1.1 PROJECT INFORMATION

A. Project Name: LCCC Crossroads Renovation.
   1. Owner: Laramie County Community College.
   3. Architect Project Number: 11738.001

1.2 NOTICE TO BIDDERS

A. This Addendum is issued to all registered plan holders pursuant to the Instructions to Bidders and Conditions of the Contract.

B. Incorporate the following modifications, corrections, additions and/or deletions into the Drawings, Specifications and Construction Documents issued for this project.

C. This Addendum is dated January 30, 2018 and will be attached to and become part of the Contract Documents dated January 4, 2018 and submitted with the Contract.

D. There have been occasions when the failure of a Contractor to acknowledge receipt of Addenda has cost him/her the award of a Contract. Please acknowledge receipt of this Addendum on the Bid Form.

1.3 CONTRACTOR QUESTIONS

A. Refer to “ATTACHMENTS’ for responses to all contractor questions.

1.4 SUBSTITUTION REQUESTS

A. Insight – PLC series shall be acceptable as a substitute for type “C1” luminaires.

B. Prescolite – LBS series IS NOT an acceptable substitute for “D3” luminaires. Lighting is powered form 277V circuit.

C. Dual-Lite – EVOD series IS NOT an acceptable substitute for “ED” luminaires. Fixture does not have cover. Cut sheet does not indicate actual dimensions of product.

D. Finelite – HP series shall be acceptable as a substitute for type “P2” luminaires.

E. Columbia – LCL series IS NOT an acceptable substitute for “S1” luminaires. Fixture is not within 10% of the operating characteristics specified.

F. Dual-Lite – EVC series shall be acceptable as a substitute for type “X3” luminaires.

G. Bock Lighting – Beretto series shall be acceptable as a substitute for type “L1” luminaires, in regards to electrical characteristics. Confirm aesthetics with Architect prior to submitting bid.
H. Tech Lighting – 700 series shall be acceptable as a substitute for type “L2” luminaires in regards to electrical characteristics. Confirm aesthetics with Architect prior to submitting bid.

I. Plastic Laminate Cabinets Spec Section 064116 – JBD, Inc is an acceptable manufacturer.

1.5 ATTACHMENTS

A. This Addendum includes the following attached Sheets:

1.6 REVISIONS TO DIVISIONS 02-49 SPECIFICATION SECTIONS

A. Revision to Section 095113
   1. Paragraph 2.4.B.10. change size to 24x48 inch.

B. Revision to Section 097723
   1. Omit spec section in its entirety.

C. Revision to Section 262200
   1. CLARIFY: Only General Electric transformers will be considered per Owner Quality standards.

D. Revision to Section 262416
   1. CLARIFY: Only General Electric panelboards will be considered per Owner Quality standards.

E. Revision to Section 283112
   1. ADD: Section 283112 for Fire Detection and Alarm requirements. See Attached.

1.7 REVISIONS TO DRAWING SHEETS

A. Revision to sheet G-101
   1. Revise Plumbing Counts Note No 3.

B. Revision to sheet AD-111
   1. Revise Keynote #14.
   2. Add keynote #17.
   3. Demo existing wallpaper as noted with keynote #17 and extent of dash line. Existing walls are to be skim coated and prepped for new paint.
C. Revision to sheet AD-121
   1. Revise Keynote #6 to the following: “DEMO EXISTING CONCRETE CEILING IN ITS ENTIRETY: RE: DEMO DETAILS.”

D. Addition of sheet A-100
   1. Add sheet to indicate extent of campus buildings and restroom distances.

E. Revision to sheet A-111:
   1. Existing recessed walk off mat to be removed, slab to be filled with self-leveling concrete flush to existing elevation.
   2. Add keynote #6
   3. Window at Specialist’s Office tagged type “A”
   4. Revise wall types at Study Computer Room 110C.

F. Revision to sheet A-121:
   1. (2) Lights at south end of metal grid tagged type “L1”
   2. Ceiling type in restrooms changed to “C-2”
   3. Ceiling types C-2, C-3, C-4 updated

G. Revision to sheet A-141:
   1. Updated carpet and rubber base added to Entries 121, 122 & Corridors 123 & 124.
   2. CPT-1, CPT-2, CPT-3 specs updated
   3. P-4 spec updated

H. Revision to sheet A-150:
   1. Furniture layout updated throughout

I. Revision to sheet A-300:
   1. Revise wall section D1 to demo all existing CMU walls and entire existing concrete ceiling.

J. Revision to sheet A-420:
   1. Locker specs updated: 5 high, CFCI

K. Revision to sheet A-522:
1. Revise details E1 & E3 to demo all existing CMU walls and entire existing concrete ceiling.

L. Revision to sheet A-610:
   1. Revise details A3 & A4 to demo all existing CMU walls and revise stud wall size.

M. Revision to sheet P-001:
   1. Electric instantaneous water heater has been replaced with a point-of-use 6-gal tank electric water heater

N. Revision to sheet P-111:
   1. Graphical change for tank type water heater.

O. Revision to sheet E-121:
   1. Add circuit of convenience receptacles in Study Room #110C. Provide five (5) duplex receptacles and connect to spare breaker in Panel LA, circuit #72. See attached revised plan.
   2. 3-phase disconnect serving EWH-1 changed to single phase fused switch. Circuit shown on plan updated to ‘LA-69’.

P. Revision to sheet E-301:
   1. LIGHTING CONTROL MATRIX: TYPE LC2: Fixtures shall be programmed for automatic ON in lieu of manual ON as shown. See attached revised plan.
   2. LUMINAIRE SCHEDULE: See above for accepted equals.
   3. MECHANICAL EQUIPMENT SCHEDULE: Revised load and means of disconnect for EWH-

Q. Revision to sheet E-302:
   1. PANEL ‘LA’ SCHEDULE: Breaker #72 shall indicate Study Room 110C Receptacles.
   2. PANEL ‘PA’ SCHEDULE: 100/3 breaker for new transformer shall be a new device provided by the contractor. See attached revised plan.
   3. PANEL ‘PA’ SCHEDULE: Breaker #22,24,26 shall be marked as spare.
   4. PANEL ‘LA’ SCHEDULE: Breaker #69 shall indicate EQ - EWH-1.

END OF DOCUMENT 009113.01
<table>
<thead>
<tr>
<th>SHT/SPEC</th>
<th>CTL/Para.</th>
<th>Date</th>
<th>Review Comment</th>
<th>Responsible Party</th>
<th>Responses</th>
<th>Addendum Issuance</th>
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</thead>
<tbody>
<tr>
<td>A-420</td>
<td>D5</td>
<td>1/17/2018</td>
<td>The drawing shows six high and the specs state five high. What should we quote?</td>
<td>HCM</td>
<td>Lockers shall be 5-tier per sec., 5-wide for a total of 15 lockers. &quot;OFI&quot; shall be removed from last note. These lockers shall be provided and installed by the contractor.</td>
<td>Update will be provided in Addendum No.1</td>
</tr>
<tr>
<td>A-111</td>
<td>A1</td>
<td>1/17/2018</td>
<td>Sheet note #1 on AD-121 reads: New ceiling and grid - Sheet note #1 on A-121 reads: New grid, ceiling tiles... However, A-121 Ceiling Type Legend, C-2 calls for New 2x4 ACT, Existing Grid. Please clarify whether the new grid is to be installed or existing grid to be reused.</td>
<td>HCM</td>
<td>Sheet note #1 on sheet AD-121 is correct. On sheet A-121, toilet rooms 113 &amp; 114 shall be changed to ceiling type C-2. On sheet A-121 Ceiling Type Legend shall be updated as follows: C-2 shall be &quot;NEW 2x4 ACT, NEW GRID&quot;, ceiling types C-3 &amp; C-4 shall be omitted.</td>
<td>Update will be provided in Addendum No.1</td>
</tr>
<tr>
<td>AD-121 &amp; A-121 Notes, Legend, A1</td>
<td>1/18/2018</td>
<td>Sheet AD 121 indicates that all existing ACT is to be removed. On sheet A-121 ceiling C2 indicates new 2 X 4 tiles in existing grid.</td>
<td>HCM</td>
<td>See response above</td>
<td>Update will be provided in Addendum No.1</td>
<td></td>
</tr>
<tr>
<td>AD-121 Notes, Legend</td>
<td>1/27/2018</td>
<td>Sheet AD 121 indicates that all existing ACT is to be removed. On sheet A-121 ceiling C2 indicates new 2 X 4 tiles in existing grid.</td>
<td>HCM</td>
<td>The roller shade size shall be 4'-0&quot; x 4'-2&quot; and is only required at the Specialist Office</td>
<td>Update will be provided in Addendum No.1</td>
<td></td>
</tr>
<tr>
<td>General</td>
<td>1/29/2018</td>
<td>After reviewing the documents, it looks like they are requesting just one roller screen shade for one room, the Specialist Office, but they do not provide any sizes for it. There are sizes for four other windows but it does not appear that they need roller screen shades for those.</td>
<td>HCM</td>
<td>The roller shade size shall be 4'-0&quot; x 4'-2&quot; and is only required at the Specialist Office</td>
<td>Update will be provided in Addendum No.1</td>
<td></td>
</tr>
<tr>
<td>Spec 095113 Door Types</td>
<td>1/26/2018</td>
<td>Sheet AD 10 of the drawings call out a type E glass door that is not addressed in the storefront spec section. The storefront section (094113) page 8 under entrance doors calls out as basic-designed Kawneer heavy wall doors. This does not match the glass door that is called out in the drawings. If these are to be glass doors, please provide an All-Glass Entrances spec section calling out all the necessary requirements for this specific project such as glass thickness, patch fittings or door rails, concealed overhead or floor closers etc. The hardware schedule for these openings only list a lock and cylinder.</td>
<td>HCM</td>
<td>Door Type &quot;E&quot; is a demountable partition system with all hardware and accessories provided by manufacturer.</td>
<td>Update will be provided in Addendum No.1</td>
<td></td>
</tr>
<tr>
<td>A-420</td>
<td>D5</td>
<td>1/26/2018</td>
<td>This details on Owner furnished and contractor installed lockers and references the Drawing 10 spec. In the specifications it appears that the contractor is furnishing and installing the lockers. Please confirm who is responsible for furnishing the lockers.</td>
<td>HCM</td>
<td>The locker shall be CFRF</td>
<td>Update will be provided in Addendum No.1</td>
</tr>
<tr>
<td>AD-111 General 19</td>
<td>1/26/2018</td>
<td>Based on past experience this item can vary greatly in cost depending on conditions of existing doors, amount of finish, etc. Would it be possible to consider an allowance for this scope of work so all contractors are bidding the same thing? Or bid doors as new, depending on condition. This may be less expensive and a better end product.</td>
<td>HCM</td>
<td>Only the existing doors that are to remain is applicable to this note.</td>
<td>Update will be provided in Addendum No.1</td>
<td></td>
</tr>
<tr>
<td>AD-121 Room 113/114</td>
<td>1/26/2018</td>
<td>Note 1 has us demolishing ceiling tile and grid. New reflected ceiling plan states to re-use existing grid in the 'Ceiling type legend'. Please confirm which approach is correct.</td>
<td>HCM</td>
<td>This has been updated, see Addendum #1</td>
<td>Update will be provided in Addendum No.1</td>
<td></td>
</tr>
<tr>
<td>E-121 Power</td>
<td>1/26/2018</td>
<td>Demo plan has removing the ceiling and grid. New plan shows existing to remain. Please coordinate.</td>
<td>HCM</td>
<td>This has been updated, see Addendum #1</td>
<td>Update will be provided in Addendum No.1</td>
<td></td>
</tr>
<tr>
<td>E-121 Power</td>
<td>1/26/2018</td>
<td>In locations where new power/data is going on an existing wall is surface mounted conduit acceptable?</td>
<td>HCM</td>
<td>New power/data in existing walls shall be run within wall cavity at all locations possible.</td>
<td>Update will be provided in Addendum No.1</td>
<td></td>
</tr>
<tr>
<td>E-121 Power</td>
<td>1/26/2018</td>
<td>If surface mounted conduit is unacceptable and it must be concealed, please provide a drawing which shows the types of existing walls (gyp/masonry).</td>
<td>HCM</td>
<td>Existing masonry walls are now removed from room 110C so there should not be a need to coordinate with masonry/power locations.</td>
<td>Update will be provided in Addendum No.1</td>
<td></td>
</tr>
<tr>
<td>Division 28 Fire Alarm</td>
<td>1/26/2015</td>
<td>Please confirm the existing slab is on grade in all new floor box locations.</td>
<td>HCM</td>
<td>Correct, existing slab is on grade. No saw cutting is required for electrical boxes locations</td>
<td>Update will be provided in Addendum No.1</td>
<td></td>
</tr>
<tr>
<td>A-141 ACT</td>
<td>1/26/2018</td>
<td>Please confirm that Armstrong #855 is the correct product (1 Hour Rated Panel). The same pattern panel that is non-rated Class A is #856.</td>
<td>HCM</td>
<td>#855 is Owner standard</td>
<td>Update will be provided in Addendum No.1</td>
<td></td>
</tr>
<tr>
<td>Spec 061266 ARW Fabric Wrapped Acoustical Wall Panels</td>
<td>1/26/2018</td>
<td>Fabric Wrapped Acoustical Wall Panels appears in the specifications, but none appear on the drawings. Please remove specification section if not applicable.</td>
<td>HCM</td>
<td></td>
<td>Update will be provided in Addendum No.1</td>
<td></td>
</tr>
<tr>
<td>Spec 062203 2.3.1.a</td>
<td>1/26/2018</td>
<td>Is there an artist the school has in mind for this scope of work? Or an allowance that could be allotted for this scope of work?</td>
<td>HCM</td>
<td>Coordination with local artist will need to be considered following award of bid</td>
<td>Update will be provided in Addendum No.1</td>
<td></td>
</tr>
<tr>
<td>General</td>
<td>1/26/2018</td>
<td>Our vertical wall covering subcontractors are requesting a copy of the intended graphics to be used so they can properly quote their portion of the project. Will this be available prior to the bid date?</td>
<td>HCM</td>
<td>Final graphics have not been selected yet.</td>
<td>Update will be provided in Addendum No.1</td>
<td></td>
</tr>
<tr>
<td>M-001 Mech. Pricing Notes</td>
<td>1/22/2018</td>
<td>Mechanical: Add Alternate #2 Is the intent with the DCC Upgrade (Alt #2) to also replace the valves or will only the actuator be replaced?</td>
<td>HCM</td>
<td>The intent is to maintain the existing control valves and only replace the valve actuators with the DDC Upgrade</td>
<td>Update will be provided in Addendum No.1</td>
<td></td>
</tr>
<tr>
<td>Architectural Wall-Covering</td>
<td>1/22/2018</td>
<td>Please advise of the extent of wall covering area in Room 110C. Is it the intent to have the wall cover extend along the entire west wall of 110C. The arrow indicating WC-1 stops short of the existing window.</td>
<td>HCM</td>
<td>See revised finish plan A-141, wall covering will extend to corner of existing wall.</td>
<td>Update will be provided in Addendum No.1</td>
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<td>SHT/SPC</td>
<td>CTL/Para</td>
<td>Date</td>
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<td>Arch/Notural: Storefront &amp; Demountable Partition</td>
<td>1/22/2018</td>
<td>Please advise if alum storefront F.1, F.2 &amp; F.3 is a component of the Steelcase demountable partition or if it is a standalone system.</td>
<td>HCM</td>
<td>This is a stand-alone system having to consider additional manufacturers listed as an equal.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temp Partitions- Student Access</td>
<td>1/25/2018</td>
<td>During the site walk it was stated that there will need to be temporary partition(s) installed to maintain the corridor between ARP and CCC. Please advise of the temporary partitions construction and locations to maintain public traffic / egress.</td>
<td>HCM</td>
<td>Contractor shall provide standard proper temporary partition to meet safety and access requirements.</td>
<td></td>
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<tr>
<td>Wall Coverings along west wall</td>
<td>1/25/2018</td>
<td>Please advise of the finish along the west wall of room 109, 110a, 110c. Currently the vinyl wall covering is peeling off and ripped. The room finish schedule calls for paint and wall covering (WC-1). If the vinyl is to be removed, please advise any substrate prep.</td>
<td>HCM</td>
<td>Existing wall covering shall be removed and wall surface shall be skim coated for prep of new paint or new wall covering.</td>
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</tr>
<tr>
<td>Flooring replacement for</td>
<td>1/25/2018</td>
<td>With the slab demo that is required for the waste line, please advise of the new floor finish that is to be install in Corridor 111.</td>
<td>HCM</td>
<td>New carpet will be installed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abatement report</td>
<td>1/25/2018</td>
<td>Per note 9 on AD-111 it states “GC to coordinate abatement consultant for any contaminated materials to be removed before work to begin in this area.” Please provide abatement report to obtain a demolition permit by DEQ.</td>
<td>HCM</td>
<td>We do not have access to abatement report.</td>
<td></td>
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</tr>
<tr>
<td>Wood Doors</td>
<td>1/25/2018</td>
<td>Per note 19 on AD-111 it states the sand doors smooth and refinish. Please clarify the doors that are to be refinished. Please also advise if the door hardware will need to be modified or replaced on the refinished doors.</td>
<td>HCM</td>
<td>All existing wood doors that are existing to remain shall be included in this scope. No hardware modifications unless specifically identified.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wyoming Caseworker</td>
<td>1/25/2018</td>
<td>For the casework specfication (064116) there are no Wyoming contractors listed. Please advise of any Wyoming Casework manufacturers that will be qualified on this project.</td>
<td>HCM</td>
<td>See substitution requests.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA 10</td>
<td>1/25/2018</td>
<td>It was stated at the pre-bid that the Project Manager’s OSHA 10 card must be submitted with the bid. These is no reference of this requirement in the bidding documents. Please clarify.</td>
<td>LCCC</td>
<td>A new revised bid will be issued with OSHA 10 requirement.</td>
<td></td>
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</tr>
<tr>
<td>License Plate Wall</td>
<td>1/25/2018</td>
<td>Per Spec section 062023 – 2.3. it calls for contracting with a local artist having 5 years of similar experience with this type of installation. Can an allowance be specified for the art installation?</td>
<td>HCM</td>
<td>Contractor shall bid scope as currently specified and detailed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bid Submission</td>
<td>1/25/2018</td>
<td>Per the Pre-Bid meeting agenda, it states bids are turned in at Room CCC-176, however per section 3 of the invitation to bid it states the bids turn in at Room AM-108 (Page 1 of 24 and AM-104 (page 18 of 24). Please clarify which room the bids turn in at.</td>
<td>LCCC</td>
<td>A new revised bid will be issued with CCC-176 bid opening.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bid Form</td>
<td>1/25/2018</td>
<td>Does the CSI EXHIBIT E need to be submitted at the time of bid. Per Section 5, Exhibit E is not listed in the Required Submittals, however per Section 6 it is listed. A new revised bid will be issued with CSI Division requirement. If Exhibit E is required can it be turned in 24 hours after bid submission. No, CSI is due at time of bid opening. Please advise how the Unit Cost #1 (Slab Cutting and Patching) is to be noted on the bid form. Please advise how the alternates are to be noted on the bid form. Please advise how to list several different subcontractors within one division line item.</td>
<td>LCCC</td>
<td>No, CSI is due at time of bid opening.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Windows</td>
<td>1/25/2018</td>
<td>Per note 4 on AD-111 it states to demo wall and windows. However currently there are no windows in this location. Please clarify note, and provide framing detail for the window attachment to metal framing. Please provide finish detail of half side regarding window installation.</td>
<td>HCM</td>
<td>If referring to keynote #4 near existing Electrical room this note should refer to demo existing partition.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spec Section 064143 Aluminum Entrances and Storefront</td>
<td>1/25/2018</td>
<td>The Project Manual include aluminum entrances and storefront. Specs reference Entry Doors and associated hardware. Please advise of the locations that apply to this spec section.</td>
<td>HCM</td>
<td>Storefront spec is applicable to the single storefront exterior window. Demountable partitions are shown elsewhere at interior space.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demountable Partitions</td>
<td>1/25/2018</td>
<td>The Demountable Partition Specs include door hardware to be included with the partition system, however the Door Schedule calls for hardware groups in the 087100 hardware spec. Please clarify the hardware requirements of the demountable partitions. The hardware list in the demountable partitions references (2) lock cylinders, one calls for Tumbler Type, BHMA 156.5 Grade 1 and the other references spec section 087100. Please clarify.</td>
<td>HCM</td>
<td>All hardware shall be by demountable partition manufacturer. The cores and any other required hardware not already supplied shall be by others.</td>
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</table>
SECTION 283112 – FIRE DETECTION AND ALARM - EXPANSION / REMODEL

PART 1 - GENERAL

1.1 SUMMARY:

A. Drawings indicate general design intent and do not indicate all equipment or devices or the full extent of the System. Provide complete design of the Fire Alarm System for review by local fire authority including layouts and deferred submittals. There is an existing fire control panel installed in the facility. Any references to the existing control operation equipment, etc., are for information on system operation. All existing devices such as call boxes, connections, shall remain as existing U.O.N. on drawings.

B. Provide system component devices compatible with the existing system with changes required for proper operation on the new, upgraded equipment.

C. Provide additions and modifications to existing system suitable for occupancy group as defined by local Authority Having Jurisdiction (AHJ)

1.2 QUALITY ASSURANCE:

A. Manufacturer’s Qualifications: Firms regularly engaged in manufacture of fire alarm systems of types, sizes, and electrical characteristics required, and whose products have been in satisfactory use in similar service for not less than 5 years.

B. Installer’s Qualifications: Firm with at least 5 years of successful installation experience on projects with fire alarm systems work similar to that required for this project.

   1. Firm with manufacturer’s factory trained personnel.
   2. Firm with factory authorized service organization and spare parts stock within 200 miles of the project and with a 24 hour response time.
   3. Installation shall be accomplished by or supervised by NICET II or higher.

C. Codes and Standards:

   1. The complete installation shall conform to the applicable sections of NFPA 72, Local Code Requirements, and the National Electrical Code; with particular attention to article 760. All control equipment must have transient protection to comply with UL 864 requirements or Standard #497B as applicable.
   2. UL Compliance and Labeling: Comply with provisions of UL safety standards pertaining to fire alarm systems; and provide products and components which are UL-listed and labeled.
   3. FM Compliance: Provide fire alarm components and accessories which are FM-approved.
   4. The fire alarm system and devices shall comply with ADA 1990 and UL 1971 requirements.

1.3 SUBMITTALS:

A. See Section 26 05 00 Common Work Results for Electrical for Submittal requirements. Supplemental information is listed within this section.
B. **Product Data:** Submit manufacturer's technical product data, including specifications, data sheets, wiring diagrams, equipment ratings, dimensions, finishes and descriptions of system operation. Submit manufacturer's installation instructions, including outlet or back box requirements for each piece of equipment.

C. **Shop Drawings:** Provide shop drawing submittal for approval by the local Fire Department and/or The Authority having jurisdiction. The Contractor shall arrange to have the Fire Alarm System shop drawing submittal prepared, sealed, and signed by a professional fire protection engineer and NICET III or NICET IV in Fire Alarm Systems. Preparer shall assume the duty of Engineer of Record for the Fire Alarm System design. Provide shop drawings showing system components, including panels and cabinets, locations, quantities, and full schematic of system wiring showing conductor routings and quantities, and connection details. All conduit routing must be submitted to, and accepted by, the Architect/Engineer. Shop drawing documents must be submitted simultaneously with sprinkler system documents and prior to installation.

1. This information shall be submitted on 1/8" = 1'-0" scale building floor plans. No other systems shall be included on these plans. Reproduction of contract drawing will not be acceptable. The following information shall be included in the shop drawings:

   a. Occupancy group and use.
   b. Include brief description of scope of work
   c. Indicate extent of building sprinkler system.
   d. Indicate addition to/modified existing system.
   e. One-line diagram showing/indicating number of devices and appliances per zone/circuit.
   f. Submit Zone schedule
   g. Wire sizes, color coding, type(s) and voltage drop calculations.
   h. Back-up battery calculations
   i. Indicate annunciator method and include graphic zone map.
   j. Addition to or modification of the system shall be distinguishable from the existing and be identified on the floor plans as well as the one-line diagram(s).
   k. Include wiring diagrams for all fire alarm junction boxes (new and existing) impacted by this project. Include wiring numbers on all connections.
   l. Proposed conduit routing, specifically if exposed conduit or wiremold is being proposed. All surface mounted conduit and wiremold routing must be submitted to, and accepted by, the Architect/Engineer.
   m. Connection details for new and existing devices/equipment.
   n. Provide updated room names and numbers that match the names and numbers as labeled at the building. Room names and numbers shown on the contract documents are not necessarily those that are currently being used in the building. The fire alarm manufacturer shall coordinate with the contractor and owner on existing and new work and survey the site on existing work to identify the proper names and numbers.
   o. Submit graphic annunciator and/or map layouts for review by the Architect/Engineer prior to fabrication
   p. Submit sequence of operation and verification of system operation by manufacturer or his authorized representative

D. **Quality Assurance Documentation:**

   1. Submit manufacturer's certificate that system meets or exceeds specified requirements.
   2. All shop drawings, battery and voltage drop calculations shall be submitted to the authority having jurisdiction for review after review by the Architect/Engineer.
E. Field Quality Control Test Reports: Submit record of testing as described below. Refer to Section 26 05 00 – Common Work Results for additional requirements.

1.4 DELIVERY, STORAGE, AND HANDLING:

A. Handle fire alarm equipment carefully to prevent damage, breaking, and scoring. Do not install damaged equipment or components; replace with new.

B. Store fire alarm equipment in clean, dry place. Protect from weather, dirt, fumes, water, construction debris, and physical damage.

1.5 EXTRA MATERIALS:

A. General: Provide extra materials as listed below in addition to that required to complete the work. The additional stock shall not be used unless specifically authorized by the owner’s representative.

B. Lamps: Furnish spare/replacement lamps and LED’s amounting to not less than three (3) lamps of each type and of each color.

C. Devices:

1. Furnish spare/replacement detection bases amounting to 5 percent of the quantity installed by this work, but not less than two (2) of each type, including duct detector housings.

2. Furnish spare/replacement detectors amounting to 5 percent of the quantity installed by this work, but not less than two (2) of each type.

3. Furnish spare/replacement adaptor modules and relays amounting to 5 percent of the quantity installed by this work, but not less than one (1) of each type.

4. Furnish spare/replacement speakers, speakers/horns, combination speaker/horn/strobe units, and strobe units amounting to 5 percent of the quantity installed by this work but not less than one (1) of each type.

5. Furnish spare/replacement AIM’s, and AOM’s or systems similar components amounting to 5 percent of the quantity installed by this work but not less than one (1) of each type.

1.6 OPERATION:

A. The system alarm operation subsequent to the alarm activation of any manual station, automatic detection device, and monitoring device serving the “alarm” status of an air sampling smoke detector, or sprinkler flow switch shall be unchanged from the existing system operation. When owner has agreed to or asked for revisions to the evacuation plan, all new operational sequences shall be documented and approved in writing.

B. Provide alterations to the existing systems that incorporate the following additional functions (if not already present):

1. All audible alarm indicating appliances shall sound a distinctive and continuous fire alarm signal until silenced by the alarm silence switch at the control panel or at the remote annunciator.

2. All visible alarm indicating appliances shall flash continuously until the system is reset. Visual alarm devices shall continue to operate when audible devices are silenced, when allowed by the AHJ. Any subsequent zone alarm shall reactivate the alarm indicating appliances.

3. All doors normally held open by door control devices shall release.
4. A supervised signal to notify the monitoring center shall be activated.
5. Activation of a sprinkler flow device shall cause the exterior horn/light to operate continuously until the flow has ceased.
6. Activation of a duct detector shall alarm the system and shut down the associated air handling unit.

C. The activation of any system smoke detector shall initiate an Alarm Verification operation whereby the panel will reset the activated detector and wait for a second alarm activation. If within one (1) minute after resetting, a second alarm is reported from the same or any other smoke detector, the system shall process the alarm as described previously. If no second alarm occurs within one minute the system shall resume normal operation. The Alarm Verification shall operate only on smoke detector alarms. Other activated initiating devices shall be processed immediately. The alarm verification operation shall be selectable by zone.

1. The control panel shall have the capability to display the number of times (tally) a zone has gone into a verification mode. Should this mode verification tally reach a pre-programmed number, a trouble condition shall occur.

D. A manual evacuation (drill) switch shall operate the alarm indicating appliances without causing other control circuits to be activated. However, should a true alarm occur, all alarm functions would occur as described previously.

1.7 SUPERVISION:

A. Supervision shall be unchanged from the existing system. Supervision of additional devices shall be as follows:

1. Provide independently supervised and independently fused indicating appliance circuits for alarm speakers and flashing alarm lamps. Disarrangement conditions of any circuit shall not affect the operation of other circuits.
2. Auxiliary manual control shall be supervised so that an "off normal" position of any switch shall cause an "off normal" system trouble.
3. Each independently supervised circuit shall include a discrete LCD readout to indicate disarrangement conditions per circuit.
4. The System Modules shall be electrically supervised for module placement. Should a module become disconnected the system trouble indicator shall illuminate and the audible trouble signal shall sound.
5. The system shall have provisions for disabling and enabling all circuits individually for maintenance or testing purposes.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS:

A. Manufacturers: Provide materials that mate and match with existing system components. Subject to compliance with requirements, provide fire alarm system components manufactured by the same manufacturer of the existing system.

1. Notifier – Field Verify Series prior to quotation.

2.2 FIRE ALARM AND DETECTION SYSTEMS:

A. General: Provide complete fire alarm products of types, sizes and capacities indicated, which comply with manufacturer’s standard design, materials, components; construct in accordance
with published product information, and as required for complete installation. Provide fire alarm and detection systems for applications indicated.

B. Wiring System Materials: Provide basic wiring materials which comply with Division 26 sections; "Raceways", "Wires and Cables" and "Electrical Boxes and Fittings".

1. Provide wire and cable in accordance with requirements of manufacturer. Wire insulation shall comply with NEC Article 760.
2. Provide individual solid copper conductor sizes AWG #14, or larger.
3. Provide multi-conductor cables for wire sizes smaller than AWG #16.
4. Provide conductors which are UL listed for the installation and location, and approved for fire alarm usage.
5. Initiating circuits shall be color coded red for positive, red with black strip for negative. Indicating circuits shall be color coded red with yellow stripe for positive, red with brown stripe for negative.
6. All conductors shall be numbered and their numbers shall correspond to the terminal block numbering they are connected to. Provide conductor wiring and terminal block numbering.

C. Power Supplies: Existing system operates on 120 VAC power supply. Provide additional power supplies and other equipment necessary to accommodate new or modified existing devices.

1. Provide battery back-up and increase battery back-up to system as required. Design battery back-up to take over supply to system within 30 seconds of loss of primary system to 85 percent voltage. Provide battery system capable of operation of system for 24 hours under normal conditions and then for 15 minutes under alarm conditions.

D. Provide Control of additional auxiliary services as follows:

1. Interior flashing strobe lights
2. Fire/Smoke damper releases
3. Remote annunciators

2.3 FIRE ALARM CONTROL PANEL:

A. Connect additional devices to existing fire alarm control panel. Modify and upgrade panel for compatibility with current codes and current UL requirements and as required for the additional features or equipment. Provide all necessary reprogramming and recertification.

2.4 ADDRESSABLE COMMUNICATION NETWORK:

A. Extend or modify existing communications network as required for the additional equipment.

2.5 ADDRESSABLE DEVICE TYPES:

A. General: Devices will be located as shown on the drawings. The location of addressable devices will be selected to optimize the system layout in order to provide the level of protection, zone identification and control as shown on the drawings.

B. Addressable Detector Bases: All addressable smoke and heat detector heads will plug into their bases. The base will contain electronics that communicate the detector status (normal, alarm, trouble) to the control panel over two wires. The same two wires shall also provide...
power to the base and detector. Detector heads (smoke or heat) must be interchangeable. Upon removal of the head, a trouble signal will be transmitted to the control panel.

C. Photoelectric Detector Head: Photoelectric type detectors shall be of the solid state photoelectric type and shall contain no radioactive material. They will use a pulsed infrared LED light source and be sealed against rear air flow entry. The detector shall fit into an addressable base that is common with both the heat and photoelectric type detectors.

D. Pull Stations: Pull stations shall contain electronics that communicate the station’s status (alarm, normal) to the control panel over two wires which also provide power to the pull station. The address will be set on the station. They will be manufactured from high impact red Lexan. Station will mechanically latch upon operation and remain so until manually reset by opening with a key common to all system locks. Pull stations will be double action. The front of the station is to be hinged to a back-plate assembly and must be opened with a key to reset the station. The key shall be common with the control panels. The addressable manual station shall be Underwriters’ Laboratories Inc. listed for operation with the control panel.

E. Adaptor Module: Adapter Modules shall be used for monitoring of water flow, valve tamper, non-addressable detectors, and for control of smoke dampers, door holders, and other output control functions. Adapter Modules will be capable of mounting in a standard electric outlet box. Adapter Modules will include cover plates to allow surface or flush mounting. Adapter Modules will receive their 24VDC power from a separate two wire pair running from an appropriate power supply. There shall be two types of devices: Type 1; Monitor Adapter Modules - for conventional 2-wire thermal detector and/or contact device monitoring with Class B or Class A wiring supervision. Type 2; Control Adapter Modules - for signals, speakers, fire fighter phone jacks and other device control with Class B or Class A wiring supervision.

2.6 ALARM SIGNAL DEVICES:

A. Fire Alarm Horn/Strobe Combination: Provide high impact resistant red LEXAN Horn/Strobe combination devices as shown on the plans. Each assembly shall consist of two independent devices which are manufactured as compatible with each other and with the control equipment. Each assembly shall provide a terminal strip or wire leads for true in-out wiring connections. The strobe unit shall have a candela-second rating in compliance with ADA requirements and be rated at 24 VDC. Strobes shall be clear with red letters "FIRE" on two sides.

1. Provide wall mounting as shown on the plans. Verify manufacturer mounting requirements prior to rough in.

B. Individual Strobe Unit: Provide strobe units mounted where shown. Units shall match those used in the Speakers/Horns devices specified.

C. Where multiple strobe units are visible from a single location and the potential visible flash rate is 5 hz or more, provide synchronizing modules and strobes compatible for synchronizing as required. Provide additional wiring, conduit, and power supplies as necessary.

D. Speakers/Horns have been located on the drawings. It is the Contractor’s responsibility to provide adequate coverage to achieve the required 15 dBA above ambient at all locations throughout the building. If locations shown are inadequate, show additional devices on shop drawing submittal. Additional devices will be added at no additional cost to the contract including conduit wiring, power supplies, etc. System shall meet NFPA 72 Intelligibility Standards required by AHJ.
2.7 REMOTE ANNUNCIATOR:

A. Update/replace existing building annunciator. Annunciator shall include two lines of 40 character LCD display, alarm silence, system reset, programmable control switches, and be supervised from the FACP panel.

1. Annunciator shall indicate each alarm initiating device by address and description. Alarm conditions shall be indicated for each alarm initiating device.
2. The annunciator shall communicate with the control panel over one twisted shielded pair of wires. Operating power shall be 24 VDC and shall be fused at the control panel.

PART 3 - EXECUTION

3.1 EXAMINATION:

A. Examine areas and conditions under which fire alarm systems are to be installed. Do not proceed with work until unsatisfactory conditions have been corrected in manner acceptable to Installer.

3.2 IDENTIFICATION:

A. Provide electrical identification in accordance with Division 26 "Electrical Identification". SLC and NAC Devices shall be labeled with System Device Address and EOL locations shall be identified at each EOL device.

3.3 INSTALLATION OF BASIC WIRING SYSTEM MATERIALS:

A. Provide raceways and supports per code.
B. Install wiring, raceways, and electrical boxes and fittings in accordance with Division 26 sections; "Raceways", "Wires and Cables", and "Electrical Boxes and Fittings".
C. Install wiring in exposed ivory colored surface metal raceway only where specifically noted as allowed on wall or ceilings.
D. Install wires and cables without splices. Make connections at terminal strips in cabinets or at equipment terminals. Make soldered splices in electronic circuits in control cabinets.

3.4 INSTALLATION OF FIRE ALARM SYSTEMS:

A. Install fire alarm system components as indicated, in accordance with equipment manufacturer's written instructions and complying with applicable portions of NEC and NECA's "Standard of Installation."

B. Wiring: Wiring of fire alarm system is work of this section, but is not specifically detailed on drawings. Refer to the manufacturer's shop drawings for detailed wiring and connection information.

1. Complete wiring in accordance with manufacturer's requirements. Provide Striped Color coded wiring and install per manufacturer's point-to-point wiring diagram. Determine exact number of wires for each fire area zone from number and types of devices installed. Connect each device with sufficient wiring to complete its intended operation.
2. Where there are a number of additional power requiring devices such as smoke detectors, fan relays, door holders and smoke damper operators installed in a circuit,
field in numbers so power required does not exceed 80 percent of manufacturer's power supply rating. Provide extra wiring, or extra power supplies required to fulfill that requirement. In addition, provide extra or larger size wiring to alleviate voltage drops which makes device operate beyond voltage limits for which it was designed. Determine above with manufacturer’s representative while equipment is being installed.

C. Mount audible and visual devices per Americans with Disabilities Act (ADA) 1990 requirements.

D. The existing system shall remain in operation while the new devices are being installed, tested, and accepted. Make provisions to keep F.A. System active and/or provide fire watch as acceptable to the AHJ and owner so that existing wiring can be reused as practical.

3.5 FIELD QUALITY CONTROL:

A. Connection and Supervision: Make connections to panel under manufacturer's supervision. Complete connections from this cabinet to panel utilizing Manufacturer's technicians.

B. Prior to starting work, establish that the existing system is in proper working order. If condition exists which prevents normal operation of specified additions and extensions, bring this fact to Architect/Engineer's attention prior to doing work affecting existing system. Where work is done without such notification, it is assumed that connections have been made to a working system, and performance requirements and guarantee will apply to entire system.

C. System Test and Approval: Submit shop drawings for function and operation only, pre-approved by authority having local jurisdiction.

1. Prior to final acceptance of system, manufacturer shall, in presence of Contractor and Owner's Representative, test each additional sensing or detection and alarm device including devices and equipment interlocks such as equipment shutdown and smoke dampers. Schedule test with Owner.

2. The completed fire alarm system shall be fully tested in accordance with NFPA 72 by the contractor in the presence of the Owner's representative and the Local Fire Marshal. The contractor shall coordinate the testing of each fire alarm detector added or relocated under this project with the fire department and forward a completed checklist showing each detector operated properly and that proper indication of detector operation occurred at all control panels, annunciator panels, remote indicators, remote test switches, etc.

3. In addition, proper interlocks, door release, etc. shall be documented with specific equipment affected listed by identifier.

4. Upon completion of a successful test, the contractor shall so certify in writing to the Owner and General Contractor.

5. Submit copy of test results in duplicate after signed by Owner's Representative to Architect/Engineer, Owner, and Local Fire Protection Authority. Mount copy of inspection record in lexan enclosed frame assembly on control panel.

6. Provide Record of Completion Documentation per NFPA 72.

3.6 MAINTENANCE CONTRACT:

A. Where a maintenance contract exists, the maintenance contractor shall make available to the owner a maintenance contract proposal to increase the scope of the maintenance agreement to provide a minimum of two (2) inspections and tests per year in compliance with NFPA 72 guidelines.
3.7 WARRANTY:

A. The Contractor shall guarantee all equipment and wiring provided under this contract free from inherent mechanical and electrical defects for a period of one year from the date of acceptance as set forth in the general conditions. If sections of the project are phased the acceptance and warranty should start and end at one time unless the project is phased and phased acceptance has been accepted by the owner.

3.8 OPERATING AND MAINTENANCE INSTRUCTIONS:

A. Provide three (3) copies of Operating and Maintenance Instructions in hardback, three-ring binders covering all equipment furnished. Manuals shall include the following information:

1. Name, address and telephone number of authorized service organization to be contacted for each equipment item. The local fire alarm supplier shall have a 24 hour telephone response service. An answering machine shall not be considered acceptable.
2. Parts list and wiring diagram, operating and maintenance instructions for each piece of equipment.
3. Record Set of Shop Drawings: Shop drawings corrected to show as-built conditions. Transfer modifications from field set.
4. Record of voltage sensitivity for each ionization detector head as recorded during final calibration.
5. All wiring diagrams shall show color coding of all connections and mounting dimensions of equipment.

3.9 DEMOLITION:

A. Upon completion of new fire alarm system, after final connections have been made, this contractor shall carefully remove all existing fire alarm apparatus where indicated, including fire alarm control panel, manual stations, audible signals, etc., and turn all such equipment over to Owner.

3.10 PAINTING AND PATCHING:

A. Contractor shall paint all exposed conduit to match adjacent surfaces. All surfaces or finishes damaged as a result of this work shall be properly patched, painted and/or repaired by trained craftsmen of the trade involved.

B. Contractor shall patch and paint where old devices are removed unless the old devices are in block walls or in concrete, where the Contractor shall provide blank plates on boxes. Blank plates shall be painted to match adjacent surfaces.

END OF SECTION 283112
PROJECT
CROSSROADS BUILDING RENOVATION
1400 EAST COLLEGE DRIVE CHEYENNE, WY 82007

OWNER:
LARAMIE COUNTY COMMUNITY COLLEGE

ISSUE:
1 1/29/18 Addendum 1

PROJECT NO:
11738.001

SHEET TITLE:
SITE PLAN

DRAWING INFORMATION:
1/30/2018 12:23:46 PM
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CONSULTANT:
hord | coplan | macht
1331 Nineteenth Street
Denver, CO. 80202

ADD-1
DESIGN INTENT: FLOATING WOOD FRAME ENTRY INTO CONFERENCE ROOM

092900.B05
5/8" INTERIOR GYPSUM BOARD - TYPE X

061053.A24
FIRE-RETARDANT-TREATED PLYWOOD

WOOD FASCIA

CASCADING WOOD WALL BEYOND

095113.A00
ACOUSTICAL PANEL CEILING

092900.B16
5/8" INTERIOR GYPSUM BOARD, MOISTURE- AND MOLD-RESISTANT - TYPE X

ALIGN EDGE OF WOOD CEILING WITH WALL BEYOND

DEMONTEABLE PARTITION

1' - 6" 2 1/4" 10' - 2 3/4"

MITER ALL CORNERS. EASE EDGES.

062023.A28
INTERIOR WOOD BOARD PANELING

054000.A00
COLD-FORMED METAL FRAMING

062023.A00
INTERIOR FINISH CARPENTRY

SUSPENDED GYP. BD., RE: RCP

SUSPENDED ACOUSTICAL CEILING SYSTEM, RE: RCP FOR TYPE SCHEDULED WALL, RE: WALL TYPES

COLD-FORMED METAL FRAMING

095113.A00
ACOUSTICAL PANEL CEILING

095423.B01
END CAP

EXISTING SKYLIGHT BEYOND

EXISTING 3 5/8" METAL STUD AND GYP. BOARD WALL TO REMAIN

EXISTING 3 5/8" METAL STUD TO REMAIN, CUT LENGTH TO REVISED CEILING HEIGHT

DEMO EXISTING CAST-IN-PLACE CONCRETE CEILING

DEMO EXISTING CMU WALLS

DEMO EXISTING CEILING GRID AND PANELS

DEMO EXISTING WALL FURRING

COVE LIGHT, RE: ELEC

ALIGN 4" M IN 6"

4" AXIOM TRIM

NEW CEILING AS SCHEDULED

DEMO EXISTING CAST-IN-PLACE CONCRETE CEILING

DEMO EXISTING CMU WALLS

DEMO EXISTING WALL FURRING

DEMO EXISTING CEILING GRID AND PANELS

CONSULTANT:

ISSUE:

OWNER:

PROJECT:

DRAWING INFORMATION:

DRAWN BY:

PROJECT NO:

SHEET TITLE:

APPROVED BY:

CHECKED BY:

SHEET OF
KEYNOTES

P1 Connect to existing 1 1/2" CW main in this approximate location.
P2 Provide 1/2" CW to EWH-1 located in cabinet under sink. Install per manufacturer's installation instructions.
P3 Provide 1/2" HW from EWH-1 and 1/2" CW to sink, provide 2" W from sink with WCO and Studor air admittance valve. Install Studor valve per manufacturer's instructions. Upsize waste pipe to 3" before dropping below floor.
P4 Contractor to coordinate saw cutting and patching of floor as needed to install sanitary piping. Slope underground piping at 1/8"/12".
P5 Connect to existing 4" sanitary in this approximate location. Contractor to verify location of sanitary main and ensure invert can be hit.
### Owner Equipment Schedule

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<th>Catalog/Model</th>
<th>Notes</th>
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<td>Electrical Panel</td>
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<td>Exit Discharge Lights</td>
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<td>Exit Lights</td>
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<td>Emergency Exit Lights</td>
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<tr>
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<tr>
<td>Exit Emergency Lights</td>
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<tr>
<td>Exit Emergency Discharge Lights</td>
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<tr>
<td>Exit Emergency Exit Lights</td>
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<td>Exit Emergency Exit Discharge Lights</td>
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### Electrical Schedules

<table>
<thead>
<tr>
<th>Schedule Type</th>
<th>Notes</th>
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<tr>
<td>Wiring Schedule</td>
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<tr>
<td>Panel Schedule</td>
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<tr>
<td>Lighting Schedule</td>
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<td>Emergency Lighting Schedule</td>
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<td>Exit Signs Schedule</td>
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<td>Exit Lights Schedule</td>
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<td>Exit Emergency Discharge Lights Schedule</td>
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</tr>
<tr>
<td>Exit Emergency Exit Lights Schedule</td>
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</tbody>
</table>

### Energy Code Compliance

- Requirement: 100% compliance with the project's energy code.
- Description: The project complies with the applicable energy codes and standards. The energy code compliance certificate is attached for reference. The code compliance is verified in a separate report, a reference to the code is provided.
### Add-1

#### New Panelboard

<table>
<thead>
<tr>
<th>Load Type</th>
<th>Connected Load</th>
<th>Demand Factor</th>
<th>Demand Load</th>
<th>Panel Totals</th>
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<tbody>
<tr>
<td>General</td>
<td>7300 VA</td>
<td>100.00%</td>
<td>7300 VA</td>
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<tr>
<td>Continuous</td>
<td>0 VA</td>
<td>0.00%</td>
<td>0 VA</td>
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</tr>
<tr>
<td>Lighting</td>
<td>4690 VA</td>
<td>125.00%</td>
<td>5863 VA</td>
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</tr>
<tr>
<td>EQ-</td>
<td>1 M 25 A 1</td>
<td>2000 VA</td>
<td>0 VA</td>
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</tr>
<tr>
<td>REC-</td>
<td>104B R 20 A 1</td>
<td>900 VA</td>
<td>1080 VA</td>
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<tr>
<td>REC-103</td>
<td>TV, 104B TV R</td>
<td>1 M 20 A 2</td>
<td>696 VA</td>
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<tr>
<td>SPARE</td>
<td>-- 20 A 1</td>
<td>0 VA</td>
<td>0 VA</td>
<td></td>
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<tr>
<td>REC-COPIER</td>
<td>104K R 20 A 1</td>
<td>540 VA</td>
<td>780 VA</td>
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<tr>
<td>ATM</td>
<td>1 20 A 1</td>
<td>1000 VA</td>
<td>1260 VA</td>
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<tr>
<td>REC</td>
<td>105, 6, 7</td>
<td>1 20 A 2</td>
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<td>REC-ADMISSIONS</td>
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<td>1260 VA</td>
<td>1080 VA</td>
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<tr>
<td>REC-COPIER</td>
<td>105C R 20 A 1</td>
<td>1200 VA</td>
<td>1250 VA</td>
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<tr>
<td>REC-104H</td>
<td>R 20 A 1</td>
<td>540 VA</td>
<td>360 VA</td>
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<td>REC-103A</td>
<td>R 20 A 1</td>
<td>1080 VA</td>
<td>1440 VA</td>
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<tr>
<td>REC-104E</td>
<td>R 20 A 1</td>
<td>720 VA</td>
<td>180 VA</td>
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<tr>
<td>REC-105C,D</td>
<td>R 20 A 1</td>
<td>1080 VA</td>
<td>1080 VA</td>
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<tr>
<td>ATM</td>
<td>20 A 1</td>
<td>1000 VA</td>
<td>1260 VA</td>
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<tr>
<td>REC-104J,105B</td>
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<td>1080 VA</td>
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<tr>
<td>REC-104A,C,K</td>
<td>R 20 A 1</td>
<td>500 VA</td>
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#### Existing Panelboard

<table>
<thead>
<tr>
<th>Load Type</th>
<th>Connected Load</th>
<th>Demand Factor</th>
<th>Demand Load</th>
<th>Panel Totals</th>
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</thead>
<tbody>
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<td>General</td>
<td>7300 VA</td>
<td>100.00%</td>
<td>7300 VA</td>
<td></td>
</tr>
<tr>
<td>Continuous</td>
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<td>0.00%</td>
<td>0 VA</td>
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</tr>
<tr>
<td>REC</td>
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<td>31648 VA</td>
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</tr>
<tr>
<td>E Existing</td>
<td>0 VA</td>
<td>0.00%</td>
<td>0 VA</td>
<td></td>
</tr>
<tr>
<td>K Kitchen</td>
<td>0 VA</td>
<td>0.00%</td>
<td>0 VA</td>
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<tr>
<td>LTS</td>
<td>1260 VA</td>
<td>0 VA</td>
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<tr>
<td>LTS</td>
<td>- BKSTORE RM L 20 A 1 3200 VA 25472...</td>
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<td>- BATH/STORE RM L 20 A 1 2800 VA 2800 VA 1 20 A L LTS-EXT LTG - TIME...</td>
<td>0 VA</td>
<td>20</td>
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<tr>
<td>SPARE</td>
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<td>0 VA</td>
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</table>

#### General Notes:

- New Load on Existing Circuit Breaker.
- Provide GFCI Circuit Breaker.
- New Panelboard.

#### Electrical Panel Information:

- **Panel LA**
  - Location: ELECTRICAL PANEL COLLEGE COMMUNITY COLLEGE
  - Voltage: 120/240 Volts
  - A.C. Rating: 10,000 KVA
  - Mains Type: 3-Wire, 120/240 Volts, Y, Delta
  - Mains Phase: 120/240 Volts, Y, Delta
  - Mains Torque: 220 VAC
  - Mains Frequency: 60 Hz
  - Mains Amps: 226 A
  - Mains Watts: 137,650 VA
  - Mains Current: 226 A
  - Mains Power Factor: 0.84

- **Panel LB**
  - Location: ELECTRICAL PANEL COLLEGE COMMUNITY COLLEGE
  - Voltage: 120/240 Volts
  - A.C. Rating: 10,000 KVA
  - Mains Type: 3-Wire, 120/240 Volts, Y, Delta
  - Mains Phase: 120/240 Volts, Y, Delta
  - Mains Torque: 220 VAC
  - Mains Frequency: 60 Hz
  - Mains Amps: 226 A
  - Mains Watts: 137,650 VA
  - Mains Current: 226 A
  - Mains Power Factor: 0.84

- **Panel LC**
  - Location: ELECTRICAL PANEL COLLEGE COMMUNITY COLLEGE
  - Voltage: 120/240 Volts
  - A.C. Rating: 10,000 KVA
  - Mains Type: 3-Wire, 120/240 Volts, Y, Delta
  - Mains Phase: 120/240 Volts, Y, Delta
  - Mains Torque: 220 VAC
  - Mains Frequency: 60 Hz
  - Mains Amps: 226 A
  - Mains Watts: 137,650 VA
  - Mains Current: 226 A
  - Mains Power Factor: 0.84

#### Project Information:

- **Project No:** 01.04.2018
- **Drawings Information:** P 303.607.0977
- **Approved By:**
- **Sheet Title:**
- **Electrical Panel Schedules**

---

*Note: The image contains a detailed electrical panel schedule with various load types, connected loads, and general notes. The schedule is structured with columns for load type, connected load, demand factor, demand load, and panel totals.*