


OVERHEAD CONSTRUCTION MANUAL

Section 3 – LV Construction

Approved by: C Noel

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| | <u>OPEN WIRE CONSTRUCTION</u> | | | | <u>ABC CONSTRUCTION</u> | | |
| LVP | LV Pin Construction | 3-1 | 4920-A4-1 | LVABC/SU3 | LVABC Suspension Construction | 3-101 | 4920-A4-101 |
| LVA | LV Angle Construction | 3-2 | 4920-A4-2 | LVABC/SU4 | | | |
| LVCP | LV Cantilever Pin Construction | 3-3 | 4920-A4-3 | | | | |
| LVCA | LV Cantilever Angle Construction | 3-4 | 4920-A4-4 | LVABC/A | LVABC Angle Construction | 3-102 | 4920-A4-102 |
| LVS | LV Shackle Construction | 3-5 | 4920-A4-5 | | | | |
| LVT | LV Termination Construction | 3-6 | 4920-A4-6 | LVABC/T | LVABC Termination & Shackle Construction | 3-103 | 4920-A4-103 |
| LVSUA | LV Suspension Angle Construction | 3-7 | 4920-A4-7 | LVABC/S | | | |
| LVU | LV Uplift Construction | 3-8 | 4920-A4-8 | | | | |
| LVS2 | LV Shackle Construction / Twin X-arm | 3-9 | 4920-A4-9 | LVABC/DS2 | LVABC Fuse Switch Construction | 3-104 | 4920-A4-104 |
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| LVV | LV Vertical Construction | 3-11 | 4920-A4-11 | LVABC/DS2T | | | |
| LVVA | LV Vertical Angle Construction | 3-12 | 4920-A4-12 | LVABC/DS4T | | | |
| LVVT | LV Vertical Termination Construction | 3-13 | 4920-A4-13 | | | | |
| LVVS | LV Vertical Shackle Construction | 3-14 | 4920-A4-14 | LVABC/XS | LVABC Crosscheck Construction | 3-105 | 4920-A4-105 |
| LVPTU | LV P.T. Uplift Construction | 3-15 | 4920-A4-15 | LVABC/HA | LVABC Heavy Angle Construction | | |
| LVPTS | LV P.T. Shackle Construction | 3-16 | 4920-A4-16 | | | | |
| LVPTT | LV P.T. Termination Construction | 3-17 | 4920-A4-17 | LVABC/PTSU | LVABC P.T. Construction | 3-106 | 4920-A4-106 |
| LVPTS2 | LV P.T. Shackle Construction / Twin X-arm | 3-18 | 4920-A4-18 | LVABC/PTS | | | |
| LVPTT2 | LV P.T. Termination Construction / Twin X-arm | 3-19 | 4920-A4-19 | | | | |
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| LVPS | LV U.G. Pole Termination | 3-31 | 4920-A4-31 | | | | |
| | | | | | LV Clearances Open Wire to LVABC, LVABC to LVABC | 3-110 | 4920-A4-110 |

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|---|---|---------------|-------------|---------------|---------------|--|---|------------------------------|--|-------------------------|-----------|--------|---------|
| C | G | APPD F. Zaini | CKD P. RELF | DRN L. Burton | INDEX UPDATED | |  © COPYRIGHT 2015 ENERGEX This drawing must not be reproduced in part or whole without written permission from ENERGEX | OVERHEAD CONSTRUCTION MANUAL | | APP'D Paul Rainbird | TECH STDS | | AUTOCAD |
| | | | | | | | | DATE 31-05-96 | | 4920-A4 | | | G |
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| | | | <u>BRIDGING</u> | | | | | | <u>EARTHING</u> | | | | |
| 3-221-1 | | | Isolating Switch 19/1.78 Cu Bridge. | | | | | MEN | MEN Earth. | | | 3-251 | 4920-A4-251 |
| 3-221-2 | | | Isolating Switch 37/1.78 Cu Bridge. | | | | | | | | | | |
| 3-221-3 | | | Bridge to 19/1.78 Cu Bridge. | | | | | MENEX | MEN Earth (Existing Pole) | | | 3-252 | 4920-A4-252 |
| 3-221-4 | | | Bridge to 37/1.78 Cu Bridge. | | | 3-221 | 4920-A4-221 | | | | | | |
| 3-222-1 | | | Cu Main to 19/1.78 Cu Bridge. | | | | | | | | | | |
| 3-222-2 | | | Cu Main to 37/1.78 Cu Bridge. | | | | | | | | | | |
| 3-222-3 | | | Terminal Connector to 19/1.78 Cu Bridge. | | | | | | | | | | |
| 3-222-4 | | | Terminal Connector to 37/1.78 Cu Bridge. | | | | | | | | | | |
| 3-222-5 | | | Terminal Connector to 19/1.78 Cu Bridge. | | | | | | | | | | |
| 3-222-6 | | | Terminal Connector to 37/1.78 Cu Bridge. | | | | | | | | | | |
| 3-222-7 | | | Bridging Insulator (Cu). | | | | | | | | | | |
| 3-222-8 | | | Bridging Insulator (Al). | | | 3-222 | 4920-A4-222 | | | | | | |
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CU LIST -

LVP

LVPL

SET51-1

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SET51-2

1

SET53-1

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SET54-1

4

4

SET55-4

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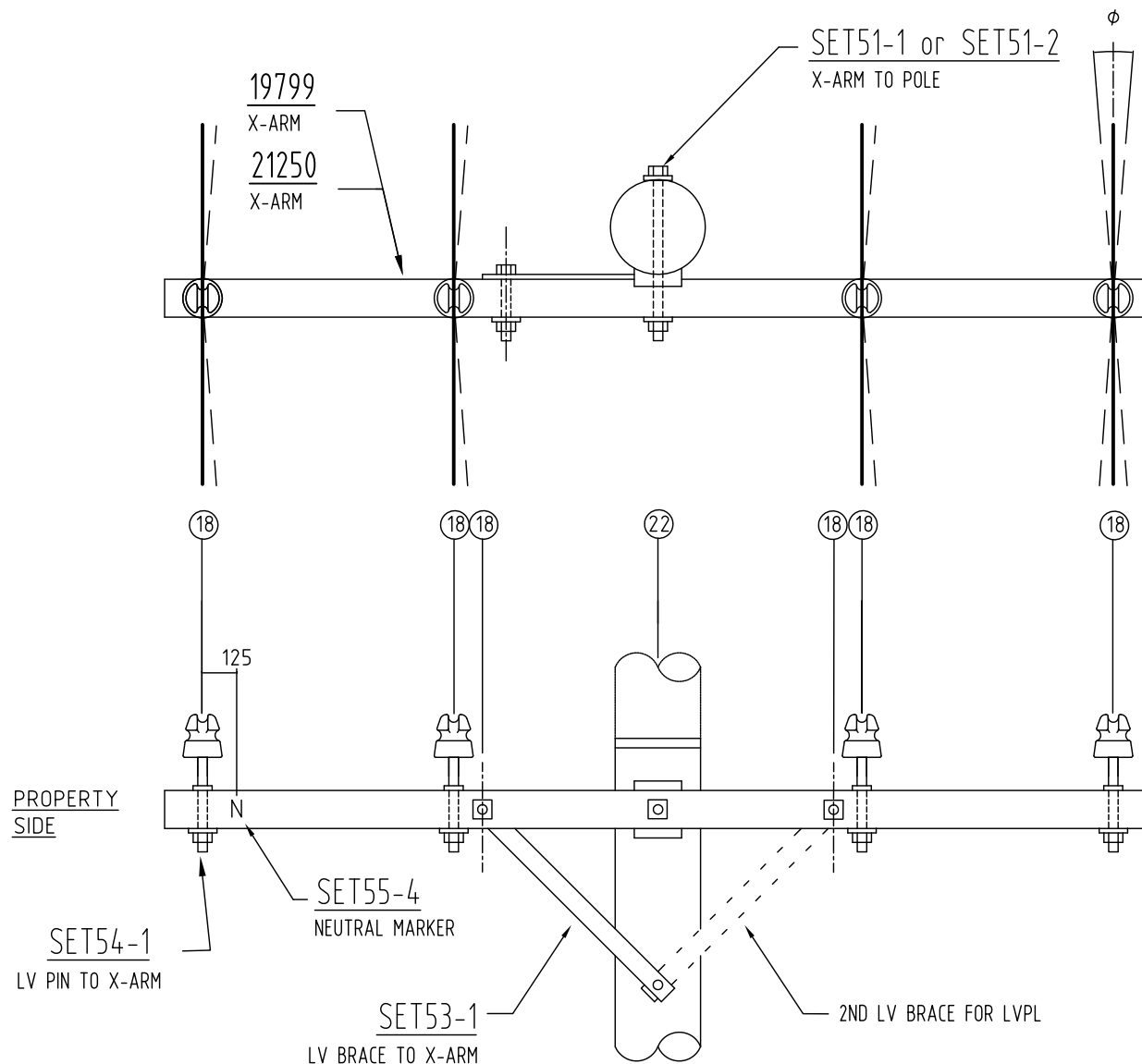
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19799 (XARM)

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21250 (XARM)

1



NOTE

1. LVPL REQUIRES TWO ARM BRACES

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| ORIGINAL ISSUE | DATE | APP'D | CKD | DRN | LONG COMPOSITE XARM SC21250 INTRODUCED |
| 06/11/13 | F.ZAINI | J.CHUNG | P.PREF | | |
| C | E | | | | |



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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

LVP, LVPL

LV PIN CONSTRUCTION

(WOOD POLE)

APP'D Paul Rainbird

DATE 31-05-96

REC'D John Tunney

CKD Greg Dowling

DWN M. Welsh

TECH STDS AUTOCAD

4920-A4 E

SECT PAGE

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SHEET 1 OF 1

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CU LIST -

LVA

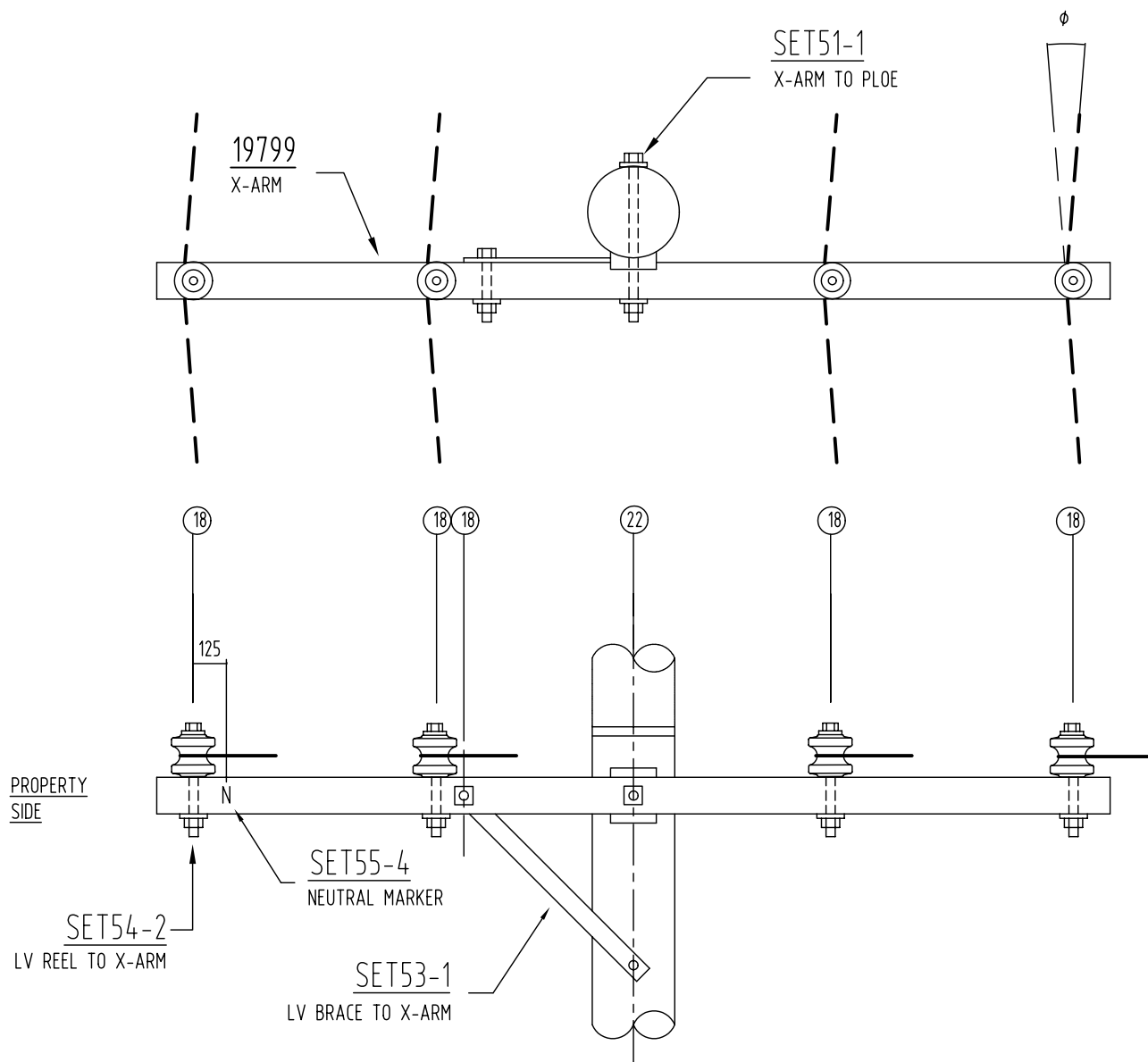
SET51-1 1

SET53-1 1

SET54-2 4

SET55-4 1

19799 (XARM) 1



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| C | ORIGINAL ISSUE | | D | DATE 15/11/06 | | APPD K.NUTTALL | CKD J.TUNNEY | DRN G.JAYAWERA | COMPOSITE X-ARM INTRODUCED |
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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

LVA

LV ANGLE CONSTRUCTION
(WOOD POLE)

APP'D Paul Rainbird

DATE 31-05-96

REC'D John Tunney

CKD Greg Dowling

DWN M. Welsh

TECH STDS AUTOCAD

4920-A4 D

SECT PAGE

3 2

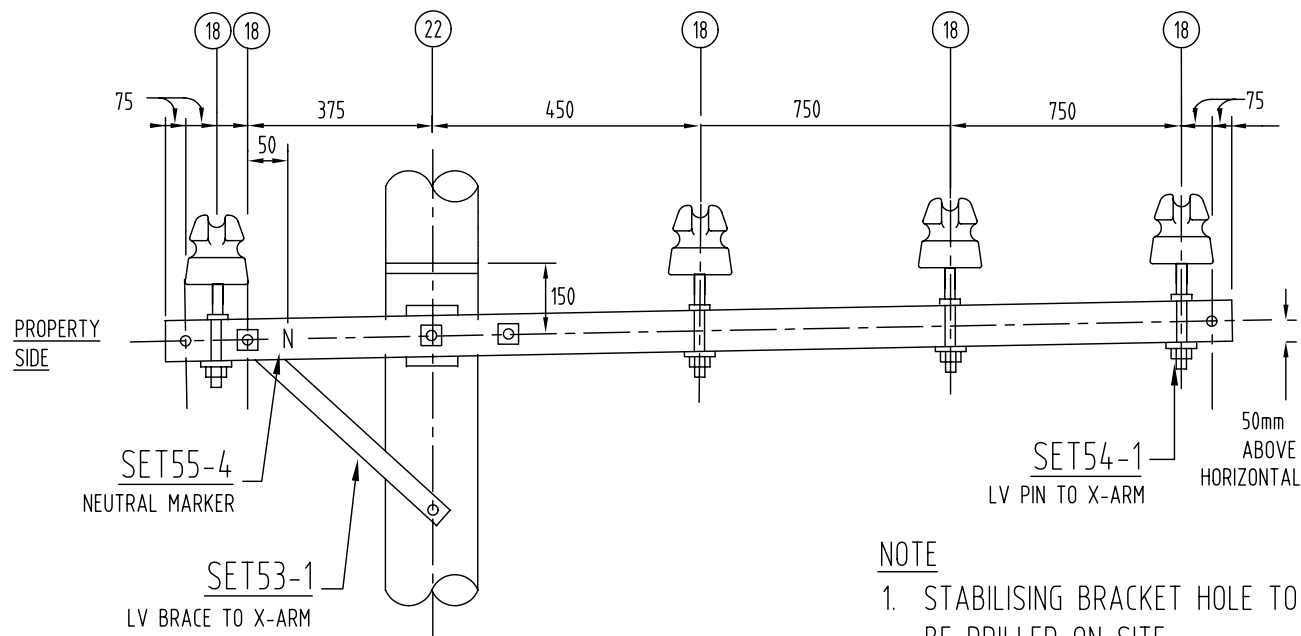
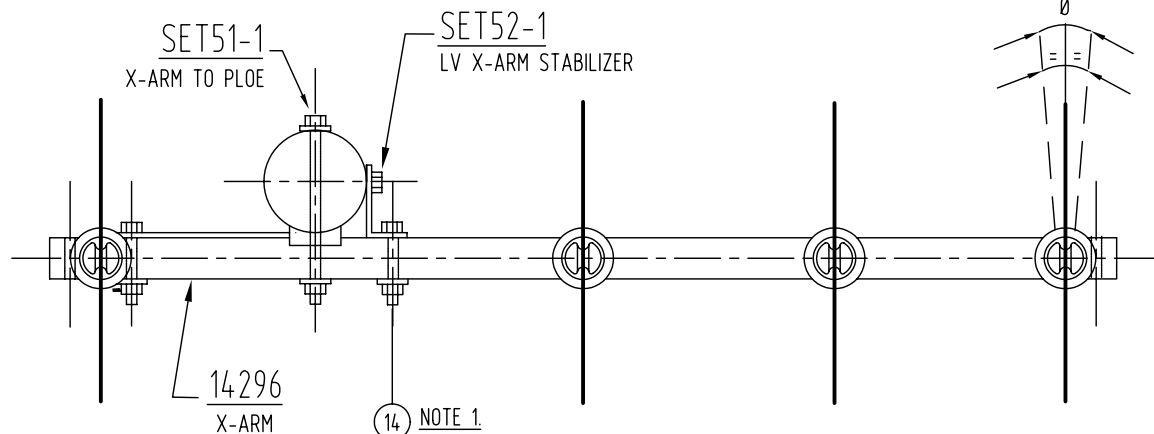
SHEET 1 OF 1

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CU LIST -

LVCP

| | |
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| SET51-1 | 1 |
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| SET54-1 | 4 |
| SET55-4 | 1 |
| SET52-1 | 1 |
| 14296 (XARM) | 1 |



NOTE

1. STABILISING BRACKET HOLE TO BE DRILLED ON SITE.

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| ORIGINAL ISSUE | DATE | APP'D | CKD | DRN | NEW TEMPLATE |
| | 15/11/06 | K.NUTTALL | J.TUNNEY | G.JAYAVEERA | |
| C | D | | | | |



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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

LVCP

LV CANTILEVER PIN CONSTRUCTION (WOOD POLE)

APP'D Paul Rainbird

DATE 31-05-96

REC'D John Tunney

CKD Greg Dowling

DWN M. Welsh

TECH STDS AUTOCAD

4920-A4 D

SECT 3 PAGE 3

SHEET 1 OF 1

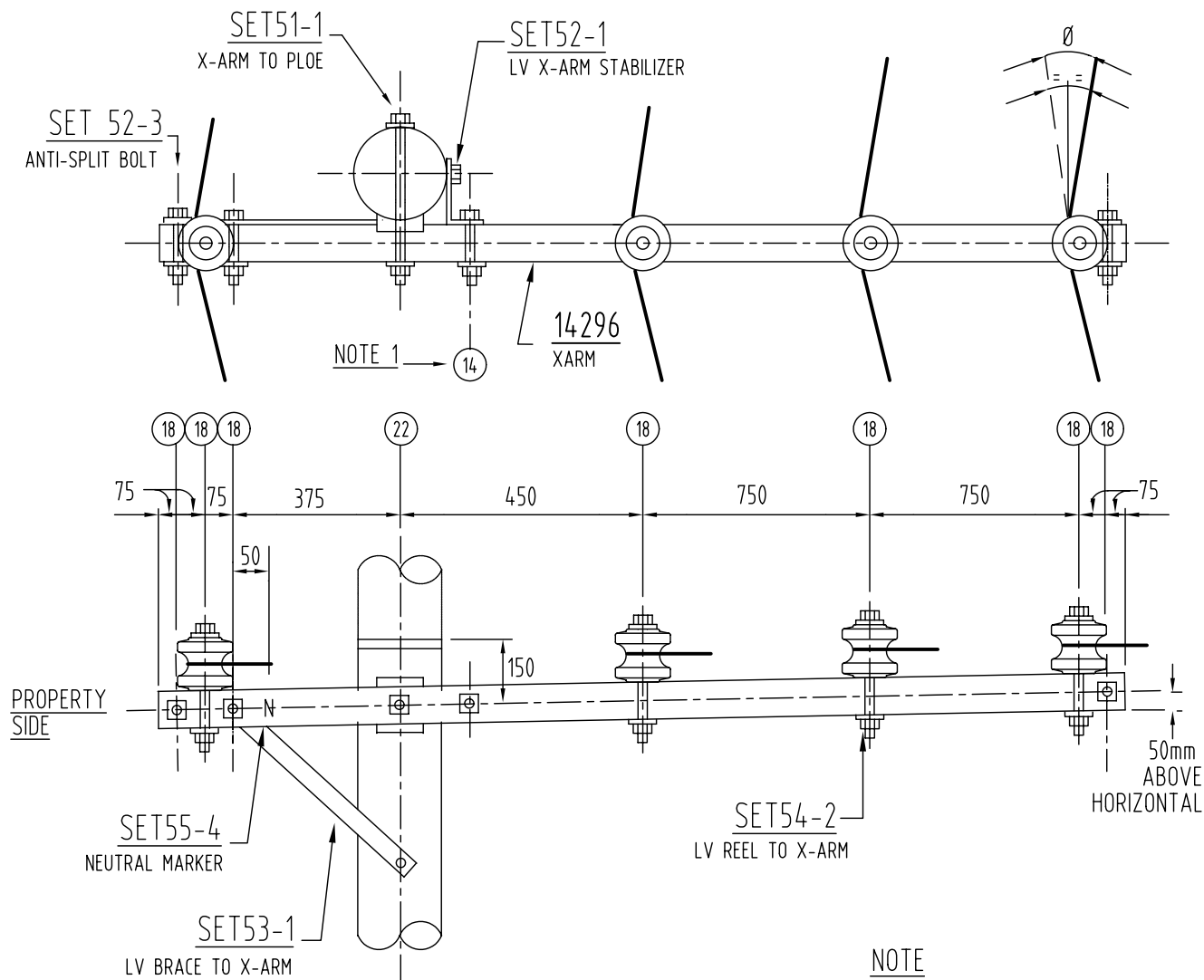
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CU LIST -

LVCA

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| SET53-1 | 1 |
| SET54-2 | 4 |
| SET55-4 | 1 |
| SET52-1 | 1 |
| SET52-3 | 1 |

14296 (XARM) 1



NOTE

1. STABILISING BRACKET HOLE TO BE DRILLED ON SITE.

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| ORIGINAL ISSUE | DATE 15/11/06 | APPD K.NUTTALL | CKD J.TUNNEY | DRN G.JAYAWEERA | TEMPLATE CHANGED |
| C | D | | | | |



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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

LVCA

LV CANTILEVER ANGLE CONSTRUCTION (WOOD POLE)

APP'D Paul Rainbird

DATE 31-05-96

REC'D John Tunney

CKD Greg Dowling

DWN M. Welsh

TECH STDS AUTOCAD

4920-A4 D

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3 4

SHEET 1 OF 1

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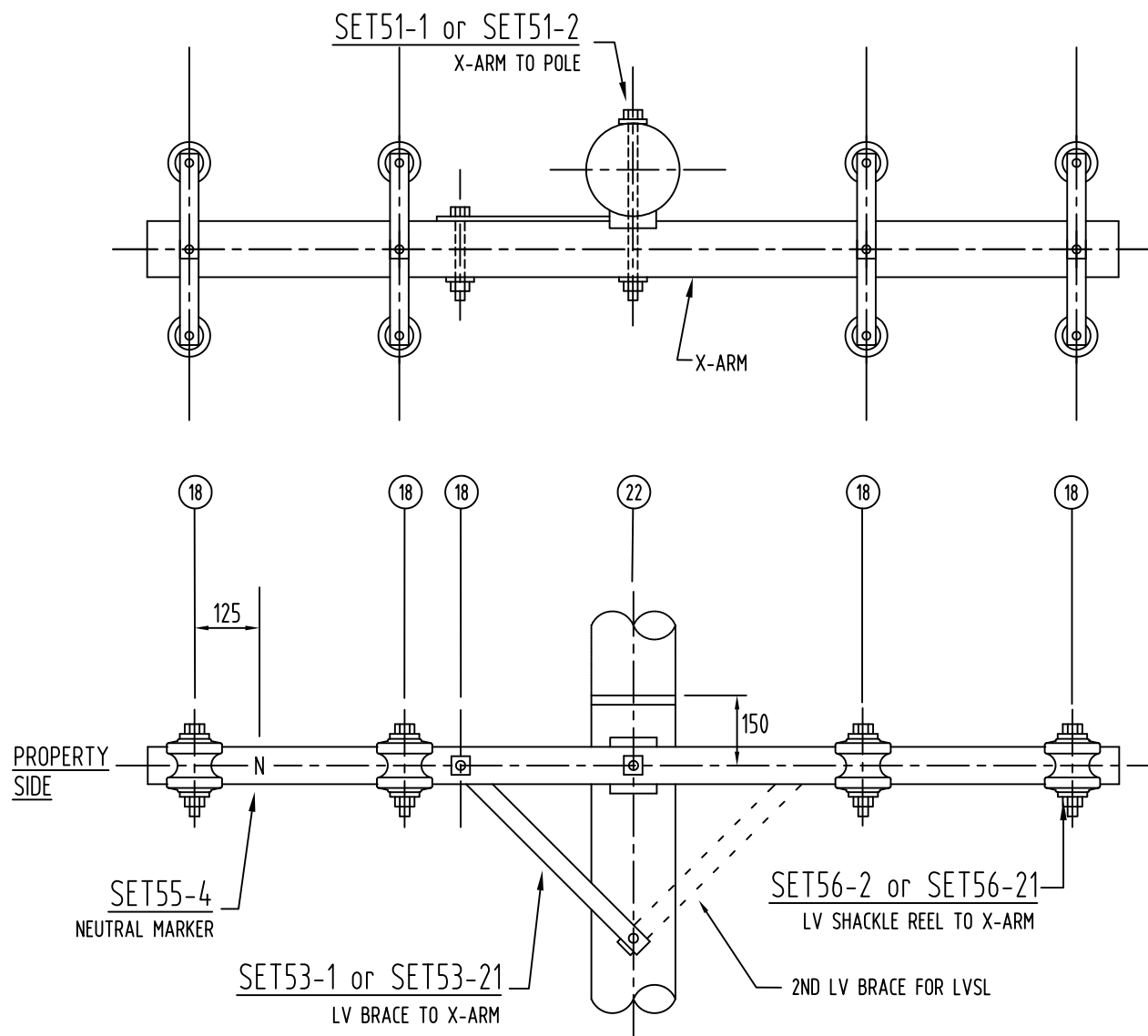
CU LIST -

LVS
LVS2
LVSL

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| SET51-2 | | 1 | 1 |
| SET53-1 | 1 | | |
| SET53-21 | | 1 | 2 |
| SET56-2 | 4 | | |
| SET56-21 | | 4 | 4 |
| SET55-4 | 1 | 1 | 1 |

19799 (XARM)
21976 (XARM)
21250 (XARM)

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NOTE

1. LVSL REQUIRES TWO ARM BRACES
2. LV NEUTRALS IN COASTAL AREAS MUST BE DOUBLE CLAMPED

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|----------------|----------|---------|--------|--------|---|
| ORIGINAL ISSUE | DATE | F.ZAINI | P.PREF | P.PREF | UPDATED LVSL AND MOVED LVS2 FROM PAGE 3-9 |
| G | 18/09/18 | APPD | CKD | DRN | |



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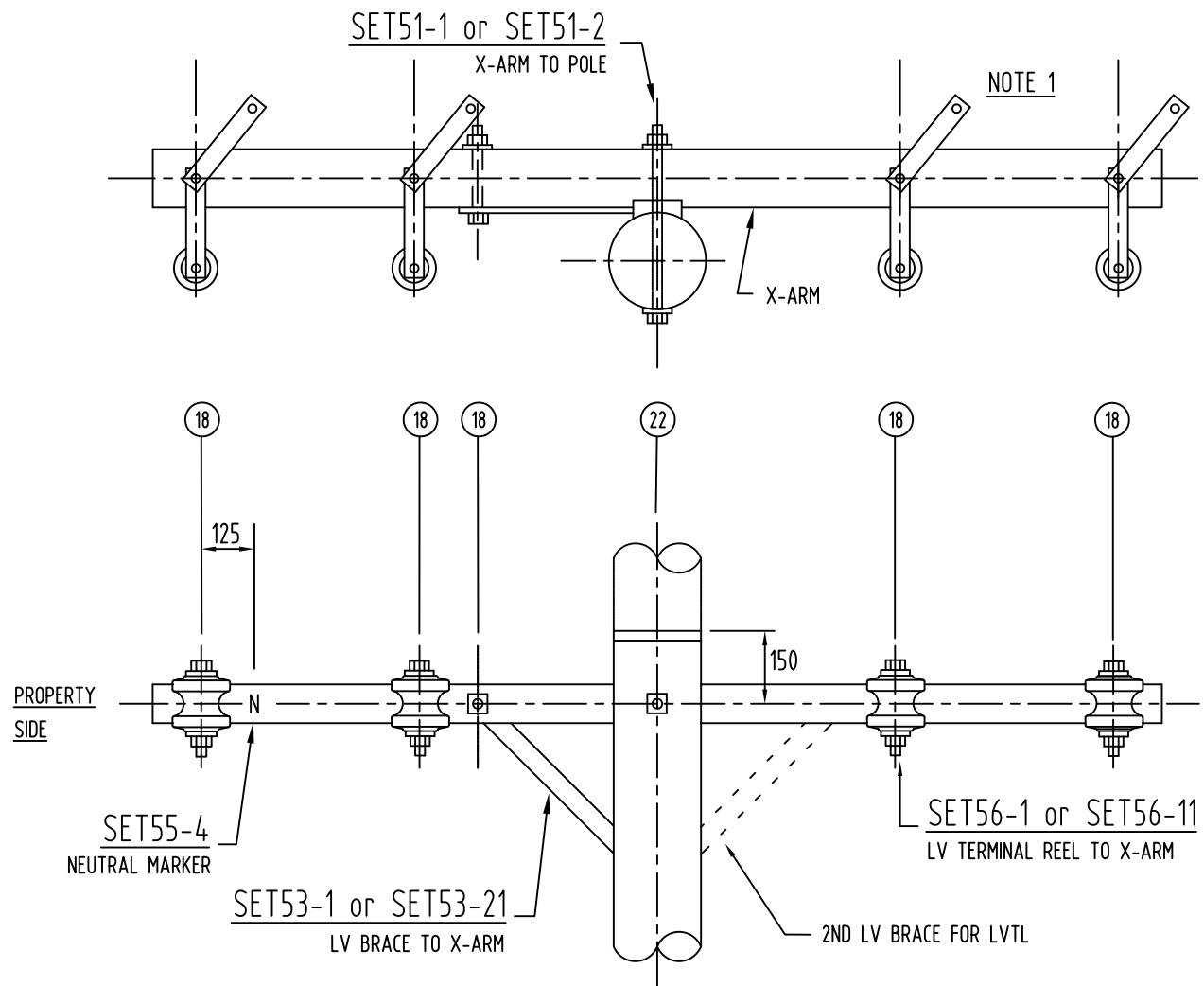
LV CONSTRUCTION

LVS, LVS2, LVSL
LV SHACKLE CONSTRUCTION
(WOOD POLE)


| | | |
|---------------------|--------------|---------|
| APP'D Paul Rainbird | TECH STDS | AUTOCAD |
| DATE 31-05-96 | 4920-A4 | G |
| REC'D John Tunney | SECT 3 | PAGE 5 |
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| DWN M. Welsh | FILE: | |

71A7
LVT2
LVT

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| SET51-1 | 1 | | |
| SET51-2 | | 1 | 1 |
| SET53-1 | 1 | | |
| SET53-21 | | 1 | 2 |
| SET56-1 | 4 | | |
| SET56-11 | | 4 | 4 |
| SET55-4 | 1 | 1 | 1 |
| 19799 (XARM) | 1 | | |
| 21976 (XARM) | | 1 | |
| 21250 (XARM) | | | 1 |



1. FOR FUTURE SHACKLE CONSTRUCTION.
2. LVTL REQUIRES TWO ARM BRACES
3. LV NEUTRALS IN COASTAL AREAS MUST BE DOUBLE CLAMPED

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|---|--|----------|--|--|--|--|--|--|------------------------------|--------------|--|--|--|--|--------------|--|------|--|---------------------|-----------|--|---------|--|
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| | DATE | 18/09/18 | | | | | | | DATE | 31-05-96 | | | | | 4920-A4 | | | | F | | | | |
| | APPD | F.ZAINI | | | | | | | REC'D | John Tunney | | | | | SECT | | PAGE | | | | | | |
| | CKD | P.RELF | | | | | | | CKD | Greg Dowling | | | | | 3 | | 6 | | | | | | |
| | DRN | P.RELF | | | | | | | DWN | M. Welsh | | | | | SHEET 1 OF 1 | | | | | | | | |
| | ADDED LVTL AND MOVED LVT2 FROM PAGE 3-10 | | | | | | | | | | | | | | | | | | FILE: | | | | |
| | | | | | | | | LV CONSTRUCTION LVT, LVT2, LVTL LV TERMINATION CONSTRUCTION (WOOD POLE) | | | | | | | | | | | | | | | |

CU LIST -

LVSUA

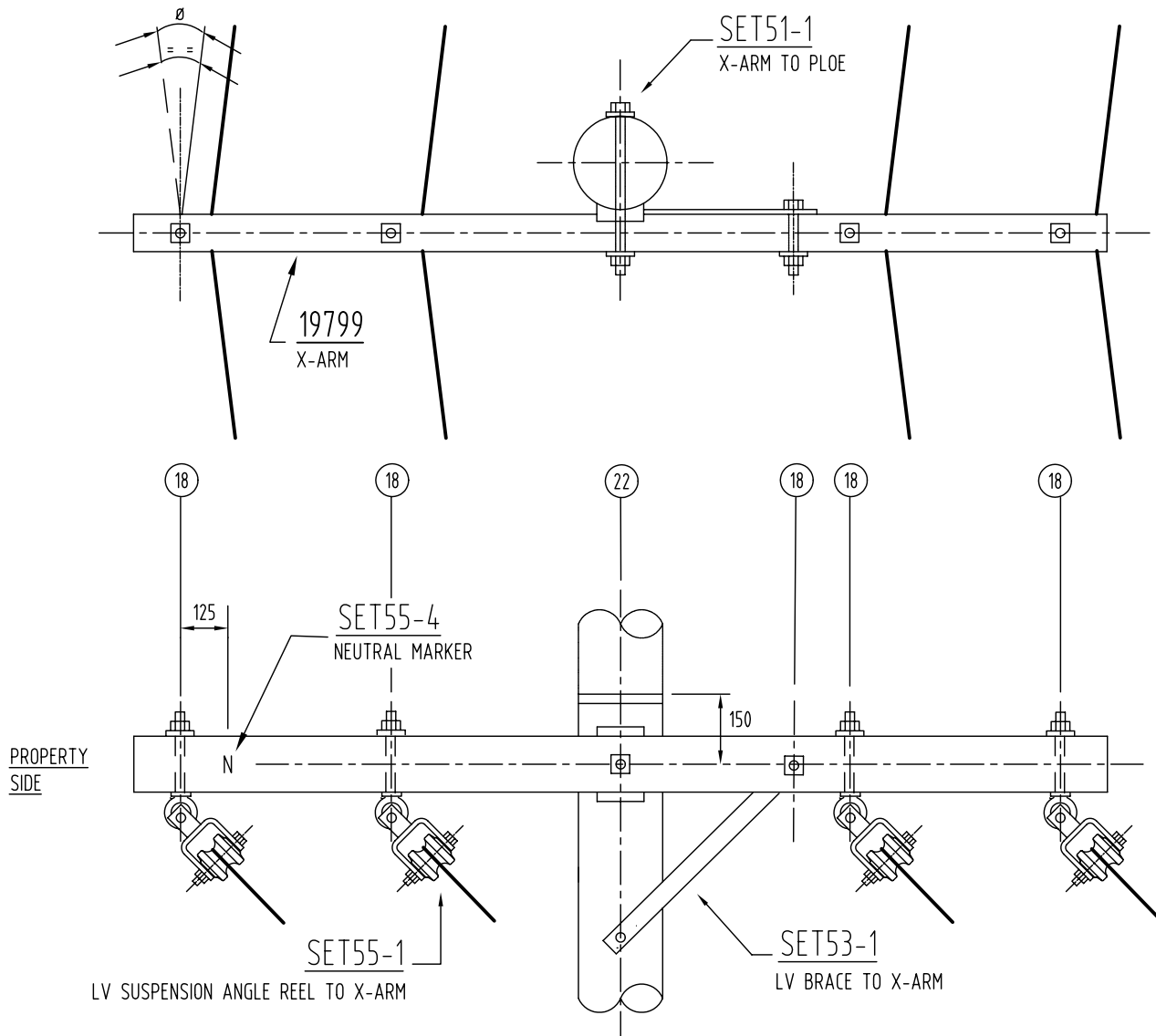
SET51-1 1

SET53-1 1

SET55-1 4

SET55-4 1

19799 (XARM) 1



| | | | | | |
|----------------|----------|----------|---------|------------|----------------------|
| ORIGINAL ISSUE | DATE | APPD | CKD | DRN | Composite x-arm used |
| C | D | D | D | D | |
| | 15/11/06 | KNUTTALL | JTUNNEY | GJAYAVEERA | |



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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

LVSUA

LV SUSPENSION ANGLE CONSTRUCTION (WOOD POLE)

APP'D Paul Rainbird

DATE 31-05-96

REC'D John Tunney

CKD Greg Dowling

DWN M. Welsh

TECH STDS AUTOCAD

4920-A4 D

SECT PAGE

3 7

SHEET 1 OF 1

FILE:ocm\s3\ohc3-7d.dwg

CU LIST -

LVU

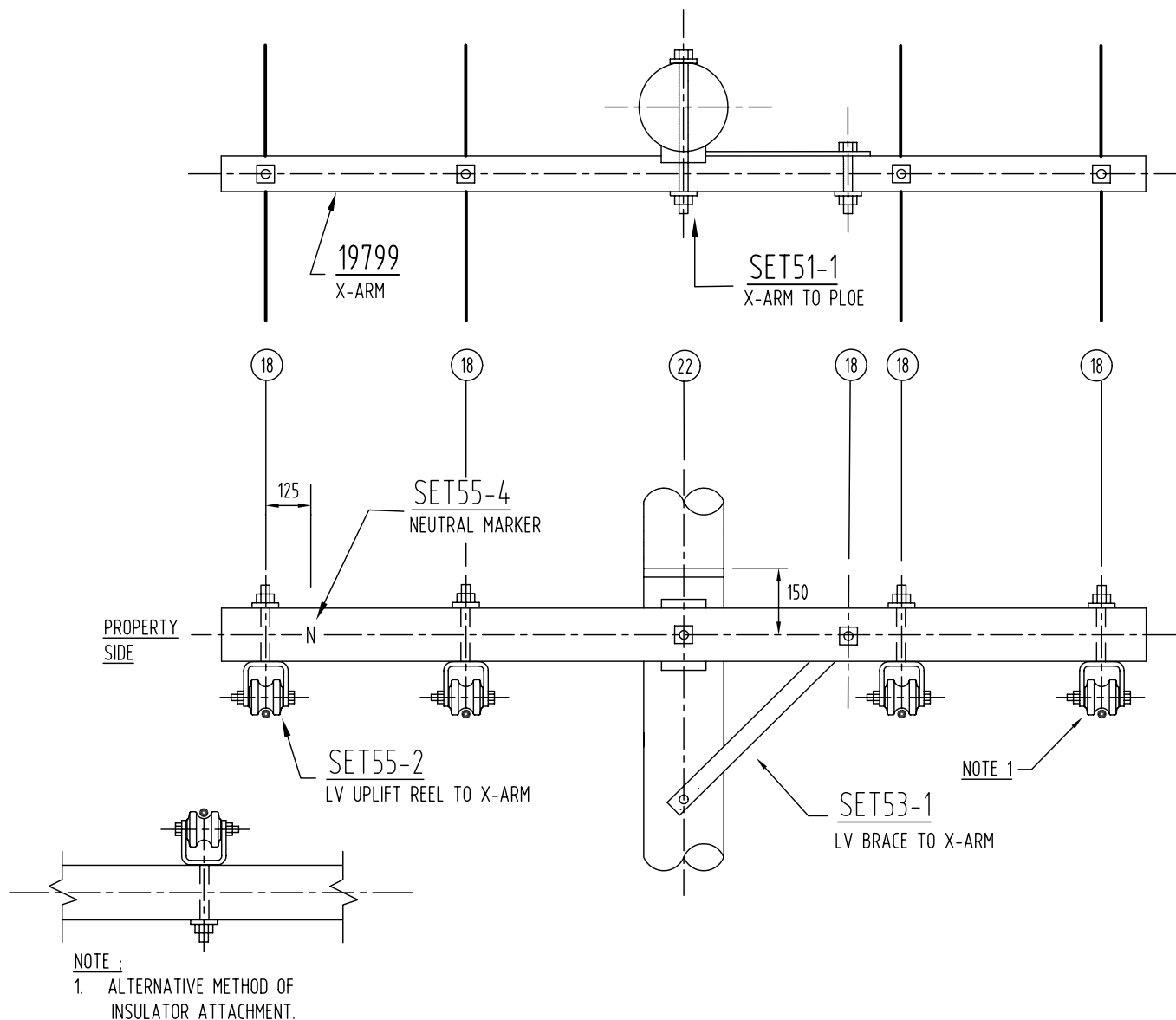
SET51-1 1

SET53-1 1

SET55-2 4

SET55-4 1

19799 (XARM) 1



| | | | | | | | | | |
|----------------|------|----------|------|-----------|-----|----------|-----|------------|----------------------------|
| ORIGINAL ISSUE | DATE | 15/11/06 | APPD | K.NUTTALL | CKD | J.TUNNEY | DRN | G.JAYAWERA | COMPOSITE X-ARM INTRODUCED |
| C | D | | | | | | | | |



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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

LVU

LV UPLIFT CONSTRUCTION (WOOD POLE)

APP'D Paul Rainbird

DATE 31-05-96

REC'D John Tunney

CKD Greg Dowling

DWN M. Welsh

TECH STDS AUTOCAD

4920-A4 D


SECT PAGE

3 8


SHEET 1 OF 1

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| | | | | | | | | | | | LV CONSTRUCTION | | DATE 31-05-96 | 4920-A4 | | G |
| | | | | | | | | | | | | | REC'D John Tunney | SECT 3 | PAGE 9 | |
| | | | | | | | | | | | | | CKD Greg Dowling | SHEET 1 OF 1 | | |
| | | | | | | | | | | | | | DWN M. Welsh | FILE: | | |

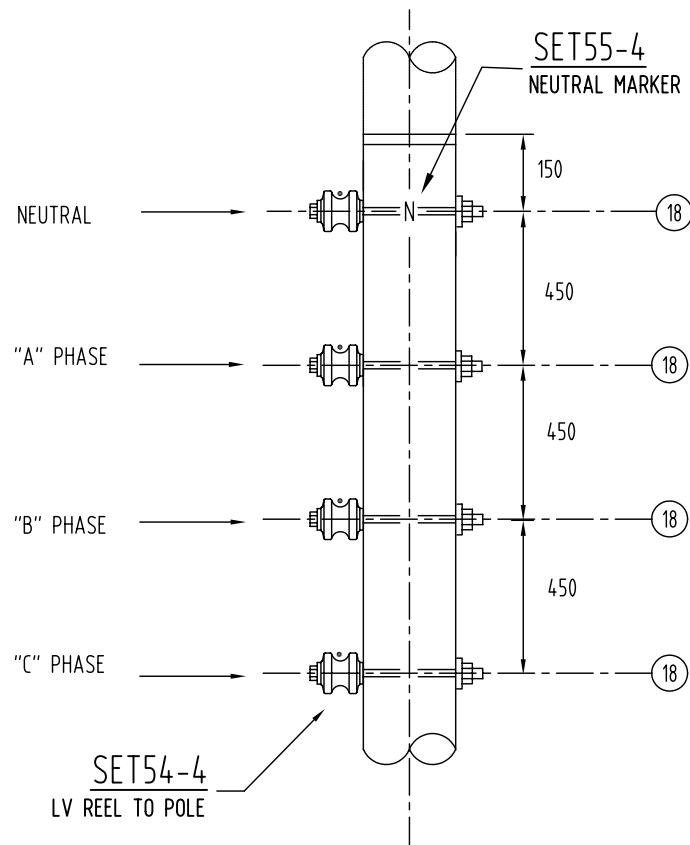
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| | | | | | | | | | | | | | | REC'D John Tunney | SECT 3 | PAGE 10 | |
| | | | | | | | | | | | | | | CKD Greg Dowling | SHEET 1 OF 1 | | |
| | | | | | | | | | | | | | | DWN M. Welsh | FILE: | | |

77

4

1



| | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | REC'D John Tunney | | | SECT | | | 3 | | | PAGE | | | 11 | | | | | | | | | | | | | |
| | CKD Greg Dowling | | | SHEET 1 OF 1 | | | | | | | | | | | | | | | | | | | | | | |
| | DWN M. Welsh | | | FILE:ocm\s3\ohc3-11d.dwg | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | <div>LV CONSTRUCTION</div> <div>LVV</div> <div>LV VERTICAL CONSTRUCTION (WOOD POLE)</div> | | | | | | | |

CU LIST -

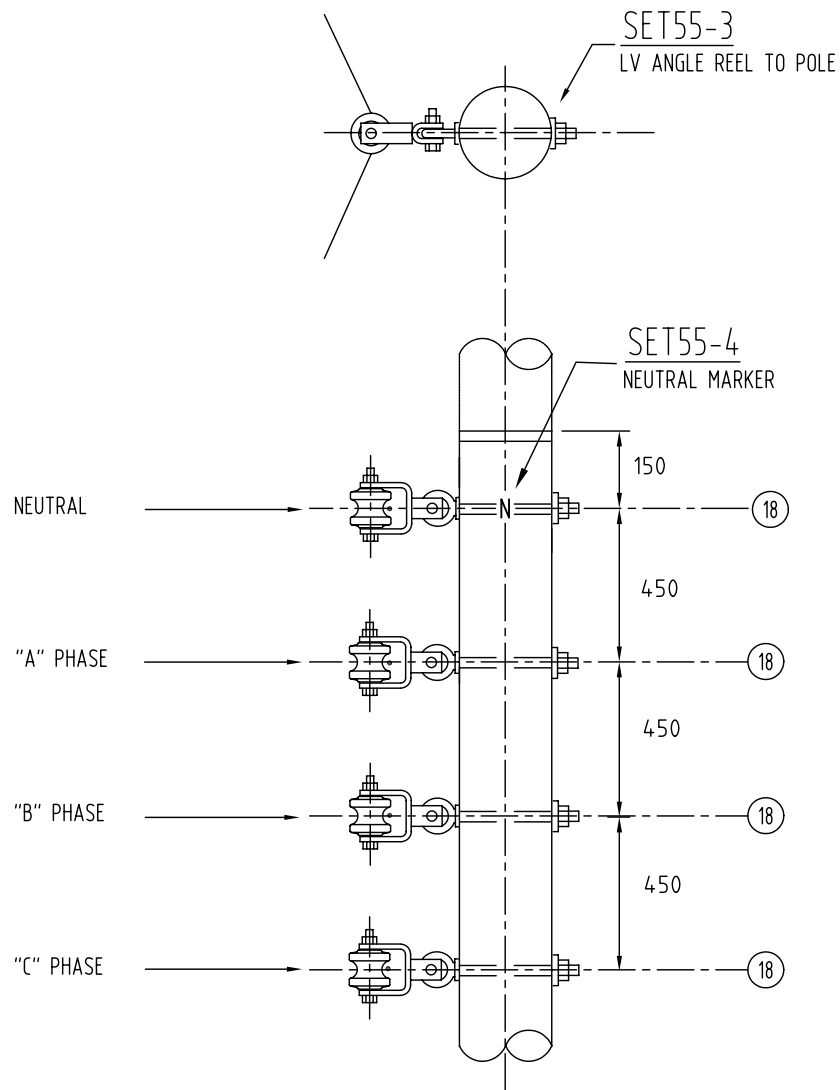
LVVA

SET55-3

4

SET55-4

1



| | | | | | | | | | |
|----------------|------|----------|------|-----------|-----|----------|-----|-------------|------------------|
| ORIGINAL ISSUE | DATE | 15/11/06 | APPD | K.NUTTALL | CKD | J.TUNNEY | DRN | G.JAYAWEERA | TEMPLATE CHANGED |
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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

LVVA

LV VERTICAL ANGLE CONSTRUCTION
(WOOD POLE)

APP'D Paul Rainbird

DATE 31-05-96

REC'D John Tunney

CKD Greg Dowling

DWN M. Welsh

TECH STDS AUTOCAD

4920-A4 D

| | |
|------|------|
| SECT | PAGE |
| 3 | 12 |

SHEET 1 OF 1

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CU LIST -

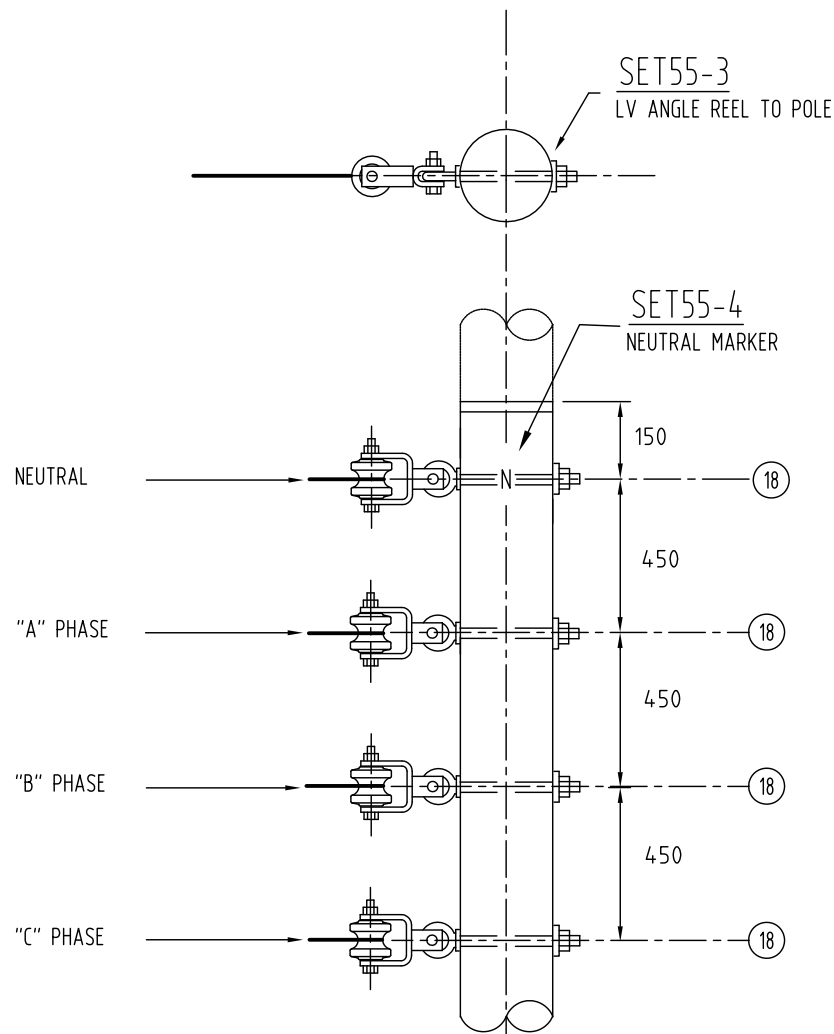
LVVT

SET55-3

4


SET55-4

1



NOTE

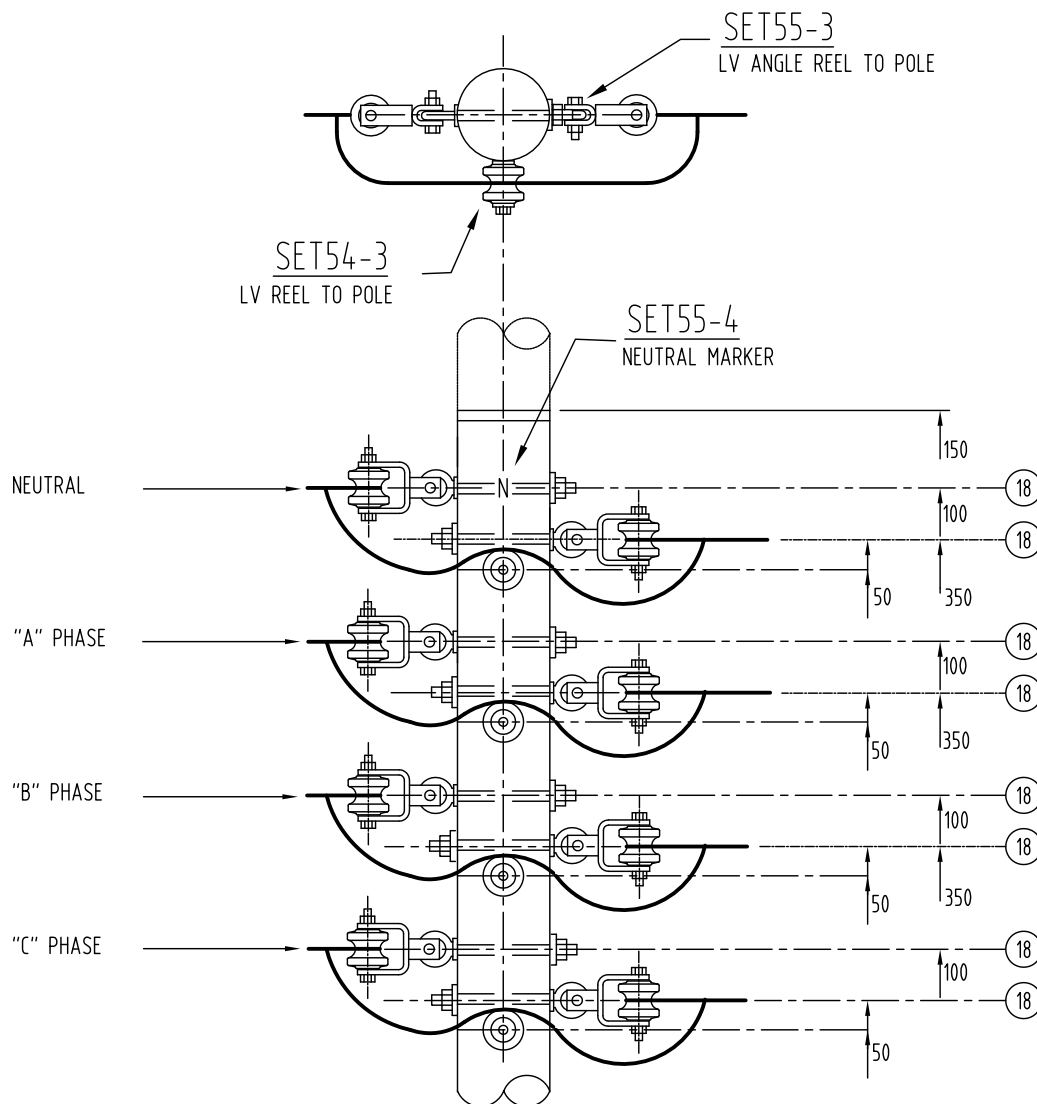
1. LV NEUTRALS IN COASTAL AREAS MUST BE DOUBLE CLAMPED

| | | | | | | | | | | | | | |
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| | | | | | | | | DATE 31-05-96 | | 4920-A4 | | E | |
| | APP'D F. ZAINI | | | | | LV CONSTRUCTION | | REC'D John Tunney | | SECT | | PAGE | |
| | CKD P. RELF | | | | | | | CKD Greg Dowling | | 3 | | 13 | |
| | DRN M. SHAW | | | | | | | DWN M. Welsh | | SHEET 1 OF 1 | | FILE: | |
| ADDED NOTE 1 | | | | | | LVVT | | | | | | | |
| | | | | | | LV VERTICAL TERMINATION CONSTRUCTION (WOOD POLE) | | | | | | | |

CU LIST -


LVVS

| | |
|---------|---|
| SET55-3 | 8 |
| SET54-3 | 4 |
| SET55-4 | 1 |



NOTE

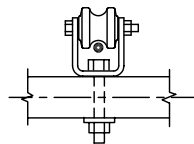
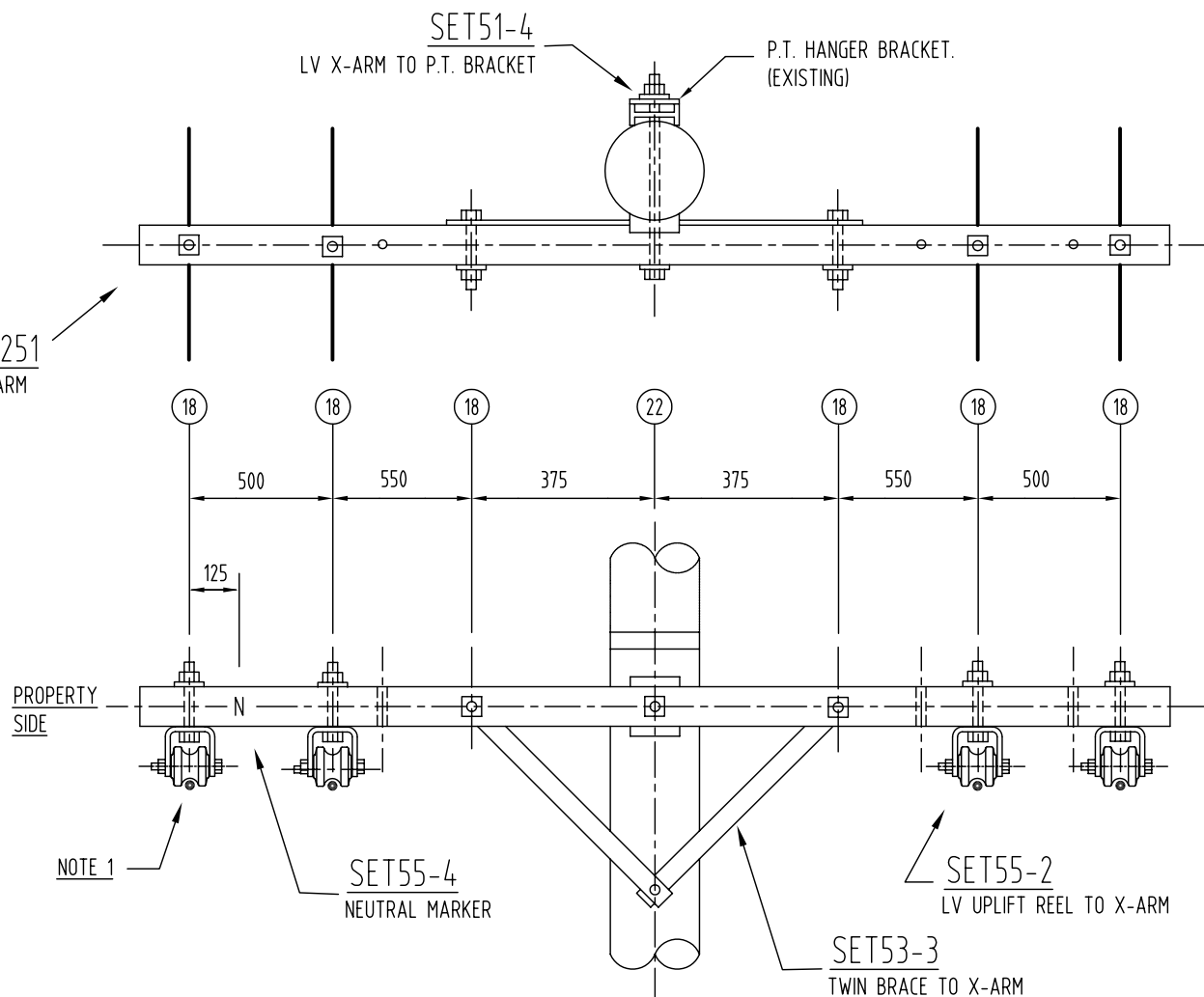
1. LV NEUTRALS IN COASTAL AREAS MUST BE DOUBLE CLAMPED

| | | | | | | | | | | | | | | | |
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| | APPD F. ZAINI | | | | | | | | | REC'D John Tunney | SECT 3 | | PAGE 14 | | |
| | CKD P. RELF | | | | | | | | | CKD Greg Dowling | SHEET 1 OF 1 | | | | |
| | DRN M. SHAW | | | | | | | | | DWN M. Welsh | FILE: | | | | |
| | | ADDED NOTE 1 | | | | | | LV CONSTRUCTION | | | | | | | |
| | | | | | | | | LVVS | | | | | | | |
| | | | | | | | | LV VERTICAL SHACKLE CONSTRUCTION (WOOD POLE) | | | | | | | |

CU LIST -

LVPTU

| | |
|--------------|---|
| SET51-4 | 1 |
| SET53-3 | 1 |
| SET55-2 | 4 |
| SET55-4 | 1 |
| 21251 (XARM) | 1 |

21251
X-ARM

NOTE

1. ALTERNATIVE METHOD OF
INSULATOR ATTACHMENT.

| | | | | | | |
|----------------|---------|----------|---------|----------|----------|----------------------------|
| ORIGINAL ISSUE | DATE | REVISION | APPD | CKD | DRN | UPDATED FOR COMPOSITE XARM |
| D | 24-5-09 | F | RENGISH | J.TUNNEY | J.TUNNEY | |



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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

LVPTU

LV P.T. UPLIFT CONSTRUCTION
(WOOD POLE)

APP'D Paul Rainbird

DATE 31-05-96

REC'D John Tunney

CKD Greg Dowling

DWN M. Welsh

TECH STDS AUTOCAD

4920-A4 F

SECT PAGE

3 15

SHEET 1 OF 1

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CU LIST -

LVPTS

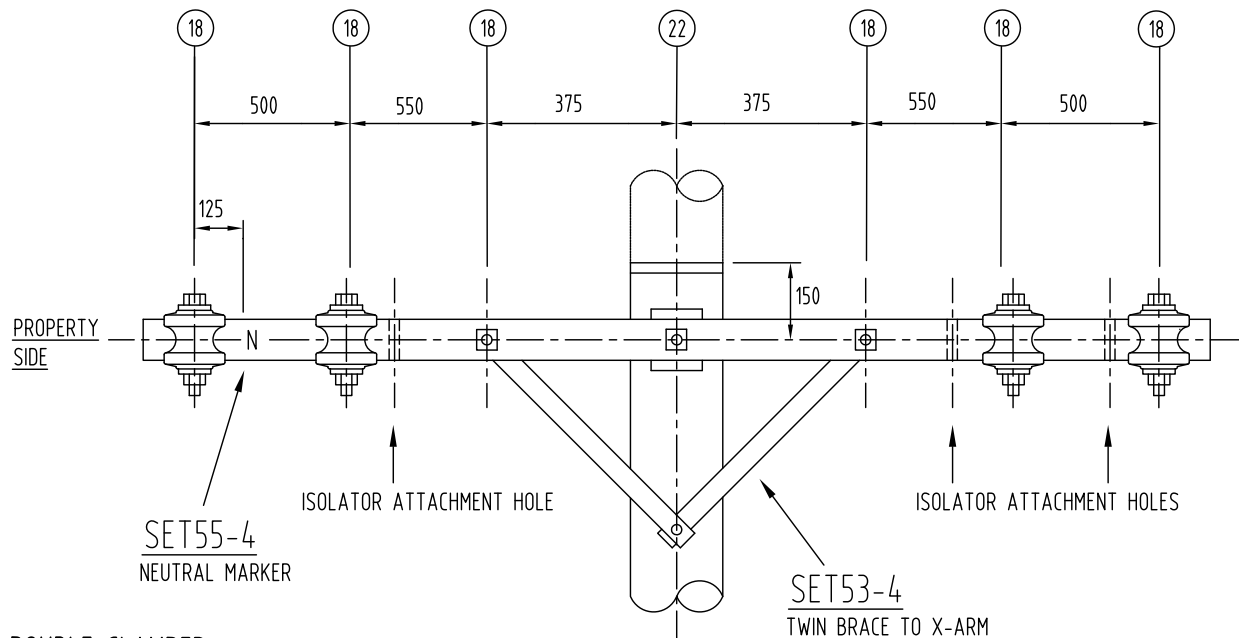
| | |
|--------------|---|
| SET51-4 | 1 |
| SET53-4 | 1 |
| SET56-2 | 4 |
| SET55-4 | 1 |
| 21251 (XARM) | 1 |

SET56-2
LV SHACKLE REEL TO X-ARM

21251
X-ARM

SET51-4
LV X-ARM TO P.T. BRACKET

P.T. HANGER BRACKET
(EXISTING)



NOTE

1. LV NEUTRALS IN COASTAL AREAS MUST BE DOUBLE CLAMPED

| | | | | | |
|----------------|----------|----------|---------|---------|------------|
| ORIGINAL ISSUE | DATE | APP'D | CKD | DRN | ADDED NOTE |
| C | 29/12/14 | F. ZAINI | P. RELF | M. SHAW | 1 |
| F | | | | | |



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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

LVPTS

LV P.T. SHACKLE CONSTRUCTION
(WOOD POLE)

APP'D Paul Rainbird

DATE 31-05-96

REC'D John Tunney

CKD Greg Dowling

DWN M. Welsh

TECH STDS AUTOCAD

4920-A4 F

SECT PAGE

3 16

SHEET 1 OF 1

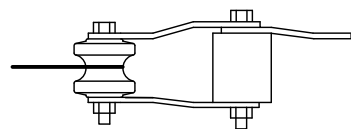
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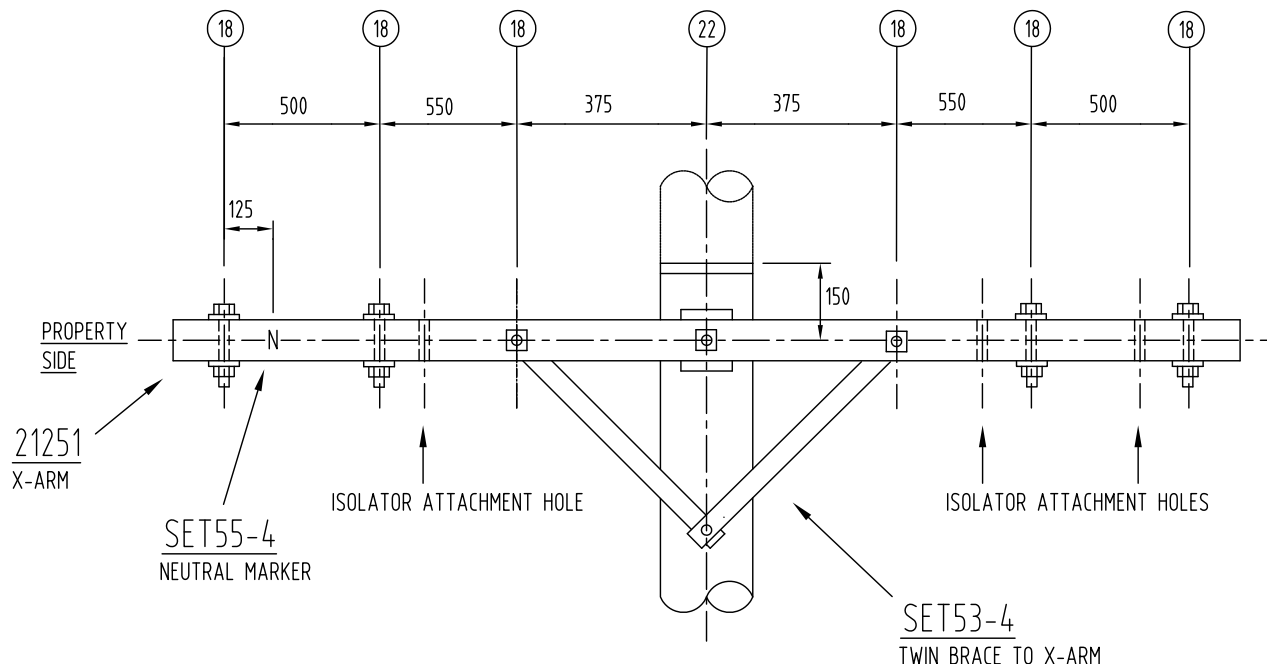
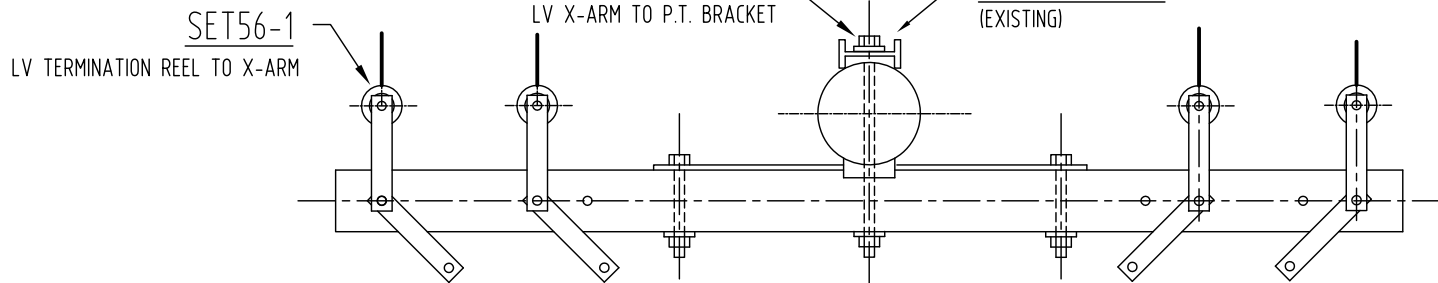
LVPTT

| | |
|---------|---|
| SET51-4 | 1 |
| SET53-4 | 1 |
| SET56-1 | 4 |
| SET55-4 | 1 |

21251 (XARM) 1



SECTION A-A



NOTE

1. LV NEUTRALS IN COASTAL AREAS MUST BE DOUBLE CLAMPED

| | | | | | |
|----------------|----------|-------|----------|---------|------------|
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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

LVPTT

LV P.T. TERMINATION CONSTRUCTION (WOOD POLE)

APP'D Paul Rainbird

DATE 31-05-96

REC'D John Tunney

CKD Greg Dowling

DWN M. Welsh

TECH STDS AUTOCAD

4920-A4 F

SECT PAGE

3 17

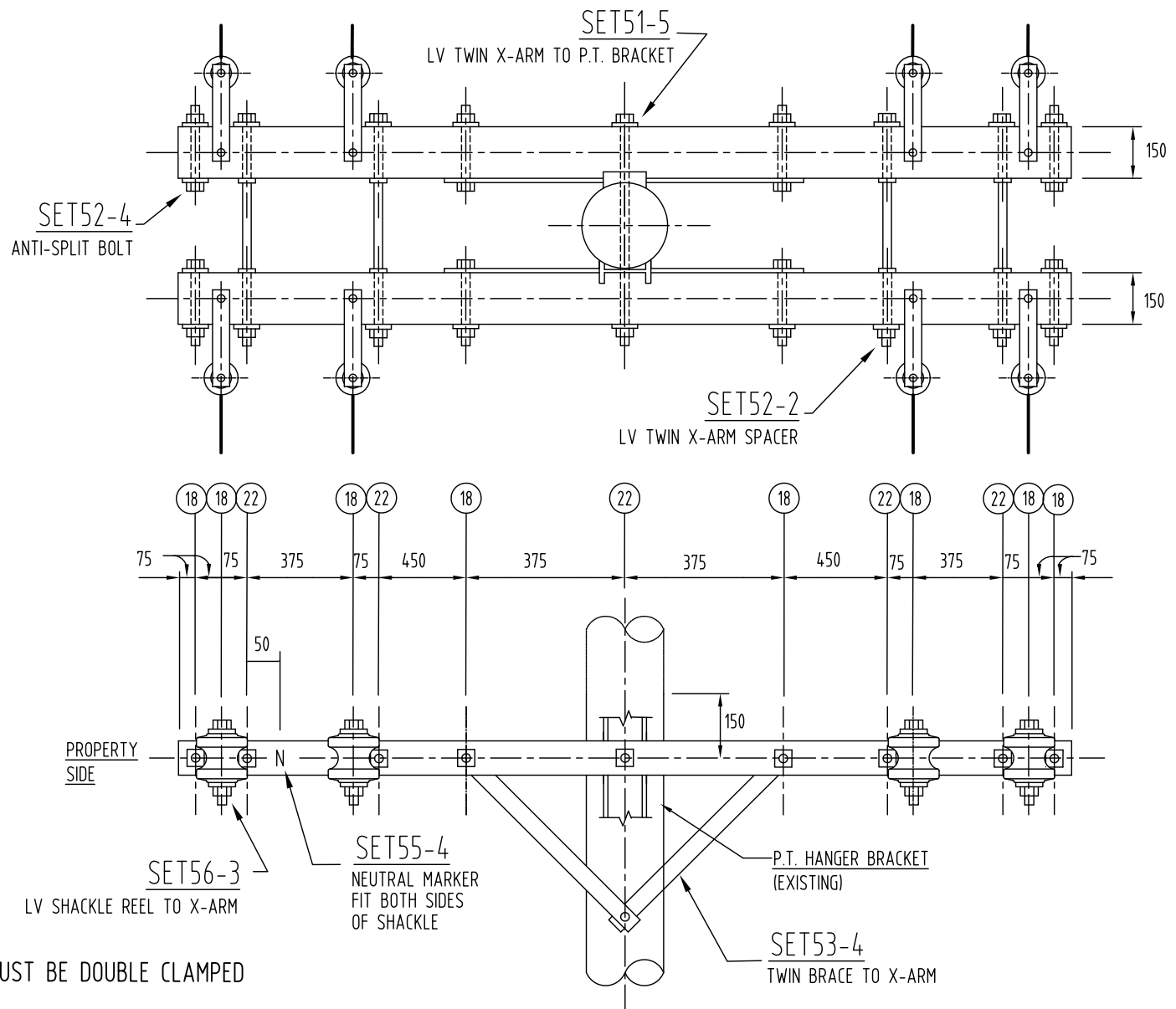
SHEET 1 OF 1

FILE:

CU LIST -


LVPTS2

| | |
|--------------|---|
| SET51-5 | 1 |
| SET53-4 | 2 |
| SET56-3 | 4 |
| SET52-4 | 4 |
| SET52-2 | 4 |
| SET55-4 | 2 |
| 14299 (XARM) | 2 |



NOTE

1. LV NEUTRALS IN COASTAL AREAS MUST BE DOUBLE CLAMPED

| | | | | | | | | | | | | | | | |
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| | REC'D John Tunney | | | | | | | | LVPTS2 | | SECT 3 | | PAGE 18 | | |
| | CKD Greg Dowling | | | | | | | | LV P.T. SHACKLE CONSTRUCTION /TWIN X-ARM (WOOD POLE) | | SHEET 1 OF 1 | | | | |
| | DWN M. Welsh | | | | | | | | | | FILE: | | | | |

CU LIST -

LVPTT2

SET51-5 1

SET53-4 2

SET56-4 4

SET52-4 4

SET52-2 4

SET55-4 2

14299 (XARM) 2

SET52-4
ANTI-SPLIT BOLT

NOTE 1.

SET51-5
LV TWIN X-ARM TO P.T. BRACKETSET52-2
LV TWIN X-ARM SPACERPROPERTY
SIDESET56-4
LV TERMINATION REEL TO X-ARMSET55-4
NEUTRAL MARKER
NOTE 2P.T. HANGER BRACKET
(EXISTING)SET53-4
TWIN BRACE TO X-ARM

NOTE

1. TERMINATION FITTED TO EITHER X-ARM.
2. FIT MARKER TO BOTH SIDES OF SHACKLE.
3. LV NEUTRALS IN COASTAL AREAS MUST BE DOUBLE CLAMPED

| | | | | |
|----------------|----------------|-------------|-------------|--------------|
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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

LVPTT2

LV P.T. TERM CONSTRUCTION /TWIN X-ARM
(WOOD POLE)

APP'D Paul Rainbird

DATE 31-05-96

REC'D John Tunney

CKD Greg Dowling

DWN M. Welsh

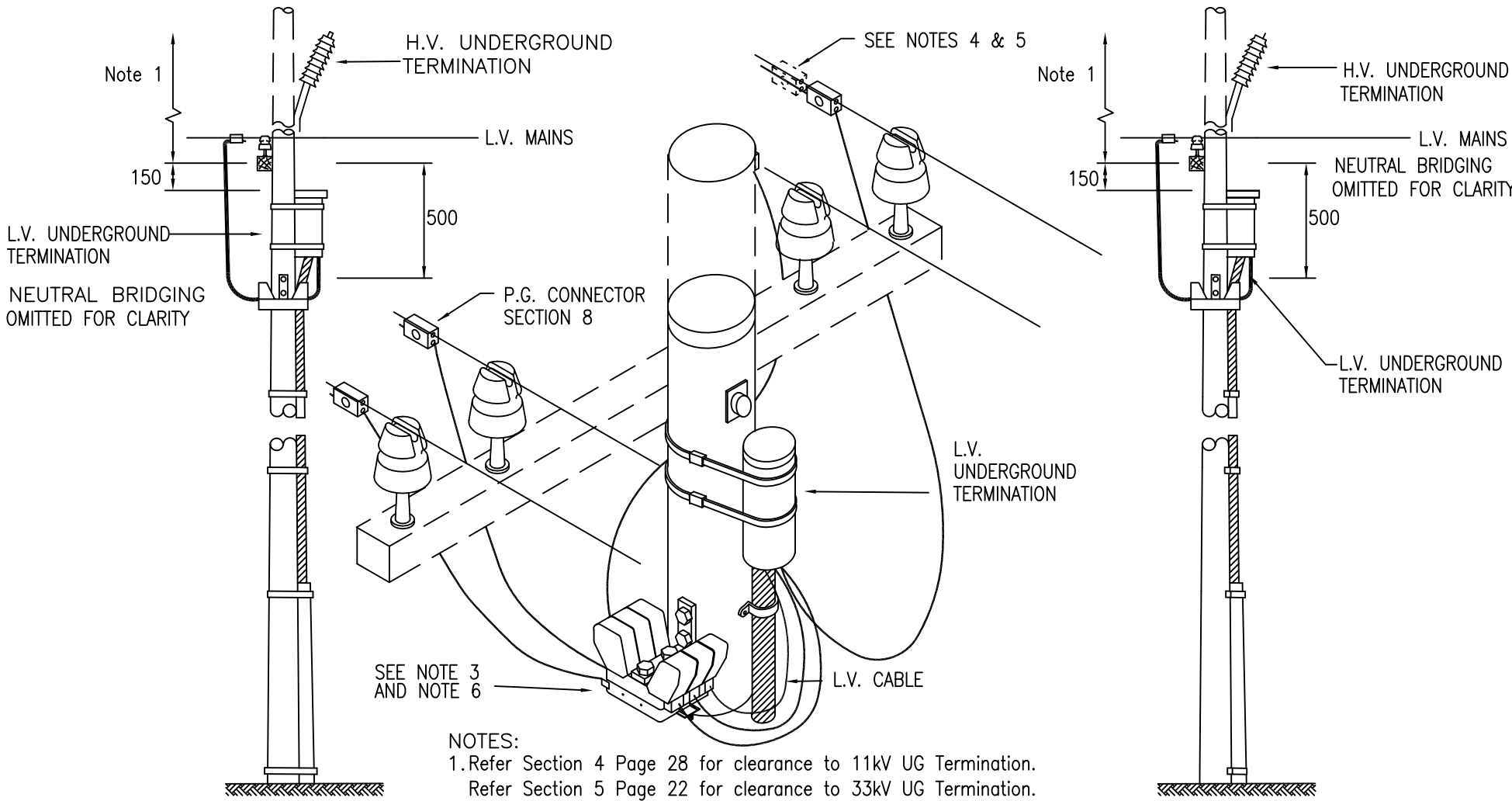
TECH STDS AUTOCAD

4920-A4 E

SECT 3 PAGE 19

SHEET 1 OF 1


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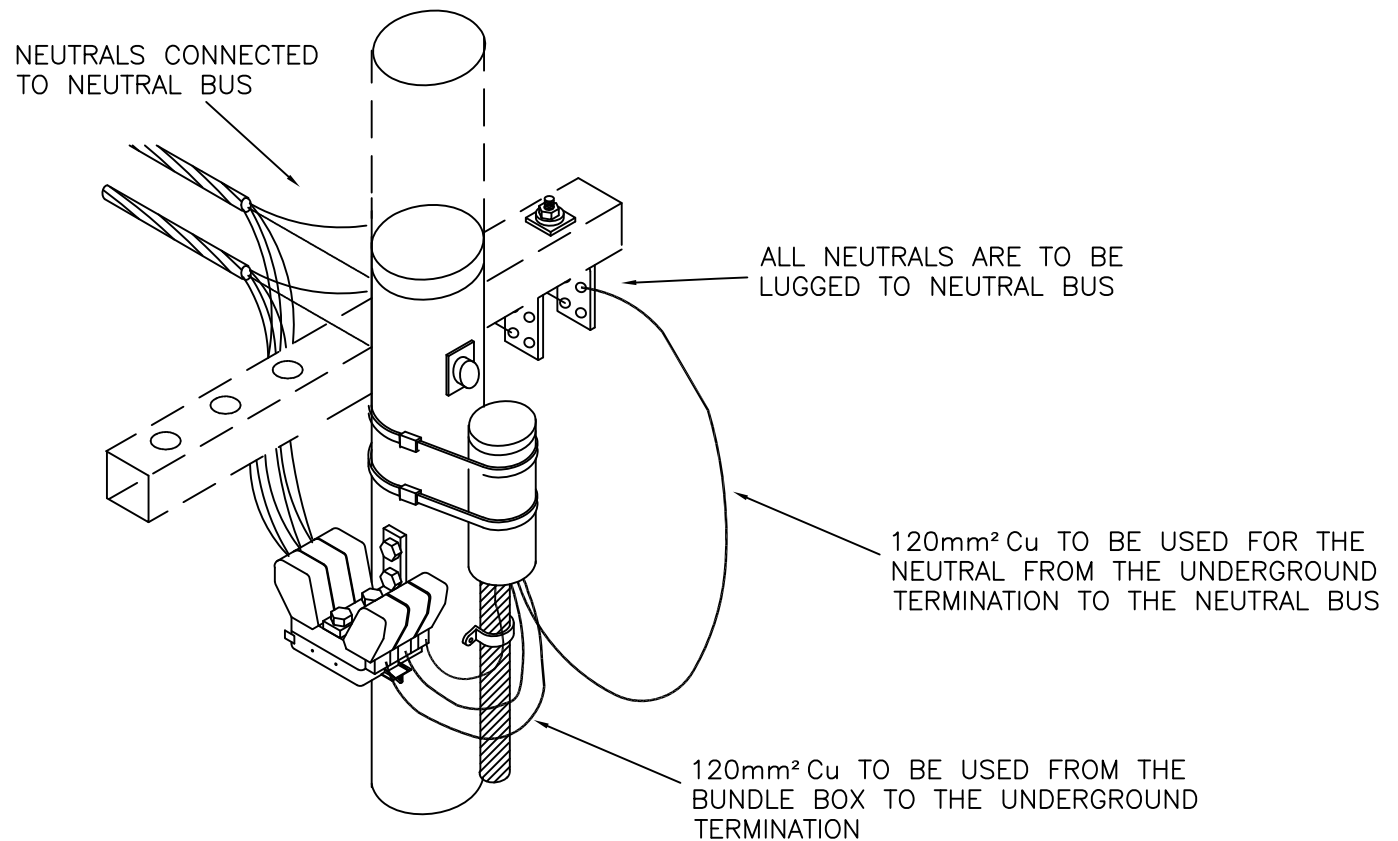


CONCRETE POLE

WOOD POLE


- NOTES:
- 1. Refer Section 4 Page 28 for clearance to 11kV UG Termination.
Refer Section 5 Page 22 for clearance to 33kV UG Termination.
 - 2. Switch not required when UG supplies a single pillar.
 - 3. Lugs shall be insulated. Heatshrink if required.
 - 4. LV neutrals in coastal areas must be double clamped.
 - 5. The LV neutral connecting OH mains to UG tails directly from a transformer must be double clamped.
 - 6. Install LV Fuses (Set102-1 or 102-4) if existing fusing is inadequate or no fusing exist. Use Links (SET102-2) only if existing OH LV Fusing is adequate.

| | | | | | | | | | | | | | | | | | | | | | |
|---|----------------|---------------|--|----------------|----------------|--------------|--------------|---|--|---------------------|--|--------------|--|---------|--|--|--|--|--|--|--|
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| | | | | | | | | | | DATE 31-05-96 | | 4920-A41 | | | | | | | | | |
| | | | | | | | | | | REC'D John Tunney | | SECT | | PAGE | | | | | | | |
| | | | | | | | | | | CKD Greg Dowling | | 3 | | 20 | | | | | | | |
| | | | | | | | | | | DWN M. Welsh | | SHEET 1 OF 1 | | | | | | | | | |
| | | | | | | | | | | FILE: | | | | | | | | | | | |



NOTES:

1. All neutral connections to be made at the Neutral bus
2. Refer Section 3 Page 20 for detailed Termination Construction and applicable additional notes.
3. 120mm² Cu to be used from the Bundle Box to the Underground Termination

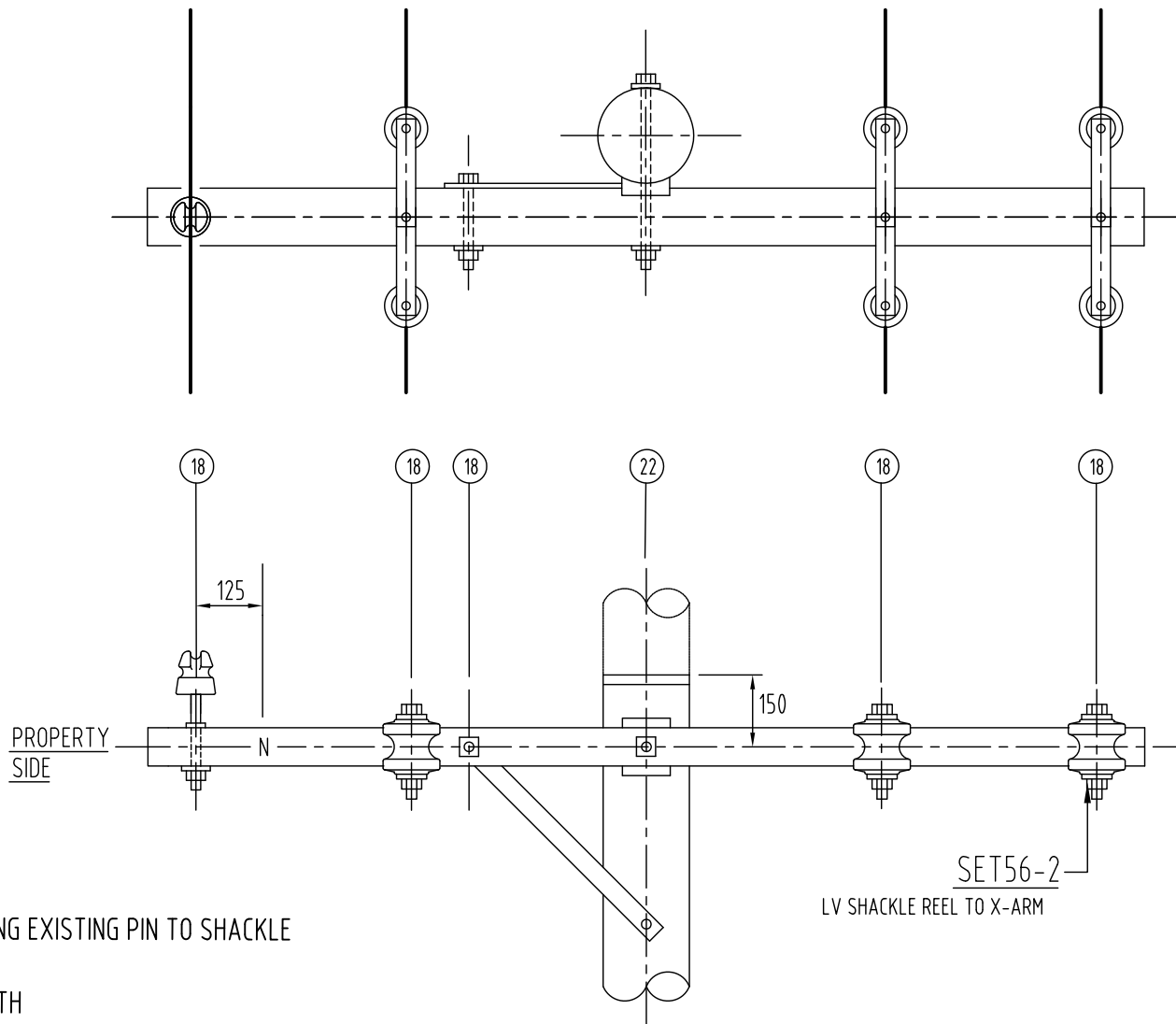
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| | | | LV CONSTRUCTION | | DATE 21/05/2019 | 4920-A4 | | A |
| | | | LV U/G POLE TERMINATION | | REC'D .. | SECT | PAGE | |
| | | | Alternate bridging using the Neutral BUS | | CKD J. CHUNG | 3 | 21 | |
| | | | | | DWN P. Relf | SHEET 1 OF 1 | | FILE: |

CU LIST -

LVPS

SET56-2

3



NOTE

1. CONSTRUCTION CAN ONLY BE USED WHEN CONVERTING EXISTING PIN TO SHACKLE
2. TENSION TO BE T440 OR SLACKER
3. ONLY TO BE USED WITH SPANS a) <60m SPAN LENGTH
b) <15° DEVIATION



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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

LVPS

LV PIN TO SHACKLE CONSTRUCTION
(WOOD POLE)

| | | | | |
|-------|----------|--------------|------|---------|
| APP'D | F.Zaini | TECH STDS | | AUTOCAD |
| DATE | 31-03-15 | 4920-A4 | | A |
| REC'D | .. | SECT | PAGE | |
| CKD | P.Judge | 3 | 31 | |
| DWN | P.Relf | SHEET 1 OF 1 | | FILE: |

ORIGINAL ISSUE

A

CU LIST -

LVABC/SU3
LVABC/SU3-1

| | | |
|----------|---|---|
| SET101-1 | 1 | 1 |
| 10598 | 1 | |
| 18990 | | 1 |

LVABC/SU3 - (3 PHASE)

LVABC/SU3-1 - (SINGLE PHASE)

RIBBED CORE
IS NEUTRAL10598 or 18990
SUSPENSION CLAMP

SET101-1

300
MINLVABC 2 or 4 x 95mm²LVABC SUSPENSION CONSTRUCTION - (300mm LONG HOOK BOLT)

CU LIST -

LVABC/SU4
LVABC/SU4-1

| | | |
|----------|---|---|
| SET101-2 | 1 | 1 |
| 10598 | 1 | |
| 18990 | | 1 |

LVABC/SU4 - (3 PHASE)

LVABC/SU4-1 - (SINGLE PHASE)

RIBBED CORE
IS NEUTRAL10598 or 18990
SUSPENSION CLAMP

SET101-2

300
MINLVABC 2 or 4 x 95mm²LVABC SUSPENSION CONSTRUCTION - (400mm LONG HOOK BOLT)

| | | | | | |
|----------------|----------|-----------|----------|------------|------------------|
| ORIGINAL ISSUE | DATE | APP'D | CKD | DRN | TEMPLATE CHANGED |
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| E | | | | | |



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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTIONLVABC/SU3, LVABC/SU4
LVABC SUSPENSION CONSTRUCTION
(WOOD POLE)

APP'D Paul Rainbird

DATE 31-05-96

REC'D John Tunney

CKD Greg Dowling

DWN M. Welsh

TECH STDS AUTOCAD

4920-A4 E

SECT 3
PAGE 101

SHEET 1 OF 1

FILE:ocm\s3\ohc3-101e.dwg

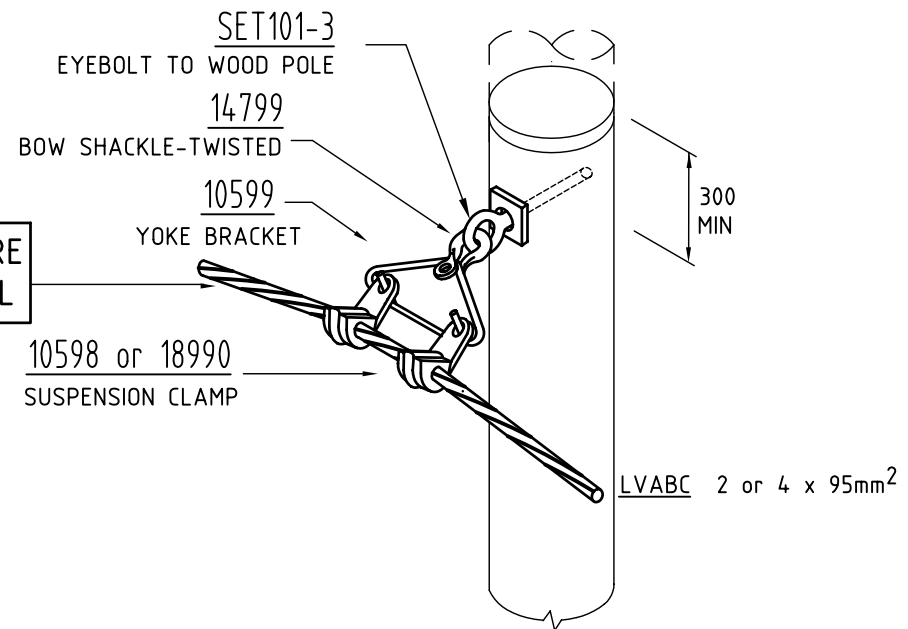
CU LIST -


LVABC/A
LVABC/A-1

| | | |
|----------|---|---|
| SET101-1 | 1 | 1 |
| 10599 | 1 | 1 |
| 14799 | 1 | 1 |
| 10598 | 2 | |
| 18990 | | 2 |

LVABC/A - (3 PHASE)

LVABC/A-1 - (SINGLE PHASE)

LVABC ANGLE CONSTRUCTIONRIBBED CORE
IS NEUTRAL

| | | | | | | | | | | | | | | | | |
|---|----------------|--|--|--|--|--|--|---|---------------------|--|---------------------------|--|----------|--|--|--|
| A | ORIGINAL ISSUE | | | | | |  ©COPYRIGHT 2006 ENERGEX This drawing must not be reproduced in part or whole without written permission from ENERGEX | OVERHEAD CONSTRUCTION MANUAL LV CONSTRUCTION LVABC/A LVABC ANGLE CONSTRUCTION (WOOD POLE) | APP'D Paul Rainbird | | TECH STDS | | AUTOCAD | | | |
| | DATE 15/11/06 | | | | | | | | DATE 31-05-96 | | 4920-A4 | | D | | | |
| | APPD K.NUTTALL | | | | | | | | REC'D John Tunney | | SECT 3 | | PAGE 102 | | | |
| | CKD J.TUNNEY | | | | | | | | CKD Greg Dowling | | SHEET 1 OF 1 | | | | | |
| | DRN G.JAYAWERA | | | | | | | | DWN M. Welsh | | FILE:ocm\s3\ohc3-102d.dwg | | | | | |
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CU LIST -

LVABC/T

| | |
|----------|---|
| SET101-3 | 1 |
| 22520 | 4 |
| 10597 | 1 |
| 10604 | 1 |

RIBBED CORE
IS NEUTRAL

SET101-3
EYEBOLT TO WOOD POLE

10597
STRAIN CLAMP

LVABC
4 x 95mm²

300
MIN

22520
CAPS

LVABC/T - LVABC TERMINATION CONSTRUCTION

NOTE

1. LV NEUTRALS IN COASTAL AREAS MUST BE DOUBLE CLAMPED

CU LIST -

LVABC/S

| | |
|----------|---|
| SET101-4 | 1 |
| 22520 | 4 |
| 10597 | 2 |
| 10604 | 5 |

RIBBED CORE
IS NEUTRAL

SET101-4
EYEBOLT & EYENUT TO POLE

10597
STRAIN CLAMP

LVABC
4 x 95mm²

300
MIN

STRAIN CLAMP

SEE NOTE 1

22520
CAPS

10604
CONNECTOR

LVABC/S - LVABC SHACKLE CONSTRUCTION

| ORIGINAL ISSUE | DATE | APP'D | CKD | DRN | ADDED NOTE 1 | ADDED SECOND NEUTRAL CLAMP |
|----------------|----------|----------|---------|---------|--------------|----------------------------|
| G | 29/12/14 | F. ZAINI | P. RELF | M. SHAW | | |



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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

LVABC/T, LVABC/S
LVABC TERMINATION & SHACKLE CONSTRUCTION (WOOD POLE)

| | | | |
|-------|-----------|-----------|---------|
| APP'D | P. Pearl | TECH STDS | AUTOCAD |
| DATE | 31-05-96 | 4920-A4 | G |
| REC'D | | SECT | PAGE |
| CKD | R. Walker | 3 | 103 |
| DWN | M. Welsh | SHEET | 1 OF 1 |
| FILE: | | | |

CU LIST -

LVABC/DS2
LVABC/DS4

| | | |
|----------|---|---|
| SET102-2 | | 1 |
| SET102-4 | 1 | |
| 10604 | 1 | 1 |
| 14677 | 6 | 6 |
| 22520 | 1 | 1 |

LVABC/DS2 - LVABC 3PH FUSE SWITCH WITH 200A FUSES (SINGLE CIRCUIT)

LVABC/DS4 - LVABC 3PH FUSE SWITCH WITH 400A LINKS (SINGLE CIRCUIT)

NOTE

1. LV NEUTRALS IN COASTAL AREAS MUST BE DOUBLE CLAMPED

CU LIST -

LVABC/DS2T
LVABC/DS4T

| | | |
|----------|----|----|
| SET102-2 | | 1 |
| SET102-1 | 1 | |
| 10604 | 3 | 3 |
| 14677 | 12 | 12 |
| 22520 | 1 | 1 |

RIBBED CORE
IS NEUTRAL

JOIN BOTH
NEUTRALS

LVABC/DS2T - LVABC 3PH FUSE SWITCH WITH 315A FUSES (TWIN LVABC)

LVABC/DS4T - LVABC 3PH FUSE SWITCH WITH 400A LINKS (TWIN LVABC)

RIBBED CORE
IS NEUTRAL

LVABC/T CONSTRUCTION

SEE NOTE 1

22520
CAPS

300
MIN

250

LVABC 4 x 95mm²E

10604
CONNECTOR

SET102-2 or SET102-4
3PH FUSE SWITCH TO POLE

14677
TERM LUGS

FOOTPATH

PREFERRED MOUNTING SIDE
PHASING A,B,C, FROM FOOTPATH TO ROADWAY

ROADWAY

ALTERNATE MOUNTING SIDE

22520
CAPS

150

250

TWIN LVABC 4 x 95mm²E

SEE NOTE 1

10604
CONNECTOR

SET102-2 or SET102-1
3PH FUSE SWITCH TO POLE

14677
TERM LUGS



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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

LVABC/DS2, DS4, DS2T, DS4T
3PH FUSE SWITCH CONSTRUCTION
(WOOD POLE)

| | | | |
|-------|-----------|-----------|---------|
| APP'D | P. Pearl | TECH STDS | AUTOCAD |
| DATE | 31-05-96 | 4920-A4 | I |
| REC'D | | SECT | PAGE |
| CKD | R. Walker | 3 | 104 |
| DWN | M. Welsh | SHEET | 1 OF 1 |
| FILE: | | | |

| | | | | | | | | | |
|----------------|------|------------|-------|----------|-----|---------|-----|---------|---|
| ORIGINAL ISSUE | DATE | 29/03/2016 | APP'D | F. ZAINI | CKD | P. RELF | DRN | P. RELF | DS4 and DS4T rating changed from 630A to 400A |
| A | 1 | | | | | | | | |

CU LIST -

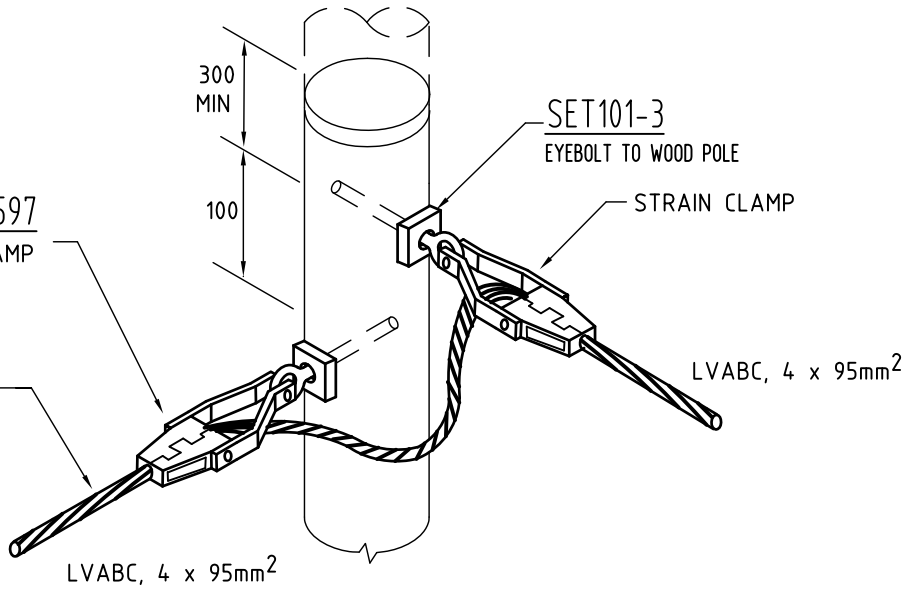
LVABC/XS
LVABC/HA

| | | |
|----------|---|---|
| SET101-3 | 2 | 2 |
| 10597 | 2 | 2 |

LVABC/HA - LVABC HEAVY ANGLE CONSTRUCTION
LVABC/XS - LVABC CROSSCHECK CONSTRUCTION

FULLY RIBBED CORE
IS NEUTRAL

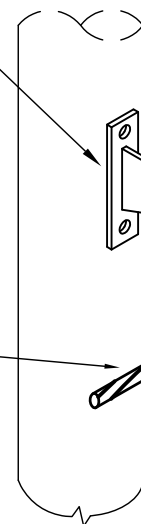
10597
STRAIN CLAMP



CU LIST -

LVABC/PTSU

| | |
|----------|---|
| SET102-3 | 2 |
| 2569 | 2 |
| 10598 | 1 |

RIBBED CORE
IS NEUTRALSET102-3
EXT. BKT TO POLE2569
BOW SHACKLELVABC, 4 x 95mm²10598
SUSPENSION CLAMP

LVABC/PTSU - LVABC P.T. SUSPENSION CONSTRUCTION

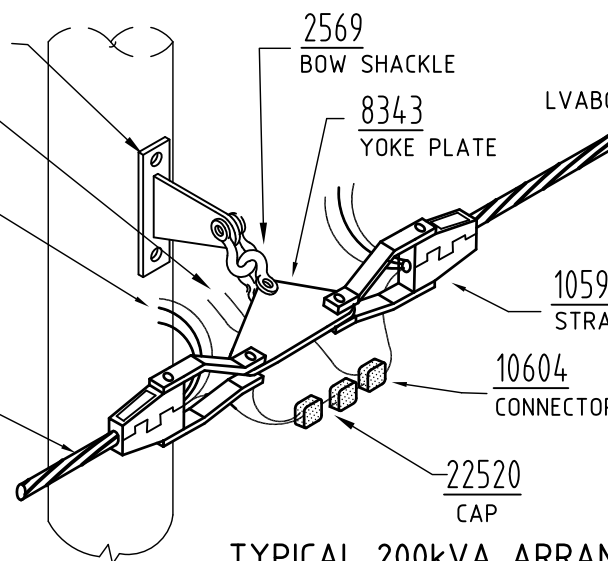
CU LIST -

LVABC/PTS

| | |
|----------|---|
| SET102-3 | 2 |
| 2569 | 2 |
| 22520 | 1 |
| 8343 | 1 |
| 10597 | 2 |
| 10604 | 9 |

NOTE

1. THIS IS A 'FLYING' SHACKLE AND CANNOT BE USED TO STRAIN MAINS.
2. LV NEUTRALS IN COASTAL AREAS MUST BE DOUBLE CLAMPED

RIBBED CORE
IS NEUTRALSET102-3
EXT. BKT TO POLENEUTRAL TAILS TO
TRANSFORMERPHASE TAILS TO
3PH FUSE SWITCH2569
BOW SHACKLE8343
YOKE PLATELVABC, 4 x 95mm²10597
STRAIN CLAMP10604
CONNECTOR22520
CAP

LVABC/PTS - LVABC P.T. SHACKLE CONSTRUCTION

TYPICAL 200kVA ARRANGEMENT

| | | | | | |
|----------------|----------|-------|----------|---------|--------------|
| ORIGINAL ISSUE | DATE | APP'D | CKD | DRN | ADDED NOTE 2 |
| A | 29/12/14 | G | F. ZAINI | P. RELF | M. SHAW |



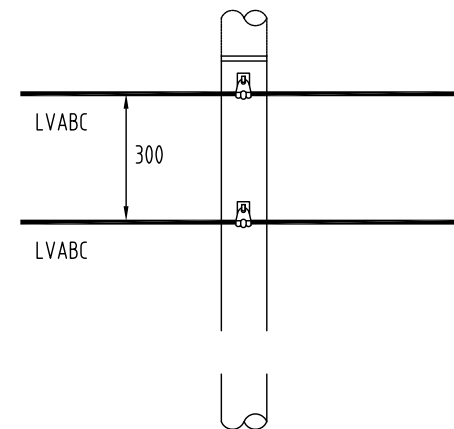
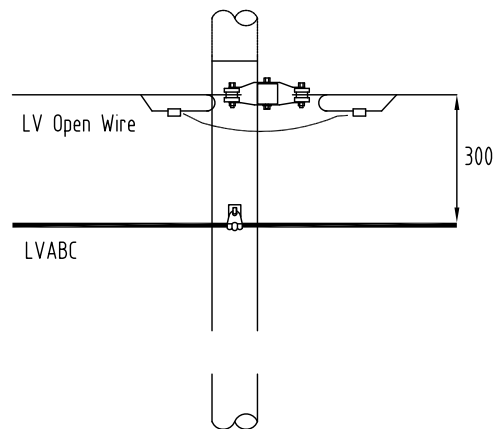
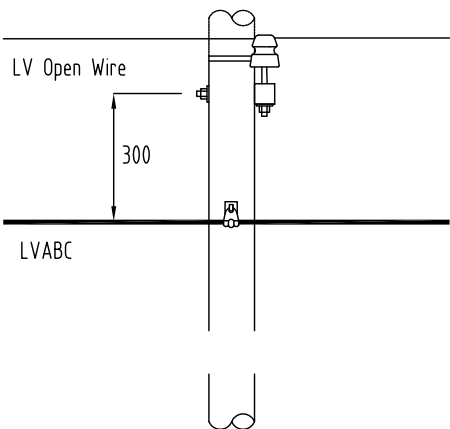
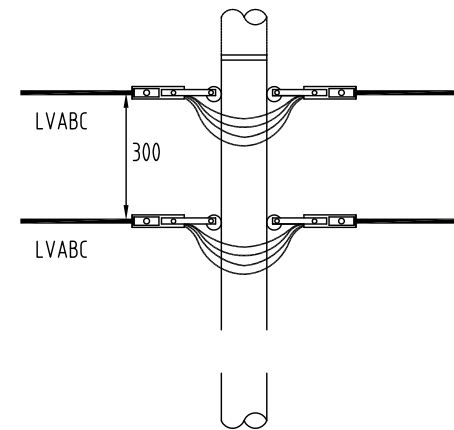
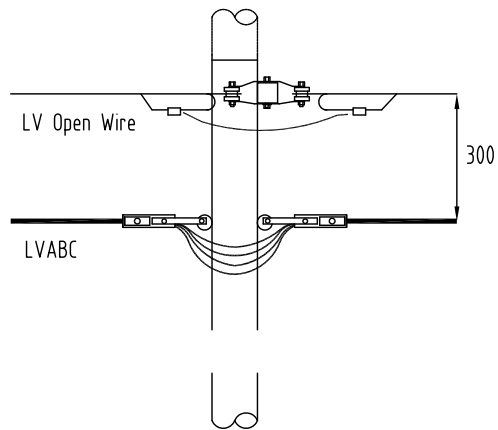
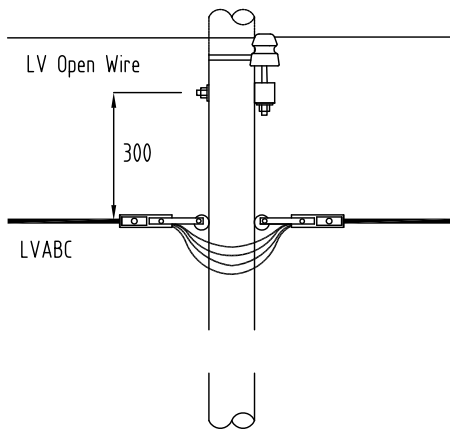
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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION
LVABC/PTSU, LVABC/PTS
LVABC P.T. CONSTRUCTION
(WOOD POLE)

| | | | |
|-------|-----------|-----------|---------|
| APP'D | P. Pearl | TECH STDS | AUTOCAD |
| DATE | 31-05-96 | 4920-A4 | G |
| REC'D | | SECT | PAGE |
| CKD | R. Walker | 3 | 106 |
| DWN | M. Welsh | SHEET | 1 OF 1 |
| FILE: | | | |



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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

LV CLEARANCES

LVABC AND OPEN WIRE MAINS

APP'D Roy English

DATE 19-07-11

REC'D

CKD

DWN P.RELF

TECH STDS AUTOCAD

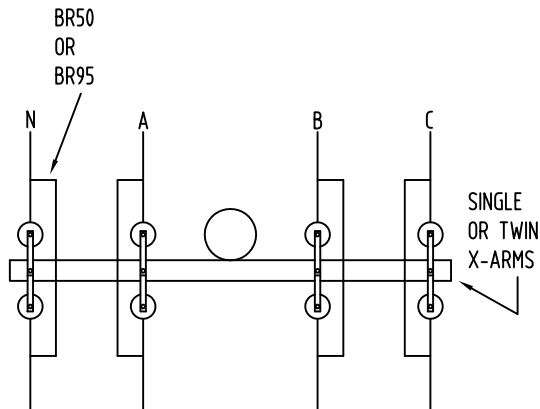
4920-A4 A

SECT PAGE

3 110

SHEET 1 OF 1

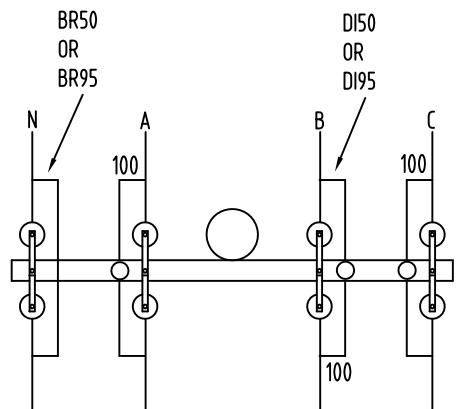
FILE:



NORMAL BRIDGING

BELOW SINGLE OR TWIN X-ARMS

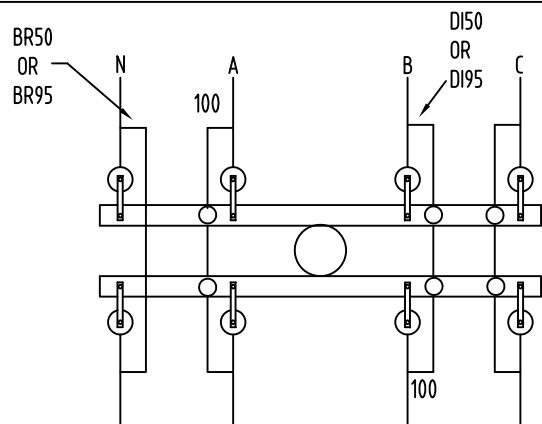
BRIDGING MODELS
PAGE 3-210



DISCONNECT BRIDGING (SINGLE)

BELOW SINGLE X-ARM

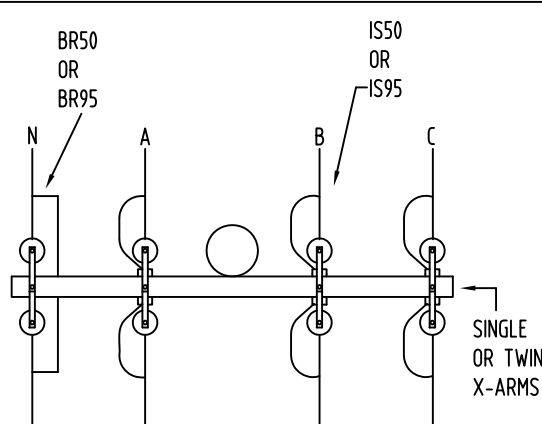
BRIDGING MODELS
PAGE 3-211



BRIDGING MODELS
PAGE 3-211

DISCONNECT BRIDGING (TWIN X-ARMS)

BELOW TWIN X-ARMS



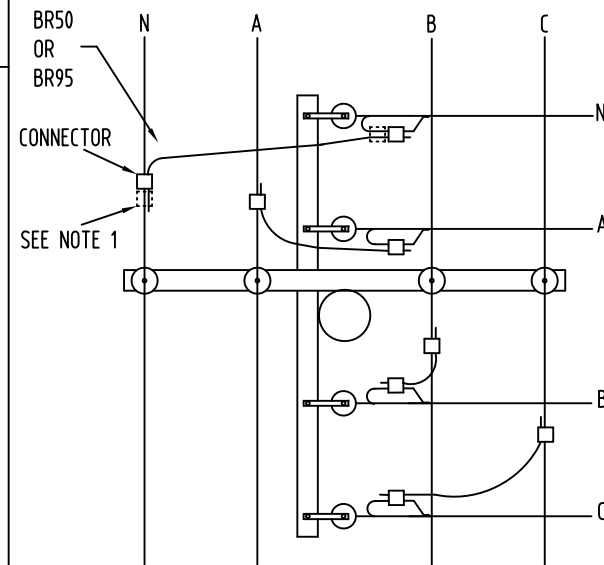
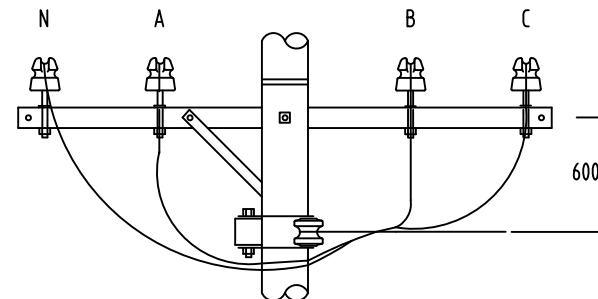
ISOLATING SWITCH

BELOW SINGLE OR TWIN X-ARMS

BRIDGING MODELS
PAGE 3-210

NOTE

1. LV NEUTRALS IN COASTAL AREAS MUST BE DOUBLE CLAMPED



BRIDGING MODELS
PAGE 3-210

TEE-OFF FLAT

| ORIGINAL ISSUE | DATE | APPD | CKD | DRN | UPDATED SPACING TO MATCH OHDM |
|----------------|----------|---------|--------|--------|-------------------------------|
| G | 18/09/18 | F.ZAINI | P.PREF | P.PREF | |



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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

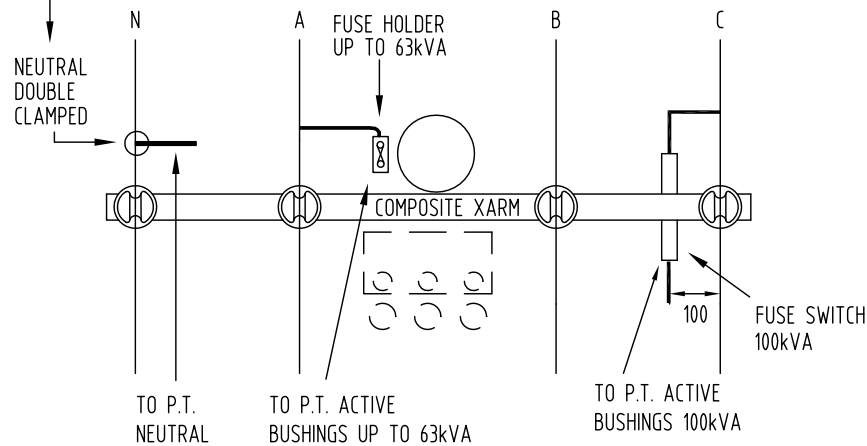
MAINS BRIDGING ARRANGEMENTS

NORMAL, DISCONNECT, ISOLATING SWITCH, TEE-OFF FLAT

| APP'D | P.Pearl | TECH STDS | AUTOCAD |
|-------|----------|-----------|---------|
| DATE | 03-12-97 | 4920-A4 | G |
| REC'D | J.TUNNEY | SECT | PAGE |
| CKD | J.TUNNEY | 3 | 201 |
| DWN | J.HILL | SHEET | 1 OF 1 |
| | | FILE: | |

ALWAYS DOUBLE CLAMP ALL NEUTRAL CONNECTIONS AT POLE TRANSF STATIONS

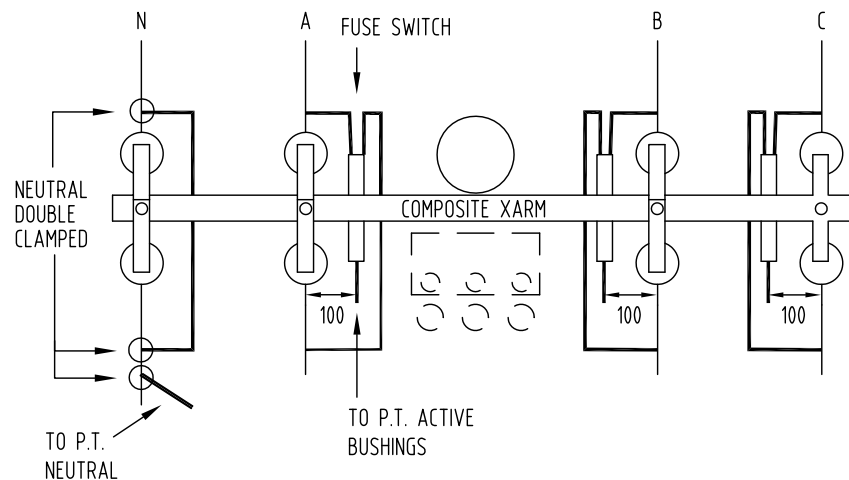
REFER SECTION 7 FOR BRIDGING CABLE REQUIREMENT



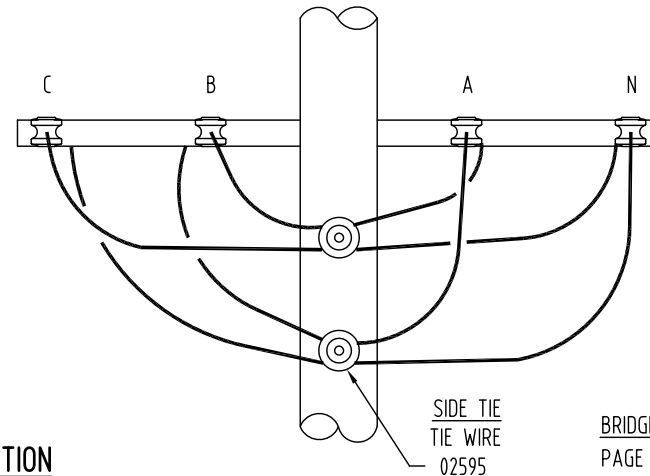
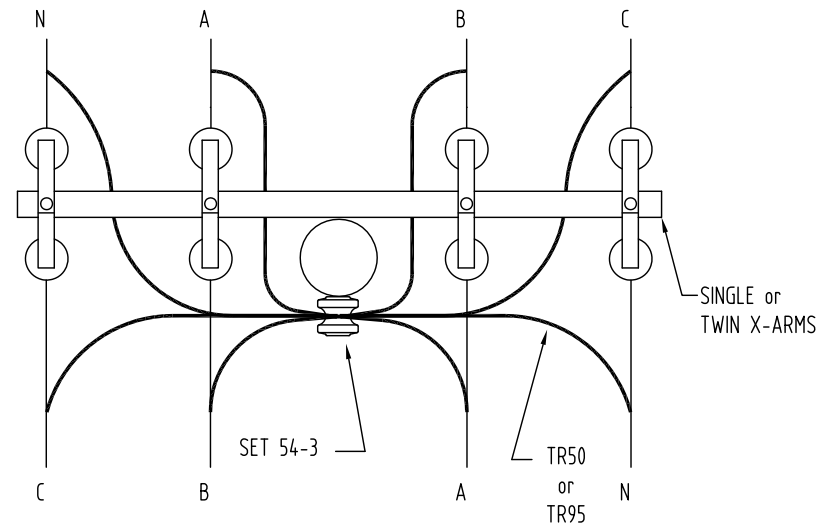
P.T. ISOLATION - FUSE HOLDER UP TO 63 kVA, FUSE SWITCH 100 kVA

ALWAYS DOUBLE CLAMP ALL NEUTRAL CONNECTIONS AT POLE TRANSF STATIONS

REFER SECTION 7 FOR BRIDGING CABLE REQUIREMENT



P.T. ISOLATION - FUSE SWITCH 200 kVA & ABOVE



TRANSPPOSITION

NOTES

1. LV NEUTRALS IN COASTAL AREAS MUST BE DOUBLE CLAMPED
2. ALL BRIDGING BETWEEN THE TRANSFORMER (BRACKET) AND THE POLE MUST BE IN CONDUIT

| | | | | |
|--|-----------------|----------------|---------|----------|
| ORIGINAL ISSUE | DATE 06-03-2015 | APP'D F. ZAINI | P. RELF | P. JUDGE |
| B | F | CKD | DRN | |
| Clarified double clamp neutrals at PT Added new note 2 | | | | |



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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

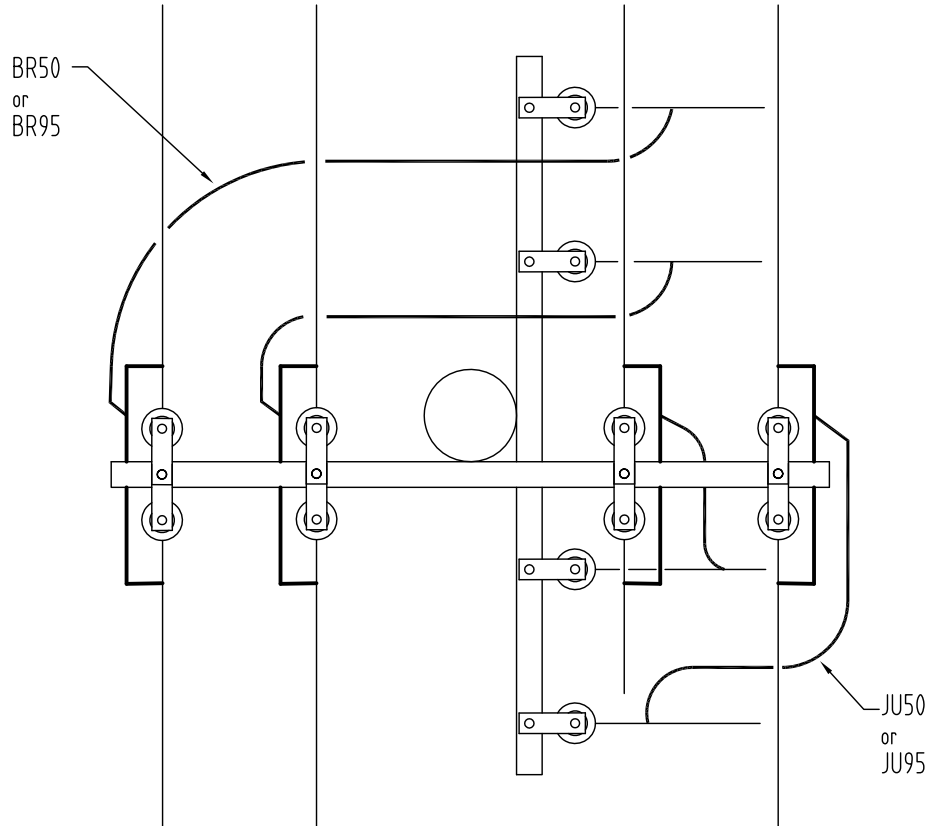
PT BRIDGING ARRANGEMENTS

P.T. & TRANSPPOSITION

OPEN WIRE MAINS

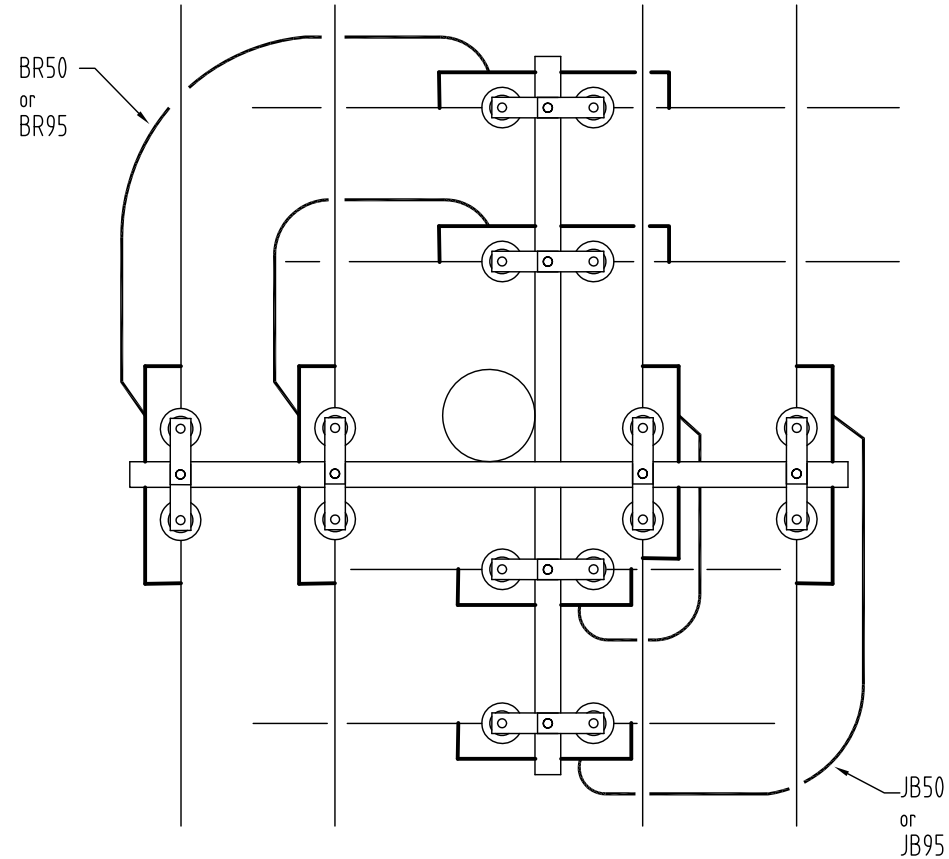
| | | |
|----------------|--------------|----------|
| APP'D P.Pearl | TECH STDS | AUTOCAD |
| DATE 03-12-97 | 4920-A4 | F |
| REC'D J.TUNNEY | SECT 3 | PAGE 202 |
| CKD J.TUNNEY | SHEET 1 OF 1 | |
| DWN J.HILL | FILE: | |

KINGBOLT SPACING
650mm



BRIDGING MODELS
PAGE 3-210 & 214

3 WAY BRIDGING



BRIDGING MODELS
PAGE 3-210 & 214

4 WAY BRIDGING

NOTE
1. LV NEUTRALS IN COASTAL
AREAS MUST BE DOUBLE CLAMPED



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OVERHEAD CONSTRUCTION MANUAL

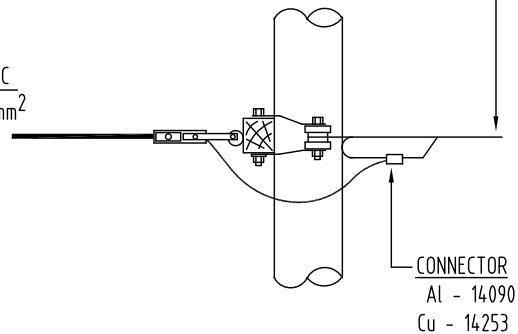
LV CONSTRUCTION
BRIDGING ARRANGEMENTS
3 WAY & 4 WAY

| | | | | |
|-------|----------|--------------|------|---------|
| APP'D | P.Pearl | TECH STDS | | AUTOCAD |
| DATE | 03-12-97 | 4920-A4 | | E |
| REC'D | J.TUNNEY | SECT | PAGE | |
| | | 3 | 203 | |
| CKD | J.TUNNEY | SHEET 1 OF 1 | | |
| DWN | J.HILL | FILE: | | |

| | | | | | | | | | |
|----------------|----------|----------|-------|----------|-----|---------|-----|---------|--------------|
| ORIGINAL ISSUE | DATE | 29/12/14 | APP'D | F. ZAINI | CKD | P. RELF | DRN | M. SHAW | ADDED NOTE 1 |
| C | E | | | | | | | | |

CONDUCTOR Al or Cu.

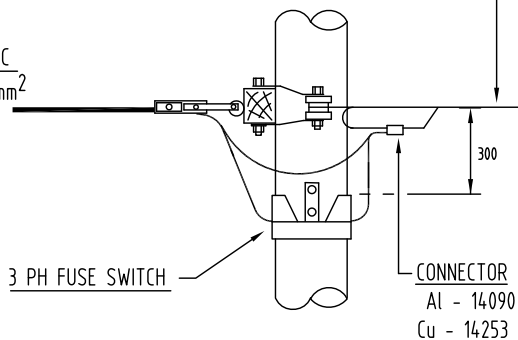
LVABC
4x95mm²



LVABC TO OPEN WIRE

CONDUCTOR Al or Cu.

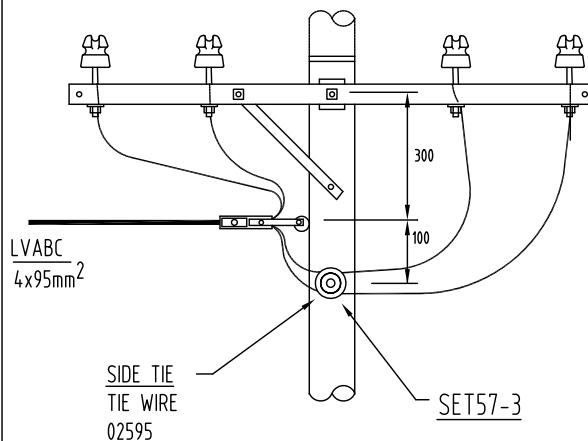
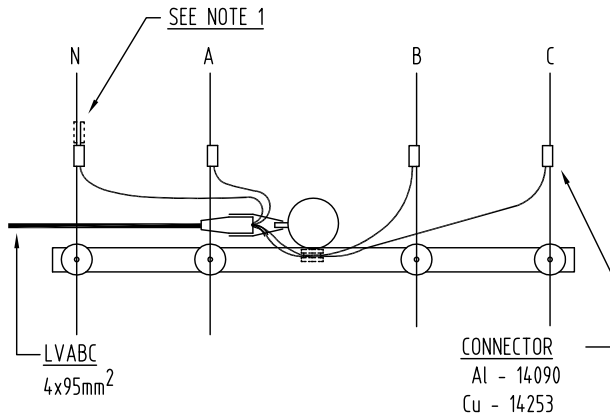
LVABC
4x95mm²



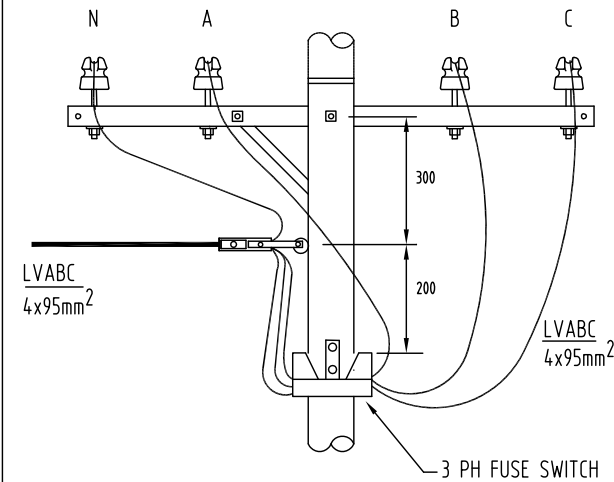
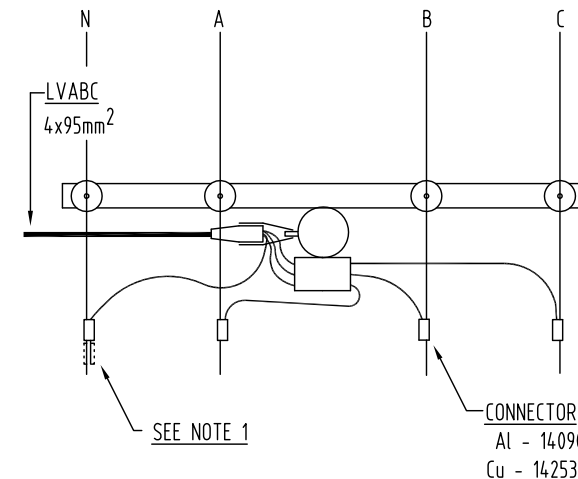
LVABC SWITCH TO OPEN WIRE

NOTE

1. LV NEUTRALS IN COASTAL AREAS MUST BE DOUBLE CLAMPED



LVABC TEE-OFF



LVABC SWITCH TO TEE-OFF

| ORIGINAL ISSUE | DATE | APP'D | CKD | DRN | ADDED NOTE 1 | ADDED SECOND NEUTRAL CLAMP |
|----------------|----------|----------|---------|---------|--------------|----------------------------|
| F | 30/12/14 | F. ZAINI | P. RELF | M. SHAW | | |



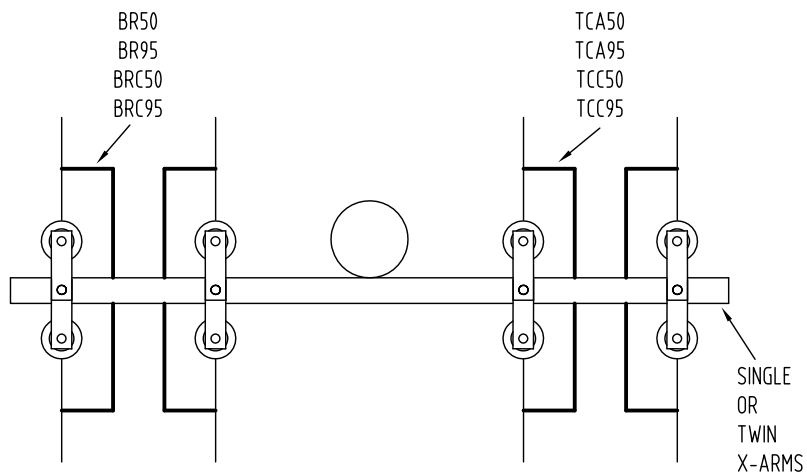
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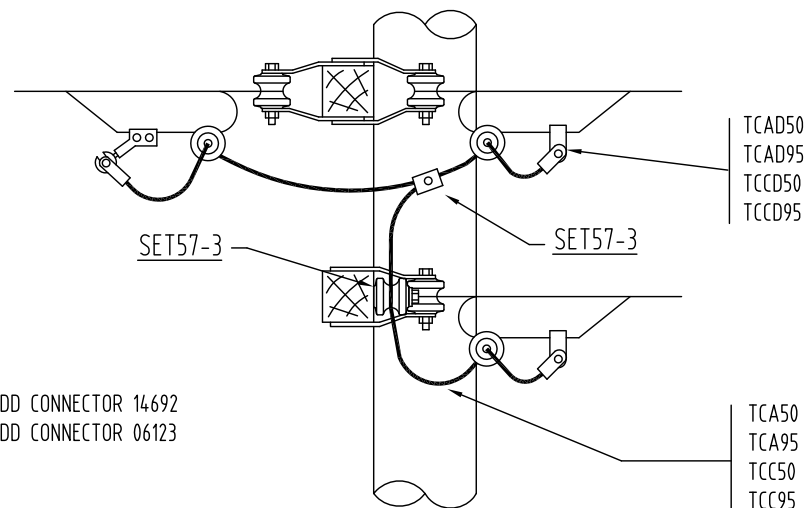
OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION BRIDGING ARRANGEMENTS LVABC TO OPEN WIRE MAINS

| | | | |
|-------|-----------|-----------|---------|
| APP'D | P. Pearl | TECH STDS | AUTOCAD |
| DATE | 03-12-97 | 4920-A4 | F |
| REC'D | J. TUNNEY | SECT | PAGE |
| CKD | J. TUNNEY | 3 | 204 |
| DWN | J. HILL | SHEET | 1 OF 1 |
| FILE: | | | |

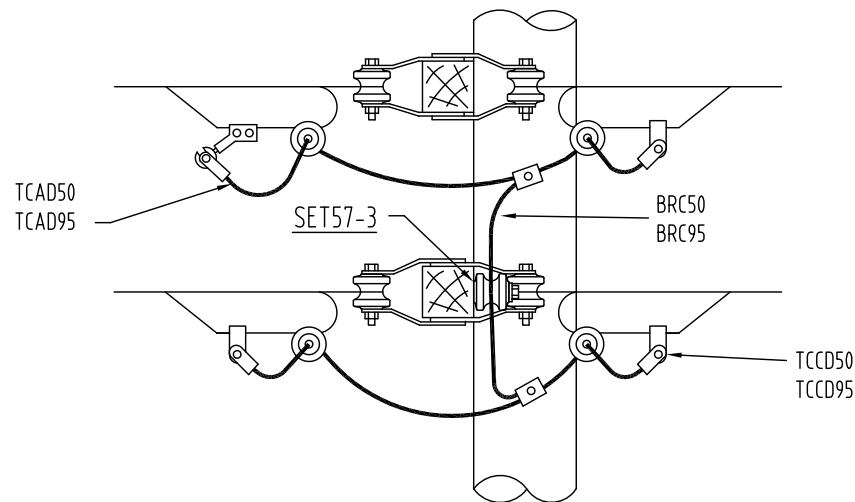


TERMINAL CONNECTOR - NORMAL




NOTE 1
TCA50 - ADD CONNECTOR 14692
TCA95 - ADD CONNECTOR 06123

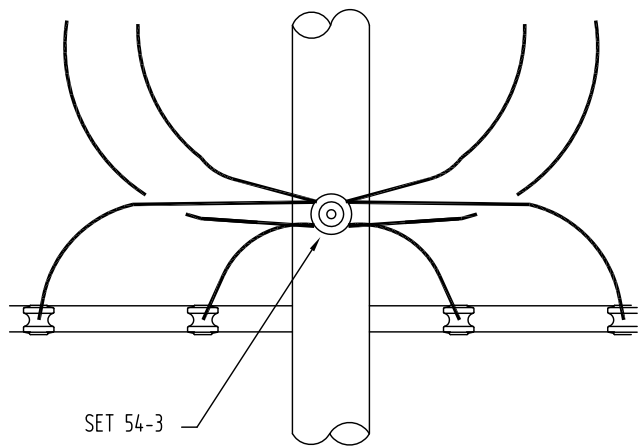
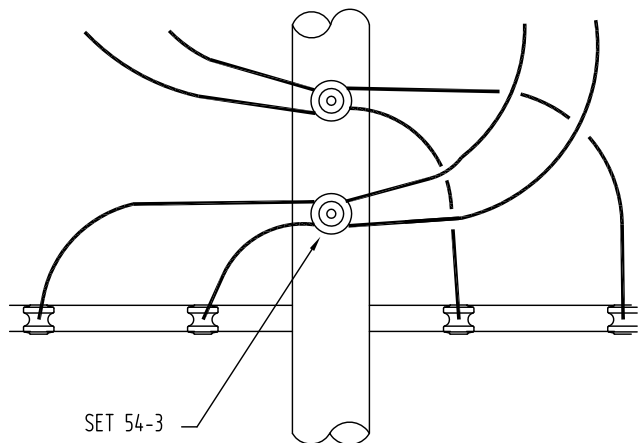
TERMINAL CONNECTOR - 3 WAY



TERMINAL CONNECTOR - 4 WAY

NOTE
2. LV NEUTRALS IN COASTAL AREAS MUST BE DOUBLE CLAMPED

| | | | | | | | | | | | | | | | | | |
|--|-----------------|--|---|---------------|--|---------------|-------------|-------------|--------------|--|---|------------------------------|----------------|-----------|--|---------|--|
| B | ORIGINAL ISSUE | | D | DATE 30/12/14 | | APPD F. ZAINI | CKD P. RELF | DRN M. SHAW | ADDED NOTE 2 | |  © COPYRIGHT 2014 ENERGEX This drawing must not be reproduced in part or whole without written permission from ENERGEX | OVERHEAD CONSTRUCTION MANUAL | APP'D P. Pearl | TECH STDS | | AUTOCAD | |
| | DATE 03-12-97 | | | 4920-A4 | | | | | | | | | D | | | | |
| | REC'D J. TUNNEY | | | SECT 3 | | | | | | | | | PAGE 205 | | | | |
| | CKD J. TUNNEY | | | SHEET 1 OF 1 | | | | | | | | | | | | | |
| | DWN J. HILL | | | FILE: | | | | | | | | | | | | | |
| LV CONSTRUCTION BRIDGING ARRANGEMENTS TERMINAL CONNECTOR | | | | | | | | | | | | | | | | | |



Note:

1. For transformers with two cables per phase, use SET165-3 as required

PT to LV TRANSPOSITION

ORIGINAL ISSUE

A



energeX

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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

PT BRIDGING ARRANGEMENTS

P.T. TRANSPOSITION

OPEN WIRE MAINS

| | | | | |
|---------------------------|------------|--------------|------|---------|
| APP'D | F.ZAINI | TECH STDS | | AUTOCAD |
| DATE | 18-11-2013 | 4920-A4 | | A |
| REC'D | C.BUDD | SECT | PAGE | |
| CKD | J.CHUNG | 3 | 206 | |
| DWN | P.RELF | SHEET 1 OF 1 | | |
| FILE:ocm\s3\ohc3-206a.dwg | | | | |

| CU LIST - | BR50 | BR95 | TR50 | TR95 |
|--------------------|------|------|------|------|
| PAGE3-220-2 | 2 | | 2 | |
| PAGE3-220-3 | | 2 | | 2 |
| 07164 (19/1.78 CU) | | | 1.5m | |
| 07173 (37/1.78 CU) | | | | 1.5m |

BR50 - NORMAL BRIDGE - 19/1.78 Cu

BR95 - NORMAL BRIDGE - 37/1.78 Cu

TR50 - TRANSPOSITION BRIDGE - 19/1.78 Cu

TR95 - TRANSPOSITION BRIDGE - 37/1.78 Cu

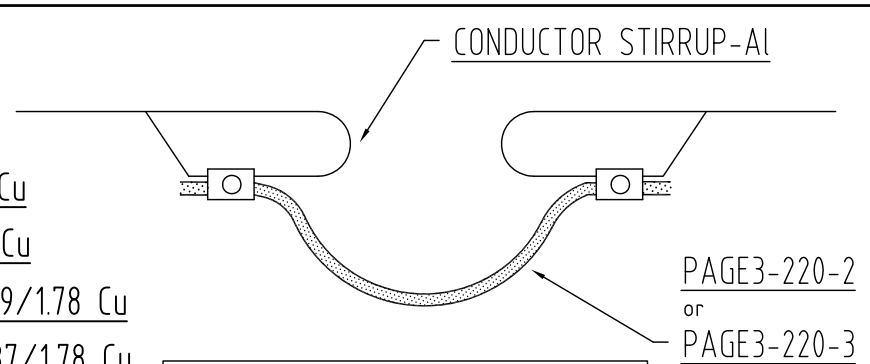
| CU LIST - | IS50 | IS95 | IS50-4 | IS95-4 |
|-------------|------|------|--------|--------|
| PAGE3-220-2 | 2 | | 4 | |
| PAGE3-220-3 | | 2 | | 4 |
| PAGE3-221-1 | 1 | | 2 | |
| PAGE3-221-2 | | 1 | | 2 |
| SET57-1 | 1 | 1 | 1 | 1 |

IS50 - ISOLATOR BRIDGE 2 WAY - 19/1.78 Cu

IS95 - ISOLATOR BRIDGE 2 WAY - 37/1.78 Cu

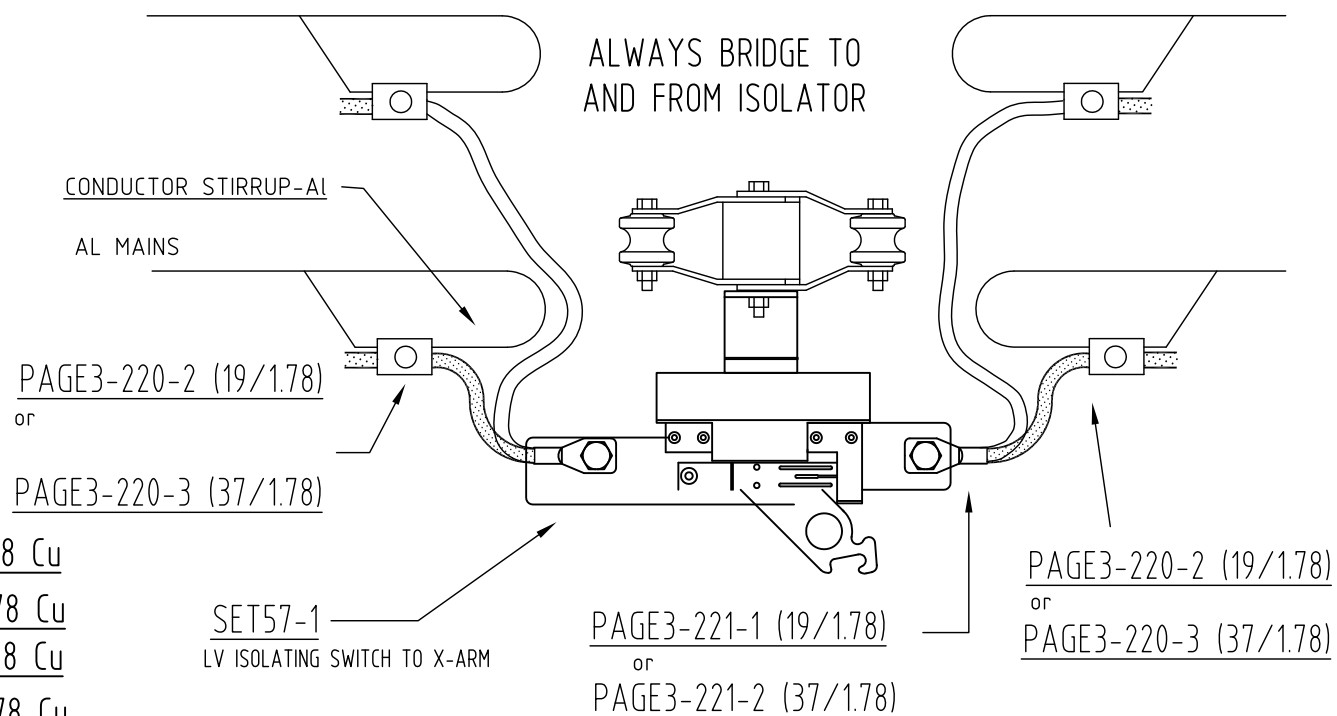
IS50-4 - ISOLATOR BRIDGE 4 WAY - 19/1.78 Cu

IS95-4 - ISOLATOR BRIDGE 4 WAY - 37/1.78 Cu



NOTE

1. LV NEUTRALS IN COASTAL AREAS MUST BE DOUBLE CLAMPED



| ORIGINAL ISSUE | DATE | APP'D | CKD | DRN | ADDED NOTE |
|----------------|----------|----------|---------|---------|------------|
| A | 29/12/14 | F. ZAINI | P. RELF | M. SHAW | 1 |
| G | | | | | |



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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

MAINS BRIDGING ARRANGEMENTS

BR50, BR95, TR50, TR95, IS50, IS95
NORMAL, TRANSPOSITION & ISOLATOR

| APP'D | P. Pearl | TECH STDS | AUTOCAD |
|-------|-----------|-----------|---------|
| DATE | 03-12-97 | 4920-A4 | G |
| REC'D | J. TUNNEY | SECT | PAGE |
| CKD | J. TUNNEY | 3 | 210 |
| DWN | J. HILL | SHEET | 1 OF 1 |
| FILE: | | | |

CU LIST -

DI50

DI95

PAGE3-220-2

2

PAGE3-220-3

2

SET57-3

1

1

DI50 - DISCONNECT BRIDGE - 19/1.78 Cu (SINGLE X-ARM)DI95 - DISCONNECT BRIDGE - 37/1.78 Cu (SINGLE X-ARM)

CU LIST -

DI502

DI952

PAGE3-220-2

2

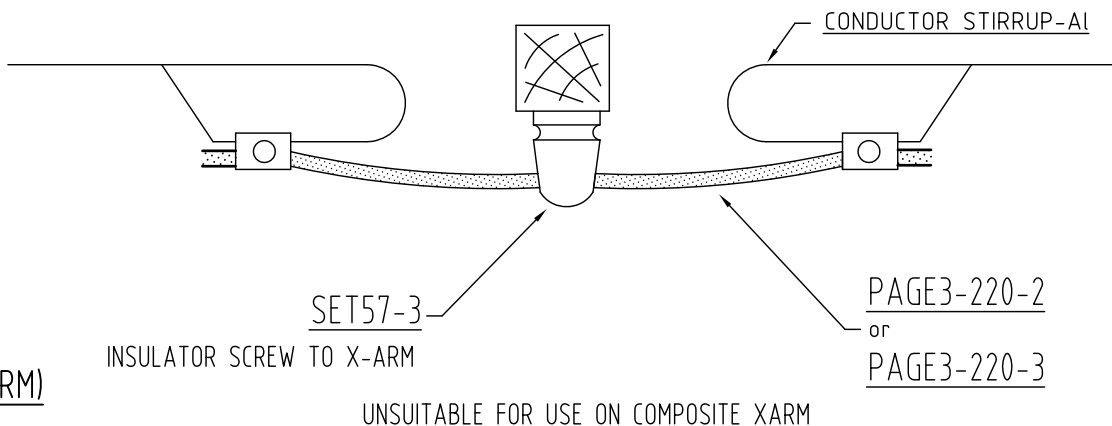
PAGE3-220-3

2

SET57-3

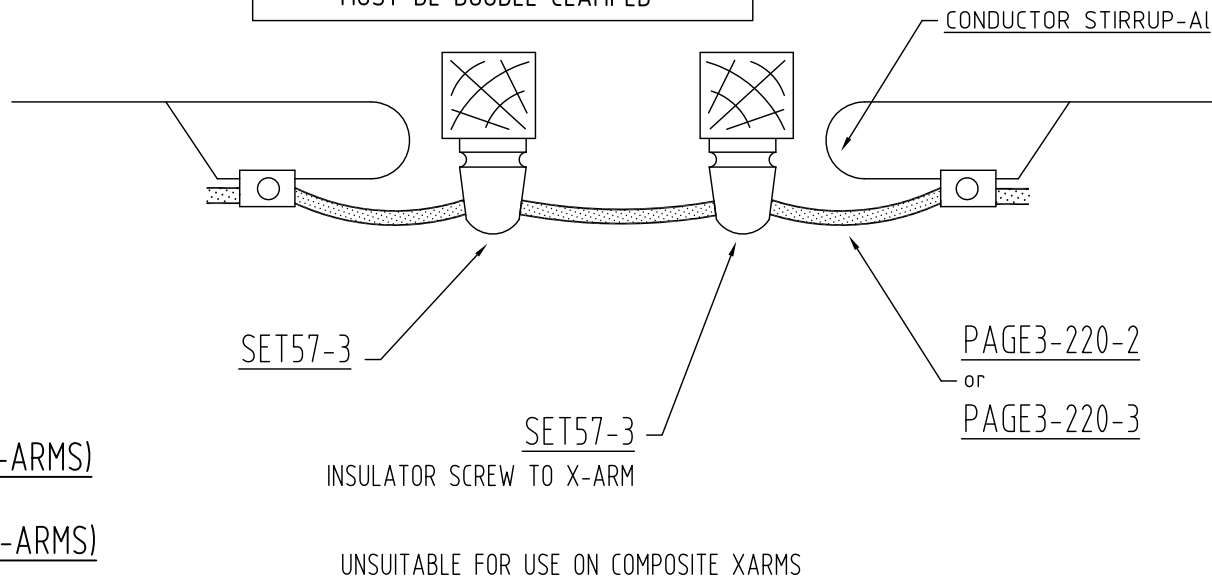
2

2

DI502 - DISCONNECT BRIDGE - 19/1.78 Cu (TWIN X-ARMS)DI952 - DISCONNECT BRIDGE - 37/1.78 Cu (TWIN X-ARMS)

NOTE

1. LV NEUTRALS IN COASTAL AREAS MUST BE DOUBLE CLAMPED



| | | | | | |
|----------------|----------|-------|-------|-----|------------|
| ORIGINAL ISSUE | DATE | APP'D | CKD | DRN | ADDED NOTE |
| 29/12/14 | F. ZAINI | PREF | MSHAW | 1 | |



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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

BRIDGING ARRANGEMENTS

DI50, DI95, DI502, DI952

DISCONNECT BRIDGE

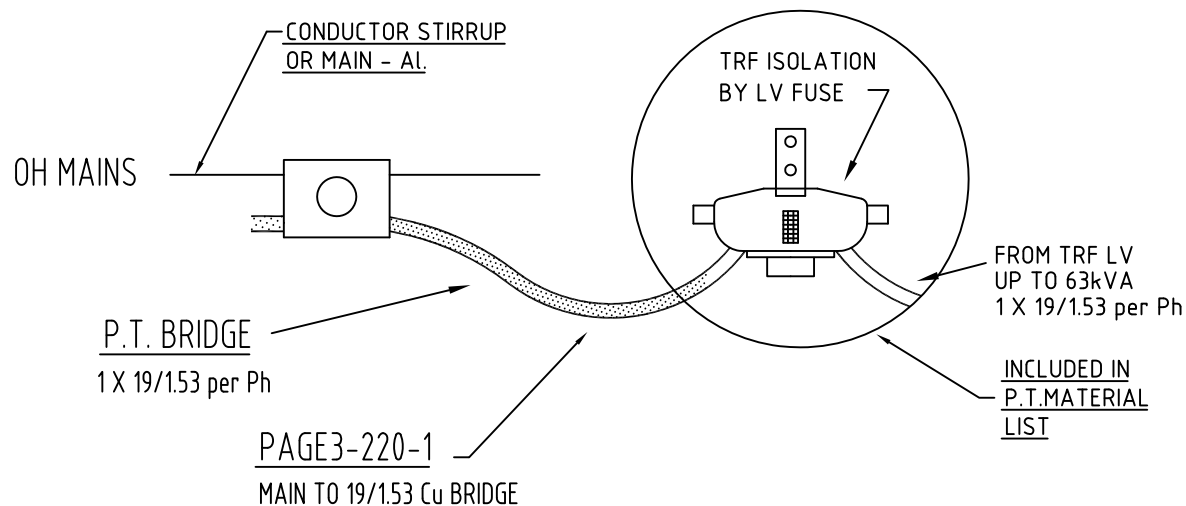
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|-------|----------|-----------|---------|
| APP'D | P.Pearl | TECH STDS | AUTOCAD |
| DATE | 03-12-97 | 4920-A4 | E |
| REC'D | J.TUNNEY | SECT | PAGE |
| CKD | J.TUNNEY | 3 | 211 |
| DWN | M.WELSH | SHEET | 1 OF 1 |
| FILE: | | | |

CU LIST -

PT35

PAGE3-220-1

1



PT35 P.T. BRIDGE - 19/1.53 Cu

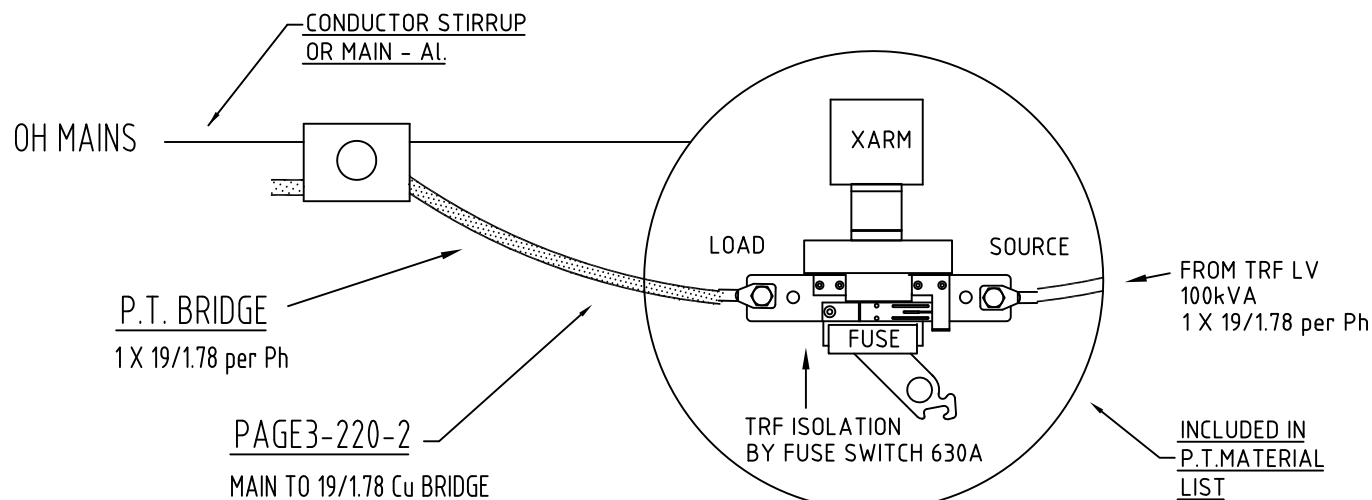
FROM FUSE TO OH MAINS AT UP TO 63kVA PT

CU LIST -

PT50

PAGE3-220-2

1



PT50 P.T. BRIDGE 19/1.78 Cu

FROM SWITCH TO OH MAINS AT 100kVA PT

| ORIGINAL ISSUE | DATE | APPD | CKD | DRN | UPDATED ISOLATING SWITCH TO FUSE SWITCH CORRECTED ORIENTATION OF SWITCH |
|----------------|------|----------|---------|---------|---|
| A | G | F. ZAINI | P. RELF | P. RELF | |



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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

PT BRIDGING ARRANGEMENTS

PT35, PT50

P.T. BRIDGE

| APP'D | P. Pearl | TECH STDS | AUTOCAD |
|-------|-----------|--------------|----------|
| DATE | 03-12-97 | 4920-A4 | G |
| REC'D | J. TUNNEY | SECT 3 | PAGE 212 |
| CKD | J. TUNNEY | SHEET 1 OF 1 | |
| DWN | M. WELSH | FILE: | |

| CU LIST - | | PT95 | PT185 |
|-------------|---|------|-------|
| PAGE3-220-3 | 2 | | |
| PAGE3-220-4 | | | 2 |

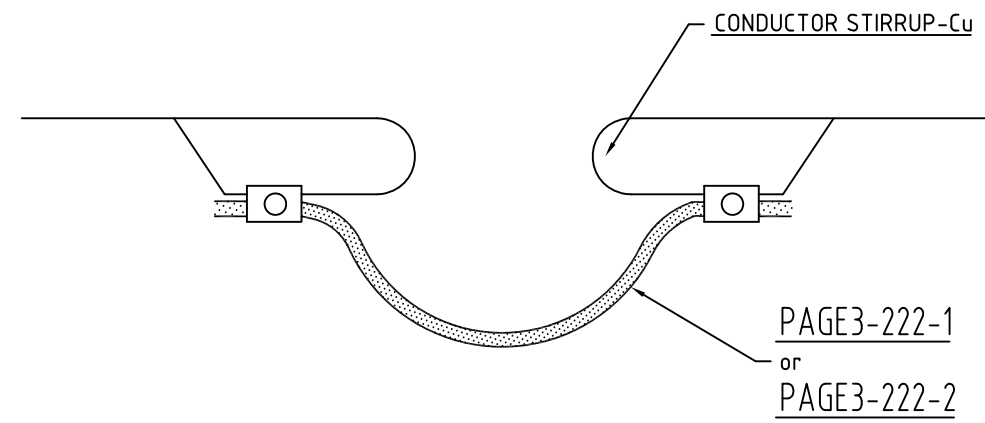
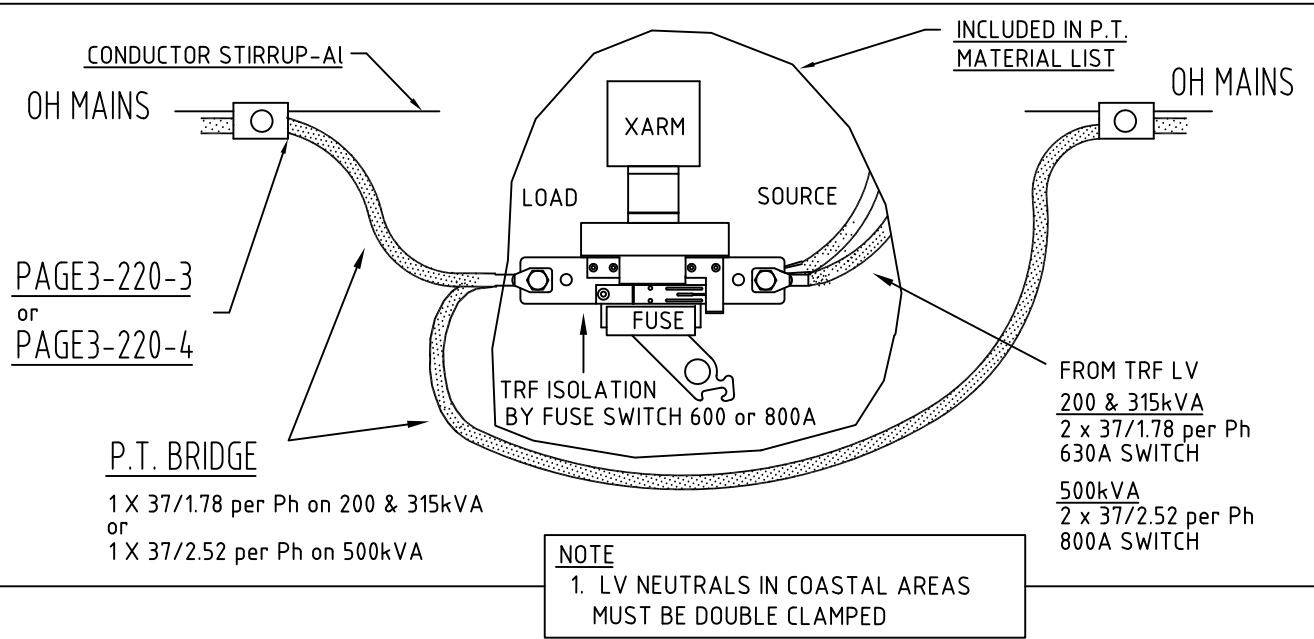
PT95 P.T. BRIDGE - 37/1.78 Cu
 FROM OH MAINS TO OH MAINS AT 200 & 315kVA PT

PT185 P.T. BRIDGE - 37/2.52 Cu
 FROM OH MAINS TO OH MAINS AT 500kVA PT


| CU LIST - | | BRC50 | BRC95 |
|-------------|---|-------|-------|
| PAGE3-222-1 | 2 | | |
| PAGE3-222-2 | | | 2 |

BRC50 Cu MAIN NORMAL BRIDGE - 19/1.78 Cu

BRC95 Cu MAIN NORMAL BRIDGE - 37/1.78 Cu



| ORIGINAL ISSUE | DATE | APP'D | CKD | DRN | UPDATED ISOLATING SWITCH TO FUSE SWITCH CORRECTED ORIENTATION OF SWITCH |
|----------------|------------|----------|---------|---------|---|
| A | 29/03/2016 | F. ZAINI | P. RELF | P. RELF | |


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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

PT BRIDGING ARRANGEMENTS

PT95, PT185, BRC50, BRC95

P.T. & CU MAIN BRIDGE

| APP'D | P. Pearl | TECH STDS | AUTOCAD |
|-------|-----------|--------------|----------|
| DATE | 03-12-97 | 4920-A4 | H |
| REC'D | J. TUNNEY | SECT 3 | PAGE 213 |
| CKD | J. TUNNEY | SHEET 1 OF 1 | |
| DWN | M. WELSH | FILE: | |

CU LIST -

JU50

JU95

PAGE3-220-2

1

1

PAGE3-220-3

PAGE3-221-3

1

1

PAGE3-221-4

JU50 - JUMPER - 19/1.78 Cu

JU95 - JUMPER - 37/1.78 Cu

CU LIST -

JB50

JB95

PAGE3-221-3

2

PAGE3-221-4

2

JB50 - JUMPER BRIDGE - 19/1.78 Cu

JB95 - JUMPER BRIDGE - 37/1.78 Cu

PAGE3-220-2
or
PAGE3-220-3CONDUCTOR STIRRUP
OR MAIN - AL

EXISTING BRIDGE

PAGE3-221-3
or
PAGE3-221-4

NOTE

1. LV NEUTRALS IN COASTAL AREAS MUST BE DOUBLE CLAMPED

EXISTING BRIDGE

PAGE3-221-3
or
PAGE3-221-4

EXISTING BRIDGE

PAGE3-221-3
or
PAGE3-221-4

| | | | | | |
|----------------|----------|-------|-------|-----|------------|
| ORIGINAL ISSUE | DATE | APP'D | CKD | DRN | ADDED NOTE |
| 29/12/14 | F. ZAINI | PREF | MSHAW | 1 | |
| C | E | | | | |



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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION
BRIDGING ARRANGEMENTSJU50, JU95, JB50, JB95
JUMPER & JUMPER BRIDGE

| | | | |
|-------|----------|-----------|---------|
| APP'D | P.Pearl | TECH STDS | AUTOCAD |
| DATE | 03-12-97 | 4920-A4 | E |
| REC'D | J.TUNNEY | SECT | PAGE |
| CKD | J.TUNNEY | 3 | 214 |
| DWN | M.WELSH | SHEET | 1 OF 1 |
| FILE: | | | |

CU LIST -

TCAD50
TCAD95

PAGE3-222-5

2

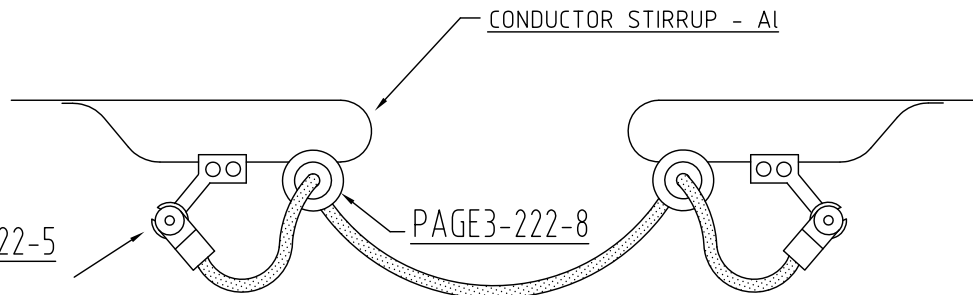
PAGE3-222-6

2

PAGE3-222-8

2

2

PAGE3-222-5
or
PAGE3-222-6TCAD50 - TERMINAL CONNECTOR (DOUBLE) BRIDGE - 19/1.78 CuTCAD95 - TERMINAL CONNECTOR (DOUBLE) BRIDGE - 37/1.78 Cu

NOTE

1. LV NEUTRALS IN COASTAL AREAS MUST BE DOUBLE CLAMPED

CU LIST -

TCA50
TCA95

PAGE3-220-2

1

PAGE3-220-3

1

PAGE3-222-5

1

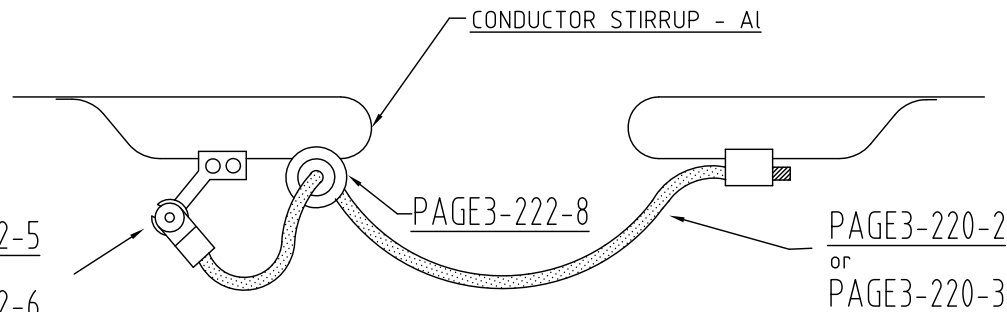
PAGE3-222-6

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PAGE3-222-8

1

1

PAGE3-222-5
or
PAGE3-222-6TCA50 - TERMINAL CONNECTOR (SINGLE) BRIDGE - 19/1.78 CuTCA95 - TERMINAL CONNECTOR (SINGLE) BRIDGE - 37/1.78 Cu

| | | | | | |
|----------------|----------|----------|------|---------|--------------|
| ORIGINAL ISSUE | DATE | APP'D | CKD | DRN | ADDED NOTE 1 |
| U | 29/12/14 | F. ZAINI | PREF | M. SHAW | |
| E | | | | | |



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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

BRIDGING ARRANGEMENTS

TCAD50, TCAD95, TCA50, TCA95

TERMINAL CONDUCTOR AL.

| | | | |
|-------|-----------|-----------|---------|
| APP'D | P. Pearl | TECH STDS | AUTOCAD |
| DATE | 03-12-97 | 4920-A4 | E |
| REC'D | J. TUNNEY | SECT | PAGE |
| CKD | J. TUNNEY | 3 | 215 |
| DWN | M. WELSH | SHEET | 1 OF 1 |
| FILE: | | | |

CU LIST -

TCCD50
TCCD95

PAGE3-222-3

2

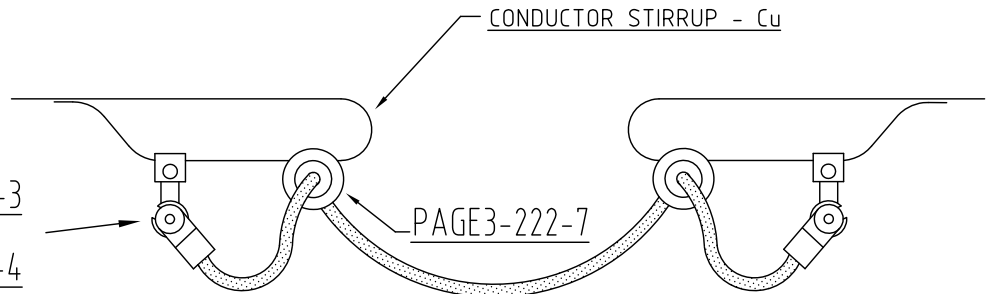
PAGE3-222-4

2

PAGE3-222-7

2

2

PAGE3-222-3
or
PAGE3-222-4TCCD50 - TERMINAL CONNECTOR (DOUBLE) BRIDGE - 19/1.78 CuTCCD95 - TERMINAL CONNECTOR (DOUBLE) BRIDGE - 37/1.78 Cu

NOTE

1. LV NEUTRALS IN COASTAL AREAS MUST BE DOUBLE CLAMPED

CU LIST -

TCC50
TCC95

PAGE3-222-1

1

PAGE3-222-2

1

PAGE3-222-3

1

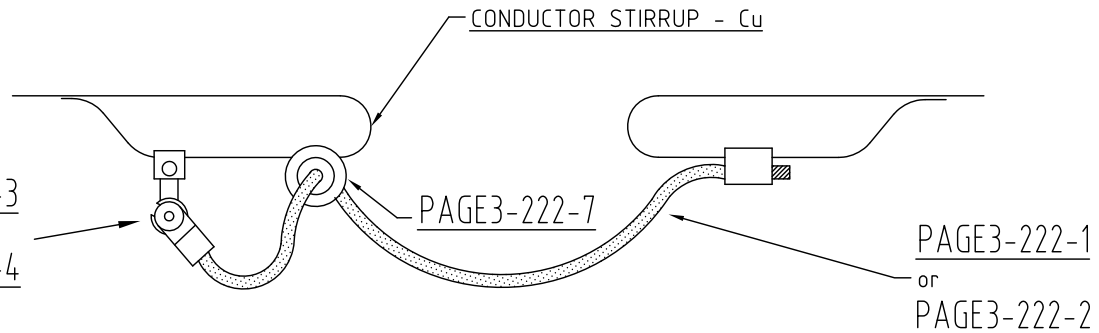
PAGE3-222-4

1

PAGE3-222-7

1

1

PAGE3-222-3
or
PAGE3-222-4TCC50 - TERMINAL CONNECTOR (SINGLE) BRIDGE - 19/1.78 CuTCC95 - TERMINAL CONNECTOR (SINGLE) BRIDGE - 37/1.78 Cu

| | | | | | | |
|----------------|----------|-------|---------|-----|--------------|--|
| ORIGINAL ISSUE | DATE | APP'D | CKD | DRN | ADDED NOTE 1 | |
| 29/12/14 | F. ZAINI | PREF | M. SHAW | | | |
| C | E | | | | | |



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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

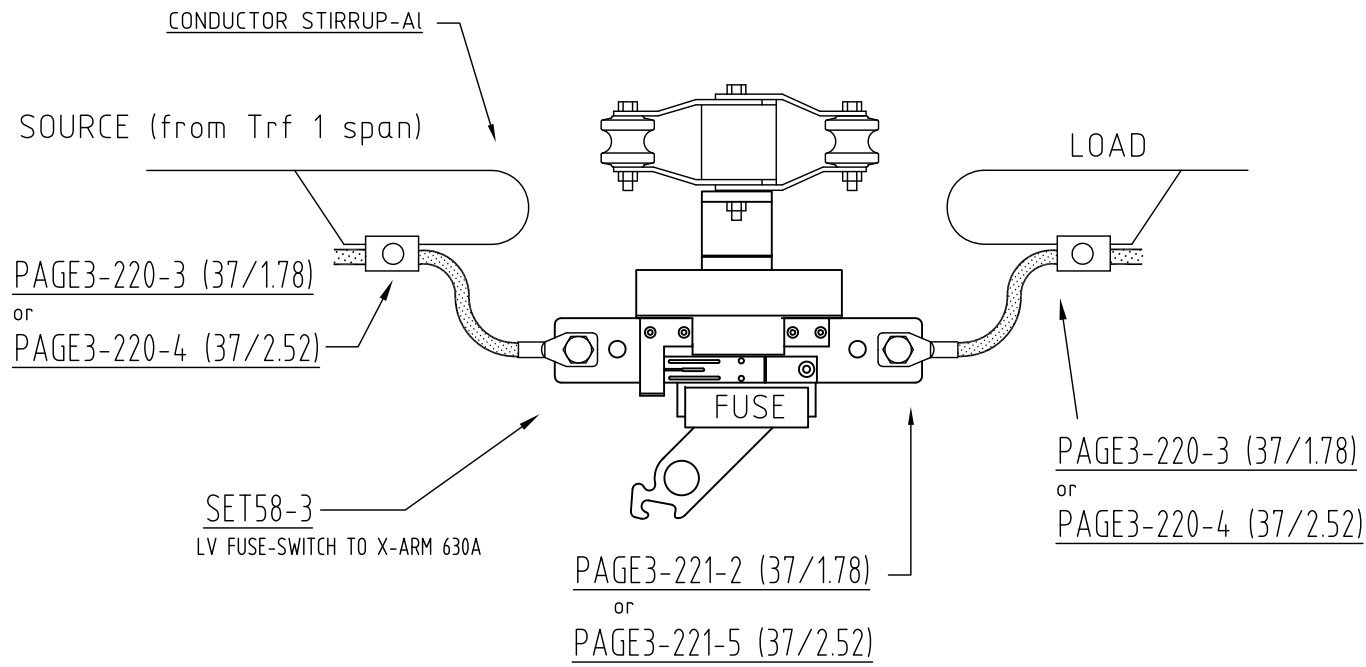
BRIDGING ARRANGEMENTS

TCCD50, TCCD95, TCC50, TCC95

TERMINAL CONDUCTOR - Cu

| | | | |
|-------|-----------|-----------|---------|
| APP'D | P. Pearl | TECH STDS | AUTOCAD |
| DATE | 03-12-97 | 4920-A4 | E |
| REC'D | J. TUNNEY | SECT | PAGE |
| CKD | J. TUNNEY | 3 | 216 |
| DWN | M. WELSH | SHEET | 1 OF 1 |
| | | FILE: | |

| CU LIST - | FS200 | FS315 | FS500 |
|-------------|-------|-------|-------|
| PAGE3-220-3 | 2 | 2 | |
| PAGE3-220-4 | | | 2 |
| PAGE3-221-2 | 1 | 1 | |
| PAGE3-221-5 | | | 1 |
| SET58-3 | 1 | 1 | 1 |



FS200 - MAINS FUSE - SPLIT SUPPLY FROM 200 kVA PT

FS315 - MAINS FUSE - SPLIT SUPPLY FROM 315 kVA PT

FS500 - MAINS FUSE - SPLIT SUPPLY FROM 500 kVA PT

MATERIAL

| Stock Code | QTY. |
|------------|------|
| 07159 | 1m |
| 14693 | 1 |

BRIDGE 19/1.53 Cu
07159

PAGE3-220-1 - MAIN TO 19/1.53 Cu BRIDGE

MATERIAL

| Stock Code | QTY. |
|------------|-------|
| 07164 | 0.75m |
| 15568 | 1 |

BRIDGE 19/1.78 Cu
07164

PAGE3-220-2 - MAIN TO 19/1.78 Cu BRIDGE

MATERIAL

| Stock Code | QTY. |
|------------|-------|
| 07173 | 0.75m |
| 15568 | 1 |

BRIDGE 37/1.78 Cu
07173

PAGE3-220-3 - MAIN TO 37/1.78 Cu BRIDGE

MATERIAL

| Stock Code | QTY. |
|------------|-------|
| 07181 | 0.75m |
| 15569 | 1 |

BRIDGE 37/2.52 Cu
07181

PAGE3-220-4 - MAIN TO 37/2.52 Cu BRIDGE

NOTE
1. LV NEUTRALS IN COASTAL AREAS
MUST BE DOUBLE CLAMPED



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OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

BRIDGING
MAIN TO CU BRIDGE

APP'D P.Pearl

DATE 03-12-97

REC'D J.TUNNEY

CKD J.TUNNEY

DWN M.WELSH

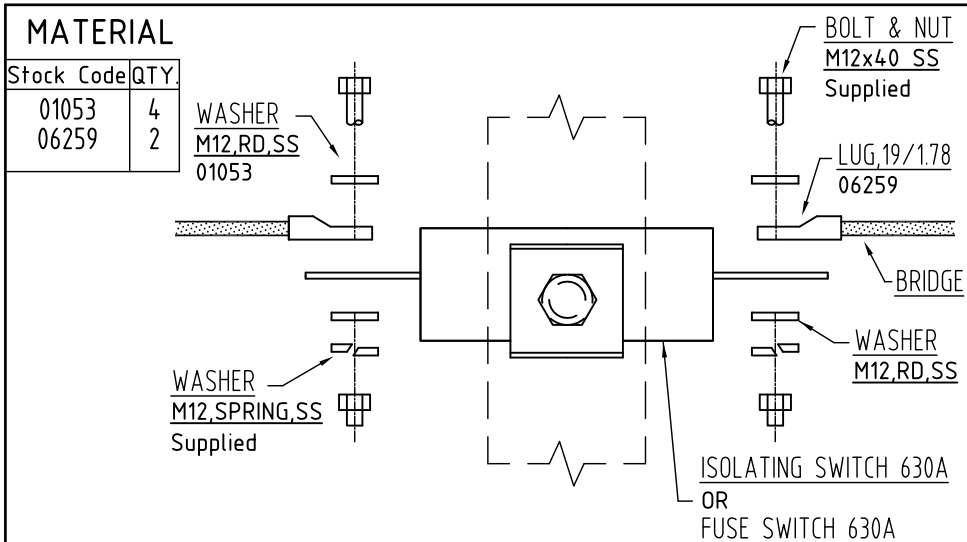
TECH STDS AUTOCAD

4920-A4 G

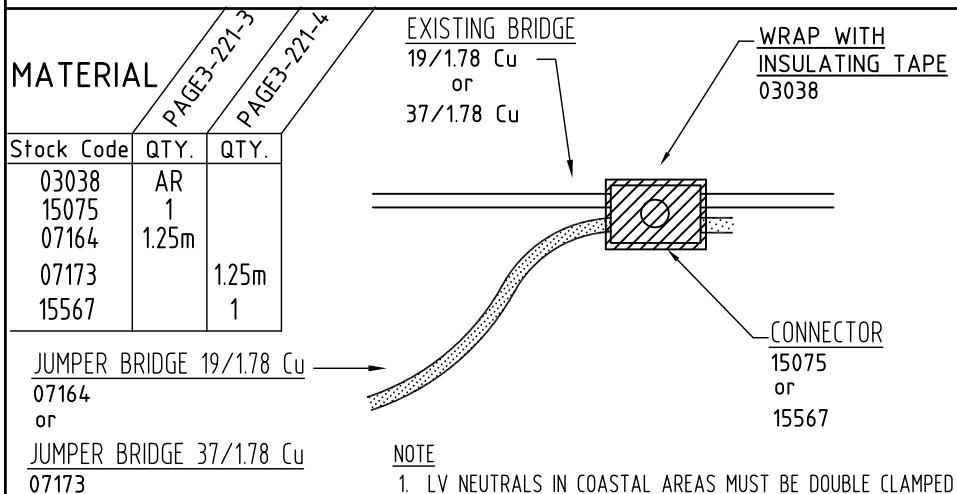
SECT 3 PAGE 220

SHEET 1 OF 1

FILE:

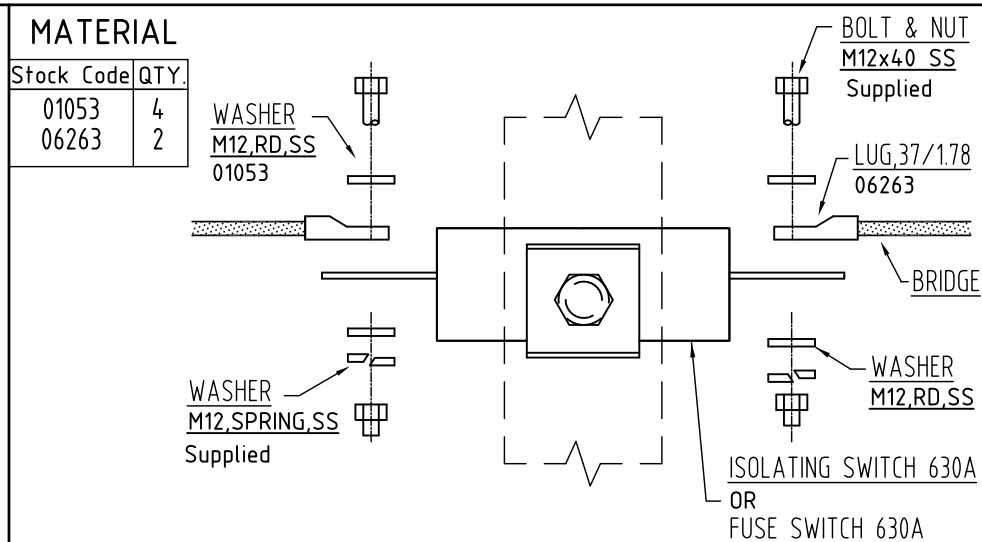


PAGE3-221-1 - 19/1.78 Cu BRIDGE TO MAINS SWITCH

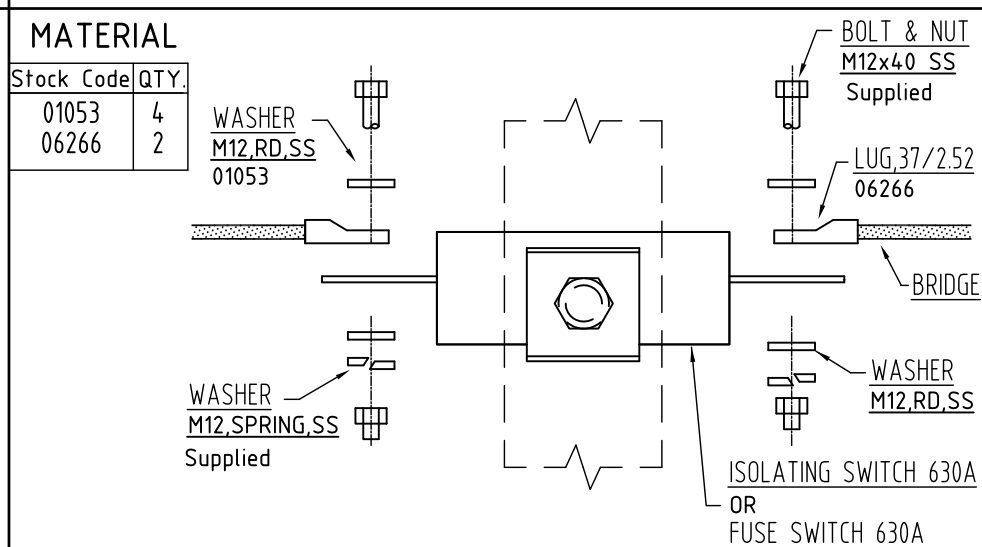


PAGE3-221-3 - BRIDGE TO 19/1.78 Cu BRIDGE

PAGE3-221-4 - BRIDGE TO 37/1.78 Cu BRIDGE



PAGE3-221-2 - 37/1.78 Cu BRIDGE TO MAINS SWITCH



PAGE3-221-5 - 37/2.52 Cu BRIDGE TO MAINS SWITCH

MATERIAL

| Stock Code | 222-1 | 222-2 |
|------------|-------|-------|
| 07164 | 0.75m | |
| 07173 | | 0.75m |
| 15075 | 1 | |
| 15567 | | 1 |

NOTE

1. LV NEUTRALS IN COASTAL AREAS MUST BE DOUBLE CLAMPED

CONDUCTOR STIRRUP-Cu

CONNECTOR
15075 or 15567

SEE NOTE 1

BRIDGE
19/1.78 Cu - 07164
or
37/1.78 Cu - 07173

PAGE3-222-1 - Cu MAIN TO 19/1.78 Cu BRIDGE

PAGE3-222-2 - Cu MAIN TO 37/1.78 Cu BRIDGE

MATERIAL

| Stock Code | 222-3 | 222-4 |
|------------|-------|-------|
| 01053 | 1 | 1 |
| 01089 | 1 | 1 |
| 06138 | 1 | |
| 06139 | | 1 |
| 06259 | 1 | |
| 06263 | | 1 |
| 07164 | 0.75m | |
| 07173 | | 0.75m |
| 15619 | 1 | 1 |

CONDUCTOR STIRRUP-Cu

TERMINAL CONNECTOR
06138 or 06139

WASHER M12
CONVEX SS
01089

WASHER M12 RD SS
01053

LUG
19/1.78- 06259
or
37/1.78- 06263

BRIDGE
19/1.78 Cu- 07164
or
37/1.78 Cu- 07173

SETSCREW & NUT M12 X 40 BRASS
15619

PAGE3-222-3 - TERMINAL CONNECTOR TO 19/1.78 Cu BRIDGE

PAGE3-222-4 - TERMINAL CONNECTOR TO 37/1.78 Cu BRIDGE

MATERIAL

| Stock Code | 222-5 | 222-6 |
|------------|-------|-------|
| 01053 | 1 | 1 |
| 01089 | 1 | 1 |
| 06259 | 1 | |
| 06263 | | 1 |
| 07164 | 0.75m | |
| 07173 | | 0.75 |
| 13696 | 1 | 1 |
| 15619 | 1 | 1 |

CONDUCTOR STIRRUP-AI

TERMINAL CONNECTOR
13696

WASHER M12
CONVEX SS
01089

WASHER M12 RD SS
01053

LUG
19/1.78- 06259
or
37/1.78- 06263

BRIDGE
19/1.78 Cu- 07164
or
37/1.78 Cu- 07173

SETSCREW & NUT M12 X 40 BRASS
15619

CONDUCTOR STIRRUP
MARS,MOON,
BANANA or CHERRY

PAGE3-222-5 - TERMINAL CONNECTOR TO 19/1.78 Cu BRIDGE

PAGE3-222-6 - TERMINAL CONNECTOR TO 37/1.78 Cu BRIDGE

MATERIAL

| Stock Code | 222-7 | 222-8 |
|------------|-------|-------|
| 02577 | 1 | 1 |
| 07059 | 1m | |
| 10991 | | 1m |

CONDUCTOR STIRRUP
Cu or Al


TIE WIRE
Cu - 07059
Al - 10991

INSULATOR-SHLV2
02577

PAGE3-222-7 - BRIDGING INSULATOR (Cu)

PAGE3-222-8 - BRIDGING INSULATOR (Al)

| | | | | | | | | | | |
|----------------|------|----------|-------|----------|-----|------|-----|-------|--------------|----------------------------|
| ORIGINAL ISSUE | DATE | 29/12/14 | APP'D | F. ZAINI | CKD | PREF | DRN | MSHAW | ADDED NOTE 1 | ADDED SECOND NEUTRAL CLAMP |
| A | F | | | | | | | | | |

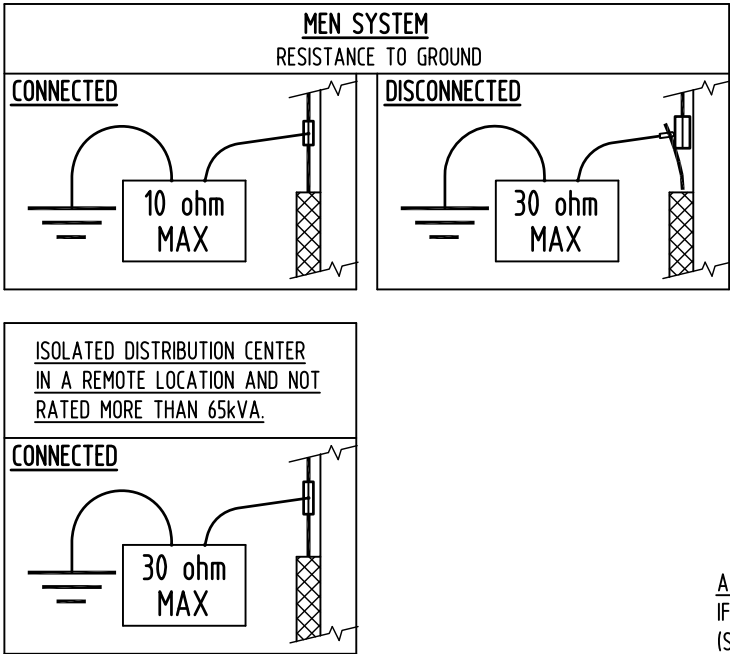

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OVERHEAD CONSTRUCTION MANUAL
LV CONSTRUCTION
BRIDGING
TERMINAL CONNECTOR & BRIDGING INSULATOR

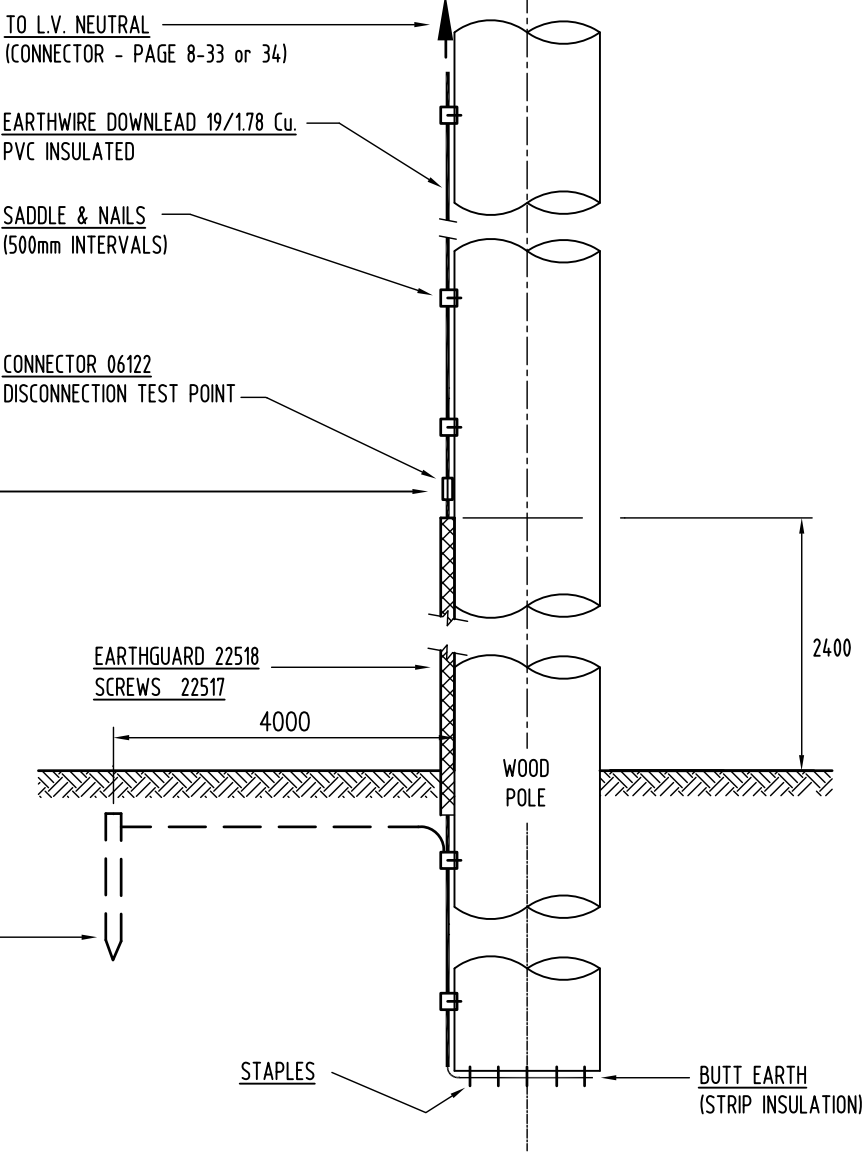
| | | | |
|-------|----------|-----------|---------|
| APP'D | P.Pearl | TECH STDS | AUTOCAD |
| DATE | 03-12-97 | 4920-A4 | F |
| REC'D | J.TUNNEY | SECT | PAGE |
| CKD | J.TUNNEY | 3 | 222 |
| DWN | M.WELSH | SHEET | 1 OF 1 |
| FILE: | | | |

MATERIAL LIST - MEN

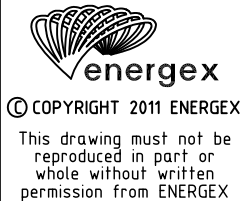
| STOCK CODE | DESCRIPTION | QTY |
|------------|------------------------------------|-----|
| 03215 | STAPLE | 12 |
| 04926 | SADDLE | 24 |
| 22518 | EARTHGUARD | 1 |
| 07235 | EARTHWIRE 19/1.78 Cu. | 15m |
| 06122 | CONNECTOR-DISCONNECTION TEST POINT | 1 |
| - | CONNECTOR-LV NEUTRAL | AR |



ADDITIONAL EARTHING
IF REQUIRED
(SECTION 8, PAGE 101)
(If more than four additional
earthrods required, contact
local ENERGEX Branch)



| | | | | | | |
|----------------|------------|----------|------|-----|-----|--------------------------|
| ORIGINAL ISSUE | DATE | REVISION | APPD | CKD | DRN | EARTHGUARD NOW POLYMERIC |
| A | 15-09-2011 | F | APPD | CKD | DRN | |



OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

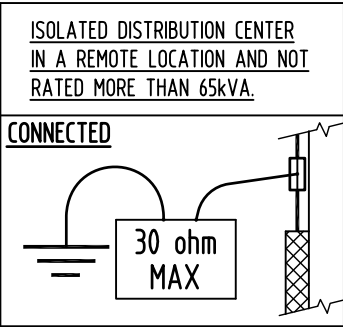
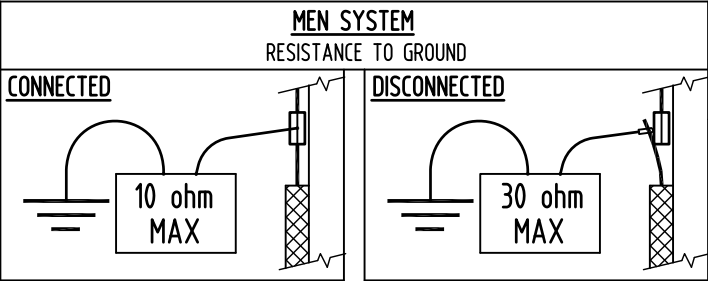
MEN

MEN EARTH

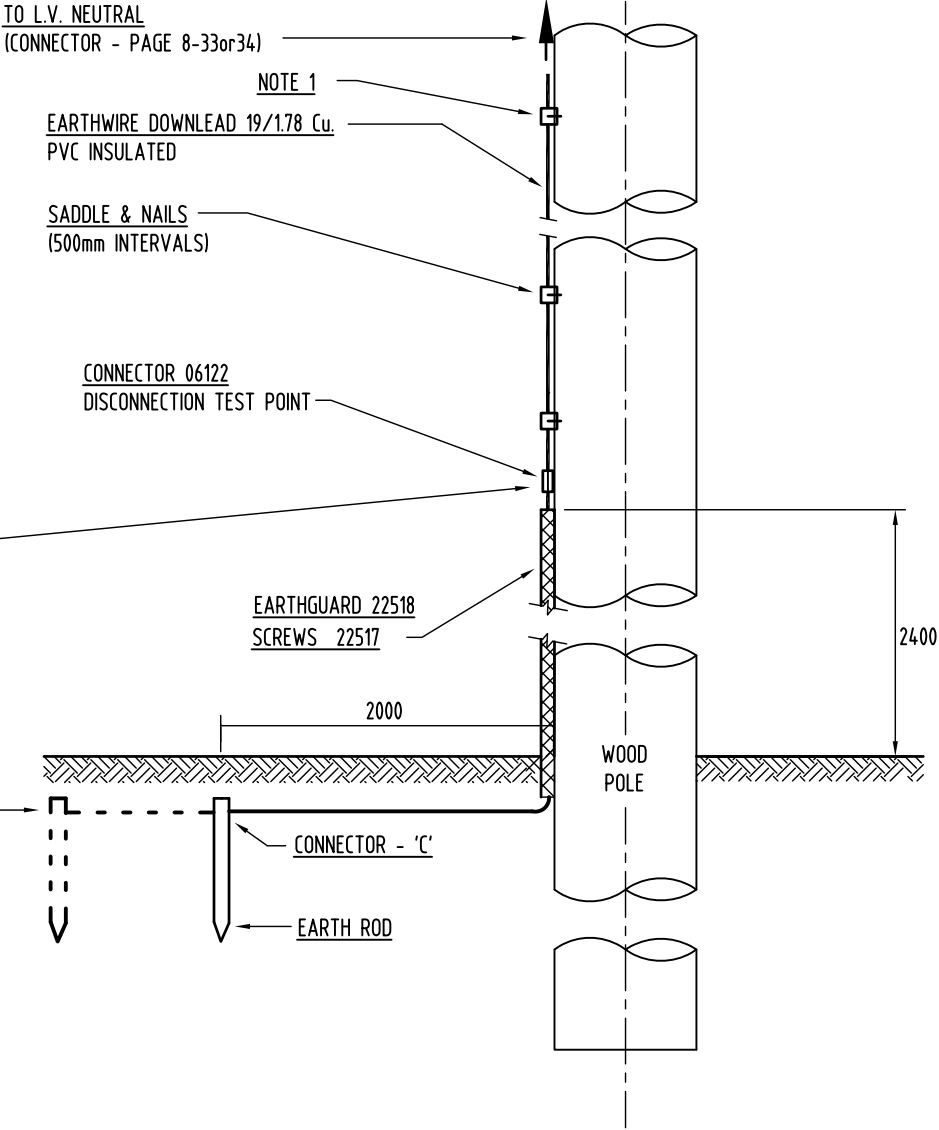
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|---------------------------|----------|-----------|---------|
| APP'D | P.Pearl | TECH STDS | AUTOCAD |
| DATE | 03-12-97 | 4920-A4 | F |
| REC'D | J.TUNNEY | SECT | PAGE |
| CKD | J.TUNNEY | 3 | 251 |
| DWN | M.WELSH | SHEET | 1 OF 1 |
| FILE:ocm\s3\ohc3-251e.dwg | | | |

MATERIAL LIST - MENEX

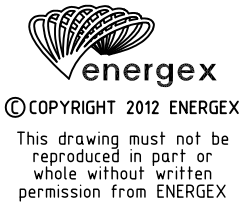
| STOCK CODE | DESCRIPTION | QTY |
|------------|-----------------------------------|-----|
| 04926 | SADDLE | 20 |
| 22946 | EARTH ROD | 1 |
| 22518 | EARTHGUARD | 1 |
| 06338 | DRIVING POINT - (STAR) | 1 |
| 06339 | DRIVING POINT - (NORMAL) | |
| 07235 | EARTHWIRE 19/1.78 Cu. | 15 |
| 12952 | CONNECTOR - 'C' | 1 |
| 14318 | MARKING TAPE. | AR |
| 06122 | CONNECTOR-DISCONNECTOR TEST POINT | 1 |
| - | CONNECTOR-LV NEUTRAL | AR |



EARTH WIRE TRENCH DEPTH AND ADDITIONAL EARTHING IF REQUIRED
(SECTION 8, PAGE 101)
(If more than four additional earthrods required, contact local ENERGEX Branch)



| | | | | | |
|----------------|------------|---------|---------|--------|----------------------|
| ORIGINAL ISSUE | DATE | APPD | CKD | DRN | EARTH ROD UPDATED TO |
| A | 09/10/2012 | A.PEREZ | J.CHUNG | P.PREF | SC22946 |
| F | | | | | |



OVERHEAD CONSTRUCTION MANUAL

LV CONSTRUCTION

MENEX

MEN EARTH (EXISTING POLE)
(WOOD POLE)

| | | | |
|-------|----------|------------------|----------|
| APP'D | P.Pearl | TECH STDS | AUTOCAD |
| DATE | 03-12-97 | 4920-A4 | F |
| REC'D | J.TUNNEY | SECT | PAGE |
| CKD | J.TUNNEY | 3 | 252 |
| DWN | M.WELSH | SHEET | 1 OF 1 |
| FILE: | | | |