

UNDERGROUND SERVICE WIRES SHALL BE INSTALLED IN 1" RIGID STEEL CONDUIT AS SHOWN ON THE CONTROLLER CABINET DETAIL SHEET.

5% MIN. SAG
FOR ALL SPANS
OR OTHERWISE
NOTED

SPAN DETAIL

NOTE:
THE STEEL STRAIN DOOR SHALL HAVE
A 4" BY 6" SHOCK HAZARD WARNING STICKER
INSTALL 3" FROM THE TOP OF THE DOOR.
THE STICKER SHALL BE METALCRAFT
PLY695 PREM STYLEMARK LABEL WITH
.007 THICKNESS, WITH UV WHITE
POLYCARBONATE MATERIAL, AND WITH
MC53FL PRESSURE SENSITIVE ADHESIVE
OR APPROVED EQUAL. THIS SHALL BE
INCIDENTAL TO THE PROJECT.

CLAMP ASSEMBLIES MUST BE DESIGNED IN ACCORDANCE TO THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, SIXTH EDITION 2013. ADDITIONAL DESIGN PROVISIONS NOT ADDRESSED IN THE AFOREMENTIONED CODE SHALL BE OBTAINED FROM THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES (2002). CLAMP ASSEMBLIES SHALL CONFORM TO SECTION 835.07.01 OF THE 2012 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE DRAWINGS SHOWN ON THIS STANDARD. THE CONTRACTOR SHALL ADD A 16-GAUGE MATERIALS:

CLAMP/CLEVIS- ASTM A36
(GRADE 36)/ASTM A572 (GRADE 50)
BOLTS (EXCEPT U- BOLTS)- HIGH
STRENGTH ASTM A325, ASTM A449
OR ASTM A490
U- BOLTS- MINIMUM ASTM A36
GALVANIZING- ASTM A153

THE CONTRACTOR SHALL ADD A 16-GAUGE CORRUGATED STEEL CASING TO THE INSTALLATION OF THE NEW POLE BASE IF BASE IS 9 FEET (CENTER TO CENTER) FROM THE EXISTING POLE BASE. IF BASE IS WITHIN 6 FOOT (CENTER TO CENTER), ANCHORS SHALL BE INSTALL ON THE EXISTING POLE DURING CONSTRUCTION OF THE NEW BASE. THE CONTRACTOR CAN REMOVE THE ANCHORS FROM THE EXISTING POLE WITH THE ENGINEERS' APPROVAL. THE CASING SHALL BE INCIDENTAL TO THE INSTALLATION OF THE POLE BASE.

3" GALVANIZED CABLE _____
RINGS - 18" MAX. SPACING.
THE CABLE RINGS SHALL BE
INSTALLED ACROSS THE
WHOLE LENGTH OF THE SPAN

**SPECIAL NOTE FOR POLE DOOR:
FURNISH A SHOCK HAZARD WARNING STICKER ON
DISCONNECT WITH THE FOLLOWING INFORMATION
VOLTAGE (120 VOLT)
GLOVE CLASS (0)
LIMITED APPROACH BOUNDARY (42 IN)
RESTRICTED APPROACH BOUNDARY (CONTACT)
SEE NFPA 70E FOR ADDITIONAL PPE REQUIRED**

3/4" SCHEDULE 80 PVC CONDUIT WITH END BELL BUSHING FOR POLE GROUNDING CONDUCTOR

STEEL STRAIN POLE

1" CHAMFER

A MINIMUM OF TWO BOLT THREADS SHALL EXTEND ABOVE THE NUT

4" - 6"

FINISHED GRADE

18"

HEX NUT AND WASHER UNDER BASE PLATE FOR PLUMBING OR RAKING POLE (TYP)

CONCRETE

2" SPARE SCHEDULE 80 PVC CONDUIT; STUBBED OUT WITH END BELL BUSHING AND CAP AT BOTH ENDS.

3" CLR

GROUNDING CONDUCTOR

GROUND ROD FOR POLE

CONTRACTOR SHALL PROVIDE A MINIMUM OF 6 INCHES OF GROUND WIRE FOR TESTING PRIOR TO CONNECTING THE WIRE TO ANY DISCONNECT CABINET OR POLE.

LEAVE TOP OF GROUND RODS EXPOSED FOR ELECTRICAL INSPECTION.

POLE GROUND - GROUND WIRE SHALL COME FROM THE GROUND ROD THROUGH THE PVC CONDUIT, CONNECTING TO THE POLE AND THEN TO EACH RIGID STEEL GROUNDING BUSHING.

ALL GROUND RODS SHALL BE 24" FROM THE
CONCRETE POLE BASE.

A diagram of a circular manhole. On the left, a vertical section is labeled "1'-8\" LAP". On the right, a vertical dimension line indicates a diameter of "2'-6\".

ED LOCATION -
CTION OF SPARE
UIT.

IF ANCHOR BOLTS ARE STRAIGHT NOT BEND, THE METAL TEMPLATE SHALL BE INSTALLED FOR STRUCTURAL INTEGRITY.

THE CONTRACTOR SHALL INSTALL SPACERS ON THE POLE BASE CAGES (TOP, BOTTOM, & SIDES) TO GUARANTEE A 3" COVER TO THE EDGE OF THE POURED CONCRETE. THE SPACERS SHALL CONFORM TO "SPECIAL NOTE 11C".

3/4" SCHEDULE 80 PVC
CONDUIT FOR SERVICE
GROUND (REQUIRED AT
SERVICE LOCATION ONLY)

CONTRACT
CONFORM
NOTE 11C
SHAFTS"

2" SPARE SCHEDULE 80 PVC
CONDUIT; STUBBED OUT WITH
END BELL BUSHING AND
CAPPED AT BOTH ENDS. AN
ARROW SHALL BE ETCHED
ON THE TOP OF THE BASE
TO SHOW THE LOCATION
/DIRECTION OF THE SPARE
CONDUIT.

EXTERIOR CONDUIT MAY BE USED FOR EITHER OR BOTH OF THE FOLLOWING CONDITIONS:

FOR EXTERIOR SERVICE
GROUNDING (OPTIONAL),
USE ¾" SCHEDULE 80 PVC

FOR UNDERGROUND SERVICE
FEEDS, USE 1" RIGID STEEL CONDUIT
TO METER BASE ON EXTERIOR
OF POLE

— VERTICAL REINFORCING
BARS EQUALLY SPACED
(SIZE AND NUMBER VARY)

3" CLR

#4 TIE OR SPIRAL BARS
TO BE 12" ON CENTER

SERVICE
GROUND ROD

POLE
GROUND ROD

STEEL STRAIN POLE BASE WITH SERVICE, POLE,
AND POLE MOUNTED CABINET GROUNDING DETAILS

FOR EQUIPMENT GROUND:
CONNECT SPAN WIRES WITH
#4 AWG BARE COPPER AT BULL RING.
THE GROUNDING LUG SHALL BE
BRONZE TYPE.

SOLE WITH
E GROUNDING
E. THERE SHALL
ARE COPPER

POLE
COLLAR
FOR EQUIPMENT GROUND:
CONNECT SPAN WIRE TO POLE WITH
#4 AWG BARE COPPER. THE GROUNDING
LUG SHALL BE BRONZE TYPE. THERE SH
BE AT LEAST 1.5 FOOT OF BARE COPPER
BETWEEN EACH LUG.

CONNECT EACH STRAND VISE TO
BULL RING AT AERIAL CORNER.

INSTALL MESSENGER THROUGH
STRAND VISE AND BEND MESSENGER
AT EXIT POINT.

MESSENGER SHALL EXTEND 8" TO
10" BEYOND THE STRAND VISE YOKE.

PROVIDE SAG IN WIRES
TO PREVENT WATER IN
WEATHERHEAD

JOHNNYBALLS OR STRAIN ISOLATORS
SHALL NOT BE USED ON THE ATTACHMENT
OF THE SPAN WIRE TO THE POLE.

INSTALL MESSENGER THROUGH STRAND VISE
AND BEND MESSENGER AT EXIT POINT.

MESSANGER SHALL EXTEND 8" TO 10"
BEYOND THE STRAND VISE YOKE.

THERE SHALL BE A SEPARATE COLLAR
USED FOR EACH SPAN.

FOR EQUIPMENT GROUND SIGNAL/PED HEADS:
CONNECT GREEN WIRE FROM 5C/7C IMSA CABLE
TO CONNECTOR THAT WILL BE INSTALLED
UNDER ONE OF THE BOLTS FOR THE TRI STUD
ASSEMBLY THAT CONNECTS THE HEADS.
WE RECOMMEND BUTTED SEAM CLOSED
BARREL FOR THIS CONNECTION.

POLE BASE/SIGNAL HEAD DETAILS

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DATE PLOTTED: November 27 2024

FILE-SHEET NAME:

MicroStation v24.00.00.170

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