ADDENDUM NO: 02 – Tenant Improvement
MONTANA STATE UNIVERSITY NEW DINING HALL – Tenant Improvements

DATE: February 15, 2017

PROJECT: Montana State University New Dining Hall, PPA A/E #15-0103

GC/CONSTRUCTION MANAGER: Langlas Associates, 1019 E. Main Street, Bozeman, MT

ARCHITECT: Mosaic Architecture, 428 No. Last Chance Gulch, Helena, Montana 59601

TO: All plan holders of record

The above-numbered solicitation is amended as set forth below. Bidders/Offerors must acknowledge receipt of this amendment prior to the hour and date specified for receipt of bids/proposals, by completing the addendum acknowledgement on the form titled “Bid Proposal”.

Bid Package, Bid Form and Bidding Section

1) General Note: MEP Subcontractors were preselected via RFP process. MEP Suppliers or Second Tier Subcontractors interested in providing quotes on the project should contact Williams Plumbing and Heating, Air Controls, and Kredit Electric directly.

2) Bid Form. Replace bid form issued in Addendum 1 with revised bid form attached to this Addendum 2.

3) Clarification on Invitation to Bid and Index of Bid Packages: Specification Division 21- Fire Sprinkler Systems is bidding at this time. See bid package 15C issued in Addendum 1 for bid scope. Remove Bid Package 2A- Landscaping. This scope will be bid at a later date.

4) Bid Packages: Modify bid packages issued in Addendum 1 as follows: Bid Package 2C- Delete in entirety. This scope will be bid at a later date. Bid Package 7B: Add line item 22. Supply and Install PVC traffic rated membrane as shown on drawings.

CLARIFICATION: DRAWINGS AND SPECIFICATIONS

1) Specifications: clarification that acoustic insulation is specified in Section 09 8311
2) Specifications: 07 6200: delete reference to downspouts. See drawings and Alternates descriptions for downspout materials.

3) Specifications: 08 8000 part 2 2.01 Flat Glass Materials: All glazing labeled I-1 in the drawings will be Type FG where safety glazing is not required and SQ where safety Glazing is Required.

4) Drawings: Sheet A101 and A700 Floor Plans, see note directing bidder to include optional price to change north wall of shell space B125 wall to wall type i8.

5) Drawings: Sheet A400 detail 6, Sheet A402, detail 4: Exposed downspouts along grid 0 and .5 to be bid as PVC piping for base bid. Provide bid alternate for changing all exposed pipe to copper.

**REVISIONS: DRAWINGS AND SPECIFICATIONS**

**Specification Section**

5) Specifications: 07 6200 Change to allow STAND SEAM CLIP SYSTEM wall panel or as specified. (see attached cut sheet change)

6) Specifications: 01 2300 Changes to add Elevator #3 as an additive alternate. (See attached Specification Revision.)

7) Specifications: 10 2601 Corner Guards: clarify all corner guards to be 48” high unless noted otherwise on drawings. Guards to be mounted at top of floor base.

8) Specifications: 10 2800 2.04: Add section H, Coat Hooks: Bradley model 911

9) Specifications: 10 2800 2.04: Add section I, Soap Dispenser: Bradley model 657 soap dispenser to be used at all single-use restrooms (5 total). Soap dispenser in 2.04.C to be used at multi-stall restrooms.


11) Specifications: 10 2800 2.04.A: Clarification – wall mounted dispensers to be used at multi-stall toilet rooms (12 total). Semi-recessed units to be used at single-use restrooms (5 total).

13) Specification 10 5100 Lockers: delete section, replace with attached 10 5100 Metal Lockers.

14) Specifications: 14 2010 Passenger Elevators (replace entire section with attached revisions.)

**Drawing Section**


16) Drawings: Sheet A203 Revised SFi5 added safety glazing.

17) Drawings: Sheet A707 Detail 14,15,17, added TV LOCATIONS

18) Drawings: Sheet A708 ADDED Detail 16, Typical TV blocking and power locations

19) Drawings: On Room Finish Legend changed note: VWC3 to be by signage contractor

20) Drawings: Sheet A701 Finish Schedule Changes to Room 0123GR Trash, added plywood backer under FRP panels. (see note on Detail 1 and Finish Schedule)

21) Drawings: Sheet A901 Added Motorized Roller Shade at Store Front SF12. Added detail 13 to Sheet 408

22) Drawings: Sheet A902 changed note on detail 7 to Motorized Roller Shade.

23) Drawings: Sheet C302 Connection to trench drain. (see revised sheets)

24) Drawings: Sheet FP101, FP102, FP103 Added dry heads at truck dock wall. (see revised sheets)

25) Drawings: Sheet A701 Finish Schedule Changes to Room 0113CU Jan. (remove Dry wall and rubber base)

26) Drawings: Sheet Q-100,Q-102,Q-102E,Q-102SC, Q-105UL, Q-600 Remove Heat Lamps at Diner. (see revised sheets)

27) Drawings: Sheet Q-501Revision to note 4 to extend conduit above slab, seal around penetration. (see revised sheets)

28) Drawings: Sheet E006, Added Fixture D5, Updated manufacturer/Model For Fixture Type P1, Deleted Fixture Type W2.

30) Drawings: Sheet E009, Updated Panel Schedule for L5 for addition of motorized shade circuit
31) Drawings: Sheet E100, Added (2) receptacles for bug zappers & revised receptacle circuiting. Added GFI receptacle in North plumbing manhole & self-regulating heat-trace cable for valve.
32) Drawings: Sheet E101, Added power & switch for motorized shade at Northeast curtain wall
33) Drawings: Sheet E102, Added (1) receptacle for bug zapper. Added power & switch for motorized shades at Conference Room.
34) Drawings: Sheet E104, Added (3) receptacles for bug zappers
35) Drawings: Sheet E105, Added (2) receptacles for bug zappers
36) Drawings: Sheet E106, Deleted (4) heat lamp power connections & associated switch from 89'er Diner. Circuit L2A-32 becomes a spare
37) Drawings: Sheet E107, Added (1) receptacles for bug zappers
38) Drawings: Sheet E108, Added (1) receptacle for bug zapper. Added power & switch for motorized shade at South Bakery
39) Drawings: Sheet E302, Revised lighting on east Terrace: Deleted all W2 fixtures and replaced with Type D5 fixtures. Deleted Keynote 2
40) Drawings: Sheet M001, Added “Site Elevation Notes” to ensure equipment is select at the projects site elevation.
41) Drawings: Sheet M002, Added “Hot Water Coil Schedule” that includes HWC-1 that is to be installed in the supply discharge duct from energy recovery ventilator EVR-1.
42) Drawings: Sheet M100, Revised return grilles airflows.
43) Drawings: Sheet M101, Revised fire place venting for 1st floor fire place. Added Keynote # 15.
44) Drawings: Sheet M102, Revised Key Note # 9. Revise fire place venting for 2nd floor fire place.
45) Drawings: Sheet M200, Revised Irrigation Piping. The Irrigation Piping in the utility tunnel will not be extended into the Dining Hall.
46) Drawings: Sheet M300, Revised detail 3 to include inlet and outlet pressures for the pressure reducing valves and the relief pressure for the safety relief valve.
47) Drawings: Sheet M502, Revised the sequence of operations for detail 4 “Water to Air, Make-Up Air Heat Pump Controls”.

48) Drawings: Sheet P001, Revise “Domestic Hot Water Thermal Storage Tank Schedule”. Added “Site Elevation Notes” to ensure equipment is select at the projects site elevation.

PRIOR APPROVALS

All material supplied to the project must meet or exceed the quality, performance, and have similar features to the product originally specified. It is the contractor’s responsibility to ensure that substituted equipment matches the exterior dimensions, weight, and configuration of the specified equipment.

SECTION 08 4413 GLAZED ALUMINUM CURTAIN WALL: Tubelite 300ES
We, the undersigned Bidder, having carefully read the Documents for the proposed contract, including the General Conditions, Supplemental Conditions, Specifications, Drawings, addendums, schedule, and bid scopes and having carefully ascertained the conditions under which the work is to be performed, hereby bid and offer to enter into a Contract to perform the Work as described in accordance with the Documents. We are bidding the entire Bid package as noted above and provide a bid for the entire bid scope as noted in the documents for the price of:

**Base Bid:**

$_________________

**Cost to Provide 100% Performance and Payment Bond (Add)**

$_________________

1% Montana Gross Receipts Tax will be deducted from all subcontractor payments and the subcontractor can apply for a tax credit for the 1% with the State of Montana.

Please provide pricing for each of the alternates listed below.

**Alternate #1: 07 4264 Wood Grain Aluminum Soffit** - Change exterior soffit material from specified Mayne Longboard aluminum planks to Sagiper Sagirev 6” wood grain PVC planks (deduct):

$_________________

**Alternate #2: Mezzanine Fireplace** - Delete fireplace and corten surround. Revise surround wall as shown on plan. Provide power and tv outlet in wall (deduct):

$_________________

**Alternate #3: Delete Space Divider Walls** - Delete two dividing walls in Dining 0101FF, just north of grid D, from grids 3 to 4. See finish plans notes (deduct):

$_________________

**Alternate #4: Round Booths** - Delete both round booth groupings. See sheet A714 for booth groupings (deduct):

$_________________
Alternate #5: Exterior Table and Bench - Delete table/bench unit. Delete steel framing, wood decking, steel seats. Concrete wall is NOT to be deleted (deduct):

_________________________________________________________________

Dollars $_________________

Alternate #6: Forge (Smoker Servery) Wood Storage Unit - Delete wood storage unit (deduct):

_________________________________________________________________

Dollars $_________________

Alternate #7: Corian Countertops at Beverage and Breakfast bar - At all locations called out as QTZ1 (Zodiac Cloud White), change quartz countertops to Dupont Corian Arrowroot (deduct):

_________________________________________________________________

Dollars $_________________

Alternate #8: Corian Countertops at Serveries - At all locations called out as QTZ2 (Zodiac Mystic Black), change quartz countertops to Dupont Corian Deep Night Sky (deduct):

_________________________________________________________________

Dollars $_________________

Alternate #9: Roof Pavers - Delete north section of pavers as indicated on plans (deduct):

_________________________________________________________________

Dollars $_________________

Alternate #10: West Elevation Siding - Replace standing seam siding with flat Corten (A606 steel) panels with sub-girt system, trim, flashing and fasteners to match flat Corten siding on north and east elevations (add):

_________________________________________________________________

Dollars $_________________

Alternate #11: East Glazing - Replace Solarban 70XL with Electrochromic Tintable Glass as specified in 08 8836.21 in the following curtainwall and storefront sections: CW1, CW2, CW4, CW5, SF1, SF12, and SF21. Total area approximately 2,650 square feet. Bid to include glass, internal wiring, frame cables, terminal box, wiring from terminal box to controller (in upper level mechanical room), light sensors (assume 6), and manual switches (assume 6), controller panel, set-up, software and other components required for a complete system. Bid does NOT include providing conduit for control wiring or power to the controller panel/unit (add):

_________________________________________________________________

Dollars $_________________

Alternate #12: Exposed Downspout Material - Provide seamless copper pipe in lieu of PVC pipe for exposed downspouts. Copper to be primed and painted to match columns. (add):

_________________________________________________________________

Dollars $_________________

Alternate #13: Elevator #3 - Provide and install elevator #3. Provide Bussman Controller as shown on 6/E003, provide conductors and breakers. Provide powered J boxes for controls and lighting and all other electrical and data connections required for a complete, tested, and functioning elevator (add):

_________________________________________________________________

Dollars $_________________
PERIOD OF ACCEPTANCE:

The Bidder agrees that this bid shall remain open for acceptance and the price shall remain and unchanged and notwithstanding any error in the Bid at the amount stated for a period of sixty (60) days from the date of closing of this bid.

CONTRACT:

The Bidder agrees that the Bid is subject to a formal AIA Contract being prepared and executed with the Construction Manager.

The bidder agrees to execute the Contract within 7 days of notification of the acceptance of his bid and to provide Certificates of Insurance including Worker’s Compensation Insurance.

The Bidder shall furnish 100% performance and Payment Bonds, if required by the Construction Manager. Cost of said bonds is listed as a bid item to the base bid above. Alternates will be adjusted based upon the percentage stated.

Unit Prices: (FOR ACCOUNTING PURPOSES ONLY FOR CHANGES TO PLANS AND SPECS)

Description: 3” R-10 Mineral Fiber Panels

Unit Price _______/sf

ADDENDA:

Addendum No. __________ Dated __________ Addendum No. __________ Dated __________
Addendum No. __________ Dated __________ Addendum No. __________ Dated __________
Addendum No. __________ Dated __________ Addendum No. __________ Dated __________

SUBMITTED BY:

Company: ________________________________

________________________________

Name of Bidder: ___________________________

Signature of Bidder: _______________________

Dated: _________________________________

MT License No: __________________________

Phone No: _______________________________

Fax No: ________________________________

Email: ________________________________

Your signature above constitutes your understanding of the scope of work and existing conditions of the project. This bid is complete per the documents.
ATTACHMENTS TO BE INCLUDED WITH BID FORM:

Attachment A – Copy of Bid Package that subcontractor is submitting this price for consideration.
Attachment B – Clarifications and Qualifications – Include any clarifications or qualifications of bid proposal.
These clarifications and qualifications shall only be provided for information only and may or may not influence the
award.

END OF BID FORM
PART 1 GENERAL
1.01 SECTION INCLUDES
A. Description of Alternates.
B. Procedures for pricing Alternates.

1.02 ACCEPTANCE OF ALTERNATES
A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at MSU Facilities's option. Accepted Alternates will be identified in the Owner-Contractor Agreement.
B. Alternate quoted costs shall be valid for 90 days beyond the bid date. At any time during this 90 day period the owner may elect to accept any alternate item at the cost included on the bid form.
C. Coordinate related work and modify surrounding work to integrate the Work of each Alternate.

1.03 SCHEDULE OF ALTERNATES
A. DEDUCTIVE ALTERNATE(S): The following deductive alternates are an integral part of this proposal, and to be responsive, the bidder shall quote for the Base Bid, and a decutive amount for the alternate(s) bid for the following listed items.
   1. Deductive Bid Alternate #1: 07 4264 Wood Grain Aluminum Soffit
      a. Base Bid: Provide Mayne Longboard aluminum plans as specified and shown on plans.
      b. Alternate Bid: Change exterior soffit material from specified Mayne Longboard aluminum planks to Sagiper Sagirev 6” wood grain PVC planks.
   2. Deductive Bid Alternate #2: Mezzanine Fireplace
      a. Base Bid: Provide fireplace and surround at mezzanine as shown on drawings in room 0201FF.
      b. Alternate Bid: delete fireplace and corten surround. Revise surround wall as shown on plan. Provide power and tv outlet in wall.
   3. Deductive Bid Alternate #3: Delete Space Divider Walls
      a. Base Bid: provide wood clad divider walls in Dining 0101FF as shown on drawing A701.
      b. Alternate Bid: Delete two dividing walls in Dining 0101FF, just north of grid D, from grids 3 to 4. See finish plans notes A701. LVT flooring to infill area covered by walls if alternate accepted.
   4. Deductive Bid Alternate #4: Round Booths
      a. Base Bid: Provide both round booth groupings as shown on furniture plans (A1000) and detailed on A714. Provide carpeted floor area at booths as shown on A703.
      b. Alternate Bid: Delete both round booth groupings. See sheet A714 for booth groupings. Delete carpet at booths, provide LVT flooring in place of carpet, matching the adjoining LVT color and pattern.
   5. Deductive Bid Alternate #5: Exterior Table and Bench
      a. Base Bid: Provide exterior table/bench unit as shown in Landscape drawings LD5.04.
      b. Alternate Bid: Delete table/bench unit. Delete steel framing, wood decking, steel seats. Concrete wall is NOT to be deleted.
   6. Deductive Bid Alternate #6: Forge (Smoker Servery) Wood Storage Unit
      a. Base Bid: provide wood storage unit as shown on 3 and 4/A806.
      b. Alternate Bid: Delete wood storage unit.
   7. Deductive Bid Alternate #7: Corian Countertops at Beverage and Breakfast bar
      a. Base Bid: provide QTZ1 quartz countertops materials shown on plans.
      b. Alternate Bid: At all locations called out as QTZ1 (Zodiac Cloud White), change quartz countertops to Dupont Corian Arrowroot.
   8. Deductive Bid Alternate #8: Corian Countertops at Serveries
      a. Base Bid: provide QTZ2 quartz countertops materials shown on plans.
b. Alternate Bid: At all locations called out as QTZ2 (Zodiac Mystic Black), change quartz
countertops to Dupont Corian Deep Night Sky.

9. Deductive Bid Alternate #9: Roof Pavers

a. Base Bid: provide entire mezzanine outdoor deck area with roof pavers. East of grid
1, from grid A to 4 north of grid E.
b. Alternate Bid: delete north section of pavers as indicated on plans.

B. ADDITIVE ALTERNATE(S): The following additive alternates are an integral part of this
proposal, and to be responsive, the bidder shall quote for the Base Bid, and an additive amount
for the alternate(s) bid for the following listed items.

1. Additive Alternate #10: West Elevation Siding

a. Base Bid: Siding on west elevation from grid B to grid E.3 from 100'-0" to 113'-0"
A.F.F. to be PVFD finished standing seam metal siding.
b. Alternate Bid: Replace standing seam siding with flat Corten (A606 steel) panels with
sub-girt system, trim, flashing and fasteners to match flat Corten siding on north and
east elevations.

2. Additive Alternate #11: East Glazing -

a. Base Bid: provide glazing as specified in 08 8000 and shown on drawings.
b. Alternate Bid: Replace glazing from 08 8000 and drawings with Electrochromic
Tintable Glass as specified in 08 8836.21 in the following curtainwall and storefront
sections: CW1, CW2, CW4, CW5, SF1, SF12, and SF21. Total area approximately
2,650 square feet. Bid to include glass, internal wiring, frame cables, terminal box,
wiring from terminal box to controller (in upper level mechanical room), light sensors
(assume 6), and manual switches (assume 6), controller panel, set-up, software and
other components required for a complete system. Bid does NOT include providing
conduit for control wiring or power to the controller panel/unit (add). As part of
alternate, delete window shades on the curtain wall and storefront included in this
alternate.

3. Additive Alternate #12: Exposed Downspout Material -

a. Base Bid: provide painted PVC exposed downspouts for cornice drains along grids 0
and 0.5 as shown on A400, Detail 6 A400, and detail 4/A401.
b. Alternate Bid: provide seamless copper pipe in lieu of PVC pipe for exposed
downspouts. Copper to be primed and painted to match columns.

4. Additive Alternate #13: Elevator #3-

a. Base Bid: do not provide elevator #3. Provide shaft as shown on drawings. Provide
opening in shaft for future install of elevator. Infill opening with temporary framing and
drywall finish inside and out. Provide marking on inside of shaft indicating location of
temporary framing. Size framing of opening as required for installation of future
elevator.
b. Alternate Bid: Provide and install elevator #3. Provide Bussman Controller as shown
on 6/E003, provide conductors and breakers. Provide powered j boxes for controls
and lighting and all other electrical and data connections required for a complete,
tested, and functioning elevator.

PART 2 PRODUCTS - NOT USED
PART 3 EXECUTION - NOT USED

END OF SECTION
SECTION 10 5100
LOCKERS

PART 1 GENERAL
1.01 SECTION INCLUDES
A. Metal lockers.

1.02 RELATED REQUIREMENTS
A. Section 06 1000 - Rough Carpentry: Wood blocking and nailers.

1.03 SUBMITTALS
A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
B. Product Data: Manufacturer's published data on locker construction, sizes and accessories.
C. Shop Drawings: Indicate locker plan layout, numbering plan.
D. LEED Requirements: Provide products required by this section with attributes that contribute to the project sustainability goals:
   1. MR 4.1 and MR 4.2: Recycled Content.
E. Manufacturer's Installation Instructions: Indicate component installation assembly.
F. Maintenance Instructions: Submit manufacturer's maintenance instructions, including procedures for cleaning and polishing doors, end panels, and interior surfaces.

1.04 DELIVERY, STORAGE, AND HANDLING
A. Protect locker finish and adjacent surfaces from damage.

PART 2 PRODUCTS
2.01 MANUFACTURERS
A. Lockers:
   2. Famous Lockers, Inc; www.famouslockers.com
   5. Substitutions: See Section 01 6000 - Product Requirements.

2.02 MATERIALS
2.03 METAL LOCKERS
A. Lockers: Factory assembled, made of formed sheet steel, ASTM A653/A653M SS Grade 33/230, with G60/Z180 coating, stretcher leveled; metal edges finished smooth without burrs; baked enamel finished inside and out.
   1. Configuration: 3-tier stacked
   2. Width: 12 inches
   3. Depth: 15 inches
   4. Height: 24 inches per locker
   5. Base: 4” solid base panel
   6. Total height: 76 inches
   7. Color: To be selected by Mosaic Architecture from manufacturers standard color selection.
B. Locker Body: Formed and flanged; with steel stiffener ribs; electric spot welded.
   1. Body and Shelves: 24 gage, 0.0239 inch.
   2. Base: 20 gage, 0.036 inch.
   3. Metal Base Height: 4 inch.
C. Frames: Formed channel shape, welded and ground flush, welded to body, resilient gaskets and latching for quiet operation.
1. Door Frame: 16 gage, 0.0598 inch, minimum.

D. Doors: Hollow double pan, sandwich construction, 1-3/16 inch thick; welded construction, channel reinforced top and bottom with intermediate stiffener ribs, grind and finish edges smooth.
   1. Door Outer Face: 18 gage, 0.0478 inch, minimum.
   2. Door Inner Face: 20 gage, 0.0359 inch, minimum.
   3. Form recess for operating handle and locking device.
   4. Provide louvers in door face, top and bottom, for ventilation.

E. Hinges: Two for doors under 42 inches high; three for doors over 42 inches high; weld securely to locker body and door.
   1. Hinge Thickness: 14 gage, 0.0747 inch.

F. Coat Hooks: Stainless steel or zinc-plated steel.

G. Number Plates: Provide oval shaped brass plates. Form numbers 1 inch high of block font style with ADA designation, in contrasting color.

H. Latch: finger lift latch with two point locking mechanism to facilitate owner-provided padlock.

2.04 FABRICATION
   A. Fabricate locker parts square, rigid, and without warp, with finished faces (interior) flat and free of scratches and chips.
   B. Machine attachment holes accurately and free of chips.
   C. Attach fasteners as standard with manufacturer.
   D. Fabricate corners and fillers as required for installation.

PART 3 EXECUTION
3.01 EXAMINATION
   A. Verify that prepared bases are in correct position and configuration.
   B. Verify bases and embedded anchors are properly sized.

3.02 INSTALLATION
   A. Install in accordance with manufacturer's instructions.
   B. Install lockers plumb and square.
   C. Place and secure on prepared base.

3.03 CLEANING
   A. Clean locker interiors and exterior surfaces.

END OF SECTION
PART 1 GENERAL

1.01 SECTION INCLUDES

A. Section Includes: Hydraulic Elevator.

B. Products Supplied But not Installed Under This Section:
   1. Hoist Beam
   2. Pit Ladder
   3. Inserts mounted in walls for rail attachment

C. Work Supplied Under Other Sections:
   1. Temporary lighting, including temporary lighting in hoistway for machine space with switch located in hoistway on the strike jamb side of top landing door.
   2. Hoistway ventilation shall be in accordance with local and national building code requirements.
   3. Guide Rail Support shall be structurally adequate to extend from pit floor to top of hoistway, with spans in accordance with requirements of authority having jurisdiction and final layout or horizontally at specified locations.
   4. Removable barricades at all hoistway openings, in compliance with OSHA 29 CFR 1926.502 in addition to any local code requirements.
   5. Lifeline attachments capable of withstanding 5000 pounds load in accordance with OSHA 29 CFR 1926.502. Provide a minimum of 2 at the top, front of each hoistway.
   6. Pit lighting: Fixture with switch and guards. Provide illumination level equal to or greater than that required by ASTM A17.1/CSA B44 2000, or applicable version.
   7. Control space lighting with switch. Coordinate switch with lighting for machine space allowable by code.

1.02 DESCRIPTION OF ELEVATOR

A. Elevator # 1:
   1. Elevator Equipment: Vertical Express Hydraulic Holeless Elevator
   2. Quantity of Elevators: 1
   3. Landings: 2
   4. Openings: 2 RH Front Openings.
   5. Travel Distance: See Drawings.
   7. Rated Speed: 150 fpm.
   8. Clear Inside Dimensions (5'-8" x 4'-3"): See Drawings.
   9. Cab Height: See Drawings.
   10. Clear Height Under Suspended Ceiling: 7'-4 3/8".
   11. Entrance Width and Type: 3'-0" Single Speed.
   12. Entrance Height: 7'-0".
   15. TwinPost Telescopic (2 Stage) Hydraulic Jack
   16. Elevator Equipment shall conform to the requirements of seismic zone: See drawings.
   17. Maintenance Service Period: 12 months.

B. Elevator # 2:
   1. Elevator Equipment: Vertical Express Hydraulic Holeless Elevator
   2. Quantity of Elevators: 1
   3. Landings: 2
   4. Openings: 2 Center Front Openings
   5. Travel Distance: See Drawings
7. Rated Speed: 150 fpm.
8. Clear Inside Dimensions; 6'-8" x 5'-5": See Drawings.
9. Cab Height: See Drawings.
10. Clear Height Under Suspended Ceiling: 7'-4 3/8".
11. Entrance Width and Type: 3'-6" Center Opening.
12. Entrance Height: 7'-0".
15. TwinPost Telescopic (2 Stage) Hydraulic Jack
16. Elevator Equipment shall conform to the requirements of seismic zone: See drawings.
17. Maintenance Service Period: 12 months.

C. Elevator # 3: Alternate Bid
1. Elevator Equipment: Vertical Express Hydraulic Holeless Elevator
2. Quantity of Elevators: 1
3. Landings: 2
4. Openings: 1 Side LH Front Openings and 1 RH Rear Opening.
5. Travel Distance: See Drawings
7. Rated Speed: 150 fpm.
8. Clear Inside Dimensions (5'-8" x 4'-3 1/2"): See Drawings.
9. Cab Height: See Drawings.
10. Clear Height Under Suspended Clear Height Under Suspended Ceiling: 7'-4 3/8".
11. Entrance Width and Type: 3'-0" Single Speed.
12. Entrance Height: 7'-0".
15. TwinPost Telescopic (2 Stage) Hydraulic Jack
16. Elevator Equipment shall conform to the requirements of seismic zone: See drawings.
17. Maintenance Service Period: 12 months.

1.03 PERFORMANCE REQUIREMENT

A. Car Performance:
1. Car Speed +/- 5% of contract speed under loading condition or direction of travel.
2. Car Capacity: Safely lower, stop and hold (per code) up to 125% of rated load.

B. System Performance:
3. Jerk Rate (maximum): 3.3 ft/sec3.
6. Leveling Accuracy: +/-0.2 inches.
7. Starts per hour (maximum): 120.

1.04 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Product Data: Submit manufacturer’s product literature for each proposed system:
1. Cab design, dimensions and layout.
2. Layout, finishes, and accessories and available options.
3. Controls, signals and operating system.

C. Shop Drawings:
1. Clearances and travel car.
2. Clear inside hoistway and pit dimensions.
3. Location and layout of equipment and signals.
4. Car, guide rails, buffers and other components in hoistway.
5. Maximum loads imposed on building structure.
6. Hoist beam requirements.
7. Location and sizes of access doors.
8. Location and details of hoistway door and frames.
9. Electrical characteristics and connection requirements.
10. Layout of all items in machine room, customized for this project with exact room layout as shown on project drawings.

D. Operation and Maintenance Data:
1. Provide manufacturer's standard maintenance and operation manual.

E. Diagnostic Tools:
1. Prior to seeking final acceptance for the completed project as specified by the Contract Documents, the Elevator Contractor shall deliver to the Owner any specialized tools that may be required to perform diagnostic evaluations, adjustments and/or parametric software changes and/or test and inspections of any piece of control or monitoring equipment installed. This shall include any specialized tools required for monitoring, inspection and/or maintenance where the means of suspension other than conventional wire ropes are furnished and installed by the Elevator Contractor. Any and all such tools shall become property of the Owner. Any diagnostic tool provided to the Owner by the elevator contractor shall be configured to perform all levels of diagnostics, systems adjustment and parametric software changes which are available to the elevator contractor. In those cases where diagnostic tools provided to the Owner for a period equal to the term of the maintenance agreement from the date of final acceptance of the completed project. During those intervals in which the Owner might find necessary to surrender a diagnostic tool for re-calibration, re-installation, or repair, the elevator contractor shall provide a temporary replacement for the tool at no additional cost to the Owner. The elevator contractor shall deliver to the Owner, printed instructions for the proper use of any tool that may be necessary to perform diagnostic evaluations, system adjustment, and/or parametric software changes on any unit of microprocessor-based elevator control equipment and means of suspension other than standard elevator steel cables furnished and install by the elevator contractor. Accompanying the printed instructions shall be any and all access codes, password, or other proprietary information that is necessary to interface with the microprocessor-control equipment.

1.05 QUALITY ASSURANCE
A. Manufacturer: Minimum of fifteen years experience in the fabrication, installation and service of elevators of the type and performance of the specified. The manufacturer shall have a documented quality assurance program.
B. Installer: The equipment manufacturer shall install the elevator.
C. Inspection and Testing: In accordance with requirements of local jurisdiction, obtain required permits, inspections and tests.

1.06 DELIVERY, STORAGE AND HANDLING
A. If the construction site is not prepared to receive the elevator equipment at the agreed ship date, the general Contractor shall be responsible to provide a safe, dry and easily accessible storage area on or off the premises. Additional labor costs for double handling will be responsibility of the general contractor.
B. Delivered elevator materials shall be stored in a protected environment in accordance with manufacturer recommendations. A minimum storage area of 10 feet by 20 feet is required adjacent to the hoistway.

1.07 WARRANTY
A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
B. Provide manufacturer warranty for a period of one year. The warranty period is to begin upon substantial completion of the contract. Warranty covers defects in materials and workmanship. Damage due to ordinary use, vandalism, improper or insufficient maintenance, misuse, or neglect do not constitute defective material or workmanship.

1.08 MAINTENANCE SERVICE

A. The elevator manufacturer shall provide maintenance service consisting of regular examinations and adjustments of the elevator equipment for a period of 12 months after date of substantial completion. Replacement parts shall be produced by the original equipment manufacturer.

B. Maintenance service be performed during regular working days and shall include regular time call back service.

C. Maintenance service shall not include adjustments, repairs or replacement of parts due to negligence, misuse, abuse or accidents.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Basis of Design: Vertical Express.

B. Other Acceptable Manufacturers:
   3. Kone Elevators; www.kone.com
   4. Substitutions: See Section 01 6000 - Product Requirements.

2.02 EQUIPMENT: CONTROL COMPONENTS AND CONTROL SPACE

A. Controller: provide microcomputer based control system to perform all of the functions.
   1. All high voltage (110V or above) contact points inside the controller cabinet shall be protected from accidental contact in a situation where the controller doors are open.
   2. Controller shall be separated into two distinct halves; motor drive side and control side. High voltage motor power conductors shall be routed and physically segregated from the rest of the controller.
   3. Provide a serial cardrack, if applicable and main CPU board containing a non-erasable EPROM and operating system firmware.
   4. Variable field perimeters and adjustments shall be contained in a non-volatile memory module.

2.03 EQUIPMENT: HOISTWAY COMPONENTS

A. Buffers: Car and counterweight: polyurethane buffer or spring.

B. Hoistway Operating Devices:
   1. Emergency stop switch in the pit.
   2. Terminal stopping switch.
   3. Emergency stop switch on the machine.
   4. Pit Ladder

C. Positioning System: System consisting of magnets and proximity switches or manufacturers standard.

D. Guard Rails and Attachments: Steel rail with brackets and fasteners.

2.04 EQUIPMENT: HOISTWAY ENTRANCES

A. Hoistway Entrances:
   2. Doors: Hollow metal construction with vertical internal channel reinforcements and brushed stainless steel finish.
   3. Fire Rating: Entrance and doors shall be UL Fire-Rated for 1-1/2 hours.
5. Entrance Marking Jamb Plates: Provide standard entrance jamb tactile markings on both jambs, at all floors. Plate Mounting: Refer to manufacturer drawings.

2.05 EQUIPMENT: CAR COMPONENTS ELEVATOR # 1

A. Car Frame: Provide car frame with adequate bracing to support the platform and car enclosure.
B. Platform: Platform shall be per manufacturers standard.
C. Car Guides: Provide guide-shoes mounted to top and bottom of car and frame. Each guide shoe assembly shall be arranged to maintain constant contact on the rail surfaces. Provide retainers in areas with seismic design requirements.
D. Steel Cab: VAP Series (Vertical Applied Laminate).
   4. Ceiling:
      a. Metal Pan Downlight with LED Lighting, Satin Stainless Steel Panels.
   5. Handrail:
      a. Custom Flat: Satin stainless steel - 4 inch wide. Rails to be located on back wall and side walls of car enclosure.
   6. Flooring By Others: (Not to exceed 2 sq.ft. and 1/2” finished depth).
   7. Threshold: Aluminum.
   8. Protective pad hooks and quilted fire retardant protective pads. Pad to be hung from suspended ceiling or wall, manufacturer option.
E. Emergency Car Signals:
   1. Emergency Siren: Siren mounted on top of cab that is activated when the alarm button in the car operating panel is engaged. Siren shall have rated sound pressure level of 80 dB(A) at a distance of three feet from device. Siren shall respond with a delay of not more than one second after activation of alarm button.
   2. Emergency Car Lighting: Provide emergency power unit employing a 12-volt sealed rechargeable battery and totally static circuits shall illuminate the elevator car and provide current to the alarm bell in the event of a building power failure.
   3. Emergency Exit Contact: An electrical contact shall be provided on the car-top exit.
   4. Ventilation: Fan

2.06 EQUIPMENT: CAR COMPONENTS ELEVATOR # 2

A. Car Frame: Provide car frame with adequate bracing to support the platform and car enclosure.
B. Platform: Platform shall be per manufacturers standard.
C. Car Guides: Provide guide-shoes mounted to top and bottom of car frame. Each guide shoe assembly shall be arranged to maintain constant contact on the rail surfaces. Provide retainers in areas with seismic design requirements.
D. Steel Cab: VS Series.
   1. Steel Shell: 16 ga steel, powder coated, selected from manufacturer's catalog of choices. Colors for bidding: Elephant Ear.
   4. Ceiling:
   5. Handrail:
      a. Round 1-1/2" Straight End Satin. Rails to be located on back wall and side walls of car enclosure.
   6. Flooring by Others.
7. Threshold: Aluminum.
8. Protective pad hooks and quilted fire retardant protective pads. Pad to be hung from suspended ceiling or wall, manufacturer option.

E. Emergency Car Signals:
1. Emergency Siren: Siren mounted on top of cab that is activated when the alarm button in the car operating panel is engaged. Siren shall have rated sound pressure level of 80 dB(A) at a distance of three feet from device. Siren shall respond with a delay of not more than one second after activation of alarm button.
2. Emergency Car Lighting: Provide emergency power unit employing a 12-volt sealed rechargeable battery and totally static circuits shall illuminate the elevator car and provide current to the alarm bell in the event of a building power failure.
3. Emergency Exit Contact: An electrical contact shall be provided on the car-top exit.
4. Ventilation: Fan

2.07 EQUIPMENT: SIGNAL DEVICES AND FIXTURES

A. Car Operating Panel: Provide car operating panel with all push buttons, key switches, and message indicators for elevator operation.
1. Flush car operating panel shall contain a bank of round, mechanical, illuminated buttons marked to correspond to landings served, emergency call button, door open button, door close button, and key switches for lights, inspection, and exhaust fan. Buttons have blue or white illumination (halo). All buttons to have raised test and braille marking on left hand side. The car operating display panel shall be red Scrolling DOT-matrix. All texts, when illuminated, shall be red. The car operating panel shall have a brushed stainless steel finish.
2. Additional features of car operating panel shall include:
   a. Car Position Indicator within operating panel (red).
   b. Elevator Data Plate marked with elevator capacity and car number on car top.
   c. Help buttons with raised markings.
   d. In car stop switch per local code.
   e. Firefighter’s hat.
   f. Firefighter’s Phase II key-switch.
   g. Call cancel button.
   h. Pre-programmed integrated ADA phone (complete description of krms features included as standard)
   i. Help Button/Communication: Activation of help button will initiate two-way communication between car and a location inside the building, switching over to a alternate location if call is unanswered, where personnel are available to take the appropriate action. Visual indicators are provided for call initiation and call acknowledgement.
   j. Firefighter’s Phase II emergency in-car operating instructions.

B. Hall fixture: Wall mounted hall fixtures shall be provided with necessary push buttons and key switches for elevator operation. Wall mounted hall fixtures shall have a brushed stainless steel finish.
1. Hall fixtures shall feature round, mechanical, buttons in applied mount face frame. Hall fixtures shall correspond to options available from that landing. Buttons shall be in a vertically mounted fixture. Hall fixtures shall not be jamb-mounted. hall lanterns shall feature red illumination.

C. Car Lantern and Chime: A directional lantern visible from the corridor shall be provided in the car entrance. When the car stops and the doors are opening, the lantern shall indicate the direction in which the car is to travel and a chime will sound. The chime will sound once for up and twice for down.

D. Combination Scrolling DOT-Matrix Hall Position Indicator and Hall Lantern located at Lobby and first floor. Hall Lantern and Hall indicators shall feature red illumination, all numbers will be in red display.
1. Position Indicator = Floor Number and Hall Lantern = Direction arrow and gong.

2.08 EQUIPMENT: ELEVATOR OPERATION AND CONTROLLER

A. Elevator Operation:
   1. Simplex Collective Operation: Using a microprocessor-based controller, operation shall be automatic by means of the car and hall buttons. If all calls in the system have been answered, the car shall park at the last landing served.
   2. Zoned Car Parking.

B. Standard Operating Features to include:
   1. Full Collective Operation.
   2. Fan and Light Control.
   3. Top of Car Inspection Station.
   4. Phase 1 recall.

C. Additional Operating Features to include:
   1. Provision for Card Reader Outside Car: (Card Reader provided and installed by others).

D. Elevator Control System for Inspections and Emergency:
   1. Provide devices within controller to run the elevator in inspection operation.
   2. Provide devices on car top to run the elevator in inspection operation.

E. Phase 1 Emergency recall: All elevators must be provide with phase 1 emergency recall and shunt trip. Shunt trip is controlled by the heat detector and the electrical disconnect both in which are not under eklevator work. Shunt trip just kills all power through the disconnect to the elevator controller. Elevators shall recall to main floor when fire or smoke alarms activated prior to activition of shunt trip.

2.09 EQUIPMENT: DOOR OPERATOR AND CONTROL

A. Door Operator: A closed loop permanent magnet VVVF high-performance door operator shall be provided to open and close the car and hoistway doors simultaneously. Door movement shall be cushioned at both limits of travel. Electro-mechanical interlock shall be provided at each hoistway entrance to prevent operation of the elevator unless all doors are closed and locked. An electric contact shall be provided on the car at each car entrance to prevent the operation of the elevator unless the car door is close.

B. The door operator shall be arranged so that, in case of interruption or failure of electric power, the doors can be readily opened by hand from within the car, in accordance with applicable code. Emergency devices and keys for opening doors from the landing shall be provided as required by local code.

C. Doors shall open automatically when the car has arrived at or is leveling at the respective landings. Doors shall close after a predetermined time interval or immediately upon pressing of a car button. A door open button shall be provided in the car. Momentary pressing of this button shall reopen the doors and reset the time interval.

D. Door hangers and tracks shall be provided for each car and hoistway door. Tracks shall be contoured to match the hanger sheaves. The hangers shall be designed for power operation with provisions for vertical and lateral adjustment. Hanger sheaves shall have polyurethane tires and pre-lubricated sealed for life bearings.

E. Electronic Door Safety Device: the elevator car shall be equipped with an electronic protective device extending the full height of the car. When activated, this sensor shall prevent the doors from closing or cause then to stop and reopen if they are in the process of closing. The doors shall remain open as long as the flow of traffic continues and shall close shortly after the last person passes through the door openings.
PART 3 EXECUTION

3.01 EXAMINATION

A. Field measure and examine substrates, supports, and other conditions under which elevator work is to be performed.

B. Do not proceed with work until unsatisfactory conditions are corrected.

C. Prior to start of work, verify hoistway is in accordance with shop drawings. Dimensional tolerance of hoistway from shop drawings; -0 inches + 2 inches. Do not begin work of this section until dimensions are within tolerances.

D. Prior to start of work, verify projections greater than 2 inches (4 inches if ASTM A17.1/CSA B44 2000 applies) must be beveled not less than 75 degrees from horizontal.

E. Prior to start of work, verify landings have been prepared for entrance sill installation. Traditional sill angle or concrete sill support shall not be required.

F. Prior to start of work, verify elevator pit has been constructed in accordance with requirements, is dry and reinforced to sustain vertical forces, as indicated in approved submittal. Verify that sumps or sump pumps located within the pit will not interfere with installed elevator equipment.

G. Prior to start of work, verify control space has been constructed in accordance with requirements, with access coordinated with elevator shop drawings, including sleeves and penetrations.

H. Prior to start of work, verify control space has been constructed in accordance with requirements, is dry and reinforced to sustain vertical forces, as indicated in approval submittal. Verify that sumps or sump pumps located within pit will not interfere with installed elevator equipment.

I. Verify installation of GFCI protected 20-amp in pit and adjacent to each signal control cabinet in control space.

3.02 PREPARATION

A. Coordinate installation of anchors, bearing plates, brackets and other related accessories.

3.03 INSTALLATION

A. Interface with Other Work:
   1. Guide rail brackets attached to steel shall be installed prior to application of fireproofing.
   2. Coordinate construction of entrance walls with installation of door frames and sills. Maintain front wall opening until elevator equipment has been installed.
      a. Ensure adequate support for entrance attachment points at all landings.
      b. Coordinate wall openings for hall push buttons, signal fixtures and sleeves. Each elevator requires sleeves within the hoistway wall.
      c. Coordinate interface of elevators and fire alarm systems.
      d. Coordinate interface of dedicated telephone line.

3.04 TESTING AND INSPECTIONS

A. Perform recommended and required testing in accordance with authority having jurisdiction.

B. Obtain required permits and provide originals to Owner's representative.

3.05 DEMONSTRATION

A. Prior to substantial completion, instruct Owner on the proper function and required daily maintenance of elevators. Instruct personnel on emergency procedures.

END OF SECTION
OPEN FRAMING OR SOLID SUBSTRATE PANEL

ARCHITECTURAL COMMERCIAL PANEL

CONCEALED FASTENED

12", 16" OR 18" COVERAGE

MINIMUM SLOPE 1:12*

OPEN FRAMING OR SOLID SUBSTRATE

PANEL OVERVIEW

- Finishes: PVDF, MS Colorfast45® and Acrylic-Coated Galvalume®
- Corrosion Protection: AZ55 per ASTM A 792 for unpainted Galvalume®
  AZ50 per ASTM A 792 for painted Galvalume®
  G90 per ASTM A 653 for Galvanized
- Gauges: 24 ga standard; 26 ga and 22 ga optional
- 12", 16" or 18" panel coverage, 1 3/4" rib height
- Panel Length: Minimum: 5'; Maximum: 45' recommended
- Architectural, structural integral standing seam roof system
- Alternate materials include 16 and 20 oz copper and 0.032" aluminum
- Snap-together side lap with factory-applied sealant
- * Minimum roof slope is 1:12 for solid substrates
  and 3:12 for open framing

TESTING AND APPROVALS

- UL 2218 Impact Resistance - Class 4
- UL 790 Fire Resistance Rating - Class A, per building code
- UL 263 Fire Resistance Rating - per assembly
- ASTM E 283 Air Leakage - 0.035 cfm/ft² at 1.57 psf
- ASTM E 331 Water Penetration - none at 12 psf
- ASTM E 1646 Water Penetration - none at 6.24 psf
- ASTM E 1592 Structural Performance
- UL 580 Uplift Resistance - Class 90 Constructions: #436, #446 and #448
- Texas Windstorm - Evaluation RC-412
- 2014 FBC Approvals - FL11560.10, FL11560.11 and FL 11560.12
- Miami-Dade County, Florida - NOA 13-0905.05, expires 3/8/2019
- ICC Evaluation Report - ESR-2385
Elev 1

SEALED CONCRETE FLOOR

ALL OUTSIDE CORNER TO HAVE VINYL OUTSIDE CORNER TRIM

TILE - DALTILE - GLASS MOSAICS - COLOR WAVE - PURPLE MAGIC CW31 - 1"X6" 

ALL TILE EDGES AND CORNERS WILL BE TRIMED OUT WITH BRUSHED STAINLESS STEEL "SCHLUTER"

SEE FLOORING FINISH PLAN FOR LVT & CARPET LAYOUT. (A703/A704)

ADHERE PANELS TO SUBSTRATE PER MANUFACTURERS INSTRUCTIONS 

FOR BIDDING PURPOSES, ASSUME RUBBER BASE COLOR CHANGES WHERE FLOORING CHANGES

CORTEN METAL PANELS COLOR 1

DINING AREAS NOTED AS EXPOSED CEILING STRUCTURE TO HAVE ENTIRE ROOF STRUCTURE, FACTORY FINISH

SOLID SURFACE MATERIAL - DUPONT - CORIAN - ARROWROOT (ALSO ALTERNATE TO QTZS1) 

NOT USED 

PLASTIC LAMINATE - FORMICA - BLACK - 909-90 - GLOSS FINISH

PAINT COLOR 3 - SW 7069 IRON ORE

PLASTIC LAMINATE - ARBORITE - TATAMI NEZUMI - P124 CA

SEE ELEVATIONS FOR TILE LAYOUT

ALL DOOR FRONTS TO BE FULL OVERLAY SLAB FRONT DOORS; SEE SPEC FOR DOOR 

VINYL WALL COVERING - 20 OZ - CUSTOM GRAPHIC - BY SIGNAGE CONTRACTOR

INSTALL PANELS IN TRIM, LEAVING ADEQUATE EXPANSION SPACE PER MNFR.

NOT USED

10"X20" X 10MM 

PAINT COLOR 4 - SW 6380 HUMBLE GOLD

SEE PLAN SYMBOL FOR REQUIRED CORNER GUARD LOCATIONS
ALL TILES WITHIN 18" OF HOODS TO BE "GYP" TYPE 1

EXPOSED METAL DECK OF FLOOR OR ROOF ABOVE - PAINT ALL BEAMS, DECK, DUCTWORK, PIPING, CONDUIT, ETC. PAINT P1. PAINT ALL COLUMNS P3 (NO PAINT IN BASEMENT)

SOLID FILL AREA BETWEEN FLUTES WITH ROCK WOOL INSULATION

MIN. 1/2" SEALANT JOINT

STEEL DECK:

TOPS & SIDES OF METAL DECK J METAL EDGE

DEFLECTION TRACK

J METAL EDGE

BUTT JOINT COVERS "ACOUSTICAL PANELS" ATTACHMENT

ACOUSTICAL PANELS - ANCHORAGE ACOUSTICAL PANELS.

2" THICK, FABRIC BRACKET, PAINT WRAPPED ACOUSTIC FIBERGLASS

1 1/8" THICK, FABRIC" PANELS - ANCHORAGE ACOUSTICAL PANELS.

PERPENDICULAR TO METAL DECK

PARALLEL TO METAL DECK

1 1/2" = 1'-0"

DATE STAMP:

DATE:

2/15/2017 7:50:49 AM

PPAW 15-0103

11'-3"

17'-11 1/2"

13'-7"

8'-7 3/8"

9'-1"

8'-0"

9'-0"

10'-6"

12'-10 1/2"

9'-0"

8'-0"

8'-0"

8'-0"

18" OF GREASE HOODS TO BE "GYP" TYPE

SUFFICE ENGINEERED HARDWD BOARDS ON LIGHT T&G ENGINEERED HARDWD BOARDS ON LIGHT B

2'x2' GRID SYSTEM W/ LAY-IN WATER RESISTANT

2'x4' WASHABLE ACT SYSTEM: ARMSTRONG 'KITCHEN' TYPE "X" GYPSUM WALLBOARD ON STL. FRAMING.

"HEALTH ZONE CREATE" IN BLUE WOOD GRAIN ALUMINUM SOFFIT

"HEALTH ZONE CREATE" IN GREY COLOR (9D). SEE SEISMIC INSTALLATION REQ'TS & DETAILS

"HEALTH ZONE CREATE" IN GREY ALUMINUM SOFFIT 2'x2' ACT SYSTEM: ARMSTRONG 'DUNE' ANGLED TEGULAR. SEE SEISMIC INSTALLATION REQ'TS & DETAILS

PAINT P3 A815 PANELS, TYPE 2

PAINTED, GYPSUM BOARD PANELS. PAINT TO MATCH PAINT P3 ACT1 'HEALTH ZONE CREATE' IN BLUE COLOR (9D). SEE SEISMIC INSTALLATION REQ'TS AND DETAILS

PAINT P5 ACOUSTICAL PANELS, TYPE 2

PAINT P3 MTD AT FLOOR LEVEL

12'-10 1/2" 5/8" GYP. BD.

10" STEEL DECK, PIPING, CONDUIT, ETC.

1/16" GYPSUM WALLBOARD ON STL. FRAMING

2" THICK, FABRIC WRAPPED ACOUSTIC FIBERGLASS

1 1/8" THICK, FABRIC "ACOUSTICAL PANELS" ATTACHMENT

THESE DETAIL APPLY IN ROOM WITH NO CEILING SYSTEM, WHERE STRUCTURE IS EXPOSED TO VIEW. SEE CODE SHEET FOR DETAILS AT FIRE RATED WALLS.

SEE PLAN, TYP. 48" VENTED FRY REGLET DCS-625-V100, SET 16" FROM WALL OF EA. ROOM

IN ODD SHAPED ROOMS, PRIMARY VISUAL AREA ANY AREAS IN WHICH THEY WOULD LIKE TO MODIFY THE LAYOUT FROM THAT SHOWN ON THE 9'-0"

11'-3"

9'-0" 13'-7"

18" OF HOODS TO BE "GYP" TYPE

THESE DETAIL APPLY IN ROOM WITH NO CEILING SYSTEM, WHERE STRUCTURE IS EXPOSED TO VIEW. SEE CODE SHEET FOR DETAILS AT FIRE RATED WALLS.

IN ODD SHAPED ROOMS, PRIMARY VISUAL AREA ANY AREAS IN WHICH THEY WOULD LIKE TO MODIFY THE LAYOUT FROM THAT SHOWN ON THE

9'-0" 11'-3"

9'-0" 8'-7 3/8"

9'-1" 10'-6"

9'-0" 10'-6"

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1. SODA VENDOR TO PROVIDE A COMPLETE AND OPERATIONAL SODA DELIVERY SYSTEM SO AS TO ADEQUATELY HANDLE THE SODA DISPENSERS AS INDICATED IN THIS SPECIFICATION SECTION.

2. SODA VENDOR TO PROVIDE AND INSTALL ALL LINES, PUMPS, GAUGES, DISPENSING UNITS, CARBONATORS, RACKS, PRODUCT, AND MISCELLANEOUS PARTS. FOODSERVICE DIRECTOR ON SITE.

3. SODA VENDOR TO VERIFY LOCATION AND TYPE OF CARBONATORS PRIOR TO INSTALLATION.

4. GC TO PROVIDE AND INSTALL CONDUIT FOR THE SODA & LIQUOR LINES. LOCATION TO BE VERIFIED WITH THE DESIGN TEAM. CONDUIT TO EXTEND A MINIMUM OF 4" AFF AND TO BE BACKFILLED WITH FOAM AFTER SODA LINES ARE INSTALLED FOR FLOOD PROTECTION.

5. PLACEMENT OF THE SODA & LIQUOR LINE CONDUITS ARE CRITICAL. EVERY EFFORT SHALL BE MADE TO LOCATE PENETRATIONS SO AS TO BE CONCEALED BUT ACCESSIBLE. ALL APPLICABLE CONTRACTORS ARE TO COORDINATE CONDUIT LOCATIONS WITH THE PROJECT MANAGER.

6. KEC TO COORDINATE ALL SPECIFICATIONS AND THE INSTALLATION OF THE SYSTEMS IN ADVANCE OF CLOSE-IN AND FABRICATION WITH THE PROJECT MANAGER, EQUIPMENT FABRICATORS, GC, AND THE FOOD SERVICE CONSULTANT.
PROVIDE SPLIT CHROME WALL PLATES AT ALL EXPOSED WALL PENETRATIONS IN FINISHED ROOMS.

ALL CEILING HEIGHTS AS NOTED.

1 1/4"
### LUMINAIRE SCHEDULE

<table>
<thead>
<tr>
<th>MODEL</th>
<th>TYPE</th>
<th>DESCRIPTION</th>
<th>INPUTS</th>
<th>VOLTAGE</th>
<th>LOW</th>
<th>HIGH</th>
<th>LUMENS</th>
<th>DIMMING</th>
<th>EMERGENCY</th>
<th>MOUNTING / ACCESSORY</th>
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<tr>
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### LIGHTING CONTROL SCHEDULE

<table>
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<tr>
<th>LEVEL</th>
<th>MODEL</th>
<th>LIGHTING CONTROL</th>
<th>NOTES</th>
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</thead>
<tbody>
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### NOTES

- Provide each fixture with a coated shatter-proof vintage style 40W lamp: SATCO 40ST19/CL.
- Provide proper mounting accessories. See plans for ceiling types.
<table>
<thead>
<tr>
<th>CKT</th>
<th>Circuit Description</th>
<th>Type</th>
<th>Mains Rating</th>
<th>Wires</th>
<th>Total Load:</th>
<th>Total Est. Demand:</th>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>South POS Rec</td>
<td>20 A</td>
<td>1</td>
<td>360 VA</td>
<td>0 VA</td>
<td>124 VA</td>
</tr>
<tr>
<td>21</td>
<td>East Dining Rec</td>
<td>20 A</td>
<td>1</td>
<td>720 VA</td>
<td>0 VA</td>
<td>220 VA</td>
</tr>
<tr>
<td>22</td>
<td>East Restroom, Janitor, Entry Rec</td>
<td>20 A</td>
<td>1</td>
<td>1440 VA</td>
<td>0 VA</td>
<td>192 VA</td>
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</table>

**Notes:**
- PROVIDE SHUNT TRIP BREAKERS WHERE SHOWN IN SCHEDULE.
- CKT Circuit Description
- Type 1
- Enclosure: Recessed
- Mounting: Surface
- Location: Classification Trip Poles A B C Poles Trip
- Equipment -... 40 A 2 3921... 1643... 2 20 A Kitchen... 100 A 2 6984... 730 VA 1 20 A Kitchen... 2.504 - Chilled Water Disp 6
- Kitchen... 100 A 2 12514... 768 VA 1 20 A Kitchen... 2.103 - Undercounter Refrigerator 2
- Kitchen... 100 A 2 412514... 373 0 VA 1 20 A Kitchen... 2.102 - Undercounter Refrigerator 1

**Mains Type:**
- Type 1
- A.I.C. Rating:
- Mains Type:
- A.I.C. Rating:
- Mains Type:
- A.I.C. Rating:
- Mains Type:
- A.I.C. Rating:
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<tr>
<td>Kitchen Equipment - Non-Dwelling Unit</td>
<td>6600 VA 65.00% 429 0 VA</td>
<td>19</td>
<td>6600 VA 65.00% 429 0 VA</td>
<td>19</td>
</tr>
<tr>
<td>Kitchen Equipment - Non-Dwelling Unit</td>
<td>19337 VA 65.00% 12 569 VA</td>
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## Classification Trip Poles

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BASEMENT FOOD SERVICE ELECTRICAL CONNECTION SCHEDULE

<table>
<thead>
<tr>
<th>No.</th>
<th>Equipment Description</th>
<th>Location</th>
<th>Circuit</th>
<th>Panel</th>
<th>Comments</th>
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<tbody>
<tr>
<td>1.</td>
<td>Electrical Feeder</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Elevator Equipment</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>3.</td>
<td>HVAC Equipment</td>
<td></td>
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<tr>
<td>4.</td>
<td>Plumbing Equipment</td>
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<tr>
<td>5.</td>
<td>Lighting Equipment</td>
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</table>

GENERAL POWER NOTES

- PROVIDE 120V PLUG-IN SELF-REGULATING HEAT TRACE FOR CONNECTION DETAIL.
- SEE DETAIL 6 / E003 FOR ELEVATOR ELECTRICAL EQUIPMENT.
- SHALL BE 6" WIDER THAN OUTSIDE DIMENSIONS OF FLOOR-MOUNTED EQUIPMENT IN ELECTRICAL ROOM. PAD PROVIDE 4" CONCRETE HOUSEKEEPING PAD FOR ALL MECH / PLUMBING CONTRACTOR. SEE DETAIL 2 / E004. COORDINATE METER LOCATION WITH AT CENTER OF BACKBOARD.
- COORDINATE OUTLET W/ TTB - SEE SYSTEMS PLANS. MOUNT PROVIDE 120V CIRCUIT FOR MIXING VALVE. COORDINATE PROVIDE (1) 1 1/4" C.O. AND (2) 3/4" C.O. TO MECH RM (FUTURE GENERATOR-BACKED PANEL). COORDINATE WITH PLUG CONFIGURATION WITH MSU IT. PROVIDE 3/4"C, (3) #1 0 PROVIDE 30A 120V RECEPTACLE FOR DATA RACK; CONFIRM FOR MECHANICAL PIPING ROUTE ALONG SOUTH WALL.
### ITALIAN FOOD SERVICE ELECTRICAL CONNECTION SCHEDULE

<table>
<thead>
<tr>
<th>REV</th>
<th>DESCRIPTION</th>
<th>EQUIPMENT</th>
<th>Volts</th>
<th>Amps</th>
<th>Phases</th>
<th>Type of Plug/Discone</th>
<th>GFCI</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
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### COMFORT FOOD-SMOKER FOOD SERVICE ELECTRICAL CONNECTION SCHEDULE

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<th>Volts</th>
<th>Amps</th>
<th>Phases</th>
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### SMASH BURGER FOOD SERVICE ELECTRICAL CONNECTION SCHEDULE

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### HOT WATER LINEAR UNIT HEATER SCHEDULE

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<th>Name</th>
<th>MFGR</th>
<th>Model</th>
<th>Service</th>
<th>Pre Charge</th>
<th>Cap (MBH)</th>
<th>EWT/LWT</th>
<th>GPM</th>
<th>WPD (FT)</th>
<th>EAT/LAT Duct Size (W&quot;xH&quot;)</th>
<th>Remarks</th>
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### HOT WATER CABINET HEATER SCHEDULE

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<th>Model</th>
<th>Service</th>
<th>Cap (BTU/HR)</th>
<th>EWT/LWT</th>
<th>GPM</th>
<th>WPD (FT)</th>
<th>EAT/LAT</th>
<th>Remarks</th>
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### SHELL AND TUBE HEAT EXCHANGER SCHEDULE

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<th>EWT/LWT</th>
<th>GPM</th>
<th>WPD (FT)</th>
<th>EAT/LAT</th>
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### PUMP SCHEDULE

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<th>Head (PSI)</th>
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### CLOSED CIRCUIT FLUID COOLER SCHEDULE

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<th>Service</th>
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### AIR SEPARATOR SCHEDULE

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### THERMAL EXPANSIONS TANK SCHEDULE

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### STEAM GENERATING INJECTION BUFFER TANK SCHEDULE

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### SMART METERING

- Allocations for water, natural gas, electrical power, and steam are provided to allow the owner to monitor the consumption of these resources. The sub-metering system will be integrated into the MSU "ION" enterprise campus metering system, including all programming and graphics required for the MSU "ION" enterprise campus metering system.
- The electrical contractor will be responsible for the integration of meters into the building sub-metering system and all programming and graphics required for the MSU "ION" enterprise campus metering system.

- Additional electrical information is included in the document for further details.
A.) IT SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO FIELD COORDINATE THE ROUTING OF ALL DUCTWORK AND PIPING PER THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE.

B.) IT SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO REVIEW DRAWINGS FOR ALL DISCIPLINES AND STATE UNIVERSITY MONTANA REQUIREMENTS.

C.) PROVIDE ACCESS DOORS TO ALLOW SERVICE AND INSPECTION ABOVE NON-REMOVABLE CEILINGS.

D.) SEAL ALL DUCT AND PIPE PENETRATIONS THROUGH FIRE RATED ASSEMBLIES WITH A UL APPROVED FIRE STOP SYSTEM.

E.) REGISTERS AND DIFFUSERS SHALL BE LIMITED TO 5FT MAX. RATED ASSEMBLIES. ASSOCIATED DUCT DETECTORS SHALL BE DETECTOR.

F.) PROVIDE ACCESS DOORS TO ALLOW SERVICE AND INSPECTION ABOVE NON-REMOVABLE CEILINGS.

G.) PROVIDE ACCESS DOORS TO ALLOW SERVICE AND INSPECTION ABOVE NON-REMOVABLE CEILINGS.

H.) PROVIDE ACCESS DOORS TO ALLOW SERVICE AND INSPECTION ABOVE NON-REMOVABLE CEILINGS.
GENERAL HVAC NOTES

6. INSTALLATION.

C.) COORDINATE THE INSTALLATION OF GRILLES, REGISTERS AND DIFFUSERS WITH THE ARCHITECTURAL REFLECTED CEILING PLANS.

D.) VERIFY THE LOCATION OF ALL THERMOSTATS AND SENSORS DUCTWORK AND PIPING PER THE REQUIREMENTS OF THE GENERAL CONTRACTOR.

E.5) PROVIDE ACCESS DOORS TO ALLOW SERVICE AND INSPECTION OF EQUIPMENT, VALVES, DAMPERS AND DEVICES INSTALLED ABOVE NON-REMOVABLE CEILINGS.

F.) PROVIDE FLUSH CUP REMOTE DAMPER ACTUATORS FOR BALANCE DAMPERS INSTALLED IN IN-ACCESSIBLE LOCATIONS.

J.) PROVIDE FLUSH CUP REMOTE DAMPER ACTUATORS FOR BALANCE DAMPERS INSTALLED IN IN-ACCESSIBLE LOCATIONS.

KEY NOTES:

- Coordinate the installation of grilles, registers, and diffusers with the architectural reflected ceiling plans.
- Verify the location of all thermostats and sensors.
- Coordinate ductwork and piping per the requirements of the general contractor.
- Provide access doors to allow service and inspection of equipment, valves, dampers, and devices installed above non-removable ceilings.
- Provide flush cup remote damper actuators for balance dampers installed in inaccessible locations.
GENERAL HVAC NOTES

A.) It shall be the responsibility of the mechanical contractor to field coordinate the routing of all ductwork and piping with all other trades.

B.) It shall be the responsibility of the mechanical contractor to coordinate the installation of grilles, registers and diffusers.

C.) Verify the location of all thermostats and sensors with the engineer and architect prior to installation. Install thermostats 48" above finished floor per ADA.

D.) Provide and install seismic bracing for all equipment.

E.) Provide and install fire, smoke and combination smoke/fire dampers where ductwork passes through fire detector.

F.) Seal all duct and pipe penetrations through fire rated walls.

G.) Provide access doors to allow service and inspection of equipment, valves, dampers and devices installed open to below.

KEY NOTES:

- 12"Ø ERV-1 outside air up to roof cap.
- 32"x20" and 36"x20" outside air duct for future space. Cap duct with American Aldes RCR aluminum roof cap or equal. Field coordinate exact installation location.
- 12"Ø exhaust from exhaust fan EF-12 up to high roof. Terminate 18" above roof with American Aldes RCR aluminum roof cap or equal. Field verify exact installation location.
- 10"Ø exhaust from exhaust fan EF-21 up to high roof. Terminate 18" above roof with American Aldes RCR aluminum roof cap or equal. Field verify exact installation location.
- 8" outside air duct for future space. Cap duct with a weatherproof seal 12" above roof.
- 6"Ø combination vent and flue for natural gas.
- Install venting and termination per manufacturer's instructions.
- Coordinate roof penetration with general contractor.
- Coordinate exact location with structure.
**GENERAL HVAC NOTES**

A.) It shall be the responsibility of the mechanical ductwork and piping with all other trades.

B.) It shall be the responsibility of the mechanical contractor to review drawings for all disciplines and installation.

C.) Verify the location of all thermostats and sensors with the engineer and architect prior to installation.

D.) HP-2 Install thermostats 48" above finished floor per ADA requirements.

E.) Provide and install seismic bracing for all equipment, rated assemblies. Associated duct detectors shall be included remote test switches for the damper and duct.

F.) Flexible ductwork from branch ducts to grilles, registers and diffusers shall be limited to 5ft max.

G.) Seal all duct and pipe penetrations through fire rated assemblies with a UL approved fire stop system.

H.) Provide access doors to allow service and inspection above non-removable ceilings.

I.) Provide flush cup remote damper actuators for balance dampers installed in inaccessible locations.

**KEY NOTES:**

- Provide and install necessary equipment and systems as per the design and specifications.
- Coordination with civil and other trades is required for proper installation.
- All work shall be performed in accordance with the applicable codes and standards.
- Deferred items shall be noted in the contract documents.
- All materials shall be approved by the owner's representative before installation.
- All equipment shall be tested as per the manufacturer's instructions.
- All systems shall be commissioned and balanced.
- All as-built drawings shall be submitted for final approval.
KEY NOTES:

A.) IT SHALL BE THE RESPONSIBILITY OF THE MECHANICAL ROUTE CCFC-1 2" DRAIN LINE AND 3" OVERFLOW WATER LINE.

STATE UNIVERSITY SERVICE CLEARANCES AND STRAIGHT LENGTH PIPE REQUIREMENTS. SEE 3/M300 AND SPECIFICATIONS.

1/2"ø CDS
1/2"ø CDR

4 ROUTE ALL CONDENSATE PIPING SLOPED IN DIRECTION OF VERTICAL PIPE. SEE DETAIL 3/M300 FOR DETAILS.

4"ø LPS

F.) FLEXIBLE DUCTWORK FROM BRANCH DUCTS TO GRILLES, REGISTERS AND DIFFUSERS SHALL BE LIMITED TO 5FT MAX.

1"ø PCR

G.) SEAL ALL DUCT AND PIPE PENETRATIONS THROUGH FIRE RATED ASSEMBLIES WITH A UL APPROVED FIRE STOP SYSTEM.

4"ø HWS

H.) SEAL ALL DUCT AND PIPE PENETRATIONS THROUGH FIRE RATED ASSEMBLIES WITH A UL APPROVED FIRE STOP SYSTEM.

8"ø CDS

I.) PROVIDE ACCESS DOORS TO ALLOW SERVICE AND INSPECTION OF EQUIPMENT, VALVES, DAMPERS AND DEVICES INSTALLED.

2"ø DCW

J.) PROVIDE ACCESS DOORS TO ALLOW SERVICE AND INSPECTION OF EQUIPMENT, VALVES, DAMPERS AND DEVICES INSTALLED.

6"ø LPS

K.) PROVIDE ACCESS DOORS TO ALLOW SERVICE AND INSPECTION OF EQUIPMENT, VALVES, DAMPERS AND DEVICES INSTALLED.

2"ø PCR

L.) PROVIDE ACCESS DOORS TO ALLOW SERVICE AND INSPECTION OF EQUIPMENT, VALVES, DAMPERS AND DEVICES INSTALLED.

8"ø CDS

M.) PROVIDE ACCESS DOORS TO ALLOW SERVICE AND INSPECTION OF EQUIPMENT, VALVES, DAMPERS AND DEVICES INSTALLED.

2"ø PCR

N.) PROVIDE ACCESS DOORS TO ALLOW SERVICE AND INSPECTION OF EQUIPMENT, VALVES, DAMPERS AND DEVICES INSTALLED.

8"ø CDS

O.) PROVIDE ACCESS DOORS TO ALLOW SERVICE AND INSPECTION OF EQUIPMENT, VALVES, DAMPERS AND DEVICES INSTALLED.

2"ø PCR

P.) PROVIDE ACCESS DOORS TO ALLOW SERVICE AND INSPECTION OF EQUIPMENT, VALVES, DAMPERS AND DEVICES INSTALLED.
**PLUMBING FIXTURE SCHEDULE - PHASE II**

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<thead>
<tr>
<th>FIXTURE</th>
<th>MODEL</th>
<th>NOTES</th>
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<tr>
<td>FIXTURE</td>
<td></td>
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<tr>
<td>NATURE GAS METER (PROVIDED BY DIV 22)</td>
<td>MAX. GPM</td>
<td>1,200</td>
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<tr>
<td></td>
<td>294</td>
<td>2.315</td>
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<tr>
<td></td>
<td>72&quot; COUNTER GRIDDLE: 180,000 BTU/HR</td>
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<td>20 QT. TILT COUNTER KETTLE: 31,000 BTU/HR</td>
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<td></td>
<td>MOBILE FRYER BATTERY W/ HEATED DUMP: 160,000 BTU/HR</td>
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<td>ROTATING TORTILLA GRILL: 50,000 BTU/HR</td>
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<td>ELECTRICAL POWER METER WITH I.O. MODULE (PROVIDED BY 1ST FLOOR GAS FIREPLACE: 37,000 BTU/HR</td>
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<td>GARBAGE CAN WASHER: 35,000 BTU/HR</td>
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**SITE ELEVATION NOTES**

- All elevations are based on the site plan provided by the architect.
- Elevations are measured from the finished grade.
- Elevations are accurate to ±1 inch.
- All elevations are subject to change based on construction progress.
- Elevations must be verified by an independent surveyor.

**DOMESTIC HOT WATER THERMAL STORAGE TANK SCHEDULE**

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**SMART METERING**

- Smart meters are installed at all main entrance points.
- Smart meters are connected to the building's energy management system.
- Smart meters provide real-time energy consumption data.

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