

	PROJECT GENERAL NOTES		<u>MECHANICAI</u>	L SYMBOLS	
1.	MOTOR CONTROLLERS, MOTOR STARTERS & DISCONNECTS SHALL BE FURNISHED BY DIVISION 23	<u>IDENTIFIER</u>	<u>DESCRIPTION</u>	<u>IDENTIFIER</u>	<u>DESCRIPTION</u>
	AND INSTALLED UNDER DIVISION 26.	⊱— HWS—→	HEATING HOT WATER SUPPLY		REDUCER (ECCENTRIC)
2.	POWER WIRING TO MECHANICAL EQUIPMENT, MOTOR CONTROLLERS AND CONTROL PANELS SHALL BE PROVIDED UNDER DIVISION 26.	HWR	HEATING HOT WATER RETURN	\	VALVE ON RISER
3.	HVAC CONTROL WIRING SHALL BE PROVIDED UNDER DIVISION 23.	⊱— CWS ——	CHILLED WATER SUPPLY	<u></u>	ANGLE VALVE
4.	Bloodinizer dimenze de nem Barrini Eddinizer Bloodinizer di	< CWR	CHILLED WATER RETURN		PRESSURE RELIEF VALVE
	ALL ELECTRICALLY DRIVEN HVAC EQUIPMENT SHALL BE FURNISHED BY DIVISION 23 AND INSTALLED BY DIVISION 26.	├ CD ├	CONDENSATE DRAIN	₹ 	CONTROL VALVE (2-PORT)
5.	STARTERS SHALL BE NEMA COMBINATION MAGNETIC MOTOR STARTERS SIZED PER MOTOR HORSE	├ ── PC ───	PUMPED CONDENSATE	·	CONTROL VALVE (3-PORT)
	POWER. COORDINATE MOTOR STARTER TYPE AND FEATURES WITH THE REQUIREMENTS OF THE MECHANICAL EQUIPMENT AND THE CONTROL SYSTEM. PROVIDE OVERLOAD, UNDER VOLTAGE AND	~ —R——→	REFRIGERANT PIPING	<u>-</u> × 	PIPE ANCHOR
	PHASE LOSS PROTECTION IN ALL STARTERS. STARTERS FOR MOTORS 50 HORSE POWER AND LARGER SHALL BE REDUCED VOLTAGE TYPE.	~ 	PRESSURE REDUCING VALVE (SELF-CONTAINED)	←	MOMENT GUIDES
6.	DUCTWORK AND PIPING LAYOUTS ARE SCHEMATIC DIAGRAMS AND ARE INTENDED TO SHOW GENERAL	₹	PRESSURE REDUCING VALVE (REMOTE TYPE)	·	OPEN-ENDED PIPE
	ARRANGEMENT, SIZE AND CAPACITY AND DO NOT INDICATE WHICH PIPE OR DUCT IS ABOVE OR BELOW THE OTHER. ALL OFFSETS ARE NOT NECESSARILY SHOWN, CONTRACTOR SHALL ARRANGE AND	, ,	STEAM PRESSURE GAUGE W/ SHUT-OFF	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	PIPE TO BE DEMOLISHED
	COORDINATE THE WORK, FURNISH NECESSARY OFFSETS, VALVES, VENTS, AND FITTINGS TO AVOID CONFLICT WITH OTHER MECHANICAL AND ELECTRICAL SERVICES AND STRUCTURAL AND ARCHITECTURAL ELEMENTS WITHOUT ADDITIONAL COST TO THE OWNER. IF AREAS OF CONFLICT ARE	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ 	PRESSURE GAUGE W/ SHUT-OFF	•	CONNECT TO EXISTING
	ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED AND CONTRACTORS RECOMMENDATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE WORK HAS BEGUN.		THERMOMETER W/ SHUT-OFF	\boxtimes	DUCT UNDER POSITIVE PRESSURE
7	ENTIRE INSTALLATION SHALL COMPLY WITH ALL LOCAL AND STATE CODES AND OTHER AUTHORITIES		Y-TYPE STRAINER W/ BLOWDOWN & HOSE BIBB		DUCT UNDER NEGATIVE PRESSURE
, .	HAVING JURISDICTION.	₩	UNION	©	ROUND DUCT
8.	CONTRACTOR SHALL SECURE AND PAY FOR ALL REQUIRED PERMITS AND SHALL ARRANGE ALL REQUIRED INSPECTIONS.	Ŷ	MANUAL AIR VENT	<u> </u>	SUPPLY REGISTER
9.	PROPER FIRE PROTECTION MEASURES, SATISFACTORY TO THE LOCAL FIRE DEPARTMENT SHALL BE	<u></u>	AUTOMATIC AIR VENT	 	RETURN OR EXHAUST REGISTER
10	TAKEN WHEN WELDING OR CUTTING WITH TORCHES OR ELECTRIC ARC.	·	PIPE TURNING UP		VOLUME DAMPER
	PROVIDE FLEXIBLE CONNECTIONS ON ALL ROTATING EQUIPMENT. CONTRACTOR SHALL PROVIDE ALL NECESSARY MISCELLANEOUS STEEL FOR THE SUPPORT OF ALL	\subset	PIPE TURNING DOWN	———F	FIRE DAMPER W/ACCESS DOOR
11.	EQUIPMENT, PIPING, CONDUIT, AND DUCTWORK. SUSPEND FROM SLAB, STEEL, WALL, OR TRUSS WORK.	≥ <u></u> DN →	PITCH DOWN	———В	BACKDRAFT DAMPER
12.	BALANCE AND CERTIFY ALL AIR AND WATER SYSTEMS AS PER SPECIFICATIONS. COMPLY WITH	\leftarrow	DIRECTION OF FLOW	M	MOTORIZED DAMPER
	REQUIREMENTS OF COMMISSIONING AUTHORITY.		CAPPED PIPE	- ∪	AIRFLOW THRU UNDERCUT
13.	CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF ALL OTHER TRADES AND THE EXISTING FIELD CONDITIONS.	<	EXPANSION JOINT	─	AIRFLOW THRU LOUVERED DOOR
14.	PROVIDE SHUT OFF VALVES AT ALL BRANCH PIPING CONNECTIONS.	←	BALL VALVE	T	THERMOSTAT (WALL MOUNTED)
15.	CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING OF SLAB REQUIRED AS A RESULT OF HIS WORK.	├── \	SWING TYPE CHECK VALVE	V IOTAL	AIR DEVICE TYPE
16	MINIMUM SIZE OF ALL CONDENSATE DRAIN PIPING SHALL BE 3/4". MINIMUM SLOPE SHALL BE 1/8"	$\longleftarrow \bowtie$	GATE VALVE	[X]CFM	AIR QUANTITY
101	PER FOOT.	\leftarrow	GLOBE VALVE	////////	DUCTWORK TO BE DEMOLISHED
17.	ALL MECHANICAL CONTROLS (THERMOSTATS, ETC.) SHALL BE FURNISHED AND INSTALLED AS PER BARRIER-FREE SUB-CODE OF THE LOCAL GOVERNING CODE.	·	BUTTERFLY VALVE	S	SENSOR
18.	UNLESS OTHER WISE NOTED ON THE DRAWINGS, ALL MECHANICAL EQUIPMENT SHALL BE MOUNTED		CALIBRATED BALANCING VALVE		FLEXIBLE CONNECTION (DOUBLE LINE)
	ON VIBRATION ISOLATORS TO PREVENT THE TRANSMISSION OF SOUND TO THE BUILDING STRUCTURE. VIBRATION ISOLATORS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND ON ACTUAL WEIGHT	~~	TRIPLE-DUTY VALVE	$\leftarrow \parallel \parallel \rightarrow$	FLEXIBLE CONNECTION (SINGLE LINE)
	DISTRIBUTION OF THE EQUIPMENT FURNISHED. DEFLECTIONS SHALL BE AS NOTED ON THE EQUIPMENT SHOP DRAWING SUBMITTALS.	$\longleftarrow \bigcirc$	REDUCER (CONCENTRIC)		EXISTING DUCTWORK TO REMAIN
19.	ALL CONDENSATE DRAIN LINES SHALL COMPLY WITH NSPC.	→	GAS COCK	Щ	THERMOMETER
20.	ALL PENETRATIONS OF FLOORS (WHETHER OR NOT FIRE RESISTANCE RATED) AND ALL PENETRATIONS	$\longleftarrow \bigcirc$	PRESSURE REGULATOR (LOCK UP TYPE)		PUMP
	OF FIRE RATED WALLS AND FLOORS SHALL BE PROVIDED WITH A THROUGH PENETRATION PROTECTION SYSTEM SHALL BE	├	GAS PIPING	EPO	BOILER/BURNER PANEL EMERGENCY POWER OFF PUSH BUTTON
	TESTED IN ACCORDANCE WITH ASTM E814 AND BE LISTED FOR THE TYPE OF FLOOR OR WALL ASSEMBLY PENETRATED AND THE TYPE OF PROTECTION SYSTEM. REFER TO SECTION OF THE	├	SANITARY SEWER PIPING	(H)	HUMIDISTAT
0.4	SPECIFICATION FOR ADDITIONAL INFORMATION.	$\longleftarrow \vee \rightarrow$	SANITARY VENT PIPING	©	CARBON DIOXIDE (CO2) SENSOR
21.	ALL REMOVED EQUIPMENT, MATERIAL AND DEBRIS SHALL BE LEGALLY DISPOSED OF BY THIS CONTRACTOR.		♦ NOTE THAT NOT ALL OWNOOD		
22.	CONTRACTOR SHALL ENSURE THAT ALL MECHANICAL DEVICES WILL BE INSTALLED IN A LOCATION WHICH AFFORDS ACCESSIBILITY FOR MAINTENANCE AND REPAIR COORDINATE INSTALLATION AMONG		* NOTE THAT NOT ALL SYMBOLS	APPLY IO THE PROJECT	

WHICH AFFORDS ACCESSIBILITY FOR MAINTENANCE AND REPAIR. COORDINATE INSTALLATION AMONG

23. INSTALL ALL DIELECTRIC UNIONS IN A MANNER WHICH MAKE THEM READILY ACCESSIBLE FOR FUTURE

26. CONTRACTOR SHALL VISIT JOB SITE AND VERIFY EXISTING CONDITIONS PRIOR TO SUBMISSION OF BID.

29. WHERE PIPING CONNECTIONS FOR THE EQUIPMENT SUCH AS PUMPS, AC UNITS, COILS, ETC. DIFFER

FORM THE LINE SIZE, IT SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO

31. ALL INSULATION PROVIDED FOR THE PROJECT MUST MEET A MAXIMUM FLAME SPREAD RATING OF 25 AND SMOKE DEVELOPED OF 50 OR LESS, AS TESTED IN ACCORDANCE WITH ASTM, NFPA & U.L.

APPROVAL. DRAWING SHALL INDICATE ALL TRADES, (ELECTRICAL, MECHANICAL, PLUMBING, FIRE

35. THE MECHANICAL CONTRACTOR SHALL COORDINATE THE ELECTRICAL REQUIREMENTS OF HIS WORK WITH

36. THE ABBREVIATIONS BMS (BUILDING MANAGEMENT SYSTEM) AND BAS (BUILDING AUTOMATION SYSTEM)

37. ALL AIR MOVING DEVICES, INCLUDING NOT LIMITED TO, AIR HANDLING UNITS AND AIR CONDITIONING

39. ALL DRAWING SCALES INDICATED IN THE CONTRACT DOCUMENTS SHALL BE VERIFIED AGAINST ACTUAL

40. THE MECHANICAL CONTRACTOR SHALL COORDINATE THE ELECTRICAL REQUIREMENTS OF HIS WORK WITH

41. CONTRACTOR SHALL PATCH ALL OPENINGS LEFT BY THE REMOVAL OF PIPING, CONDUIT, DUCTS, ETC.

38. WALL MOUNTED THERMOSTAT LOCATIONS SHALL BE COORDINATED WITH THE OWNER PRIOR TO

FIELD CONDITIONS AND DIMENSIONS BY THE CONTRACTOR PRIOR TO BID SUBMISSION.

THE GENERAL AND ELECTRICAL CONTRACTORS PRIOR TO SUBMISSION OF BIDS.

34. UNLESS OTHERWISE SPECIFIED, ALL MOTORS 1/2 H.P. AND ABOVE SHALL BE 3 PHASE AND MOTORS

32. ALL EQUIPMENT FOR THIS PROJECT SHALL BE LISTED BY A NATIONALLY RECOGNIZED TESTING

33. CONTRACTOR SHALL SUBMIT DIMENSIONED, COORDINATED SHOP DRAWINGS FOR ENGINEERS

THE GENERAL AND ELECTRICAL CONTRACTORS PRIOR TO SUBMISSION OF BIDS.

UNITS MUST COMPLY WITH AMCA STANDARD 210 AND ASHRAE.

TO MATCH SURROUNDING CONSTRUCTION AND FINISHES.

FURNISH AND INSTALL THE NECESSARY REDUCERS OR EXPANDER FITTINGS TO ENABLE CONNECTION

25. FURNISH LOCAL DISCONNECT SWITCHES FOR ALL ELECTRICALLY DRIVEN HVAC EQUIPMENT.

DISCONNECT SWITCH SHALL BE IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.

28. ALL CONTROL WIRING SHALL BE CONCEALED IN WALLS, ABOVE CEILINGS, ETC. IN FINISHED /

OCCUPIED AREAS. WHERE CONTROL WIRING IS EXPOSED, INSTALL WIRING IN CONDUIT.

THOSE RECOMMENDED BY THE MANUFACTURER.

24. CONTRACTOR SHALL DRAIN AND REFILL ALL PIPING AS REQUIRED.

BETWEEN THE PIPING SYSTEM AND THE EQUIPMENT.

27. ALL INTERIOR PIPING SHALL BE SUPPORTED FROM THE STRUCTURE ABOVE.

30. ALL DRAINAGE PIPING SHALL BE SLOPED AT A MINIMUM OF 1/8" PER FOOT.

REPAIR OR REPLACEMENT.

LABORATORY.

INSTALLATION.

PROTECTION AND INFRASTRUCTURE).

ARE USED INTERCHANGEABLY.

UNDER 1/2 H.P. SHALL BE SINGLE PHASE.

ALL TRADES TO AVOID INTERFERENCE, AND LOCATE EQUIPMENT TO PROVIDE CLEARANCE OR EXCEED

GENERAL NOTES (APPLY TO ALL DRAWINGS)

- 1. UNLESS OTHERWISE NOTED, ALL DUCTWORK IS ROUTED ON ROOF OR EXPOSED BELOW ROOF BETWEEN AND / OR THROUGH JOISTS.
- 2. THE CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES FOR POSSIBLE INTERFERENCE WITH HIS WORK AND THE WORK OF OTHERS FROM NEW AND EXISTING CONDITIONS.
- 3. SIZES SHOWN ON PLANS FOR DUCTWORK ARE CLEAR INSIDE DIMENSIONS, WHEN LINING IS PROVIDED, INCREASE THE
- 4. DUCTWORK LAYOUTS ARE DIAGRAMMATIC AND INTEND TO SHOW A GENERAL ARRANGEMENT, SIZE AND CAPACITY. ALL OFFSETS ARE NOT NECESSARILY SHOWN. CONTRACTOR SHALL ARRANGE AND COORDINATE THE WORK, FURNISH NECESSARY OFFSETS, VALVES, VENTS, AND FITTINGS TO AVOID CONFLICT WITH OTHER MECHANICAL AND ELECTRICAL SERVICES AND WITH STRUCTURAL AND ARCHITECTURAL ELEMENTS
- 6. CONTRACTOR IS RESPONSIBLE FOR BALANCING AIR QUANTITIES AS SHOWN ON THE FLOOR PLANS FOR HVAC EQUIPMENT, REGISTERS, GRILLES AND DIFFUSERS. COMPLY WITH REQUIREMENTS OF COMMISSIONING AUTHORITY.
- 7. WHILE ALL ATTEMPTS AT ACCURACY HAVE BEEN TAKEN, NO GUARANTEE OF AN EXACT REPRESENTATION OR COMPLETENESS IS IMPLIED. RESPONSIBILITY FOR FINAL VERIFICATION FALLS TO THE CONTRACTOR. ANY
- UNRESOLVED DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION. 8. SEE SCHEDULES AND DETAILS FOR ADDITIONAL INFORMATION.

EXISTING EQUIPMENT TO BE RELOCATED 9. ALL DUCTWORK EXPOSED BELOW ROOF IN SPACE SHALL BE INTERNALLY INSULATED AND PRIMED / PAINTED AS

- PER ARCHITECT'S COLOR CHOICE WITH SUITABLE ADHERING COMPOUNDS FOR THE SHEETMETAL MATERIAL BEING
- 10. PIPING INSULATION SHALL BE CONTINUOUS AT HANGER SUPPORTS NOT TO COMPROMISE THE INSULATION VAPOR
- 11. ALL EXISTING DUCT SYSTEMS (SUPPLY / RETURN / OA DUCTS, GRILLES, ETC.) SHALL BE THOROUGHLY PROFESSIONAL CLEANED.

12. CONTRACTOR SHALL TO PATCH ALL DISTURBED FINISHES WITH MATERIAL AND ASSEMBLIES TO MATCH EXISTING AND

13. CONTRACTOR TO PROVIDE A COMPLETE OPERATING HVAC SYSTEM WITH ALL REQUIRED CONTROLS (COMPONENTS/DEVICES, SENSORS, WIRING, TRANSFORMERS, POWER, INTERFACES, PROGRAMMING, ETC.).

OR NEW CONSTRUCTION AND FINISHES (TYPICAL). COORDINATE WITH ARCHITECT.

HVAC DESIGN CRITERIA

1. APPLICABLE CODES AND REFERENCES: A. INTERNATIONAL BUILDING CODE - 2018 B. ASHRAE / IES STANDARD 90.1 - 2016 C. INTERNATIONAL MECHANICAL CODE - 2018 D. INTERNATIONAL FUEL GAS CODE - 2018 E. NATIONAL STANDARD PLUMBING CODE - 2018

SIZE ACCORDINGLY.

- 2. SUMMER OUTDOOR DESIGN CONDITIONS (PER ASHRAE FUNDAMENTALS 2017): A. DRY BULB: 94.3 DEG. F.
- B. WFT BULB: 74.4 DFG. F. *

F. UNIFORM CONSTRUCTION CODE OF NEW JERSEY

- * ASHRAE 0.4 % COOLING DRY BULB/MEAN WET BULB FOR NEWARK, NEW JERSEY.
- 3. SUMMER INDOOR DESIGN CONDITIONS: A. DRY BULB: N/A (NO COOLING PROVIDED)
- B. RELATIVE HUMIDITY: N/A (NO COOLING PROVIDED) REFRIGERANT SUCTION LINE 4. WINTER OUTDOOR DESIGN CONDITIONS (PER ASHRAE FUNDAMENTALS — 2017): A. DRY BULB: 12.8 DEG. F. *
 - *ASHRAE 99.6 % DESIGN DAY DRY BULB FOR NEWARK, NEW JERSEY.
 - 5. WINTER INDOOR DESIGN CONDITIONS: A. DRY BULB: 60.0 DEG. F.
 - B. RELATIVE HUMIDITY: N/A

SYMBOL LIST

<u>SYMBOL</u>	<u>DESCRIPTION</u>
M2 — — — — — — — — — — — — — — — — — — —	PLAN OR DETAIL TAG DRAWING # TO LOCATE DETAIL DETAIL # SECTION TAG DRAWING # TO LOCATE SECTION DETAIL #
M2 04	<u>ELEVATION_TAG</u> DRAWING # TO LOCATE ELEVATION DETAIL #
	KEY NOTE SYMBOL
12	KEY NOTES APPLYING TO SAME ITEM
•	CONNECT TO EXISTING

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CERTIFICATE:

SIGNATURE: THOMAS S. PERRING - 21Al01674400 STEVEN LEONE STEVEN G. SIEGEL - 21AI01564200 SPIEZLE ARCHITECTURAL GROUP, INC - 21AC00063000



PROJECT: PICNIC SHELTER \$ RESTROOMS KSI PROJECT #: 20100M_02 CHALLENGE GROVE PARK CAMDEN COUNTY PARK

CHERRY HILL, NJ SUBMISSION DATES:

FOR CODE APPROVAL **REVISIONS:**

FOR BID JULY 10, 2020

DO NOT SCALE DRAWING

WALL SECTIONS

MECHANICAL GENERAL INFORMATION

19M014

WIRE MESH SCREEN

KITCHEN EXHAUST FAN LEAVING AIR TEMPERATURE MAKE UP AIR UNIT THOUSAND BTU PER HOUR MOTOR OPERATED DAMPER NORMALLY CLOSED NORMALLY OPEN

* NOTE THAT NOT ALL ABBREVIATIONS APPLY TO THE PROJECT *

GENERAL ABBREVIATIONS

<u>IDENTIFIER</u>

MCA

MEZZ

MFG

PSI

RLA

RPM

* NOTE THAT NOT ALL ABBREVIATIONS APPLY TO THE PROJECT *

MECHANICAL ABBREVIATIONS

<u>IDENTIFIER</u>

0/A

SQ. FT.

DESCRIPTION

MEZZANINE

MINIMUM

MOUNTED

MANUFACTURER

MOUNTING HEIGHT

NORMALLY CLOSED

NOT IN CONTRACT

NORMALLY OPEN

NOT TO SCALE

PLUMBING CONTRACTOR

POLYVINYL CHLORIDE

RUNNING LOAD AMPS

REVOLUTIONS PER MINUTE

DUCT SMOKE DETECTOR

VARIABLE SPEED DRIVE

<u>DESCRIPTION</u>

OUTSIDE AIR

REFRIGERANT

RETURN AIR

RELIEF AIR VENT

RETURN GRILLE

RELATIVE HUMIDITY

RETURN REGISTER

ROOFTOP UNIT

SUPPLY AIR

SMOKE DAMPER

SMOKE EXHAUST

SUPPLY REGISTER

TRANSFER GRILLE

TRANSFER OPENING

THERMOSTATIC TRAP

SUPPLY FAN

THERMOSTAT

TOP REGISTER

UNIT HEATER

UNIT VENTILATOR

VOLUME DAMPER

WET BULB

WATER COLUMN

WATER GAUGE

VENTILATION EXHAUST FAN

REFRIGERANT LIQUID LINE

OUTSIDE AIR INTAKE

OPEN ENDED DUCT

SQUARE FEET

TYPICAL

POUNDS PER SQUARE INCH

EXISTING EQUIPMENT TO BE REMOVED

ON CENTER

MECHANICAL CONTRACTOR

MOTOR OPERATED DAMPER

MINIMUM CIRCUIT AMPS

<u>IDENTIFIER</u>

CONN'S

CONTR

DWG(S)

<u>IDENTIFIER</u>

CFM

HUM

DESCRIPTION

BUILDING

COMPANY

DOWN

DRAWING(S)

EMERGENCY

EQUIPMENT

EXISTING

FLOW SWITCH

HORSEPOWER

DESCRIPTION

CONDENSATE DRAIN

CEILING REGISTER

CONDENSING UNIT

COLD WATER

EXHAUST AIR

DRY BULB

DOWN

CUBIC FEET PER MINUTE

DISHWASHER EXHAUST FAN

ENTERING AIR TEMPERATURE

ENERGY EFFICIENCY RATIO

EXTERNAL STATIC PRESSURE

FIRE DAMPER WITH ACCESS DOOR

ENTERING DRY BULB

EXHAUST GRILLE

ELECTRIC HEATER

ENTERING WET BULB

EXHAUST FAN

FEET PER MINUTE

GALLONS PER MINUTE

HUMIDIFIER

HEAT EXCHANGER

MAXIMUM

CONTRACTOR

CONNECT TO EXISTING

ELECTRICAL CONTRACTOR

EXISTING TO REMAIN

ELECTRIC WATER COOLER

GENERAL CONTRACTOR

CONNECTIONS

ABOVE FINISHED FLOOR

ABOVE FINISHED GRADE

BELOW FINISHED GRADE

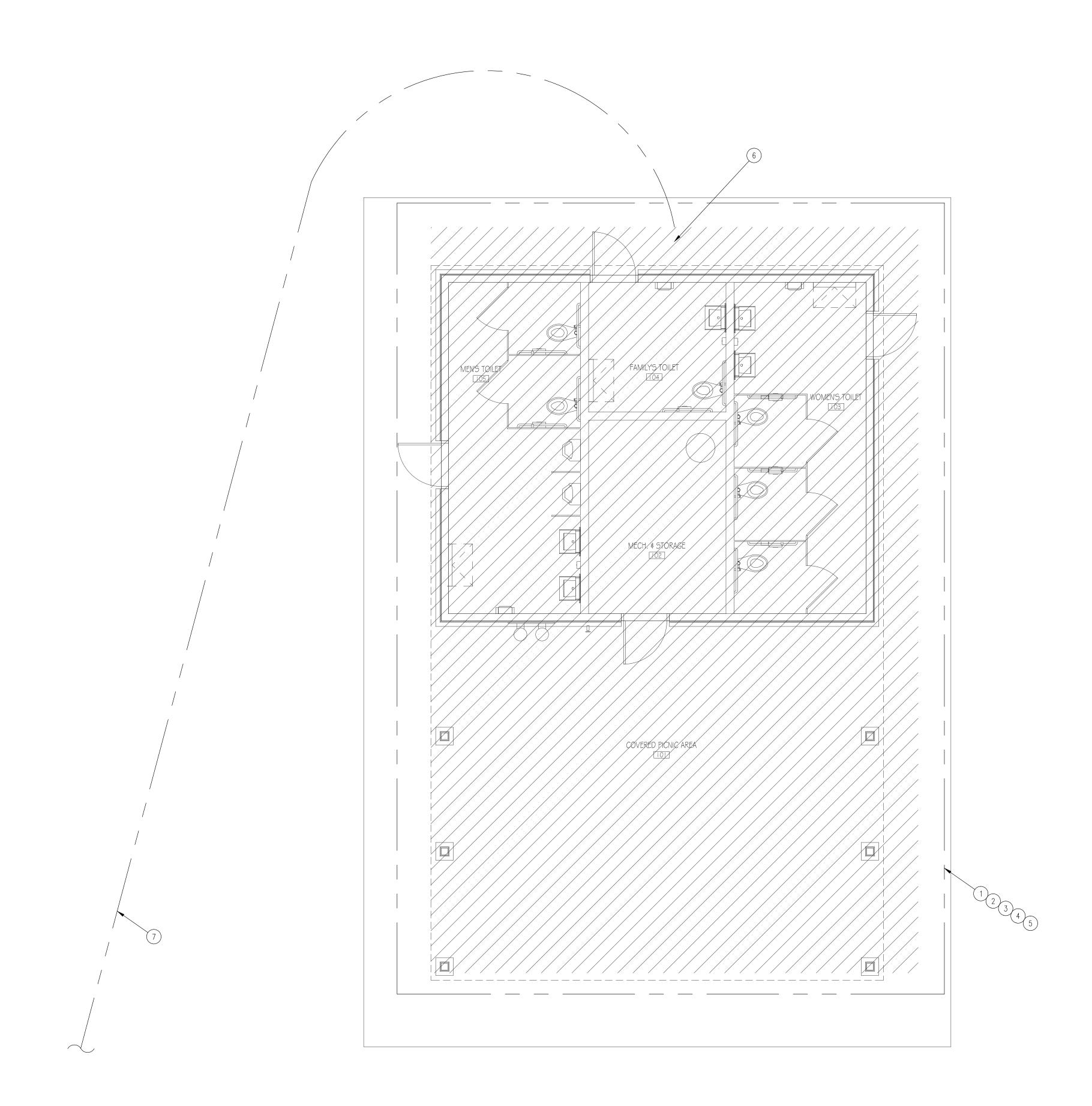
AUTOMATIC TEMPERATURE CONTROLS

BUILDING AUTOMATION SYSTEM

BUILDING MANAGEMENT SYSTEM

COMMISSION NUMBER:

MO. 1



MEPDI.1 MEPDI.1 1/4"=1'-0"

MEP DEMOLITON NOTES

- 1. REMOVE ALL EXISTING PLUMBING FIXTURES/EQUIPMENT AND ALL ASSOCIATED PIPING BACK TO ACTIVE MAINS WITHIN BUILDING. PROVIDE A CLEAN FINISHED SPACE. ALL EXISTING DISTRIBUTION PIPING SHALL BE REMOVED BACK TO SERVICE MAIN.
- 2. EXISTING WATER MAIN SHALL REMAIN AND BE RE-USED FOR NEW WORK. ALL DISTRIBUTION PIPING SHALL BE REMOVED. WATER METER SHALL RE-INSTALLED.
- 3. EXISTING SANITARY SEWER MAIN TO REMAIN. ALL EXISTING WASTE AND VENT PIPING TO FIXTURES SHALL BE DISCONNECTED AND REMOVED THROUGHOUT BUILDING. EXISTING VENT THRU THE ROOF SHALL BE
- 4. DEMOLISH ALL ELECTRICAL DEVICES INCLUDING BUT NOT LIMITED TO LIGHTING FIXTURES, RECEPTACLES,
- PANELS, SMOKE DETECTORS, OCCUPANCY SENSORS, ETC THROUGHOUT BUILDING.

5. DEMOLISH ALL EXISTING HVAC SYSTEMS (EXHAUST FANS, DUCTS, CONTROLS, ETC.) THROUGHOUT BUILDING.

- 6. EXISTING ELECTRICAL FEEDS TO SCOREBOARD TO BE CONNECTED TO NEW PANEL MDP. CONTRACTOR SHALL DISCONNECT EXISTING CONDUCTORS AND CONDUIT AND PREPARE FOR CONNECTION TO NEW PANEL MDP. CONTRACTOR SHALL MODIFY/EXTEND EXISTING CONDUCTORS AND CONDUIT TO ACCOMMODATE RECONNECTION.
- 7. CONTRACTOR SHALL DEMOLISH EXISTING ELECTRICAL SERVICE CONDUCTORS BACK TO UTILITY POLE.





ARCHITECTURAL GROUP

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DEMOLITION GENERAL NOTES

- CONTRACTOR SHALL VISIT THE SITE TO VERIFY EXISTING CONDITIONS PRIOR TO SUBMISSION OF BID. NO ADDITIONAL COMPENSATION SHALL BE CONSIDERED FOR FAILURE TO OBSERVE THIS REQUIREMENT.
 THE CONTRACTOR SHALL DISCONNECT AND REMOVE ALL ELECTRICAL WIRING AND EQUIPMENT AS REQUIRED WITHIN ALL AREAS TO BE RENOVATED. THIS SHALL INCLUDE BUT NOT BE LIMITED TO FIXTURES, DEVICES, OUTLETS, SWITCHES, RECEPTACLES, STARTERS, DISCONNECTS, PANELS, FEEDERS, FTC.
- 3. THE CONTRACTOR SHALL DISCONNECT AND REMOVE ALL EXISTING CIRCUITS TO MECHANICAL EQUIPMENT BEING REMOVED. REFER TO ALL MECHANICAL DEMOLITION DRAWINGS OR NOTES FOR
- 4. WHERE ELECTRICAL ITEMS ARE REMOVED, ALL BRANCH DEVICE'S WIRING SHALL BE REMOVED BACK TO PANEL SERVICING THE EQUIPMENT. WHERE CIRCUITS SERVE ADDITIONAL DEVICES OR EQUIPMENT REMAINING, WIRING SHALL BE REMOVED BACK TO THE NEAREST ACTIVE JUNCTION BOX.
- 5. THE CONTRACTOR SHALL MAINTAIN CONTINUITY OF EXISTING CIRCUITS THAT ARE TO REMAIN IN OPERATION AND SCHEDULE FOR RE-FEEDING FROM NEW PANELS. FORWARD FINDINGS TO ENGINEER FOR REVIEW AND COORDINATION.
- 6. ALL UNUSED CIRCUITS REMAINING AFTER REMOVALS SHALL BECOME SPARE IN PANELS AND LABELED AS SPARE.
- 7. THE CONTRACTOR SHALL REFER TO ARCHITECTURAL DEMOLITION DRAWINGS FOR ADDITIONAL INFORMATION AND SCOPE OF DEMOLITION.
- 8. ALL MATERIALS AND EQUIPMENT REMOVALS SHALL BE DISPOSED OF AS DIRECTED BY THE OWNER OR THE ARCHITECT.

 SIGNATURE:

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PAUL RIPISH, N.J.P.E. LICENSE NUMBER 4515800
ALL DRAWINGS AND WRITTEN MATERIALS APPEARING HEREIN CONSTITUTE ORIGINAL AND UNPUBLISHED WORK OF THE ENGINEER. THE REPRODUCTION OF THIS DRAWING FOR THE PURPOSE OF COPYING THIS WORK OR REVISING SAID DRAWING SHALL BE CONSIDERED A VIOLATION OF BOTH THE PROFESSIONAL CODE OF ETHICS AND A THEFT OF COMPANY ASSETS, BOTH OF WHICH SHALL BE PROSECUTED TO THE FULLEST EXTENT OF CURRENT STATUTES.

PROJECT:

PICNIC SHELTER \$

RESTROOMS

DATE:

KSI PROJECT #: 20100M_02 AT

CHALLENGE GROVE PARK

FOR CAMDEN COUNTY PARK CHERRY HILL, NJ

SUBMISSION DATES:

FOR CODE APPROVAL

REVISIONS:

FOR BID _____ JULY 10, 2020

WALL CECTI

DO NOT SCALE DRAWING

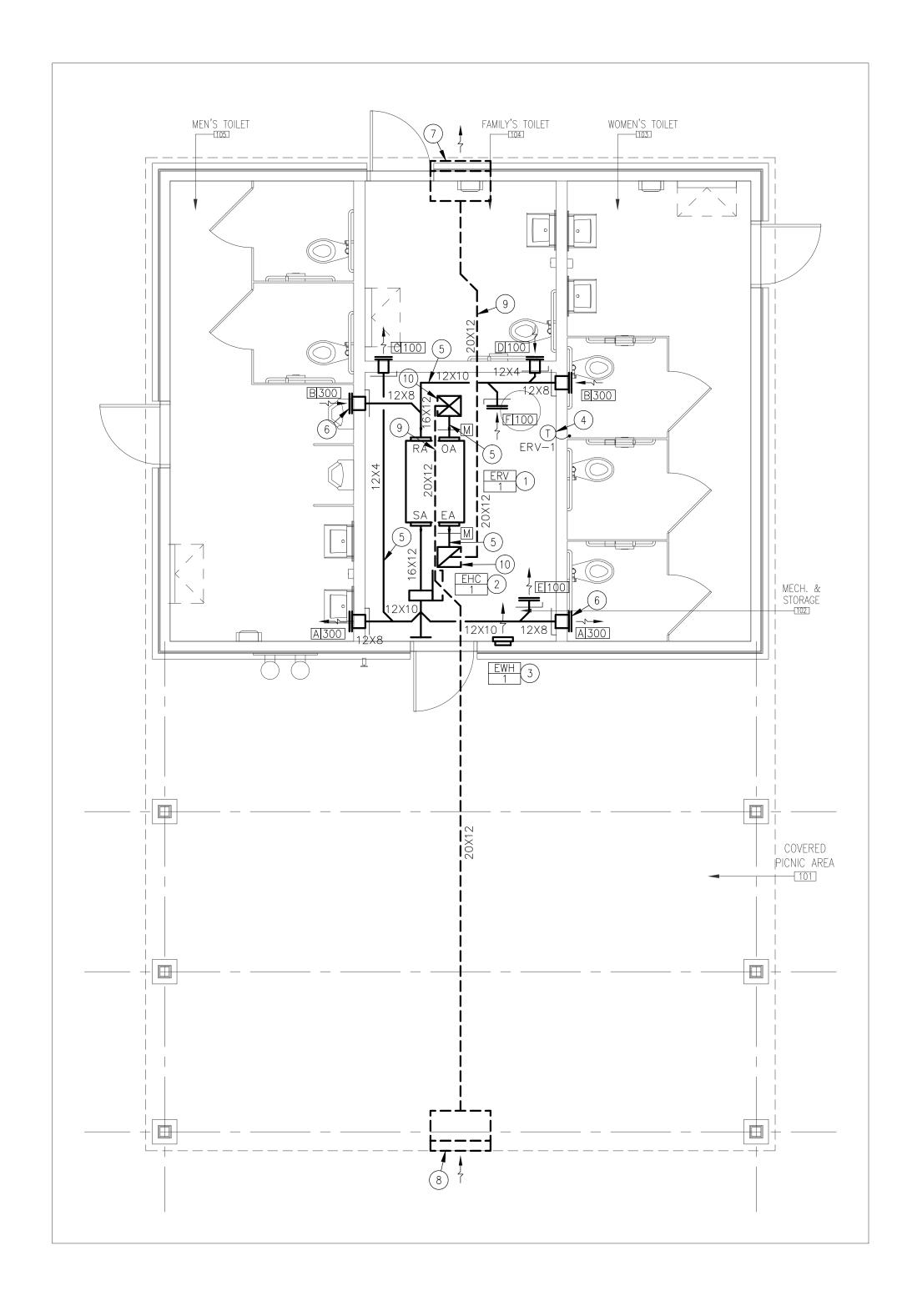
WALL SECTIONS

MEP DEMOLITION CONCESSION STAND PLAN

COMMISSION NUMBER:

19M014

MEPD 1.1



MECHANICAL FLOOR PLAN

1/4"=1'-0"

KEY NOTES

- 1. CONCEALED CEILING MOUNTED ENERGY RECOVERY VENTILATOR UNIT WITH INTREGRAL MOTORIZED ISOLATION DAMPERS INSTALLED TIGHT TO CEILING. INTERLOCK UNIT WITH REMOTE LIGHTING OCCUPANCY SENSORS AND THERMOSTAT (SEE GENERAL NOTE #4) FOR OPERATION. PROVIDE ALL FACTORY FITTINGS, ADAPTERS, ETC. REQUIRED FOR PROPER INSTALLATION. COORDINATE LOCATION IN FIELD TO MAINTAIN REQUIRED CLEARANCES FROM LIGHTS, STRUCTURE AND ANY CEILING MOUNTED EQUIPMENT. SUPPORT UNIT AS RECOMMENDED BY MANUFACTURER. PROVIDE FLEXIBLE DUCT CONNECTIONS TO UNIT. SEE DETAIL AND SCHEDULES FOR MORE INFORMATION.
- 2. DUCT MOUNTED ELECTRIC HEATING COIL INSTALLED TIGHT TO CEILING. TRANSITION DUCTS AS REQUIRED FOR PROPER MATING TO COIL. INSTALL COIL TO MAINTAIN REQUIRED CLEARANCES AS PER THE MANUFACTURER AND NEC. COIL SHALL BE INTERLOCKED WITH ASSOCIATED ERV UNIT AND DUCT TEMPERATURE SENSOR (SET FOR 78°F ADJ. SUPPLY AIR DISCHARGE TEMPERATURE) FOR CONTROL OPERATION. SEE GENERAL NOTE #4 AND SCHEDULE FOR MORE INFORMATION.
- 3. WALL MOUNTED RECESSED ELECTRIC HEATER. MOUNT HEATER 12" ABOVE FLOOR. COORDINATE UNIT RECESSING WITH WALL CONSTRUCTION AND AS PER MANUFACTURER'S RECOMMENDATIONS. SEE SCHEDULES FOR MORE INFORMATION.
- 4. NEW WALL MOUNTED ADJUSTABLE THERMOSTAT WITH REMOTE SENSING FOR ERV OPERATION. THERMOSTAT SHALL ME MANUFACTURED BY PECO MODEL TRF115-005, SENSING BULB WITH WHIP, INDUSTRIAL GRADE TYPE, ADJUSTABLE TEMPERATURE, 0°F TO 120°F TEMPERATURE RANGE RATING, 120V/1PH OR EQUAL. CONFIRM INSTALLATION LOCATION WITH ALL TRADES AND MOUNTING HEIGHT TO MEET ADA REQUIREMENTS PRIOR TO INSTALLATION. MOUNT REMOTE TEMPERATURE BULB END/TIP THROUGH BATHROOM CEILING. SEE ERV SCHEDULE FOR MORE INFORMATION.
- 5. SUPPLY/RETURN/OA/EXHAUST AIR DUCT INSTALLED TIGHT TO CEILING. COORDINATE ROUTING WITH ALL TRADES. TYPICAL.
- 6. SUPPLY/RETURN REGISTER INSTALLED APPROXIMATELY 12" BELOW CEILING. COORDINATE FINAL LOCATION WITH ALL TRADES. TYPICAL FOR ALL.
- 7. NEW STORM-PROOF EXHAUST AIR DISCHARGE LOUVER MANUFACTURED BY GREENHECK MODEL ESJ-602, SIZE 36"WX16"HX6"D, FREE AREA 1.54 SQFT. OR APPROVED EQUAL. MOUNT LOUVER IN EXTERIOR WALL ROOF PEAK WITH BIRDSCREEN. MODIFY WALL OPENING TO ACCOMMODATE NEW LOUVER SIZE. COORDINATE OPENING WITH BUILDING CONSTRUCTION AS REQUIRED. PROVIDE 18" MINIMUM DEEP OUTSIDE AIR DUCT PLENUM CONNECTION TO LOUVER.
- 8. NEW STORM-PROOF OUTSIDE AIR INTAKE LOUVER MANUFACTURED BY GREENHECK MODEL ESJ-602, SIZE 30"WX16"HX6"D, FREE AREA 1.54 SQFT. OR APPROVED EQUAL. MOUNT LOUVER IN EXTERIOR WALL ROOF PEAK WITH BIRDSCREEN. MODIFY WALL OPENING TO ACCOMMODATE NEW LOUVER SIZE. COORDINATE OPENING WITH BUILDING CONSTRUCTION AS REQUIRED. PROVIDE 18" MINIMUM DEEP OUTSIDE AIR DUCT PLENUM CONNECTION TO LOUVER.
- 9. OA/EXHAUST AIR DUCT INSTALLED/ROUTED IN ATTIC ABOVE TO LOUVER. COORDINATE ROUTING WITH ALL TRADES AND STRUCTURE/TRUSSES.
- 10. 16"X12" OA/EXHAUST AIR DUCT THROUGH CEILING TO ATTIC ABOVE. SEAL CEILING DUCT PENETRATION WITH SUPPORT COLLAR/FLANGE AND SEALANT. TRANSITION FROM 16"X12" TO 20"X12" IN ATTIC. COORDINATE ROUTING WITH ALL TRADES.

GENERAL NOTES

- CONTRACTOR TO PATCH ALL DISTURBED FINISHES WITH MATERIAL AND ASSEMBLIES TO MATCH ADJACENT SURFACES AND FINISHES (TYPICAL). COORDINATE WITH ARCHITECT.
- 2. ALL DUCT ROUTINGS ARE PROPOSED AND SHALL BE COORDINATED WITH WALL, CEILING AND FLOOR CONSTRUCTION AND ALL OTHER TRADES. RE—ROUTING OF DUCTS, PIPING, POWER, ETC, MAY BE REQUIRED TO AVOID TRADE CONFLICTS.
- 3. ALL EXPOSED DUCTS IN MECHANICAL ROOM TO BE INTERNALLY LINED WITH 1" INSULATION. DUCT SIZES SHOWN ARE INCREASED TO ACCOMMODATE LINING THICKNESS.
- 4. HVAC SYSTEM OPERATION SHALL BE AS FOLLOWS:

ENERGY RECOVERY VENTILATOR UNIT (ERV-1):

*THE ENERGY RECOVERY VENTILATOR (ERV) UNIT (ERV-1) SHALL BE INTERLOCKED WITH ALL 3
BATHROOMS REMOTE LIGHTING OCCUPANCY SENSORS AND SPACE TEMPERATURE THERMOSTAT.

*THE ERV UNIT SHALL ENABLED "ON", WITH INTEGRAL MOTORIZED OA/EA DAMPERS IN THE "OPEN"
POSITION, UPON ANY OCCUPANCY SENSOR DETECTING BATHROOM USE AND/OR THE SPACE TEMPERATURE
IS BELOW THE THERMOSTAT TEMPERATURE SETPOINT OF 50°F (ADJ.).

*THE ERV UNIT SHALL BE ENABLED "OFF", WITH INTEGRAL MOTORIZED OA/EA DAMPERS IN THE "OFF"
POSITION, UPON ANY OCCUPANCY SENSOR NOT DETECTING BATHROOM USE AND THE THERMOSTAT
TEMPERATURE SETPOINT OF 50°F (ADJ.) IS SATISFIED.

ELECTRIC HEATING COIL (EHC-1):

*THE DUCT MOUNTED ELECTRIC HEATING COIL (EHC-1) SHALL BE INTERLOCKED WITH ERV UNIT STARTER
AND DUCT MOUNTED SUPPLY AIR TEMPERATURE SENSOR (SETPOINT AT 78°F ADJ.).

*THE EHC SHALL ENABLED "ON" UPON THE ERV UNIT ENABLING "ON" (START).

*THE EHC SHALL ENERGIZE STAGES OF HEAT AS REQUIRED UPON THE INTEGRAL AIR PROVING SWITCH

BEING SATISFIED AND THE DUCT MOUNTED DISCHARGE SUPPLY AIR TEMPERATURE SENSOR IS BELOW 78°F (ADJ.).

*THE EHC SHALL BE DE-ENERGIZED "OFF" UPON THE DUCT MOUNTED DISCHARGE SUPPLY AIR TEMPERATURE SENSOR SETPOINT OF 78°F (ADJ.) IS SATISFIED / MAINTAINED (WITH ±2°F DEADBAND).

**CONTRACTOR TO PROVIDE ALL REQUIRED CONTROLS (INTERLOCKS, WIRING, CONTROLLERS, RELAYS,

PROGRAMMING, ETC.) TO AUTOMATICALLY OPERATE ERV-1 AND EHC-1.

CERTIFICATE:



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PROSECUTED TO THE FULLEST EXTENT OF CURRENT STATUTES.

PROJECT:

PICNIC SHELTER \$

RESTROOMS

DATE:
KSI PROJECT #: 20100M_02 AT

CHALLENGE GROVE PARK

FOR CAMDEN COUNTY PARK CHERRY HILL, NJ

SUBMISSION DATES:
FOR CODE APPROVAL

REVISIONS:

FOR BID ___ JULY 10, 2020

DO NOT SCALE DRAWING
WING TITLE:

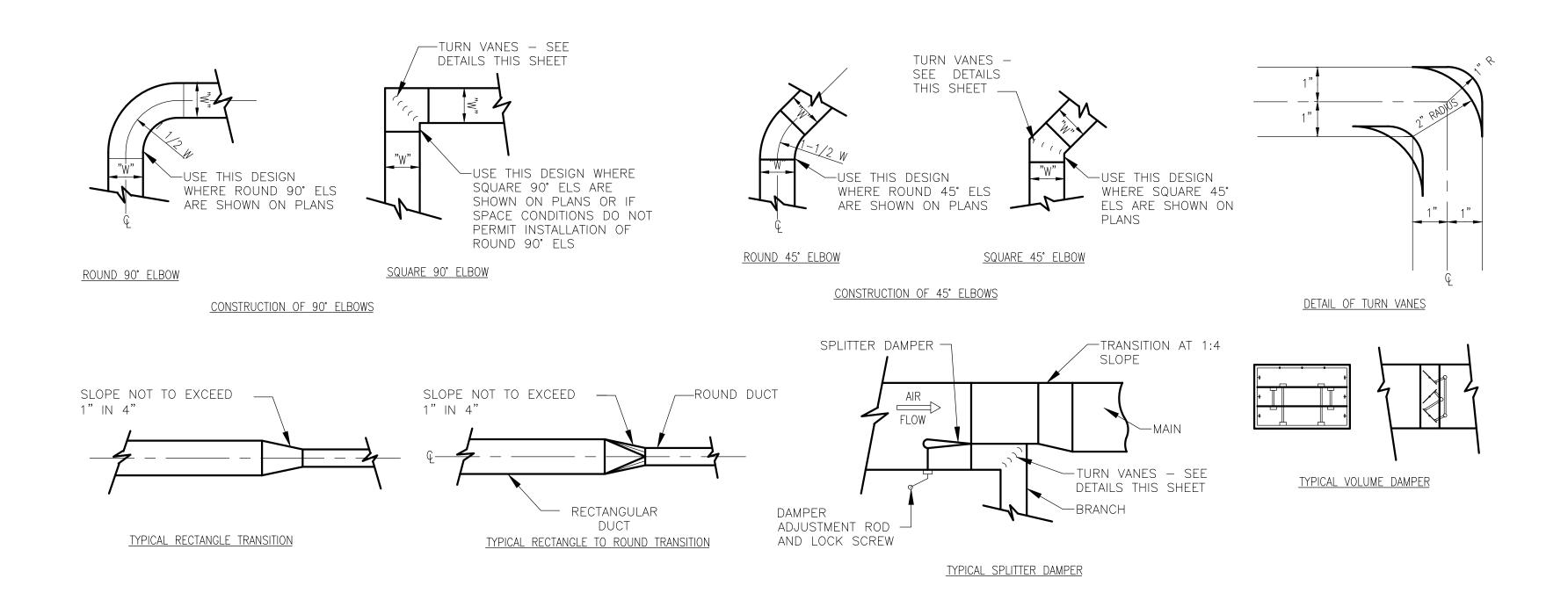
MECHANICAL FLOOR PLAN

WALL SECTIONS

COMMISSION NUMBER:

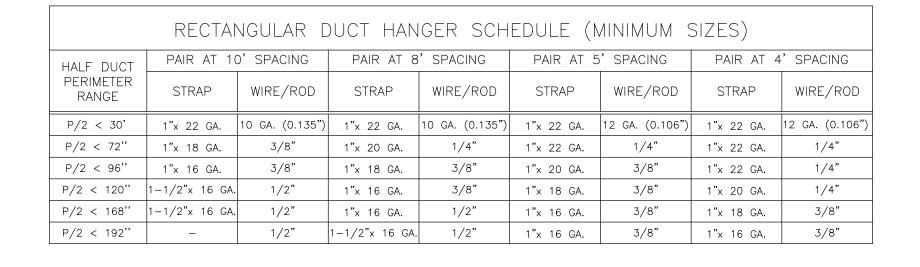
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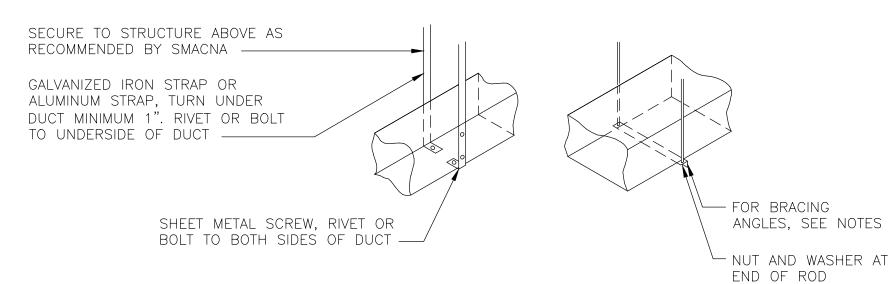
M1.1



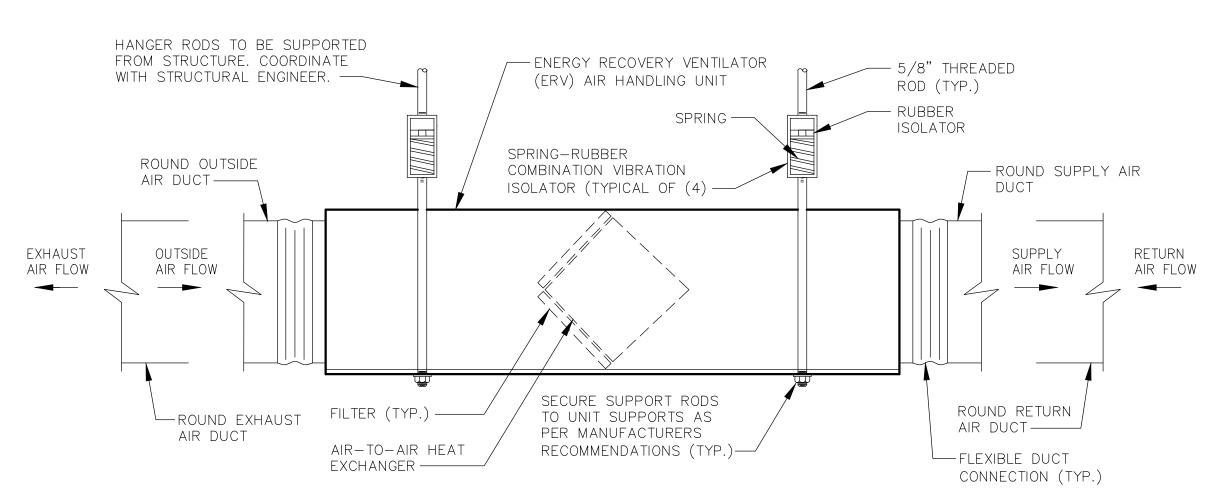
DUCTWORK DETAILS

M2.1









<u>NOTES</u>

- 1. COORDINATE OUTSIDE, EXHAUST, SUPPLY AND RETURN AIR CONFIGURATION WITH UNIT MANUFACTURER.
- 2. AIR-TO-AIR HEAT EXCHANGER PLATE ARE 100% ISOLATED FROM AIR STREAMS AND HAVE NO CROSS AIR CONTAMINATION.
- 3. MAINTAIN ACCESS CLEARANCES FOR UNIT SERVICING, FILTERS, ETC. AS PER MANUFACTURER'S RECOMMENDATIONS.
- 4. ERV UNIT SHALL HAVE FACTORY INTEGRAL MOTORIZED DAMPER WITH CONTROLS ON OUTSIDE AND EXHAUST AIR CONNECTIONS..

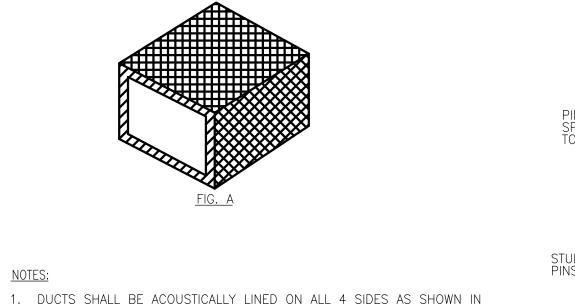
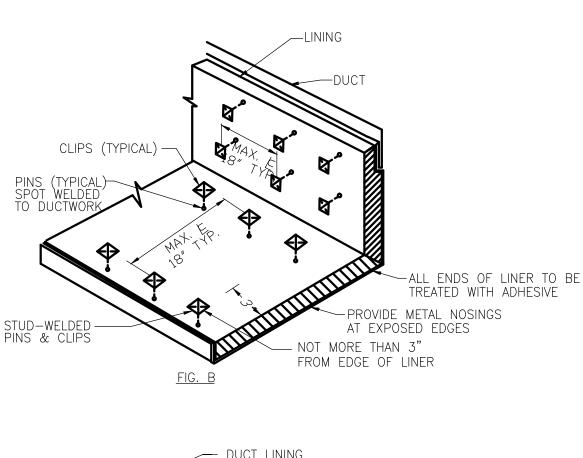


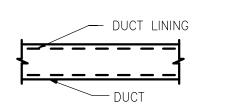
FIG. "A" AND SHALL BE DESIGNATED BY THE SYMBOL IN FIG. "C". LINING THICKNESS SHALL BE AS SPECIFIED.

2. DUCTS LINED WITH ACOUSTICAL MATERIAL SHALL BE FASTENED WITH CLIPS, ADHESIVE OR PINS, AS DESCRIBED IN SMACNA DUCT CONSTRUCTION STANDARDS 1985 EDITION.

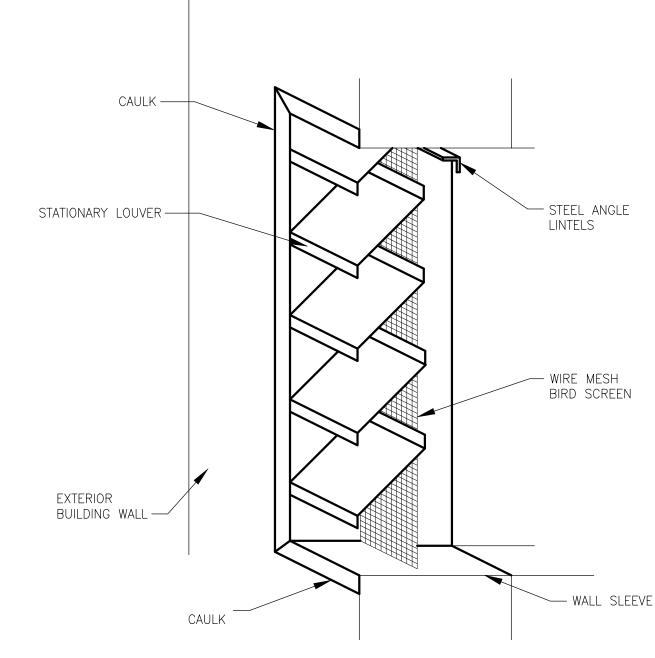
3. REFER TO SPECIFICATIONS FOR MATERIAL TYPES.4. PROVIDE LINING FOR A MINIMUM OF 10' AFTER UNIT SUPPLY

AND RETURN AIR CONNECTIONS.





ACOUSTICAL TREATMENT - DUCT LINING DETAIL



NOTES:

- 1. OVERALL SIZE OF OPENING SHOULD BE 1/4" GREATER IN BOTH DIRECTIONS THAN SIZE OF LOUVER.
- 2. LOUVER BLADES SHOULD NOT EXCEED 5 FT. IN WIDTH. USE MULLION CONNECTED SECTIONS FOR GREATER WIDTHS.

 3. PROVIDE CAULKING SEALANT, SINGLE COMPONENT, NEUTRAL CURING, NON—SAG TYPE, CLASS 100/50. SEALANT COLO
- 3. PROVIDE CAULKING SEALANT, SINGLE COMPONENT, NEUTRAL CURING, NON-SAG TYPE, CLASS 100/50. SEALANT COLOR TO MATCH EXTERIOR FINISHES. COORDINATE CAULK TYPE CAPABILITY WITH WALL CONSTRUCTION PRIOR TO USE.



CEILING HUNG ERV AIR HANDLING UNIT SUPPORT DETAIL NONE

AND MAINTAINING REQUIRED CLEARANCES.

9. PROVIDE MERV 8 FILTERS (SIZES AND QUANTITIES AS PER MANUFACTURER REQUIREMENTS).

ENERGY RECOVERY UNIT SCHEDULE (ERV) EAT (AMBIENT) LAT (SUPPLY)
DB/WB 'F DB/WB 'F NUMBER DB/WB °F RECOVERED (MBH) DB/WB °F DB/WB °F ERV-1 HE1XINH BATHROOMS 1. SELECTIONS BASED ON EQUIPMENT MANUFACTURED BY RENEW-AIRE OR APPROVED EQUAL. 2. UNIT SHALL INDOOR CEILING MOUNTED TYPE WITH SUPPLY AND EXHAUST AIR FAN MOTORS (ECM TYPE). 3. UNIT SHALL HAVE ALL INTEGRAL CONTROLS FOR COMPLETE OPERATION. 4. UNIT SHALL HAVE CROSS-FLOW "AIR-TO-AIR" ENERGY RECOVERY CORE HEAT EXCHANGER. COORDINATE AIR CONNECTION CONFIGURATION TYPE WITH LAYOUT ON PLANS. 5. UNIT SHALL HAVE FACTORY MOTORIZED OUTSIDE AND EXHAUST AIR DAMPERS WITH FULL CONTROL. 6. UNIT SHALL HAVE DISCONNECT SWITCH. 7. INTERLOCK UNIT WITH ALL REMOTE LIGHTING OCCUPANCY SENSORS AND THERMOSTAT FOR UNIT OPERATION. 8. UNIT SHALL HAVE REMOVABLE TYPE ACCESS DOOR PANELS.

VIT MODEL	EQUIPMENT UNIT ID	AIR FLOW	CAPACITY		DUCT SIZE		ELECTRIC	CAL				WEIGHT	NOTES	
D NO.	INTERLOCKED WITH	CFM	KW	MBH	WIDTH	HEIGHT	VOLTS	PHASE	HERTZ	MCA	MOCP	(LBS)		
					(IN.)	(IN.)								
C-1 EK-16-12-	010 ERV-1	800	10.0	34.13	16	12	240	1	60	41.6	50.0	40	1 THRU 6	
<u>NOTES:</u> 1. SELECTIONS	BASED ON EQUIPMENT MANU	JFACTURED BY R	ENEWAIRE OR	APPROVED EG	QUAL.									
1. SELECTIONS	BASED ON EQUIPMENT MANU IG SHALL BE INTERLOCKED				•	ARGE AIR DU	СТ ТЕМРЕ	RATURE S	SENSOR II	NTERLOCK	KED			
1. SELECTIONS 2. UNIT ENABLII WITH COIL H	,	WITH ASSOCIATED ATION (SET FOR	HP UNIT OPE MAINTAINING 7	ERATION. P 8°F ADJ. SUF	PROVIDE DISCHA PPLY AIR DISCH	HARGE TEMPE	ERATURE).							
1. SELECTIONS 2. UNIT ENABLI	IG SHALL BE INTERLOCKED	WITH ASSOCIATED	HP UNIT OPE	ERATION. P	ROVIDE DISCHA									

6. COIL AIRFLOW DIRECTION AND RIGHT / LEFT SIDE CONTROL BOX CONFIGURATION SHALL BE COORDINATED PRIOR TO ORDERING FOR PROPER INSTALLATION

UNIT MODEL	EL LOCATION	CAPACITY	AIR FLOW	ELECTRICAL DIMENSIONS							1S		WEIGHT	NOTES
ID NO.		MBH	CFM	KW	VOLTS	PHASE	HERTZ	MCA	MOCP	WIDTH	HEIGHT	DEPTH	(LBS)	
										(IN.)	(IN.)	(IN.)		
EWH-1 CWH-1151DSAC	MECHANICAL ROOM	5.12	65	1.5	120	1	60	12.5	20	10.5	12.5	4.8	20	1 THRU 6
2. PROVIDE TAMPERI	ED ON EQUIPMENT MANUFACT PROOF INTERGRAL THERMOST		RK/MARLEY OF	R APPROV	ED EQUAI	L.								
3. PROVIDE DISCONNECT SWITCH. 4. UNIT SHALL HAVE THERMAL OVERLOAD PROTECTION.														
3. PROVIDE DISCONI		STION												

DI TIV	MODEL	SIZE	DESCRIPTION	NOTES
А	MSSL	12"X12"	MEDIUM SECURITY 14 GA. WELDED STEEL SUPPLY GRILLE WITH INTEGRAL SLEEVE AND FRAME, FIXED 0 DEFLECTION LOUVER BLADES, 1/2" BLADE SPACING	1,2,3,4,6
В	MSBL	12"X12"	MEDIUM SECURITY 14 GA. WELDED STEEL SUPPLY GRILLE WITH INTEGRAL SLEEVE AND FRAME, BENT FIXED 45 DEFLECTION LOUVER BLADES, 1/2" BLADE SPACING	1,2,3,4,6
0	MSSL	8"X8"	MEDIUM SECURITY 14 GA. WELDED STEEL SUPPLY GRILLE WITH INTEGRAL SLEEVE AND FRAME, FIXED 0 DEFLECTION LOUVER BLADES, 1/2" BLADE SPACING	1,2,3,4,6
)	MSBL	8"X8"	MEDIUM SECURITY 14 GA. WELDED STEEL SUPPLY GRILLE WITH INTEGRAL SLEEVE AND FRAME, BENT FIXED 45 DEFLECTION LOUVER BLADES, 1/2" BLADE SPACING	1,2,3,4,6
Ξ	520D	10"X4"	STEEL SUPPLY GRILLE, ADJUSTABLE DOUBLE DEFLECTION LOUVER BLADES, 3/4" BLADE SPACING, DAMPER	1,2,3,4,6
-	530D	10"X4"	STEEL RETURN/EXHAUST GRILLE, 45° DEFLECTION LOUVER BLADES, 3/4" BLADE SPACING, DAMPER	1,2,3,4,6
	NOTES:			NECK SIZE TABLE
		ED ON FOLLIDMENI	T MANUFACTURED BY PRICE HVAC OR APPROVED EQUAL.	UP TO 100 CFM — 6" DIAMETE
		CRITERION RATING		100 TO 275 CFM - 8" DIAMETE
			BE SELECTED BY ARCHITECT.	276 TO 380 CFM - 10" DIAMET
			COORDINATED WITH CEILING / WALL / DUCT CONSTRUCTION TYPE.	381 TO 500 CFM - 12" DIAMET
5.	NECK DIAMETER	SHALL BE AS SC	HEDULED FOR CEILING DIFFUSER/REGISTERS. SEE NECK SIZE TABLE.	501 TO 700 CFM - 14" DIAMET
			I PLANS, BALANCING DAMPER TO BE INSTALLED IN NECK/BRANCH OF DIFFUSER OR RETURN.	



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ST

PICNIC SHELTER \$

RESTROOMS

CHALLENGE GROVE PARK

PROJECT:

KSI PROJECT #: 20100M_02

CERTIFICATE:

FOR CODE APPROVAL	_
REVISIONS:	

CAMDEN COUNTY PARK

CHERRY HILL, NJ

FOR BID JULY 10, 2020

DO NOT SCALE DRAWING

WALL SECTIONS

MECHANICAL DETAILS AND SCHEDULES

COMMISSION NUMBER:

19M014

M2.1

PLUMBING GENERAL NOTES PLUMBING SYMBOLS

- 1. DO NOT SCALE FROM THESE DRAWINGS.
- 2. DO NOT MAKE ANY CHANGES OR SUBSTITUTIONS WITHOUT SPECIFIC WRITTEN APPROVAL FROM THE ARCHITECT OR ENGINEER.
- 3. ALL INDICATED WORK SHALL BE PERFORMED BY THE PLUMBING CONTRACTOR UNLESS OTHERWISE NOTED.
- 4. REFER TO THE WRITTEN SPECIFICATIONS IN CONJUNCTION WITH THE PLANS FOR FULL PROJECT SCOPE.
- 5. IT IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO REVIEW THESE PLANS AND SPECIFICATIONS, AS WELL AS THE RELATED HVAC, FIRE PROTECTION, ELECTRICAL, STRUCTURAL, ARCHITECTURAL, INTERIOR DECOR AND SITE ENGINEERING DRAWING TO BECOME FAMILIAR WITH THE FULL PROJECT SCOPE. IN ADDITION, THIS CONTRACTOR MUST COORDINATE WITH AN OWNER REPRESENTATIVE TO FULLY UNDERSTAND ALL REQUIREMENTS WHICH MAY NOT BE SPECIFIED HEREIN AND WHICH THE OWNER MAY CONSIDER PART OF THIS CONTRACT. DURING THE COURSE OF CONSTRUCTION COORDINATION AND ACTUAL CONSTRUCTION, IT IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO WORK CLOSELY WITH ALL ACCOMPANYING CONTRACTORS AND TRADESMEN IN ORDER TO ENSURE A SMOOTH RUNNING AND CAREFULLY COORDINATED INSTALLATION.
- 6. ANY DISCREPANCIES OR INADEQUACIES WITHIN THESE BID DOCUMENTS OR BETWEEN THESE BID DOCUMENTS AND THE RELATED HVAC, FIRE PROTECTION, ELECTRICAL, STRUCTURAL, ARCHITECTURAL, INTERIOR DECOR AND SITE ENGINEERING DRAWINGS, OR BETWEEN THESE BID DOCUMENTS AND FIELD CONDITIONS MUST BE BROUGHT TO THE ATTENTION OF THE OWNER, ARCHITECT AND ENGINEER PRIOR TO BID SUBMISSION.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS INCLUDING BUT NOT LIMITED TO NATIONAL, CITY, STATE, LOCAL CODES AND ORDINANCES WHICH MAY BE IN EFFECT. ALL PLUMBING MATERIALS, INSTALLATION PROCEDURES AND SYSTEM LAYOUTS SHALL BE APPROVED BY ALL APPLICABLE CODE ENFORCEMENT AUTHORITIES HAVING JURISDICTION, AND IT SHALL BE THE PLUMBING CONTRACTOR'S RESPONSIBILITY TO OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS FOR THIS INSTALLATION.
- 8. THE PLUMBING CONTRACTOR MUST VISIT THE SITE AND NOTE ALL EXISTING CONDITIONS AS WELL AS ALL CONDITIONS TO BE MET, PRIOR TO BID SUBMISSION. LACK OF A THOROUGH UNDERSTANDING OF THE PROJECT SCOPE AND CONDITIONS SHALL NOT CONSTITUTE AN EXCUSE FOR ERRORS OR OMISSIONS, NOR FOR A REQUEST FOR EXTRA COMPENSATION.
- 9. IT IS CRITICAL THAT THE PLUMBING CONTRACTOR FIELD VERIFIES ALL EXISTING INVERTS PRIOR TO BID SUBMISSION. IF ANY CONFLICTS EXIST BETWEEN THE NEW PLUMBING SYSTEMS AND THE EXISTING SITE LEVEL SYSTEMS, THEY SHOULD BE BROUGHT TO THE ATTENTION OF AN OWNER'S REPRESENTATIVE AND THE ENGINEER PRIOR TO BID SUBMISSION. EXTRA COMPENSATION WILL NOT BE ALLOWED FOR ANY EXTRA WORK WHICH RESULTS FROM AN INABILITY TO MEET THE INVERTS OF THE EXISTING SITE LEVEL PIPING SYSTEMS.
- 10. THE PLUMBING CONTRACTOR SHALL PROVIDE A COMPLETE SET OF RECORD "AS-BUILT" DRAWINGS INDICATING THE PRECISE LOCATION OF ALL SYSTEMS, EQUIPMENT CONCEALED OR EMBEDDED PIPING, PIPING CONNECTIONS AND ACCESS DOORS. THESE DRAWINGS SHALL ALSO INCLUDE ALL CHANGES AND DEVIATIONS FROM BID DOCUMENTS.
- 11. RUN ALL DOMESTIC, WASTE & VENT PIPING AS HIGH AS POSSIBLE THROUGHOUT ENTIRE BUILDING. INSTALL LONG RUNS OF PIPING WITHIN STEEL (JOIST) SPACE AND OTHER PIPING TIGHT TO BOTTOM OF STEEL. COORDINATE AND VERIFY WITH OTHER CONTRACTORS AS NOT TO INTERFERE WITH DUCTWORK, FIRE PROTECTION PIPING, LIGHTING SYSTEMS, ETC.
- 12. ALL EXPOSED HORIZONTAL AND VERTICAL PIPING SHALL BE INSTALLED IN A NEAT ARRANGEMENT IN LOCATIONS WHICH ARE THE MOST INCONSPICUOUS. VERTICAL DROPS SHALL BE KEPT TO AN ABSOLUTE MINIMUM AND THEIR FINAL LOCATIONS SHALL BE COORDINATED AND RUN WITHIN CHASES, WALLS, SOFFITS WITH OTHER MECHANICAL/ELECTRICAL FEEDS. ALL SUCH LOCATIONS ARE TO BE REVIEWED WITH A OWNER REPRESENTATIVE AND ARCHITECT PRIOR TO INSTALLATION.
- 13. ALL PLUMBING FIXTURES/APPLIANCES SHALL HAVE THEIR OWN INDEPENDENT SHUT-OFF VALVES, INSTALLED IN AN EASILY ACCESSIBLE AND CONVENIENT LOCATION.
- 14. ALL DOMESTIC WATER BRANCH LINES SHALL HAVE THEIR OWN RESPECTIVE SHUT-OFF VALVES.
- 15. DOMESTIC HOT WATER HEATER TEMPERATURE/PRESSURE RELIEF VALVES SHALL BE PIPED FULL SIZE TO THE NEAREST APPROVED STANDPIPE OR FLOOR DRAIN. THIS REQUIREMENT SHALL BE APPLICABLE TO ALL DOMESTIC WATER HEATERS EXCEPT INSTANTANEOUS WATER HEATERS.
- 16. ALL PLUMBING VENT LINES NOTED AS "V. UP" OR "VENT UP" SHALL BE CONNECTED TO THE NEAREST APPROVED "V.T.R." OR "VENT THRU ROOF."
- 17. PRIOR TO INSTALLING SYSTEMS, THE PLUMBING CONTRACTOR SHALL MEET WITH THE ARCHITECTS REPRESENTATIVE TO FIELD VERIFY THE EXACT LOCATION OF ALL PROPOSED EQUIPMENT WHICH MAY NOT BE CLEARLY INDICATED ON THE DRAWINGS.
- 18. PROVIDE C.O.'S AT THE BASE OF ALL SANITARY AND STORM STACKS.
- 19. SANITARY SEWER PIPING SHOWN IS BASED ON .25" PER FOOT FALL FOR ALL PIPING SMALLER THAN 4", AND .125" PER FOOT FALL FOR ALL PIPING 4" AND LARGER.
- 20. PROVIDE ALL SAW CUTTING AND PATCHING AS REQUIRED TO ACCOMMODATE ALL NEW PIPING AND FIXTURE INSTALLATION.
- 21. <u>LEAD FREE REQUIREMENT:</u> PRODUCTS DESIGNED FOR DISPENSING POTABLE WATER SHALL MEET NSF 61 AND NSF 372 TEST STANDARDS VIA THIRD—PARTY TESTING AND CERTIFICATION.

DEMOLITION NOTES

- 1. ALL PIPING AND EQUIPMENT TO BE REMOVED SHALL BE REMOVED BACK TO NEAREST STACK, RISER, OR MAIN IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS/STANDARDS, CODES AND AUTHORITY HAVING JURISDICTION.
- 2. REMOVE ANY ABANDONED AND/OR UNUSED PIPING DISCOVERED DURING DEMOLITION. THERE SHALL BE NO DEAD—ENDS GREATER THAN 24 INCHES IN ANY PLUMBING PIPING SYSTEMS.
- 3. DURING DEMOLITION ANY DAMAGES DISCOVERED IN EXISTING PIPING TO REMAIN SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
- 4. ALL EXISTING PIPING AND APPURTENANCES TO REMAIN SHALL BE PROTECTED FROM DAMAGE DURING DEMOLITION. ANY DAMAGES INCURRED SHALL BE REPAIRED OR REPLACED AT NO COST TO THE OWNER.
- 5. THE CONTRACTOR SHALL COORDINATE, NOTIFY, AND SCHEDULE ALL REMOVALS WITH THE OWNER PRIOR TO PROCEEDING WITH THE WORK.
- 6. THIS CONTRACTOR SHALL INCLUDE ALL COSTS FOR REMOVAL AND RELOCATIONS IN THE CONTRACT.
- DRAWINGS AND NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO BIDDING.
 CONTRACTOR WILL BE RESPONSIBLE FOR ANY UNREPORTED DISCREPANCIES.

 THE CONTRACTOR SHALL COORDINATE ALL SHUTDOWNS AND IDENTIFY ANY WORK WHICH MAY BE

7. THE CONTRACTOR PRIOR TO BID SHALL VISIT THE SITE, EXAMINE THE EXISTING CONDITIONS,

- 8. THE CONTRACTOR SHALL COORDINATE ALL SHUTDOWNS AND IDENTIFY ANY WORK WHICH MAY BE REQUIRED TO BE PERFORMED ON OVERTIME IN ORDER NOT TO DISTURB OCCUPIED SPACES WHICH ARE NOT WITHIN THE SCOPE OF THIS CONTRACT. OBTAIN WRITTEN APPROVAL OF THE OWNER PRIOR TO PERFORMING ANY SHUTDOWNS OR PERFORMING WORK ON ON OVERTIME.
- 9. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL DEMOLITION INFORMATION AND PHASING SEQUENCE.
- 10. CONTRACTOR TO MAINTAIN UTILITY SYSTEMS OPERATIONAL DURING CONSTRUCTION. CONTRACTOR TO PROVIDE TEMPORARY MEASURES TO MAINTAIN SYSTEMS IN THE COST OF THE BID.
- 11. CONTRACTOR TO PATCH ALL HOLES, PENETRATIONS, AND ABANDONED HOLES CREATED BY RENOVATIONS. PATCH WALL AND FLOOR SLABS TO MATCH ADJACENT SURFACES.

SANITARY WASTE VENT LINE ______ NATURAL GAS COLD WATER HOT WATER HOT WATER RETURN ______ STORM SEWER _____ CA____ COMPRESSED AIR ACID WASTE PUMP DISCHARGE OIL WASTE ----OW-BALL VALVE CHECK VALVE BALANCING VALVE GAS PRESSURE REGULATOR CLEAN OUT DECK PLATE HORIZONTAL CLEANOUT GAS COCK GAS SOLENOID VALVE FLOOR DRAIN P TRAP PIPE DOWN, DROP & RISE PIPE UP

NOTE: NOT ALL SYMBOLS ARE USED ON THIS PROJECT.

PLUMBING ABBREVIATIONS

TEE PLAN UP

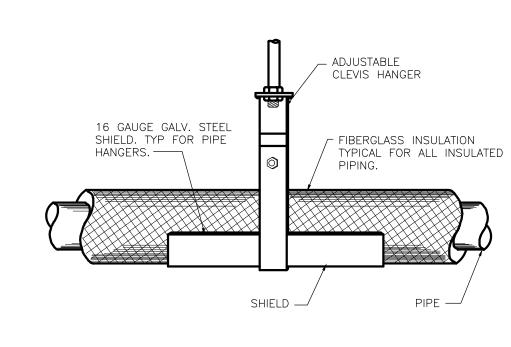
TEE PLAN DOWN

CONNECT TO EXISTING

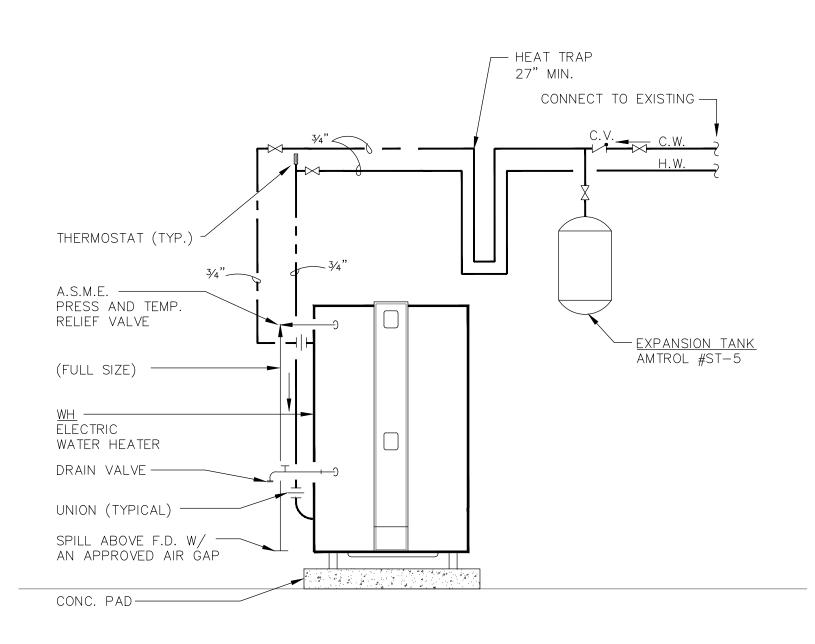
KEY NOTE

A = W I	ANTI EDEEZE MALL INCDA
A.F.W.H.	ANTI-FREEZE WALL HYDRA
A.D.	ACCESS DOOR
A.F.F.	ABOVE FINISHED FLOOR
B.F.P.	BACK FLOW PREVENTOR
CA	COMPRESSED AIR
CO.	CLEAN OUT
C.O.D.P.	CLEAN OUT DECK PLATE
D.I.	DRAINAGE INLET
EXIST.	EXISTING
E.W.C.	ELECTRIC WATER COOLER
F.A.I.	FRESH AIR INLET
FD.	FLOOOR DRAIN
G.E.	GRADE ELEVATION
H.B.	HOSE BIBB
I.E.	INVERT ELEVATION
LAV.	LAVATORY
LDR.	LEADER
N.C.	NORMALLY CLOSED
N.I.C.	NOT IN CONTRACT
O.F.	OVERFLOW LEADER
O.R.D.	OVER-FLOW ROOF DRAIN
O.W.	OIL WASTE
R.D.	ROOF DRAIN
S.	SANITARY
SK.	SINK
S.S.	SERVICE SINK
ST	STORM DRAINAGE
T.E.	TOP ELEVATION
UR.	URINAL
VAC	VACUUM
V.B.	VACUUM BREAKER
v.b. V.T.R	VENT THRU ROOF
W.	WASTE
w. W.C.	WASTE WATER CLOSET
w.c. W.c.o.	WALL CLEAN OUT
¥¥	WALL CLLAIN OUT

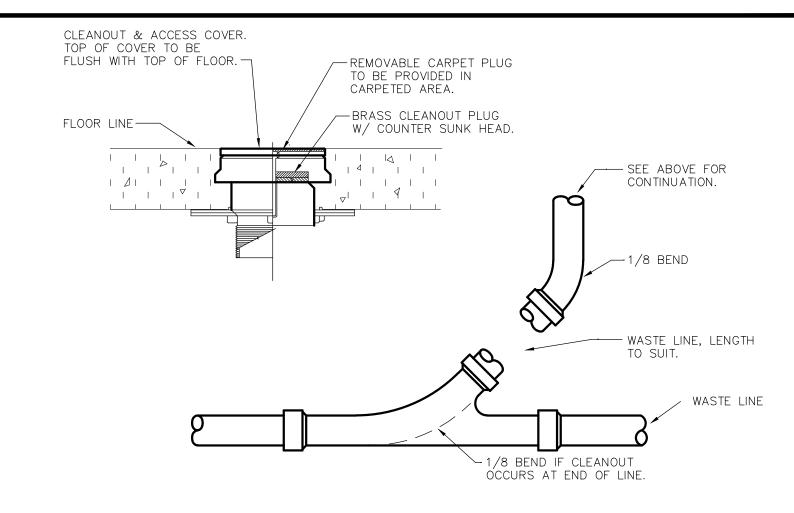
NOTE: NOT ALL ABBREVIATIONS ARE USED ON THIS PROJECT.



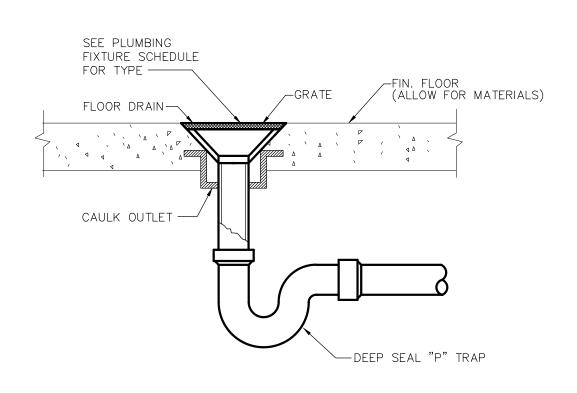
O1 TYPICAL HANGER DETAIL P0.1 N.T.S.



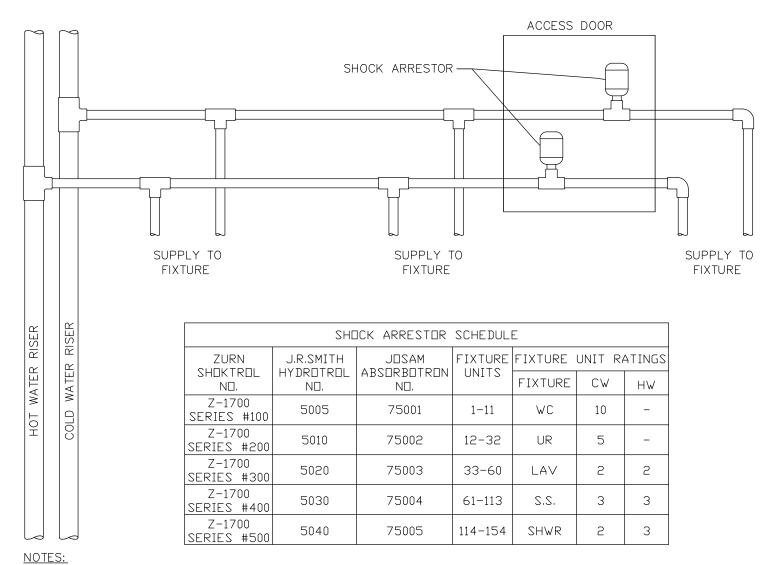




72 TYPICAL FLOOR CLEANOUT DETAIL
P0.1 N.T.S.



O4 TYPICAL FLOOR DRAIN DETAIL P0.1 N.T.S.



1. ARRESTORS SHALL BE ACCESSIBLE FOR REPLACEMENT BY WAY OF ACCESS DOOR.

2. APPROVED ARRESTORS SHALL BE INSTALLED ON WATER DISTRIBUTION SYSTEMS IN WHICH QUICK CLOSING VALVES ARE INSTALLED. MULTIPLE ARRESTOR INSTALLATIONS SHALL BE AS PER P.D.I. STANDARDS.



PLUMB:	ING FIXTURE S	SCHEDULE												
NO.	FIXTURE	MFG.	MFG.	TYPE AND	TRIM NO.	SUPPLY	TRAP NO.	SUPPORT		Р	IPE SIZE	S		REMARKS
			MODEL NO.		PIPE NO.		NO.	TRAP	WASTE	VENT	CW	HW	1	
P-1	WATER CLOSET	WILLOUGHBY	ETF-1490-FM	SLOAN ROYAL	_	_	_	_	4"	2"	1"	_	ELONGATED OPEN FRONT SEAT. 1.28 G.P.F.	
				111-ESS-HW-TMO									HARDWIRED WITH TRANSFORMER. STAINLESS STEEL WATER CLOSET.	
P-2	URINAL	WILLOUGHBY	UW-1412-WO-FA	SLOAN ROYAL 186-ESS-HW-TMO	_	_	MIFAB	2"	2"	1-1/2"	1/2"	_	0.125 G.P.F. HARDWIRED WITH TRANSFORMER. STAINLESS STEEL URINAL.	
P-3	LAVATORY (WALL HUNG)	WILLOUGHBY	HS-1014-96-HC	SLOAN EAF-225-0.5-ISM	McGUIRE	McGUIRE	MIFAB	1-1/4x 1-1/2"	1-1/2"	1-1/2"	1/2"	1/2"	0.5 G.P.M. STAINLESS STEEL LAVATORY. HARDWIRED & TRIM PLATE. ICC/ANSI A117.1-2009 COMPLIANT.	
P-4	MOP RECEPTOR	FIAT	MSBID2424	830-AA	-	'P'-TRAP	_	3"	3"	1-1/2"	3/4"	3/4"	PROVIDE WITH MOP HANGER, HOSE & BRACKET.	
P-5	DRINKING FOUNTAIN	ELKAY	LK4409BF	_	_	_	_	1-1/4x 1-1/2"	1-1/2"	1-1/2"	1/2"	_	BI-LEVEL WALL MOUNTED, BOTTLE FILLING STATION, WITH STAINLESS STEEL ACCESS DOOR PANEL.	
F.D.	FLOOR DRAIN	MIFAB	F1000-7-5	_	-	P-TRAP	_	_	_	_	_	_	PROVIDE WITH SEDIMENT BUCKET AND MI-GUARD TRAP SEAL.	
C.O.	CLEAN OUT DECK PLATE	MIFAB	C-1000-R	_	-	_	_	_	_	_	_	_	STAINLESS STEEL COVER.	

NOTES:

- 1 PROVIDE DEEP SEAL TRAPS ON ALL TOILET ROOM FLOOR DRAINS.
- 2 PROVIDE McGUIRE PRO-WRAP INSULATING KIT ON TRAPS AND HOT AND COLD WATER SUPPLIES TO ALL HANDICAPPED LAVATORIES.

 SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF HANDICAPPED FIXTURES.
- 3 PRIOR TO SUBMITTING SHOP DRAWINGS, THE CONTRACTOR SHALL COORDINATE FIXTURE TYPES AND COLORS WITH THE ARCHITECT.
- 4 REFER TO THE ARCHITECTS DRAWINGS FOR LOCATION AND QUANTITIES OF HANDICAPPED FIXTURES. ALL HANDICAPPED FIXTURES SHALL BE INSTALLED AS PER ICC/ANSI A117.1-2009 REQUIREMENTS.
- 5 ALL LAVATORIES AND HAND SINKS SHALL BE PROVIDED WITH THERMOSTATIC MIXING VALVES (ASSE 1070). MAXIMUM TEMPERATURE SHALL BE SET TO 110°F.

PLUMBING	G EQUIPMENT S	CHEDULE										
GENERAL					DESIGN DATA		ELECTRICAL					REMARKS
ITEM	SERVICE	MFR.	NO.	LOCATION	CAPACITY	PUMP HEAD	H.P./K.W.	R.P.M.	VOLTS	PHASE	HZ.	
WH-1	WATER HEATER	AO SMITH	DRE-52-9	SEE DWG'S	50 GAL.	37 G.P.H. @ 100 DEG. RISE	9 K.W.		_	1	_	PROVIDE WITH CONCRETE PAD.

CERTIFICATE:

spiezle

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 SPIEZLE ARCHITECTURAL GROUP, INC
 - 21AC00063000



PROJECT:

PICNIC SHELTER \$

RESTROOMS

DATE:

KSI PROJECT #: 20100M_02 AT

CHALLENGE GROVE PARK

FOR CAMDEN COUNTY PARK CHERRY HILL, NJ

SUBMISSION DATES:

FOR CODE APPROVAL

REVISIONS:

FOR BID JULY 10, 2020

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WALL SECTIONS

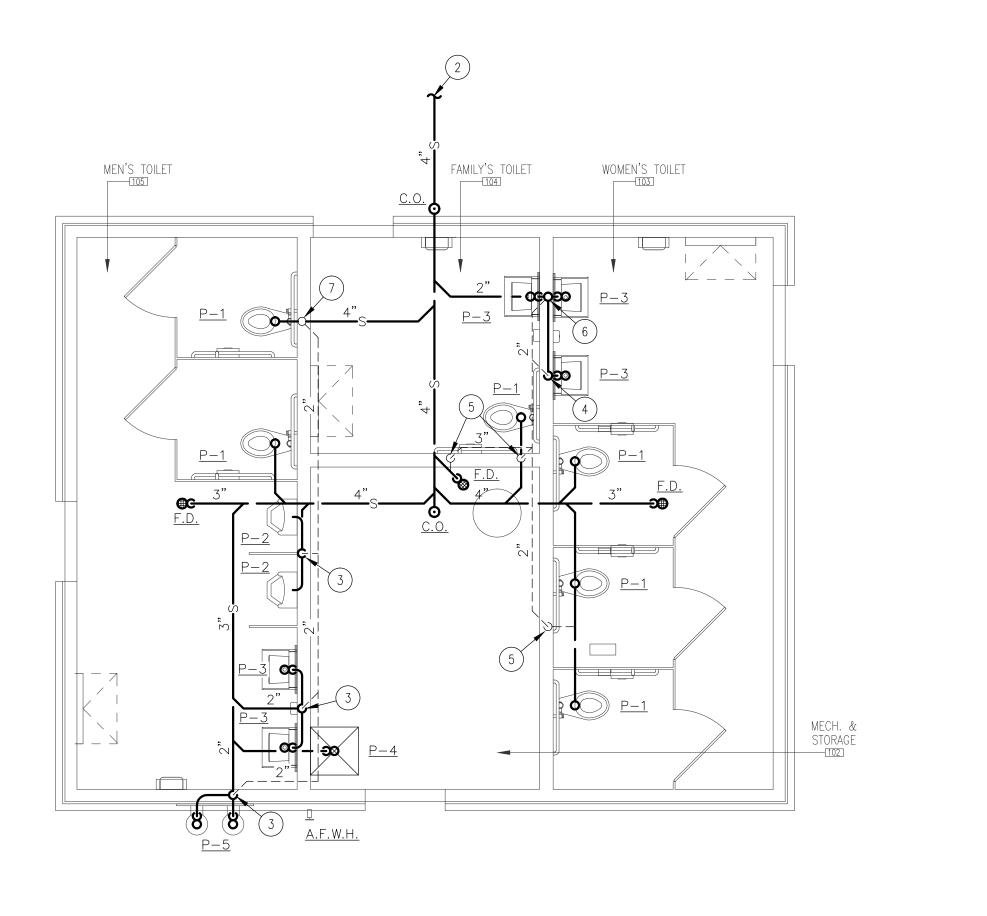
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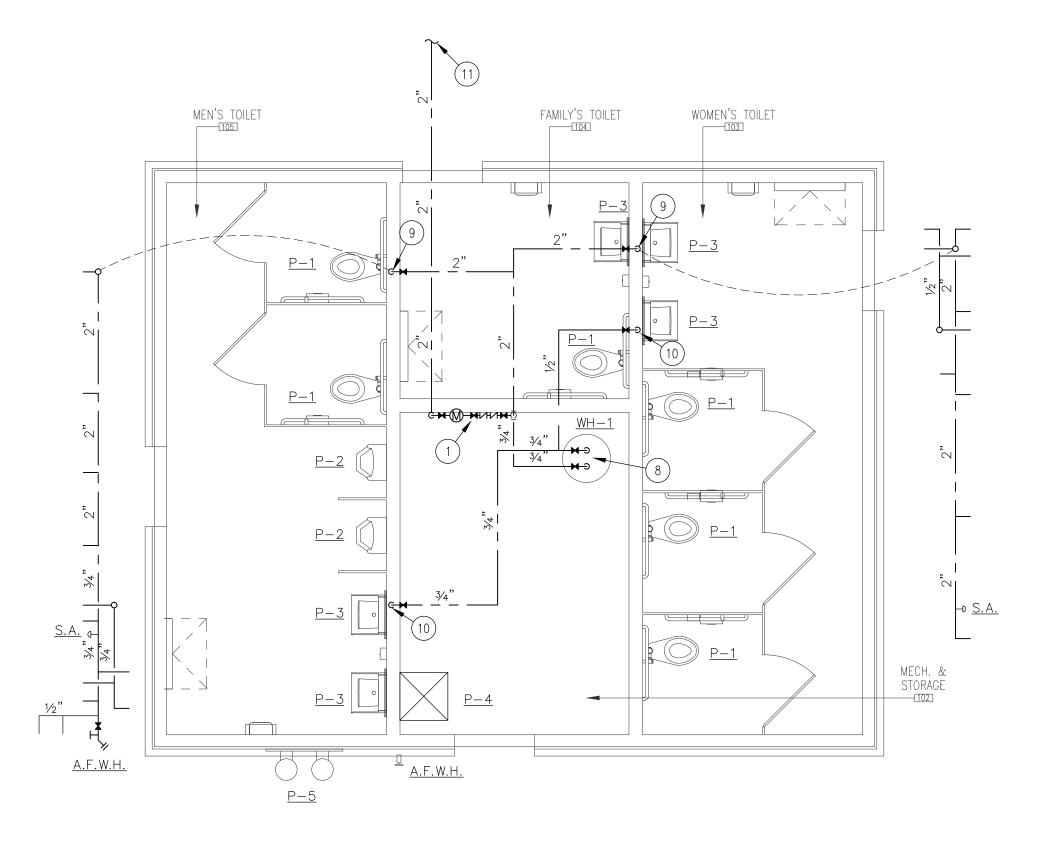
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DRAWING NUMBER:

PO. 1





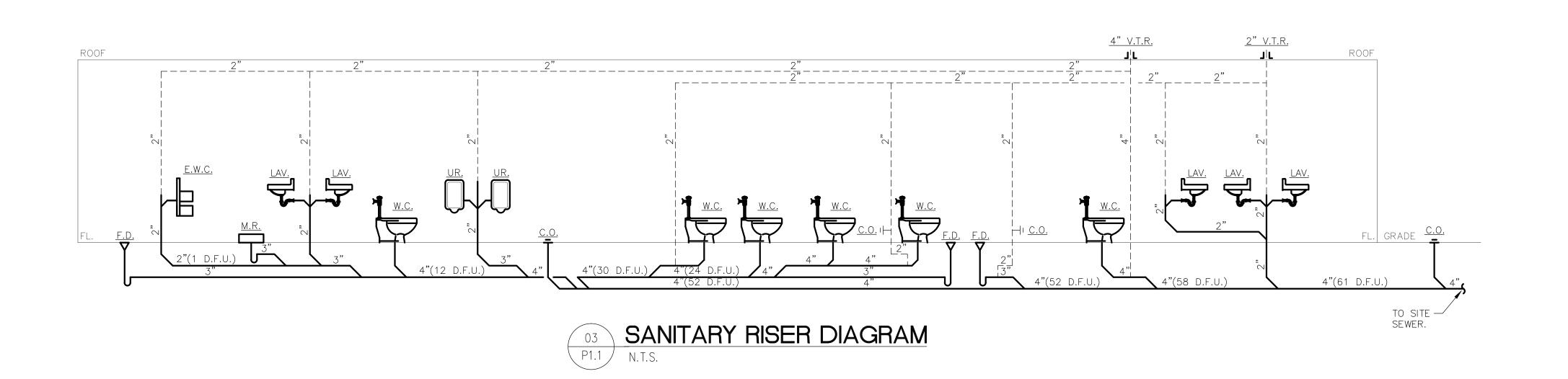












KEY NOTES

- WATER METER AND BACKFLOW PREVENTION DEVICE. INSTALL IN ACCORDANCE WITH UTILITY REQUIREMENTS. PIPE ALL DRAINS TO FLOOR DRAIN.
- 2. 4" SANITARY SEWER MAIN. REFER TO CIVIL DRAWINGS FOR CONTINUATION.
- 3. 2" W. DN. & 2" V. RISE.
- 4. 2" W. DROP & 2" V. RISE.
- 5. 2" V. RISE.
- 6. 2" W. DN. & 2" V.T.R.
- 7. 4" V.T.R.
- 8. H.&C.W. DROP & CONNECT TO WATER HEATER.
- C.W. DROP.
 H.W. DROP.
- 11. 2" DOMESTIC WATER SERVICE. REFER TO CIVIL DRAWINGS FOR CONTINUATION.

GENERAL NOTES

- 1. REFER TO SANITARY RISER DIAGRAM FOR PIPE SIZING AND VENTING REQUIREMENTS.
- 2. PROVIDE C.O.'S AT THE BASE OF ALL SANITARY STACKS.
- 3. PROVIDE THERMOSTATIC MIXING VALVES AT LAVATORIES/HAND SINKS IN ACCORDANCE WITH ASSE

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CERTIFICATE OF AUTHORIZATION NO. 24GA28124300
PAUL RIPISH, N.J.P.E. LICENSE NUMBER 4515800
ALL DRAWINGS AND WRITTEN MATERIALS APPEARING HEREIN CONSTITUTE ORIGINAL AND UNPUBLISHED WORK OF THE ENGINEER. THE REPRODUCTION OF THIS DRAWING FOR THE PURPOSE OF COPYING THIS WORK OR REVISING SAID DRAWING SHALL BE CONSIDERED A VIOLATION OF BOTH THE PROPESSIONAL CODE OF ETHICS AND A THEFT OF COMPANY ASSETS, BOTH OF WHICH SHALL BE PROSECUTED TO THE FULLEST EXTENT OF CURRENT STATUTES.

PROJECT:

PICNIC SHELTER \$

RESTROOMS

DATE:
KSI PROJECT #: 20100M_02 AT

CHALLENGE GROVE PARK

FOR CAMDEN COUNTY PARK CHERRY HILL, NJ

SUBMISSION DATES:

FOR CODE APPROVAL

FOR BID _____ JULY 10, 2020

DO NOT SCALE DRAWING

WALL SECTIONS

PLUMBING FLOOR PLAN

COMMISSION NUMBER:

19M014

P1.1

ELECTRICAL GENERAL NOTES

1. ALL ELECTRICAL WORK SHALL CONFORM TO THE LATEST ADOPTED EDITIONS OF THE NATIONAL ELECTRICAL CODE, THE NFPA, N.J.A.C. AND THE INTERNATIONAL BUILDING CODE.

- 2. THE CONTRACTOR MUST HAVE THE CIVIL, ARCHITECTURAL, AND PLUMBING DRAWINGS FOR LOCATIONS OF EQUIPMENT AND CONTROL WIRING REQUIREMENTS. ONLY POWER FEEDER TO MECHANICAL EQUIPMENT ARE SCHEDULED ON THE ELECTRICAL DRAWINGS. FURNISH AND INSTALL ALL CODE REQUIRED DISCONNECT SWITCHES FOR MECHANICAL EQUIPMENT UNLESS SPECIFIED ON MECHANICAL DRAWINGS TO BE SUPPLIED BY MANUFACTURER. PROVIDE FUSED SWITCHES WHEREVER MANUFACTURER REQUIRES THEM.
- 3. ALL TELEPHONE/DATA WIRING IS BY THE OWNER.
- 4. PANELBOARD LOCKS SHALL BE KEYED IN ACCORDANCE TO OWNER REQUIREMENTS.
- 5. SEPARATE NEUTRALS SHALL BE RUN FOR ALL CIRCUITS.
- 6. AS-BUILTS SHALL BE PROVIDED WITHIN 30 DAYS OF SYSTEM ACCEPTANCE, INCLUDING BUT NOT LIMITED TO SINGLE-LINE OF ELECTRICAL DISTRIBUTION SYSTEM AND FLOOR PLAN WITH LOCATIONS OF DISTRIBUTION EQUIPMENT AND AREAS SERVED BY THAT EQUIPMENT.(ASHRAE/IESNA STANDARD 90.1-1999.) ASBUILTS SHALL BE COMPLETED IN AUTOCAD 2007 FORMAT.
- 7. O & M MANUALS MUST BE PROVIDED FOR THE ELECTRICAL DISTRIBUTION SYSTEM, INCLUDING BUT NOT LIMITED TO NAMEPLATE RATINGS, SCHEDULED MAINTENANCE, SPECIFIC EQUIPMENT SUPPLIED, NAMES AND ADDRESSES OF QUALIFIED SERVICE AGENCIES, COMPLETE NARRATIVE AND SCHEMATIC OF SYSTEM IN NORMAL OPERATION.(ASHRAE/IESNA STANDARD 90.1-1999.)

ELECTRICAL ABBREVIATION LEGEND

<u>ABBREVIATION</u> AMPERE ALTERNATING CURRENT ABOVE FINISHED FLOOR AUTHORITY HAVING JURISDICTION AIR HANDLING UNIT ABOVE RAISED FLOOR AMERICAN WIRE GAGE CONDUIT COMPUTER AIR HANDLING UNIT CIRCUIT BREAKER ABOVE COUNTER HEIGHT CIRCUIT CENTRAL OFFICE GROUND BUS COMPUTER ROOM AIR CONDITIONER DIRECT CURRENT DISCONNECT SWITCH ELECTRICAL CONTRACTOR ELECTRICAL METALLIC TUBING EMERGENCY POWER OFF PUSHBUTTON EXISTING TO BE RELOCATED FACP FIRE ALARM CONTROL PANEL FRAME GROUND BUS GROUND GROUND FAULT CIRCUIT INTERRUPTER HORSE POWER INTERMEDIATE DISTRIBUTION FRAME ISOLATED GROUND JUNCTION BOX THOUSAND CIRCULAR MILS KVA KILOVOLT - AMPERE KILOWATT LIGHTING PANEL MAIN CIRCUIT BREAKER MOTOR CONTROL CENTER

ELECTRICAL SYMBOL LEGEND (DEVICE AND EQUIPMENT MOUNTING HEIGHTS ARE AS LISTED ON DRAWING AND/OR (NOT ALL SYMBOLS ARE DESCRIBED IN SPECIFICATIONS UNLESS ITEMIZED BY ARCHITECTURAL DOCUMENTS.) REPRESENTED ON DRAWINGS)

<u>DESCRIPTION</u> <u>SYMBOL</u> <u>DESCRIPTION</u> CEILING OR PENDANT MOUNTED FLUORESCENT FIXTURE AND OUTLET. a = LIGHTING CONTROL ZONE. 3 = CIRCUIT NUMBER - TYPICAL FOR ALL FIXTURES.FIXTURE WIRED TO EMERGENCY CIRCUIT WITH BUILT IN BATTERY. U.O.N. LINEAR WALL WASH(UNSHADED SIDE DESIGNATES DIRECTION OF WASH) INDUSTRIAL OR STRIP FLUORESCENT FIXTURE. LIGHTING FIXTURE WITH BUILT IN BATTERY. a,3 🔿 , 🥥 RECESSED LIGHT FIXTURE, WITH BATTERY BACK-UP. PENDANT OR CEILING MOUNTED LIGHT FIXTURE WALL MOUNTED LIGHT FIXTURE, BATTERY BACK-UP. **,** WALL WASH, EMERGENCY CIRCUIT OR BATTERY BACK-UP.(UNSHADED SIDE DESIGNATES DIRECTION OF WASH) CEILING MOUNTED EXIT SIGN, WALL MOUNTED EXIT SIGN. 90" TO BOTTOM OF SIGN OR CENTERED ON WALL AREA BETWEEN TOP OF DOOR AND CEILING. ARROWS AS INDICATED, SHADED AREA INDICATES FACE(S). LED EXIT SIGN WITH BATTERY PAK AND LOCAL EMERGENCY HEADS. (2) WEATHERPROOF EMERGENCY FLOOD LIGHTS (DUAL MOUNTED) -FLOOD LIGHT LIGHT FIXTURE, A=LIGHTING FIXTURE TYPE, X=CIRCUIT NUMBER SINGLE POLE 20A, TOGGLE TYPE SWITCH MOUNTED 4'-0" AFF TO TOP. SUBLETTER "a" DENOTES FIXTURE CONTROLLED. U.O.N. THREE WAY SWITCH DUPLEX CONVENIENCE RECEPTACLE 20A. 125V. MOUNTED 1'-4" A.F.F. TO CENTER. U.O.N. 3-CIRCUIT NUMBER. CH=ABOVE COUNTER HEIGHT AT 44" MAX TO ABOVE COUNTERS WHICH ARE 20"-25" DEEP. U.O.N. CP=CHILD PROOF. DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER HEIGHT. GROUND FAULT RECEPTACLE DOUBLE DUPLEX RECEPTACLE (QUAD) JUNCTION BOX, CEILING OR WALL MOUNTED AS NOTED, ELECTRICAL CONTRACTOR TO MAKE ALL REQUIRED CONNECTIONS TO DESIGNATED EQUIPMENT. PANEL BOARD (LIGHTING OR RECEPTACLE) GROUND ROD ELECTRIC METER ------ EXPOSED CONDUIT OR CABLE — — CONCEALED CONDUIT OR CABLE

DISCONNECT SWITCH

OCCUPANCY SENSOR

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PICNIC SHELTER \$ RESTROOMS DATE: KSI PROJECT #: 20100M_02 CHALLENGE GROVE PARK

> CAMDEN COUNTY PARK CHERRY HILL, NJ

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FOR BID ___ JULY 10, 2020 DO NOT SCALE DRAWING

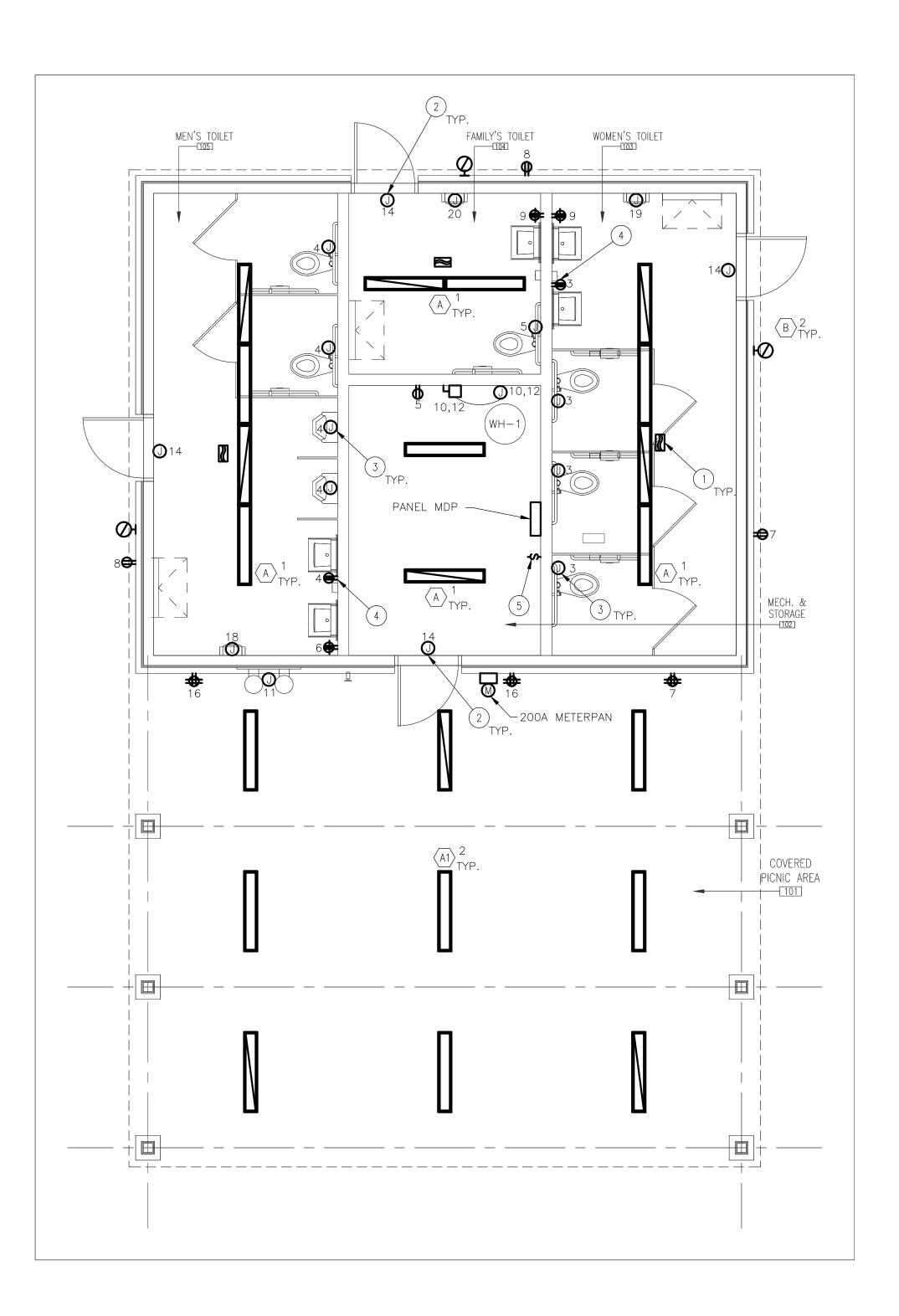
WALL SECTIONS

ELECTRICAL GENERAL INFORMATION

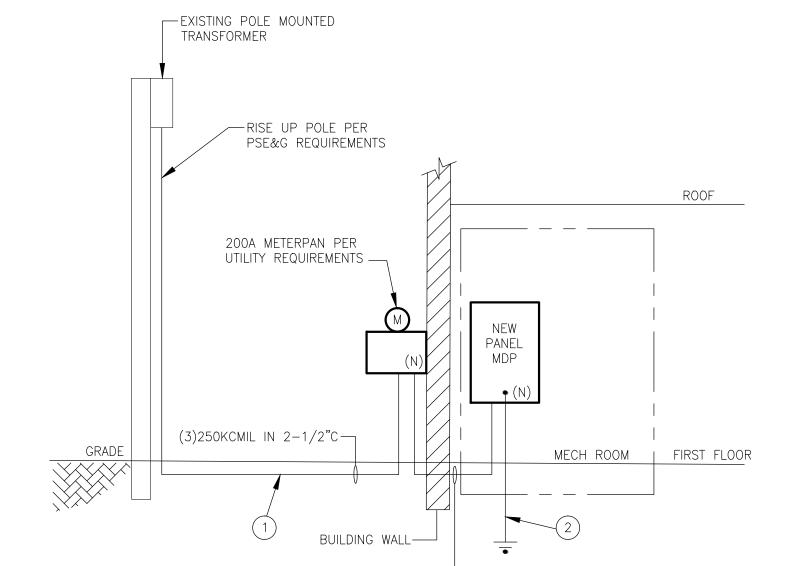
COMMISSION NUMBER:

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EO. 1



O1 ELECTRICAL FLOOR PLAN
E1.1 1/4"=1'-0"

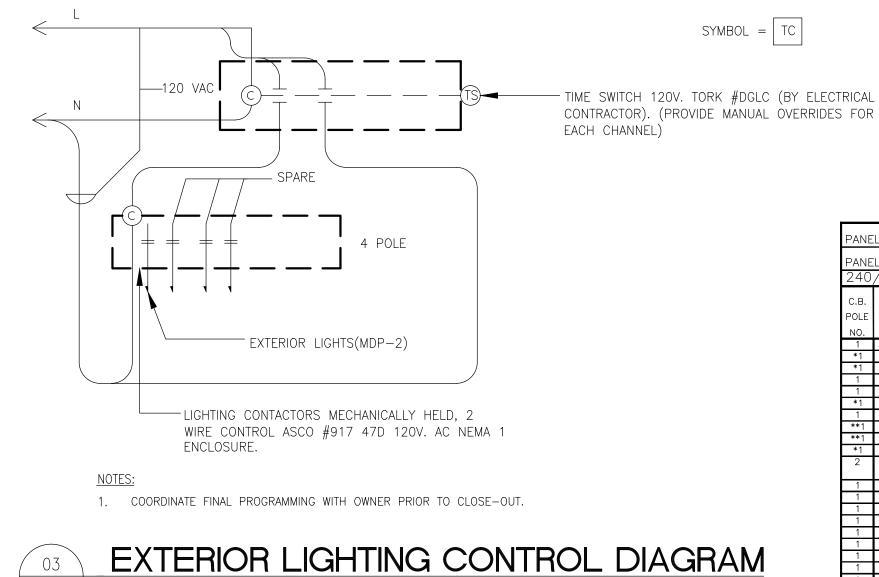


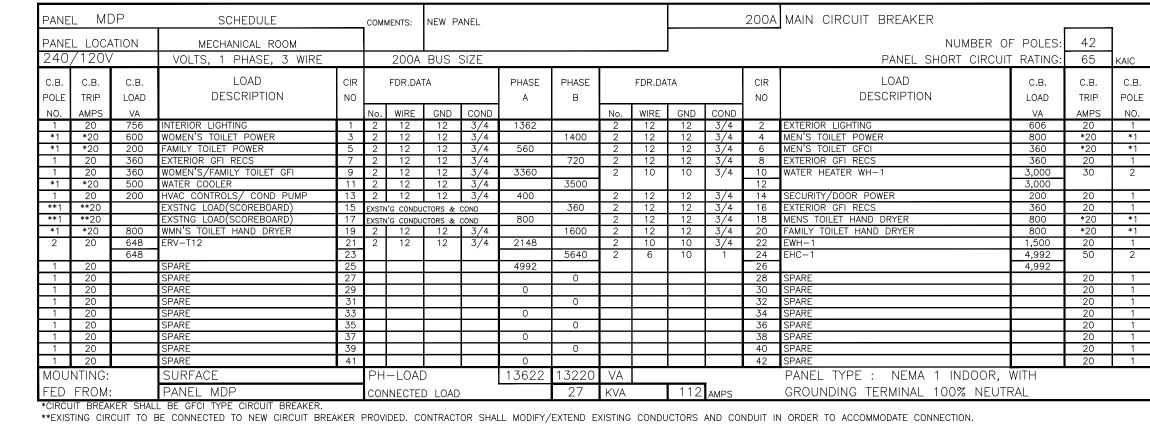
GENERAL NOTES: (3)4/0+(1)#6G IN 2"C

1. NEW CONDUCTORS AND CONDUIT.PROVIDE AND INSTALL APPROXIMATELY 250'
OF CONDUCTORS AND CONDUIT. COORDINATE CONNECTION TO UTILITY
TRANSFORMERS WITH PSE&G.

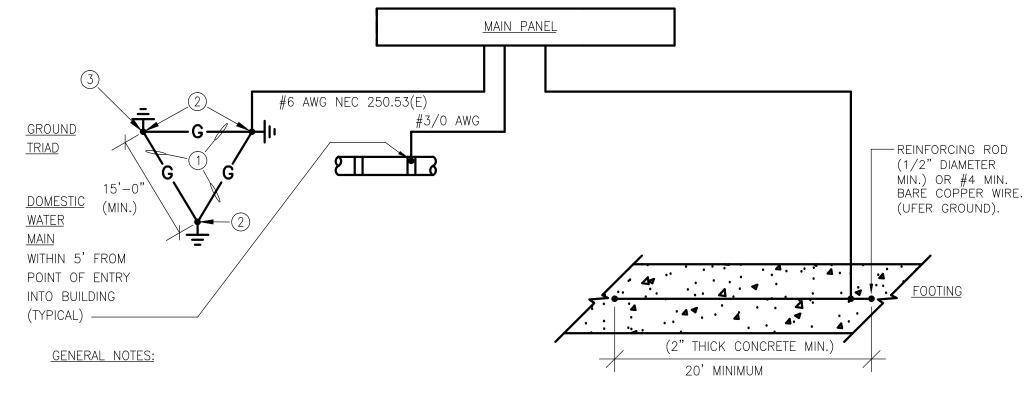
2. NEW SERVICE GROUND.

©2 ELECTRICAL RISER DIAGRAM E1.1 NTS





06 ELECTRICAL PANEL SCHEDULE 1/4"=1'-0"



- 1. THE GROUNDING SYSTEM IS DESIGNED FOR A MAXIMUM OF 25 OHMS WHEN MEASURED FROM THE GROUND BUS TO THE SINGLE POINT GROUND LOCATED
- 2. GROUNDING SHOWN SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE N.E.C. ARTICLE 250.
- 3. BOND ACROSS WATER METERS, ETC.

OUTSIDE OF THE BUILDING ENVELOPE.

- 3/0 COPPER WIRE.
 CADWELD CONNECTION.
- 3 COPPERCLAD GROUND ROD. 3/4"X10' LOCATED 18" MINIMUM BELOW FINISHED GRADE.(TYPICAL) U.O.N.
- TYPICAL GROUNDING SYSTEM FROM SERVICE ENTRANCE

 E1.1 NTS

TYPE	DESCRIPTION	VOLT	LAMP # CATALOG #	MOUNTING	BALLAST/ DRIVER	CONTROL		
А	6"X4' LINEAR LED WITH DOWNLIGHT SURFACE MOUNTED COORDINATE FINISH WITH ARCHITECT	KENNAL	MLHA12-48-R-XX-CP-45L35K-DCC-1-120V-EL	120		SURFACE	ELECTRONIC	OCCUPANCY
A1	6"X4' LINEAR LED WITH DOWNLIGHT SURFACE MOUNTED COORDINATE FINISH WITH ARCHITECT	KENNAL	MLHA12-48-R-XX-CP-45L40K-DCC-1-120V-EL	120		SURFACE	ELECTRONIC	OCCUPANCY
В	11" ROUND LED AREA LIGHT COORDINATE FINISH WITH ARCHITECT	KENNAL	MR13 EL-PP-XX-10L40K-120-LEL-SA	120		SURFACE	ELECTRONIC	TIMECLOCK

- LIGHTING FIXTURE NOTES:

 1. EMERGENCY FIXTURES SHALL BE CAPABLE OF ILLUMINATION OF LAMPS FOR 90 MINUTES AND SHALL BE WIRED AHEAD OF LOCAL SWITCHING(BODINE BALLASTS WHERE APPLICABLE).

 2. PROVIDE ALL NECESSARY MOUNTING HARDWARE.
- PROVIDE ALL NECESSARY MOUNTING HARDWARE.
 PROVIDE UNIVERSAL MOUNT CANOPY WITH CEILING MOUNTED EXIT SIGNS.
 PROVIDE ACCESSORIES FOR SEISMIC CONSIDERATIONS PER LOCAL CODES.
- 5. PROVIDE EMERGENCY BALLAST OPTION FOR FIXTURES AS INDICATED IN DRAWINGS.

 6. CONFIRM ALLOWABLE MOUNTING SPACE ABOVE CEILING PRIOR TO ORDERING FIXTURES
 - 05 ELECTRICAL LIGHTING FIXTURE SCHEDULE

KEY NOTES

- CEILING MOUNTED OCCUPANCY SENSOR SHALL BE MODEL CMPDT-9 AS MANUFACTURED BY SENSORSWITCH OR APPROVED EQUAL. CONTRACTOR SHALL PROVIDE (2) POWER PACKS AND WIRE COMPLETE PER MANUFACTURER'S RECOMMENDATIONS. COORDINATE CONNECTION OF SECOND POWER PACK TO MECHANICAL UNIT WITH MECHANICAL CONTRACTOR.
- 2. JUNCTION BOX PROVIDED FOR DOOR MAG-LOCK POWER OVER EACH EXTERIOR DOOR. TYPICAL.
- 3. JUNCTION BOX PROVIDED FOR TOILET/URINAL POWER. COORDINATE ELECTRICAL CONNECTION WITH PLUMBING CONTRACTOR. TYPICAL.
- 4. JUNCTION BOX PROVIDED FOR LAVATORY POWER. COORDINATE ELECTRICAL CONNECTION WITH PLUMBING CONTRACTOR.
- 5. SWITCH PROVIDED FOR DOOR MAG-LOCK CONTROL.

GENERAL NOTES

- A. ALL NEW DEVICES SHALL BE CIRCUITED TO PANEL MDP UNLESS OTHERWISE NOTED.
- B. COORDINATE THE LOCATION OF ALL DEVICES WITH THE OWNER PRIOR TO ROUGH-IN.
- C. COORDINATE DISCONNECTION AND RECONNECTION OF ELECTRICAL SERVICE WITH PSE&G.
- D. INSTALL NEW SERVICE PER PSE&G REQUIREMENTS.

snie7le

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WALL SECTIONS

ELECTRICAL FLOOR PLAN, DETAILS, & SCHEDULES

COMMISSION NUMBER:

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E1.1