

**RECORD DRAWING**  
 THIS RECORD DRAWING HEREIN REFLECTS TO THE BEST OF THE DESIGN ENGINEER'S KNOWLEDGE, THE APPROXIMATE LOCATION OF THE CONSTRUCTED WORK, USING INFORMATION AS PROVIDED BY THE CONTRACTORS.

**PERRY HESCOCK AND ASSOCIATES**  
 1202 N. RICHARDSON DRIVE, SUITE #304, RICHARDSON, TEXAS 75080  
 TEL: (972)335-2182 FAX: (972)335-6014

December 06, 2006  
 Evergreen Rockwall C43.dwg

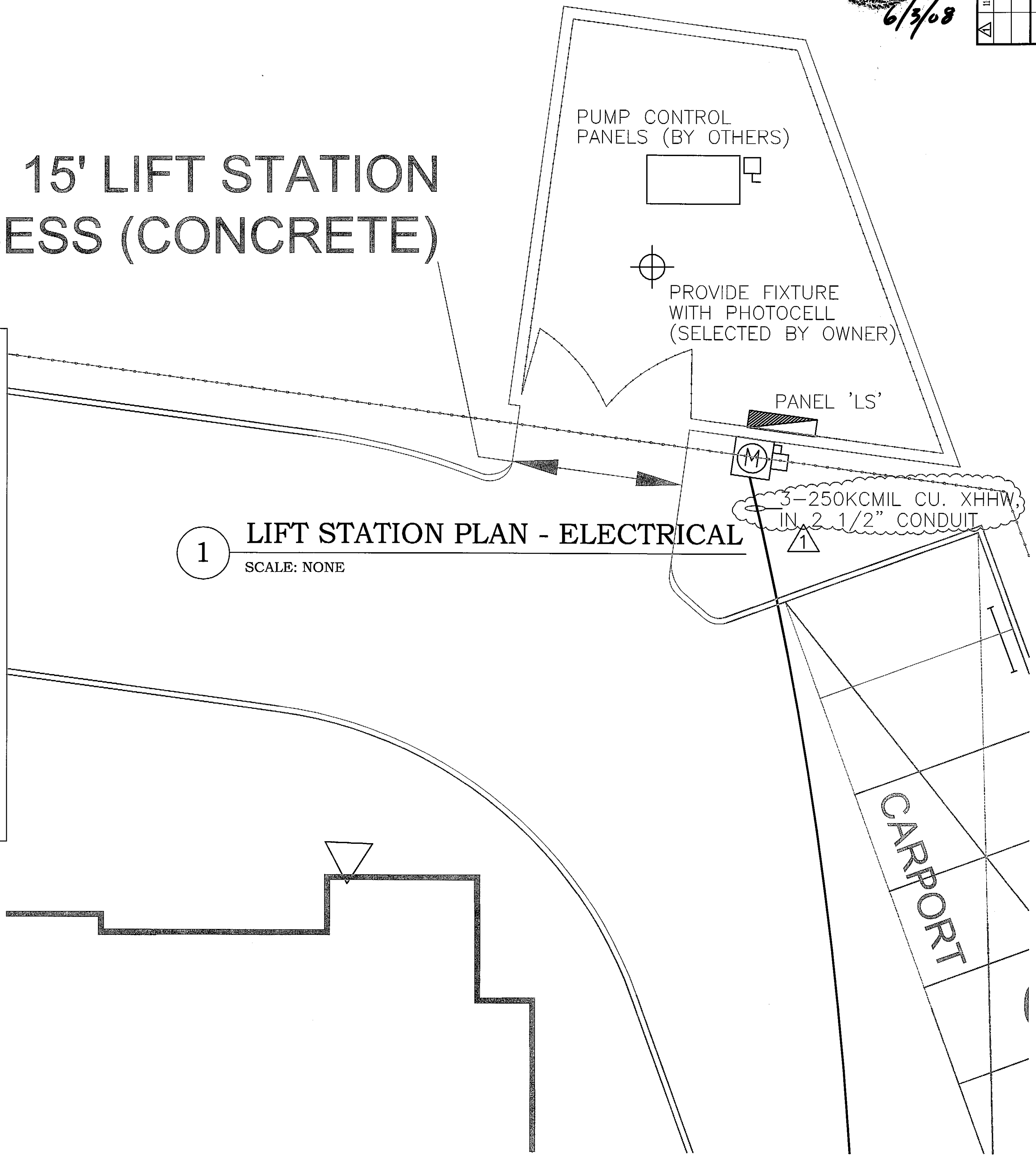
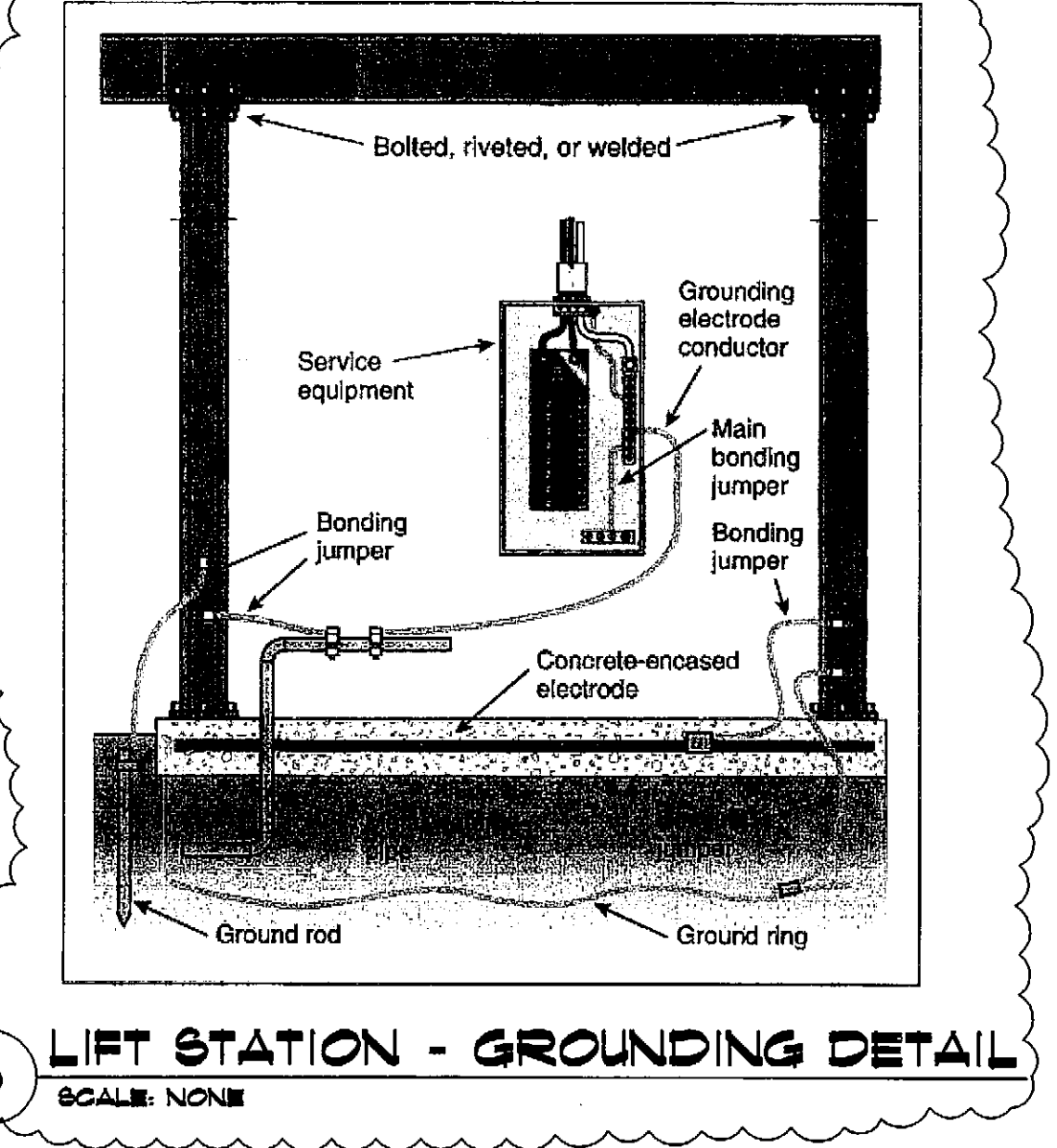
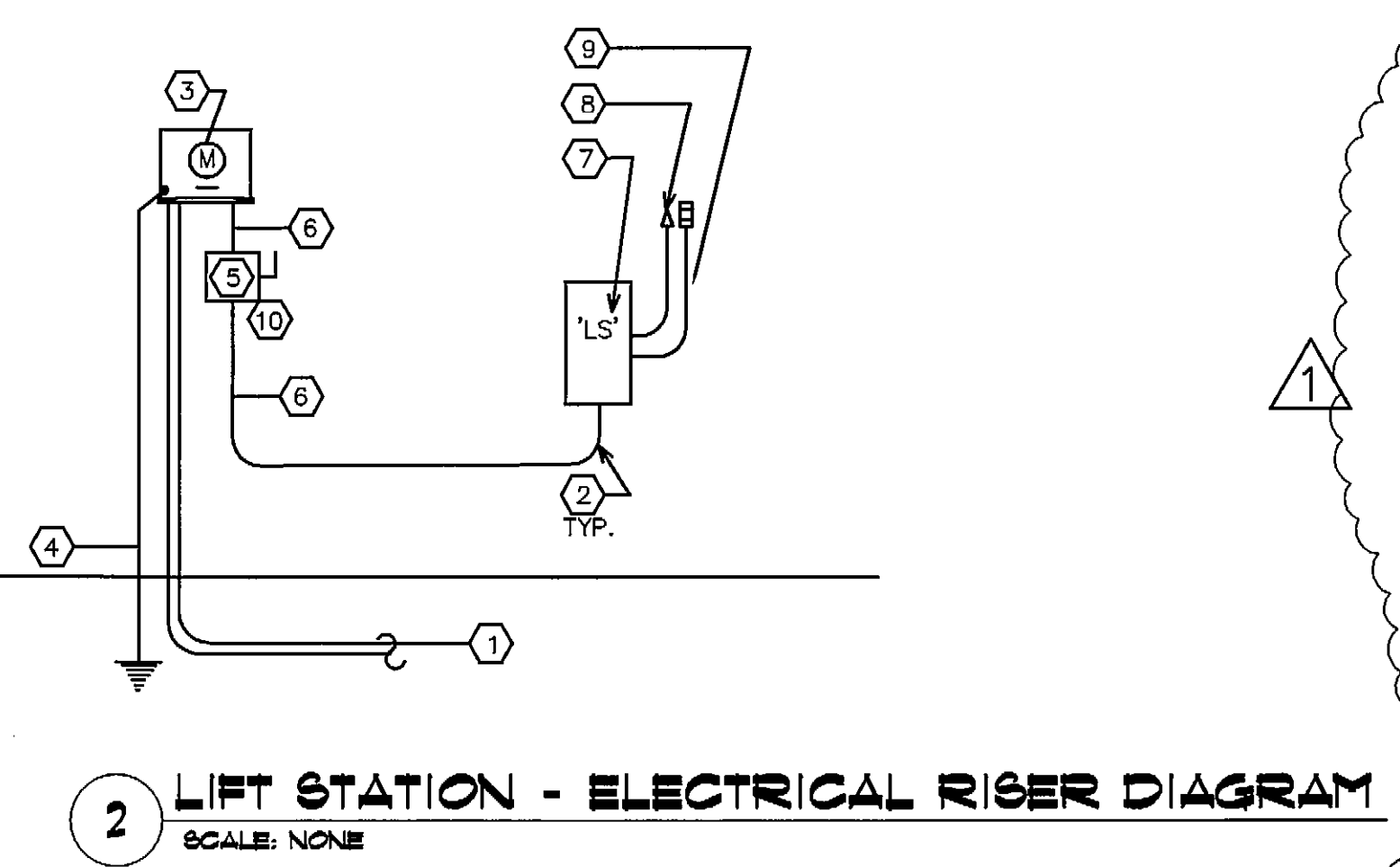
*6/3/08*  
 APPROVED BY: ALLEN  
 108346

No.	Date	Revisions	App.

LOADCENTER SCHEDULE: 'LS'		SIEMENS, GE, SQUARE-D OR EQUAL									
LOCATION: LIFT STATION AREA		BUS AMPERE RATING: 400									
VOLTAGE: 240/120 V., 1-PH., 3-W.		MAIN DEVICE: MLD									
MOUNTING: SURFACE 3R		SHORT CIRCUIT DUTY, RMS SYM. AMPS: 22K									
LOAD	V-A	C/B	P	A	B	P	C/B	V-A	LOAD		
LIGHTING	1500	1P/20A	1	X		2	2P/100A	8400	PUMP		
RECEPTACLES	1500	1P/20A	3	X	4			8400			
CONTROL PANEL	1500	1P/20A	5	X	6		2P/100A	8400	PUMP		
CONTROL PANEL	1500	1P/20A	7	X	8			8400			
SPACE	0	BLANK	9	X	10		BLANK	0	SPACE		
SPACE	0	BLANK	11	X	12		BLANK	0	SPACE		
NOTE 'A': NEC TABLES 220-3(b)(7) & 220-13.											
CALCULATIONS:		LOAD TYPE	V-A	DEMAND	DESIGN						
PHASE 'A' - ODD:		3000 LIGHTING	1500	1.25	1875						
PHASE 'A' - EVEN:		16800 RECEPTACLES	1500	NOTE 'A'	1500						
PHASE 'A' - TOTAL:		19800 MISCELLANEOUS MOTORS	33600	1.00	33600						
		COMFORT HEATING HEAT	0	0.00	0						
PHASE 'B' - ODD:		3000 COMFORT COOLING	0	1.00	0						
PHASE 'B' - EVEN:		16800 CLOTHES WASHERS	0	1.00	0						
PHASE 'B' - TOTAL:		19800 CLOTHES DRYERS	0	1.00	0						
		WATER HEATING	0	1.00	0						
		MISCELLANEOUS LOADS	3000	1.00	3000						
		25% LARGEST MOTOR	16800	0.25	4200						
		DESIGN V-A TOTAL:			44175						
V-A TOTAL:		39600 DESIGN AMPS, 240/1:			184						

# 15' LIFT STATION ACCESS (CONCRETE)

- LIFT STATION ELECTRICAL RISER DIAGRAM - KEYED NOTES:**
- REFER TO ELECTRICAL SITE PLAN FOR CONTINUATION OF 240/120 VOLTS, SINGLE-PHASE, 3-WIRES SECONDARY UNDERGROUND ELECTRICAL SERVICE LATERAL CONDUCTORS TO BUILDING INDICATED FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR FROM UTILITY COMPANY TRANSFORMER ONE SET OF 3-250KCMIL CU. XHHW, IN 2 1/2" CONDUIT. COORDINATE WITH LOCAL ELECTRICAL UTILITY COMPANY ALL INSTALLATION REQUIREMENTS. UNDERGROUND SERVICE LATERAL CONDUCTORS NOT PROTECTED BY OVERCURRENT PROTECTION AT THEIR SOURCE, SHALL BE INSTALLED IN RIGID CONDUIT OR SCHEDULE 40 PVC ENCASED IN 3" OF CONCRETE ENVELOPE. NO EXPOSED PVC WILL BE ALLOWED, 24" MINIMUM COVERAGE FROM TOP OF CONDUITS TO POINT OF ENTRY.
  - LONG SWEEP RADIUS ELLS (TYPICAL).
  - 400 AMPERES - RATED METER BY UTILITY COMPANY. METER CAN TO MEET UTILITY COMPANY REQUIREMENTS BY CONTRACTOR.
  - GROUNDING, BONDING AND COPPER GROUNDING ELECTRODE SYSTEM PER NEC 250-50, 250-52(A)(1-4) AND 250-90 AS ADOPTED BY AUTHORITY HAVING JURISDICTION. CREATE A GROUNDING ELECTRODE SYSTEM BY BONDING TOGETHER A METALLIC UNDERGROUND WATER PIPE WITHIN 5' OF POINT OF ENTRANCE OF THE PIPE, THE METAL FRAME, IF APPLICABLE, OF THE BUILDING, A CONCRETE-ENCLOSED STEEL REINFORCED BAR WITHIN AND NEAR THE BOTTOM OF THE FOUNDATION THAT IS IN DIRECT CONTACT TO THE EARTH AND A 3/4" X 8' COPPER ROD. USE #2 COPPER CONDUCTOR FOR ALL GROUNDING AND BONDING. CONNECT TO GROUNDING ELECTRODE SYSTEM BY EXOTHERMIC WELDING AND/OR APPROVED MECHANICAL CONNECTION AS ADOPTED BY AUTHORITY HAVING JURISDICTION. WHEN BUILDING DOMESTIC WATER SERVICE PIPE IS NONMETALLIC PROVIDE 'UFER' GROUND IN THE BUILDING FOUNDATION HAVING DIRECT CONTACT WITH EARTH.
  - WEATHER-PROOF PANELS, 400 AMPERES, 2-POLES SWITCH FUSED AT 250 AMPS ('JJS') OR MOLDED CASE CIRCUIT BREAKER WITH SERVICE ENTRANCE LABEL. SEE NOTE 10 FOR SERIES RATING REQUIREMENTS.
  - PROVIDE 3-#4/0 CU. THWN, 1-#2 CU. GROUND, IN 2 1/2" CONDUIT.
  - SEE PANEL SCHEDULES FOR REQUIREMENTS.
  - TO NON - AUTOMATICALLY CONTROLLED LOADS.
  - TYPICAL PHOTOCONTROL; RELAY-TYPE WITH LIGHTNING ARRESTER. MOUNT ABOVE ROOF FACING NORTH, INTERMATIC # K1200 SERIES.
  - VERIFY AND SUBMIT FOR REVIEW THE SHORT CIRCUIT CURRENT AVAILABLE AT EACH BUILDING'S MAIN FUSED SWITCH OR MAIN MOLDED CASE CIRCUIT BREAKER AND EACH TENANT OR HOUSE PANEL MAIN FUSED SWITCH. IF MOLDED CASE MAIN CIRCUIT BREAKERS ARE PROPOSED IN PLACE OF FUSIBLE SWITCHES SPECIFIED, THEY SHALL BE RATED FOR THE SHORT CIRCUIT DUTY AVAILABLE AT EACH POINT IN THE DISTRIBUTION SYSTEM WHERE PROPOSED. TENANT OR HOUSE MAIN DEVICES SHALL BE RATED A MINIMUM OF 22,000 RMS SYMMETRICAL AMPERES. ALL CIRCUIT BREAKERS PROPOSED IN PLACE OF FUSIBLE SWITCHES SPECIFIED SHALL BE PART OF A VALID UL LISTING FOR SERIES RATING WITH THE BUILDING MAIN FUSIBLE SWITCH OR FULLY RATED CIRCUIT BREAKER. TENANT AND HOUSE PANEL BRANCH CIRCUIT BREAKERS SHALL ALSO BE A PART OF A VALID UL LISTING FOR SERIES RATING WITH THE BUILDING MAIN FUSIBLE SWITCH OR FULLY RATED CIRCUIT BREAKER THAT LIMITS THE SHORT CIRCUIT CURRENT AVAILABLE AT EACH PANEL TO 22,000 RMS SYMMETRICAL AMPERES OR LESS. IF BUILDING MAINS ARE NOT REQUIRED PROVIDE EACH TENANT OR HOUSE MAIN FUSIBLE SWITCH OR VALID UL SERIES RATED CONSTRUCTION OF THE CIRCUIT BREAKER AND THE RESPECTIVE PANEL BRANCH CIRCUIT BREAKERS TO LIMIT THE SHORT CIRCUIT CURRENT AVAILABLE AT EACH PANEL TO 22,000 AMPERES RMS SYMMETRICAL OR LESS. SUBMIT FOR REVIEW THE LATEST VALID SERIES RATED UL LISTING OF EQUIPMENT PROPOSED FOR EACH TYPE OF TENANT OR HOUSE PANEL. CONFIGURE THE SUBMITTAL TO INCLUDE EACH BUILDING TYPE AND NUMBER, ALL PANELS OCCURRING IN EACH BUILDING, ALL PERTINENT MANUFACTURERS' DATA, PLUS COPIES OF APPROPRIATE UL SERIES RATINGS CROSS-REFERENCED FOR EACH PANEL SUBMITTED. INCLUDE COPIES OF THE MANUFACTURERS' SERIES RATING MARKINGS THAT ARE PROPOSED TO IDENTIFY SERIES RATED EQUIPMENT USED ON THE PROJECT.



**Kimley-Horn and Associates, Inc.**  
 12700 Park Central Drive, Suite 1800  
 Dallas, Texas 75221  
 Tel. No. (972) 770-1300  
 Fax No. (972) 239-3830

**EVERGREEN AT ROCKWALL**

**LIFT STATION ELECTRICAL PLAN AND DETAILS**

Scale: AS SHOWN  
 Designed by: LC  
 Drawn by: LC  
 Checked by: FPH  
 Date: SEPTEMBER 2006  
 Project No.: PHA #5447-06

SHEET C43

PH #5447