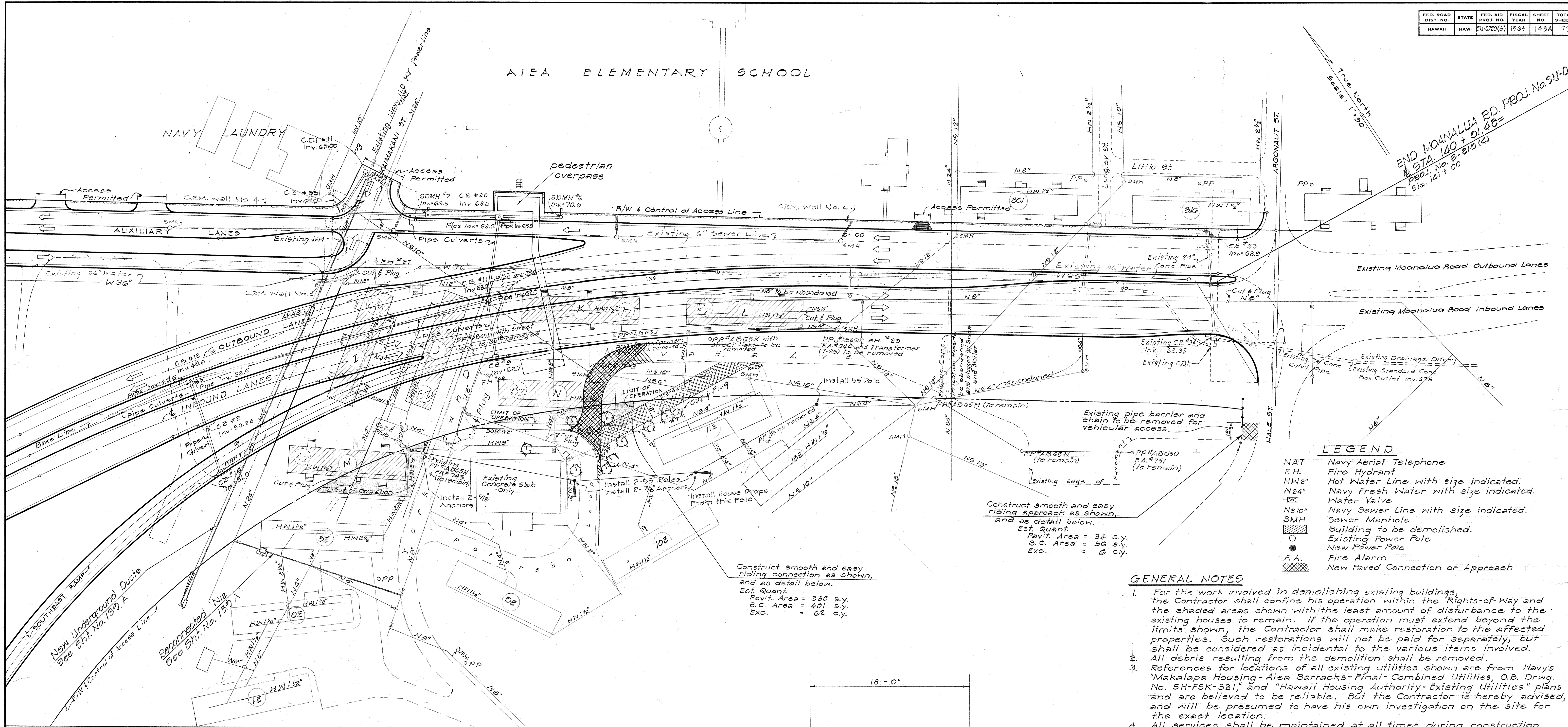


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	5U-0720(6)	1964	143A	177

END MOANALUA RD. PROJ. No. 5U-0720(6)
 STA. 140 + 0.46 =
 PROJ. No. 5U-0720(6)
 STA. 141 + 00

AIEA ELEMENTARY SCHOOL



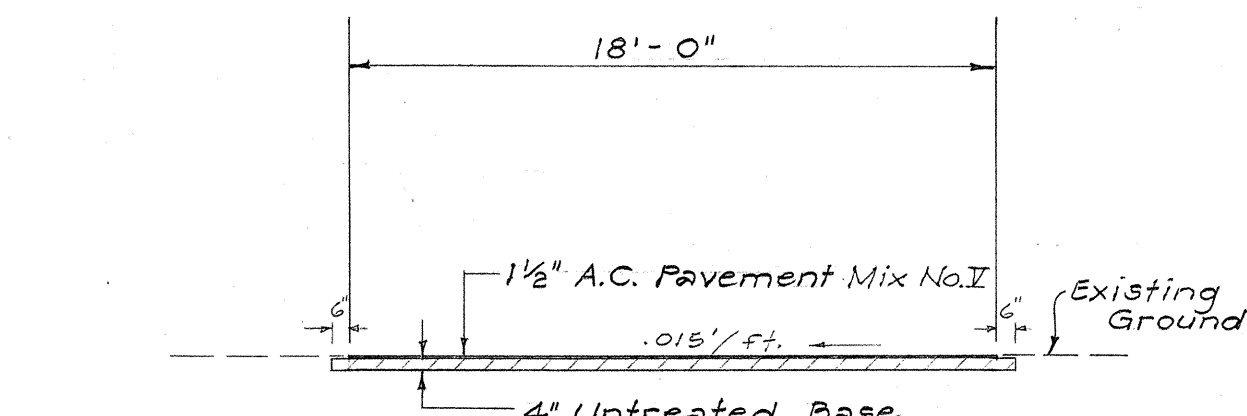
LEGEND

- NAT Navy Aerial Telephone
- F.H. Fire Hydrant
- HW2" Hot Water Line with size indicated.
- N24" Navy Fresh Water with size indicated.
- Water Valve
- NS10" Navy Sewer Line with size indicated.
- SMH Sewer Manhole
- Building to be demolished.
- Existing Power Pole
- New Power Pole
- F.A. Fire Alarm
- New Paved Connection or Approach

GENERAL NOTES

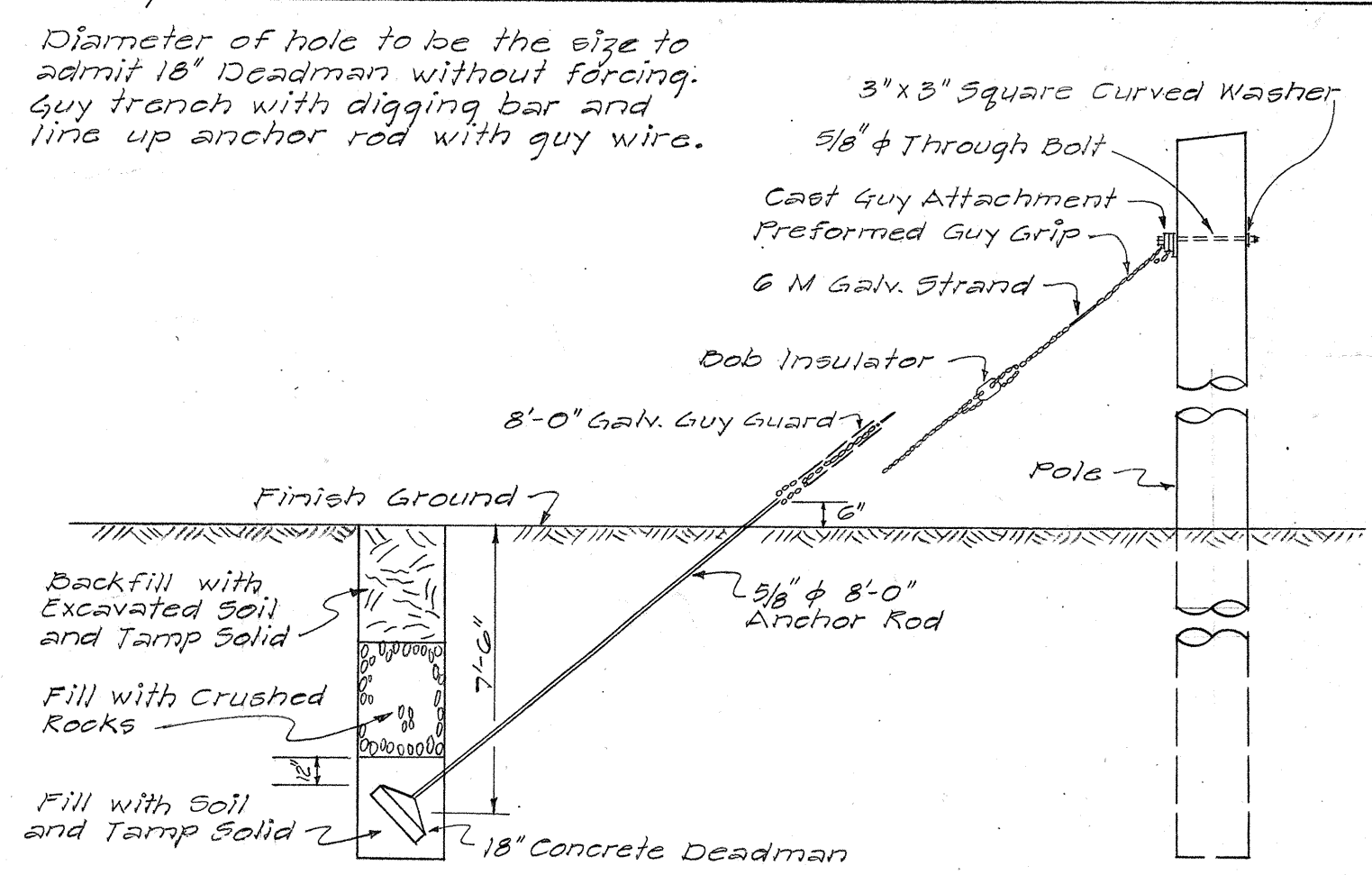
- For the work involved in demolishing existing buildings, the Contractor shall confine his operation within the Rights-of-Way and the shaded areas shown with the least amount of disturbance to the existing houses to remain. If the operation must extend beyond the limits shown, the Contractor shall make restoration to the affected properties. Such restorations will not be paid for separately, but shall be considered as incidental to the various items involved.
- All debris resulting from the demolition shall be removed.
- References for locations of all existing utilities shown are from Navy's "Makalapa Housing-Aiea Barracks-Final-Combined Utilities, O.B. Drwg. No. 5H-FSK-321" and "Hawaii Housing Authority-Existing Utilities" plans and are believed to be reliable. But the Contractor is hereby advised, and will be presumed to have his own investigation on the site for the exact location.
- All services shall be maintained at all times during construction with the least amount of disturbance to the existing houses.
- All salvage materials shall be thoroughly cleaned of all rust and foreign matter and will be stockpiled on the job site as directed by the engineer.
- Furnishing & installing New Power Poles and rerouting of electric lines to be done by the Contractor.
- The removal & relocation of the Fire Alarm System, including all overhead wiring, hardware, and Fire Alarm Box #744, shall be done by the Navy.

Construct smooth and easy riding connection as shown, and as detail below.
 Est. Quant.
 Pavt. Area = 34 s.y.
 B.C. Area = 36 s.y.
 Exc. = 6 c.y.



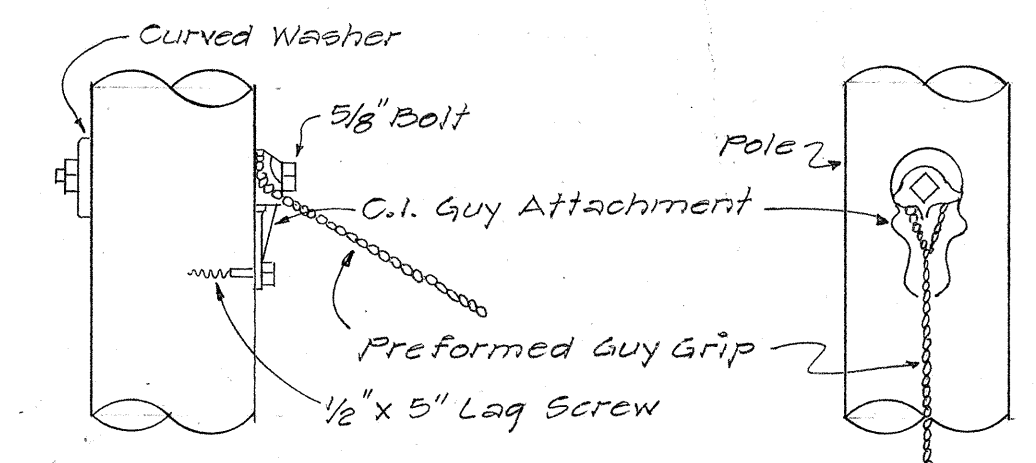
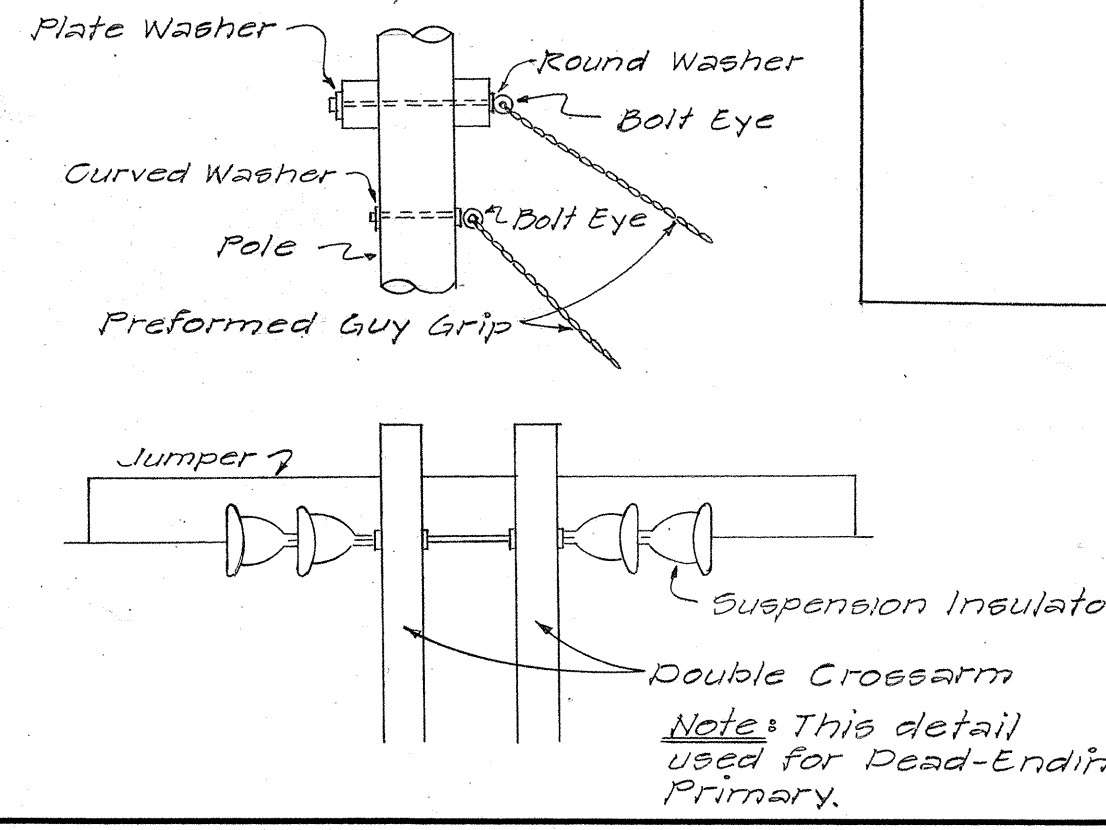
TYPICAL SECTION OF CONNECTION & APPROACH

Scale: 3/16" = 1'-0"



GUY AND ANCHOR DETAILS

Not to Scale



APPROVED

DIRECTOR, HAWAII HOUSING AUTHORITY	DATE
DIST. PUBLIC WORK OFFICER, 14TH N.D.	DATE

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION DEMOLITION

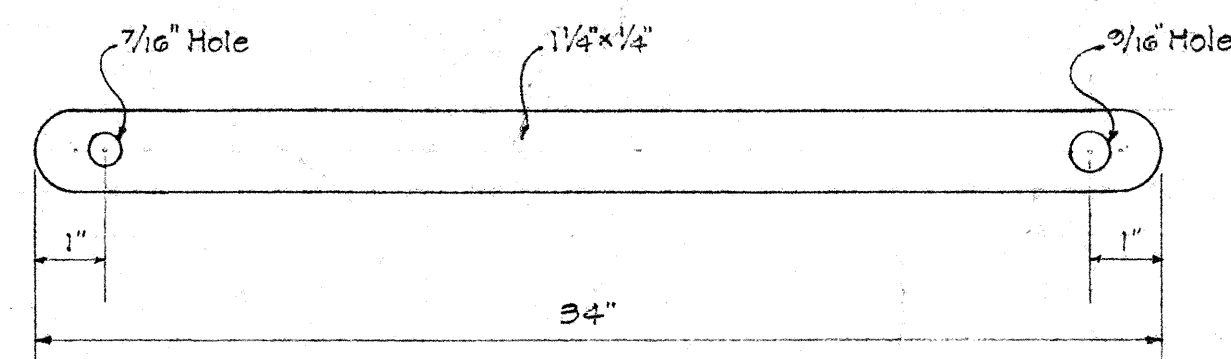
HALAWA VETERANS HOMES
 HAWAII HOUSING AUTHORITY
 MOANALUA ROAD
 PROJ. No. 5U-0720(6)

Scale: As Noted Sept. 1963

SHEET NO. 1 OF 2 SHEETS

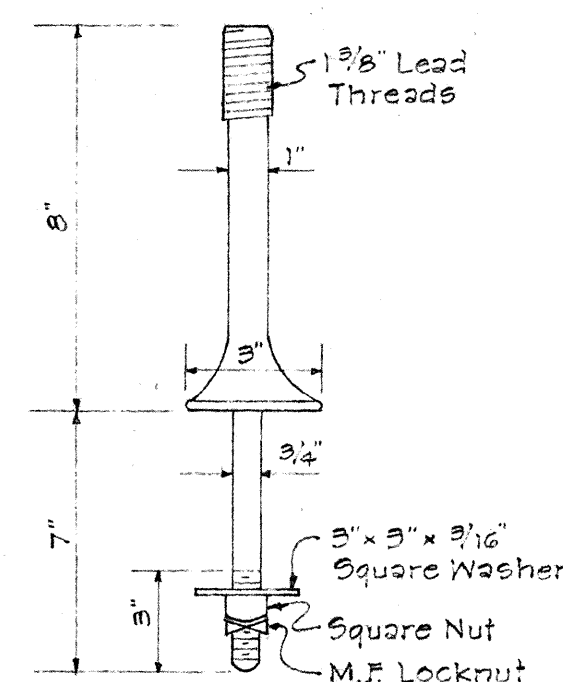
143A

NOTE:
Structural Grade Steel 10,000 Lbs.
breaking strength.

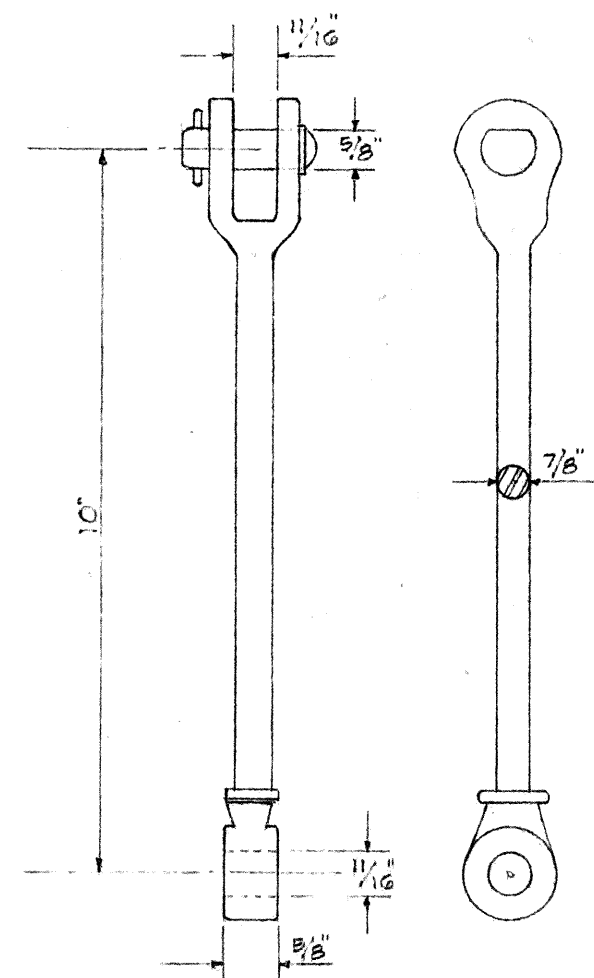


PART No. 3
FLAT CROSSARM BRACE

- NOTES:
1. Pins shall be forged steel high tension.
 2. Lead threads per E.E.I. Spec. TD-71



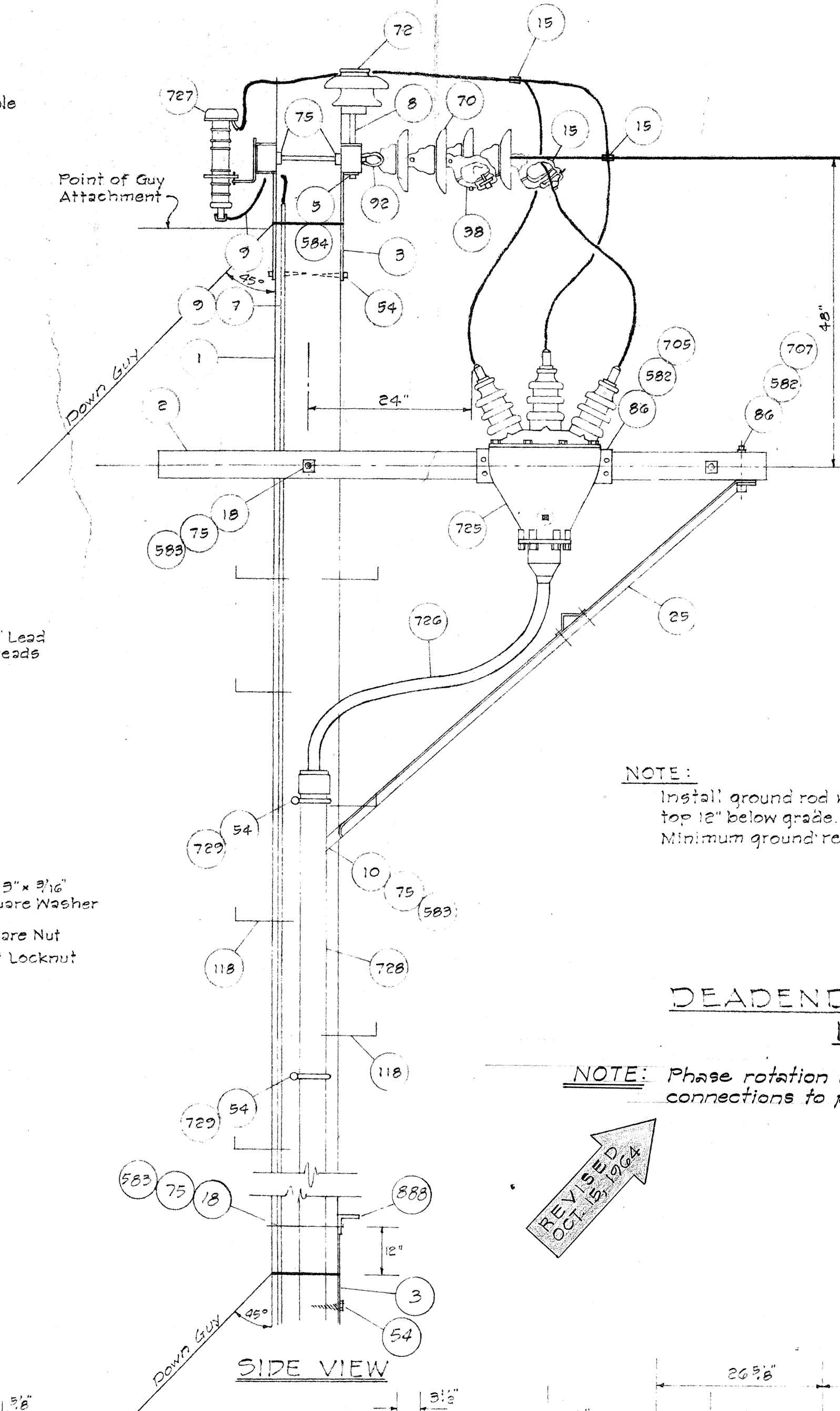
PART No. 8
INSULATOR PINS



PART No. 91
EXTENSION LINKS

- NOTES:
1. Envelope Type
 2. Ultimate Strength - 8,000#
 3. Cable Seat Dia. 0.16" to 0.375"

PART No. 38
STRAIN CLAMP



DEADEND CABLE RISER POLE
NEW AHA 7

NOTE: Phase rotation shall be verified to permit connections to pothead as shown.

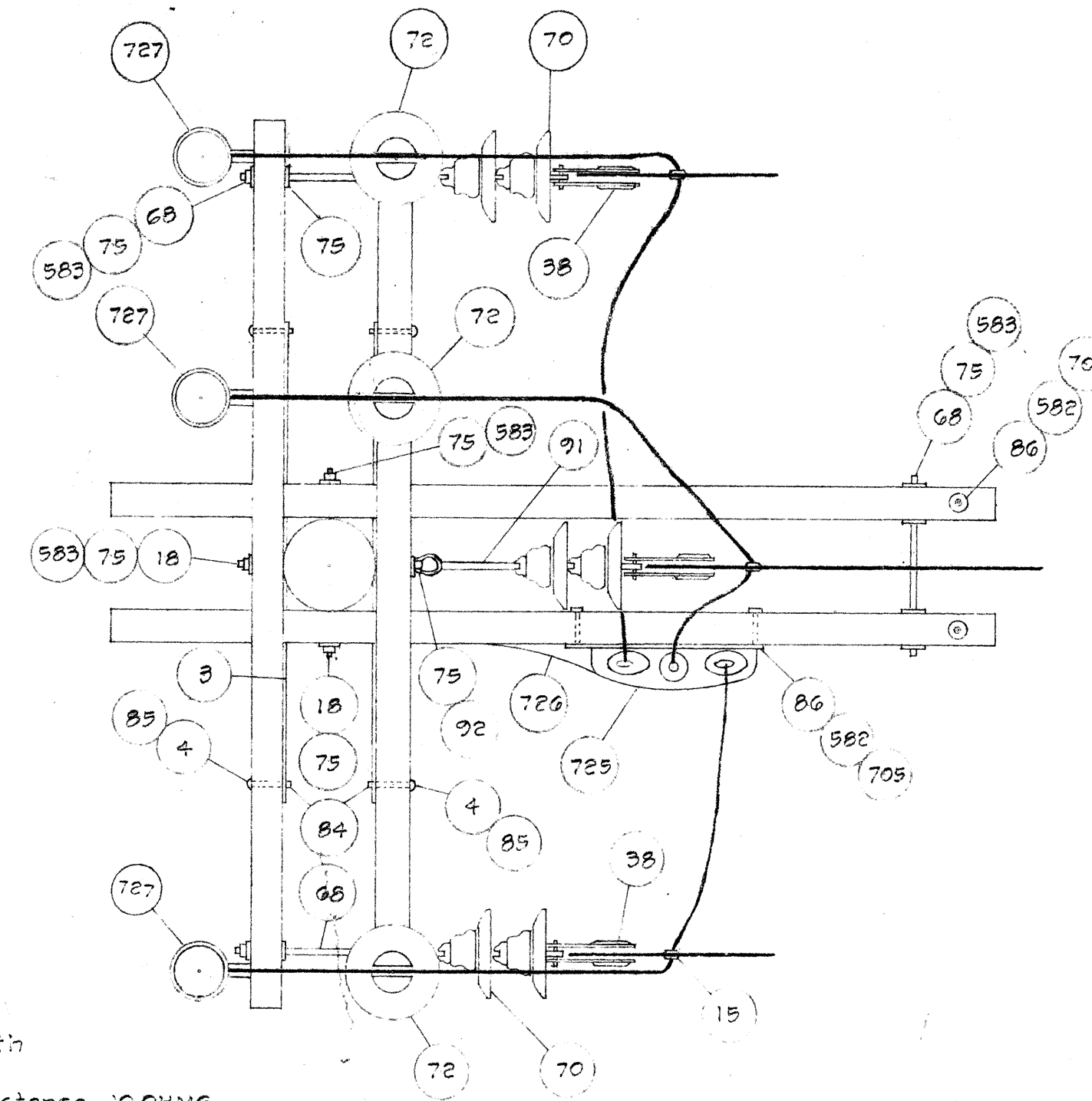
REVISED
OCT. 9, 1964

- GENERAL NOTES:
1. All hardware shall be galvanized in conformance with ASTM designation A-153.
 2. Insulator pins shall be bonded together with #8 MHD copper conductor.
 3. Conductors shall be cleaned & tinned before installing split-bolt connectors.
 4. Required bolt lengths indicated are approximate. Modify to suit pole diameter.

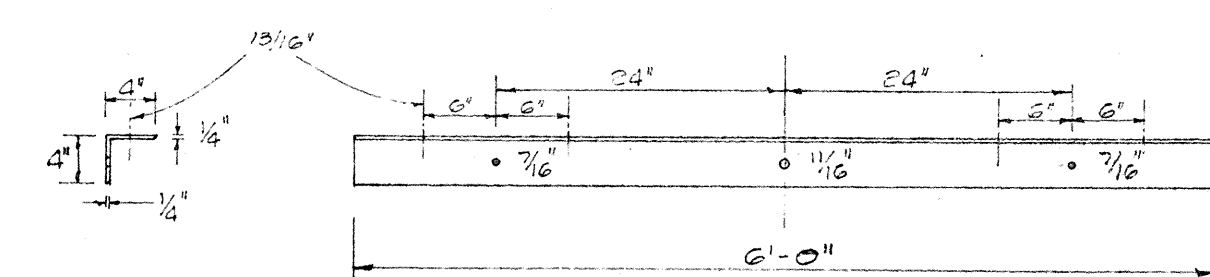
Minimum dimensions after surfacing, in accordance with "Construction Grades" of the West Coast Lumberman's Association Standard Grading & Dressing Rules, latest issue.

- NOTES:
1. Crossarms shall be Douglas-Fir and shall conform to E.E.I. Spec. TD-20, April, 1949.
 2. Crossarms shall be pressure treated with a 5% solution of Pentachlorophenol in a Petroleum carrier to a final retention of 6 Lbs per cubic foot.
 3. Crossarms shall be painted bright yellow.

PART No. 2 (12 KV)
CROSSARM DETAILS



PARTIAL PLAN VIEW



PART No. 888 (FIRE ALARM)
CROSSARM DETAILS
Scale: 3/4" = 1'-0"

DEPTH FOR SETTING POLES	
HEIGHT OF POLE (FEET)	DEPTH OF SETTING (FEET)
20	5.0
25	5.5
30	5.5
35	6.0
40	6.0
45	6.5
50	7.0
55	7.5
60	8.0

APPROVED:

DIST. PUBLIC WORK OFFICER 14TH N.D.

DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD POLE AND GUY DETAILS

TYPE 8A DEADEND CABLE RISER POLE

MOANALUA ROAD

PROJ. No. 94-0720(6)

April, 1964

SHEET No. 1 OF 2 SHEETS

143 A-1

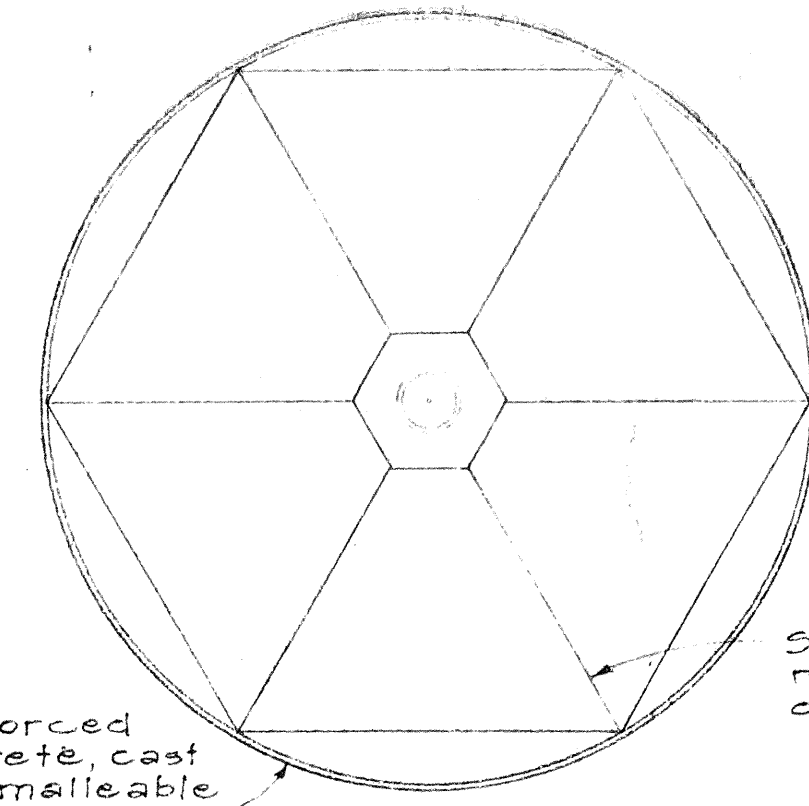
FOR CHANGE ORDER 10/15/64

DESCRIPTION OF MATERIALS

PART NO.	DESCRIPTION
1	Wood pole
2	Crossarm, Douglas Fir, 3 1/2" x 4 1/2" x 8'-0", See SHEET No. 143A-1 for drilling details
3	Brace, flat crossarm, 1 1/2" x 1/4" x 34", structural grade steel, 10,000 lbs breaking strength
4	Carriage bolt, 3/8" x 4 1/2", EEI Spec TD-1
5	#8 MHD copper, bond to insulator pins only
6	Guy strain insulator EEI - NEMA Class 54-3 (To Fit Guy Strength)
7	Wood moulding, half round, staple every 12" with copper clad staples
8	Insulator pin, forged steel, high tension, 1 3/8" lead threads per EEI SPEC. TD-71
9	#4 soft drawn copper, arrester ground wire
10	Machine bolt, 3/8" x 10", EEI SPEC. TD-1
15	Connector, split bolt, copper alloy
18	Machine bolt, 5/8" x 18", EEI SPEC. TD-1
25	Alley arm brace, 1 3/4" x 1 3/4" x 3/16", 7 ft. long
31	Guy clamp, 6" 3-bolt, 3/8" bolts (To Fit Guy Strength)
38	Strain clamp, envelope type, ultimate strength 8,000 lbs
51	Angle thimble eye bolt, 3/8" x 10" (or parts No. 10 & 500) (To Fit Guy Strength)
54	Lag screw, 1/2" x 4", fitter drive EEI SPEC. TD-3 (To Fit Guy Strength)
60	Double arming bolt, 3/8" x 18", EEI SPEC. TD-1
70	Suspension insulator, 10" dia., clevis type, EEI - NEMA Class 52-4
72	Pin type insulator, 1 3/8" dia. pinhole, EEI - NEMA Class 56-2
75	Square washer, 2 1/4" x 2 1/4" x 3/16", 1/2" hole (To Fit Guy Strength)
84	Round washer, 1" dia., 3/16" hole
85	Round washer, 1 1/2" dia., 3/16" hole, use under head of bolt
86	Round washer, 1 3/8" dia., 3/16" hole
91	Extension link, 3/8" x 10", ultimate strength - 20,000 lbs
92	Eyebolt, 3/8" bolt size
118	Pole steps, 3/8" x 10", fitter drive, EEI Standard
160	● Cone anchor, 12" dia. (To Fit Guy Strength) ● Cone anchor, 16" dia. (To Fit Guy Strength)
170	Galvanized guy wire, 7-strand 1 1/2" High Strength For Primary Power System - Double Guy 3/16" SM (For Telephone System on New Pole) 2 M
288	Sheave wheel, 2 1/2" dia., for 7/16" strand (To Fit Guy Strength)
418	Anchor rod, threaded, thimble eye 3/4" x 8'-0" (To Fit Guy Strength) Anchor rod, threaded, thimble eye 3/4" x 8'-0" (To Fit Guy Strength)
582	M-F Locknut, square, 1/2" bolt size
583	M-F Locknut, square, 3/8" bolt size (To Fit Guy Strength)
584	M-F Locknut, square, 3/4" bolt size
605	Guy protector, 8 feet, 16 gauge steel (To Fit Guy Strength)
650	Connecting link (PR) (To Fit Guy Strength)
705	Machine bolt, 1/2" x 5"
707	Machine bolt, 1/2" x 7"
725	Pothole, 15 KV, Outdoor capnut type shape B, wiping sleeve, SPEC. 274
726	Primary cable, as specified
727	Lightning arrester, enclosed valve type, 9 KV
728	Fibre conduit type II, SPEC. W-C-581, extended from termination of rigid steel conduit, 10' above grade
729	Conduit strap, locate every 4 ft.
886	Lift plate, 3 hole, 1/4" steel plate (To Fit Guy Strength)
888	4' x 4' x 1/4" Angle, 6'-0" Long

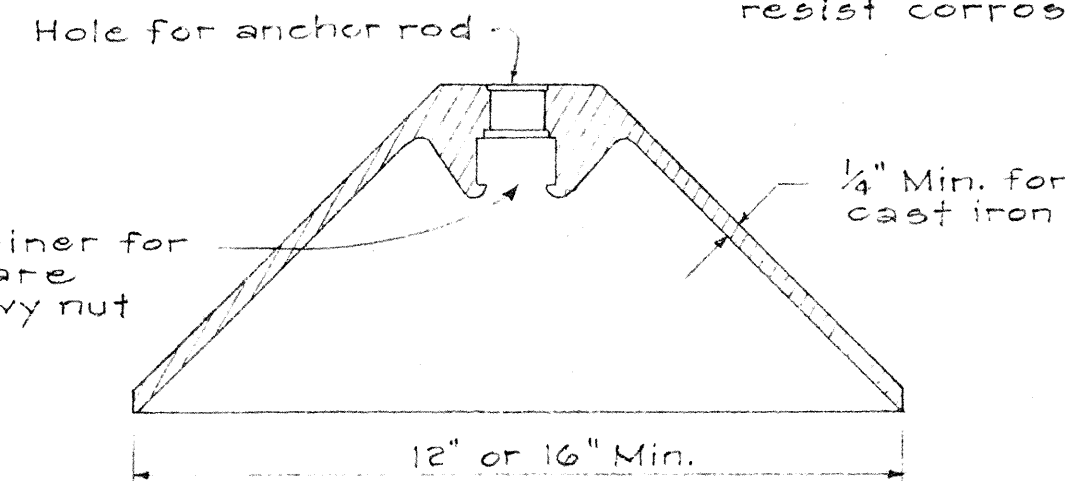
* Approximate lengths, or quantities, as applicable.

● In sand, loose fill, or other soils deficient in holding strength, use concrete anchor - Part No. 160A

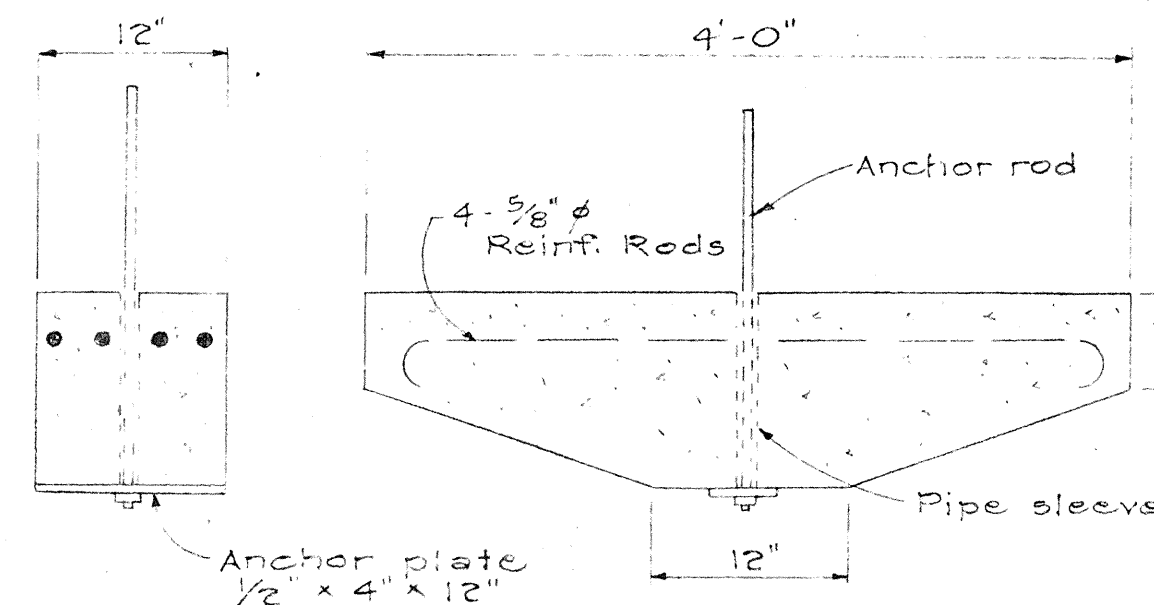


Reinforced concrete, cast iron, malleable iron, or steel.

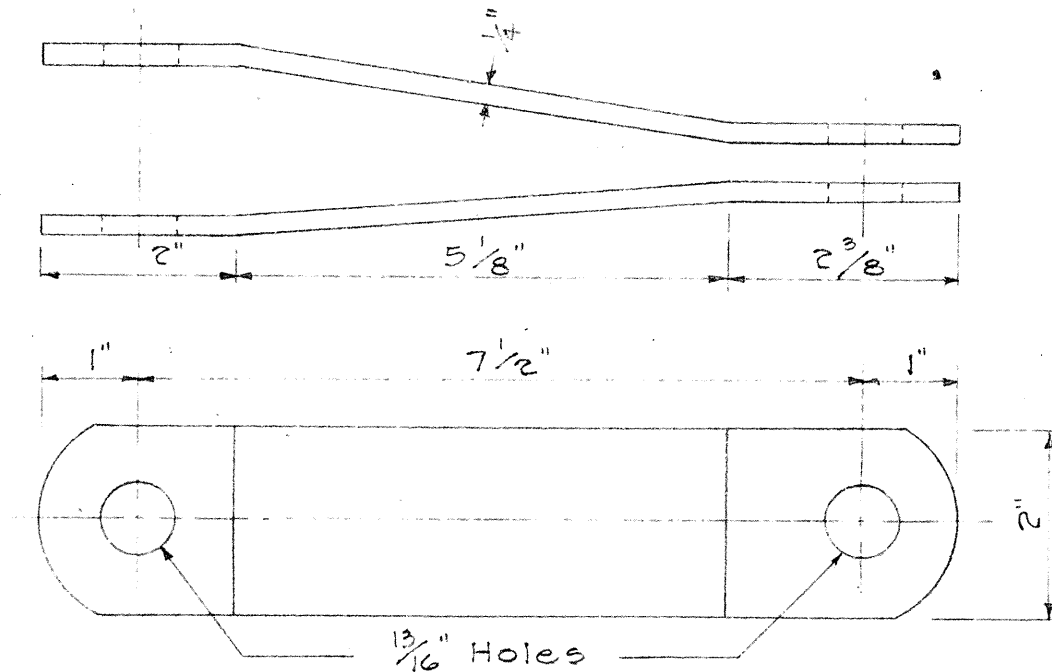
Coat surfaces with asphalt paint to resist corrosion.



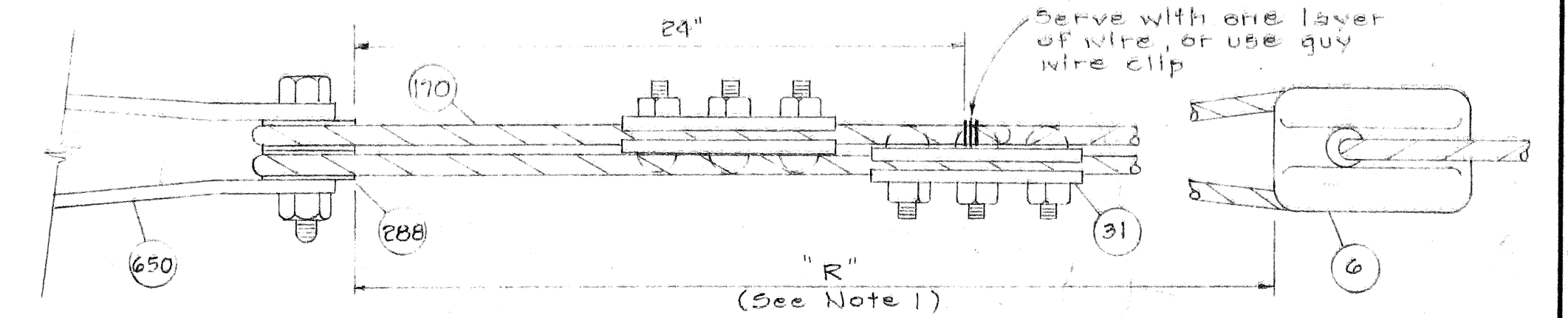
PART NO. 160
CONE ANCHOR



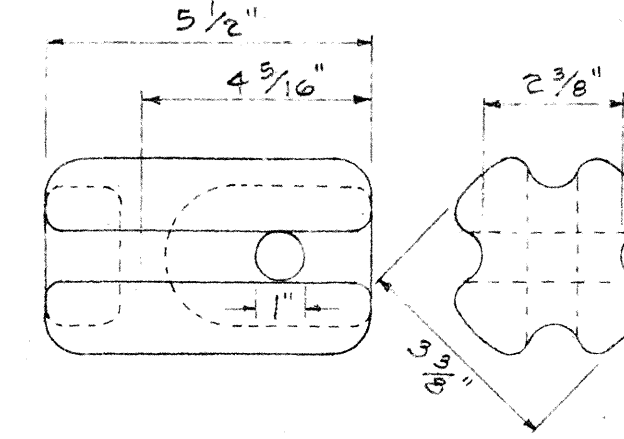
PART NO. 160A
CONCRETE ANCHOR



PART NO. 650
CONNECTING LINK

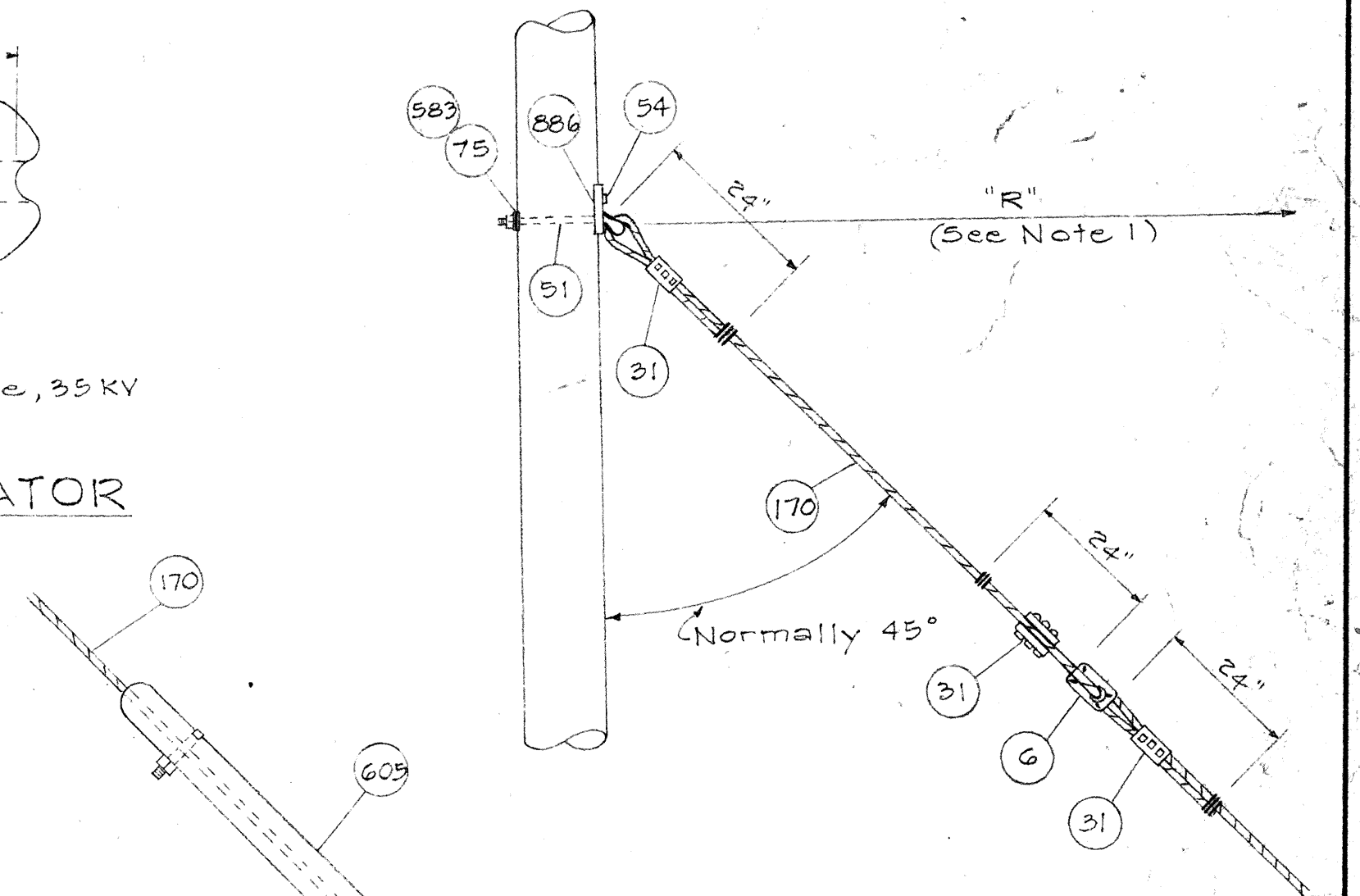


DOUBLE GUY DETAILS

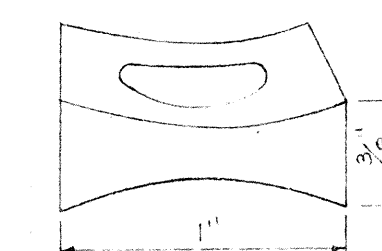


EEI - NEMA Class 54-3
Dry Flashover, 60 Cycle, 35 KV

PART NO. G
GUY STRAIN INSULATOR



TYPICAL GUY AND
ANCHOR ASSEMBLY



PART NO. 583
SQUARE M-F LOCK NUT

Pole Guy Attachment Height	Single Guy 5M, 7M, & 9M	Double Guy 14 M
25'	45'	80'
30'	50'	95'
35'	60'	110'
40'	65'	125'
45'	70'	145'
50'	80'	150'
55'	85'	165'
60'	95'	180'

NOTES:

- Radius "R" shall be length required to locate guy insulator 4 feet below communication conductor level, minimum "R" equal to 6 feet.
- All hardware shall be galvanized in accordance with ASTM Designation A-153.

APPROVED:

DIST. PUBLIC WORK OFFICER 14TH N.D.

DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD POLE AND GUY DETAILS

TYPE 8A DEADEND CABLE RISER POLE

MOANALUA RD. PROJ. NO. 50-0720(6)

April 1964

SHEET No. 2 OF 2 SHEETS

1413A-2

FOR CHANGE ORDER 10/12/64