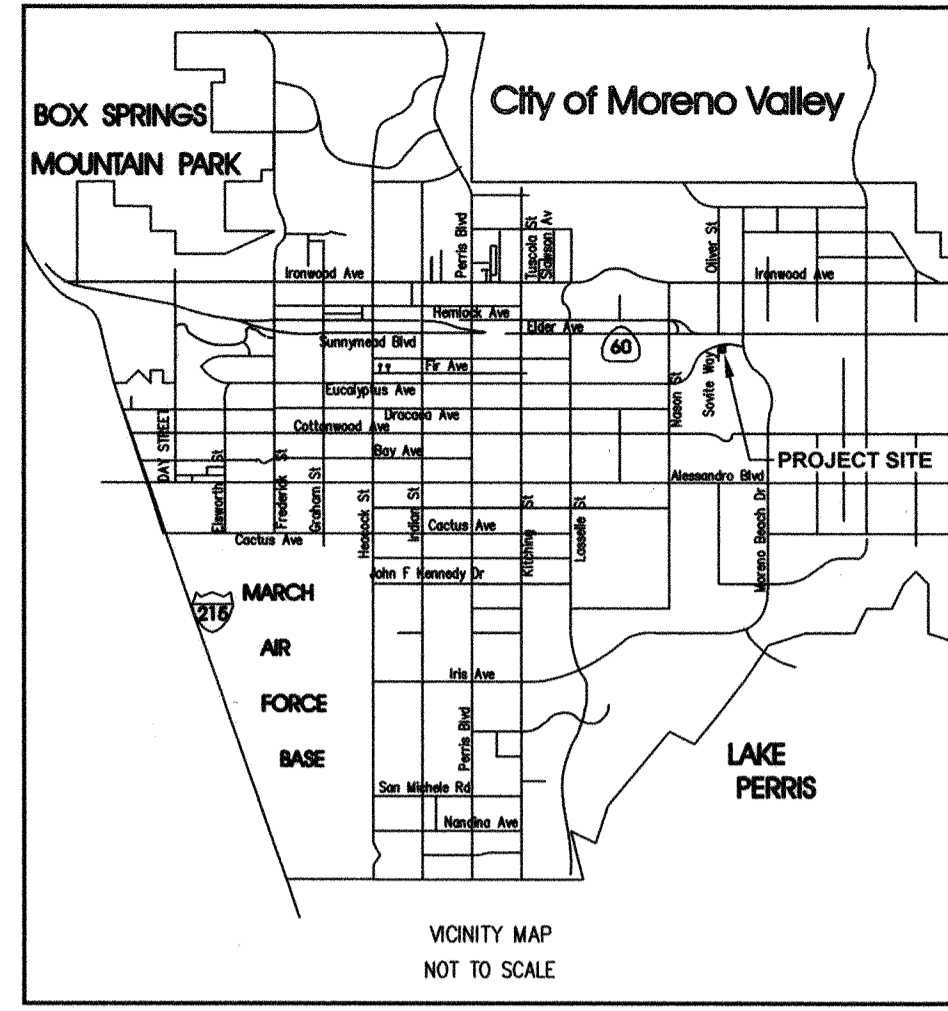


# **APPENDIX C**

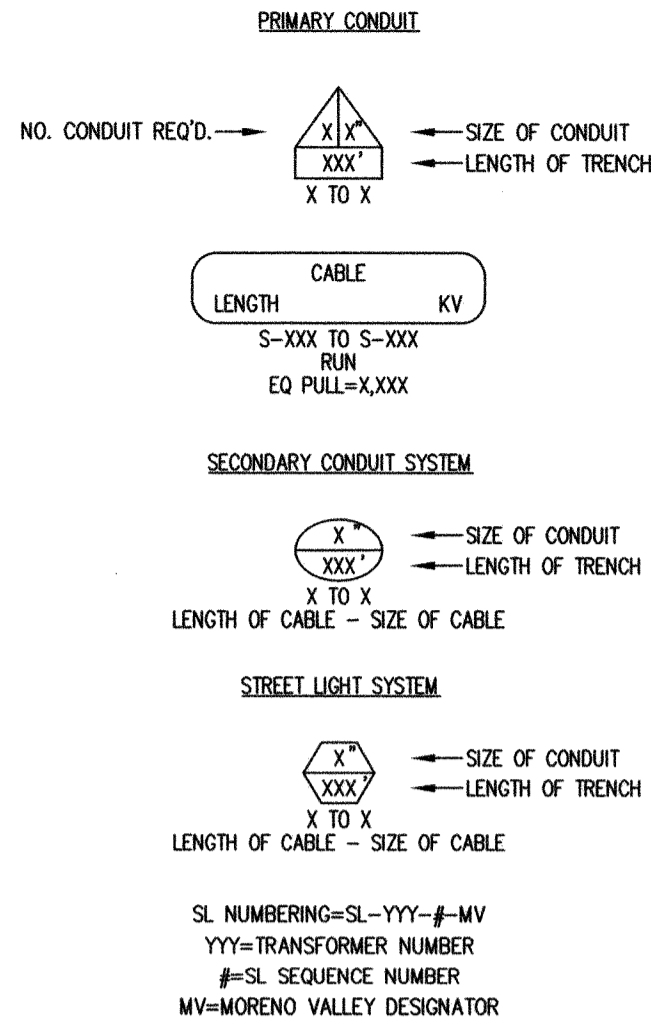
City of Moreno Valley Electrical Service Plan  
(MVU-POS)

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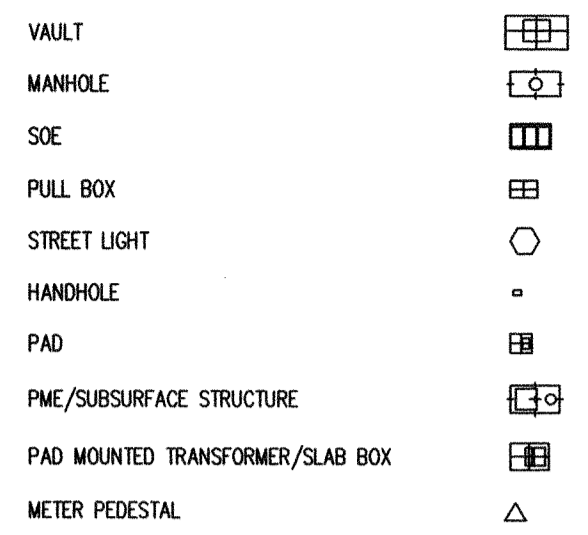
MORENO VALLEY STANDARD No. MVEU-701-0

CONDUIT & CABLE CALL-OUT DESIGNATION

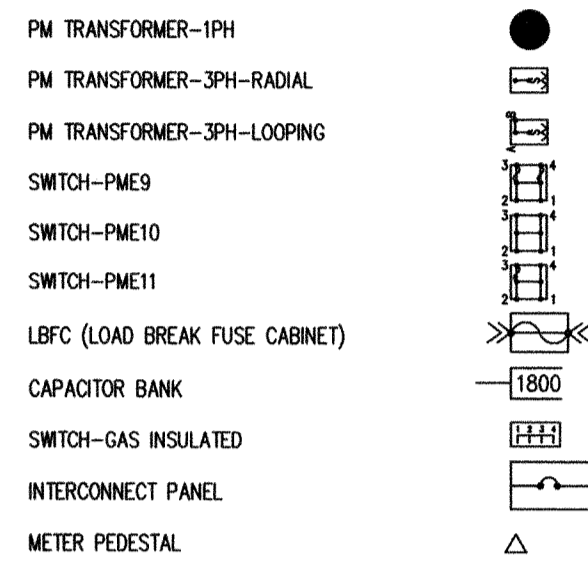


MORENO VALLEY STANDARD No. MVEU-702-0

LEGEND OF STRUCTURES

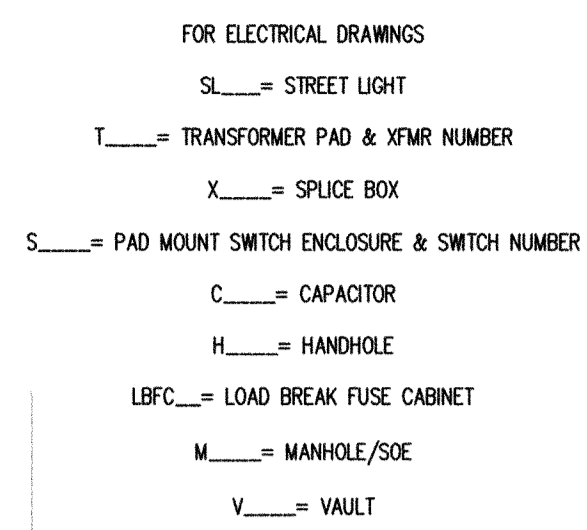


LEGEND OF EQUIPMENT SYMBOLS



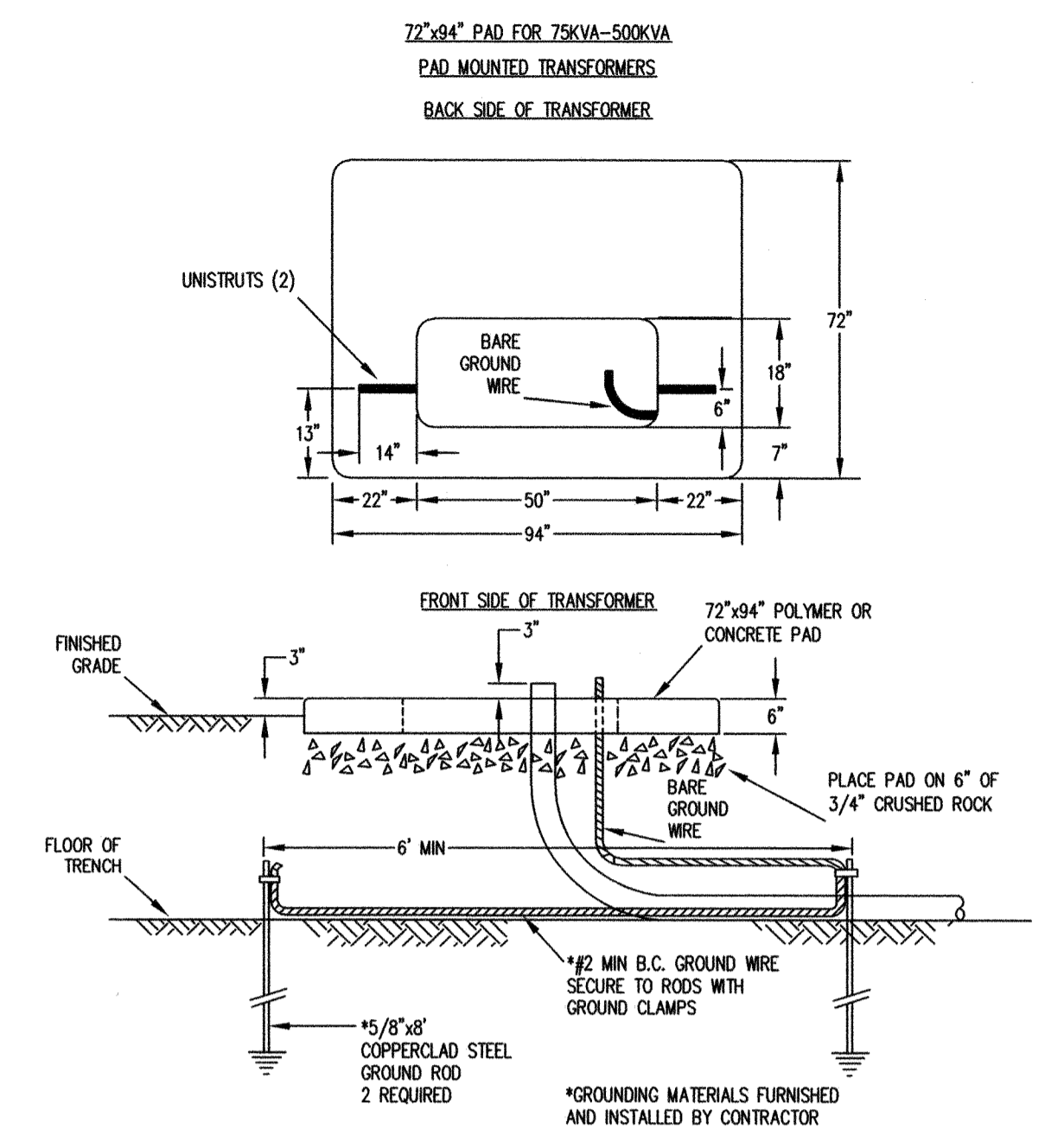
MORENO VALLEY STANDARD No. MVEU-703-0

EQUIPMENT LEGEND AND NOTES



- RESIDENTIAL APPLICATIONS:**
- TRANSFORMERS ARE 6.9 (V NF 120/240V 1ph, PAD MOUNTED WITH LOAD BREAK BUSHINGS.
  - NON-FUSED HV CABLES 3 1/0 AWG AL 6.9kV JCN OR DC.
  - FUSED HV CABLES #2, #1 AWG AL 6.9kV JCN OR DC.
  - SECONDARY CABLE IS 2-350 & 1-4/0 AL OR 2 4/0 & 1 1/0, 600V CLP UNLESS OTHERWISE SPECIFIED.
  - SERVICE CABLE IS 2-1/0 & 1-#2 AL 600V CLP UNLESS OTHERWISE SPECIFIED.
  - PRIMARY & SECONDARY CONDUITS ARE 3" UNLESS OTHERWISE SPECIFIED.
  - SERVICE CONDUITS ARE 1 1/2" OR 3".
  - BACKBONE SYSTEMS ARE AS DESIGNED PER NON-RESIDENTIAL CRITERIA.
  - STREET LIGHTING SYSTEM: REQUIRE 2" CONDUIT BETWEEN SPLICE BOXES UNLESS OTHERWISE SPECIFIED.
  - ALL 200A CABLE TERMINATIONS ARE LOAD BREAK ELBOWS.
- COMMERCIAL, INDUSTRIAL AND OTHER NON-RESIDENTIAL APPLICATIONS:**
- TRANSFORMERS ARE NEW 12kV, FUSED SWITCHED 1ph or 3ph (AS END USER REQUIREMENTS) PAD MOUNTED WITH LOAD BREAK ELBOWS.
  - SWITCHES ARE 14.4kV NG INVAL PAD MOUNTED TYPE.
  - CAPACITORS ARE 1200kVAR OR 1800kVAR, 12kV PAD MOUNTED, SWITCHED WITH FLOATING WYE CONNECTION WITH CONTROLLER.
  - NON-FUSED HV CABLES ARE 1000 kcmil, 750 kcmil, 350 kcmil, 1/0 AWG AL 12kV JCN.
  - FUSED HV CABLES #2, #1 AWG AL 12kV JCN UNLESS OTHERWISE SPECIFIED.
  - SECONDARY CABLE IS 3-350 & 1-4/0 AL 600V CLP UNLESS OTHERWISE SPECIFIED.
  - SECONDARY & SERVICE CABLES ARE 700kcmil, 350kcmil, 4/0kcmil, 1/0 AWG OR #2 AWG AL 600V CLP (AS PER END USER REQUIREMENTS).
  - STRUCTURES ARE SUBSU FACE TYPE.
  - PRIMARY CONDUITS ARE 1", UNLESS OTHERWISE SPECIFIED.
  - SERVICE CONDUITS ARE 1" OR 5" AS SPECIFIED IN THE DISTRIBUTION DESIGN STANDARDS.
  - COMMUNICATION CONDUIT: ARE 2" AND INCLUDED WITH ALL BACKBONE (MAIN LINE) SYSTEMS.
  - STREET LIGHTING SYSTEM: REQUIRE 2" CONDUIT BETWEEN SPLICE BOXES UNLESS OTHERWISE SPECIFIED.
- NOTES:**
- CONDUITS ARE DB-100 (1" SCH 40-80) WHERE EXPOSED TO SUNLIGHT.
  - THE ABOVE CRITERIA DEFINE THE GENERAL REQUIREMENTS FOR THE DESIGN OF THE ELECTRICAL SYSTEMS. FOR SPECIFIC DESIGN APPLICATIONS REFER TO THE CITY OF MORENO VALLEY DISTRIBUTION DESIGN CRITERIA. IT CAN BE OBTAINED AT MORENO VALLEY UTILITY OFFICE.

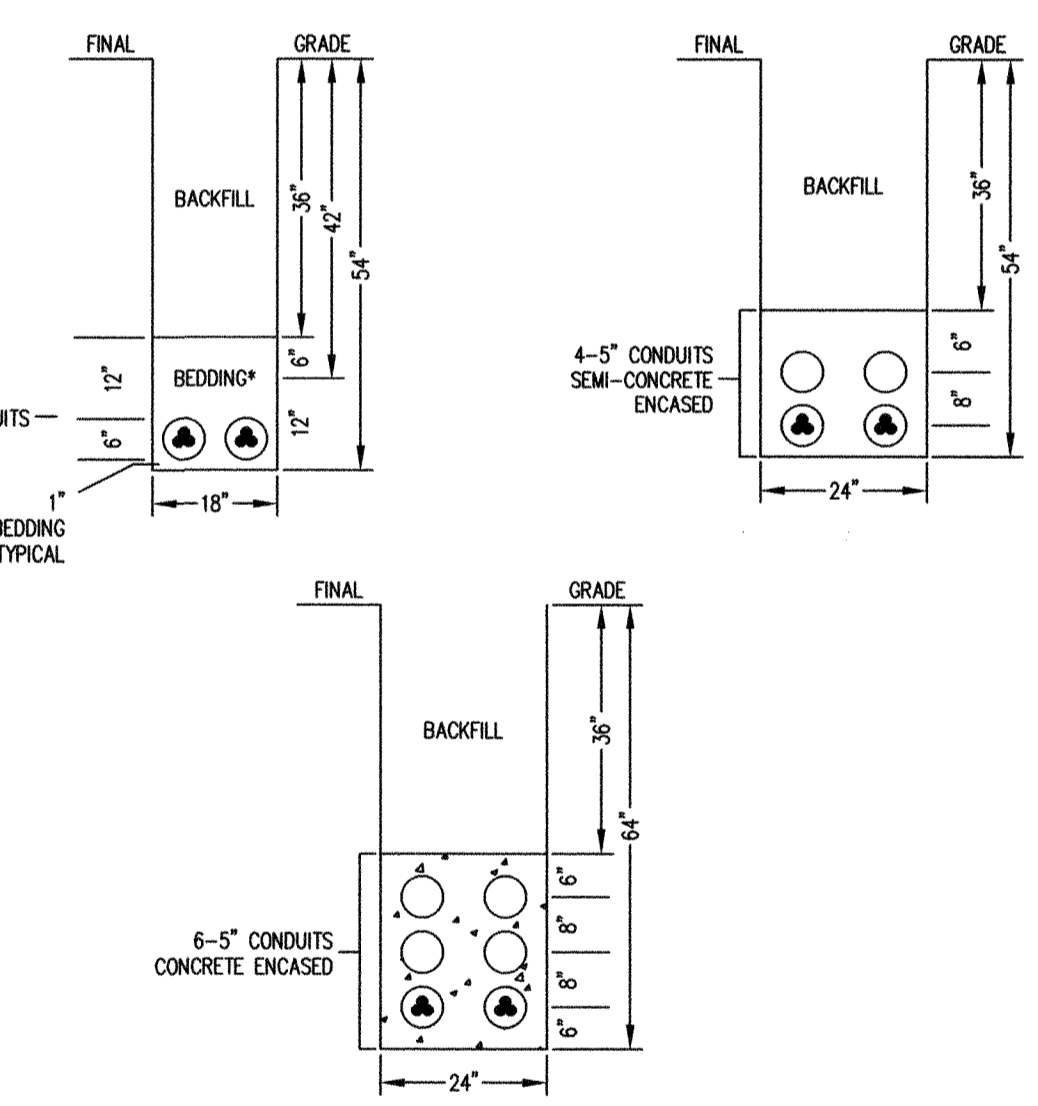
MORENO VALLEY STANDARD No. MVEU-713-0



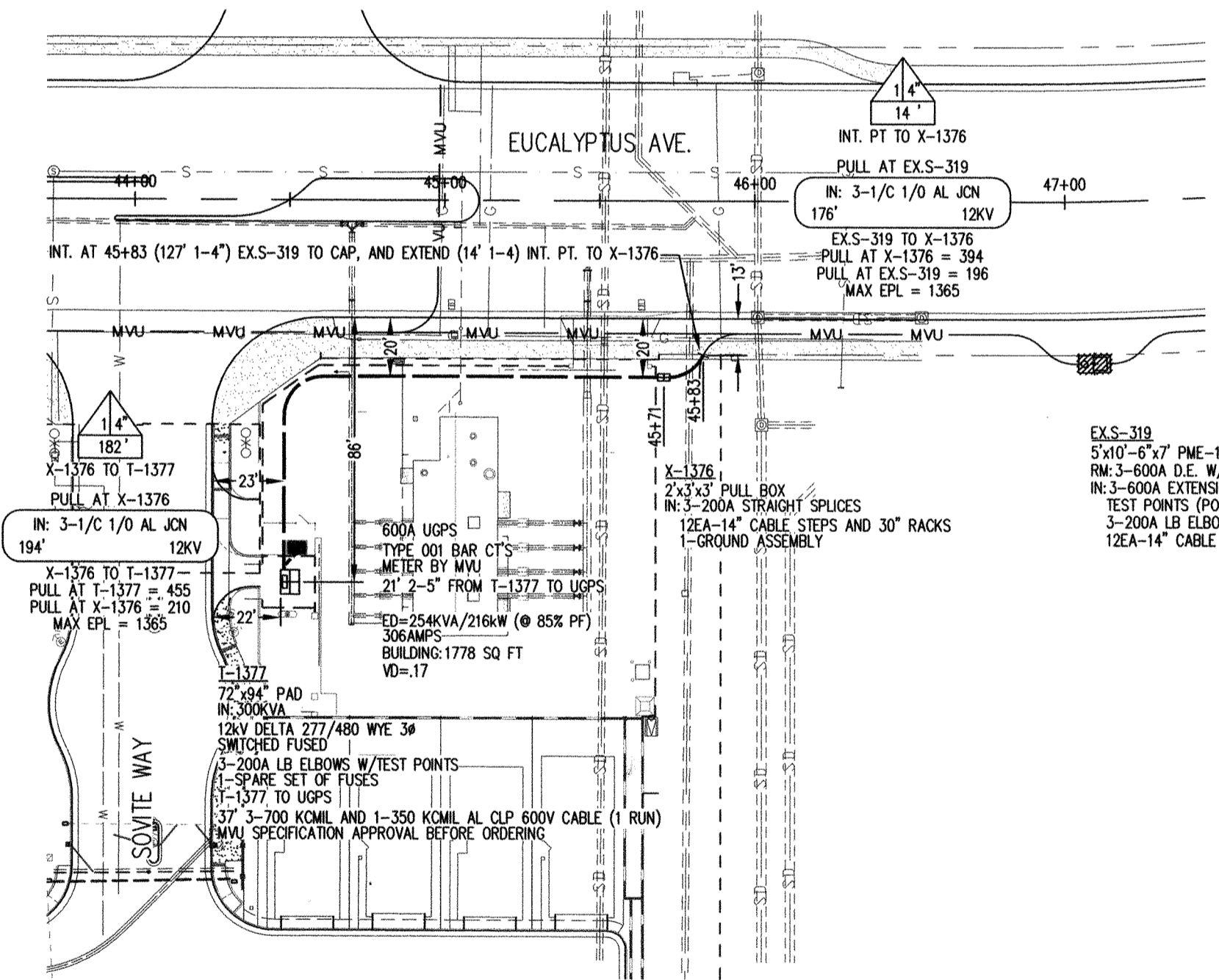
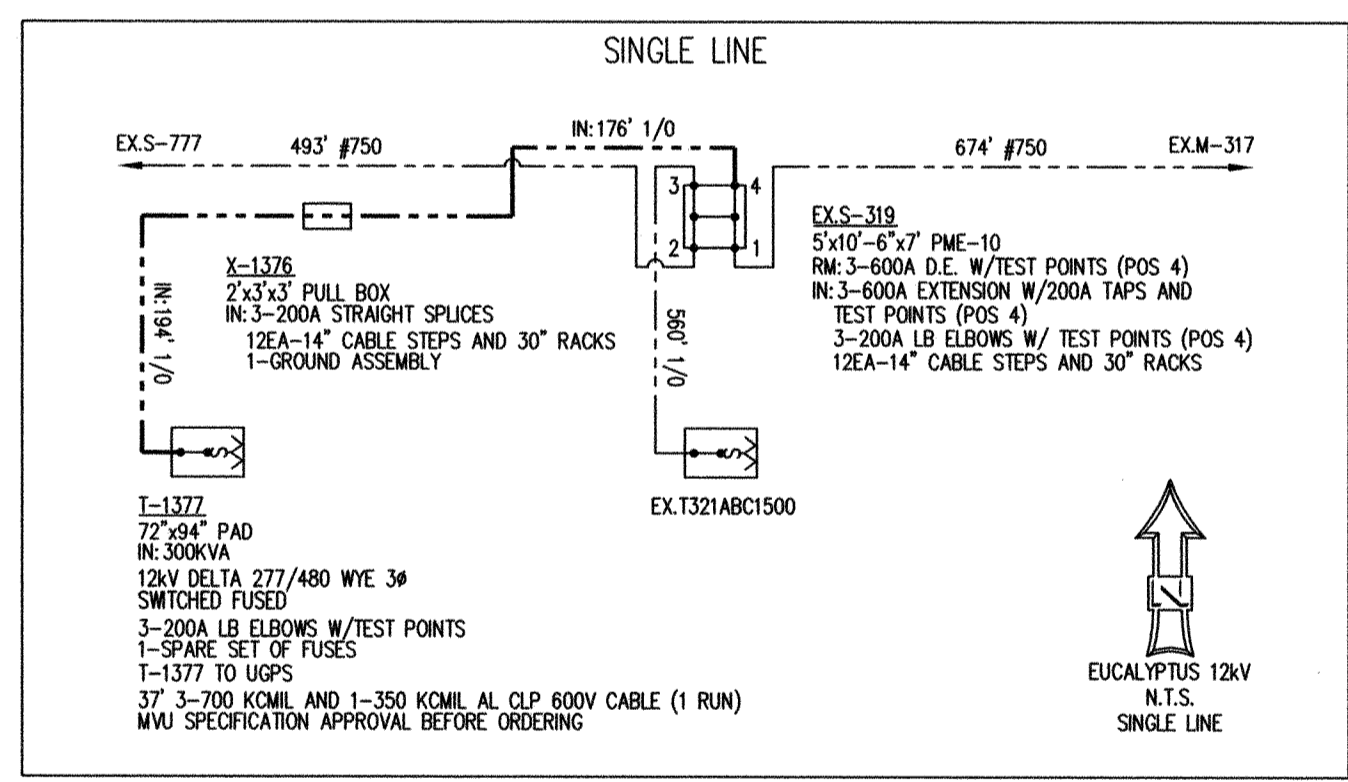
- NOTES:**
- 8" UNOBSTRUCTED FLAT WORKING CLEARANCE IS REQUIRED AT FRONT OF PAD. (MEASURED FROM EDGE OF PAD)
  - 3" UNOBSTRUCTED CLEARANCE IS REQUIRED AT BACK OF PAD. (MEASURED FROM EDGE OF PAD)
  - 3" CLEARANCE IS REQUIRED ON BOTH SIDES OF PAD. (MEASURED FROM EDGE OF PAD)
  - WASTO: SEALANT REQUIRED AT JOINTS AND GAPS AROUND TRANSFORMER ENCLOSURE.
  - REFER TO STDs MVEU-722-0 & MVEU-723-0 FOR ADDITIONAL DETAILS.
  - THE THREE-PHASE TRANSFORMER SHOULD ONLY BE USED ON A PAD WHEN FOUR OR FEWER SERVICES ARE TO BE INSTALLED. A SLAB BOX SHOULD BE USED WHEN MORE THAN FOUR SERVICES WILL BE INSTALLED.

MORENO VALLEY STANDARD No. MVEU-724B-0

ELECTRIC ONLY TRENCH DETAILS FOR CONDUIT INSTALLATIONS



- NOTES:**
- BEDDING MATERIAL SHALL BE CLEAN SAND OR PEA GRAVEL. OTHERWISE, NATIVE MATERIALS MAY BE USED PROVIDED THEY MEET PUBLIC WORKS CONSTRUCTION (GREEN BOOK) STANDARDS PER SUBSECTION 306.1.2.1 AND MUST HAVE A SAND EQUIVALENT OF NOT LESS THAN 30 OR HAVING A COEFFICIENT OF PERMEABILITY GREATER THAN 1.4 INCHES/HR.
  - CONDUITS ARE DB, ED, OR SCH 40 DEPENDING ON APPLICATION PER PLAN.
  - FOR CONDUIT INSTALLATION IN A BORE, SEE STD. PLANS MVEU-227A & MVEU-227B.
  - FOR CONDUIT INSTALLATION IN EXISTING ROADWAYS, SEE STD PLANS MVS-132A, MVS-132B & MVS-132C.
  - CONCRETE SHALL BE TWO SACK ENCASEMENT.



ALL FACILITIES SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS SHALL BE INSTALLED, INSPECTED AND FIELD TESTED PRIOR TO ACCEPTANCE OF THE ELECTRICAL SYSTEM.

48 HOURS NOTICE REQUIRED FOR COORDINATION MEETINGS, INSTALLATIONS AND INSPECTIONS.

CONTACT: GEORGE SANCHEZ, ENCO UTILITY SERVICES C:(714)836-7562

**ENGINEER'S NOTICE TO CONTRACTORS**

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OF STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. THESE LOCATIONS ARE APPROXIMATE AND SHALL BE CONFIRMED IN FIELD BY THE CONTRACTOR. SO THAT ANY NECESSARY ADJUSTMENT CAN BE MADE IN ALIGNMENT AND/OR GRADE OF THE PROPOSED IMPROVEMENT, THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT ANY UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

**DECLARATION OF DESIGN**

THE DESIGN OF ELECTRICAL POWER SYSTEM AS SHOWN ON THESE PLANS COMPLIES WITH PROFESSIONAL ENGINEERING STANDARDS AND PRACTICES INCLUDING OBSERVANCE OF MINIMUM VERTICAL AND HORIZONTAL DISTANCES, IN ACCORDANCE WITH APPLICABLE REGULATIONS, FROM EXISTING FACILITIES INCLUDING BUT NOT LIMITED TO WATER AND SEWER LINES, STORM DRAINS, TELECOMMUNICATIONS AND CABLE TELEVISION SYSTEMS AND THAT THE DESIGN INCORPORATES PROPER SEPARATION FROM SUCH FACILITIES TO BE INSTALLED AS PART OF THE DEVELOPMENT.

NAME: ENCO UTILITY SERVICES DATE: 6/4/2019

ADDRESS: 811 EAST HAUSER BLVD. SUITE 212 ANAHEIM, CA 92808 PHONE: (714)283-6080

Statement of Plan Review

Electrical Distribution Plan Check.

Moreno Valley Electric Utility (MVU) has reviewed the electrical distribution plans on Eucalyptus Booster Station for conformance to City Standards and general electrical design. MVU recommends these plans for approval.

Name: Clement Jimenez  
Moreno Valley Utility

Clement Jimenez 6/12/19  
Signed Date

**DIGALERT**

CALL TOLL FREE 811  
2 WORKING DAYS BEFORE YOU DIG

PLANS ARE APPROVED FOR CONSTRUCTION WHEN SIGNED BY THE PUBLIC WORKS DIRECTOR/CITY ENGINEER

MARK	DATE	INITIAL	DESCRIPTION	REV.	APPR	DATE
		E.O.R.	REVISION			

CITY OF MORENO VALLEY APPROVALS

Jeannette Olko 6-12-19  
JEANNETTE OLKO  
ELECTRIC UTILITY MANAGER

Michael L. Wolfe 6/18/19  
MICHAEL L. WOLFE, PE  
PUBLIC WORKS DIRECTOR / CITY ENGINEER  
R.C.E. #65623

STAMP

REGISTERED PROFESSIONAL ENGINEER  
ANURIM KAPURSKA  
No. E-21642  
Exp. 9/30/20  
ELECTRICAL  
STATE OF CALIFORNIA

ENGINEERS APPROVAL

Michael L. Wolfe 6-5-19  
SIGNATURE DATE

ENGINEER No.: E-21642 EXP: 9/30/20

CITY OF MORENO VALLEY

COMMERCIAL DESIGN

EUCALYPTUS BOOSTER STATION  
S/E EUCALYPTUS AVE. AND SOVITE WAY

ACCT. No.

SHEET 1 OF 1

CITY ID No.

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