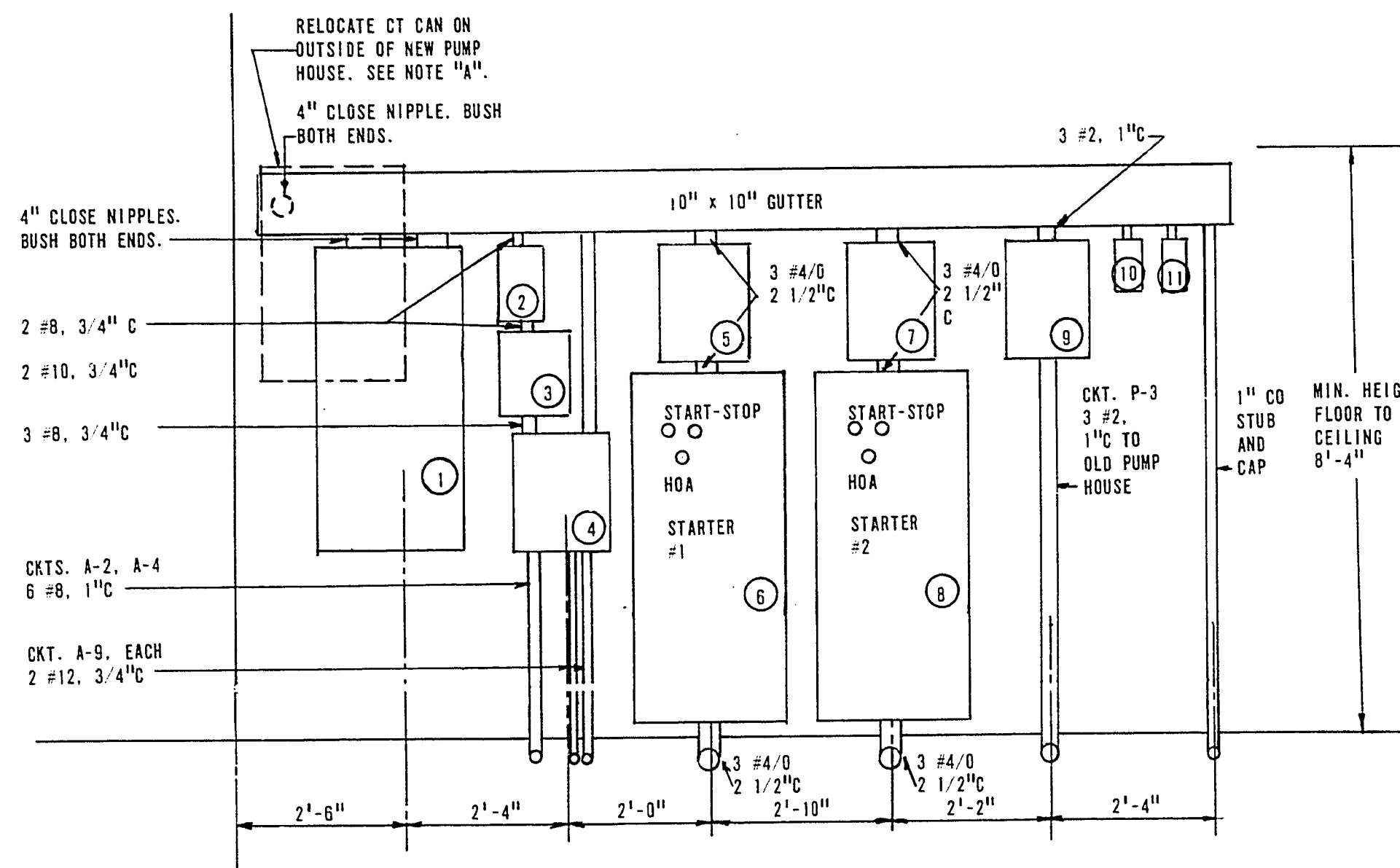
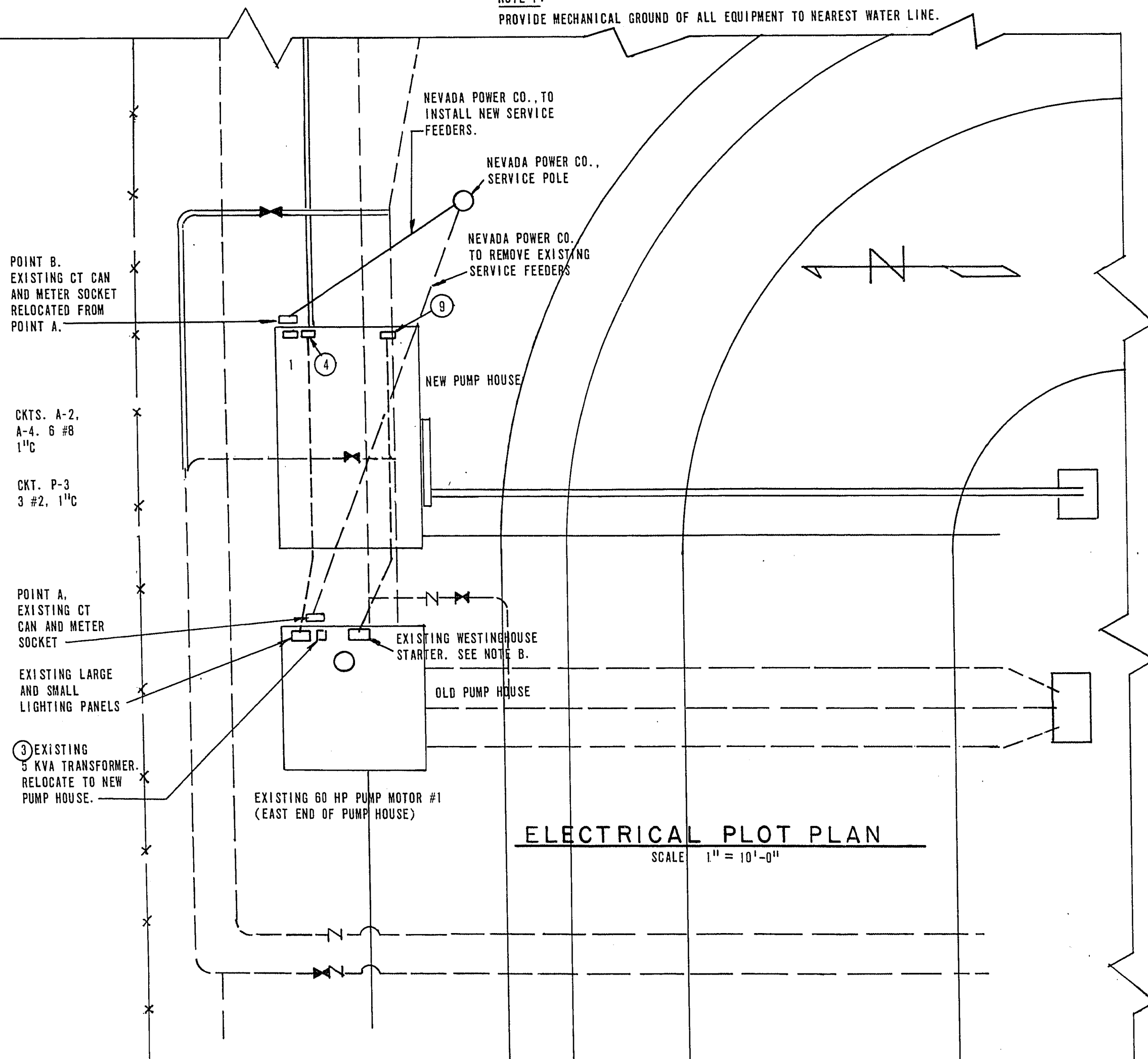




ELEVATION "A-A"
SCALE: 1/2" = 1'-0"

CONNECTED LOAD AT 480V 3 PHASE
1-125 HP PUMP MOTOR = 155 AMPS.
1-125 HP PUMP MOTOR = 155 AMPS.
1-60 HP PUMP MOTOR = 77 AMPS.
1-5 KVA TRANSFORMER = 11 AMPS.
TOTAL 398 AMPS.
TOTAL CONNECTED LOAD AT 480 VOLTS.
3 PHASE

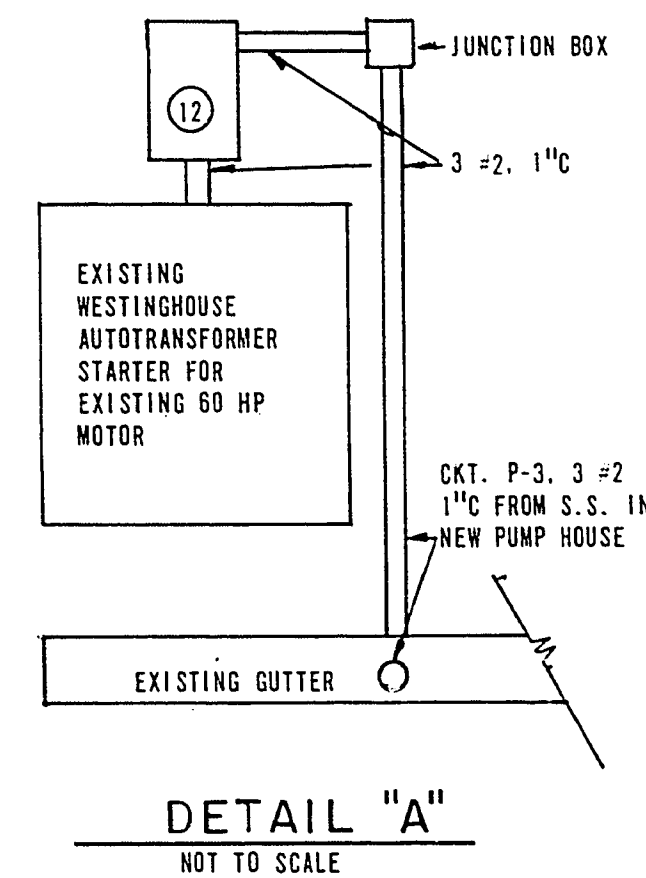
NOTES:
NOTE A.
REMOVE EXISTING CT CAN, METER SOCKET AND SERVICE RACK FROM "POINT A" ON OLD PUMP HOUSE AND RELOCATE ALL EQUIPMENT AT "POINT B" ON NEW PUMP HOUSE. SEE "ELECTRICAL PLOT PLAN", "PUMP HOUSE ELECTRICAL PLAN" AND "ELEVATION A-A" ON THE DRAWING.
NOTE B.
DISCONNECT THE STARTER FEEDER FROM THE DISTRIBUTION PANEL AND CONNECT AS SHOWN IN "DETAIL A", AND IN THE "ONE-LINE DIAGRAM". INSTALL NEW DISCONNECT AS SHOWN IN "DETAIL A".
NOTE C.
EXCEPT WHEN NOTED OTHERWISE ALL CONDUCTORS SHALL BE COPPER WITH TYPE THW INSULATION.
NOTE D.
EXCEPT WHEN NOTED OTHERWISE ALL CONDUIT SHALL BE GALVANIZED RIGID STEEL AND EXCEPT THAT CONDUIT BURIED DIRECTLY IN EARTH WHICH SHALL BE WRAPPED OR SHALL BE COATED WITH ASPHALTIC PAINT.
NOTE E.
GROUND NEUTRAL OF 5 KVA TRANSFORMER WITH #8 COPPER CONDUCTOR TO NEAREST WATER LINE.
NOTE F.
PROVIDE MECHANICAL GROUND OF ALL EQUIPMENT TO NEAREST WATER LINE.



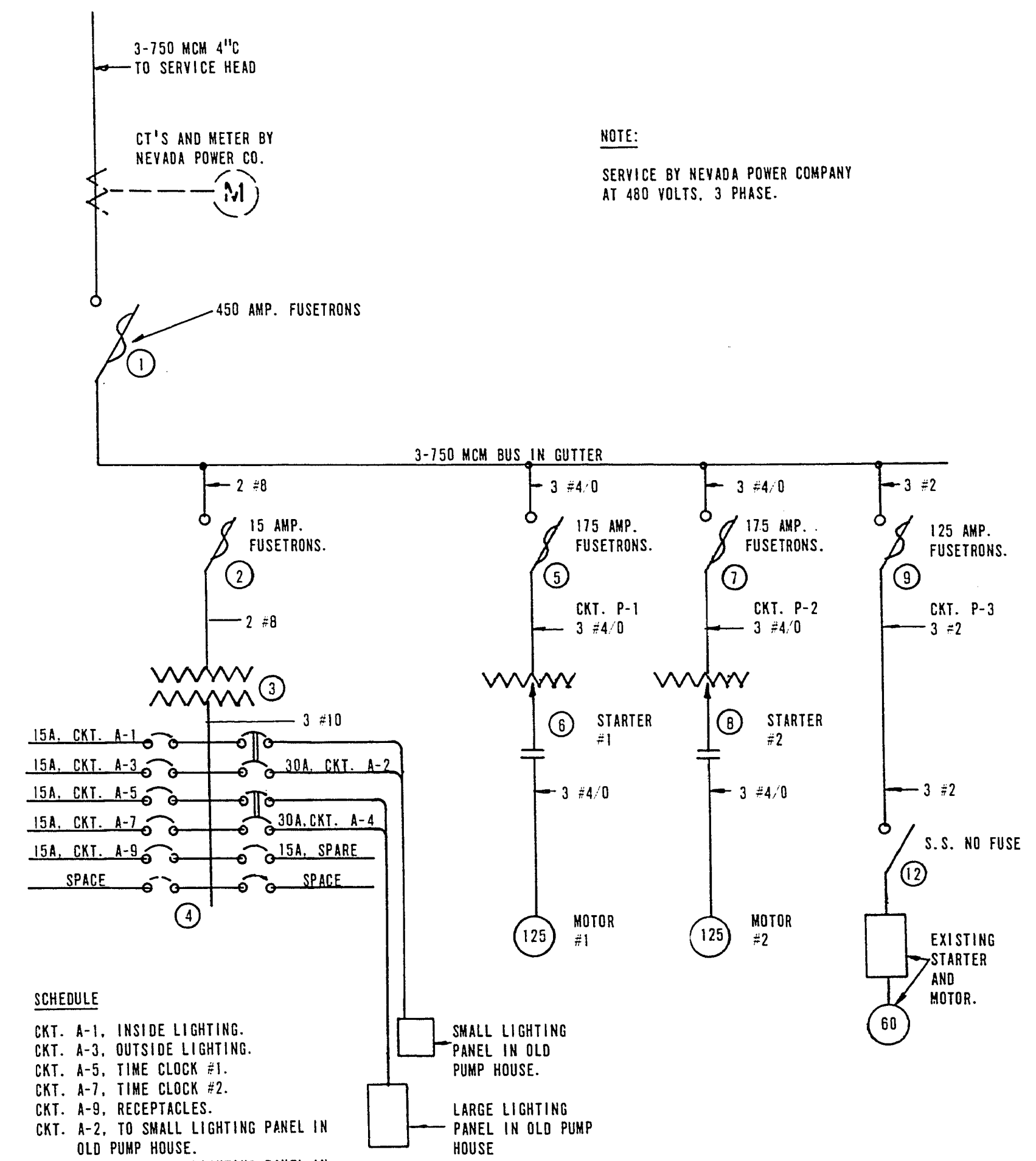
ELECTRICAL PLOT PLAN
SCALE 1" = 10'-0"

EQUIPMENT SPECIFICATIONS

- 1 MAIN DISCONNECT SWITCH, SQUARE D CATALOG #366 OR APPROVED EQUAL 3 POLE 600 AMP, 480 VOLT HEAVY DUTY VISIBLE BLADE FUSIBLE SAFETY SWITCH IN NEMA 1 ENCLOSURE. SEE "ONE-LINE DIAGRAM" FOR FUSETRON SIZE.
- 2 DISCONNECT SWITCH, SQUARE D CATALOG #H261 OR APPROVED EQUAL 2 POLE 30 AMP, 480 VOLT HEAVY DUTY VISIBLE BLADE FUSIBLE SAFETY SWITCH IN NEMA 1 ENCLOSURE. SEE "ONE-LINE DIAGRAM" FOR FUSETRON SIZE.
- 3 EXISTING 5 KVA 240/480-120/240 VOLT SINGLE PHASE DRY TYPE TRANSFORMER. REMOVE FROM OLD PUMP HOUSE AND RELOCATE IN NEW PUMP HOUSE AS SHOWN IN "ELEVATION A-A".
- 4 LIGHTING PANEL "A", SQUARE D CATALOG #006-12DF/S OR EQUAL LOAD CENTER WITH SPACE FOR 12 SINGLE POLE BRANCH BREAKERS WITH LUGS TOP, 100 AMP. MAINS. 120/240 VOLT SINGLE PHASE 3 WIRE WITH THE NUMBER AND SIZE OF BRANCH BREAKERS AS SHOWN IN "ONE-LINE DIAGRAM".
- 5 DISCONNECT SWITCH, SQUARE D CATALOG #H364 OR APPROVED EQUAL 3 POLE 200 AMP, 480 VOLT HEAVY DUTY VISIBLE BLADE FUSIBLE SAFETY SWITCH IN NEMA 1 ENCLOSURE. SEE "ONE-LINE DIAGRAM" FOR FUSETRON SIZE.
- 6 125 HP AUTOTRANSFORMER TYPE REDUCED VOLTAGE MOTOR STARTER, SQUARE D CATALOG #SG-1 OR EQUAL SIZE 5, 480 VOLTS WITH CLOSED TRANSITION START. AUTOTRANSFORMER TO HAVE 50%, 65% AND 80% TAPS. COVER OF STARTER TO HAVE A H.O.A. SWITCH AND "START-STOP" PUSHBUTTONS. CONTROLS TO BE CONNECTED AS SHOWN IN "125 HP MOTOR STARTER DIAGRAM". THE STARTER SHALL BE ENCLOSED IN A NEMA 1 ENCLOSURE.
- 7 DISCONNECT SWITCH, SAME AS ITEM 5.
- 8 125 HP AUTOTRANSFORMER TYPE REDUCED VOLTAGE MOTOR STARTER, SAME AS ITEM 6.
- 9 DISCONNECT SWITCH, SAME AS ITEM 5.
- 10 TIME CLOCK #1, PARAGON MODEL #42011-0 OR EQUAL 120 VOLT WITH SPST 15 AMP. CONTACTS. SHALL HAVE 48 OPERATIONS IN 15 MINUTE OPERATIONS. INDOOR ENCLOSURE.
- 11 TIME CLOCK #2, SAME AS ITEM 10.
- 12 DISCONNECT SWITCH, SQUARE D CATALOG #HU-363 OR APPROVED EQUAL 3 POLE 100 AMP, 480 VOLT NON-FUSIBLE SAFETY SWITCH IN NEMA 1 ENCLOSURE.
- 13 LIGHTING FIXTURES, INSIDE, BENJAMIN CATALOG #C-1802 OR APPROVED EQUAL 150 WATT RLM CEILING MOUNTING TO FIT 4" OCTAGONAL BOXES. COMPLETE WITH 150 WATT INSIDE FROSTED TYPE A-21 MEDIUM BASE LAMP.
- 14 LIGHTING FIXTURE, OUTSIDE, HOLOPHANE CATALOG #489-120 OR EQUAL 175 WATT WALL MOUNTING MERCURY LUMINAIRE WITH MOGUL SOCKET AND WITH IN-BUILT BALLAST FOR OPERATION ON 120 VOLTS AND WITH IN-BUILT PHOTOCONTROL COMPLETE WITH 175 WATT CODE H39-22KC/DX DELUXE WHITE MOGUL BASE LAMP.



DETAIL "A"
NOT TO SCALE



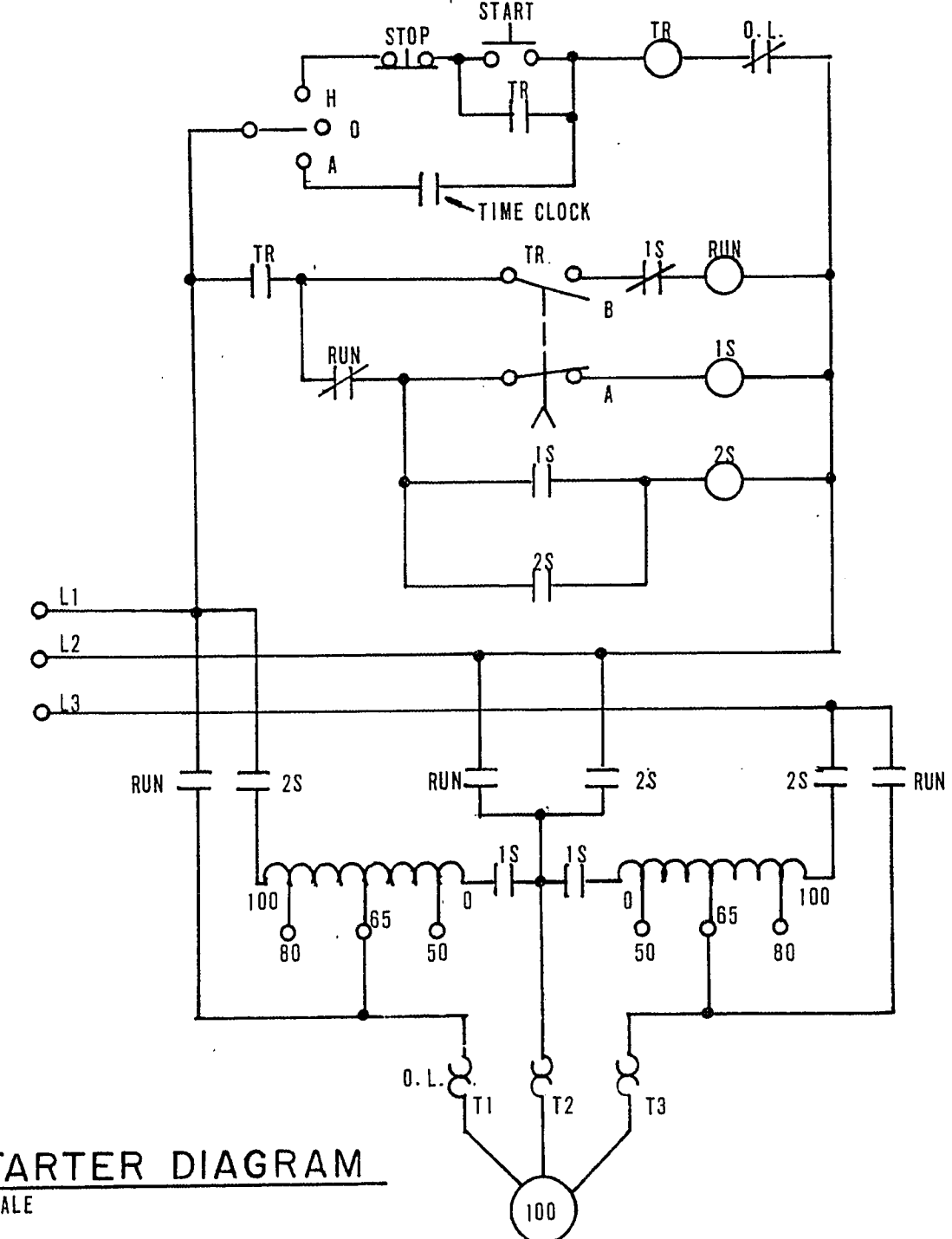
SCHEDULE

CKT. A-1, INSIDE LIGHTING.
CKT. A-3, OUTSIDE LIGHTING.
CKT. A-5, TIME CLOCK #1.
CKT. A-7, TIME CLOCK #2.
CKT. A-9, RECEPTACLES.
CKT. A-2, TO SMALL LIGHTING PANEL IN OLD PUMP HOUSE.
CKT. A-4, TO LARGE LIGHTING PANEL IN OLD PUMP HOUSE.
CKT. A-6 SPARE.

SPECIFICATIONS FOR 125 H.P. PUMP MOTORS

2-125 HORSEPOWER CLOSE COUPLED DRIPPROOF HORIZONTAL CENTRIFUGAL PUMP MOTORS. SYNCHRONOUS RPM 1800 AT RATED VOLTAGE. SLIP TO BE 5 PERCENT OR LESS AT RATED LOAD. 480 VOLTS, 3 PHASE SQUIPAREL-CAGE INDUCTION MOTOR WITH NORMAL TORQUE, NEMA DESIGN B, 40°C. RISE CONTINUOUS DUTY.

ONE-LINE DIAGRAM
NOT TO SCALE



125 HP MOTOR STARTER DIAGRAM
NOT TO SCALE

ELECTRICAL REVISIONS:

CHANGED PUMP MOTOR SIZE FROM 100 HP TO 125 HP. CHANGED STARTER SIZES FROM NEMA 4 TO NEMA 5. CHANGED MAIN DISCONNECT FROM 400 AMP. TO 600 AMP. CHANGED CONDUIT AND WIRE SIZES.

ELECTRICAL ENGINEERING BY
JOSEPH P. GEOWILL
CONSULTING ENGINEERS
3135 INDUSTRIAL ROAD
LAS VEGAS NEVADA 89102

FILED R.P.E. 1118

TUREGUN ASSOCIATES
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2120 INDUSTRIAL RD. L.V. 89102

CITY OF LAS VEGAS
PUMPING STATION

SCALE	DES.	DATE	SHT	OF
HORIZ: AS SHOWN OWN.	REV.		3	3
VERT:	CHK.	REV.		

660-70 (N7 BL7)