ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
(A)	FIXTURE TYPE DESIGNATION. SEE FIXTURE SCHEDULE. A: DENOTES FIXTURE TYPE.
	2' x 4' INDIRECT LED
	2' x 4' INDIRECT LED ON EMERGENCY CIRCUIT
	4' SURFACE MOUNTED LED FIXTURE
	4' SURFACE MOUNTED LED FIXTURE ON EMERGENCY CIRCUIT
	LED DOWNLIGHT
	LED DOWNLIGHT ON EMERGENCY CIRCUIT
	EXIT LIGHT
	20 AMP. DUPLEX RECEPTACLE, MOUNTED 18" A.F.F. U.O.N.
	20 AMP. DUPLEX RECEPTACLE, MOUNTED 48" A.F.F. U.O.N. (GFI)
	20 AMP. QUADRUPLEX RECEPTACLE, MOUNTED 18" A.F.F. U.O.N.
	SPECIAL PURPOSE RECEPTACLE
	OUTLET OR JUNCTION BOX
	DATA OUTLET
OS	20 AMP OCCUPANCY SENSOR 48" AFF U.O.N.
	CEILING MOUNTED OCCUPANCY SENSOR 20 AMP
S	20 AMP 120/277V LIGHT SWITCH, COLOR TO MATCH EXISTING, 48" A.F.F.
S_M	MOTOR RATED TOGGLE SWITCH
	EMERGENCY POWER OFF SWITCH
3P 30A 20A 3R	DISCONNECT SWITCH 3P INDICATES NO. OF POLES, 30A. INDICATES SWITCH RATING SIZE, 20A. INDICATES FUSE RATING, 3R INDICATES NEMA 3R AND * INDICATES FUSED PER MANUFACTURE RECOMMENDATION.
F	FIRE ALARM HORN/STROBE
	FIRE ALARM SMOKE DETECTOR
H	HEAT DETECTOR
DC	DOOR CONTACT CONCEALED TYPE
EM	ELECTROMAGNETIC DOOR LOCK
	PUSH BUTTON RELEASE
TV	TV MONITOR OUTLET
	GROUND BUS BAR
A-1,3,5	HOMERUN TO PANEL "A", 1, 3, 5 ARE CIRCUIT NUMBERS, SLASHES = NO. OF CONDUCTORS IN 3/4" CONDUIT UNLESS OTHERWISE NOTED. INSTALL A GROUND WIRE SIZED AS PER N.E.C. ART. 250 IN ALL CONDUIT RUNS. NO SLASHES INDICATES TWO CONDUCTORS, PLUS GROUND WIRE.
	INDICATES A CONDUIT RUN CONCEALED IN A CEILING OR WALL.
	INDICATES A CONDUIT RUN EXPOSE
	INDICATES A NEW CONDUIT RUN UNDERGROUND
	FLEXIBLE CONDUIT
	ROOF LIGHTNING CONDUCTOR
	GROUND LOOP CONDUCTOR
	AIR TERMINAL
	SPLITTER
	ROOF DOWN CONDUCTOR
	GROUND ROD

SYMBOL	DESCRIPTION
A.F.F.	ABOVE FINISH FLOOR
A/C	AIR CONDITION
B.C.	BELOW COUNTER
C., COND.	CONDUIT
CKT.	CIRCUIT
CONT.	CONTROLLER
DISC.	DISCONNECT
E, EXIST.	EXISTING TO REMAIN
E.C.	EMPTY CONDUIT
EQUIP.	EQUIPMENT
ER	EXISTING TO BE RELOCATED
EWC	ELECTRIC WATER COOLER
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
F/N	FULL NEUTRAL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND., G.	GROUND
LTG.	LIGHTING
MACH.	MACHINE
MCB	MAIN CIRCUIT BREAKER
MLO	MAIN LUGS ONLY
N.E.C.	NATIONAL ELECTRICAL CODE
N.T.S.	NOT TO SCALE
Ø, PH	PHASE
R	RELOCATED
RECEPT., REC.	RECEPTACLE
SW.	SWITCH
T.T.B.	TELEPHONE TERMINAL BOARD
TYP.	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
V	VOLT
W	WIRE
WP	WEATHERPROOF
WR	

ELECTRICAL GENERAL NOTES:

1. PRIOR TO BID, VISIT JOB SITE AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS. SPECIAL ATTENTION SHALL BE GIVEN TO CONDITIONS OF PANELS AND SWITCHING EQUIPMENT WHERE NEW WORK IS REQUIRED. MODIFY EXISTING PANELS AND EQUIPMENT BY THE ADDITION OF CIRCUIT BREAKERS, WIRING, ETC. AS REQUIRED IN ORDER TO PROVIDE A COMPLETE AND OPERATING SYSTEM. NO EXTRA COMPENSATION WILL BE ALLOWED FOR FAILURE TO COMPLY WITH THIS REQUIREMENT.
2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH FLORIDA BUILDING CODE 6th EDITION (2017 FBC), THE 2014 NATIONAL ELECTRICAL CODE (NEC), ALL APPLICABLE LOCAL, COUNTY, AND STATE CODES AND STANDARDS, ALL REQUIREMENTS OF THE SERVICING ELECTRIC UTILITY AND THE AMERICANS WITH DISABILITIES ACT (ADA).
3. CONTRACTOR SHALL GUARANTEE THE ENTIRE ELECTRICAL WORK, INCLUDING PARTS AND LABOR FOR A PERIOD OF ONE (1) YEAR AFTER FINAL WRITTEN ACCEPTANCE OF OWNER.
4. ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A GOOD WORKMANSHIP AND SHALL BE COMPLETED AND FULLY OPERATIVE TO THE ACCEPTANCE OF OWNER.
5. MAINTAIN A COMPLETE SET OF ELECTRICAL PRINTS FOR INDICATING ALL CHANGES. USE COLORED PENCILS TO MARK CHANGES AT THE TIME OF EXECUTION AND DELIVER THE SET TO ARCHITECT / ENGINEER UPON COMPLETION.
6. ALL MATERIALS SHALL BE NEW, OF AMERICAN MANUFACTURE, AND BEAR THE UNDERWRITER'S LABORATORY AND UNION LABELS AS APPLICABLE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE DELIVERY SCHEDULES OF MATERIALS.
7. CIRCUIT BREAKERS SHALL BE MOLDED CASE, BOLT-ON TYPE, OF QUICK-MAKE ACTION, RATED AT 10,000 (120V), 14,000 (277/480V) AIC RMS. SYMMETRICAL. EACH MOLDED CASE CIRCUIT BREAKER SHALL HAVE THERMAL MAGNETIC TRIP DEVICE.
8. LIGHTING FIXTURES SHALL BE COMPLETE WITH ALL NECESSARY WIRING LAMP HOLDERS, REFLECTORS, GLASSWARE AND MOUNTING ACCESSORIES AS REQUIRED AND POLES.
9. CONTRACTOR SHALL MAKE ALL NECESSARY EXCAVATIONS, CUTTING AND DO ALL REATTACHING AS NECESSARY FOR THE PROPER EXECUTION OF THIS WORK.
10. AFTER COMPLETION OF THE INSTALLATION, THE SYSTEM SHALL TEST FREE FROM SHORT CIRCUITS AND GROUNDS.
11. ALL ELECTRICAL CONDUCTORS SHALL BE INSTALLED IN CONDUIT. CONDUITS SHALL COMPLY WITH N.E.C. PVC CONDUIT SHALL BE SCHEDULE 40 AND SHALL BE USED WHERE CONDUIT IS RUN IN CONCRETE SLABS, OR UNDERGROUND. ELECTRICAL METALLIC TUBING CONDUIT SHALL BE USED ON ALL INTERIOR WIRING. GRS CONDUIT SHALL BE USED ON ALL EXTERIOR WIRING.
12. ALL CONDUCTORS SHALL BE COPPER. NO CONDUCTOR SHALL BE SMALLER THAN No. 12 AWG. INSTALL A GROUNDING CONDUCTOR IN ALL CONDUITS SIZED PER N.E.C. INSULATION SHALL BE 600V. RATED AND SHALL BE THWN.
13. VERIFY SERVICE VOLTAGE BEFORE ORDERING ANY ELECTRICAL EQUIPMENT.
14. SPLICES FOR No. 6 AWG OR SMALLER SHALL BE MADE WITH UL LISTED MECHANICAL PRESSURE CONNECTORS. SPLICES FOR No. 4 AWG OR LARGER SHALL BE MADE WITH MECHANICAL PRESSURE, SOLDERLESS CONNECTORS, AND SHALL BE BURNDY SERVITS OR APPROVED EQUAL.
15. ANY EXISTING EQUIPMENT OR DEVICES INADVERTENTLY DE-ENERGIZED OR DISCONNECTED SHALL BE RE-ENERGIZED AT NO COST TO THE OWNER.
16. EXISTING EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE OWNER AND SHALL BE REMOVED FROM THE JOB SITE.
17. COVER PLATES USED ON ALL WIRING DEVICES SHALL MATCH EXISTING.
18. OUTLET BOXES SHALL BE GALVANIZED, WITH SUITABLE PLASTER RINGS OR TRIMS TO CONFORM TO FINISH SURFACE AS REQUIRED. EXTRA LARGE BOXES SHALL BE USED IN ACCORDANCE WITH N.E.C. IN PLACE OF SIZE INDICATED WHERE NECESSARY TO PREVENT UNDUE CROWDING OF WIRES. GANG BOXES SHALL BE USED FOR GANG SWITCHES.
19. SAFETY SWITCHES SHALL BE HEAVY DUTY, FUSED OR NON-FUSED AND SIZES AS INDICATED.
20. GROUNDING SHALL BE IN ACCORDANCE WITH ARTICLE 250 OF THE N.E.C.
21. LOADS IN GUTTERS SHALL BE PROPERLY BALANCED BETWEEN PHASES.
22. EQUIPMENT SUPPLY BY OTHERS TO BE CONNECTED BY ELECTRICAL CONTRACTOR.
23. ELECTRICAL CONTRACTOR TO COORDINATE HIS WORK WITH ALL OTHER TRADES.
24. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER BEFORE PROCEEDING WITH THE WORK.
25. PRIOR TO INSTALLATION OF ROUGH ELECTRICAL WIRING, CHECK NAMEPLATE DATA ON A/C EQUIPMENT TO OBTAIN CORRECT WIRE SIZES AND OVERCURRENT PROTECTION.
26. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION OF MECHANICAL EQUIPMENT.
27. ELECTRICAL DESIGN COMPLIES WITH THE FLORIDA ENERGY CODE - ENERGY CONSERVATION, 5TH EDITION.
28. CIRCUIT BREAKERS SERVING HVAC EQUIPMENT WITH A REQUIREMENT FOR HACR BREAKERS, IN THE RANGE OF 15 - 60 AMPS, UL APPROVED HACR BREAKERS SHALL BE USED.
29. ALL CONTACTORS TO BE ELECTRICALLY OR MECHANICALLY HELD AS INDICATED ON THE DRAWINGS.
30. NEW WIRING DEVICES TO MATCH TYPE AND COLOR OF THE EXISTING DEVICES.
31. PROVIDE PULLWIRE IN EMPTY RACEWAYS.
32. PROVIDE NEW TYPED DIRECTORIES FOR PANELBOARDS.
33. MINIMUM CONDUIT SIZE FOR ELECTRICAL WORK SHALL BE 3/4" AND FOR DATA/VOICE SHALL BE 1" CONDUIT.

PROJECT NORTH | PHASE 2 - 90% SUBMITTAL

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 8	COLUMBIA	438609-1-52-01

SR 8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREA

E-001 ELECTRICAL SYMBOL LEGEND AND GENERAL NOTES

DRAWING NO. E-001

SHEET NO.

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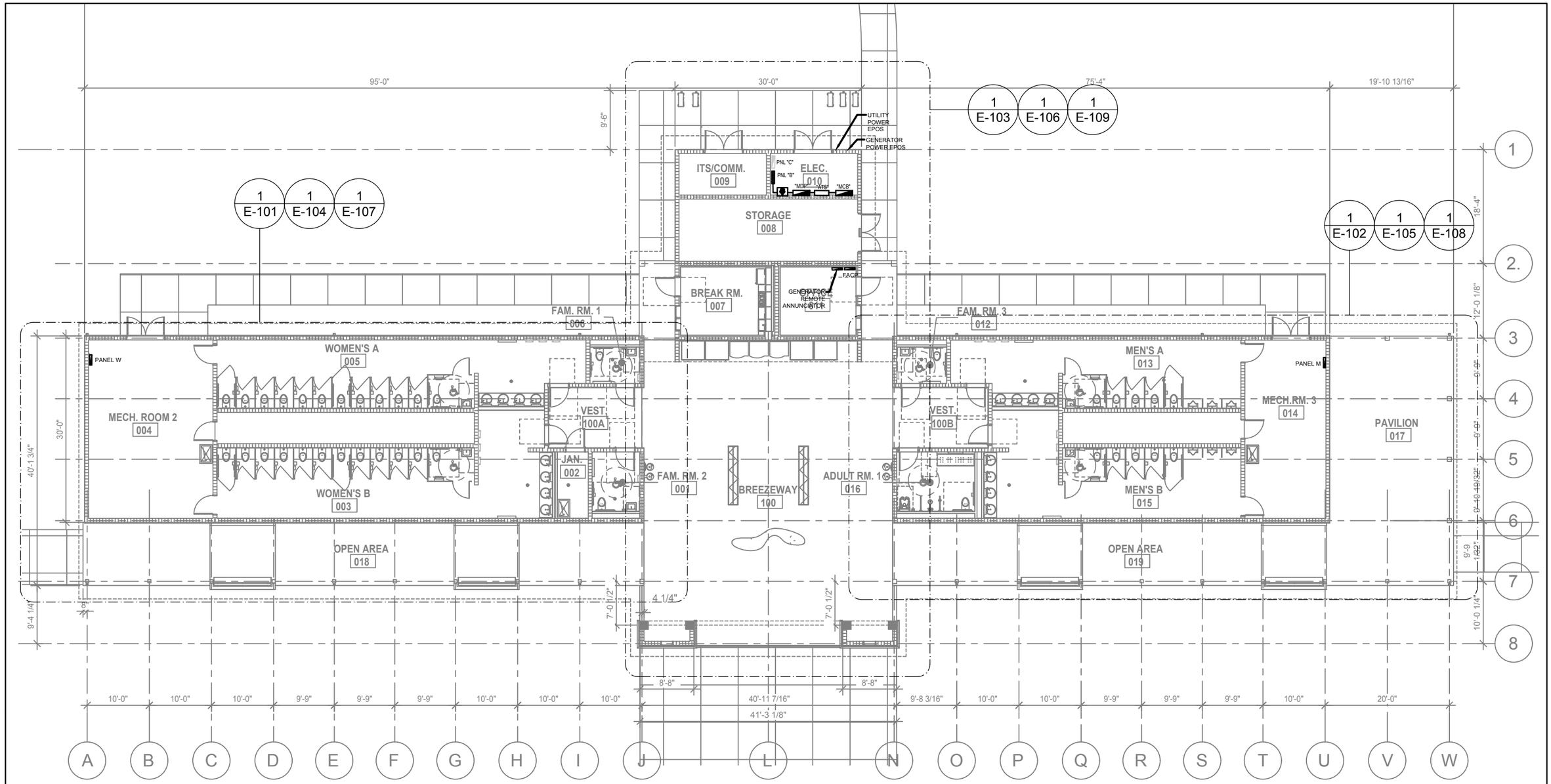

1 E-100 ELECTRICAL OVERALL PLAN

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

N

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

0' 8' 16' 32'

PROJECT NORTH

PHASE 2 - 90% SUBMITTAL

REVISIONS					
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 8	COLUMBIA	438609-1-52-01

SR 8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREA

E-100 ELECTRICAL OVERALL PLAN

DRAWING NO. E-100

SHEET NO.

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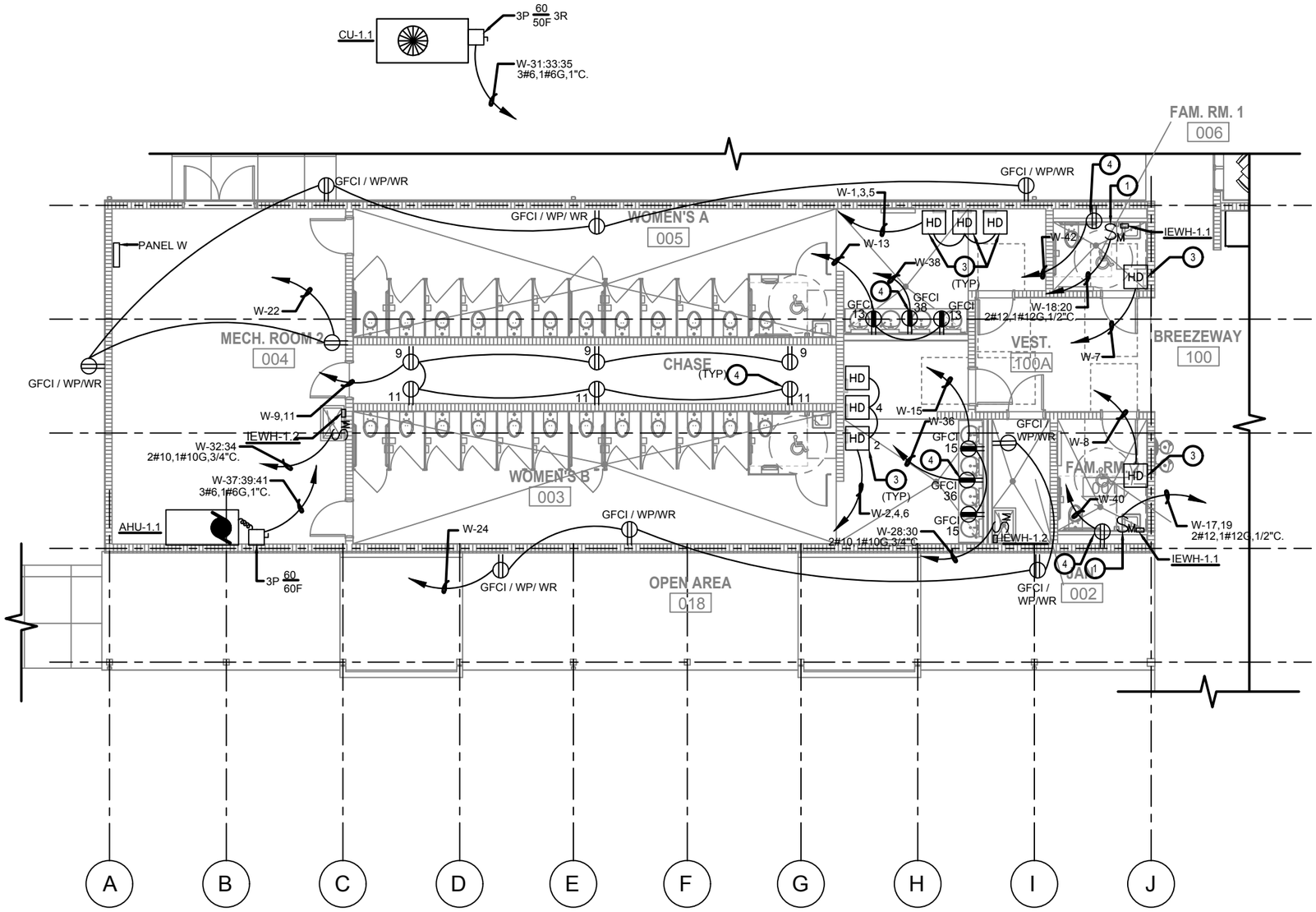

ELECTRICAL NOTES:

1. PROVIDE CONNECTION TO INSTA-HOT VIA MOTOR RATED TOGGLE SWITCH LOCATED UNDER SINK.
2. PROVIDE RECEPTACLE FOR ELECTRIC WATER COOLER. LOCATE RECEPTACLE WITHIN CONCEALED COMPARTMENT. COORDINATE LOCATION WITH PLUMBING. BRANCH CIRCUIT CONNECTED TO GFCI CIRCUIT BREAKER.
3. PROVIDE CIRCUIT TO HAND DRYERS, COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL ELEVATIONS.
4. PROVIDE RECEPTACLE AT 48" A.F.F. FOR CONNECTION TO FLUSH VALVE SENSORS AND FAUCET SENSORS. PROVIDE JUNCTION BOX WITH 2-GANG PLASTER RING IN RESTROOM FOR FLUSH VALVE SENSOR, COORDINATE LOCATION OF BOX WITH PLUMBING AND MOUNT PLASTER RING SO THAT SCREW HOLES ARE ON RIGHT AND LEFT SIDES PER MANUFACTURER'S REQUIREMENTS.

1 E-101 ENLARGED WOMEN'S ROOM POWER PLAN

SCALE: 3/32" = 1'-0"

N

GRAPHIC SCALE: 3/32" = 1'-0"

0' 8' 16' 24'

PROJECT NORTH

PHASE 2 - 90% SUBMITTAL

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 8	COLUMBIA	438609-1-52-01

SR 8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREA

E-101 ENLARGED WOMEN'S ROOM POWER PLAN

DRAWING NO. E-101

SHEET NO.

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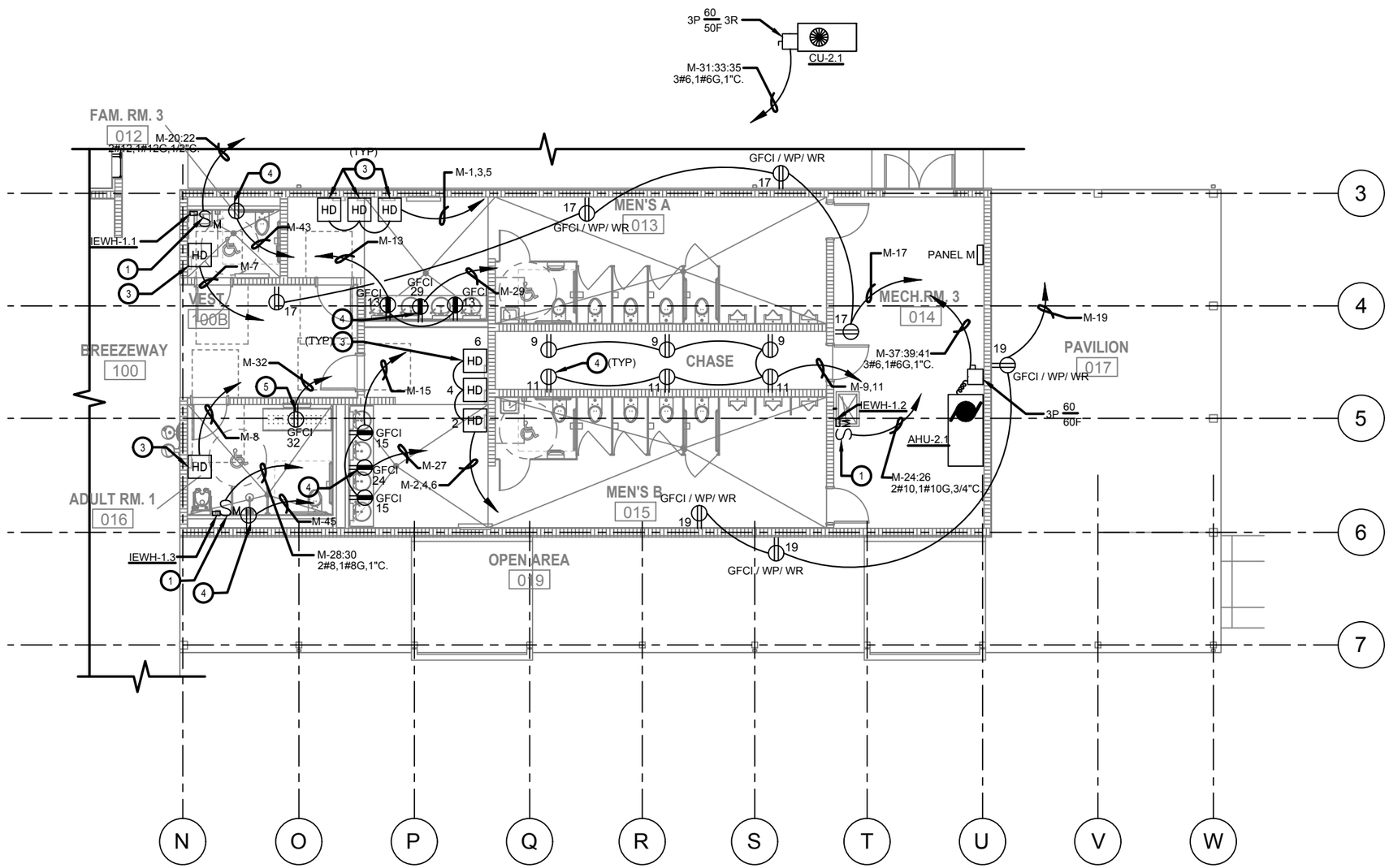

ELECTRICAL NOTES:

1. PROVIDE CONNECTION TO INSTA-HOT VIA MOTOR RATED TOGGLE SWITCH LOCATED UNDER SINK.
2. PROVIDE RECEPTACLE FOR ELECTRIC WATER COOLER. LOCATE RECEPTACLE WITHIN CONCEALED COMPARTMENT. COORDINATE LOCATION WITH PLUMBING. BRANCH CIRCUIT CONNECTED TO GFCI CIRCUIT BREAKER.
3. PROVIDE CIRCUIT TO HAND DRYERS, COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL ELEVATIONS.
4. PROVIDE RECEPTACLE AT 48" A.F.F. FOR CONNECTION TO FLUSH VALVE SENSORS AND FAUCET SENSORS. PROVIDE JUNCTION BOX WITH 2-GANG PLASTER RING IN RESTROOM FOR FLUSH VALVE SENSOR, COORDINATE LOCATION OF BOX WITH PLUMBING AND MOUNT PLASTER RING SO THAT SCREW HOLES ARE ON RIGHT AND LEFT SIDES PER MANUFACTURER'S REQUIREMENTS.
5. PROVIDE CIRCUIT TO ADULT CHANGING TABLE, COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL ELEVATIONS AND MANUFACTURE SPECIFICATIONS PRIOR TO ROUGH-IN.

1 E-102 ENLARGED MEN'S ROOM POWER PLAN

SCALE: 3/32" = 1'-0"

N

GRAPHIC SCALE: 3/32" = 1'-0"

0' 8' 16' 24'

PROJECT NORTH

PHASE 2 - 90% SUBMITTAL

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 8	COLUMBIA	438609-1-52-01

SR 8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREA

E-102 ENLARGED MEN'S ROOM POWER PLAN

DRAWING NO. E-102

SHEET NO.

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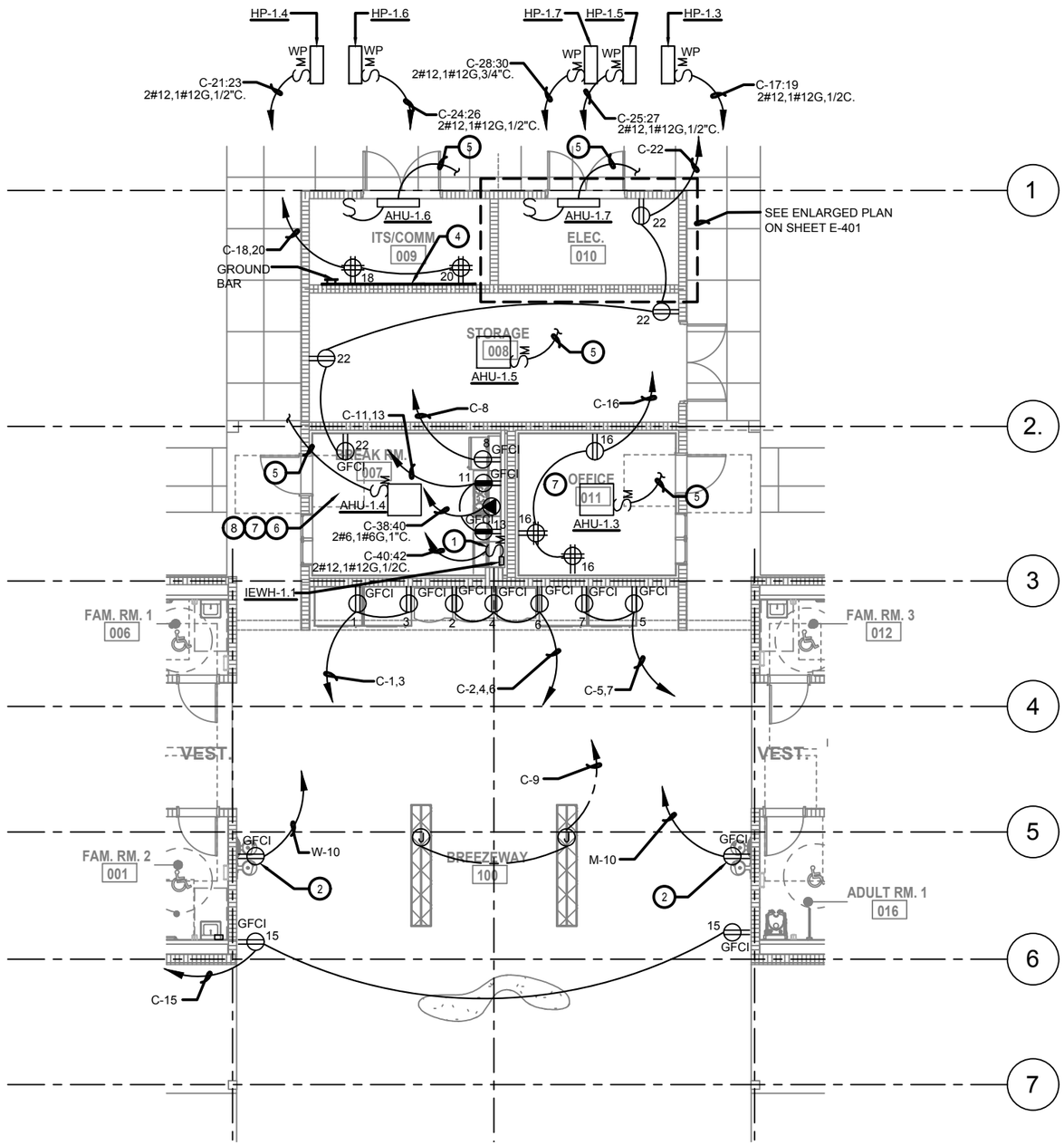

ELECTRICAL NOTES:

1. PROVIDE CONNECTION TO INSTA-HOT VIA MOTOR RATED TOGGLE SWITCH LOCATED UNDER SINK.
2. PROVIDE RECEPTACLE FOR ELECTRIC WATER COOLER. LOCATE RECEPTACLE WITHIN CONCEALED COMPARTMENT. COORDINATE LOCATION WITH PLUMBING. BRANCH CIRCUIT CONNECTED TO GFIC CIRCUIT BREAKER.
3. PROVIDE CIRCUIT TO HAND DRYERS, COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL ELEVATIONS.
4. NEW 4' x 8' x 3/4" BACKBOARD, CONDUIT STUB-UP UNDER BACKBOARD FROM TELECOM CONNECTION POINT AND PROVIDE NEW 50 PAIR 110 WIRING BLOCK AND SPD'S FOR VOICE CABLING. PROVIDE (4) PAY PHONE LINES, (4) PRIVATE PHONES LINES, (2) FIRE ALARM PHONE LINES, AND (1) EMERGENCY CALL BOX PHONE LINES.
5. POWER FOR INDOOR UNIT FED FROM EXTERIOR CONDENSER. COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
6. REFER TO ARCH. DRAWINGS FOR EXACT MOUNTING HEIGHT OF RECEPTACLES IN BREAK ROOM.
7. PROVIDE AUTOMATIC RECEPTACLE CONTROL IN THE OFFICES, BREAK ROOMS, WORKSTATIONS AND CONFERENCE ROOM TO COMPLY WITH THE FLORIDA ENERGY CODE AND ASHRAE 90.1. SECTION 8.4.2. AND SHALL BE MARKED ACCORDING TO 2014 NEC 406.3(E) RECEPTACLES ARE CONTROLLED THRU LIGHTING OCCUPANCY SENSOR AND PLUG LOAD CONTROLLER. SEE DETAIL ON LIGHTING PLAN. SPLIT-WIRE RECEPTACLE SO THAT TOP HALF IS CONTROLLED AND PROVIDE CONTROLLED RECEPTACLES WITH THE APPROPRIATE MARKING. SEE SHEET E-4.1 FOR CONTROLS.
8. REFER TO ARCH. DRAWINGS FOR EXACT MOUNTING HEIGHT OF RECEPTACLES/J-BOXES FOR MICROWAVE AND RANGE HOOD IN BREAK ROOM. CONNECT CIRCUIT C-44 TO RANGE HOOD AND CIRCUIT C-46 FOR MICROWAVE.

1 E-103 ENLARGED CORE POWER PLAN

SCALE: 3/32" = 1'-0"

GRAPHIC SCALE: 3/32" = 1'-0"

0' 8' 16' 24'

N

PROJECT NORTH

PHASE 2 - 90% SUBMITTAL

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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STATE OF FLORIDA
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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 8	COLUMBIA	438609-1-52-01

SR 8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREA

E-103 ENLARGED CORE POWER PLAN

DRAWING NO. E-103

SHEET NO.

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ELECTRICAL NOTES:

1. CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR.
2. CIRCUIT TO BE ROUTED THROUGH LIGHTING CONTACTOR.

LEVITON OCCUPANCY SENSOR NOTES:

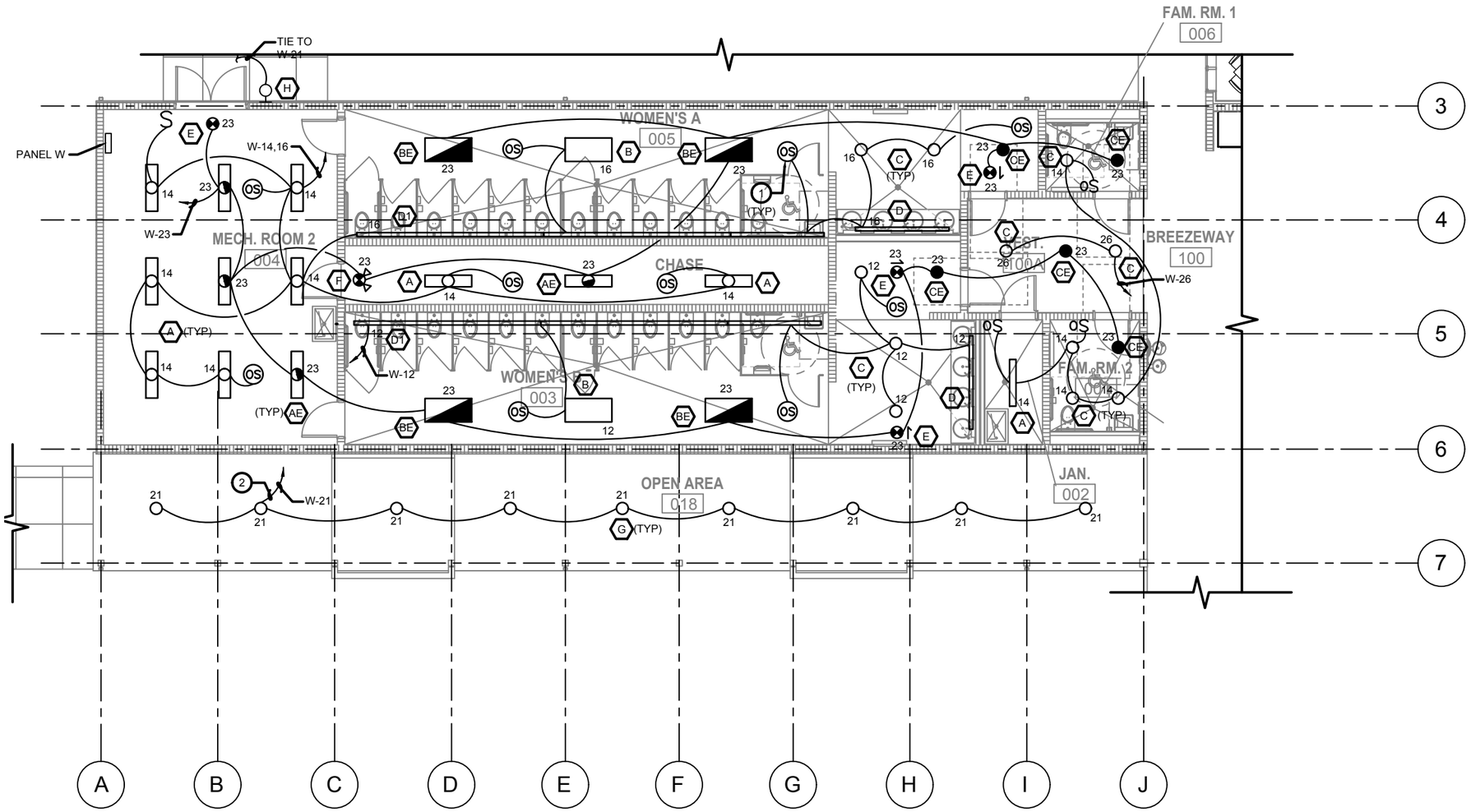
CONTACT MR. DAVID ERICHSEN AT 407-740-6973 FOR ANY LEVITON CONTROLS INFORMATION.

THE BASIS OF LIGHTING CONTROL FOR THIS PROJECT IS COMPONENTS MANUFACTURED BY LEVITON, INC. ALL EQUIPMENT SHALL BE LOCATED, INSTALLED AND PROGRAMMED ACCORDING TO MANUFACTURER'S INSTRUCTIONS, AND SHALL AUTOMATICALLY TURN OFF LIGHT SWITCH IN 30 MINUTES OF ALL OCCUPANTS LEAVING.

ADDITIONAL SENSORS MAY BE REQUIRED TO PROVIDE COMPLETE COVERAGE DEPENDING ON PARTITION HEIGHT/PLACEMENT, FURNITURE PLACEMENT, EQUIPMENT HEIGHT/PLACEMENT AND SHELVING HEIGHT/PLACEMENT.

LIGHTING CONTROL AND SENSOR LAYOUTS ARE DONE ACCORDING TO CURRENT FLORIDA ENERGY CODE AND FEDERAL ENERGY GUIDELINES UNLESS SPECIFIED OTHERWISE.

PROGRAMMING OF DIGITAL DEVICES SHALL BE VIA A REMOTE HANDHELD IR PROGRAMMER CONTROL. SWITCHES SHALL BE PROGRAMMED FOR MANUAL ON OPERATION EXCEPT FOR LOBBIES, CORRIDORS AND RESTROOMS WHICH SHALL BE AUTO ON.



1 E-104 ENLARGED WOMEN'S ROOM LIGHTING PLAN

SCALE: 3/32" = 1'-0"

N

GRAPHIC SCALE: 3/32" = 1'-0"

0' 8' 16' 24'

PROJECT NORTH

PHASE 2 - 90% SUBMITTAL

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 8	COLUMBIA	438609-1-52-01

SR 8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREA

E-104 ENLARGED WOMEN'S ROOM LIGHTING PLAN

DRAWING NO. E-104

SHEET NO.

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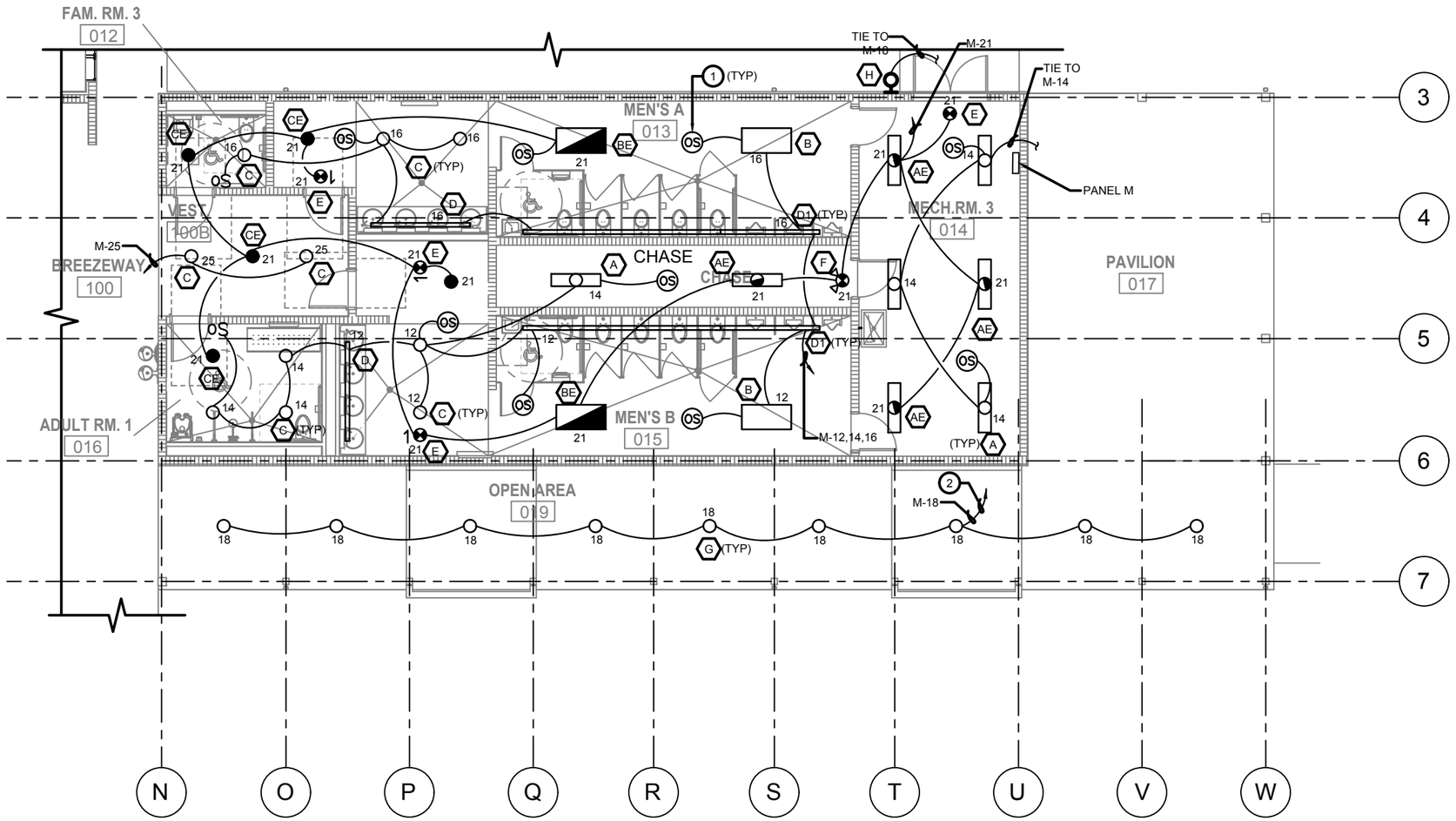

ELECTRICAL NOTES:

1. CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR.
2. CIRCUIT TO BE ROUTED THROUGH LIGHTING CONTACTOR.

LEVITON OCCUPANCY SENSOR NOTES:

CONTACT MR. DAVID ERICHSEN AT 407-740-6973 FOR ANY LEVITON CONTROLS INFORMATION.

THE BASIS OF LIGHTING CONTROL FOR THIS PROJECT IS COMPONENTS MANUFACTURED BY LEVITON, INC. ALL EQUIPMENT SHALL BE LOCATED, INSTALLED AND PROGRAMMED ACCORDING TO MANUFACTURER'S INSTRUCTIONS, AND SHALL AUTOMATICALLY TURN OFF LIGHT SWITCH IN 30 MINUTES OF ALL OCCUPANTS LEAVING.

ADDITIONAL SENSORS MAY BE REQUIRED TO PROVIDE COMPLETE COVERAGE DEPENDING ON PARTITION HEIGHT/PLACEMENT, FURNITURE PLACEMENT, EQUIPMENT HEIGHT/PLACEMENT AND SHELVING HEIGHT/PLACEMENT.

LIGHTING CONTROL AND SENSOR LAYOUTS ARE DONE ACCORDING TO CURRENT FLORIDA ENERGY CODE AND FEDERAL ENERGY GUIDELINES UNLESS SPECIFIED OTHERWISE.

PROGRAMMING OF DIGITAL DEVICES SHALL BE VIA A REMOTE HANDHELD IR PROGRAMMER CONTROL. SWITCHES SHALL BE PROGRAMMED FOR MANUAL ON OPERATION EXCEPT FOR LOBBIES, CORRIDORS AND RESTROOMS WHICH SHALL BE AUTO ON.

1 E-105 ENLARGED MEN'S ROOM LIGHTING PLAN

SCALE: 3/32" = 1'-0"

GRAPHIC SCALE: 3/32" = 1'-0"

0' 8' 16' 24'

N

PROJECT NORTH

PHASE 2 - 90% SUBMITTAL

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 8	COLUMBIA	438609-1-52-01

SR 8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREA

DRAWING NO. E-105

SHEET NO.

E-105 ENLARGED MEN'S ROOM LIGHTING PLAN

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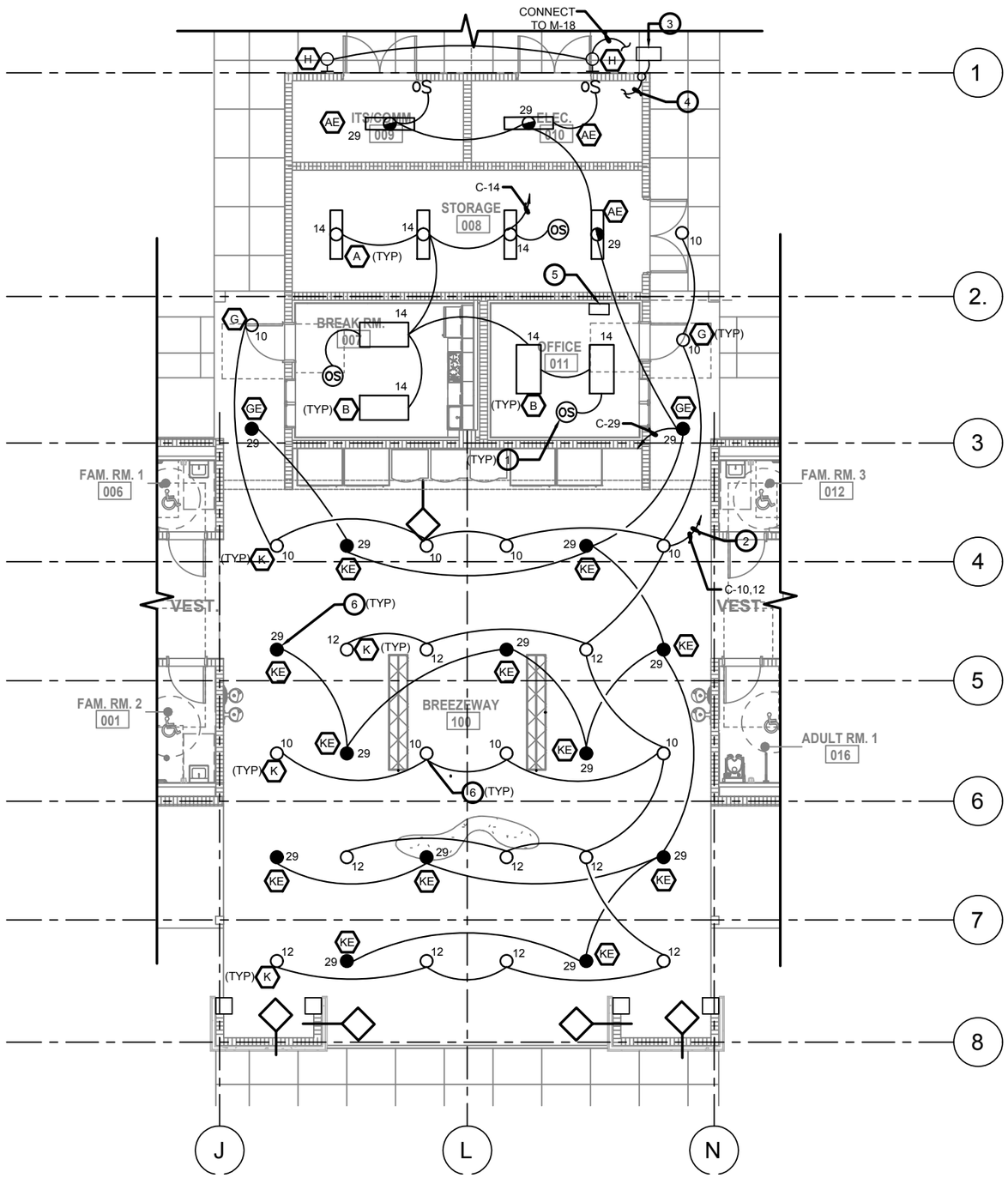

GRAPHIC SCALE: 3/32" = 1'-0"

0' 8' 16' 24'

ELECTRICAL NOTES:

1. CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR.
2. CIRCUIT TO BE ROUTED THROUGH LIGHTING CONTACTOR.
3. 13"X24" PULL BOX FOR ROADWAY LIGHTING. REFER TO LIGHTING PLANS FOR CONTINUATION.
4. 6#6 & 1#6 GROUND IN 2" CONDUIT TO ROADWAY LIGHTING PANEL IN ELECTRICAL ROOM.
5. PROVIDE A 3-GANG SWITCH BANK WITH PUSH BUTTON TIMER SWITCHES (KIATT STOPPER TS-400 OR EQUAL) TO OVERRIDE EXTERIOR LIGHTING CONTACTORS, SEE WIRING DIAGRAM ON SHEET E-603.
6. FOR EXACT LOCATION AND MOUNTING DETAIL OF FIXTURE TYPE "K" AND "KE". SEE ARCHITECTURAL DRAWINGS PRIOR TO ROUGH IN.

LEVITON OCCUPANCY SENSOR NOTES:

CONTACT MR. DAVID ERICHSEN AT 407-740-6973 FOR ANY LEVITON CONTROLS INFORMATION.

THE BASIS OF LIGHTING CONTROL FOR THIS PROJECT IS COMPONENTS MANUFACTURED BY LEVITON, INC. ALL EQUIPMENT SHALL BE LOCATED, INSTALLED AND PROGRAMMED ACCORDING TO MANUFACTURER'S INSTRUCTIONS, AND SHALL AUTOMATICALLY TURN OFF LIGHT SWITCH IN 30 MINUTES OF ALL OCCUPANTS LEAVING.

ADDITIONAL SENSORS MAY BE REQUIRED TO PROVIDE COMPLETE COVERAGE DEPENDING ON PARTITION HEIGHT/PLACEMENT, FURNITURE PLACEMENT, EQUIPMENT HEIGHT/PLACEMENT AND SHELVING HEIGHT/PLACEMENT.

LIGHTING CONTROL AND SENSOR LAYOUTS ARE DONE ACCORDING TO CURRENT FLORIDA ENERGY CODE AND FEDERAL ENERGY GUIDELINES UNLESS SPECIFIED OTHERWISE.

PROGRAMMING OF DIGITAL DEVICES SHALL BE VIA A REMOTE HANDHELD IR PROGRAMMER CONTROL. SWITCHES SHALL BE PROGRAMMED FOR MANUAL ON OPERATION EXCEPT FOR LOBBIES, CORRIDORS AND RESTROOMS WHICH SHALL BE AUTO ON.

1 E-106 ENLARGED CORE LIGHTING PLAN

SCALE: 3/32" = 1'-0"

N

PROJECT NORTH

PHASE 2 - 90% SUBMITTAL

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

BOBES ASSOCIATES CONSULTING ENGINEERS
150 CIRCLE DRIVE, MAITLAND, FL 32751
TELEPHONE: 407.628.0882
E-MAIL: INFO@BOBESENG.COM
FLORIDA STATE P.E. NUMBER: 5131
GUS BOBES JR. P.E., P.E. NUMBER 39410

Augusto E. Bobes Jr., P.E. No. 39410

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 8	COLUMBIA	438609-1-52-01

SR 8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREA

E-106 ENLARGED CORE LIGHTING PLAN

DRAWING NO. E-106

SHEET NO.

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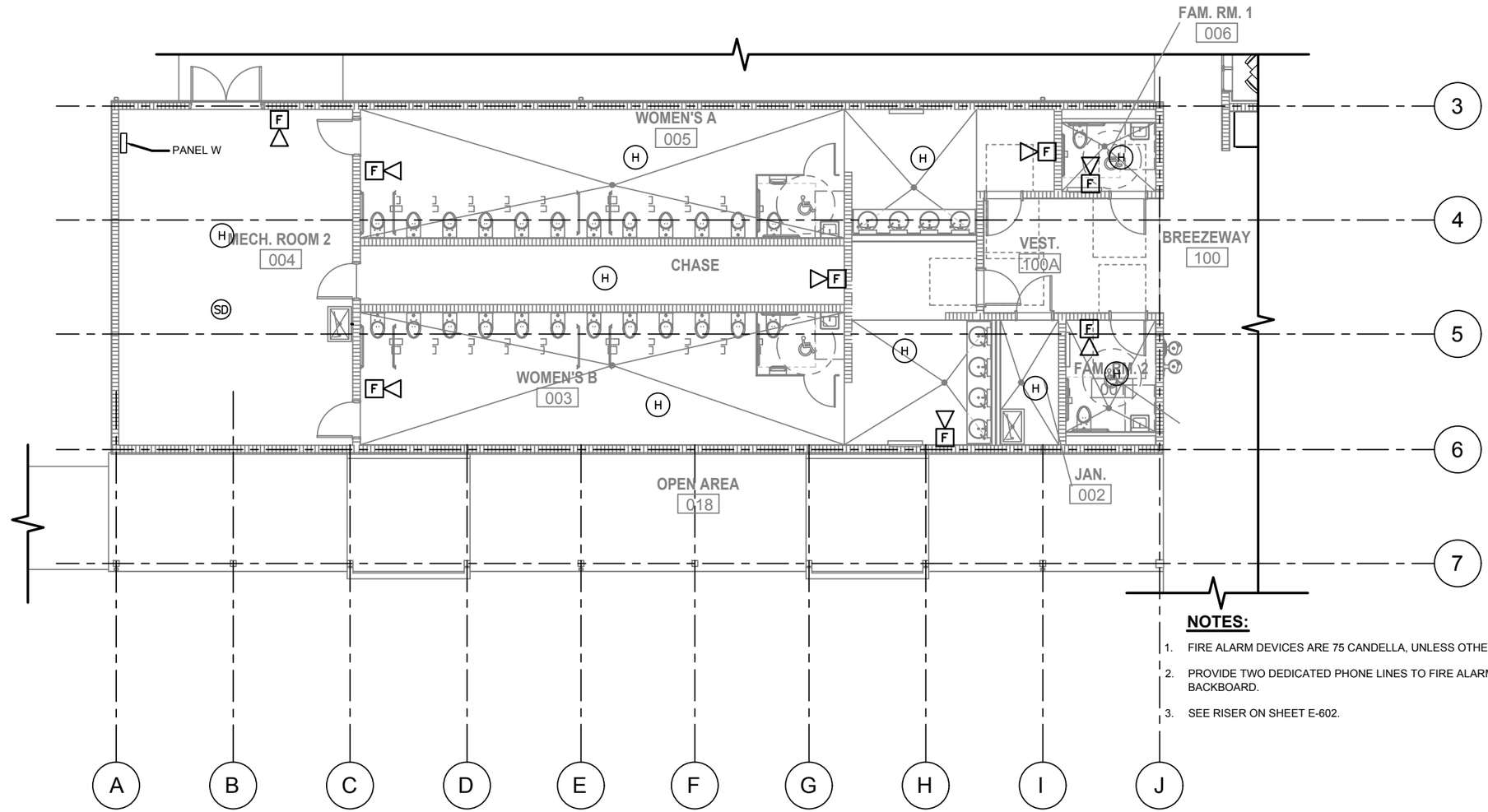

NOTES:

1. FIRE ALARM DEVICES ARE 75 CANDELLA, UNLESS OTHERWISE NOTED.
2. PROVIDE TWO DEDICATED PHONE LINES TO FIRE ALARM FROM TELECOM. BACKBOARD.
3. SEE RISER ON SHEET E-602.

1 / ---- E-107 ENLARGED WOMEN'S ROOM SYSTEMS PLAN

SCALE: 3/32" = 1'-0"

N

GRAPHIC SCALE: 3/32" = 1'-0"

0' 8' 16' 24'

PROJECT NORTH

PHASE 2 - 90% SUBMITTAL

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

BOBES ASSOCIATES
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 8	COLUMBIA	438609-1-52-01

SR 8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREA

E-107 ENLARGED WOMEN'S ROOM SYSTEMS PLAN

DRAWING NO. E-107

SHEET NO.

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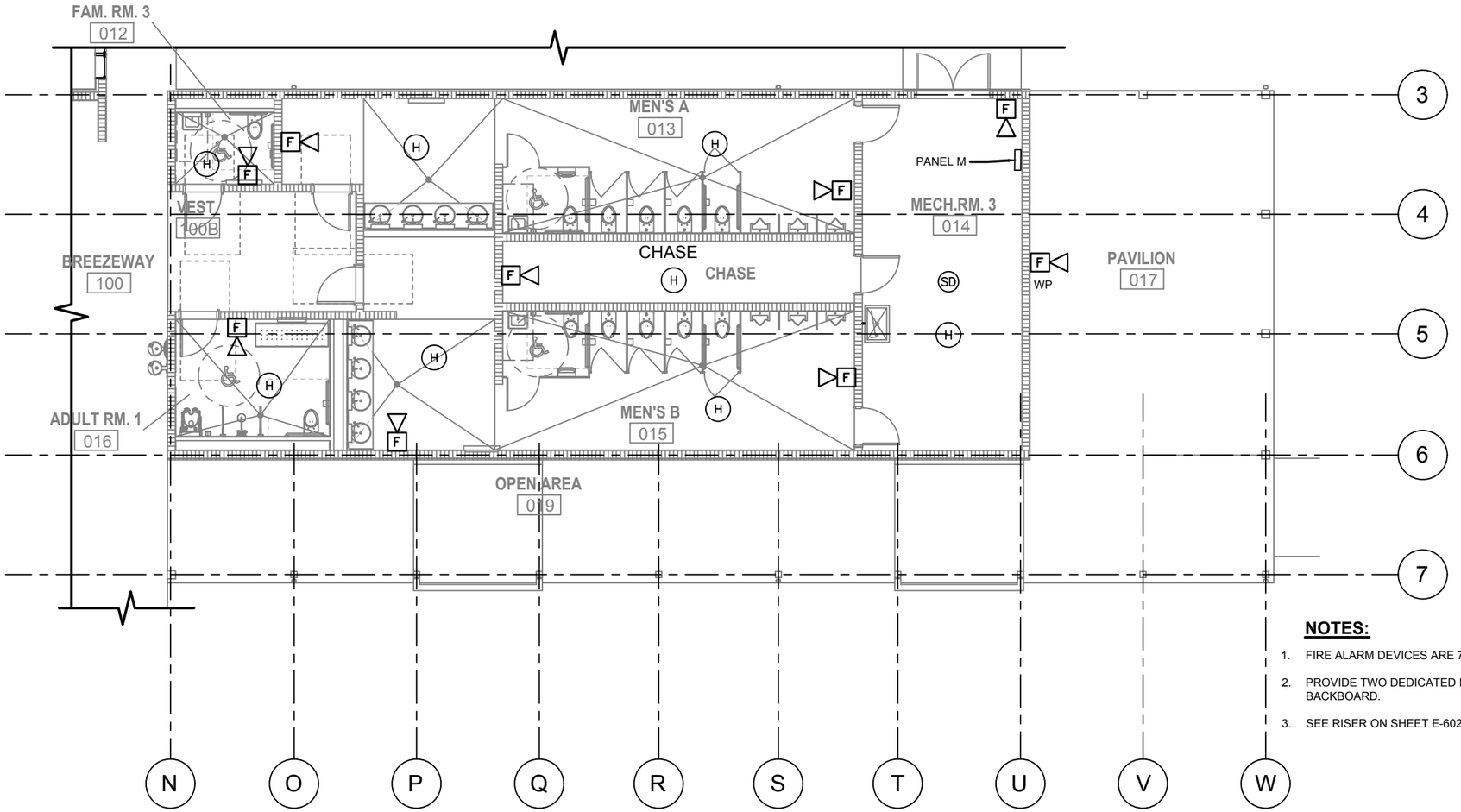

NOTES:

1. FIRE ALARM DEVICES ARE 75 CANDELLA, UNLESS OTHERWISE NOTED.
2. PROVIDE TWO DEDICATED PHONE LINES TO FIRE ALARM FROM TELECOM. BACKBOARD.
3. SEE RISER ON SHEET E-602.

1 / ---- **E-108 ENLARGED MEN'S ROOM SYSTEMS PLAN**

SCALE: 3/32" = 1'-0"

N

GRAPHIC SCALE: 3/32" = 1'-0"

0' 8' 16' 24'

PROJECT NORTH

PHASE 2 - 90% SUBMITTAL

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 8	COLUMBIA	438609-1-52-01

SR 8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREA

E-108 ENLARGED MEN'S ROOM SYSTEMS PLAN

DRAWING NO. E-108

SHEET NO.

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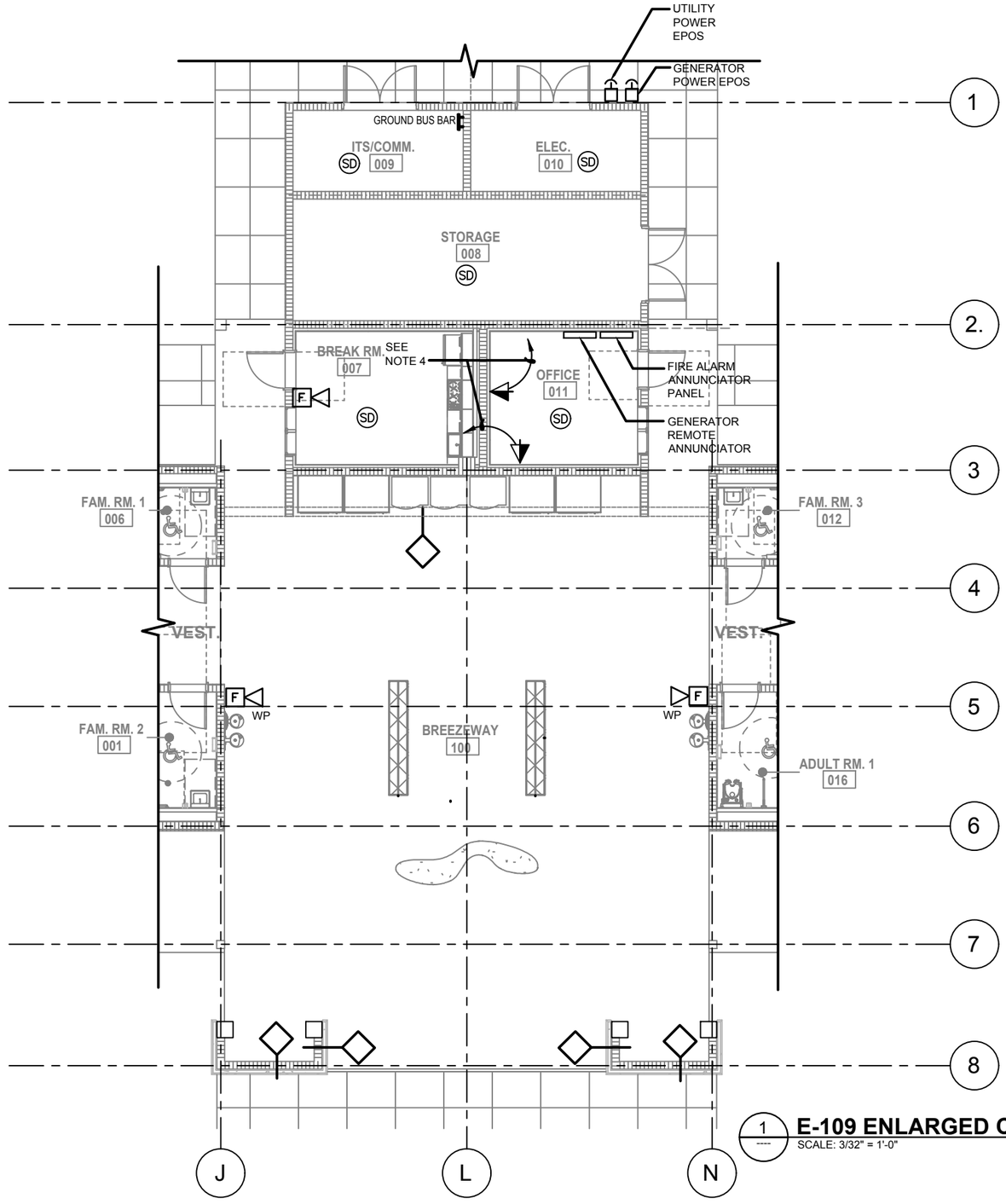

NOTES:

1. FIRE ALARM DEVICES ARE 75 CANDELLA, UNLESS OTHERWISE NOTED.
2. PROVIDE TWO DEDICATED PHONE LINES TO FIRE ALARM FROM TELECOM. BACKBOARD.
3. SEE RISER ON SHEET E-602.
4. 3/4" E.C. WITH PULL WIRE TO ITS/COMM. ROOM. PROVIDE PLASTIC BUSHING AT END OF CONDUIT.

1 / ---- **E-109 ENLARGED CORE SYSTEMS PLAN**
SCALE: 3/32" = 1'-0"

N

GRAPHIC SCALE: 3/32" = 1'-0"
0' 8' 16' 24'

PROJECT NORTH | PHASE 2 - 90% SUBMITTAL

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

BOBES ASSOCIATES CONSULTING ENGINEERS
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SR 8	COLUMBIA	438609-1-52-01

SR 8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREA

E-109 ENLARGED CORE SYSTEMS PLAN

DRAWING NO. E-109

SHEET NO.

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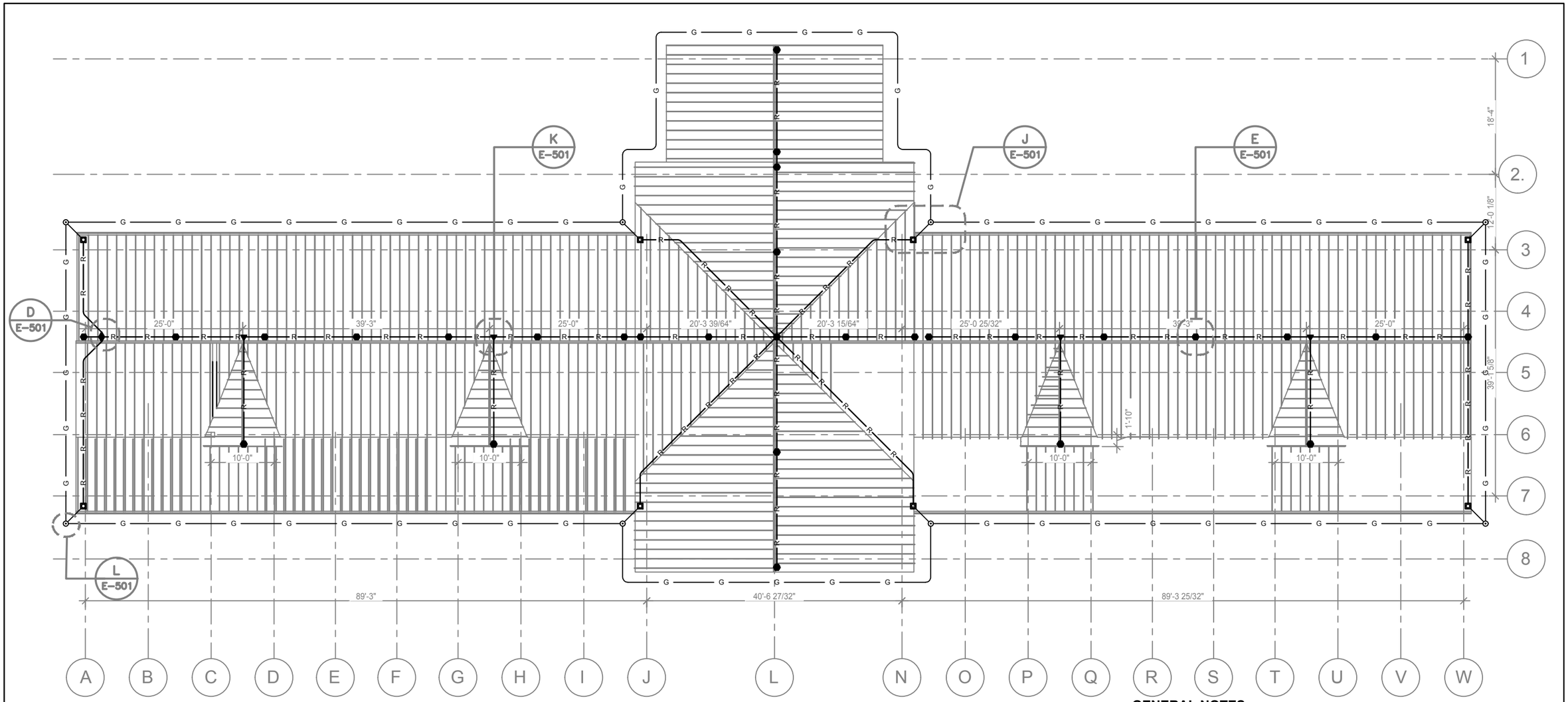

1 E-110 LIGHTNING PROTECTION ROOF PLAN

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

N

GENERAL NOTES:

1. LIGHTNING PROTECTION CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH NFPA 780 CLASS 1 MATERIAL REQUIREMENTS.
2. BOND LIGHTNING PROTECTION SYSTEM TO MAIN GROUNDING ELECTRODE SYSTEM WITH #3/0 COPPER MINIMUM.
3. REFER TO LIGHTNING PROTECTION DETAILS ON E-501.
4. DOWN CONDUCTORS SHALL BE CONCEALED IN ALL NEW CONSTRUCTION.
5. BOND ALL METAL FENCE SECTIONS TO LIGHTNING PROTECTION SYSTEM WITH #3/0 COPPER.
6. TYPICAL LIGHTNING PROTECTION PLAN E-110 IS APPLICABLE TO SUWANNEE AND COLUMBIA REST AREA BUILDING, U.O.N.
7. OBTAIN U.L. MASTER LABEL FOR LIGHTNING PROTECTION SYSTEM.

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

0' 8' 16' 32'

PROJECT NORTH

PHASE 2 - 90% SUBMITTAL

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 8	COLUMBIA	438609-1-52-01

SR 8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREA

E-110 LIGHTNING PROTECTION ROOF PLAN

DRAWING NO. E-110

SHEET NO.

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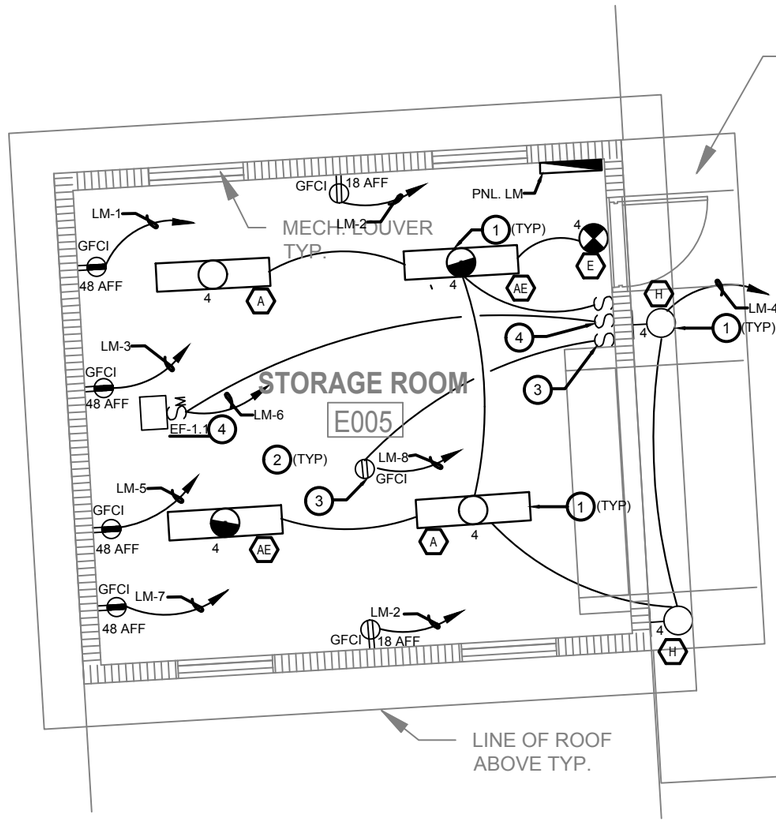

ELECTRICAL NOTES:

1. FOR EXACT LOCATION AND MOUNTING DETAIL OF FIXTURE TYPE "A" ,"AE" AND "H". SEE ARCHITECTURAL DRAWINGS PRIOR TO ROUGH IN. **PRIOR TO ROUGH–IN.**
2. **REFER TO ARCH. DRAWINGS FOR EXACT MOUNTING HEIGHT OF RECEPTACLES IN STORAGE ROOM. PRIOR TO ROUGH–IN.**
3. **GARAGE DOOR MOTOR AND CONTROLLER. REFER TO ARCH. DRAWINGS FOR EXACT MOUNTING HEIGHT AND MANUFACTURE SPECIFICATIONS. PRIOR TO ROUGH–IN.**
4. **EF–1.1 REFER TO MECHANICAL DRAWINGS FOR EXHAUST FAN LOCATION AND SPECIFICATIONS. PRIOR TO ROUGH–IN.**

1 E-111 ENLARGED STORAGE BUILDING ELECTRICAL PLAN

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

N

GRAPHIC SCALE: 3/32" = 1'-0"

0' 8' 16' 24'

PROJECT NORTH

PHASE 2 - 90% SUBMITTAL

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 8	COLUMBIA	438609-1-52-01

SR 8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREA

E-111 ENLARGED STORAGE BUILDING ELECTRICAL PLAN

DRAWING NO. E-111

SHEET NO. XX

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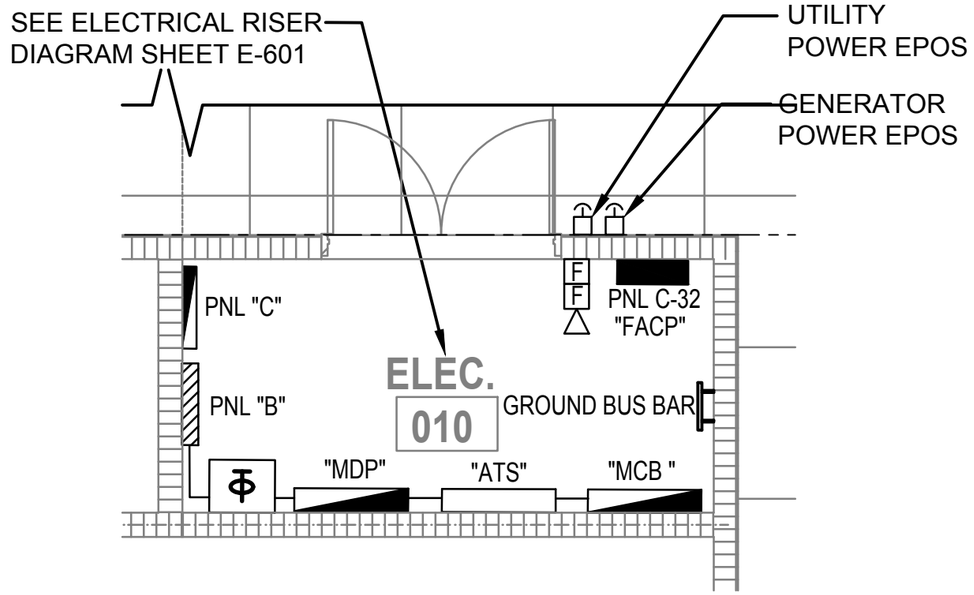

1 E-401 ENLARGED ELECTRICAL ROOM POWER PLAN

SCALE: 1/4" = 1'-0"

N

PROJECT NORTH

PHASE 2 - 90% SUBMITTAL

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

BOBES ASSOCIATES
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SR 8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREA	DRAWING NO.
ROAD NO.	COUNTY	FINANCIAL PROJECT ID	E-401 ENLARGED ELECTRICAL ROOM POWER PLAN	SHEET NO.
SR 8	COLUMBIA	438609-1-52-01		

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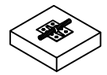
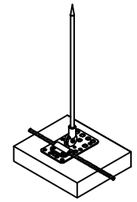
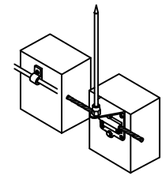
A E-501 AIR TERMINAL DETAIL
N.T.S.



B E-501 TYPICAL ADHESIVE CABLE HOLDER
N.T.S.



C E-501 TYPICAL ADHESIVE BASE AIR TERMINAL
N.T.S.



D E-501 TYPICAL OFFSET BASE AIR TERMINAL
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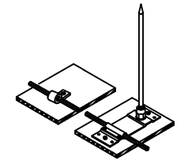
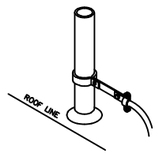
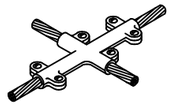


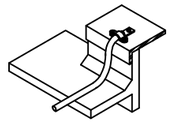
E E-501 TYPICAL ROOF EQUIPMENT AIR TERMINAL
N.T.S.



F E-501 TYPICAL V.T.R. BOND
N.T.S.

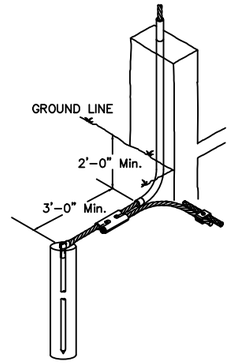


G E-501 TYPICAL FOUR WAY CABLE SPLICER
N.T.S.



H E-501 TYPICAL ROOF HATCH BOND
N.T.S.

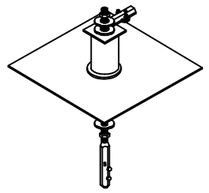
I E-501 TYPICAL BONDING PLATE
N.T.S.



J E-501 TYPICAL CONCEALED DOWNLEAD, REBAR BOND AND GROUND
N.T.S.

K E-501 TYPICAL CABLE SPLICERS
N.T.S.

L E-501 GROUND ROD CADWELD CONNECTION
N.T.S.



M E-501 TYPICAL ROOF AIR TERMINAL
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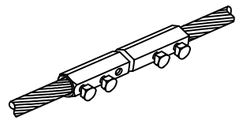

N E-501 TYPICAL HALF & HALF CLAMP
N.T.S.

PROJECT NORTH

PHASE 2 - 90% SUBMITTAL

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 8	COLUMBIA	438609-1-52-01

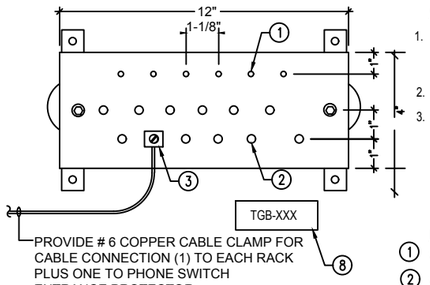
SR 8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREA

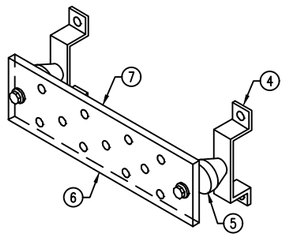
E-501 LIGHTNING PROTECTION DETAILS

DRAWING NO. E-501

SHEET NO.

Y:\AutoCAD Files\Architect\GA\I-10 Rest Areas - Columbia\ELECTRICAL\E-501 LIGHTNING PROTECTION DETAILS.dwg





GENERAL

1. ALL HARDWARE (BOLTS, NUTS WASHERS, ETC.) SHALL SHALL BE SOLID COPPER OR BRONZE. COPPER PLATING SHALL NOT BE ACCEPTABLE.
2. BUSBAR SHALL BE 1/4" THICK(MINIMUM).
3. INCREASE LENGTH OF BUSBAR, FOR NUMBER OF OF CONNECTIONS, AS REQUIRED TO MAINTAIN CORRECT SPACING BETWEEN LUGS.

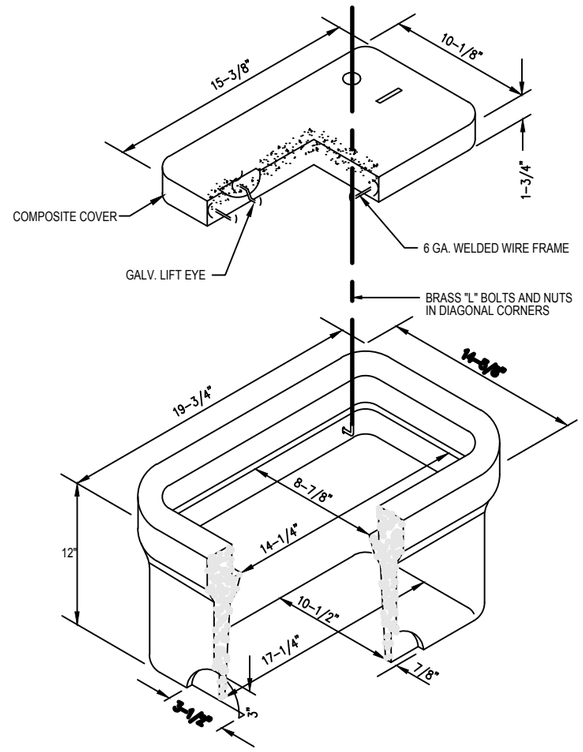
NOTE

1. #6/32 (TYPICAL)
2. #9/32 (TYPICAL)
3. PROVIDE COPPER CABLE CLAMPS FOR CABLE CONNECTIONS (BY ELECTRICAL CONTRACTOR).
4. STANDOFF BRACKET
5. INSULATOR
6. CADWELD TYPE 544A018
7. COPPER BUSBAR
8. PROVIDE WHITE CORE BAKELITE NAMEPLATE FASTENED TO A WALL/SURFACE BELOW BUSBAR AT EACH FLOOR, WITH DESIGNATION ENGRAVED THEREON IN 1/2" HIGH LETTERS.

NOTE: BOND ALL GROUND PER NEC ART. 250.

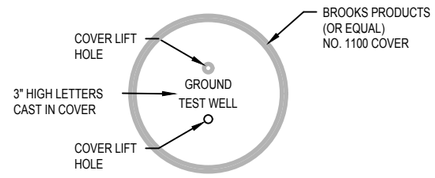
A E-502 TYPICAL GROUND BUS BAR DETAIL

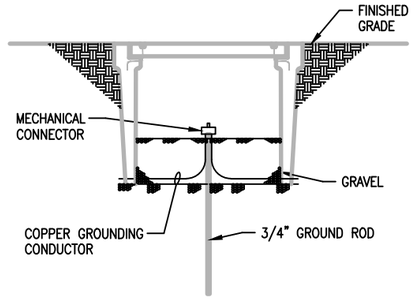
N.T.S.

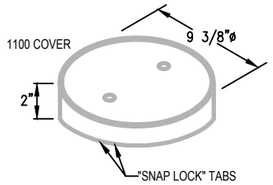


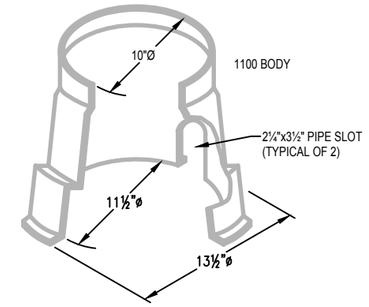
B E-502 COMPOSITE PULLBOX DETAIL

N.T.S.



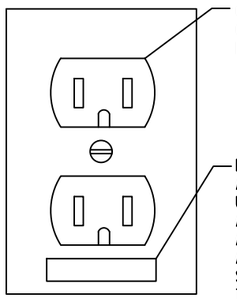






C E-502 GROUND TEXT WELL DETAIL

N.T.S.



NOTES:

1. PROVIDE GREEN GROUND WIRE IN ALL RECEPTACLE CIRCUITS. CONNECT TO GROUND BUS IN PANEL.
2. DO NOT INSTALL RECEPTACLES, COMPUTER OR TELEPHONE OUTLETS BACK TO BACK. INSTALL IN ADJACENT STUD CAVITIES, TO REDUCE SOUND TRANSMISSION.

D E-502 TYPICAL RECEPTACLE IDENTIFICATION DETAIL

N.T.S.

PROJECT NORTH

PHASE 2 - 90% SUBMITTAL

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

BOBES ASSOCIATES CONSULTING ENGINEERS
150 CIRCLE DRIVE, MAITLAND, FL 32751
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FLORIDA STATE P.E. NUMBER: 5131
GUS BOBES JR. P.E., P.E. NUMBER 39410
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 8	COLUMBIA	438609-1-52-01

SR 8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREA

ELECTRICAL DETAILS

DRAWING NO. E-502

SHEET NO.

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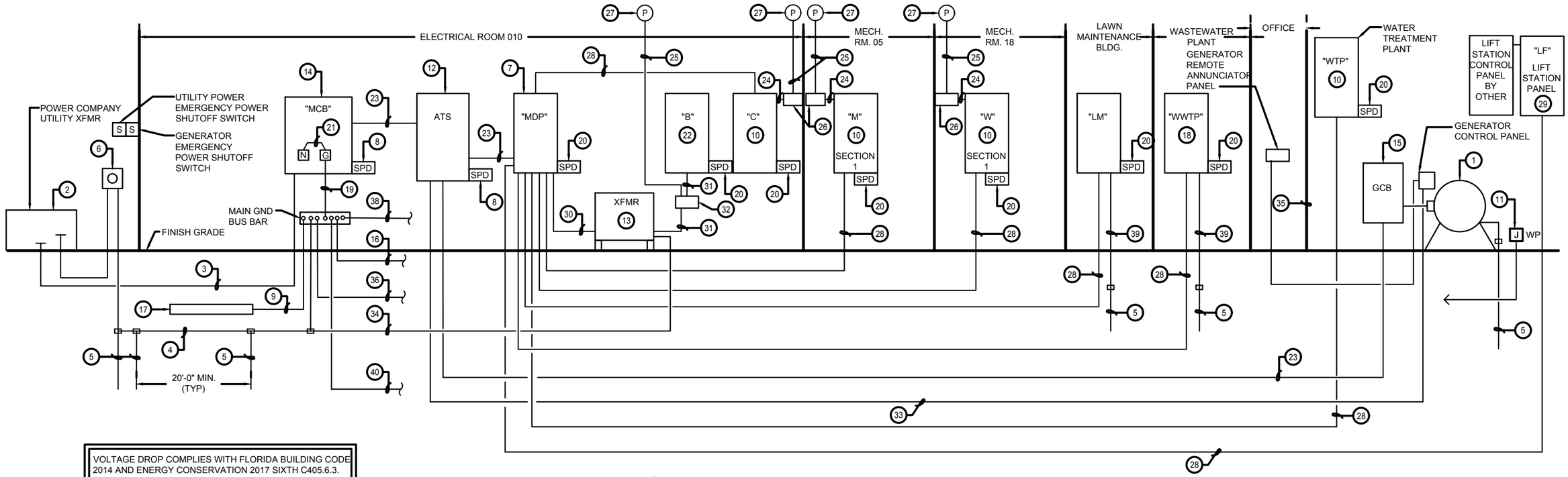

VOLTAGE DROP COMPLIES WITH FLORIDA BUILDING CODE 2014 AND ENERGY CONSERVATION 2017 SIXTH C405.6.3. ALL MAIN FEEDERS HAVE BEEN SIZED FOR A MAXIMUM OF 2% VOLTAGE DROP AND ALL BRANCH CIRCUIT FEEDERS HAVE BEEN SIZED FOR A MAXIMUM OF 3% VOLTAGE DROP PER FBC-SIXTH EDITION.

1 E-601 ELECTRICAL RISER DIAGRAM

N.T.S.

RISER NOTES:

1. PROVIDE XXX KW / XXX VA, 0.8 POWER FACTOR STANDBY GENERATOR SET, 208/120V, 3Ø, 4W WITH WEATHERPROOF ENCLOSURE AND SKID BASE FUEL TANK.
2. XXX KVA PAD MOUNTED, UTILITY TRANSFORMER. 208/120V, 3Ø, 4W, 60 HZ SECONDARY. CT LOCATED ON SECONDARY SIDE OF UTILITY TRANSFORMER, COORDINATE REQUIREMENTS WITH LOCAL POWER COMPANY. REFER TO SITE PLAN FOR ADDITIONAL DETAILS.
3. SECONDARY CONDUIT AND CONDUCTORS PARALLEL RUNS OF XX CU IN 4" CONDUITS.
4. XX BARE, STRANDED COPPER, GROUNDING ELECTRODE CONDUCTOR.
5. 20' LONG x 5/8" DIAMETER COPPER CLAD STEEL GROUND ROD.
6. WALL MOUNTED METER SOCKET, GROUNDING PER POWER CO. REQUIREMENTS, FURNISHED & INSTALLED BY CONTRACTOR. CONTRACTOR SHALL COORDINATE AND PROVIDE A UTILITY COMPANY APPROVED METER SOCKET. PROVIDE 1 1/2" CONDUIT FROM METER TO TRANSFORMER FOR CT CONDUCTORS. METER TO BE PROVIDED BY UTILITY COMPANY.
7. PANELBOARD "MDP" 3 POLE, XXXA. MLO, 208/120V, 3Ø, 4W.
8. PROVIDE TYPE 1 PRIMARY SERVICE ENTRANCE SPD WITH INTEGRAL DISCONNECTING MEANS. PROVIDE #6 AWG LEADS IN 3/4" C. NIPPLE.
9. GROUNDING ELECTRODE CONDUCTOR XX BARE, STRANDED COPPER 36" MIN. BELOW GRADE.
10. PANELBOARD, 208/120V, 3Ø, 4W. REFER TO PANELBOARD SCHEDULE.
11. ENGINE JACKET HEATER AND BATTERY CHARGER, EXTEND (4) #10, 1#10 GND. IN 1" C. TO PANEL "M".
12. AUTOMATIC TRANSFER SWITCH, 3 POLE, XXXA, XXX VOLT, WITH SOLID NEUTRAL IN NEMA TYPE 1 ENCLOSURE.
13. DRY TYPE STEP-UP XFMR, 15 KVA, 208/120 VOLT, DELTA PRIMARY TO 480/277 VOLT WYE SECONDARY.
14. MAIN SERVICE DISCONNECT, 208V, 3 POLE, SOLID NEUTRAL CIRCUIT BREAKER, WITH SHUNT TRIP COIL. PROVIDE NAMEPLATE "GENERATOR MAIN DISCONNECT IS LOCATED INSIDE GENERATOR ENCLOSURE" MUST BE LISTED AS SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT.
15. GENERATOR CIRCUIT BREAKER "GCB", 3 POLE, 208V, SOLID NEUTRAL, GROUND BUS IN NEMA 3R ENCLOSURE.
16. XX BARE STRANDED COPPER GROUNDING CONDUCTOR BETWEEN GROUND ROD AND LIGHTNING PROTECTION SYSTEM. INSTALL CONDUCTOR IN 1" SCH. 80 PVC C. WHERE EXPOSED. CONNECTION SHALL BE IRREVERSIBLE COMPRESSION TYPE.
17. BOND A XX BARE CU CONDUCTOR TO REBAR IN THE BUILDING FOOTER TO ACT AS A CONCRETE ENCASED ELECTRODE IN ACCORDANCE WITH NEC ARTICLE 250.
18. PANEL FOR WASTEWATER PLANT IS REQUIRED. PROVIDE XX. MCB, 120/208V, 3Ø, 4W, NEMA 3R PANELBOARD WITH 42 SPACES. COORDINATE BRANCH CIRCUIT BREAKER REQUIREMENTS WITH WASTE WATER DESIGN DRAWINGS SUBMITTED SEPARATELY. MOUNT PANELBOARD TO 4"x4"x10" CONCRETE POST, BURIED 3'-0" INTO GROUND.
19. GROUNDING CONDUCTOR FROM CIRCUIT BREAKER "MCB" GROUND BUS TO MAIN GND. BUS BAR, #XX BARE STRANDED COPPER.
20. PROVIDE TYPE 2 SECONDARY SERVICE SPD.
21. MAIN BONDING JUMPER #XX BARE STRANDED COPPER.
22. PANELBOARD 480/277V, 3Ø, 4W. REFER TO PANELBOARD SCHEDULE FOR ROADWAY LIGHTING CIRCUITS.
23. PARALLEL RUNS IN 4" CONDUITS.
24. LIGHTING CIRCUIT(S) AND CONTACTOR CIRCUIT FROM PANEL TO LIGHTING CONTACTOR PER DETAIL E-603.
25. PHOTOCELL CIRCUIT, THRU ROOF CONDUIT, REFER TO DETAIL E-603 FOR CIRCUIT.
26. LIGHTING CONTACTOR CABINET IN NEMA 1 ENCLOSURE WITH HINGED COVER, UL 50 LABELED. CABINET SHALL BE SIZED TO HOUSE CONTACTORS INDICATED IN DETAIL E-603.
27. 120 VOLT PHOTOCELL MOUNTED ON 3/4" GALVANIZED RIGID STEEL CONDUIT 6" ABOVE ROOF.
28. FEEDER.
29. LIFT STATION.
30. (3) #6 CU, (1) #10 CU GND. IN 1" FLEXIBLE CONDUIT (TRANSFORMER PRIMARY).
31. (4) #10 CU, (1) #10 CU GND. IN 3/4" FLEXIBLE CONDUIT (TRANSFORMER SECONDARY).
32. ROUTE FEEDER THROUGH 30 AMP, 3 POLE CONTACTOR LOCATED IN NEMA 1 ENCLOSURE. CONTACTOR TO CONTROL PANEL "B"
33. (1) 1 1/4" CONDUIT FROM GENERATOR TO ATS FOR CONTROLS. PROVIDE CONTROL CABLES PER MANUFACTURER'S REQUIREMENTS.
34. #8 COPPER, X-O BOND IN TRANSFORMER CONNECTED TO GROUNDING CONDUCTOR.
35. 1 1/4" CONDUIT WITH CABLES PER MANUFACTURER'S REQUIREMENTS EXTENDED FROM GENERATOR TO GENERATOR REMOTE ANNUNCIATOR PANEL LOCATED IN SECURITY OFFICE, REFER TO E-XXX.
36. EXTEND #6 COPPER GROUND CONDUCTOR TO TELEPHONE TERMINAL BOARD.
37. PROVIDE ARC-FAULT HAZARD WARNING LABEL ON ALL EQUIPMENT AS PER NEC 10.16.
38. #XX BARE STRANDED COPPER GROUNDING CONDUCTOR BETWEEN GROUND BAR AND COLD WATER PIPE WITHIN 5 FEET OF ENTERING BUILDING.
39. #XX BARE, STRANDED COPPER, GROUNDING CONDUCTOR TERMINATED ON GROUND BAR IN PANEL, DO NOT MAKE NEUTRAL GROUND BOND. EXTEND #2/0 BARE CU CONDUCTOR UNBROKEN FROM GROUND ROD TO COLD WATER PIPE WITHIN 5' OF ENTERING BUILDING AND CONTINUE UNBROKEN CONDUCTOR TO LIGHTNING PROTECTION SYSTEM.
40. #XX TO TELECOMM MAIN GROUND BUS BAR (TMGB).

PROJECT NORTH | PHASE 2 - 90% SUBMITTAL

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 8	COLUMBIA	438609-1-52-01

SR 8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREA

E-601 ELECTRICAL RISER DIAGRAM

DRAWING NO. E-601

SHEET NO.

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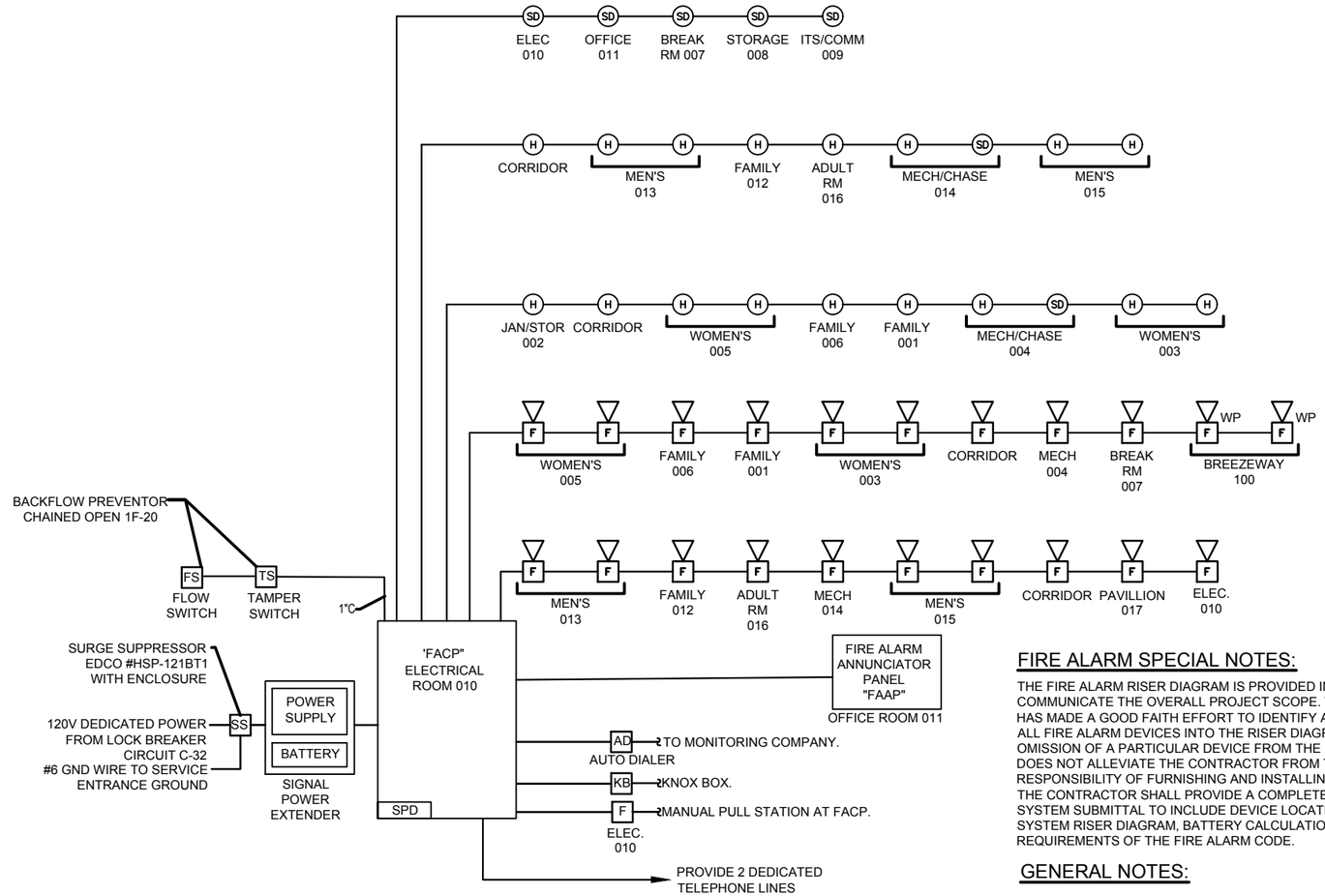

FIRE ALARM SPECIAL NOTES:

THE FIRE ALARM RISER DIAGRAM IS PROVIDED IN ORDER TO COMMUNICATE THE OVERALL PROJECT SCOPE. THE ENGINEER HAS MADE A GOOD FAITH EFFORT TO IDENTIFY AND INCLUDE ALL FIRE ALARM DEVICES INTO THE RISER DIAGRAM. THE OMISSION OF A PARTICULAR DEVICE FROM THE RISER DIAGRAM DOES NOT ALLEVIATE THE CONTRACTOR FROM THE RESPONSIBILITY OF FURNISHING AND INSTALLING THAT DEVICE. THE CONTRACTOR SHALL PROVIDE A COMPLETE FIRE ALARM SYSTEM SUBMITTAL TO INCLUDE DEVICE LOCATIONS, FULL SYSTEM RISER DIAGRAM, BATTERY CALCULATIONS, ETC. PER REQUIREMENTS OF THE FIRE ALARM CODE.

GENERAL NOTES:

BUILDING - TYPICAL SYSTEMS RISER DIAGRAM E-602 IS APPLICABLE TO EAST AND WEST BOUND REST AREA BUILDINGS, U.O.N.

1 E-602 SYSTEMS RISER DIAGRAM

N.T.S.

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PROJECT NORTH | PHASE 2 - 90% SUBMITTAL

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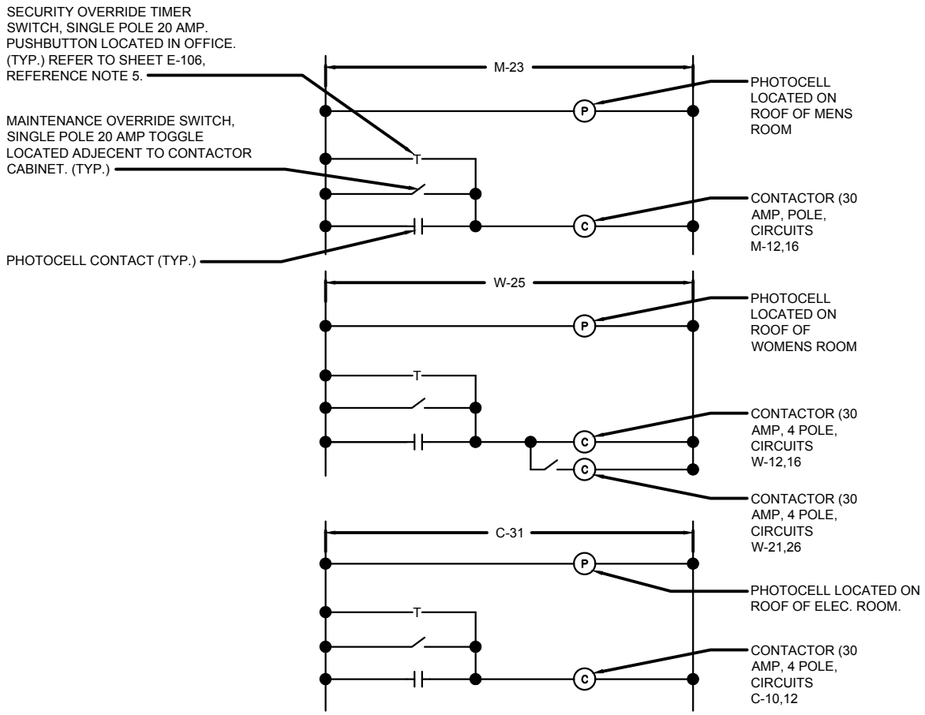
SR 8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREA

E-602 SYSTEMS RISER DIAGRAM

DRAWING NO. E-602

SHEET NO.

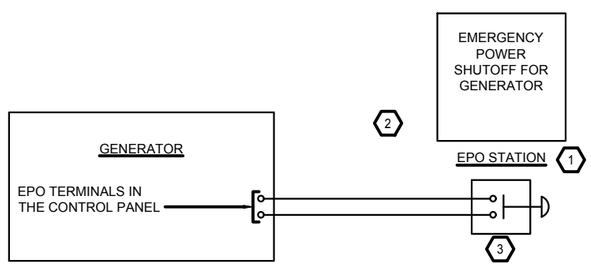


2 PHOTOCELL/CONTACTOR WIRING DIAGRAM

2 / E-604 N.T.S.

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MOUNTING	LAMPS	MANUFACTURER & CATALOG NO.	REMARKS
A	4' LED STRIP	SURFACE	40W-LED 80+CRI,3500K	COLUMBIA LIGHTING CSL4-4035 / GLH5	(5' Suspension Cable As required)
B	2' x 4' LED TROFFER	RECESSED	39W-LED 80+CRI,3500K	COLUMBIA LIGHTING LCAT-35MLG-EDU / FK24	(Flange Kit As Required For Drywall Hard Ceilings)
BE	2' x 4' LED TROFFER	RECESSED	44W-LED 80+CRI,3500K	COLUMBIA LIGHTING LCAT-35MLG-EDU-ELL14 / FK24	(Flange Kit As Required For Drywall Hard Ceilings)
C	4" RD-DOWNLIGHT	RECESSED	22W LED 80+CRI,3500K	PRESCOLITE LIGHTING #LTR-4RDH-ML20L-DM1120-277V / LTR-4RD-T-ML35K8WDSS	-
CE	4" RD-DOWNLIGHT	RECESSED	22W-LED 80+CRI,3500K	PRESCOLITE LIGHTING LTR-4RDH-ML20L-DM1120-277VEM / LTR-4RD-T-ML35K8WDSSEM	-
D	RECESSED LINEAR	RECESSED	6W/FT-LED 90+CRI,4000K	PRUDENTIAL LIGHTING BPRO4-REC-FLSH-LED4-SO-8'-TMW-SC-UNV-X3-DM01/ETS-DR	
D1	RECESSED LINEAR	RECESSED	6W/FT-LED 90+CRI,4000K	PRUDENTIAL LIGHTING BPRO4-REC-FLSH-LED4-SO-24'-TMW-SC-UNV-X3-DM01/ETS-DR	-
E	EXIT LIGHT WITH BATTERY PACK	UNIVERSAL	2W-LED	DUAL LITE #EVE-URWEI	-
F	EXIT / EMERGENCY LIGHT COMBO	UNIVERSAL	2W-LED	DUAL LITE EVCURW	
G	EXTERIOR DOWNLIGHT	RECESSED	22W-LED 80+CRI,3500K	PRESCOLITE LIGHTING LTR-4RDH-ML20L-DM1120-277V/LTR-4RD-T-ML35K8WDSS	WET LOCATIONS
GE	EXTERIOR DOWNLIGHT	RECESSED	22W-LED 80+CRI,3500K	PRESCOLITE LIGHTING LTR-4RDH-ML20L-DM1120-277V/LTR-4RD-T-ML35K8WDSS	
H	WALL PACK	SURFACE	30W-LED 80+CRI,4000K	HUBBELL LIGHTING LNC2-12L-4K-070-3-U-DBT	WET LOCATIONS
K	PENDANT MOUNT 6" CYLINDER	PENDANT	23W-LED 80+CRI,4000K	PRESCOLITE LIGHTING LCC6LED-P-18L-40K-8-WF45-BL	SEE ARCHITECT DRAWINGS FOR EXACT LOCATION AND MOUNTING DETAILS.
KE	DOWNLIGHT	PENDANT	23W-LED 80+CRI,4000K	PRESCOLITE LIGHTING LCC6LED-P-18L-40K-8-WF45-BL	SEE ARCHITECT DRAWINGS FOR EXACT LOCATION AND MOUNTING DETAILS.



1 SHUNT TRIP BUTTON WIRING DIAGRAM

1 / E-604 N.T.S.

REFERENCE NOTES:

1. EPO STATION MOUNTED 6 FT. ABOVE GRADE ON THE OUTSIDE WALL. EPO, 30mm NON-ILUMINATED, TURN-TO-RELEASE, MUSHROOM PUSH BUTTON OPERATOR (COLOR RED), TRIGGER ACTION, WITH ONE FORM C CONTACT. CLASS 9001, CORROSION RESISTANT, UL TYPE AND NEMA 4 RATED. INSTALLED WITH UL TYPE 4, NEMA 4 RATED, GUARDED ENCLOSURE (COLOR GRAY), TO PROTECT AGAINST INADVERTENT OPERATION OF MUSHROOM PUSH BUTTON. ENCLOSURE MATERIAL TO BE DIE CAST ZINC.

   MUSHROOM PUSH BUTTON (SQ-D CAT #9001SKR9RH13), WITH ONE N.O./ONE N.C. CONTACT (SQ-D CAT #KA1), GUARDED ENCLOSURE (SQ-D CAT #9001KYG1) OR EQUAL.

   WHEN THE MUSHROOM PUSH BUTTON IS DEPRESSED, TO THE "OFF" POSITION, THE GENERATOR WILL SHUT DOWN IF IT IS RUNNING. ENSURE THE GENERATOR WILL NOT START UNTIL THE EPO SWITCH IS RETURNED TO THE "ON" POSITION, TWIST-TO-RELEASE, AND THE SHUTDOWN ALARMS ARE CLEARED FROM THE OPERATOR CONTROL PANEL.
2. INSTALL A 10" x 10" ALUMINUM SIGN WITH RED FIELD AND 1/2" HIGH LETTERS DIRECTLY ABOVE THE EPO STATION.
3. PROVIDE 120 VOLT CIRCUIT FROM PANEL "C" CIRCUIT 33.

PROJECT NORTH | PHASE 2 - 90% SUBMITTAL

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SR 8	COLUMBIA	438609-1-52-01

SR 8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREA

E-603 LIGHTING FIXTURE SCHEDULE AND DIAGRAMS

DRAWING NO. E-603

SHEET NO.

Y:\AutoCAD Files\Architect\GAII-10 Rest Areas - Columbia\ELECTRICAL\E-603 LIGHTING FIXTURE SCHEDULE AND DIAGRAMS.dwg

PANEL LOCATION: MECHANICAL RM 014
PANEL FED FROM: MPD

PANEL DESIGNATION: M
PANELBOARD RATING: 225AMP
MAINS: 225A, MLO

VOLTAGE: 120/208V, 3PH-4W
MANUFACTURER: SQUARE D
STYLE: NQ

AIC RATING: 42KA
MOUNTING: SURFACE
NEMA TYPE: NEMA-1

LOAD TYPE	LOAD DESCRIPTION	KVA PER PHASE PH A	PH B	PH C	BKR	POLE	CKT	CKT	POLE	BKR	KVA PER PHASE PH A	PH B	PH C	LOAD DESCRIPTION	LOAD TYPE
M	HAND DRYER M-A	1.8			20	1	1	2	1	20	1.8			HAND DRYER M-B	M
M	HAND DRYER M-A		1.8		20	1	3	4	1	20		1.8		HAND DRYER M-B	M
M	HAND DRYER M-A			1.8	20	1	5	6	1	20			1.8	HAND DRYER M-B	M
M	HAND DRYER FAM.3	1.8			20	1	7	8	1	20	1.8			HAND DRYER ADULT RM	M
M	FLUSH VALVE		0.4		20	1	9	10	1	20		1		EWC NOTE #3	M
M	FLUSH VALVE			0.4	20	1	11	12	1	20			0.5	MEN'S B LIGHTING	L
R	RECEPTACLES GFCI	0.36			20	1	13	14	1	20	0.6			MECH RM/TOILT LTG	L
R	RECEPTACLES GFCI		0.36		20	1	15	16	1	20		0.6		MEN'S A LIGHTING	L
R	RECEPTACLES EXT. TOILET			0.72	20	1	17	18	1	20			0.3	MEN'S PORCH LIGHTING	L
R	RECEPTACLES EXT. TOILET	0.72			20	1	19	20	2	20	0.6			IEWH-1.1	W
L	EMERGENCY LIGHTING		0.3		20	1	21	22	-	-		0.6			W
M	PHOTOCELL/CONT.			0.4	20	1	23	24	2	30			1.25	IEWH-1.2	W
L	VEST LIGHTING	0.1			20	1	25	26	-	-	1.25			-	W
M	FAUCET VALVES		0.4		20	1	27	28	2	40		4.16		IEWH-1.3	W
M	FAUCET VALVES			0.4	20	1	29	30	-	-			4.16	-	W
M	CU-2.1	4.19			50	3	31	32	1	20				ADULT CHANGING TABLE	M
M	-		4.19		-	-	33	34	1	20				SPARE	
M	-			4.19	-	-	35	36	1	20				SPARE	
M	AHU 2.1 ROOM 014	4.7			60	3	37	38	1	20				SPARE	
M	-		4.7		-	-	39	40	1	20				SPARE	
M	-			4.7	-	-	41	42	1	20				SPARE	
M	FLUSH AND FAUCET VALVE	0.8			20	1	43	44	1	20				SPARE	
M	FLUSH AND FAUCET VALVE		0.8		20	1	45	46	1	20				SPARE	
	SPARE				20	1	47	48	1	20				SPARE	
	SPARE				20	1	49	50	1	20				SPARE	
	SPARE				20	1	51	52	1	20				SPARE	
	SPARE				20	1	53	54	1	20				SPARE	
	SPARE				20	1	55	56	1	20				SPARE	
	SPARE				20	1	57	58	1	20				SPARE	
	SPARE				20	1	59	60	1	20				SPARE	
	SPACE						61	62						SPACE	
	SPACE						63	64						SPACE	
	SPACE						65	66						SPACE	
	SPACE						67	68						SPACE	
	SPACE						69	70						SPACE	
	SPACE						71	72						SPACE	
	SPACE						73	74						SPACE	
	SPACE						75	76						SPACE	
	SPACE						77	78						SPACE	
	SPACE						79	80	3	30				SPD	
	SPACE						81	82	-	-				-	
	SPACE						83	84	-	-				-	
	PANELBOARD SUB-TOTALS	14.5	13.0	12.5							6.1	8.2	8.0	PANELBOARD SUB-TOTALS	

LOAD CALCULATIONS:	CONNECTED LOAD (KW)	DEMAND FACTOR	ESTIMATED DEMAND LOAD (KW)
(L) LIGHTING	2.1	1.25	2.6
(R) RECEPTACLES (FIRST 10 KW)	2.2	1.00	2.2
(R) RECEPTACLES (REMAINDER)	0.0	0.50	0.0
(H) HVAC (WORST CASE)	0.0	1.00	0.0
(W) WATER HEATING	12.0	1.00	12.0
(K) KITCHEN	0.0	0.65	0.0
(M) MISCELLANEOUS	45.7	1.00	45.7
PANELBOARD TOTALS:	62.0 (172A)		62.5 (174A)

NOTES:
1. MAIN BREAKER SHALL BE FURNISHED WITH SHUNT TRIP.
2. PROVIDE CIRCUIT BREAKER WITH HANDLE LOCK.
3. PROVIDE GFCI BREAKER

PANEL LOCATION: ELECTRICAL ROOM 010
PANEL FED FROM: XFMR "TB"

PANEL DESIGNATION: B
PANELBOARD RATING: ?
MAINS: ?A, MLO

VOLTAGE: 277/480V, 3PH-4W
MANUFACTURER: SQUARE D
STYLE: NQ

AIC RATING: 42KA
MOUNTING: SURFACE
NEMA TYPE: NEMA-1

LOAD TYPE	LOAD DESCRIPTION	KVA PER PHASE PH A	PH B	PH C	BKR	POLE	CKT	CKT	POLE	BKR	KVA PER PHASE PH A	PH B	PH C	LOAD DESCRIPTION	LOAD TYPE
							1	2							
							3	4							
							5	6							
							7	8							
							9	10							
							11	12							
							13	14							
							15	16							
							17	18							
							19	20							
							21	22							
							23	24							
							25	26							
							27	28							
							29	30							
							31	32							
							33	34							
							35	36							
							37	38							
							39	40							
							41	42							
	PANELBOARD SUB-TOTALS	0.0	0.0	0.0							0.0	0.0	0.0	PANELBOARD SUB-TOTALS	

LOAD CALCULATIONS:	CONNECTED LOAD (KW)	DEMAND FACTOR	ESTIMATED DEMAND LOAD (KW)
(L) LIGHTING	0.0	1.25	0.0
(R) RECEPTACLES (FIRST 10 KW)	0.0	1.00	0.0
(R) RECEPTACLES (REMAINDER)	0.0	0.50	0.0
(H) HVAC (WORST CASE)	0.0	1.00	0.0
(W) WATER HEATING	0.0	1.00	0.0
(K) KITCHEN	0.0	0.65	0.0
(M) MISCELLANEOUS	0.0	1.00	0.0
PANELBOARD TOTALS:	0.0 (0A)		0.0 (0A)

NOTES:
1. MAIN BREAKER SHALL BE FURNISHED WITH SHUNT TRIP.
2. PROVIDE CIRCUIT BREAKER WITH HANDLE LOCK.
3. PROVIDE GFCI BREAKER

PANEL LOCATION: ELECTRICAL ROOM 010
PANEL FED FROM: POWER COMPANY XFMR

PANEL DESIGNATION: MDP
PANELBOARD RATING: 600AMP
MAINS: ?A, MLO

VOLTAGE: 120/208V, 3PH-4W
MANUFACTURER: SQUARE D
STYLE: NQ

AIC RATING: 65KA
MOUNTING: SURFACE
NEMA TYPE: NEMA-1

LOAD TYPE	LOAD DESCRIPTION	KVA PER PHASE PH A	PH B	PH C	BKR	POLE	CKT	CKT	POLE	BKR	KVA PER PHASE PH A	PH B	PH C	LOAD DESCRIPTION	LOAD TYPE
M	PANEL M	20.33			225	3	1	2	3	?				XFMR "TB"- FOR ROAD WAY LTG	M
M	-		20.33		-	-	3	4	-	-				-	M
M	-			20.33	-	-	5	6	-	-				-	M
M	PANEL W	20			225	3	7	8	3	?				PANEL WTP	M
M	-		20		-	-	9	10	-	-				-	M
M	-			20	-	-	11	12	-	-				-	M
M	PANEL C	16			225	3	13	14	3	?				PANEL LS - LIFT STATION	M
M	-		16		-	-	15	16	-	-				-	M
M	-			15	-	-	17	18	-	-				-	M
M	PANEL LM	5			125	3	19	20							
M	-		5		-	-	21	22							
M	-			5	-	-	23	24							
M	PANEL WWTP				?	3	25	26							
M					-	-	27	28							
M	-				-	-	29	30							
							31	32							
							33	34							
							35	36							
							37	38							
							39	40							
							41	42							
	PANELBOARD SUB-TOTALS	61.3	61.3	61.3							0.0	0.0	0.0	PANELBOARD SUB-TOTALS	

LOAD CALCULATIONS:	CONNECTED LOAD (KW)	DEMAND FACTOR	ESTIMATED DEMAND LOAD (KW)
(L) LIGHTING	0.0	1.25	0.0
(R) RECEPTACLES (FIRST 10 KW)	0.0	1.00	0.0
(R) RECEPTACLES (REMAINDER)	0.0	0.50	0.0
(H) HVAC (WORST CASE)	0.0	1.00	0.0
(W) WATER HEATING	0.0	1.00	0.0
(K) KITCHEN	0.0	0.65	0.0
(M) MISCELLANEOUS	184.0	1.00	184.0
PANELBOARD TOTALS:	184.0 (511A)		184.0 (511A)

NOTES:
1. MAIN BREAKER SHALL BE FURNISHED WITH SHUNT TRIP.
2. PROVIDE CIRCUIT BREAKER WITH HANDLE LOCK.
3. PROVIDE GFCI BREAKER

PROJECT NORTH

PHASE 2 - 90% SUBMITTAL

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

BOBES ASSOCIATES
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Augusto E. Bobes Jr., P.E. No. 39410

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 8	COLUMBIA	438609-1-52-01

SR 8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREA

E-604 ELECTRICAL PANEL SCHEDULES

DRAWING NO. E-604

SHEET NO.

PANEL LOCATION: ELECTRICAL ROOM 010 | **PANEL DESIGNATION:** C | **VOLTAGE:** 120/208V, 3PH-4W | **AIC RATING:** 42KA
PANEL FED FROM: MDP | **PANELBOARD RATING:** 225AMP | **MANUFACTURER:** SQUARE D | **MOUNTING:** SURFACE
MAINS: 225A, MLO | **STYLE:** NQ | **NEMA TYPE:** NEMA-1

LOAD TYPE	LOAD DESCRIPTION	KVA PER PHASE PH A	PH B	PH C	BKR	POLE	CKT	CKT	POLE	BKR	KVA PER PHASE PH A	PH B	PH C	LOAD DESCRIPTION	LOAD TYPE
M	VENDING MACHINE NOTE #3	1.5			20	1	1	2	1	20	1.5			VENDING MACHINE NOTE #3	M
M	VENDING MACHINE NOTE #3		1.5		20	1	3	4	1	20		1.5		VENDING MACHINE NOTE #3	M
M	VENDING MACHINE NOTE #3			1.5	20	1	5	6	1	20			1.5	VENDING MACHINE NOTE #3	M
M	VENDING MACHINE NOTE #3	1.5			20	1	7	8	1	20	1.2			REFRIGERATOR NOTE #3	M
L	DISPLAY BOARD		0.6		20	1	9	10	1	20		0.6		BREEZEWAY LTG	L
M	SMALL APP			1.5	20	1	11	12	1	20			0.6	BREEZEWAY LTG	L
M	SMALL APP	1.5			20	1	13	14	1	20	1.2			CENTER REAR LIGHTING	L
R	RECEPTACLES BREEZEWAY		0.36		20	1	15	16	1	20		1.08		RECEPTACLES OFFICE	R
M	HP-1.3			1.14	20	2	17	18	1	20			1.2	ITS COM. ROOM	R
M	-	1.14			-	-	19	20	1	20	1.2			ITS COM. ROOM	R
M	HP-1.4		1.14		20	2	21	22	1	20		1.08		RECEPTACLES, ELECTRICAL/STORAGE	R
M	-			1.14	-	-	23	24	2	15			1.04	HP-1.6	M
M	HP-1.5	1.14			20	2	25	26	-		1.04			-	M
M	-		1.14		-	-	27	28	2	15		1.04		HP-1.7	M
L	EMERGENCY LIGHTING			0.4	20	1	29	30	-				1.04	-	M
M	PHOTOCELL/CONT	0.4			20	1	31	32	1	20	0.5			FACP NOTE#2	M
	SPARE				20	1	33	34	2	20		0.6		EWH-1.1	W
	SPARE				20	1	35	36	-	-			0.6	-	W
	SPARE				20	1	37	38	2	60	4			RANGE	M
	SPARE				20	1	39	40	-	-		4		-	M
	SPARE				20	1	41	42	1	20			-	SPARE	
	SPARE				20	1	43	44	1	20	1.2			RANGE HOOD	M
	SPARE				20	1	45	46	1	20		1.4		MICROWAVE	M
	SPARE				20	1	47	48	1	20				SPARE	
	SPARE				20	1	49	50	1	20				SPARE	
	SPARE				20	1	51	52	1	20				SPARE	
	SPARE				20	1	53	54	1	20				SPARE	
	SPARE				20	1	55	56	1	20				SPARE	
	SPARE				20	1	57	58	1	20				SPARE	
	SPARE				20	1	59	60	1	20				SPARE	
	SPACE						61	62						SPACE	
	PANELBOARD SUB-TOTALS	7.2	4.9	5.7							11.8	11.3	6.0	PANELBOARD SUB-TOTALS	

LOAD CALCULATIONS:	CONNECTED LOAD (KW)	DEMAND FACTOR	ESTIMATED DEMAND LOAD (KW)
(L) LIGHTING	3.6	1.25	4.5
(R) RECEPTACLES (FIRST 10 KW)	4.9	1.00	4.9
(R) RECEPTACLES (REMAINDER)	0.0	0.50	0.0
(H) HVAC (WORST CASE)	0.0	1.00	0.0
(W) WATER HEATING	1.2	1.00	1.2
(K) KITCHEN	0.0	0.65	0.0
(M) MISCELLANEOUS	37.2	1.00	37.2
PANELBOARD TOTALS:	46.9 (130A)		47.8 (133A)

NOTES:
1. MAIN BREAKER SHALL BE FURNISHED WITH SHUNT TRIP.
2. PROVIDE CIRCUIT BREAKER WITH HANDLE LOCK.
2. PROVIDE GFCI BREAKER

PANEL LOCATION: WASTE WATER PLANT | **PANEL DESIGNATION:** WWTP | **VOLTAGE:** 120/208 | **AIC RATING:** 42KA
PANEL FED FROM: MDP | **PANELBOARD RATING:** 120/208V, 3PH-4W | **MANUFACTURER:** SQUARE D | **MOUNTING:** SURFACE
MAINS: 7A, MLO | **STYLE:** NQ | **NEMA TYPE:** NEMA-1

LOAD TYPE	LOAD DESCRIPTION	KVA PER PHASE PH A	PH B	PH C	BKR	POLE	CKT	CKT	POLE	BKR	KVA PER PHASE PH A	PH B	PH C	LOAD DESCRIPTION	LOAD TYPE
					20	1	1	2	1	20					
					20	1	3	4	1	20					
					20	1	5	6	1	20					
					20	1	7	8	1	20					
					20	1	9	10	1	20					
					20	1	11	12	1	20					
					20	1	13	14	1	20					
					20	1	15	16	1	20					
					20	1	17	18	1	20					
					20	1	19	20	1	20					
					20	1	21	22	1	20					
					20	1	23	24	1	20					
					20	1	25	26	1	20					
					20	1	27	28	1	20					
					20	1	29	30	1	20					
					20	1	31	32	1	20					
					20	1	33	34	1	20					
					20	1	35	36	1	20					
					20	1	37	38	3	30				SPD	
					20	1	39	40	-	-				-	
					20	1	41	42	-	-				-	
	PANELBOARD SUB-TOTALS	0.0	0.0	0.0							0.0	0.0	0.0	PANELBOARD SUB-TOTALS	

LOAD CALCULATIONS:	CONNECTED LOAD (KW)	DEMAND FACTOR	ESTIMATED DEMAND LOAD (KW)
(L) LIGHTING	0.0	1.25	0.0
(R) RECEPTACLES (FIRST 10 KW)	0.0	1.00	0.0
(R) RECEPTACLES (REMAINDER)	0.0	0.50	0.0
(H) HVAC (WORST CASE)	0.0	1.00	0.0
(W) WATER HEATING	0.0	1.00	0.0
(K) KITCHEN	0.0	0.65	0.0
(M) MISCELLANEOUS	0.0	1.00	0.0
PANELBOARD TOTALS:	0.0 (0A)		0.0 (0A)

NOTES:
1. MAIN BREAKER SHALL BE FURNISHED WITH SHUNT TRIP.
2. PROVIDE CIRCUIT BREAKER WITH HANDLE LOCK.
2. PROVIDE GFCI BREAKER

PANEL LOCATION: MECHANICAL RM 05 | **PANEL DESIGNATION:** W | **VOLTAGE:** 120/208V, 3PH-4W | **AIC RATING:** 42KA
PANEL FED FROM: MPD | **PANELBOARD RATING:** 225AMP | **MANUFACTURER:** SQUARE D | **MOUNTING:** SURFACE
MAINS: 225A, MLO | **STYLE:** NQ | **NEMA TYPE:** NEMA-1

LOAD TYPE	LOAD DESCRIPTION	KVA PER PHASE PH A	PH B	PH C	BKR	POLE	CKT	CKT	POLE	BKR	KVA PER PHASE PH A	PH B	PH C	LOAD DESCRIPTION	LOAD TYPE
M	HAND DRYER W-A	1.8			20	1	1	2	1	20	1.8			HAND DRYER W-B	M
M	HAND DRYER W-A		1.8		20	1	3	4	1	20		1.8		HAND DRYER W-B	M
M	HAND DRYER W-A			1.8	20	1	5	6	1	20			1.8	HAND DRYER W-B	M
M	HAND DRYER, FAM.1	1.8			20	1	7	8	1	20	1.8			HAND DRYER, FAM.2	M
M	FLUSH VALVE		0.4		20	1	9	10	1	20		1		EWC NOTE #3	M
M	FLUSH VALVE			0.4	20	1	11	12	1	20			0.5	WOMEN'S B LIGHTING	L
R	RECEPTACLES,GFCI	0.36			20	1	13	14	1	20	0.6			MECH RM/TOILT LTG	L
R	RECEPTACLES,GFCI		0.36		20	1	15	16	1	20		0.6		WOMEN'S A LIGHTING	L
W	IEWH-1.1 RM 001			0.6	20	2	17	18	2	20			0.6	IEWH-1.1 RM 107	W
W	-	0.6			-	-	19	20	-	-	0.6			-	W
L	EXT. LIGHTING		0.3		20	1	21	22	1	20		0.72		RECEPTACLES EXT. TOILLET	R
L	EMERGENCY LIGHTING			0.3	20	1	23	24	1	20			0.72	RECEPTACLES EXT. TOILLET	R
M	PHOTSELL/CONT	0.4			20	1	25	26	1	20	0.1			VEST. LIGHTING	L
	SPARE				20	1	27	28	2	30		1.25		IEWH-1.2 RM 002	W
	SPARE				20	1	29	30	-	-			1.25	-	W
M	CU-1.1	4.6			50	3	31	32	2	30	1.25			IEWH-1.2 RM 004	W
M	-		4.6		-	-	33	34	-	-		1.25		-	W
M	-			4.6	-	-	35	36	1	20			0.4	FAUCET VALVE	M
M	AHU-1.1	5			60	3	37	38	1	20	0.4			FAUCET VALVE	M
M	-		5		-	-	39	40	1	20		0.8		FLUSH AND FAUCET VALVE	M
M	-			5	-	-	41	42	1	20			0.8	FLUSH AND FAUCET VALVE	M
	SPARE				20	1	43	44	1	20				SPARE	
	SPARE				20	1	45	46	1	20				SPARE	
	SPARE				20	1	47	48	1	20				SPARE	
	SPARE				20	1	49	50	1	20				SPARE	
	SPARE				20	1	51	52	1	20				SPARE	
	SPARE				20	1	53	54	1	20				SPARE	
	SPARE				20	1	55	56	1	20				SPARE	
	SPARE				20	1	57	58	1	20				SPARE	
	SPARE				20	1	59	60	1	20				SPARE	
	SPACE						61	62						SPACE	
	SPACE						63	64						SPACE	
	SPACE						65	66						SPACE	
	SPACE						67	68						SPACE	
	SPACE						69	70						SPACE	
	SPACE						71	72						SPACE	
	SPACE						73	74						SPACE	
	SPACE						75	76						SPACE	
	SPACE						77	78						SPACE	
	SPACE						79	80	3	30				SPD	
	SPACE						81	82	-	-				-	
	SPACE						83	84	-	-				-	
	PANELBOARD SUB-TOTALS	14.6	12.5	12.7							6.6	7.4	6.1	PANELBOARD SUB-TOTALS	

LOAD CALCULATIONS:	CONNECTED LOAD (KW)	DEMAND FACTOR	ESTIMATED DEMAND LOAD (KW)
(L) LIGHTING	2.4	1.25	3.0
(R) RECEPTACLES (FIRST 10 KW)	2.2	1.00	2.2
(R) RECEPTACLES (REMAINDER)	0.0	0.50	0.0
(H) HVAC (WORST CASE)	0.0	1.00	0.0
(W) WATER HEATING	7.4	1.00	7.4
(K) KITCHEN	0.0	0.65	0.0
(M) MISCELLANEOUS	47.8	1.00	47.8
PANELBOARD TOTALS:	59.8 (166A)		60.4 (168A)

NOTES:
1. MAIN BREAKER SHALL BE FURNISHED WITH SHUNT TRIP.
2. PROVIDE CIRCUIT BREAKER WITH HANDLE LOCK.
3. PROVIDE GFCI BREAKER

PANEL LOCATION: LAWN MAINTENANCE BLDG. | **PANEL DESIGNATION:** LM | **VOLTAGE:** 120/208V, 3PH-4W | **AIC RATING:** 42KA
PANEL FED FROM: MDP | **PANELBOARD RATING:** 125AMP | **MANUFACTURER:** SQUARE D | **MOUNTING:** SURFACE
MAINS: 60A, MLO | **STYLE:** NQ | **NEMA TYPE:** NEMA-1

LOAD TYPE	LOAD DESCRIPTION	KVA PER PHASE PH A	PH B	PH C	BKR	POLE	CKT	CKT	POLE	BKR	KVA PER PHASE PH A	PH B	PH C	LOAD DESCRIPTION	LOAD TYPE
R	RECEPTACLES	1.08			20	1	1	2	1	20	0.36			RECEPTACLES	R
R	RECEPTACLES		1.08		20	1	3	4	1	20		0.36		LIGHTS	L
R	RECEPTACLES			1.08	20	1	5	6	1	20			0.2	EF-1,1	M
R	RECEPTACLES				20	1	7	8	1	20	1.2			GARAGE DOOR MOTOR	M
	SPARE				20	1	9	10	1	20				SPARE	
	SPARE				20	1	11	12	1	20				SPARE	
	SPARE				20	1	13	14	1	20				SPARE	
	SPARE				20	1	15	16	1	20				SPARE	
	SPARE				20	1	17	18	1	20				SPARE	
	SPARE				20	1	19	20						SPACE	
	SPARE				20	1	21	22						SPACE	
	SPARE				20	1	23	24						SPACE	
	SPACE						25	26						SPACE	
	SPACE						27	28						SPACE	
	SPACE						29	30						SPACE	
	SPACE						31	32						SPACE	
	SPACE						33	34						SPACE	
	SPACE						35	36						SPACE	
	SPACE						37	38	3	30				SPD	
	SPACE						39	40	-	-				-	
	SPACE						41	42	-	-				-	
	PANELBOARD SUB-TOTALS	1.1	1.1	1.1							1.6	0.4	0.2	PANELBOARD SUB-TOTALS	

LOAD CALCULATIONS:	CONNECTED LOAD (KW)	DEMAND FACTOR	ESTIMATED DEMAND LOAD (KW)
(L) LIGHTING	0.4	1.25	0.5
(R) RECEPTACLES (FIRST 10 KW)	3.6	1.00	3.6
(R) RECEPTACLES (REMAINDER)	0.0	0.50	0.0
(H) HVAC (WORST CASE)	0.0	1.00	0.0
(W) WATER HEATING	0.0	1.00	0.0
(K) KITCHEN	0.0	0.65	0.0
(M) MISCELLANEOUS	1.4	1.00	1.4
PANELBOARD TOTALS:	5.4 (15A)		5.5 (15A)

NOTES:
1. MAIN BREAKER SHALL BE FURNISHED WITH SHUNT TRIP.
2. PROVIDE CIRCUIT BREAKER WITH HANDLE LOCK.
3. PROVIDE GFCI BREAKER

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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Augusto E. Bobes Jr., P.E. No. 39410

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 8	COLUMBIA	438609-1-52-01

SR 8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREA

E-605 ELECTRICAL PANEL SCHEDULES

DRAWING NO. E-605
SHEET NO.

Y:\AutoCAD Files\Architect\GAI\I-10 Rest Areas - Columbia\ELECTRICAL\E-605 ELECTRICAL PANEL SCHEDULES.dwg

WIRE SIZE REQUIRED FOR BRANCH CIRCUITS AT LESS THAN 3% VOLTAGE DROP

		1 FT TO 50 FT	5 1 FT TO 75 FT	76 FT TO 100 FT	101 FT TO 125 FT	126FT TO 150 FT	151 FT TO 200 FT
120 V	20A	#12	#10	#8	#8	#6	#6
	30A	#10	#8	#6	#6	#6	#4
	40A	#8	#6	#6	#4	#4	#3
	50A	#8	#16	#4	#4	#3	#2
208 V 1	20A	#12	#12	#12	#10	#10	#8
	30A	#10	#10	#10	#8	#8	#6
	40A	#8	#8	#8	#8	#6	#6
	50A	#8	#8	#8	#6	#6	#4
	60A	#6	#6	#6	#6	#4	#4
	70A	#4	#4	#4	#4	#4	#3
	80A	#4	#4	#4	#4	#4	#3
	90A	#3	#3	#3	#3	#3	#2
	100A	#3	#3	#3	#3	#3	#2
208 V 3	20A	#12	#12	#12	#10	#10	#8
	30A	#10	#10	#10	#8	#8	#6
	40A	#8	#8	#8	#8	#6	#6
	50A	#8	#8	#8	#6	#6	#4
	60A	#6	#6	#6	#6	#6	#4
	70A	#4	#4	#4	#4	#4	#4
	80A	#4	#4	#4	#4	#4	#3
	90A	#3	#3	#3	#3	#3	#3
	100A	#3	#3	#3	#3	#3	#2

CALCULATED USING COPPER WIRE AT 75 C.

BRANCH CIRCUITS HAVE BEEN CALCULATED FOR SINGLE PHASE VOLTAGE DROP BASED ON SINGLE PHASE CIRCUIT

PANEL LOCATION: WATER TREATMENT PLANT
PANEL FED FROM: MDP
PANEL DESIGNATION: WTP
PANELBOARD RATING: 9AMP
MAINS: 9AMP, MLO
VOLTAGE: 120/208V, 3PH-4W
MANUFACTURER: SQUARE D
STYLE: NQ
AIC RATING: 42KA
MOUNTING: SURFACE
NEMA TYPE: NEMA-1

LOAD TYPE	LOAD DESCRIPTION	KVA PER PHASE PH A	PH B	PH C	BKR	POLE	CKT	CKT	POLE	BKR	KVA PER PHASE PH A	PH B	PH C	LOAD DESCRIPTION	LOAD TYPE
					20	1	1	2	1	20					
					20	1	3	4	1	20					
					20	1	5	6	1	20					
					20	1	7	8	1	20					
					20	1	9	10	1	20					
					20	1	11	12	1	20					
					20	1	13	14	1	20					
					20	1	15	16	1	20					
					20	1	17	18	1	20					
					20	1	19	20	1	20					
					20	1	21	22	1	20					
					20	1	23	24	1	20					
					20	1	25	26	1	20					
					20	1	27	28	1	20					
					20	1	29	30	1	20					
					20	1	31	32	1	20					
					20	1	33	34	1	20					
					20	1	35	36	1	20					
					20	1	37	38	3	30				SPD	
					20	1	39	40	-	-				-	
					20	1	41	42	-	-				-	
	PANELBOARD SUB-TOTALS	0.0	0.0	0.0							0.0	0.0	0.0	PANELBOARD SUB-TOTALS	

LOAD CALCULATIONS:	CONNECTED LOAD (KW)	DEMAND FACTOR	ESTIMATED DEMAND LOAD (KW)
(L) LIGHTING	0.0	1.25	0.0
(R) RECEPTACLES (FIRST 10 KW)	0.0	1.00	0.0
(R) RECEPTACLES (REMAINDER)	0.0	0.50	0.0
(H) HVAC (WORST CASE)	0.0	1.00	0.0
(W) WATER HEATING	0.0	1.00	0.0
(K) KITCHEN	0.0	0.65	0.0
(M) MISCELLANEOUS	0.0	1.00	0.0
PANELBOARD TOTALS:	0.0 (0A)		0.0 (0A)

NOTES:
1. MAIN BREAKER SHALL BE FURNISHED WITH SHUNT TRIP.
2. PROVIDE CIRCUIT BREAKER WITH HANDLE LOCK.
2. PROVIDE GFCI BREAKER

PANEL LOCATION: LIFT STATION
PANEL FED FROM: MDP
PANEL DESIGNATION: LS
PANELBOARD RATING: 100AM
MAINS: 100A, MLO
VOLTAGE: 120/208V, 3PH-4W
MANUFACTURER: SQUARE D
STYLE: NQ
AIC RATING: 42KA
MOUNTING: SURFACE
NEMA TYPE: NEMA-1

LOAD TYPE	LOAD DESCRIPTION	KVA PER PHASE PH A	PH B	PH C	BKR	POLE	CKT	CKT	POLE	BKR	KVA PER PHASE PH A	PH B	PH C	LOAD DESCRIPTION	LOAD TYPE
					20	1	1	2	1	20					
					20	1	3	4	1	20					
					20	1	5	6	1	20					
					20	1	7	8	1	20					
					20	1	9	10	1	20					
					20	1	11	12	1	20					
					20	1	13	14	1	20					
					20	1	15	16	1	20					
					20	1	17	18	1	20					
					20	1	19	20	1	20					
					20	1	21	22	1	20					
					20	1	23	24	1	20					
					20	1	25	26	1	20					
					20	1	27	28	1	20					
					20	1	29	30	1	20					
					20	1	31	32	1	20					
					20	1	33	34	1	20					
					20	1	35	36	1	20					
					20	1	37	38	3	30				SPD	
					20	1	39	40	-	-				-	
					20	1	41	42						-	
	PANELBOARD SUB-TOTALS	0.0	0.0	0.0							0.0	0.0	0.0	PANELBOARD SUB-TOTALS	

LOAD CALCULATIONS:	CONNECTED LOAD (KW)	DEMAND FACTOR	ESTIMATED DEMAND LOAD (KW)
(L) LIGHTING	0.0	1.25	0.0
(R) RECEPTACLES (FIRST 10 KW)	0.0	1.00	0.0
(R) RECEPTACLES (REMAINDER)	0.0	0.50	0.0
(H) HVAC (WORST CASE)	0.0	1.00	0.0
(W) WATER HEATING	0.0	1.00	0.0
(K) KITCHEN	0.0	0.65	0.0
(M) MISCELLANEOUS	0.0	1.00	0.0
PANELBOARD TOTALS:	0.0 (0A)		0.0 (0A)

NOTES:
1. MAIN BREAKER SHALL BE FURNISHED WITH SHUNT TRIP.
2. PROVIDE CIRCUIT BREAKER WITH HANDLE LOCK.
2. PROVIDE GFCI BREAKER

PROJECT NORTH

PHASE 2 - 90% SUBMITTAL

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

BOBES ASSOCIATES
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Augusto E. Bobes Jr., P.E. No. 39410

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 8	COLUMBIA	438609-1-52-01

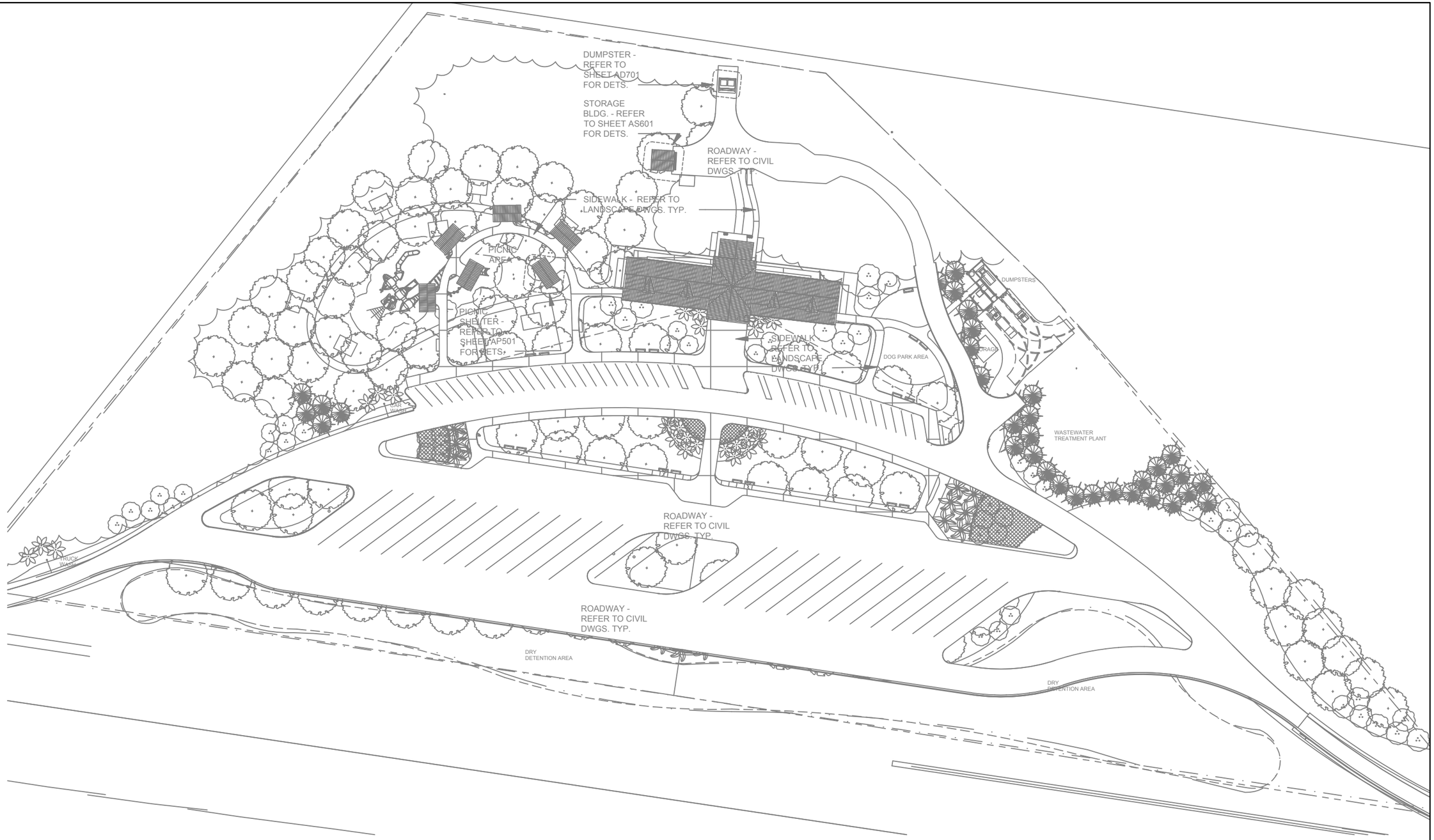
SR 8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREA

DRAWING NO. E-606

SHEET NO.

E-606 ELECTRICAL PANEL SCHEDULES

Y:\AutoCAD Files\Architect\GA\I-10 Rest Areas - Columbia\ELECTRICAL\E-606 ELECTRICAL PANEL SCHEDULES.dwg



GRAPHIC SCALE: 1" = 100'-0"

0' 50' 100' 200'

N

1 ES-101 ELECTRICAL SITE PLAN
SCALE: 1" = 100'-0"

PROJECT NORTH

PHASE 2 - 90% SUBMITTAL

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 8	COLUMBIA	438609-1-52-01

SR 8 (I-10) WESTBOUND (COLUMBIA COUNTY) REST AREA

ES-101 ELECTRICAL SITE PLAN

DRAWING NO. ES-101

SHEET NO.

Y:\AutoCAD Files\Architect\GA\I-10 Rest Areas - Columbia\ELECTRICAL\ES101 ELECTRICAL SITE PLAN.dwg