

ARCHITECTURE ENGINEERING INTERIOR DESIGN

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ADDENDUM NO. 3

KENDALLVILLE PUBLIC LIBRARY RENOVATION MAIN AND LIMBERLOST BRANCHES MSKTD Project No.: 8045 May 15, 2025

This addendum is issued as a supplement to the plans and specifications and shall be considered an integral part of the same.

<u>ITEM</u>	LOCATION	DESCRIPTION
3.1	General	 Clarification: Limberlost Branch water service for domestic is from individual well. Clarification: Repairs to dry pipe sprinkler system in the attic of the Main Branch are included in Allowance No. 5 and shall be included in contractor's final bid. Exact scope and details to be determined during construction and applied to the allowance.
3.2	Specification Section 223100	Delete Paragraph 2.2.B.2 "Mounting: On skids."
3.3	Specification Section 263600	Replace Specification Section 263600 with attached, revised section 263600 to add non automatic transfer switches.
3.4	Drawings Sheet SK101	 Refer to attached, revised sheet SK101 for the following clarifications/revisions: 1. Changed title of plan 1/ SK101. 2. Added plans 2 and 3 to the sheet.
3.5	Drawings Sheet CK601	Refer to attached, revised sheet CK601 for the following clarifications/revisions: 1. Removed generator next to proposed Maintenance Building.
3.6	Drawings Sheet PLK601	Refer to attached, revised sheet PLK601 for the following clarifications/revisions: 1. Removed water softener schedule note regarding "skid mount."
3.7	Drawings Sheet E501	 Refer to attached, revised sheet E501 for the following clarifications/revisions: 1. On Partial Electrical Riser Diagram - Alternate 3a, change new ATS-1 to 1200A. 2. On Partial Electrical Riser Diagram - Alternate 3b, change new MTS-1 to 1200A.
3.8	Drawings Sheet E600	 Refer to attached, revised sheet E600 for the following clarifications/revisions: 1. Luminaire Schedule: Revised light fixture type L17 to change color of fixture to black.

ITEM LOCATION DESCRIPTION

Bidders

3.9 Questions from Q1: Is there a general allowance for the project?

- A1: No general allowance is to be included.
 - Q2: CK601 show a generator next to the maintenance building. Electric sheets do not seem to show a generator for the maintenance building. Is this an error, or is there a second generator?
 - A2: This Gen Set as shown on sheet CK601 is an error. There is not a generator for the maintenance building.
 - Q3: SK101 details a structural requirement for the new office and restroom in unit B. Should there be a similar structural detail for rooms K131/K132 in unit A?
 - A3: Yes, this this a similar structural framing condition for the ceiling framing over rooms K131/K132.
 - Q4: If we are matching the wood doors to the exisiting wood doors, I will need the species/grain of wood slab, type of pre-finish stain.
 - A4: Door Species, cut, and finish will need to be verified by the contractor in the field. The contractor will need to provide samples for the architect to review.
 - Q5: Most of the walls look like they will have a 4-7/8" wall thickness but some of these doors look to be going into existing walls. Will these walls also be 4-7/8" thick.
 - A5: The contractor will need to verify in the field to confirm existing wall thickness.
 - Q6: I didn't see very much info on the hardware needed on these doors either. Is there specific hardware that I should include? (levers, panics, closers, wall stops, etc.)A6: Please refer to the door hardware specification section 087100.



RJP/lw/mb

Attachments:

Specification Section: 263600 Sheets: SK101, CK601, PLK601, E501 & E600

cc: All Plan Holders Mindy London (mlondon@kendallvillelibrary.org) Mark Thaler (mthaler@kendallvillelibrary.org) RJP/KC/ALK/CAB/KCS/ANS/JSH/CJB/PJB File

SECTION 263600 - TRANSFER SWITCHES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes transfer switches rated 600 V and less, including the following:
 - 1. Automatic transfer switches.
 - 2. Nonautomatic transfer switches.

1.3 REFERENCES

- A. NEMA ICS 1 General Standards for Industrial Control and Systems.
- B. NEMA ICS 2 Standards for Industrial Control Devices, Controllers and Assemblies.
- C. NEMA ICS 6 Enclosures for Industrial Controls and Systems.
- D. NEMA ICS 10 AC Automatic Transfer Switches.
- E. UL 1008 Standard for Automatic Transfer Switches.

1.4 SUBMITTALS

- A. General: Submit the following according to conditions of Contract and Division 01 Specification Sections.
 - 1. Shop Drawings or published product data for each transfer switch, including dimensioned plans, sections, and elevations showing minimum clearances; conductor entry provisions; gutter space; installed features and devices, wiring diagrams, materials lists.
 - a. Where the short-circuit current rating of the transfer switch is dependent on the upstream overcurrent protective device, submit manufacturer published literature indicating tested overcurrent protective devices and the resultant short-circuit current rating of the transfer switch. Indicate the applicable rating for the submitted transfer switch based on actual overcurrent protective device being provided as part of the related Shop Drawings.

- 2. Manufacturer's installation instructions.
- 3. Dimensioned Outline Drawings of Equipment Unit: Identify center of gravity and locate and describe mounting and anchorage provisions.
- 4. Detailed description of equipment anchorage devices on which the certification is based and their installation requirements.
- B. Operation and Maintenance Data: For each type of product to include in emergency, operation, and maintenance manuals. In addition to items specified in Division 01 Section "Operation and Maintenance Data," include the following:
 - 1. Features and operating sequences, both automatic and manual.
 - 2. List of all factory settings of relays; provide relay-setting and calibration instructions, including software, where applicable.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in automatic and nonautomatic transfer equipment with minimum three (3) years documented experience.
- B. Source Limitations: Obtain transfer switches, remote panels and accessories through one (1) source from a single manufacturer.

1.6 SOURCE QUALITY CONTROL

- A. Factory test and inspect components, assembled switches, and associated equipment. Ensure proper operation. Check transfer time and voltage, frequency, and time-delay settings for compliance with specified requirements. Perform dielectric strength test complying with NEMA ICS 1.
- B. Test transfer switch remote annunciator system
- C. Functional Description: Remote annunciator panels shall annunciate conditions for indicated transfer switches. Annunciation shall include the following:
 - 1. Sources available, as defined by actual pickup and dropout settings of transfer switch controls.
 - 2. Switch position.
 - 3. Switch in test mode.
 - 4. Failure of communication link

1.7 WARRANTY

A. Special Warranty: Manufacturers standard form in which manufacturer agrees to repair or replace components of transfer switch and associated auxiliary components that fail in materials or workmanship within specified warranty period. Warranty is comprehensive and shall include all parts & labor for specified period.

B. Warranty period: 100% parts & labor for two (2) Years from shipment, then 100% parts only for five (5) Years from shipment.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one (1) of the following:
 - 1. Emerson; ASCO Power Technologies, LP "7000 Series" Power Transfer Switches.
 - 2. Russelelectric, Inc.

2.2 GENERAL TRANSFER-SWITCH PRODUCT REQUIREMENTS

- A. Provide transfer switches with number of poles, voltage and current ratings and accessories as shown on Drawings. All switches shall be 4-pole design.
- B. Service-Rated Transfer Switch:
 - 1. Comply with UL 869A and UL 489.
 - 2. Provide terminals for bonding the grounding electrode conductor to the grounded service conductor.
 - 3. In systems with a neutral, the bonding connection shall be on the neutral bus.
 - 4. Provide removable link for temporary separation of the service and load grounded conductors.
 - 5. Surge Protective Device: Service rated.
 - 6. Service Disconnecting Means: Externally operated, manual mechanically actuated.
- C. Resistance to Damage by Voltage Transients: Components shall meet or exceed voltage-surge withstand capability requirements when tested according to IEEE C62.41. Components shall meet or exceed voltage-impulse withstand test of NEMA ICS 1.
- D. Switch Characteristics: Designed for continuous-duty repetitive transfer of full-rated current between active power sources.
- E. Transfer switches shall be electrically operated and mechanically held.
- F. Limitation: Switches using molded-case switches or circuit breakers or insulated-case circuitbreaker components are not acceptable.
- G. Switch Action: Double throw; mechanically held in both directions.
- H. Contacts: Silver composition or silver alloy for load-current switching. Conventional automatic transfer-switch units, rated 225 A and higher, shall have separate arcing contacts.

- I. The electrical operator shall be a solenoid mechanism, momentarily energized to minimize power consumption and heat generation.
- J. Transfer switches shall include both electrical and mechanical interlocks to prevent both sets of main contacts from being closed at the same time.
- K. Transfer switches shall be positively locked and unaffected by momentary outages, so that contact pressure is maintained at a constant value and contact temperature rise is minimized.
- L. Transfer switches shall be provided with a microprocessor control panel and a door-mounted display panel for user interface.
- M. Inspection of all contacts shall be possible from the front of the switch, without disassembly of operating linkages and without disconnection of power conductors.
- N. Transfer switches shall be capable of handling continuous-duty repetitive transfer of full-rated current between active power sources.
- O. Annunciation, Control, and Programming Interface Components: Devices at transfer switches for communicating with remote programming devices, annunciators, or annunciator and control panels shall have communication capability matched with remote device.
- P. Factory Wiring: Train and bundle factory wiring and label, consistent with Shop Drawings, either by color-code or by numbered or lettered wire and cable tape markers at terminations. Color-coding and wire and cable tape markers are specified in Division 26 Section "Identification for Electrical Systems."
 - 1. Designated Terminals: Pressure type, suitable for types and sizes of field wiring indicated.
 - 2. Power-Terminal Arrangement and Field-Wiring Space: Suitable for top, side, or bottom entrance of feeder conductors as indicated.
 - 3. Control Wiring: Equipped with lugs suitable for connection to terminal strips.
- Q. Enclosures: NEMA Type 3R enclosure, unless otherwise indicated on plans.

2.3 CONTROLS

- A. Failure of power source serving load initiates automatic break-before-make transfer.
- B. System LCD controller/display. Shall include the following features:
 - 1. Diagnostic screen for the purpose of detecting system errors.
 - 2. Data Logging: The controller shall have the ability to log data and to maintain the last 99 events, even in the event of total power loss. The following events shall be time and date stamped and maintained in non-volatile memory:
 - a. Current system status.
 - b. Event Logging.

- c. Data and time and reason for transfer normal to emergency.
- d. Data and time and reason for transfer emergency to normal.
- e. Data and time and reason for engine start.
- f. Data and time engine stopped.
- g. Data and time emergency source available.
- h. Data and time emergency source not available.
- 3. Statistical Data:
 - a. Total number of transfers.
 - b. Total number of transfers due to source failure.
 - c. Total number of days controller is energized.
 - d. Total number of hours both normal and emergency sources are available.

2.4 RATINGS

A. Available interrupting capacity (AIC) rating for each transfer switch shall meet or exceed the values listed within the Drawings.

2.5 NONAUTOMATIC TRANSFER SWITCHES

- A. Electrically Operated: Electrically actuated by push buttons designated "Normal Source" and "Alternative Source." Switch shall be capable of transferring load in either direction with either or both sources energized.
- B. Manual and Electrically Operated: Electrically actuated by push buttons designated "Normal Source" and "Alternative Source." Manual handle provides quick-make, quick-break manual-switching action. Switch shall be capable of electrically or manually transferring load in either direction with either or both sources energized. Control circuit disconnects from electrical operator during manual operation.
- C. Double-Throw Switching Arrangement: Incapable of pauses or intermediate position stops during switching sequence.
- D. Pilot Lights: Indicate source to which load is connected.
- E. Source-Available Indicating Lights: Supervise sources via transfer-switch normal- and alternative-source sensing circuits.
 - 1. Normal Power Supervision: Green light with nameplate engraved "Normal Source Available."
 - 2. Emergency Power Supervision: Red light with nameplate engraved "Alternative Source Available."
- F. Unassigned Auxiliary Contacts: Switch shall have one set of normally closed contacts for each switch position, rated 10 A at 240-V ac.

- G. Switch Characteristics: Designed for continuous-duty repetitive transfer of full-rated current between active power sources.
 - 1. Switch Action: Double throw; mechanically held in both directions.
 - 2. Contacts: Silver composition or silver alloy for load-current switching.
 - 3. Conductor Connectors: Suitable for use with conductor material and sizes.
 - 4. Material: Hard-drawn copper, 98 percent conductivity.
 - 5. Main and Neutral Lugs: Mechanical type.
 - 6. Ground Lugs and Bus-Configured Terminators: Mechanical type.
 - 7. Connectors shall be marked for conductor size and type according to UL 1008.

2.6 AUTOMATIC TRANSFER SWITCHES

- A. Transition Type: Open.
- B. Switching Arrangement: Double-throw type, incapable of pauses or intermediate position stops during normal functioning, unless otherwise indicated.
- C. Automatic transfer switch shall be capable of manual operation under load with the door closed with either or both sources energized. Transfer time shall be the same as for electrical operation. The control circuit shall automatically disconnect from the electrical operator during manual operation.
- D. Automatic Transfer-Switch Sequence of Operation:
 - 1. Initiate Time Delay to Start Alternate Source Engine Generator: Upon initiation by normal source monitor.
 - 2. Time Delay to Start Alternate Source Engine Generator: Zero (0) to ten (10) seconds, adjustable.
 - 3. Initiate Transfer Load to Alternate Source: Upon initiation by normal source monitor and permission by alternate source monitor.
 - 4. Time Delay Before Transfer to Alternate Power Source: Zero (0) to thirty (30) seconds, adjustable.
 - 5. Initiate Retransfer Load to Normal Source: Upon permission by normal source monitor.
 - 6. Time Delay Before Transfer to Normal Source: Zero (0) to thirty (30) minutes, adjustable. Bypass shall have a time delay in the event of an alternate source failure.
 - 7. Time Delay Before Engine Shut Down: Zero (0) to thirty (30) minutes, adjustable. Time delay shall begin when generator is unloaded.

2.7 REQUIRED ACCESSORIES FOR ALL TRANSFER SWITCHES

A. In-Phase Monitor: Provide factory-wired, internal relay controls transfer so it occurs only when the two sources are synchronized in phase. Relay compares phase relationship and frequency difference between normal and emergency sources and initiates transfer when both sources are within 15 electrical degrees, and only if transfer can be completed within 60 electrical degrees. Transfer is initiated only if both sources are within 2 Hz of nominal frequency and 70 percent or more of nominal voltage.

- B. Indicating Lights: Provide indicating lights mounted in cover of enclosure to indicate the following:
 - 1. Normal Source Available.
 - 2. Alternate Source Available.
 - 3. Switch Position: Indicate source to which load is connected.
- C. Return to Normal Switch: Provide switch mounted in cover of enclosure to initiate manual transfer from alternate to normal source.
- D. Source Monitor: Provide source monitor for each line of the normal and alternate source voltage and frequency; initiate transfer when voltage drops below 85 percent or frequency varies more than 3 hertz from rated nominal value. Threshold values shall be field adjustable.
 - 1. Source-Available Indicating Lights: Supervise sources via transfer-switch normal- and emergency-source sensing circuits.
 - a. Normal Power Supervision: Green light with nameplate engraved "Normal Source Available."
 - b. Emergency Power Supervision: Red light with nameplate engraved "Emergency Source Available."
- E. Test Switch: Provide switch mounted in cover of enclosure to simulate failure of normal source.
- F. Transfer Switch Auxiliary Contacts: Provide the following isolated dry contacts to indicate the following conditions:
 - 1. Normal source is available.
 - 2. Emergency source is available.
 - 3. Transfer switch position connected to normal source.
 - 4. Transfer switch position connected to emergency source.
- G. Facility Management Control System Interface: Provide auxiliary contacts, prewired to an accessible terminal strip.
- H. Push-button programming control with digital display of settings.
- I. Integral battery operation of time switch when normal control power is not available.
- J. Engine Exerciser: Provide an integral engine exerciser to automatically test the engine generator set with or without load on a set schedule and duration. Parameters associated with start time (day, week, month), frequency and duration of test shall be fully programmable.
 - 1. Pushbutton programming control with digital display of settings.
 - 2. Provide integral battery operation of time switch when normal control power is not available.

- К. Elevator Emergency to Normal Pre-Signal: Provide selective load disconnect control contacts capable of sending a pre-transfer and post-transfer signal to disconnect elevator controls prior to transfer and reset after transfer is complete. Contacts shall have an adjustable advance interval of 0.5 to 60 seconds and shall be independently adjustable in the emergency and normal transfer directions.
- L. Communications Interface: Provide serial and Ethernet communication module for interface with building automation system.
- M. Power Monitoring: Provide a microprocessor-based power monitor with user interface to record and display the following parameters:
 - 1. Voltage (line-to-line and line-to-neutral).
 - 2. Frequency.
 - 3. Current.
 - 4. Real and reactive power.
 - 5. Power factor.
- N. Surge Protection: Provide integral surge protection device providing load side protection. Provide protection for each phase and neutral. Coordinate system voltage configuration with Drawings.
- О. Transfer Inhibit: Provide a remote means to inhibit power transfer in either direction.

2.8 FINISHES

Enclosures: Manufacturer's standard enamel over corrosion-resistant pretreatment and Α. primer.

2.9 SOURCE QUALITY CONTROL

Factory test and inspect components, assembled switches, and associated equipment. Ensure Α. proper operation. Check transfer time and voltage, frequency, and time-delay settings for compliance with specified requirements.

PART 3 - EXECUTION

- 3.1 INSTALLATION
 - Α. Floor-Mounting Switch: Anchor to floor by bolting.
 - 1. Concrete Bases: Install transfer switches on cast-in-place concrete equipment base. Unless otherwise noted, cast-in-place concrete base shall be 4" deep and extend 4" beyond equipment outer edge.

- C. Set field-adjustable intervals and delays, relays, and engine exerciser clock.
- D. Provide wiring to elevator controller for emergency source mode and emergency to normal pre-signal.
- E. Provide self-adhesive vinyl label indicating the short circuit current rating of the transfer switch based on overcurrent protective device type and settings. Label shall be installed on the exterior of the transfer switch.
- F. Comply with Level 1 equipment according to NFPA 110.

3.2 CONNECTIONS

A. Wiring to Remote Components: Match type and number of cables and conductors to control and communication requirements of transfer switches as recommended by manufacturer. Increase raceway sizes at no additional cost to Owner if necessary to accommodate required wiring.

3.3 FIELD QUALITY CONTROL

- A. Perform tests and inspections and prepare test reports.
 - 1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installation, including connections, and to assist in testing.
 - 2. After installing equipment and after electrical circuitry has been energized, test for compliance with requirements.
 - 3. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
 - 4. Measure insulation resistance phase-to-phase and phase-to-ground with insulationresistance tester. Include external annunciation and control circuits. Use test voltages and procedure recommended by manufacturer. Comply with manufacturer's specified minimum resistance.
 - a. Check for electrical continuity of circuits and for short circuits.
 - b. Inspect for physical damage, proper installation and connection, and integrity of barriers, covers, and safety features.
 - c. Verify that manual transfer warnings are properly placed.
 - d. Perform manual transfer operation.
 - 5. After energizing circuits, demonstrate interlocking sequence and operational function for each switch at least three (3) times.

- a. Simulate power failures of normal source to automatic transfer switches and of emergency source with normal source available.
- b. Simulate loss of phase-to-ground voltage for each phase of normal source.
- c. Verify time-delay settings.
- d. Verify pickup and dropout voltages by data readout or inspection of control settings.
- e. Verify proper sequence and correct timing of automatic engine starting, transfer time delay, retransfer time delay on restoration of normal power, and engine cool-down and shutdown.
- B. Coordinate tests with tests of generator and run them concurrently.
- C. Report results of tests and inspections in writing. Record adjustable relay settings and measured insulation and contact resistances and time delays. Attach a label or tag to each tested component indicating satisfactory completion of tests.
- D. Remove and replace malfunctioning units and retest as specified above.

3.4 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain transfer switches and related equipment as specified below. Refer to Division 01 Section "Demonstration and Training." Provide a minimum of four (4) hours of instruction scheduled seven (7) days in advance.
- B. Coordinate this training with that for generator equipment.

END OF SECTION 263600









KPL - Ceiling Framing Plan SHEET NUMBER SK101

SET DESCRIPTION

BID SET

SHEET TITLE



ELECTRICAL SITE PLAN NOTES:

- LOCAL POWER COMPANY TO PROVIDE COMPLETE NEW ELECTRICAL SERVICE. ELECTRICAL CONTRACTOR SHALL PAY ALL FEES AND OTHER COSTS NOT BORNE BY THE LOCAL TELEPHONE COMPANY TO PROVIDE COMPLETE NEW TELEPHONE SERVICE. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING OR REMOVING ANY OR ALL
- EXISTING SERVICES, POLES, ETC. (ELECTRIC, TELEPHONE, CABLE TV) AS MAY BE REQUIRED TO ACCOMMODATE ANY NEW CONSTRUCTION, UNLESS OTHERWISE NOTED, AND SHALL INCLUDE ALL FEES FOR SUCH WORK IN THEIR BID.
- ELECTRICAL CONTRACTOR SHALL BACKFILL THE EXCAVATION FOR ALL CONDUIT RUNS UNDER SIDEWALKS AND PAVED AREAS WITH BANK RUN GRAVEL OR SAND. ALL WORK SHOWN ON THIS SHEET IS NEW AND BY THE ELECTRICAL CONTRACTOR, UNLESS
- POLE BASES ARE TO BE LOCATED 3'-0" BEHIND CURBS, AS MEASURED TO THE CENTER OF THE POLE BASE, FROM PARKING AREAS UNLESS OTHERWISE NOTED.
- LOCATE ALL UNDERGROUND UTILITIES PRIOR TO DIGGING. HAND DIG AS REQUIRED.

Site Plan Notes

- S1 PROVIDE NEW SITE LIGHT POLE AND CONCRETE POLE BASE. REFER TO POLE BASE DETAIL A DETAIL 1 ON SHEET EK500. REFER TO SITE LUMINAIRE SCHEDULE ON SHEET E600. S2 #10 AWG CONDUCTORS IN 1-1/4" TYPE RNC CONDUIT DIRECT BURIED AT 36" BELOW FINISHED
- S3 INTERCEPT AND CIRCUIT NEW LIGHT POLES TO EXISTING SITE LIGHTING CIRCUIT. DIRECTIONAL BORE UNDER ALL EXISTING PAVEMENT AND CONCRETE SIDEWALKS. TRENCHING IS ALLOWED IN
- EXISTING YARD AREA, BUT SHALL BE PATCHED TO MATCH EXISTING SURROUNDING AREAS. S4 INSTALL NEW LIGHT FIXTURE ON EXISTING LIGHT POLES. CONNECT NEW FIXTURE TO EXISTING
- S5 ALTERNATE #3a/3b: PROVIDE AND INSTALL GENERATOR AND TRANSFER SWITCH PER ELECTRICAL ONE-LINE DIAGRAM AND SPECIFICATIONS. COORDINATE EXACT LOCATION OF GENERATOR WITH
- S6 INTERCEPT EXISTING UNDERGROUND SERVICE FEEDERS. CUT ASPHALT AND CONCRETE AND PATCH AS REQUIRED. ROUTE NEW FEEDERS TO NEW ATS AND BACK TO MDP. EC SHALL LOCATE ALL UTILITIES BOTH PUBLIC AND PRIVATE PRIOR TO DIGGING. EC SHALL COORDINATE ANY

SHEET TITLE Electrical Site Plan

SET DESCRIPTION BID SET

J

	Lavatory & Sink Schedule																
				Fixtur	e					Faucet				Fau	icet		
_					Hole Spacing									_			
Tag	Description	Mfr.	Model	Hole Qty	(ln.)	Color	Mounting Type	Mfr.	Model	Construction	Flow (GPM)	Handles	TMV	Power	Finish	Drain Type	Notes
L-1H	RESTROOM - RECTANGULAR	AMERICAN STANDARD	0355.012	3	4	WHITE	WALL	AMERICAN STANDARD	605B215	CAST BRASS	0.5	<varies></varies>	1070_TMV	120 V	CHROME	GRID	<varies></varies>
L-2H	RESTROOM - RECTANGULAR	KOHLER	K-200000	-	-	WHITE	UNDERMOUNT	AMERICAN STANDARD	605B215	CAST BRASS	0.5	-	1070_TMV	120 V	CHROME	GRID	2,3,5,6,11,13
LT-1	KPL - MAINTENANCE	FIAT	FL-1	2	4	WHITE	FLOOR/LEGS	FIAT	A-1	CAST BRASS	2	TWO LEVER	-	MANUAL	CHROME	BASKET	
S-1	KPL - TEEN ROOM	ELKAY	ELUHAD211555	-	-	STAINLESS	UNDERMOUNT	DELTA	LENTA	CAST BRASS	1.8	WRIST	-	MANUAL	CHROME	BASKET	3,4,7,9,10
S-2	KPL - LACTATION ROOM	ELKAY	ELUHAD121255	-	-	STAINLESS	UNDERMOUNT	DELTA	LENTA	CAST BRASS	1.8	WRIST	-	MANUAL	CHROME	BASKET	3,4,7,9,10
S-3	LIMB - BREAK ROOM	ELKAY	LRAD221955	1	-	STAINLESS	DROP IN	DELTA	LENTA	CAST BRASS	1.8	WRIST	-	MANUAL	CHROME	BASKET	3,4,7,9,10,12

NOTES: 1. SEE ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS. 2. 1 1/4" CHROME, CAST BRASS, ADJUSTABLE "P" TRAP, CLEANOUT PLUG, TAPPED OUTLET FOR I.P.

3. 3/8" I.P.S. ANGLE SUPPLIES WITH LOOSE KEY STOPS AND ANNEALED VERTICAL TUBES. 4. 1 1/2" CHROME, CAST BRASS, ADJUSTABLE "P" TRAP, CLEANOUT PLUG, TAPPED OUTLET FOR I.P.

5. OFFSET DRAIN FOR WHEELCHAIRS. 6. TRUEBRO LAV GUARD2 FAST FIT UNDERSINK PIPING COVERS.

7. SINGLE LEVER FAUCET SHALL HAVE HOT LIMIT SAFETY STOP AND BRAIDED FLEXIBLE SUPPLY HOSES. 8. FLOOR-MOUNT, CONCEALED ARMS LAV CARRIER - JOSAM 17100 SERIES.

9. ELKAY LK35 STAINLESS STEEL STRAINER WITH METAL STEM AND RUBBER STOPPER. 10. SINK FAUCET HAS PULL-OUT SPRAYER. 11. SENSOR FAUCET SHALL HAVE INTEGRATED ADJUSTABLE MIXER.

12. IN-SINK-ERATOR "EVOLUTION ESSENTIAL" SERIES DISPOSER, 3/4 HP, 8.1 AMPS. 13. PROVIDE HARD WIRED TRANSFORMER FOR AUTOMATIC FAUCET.

					Wa	ater Clos	et & Urinal S	chedule						
				Fixture)				Flush V	alve				
Tag	Description	Mfr.	Model	Mount	Spud Size	GPF	Action Type	Mfr.	Model	Power	Valve Type	GPF	Carrier	Notes
UR-1	WALL MOUNT URINAL	AMERICAN STANDARD	6590.001	WALL	3/4"	0.125-1.0	WASHOUT	ZURN	ZEMS6003AV-IS	7.6VDC	DIAPHRAGM	0.125	ZURN Z1200 SERIES	1,3,4,8
WC-1H	WALL MOUNT ADA WATER CLOSET	AMERICAN STANDARD	2257.101	WALL HUNG	1 1/2"	1.1-1.6	SIPHON JET	ZURN	ZEMS6000AV-IS	7.6VDC	DIAPHRAGM	1.28	ZURN Z1200 SERIES	1,3,5,6,8
WC-2	WALL MOUNT WATER CLOSET	AMERICAN STANDARD	2257.101	WALL HUNG	1 1/2"	1.1-1.6	SIPHON JET	ZURN	ZEMS6000AV-IS	7.6VDC	DIAPHRAGM	1.28	ZURN Z1200 SERIES	1,3,5,6,8
WC-3	FLOOR MOUNT CHILD HEIGHT WATER CLOSET	AMERICAN STANDARD	2282.001	FLOOR	1 1/2"	1.28-1.6	SIPHON JET	ZURN	ZEMS6000AV-IS	7.6VDC	DIAPHRAGM	1.28	ZURN Z1200 SERIES	2,3,7,8
WC-4	FLOOR MOUNT ADA WATER CLOSET	AMERICAN STANDARD	204BA.104	FLOOR	-	1.28	SIPHON JET	-	-	-	-	-	-	6
WC-5H	FLOOR MOUNT WATER CLOSET	AMERICAN STANDARD	204BA.104	FLOOR	-	1.28	SIPHON JET	-	-	-	-	-	-	6

NOTES: 1. SEE ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS. 2. CHILDREN HEIGHT WATER CLOSET.

3. AC FLUSH VALVE: QUIET, EXPOSED DIAPHRAGM TYPE, AC POWERED INFRARED SENSOR MOUNTED IN WALL, MECHANICAL OVERRIDE FLUSH BUTTON. 4. URINAL CARRIER: FLOOR MOUNT HANGER PLATE, ADJUSTABLE SUPPORTING RODS, STRUCTURAL UPRIGHTS AND WELDED FEET. WATER CLOSET CARRIER: 4" NO-HUB OUTLET, 2" VENT, ADJUSTABLE BODY, ADJUSTABLE FLOOR MOUNTED FOOT SUPPORTS, PLATED HARDWARE AND NEOPRENE GASKET.
 SEAT: CHURCH MODEL #255SSC ELONGATED, OPEN FRONT, STAINLESS STEEL POSTS, CHECK HINGE.

7. SEAT: CHURCH MODEL #1580C ELONGATED, OPEN FRONT CHILDREN SIZED SEAT. 8. PROVIDE HARD WIRED TRANSFORMER FOR AUTOMATIC FLUSH VALVE.

Lavatory & Sink Schodula

Domestic Water Softener Schedule

		Max. Removal		Flow Rates			Tank	Size		Electrical		1
		Capacity			Backwash							1
	Model	(Grains)	Cont. (GPM)	Peak (GPM)	(GPM)	Resin (Ft³)	Softener (In.)	Brine (In.)	Voltage	Phase	Freq.	Notes
GAN	CTM-60	60000	51 @ 15PSI	69 @ 25PSI	3.5	2	14DIA x 47H	24DIA x 40H	120	1	60	1-6

1. SINGLE RESIN TANKS WITH EXTERNAL CONTROL VALVE MANIFOLD.

COORDINATE WITH ELECTRICAL FOR DEDICATED OUTLET/POWER.

4. NOT USED. 5. PROVIDE WITH CULLIGAN CHEMICAL FEED SYSTEM FOR CHLORINE DISINFECTION. 6. PROVIDE WITH CARBON FILTER DOWNSTREAM OF CHEMICAL FEED SYSTEM TO REMOVE EXCESS CHLORINE.

Backflow Preventer Schedule

Tag	Туре	Mfr.	Model	Size	Performance	Strainer	Valves	Use	Notes
BFP-1	REDUCED PRESSURE PRINCIPLE	ZURN	975XL2	1"	10 GPM @ 11PSI LOSS	Yes	BALL	KPL - MAINTENANCE BUILDING	1-3
NOTES: 1. PROVIDE \	WITH TOP MOUNTED TEST COCKS.								

2. PROVIDE WITH QUARTER TURN BALL VALVES AND LEAD-FREE "Y" STRAINER. 3. PROVIDE WITH MANUFACTURER RECOMMENDED AIR GAP DEVICE FOR ROUTING SPILLAGE TO DRAIN.

	Domestic Water Heater Accessories - Expansion Tank Schedule											
Notes	Weight (Lbs.)	Precharged Pressure (PSI)	Max. Working Pressure (PSI)	Accept. Volume (Gal.)	Tank Volume (Gal.)	Туре	Model	Mfr.	Tag			
1,2	10	55	150	0.9	2.0	IN-LINE	ST-5C-DD	AMTROL	DET-1			
-	10	55	150	0.9	2.0	IN-LINE	ST-5C-DD	AMTROL S:	DET-1			

2. PROVIDE PRESSURE AND TEMPERATURE ASME RELIEF VALVE.

		Ele	ctric Wat	er Heate	er Schedu	ule			
			Capacity	Recovery	Power Input		Electrical		
Tag	Mfr.	Model	(Gal.)	(GPH)	(W) ·	Voltage	Phase	Freq.	Notes
EWH-1	BRADFORD WHITE	LE16U3-1	6	6	1500	120	1	60	1-6
NOTES:									

1. GLASS LINED TANK WITH ANODE RODS. 2. 1" SIDE DRAIN OUTLET ROUTED TO NEAREST FLOOR DRAIN.

NOTES:

3. PROVIDE WALL MOUNTING BRACKET. (~33 LB UNIT) 4. CORROSION RESISTANT QUARTER-TURN DRAIN VÁLVE.

5. AUTOMATIC THERMOSTAT WITH OVER-TEMPERATURE PROTECTOR. 6. TEMPERATURE AND PRESSURE RELIEF VALVE.

			Oil/San	d Inter	ceptor	Schedu	le		
					Capacity		Inlet / Oulet		
Tag	Mfr.	Model	Max. Flow Rate (GPM)	Liquid (Gal.)	Oil (Gal.)	Sand (Gal.)	Size (In.)	Weight (Lbs.)	Notes
OS-1	STRIEM	OS-75	75	110	93	11	4/4	188	1,2,3
NOTES	¢.								

NOTES: 1. INSTALL BELOW GRADE WITH RISER FOR EXTENDING COVER FLUSH WITH GRADE. 2. GAS/WATER TIGHT COMPOSITE COVER. 3. SEAMLESS MOLDED POLYETHYLENE TANK.

			Sanitary D	Drain Scl	nedule		
Тад	Mfr.	Model	Body Type	Deep Seal Trap	Cover Size (In.)	Description	Notes
FD-1	ZURN	Z415B	DURA-COATED CAST IRON	YES	5	ROUND FLOOR DRAIN	1

1. FLOOR DRAIN, BOTTOM OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS AND 'TYPE B' ROUND, POLISHED NICKEL BRONZE STRAINER, NO-HUB OUTLET.

Tag	Mfr.	Model	Body Type	Description	Notes
CO-1	ZURN	Z1446	DURA COATED CAST IRON	CLEANOUT TEE WITH COVER	2
CO-2	ZURN	Z1400	DURA COATED CAST IRON	FLOOR CLEANOUT	1

FLOOR CLEANOUT BODY WITH GAS AND WATER TIGHT ABS TAPERED THREAD PLUG AND ROUND SCORIATED SECURED TOP ADJUSTABLE TO FINISHED FLOOR. 2. CLEANOUT WITH WALL ACCESS COVER, TAPERED THREADED PLUG AND ROUND,

SMOOTH STAINLESS STEEL WALL ACCESS COVER WITH SECURING SCREW.

BID SET

SET DESCRIPTION

SHEET TITLE **Electrical Details**

SHEET NUMBER

E501

	ICLE			CATIONS	
		C	ABLE	TO TERMINAL	CONNECTOR
	OUTLET ID	TYPE	QUANTITY	BOARD NUMBER	DESIGNATION(S)
K126	a,b	DATA	2	SERVER RM. K177	K126-A, K126-B
K126	c,d	DATA	2	SERVER RM. K177	K126-C, K126-D
K126		DATA	2	SERVER RM. K177	K126-E, K126-F
K121	ab		2		K121 A K121 P
K131	a,b		2	SERVER RIVI. K177	K131-A, K131-D
K151	c,u		2		R131-0, R131-D
K132	a,b	DATA	2	SERVER RM. K177	K132-A, K132-B
K132	c,d	DATA	2	SERVER RM. K177	K132-C, K132-D
K135	a,b	DATA	2	SERVER RM. K177	K135-A, K135-B
K135	c,d,e,f	DATA	2	SERVER RM. K177	K135-C, K135-D,
					K135-E, K135-F
K139	a,b	DATA	2	SERVER RM. K177	K139-A, K139-B
K139	c,d	DATA	2	SERVER RM. K177	K139-C, K139-D
K142	a,b	DATA	2	SERVER RM. K177	K142-A, K142-B
K146	a,b	DATA	2	SERVER RM. K177	K146-A, K146-B
K146	c,d	DATA	2	SERVER RM. K177	K146-C, K146-D
K149	a,b	DATA	2	SERVER RM. K177	K149-A, K149-B
K149	c,d	DATA	2	SERVER RM. K177	K149-C, K149-D
K151	2 h		2	SEDVED DM K177	K151_A K151_B
K151	a,b c.d		2	SERVER RM K177	K151-A, K151-D
	0,0	BRIT	£		
K153	a,b	DATA	2	SERVER RM. K177	K153-A, K153-B
K154	ab	ΠΔΤΔ	2	SERVER RM K177	K154-A K154-B
K154	c.d	DATA	2	SERVER RM. K177	K154-C, K154-D
	0,0				
K181	a,b	DATA	2	SERVER RM. K177	K181-A, K181-B
K181	c,d	DATA	2	SERVER RM. K177	K181-C, K181-D
				I	

NEW	TELE	COMMUNI	CATIONS	S WIRING	SCHEDULE

		Exit/Emergency Luminaire Schedule																			
	Туре	Mount	\sim	Fixture Descripti	pm ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	$\rightarrow \rightarrow$			$\gamma\gamma$	Wattage		\sim	\sim	Basisor	Dasign		$\gamma\gamma$		Approved	App Manuf	iroved
ς	EM1	WALL	THERMOPLASTIC EM	ERGENCY UNIT W	VITH ADJUSTABLE		LED head	is Included		3 VA	LI	THONIA EL	_M2L SDR	Т				DUAL	-LITE	SURE-LITE	S
<u>ـ</u> ۲	ىر كىر	n n n	LAMPS: SELF-DIAGN	OSTIC/SELF TEST	i n n n	\mathbf{M}	M M M	~~~~	m m	m m	$\mathbf{\lambda}$	n n	ر لمر		n n	م لهر	くし	بر بابر	\mathbf{v}	ممريكم	سم
	EX1	SURFACE	EXIT LIGHT; WHITE TI	HERMOPLASTIC V	WITH GREEN LETTER	S;	LED	(INCL)		2 VA		THONIA LO	$\widetilde{M} \otimes \widetilde{W} \otimes$	G 120/277 I	ELN SD		\sim	DUAL	-LITE 🗸 🗸	SURE-LITE	is C
			UNIVERSAL VOLTAGE	E; 1 OR 2 FACES F	PER PLANS; NI-CAD																
			BATTERY WITH SELF	-TEST.																	

	Site Luminaire Schedule										
Туре	Mount	Description	Lamp	Total Wattage	Pole Base Detail	Basis of Design	Approved Manufacturer 1	Approved Manufacturer 2			
S01	POLE	Architectural Square Site Luminaire. Extruded aluminum housing. Type [II] optics; Arm mount. Existing pole. Coordinate mounting of fixture with existing pole. Match fixture color to pole color.	LED; 17,600 Lumens Initial; 4000°K; 68CRI.	167 VA	EXISTING POLE	LITHONIA DSX1 LED P6 40K 80CRI T2M MVOLT SPA DDBXD	COLUMBIA	METALUX			
S02	POLE	Architectural Square Site Luminaire. Extruded aluminum housing. Type [III] optics; Arm mount. Existing pole. Coordinate mounting of fixture with existing pole. Match fixture color to pole color.	LED; 17,600 Lumens Initial; 4000°K; 68CRI.	334 VA	EXISTING POLE	LITHONIA DSX1 LED P6 40K 80CRI T3M MVOLT SPA DDBXD - 2 HEADS ON EACH POLE	COLUMBIA	METALUX			
S03	POLE	Architectural Square Site Luminaire. Extruded aluminum housing. Type [II] optics; Arm mount. New 4" square straight aluminum pole. Match fixture color to pole color.	LED; 17,600 Lumens Initial; 4000°K; 68CRI.	167 VA	A	LITHONIA DSX1 LED P6 40K 80CRI T2M MVOLT SPA DDBXD WITH NEW POLE	COLUMBIA	METALUX			

<u>Remodel/Demolition Notes</u>

- REMODEL/DEMOLITION NOTES APPLY TO ALL ELECTRICAL SHEETS: REMOVE ABANDONED WIRE COMPLETELY TO ITS SOURCE UNLESS NOTED
- OTHERWISE. REMOVE ABANDONED RACEWAY WITHIN THE PROJECT AREA AND CAP STUBS THAT REMAIN. SEAL PENETRATIONS THROUGH FLOORS AND WALLS. REMOVE ABANDONED JUNCTION OR OUTLET BOXES IN WALLS, FLOORS, OR CEILINGS • THAT ARE TO BE DEMOLISHED.
- REMOVE ELECTRICAL OUTLETS, DEVICES, AND RACEWAYS FROM WALLS THAT ARE • TO BE REMOVED. REMOVE ALL ABANDONED COMMUNICATION CABLING PER NEC 800.25. •
- REMOVE FLOOR MOUNTED SURFACE RACEWAYS. EXISTING EQUIPMENT THAT REMAINS IS INTENDED TO BE OPERATIONAL AT THE • COMPLETION OF THE JOB. RECIRCUIT WHERE NECESSARY TO ENSURE THIS CONTINUED OPERATION.
- OWNER MAY SALVAGE ITEMS SUCH AS LIGHT FIXTURES, DEVICES, RACEWAYS, ETC. • TO BE REMOVED. PROPERLY DISPOSE OF OFF SITE ITEMS NOT SALVAGED BY OWNER. THE EXISTING EQUIPMENT SHOWN ON THE DRAWINGS IS BELIEVED TO BE A •
- REASONABLE INDICATION OF THE PRESENT LAYOUT. DETERMINE EXACT QUANTITY AND LOCATION AT THE JOB SITE. THE EXISTING DRAWINGS ARE FOR CONVENIENCE ONLY AND NOT FOR THE BASIS OF BIDDING.
- SWITCHES AND RECEPTACLES WITHIN THE REMODELED AREA THAT ARE TO REMAIN SHALL BE REPLACED WITH THE SPECIFIED DEVICES AND PLATES. WHERE EXISTING DEVICES ARE REMOVED, PATCH WALL. DO NOT INSTALL COVER
- PLATES TO COVER OPENING. VERIFY ALL DEMOLITION WORK PRIOR TO SUBMITTING A BID/PROPOSAL. DETERMINE AND MAINTAIN TRANSIENT SERVICES THROUGH PROJECT AREA AS
- REQUIRED. SOME REQUIRED DEMOLITION WORK MAY NOT BE INDICATED ON THESE DRAWINGS. • EXISTING RACEWAYS AND BOXES MAY BE REUSED WHERE FOUND TO BE SUITABLE. ٠
- PROVIDE EXTENSION RINGS WHERE REQUIRED TO BE COMPATIBLE WITH NEW BUILDING FINISHES. PROVIDE BLANK COVER MATCHING OTHER DEVICE PLATES ON UNUSED DEVICE BOXES THAT REMAIN.
- INCLUDE IN BID/PROPOSAL COSTS FOR CUTTING AND PATCHING AS REQUIRED TO • INSTALL NEW OR EXISTING WORK, EQUIPMENT, OR SYSTEMS. CIRCUIT NUMBERS SHOWN FOR EXISTING PANELS ARE BASED ON EXISTING • DRAWINGS, SCHEDULES, AND FIELD SURVEY. FIELD VERIFY AS REQUIRED.

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REMARKS
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N POKE-THRU UNIT

IN POKE-THRU UNIT

N FLOOR BOX UNIT

- IN FLOOR BOX UNIT IN FLOOR BOX UNIT IN FLOOR BOX UNIT
- IN FLOOR BOX UNIT
- IN FLOOR BOX UNIT

ALL EQUIPMENT SHOWN ON THIS SHEET IS EXISTING. REMOVE ALL DEVICES ON WALLS TO BE DEMO'D. DASHED LINES INDICATE EXISTING EQUIPMENT TO BE REMOVED. SOLID LINES INDICATE EXISTING EQUIPMENT TO REMAIN.

EXISTING EQUIPMENT THAT IS TO REMAIN IS INTENDED TO BE OPERATIONAL AT THE COMPLETION OF THE PROJECT. RECIRCUIT WHERE NECESSARY TO INSURE CONTINUED OPERATION.

EXISTING EQUIPMENT SHOWN ON DRAWINGS IS BELIEVED TO BE A REASONABLE INDICATION OF THE EXISTING LAYOUT. EXACT QUANTITY AND LOCATION SHALL BE DETERMINED AT THE JOB SITE. THE EXISTING DRAWINGS ARE FOR CONVENIENCE ONLY AND NOT FOR THE BASIS OF BIDDING.

G	eneral Electrical Notes	Electrical Symbol Schedule							
GEN	ERAL NOTES - APPLY TO ALL ELECTRICAL SHEETS:								
•	INSTALLATIONS SHALL CONFORM WITH FEDERAL, STATE, AND LOCAL LAWS,		POWER SYMBOLS		LIGHTING SYMBOLS				
	PART OF THESE CONTRACT DOCUMENTS THE SAME AS IF REPEATED HEREIN.		PANELBOARD; SEE SCHEDULE FOR DETAILS	• –					
•	CONTRACTOR SHALL INCLUDE IN BID/PROPOSAL COST REQUIRED TO		VARIABLE FREQUENCY DRIVE	0					
•	CONTRACTOR SHALL INCLUDE IN BID/PROPOSAL COST FOR CUTTING AND		COMBINATION STARTER; SEE SCHEDULE FOR DETAILS	\oslash	- LIGHT FIXTURES: SEE SCHEDUI E FOR DETAILS				
	PATCHING AS REQUIRED TO INSTALL NEW OR EXISTING WORK, EQUIPMENT OR SYSTEMS.		NONFUSED DISCONNECT; SEE SCHEDULE FOR DETAILS						
•	CLEARANCES INDICATED ARE BASED ON BEST AVAILABLE INFORMATION.		FUSED DISCONNECT; SEE SCHEDULE FOR DETAILS						
	DETAILS PRIOR TO SUBMITTING A BID/PROPOSAL AND INCLUDE SUCH COSTS	\$T/P	MANUAL STARTER W/ PILOT & THERMAL	•					
	AS REQUIRED TO INSTALL WORK AS SHOWN AND INTENDED.		DUPLEX RECEPTACLE - EMERGENCY		EMERGENCY LIGHT - WALL MOUNTED				
•	ALL LIGHT FIXTURES INSTALLED IN ACOUSTICAL TILE SHALL BE ON ONE FOOT				UNIVERSAL MOUNT EXIT SIGN - SINGLE FACE				
	MODULE. FIXTURES INSTALLED IN GRID CEILING SHALL BE EQUIPPED WITH				UNIVERSAL MOUNT EXIT SIGN - DOUBLE FACE				
	ABOVE THE CEILING.								
•	DIMENSIONS SHOWN ON OUTLET BOXES SHALL BE TO THE CENTER OF THE BOX.	↓		¢R					
•	CONDUIT TO LIGHTS IS SHOWN TO INDICATE SWITCHING AND DOES NOT	IG C		⊉а ⊄3					
•	PROVIDE PLASTER RINGS WHERE REQUIRED BY CEILING CONSTRUCTION.			₽					
•	VERIFY LOCATION OF LIGHTS IN ROOMS CONTAINING EXPOSED DUCTWORK	GFI	DUPLEX RECEPTACLE, GROUND FAULT CIRCUIT INTERRUI	φD 5	FOUR-WAY LIGHT SWITCH				
	AND/OR AS DIRECTED BY THE ENGINEER.	WP	DUPLEX RECEPTACLE, WITH WEATHER PROOF IN-USE COVER	¢к Э_					
•	CONTRACTOR SHALL THOROUGHLY EXAMINE THE WORK OF OTHER CONTRACTORS PRIOR TO SUBMITTING A BID/PROPOSAL		SPECIAL RECEPTACLE: SEE DRAWINGS) ` ∕m	KEY OPERATED SWITCH				
•	CONTRACTOR SHALL COORDINATE AND ASSURE THAT NO PIPING, DUCTS, OR	(J)	JUNCTION BOX	\$''' ¢\\v	MOMENTARY SWITCH				
	EQUIPMENT FOREIGN TO ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN, EITHER, OR PASS THROUGH ELECTRICAL SPACES OR ROOMS PER NEC			\$∟v ¢⊡	LOW VOLTAGE SWITCH				
	ARTICLE 408.			\$P	SINGLE POLE SWITCH WITH PILOT LIGHT				
•	WITH THE OWNER.			\$os	WALL MOUNTED OCCUPANCY SENSOR				
•	WHEREAS PLANS GENERALLY SHOW INDIVIDUAL HOME RUN SINGLE PHASE BRANCH CIRCUITS, CONTRACTOR MAY RUN UP TO THREE (3) SUCH CIRCUITS IN		FIRE ALARM SYMBOLS	OS	CEILING MOUNTED OCCUPANCY SENSOR				
	A RACEWAY.	FACP	FIRE ALARM CONTROL PANEL		COMMUNICATION SYMBOLS				
•	WIRE SIZES: BRANCH CIRCUIT WIRE SIZES SHALL BE BASED ON THE VALUES INDICATED BELOW	FAA	FIRE ALARM ANNUNCIATOR PANEL	A					
	1. 120/208V CABLING FROM PANEL TO THE ELECTRICAL LOAD SHALL BE	F	MANUAL PULL STATION						
	ADJUSTED AS FOLLOWS UNLESS SPECIFICALLY NOTED OTHERWISE. A. 0 TO 100FT: #12AWG MINIMUM		FIRE ALARM SPEAKER/STROBE - WALL MOUNTED		WIRELESS ACCESS POINT				
	B. 100 TO 200FT: #10AWG MINIMUM		FIRE ALARM HORN/STROBE - WALL MOUNTED		COMMUNICATIONS OUTLET FLOOR BOX; 1" C TO ABOVE CEILING				
	2. 277/480V CABLING FROM PANEL TO THE ELECTRICAL LOAD SHALL BE	Ж	FIRE ALARM STROBE - WALL MOUNTED	$\Phi_{\mathbf{v}}$	CEILING MOUNTED PROJECTOR PLATE				
	ADJUSTED AS FOLLOWS UNLESS SPECIFICALLY NOTED OTHERWISE.		SMOKE DETECTOR - DUCT MOUNTED	Ô	CEILING MOUNTED CLOCK				
	B. 150 TO 250FT: #10AWG MINIMUM	(SD)	SMOKE DETECTOR - CEILING MOUNTED	нC	WALL MOUNTED CLOCK				
•	VERIFY TYPES OF CEILING AND DIMENSIONS BEFORE PLACING ORDER FOR		HEAT DETECTOR - CEILING MOUNTED	V	VOLUME CONTROL; MOUNT AT +48" AFF				
•	LIGHT FIXTURES. CIRCLUT NUMBERS SHOWN FOR EXISTING PANELS ARE BASED ON EXISTING			S	CEILING MOUNTED SPEAKER				
-	DRAWINGS, SCHEDULES, AND FIELD SURVEY. FIELD VERIFY AS REQUIRED.	(S) _F	FIRE ALARM SPEAKER - CEILING MOUNTED	Ś	WALL MOUNTED SPEAKER				
•	LIGHT FIXTURES TO BE REUSED SHALL BE CLEANED AND RELAMPED. BALLASTS SHALL BE REPLACED TO MATCH NEW FIXTURES	→ (SD) → M	MOTORIZED SMOKE DAMPER	Ð	INPUT JACK				
•	REFER TO SITE PLAN FOR ADDITIONAL ELECTRICAL WORK.	В	FIRE ALARM BELL		INTERCOM STATION; 'M' INDICATES MASTER STATION				
•	AND BOTH ARE MEANT TO BE COMPLEMENTARY. ANYTHING APPEARING ON	\sim	FLOW DETECTOR						
•	EITHER MUST BE EXECUTED THE SAME AS IF SHOWN ON BOTH.	-0	TAMPER DETECTOR						
•	WORK HOURS. COST FOR PREMIUM TIME SHALL BE INCLUDED IN THE	H	DOOR HOLD OPEN		NURSE CALL SYMBOLS				
•	BID/PROPOSAL. VERIEY LOCATION OF ALL OUTLETS IN FOUIPMENT AND BUILT-IN FURNITURE			–B	CODE BLUE; MOUNT AT +48" AFF				
	WITH EQUIPMENT SUPPLIER PRIOR TO ROUGHING-IN.		SECURITY SYMBOLS		SIDECOM/AUX JACK; MOUNT AT +16" AFF				
•	VERIFY LOCATION OF ALL OUTLETS AT COUNTER TOPS AND CABINETS WITH ARCHITECTURAL ELEVATION DRAWINGS PRIOR TO ROUGHING-IN.	CR	CARD READER		DUTY STATION; MOUNT AT +48" AFF				
•	ALL EXISTING EQUIPMENT THAT IS TO REMAIN IS INTENDED TO BE	ES	DOOR STRIKE	-Æ	EMERGENCY PULL STATION; MOUNT AT +24" AFF				
	RECIRCUIT WHERE NECESSARY TO ENSURE THIS CONTINUED OPERATION.		VIDEO RECORDER	$-\!\!\langle N \rangle$	NURSE STATION CONSOLE; MOUNT AT +16" AFF				
			VIDEO MONITOR	-P	PATIENT BED STATION; MOUNT AT +48" AFF				
				-R	STAFF REGISTRATION STATION; MOUNT AT +48" AFF				
				-(S)	STAFF ASSIST STATION; MOUNT AT +48" AFF				
				-Ø	DOME LIGHT				
					NOTE SYMBOLS				
					ELECTRICAL DEMOLITION PLAN NOTES				
			SECONT I CAMERA IN ENCLOSURE		POWER PLAN NOTES				
				Lx	LIGHTING PLAN NOTES				
		NOT ALL SYM	BOLS MAY BE USED	$\langle Tx \rangle$	TECHNOLOGY PLAN NOTES				

Fixture Description Туре L01 RECESSED SPECIFICATION GRADE RECESSED LENSED TROF FLAT STEEL DOOR; #12 PATTERN ACRYLIC, .125" L02 RECESSED SPECIFICATION GRADE RECESSED LENSED TROF FLUSH STEEL DOOR. #12 PATTERN ACRYLIC LENS, L03 SURFACE WIDE ALUMINUM PROFILE, 1" WIDE CLIPS MAX, 97 DIFFUSED LENSE, WHITE BODY AND END CAP, 24" WHITE 5W/FT LED STRIP L03a SURFACE WIDE ALUMINUM PROFILE, 1" WIDE CLIPS MAX, 97 DIFFUSED LENSE, WHITE BODY AND END CAP, 48" WHITE 5W/FT LED STRIP L04 | RECESSED | 4" WAFER LIGHT LED DOWNLIGHT L05 PENDANT Pendant Lighting Fixture L06 PENDANT Pendant Lighting Fixture L07 SURFACE ALUMINUM HOUSING, LED, CLEAR TEMPERED GL HARWARE, SURFACE MOUNT, REMOTE DRIVER AN BATTERY SHALL BE MOUNTED ABOVE CEILING IN L08 CHAIN STEEL CHANNEL STRIPLIGHT; FROSTED LENS. L09 RECESSED 6" WAFER LIGHT LED DOWNLIGHT L10 SURFACE FLEXIBLE LED LIGHT WITH MOUNTING CLIPS, 160 I BEAM ANGLE, WHITE HOUSING, LESS THAN 1' TAL TOTAL LENGTH. L11 RECESSED HIGH PERFORMANCE 6" APERTURE LINEAR; LENG MEASURED BY CONTRACTOR. FORMED STEEL BOI ACRYLIC LENS. L12 RECESSED 4" OPEN REFLECTOR LED DOWNLIGHT; MATTE-DIF REFLECTOR; DIMMABLE TO 10%. L13 RECESS OWNER PROVIDED LED DOWNLIGHT IS PRESCOLI 12L XFL55 B24 L14 RECESSED HIGH PERFORMANCE 2" APERTURE LINEAR; 4FT. 5 FROSTED ACRYLIC LENS. L15 TRACK 12' BLACK SINGLE CIRCUIT TRACK WITH (6) DIE CA TRACK HEADS 13W HEADS. MOUNT AT 15'-0" AFF. ACCESSORIES REQUIRED FOR INSTALLATION. PH CIRCUIT LIMITER. L16 RECESSED HIGH PERFORMANCE 4" APERTURE LINEAR; LENG MEASURED BY CONTRACTOR. FORMED STEEL BO L17 RECESS GLASS DECORATIVE PENDENT TO BE MOUNTED T CLOUD AT VARIOUS HEIGHTS, INSTALL UNI-STRUT PENDANT High Performance indirect/direct linear luminaire, 32'; ext diffuser up and down; individual dimming - up/down. L19 PENDANT High Performance indirect/direct linear luminaire, 24'; ex diffuser up and down; individual dimming - up/down. L20 PENDANT High Performance indirect/direct linear luminaire, 20'; ex diffuser up and down; individual dimming - up/down. L21 PENDANT High Performance indirect/direct linear luminaire, 12'; ex diffuser up and down; individual dimming - up/down. L22 PENDANT High Performance indirect/direct linear luminaire, 36'; ex diffuser up and down; individual dimming - up/down. L23 PENDANT High Performance indirect/direct linear luminaire, 28'; ex diffuser up and down; individual dimming - up/down. L24 PENDANT High Performance indirect/direct linear luminaire, 40'; ex diffuser up and down; individual dimming - up/down. L25 PENDANT High Performance indirect/direct linear luminaire, 16'; ex diffuser up and down; individual dimming - up/down. L26 WALL 3' WALL MOUNTED ABOVE MIRROR, FROSTED LEN L27 SURFACE FLEXIBLE LED LIGHT WITH MOUNTING CLIPS. 160 BEAM ANGLE, WHITE HOUSING, LESS THAN 1' TAL TOTAL LENGTH. UNDER WALL DECOR L28 SURFACE FLEXIBLE LED LIGHT WITH MOUNTING CLIPS, 160 I BEAM ANGLE, WHITE HOUSING, LESS THAN 1' TALL SURFACE WALL WASH EXTRUDED ALUMINUM 6' LIGHT, SURF L29 ALCOVE, FLUSH LENS L30 RECESS PROVIDE RETROFIT LED DOWNLIGHT IN EXISTING 9000 LUMENS L31 Undercabinet Specification grade, solid front low profile undercabinet Rocker Switch. L32 SURFACE FIELD ASSEMBLED LOW-PROFILE LIGHT WITH DIFFUSED LENS, REMOTE

	Luminaire Sche	edule			
FFER, 1' x 4'; GRID MOUNT;	Light Source Description LED, 4000 LUMENS; 4000°K; 80CRI.	Input Wattage 22 VA	Basis of Design	Approved Manufacturer 1 COLUMBIA	Approved Manufacturer 2 METALUX
FER, 2'X4'; GRID MOUNT.	LED; 5500 LUMENS; 4000°K; 80CRI.	38 VA	LITHONIA STACK 2X4 4000LM 80CRI 40K COLT MIN10 ZT	COLUMBIA	METALUX
7 DEGREE BEAM ANGLE, " IN LENGTH, WITH STATIC	LED; 800 LUMENS; 4000°K; 98CRI.	20 VA	QTL LIGHTING WE1SW 5.0-40-DRY-STD-DF-XX-CON24-CLS-WH-CL2P-SST-WHITE-24"-	COLUMBIA	METALUX
7 DEGREE BEAM ANGLE, " IN LENGTH, WITH STATIC	LED; 1600 LUMENS;4000°K; 98CRI.	40 VA	QTL LIGHTING WE1SW 5.0-40-DRY-STD-DF-XX-CON24-CLS-WH-CL2P-SST-WHITE-48"-	COLUMBIA	METALUX
	800 LUMENS, 4000K, 90CRI, LED	10 VA	LITHONIA WF4 LED 30K40K50K 90CRI MW	COLUMBIA	METALUX
	LED		DAY-O-LITE COML-14-DI-DP-40-3FT-ACM-X-DIM10	COLUMBIA	METALUX
	LED		DAY-O-LITE COML-14-DI-DP-40-4FT-ACM-X-DIM10	COLUMBIA	METALUX
ASS, ALL STAINLESS ND REMOTE EMERGENCY VESTIBULE	4365 Lumens Initial; 4000°K; 90CRI.	45 VA	LUMINS CT100-L2L45-40K-MVOLT-CK-RD10-REM7-BZT	COLUMBIA	METALUX
	LED; 5000 LUMENS; 4000°K; 80CRI.	32 VA	LITHONIA CLX L48 5000LM SEF FDL MVOLT GZ10 40K 80CRI WH		METALUX
DEGREE LIGHT OUTPUT L BY 1/2" WIDE, 26' IN	1200 LUMENS, 4000K, 90CRI, LED 128 LUMENS/FT, 4000K, 90CRI, LED	93 VA	QTL LIGHTING FLR-SW-S-WH-40-90-3.6W/FT-IM-FC-3'-26' total length	COLUMBIA	METALUX
GTHS VARY AND SHALL BE DDY. FLUSH FROSTED	600 LUMENS/FT; 4000°K; 90CRI.	23 VA	MARK ARCHITECTURAL SL6L-LOP-VARIES-RLP-TG-90CRI-40K-600LMF-2DL-S90CRI-S40 K-MIN10-277-WHITE	COLUMBIA	METALUX
FFUSED CLEAR	1500 LUMENS, 4000K, 90CRI, LED	14 VA	LITHONIA EVO4 40/15AR LD MD MVOLT GZ10 TRW 90CRI	COLUMBIA	METALUX
ITE MD8LED 12L 40K 80 8MD	LED; 12000 LUMENS; 4000°K; 80CRI.	0 VA	OWNER PROVIDED LIGHT/EC INSTALLED		
	800 LUMENS/FT; 4000°K; 90CRI.	32 VA	MARK ARCHITECTURAL SL2L-LOP-4FT-RLP-TG-90CRI-40K-800LMF-MIN10-277-WHITE		
AST ALUMINUN BLÁCK INCLUDE ALL IASE DIMMING, INCLUDE 3A	LED; 3358 LUMENS; 4000°K; 80CRI.	78 VA	JUNO TRACK WITH JUNO TRAC LITE 13 W LED CYLINDERS		HALO VIL
GTHS VARY AND SHALL BE DDY. FLUSH FROSTED	932 LUMENS/FT; 4000°K; 90CRI.	0 VA	MARK ARCHITECTURAL SL4L-LOP-VARIES-RLP-TG-90CRI-40K-1000LMF-2DL-S90CRI-S4	COLUMBIA	METALUX
THRU WOOD CEILING T ABOVE FOR SUPPORTING	LED; 635 LUMENS; 4000°K; 80CRI.			COLUMBIA	METALUX
xtruded aluminum: frost white	LED:1000 Lumens Up/ 600 Lumens	48 VA	MARK ARCHITECTURAL		
	Down; 4000°K; 90CRI.	+0 ///	S4PID-LLP-VARIES-MSL8-90CRI-40K-1000LMF-I90CRI-I40K-I600 LMF-BW-SCT-MIN10-FLL-DCF-MVOLT-WHTT-F1/72A-RDCY-WHT CY-WCRD		WE IT LOX
xtruded aluminum; frost white	LED;1000 Lumens Up/ 600 Lumens Down; 4000°K; 90CRI.	48 VA	MARK ARCHITECTURAL S4PID-LLP-VARIES-MSL8-90CRI-40K-1000LMF-I90CRI-I40K-I600 LMF-BW-SCT-MIN10-FLL-DCF-MVOLT-WHTT-F1/72A-RDCY-WHT CY-WCRD	COLUMBIA	METALUX
xtruded aluminum; frost white	LED;1000 Lumens Up/ 600 Lumens Down; 4000°K; 90CRI.	48 VA	MARK ARCHITECTURAL S4PID-LLP-VARIES-MSL8-90CRI-40K-1000LMF-I90CRI-I40K-I600 LMF-BW-SCT-MIN10-FLL-DCF-MVOLT-WHTT-F1/72A-RDCY-WHT CY-WCRD	COLUMBIA	METALUX
xtruded aluminum; frost white	LED;1000 Lumens Up/ 600 Lumens Down; 4000°K; 90CRI.	48 VA	MARK ARCHITECTURAL S4PID-LLP-VARIES-MSL8-90CRI-40K-1000LMF-I90CRI-I40K-I600 LMF-BW-SCT-MIN10-FLL-DCF-MVOLT-WHTT-F1/72A-RDCY-WHT CY-WCRD	COLUMBIA	METALUX
xtruded aluminum; frost white	LED;1000 Lumens Up/ 600 Lumens Down; 4000°K; 90CRI.	48 VA	MARK ARCHITECTURAL S4PID-LLP-VARIES-MSL8-90CRI-40K-1000LMF-I90CRI-I40K-I600 LMF-BW-SCT-MIN10-FLL-DCF-MVOLT-WHTT-F1/72A-RDCY-WHT CY-WCRD	COLUMBIA	METALUX
xtruded aluminum; frost white	LED;1000 Lumens Up/ 600 Lumens Down; 4000°K; 90CRI.	48 VA	MARK ARCHITECTURAL S4PID-LLP-VARIES-MSL8-90CRI-40K-1000LMF-I90CRI-I40K-I600 LMF-BW-SCT-MIN10-FLL-DCF-MVOLT-WHTT-F1/72A-RDCY-WHT CY-WCRD	COLUMBIA	METALUX
xtruded aluminum; frost white	LED;1000 Lumens Up/ 600 Lumens Down; 4000°K; 90CRI.	48 VA	MARK ARCHITECTURAL S4PID-LLP-VARIES-MSL8-90CRI-40K-1000LMF-I90CRI-I40K-I600 LMF-BW-SCT-MIN10-FLL-DCF-MVOLT-WHTT-F1/72A-RDCY-WHT CY-WCRD	COLUMBIA	METALUX
xtruded aluminum; frost white	LED;1000 Lumens Up/ 600 Lumens Down; 4000°K; 90CRI.	48 VA	MARK ARCHITECTURAL S4PID-LLP-VARIES-MSL8-90CRI-40K-1000LMF-I90CRI-I40K-I600 LMF-BW-SCT-MIN10-FLL-DCF-MVOLT-WHTT-F1/72A-RDCY-WHT	COLUMBIA	METALUX
NS.	LED; 1919 LUMENS; 3500°K; 80CRI.	25 VA	LITHONIA FMVTSL 36IN-MVOLT-30K-90CRI BN	COLOMBIA	
DEGREE LIGHT OUTPUT L BY 1/2" WIDE, 15' IN	LED	0 VA	Pette Nettine Fer-SW-9-Wih-40-90-3.6W/F1-IM-FC-3-45 total length	COLUMBIA	METALUX
DEGREE LIGHT OUTPUT L BY 1/2" WIDE, 25' IN	LED	0 VA	QTL LIGHTING FLR-SW-S-WH-40-90-3.6W/FT-IM-FC-3'-25' total		METALUX
				portorio	
	LED; 3600 LUMENS; 3500°K; 90CRI.	30 VA	MARK S1LS LLP 6FT MSL6 90CRI 35K 600LMF WW MIN1 MVOLT WHTT ZT LITHONIA EC SHALL MEASURE AND CONFIRM RETROFIT LED	COLUMBIA	METALUX
light 22 inch nominal longth	LED: 1400 Lumans Initial: 3500°K: 9500L	16.1/4			Fail-Safe MAS Sorias
iigin, 22 iiigin nominai length.		AVOI			I all-Jaie IVIAJ Jeries

QTL LIGHTING THIN ST SST DF 46"

LED; 800 LUMENS; 4000°K; 98CRI.

COLUMBIA

METALUX

SHEET TITLE **Electrical Schedules**

SET DESCRIPTION **BID SET**

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