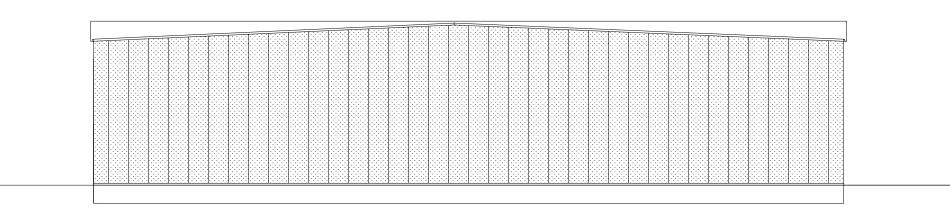
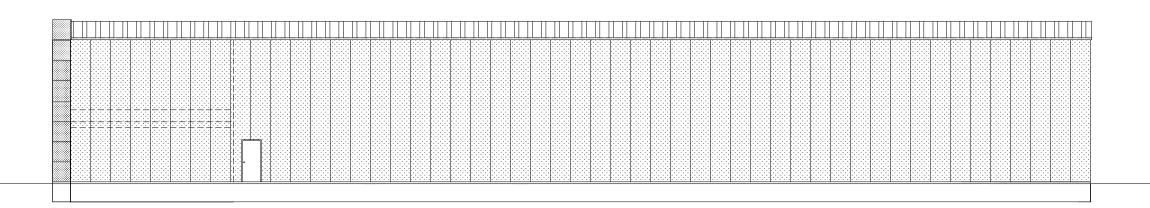


PROP <u>CEILING LINE</u>			PROP_CEILING LINE FLOOR LINE BOTTOM OF JOIST LINE PROP_CEILING LINE
			<u>Floor line</u> _

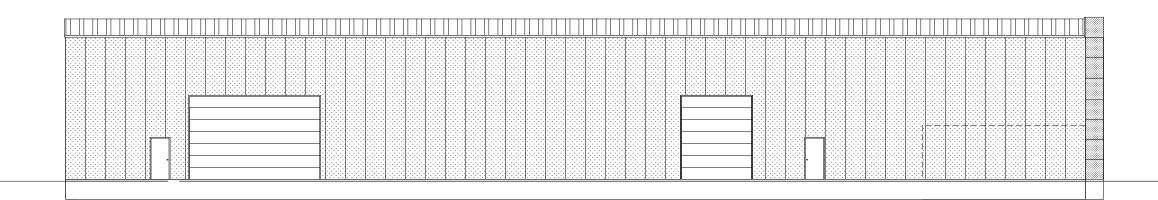
FRONT ELEVATION



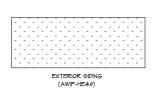
REAR ELEVATION

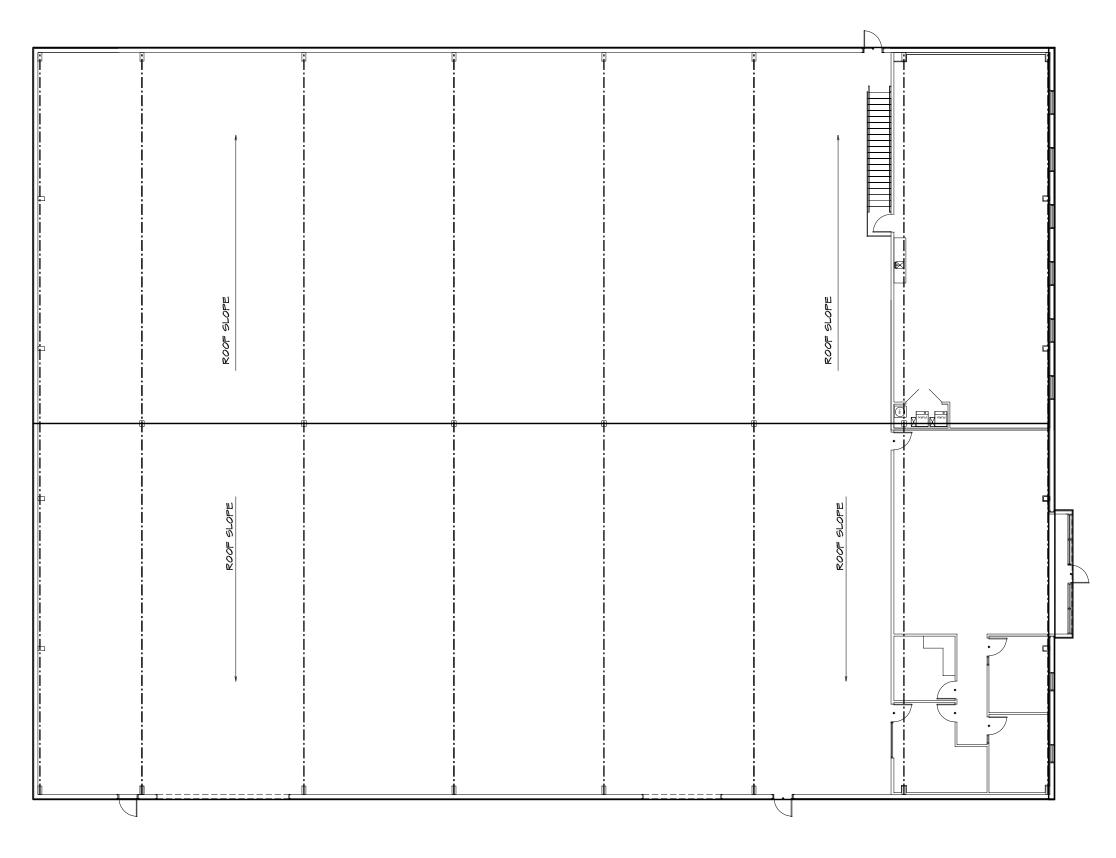


RIGHT ELEVATION



LEFT ELEVATION





ROOF ELEVATION

1/16" = 1'0"

CODE NOTES	GENERAL NOTES	LOCATION PLAN / KEY PLAN	
ALL CONSTRUCTION FOR THIS PROJECT SHALL COMFORM TO THE REQUIREMENTS OF THE FOLLOWING COPES ALL AS AMENDED BY THE CITY OF LEE' SUMMIT	ALL DIMENSIONS INSIDE TO INSIDE WALL, UNLESS OTHERWISE NOTED		
2010 INTERNATIONAL BUILDING COPE 2010 INTERNATIONAL MECHANICAL COPE 2010 INTERNATIONAL PLUMBING COPE 2010 INTERNATIONAL PLUEL GAS COPE	2 CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS IN THE FELD AND INFORM THE OWNER OF ANY DISCREFANCIES BEFORE PROCEEDING		
2019 INTERNATIONAL FIRE COPE & LIFE SAFTY COPE 2017 NATIONAL ELECTRIC COPE	3. PROVIDE 2X BLOCKING IN ALL WALLS AS REQUIRED FOR SUPPORT		
ICC/ANSI AII7.I-2009, ACCESSIBLE & USABLE BUILDING AND FACILITIES UNIFIED DEVELOPMENT ORDINANCE	4. CONTRACTOR TO PESIGN, COORDINATE, INSTALL, ETC. ALL CASEWORK/MILLWORK WITH OWNER		
SHALL BE IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT TENANT USE: OCCUPANCY CLASSIFICATION (PRIMARY) GROUP 5-1 (SECONDARY) GROUP B	COORDINATE ALL FINAL OUTLET, WALL AND POOR LOCATION W/ OWNER BEFORE CONSTRUCTION		
TYPE OF CONSTRUCTION (IBC 602): TYPE V-B	6. COORDINATE ALL FINISHES WITH OWNER		
AUTOMATIC SPRINKLER SYSTEM: N/A	7. PROVIDE FIRE EXINGUISHERS AS REQUIRED BY FIRE MARSHAL		
TENANT AREA = OFFICE: FIRST FLOOR = 3224 SECOND FLOOR = 1668	8. FIELD VERIFY ALL DIMENSIONS AND SITE CONDITIONS		
STORAGE: WAREHOUSE = 17882 OCCUPANT LOAD (TABLE 1044.12): OCCUPANT LOAD (TABLE 1044.12): 22	 CONTRACTOR TO COORDINATE W/ OWNER ON ALL ITEMS SUPPLIED AND AFFECTING THE CONTRACTORS WORK 		
WAREHOUSE: (7592/500 = 35 PLUMBING REQUIREMENTS (TABLE 2002.1):	10. NEW WALL CONSTRUCTION SHALL BE 24-GAUGE STUPS, TRACK AND BLOCKING, STUPS SET 24" OC MIN. W/ I/2 GYPSUM BOARD WALL STUPS SHALL BE PEGIGNED IN ACCORDANCE WITH EITHER		
USE GROUP B WATER CLOSETS: = (UNISEX) PER 50 =	AISI SZII OR AISI SIOO		
SERVICE SINK - I USE GROUP S-I WATER CLOSETS: = (UNISEX) FER 00 = SERVICE SINK - I DRINKING FOUNTIAN - FER 000 =	IL WALL COVERING IN PROPOSED BATHROOM TO HAVE TILE OR OTHER NONABSORBENT SURPACE, TO A HEIGHT NOT LESS THEN 40° O.F.F.		

5" X 3000/PSI SLAB ON COURSE W/ #3 @ 18" O.C.E.W.
IN MID 1/3 OF SLAB OVER VAPOR BARRIER OVER 6"
CRUSHED STONE OVER PREPARED SUB GRADE PER
GEOLOGICAL REPORT

#6 HAIRPIN 20'-0" AROUND
A.B. TYPICAL I2X

REFER TO METAL BUILDING PLAN FOR A.B. DETAILS REFER TO METAL BUILDING PLAN FOR O.H. DOOR AND WALK DOOR SLAB DETAILS.

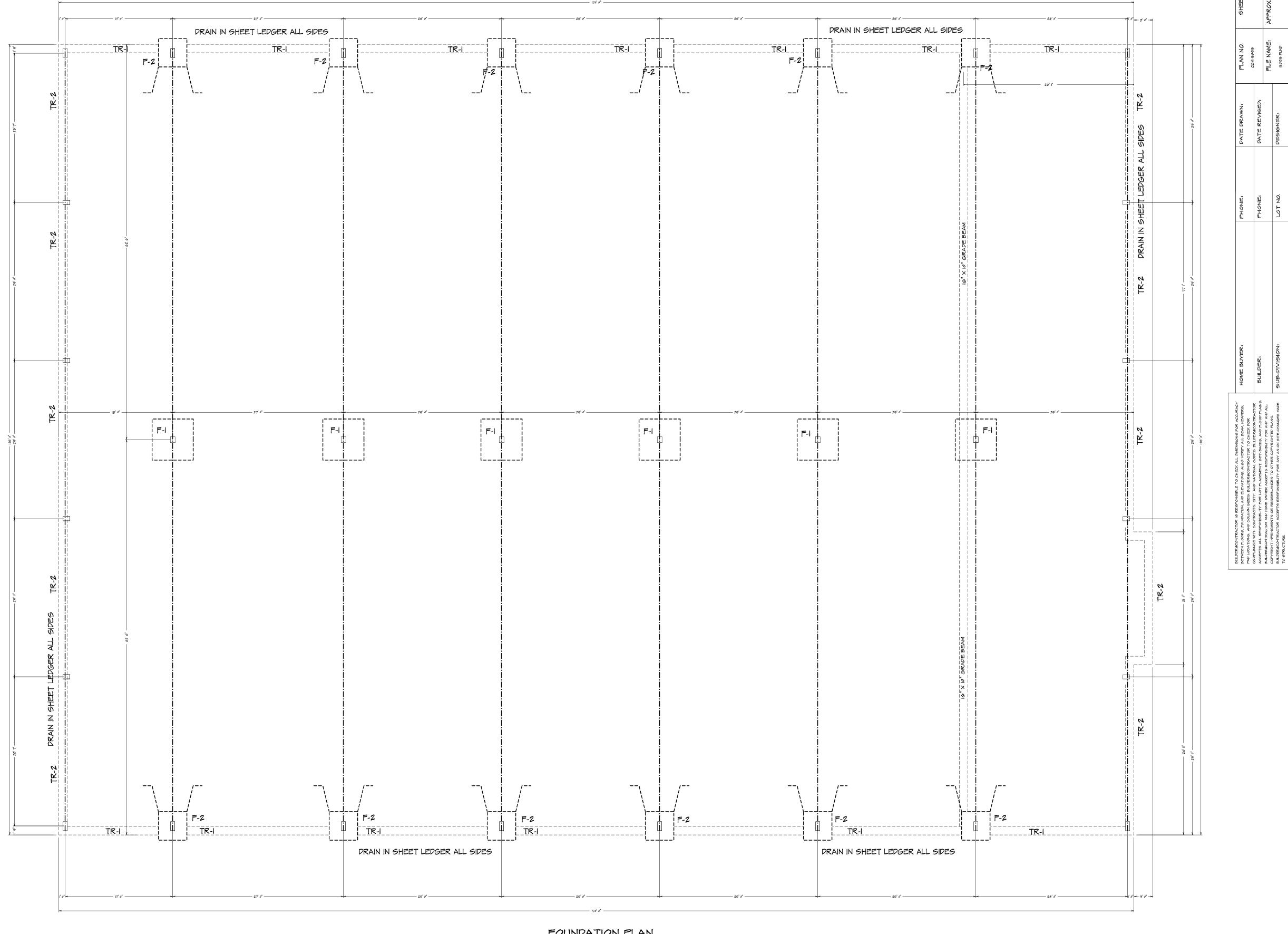
FOOTING SCHEDULE

	WIDTH	LENGTH	THICKNESS	REINFORCEMENT
F-I	6'-6"	6'-6"	3'-0"	#5 @ 12" O.C. EACH WAY TOP AND BOTTOM
F-2	4'-6"	4'-6"	3'-0"	#5 @ 12" O.C. EACH WAY TOP AND BOTTOM
TR-I	12"	CONT.	3'-0"	2 - #5 TOP AND BOTTOM W/ #4 STIRRUPS @ 48" O.C.
TR-2	24"	CONT.	3'-0"	3 - #5 TOP AND BOTTOM W/ #4 STIRRUPS @ 48" O.C.

FF = 1006' - 6"

(2) #4 REBAR
5" CONCRETI

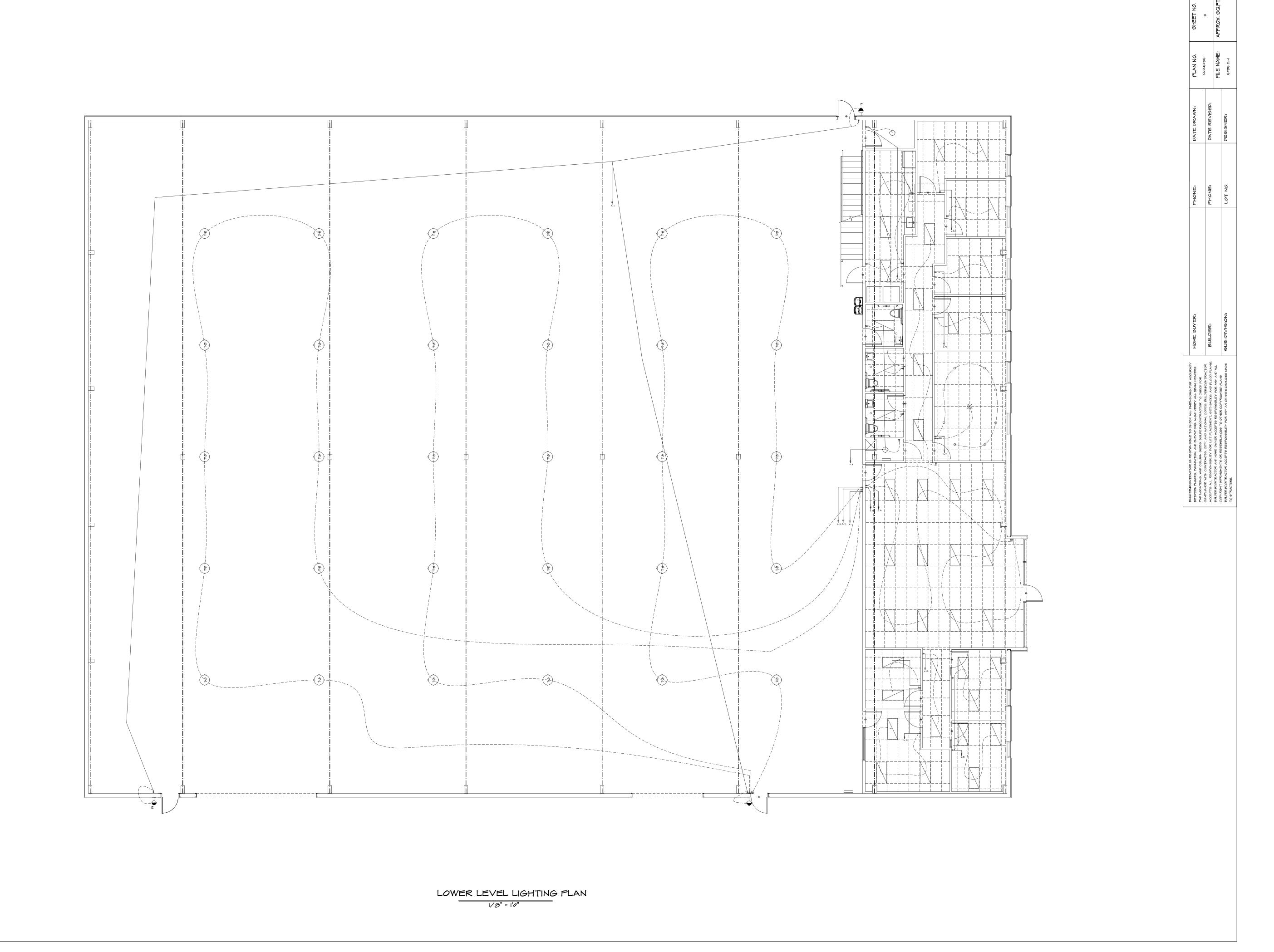
GRADE BEAM



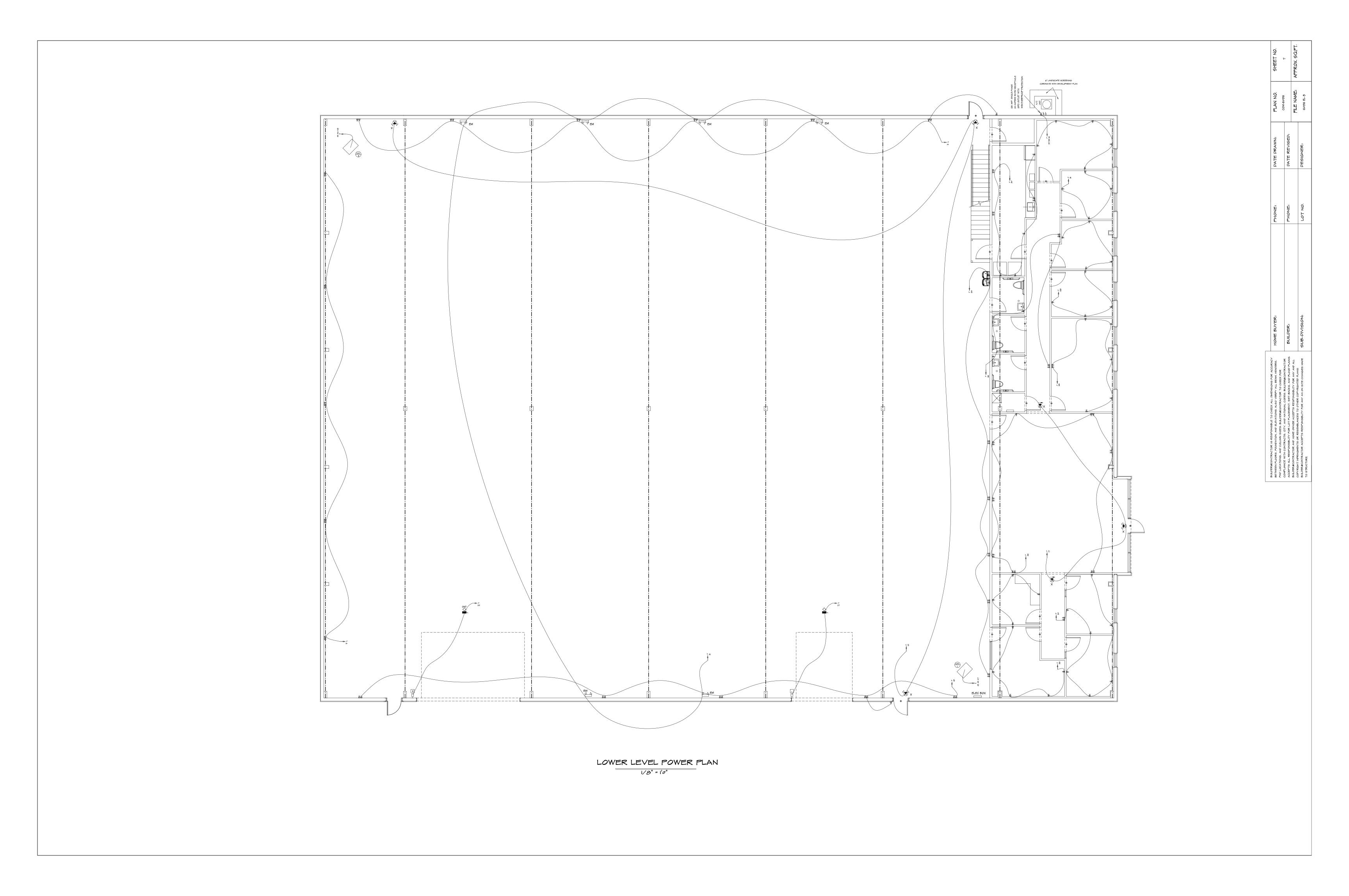
FOUNDATION PLAN



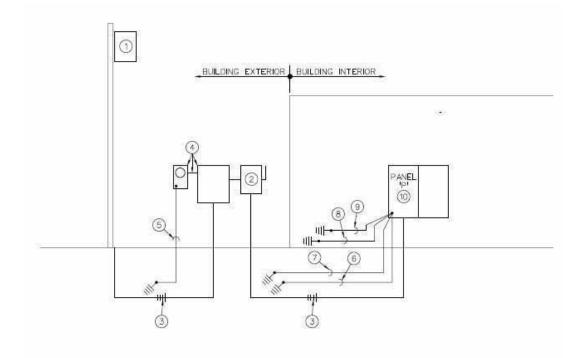












ELECTRICAL RISER DIAGRAM

RISER DIAGRAM NOTES

I. UTILITY COMPANY POLE MOUNTED TRANSFORMER WITH 208Y/I20V, 3-PHASE 4-WIRE SECONDARY, VERIFY AFC AT TRANDFORMER SECONDARY WITH UTILITY COMPANY.

2. 400A/3P, NON-FUSED, NEMA 3R DISCONNECT SWITCH.

3. (2) 2" PVC CONDUITS WITH 4-#3/0 (CU) IN EACH. INSTALL CONDUITS WITH TOP MINIMUM 3'-6" BELOW FINSHED GRADE.

4 UTILITY COMPANY C.T. CABINET AND METER CAN/SOCKET, I-I/4" CONDUIT FOR METERING CABLES.

5. #6 (CU) GROUND WIRE. CONNECT TO $1/2^{"}$ ROUND X $8^{!}$ -0" LONG COPPER CLAD STEEL DRIVEN GROUND ROD.

6. 1/2" C, 1-#1/0 (CU) GROUND WIRE, CONNECT TO 3/4" ROUND X 10^1-0 " LONG COPPER CLAD STEEL DRIVEN GROUND ROD.

7. 1/2" C, 1-#1/0 (CU) GROUND WIRE, CONNECT TO 20^1-0 " LONG CONDUCTOR IN CONCRETE BUILDING FOOTING.

8. 1/2" C, 1-#1/0 (CU) GROUNG WIRE. CONNECT TO COLD WATER SERVICE PIPE, AHEAD OF MAIN SHUT-OFF VALVE.

9. 1/2" C, 1-#1/0 (CU) GROUNG WIRE. CONNECT TO BUILDING STEEL.

10. PANEL 'P' SHALL HAVE SERVICE ENTRANCE LABEL.

ELECTRICAL GENERAL NOTES

I. INSTALLATION SHALL COMPLY WITH LATEST EDITION OF N.E.C. AND LOCAL AUTHORITY HAVING JURISDICTION

2. CONTRACTOR SHALL BE LICENSED TO PREFORM WORK IN MUNICIPALITY WHERE PROJECT IS LOCATED.

3. ALL WIRING SHALL BE INSTALLED IN CONDUIT, EMT CONDUIT WITH SET SCREW FITTINGS MAY BE UTILIZED WHERE PERMITTED BY COPE, MINIMUM CONDUIT SIZE SHALL BE 1/2". IN WOOD FRAMING CONVENTIONAL NM ROMEX WIRE SHALL BE USED

4. ALL WIRING SHALL BE COPPER WITH 600 VOLT INSULATION AND COLOR CODED.

5. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMIT AND INSPECTION FEES.

6. INSTALL BLANK COVER PLATE ON ALL PULL BOXES AND JUNCTION BOXES.

7. TYPEWRIIEN PANELBOARD DIRECTORY SHALL BE PROVIDED FOR PANELBOARD AND CORRECTLY FILLED OUT.

8. ALL WIRING DEVICES SHALL BE RATED 20 AMP, OR AS NOTED.

9. ALL NEW BRANCH CIRCUIT CONDUITS SHALL BE INSTALLED CONCEALED ABOVE LAY-IN CEILING OR IN WALLS.

IO. CONTRACTOR SHALL FIELD VERIFY EXACT ROUTING OF ALL CONDUITS TO NEW EQUIPMENT.

II. DISCONNECT SWITCHES SHALL BE HEAVY PUTY TYPE, NEMA I FOR INDOOR AND NEMA 3R FOR OUTDOOR INSTALLATIONS, MANUFACTURED BY SQUARE D, ITE/SIEMENS, GE, CUTLER-HAMMER, OR EQUAL.

12. FURNISH MATERIALS AND LABOR FOR A COMPLETE AND OPERATIONAL ELECTRICAL INSTALLATION.

13. MATERIAL AND EQUIPMENT SHALL BE NEW AND SHALL BEAR THE 'UL' LABELS AS REQUIRED.

14 EMERGENCY AND EXIT LIGHT FIXTURES SHALL BE PROVIDED WITH BATTERY BACK-UP FOR MINIMUM OF (90) MINTES. EMERGENCY AND EXIT LIGHT FIXTURES SHALL BE CONNECTED TO HOT LEG OF CIRCUIT, NOT SWITCHED.

IG. E.C. SHALL VERIFY RATINGS, LOCATIONS, AND CONNECTIONS OF ALL EQUIPMENT PROVIDED BY OTHERS AND INSTALLED AND/OR CONNECTED BY THE ELECTRICAL CONTRACTOR.

IG. NEW PANELBOARDS SHALL BE ITE/SIEMENS TYPE 'P2' OR EQUAL, WITH BOLT-ON CIRCUIT BREAKERS, ALUMINUM BUS. NEMA I ENCLOSURE, GROUND, AND NEUTRAL BUS. AIC RATING TO MATCH EXISTING SYSTEM, EQUALS BY SQUARE 'D'. G.E., CUTLER-HAMMER OR EQUAL.

17. NEW CIRCUIT BREAKERS INSTALLED IN EXISTING PANELBOARD SHALL MATE/MATCH PANEL CONSTRUCTION AND AIC RATING.

ELECTRICAL SYMBOLS

ELEC	TRICAL SYMBOLS
	BRANCH CIRCUIT CONCEALED IN CEILING OR WALL, ARROWS INDICATE HOMERUNS TO PANEL. ALL CONDUCTORS ARE #12 EXCEPT AS NOTED.
	CONDUIT RUN UNDERGROUND OR BENEATH FLOOR SLAB
	GROUNDING CONDUCTOR #12 EXCEPT AS NOTED
HJ	WALL MOUNTED JUNCTION BOX
\bigcirc	CEILING MOUNTED JUNCTION BOX
	PANELBOARD (SURFACE MOUNTED). INSTALLED W/TOP 6'0" AFF
	DISCONNECT SWITCH. SIZE AS NOTED
■-	DISCONNECT SWITCH FURNISHED WITH EQUIPMENT
⊗ OR ⊗	EXIT LIGHT - SINGLE FACE - ARROW AS SHOWN
$\downarrow \Theta \downarrow$	EXIT LIGHT - DOULBE FACEARROW AS SHOWN
4	COMBINATION EXIT/EMERGENCY LIGHT FIXTURE WITH (2) HEADS
	CEILING OR WALL MOUNTED EMERGENCY LIGHTING UNIT WITH (2) HEADS.
	2'X4' LIGHT FIXTURE
	NIGHT LIGHT FIXTURE, FIXTURE SHALL BE ON 27/7
 0 	FLUORESCENT STRIP FIXTURE
\Diamond	CEILING LIGHT FIXTURE
$\vdash \Diamond$	WALL MOUNTED LIGHT FIXTURE
$\vdash \bigcirc$	REMOTE WEATHERPROOF EMERGENCY LIGHT FIXTURE
	WALL PACK LIGHT, 100W COMERCIAL LED, WALL PACK 120-277V 50,000 - HR. LIFE IP65 COMPLY WITH SECT. 7.260 OF THE UDO
(T-8)	T-8 HIGH BAY LIGHT FIXTURE
<u>\$</u>	SINGLE POLE SWITCH. +3'-10" AFF
\$ ³	THREE-WAY SWITCH. +3'-10" AFF
<u>\$</u> 4	FOUR-WAY SWITCH. +3'-10" AFF
\$05	OCCUPANCY SENSOR. +3'-10" AFF
\$ ^p	DIMMER SWITCH +3'10" AFF. SIZE AS NOTED
PP	OCCUPANCY SENSOR POWER PACK
OS	OCCUPANCY SENSOR.
Ф	DUPLEX RECEPTACLE. +1'-6" AFF OR AS NOTED
	DUPLEX RECEPTACLE INSTALLED ABOVE COUNTERTOP
⊕ ^{wp}	DUPLEX RECEPTACLE WITH WEATHERPROOF PLATE. HEIGHT AS NOTED
⊕ ^{GF}	DUPLEX RECEPTACLE W/GROUND FAULT PROTECTION . $+1^1-6^{\prime\prime\prime}$ AFF OR AS NOTED
Ш	FOURPLEX RECEPTACLE. +1'-6" AFF OR AS NOTED
WH - I	ELECTRIC WATER HEATER AND NUMBER
F - I	EXHAUST FAN AND NUMBER
CU - 1	CONDENSING UNIT AND NUMBER
F-I	FURNACE AND NUMBER
FC - I	FAN COIL UNIT AND NUMBER
HP - I	HEAT PUMP UNIT AND NUMBER
A PETE	ARAYE FINICHED FLAGR

ABOVE FINISHED FLOOR

ELECTRICAL CONTRACTOR

ELECTRIC DRINKING FOUNTAIN

NIGHT LIGHT FIXTURE SHALL BE ON 24/7

ELECTRICAL PLAN NOTES

- I. INSTALL OUTLET BOX FOR WIRING DEVICE WITH TOP 48" AFF OF GROUND FLOOR
- ON/OFF/STOP PUSH-BUTTON INSTALLED AT 48" AFF OF GROUND FLOOR FOR OVERHEAD DOOR MOTOR CONTROLE.
- 3. 30A, 250V, 2-POLE, 3-WIRE DISCONNECTING MEANS
- 4. 3/4" CONDUIT, 2-#10 AND 1-#10 GROUND WIRE
- 5. 20A, IZOV, I-POLE DISCONNECTING MEANS

PANEL P	120/20	8 V	OLTS		400_ A.	BUS		□ S	ERVICE ENTRANCE
		3	PHASE		400_A	MAIN BR	EAKEF	R 🗆 F	EED TRU LUGS
SECTION 1 OF	1	4	WIRE	□ N	IAIN L	JGS ONL	Y	□ S	UB FEED LUGS
DESCRIPTION	Wire Size	AMPS	Watts	Circ #	Circ #	Watts	AMPS	Wire Size	DESCRIPTION
LIGHTS (BAY)	12	20	1500	1	2	1500	20	12	LIGHTS (BAY)
LIGHTS (BAY)	12	20	1500	3	4	1500	20	12	LIGHTS (BAY)
LIGHTS	12	20	1500	5	6	1500	20	12	LIGHTS
LIGHTS	12	20	1500	7	8	1500	20	12	LIGHTS
LIGHTS	12	20	1500	9	10	1500	20	12	LIGHTS
EXTERIOR LIGHTS	12	20	1500	11	12	1500	20	12	LIGHTS
LIGHTS	12	20	1920	13	14	1300	20	12	RECEPTACLES (BAY)
LIGHTS	12	20	1920	15	16	1300	20	12	RECEPTACLES (BAY)
EM/EXIT LIGHTS	12	20	1920	17	18	1300	20	12	RECEPTACLES (BAY)
EM/EXIT LIGHTS	12	20	1920	19	20	1300	20	12	RECEPTACLES
EMERGENCY LIGHTS	12	20	1920	21	22	1300	20	12	RECEPTACLES
RECEPTACLES	12	20	1920	23	24	1300	20	12	RECEPTACLES
RECEPTACLES	12	20	1920	25	26	1300	20	12	RECEPTACLES
OHD OPERATOR	12	20	1920	27	28	1300	20	12	RECEPTACLES
OHD OPERATOR	12	20	1920	29	30	1300	20	12	RECEPTACLES
RECEPTACLES	12	20	1920	31	32	1300	20	12	RECEPTACLES
RECEPTACLES	12	20	1920	33	34	1300	20	12	EM/EXIT LIGHTS
OPEN				35	36	1920	20	12	F - 1
		\30	2500	37	38	1920	20	12	F - 2
CU-1	10		2500	39	40	4500	30	8	WATER HEATER
		3 \	2500	41	42	4500	2	0	WATER REATER
		35	3300	43	44	3300	35		
UH-1	8	$ \setminus $	3300	45	46	3300		8	UH-2
		3 \	3300	47	48	3300	3 \		

TYPE	MANUFACTURER	LAMP	WATTS/VOLTS	DISCRIPTION
P	BY OWNER	LEP	TBD	EXTERIOR WALL PACK
E	BY OWNER	LEP	TBP	EXTERIOR RATED ARCHITECTURAL FIXTURE
EM	BY OWNER	LED	TBP	EMERGENCY LIGHTING UNIT, 90 MIN. BATTERY
×	BY OWNER	LED	TBP	EXIT SIGN, UNIVERSAL MOUNT, 90 MIN. BATTERY

INSTALLATION SHALL BE IN ACCORDANCE WITH THE 2012 INTERNATIONAL MECHANICAL, PLUMBING AND FUEL GAS CODES, NFPA 90A AND 101 AND ALL STATE AND LOCAL CODES, ORDINANCES AND REGULATIONS.

DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO INDICATE THE GENERAL DESIGN CONCEPT. THEY DO NOT NECESSARILY INDICATE EACH AND EVERY FITTING OR FEATURE. THE CONTRACTOR SHALL PROVIDE ALL ITEMS NECESSARY FOR AN INSTALLATION THAT IS COMPLETE IN EVERY RESPECT.

REFER TO STRUCTURAL DRAWINGS FOR SPECIFIC REQUIREMENTS CONCERNING FOR INDICATIONAL STRUCTURAL SUPPORTS AND MOUNTINGS FOR

INSTALL ALL MECHANICAL EQUIPMENT LEVEL, ON PAD, THAT EXTEND A MINIMUM OF 4" BEYOND THE EQUIPMENT FOOTPRINT.

COOLING EQUIPMENT LOCATED WHERE DAMAGE FROM OVERFLOW COULD OCCUR AND ELSEWHERE AS INDICATED, SHALL BE MOUNTED IN SECONDARY CONTAINMENT PANS WITH HIGH WATER ALARM SENSOR TO SHUT DOWN THE EQUIPMENT. THE DRAIN PAN SHALL BE PIPED TO FLOOR DRAIN, TO EXTERIOR OR ELSEWHERE AS

MECHANICAL EQUIPMENT AND SUPPLEMENTAL STEEL.

COLLARS WITH EXTRACTORS AND VOLUME DAMPERS.

APPLICABLE.

SHOWN, MINIMUM SIZE SHALL BE 3/4".

COORDINATE EXACT LOCATIONS AND ORIENTATION OF EQUIPMENT WITH ARCHITECTURAL AND STRUCTURAL REQUIREMENTS. EQUIPMENT SHALL BE SCREENED IN ACCORDANCE WITH LOCAL JURISDICTION REQUIREMENTS AND AS

DUCTWORK FABRICATION AND INSTALLATION SHALL BE IN ACCORDANCE WITH SMACNA STANDARDS.

ALL DUCTWORK SHALL BE SHEET METAL, CONSTRUCTED TO SMACNA STANDARDS, MINIMUM OF 2" WG PRESSURE CLASS AND SEAL CLASS 'C' MINIMUM. ALL LONGITUDINAL AND TRANSVERSE JOINTS TO BE SEALED, EXCEPT AS OTHERWISE NOTED. ROUND AND FLEX DUCT CONNECTIONS SHALL BE MADE WITH SPIN

DUCT SIZES SHOWN ARE CLEAR INSIDE DIMENSIONS. CONTRACTOR SHALL INCLUDE AN ALLOWANCE FOR 1" DUCT LINER IN LOW VELOCITY DUCTS WHERE

SUPPORT ALL SUSPENDED EQUIPMENT, DUCTWORK AND PIPING INDEPENDANTLY, DIRECTLY FROM STRUCTURAL MEMBERS, NOT METAL DECK.

PROVIDE FLEXIBLE FABRIC CONNECTORS AT ALL DUCTWORK CONNECTIONS TO ROTATING EQUIPMENT. CONNECTORS EXPOSED TO SUNLIGHT SHALL BE MADE OF

UV RESISTANT MATERIAL.

ROUND OR OVAL EXPOSED DUCT SHALL BE SPIRAL DUCT, PAINT GRADE IF TO BE PAINTED.

ALL ROOF MOUNTING, FLASHINGS AND PENETRATION WORK ASSOCIATED WITH MECHANICAL AND PLUMBING WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE ROOFING MANUFACTURER'S WARRANTY REQUIREMENTS.

IN GENERAL, KEEP DUCTWORK AND PIPING HIGH AS POSSIBLE. IN NO EVENT SHALL HORIZONTAL WORK BE INSTALLED SO THAT HEADROOM IS LESS THAN 7'-6" ABOVE FINISH FLOOR WITHOUT PRIOR APPROVAL.

ALL MECHANICAL AND PLUMBING EQUIPMENT SHALL BE INSTALLED TO PROVIDE MANUFACTURER'S RECOMMENDED OPERATING AND SERVICE CLEARANCES FOR ALL EQUIPMENT. THE CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS AND DIFFERING CLEARANCE REQUIREMENTS OF ACTUAL EQUIPMENT FURNISHED.

ALL FIXTURES AND EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS AND PER LISTINGS.

IN GENERAL AND EXCEPT AS OTHERWISE NOTED, DUCTWORK AND PIPING SHALL BE INSTALLED PARALLEL TO COLUMN AND BUILDING WALL LINES. THEY SHALL BE

CONCEALED ABOVE CEILINGS, IN CHASES OR WALL CONSTRUCTION OR BELOW FLOORS.

SUPPORT ALL PIPING SYSTEMS IN ACCORDANCE WITH MANUFACTURER REQUIREMENTS AND INDUSTRY STANDARDS TO PREVENT SAGS AND DIPS. PROVIDE STRUTS AND AND PIPE CLAMPS ON 8' CENTERS AND SUPPORT ALL

PIPING RISERS AT BASE OF RISER. THE USE OG RISER CLAMPS TO SUPPORT VERTICAL PIPING IS PROHIBITED.

ALL WATER BEARING PIPING SHALL BE SLOPED FOR DRAINAGE WITH BALL DRAIN VALVES AT LOW POINTS.

SUPPORT ALL SUSPENDED EQUIPMENT, DUCTWORK AND PIPING INDEPENDANTLY, DPROVIDE ACCESS PANELS TO PROVIDE ACCESS TO INACCESSIBLE VALVES,

DAMPERS ANY ANY OTHER EQUIPMENT/DEVICES THAT REQUIRE ADJUSTMENT OR REPLACEMENT.

DRAINAGE PIPING SHALL BE SLOPED IN ACCORDANCE WITH CODE, BUT NOT LESS THAN 1/8" PER FOOT FOR 3" AND LARGER PIPING AND 1/4" PER FOOT FOR 2-1/2" AND SMALLER PIPING. ALL INVERT ELEVATIONS SHALL BE COORDINATED

COORDINATE ALL UNDERGROUND PIPING WITH GRADE BEAMS, WALL FOOTINGS, COLUMN FOUNDATIONS AND OTHER STRUCTURAL CONDITIONS.

PROVIDE DIELECTRIC UNIONS AT ALL CONNECTIONS BETWEEN DISSIMILAR METALS.

TRAP ALL CHILLED CONDENSATE DRAINS AS DETAILED OR AS REQUIRED. PROVIDE A TRAP DEPTH 1" GREATER THAT SYSTEM FAN DEVELOPED STATIC PRESSURE. INSURE AND CERTIFY THAT CONDENSATE DRAINS ARE POSITIVELY SLOPED AT 1"/20" MINIMUM IN DIRECTION OF FLOW.

CAULK AND SEAL ALL DUCT AND PIPING PENETRATIONS OF EXTERIOR OR DEMISING WALLS.

MANUFACTURER'S STANDARD PRE-CHARGED LINE SETS WITH COMPRESSION JOINTS.

ALL REFRIGERANT PIPING SHALL BE SIZED AND WITH ALL ACCESSORIES AS

RECOMMENDED BY THE EQUIPMENT MANUFACTURER.

REFRIGERANT SUCTION LINES TO BE INSULATED WITH 1" UNICELLULAR INSULATION, ALL JOINTS SEALED. INSULATION SHALL BE 25/50 SMOKE AND FIRE

REFRIGERANT PIPING SHALL BE TYPE 'ACR' COPPER WITH BRAZED JOINTS OR

RATED. PAINT ALL EXTERIOR INSULATION WITH UV RESISTANT PAINT.

ABOVE GROUND WASTE AND VENT PIPING SHALL BE SCHEDULE 40 PVC WITH SOLVENT CEMENT JOINTS, EXCEPT USE STANDARD WEIGHT NO-HUB CAST IRON IN AIR PLENUMS. VENT PIPING MAY BE SCHEDULE 40 GALVANIZED STEEL WITH SCREWED JOINTS. PAINT ALL EXTERIOR PIPING WITH UV RESISTANT PAINT.

ABOVE GROUND WATER PIPING SHALL BE TYPE 'L' HARD COPPER WITH LEAD FREE SOLDER JOINTS.

NATURAL GAS PIPING (ABOVE GROUND) SHALL BE SCHEDULE 40 BLACK STEEL WITH THREADED JOINTS. CONNECT USING JOINT COMPOUND SUITABLE FOR NATURAL GAS PIPING. ALL EXPOSED BLACK STEEL NATURAL GAS PIPING SHALL

BE PROTECTED WITH A RUST INHIBITING COATING IN ACCORDANCE WITH THE PLUMBING CODE.

SERVICE VALVES FOR WATER PIPING SYSTEMS UP THRU 2" SHALL BE 1/4 TURN,

150 LB. BALL VALVE WITH BRONZE CHROME PLATED BALL AND TFE SEATS, NIBCO S-585-70.

DOMESTIC WATER PIPING SHALL BE INSULATED WITH 1" FIBERGLASS WITH ALL SERVICE JACKET OR COMPARABLE UNICELLULAR INSULATION WITH SMOKE/FLAME RATING OF 25/50. WHEN INSTALLED WITHIN A CHASE ALONG AN EXTERIOR WALL, THE INSULATION SHALL BE 1-1/2" FIBERGLASS AND THE PIPING SHALL BE LOCATED ON THE INTERIOR SIDE OF THE BUILDING WALL INSULATION.

GAS SERVICE VALVES TO BE LUBRICATED PLUG COCKS, ROCKWELL 142 OR 143. CONNECTIONS TO EQUIPMENT SHALL HAVE SERVICE VALVES, 6" MINIMUM DIRT LEG AND UNION OR AT CONTRACTOR OPTION, UL LISTED APPLIANCE FLEXIBLE CONNECTORS MAY BE USED.

PROVIDE PLUMBING FIXTURES AS SCHEDULED OR SELECTED BY OWNER WITH ALL REQUIRED TRIM AND ACCESSORIES FOR A COMPLETE WORKING AND CODE COMPLIANT INSTALLATION. PROVIDE STOP VALVES AND WATER HAMMER ARRESTORS, SIZED AS INDICATED OR PER MANUFACTURER FOR EACH FIXTURE OR EACH GROUP OF FIXTURES. REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATION OF THE FIXTURES.

MEET ALL REQUIREMENTS OF THE ADA FOR ALL FIXTURES REQUIRED TO BE HANDICAP ACCESSIBLE. INSULATE PIPING BENEATH HANDICAP FIXTURES PER ADA, HANDI-LAV-GARD SYSTEM OR EQUIVALENT.

ALL POWER WIRING SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. DISCONNECT SWITCHES AND MOTOR STARTERS SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR, EXCEPT WHERE SPECIFICALLY INDICATED TO BE FURNISHED BY THE MECHANICAL CONTRACTOR. COORDINATE REQUIRED POWER FOR EQUIPMENT WITH THE ELECTRICAL CONTRACTOR.

ALL CONTROL DEVICES AND INTERLOCK WIRING SHALL THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR. CONTRACTOR SHALL FURNISH LOCKING GUARDS FOR DEVICES WHERE INDICATED AND WHERE REQUIRED TO PROTECT THEM FROM PHYSICAL DAMAGE. PROVIDE INSULATED SUBBASES WHERE SENSORS ARE INSTALLED ON 'COLD' OR EXTERIOR WALLS. MOUNT CONTROL DEVICES SUCH AS THERMOSTATS AND SENSORS AT 46" AFF.

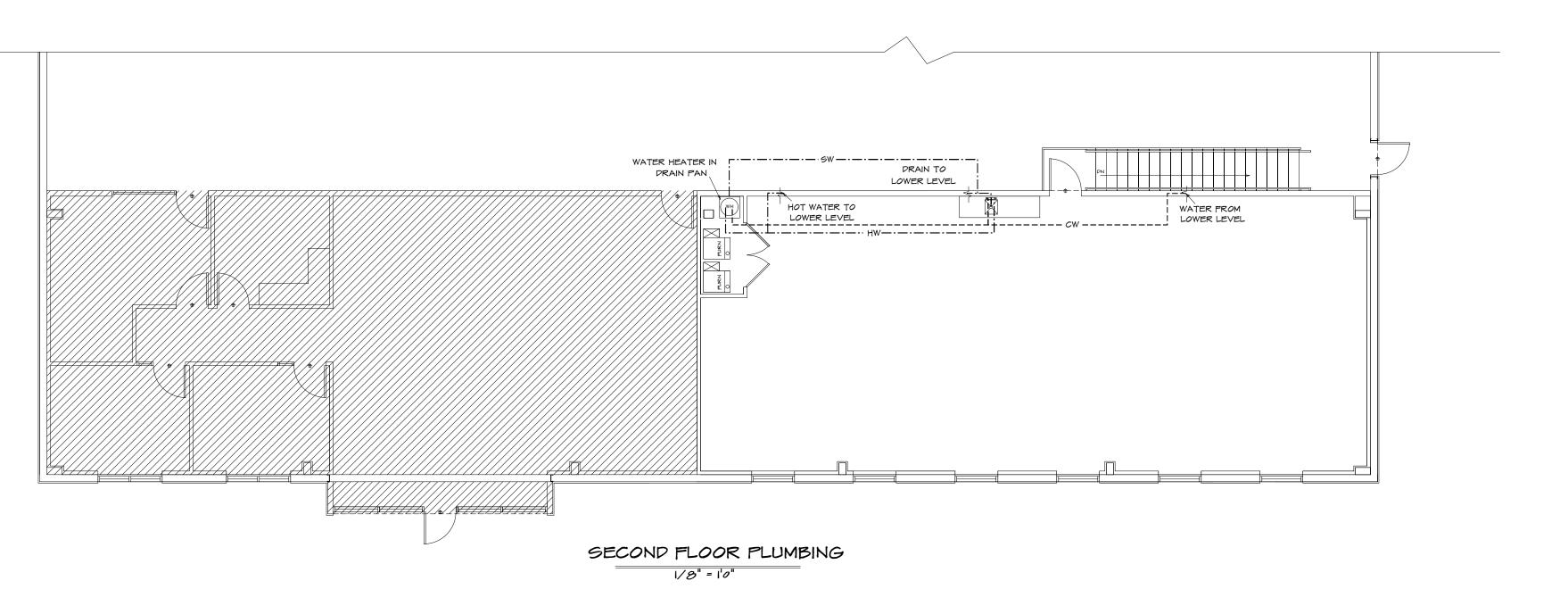
CONTRACTOR SHALL BE RESPONSIBLE FOR EQUIPMENT HANDLING AND TRANSPORT FOR ITEMS HE FURNISHES AND/OR INSTALLS. HE SHALL BE RESPONSIBLE FOR PROVIDING FOR ACCESS INTO SPACES WHERE WORK IS TO OCCUR.

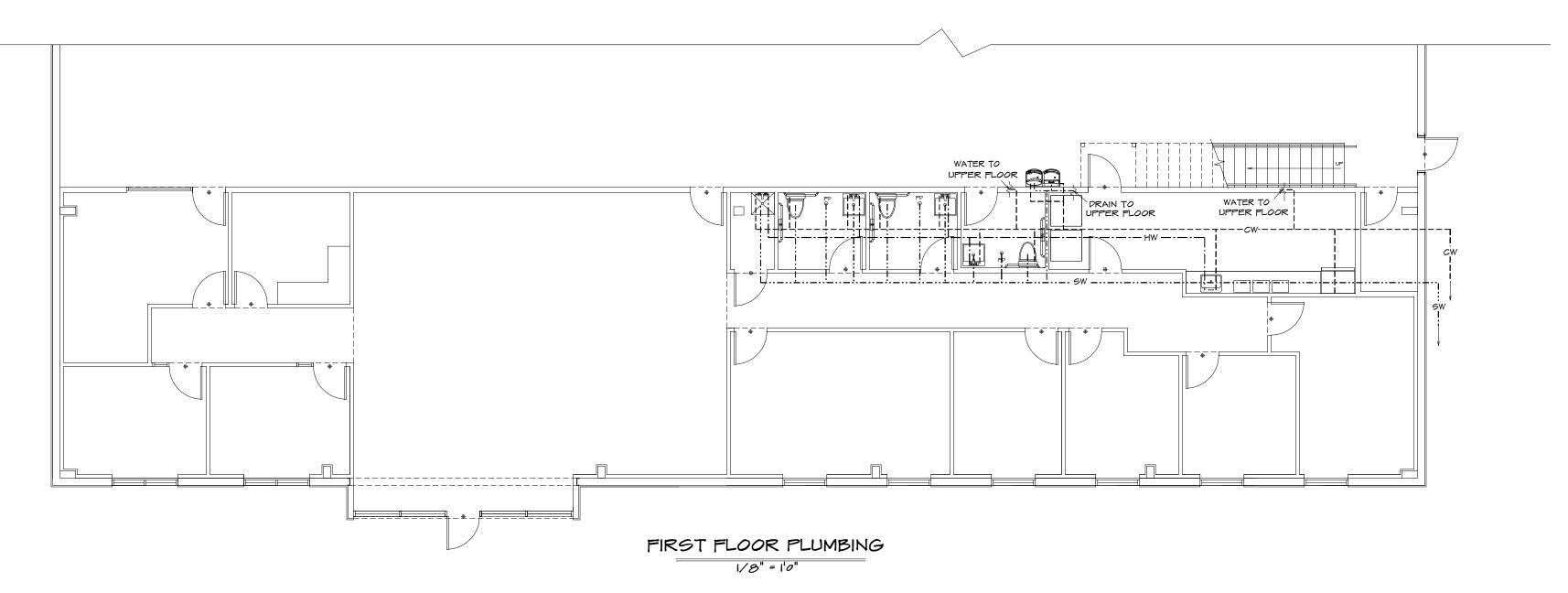
CONTRACTOR SHALL BE RESPONSIBLE FOR CUTTING, PATCHING, FLASHING AND REPAIR OF ROOFS, BUILDING STRUCTURE, COMPONENTS AND FINISHES ASSOCIATED WITH HIS WORK.

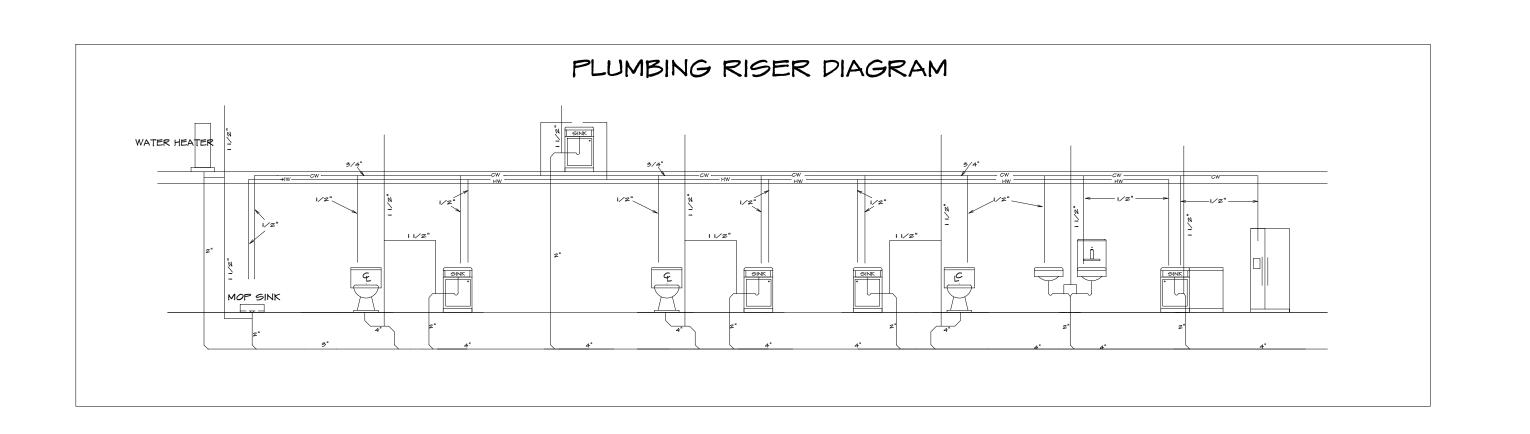
CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGES ASSOCIATED WITH CONSTRUCTION ACTIVITY. HE SHALL RESTORE REPAIRED OR REMODELED AREAS TO EXISTING CONDITIONS AND NEW CONSTRUCTION AREAS TO NEW CONDITION. ALL REPAIRS SHALL BE IN ACCORDANCE WITH THE APPLICABLE ARCHITECTURAL AND STRUCTURAL PROVISIONS. TO THE GREATEST EXTENT POSIBLE, EXISTING BUILDING MATERIALS SHALL NOT BE DISTURBED.

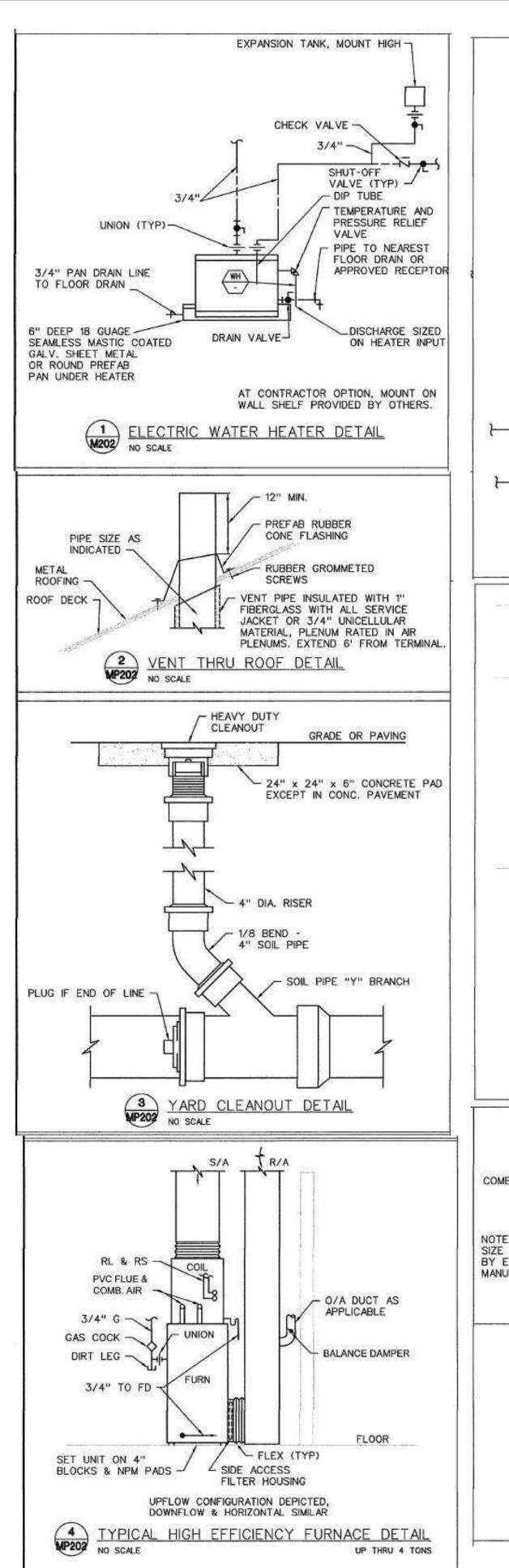
TEST AND CLEAN PIPING SYSTEMS PER INDUSTRY STANDARDS. PRESSURE TEST OF PRESSURE PIPING SHALL BE AT 1-1/2 TIMES THE ANTICIPATED OPERATING PRESSURE, BUT NOT LESS THAN 50 PSIG FOR 2 HOURS. NON-PRESSURIZED SYSTEMS SHALL BE TESTED WITH 10' WATER COLUMN ABOVE NORMAL OPERATING CONDITIONS OR 5 PSI FOR 2 HOURS. THERE SHALL BE NO MEASURABLE DROP DURING THE TEST PERIOD.

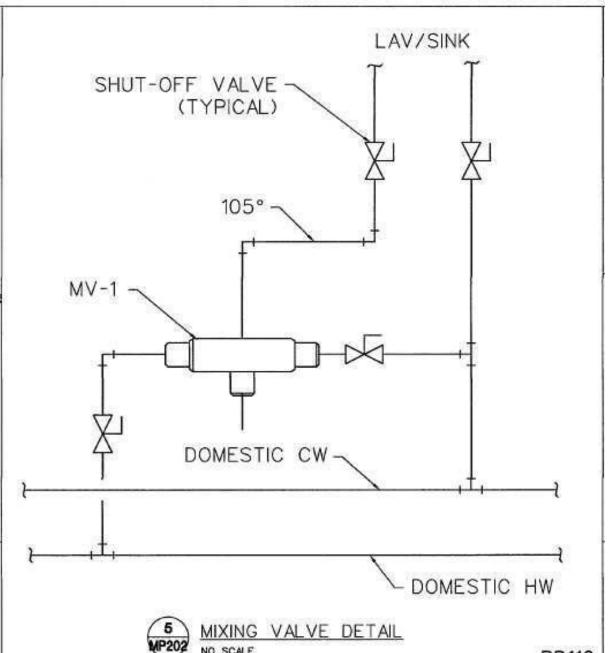
SUILDER&CONTRACTOR IS RESPONSIBLE TO CHECK ALL DIMENSIONS FOR ACCURY SETWEEN PLOORS, FOUNDATION, AND ELEVATIONS. ALSO VERIFY ALL BEAM, HEADER PAD LOCATIONS, AND COLUMN SIZES. BUILDER&CONTRACTOR TO CHECK FOR COMPLIANCE WITH CONTRACTS, CITY, AND NATIONAL COPES, BUILDER&CONTRACT; ACCEPTS ALL RESPONSIBLITY FOR LOT PLACEMENT, SET-BACKS, AND FLOOD PLYSUILDER&CONTRACTOR AND HOME OWNER ACCEPTS RESPONSIBLITY FOR ANY AND COPYRIGHTED PLANS.

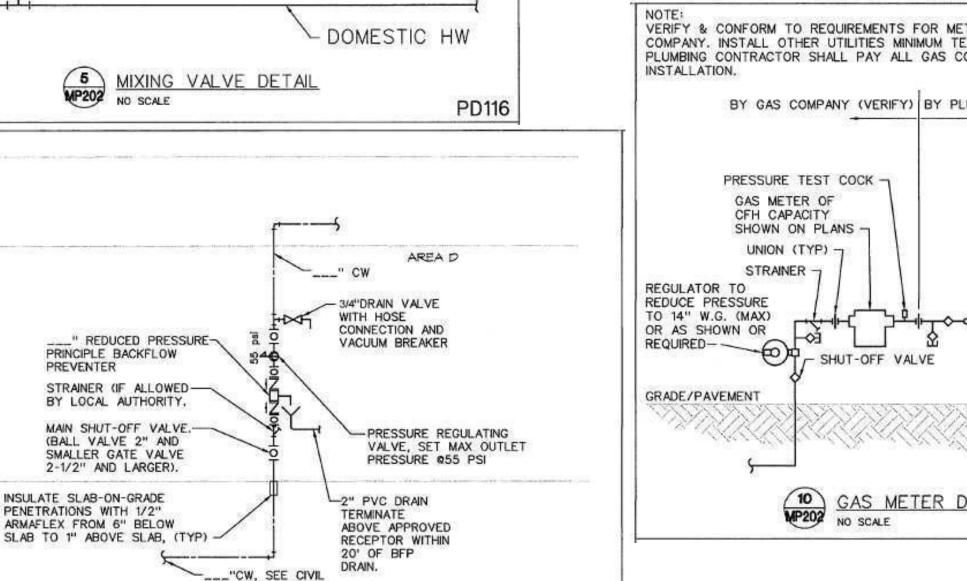


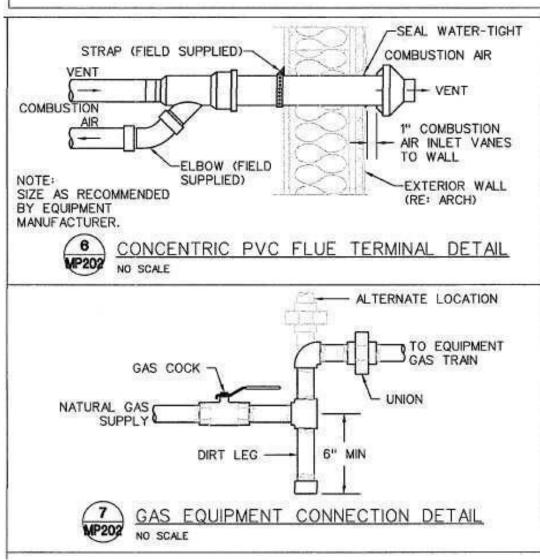






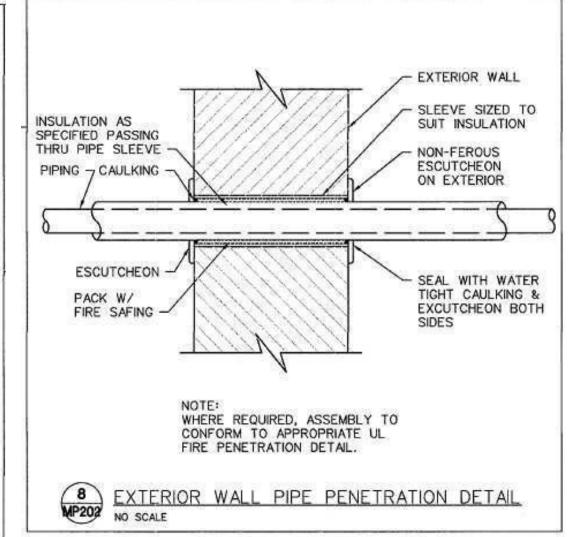


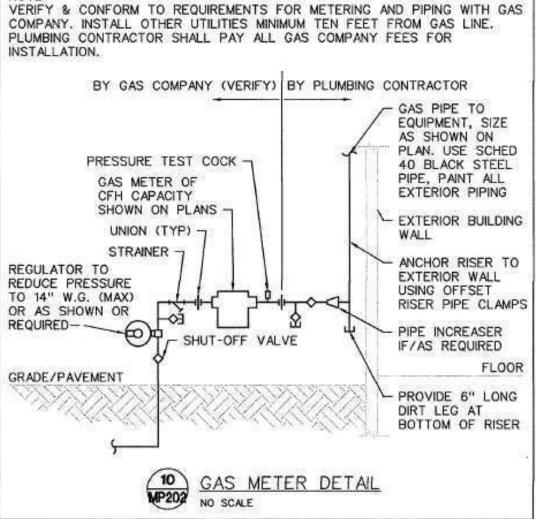




9 DOMESTIC WATER SERVICE ENTRANCE

FOR CONTINUATION





MANUFACTURER SUPPLIED

INSTRUCTIONS.

DISCHARGE CONDENSATE DRAIN

TO AN APPROVED RECEPTOR

UNIT

GAS FIRED UNIT HEATER
NO SCALE

HEATER

ROOF

NO PIPING BELOW CASING

NEW PVC VENT

GAS COCK -

NG PIPING -

6" DIRT LEG REQUIRED

CONCENTRIC TERMINATION KIT

INSTALL PER MANUFACTURERS

ATTACH HANGERS TO

VIBRATION ISOLATERS

DIRECTIONAL LOUVERS

AIR FLOW

STRUCTURAL MEMBERS

605.3 Water service pipe.

Water service pipe shall conform to NSF 61 and shall conform to one of the standards listed in Table 605.3. Water service pipe or tubing, installed underground and outside of the structure, shall have a working pressure rating of not less than 160 psi (1100 kPa) at 73.4°F (23°C). Where the water pressure exceeds 160 psi (1100 kPa), piping material shall have a working pressure rating not less than the highest available pressure. Water service piping materials not third-party certified for water distribution shall terminate at or before the full open valve located at the entrance to the structure. Ductile iron water service piping shall be cement mortar lined in accordance with AWWA C104

MARK MANUFACTURER MODEL		AND EACTORED MODEL TORE	TVDE	OF YOUR	TANK	STORAGE		OVERY TEMP RISE	DISCH. SET	ELECTRICAL				REMARKS
MARK NO. MANUFAC	MANOFACTORER	NO.	TYPE	ASME	LINING	(GALLONS)	GAL/HR	*F	POINT *F	KW	VOLT	Ø	HZ	REMERNS
1	LOCHINVAR	KSA030KD	TANK	N	GL	28	# #6		120	4.5	208	78	60	1

TABLE 605.3

MATERIAL	STANDARD
vionitrile butadiene styrene (ABS) plastic pipe	ASTM D 1527; ASTM D 2282
ss pipe	ASTM B 43
prinated polyvinyl chloride (CPVC) plastic pipe	ASTM D 2846; ASTM F 441; ASTM F 442; CSA B137.6
orinated polyvinyl chloride/aluminum/chlorinated polyvinyl oride VC/AL/CPVC)	ASTM F 2855
per or copper-alloy pipe	ASTM B 42; ASTM B 302
per or copper-alloy tubing (Type K, WK, L, WL, M or WM)	ASTM B 75, ASTM B 88, ASTM B 251, ASTM B 447
ss-linked polyethylene (PEX) plastic pipe and tubing	ASTM F 876; ASTM F 877; AWWA C904; CSA B137.5
ss-linked polyethylene/aluminum/cross-linked polyethylene X-AL- () pipe	ASTM F 1281; ASTM F 2262; CSA B137.10
ss-linked polyethylene/aluminum/high-density polyethylene X-AL-HDPE)	ASTM F 1986
tile iron water pipe	AWWA C151/A21.51, AWWA C115/A21.15
vanized steel pipe	ASTM A 53
rethylene (PE) plastic pipe	ASTM D 2239; ASTM D 3035; AWWA C901; CSA B137.11
rethylene (PE) plastic tubing	ASTM D 2737; AWWA C901; CSA B137.1
rethylene/aluminum/polethylene (PE-AL-PE) pipe	ASTM F 1282; CSA B137.9
vethylene of raised temperature (PE-RT) plastic tubing	ASTM F 2769
propylene (PP) plastic pipe or tubing	ASTM F 2389; CSA B137.11
rvinyl chloride (PVC) plastic pipe	ASTM D 1785; ASTM D 2241; ASTM D 2672; CSA B137.3
nless steel pipe (Type 304/304L)	ASTM A 312; ASTM A 778
nless steel pipe (Type 316/316L)	ASTM A 312; ASTM A 778

FIXTURE	WASTE	VENT	COLD	HOT
Water Closet (ft)	4"	2"	1/2"	
Water Closet (fv)	4"	2"	1"	-
Urinal	2"	1 1/2"	3/4"	92005
Lavatory	1 1/2"	1 1/2"	1/2"	1/2"
Sink	2"	1 1/2"	1/2"	1/2"
Triple Sink	2"	1 1/2"	(2) ½"	(2) 1/2
Shower, Tub	2"	1 1/2"	1/2"	1/2"
Water Fountain	1 1/2"	1 1/2"	1/2"	-
Janitor Sink (flr)	3"	2"	3/4"	3/4"
Janitor Sink (wall)	2"	1 1/2"	1/2"	1/2"
Floor Drain	2"	1 1/2"		
Floor Sink	3"	2"	16 7117131	-
Egpt Floor Drain	3"	2"	3007557555	3
Hub Drain	2"	1 1/2"	18-71-63	
Dishwasher	2"	1 1/2"	File Control	1/2"
Washer Box	2"	1 1/2"	1/2"	1/2"
Ice Maker	2222		1/2"	
FPWH, HB		-	3/4"	19-300-0-

grade shall be 2". 2. Size as shown on drawings and diagrams,

but not less than listed.

PLUMBING FIXTURE SCHEDULE

- 1. INSTALL PLUMBING FIXTURES AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. VERIFY ROUGH-IN REQUIREMENTS WITH MANUFACTURER'S DRAWINGS AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE WATER-CONSERVING FIXTURES AND APPURTENANCES IF/AS REQUIRED BY LOCAL AUTHORITIES. CONFIRM ALL LOCATION AND MOUNTING HEIGHTS WITH ARCHITECTURAL DRAWINGS AND/OR SPECIFICATIONS. CAULK FIXTURES TO WALL/FLOOR. SET COUNTER MOUNTED SINKS AND LAVATORIES IN A BED OF CAULK. THE SPECIFIED PLUMBING FIXTURES, OR APPROVED EQUALS, SHALL BE USED UNLESS OTHERWISE NOTED OR INDICATED
- 2. WATER CLOSET, TOTO #CSC744SL.01, FLOOR MOUNTED, CONSTRUCTED OF VITREOUS CHINA, MEETING ANSI A-117.1 AND ADA BARRIER-FREE REQUIREMENTS, 17" HIGH, 1.6-GALLON FLUSH, CLOSE-COUPLED TANK DESIGN WITH ELONGATED BOWL AND SIPHON JET ACTION. TANK SHALL BE VITREOUS CHINA WITH COVER, 3/8" FLEXIBLE RISER WITH LOOSE KEY ANGLE STOP VALVE, CHROME-PLATED BRASS TRIP LEVER AND MANUFACTURER'S BOLT CAPS. PROVIDE BENKE #527 WHITE ELONGATED OPEN FRONT SEAT LESS COVER, PERMA BUMPER.
- 3. LAVATORY, TOTO #LT307.4 (20"X18"), WALL-HUNG TYPE, CONSTRUCTED OF VITREOUS CHINA, MEETING ANSI A-117.1 AND ADA BARRIER-FREE REQUIREMENTS, LAVATORY SHALL HAVE 4-INCH FAUCET CENTERS AND DRILLED FOR CONCEALED ARM CARRIER. PROVIDE 3/8-INCH FLEXIBLE RISER W/ANGLE SUPPLIES WITH LOOSE KEYY STOPS, 1-1/4-INCH INLET 1-1/2-INCH OUTLET CHROME PLATED CAST BRASS "P" TRAP W/CLEANOUT PLUG AND ESCUTCHEON W/SET SCREW. PROVIDE DELTA #523-WFOGHDF HEAVEY DUTY SINGLE LEVER FAUCET, 4-INCH CENTERS, VANDAL-RESISTANT 2.2 GPM AERATOR, PERFORATED OFFSET GRID DRAIN (W. 1-1/4" TAILPIPE) AND VANDAL-RESISTANT SINGLE LEVER HANDLE, PROVIDE WITH J.R. SMITH CARRIER (TO MATCH WALL TYPE). MOUNT AT ADA HEIGHT AND MAINTAIN CLEARANCES UNDER LAVATORY AS REQUIRED BY ADA REGULATIONS. INSULATE WASTE AND HOT WATER SUPPLY UNDER LAVATORY WITH UNDERSINK PROTECTIVE PIPE COVER, MOLDED, ANTIMICROBIAL, WITH FLUSH REUSABLE FASTENERS, TRUEBRO LAV GUARD.
- 4. ALL FIXTURES USED SPECIFICALLY FOR HANDWASHING PURPOSES (LAVATORIES, HAND SINKS, ECT.) SHALL BE PROVIDED WITH A TEMPERING VALVE TO TEMPER THE HOT WATER TO THE FIXTURE (MAXIMUM OF 105-DEGREES F).
- 5. ALL SINKS AND ASSOCIATEDFAUCETS ARE PROVIDED BY THE KEG. PC TO PROVIDE BASKET STRAINER DRAIN, TAILPIPE, 3/8-INCH FLEXIBLE RISER W/ANGLE SUPPLIES WITH LOOSE KEYY STOPS, 1-1/4-INCH INLET 1-1/2-INCH OUTLET CHROME PLATED CAST BRASS "P" TRAP W/CLEANOUT PLUG AND ESCUTCHEON W/SET SCREW. PC TO PROVIDE OWNER FAUCETS (DELTA OR EQUAL) TO GO ALONG WITH FIXTURES PROVIDED BY THE KEC UNLESS OTHERWISE NOTED.
- 6. ELECTRIC WATER COOLER, BI-LEVEL BARRRIER FREE WITH STAINLESS STEEL TOP WITH SATIN FINISH, GRANITE POWDER COAT FINISH ON GALVANIZED STEEL CABINET, FRONT AND SIDE TOUCHPAD OPERATORS, FLEX GUARD BUBBLER, 8 GPH @ 90 DEGREES F AMBIENT. PROVIDE 3/8-INCH FLEXIBLE RISER W/ANGLE SUPPLIES WITH LOOSE KEY STOP, AND 1-1/4-INCH INLET 1-1/2-INCH OUTLET CHROME-PLATED CAST BRASS "P" TRAP W/CLEANOUT PLUG AND ESCUTCHEON W/SET SCREW. MOUNT PER MANUFACTURER'S INSTRUCTIONS AND AS SHOWN ON THE ARCHITECTURAL **PLANS**

PLAN

