BCSC LF Smith Elementary & Columbus East High School
Bid Package #1

Addendum #4
February 13, 2025

This Addendum is hereby made a part of the Drawings and Specifications on the subject work as though originally included therein. The following amendments, additions, and/or corrections shall govern this work.

General

1. Please remember Bid Day is Tuesday 2/18 at 1pm.
2. Please remember to review and fill out all Bid Forms completely.
3. Please remember to review and include all Unit Prices & Alternate Pricing required.

Updated Division 00 – 01 Documents

1. Updated Alternates Form
2. Updated Allowances
    a. New BC-10 Specific Allowance

Questions / Answers

1. Corridor F201 has a drinking fountain in it all other drinking fountains throughout the building seem to be getting tile behind them, is this one going to get the same treatment?
    a. Response Per CSO's Attached Narrative: Yes, wall tile being added in this addendum.
2. AD105 calls out honeycomb hatch pattern roofing alternate demo to be demo'd down to roof deck. On sheet A120 this area is called to receive a new roofing assembly over EXISTING insulation at this roof deck. Is the roofer to save or remove the existing insulation?
    a. Response Per CSO's Attached Narrative: Save the existing insulation.
3. Are allowances as described in the specifications to cover both the elementary school and the high school?
    a. CM Response: Yes, Allowances are to be included within the base bid lump sum. These allowance(s) will be used as specified.
4. On Sheet P101A it calls out for the crawl spaces below Unit A in LF Smith to be accessible via 3' wide openings. This was field verified, and these openings do not exist. Please advise on how we are to access this work? Would Saw-cutting / backfilling be acceptable?
    a. CM Response: Scope of work to be handled via an Allowance. See new Allowance specified in Addendum #4 to address this work.

5. Please confirm that all existing to remain & be re-used speakers are removed, stored, and re-installed by Owners Contractor. Existing cable to be re-used.
    a. Response Per CSO's Attached Narrative: Paging equipment and labor is by owner's contractor.
6. The specifications do not mention any requirements of an arc flash or coordination study. Please advise if either one is required.
    a. Response Per CSO's Attached Narrative: No Arc Flash Study required.
7. For the devices, lights and other materials mentioned that will be demoed and kept protected for reinstallation—Will there be a place within the school(s) to keep these items or will our own storage methods be required.
    a. CM Response: Contractor is responsible for protecting, storing, and re-installing any salvaged items. There will be limited storage within work space, coordinate with other trades and CM as required. If necessary, items will need to be stored by contractor outside of work space.
8. Disconnects shown on drawings do not reflect on any mechanical or Electrical contractor schedules—Who is to provide?
    a. Response Per CSO's Attached Narrative: Mechanical Equipment scheduled on M601 and M602 are noted for MFR supplied disconnect: EF, CUH, ACHP, FCU, and ECUH. and UV, VUV, and AHU are provided by Electrical as noted in Addendum #2. VFD for AHU to be provided by Mechanical, noted in Addendum #4. All disconnects and motor starters shown or noted on Electrical Drawings are provided by the Electrical Contractor.
    b. CM Response: BC-10 to provide any manufacturer specified disconnects. BC-11 to provide any disconnects as shown on the electrical drawings that are not provided by BC-10. BC-11 will install and wire all disconnects whether provided by BC-10 or provided by themselves.
9. Please advise why demo site plans do not match new materials plans.
    a. Response Per CSO's Attached Narrative: Demolition plans are revised with the latest site materials plans.
10. C401, Manhole #424 has a rim of 635.35'. The 24" pipe heading south has an invert of 633.5'. The top of this pipe will be above the asphalt pavement. None of the pipes along the curbs seem deep enough. Drywall pipe at drywell #430 will have top of pipe at finished grade. Please advise.
    a. Response Per CSO's Attached Narrative: See plan revisions for resolved pipe cover.
11. 6.11 Please provide Sump elevation for drywell structure #430? Please provide all information for Sanitary Sewer Man Holes. Missing TOR and SUMP, none shown on C502. Should sump be 12" below?
    a. Response Per CSO's Attached Narrative: See revised Sheet C502 for additional sanitary structure information. Additionally, the sump elevation for STR 430 is added to Sheet C401.
12. For storm pipe is HD pipe acceptable in lieu of RCP? For an HD storm pipe, the minimum cover is typically 12 inches for pipes up to 48 inches in diameter, and 24 inches for 60 inch diameter pipes.
    a. Response Per CSO's Attached Narrative: HDPE is called out for most of the stormwater pipes. A few locations with limited cover (less than the City-minimum 2 feet of cover) are called out to be RCP for longevity with bus traffic, vehicular traffic, etc. such as STR 423-424, 424-425, and 424-427

13. Do we need to include underdrains under all new curbs, or just the gutter curbs? City standards display only gutter curbs.
    a. Response Per CSO's Attached Narrative: This is a typical City detail for public road gutter curbs (chairback curb). So this detail would only apply to the curb at new driveway radii within the right-of-way. All other curbs do not need underlying underdrains. 20 LF of Pavement underdrain is already called for at storm inlet locations (Keynote "D" on the C400s)
14. Please advise in the difference of planting protections on sheet L010. Some of the light weights are circles with dashes, and some are squares with dashes. Please advise if these are different types of protection.
    a. Response Per CSO's Attached Narrative: The lighter dashed line represented the root zone. The darker fence line is the actual tree protection fencing.
15. Decorative gravel depth? Does the decorative gravel need gravel base below, and/or separation fabric?
    a. Response Per CSO's Attached Narrative: Please refer to detail 5/L602
16. In the geotextile spec section you mention subgrade stabilization or base separation fabric. Do we need to include fabric under all new full depth pavements? I did not see any mention of it being needed within the civil drawings.
    a. Response Per CSO's Attached Narrative: We would expect the on-site geotechnical engineer to weigh in stabilization requirements after subgrades have been exposed. If fabrics are required, we would follow the prescribed specification.
17. Site furnishings-Need specs for the bollards. L100 refers to detail 8/L601. It is not correct. What diameter pipe, wall thickness, bollard cover or painted? F02 errantly refers to detail 8/L601.
    a. Response Per CSO's Attached Narrative: Please see bollard detail on sheet 4/L602.
18. Site Furnishings – provide answers to the following questions:
    a. Response Per CSO's Attached Narrative:
        i. What slat material? - Orange Peel Texture HDPE
        ii. What color? - Owner and Landscape Architect to choose from standard colors.
        iii. Table and Bench sizes? - 6' Tables and 6' Long Backless Benches
        iv. Standard or Bar Height? - Standard Height
        v. Umbrella hole/mounts needed for the tables? - No Umbrella hole/mounts required.
19. Specification 05 51 00 allows for cast in place concrete pan stairs or precast concrete pan stairs. S001 calls out for cast in place concrete pan stairs. Please confirm we are to follow S001 and all stairs are cast in place.
    a. Response Per CSO's Attached Narrative: S001 does not require cast-in-place concrete filled metal pan stairs. The "Steel Stairs" notes refer to the architectural drawings and don't mention a tread/landing type. The only other mention of stairs on S001 is the "Stair Pan Fill" concrete mix in the Concrete Mix Classes table, but this does not mean that other types of stair construction are prohibited. See architectural sections for types of stairs.

MCS Clarifications

20. **BC-1 General Trades**
    a. ADDED – "Responsible to provide and install brake metal as required for finished edges at cut / modified tube corridors."
21. **BC-4 Structural Steel**
    a. Removed Specification 05 40 00 Cold Formed Metal Framing
    b. ADDED "BC-4 to provide all metal deck as shown on drawings. Where metal deck (acoustical or non-acoustical) is shown to be installed on Cold Formed Metal Framing, BC 6 to install decking. BC-4 to install decking on all structural steel."
22. **BC-6 Framing / Drywall / Acoustical Ceilings**
    a. ADDED Specification 05 40 00 Cold Formed Metal Framing
    b. ADDED "BC-6 to provide and install all cold formed metal framing per drawings and specifications. This is inclusive of any and all delegated design as required.'
    c. ADDED "BC-4 to provide all metal deck as shown on drawings. Where metal deck (acoustical or non-acoustical) is shown to be installed on Cold Formed Metal Framing, BC 6 to install decking. BC-4 to install decking on all structural steel."
23. **BC-7 Flooring & Tile**
    a. ADDED "Responsible to provide and install specialty flooring where required as called out in specification 11 62 00 ENTERTAINMENT EQUIPMENT."
    b. ADDED "BC-7 to prep new floors per manufacturer's specifications. This inclusive of removing or leaving mud pans, patching poor substrate, and replacing substrate at contractor & manufacturer's recommendation to maintain all warranties."
24. **BC-10 Plumbing & HVAC**
    a. ADDED "BC-10 to include all labor, materials, equipment, and requirements for under slab plumbing in Unit A per drawings and specifications. Demo of suspended slab, core drilling, excavation, haul off, and backfill to be handled via specific allowance."
    b. ADDED "BC-10 to provide equipment disconnects for BC-11 to install and wire."
    c. ADDED new Allowance
    - Include Allowance of $75,000 to be used as directed by the CMc for Unit A suspended slab Saw cutting, Demo, Haul off, Excavation, Backfill, Coring, and Patching of concrete for access to under slab plumbing for classrooms or as directed by CM.
25. **BC-11 Electrical**
    a. ADDED – "BC-11 to install and wire up all disconnects."

New / Revised Specifications

26. Refer to Addendum #2 Document Attached from CSO noting changes:
    22 40 00 – PLUMBING FIXTURES
    32 33 00 – SITE FURNISHINGS

Updated Drawings & Sketches

1. Refer to Addendum #3 Document Attached from CSO noting changes:
    a. **L. FRANCES SMITH ELEMENTARY:**
        i. C000, C100, C101, C102, C300, C301, C302, C303, C400, C401, C402, C403, C502, C900, C901, C902, C903, L100a, L200a, L400a, L410, L602, E201C, T101A, T101D, T201A, T201C, T201D, T201F, T202B, T202C, T202D, T202F, T202G, T302, T305, T403, T500
    b. Other Documents
        i. LF Smith TURF Sound-Absorbing Wall and Ceiling Units
        ii. SK201B – LOWER LEVEL – UNIT B – PLUMBING
        iii. SK401A – DETAILS – PLUMBING
        iv. SK601A – PLUMBING FIXTURE SCHEDULE
        v. SK601B – PLUMBING EQUIPMENT

DOCUMENT 004323 - ALTERNATES FORM

Project: Bartholomew Consolidated School Corporation Project BP #1 LF Smith & Columbus East Renovations

L Francis Smith Elementary: 4505 Waycross Dr, Columbus, IN 47203

Columbus East High School: 230 S Marr Rd, Columbus, IN 47201

Owner: Bartholomew Consolidated School Corporation
Architect: CSO Architects
Construction Manager: Maxwell Construction Company

Bid Submitted By:_____

Bid Category: No._____ Description_____

DESCRIPTION

A. The undersigned Bidder proposes the amount below be added to or deducted from the Base Bid if alternates are accepted by Owner. Amounts listed for each alternate include costs of related coordination, modification, or adjustment.

B. If the alternate does not affect the Contract Sum, the Bidder shall indicate "NO CHANGE."

C. If the alternate does not affect the Work of this Contract, the Bidder shall indicate "NOT APPLICABLE."

D. The Bidder shall be responsible for determining from the Contract Documents the effects of each alternate on the Contract Time and the Contract Sum.

E. Owner reserves the right to accept or reject any alternate, in any order, and to award or amend the Contract accordingly within 90 days of the Notice of Award unless otherwise indicated in the Contract Documents.

F. Acceptance or non-acceptance of any alternates by the Owner shall have no effect on the Contract Time unless the "Schedule of Alternates" Article below provides a formatted space for the adjustment of the Contract Time.

SCHEDULE OF ALTERNATES AS FOLLOWS:

Columbus East High School

Alternate No. 1 – Upper Casework

Responsible Bid Categories: BC-5 Casework

ADD_____ DEDUCT_____ NO CHANGE_____ NOT APPLICABLE_____

_____ Dollars ($_____)
(Written Amount) (Numerical)

- Base bid to provide one row up upper casework in C4 lab locations. Filler panel to ceiling as required.
- Alternate #1 to include ADD or DEDUCT to provide and install a second row of upper casework in lieu of the filler panel in C4 lab locations as indicated on drawing A600, A601, and A602.

Alternate No. 2 – Columbus East High School HVAC Controls – Trane

Responsible Bid Categories: BC-10 Plumbing & HVAC

ADD_____ DEDUCT_____ NO CHANGE_____ NOT APPLICABLE_____

_____ Dollars ($_____)
(Written Amount) (Numerical)

- Base bid to provide controls wiring & devices in accordance with drawings and specifications. Controls will not be by Trane.
- Alternate #2 to include ADD or DEDUCT to contract sum for HVAC controls provided by Trane to integrate into the school's existing system, with requirements specified in Section 23 09 00 Instrumentation and Controls for HVAC, and as shown on Plans. Amount represents cost of all materials and labor.

L. Francis Smith Elementary School

Alternate No. 3 – Bus Loop

Responsible Bid Categories: BC – 2 Excavation & Paving, BC-3 Concrete, BC-11 Electrical / Technology.

ADD_____ DEDUCT_____ NO CHANGE_____ NOT APPLICABLE_____

_____ Dollars ($_____)
(Written Amount) (Numerical)

- Base bid to modify east side of site with new sidewalks connecting to existing north/south. Refer to civil and landscape sheets for scope.
- Alternate #3 to include ADD to modify east side of site with new bus loop, sidewalks, and storm work. Refer to sheets C303, C305, C403, C903, L010a, L100a, L200a, L400a, and E100, and T001 for scope.

Alternate No. 4 – Cafeteria/Custodial Office Renovation

Responsible Bid Categories: BC-1 General Trades, BC-5 Casework, BC-6 Framing, Drywall, Ceilings, BC-7 Flooring& Tile, BC-8 Windows & Glazing, BC-9 Fire Suppression, BC-10 Plumbing, Heating, Ventilation, and Air Conditioning, BC-11 Electrical, BC-12 Painting.

ADD_____ DEDUCT_____ NO CHANGE_____ NOT APPLICABLE_____

_____ Dollars ($_____)
(Written Amount) (Numerical)

- Base bid is that existing custodial office in Unit F is to remain. Existing restrooms to receive no work. Cafeteria will receive electrical work as shown, but finishes are existing to remain.
- Alternate #4 to include ADD to modify the shower space in lower-level Unit F to create a new custodial office. Refer to sheets AD201F, A201F, and related mechanical, electrical, and plumbing drawings for these rooms. Rework Cafeteria F202 to create a small Office F203 and Storage F204, add new window, add two new doors off corridor, provide new flooring for all spaces. Refer to sheets AD202F, A202F, and related mechanical, electrical, and plumbing drawings for these rooms.

Alternate No. 5 – New Additions Roofing – Carlisle

Responsible Bid Categories: BC-13 Roofing

ADD_____ DEDUCT_____ NO CHANGE_____ NOT APPLICABLE_____

_____ Dollars ($_____)
(Written Amount) (Numerical)

- Base bid to include Sika Sarnfil as roofing manufacturer in accordance with division 7 specifications.
- Alternate #5 to include a DEDUCT for Carlisle as roofing manufacturer in accordance with Division 7 specifications.

Alternate No. 5a – New Additions Roofing – Fibertite

Responsible Bid Categories: BC-13 Roofing

ADD_____ DEDUCT_____ NO CHANGE_____ NOT APPLICABLE_____

_____ Dollars ($_____)
(Written Amount) (Numerical)

- Base bid to include Sika Sarnfil as roofing manufacturer in accordance with division 7 specifications.
- Alternate #5a to include a DEDUCT for Fibertite as roofing manufacturer in accordance with Division 7 specifications.

Alternate No. 5b – New Additions Roofing – Any Manufacturer

Responsible Bid Categories: BC-13 Roofing

ADD_____ DEDUCT_____ NO CHANGE_____ NOT APPLICABLE_____

_____ Dollars ($_____)
(Written Amount) (Numerical)

Manufacturer:_____

- Base bid to include Sika Sarnfil as roofing manufacturer in accordance with division 7 specifications.
- Alternate #5b to include ADD for any roofing manufacturer with a .60 mil reinforced membrane, 20 year warranty, and associated roofing assembly in accordance with the drawings.

Alternate No. 6 – Re-Roofing – Sika Sarnafil

Responsible Bid Categories: BC-13 Roofing

ADD_____ DEDUCT_____ NO CHANGE_____ NOT APPLICABLE_____

_____ Dollars ($_____)
(Written Amount) (Numerical)

- Base bid to include no re-roofing work on units E, F, G unless otherwise required by new additions.
- Alternate #6 to include an ADD for Sika Sarnafil as roofing manufacturer for the Re-Roof work required at Unit E, F, and G in accordance with Division 7 specifications.

Alternate No. 6a – Re-Roofing – Carlisle

Responsible Bid Categories: BC-13 Roofing

ADD_____ DEDUCT_____ NO CHANGE_____ NOT APPLICABLE_____

_____ Dollars ($_____)
(Written Amount) (Numerical)

- Base bid to include no re-roofing work on units E, F, G unless otherwise required by new additions.
- Alternate #6a to include an ADD for Carlisle as roofing manufacturer for the Re-Roof work required at Unit E, F, and G in accordance with Division 7 specifications.

Alternate No. 6b – Re-Roofing – Fibertite

Responsible Bid Categories: BC-13 Roofing

ADD_____ DEDUCT_____ NO CHANGE_____ NOT APPLICABLE_____

_____ Dollars ($_____)
(Written Amount) (Numerical)

- Base bid to include no re-roofing work on units E, F, G unless otherwise required by new additions.
- Alternate #6b to include an ADD for Fibertite as roofing manufacturer for the Re-Roof work required at Unit E, F, and G in accordance with Division 7 specifications.

Alternate No. 6c – New Additions Roofing – Any Manufacturer

Responsible Bid Categories: BC-13 Roofing

ADD_____ DEDUCT_____ NO CHANGE_____ NOT APPLICABLE_____

_____ Dollars ($_____)
(Written Amount) (Numerical)

Manufacturer:_____

- Base bid to include no re-roofing work on units E, F, G unless otherwise required by new additions.
- Alternate #6c to include ADD for any roofing manufacturer with a .60 mil reinforced membrane, 20 year warranty for the Re-Roof work required at Unit E, F, and G in accordance with the drawings.

Alternate No. 7 – Unit F Corridor Finish Update

Responsible Bid Categories: BC-1 General Trades

ADD_____ DEDUCT_____ NO CHANGE_____ NOT APPLICABLE_____

_____ Dollars ($_____)
(Written Amount) (Numerical)

- Base bid is to Replace existing flooring. Existing visual display units to remain on walls.
- Alternate #7 to include ADD to Demolish existing visual display units outside of Cafeteria F202. Patch and repair concrete walls to receive ten (10) new tack boards relocated from existing classrooms.

Alternate No. 8 – L. Frances Smith Elementary School HVAC Controls – Jackson Systems

Responsible Bid Categories: BC-10 Plumbing & HVAC

ADD_____ DEDUCT_____ NO CHANGE_____ NOT APPLICABLE_____

_____ Dollars ($_____)
(Written Amount) (Numerical)

- Base bid to provide controls wiring & devices in accordance with drawings and specifications. Controls will not be by Jackson Systems.
- Alternate #8 to include ADD or DEDUCT to contract sum for HVAC controls provided by Jackson Systems to integrate into the school's existing system, with requirements specified in Section 23 09 00 Instrumentation and Controls for HVAC, and as shown on Plans. Amount represents cost of all materials and labor.

Alternate No. 9 – New Unit Ventilators

Responsible Bid Categories: BC-10 Plumbing & HVAC, BC-11 Electrical & Technology

ADD_____ DEDUCT_____ NO CHANGE_____ NOT APPLICABLE_____

_____ Dollars ($_____)
(Written Amount) (Numerical)

- Base bid is to exclude the Unit Ventilators as listed below.
- Alternate #9 to include ADD to demo and replace the following Unit Ventilators:
  - Sheet M201B – UV B101
  - Sheet M201E – UV E1, UV E2, UV E3, UV E4, UV E5,

SUBMISSION OF BID SUPPLEMENT

Respectfully submitted this ____ day of _____, 2025

Submitted By:_____(Insert name of bidding firm or corporation)

Authorized Signature:_____(Handwritten signature)

Signed By:_____(Type or print name)

Title:_____(Owner/Partner/President/Vice President)

END OF DOCUMENT 004323

SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section includes administrative and procedural requirements governing allowances.

1. Certain items are specified in the contract documents by allowances. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when direction will be provided to contractor. If necessary, additional requirements will be issued by Change Order.

B. Hourly rates used as part of the allowance must be approved by the Construction Manager prior to start of work. The rate will remain in effect for the duration of the project.

C. All OH&P for Allowances to be included within Base-Bid.

D. Types of allowances include the following:

1. Lump-sum allowances.
2. Unit-cost allowances.
3. Contingency allowances.
4. Testing and Inspection allowances

E. Related Requirements:

1. Section 00 43 21 “Allowance Form”
2. Section 012200 "Unit Prices" for procedures for using unit prices.
3. Section 012600 "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
4. Section 014000 "Quality Requirements" for procedures governing the use of allowances for testing and inspections.

1.3 DEFINITIONS

A. Allowance: A quantity of work or dollar amount included in the Contract, established in lieu of additional requirements, used to defer selection of actual materials and equipment to a later date

when direction will be provided to Contractor. If necessary, additional requirements will be issued by Change Order.

1.4 SELECTION AND PURCHASE

A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection, or purchase and delivery, of each product or system described by an allowance must be completed to avoid delaying the Work.

B. At Architect's or Construction Manager's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.

C. Purchase products and systems selected by Architect from the designated supplier.

1.5 ACTION SUBMITTALS

A. Submit proposals for purchase of products or systems included in allowances in the form specified for Change Orders.

1.6 INFORMATIONAL SUBMITTALS

A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.

B. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.

C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.7 COORDINATION

A. Coordinate allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

1.8 LUMP-SUM ALLOWANCES

A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect or Construction Manager under allowance and shall include taxes, freight, and delivery to Project site.

B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by

Owner or selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.

C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.

1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

1.9 UNIT-COST ALLOWANCES

A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect or Construction Manager under allowance and shall include taxes, freight, and delivery to Project site.

B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner or selected by Architect or Construction Manager under allowance shall be included as part of the Contract Sum and not part of the allowance.

C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.

1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

1.10 CONTINGENCY ALLOWANCES

A. Use the contingency allowance only as directed by Architect or Construction Manager for Owner's purposes and only by Change Orders that indicate amounts to be charged to the allowance.

B. Contractor's overhead, profit, and related costs for products and equipment ordered by Owner under the contingency allowance are included in the allowance and are not part of the Contract Sum. These costs include delivery, installation, taxes, insurance, equipment rental, and similar costs.

C. Change Orders authorizing use of funds from the contingency allowance will include Contractor's related costs and reasonable overhead and profit.

D. At Project closeout, credit unused amounts remaining in the contingency allowance to Owner by Change Order.

1.11 TESTING AND INSPECTING ALLOWANCES

A. Testing and inspecting allowances include the cost of engaging testing agencies, actual tests and inspections, and reporting results.

B. The allowance does not include incidental labor required to assist the testing agency or costs for retesting if previous tests and inspections result in failure. The cost for incidental labor to assist the testing agency shall be included in the Contract Sum.

C. Costs of testing and inspection services not specifically required by the Contract Documents are Contractor responsibilities and are not included in the allowance.

D. At Project closeout, credit unused amounts remaining in the testing and inspecting allowance to Owner by Change Order.

1.12 ADJUSTMENT OF ALLOWANCES

A. Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place where applicable. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, required maintenance materials, and similar margins.

1. Include installation costs in purchase amount only where indicated as part of the allowance.
2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other margins claimed.
3. Submit substantiation of a change in scope of Work, if any, claimed in Change Orders related to unit-cost allowances.
4. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.

B. Submit claims for increased costs due to a change in the scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labor, installation, overhead, and profit.

1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of Work has changed from what could have been foreseen from information in the Contract Documents.
2. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

A. Bid Category #1 – General Trades

1. Allowance of $20,000 for temporary walls to be used as directed by CMc.
2. Allowance of two hundred and fifty (250) 30-Yard dumpsters at LF Smith.
3. Allowance of twenty five (25) 30-Yard dumpsters at Columbus East.
4. Allowance of $55,000 to be used as directed by the CMc for miscellaneous materials, equipment, labor, and/or scope changes.

B. Bid Category #2 – Sitework and Paving

1. Allowance of $25,000 to be used as directed by CMc for miscellaneous materials, equipment, labor, and/or scope changes.
2. Allowance of $25,000 to be used as directed by CMc for unsuitable soil.

C. Bid Category #3 – Concrete

1. Include Allowance of $30,000 to be used as directed by CMc for miscellaneous materials, equipment, labor, and/or scope changes.
2. Allowance of $20,000 to be used as directed by CMc for unsuitable soil.

D. Bid Category #4 – Structural Steel

1. Include Allowance of $25,000 to be used as directed by CMc for miscellaneous materials, equipment, labor, and/or scope changes.

E. Bid Category #5 – Countertops, Cabinetry, and Casework

1. Allowance of $20,000 to be used as directed by the CMc for miscellaneous materials, equipment, labor, and/or scope changes.

F. Bid Category 6 – Framing, Drywall, and Acoustical Ceilings

1. Include Allowance of $25,000 to be used as directed by the CMc for miscellaneous materials, equipment, labor, and/or scope changes.

G. Bid Category #7 – Flooring and Tiling

1. Include Allowance of $35,000 to be used as directed by the CMc for miscellaneous materials, equipment, labor, and/or scope changes.

H. Bid Category #8 – Windows and Glazing

1. Include Allowance of $15,000 to be used as directed by the CMc for miscellaneous materials, equipment, labor, and/or scope changes.

I. Bid Category #9 – Fire Protection

1. Include Allowance of $10,000 to be used as directed by the CMc for miscellaneous materials, equipment, labor, and/or scope changes.

J. Bid Category #10 – Plumbing & HVAC

1. Include Allowance of $75,000 to be used as directed by the CMc for miscellaneous materials, equipment, labor, and/or scope changes.
2. Addendum #4 - Include Allowance of $75,000 to be used as directed by the CMc for Unit A suspended slab Saw cutting, Demo, Haul off, Excavation, Backfill, Coring, and Patching of concrete for access to under slab plumbing for classrooms or as directed by CM.

K. Bid Category #11 – Electrical/Technology

1. Include Allowance of $75,000 to be used as directed by the CMc for miscellaneous materials, equipment, labor, and/or scope changes.
2. Include Allowance of $20,000 to be used for technology/card readers added by owner.

L. Bid Category #12 – Painting and Coatings

1. Include Allowance of $7,500 to be used as directed by the CMc for miscellaneous materials, equipment, labor, and/or scope changes.

M. Bid Category #13 – Roofing

1. Include Allowance of $10,000 to be used as directed by the CMc for miscellaneous materials, equipment, labor, and/or scope changes.

END OF SECTION 012100

ADDENDUM

CSO
ARCHITECTURE · INTERIOR DESIGN

ADDENDUM NO: 4

PROJECT: BCSC L. Frances Smith Elementary School & Columbus East High School

PROJECT NO: 2024023 & 2024024 DATE: 02/12/2025 BY: Emily Newton

This Addendum is issued in accordance with the provisions of "The General Conditions of the Contract for Construction," Article 1, "Contract Documents" and becomes a part of the Contract Documents as provided therein. This Addendum includes:

Addendum Pages:	ADD4-1 – ADD4-16
Attached Specifications:	22 40 00 – PLUMBING FIXTURES 32 33 00 – SITE FURNISHINGS
Other Items:	LF Smith TURF Sound-Absorbing Wall and Ceiling Units SK201B – LOWER LEVEL – UNIT B – PLUMBING SK401A – DETAILS – PLUMBING SK601A – PLUMBING FIXTURE SCHEDULE SK601B – PLUMBING EQUIPMENT

Attached Drawing Sheets:

L. FRANCES SMITH ELEMENTARY:

C000, C100, C101, C102, C300, C301, C302, C303, C400, C401, C402, C403, C502, C900, C901, C902, C903, L100a, L200a, L400a, L410, L602, E201C, T101A, T101D, T201A, T201C, T201D, T201F, T202B, T202C, T202D, T202F, T202G, T302, T305, T403, T500

COLUMBUS EAST:

NONE

PART 1 - GENERAL INFORMATION

1.1 NOT USED

PART 2 - BIDDING REQUIREMENTS

2.1 NOT USED

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PART 3 - SPECIFICATIONS

3.1 00 00 10 – TABLE OF CONTENTS

A. DELETE Section 12 93 00 – SITE FURNISHINGS from Table of Contents

B. ADD Section 32 33 00 – SITE FURNISHINGS to Table of Contents.

3.2 12 93 00 – SITE FURNISHINGS

A. DELETE this section (labeled on spec pages as 32 33 00 – this section was in the wrong place and has since been revised and relocated – see new 32 33 00 - SITE FURNISHINGS, as attached to this Addendum).

3.3 22 40 00 – PLUMBING FIXTURES

A. Replace the section with attached plumbing fixture section.

3.4 32 33 00 – SITE FURNISHINGS

A. ADD section, attached to this Addendum, in its entirety

PART 4 - L. FRANCES SMITH ELEMENTARY DRAWINGS

CIVIL

4.1 C000 – TITLE SHEET

A. Modified Drawing Index to identify the revised sheets & dates under this Addendum (clouded)

4.2 C100– OVERALL DEMOLITION PLAN

A. Clouded overall plan view to highlight the new limits of full-depth pavement removal. Modified pavement removal limits with the latest site materials plans.

4.3 C101–DEMOLITION PLAN - NORTH

A. Modified pavement removal limits with the latest site materials plans, such as full-depth pavement removal along the main drive.

4.4 C102 –DEMOLITION PLAN - SOUTH

A. Modified pavement removal limits with the latest site materials plans, such as full-depth pavement removal down to the trash enclosure.

4.5 C300- OVERALL GRADING PLAN

A. Clouded areas that have updated

4.6 C301-GRADING PLAN – NORTH

A. Modified grading around STR 424

B. Modified grading around STR 404

C. Modified labels for detention ponds (bottom elevation)

4.7 C302-GRADING PLAN – SOUTH

A. Modified labels for detention ponds (bottom elevation)

4.8 C303-GRADING PLAN – EAST ALTERNATE

A. Modified grading with revised geometry for bus parking area

B. Added grading for ADA ramp at exterior door at Unit A (Northeast corner of building)

4.9 C400-OVERALL DRAINAGE PLAN

A. Clouded new locations and removals of pipes, roof drains, and structures.

B. Clouded new addition of end section and pipe into Pond #1.

C. Modified pipe sizes and depths to resolve limited cover and addressing City Engineering review comments

4.10 C401-DRAINAGE PLAN – NORTH

A. Clouded entire view highlighting changes to multiple pipe and structure labels.

B. Clouded entire view highlighting changes to design elevations for Pond #1 and Pond #2.

4.11 C402-DRAINAGE PLAN – SOUTH

A. Modified pipe sizes and depths for addressing City Engineering review comments

B. Clouded changes to pipe and structure labels per changes made.

C. Clouded Pond #3 for changes made to pond design elevations.

4.12 C403-DRAINAGE PLAN – EAST ALTERNATE

A. Clouded sheet number for new sheet added to the plan set for bid alternative.

4.13 C502-UTILITY PLAN – SOUTH

A. Modified sanitary pipe slope and manhole labels to include rim elevations

4.14 C900-OVERALL STORMWATER POLLUTION PREVENTION PLAN

A. Clouded overall plan view highlighting changes to erosion control blanket and seeding hatch areas and locations of inlet protection measures.

4.15 C901-STORMWATER POLLUTION PREVENTION PLAN – NORTH

A. Clouded entire view highlighting changes to erosion control blanket and seeding hatch areas and locations of inlet protection measures.

4.16 C902-STORMWATER POLLUTION PREVENTION PLAN – SOUTH

A. Clouded entire view highlighting changes to erosion control blanket and seeding hatch areas and locations of inlet protection measures.

4.17 C903-STORMWATER POLLUTION PREVENTION PLAN – EAST ALTERNATE

A. Clouded view of east side of site highlighting changes to seeding hatches and location changes for inlet protection for new pipe network layout.

LANDSCAPE

4.18 L100a – SITE MATERIALS PLAN ALTERNATE

A. A concrete ramp with handrails has been added on the northeast side of the building. Refer to detail 1/L602

B. A concrete pad with bike racks has been added. Refer to detail 2/L602

C. A flush concrete curb has been added between the bus lot and existing sidewalk along east property line. Refer to detail 3/L602

4.19 L200a – SITE LAYOUT PLANS -ALTERNATE

A. Dimensions have been added to new ramp.

B. Dimensions have been added to bus parking area.

C. Bus lot shifted to accommodate grade change.

4.20 L400a – PLANTING PLANS ALTERNATE

A. LA type B buffer has been added along the east property line to screen the alternate bus lot from neighbors.

4.21 L410 – PLANTING DETAILS & SCHEDULE

A. DELETE existing sheet and replace in its entirety with attached L410.

B. The alternate plant schedule has been updated to reflect Type B Buffer

4.22 L602 – SITE DETAILS

A. ADD new sheet in its entirety.

B. Details have been added for new items that are part of the ADD ALTERNATE bus lot plan.

C. Detail 1 – New Ramp

D. Detail 2 – Bike Racks

E. Detail 3- Flush Concrete Curb

ARCHITECTURAL

4.23 AD202B – SECOND LEVEL DEMOLITION PLAN – UNIT B

A. Existing exterior frame and glazing at east wall of NODE (6'-8" Floor Elevation - adjacent to CLASSROOM 321) to be demolished – ADD Keyed Demolition Note '10' at this section of storefront and revise plan line type to indicate demolition.

4.24 A202B – SECOND LEVEL FLOOR PLAN – UNIT B

A. Frame and glazing adjacent and perpendicular to F27A (at far East side of NODE B203) to be new curtainwall. Glazing and frame type to match F27A/B frames.

4.25 A202F – SECOND LEVEL FLOOR PLAN – UNIT F

A. All new W10 type 6" CMU walls in Unit F shall terminate at +8'-8" A.F.F

4.26 A212F – SECOND LEVEL REFLECTED CEILING PLAN – UNIT F

A. At OFFICE F203, REVISE ceiling height to be +8-0" in lieu of 8'-6".

B. At Doors F202-1 and F202-2 (new double doors from Corridor F201 to Cafeteria F202 – see Drawing A202F for clarification of door numbers), ADD Ceiling Type CL4 at both Corridor side alcoves at +/- 8'-0" (match height of existing alcove ceiling).

4.27 A302 – ENLARGED BUILDING ELEVATIONS

A. REVISE Detail 7/A302 as noted herein - frame and glazing at second floor (above new door B109) to be replaced with new. REVISE Keyed Plan Note to be '7' in lieu of '1'. New curtainwall mullion layout to be the same as existing and align with adjacent F27A horizontals. Size of new frame assembly to be approximately 12' – 7" tall by 9' – 6" wide.

4.28 A802F – SECOND LEVEL FINISH PLAN – UNIT F

A. REISSUE sheet in its entirety

B. REVISE CAFETERIA F202 wall finish tag to "EP1".

C. REVISE OFFICE F203 wall finish tag to "EP1".

D. ADD 'WT1' wall finish tag to CORRIDOR F201 as indicated on plan.

PLUMBING

4.29 P201B – LOWER LEVEL UNIT B – PLUMBING

A. Revise the mechanical room piping, see attached sketch SK201B

B. Add relocated water softener and other plumbing equipment, see attached sketch SK201B

4.30 P401 – SCHEDULES - PLUMBING

A. Revise the Plumbing piping diagrams, see attached sketch SK401A

B. Revise the Plumbing Equipment Schedule, see attached sketch SK601B

4.31 P601 – SCHEDULES - PLUMBING

A. Revise the Plumbing Fixture Schedule, see attached sketch SK601A

B. Revise the Plumbing Equipment Schedule, see attached sketch SK601B.

MECHANICAL

4.32 M602 – SCHEDULES – MECHANICAL

A. AHU-B1 VFD BY MECHANICAL CONTRACTOR

ELECTRICAL

4.33 ED200A – LOWER LEVEL – UNIT A – ELECTRICAL DEMOLITION

A. Remove water softener, circulation pump and water heater including wiring, motor starters and disconnects.

4.34 ED201F – GROUND LEVEL – UNIT F – ELECTRICAL DEMOLITION

A. See division 00 for scope of work.

4.35 ED202C – SECOND LEVEL – UNIT C – ELECTRICAL DEMOLITION

A. Remove NAC panel in northeast classroom and relocate in new construction. See E232C for location.

4.36 ED202D – SECOND LEVEL – UNIT D – ELECTRICAL DEMOLITION

A. Remove NAC panel in northeast classroom and relocate in new construction. See E232D for location.

4.37 E100 – SITE PLAN - ELECTRICAL

A. See division 00 for scope of work.

4.38 E201A – GROUND LEVEL – UNIT A - LIGHTING

A. Provide type 'FN' light fixture outside north egress door mounted +8'-0" AFF. Connect to existing circuit in CORRIDOR A201.

4.39 E201B – GROUND LEVEL – UNIT B - LIGHTING

A. Provide type "X4" light fixture mounted +8'-6" AFF on wall opposite to lower elevation of north walk ramp. Connect to circuit 'LP-10-8'.

B. Provide type "X3" exit sign at east egress door in NODE B106 and connect to existing unswitched lighting circuit in the area.

C. Provide type "X3" exit sign instead of type "X1" at NODE B160.

4.40 E201C – GROUND LEVEL – UNIT C - LIGHTING

A. Reissue sheet in its entirety.

4.41 E201D – GROUND LEVEL – UNIT D - LIGHTING

A. Provide type "X3" exit signs at each egress door in rooms D102 and D110.

B. Provide type "X4" light fixture at bottom of northwest staircase. Light fixture to be mounted +8'-0" AFF.

C. Provide (3) additional type "F91" light fixtures at southwest corner of room D110.

D. Provide (3) type "FN" light fixtures in courtyard located southwest. Fixtures to be mounted +8'-0" AFF. Connect to same circuit as light fixtures in commons F118. Provide photocell at +8'-0" AFF for controls.

4.42 E201F – GROUND LEVEL – UNIT F - LIGHTING

A. See division 00 for scope of work.

4.43 E202C – SECOND LEVEL – UNIT C - LIGHTING

A. Provide (2) type "X4" light fixtures mounted +8'-0" AFF at top and bottom landings of southwest.

4.44 E202F – SECOND LEVEL – UNIT F - LIGHTING

A. See division 00 for scope of work.

4.45 E202G – SECOND LEVEL – UNIT G - LIGHTING

A. Provide (4) type "X3" exit signs at each egress door in rooms G202 and G204.

B. Provide (2) type "FN" light fixtures at east exterior wall mounted +8'-0" from top of stairs to bottom of light fixtures. Center light fixtures between stairs and walk ramp and provide photocell for at same height as light fixtures for controls. Connect to circuit in CORRIDOR G206.

4.46 E202B – UPPER LEVEL – UNIT B - LIGHTING

A. Left two rows of lights to be controlled with dimmer switch 'b' and right two rows of lights to be controlled with dimmer switch 'a'.

4.47 E210A – LOWER LEVEL – UNIT A - POWER

A. Circuit circulation pump 'CP-A' to 'MB1-3-1'. Provide manual motor starter and wire through aquastat for controls.

B. Circuit water heater 'WH-A' to 'MB1-3-9,11'. Provide 30A, 2-pole disconnect and wire with 3#10, 1#10 GND, 3/4" C.

4.48 E211A – GROUND LEVEL – UNIT A - POWER

A. Provide regular duplex receptacle for electric water cooler instead of GFCI. Feed receptacle from load side of GFCI receptacle located on adjacent countertop. Connect to circuit 'LP-5-24'.

4.49 E211C – GROUND LEVEL – UNIT C - POWER

A. FCU-C109, FCU-C101 and FCU-C122 to be fed from 208V circuit 'LP-4-52,54' instead of 120V.

4.50 E211F – GROUND LEVEL – UNIT F - POWER

A. See division 00 for scope of work.

4.51 E212C – SECOND LEVEL – UNIT C - POWER

A. Connect relocated NAC panel to circuit 'LP-7-28'. Provide wiring.

4.52 E212D – SECOND LEVEL – UNIT D - POWER

A. Connect relocated NAC panel to circuit 'LP-6-36'. Provide wiring.

4.53 E212F – SECOND LEVEL – UNIT F - POWER

A. See division 00 for scope of work.

4.54 E213B – UPPER LEVEL – UNIT B – POWER

A. Provide GFCI receptacle at southwest corner of mothers room B316 for mini-fridge. Connect to circuit 'LP-9-29'.

4.55 E231C – GROUND LEVEL – UNIT C – FIRE ALARM

A. Provide horn strobe and manual pull station at southeast corner of corridor C126.

B. Provide horn strobe and manual pull station at northwest corner of corridor C123.

4.56 E232C – GROUND LEVEL – UNIT C – FIRE ALARM

A. Relocate existing NAC panel to janitor C217.

4.57 E232D – GROUND LEVEL – UNIT D – FIRE ALARM

A. Relocate existing NAC panel to janitor D219.

4.58 E231F – GROUND LEVEL – UNIT F – FIRE ALARM

A. See division 00 for scope of work.

4.59 E501 – RISER DIAGRAM – ELECTRICAL

A. Change plan note #9 to '3#4, 1#8 GND, 1-1/4"C.

B. Wire panel 'LP-8' with '4#4, 1#8 GND, 1-1/4"C.

C. Show panel 'LC-11' being fed from panel 'LP-11'. Wire with 3#4, 1#8 GND, 1-1/4"C.

4.60 E601 – SCHEDULES – ELECTRICAL

A. Add fixture type 'FE', 'F91B' and 'FN' to INTERIOR LIGHT FIXTURE SCHEDULE as follows:

1 F91B – 2 by 2-foot flat panel, acrylic lens, edge-lit, 0-10V dimming to 10-percent, color changing RGBW with remote. 30W, 80 CRI, 4000K, 4000 lumens, (Manufacturer: BARRON RGBWFP22)

2 FN – Architectural wall pack, wet location listed, battery backup (cold rated), 90-minute emergency capacity, finish to be selected by architect from manufacturer's catalog of standard colors. 21W, 70 CRI, 4000K, 2000 lumens, 120-277V , (Manufacturers: HUBBELL SG SERIES, LITHONIA WPX SERIES, LUMARK XTOR SERIES, LUMECON LWS-MFC SERIES)

3 FE - ARCHITECTURAL EMERGENCY WALL PACK, WET LOCATION LISTED, BATTERY BACKUP (COLD WEATHER RATED), 90 MINUTE EMERGENCY CAPACITY, FINISH TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S CATALOG OF STANDARD COLORS. 11W, 70 CRI, 4000K, 120-277V, (Manufacturers: Lithonia AFF Series or Approved equal)

B. Change type 'F40T' to the following:

1 F40T – 4-foot lensed industrial, integral sensor, bi-level, painted after fabrication. 51W, 80 CRI, 4000K, 5000 Lumens.

4.61 E611 – SCHEDULES – ELECTRICAL

A. Provide 208V, 2-pole circuit breaker at location 52, 54 on panel 'LP-4' for fan coils.

B. Panel 'LP-3' and 'LP-4' to come with feed through lugs.

C. Provide 20A, 1-pole breaker at location, and 30A, 2-pole breaker at location 9,11 for circulation pump and water heater.

D. New panel 'LP-9' to have 30 breaker locations, integral SPD and 22,000 kA rating. Provide 20A, 1-Pole breakers from location 1 to 29. Leave location 30 as 'Space'.

TECHNOLOGY

4.62 T101A – GROUND LEVEL DISTRIBUTION PLAN – UNIT A

A. Removed conduit pathways.

4.63 T101D - GROUND LEVEL DISTRIBUTION PLAN - UNIT D

A. Removed Conduit pathways.

4.64 T201A - GROUND LEVEL TECHNOLOGY PLAN - UNIT A

A. Updated Technology Legend.

B. Added Magnetic Hold to door A201-1.

C. Removed Data Location, Monitor Location and AV Input from rooms A2041, A208, A216 and A219

D. Removed AV Elevation T305/1.

4.65 T201C - GROUND LEVEL TECHNOLOGY PLAN - UNIT C

A. Updated Technology Legend.

B. Added Magnetic Hold to door C132.

4.66 T201D - GROUND LEVEL TECHNOLOGY PLAN - UNIT D

A. Updated Technology Legend.

B. Added Magnetic Hold to doors D101-1 and D101-2.

C. Removed Data Location, Monitor Location and AV Input from rooms D113 and D119.

4.67 T201F - GROUND LEVEL TECHNOLOGY PLAN - UNIT F

A. Updated Technology Legend.

B. Added Magnetic Hold to door F101-1.

4.68 T202B - SECOND LEVEL TECHNOLOGY PLAN - UNIT B

A. Updated Technology Legend.

B. Removed Data Location, Monitor Location and AV Input from room B206.

4.69 T202C - SECOND LEVEL TECHNOLOGY PLAN - UNIT C

A. Updated Technology Legend.

B. Added Magnetic Hold to door C201.

C. Removed Data Location, Monitor Location and AV Input from rooms C205, C206, C216 and C214.

D. Relocated Data Location C136-B-34/35 in room C213.

4.70 T202D - SECOND LEVEL TECHNOLOGY PLAN - UNIT D

A. Updated Technology Legend.

B. Added Magnetic Hold to doors D201-1 and D201-2.

C. Removed Data Location, Monitor Location and AV Input from rooms D204, D208, D217 and D218.

D. Relocated Videoboard D212-B-31/32, Classroom Audio System, AV Input location and Data Location D212-B-33/34 in room D206.

E. Relocated AV Input Location and Data Location D212-B-48; D212-C-01 in room D216.

4.71 T202F - SECOND LEVEL TECHNOLOGY PLAN - UNIT F

A. Updated Technology Legend.

B. Added Magnetic Hold to door F201-1.

4.72 T202G - SECOND LEVEL TECHNOLOGY PLAN - UNIT G

A. Updated Technology Legend.

B. Added Magnetic Hold to door G201.

C. Relocated Videoboard G205-A-03/04 in room G202.

D. Relocated Videoboard G205-A-05/06 in room G204.

4.73 T302 - SECURITY DIAGRAMS

A. Updated Detail #1 - Access Control System Functional Diagram

4.74 T305 - AV ELEVATIONS

A. Removed Detail #1 - Typical Small Group Room Elevation - Flush Mounted.

4.75 T403 - SECURITY DETAIL

A. Added Detail #8 - EAC Door Type D1MH - Magnetic Hold Open.

B. Added Detail #9 - EAC Door Type S3ES - Card Reader with Electric Strike & Rex.

C. Detail #10 - EAC Door Type S3MES - Mullion Mount Card Reader with Electric Strike & Rex.

4.76 T500 - TECHNOLOGY/ SECURITY SCHEDULES

A. Updated IDF C136 Access Control Schedule.

B. Updated IDF C136 Technology Schedule.

C. Updated IDF D212 Technology Schedule.

D. Updated IDF F203 Access Control Schedule.

E. Updated IDF F203 Technology Schedule.

F. Updated IDF G205 Access Control Schedule.

G. Updated IDF G205 Technology Schedule.

H. Updated MDF B310 Access Control Schedule.

I. Updated MDF B310 Technology Schedule

PART 5 - OTHER ITEMS

5.1 LF SMITH TURF SOUND-ABSORBING WALL AND CEILING UNITS

A. ADD in its entirety to provide additional information on sound-absorbing wall and ceiling units.

5.2 SK201B – LOWER LEVEL – UNIT B – PLUMBING

A. See P201B narrative above

5.3 SK401A – DETAILS – PLUMBING

A. See P401 narrative above

5.4 SK601A – PLUMBING FIXTURE SCHEDULE

A. See P601 narrative above

5.5 SK601B – PLUMBING EQUIPMENT

A. See P601 narrative above

PART 6 - QUESTIONS AND ANSWERS

6.1 Corridor F201 has a drinking fountain in it all other drinking fountains throughout the building seem to be getting tile behind them, is this one going to get the same treatment?

A. Yes, wall tile being added in this addendum

6.2 AD105 calls out honeycomb hatch pattern roofing alternate demo to be demo'd down to roof deck. On sheet A120 this area is called to receive a new roofing assembly over EXISTING insulation at this roof deck. Is the roofer to save or remove the existing insulation?

A. Save the existing insulation.

6.3 Are allowances as described in the specifications to cover both the elementary school and the high school?

A. Yes, Allowances are to be included within the base bid lump sum. These allowance(s) will be used as specified

6.4 On Sheet P101A it calls out for the crawl spaces below Unit A in LF Smith to be accessible via 3' wide openings. This was field verified, and these openings do not exist. Please advise on how we are to access this work? Would Saw-cutting / backfilling be acceptable?

A. Scope of work to be handled via an Allowance. See division 00.

6.5 Please confirm that all existing to remain & be re-used speakers are removed, stored, and re-installed by Owners Contractor. Existing cable to be re-used.

A. Paging equipment and labor is by owner's contractor

6.6 The specifications do not mention any requirements of an arc flash or coordination study. Please advise if either one is required.

A. No Arc Flash Study required.

6.7 For the devices, lights and other materials mentioned that will be demoed and kept protected for reinstallation—Will there be a place within the school(s) to keep these items or will our own storage methods be required.

A. Contractor is responsible for protecting, storing, and re-installing any salvaged items. There will be limited storage within work space, coordinate with other trades and CM as required. If necessary, items will need to be stored by contractor outside of work space.

6.8 Disconnects shown on drawings do not reflect on any mechanical or Electrical contractor schedules—Who is to provide?

A. Mechanical Equipment scheduled on M601 and M602 are noted for MFR supplied disconnect: EF, CUH, ACHP, FCU, and ECUH. and UV, VUV, and AHU are provided by Electrical as noted in Addendum #2. VFD for AHU to be provided by Mechanical, noted in Addendum #4. All disconnects and motor starters shown or noted on Electrical Drawings are provided by the Electrical Contractor.

6.9 Please advise why demo site plans do not match new materials plans.

A. Demolition plans are revised with the latest site materials plans.

6.10 C401, Manhole #424 has a rim of 635.35'. The 24" pipe heading south has an invert of 633.5'. The top of this pipe will be above the asphalt pavement. None of the pipes along the curbs seem deep enough. Drywall pipe at drywell #430 will have top of pipe at finished grade. Please advise.

A. See plan revisions for resolved pipe cover.

6.11 Please provide Sump elevation for drywell structure #430? Please provide all information for Sanitary Sewer Man Holes. Missing TOR and SUMP, none shown on C502. Should sump be 12" below?

A. See revised Sheet C502 for additional sanitary structure information. Additionally, the sump elevation for STR 430 is added to Sheet C401.

6.12 For storm pipe is HD pipe acceptable in lieu of RCP? For an HD storm pipe, the minimum cover is typically 12 inches for pipes up to 48 inches in diameter, and 24 inches for 60 inch diameter pipes.

A. HDPE is called out for most of the stormwater pipes. A few locations with limited cover (less than the City-minimum 2 feet of cover) are called out to be RCP for longevity with bus traffic, vehicular traffic, etc. such as STR 423-424, 424-425, and 424-427

6.13 Do we need to include underdrains under all new curbs, or just the gutter curbs? City standards display only gutter curbs.

A. This is a typical City detail for public road gutter curbs (chairback curb). So this detail would only apply to the curb at new driveway radii within the right-of-way. All other curbs do not need underlying underdrains. 20 LF of Pavement underdrain is already called for at storm inlet locations (Keynote "D" on the C400s)

6.14 Please advise in the difference of planting protections on sheet L010. Some of the light weights are circles with dashes, and some are squares with dashes. Please advise if these are different types of protection.

A. The lighter dashed line represented the root zone. The darker fence line is the actual tree protection fencing.

6.15 Decorative gravel depth? Does the decorative gravel need gravel base below, and/or separation fabric?

A. Please refer to detail 5/L602

6.16 In the geotextile spec section you mention subgrade stabilization or base separation fabric. Do we need to include fabric under all new full depth pavements? I did not see any mention of it being needed within the civil drawings.

A. We would expect the on-site geotechnical engineer to weigh in stabilization requirements after subgrades have been exposed. If fabrics are required, we would follow the prescribed specification.

6.17 Site furnishings-Need specs for the bollards. L100 refers to detail 8/L601. It is not correct. What diameter pipe, wall thickness, bollard cover or painted? F02 errantly refers to detail 8/L601.

A. Please see bollard detail on sheet 4/L602.

6.18 Site Furnishings – provide answers to the following questions:

A. What slat material? - Orange Peel Texture HDPE

B. What color? - Owner and Landscape Architect to choose from standard colors.

C. Table and Bench sizes? - 6' Tables and 6' Long Backless Benches

D. Standard or Bar Height? - Standard Height

E. Umbrella hole/mounts needed for the tables? - No Umbrella hole/mounts required.

6.19 Specification 05 51 00 allows for cast in place concrete pan stairs or precast concrete pan stairs. S001 calls out for cast in place concrete pan stairs. Please confirm we are to follow S001 and all stairs are cast in place.

A. S001 does not require cast-in-place concrete filled metal pan stairs. The "Steel Stairs" notes refer to the architectural drawings and don't mention a tread/landing type. The only other mention of stairs on S001 is the "Stair Pan Fill" concrete mix in the Concrete Mix Classes table, but this does not mean that other types of stair construction are prohibited. See architectural sections for types of stairs.

END ADDENDUM #4

SECTION 22 40 00 – PLUMBING FIXTURES

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Faucets.
2. Flushometers.
3. Toilet seats.
4. Protective shielding guards.
5. Fixture supports.
6. Disposers.
7. Water closets.
8. Lavatories.
9. Individual showers.
10. Sinks.
11. Ice maker boxes.

B. Related Sections include the following:

1. Division 22 Section "Drinking Fountains and Water Coolers."

1.2 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings: Diagram power, signal, and control wiring.

C. Operation and maintenance data.

1.3 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

B. Regulatory Requirements: Comply with requirements in ICC A117.1, "Accessible and Usable Buildings and Facilities"; Public Law 90-480, "Architectural Barriers Act"; and Public Law 101-336, "Americans with Disabilities Act"; for plumbing fixtures for people with disabilities.

C. Regulatory Requirements: Comply with requirements in Public Law 102-486, "Energy Policy Act," about water flow and consumption rates for plumbing fixtures.

D. NSF Standard: Comply with the latest adopted version of NSF 61, "Drinking Water System Components--Health Effects," for fixture materials that will be in contact with potable water.

E. Select combinations of fixtures and trim, faucets, fittings, and other components that are compatible.

F. Comply with the following applicable standards and other requirements specified for plumbing fixtures:

1. Solid-Surface-Material Lavatories and Sinks: ANSI/ICPA SS-1.
2. Stainless-Steel Sinks: ASME A112.19.3.
3. Vitreous-China Fixtures: ASME A112.19.2M.
4. Water-Closet, Flush Valve Trim: ASME A112.19.5.
5. Water-Closet, Flushometer Tank Trim: ASSE 1037.

G. Comply with the following applicable standards and other requirements specified for lavatory/sink faucets:

1. Backflow Protection Devices for Faucets with Side Spray: ASME A112.18.3M.
2. Backflow Protection Devices for Faucets with Hose-Thread Outlet: ASME A112.18.3M.
3. Faucets: ASME A112.18.1.
4. Hose-Connection Vacuum Breakers: ASSE 1011.
5. Integral, Atmospheric Vacuum Breakers: ASSE 1001.
6. NSF Potable-Water Materials: NSF 61.

H. Comply with the following applicable standards and other requirements specified for shower faucets:

1. Backflow Protection Devices for Hand-Held Showers: ASME A112.18.3M.
2. Combination, Pressure-Equalizing and Thermostatic-Control Antiscald Faucets: ASSE 1016.
3. Faucets: ASME A112.18.1.
4. Hand-Held Showers: ASSE 1014.
5. High-Temperature-Limit Controls for Thermal-Shock-Preventing Devices: ASTM F 445.
6. Manual-Control Antiscald Faucets: ASTM F 444.
7. Pressure-Equalizing-Control Antiscald Faucets: ASTM F 444 and ASSE 1016.
8. Sensor-Actuated Faucets and Electrical Devices: UL 1951.
9. Thermostatic-Control Antiscald Faucets: ASTM F 444 and ASSE 1016.

I. Comply with the following applicable standards and other requirements specified for miscellaneous fittings:

1. Atmospheric Vacuum Breakers: ASSE 1001.
2. Brass and Copper Supplies: ASME A112.18.1.
3. Brass Waste Fittings: ASME A112.18.2.
4. Manual-Operation Flushometers: ASSE 1037.
5. Plastic Tubular Fittings: ASTM F 409.
6. Sensor-Operation Flushometers: ASSE 1037 and UL 1951.
7. Supply Fittings: ASME A112.18.1.

J. Comply with the following applicable standards and other requirements specified for miscellaneous components:

1. Disposers: ASSE 1008 and UL 430.
2. Flexible Water Connectors: ASME A112.18.6.
3. Grab Bars: ASTM F 446.

4. Hose-Coupling Threads: ASME B1.20.7.
5. Off-Floor Fixture Supports: ASME A112.6.1M.
6. Pipe Threads: ASME B1.20.1.
7. Plastic Toilet Seats: ANSI Z124.5.
8. Supply and Drain Protective Shielding Guards: ICC A117.1.

PART 2 - PRODUCTS

2.1 FLUSH VALVE WATER CLOSETS

A. Water Closets; WC- 2,3: (wall hung)

1. Basis-of-Design Product: Subject to compliance with requirements, provide American Standard “Afwall FloWise” 2257.001, or a comparable by the following:

    a. Kohler Co.
    b. Sloan.
    c. Zurn Plumbing Products Group.

2. Description: Wall-mounting, back-outlet, vitreous-china fixture designed for flushometer valve operation.

    a. Style: Flushometer valve.
    b. Bowl Type: Elongated with siphon-jet design.
    c. Height: Refer to the plumbing fixture schedule on the Drawings.
    d. Design Consumption: 1.28 gal./flush.
    e. Color: White.

2.2 WATER CLOSET FLUSHOMETERS

A. Water Closet; WC-2,3 : (sensor flush valve)

1. Basis-of-Design Product: Subject to compliance with requirements, provide Sloan G2 SENSOR FLUSHOMETER G2 8111-1.28-GR or a comparable by the following:

    a. Zurn Plumbing Products Group; Commercial Brass Operation.

2. Description: Flushometer for water-closet type fixture. Include brass body with corrosion and chlorine resistant internal components, dual-filtered bypass, synthetic rubber diaphragm assembly, control stop with check valve, vacuum breaker, copper or brass tubing, and polished chrome-plated finish on exposed parts.

    a. Internal Design: Diaphragm operation.
    b. Style: Exposed.
    c. Inlet Size: NPS 1.
    d. Trip Mechanism: Solar powered, infrared sensor actuator, alkaline battery back-up.
    e. Consumption: 1.28 gal./flush.
    f. Tailpiece Size: NPS 1-1/2 and standard length to top of bowl.

2.3 FIXTURE SUPPORTS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Josam Company.
2. Smith, Jay R. Mfg. Co.
3. Tyler Pipe; Wade Div.
4. Watts Drainage Products Inc.; a div. of Watts Industries, Inc.
5. Zurn Plumbing Products Group; Specification Drainage Operation.

B. Water-Closet Supports; WC-2,3 : (regular duty)

1. Description: Combination carrier designed for accessible and standard mounting height of wall-mounting, water-closet-type fixture. Include single or double, vertical or horizontal, hub-less waste fitting as required for piping arrangement; faceplates; couplings with gaskets; feet; and fixture bolts and hardware matching fixture. Include additional extension coupling, faceplate, and feet for installation in wide pipe space.

2.4 TOILET SEATS

A. Toilet Seats; WC-2,3 : (elongated)

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. Bemis Manufacturing Company.
b. Church Seats.
c. Olsonite Corp.

2. Description: Toilet seat for water-closet-type fixture.

a. Material: Molded, solid plastic.
b. Configuration: Open front less cover.
c. Size: Elongated.
d. Hinge Type: Stainless steel, self-sustaining check hinge.
e. Class: Extra heavy-duty, commercial.
f. Color: White.

2.5 LAVATORIES

A. Lavatories; L-1,2,3 : (wall hung, 4” centers)

1. Basis-of-Design Product: Subject to compliance with requirements, provide American Standard “Lucerne” 0355.012 or a comparable product by one of the following:

a. Kohler Co.
b. Sloan.
c. Zurn Plumbing Products Group.

2. Description: Accessible, wall-mounting, vitreous-china fixture.

    a. Size: 20 by 18 inches rectangular.
    b. Faucet Hole Punching: Three holes, 2-inch centers.
    c. Color: White.
    d. Overflow: Front.
    e. Construction: Self-draining deck area with contoured back and side splash shields.

3. Subject to compliance with requirements, provide trim products by one of the following:

    a. McGuire Manufacturing Company.
    b. Engineered Brass Company.
    c. Keeney Manufacturing Company.

4. Lavatory Trim

    a. Supplies: Chrome-plated copper with 1/2" NPT x 3/8” OD loose key stops.
    b. Drain: Grid with ADA compliant offset waste.
    c. Drain Piping: NPS 1-1/4 chrome-plated cast-brass P-trap with cleanout; NPS 1-1/4 17-gauge tubular brass waste to wall; and wall escutcheon.

2.6 LAVATORY FAUCET

A. Lavatory Faucets; L-1,2,3 : (solar sensor faucet)

1. Basis-of-Design Product: Subject to compliance with requirements, provide Sloan SEBF-615-4-BAT-BDM-CP-0.5GPM-MLM-FCT or an approved equal:
2. Description: Sensor-control mixing valve. Coordinate faucet inlets with supplies and fixture holes; coordinate outlet with spout and fixture receptor.

    a. Body Material: Commercial, solid brass.
    b. Finish: Polished chrome plate.
    c. Maximum Flow Rate: 0.5 gpm.
    d. Centers: Single hole with 4-inch deck plate.
    e. Mounting: Deck, exposed.
    f. Inlet(s): NPS 3/8 tubing, with NPS 1/2 male adaptor.
    g. Spout Outlet: Aerator.
    h. Power Source: Integral solar panel.
    i. Temperature Control: Internal mixer.
    j. Warranty: 3-year limited.

2.7 PROTECTIVE SHIELDING GUARDS

A. Protective Shielding Pipe Covers; L-1,2,3 : (pipe wrap)

1. Basis-of-Design Product: Subject to compliance with requirements, provide Truebro 103 E-Z or a comparable product by one of the following:

    a. Insul-Tect Products Co.; a Subsidiary of MVG Molded Products.
    b. Plumberex Specialty Products Inc.

2. Description: Manufactured plastic wraps for covering plumbing fixture hot and cold-water supplies and trap and drain piping. Comply with Americans with Disabilities Act (ADA) requirements.

    a. Material: Molded vinyl.
    b. Nominal Thickness: 1/8” constant wall.
    c. UV Protection: Required.
    d. Fasteners: Internal, reusable fasteners.
    e. Color: White.

2.8 FIXTURE SUPPORTS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Josam Company.
2. Smith, Jay R. Mfg. Co.
3. Tyler Pipe; Wade Div.
4. Watts Drainage Products Inc.; a div. of Watts Industries, Inc.
5. Zurn Plumbing Products Group; Specification Drainage Operation.

B. Lavatory Supports; L-1,2,3

1. Description: Type II, lavatory carrier with concealed arms and tie rod for wall-mounting, lavatory-type fixture. Include steel uprights with feet.

2.9 SHOWER FAUCETS

A. Shower Faucets; SH-1 :

1. Basis-of-Design Product: Subject to compliance with requirements, provide Symmons C-96-300 - B30-V-X or a comparable product by one of the following:

    a. Leonard Valve Co.
    b. Powers; a Watts Industries Co.

2. Description: Single-handle pressure-balance valve with handheld shower. Coordinate faucet inlets with supplies.

    a. Body Material: Solid bronze body with bronze and stainless-steel balancing assembly, metal lever handle.
    b. Finish: Polished chrome plate.
    c. Maximum Flow Rate: 1.5 gpm.
    d. Construction: Concealed mount, stainless steel balancing piston with renewable seats, adjustable hi-limit stop, integral service stops.
    e. Supply Connections: NPS 1/2, Sweat.
    f. Handheld Shower Type: 30” slide-bar mounted with 5-foot metal hose.
    g. Backflow Protection Device for Hand-Held Shower: Inline vacuum breaker.
    h. Spray Pattern: Adjustable.
    i. Handheld Shower Material: Nonmetallic with chrome-plated finish.

j. Warranty: 5 years for commercial installations.

2.10 SINKS

A. Classroom Sinks; SK- 1: single compartment, ADA (classroom)

1. Basis-of-Design Product: Subject to compliance with requirements, provide just manufacturing SLADA1921A55-J or a comparable product by one of the following:

a. ELKAY.
b. Franke Group.

2. Description: One-bowl, countertop-mounting, dual faucet ledge, stainless-steel, classroom-type sink.

a. Overall Dimensions: 22 by 19 1/2 by 5-1/2 inches.
b. Metal Thickness: 18-gauge type 304 (18-8) stainless steel.
c. Faucet Hole Punching: Three holes, 4-inch centers, left faucet ledge.
d. Bubbler Hole Punching: One slotted hole, right faucet ledge.
e. Bowl Dimensions: 18 by 14 by 5-3/8 inches.
f. Drain: 3-1/2-inch stainless steel crumb cup; Elkay LK35.

1) Location: Rear Center of bowl.

3. Subject to compliance with requirements, provide trim products by one of the following:

a. McGuire Manufacturing Company.
b. Engineered Brass Company.
c. Keeney Manufacturing Company.

4. Sink Trim

a. Supplies: Chrome-plated copper with 1/2" NPT x 3/8” OD loose key stops.
b. Drain Piping: NPS 1-1/2 chrome-plated cast-brass P-trap with cleanout; NPS 1-1/2 17-gauge tubular brass waste to wall; and wall escutcheon.

B. Sink; SK-2: (Two compartment sink)

1. Basis-of-Design Product: Subject to compliance with requirements, provide Elkay B2C24X24Xor a comparable product by one of the following:

a. Just Manufacturing Company.

2. Description: Two-bowl, Free standing, stainless-steel type sink.

a. Overall Dimensions: 51 by 27 1/12 by 42 inches.
b. Metal Thickness: 18-gauge type #4 finish stainless steel.
c. Faucet Hole Punching: four holes, 2 holes 8-inch centers centered on each bowl.
d. Bowl Dimensions: 24 by 24 by 12 inches.
e. Drain:3-1/2-inch stainless steel crumb cup; Elkay LK35.

1) Location: Center of bowl.

f. Drain: 3-1/2-inch stainless steel crumb cup; Elkay LK35

1) Location: Center of bowl.

3. Subject to compliance with requirements, provide trim products by one of the following:

a. McGuire Manufacturing Company.
b. Engineered Brass Company.
c. Keeney Manufacturing Company.

4. Sink Trim

a. Supplies: Chrome-plated copper with 1/2" NPT x 3/8” OD loose key stops.
b. Continuous Waste Connection: NPS 1-1/2 chrome-plated cast brass tubing and tailpiece with center outlet.
c. Drain Piping: NPS 1-1/2 chrome-plated cast-brass P-trap with cleanout; NPS 1-1/2 17-gauge tubular brass waste to wall; and wall escutcheon.+
d. Plaster Trap: Equal to Jay R. Smith 8710T or Zurn Z1180.

C. Clinic Sinks; SK-3: (single compartment, ADA) (Clinic)

1. Basis-of-Design Product: Subject to compliance with requirements, provide just manufacturing SLADA1921A55-J or a comparable product by one of the following:

a. ELKAY.
b. Franke Group.

2. Description: One-bowl, countertop-mounting, dual faucet ledge, stainless-steel, classroom-type sink.

a. Overall Dimensions: 22 by 19 1/2 by 5-1/2 inches.
b. Metal Thickness: 18-gauge type 304 (18-8) stainless steel.
c. Faucet Hole Punching: Three holes, 4-inch centers, left faucet ledge.
d. Bubbler Hole Punching: One slotted hole, right faucet ledge.
e. Bowl Dimensions: 18 by 14 by 5-3/8 inches.
f. Drain: 3-1/2-inch stainless steel crumb cup; Elkay LK35.

1) Location: Rear Center of bowl.

3. Subject to compliance with requirements, provide trim products by one of the following:

a. McGuire Manufacturing Company.
b. Engineered Brass Company.
c. Keeney Manufacturing Company.

4. Sink Trim

a. Supplies: Chrome-plated copper with 1/2" NPT x 3/8” OD loose key stops.
b. Drain Piping: NPS 1-1/2 chrome-plated cast-brass P-trap with cleanout; NPS 1-1/2 17-gauge tubular brass waste to wall; and wall escutcheon.

D. Exam Sinks; SK-4: (single compartment, ADA) (Exam)

1. Basis-of-Design Product: Subject to compliance with requirements, provide just manufacturing SLADA1921A55-J or a comparable product by one of the following:

   a. ELKAY.
   b. Franke Group.

2. Description: One-bowl, countertop-mounting, dual faucet ledge, stainless-steel, classroom-type sink.

   a. Overall Dimensions: 22 by 19 1/2 by 5-1/2 inches.
   b. Metal Thickness: 18-gauge type 304 (18-8) stainless steel.
   c. Faucet Hole Punching: Three holes, 4-inch centers, left faucet ledge.
   d. Bubbler Hole Punching: One slotted hole, right faucet ledge.
   e. Bowl Dimensions: 18 by 14 by 5-3/8 inches.
   f. Drain: 3-1/2-inch stainless steel crumb cup; Elkay LK35.

      1) Location: Rear Center of bowl.

3. Subject to compliance with requirements, provide trim products by one of the following:

   a. McGuire Manufacturing Company.
   b. Engineered Brass Company.
   c. Keeney Manufacturing Company.

4. Sink Trim

   a. Supplies: Chrome-plated copper with 1/2" NPT x 3/8” OD loose key stops.
   b. Drain Piping: NPS 1-1/2 chrome-plated cast-brass P-trap with cleanout; NPS 1-1/2 17-gauge tubular brass waste to wall; and wall escutcheon.+

2.11 LAB SINKS

A. Lab Sinks; SK-5, 6,7:

1. Description: Integral countertop sink (by others).
2. Subject to compliance with requirements, provide trim products by one of the following:

   a. McGuire Manufacturing Company.
   b. Engineered Brass Company.
   c. Keeney Manufacturing Company.

3. Sink Trim

   a. Supplies: Chrome-plated copper with 1/2" NPT x 3/8” OD loose key stops.
   b. Drain Piping: Provide adapter plug for connection to acid waste dilution tank. Refer to Division 20 Section “Pipe, Valves, Fittings, and Hangers for Fire Suppression, Plumbing, and HVAC.”

B. Lab Sinks; SK-12:

1. Description: Stainless steel 3-station wall mounted sink
2. 14-gauge stainless steel, with sensor activated 24 VAC chrome plated faucets.
3. 1 ½" dome strainer
4. Z-clip wall hanger
5. Sloan OPTIMA faucet for hands free operation
6. Knee activated soap dispenser
7. Pre plumbed.
8. Sloan ESS-3300 or approved equal.
9. Sink Trim

    a. Supplies: Chrome-plated copper with 1/2" NPT x 3/8" OD loose key stops.
    b. Drain Piping: Provide adapter plug for connection to acid waste dilution tank. Refer to Division 20 Section "Pipe, Valves, Fittings, and Hangers for Fire Suppression, Plumbing, and HVAC."

2.12 SINK FAUCETS

A. classroom Sink Faucets; SK-1: (two handle faucets)

1. Basis-of-Design Product: Subject to compliance with requirements, provide Chicago 201-AE35ABCP or a comparable product by one of the following:

    a. T & S Brass and Bronze Works, Inc.
    b. Zurn Plumbing Products Group; Commercial Brass Operation.

2. Description: faucet without spray. Coordinate faucet inlets with supplies and fixture holes; coordinate outlet with spout and fixture receptor.

    a. Body Material: Commercial, solid brass.
    b. Finish: Polished chrome plate.
    c. Maximum Flow Rate: 1.5 gpm.
    d. Mixing Valve: Two-handle.
    e. Centers: 8 inches.
    f. Mounting: Deck, concealed.
    g. Handle(s): Lever with color coded index button.
    h. Inlet(s): NPS 1/2 male shank.
    i. Spout Type: 9" swing, solid brass.
    j. Spout Outlet: Aerator.
    k. Operation: Quarter-turn, ceramic disc, manual.

B. Sink Faucet; SK-2: two compartment (two handle faucet)

1. Basis-of-Design Product: Subject to compliance with requirements, provide T & S Brass #LK940HA08L2H or a comparable product by one of the following:

    a. Chicago faucet.
    b. Zurn Plumbing Products Group; Commercial Brass Operation.

2. Description: faucet without spray. Coordinate faucet inlets with supplies and fixture holes; coordinate outlet with spout and fixture receptor.

a. Body Material: Commercial, solid brass.
b. Finish: Polished chrome plate.
c. Maximum Flow Rate: 1.5 gpm.
d. Mixing Valve: Two-handle.
e. Centers: 8 inches.
f. Mounting: Deck, concealed.
g. Handle(s): Lever with color coded index button.
h. Inlet(s): NPS 1/2 male shank.
i. Spout Type: 9” swing, solid brass.
j. Spout Outlet: Aerator.
k. Operation: Quarter-turn, ceramic turn disc. manual.

C. Sink Faucet; SK-3 : (Clinic, ADA)

1. Basis-of-Design Product: Subject to compliance with requirements, provide Chicago 201-GN2AE3-317XKAB or a comparable product by one of the following:

a. T & S Brass and Bronze Works, Inc.
b. Zurn Plumbing Products Group; Commercial Brass Operation.

2. Description: Concealed deck 8” fixed centers 5 ¼” rigid/swing spout. Coordinate faucet inlets with supplies and fixture holes; coordinate outlet with spout and fixture receptor.

a. Body Material: Commercial, solid brass.
b. Finish: Polished chrome plate.
c. Maximum Flow Rate: 2.2 gpm.
d. Centers: 8 inches.
e. Mounting: concealed
f. Handle(s): 4” wrist blades
g. Inlet(s): NPS 3/8” tubing, with NPS 1/2" male adaptor.
h. Spout Type: 5 ¼” swing, solid brass.
i. Spout Outlet: Aerator.
j. Operation: Ceramic, manual.

D. Sink Faucet; SK-4 : (Exam, ADA)

1. Basis-of-Design Product: Subject to compliance with requirements, provide Chicago 201-GN2AE3-317XKAB or a comparable product by one of the following:

a. T & S Brass and Bronze Works, Inc.
b. Zurn Plumbing Products Group; Commercial Brass Operation.

2. Description: Concealed deck 8” fixed centers 5 ¼” rigid/swing spout. Coordinate faucet inlets with supplies and fixture holes; coordinate outlet with spout and fixture receptor.

a. Body Material: Commercial, solid brass.
b. Finish: Polished chrome plate.
c. Maximum Flow Rate: 2.2 gpm.
d. Centers: 8 inches.
e. Mounting: concealed
f. Handle(s): 4” wrist blades
g. Inlet(s): NPS 3/8” tubing, with NPS 1/2" male adaptor.
h. Spout Type: 5 ¼” swing, solid brass.

i. Spout Outlet: Aerator.
j. Operation: Ceramic, manual.

2.13 MOP SINKS

A. Mop Sinks; MS-1 :

1. Basis-of-Design Product: Subject to compliance with requirements, provide Fiat MSB-2424 or a comparable product by one of the following:

a. Swan.
b. Stern-Williams.

2. Description: One-bowl, floor-mounting, molded stone utility sink.

a. Overall Dimensions: 24 by 24 by 10 inches.
b. Drain: 3-inch I.P.S. cast brass with 16-gauge stainless steel dome strainer and lint basket.
c. Accessories:

1) Hose and Bracket: Stainless steel hose bracket, spring-loaded rubber grip, 30” long heavy duty 5/8-inch rubber hose; Fiat 832 AA.
2) Mop Hanger: Stainless steel mop hanger bracket, 24 by 3 inches, 3-spring loaded rubber grips; Fiat 889 CC.
3) Stainless steel wall guards: Heavy gauge stainless steel, two/three panels as required; Fiat MSG 2424.

2.14 MOP SINK FAUCETS

A. Mop Sink Faucets; MS-1 :

1. Basis-of-Design Product: Subject to compliance with requirements, provide Chicago 897-RFC or a comparable product by one of the following:

a. T & S Brass and Bronze Works, Inc.
b. Zurn Plumbing Products Group; Commercial Brass Operation.

2. Description: Service sink faucet with check stops in shanks, vacuum breaker, hose-thread outlet, and pail hook.

a. Body Material: Commercial, solid brass.
b. Finish: Rough chrome plate.
c. Mixing Valve: Two-handle.
d. Centers: Adjustable.
e. Mounting: Back/wall, exposed.
f. Handle(s): Lever with color coded index button.
g. Inlet(s): NPS 1/2 male shank, with integral check stops.
h. Spout Type: Rigid, solid brass with wall brace.
i. Spout Outlet: Hose thread.
j. Vacuum Breaker: Integral with spout.

k. Operation: Quarter-turn compression, renewable, manual.

2.15 ICE MAKER BOXES

A. Ice Maker Boxes; IMB-1 :

1. Basis-of-Design Product: Subject to compliance with requirements, provide Guy Gray MIB1HAAB or a comparable product by one of the following:

   a. Acorn Engineering Company.
   b. IPS Corporation.

2. Description: Recessed wall-mounting water supply box.

   a. Overall dimension: 4-3/4 by 4-1/8 by 3-1/2 inches.
   b. Metal Thickness: 20 gauge cold rolled steel.
   c. Supplies: 1/2" sweat inlet.
   d. Valve: Integral hammer arrester quarter turn, 1/4" O.D. outlet.
   e. Finish: White powder coat.

2.16 CLOTHES WASHER BOXES

A. Washer Boxes; WB-1 :

1. Basis-of-Design Product: Subject to compliance with requirements, provide Guy Gray 82158 or a comparable product by one of the following:

   a. Acorn Engineering Company.
   b. Oatey.

2. Description: Recessed wall-mounting water supply box.

   a. Overall dimension: 8-1/4 by 5-5/8 by 3-1/2 inches.
   b. Metal Thickness: 20 gauge cold rolled steel.
   c. Supplies: 1/2" sweat inlet.
   d. Valve: Integral hammer arrester quarter turn, 1/2" O.D. outlet.
   e. Drain: 2” slipnut drain kit.
   f. Finish: White powder coat.

2.17 SOLID INTERCEPTOR

A. Provide Duco coated cast iron body and aluminum gasketed cover and sediment strainer with removable stainless steel screens.

B. Provide acid resistant coating inside an out.

C. Similar to JR smith #8710TARIO

PART 3 - EXECUTION

3.1 INSTALLATION

A. Assemble plumbing fixtures, trim, fittings, and other components according to manufacturers' written instructions.

B. Install off-floor supports, affixed to building substrate, for wall-mounting fixtures.

1. Use carrier supports with waste fitting and seal for back-outlet fixtures.
2. Use carrier supports without waste fitting for fixtures with tubular waste piping.

C. Install back-outlet, wall-mounting fixtures onto waste fitting seals and attach to supports.

D. Install floor-mounting fixtures on closet flanges or other attachments to piping or building substrate.

E. Install wall-mounting fixtures with tubular waste piping attached to supports.

F. Install fixtures level and plumb according to roughing-in drawings.

G. Install water-supply piping with stop on each supply to each fixture to be connected to water distribution piping. Attach supplies to supports or substrate within pipe spaces behind fixtures. Install stops in locations where they can be easily reached for operation. All exposed supply piping shall be chrome-plated copper.

H. Install trap and tubular waste piping on drain outlet of each fixture to be directly connected to sanitary drainage system.

I. Install tubular waste piping on drain outlet of each fixture to be indirectly connected to drainage system.

J. Install flushometer valves for accessible water closets and urinals with handle mounted on wide side of compartment. Install other actuators in locations that are easy for people with disabilities to reach.

K. Install toilet seats on water closets.

L. Install traps on fixture outlets.

1. Exception: Omit trap on fixtures with integral traps.
2. Exception: Omit trap on indirect wastes, unless otherwise indicated.

M. Install disposer in outlet of each sink indicated to have disposer. Install switch where indicated or in wall adjacent to sink if location is not indicated.

N. Connect drain outlet hose from dishwasher to drain connection on disposer.

O. Install escutcheons at piping wall and ceiling penetrations in exposed, finished locations and within cabinets and millwork. Use deep-pattern escutcheons if required to conceal protruding

fittings. Escutcheons are specified in Division 20 Section "Common Work Materials and Methods for Fire Suppression, Plumbing, and HVAC."

P. Set mop sinks in leveling bed of cement grout. Grout is specified in Division 20 Section "Common Work Materials and Methods for Fire Suppression, Plumbing, and HVAC."

Q. Seal joints between fixtures and walls, floors, and countertops using sanitary-type, one-part, mildew-resistant silicone sealant. Match sealant color to fixture color. Sealants are specified in Division 07 Section "Joint Sealants."

3.2 CONNECTIONS

A. Piping installation requirements are specified in other Division 20 Sections. Drawings indicate general arrangement of piping, fittings, and specialties.

B. Connect fixtures with water supplies, stops, and risers, and with traps, soil, waste, and vent piping. Use size fittings required to match fixtures.

C. Ground equipment according to Division 26 Section "Grounding and Bonding for Electrical Systems."

D. Connect wiring according to Division 26 Section "Low-Voltage Electrical Power Conductors and Cables."

3.3 FIELD QUALITY CONTROL

A. Verify that installed plumbing fixtures are categories and types specified for locations where installed.

B. Check that plumbing fixtures are complete with trim, faucets, fittings, and other specified components.

C. Inspect installed plumbing fixtures for damage. Replace damaged fixtures and components.

D. Test installed fixtures after water systems are pressurized for proper operation. Replace malfunctioning fixtures and components, then retest. Repeat procedure until units operate properly.

E. Install fresh batteries in sensor-operated mechanisms.

3.4 PROTECTION

A. Provide protective covering for installed fixtures and fittings.

B. Do not allow use of plumbing fixtures for temporary facilities unless approved in writing by Owner.

END OF SECTION

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SECTION 32 33 00 – SITE FURNISHINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

B. Bidders shall include in their Base Bid price all materials, labor, and shop drawings required to provide and install each furnishing, including all applicable fasteners, anchors, foundations, footings, supports, and base preparation required to deliver a turn-key system that complies with these specifications.

1.2 SUMMARY

A. This Section includes the following:

1. Flagpole
2. Picnic Tables
3. **Bike Racks – ADD ALTERNATE**

B. Prior to Final Acceptance, the Contractor shall submit to the Owner three (3) copies of Maintenance Manuals, which shall include all necessary instructions for the proper care of equipment and furnishings.

C. Related Sections include the following:

1. Division 31 Section "Earthwork" for soil materials, excavating, backfilling and site grading requirements.
2. Division 31 Section "Concrete Paving" for concrete, formwork and related items.

1.3 SUBMITTALS

A. Product Data: For each type of site furnishing specified, with installation instruction for each unit built-in or connected to other construction. Include methods of installation for each type of substrate.

B. Samples for Initial Selection Purposes: Manufacturer's standard size samples showing full range of colors, textures, and patterns available for each type of furnishing required.

C. Submissions for Verification Purposes: Manufacturer's standard sizes for each type of site furnishing required.

D. Shop Drawings: For each furnishing system, indicating dimensions, anchoring methods, colors, finishes, and related delegated design requirements. Note that some systems require a signed

and sealed engineer's certification. Shop drawings will allow for final approval from the Owner and his representatives. Color selections, if not clearly identified within this Specification, will also be determined during the submittal process as selected from the Manufacturer's full range.

1.4 QUALITY ASSURANCE

A. Manufacturer Qualifications: Not less than three (3) years of production experience for each type of product specified, and whose published literature clearly indicates compliance with the indicated requirements of this Section.

B. Single Source Responsibility: Once a determination is made by the Owner as to the best value provider of any particular furnishing type, it is anticipated that all subsequent installations of that same furnishing type will be produced by a single manufacturer.

C. The Manufacturer shall offer comprehensive product support and engineering as part of their Base Bid, including coordination with on-site conditions that may affect use of any particular product.

D. All furnishings shall offer no less than a five (5) year warranty against fading or other defects. Ensure UV-stabilized finishes are provided in all outdoor applications.

E. When applicable, the latest 2012 edition of the International Building Code shall apply to any manufacturer's delegated design responsibilities. Bidders shall size all supports and anchors to account for local wind/ice/snow load.

1.5 DELIVERY, STORAGE AND HANDLING

A. Deliver materials to Project site in original factory wrappings and/or containers, clearly labeled with identification of manufacturer, brand name and lot number (as applicable).
   1. Sequence delivery of site furnishings as near as practicable to required time scheduled for installation so as to minimize the required amount of onsite storage time.
   2. Store materials in original, undamaged packages and containers, protected from the elements, soiling and other potential sources of damage.

B. Comply with instructions and recommendations of manufacturer for additional delivery, storage and handling requirements.

1.6 MAINTENANCE

A. Maintenance Instructions: Submit manufacturer's printed instructions for maintenance of furnishings and their respective installation, including methods and frequency recommended for maintaining optimum condition under anticipated use conditions. Include precautions about materials and methods which may be detrimental to finishes and performance.

PART 2 - PRODUCTS

2.1 MISCELLANEOUS MATERIALS

A. Welding Electrodes and Filler Metal: Type and alloy of filler metal and electrodes as recommended by producer of metal to be welded, complying with applicable AWS specifications and as required for color match, strength and compatibility in fabricated items.

B. Cast-in-Place Anchors: Anchors fabricated from corrosion-resistant materials with capability to sustain imposed design loads when installed in concrete as determined by testing per ASTM E 488 conducted by a qualified independent testing agency.

C. Fasteners: Use fasteners of same basic metal as the fastened metal, unless otherwise indicated. Do not use metals that are corrosive or incompatible with materials joined.

1. Provide concealed fasteners for interconnection of site furnishings and for their attachment to other Work except where exposed fasteners are unavoidable or are manufacturer's standard fastening method. Provide tamper-proof machine screws for exposed fasteners, unless otherwise indicated or approved by the Owner and his representatives.

2.2 FABRICATION, GENERAL

A. Provide site furnishing items, both freestanding and permanently installed, equipped with functions as specified. Fabricate units with tight seams and joints, exposed edges rolled. Provide products with consistent finish with no evidence of wrinkling, chipping, uneven coloration, dents, uneven/inconsistent welds or other imperfections.

2.3 FLAGPOLE

A. Basis-of-design: Tapered Aluminum Internal Halyard with lockable cover plate and gold ball topper. Satin finish. Model: MDG40CC, 40' height. Satin Finish. 6' x 10' Flag Size. Include all proper hardware and clips for a complete installation. As coordinated, designed, and fabricated by Admiral Flag Inc, 1-800-783-7653. Install per manufacturers recommendations.

B. Numerous manufacturers offer comparable products and are encouraged to offer an equal product as part of the bidding process. Provide full product literature and ensure all quality standards demonstrated by the basis-of-design product are met or exceeded.

2.4 PICNIC TABLE

A. Basis-of-design: Table and Benches. 1050 Standard Table, Model # MLTB1050 and 1050 Backless Standard Benches, Model # MLB1050B, As coordinated, designed, and fabricated by Maglin Site Furniture, 1-800-716-5506. Install per manufacturers recommendations. Color and finishes to be selected by landscape architect.

B. Numerous manufacturers offer comparable products and are encouraged to offer an equal product as part of the bidding process. Provide full product literature and ensure all quality standards demonstrated by the basis-of-design product are met or exceeded.

2.5 BIKE RACK – ADD ALTERNATE

A. Basis-of-design: Square 'U' Bike Rack, 2 Bike Capacity, as Manufactured by Madrax, Phone: 1-800-448-7931. Surface mounted. Black powdercoat finish. Confirm final locations with the Landscape Architect prior to mounting.

B. Numerous manufacturers offer comparable products and are encouraged to offer an equal product as part of the bidding process. Provide full product literature and ensure all quality standards demonstrated by the basis-of-design product are met or exceeded.

PART 3 - EXECUTION

3.1 PREPARATION

A. Coordinate and furnish anchorages and setting drawings, diagrams, templates, instructions and directions for installing items having integral anchors that are to be embedded in concrete or masonry construction. Coordinate delivery of such items to the Project site.

3.2 INSTALLATION, GENERAL

A. Provide anchorage devices and fasteners where necessary for securing site furnishings to in-place construction.

B. As required, and in accordance with manufacturer's written recommendations, perform drilling and fitting to install units. Set units accurately in location, alignment and elevation, plumb, level and true, measured from established lines and levels. Provide temporary bracing or anchors in form work for items that are to be built into concrete, masonry or similar construction.

C. Fit exposed connections accurately together to form tight, hairline joints. If cutting, welding and/or grinding is required for proper shop fitting and joining of site furnishings, restore finishes to completely eliminate any evidence of such corrective Work.

1. Do not cut or abrade finishes that cannot be completely restored in the field. Return items with such finishes to the shop for required alterations, followed by complete refinishing, or provide new units as required.

3.3 INSTALLATION

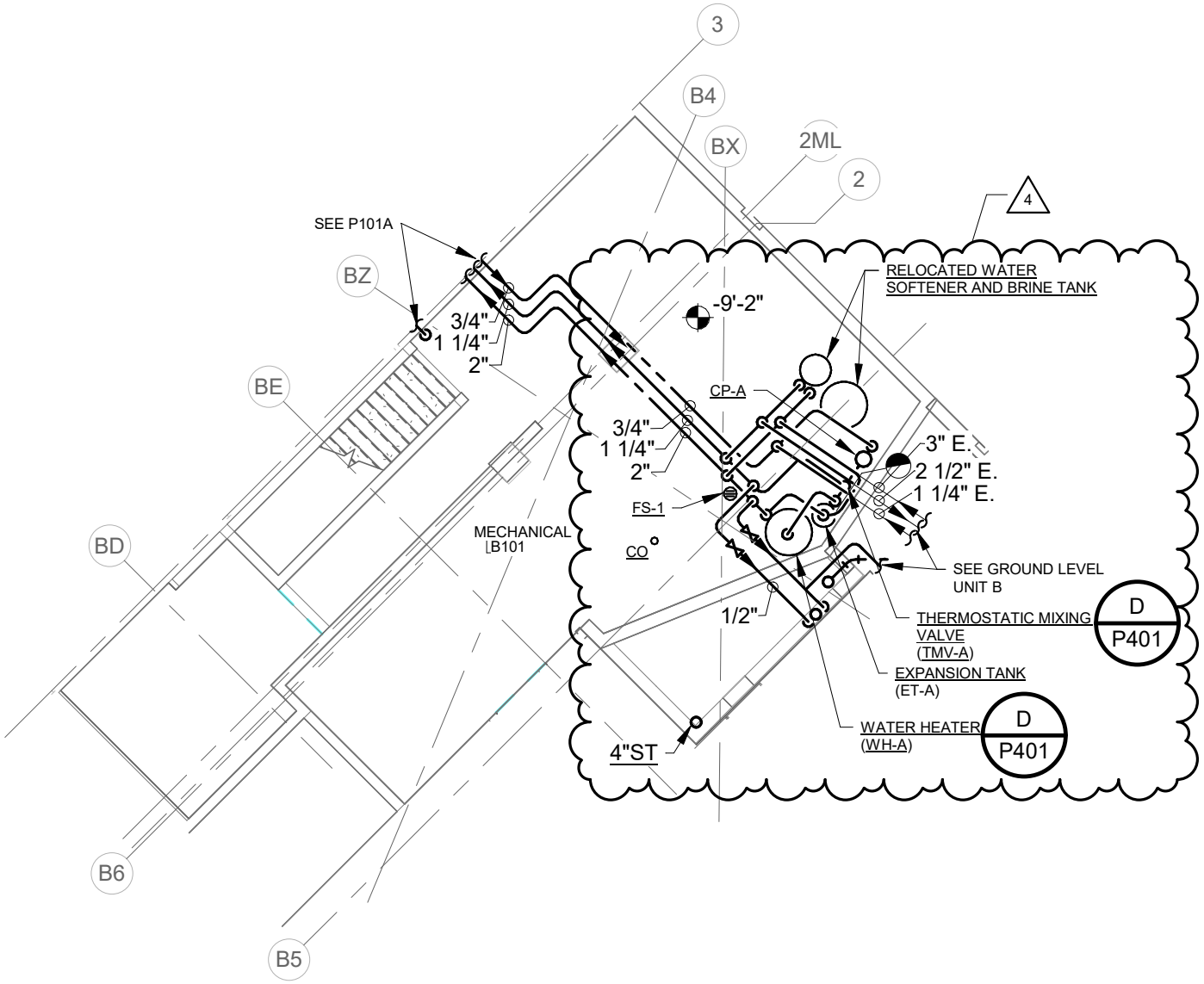
A. Verify that materials are those specified before installing. Inspect furnishings to insure that all units are complete, including fasteners, anchoring devices and/or accessories required for installation as shown and indicated.

B. Coordinate installation of furnishings with related Work to ensure that units will be undamaged at time of acceptance of Work. Provide temporary protective covering for units to avoid damage during the remainder of the construction period. Remove any temporary coverings at time of Substantial Completion.

C. Coordinate installation of furnishings with related Work to ensure no damage is done to adjacent work in progress, work in place, or other ongoing operations.

D. Remove and replace all damaged or defective items at no additional cost to the Owner. Clean and polish exposed surfaces using materials and methods as recommended by the manufacturer.

END OF SECTION



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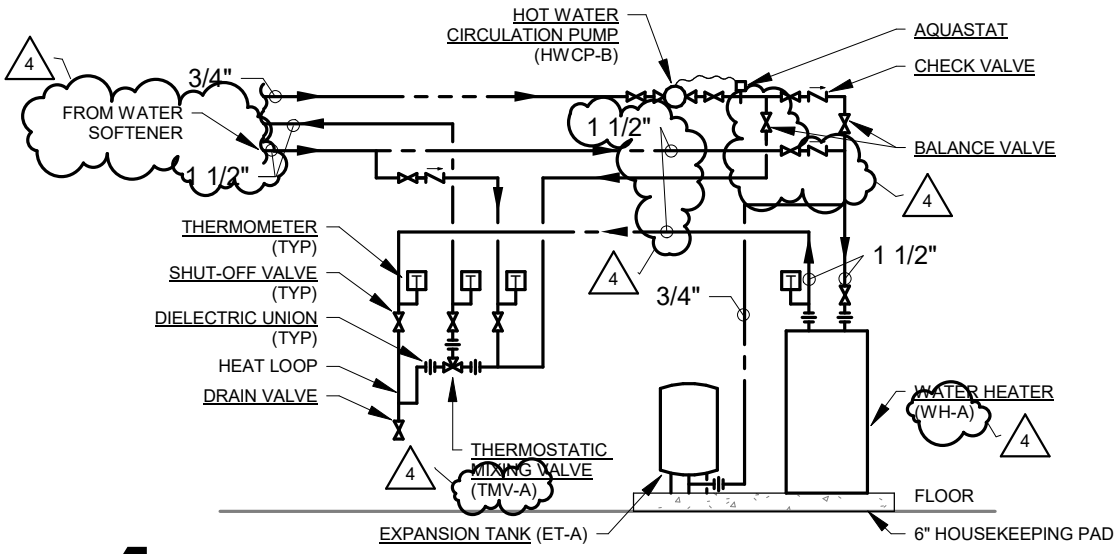
PROJECT:
BARTHOLOMEW CONSOLIDATED SCHOOL CORPORATION

JOB NUMBER: 24061
REF. DWG. NO.: P201B
DATE: 02/12/25
DRAWN BY: GAC

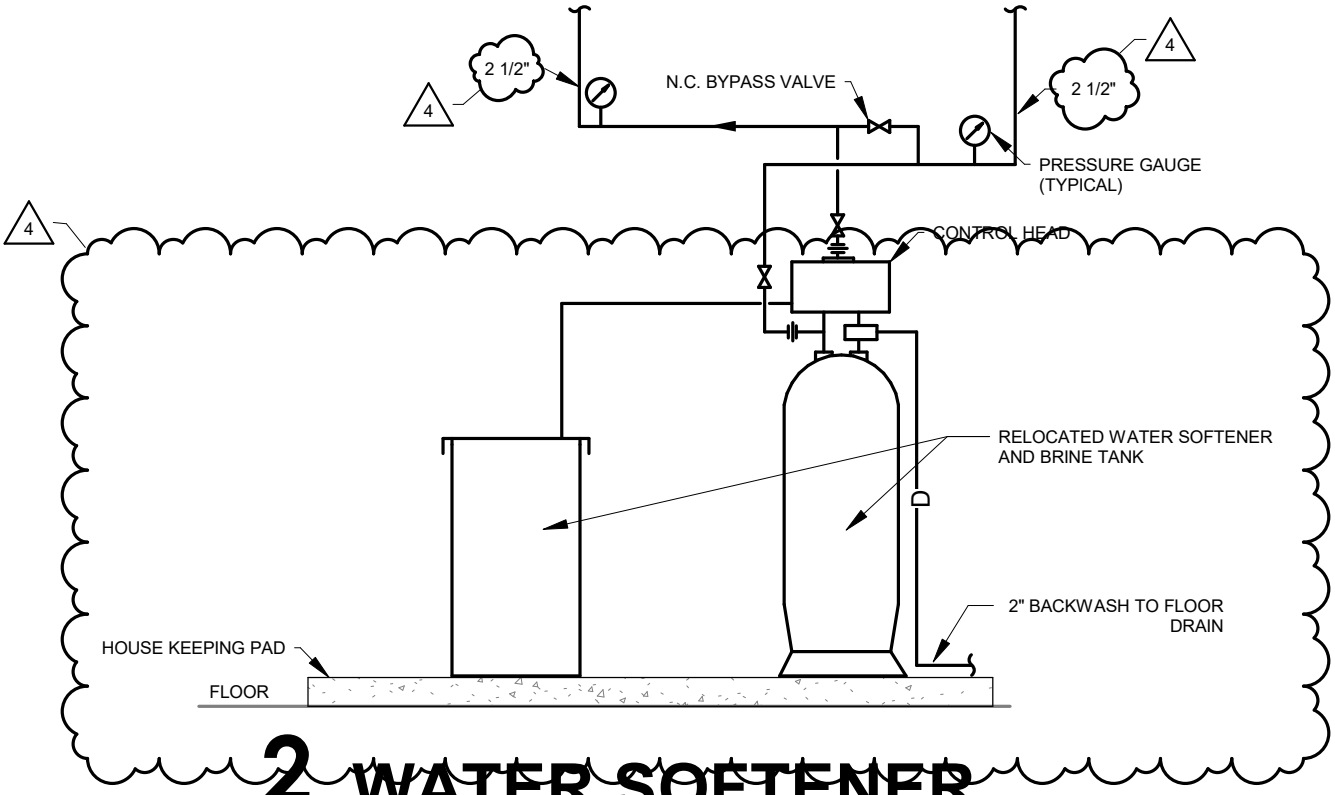
LOWER LEVEL-UNIT B-PLUMBING

DRAWING NO.: SK201B



1 WATER HEATER Copy 1

SCALE: NONE



2 WATER SOFTENER

SCALE: NONE

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PROJECT:
BARTHOLOMEW CONSOLIDATED SCHOOL CORPORATION

JOB NUMBER: 24061
REF. DWG. NO.: P401
DATE: 02/12/25
DRAWN BY: GAC

DETAILS - PLUMBING

DRAWING NO.: SK401A

FIXTURE ROUGH-IN SCHEDULE & MOUNTING HEIGHTS

MARK NO.	FIXTURE DESCRIPTION	CW	HW	TRAP	W	V	MOUNTING HEIGHTS
WC-2	WATER CLOSET - WALL HUNG, ADA (STAFF)	1"	-	INTEGRAL	4"	2"	17" TO SEAT
WC-3	WATER CLOSET - WALL MOUNTED CHILD HEIGHT, ADA	1"	-	INTEGRAL	4"	2"	15" TO SEAT
L-1	LAVATORY - WALL HUNG CHILD HEIGHT (KINDERGARTEN)	1/2"	1/2"	1-1/2"	1-1/2"	1-1/2"	27" TO RIM
L-2	LAVATORY - WALL HUNG, ADA (STAFF)	1/2"	1/2"	1-1/2"	1-1/2"	1-1/2"	34" TO RIM
L-3	LAVATORY - WALL HUNG (ART AND MUSIC)	1/2"	1/2"	1-1/2"	1-1/2"	1-1/2"	30" TO RIM
SK-1	CLASSROOM SINK, ADA 19"X24"	1/2"	1/2"	1-1/2"	1-1/2"	1-1/2"	MOUNT IN COUNTERTOP
SK-2	TWO COMPARTMENT SINK	1/2"	1/2"	1-1/2"	1-1/2"	1-1/2"	-
SK-3	CLINIC SINK	1/2"	1/2"	1-1/2"	1-1/2"	1-1/2"	MOUNT IN COUNTERTOP
SK-4	SINK (EXAM ROOM)	1/2"	1/2"	1-1/2"	1-1/2"	1-1/2"	MOUNT IN COUNTERTOP
EWC-1	WATER COOLER WITH BOTTLE FILLER, ADA (SINGLE)	1/2"	-	1-1/2"	1-1/2"	1-1/2"	30" TO BUBBLER
EWC-2	WATER COOLER WALL HUNG, ADA (SIDE-BY-SIDE)	1/2"	-	1-1/2"	1-1/2"	1-1/2"	36" TO LOW BUBBLER 42" TO HIGH BUBBLER
SH-1	SHOWER ADA	1/2"	1/2"	FD	-	-	SHOWER VALVE 42" TO CENTERLINE OF VALVE
MS-1	MOP SERVICE BASIN	3/4"	3/4"	3"	3"	2"	36" TO FAUCET
IMB-1	ICE MAKER BOX	1/2"	-	-	-	-	54" TO BOTTOM OF BOX
WB-1	WASHER BOX	3/4"	3/4"	2"	2"	1-1/2"	42" TO BOTTOM OF BOX

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PROJECT:
BARTHOLOMEW CONSOLIDATED SCHOOL CORPORATION

JOB NUMBER: 24061
REF. DWG. NO.: P601
DATE: 02/12/25
DRAWN BY: GAC

PLUMBING FIXTURE SCHEDULE
DRAWING NO.: SK601A

PLUMBING EQUIPMENT SCHEDULE

MARK NO.	SPECIFICATION NAME	MANUFACTURER & MODEL NO.	ELECTRICAL DATA			GAS LOAD (BTU)	CAPACITY	REMARKS
			LOAD	VOLTS	PHASE			
WH-A	ELECTRIC WATER HEATER	LOCHINVAR #LTA052HD	4.5 KW	208	1 PH	-	27 GPH @ 100°Δt	-
CP-A	CIRCULATION PUMP	TACO #0011-F4	1/8	115	1 PH	-	1.5 GPM @ 25' TDH	AQUASTAT SET POINTS ON: 110°F OFF: 117°F
ET-A	EXPANSION TANK	THERM-X-TROL #ST-12-C	-	-	-	-	TANK VOLUME = 6.4 GALLONS	
TMV-A	THERMOSTATIC MIXING VALVE	LAWLER #801	-	-	-	-	17 GPM @ 5 PSI DROP	SERVICE MOUNTED IN MECHANICAL ROOM

4

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PROJECT:
BARTHOLOMEW CONSOLIDATED SCHOOL CORPORATION

JOB NUMBER: 24061
REF. DWG. NO.: P601
DATE: 02/12/25
DRAWN BY: GAC

PLUMBING EQUIPMENT

DRAWING NO.: SK601B