEHL 008 | 6     | SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4 THICK W/ 13/16 OPENING, H. D. G.        |
| 28  | CLETE 004 | 2     | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G. 90 DEG          |
| 31  | CNNCP 002 | 1     | COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM                                  |
| 31  | CNNCP 003 | 1     | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM                                |
| 31  | CNNCP 016 | 7     | COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER                                    |
| 36  | COBCO 028 | 24 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 50  | INSDE 003 | 6     | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89 INCHES, CLASS 52-8/11              |
| 58  | LUGGR 001 | 2     | LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 58  | LUGGR 002 | 6     | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 62  | NUTSL 004 | 4     | SQUARE LOCK NUT FOR 3/4 INCH BOLT, HOT DIPPED GALVANIZED                                     |
| 62  | NUTSL 005 | 12    | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                                     |
| 72  | TEEDE 003 | 16    | TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#                   |
| 76  | WASRD 005 | 8     | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |
| 76  | WASRD 006 | 24    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                      |

### B1244Q\*954A

| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 21  | CLAQD 005 | 6   | DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"   |
| 68  | SLEAJ 006 | 3   | ALUM. SLEEVE JUMPER FOR 954 AAC 61, COMPRESSION SPLICE, NON-TENSION ONLY |

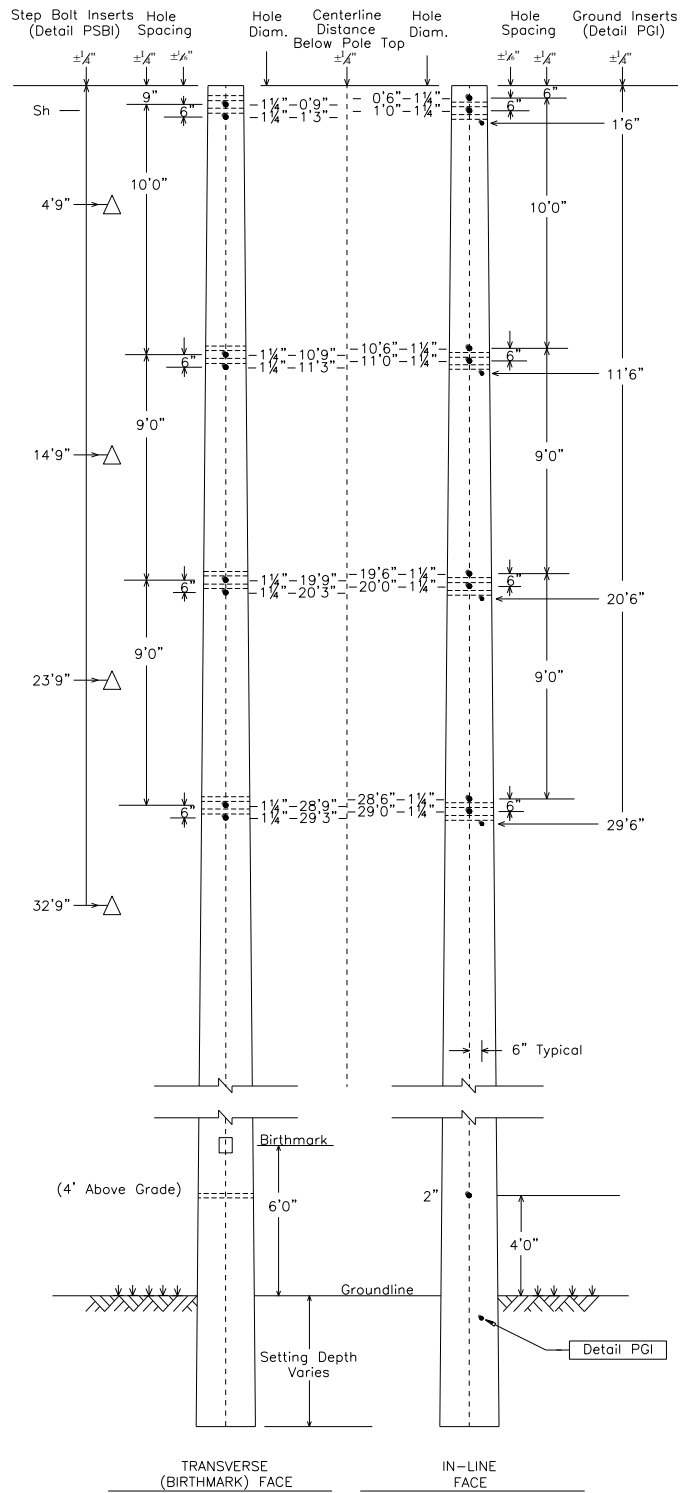
### B1244Q\*954S

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 21  | CLAQD 005 | 6   | DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"      |
| 68  | SLEAJ 005 | 3   | ALUM. SLEEVE JUMPER FOR 954 ACSR 54/7, COMPRESSION SPLICE, NON-TENSION ONLY |

### B1244Q\*1590

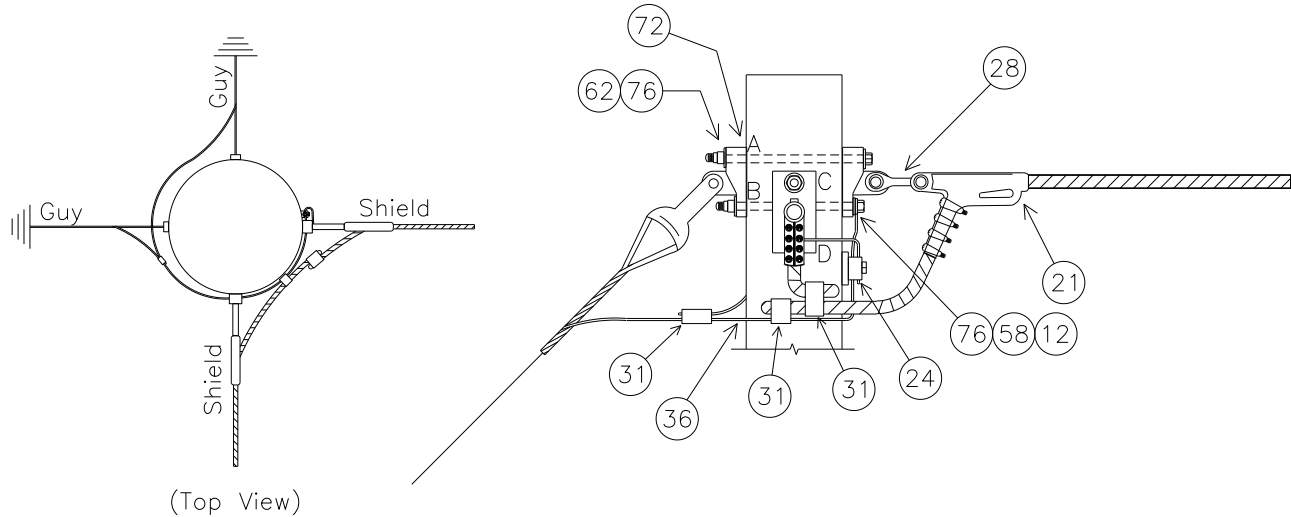
| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 21  | CLAQD 006 | 6   | DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4"           |
| 68  | SLEAJ 007 | 3   | ALUM. SLEEVE JUMPER FOR 1590 ACSR 54/19, COMPRESSION SPLICE, NON-TENSION ONLY |

## B1244Q DRILLING DETAIL



## SSDI90DG

SHIELD FOR SPUN CONCRETE POLES  
DOUBLE IN-LINE 90°, DOUBLE GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

|   |      |
|---|------|
| MINIMUM REQUIRED BOLT LENGTH 'A' (INCHES) | 22.6 |
| MINIMUM REQUIRED BOLT LENGTH 'B' (INCHES) | 20.9 |
| MINIMUM REQUIRED BOLT LENGTH 'C' (INCHES) | 22.6 |
| MINIMUM REQUIRED BOLT LENGTH 'D' (INCHES) | 21.0 |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

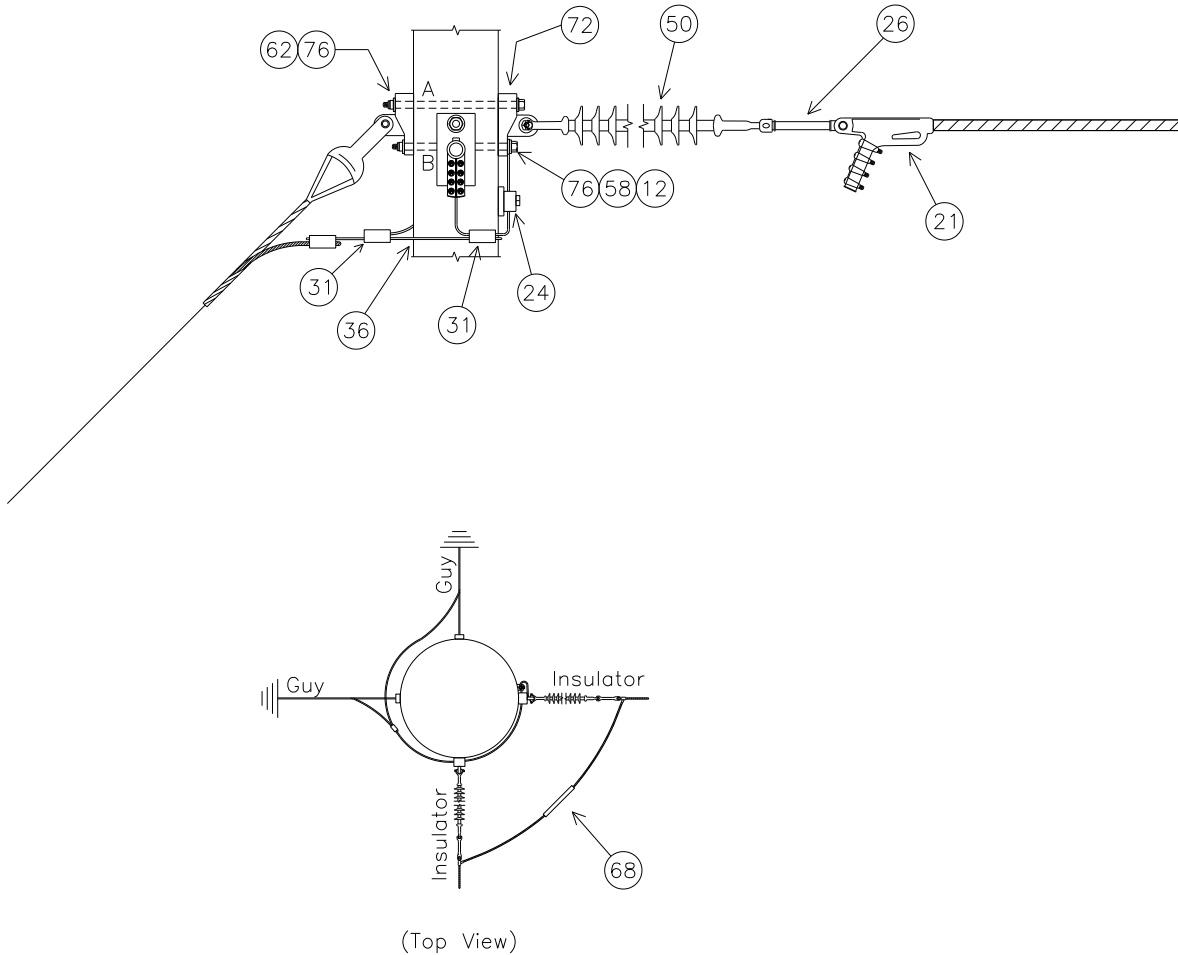
| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 12  | BOLMS 040 | 2    | MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 041 | 2    | MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 21  | CLAQD 008 | 2    | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW |
| 24  | CLATG 001 | 1    | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 28  | CLETE 004 | 2    | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G., 90 DEG         |
| 31  | CNNCP 002 | 1    | COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM                                  |
| 31  | CNNCP 003 | 1    | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM                                |
| 31  | CNNCP 016 | 1    | COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER, FOR CU CONNECTIONS ONLY           |
| 36  | COBCO 028 | 6 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 58  | LUGGR 001 | 2    | LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 62  | NUTSL 004 | 4    | SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.  |
| 72  | TEEDE 003 | 4    | TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#                                |
| 76  | WASRD 005 | 8    | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |

## ISDD9SSB3

INSULATOR FOR SPUN CONCRETE POLES

DOUBLE DEAD-END 90°, SLACK TENSION TO SLACK TENSION, 138KV, 3-PHASE

CONDUCTOR OPTIONS: 954A, 954S, 1590



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

| SUBSTRUCTURE                   | UPPER TEE |      |        | LOWER TEE |      |        |
|--------------------------------|-----------|------|--------|-----------|------|--------|
|                                | Top       | Mid  | Bottom | Top       | Mid  | Bottom |
| UPPER BOLT 'A' LENGTH (INCHES) | 24.9      | 26.8 | 28.7   | 24.9      | 26.9 | 28.8   |
| LOWER BOLT 'B' LENGTH (INCHES) | 23.2      | 25.2 | 27.1   | 23.3      | 25.2 | 27.2   |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

## ISDD9SSB3 PLATES

### ISDD9SSB3 BASE

| NO. | ITEM ID   | QTY   | DESCRIPTION   |
|-----|-----------|-------|---|
| 12  | BOLMS 053 | 2     | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED               |
| 12  | BOLMS 054 | 4     | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED               |
| 12  | BOLMS 055 | 4     | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED               |
| 12  | BOLMS 073 | 2     | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED               |
| 24  | CLATG 001 | 3     | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                   |
| 26  | CLEHL 008 | 6     | SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4" THICK WITH 13/16" OPENING, H. D. G. |
| 31  | CNNCP 016 | 6     | COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER                                 |
| 36  | COBCO 028 | 18 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN  |
| 50  | INSDE 003 | 6     | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89", CLASS 52-8/11                 |
| 58  | LUGGR 002 | 6     | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                           |
| 62  | NUTSL 005 | 12    | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.   |
| 72  | TEEDE 003 | 12    | TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#                            |
| 76  | WASRD 006 | 24    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                   |

### ISDD9SSB3\*954A

| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 21  | CLAQD 005 | 6   | DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"   |
| 68  | SLEAJ 006 | 3   | ALUM. SLEEVE JUMPER FOR 954 AAC 61, COMPRESSION SPLICE, NON-TENSION ONLY |

### ISDD9SSB3\*954S

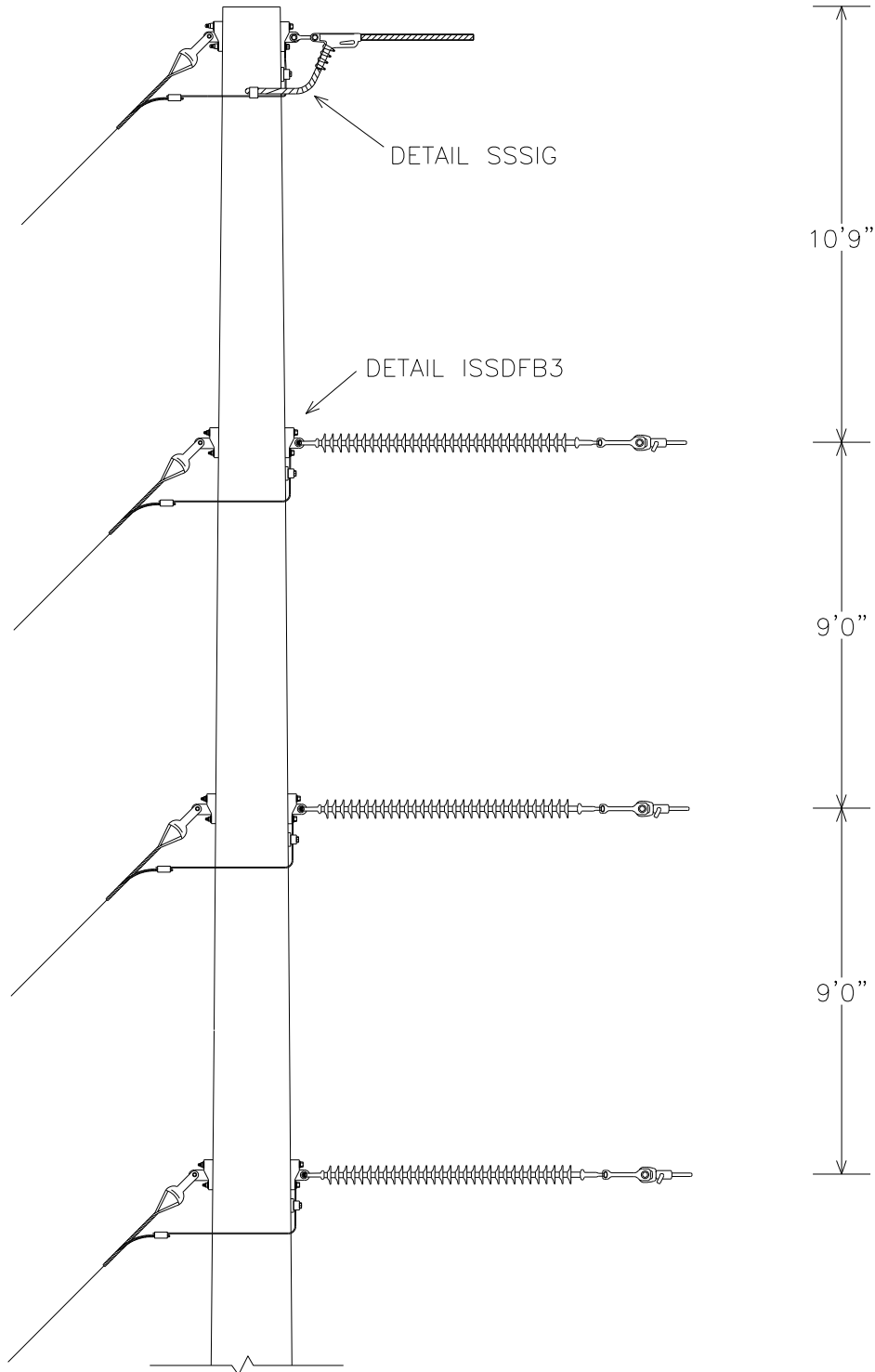
| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 21  | CLAQD 005 | 6   | DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"      |
| 68  | SLEAJ 005 | 3   | ALUM. SLEEVE JUMPER FOR 954 ACSR 54/7, COMPRESSION SPLICE, NON-TENSION ONLY |

### ISDD9SSB3\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 21  | CLAQD 006 | 6   | DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4"           |
| 68  | SLEAJ 007 | 3   | ALUM. SLEEVE JUMPER FOR 1590 ACSR 54/19, COMPRESSION SPLICE, NON-TENSION ONLY |

## B1245C

138KV, SINGLE DEADEND, FULL TENSION, 3-PHASE  
CONDUCTOR OPTIONS: 954S, 1590





## B1245C PLATES

### B1245C BASE

| NO. | ITEM ID   | QTY   | DESCRIPTION  |
|-----|-----------|-------|--|
| 1   | ADCVF 001 | 3     | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY  |
| 12  | BOLMS 040 | 1     | MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 041 | 1     | MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 21  | CLAQD 008 | 1     | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW |
| 24  | CLATG 001 | 4     | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 26  | CLEHL 005 | 3     | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8, HOT DIPPED GALV.                         |
| 28  | CLETE 004 | 1     | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G. 90 DEG          |
| 31  | CNNCP 002 | 1     | COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM                                  |
| 36  | COBCO 028 | 16 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 50  | INSDE 003 | 3     | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89 INCHES, CLASS 52-8/11              |
| 58  | LUGGR 001 | 1     | LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 62  | NUTSL 004 | 2     | SQUARE LOCK NUT FOR 3/4 INCH BOLT, HOT DIPPED GALVANIZED                                     |
| 72  | TEEDE 003 | 8     | TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#                   |
| 76  | WASRD 005 | 4     | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |

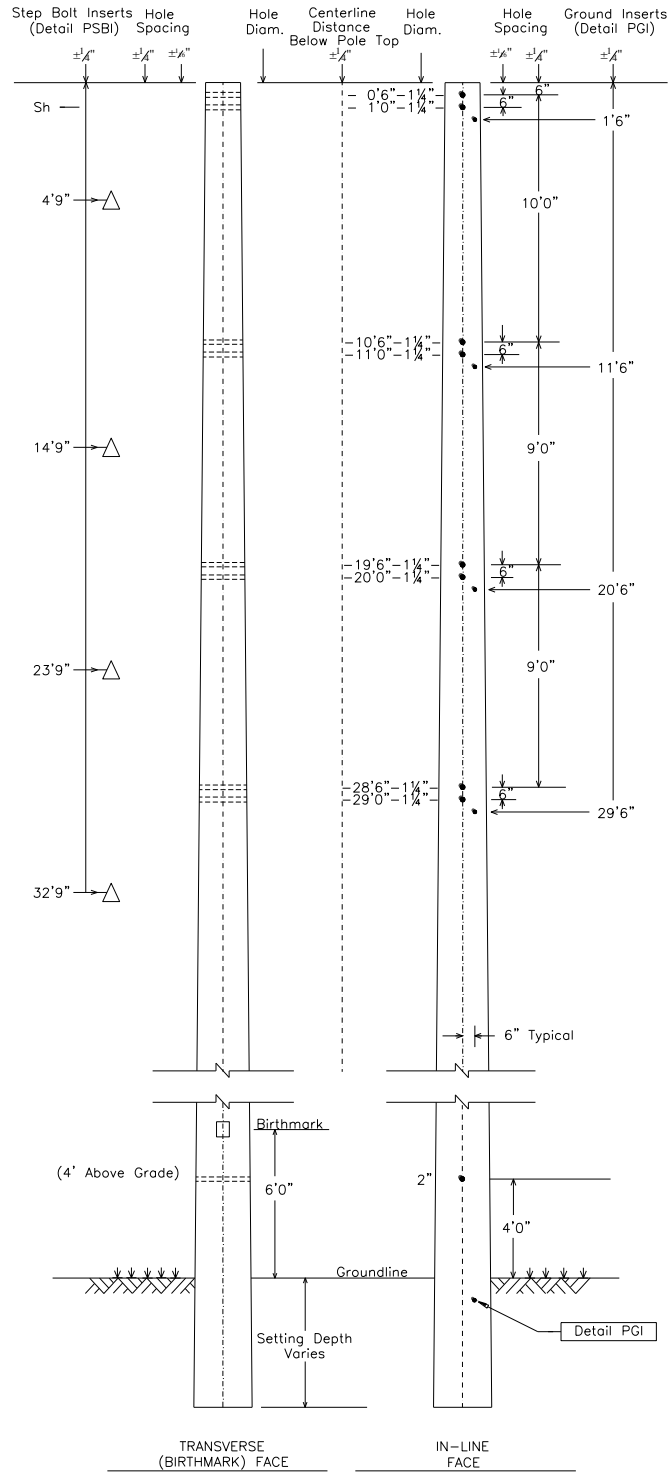
### B1245C\*954S

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 12  | BOLMS 053 | 1   | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 054 | 2   | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 055 | 2   | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 073 | 1   | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 42  | DEACB 005 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE                         |
| 58  | LUGGR 002 | 3   | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 005 | 6   | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                    |
| 76  | WASRD 006 | 12  | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |

### B1245C\*1590

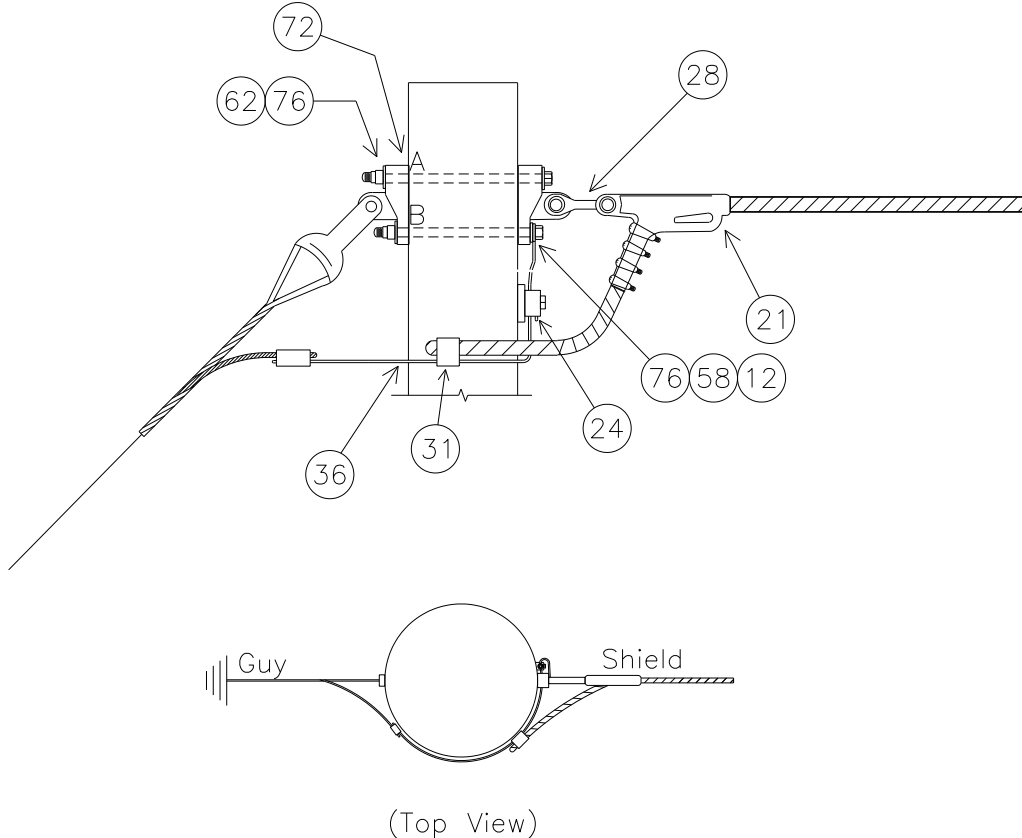
| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 12  | BOLMS 063 | 1   | MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 064 | 2   | MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 070 | 2   | MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 071 | 1   | MACHINE BOLT, 1" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 42  | DEACB 007 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE                      |
| 58  | LUGGR 003 | 3   | LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 006 | 6   | SQUARE LOCK NUT FOR 1 INCH BOLT, HOT DIPPED GALVANIZED                    |
| 76  | WASRD 007 | 12  | ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |

## B1245C DRILLING DETAIL



## SSSIG

### SHIELD FOR SPUN CONCRETE POLES SINGLE IN-LINE, GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

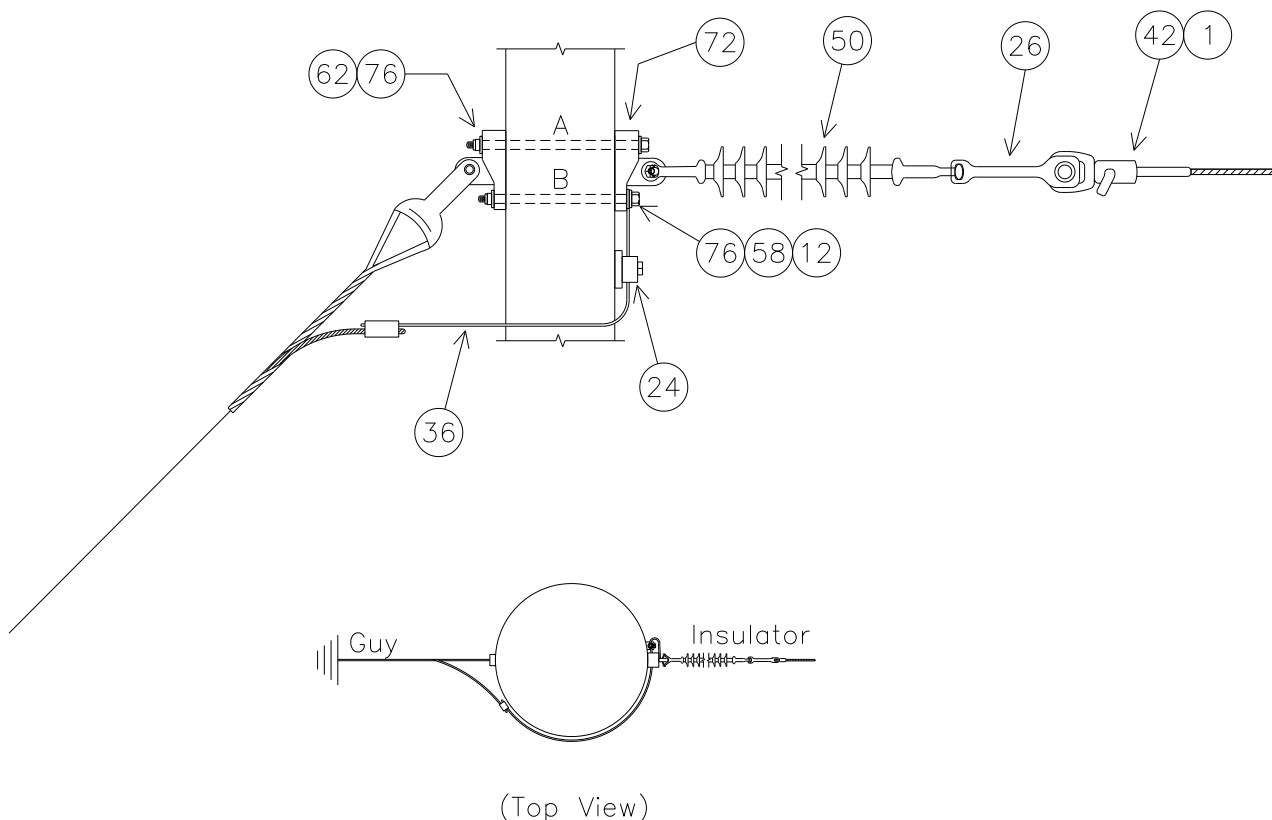
|                          |      |
|--------------------------|------|
| BOLT LENGTH 'A' (INCHES) | 22.6 |
| BOLT LENGTH 'B' (INCHES) | 20.9 |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 12  | BOLMS 040 | 1    | MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 041 | 1    | MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 21  | CLAQD 008 | 1    | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW |
| 24  | CLATG 001 | 1    | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 28  | CLETE 004 | 1    | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G., 90 DEG         |
| 31  | CNNCP 002 | 1    | COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM                                  |
| 36  | COBCO 028 | 4 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 58  | LUGGR 001 | 1    | LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 62  | NUTSL 004 | 2    | SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.  |
| 72  | TEEDE 003 | 2    | TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#                                |
| 76  | WASRD 005 | 4    | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |

## ISSDFB3

**INSULATOR FOR SPUN CONCRETE POLES**  
**SINGLE DEAD-END FULL TENSION, 138KV, 3-PHASE**  
 CONDUCTOR OPTIONS: 954S, 1590



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

| SUBSTRUCTURE                   | Top  | Mid  | Bottom |
|--------------------------------|------|------|--------|
| UPPER BOLT 'A' LENGTH (INCHES) | 25.0 | 26.9 | 28.9   |
| LOWER BOLT 'B' LENGTH (INCHES) | 23.3 | 25.3 | 27.2   |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

## ISSDFB3 PLATES

### ISSDFB3 BASE

| NO. | ITEM ID   | QTY   | DESCRIPTION   |
|-----|-----------|-------|---|
| 1   | ADCVF 001 | 3     | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY                                 |
| 24  | CLATG 001 | 3     | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                   |
| 26  | CLEHL 005 | 3     | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8", H.D.G.               |
| 36  | COBCO 028 | 12 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN                                |
| 50  | INSDE 003 | 3     | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89", CLASS 52-8/11 |
| 72  | TEEDE 003 | 6     | TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#            |

### ISSDFB3\*954S

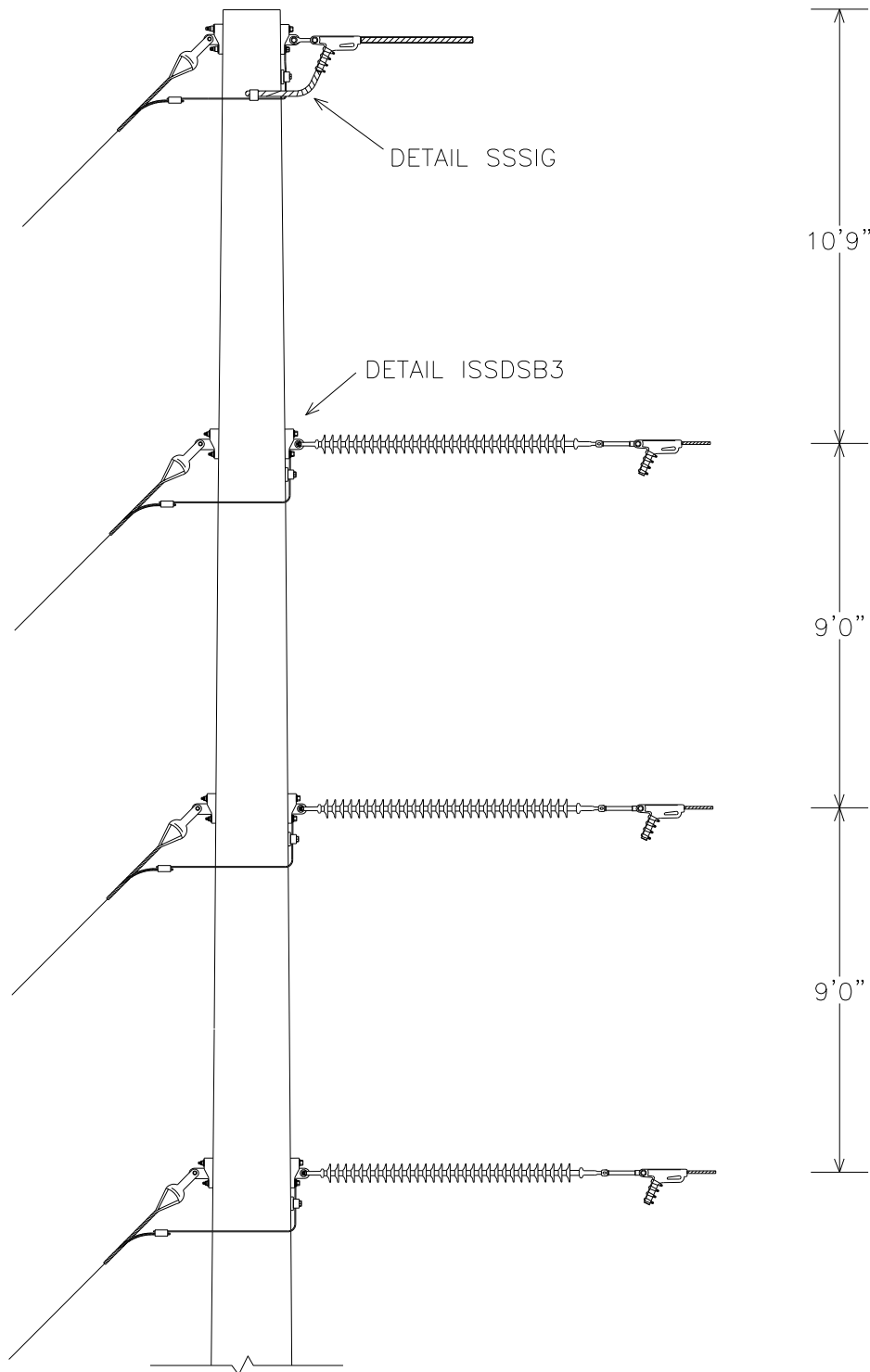
| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 12  | BOLMS 053 | 1   | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 054 | 2   | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 055 | 2   | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 073 | 1   | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 42  | DEACB 005 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE                         |
| 58  | LUGGR 002 | 3   | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 005 | 6   | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.                                       |
| 76  | WASRD 006 | 12  | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |

### ISSDFB3\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 12  | BOLMS 063 | 1   | MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 064 | 2   | MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 070 | 2   | MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 071 | 1   | MACHINE BOLT, 1" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 42  | DEACB 007 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE                      |
| 58  | LUGGR 003 | 3   | LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 006 | 6   | SQUARE LOCK NUT FOR 1" BOLT, H.D.G.                                       |
| 76  | WASRD 007 | 12  | ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |

## B1245Q

138KV, SINGLE DEADEND, SLACK TENSION, 3-PHASE  
CONDUCTOR OPTIONS: 954A, 954S, 1590



REVISED: OCTOBER 2013

REVISED BY: MLR

APPROVED BY :KKR

### 138KV STRUCTURES-NEW CONSTRUCTION

STS138-38

## B1245Q PLATES

### B1245Q BASE

| NO. | ITEM ID   | QTY   | DESCRIPTION  |
|-----|-----------|-------|--|
| 12  | BOLMS 040 | 1     | MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 041 | 1     | MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 053 | 1     | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 054 | 2     | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 055 | 2     | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 073 | 1     | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 21  | CLAQD 008 | 1     | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW |
| 24  | CLATG 001 | 4     | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 26  | CLEHL 008 | 3     | SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4 THICK W/ 13/16 OPENING, H. D. G.        |
| 28  | CLETE 004 | 1     | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G. 90 DEG          |
| 31  | CNNCP 002 | 1     | COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM                                  |
| 36  | COBCO 028 | 16 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 50  | INSD 003  | 3     | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89 INCHES, CLASS 52-8/11              |
| 58  | LUGGR 001 | 1     | LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 58  | LUGGR 002 | 3     | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 62  | NUTSL 004 | 2     | SQUARE LOCK NUT FOR 3/4 INCH BOLT, HOT DIPPED GALVANIZED                                     |
| 62  | NUTSL 005 | 6     | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                                     |
| 72  | TEEDE 003 | 8     | TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#                   |
| 76  | WASRD 005 | 4     | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |
| 76  | WASRD 006 | 12    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                      |

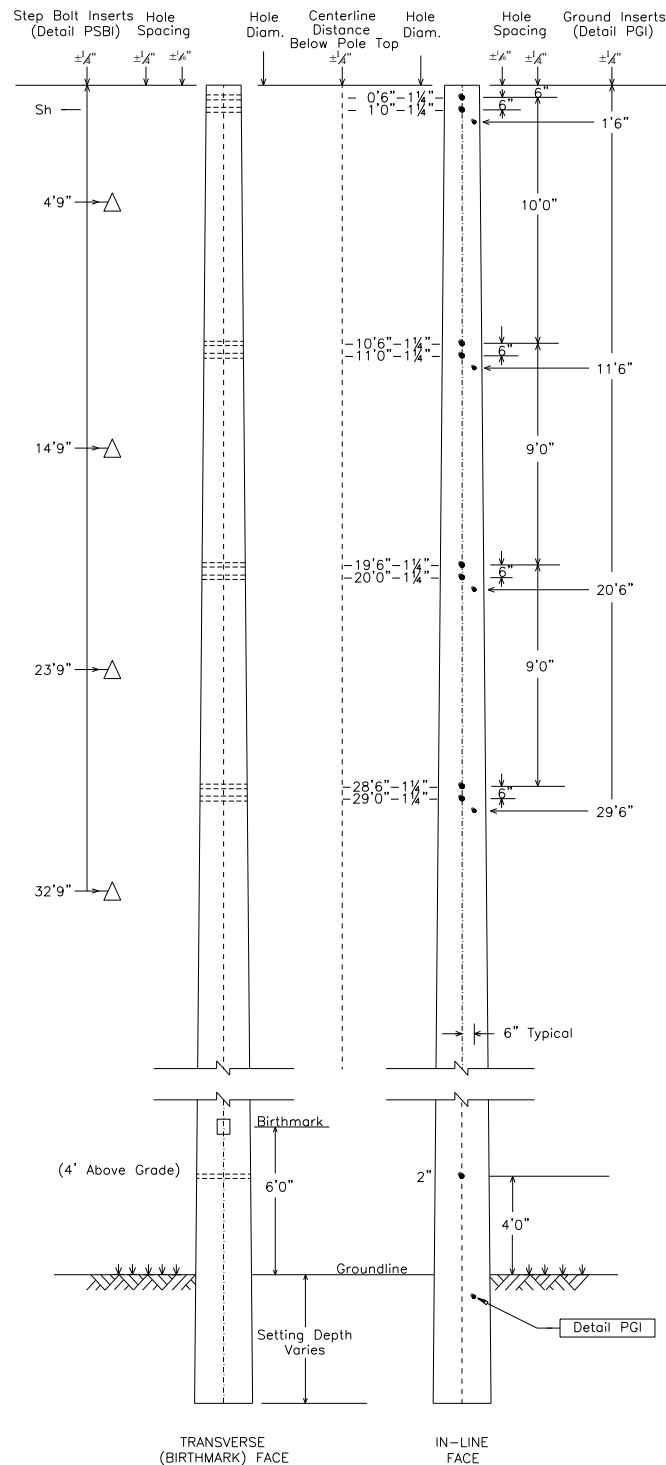
### B1245Q\*954A, 954S

| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 21  | CLAQD 005 | 3   | DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4" |

### B1245Q\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 21  | CLAQD 006 | 3   | DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4" |

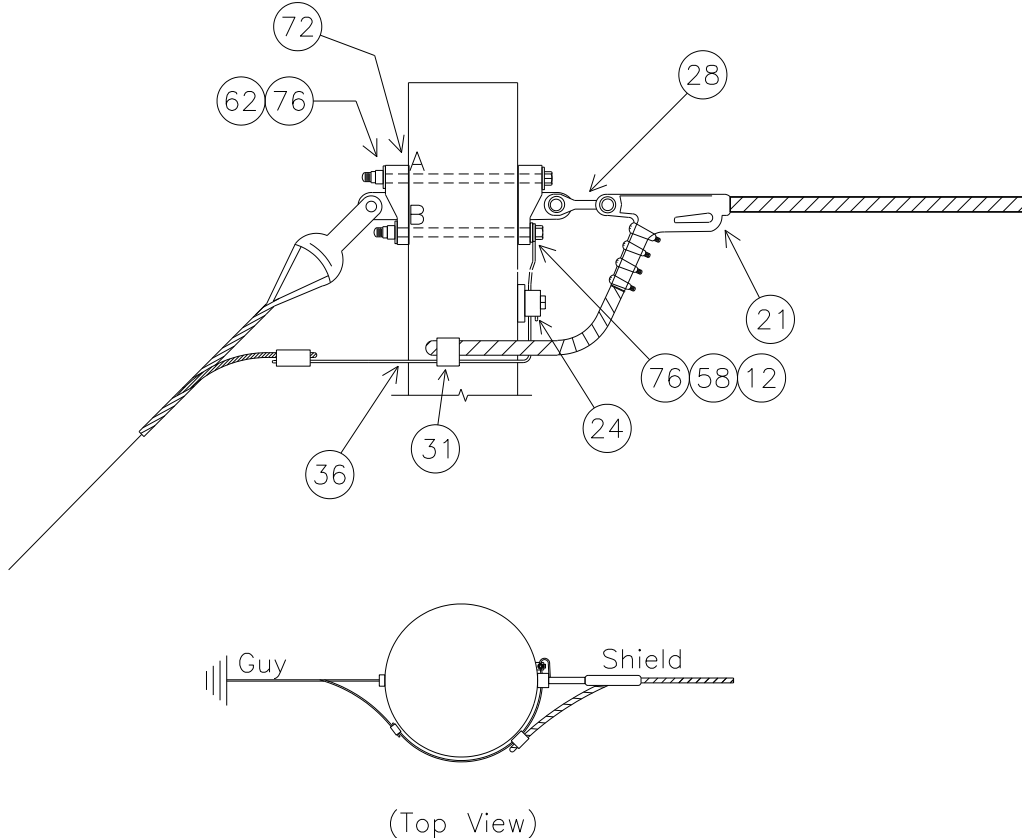
## B1245Q DRILLING DETAIL





## SSSIG

### SHIELD FOR SPUN CONCRETE POLES SINGLE IN-LINE, GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

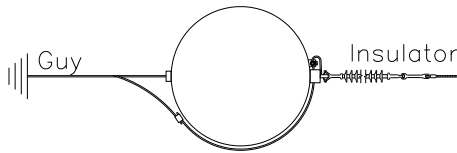
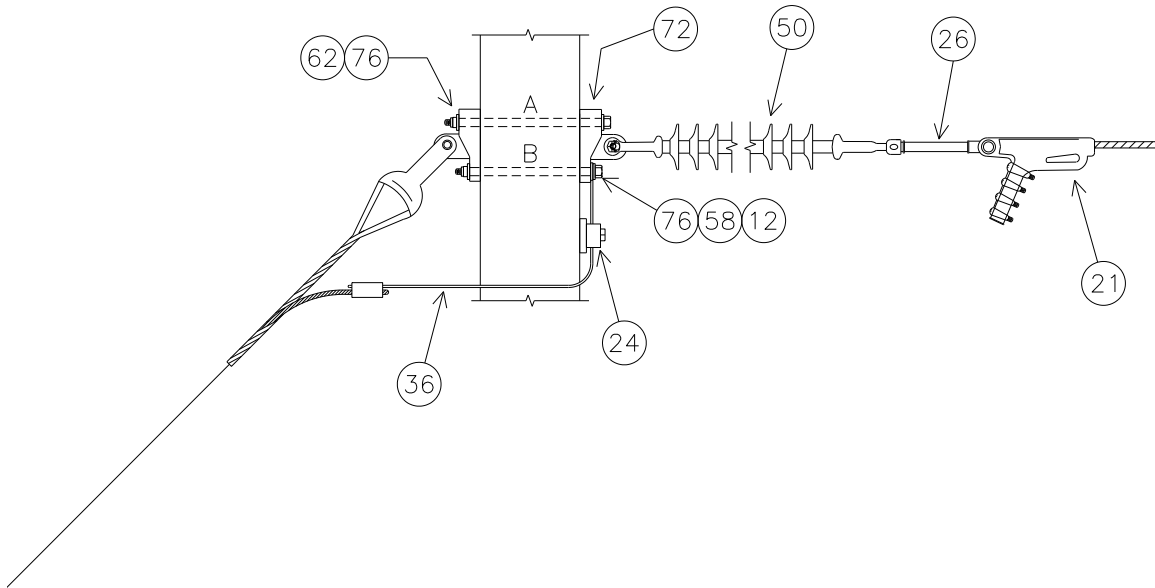
|                          |      |
|--------------------------|------|
| BOLT LENGTH 'A' (INCHES) | 22.6 |
| BOLT LENGTH 'B' (INCHES) | 20.9 |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 12  | BOLMS 040 | 1    | MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 041 | 1    | MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 21  | CLAQD 008 | 1    | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW |
| 24  | CLATG 001 | 1    | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 28  | CLETE 004 | 1    | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G., 90 DEG         |
| 31  | CNNCP 002 | 1    | COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM                                  |
| 36  | COBCO 028 | 4 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 58  | LUGGR 001 | 1    | LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 62  | NUTSL 004 | 2    | SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.  |
| 72  | TEEDE 003 | 2    | TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#                                |
| 76  | WASRD 005 | 4    | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |

## ISSDSB3

**INSULATOR FOR SPUN CONCRETE POLES**  
**SINGLE DEAD-END, SLACK TENSION, 138KV, 3-PHASE**  
 CONDUCTOR OPTIONS: 954A, 954S, 1590



(Top View)

NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

| SUBSTRUCTURE                   | Top  | Mid  | Bottom |
|--------------------------------|------|------|--------|
| UPPER BOLT 'A' LENGTH (INCHES) | 24.9 | 26.8 | 28.7   |
| LOWER BOLT 'B' LENGTH (INCHES) | 23.2 | 25.2 | 27.1   |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER



# ISSDSB3 PLATES

## ISSDSB3 BASE

| NO. | ITEM ID   | QTY   | DESCRIPTION   |
|-----|-----------|-------|---|
| 12  | BOLMS 053 | 1     | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED               |
| 12  | BOLMS 054 | 2     | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED               |
| 12  | BOLMS 055 | 2     | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED               |
| 12  | BOLMS 073 | 1     | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED               |
| 24  | CLATG 001 | 3     | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                   |
| 26  | CLEHL 008 | 3     | SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4" THICK WITH 13/16" OPENING, H. D. G. |
| 36  | COBCO 028 | 12 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN  |
| 50  | INSDE 003 | 3     | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89", CLASS 52-8/11                 |
| 58  | LUGGR 002 | 3     | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                           |
| 62  | NUTSL 005 | 6     | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.   |
| 72  | TEEDE 003 | 6     | TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#                            |
| 76  | WASRD 006 | 12    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                   |

## ISSDSB3\*954A, 954S

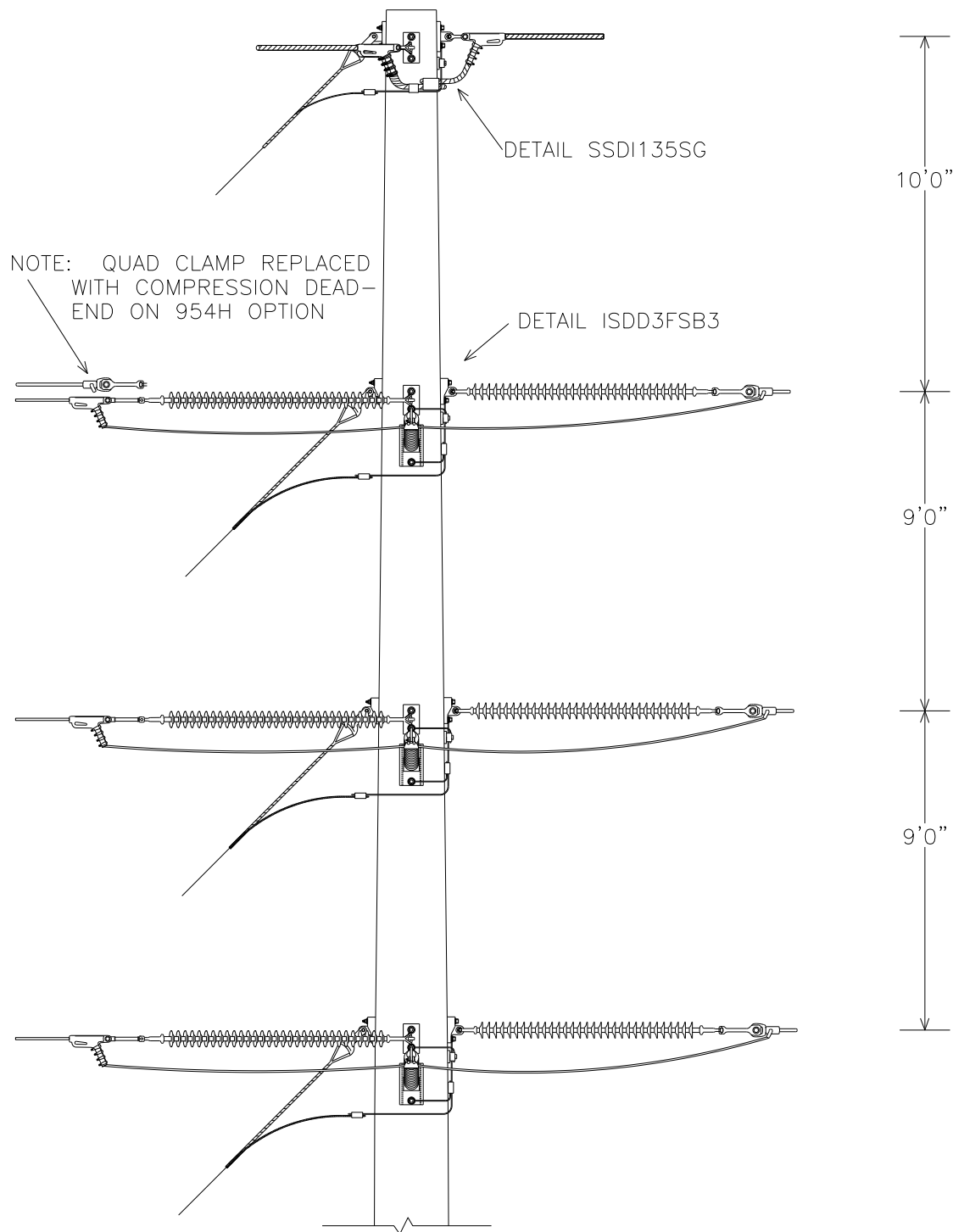
| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 21  | CLAQD 005 | 3   | DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4" |

## ISSDSB3\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 21  | CLAQD 006 | 3   | DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4" |

# B12462

138KV, DOUBLE DEADEND 135°, FULL TENSION TO SLACK TENSION, 3-PHASE  
CONDUCTOR OPTIONS: 954H, 954S, 1590



## B12462 PLATES

### B12462 BASE

| NO. | ITEM ID   | QTY   | DESCRIPTION  |
|-----|-----------|-------|--|
| 7   | BALFI 007 | 3     | BALL Y-CLEVIS, CLASS 52-3/5  |
| 12  | BOLMS 040 | 1     | MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 041 | 1     | MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 055 | 1     | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 073 | 2     | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 074 | 2     | MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 075 | 1     | MACHINE BOLT, 7/8" X 36", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 13  | BOLSE 021 | 1     | BOLT, SHOULDER EYE, 7/8" X 22", GALVANIZED, WITH SQUARE NUT ATTACHED                         |
| 13  | BOLSE 022 | 1     | BOLT, SHOULDER EYE, 7/8" X 24", GALVANIZED, WITH SQUARE NUT ATTACHED                         |
| 13  | BOLSE 023 | 1     | BOLT, SHOULDER EYE, 7/8" X 26", GALVANIZED, WITH SQUARE NUT ATTACHED                         |
| 13  | BOLSE 024 | 1     | BOLT, SHOULDER EYE, 7/8" X 28", GALVANIZED, WITH SQUARE NUT ATTACHED                         |
| 21  | CLAQD 008 | 2     | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW |
| 24  | CLATG 001 | 4     | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 26  | CLEHL 005 | 3     | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8, HOT DIPPED GALV.                         |
| 28  | CLETE 001 | 1     | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G.                 |
| 28  | CLETE 004 | 1     | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G., 90-DEG         |
| 31  | CNNCP 002 | 1     | COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM                                  |
| 31  | CNNCP 003 | 1     | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM                                |
| 31  | CNNCP 016 | 3     | COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER                                    |
| 36  | COBCO 028 | 24 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 50  | INSDE 003 | 6     | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89 INCHES, CLASS 52-8/11              |
| 51  | INSHP 023 | 3     | HORIZONTAL POST SILICONE INSULATOR, 138KV, L = 54 INCHES, GAIN BASE, 12 DEGREE RISE          |
| 58  | LUGGR 001 | 1     | LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 58  | LUGGR 002 | 6     | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 62  | NUTSL 004 | 2     | SQUARE LOCK NUT FOR 3/4 INCH BOLT, HOT DIPPED GALVANIZED                                     |
| 62  | NUTSL 005 | 10    | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                                     |
| 69  | SOCEY 003 | 3     | SOCKET EYE, CLASS 52-3/5   |
| 72  | TEEDE 003 | 8     | TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#                   |
| 76  | WASRD 005 | 4     | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |
| 76  | WASRD 006 | 15    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                      |
| 77  | WASSC 002 | 14    | SQUARE CURVED WASHER FOR 7/8" BOLTS, GALVANIZED, 4" X 4"                                     |

### B12462\*954H

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 1   | ADCVF 002 | 6   | HIGH TEMPERATURE VOID FILLER COMPOUND FOR DEADEND ASSEMBLY                  |
| 12  | BOLMS 053 | 1   | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 054 | 2   | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 055 | 2   | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 073 | 1   | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 20  | CLAJU 010 | 3   | HIGH TEMPERATURE CUSHION GRIP SUSPENSION CLAMP FOR 954 ACSR                 |
| 26  | CLEHL 005 | 3   | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8, HOT DIPPED GALV.        |
| 42  | DEACB 016 | 6   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSS, OVAL EYE                         |
| 58  | LUGGR 002 | 3   | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 005 | 6   | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                    |
| 76  | WASRD 006 | 12  | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |



## Overhead Transmission Standards

### B12462\*954S

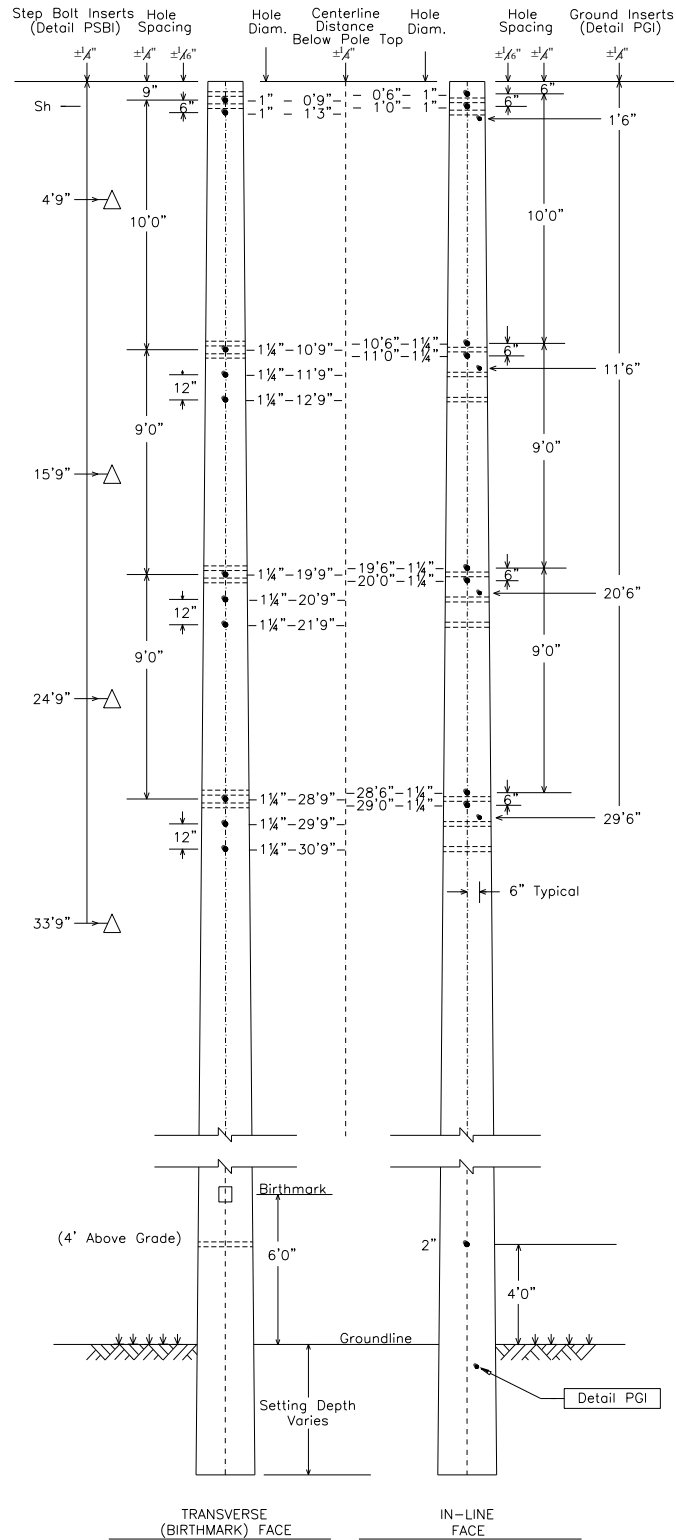
| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 1   | ADCVF 001 | 3   | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY   |
| 12  | BOLMS 053 | 1   | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED           |
| 12  | BOLMS 054 | 2   | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED           |
| 12  | BOLMS 055 | 2   | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED           |
| 12  | BOLMS 073 | 1   | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED           |
| 20  | CLAJU 007 | 3   | CUSHION GRIP SUSPENSION CLAMP FOR 954 ACSR  |
| 21  | CLAQD 005 | 3   | DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"                |
| 26  | CLEHL 008 | 3   | SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4 THICK W/ 13/16 OPENING, H. D. G. |
| 42  | DEACB 005 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE                                   |
| 58  | LUGGR 002 | 3   | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                       |
| 62  | NUTSL 005 | 6   | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                              |
| 76  | WASRD 006 | 12  | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                               |

### B12462\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 1   | ADCVF 001 | 3   | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY   |
| 12  | BOLMS 063 | 1   | MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED             |
| 12  | BOLMS 064 | 2   | MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED             |
| 12  | BOLMS 070 | 2   | MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED             |
| 12  | BOLMS 071 | 1   | MACHINE BOLT, 1" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED             |
| 20  | CLAJU 008 | 3   | CUSHION GRIP SUSPENSION CLAMP FOR 1590 ACSR   |
| 21  | CLAQD 006 | 3   | DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4"                   |
| 26  | CLEHL 008 | 3   | SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4 THICK W/ 13/16 OPENING, H. D. G. |
| 42  | DEACB 007 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE                                  |
| 58  | LUGGR 003 | 3   | LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                         |
| 62  | NUTSL 006 | 6   | SQUARE LOCK NUT FOR 1 INCH BOLT, HOT DIPPED GALVANIZED                                |
| 76  | WASRD 007 | 12  | ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED                                 |

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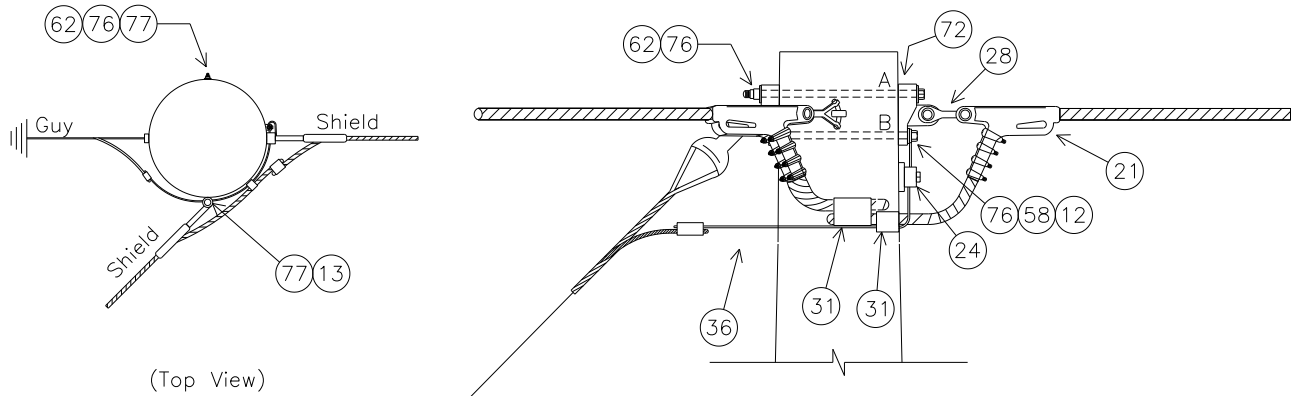
## B12462 DRILLING DETAIL





## SSDI135SG

SHIELD FOR SPUN CONCRETE POLES  
DOUBLE IN-LINE 135°, SINGLE GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

|  |      |
|--|------|
| MINIMUM REQUIRED BOLT LENGTH 'A' (INCHES)          | 22.6 |
| MINIMUM REQUIRED BOLT LENGTH 'B' (INCHES)          | 20.9 |
| MINIMUM REQUIRED SHOULDER EYE BOLT LENGTH (INCHES) | 20.1 |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

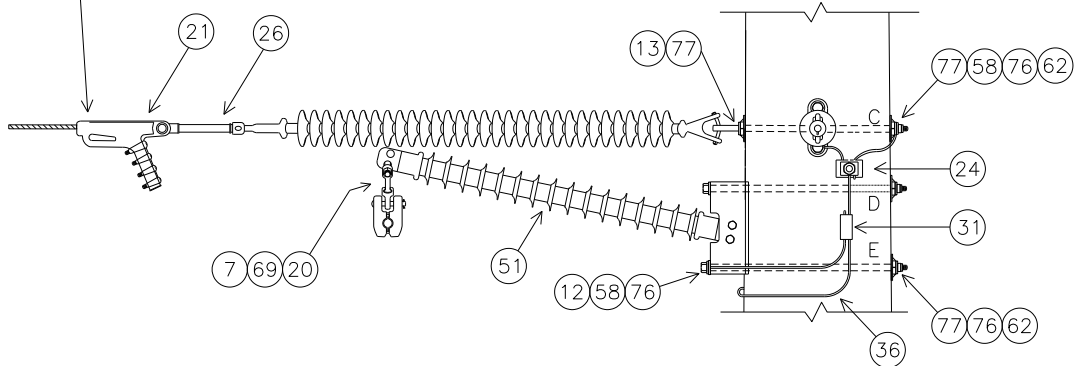
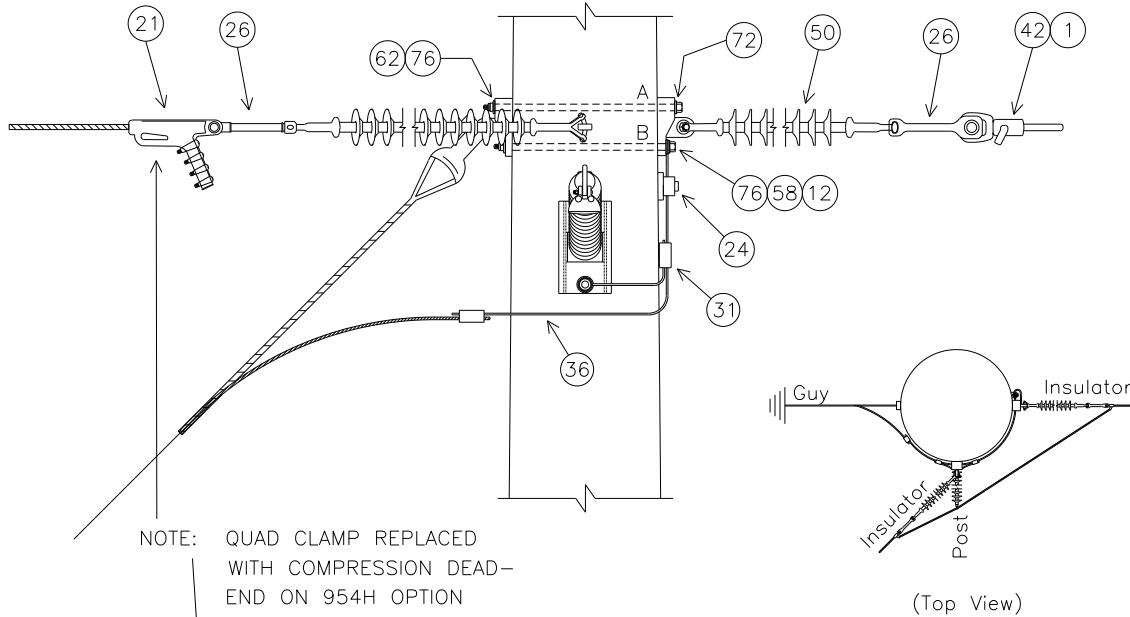
| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 12  | BOLMS 040 | 1    | MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 041 | 1    | MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 13  | BOLSE 021 | 1    | BOLT, SHOULDER EYE, 7/8" X 22", GALVANIZED, WITH SQUARE NUT ATTACHED                         |
| 21  | CLAQD 008 | 2    | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW |
| 24  | CLATG 001 | 1    | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 28  | CLETE 001 | 1    | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G.                 |
| 28  | CLETE 004 | 1    | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G., 90 DEG         |
| 31  | CNNCP 002 | 1    | COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM                                  |
| 31  | CNNCP 003 | 1    | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM                                |
| 36  | COBCO 028 | 3 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 58  | LUGGR 001 | 1    | LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 62  | NUTSL 004 | 2    | SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.  |
| 62  | NUTSL 005 | 1    | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.  |
| 72  | TEEDE 003 | 2    | TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#                                |
| 76  | WASRD 005 | 4    | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |
| 76  | WASRD 006 | 1    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                      |
| 77  | WASSC 002 | 2    | SQUARE CURVED WASHER FOR 7/8" BOLTS, GALVANIZED, 4" X 4"                                     |

## ISDD3FSB3

INSULATOR FOR SPUN CONCRETE POLES

DOUBLE DEADEND 135°, FULL TENSION TO SLACK TENSION, 138KV, 3-PHASE

CONDUCTOR OPTIONS: 954H, 954S, 1590



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

|                                      | FULL TENSION SIDES |        |        |
|--------------------------------------|--------------------|--------|--------|
|                                      | TOP                | MIDDLE | BOTTOM |
| BOLT 'A' LENGTH (INCHES)             | 25.0               | 26.9   | 28.9   |
| BOLT 'B' LENGTH (INCHES)             | 23.3               | 25.3   | 27.2   |
| SHOULDER EYEBOLT 'C' LENGTH (INCHES) | 22.2               | 24.2   | 26.1   |
| BOLT 'D' LENGTH (INCHES)             | 27.9               | 29.8   | 31.8   |
| BOLT 'E' LENGTH (INCHES)             | 28.4               | 30.3   | 32.2   |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER



## ISDD3FSB3 PLATES

### ISDD3FSB3 BASE

| NO. | ITEM ID   | QTY   | DESCRIPTION   |
|-----|-----------|-------|---|
| 7   | BALFI007  | 3     | BALL Y-CLEVIS, CLASS 52-3/5   |
| 12  | BOLMS 055 | 1     | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 073 | 2     | MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 074 | 2     | MACHINE BOLT, 7/8" X 34", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 075 | 1     | MACHINE BOLT, 7/8" X 38", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 13  | BOLSE 022 | 1     | BOLT, SHOULDER EYE, 7/8" X 24", GALVANIZED, WITH SQUARE NUT ATTACHED        |
| 13  | BOLSE 023 | 1     | BOLT, SHOULDER EYE, 7/8" X 26", GALVANIZED, WITH SQUARE NUT ATTACHED        |
| 13  | BOLSE 024 | 1     | BOLT, SHOULDER EYE, 7/8" X 28", GALVANIZED, WITH SQUARE NUT ATTACHED        |
| 24  | CLATG 001 | 3     | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                     |
| 26  | CLEHL 005 | 3     | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8", H.D.G.                 |
| 31  | CNNCP 016 | 3     | COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER                   |
| 36  | COBCO 028 | 21 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN                                  |
| 50  | INSDE 003 | 6     | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89", CLASS 52-8/11   |
| 51  | INSHP 023 | 3     | HORIZONTAL POST SILICONE INSULATOR, 138KV, L = 54", GAIN BASE, 12° RISE     |
| 58  | LUGGR 002 | 6     | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATTED COPPER COMPRESSION            |
| 62  | NUTSL 005 | 9     | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.                                       |
| 69  | SOCEY003  | 3     | SOCKET EYE, CLASS 52-3/5  |
| 72  | TEEDE 003 | 6     | TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#              |
| 76  | WASRD 006 | 15    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |
| 77  | WASSC 002 | 12    | SQUARE FLAT WASHER FOR 3/4" & 7/8" BOLT, 4" SQ X 1/4", GALVANIZED           |

### ISDD3FSB3\*954H&S

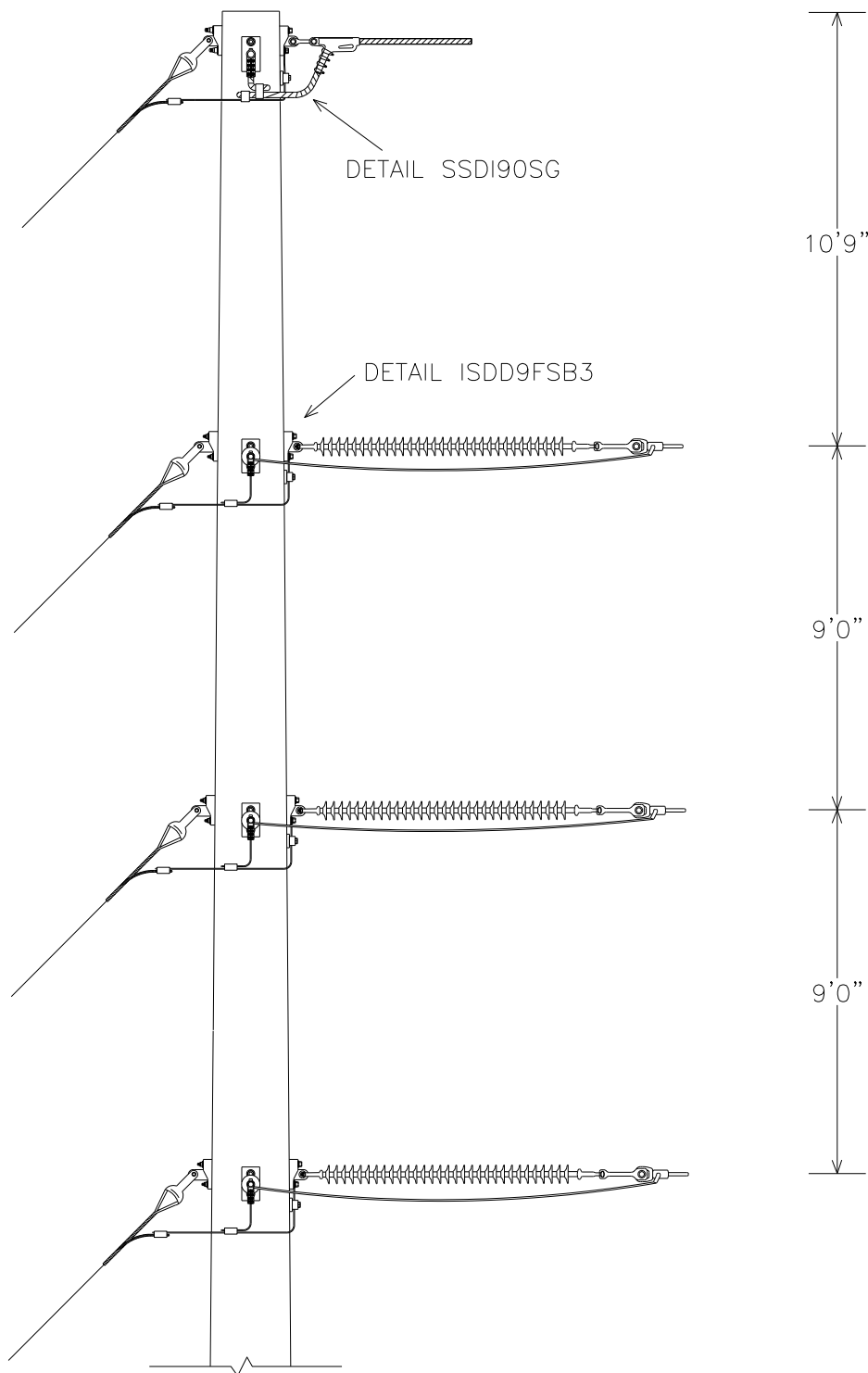
| NO.       | ITEM ID   | QTY | DESCRIPTION   |
|-----------|-----------|-----|---|
| 1 (954H)  | ADCVF 002 | 6   | HIGH TEMPERATURE VOID FILLER COMPOUND FOR DEADEND ASSEMBLY                                |
| 1 (954S)  | ADCVF 001 | 3   | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY   |
| 12        | BOLMS 053 | 1   | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED               |
| 12        | BOLMS 054 | 2   | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED               |
| 12        | BOLMS 055 | 2   | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED               |
| 12        | BOLMS 073 | 1   | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED               |
| 20 (954H) | CLAJU 010 | 3   | CUSHION GRIP SUSPENSION CLAMP FOR 954 ACSS  |
| 20 (954S) | CLAJU 007 | 3   | CUSHION GRIP SUSPENSION CLAMP FOR 954 ACSR  |
| 21 (954S) | CLAQD 005 | 3   | DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"                    |
| 26 (954H) | CLEHL 005 | 3   | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8", H.D.G.                               |
| 26 (954S) | CLEHL 008 | 3   | SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4" THICK WITH 13/16" OPENING, H. D. G. |
| 42 (954H) | DEACB 016 | 6   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSS, OVAL EYE                                       |
| 42 (954S) | DEACB 005 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE                                       |
| 58        | LUGGR 002 | 3   | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                           |
| 62        | NUTSL 005 | 6   | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.   |
| 76        | WASRD 006 | 12  | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                   |

### ISDD3FSB3\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 1   | ADCVF 001 | 3   | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY   |
| 12  | BOLMS 063 | 1   | MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                 |
| 12  | BOLMS 064 | 2   | MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                 |
| 12  | BOLMS 070 | 2   | MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                 |
| 12  | BOLMS 071 | 1   | MACHINE BOLT, 1" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                 |
| 20  | CLAJU 008 | 3   | CUSHION GRIP SUSPENSION CLAMP FOR 1590 ACSR   |
| 21  | CLAQD 006 | 3   | DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4"                       |
| 26  | CLEHL 008 | 3   | SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4" THICK WITH 13/16" OPENING, H. D. G. |
| 42  | DEACB 007 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE                                      |
| 58  | LUGGR 003 | 3   | LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                             |
| 62  | NUTSL 006 | 6   | SQUARE LOCK NUT FOR 1" BOLT, H.D.G.   |
| 76  | WASRD 007 | 12  | ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED                                     |

## B1246C

138KV, DOUBLE DEADEND 90°, FULL TENSION TO SLACK TENSION, 3-PHASE  
CONDUCTOR OPTIONS: 954H, 954S, 1590





## B1246C PLATES

### B1246C BASE

| NO. | ITEM ID   | QTY   | DESCRIPTION  |
|-----|-----------|-------|--|
| 12  | BOLMS 040 | 3     | MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 041 | 1     | MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 053 | 2     | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 054 | 2     | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 055 | 2     | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 21  | CLAQD 008 | 2     | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW |
| 24  | CLATG 001 | 4     | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 26  | CLEHL 005 | 3     | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8, HOT DIPPED GALV.                         |
| 28  | CLETE 004 | 2     | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G. 90 DEG          |
| 31  | CNNCP 002 | 1     | COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM                                  |
| 31  | CNNCP 003 | 1     | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM                                |
| 31  | CNNCP 016 | 3     | COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER                                    |
| 36  | COBCO 028 | 21 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 50  | INSD 003  | 6     | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89 INCHES, CLASS 52-8/11              |
| 58  | LUGGR 001 | 2     | LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 58  | LUGGR 002 | 3     | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 62  | NUTSL 004 | 4     | SQUARE LOCK NUT FOR 3/4 INCH BOLT, HOT DIPPED GALVANIZED                                     |
| 62  | NUTSL 005 | 6     | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                                     |
| 72  | TEEDE 003 | 12    | TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#                   |
| 76  | WASRD 005 | 8     | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |
| 76  | WASRD 006 | 12    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                      |
| 77  | WASSC 001 | 2     | SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |
| 77  | WASSC 002 | 6     | SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |

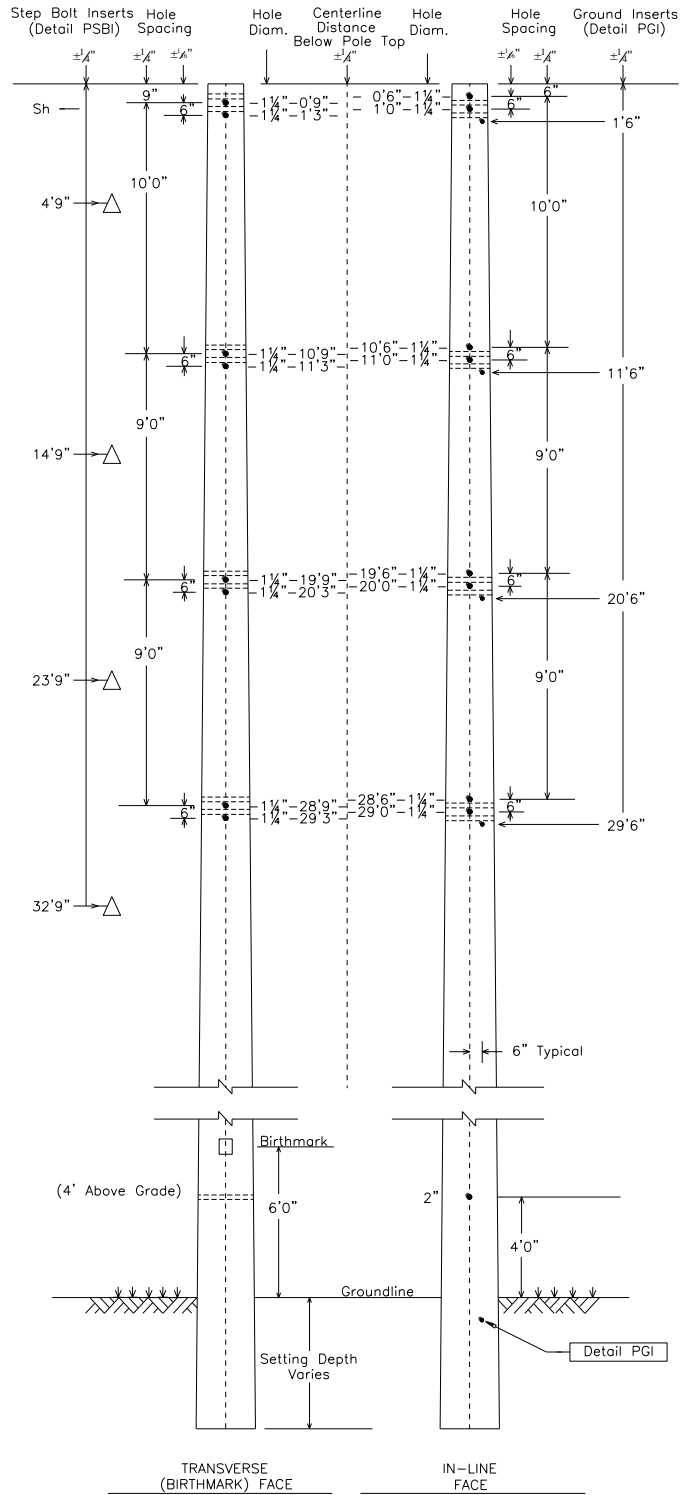
### B1246C\*954H&S

| NO.       | ITEM ID   | QTY | DESCRIPTION   |
|-----------|-----------|-----|---|
| 1 (954H)  | ADCVF 002 | 6   | HIGH TEMPERATURE VOID FILLER COMPOUND FOR DEADEND ASSEMBLY                            |
| 1 (954S)  | ADCVF 001 | 3   | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY   |
| 12        | BOLMS 053 | 1   | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED           |
| 12        | BOLMS 054 | 2   | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED           |
| 12        | BOLMS 055 | 2   | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED           |
| 12        | BOLMS 073 | 1   | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED           |
| 21 (954S) | CLAQD 005 | 3   | DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"                |
| 26 (954H) | CLEHL 005 | 3   | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8, HOT DIPPED GALV.                  |
| 26 (954S) | CLEHL 008 | 3   | SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4 THICK W/ 13/16 OPENING, H. D. G. |
| 42 (954H) | DEACB 016 | 6   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSS, OVAL EYE                                   |
| 42 (954S) | DEACB 005 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSS, OVAL EYE                                   |
| 58        | LUGGR 002 | 3   | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                       |
| 62        | NUTSL 005 | 6   | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                              |
| 76        | WASRD 006 | 12  | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                               |

### B1246C\*1590

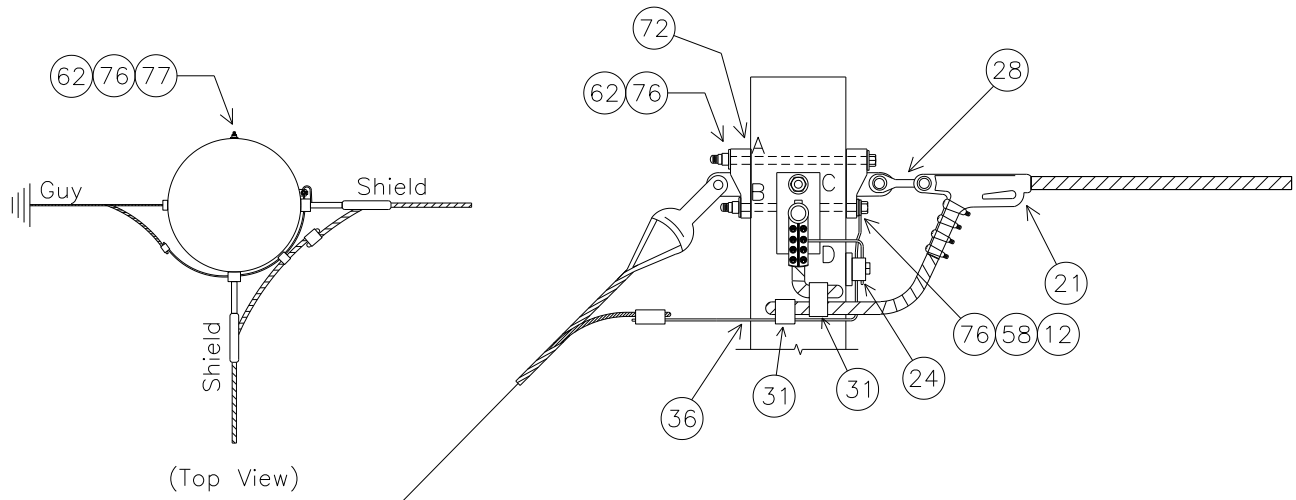
| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 1   | ADCVF 001 | 3   | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY   |
| 12  | BOLMS 063 | 1   | MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED             |
| 12  | BOLMS 064 | 2   | MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED             |
| 12  | BOLMS 070 | 2   | MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED             |
| 12  | BOLMS 071 | 1   | MACHINE BOLT, 1" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED             |
| 21  | CLAQD 006 | 3   | DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4"                   |
| 26  | CLEHL 008 | 3   | SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4 THICK W/ 13/16 OPENING, H. D. G. |
| 42  | DEACB 007 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE                                  |
| 58  | LUGGR 003 | 3   | LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                         |
| 62  | NUTSL 006 | 6   | SQUARE LOCK NUT FOR 1 INCH BOLT, HOT DIPPED GALVANIZED                                |
| 76  | WASRD 007 | 12  | ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED                                 |

## B1246C DRILLING DETAIL



## SSDI90SG

SHIELD FOR SPUN CONCRETE POLES  
DOUBLE IN-LINE 90°, SINGLE GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

| SUBSTRUCTURE               | DOUBLE TEE SIDE | SINGLE TEE SIDE |
|----------------------------|-----------------|-----------------|
| UPPER BOLT LENGTH (INCHES) | 22.6            | 21.3            |
| LOWER BOLT LENGTH (INCHES) | 20.9            | 20.6            |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

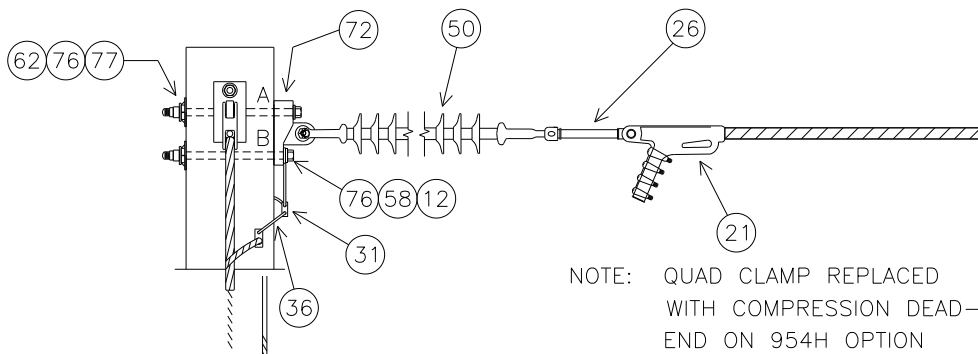
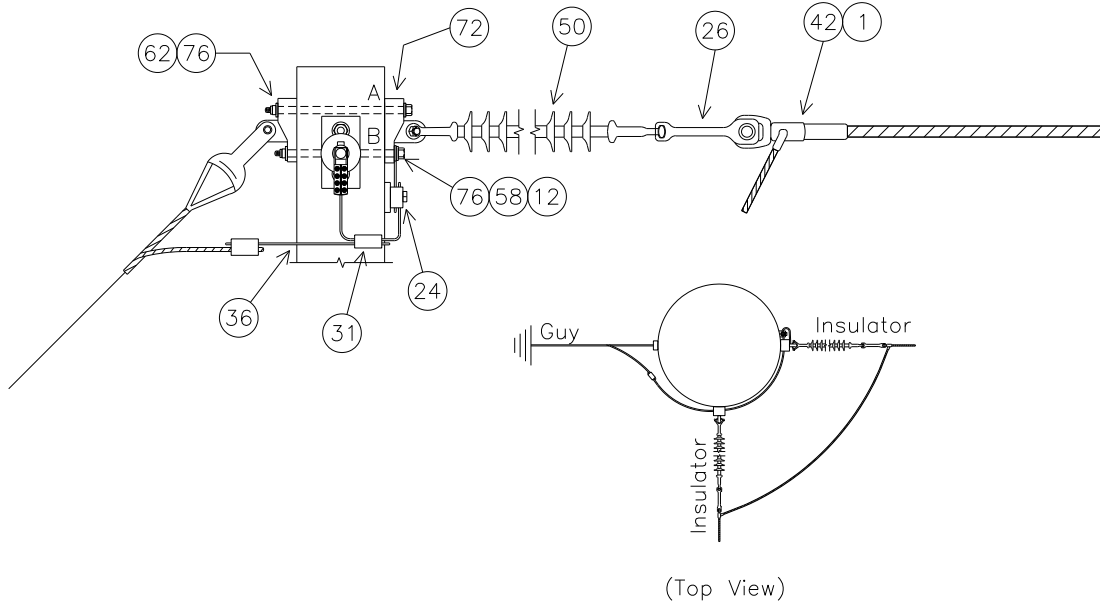
| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 12  | BOLMS 040 | 3    | MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 041 | 1    | MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 21  | CLAQD 008 | 2    | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW |
| 24  | CLATG 001 | 1    | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 28  | CLETE 004 | 2    | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G. 90 DEG          |
| 31  | CNNCP 002 | 1    | COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM                                  |
| 31  | CNNCP 003 | 1    | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM                                |
| 36  | COBCO 028 | 3 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 58  | LUGGR 001 | 2    | LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 62  | NUTSL 004 | 4    | SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.  |
| 72  | TEEDE 003 | 3    | TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#                                |
| 76  | WASRD 005 | 8    | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |
| 77  | WASSC 001 | 2    | SQUARE CURVED WASHER FOR 3/4" BOLTS, GALVANIZED, 4" X 4"                                     |

## ISDD9FSB3

INSULATOR FOR SPUN CONCRETE POLES

DOUBLE DEAD-END 90°, FULL TENSION TO SLACK TENSION, 138KV, 3-PHASE

CONDUCTOR OPTIONS: 954H, 954S, 1590



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

### FULL TENSION SIDES

| SUBSTRUCTURE                   | Top  | Mid  | Bottom |
|--------------------------------|------|------|--------|
| UPPER BOLT 'A' LENGTH (INCHES) | 25.0 | 26.9 | 28.9   |
| LOWER BOLT 'B' LENGTH (INCHES) | 23.3 | 25.3 | 27.2   |

### SLACK TENSION SIDES

| SUBSTRUCTURE                   | Top  | Mid  | Bottom |
|--------------------------------|------|------|--------|
| UPPER BOLT 'A' LENGTH (INCHES) | 23.7 | 25.6 | 27.6   |
| LOWER BOLT 'B' LENGTH (INCHES) | 22.9 | 24.9 | 26.8   |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER



## ISDD9FSB3 PLATES

### ISDD9FSB3 BASE

| NO. | ITEM ID   | QTY   | DESCRIPTION   |
|-----|-----------|-------|---|
| 12  | BOLMS 053 | 2     | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 054 | 2     | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 055 | 2     | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 24  | CLATG 001 | 3     | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                     |
| 26  | CLEHL 005 | 3     | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8", H.D.G.                 |
| 31  | CNNCP 016 | 3     | COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER                   |
| 36  | COBCO 028 | 18 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN                                  |
| 50  | INSDE 003 | 6     | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89", CLASS 52-8/11   |
| 58  | LUGGR 002 | 3     | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 005 | 6     | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.                                       |
| 72  | TEEDE 003 | 9     | TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#              |
| 76  | WASRD 006 | 12    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |
| 77  | WASSC 002 | 6     | SQUARE CURVED WASHER FOR 7/8" BOLTS, GALVANIZED, 4" X 4"                    |

### ISDD9FSB3\*954H

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 1   | ADCVF 002 | 6   | HIGH TEMPERATURE VOID FILLER COMPOUND FOR DEADEND ASSEMBLY                  |
| 12  | BOLMS 053 | 1   | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 054 | 2   | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 055 | 2   | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 073 | 1   | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 26  | CLEHL 005 | 3   | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8", H.D.G.                 |
| 42  | DEACB 016 | 6   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSS, OVAL EYE                         |
| 58  | LUGGR 002 | 3   | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 005 | 6   | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.                                       |
| 76  | WASRD 006 | 12  | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |

### ISDD9FSB3\*954S

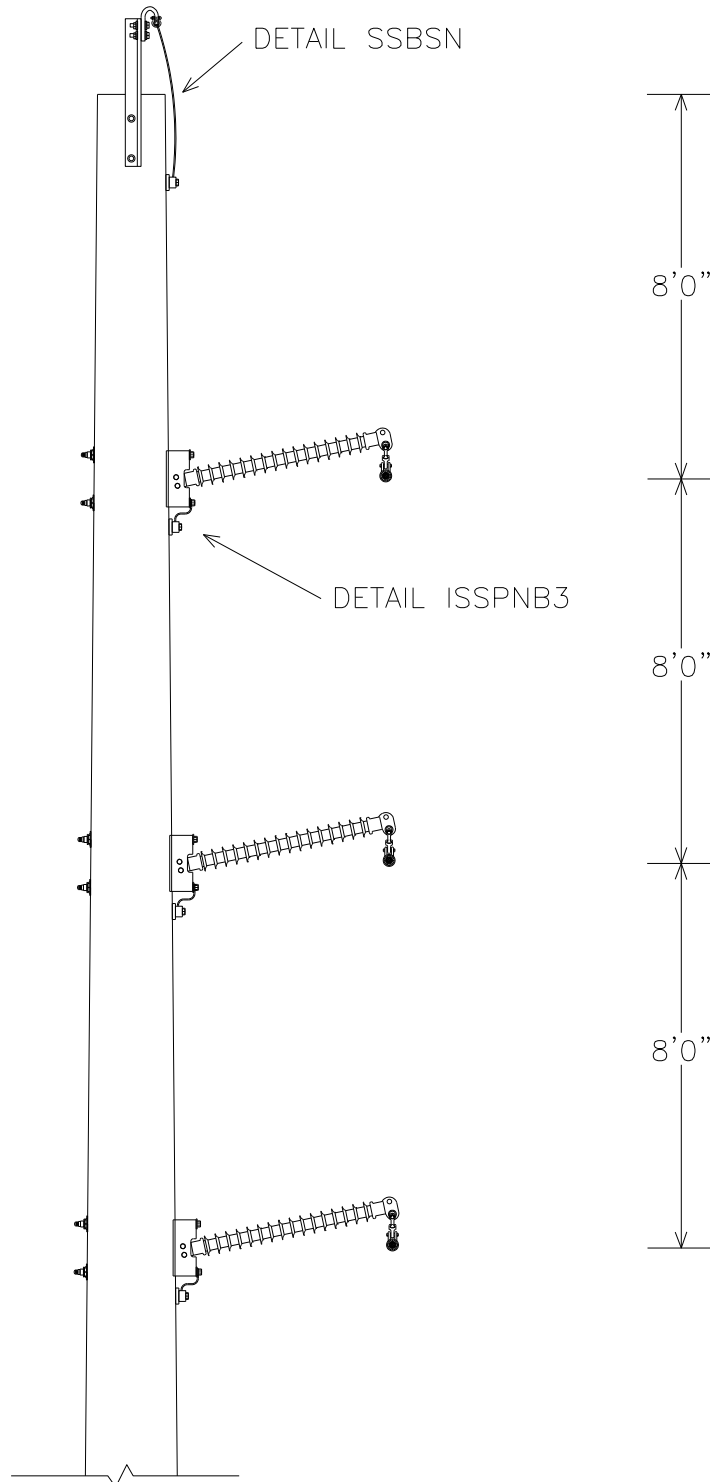
| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 1   | ADCVF 001 | 3   | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY   |
| 12  | BOLMS 053 | 1   | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED               |
| 12  | BOLMS 054 | 2   | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED               |
| 12  | BOLMS 055 | 2   | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED               |
| 12  | BOLMS 073 | 1   | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED               |
| 21  | CLAQD 005 | 3   | DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"                    |
| 26  | CLEHL 008 | 3   | SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4" THICK WITH 13/16" OPENING, H. D. G. |
| 42  | DEACB 005 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE                                       |
| 58  | LUGGR 002 | 3   | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                           |
| 62  | NUTSL 005 | 6   | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.   |
| 76  | WASRD 006 | 12  | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                   |

### ISDD9FSB3\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 1   | ADCVF 001 | 3   | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY   |
| 12  | BOLMS 063 | 1   | MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                 |
| 12  | BOLMS 064 | 2   | MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                 |
| 12  | BOLMS 070 | 2   | MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                 |
| 12  | BOLMS 071 | 1   | MACHINE BOLT, 1" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                 |
| 21  | CLAQD 006 | 3   | DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4"                       |
| 26  | CLEHL 008 | 3   | SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4" THICK WITH 13/16" OPENING, H. D. G. |
| 42  | DEACB 007 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE                                      |
| 58  | LUGGR 003 | 3   | LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                             |
| 62  | NUTSL 006 | 6   | SQUARE LOCK NUT FOR 1" BOLT, H.D.G.   |
| 76  | WASRD 007 | 12  | ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED                                     |

## B1251

**138KV SINGLE POST, UNGUYED, TANGENT SHIELD, 3-PHASE**  
 CONDUCTOR OPTIONS: 954A, 954S





## B1251 PLATES

### B1251 BASE

| NO. | ITEM ID   | QTY   | DESCRIPTION  |
|-----|-----------|-------|--|
| 9   | BAYSW 004 | 1     | BAYONET FOR SHIELD WIRE, STRAIGHT 40"  |
| 12  | BOLMS 001 | 0     | MACHINE BOLT, 1/2" X 2 1/2", PROVIDED WITH SUPSH001  |
| 12  | BOLMS 039 | 2     | MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 055 | 2     | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 073 | 2     | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 074 | 2     | MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 22  | CLASU 001 | 1     | ALUMINUM SUSPENSION CLAMP FOR 3#6AW / 7#10AW, 15000#   |
| 24  | CLATG 001 | 4     | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 26  | CLEHL 001 | 3     | BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", HOT DIPPED GALV.        |
| 31  | CNNCP 002 | 1     | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM |
| 36  | COBCO 028 | 12 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 47  | GUALI 001 | 1     | ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"                                    |
| 51  | INSHP 023 | 3     | HORIZONTAL POST INSULATOR, 138KV, L = 54 INCHES, GAIN BASE, 12 DEGREE RISE                   |
| 58  | LUGGR 002 | 3     | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 62  | NUTSL 002 | 0     | SQUARE LOCK NUT FOR 1/2" BOLT, PROVIDED WITH SUPSH001  |
| 62  | NUTSL 004 | 2     | SQUARE LOCK NUT FOR 3/4" BOLT, HOT DIPPED GALVANIZED   |
| 62  | NUTSL 005 | 6     | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                                     |
| 71  | SUPSH 001 | 1     | SUPPORT, SHIELD WIRE, GALVANIZED, WITH TWO 2 1/2 INCH MACHINE BOLTS AND LOCK NUTS            |
| 76  | WASRD 005 | 4     | ROUND WASHER FOR 3/4" BOLT, 1 3/4" DIAMETER, GALVANIZED                                      |
| 76  | WASRD 006 | 12    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                      |
| 77  | WASSC 001 | 2     | SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |
| 77  | WASSC 002 | 6     | SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |

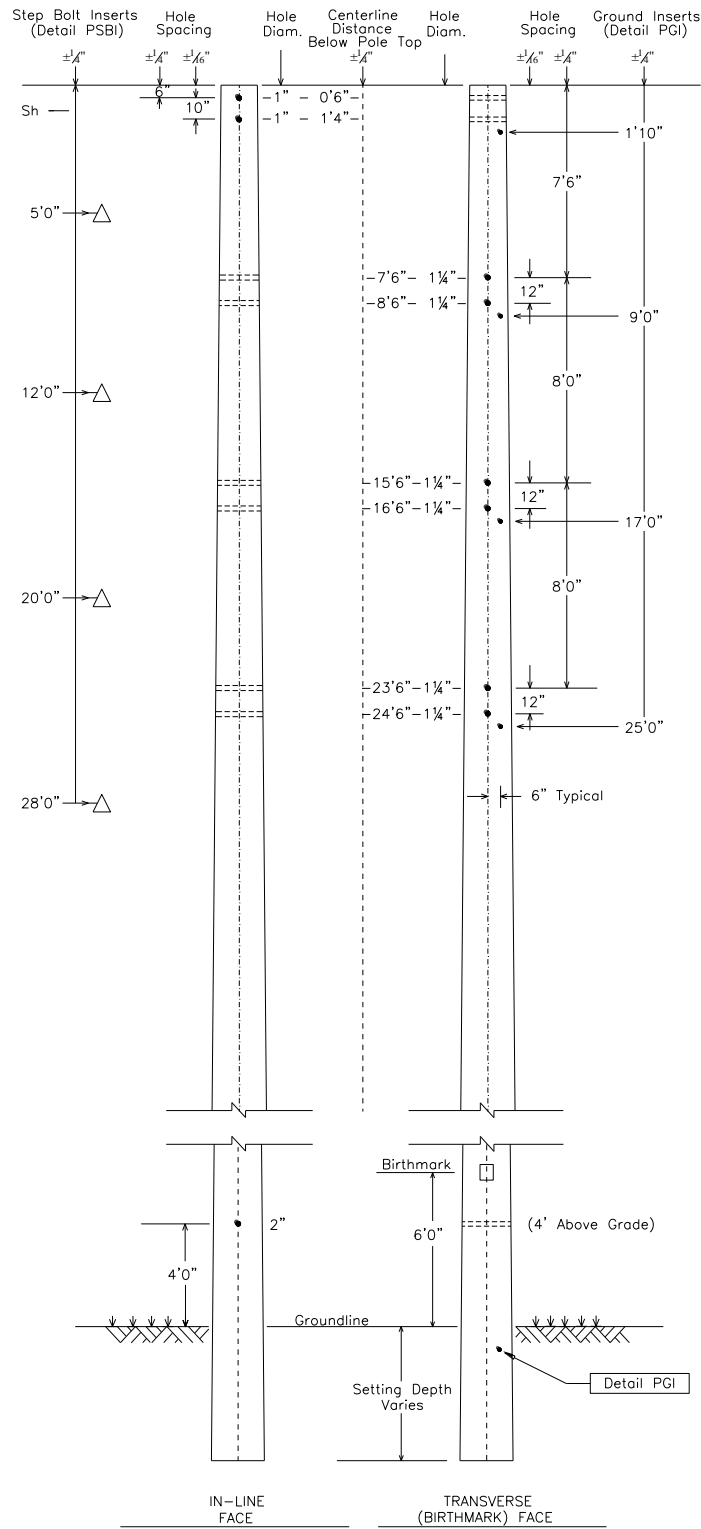
### B1251\*954A

|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 003 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82 INCHES, 1 3/16" GAP, 5/8" PIN    |
| 69 | SOCEY 003 | 3 | SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. |

### B1251\*954S

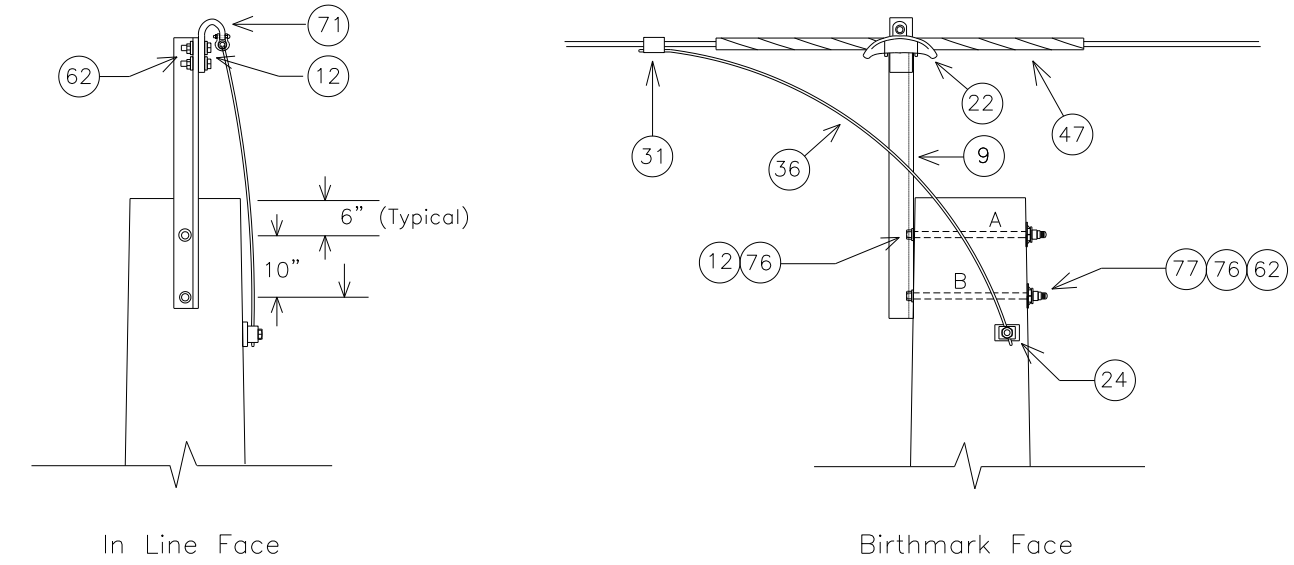
|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 004 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82 INCHES, 1 3/16" GAP, 5/8" PIN   |
| 69 | SOCEY 003 | 3 | SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. |

## B1251 DRILLING DETAIL



## SSBSN

SHIELD FOR SPUN CONCRETE POLES  
BAYONET WITH SUSPENSION CLAMP, NO GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

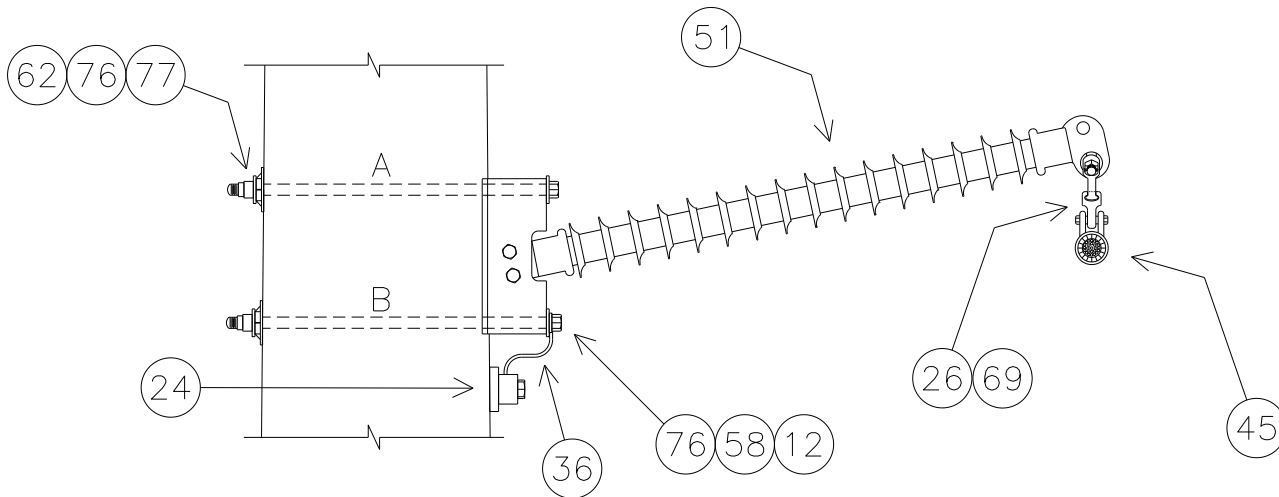
|   |      |
|---|------|
| MINIMUM REQUIRED BOLT LENGTH 'A' (INCHES) | 19.6 |
| MINIMUM REQUIRED BOLT LENGTH 'B' (INCHES) | 19.8 |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 9   | BAYSW 004 | 1    | BAYONET FOR SHIELD WIRE, STRAIGHT 40"  |
| 12  | BOLMS 001 | 0    | MACHINE BOLT, 1/2" X 2 1/2", PROVIDED WITH SUPSH001  |
| 12  | BOLMS 039 | 2    | MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 22  | CLASU 001 | 1    | ALUMINUM SUSPENSION CLAMP FOR 3#6AW / 7#10AW, 15000#   |
| 24  | CLATG 001 | 1    | CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.                                    |
| 31  | CNNCP 002 | 1    | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM |
| 36  | COBCO 028 | 6 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)  |
| 47  | GUALI 001 | 1    | ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"                                    |
| 62  | NUTSL 002 | 0    | SQUARE LOCK NUT FOR 1/2" BOLT, PROVIDED WITH SUPSH001  |
| 62  | NUTSL 004 | 2    | SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.  |
| 71  | SUPSH 001 | 1    | SUPPORT, SHIELD WIRE, GALVANIZED, WITH TWO 2 1/2" MACHINE BOLTS AND LOCK NUTS                |
| 76  | WASRD 005 | 4    | ROUND WASHER FOR 3/4" BOLT, 1 3/4" DIAMETER, GALVANIZED                                      |
| 77  | WASSC 001 | 2    | SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |

**ISSPNB3**

**INSULATOR FOR SPUN CONCRETE POLES  
SINGLE POST, NO GUY, 138KV, 3-PHASE  
CONDUCTOR OPTIONS: 954A, 954S**



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

| SUBSTRUCTURE             | Top  | Mid  | Bottom |
|--------------------------|------|------|--------|
| BOLT 'A' LENGTH (INCHES) | 27.0 | 28.7 | 30.4   |
| BOLT 'B' LENGTH (INCHES) | 27.4 | 29.2 | 30.9   |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER.

## ISSPNB3 PLATES

### ISSPNB3 BASE

| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 12  | BOLMS 055 | 2    | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED    |
| 12  | BOLMS 073 | 2    | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED    |
| 12  | BOLMS 074 | 2    | MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED    |
| 24  | CLATG 001 | 3    | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                        |
| 26  | CLEHL 001 | 3    | BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", H.D.G.    |
| 36  | COBCO 028 | 6 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN                                     |
| 51  | INSHP 023 | 3    | HORIZONTAL POST INSULATOR, 138KV, L = 54", GAIN BASE, 12° RISE                 |
| 58  | LUGGR 002 | 3    | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                |
| 62  | NUTSL 005 | 6    | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.  |
| 76  | WASRD 006 | 12   | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                        |
| 77  | WASSC 002 | 6    | SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4" |

### ISSPNB3\*954A

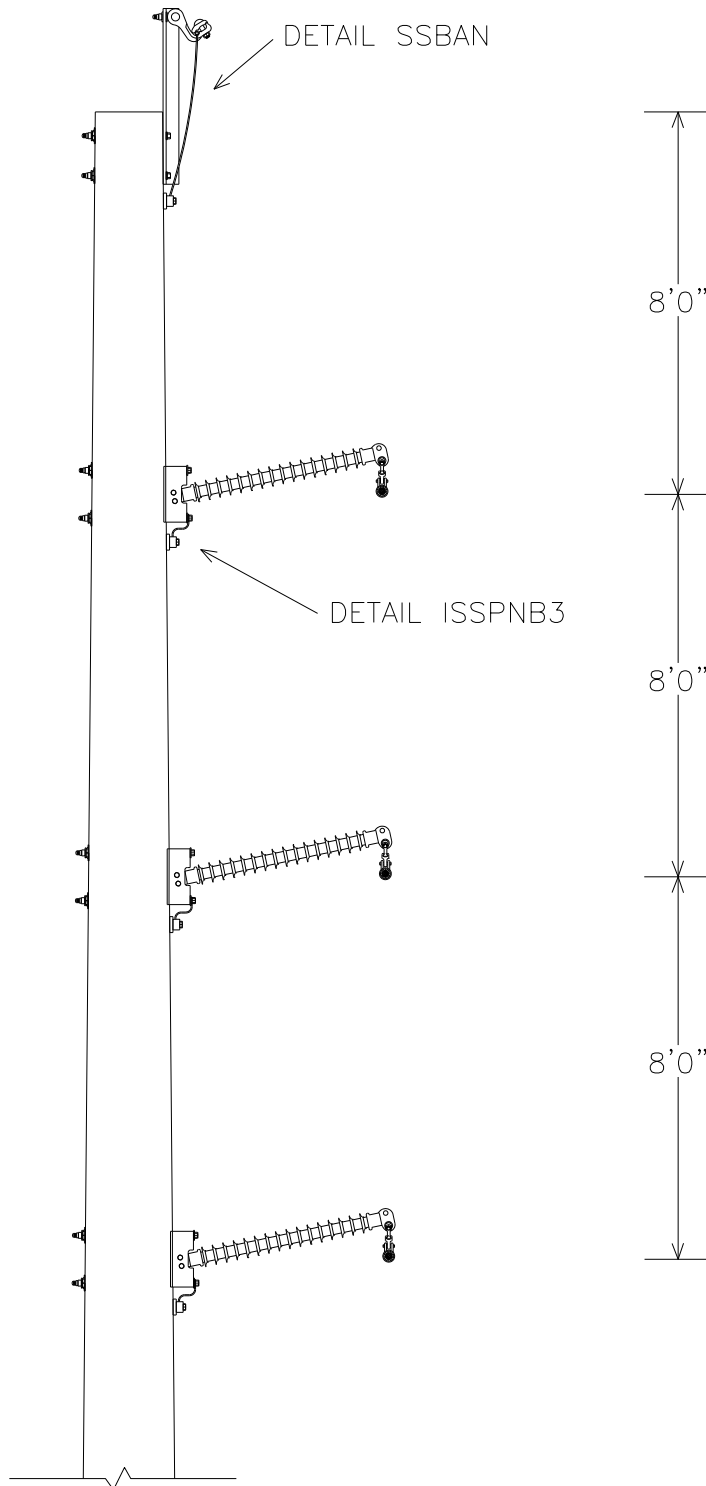
|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 003 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82", 1 3/16" GAP, 5/8" PIN          |
| 69 | SOCEY 003 | 3 | SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. |

### ISSPNB3\*954S

|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 004 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82", 1 3/16" GAP, 5/8" PIN         |
| 69 | SOCEY 003 | 3 | SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. |

## B1252

**138KV SINGLE POST, UNGUYED, ANGLE SHIELD, 3-PHASE**  
**CONDUCTOR OPTIONS: 954A, 954S**





## B1252 PLATES

### B1252 BASE

| NO. | ITEM ID    | QTY   | DESCRIPTION  |
|-----|------------|-------|--|
| 9   | BAYSW 003  | 1     | BAYONET FOR SHIELD WIRE, CORNER 40"  |
| 12  | BOLMS 032  | 1     | MACHINE BOLT, 3/4" X 6", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                   |
| 12  | BOLMS 039  | 2     | MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 055  | 2     | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 073  | 2     | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 074  | 2     | MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 16  | CLAAAN 001 | 1     | ANGLE CLAMP FOR 4-SOL - 250MCM, 7000#  |
| 24  | CLATG 001  | 4     | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 26  | CLEHL 001  | 3     | BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", HOT DIPPED GALV.        |
| 31  | CNNCP 002  | 1     | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM |
| 36  | COBCO 028  | 12 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 47  | GUALI 001  | 1     | ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"                                    |
| 51  | INSHP 023  | 3     | HORIZONTAL POST INSULATOR, 138KV, L = 54 INCHES, GAIN BASE, 12 DEGREE RISE                   |
| 58  | LUGGR 002  | 3     | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 59  | NUTGY 003  | 1     | NUT EYE FOR 3/4" BOLT  |
| 62  | NUTSL 004  | 3     | SQUARE LOCK NUT FOR 3/4" BOLT, HOT DIPPED GALVANIZED   |
| 62  | NUTSL 005  | 6     | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                                     |
| 76  | WASRD 005  | 6     | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |
| 76  | WASRD 006  | 12    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                      |
| 77  | WASSC 001  | 2     | SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |
| 77  | WASSC 002  | 6     | SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |

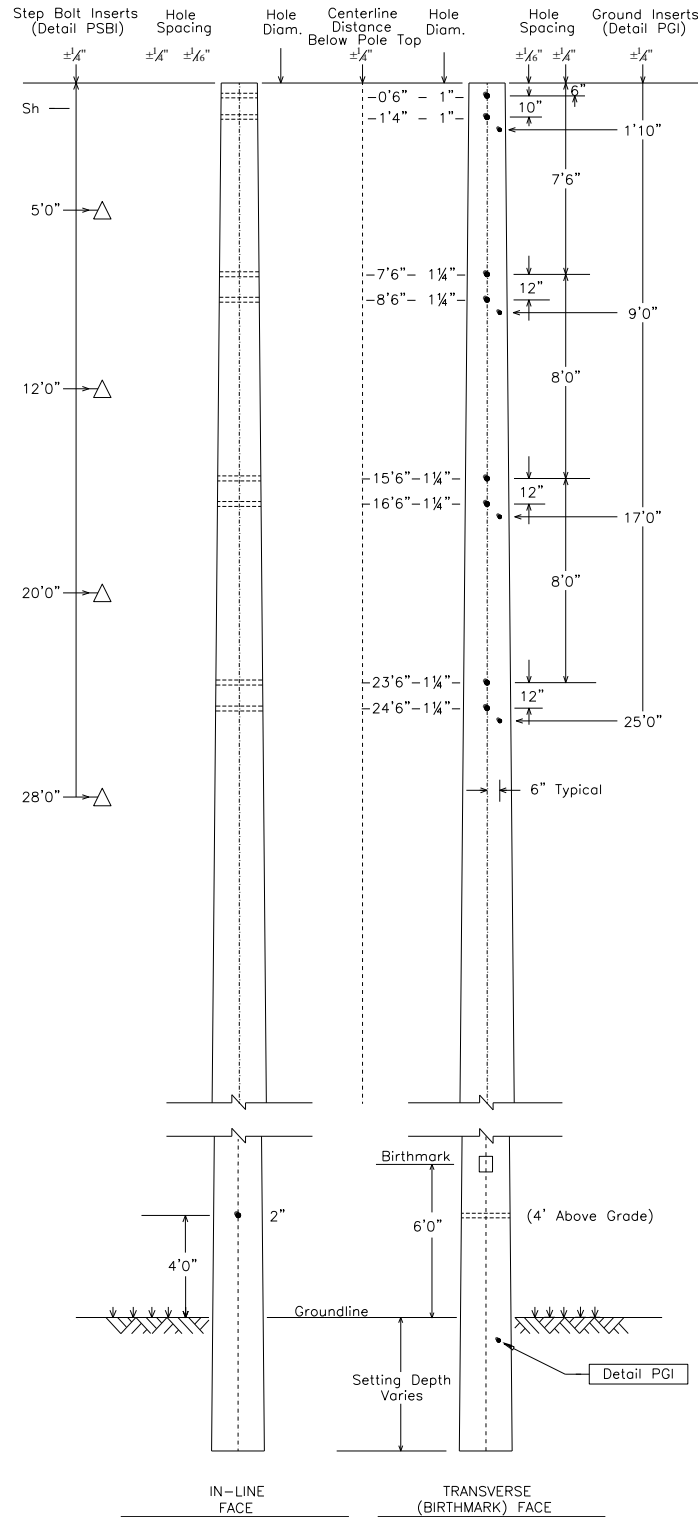
### B1252\*954A

|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 003 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82 INCHES, 1 3/16" GAP, 5/8" PIN    |
| 69 | SOCEY 003 | 3 | SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. |

### B1252\*954S

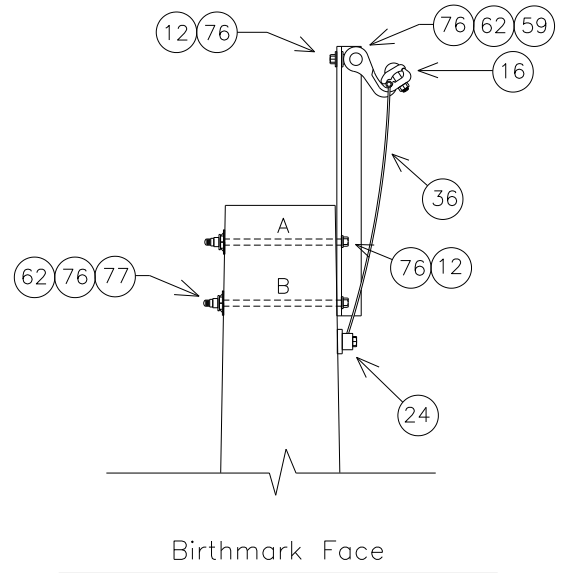
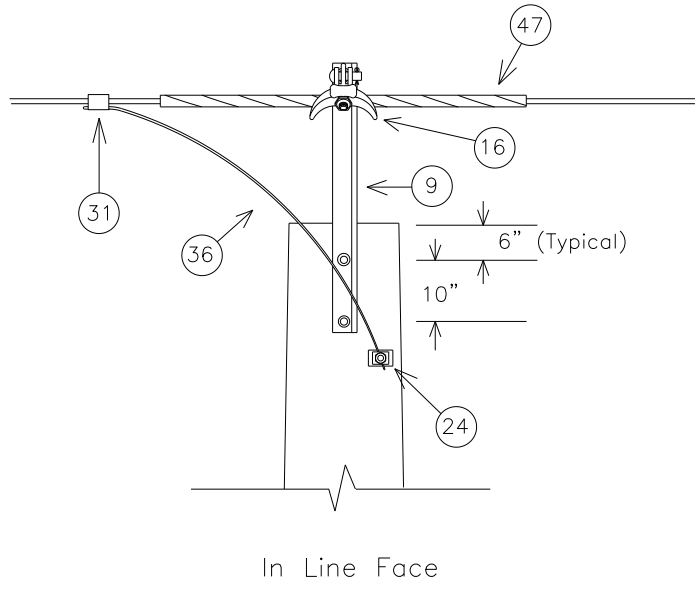
|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 004 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82 INCHES, 1 3/16" GAP, 5/8" PIN   |
| 69 | SOCEY 003 | 3 | SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. |

## B1252 DRILLING DETAIL



## SSBAN

SHIELD FOR SPUN CONCRETE POLES  
BAYONET WITH ANGLE CLAMP, NO GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

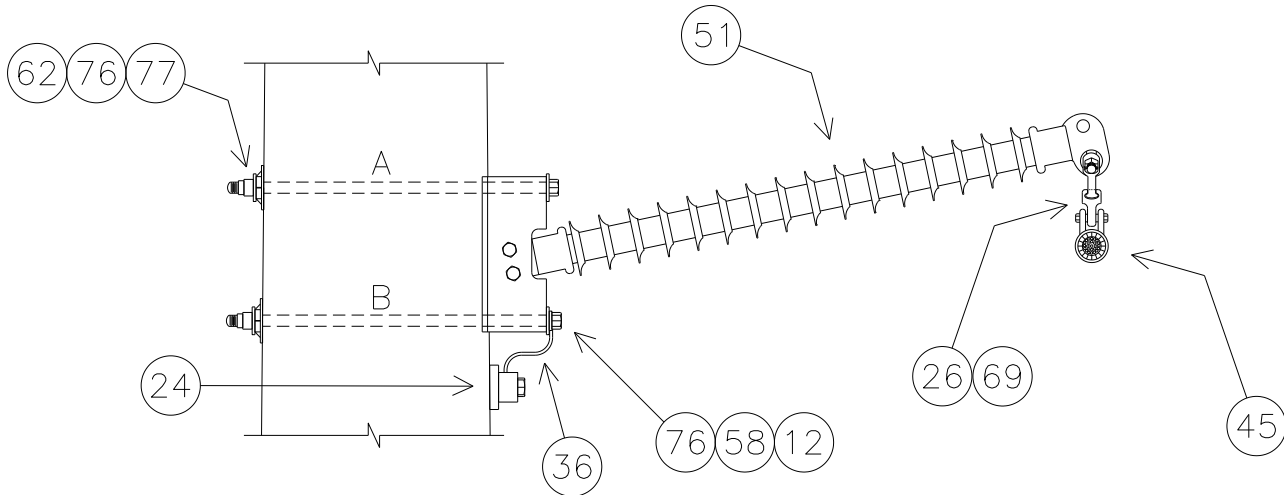
|   |      |
|---|------|
| MINIMUM REQUIRED BOLT LENGTH 'A' (INCHES) | 19.6 |
| MINIMUM REQUIRED BOLT LENGTH 'B' (INCHES) | 19.8 |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 9   | BAYSW 003 | 1    | BAYONET FOR SHIELD WIRE, CORNER 40"  |
| 12  | BOLMS 032 | 1    | MACHINE BOLT, 3/4" X 6", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                   |
| 12  | BOLMS 039 | 2    | MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 16  | CLAA 001  | 1    | ANGLE CLAMP FOR 4-SOL - 250MCM, 7000#  |
| 24  | CLATG 001 | 1    | CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.                                    |
| 31  | CNNCP 002 | 1    | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM |
| 36  | COBCO 028 | 6 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)  |
| 47  | GUALI 001 | 1    | ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"                                    |
| 59  | NUTEY 003 | 1    | NUT EYE FOR 3/4" BOLT  |
| 62  | NUTSL 004 | 3    | SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.  |
| 76  | WASRD 005 | 6    | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |
| 77  | WASSC 001 | 2    | SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |

## ISSPNB3

**INSULATOR FOR SPUN CONCRETE POLES**  
**SINGLE POST, NO GUY, 138KV, 3-PHASE**  
 CONDUCTOR OPTIONS: 954A, 954S



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

| SUBSTRUCTURE             | Top  | Mid  | Bottom |
|--------------------------|------|------|--------|
| BOLT 'A' LENGTH (INCHES) | 27.0 | 28.7 | 30.4   |
| BOLT 'B' LENGTH (INCHES) | 27.4 | 29.2 | 30.9   |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER.

## ISSPNB3 PLATES

### ISSPNB3 BASE

| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 12  | BOLMS 055 | 2    | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED    |
| 12  | BOLMS 073 | 2    | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED    |
| 12  | BOLMS 074 | 2    | MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED    |
| 24  | CLATG 001 | 3    | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                        |
| 26  | CLEHL 001 | 3    | BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", H.D.G.    |
| 36  | COBCO 028 | 6 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN                                     |
| 51  | INSHP 023 | 3    | HORIZONTAL POST INSULATOR, 138KV, L = 54", GAIN BASE, 12° RISE                 |
| 58  | LUGGR 002 | 3    | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                |
| 62  | NUTSL 005 | 6    | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.  |
| 76  | WASRD 006 | 12   | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                        |
| 77  | WASSC 002 | 6    | SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4" |

### ISSPNB3\*954A

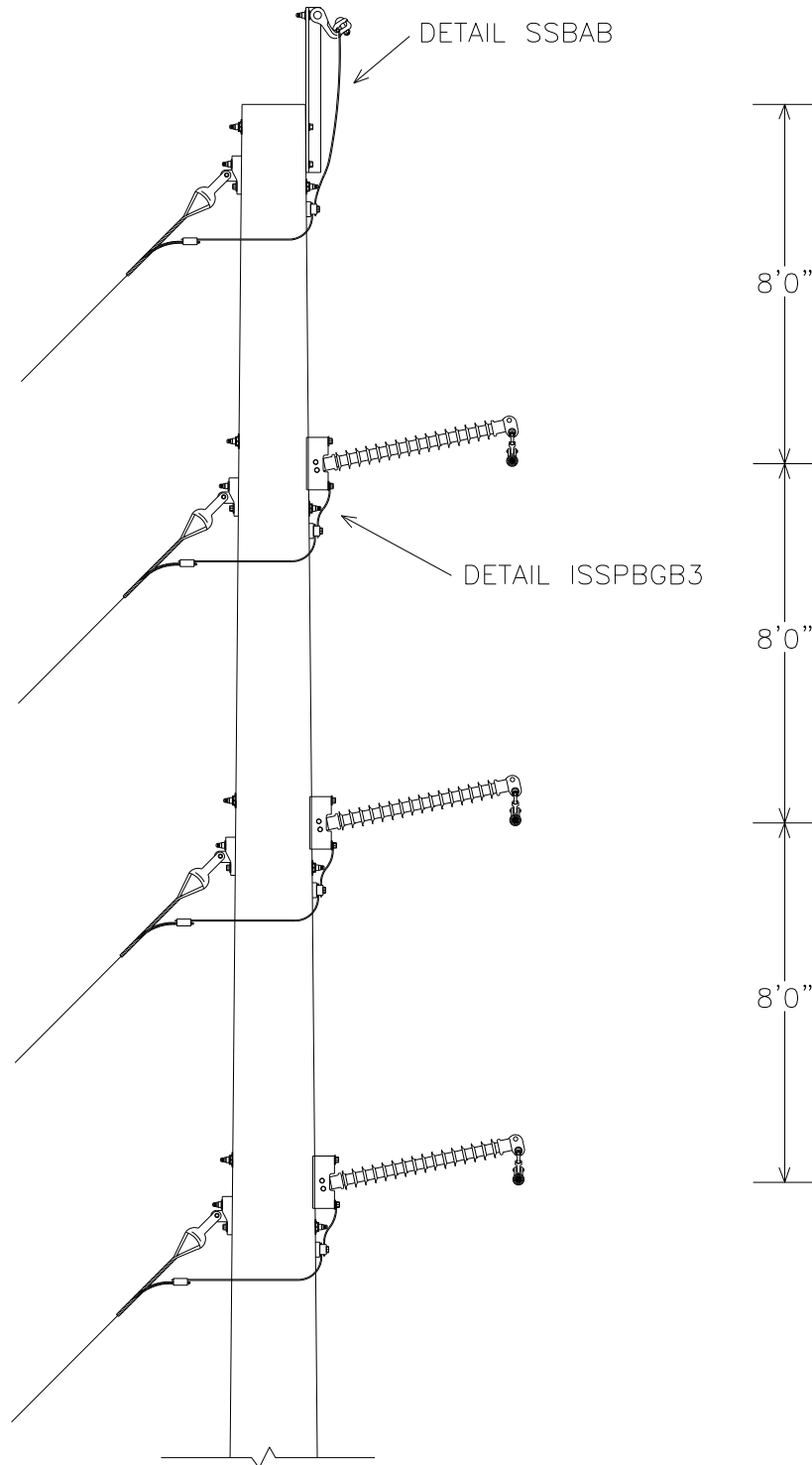
|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 003 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82", 1 3/16" GAP, 5/8" PIN          |
| 69 | SOCEY 003 | 3 | SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. |

### ISSPNB3\*954S

|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 004 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82", 1 3/16" GAP, 5/8" PIN         |
| 69 | SOCEY 003 | 3 | SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. |

## B1252A

138KV SINGLE POST, BACK GUYED, ANGLE SHIELD, 3-PHASE  
CONDUCTOR OPTIONS: 954A, 954S



REVISED: OCTOBER 2013

REVISED BY: MLR

APPROVED BY :KKR

### 138KV STRUCTURES-NEW CONSTRUCTION

STS138-70

## B1252A PLATES

### B1252A BASE

| NO. | ITEM ID   | QTY   | DESCRIPTION   |
|-----|-----------|-------|---|
| 9   | BAYSW 003 | 1     | BAYONET FOR SHIELD WIRE, CORNER 40"   |
| 11  | BOLDA 036 | 1     | DOUBLE ARMING BOLT, 7/8" X 30", WITH 4 SQUARE NUTS ATTACHED                           |
| 11  | BOLDA 037 | 1     | DOUBLE ARMING BOLT, 7/8" X 32", WITH 4 SQUARE NUTS ATTACHED                           |
| 11  | BOLDA 038 | 1     | DOUBLE ARMING BOLT, 7/8" X 34", WITH 4 SQUARE NUTS ATTACHED                           |
| 12  | BOLMS 032 | 1     | MACHINE BOLT, 3/4" X 6", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED            |
| 12  | BOLMS 039 | 1     | MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED           |
| 12  | BOLMS 040 | 2     | MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED           |
| 12  | BOLMS 053 | 2     | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED           |
| 12  | BOLMS 054 | 1     | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED           |
| 12  | BOLMS 055 | 1     | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED           |
| 12  | BOLMS 073 | 1     | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED           |
| 12  | BOLMS 074 | 1     | MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED           |
| 16  | CLAA 001  | 1     | ANGLE CLAMP FOR 4-SOL - 250MCM, 7000#   |
| 24  | CLATG 001 | 4     | CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.                             |
| 26  | CLEHL 001 | 3     | BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", HOT DIPPED GALV. |
| 31  | CNNCP 002 | 1     | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .332), ALUMINUM           |
| 36  | COBCO 028 | 15 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)                                 |
| 47  | GUALI 001 | 1     | ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"                             |
| 51  | INSHP 023 | 3     | HORIZONTAL POST INSULATOR, 138KV, L = 54 INCHES, GAIN BASE, 12 DEGREE RISE            |
| 58  | LUGGR 002 | 3     | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                       |
| 59  | NUTY 003  | 1     | NUT EYE FOR 3/4" BOLT   |
| 62  | NUTSL 004 | 4     | SQUARE LOCK NUT FOR 3/4" BOLT, HOT DIPPED GALVANIZED                                  |
| 62  | NUTSL 005 | 12    | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                              |
| 72  | TEEDE 003 | 4     | TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#            |
| 76  | WASRD 005 | 8     | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED                                   |
| 76  | WASRD 006 | 21    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                               |
| 77  | WASSC 001 | 2     | SQUARE CURVED WASHER FOR 5/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"        |
| 77  | WASSC 002 | 9     | SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"        |

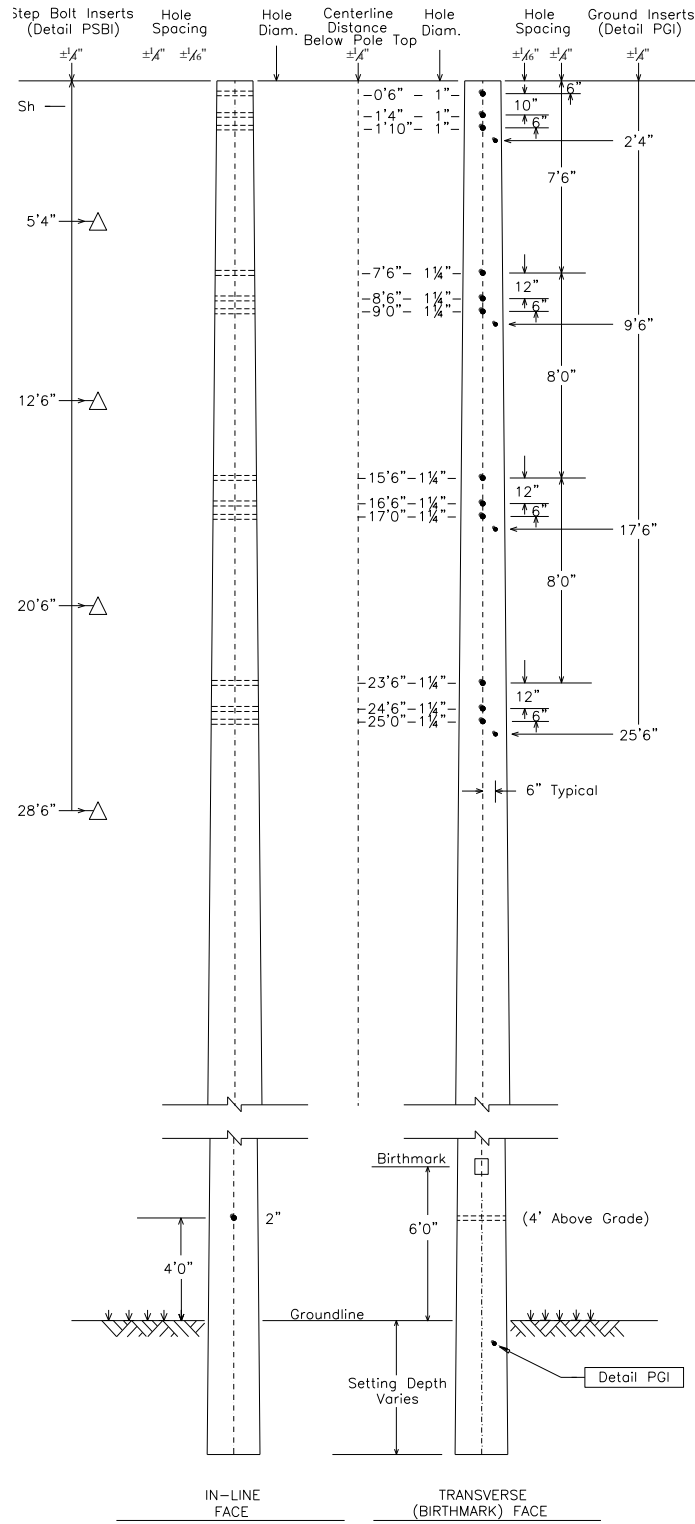
### B1252A\*954A

|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 003 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82 INCHES, 1 3/16" GAP, 5/8" PIN    |
| 69 | SOCEY 003 | 3 | SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. |

### B1252A\*954S

|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 004 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82 INCHES, 1 3/16" GAP, 5/8" PIN   |
| 69 | SOCEY 003 | 3 | SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. |

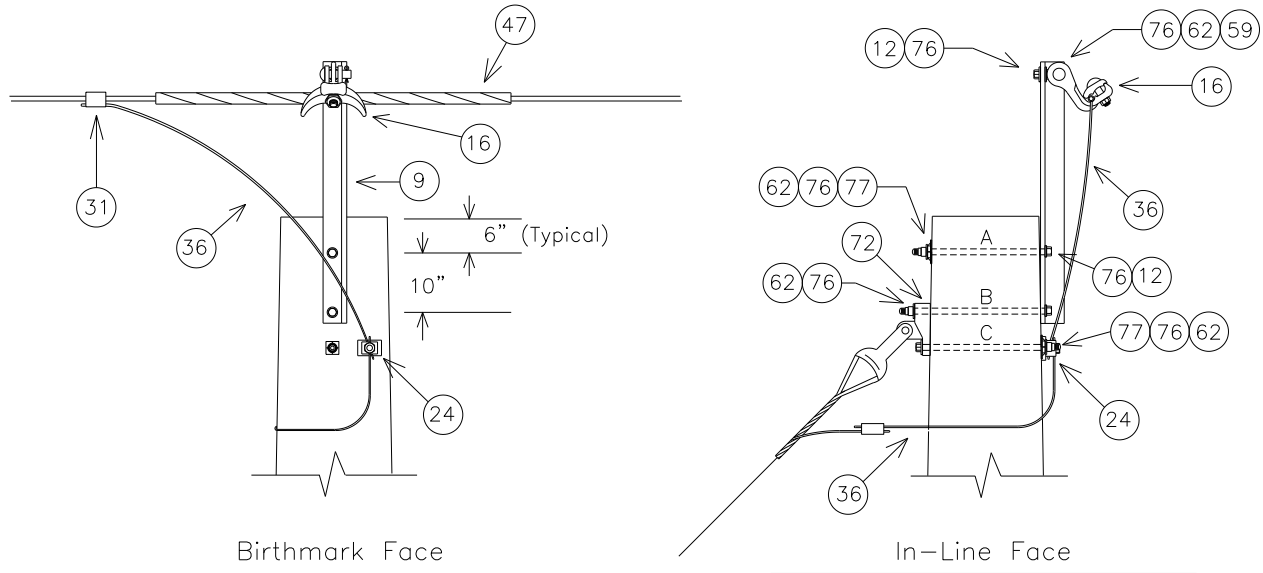
## B1252A DRILLING DETAIL





## SSBAB

SHIELD FOR SPUN CONCRETE POLES  
BAYONET WITH ANGLE CLAMP, BOTTOM GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

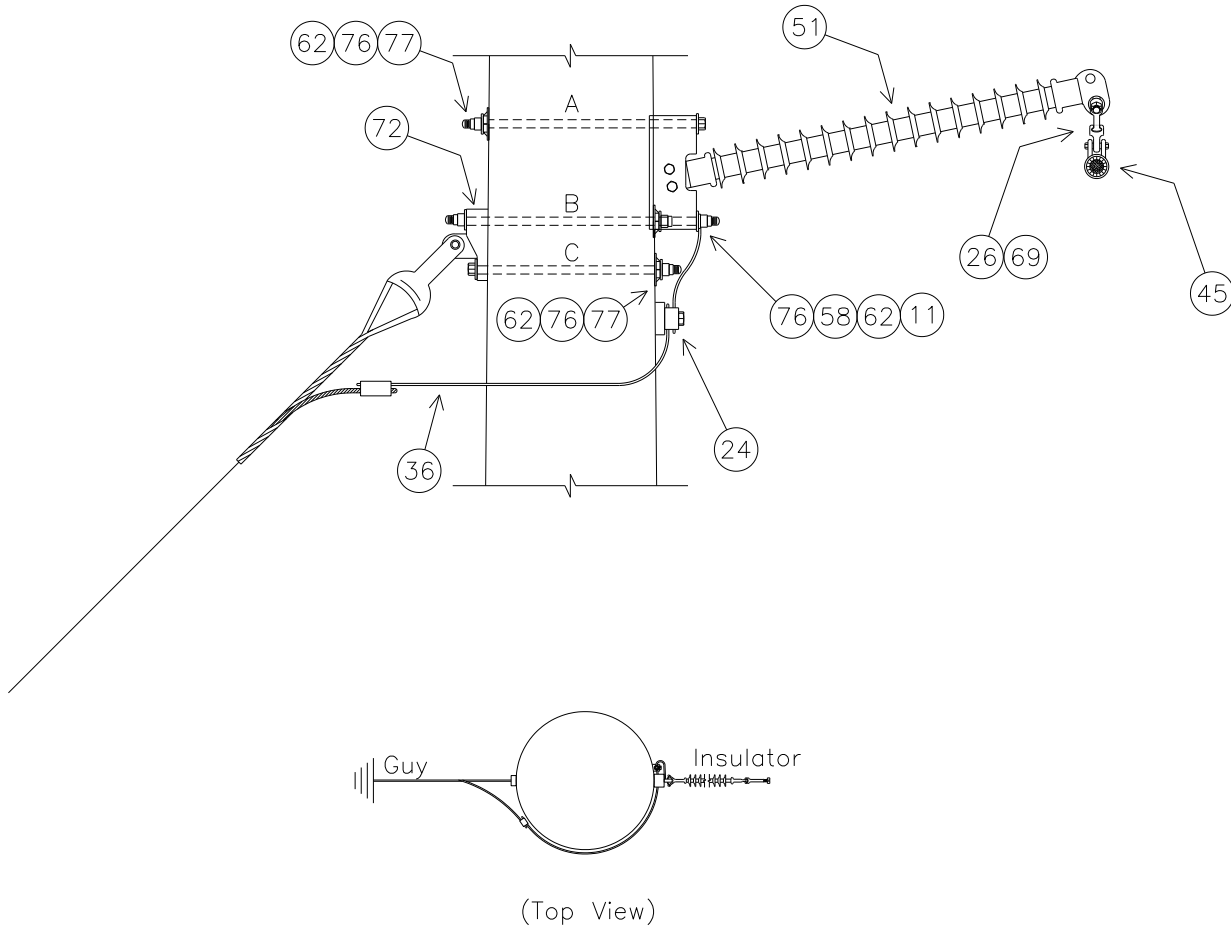
|   |      |
|---|------|
| MINIMUM REQUIRED BOLT LENGTH 'A' (INCHES) | 19.6 |
| MINIMUM REQUIRED BOLT LENGTH 'B' (INCHES) | 20.9 |
| MINIMUM REQUIRED BOLT LENGTH 'C' (INCHES) | 20.3 |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 9   | BAYSW 003 | 1    | BAYONET FOR SHIELD WIRE, CORNER 40"  |
| 12  | BOLMS 032 | 1    | MACHINE BOLT, 3/4" X 6", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                   |
| 12  | BOLMS 039 | 1    | MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 040 | 2    | MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 16  | CLAA 001  | 1    | ANGLE CLAMP FOR 4-SOL - 250MCM, 7000#  |
| 24  | CLATG 001 | 1    | CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.                                    |
| 31  | CNNCP 002 | 1    | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM |
| 36  | COBCO 028 | 6 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)  |
| 47  | GUALI 001 | 1    | ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"                                    |
| 59  | NUTEY 003 | 1    | NUT EYE FOR 3/4" BOLT  |
| 62  | NUTSL 004 | 4    | SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.  |
| 72  | TEEDE 003 | 1    | TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#                                |
| 76  | WASRD 005 | 8    | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |
| 77  | WASSC 001 | 2    | SQUARE CURVED WASHER FOR 5/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |

## ISSPBGB3

**INSULATOR FOR SPUN CONCRETE POLES**  
**SINGLE POST, BOTTOM GUYED, 138KV, 3-PHASE**  
 CONDUCTOR OPTIONS: 954S, 1590



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

| SUBSTRUCTURE                  | Top  | Mid  | Bottom |
|-------------------------------|------|------|--------|
| BOLT 'A' LENGTH (INCHES)      | 27.0 | 28.7 | 30.4   |
| D.A. BOLT 'B' LENGTH (INCHES) | 28.8 | 30.5 | 32.2   |
| BOLT 'C' LENGTH (INCHES)      | 22.2 | 23.9 | 25.7   |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

## ISSPBGB3 PLATES

### ISSPBGB3 BASE

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 11  | BOLDA 036 | 1   | DOUBLE ARMING BOLT, 7/8" X 30", WITH 4 SQUARE NUTS ATTACHED                     |
| 11  | BOLDA 037 | 1   | DOUBLE ARMING BOLT, 7/8" X 32", WITH 4 SQUARE NUTS ATTACHED                     |
| 11  | BOLDA 038 | 1   | DOUBLE ARMING BOLT, 7/8" X 34", WITH 4 SQUARE NUTS ATTACHED                     |
| 12  | BOLMS 053 | 2   | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED     |
| 12  | BOLMS 054 | 1   | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED     |
| 12  | BOLMS 055 | 1   | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED     |
| 12  | BOLMS 073 | 1   | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED     |
| 12  | BOLMS 074 | 1   | MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED     |
| 24  | CLATG 001 | 3   | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                         |
| 26  | CLEHL 001 | 3   | BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", H.D.G.     |
| 36  | COBCO 028 | 9ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN                                      |
| 51  | INSHP 023 | 3   | HORIZONTAL POST INSULATOR, 138KV, L = 54", GAIN BASE, 12° RISE                  |
| 58  | LUGGR 002 | 3   | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                 |
| 62  | NUTSL 005 | 12  | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.   |
| 69  | SOCEY 003 | 3   | SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. |
| 72  | TEEDE 003 | 3   | TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#                  |
| 76  | WASRD 006 | 21  | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                         |
| 77  | WASSC 002 | 9   | SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"  |

### ISSPBGB3\*954S

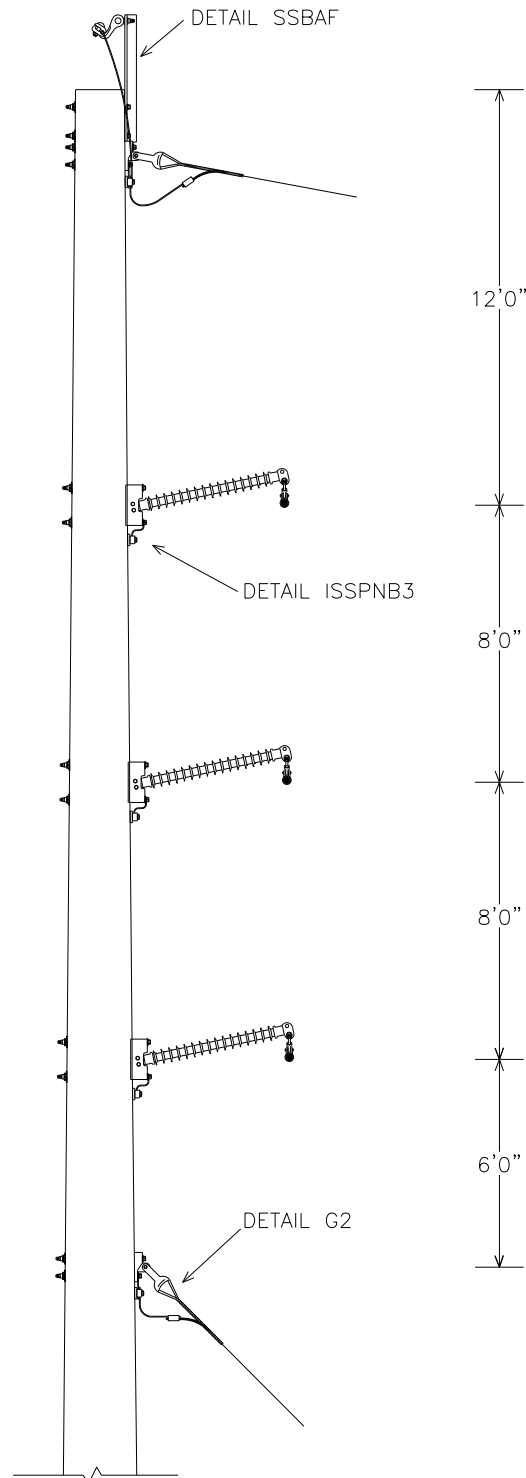
|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 004 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82", 1 3/16" GAP, 5/8" PIN |
|----|-----------|---|---|

### ISSPBGB3\*1590

|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 005 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 1590 ACSR, 88", 1 3/8" GAP, 3/4" PIN |
|----|-----------|---|---|

## B1252B

138KV SINGLE POST, FRONT GUYED, ANGLE SHIELD, 3-PHASE  
CONDUCTOR OPTIONS: 954A, 954S



## B1252B PLATES

### B1252B BASE

| NO. | ITEM ID   | QTY   | DESCRIPTION  |
|-----|-----------|-------|--|
| 9   | BAYSW 003 | 1     | BAYONET FOR SHIELD WIRE, CORNER 40"  |
| 12  | BOLMS 032 | 1     | MACHINE BOLT, 3/4" X 6", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                   |
| 12  | BOLMS 039 | 2     | MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 052 | 2     | MACHINE BOLT, 7/8" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 055 | 2     | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 073 | 4     | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 074 | 2     | MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 16  | CLAA001   | 1     | ANGLE CLAMP FOR 4-SOL - 250MCM, 7000#  |
| 24  | CLATG 001 | 5     | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 26  | CLEHL 001 | 3     | BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", HOT DIPPED GALV.        |
| 31  | CNNCP 002 | 1     | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM |
| 36  | COBCO 028 | 15 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)  |
| 47  | GUALI 001 | 1     | ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"                                    |
| 51  | INSHP 023 | 3     | HORIZONTAL POST INSULATOR, 138KV, L = 54 INCHES, GAIN BASE, 12 DEGREE RISE                   |
| 58  | LUGGR 002 | 4     | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 59  | NUTEY 003 | 1     | NUT EYE FOR 3/4" BOLT  |
| 62  | NUTSL 004 | 3     | SQUARE LOCK NUT FOR 3/4" BOLT, HOT DIPPED GALVANIZED   |
| 62  | NUTSL 005 | 10    | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                                     |
| 72  | TEEDE 003 | 2     | TEE, A36 STEEL, H.D.G. 6" HOLE SPACING, 13/16 BOLT HOLE DIA., 1 1/4" HOLE ATTACHMENT         |
| 76  | WASRD 005 | 6     | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |
| 76  | WASRD 006 | 20    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                      |
| 77  | WASSC 001 | 2     | SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |
| 77  | WASSC 002 | 10    | SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |

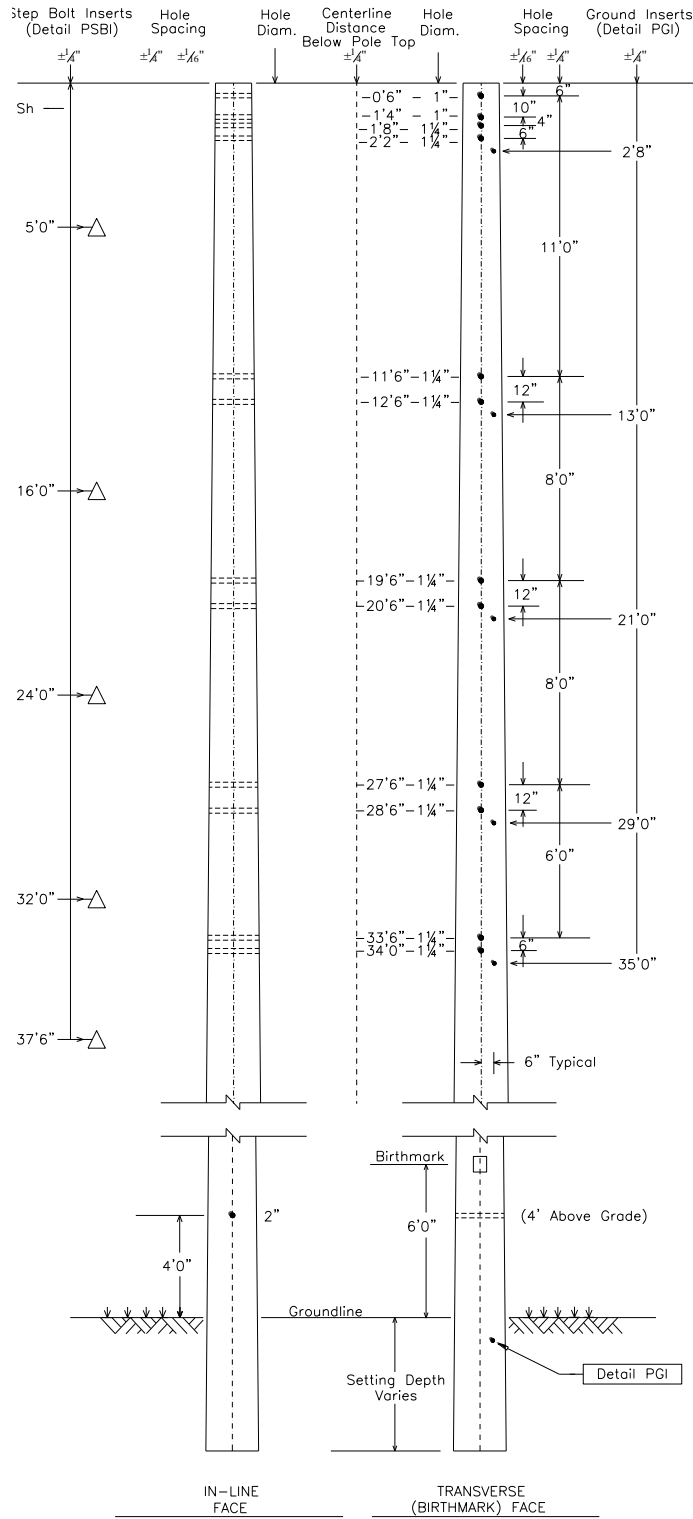
### B1252B\*954A

|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 003 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82 INCHES, 1 3/16" GAP, 5/8" PIN    |
| 69 | SOCEY 003 | 3 | SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. |

### B1252B\*954S

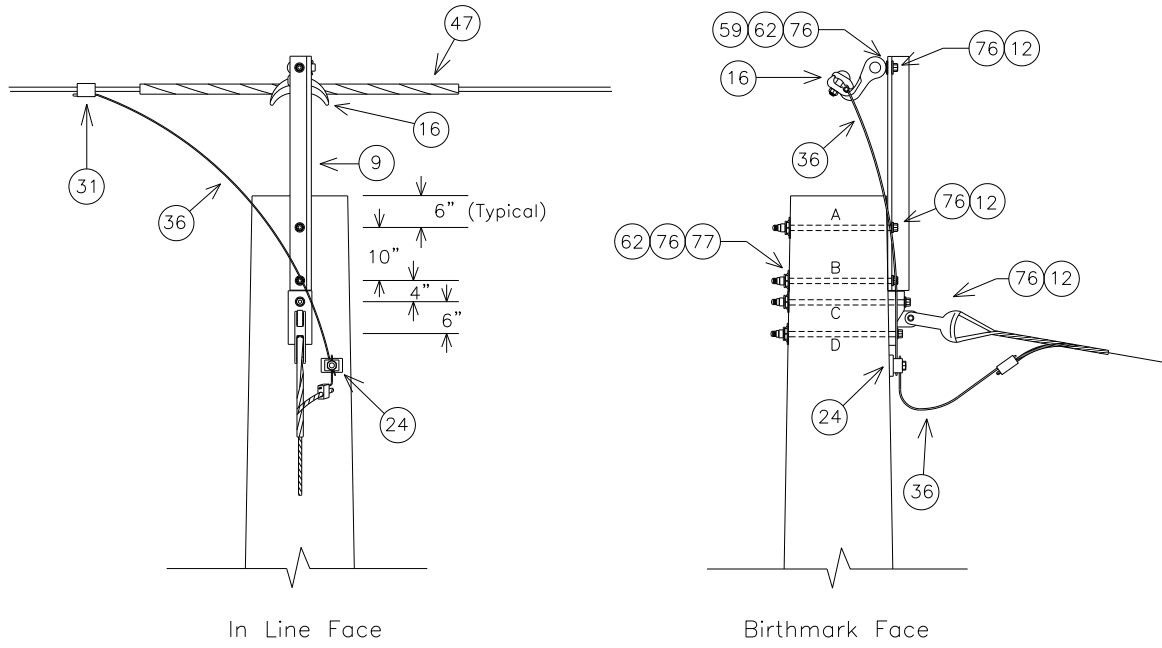
|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 004 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82 INCHES, 1 3/16" GAP, 5/8" PIN   |
| 69 | SOCEY 003 | 3 | SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. |

## B1252B DRILLING DETAIL



## SSBAF

SHIELD FOR SPUN CONCRETE POLES  
BAYONET WITH ANGLE CLAMP, FRONT GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

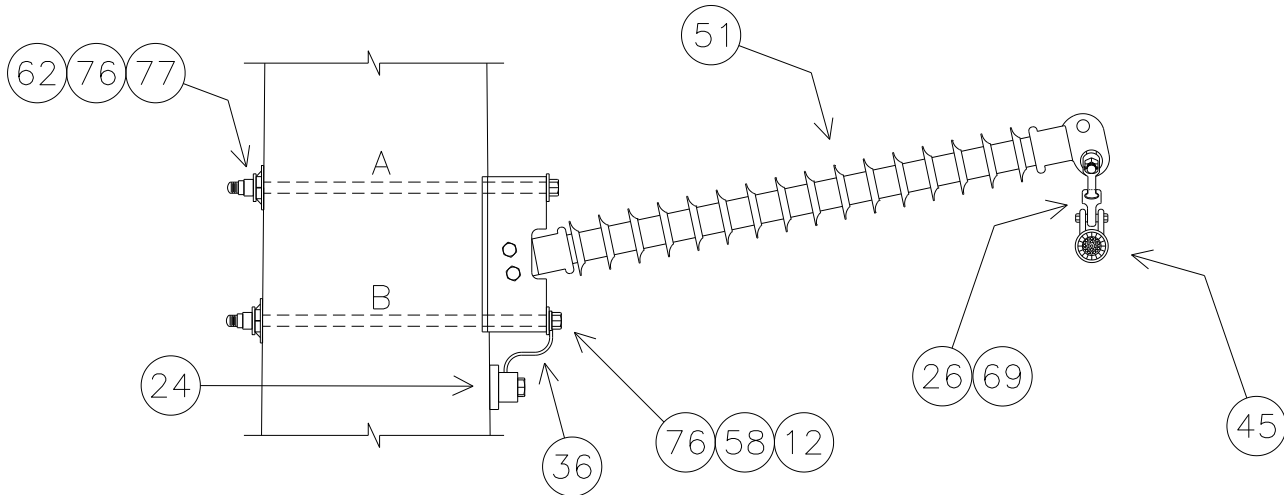
|                                       | 'A'  | 'B'  | 'C'  | 'D'  |
|---------------------------------------|------|------|------|------|
| MINIMUM REQUIRED BOLT LENGTH (INCHES) | 19.6 | 19.8 | 21.7 | 20.8 |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER;  
USE 3/4" BOLTS FOR 'A' & 'B' AND 7/8" BOLTS FOR 'C' & 'D'

| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 9   | BAYSW 003 | 1    | BAYONET FOR SHIELD WIRE, CORNER 40"  |
| 12  | BOLMS 032 | 1    | MACHINE BOLT, 3/4" X 6", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                   |
| 12  | BOLMS 039 | 2    | MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 052 | 2    | MACHINE BOLT, 7/8" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 16  | CLAA 001  | 1    | ANGLE CLAMP FOR 4-SOL - 250MCM, 7000#  |
| 24  | CLATG 001 | 1    | CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.                                    |
| 31  | CNNCP 002 | 1    | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM |
| 36  | COBCO 028 | 6 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)  |
| 47  | GUALI 001 | 1    | ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"                                    |
| 59  | NUTEY 003 | 1    | NUT EYE FOR 3/4" BOLT  |
| 62  | NUTSL 004 | 3    | SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.  |
| 62  | NUTSL 005 | 2    | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.  |
| 72  | TEEDE 003 | 1    | TEE, A36 STEEL, H.D.G. 6" HOLE SPACING, 13/16" BOLT HOLE DIA., 1 1/4" HOLE ATTACHMENT        |
| 76  | WASRD 005 | 6    | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |
| 76  | WASRD 006 | 4    | ROUND WASHER FOR 7/8" BOLT, 2" DIAMETER, GALVANIZED  |
| 77  | WASSC 001 | 2    | SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |
| 77  | WASSC 002 | 2    | SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |

## ISSPNB3

**INSULATOR FOR SPUN CONCRETE POLES**  
**SINGLE POST, NO GUY, 138KV, 3-PHASE**  
 CONDUCTOR OPTIONS: 954A, 954S



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

| SUBSTRUCTURE             | Top  | Mid  | Bottom |
|--------------------------|------|------|--------|
| BOLT 'A' LENGTH (INCHES) | 27.0 | 28.7 | 30.4   |
| BOLT 'B' LENGTH (INCHES) | 27.4 | 29.2 | 30.9   |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER.



# ISSPNB3 PLATES

**ISSPNB3 BASE**

| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 12  | BOLMS 055 | 2    | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED    |
| 12  | BOLMS 073 | 2    | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED    |
| 12  | BOLMS 074 | 2    | MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED    |
| 24  | CLATG 001 | 3    | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                        |
| 26  | CLEHL 001 | 3    | BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", H.D.G.    |
| 36  | COBCO 028 | 6 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN                                     |
| 51  | INSHP 023 | 3    | HORIZONTAL POST INSULATOR, 138KV, L = 54", GAIN BASE, 12° RISE                 |
| 58  | LUGGR 002 | 3    | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                |
| 62  | NUTSL 005 | 6    | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.  |
| 76  | WASRD 006 | 12   | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                        |
| 77  | WASSC 002 | 6    | SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4" |

**ISSPNB3\*954A**

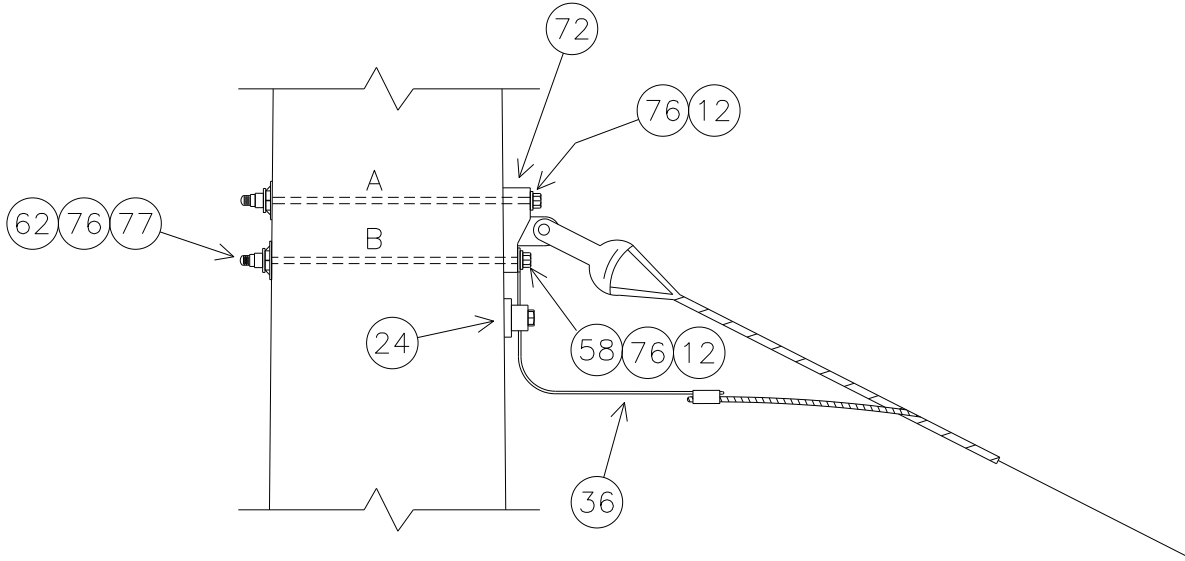
|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 003 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82", 1 3/16" GAP, 5/8" PIN          |
| 69 | SOCEY 003 | 3 | SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. |

**ISSPNB3\*954S**

|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 004 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82", 1 3/16" GAP, 5/8" PIN         |
| 69 | SOCEY 003 | 3 | SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV. |

## G2

### HEAVY GUY



MINIMUM REQUIRED BOLT LENGTH  
(INCHES)

|     |      |
|-----|------|
| 'A' | 28.6 |
| 'B' | 28.0 |

NOTE: BOLT CALCULATIONS ASSUMES A 17 INCH POLE TOP DIAMETER

## G2

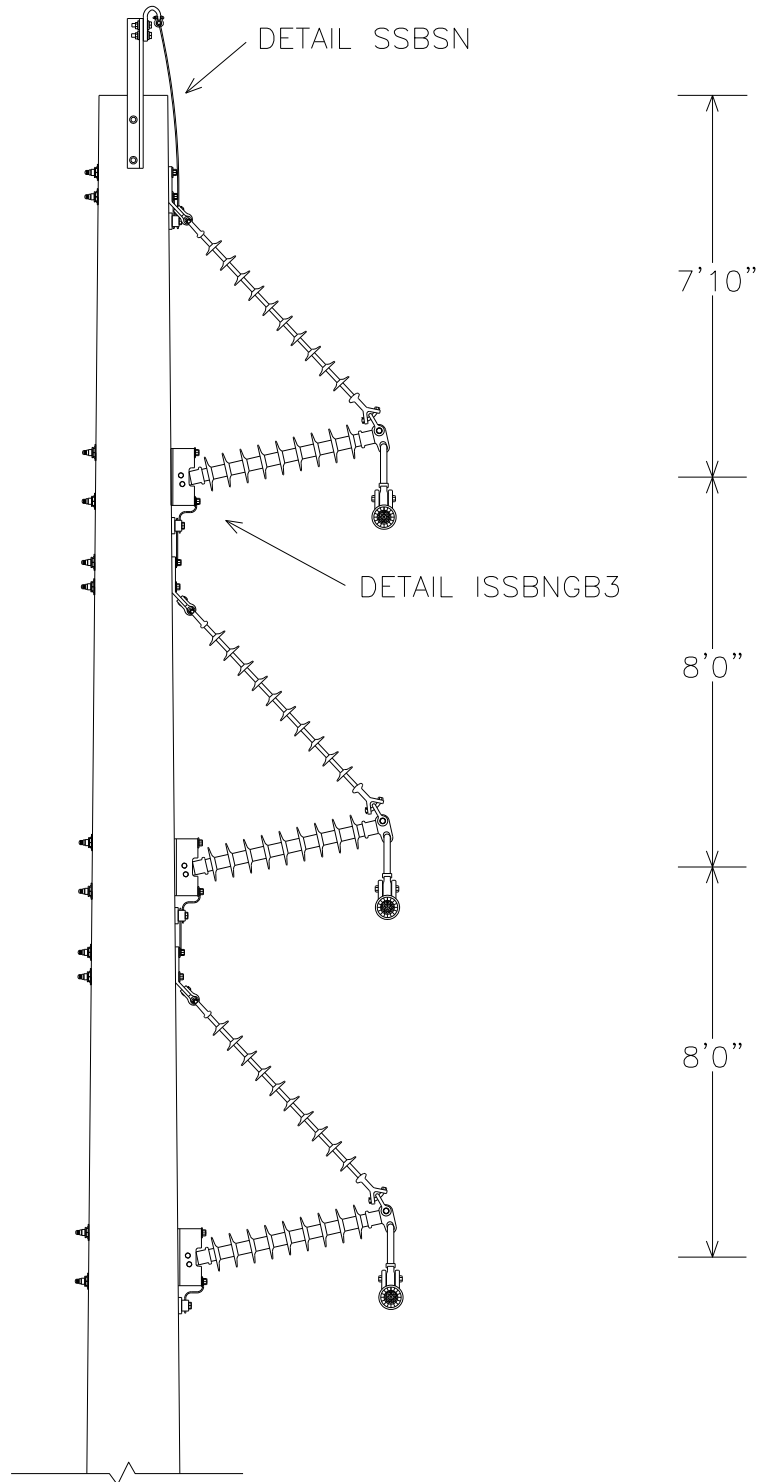
| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 12  | BOLMS 073 | 2    | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED    |
| 24  | CLATG 001 | 1    | GROUND CLAMP, USE CLAMP PROVIDED WITH INSULATORS FOR TOP BRACE GROUNDING       |
| 36  | COBCO 028 | 3 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN                                     |
| 58  | LUGGR 002 | 1    | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                |
| 62  | NUTSL 005 | 2    | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                       |
| 72  | TEEDE 003 | 1    | TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#     |
| 76  | WASRD 006 | 4    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                        |
| 77  | WASSC 002 | 2    | SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4" |

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## B1261

### 138KV SINGLE BRACED LINE POST, UNGUYED, 3-PHASE

CONDUCTOR OPTIONS: 954A, 954S, 1590





## B1261 PLATES

### B1261 BASE

| NO. | ITEM ID   | QTY   | DESCRIPTION  |
|-----|-----------|-------|--|
| 9   | BAYSW 004 | 1     | BAYONET FOR SHIELD WIRE, STRAIGHT 40"  |
| 10  | BKTLP 001 | 3     | BRACKET, 46-DEGREE ANGLE, 6" HOLE SPACING, 1 1/16" HOLE DIAMETER, 5/8" THICK                 |
| 12  | BOLMS 001 | 0     | MACHINE BOLT, 1/2" X 2 1/2", PROVIDED WITH SUPSH001  |
| 12  | BOLMS 039 | 2     | MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 052 | 2     | MACHINE BOLT, 7/8" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 053 | 4     | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 055 | 2     | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 073 | 2     | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 074 | 2     | MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 22  | CLASU 001 | 1     | ALUMINUM SUSPENSION CLAMP FOR 3#6AW / 7#10AW, 15000#   |
| 24  | CLATG 001 | 4     | CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.                                    |
| 26  | CLEHL 001 | 3     | BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", HOT DIPPED GALV.        |
| 31  | CNNCP 002 | 1     | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM |
| 36  | COBCO 028 | 15 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)  |
| 47  | GUALI 001 | 1     | ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"                                    |
| 53  | INSLP 012 | 3     | 138KV SILICONE BRACED LINE POST INSULATOR, 12° RISE, GAIN BASE, L = 52", H = 66", 12" B.H.S. |
| 58  | LUGGR 002 | 6     | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATTED COPPER COMPRESSION                             |
| 62  | NUTSL 002 | 0     | SQUARE LOCK NUT FOR 1/2" BOLT, PROVIDED WITH SUPSH001  |
| 62  | NUTSL 004 | 2     | SQUARE LOCK NUT FOR 3/4" BOLT, HOT DIPPED GALVANIZED   |
| 62  | NUTSL 005 | 12    | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                                     |
| 69  | SOCEY 003 | 3     | SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.              |
| 71  | SUPSH 001 | 1     | SUPPORT, SHIELD WIRE, GALVANIZED, WITH TWO 2 1/2 INCH MACHINE BOLTS AND LOCK NUTS            |
| 76  | WASRD 005 | 4     | ROUND WASHER FOR 3/4" BOLT, 1 3/4" DIAMETER, GALVANIZED                                      |
| 76  | WASRD 006 | 24    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                      |
| 77  | WASSC 001 | 2     | SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |
| 77  | WASSC 002 | 12    | SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |

### B1261\*954A

|    |           |   |  |
|----|-----------|---|--|
| 45 | GRISA 003 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82 INCHES, 1 3/16" GAP, 5/8" PIN |
|----|-----------|---|--|

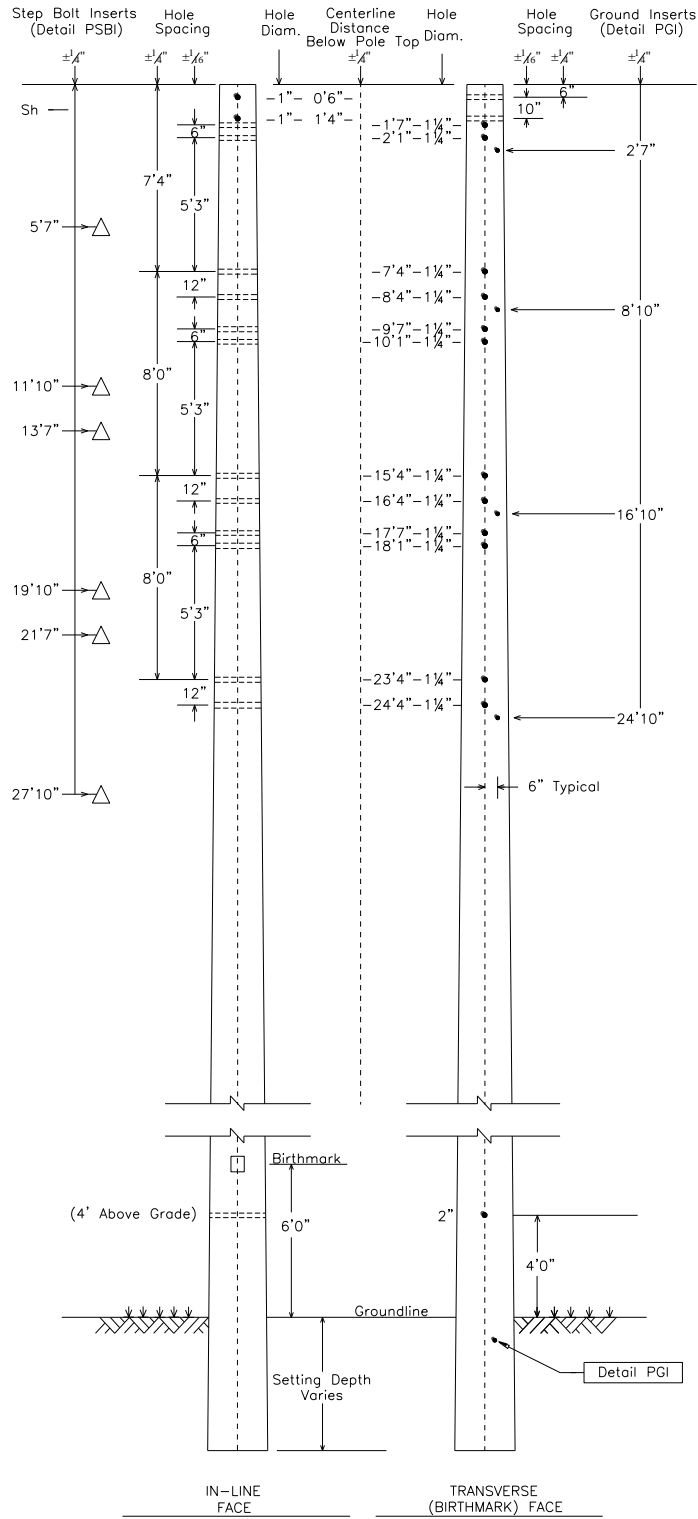
### B1261\*954S

|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 004 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82 INCHES, 1 3/16" GAP, 5/8" PIN |
|----|-----------|---|---|

### B1261\*1590

|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 005 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 1590 ACSR, 88 INCHES, 1 3/8" GAP, 3/4" PIN |
|----|-----------|---|---|

## B1261 DRILLING DETAIL



REVISÉ: OCTOBRE 2013

REVISÉD BY: MLR

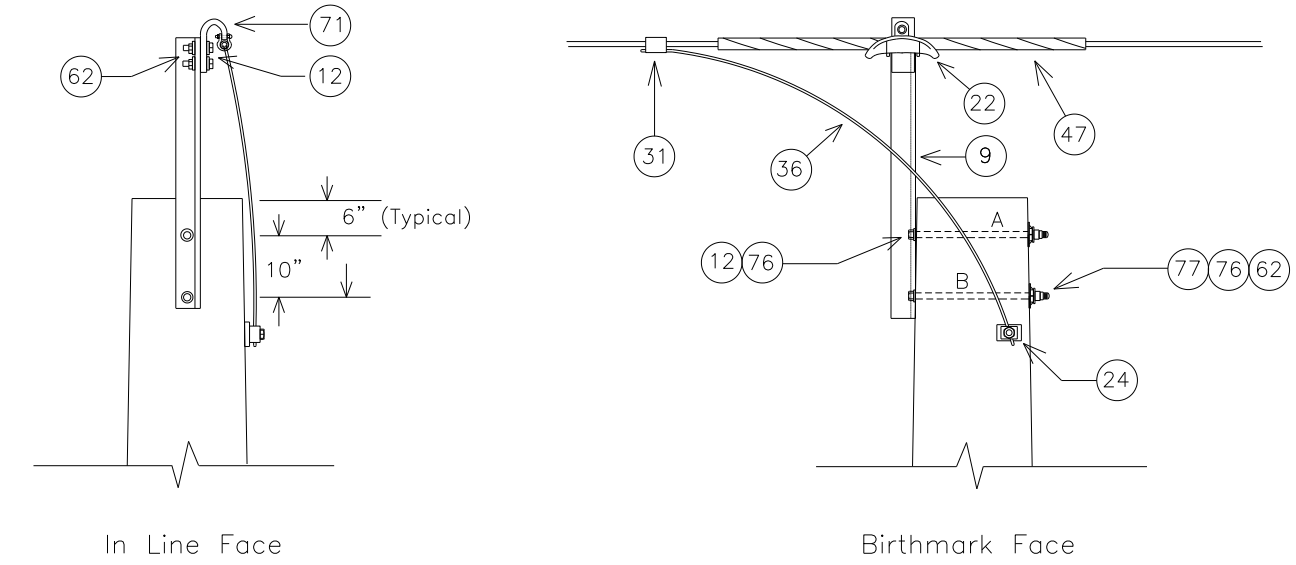
APPROVED BY :KKR

## 138KV STRUCTURES-NEW CONSTRUCTION

STS138-86

## SSBSN

SHIELD FOR SPUN CONCRETE POLES  
BAYONET WITH SUSPENSION CLAMP, NO GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

|   |      |
|---|------|
| MINIMUM REQUIRED BOLT LENGTH 'A' (INCHES) | 19.6 |
| MINIMUM REQUIRED BOLT LENGTH 'B' (INCHES) | 19.8 |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

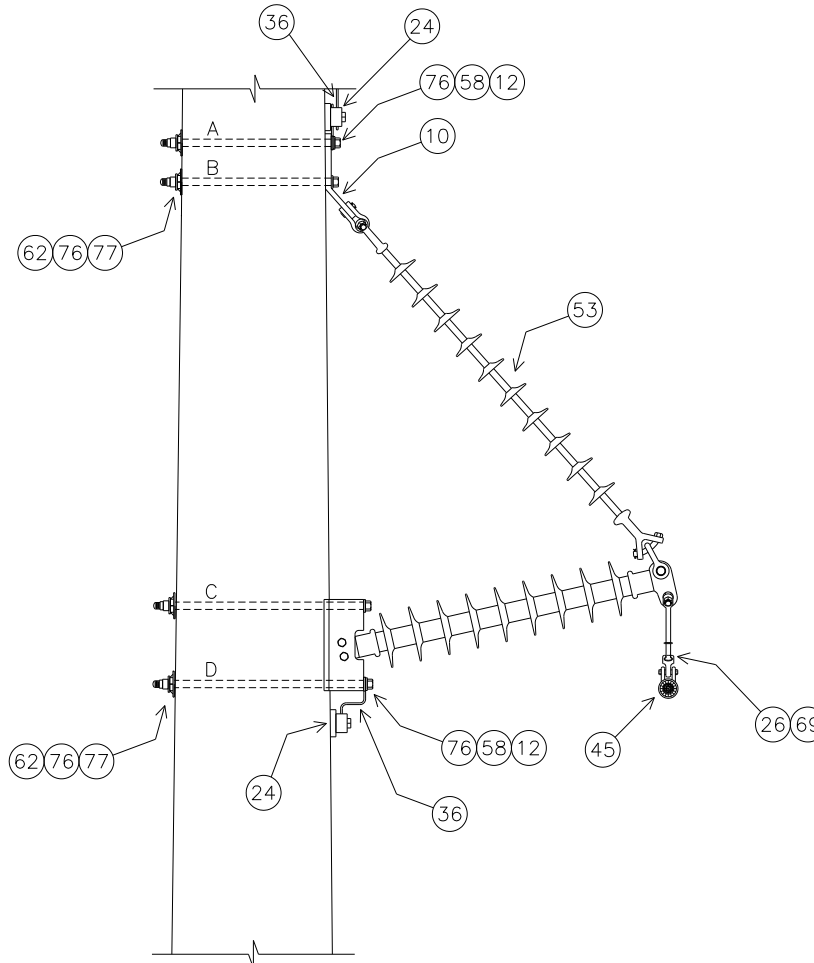
| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 9   | BAYSW 004 | 1    | BAYONET FOR SHIELD WIRE, STRAIGHT 40"  |
| 12  | BOLMS 001 | 0    | MACHINE BOLT, 1/2" X 2 1/2", PROVIDED WITH SUPSH001  |
| 12  | BOLMS 039 | 2    | MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 22  | CLASU 001 | 1    | ALUMINUM SUSPENSION CLAMP FOR 3#6AW / 7#10AW, 15000#   |
| 24  | CLATG 001 | 1    | CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.                                    |
| 31  | CNNCP 002 | 1    | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM |
| 36  | COBCO 028 | 6 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)  |
| 47  | GUALI 001 | 1    | ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"                                    |
| 62  | NUTSL 002 | 0    | SQUARE LOCK NUT FOR 1/2" BOLT, PROVIDED WITH SUPSH001  |
| 62  | NUTSL 004 | 2    | SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.  |
| 71  | SUPSH 001 | 1    | SUPPORT, SHIELD WIRE, GALVANIZED, WITH TWO 2 1/2" MACHINE BOLTS AND LOCK NUTS                |
| 76  | WASRD 005 | 4    | ROUND WASHER FOR 3/4" BOLT, 1 3/4" DIAMETER, GALVANIZED                                      |
| 77  | WASSC 001 | 2    | SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |

## ISSBNGB3

INSULATOR FOR SPUN CONCRETE POLES

SINGLE BRACED LINE POST, NO GUY, 138KV, 3-PHASE

CONDUCTOR OPTIONS: 954A, 954S, 1590



SEE MBA1 FOR BOLT ASSEMBLY DETAILS

### VERTICLE CONFIGURATION

| STRUCTURE | MINIMUM REQUIRED BOLT LENGTH (INCHES) |      |      |      |
|-----------|---------------------------------------|------|------|------|
|           | 'A'                                   | 'B'  | 'C'  | 'D'  |
| TOP       | 20.6                                  | 20.4 | 26.9 | 27.4 |
| MIDDLE    | 22.3                                  | 22.2 | 28.7 | 29.1 |
| BOTTOM    | 24.0                                  | 23.9 | 30.4 | 30.9 |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER



## ISSBNGB3 PLATES

### ISSBNGB3 BASE

| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 10  | BKTLP001  | 3    | BRACKET, 46° ANGLE, 6" HOLE SPACING, 1 1/16" HOLE DIAMETER, 5/8" THICK                       |
| 12  | BOLMS 052 | 2    | MACHINE BOLT, 7/8" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 053 | 4    | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 055 | 2    | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 073 | 2    | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 074 | 2    | MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 24  | CLATG 001 | 3    | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 26  | CLEHL 001 | 3    | BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", H.D.G.                  |
| 36  | COBCO 028 | 9 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 53  | INSLP 012 | 3    | 138KV SILICONE BRACED LINE POST INSULATOR, 12° RISE, GAIN BASE, L = 52", H = 66", 12" B.H.S. |
| 58  | LUGGR 002 | 6    | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATTED COPPER COMPRESSION                             |
| 62  | NUTSL 005 | 12   | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.  |
| 69  | SOCEY 003 | 3    | SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.              |
| 76  | WASRD 006 | 24   | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                      |
| 77  | WASSC 002 | 12   | SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |

### ISSBNGB3\*954A

|    |           |   |  |
|----|-----------|---|--|
| 45 | GRISA 003 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82", 1 3/16" GAP, 5/8" PIN |
|----|-----------|---|--|

### ISSBNGB3\*954S

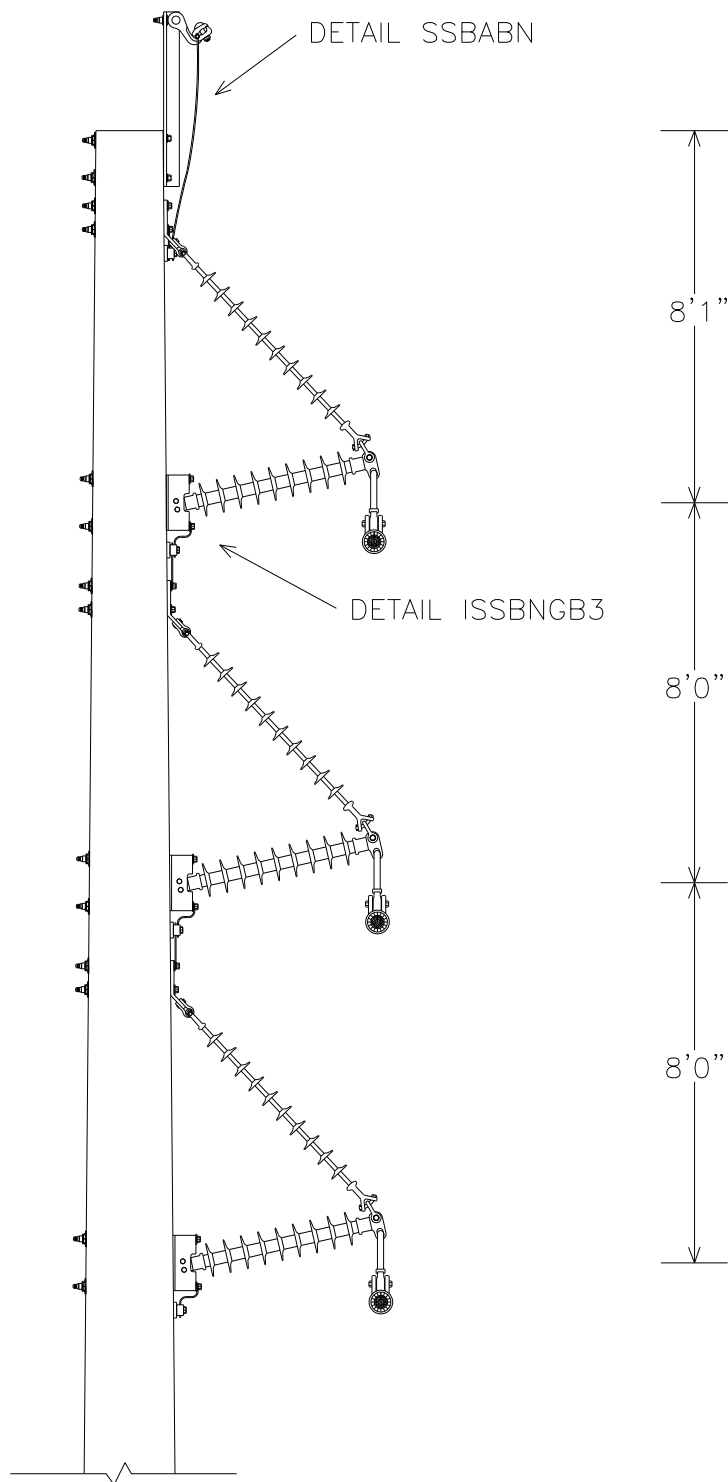
|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 004 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82", 1 3/16" GAP, 5/8" PIN |
|----|-----------|---|---|

### ISSBNGB3\*1590

|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 005 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 1590 ACSR, 88", 1 3/8" GAP, 3/4" PIN |
|----|-----------|---|---|

## B1262

**138KV SINGLE BRACED LINE POST, UNGUYED, 3-PHASE,**  
**CONDUCTOR OPTIONS: 954A, 954H, 954S, 1590**





## B1262 PLATES

### B1262 BASE

| NO. | ITEM ID   | QTY   | DESCRIPTION  |
|-----|-----------|-------|--|
| 9   | BAYSW 003 | 1     | BAYONET FOR SHIELD WIRE, CORNER 40"  |
| 10  | BKTLP 001 | 3     | BRACKET, 46-DEGREE ANGLE, 6" HOLE SPACING, 1 1/16" HOLE DIAMETER, 5/8" THICK                 |
| 12  | BOLMS 032 | 1     | MACHINE BOLT, 3/4" X 6", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                   |
| 12  | BOLMS 039 | 2     | MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 052 | 2     | MACHINE BOLT, 7/8" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 053 | 4     | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 055 | 2     | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 073 | 2     | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 074 | 2     | MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 22  | CLAN 001  | 1     | ANGLE CLAMP FOR 4-SOL-250MCM, 7000#  |
| 24  | CLATG 001 | 4     | CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.                                    |
| 26  | CLEHL 001 | 3     | BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", HOT DIPPED GALV.        |
| 31  | CNNCP 002 | 1     | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM |
| 36  | COBCO 028 | 15 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)  |
| 47  | GUALI 001 | 1     | ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"                                    |
| 53  | INSLP 012 | 3     | 138KV SILICONE BRACED LINE POST INSULATOR, 12° RISE, GAIN BASE, L = 52", H = 66", 12" B.H.S. |
| 58  | LUGGR 002 | 6     | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATTED COPPER COMPRESSION                             |
| 62  | NUTEY 003 | 1     | NUT EYE FOR 3/4" BOLT  |
| 62  | NUTSL 004 | 3     | SQUARE LOCK NUT FOR 3/4" BOLT, HOT DIPPED GALVANIZED   |
| 62  | NUTSL 005 | 12    | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                                     |
| 69  | SOCEY 003 | 3     | SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.              |
| 76  | WASRD 005 | 6     | ROUND WASHER FOR 3/4" BOLT, 1 3/4" DIAMETER, GALVANIZED                                      |
| 76  | WASRD 006 | 24    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                      |
| 77  | WASSC 001 | 2     | SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |
| 77  | WASSC 002 | 12    | SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |

### B1262\*954A

|    |           |   |  |
|----|-----------|---|--|
| 45 | GRISA 003 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82 INCHES, 1 3/16" GAP, 5/8" PIN |
|----|-----------|---|--|

### B1262\*954H

|    |           |   |  |
|----|-----------|---|--|
| 45 | GRISA 009 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSS, 112 INCHES, |
|----|-----------|---|--|

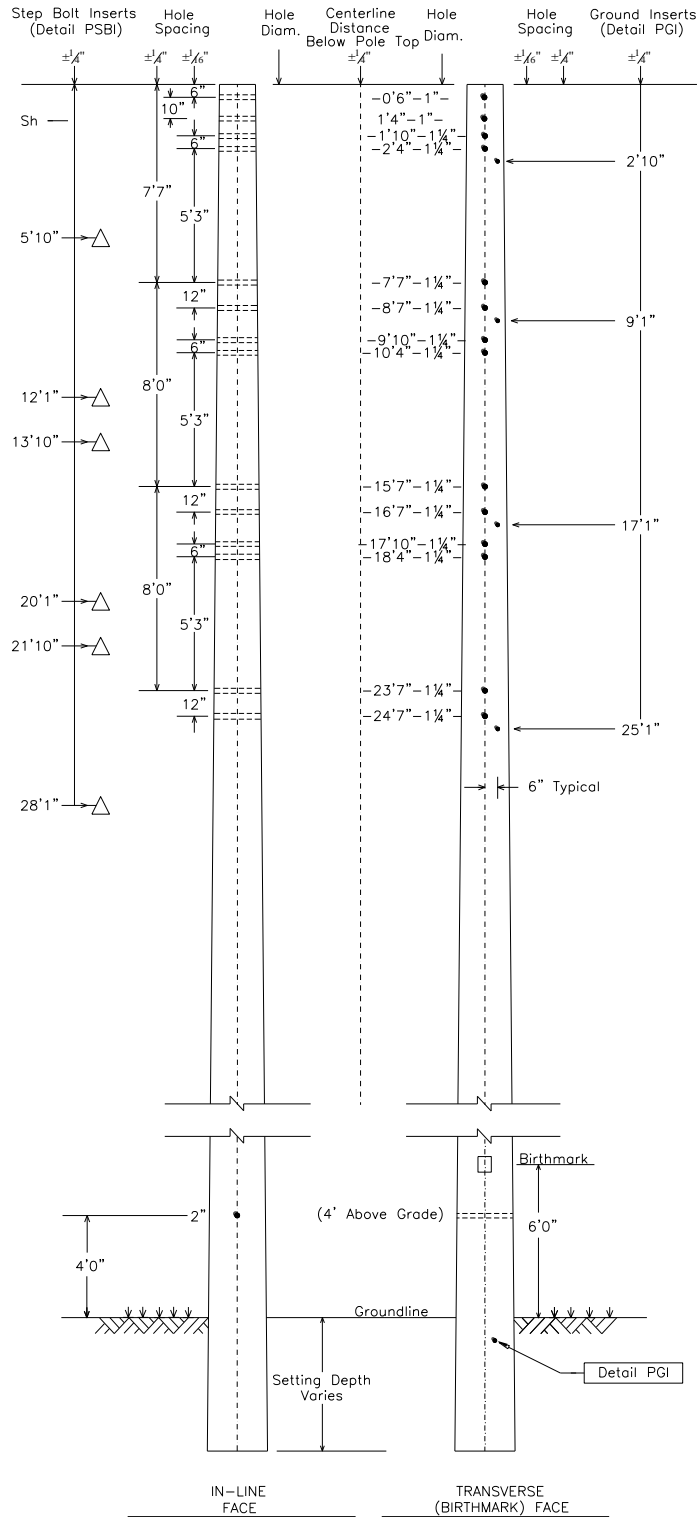
### B1262\*954S

|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 004 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82 INCHES, 1 3/16" GAP, 5/8" PIN |
|----|-----------|---|---|

### B1262\*1590

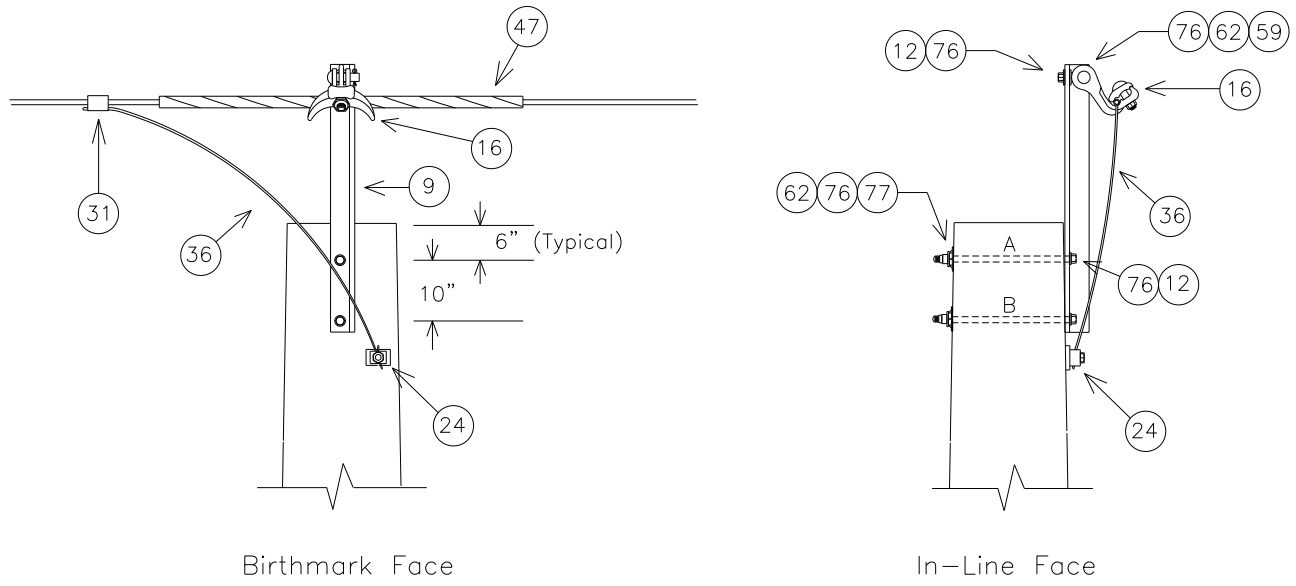
|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 005 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 1590 ACSR, 88 INCHES, 1 3/8" GAP, 3/4" PIN |
|----|-----------|---|---|

## B1262 DRILLING DETAIL



## SSBABN

SHIELD FOR SPUN CONCRETE POLES  
BAYONET WITH ANGLE CLAMP, NO GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

|   |      |
|---|------|
| MINIMUM REQUIRED BOLT LENGTH 'A' (INCHES) | 19.6 |
| MINIMUM REQUIRED BOLT LENGTH 'B' (INCHES) | 19.6 |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

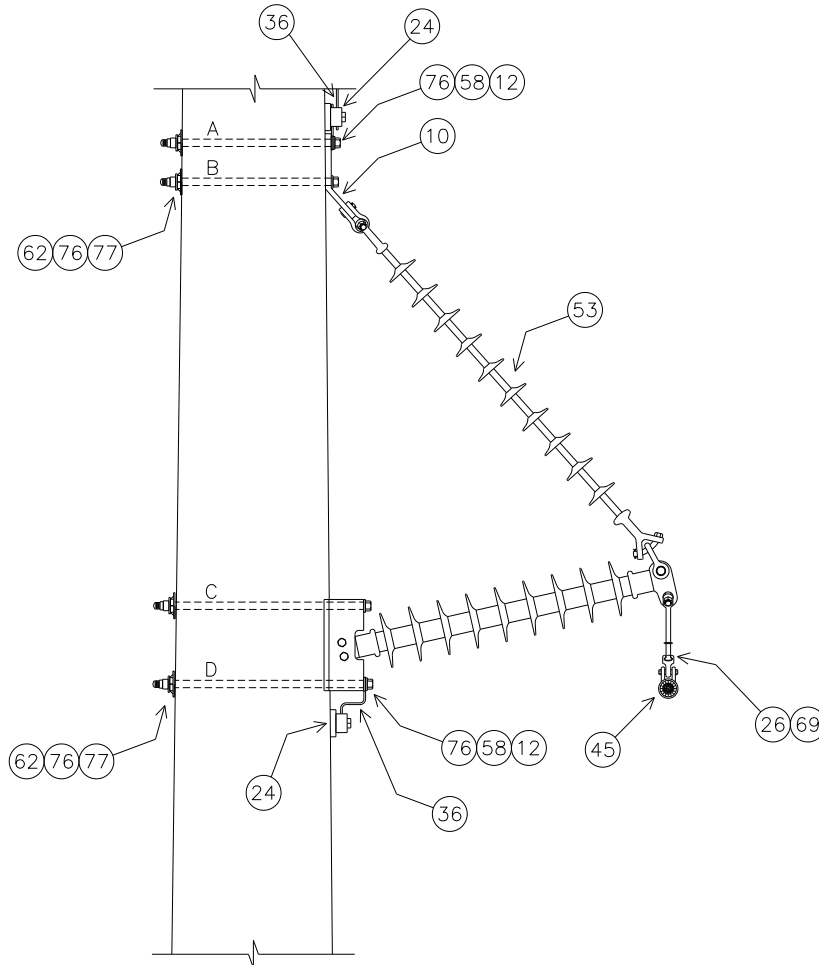
| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 9   | BAYSW 003 | 1    | BAYONET FOR SHIELD WIRE, CORNER 40"  |
| 12  | BOLMS 032 | 1    | MACHINE BOLT, 3/4" X 6", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                   |
| 12  | BOLMS 039 | 2    | MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 16  | CLAN 001  | 1    | ANGLE CLAMP FOR 4-SOL - 250MCM, 7000#  |
| 24  | CLATG 001 | 1    | CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.                                    |
| 31  | CNNCP 002 | 1    | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM |
| 36  | COBCO 028 | 6 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)  |
| 47  | GUALI 001 | 1    | ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"                                    |
| 59  | NUTY 003  | 1    | NUT EYE FOR 3/4" BOLT  |
| 62  | NUTSL 004 | 3    | SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.  |
| 76  | WASRD 005 | 6    | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |
| 77  | WASSC 001 | 2    | SQUARE CURVED WASHER FOR 5/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |

## ISSBNGB3

INSULATOR FOR SPUN CONCRETE POLES

SINGLE BRACED LINE POST, NO GUY, 138KV, 3-PHASE

CONDUCTOR OPTIONS: 954A, 954H, 954S, 1590



SEE MBA1 FOR BOLT ASSEMBLY DETAILS

### VERTICLE CONFIGURATION

| STRUCTURE | MINIMUM REQUIRED BOLT LENGTH (INCHES) |      |      |      |
|-----------|---------------------------------------|------|------|------|
|           | 'A'                                   | 'B'  | 'C'  | 'D'  |
| TOP       | 20.6                                  | 20.4 | 26.9 | 27.4 |
| MIDDLE    | 22.3                                  | 22.2 | 28.7 | 29.1 |
| BOTTOM    | 24.0                                  | 23.9 | 30.4 | 30.9 |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

## ISSBNGB3 PLATES

### ISSBNGB3 BASE

| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 10  | BKTLP 001 | 3    | BRACKET, 46° ANGLE, 6" HOLE SPACING, 1 1/16" HOLE DIAMETER, 5/8" THICK                       |
| 12  | BOLMS 052 | 2    | MACHINE BOLT, 7/8" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 053 | 4    | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 055 | 2    | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 073 | 2    | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 074 | 2    | MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 24  | CLATG 001 | 3    | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 26  | CLEHL 001 | 3    | BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", H.D.G.                  |
| 36  | COBCO 028 | 9 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 53  | INSLP 012 | 3    | 138KV SILICONE BRACED LINE POST INSULATOR, 12° RISE, GAIN BASE, L = 52", H = 66", 12" B.H.S. |
| 58  | LUGGR 002 | 6    | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATTED COPPER COMPRESSION                             |
| 62  | NUTSL 005 | 12   | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.  |
| 69  | SOCEY 003 | 3    | SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.              |
| 76  | WASRD 006 | 24   | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                      |
| 77  | WASSC 002 | 12   | SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |

### ISSBNGB3\*954A

|    |           |   |  |
|----|-----------|---|--|
| 45 | GRISA 003 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82", 1 3/16" GAP, 5/8" PIN |
|----|-----------|---|--|

### ISSBNGB3\*954H

|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 009 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSS |
|----|-----------|---|---|

### ISSBNGB3\*954S

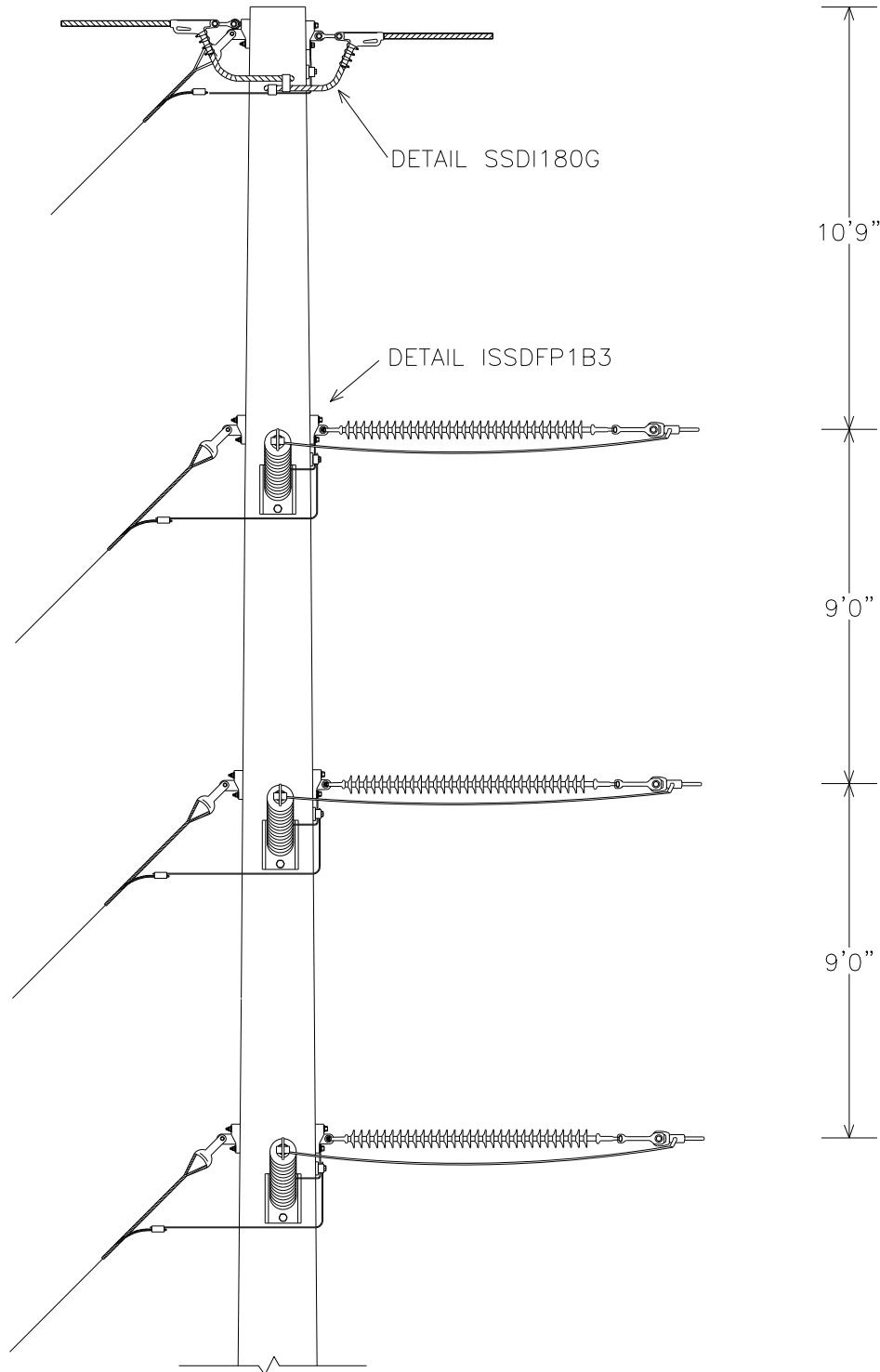
|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 004 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82", 1 3/16" GAP, 5/8" PIN |
|----|-----------|---|---|

### ISSBNGB3\*1590

|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 005 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 1590 ACSR, 88", 1 3/8" GAP, 3/4" PIN |
|----|-----------|---|---|

## B1286C

138KV, SINGLE DEAD-END 180°, FULL TENSION TO POST, 3-PHASE  
CONDUCTOR OPTIONS: 954H, 954S, 1590



REVISED: OCTOBER 2013

REVISED BY: MLR

APPROVED BY :KKR

### 138KV STRUCTURES-NEW CONSTRUCTION

STS138-96





# B1286C PLATES

## B1286C BASE

| NO. | ITEM ID   | QTY   | DESCRIPTION  |
|-----|-----------|-------|--|
| 12  | BOLMS 040 | 1     | MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, W/SQUARE NUT ATTACHED                     |
| 12  | BOLMS 041 | 1     | MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, W/SQUARE NUT ATTACHED                     |
| 12  | BOLMS 055 | 1     | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 073 | 2     | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 074 | 3     | MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 21  | CLAQD 008 | 2     | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW |
| 24  | CLATG 001 | 4     | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 26  | CLEHL 005 | 3     | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8, HOT DIPPED GALV.                         |
| 28  | CLETE 004 | 2     | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G. 90 DEG          |
| 31  | CNNCP 002 | 1     | COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM                                  |
| 31  | CNNCP 003 | 1     | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM                                |
| 36  | COBCO 028 | 15 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 50  | INSDE 003 | 3     | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89 INCHES, CLASS 52-8/11              |
| 51  | INSHP 030 | 3     | HORIZONTAL POST INSULATOR (TRUNION), 138KV, L = 54 INCHES, GAIN BASE, 12 DEGREE RISE         |
| 58  | LUGGR 001 | 1     | LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 58  | LUGGR 002 | 3     | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 59  | NUTEY 003 | 1     | NUTEYE FOR 3/4" BOLT   |
| 62  | NUTSL 004 | 3     | SQUARE LOCK NUT FOR 3/4 INCH BOLT, HOT DIPPED GALVANIZED                                     |
| 62  | NUTSL 005 | 6     | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                                     |
| 72  | TEEDE 003 | 8     | TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#                   |
| 76  | WASRD 005 | 4     | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |
| 76  | WASRD 006 | 12    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                      |
| 77  | WASSC 002 | 6     | SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |

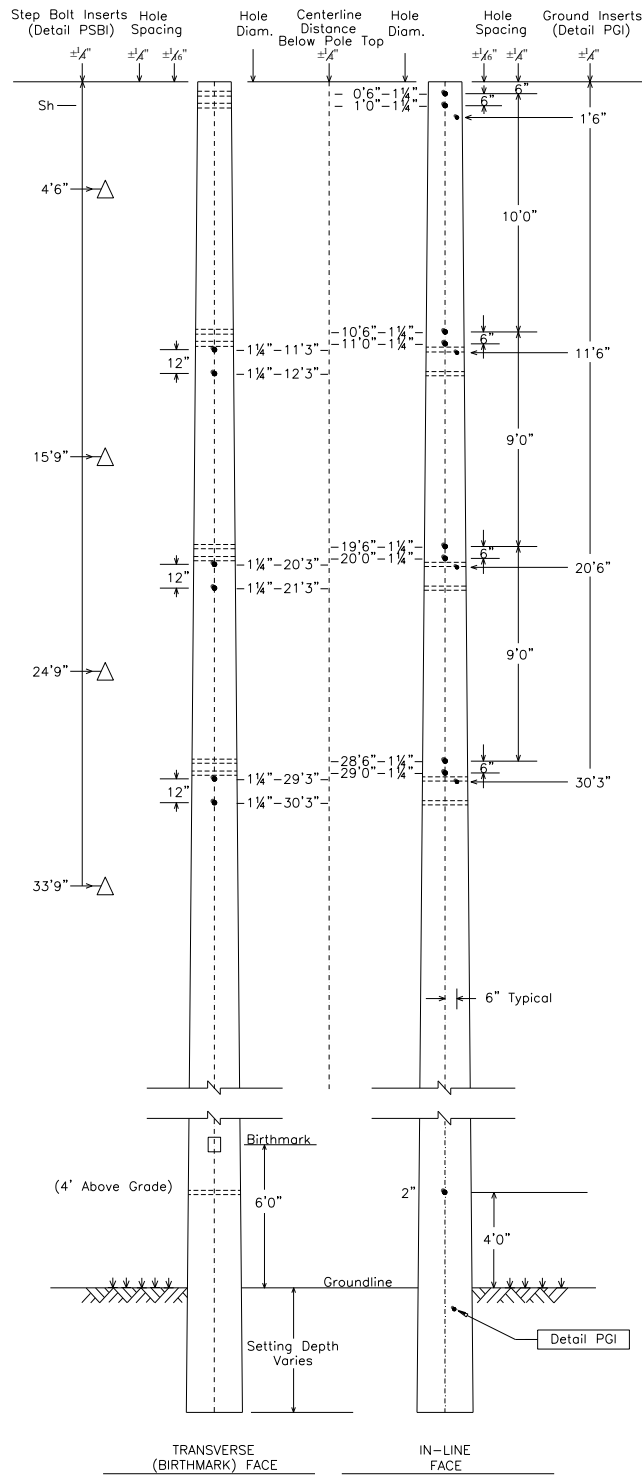
## B1286C\*954S & H

| NO.       | ITEM ID   | QTY | DESCRIPTION   |
|-----------|-----------|-----|---|
| 1 (954S)  | ADCVF 001 | 3   | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY                                   |
| 1 (954H)  | ADCVF 002 | 3   | HIGH TEMPERATURE VOID FILLER COMPOUND FOR DEADEND ASSEMBLY                  |
| 12        | BOLMS 053 | 1   | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12        | BOLMS 054 | 2   | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12        | BOLMS 055 | 2   | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12        | BOLMS 073 | 1   | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 17        | CLACT 005 | 3   | CLAMP, ALUMINUM, FOR 954ASCR  |
| 42 (954S) | DEACB 005 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE                         |
| 42 (954H) | DEACB 016 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSS, OVAL EYE                         |
| 58        | LUGGR 002 | 3   | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62        | NUTSL 005 | 6   | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                    |
| 76        | WASRD 006 | 12  | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |
| 83        | RODAR 007 | 3   | ARMOR ROD FOR 954 ASCR, 100 INCHES  |

## B1286C\*1590

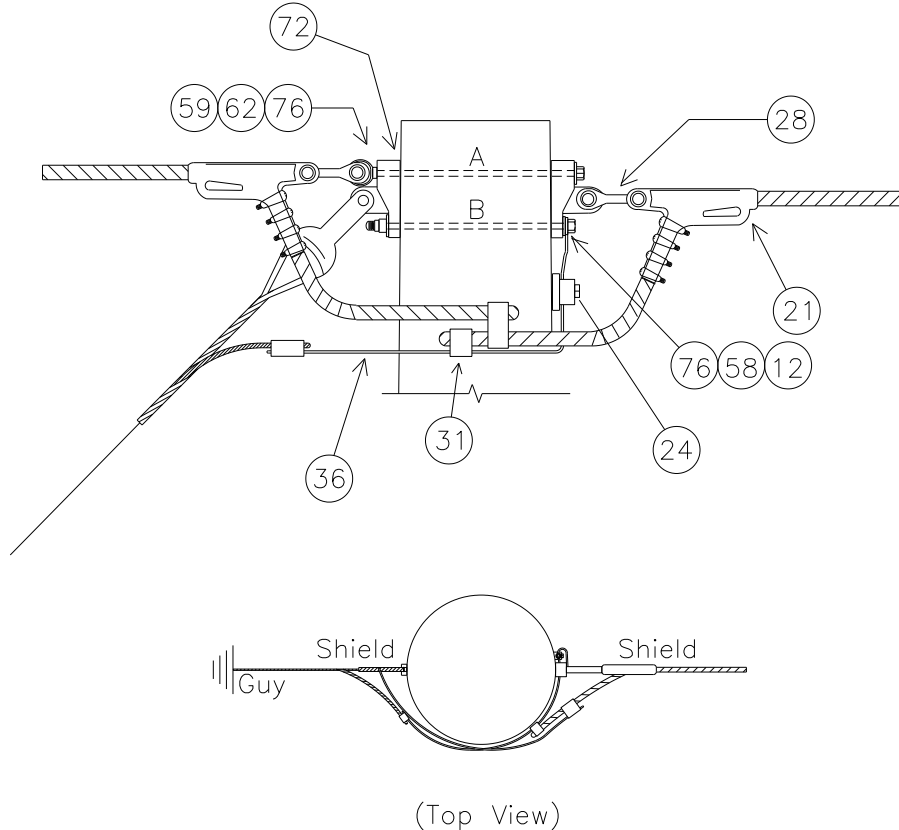
| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 1   | ADCVF 001 | 3   | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY                                 |
| 12  | BOLMS 063 | 1   | MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 064 | 2   | MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 070 | 2   | MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 071 | 1   | MACHINE BOLT, 1" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 17  | CLACT 006 | 3   | CLAMP, ALUMINUM, FOR 1590ASCR   |
| 42  | DEACB 007 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE                      |
| 58  | LUGGR 003 | 3   | LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 006 | 6   | SQUARE LOCK NUT FOR 1 INCH BOLT, HOT DIPPED GALVANIZED                    |
| 76  | WASRD 007 | 12  | ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |
| 83  | RODAR 008 | 3   | ARMOR ROD FOR 1590 ASCR, 100 INCHES                                       |

## B1286C DRILLING DETAIL



## SSDI180G

SHIELD FOR SPUN CONCRETE POLES  
DOUBLE INLINE 180°, GUY



NOTE: SEE SUBSTRUCTURE DETAIL MBA1 FOR BOLT ASSEMBLY DETAILS

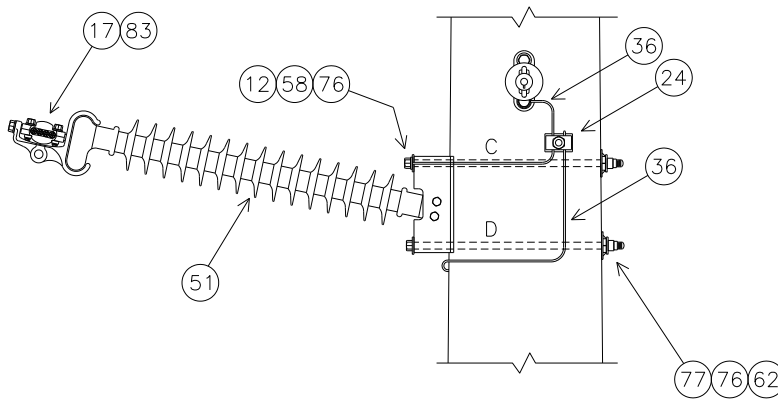
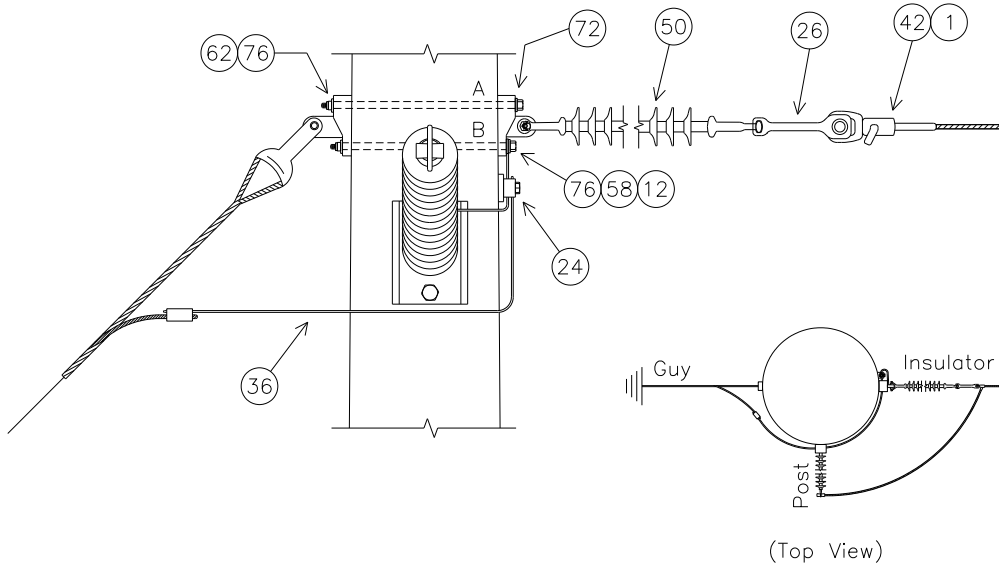
|                            |      |
|----------------------------|------|
| UPPER BOLT LENGTH (INCHES) | 23.6 |
| LOWER BOLT LENGTH (INCHES) | 20.9 |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 12  | BOLMS 040 | 1    | MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 041 | 1    | MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 21  | CLAQD 008 | 2    | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW |
| 24  | CLATG 001 | 1    | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 28  | CLETE 004 | 2    | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G., 90 DEG         |
| 31  | CNNCP 002 | 1    | COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM                                  |
| 31  | CNNCP 003 | 1    | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM                                |
| 36  | COBCO 028 | 3 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 58  | LUGGR 001 | 1    | LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 59  | NUTEY 003 | 1    | NUTEYE FOR 3/4" BOLT   |
| 62  | NUTSL 004 | 3    | SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.  |
| 72  | TEEDE 003 | 2    | TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#                                |
| 76  | WASRD 005 | 4    | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |

## ISSDFP1B3

**INSULATOR FOR SPUN CONCRETE POLES**  
**SINGLE DEAD-END, FULL TENSION TO POST, TYPE 1, 138KV, 3-PHASE**  
 CONDUCTOR OPTIONS: 954S, 1590



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

| SUBSTRUCTURE             | Top  | Mid  | Bottom |
|--------------------------|------|------|--------|
| BOLT 'A' LENGTH (INCHES) | 25.0 | 26.9 | 28.9   |
| BOLT 'B' LENGTH (INCHES) | 23.3 | 25.3 | 27.2   |
| BOLT 'C' LENGTH (INCHES) | 27.8 | 29.7 | 31.7   |
| BOLT 'D' LENGTH (INCHES) | 28.3 | 30.2 | 32.1   |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

## ISSDFP1B3 PLATES

### ISSDFP1B3 BASE

| NO. | ITEM ID   | QTY   | DESCRIPTION  |
|-----|-----------|-------|--|
| 12  | BOLMS 055 | 1     | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED    |
| 12  | BOLMS 073 | 2     | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED    |
| 12  | BOLMS 074 | 3     | MACHINE BOLT, 7/8" X 32", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED    |
| 24  | CLATG 001 | 3     | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                        |
| 26  | CLEHL 005 | 3     | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8", H.D.G.                    |
| 36  | COBCO 028 | 12 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN                                     |
| 50  | INSDE 003 | 3     | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89", CLASS 52-8/11      |
| 51  | INSHP 030 | 3     | HORIZONTAL POST INSULATOR, 138KV, L = 54", GAIN BASE, 12° RISE                 |
| 58  | LUGGR 002 | 3     | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                |
| 62  | NUTSL 005 | 6     | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.  |
| 72  | TEEDE 003 | 6     | TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#                 |
| 76  | WASRD 006 | 12    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                        |
| 77  | WASSC 002 | 6     | SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4" |

### ISSDFP1B3\*954S & H

| NO.       | ITEM ID   | QTY | DESCRIPTION   |
|-----------|-----------|-----|---|
| 1 (954S)  | ADCVF 001 | 3   | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY                                   |
| 1 (954H)  | ADCVF 002 | 3   | VOID FILLER COMPOUND FOR HIGH TEMPERATURE DEADEND ASSEMBLY                  |
| 12        | BOLMS 053 | 1   | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12        | BOLMS 054 | 2   | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12        | BOLMS 055 | 2   | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12        | BOLMS 073 | 1   | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 17        | CLACT 005 | 3   | CLAMP, ALUMINUM, FOR 954ASCR  |
| 42 (954S) | DEACB 005 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE                         |
| 42 (954H) | DEACB 016 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSS, OVAL EYE                         |
| 58        | LUGGR 002 | 3   | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62        | NUTSL 005 | 6   | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.                                       |
| 76        | WASRD 006 | 12  | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |
| 83        | RODAR 007 | 3   | ARMOR ROD FOR 954 ACSR, 100"  |

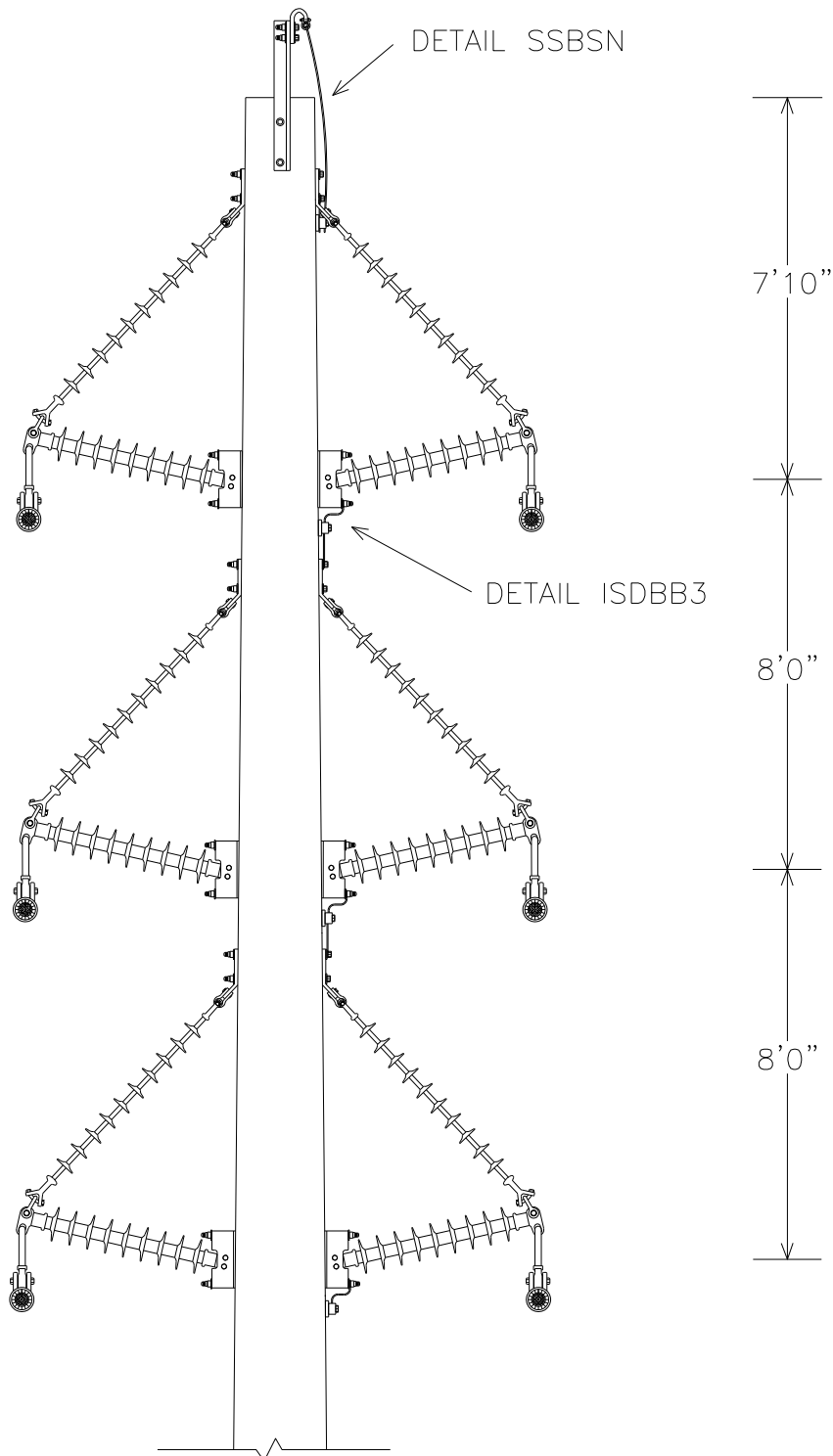
### ISSDFP1B3\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 1   | ADCVF 001 | 3   | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY                                 |
| 12  | BOLMS 063 | 1   | MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 064 | 2   | MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 070 | 2   | MACHINE BOLT, 1" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 071 | 1   | MACHINE BOLT, 1" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 17  | CLACT 006 | 3   | CLAMP, ALUMINUM, FOR 1590ASCR   |
| 42  | DEACB 007 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE                      |
| 58  | LUGGR 003 | 3   | LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 006 | 6   | SQUARE LOCK NUT FOR 1" BOLT, H.D.G.                                       |
| 76  | WASRD 007 | 12  | ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |
| 83  | RODAR 008 | 3   | ARMOR ROD FOR 1590 ACSR, 100"   |

## B2261

138KV, DOUBLE BRACED LINE POST, 3-PHASE

CONDUCTOR OPTIONS: 954A, 954S, 1590



## B2261 PLATES

### B2261 BASE

| NO. | ITEM ID   | QTY   | DESCRIPTION  |
|-----|-----------|-------|--|
| 9   | BAYSW 004 | 1     | BAYONET FOR SHIELD WIRE, STRAIGHT 40"  |
| 10  | BKTLP 001 | 6     | BRACKET, 46-DEGREE ANGLE, 6" HOLE SPACING, 1 1/16" HOLE DIAMETER, 5/8" THICK                 |
| 11  | BOLDA 038 | 2     | DOUBLE ARMING BOLT, 7/8" X 34", WITH 4 SQUARE NUTS ATTACHED                                  |
| 11  | BOLDA 039 | 2     | DOUBLE ARMING BOLT, 7/8" X 36", WITH 4 SQUARE NUTS ATTACHED                                  |
| 11  | BOLDA 040 | 2     | DOUBLE ARMING BOLT, 7/8" X 38", WITH 4 SQUARE NUTS ATTACHED                                  |
| 12  | BOLMS 039 | 2     | MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 052 | 2     | MACHINE BOLT, 7/8" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 053 | 2     | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 054 | 2     | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 22  | CLASU 001 | 1     | ALUMINUM SUSPENSION CLAMP FOR 3#6AW / 7#10AW, 15000#   |
| 24  | CLATG 001 | 4     | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 26  | CLEHL 001 | 6     | BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", HOT DIPPED GALV.        |
| 31  | CNNCP 002 | 1     | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM |
| 36  | COBCO 028 | 15 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 47  | GUALI 001 | 1     | ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"                                    |
| 53  | INSLP 012 | 6     | 138KV SILICONE BRACED LINE POST INSULATOR, 12° RISE, GAIN BASE, L = 52", H = 66", 12" B.H.S. |
| 58  | LUGGR 002 | 6     | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 62  | NUTSL 004 | 2     | SQUARE LOCK NUT FOR 3/4" BOLT, HOT DIPPED GALVANIZED   |
| 62  | NUTSL 005 | 18    | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                                     |
| 69  | SOCEY 003 | 6     | SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.              |
| 71  | SUPSH 001 | 1     | SUPPORT, SHIELD WIRE, GALVANIZED, WITH TWO 2 1/2 INCH MACHINE BOLTS AND LOCK NUTS            |
| 76  | WASRD 005 | 4     | ROUND WASHER FOR 3/4" BOLT, 1 3/4" DIAMETER, GALVANIZED                                      |
| 76  | WASRD 006 | 36    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                      |
| 77  | WASSC 001 | 2     | SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |
| 77  | WASSC 002 | 12    | SQUARE CURVED WASHER FOR 7/8" BOLTS, GALVANIZED, 4" X 4"                                     |

### B2261\*954A

| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 45  | GRISA 003 | 6   | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82 INCHES, 1 3/16" GAP, 5/8" PIN |

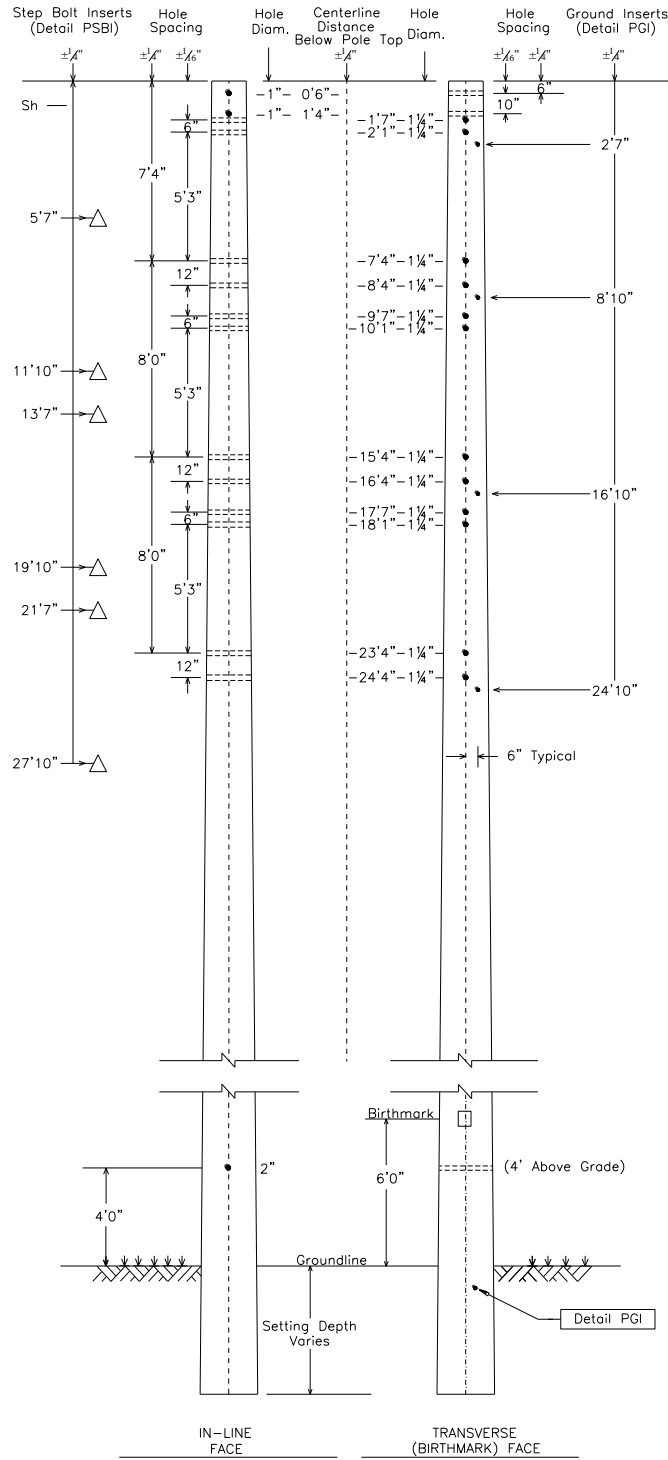
### B2261\*954S

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 45  | GRISA 004 | 6   | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82 INCHES, 1 3/16" GAP, 5/8" PIN |

### B2261\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 45  | GRISA 005 | 6   | ARMOR GRIP SUSPENSION ASSEMBLY FOR 1590 ACSR, 88 INCHES, 1 3/8" GAP, 3/4" PIN |

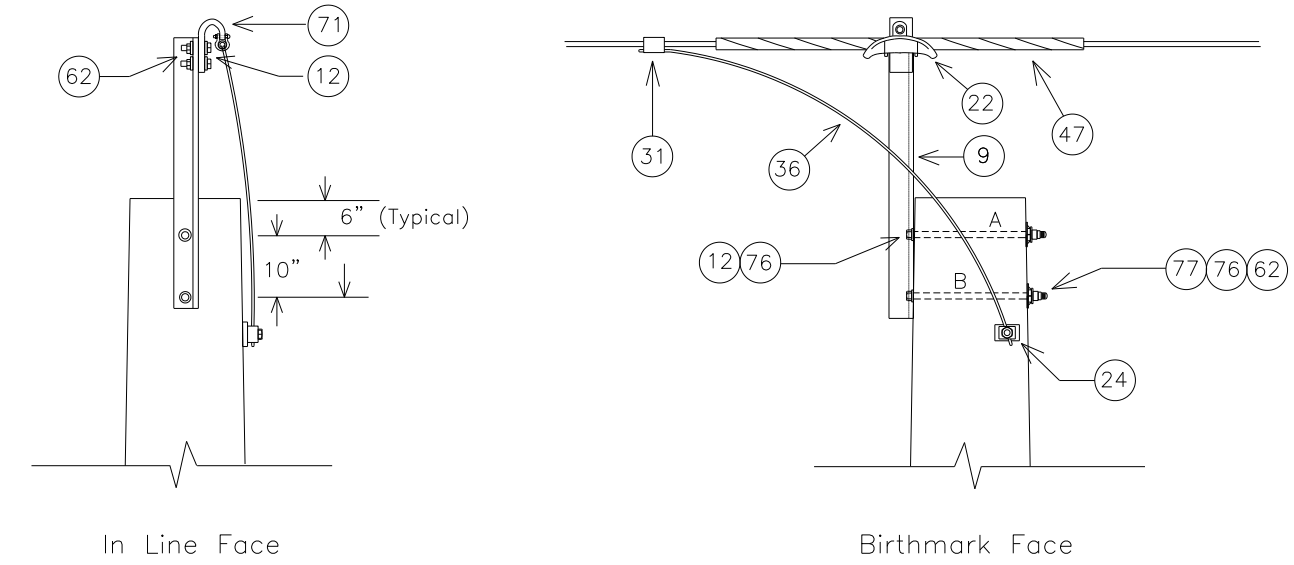
## B2261 DRILLING DETAIL





## SSBSN

SHIELD FOR SPUN CONCRETE POLES  
BAYONET WITH SUSPENSION CLAMP, NO GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

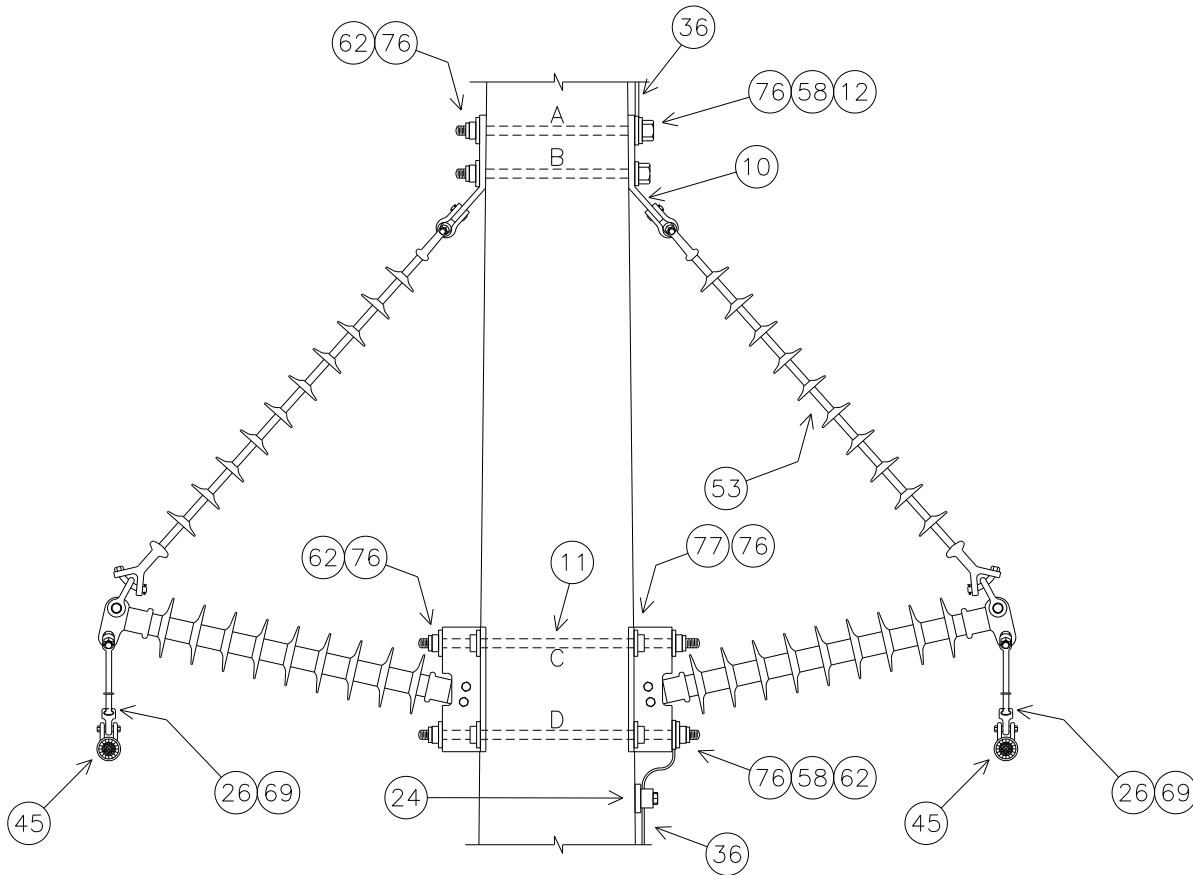
|   |      |
|---|------|
| MINIMUM REQUIRED BOLT LENGTH 'A' (INCHES) | 19.6 |
| MINIMUM REQUIRED BOLT LENGTH 'B' (INCHES) | 19.8 |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 9   | BAYSW 004 | 1    | BAYONET FOR SHIELD WIRE, STRAIGHT 40"  |
| 12  | BOLMS 001 | 0    | MACHINE BOLT, 1/2" X 2 1/2", PROVIDED WITH SUPSH001  |
| 12  | BOLMS 039 | 2    | MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 22  | CLASU 001 | 1    | ALUMINUM SUSPENSION CLAMP FOR 3#6AW / 7#10AW, 15000#   |
| 24  | CLATG 001 | 1    | CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.                                    |
| 31  | CNNCP 002 | 1    | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM |
| 36  | COBCO 028 | 6 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)  |
| 47  | GUALI 001 | 1    | ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"                                    |
| 62  | NUTSL 002 | 0    | SQUARE LOCK NUT FOR 1/2" BOLT, PROVIDED WITH SUPSH001  |
| 62  | NUTSL 004 | 2    | SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.  |
| 71  | SUPSH 001 | 1    | SUPPORT, SHIELD WIRE, GALVANIZED, WITH TWO 2 1/2" MACHINE BOLTS AND LOCK NUTS                |
| 76  | WASRD 005 | 4    | ROUND WASHER FOR 3/4" BOLT, 1 3/4" DIAMETER, GALVANIZED                                      |
| 77  | WASSC 001 | 2    | SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |

## ISDBB3

**INSULATOR FOR SPUN CONCRETE POLES**  
**DOUBLE BRACED LINE POST, 138KV, 3-PHASE**  
 CONDUCTOR OPTIONS: 954A, 954S, 1590



SEE MBA1 FOR BOLT ASSEMBLY DETAILS AND MBA2 FOR DOUBLE ARMING BOLT ASSEMBLY DETAILS

| STRUCTURE | MINIMUM REQUIRED BOLT LENGTHS (INCHES) |      |      |      |
|-----------|--|------|------|------|
|           | 'A'                                    | 'B'  | 'C'  | 'D'  |
| TOP       | 20.6                                   | 20.5 | 33.6 | 34.1 |
| MIDDLE    | 22.4                                   | 22.2 | 35.3 | 35.8 |
| BOTTOM    | 24.1                                   | 24.0 | 37.1 | 37.5 |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

## ISDBB3 PLATES

### ISDBB3 BASE

| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 10  | BKTLP 001 | 6    | BRACKET, 46° ANGLE, 6" HOLE SPACING, 1 1/16" HOLE DIAMETER, 5/8" THICK                       |
| 11  | BOLDA 038 | 2    | DOUBLE ARMING BOLT, 7/8" X 34", WITH 4 SQUARE NUTS ATTACHED                                  |
| 11  | BOLDA 039 | 2    | DOUBLE ARMING BOLT, 7/8" X 36", WITH 4 SQUARE NUTS ATTACHED                                  |
| 11  | BOLDA 040 | 2    | DOUBLE ARMING BOLT, 7/8" X 38", WITH 4 SQUARE NUTS ATTACHED                                  |
| 12  | BOLMS 052 | 2    | MACHINE BOLT, 7/8" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 053 | 2    | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 054 | 2    | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 24  | CLATG 001 | 3    | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 26  | CLEHL 001 | 6    | BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", H.D.G.                  |
| 36  | COBCO 028 | 9 FT | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 53  | INSLP 012 | 6    | 138KV SILICONE BRACED LINE POST INSULATOR, 12° RISE, GAIN BASE, L = 52", H = 66", 12" B.H.S. |
| 58  | LUGGR 002 | 6    | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 62  | NUTSL 005 | 18   | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.  |
| 69  | SOCEY 003 | 6    | SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.              |
| 76  | WASRD 006 | 36   | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                      |
| 77  | WASSC 002 | 12   | SQUARE CURVED WASHER FOR 7/8" BOLTS, GALVANIZED, 4" X 4"                                     |

### ISDBB3\*954A

|    |           |   |  |
|----|-----------|---|--|
| 45 | GRISA 003 | 6 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82", 1 3/16" GAP, 5/8" PIN |
|----|-----------|---|--|

### ISDBB3\*954S

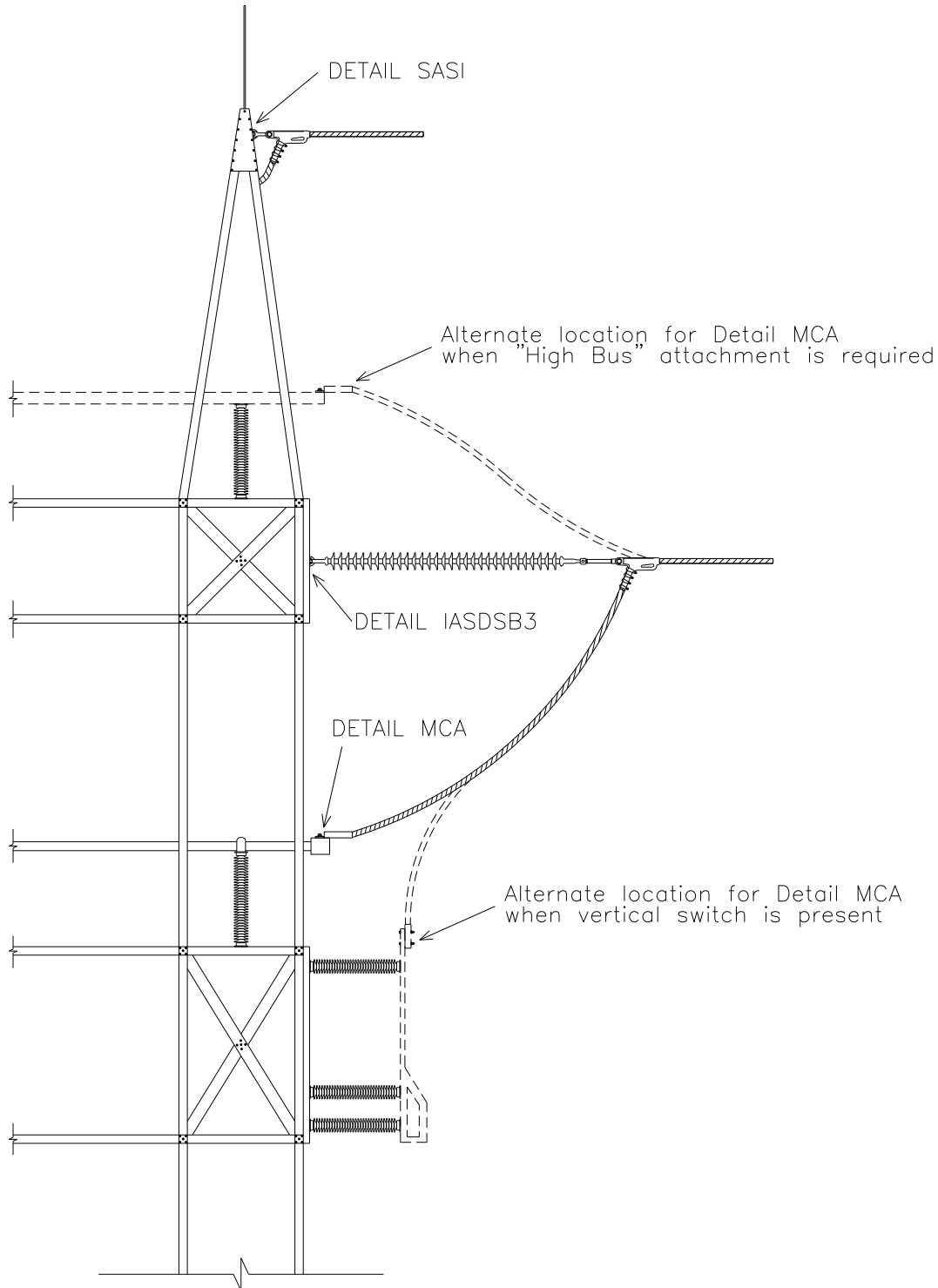
|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 004 | 6 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82", 1 3/16" GAP, 5/8" PIN |
|----|-----------|---|---|

### ISDBB3\*1590

|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 005 | 6 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 1590 ACSR, 88", 1 3/8" GAP, 3/4" PIN |
|----|-----------|---|---|

## B3A45Q

138KV, SINGLE DEADEND, SLACK TENSION, SUBSTATION LATTICE STRUCTURE, 3-PHASE  
CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



## B3A45Q PLATES

### B3A45Q BASE

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 12  | BOLMS 016 | 5   | MACHINE BOLT, 5/8" X 3", SQUARE HEAD, GALVANIZED, W/SQUARE NUT ATTACHED                     |
| 21  | CLAQD 008 | 2   | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8"CLAMP, DUCT. IRON, 3#6 AW |
| 26  | CLEHL 008 | 3   | SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4 THICK W/ 13/16 OPENING, H. D. G.       |
| 28  | CLETE 001 | 2   | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G.                |
| 33  | CNNPA 590 | 2   | TWO BOLT PARALLEL CONNECTOR   |
| 50  | INSDE 003 | 3   | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89 INCHES, CLASS 52-8/11             |
| 59  | NUTEY 002 | 5   | EYE NUT FOR 5/8" BOLT, 1 1/2" OPENING, HOT DIPPED GALVANIZED                                |
| 60  | NUTBC 500 | 12  | SILICONE BRONZE NUT FOR 1/2" BOLT - ITEM LOCATED IN MAXIMO                                  |
| 66  | SCWHI 519 | 12  | STAINLESS STEEL BOLT, 2 1/2" X 1/2"   |
| 74  | WASBA 500 | 12  | BELLEVILLE SPRING WASHER FOR 1/2"BOLT, 301 SS   |
| 75  | WASFG 500 | 24  | FLAT ROUND WASHER FOR 1/2" BOLT, 316 SS   |
| 76  | WASRD 004 | 10  | ROUND WASHER FOR 5/8" BOLT, 1 3/4" DIAMETER, GALVANIZED                                     |

### B3A45Q\*556S

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 21  | CLAQD 005 | 3   | DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"            |
| 30  | CNNAJ 002 | 3   | ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE .889"-.964" (556-ACSR), 15-DEGREE ANGLE |

### B3A45Q\*954A

| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 21  | CLAQD 005 | 3   | DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"             |
| 30  | CNNAJ 006 | 3   | ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE 1.092"- 1.172" (954 AAC), 0-DEGREE ANGLE |

### B3A45Q\*954S

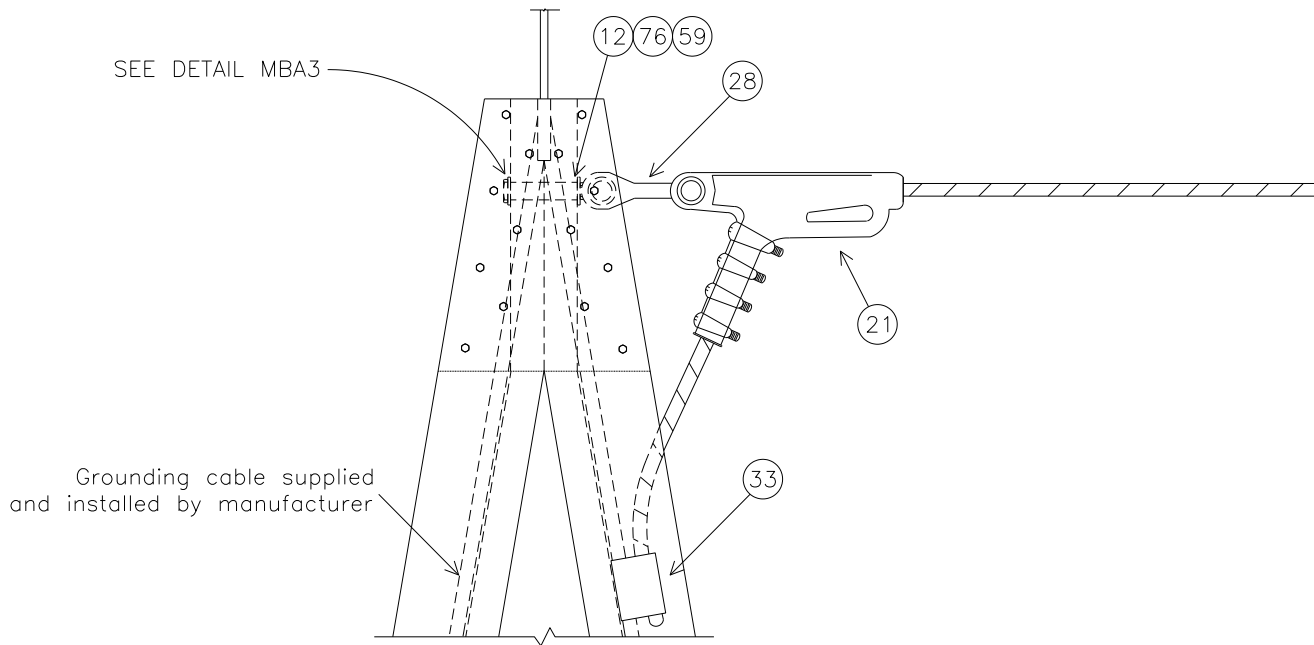
| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 21  | CLAQD 005 | 3   | DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"              |
| 30  | CNNAJ 007 | 3   | ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE 1.124"- 1.196" (954-ACSR), 0-DEGREE ANGLE |

### B3A45Q\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 21  | CLAQD 006 | 3   | DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4"               |
| 30  | CNNAJ 008 | 3   | ALUM. JUMPER TERM. FOR CONDUCTOR RANGE 1.475"- 1.560" (1590-ACSR), 0-DEGREE ANGLE |

## SASI

### SHIELD FOR A-FRAME/LATTICE STRUCTURES SINGLE IN-LINE



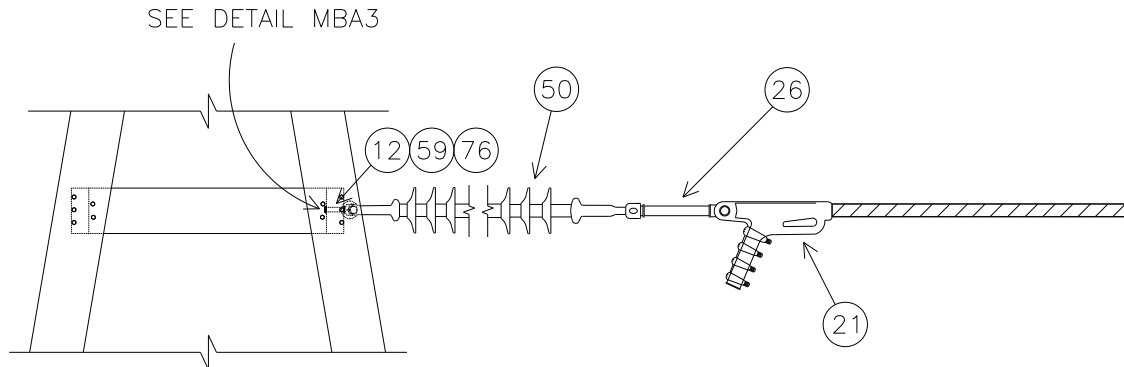
| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 12  | BOLMS 016 | 2   | MACHINE BOLT, 5/8" X 3", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                   |
| 21  | CLAQD 008 | 2   | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW |
| 28  | CLETE 001 | 2   | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G.                 |
| 33  | CNNPA 590 | 2   | TWO BOLT PARALLEL CONNECTOR  |
| 59  | NUTEY 002 | 2   | EYE NUT FOR 5/8" BOLT, 1 1/2" OPENING, H.D.G.  |
| 76  | WASRD 004 | 4   | ROUND WASHER FOR 5/8" BOLT, 1 3/4" DIAMETER, GALVANIZED                                      |

## IASDSB3

INSULATOR FOR SUBSTATION A-FRAME/LATTICE STRUCTURES

SINGLE DEAD-END, SLACK TENSION FOR SUBSTATION STRUCTURES, 138KV, 3-PHASE

CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



### IASDSB3 BASE

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 12  | BOLMS 016 | 3   | MACHINE BOLT, 5/8" X 3", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                |
| 26  | CLEHL 008 | 3   | SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4" THICK WITH 13/16" OPENING, H. D. G. |
| 50  | INSDE 003 | 3   | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89", CLASS 52-8/11                 |
| 59  | NUTEY 002 | 3   | EYE NUT FOR 5/8" BOLT, 1 1/2" OPENING, H.D.G.   |
| 76  | WASRD 004 | 6   | ROUND WASHER FOR 5/8" BOLT, 1 3/4" DIAMETER, GALVANIZED                                   |

### IASDSB3\*556S, 954A, 954S

| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 21  | CLAQD 005 | 3   | DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4" |

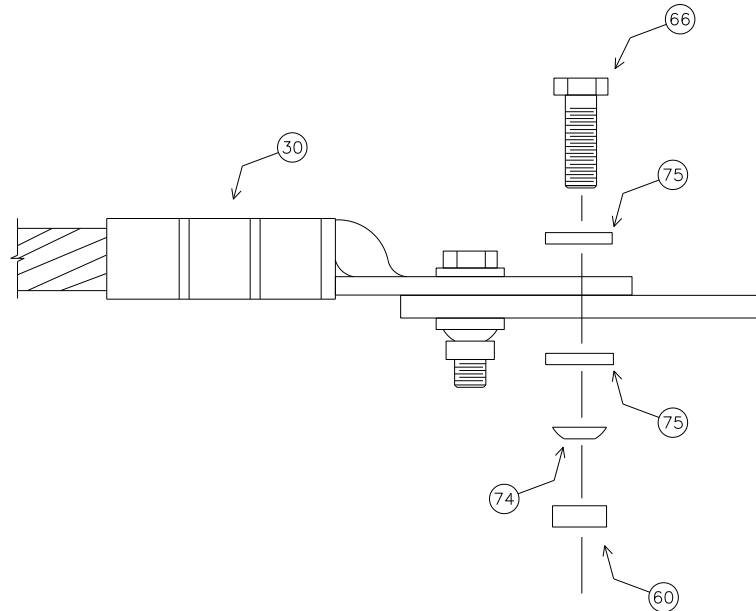
### IASDSB3\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 21  | CLAQD 006 | 3   | DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4" |

# MCA

## CONDUCTOR ATTACHMENT FOR SUBSTATION STRUCTURES

CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



### MCA BASE

| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 60  | NUTBC 500 | 12  | SILICONE BRONZE NUT FOR 1/2" BOLT - ITEM LOCATED IN MAXIMO |
| 66  | SCWHI 519 | 12  | STAINLESS STEEL BOLT, 2 1/2" X 1/2"                        |
| 74  | WASBA 500 | 12  | BELLEVILLE SPRING WASHER FOR 1/2" BOLT, 301 SS             |
| 75  | WASFG 500 | 24  | FLAT ROUND WASHER FOR 1/2" BOLT, 316 SS                    |

### MCA\*556S

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 30  | CNNAJ 002 | 3   | ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE .889" - .964" (556-ACSR), 15-DEGREE ANGLE |

### MCA\*954A

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 30  | CNNAJ 006 | 3   | ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE 1.092" - 1.172" (954 AAC), 0-DEGREE ANGLE |

### MCA\*954S

| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 30  | CNNAJ 007 | 3   | ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE 1.124" - 1.196" (954-ACSR), 0-DEGREE ANGLE |

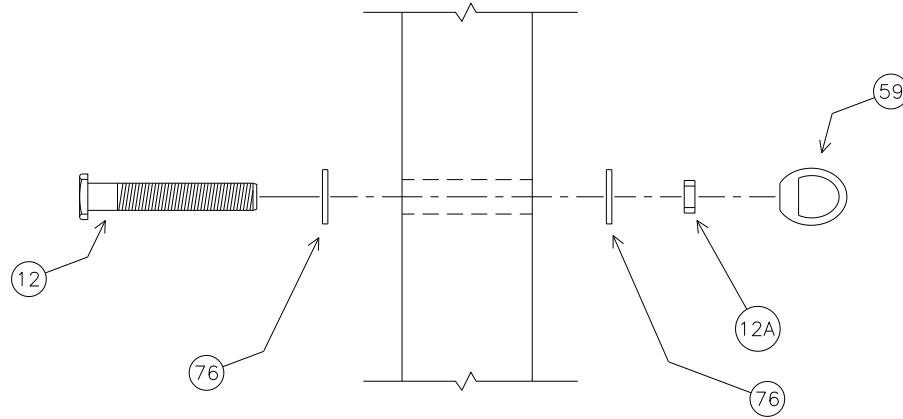
### MCA\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 30  | CNNAJ 008 | 3   | ALUM. JUMPER TERM. FOR CONDUCTOR RANGE 1.475" - 1.560" (1590-ACSR), 0-DEGREE ANGLE, 4-HOLE PAD COMPRESSION CONNECTION |



## MBA3

### TYPICAL BOLT ASSEMBLY FOR SUBSTATION STRUCTURES

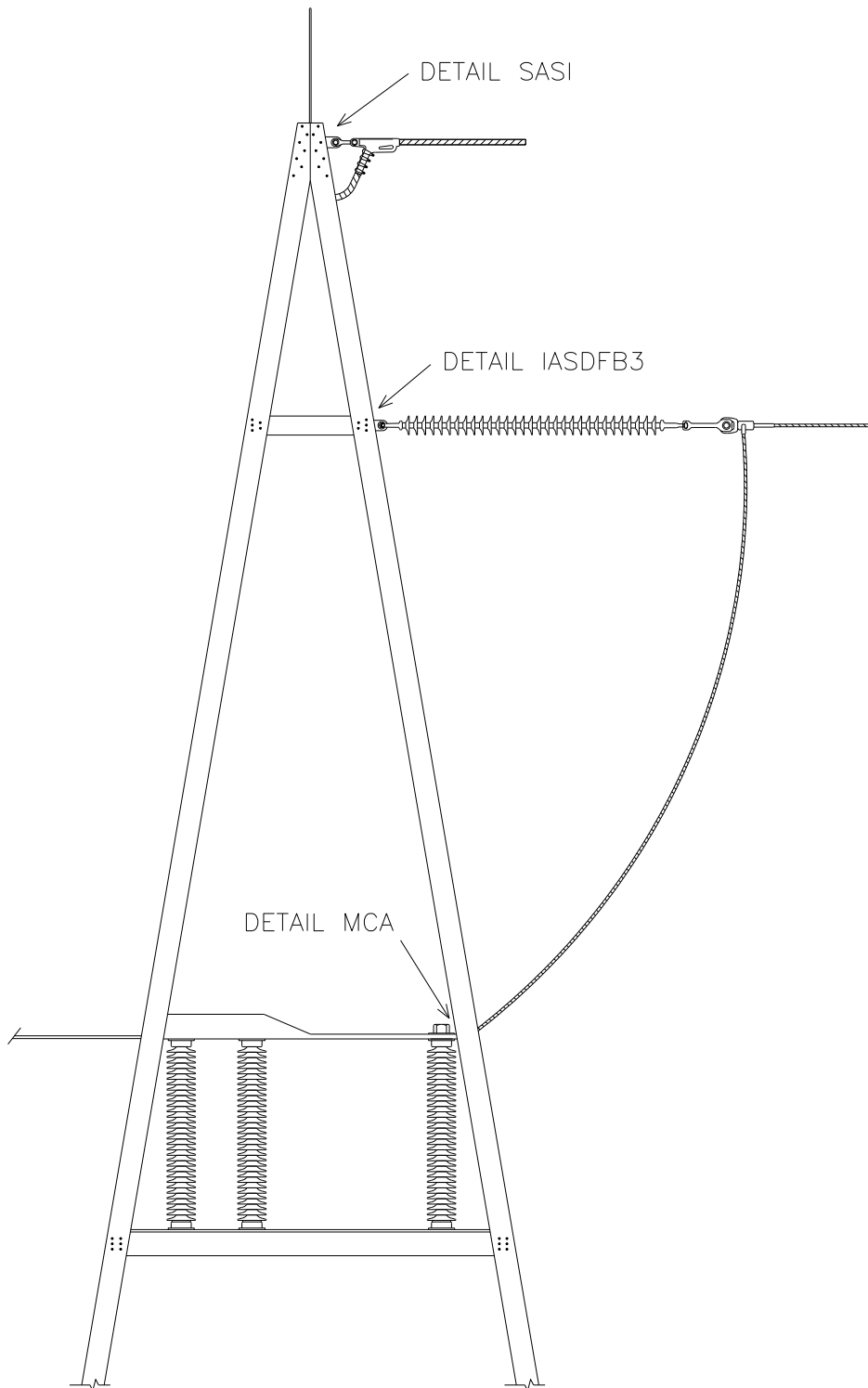


#### MBA3 PLATE

| NO.    | ITEM ID   | QTY | DESCRIPTION   |
|--------|-----------|-----|---|
| 12,12A | BOLMS 016 | 5   | MACHINE BOLT, 5/8" X 3", SQUARE HEAD, GALVANIZED, W/SQUARE NUT ATTACHED |
| 59     | NUTEY 002 | 5   | EYE NUT FOR 5/8" BOLT, 1 1/2" OPENING, HOT DIPPED GALVANIZED            |
| 76     | WASRD 004 | 10  | ROUND WASHER FOR 5/8" BOLT, 1 3/4" DIAMETER, GALVANIZED                 |

# B3B45C

138KV, FULL TENSION DEADEND FOR SUBSTATION A-FRAME STRUCTURES, 3-PHASE  
CONDUCTOR OPTIONS: 954H, 954S, 1590



## B3B45C PLATES

### B3B45C BASE

| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 12  | BOLMS 016 | 2   | MACHINE BOLT, 5/8" X 3", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                   |
| 21  | CLAQD 008 | 2   | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW |
| 26  | CLEHL 005 | 3   | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN=7/8", HOT DIPPED GALV..                         |
| 28  | CLETE 001 | 2   | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G.                 |
| 33  | CNNPA 590 | 2   | TWO BOLT PARALLEL CONNECTOR  |
| 50  | INSDE 003 | 3   | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89 INCHES, CLASS 52-8/11              |
| 59  | NUTEY 002 | 2   | EYE NUT FOR 5/8" BOLT, 1 1/2" OPENING, HOT DIPPED GALVANIZED                                 |
| 60  | NUTBC 500 | 12  | SILICONE BRONZE NUT FOR 1/2" BOLT - ITEM LOCATED IN MAXIMO                                   |
| 66  | SCWHI 519 | 12  | STAINLESS STEEL BOLT, 2 1/2" X 1/2"  |
| 74  | WASBA 500 | 12  | BELLEVILLE SPRING WASHER FOR 1/2" BOLT, 301 SS   |
| 75  | WASFG 500 | 24  | FLAT ROUND WASHER FOR 1/2" BOLT, 316 SS  |
| 76  | WASRD 004 | 4   | ROUND WASHER FOR 5/8" BOLT, 1 3/4" DIAMETER, GALVANIZED                                      |

### B3B45C\*954H

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 1   | ADCVF 002 | 3   | HIGH TEMPERATURE VOID FILLER COMPOUND FOR DEADEND ASSEMBLY  |
| 30  | CNNAJ 010 | 3   | ALUM. JUMPER TERMINAL FOR 954ACSS CONDUCTOR, 0-DEGREE ANGLE |
| 42  | DEACB 016 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSS, OVAL EYE         |

### B3B45C\*954S

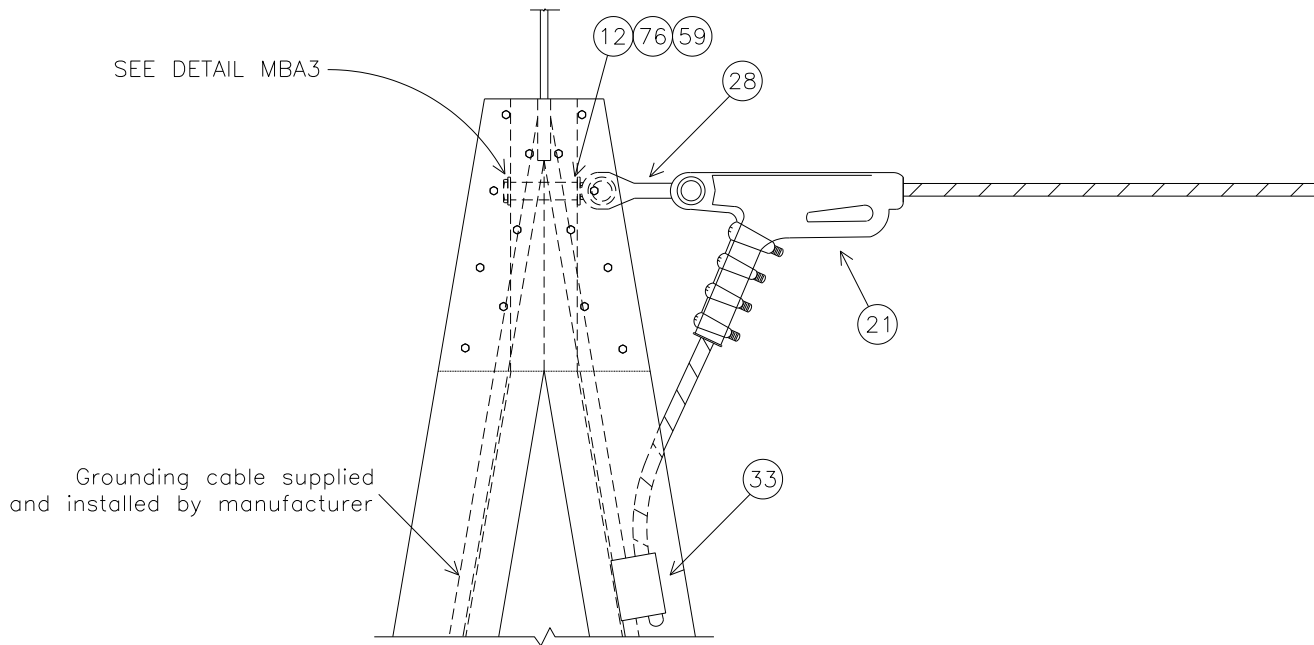
| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 1   | ADCVF 001 | 3   | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY  |
| 30  | CNNAJ 007 | 3   | ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE 1.124" - 1.196" (954-ACSR), 0-DEGREE ANGLE |
| 42  | DEACB 005 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE                                  |

### B3B45C\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 1   | ADCVF 001 | 3   | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY  |
| 30  | CNNAJ 008 | 3   | ALUM. JUMPER TERM. FOR CONDUCTOR RANGE 1.475" - 1.560" (1590-ACSR), 0-DEGREE ANGLE |
| 42  | DEACB 007 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE                               |

## SASI

### SHIELD FOR A-FRAME/LATTICE STRUCTURES SINGLE IN-LINE



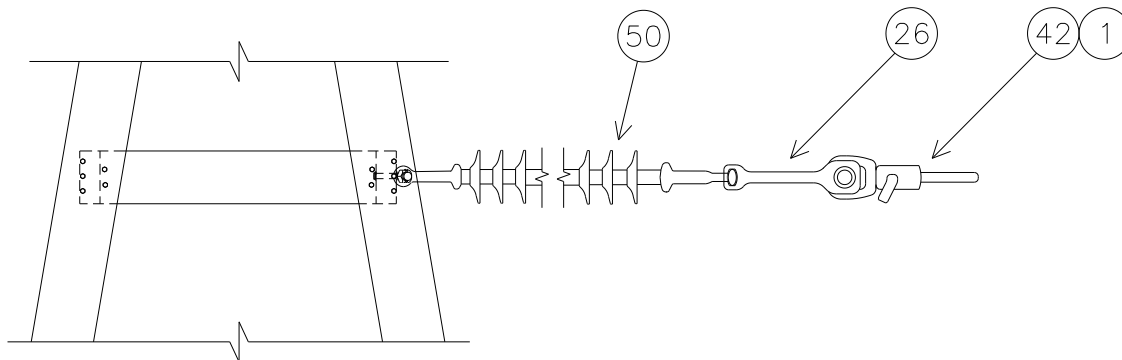
| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 12  | BOLMS 016 | 2   | MACHINE BOLT, 5/8" X 3", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                   |
| 21  | CLAQD 008 | 2   | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW |
| 28  | CLETE 001 | 2   | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G.                 |
| 33  | CNNPA 590 | 2   | TWO BOLT PARALLEL CONNECTOR  |
| 59  | NUTEY 002 | 2   | EYE NUT FOR 5/8" BOLT, 1 1/2" OPENING, H.D.G.  |
| 76  | WASRD 004 | 4   | ROUND WASHER FOR 5/8" BOLT, 1 3/4" DIAMETER, GALVANIZED                                      |

# IASDFB3

INSULATOR FOR SUBSTATION A-FRAME/LATTICE STRUCTURES

SINGLE DEAD-END, FULL TENSION FOR SUBSTATION STRUCTURES, 138KV, 3-PHASE

CONDUCTOR OPTIONS: 954H, 954S, 1590



## IASDFB3 BASE

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 1   | ADCVF 001 | 3   | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY                                 |
| 26  | CLEHL 005 | 3   | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN=7/8", H.D.G..                |
| 50  | INSDE 003 | 3   | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89", CLASS 52-8/11 |

## IASDFB3\*954H

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 42  | DEACB 016 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE |

## IASDFB3\*954S

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 42  | DEACB 005 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE |

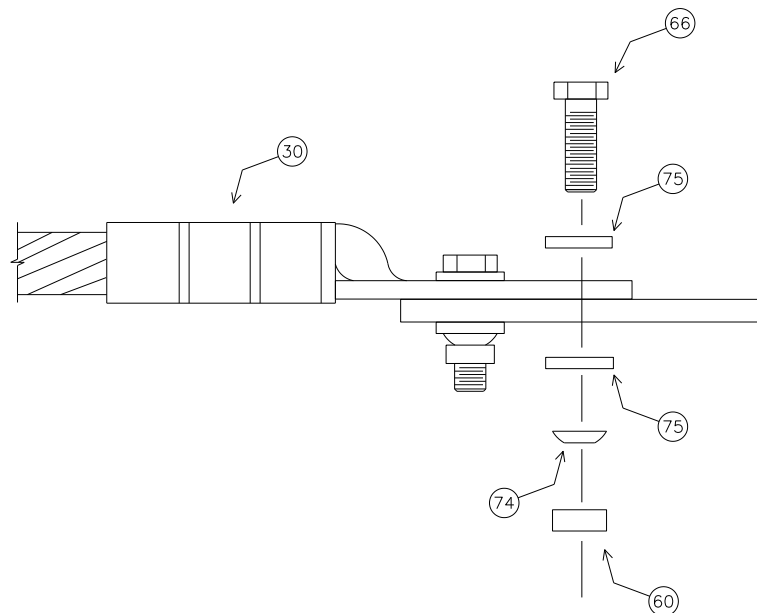
## IASDFB3\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 42  | DEACB 007 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE |

# MCA

## CONDUCTOR ATTACHMENT FOR SUBSTATION STRUCTURES

CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



### MCA BASE

| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 60  | NUTBC 500 | 12  | SILICONE BRONZE NUT FOR 1/2" BOLT - ITEM LOCATED IN MAXIMO |
| 66  | SCWHI 519 | 12  | STAINLESS STEEL BOLT, 2 1/2" X 1/2"                        |
| 74  | WASBA 500 | 12  | BELLEVILLE SPRING WASHER FOR 1/2"BOLT, 301 SS              |
| 75  | WASFG 500 | 24  | FLAT ROUND WASHER FOR 1/2" BOLT, 316 SS                    |

### MCA\*556S

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 30  | CNNAJ 002 | 3   | ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE .889" - .964" (556-ACSR), 15-DEGREE ANGLE |

### MCA\*954A

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 30  | CNNAJ 006 | 3   | ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE 1.092" - 1.172" (954 AAC), 0-DEGREE ANGLE |

### MCA\*954H

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 30  | CNNAJ 010 | 3   | ALUM. JUMPER TERMINAL FOR 954ACSS CONDUCTOR, 0-DEGREE ANGLE |

### MCA\*954S

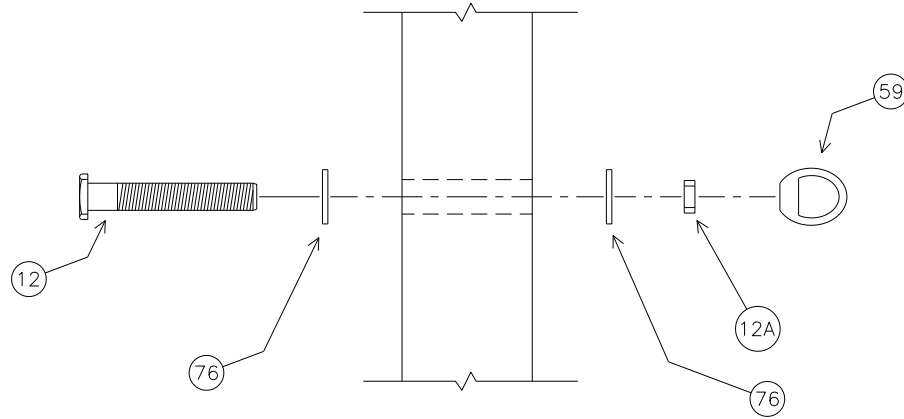
| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 30  | CNNAJ 007 | 3   | ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE 1.124" - 1.196" (954-ACSR), 0-DEGREE ANGLE |

### MCA\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 30  | CNNAJ 008 | 3   | ALUM. JUMPER TERM. FOR CONDUCTOR RANGE 1.475" - 1.560" (1590-ACSR), 0-DEGREE ANGLE, 4-HOLE PAD COMPRESSION CONNECTION |

## MBA3

### TYPICAL BOLT ASSEMBLY FOR SUBSTATION STRUCTURES

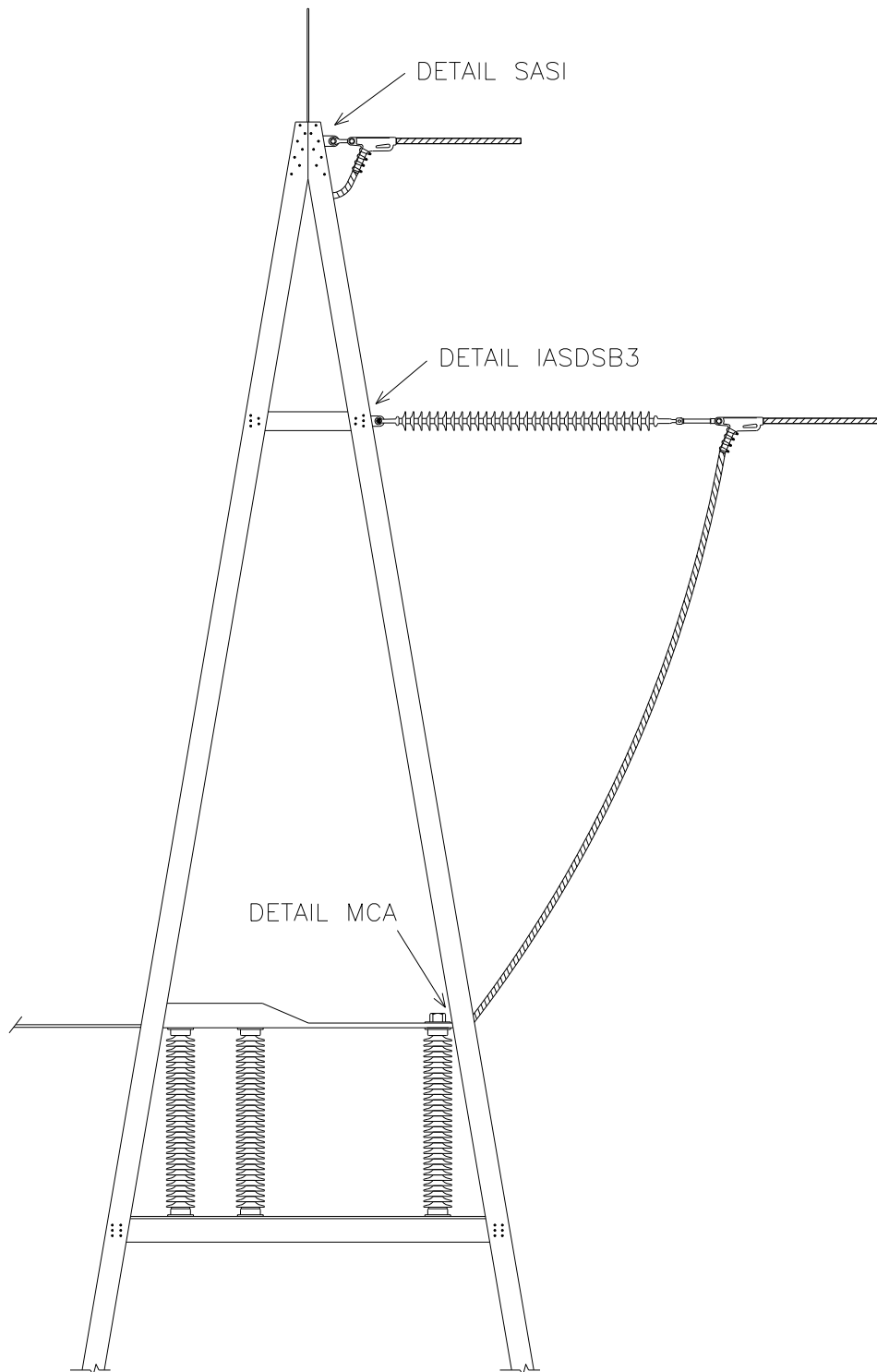


#### MBA3 PLATE

| NO.    | ITEM ID   | QTY | DESCRIPTION   |
|--------|-----------|-----|---|
| 12,12A | BOLMS 016 | 5   | MACHINE BOLT, 5/8" X 3", SQUARE HEAD, GALVANIZED, W/SQUARE NUT ATTACHED |
| 59     | NUTEY 002 | 5   | EYE NUT FOR 5/8" BOLT, 1 1/2" OPENING, HOT DIPPED GALVANIZED            |
| 76     | WASRD 004 | 10  | ROUND WASHER FOR 5/8" BOLT, 1 3/4" DIAMETER, GALVANIZED                 |

## B3B45Q

138KV, SINGLE DEADEND, SLACK TENSION, SUBSTATION A-FRAME, 3-PHASE  
CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590





# B3B45Q PLATES

## B3B45Q BASE

| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 12  | BOLMS 016 | 5   | MACHINE BOLT, 5/8" X 3", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                   |
| 21  | CLAQD 008 | 2   | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW |
| 26  | CLEHL 008 | 3   | SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4 THICK W/ 13/16 OPENING, H. D. G.        |
| 28  | CLETE 001 | 2   | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G.                 |
| 33  | CNNPA 590 | 2   | TWO BOLT PARALLEL CONNECTOR  |
| 50  | INSDE 003 | 3   | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89 INCHES, CLASS 52-8/11              |
| 59  | NUTEY 002 | 5   | EYE NUT FOR 5/8" BOLT, 1 1/2" OPENING, HOT DIPPED GALVANIZED                                 |
| 60  | NUTBC 500 | 12  | SILICONE BRONZE NUT FOR 1/2" BOLT - ITEM LOCATED IN MAXIMO                                   |
| 66  | SCWHI 519 | 12  | STAINLESS STEEL BOLT, 2 1/2" X 1/2"  |
| 74  | WASBA 500 | 12  | BELLEVILLE SPRING WASHER FOR 1/2" BOLT, 301 SS   |
| 75  | WASFG 500 | 24  | FLAT ROUND WASHER FOR 1/2" BOLT, 316 SS  |
| 76  | WASRD 004 | 10  | ROUND WASHER FOR 5/8" BOLT, 1 3/4" DIAMETER, GALVANIZED                                      |

## B3B45Q\*556S

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 21  | CLAQD 005 | 3   | DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"              |
| 30  | CNNAJ 002 | 3   | ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE .889" - .964" (556-ACSR), 15-DEGREE ANGLE |

## B3B45Q\*954A

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 21  | CLAQD 005 | 3   | DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"              |
| 30  | CNNAJ 006 | 3   | ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE 1.092" - 1.172" (954 AAC), 0-DEGREE ANGLE |

## B3B45Q\*954S

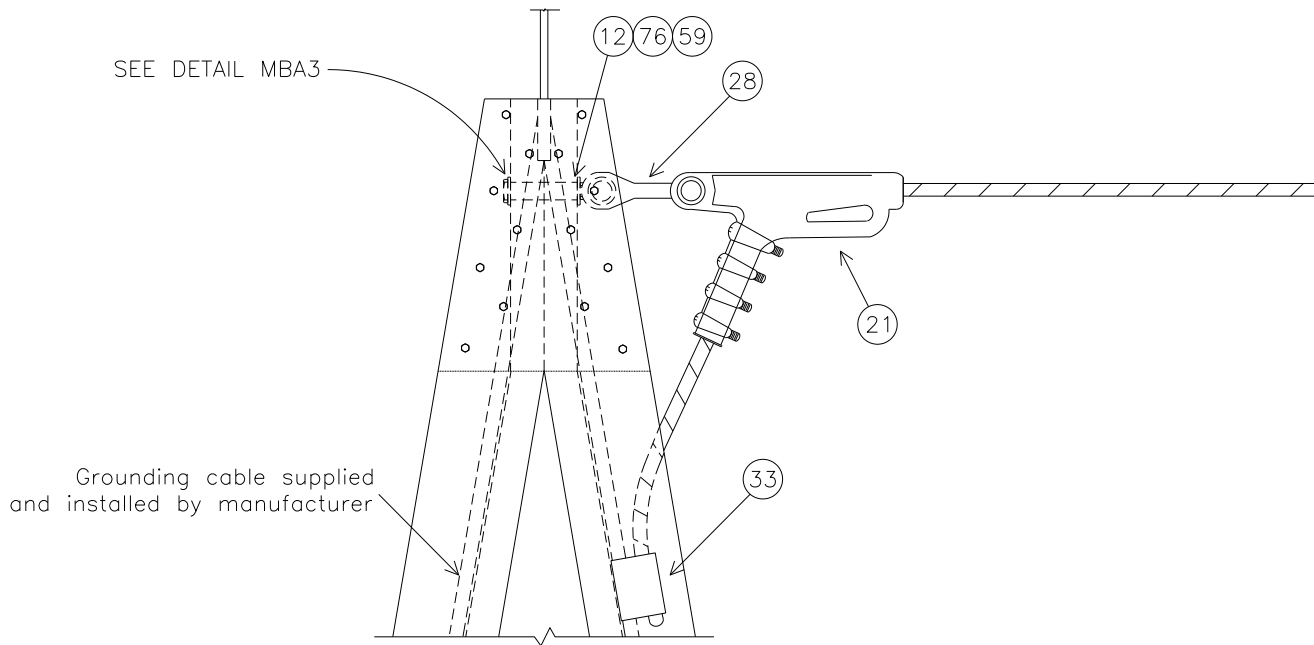
| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 21  | CLAQD 005 | 3   | DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"               |
| 30  | CNNAJ 007 | 3   | ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE 1.124" - 1.196" (954-ACSR), 0-DEGREE ANGLE |

## B3B45Q\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 21  | CLAQD 006 | 3   | DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4"                |
| 30  | CNNAJ 008 | 3   | ALUM. JUMPER TERM. FOR CONDUCTOR RANGE 1.475" - 1.560" (1590-ACSR), 0-DEGREE ANGLE |

## SASI

### SHIELD FOR A-FRAME/LATTICE STRUCTURES SINGLE IN-LINE



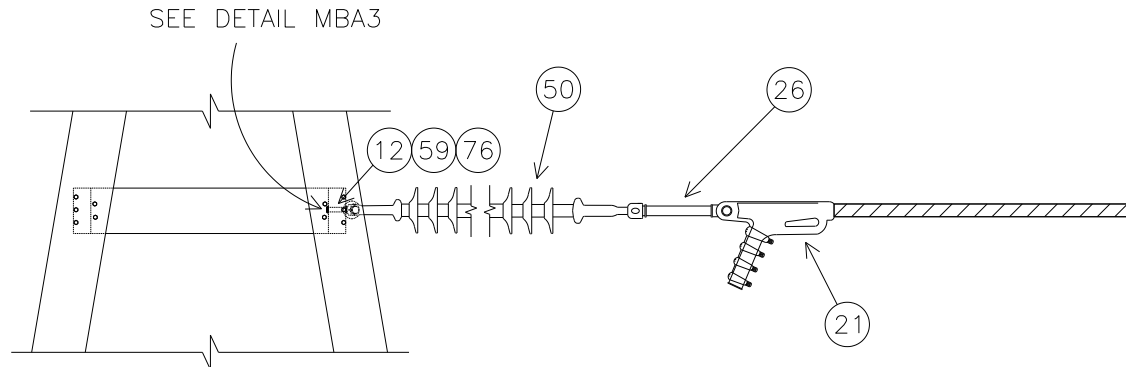
| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 12  | BOLMS 016 | 2   | MACHINE BOLT, 5/8" X 3", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                   |
| 21  | CLAQD 008 | 2   | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW |
| 28  | CLETE 001 | 2   | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G.                 |
| 33  | CNNPA 590 | 2   | TWO BOLT PARALLEL CONNECTOR  |
| 59  | NUTEY 002 | 2   | EYE NUT FOR 5/8" BOLT, 1 1/2" OPENING, H.D.G.  |
| 76  | WASRD 004 | 4   | ROUND WASHER FOR 5/8" BOLT, 1 3/4" DIAMETER, GALVANIZED                                      |

## IASDSB3

INSULATOR FOR SUBSTATION A-FRAME/LATTICE STRUCTURES

SINGLE DEAD-END, SLACK TENSION FOR SUBSTATION STRUCTURES, 138KV, 3-PHASE

CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



### IASDSB3 BASE

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 12  | BOLMS 016 | 3   | MACHINE BOLT, 5/8" X 3", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                |
| 26  | CLEHL 008 | 3   | SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4" THICK WITH 13/16" OPENING, H. D. G. |
| 50  | INSDE 003 | 3   | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89", CLASS 52-8/11                 |
| 59  | NUTEY 002 | 3   | EYE NUT FOR 5/8" BOLT, 1 1/2" OPENING, H.D.G.   |
| 76  | WASRD 004 | 6   | ROUND WASHER FOR 5/8" BOLT, 1 3/4" DIAMETER, GALVANIZED                                   |

### IASDSB3\*556S, 954A, 954S

| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 21  | CLAQD 005 | 3   | DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4" |

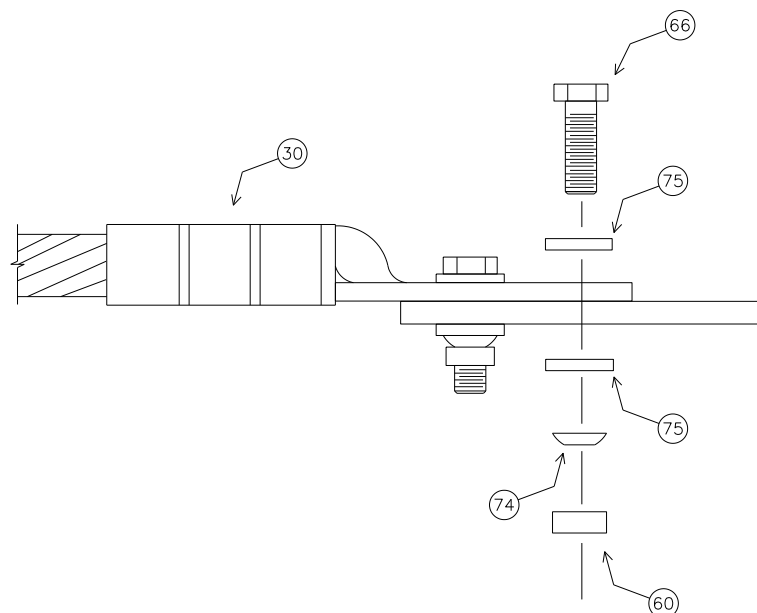
### IASDSB3\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 21  | CLAQD 006 | 3   | DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4" |

# MCA

## CONDUCTOR ATTACHMENT FOR SUBSTATION STRUCTURES

CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



### MCA BASE

| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 60  | NUTBC 500 | 12  | SILICONE BRONZE NUT FOR 1/2" BOLT - ITEM LOCATED IN MAXIMO |
| 66  | SCWHI 519 | 12  | STAINLESS STEEL BOLT, 2 1/2" X 1/2"                        |
| 74  | WASBA 500 | 12  | BELLEVILLE SPRING WASHER FOR 1/2" BOLT, 301 SS             |
| 75  | WASFG 500 | 24  | FLAT ROUND WASHER FOR 1/2" BOLT, 316 SS                    |

### MCA\*556S

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 30  | CNNAJ 002 | 3   | ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE .889" - .964" (556-ACSR), 15-DEGREE ANGLE |

### MCA\*954A

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 30  | CNNAJ 006 | 3   | ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE 1.092" - 1.172" (954 AAC), 0-DEGREE ANGLE |

### MCA\*954S

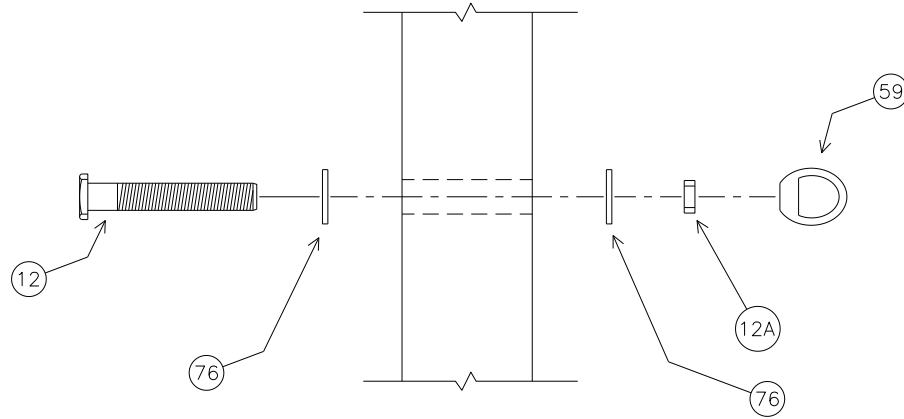
| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 30  | CNNAJ 007 | 3   | ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE 1.124" - 1.196" (954-ACSR), 0-DEGREE ANGLE |

### MCA\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 30  | CNNAJ 008 | 3   | ALUM. JUMPER TERM. FOR CONDUCTOR RANGE 1.475" - 1.560" (1590-ACSR), 0-DEGREE ANGLE, 4-HOLE PAD COMPRESSION CONNECTION |

## MBA3

### TYPICAL BOLT ASSEMBLY FOR SUBSTATION STRUCTURES

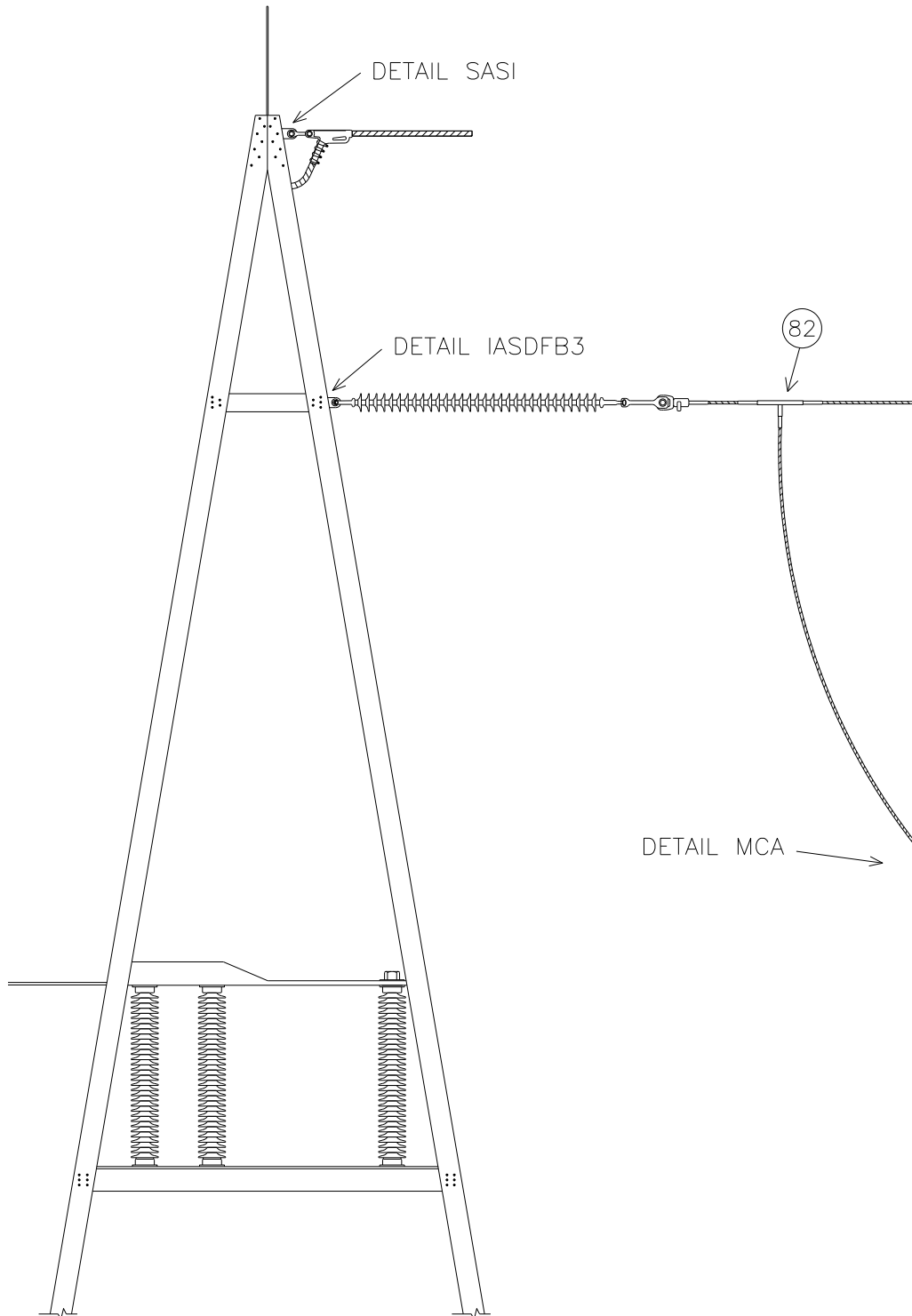


#### MBA3 PLATE

| NO.    | ITEM ID   | QTY | DESCRIPTION   |
|--------|-----------|-----|---|
| 12,12A | BOLMS 016 | 5   | MACHINE BOLT, 5/8" X 3", SQUARE HEAD, GALVANIZED, W/SQUARE NUT ATTACHED |
| 59     | NUTEY 002 | 5   | EYE NUT FOR 5/8" BOLT, 1 1/2" OPENING, HOT DIPPED GALVANIZED            |
| 76     | WASRD 004 | 10  | ROUND WASHER FOR 5/8" BOLT, 1 3/4" DIAMETER, GALVANIZED                 |

## B3B48C

138KV, FULL TENSION DEADEND WITH TEE FOR SUBSTATION A-FRAME STRUCTURES, 3-PHASE  
CONDUCTOR OPTIONS: 954S, 1590



# B3B48C PLATES

**B3B48C BASE**

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 1   | ADCVF 001 | 3   | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY   |
| 12  | BOLMS 016 | 2   | MACHINE BOLT, 5/8" X 3", SQUARE HEAD, GALVANIZED, W/SQUARE NUT ATTACHED                     |
| 21  | CLAQD 008 | 2   | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8"CLAMP, DUCT. IRON, 3#6 AW |
| 26  | CLEHL 005 | 3   | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN=7/8", HOT DIPPED GALV..                        |
| 28  | CLETE 001 | 2   | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G.                |
| 33  | CNNPA 590 | 2   | TWO BOLT PARALLEL CONNECTOR   |
| 50  | INSDE 003 | 3   | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89 INCHES, CLASS 52-8/11             |
| 59  | NUTEY 002 | 2   | EYE NUT FOR 5/8" BOLT, 1 1/2" OPENING, HOT DIPPED GALVANIZED                                |
| 60  | NUTBC 500 | 12  | SILICONE BRONZE NUT FOR 1/2" BOLT - ITEM LOCATED IN MAXIMO                                  |
| 66  | SCWHI 519 | 12  | STAINLESS STEEL BOLT, 2 1/2" X 1/2"   |
| 74  | WASBA 500 | 12  | BELLEVILLE SPRING WASHER FOR 1/2"BOLT, 301 SS   |
| 75  | WASFG 500 | 24  | FLAT ROUND WASHER FOR 1/2" BOLT, 316 SS   |
| 76  | WASRD 004 | 4   | ROUND WASHER FOR 5/8" BOLT, 1 3/4" DIAMETER, GALVANIZED                                     |

**B3B48C\*954S**

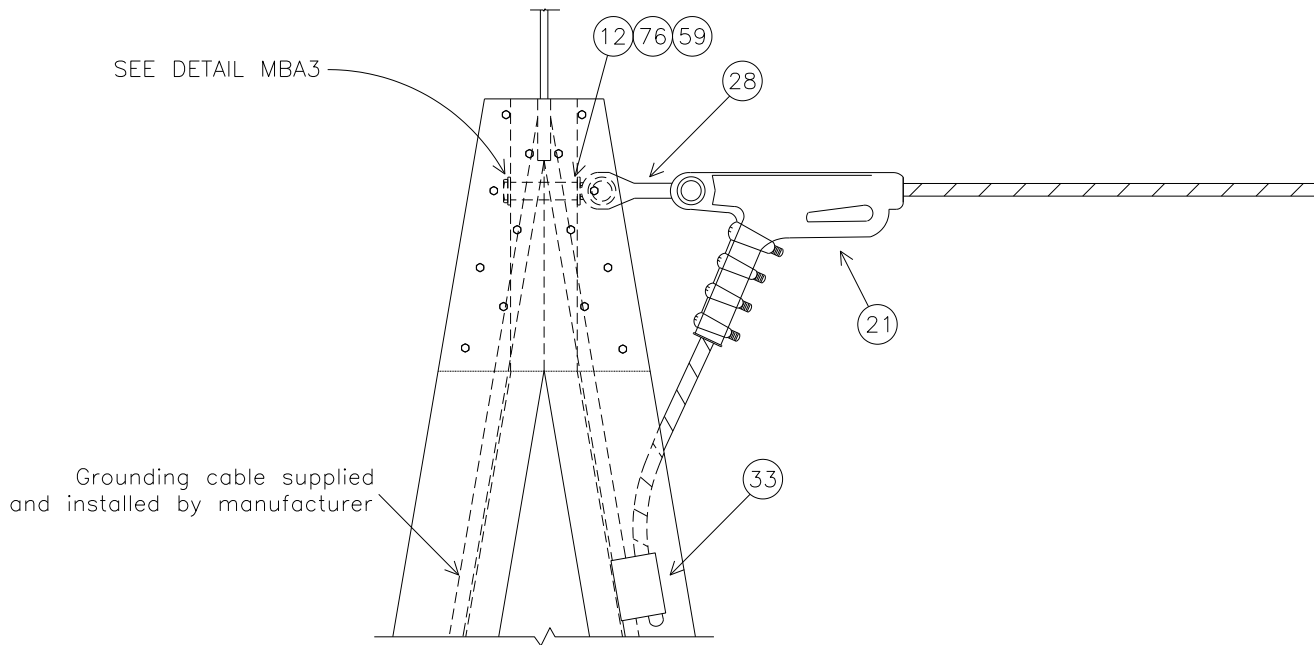
| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 30  | CNNAJ 007 | 3   | ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE 1.124" - 1.196" (954-ACSR), 0-DEGREE ANGLE |
| 42  | DEACB 005 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE                                  |
| 82  | TEECO 001 | 3   | COMPRESSION TEE FOR 954S CONDUCTOR   |

**B3B48C\*1590**

| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 30  | CNNAJ 008 | 3   | ALUM. JUMPER TERM. FOR CONDUCTOR RANGE 1.475" - 1.560" (1590-ACSR), 0-DEGREE ANGLE |
| 42  | DEACB 007 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE                               |
| 82  | TEECO 002 | 3   | COMPRESSION TEE FOR 1590 CONDUCTOR   |

## SASI

### SHIELD FOR A-FRAME/LATTICE STRUCTURES SINGLE IN-LINE



| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 12  | BOLMS 016 | 2   | MACHINE BOLT, 5/8" X 3", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                   |
| 21  | CLAQD 008 | 2   | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW |
| 28  | CLETE 001 | 2   | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G.                 |
| 33  | CNNPA 590 | 2   | TWO BOLT PARALLEL CONNECTOR  |
| 59  | NUTEY 002 | 2   | EYE NUT FOR 5/8" BOLT, 1 1/2" OPENING, H.D.G.  |
| 76  | WASRD 004 | 4   | ROUND WASHER FOR 5/8" BOLT, 1 3/4" DIAMETER, GALVANIZED                                      |

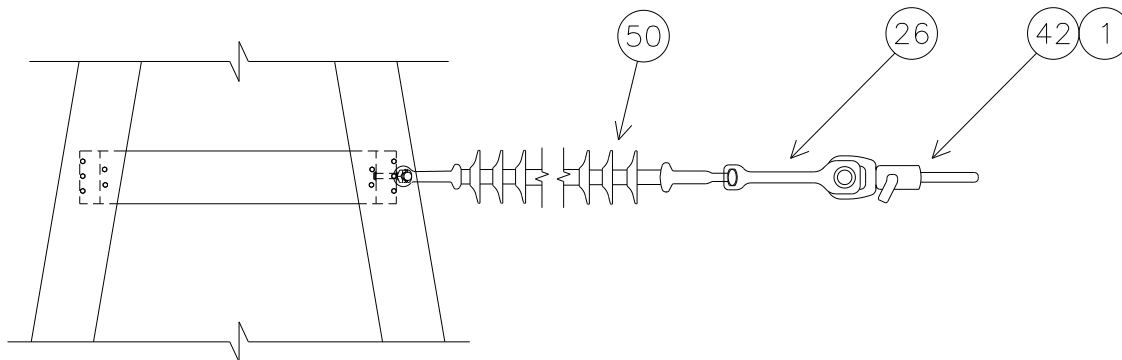


# IASDFB3

INSULATOR FOR SUBSTATION A-FRAME/LATTICE STRUCTURES

SINGLE DEAD-END, FULL TENSION FOR SUBSTATION STRUCTURES, 138KV, 3-PHASE

CONDUCTOR OPTIONS: 954S, 1590



## IASDFB3 BASE

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 1   | ADCVF 001 | 3   | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY                                 |
| 26  | CLEHL 005 | 3   | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN=7/8", H.D.G..                |
| 50  | INSDE 003 | 3   | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89", CLASS 52-8/11 |

## IASDFB3\*954S

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 42  | DEACB 005 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE |

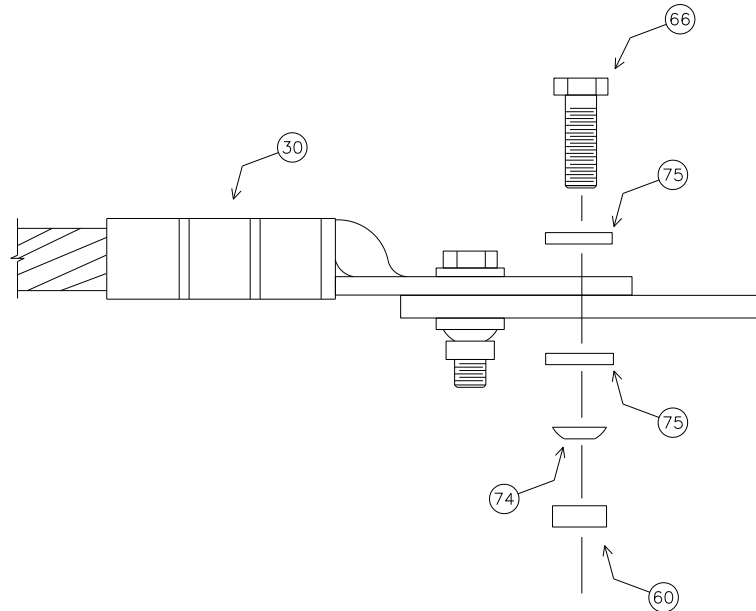
## IASDFB3\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 42  | DEACB 007 | 3   | DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE |

# MCA

## CONDUCTOR ATTACHMENT FOR SUBSTATION STRUCTURES

CONDUCTOR OPTIONS: 556S, 954A, 954S, 1590



### MCA BASE

| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 60  | NUTBC 500 | 12  | SILICONE BRONZE NUT FOR 1/2" BOLT - ITEM LOCATED IN MAXIMO |
| 66  | SCWHI 519 | 12  | STAINLESS STEEL BOLT, 2 1/2" X 1/2"                        |
| 74  | WASBA 500 | 12  | BELLEVILLE SPRING WASHER FOR 1/2" BOLT, 301 SS             |
| 75  | WASFG 500 | 24  | FLAT ROUND WASHER FOR 1/2" BOLT, 316 SS                    |

### MCA\*556S

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 30  | CNNAJ 002 | 3   | ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE .889" - .964" (556-ACSR), 15-DEGREE ANGLE |

### MCA\*954A

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 30  | CNNAJ 006 | 3   | ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE 1.092" - 1.172" (954 AAC), 0-DEGREE ANGLE |

### MCA\*954S

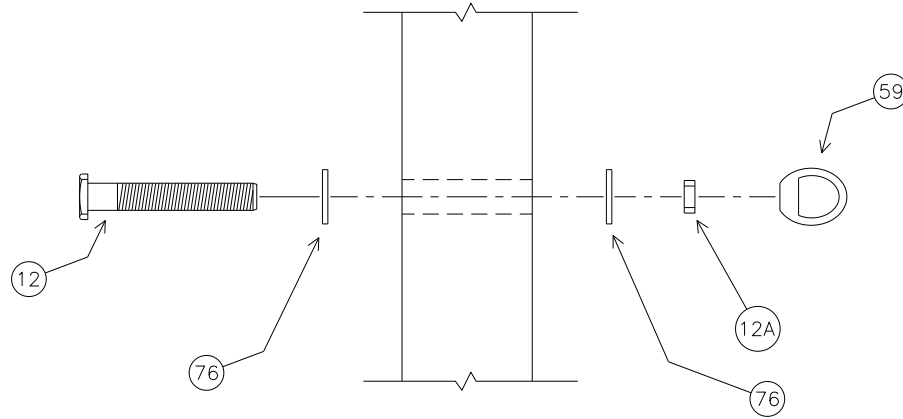
| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 30  | CNNAJ 007 | 3   | ALUM. JUMPER TERMINAL FOR CONDUCTOR RANGE 1.124" - 1.196" (954-ACSR), 0-DEGREE ANGLE |

### MCA\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 30  | CNNAJ 008 | 3   | ALUM. JUMPER TERM. FOR CONDUCTOR RANGE 1.475" - 1.560" (1590-ACSR), 0-DEGREE ANGLE, 4-HOLE PAD COMPRESSION CONNECTION |

## MBA3

### TYPICAL BOLT ASSEMBLY FOR SUBSTATION STRUCTURES

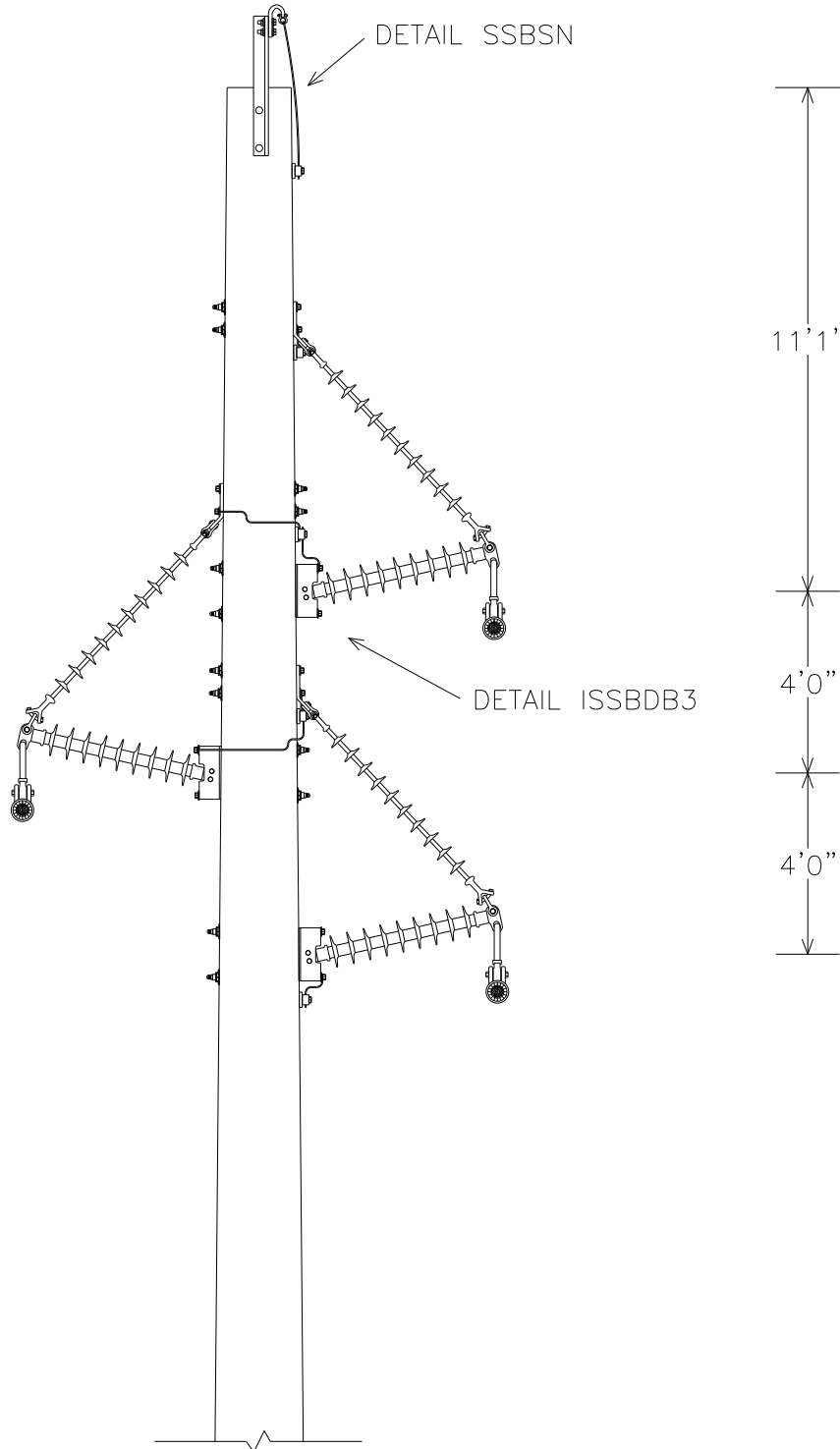


#### MBA3 PLATE

| NO.    | ITEM ID   | QTY | DESCRIPTION   |
|--------|-----------|-----|---|
| 12,12A | BOLMS 016 | 5   | MACHINE BOLT, 5/8" X 3", SQUARE HEAD, GALVANIZED, W/SQUARE NUT ATTACHED |
| 59     | NUTEY 002 | 5   | EYE NUT FOR 5/8" BOLT, 1 1/2" OPENING, HOT DIPPED GALVANIZED            |
| 76     | WASRD 004 | 10  | ROUND WASHER FOR 5/8" BOLT, 1 3/4" DIAMETER, GALVANIZED                 |

## B6261

138KV, SINGLE BRACED LINE POST, DELTA CONFIGURATION, 3-PHASE  
CONDUCTOR OPTIONS: 954A, 954S, 1590



## B6261 PLATES

### B6261 BASE

| NO. | ITEM ID   | QTY   | DESCRIPTION  |
|-----|-----------|-------|--|
| 9   | BAYSW 004 | 1     | BAYONET FOR SHIELD WIRE, STRAIGHT 40"  |
| 10  | BKTL001   | 3     | BRACKET, 46-DEGREE ANGLE, 6" HOLE SPACING, 1 1/16" HOLE DIAMETER, 5/8" THICK                 |
| 12  | BOLMS 001 | 0     | MACHINE BOLT, 1/2" X 2 1/2", PROVIDED WITH SUPSH001  |
| 12  | BOLMS 039 | 2     | MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 052 | 3     | MACHINE BOLT, 7/8" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 053 | 3     | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 055 | 2     | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 073 | 4     | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 22  | CLASU 001 | 1     | ALUMINUM SUSPENSION CLAMP FOR 3#6AW / 7#10AW, 15000#   |
| 24  | CLATG 001 | 5     | CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.                                    |
| 26  | CLEHL 001 | 3     | BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", HOT DIPPED GALV.        |
| 31  | CNNCP 002 | 1     | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM |
| 36  | COBCO 028 | 16 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 47  | GUALI 001 | 1     | ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"                                    |
| 53  | INSLP 012 | 3     | 138KV SILICONE BRACED LINE POST INSULATOR, 12° RISE, GAIN BASE, L = 52", H = 66", 12" B.H.S. |
| 58  | LUGGR 002 | 6     | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 62  | NUTSL 002 | 0     | SQUARE LOCK NUT FOR 1/2" BOLT, PROVIDED WITH SUPSH001  |
| 62  | NUTSL 004 | 2     | SQUARE LOCK NUT FOR 3/4" BOLT, HOT DIPPED GALVANIZED   |
| 62  | NUTSL 005 | 12    | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                                     |
| 69  | SOCEY 003 | 3     | SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.              |
| 71  | SUPSH 001 | 1     | SUPPORT, SHIELD WIRE, GALVANIZED, WITH TWO 2 1/2 INCH MACHINE BOLTS AND LOCK NUTS            |
| 76  | WASRD 005 | 4     | ROUND WASHER FOR 3/4" BOLT, 1 3/4" DIAMETER, GALVANIZED                                      |
| 76  | WASRD 006 | 24    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                      |
| 77  | WASSC 001 | 2     | SQUARE FLAT WASHER FOR 3/4" BOLT, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"                  |
| 77  | WASSC 002 | 12    | SQUARE FLAT WASHER FOR 7/8" BOLT, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"                  |

### B6261\*954A

| NO. | ITEM ID   | QTY | DESCRIPTION  |
|-----|-----------|-----|--|
| 45  | GRISA 003 | 3   | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82 INCHES, 1 3/16" GAP, 5/8" PIN |

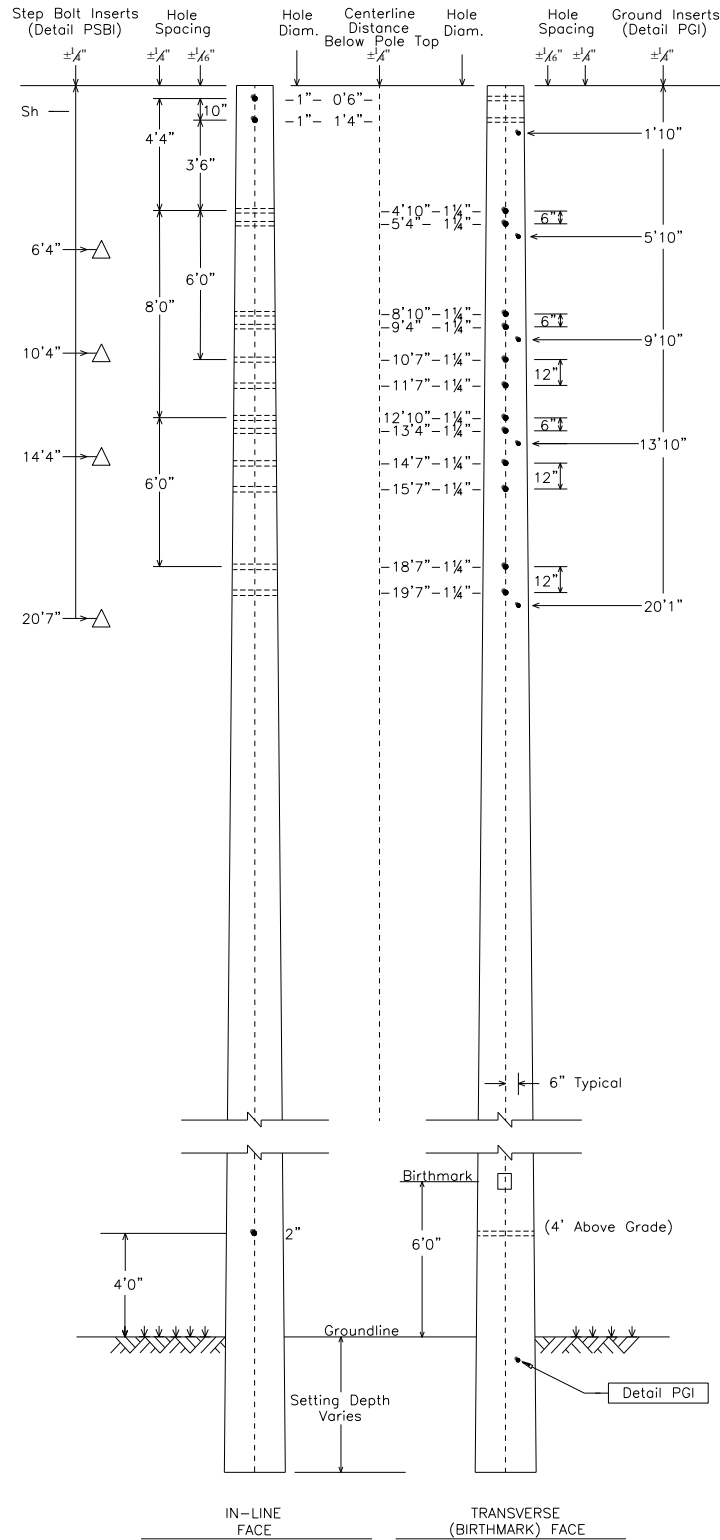
### B6261\*954S

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 45  | GRISA 004 | 3   | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82 INCHES, 1 3/16" GAP, 5/8" PIN |

### B6261\*1590

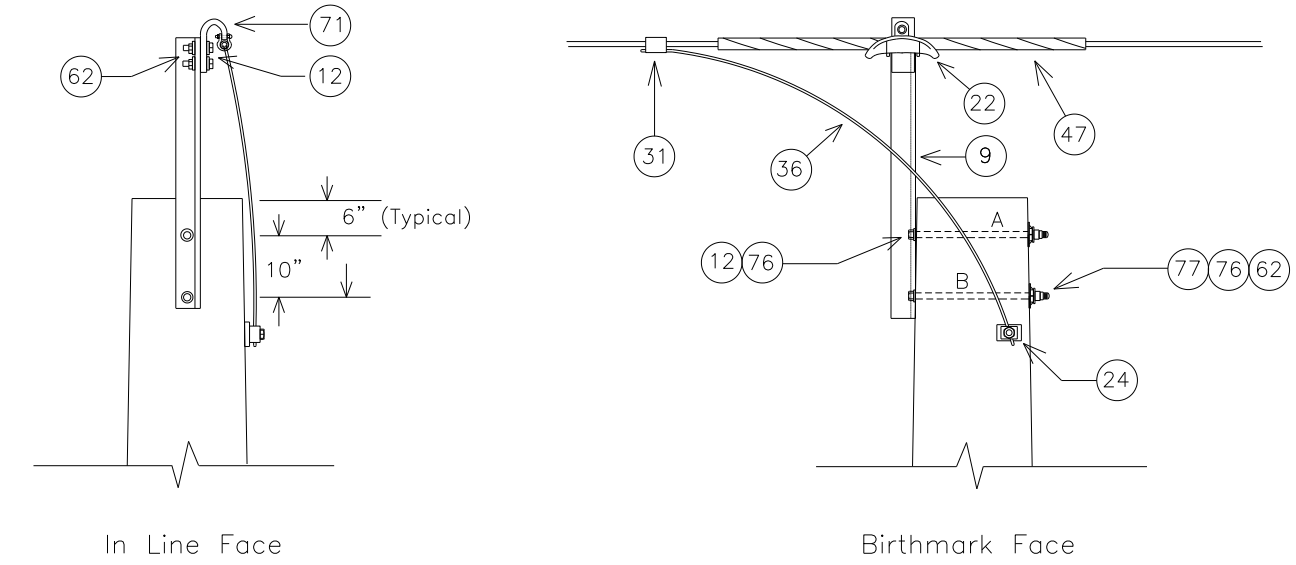
| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 45  | GRISA 005 | 3   | ARMOR GRIP SUSPENSION ASSEMBLY FOR 1590 ACSR, 88 INCHES, 1 3/8" GAP, 3/4" PIN |

## B6261 DRILLING DETAIL



## SSBSN

SHIELD FOR SPUN CONCRETE POLES  
BAYONET WITH SUSPENSION CLAMP, NO GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

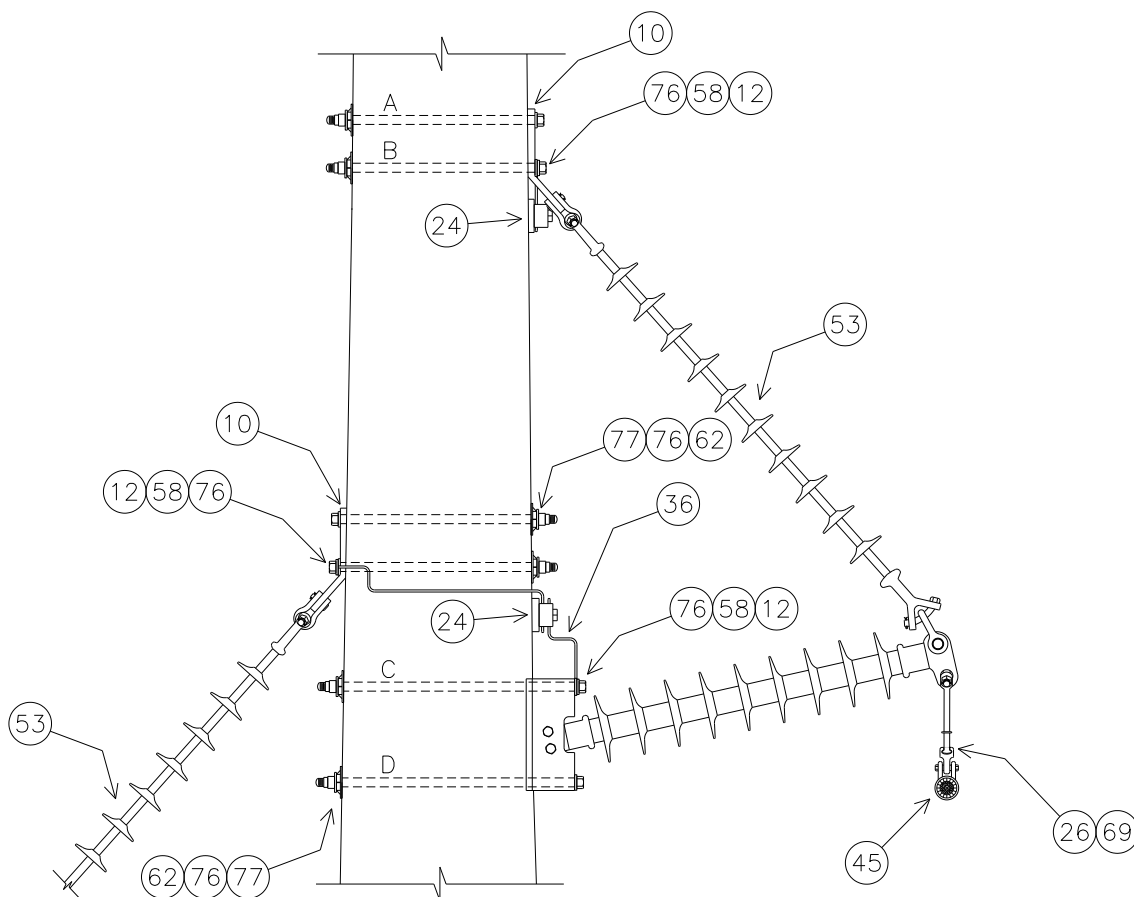
|   |      |
|---|------|
| MINIMUM REQUIRED BOLT LENGTH 'A' (INCHES) | 19.6 |
| MINIMUM REQUIRED BOLT LENGTH 'B' (INCHES) | 19.8 |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 9   | BAYSW 004 | 1    | BAYONET FOR SHIELD WIRE, STRAIGHT 40"  |
| 12  | BOLMS 001 | 0    | MACHINE BOLT, 1/2" X 2 1/2", PROVIDED WITH SUPSH001  |
| 12  | BOLMS 039 | 2    | MACHINE BOLT, 3/4" X 20", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 22  | CLASU 001 | 1    | ALUMINUM SUSPENSION CLAMP FOR 3#6AW / 7#10AW, 15000#   |
| 24  | CLATG 001 | 1    | CLAMP, TRANSFORMER TANK GROUND, "BRONZE" #6 SOL - #1 STR.                                    |
| 31  | CNNCP 002 | 1    | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (#4 CU); (.258 - .420) TO (.162 - .332), ALUMINUM |
| 36  | COBCO 028 | 6 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN (50# COIL)  |
| 47  | GUALI 001 | 1    | ALUMINUM LINE GUARD FOR 3#6AW, 23" LG, RANGE .347" - 366"                                    |
| 62  | NUTSL 002 | 0    | SQUARE LOCK NUT FOR 1/2" BOLT, PROVIDED WITH SUPSH001  |
| 62  | NUTSL 004 | 2    | SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.  |
| 71  | SUPSH 001 | 1    | SUPPORT, SHIELD WIRE, GALVANIZED, WITH TWO 2 1/2" MACHINE BOLTS AND LOCK NUTS                |
| 76  | WASRD 005 | 4    | ROUND WASHER FOR 3/4" BOLT, 1 3/4" DIAMETER, GALVANIZED                                      |
| 77  | WASSC 001 | 2    | SQUARE CURVED WASHER FOR 3/4" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |

## ISSBDB3

**INSULATOR FOR SPUN CONCRETE POLES**  
**SINGLE BRACED LINE POST, DELTA CONFIGURATION, 138KV, 3-PHASE**  
 CONDUCTOR OPTIONS: 954A, 954S, 1590



SEE MBA1 FOR BOLT ASSEMBLY DETAILS

### VERTICLE CONFIGURATION

| STRUCTURE | MINIMUM REQUIRED BOLT LENGTH (INCHES) |      |      |      |
|-----------|---------------------------------------|------|------|------|
|           | 'A'                                   | 'B'  | 'C'  | 'D'  |
| TOP       | 21.0                                  | 21.4 | 27.9 | 27.9 |
| MIDDLE    | 21.9                                  | 22.3 | 28.8 | 28.7 |
| BOTTOM    | 22.8                                  | 23.1 | 29.6 | 29.6 |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER



## ISSBDB3 PLATES

### ISSBDB3 BASE

| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 10  | BKTLP001  | 3    | BRACKET, 46° ANGLE, 6" HOLE SPACING, 1 1/16" HOLE DIAMETER, 5/8" THICK                       |
| 12  | BOLMS 052 | 3    | MACHINE BOLT, 7/8" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 053 | 3    | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 055 | 2    | MACHINE BOLT, 7/8" X 28", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 073 | 4    | MACHINE BOLT, 7/8" X 30", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 24  | CLATG 001 | 3    | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 26  | CLEHL 001 | 3    | BALL-Y CLEVIS, CLASS 52-3/5, STRENGTH = 30,000#, L > 9", PIN = 3/4", H.D.G.                  |
| 36  | COBCO 028 | 9 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 53  | INSLP 012 | 3    | 138KV SILICONE BRACED LINE POST INSULATOR, 12° RISE, GAIN BASE, L = 52", H = 66", 12" B.H.S. |
| 58  | LUGGR 002 | 6    | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATTED COPPER COMPRESSION                             |
| 62  | NUTSL 005 | 12   | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.  |
| 69  | SOCEY 003 | 3    | SOCKET - EYE, STENGTH = 25,000#, L = 2 5/16", EYE = 13/16", FORGED STEEL, GALV.              |
| 76  | WASRD 006 | 24   | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                      |
| 77  | WASSC 002 | 18   | SQUARE CURVED WASHER FOR 7/8" BOLTS, RIBBED MALLEABLE IRON-GALVANIZED, 4" X 4"               |

### ISSBDB3\*954A

|    |           |   |  |
|----|-----------|---|--|
| 45 | GRISA 003 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 AAC, 82", 1 3/16" GAP, 5/8" PIN |
|----|-----------|---|--|

### ISSBDB3\*954S

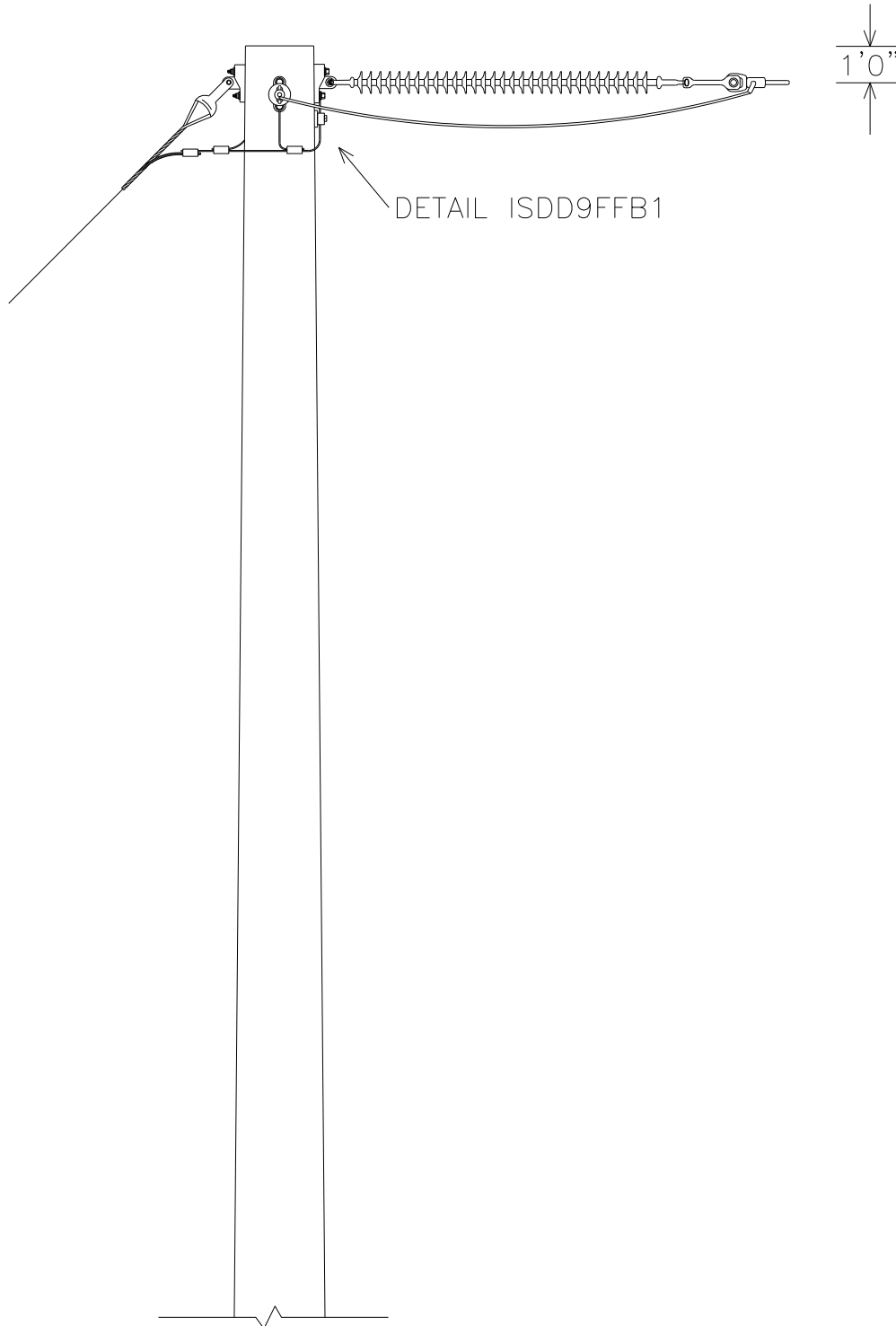
|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 004 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 954 ACSR, 82", 1 3/16" GAP, 5/8" PIN |
|----|-----------|---|---|

### ISSBDB3\*1590

|    |           |   |   |
|----|-----------|---|---|
| 45 | GRISA 005 | 3 | ARMOR GRIP SUSPENSION ASSEMBLY FOR 1590 ACSR, 88", 1 3/8" GAP, 3/4" PIN |
|----|-----------|---|---|

**B7244C**

138KV, DOUBLE DEADEND 90°, FULL TENSION TO FULL TENSION, NO SHIELD, 1-PHASE  
CONDUCTOR OPTIONS: 954S, 1590





## B7244C PLATES

### B7244C BASE

| NO. | ITEM ID   | QTY  | DESCRIPTION   |
|-----|-----------|------|---|
| 1   | ADCVF 001 | 2    | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY                                       |
| 24  | CLATG 001 | 1    | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                         |
| 26  | CLEHL 005 | 2    | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8, HOT DIPPED GALV.            |
| 31  | CNNCP 016 | 2    | COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER                       |
| 36  | COBCO 028 | 6 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN                                      |
| 50  | INSDE 003 | 2    | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89 INCHES, CLASS 52-8/11 |
| 72  | TEEDE 003 | 4    | TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#      |

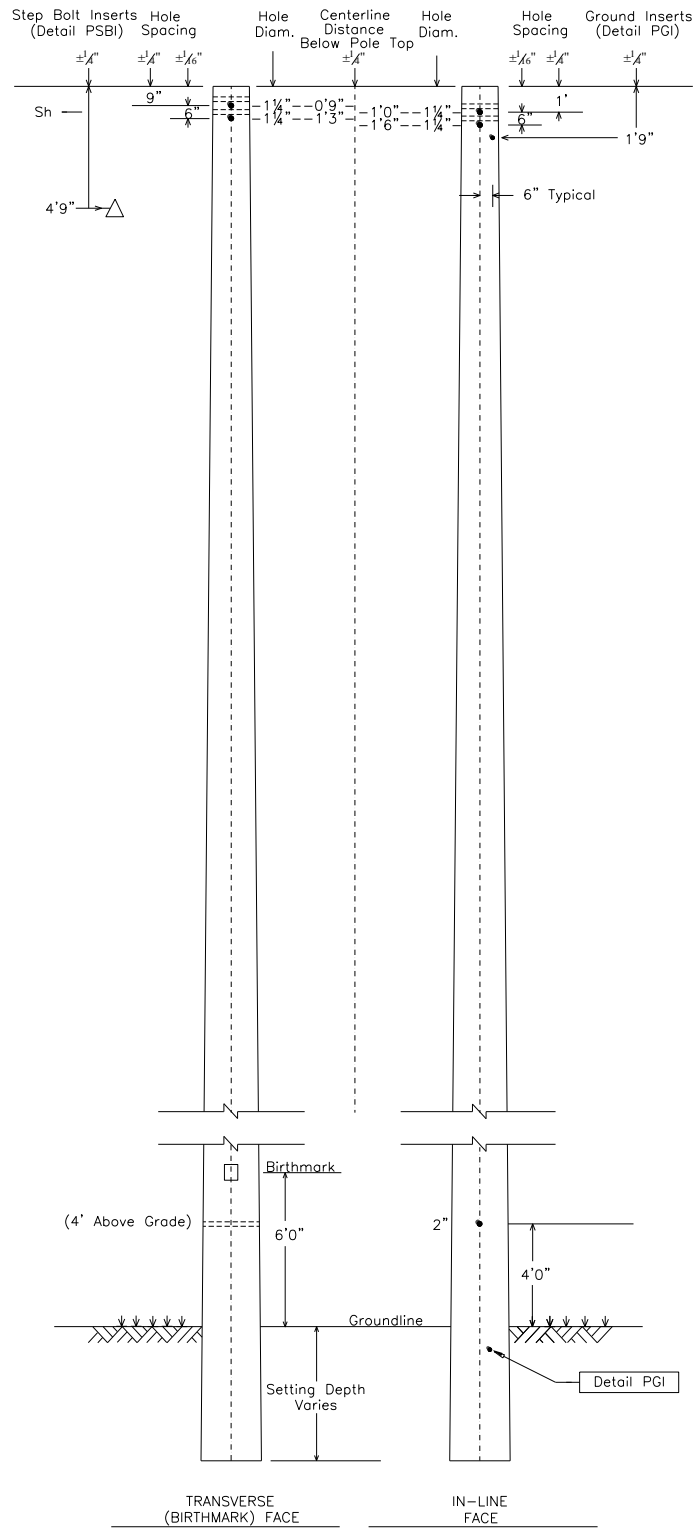
### B7244C\*954S

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 12  | BOLMS 052 | 2   | MACHINE BOLT, 7/8" X 22", SQUARE HEAD, GALVANIZED, W/ SQUARE NUT ATTACHED |
| 12  | BOLMS 053 | 2   | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, W/ SQUARE NUT ATTACHED |
| 42  | DEACB 005 | 2   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE                       |
| 58  | LUGGR 002 | 2   | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION           |
| 62  | NUTSL 005 | 4   | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                  |
| 76  | WASRD 006 | 8   | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                   |

### B7244C\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 12  | BOLMS 062 | 2   | BOLT, MACHINE, GALVANIZED 1 X 22, WITH SQUARE NUT ATTACHED    |
| 12  | BOLMS 063 | 2   | BOLT, MACHINE, GALVANIZED 1 X 24, WITH SQUARE NUT ATTACHED    |
| 42  | DEACB 007 | 2   | DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE          |
| 58  | LUGGR 003 | 2   | LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION |
| 62  | NUTSL 006 | 4   | SQUARE LOCK NUT FOR 1 INCH BOLT, HOT DIPPED GALVANIZED        |
| 76  | WASRD 007 | 8   | ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED         |

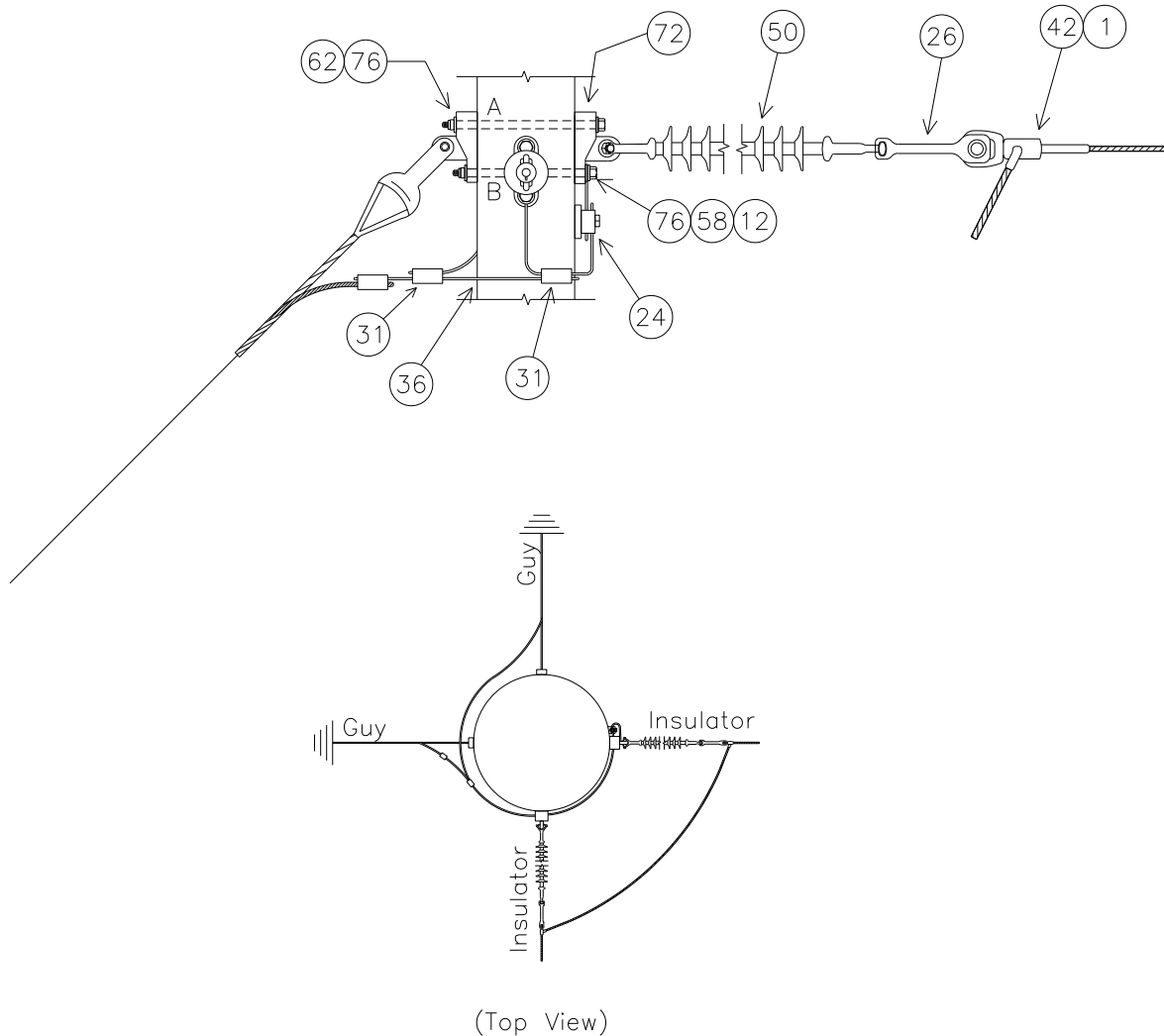
## B7244C DRILLING DETAIL



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## ISDD9FFB1

**INSULATOR FOR SPUN CONCRETE POLES**  
**DOUBLE DEAD-END 90, FULL TENSION TO FULL TENSION, 138KV, 1-PHASE**  
 CONDUCTOR OPTIONS: 954S, 1590



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

| WITHOUT SHIELD                         | 'A'  | 'B'  |
|--|------|------|
| UPPER TEE MINIMUM BOLT LENGTH (INCHES) | 22.9 | 21.2 |
| LOWER TEE MINIMUM BOLT LENGTH (INCHES) | 22.9 | 21.3 |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER.



## ISDD9FFB1 PLATES

### ISDD9FFB1 BASE

| NO. | ITEM ID   | QTY  | DESCRIPTION   |
|-----|-----------|------|---|
| 1   | ADCVF 001 | 2    | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY                                 |
| 24  | CLATG 001 | 1    | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                   |
| 26  | CLEHL 005 | 2    | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8", H.D.G.               |
| 31  | CNNCP 016 | 2    | COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER                 |
| 36  | COBCO 028 | 6 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN                                |
| 50  | INSDE 003 | 2    | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89", CLASS 52-8/11 |
| 72  | TEEDE 003 | 4    | TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#            |

### ISDD9FFB1\*954S

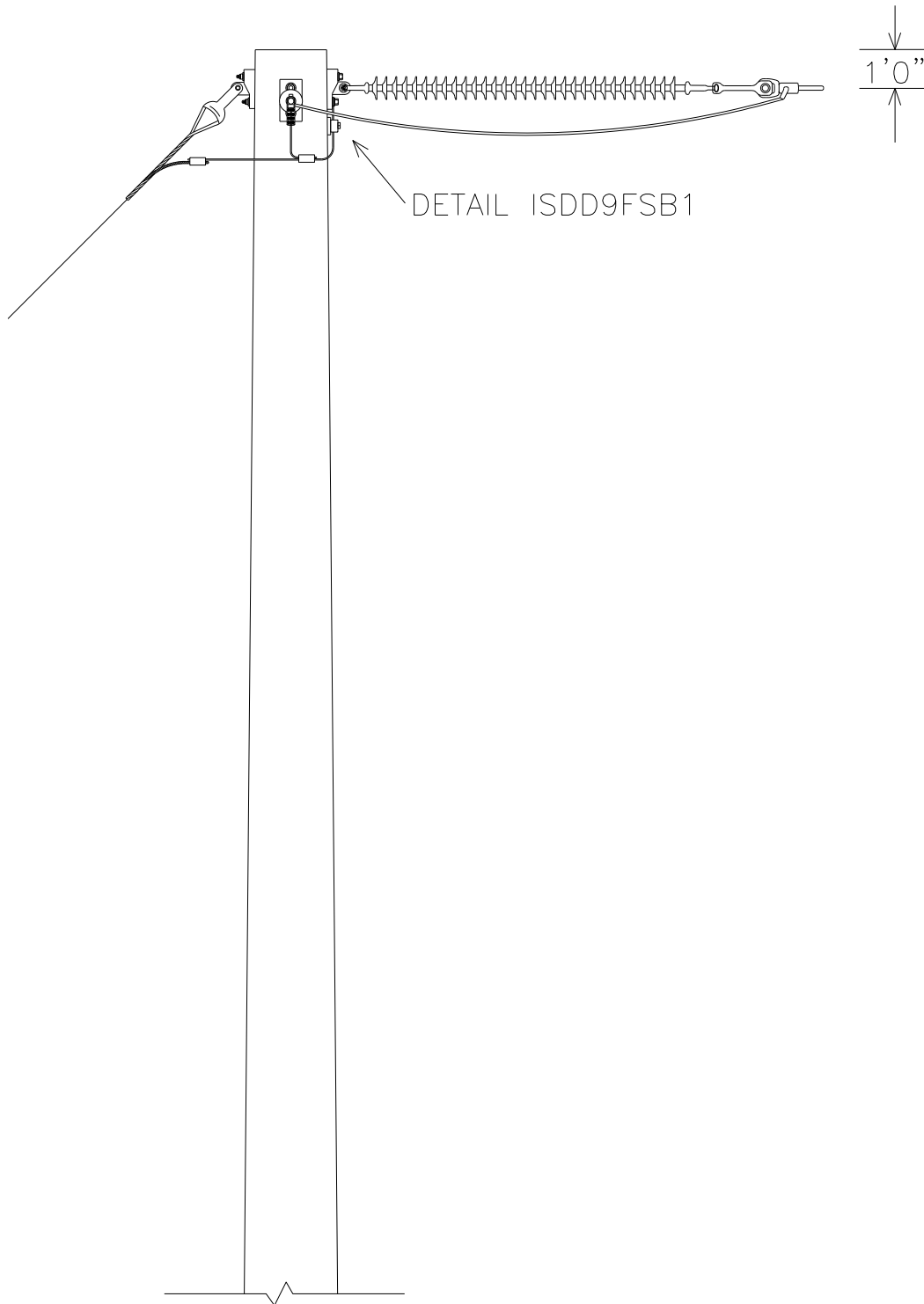
| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 12  | BOLMS 052 | 2   | MACHINE BOLT, 7/8" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 053 | 2   | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 42  | DEACB 005 | 2   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE                         |
| 58  | LUGGR 002 | 2   | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 005 | 4   | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.                                       |
| 76  | WASRD 006 | 8   | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |

### ISDD9FFB1\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 12  | BOLMS 062 | 2   | MACHINE BOLT, 1" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 063 | 2   | MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 42  | DEACB 007 | 2   | DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE                      |
| 58  | LUGGR 003 | 2   | LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 006 | 4   | SQUARE LOCK NUT FOR 1" BOLT, H.D.G.                                       |
| 76  | WASRD 007 | 8   | ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |

# B7246C

138KV, DOUBLE DEADEND 90°, FULL TENSION TO SLACK TENSION, NO SHIELD, 1-PHASE  
CONDUCTOR OPTIONS: 954S, 1590





## B7246C PLATES

### B7246C BASE

| NO. | ITEM ID   | QTY  | DESCRIPTION   |
|-----|-----------|------|---|
| 1   | ADCVF 001 | 1    | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY   |
| 12  | BOLMS 052 | 2    | MACHINE BOLT, 7/8" X 22", SQUARE HEAD, GALVANIZED, W/ SQUARE NUT ATTACHED             |
| 24  | CLATG 001 | 1    | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                               |
| 26  | CLEHL 005 | 1    | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8, HOT DIPPED GALV.                  |
| 26  | CLEHL 008 | 1    | SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4 THICK W/ 13/16 OPENING, H. D. G. |
| 31  | CNNCP 016 | 1    | COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER                             |
| 36  | COBCO 028 | 6 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN  |
| 50  | INSDE 003 | 2    | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89 INCHES, CLASS 52-8/11       |
| 58  | LUGGR 002 | 1    | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                       |
| 62  | NUTSL 005 | 2    | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                              |
| 72  | TEEDE 003 | 3    | TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#            |
| 76  | WASRD 006 | 4    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                               |
| 77  | WASSC 002 | 2    | SQUARE CURVED WASHER FOR 7/8" BOLTS, GALVANIZED, 4" X 4"                              |

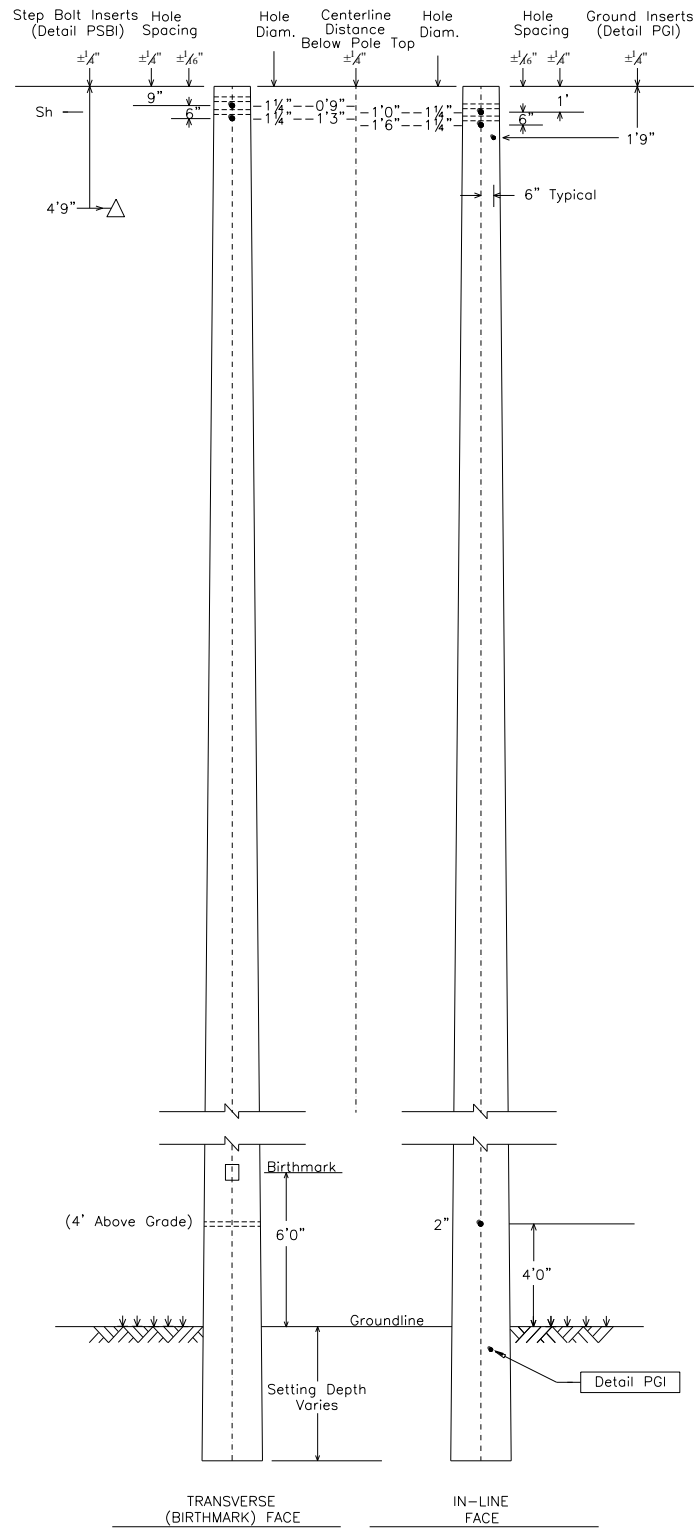
### B7246C\*954S

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 12  | BOLMS 052 | 1   | MACHINE BOLT, 7/8" X 22", SQUARE HEAD, GALVANIZED, W/ SQUARE NUT ATTACHED |
| 12  | BOLMS 053 | 1   | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, W/ SQUARE NUT ATTACHED |
| 21  | CLAQD 005 | 1   | DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"    |
| 42  | DEACB 005 | 1   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE                       |
| 58  | LUGGR 002 | 1   | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION           |
| 62  | NUTSL 005 | 2   | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                  |
| 76  | WASRD 006 | 4   | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                   |

### B7246C\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 12  | BOLMS 062 | 1   | BOLT, MACHINE, GALVANIZED 1 X 22, WITH SQUARE NUT ATTACHED          |
| 12  | BOLMS 063 | 1   | BOLT, MACHINE, GALVANIZED 1 X 24, WITH SQUARE NUT ATTACHED          |
| 21  | CLAQD 006 | 1   | DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4" |
| 42  | DEACB 007 | 1   | DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE                |
| 58  | LUGGR 003 | 1   | LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION       |
| 62  | NUTSL 006 | 2   | SQUARE LOCK NUT FOR 1 INCH BOLT, HOT DIPPED GALVANIZED              |
| 76  | WASRD 007 | 4   | ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED               |

## B7246C DRILLING DETAIL



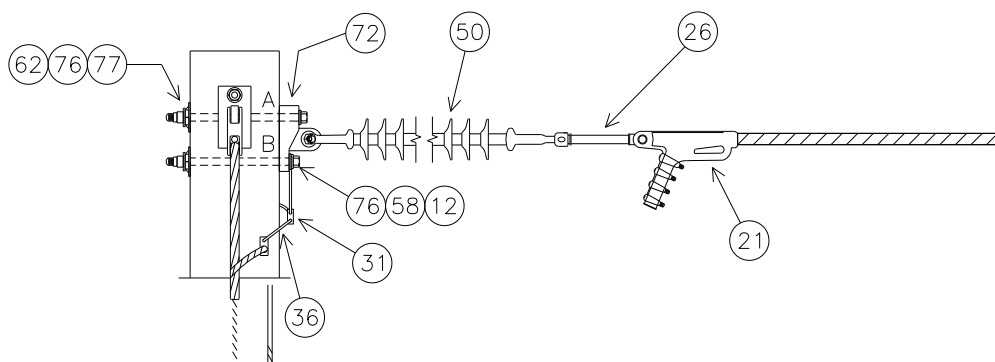
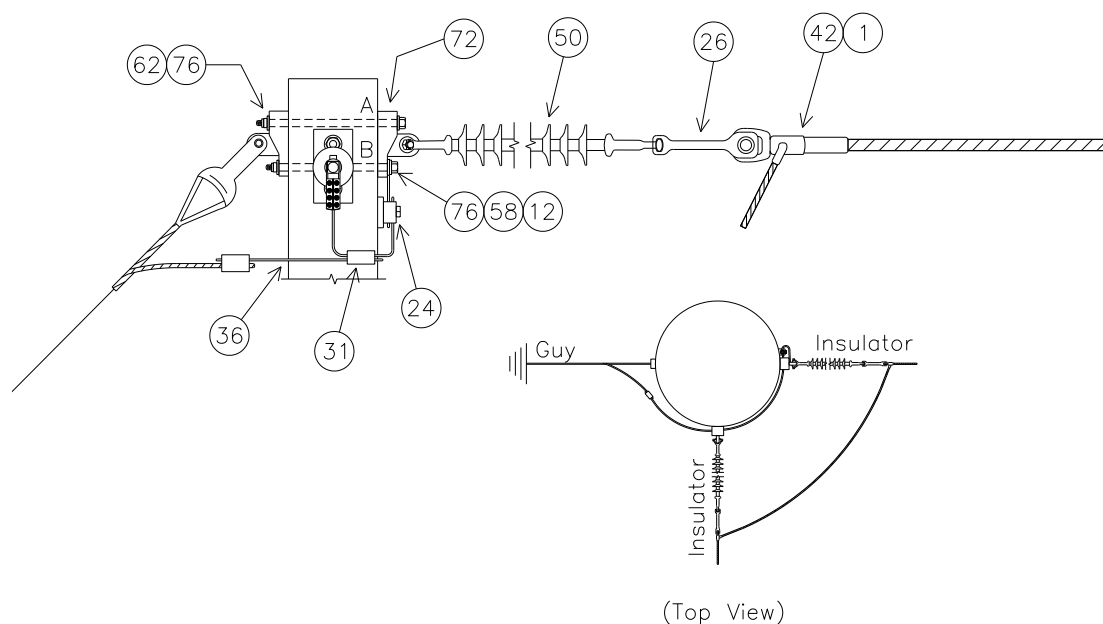
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# ISDD9FSB1

## INSULATOR FOR SPUN CONCRETE POLES

**DOUBLE DEAD-END 90°, FULL TENSION TO SLACK TENSION, 138KV, 1-PHASE**

**CONDUCTOR OPTIONS: 954S, 1590**



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

## FULL TENSION SIDES

| FULL TENSION SIZES             |      |
|--------------------------------|------|
| SUBSTRUCTURE                   | Top  |
| UPPER BOLT 'A' LENGTH (INCHES) | 22.9 |
| LOWER BOLT 'B' LENGTH (INCHES) | 21.2 |

## SLACK TENSION SIDES

|                                |      |
|--------------------------------|------|
| SUBSTRUCTURE                   | Top  |
| UPPER BOLT 'A' LENGTH (INCHES) | 21.5 |
| LOWER BOLT 'B' LENGTH (INCHES) | 20.8 |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

REVISÉ: OCTOBRE 2013

REVISÉ BY: MLR

APPROVED BY :KKR

## ISDD9FSB1 PLATES

### ISDD9FSB1 BASE

| NO. | ITEM ID   | QTY  | DESCRIPTION   |
|-----|-----------|------|---|
| 1   | ADCVF 001 | 1    | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY   |
| 12  | BOLMS 052 | 2    | MACHINE BOLT, 7/8" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED               |
| 24  | CLATG 001 | 1    | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                   |
| 26  | CLEHL 005 | 1    | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8", H.D.G.                               |
| 26  | CLEHL 008 | 1    | SOCKET-EYE CLEVIS, CLASS 52-8/11, L = 10", EYE = 3/4" THICK WITH 13/16" OPENING, H. D. G. |
| 31  | CNNCP 016 | 1    | COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER                                 |
| 36  | COBCO 028 | 6 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN  |
| 50  | INSDE 003 | 2    | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89", CLASS 52-8/11                 |
| 58  | LUGGR 002 | 1    | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                           |
| 62  | NUTSL 005 | 2    | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.   |
| 72  | TEEDE 003 | 3    | TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#                            |
| 76  | WASRD 006 | 4    | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                                   |
| 77  | WASSC 002 | 2    | SQUARE CURVED WASHER FOR 7/8" BOLTS, GALVANIZED, 4" X 4"                                  |

### ISDD9FSB1\*954S

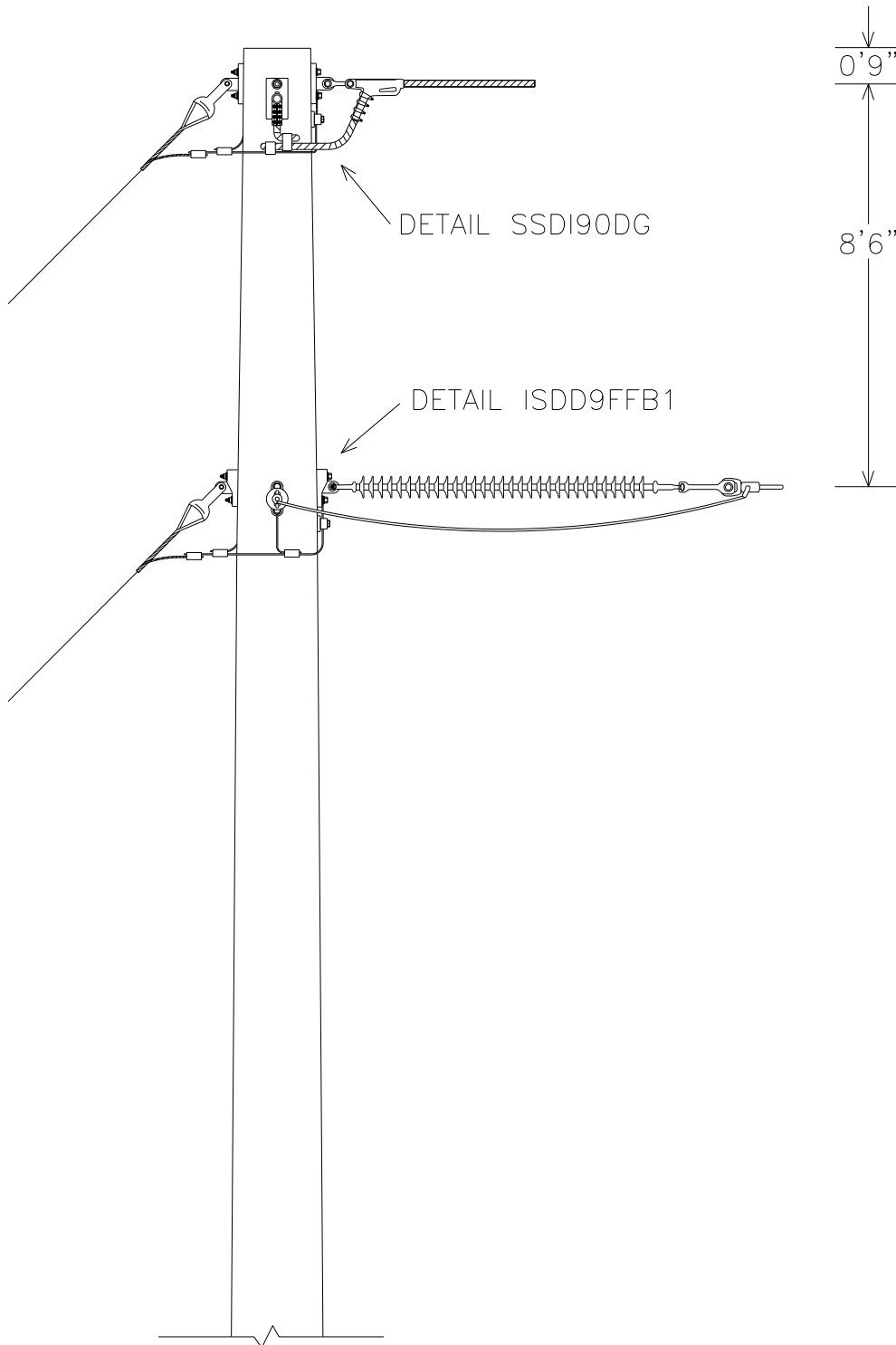
| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 12  | BOLMS 052 | 1   | MACHINE BOLT, 7/8" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 053 | 1   | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 21  | CLAQD 005 | 1   | DEADEND CLAMP (.7 - 1.39") 35,000# STRENGTH, GAP = 1 7/16", PIN = 3/4"      |
| 42  | DEACB 005 | 1   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE                         |
| 58  | LUGGR 002 | 1   | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 005 | 2   | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.                                       |
| 76  | WASRD 006 | 4   | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |

### ISDD9FSB1\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 12  | BOLMS 062 | 1   | MACHINE BOLT, 1" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 063 | 1   | MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 21  | CLAQD 006 | 1   | DEADEND CLAMP (1.18 - 1.52") 35,000# STRENGTH, GAP = 2", PIN = 3/4"       |
| 42  | DEACB 007 | 1   | DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE                      |
| 58  | LUGGR 003 | 1   | LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 006 | 2   | SQUARE LOCK NUT FOR 1" BOLT, H.D.G.                                       |
| 76  | WASRD 007 | 4   | ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |

## B8244C

138KV, DOUBLE DEADEND 90°, FULL TENSION TO FULL TENSION, WITH SHIELD, 1-PHASE  
CONDUCTOR OPTIONS: 954S, 1590



# B8244C PLATES

**B8244C BASE**

| NO. | ITEM ID   | QTY   | DESCRIPTION   |
|-----|-----------|-------|---|
| 1   | ADCVF 001 | 2     | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY   |
| 12  | BOLMS 040 | 2     | MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, W/SQUARE NUT ATTACHED                    |
| 12  | BOLMS 041 | 2     | MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, W/SQUARE NUT ATTACHED                    |
| 21  | CLAQD 008 | 2     | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8"CLAMP, DUCT. IRON, 3#6 AW |
| 24  | CLATG 001 | 2     | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                     |
| 26  | CLEHL 005 | 2     | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8, HOT DIPPED GALV.                        |
| 28  | CLETE 004 | 2     | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G. 90 DEG         |
| 31  | CNNCP 002 | 1     | COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM                                 |
| 31  | CNNCP 003 | 1     | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM                               |
| 31  | CNNCP 016 | 3     | COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER                                   |
| 36  | COBCO 028 | 12 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN  |
| 50  | INSDE 003 | 2     | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89 INCHES, CLASS 52-8/11             |
| 58  | LUGGR 001 | 2     | LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                             |
| 62  | NUTSL 004 | 4     | SQUARE LOCK NUT FOR 3/4 INCH BOLT, HOT DIPPED GALVANIZED                                    |
| 72  | TEEDE 003 | 8     | TEE, DUCTILE IRON, HOT-DIP GALVANIZED, 6" HOLE SPACING, STRENGTH = 60,000#                  |
| 76  | WASRD 005 | 8     | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED   |

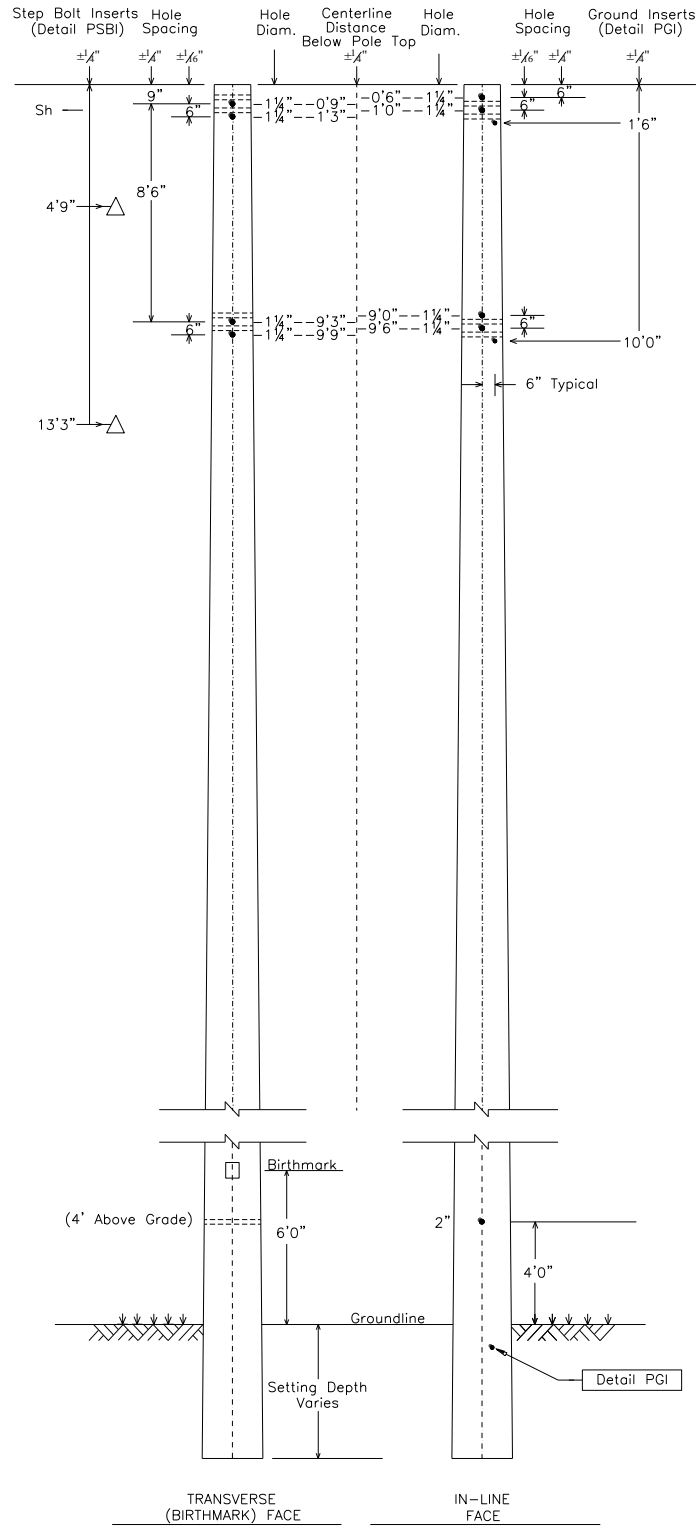
**B8244C\*954S**

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 12  | BOLMS 053 | 2   | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, W/ SQUARE NUT ATTACHED |
| 12  | BOLMS 054 | 2   | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, W/ SQUARE NUT ATTACHED |
| 42  | DEACB 005 | 2   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE                       |
| 58  | LUGGR 002 | 2   | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION           |
| 62  | NUTSL 005 | 4   | SQUARE LOCK NUT FOR 7/8 INCH BOLT, HOT DIPPED GALVANIZED                  |
| 76  | WASRD 006 | 8   | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                   |

**B8244C\*1590**

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 12  | BOLMS 063 | 2   | MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, W/ SQUARE NUT ATTACHED |
| 12  | BOLMS 064 | 2   | MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, W/ SQUARE NUT ATTACHED |
| 42  | DEACB 007 | 2   | DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE                    |
| 58  | LUGGR 003 | 2   | LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION           |
| 62  | NUTSL 006 | 4   | SQUARE LOCK NUT FOR 1 INCH BOLT, HOT DIPPED GALVANIZED                  |
| 76  | WASRD 007 | 8   | ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED                   |

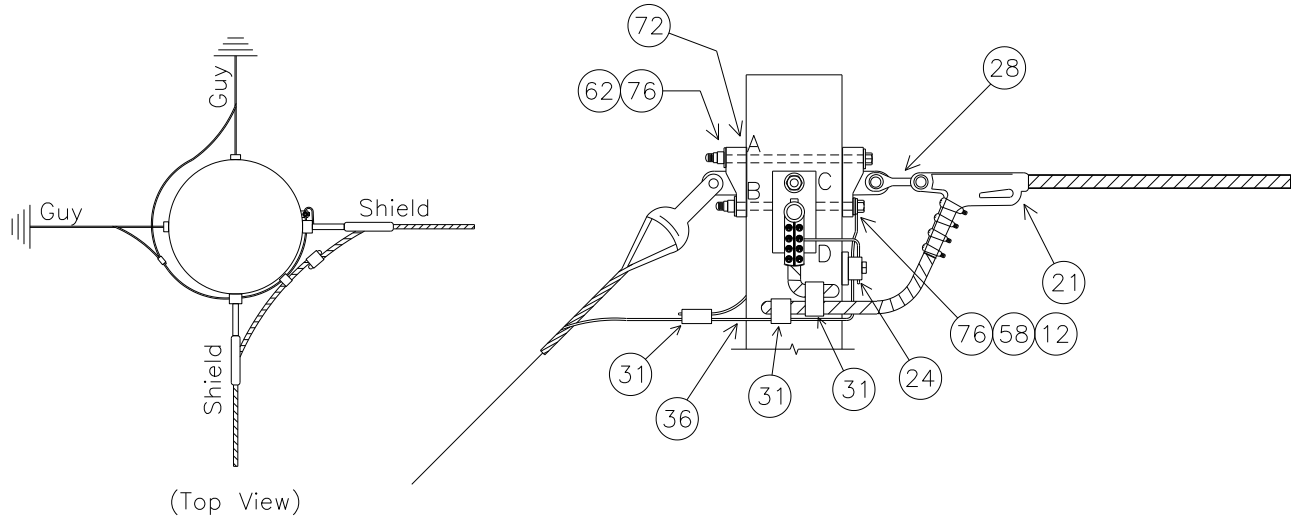
## B8244C DRILLING DETAIL





## SSDI90DG

SHIELD FOR SPUN CONCRETE POLES  
DOUBLE IN-LINE 90°, DOUBLE GUY



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

|   |      |
|---|------|
| MINIMUM REQUIRED BOLT LENGTH 'A' (INCHES) | 22.6 |
| MINIMUM REQUIRED BOLT LENGTH 'B' (INCHES) | 20.9 |
| MINIMUM REQUIRED BOLT LENGTH 'C' (INCHES) | 22.6 |
| MINIMUM REQUIRED BOLT LENGTH 'D' (INCHES) | 21.0 |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER

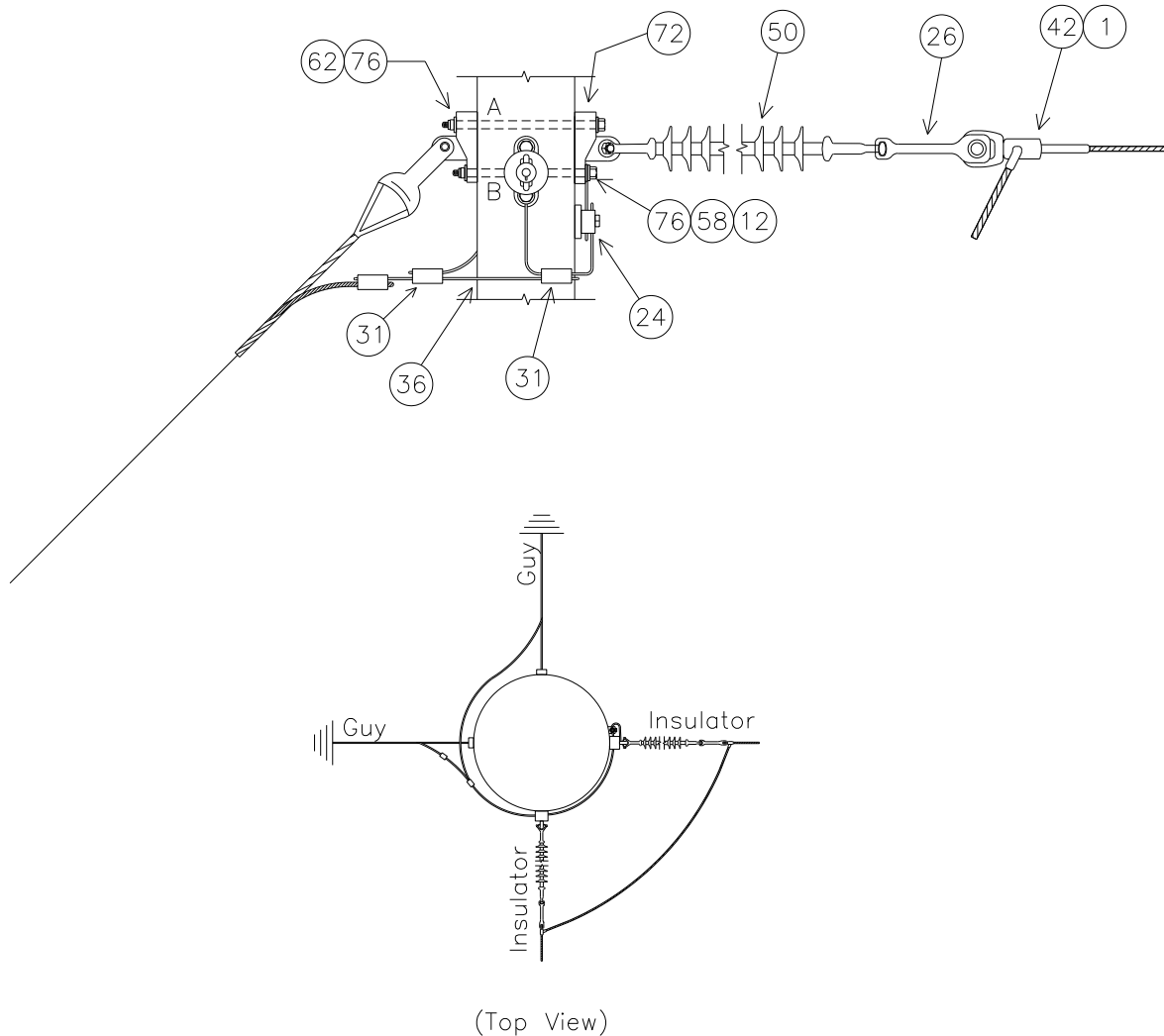
| NO. | ITEM ID   | QTY  | DESCRIPTION  |
|-----|-----------|------|--|
| 12  | BOLMS 040 | 2    | MACHINE BOLT, 3/4" X 22", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 12  | BOLMS 041 | 2    | MACHINE BOLT, 3/4" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED                  |
| 21  | CLAQD 008 | 2    | DEADEND CLAMP (.2 - .55") 19,000# STRENGTH, GAP = 7/8", PIN = 5/8" CLAMP, DUCT. IRON, 3#6 AW |
| 24  | CLATG 001 | 1    | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                                      |
| 28  | CLETE 004 | 2    | TOWER Y-EYE CLEVIS, 3/4" PIN, 5/8" EYE THICKNESS, 11/16" EYE DIAMETER H.D.G., 90 DEG         |
| 31  | CNNCP 002 | 1    | COMPRESSION CONNECTOR, TYPE H (3#6 AW) TO (#4 CU), ALUMINUM                                  |
| 31  | CNNCP 003 | 1    | COMPRESSION CONNECTOR, TYPE H, (3#6 AW) TO (3#6 AW), ALUMINUM                                |
| 31  | CNNCP 016 | 1    | COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER, FOR CU CONNECTIONS ONLY           |
| 36  | COBCO 028 | 6 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN   |
| 58  | LUGGR 001 | 2    | LUG FOR 3/4" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION                              |
| 62  | NUTSL 004 | 4    | SQUARE LOCK NUT FOR 3/4" BOLT, H.D.G.  |
| 72  | TEEDE 003 | 4    | TEE, DUCTILE IRON, H.D.G. 6" HOLE SPACING, STRENGTH = 60,000#                                |
| 76  | WASRD 005 | 8    | ROUND WASHER FOR 3/4" BOLT, 2" DIAMETER, GALVANIZED  |

## ISDD9FFB1

INSULATOR FOR SPUN CONCRETE POLES

DOUBLE DEAD-END 90°, FULL TENSION TO FULL TENSION, 138KV, 1-PHASE

CONDUCTOR OPTIONS: 954S, 1590



NOTE: SEE MBA1 FOR BOLT ASSEMBLY DETAILS

| WITHOUT SHIELD                         | 'A'  | 'B'  |
|--|------|------|
| UPPER TEE MINIMUM BOLT LENGTH (INCHES) | 24.6 | 23.0 |
| LOWER TEE MINIMUM BOLT LENGTH (INCHES) | 24.7 | 23.1 |

NOTE: BOLT CALCULATIONS ASSUME A 17" POLE TOP DIAMETER.

## ISDD9FFB1 PLATES

### ISDD9FFB1 BASE

| NO. | ITEM ID   | QTY  | DESCRIPTION   |
|-----|-----------|------|---|
| 1   | ADCVF 001 | 2    | VOID FILLER COMPOUND FOR DEADEND ASSEMBLY                                 |
| 24  | CLATG 001 | 1    | CLAMP, TRANSFORMER TANK GROUND, BRONZE, #6 SOL - #1 STR                   |
| 26  | CLEHL 005 | 2    | SOCKET-Y CLEVIS, CLASS 52-8/11, L = 11", PIN = 7/8", H.D.G.               |
| 31  | CNNCP 016 | 2    | COMPRESSION CONNECTOR, #4 SOL. CU. TO #4 SOL. CU., COPPER                 |
| 36  | COBCO 028 | 6 ft | #4 SOLID BARE COPPER CONDUCTOR, SOFT DRAWN                                |
| 50  | INSDE 003 | 2    | DEADEND SILICON INSULATOR, Y-BALL COUPLING, 138KV, L = 89", CLASS 52-8/11 |
| 72  | TEEDE 003 | 4    | TEE, DUCTILE IRON, H.D.G., 6" HOLE SPACING, STRENGTH = 60,000#            |

### ISDD9FFB1\*954S

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 12  | BOLMS 053 | 2   | MACHINE BOLT, 7/8" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 054 | 2   | MACHINE BOLT, 7/8" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 42  | DEACB 005 | 2   | DEADEND COMPRESSION ASSEMBLY FOR 954 ACSR, OVAL EYE                         |
| 58  | LUGGR 002 | 2   | LUG FOR 7/8" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 005 | 4   | SQUARE LOCK NUT FOR 7/8" BOLT, H.D.G.                                       |
| 76  | WASRD 006 | 8   | ROUND WASHER FOR 7/8" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |

### ISDD9FFB1\*1590

| NO. | ITEM ID   | QTY | DESCRIPTION   |
|-----|-----------|-----|---|
| 12  | BOLMS 063 | 2   | MACHINE BOLT, 1" X 24", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 12  | BOLMS 064 | 2   | MACHINE BOLT, 1" X 26", SQUARE HEAD, GALVANIZED, WITH SQUARE NUT ATTACHED |
| 42  | DEACB 007 | 2   | DEADEND COMPRESSION ASSEMBLY FOR 1590 ACSR, OVAL EYE                      |
| 58  | LUGGR 003 | 2   | LUG FOR 1" BOLT, #4 SOLID WIRE, TIN PLATED COPPER COMPRESSION             |
| 62  | NUTSL 006 | 4   | SQUARE LOCK NUT FOR 1" BOLT, H.D.G.                                       |
| 76  | WASRD 007 | 8   | ROUND WASHER FOR 1" BOLT, 2 1/2" DIAMETER, GALVANIZED                     |

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