

- GENERAL MECHANICAL NOTES
1. THE CONTRACTOR SHALL PAY ALL COSTS OF PERMIT, INSPECTIONS AND ALL OTHER COSTS INCIDENTAL TO THE COMPLETION AND TESTING OF THIS WORK.

2. THE CONTRACTOR SHALL VISIT THE SITE AND COORDINATE WORK WITH OTHER TRADES. TO INSURE AN ORDERLY PROGRESS OF THIS WORK.

3. THE CONTRACTOR SHALL SUPPLY THE OWNER WITH ONE SET OF "AS-BUILT" DRAWINGS UPON COMPLETION OF THIS PROJECT. CONTRACTOR SHALL ALSO LEAVE FOR ONE AT LEAST ONE SET OF THE MANUFACTURER'S INSTALLATION AND OPERATIONS MANUALS FOR ALL EQUIPMENT PROVIDED ON THE PROJECT.

4. ALL PROVIDED MATERIALS SHALL BE NEW OF GOOD QUALITY. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER BY SKILLED WORKMAN.

5. CONTRACTOR SHALL SUBMIT, FOR APPROVAL FIVE (5) COPIES OF MANUFACTURER'S DRAWINGS FOR EACH PIECE OF EQUIPMENT AND CONTROLS INCLUDED IN CONTRACT. IT IS STRONGLY PREFERRED THAT THE SUBMITTALS BE MADE IN THE FORM OF AN ELECTRONIC SUBMITTAL IN A PDF TYPE FORMAT.

6. ALL EXHAUST DUCTS AND OUTSIDE AIR DUCTS SHALL BE GALVANIZED SHEET METAL WITH SEALED SEAMS AND JOINTS.

7. DUCT SIZES SHOWN ARE INSIDE DIMENSIONS.

8. REFRIGERANT LINES SHALL BE COPPER, TYPE "L" HARD DRAWN WITH WROUGHT COPPER SOLDER-JOINT TYPE FITTINGS, USE 95/5 SOLDER. REFRIGERANT LINES SHALL SIZED AS PER MANUFACTURER RECOMMENDATIONS.

9. SPLIT SYSTEMS (IF APPLICABLE) SHALL HAVE A MINIMUM OF 1-1/2" ARMAFLEX INSULATION (OR APPROVED EQUAL) USED FOR SUCTION LINES. INSTALLATION SHALL BE AS PER MANUFACTURERS INSTRUCTIONS. PRE-INSULATED LINES SETS ARE ACCEPTABLE.

10. ALL BRANCH TAKE-OFFS TO BE PROVIDED W/MANUAL VOLUME DAMPERS AND TAPS AS PER PLANS REQUIREMENTS.

11. MECHANICAL PLANS IN GENERAL, ARE DIAGRAMMATIC IN NATURE, AND ARE TO BE READ IN CONJUNCTION WITH ARCH, PLUMBING, ELECTRICAL AND STRUCTURAL PLANS AND SHALL BE CONSIDERED AS ONE SET OF DOCUMENTS. DUCT AND PIPING OFFSETS, BENDS AND TRANSITIONS WILL BE REQUIRED TO PROVIDE AND INSTALL A COMPLETE FUNCTIONAL SYSTEM AND SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

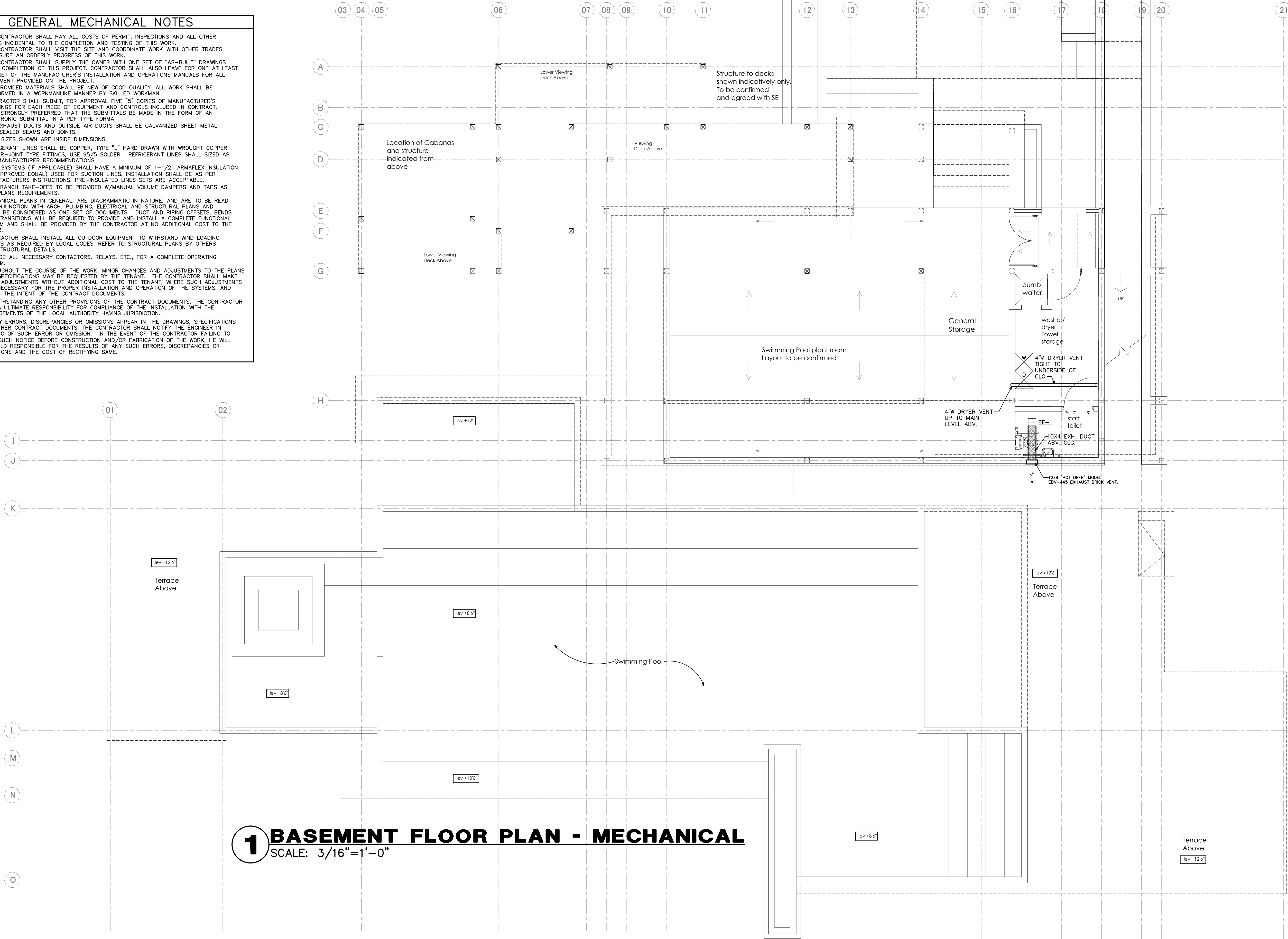
12. CONTRACTOR SHALL INSTALL ALL OUTDOOR EQUIPMENT TO WITHSTAND WIND LOADING FORCES AS REQUIRED BY LOCAL CODES. REFER TO STRUCTURAL PLANS BY OTHERS FOR STRUCTURAL DETAILS.

13. PROVIDE ALL NECESSARY CONTACTORS, RELAYS, ETC., FOR A COMPLETE OPERATING SYSTEM.

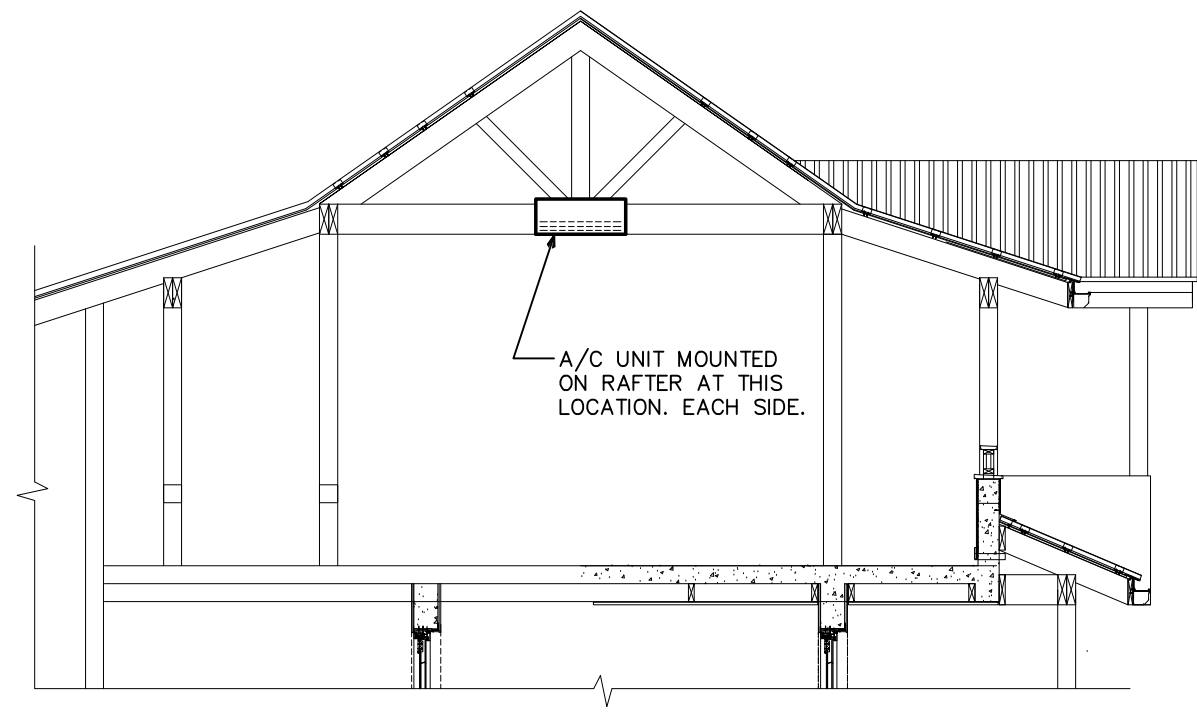
14. THROUGHOUT THE COURSE OF THE WORK, MINOR CHANGES AND ADJUSTMENTS TO THE PLANS AND SPECIFICATIONS MAY BE REQUESTED BY THE TENANT. THE CONTRACTOR SHALL MAKE SUCH ADJUSTMENTS WITHOUT ADDITIONAL COST TO THE TENANT, WHERE SUCH ADJUSTMENTS ARE NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF THE SYSTEMS, AND WITHIN THE INTENT OF THE CONTRACT DOCUMENTS.

15. NOTWITHSTANDING ANY OTHER PROVISIONS OF THE CONTRACT DOCUMENTS, THE CONTRACTOR BEARS ULTIMATE RESPONSIBILITY FOR COMPLIANCE OF THE INSTALLATION WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION.

16. IF ANY ERRORS, DISCREPANCIES OR OMISSIONS APPEAR IN THE DRAWINGS, SPECIFICATIONS OR OTHER CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF SUCH ERROR OR OMISSION. IN THE EVENT OF THE CONTRACTOR FAILING TO GIVE SUCH NOTICE BEFORE CONSTRUCTION AND/OR FABRICATION OF THE WORK, HE WILL BE HELD RESPONSIBLE FOR THE RESULTS OF ANY SUCH ERRORS, DISCREPANCIES OR OMISSIONS AND THE COST OF RECTIFYING SAME.

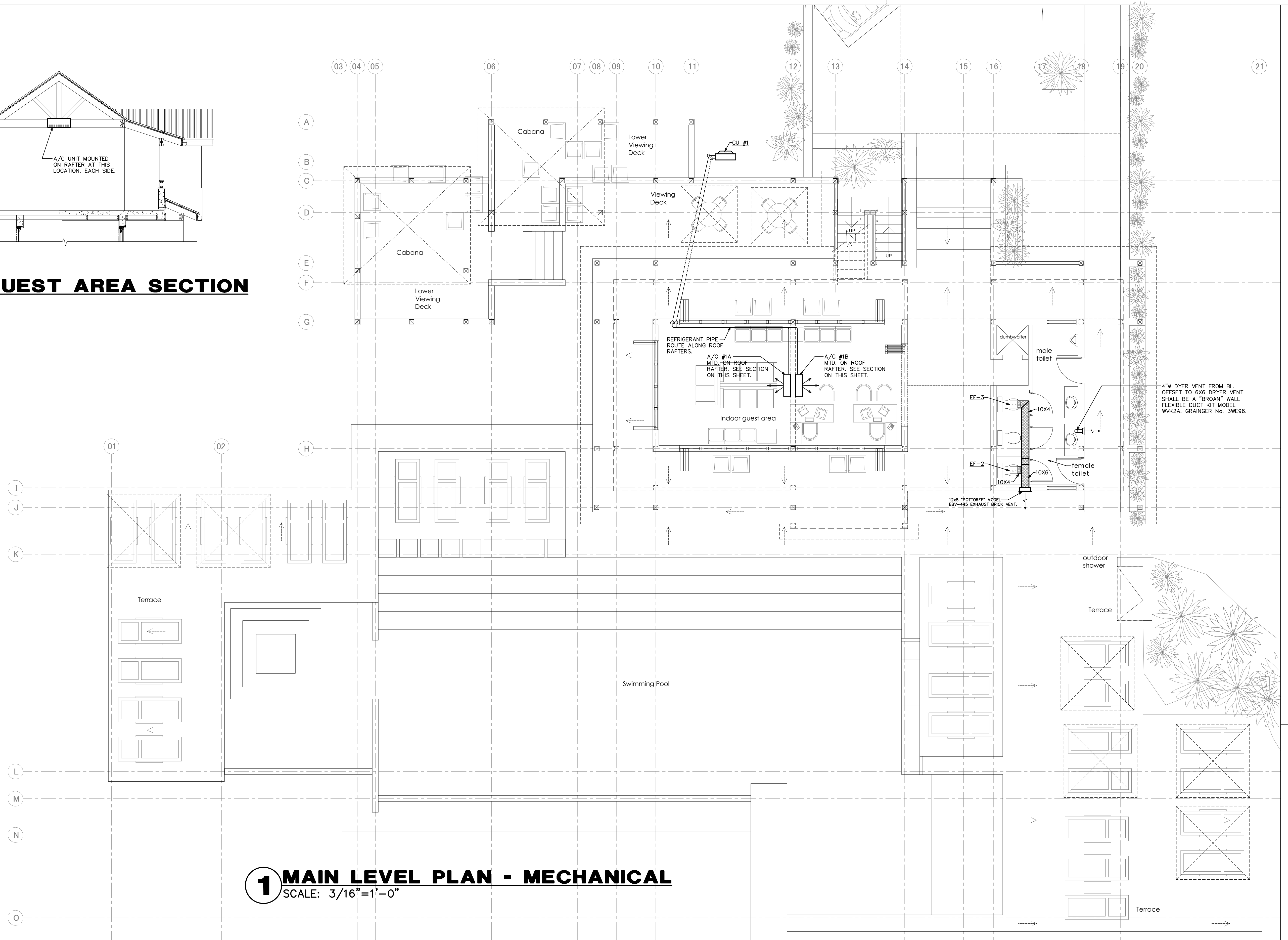


FAN SCHEDULE										
LABEL	TYPE OF UNIT – AREA SERVED	MANUFACTURER & MODEL NO.	CFM	SP	MOUNTING ARRANGEMENT	MOTOR H.P.	ENCLOSURE TYPE	RPM	VOLTAGE	NOTES
EF-1	CABINET FAN – REFER TO PLANS	PENN ZEPHYR Z6	90	.125"	CEILING MOUNTED	50 WATTS	OPEN DRIP PROOF	1055	115V/1ø	1
NOTES: 1.) REFER TO ELECTRICAL PLANS FOR CONTROL.										



2 INDOOR GUEST AREA SECTION

NO SCALE



1 MAIN LEVEL PLAN - MECHANICAL

SCALE: 3/16"=1'-0"

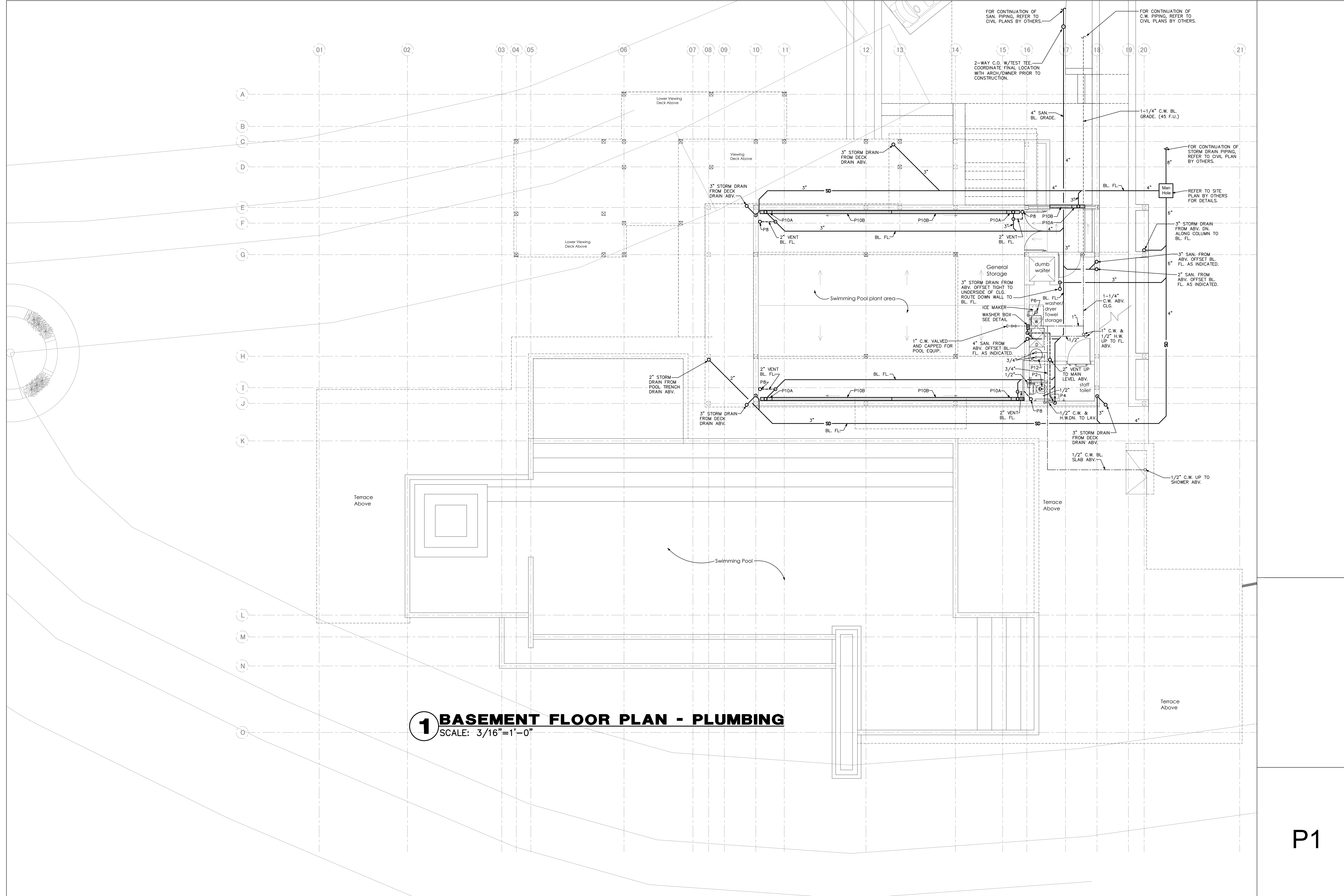
AIR COOLED AIR CONDITIONING UNIT SCHEDULE															
CONDENSING UNIT								INDOOR UNIT							
CU LABEL(S)	MANUFACTURER & MODEL NO.	TOTAL CAPACITY COOLING	TOTAL CAPACITY HEATING	VOLTAGE	MOCP	SEER	WEIGHT	AHU LABEL(S)	MANUFACTURER & MODEL NO.	TOTAL CFM	FAN FLA	BLOWER SPEED	VOLTAGE	WEIGHT	NOTES
CU #1	MITSUBISHI MXZ-4C36NA2	35,400	-	240V/1ø	25A	19.2	139 lbs.	A/C #1A	MITSUBISHI MSZ-GL15NA-U1	205-533	0.76	5-SPEED	240V/1ø	22 lbs.	1,2,3
								A/C #2A	MITSUBISHI MSZ-GL15NA-U1	205-533	0.76	5-SPEED	240V/1ø	22 lbs.	1,2,3

SPECIFIC NOTES:

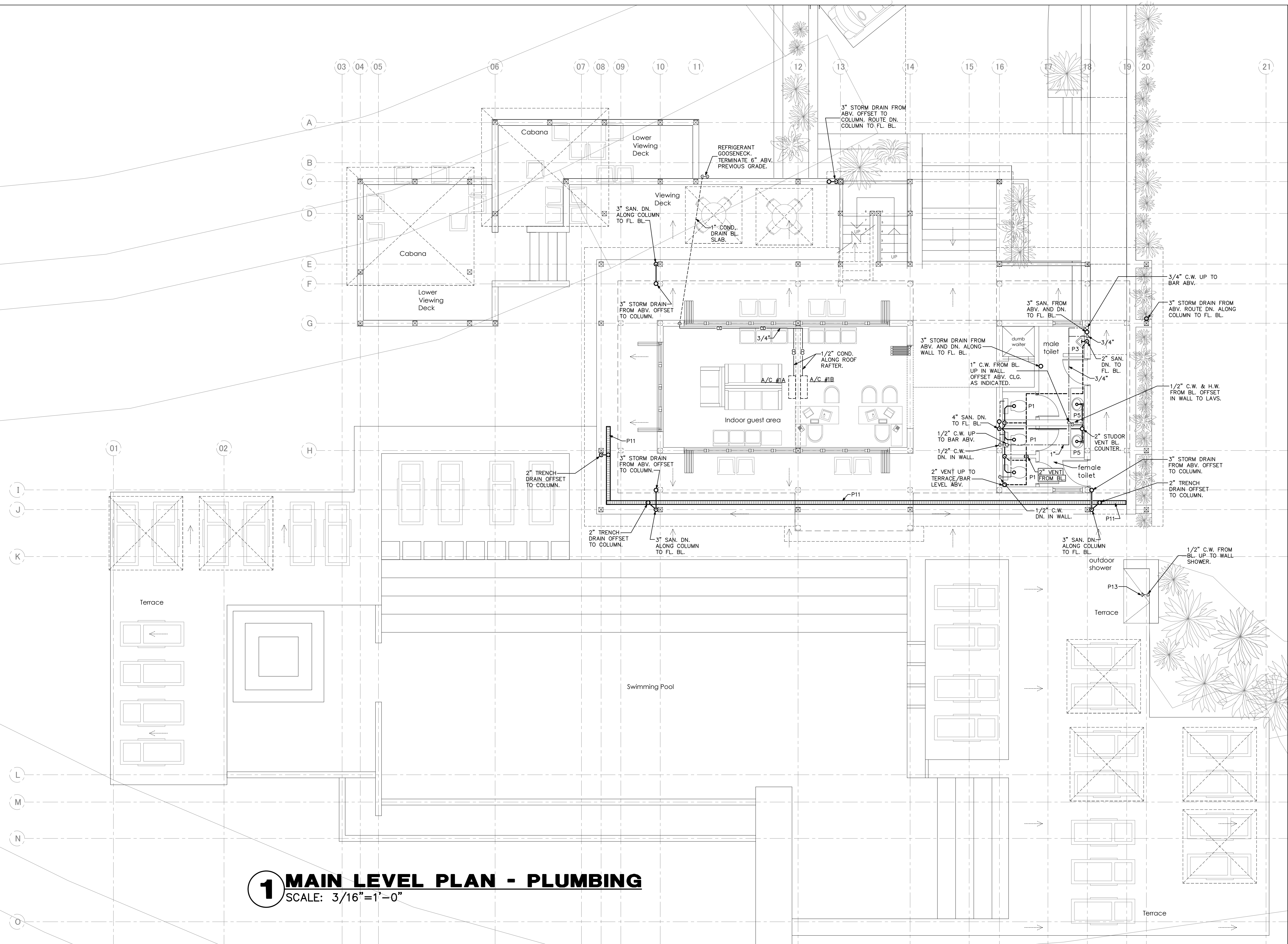
- 1) SIZE AND RUN REFRIGERANT PIPING AS PER MANUFACTURERS PUBLISHED RECOMMENDATIONS.
- 2) INSULATE REFRIGERANT SUCTION LINE WITH 3/4" ARMAFLEX OR APPROVED EQUAL.
- 3) POWER SUPPLY IS TO OUTDOOR UNIT. INTERCONNECTING WIRING FROM OUTDOOR UNIT TO INDOOR UNIT. REFER TO ELECTRICAL PLANS FOR CONTROL.

OUTDOOR UNIT PRODUCT INFO:
<https://goo.gl/tAmhik>

INDOOR UNIT PRODUCT INFO:
<https://goo.gl/mgkxd2>



1 BASEMENT FLOOR PLAN - PLUMBING
SCALE: 3/16"=1'-0"



1 MAIN LEVEL PLAN - PLUMBING
SCALE: 3/16"=1'-0"

PLUMBING FIXTURE SCHEDULE

P-1 (FLOOR MOUNTED FLUSH TANK WATER CLOSET)
SHALL BE AN AMERICAN STANDARD MODEL 270CA.01 CADET 3 ELONGATED 1.6 GPF TOILET,
VITREOUS CHINA, CADET FLUSHING SYSTEM, TANK TYPE, FLOOR MOUNTED, FLOOR OUTLET,
WITH AMERICAN STANDARD OPEN FRONT SEAT WITH COVER MODEL 5325.024.
* http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_6119.pdf

P-2 (HANDICAPPED FLOOR MOUNTED FLUSH TANK WATER CLOSET)
SHALL BE AN AMERICAN STANDARD MODEL 270AA.001 CADET 3 RIGHT HEIGHT ELONGATED 1.6
GPF TOILET, VITREOUS CHINA, CADET FLUSHING SYSTEM, TANK TYPE, FLOOR MOUNTED, FLOOR
OUTLET, WITH AMERICAN STANDARD FRONT SEAT WITH COVER MODEL 5325.024.
* http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_6117.pdf

P-3 (HANDICAPPED URINAL AND FLUSH VALVE)
SHALL BE AN AMERICAN STANDARD WASHBROOK MODEL 6501.511 3/4" TOP SPUD. 1.0 GPF.
URINAL INCLUDES AMERICAN STANDARD MANUAL FLUSH VALVE MODEL 6045.102 FOR 3/4"
TOP SPUD URINAL.

- * http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_4875.pdf
- * http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_4085.pdf

P-4 (HANDICAPPED WALL HUNG LAVATORY)
 SHALL BE AN AMERICAN STANDARD MISSOURI LAVATORY MODEL 0436.004US, VITREOUS CHINA, WALL MOUNT WITH **CONCEALED ARMS SUPPORT**, PROVIDE AN AMERICAN STANDARD MONTEREY MODEL 6531.700 CENTERSET FAUCET WITH 4" WHISTLE BLADE HANDLES, WATER PIPING AND P-TRAP SHALL BE COVERED WITH AN UNDERSINK PROTECTIVE PIPE COVER KIT BY TRUEBORG (<http://www.trueborg.com>) OR APPROVED EQUAL.

* http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_4486.pdf
 * http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_4246.pdf

P-5 (COUNTER TOP LAVATORY)
SHALL BE AN AMERICAN STANDARD MODEL CADET MODEL 0419.888 VITREOUS CHINA
SELF-RIMMING. FAUCET SHALL BE AN AMERICAN STANDARD HERITAGE MODEL 7831.000
W/NO-N-HANDICAPPED HANDLES MODEL 352H.

* http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_95.pdf
* http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_1313.pdf

P-6 (FLOOR DRAIN WITH TRAP PRIMER)
SHALL BE A JOSAM 30003-A-50 SERIES COATED CAST IRON FLOOR DRAIN WITH 1/2" TRAP PRIMER, 3" PIPE CONNECTION, 6" DRAIN TOP, STRAINER TYPE 6A, TWO-PIECE BODY WITH DOUBLE DRAINAGE FLANGE, WEJLOC INVERTIBLE NON-PUNCTURING FLASHING COLLAR, WEEPHOLES, BOTTOM OUTLET AND ADJUSTABLE SATIN NIKALOY ROUND SUPER-FLO STRAINER
* <http://www.josam.com/p/coast-iron-adjustable-round-top-floor-drain/30000-A>

P-7 (FLOOR SINK W/SEDIMENT BUCKET)
SHALL BE A JOSAM 49340A-3-31 SERIES SQUARE CAST IRON 8" DEEP SUPER-FLO-SEPTOR FLOOR SINK WITH PORC-COATED INTERIOR, DOUBLE DRAINAGE FLANGE WITH WEEPHOLES, BOTTOM OUTLET, ALUMINUM INTERNAL DOME STRAINER, AND CAST IRON, NON-TRAFFIC, PORC-COATED, ANTI-TILTING GRATE. WITH HALF GRATE AND ALUMINUM SEDIMENT BUCKET.
* <http://www.josam.com/catalog/JOS/pl=FS/49340A>

P-8 (2" STUDOR VENT - AIR ADMITTANCE VALVE)
SHALL BE A IPS CORPORATION "STUDOR MINI-VENT". 2" VENT.
* <http://www.ipscorp.com/plumbing/studor/minivent>

P-9 (HOSE BIBB - NARROW WALL HYDRANT - MODERATE CLIMATE)
SHALL BE A RUSTED 21/30 ENCASED MODERATE CLIMATE WALL HYDRANT FOR NARROW WALL INSTALLATION. COMPLETE WITH BRONZE BODY, ALL BRONZE INTERIOR PARTS, REPLACEABLE SEAT WASHER, SCREWDRIVER OPERATED STOP VALVE IN SUPPLY, KEY OPERATED CONTROL VALVE, AND 3/4" I.D. FEMALE INLET AND 3/4" MALE HOSE CONNECTION STANDARD. STAINLESS STEEL BOX AND HINGED COVER WITH CYLINDER LOCK AND "WATER" STAMPED ON COVER.
*NOTE: CALCULATING OF INSIDE JOINTS BY OTHERS.
* http://content.zurn.com/web_documents/pdfs/specsheets/58877.pdf

P-10A (TRENCH DRAIN CATCH BASIN)
SHALL BE A "ZURN" MODEL Z887-6-HD CATCH BASIN - 6" X 20" - HIGH DENSITY
POLYETHYLENE (HDPE).
* http://content.zurn.com/web_documents/pdfs/specsheets/302162.pdf

P-10B (TRENCH DRAIN)
SHALL BE A "ZURN" MODEL Z886-HD, 6" WIDE HIGH DENSITY POLYETHYLENE DRAIN SYSTEM WITH CENTER 4"Ø DRAIN. TRENCH TO BE PROVIDE WITH HEAVY DUTY GRATE.
* http://content.zurn.com/web_documents/pdfs/specsheets/301979.pdf

P-11 (POOL DECK TRENCH DRAIN)

SHALL BE A "TRENCH DRAIN SYSTEMS" CONTINUOUS 3" MINI CHANNEL SYSTEM COORDINATE FINAL GRATE WITH OWNER/ARCHITECT/MANUFACTURER PRIOR TO CONSTRUCTION.

* <http://www.trenchdrainsystems.com/residential/pool-trench-drains.html>
* <https://goo.gl/dVHZN>

P-122 (ELECTRIC WATER HEATER)
SHALL BE A LOCHINVAR MODEL KTA040KD, 40 GALLON GLASSLINED STORAGE TANK, TALL TANK TYPE WATER HEATER WITH (2) - 4.5 KW ELECTRIC ELEMENTS WIRED FOR NON-CONCURRENT INTERMITTENT OPERATION AT 240 VOLTS, SINGLE PHASE INCOMING POWER 3 YEAR LIMITED WARRANTY ON STORAGE TANK AGAINST TANK FAILURE. WATER HEATER SHALL MEET OR EXCEED ALL APPLICABLE SECTIONS OF ASHRAE STANDARD 90-80A AND NAECA REQUIREMENTS FOR ENERGY CONSERVATION.
* http://www.lochinvar.com/_j_linesfiles/RE-21.pdf

P-13 (ADD A STAINLESS STEEL EXTERIOR SHOWER C.W. ONLY)
 SHALL BE A "OUTDOOR SHOWER CO." MODEL PM-250-ADA-PM-500-ADA-750-ADA
 WALL MOUNT COLD WATER SHOWER UNIT WITH:
 SHOWER HEAD "DEL-78" 2.5 GPM CHROME PLATED SHOWER STANDARD.
 ADA COMPLIANT ADJUSTABLE STRAIGHT METERED PUSH VALVE SV-ADA-665-1/2"NPT ,
 FOOT SHOWER "FSH-12-SP" CROSS HANDLE CHROME PLATED BRASS ANGLE VALVE 1/2" FIP,
 STAINLESS STEEL NIPPLE, AERATING SHOWER HEAD.
 STAINLESS STEEL RISER W/GOOSENECK SCH. 40 SSARM-44-3/8" 39" MIP THREADED BOTH EN
 STAINLESS STEEL PIPE SCH. 40 SSTP-36-3/8" 36"-MIP THREADED BOTH ENDS

* <http://goo.gl/0DteHv>

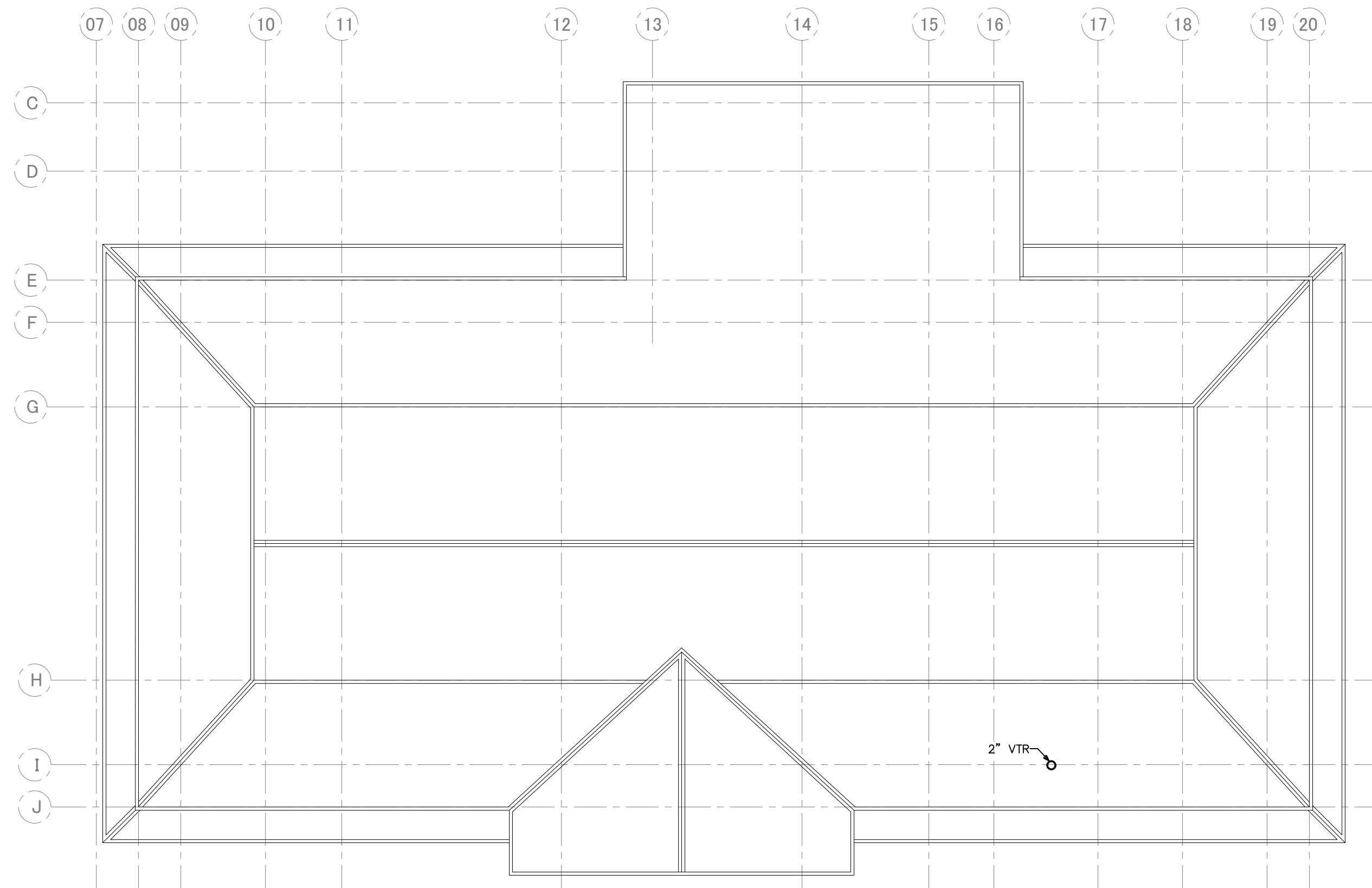
P-14 (STAINLESS STEEL DECK DRAIN)
41533 SERIES Stainless Steel (304) Floor Drain, 10" X 10" Square Top, 6" Deep, No-Hub Outlet With 3" DRAIN PIPE CONNECTION.
* http://www.josam.com/images/josammk/zzoother/ss10_p3.pdf

NOTES:

- 1.) ALL PLUMBING FIXTURES SHALL BE AS SPECIFIED OR APPROVED EQUAL.
- 2.) PROVIDE ANGLE STOPS ON ALL WATER SERVICE LINES TO FIXTURES FOR INDIVIDUAL SHUT-OFF.

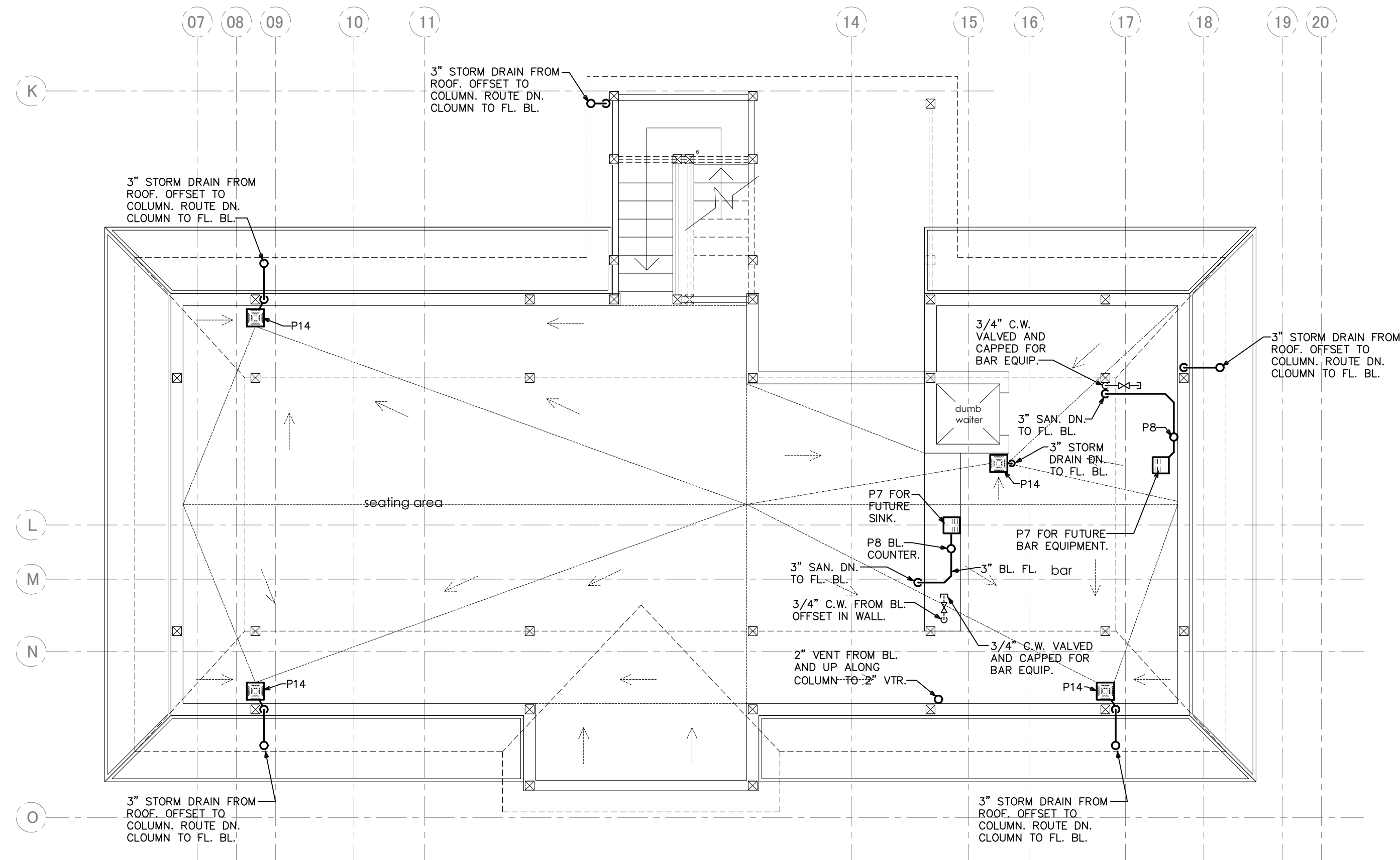
GENERAL PLUMBING NOTES

- 1) DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATION OF ALL PLUMBING FIXTURES, EQUIPMENT, ETC. PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS REQUIRED FOR A COMPLETE AND ACCEPTABLE WORKING INSTALLATION. CONTRACTOR IS RESPONSIBLE TO INSTALL ALL FIXTURES AND EQUIPMENT IN STRICT COMPLIANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. THIS REQUIREMENT IS TO SUPERSEDE ANY DETAILS OR INFORMATION CONTAINED ON THESE DRAWINGS.
- 2) ALL WORK AND MATERIALS SHALL COMPLY WITH THE LATEST EDITION OF THE NATIONAL, STATE, AND ALL LOCAL CODES AND ORDINANCES HAVING JURISDICTION.
- 3) THE PLUMBING CONTRACTOR SHALL VISIT THE SITE AND THOROUGHLY FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS. ALL EXECUTION AND BACKFILL AS REQUIRED FOR THIS PHASE OF CONSTRUCTION SHALL BE A PART OF THIS CONTRACT.
- 4) ALL MATERIAL SHALL BE NEW.
- 5) ALL WORK SHALL BE PERFORMED BY A LICENSED PLUMBING CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE AND ACCEPTED BY ENGINEER/ARCHITECT.
- 6) ALL REQUIRED INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LIABILITY OR PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
- 7) THE PLUMBING CONTRACTOR SHALL SECURE AND PAY ALL PERMIT FEES, INSPECTIONS, AND TESTS.
- 8) ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.
- 9) THE PLUMBING CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKSMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM DATE OF ACCEPTANCE. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY.
- 10) VERIFY LOCATION, SIZE AND INVERTS OF ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION. ADVISE ARCHITECT/ENGINEER OF ANY DISCREPANCIES.
- 11) ALL FIXTURES SHALL BE PROVIDED WITH READILY ACCESSIBLE STOPS.
- 12) ALL BELOW FLOOR SLAB WATER PIPING SHALL BE FLEXIBLE "TEMPRITE PEX (CROSS-LINKED POLYETHYLENE)" INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS FOUND HERE: WWW.LUBRIZOL.COM. ALL ABOVE SLAB WATER PIPING SHALL BE "OLEFLEX/ARCO GOLD CPVC" INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS FOUND HERE: WWW.OLDFIELDGOLD.COM. ALL WATER PIPING AS SPECIFIED OR APPROVED EQUAL. ALL 2" WATER PIPING SHALL BE TYPE "L" COPPER AND TYPE "K" COPPER FOR 2 1/2" AND LARGER. (OR APPROVED EQUAL)
- 13) SOIL, WASTES AND VENT PIPING SHALL BE PVC #40 DMV. WASTES AND VENT PIPING ABOVE SLAB SHALL BE PVC, IF APPROVED BY LOCAL AUTHORITIES HAVING JURISDICTION OTHERWISE CAST IRON. PVC SHALL NOT BE INSTALLED IN A/C RETURN AIR PLENUM OR PENETRATE FIRE RATED WALLS OR FLOORS.
- 14) AIR CONDITIONING CONDENSATE DRAIN PIPING SHALL BE PVC #40 OR COPPER DRAIN WASTE AND BENT PIPE AND FITTINGS. INSULATE ALL CONDENSATE PIPING EXCEPT EXTERIOR PIPING. INSTALL ALL CONDENSATE PIPING FOR AIR CONDITIONING UNITS AS REQUIRED PER LOCAL CODES.
- 15) FURNISH AND INSTALL APPROVED WATER HAMMER ARRESTORS AT EACH GROUP OF FIXTURES. THE INSTALLATION OF WATER HAMMER ARRESTORS SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDATIONS. PROVIDE AND INSTALL AN APPROVED WATER HAMMER ARRESTOR AT EACH FIXTURE OR DEVICE THAT HAS A SOLENOID WATER CONTROL VALVE.
- 16) PROVIDE CHROME PLATED COMBINATION COVERED PLATE AND CLEANOUT PLUG FOR ALL WALL CLEANOUTS. JOSAM 58890.
- 17) INSULATE LINES AS FOLLOWS:
 - A) 1-1/2" THICK ARMAFLEX PREFORMED INSULATION SHALL BE PROVIDED ON BOTH C.W. & H.W. WHEN PIPING IS LOCATED OUTSIDE OF THE INSULATED BUILDING ENVELOPE.
 - B) 1-1/2" THICK ARMAFLEX PREFORMED INSULATION SHALL BE PROVIDED ON HW PIPING & H.W. RECRIC. PIPING, ONLY WHEN THERE IS A H.W. RECIRCULATING PIPING SYSTEM.
 - C) CONDENSATE PIPING: 1/2" THICK ARMAFLEX PREFORMED OR APPROVED EQUAL.

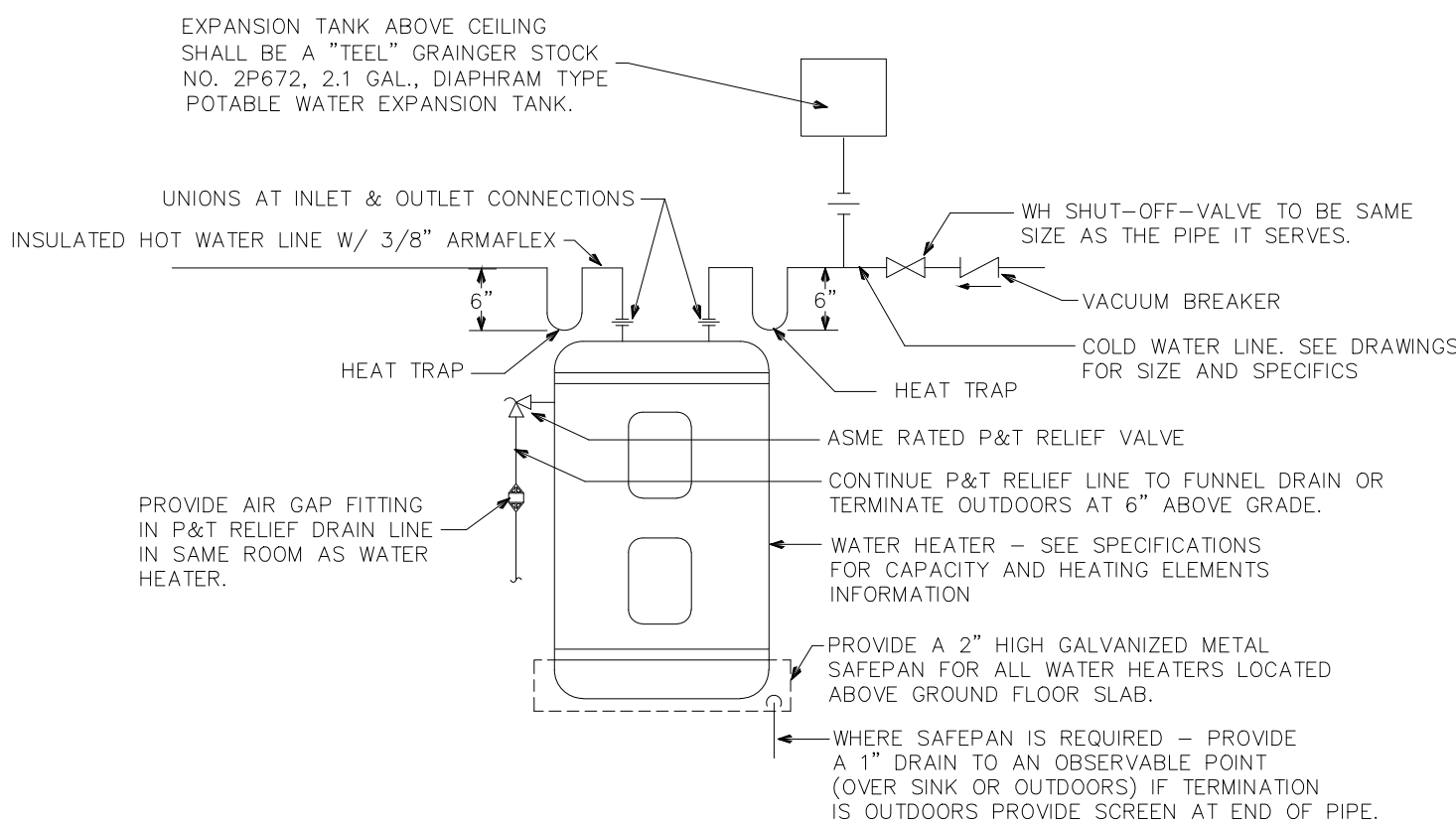


2 ROOF - PLUMBING

SCALE: 3/16"=1'-0"



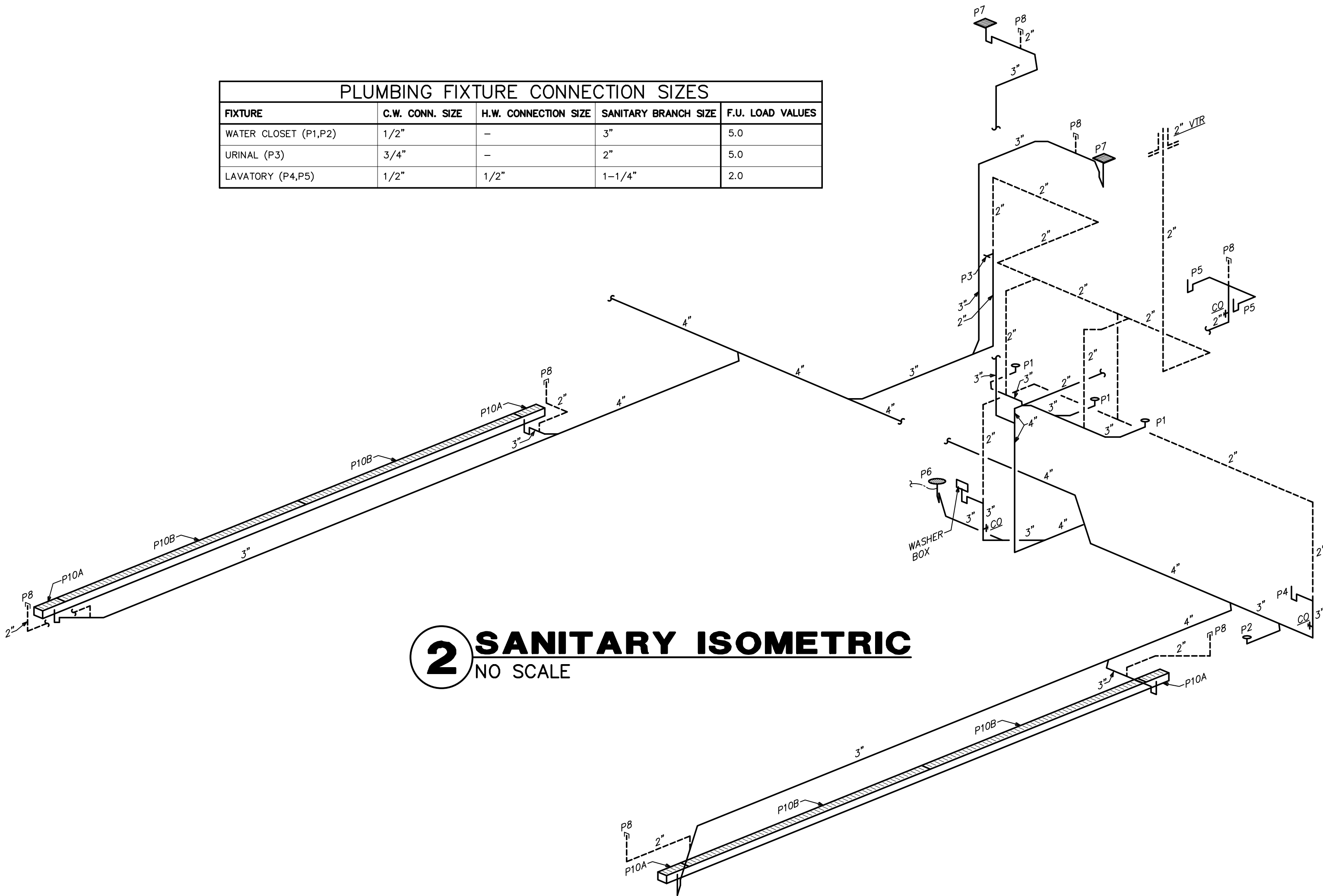
1 TERRACE/BAR LEVEL PLAN - PLUMBING



3 WATER HEATER DETAIL

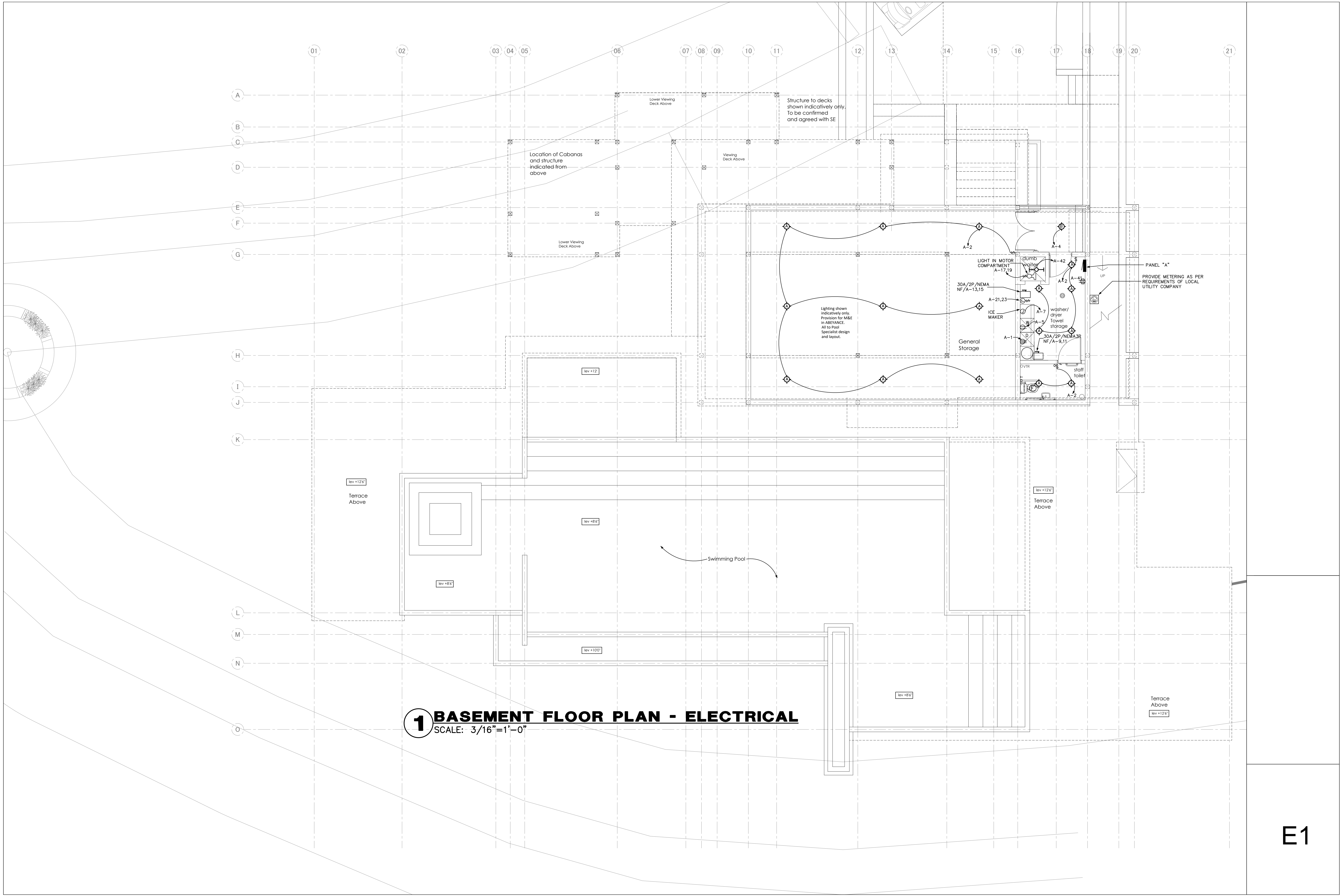
NO SCALE

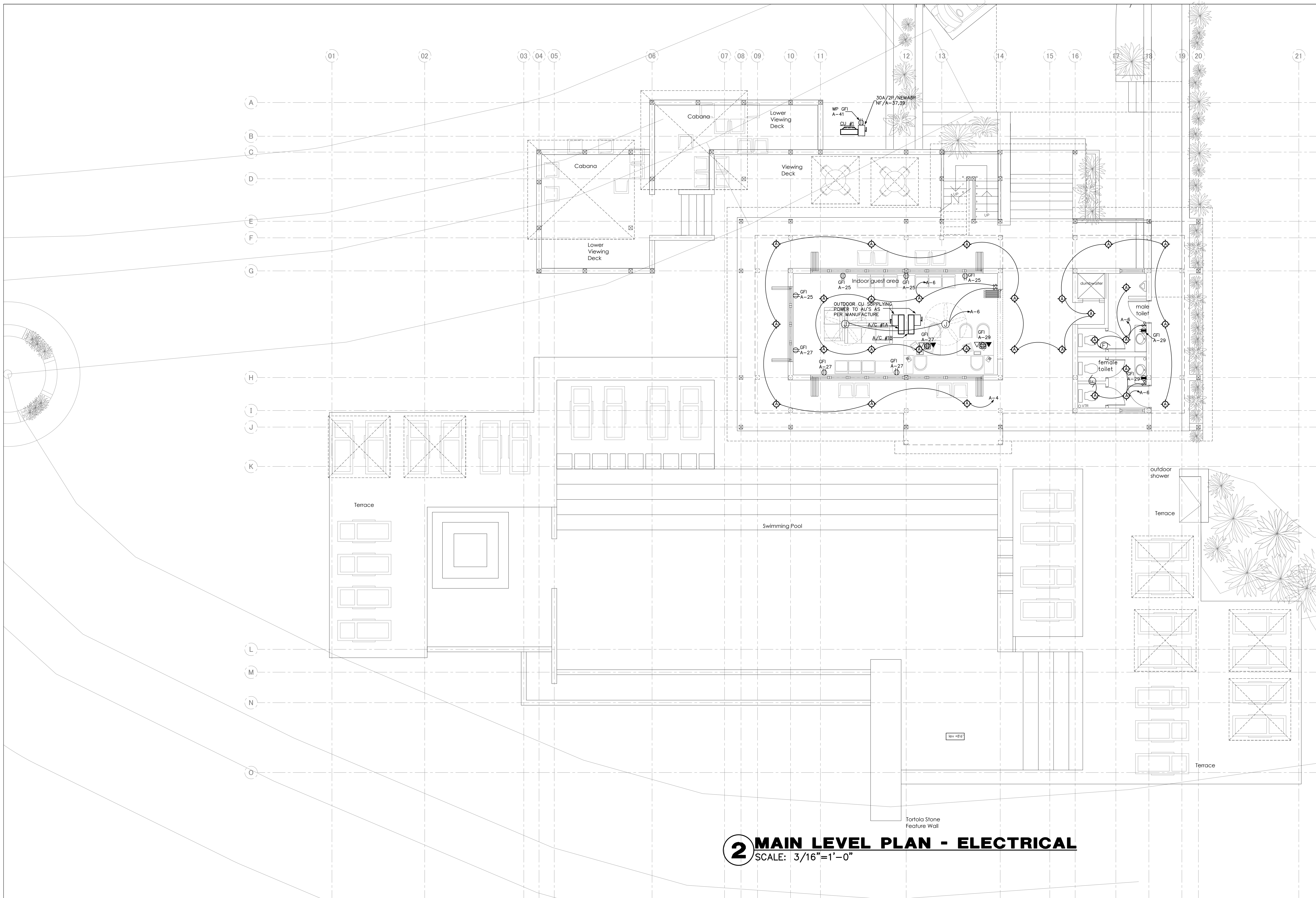
PLUMBING FIXTURE CONNECTION SIZES				
FIXTURE	C.W. CONN. SIZE	H.W. CONNECTION SIZE	SANITARY BRANCH SIZE	F.U. LOAD VALUES
WATER CLOSET (P1,P2)	1/2"	-	3"	5.0
URINAL (P3)	3/4"	-	2"	5.0
LAVATORY (P4,P5)	1/2"	1/2"	1-1/4"	2.0



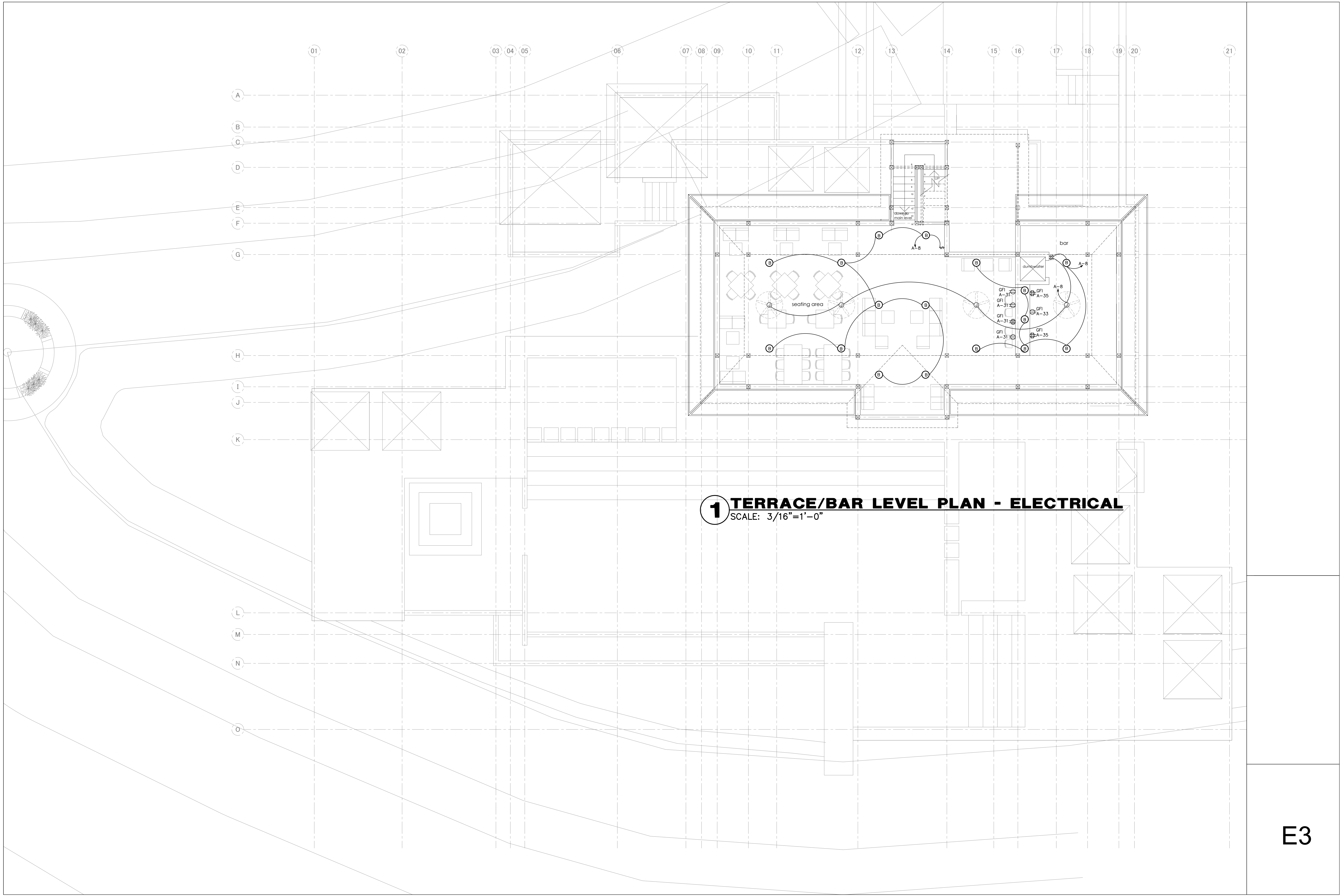
2 SANITARY ISOMETRIC

NO SCALE





2 MAIN LEVEL PLAN - ELECTRICAL
SCALE: 3/16"=1'-0"



PANEL NOTES:
* - THIS CIRCUIT IS ON A TIMER

PANEL A DIVERSIFICATION CALCULATIONS			
RECEPTACLES <18> -	3240 VA TOTAL	-	3240
	FIRST 10 KVA AT 100% -		3240
LIGHTING -	6224 X 125% -		7779
HVAC LOAD AT 100% -			4800
PLUS 25% OF THE LARGEST MOTOR			1210
MISC NON-CONTINUOUS LOADS AT 100% -			15660
TOTAL DIVERSIFIED PANEL LOAD		-	32665
LOAD AT 120/240V/1-PHASE/3-WIRE		-	1366

GENERAL: ALL WORK SHALL CONFORM TO THE LATEST APPROVED EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL JURISDICTIONAL CODES.

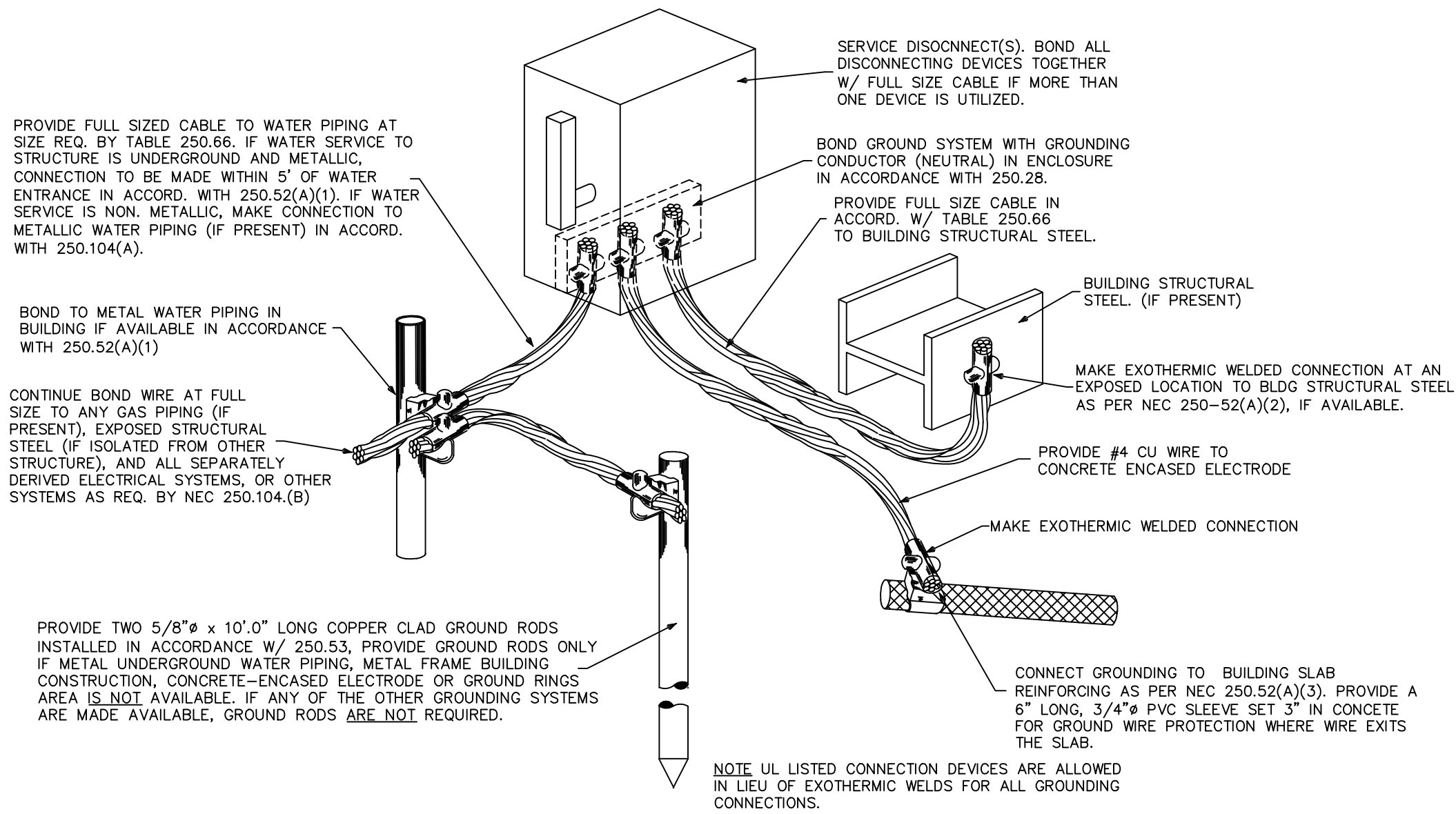
THE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE DRAWINGS AND ANY APPLICABLE SPECIFICATIONS. IF A PROBLEM IS ENCOUNTERED IN COMPLYING WITH THIS REQUIREMENT, THE CONTRACTOR SHALL NOTIFY THE OWNER OR HIS REPRESENTATIVE AS SOON AS POSSIBLE AFTER DISCOVERY. THE CONTRACTOR SHALL NOT PROCEED WITH THAT PORTION OF THE WORK UNTIL THE OWNER HAS DIRECTED THE CORRECTIVE ACTION TO BE TAKEN.

THE CONTRACTOR SHALL COORDINATE THE PROPOSED LOCATIONS OF ALL ELECTRICAL MATERIALS AND EQUIPMENT WITH THE REPRESENTATIVES OF THE OTHER TRADES INVOLVED BEFORE STARTING INSTALLATION OF THOSE ITEMS.

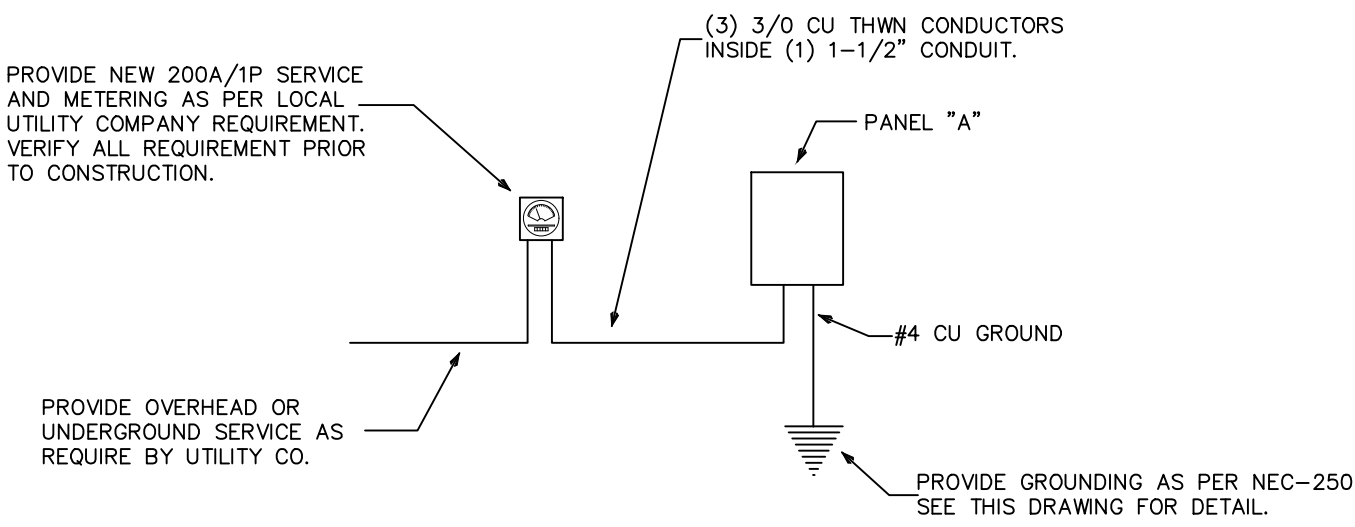
- CONDUITS: PROVIDE CONDUITS WHERE CALLED FOR ON PANEL SCHEDULES: ELECTRICAL METALLIC TUBING (EMT) SHALL BE INSTALLED IN N OR IN CONDUIT. CONDUIT SHALL BE THE SAME GRADE, AND WHERE NOT SUBJECT TO PHYSICAL DAMAGE.
- CONDUITS INSTALLED UNDERGROUND SHALL BE POLYVINYLCHLORIDE (PVC) AND SHALL NOT BE SMALLER THAN 1/2" IN INSIDE SIZE. CONDUIT SHALL BE INSTALLED UNDERGROUND, ELBOWS TURNING UP AND CONDUIT EMERGING ABOVE GRADE SHALL BE RSC. THE TOPS OF CONDUITS SHALL BE AT LEAST 18" ABOVE FINISHED GRADE.
- PVC CONDUIT INSTALLED ABOVE GRADE OR DIRECT-BURIED IN EARTH SHALL BE NEMA TC-2 TYPE EPC-40 PVC (SCHEDULE 40) EXCEPT WHERE SPECIFIED OTHERWISE.
- VEHICLE TRAFFIC, IT SHALL BE NEMA TC-2 TYPE EPC-80 PVC (SCHEDULE 80).
- ALL ARMOR CABLE (CABLE GRAB) SHALL MEET OR EXCEED ALL NEC, OSHA AND ALL STANDARDS.
- CONDUCTORS: CONDUCTORS SHALL BE AS SCHEDULED ON PANEL SCHEDULES. CONDUCTORS SHALL NOT BE SMALLER THAN #14 AWG (CU), OR #12 AWG (AL). CONTROL CIRCUIT CONDUCTORS SHALL NOT BE SMALLER THAN #18 AWG CU. CONDUCTORS SHALL BE INSTALLED IN RIGID OR FLEXIBLE RIGID WITH SPICES EXCEPT WITHIN WIREWAY OR JUNCTION BOXES. MAKE CONDUCTORS IN PANELS, PULL BOXES OR WIREWAYS AND TERMINAL STRIP TERMINALS FOR IDENTIFICATION OF CIRCUITS.
- CONDUCTORS SHALL BE JOINED USING COMPRESSION SPICES, EXCEPT CONDUCTORS OF 1/2" AND SMALLER WORK. WORK USING WIRE NUT TYPE CONNECTORS. CONDUCTORS SHALL BE TERMINATED USING COMPRESSION OR PRESSURE TYPE TERMINAL BLOCKS. CONDUCTORS OF 1/2" AND SMALLER SHALL BE SPICES USED ON CONDUCTORS #10 AWG. AND SMALLER, SHALL BE THE SELF-INSULATED TYPE. OTHER SPICES SHALL BE INSULATED USING 3M 3300 PLUS GLASS TAPE. ALL CONDUCTORS SHALL BE SPICES SHALL BE INSULATED WITH ELECTRICAL TAPE AND ENCAPSULATED WITH STYCASTOCH OR EQUAL POTTING COMPOUND.
- PROVIDE AND INSTALL JUNCTION AND PULL BOXES WHERE INDICATED AND WHERE NECESSARY TO TERMINATE, TAP OFF, OR MAKE ADDITIONAL TAP OFFS. ALL BOXES SHALL BE USED OR AS REQUIRED BY NEC. WHERE FEEDER SPICES ARE TO BE MADE, INSTALL BOXES LARGE ENOUGH TO PROVIDE AMPLE WORK SPACE.
- LIGHTING FIXTURES: LIGHTING FIXTURES SHALL BE AS INDICATED ON THE DRAWINGS, AND SHALL BE INSTALLED COMPLETE WITH LAMPS. FIXTURES WITH ADJUSTMENTS AFFECTING LIGHT DISTRIBUTION SHALL BE ADJUSTED TO PROVIDE UNIFORM LIGHT PATTERNS PRIOR TO THE FINAL DEMONSTRATION TEST.
- TESTS: AFTER EACH SYSTEM HAS BEEN COMPLETED, A FUNCTIONAL TEST SHALL BE PERFORMED TO DEMONSTRATE THAT THE SYSTEM OPERATES IN ACCORDANCE WITH THE REQUIREMENTS OF THE DRAWINGS. THIS TEST SHALL BE CONDUCTED BY THE CONTRACTOR IN THE PRESENCE OF THE OWNER OR HIS REPRESENTATIVE.
- TERMINALS: ALL ELECTRICAL EQUIPMENT FURNISHED ON THIS PROJECT IS TO HAVE TERMINALS RATED FOR 75° C OPERATION.

ELECTRICAL SYMBOLS LEGEND		NOTE – NOT ALL SYMBOLS MAY BE USED ON PROJECT	
SYMBOLS	DESCRIPTION	SYMBOLS	DESCRIPTION
	DUPLEX RECEPTACLE, MTD. +18" AFF		TRANSFORMER – SIZE AS NOTED
	240 VOLT RECEPTACLE (HT. AS REQ.)		PANEL – SIZE AS NOTED
	QUADRUPLEX RECEPTACLE, MTD. +18"		MOMENTARY CONTACT PUSH BUTTON
	COUNTERTOP PT. RECEPTACLE +42"		F-FAN, M-MOTOR; P-PUMP
	SINGLE POLE SWITCH, MTD +47"		SPECIAL OUTLET – AS REQUIRED
	THREE-WAY SWITCH, MTD +47"		OKT. HOUERUN (B INDICATES PANEL)
	MANUAL STARTER SWITCH		"2" DESIGNATES CIRCUIT NUMBER
	DIMMER SWITCH, MTD +47"		EXIT SIGN; ONE SIDED, OR TWO SIDED
	SWITCH W/ ILLUM WHEN ON MTD +47"		EMERGENCY LIGHTING
	THREE-WAY SWITCH W/ OCCU SENSOR MTD. +47"		RECESSED MOUNTED LIGHTING FIXTURE B DESIGNATES. FIXTURE TYPE
	SWITCH W/ OCCU SENSOR. MTD. +47"		OVERHEAD OCCUPANCY SENSOR
	JUNCTION BOX, FLUSH IF POSSIBLE		HIGHBAY HLD LIGHTING FIXTURE B DESIGNATES. FIXTURE TYPE
	TELEPHONE / DATA OUTLET +18"		FLUORESCENT LIGHTING FIXTURE B DESIGNATES. FIXTURE TYPE
	DED. COMPUTER TERM. OUTLET +18"		FLUORESCENT LIGHTING NIGHT LIGHT B DESIGNATES. FIXTURE TYPE
	DISCONNECT SWITCH W/ STARTER		FLUORESCENT LIGHTING STRIP B DESIGNATES. FIXTURE TYPE
	DISCONNECT SWITCH		LED LIGHTING FIXTURE B DESIGNATES. FIXTURE TYPE
	FLR. MTD. FLUSH DUPLEX RECEPTACLE		ISOLATED GROUND
	FLR. MTD. FLUSH QUAD. RECEPTACLE		WEATHER-PROOF
	FLR. MTD. FLUSH PHONE/DATA OUTLET		BELOW COUNTER
	FLR. MTD. FLUSH COMPUTER OUTLET		TIME CLOCK – 24 HOUR
	AREA SMOKE DETECTOR		GROUND FAULT INTERRUPTER
	HEAT DETECTOR		ABOVE FINISHED FLOOR
	DUCT SMOKE DETECTOR		ELECTRIC WATER COOLER
	FIRE ALARM MAN. PULL STATION +47"		ABOVE SHOW WINDOW
	HORN W/ STROBE LIGHT, MTD. +80"		BELOW SHOW WINDOW
	BESIDE DESK IS CANDELLA RATING STROBE LIGHT ONLY, MTD. +80"		FIRE ALARM CONTROL PANEL
	BESIDE DESK IS CANDELLA RATING STROBE LIGHT ONLY, MTD. +80"		FIRE ALARM ANNUNCIATOR PANEL

LIGHTING FIXTURE SCHEDULE							
LABEL	TYPE OF FIXTURE	FINISH	LENS TYPE	VOLTAGE	LAMP	MANUFACTURER & MODEL NO.	REMARKS
A	RECESSED LED LIGHT	WHITE	LED	120	45W	GOTHAM EVO VR 35/20 6AR L5 CCL MVOLT	
B	PENDANT	WHITE	LED	120	30W	WINONA POPS01- WL-CYL-LRG-LSR1-350MA-WHT30K-MVOLT-SGW	
C	2' STRIPLIGHT	WHITE	(2) 17W	120	30W	LITHONIA Z 2 17 MVOLT	TEMPORARY DUMB WAITER LIGHT



5 GROUNDING DETAIL



4 ELECTRICAL SERVICE RISER