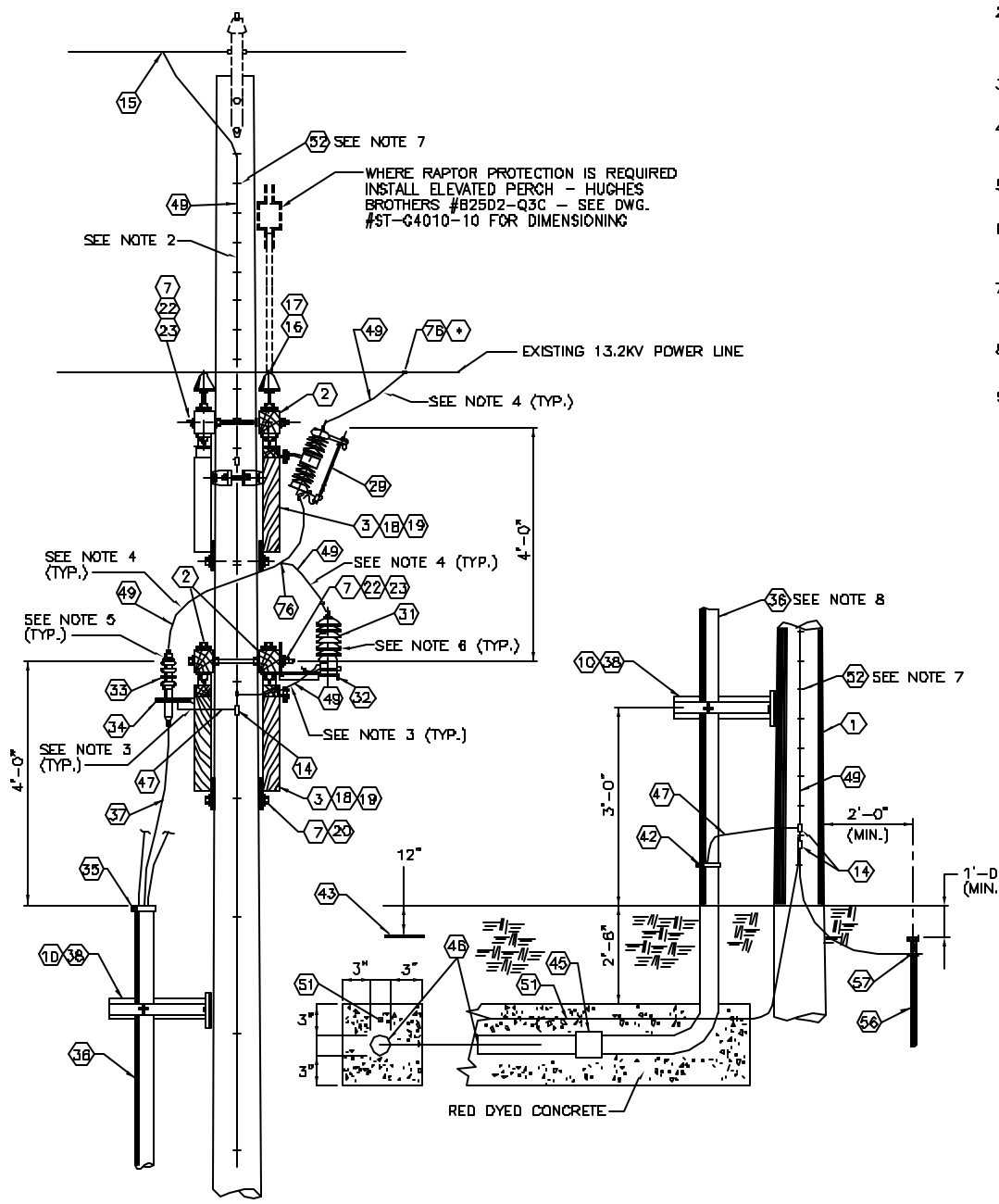


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BILL OF MATERIALS			
ITEM	DESCRIPTION	QTY	MFR. CATALOG No.
2	CROSS ARM, WOOD, 3 1/2" X 4 1/2" X 8'-0", 4 PIN	3	HUGHES #2202C
3	CROSS ARM BRACE, 1 11/16" X 2 11/16" X 48" SPAN	3	BROOKES #446-48-24
7	SPRING WASHER, 5/8" SIZE	8	JOSLYN #J177
10	LAG SCREW, 1/2" X 4"	2	JOSLYN #J87B4
14	CRIMP CONNECTOR	1	HYTAP
15	CRIMP CONNECTOR	1	HYTAP
16	LOW VOLTAGE STEEL PIN, 5/8", 8" HEIGHT	6	JOSLYN #J207Z
17	PIN INSULATOR, ANSI CLASS 55-5	6	VICTOR #BR
18	MACHINE BOLT, 1/2" X 6"	8	JOSLYN #J87D6
19	SPRING WASHER, 1/2" SIZE	8	JOSLYN #J176
20	MACHINE BOLT, 5/8" X 14"	2	JOSLYN #J8B14
22	SQUARE WASHER, 5/8" SIZE	12	JOSLYN #J1074
23	DOUBLE ARMING BOLT, 5/8" X 22"	6	JOSLYN #J8B72
28	HOT LINE CLAMP ADAPTER, 1/0-4/0 ACSR	3	FCI-BURNDY #YCB-2BU26
29	DIST. FUSE CUTOUT, 100 AMP.	3	KEARNEY #144261-020
31	INTER. TYPE METAL OXIDE SURGE ARRESTER	3	HUBBELL/OHIO BRASS MODEL PDV-100, #213813
32	INTER. ARRESTER, MOUNTING BRACKET	3	HUBBELL/OHIO BRASS #7224
33	PORCELAIN TERMINATION KIT, 1/0-4/0	3	JOSLYN #E5200
34	TERMINATION, CROSSARM MOUNTING BRACKET	3	
35	SEALING BUSHING FOR 4" OR 6" CONDUIT	1	4"C. - O.Z. GEDNEY #CSBG400P 6"C. - O.Z. GEDNEY #CSBG600P
36	CONDUIT, 4" IMC OR 6" RIGID	AS REQ'D	
37	4/0 CABLE, 15KV UNGROUNDED, EPR, MV-10S	AS REQ'D	OKONITE
38	CONDUIT STANDOFF BRACKET WITH STRAP KIT	2	ALUMAFORM #6-C50-12
42	GROUND CLAMP FOR 4" OR 6" CONDUIT	1	4"C. - O.Z. GEDNEY #CG4104 6"C. - O.Z. GEDNEY #CG6122
43	WARNING TAPE, ELECTRIC	AS REQ'D	
45	CONDUIT ADAPTER, FEMALE PVC TO IMC, 4" OR 6"	1	
46	PVC CONDUIT, TYPE EB, 4" OR 6"	AS REQ'D	
47	NO. 4 BARE COPPER WIRE, 7 STRAND	AS REQ'D	
48	NO. 1/0 BARE COPPER WIRE, 7 STRAND	AS REQ'D	
51	NO. 4/0 BARE COPPER WIRE, 26 STRAND	AS REQ'D	
52	GROUND WIRE STAPLE, 2"	AS REQ'D	JOSLYN #J8655
56	GROUND ROD, 3/4" X 8"	1	JOSLYN #J5338
57	GROUND ROD CLAMP, HEX HEAD, 3/4"	1	JOSLYN #J8493
73	HOT LINE CLAMP BAIL FOR COPPER	3	THOMAS & BETTS/BLACKBURN #7030C
74	COMPRESSION TAP, 1/0 TO #2 SOLID COPPER	3	THOMAS & BETTS/BLACKBURN #CF102-1
75	COMPRESSION TAP, 2/0 TO #2 SOLID COPPER	3	THOMAS & BETTS/BLACKBURN #CF402-1
76	WEJTAP CONNECTOR	6	FCI-BURNDY (# AS REQUIRED)

\* USE ITEM 73 AND 74 OR 75 FOR COPPER CONDUCTORS.  
USE ITEM 28 FOR ACSR CONDUCTORS.



EXISTING POLE WITH PRIMARY RISER DETAIL  
SCALE: NONE

DRAWING DEVELOPED FOR ML-3/ML-4 PROJECTS. FOR ML-1/ML-2, ADDITIONAL REQUIREMENTS AND QA REVIEWS ARE REQUIRED. (REMOVE THIS NOTE WHEN INSERTED INTO A DRAWING PACKAGE).

- GENERAL NOTES:**
- CONSTRUCTION FOR WIRE SIZES #4 SOLID COPPER TO #3/0 ACSR (6/1).
  - GROUND OVERHEAD STATIC AT EVERY POLE. WHERE WILDLIFE/RAPTOR PROTECTION IS REQUIRED, GROUNDING DOWN CONDUCTOR SHALL BE INSULATED FROM OVERHEAD SHIELD WIRE TO 3'-0" BELOW LOWER CROSS ARM.
  - WHERE WILDLIFE/RAPTOR PROTECTION IS REQUIRED USE 800V. INSULATED WIRE.
  - WHERE WILDLIFE/RAPTOR PROTECTION IS REQUIRED USE NON-SHIELDED 15KV INSULATED CABLE FOR CONNECTIONS TO FUSE CUTOUTS, SURGE ARRESTORS, AND CABLE TERMINATION KITS.
  - WHERE WILDLIFE/RAPTOR PROTECTION IS REQUIRED PROVIDE ELECTRO-STATIC ANIMAL GUARD SIMILAR TO 3M #GG-2545.
  - WHERE WILDLIFE/RAPTOR PROTECTION IS REQUIRED USE HUBBELL/OHIO BRASS #7325 MOUNTING BRACKET WITH PROTECTIVE CAPS IN LIEU OF #7224 MOUNTING BRACKET.
  - STAPLES ON GROUND WIRE SHALL BE 2'-0" APART EXCEPT FOR A DISTANCE OF 8'-0" ABOVE GROUND AND 8'-0" FROM TOP OF POLE WHERE THEY SHALL BE 8" APART.
  - LANL UTILITY SERVICES INSTALLS ALL PRIMARY CONDUIT & CONDUCTORS. TRENCH AND CONCRETE SHALL BE INSTALLED BY CONTRACTOR.
  - EQUIPMENT ITEM NUMBERS (1) REFER TO EQUIPMENT NUMBERS IN LANL SUPPORT SERVICES CONTRACTOR'S MASTER BILL OF MATERIALS. ONLY THOSE NUMBERS USED ON THIS DRAWING ARE SHOWN.

**NOTES FOR DESIGNER:**  
(DO NOT INCLUDE ON CONSTRUCTION DRAWING)

- COMPLY WITH CURRENT EDITION OF LANL DRAFTING MANUAL FOR CALL-OUTS PROTOCOL AND LOCATION OF SCHEDULES/MATERIAL.
- ASSIGN AN APPROPRIATE DRAWING NUMBER PER CURRENT EDITION OF LANL DRAFTING MANUAL PROTOCOL FOR DETAILS.

NO.	DATE	CLASS REV	DESCRIPTION	OWN	VER	CHKD	SUB	APP	
<b>FACILITY &amp; WASTE OPERATIONS SYSTEMS ENGINEERING &amp; MAINTENANCE</b>									
<b>LANL ENGINEERING MANUAL SITE ELECTRICAL DISTRIBUTION STDS.</b>				DRAWN	M. BAKER				
DISTRIBUTION EXISTING POLE WITH PRIMARY RISER DETAIL				DESIGN	D. BRYANT				
BLDG. X TA-X				CHECKED	J. LANDMAN				
SUBMITTED				DATE	9/30/02				
DISCIPLINE POCI DAVID POWELL				APPROVED FOR RELEASE	STANDARDS MANAGER TOMMY GRUCH				
				SHEET	1				
CLASSIFICATION U				REVIEWER	MICHAEL LADACH				
PROJECT ID				DATE	9/30/02				
<b>CHAPTER 7</b>				DRAWING NO	ST-G4010-25				
REV				0					