July 5, 2016
BOARD OF COUNTY COMMISSIONERS
ORANGE COUNTY, FLORIDA
IFB Y16-780-CC / Addendum No. 3
CASSADY & SHERIFF SECTOR IV ELEVATOR MODERNIZATION

Revised Bid Opening Date: July 12, 2016

This addendum is hereby incorporated into the bid documents of the project referenced above. The following items are clarifications, corrections, additions, deletions and/or revisions to, and shall take precedence over, the original documents. Underlining indicates additions, deletions are indicated by ~~strikethrough~~.

A. The Bid Opening Date has been changed from ~~July 7, 2016 at 2:00 P.M.~~ to **July 12, 2016 at 2:00 P.M.**

B. The following attachment referenced in Addendum No. 1 dated June 14, 2016 is hereby incorporated into the IFB documents:

1. Orange County Corrections Cassidy Building Elevator Modernization Project Drawings dated March 23, 2016.

C. The Bidder/Proposer shall acknowledge receipt of this addendum by completing the applicable section in the solicitation or by completion of the acknowledgement information on the addendum. Either form of acknowledgement must be completed and returned not later than the date and time for receipt of the bid or proposal.

D. All other terms and conditions of the IFB remain the same.

Receipt acknowledged by:

_____ _____
Authorized Signature Date Signed

_____
Title

_____
Name of Firm

ORANGE COUNTY CORRECTIONS

2450 W 33rd STREET, ORLANDO, FL 32819

MAYOR
MRS. TERESA JACOBS

DISTRICT 1 COMMISSIONER
MR. S. SCOTT BOYD

DISTRICT 2 COMMISSIONER
BRYAN NELSON

ORANGE COUNTY GOVERNMENT
FLORIDA

DISTRICT 3 COMMISSIONER
MR. PETE CLARKE

DISTRICT 4 COMMISSIONER
MRS. JENNIFER THOMPSON

DISTRICT 5 COMMISSIONER
MR. TED EDWARDS

DISTRICT 6 COMMISSIONER
VICTORIA P. SIPLIN

CASSIDY BUILDING
ELEVATOR MODERNIZATION

PROJECT LOCATION

MATERN
PROFESSIONAL
ENGINEERING, INC.
ENG. BUS. No. EB-0005096
CERT. OF AUTH. No. 5096
130 Candace Drive
Maitland, FL 32751-3331
PHONE (407) 740-5020
FAX (407) 740-0365

BID DOCUMENTS
MARCH 23, 2016

SHEET NO.	MECHANICAL SHEET INDEX	SCALE
M001	GENERAL NOTES AND LEGENDS - MECHANICAL	NONE
M100	OVERALL FLOOR PLAN - MECHANICAL	3/32"=1'-0"
M101	PARTIAL NEW FLOOR PLAN - MECHANICAL	1/4"=1'-0"

SHEET NO.	ELECTRICAL SHEET INDEX FOR	SCALE
E001	GENERAL NOTES, LEGENDS AND SHEET INDEX	NONE
E002	SYMBOL LEGEND AND FIXTURE SCHEDULE	NONE
E100	OVERALL FLOOR PLAN - POWER	3/32" = 1'-0"
E101	PARTIAL FLOOR PLANS DEMO AND RENO - ELECTRICAL	1/4" = 1'-0"
E501	ELECTRICAL SCHEDULES	NONE
E901	DETAILS ELECTRICAL	NONE

MECHANICAL ABBREVIATIONS

A	AMPERES	EVAP	EVAPORATOR	MCA	MAXIMUM CIRCUIT AMPS
AC	AIR CONDITIONING	EWB	ENTERING WET BULB TEMPERATURE	MOCP	MAXIMUM OVERCURRENT PROTECTION
AD	ACCESS DOOR	EWT	ENTERING WATER TEMPERATURE	LRA	LOCK ROTOR AMPS
AFF	ABOVE FINISHED FLOOR	EXIST	EXISTING	RLA	RATED LOAD AMPS
AHU	AIR HANDLING UNIT	EXP	EXPANSION	PC	PLUMBING CONTRACTOR
APPROX	APPROXIMATELY	F	FIRE SPRINKLER PIPING	PCHWP	PRIMARY CHILLED WATER PUMP
AP	ACCESS PANEL	°F	DEGREES FAHRENHEIT	PD	PRESSURE DROP
ARCH	ARCHITECTURAL	FA	FREE AREA (SQ. FT.) OR FACE AREA	PHC	PREHEAT COIL
AS	AIR SEPARATOR	FBP	FIELD BUILT PLENUM	PSI	POUNDS PER SQUARE INCH
AUTO	AUTOMATIC	FCO	FLOOR CLEANOUT	PSIA	PSI ABSOLUTE
AUX	AUXILLIARY	FCU	FAN COIL UNIT	PSIG	PSI GAUGE
BCS	BUILDING CONTROL SYSTEM	FD	FLOOR DRAIN	PRESS	PRESSURE
BHP	BRAKE HORSEPOWER	FDPR	FIRE DAMPER	PVC	POLYVINYL CHLORIDE
BLDG	BUILDING	FLA	FULL LOAD AMPERES	RA	RETURN AIR
BOD	BOTTOM OF DUCT	FLEX	FLEXIBLE	RAF	RETURN AIR FAN
BTU	BRITISH THERMAL UNIT	FPI	FINS PER INCH	REQ'D	REQUIRED
BTUH	BRITISH THERMAL UNITS PER HOUR	FPM	FEET PER MINUTE	RF	RELIEF FAN
CC	COOLING COIL	FPS	FEET PER SECOND	RH	RELATIVE HUMIDITY
CD	CONDENSATE DRAIN	FTB	FAN POWERED TERMINAL BOX	RHC	REHEAT COIL
CFM	CUBIC FEET PER MINUTE	FV	FACE VELOCITY	RHG	*REFRIGERANT HOT GAS DISCHARGE
CH	CHILLER	GA	GAUGE	RLL	*REFRIGERANT LIQUID LINE
CHR	CHILLED WATER RETURN	GAL	GALLONS	RM	ROOM
CHS	CHILLED WATER SUPPLY	GPH	GALLONS PER HOUR	RPM	REVOLUTIONS PER MINUTE
CHWP	CHILLED WATER PUMP	GPM	GALLONS PER MINUTE	RSL	*REFRIGERANT SUCTION LINE
CLG	CEILING	HB	HOSE BIBB	RV	RELIEF VALVE
CMU	CONCRETE MASONARY UNIT	H2O	WATER	S/FDPR	COMBINED SMOKE AND FIRE DAMPER
CO	CLEAN-OUT	HC	HEATING COIL	SA	SUPPLY AIR
COMB	COMBINATION	HD	HEAD	SAF	SUPPLY AIR FAN
COMPR	COMPRESSOR	HORIZ	HORIZONTAL	SAN	SANITARY
COND	CONDENSATE OR CONDENSER	HP	HORSEPOWER OR HEAT PUMP	SAU	SOUND ATTENUATION UNIT
CONN	CONNECTION	HW	HOT WATER	SCHWP	SECONDARY CHILLED WATER PUMP
CONT	CONTINUATION	HR	HOUR	SGCHS	SECONDARY GLYCOL CHILLED WATER SUPPLY
CU	CONDENSING UNIT	HT	HEIGHT	SGCHR	SECONDARY GLYCOL CHILLED WATER RETURN
CU FT	CUBIC FEET	HZ	FREQUENCY (HERTZ)	SDPR	SMOKE DAMPER
CUH	CABINET UNIT HEATER	ID	INSIDE DIAMETER	SP	STATIC PRESSURE
CU IN	CUBIC INCHES	IN	INCH OR INCHES	SPEC	SPECIFICATION
CW	COLD WATER (CITY)	INSUL	INSULATION	TAO	TRANSFER AIR OPENING
CWP	CONDENSER WATER PUMP	KW	KILOWATT	TD	TRENCH DRAIN
CWR	CONDENSER WATER RETURN	LAT	LEAVING AIR TEMPERTURE	TDH	TOTAL DYNAMIC HEAD
CWS	CONDENSER WATER SUPPLY	LB/HR	POUNDS PER HOUR	TEMP	TEMPERATURE
D	DRAIN LINE	LBS	POUNDS	TS	TIPSPEED
DB	DRY BULB	LDB	LEAVING DRY BULB TEMPERATURE	TYP	TYPICAL
DG	DOOR GRILLE	LIN FT	LINEAR FEET	UG	UNDERGROUND
DHW	DOMESTIC HOT WATER	LWB	LEAVING WET BULB	UH	UNIT HEATER
DIAM	DIAMETER	LWT	LEAVING WATER TEMPERATURE	VAV	VARIABLE AIR VOLUME UNIT
DN	DOWN	MAX	MAXIMUM	VD	VOLUME DAMPER
DWG	DRAWING	MB	MIXING BOX	W	WATT
DX	DIRECT EXPANSION	MBH	BTUH, THOUSANDS	W/	WITH
EA	EXHAUST AIR	MC	MECHANICAL CONTRACTOR	W/O	WITHOUT
EAT	ENTERING AIR TEMPERATURE	MIN	MINIMUM	WB	WET BULB
EDB	ENTERING DRY BULB TEMPERATURE	NC	NORMALLY CLOSED	WC	WATER COLUMN
EDH	ELECTRIC DUCT HEATER	NIC	NOT IN CONTRACT	WCO	WALL CLEANOUT
EF	EXHAUST FAN	NO	NORMALLY OPEN	WG	WATER GAUGE
EH	ELECTRIC HEATER	NO.	NUMBER	WP	WORKING PRESSURE
EL	ELEVATION	NTS	NOT TO SCALE	WMS	WIRE MESH SCREEN
ELEC	ELECTRICAL	OA	OUTSIDE AIR	ZD	ZONE DAMPER
EQ	EQUAL	OD	OUTSIDE DIAMETER		
ET	EXPANSION TANK	OV	OUTLET VELOCITY		

GENERAL LEGEND

	PIPE SECTION–SUPPLY
	PIPE SECTION–RETURN
	DIRECTION OF FLOW IN PIPE
	PITCH PIPE DOWN IN DIRECTION OF ARROW
	PIPE UP
	PIPE DOWN
A	PIPE ANCHOR
G	PIPE GUIDE
EJ	EXPANSION JOINT
	FLEXIBLE PIPE CONNECTOR
	BALL VALVE
	CHECK VALVE, HORIZONTAL SWING
	CHECK VALVE, VERTICAL SPRING LOADED
	GATE VALVE
	GLOBE VALVE
BC	BALANCING COCK
	BUTTERFLY VALVE TAPPED LUG WAFER
	STRAINER, Y–TYPEAND BLOWOFF VALVE
SV	STRAINER/SHUT–OFF VALVE & PRESSURE TAP
PTV	SHUT–OFF VALVE & PRESSURE TAP
	AUTOMATIC CONTROL VALVE (2–WAY, 3–WAY)
	NEEDLE VALVE
MAV	MANUAL AIR VENT
AAV	AUTOMATIC AIR VENT
PP	TEMPERATURE & PRESSURE TAP (PETE'S PLUG)
PG	PRESSURE GAUGE W/BALL VL. (WATER)
PTW	PRESSURE GAUGE TAPPING (WATER)
	SOLENOID VALVE
	CAPPED LINE
CHS–UG	CHILLED WATER SUPPLY (BELOW GRADE)
CHS	CHILLED WATER SUPPLY (ABOVE GRADE)
CHR–UG	CHILLED WATER RETURN (BELOW GRADE)
CHR	CHILLED WATER RETURN (ABOVE GRADE)
CF	CHEMICAL FEED PIPING
CD–UG	CONDENSATE DRAIN (BELOW GRADE)
CD	CONDENSATE DRAIN (ABOVE GRADE)
CWS–UG	CONDENSER WATER SUPPLY (BELOW GRADE)
CWS	CONDENSER WATER SUPPLY (ABOVE GRADE)
CWR–UG	CONDENSER WATER RETURN (BELOW GRADE)
CWR	CONDENSER WATER RETURN (ABOVE GRADE)

4" 6"	PIPE REDUCTION
T	THERMOMETER
TW	THERMOMETER WELL
	ROUND DUCT
	FLAT OVAL DUCT
12x6, 8"ø,G–1 160 CFM	SIDEWALL SUPPLY SIZE, NECK SIZE,TYPE CAPACITY
8x8, 8"ø,G–2 110 CFM	SIDEWALL RETURN SIZE, NECK SIZE,TYPE CAPACITY
6X6,8"ø,G–3 150CFM	CEILING DIFFUSER SUPPLY SIZE, NECK SIZE, TYPE CAPACITY
6X6, 8"ø,G–3 150 CFM	CEILING RETURN OR EXHAUST SIZE, NECK SIZE, TYPE CAPACITY
6X8,8"ø,G–3 150CFM	FLOOR SUPPLY SIZE, NECK SIZE,TYPE CAPACITY
6X8, 8"ø,G–3 150 CFM	FLOOR RETURN OR EXHAUST SIZE, NECK SIZE,TYPE CAPACITY
	SUPPLY LINEAR – LENGTH,WIDTH,G#,PLENUM SIZE XXX CFM PER PLENUM CONTINUOUS,2–SLOT,G–7,48" PLENUM 150 CFM PER PLENUM
	RETURN LINEAR – LENGTH,WIDTH,G#,PLENUM SIZE XXX CFM PER PLENUM CONTINUOUS,2–SLOT,G–7,OPEN 150 CFM PER PLENUM
UC CFM	DOOR UNDERCUT 3/4"MAX., CAPACITY
ΔT	DELTA T (TEMPERATURE DIFFERENCE)
	ROUND DUCT SECTION–SUPPLY
	ROUND DUCT SECTION–RETURN
	DUCT SECTION–SUPPLY
	DUCT SECTION–RETURN OR EXHAUST
	FLEXIBLE DUCT CONNECTION
	FIRE DAMPER & ACCESS DOOR
	VOLUME DAMPER
	TURNING VANES
	SMOKE DAMPER & ACCESS DOOR
	FLEXIBLE ROUND DUCT
A M–1M–2	SECTION DESIGNATION; SHEET WHERE SECTION APPEARS; SHEET WHERE SECTION CUT
T	THERMOSTAT
SD	SMOKE DETECTOR
SP	DOWN DUCT STATIC PRESSURE SENSOR
CO_2	INDOOR AIR QUALITY SENSOR
M	MOTORIZED VALVE
T	REMOTE TEMPERATURE SENSOR
H	HUMIDISTAT
M	MOTORIZED DAMPER
CFM	AIR FLOW MEASURING STATION
FM	FLOW METER
	POINT OF DISCONNECTION
	POINT OF CONNECTION

GENERAL NOTES

1. REFER TO THE DIVISION 23 SPECIFICATIONS.
2. THE CONTRACTOR SHALL DEMONSTRATE EACH HVAC SYSTEMS PERFORMANCE IN THE PRESENCE OF THE ARCHITECT AND THE OWNER'S PROJECT MANAGER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF ANY ADDITIONAL SYSTEM TEST REQUIRED IF IN THE OPINION OF THE ARCHITECT AND THE OWNER'S PROJECT MANAGER THE SYSTEMS DO NOT PERFORM AS SPECIFIED.
3. VISIT AND CAREFULLY EXAMINE THOSE PORTIONS OF THE BUILDING AND SITE AFFECTED BY THIS WORK BEFORE SUBMITTING PROPOSALS, SO AS TO BECOME FAMILIAR WITH EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT EXECUTION OF THE WORK. SUBMISSION OF A PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT SUCH EXAMINATION HAS BEEN MADE AND LATER CLAIMS FOR LABOR, EQUIPMENT OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WILL NOT BE RECOGNIZED.
4. ALL DUCT SIZES INDICATED ON THE DOCUMENTS ARE NET FREE AREA DIMENSIONS.
5. UNFORESEEN CONDITIONS MAY EXIST AND WORK MAY NOT BE FIELD LOCATED EXACTLY AS SHOWN ON THE DRAWINGS. COOPERATION WITH OTHER TRADES IN ROUTING AS DETERMINED DURING CONSTRUCTION AND AS DIRECTED BY THE ARCHITECT/ENGINEER MAY BE NECESSARY. IT IS INTENDED THAT SUCH DEVIATIONS SHALL BE CONSIDERED AS PART OF THIS CONTRACT. SUCH DEVIATIONS MAY NOT BE CONSIDERED AS PART OF THIS CONTRACT WHEN PROPERLY DOCUMENTED IN WRITING. THE PLANS ARE NOT COMPLETELY TO SCALE.
6. WORK SHALL BE PERFORMED, IN STRICT COMPLIANCE WITH THE ESTABLISHED WORK SCHEDULE BEING SET FORTH BY THE OWNER. COORDINATE ALL WORK WITH GENERAL CONTRACTOR. THIS CONTRACTOR SHALL FURNISH ADEQUATE FORCES, CONSTRUCTION PLANT AND EQUIPMENT, AND SHALL WORK SUCH HOURS, INCLUDING NIGHT SHIFTS, OVERTIME OPERATIONS, SUNDAYS AND HOLIDAYS IN ACCORDANCE WITH THE OWNER'S OPERATIONAL SCHEDULE AS LISTED IN DIVISION 1 OF THE SPECIFICATIONS. IF THE CONTRACTOR DOES NOT MAINTAIN THE CONSTRUCTION SCHEDULE BECAUSE OF INADEQUATE FORCES, SUPERVISION OR ANY OTHER REASON UNDER THE CONTRACTOR'S CONTROL, THE OWNER MAY REQUIRE THE CONTRACTOR TO INCREASE THE NUMBER OF SHIFTS AND/OR OVERTIME OPERATIONS, DAY OF WORK AND/OR THE AMOUNT OF CONSTRUCTION PLANT, AT NO ADDITIONAL COST TO THE OWNER UNDER THIS CONTRACT. FAILURE TO MAINTAIN THE CONSTRUCTION SCHEDULE DUE TO OWNER'S OPERATIONAL INTERFERENCES, WHICH WERE NOT IDENTIFIED IN OR PRIOR TO THE PRE–BID CONFERENCE, SHALL NOT BE THE CONTRACTOR'S LIABILITY.
7. ALL CONCRETE, WALL PATCHING, CEILING REPAIR, FENCE WORK AND OTHER GENERAL CONSTRUCTION WORK REQUIRED FOR INSTALLING MECHANICAL/PLUMBING OR FIRE PROTECTION SYSTEMS SHALL BE PROVIDED BY MECHANICAL CONTRACTOR AND FULLY COORDINATED WITH GENERAL CONTRACTOR USING THE APPROPRIATE CONSTRUCTION TRADES.
8. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BE UL LISTED WHERE APPLICABLE.
9. IN GENERAL, PLANS AND DIAGRAMS ARE SCHEMATIC ONLY AND SHOULD NOT BE SCALED. CONTRACTOR SHALL COORDINATE ALL PLUMBING, HEATING AND ELECTRICAL WORK AT THE SITE, SO AS NOT TO CONFLICT IN LOCATION WITH OTHER WORK UNDER THE CONTRACT.
10. THE MECHANICAL CONTRACTOR IS DIRECTED TO COMPLY WITH DIVISION 26 OF THE CONTRACT SPECIFICATIONS REFERRING TO MOTORS, STARTERS, ETC.
11. WHENEVER A REFERENCE IS MADE TO STANDARD, INSTALLATION AND MATERIALS SHALL COMPLY WITH THE LATEST PUBLISHED EDITION AT THE TIME THE PROJECT IS BID UNLESS OTHERWISE SPECIFIED.
12. ALL MATERIAL STORED ON SITE SHALL BE PROPERLY PROTECTED FROM INJURY OR DETERIORATION. MATERIAL SHALL NOT BE STORED IN CONTACT WITH THE GROUND OR FLOOR. ALL DUCTWORK AND EQUIPMENT STORED SHALL BE SEALED AT ANY OPENING TO PREVENT ANY DEBRIS OR DIRT ENTERING THE INSIDE OF THE DUCTWORK AND EQUIPMENT. IF DEBRIS OR DIRT IS FOUND INSIDE THE DUCTWORK DURING ANY INSPECTION, THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS INCURRED TO CLEAN THE DUCTWORK TO THE SATISFACTION OF THE OWNER AND ENGINEER.
13. ALL EXTERNAL FIBROUS GLASS WRAPPED INSULATION JOINTS, SEAMS AND CONNECTIONS SHALL BE CONSTRUCTED WITH FAB AND STAPLES AND THEN SEALED WITH MASTIC. HEAT AND PRESSURE SENSITIVE TAPE ARE NOT ACCEPTABLE AS A FINAL CLOSURE.
14. ACCESS DOORS IN WALLS, CEILING AND DUCTS SHALL BE PROVIDED FOR INSPECTION OF ALL FIRE, SMOKE AND FIRE/SMOKE DAMPERS. ACCESS DOORS SHALL BE OF A SIZE ADEQUATE FOR THE PURPOSE AND SHALL MAINTAIN ANY NECESSARY FIRE RATING. SIZE PER SCHEDULE IN SPECIFICATION SECTION 23 33 00. ACCESS DOORS MAY NOT BE SHOWN FOR CLARITY OF THE DOCUMENTS.
15. DUCTWORK SHALL BE SHEET METAL, EXTERNALLY WRAPPED UNLESS OTHERWISE NOTED, MIN. 26 GA. AND CONSTRUCTED IN STRICT ACCORDANCE WITH SMACNA STANDARDS.
16. CONTRACTOR SHALL COORDINATE WORK WITH ALL OTHER TRADES.
17. ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE 2014 FLORIDA BUILDING CODE, 2014 FLORIDA BUILDING CODE – PLUMBING AND 2014 FLORIDA BUILDING CODE – MECHANICAL, 2014 FLORIDA FIRE PREVENTION CODE & STANDARDS AS REFERENCED IN DIVISION 1 AND THROUGHOUT THE SPECIFICATIONS.
18. THESE FACILITIES SHALL REMAIN OCCUPIED AND OPERATIONAL FOR THE DURATION OF THE PROJECT. ALL INDOOR WORK SHALL BE PERFORMED AFTER NORMAL BUSINESS HOURS DURING THE WEEK AND ON WEEKENDS. NORMAL BUSINESS HOURS ARE DEFINED AS 7:00 AM TO 5:00 PM, MONDAY TO FRIDAY. MATERIAL AND EQUIPMENT DELIVERIES WILL BE AFTER NORMAL BUSINESS HOURS. AFTER HOURS IS DEFINED AS 5:00 PM TO 7:00 AM MONDAY THROUGH FRIDAY.

SHEET NO.	MECHANICAL SHEET INDEX	SCALE
M001	GENERAL NOTES AND LEGENDS - MECHANICAL	NONE
M100	OVERALL FLOOR PLAN - MECHANICAL	3/32"=1'-0"
M101	PARTIAL NEW FLOOR PLAN - MECHANICAL	1/4"=1'-0"

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ENG. BUS. No. EB-0005096 CERT. OF AUTH. No. 5096

ORANGE COUNTY CORRECTIONS CASSIDY BUILDING ELEVATOR MODERNIZATION

Key Plan

Revisions

No.	Date	Description

SEAL

MPE PROJ#: 2014–197A

Designed By: BP

Drawn By: AG/RN

Checked By: BP

Issue Date: 03/23/16

Drawing Scale: NONE

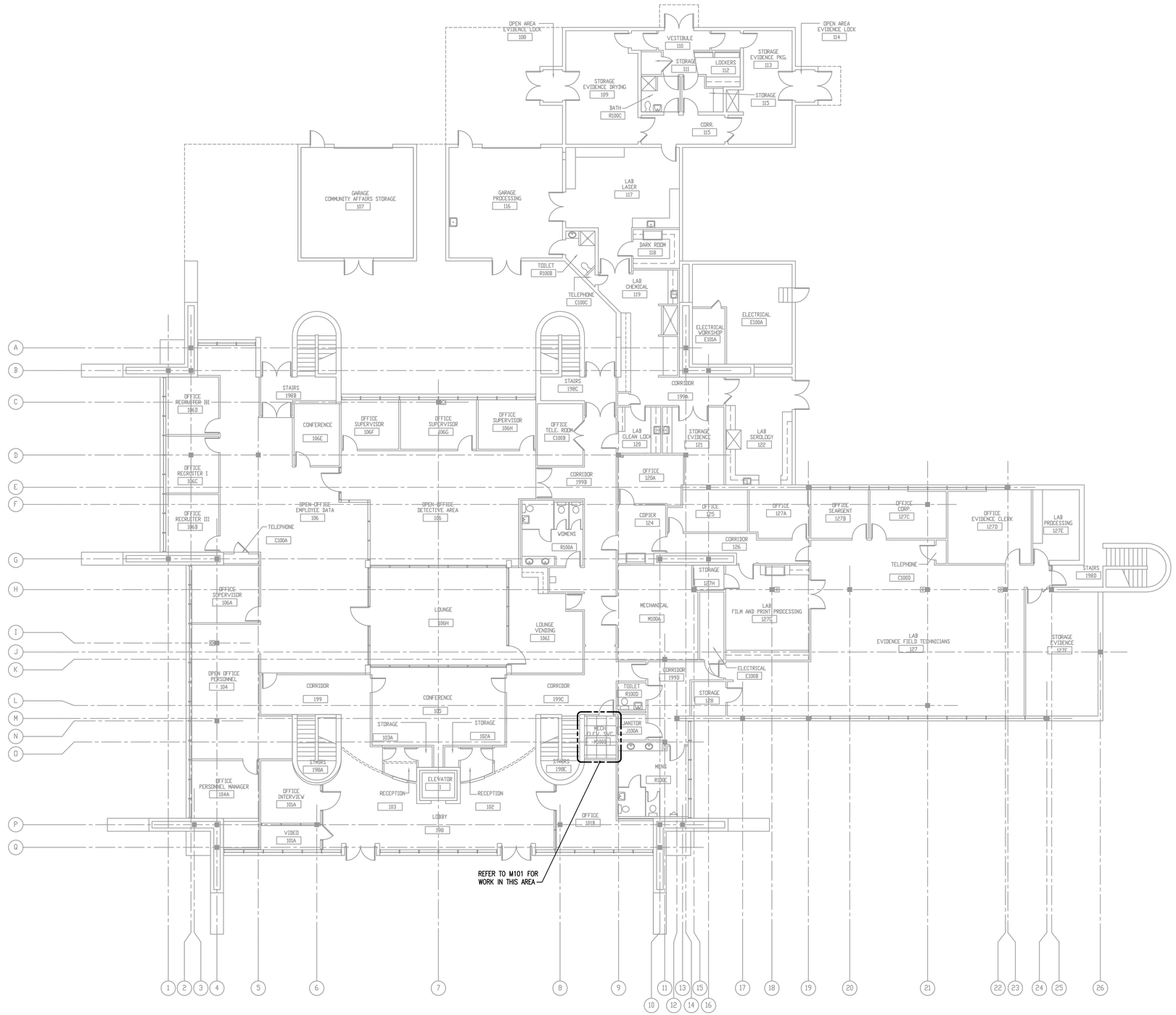
Drawing Title:

GENERAL NOTES AND LEGENDS MECHANICAL

BID DOCUMENTS

Drawing No.

M001



OVERALL PLAN - MECHANICAL

3/32"=1'-0"

0 5' 10' 20'

GENERAL NOTES

1. REFER TO GENERAL NOTES FOR THIS DISCIPLINE.
2. REFER TO SPECIFICATIONS.
3. ALL HEX NOTES NOT NECESSARILY USED ON ALL SHEETS.
4. ALL UNUSED SLAB PENETRATIONS WITH ELEVATOR MACHINE ROOMS SHALL BE PROPERLY SEALED WITH FIRESTOPPING. REFER TO SPECIFICATIONS.
5. MAINTAIN CONTINUITY OF SYSTEM FOR BUILDING OPERATIONAL HOURS DURING CONSTRUCTION. ALL WORK SHALL BE DONE AT NIGHT AND ON WEEKENDS. REFER TO SPECIFICATION SECTION 01 11 00.
6. THE FACILITY SHALL REMAIN FULLY OCCUPIED AND OPERATIONAL FOR THE DURATION OF THE PROJECT. ALL INDOOR AND OUTDOOR WORK SHALL BE PERFORMED AFTER NORMAL BUSINESS HOURS DURING THE WEEK. NORMAL BUSINESS HOURS ARE DEFINED AS 7:00 AM TO 5:00 PM, MONDAY TO FRIDAY. MATERIAL AND EQUIPMENT DELIVERIES WILL BE AFTER NORMAL BUSINESS HOURS. AFTER HOURS IS DEFINED AS 5:00 PM TO 7:00 AM MONDAY THROUGH FRIDAY.

HEX NOTES

1 ...

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Designed By: BP

Drawn By: AG/RN

Checked By: BP

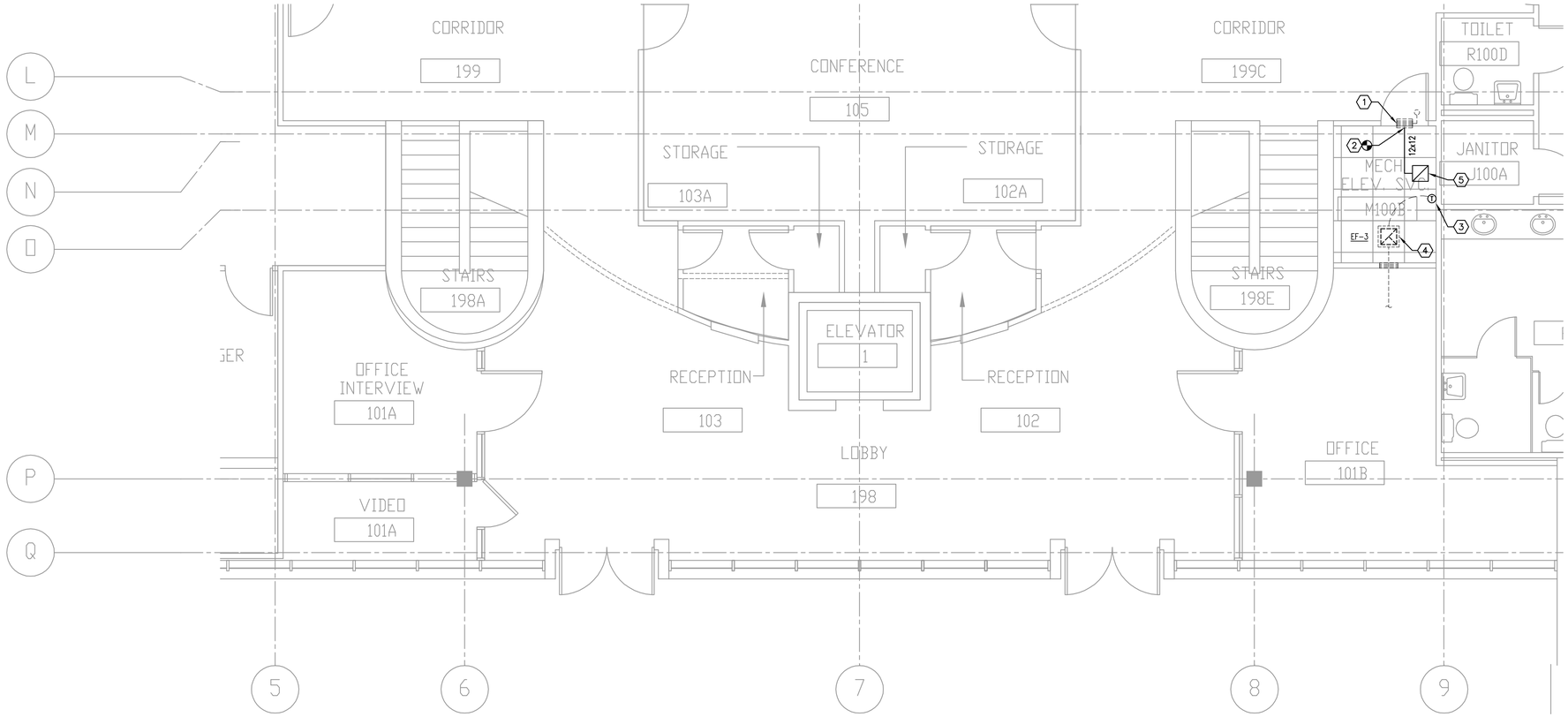
Issue Date: 03/23/16

Drawing Scale: 3/32"=1'-0"

Drawing Title:
OVERALL FLOOR PLAN MECHANICAL

BID DOCUMENTS

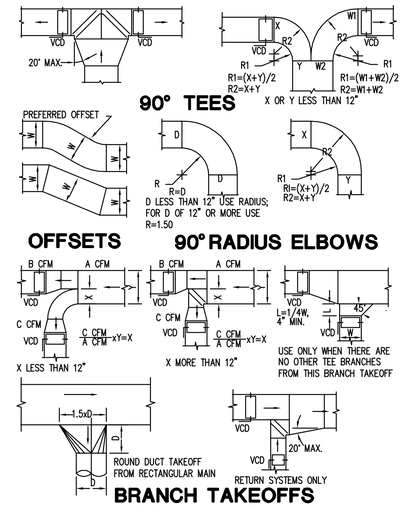
Drawing No.
M100



PARTIAL NEW FLOOR PLAN - MECHANICAL

1/4" =1'-0"

0 2' 4' 8'



GENERAL NOTES

1. REFER TO GENERAL NOTES FOR THIS DISCIPLINE.
2. REFER TO SPECIFICATIONS.
3. ALL HEX NOTES NOT NECESSARILY USED ON ALL SHEETS.
4. ALL UNUSED SLAB PENETRATIONS WITH ELEVATOR MACHINE ROOMS SHALL BE PROPERLY SEALED WITH FIRESTOPPING. REFER TO SPECIFICATIONS.
5. MAINTAIN CONTINUITY OF SYSTEM FOR BUILDING OPERATIONAL HOURS DURING CONSTRUCTION. ALL WORK SHALL BE DONE AT NIGHT AND ON WEEKENDS. REFER TO SPECIFICATION SECTION 01 11 00.
6. THE FACILITY SHALL REMAIN FULLY OCCUPIED AND OPERATIONAL FOR THE DURATION OF THE PROJECT. ALL INDOOR AND OUTDOOR WORK SHALL BE PERFORMED AFTER NORMAL BUSINESS HOURS DURING THE WEEK. NORMAL BUSINESS HOURS ARE DEFINED AS 7:00 AM TO 5:00 PM, MONDAY TO FRIDAY. MATERIAL AND EQUIPMENT DELIVERIES WILL BE AFTER NORMAL BUSINESS HOURS. AFTER HOURS IS DEFINED AS 5:00 PM TO 7:00 AM MONDAY THROUGH FRIDAY.
7. INSTALL 2'x2' NEW ACOUSTICAL CEILING WITHIN ELEVATOR EQUIPMENT ROOM. BOTTOM OF GRID SHALL BE 8'-0" ABOVE FINISHED FLOOR. REFER TO SPECIFICATION SECTION 09 51 00. EXTEND EXISTING SPRINKLER HEADS INTO CEILING TILE AND POSITION WITHIN ROOM PER NFPA 13 TO ACHIEVE PROPER SPRINKLER COVERAGE. PROVIDE PROPER FINISHING TO ALL DEVICES EXTENDED INTO NEW CEILING GRID.
8. ALL UNUSED SLAB PENETRATIONS WITH ELEVATOR MACHINE ROOMS SHALL BE PROPERLY SEALED WITH FIRESTOPPING. REFER TO SPECIFICATIONS.

HEX NOTES

1. EXISTING 12x12 OPENING WITH SMOKE/FIRE DAMPER IN WALL. SET DAMPER TO NORMALLY OPEN POSITION.
2. CONNECT NEW 12x12 TRANSFER DUCT TO EXISTING OPENING. PROVIDE DUCT ACCESS DOOR IN EXISTING DUCT FOR SMOKE/FIRE DAMPER.
3. REPLACE EXISTING LINE-VOLTAGE THERMOSTAT, EQUAL TO DAYTON. SET TO 74F (ADJ.)
4. LOWER EXISTING CEILING CABINET FAN TO NEW ACOUSTICAL CEILING TILE ELEVATION. RECONNECT TO EXISTING DUCTWORK AS REQUIRED. BALANCE FAN TO 300 CFM.
5. PROVIDE 12X12 RETURN GRILLE IN CEILING EQUAL TO TITUS 50F.

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Revisions

No.	Date	Description

SEAL

MPE PROJ#: 2014-197A

Designed By: BP

Drawn By: AG/RN

Checked By: BP

Issue Date: 03/23/16

Drawing Scale: 1/4"=1'-0"

Drawing Title:
PARTIAL NEW FLOOR PLAN MECHANICAL

BID DOCUMENTS

Drawing No.
M101

GENERAL NOTES

1. 120 VOLT BRANCH CIRCUITS, WHERE THE LENGTH OF CIRCUIT CONDUCTORS COMPLETE FROM CIRCUIT BREAKER IN SOURCE PANEL TO ANY DEVICE ON THE CIRCUIT IS 0-100 FEET FROM THE PANEL, ARE TO HAVE #12 MINIMUM BRANCH CIRCUIT WIRING THROUGHOUT CIRCUIT. (CONDUIT SIZE PER SPECIFICATION AND NEC).

2. 120 VOLT BRANCH CIRCUITS, WHERE THE LENGTH OF CIRCUIT CONDUCTORS COMPLETE FROM CIRCUIT BREAKER IN SOURCE PANEL TO ANY DEVICE ON THE CIRCUIT IS 101-175 FEET FROM THE PANEL, ARE TO HAVE #10 MINIMUM BRANCH CIRCUIT WIRING HOMERUN (3/4"C.) FROM PANEL CIRCUIT BREAKER TO FIRST DEVICE AND #12 BRANCH CIRCUIT WIRING THROUGHOUT THE REMAINDER OF THE CIRCUIT. (CONDUIT SIZE PER SPECIFICATION AND NEC). FIRST 75 FEET OF COMBINED HOMERUN AND BRANCH CIRCUIT TO BE MINIMUM #10 WIRE. (3/4"C).

3. 120 VOLT BRANCH CIRCUITS, WHERE THE LENGTH OF CIRCUIT CONDUCTORS COMPLETE FROM CIRCUIT BREAKER IN SOURCE PANEL TO ANY DEVICE ON THE CIRCUIT IS 176-225 FEET FROM THE PANEL, ARE TO HAVE #10 MINIMUM BRANCH CIRCUIT WIRING HOMERUN (3/4"C.) FROM PANEL CIRCUIT BREAKER TO FIRST DEVICE AND #10 BRANCH CIRCUIT WIRING THROUGHOUT THE REMAINDER OF THE CIRCUIT (3/4"C.)

4. 120 VOLT BRANCH CIRCUITS, WHERE THE LENGTH OF CIRCUIT CONDUCTORS COMPLETE FROM CIRCUIT BREAKER IN SOURCE PANEL TO ANY DEVICE ON THE CIRCUIT IS 226 FEET OR MORE FROM THE PANEL, ARE TO HAVE #8 MINIMUM BRANCH CIRCUIT WIRING HOMERUN (1"C.) FROM PANEL CIRCUIT BREAKER TO FIRST DEVICE AND #10 BRANCH CIRCUIT WIRING THROUGHOUT THE REMAINDER OF THE CIRCUIT (3/4"C.). FIRST 125 FEET OF COMBINED HOMERUN AND BRANCH CIRCUIT TO BE MINIMUM #8 WIRE (1"C.)

5. ALL 277V, 20A CIRCUIT HOMERUNS OVER 100 FT. SHALL BE #10 CU. MINIMUM, UNLESS OTHERWISE NOTED.

6. ALL 277V, 20A CIRCUITS WITH HOMERUNS OVER 150 FT. SHALL BE #10 CU. THROUGHOUT ENTIRE CIRCUIT MINIMUM, UNLESS OTHERWISE NOTED.

7. NO MULTI-WIRE BRANCH CIRCUITS ARE TO BE USED. EACH CIRCUIT IS TO HAVE SEPARATE INDIVIDUAL NEUTRAL.

8. VERIFY EXACT LOCATION OF ALL MECH. EQUIP. INCLUDING WALL SWITCHES, T'STATS, ETC. WITH MECH. CONTRACTOR AND MECH. DRAWINGS.

9. REFER TO MECHANICAL EQUIPMENT SCHEDULE, FOR RESPECTIVE CONDUIT/CONDUCTORS, DISCONNECTS, MISC. EQUIPMENT REQUIRED FOR ALL MECHANICAL AND PLUMBING EQUIPMENT. REFER TO PANEL SCHEDULES FOR CIRCUITS NUMBERS OF CIRCUITS FOR MECHANICAL AND PLUMBING EQUIPMENT.

10. VISIT AND CAREFULLY EXAMINE THOSE PORTIONS OF THE BUILDING AND SITE AFFECTED BY THIS WORK BEFORE SUBMITTING PROPOSALS, SO AS TO BECOME FAMILIAR WITH EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT EXECUTION OF THE WORK. SUBMISSION OF A PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT SUCH EXAMINATION HAS BEEN MADE AND LATER CLAIMS FOR LABOR, EQUIPMENT OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WILL NOT BE RECOGNIZED.

11. READ SPECIFICATIONS.

12. WHERE CONDUIT ROUTING IS SHOWN, THE CONDUITS ARE SHOWN FOR DIAGRAMMATIC PURPOSES AND ARE NOT NECESSARILY REPRESENTATIVE OF EXACT PLACEMENT. THE ROUTINGS SHOWN ARE PROPOSED CONDUIT ROUTINGS. CONTRACTOR TO COORDINATE ALL ROUTING WITH OTHER TRADES PRIOR TO BID. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS AND ROUTING OF CONDUIT PRIOR TO BID. CONTRACTOR IS RESPONSIBLE FOR RELOCATING CONDUIT FROM THE PROPOSED ROUTING SHOWN TO THE ROUTING REQUIRED TO FACILITATE INSTALLATION PER SPECIFICATIONS AND APPLICABLE CODES, COMPLETE WITH ALL COORDINATION AND EXISTING CONDITIONS TAKEN INTO ACCOUNT. CONTRACTOR IS RESPONSIBLE FOR ALL CEILING AND WALL REPAIR/REPLACEMENT AFTER ROUTING OF CONDUIT.

13. SPLICES IN POWER AND LIGHTING OUTLET BOXES SHALL BE KEPT TO A MINIMUM, PULL CONDUCTORS THROUGH TO DEVICES, EQUIPMENT CABINETS/PANELBOARDS. SPLICING IN WIREWAYS IS NOT PERMITTED UNLESS SPECIAL WRITTEN PERMISSION IS GRANTED BY A/E.

14. NO SPLICES SHALL BE MADE IN COMMUNICATIONS OUTLET BOXES OR PULL BOXES (I.E., FIRE ALARM, COMPUTER, TELEPHONE, ETC.) UNLESS SPECIFIC WRITTEN APPROVAL HAS BEEN GIVEN BY ENGINEER. PULL CABLES THROUGH TO EQUIPMENT/TERMINAL CABINETS.

15. CONTRACTOR SHALL INCLUDE IN HIS BID THE TRANSPORT AND DISPOSAL OR RECYCLING OF ALL WASTE MATERIALS GENERATED BY THIS PROJECT IN ACCORDANCE WITH ALL RULES, REGULATIONS AND GUIDELINES APPLICABLE. CONTRACTOR SHALL COMPLY FULLY WITH FLORIDA STATUTE 403.7186 REGARDING MERCURY CONTAINING DEVICES AND LAMPS. LAMPS, BALLASTS AND OTHER MATERIALS SHALL BE TRANSPORTED AND DISPOSED OF IN ACCORDANCE WITH ALL DEP AND EPA GUIDELINES APPLICABLE AT TIME OF DISPOSAL. CONTRACTOR SHALL PROVIDE OWNER WITH WRITTEN CERTIFICATION OF ACCEPTED DISPOSAL.

16. MOUNT ALL DISCONNECT SWITCHES FOR MECHANICAL EQUIPMENT WITHIN 6 FT. OF EQUIPMENT CONNECTION POINT. VERIFY LOCATION OF POINT OF CONNECTION WITH EQUIPMENT INSTALLER PRIOR TO ELECTRICAL ROUGH-IN. (DRAWINGS ONLY SHOW DIAGRAMMATIC LOCATION OF CONNECTION).

17. EXISTING CONDITIONS AND UTILITIES INDICATED ARE TAKEN FROM EXISTING CONSTRUCTION DOCUMENTS, VARIOUS SURVEYS, AND FIELD INVESTIGATIONS. IT IS TO BE UNDERSTOOD THAT UNFORESEEN CONDITIONS PROBABLY EXIST AND NEW WORK MAY NOT BE FIELD LOCATED EXACTLY AS SHOWN ON THE DRAWINGS. COOPERATION WITH OTHER TRADES IN ROUTING AS DETERMINED DURING CONSTRUCTION AND AS DIRECTED BY THE ENGINEER MAY BE NECESSARY AND IT IS INTENDED THAT SUCH DEVIATIONS SHALL BE CONSIDERED A PART OF THIS CONTRACT. IT IS ALSO UNDERSTOOD THAT THE PLANS ARE NOT COMPLETELY TO SCALE. THIS CONTRACTOR IS TO FIELD VERIFY DIMENSIONS OF ALL SITE UTILITIES, ETC., PRIOR TO BID AND INCLUDE ANY DEVIATIONS IN THE CONTRACT.

18. REMOVE EXISTING POWER, LIGHTING, SYSTEMS, MATERIAL AND EQUIPMENT WHICH ARE MADE OBSOLETE OR WHICH INTERFERE WITH THE CONSTRUCTION OF THE PROJECT.

19. REINSTALL ANY SUCH POWER, LIGHTING, SYSTEMS, MATERIALS AND EQUIPMENT WHICH ARE REQUIRED TO REMAIN ACTIVE FOR THE FACILITY TO BE FULLY FUNCTIONAL.

20. ALL EXISTING ELECTRICAL IS NOT SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO BECOME FAMILIAR WITH ALL EXISTING CONDITIONS PRIOR TO BID, AND INCLUDE IN HIS BID THE REMOVAL OF ALL ELECTRICAL EQUIPMENT, WIRE, CONDUIT, DEVICES, FIXTURES, ETC. THAT IS NOT BEING REUSED, BACK TO ITS SOURCE.

21. ALL RECEPTACLES, DEVICES AND EQUIPMENT NOT SHOWN, AND IN AREAS OUTSIDE OF REMODELING SHALL REMAIN ACTIVE UNLESS OTHERWISE NOTED. FURNISH AND INSTALL ACCESSIBLE JUNCTION BOXES AND REWORK EXISTING CIRCUITS AS REQUIRED TO MAINTAIN CIRCUIT CONTINUITY TO RECEPTACLES, DEVICES AND EQUIPMENT REMAINING.

22. ALL CONDUIT TO BE CONCEALED UNLESS IMPOSSIBLE DUE TO EXISTING CONDITIONS (I.E. EXPOSED CEILINGS, BUILDING EXTERIOR WALL RUNS, IMPOSSIBLE UNDERGROUND RUNS). CONCEAL ALL CONDUITS ABOVE CEILINGS OR IN WALL/COUNTERS.

23. ALL OUTLET BOXES WHERE FIXTURES OR DEVICES ARE REMOVED SHALL BE REMOVED AND CEILING OR WALL SHALL BE PATCHED TO MATCH EXISTING OR NEW FINISH. IF OUTLET BOX MUST REMAIN TO MAINTAIN CONTINUITY OF CIRCUITRY, AN APPROPRIATE ACCESSIBLE BLANK PLATE SHALL BE INSTALLED WITH FINISH TO MATCH EXISTING OR NEW, WHERE APPLICABLE. ALL OUTLET BOXES WHICH MUST BE REMOVED DUE TO REMOVAL OF WALL, AND WHICH MUST REMAIN ACTIVE IN ORDER TO MAINTAIN CIRCUIT CONTINUITY SHALL BE RELOCATED IN CEILING OR FLOOR, SHALL BE ACCESSIBLE, AND SHALL HAVE BLANK COVERPLATE AS DESCRIBED ABOVE.

24. ALL EXISTING AND NEW CIRCUIT BREAKERS WITHIN EACH EXISTING PANELBOARD SHALL BE THE SAME MFG. TYPE, STYLE AND A.I.C. RATING OF EXISTING PANELBOARD REGARDLESS OF WHAT IS SHOWN ON PANEL SCHEDULE. FIELD VERIFY ALL EXISTING PANELBOARD(S) RELATED WITH CONTRACT AND REPLACE CIRCUIT BREAKERS AS NECESSARY TO COMPLY WITH THIS REQUIREMENT.

25. ALL PATCHES OR CEILING PLATES SHALL BE PATCHED OR PAINTED.

26. PAINT ALL EXPOSED CONDUIT, BOXES, ETC. TO MATCH WALL SURFACE.

27. ALL OPENINGS IN FIRE RATED WALLS AND FLOORS, ETC. MADE BY RENOVATION SHALL BE SEALED AND FIREPROOFED. PROVIDE AND INSTALL FIRESTOPPING ON ALL NEW OR EXISTING CONDUIT AND/OR CABLE THAT PENETRATES ANY FIRE RATED NEW OR EXISTING WALL IN ALL AREAS AFFECTED BY THIS PROJECT. VERIFY LOCATION OF FIRE RATED WALLS WITH ARCHITECTURAL PLANS PRIOR TO BID. FIRESTOPPING SYSTEM SHALL BE AS REQUIRED BY UL FOR RATING OF WALL AND CONDUIT/CABLE PENETRATION.

28. ALL ITEMS REMOVED AND NOT RE-USED SHALL BE IMMEDIATELY TURNED OVER TO OWNER AS THEY ARE MADE AVAILABLE BY RENOVATION. REMOVE ITEMS FROM JOB SITE AND DELIVER TO OWNERS STORAGE LOCATION(S) AS DIRECTED BY PROJECT MANAGER. DISCARD COMPLETE ITEMS WHICH OWNER ELECTS TO REFUSE.

29. WORK TO BE PERFORMED IN STRICT COMPLIANCE WITH ESTABLISHED WORK SCHEDULE BEING SET FORTH BY OWNER/TENANT. COORDINATE ALL WORK. THE CONTRACTOR SHALL FURNISH ADEQUATE FORCES, CONSTRUCTION PLANT, AND EQUIPMENT, AND SHALL WORK SUCH HOURS, INCLUDING NIGHT SHIFTS, OVERTIME OPERATIONS, SUNDAY, AND HOLIDAYS IN ACCORDANCE WITH THE OWNERS OPERATIONAL SCHEDULE. IF THE CONTRACTOR FALLS BEHIND PROGRESS REQUIRED IN THE OPERATIONAL SCHEDULE, THE CONTRACTOR SHALL TAKE SUCH STEPS AS MAY BE NECESSARY TO IMPROVE HIS PROGRESS, AND THE OWNER MAY REQUIRE HIM TO INCREASE THE NUMBER OF SHIFTS AND/OR OVERTIME OPERATIONS, DAY OF WORK AND/OR THE AMOUNT OF CONSTRUCTION PLANT, AT NO ADDITIONAL COST TO THE OWNER UNDER THIS CONTRACT.

30. COORDINATE WITH OWNER DEMOLITION IN BLDG. INCLUDING POWER SHUTDOWNS AND FIRE ALARM SERVICE TO AREAS.PROVIDE ALL ELECTRICAL AS REQUIRED, WHETHER SHOWN OR NOT, TO PROVIDE TEMPORARY RELOCATION AND REACTIVATION OF POWER AND FIRE ALARM TO EXISTING BUILDING AREAS DURING DEMOLITION IN EXISTING BUILDING.

31. EXISTING FIRE ALARM SYSTEM CONSISTS OF MANY DIFFERENT BRANDS. EXISTING SYSTEM WIRING/CONDUIT COULD NOT ALL BE VERIFIED. WHAT IS SHOWN IS FROM AS_BUILT DRAWINGS FURNISHED THIS ENGINEER AND IS SHOWN FOR CONVENIENCE OF CONTRACTOR. IN GENERAL, SYSTEM HAS TO BE REWORKED FOR NEW SYSTEM SHOWN. PROVIDE ALL WIRE/CONDUIT, ETC. AS REQUIRED FOR PROPER OPERATION OF NEW SYSTEM AS DIRECTED BY THE ENGINEER.

DEMOLITION LEGEND

(R1) REMOVE ALL ELECTRICAL ASSOCIATED WITH THIS ITEM, COMPLETE BACK TO ITS SOURCE. SOURCE IS CONSIDERED TO BE FIRST UPSTREAM DEVICE OR CIRCUIT BREAKER THAT FEEDS THIS AFFECTED CIRCUIT. SEE GENERAL NOTES AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

(R2) REMOVE ALL ELECTRICAL IN AREA OF REMODEL/RENOVATION COMPLETE BACK TO ITS SOURCE. SOURCE IS CONSIDERED TO BE FIRST UPSTREAM DEVICE OR CIRCUIT BREAKER OUTSIDE OF AREA OF REMODEL THAT FEEDS CIRCUITS/DEVICES WITHIN AREA OF REMODEL/RENOVATION. SEE GENERAL NOTES AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

(R3) REMOVE THE DEVICE ONLY. REFER TO RENOVATION PLAN FOR ADDITIONAL ELECTRICAL.

SYMBOL LEGEND

SYMBOL	DESCRIPTION	DESIGN SELECTION	APPROVED SUBSTITUTION	APPROVED SUBSTITUTION	REMARKS
$M	OUTLET BOX AND 20 AMP, 1P MANUAL MOTOR CONTROLLER WITHOUT OVERLOADS. RATED 1 HP @ 120V, 2 HP @ 277V.	P&S #PS20AC1	HUBBELL #HBL1221		c
$2M	OUTLET BOX AND 20 AMP, 2P MANUAL MOTOR CONTROLLER WITHOUT OVERLOADS. RATED 2 HP @ 240V.	P&S #PS20AC2	HUBBELL #HBL1222		c
	JUNCTION BOX AND BLANK PLATE ABOVE CEILING	STEEL CITY	RACO		b,c
	CAST IRON ZINC PLATED SURFACE MTD. OUTLET BOX AND BLANK PLATE	APPLETON #FS-ID WITH #DS-100 COVER			d, e, g, c
WP	CAST IRON ZINC PLATED SURFACE MTD. OUTLET BOX AND WEATHERPROOF BLANK PLATE	APPLETON #FS-ID WITH #DS-100G COVER			g, d, e, f, g, c
R	RELAY, AS NOTED				
C	CONTROL AND/OR POWER CONNECTION ON EQUIPMENT				h
	DISCONNECT SWITCH, SIZE AS NOTED	SQUARE "D"	G.E.	SIEMENS	h, f
	120/208V BRANCH CIRCUIT PANELBOARD SURFACE MOUNTED	SQUARE "D"	G.E.	SIEMENS	h
	277/480V BRANCH CIRCUIT PANELBOARD SURFACE MOUNTED	SQUARE "D"	G.E.	SIEMENS	h
	BRANCH CIRCUIT CONDUIT CONCEALED ABOVE CEILING OR IN WALL. SLASH MARKS INDICATE NUMBER OF CONDUCTORS (GROUND WIRE NOT SHOWN). TWO CONDUCTORS PLUS GROUND REQUIRED (UNLESS OTHERWISE NOTED OR MARKED)				
	BRANCH CIRCUIT CONDUIT CONCEALED BELOW SLAB OR UNDERGROUND				
	BRANCH CIRCUIT CONDUIT EXPOSED				
	HOME RUN WIRING. ONE CIRCUIT PER ARROW HEAD				
	CONDUIT CAPPED OFF				
	CONDUIT CONTINUED				
	CONDUIT RUN UP				
	CONDUIT RUN DOWN				
	CONDUIT SEAL-OFF FITTING	CROUSE HINDS	APPLETON		d
G	GROUND WIRE, CONCEALED				
	GROUND OR GROUND ROD AS NOTED				

NOTES:

1) ALL DEVICES TO BE GREY WITH SMOOTH METAL #302 S.S. PLATES UNLESS OTHERWISE NOTED.

2) MOUNT SWITCHES AT 48" AFF TO TOP.

3) SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

4) ALL ITEMS NOTED ON THE LEGENDS DO NOT NECESSARILY APPEAR ON PLANS.

REMARKS:

a) U.L. LISTED FOR WET LOCATION IN CLOSED POSITION.

b) SUPPORT OUTLET BOX FROM STRUCTURE WITH (1) 3/8" ALL THREADS MINIMUM. BOXES LARGER THAN 25 SQUARE INCHES SHALL BE SUPPORTED WITH (2) 3/8" ALL THREADS MINIMUM.

c) JUNCTION/OUTLET BOX SHALL BE SIZED AS REQUIRED FOR CONDUCTOR/DEVICE FILL PER N.E.C.

d) THREADED CONDUIT HUBS SHALL BE SIZED AND CONFIGURED AS REQUIRED FOR APPLICATION.

e) IF WITHIN 30 MILES OF THE COAST LINE, COPPER FREE CAST ALUMINUM OUTLET BOXES SHALL BE USED FOR EXTERIOR APPLICATIONS.

f) PROVIDE KINDORF MTG. RACK FOR FREE STANDING APPLICATIONS. KINDORF SHALL BE PVC COATED FOR EXTERIOR APPLICATIONS. ALL CUT ENDS ARE TO BE SEALED.

g) WHEN SURFACE JUNCTION BOX SYMBOL IS COMBINED WITH DEVICE SYMBOL, PROVIDE APPROPRIATE SURFACE PLATE FOR OUTLET APPLICATION.

h) MAINTAIN WORKING CLEARANCES IN STRICT ACCORDANCE WITH N.E.C. COORDINATE EXACT LOCATION OF EQUIPMENT WITH ALL DISCIPLINES (I.E. STRUCTURAL, HVAC, PLUMBING, FIRE PROTECTION, KITCHEN, MILLWORK, ETC.) PRIOR TO ROUGH-IN TO MAINTAIN CLEARANCES.

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ORANGE COUNTY CORRECTIONS CASSIDY BUILDING ELEVATOR MODERNIZATION

Key Plan

Revisions

No.	Date	Description

SEAL

MPE PROJ#: 2014-197A

Designed By: RB

Drawn By: AG/RB

Checked By: CT

Issue Date: 03/23/16

Drawing Scale: NONE

Drawing Title:

GENERAL NOTES AND LEGENDS ELECTRICAL

BID DOCUMENTS

Drawing No.

E001

FIRE ALARM SYSTEM SYMBOL LEGEND			
SYMBOL	DESCRIPTION	MOUNTING HEIGHT	MOUNTING
	SINGLE REMOTE SMOKE DETECTOR/ALARM INDICATING LIGHT AND TEST SWITCH STATION. NUMBER INDICATES QUANTITY OF STATIONS.	6'-0" A.F.F. TO C/L OR FLUSH IN CEILING	FLUSH
	DUCT SMOKE DETECTOR, PHOTO-ELECTRIC TYPE, WITH TUBES SIZED AS REQUIRED FOR DUCT (R/A-DENOTES RETURN AIR DUCT, S-DENOTES SUPPLY DUCT)	---	DUCT
AR	AHU/EXHAUST FAN SHUT-DOWN RELAY, ADDRESSABLE	WITHIN THREE FEET (3') OF STARTER	SURFACE
FACP	FIRE ALARM CONTROL PANEL WITH SMOKE DETECTOR MOUNTED ABOVE PANEL PER NFPA.	6'-0" A.F.F. TO TOP OF FACP (UNLESS OTHERWISE NOTED)	SURFACE
FATC	FIRE ALARM TERMINAL CABINET	6'-0" A.F.F. TO TOP OF FATC (UNLESS OTHERWISE NOTED)	SURFACE
F	FIRE ALARM SYSTEM CONDUIT	---	CONCEALED
	RACEWAY INTERCEPTION POINT (TYPICAL)	CONCEALED	CONCEALED
SD	SMOKE DAMPER FURNISHED BY DIVISION 23, CONNECTED BY DIVISION 26	ABOVE CEILING REFER TO MECH. DRAWINGS	CONCEALED

FIRE ALARM SYSTEM GENERAL NOTES:

1. REFER TO SPECIFICATIONS.
2. REFER TO RISER DIAGRAM.
3. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL PULL STRINGS IN ALL EMPTY RACEWAYS/CONDUITS.
4. LOCATION OF ALL DEVICES ON PLANS ARE APPROXIMATE ONLY. CONTRACTOR SHALL VERIFY EXACT LOCATIONS, HEIGHTS, ETC. WITH OWNER AND/OR ARCHITECT PRIOR TO ROUGH-IN.
5. PROVIDE FIRE STOPPING ON ALL CONDUITS PENETRATING A RATED WALL OR FLOOR.
6. ALL CABLES AND RACEWAYS TO BE CONCEALED UNLESS SPECIFICALLY NOTED OTHERWISE OR APPROVED BY ENGINEER. SEE SPECIFICATIONS AND GENERAL NOTES FOR ADDITIONAL CLARIFICATIONS.
7. ALL RACEWAY TERMINATIONS SHALL HAVE BUSHINGS AND BE GROUNDED WHERE RACEWAY IS METAL.
8. ALL WIRE/CABLE SHALL BE IN A COMPLETE RACEWAY/CONDUIT SYSTEM. INSTALL/SIZE RACEWAY SYSTEM AS REQUIRED TO COMPLY WITH SPECIFICATIONS, THE N.E.C. AND AS RECOMMENDED BY MANUFACTURER.
9. MINIMUM RACEWAY/CONDUIT SIZE TO BE 3/4".
10. CIRCUIT ALL DEVICES TO LOCAL RESPECTIVE FIRE ALARM TERMINAL CABINET (FATC).
11. PROVIDE AND INSTALL CABLE/WIRING AS RECOMMENDED BY MANUFACTURER AND APPLICABLE CODES AND STANDARDS, UNLESS OTHERWISE CALLED FOR ON DRAWINGS OR IN SPECIFICATIONS. WHERE CONFLICT EXISTS, THE LARGEST SIZE CALLED FOR SHALL BE USED.
12. SIZE PATHWAYS AS RECOMMENDED BY MANUFACTURER AND APPLICABLE CODES AND STANDARDS UNLESS OTHERWISE CALLED FOR ON DRAWINGS OR IN SPECIFICATIONS. WHERE CONFLICT EXISTS, THE LARGEST SIZE CALLED FOR SHALL BE USED.
13. ALL NEW EQUIPMENT MUST BE COMPATIBLE WITH EXISTING CONTROL PANEL. REWORK EXISTING FACP AND PROVIDE ALL ELECTRICAL AS REQUIRED FOR NEW ZONES, HORNS, DETECTORS, ETC. AND AS REQUIRED FOR PROPER INTERFACE AND OPERATION OF SYSTEM.
14. COORDINATE WITH AUTHORITY HAVING JURISDICTION PRIOR TO BID.
15. ALL EQUIPMENT/DEVICES TO BE ADDRESSABLE TYPE.
16. EACH DEVICE TO BE INDIVIDUAL ZONE/ANNUNCIATION POINT.
17. PROVIDE ALL PROGRAMMING, UPDATING, REVISIONS, ETC. REQUIRED TO MAIN CONTROL PANEL PROGRAMMING, ETC.
18. MECHANICAL AIR SYSTEM SHUT-DOWN:
    - A) COORDINATE SHUT-DOWN OF ALL MECHANICAL AIR SYSTEMS WITH DIVISION 15 SPECIFICATIONS, DRAWINGS, AND INSTALLER (AHU'S, EXHAUST FAN'S, FAN TERMINAL BOXES ETC.).
    - B) PROVIDE ALL WORK AND EQUIPMENT TO SHUT-DOWN ALL AIR MOVING EQUIPMENT AS REQUIRED BY APPLICABLE CODES.
    - C) VERIFY, WITH DIVISION 15 CONTRACTOR, LOCATION AND REQUIREMENTS FOR THE INTERFACE TO SHUT DOWN EQUIPMENT UPON FIRE ALARM SIGNAL.
    - D) UNITS REQUIRED TO BE SHUT DOWN BY THE STANDARD MECHANICAL CODE AND NOT REQUIRED TO BE SHUT-DOWN BY THE FIRE ALARM SYSTEM ARE TO HAVE ALL WORK AND EQUIPMENT PROVIDED AND INSTALLED BY DIVISION 15 CONTRACTOR.
    - E) WHERE REQUIRED, INSTALLER SHALL PROVIDE AND INSTALL AN INDIVIDUAL ADDRESSABLE RELAY OR MODULE AT EACH PIECE OF EQUIPMENT (I.E. AHU, EXHAUST FAN TERMINAL BOX, ETC.) FOR SHUTDOWN. DAISY-CHAINING MULTIPLE PIECES OF EQUIPMENT TO A COMMON RELAY OR MODULE SHALL NOT BE ACCEPTABLE.
37. COMPLY WITH ADA REQUIREMENTS.
38. CONTRACTOR SHALL PROVIDE, INSTALL AND TERMINATE ALL ELECTRICAL AND FIRE ALARM SYSTEM EQUIPMENT INCLUDING, BUT NOT LIMITED TO, RACEWAYS, WIRE/CABLE, CIRCUIT BREAKERS, MODULES, RELAYS (UL LISTED FOR USE WITH FIRE ALARMS), ETC., NECESSARY TO SHUT DOWN ANY AIR HANDLING UNIT (AHU), SUPPLY FAN, FAN TERMINAL BOX (FTB), ETC. (I.E. ANY AIR MOVING EQUIPMENT) REQUIRED TO BE SHUTDOWN BY FIRE ALARM SYSTEM. THIS REQUIREMENT FOR CONNECTION OF THE FIRE ALARM SYSTEM TO ANOTHER DEVICE OR SYSTEM SHALL BE EXTENDED TO INCLUDE ANY APPLICABLE CODE OR STANDARD, DIRECTLY OR INDIRECTLY REFERENCED BY THE SPECIFICATIONS, THAT REQUIRES INTERFACE WITH THE FIRE ALARM SYSTEM FOR CONTROLS OR MONITORING OF AN AIR MOVING DEVICE IN ORDER TO PROVIDE A COMPLETE CODE COMPLIANT FIRE ALARM SYSTEM. COORDINATE ALL WORK WITH DIVISION 15 (AND/OR ANY OTHER APPLICABLE DIVISION) PRIOR TO ROUGH-IN.
39. ALL ITEMS NOTED ON THE LEGENDS DO NOT NECESSARILY APPEAR ON PLANS.

TYPE	DESCRIPTION	DESIGN SELECTION	APPROVED SUBSTITUTION	APPROVED SUBSTITUTION	APPROVED SUBSTITUTION	VOLTS	LAMPS/FIX
DS1	PARABOLIC SURFACE FLUORESCENT, 8 OR 10 CELL, 1 FT X 4 FT, STATIC, 1 LAMP. LOW IRIDESCENCE SEMISPECULAR LOUVER.	DAYBRITE # 1S3P1(32)18SL	LIGHTOLIER # PLM/J8S10LS 1(32)	LITHONIA # PM3X1(32)8LD	COLUMBIA # SP214149183	120	(1)FO32T8
S2	FOUR (4) FOOT FLUORESCENT STRIP, 2 LAMP.	DAYBRITE # T2(32)	LIGHTOLIER # SW2(32)	LITHONIA # C2(32)	COLUMBIA # CS2(32)	120	(2)FO32T8
V4	FOUR (4) FOOT LONG VAPOR TIGHT FLUORESCENT, ONE-PIECE HIGH IMPACT THERMOPLASTIC BODY, .125" NOMINAL HIGH IMPACT ACRYLIC LENS, UL LISTED FOR DAMP LOCATIONS, 2 LAMP.	DAYBRITE # VD2(32)	LIGHTOLIER # STD2(32)	LITHONIA # DM2(32)	COLUMBIA # LU42(32)**DMR	120	(2)FO32T8

LIGHTING FIXTURE SCHEDULE GENERAL NOTES:

(1) PROVIDE ALL FLUORESCENT LIGHTING FIXTURES WITH ELECTRONIC BALLASTS AND "T8" LAMPS. CONTRACTOR SHALL UTILIZE 2, 3, OR 4 LAMP BALLASTS WHEREVER POSSIBLE FOR MASTER/SLAVE OPERATION WHILE MAINTAINING SWITCHING ARRANGEMENTS INDICATED ON DRAWINGS.

(2) CONTRACTOR SHALL CAREFULLY COORDINATE THE LIGHTING FIXTURE TRIM TYPES WITH THE TYPE OF CEILING WHERE THE LIGHTING FIXTURES ARE TO BE INSTALLED. MODIFY FIXTURE CATALOG NUMBER AS REQUIRED TO COORDINATE FIXTURE WITH CEILING.

(3) WHEN FIXTURE MODEL NUMBER DIFFERS FROM FIXTURE DESCRIPTION, THEN FIXTURE DESCRIPTION SHALL GOVERN.

DEMOLITION LEGEND

(R1) REMOVE ALL ELECTRICAL ASSOCIATED WITH THIS ITEM, COMPLETE BACK TO ITS SOURCE. SOURCE IS CONSIDERED TO BE FIRST UPSTREAM DEVICE OR CIRCUIT BREAKER THAT FEEDS THIS AFFECTED CIRCUIT. SEE GENERAL NOTES AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

(R2) REMOVE ALL ELECTRICAL IN AREA OF REMODEL/RENOVATION COMPLETE BACK TO ITS SOURCE. SOURCE IS CONSIDERED TO BE FIRST UPSTREAM DEVICE OR CIRCUIT BREAKER OUTSIDE OF AREA OF REMODEL THAT FEEDS CIRCUITS/DEVICES WITHIN AREA OF REMODEL/RENOVATION. SEE GENERAL NOTES AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

(R3) REMOVE THE DEVICE ONLY. REFER TO RENOVATION PLAN FOR ADDITIONAL ELECTRICAL.

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MPE PROJ#: 2014-197A

Designed By: RB

Drawn By: AG/RB

Checked By: CT

Issue Date: 03/23/16

Drawing Scale: NONE

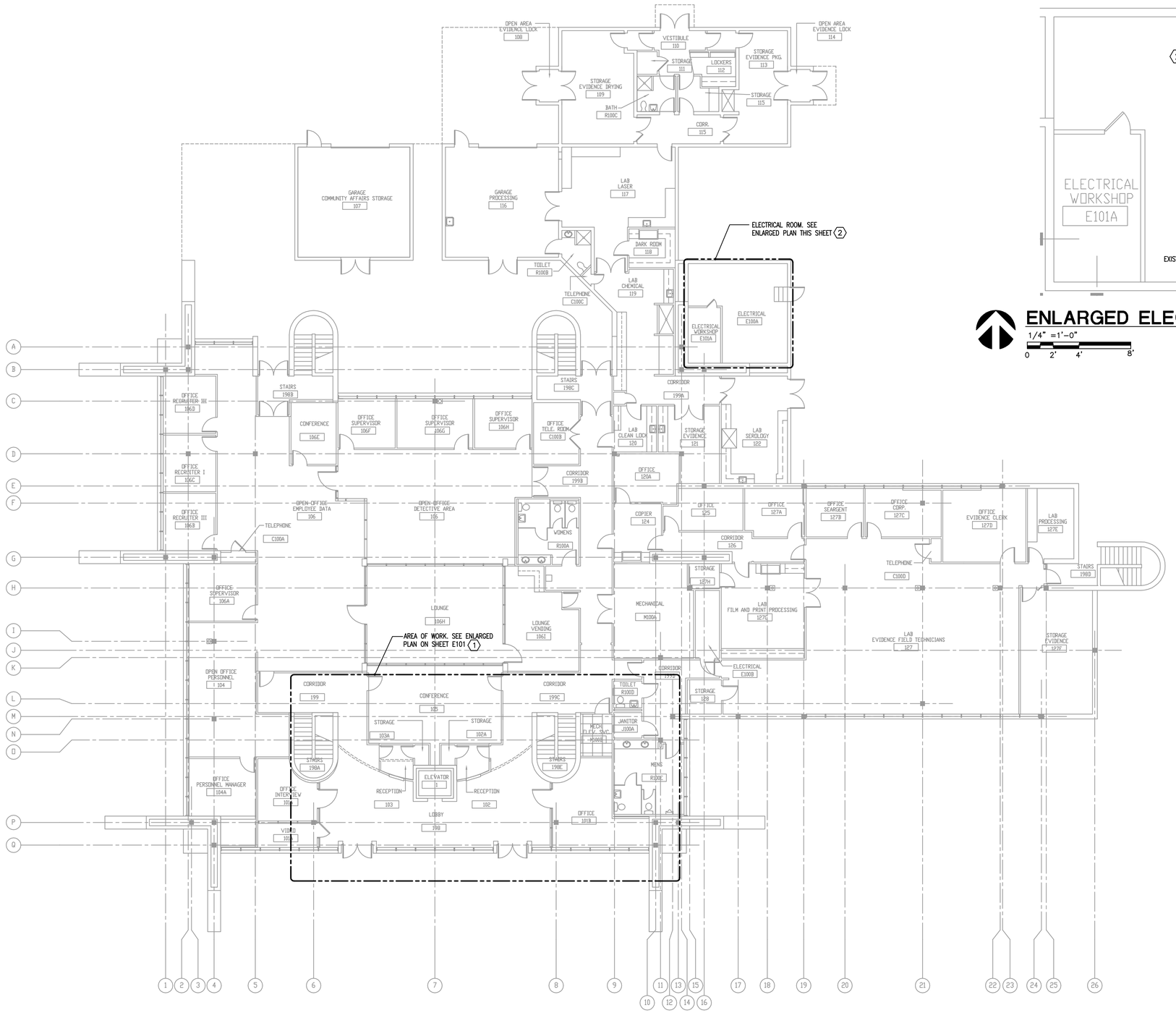
Drawing Title:

SYMBOL LEGEND AND FIXTURE SCHEDULE

BID DOCUMENTS

Drawing No.

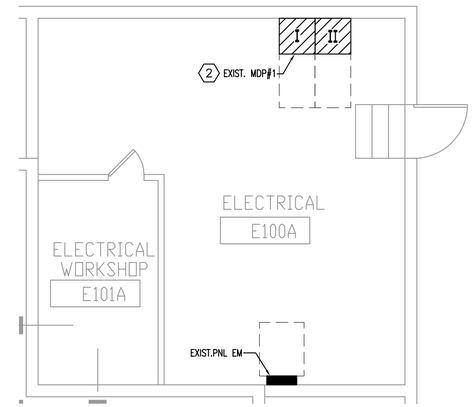
E002



OVERALL PLAN - POWER

3/32"=1'-0"

0 5' 10' 20'



ENLARGED ELECTRICAL ROOM PLAN

1/4" =1'-0"

0 2' 4' 8'

GENERAL NOTES

1) REFER TO GENERAL NOTES FOR THIS DISCIPLINE.
2) REFER TO SPECIFICATIONS.
3) NO MULTI-WIRE BRANCH CIRCUITS ARE TO BE USED. EACH CIRCUIT IS TO HAVE SEPARATE INDIVIDUAL NEUTRAL.
4) ALL HEX NOTES NOT NECESSARILY USED ON ALL SHEETS.
5) EXISTING CONDUIT ROUTING IS UNKNOWN.
6) WHERE CONDUIT ROUTING IS SHOWN, THE CONDUITS ARE SHOWN FOR DIAGRAMMATIC PURPOSES AND ARE NOT NECESSARILY REPRESENTATIVE OF EXACT PLACEMENT.
7) WHERE DISCONNECTS ARE SHOWN FEEDING VFD'S PROVIDE WITH ALL REQUIRED ELECTRICAL FOR INTERLOCK.

HEX NOTES

1 REFER TO DEMO AND RENO PLANS.
2 SEE PANEL SCHEDULE.

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ENG. BUS. No. EB-0005096 CERT. OF AUTH. No. 5096

ORANGE COUNTY CORRECTIONS CASSIDY BUILDING ELEVATOR MODERNIZATION

Key Plan

Revisions

No.	Date	Description

SEAL

MPE PROJ#: 2014-197A

Designed By: RB

Drawn By: AG/RB

Checked By: CT

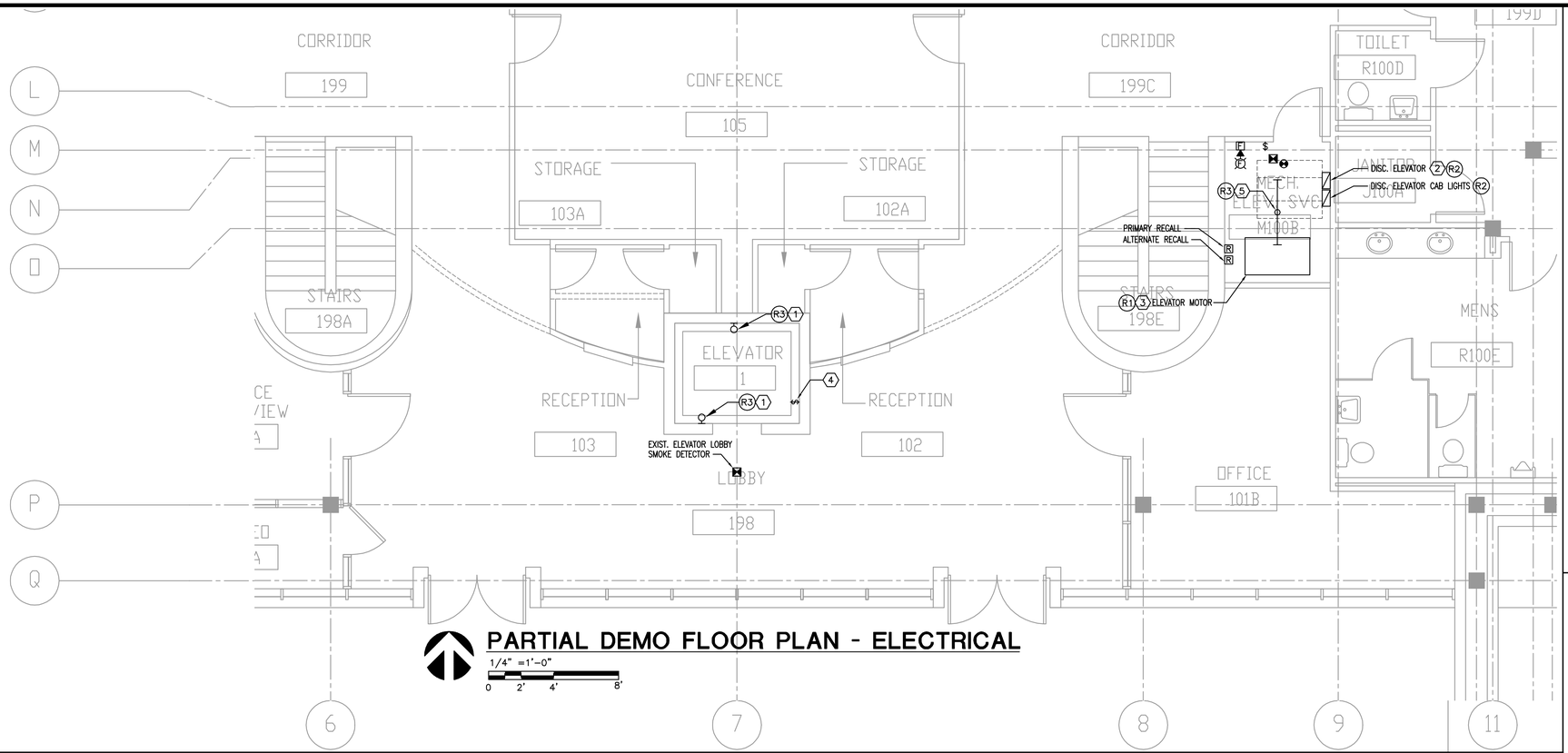
Issue Date: 03/23/16

Drawing Scale: 3/32"=1'-0"

Drawing Title:
OVERALL FLOOR PLAN POWER

BID DOCUMENTS

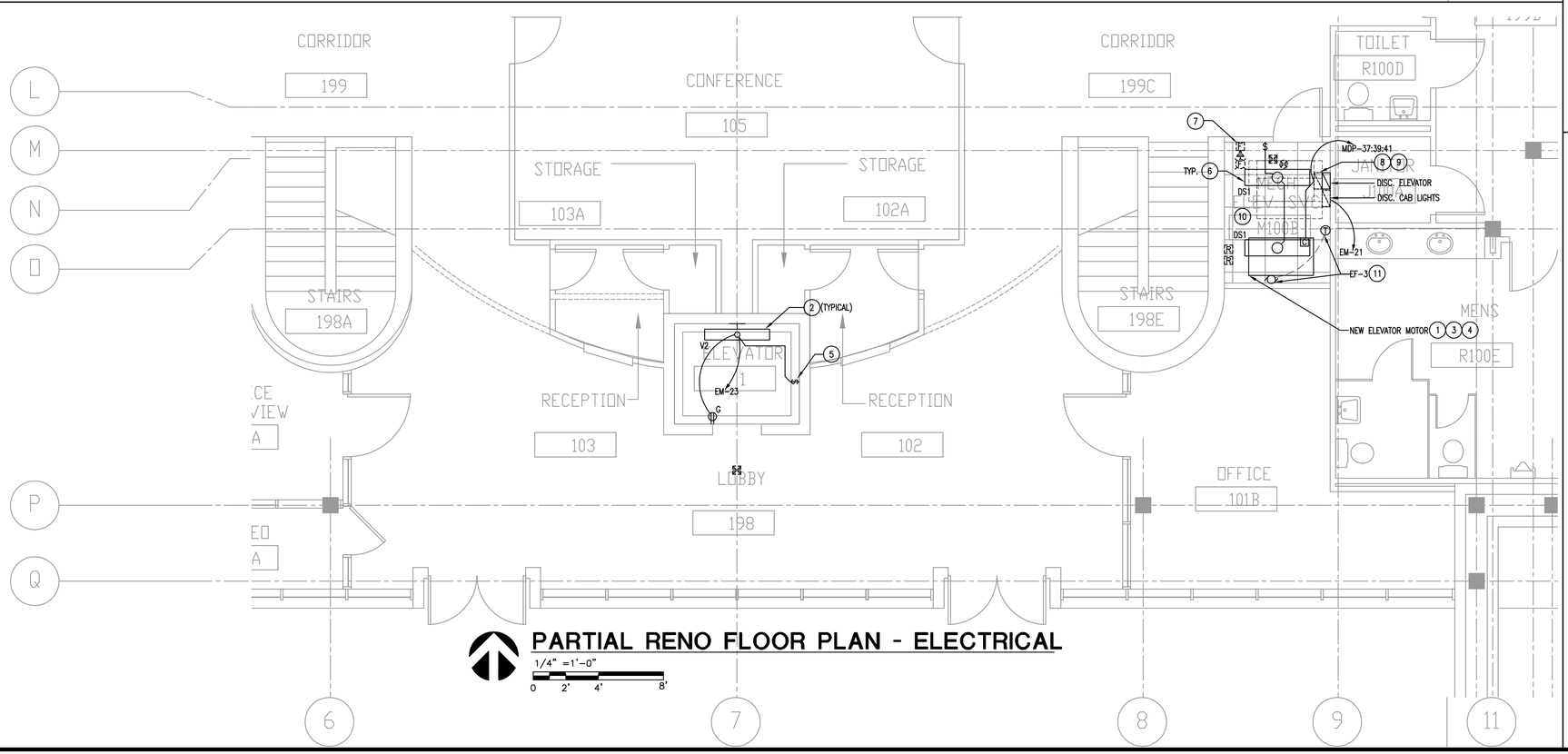
Drawing No.
E100



PARTIAL DEMO FLOOR PLAN - ELECTRICAL

1/4" =1'-0"

0 2' 4' 8'



PARTIAL RENO FLOOR PLAN - ELECTRICAL

1/4" =1'-0"

0 2' 4' 8'

GENERAL NOTES

1) REFER TO GENERAL NOTES FOR THIS DISCIPLINE.
2) REFER TO SPECIFICATIONS.
3) NO MULTI-WIRE BRANCH CIRCUITS ARE TO BE USED. EACH CIRCUIT IS TO HAVE SEPARATE INDIVIDUAL NEUTRAL.
4) REWORK/RELOCATE EXISTING ELECTRICAL AS REQUIRED TO FACILITATE REMODELING.
5) CONTRACTOR SHALL MAINTAIN CONTINUITY TO EXISTING DEVICES REMAINING.
6) ALL DISCONNECTING MEANS (SWITCHES) FEEDING FAN TERMINAL BOXES SHALL BE MOTOR RATED SWITCHES.
7) REFER TO MECHANICAL EQUIPMENT FEEDER AND PANEL SCHEDULES FOR ELECTRICAL REQUIREMENTS FOR MECHANICAL AND PLUMBING EQUIPMENT.
8) MOUNT ALL DISCONNECT SWITCHES FOR MECHANICAL EQUIPMENT WITHIN SIX (6) FEET OF EQUIPMENT AS REQUIRED BY APPLICABLE CODES AND STANDARDS. RELOCATE DISCONNECT SWITCHES SHOWN ON DRAWINGS TO LOCATION REQUIRED TO COMPLY WITH THIS REQUIREMENT AND APPLICABLE CODES/STANDARDS. LOCATIONS FOR DISCONNECT SWITCHES SHOWN ON DRAWINGS IS FOR GENERAL INFORMATION ONLY.
9) ALL HEX NOTES NOT NECESSARILY USED ON ALL SHEETS.
10) EXISTING CONDUIT ROUTING IS UNKNOWN.
11) WHERE CONDUIT ROUTING IS SHOWN, THE CONDUITS ARE SHOWN FOR DIAGRAMMATIC PURPOSES AND ARE NOT NECESSARILY REPRESENTATIVE OF EXACT PLACEMENT.
12) ALL EQUIPMENT ROOM PENETRATIONS SHALL BE SEALED AND ANY PATCHES PAINTED TO MATCH EXISTING WALL COLOR, INSIDE AND OUTSIDE THE EQUIPMENT ROOM.
13) CERTIFIED FIRE ALARM CONTRACTOR SHALL PERFORM TESTING ON FIRE ALARM SYSTEM AFTER PROJECT COMPLETION FOR FIRE ALARM SYSTEM FUNCTIONALITY AND COMPLIANCY WITH ALL CURRENT CODES AND STANDARDS.

DEMO HEX NOTES

1. REMOVE EXISTING ELEVATOR PIT LIGHTS, INCLUDING WIRING AND CONDUIT WHERE CONDITION IS FOUND TO BE UNACCEPTABLE PER SPECIFICATION. REFER TO RENO PLAN THIS SHEET FOR REPLACEMENT REQUIREMENT.
2. EXISTING ELEVATOR DISCONNECT TO BE REMOVED AND REPLACED. REFER TO RENO PLAN THIS SHEET OTHER FOR REQUIREMENTS.
3. EXISTING ELEVATOR MOTOR TO BE REMOVED. SEE RENO PLAN, THIS SHEET.
4. EXISTING SWITCH FOR ELEVATOR PIT LIGHTS TO BE REPLACE AND RELOCATED IN ACCESSIBLE LOCATION REFER TO RENO PLAN.
5. REMOVE EXISTING LIGHT FIXTURE, INCLUDING WIRING AND CONDUIT WHERE CONDITION IS FOUND TO BE UNACCEPTABLE PER SPECIFICATION. REFER TO RENO PLAN THIS SHEET FOR REPLACEMENT REQUIREMENT.
6. EXISTING DISCONNECT FOR CAB LIGHTS TO BE REUSED. SEE RENO PLAN THIS SHEET.

RENO CIRCLE NOTES

1. REFER TO MECHANICAL FEEDER SCHEDULE.
2. CONNECT NEW LIGHT FIXTURES TO NEW SWITCH IN NEW LOCATION AS SHOWN. CONNECT TO EXISTING LIGHTING CIRCUIT PREVIOUSLY FEEDING PIT LIGHTING MADE SPARE BY RENOVATION. PROVIDE ALL ELECTRICAL REQUIRED TO FACILITATE RENOVATION.
3. PROVIDE ALL ELECTRICAL AS REQUIRED TO SHUNT TRIP ELEVATOR MAIN POWER SOURCE PER NFPA 70 & 72. SYSTEM IS REQUIRED TO BE SUPERVISED BY NFPA 70 & 72.
4. PROVIDE CONNECTION TO NEW ELEVATOR MOTOR. PROVIDE NEW LOCKABLE DISCONNECT WITH 20A AUX CONTACTS REJECTION CLIPS AND RX-5 FUSES AS REQUIRED BY ELEVATOR INSTALLER. SEE MECHANICAL FEEDER SCHEDULE FOR MINIMUM SIZE AND NEW WIRE REQUIREMENTS.
5. PROVIDE NEW LIGHT SWITCH TO SIDE OF PIT LADDER. LOCATION SHALL BE EASILY ACCESSIBLE FROM ELEVATOR ENTRANCE. MOUNT AT 48"AFF FROM ELEVATOR LANDING.
6. CONNECT NEW LIGHT FIXTURES TO EXISTING SWITCH LOCATIONS AS SHOWN. CONNECT TO EXISTING LIGHTING CIRCUIT PREVIOUSLY FEEDING LIGHTING IN THIS SPACE MADE SPARE BY RENOVATION. PROVIDE ALL ELECTRICAL REQUIRED TO FACILITATE RENOVATION.
7. EXISTING FIRE ALARM EQUIPMENT ABOVE NEW FIXED CEILING SHALL BE REMOVED AND REINSTALLED BELOW NEW FIXED CEILING IN ACCORDANCE WITH ACCEPTABLE CODES AND STANDARDS.
8. PROVIDE ENCLOSED SHUNT TRIP DEVICE UNDER AND AHEAD OF THE ELEVATOR DISCONNECT.
9. PROVIDE NEW FUSE FOR NEW ELEVATOR EQUIPMENT SIZED AS INDICATED IN MECHANICAL FEED SCHEDULE. EXISTING BOARD IS A SQUARE-D QMB FUSIBLE SWITCH BOARD.
10. RUN AND PROVIDE A SIGNAL WIRE FROM THE EMERGENCY POWER SOURCE TO THE ELEVATOR MACHINE ROOM CONTROLLER.
11. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION, SPECIFICATIONS FOR EXHAUST FAN EF-3 AND THERMOSTAT AND RECONNECT TO EXISTING CIRCUIT.

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ORANGE COUNTY CORRECTIONS CASSIDY BUILDING ELEVATOR MODERNIZATION

Key Plan

Revisions

No.	Date	Description

SEAL

MPE PROJ#: 2014-197A

Designed By: RB

Drawn By: AG/RB

Checked By: CT

Issue Date: 03/23/16

Drawing Scale: 1/4"=1'-0"

Drawing Title:

PARTIAL FLOOR PLANS DEMO & RENO ELECTRICAL

BID DOCUMENTS

Drawing No.

E101

MECHANICAL/KITCHEN EQUIPMENT FEEDER SCHEDULE FOR (9):

 Version : W8 REVISED: 10-30-2013 DATE: November 3, 2015

EQUIPMENT DESCRIPTION	VOLTS	PH	NEUTRAL Y/N	LARGEST MOTOR HP	LARGEST MOTOR FLA	LARGEST MOTOR LRA	COMPRESSOR FLA(11)	COMPRESSOR LRA	ADD'L MOTORS FLA	ADD'L MOTORS LRA	HEAT STRIPS KW	HEAT STRIPS AMPS	MISC AMPS	TOTAL FLA	MCA (10)	MOCP (10)	PANEL CB (5)	DISCONNECT SWITCH CODE	DISCONNECT SWITCH SIZE (1)	DISCONNECT SWITCH FUSE (2)	DISCONNECT SWITCH TYPE (3)	STARTER CODE	STARTER TYPE	WIRE PER PHASE (6)	NEUTRAL WIRE (7)	GROUND WIRE	WIRE MATERIAL	# OF RUNS	CONDUIT SIZE	% VD	NOTES (SEE BELOW)
ELEVATOR	480	3	N	20.00	27.0	145.0								27			70	1	100	NF				#8		#8	COPPER	1	0.75	0.34	O

NOTES ( )

(1) PROVIDE DISC SW AT ALL PIECES OF EQUIPMENT AS REQUIRED BY THE N.E.C. AND AHJ UNLESS PROVIDED BY OTHERS (INCLUDING AT MOTORS AND AT STARTERS.

(2) FUSES SHOWN FOR REFERENCE ONLY. PROVIDE FUSES AS RECOMMENDED BY EQUIPMENT MANUFACTURER.

(3) PROVIDE NEMA OUTDOOR RATED ENCLOSURES FOR ALL DISC SWS MOUNTED OUTDOORS.

(4) COORDINATE STARTER TYPE WITH MECH EQUIP INSTALLER .

(5) CONTRACTOR TO VERIFY THAT C.B. FOR COMPRESSORS IS SUFFICIENT TO ALLOW STARTING OF UNIT, IF REQUIRED FOR STARTING C.B. TO BE INCREASED TO A MAX ALLOWED BY N.E.C. CB TO BE HACR RATED.

(6) #12 FEEDERS SHOWN AND OVER 50FT. LONG TO BE #10 FOR 120V CIRCUITS. #12 FEEDERS SHOWN AND OVER 100 FT. LONG TO BE #10 FOR 277 V CIRCUITS.

(7) NEUTRAL CONDUCTOR TO BE SAME SIZE AS PHASE CONDUCTORS.

(8) MOTOR CB IS SIZED BASED ON NEMA CODE 'F' OR HIGHER. CHANGE CB SIZE IF REQUIRED DUE TO NEMA CODE OF MOTOR PER N.E.C.

(9) ALL FEEDERS 100 AMP AND LESS ARE BASED ON 60 DEGREE CONDUCTOR/TERMINATION RATING. ALL OTHER FEEDERS ARE BASED ON 75 DEGREE CONDUCTOR TERMINATIONS. PROVIDE AND INSTALL PROPER TERMINATIONS ON ALL EQUIPMENT PROVIDED BY ANY DIVISION AND/OR SECTION OF THE CONTRACT DOCUMENTS. PROPER TERMINATIONS TO BE AS REQUIRED TO MATCH CONDUCTOR WITH REQUIRED AMPACITY.

(10) BASED ON MANUFACTURER'S RECOMMENDATION.

(11) OR BRANCH CIRCUIT SELECTION CURRENT WHEN AVAILABLE.

MCP = MOTOR CIRCUIT PROTECTOR W/COMBINATION STARTER

MMS = MANUAL MOTOR STARTER SWITCH WITH OVERLOADS AND PILOT LIGHT

I = NEMA I ENCLOSURE

3R = NEMA 3R ENCLOSURE

4SS = NEMA 4 WATER TIGHT STAINLESS STEEL ENCLOSURE

4 = NEMA 4 WATER TIGHT NON-CORROSIVE ENCLOSURE

VFD/AFD = VARIABLE (ADJUSTABLE-AFD) FREQ DRIVE UNIT

NF = NON-FUSED. WHERE ACCEPTABLE TO AHJ, CONTRACTOR MAY USE PROPERLY RATED MOTOR SWITCH FOR DISCONNECT SWITCH

AHJ = AUTHORITY HAVING JURISDICTION.

FNVR = FULL VOLTAGE NON-REVERSING

DFNVR = DUAL VOLTAGE NON-REVERSING

FVC = FULL VOLTAGE CONTACTOR

NOTES:
(A)=CONNECT VIA LINE VOLTAGE T'STAT BY DIV. 15/23 CONTRACTOR.
(B)=CONNECT VIA CONTROL DEVICES BY DIV. 15/23 CONTRACTOR.
(C)=CONNECT VIA VFD/AFD WITH INTEGRAL DISC. SW.
(D)=CONNECT VIA COMBINATION DISC/STARTER BY DIV. 15/23 CONTRACTOR.
(E)=CONNECT VIA DISC SWITCH AT EQUIP. BY DIV. 15/23 CONTRACTOR.
(F)=PROVIDE FULL SIZE NEUTRAL.
(G)=MMS WITHOUT OVERLOADS.
(H)=CONNECT VIA STARTER IN MCC (BY DIV 16/26).
(I)=2 SPEED,1 WINDING MOTOR/STARTER.
(J)=COORDINATE WITH DIV.15 TO BALANCE LOAD OF 1 PHASE FTB MOTORS.
(K)=PROVIDE NEW STARTER IN MCC TO MATCH EXISTING. SEE MCC SCHED.
(L)=WHERE MOTOR IS FED FROM MCC, PANEL CB NOT REQUIRED
(M)=CONNECT EXIST DISC SWITCH AT MOTOR. MODIFY AS NOTED ON DRWGS
(N)=CONNECT EXIST DISC SWITCH AT MOTOR. MODIFY AS NOTED ON DRWGS
(O)=PROVIDE LOCKABLE DISCONNECT SWITCH WITH 20A AUXILIARY CONTACT, REJECTION CLIP AND FUSE AS REQUIRED BY ELEVATOR INSTALLER.

SECTION I WITH MAINS — VERSION: C2i REVISED: 12/15/14

VOLTS L/N: 277
VOLTS PH.: 480
PHASE : 3
MOUNTING : SURFACE
TYPE :
MFR : SQ D

DIST PANEL : MDP (Revised EXISTING)
MLO(***)
MCB 800
SH.TRIP
GFP

EXISTING : YES
NEMA 3R :

GENERAL NOTES:
(1) ALL C.B.'S FEEDING HVAC EQUIPMENT TO BE HACR TYPE.
(2) ALL C.B.'S FEEDING ELEV EQUIP TO BE SHUNT-TRIP TYPE.
(3) ALL C.B.'S FEEDING ELEV EQUIP TO BE SIZED AS REQ'D BY MFR.
(4) ALL C.B.'S FEEDING HID LTG TO BE HID RATED.
(5) NO MULTIWIRE BRANCH CKTS ARE ALLOWED
(6) NOT USED.
(7) IF HCP-SU PANEL THEN ALL BREAKERS TO BE ON ONE SIDE.

<----------AIC RATING (**)----------> KA(*)
SERIES RATED 65
FULLY RATED KA
(*) NOTE: MAY REQUIRE FULL RATING TO ACHIEVE

NOTES AND REFERENCE NOTES:
MFR = SIZE CB PER MFR. RECOMMENDATIONS.
$ = NEW CB IN EXIST SPACE
& = REPLACE EXIST CB WITH NEW
SH = SHUNT TRIP C.B.
AF = ARC FAULT CB

TOTAL AMPS A PH 952
TOTAL AMPS B PH 952
TOTAL AMPS C PH 952
INFO CODE:

(***) NOTE: SIZE SHOWN IS MINIMUM ACCEPTABLE MLO AMPERAGE. INCREASE SIZE IF REQUIRED TO ACHIEVE QUANTITY OF POLES OR BREAKER SIZE/AIC RATING AS CALLED FOR IN SCHEDULE.

OPTIONAL CALC NO
ACTUAL CONN LOAD 791 KVA 952 AMPS
DEMAND 606 KVA 729 AMPS
DIVERSITY 606 KVA 729 AMPS
TRANSFORMER SIZE KVA

SECTION 1 WITH MAINS — WIDTH: 26 DEPTH: 9.50

LOAD DESCRIPTION	CONN	TYPE	AMPS	AMPS	AMPS	C.B. AMPS	C.B. POLE	REF NOTE	CKT. NO.	CKT. NO.	REF NOTE	C.B. POLE	C.B. AMPS	AMPS	AMPS	AMPS	LOAD DESCRIPTION	CONN	TYPE
PNL HVA	145	5.0	145			225	3		1	2		3	225	150			PNL HVB		150	5.0
---------	145	5.0		145		---------	---------		3	4		---------	---------		150		---------		150	5.0
---------	145	5.0			145	---------	---------		5	6		---------	---------			150	---------		150	5.0
PNL HVEM	35	5.0	35			60	3		7	8		3	40	25			AHU 1-1		25	10.0
---------	35	5.0		35		---------	---------		9	10		---------	---------		25		---------		25	10.0
---------	35	5.0			35	---------	---------		11	12		---------	---------			25	---------		25	10.0
AHU 2-1	38	10.0	38			60	3		13	14		3	20	13			PNL B		13	5.0
---------	38	10.0		38		---------	---------		15	16		---------	---------		13		---------		13	5.0
---------	38	10.0			38	---------	---------		17	18		---------	---------			13	---------		13	5.0
EDH (2ND FLR)	32	5.0	32			50	3		19	20		3	40	26			PNL F		26	5.0
---------	32	5.0		32		---------	---------		21	22		---------	---------		26		---------		26	5.0
---------	32	5.0			32	---------	---------		23	24		---------	---------			26	---------		26	5.0
ACC-1	288	5.0	288			450	3		25	26		3	50	32			EDH		32	5.0
---------	288	5.0		288		---------	---------		27	28		---------	---------		32		---------		32	5.0
---------	288	5.0			288	---------	---------		29	30		---------	---------			32	---------		32	5.0
EDH	26	5.0	26			40	3		31	32		3	70	45			EDH		45	5.0
---------	26	5.0		26		---------	---------		33	34		---------	---------		45		---------		45	5.0
---------	26	5.0			26	---------	---------		35	36		---------	---------			45	---------		45	5.0
ELEVATOR	27	5.0	27			70	3		37	38		3	60	38			P-CHW 1-2		38	5.0
---------	27	5.0		27		---------	---------		39	40		---------	---------		38		---------		38	5.0
---------	27	5.0			27	---------	---------		41	42		---------	---------			38	---------		38	5.0
SUBFEED LUGS/BREAKER																	SUBFEED LUGS/BREAKER		
									S.F.	S.F.									
---------						---------	---------		S.F.	S.F.		---------	---------				---------			
---------						---------	---------		S.F.	S.F.		---------	---------				---------			

WIDTH: 26.0 DEPTH: 9.50

LOAD DESCRIPTION	CONN	TYPE	AMPS	AMPS	AMPS	C.B. AMPS	C.B. POLE	REF NOTE	CKT. NO.	CKT. NO.	REF NOTE	C.B. POLE	C.B. AMPS	AMPS	AMPS	AMPS	LOAD DESCRIPTION	CONN	TYPE
AC2-3	32	5.0	32			50	3		43	44		3					SPACE		
---------	32	5.0		32		---------	---------		45	46		---------	---------				---------		
---------	32	5.0			32	---------	---------		47	48		---------	---------				---------		
									49	50									
									51	52									
									53	54									
									55	56									
									57	58									
									59	60									
									61	62									
									63	64									
									65	66									
									67	68									
									69	70									
									71	72									
									73	74									
									75	76									
									77	78									
									79	80									
									81	82									
SUBFEED LUGS/BREAKER									83	84							SUBFEED LUGS/BREAKER		
									S.F.	S.F.									
---------						---------	---------		S.F.	S.F.		---------	---------				---------			
---------						---------	---------		S.F.	S.F.		---------	---------				---------			

 VERSION: C2i REVISED: 12/15/14

VOLTS L/N: 120
VOLTS PH.: 208
PHASE : 3
MOUNTING : SURFACE
TYPE :
MFR : SQ D

PANEL : EM [Revised EXISTING]
MLO(***)
MCB 60
SH.TRIP
GFP

EXISTING : YES
SECTIONS : 1
NEMA 3R :

GENERAL NOTES:
(1) ALL C.B.'S FEEDING HVAC EQUIPMENT TO BE HACR TYPE.
(2) ALL C.B.'S FEEDING ELEV EQUIP TO BE SHUNT-TRIP TYPE.
(3) ALL C.B.'S FEEDING ELEV EQUIP TO BE SIZED AS REQ'D BY MFR.
(4) ALL C.B.'S FEEDING HID LTG TO BE HID RATED.
(5) NO MULTIWIRE BRANCH CKTS ARE ALLOWED
(6) NOT USED.

<----------AIC RATING (**)----------> KA(*)
SERIES RATED 65
FULLY RATED KA
(*) NOTE: MAY REQUIRE FULL RATING TO ACHIEVE

NOTES AND REFERENCE NOTES:
MFR = SIZE CB PER MFR. RECOMMENDATIONS.
$ = NEW CB IN EXIST SPACE
& = REPLACE EXIST CB WITH NEW
SH = SHUNT TRIP C.B.
AF = ARC FAULT CB

TOTAL AMPS A PH 51
TOTAL AMPS B PH 69
TOTAL AMPS C PH 77
INFO CODE:

(***) NOTE: SIZE SHOWN IS MINIMUM ACCEPTABLE MLO AMPERAGE. INCREASE SIZE IF REQUIRED TO ACHIEVE QUANTITY OF POLES OR BREAKER SIZE/AIC RATING AS CALLED FOR IN SCHEDULE.

OPTIONAL CALC NO
ACTUAL CONN LOAD 24 KVA 66 AMPS
DEMAND 20 KVA 57 AMPS
DIVERSITY 20 KVA 57 AMPS
TRANSFORMER SIZE KVA

SECTION 1 WITH MAINS — WIDTH: 20 DEPTH: 6.00

LOAD DESCRIPTION	CONN	TYPE	AMPS	AMPS	AMPS	C.B. AMPS	C.B. POLE	REF NOTE	CKT. NO.	CKT. NO.	REF NOTE	C.B. POLE	C.B. AMPS	AMPS	AMPS	AMPS	LOAD DESCRIPTION	CONN	TYPE
MAIN		5.0				60	3		1	2		1	20	6			RECEPTS	4	4.0
---------		5.0				---------	---------		3	4		2	40		26		HVAC CONTROL	26	5.0
---------		5.0				---------	---------		5	6		---------	---------			26	---------	26	5.0
RECEPTS	4	4.0	6			20	1		7	8		1	20	6			EXIST LOAD	4	4.0
RECEPTS	4	4.0		6		20	1		9	10		1	20		6		EXIST LOAD	4	4.0
RECEPTS	4	4.0			6	20	1		11	12		1	20			6	EXIST LOAD	4	4.0
RECEPTS	4	4.0	6			20	1		13	14		3	30				SPD		18.0
RECEPTS	4	4.0		6		20	1		15	16		---------	---------				---------		18.0
CHILLER CONTROL	12	5.0			12	20	1		17	18		---------	---------				---------		18.0
EMS	5	5.0	5			20	1		19	20		1	20	6			RECEPTS	4	4.0
ELEV CAB LIGHTS	400	2.0		3		20	1		21	22		1	20		6		RECEPTS	4	4.0
ELEV PIT LIGHT	800	2.0			7	30	1		23	24		1	20			6	RECEPTS	4	4.0
FORENSIC RECEPT	8	5.0	8			20	1		25	26		2	20	8			GARAGE	8	5.0
GENERATOR CRANK HTR	8	5.0		8		20	1		27	28		---------	---------		8		---------	8	5.0
CHARGERS	8	5.0			8	20	1		29	30		1	20			6	RECEPTS	4	4.0
									31	32									

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Key Plan

Revisions

No.	Date	Description

SEAL

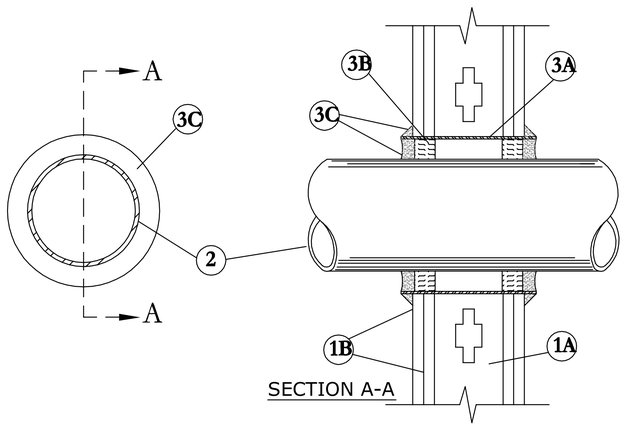
MPE PROJ#: 2014-197A
Designed By: RB
Drawn By: AG/RB
Checked By: CT
Issue Date: 03/23/16
Drawing Scale: NONE

Drawing Title:
ELECTRICAL SCHEDULES

BID DOCUMENTS

Drawing No.
E501

System No.W-L-1003
September 03, 2004
(Formerly System No. 147)
F Ratings - 1 and 2 Hr (See Item 1)
T Rating - 0 Hr



SECTION A-A

1. Wall Assembly – The 1 or 2 hr fire–rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs – Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC with nom 2 by 4 in. lumber end plates and cross braces. Steel studs to be min 3–1/2 in. wide by 1–3/8 in. deep channels spaced max 24 in. OC.

B. Gypsum Board* – Nom 5/8 in. thick, 4 ft. wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 15 in.
The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.

2. Through Penetrant – One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The space between pipes, conduits or tubing and the steel sleeve (Item 3A) shall be min of 0 in. (point contact) to max 2–3/8 in. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

A. Steel Pipe – Nom 12 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
B. Iron Pipe – Nom 12 in. diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in. diam (or smaller) or Class 50 (or heavier) ductile iron pressure pipe.
C. Conduit – Nom 6 in. diam (or smaller) steel conduit or nom 4 in. diam (or smaller) steel electrical metallic tubing.
D. Copper Tubing – Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.
E. Copper Pipe – Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.

3. Firestop System – Installed symmetrically on both sides of wall assembly. The details of the firestop system shall be as follows.

A. Steel Sleeve – Cylindrical sleeve fabricated from min 0.019 in. thick (No. 28 gauge) galv sheet steel and having a min 2 in. lap along the longitudinal seam. Length of steel sleeve to be equal to thickness of wall plus 1 to 4 in. such that, when installed, the ends of the sleeve will project approximately 1/2 to 2 in. beyond the surface of the wall on both sides of the wall assembly. Sleeve installed by coiling the sheet steel to a diam smaller than the through opening, inserting the coil through the openings and releasing the coil to let it uncoil against the circular cutouts in the gypsum wallboard layers.
B. Packing Material – Min 1 in. thickness of mineral wool batt insulation firmly packed into steel sleeve on both sides of the wall assembly as permanent forms. Packing material to be recessed min 1/2 in. from end of steel sleeve (flush with or recessed into gypsum wallboard surface) on both sides of wall assembly.
B1. Packing Material – (Not shown) – As an alternate to Item B, nom 1 in. thick polyethylene backer rod may be used. The backer rod is to be recessed within the steel sleeve a min of 1 in. from each surface of wall.
C. Fill,Void or Cavity Materials* – Caulk or Sealant – When mineral wool batt insulation is used, applied to fill the steel sleeve to a min depth of 1/2 in. on both sides of wall assembly. When backer rod is used, a min thickness of 1 in. of CP–25WB+ caulk is required flush with surface of wall. A nom 1/4 in. diam continuous bead of caulk or sealant shall be applied around the circumference of the steel sleeve at its egress from the gypsum wallboard layers on both sides of the wall assembly.

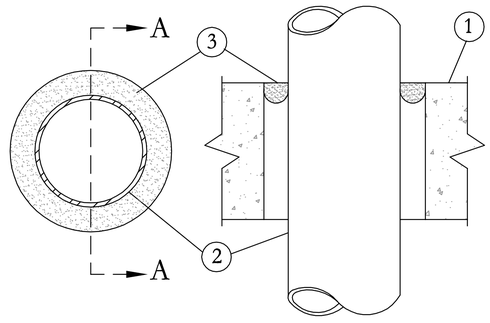
3M COMPANY – CP 25WB+ caulk or FB–3000 WT sealant.

*Bearing the UL Classification Marking

PENETRATION FIRESTOP FOR 12" MAX. DIA. METAL PIPE/CONDUIT THROUGH GYPSUM WALLBOARD ASSEMBLY

N.T.S. UL SYSTEM #147A (1 OR 2 HOUR RATING) FIREST5

SYSTEM NO C-AJ-1027
F RATING--3 HR
T RATING--0 HR



SECTION A–A

1. Floor or Wall Assembly – Min 4–1/2 in. thick lightweight or normal weight (100–150 pcf) concrete. Wall may also be constructed of
any UL Classified Concrete Blocks*. Max diam of through opening is 12–1/4 in.
See Concrete Blocks (CAZT) category in Fire Resistance Directory for names of manufacturers.
2. Through Penetrants – One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop
system. Min annular space between pipe, conduit or tubing and edge of opening is 0 in. (point contact). Max annular space is
dependent on pipe, conduit or tubing type and size as well as the F Rating of the system, as shown in the table below. Pipe, conduit or
tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing
may be used:
A. Steel Pipe – Nom 10 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
B. Conduit – Nom 6 in. diam (or smaller) rigid steel conduit.
C. Conduit – Nom 4 in. diam (or smaller) steel electrical metallic tubing or steel conduit.
D. Copper – Tubing Nom 3 in. diam (or smaller) Type L (or heavier) copper tubing.
E. Copper – Pipe Nom 3 in. diam (or smaller) Regular (or heavier) copper pipe.
F. Iron Pipe – Nom 10 in. diam (or smaller) cast or ductile iron pipe.

Pipe Conduit or Tubing Type	Max Nom Pipe Conduit or Tubing Diam In.	F Rating Hr	Max Annular Space In.
2–1/2	1/2–12	3	3/4
2–1/2	1/2–12	3	3/4
4–1/2	1/2–6	3	1–1/2
4–1/2	1/2–12	3	3/4
4–1/2	1/2–20	2	7/8

3. Fill,Void or Cavity Materials* – Putty – Moldable putty material kneaded by hand and applied to fill annular space to a min
depth of 1 in., flush with top surface of floor. In wall assemblies, required putty thickness to be installed symmetrically on both
sides of wall.
MINNESOTA MINING & MFG CO – MPS–2+
*Bearing the UL Classification Marking

PENETRATION FIRESTOP FOR 10" MAX. DIA. METAL PIPE/CONDUIT THROUGH A CONCRETE WALL

N.T.S. UL SYSTEM #202 (1 OR 2 HOUR RATING)

NOTES FOR FIRE STOPPING DETAILS (NEC & UL)

1) FIRE STOPPING DETAILS ARE SHOWN FOR GENERAL INTENT. PROVIDE FIRE STOPPING ASSEMBLY SUITABLE FOR THE APPLICATION IN COMPLIANCE WITH N.E.C. AND U.L.

2) DETAILS ARE BASED ON 3M PRODUCTS AND THEIR RECOMMENDED USAGE/ DETAILS. SUBSTITUTED PRODUCTS SHALL BE SUBMITTED AS OUTLINED IN SPECIFICATIONS. U.L. FIRE STOPPING ASSEMBLY DETAILS SHALL BE INCLUDED WITH PRODUCT DATA FOR REVIEW PRIOR TO INSTALLATION.

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ORANGE COUNTY CORRECTIONS CASSIDY BUILDING ELEVATOR MODERNIZATION

Key Plan

Revisions

No.	Date	Description

SEAL

MPE PROJ#: 2014–197A
Designed By: RB
Drawn By: AG/RB
Checked By: CT
Issue Date: 03/23/16
Drawing Scale: NONE

Drawing Title:
DETAILS
ELECTRICAL

BID DOCUMENTS

Drawing No.
E901