UTILITY CO. RQUIREMENTS

VERIFY AND COMPLY WITH ALL UTILITY COMPANY REQUIREMENTS BEFORE BIDDING JOB AND BEFORE CONSTRUCTION:

POWER COMPANY

_____ PH. _____

PHONE COMPANY

_____ PH. _____

CODE, RULES AND REGULATIONS

ALL WORK AND MATERIALS SHALL COMPLY WITH THE LATEST REGULATIONS OF THE STATE FIRE MARSHAL, CALIFORNIA ADMINISTRATIVE CODE, SERVING UTILITY COMPANIES AND OTHER APPLICABLE STATE AND LOCAL ORDINANCES. NOTHING IN THESE PLANS OR SPECIFICATIONS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES. WHERE WORK OF A HIGHER DEGREE IS INDICATED IN THE PLANS OR SPECIFICATIONS THIS REQUIREMENT SHALL GOVERN.

GENERAL NOTES

1. UTILITY COMPANY REQUIREMENTS ARE TO CONFORM TO THE SERVING UTILITY COMPANY RULES AND REGULATIONS:

2. VERIFY EXACT LOCATION AND DISPOSITION OF ELECTRIC OUTLETS. VOLTAGE AND PHASE FOR EQUIPMENT FURNISHED BY OTHERS WITH RESPECTIVE EQUIPMENT CONTRACTORS BEFORE STARTING WORK AND CONNECT SAME.

3. SEE MECHANICAL DRAWINGS FOR ALL CONTROL WIRING DIAGRAMS. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ELECTRICAL HOOK–UP. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE CORRECTNESS OF ALL HOOK–UP BEFORE STARTING EQUIPMENT.

4. SEPARATE REQUIRED SWITCHES AND STARTERS, EXCEPT FOR PACKAGE UNITS. SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR. ALL NECESSARY CONTROL SWITCHES, CONTROL TRANSFORMERS, THERMOSTATS, RELAYS, ETC., SHALL BE FURNISHED BY MECHANICAL CONTRACTOR.

5. ALL PANELS, TRANSFORMERS, MOTOR CONTROLS, TERMINAL CABINETS, SHALL HAVE LAMICOID NAME TAGS FOR IDENTIFICATION. ALL PANELS SHALL HAVE CIRCUIT CONDUCTORS IDENTIFIED.

6. ALL UNDERGROUND RIGID STEEL CONDUIT TO BE ENCASED IN 3" CONCRETE ENVELOPE OR DOUBLE WRAPPED IN 10 MIL. PVC WRAPPING TAPE. OUTSIDE OF BUILDING LINE, CONCRETE SHALL BE INTEGRALLY COLORED RED. UNDERGROUND NON–METALLIC CONDUIT APPROVED FOR DIRECT BURIAL––DOES NOT REQUIRE ENCASEMENT. ALL ELLS FOR UNDERGROUND TO BE RIGID STEEL AND ENCASED OR WRAPPED AS DESCRIBED ABOVE.

7. THE ELECTRICAL CONTRACTOR IS TO SECURE ALL PERMITS, AND PAY ALL FEES, INCLUDING POWER COMPANY CHARGES, AND INCLUDED SAME IN THIS BID.

8. FURNISH AND INSTALL LOCKOUTS ON MOTOR FEEDS. ALL 3ø MOTORS TO HAVE 3ø PROTECTION (3 OVERLOADS).

9. ALL LIGHTING RUNS BETWEEN 80' TO 150' TO BE #10 TW CU., BETWEEN 150' TO 225' TO BE #8 TW CU., FOR 120V SYSTEM. ALL MAIN FEEDERS ARE SIZED FOR ALUMINUM, OR AS NOTED.

10. ALL UNDERGROUND STUB OUTS SHALL BE CAPPED AND LOCATED WITH "STUB MARKERS" SET IN CONCRETE.

11. ALL BREAKERS TO BE HIGH AMBIENT COMPENSATED IN ALL PANELS IN MECHANICAL ROOMS, ON ROOF OR OUTSIDE. ALL FLEX CONDUIT USED OUTDOORS OR IN DAMP LOCATIONS, SHALL BE "SEALTITE" WITH W.P. CONNECTIONS.

12. ALL NEW PANELS AND NEW TERMINAL CABINETS TO HAVE TWO 1" C.O. STUBBED TO ACCESSIBLE ATTIC SPACE.

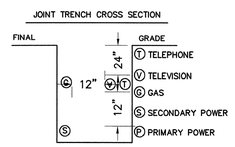
13. ROOF JACKS SHALL BE INSTALLED FOR ALL CONDUITS RUN THROUGH ROOF. CONDUIT SHALL BE SECURELY ANCHORED BELOW. JACKS TO BE WATER TIGHT.

14. ALL BRANCH CIRCUITS FEEDING EXTERIOR RECEPTACLES SHALL HAVE GROUND FAULT INTERRUPTING CIRCUIT BRAKERS.

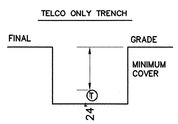
15. UNDERGROUND CONDUIT SHALL BE RIGID STEEL OR PVC SCHEDULE 40. IF RIGID STEEL CONDUIT IS USED, IT SHALL BE ENCASED IN 3" CONCRETE ENVELOPE OR HAVE A ZOMIL PVC COVERING. OUTSIDE OF THE BUILDING LINE, CONCRETE SHALL BE INTEGRALLY COLORED RED. ONLY NON–METALLIC CONDUIT APPROVED FOR DIRECT BURIAL DOES NOT REQUIRE ENCASEMENT, UNLESS OTHERWISE NOTED ON PLANS.

16. RIGID STEEL ELLS SHALL BE REQUIRED AT ALL STUB–UPS WHERE WIRE SIZE IS #4 AWG THW OR LARGE, OR WHERE CONDUIT SIZE IS 1 1/4" OR LARGER.

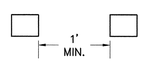
JOINT TRENCH CROSS SECTION



TELCO ONLY TRENCH

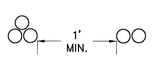


ELECTRICAL TRANSFORMER PAD AND PULL BOX



TELCO PEDESTAL

ELECTRICAL CONDUITS STUBBED ABOVE GROUND



TELCO CONDUITS STUBBED ABOVE GROUND

TELEPHONE NOTES

1. CONDUITS, PULL LINES AND TERMINAL CABINETS WILL BE PROVIDED BY THE DEVELOPER.

2. THE USE OF CONDUIT FOR OTHER THAN TELEPHONE COMPANY OWNED WIRING WILL PRECLUDE ITS USE BY THE TELEPHONE COMPANY, AND MAY REQUIRE EXPOSED TELEPHONE WIRES OR CABLES. THE TELEPHONE COMPANY MAY REFUSE TO USE CONDUIT THAT DEVIATES FROM PLANS AND SPECIFICATION.

3. CONDUIT MATERIAL MUST BE TELEPHONE PLASTIC CONDUIT OR BETTER. SCHEDULE 40 PLASTIC DUCT MAY BE USED IN LIEU OF TELEPHONE SPECIFIED PLASTIC DUCTS. IF CONDUIT IS DAMAGED OR THE CABLE CANNOT BE PULLED, IT IS THE CONTRACTORS RESPONSIBILITY TO CORRECT THE CONDITION.

4. IF THERE ARE MORE THAN TWO 90° BENDS OR EXCESSIVE LENGTHS, CONTACT THE TELEPHONE COMPANY ENGINEER FOR POSSIBLE PULL AND/OR SPLICE BOX REQUIREMENTS.

5. THE RADIUS OF 90° BENDS AT BUILDING, POLE AND/OR PEDESTAL TERMINATION, SHALL BE A MINIMUM OF TEN TIMES THE DIAMETER OF THE CONDUIT SIZE. 90° SWEEPS SHALL MAINTAIN A MINIMUM RADIUS OF 24 INCHES.

6. PULL LINE REQUIREMENTS ARE 3/16" POLYPROPYLENE OR EQUIVALENT. WHERE SPECIFIED, THE PULL LINE MUST BE PROVIDED AND PLACED BY THE CONTRACTOR.

7. PLUMBER'S FITTINGS (WATER AND GAS PIPE) ARE NOT ACCEPTABLE FOR TELEPHONE COMPANY USE.

8. BACKFILL MATERIAL SHALL BE FREE FROM LARGE STONES, PAVEMENT, AND OTHER MATERIAL THAT MIGHT DAMAGE THE CONDUIT.

9. ALL CONDUIT MUST BE INSPECTED AND ACCEPTABLE TO THE TELEPHONE COMPANY INSPECTOR BEFORE BACKFILLING. CALL 631–3440 FOR INSPECTION.

10. THE BUILDING OWNER, HIS AGENTS OR ASSIGNEES, SHALL HAVE THE RESPONSIBILITY TO PENETRATE FIRE WALLS, MASONRY AND METAL WALLS OR FLOORS, AND TO FIRE STOP (SEAL) ALL PATHWAYS THROUGH FLOORS AND WALLS IN COMPLIANCE WITH APPLICABLE BUILDING AND FIRE CODES.

11. IF ANY DEVIATIONS FROM THE TELEPHONE COMPANY RECOMMENDATIONS ARE NECESSARY, CALL TELEPHONE COMPANY ENGINEER AT 631–3440.

ELECTRICAL SYMBOL SCHEDULE

(2 x 100)	CIRCUIT NUMBER		PHOTOCELL
(3-A-100)	FIXTURE TYPE		ELECTRICAL SWITCHOARD AND/OR METER GROUP
(3-a-100)	FIXTURE WATTAGE RATING		BRANCH PANELBOARD; SURFACE, FLUSH
	FLOURESCENT FIXTURE, RECESSED		TERMINAL CABINET; SURFACE, FLUSH
	FLOURECENT FIXTURE, SURFACE		
	FLOURECENT FIXTURE, OPEN STRIP	4	HOMERUN TO CIRCUIT BREAKER NO.3 IN PANEL "A" (3/4" CONDUIT MINIMUM)
	INCANDESCENT CEILING MOUNT		CONDUIT RUM EXPOSED
	RECESSED CEILING CAN		CONDUIT RUN IN WALL/CEILING
	INCANDESCENT WALL MOUNT		CONDUIT RUN IN FLOOR/UNDERGROUND
	POLE MTD. LIGHT FIXTURE		CROSS HATCHING INDICATES NUMBER OF #12 AWG WIRES WHEN MORE THAN TWO
	SPOT OR FLOOD LIGHT		CONDUIT TURNED UP
EXIT	EXIT LIGHT HARD WIRED WITH BACKUP INCANDESCENT LIGHT		CONDUIT TURNED DOWN
	NIGHT LIGHT		CONDUIT STUBBED OUT AND CAPPED
E	EMERGENCY LIGHTING UNIT		FLEX CONNECTION
$	SINGLE POLE SWITCH: + 48" U.O.N.		MOTOR
$2	DOWBLE POLE SWITCH: + 48" U.O.N.	F	EXAUST FAN
$3	THREE WAY SWITH; + 48" U.O.N.		DISCONNECT SWITCH, H.P. RATED
$P	SWITCH W/PILOT LIGHT	F	FUSED DISCONNECT SWITCH; H.P. RATED FUSE SIZES SHALL BE DETERMINED BY EQUIPMENT MANUFACTURER
$D	SWITCH, DIMMING	S (3)	MAGNETIC MOTOR STARTER, NUMBER INDICATES NEMA SIZE
$K	KEY SWITCH	(3)	COMBINATION DISCONNECT SWITCH AND MOTOR STARTER
$T	MANUAL STARTING SWITCH W/OVERLOAD PROTECTION; H.P. RATED	T	TRANSFORMER, SIZE AS NOTED
$c, b	EACH SUBSCRIPT LETTER INDICATES ONE SWITCH	S	SPEAKER, FLUSH M.T.D.
	DUPLEX RECEPTACLE; + 12" U.N.O.	S	SPEAKER, SURFACE, M.T.D.
	DUPLEX RECEPTACLE, FLOOR M.T.D.	V	VOLUME CONTROL; + 48" U.O.N.
	220 V. SINGLE PHASE RECEPTACLE	P.S.	FIRE ALARM PULL STATION
	DUPLEX RECEPTACLE, SPLIT WIRE, BOTTOM HALF SWITCHED		FIRE ALARM HORN
	DOUBLE DUPLEX RECEPTACLE	B	FIRE ALARM BELL
G.F.I.	ADJACENT TO SYMBOL INDICATES GROUND FAULT PROTECTED	W.P.	WEATHERPROOF
	TELEPHONE OUTLET; + 12"U.O.N.	U.O.N.	UNLESS OTHERWISE NOTED
T	TELEPHONE OUTLET, FLOOR MTD.		GROUND
J	JUNCTION BOX, MOUNTING HEIGHT AS NOTED		INCANDESCENT CELING MOUNT W/ FAN
T	THERMOSTAT; + 60" U.O.N.		
	CLOCK OUTLET; + 7'–0" U.O.N.	BP	BY–PASS TIMER
TC	TIME CLOCK		

REV	DATE/DESC

REGISTERED PROFESSIONAL ENGINEER BERNARD O. SALGADO No. 71320 Exp. 12-31-09 CIVIL STATE OF CALIFORNIA

THESE PLANS PREPARED UNDER THE DIRECT SUPERVISION OF:

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JOB NO: 0734

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