NOTE TO CONTRACTOR: THE SITE UTILITY SERVICE LOCATIONS ARE PRELIMINARY AND SUBJECT TO REVISIONS PER REVIEW BY THE UTILITY COMPANIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN APPROVALS FROM, AND COORDINATE WITH THE LOCAL UTILITY COMPANY TERMS & CONDITIONS PACKAGE, TO PROVIDE UTILITY SERVICE TO THE PROJECT. CONTRACTOR SHALL CONFORM TO ALL UTILITY REQUIREMENTS, ALL SPECIFICATIONS, DRAWINGS, AND NOTES.

UTILITIES

Texas Gas service
–Mr. Octavio A. Rangel, ORangel@txgas.com

Oncor Electric
Joe Pecina 972–551–7237

Telephone, SBC
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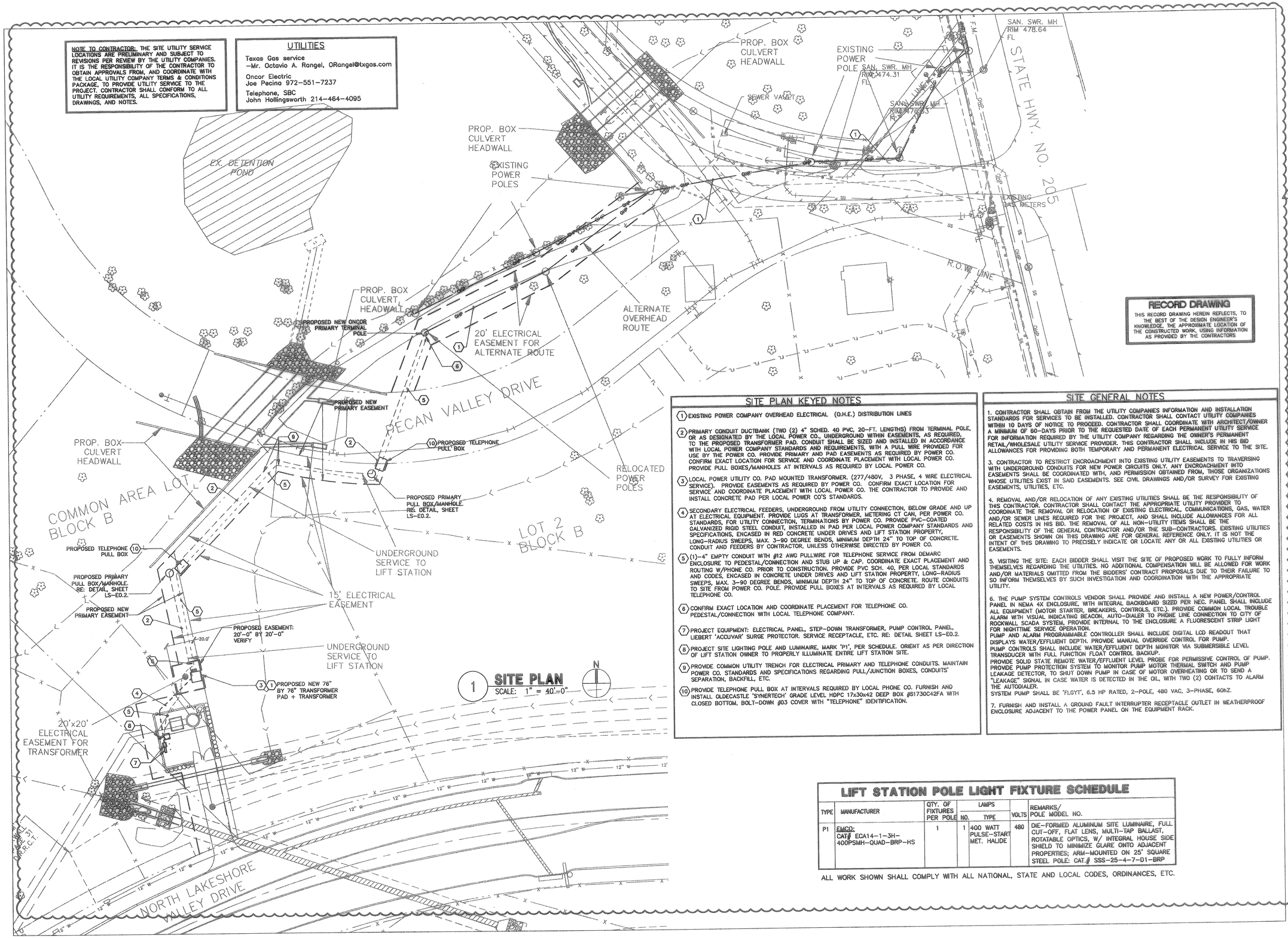

1 **SITE PLAN**
SCALE: 1" = 40'–0"

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

SITE PLAN KEYED NOTES

1. EXISTING POWER COMPANY OVERHEAD ELECTRICAL (O.H.E.) DISTRIBUTION LINES
2. PRIMARY CONDUIT DUCTBANK (TWO (2) 4" SCHED. 40 PVC, 20–FT. LENGTHS) FROM TERMINAL POLE, OR AS DESIGNATED BY THE LOCAL POWER CO., UNDERGROUND WITHIN EASEMENTS, AS REQUIRED, TO THE PROPOSED TRANSFORMER PAD. CONDUIT SHALL BE SIZED AND INSTALLED IN ACCORDANCE WITH LOCAL POWER COMPANY STANDARDS AND REQUIREMENTS, WITH A PULL WIRE PROVIDED FOR USE BY THE POWER CO. PROVIDE PRIMARY AND PAD EASEMENTS AS REQUIRED BY POWER CO. CONFIRM EXACT LOCATION FOR SERVICE AND COORDINATE PLACEMENT WITH LOCAL POWER CO. PROVIDE PULL BOXES/MANHOLES AT INTERVALS AS REQUIRED BY LOCAL POWER CO.
3. LOCAL POWER UTILITY CO. PAD MOUNTED TRANSFORMER. (277/480V, 3 PHASE, 4 WIRE ELECTRICAL SERVICE). PROVIDE EASEMENTS AS REQUIRED BY POWER CO. CONFIRM EXACT LOCATION FOR SERVICE AND COORDINATE PLACEMENT WITH LOCAL POWER CO. THE CONTRACTOR TO PROVIDE AND INSTALL CONCRETE PAD PER LOCAL POWER CO'S STANDARDS.
4. SECONDARY ELECTRICAL FEEDERS, UNDERGROUND FROM UTILITY CONNECTION, BELOW GRADE AND UP AT ELECTRICAL EQUIPMENT. PROVIDE LUGS AT TRANSFORMER, METERING CT CAN, PER POWER CO. STANDARDS, FOR UTILITY CONNECTION, TERMINATIONS BY POWER CO. PROVIDE PVC–COATED GALVANIZED RIGID STEEL CONDUIT, INSTALLED IN PAD PER LOCAL POWER COMPANY STANDARDS AND SPECIFICATIONS, ENCASED IN RED CONCRETE UNDER DRIVES AND LIFT STATION PROPERTY, LONG–RADIUS SWEEPS, MAX. 3–90 DEGREE BENDS, MINIMUM DEPTH 24" TO TOP OF CONCRETE. CONDUIT AND FEEDERS BY CONTRACTOR, UNLESS OTHERWISE DIRECTED BY POWER CO.
5. (1)–4" EMPTY CONDUIT WITH #12 AWG PULLWIRE FOR TELEPHONE SERVICE FROM DEMARC ENCLOSURE TO PEDESTAL/CONNECTION AND STUB UP & CAP. COORDINATE EXACT PLACEMENT AND ROUTING W/PHONE CO. PRIOR TO CONSTRUCTION. PROVIDE PVC SCH. 40, PER LOCAL STANDARDS AND CODES, ENCASED IN CONCRETE UNDER DRIVES AND LIFT STATION PROPERTY, LONG–RADIUS SWEEPS, MAX. 3–90 DEGREE BENDS, MINIMUM DEPTH 24" TO TOP OF CONCRETE. ROUTE CONDUITS TO SITE FROM POWER CO. POLE. PROVIDE PULL BOXES AT INTERVALS AS REQUIRED BY LOCAL TELEPHONE CO.
6. CONFIRM EXACT LOCATION AND COORDINATE PLACEMENT FOR TELEPHONE CO. PEDESTAL/CONNECTION WITH LOCAL TELEPHONE COMPANY.
7. PROJECT EQUIPMENT: ELECTRICAL PANEL, STEP–DOWN TRANSFORMER, PUMP CONTROL PANEL, LIEBERT 'ACCUVAR' SURGE PROTECTOR. SERVICE RECEPTACLE, ETC. RE: DETAIL SHEET LS–E0.2.
8. PROJECT SITE LIGHTING POLE AND LUMINAIRE, MARK 'P1', PER SCHEDULE. ORIENT AS PER DIRECTION OF LIFT STATION OWNER TO PROPERLY ILLUMINATE ENTIRE LIFT STATION SITE.
9. PROVIDE COMMON UTILITY TRENCH FOR ELECTRICAL PRIMARY AND TELEPHONE CONDUITS. MAINTAIN POWER CO. STANDARDS AND SPECIFICATIONS REGARDING PULL/JUNCTION BOXES, CONDUITS' SEPARATION, BACKFILL, ETC.
10. PROVIDE TELEPHONE PULL BOX AT INTERVALS REQUIRED BY LOCAL PHONE CO. FURNISH AND INSTALL OLDECASTLE 'SYNERTECH' GRADE LEVEL HDPC 17x30x42 DEEP BOX #S1730C42FA WITH CLOSED BOTTOM, BOLT–DOWN #03 COVER WITH "TELEPHONE" IDENTIFICATION.

SITE GENERAL NOTES

1. CONTRACTOR SHALL OBTAIN FROM THE UTILITY COMPANIES INFORMATION AND INSTALLATION STANDARDS FOR SERVICES TO BE INSTALLED. CONTRACTOR SHALL CONTACT UTILITY COMPANIES WITHIN 10 DAYS OF NOTICE TO PROCEED. CONTRACTOR SHALL COORDINATE WITH ARCHITECT/OWNER A MINIMUM OF 60–DAYS PRIOR TO THE REQUESTED DATE OF EACH PERMANENT UTILITY SERVICE FOR INFORMATION REQUIRED BY THE UTILITY COMPANY REGARDING THE OWNER'S PERMANENT RETAIL/WHOLESALE UTILITY SERVICE PROVIDER. THIS CONTRACTOR SHALL INCLUDE IN HIS BID ALLOWANCES FOR PROVIDING BOTH TEMPORARY AND PERMANENT ELECTRICAL SERVICE TO THE SITE.

3. CONTRACTOR TO RESTRICT ENCROACHMENT INTO EXISTING UTILITY EASEMENTS TO TRAVERSING WITH UNDERGROUND CONDUITS FOR NEW POWER CIRCUITS ONLY. ANY ENCROACHMENT INTO EASEMENTS SHALL BE COORDINATED WITH, AND PERMISSION OBTAINED FROM, THOSE ORGANIZATIONS WHOSE UTILITIES EXIST IN SAID EASEMENTS. SEE CIVIL DRAWINGS AND/OR SURVEY FOR EXISTING EASEMENTS, UTILITIES, ETC.

4. REMOVAL AND/OR RELOCATION OF ANY EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR. CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY PROVIDER TO COORDINATE THE REMOVAL OR RELOCATION OF EXISTING ELECTRICAL, COMMUNICATIONS, GAS, WATER AND/OR SEWER LINES REQUIRED FOR THE PROJECT, AND SHALL INCLUDE ALLOWANCES FOR ALL RELATED COSTS IN HIS BID. THE REMOVAL OF ALL NON–UTILITY ITEMS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND/OR THE SUB–CONTRACTORS. EXISTING UTILITIES OR EASEMENTS SHOWN ON THIS DRAWING ARE FOR GENERAL REFERENCE ONLY. IT IS NOT THE INTENT OF THIS DRAWING TO PRECISELY INDICATE OR LOCATE ANY OR ALL EXISTING UTILITIES OR EASEMENTS.

5. VISITING THE SITE: EACH BIDDER SHALL VISIT THE SITE OF PROPOSED WORK TO FULLY INFORM THEMSELVES REGARDING THE UTILITIES. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR WORK AND/OR MATERIALS OMITTED FROM THE BIDDERS' CONTRACT PROPOSALS DUE TO THEIR FAILURE TO SO INFORM THEMSELVES BY SUCH INVESTIGATION AND COORDINATION WITH THE APPROPRIATE UTILITY.

6. THE PUMP SYSTEM CONTROLS VENDOR SHALL PROVIDE AND INSTALL A NEW POWER/CONTROL PANEL IN NEMA 4X ENCLOSURE, WITH INTEGRAL BACKBOARD SIZED PER NEC. PANEL SHALL INCLUDE ALL EQUIPMENT (MOTOR STARTER, BREAKERS, CONTROLS, ETC.). PROVIDE COMMON LOCAL TROUBLE ALARM WITH VISUAL INDICATING BEACON, AUTO–DIALER TO PHONE LINE CONNECTION TO CITY OF ROCKWALL SCADA SYSTEM, PROVIDE INTERNAL TO THE ENCLOSURE A FLUORESCENT STRIP LIGHT FOR NIGHTTIME SERVICE OPERATION.
PUMP AND ALARM PROGRAMMABLE CONTROLLER SHALL INCLUDE DIGITAL LCD READOUT THAT DISPLAYS WATER/EFFLUENT DEPTH. PROVIDE MANUAL OVERRIDE CONTROL FOR PUMP.
PUMP CONTROLS SHALL INCLUDE WATER/EFFLUENT DEPTH MONITOR VIA SUBMERSIBLE LEVEL TRANSDUCER WITH FULL FUNCTION FLOAT CONTROL BACKUP.
PROVIDE SOLID STATE REMOTE WATER/EFFLUENT LEVEL PROBE FOR PERMISSIVE CONTROL OF PUMP.
PROVIDE PUMP PROTECTION SYSTEM TO MONITOR PUMP MOTOR THERMAL SWITCH AND PUMP LEAKAGE DETECTOR, TO SHUT DOWN PUMP IN CASE OF MOTOR OVERHEATING OR TO SEND A "LEAKAGE" SIGNAL IN CASE WATER IS DETECTED IN THE OIL, WITH TWO (2) CONTACTS TO ALARM THE AUTODIALER.
SYSTEM PUMP SHALL BE 'FLGYT', 6.5 HP RATED, 2–POLE, 480 VAC, 3–PHASE, 60hZ.

7. FURNISH AND INSTALL A GROUND FAULT INTERRUPTER RECEPTACLE OUTLET IN WEATHERPROOF ENCLOSURE ADJACENT TO THE POWER PANEL ON THE EQUIPMENT RACK.

LIFT STATION POLE LIGHT FIXTURE SCHEDULE

TYPE	MANUFACTURER	QTY. OF FIXTURES PER POLE	LAMPS NO.	LAMPS TYPE	VOLTS	REMARKS/ POLE MODEL NO.
P1	EMCO: CAT.# ECA14–1–3H–400PSMH–QUAD–BRP–HS	1	1	400 WATT PULSE–START MET. HALIDE	480	DIE–FORMED ALUMINUM SITE LUMINAIRE, FULL CUT–OFF, FLAT LENS, MULTI–TAP BALLAST, ROTATABLE OPTICS, W/ INTEGRAL HOUSE SIDE SHIELD TO MINIMIZE GLARE ONTO ADJACENT PROPERTIES; ARM–MOUNTED ON 25' SQUARE STEEL POLE: CAT.# SSS–25–4–7–D1–BRP

ALL WORK SHOWN SHALL COMPLY WITH ALL NATIONAL, STATE AND LOCAL CODES, ORDINANCES, ETC.

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No.	Date	Revisions
1	4–9–08	REVISED ELECTRICAL AND TELEPHONE SERVICE ENTRANCE ROUTING PER POWER CO. REQUEST

NORTH LAKESHORE VALLEY LIFT STATION ROCKWALL, TX

ELECTRICAL SITE PLAN

STATE OF TEXAS
MELVIN KALMANS
24070
REGISTERED
PROFESSIONAL ENGINEER
1/24/09

KALMANS MARSHALL ENGINEERING, INC.
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10830 N. Sam Houston Parkway N., Suite 100
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Project No. 16508002
Date: April, 2008
Drawn by: CWM
Checked by: MK
Approved by:
Acad File: LS–E..

LS-E0.1

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