ADDENDUM NO. 1

March 3, 2021

Scott County School District 1 – Austin Elementary Additions & Renovations and HS Pool Renovation
Austin, IN 47102

TO: ALL BIDDERS OF RECORD

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions, the Specifications and the Drawings dated February 12, 2021, by Lancer+Beebe. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum Consists Of Pages ADD 1-1, And Attached Lancer+Beebe Addendum No. 1 Dated March 2, 2021, Consisting of 10 Pages, Specification Sections: 116800 – Playground Equipment, 233300 - Air Duct Accessories, 321816.13 - Playground Protective Surfacing, Addendum Drawings: SV-1, SV-2, SV-3, SV-4, SV-5, SV-6, SV-7, SV-8, SV-9, C100, C300, C301, C400, C402, C801, C803, C900, C902, S001, S101D, S610, AD101C, A101C, A201, A202, A203, A303, A313, MH101C, M601, M602, PD101C, P101A, P101C, P102A, P401, P402, P601, EP101C, E602, T001-II, T101E.

A. SPECIFICATION SECTION 00 00 10 - Title Page

1. Change the Architect, Lancer+Beebe's Address to read: 220 N. College Avenue, Indianapolis, IN 46202.

B. **SPECIFICATION SECTION 01 12 00 MULTIPLE CONTRACT SUMMARY**

1. Paragraph 3.03 Bid Categories

B. Bid Category No. 2 – General Trades

Add the following clarifications:

17. Provide all drainage fill for pool infill as shown on drawing sheet S410.

LANCER + BEEBE, LLC
Project # 19160

ADDENDUM NO. ONE

PROJECT: ***SCOTT COUNTY SCHOOL DISTRICT 1***
AUSTIN ELEMENTARY SCHOOL ADDITIONS AND RENOVATIONS &
AUSTIN HIGH SCHOOL POOL RENOVATION

PROJECT NUMBER: ***19160***

DATE OF ADDENDUM: ***MARCH 2, 2021***

THIS ADDENDUM FORMS A PART OF THE CONTRACT DOCUMENTS AND IS ISSUED IN ACCORDANCE WITH THE INSTRUCTIONS TO BIDDERS. ACKNOWLEDGE RECEIPT OF THIS ADDENDUM BY SIGNING THE ADDDENDUM ACKNOWLEDGMENT SECTION OF THE BID FORM.

General Specification Revisions:

1. Specification Section: INDEX
   Specification Title: INDEX
   Revision:
   Revise Overhead Coiling Doors specification number to read 08 33 00.
   Add 08 33 14 Overhead Coiling Counter Doors

2. Specification Section: 10 51 13
   Specification Title: METAL ATHLETIC LOCKERS
   Revision:

   Add to 2.01 MANUFACTURERS,
   A., 2. Scranton Products Tufftec Lockers

Architectural Drawing Revisions:

1. Drawing No.: T001-I and T001-II
   Drawing Sheet Title: COVER SHEET AND INDEX
   Revision:

Updated Sheet Index order appropriately. GENERAL T001-II as first sheet of Volume II and reordering plumbing sheets with PD drawings first and FP last.

2. Drawing No.: AD001*
   Drawing Sheet Title: OVERALL FIRST FLOOR DEMOLITION PLAN – AES WEST
   Revision:
   Update DEMO PLAN NOTE D70 to read 'SAVE MINIMUM 4'x30' EXISTING WOOD GYMNASIUM FLOOR FOR LOBBY BENCH FINISH. PORTIONS WITH PAINTED LINES ACCEPTABLE.'
   *Revise same note text on Sheets AD002, AD003, AD101B, AD101C, AD101D, AD105E, AD111, AD112, AD113 and AD115.

3. Drawing No.: AD101C
   Drawing Sheet Title: FIRST FLOOR DEMOLITION PLAN – UNIT C AES
   Revision:
   Updated plan with mechanical unit grill demolition information. See revised sheet attached.

4. Drawing No.: A101C
   Drawing Sheet Title: FIRST FLOOR PLAN – UNIT C
   Revision:
   Clarified new mechanical unit louvers. Added furred out wall for new plumbing piping to hand sink in Kitchen C137. Revised duplicate C129 room numbers. Renumbered OFFICE (old C129) and RR numbers to C130B and C130C. See revised sheet attached.

5. Drawing No.: A121C
   Drawing Sheet Title: FIRST FLOOR RCP –UNIT C
   Add General RCP Note 6. PAINT LOBBY A100, CORRIDOR A113 AND CAFETERIA C131 EXPOSED STRUCTURE AND ROOF DECK.
   Revise RCP NOTES 1 to read: '137" 16:10 DIAGONAL (72.5"H X 116"W) MOTORIZED PROJECTION SCREEN'

6. Drawing No.: A201
   Drawing Sheet Title: EXTERIOR ELEVATIONS - AES
   Revision:
   Clarified retaining wall, railing and fence discrepancies with civil drawings. See revised sheet attached.

7. Drawing No.: A202
   Drawing Sheet Title: EXTERIOR ELEVATIONS - AES
   Revision:
   Clarified mechanical unit new louver and wall infill scope. See revised sheet attached.

8. Drawing No.: A203
   Drawing Sheet Title: EXTERIOR ELEVATIONS - AES
   Revision:
   Modified Unit D Corridor addition parapet height on attached revised sheet.

9. Drawing No.: A303
   Drawing Sheet Title: BUILDING SECTIONS - AES
   Revision:
   Modified Unit D Corridor addition structure and parapet height at detail 2 on attached revised sheet.

10. Drawing No.: A313
    Drawing Sheet Title: WALL SECTIONS
    Revision:
    Modified Unit D Corridor addition structure and parapet height at detail 1 on attached revised sheet.

Attachments:
T001-I, AD101C, A101C, A201, A202, A203, A303, A313, T001-II

Scott County District 1, Austin Elementary School
Addendum #1 March 2, 2021 CEC 302-488

Specifications:

116800 Playground Equipment

Add 1.3.C. All playground equipment shall be manufactured in the USA.

321816.13 Playground Protective Surfacing

2.3.A. Delete "with anchoring system……engineered wood":

2.3.A.2. Revise to read "2 inches thick x 48 inches x 72 inches."

Drawings:

Add Boundary and Topographic Survey Drawings SV-1 through SV-9.

C100 Site Demolition Plan

Refer to drawing for revised plan note 33 on utilities and utility tunnel on North East corner of portion of building to remain.

C300/C301 Site Grading Plans

Added "DB" to Legend – Cast Iron Boot with Side Cleanout

Added "DB" key notes throughout drawings locating the downspout boots.

Added CO Casting elevations throughout drawings indicating finish elevation of clean outs.

C400 Site Drainage Plan

Removed roof drain cleanouts along the north side of the school

Added 2 roof drain lines and boots to connect to Structure 408

Added roof drain and boot to connect to Structure 420

Revised the size of the end section for Structure 423 from 18" to 15"

C402 Site Drainage Plan

Added inverts to Structures 408 & 420 for new roof drain connections

Structure 423 label revised to show 15" end section

C801 Site Details

Delete Detail 201 complete.

C803 Site Details

Revise Plan Key Note 9, indicating size and basis of design for synthetic playground pads.

Revised Detail 209, indicating installation depth of synthetic playground pads within Wood Fiber Play Surface.

C900 Stormwater Pollution Prevention Plan

Added Rip Rap apron to Structure 416 end section

C902 Stormwater Pollution Prevention Details

Revised Detail 903 table to show correct Structure numbers, added information for Structure 416, and revised depth information for Structure 400

END OF CIVIL ADDENDUM #1

LANCER + BEEBE, LLC
Project # 19160

ADDENDUM NO. ONE

PROJECT: ***SCOTT COUNTY SCHOOL DISTRICT 1***
AUSTIN ELEMENTARY SCHOOL ADDITIONS AND RENOVATIONS &
AUSTIN HIGH SCHOOL POOL RENOVATION

PROJECT NUMBER: ***19160***

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Structural Drawing Revisions:

1. Drawing No.: S001
   Drawing Sheet Title: STRUCTURAL NOTES
   Revision:
   Added lintel schedule note.

2. Drawing No.: S101D
   Drawing Sheet Title: LOW ROOF FRAMING PLAN – UNIT D
   Revision:
   Revised top of steel height and knee brace locations.

3. Drawing No.: S610
   Drawing Sheet Title: FRAMING SECTIONS AND DETAILS
   Revision:
   Revised Framing section detail 13 for canopy attachment steel.

Attachments:
S001, S101D, and S610

LANCER + BEEBE, LLC
Project # 19160

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General Specification Revisions:

1. Specification Section: 22 11 23 .13
   Specification Title: Domestic Booster Pumps
   Revision: 2.1, A. Manufacturers:
   Add 'QuantumFlo' as approved manufacturer.

2. Specification Section: 22 31 00
   Specification Title: Domestic Water Softeners
   Revision: 2.1, A, 3. Configuration:
   The configuration is to be one mineral tank and one brine tank.

3. Specification Section: 23 33 00
   Specification Title: Air Duct Accessories
   Revision: 2.14 Louvers
   Add 2.14 louver section.

4. Specification Section: 23 34 23
   Specification Title: HVAC Power Ventilators
   Revision: 2.1 Centrifugal Roof Ventilators
   Add Pennbarry as approved manufacturer.

5. Specification Section: 23 36 00
   Specification Title: Air Terminal Units
   Revision: Part 2 – Products, 2.2 Air Terminal Units
   Add Metalaire as approved manufacturer.

6. Specification Section: 23 37 23
   Specification Title: HVAC Gravity Ventilator
   Revision: Part 2 – Products, 2.3 Louvered Penthouse Ventilators and 2.4 Roof Hoods.
   Add Pennbarry as approved manufacturer.

7. Specification Section: 23 51 23
   Specification Title: Gas Vents
   Revision: Part 2 – Products, 2.1 Listed Type B & BW Vent and 2.2 Listed Type L Vents.
   Add Duravent as approved manufacturer.

8. Specification Section: 23 82 00
   Specification Title: Terminal Units
   Revision: Part 2 – Products, 2.1 Unit Heaters
   Add Berko as approved manufacturer.

Mechanical Drawing Revisions:

1. Drawing No.: MH101C
   Drawing Sheet Title: FIRST FLOOR MECHANICAL PLAN – UNIT C
   Revision: Add return air grille RG3 in corridor.
   See attached drawing.

2. Drawing No.: M601
   Drawing Sheet Title: MECHANICAL SCHEDULES
   Revision: Revised CUSTOM AIR HANDLING ROOF TOP UNIT SCHEDULE, Min cfm's and pre-heat coil data.
   See attached drawing.

3. Drawing No.: M602
   Drawing Sheet Title: MECHANICAL SCHEDULES
   Revision: Revised LOUVER SCHEDULE,
   Added note 1. Color selection by architect.
   See attached drawing.

Electrical Drawing Revisions:

1. Drawing No.: EP101C
   Drawing Sheet Title: FIRST FLOOR ELECTRICAL PLAN – UNIT C
   Revision: Add details to better coordinate kitchen equipment.

2. Drawing No.: E602
   Drawing Sheet Title: ELECTRICAL SCHEDULES

Revision: Revised schedules for panels "K" and "M" to reflect additional kitchen coordination.
See attached drawing.

Plumbing Drawing Revisions:

1. Drawing No.: PD101C
   Drawing Sheet Title: FIRST FLOOR PLUMBING DEMOLITION PLAN – UNIT C
   Revision: Remove laundry sink. See attached drawing.

2. Drawing No.: P101A
   Drawing Sheet Title: FIRST FLOOR PLUMBING PLAN – UNIT A
   Revision: Add Water Supply Box (WSB-1) for (3) refrigerators. See attached drawing.

3. Drawing No.: P101C
   Drawing Sheet Title: FIRST FLOOR PLUMBING PLAN – UNIT C
   Revision: Add Mop Basin (MB-1). See attached drawing.

4. Drawing No.: P102A
   Drawing Sheet Title: SECOND FLOOR PLUMBING PLAN – UNIT A
   Revision: Add Water Supply Box (WSB-1) for (1) refrigerator. See attached drawing.

5. Drawing No.: P401
   Drawing Sheet Title: ENLARGED PLUMBING PLANS
   Revision: Add domestic cold water, domestic hot water, and domestic hot water return lines to serve the Kitchen. See attached drawing.

6. Drawing No.: P402
   Drawing Sheet Title: ENLARGED PLUMBING PLANS
   Revision: Add plumbing scope associated with the Kitchen area. See attached drawing.

7. Drawing No.: P601
   Drawing Sheet Title: PLUMBING SCHEDULES
   Revision: Add Water Supply Box (WSB-1). Delete Floor Drain (FD-4). Revise mounting height for Electric Water Cooler (EWC-1). See attached drawing.

Technology Drawing Revisions:

LANCER + BEEBE, LLC
Project # 19160

1. Drawing No.: T101E
   Drawing Sheet Title: FIRST FLOOR TECHNOLOGY PLAN – UNIT E
   Revision: Added Keynote 5 to provide more detail on the existing paging system at the Middle School/High School.

Attachments:
Specification Section: 23 33 00
MH101C
M601
M602
EP101C
E601
PD101C
P101A
P101C
P102A
P401
P402
P601

SECTION 116800 – PLAYGROUND EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

B. All Site Civil Drawings Issued by Civil & Environmental Consultants, Inc., dated February 12, 2021 and all subsequent addendums.

1.2 SUMMARY

A. This section consists of a general description of required playground equipment and the installation of said equipment. Contractor shall be responsible for site installation of these items and for installing footings, anchors, fasteners, touch-up, repair and other accessory items as required.

1.3 REFERENCE STANDARDS

A. Safety Standards & Guidelines: All playground equipment supplied shall meet all applicable provisions of the following:
   1. "Handbook for Public Playground Safety" published by the Consumer Product Safety Commission (CPSC).
   2. ASTM F1487-01 "Standard Consumer Safety Performance Specifications for Playground Equipment for Public Use," published by the American Society for Testing and Materials (ASTM).
   3. ASTM F2049, Standard Guide for Fences/Barriers for Public, Commercial, and Multi-Family Residential Use Outdoor Play Areas.
   4. Americans with Disabilities Act.

B. Quality Certification: All playground equipment supplied shall be certified to ISO 9001 and IPEMA Standards.

C. All playground equipment shall be manufactured in the USA.

1.4 SUBMITTALS

A. Qualification Data: For Playground Installer.

B. Submit Manufacturers' Catalog Data.

C. Submit shop drawings indicating structure and equipment layout; footing quantity, size, design and location.

D. Submit shop drawings depicting equipment locations as proposed on plan that indicates safety zones as recommended by equipment manufacturer and complying with recommendations as stated in above referenced industry standard documents.

E. Submit shop drawings for installation where additional details are necessary for proper installation or as requested by owner's representative.

F. Provide certification, after installation and substantial completion, by the playground installer, certifying that the equipment has been installed per the manufacturer's recommendations and instructions, and meets or exceeds all necessary safety requirements as stated in above referenced industry standard documents.

1.5 QUALIFICATIONS

A. Equipment Installer Qualifications: An experienced and certified installer who has completed work with similar equipment, materials, and design, and to the extent similar with this project and whose work has resulted in construction with a record of successful in-service performance. Contractor to provide a list of all subcontractors and their appropriate qualifications. Installer shall follow manufacturer's instructions and installation documentation for all equipment.

1.6 DELIVERY AND STORAGE

A. Deliver and store products in original, unopened containers with labels intact when not being installed and protect during construction operations to prevent damage, theft or vandalism.

B. Inspect parts within 48 hours of deliver, compare with manufacturers bill of material, and report any missing or non-conforming parts to manufacturer.

C. All touch up, cleaning, repair or replacement shall be at contractor's expense.

1.7 WARRANTY

A. Minimum lifetime warranty on all deck posts, steel deck posts, and fastening system, and associated fastening hardware against structural failure caused by corrosion or deterioration from exposure to weather, or defective materials or defective workmanship.

B. Minimum 15-year warranty of support materials and decks against structural failure caused by corrosion, defective materials, or defective workmanship.

C. Minimum 10-year warranty on all steel components including railings, loops, and rungs against structural failure caused by defective materials or defective workmanship.

D. Minimum 1-year warranty on all products not listed above against structural failure caused by defective materials or defective workmanship.

PART 2 - PRODUCTS

2.1 GENERAL

A. All play equipment, posts, ladders, decks, rails, etc. shall be constructed of fully-welded tubular galvanized steel with manufacturer's coatings, factory applied.

B. Fasteners shall be stainless steel.

C. All play equipment roof/shade structures and other selected equipment shall be integrally colored, prefinished PVC, polymer, or other molded plastics.

2.2 ACCEPTABLE MANUFACTURERS AND EQUIPMENT.

A. Refer to conceptual playground equipment layout drawings.

Major playground equipment manufacturers meeting the requirement of this specification will be considered. All equipment suppliers and installers must meet or exceed the qualifications outlined within this section and must demonstrate that proposed equipment is equal or equivalent to the conceptual design equipment.

PART 3 - EXECUTION

3.1 INSPECTION

A. Prior to equipment installation, installer shall examine the substrates and conditions under which all equipment is to be installed and notify the owner's representative in writing of conditions detrimental to the proper, complete, and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Verify sub base drainage is installed prior to installation with Owner's Representative. Base material shall drain properly.

B. Assemble all equipment that requires pre-assembly before installation begins.

C. Install equipment at the locations agreed upon. Install level, plumb, secure and in accordance with manufacturer's recommendations, directions and detail drawings. Cooperate with other trades. Repair and replace damaged unites as directed by the owner's representative.

D. Protect installed equipment from damage, blemishes, or indication of use until completion and acceptance of the project.

1.8 END OF SECTION 116800 PLAYGROUND EQUIPMENT

SECTION 233300 - AIR DUCT ACCESSORIES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
1. Backdraft and pressure relief dampers.
2. Manual volume dampers.
3. Control dampers.
4. Fire dampers.
5. Smoke dampers.
6. Flange connectors.
7. Turning vanes.
8. Duct-mounted access doors.
9. Flexible connectors.
10. Duct accessory hardware.
11. Louvers

B. Related Requirements:
1. Section 283111 "Digital, Addressable Fire-Alarm System" for duct-mounted fire and smoke detectors.
2. Section 283112 "Zoned (DC-Loop) Fire-Alarm System" for duct-mounted fire and smoke detectors.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Design Submittals:
1. Detail duct accessories fabrication and installation in ducts and other construction. Include dimensions, weights, loads, and required clearances; and method of field assembly into duct systems and other construction. Include the following:
a. Special fittings.
b. Manual volume damper installations.
c. Control-damper installations.
d. Fire-damper and smoke-damper installations, including sleeves; and duct-mounted access doors.
e. Wiring Diagrams: For power, signal, and control wiring.

1.3 CLOSEOUT SUBMITTALS

A. Operation and maintenance data.

PART 2 - PRODUCTS

2.1 ASSEMBLY DESCRIPTION

A. Comply with NFPA 90A, "Installation of Air Conditioning and Ventilating Systems," and with NFPA 90B, "Installation of Warm Air Heating and Air Conditioning Systems."

B. Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" for acceptable materials, material thicknesses, and duct construction methods unless otherwise indicated. Sheet metal materials shall be free of pitting, seam marks, roller marks, stains, discolorations, and other imperfections.

2.2 MATERIALS

A. Galvanized Sheet Steel: Comply with ASTM A 653/A 653M.
   1. Galvanized Coating Designation: G90.
   2. Exposed-Surface Finish: Mill phosphatized.

B. Stainless-Steel Sheets: Comply with ASTM A 480/A 480M, Type 304, and having a No. 2 finish for concealed ducts and No. 2 finish for exposed ducts.

C. Aluminum Sheets: Comply with ASTM B 209, Alloy 3003, Temper H14; with mill finish for concealed ducts and standard, 1-side bright finish for exposed ducts.

D. Extruded Aluminum: Comply with ASTM B 221, Alloy 6063, Temper T6.

E. Reinforcement Shapes and Plates: Galvanized-steel reinforcement where installed on galvanized sheet metal ducts; compatible materials for aluminum and stainless-steel ducts.

F. Tie Rods: Galvanized steel, 1/4-inch minimum diameter for lengths 36 inches or less; 3/8-inch minimum diameter for lengths longer than 36 inches.

2.3 BACKDRAFT AND PRESSURE RELIEF DAMPERS

A. Manufacturers: Subject to compliance with requirements, provide products by the following:
   1. Air Balance Inc
   2. American Warming and ventilating
   3. Cesco Products
   4. Greenheck Fan Corporation
   5. Lloyd Industries, Inc
   6. Nailor Industries, Inc
   7. NCA Manufacturing, Inc.
   8. Pottorff
   9. Ruskin Company

B. Description: Gravity balanced.

C. Maximum Air Velocity: 200 fpm.

D. Maximum System Pressure: 3-inch wg.

E. Frame: Hat-shaped, 0.063-inch- thick extruded aluminum, with welded corners or mechanically attached and mounting flange.

F. Blades: Multiple single-piece blades, off-center pivoted maximum 6-inch (150-mm) width, 0.050-inch- thick aluminum sheet or noncombustible, tear-resistant, neoprene-coated fiberglass with sealed edges.

G. Blade Action: Parallel.

H. Blade Seals: Extruded vinyl, mechanically locked.

I. Blade Axles:
   1. Material: Galvanized steel.
   2. Diameter: 0.20 inch.

J. Tie Bars and Brackets: Aluminum.

K. Return Spring: Adjustable tension.

L. Bearings: synthetic pivot bushings.

M. Accessories:
   1. Adjustment device to permit setting for varying differential static pressure.
   2. Counterweights and spring-assist kits for vertical airflow installations.
   3. Electric actuators.
   4. Chain pulls.
   5. Screen Mounting: Front mounted in sleeve.
      a. Sleeve Thickness: 20 gage minimum.
      b. Sleeve Length: 6 inches minimum.
   6. Screen Mounting: Rear mounted.
   7. Screen Material: Galvanized steel.
   8. Screen Type: Insect.
   9. 90-degree stops.

2.4 MANUAL VOLUME DAMPERS

A. Standard, Steel, Manual Volume Dampers:
   1. Manufacturers: Subject to compliance with requirements, provide products by the following:
      a. Air Balance Inc
      b. American Warming and ventilating
      c. Cesco Products
      d. Greenheck Fan Corporation
      e. Lloyd Industries, Inc
      f. Nailor Industries, Inc
      g. NCA Manufacturing, Inc.
      h. Pottorff
      i. Ruskin Company

2. Standard leakage rating, with linkage outside airstream.
3. Suitable for horizontal or vertical applications.
4. Frames:
    a. Frame: Hat-shaped, 0.094-inch- thick, galvanized sheet steel.
    b. Mitered and welded corners.
    c. Flanges for attaching to walls and flangeless frames for installing in ducts.
5. Blades:
    a. Multiple or single blade.
    b. Parallel- or opposed-blade design.
    c. Stiffen damper blades for stability.
    d. Galvanized-steel, 0.064 inch thick.
6. Blade Axles: Galvanized steel.
7. Bearings:
    a. Oil-impregnated bronze.
    b. Dampers in ducts with pressure classes of 3-inch wg or less shall have axles full length of damper blades and bearings at both ends of operating shaft.
8. Tie Bars and Brackets: Galvanized steel.

B. Jackshaft:
1. Size: 0.5-inch diameter.
2. Material: Galvanized-steel pipe rotating within pipe-bearing assembly mounted on supports at each mullion and at each end of multiple-damper assemblies.
3. Length and Number of Mountings: As required to connect linkage of each damper in multiple-damper assembly.

C. Damper Hardware:
1. Zinc-plated, die-cast core with dial and handle made of 3/32-inch- thick zinc-plated steel, and a 3/4-inch hexagon locking nut.
2. Include center hole to suit damper operating-rod size.
3. Include elevated platform for insulated duct mounting.

2.5 CONTROL DAMPERS

A. Manufacturers: Subject to compliance with requirements, provide products by the following:
1. Air Balance Inc
2. American Warming and ventilating
3. Cesco Products
4. Greenheck Fan Corporation
5. Lloyd Industries, Inc
6. Nailor Industries, Inc
7. NCA Manufacturing, Inc.
8. Pottorff
9. Ruskin Company

B. Frames:
1. Hat shaped.
2. 0.094-inch- thick, galvanized sheet steel.
3. Mitered and welded corners.

C. Blades:

1. Multiple blade with maximum blade width of 6 inches.
2. Parallel- and opposed blade design.
3. Galvanized-steel.
4. 0.0747-inch- thick dual skin.
5. Blade Edging: Closed-cell neoprene.
6. Blade Edging: Inflatable seal blade edging, or replaceable rubber seals.

D. Blade Axles: 1/2-inch- diameter; galvanized steel; blade-linkage hardware of zinc-plated steel and brass; ends sealed against blade bearings.
   1. Operating Temperature Range: From minus 40 to plus 200 deg F.

E. Bearings:
   1. Oil-impregnated bronze.
   2. Dampers in ducts with pressure classes of 3-inch wg or less shall have axles full length of damper blades and bearings at both ends of operating shaft.
   3. Thrust bearings at each end of every blade.

2.6 FIRE DAMPERS

A. Manufacturers: Subject to compliance with requirements, provide products by the following:
   1. Air Balance Inc
   2. American Warming and ventilating
   3. Cesco Products
   4. Greenheck Fan Corporation
   5. Lloyd Industries, Inc
   6. Nailor Industries, Inc
   7. NCA Manufacturing, Inc.
   8. Pottorff
   9. Ruskin Company

B. Type: Static; rated and labeled according to UL 555 by an NRTL.

C. Closing rating in ducts up to 4-inch wg static pressure class and minimum 2000-fpm velocity.

D. Fire Rating: 1-1/2 and 3 hours.

E. Frame: Curtain type with blades outside airstream; fabricated with roll-formed, 0.034-inch-thick galvanized steel; with mitered and interlocking corners.

F. Mounting Sleeve: Factory- or field-installed, galvanized sheet steel.
   1. Minimum Thickness: 0.138 inch or 0.39 inch thick, as indicated, and of length to suit application.
   2. Exception: Omit sleeve where damper-frame width permits direct attachment of perimeter mounting angles on each side of wall or floor; thickness of damper frame must comply with sleeve requirements.

G. Mounting Orientation: Vertical or horizontal as indicated.

H. Blades: Roll-formed, interlocking, 0.034-inch- thick, galvanized sheet steel. In place of interlocking blades, use full-length, 0.034-inch- thick, galvanized-steel blade connectors.

I. Horizontal Dampers: Include blade lock and stainless-steel closure spring.

J. Heat-Responsive Device: Replaceable, 165 deg F rated, fusible links.

K. Heat-Responsive Device: resettable or replaceable link and switch package, factory installed, 165 deg F rated.

2.7 SMOKE DAMPERS

A. Manufacturers: Subject to compliance with requirements, provide products by the following:
   1. Air Balance Inc
   2. American Warming and ventilating
   3. Cesco Products
   4. Greenheck Fan Corporation
   5. Lloyd Industries, Inc
   6. Nailor Industries, Inc
   7. NCA Manufacturing, Inc.
   8. Pottorff
   9. Ruskin Company

B. General Requirements: Label according to UL 555S by an NRTL.

C. Smoke Detector: Integral, factory wired for single-point connection.

D. Frame: Hat-shaped, 0.094-inch- thick, galvanized sheet steel, with welded corners and mounting flange.

E. Blades: Roll-formed, horizontal, overlapping, 0.063-inch- thick, galvanized sheet steel.

F. Leakage: Class I.

G. Rated pressure and velocity to exceed design airflow conditions.

H. Mounting Sleeve: Factory-installed, 0.05-inch- thick, galvanized sheet steel; length to suit wall or floor application with factory-furnished silicone calking.

I. Damper Motors: two-position action.

J. Comply with NEMA designation, temperature rating, service factor, enclosure type, and efficiency requirements for motors specified in Section 230513 "Common Motor Requirements for HVAC Equipment."
   1. Motor Sizes: Minimum size as indicated. If not indicated, large enough so driven load will not require motor to operate in service factor range above 1.0.
   2. Controllers, Electrical Devices, and Wiring: Comply with requirements for electrical devices and connections specified in Section 230923 "Direct Digital Control (DDC) System for HVAC"
   3. Permanent-Split-Capacitor or Shaded-Pole Motors: With oil-immersed and sealed gear trains.
   4. Spring-Return Motors: Equip with an integral spiral-spring mechanism where indicated. Enclose entire spring mechanism in a removable housing designed for service or

adjustments. Size for running torque rating of 150 in. x lbf and breakaway torque rating of 150 in. x lbf.

5. Outdoor Motors and Motors in Outdoor-Air Intakes: Equip with O-ring gaskets designed to make motors weatherproof. Equip motors with internal heaters to permit normal operation at minus 40 deg F.
6. Nonspring-Return Motors: For dampers larger than 25 sq. ft., size motor for running torque rating of 150 in. x lbf and breakaway torque rating of 300 in. x lbf.
7. Electrical Connection: 115 V, single phase, 60 Hz.

K. Accessories:
1. Auxiliary switches for signaling, fan control or position indication.
2. Test and reset switches, damper mounted.

2.8 FLANGE CONNECTORS

A. Manufacturers: Subject to compliance with requirements, provide products by the following:
1. Air Balance Inc
2. American Warming and ventilating
3. Cesco Products
4. Greenheck Fan Corporation
5. Lloyd Industries, Inc
6. Nailor Industries, Inc
7. NCA Manufacturing, Inc.
8. Pottorff
9. Ruskin Company

B. Description: Roll-formed, factory-fabricated, slide-on transverse flange connectors, gaskets, and components.

C. Material: Galvanized steel.

D. Gage and Shape: Match connecting ductwork.

2.9 TURNING VANES

A. Manufacturers: Subject to compliance with requirements, provide products by the following:
1. Ductmate Industries, Inc.
2. Duro Dyne Inc.
3. Elgen Manufacturing.
4. Metalaire, Inc
5. SEMCO Incorporated
6. Ward Industries

B. Manufactured Turning Vanes for Metal Ducts: Curved blades of galvanized sheet steel; support with bars perpendicular to blades set; set into vane runners suitable for duct mounting.
1. Acoustic Turning Vanes: Fabricate airfoil-shaped aluminum extrusions with perforated faces and fibrous-glass fill.

C. Manufactured Turning Vanes for Nonmetal Ducts: Fabricate curved blades of resin-bonded fiberglass with acrylic polymer coating; support with bars perpendicular to blades set; set into vane runners suitable for duct mounting.

D. General Requirements: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible"; Figures 4-3, "Vanes and Vane Runners," and 4-4, "Vane Support in Elbows."

E. Vane Construction: Double wall.

2.10 DUCT-MOUNTED ACCESS DOORS

A. Manufacturers: Subject to compliance with requirements, provide products by the following:
1. American Warming and ventilating
2. Cesco Products
3. Ductmate industries, Inc.
4. Elgen Manufacturing
5. Flexmaster U.S.A Inc
6. Greenheck Fan Corporation
7. McGill Airflow LLC
8. Nailor Industries, Inc
9. Pottorff

B. Duct-Mounted Access Doors: Fabricate access panels according to SMACNA's "HVAC Duct Construction Standards - Metal and Flexible"; Figures 7-2, "Duct Access Doors and Panels," and 7-3, "Access Doors - Round Duct."
1. Door:
   a. Double wall, rectangular.
   b. Galvanized sheet metal with insulation fill and thickness as indicated for duct pressure class.
   c. Vision panel.
   d. Hinges and Latches: 1-by-1-inch butt or piano hinge and cam latches.
   e. Fabricate doors airtight and suitable for duct pressure class.
2. Frame: Galvanized sheet steel, with bend-over tabs and foam gaskets.
3. Number of Hinges and Locks:
   a. Access Doors Less Than 12 Inches Square: No hinges and two sash locks.
   b. Access Doors up to 18 Inches Square: Continuous and two sash locks.
   c. Access Doors up to 24 by 48 Inches: Continuous and two compression latches with outside and inside handles.
   d. Access Doors Larger Than 24 by 48 Inches: Continuous and two compression latches with outside and inside handles.

C. Pressure Relief Access Door:
1. Door and Frame Material: Galvanized sheet steel.
2. Door: Double wall with insulation fill with metal thickness applicable for duct pressure class.
3. Operation: Open outward for positive-pressure ducts and inward for negative-pressure ducts.
4. Factory set at 3.0- to 8.0-inch wg.
5. Doors close when pressures are within set-point range.
6. Hinge: Continuous piano.

7. Latches: Cam.
8. Seal: Neoprene or foam rubber.
9. Insulation Fill: 1-inch thick, fibrous-glass or polystyrene-foam board.

2.11 DUCT ACCESS PANEL ASSEMBLIES

A. Manufacturers: Subject to compliance with requirements, provide products by the following:
   1. Air Balance Inc
   2. American Warming and ventilating
   3. Cesco Products
   4. Greenheck Fan Corporation
   5. Lloyd Industries, Inc
   6. Nailor Industries, Inc
   7. NCA Manufacturing, Inc.
   8. Pottorff
   9. Ruskin Company

B. Labeled according to UL 1978 by an NRTL.

C. Panel and Frame: Minimum thickness 0.0428-inch stainless steel.

D. Fasteners: Stainless steel. Panel fasteners shall not penetrate duct wall.

E. Gasket: Comply with NFPA 96; grease-tight, high-temperature ceramic fiber, rated for minimum 2000 deg F.

F. Minimum Pressure Rating: 10-inch wg, positive or negative.

2.12 FLEXIBLE CONNECTORS

A. Manufacturers: Subject to compliance with requirements, provide products by the following:
   1. Ductmate Industries, Inc.
   2. Duro Dyne Inc.
   3. Elgen Manufacturing
   4. Ventfabrics, Inc
   5. Ward Industries, Inc.

B. Materials: Flame-retardant or noncombustible fabrics.

C. Coatings and Adhesives: Comply with UL 181, Class 1.

D. Metal-Edged Connectors: Factory fabricated with a fabric strip 5-3/4 inches wide attached to two strips of 2-3/4-inch- wide, 0.028-inch- thick, galvanized sheet steel or 0.032-inch- thick aluminum sheets. Provide metal compatible with connected ducts.

E. Indoor System, Flexible Connector Fabric: Glass fabric double coated with neoprene.
   1. Minimum Weight: 26 oz./sq. yd.
   2. Tensile Strength: 480 lbf/inch in the warp and 360 lbf/inch in the filling.
   3. Service Temperature: Minus 40 to plus 200 deg F.

F. Outdoor System, Flexible Connector Fabric: Glass fabric double coated with weatherproof, synthetic rubber resistant to UV rays and ozone.
   1. Minimum Weight: 24 oz./sq. yd..
   2. Tensile Strength: 530 lbf/inch in the warp and 440 lbf/inch in the filling.
   3. Service Temperature: Minus 50 to plus 250 deg F.

2.13 DUCT ACCESSORY HARDWARE

A. Instrument Test Holes: Cast iron or cast aluminum to suit duct material, including screw cap and gasket. Size to allow insertion of pitot tube and other testing instruments and of length to suit duct-insulation thickness.

B. Adhesives: High strength, quick setting, neoprene based, waterproof, and resistant to gasoline and grease.

2.14 LOUVERS

A. Extruded aluminum stationary louvers with drainable blades.

B. DEFINITIONS

   1. Louver Terminology: Definitions of terms for metal louvers contained in AMCA 501 apply to this Section unless otherwise defined in this Section or in referenced standards.
   2. Horizontal Louver: Louver with horizontal blades; i.e., the axes of the blades are horizontal.
   3. Vertical Louver: Louver with vertical blades; i.e., the axes of the blades are vertical.
   4. Drainable-Blade Louver: Louver with blades having gutters that collect water and drain it to channels in jambs and mullions, which carry it to bottom of unit and away from opening.
   5. Rain-Resistant Louver: Louver that provides specified wind-driven rain performance, as determined by testing according to AMCA 500-L.

C. DELIVERY, STORAGE, AND HANDLING

   1. Store products in manufacturer's unopened packaging until ready for installation.
   2. Store materials in a dry area indoors, protected from damage and in accordance with manufacturer's instructions.
   3. Handling: Protect materials and finishes during handling and installation to prevent damage.
   4. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

D. PROJECT CONDITIONS

   1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer’s absolute limits.

E. WARRANTY

1. Manufacturer shall provide standard limited warranty for louver systems for a period of five years (60 months) from date of installation, no more than 60 months after shipment from manufacturing plant. When notified in writing from the Owner of a manufacturing defect, manufacturer shall promptly correct deficiencies without cost to the Owner.
2. Manufacturer shall provide 20 year limited warranty for fluoropolymer-based finish on extruded aluminum substrates.
    a. Finish coating shall not peel, blister, chip, crack or check.
    b. Chalking, fading or erosion of finish when measured by the following tests:
        1) Finish coating shall not chalk in excess of 8 numerical ratings when measured in accordance with ASTM D4214.
        2) Finish coating shall not change color or fade in excess of 5 NBS units as determined by ASTM D2244 and ASTM D822.
        3) Finish coating shall not erode at a rate in excess of 10%/ 5 year as determined by Florida test sample.
3. Manufacturer shall provide a 5 year limited warranty for Class I and a 3 year limited warranty for Class II anodized finish on extruded aluminum substrates.
    a. Finish coating shall not peel, blister, chip, crack or check.
        1) Will not crack, craze, flake or blister
        2) Will not change or fade more than (5) Delta-E Hunter units as determined by ASTM method D-2244
        3) Will not chalk in excess of ASTM D-4214-07 number (8) rating, determined by the procedure outlined in ASTMD-4214-07 specification test.
    b. Finish coating shall not peel, blister, chip, crack or check.
    c. This Warranty applies only if the anodized aluminum product is installed in strict accordance with Seller's recommended practices and maintained in accordance with AAMA (American Architectural Manufacturers Association) publication number 609 and 610-09 ("Cleaning and Maintenance Guide for Architecturally Finished Aluminum").

F. PRODUCTS

1. Acceptable Manufacturer:
    a. Ruskin
    b. Pottorff

G. STATIONARY BLADE LOUVER

1. Fabrication:
    a. Design: Stationary drainable louver type with drain gutters in each blade and head with downspouts in jambs and mullions with all welded construction. Hidden vertical supports to allow continuous line appearance up to 120 inches (3,048 mm). Steeply angled integral sill.
    b. Frame:
        1) Frame Depth: 6 inches (152 mm).
        2) ** NOTE TO SPECIFIER ** .081 inch is standard. 0.125 is the heavier (H) model. Delete frame thickness not required.
        3) Wall Thickness: 0.081 inch (2.1 mm), nominal.
        4) Wall Thickness: 0.125 inch (3.2 mm), nominal.
        5) Material: Extruded aluminum, Alloy 6063-T6.

c. Blades:
   1) Style: Drainable. 37.5 degrees at 5-29/32 inches (150 mm), nominal.
   2) ** NOTE TO SPECIFIER ** .081 inch is standard. 0.125 is the heavier (H) model. Delete blade thickness not required.
   3) Wall Thickness: 0.081 inch (2.1 mm), nominal.
   4) Wall Thickness: 0.125 inch (3.2 mm), nominal.
   5) Material: Extruded aluminum, Alloy 6063-T6.
d. Minimum Assembly Size: 12 inches wide by 12 inches high (305 mm x 305 mm).
e. Maximum Factory Assembly Size: Single sections shall not exceed 120 inches wide by 90 inches high (3048 mm x 2286 mm) or 90 inches wide by 120 inches high (2286 mm x 3048). Louvers larger than the maximum single size shall be require field assembly of smaller sections.

2. Performance Data:
   a. Based on testing 48 inch x 48 inch (1,219 mm x 1,219 mm) size unit in accordance with AMCA 500.
   b. Free Area: 57 percent, nominal.
   c. Free Area Size: 9.08 square feet (0.84 m^2).
   d. Maximum Recommended Air Flow through Free Area: 1023 feet per minute (5.2 m/s).
   e. Air Flow: 9289 cubic feet per minute (263 m^3/s).
   f. Maximum Pressure Drop (Intake): 0.15 inches w.g. (0.035 kPa).
   g. Water Penetration: Maximum of 0.01 ounces per square foot (3.1 g/m2) of free area at an air flow of 1,023 feet per minute (5.2 m/s) free area velocity when tested for 15 minutes.
3. Louvers shall be factory engineered to withstand the specified seismic loads.
   a. Minimum design loads shall be calculated to comply with ASCE – 7, or local requirements of Authority Having Jurisdiction (AHJ).

H. ACCESSORIES

1. Aluminum Blank-Off Panels: 0.040 (1 mm) aluminum sheet, factory installed with removable fasteners and neoprene gaskets.
2. Insulated Aluminum Blank-Off Panels: 0.040 (1 mm) aluminum sheet, 1 inch (25 mm) aluminum skin insulated core, factory installed with removable fasteners and neoprene gaskets.
3. Insulated Aluminum Blank-Off Panels: 0.040 (1 mm) aluminum sheet, 2 inch (51 mm) aluminum skin insulated core, factory installed with removable fasteners and neoprene gaskets.
4. ** NOTE TO SPECIFIER ** Delete hinged frame not required.
5. Hinged Frame: Continuous piano hinge attached to angle subframe.
6. Hinged Frame: Continuous piano hinge attached to channel subframe.
7. ** NOTE TO SPECIFIER ** Delete filter rack not required.
8. Filter Racks: Formed channel racks to accept standard [1 inch (25 mm)] [2 inch (51 mm)] thick filters. Unused bottom portion blanked off with 0.040 inch (1 mm) aluminum sheet.
9. ** NOTE TO SPECIFIER ** Delete if not required.
10. Security Bars:
    a. Location: Front.
    b. Location: Rear.
    c. Construction: Galvanized steel, 1/2 inch x 1/2 inch (13 mm x 13 mm), attached to louver with tamper-proof screws.

d. Construction: Galvanized steel, 3/4 inch x 1/2 inch (19 mm x 13 mm), attached to louver with tamper-proof screws.
e. Construction: Aluminum, 3/4 inch x 1/2 inch (19 mm x 13 mm), welded to louver.

11. Bird Screen:
    a. Aluminum: Aluminum, 5/8 inch by 0.040 inch (16 mm by 1 mm), expanded and flattened. Frame: Removable.
    b. Aluminum: Aluminum, 1/2 inch by 0.063 inch (13 mm by 1.5 mm), expanded and flattened. Frame: Removable.
12. Bird Screen:
    a. Aluminum: 18-16 mesh, mill finish, .011 inch (0.3 mm) wire.
    b. Frame: Aluminum.

13. Extended Sills:
    a. Extruded aluminum, Alloy 6063-T6. Minimum nominal thickness 0.060 inch (1.5 mm).
    b. Formed aluminum, Alloy 3003. Minimum nominal thickness 0.081 inch (2.1 mm).
14. Visible Mullions: Manufacturer's standard horizontal or vertical visible mullions for architectural accent as indicated on drawings.

I. FINISHES

1. Finish: Mill finish.
    a. Finish: 50 percent PVDF: Finish shall be applied at 1.2 mil total dry film thickness.
    b. Coating shall conform to AAMA 2604, sections 4.2 and 4.3. Apply coating following cleaning and pretreatment. Cleaning: AA-C12C42R1X.
        1) Baked Enamel (50% PVDF).
        2) Pearledize 50 (2-coat mica).
    c. 20-year finish warranty.
2. Finish: 70 percent PVDF: Finish shall be applied at 1.2 mil total dry film thickness.
    a. Coating shall conform to AAMA 2605. Apply coating following cleaning and pretreatment. Cleaning: AA-C12C42R1X.
        1) Standard 2-coat.
        2) Pearledize 70 (2-coat mica).
        3) 3-coat metallic.
        4) 3-coat exotic.
    b. 20-year finish warranty.
3. Finish: Prime Coat:
    a. Apply alkyd prime coat following chemical cleaning and pretreatment.
    b. Primer preparation for field painting.
4. Finish: Epoxy-Based Painted Finish.
5. Color: Custom. Refer to Drawings.
6. Color: Machinery Grey in paint system specified.
7. Anodized Finish:
    a. Class II Clear Anodized.
        1) Comply with Aluminum Association AA-C21A31. Clear anodized finish 204-R1.
        2) Apply finish following chemical etching and pretreatment.
        3) Minimum Thickness: 0.4 mils (0.01 mm), 30 minute anodizing process.
    b. Class I Clear Anodized.

1) Comply with Aluminum Association AA-C21A41. Clear anodized finish 215-R1.
2) Apply finish following chemical etching and pretreatment.
3) Minimum Thickness: 0.7 mils (0.018 mm), 60 minute anodizing process.

c. Class I Color Anodized.
1) Comply with Aluminum Association AA-C21A44.
2) Apply finish following chemical etching and pretreatment.
3) Minimum Thickness: 0.7 mils (0.018 mm), 60 minute anodizing process.
4) Class I Color Anodized: Medium Bronze.
5) Class I Color Anodized: Dark Bronze.
6) Class I Color Anodized: Black.

J. EXAMINATION
1. Inspect areas to receive louvers. Notify the Architect of conditions that would adversely affect the installation or subsequent utilization of the louvers. Do not proceed with installation until unsatisfactory conditions are corrected.
2. If opening preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

K. PREPARATION
1. Clean opening thoroughly prior to installation.
2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

L. INSTALLATION
1. Install louvers at locations indicated on the drawings and in accordance with manufacturer's instructions.
2. Install louvers plumb, level, in plane of wall, and in alignment with adjacent work.
3. The supporting structure shall be designed to accommodate the point loads transferred by the louvers when subject to the design wind loads.
4. Install joint sealants as specified in Section 07 92 00.
5. Apply field topcoat within 6 months of application of shop prime coat. Apply field topcoat as specified in Section 09 91 00.

M. CLEANING
1. Clean louver surfaces in accordance with manufacturer's instructions.
2. Touch-up, repair or replace damaged products before Substantial Completion.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install duct accessories according to applicable details in SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" for metal ducts and in NAIMA AH116, "Fibrous Glass Duct Construction Standards," for fibrous-glass ducts.

B. Install duct accessories of materials suited to duct materials; use galvanized-steel accessories in galvanized-steel and fibrous-glass ducts, stainless-steel accessories in stainless-steel ducts, and aluminum accessories in aluminum ducts.

C. Install backdraft dampers at inlet of exhaust fans or exhaust ducts as close as possible to exhaust fan unless otherwise indicated.

D. Install volume dampers at points on supply, return, and exhaust systems where branches extend from larger ducts. Where dampers are installed in ducts having duct liner, install dampers with hat channels of same depth as liner, and terminate liner with nosing at hat channel.
   1. Install steel volume dampers in steel ducts.
   2. Install aluminum volume dampers in aluminum ducts.

E. Set dampers to fully open position before testing, adjusting, and balancing.

F. Install test holes at fan inlets and outlets and elsewhere as indicated.

G. Install fire and smoke dampers according to UL listing.

H. Install duct access doors on sides of ducts to allow for inspecting, adjusting, and maintaining accessories and equipment at the following locations:
   1. On both sides of duct coils.
   2. Upstream from duct filters.
   3. At outdoor-air intakes and mixed-air plenums.
   4. At drain pans and seals.
   5. Downstream from manual volume dampers, control dampers, backdraft dampers, and equipment.
   6. Adjacent to and close enough to fire or smoke dampers, to reset or reinstall fusible links. Access doors for access to fire or smoke dampers having fusible links shall be pressure relief access doors and shall be outward operation for access doors installed upstream from dampers and inward operation for access doors installed downstream from dampers.
   7. At each change in direction and at maximum 50-foot spacing.
   8. Upstream from turning vanes.
   9. Upstream or downstream from duct silencers.
   10. Control devices requiring inspection.
   11. Elsewhere as indicated.

I. Install access doors with swing against duct static pressure.

J. Access Door Sizes:
   1. One-Hand or Inspection Access: 8 by 5 inches.
   2. Two-Hand Access: 12 by 6 inches.
   3. Head and Hand Access: 18 by 10 inches.
   4. Head and Shoulders Access: 21 by 14 inches.
   5. Body Access: 25 by 14 inches.
   6. Body plus Ladder Access: 25 by 17 inches.

K. Label access doors according to Section 230553 "Identification for HVAC Piping and Equipment" to indicate the purpose of access door.

L. Install flexible connectors to connect ducts to equipment.

M. Connect terminal units to supply ducts with maximum 12-inch lengths of flexible duct. Do not use flexible ducts to change directions.

N. Connect diffusers or light troffer boots to ducts with maximum 60-inch lengths of flexible duct clamped or strapped in place.

O. Connect flexible ducts to metal ducts with adhesive plus sheet metal screws.

P. Install duct test holes where required for testing and balancing purposes.

3.2 FIELD QUALITY CONTROL

A. Tests and Inspections:
   1. Operate dampers to verify full range of movement.
   2. Inspect locations of access doors and verify that purpose of access door can be performed.
   3. Operate fire and smoke dampers to verify full range of movement and verify that proper heat-response device is installed.
   4. Inspect turning vanes for proper and secure installation.

END OF SECTION 233300

SECTION 321816.13 - PLAYGROUND PROTECTIVE SURFACING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes the following:
   1. Organic loose-fill surface.

B. Related Sections include the following:

   1. Division 31 Section "Earth Moving" for drainage course, drainage/separation geotextiles and subbase courses.
   2. Division 33 Section "Subdrainage" for playground subdrainage system.

1.3 DEFINITIONS

A. Critical Height: Standard measure of shock attenuation. According to CPSC No. 325, this means "the fall height below which a life-threatening head injury would not be expected to occur."

B. SBR: Styrene-butadiene rubber.

1.4 PERFORMANCE REQUIREMENTS

A. Impact Attenuation: According to ASTM F 1292.

B. Accessibility of Surface Systems: According to ASTM F 1951.

C. Minimum Characteristics for Organic Loose-Fill Surfaces: According to ASTM F 2075.

1.5 SUBMITTALS

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

B. Shop Drawings: Show the following:

   1. Installation details for curbs, ramps, and accessories.

2. Location of wear mats in organic loose-fill surfaces.
3. Location of drainage accessories.

C. Samples for Initial Selection: For each type of playground surface system indicated.

1. Include similar Samples of playground surface system and accessories involving color selection.

D. Samples for Verification: For each type of playground surface system indicated.

1. Minimum 1-quart loose-fill surface sealed in a container.
2. Minimum 6-by-6-inch- square Sample of synthetic tile or synthetic, dual-density, tile surface.
3. 6-inch long by full-size cross section of border edging (unless concrete).
4. Minimum 12-by-12-inch Sample of geosynthetic fabric.
5. Minimum 6-by-6-inch Sample of geosynthetic, molded-sheet drainage panel.

E. Qualification Data: For Installer and testing agency.

F. Material Test Reports: For the following, from a qualified testing agency, indicating compliance with requirements:

1. Organic loose-fill surface.

G. Material Certificates: For each playground surface system product, signed by manufacturers.

H. Field quality-control test reports.

I. Maintenance Data: For playground surface system to include in maintenance manuals.

J. Warranty: Special warranty specified in this Section.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: An employer of workers trained and approved by manufacturer.

B. Testing Agency Qualifications: An independent agency qualified according to ANSI Z34.1 for testing indicated.

C. Source Limitations: Obtain playground surface system materials through one source from a single manufacturer.

1. Provide secondary materials geosynthetics, and repair materials of type and from source recommended by manufacturer of playground surface system materials.

1.7 PROJECT CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit playground surface system installation to be performed according to manufacturers' written instructions and warranty requirements.

1.8 COORDINATION

A. Coordinate installation of playground surface systems with installation of playground equipment specified in Division 31 Section "Play Field Equipment and Structures."

1.9 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of playground surface system that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Reduction in impact attenuation.
b. Deterioration of surface and other materials beyond normal weathering.

2. Warranty Period: Five years from date of Substantial Completion.

1.10 EXTRA MATERIALS

A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Organic loose-fill surface equal to 10 percent of amount installed.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:

1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, products specified.
2. Products: Subject to compliance with requirements, provide one of the products specified.

3. Basis-of-Design Product: The design for each product is based on the product named. Subject to compliance with requirements, provide either the named product or a comparable product by one of the other manufacturers specified.

2.2 ORGANIC LOOSE-FILL SURFACE

A. Engineered Wood Fibers: Random-sized wood fibers, in manufacturer's standard fiber size, approximately 10 times longer than wide; containing no bark, leaves, twigs, or foreign or toxic materials according to ASTM F 2075; graded according to manufacturer's standard specification for material consistency for playground surfaces and for accessibility according to ASTM F 1951.

1. Basis-of-Design Product: Sof-Step manufactured by Greendell Landscape Solutions or a comparable product of one of the following:

    a. Greendell Landscape Solutions

2. Products:
    a. Sof-Step; Greendell Landscape Solutions
    b. Fibar, Inc.; Fibar System 300.
    c. GameTime; GT Impax Fiber.
    d. New England Playground Surfacing; Playground Safety Fiber.
    e. Sof'Fall Incorporated; Sof'Fall.
    f. Zeager Bros., Inc.; Wood Carpet.

3. Critical Height: 12 feet.
4. Uncompressed Material Depth: Not less than as required for critical height indicated, 15 inches minimum.

2.3 LOOSE-FILL ACCESSORIES

A. Stabilizing Mats: Manufacturer's standard, water-permeable PVC or rubber mats tested for impact attenuation according to ASTM F 1292, and rated for use in the following locations:

1. Location: At excessive wear areas and as follows:
    a. Below top of loose-fill surface.
    b. Under and in front of slide exits.
    c. Under and around swings.
    d. At finished grade around transfer stations at accessible perimeter.
    e. At high-traffic areas and playground equipment where indicated.
    f. Where indicated.

2. Size: 2” thick x 48” x 72” inches.
3. Color: As selected from manufacturer’s full range.

2.4 GEOSYNTHETICS

A. Drainage/Separation Geotextile: Nonwoven, needle-punched geotextile, manufactured for subsurface drainage applications and made from polyolefins or polyesters; complying with the following minimum properties determined according to ASTM D 4759 and referenced standard test methods:

1. Weight: 4 oz./sq. yd. according to ASTM D 5261.
2. Water Flow Rate 150 gpm/sq. ft. according to ASTM D 4491.

B. Molded-Sheet Drainage Panel: Prefabricated, composite drainage panels made with drainage core and filter fabric.

1. Drainage Core: Three-dimensional, nonbiodegradable, molded-plastic-sheet material designed to effectively drain water under maximum fill pressures.
2. Fabric: Nonwoven, needle-punched geotextile, specifically manufactured as a filter geotextile and made from polyolefins or polyesters; complying with the following minimum properties determined according to ASTM D 4759 and referenced standard test methods:

a. Weight: 4 oz./sq. yd. according to ASTM D 5261.
b. Water Flow Rate: 150 gpm/sq. ft. according to ASTM D 4491.

3. Minimum Flow Rate: 9 gpm/foot according to ASTM D 4491.

C. Weed-Control Barrier: Composite fabric geotextile consisting of woven, needle-punched polypropylene substrate bonded to a nonwoven polypropylene fabric, weighing not less than 4.8 oz./sq. yd.

PART 3 - EXECUTION

3.1 PREPARATION

A. General: Prepare substrates to receive surfacing products according to playground surface system manufacturer's written instructions. Verify that substrates are sound and without high spots, ridges, holes, and depressions.

B. Substrates: Provide sound surface free of laitance, efflorescence, curing compounds, and other contaminants incompatible with playground surface system.

1. Repair unsatisfactory surfaces and fill holes and depressions.

3.2 INSTALLATION, GENERAL

A. General: Comply with playground surface system manufacturer's written installation instructions. Install playground surface system over area and in thickness indicated.

3.3 GEOSYNTHETIC INSTALLATION

A. General: Install geosynthetics according to playground surface system manufacturer's and geosynthetic manufacturer's written instructions.

1. Geotextiles: Completely cover area indicated, overlapping sides and edges a minimum of 8 inches with manufacturer's standard treatment for overlapping loosely laid seams.

a. Perimeter: Adhere edges on all sides to vertical face of perimeter curb, sidewalk or footing.

3.4 INSTALLATION OF LOOSE-FILL PLAYGROUND SURFACE SYSTEMS

A. Loose-Fill Edgings: Place as indicated, and permanently secure in place and attach to each other according to edging manufacturer's written instructions.

B. Loose Fill: Place playground surface system materials including manufacturer's standard amount of excess material for compacting naturally with time to required depths after Installation of playground equipment support posts and foundations.

C. Stabilizing Mats: Coordinate installation of mats and mat anchoring system with placing of loose-fill.

D. Grading: Uniformly grade loose-fill according to manufacturer's written instructions to an even surface free from irregular surface changes as indicated.

E. Finish Grading: Hand rake to a smooth finished surface and to required elevations.

3.5 FIELD QUALITY CONTROL

A. Testing Agency: Contractor to engage a qualified independent testing and inspecting agency to perform field tests and inspections and prepare test reports.

B. Testing Services: Testing and inspecting of completed applications of playground surface system shall take place according to ASTM F 1292.

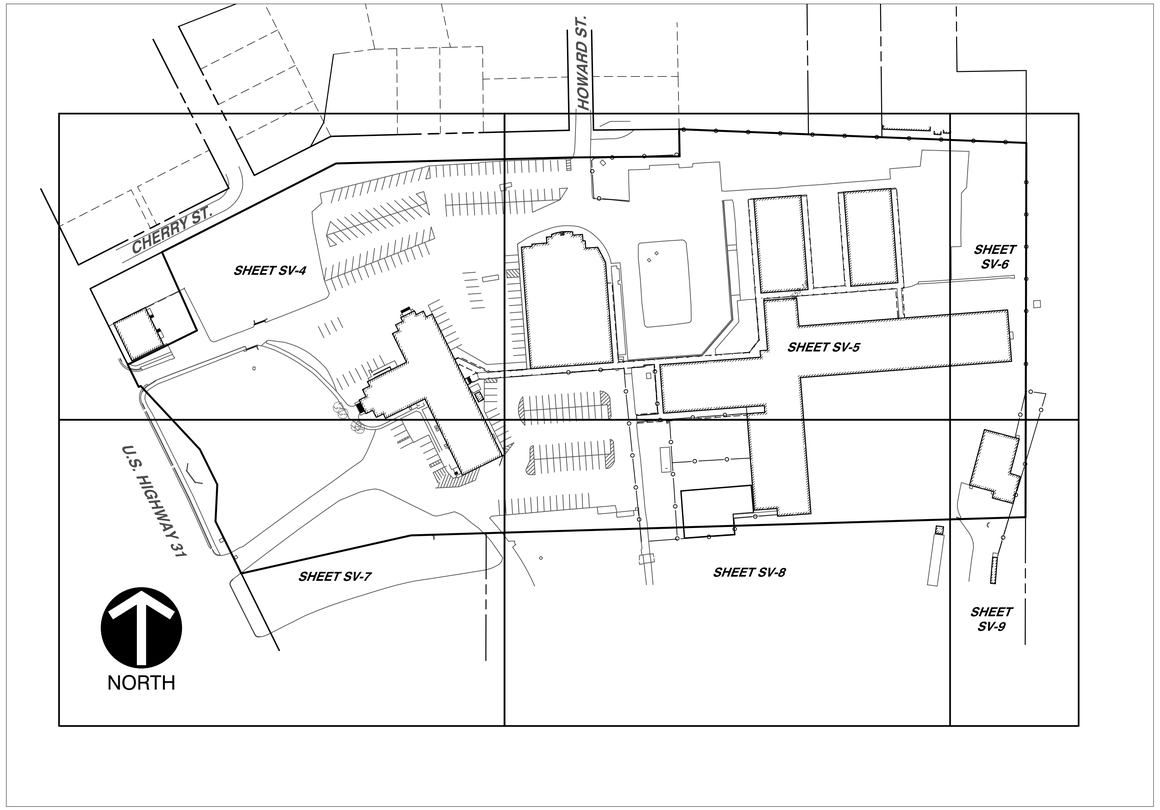
C. Remove and replace applications of playground surface system where test results indicate that it does not comply with requirements.

D. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with requirements.

END OF SECTION 321816.13

SCOTT COUNTY SCHOOL DISTRICT 1
AUSTIN ELEMENTARY SCHOOL
BOUNDARY AND TOPOGRAPHIC SURVEY

U.S 31 SOUTH
AUSTIN, INDIANA 47102



TOPOGRAPHIC SHEET LAYOUT
1" = 100'

VICINITY MAP
NOT TO SCALE

UTILITY NOTE:

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. INDIANA 811 ONE-CALL PUBLIC UTILITY LOCATE SERVICE TICKET NUMBERS 2005143923, 2005143979, 2005144057 AND 2005144099 WERE ISSUED FOR THIS SITE. BAKER UTILITY PARTNERS, A PRIVATE SUBSURFACE UTILITY LOCATING SERVICE, WAS CONTRACTED TO PERFORM THE PRIVATE UTILITY LOCATIONS FOR THE SUBJECT SITE.

PRIOR TO ANY EXCAVATION FOR UNDERGROUND UTILITIES, THE CONTRACTOR SHALL EXPOSE AND VERIFY LOCATIONS (HORIZONTAL AND VERTICAL) OF ALL EXISTING UTILITIES INCLUDING BUT NOT LIMITED TO GAS, WATER, AND SANITARY SEWER. ANY CONFLICTS SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER AND THE APPROPRIATE AUTHORITIES.

BENCHMARKS:

UNLESS OTHERWISE NOTED, ELEVATIONS SHOWN HEREON ARE BASED UPON AN OPUS SOLUTION AND ARE ON THE 1988 NORTH AMERICAN VERTICAL DATUM (NAVD88). IT IS MY OPINION THAT THE UNCERTAINTY IN THE ELEVATION OF THE PROJECT BENCHMARK DOES NOT EXCEED 0.10 FOOT.

TBM#1: MAG SPIKE IN NORTH FACE OF POWER POLE LOCATED ON THE EAST SIDE OF AN ASPHALT WALK 64'± NORTH OF THE NORTHWEST CORNER OF THE TRACK AT THE SOUTH END OF THE PROJECT AREA.
ELEV. = 555.76

TBM#2: CUT "X" ON NORTH BONNET BOLT OF FIRE HYDRANT LOCATED ALONG THE EAST SIDE OF U.S. HIGHWAY 31 ON THE SOUTH SIDE OF A SCHOOL ENTRANCE AT THE SOUTHWEST CORNER OF THE PROJECT AREA.
ELEV. = 546.78

TBM#3: RAILROAD SPIKE IN SOUTHEAST FACE OF POWER POLE LOCATED IN THE SOUTHEAST QUADRANT OF THE INTERSECTION OF U.S. HIGHWAY 31 AND HOWARD STREET ON WEST SIDE OF THE PROJECT AREA.
ELEV. = 545.46

TBM#4: CUT "X" ON SOUTH BONNET BOLT OF FIRE HYDRANT LOCATED ALONG THE WEST SIDE OF HOWARD STREET AND NORTH SIDE OF THE PARKING LOT ON THE NORTH SIDE OF THE PROJECT AREA.
ELEV. = 558.61

LEGEND:

EXISTING PROPERTY LINE	SEC. COR., R/W MARKER, MAG NAIL FD., IRON ROD FD., MON. SET*, TBM *REBAR/CAP OR NAIL/WASHER STAMPED "CEC INC FIRM #0122"
EXISTING ADJACENT PROPERTY LINE	ELEC. LIGHT POLE, PULL BOX, POWER POLE, UTILITY POLE, GUY WIRE, ELEC. TRANSFORMER
EXISTING LOT LINE	GAS VALVE, GAS METER, GAS LINE MARKER
EXISTING INDEX CONTOUR (870)	IRRIGATION CONTROL BOX, WATER TAP, WATER METER, FIRE HYDRANT, PIV VALVE, FIRE DEPT. CONNECTION, WATER VALVE
EXISTING INTERMEDIATE CONTOUR (871)	ELECTRIC MANHOLE, TELEPHONE PEDESTAL, CABLE PEDESTAL, FIBER OPTIC PULL BOX
EXISTING CHAINLINK FENCE LINE	BEEHIVE INLET, CURB INLET, RECESSED CURB INLET, DOWNSPOUT, SQUARE STORM INLET, CIRCULAR STORM INLET, DRAINAGE MANHOLE
EXISTING GAURDRAIL	UNKNOWN MANHOLE, CLEANOUT, SANITARY MANHOLE, COMBINATION MANHOLE
EXISTING WATER LINE (W)	FLAG POLE, MAIL BOX, SIGN, AIR COND., ADA SYMBOL, BOLLARD
EXISTING UNDERGROUND TELEPHONE (T)	PARKING METER, TRAFFIC POLE, TRAFFIC MANHOLE,
EXISTING FIBER OPTIC LINE (FO)	DECIDUOUS TREE, CONIFEROUS TREE, BUSH, STUMP
EXISTING UNDERGROUND ELECTRIC (UG-E)	EXISTING SPOT ELEVATION (× 1082.40)
EXISTING OVERHEAD LINES (OH-W)	
EXISTING SANITARY SEWER LINE (SAN)	
EXISTING STORM SEWER LINE (ST)	
EXISTING GAS LINE (G)	
EXISTING STEAM LINE (STEAM)	

Indiana 811
Know what's below. Call before you dig.

REVISION RECORD

NO	DATE	DESCRIPTION

CEC
Civil & Environmental Consultants, Inc.
530 E. Ohio Street - Suite G - Indianapolis, IN 46204
317-655-7777 - 877-746-0749
www.cecinc.com

LANCER + BEEBE, LLC
SCOTT COUNTY SCHOOL DISTRICT 1
AUSTIN ELEMENTARY SCHOOL
AUSTIN, INDIANA

BOUNDARY RETRACEMENT SURVEY
TOPOGRAPHIC SURVEY

DRAWN BY:	TJT
CHECKED BY:	ABS
DATE:	JULY 7, 2020
DWG SCALE:	
PROJECT NO.:	302-488
APPROVED BY:	DRAFT

DRAWING NO.: SV-1

SHEET 1 OF 9

P:\300-499\302-488\~Survey\Dwg\SV01 BNDRY TOPO\302488-SV01-BNDRY-TOPO.dwg[COVER] LS(9/22/2020 - thompson) - LP, 9/22/2020 8:37 AM

NORTH

INDIANA STATE PLANE
EAST ZONE BEARINGS

FD. IRON PIN IN BOX
HWY CENTERLINE CONTROL
STATION 261+77.67

261+00

260+00

U.S. HWY 31
(VARIABLE WIDTH PUBLIC RIGHT-OF-WAY)

259+00

258+00

TRULOCKS EAST ADDITION
P.B. Q, PG. 69

LOT 53

LOT 74

LOT 75

CHURCH ST.
(40' PLATTED R/W)

CHERRY ST.
(37' PLATTED R/W)

37'

FD. 5/8" REBAR

N 63°00'18" E 273.00'

R.H. JUDD ADDITION
P.B. 28, PG. 32-34

LOT 14

LOT 13

LOT 12

LOT 11

FD. GARDNER REBAR

FD. 2" PIPE

38'

CHERRY ST.
(38' PLATTED R/W UNIMPROVED)

N 88°32'32" E 326.57'

HOWARD ST.
(34' PLATTED R/W)

LOT 8

ADJOINER
ROGER & SHERRY HAWKINS
BK. 81, PG. 579

ADJOINER
ANTHONY & KELLY GOODIN
INSTR. #0105136

ADJOINER
DT HOLDINGS, LLC
INSTR. #2011-1600

FD. 2" PIPE

FD. MCCARTY REBAR

BOUNDARY LINE IS ALONG
CHAIN LINK FENCE

FD. 5/8" REBAR

FD. GARDNER REBAR

N 01°05'53" W 38.00'

S 87°44'00" E 485.67'

FD. CHAIN LINK
FENCE CORNER
PER MCCARTY SURVEY

N 89°25'20" E 153.66'

38'

LOT 7

TRACT 10

LOT 6

TRACT 11

LOT 5

LOT 4

LOT 3

VACATED 34' WIDE HOWARD STREET

BOUNDARY LINE IS ALONG
CHAIN LINK FENCE

ADJOINER
S.C.S.D.1
TRACT 4
INSTR. #9901268

S 00°07'58" W 523.00'

ADJOINER
S.C.S.D.1
INSTR. #2006-2870

LOT 52

N 24°04'37" W
120.00'

ADJOINER
S.C.S.D.1
TRACT 8
INSTR. #9901268

L1

R.H. JUDD ADDITION
P.B. 28, PG. 32-34

LOT 1

WEST CORNER OF LOT 1
JUDD'S ADDITION

L3

L4

N 43°04'47" W
121.17'

SURVEYED PARCEL
SCOTT COUNTY
SCHOOL DISTRICT 1
TRACTS 5, 7, 10 & 11
INSTR. #9901268
14.20± ACRES

ADJOINER
STATE OF INDIANA
INSTR. #2012-3344

FD. IRON PIN IN BOX
HWY CENTERLINE CONTROL

256+00

WEST
LINE
LOT 1

FD. CONCRETE
R/W MARKER

N 26°17'24" W 55.00'

EAST R/W
U.S. 31

FD. CONCRETE
R/W MARKER

N 02°45'53" E 51.48'

FD. CONCRETE
R/W MARKER

LINE "S-2A" PER
LOCATION CONTROL ROUTE SURVEY
RECORDED APRIL 21, 2009
INSTR. # 2009-1452

255+00

L2

VACATED 40' WIDE OAK STREET

S 88°17'59" W 859.22'

REBAR SET ON LINE
25' FROM CORNER

TRACT 7

S 77°19'37" W 243.00'

FD. IRON PIN IN BOX
HWY CENTERLINE CONTROL

254+00

LOT 2

ADJOINER
S.C.S.D.1
TRACT 12
INSTR. #9901268

ADJOINER
S.C.S.D.1
INSTR. #2004-4730

LINE TABLE		
LINE #	DIRECTION	LENGTH
L1	N 63°44'01" E	108.00'
L2	N 26°17'24" W	81.22'
L3	S 63°42'36" W	3.00'
L4	N 26°17'24" W	34.76'

SCALE IN FEET
0 50 100

REVISION RECORD

NO	DATE	DESCRIPTION

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317-655-7777 - 877-746-0749
www.cecinc.com

LANCER + BEEBE, LLC
SCOTT COUNTY SCHOOL DISTRICT 1
AUSTIN ELEMENTARY SCHOOL
AUSTIN, INDIANA

RETRACEMENT BOUNDARY SURVEY

DATE:	JULY 7, 2020
DWG SCALE:	1"=50'
PROJECT NO:	302-488
APPROVED BY:	DRAFT
DRAWN BY:	TJT
CHECKED BY:	ABS

DRAWING NO.:
SV-2
SHEET 2 OF 9

P:\300-0001\302-488\1-Survey\Dwg\SV01 BNDRY TOPO\302488-SV01-BNDRY-TOPO.dwg(BNDRY-SV2) LS (9/22/2020 - tthompson) - LP: 9/22/2020 8:37 AM

SURVEYOR'S REPORT

1. In accordance with Title 865, Article 1, Chapter 12 of the Indiana Administrative Code ("Rule 12"), the following observations and opinions are submitted regarding the various uncertainties in the locations of the lines and corners established this survey as a result of uncertainties in reference monumentation; in record descriptions and plats; in lines of occupation; and as introduced by random errors in measurement ("Relative Positional Accuracy"). There may be unwritten rights associated with these uncertainties. The client should assume there is an amount of uncertainty along any line equal in magnitude to the discrepancy in the location of the lines of possession from the surveyed lines.

There may be differences of deed dimensions versus measured dimensions along the boundary lines shown hereon and, likewise, there may be found survey markers near, but not precisely at, some boundary corners. In cases where the magnitude of these differences are less than the Relative Positional Accuracy stated below and less than the uncertainty identified for the reference monumentation (discussed below), the differences may be considered insignificant and are shown only for purposes of mathematical closure. Such differences that are greater than the Relative Positional Accuracy and the uncertainty in reference monumentation should be considered worthy of notice and are therefore further discussed below.

This survey and report are based in part upon opinions formed in accordance with an Indiana Land Surveyor's responsibility to conduct a survey in accordance with "law or a precedent" (865 IAC 1-12-11(5), Rules of the Indiana State Board of Registration for Land Surveyors). Since Indiana has no statutes addressing how to resolve boundary lines, a solution based on principles derived from common law precedent must be relied upon as the basis for a boundary resolution.

Unless otherwise noted or depicted hereon, there is no evidence of occupation along the perimeter lines of the subject tract. All survey monuments set or found this survey are flush with existing grade unless otherwise noted.

The Relative Positional Accuracy (due to random errors in measurement) of this survey is within the specifications for a Urban Class Survey (0.07 feet plus 50 ppm) as defined in IAC 865.

This survey was commissioned by the client to perform a Retracement Boundary Survey with topography of part of the real estate conveyed to Scott County School District 1 in Instrument Number 9901268 as recorded in the Office of the Recorder of Scott County, Indiana. Said real estate is part of the Northwest Quarter of the Southeast Quarter of Section 36, Township 4 North, Range 6 East of the Second Principal Meridian, Jennings Township of Scott County, Indiana. The intent of this survey is to establish the boundaries of certain tracts of land owned by the school which encompass an area for new development for which the topographic portion of this survey will serve as the basis for.

Reference Surveys and Plats

1) Plat R.H. Judd's Addition to the Town of Austin as recorded in Plat Book 28, pages 32-34 in said Recorder's office.

2) Plat John Trulock's East Addition to the Town of Austin as recorded in Plat Book Q, page 69 in said Recorder's office.

3) Location Control Route Survey as recorded in Instrument Number 2009-1452 in said Recorder's office.

4) Survey by Gardner Land Surveyors as recorded in Instrument Number 2004-3633 in said Recorder's office. This survey was used to establish the north line lying west of Howard Street.

5) Survey by Gardner Land Surveyors as recorded in Instrument Number 2006-0744 in said Recorder's office. This survey was used to establish the north line lying east of Howard Street.

6) Survey by W.P. McCarty Surveying as recorded in Instrument Number 2016-2950 in said Recorder's office. This survey calls the northeast corner of Tract 11 to be the chain link fence corner which agrees with the Gardner survey.

Reference Monuments

1) Monuments at either end and along the East Line of the West Half of the Southeast Quarter of said Section 36 were searched for but nothing of relevance was found. The Gardner survey shows this line broken into multiple segments with multiple bearings which is not typical for a quarter-quarter section line. The best evidence of this line is the chain link fence lying along the east line of Tract 11.

2) Monuments referenced in the above mentioned Gardner and McCarty surveys were recovered and used to establish the north line of this survey.

3) Centerline control monuments were recovered in U.S. Highway 31. These monuments were used to re-establish line "S-2A" per the above mentioned route survey. The boundary line of the right-of-way take was established by stations and offsets. This fit well with concrete right-of-way markers recovered.

Record Descriptions

The lines and corners of the subject tract were located hereon based on controlling calls contained in the record description or the record plat for the subject tract. Unless noted otherwise, the boundary lines of the subject tract are contiguous with the boundary lines of all adjoining parcels, adjoining streets, highways, rights-of-ways and easements, public or private along their common boundaries as described in their most recent respective legal descriptions of record.

1) The plat of John Trulock's East Addition depicts Cherry Street as having a 37 foot right-of-way.

2) The plat of R.H. Judd's Addition depicts Cherry Street as having a 38 foot right-of-way. This portion of Cherry Street is unimproved. No vacation documents have been found at this time.

3) That part of Howard Street lying south of Cherry Street within the plat of R.H. Judd's Addition is assumed to be vacated. No vacation documents have been found at this time. Said plat calls for Howard Street to be 34 feet in width.

4) Oak Street lying within the plat of R.H. Judd's Addition is assumed to be vacated. No vacation documents have been found at this time.

5) The right-of-way take description references several calls to the west line of Lot 1 and to the south line of Oak Street in R.H. Judd's Addition. These calls were held as controlling.

Evidence of Occupation

1) The north lines of Tracts 10 and 11 lie along a chain link fence line.
2) The east line of Tract 11 lies along a chain link fence line. (Best Evidence)

As a result of the above observations it is in my opinion that the uncertainties in the location of the lines and corners established on this survey are as follows:

Due to variances in Reference Monuments: Up to 1.0 feet
Due to discrepancies in the Record Descriptions: Up to 15 feet based on old plat bearings and dimensions vs. current surveys and monumentation.
Due to inconsistencies in Lines of Occupation: None.

The horizontal data shown on this survey are based upon a positional solution derived from Global Positioning System (GPS) observations processed by National Geodetic Survey (NGS) utilizing their Online Positioning User Service (OPUS) software. The coordinate values shown are in the Indiana State Plane Coordinate System (East Zone) reference to the 1983 North American Datum utilizing the Continuously Operating Reference Stations (CORS) adjustment as determined by NGS (NAD 83 (2011)(EPOCH 2010.0000) with a reported overall root mean square (RMS) of 0.022 meters.

2. Ownership information indicated hereon is as identified in County or Township records or on title work provided by others.

3. The within plat and survey were prepared without benefit of current evidence of source of title for the subject tract or adjoiners and are therefore subject to any statement of facts revealed by examination of such documents.

Certificate of Survey

To the best of my knowledge and belief the within plat also represents a survey made under my supervision in accordance with Title 865, Article 1, Chapter 12 of the Indiana Administrative Code. The field work for this survey was performed on June 22, 2020.

Tyler J. Thompson
Registered Land Surveyor No. LS21400006
July 7, 2020
tthompson@cecinc.com
prepared by Tyler J. Thompson

I affirm, under the penalties for perjury, that I have taken reasonable care to redact each Social Security number in this document, unless required by law. Tyler J. Thompson

TYLER J. THOMPSON REGISTERED No. 21400006 STATE OF INDIANA LAND SURVEYOR

LEGAL DESCRIPTION (INSTRUMENT NO. 9901268)

Tract 5

Lots number one (1), two (2), three (3), four (4), five (5), six (6), and seven (7) in the R. H. Rudd Addition to the Town of Austin, Scott County, Indiana.

Tract 7

Commencing at a point where the south line of Oak Street intersects the east property line of U.S. and State Highway #31, in the town of Austin, running thence south 25 degrees east with said highway 50 feet, thence north 60 degrees east 243 feet to Oak Street, thence south 89 degrees 20 minutes west with Oak Street to the place of beginning, containing 1/7 acre, more or less. Being a part of the southwest fourth of the southeast quarter of Section 36, township 4 north, range 6 east.

Tract 10

A tract of land in the northwest quarter of the southeast quarter of section 36, township 4 north, range 6 east, more particularly described as follows, to-wit. Beginning at a point 376 feet south and 308.75 feet west of the northeast corner of said northwest fourth of the southeast quarter of section 36, township 4 north, range 6 east, running thence west 179.75 feet more or less to the southeast corner of Lot Number 8 in R. H. Judd Addition to the Town of Austin, thence south 360 feet, thence east 179.75 feet more or less, to a point 360 feet south of the point of beginning, thence north 360 feet to the place of beginning. Containing 1-1/2 acres more or less.

Tract 11

A part of the northwest quarter of the southeast quarter of section 36, township 4 north, range 6 east described as follows: Commencing at the northeast corner of the northwest quarter of the southeast quarter of section 36, township 4 north, range 6 east, and running south 15 minutes west with the east line of said quarter a distance of 410 feet to steel pin and the true point of beginning of this description; thence south 15 minutes west 335 feet to a steel pin; thence west 308.5 feet to a steel pin; thence north 360 feet to a steel pin; thence south 86 degrees and 5 minutes east 309.5 feet to a steel pin and the true point of beginning, containing 2.5 acres, more or less.

EXCEPT (INSTRUMENT NO. 201200003544 R/W TAKE)

A part of Lot 1 in R.H. Judd Addition to the Town of Austin, Indiana, the plat of which subdivision is recorded in Plat Book 28, Pages 32-34, in the Office of the Recorder of Scott County, Indiana, and a part of Vacated Oak Street in the Town of Austin, Indiana, and a part of the Northwest Quarter of the Southeast Quarter of Section 36, all in Township 4 North, Range 6 East, Scott County, Indiana, and being that part of the grantor's land lying within the right-of-way lines depicted on the attached Right-of-Way Parcel Plat, marked EXHIBIT "B", described as follow: Beginning at a point on a southwestern line of said lot South 25 degrees 57 minutes 19 seconds East 34.76 feet from the west corner of said lot; thence North 64 degrees 02 minutes 41 seconds East 3.00 feet to point "104" as designated on said Parcel Plat and the point of beginning of this description: thence South 42 degrees 44 minutes 42 seconds East 121.17 feet to point "103" as designated on said Parcel Plat; thence South 25 degrees 57 minutes 19 seconds East 55.00 feet to point "102" as designated on said Parcel Plat; thence South 3 degrees 05 minutes 58 seconds West 51.48 feet to point "101 " as designated on said Parcel Plat; thencc South 25 degrees 57 minutes 19 seconds East 55.00 feet to point "100" as designated on said Parcel Plat; thence South 64 degrees 02 minutes 41 seconds West 45.00 feet to the centerline of U.S. 31; thence North 25 degrees 57 minutes 19 seconds West 44.21 feet along said centerline to the south boundary of Oak Street prolonged; thence North 88 degrees 27 minutes 27 seconds East 45.03 feet along said south boundary prolonged to a southwestern line of said lot prolonged; thence North 25 degrees 57 minutes 19 seconds West 157.16 feet along said southwestern line prolonged and a southwestern line of said lot; thence South 64 degrees 02 minutes 41 seconds West 9.00 feet along a southeast line of said lot; thence North 25 degrees 57 minutes 19 seconds West 88.24 feet along a southwestern line of said lot to the point of beginning and containing 0.140 acres, more or less, inclusive of the presently existing right-of-way for U.S. 31, which contains 0.019 acres, more or less.

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
530 E. Ohio Street · Suite G · Indianapolis, IN 46204
317-655-7777 · 877-746-0749
www.cecinc.com

LANCER + BEEBE, LLC
SCOTT COUNTY SCHOOL DISTRICT 1
AUSTIN ELEMENTARY SCHOOL
AUSTIN, INDIANA

RETRACEMENT BOUNDARY SURVEY

DATE:	JULY 7, 2020	DRAWN BY:	TJT
DWG SCALE:		CHECKED BY:	ABS
PROJECT NO:			302-488
APPROVED BY:			DRAFT

DRAWING NO.: SV-3

SHEET 3 OF 9

REVISION RECORD

NO	DATE	DESCRIPTION

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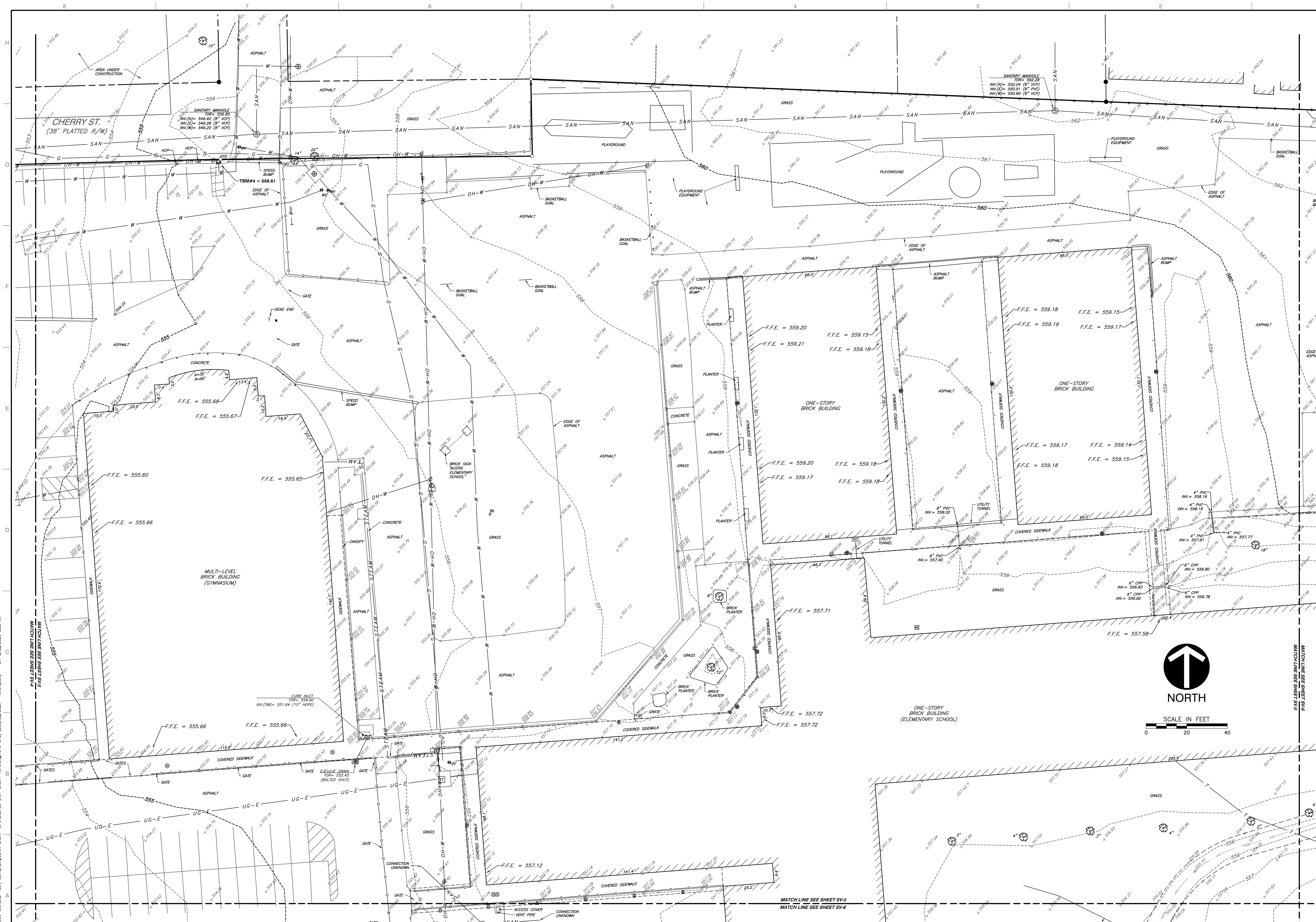
LANCER + BEEBE, LLC
SCOTT COUNTY SCHOOL DISTRICT 1
AUSTIN ELEMENTARY SCHOOL
AUSTIN, INDIANA

TOPOGRAPHIC SURVEY

DATE:	JULY 7, 2020	DRAWN BY:	TJT
DWG SCALE:	1"=20'	CHECKED BY:	ABS
PROJECT NO:			302-488
APPROVED BY:			DRAFT

DRAWING NO.:
SV-4
SHEET 4 OF 9



CHERRY ST.
(38' PLATTED R/W)
SANITARY MANHOLE
TOR= 556.85
INV.(N)= 549.40 (8" VCP)
INV.(S)= 549.28 (8" VCP)
INV.(W)= 549.20 (8" VCP)
AREA UNDER CONSTRUCTION
TBM#4 = 558.61
SANITARY MANHOLE
TOR= 562.28
INV.(N)= 552.04 (8" VCP)
INV.(E)= 550.91 (8" PVC)
INV.(W)= 550.80 (8" PVC)
PLAYGROUND
PLAYGROUND EQUIPMENT
BASKETBALL GOAL
ASPHALT
GRASS
MULTI-LEVEL
BRICK BUILDING
(GYMNASIUM)
F.F.E. = 555.68
F.F.E. = 555.67
F.F.E. = 555.60
F.F.E. = 555.65
F.F.E. = 555.66
ONE-STORY
BRICK BUILDING
F.F.E. = 559.20
F.F.E. = 559.21
F.F.E. = 559.15
F.F.E. = 559.18
F.F.E. = 559.17
F.F.E. = 559.19
F.F.E. = 559.14
BRICK SIGN
"AUSTIN
ELEMENTARY
SCHOOL"
COVERED SIDEWALK
UTILITY TUNNEL
ONE-STORY
BRICK BUILDING
(ELEMENTARY SCHOOL)
F.F.E. = 557.71
F.F.E. = 557.58
F.F.E. = 557.72
F.F.E. = 557.12
CURB INLET
TOR= 554.90
INV.(SW)= 551.64 (15" HDPE)
ACCESS COVER
VENT PIPE
CONNECTION UNKNOWN
NORTH
SCALE IN FEET
0
20
40
MATCH LINE SEE SHEET SV-4
MATCH LINE SEE SHEET SV-5
MATCH LINE SEE SHEET SV-6
MATCH LINE SEE SHEET SV-8

REVISION RECORD

NO.	DATE	DESCRIPTION

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317-655-7777 · 877-746-0749
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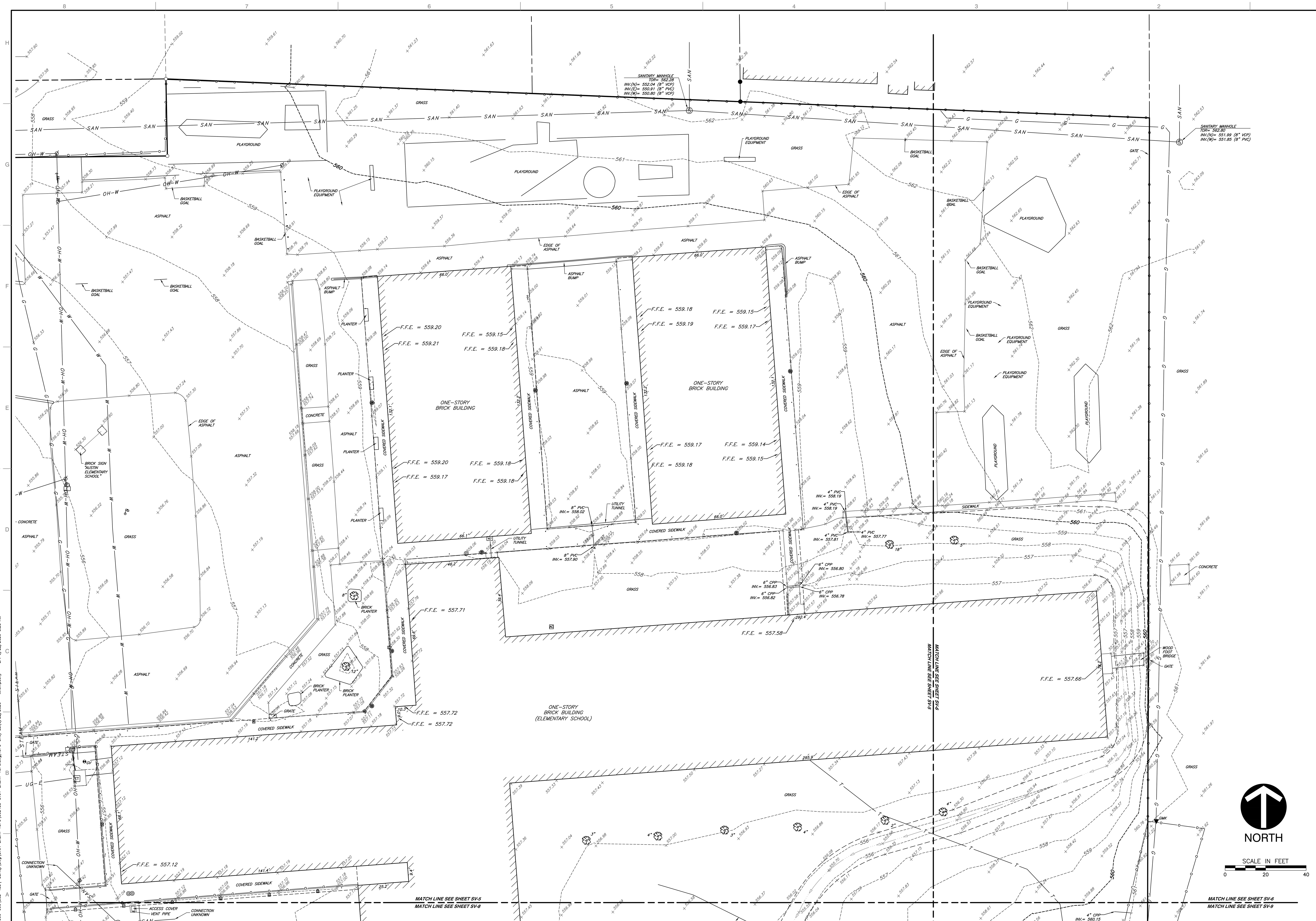
AUSTIN ELEMENTARY SCHOOL
AUSTIN, INDIANA

TOPOGRAPHIC SURVEY

DATE:	JULY 7, 2020	DRAWN BY:	TJT
DWG SCALE:	1"=20'	CHECKED BY:	ABS
PROJECT NO.:	302-488	APPROVED BY:	DRAFT

DRAWING NO.: **SV-5**

SHEET 5 OF 9



REVISION RECORD

NO	DATE	DESCRIPTION

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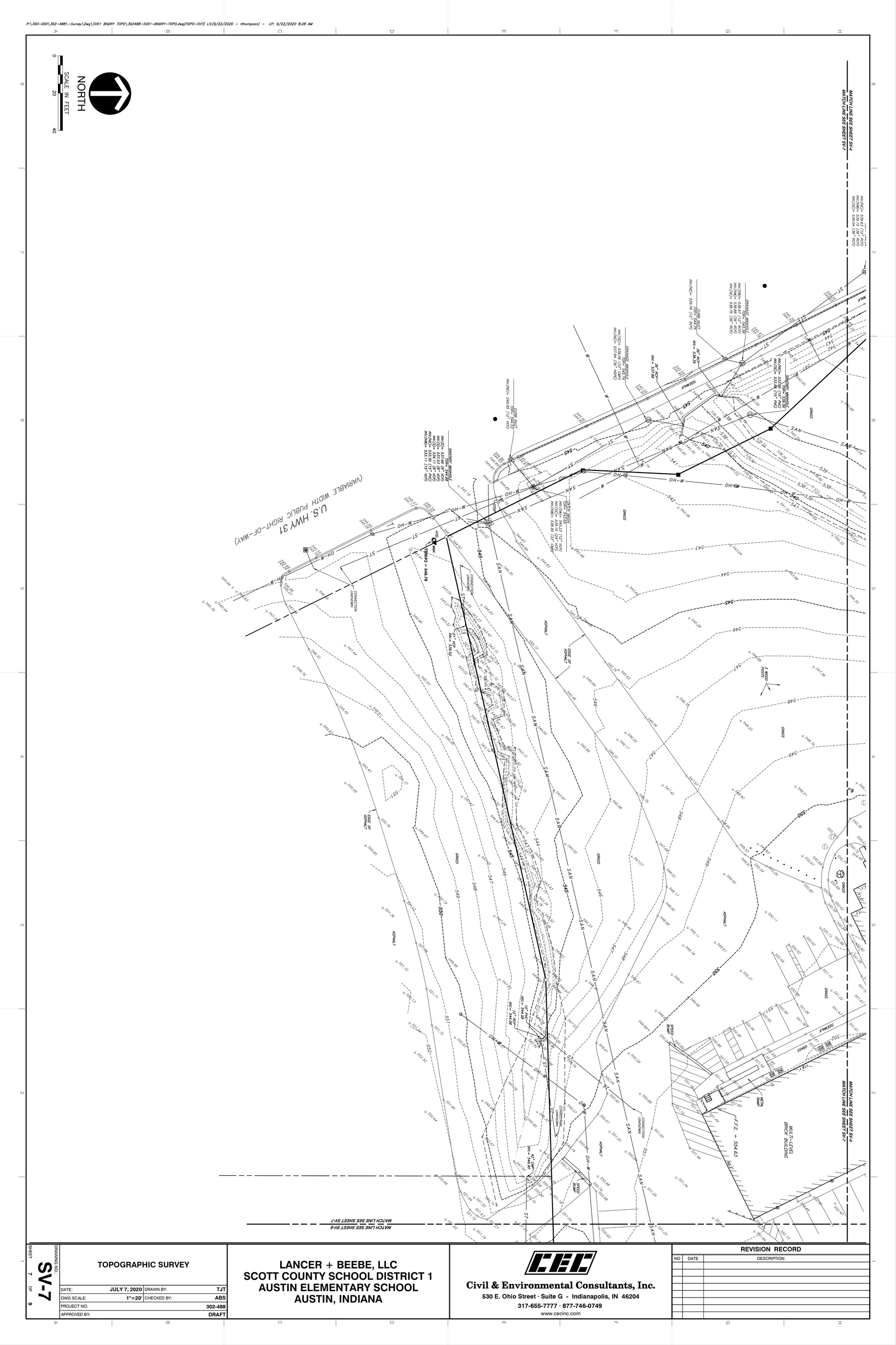
LANCER + BEEBE, LLC
SCOTT COUNTY SCHOOL DISTRICT 1
AUSTIN ELEMENTARY SCHOOL
AUSTIN, INDIANA

TOPOGRAPHIC SURVEY

DATE:	JULY 7, 2020	DRAWN BY:	TJT
DWG SCALE:	1"=20'	CHECKED BY:	ABS
PROJECT NO:			302-488
APPROVED BY:			DRAFT

DRAWING NO.:
SV-6
SHEET 6 OF 9

P:\300-000\302-488\-Survey\Dwg\SV01 BNDRY TOPO\302488-SV01-BNDRY-TOPO.dwg[TOPO-SV7] LS:(9/22/2020 - tthompson) - LP: 9/22/2020 8:28 AM



SHEET	7 OF 9
DRAWING NO.	SV-7

TOPOGRAPHIC SURVEY

DATE:	JULY 7, 2020	DRAWN BY:	TJT
DWG SCALE:	1"=20'	CHECKED BY:	ABS
PROJECT NO:			302-488
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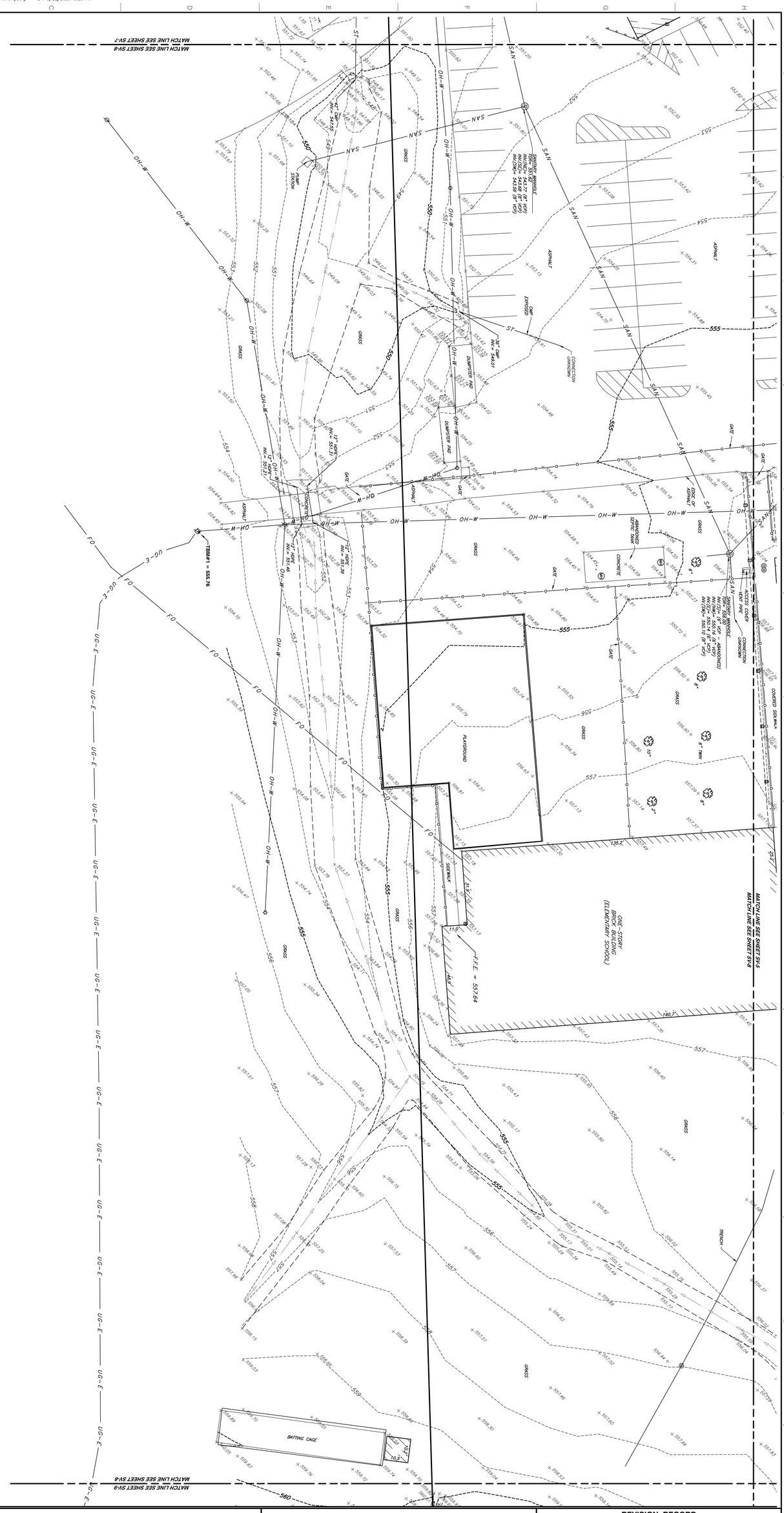
AUSTIN ELEMENTARY SCHOOL
AUSTIN, INDIANA

Civil & Environmental Consultants, Inc.
530 E. Ohio Street · Suite G - Indianapolis, IN 46204
317-655-7777 · 877-746-0749
www.cecinc.com

REVISION RECORD

NO	DATE	DESCRIPTION

P:\300-000\302-488\-Survey\Dwg\SV01 BNDRY TOPO\302488-SV01-BNDRY-TOPO.dwg[TOPO-SV8] LS:(9/22/2020 - tthompson) - LP: 9/22/2020 8:28 AM



NORTH

SCALE IN FEET
0 20 40

SHEET 8 OF 9	DRAWING NO: SV-8	TOPOGRAPHIC SURVEY	
		DATE: JULY 7, 2020	DRAWN BY: TJT
		DWG SCALE: 1"=20'	CHECKED BY: ABS
		PROJECT NO:	302-488
		APPROVED BY:	DRAFT

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REVISION RECORD

NO	DATE	DESCRIPTION

TOPOGRAPHIC SURVEY

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DWG SCALE:	1"=20'	CHECKED BY:	ABS
PROJECT NO:			302-488
APPROVED BY:			DRAFT

DRAWING NO: **SV-9**

SHEET 6 OF 6

LANCER + BEEBE, LLC
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REVISION RECORD

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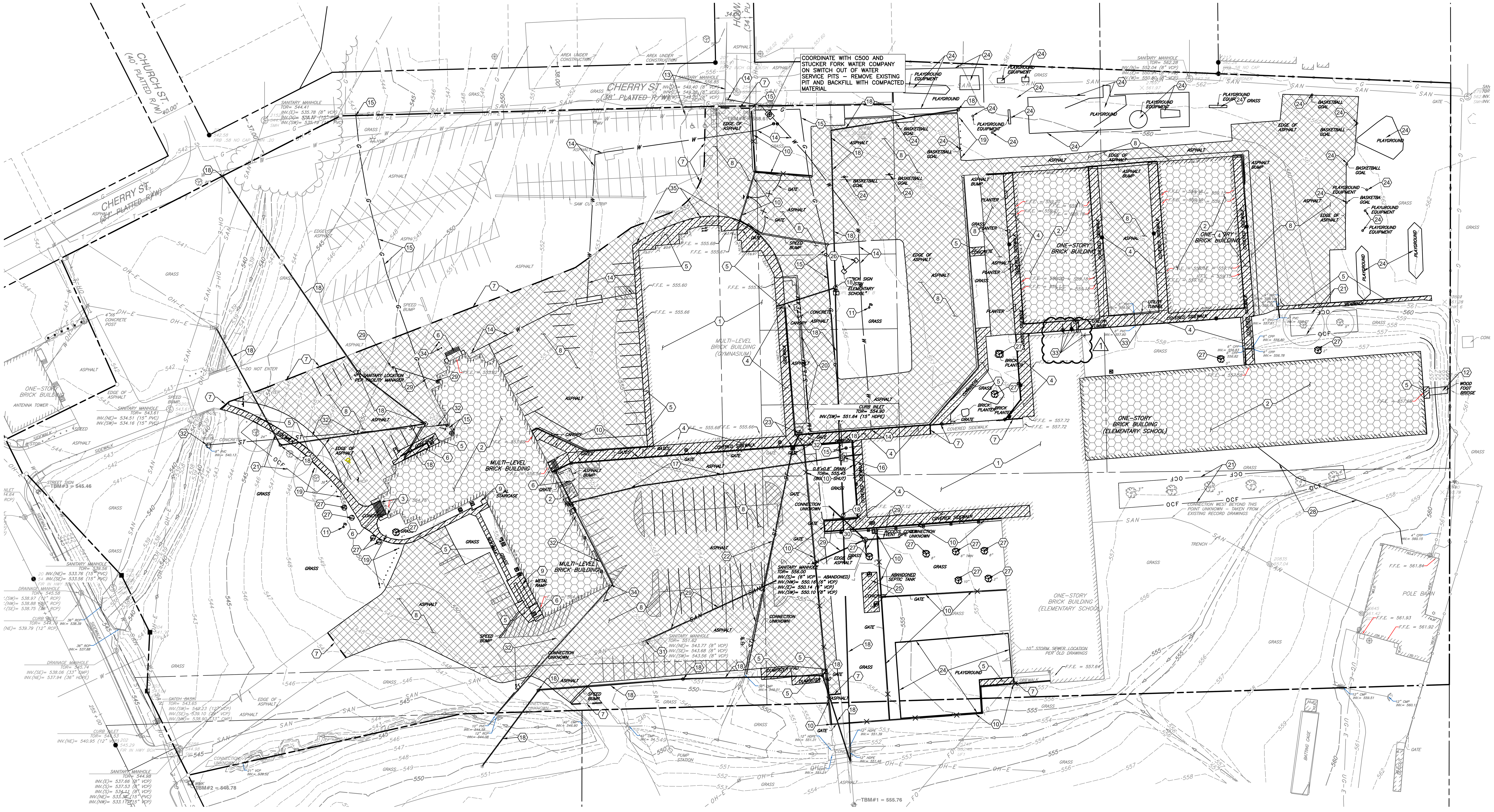


DEMOLITION LEGEND:

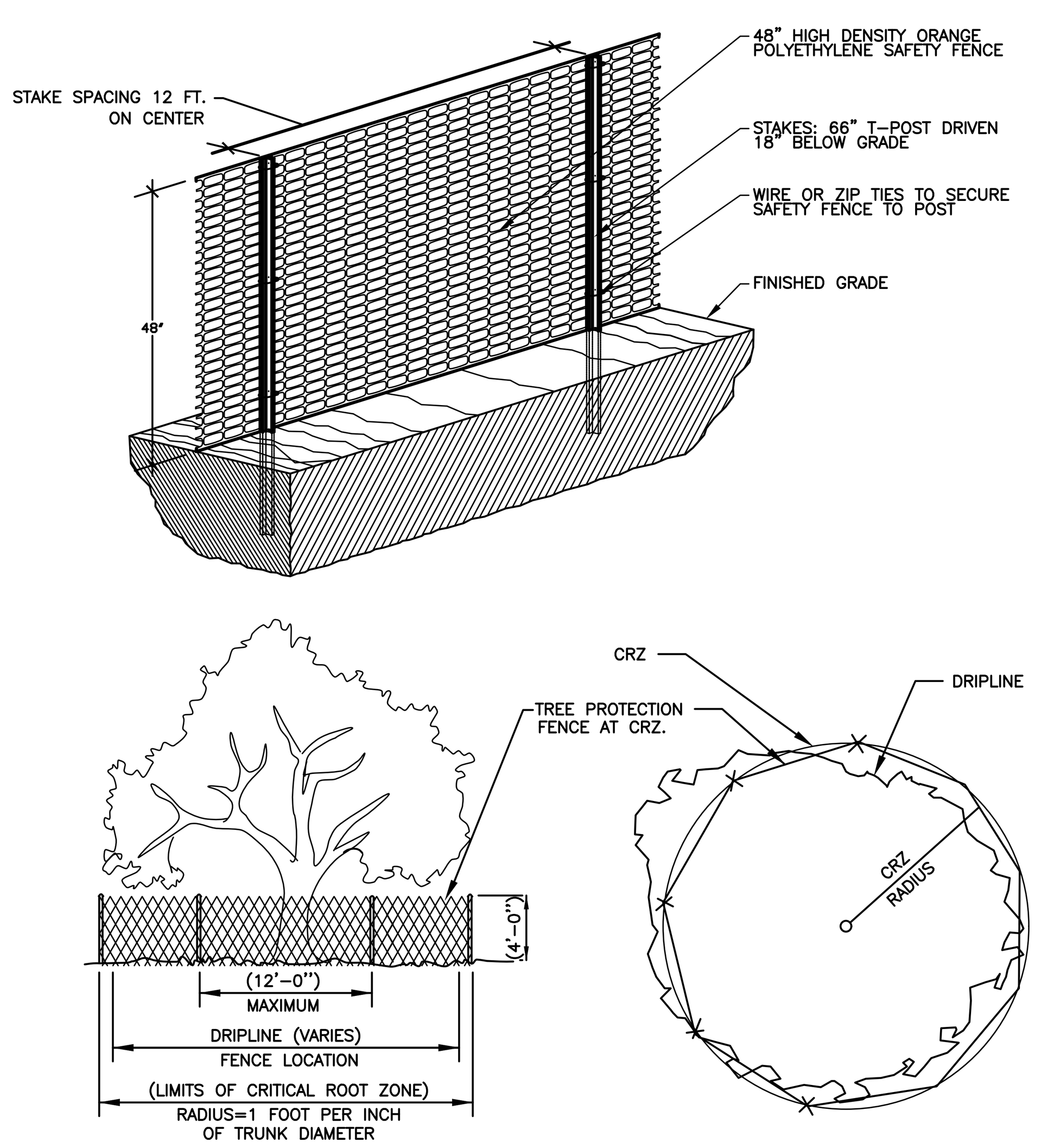
- ASPHALT TO BE REMOVED
- BUILDING TO BE REMOVED
- CONCRETE TO BE REMOVED
- SAWCUT EXISTING PAVEMENT
- FENCE/GATE TO BE REMOVED
- EXISTING UTILITY TO BE REMOVED OR GROUTED FULL, CAPPED AND ABANDONED IN PLACE WHERE APPLICABLE
- TREE PROTECTION

NOTE: FOR BUILDING DEMOLITION ITEMS REFER TO ARCHITECTURAL DRAWINGS AND RELATED STRUCTURAL/MEP DRAWINGS

DEMOLITION ITEMS:

NOTE: REMOVE ALL OBSTRUCTIONS, ABOVE AND BELOW GROUND, THAT IMPACTS NEW CONSTRUCTION, AS REQUIRED, EVEN IF NOT NOTED ON PLAN

1. PORTION OF EXISTING SCHOOL AND FACILITIES TO REMAIN ACTIVE DURING CONSTRUCTION OF NEW SCHOOL – COORDINATE SEQUENCING OF CONSTRUCTION ACTIVITIES WITH CONSTRUCTION MANAGER AND OWNER
2. EXISTING BUILDING TO BE REMOVED COMPLETE, INCLUDING FACILITIES, BASEMENTS, FOUNDATIONS, AND UTILITIES. STORM AND SANITARY LINES TO BE REMOVED AND CAPPED OUTSIDE OF NEW BUILDING FOOTPRINT. COORDINATE SEQUENCING OF DEMOLITION WITH CONSTRUCTION MANAGER AND OWNER. PROVIDE AS–BUILT OF CAPPED UTILITIES TO OWNER
3. FRONT ENTRY ARCHITECTURAL COMPONENTS TO BE SALVAGED TO BE REUSED ON NEW SCHOOL BUILDING. COORDINATE WITH ARCHITECTURAL PLANS.
4. CANOPY OVER WALKWAY TO BE REMOVED COMPLETELY. INCLUDING ROOFS, COLUMNS, FOOTINGS, FENCING, PLANTERS, AND SIDEWALKS – COORDINATE WITH ARCHITECTURAL DRAWINGS
5. REMOVE SIDEWALK COMPLETE
6. REMOVE CONCRETE STEPS/RAMP AND RAILINGS COMPLETE
7. FULL DEPTH SAW CUT LINE
8. REMOVE ASPHALT PAVEMENT AND STONE BASE COMPLETE
9. REMOVE METAL RAMP/STAIR COMPLETE
10. REMOVE FENCE AND FENCE POST COMPLETE VERIFY GATES AND HARDWARE SALVAGE WITH OWNER
11. REMOVE FLAGPOLE AND FOUNDATION
12. REMOVE WOODEN BRIDGE AND ASSORTED TIMBERS
13. WATER LINE TO REMAIN
14. ABANDON IN PLACE WATER LINE – CAP ENDS
15. DISCONNECT GAS SERVICE AND GAS METER. CAP END AND ABANDON IN PLACE. COORDINATE WITH GAS COMPANY
16. REMOVE TRANSFORMER AND PAD – COORDINATE REMOVAL WITH INSTALLATION OF NEW TRANSFORMER AND PAD WITH POWER COMPANY, MEP DRAWINGS, AND OWNER
17. UNDERGROUND POWER & ELECTRICAL TO BE FIELD LOCATED AND REMOVED/ABANDONED IN PLACE. COORDINATE WITH OWNER AND DUKE ENERGY.
18. REMOVE/RELOCATE POWER POLES AND OVERHEAD ELECTRICAL. COORDINATE WITH DUKE ENERGY.
19. WOOD POSTS TO BE REMOVED – TYPICAL
20. PROTECT EXISTING UTILITY TUNNEL DURING CONSTRUCTION. REMOVE CONCRETE SURFACE TO MEET NEW ELEVATIONS – REFER TO C300 – VERIFY A MINIMUM OF 8" OF CONCRETE REMAINING OVER UTILITY TUNNEL.
21. TREE PROTECTION FENCE; REFER TO DETAIL ON THIS SHEET
22. 36" CMP TO BE REMOVED COMPLETE – COORDINATE WITH MEP DRAWINGS FOR UNDER SLAB DRAINAGE WORK – POSITIVE DRAINAGE DISCHARGE FROM EXISTING BUILDINGS TO REMAIN SHALL BE MAINTAINED
23. REMOVE STORM STRUCTURE
24. REMOVE PLAYGROUND EQUIPMENT, SURFACING, AND FOUNDATIONS COMPLETE
25. REMOVE ABANDONED SEPTIC TANK PER SCOTT COUNTY BOARD OF HEALTH, IDEM AND STATE BOARD OF HEALTH REQUIREMENTS
26. REMOVE SIGN AND MASONRY, INCLUDING FOUNDATION
27. REMOVE TREES/SHRUBS INCLUDING ROOT MASS
28. DISCONNECT TELECOM AND REROUTE. COORDINATE WITH TELECOM DRAWINGS AND SERVICE PROVIDER
29. SANITARY SEWER LINES TO BE REMOVED COMPLETE UNDER NEW FLOOR SLAB – PLUG AND CAP PORTION OUTSIDE BUILDING LINE – COORDINATE WITH MEP DRAWINGS FOR UNDER SLAB DRAINAGE WORK – POSITIVE SEWERAGE DISHARGE FROM EXISTING BUILDINGS TO REMAIN SHALL BE MAINTAINED
30. REMOVE SANITARY STRUCTURE
31. MECHANICAL PLUG SANITARY SEWER LINE TO BE REMOVED/ABANDONED IN PLACE – REPAIR OR IF BEYOND REPAIR REPLACE SANITARY MANHOLE WITH NEW – COORDINATE NEW CONNECTION WITH DRAWING C500
32. STORM SEWER LINES TO BE REMOVED COMPLETE UNDER NEW FLOOR SLAB – PLUG AND CAP PORTION OUTSIDE BUILDING LINE – COORDINATE WITH MEP DRAWINGS FOR UNDER SLAB DRAINAGE WORK – POSITIVE DRAINAGE DISHARGE FROM EXISTING BUILDINGS TO REMAIN SHALL BE MAINTAINED
33. (1) CUT STORM AND SANITARY SEWER LINES AT BUILDING LINE AND MECHANICAL PLUG LINES. CUT UTILITY LINES IN THE TUNNEL AT THE BUILDING LINE AND MECHANICAL PLUG LINES. REMOVE TUNNEL COMPLETE, AND PATCH OPENING INTO EXISTING BUILDING TO REMAIN AS DIRECTED BY ARCHITECT AND STRUCTURAL ENGINEER.
34. STEEL POSTS/GUARDRAIL AND FOUNDATIONS TO BE REMOVED
35. CONCRETE BOLLARDS TO BE SALVAGED FOR LATER REINSTALLATION – REFER TO C200



DETAIL 100 - TREE PROTECTION
NOT TO SCALE

BENCHMARKS:

UNLESS OTHERWISE NOTED, ELEVATIONS SHOWN HEREON ARE BASED UPON AN OPUS SOLUTION AND ARE ON THE 1988 NORTH AMERICAN VERTICAL DATUM (NAVD88). IT IS MY OPINION THAT THE UNCERTAINTY IN THE ELEVATION OF THE PROJECT BENCHMARK DOES NOT EXCEED 0.10 FOOT.

TBM#1: MAG SPIKE IN NORTH FACE OF POWER POLE LOCATED ON THE EAST SIDE OF AN ASPHALT WALK 64'± NORTH OF THE NORTHWEST CORNER OF THE TRACK AT THE SOUTH END OF THE PROJECT AREA.
ELEV. = 555.76

TBM#2: CUT "X" ON NORTH BONNET BOLT OF FIRE HYDRANT LOCATED ALONG THE EAST SIDE OF U.S. HIGHWAY 31 ON THE SOUTH SIDE OF A SCHOOL ENTRANCE AT THE SOUTHWEST CORNER OF THE PROJECT AREA.
ELEV. = 546.78

TBM#3: RAILROAD SPIKE IN SOUTHEAST FACE OF POWER POLE LOCATED IN THE SOUTHEAST QUADRANT OF THE INTERSECTION OF U.S. HIGHWAY 31 AND HOWARD STREET ON WEST SIDE OF THE PROJECT AREA.
ELEV. = 545.46

TBM#4: CUT "X" ON SOUTH BONNET BOLT OF FIRE HYDRANT LOCATED ALONG THE WEST SIDE OF HOWARD STREET AND NORTH SIDE OF THE PARKING LOT ON THE NORTH SIDE OF THE PROJECT AREA.
ELEV. = 558.61

UTILITY NOTE:

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN–SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. INDIANA 811 ONE–CALL PUBLIC UTILITY LOCATE SERVICE TICKET NUMBERS 2005143923, 2005143979, 2005144057 AND 2005144099 WERE ISSUED FOR THIS SITE. BAKER UTILITY PARTNERS, A PRIVATE SUBSURFACE UTILITY LOCATING SERVICE, WAS CONTRACTED TO PERFORM THE PRIVATE UTILITY LOCATIONS FOR THE SUBJECT SITE.

PRIOR TO ANY EXCAVATION FOR UNDERGROUND UTILITIES, THE CONTRACTOR SHALL EXPOSE AND VERIFY LOCATIONS (HORIZONTAL AND VERTICAL) OF ALL EXISTING UTILITIES INCLUDING BUT NOT LIMITED TO GAS, WATER, AND SANITARY SEWER. ANY CONFLICTS SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER AND THE APPROPRIATE AUTHORITIES.

GENERAL DEMOLITION NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OFF–SITE OF ALL ITEMS SHOWN ON THE DEMOLITION PLAN INCLUDING ITEMS ENCOUNTERED DURING EXCAVATION OF BUILDING FOUNDATIONS AND UTILITY PLACEMENT.
2. PRIOR TO STARTING DEMOLITION, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL PERMITS REQUIRED BY LOCAL GOVERNMENTAL AGENCIES.
3. THE CONTRACTOR SHALL COORDINATE WITH THE LOCAL UTILITY COMPANIES FOR THE DISCONNECTION AND REMOVAL OF SERVICES TO EXISTING STRUCTURES.
4. ITEMS SHOWN ON THE DEMOLITION PLAN TO BE SALVAGED SHALL BE TRANSPORTED TO LOCATION SPECIFIED BY THE OWNER OR HIS/HER REPRESENTATIVE.
5. ITEMS OF SALVAGEABLE VALUE TO THE CONTRACTOR MAY BE REMOVED WITH THE OWNER OR HIS/HER REPRESENTATIVE'S PERMISSION. THE CONTRACTOR SHALL NOT STORE THESE ITEMS ON SITE.
6. THE CONTRACTOR MAY NOT USE EXPLOSIVES OR BURN DEBRIS.
7. CONDUCT DEMOLITION OPERATIONS TO ENSURE MINIMAL INTERFERENCE WITH ROADS, SIDEWALKS AND ANY OTHER ADJACENT OCCUPIED FACILITIES.
8. DO NOT CLOSE OR OBSTRUCT ROADS, SIDEWALKS OR ANY OTHER OCCUPIED FACILITIES WITHOUT PERMISSION FROM THE LOCAL AUTHORITY HAVING JURISDICTION AND/ OR PROPERTY OWNERS.
9. THE CONTRACTOR SHALL ENSURE SAFE PASSAGE OF PERSON TRAVERSING THROUGH OR AROUND THE CONSTRUCTION SITE.
10. THE CONTRACTOR SHALL PROTECT FROM DAMAGE, SURROUNDING STRUCTURES, UTILITIES AND OTHER FACILITIES DURING DEMOLITION AND REMOVAL OPERATIONS.
11. BUILDING STRUCTURES INCLUDING FOUNDATIONS OR BASEMENTS SHALL BE REMOVED AND BACKFILLED WITH APPROVED BACKFILL MATERIAL. BACKFILL MATERIAL SHALL BE PLACED IN MAXIMUM EIGHT INCH LIFTS AND COMPACTED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT OR A MINIMUM OF 95% OF A STANDARD PROCTOR OR A PROCTOR REQUIRED PER THE GEOTECHNICAL REPORT.
12. UTILITIES SHALL BE REMOVED AND BACKFILLED WITH APPROVED BACKFILL MATERIAL. BACKFILL MATERIAL SHALL BE PLACED IN MAXIMUM EIGHT INCH LIFTS AND COMPACTED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT OR A MINIMUM OF 95% OF A STANDARD PROCTOR OR A PROCTOR REQUIRED PER THE GEOTECHNICAL REPORT.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THE CONSTRUCTION SITE AND SURROUNDING AREAS ARE FREE OF ACCUMULATED DEBRIS.

GENERAL NOTES:

1. EXISTING CONDITIONS AS DEPICTED ON THESE PLANS ARE GENERAL AND ILLUSTRATIVE IN NATURE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE THE SITE AND BE FAMILIAR WITH EXISTING CONDITIONS PRIOR TO BIDDING ON THIS PROJECT. IF CONDITIONS ENCOUNTERED DURING EXAMINATION ARE SIGNIFICANTLY DIFFERENT THAN THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
2. THE CONTRACTOR AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR COMPLYING WITH APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SUBCONTRACTORS TO INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.
3. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER, OWNER'S REPRESENTATIVE, AND CIVIL & ENVIRONMENTAL CONSULTANTS INC. FOR ANY AND ALL INJURIES AND/OR DAMAGES TO PERSONNEL, EQUIPMENT AND/OR EXISTING FACILITIES OCCURRING IN THE COURSE OF THE DEMOLITION AND CONSTRUCTION DESCRIBED IN THE PLANS AND SPECIFICATIONS.
4. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL CODES, OBTAIN ALL APPLICABLE PERMITS, AND PAY ALL REQUIRED FEES PRIOR TO BEGINNING WORK.
5. ALL WORK PERFORMED BY THE CONTRACTOR SHALL CONFORM TO THE LATEST REGULATIONS OF THE AMERICANS WITH DISABILITIES ACT.
6. CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION. IT IS NOT THE ENGINEER'S INTENT THAT ANY SINGLE PLAN SHEET IN THIS SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THE PROJECT.
7. BEFORE INSTALLATION OF STORM OR SANITARY SEWER, OR OTHER UTILITY, THE CONTRACTOR SHALL VERIFY ALL CROSSINGS, BY EXCAVATION WHERE NECESSARY, AND INFORM THE OWNER AND THE ENGINEER OF ANY CONFLICTS. THE ENGINEER WILL BE HELD HARMLESS IN THE EVENT HE IS NOT NOTIFIED OF DESIGN CONFLICTS PRIOR TO CONSTRUCTION.

TRENCH BACKFILL REQUIREMENTS:

ANY AND ALL REMOVAL TRENCH BACKFILL SHALL BE GRANULAR MATERIAL AND COMPACTED TO 95% PROCTOR OR TO THE REQUIREMENTS OF THE GEOTECHNICAL SOILS REPORT

COMPACTION OF EXISTING SITE:

THE ENTIRE AREA OF DISTURBANCE SHALL BE SCRAPED TO UNDISTURBED SOIL DEPTH AND COMPACTION PROVIDED TO MEET THE REQUIREMENTS OF THE GEOTECHNICAL SOILS REPORT

UTILITY NOTE:

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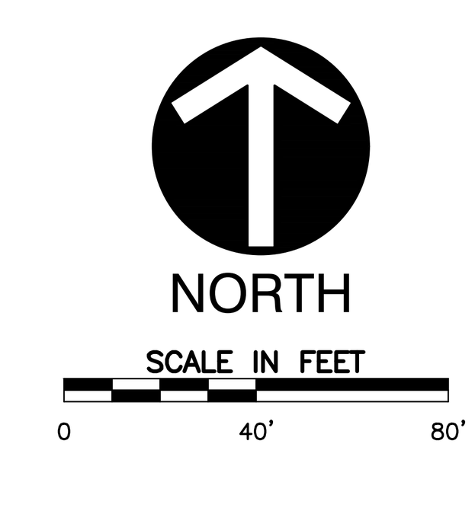

Indiana 811 — Know what's below. Call before you dig.

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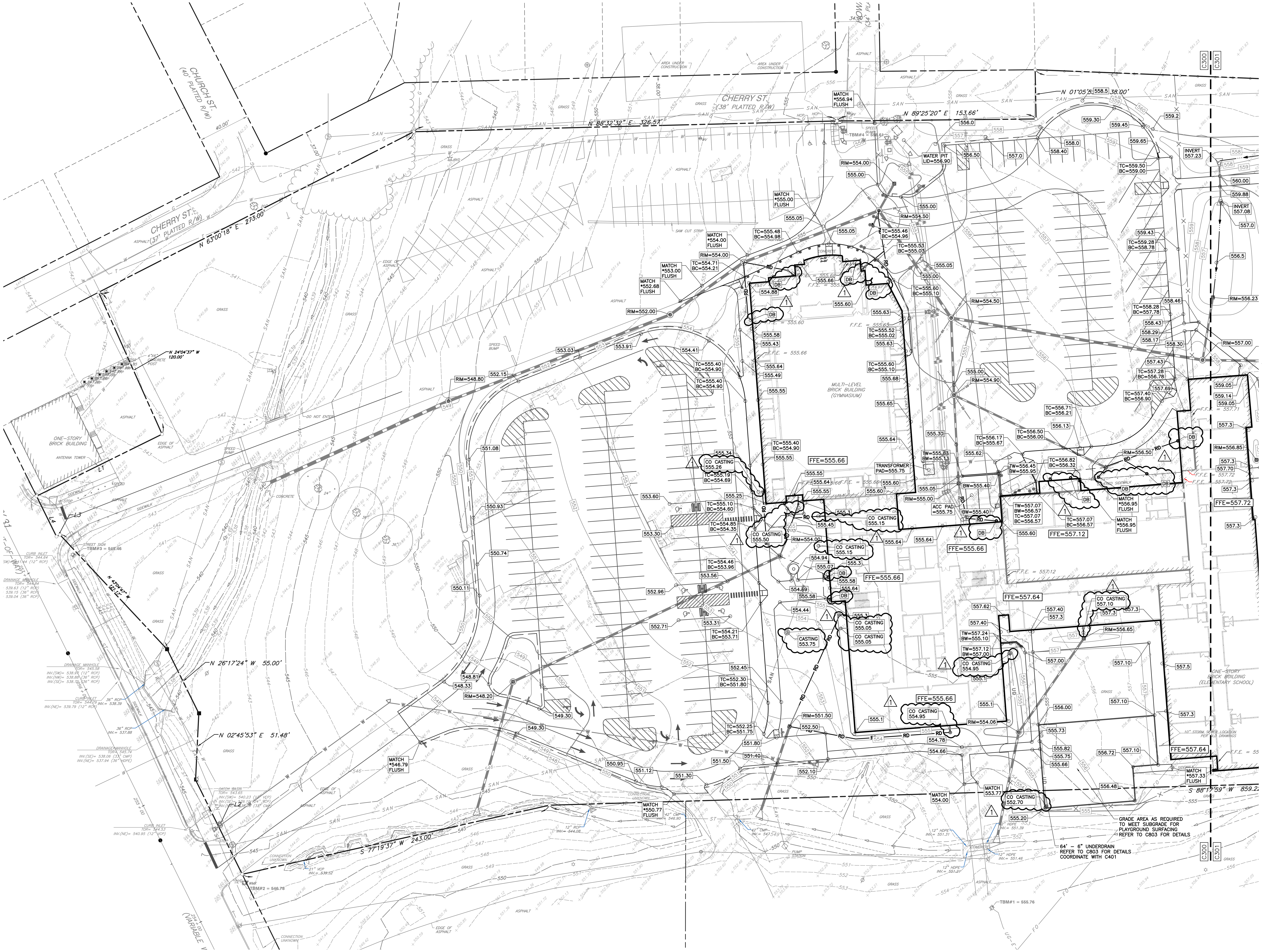
RENOVATIONS AND ADDITIONS TO AUSTIN ELEMENTARY SCHOOL
SCOTT COUNTY SCHOOL DISTRICT 1
SOUTH AUSTIN, IN 47102

PRICING SET
NOT FOR CONSTRUCTION
Date: 2/12/2021 By: NPJ

PROJECT: #19160
2021 02 12 100% CD BID SUBMITTAL
1 2021 03 02 ADDENDUM #1

SITE DEMOLITION PLAN

C100



GENERAL GRADING NOTES:

1. CONTRACTOR SHALL STRICTLY ADHERE TO THE EROSION CONTROL MEASURES PREPARED FOR THIS PROJECT.
2. EARTHWORK SHALL INCLUDE CLEARING AND GRUBBING, STRIPPING AND STOCKPILING TOPSOIL, MASS GRADING, EXCAVATION, FILLING, UNDER CUT AND REPLACEMENT, IF REQUIRED, AND COMPACTION.
3. CONTRACTOR TO REFILL UNDERCUT AREAS WITH SUITABLE MATERIAL AND COMPACT AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
4. PLACE TOPSOIL OVER THE SUBGRADE OF UNPAVED, DISTURBED AREAS TOA DEPTH INDICATED ON THE LANDSCAPE PLANS (6" MINIMUM). PAVEMENT SLOPES ACROSS ACCESSIBLE PARKING STALLS AND ADJOINING ACCESS AISLES SHALL BE MAXIMUM 2%.
5. ALL SLOPES SHALL BE 3:1 (HORIZONTAL:VERTICAL) MAXIMUM UNLESS NOTED OTHERWISE.
6. ALL AREAS NOT PAVED SHALL BE STABILIZED IN ACCORDANCE WITH THE EROSION CONTROL PLAN, UNLESS NOTED OTHERWISE.
7. ALL EXCESS SOIL MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE DESIGNATED SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF OFFSITE AT NO ADDITIONAL COST TO THE OWNER IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS.
8. DRAINAGE SYSTEMS SHALL BE INSPECTED DURING CONSTRUCTION BY A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR. WITHIN 30 DAYS AFTER COMPLETION OF ON AND OFF-SITE DRAINAGE FACILITIES, THE REGISTERED PROFESSIONAL SHALL CERTIFY IN WRITING THE COMPLIANCE OF THE DRAINAGE FACILITIES PER LOCAL REQUIREMENTS.
9. CONTRACTOR SHALL PERPETUATE ALL DRAINS AND TILES ENCOUNTERED DURING CONSTRUCTION. COORDINATE WITH ENGINEER OF RECORD REGARDING THE CONNECTION TO THE PROPOSED STORM SEWER SYSTEM.
10. STORM STRUCTURES RECEIVING SUB-SURFACE DRAINS (SSD) SHALL HAVE BOTH CONNECTIONS CORE DRILLED. T OR Y BLIND CONNECTIONS ARE NOT ALLOWED.
11. REFER TO AND FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT PREPARED FOR THIS PROJECT BY ALT & WITZIG ENGINEERING, INC. GEOTECHNICAL DIVISION, SEPTEMBER 28, 2020

LEGEND

800	PROPOSED INDEX CONTOUR
798	PROPOSED INTERMEDIATE CONTOUR
	PROPOSED DRAINAGE SWALE
	PROPOSED GRADE BREAK
	PROPOSED STORM SEWER LINE
UD	PROPOSED UNDERDRAIN
RD	PROPOSED ROOF DRAIN
555.50	PROPOSED SPOT ELEVATION
TC=555.00 BC=554.50	PROPOSED CURB SPOT ELEVATION; TOP OF CURB ON TOP, GUTTER ELEVATION ON BOTTOM
DB	PROPOSED CAST IRON BOOT WITH SIDE CLEANOUT

ABBREVIATIONS:
TC = TOP OF CURB
BC = BOTTOM OF CURB
TW = TOP OF WALL
BW = BOTTOM OF WALL
TR = TOP OF RAMP
BR = BOTTOM OF RAMP
ME = MATCH EXISTING

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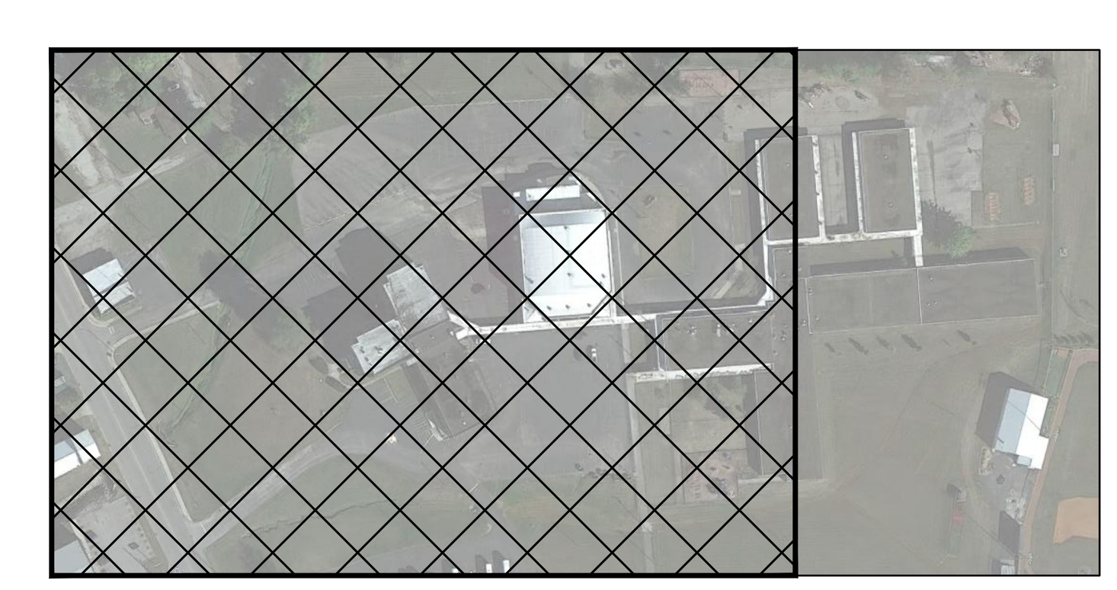
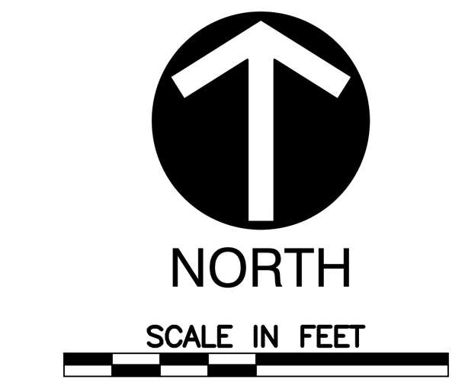


KEY PLAN - NTS



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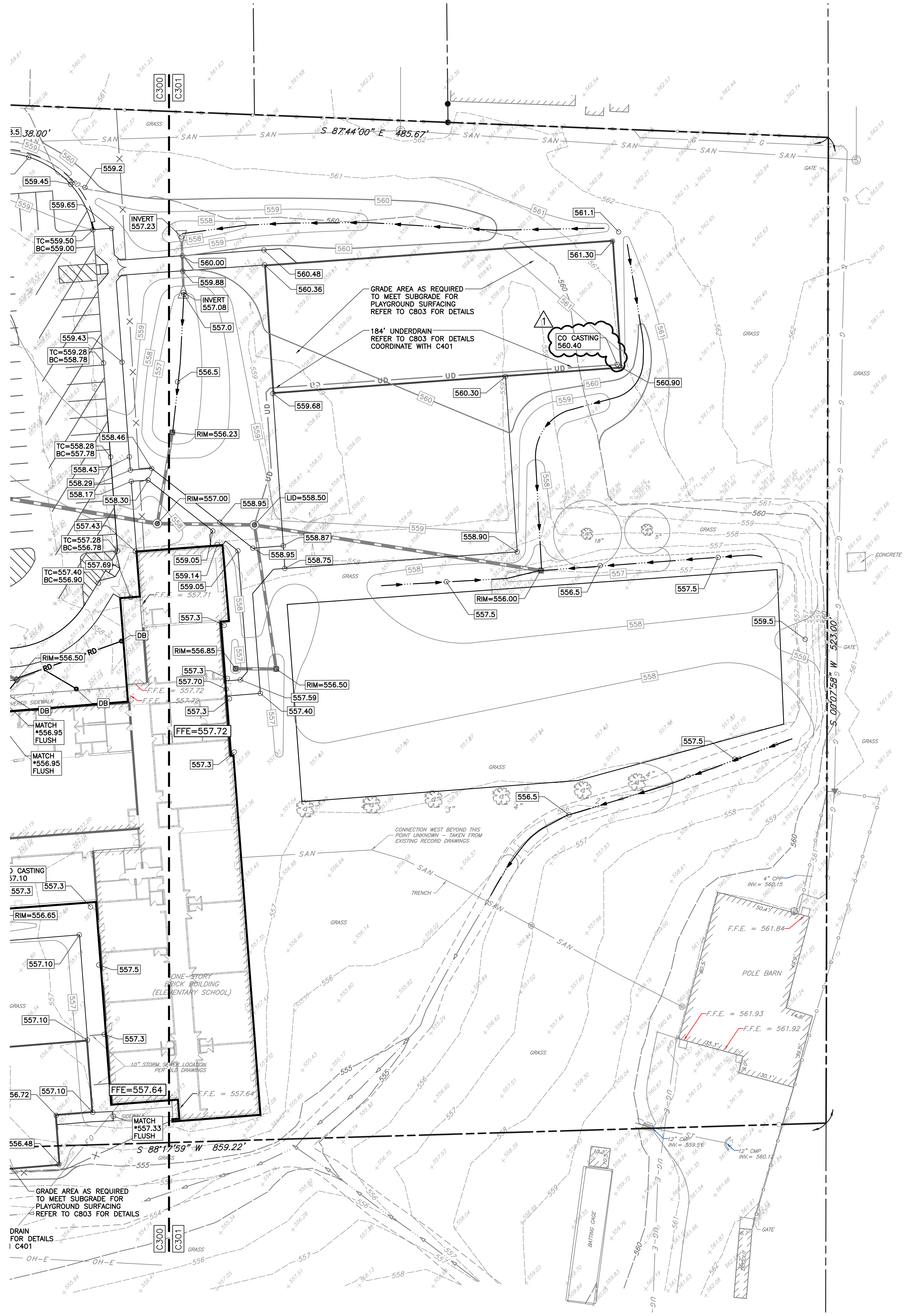
RENOVATIONS AND ADDITIONS TO
AUSTIN ELEMENTARY SCHOOL
SCOTT COUNTY SCHOOL DISTRICT 1
SOUTH AUSTIN, IN 47102

PRICING SET
NOT FOR CONSTRUCTION
Date: 2/12/2021 By: NPJ

PROJECT: #19160
2021 02 12 100% CD BID SUBMITTAL
1 2021 03 02 ADDENDUM #1

SITE GRADING PLAN

C300



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1. CONTRACTOR SHALL STRICTLY ADHERE TO THE EROSION CONTROL MEASURES PREPARED FOR THIS PROJECT.
2. EARTHWORK SHALL INCLUDE CLEARING AND GRUBBING, STRIPPING AND STOCKPILING TOPSOIL, MASS GRADING, EXCAVATION, FILLING, UNDER CUT AND REPLACEMENT, IF REQUIRED, AND COMPACTION.
3. CONTRACTOR TO REFILL UNDERCUT AREAS WITH SUITABLE MATERIAL AND COMPACT AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
4. PLACE TOPSOIL OVER THE SUBGRADE OF UNPAVED, DISTURBED AREAS TOA DEPTH INDICATED ON THE LANDSCAPE PLANS (6" MINIMUM). PAVEMENT SLOPES ACROSS ACCESSIBLE PARKING STALLS AND ADJOINING ACCESS AISLES SHALL BE MAXIMUM 2%.
5. ALL SLOPES SHALL BE 3:1 (HORIZONTAL:VERTICAL) MAXIMUM UNLESS NOTED OTHERWISE.
6. ALL AREAS NOT PAVED SHALL BE STABILIZED IN ACCORDANCE WITH THE EROSION CONTROL PLAN, UNLESS NOTED OTHERWISE.
7. ALL EXCESS SOIL MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE DESIGNATED SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF OFFSITE AT NO ADDITIONAL COST TO THE OWNER IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS.
8. DRAINAGE SYSTEMS SHALL BE INSPECTED DURING CONSTRUCTION BY A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR. WITHIN 30 DAYS AFTER COMPLETION OF ON AND OFF-SITE DRAINAGE FACILITIES, THE REGISTERED PROFESSIONAL SHALL CERTIFY IN WRITING THE COMPLIANCE OF THE DRAINAGE FACILITIES PER LOCAL REQUIREMENTS.
9. CONTRACTOR SHALL PERPETUATE ALL DRAINS AND TILES ENCOUNTERED DURING CONSTRUCTION. COORDINATE WITH ENGINEER OF RECORD REGARDING THE CONNECTION TO THE PROPOSED STORM SEWER SYSTEM.
10. STORM STRUCTURES RECEIVING SUB-SURFACE DRAINS (SSD) SHALL HAVE BOTH CONNECTIONS CORE DRILLED. T OR Y BLIND CONNECTIONS ARE NOT ALLOWED.
11. REFER TO AND FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT PREPARED FOR THIS PROJECT BY ALT & WITZIG ENGINEERING, INC. GEOTECHNICAL DIVISION, SEPTEMBER 28, 2020

LEGEND

Symbol	Description
800	PROPOSED INDEX CONTOUR
798	PROPOSED INTERMEDIATE CONTOUR
	PROPOSED DRAINAGE SWALE
	PROPOSED GRADE BREAK
	PROPOSED STORM SEWER LINE
UD	PROPOSED UNDERDRAIN
RD	PROPOSED ROOF DRAIN
555.50	PROPOSED SPOT ELEVATION
TC=555.00 BC=554.50	PROPOSED CURB SPOT ELEVATION; TOP OF CURB ON TOP, GUTTER ELEVATION ON BOTTOM
DB	PROPOSED CAST IRON BOOT WITH SIDE CLEANOUT

△1

ABBREVIATIONS:
TC = TOP OF CURB
BC = BOTTOM OF CURB
TW = TOP OF WALL
BW = BOTTOM OF WALL
TR = TOP OF RAMP
BR = BOTTOM OF RAMP
ME = MATCH EXISTING

BENCHMARKS:

UNLESS OTHERWISE NOTED, ELEVATIONS SHOWN HEREON ARE BASED UPON AN OPUS SOLUTION AND ARE ON THE 1988 NORTH AMERICAN VERTICAL DATUM (NAVD88). IT IS MY OPINION THAT THE UNCERTAINTY IN THE ELEVATION OF THE PROJECT BENCHMARK DOES NOT EXCEED 0.10 FOOT.

TBM#1: MAG SPIKE IN NORTH FACE OF POWER POLE LOCATED ON THE EAST SIDE OF AN ASPHALT WALK 64'± NORTH OF THE NORTHWEST CORNER OF THE TRACK AT THE SOUTH END OF THE PROJECT AREA.
ELEV. = 555.76

TBM#2: CUT "X" ON NORTH BONNET BOLT OF FIRE HYDRANT LOCATED ALONG THE EAST SIDE OF U.S. HIGHWAY 31 ON THE SOUTH SIDE OF A SCHOOL ENTRANCE AT THE SOUTHWEST CORNER OF THE PROJECT AREA.
ELEV. = 546.78

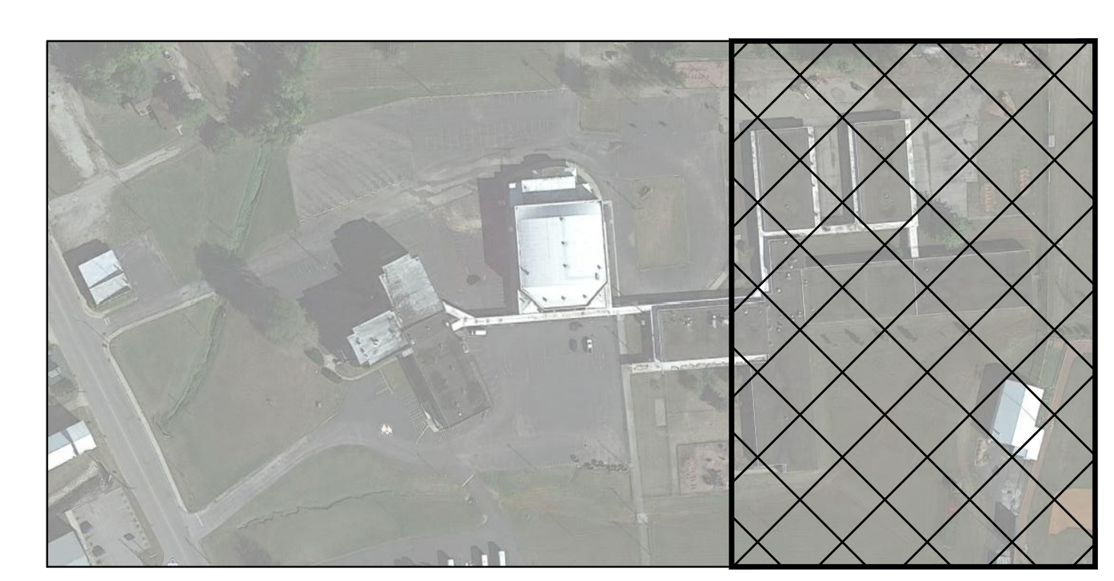
TBM#3: RAILROAD SPIKE IN SOUTHEAST FACE OF POWER POLE LOCATED IN THE SOUTHEAST QUADRANT OF THE INTERSECTION OF U.S. HIGHWAY 31 AND HOWARD STREET ON WEST SIDE OF THE PROJECT AREA.
ELEV. = 545.46

TBM#4: CUT "X" ON SOUTH BONNET BOLT OF FIRE HYDRANT LOCATED ALONG THE WEST SIDE OF HOWARD STREET AND NORTH SIDE OF THE PARKING LOT ON THE NORTH SIDE OF THE PROJECT AREA.
ELEV. = 558.61

UTILITY NOTE:

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. INDIANA 811 ONE-CALL PUBLIC UTILITY LOCATE SERVICE TICKET NUMBERS 2005143923, 2005143979, 2005144057 AND 2005144099 WERE ISSUED FOR THIS SITE. BAKER UTILITY PARTNERS, A PRIVATE SUBSURFACE UTILITY LOCATING SERVICE, WAS CONTRACTED TO PERFORM THE PRIVATE UTILITY LOCATIONS FOR THE SUBJECT SITE.

PRIOR TO ANY EXCAVATION FOR UNDERGROUND UTILITIES, THE CONTRACTOR SHALL EXPOSE AND VERIFY LOCATIONS (HORIZONTAL AND VERTICAL) OF ALL EXISTING UTILITIES INCLUDING BUT NOT LIMITED TO GAS, WATER, AND SANITARY SEWER. ANY CONFLICTS SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER AND THE APPROPRIATE AUTHORITIES.



KEY PLAN - NTS

NORTH

SCALE IN FEET
0 30' 60'

Indiana 811
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317-655-7777 877-746-0749
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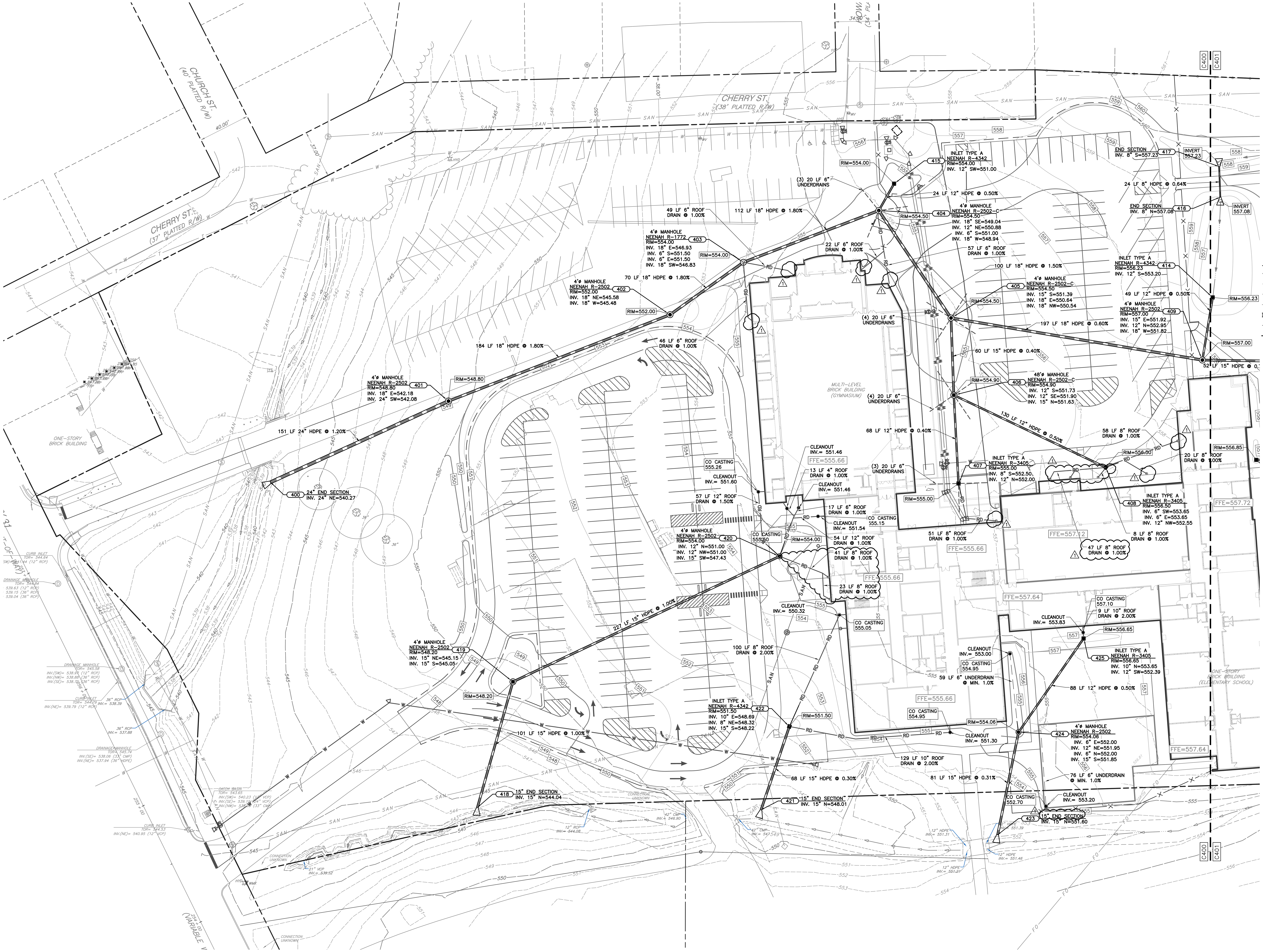
RENOVATIONS AND ADDITIONS TO
AUSTIN ELEMENTARY SCHOOL
SCOTT COUNTY SCHOOL DISTRICT 1
SOUTH AUSTIN, IN 47102

PRICING SET
NOT FOR CONSTRUCTION
Date: 2/12/2021 By: NPJ

PROJECT: #19160
2021 02 12 100% CD BID SUBMITTAL
△1 2021 03 02 ADDENDUM #1

SITE GRADING PLAN

C301



GENERAL DRAINAGE NOTES:

1. DISTANCES SHOWN ON PIPING ARE HORIZONTAL DISTANCES FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE, UNLESS OTHERWISE NOTED.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE INSTALLATION, INSPECTION, TESTING AND FINAL ACCEPTANCE OF ALL NEW STORMWATER MANAGEMENT FACILITIES CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH ALL APPLICABLE REGULATING AGENCIES CONCERNING INSTALLATION, INSPECTION AND APPROVAL OF THE STORM DRAINAGE SYSTEM CONSTRUCTION.
3. ALL STORMWATER MANAGEMENT FACILITIES, INCLUDING COLLECTION AND CONVEYANCE STRUCTURES SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE CODES AND REGULATIONS. 4. ANY WORK PERFORMED IN THE LOCAL OR STATE RIGHT OF WAYS SHALL BE IN ACCORDANCE WITH THE APPLICABLE LOCAL OR STATE REQUIREMENTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE NECESSARY PERMITS FOR THE WORK, SCHEDULE NECESSARY INSPECTIONS, AND PROVIDE THE NECESSARY TRAFFIC CONTROL MEASURES AND DEVICES, ETC., FOR WORK PERFORMED IN THE RIGHT OF WAYS.
5. STORM PIPE SHALL BE REINFORCED CONCRETE, CLASS III, WITH TYPE B WALL THICKNESS, WITH GASKET FITTING. OTHER PIPE MATERIAL IS AS FOLLOWS: PVC PIPE FOR ROOF DRAIN ONLY, AS NOTED ON PLANS.
6. ALL PROPOSED STORM SEWER AND DRAINAGE APPURTENANCES SHALL BE IN CONFORMANCE WITH SCOTT COUNTY ORDINANCE, LATEST EDITION. DISCREPANCIES BETWEEN THE PLANS AND THE MANUAL SHALL NOT ALLEVIATE THE CONTRACTOR FROM ADHERING TO THE REQUIREMENTS AS SET FORTH IN THE MANUAL.
7. ALL STORM STRUCTURES ON SITE AND IN THE RIGHT OF WAY SHALL BE PRECAST CONCRETE.
8. DOWNSPOUT BOOTS TO BE INSTALLED AT ALL PROPOSED AND EXISTING ROOF DRAIN CONNECTIONS. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS AND SIZES.

LEGEND

800	PROPOSED INDEX CONTOUR
798	PROPOSED INTERMEDIATE CONTOUR
	PROPOSED DRAINAGE SWALE
	PROPOSED GRADE BREAK
	PROPOSED STORM SEWER LINE
UD	PROPOSED UNDERDRAIN
RD	PROPOSED ROOF DRAIN

BENCHMARKS:

UNLESS OTHERWISE NOTED, ELEVATIONS SHOWN HEREON ARE BASED UPON AN OPUS SOLUTION AND ARE ON THE 1988 NORTH AMERICAN VERTICAL DATUM (NAVD88). IT IS MY OPINION THAT THE UNCERTAINTY IN THE ELEVATION OF THE PROJECT BENCHMARK DOES NOT EXCEED 0.10 FOOT.

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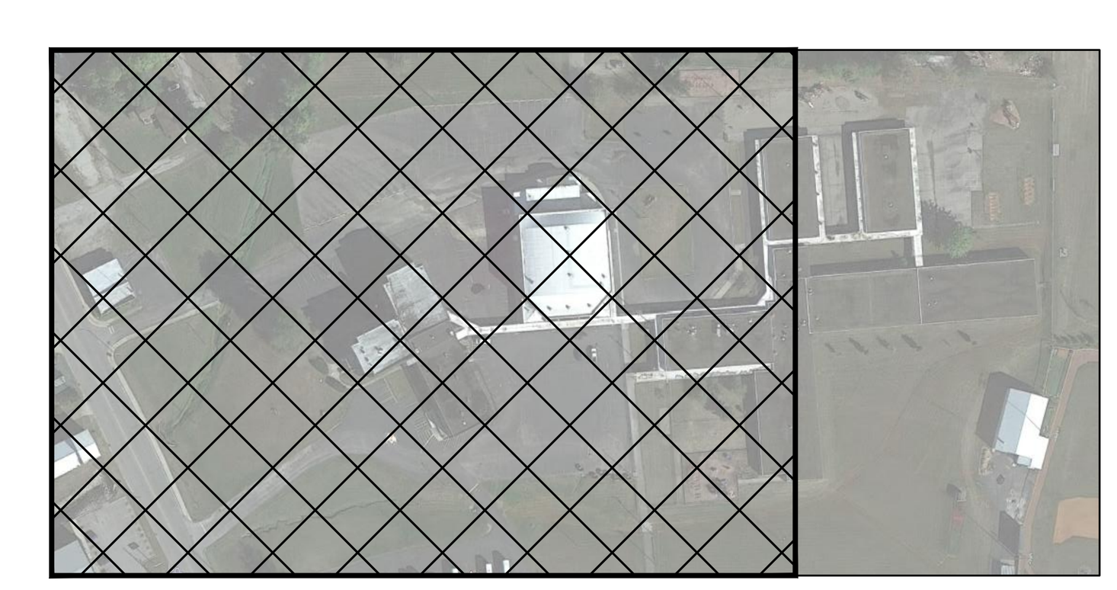

KEY PLAN - NTS

NORTH

SCALE IN FEET
0 30' 60'

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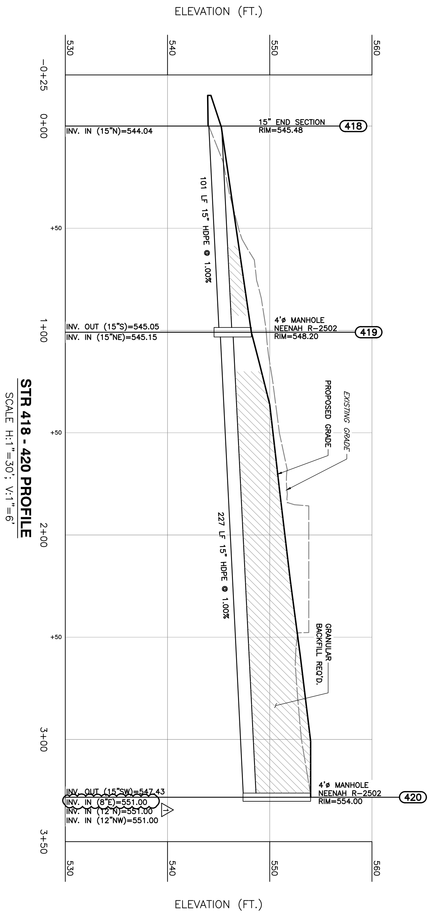
RENOVATIONS AND ADDITIONS TO
AUSTIN ELEMENTARY SCHOOL
SCOTT COUNTY SCHOOL DISTRICT 1
SOUTH AUSTIN, IN 47102

PRICING SET
NOT FOR CONSTRUCTION

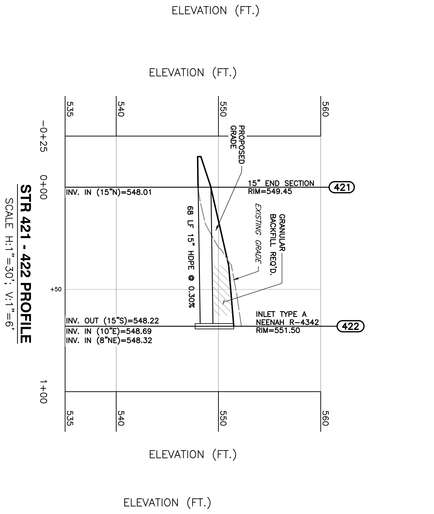
PROJECT: #19160
2021 02 12 100% CD BID SUBMITTAL
1 2021 03 02 ADDENDUM #1

SITE DRAINAGE PLAN

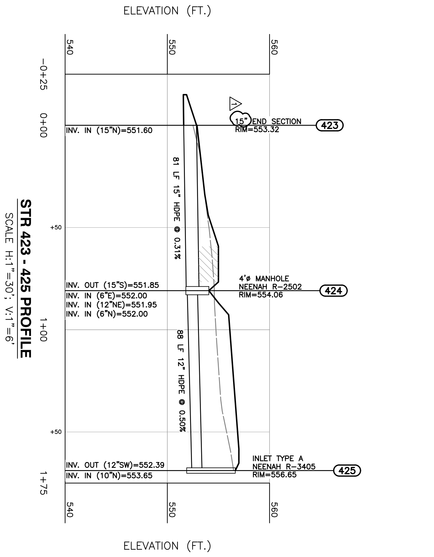
C400



STR 418 - 420 PROFILE
SCALE H:1"=30'; V:1"=6'



STR 421 - 422 PROFILE
SCALE H:1"=30'; V:1"=6'

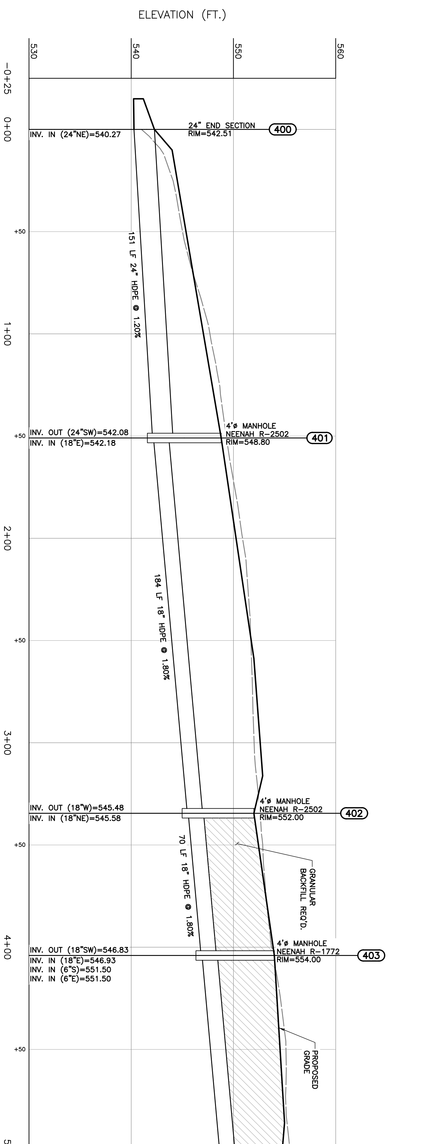


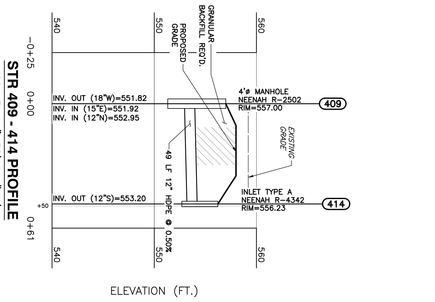
STR 423 - 425 PROFILE
SCALE H:1"=30'; V:1"=6'

STR 405 - 412 PROFILE
SCALE H:1"=30'; V:1"=6'

STR 406 - 408 PROFILE
SCALE H:1"=30'; V:1"=6'

STR 416 - 417 PROFILE
SCALE H:1"=30'; V:1"=6'





STR 409 - 414 PROFILE
SCALE H:1"=30'; V:1"=6'

SCALE IN FEET
VERTICAL
0 6' 12'

SCALE IN FEET
VERTICAL
0 30' 60'

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SITE DRAINAGE PLAN
C402

PROJECT: #19160
2021 02 12 100% CD BID SUBMITTAL
1 2021 03 02 ADDENDUM #1

PRICING SET
NOT FOR CONSTRUCTION
Date: 2/12/2021 By: NPJ

RENOVATIONS AND ADDITIONS TO
AUSTIN ELEMENTARY SCHOOL
SCOTT COUNTY SCHOOL DISTRICT 1
SOUTH AUSTIN, IN 47102

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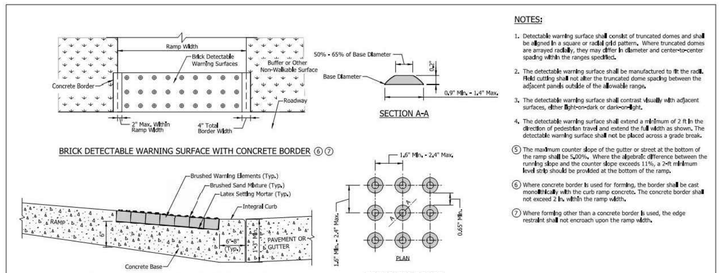


NOTES:

1. Detectable warning surface shall consist of truncated domes and shall be aligned in a square or radial grid pattern. Where truncated domes are arrayed radially, they may differ in diameter and center-to-center spacing within the ranges specified.
2. The detectable warning surface shall be manufactured to fit the radii. Field cutting shall not alter the truncated dome spacing between the adjacent panels outside of the allowable range.
3. The detectable warning surface shall contrast visually with adjacent surfaces, either light-on-dark or dark-on-light.
4. The detectable warning surface shall extend a minimum of 2 ft in the direction of pedestrian travel and extend the full width as shown. The detectable warning surface shall not be placed across a grade break.
5. The maximum counter slope of the gutter or street at the bottom of the ramp shall be 5.00%. Where the algebraic difference between the running slope and the counter slope exceeds 11%, a 2-ft minimum level strip should be provided at the bottom of the ramp.
6. Where concrete border is used for forming, the border shall be cast monolithically with the curb ramp concrete. The concrete border shall not exceed 2 in. width the ramp width.
7. Where forming other than a concrete border is used, the edge restraint shall not encroach upon the ramp width.

INDIANA DEPARTMENT OF TRANSPORTATION

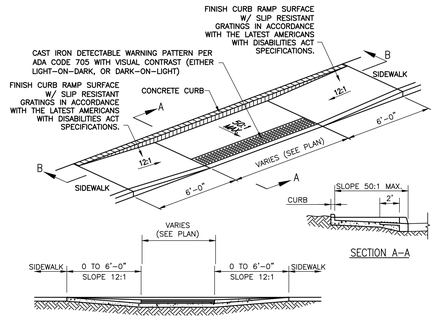
DETECTABLE WARNING SURFACE DETAILS

SEPTEMBER 2016

STANDARD DRAWING NO. E 604-SWCR-14

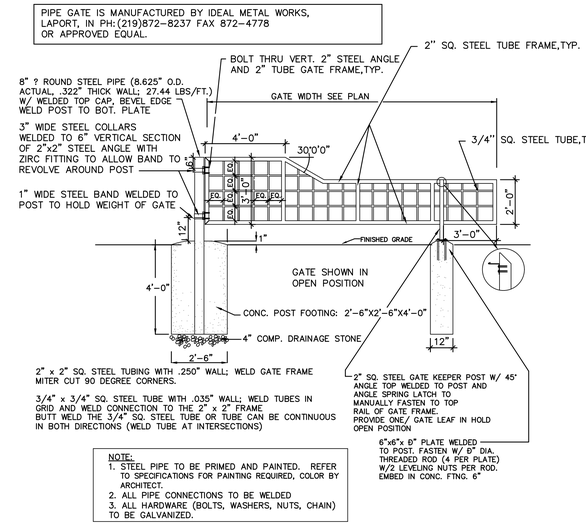
ELIZABETH W. PHILLIPS — No. 10200124 — STATE OF INDIANA — REGISTERED PROFESSIONAL ENGINEER

s/ Elizabeth W. Phillips	03/15/16
DESIGN STANDARDS ENGINEER	DATE
s/ Mark A. Miller	03/18/16
CHIEF ENGINEER	DATE



DETAIL 209 - ADA RAMP TYPE "K"

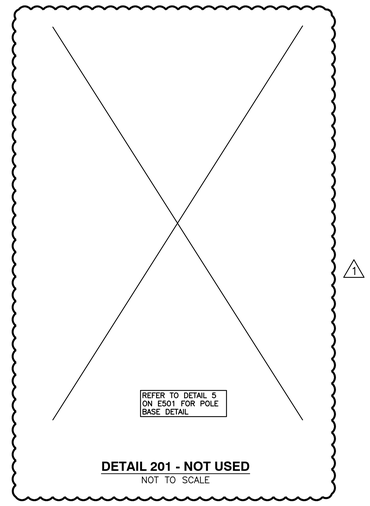
NOT TO SCALE



NOTE:
1. STEEL PIPE TO BE PRIMED AND PAINTED. REFER TO SPECIFICATIONS FOR PAINTING REQUIRED, COLOR BY ARCHITECT.
2. ALL PIPE CONNECTIONS TO BE WELDED
3. ALL HARDWARE (BOLTS, WASHERS, NUTS, CHAIN) TO BE GALVANIZED.

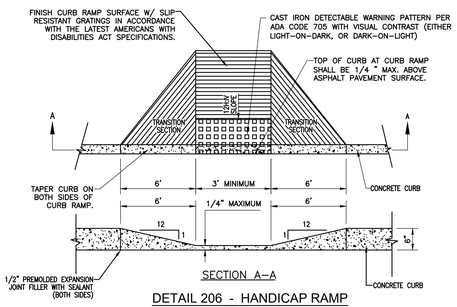
DETAIL 205 -PIPE GATE

NOT TO SCALE



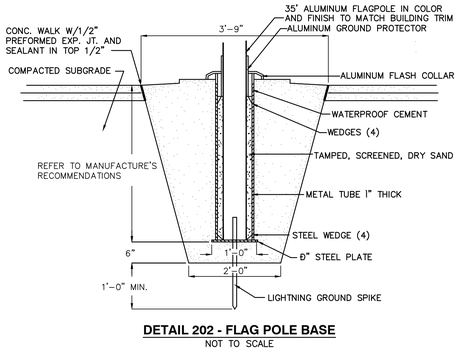
DETAIL 201 - NOT USED

NOT TO SCALE



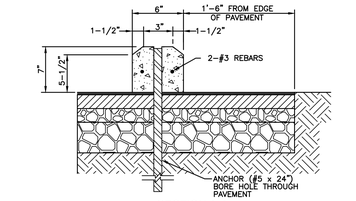
DETAIL 206 - HANDICAP RAMP

NOT TO SCALE



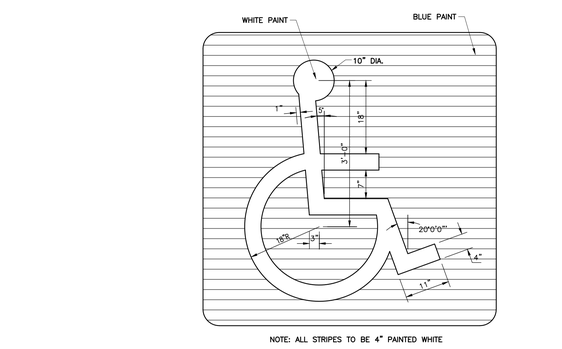
DETAIL 202 - FLAG POLE BASE

NOT TO SCALE



DETAIL 203 - PRECAST CONCRETE WHEELSTOP

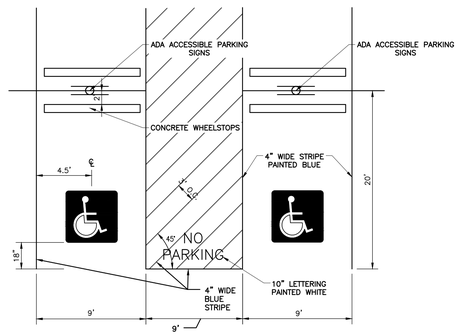
NOT TO SCALE



NOTE: ALL STRIPES TO BE 4" PAINTED WHITE

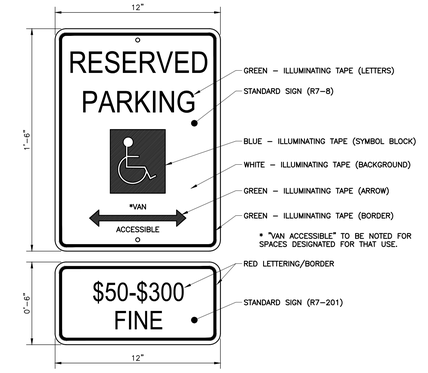
DETAIL 207 - PAINTED ADA ACCESSIBLE SYMBOL

NOT TO SCALE



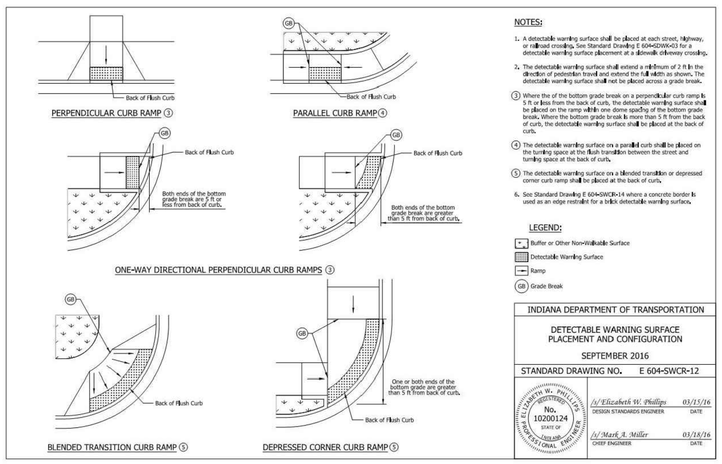
DETAIL 208 - ADA ACCESSIBLE PARKING STALLS

NOT TO SCALE



DETAIL 204 - ADA ACCESSIBLE PARKING SIGN

NOT TO SCALE



NOTES:

1. A detectable warning surface shall be placed at each street, highway, or railroad crossing. See Standard Drawing E 604-SDWK-03 for a detectable warning surface placement at a sidewalk driveway crossing.
2. The detectable warning surface shall extend a minimum of 2 ft in the direction of pedestrian travel and extend the full width as shown. The detectable warning surface shall not be placed across a grade break.
3. Where the of the bottom grade break on a perpendicular curb ramp is 5 ft or less from the back of curb, the detectable warning surface shall be placed on the ramp within one dome spacing of the bottom grade break. Where the bottom grade break is more than 5 ft from the back of curb, the detectable warning surface shall be placed at the back of curb.
4. The detectable warning surface on a parallel curb shall be placed on the turning space at the flush transition between the street and turning space at the back of curb.
5. The detectable warning surface on a blended transition or depressed corner curb ramp shall be placed at the back of curb.
6. See Standard Drawing E 604-SWCR-14 where a concrete border is used as an edge restraint for a brick detectable warning surface.

LEGEND:

- Buffer or Other Non-Walkable Surface
- Detectable Warning Surface
- Ramp
- GB Grade Break

INDIANA DEPARTMENT OF TRANSPORTATION

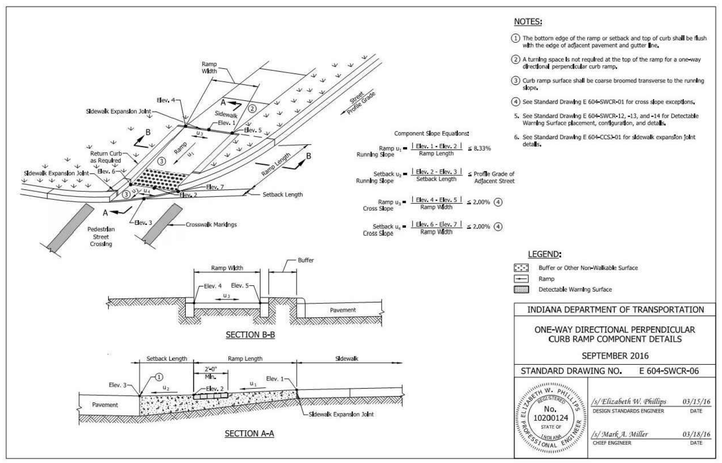
DETECTABLE WARNING SURFACE PLACEMENT AND CONFIGURATION

SEPTEMBER 2016

STANDARD DRAWING NO. E 604-SWCR-12

ELIZABETH W. PHILLIPS — No. 10200124 — STATE OF INDIANA — REGISTERED PROFESSIONAL ENGINEER

s/ Elizabeth W. Phillips	03/15/16
DESIGN STANDARDS ENGINEER	DATE
s/ Mark A. Miller	03/18/16
CHIEF ENGINEER	DATE



NOTES:

1. The bottom edge of the ramp or setback and top of curb shall be flush with the edge of adjacent pavement and gutter line.
2. A turning space is not required at the top of the ramp for a one-way directional perpendicular curb ramp.
3. Curb ramp surface shall be coarse broomed transverse to the running slope.
4. See Standard Drawing E 604-SWCR-01 for cross slope exceptions.
5. See Standard Drawing E 604-SWCR-12, -13, and -14 for Detectable Warning Surface placement, configuration, and details.
6. See Standard Drawing E 604-CCSS-01 for sidewalk expansion joint details.

LEGEND:

- Buffer or Other Non-Walkable Surface
- Ramp
- Detectable Warning Surface

INDIANA DEPARTMENT OF TRANSPORTATION

ONE-WAY DIRECTIONAL PERPENDICULAR CURB RAMP COMPONENT DETAILS

SEPTEMBER 2016

STANDARD DRAWING NO. E 604-SWCR-06

ELIZABETH W. PHILLIPS — No. 10200124 — STATE OF INDIANA — REGISTERED PROFESSIONAL ENGINEER

s/ Elizabeth W. Phillips	03/15/16
DESIGN STANDARDS ENGINEER	DATE
s/ Mark A. Miller	03/18/16
CHIEF ENGINEER	DATE

LANGER+BEEBE

CEC

Civil & Environmental Consultants, Inc.
317-655-7777 877-746-0749
www.cecinc.com #302-488

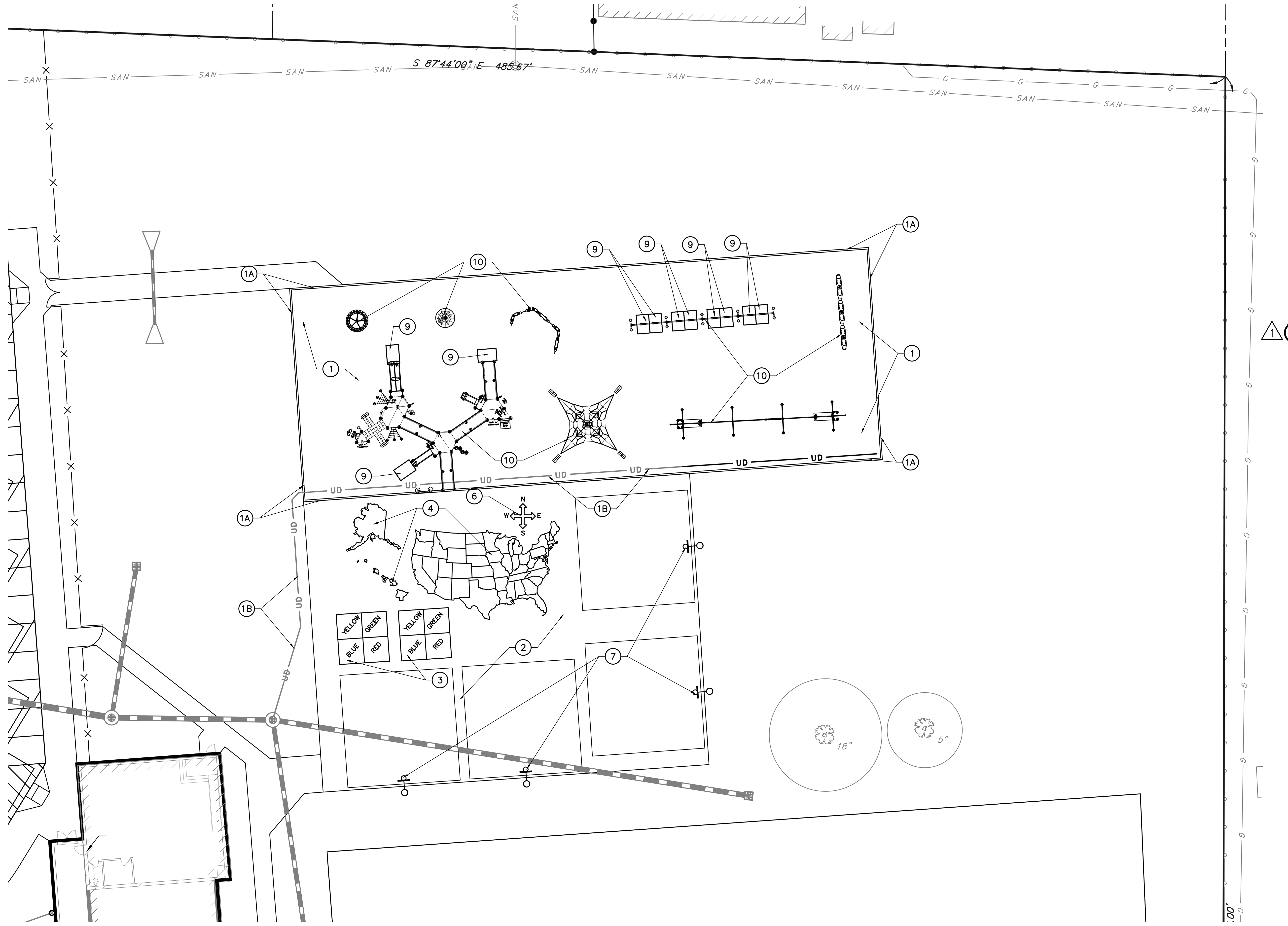
RENOVATIONS AND ADDITIONS TO
AUSTIN ELEMENTARY SCHOOL
SCOTT COUNTY SCHOOL DISTRICT 1
SOUTH AUSTIN, IN 47102

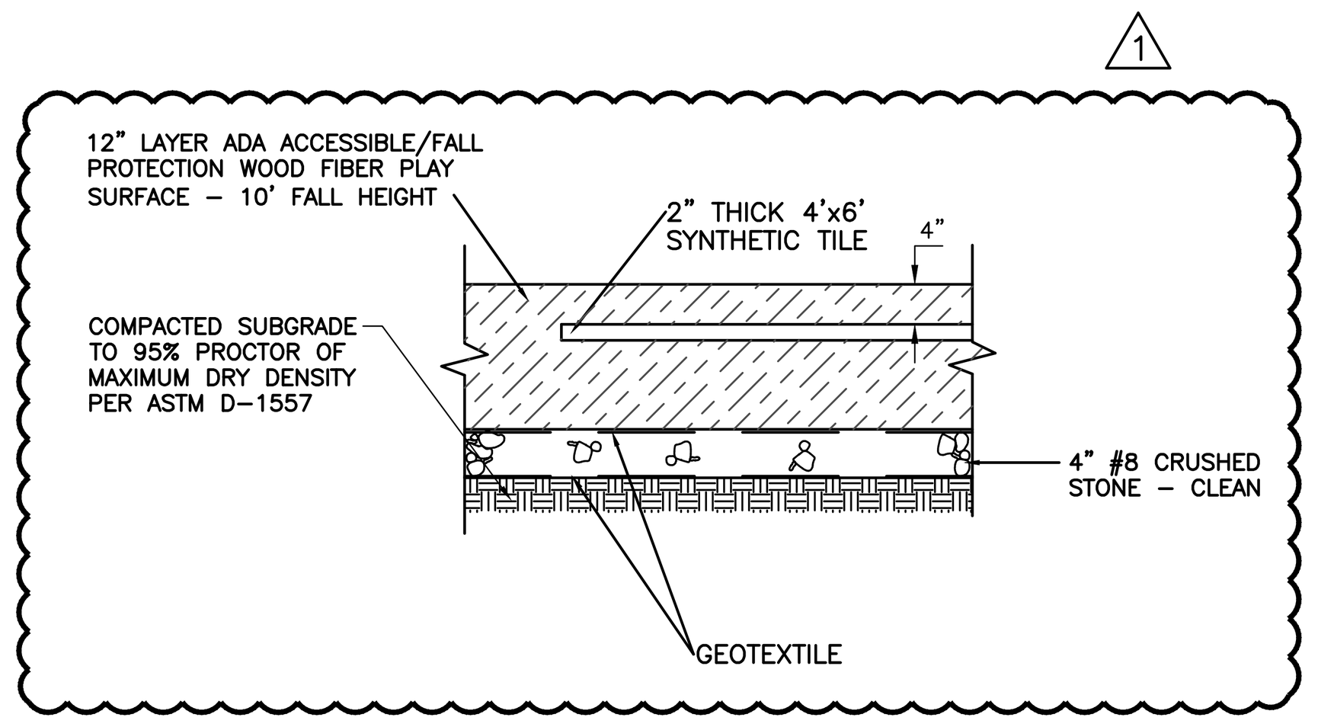
PRICING SET
NOT FOR CONSTRUCTION
Date: 2/2/2021 By: MSL

PROJECT #19160
2021 02 12 100% CD BID SUBMITTAL
1 2021 03 02 ADDENDUM #1

SITE DETAILS

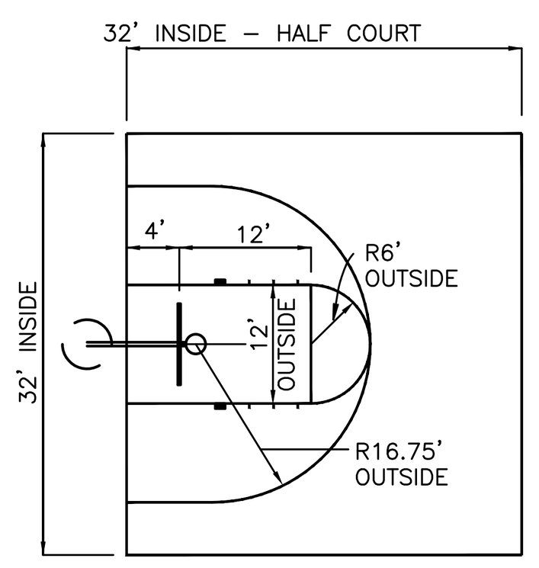
C801





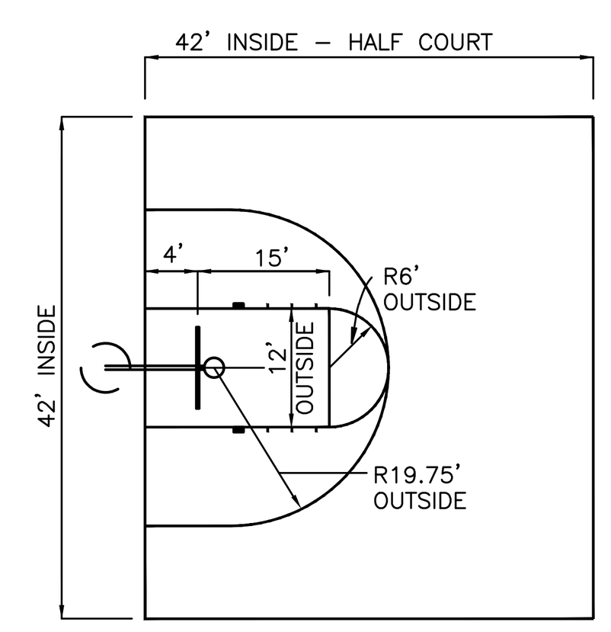
DETAIL 209 - SYNTHETIC PAD FOR UNDER HIGH TRAFFIC AREAS

NOT TO SCALE



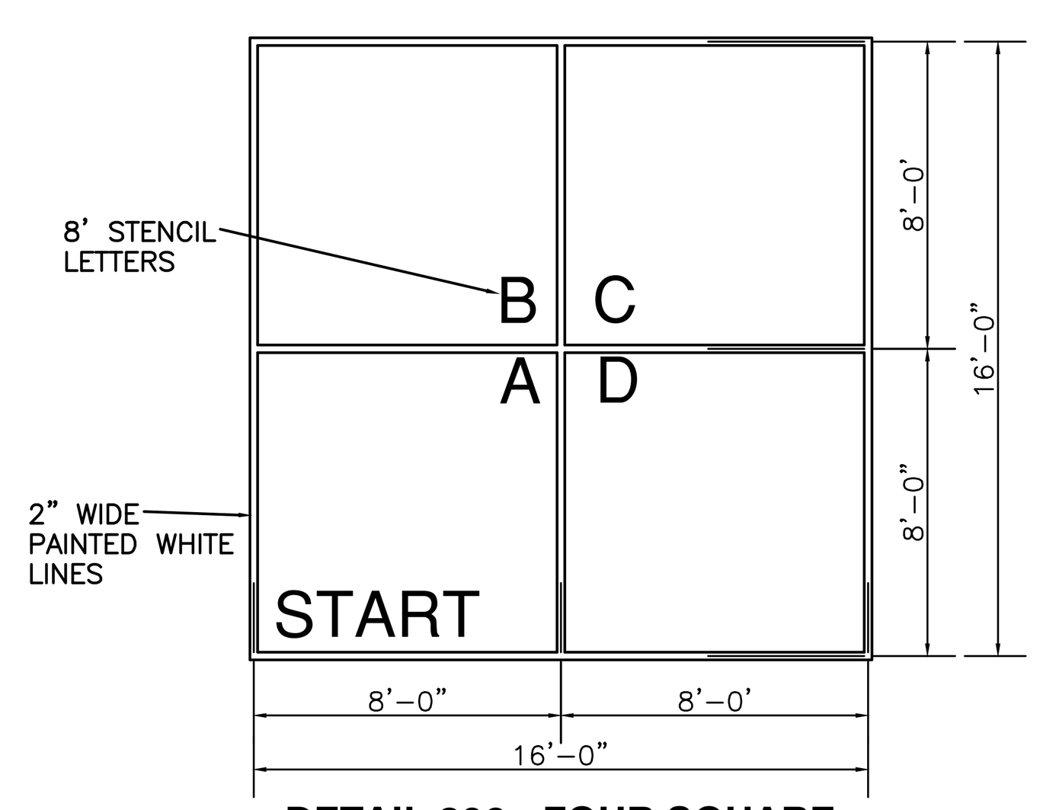
DETAIL 208 - 32' X 32' BASKETBALL COURT

NOT TO SCALE



DETAIL 207 - 42' X 42' BASKETBALL COURT

NOT TO SCALE



DETAIL 206 - FOUR SQUARE

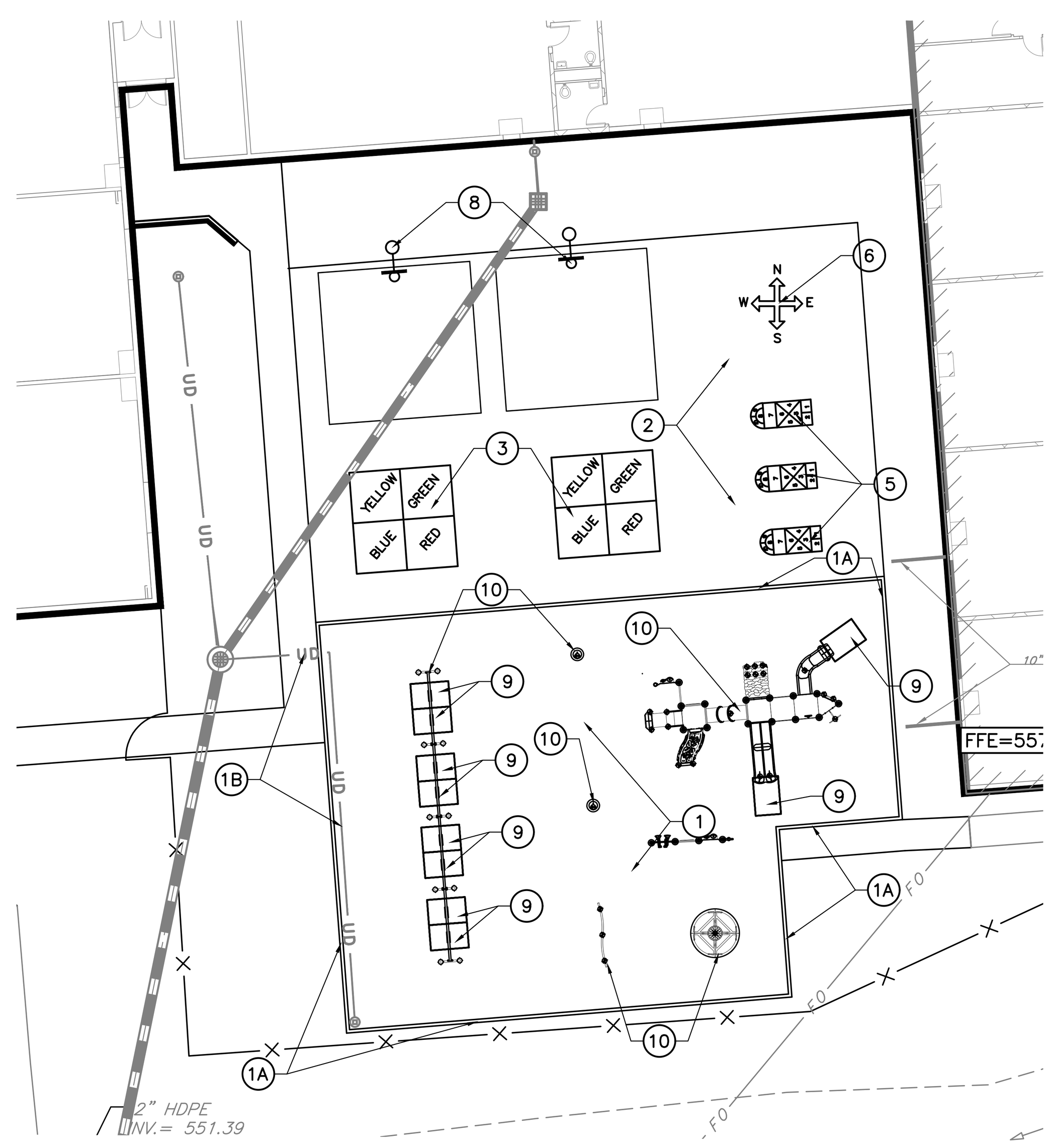
NOT TO SCALE

UPPER LEVEL PLAYGROUND

1" = 20'

NOTES:
EQUIPMENT SHALL BE BASED ON GRADE LEVELS 2 THROUGH 5.

CONTRACTOR SHALL PROVIDE DATA ON PROPOSED EQUIPMENT BASED ON GRADE LEVELS.

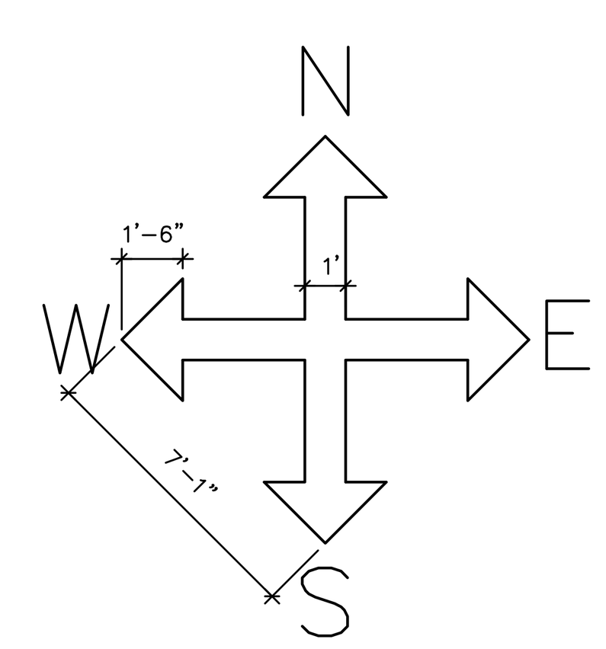


LOWER LEVEL PLAYGROUND

1" = 20'

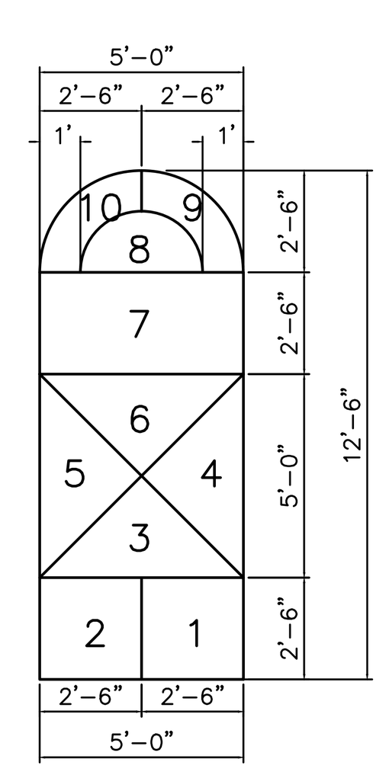
NOTES:
EQUIPMENT SHALL BE BASED ON GRADE LEVELS K THROUGH 1.

CONTRACTOR SHALL PROVIDE DATA ON PROPOSED EQUIPMENT BASED ON GRADE LEVELS.



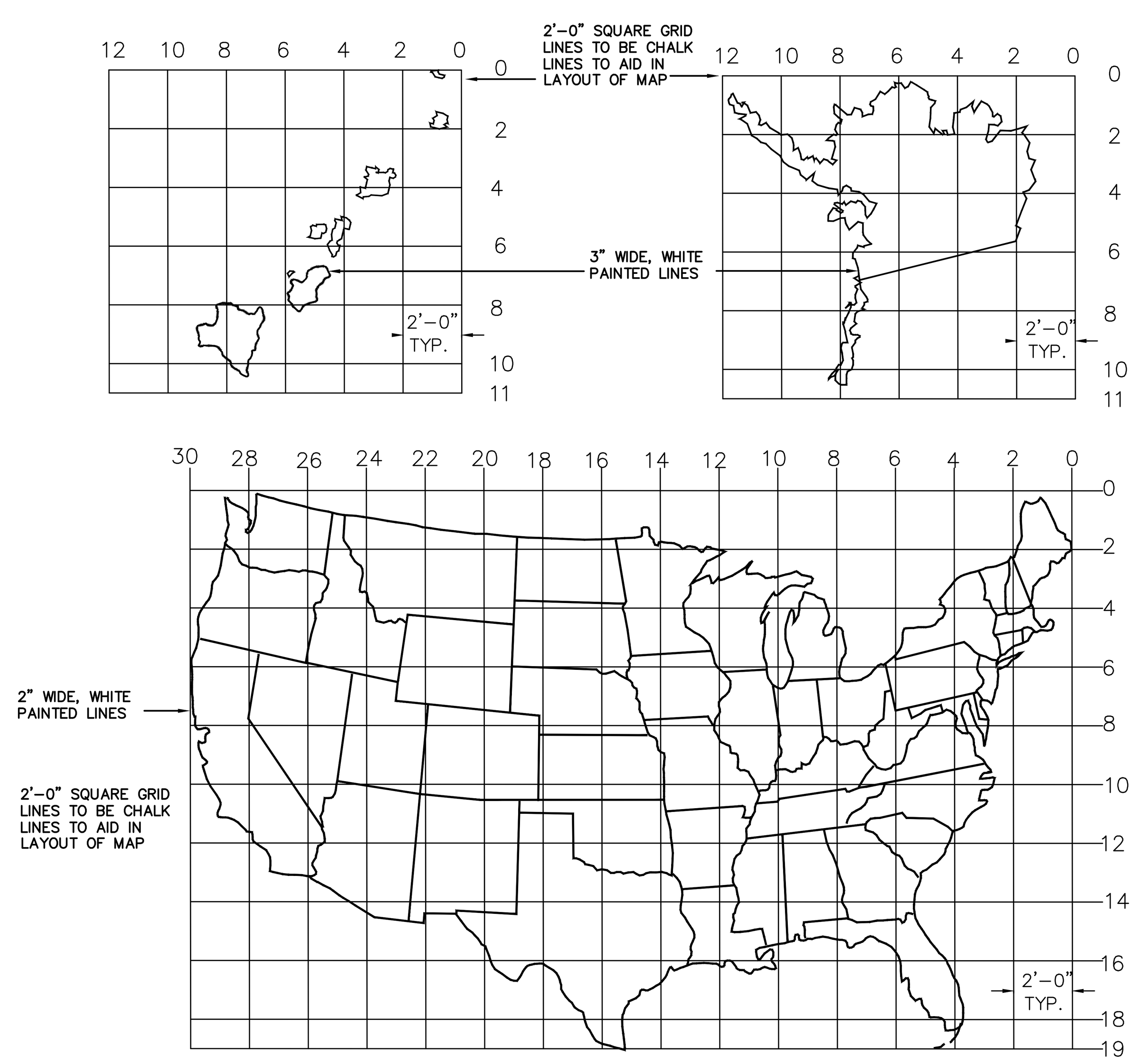
DETAIL 205 - COMPASS

NOT TO SCALE



DETAIL 204 - HOPSCOTCH

NOT TO SCALE



PAINTED PLAYGROUND NOTES:

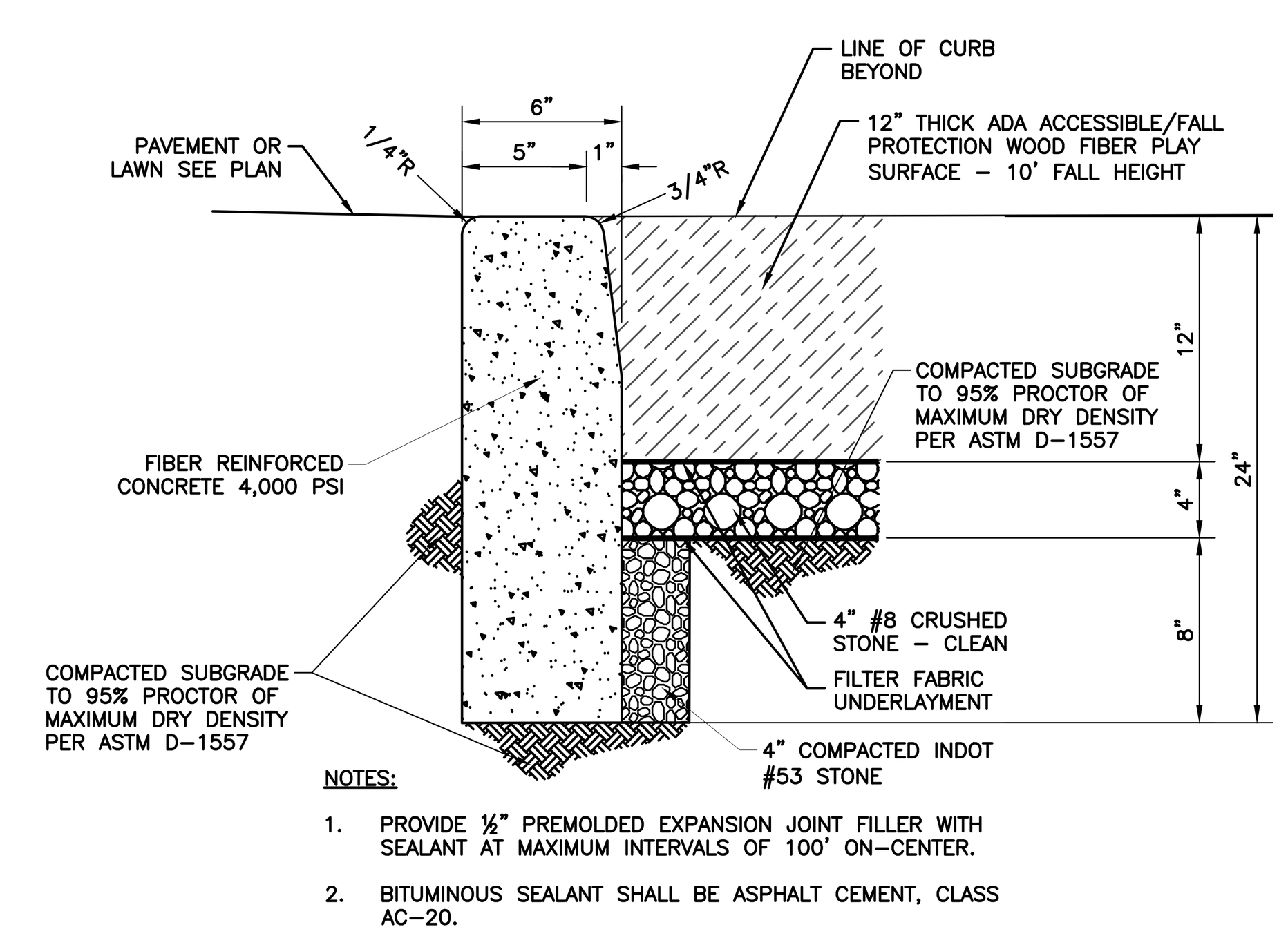
1. FOUR SQUARE ARE TO BE PAINTED AS SHOWN ON THE PLANS WITH THE LINES TO 2" WIDE, WHITE LINES.

2. HOPSCOTCH LINES ARE TO BE 2" WIDE, PAINTED WHITE. HOPSCOTCH COLORS ARE AS FOLLOWS: 1,5,9 ARE TO BE BLUE; 6,8 ARE TO BE RED; AREA 3 & 7 ARE TO BE YELLOW AND 2,4,10 ARE GREEN. THE NUMBERS ARE TO BE WHITE WITH 1" WIDE LINES.

3. COMPASS: OUTLINE OF ARROWS IS TO BE 2" WIDE, PAINTED WHITE; CENTER OF ARROWS ARE TO BE GREEN. LETTERS (N,S,E,W) ARE TO BE WHITE, 21" HIGH WITH 3" WIDE LINES.

DETAIL 203 - UNITED STATES MAP

NOT TO SCALE



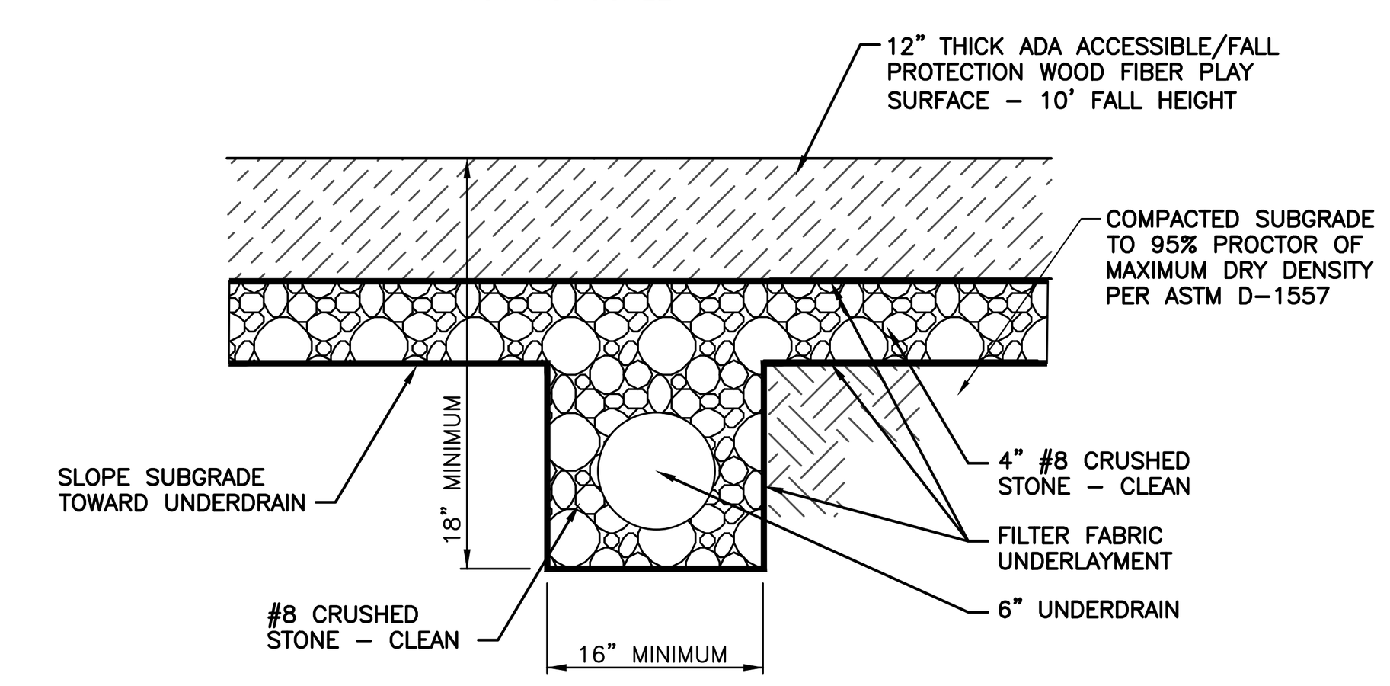
NOTES:

1. PROVIDE ½" PREMOLDED EXPANSION JOINT FILLER WITH SEALANT AT MAXIMUM INTERVALS OF 100' ON-CENTER.

2. BITUMINOUS SEALANT SHALL BE ASPHALT CEMENT, CLASS AC-20.

DETAIL 201 - CONCRETE CURB

NOT TO SCALE



DETAIL 202 - PLAYGROUND UNDERDRAIN

NOT TO SCALE

SITE KEY NOTES:

(1) WOOD FIBER PLAY SURFACE
WOOD FIBER PLAY SURFACE BASED ON SOF-STEP BY GREENDELL LANDSCAPE SOLUTIONS, INC.
CERTIFIED ADA ACCESSIBLE/ FALL PROTECTION WOOD FIBER PLAY SURFACE
COMPLETE ASSEMBLY INCLUDES MATERIALS ABOVE COMPACTED SUBGRADE – REFER TO DETAILS 201 AND C202 ON THIS SHEET

(1A) CONCRETE CURB SURROUNDING WOOD FIBER PLAY SURFACE – DETAIL 201 ON THIS SHEET

(1B) UNDERDRAIN – DETAIL C202 ON THIS SHEET – PIPING OUTSIDE PLAY SURFACE IS SOLID PIPE

(2) PLAYGROUND ASPHALT PAVEMENT – REFER TO DETAIL 205 ON C800 AND AND C200/C201 FOR DIMENSIONAL CONTROLS.

(3) PAINTED FOUR SQUARE – REFER TO DETAIL 206 THIS SHEET.

(4) PAINTED UNITED STATES MAP – REFER TO DETAIL 203 THIS SHEET.

(5) PAINTED HOP-SCOTCH – REFER TO DETAIL 204 THIS SHEET.

(6) PAINTED COMPASS ARROW – REFER TO DETAIL 205 THIS SHEET.

(7) FOUR (4) GOALSETTER MVP INTERNAL ADJUSTMENT BASKETBALL GOAL WITH FOUNDATION AND PADDED SUPPORT POLE.
PAINT THREE POINT LINE AND FREE THROW LANE – REFER TO DETAIL 207 THIS SHEET FOR PAINT.
PROVIDE BASKETBALL GOAL FOUNDATIONS AS RECOMMENDED BY MANUFACTURER.

(8) TWO (2) GOALSETTER MVP INTERNAL ADJUSTMENT BASKETBALL GOAL WITH FOUNDATION AND PADDED SUPPORT POLE.
PAINTED THREE POINT LINE AND FREE THROW LANE – REFER TO DETAIL 208 THIS SHEET FOR PAINT.
PROVIDE BASKETBALL GOAL FOUNDATION AS RECOMMENDED BY MANUFACTURER.

1 (9) 6'x4'x2" THICK SYNTHETIC PAD – REFER TO DETAIL 209 ON THIS SHEET – BASED ON DYNACUSHION BY PIERCETON RUBBER PRODUCTS, INC.

(10) PLAYGROUND EQUIPMENT
PLAYGROUND EQUIPMENT LISTED ON PLAN BASED FROM PLAYCRAFT SYSTEMS COMPONENTS.
BIDDING PLAYGROUND EQUIPMENT CONTRACTOR SHALL PROVIDE EQUIPMENT LISTING AND PROPOSED OPTIONS AS REQUIRED TO MEET INTENT OF DESIGN SHOWN.

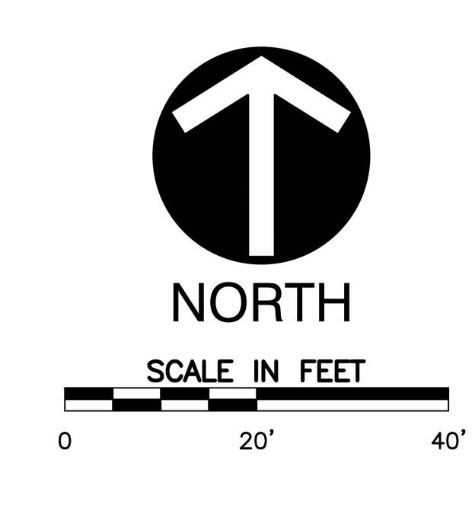
NOTE: COLOR OF PLAYGROUND EQUIPMENT WILL BE SELECTED BY OWNER

NOTE: ALL PROPOSED ACCESS RAMPS TO LARGE STRUCTURE SHALL TERMINATE AT SURROUNDING PLAY SURFACE GRADE AND WITHOUT ASSISTANCE UTILIZING BERMS. PLAY SURFACE SURROUNDING ALL EQUIPMENT SHALL REMAIN AT A UNIFORM SLOPE (FLAT SURFACE).

EQUIPMENT LIST

Small Playground
(1) - Custom - 2-5 Playcraft Structure
(1) - A2-2123-2B - PC 2123 Arch Swing (2B)
(3) - A2-2123-2B-AB - PC 2123 Arch Swing (Left, 2B)
(1) - PC 2410 Balance Beam (Snake)
(2) - PC 2457 Bucket Spinner
(1) - PC 2495 Merry-Go-Round
(1) - Custom Music Panel

Large Playground
(1) - Custom Playcraft 5-12 ADA Double Ramp Structure
(1) - A2-2123-2B - PC 2123 Arch Swing (2B)
(3) - A2-2123-2B-AB - PC 2123 Arch Swing (Left, 2B)
(1) - PC 2485-C Neutron Carousel
(1) - PC 2476 Spin Max, Tower
(1) - Erector Wall Climber
(1) - PC 2488 Tidal Wave
(1) - NE 101 Regular Pyramid
(1) - UltraZip (Standard) Dragon Rider 52



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RENOVATIONS AND ADDITIONS TO AUSTIN ELEMENTARY SCHOOL
SCOTT COUNTY SCHOOL DISTRICT 1
SOUTH AUSTIN, IN 47102

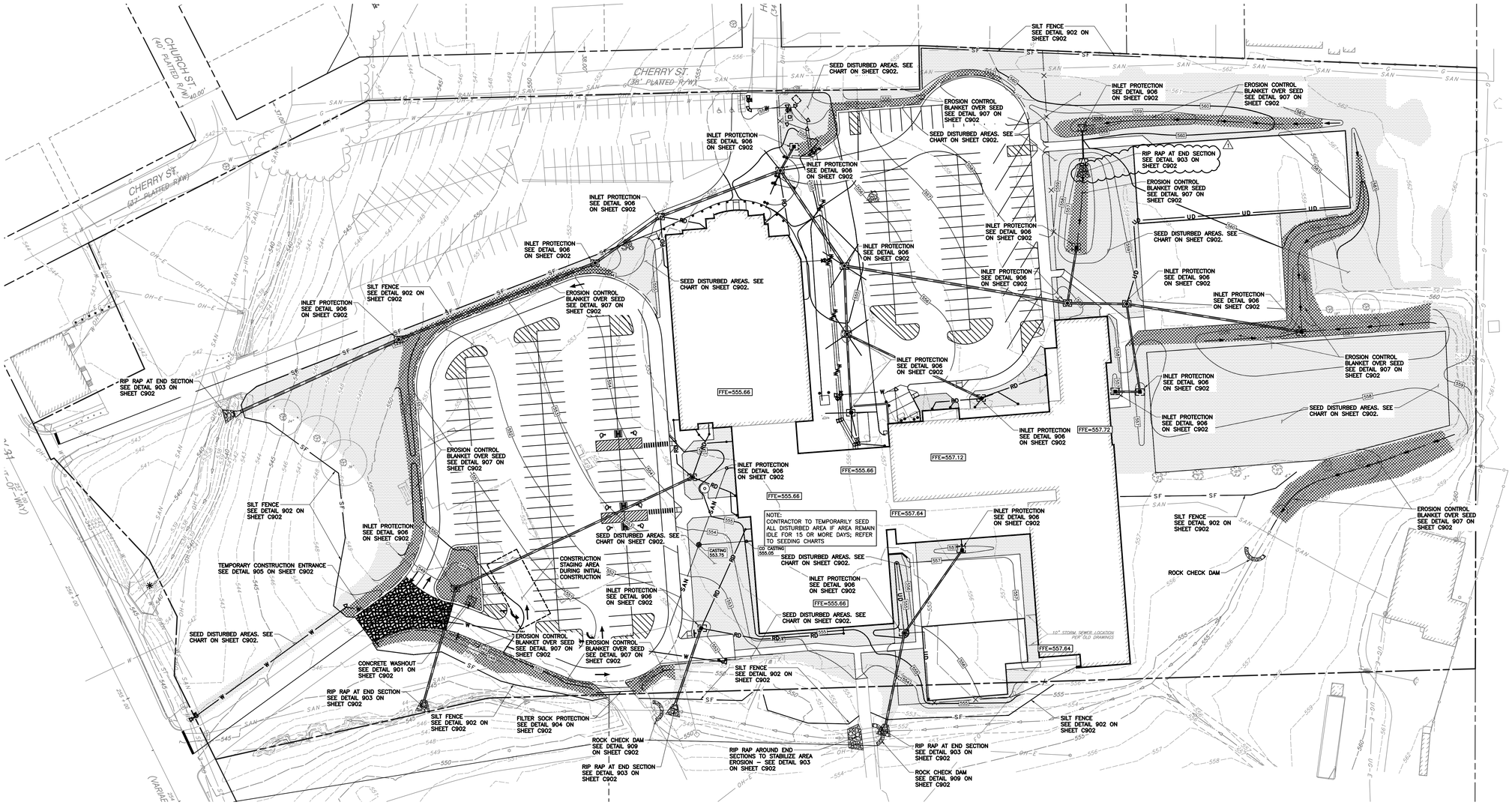
PRICING SET
NOT FOR CONSTRUCTION
Date: 2/12/2021 By: NFP

PROJECT: #19160
2021 02 12 100% CD BID SUBMITTAL
1 2021 03 02 ADDENDUM #1

SITE DETAILS

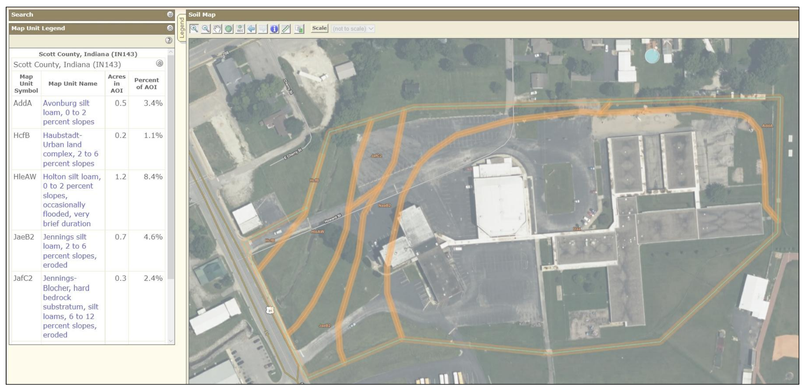
C803

Indiana811 Know what's below. Call before you dig.



REFERENCE:

1. CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION. IT IS NOT THE ENGINEER'S INTENT THAT ANY SINGLE PLAN SHEET IN THE SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THE PROJECT.
2. EXISTING CONDITIONS AS DEPICTED ON THESE PLANS ARE GENERAL AND ILLUSTRATIVE IN NATURE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE THE SITE AND BE FAMILIAR WITH EXISTING CONDITIONS. IF CONDITIONS ENCOUNTERED DURING EXAMINATION ARE SIGNIFICANTLY DIFFERENT THAN THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.



BENCHMARKS:

UNLESS OTHERWISE NOTED, ELEVATIONS SHOWN HEREON ARE BASED UPON AN OPUS SOLUTION AND ARE ON THE 1988 NORTH AMERICAN VERTICAL DATUM (NAVD88). IT IS MY OPINION THAT THE UNCERTAINTY IN THE ELEVATION OF THE PROJECT BENCHMARK DOES NOT EXCEED 0.10 FOOT.

TBM#1: MAG SPIKE IN NORTH FACE OF POWER POLE LOCATED ON THE EAST SIDE OF AN ASPHALT WALK 64'± NORTH OF THE NORTHWEST CORNER OF THE TRACK AT THE SOUTH END OF THE PROJECT AREA.

ELEV. = 555.76

TBM#2: CUT "X" ON NORTH BONNET BOLT OF FIRE HYDRANT LOCATED ALONG THE EAST SIDE OF U.S. HIGHWAY 31 ON THE SOUTH SIDE OF A SCHOOL ENTRANCE AT THE SOUTHWEST CORNER OF THE PROJECT AREA.

ELEV. = 546.78

TBM#3: RAILROAD SPIKE IN SOUTHEAST FACE OF POWER POLE LOCATED IN THE SOUTHEAST QUADRANT OF THE INTERSECTION OF U.S. HIGHWAY 31 AND HOWARD STREET ON WEST SIDE OF THE PROJECT AREA.

ELEV. = 545.46

TBM#4: CUT "X" ON SOUTH BONNET BOLT OF FIRE HYDRANT LOCATED ALONG THE WEST SIDE OF HOWARD STREET AND NORTH SIDE OF THE PARKING LOT ON THE NORTH SIDE OF THE PROJECT AREA.

ELEV. = 558.61

UTILITY NOTE:

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. INDIANA 811 ONE-CALL PUBLIC UTILITY LOCATE SERVICE TICKET NUMBERS 2005143923, 2005143979, 2005144057 AND 2005144099 WERE ISSUED FOR THIS SITE. BAKER UTILITY PARTNERS, A PRIVATE SUBSURFACE UTILITY LOCATING SERVICE, WAS CONTRACTED TO PERFORM THE PRIVATE UTILITY LOCATIONS FOR THE SUBJECT SITE.

PRIOR TO ANY EXCAVATION FOR UNDERGROUND UTILITIES, THE CONTRACTOR SHALL EXPOSE AND VERIFY LOCATIONS (HORIZONTAL AND VERTICAL) OF ALL EXISTING UTILITIES INCLUDING BUT NOT LIMITED TO GAS, WATER, AND SANITARY SEWER. ANY CONFLICTS SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER AND THE APPROPRIATE AUTHORITIES.

GENERAL EROSION CONTROL NOTES

1. CONTRACTOR SHALL INSTALL ALL REQUIRED SILT FENCES, SILT TRAPS, TREE PROTECTION AND INLET PROTECTION FOR EXISTING INLETS PRIOR TO THE START OF ANY EARTH MOVING OR STRIPPING.
2. CONTRACTOR SHALL INSTALL A STONE CONSTRUCTION ENTRANCE OR SOME OTHER DEVICE PRIOR TO THE START OF EARTHWORK AS NECESSARY TO PREVENT SOIL FROM BEING TRACKED OR WASHED INTO EXISTING ROADWAYS.
3. LAND ALTERATIONS WHICH STRIP THE LAND OF VEGETATION, INCLUDING REGRADING, SHALL BE DONE IN A WAY THAT WILL MINIMIZE EROSION. WHENEVER FEASIBLE, NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED. AS GRADING IS DONE, INSTALL SILT TRAPS, SILT FENCES, SLOPE DRAINS, TEMPORARY DIVERSIONS AND OTHER RUNOFF CONTROL MEASURES AT APPROPRIATE LOCATIONS TO KEEP SEDIMENT CONTAINED ON SITE.
4. ALL DISTURBED AREAS SHALL BE SEEDED AND STRAW MULCHED AS SHOWN ON THE PLANS IMMEDIATELY AFTER COMPLETION OF GROUND ACTIVITY.
5. PERMANENT AND FINAL VEGETATION OR STRUCTURAL EROSION CONTROL DEVICES SHALL BE INSTALLED AS SOON AS PRACTICAL UNDER THE CIRCUMSTANCES.
6. THE DURATION OF TIME IN WHICH AN AREA REMAINS EXPOSED SHALL BE KEPT TO A PRACTICAL MINIMUM DEPENDING UPON THE WEATHER. IF CONSTRUCTION ACTIVITY IS TO CEASE FOR MORE THAN TWO WEEKS, THE DISTURBED AREAS SHALL BE TEMPORARILY SEEDED.
7. ALL STORM SEWER INLET PROTECTION DEVICES SHALL BE PUT IN PLACE AT THE TIME EACH INLET IS CONSTRUCTED.
8. THE CONTRACTOR SHALL MAINTAIN EROSION CONTROL MEASURES AND DEVICES DURING CONSTRUCTION AND UNTIL SILTATION OF THE STREETS AND STORM SEWERS WILL NO LONGER OCCUR.
9. ONCE ONSITE EROSION AND SILTATION OF THE STREETS AND STORM SEWERS WILL NO LONGER OCCUR, THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE TEMPORARY EROSION CONTROL DEVICES.
10. THESE GENERAL PROCEDURES MAY NOT COVER ALL SITUATIONS. REFER TO EROSION CONTROL PLANS FOR SPECIFIC NOTES AND ADDITIONAL DETAILS
11. EROSION CONTROL TO COMPLY WITH INDIANA 327 IAC AND RULE #5, AND CURRENT IDEM INDIANA STORMWATER QUALITY MANUAL.
12. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY THE INSPECTOR IN THE FIELD.

EROSION CONTROL RESPONSIBLE PERSON

THE PERSON RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF THE EROSION CONTROL IS LISTED BELOW.

VICTOR LANDFAIR
VICE PRESIDENT
THE SKILLMAN CORPORATION
3834 S. EMERSON AVE.
INDIANAPOLIS, IN 46203
VDLANDFAIR@SKILLMAN.COM
OFFICE (317) 788-5108
CELL (317) 850-5996

A1 PLAN INDEX

ASSESSMENT OF CONSTRUCTION PLAN ELEMENTS

STORM WATER POLLUTION PREVENTION – DURING CONSTRUCTION

STORM WATER POLLUTION PREVENTION – POST CONSTRUCTION

PROPOSED LEGEND:

- PROPOSED CONSTRUCTION ENTRANCE
- EROSION CONTROL BLANKET OVER SEED
- PERMANENT/ TEMPORARY SEEDING AREAS
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED SILT FENCE
- PROPOSED FILTER SOCK
- PROPOSED INLET PROTECTION
- PROPOSED CONCRETE WASHOUT
- PROPOSED RIP RAP/ CHECK DAM
- MAJOR STORMWATER DISCHARGE POINT

NORTH
SCALE IN FEET
0 40' 80'

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RENOVATIONS AND ADDITIONS TO
AUSTIN ELEMENTARY SCHOOL
SCOTT COUNTY SCHOOL DISTRICT 1
SOUTH AUSTIN, IN 47102

PROJECT: #19160
2021.02.12 100% CD BID SUBMITTAL
2021.03.02 ADDENDUM #1

STORMWATER POLLUTION PREVENTION PLAN
C900

	SOIL CONDITION			SHADE TOLERANCE (MOWING TO 2-3 1/2 INCHES)	TRAMPING TOLERANCE	FERTILITY NEEDS	WINTER HARDINESS	FLOODING TOLERANCE (DAYS)	MATURE HEIGHT (INCHES)	EMERGENCE TIME (DAYS)	SOIL TOLERANCE		
	WET	NORM	DRY								GEN.	SOIL	SPRAY
CREEPING RED FESCUE FESTUCA RUBRA	2	1	2	1	1	MED.	1	20–25	12–18	7–21			S
KENTUCKY BLUEGRASS POA PROTNSIS	2	1	2	1	1	MED.	1	20–35	12–18	10–20			MT
TALL FESCUE FESTUCA L ARUNDINACEA	2	1	1	1	1	LOW	1	24–35	24–36	5–14		T	
PERENNIAL RYEGRASS LOLLUM PERENNE	2	1	2	–	1	2	MED. HIGH	2	15–20	12–18	5–10		MT
RED CLOVER TRIFOLIUM PROTENSE	–	1	–	2	–	–	MED.	1	7–10	18	5–10	S	S

RANKING:
1 GOOD
2 MEDIUM
– NOT TOLERANT

SALT TOLERANCE (TO BOTH SOIL SALTS & SPRAY)
T TOLERANCE
MT MEDIUM TOLERANCE
S SLIGHT TOLERANCE

SEED BED PREPARATION

1. APPLY LIME TO RAISE THE pH TO THE LEVEL AS NEEDED FOR SPECIES BEING SEEDED.
2. APPLY 23 POUNDS OF PHOSPHOROUS FREE FERTILIZER: 12–0–12 ANALYSIS (OR EQUIVALENT) PER 1000 SQ. FT. (APPROXIMATELY 1000 POUNDS PER ACRE) OR FERTILIZE ACCORDING TO TEST. APPLICATION OF 150 LBS. OF AMMONIUM NITRATE ON AREAS LOW IN ORGANIC MATTER AND FERTILITY WILL GREATLY ENHANCE VEGETATIVE GROWTH.
3. WORK THE FERTILIZER AND LIME INTO THE SOIL TO A DEPTH OF 2–4 INCHES WITH A HARROW, DISK OR RAKE OPERATED ACROSS THE SLOPE AS MUCH AS POSSIBLE.
4. MULCHING IS REQUIRED FOR ALL TEMPORARY AND PERMANENT SEEDING LOCATIONS.

SEEDING

SELECT A SEED MIXTURE BASED ON PROJECTED USE OF THE AREA (SEE PERMANENT SEED MIXTURE CHART), WHILE CONSIDERING BEST SEEDING DATES. IF PERMANENT SEEDING IS NOT PERMITTED USE TEMPORARY SEEDING UNTIL PERMANENT SEEDING CAN BE APPLIED. IF TOLERANCES ARE A PROBLEM, SUCH AS SALT TOLERANCE OF SEEDINGS ADJACENT TO STREETS AND HIGHWAYS, SEE SEED TOLERANCE CHART.

TEMPORARY SEEDING

TYPE OF SEED	1000 SQ. FT.	ACRE	REMARKS
WHEAT OR RYE	3.5 LBS.	2 BU.	COVER SEED 1" TO 1 1/2" DEEP
SPRING OATS	2.3 LBS.	3 BU.	COVER SEED 1" DEEP
ANNUAL RYEGRASS	1 LB.	40 LB.	COVER SEED 1/4" DEEP

* NOT NECESSARY WHERE MULCH IS APPLIED.

PERMANENT SEEDING

SPECIES	SEEDING RATE		SUITABLE pH	SITE SUITABILITY *		
	LBS/ACRE	LBS/1000 SQ. FT.		DROUGHTY	WELL DRAINED	WET
LEVEL AND SLOPING, OPEN AREAS						
1. TALL TURF TYPE FESCUE	35	.8	5.5–8.3	2	1	2
2. TALL TURF TYPE FESCUE	25	.6	5.5–8.3		1	
RED CLOVER	5	.12				
3. KENTUCKY BLUEGRASS	15	.4	5.8–7.5	2	1	
CREEPING RED FESCUE	15	.4				
STEEP BANKS AND CUTS						
4. TALL TURF TYPE FESCUE	15	.4	5.8–7.5	2	1	2
KENTUCKY BLUEGRASS	25	.6				
5. TALL TURF TYPE FESCUE	35	.8	5.5–8.3	2	1	
LAWNS AND HIGH MAINTENANCE AREAS						
6. KENTUCKY BLUEGRASS	40	.9	5.8–7.5	2	1	
CREEPING RED FESCUE	40	.9				
7. PERENNIAL RYEGRASS (TURF TYPE)	170	4.0	5.0–7.5		1	
8. TALL TURF TYPE FESCUE	170	4.0	5.5–8.3	2	1	2

* 1 – PREFERRED 2 – WILL TOLERATE

TEMPORARY SEEDING DATES

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
WHEAT OR RYE												
OATS												
ANNUAL RYEGRASS												

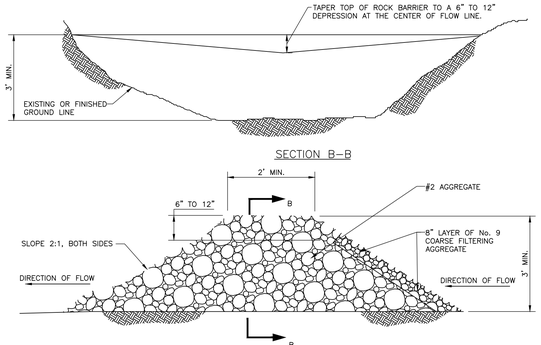
PERMANENT SEEDING DATES

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
NON–IRRIGATED*												
IRRIGATED												
DORMANT SEEDING **												

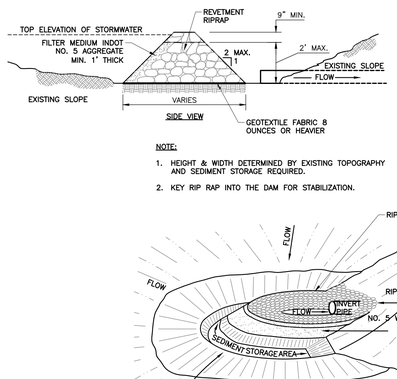
IRRIGATION NEEDED DURING THIS PERIOD. TO CONTROL EROSION AT TIMES OTHER THAN IN THE SHADED AREAS USE MULCH.

* LATE SUMMER SEEDING DATES MAY BE EXTENDED 5 DAYS IF MULCH IS APPLIED.

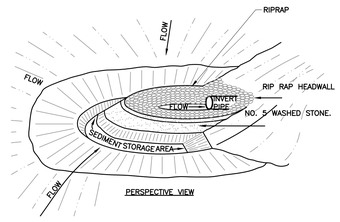
** INCREASE SEEDING APPLICATION BY 50%.



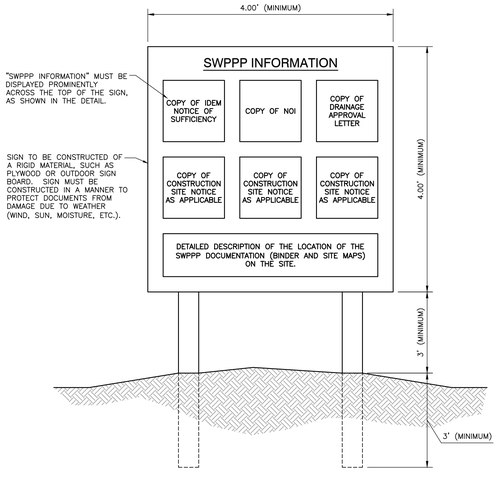
DETAIL 910 - ROCK CHECK DAM
NOT TO SCALE



NOTE:
1. HEIGHT & WIDTH DETERMINED BY EXISTING TOPOGRAPHY AND SEDIMENT STORAGE REQUIRED.
2. KEY RIP RAP INTO THE DAM FOR STABILIZATION.

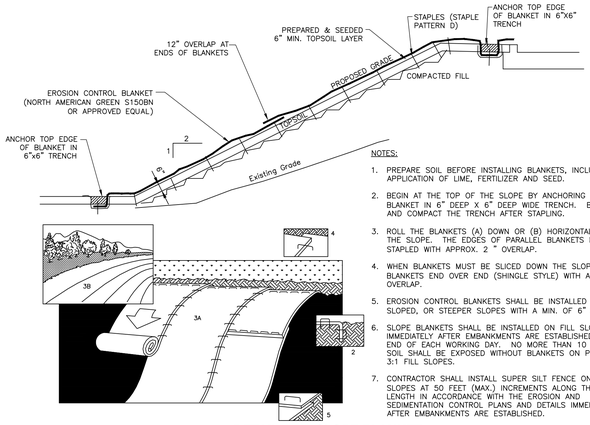


DETAIL 909 - ROCK HORSESHOE DAM DETAIL
NOT TO SCALE



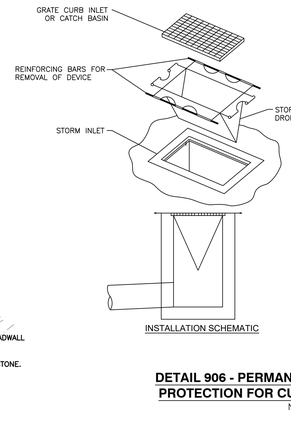
NOTES:
1. THE SWPPP INFORMATION SIGN MUST BE LOCATED NEAR THE CONSTRUCTION EXIT OF THE SITE, SUCH THAT IT IS ACCESSIBLE AND VIEWABLE BY THE GENERAL PUBLIC, BUT NOT OBSTRUCTING VIEWS AS TO CAUSE A SAFETY HAZARD.
2. ALL POSTED DOCUMENTS MUST BE MAINTAINED IN A CLEARLY READABLE CONDITION AT ALL TIMES THROUGHOUT CONSTRUCTION AND UNTIL THE NOTICE–OF–TERMINATION (NOT) IS FILED FOR THE PERMIT.
3. CONTRACTOR SHALL POST OTHER STORM WATER AND/OR EROSION AND SEDIMENT CONTROL RELATED PERMITS ON THE SIGN AS REQUIRED BY THE GOVERNING AGENCY.
4. SIGN SHALL BE LOCATED OUTSIDE OF PUBLIC RIGHT–OF–WAY AND EASEMENTS UNLESS APPROVED BY THE GOVERNING AGENCY.
5. CONTRACTOR IS RESPONSIBLE FOR ENSURING STABILITY OF THE SWPPP INFORMATION SIGN.

DETAIL 908 - SWPPP INFORMATION SIGN
NOT TO SCALE



NOTES:
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" DEEP WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROX. 2 " OVERLAP.
4. WHEN BLANKETS MUST BE SLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROX. 12" OVERLAP.
5. EROSION CONTROL BLANKETS SHALL BE INSTALLED ON ALL 3:1 SLOPED, OR STEEPER SLOPES WITH A MIN. OF 6" OF TOPSOIL.
6. SLOPE BLANKETS SHALL BE INSTALLED ON FILL SLOPES IMMEDIATELY AFTER EMBANKMENTS ARE ESTABLISHED. AT THE END OF EACH WORKING DAY, NO MORE THAN 10 FEET OF SOIL SHALL BE EXPOSED WITHOUT BLANKETS ON PERMANENT 3:1 FILL SLOPES.
7. CONTRACTOR SHALL INSTALL SUPER SILT FENCE ON 2:1 SLOPES AT 50 FEET (MAX.) INCREMENTS ALONG THE SLOPE LENGTH IN ACCORDANCE WITH THE EROSION AND SEDIMENTATION CONTROL PLANS AND DETAILS IMMEDIATELY AFTER EMBANKMENTS ARE ESTABLISHED.

DETAIL 907 - SLOPE BLANKET INSTALLATION
NOT TO SCALE

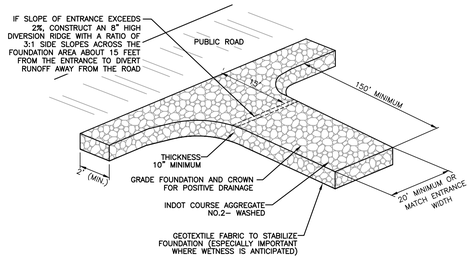


MATERIALS
- METAL FRAME OR BASKET WITH A TOP WIDTH AND LENGTH SUCH THAT THE FRAME FITS INTO THE INLET (THE FRAME IS SUPPORTED BY THE STRUCTURAL INTEGRITY OF THE STORM SEWER
- THE METAL FRAME OR GEOTEXTILE SHOULD BE DESIGNED WITH A BYPASS TO ALLOW STORM WATER TO FLOW INTO THE STORM SEWER SYSTEM DURING EXCESSIVE STORM EVENTS.
- THE SYSTEM SHOULD BE DESIGNED FOR EASE OF MAINTENANCE
- GEOTEXTILE FABRIC:

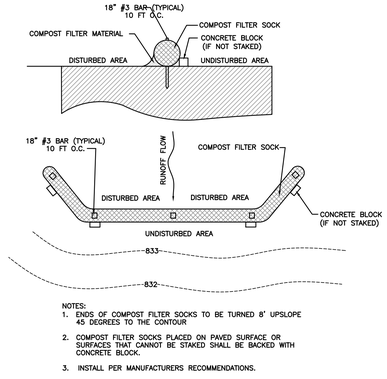
GEOTEXTILE FABRIC SPECIFICATIONS

PHYSICAL PROPERTY	WOVEN	NON–WOVEN
FILTERING EFFICIENCY	85%	85%
UV RESISTANCE (INHIBITORS AND STABILIZERS TO ENSURE SIX MONTH MINIMUM LIFE SPAN AT TEMPERATURES OF 0 F TO 120 F)	70%	85%
TENSILE STRENGTH AT 20% ELONGATION: STANDARD STRENGTH	30 LBS. /LINEAR INCH	50 LBS. /LINEAR INCH
EXTRA STRENGTH	50 LBS. /LINEAR INCH	70 LBS. /LINEAR INCH
SLURRY FLOW RATE	0.3 GAL. /MIN. /SQ.FT.	4.5 GAL. /MIN. /SQ.FT.
WATER FLOW RATE	15 GAL. /MIN. /SQ.FT.	220 GAL. /MIN. /SQ.FT.

DETAIL 906 - PERMANENT EROSION CONTROL INLET PROTECTION FOR CURB INLET AND CATCH BASINS
NOT TO SCALE

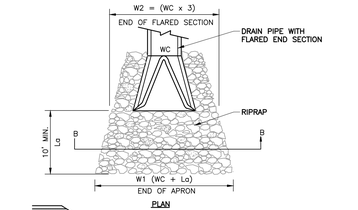


DETAIL 905 - TEMPORARY CONSTRUCTION ENTRANCE
NOT TO SCALE



NOTES:
1. ENDS OF COMPOST FILTER SOCKS TO BE TURNED 8' UPSLOPE 45 DEGREES TO THE CONTOUR
2. COMPOST FILTER SOCKS PLACED ON PAVED SURFACE OR SURFACES THAT CANNOT BE STAKED SHALL BE BACKED WITH CONCRETE BLOCK.
3. INSTALL PER MANUFACTURERS RECOMMENDATIONS.

DETAIL 904 - TEMPORARY INLET PROTECTION/FILTER SOCK DETAIL
NOT TO SCALE

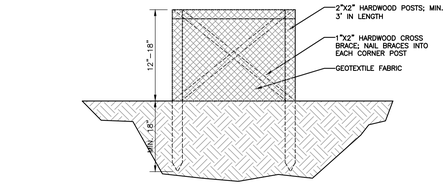


SECTION B–B

OUTLET	Lo	W1	W2	WC	T	H	d_{50}	d_{MAX}
Str. 400	10 lf	11.25 ft.	6 ft.	24"	12 in.	24 in.	10 in.	12 in.
Str. 416	10 lf	11 ft.	3 ft.	12"	12 in.	18 in.	6 in.	9 in.
Str. 418	10 lf	11.25 ft.	3.75 ft.	15"	12 in.	18 in.	6 in.	9 in.
Str. 421	10 lf	11.25 ft.	3.75 ft.	15"	12 in.	18 in.	6 in.	9 in.
Str. 423	10 lf	11.25 ft.	4.5 ft.	15"	12 in.	18 in.	6 in.	9 in.

NOTES:
1. CLASS OR MEDIAN SIZE OF RIPRAP AND LENGTH, WIDTH AND DEPTH OF APRON TO BE DESIGNED BY THE ENGINEER AND ARE SUMMARIZED BELOW.
2. RIPRAP SHOULD EXTEND UP BOTH SIDES OF THE APRON AND AROUND THE END OF THE PIPE OR CULVERT AT THE DISCHARGE OUTLET AT A MAXIMUM SLOPE OF 2:1 AND A HEIGHT NOT LESS THAN TWO THIRDS THE PIPE DIAMETER OR CULVERT HEIGHT.
3. THERE SHALL BE NO OVERFLOW FROM THE END OF THE APRON TO THE SURFACE OF THE RECEIVING CHANNEL. THE AREA TO BE PAVED OR RIPRAPPED SHALL BE UNDERCUT SO THAT THE INVERT OF THE APRON SHALL BE AT THE SAME GRADE (FLUSH) WITH THE SURFACE OF THE RECEIVING CHANNEL. THE APRON SHALL HAVE A CUTOFF OR TOE WALL AT THE DOWNSTREAM END.
4. THE WIDTH OF THE END OF THE APRON SHALL BE EQUAL TO THE BOTTOM WIDTH OF THE RECEIVING CHANNEL. MAX. TAPER TO RECEIVING CHANNEL 5:1.
5. ALL SUBGRADE FOR STRUCTURE TO BE COMPACTED TO 95% OR GREATER.
6. THE PLACING OF FILL, EITHER LOOSE OR COMPACTED IN THE RECEIVING CHANNEL SHALL NOT BE ALLOWED.
7. NO BENDS OR CURVES IN THE HORIZONTAL ALIGNMENT OF THE APRON WILL BE PERMITTED.
8. FILTER FABRIC SHALL BE INSTALLED ON COMPACTED SUBGRADE PRIOR TO PLACEMENT OF RIPRAP.
9. ANY DISTURBED AREA FROM END OF APRON TO RECEIVING CHANNEL MUST BE STABILIZED.

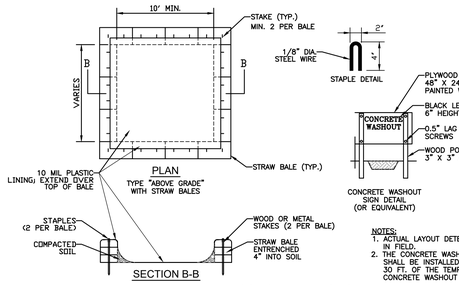
DETAIL 903 - RIP RAP APRON DETAIL
NOT TO SCALE



NOTE:
POSTS SHALL HAVE A MINIMUM LENGTH OF 36 INCHES PLUS BURIAL DEPTH. POST MATERIAL SHALL BE WOOD, STEEL OR SYNTHETIC, AND SHALL BE OF SUFFICIENT STRENGTH TO RESIST DAMAGE DURING INSTALLATION AND TO SUPPORT APPLIED LOADS.

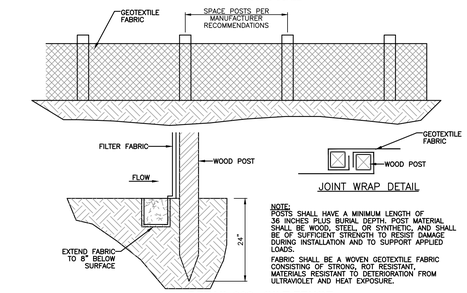
FABRIC SHALL BE A WOVEN GEOTEXTILE FABRIC CONSISTING OF STRONG, ROT RESISTANT, MATERIALS RESISTANT TO DETERIORATION FROM ULTRAVIOLET AND HEAT EXPOSURE.

DETAIL 900 - NON-PAVED AREA CATCH BASIN INLET PROTECTION DETAIL
NOT TO SCALE



NOTES:
1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

DETAIL 901- CONCRETE WASHOUT BMP
NOT TO SCALE



NOTE:
POSTS SHALL HAVE A MINIMUM LENGTH OF 36 INCHES PLUS BURIAL DEPTH. POST MATERIAL SHALL BE WOOD, STEEL OR SYNTHETIC, AND SHALL BE OF SUFFICIENT STRENGTH TO RESIST DAMAGE DURING INSTALLATION AND TO SUPPORT APPLIED LOADS.

FABRIC SHALL BE A WOVEN GEOTEXTILE FABRIC CONSISTING OF STRONG, ROT RESISTANT, MATERIALS RESISTANT TO DETERIORATION FROM ULTRAVIOLET AND HEAT EXPOSURE.

DETAIL 902 - SILT FENCE
NOT TO SCALE

LANGER+BEEBE
CEC
Civil & Environmental Consultants, Inc.
317-655-7777 877-746-0749
www.cecinc.com #302-488

RENOVATIONS AND ADDITIONS TO
AUSTIN ELEMENTARY SCHOOL
SCOTT COUNTY SCHOOL DISTRICT 1
SOUTH AUSTIN, IN 47102

PROJECT: #19160
2021 02 12 100% CD BID SUBMITTAL
1 2021 03 02 ADDENDUM #1

STORMWATER POLLUTION PREVENTION DETAILS
C902

Indiana 811
Know what's below. Call before you dig.

GENERAL NOTES

1. The Contractor shall be responsible for complying with all safety precautions and regulations during the work. The Structural Engineer of Record will not advise on, nor issue direction as to safety precautions and programs.
2. The Structural Drawings herein represent the finished structure. The Contractor shall provide all temporary guying and bracing required to erect and hold the structure in proper alignment until all Structural Work and connections have been completed. The investigation, design, safety, adequacy and inspection of erection bracing, shoring, temporary supports, etc. is the sole responsibility of the Contractor.
3. The Structural Engineer of Record (SER) shall not be responsible for the methods, techniques and sequences are not specifically shown, similar details of construction shall be used, subject to approval of the SER.
4. Drawings indicate general and typical details of construction. Where conditions are not specifically shown, similar details of construction shall be used, subject to approval of the Structural Engineer of Record.
5. All structural systems which are to be composed of components to be field erected shall be supervised by the Supplier during manufacturing, delivery, handling, storage, and erection in accordance with the Supplier's instructions and requirements.
6. Loading applied to the structure during the process of construction shall not exceed the safe load-carrying capacity of the structural members. The live loading used in the design of this structure are indicated in the "Design Criteria Notes." Do not apply any construction loads until structural framing is properly connected together and until all temporary bracing is in place.
7. All ASTM and other referenced standards and codes are for the latest editions of these publications, unless otherwise noted.
8. Shop drawings and other items shall be submitted to the Structural Engineer of Record (SER) for review prior to fabrication. All Shop Drawings shall be reviewed by the Contractor before submittal. The SER's review is to be fore conformance with the design concept and general compliance with the relevant Contract Documents. The SER's review does not relieve the Contractor of the sole responsibility to review, check, and coordinate the Shop Drawings prior to submission. The Contractor remains solely responsible for errors and omissions associated with the preparation of Shop Drawings as they pertain to member sizes, details, dimensions, etc.
9. Submit Shop Drawings in the form of blueline/blackline prints (min. 2 sets/ max. 5 sets) and one reproducible blackline or sepia copy. In no case shall reproductions of the Contract Documents be used as shop drawings. As a minimum, submit the following items for review.
   - A. Concrete Mix Design(s).
   - B. Reinforcing Steel Shop Drawings.
   - C. Structural Steel Shop Drawings.
   - D. Steel Joist and Joist Girder Shop Drawings.
   - E. Steel Deck Shop Drawings.
   - F. Cold-Formed Steel Framing Systems.
   - G. Specialty Foundation Systems.
10. Resubmitted Shop Drawings: Resubmitted shop drawings are reviewed only for responses to comments made in the previous submittal.
11. When calculations are included in the submittals for components of work designed and certified by a Specialty Structural Engineer (SSE), the review by the Structural Engineer of Record (SER) shall be for conformance with the relevant Contract Documents. The SER's review does not relieve the SSE from responsibility for the design of the system(s) and the coordination with the elements of the structure under the certification of the SER, or other SSE's. The SER's review does not constitute a warranty of the accuracy or completeness of the SSE's design.
12. Contractors shall visit the site prior to bid to ascertain conditions which may adversely affect the work or cost thereof.
13. No structural member may be cut, notched, or otherwise reduced in strength without written direction from the Structural Engineer of Record.
14. When modifications are proposed to structural elements under the design and certification of a Specialty Structural Engineer (SSE), written authorization by the SSE must be obtained and submitted to the Structural Engineer of Record for review, prior to performing the proposed modification.

SPECIALTY STRUCTURAL ENGINEERING (SSE)

1. A Specialty Structural Engineer is defined as a Professional Engineer licensed in the State of Indiana, not the Structural Engineer of Record, who performs Structural Engineering functions necessary for the structure to be completed and who has shown experience and/or training in the specific speciality.
2. It is the Specialty Structural Engineer's responsibility to review the Construction Drawings and Specifications to determine the appropriate scope of engineering.
3. It is the intent of the Drawings and Specifications to provide sufficient information for the Specialty Structural Engineer (SSE) to perform his design and analysis. If the SSE determines there are details, features, or unanticipated project limits which conflict with the engineering requirements as described in the project documents, the SSE shall in a timely manner, contact the Structural Engineer of Record for resolution of conflicts.
4. The Specialty Structural Engineer (SSE) shall forward documents to the Structural Engineer of Record for review. Such documents shall bear the stamp of the SSE and include:
   - A) Drawings introducing engineering input, such as defining the configuration or structural capacity of structural components and/or their assembly into structural systems.
   - B) Calculations.
   - C) Computer printouts which are an acceptable substitute for manual calculations provided they are accompanied by sufficient design assumptions and identified input and output information to permit their proper evaluation. Such information shall bear the stamp of the Specialty Engineer as an indication that said engineer has accepted responsibility for the results.
5. Contractors are referred to the specific technical specification sections and the structural drawings for those elements requiring Specialty Structural Engineering. Examples of components requiring Specialty Structural Engineering include, but are not limited to the following:
   - A) Specialty Foundation Systems.
   - B) Temporary and Permanent Retention Systems.
   - C) Temporary and Permanent Dewatering Systems.
   - D) Underpinning Systems.
   - E) Shoring and Bracing Systems.
   - F) High-Performance Concrete Mix Designs.
   - G) Structural Steel Connections.
   - H) Steel Joist Systems.
   - I) Steel Stairs.
   - J) Cold-Formed Steel Framing.
6. When modifications are proposed to elements under the design and certification of the Specialty Structural Engineer (SSE), written authorization by the SSE must be obtained and submitted to the Engineer of Record for review, prior to performing the proposed modification.

EXISTING CONSTRUCTION

1. The contractor shall field verify the dimensions, elevations, etc. necessary for the proper construction and alignment of the new portions of the work to the existing work. The Contractor shall make all necessary measurements for fabrication and erection of the structural members. Any discrepancy shall be immediately brought to the attention of the Structural Engineer of Record.
2. Before proceeding with any work within the existing facility, the Contractor shall familiarize himself with existing structural and other conditions. Any shoring shown or noted on the Plans is a partial and schematic representation of that required. It shall be the Contractor's responsibility to provide all necessary bracing, shoring, and other safeguards to maintain all parts of the work in a safe condition during the progress of demolition and construction, and to protect from damage those portions of the existing work which are to remain. Shoring shall remain in place until the structural work is complete, has been inspected by the Testing Agency, and is certified to be in substantial compliance with the Contract Documents.
3. When required by the Specifications or by Plan Note, the Contractor shall submit for the Structural Engineer of Record's review, a "Proposed Shoring Plan," including, but not limited to: plans, sections, details, notes, description of proposed sequence of work, and calculations prepared by, or under the supervision of a Specialty Structural Engineer (SSE). The SSE shall be registered in the State where the project is located.
4. Welding to and within an existing facility presents potential hazards including:
   - A. Fire Hazard - Due to the existing construction and building contents.
   - B. Structural Liquefaction - Due to welding across the full section of the structural members.

   Recommendations to prevent these hazards include:
   - A. Fire Hazard - Protect existing combustibles prior to welding. Keep a separate watchman and several fire extinguishers on hand.
   - B. Structural Liquefaction - weld in small increments. Allow welds to harden before continuing to the next increment.
   - C. Do not leave the site until satisfied that no fire hazard exists.
   - D. Preference should be given to the use of beam clamps, mechanical fasteners, or bolted connections in lieu of welding within existing facilities, whenever possible. Do not field-drill existing structural members without the written permission of the Structural Engineer of Record.

COORDINATION WITH OTHER TRADES

1. The Contractor shall coordinate and check all dimensions relating to Architectural finishes, mechanical equipment and openings, elevator shafts and overrides, etc. and notify the Architect/Engineer of any discrepancies before proceeding with any work in the area under question.
2. The Structural Drawings shall be used in conjunction with the Drawings of all other disciplines and the Specifications. The Contractor shall verify the requirements of other trades as to sleeves, chases, hangers, inserts, anchors, holes, and other items to be placed or set in the Structural Work.
3. There shall be no vertical or horizontal sleeves set, or holes cut or drilled in any beam or column unless it is shown on the Structural Drawings or approved in writing by the Structural Engineer of Record.
4. Mechanical and electrical openings through supported slabs and walls, 8" diameter or larger, not shown on the Structural Drawings must be approved by the Structural Engineer of Record (SER). Openings less than 8" in diameter shall have at least 1'-0" clear between openings, unless approved in writing by the SER.
5. Verify locations and dimensions of mechanical and electrical openings through supported slabs and walls shown on the Structural Drawings with the Mechanical and Electrical Contractors.
6. Do not install conduit in supported slabs, slabs on grade, or concrete walls unless explicitly shown or noted on the Structural Drawings.
7. Do not suspend any items, such as ductwork, mechanical or electrical fixtures, ceilings, etc. from steel roof deck or wood roof sheathing.
8. The Mechanical Contractor shall verify that mechanical units supported by the steel framing are capable of spanning the distance between the supporting members indicated on the Structural Drawings. The Mechanical Contractor shall supply additional support framing as required.
9. If drawings and specifications are in conflict, the most stringent restrictions and requirements shall govern.

DESIGN CRITERIA

1. DESIGN STANDARDS: The intended design standards and/or criteria are as follows:

General	The 2014 Indiana Building Code (2012 International Building Code (IBC) with Indiana Amendments)
Concrete	ACI 318
Masonry	ACI 530
Steel	AISC Manual
Steel Joists/Girders	Steel Joist Institute
Steel Deck	Steel Deck Institute
Cold-Formed Metal	AISI
Wood Framing	NDS
Wood Trusses	TPI
Glu-Lam Construction	AITC

   All referenced standards and codes, as well as ASTM numbers, are for the editions of these publications referenced in the Building Code listed above, unless otherwise noted.
2. DEAD LOADS: Gravity Dead Loads used in the design of the structure are as computed for the materials of construction incorporated into the building, including but not limited to walls, floors, ceilings, stairways, fixed partitions, finishes, cladding and other similar architectural and structural items, as well as mechanical, electrical and plumbing equipment and fixtures, and material handling and fixed service equipment, including the weight of cranes.
3. LIVE LOADS: Gravity live loads used in the design of the structure meet, or exceed the following table (IBC 2012, 1607.1):

OCCUPANCY OR USE	UNIFORM (PSF)	CONCENTRATED (LB) [Note #1]
A. Schools		
1. Classrooms	40	
2. First Floor Corridors	100	
3. Corridors Above 1st Floor	80	
B. Stairs & Exits		
1. All	100	300 on A=4in^2

   C. Note #1: Unless otherwise noted, the indicated concentrated load has been assumed to be uniformly distributed over an area of 30" x 30".
4. IMPACT DESIGN: The live loads listed in the table above include allowance for impact. Impact has been considered in the design of the following elements:
   - A. Members supporting elevator loads have been increased by 100% for impact.
   - B. Members supporting machinery and moving loads have been increased as follows to allow for impact:

1. Elevator Machinery	100%
2. Light Machinery, Shaft or Motor-Driven	20%
3. Reciprocating Machinery, or Power-Driven units	20%
4. Hangers for Floors or Balconies	33%

5. PARTITION ALLOWANCE: a uniform partition allowance of 15 PSF has been used to account for the load of all floors where partition locations are subject to change, unless the specified live load exceeds 80 PSF.
6. COLLATERAL LOAD: Unless otherwise noted, a minimum uniform collateral load of 10 PSF has been used to account for ductwork, ceilings, sprinklers, lighting, etc. The collateral load is in addition to the weight of mechanical units, larger piping (greater than 4" diameter) and suspended fixtures or equipment that have been specifically accounted for in the design.
7. COLLATERAL LOAD ABOVE CORRIDORS & MECHANICAL ROOMS: A minimum uniform collateral load of 20 PSF has been used to account for large ductwork, sprinkler mains, concentrations of piping, and electrical distribution above corridors and mechanical rooms. The collateral load is in addition to the weight of mechanical units and larger piping (greater than 4" diameter) and suspended fixtures or equipment that have been specifically accounted for in the design.
8. CONCENTRATED LOADS:
   All single panel points of the lower chord of exposed roof trusses or any point along the primary structural members supporting roofs over manufacturing, commercial storage and warehousing, and commercial garage floors shall be capable of carrying safely a suspended concentrated load of not less than 2000 LBS in addition to dead load.
   All single panel points of the lower chord of exposed roof trusses or any point along the primary structural members supporting roofs over all other occupancies shall be capable of carrying safely a suspended concentrated load of not less than 200 LBS in addition to dead load, unless noted.
9. HANDRAILS AND GUARDS

A. Handrail Assemblies and Guards	50 PLF applied in any direction 200 LB concentrated load applied in any direction (non-concurrent with 50 PLF load)
B. Components, Intermediate Rails, Balusters, Fillers, Etc.	50 LBS horizontally applied normal load on an area not to exceed 1 square foot not superimposed with those of handrail assemblies.

10. ROOF LIVE/SNOW LOADS: Gravity Live Loads used in the design of the roof structure meet or exceed the following table:

A. Snow Load	
Ground Snow Load, Pg	20 PSF
Flat Roof Snow Load, Pf	15.4 PSF
Low Slope Minimum Snow Load, Pm	22 PSF
Exposure Factor, Ce	1.0
Risk Category (IBC Table 1604.5)	III
Snow Importance Factor, Is	1.1
Thermal Factor, Ct	1.0
B. Minimum Roof Live Load	20 PSF
C. Overhang Eaves & Projections	28 PSF

   1. Sloped roof snow loads calculated in accordance with Section 7.4, ASCE 7.
   2. Unbalanced roof snow loads calculated in accordance with Section 7.6, ASCE 7. Specialty Structural Engineers must consider unbalanced snow loads in the design of pre-engineered trusses, frames, skylights, curtain walls, cold-formed metal framing, canopies, etc.
   3. Drift loads calculated in accordance with Section 7.7, ASCE 7.
   4. Roofs used for roof gardens or assembly purposes have been designed for a minimum live load of 100 PSF.
11. LATERAL LOADS: Lateral loads were computed using the following criteria:

A. Wind Load	
Ultimate Design Wind Speed, Vult	120 MPH
Wind Exposure Category	C
Risk Category (IBC Table 1604.5)	III
Internal Pressure Coefficient, GCpi	± 0.18
B. Seismic Load	
Site Classification	C
Risk Category (IBC Table 1604.5)	III
Seismic Importance Factor, Ie	1.25
Design Spectral Response Acceleration, Sds	0.150g
Design Spectral Response Acceleration, Sd1	0.122g
Seismic Design Category, SDC	B
Response Modification Coefficient, R	3
Analysis Procedure	Equivalent Lateral Force
Base Seismic Force-Resisting System	Structural steel systems not specifically detailed for seismic resistance & Intermediate Masonry Shear Walls (ASCE 7-10, Table 12.2-1)

12. SAFETY FACTORS: This structure has been designed with 'Safety Factors' in accordance with accepted principles of structural engineering. The fundamental nature of the 'Safety Factor' is to compensate for uncertainties in the design, fabrication, and erection of structural building components. It is intended that ' Safety Factors' be used such that the load-carrying capacity of the structure does not fall below the design load and that the building will perform under design load without distress. While the use of 'Safety Factors' implies some excess capacity beyond design load, such excess capacity cannot be adequately predicted and SHALL NOT BE RELIED UPON.
13. UPLIFT DESIGN CRITERIA: Joist and deck connections shall be capable of resisting the following NET wind uplift pressures:

WIND UPLIFT NET PRESSURE TABLE

HEIGHT	FIELD PRESSURE	PERIMETER PRESSURE
0-15'	15 PSF	18 PSF
ABOVE 30'	17 PSF	25 PSF

NOTE: PERIMETER PRESSURE APPLIES BETWEEN ALL EXTERIOR WALLS AND 10' IN FROM THE EXTERIOR WALLS.

FOUNDATIONS

1. Proofroll slab on grade areas with a medium-weight roller or other suitable equipment to check for pockets of soft material hidden beneath a thin crust of better soil. Any unsuitable materials thus exposed should be removed and replaced with compacted, engineered fill as outlined in the specifications. Proofrolling operations shall be monitored by the Geotechnical Testing Agency.
2. All engineered fill beneath slabs and over footings should be compacted to a dry density of at least 93% of the Modified Proctor maximum dry density (ASTM D-1557). All fill which shall be stressed by foundation loads shall be approved granular materials compacted to a dry density of at least 95% (ASTM D-1557). Coordinate all fill and compaction operations with the Specifications and the Subsurface Investigation.
3. Compaction shall be accomplished by placing fill in approximate 8" lifts and mechanically compacting each lift to at least the specified minimum dry density. For large areas of fill, field density tests shall be performed for each 3,000 square feet of building area for each lift as necessary to insure adequate compaction is being achieved.
4. Column footings and wall footings to bear on firm natural soils or well-compacted engineered fill with allowable bearing pressures of 2,000 PSF and 1,600 PSF for column and wall footings respectively, as outlined in the Subsurface Investigation Report.
   It is essential that the foundations be inspected to insure that all loose, soft, or otherwise undesirable material (such as organics, existing uncontrolled fill, etc.) is removed and that the foundations will bear on satisfactory material. The Geotechnical Testing Agency shall inspect the subgrade and perform any necessary tests to insure that the actual bearing capacities meet or exceed the design capacities. The Geotechnical Testing Agency shall verify the bearing capacity at each spread column footing and every 10 feet on center for strip footings prior to placement of concrete.
5. Place footings the same day the excavation is performed. If this is not possible, the footings shall be adequately protected against any detrimental change in condition, such as from disturbance, rain, or freezing.
6. It is the responsibility of the Contractor and each Sub-Contractor to verify the location of all utilities and services shown, or not shown; and establish safe working conditions before commencing work.
7. The Contractor shall layout the entire building and field verify all dimensions prior to excavation.
8. For information regarding subsurface conditions, refer to the Subsurface Investigation & Foundation Recommendation Report prepared by Alt & Witzig Engineering, Inc., Project No. 20IN0511, dated September 28, 2020.

CAST IN PLACE CONCRETE

1. Details of fabrication of reinforcement, handling and placing of the concrete, construction of forms and placement of reinforcement not otherwise covered by the Plans and Specifications, shall comply with the ACI Code requirements of the latest revised date.
2. Cold weather concreting shall be in accordance with ACI 306. Cold weather is defined as a period when for more than 3 successive days the average daily air temperature drops below 40F and stays below 50F. The Contractor shall maintain a copy of this publication on site.
3. Hot weather concreting shall be in accordance with ACI 305. Hot weather is defined as any combination of the following conditions that tends to impair the quality of the freshly mixed or hardened concrete: high ambient temperature, high concrete temperature, low relative humidity, wind speed, or solar radiation The Contractor shall maintain a copy of this publication on site.
4. A certified Testing Agency shall be retained to perform industry standard testing including measurement of slump, air temperature, concrete cylinder testing, etc. to ensure conformance with the Contract Documents. Submit reports to Architect/Engineer.
5. Finishing of Slabs: After screeding, bull floating and floating operations have been completed, apply final finish as indicated below, and as described in the Division 3 Cast In Place Concrete Specification of the Project Manual.

A. Floor Slabs	Hard Trowel Finish
B. Ramps, Stairs, & Sidewalks	Broom Finish
C. Surfaces to Receive Topping Slab	Float Finish
D. Surfaces to receive thick-set mortar beds or similar cementitious materials	Float Finish
E. Driving Surfaces	Rough Swirl Finish

   Sample Finishes: See Specifications for sample and mockup requirements, if any.

   Floor Tolerances: See the Specifications for specified Ff and Fl tolerances. Ff and Fl testing shall be performed by the Testing Agency in accordance with ASTM E-1155. Results, including acceptance or rejection of the work will be provided to the Contractor and the Architect/Engineer within 48 hours after data collection. Remedies for out-of-tolerance work shall be in accordance with the Specifications. When approved by the Structural Engineer of Record, measurement of the gaps beneath a 10-foot straight edge may be used in lieu of Ff and Fl testing. Approval must be obtained in writing prior to the beginning of concrete operations.
6. Finishing of Formed Surfaces: Finish formed surfaces as indicated below, and as described in the Division 3 Cast In Place Concrete Specification of the Project Manual.

A. Sides of Footings & Pile Caps	Rough Form Finish
B. Sides of Grade Beams	Rough Form Finish
C. Surfaces not exposed to public view	Rough Form Finish
D. Surfaces exposed to public view	Smooth Form Finish

7. The Contractor shall consult with the Structural Engineer of Record before starting concrete work to establish a satisfactory placing schedule and to determine the location of construction joints so as to minimize the effects of shrinkage in the floor system.
8. Sawn or tooled control/contraction joints shall be provided in all slabs on grade. For a framed structure, joints shall be located on all column lines. If the column spacing exceeds 20'-0", provide intermediate joints. Exterior slabs, and interior slabs without column shall have joints spaced a maximum of 15'-0" apart. Layout joints so that maximum aspect ratio (ratio of long side to short side) does not exceed 1.5.
9. Where vinyl composition tile, vinyl sheets goods, thin-set epoxy terrazzo, or other similar material is the specified finish floor material, the Contractor shall coordinate the locations of control/contraction and construction joints with the Finish Flooring Contractor. Submit a dimensioned plan showing joint locations and proposed sequence of floor pours.
10. Unless specifically noted on the Plans, composite and non-composite supported slabs on metal deck, and supported cast-in-place concrete slabs do not require sawn control joints.
11. Joints in slabs to receive a finished floor may remain unfilled, unless required by the finish flooring contractor. All exposed slabs shall be filled with sealant specified in Division 7, or as follows: All slabs in industrial, manufacturing, or warehouse applications subject to wheeled traffic shall be filled with specified epoxy resin sealant, all other joints shall be filled with specified elastometric sealant. Defer filling of joints as long as possible, preferably a minimum of 4 to 6 weeks after the slab has been cured. Prior to filling, remove all debris from the slab joints, the fill in accordance with the manufacturer's recommendations.
12. Refer to the Architectural Drawings for locations and details of reveals (1" maximum depth) in exposed walls.
13. Refer to the Architectural Drawings for chamfer requirements for corners of concrete. Where not indicated, provide 3/4" chamfers on exposed corners of concrete, except those abutting masonry.
14. Refer to the Architectural Drawings for exact locations and dimensions of recessed slabs, ramps, stairs, thickened slabs, etc. Slope slabs to drains where shown on the Architectural and Plumbing Drawings.
15. Sidewalks, drives, exterior retaining walls, and other site concrete are not indicated on the Structural Drawings. Refer to the Site/Civil and Architectural Drawings for locations, dimensions, elevations, jointing, and finish details.

CONCRETE REINFORCING

1. Reinforcement, other than cold drawn wire for spirals and welded wire fabric, shall have deformed surfaces in accordance with ASTM A305.
2. Reinforcing steel shall conform to ASTM A615, Grade 60, unless noted.
3. Welded wire fabric shall conform to ASTM A1064, unless noted.
4. Where hooks are indicated, provide standard hooks per ACI and CRSI for all bars unless other hook dimensions are shown on the plans or details.
5. Reinforcement in footings, walls and beams shall be continuous. Lap bars a minimum of 40 diameters, unless noted otherwise.
6. Reinforcement shall be supported and secured against displacement in accordance with the CRSI 'Manual of Standard Practice'.
7. Details of reinforcing steel fabrication and placement shall conform to ACI 315 'Details and Detailing of Concrete Reinforcement' and ACI 315R 'Manual of Engineering and Placing Drawings for Reinforced Concrete Structures', unless otherwise indicated.
8. Spread reinforcing steel around small openings and sleeves in slabs and walls, where possible, and where bar spacing will not exceed 1.5 times the normal spacing. Discontinue bars at all large openings where necessary, and provide an area of reinforcement, equal to the interrupted reinforcement, in full length bars, distributing one-half each side of the opening. Where shrinkage and temperature reinforcement is interrupted, add (2) #5 x opening dimension + 4'-0" on each side of the opening. Provide #5 x 4'-0" long diagonal bars in both faces, at each corner of openings larger than 12" in any direction.
9. Provide standees for the support of top reinforcement for footings, pile caps, and mats.
10. Provide individual high chairs with support bars, as required for the support of top reinforcement for supported slabs. Do NOT provide standees.
11. Provide snap-on plastic space wheels to maintain required concrete cover for vertical wall reinforcement.
12. Where walls sit on column footings, provide dowels for the wall. Dowels shall be the same size and spacing as the vertical wall reinforcement, unless noted otherwise, with lab splices as shown on the application sections. Install dowels in the footing forms before concrete is placed. Do NOT stick dowels into footings after concrete is placed.
13. Field bending of reinforcing steel is prohibited, unless noted on drawings.
14. Minimum concrete cover over reinforcing steel shall be as follows, unless noted otherwise on plan, section or note:

MINIMUM COVER FOR REINFORCEMENT

	MINIMUM COVER
SUSPENDED SLABS AND JOISTS	
TOP & BOTTOM BARS FOR DRY CONDITIONS:	
#11 BARS & SMALLER	3/4"
#14 & #18 BARS	1 1/2"
FORMED CONCRETE SURFACES EXPOSED TO EARTH, WATER, OR WEATHER, AND OVER OR IN CONTACT WITH SEWAGE AND FOR BOTTOMS BEARING ON WORK MAT, OR SLABS SUPPORTING EARTH COVER:	
#5 BARS & SMALLER	1 1/2"
#6 THROUGH #18 BARS	2"
BEAMS & COLUMNS, FORMED	
FOR DRY CONDITIONS:	
STIRRUPS, SPIRALS & TIES	1 1/2"
PRINCIPAL REINFORCEMENT	2"
EXPOSED TO EARTH, WATER, SEWAGE, OR WEATHER:	
STIRRUPS & TIES	2"
PRINCIPAL REINFORCEMENT	2 1/2"
WALLS	
FOR DRY CONDITIONS:	
#11 BARS & SMALLER	3/4"
#14 & #18 BARS	1 1/2"
FORMED CONCRETE SURFACES EXPOSED TO EARTH, WATER, SEWAGE, WEATHER, OR IN CONTACT WITH GROUND	2"
FOOTINGS & BASE SLABS	
AT FORMED SURFACES & BOTTOMS BEARING ON CONCRETE WORK MAT	2"
AT UNFORMED SURFACES & BOTTOMS IN CONTACT WITH EARTH	3"
TOP OF FOOTINGS	SAME AS SLABS
OVER TOP OF PILES	2"

CONCRETE MIX CLASSES

FOOTINGS, FOUNDATION WALLS, PIERS, & GRADE BEAMS	
COMPRESSIVE STRENGTH	4000 PSI
MAXIMUM WATER/CEMENT RATIO	0.45
AIR CONTENT	0 - 3 PERCENT
WATER-REDUCING ADMIXTURE	REQUIRED
SLUMP	5" TO 6 1/2"
INTERIOR CONCRETE SLABS-ON-GRADE AND ELEVATED SLABS	
COMPRESSIVE STRENGTH	4000 PSI
MINIMUM CEMENTITIOUS MATERIAL CONTENT	517 LB/CU YD
AIR CONTENT	0 - 3 PERCENT
WATER-REDUCING ADMIXTURE	REQUIRED
SLUMP	5" TO 6 1/2"
EXTERIOR CONCRETE SUBJECT TO FREEZE-THAW	
COMPRESSIVE STRENGTH	4000 PSI
MINIMUM CEMENTITIOUS MATERIAL CONTENT	564 LB/CU YD
AIR CONTENT	6 ± 1 PERCENT
WATER-REDUCING ADMIXTURE	REQUIRED
SLUMP	5" TO 6 1/2"
COARSE AGGREGATE	CRUSHED STONE
INCREASE COMPRESSIVE STRENGTH TO 4500 PSI FOR EXTERIOR REINFORCED CONCRETE SUBJECT TO THE USE OF DE-ICERS.	
LEAN CONCRETE FILL	
COMPRESSIVE STRENGTH	2000 PSI
MAXIMUM WATER/CEMENT RATIO	0.65
AIR CONTENT	OPTIONAL
WATER-REDUCING ADMIXTURE	NOT REQUIRED
SLUMP	4" TO 7"

1. SLUMP:

MIXES CONTAINING TYPE A WRDA	5" MAXIMUM
MIXES CONTAINING MID-RANGE WRDA	5 - 6 1/2"
MIXES CONTAINING HIGH-RANGE WRDA	5 - 8"

2. SPECIFIED MINIMUM CEMENTITIOUS MATERIAL CONTENTS ARE BASED ON THE USE OF WATER REDUCING ADMIXTURES.
3. INCLUDE AN AIR-ENTRAINING ADMIXTURE FOR ALL CONCRETE EXPOSED TO FREEZING AND THAWING IN SERVICE AND FOR ALL CONCRETE EXPOSED TO COLD WEATHER DURING CONSTRUCTION, BEFORE ATTAINING ITS SPECIFIED DESIGN COMPRESSIVE STRENGTH. REF. ACI 306 FOR DEFINITION OF COLD WEATHER.
4. CLASS C FLY ASH MAY BE USED AS A CEMENT SUBSTITUTE WITH A MAXIMUM 20% SUBSTITUTION RATE ON A POUND-PER-POUND BASIS.
5. SLAG CEMENT MAY BE USED AS A SUBSTITUTE FOR PORTLAND CEMENT WITH A MAXIMUM 50% SUBSTITUTION RATE ON A POUND-PER-POUND BASIS WITH THE EXCEPTION OF CLASS E CONCRETE, WHICH SHALL BE LIMITED TO 30%.
6. WHEN SLAB CEMENT AND FLY ASH ARE USED IN THE SAME CONCRETE MIX, THE MAXIMUM SUBSTITUTION RATES SHALL COMPLY WITH THE FOLLOWING:

PORTLAND CEMENT/SLAG/FLY ASH RATIO:	
CLASS E EXTERIOR CONCRETE	70% / 20% / 10%
ALL OTHER CLASSES	50% / 30% / 20%

7. FOR CONCRETE TO BE CAST DURING COLD WEATHER, THE MAXIMUM SUBSTITUTION RATE FOR SLAG CEMENT SHALL BE 30%. IF SLAG CEMENT AND FLY ASH ARE USED IN THE SAME MIX, THE MAXIMUM SUBSTITUTION RATES SHALL COMPLY WITH A RATIO OF PORTLAND CEMENT/SLAG/FLY ASH OF 70% / 20% / 10%.
8. PROPORTION CONCRETE MIXES TO PROVIDE WORKABILITY AND CONSISTENCY TO PERMIT CONCRETE TO BE WORKED READILY INTO THE CORNERS AND ANGLES OF THE FORMS AND AROUND REINFORCEMENT BY THE METHODS OF PLACEMENT AND CONSOLIDATION TO BE EMPLOYED, WITHOUT SEGREGATION AND EXCESSIVE BLEEDING.
9. ADJUSTMENTS TO THE APPROVED MIX DESIGNS MAY BE REQUESTED BY THE CONTRACTOR WHEN JOB CONDITIONS, WEATHER, TEST RESULTS, OR OTHER CIRCUMSTANCES WARRANT. THESE REVISED MIX DESIGNS SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR APPROVAL PRIOR TO USE.

POST-INSTALLED DOWELS & ANCHOR BOLTS/RODS

1. All reinforcing steel and threaded rod anchors to be installed in a 2-part chemical anchoring system shall be treated as follows:
   - A. Drill holes larger than bar or rod to be embedded. Coordinate hole diameter with Manufacturer's recommendations.
   - B. Holes must be cleaned and prepared in accordance with Manufacturer's recommendations.
   - C. When reinforcing steel is encountered during drilling for installation of anchors; stop drilling, use a sensor to locate the reinforcing in the surrounding area and install anchor(s) as close as possible to the original location. Contact the Structural Engineer of Record (SER) for direction when the revised location is more than 2" from the original location, or when the original function of the anchorage is significantly altered. When in doubt, contact the SER for direction.
   - D. Drill the hole a minimum of 15 bar diameters or as shown on the plans.
   - E. Use a 2-part adhesive anchoring system, Hilti HY-200, or approved equal.
   - F. For anchorage into hollow substrate, use Hilti HY-270, or approved equal.
   - G. Reinforcing steel dowels shall be ASTM A615, Grade 60, unless noted.
   - H. Anchor rods shall be Hilti HAS-V-36, unless noted. Provide finish as noted on the Drawings. If not noted, provide hot-dip galvanized finish for interior applications. Provide stainless steel finish for all exterior applications, unless noted.
2. When column anchor bolts have been omitted, or damaged by construction operations, the Contractor must obtain the written approval of the Structural Engineer of Record prior to repair or replacement.
   - A. As a precaution, the affected column must be guyed and braced after repair for the balance of the erection period.
   - B. As an alternate to guying and bracing, the Contractor may at his option, employ a testing agency to perform a tensile pull test to confirm the strength for the repaired or replaced anchor bolt. The tensile proof load must exceed 1.33 x the design load of the original anchor without causing distress of the anchor bolt or the surrounding concrete. Reference the following table for the minimum proof loads:

3/4" diameter:	12.8 kips
7/8" diameter:	17.4 kips
1" diameter:	22.7 kips
1 1/8" diameter:	28.8 kips
1 1/4" diameter:	35.6 kips

     Note: Values listed above are for ASTM F-1554, Grade 36 material. When higher grade or strength materials are specified, refer to the AISC Steel Design Guide 1, Table 3.1 for minimum allowable loads to be multiplied by 1.33.
   - C. When affected anchor bolts are part of a fixed moment resisting column base, such as those in moment-resisting space frames, canopies, or fixed-base installations, the repaired anchor bolts must be proof-loaded, or the affected column footing and/or pier replaced in its entirety.
   - D. When affected anchor bolts are part of a braced frame the affected column footing and/or pier must be replaced in its entirety.
   - E. Prior to erection, the controlling Contractor must provide written notification to the Steel Erector if there has been a repair, replacement or modification of the anchor bolts for that column.

REINFORCED MASONRY NOTES

1. All construction of reinforced masonry walls to be in accordance with the Building Code Requirements for Concrete Masonry Structures (ACI 530) and Commentary.
   - A) f'm = 2000 PSI
   - B) Maximum height of masonry lift: 5'-0"
   - C) Maximum height of grout lift: 5'-0"
   - D) See Specifications for additional masonry wall information.
2. CONCRETE BLOCK: Minimum compressive test strength on the net cross-sectional area: 2800 PSI.
3. MORTAR: Type S required.
4. GROUT: ASTM C476, 2500 PSI with a slump of 8" min. and 10" max.
5. REINFORCING: fy = 60000 PSI with a min. lap of 48 bar diameters.

LINTEL SCHEDULE

1. Where lintels are not specifically shown or noted on the Structural or Architectural Drawings, provide the following lintels over all openings and recesses in both interior and exterior non-load-bearing walls.

A) Brick:	Masonry Opening	Angle Size
	Up to 5'-0"	L4x4x5/16
	Over 5'-0" & up to 7'-0"	L6x4x5/16
	Over 7'-0"	L7x4x3/8

   All angles are LLV (long leg vertical), unless noted otherwise. Provide 1" of bearing per foot of span each end with minimum 8".
   - B) Block: For openings up to 8'-0" long exposed in the finished room, use lintel block filled with grout. Grout all exposed joints and reinforce as follows:

1) For 6" thick block:	1 - #5 bar
2) For 8" thick block:	2 - #5 bars
3) For 10" thick block:	2 - #6 bars
4) For 12" thick block:	2 - #6 bars

   - C) Block: For openings over 8'-0" & up to 12'-0" long exposed in the finished room, use lintel block filled with grout. Grout all exposed joints and reinforce per the "Long Masonry Lintel Detail" on the Typical Masonry Detail Drawing.
   - D) For openings in existing 8" load bearing CMU walls up to 8'-0" wide, provide a W8x24 lintel across the opening.
   - 1 E) Field verify existing limestone thickness prior to fabricating loose lintels angles. If limestone thickness is greater than 4" nominally, immediately notify AOR and EOR.

STRUCTURAL STEEL NOTES

1. Structural steel construction shall conform to the American Institute of Steel Construction "Specification for Structural Steel Buildings".
2. All structural wide flange members shall be ASTM A992, Fy=50 ksi
3. All plates, channels, bars, angles, and rods shall be ASTM A36, unless noted.
4. All rectangular structural tube members shall be ASTM A500, Grade C, Fy = 50 ksi unless noted.
5. All round structural tube members shall be ASTM A500, Grade C, Fy = 46 ksi unless noted.
6. All structural pipe members shall be ASTM A53,Grade B, Fy=35 ksi unless noted.
7. Details for design, fabrication and erection of all structural steel shall be in accordance with the latest AISC Standards, unless otherwise noted or specified.
8. Provide temporary erection guying and bracing as required.
9. Unless otherwise shown or noted on the Drawings, provide 8" minimum bearing each end for all loose lintels and beams.
10. For loose lintels, masonry shelf angles and other such items generally not shown on the Structural Drawings, refer to the Architectural Drawings. See general notes on lintels this sheet for sizes, reinforcing, etc.
11. Steel columns below grade shall be encased in a minimum of 4" concrete or painted with 2 coats of asphaltum paint, unless otherwise shown.
12. Fabricate simple span beams not specifically noted to receive camber so that after erection, any minor camber due to rolling or shop assembly be upward.
13. Refer to the Division 5 Structural Steel Specification of the Project Manual for structural steel surface preparations and prime painting requirements.
14. The Erector shall shim between parallel roof beams and joists with differential mill and induced cambers for level deck bearing.
15. Provide cap plates/end plates to close off exposed, open ends of all tubular members, unless noted. Seal weld with partial penetration square groove welds for watertight condition.

STEEL CONNECTION NOTES

1. Typical beam-to-beam and beam-to-column connections shall be bearing type using A325 bolts, unless noted otherwise.
2. Shop connections unless otherwise shown, may be either bolted or welded. All field connections shall be bolted unless otherwise shown on the Structural Drawings.
3. Connections shall be designed by the Steel Fabricator to support the reactions shown on the framing plan(s). Simple span connections without reactions listed on the Structural Drawings shall be designed by the Steel Fabricator in accordance with Table 3-6 of the AISC "Manual of Steel Construction, 14th Edition". For composite beams where reactions are not indicated, design connections for 75% of the Maximum Total Uniform Load ASD value for the applicable beam size and span given in Table 3-6. For non-composite beams, design connections for 50% of the tabulated ASD value.
4. Submit calculations for connections not detailed on the Structural Drawings and not covered by the AISC Tables, including but not limited to:
   - A) Column Splices.
   - B) Moment Connections.
   - C) Bracing Connections including Collectors and Drag Struts.
   - D) Skewed Shear Connections.
   - E) Girder and Truss Splices.
   - F) Truss-to-Column and Truss-to-Truss Connections.
   - G) Truss Web-to-Chord and Web-to-Gusset Connections.
   - H) Compression Ring/Tension Ring, and Raker Beam Connections.
5. All beam-to-beam connections shall be double angle, unless shown or noted otherwise.
6. All beam-to-column connections shall be at the column centerline, unless noted otherwise. Shear tab connections to tubes are permitted unless otherwise noted or detailed.
7. Typical beam-to-beam, and beam-to-column field-bolted connections may be tightened to the snug-tight condition, unless otherwise shown or noted.
8. Bolted connections in moment frames, bracing connections, hangers and stub columns, crane connections, and those designated PT (pretensioned) on the Drawings shall be pretensioned joints utilizing tension-control (TC) bolts or direct tension indicators. Holes for PT bolts shall be 1/16" larger than the bolt diameter. All pretensioned joints must be inspected by the Testing Agency.
9. Connect bracing members for two components of stress unless otherwise approved by the Structural Engineer of Record. Provide a minimum 2-bolt or welded field connection.
10. Locate centerlines of all vertical bracing members on column centerlines in vertical plane and on column and beam centerlines in horizontal plane, unless otherwise shown on the Structural Drawings.
11. All welding shall be in conformance with AWS D1.1, using E70XX electrodes, unless shown or noted otherwise. Welding, both shop and field, shall be performed by welders certified for the weld types and positions involved according to the current edition of AWS D1.1. Perform all AESS welds with care to provide a clean, uniform appearance.
12. Backup bars required for welded connections shall be continuous.
13. Holes in steel shall be drilled or punched. All slotted holes shall be provided with smooth edges. Burning of holes in structural steel shall not be allowed without approval of the Structural Engineer of Record.
14. The minimum thickness of all connection material shall be 5/16" unless noted.
15. Continuous bent plate and angle closures, roof edges, diaphragm chords, etc. around perimeter of the floor and roof, as well as around openings shall be welded with a minimum 1/4" fillet weld x 3" long at 12" o.c., top & bottom, unless noted otherwise. Butt weld joints in continuous diaphragm chord for continuity. For continuous perimeter angles and bent plates perpendicular to and connected to the top chords of joists, provide a minimum 3" of 1/4" weld at each joist. Continuous angle and bent plate closures may be shop-applied to the supporting structural members only when requested and approved by Structural Engineer of Record.
16. Where steel beams are called to have wood nailers supporting wood floor or roof framing, provide 1/2" diameter carriage bolts spaced at 24" on center and staggered each side of the beam web, unless noted otherwise. Carriage bolts may be over-tightened to compress the rounded head in the nailer to facilitate installation of continuous band/rim joists, rafters, trusses, etc.
17. A qualified independent Testing Agency shall be retained to perform inspection and testing of structural steel field weldaments as follows:

WELD INSPECTION SCHEDULE

WELD TYPE	VT	MT	UT	PT	CRT	COMMENTS
FILLET (SINGLE PASS)	25%	-	-	-	-	ROOT PASS AND FINISHED WELD
FILLET (MULTIPLE PASS)	50%	25%	-	-	-	
FLARE BEVEL/ FLARE V	25%	-	-	-	-	
GROOVE (PARTIAL PENETRATION)	100%	-	100%	-	-	REFERENCE NOTE 'E' BELOW
GROOVE (FULL PENETRATION)	100%	-	100%	-	-	ALL FULL PENETRATION WELDS

   - A) Test procedures:
     VT = Visual Test (inspection)
     MT = Magnetic Particle Test: ASTM E109, cracks or incomplete fusion or penetration not acceptable.
     UT = Ultrasonic Test: ASTM E164.
     PT = Penetrant Test: ASTM E165.
     RT = Radiographic Test: ASTM E94 and ASTM E142, min. quality level 2-21.
   - B) Acceptance standards in AWS D1.1 shall be followed for each test procedure.
   - C) Test procedures may be substituted to meet feasibility requirements of test based upon weld geometry or other factors with the approval of the Structural Engineer of Record.
   - D) Samples shall occur at random locations; additional tests may be required at locations noted on the Drawings.
   - E) Groove welds include square, bevel, V, U, and J grooves including single and double pass types.
   - F) Partial penetration square groove welds at end seal plates of tubular members do not require inspection.
   - G) Weld Procedure Specifications (WPS) shall be produced and maintained in accordance with AWS D1.1. The independent Testing Agency shall have access to all WPS's during the course of testing and inspection.
   - H) For highly-restrained welded joints, especially in thick plates and/or heavy structural shapes, details the welds so that shrinkage occurs as much as possible in the direction the steel was rolled. Refer to the AISC Manual for preferred welded-joint arrangements that reduce the possibility for lamellar tearing. Members scheduled to receive highly-restrained connections shall be tested by the independent Testing Agency by Ultrasonic Testing prior to commencing welding.
   - I) In addition to inspection requirements for fillet welds in Table above, 100% of field welding of diagonal bracing members to gusset plates shall be visually inspected (VT).

STEEL STAIRS

1. Refer to the Design Criteria notes for live load and handrail requirements.
2. All stair designs shall be provided by the Stair Manufacturer/Fabricator's Specialty Structural Engineer and shall be stamped by a Professional Engineer registered in the State of Indiana. Stair designs shall be in accordance with all applicable code provisions of the IBC.
3. The Stair Manufacturer/Fabricator's Specialty Structural Engineer shall provide the Structural Engineer of Record with drawings showing location, direction and magnitudes of all stair load reactions on the building structure for approval, prior to fabrication.
4. The Stair Manufacturer/Fabricator shall coordinate the transition between the supported structural floor slab and the stair structure with the Structural Steel Fabricator, prior to fabrication.
5. Refer to the Architectural Drawings for stair width, rise, run, tread and riser geometry, handrail and guardrail design, shaft wall construction, etc.

STEEL JOIST NOTES

1. All steel joists shall be designed, fabricated, and erected in accordance with SJI Standard Specifications.
2. Joist bridging (if shown) is schematically indicated. Provide all bridging necessary to conform to SJI Specifications.
3. The ends of all bridging lines terminating at walls or beams shall be anchored to the wall or beam.
4. Joist bridging and connections shall be completely installed prior to placing any construction loads on the joists. Construction loading shall not exceed the joist design load.
5. All roof joists shall be capable of resisting the net uplift a noted on the Structural Drawings (min. 15 psf net). Provide an additional row of continuous horizontal bottom chord bridging at the first panel point location at each end of all roof joists.
6. Special joists (SP) shall be designed for the load designations specified on the Structural Drawings. Designs shall properly account for the distribution of concentrated loads, live loads, and for the effect of openings. Designs are to meet the requirements of SJI.
7. Joists shall meet the following deflection criteria per SJI. Maximum live load deflection shall not exceed:

A) Roofs without suspended ceilings:	L/240
B) Roof with suspended ceilings:	L/360
C) Floors:	L/360

8. The Joist Manufacturer shall submit calculations for all special joists to Structural Engineer of Record for record purposes prior to fabrication. These calculations shall bear the seal and signature of a Professional Engineer registered in the State of Indiana.
9. Joists on column centerlines shall have extended bottom chord connections for erection stability, unless otherwise noted. Do not connect bottom chord extensions, unless otherwise noted or shown.
10. Joists on, or near column centerlines shall have field-bolted connections for erection stability, unless otherwise noted.
11. The Joist Manufacturer shall coordinate with the Structural Steel Fabricator for the design of all connections to support columns, beams, bearing seats, etc. prior to submittal of shop drawings.
12. Where a joist is part of a moment-resisting frame, delay the connection of the bottom chord to the column until all dead loads have been placed. All field-bolted and field-welded connections in moment-resisting frames shall be inspected per AWS and AISC requirements.
13. The Joist Manufacturer shall furnish evidence that the joist meets or exceeds the specified minimum moment of inertia (Ix) listed on the Plans. Where a minimum Ix value is not specified, the Ix value can be that required to meet the specified loading and deflection criteria.
14. All steel joists shall be furnished with standard SJI camber, unless noted otherwise.
15. All items suspended from joists such as catwalks, basketball goals, operable partitions, etc. should be installed after all dead loads of roofing, flooring, ceilings, etc. are installed.
16. All joists shall be shop primed in accordance with SJI requirements, unless note otherwise. Color to match structural steel primer, unless approved in writing.
17. Provide sloped bearing ends where joist slope exceeds 1/4" per foot.
18. Do not field cut or alter joists without the written approval of the Joist Manufacturer.

STEEL DECK NOTES

1. All steel deck material, fabrication and installation shall conform to the Steel Deck Institute "SDI SPECIFICATIONS AND COMMENTARY" and "CODE OF RECOMMENDED STANDARD PRACTICE," current edition, unless noted.
2. Provide members for deck support at all deck span changes. Provide L3x3x3/16 deck support at all columns where required.
3. All deck shall be provided in a minimum of 3-span lengths where possible.
4. All welding of steel deck shall be in conformance with AWS Specification D1.3. Provide welding washers for all floor decks less than 22 gauge in thickness.
5. Mechanical fasteners may be used in lieu of welding, providing fasteners meet, or exceed the strength of specified welds. Submit fastener design data to the Structural Engineer of Record for review.
6. Substitution of fiber secondary reinforcement for welded wire fabric on supported slabs is prohibited.
7. Do not suspend any items, such as ductwork, mechanical and electrical fixtures, ceilings, etc. from steel deck.
8. Roof deck sidelaps shall be attached at ends of cantilevers and at a maximum spacing 12" o.c. from cantilevered roof deck ends. The roof deck must be completely fastened to the supports and at the sidelaps before any load is applied to the cantilever.
9. Submit shop drawings for review of general conformance to design concept in accordance with Specifications in the Project Manual. Erection drawings shall show type of deck, shop finish, accessories, method of attachment, edge details, deck openings and reinforcement, and sequence of installation.
10. Installation holes shall be sealed with a closure plate 2 gauges thicker than deck and mechanically fastened to deck. Steel deck holes visible from below will be rejected. Deck units that are bent, warped, or damaged in any way which would impair the strength and appearance of the deck shall be removed from the site.
11. Where gauge metal pourstops are indicated, supply pourstops designed to meet, or exceed the gauges listed in the SDI Pourstop Selection Table (min. 18 ga.) as required for slab depth, concrete weight, and cantilever distance, unless noted otherwise.
12. The Erector shall shim between parallel roof beams and joists with differential mill and induced cambers for level deck bearing.

COLD-FORMED (LIGHT GAUGE) METAL FRAMING NOTES

1. All cold-formed steel framing members, their design, fabrication, and erection shall conform to the "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" of the latest edition of the AISI.
2. All framing members shall be formed from steel conforming to ASTM A653, with a minimum yield strength as follows:

A) 12, 14 & 16 gauge members:	Fy=50ksi
B) 18, 20 gauge members:	Fy=33ksi

3. All framing members shall be galvanized with a G60 coating meeting the requirements of ASTM A653, unless otherwise indicated.
4. Members shall be the Manufacturer's standard 'C'-Shaped studs/joists of the size, flange width, and gauge indicated. All members shall have a minimum flange lip return of 1/2" and satisfy the minimum properties in accordance with the Steel Stud Manufacturers Association (SSMA).
5. The gauge of all tracks shall match the gauge of the associated stud or joist, unless otherwise noted.
6. All welding shall be in accordance with AWS Specification D1.3. No welding of members less than 14 gauge in thickness is permitted without the approval of the SER. All welding shall be performed by certified welders. All welds shall be touched up with zinc rich paint in accordance with ASTM A780.
7. Provide bridging for all load-bearing studs at a maximum spacing of 48" on center.
8. Provide bridging for all non load-bearing curtain wall studs at a maximum spacing of 54" o.c. Locate one row of bridging within 18" of the top track when a single deep-leg deflection track is utilized.
9. Provide bridging for joists and rafters at midspan and at a maximum spacing of 6'-0" o.c., unless noted otherwise. All bridging shall be installed prior to the application of any loading. Connect bridging to each member by clip angles, or other approved method per the Manufacturer's requirements.
10. Provide web stiffeners at joist and rafter bearings in accordance with the Manufacturer's requirements.
11. All axially-loaded studs shall have full bearing against the track web, prior to stud and track alignment. Splices in axially loaded studs are not permitted.
12. Provide the Manufacturer's standard track, clip angles, bracing, reinforcement, fasteners, and accessories as recommended by the Manufacturer for the application indicated and as needed to provide a complete framing system. Unless otherwise indicated, install the metal framing system in accordance with the Manufacturer's shop drawings, written instructions and recommendations.
13. Install supplementary framing, blocking, and bracing in metal framing system wherever walls or partitions are indicated to support fixtures, equipment, services, casework, heavy trim and furnishings, and similar work requiring attachment to the wall or partition. Where type of supplementary support is not otherwise indicated, comply with the stud manufacturer's recommendations and industry standards in each case, considering weight or loading resulting from the item supported.
14. All field-cutting of studs must be done by sawing or shearing. Torch-cutting of cold-formed members is not allowed.
15. No notching or coping of studs is allowed, unless explicitly shown on the design or shop drawings. All field-cut holes must be reinforced.
16. The Framing Contractor is to ensure punch out alignment when assembling lateral bracing/bridging and field-cutting studs to length. Lateral bracing/bridging must be installed at the time the wall is erected.
17. Temporary bracing shall be provided and remain in place until work is completely stabilized.
18. Use a minimum of three studs at the corners of all exterior walls.
19. Use a minimum of three studs at the intersections and corners of all load-bearing walls.
20. All headers and built-up beams must be constructed of UNPUNCHED material only. Install insulation in built-up exterior framing members, such as headers, sills, boxed joists, and multiple studs at openings, that are inaccessible on completion of framing work.
21. Shop drawings: Show layout, spacings, sizes, thicknesses, types of cold-formed metal framing, and fastening and anchorage details, including mechanical fasteners. Show reinforcing channels, opening framing, supplemental framing, strapping, bracing, bridging, splices, accessories, connection details, and attachment to adjoining work.
22. For cold-formed metal framing indicated to comply with design loads, include structural analysis data signed and sealed by the qualified professional engineer (SSE) responsible for their preparation.
23. Structural Performance: Provide cold-formed metal framing capable of withstanding design loads within limits and under conditions indicated.
   - A) Design Loads: Reference the Design Criteria Notes.
   - B) Deflection Limits: Design framing systems to withstand design loads without deflections greater than the following:
     1. Wall Framing: Horizontal deflection of 1/240 of the wall height for walls with flexible finishes, e.g. metal siding, wood siding, EIFS, etc.
     2. Wall Framing: Horizontal deflection of 1/360 of the wall height for walls with cementitious finishes, e.g. cement plaster.
     3. Wall Framing: Horizontal deflection of 1/600 of the wall height for walls with masonry veneer finishes.
     4. Floor Joist Framing: Vertical deflection of 1/480 of the span under live load. Limit deflection under total load (dead + live) to 1/360 of the span.
     5. Roof Framing: Vertical deflection of 1/360 of the span under live/snow load. Limit deflection under total load (dead + live/snow) to 1/240 of the span.
24. Design framing systems to provide for movement of framing members without damage or overstressing, sheathing failure, undue strain on fasteners and anchors, or other detrimental effects when subject to an ambient temperature change of not less than 120 degrees F.
25. Design framing system to maintain clearances at openings, to allow for construction tolerances, and to accommodate live load deflection of primary building structure as follows: Upward and downward movement of 3/4 inch.
26. Design exterior non load-bearing curtain wall framing to accommodate horizontal deflection without regard for contribution or sheathing materials.

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PE10606154

PROJECT: #19160
DATE: 07/01/2020

#	Date	Desc.
1	03.01.21	Addendum 1

STRUCTURAL NOTES

S001

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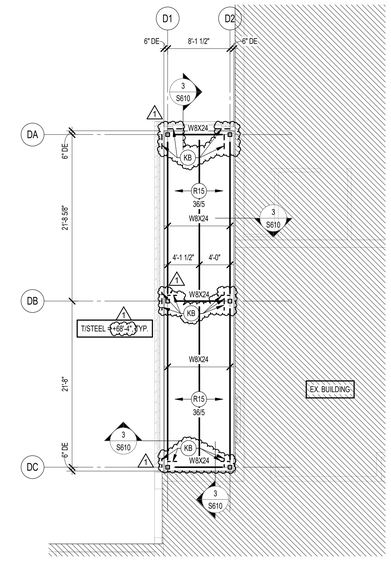


1 LOW ROOF FRAMING PLAN - UNIT D
1/8" = 1'-0"

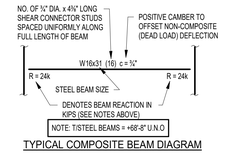
FRAMING PLAN NOTES

1. REF. S001 & S002 FOR STRUCTURAL NOTES, DESIGN DATA, SCHEDULES & LEGENDS.
2. REF. THE S500, S600, & S601. FOR TYPICAL MASONRY AND FRAMING DETAILS.
3. ALL CONTRACTORS ARE REQUIRED TO COORDINATE THEIR WORK WITH ALL DISCIPLINES TO AVOID CONFLICTS. THE MECHANICAL, ELECTRICAL, AND PLUMBING ASPECTS ARE NOT IN THE SCOPE OF THESE DRAWINGS. THEREFORE, ALL REQUIRED MATERIALS AND WORK MAY NOT BE INDICATED.
4. ALL ELEVATIONS ARE REFERENCED FROM THE FIRST FLOOR FIN. FLOOR ELEVATION = 55'-8". COORD. USGS ELEVATION WITH CIVIL DWGS.
5. SEE FOUNDATION PLANS FOR SIZES OF STEEL COLUMNS SUPPORTED ON FOUNDATIONS.
6. INSTALL CONTINUOUS BENT PLATE/ANGLE POUR STOPS AT ALL ELEVATED SLAB-ON-DECK PERIMETER EDGES AND AROUND ALL INTERIOR FLOOR OPENINGS (BOTH SHOWN AND NOT SHOWN). SEE DETAIL 7/S600.
7. INSTALL CONTINUOUS ANGLES AT ALL PERIMETER ROOF EDGES. SEE DETAIL 1/S610 FOR ATTACHMENT TO BEAM AND FOR ALL CONDITIONS NOT SPECIFICALLY DEFINED IN FRAMING SECTIONS.
8. INSTALL CONTINUOUS CONCRETE CURBS PER DETAIL10/S600 AROUND THE PERIMETER OF ALL MECHANICAL ROOMS AND AROUND FLOOR PENETRATIOSN BOTH SHOWN AND NOW SHOWN INCLUDING STEEL COLUMN PENETRATIONS.
9. ALL WALLS SHALL BE LAID OUT FROM THE ARCHITECTURAL DRAWINGS.
10. REF. ARCH. DRAWINGS. FOR ALL DIMENSIONS NOT SHOWN. CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION AND IMMEDIATELY NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES.
11. COORDINATE EXACT SIZE & LOCATION OF ANY MECHANICAL OPENINGS IN FLOOR SLAB, ROOF DECK, OR WALLS WITH THE MEP CONTRACTOR(S). LOCATION & SIZE OF ALL DUCT OPENINGS, GRILLES, ETC. SHALL BE VERIFIED PRIOR TO CONSTRUCTION.
12. ALL ELEVATIONS SHOWN ON PLAN INDICATE TOP OF STEEL BEAM UNLESS NOTED OTHERWISE.
13. PROVIDE CHANNEL FRAMES AT ALL SUPPORTED SLAB OPENINGS PER TYPICAL DETAIL ON S600. COORDINATE EXACT NUMBER, LOCATIONS & DIMENSIONS WITH THE APPROPRIATE CONTRACTORS & THE ARCH. & MEP DRAWINGS.
14. PROVIDE FRAMES AT ALL ROOF DRAINS, ROOF HATCHES & OTHER ROOF OPENINGS PER TYPICAL DETAILS ON S600. COORD. EXACT NUMBER, LOCATIONS & DIMENSIONS WITH THE APPROPRIATE CONTRACTORS & THE ARCH. & MEP DWGS.
15. PROVIDE CMU REINFORCING AS NOTED ON PLANS. IF NOT SHOWN ON PLANS OR DETAILS, MINIMUM CMU WALL REINFORCING TO BE #5 VERTS @ 48" O.C. PROVIDE OPEN-CORE BOND BEAMS AT TOPS OF WALLS, AT CHANGES IN CMU THICKNESS, AND WHERE INDICATED ON PLANS & SECTIONS (10'-0" O.C. MAX VERTICAL SPACING). PROVIDE 1/2 OF INTERRUPTED VERTICALS AT JAMBS OF OPENINGS AND PROVIDE ADDITIONAL VERTS. AT ENDS OF WALLS.
16. ALL MASONRY BOND BEAMS, OTHER THAN BOND BEAM LINTELS OVER OPENINGS, SHALL BE "OPEN-CORE" BOND BEAMS TO ALLOW VERTICAL REINFORCING TO PASS THROUGH, UNLESS NOTED OTHERWISE.
17. REF. ARCH. DWGS. FOR MASONRY CONTROL & EXPANSION JOINT LOCATIONS.
18. ALL HORIZONTAL AND DIAGONAL BRIDGING FOR STEEL JOISTS SHALL BE DESIGNED, LOCATED & PROVIDED BY THE JOIST SUPPLIER PER SJI SPECIFICATIONS.
19. FOR ESTIMATING AND BIDDING PURPOSES ONLY, ASSUME AN ADDITIONAL 1/2" THICKNESS OF CONCRETE WILL BE NECESSARY FOR ALL ELEVATED SLABS ON METAL DECK. THE INTENT OF THIS REQUIREMENT IS TO ACCOUNT FOR ANTICIPATED DEAD LOAD DEFLECTIONS IN THE SUPPORTING STRUCTURE. THE FINISHED SLAB SHALL MEET THE FLATNESS REQUIREMENTS DEFINED IN THE SPECIFICATION.
20. PLAN LEGEND:

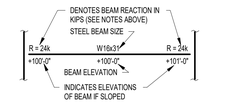
F.F.	DENOTES FINISHED FLOOR
T/'X'	DENOTES TOP OF STEEL, SLAB, ETC.
B/'X'	DENOTES BOTTOM OF LINTEL, ETC.
S.E.	DENOTES EDGE OF SLAB (MEASURED FROM BEAM C.L.) SEE TYPICAL DETAIL 7/S600
D.E.	DENOTES EDGE OF DECK (MEASURED FROM BEAM C.L.) SEE TYPICAL DETAIL 1/S601
S9	DENOTES VERSA-DEK 3.5 LS, 18 GA. GALVANIZED COMPOSITE DECK w/ 4½" NW CONC SLAB w/ 4x4-W1.4XW1.4 WWF, TOTAL 'Y = 8".
S4	DENOTES 1½"", 18 GA. GALVANIZED COMPOSITE DECK w/ 2½" NW CONC SLAB w/ 6x6-W1.4xW1.4 WWF, TOTAL 'Y = 4".
R15	DENOTES 1½", 20 GA. PRIME-PAINTED WIDE RIB STEEL ROOF DECK.
	DENOTES BEAM-TO-COLUMN MOMENT CONNECTION. REF. 12/S601.
KB	DENOTES KNEE BRACE LOCATION
	DENOTES APPROX. LOCATION OF OPENING IN DECK/SLAB. REF. DETAILS ON S404 FOR TYPICAL OPENING FRAMES. FOR MULTIPLE CLOSELY SPACED OPENINGS, TREAT AS ONE LARGE OPENING.
	DENOTES MASONRY SHEAR WALL SW-1

23. WIDE-FLANGE BEAM & GIRDER NOTATION:

BEAM REACTIONS SHOWN IN KIPS TO BE USED FOR DESIGN OF SHEAR CONNECTION BY STEEL FABRICATOR'S SSE (ALLOWABLE STRESS DESIGN / LOADS UNFACTORED). IF NO REACTION IS SHOWN THE MIN. SHEAR CONNECTION DESIGN LOAD SHALL BE 15 KIPS.



TYPICAL COMPOSITE BEAM DIAGRAM



TYPICAL BEAM DIAGRAM

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STATE OF INDIANA
PROFESSIONAL ENGINEER

PROJECT: #19160		
DATE: 07/01/2020		
#	Date	Desc.
1	03.01.20	Addendum 1
21		

LOW ROOF FRAMING PLAN - UNIT D

S101D

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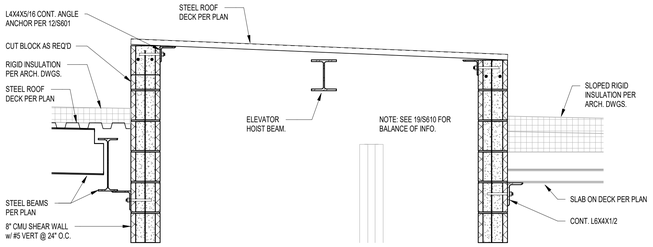

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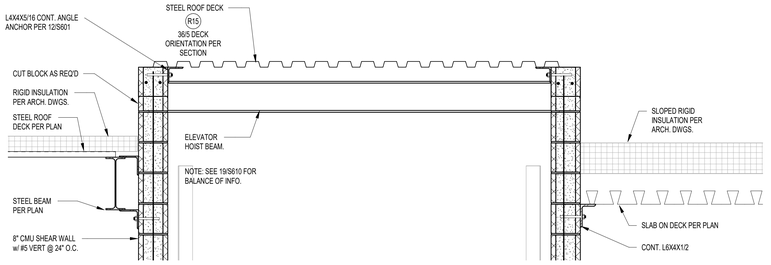

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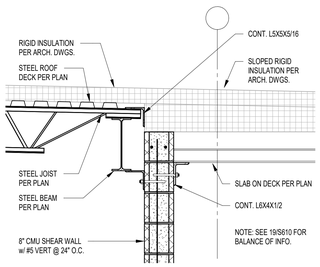

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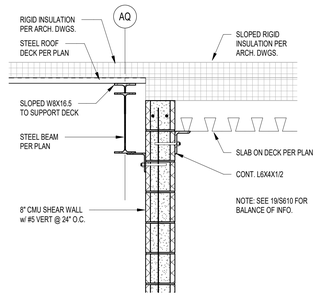

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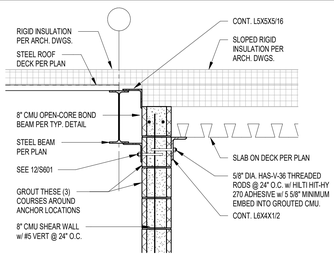

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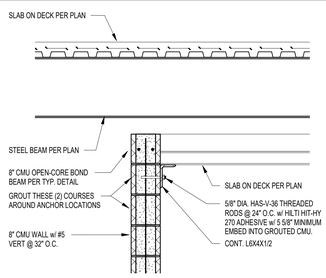

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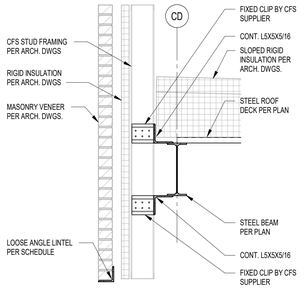

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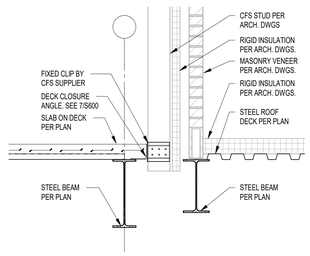

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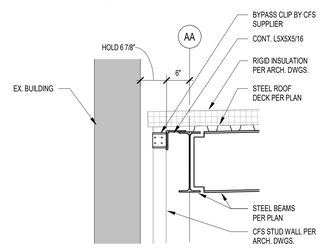

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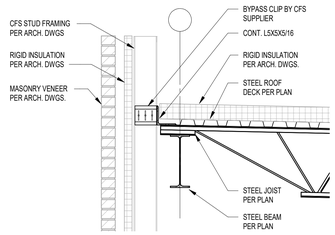

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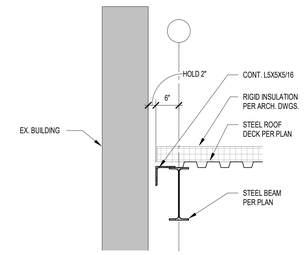

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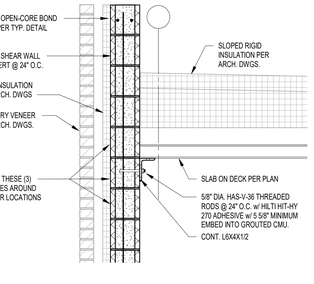

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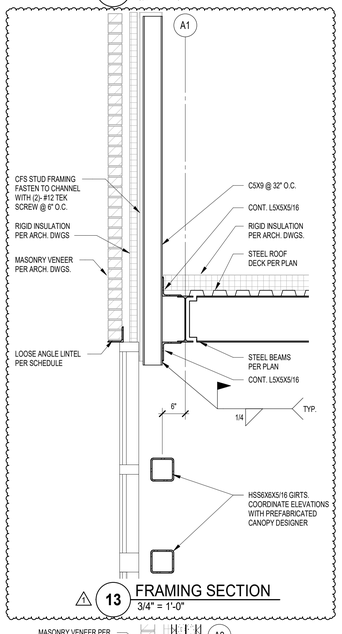

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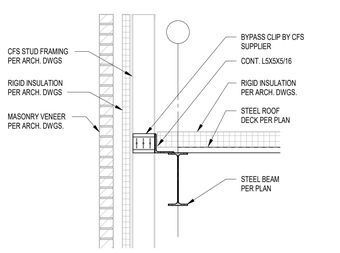

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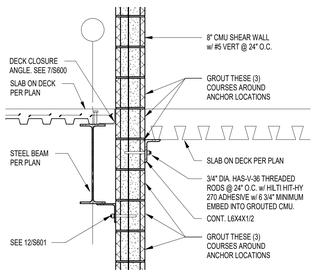

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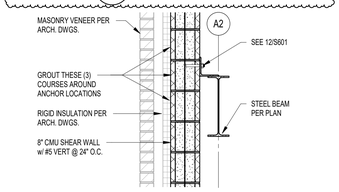

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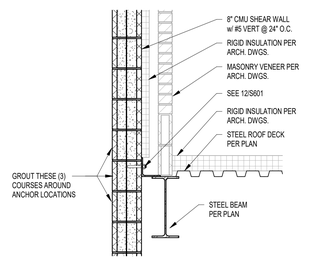

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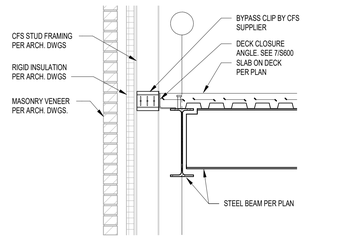

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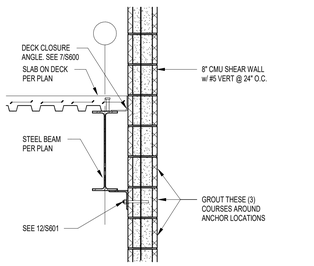

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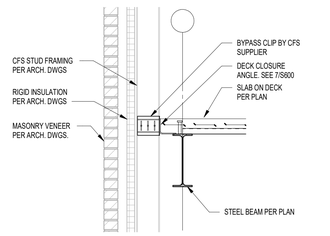

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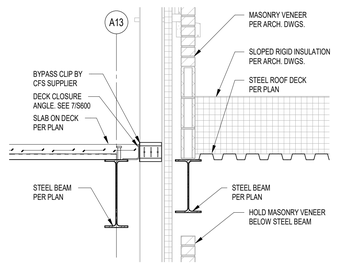

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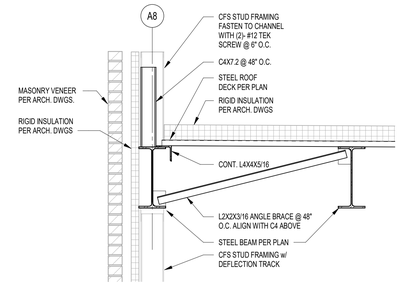

1 FRAMING SECTION
3/4" = 1'-0"

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SCOTT A. CLOINE
PE10606154
STATE OF INDIANA
PROFESSIONAL ENGINEER

PROJECT: # 19160		
DATE: 07/01/2020		
#	Date	Desc.
1	03.01.20	Addendum 1
2		

FRAMING SECTIONS AND DETAILS

S610

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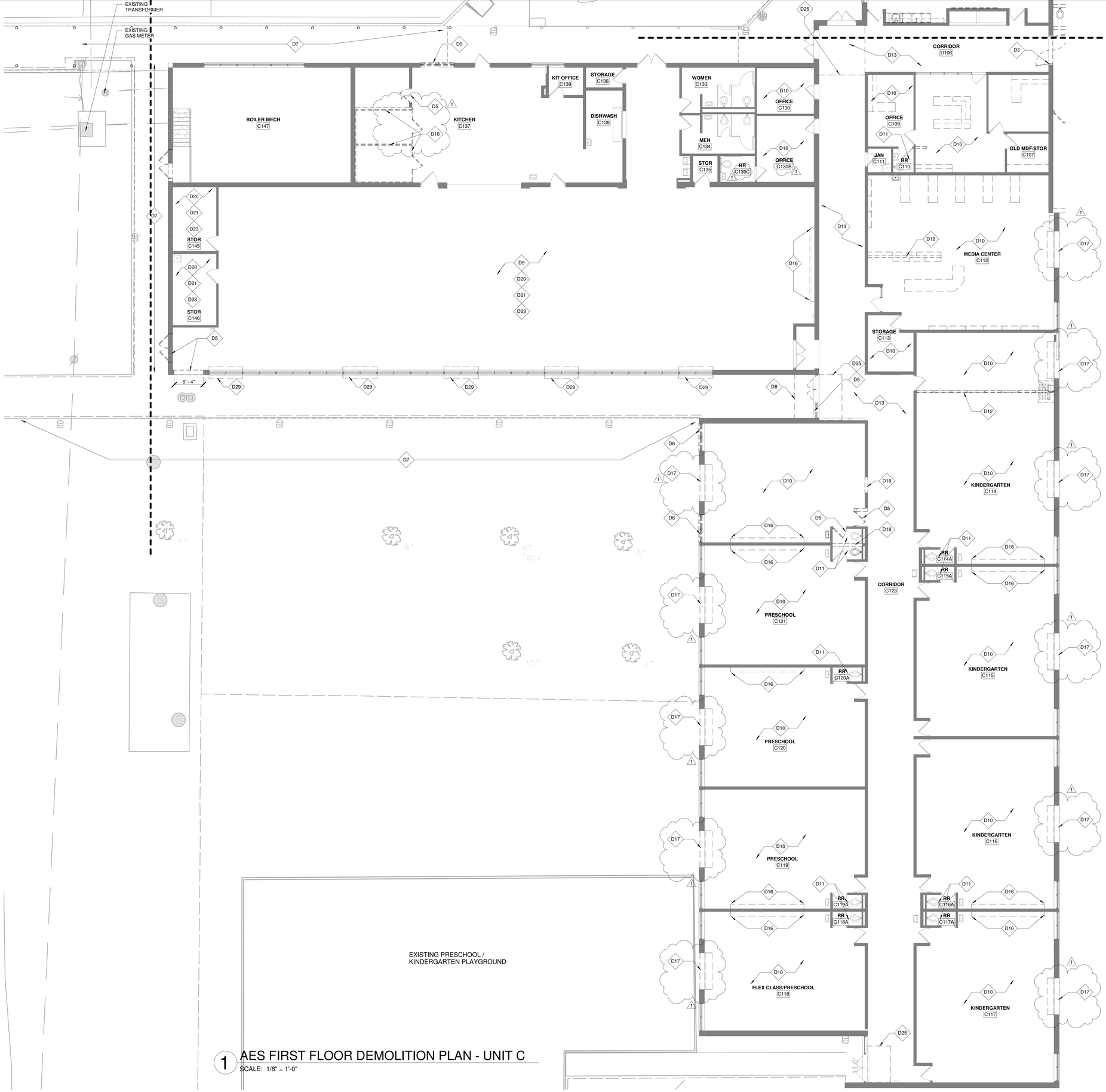

1 AES FIRST FLOOR DEMOLITION PLAN - UNIT C

SCALE: 1/8" = 1'-0"

GENERAL DEMO NOTES

A. COORDINATE DEMOLITION WORK WITH NEW WORK.

B. CLEAN AND PREP SURFACES FOR NEW WORK.

C. COORDINATE DEMOLTION WORK WITH MEP WORK.

D. OWNER SHALL HAVE FIRST RIGHT OF REFUSAL OF ANY DEMOLISHED DOORS, CASEWORK, MARKERBOARDS, CHALKBOARDS, ETC.

E. MODIFY EXISTING CEILINGS AS NEEDED TO ACCOMMODATE NEW WORK. REPLACE ACT CEILING TILE ALONG THE PATH IMPACTED BY THE NEW WORK.

F. REFERENCE CIVIL DRAWINGS FOR SITE DEMOLITION SCOPE

DEMO PLAN NOTES

D1	EXISTING GYMNASIUM BUILDING TO REMAIN. MINIMAL RENOVATION ALTERNATE BID SCOPE.
D2	PHASE 1 DEMOLITION: REMOVE EXISTING BUILDING. SAVE EXISTING HISTORIC LIMESTONE STONEWORK AT ENTRIES FOR REUSE. SAVE WOOD GYMNASIUM FLOOR FOR NEW ARTWORK REUSE.
D3	PHASE 2 DEMOLITION: REMOVE EXISTING SCHOOL BUILDING(S) AFTER NEW CONSTRUCTION IS COMPLETE. (2) 1950S CALIFORNIA STYLE EXTERIOR CIRCULATION BUILDINGS AND 1950 3-STORY EAST WING PRIOR TO 1986 STRUCTURE TO REMAIN.
D4	REMOVE EXISTING GYMNASIUM WINDOWS. PREP OPENING FOR NEW WINDOW. (BID ALTERNATE)
D5	REMOVE DOOR(S), FRAME AND HARDWARE COMPLETE AS SHOWN. CLEAN, PATCH & PREP SURFACES FOR NEW WORK.
D6	REMOVE EXISTING WINDOW AND FRAME COMPLETE AS SHOWN. CLEAN, PATCH AND PREP SURFACES FOR NEW WORK
D7	REMOVE EXISTING CANOPY & COLUMNS
D8	REMOVE EXISTING SOFFIT
D9	EXISTING 1950S CAFETERIA BUILDING: REMOVE EXISTING ROOF DOWN TO DECK. PREP STRUCTURAL ROOF DECK FOR NEW ROOF WORK.
D10	CLASSROOM DEMOLITION: REMOVE FLOORING, BASE, CEILINGS, LIGHTING, CASEWORK, MARKERBOARDS, TACKBOARDS, AND CHALKBOARDS. PREP, PATCH AND CLEAN SURFACES FOR NEW WORK.
D11	RESTROOM DEMOLITION: REMOVE FLOORING, BASE, CEILING AND TOILET ACCESSORIES. PREP SURFACES FOR NEW WORK.
D12	REMOVE OPERABLE PARTITION. PATCH AND REPAIR WALL.
D13	CORRIDOR DEMOLITION: REMOVE CEILINGS & WALK-OFF MATS. PREP SURFACES FOR NEW WORK.
D14	CHORAL DEMOLITION: REMOVE FLOORING, BASE, WOOD RISERS, CEILING, CASEWORK, MARKERBOARDS, TACKBOARDS, AND CHALKBOARDS. PREP, PATCH AND CLEAN SURFACES FOR NEW WORK.
D15	BID ALTERNATE: REMOVE AND REPLACE FIRST FLOOR GYMNASIUM BLEACHERS. TOP TIER MUST ALIGH WITH 9'-10" AFF SECOND LEVEL CONCRETE SEATING. AISLE LOCATIONS MUST ALIGN WITH EXISTING RAILING GATES.
D16	REMOVE WALL OF COAT HOOKS
D17	REMOVE HORIZONTAL CLASSROOM UNIT VENTILATOR PER MECHANICAL AND ASSOCIATED EXTERIOR GRILL
D18	REMOVE WALL TO EXTENT AS SHOWN. CLEAN, PATCH & PREP SURFACES FOR NEW WORK.
D20	REMOVE EXISTING ACOUSTICAL BOARD CEILING AND GRID.
D21	REMOVE EXISTING LIGHTING.
D23	REMOVE SECOND ACOUSTICAL BOARD CEILING ATTACHED TO UNDERSIDE OF ROOF JOISTS.
D25	REMOVE EXISTING WALK-OFF MAT RECESSED IN TERRAZZO.
D29	REMOVE EXTERIOR WALL LOUVER WITH ASSOCIATED CAFETERIA UNIT VENTILATOR REMOVAL (SEE MECHANICAL).
D30	REMOVE AND SAVE EXISTING LIMESTONE STONEWORK AT ENTRY FACADES FOR REUSE, INCLUDING LIMESTONE PANELS, ENTABLATURE, CORNICES, FRIEZE, AND ARCHITRAVE.
D31	REMOVE AND SAVE EXISTING LIMESTONE BRICK PILASTER CAP PIECE(S) FOR REUSE.
D50	REMOVE EXISTING TILE FLOORING COMPLETELY TO CONCRETE SUBSTRATE. ABANDON FLOOR DRAINS PER PLUMBING.
D51	REMOVE BULKHEAD.
D52	REMOVE DIVING BOARD.
D53	PREP SWIMMING POOL FOR INFILL AND TO RECEIVE NEW FLOOR SLAB PER STRUCTURAL. CAP DRAINS FOR PLUMBING.
D54	REMOVE LADDER.
D55	REMOVE LIFE GUARD STAND.
D56	REMOVE ALL POOL ACCESSORIES.
D57	EXISTING DUCTWORK TO REMAIN FOR REUSE, SEE MECHANICAL.
D58	REMOVE LOCKERS. BENCH TO REMAIN. PATCH, CLEAN AND PREPARE SURFACES FOR NEW WORK.
D70	SAVE MINIMUM 4'x30' EXISTING WOOD GYMNASIUM FLOOR FOR LOBBY BENCH FINISH. PORTIONS WITH PAINTED LINES ACCEPTABLE.

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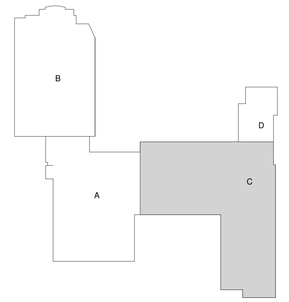
PROJECT: #19160		
DATE: 02/12/2021		
#	Date	Desc.
1	03/02/21	ADDENDUM #1



FIRST FLOOR DEMOLITION PLAN - UNIT C AES

AD101C

PLOT DATE/TIME:3/2/2021 3:12:13 PM

GENERAL PLAN NOTES

1. PROVIDE FULL HEIGHT CORNER GUARDS AT ALL OUTSIDE CORNERS WITH GYPSUM BOARD FINISH. FLOOR TO CEILING HEIGHT
2. PROVIDE BULL-NOSE FINISH ON ALL OUTSIDE CORNERS OF CMU WALLS
3. SEE ELEVATIONS FOR MASONRY TYPE AND SIZE
4. PROVIDE SOLID SURFACE WINDOW SILLS @ ALL STOREFRONT GLAZING SILLS ABOVE FINISHED FLOOR HEIGHT. WINDOW SILL TO EXTEND 1" PAST FINISHED WALL SURFACE, TYP. UNLESS OTHERWISE NOTED
5. SEE A111, A112 AND A113 FOR ENLARGED PLANS
6. VIF ALL DIMENSIONS FOR WINDOWS AND CASEWORK
7. INTERIOR DIMENSIONS ARE TAKEN TO THE FACE OF MASONRY OR STUDS
8. FOR ALL RESTROOM FACILITIES WITH GYPSUM WALL FINISH REPLACE 5/8" TYPE "X" GYPSUM BOARD WIHT 5/8" MOISTURE RESISTANT GYPSUM BOARD, SEE SPECS FOR DETAILS
9. WHERE COLUMN IS NOT INDICATED TO BE WRAPPED, PAINT IT P2
10. TYPICAL FLOOR PLAN ANGLE IS 12 OR 22 DEGREES FROM CARDINAL DIRECTIONS.
11. WALLS TO GO UP TO DECK UNLESS OTHERWISE NOTED

SHEET KEYNOTES

055000.1	STEEL WALL-MOUNTED LADDER
104413.1	FIRE EXTINGUISHER CABINET
111320.A	MOTORIZED PROJECTION SCREEN

PLAN NOTES

1	EXISTING GYMNASIUM TO REMAIN. ALTERNATE BID: REPLACE UPPER STAND EXTERIOR WINDOWS (8). ALTERNATE BID: REPLACE LOWER BLEACHERS.
2	2-HOUR FIRE WALL CONSTRUCTION
3	EXISTING STEAM TUNNEL SERVING THE GYMNASIUM BUILDING TO REMAIN
4	WALL-MOUNTED INTERACTIVE TV MONITOR PROVIDED BY OWNER. GC TO PROVIDE NECESSARY BLOCKING. REFERENCE TECHNOLOGY DETAILS.
5	RECREATE HISTORIC ENTRY FACADES TO OLD EXISTING 1937 SCHOOL BUILDING.
6	EXISTING CANOPY TO REMAIN
7	INFILL WALL WITH 8" NOM. CMU AND 4" NOM. BRICK C
8	POLAR KING KITCHEN WALK-IN FREEZER COOLER UNIT EXPANSION
9	ROOF DRAIN LEADER CHASE TO TIE INTO STORM LINES PER PLUMBING AND CIVIL.
10	ADA ACTIVATOR. COORDINATE WITH DOOR HARDWARE AND ELECTRICAL.
11	8' LONG TACK STRIP TYPICAL OUTSIDE EACH CLASSROOM ENTRY DOOR. MOUNT AT 4' AND 6' AFF.
12	INFILL WALL WITH BRICK AND BLOCK AT REMOVED LOUVER LOCATIONS.
13	WALL FURRING FOR PLENUM SPACE BEHIND MECHANICAL UNIT VENTILATOR
14	INFILL EXTERIOR WALL FROM UNIT VENTILATOR OPENING WITH NEW EXTERIOR LOUVER (36"W x 24"H x 8" AFF) PER MECHANICAL AND 8" NOM. CMU WITH 2" RIGID INSULATION, AIR SPACE AND 4" NOM. BRICK C VENEER

WALL TYPE SCHEDULE

A1	5/8" TYPE 'X' GYPSUM BOARD @ INTERIOR OVER 6" METAL STUDS @ 16" OC OVER 1/2" GYPSUM SHEATHING OVER AIR/ WATER BARRIER OVER 2" RIGID INSULATION R10 OVER 2" AIR CAVITY OVER 4" MASONRY (SEE ELEVATIONS FOR MASONRY TYPE)
A2	5/8" TYPE 'X' GYPSUM BOARD @ INTERIOR OVER 6" METAL STUDS @ 16" OC OVER 1/2" GYPSUM SHEATHING OVER AIR/ WATER BARRIER OVER 2" RIGID INSULATION R10 OVER 2" AIR CAVITY OVER 4" MASONRY (SEE ELEVATIONS FOR MASONRY TYPE)
A3	3-5/8" METAL STUDS @ 16" OC WITH ACOUSTICAL BATT INSULATION AND 5/8" TYPE 'X' GYPSUM BOARD BOTH SIDES
A4	6" METAL STUDS @ 16" OC WITH ACOUSTICAL BATT INSULATION AND 5/8" TYPE 'X' GYPSUM BOARD ON BOTH SIDES
A9	3-5/8" METAL STUDS @ 16" OC WITH 2 LAYERS 5/8" TYPE 'X' GYPSUM BOARD BOTH SIDES
A11	3-5/8" METAL STUDS @ 16" OC WITH ACOUSTICAL BATT INSULATION AND 5/8" TYPE 'X' GYPSUM BOARD ONE SIDE
A12	3-5/8" METAL STUDS @ 16" OC WITH REUSED GYM FLOOR PANELING ON 1/2" PLYWOOD SUBSTRATE (ONE SIDE)
A13	2-1/2" METAL STUDS @ 16" OC AND 5/8" TYPE 'X' GYPSUM BOARD ONE SIDE
B1	8" CMU OVER AIR/ WATER BARRIER OVER 2" RIGID INSULATION R10 MIN OVER 2" AIR CAVITY OVER 4" MASONRY (SEE ELEVATIONS FOR MASONRY TYPE)
B2	8" CMU OVER AIR/ WATER BARRIER OVER 2" RIGID INSULATION R10 MIN OVER 2" AIR CAVITY OVER 4" MASONRY (SEE ELEVATIONS FOR MASONRY TYPE)
B4	8" CMU
B5	12" CMU
B7	6" CMU
B8	4" CMU
B10	8" CMU OVER 4" MASONRY INFILL
B12	8" CMU OVER AIR/ WATER BARRIER OVER 2" RIGID INSULATION R10 MIN OVER 2" AIR CAVITY OVER 6" CMU

1 AES FIRST FLOOR PLAN - UNIT C
SCALE: 1/8" = 1'-0"

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PROJECT: #19190		
DATE: 02/12/2021		
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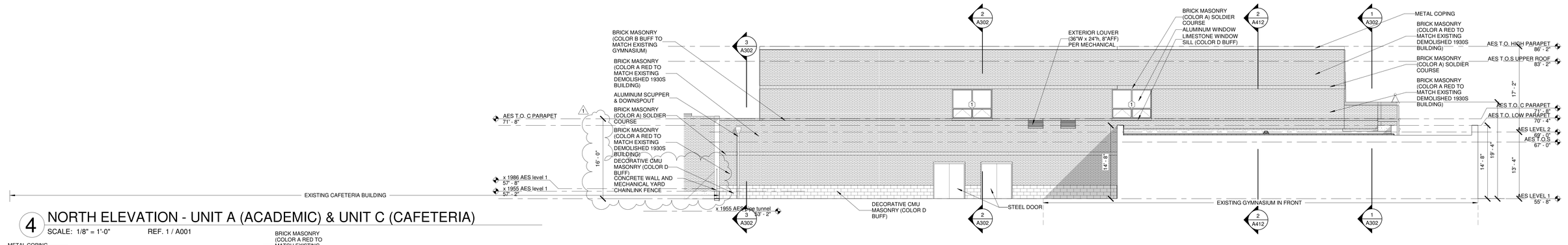
1	03/02/21	ADDENDUM #1

FIRST FLOOR PLAN - UNIT C

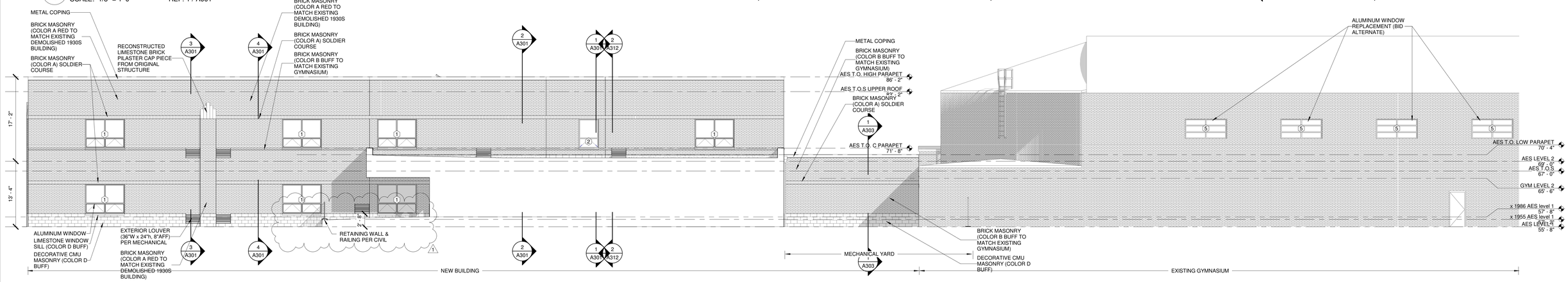
A101C

PLOT DATE/TIME: 3/3/2021 3:11:46 PM



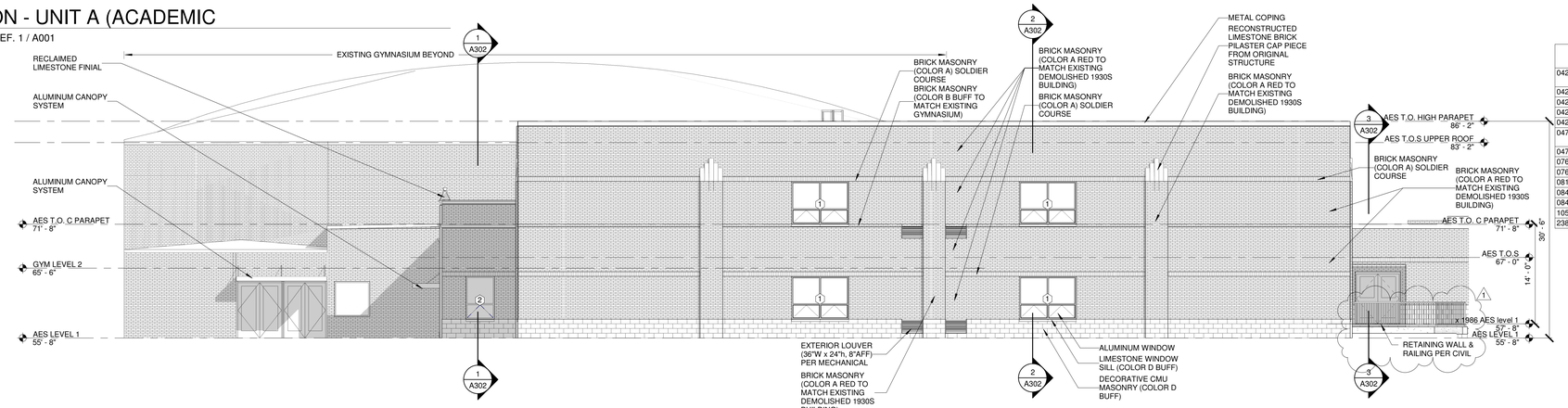
4 NORTH ELEVATION - UNIT A (ACADEMIC) & UNIT C (CAFETERIA)

SCALE: 1/8" = 1'-0" REF. 1 / A001



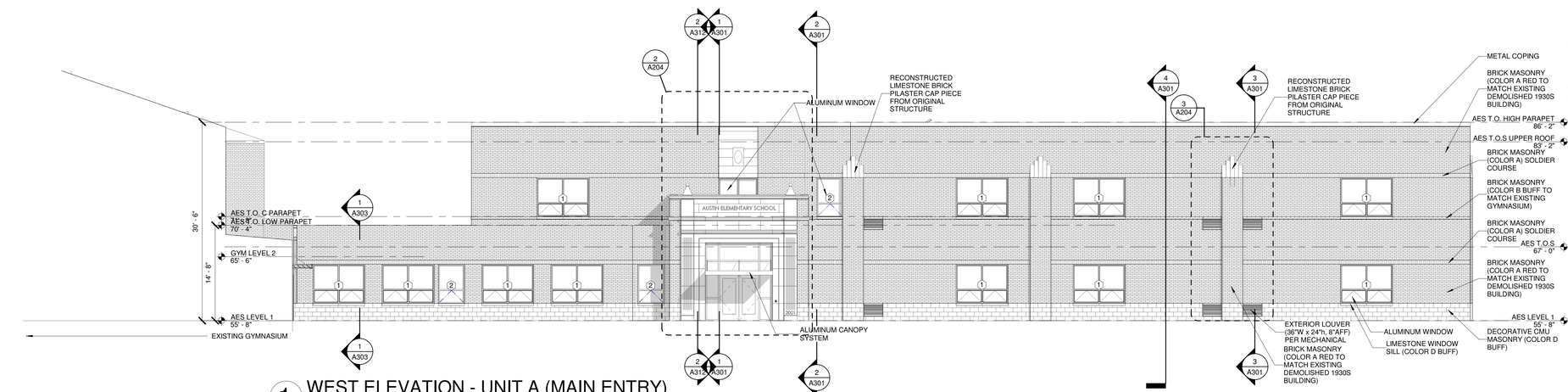
3 EAST ELEVATION - UNIT A (ACADEMIC

SCALE: 1/8" = 1'-0" REF. 1 / A001



2 SOUTH ELEVATION - UNIT A (ACADEMIC)

SCALE: 1/8" = 1'-0" REF. 1 / A001



1 WEST ELEVATION - UNIT A (MAIN ENTRY)

SCALE: 1/8" = 1'-0" REF. 1 / A001

SHEET KEYNOTES

042100.1	BRICK MASONRY (COLOR A RED TO MATCH EXISTING DEMOLISHED 1930S BUILDING)
042100.2	BRICK MASONRY (COLOR B BUFF TO MATCH EXISTING GYMNASIUM)
042100.4	DECORATIVE CMU MASONRY (COLOR D BUFF)
042100.5	LIMESTONE WINDOW SILL (COLOR D BUFF)
042100.9	BRICK MASONRY (COLOR A) SOLDIER COURSE
047200.1	RECONSTRUCTED LIMESTONE BRICK PILASTER CAP PIECE FROM ORIGINAL STRUCTURE
047200.E	RECLAIMED LIMESTONE FINIAL
076200.1	METAL COPING
076200.B	ALUMINUM SCUPPER & DOWNSPOUT
081113.1	STEEL DOOR
084113.2	ALUMINUM WINDOW
084113.3	ALUMINUM WINDOW REPLACEMENT (BID ALTERNATE)
105300.1	ALUMINUM CANOPY SYSTEM
238223.B	EXTERIOR LOUVER (36"W x 24"h, 8"AFF) PER MECHANICAL

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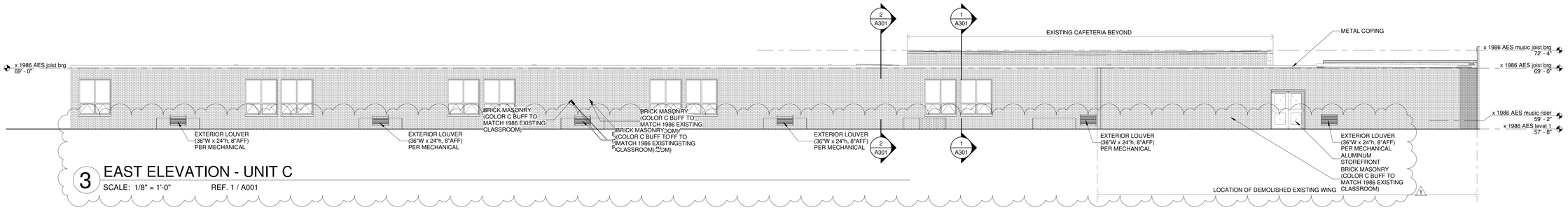
PROJECT: #19160		
DATE: 02/12/2021		Desc.
#	Date	
1	03/22/21	ADDENDUM #1

EXTERIOR ELEVATIONS - AES

A201

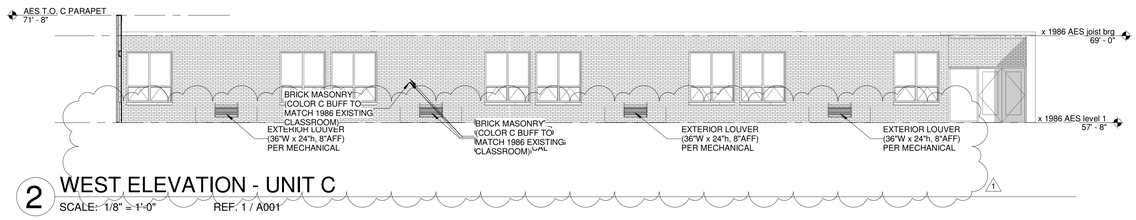
SHEET KEYNOTES

042100.2	BRICK MASONRY (COLOR B BUFF TO MATCH EXISTING GYMNASIUM)
042100.4	DECORATIVE CMU MASONRY (COLOR D BUFF)
042100.5	LIMESTONE WINDOW SILL (COLOR D BUFF)
042100.6	BRICK MASONRY (COLOR C BUFF TO MATCH 1986 EXISTING CLASSROOM)
042100.9	BRICK MASONRY (COLOR A) SOLDIER COURSE
076200.1	METAL COPING
084113.1	ALUMINUM STOREFRONT
084113.2	ALUMINUM WINDOW
238223.B	EXTERIOR LOUVER (36"W x 24"h, 8"AFF) PER MECHANICAL



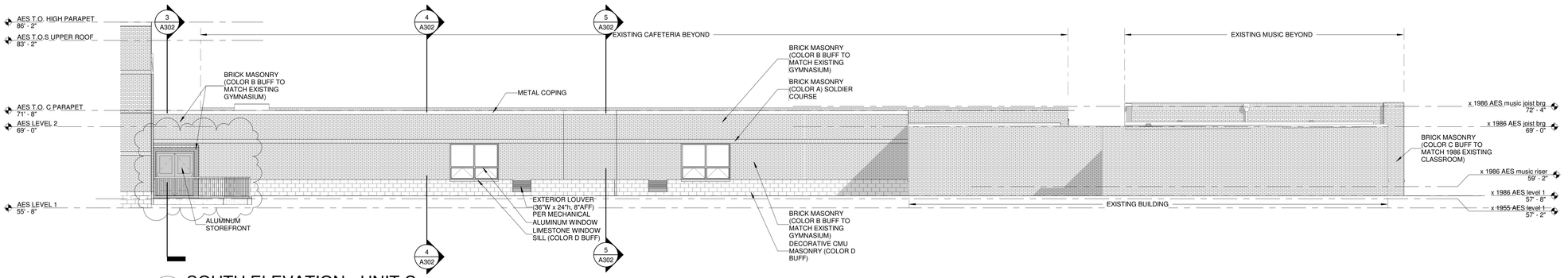
3 EAST ELEVATION - UNIT C

SCALE: 1/8" = 1'-0" REF. 1 / A001



2 WEST ELEVATION - UNIT C

SCALE: 1/8" = 1'-0" REF. 1 / A001



1 SOUTH ELEVATION - UNIT C

SCALE: 1/8" = 1'-0" REF. 1 / A001

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PROJECT: #19160		
DATE: 02/12/2021		
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1	03/02/21	ADDENDUM #1

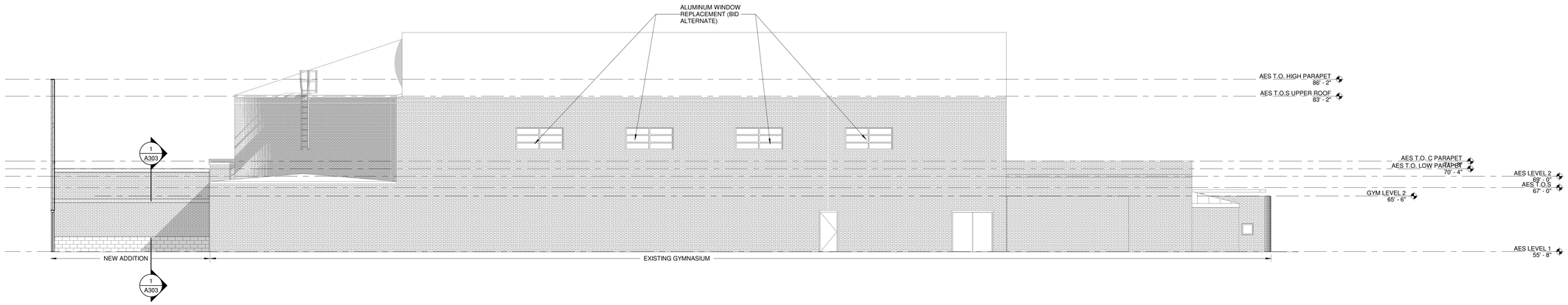
EXTERIOR ELEVATIONS - AES

A202

PLOT DATE/TIME:3/2/2021 8:12:06 PM

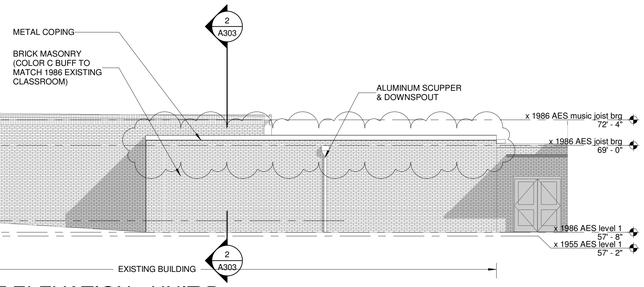
SHEET KEYNOTES

042100.6	BRICK MASONRY (COLOR C BUFF TO MATCH 1986 EXISTING CLASSROOM)
076200.1	METAL COPING
076200.B	ALUMINUM SCUPPER & DOWNSPOUT
084113.1	ALUMINUM STOREFRONT
084113.3	ALUMINUM WINDOW REPLACEMENT (BID ALTERNATE)
114000.B	POLAR KING WALK-IN COOLER/FREEZER WITH FIBERGLASS EXTERIOR FINISH
238223.B	EXTERIOR LOUVER (36"W x 24"h, 8"AFF) PER MECHANICAL



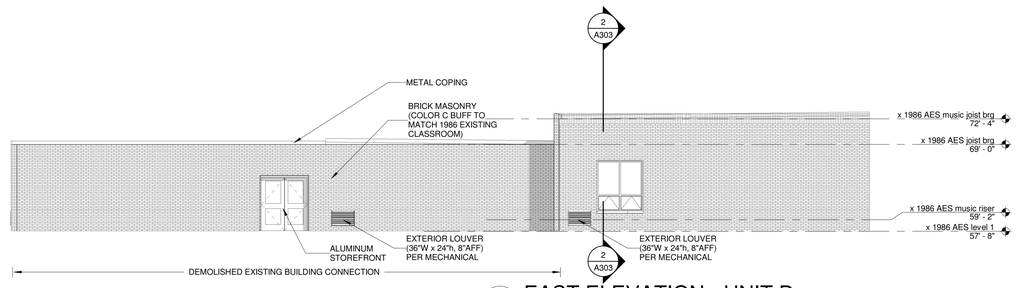
4 EAST ELEVATION - UNIT B

SCALE: 1/8" = 1'-0" REF. 1 / A001



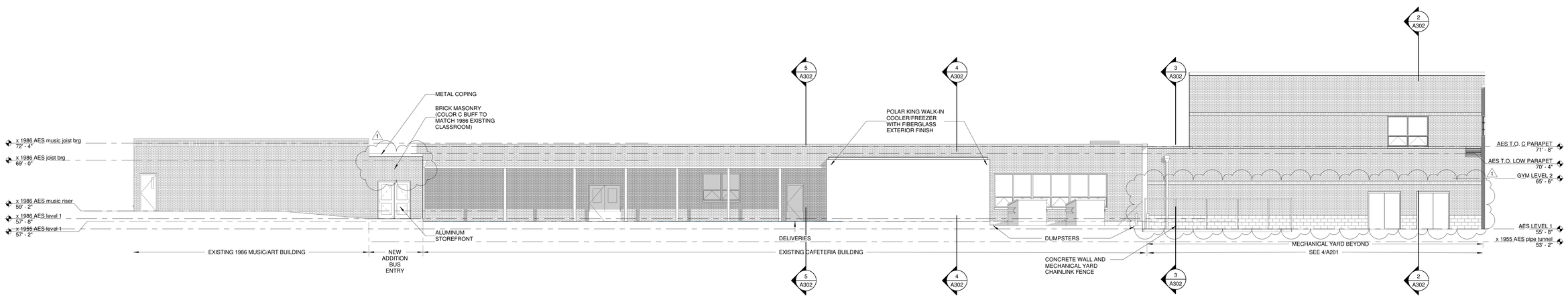
2 WEST ELEVATION - UNIT D

SCALE: 1/8" = 1'-0" REF. 1 / A001



3 EAST ELEVATION - UNIT D

SCALE: 1/8" = 1'-0" REF. 1 / A001



1 NORTH ELEVATION - UNIT D, UNIT C (CAF), UNIT A (MECH)

SCALE: 1/8" = 1'-0" REF. 1 / A001

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PROJECT: #19160		
DATE: 02/12/2021		
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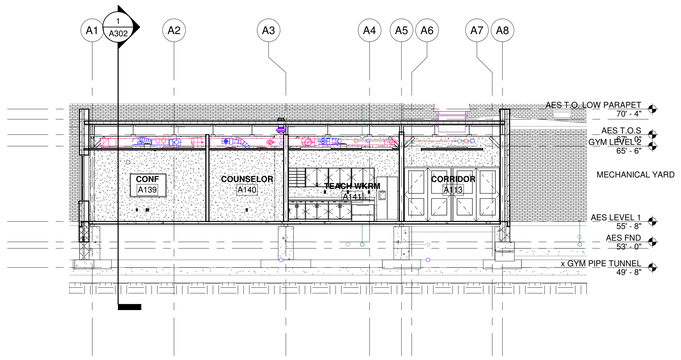
1	03/02/21	ADDENDUM #1

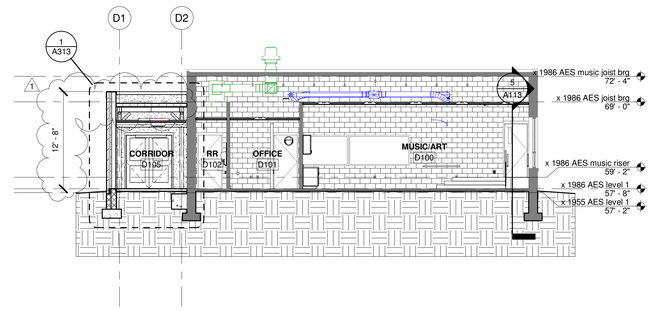
EXTERIOR ELEVATIONS - AES

A203



1 BLDG SECT @ ADMIN

SCALE: 1/8" = 1'-0"



2 BLDG SECT @ MUSIC CORRIDOR

SCALE: 1/8" = 1'-0"

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#	Date	Desc.
1	03/02/21	ADDENDUM #1

PROJECT: # 19160
DATE: 02/12/2021

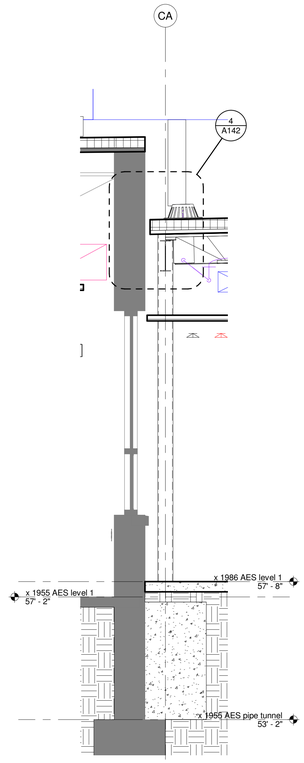
BUILDING SECTIONS - AES

A303

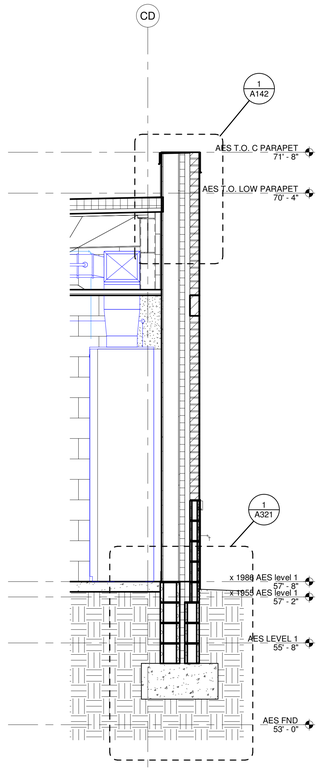
PLOT DATE/TIME: 3/2/2021 3:12:11 PM

SHEET KEYNOTES

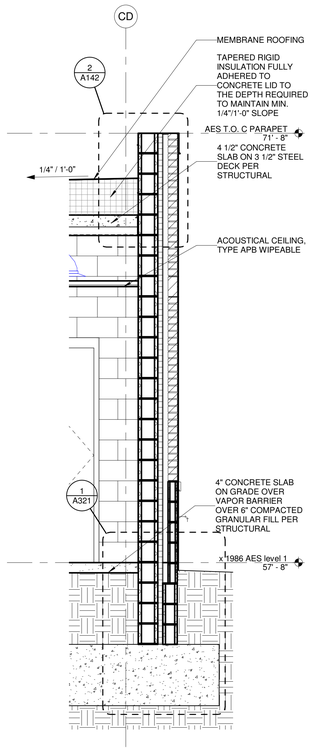
033000.B	4" CONCRETE SLAB ON GRADE OVER VAPOR BARRIER OVER 6" COMPACTED GRANULAR FILL PER STRUCTURAL
033000.H	4 1/2" CONCRETE SLAB ON 3 1/2" STEEL DECK PER STRUCTURAL
042100.6	BRICK MASONRY (COLOR C BUFF TO MATCH 1986 EXISTING CLASSROOM)
072113.D	TAPERED RIGID INSULATION FULLY ADHERED TO CONCRETE LID TO THE DEPTH REQUIRED TO MAINTAIN MIN. 1/4"/1'-0" SLOPE
075323.1	MEMBRANE ROOFING
095100.B	ACOUSTICAL CEILING, TYPE APB WIPEABLE



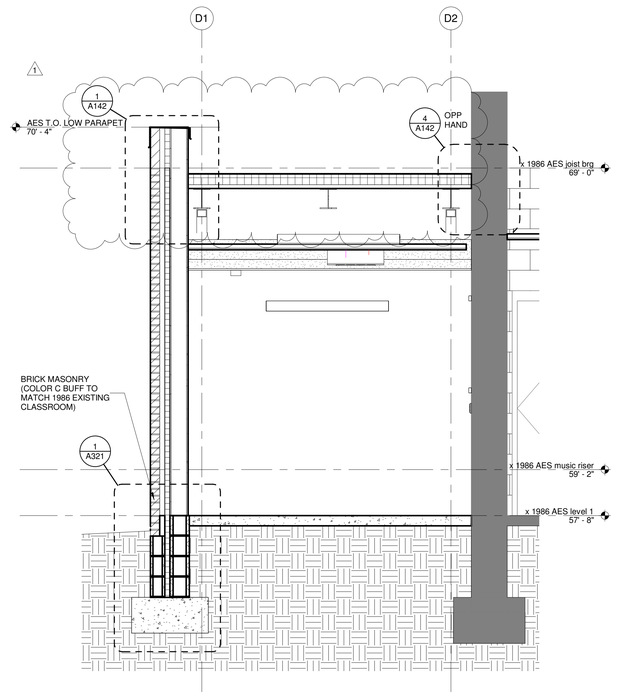
4 WALL SECT @ UNIT C CAFETERIA
SCALE: 1/2" = 1'-0"



3 WALL SECT @ UNIT C SPEC ED
SCALE: 1/2" = 1'-0"



2 WALL SECT @ UNIT C SPED RR
SCALE: 1/2" = 1'-0"



1 WALL SECT @ UNIT D CORRIDOR
SCALE: 1/2" = 1'-0"

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PROJECT: # 19160		
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1	03/02/21	ADDENDUM #1

WALL SECTIONS

A313

PLOT DATE/TIME/3/2/2021 3:12:47 PM

GENERAL NOTES

A REFER TO SHEET M-000 FOR GENERAL MECHANICAL NOTES, SYMBOLS AND ABBREVIATIONS.

B REFER TO ARCHITECT'S REFLECTED CEILING PLAN FOR FINAL LOCATIONS OF AIR OUTLETS AND INLETS. ADJUST BRANCH DUCTWORK AS REQUIRED.

C DUCT RUNOUTS TO TERMINAL UNITS SHALL BE TWO DIAMETERS LARGER THAN TERMINAL UNIT CONNECTION SIZE UNLESS NOTED OTHERWISE.

D CONTRACTOR SHALL PROVIDE ALL BALANCE DAMPERS AS REQUIRED TO PROVIDE A COMPLETE AND BALANCED SYSTEM.

SHEET KEYNOTES

1 3@/14 SUPPLY AIR DUCT UP THROUGH ROOF BETWEEN JOISTS. COORDINATE EXACT LOCATION WITH STRUCTURAL DRAWINGS. SEE SHEET MH141 FOR CONTINUATION OF DUCTWORK.

2 3@/14 RETURN AIR DUCT UP THROUGH ROOF BETWEEN JOISTS. COORDINATE EXACT LOCATION WITH STRUCTURAL DRAWINGS. SEE SHEET MH141 FOR CONTINUATION OF DUCTWORK.

3 12/12 EXHAUST AIR DUCT UP THROUGH ROOF BETWEEN JOISTS TO EXHAUST FAN. COORDINATE EXACT LOCATION WITH STRUCTURAL DRAWINGS. SEE SHEET MH141 FOR CONTINUATION OF DUCTWORK.

4 12/12 EXHAUST AIR DUCT UP THROUGH EXISTING ROOF OPENING BETWEEN JOISTS TO EXHAUST FAN. COORDINATE EXACT LOCATION WITH STRUCTURAL DRAWINGS. SEE SHEET MH141 FOR CONTINUATION OF DUCTWORK.

5 8/8 DIAMETER EXHAUST AIR DUCT UP THROUGH ROOF BETWEEN JOISTS TO EXHAUST FAN. COORDINATE EXACT LOCATION WITH STRUCTURAL DRAWINGS. SEE SHEET MH141 FOR CONTINUATION OF DUCTWORK.

6 12/12 EXHAUST AIR DUCT UP THROUGH ROOF BETWEEN JOISTS TO EXHAUST FAN. COORDINATE EXACT LOCATION WITH STRUCTURAL DRAWINGS. SEE SHEET MH141 FOR CONTINUATION OF DUCTWORK.

7 INSTALL VERTICAL UNIT VENTILATOR WHERE INDICATED AND CONNECT TO EXTERIOR LOUVER WITH FIELD ADJUSTABLE WALL SLEEVE TO SEAL TO LOUVER BLADE.

8 10/10 EXHAUST AIR DUCT UP THROUGH ROOF BETWEEN JOISTS TO EXHAUST FAN. COORDINATE EXACT LOCATION WITH STRUCTURAL DRAWINGS. SEE SHEET MH141 FOR CONTINUATION OF DUCTWORK.

9 48/32 RELIEF AIR DUCT WITH BACKDRAFT DAMPER UP THROUGH ROOF TO GRAVITY RELIEF VENT.

11 26/14 TRANSFER AIR DUCT WITH ELBOW BETWEEN JOIST SPACE ABOVE CEILING.

12 EXISTING KITCHEN HOOD TO REMAIN.

13 EXISTING 18/18 EXHAUST AIR DUCT UP TO KITCHEN EXHAUST FAN ON ROOF TO REMAIN.

14 CONNECT NEW DIFFUSER TO EXISTING FLEX DUCT AND BALANCE TO CFM INDICATED, TYPICAL FOR ALL DIFFUSERS IN KITCHEN.

1 FIRST FLOOR MECHANICAL PLAN - UNIT C
1/8" = 1'-0"

LANGER+BEEBE
220 N. College Ave
Indianapolis, IN 46202

kbsq CONSULTING

SCOTT COUNTY SCHOOL DISTRICT 1
AUSTIN ELEMENTARY & HS POOL RENOV.
401 US-31
AUSTIN, IN 47102

KBSO #20017
OLUWASEUN ODUNSANYA
REGISTERED
No. 11300632
STATE OF INDIANA
PROFESSIONAL ENGINEER
2/11/2021

#	Date	Desc.
1	03/02/21	ADDENDUM 1

PROJECT #19160
DATE: 02/12/2021

FIRST FLOOR MECHANICAL PLAN - UNIT C

MH101C

PLOT DATE/TIME: 3/2/2021 11:42:28 AM

CUSTOM AIR HANDLING ROOF TOP UNIT SCHEDULE

UNIT ID	AIR CAPACITY			SUPPLY FAN DATA						RETURN FAN DATA						FILTER DATA				HYDRONIC PRE-HEAT COIL DATA								HYDRONIC COOLING COIL DATA											HYDRONIC RE-HEATING COIL DATA									ELECTRICAL DATA					MANUFACTURER WITH MODEL NUMBER	NOTES
	CFM	MIN CFM	MIN OA CFM	TYPE	WHEEL DIA	TSP	ESP	BHP	RPM	HP	TYPE	WHEEL DIA	ESP	TSP	BHP	RPM	HP	PRE-FILTER TYPE	PRE-FILTER MERV	FINAL FILTER TYPE	FINAL FILTER MERV	MIN MBH	EAT	LAT	EWT	LWT	GPM	MAX APD	FINS/INCH	ROWS	MAX WPD	TOTAL MBH	EAT DB	EAT WB	LAT DB	LAT WB	ROWS	FINS/INCH	MAX APD	MAX VEL	EWT	GPM	MAX WPD	HEATING MBH	EAT	LAT	ROWS	FINS/INCH	MAX APD	MAX VEL	EWT	LWT	GPM	MAX WPD	MCA	MOP	VOLTAGE	PHASE	WEIGHT		
RTU-2	4500	2250	900	PLENUM	20	5.24 in-wg	2.50 in-wg	5.4	1750	7.5	PLENUM	18	1.25 in-wg	1.85 in-wg	2.1	1750	3	2"	13	2"	13	68	51	65	150 °F	120 °F	4.84	0.09	6	1	0.2	330.4	95.0 °F	76.0 °F	54.6 °F	54.5 °F	7	10	1.10 in-wg	500 FPM	45 °F	55	7.30	---	0 °F	0 °F	0	0	0.00 in-wg	0 FPM	0 °F	0 °F	0	0.00	30.0	30 A	460	3	10,680 lb	HAAKON ROOFTOP	1, 2, 3, 4
RTU-3	5000	3750	3500	PLENUM	22	4.86 in-wg	1.50 in-wg	5.3	1750	7.5	PLENUM	18	0.50 in-wg	1.10 in-wg	1.8	1750	2	2"	13	2"	13	323.5	-5	35	150 °F	120 °F	22.08	0.24	10	2	0.2	367.1	95.0 °F	76.0 °F	54.6 °F	54.5 °F	7	10	1.10 in-wg	500 FPM	45 °F	61	9.50	162.1	55 °F	85 °F	1	14	0.16 in-wg	500 FPM	150 °F	120 °F	11	1.00	28.0	30 A	460	3	11,050 lb	HAAKON ROOFTOP	1, 2, 3, 4

NOTES:
1. PROVIDE WITH FULLY ENCLOSED PIPING VESTIBULE WITH 2 KW HEATER, 460/3, 4 MCA,15 MOP.
2. PROVIDE WITH 18" ROOF CURB.
3. VFD'S SHALL BE OUTDOOR RATED NEMA TYPE 3R WITH BYPASS, PROVIDED AND MOUNTED BY UNIT MANUFACTURER.
4. SINGLE POINT POWER CONNECTION FOR VFD'S.

WATER SOURCE HEAT PUMP SCHEDULE

SPECIFICATION SECTION 238146

UNIT ID	CONFIGURATION	BLOWER DATA (2 FANS)				COOLING DATA						HEATING DATA				HYDRONIC DATA (2 CIRCUITS)		ELECTRICAL DATA			WEIGHT	MANUFACTURER WITH MODEL NUMBER	NOTES
		SUPPLY CFM	OUTSIDE AIR CFM	ESP	HP	TOTAL MBH	SENS MBH	HEAT REJECT	EAT DB	EAT WB	MAX EWT	MIN EER	MIN MBH	EAT	MIN EWT	MIN COP	GPM	MAX WPD	AMPS	VOLTAGE	PHASE			
RTU-1	ROOF TOP	11500 CFM	7105	2.0	7.5	639.6	397.8	279	87.4 °F	71.3 °F	90 °F	10.9	827.4	21 °F	70 °F	5.6	75 GPM	13.90 psi	118.7	460	3	6736.00 lb	VALENT VPR-352-50H-WSHP-C-5DX	1

NOTES:
1. OA DESIGN CONDITIONS - SUMMER DB/WB = 95/76, WINTER DB = -10. RA DESIGN CONDITIONS - SUMMER DB/RH = 75/50, WINTER DB/RH = 72/35.

CHILLER BRAZED PLATE HEAT EXCHANGER SCHEDULE

SPECIFICATION SECTION 234627

UNIT ID	LOCATION		WEIGHT (LBS)	MANUFACTURER WITH MODEL NUMBER	NOTES
	NAME	NUMBER			
HX-1	MECH	A125	605	QUANTECH ACH-1000DQ-170AH-F	

AIR-COOLED CHILLER SCHEDULE

SPECIFICATION SECTION 234627

UNIT ID	CAPACITY DATA									COMPRESSOR DATA		CONDENSER DATA		ELECTRICAL DATA				UNIT WEIGHT (LBS)	MANUFACTURER WITH MODEL NUMBER	NOTES
	NOM. TONS	MIN EER	DESIGN AMB TEMP	EWT	LWT	GPM	MAX WATER PRESSURE DROP	STAGES	FLUID	QTY	TONS EACH	QUANITY FANS	FLA (EACH)	DESIGN KW	MCA	VOLTS	PH			
ACC-1	220	10.21	95	54 °F	44 °F	529 GPM	18.20 ftH2O	6	WATER	2	110	12	4	260.6	504	460	3	9980.00 lb	QUANTECH QTC3225THE46XCBSXXX	1, 2

NOTES:
1. CHILLER TO HAVE LOW AMBIENT CONTROLS.
2. CHILLER TO HAVE HOT GAS BYPASS.

Sound Power Levels (In Accordance with AHRI 370)										
Stage	Ambient (°F)	63 Hz (dB)	125 Hz (dB)	250 Hz (dB)	500 Hz (dB)	1 kHz (dB)	2 kHz (dB)	4 kHz (dB)	8 kHz (dB)	LWA
1	95.0	102	101	99	99	96	93	87	82	101
2	88.0	100	100	98	98	95	92	86	81	100
3	80.3	98	98	96	96	93	91	84	79	98
4	70.7	96	96	94	94	92	89	83	76	97
5	60.3	93	93	92	92	90	87	80	72	94
6	55.0	90	90	89	89	87	84	77	69	91

Note: Unit is equipped with Low Sound Fans with VSD Control.

HYDRONIC UNIT HEATER SCHEDULE

SPECIFICATION SECTION 238200

UNIT ID	LOCATION		TYPE	FAN DATA	HYDRONIC HEATING COIL SELECTION DATA				ELECTRICAL DATA			ACCESSORIES		MANUFACTURER WITH MODEL NUMBER	NOTES
	NAME	NUMBER		CFM	MIN MBH	EWT	GPM	MAX WPD	HP	VOLTS	PH	DISCONNECT SWITCH	WALL BRACKET		
CUH-1A1			HORIZONTAL RECESSED	350 CFM	17.32	150 °F	1.16 GPM	3.41 ftH2O	0.038	115 V	1	YES	NO	TRANE FFEB040	2
CUH-1C1	CORRIDOR	C123	HORIZONTAL RECESSED	350 CFM	17.32	150 °F	1.16 GPM	3.41 ftH2O	0.038	115 V	1	YES	NO	TRANE FFEB040	2
CUH-1D1			HORIZONTAL RECESSED	350 CFM	17.32	150 °F	1.16 GPM	3.41 ftH2O	0.038	115 V	1	YES	NO	TRANE FFEB040	2
CUH-1D2			HORIZONTAL RECESSED	350 CFM	17.32	150 °F	1.16 GPM	3.41 ftH2O	0.038	115 V	1	YES	NO	TRANE FFEB040	2
CUH-1D3			HORIZONTAL RECESSED	350 CFM	17.32	150 °F	1.16 GPM	3.41 ftH2O	0.038	115 V	1	YES	NO	TRANE FFEB040	2
UH-1	MECH	A125	HORIZONTAL	480 CFM	20.1	150 °F	2.06 GPM	0.05 ftH2O	0.050	115 V	1	YES	NO	TRANE UHS-036	1
UH-2	MECH	A125	HORIZONTAL	480 CFM	20.1	150 °F	2.06 GPM	0.05 ftH2O	0.050	115 V	1	YES	NO	TRANE UHS-036	1
UH-3	MECH	A125	HORIZONTAL	480 CFM	20.1	150 °F	2.06 GPM	0.05 ftH2O	0.050	115 V	1	YES	NO	TRANE UHS-036	1

NOTES:
1. DOUBLE DEFLECTION LOUVERS.
2. PROVIDE WITH BOTTOM STAMPED LOUVER INELT AND BOTTOM STAMPED LOUVER OUTLET. 1" THROWAWAY FILTER.

GAS FIRED BOILER SCHEDULE

SPECIFICATION SECTION 235233

UNIT ID	LOCATION		FUEL TYPE	HEATING CAPACITY			STORAGE CAPACITY (GAL)	BURNER DATA			UNIT WEIGHT (LBS)	MANUFACTURER WITH MODEL NUMBER	NOTES
	NAME	NUMBER		INPUT CAPACITY (MBH)	MINIMUM EFFICIENCY	DELIVERY		FLA	VOLTS	PH			
						GPM	RISE						
B-1	MECH	A125	NAT. GAS	1500	87	250 GPM	30 °F	44.0 gal	16	120	1	1406.00 lb	AERCO BENCHMARK 1500	
B-2	MECH	A125	NAT. GAS	1500	87	250 GPM	30 °F	44.0 gal	16	120	1	1406.00 lb	AERCO BENCHMARK 1500	

ELECTRIC UNIT HEATER SCHEDULE

UNIT ID	LOCATION		CONFIGURATION	CFM	HEATING DATA		ELECTRICAL DATA			ACCESSORIES			MANUFACTURER WITH MODEL NUMBER	NOTES
	NAME	NUMBER			MIN. KW	MBH	AMPS	VOLTAGE	PHASE	DISCONNECT SWITCH	INTEGRAL THERMOSTAT	WALL BRACKET		
WUH-1A1			WALL SURFACE/RECESSED	100	1.5	5.118	12.5	120	1	YES	YES	NO	QMARK AWH3150F	1
WUH-1A2			WALL SURFACE/RECESSED	100	1.5	5.118	12.5	120	1	YES	YES	NO	QMARK AWH3150F	1
WUH-2A1			WALL SURFACE/RECESSED	100	1.5	5.118	12.5	120	1	YES	YES	NO	QMARK AWH3150F	1

NOTES:
1. MOUNT PER MANUFACTURERS RECOMMENDATIONS AND PROVIDE ALL REQUIRED MOUNTING KITS AND ACCESSORIES.

EXPANSION TANK SCHEDULE

SPECIFICATION SECTION 232114

UNIT ID	LOCATION		SYSTEM	CONFIGURATION	ESTIMATED SYSTEM VOLUME	TANK VOLUME	PRECHARGE PRESSURE (PSIG)	MAXIMUM PRESSURE	CONNECTIONS		MANUFACTURER WITH MODEL NUMBER	NOTES
	NAME	NUMBER							SYSTEM	DRAIN		
ET-1	MECH	A125	CHILLED WATER	FLOOR MOUNTED BLADDER	530.00	79.00 gal	40.00	125.00 psi	1 1/2"	3/4"	GRUNDFOS GNLA - 300	
ET-2	MECH	A125	HEATING WATER	FLOOR MOUNTED BLADDER	500.00	79.00 gal	40.00	125.00 psi	1 1/2"	3/4"	GRUNDFOS GNLA - 300	

DUCTLESS SPLIT AIR CONDITIONER SCHEDULE

SPECIFICATION SECTION 238124

UNIT ID	LOCATION		CFM		COOLING MBH	MIN SEER	HEATING MBH	MIN HSPF	ELECTRICAL DATA			MANUFACTURER	INDOOR MODEL NUMBER	OUTDOOR MODEL NUMBER	NOTES
	NAME	NUMBER	HIGH	LOW					AMPS	VOLTS	PH				
DSI-1A1	ELEV MACH	A122	450	315	13.7	22.7	22.1	11.4	15	208	1	LG	LS120HSV5	LSU120HSV5	1, 2, 3
DSI-1C1			450	315	13.7	22.7	22.1	11.4	15	208	1	LG	LS120HSV5	LSU120HSV5	1, 2, 3
DSI-2A1	IDF	A222	450	315	13.7	22.7	22.1	11.4	15	208	1	LG	LS120HSV5	LSU120HSV5	1, 2, 3

NOTES:
1. PROVIDE WITH LOW AMBIENT WIND BAFFLE KIT.
2. PROVIDE WITH WIRED THERMOSTAT.
3. PROVIDE WITH CONDENSATE PUMP.

AIR SEPARATOR SCHEDULE

SPECIFICATION SECTION 232114

UNIT ID	LOCATION		SYSTEM	SIZE	DESIGN FLOW (GPM)	INTEGRAL STRAINER	MANUFACTURER WITH MODEL NUMBER	NOTES
	NAME	NUMBER						
AS-1	MECH	A125	CHILLED WATER	6"	530 GPM	YES	GRUNDFOS	
AS-2	MECH	A125	HEATING WATER	6"	500 GPM	YES	GRUNDFOS	

ELECTRIC AIR CURTAIN SCHEDULE

SPECIFICATION SECTION 233433

UNIT ID	LOCATION		CFM	OUTLET VELOCITY	ELECTRICAL DATA			MANUFACTURER WITH MODEL NUMBER	NOTES
	NAME	NUMBER			KW	VOLTS	PH		
AC-1C1	CAFETERIA	C131	1687 CFM	1930 FPM	0.73	120	1	BERNER CHD10-1036E	

FAN SCHEDULE

SPECIFICATION SECTION 233423

UNIT ID	DESCRIPTION	FAN DATA							MOTOR DATA			ACCESSORIES					UNIT WEIGHT (LBS)	MANUFACTURER WITH MODEL NUMBER	NOTES
		WHEEL SIZE	DRIVE TYPE	CFM	TSP	BHP	RPM	SONES	HP	VOLTS	PH	ROOF CURB	DISCONNECT SWITCH	GRAVITY BACKDRAFT DAMPER	VIBRATION ISOLATORS	BIRD SCREEN			
EF-1A1	Direct Drive Mixed Flow Inline Fan	12	DIRECT	1550	1	0.37	1725	13.3	1/2	115	1	YES	YES	YES	NO	YES	82.00	GREENHECK EQD-12-VG	
EF-R1	Direct Drive Centrifugal Roof Exhaust Fan	12.3	DIRECT	1100	0.75	0.23	1725	10.8	1/2	115	1	YES	YES	YES	NO	YES	46.00	GREENHECK G-123-VG	
EF-R2	Direct Drive Centrifugal Roof Exhaust Fan	9.9	DIRECT	725	0.75	0.18	1725	9.9	1/4	115	1	YES	YES	YES	NO	YES	38.00	GREENHECK G-099-VG	
EF-R3	Direct Drive Centrifugal Roof Exhaust Fan	8	DIRECT	250	0.5	0.06	1725	7.7	1/10	115	1	YES	YES	YES	NO	YES	26.00	GREENHECK G-080-VG	
EF-R4	Direct Drive Centrifugal Roof Exhaust Fan	9	DIRECT	465	0.5	0.07	1725	7.4	1/10	115	1	YES	YES	YES	NO	YES	27.00	GREENHECK G-090-VG	
EF-R5	Direct Drive Centrifugal Roof Exhaust Fan	13.3	DIRECT	2150	0.5	0.51	1725	15.7	3/4	115	1	YES	YES	YES	NO	YES	50.00	GREENHECK G-133-VG	
EF-R6	Direct Drive Centrifugal Roof Exhaust Fan	9.8	DIRECT	350	0.75	0.1	1725	7.8	1/4	115	1	YES	YES	YES	NO	YES	38.00	GREENHECK G-098-VG	
EF-R7	Direct Drive Centrifugal Roof Exhaust Fan	9.8	DIRECT	750	0.5	0.18	1725	11.8	1/4	115	1	YES	YES	YES	NO	YES	38.00	GREENHECK G-098-VG	
EF-R8	Direct Drive Upblast Centrifugal Roof Exhaust Fan	12.1	DIRECT	1700	0.5	0.37	1725	16.3	1/2	115	1	YES	YES	YES	NO	YES	53.00	GREENHECK CUE-121-VG	

INTAKE/RELIEF HOOD SCHEDULE

SPECIFICATION SECTION 233723

UNIT ID	CFM	HOOD SIZE			THROAT SIZE		CURB CAP		CURB HEIGHT	INTAKE VELOCITY	PRESS DROP (IN WC)	BACKDRAFT DAMPER	MANUFACTURER WITH MODEL NUMBER	NOTES
		L	W	H	L	W	L	W						
GVI-1	900	3' - 0"	2' - 2"	1' - 4"	16"	16"	22"	22"	18"	500	0.044	YES	GREENHECK - FGI	
GVR-1	10,050	7' - 0"	4' - 6"	2' - 1"	60"	48"	66"	54"	18"	500	0.061	YES	GREENHECK - FGR	
GVR-2	8,510	7' - 0"	4' - 10"	1' - 11"	58"	42"	48"	64"	18"	500	0.043	YES	GREENHECK - FGR	
GVR-3	5,185	5' - 0"	4' - 3"	1' - 7"	48"	32"	54"	38"	18"	500	0.04	YES	GREENHECK - FGR	
GVR-4	5,185	5' - 0"	4' - 3"	1' - 7"	48"	32"	54"	38"	18"	500	0.04	YES	GREENHECK - FGR	

DIFFUSERS & GRILLES SCHEDULE

SPECIFICATION SECTION 233713

UNIT ID	MAX CFM	DIMENSIONAL DATA			THROW DATA		MOUNT	MAX NC SOUND LEVEL	ACCESSORIES			MANUFACTURER WITH MODEL NUMBER	NOTES
		FACE SIZE	SLOT INFO	CONN. SIZE	DIRECTION	DISTANCE @ NOM. CFM			BALANCE DAMPER	PLENUM BOX	TAMPER-PROOF SCREWS		
EG1	125	12"x12"	-	10"x10"	-	-	SURFACE	25	NO	YES	NO	PRICE 80	1, 2
EG2	590	24"x24"	-	22"x22"	-	-	SURFACE	25	NO	YES	NO	PRICE 80	1, 2
RG1	455	12"x12"	-	11.75"x11.75"	45 DEG.	-	SIDEWALL	25	NO	NO	NO	PRICE 535FL	4
RG2	955	24"x12"	-	22"x10"			LAY-IN	25	NO	YES	NO	PRICE 80	1, 2
RG3	2005	24"x24"	-	22"x22"	-	-	LAY-IN	25	NO	YES	NO	PRICE 80	1, 2
SD1	200	24"x24"	-	22"x22"	4-WAY	3-4-7	LAY-IN	25	NO	NO	NO	PRICE SPD	3
SD2	330	24"x24"	-	22"x22"	4-WAY	5-7-10	LAY-IN	25	NO	NO	NO	PRICE SPD	3
SD3	490	24"x24"	-	22"x22"	4-WAY	6-8-12	LAY-IN	25	NO	NO	NO	PRICE SPD	3
SG1	630	12"x12"	-	11.75"x11.75"	22.5 DEG.	12-16-23	SIDEWALL	25	NO	NO	NO	PRICE 520FL	4

NOTES:
1. FURNISH WITH LAY-IN STYLE PLASTER FRAMES FOR DRYWALL CEILING INSTALLATION. REFER TO ARCHITECTS CEILING PLAN FOR DRYWALL CEILING LOCATIONS.
2. FURNISH WITH 1/2"x1/2"x1/2" CORE.
3. FURNISH WITH 4-WAY THROW FLAT FACE PANEL.
4. FURNISH WITH DOUBLE DEFLECTION 3/4" SPACED BLADES PARALLEL TO THE LONG DIMENSION.

PUMP SCHEDULE

SPECIFICATION SECTION 232123

UNIT ID	LOCATION		SYSTEM	TYPE	DESIGN CAPACITY (GPM)	DESIGN CAPACITY (FT. HD)	MIN. EFF.	PUMP		MOTOR DATA				MANUFACTURER WITH MODEL NUMBER	NOTES
	NAME	NUMBER						SUCT. (IN)	DISCH (IN)	HP	RPM	VOLTS	PH		
HWCP-1			RTU-2 PRE HEATING COIL CIRCULATION	CIRCULATOR	6 GPM	3.71	-	-	-	0.12		115	1	GRUNDFOS UPS 15-58 FC	4
HWCP-2			RTU-3 PRE HEATING COIL CIRCULATION	CIRCULATOR	12 GPM	14.00	-	-	-	0.49		115	1	GRUNDFOS UPS 26-150F	4
HWP-1	MECH	A125	HEATING WATER	END SUCTION	250 GPM	60.00	76.67	3	2.5	7.5	1775	460	3	GRUNDFOS 25957 LCS	1, 2, 3
HWP-2	MECH	A125	HEATING WATER	END SUCTION	250 GPM	60.00	76.67	3	2.5	7.5	1775	460	3	GRUNDFOS 25957 LCS	1, 2, 3
PCWP-1	MECH	A125	PRIMARY CHILLED WATER	END SUCTION	530 GPM	30.00	81.64	5	4	7.5	1775	460	3	GRUNDFOS 40707 LCS	2, 3
PCWP-2	MECH	A125	PRIMARY CHILLED WATER (STAND-BY)	END SUCTION	530 GPM	30.00	81.64	5	4	7.5	1775	460	3	GRUNDFOS 40707 LCS	2, 3
SCWP-1	MECH	A125	SECONDARY CHILLED WATER	END SUCTION	220 GPM	60.00	76.48	3	2.5	7.5	1775	460	3	GRUNDFOS 25957 LCS	1, 2, 3
SCWP-2	MECH	A125	SECONDARY CHILLED WATER	END SUCTION	220 GPM	60.00	76.48	3	2.5	7.5	1775	460	3	GRUNDFOS 25957 LCS	1, 2, 3

NOTES:
1. PARALLEL LEAD/LAG OPERATION.
2. GROUTLESS BASE.
3. LIFETIME ALIGNMENT.
4. PUMP LOCATED IN PIPING VESTIBULE OF ASSOCIATED RTU.

PLOT DATE/TIME:3/2/2021 8:42:03 AM

LANGER+BEEBE
220 N. College Ave
Indianapolis, IN 46202

KBSD CONSULTING

SCOTT COUNTY SCHOOL DISTRICT 1
AUSTIN ELEMENTARY & HS POOL RENOV.
401 US-31
AUSTIN, IN 47102

KBSD #20017
OLUWASEUN OLUKOMAIYA
REGISTERED
No. 11300632
STATE OF INDIANA
PROFESSIONAL ENGINEER
2/11/2021

#	Date	Desc.
1	03/02/21	ADDENDUM 1

PROJECT: # 19160
DATE: 02/12/2021

MECHANICAL SCHEDULES

M601

UNIT VENTILATOR SCHEDULE

SPECIFICATION SECTION 238200

UNIT ID	LOCATION		CONFIGURATION	SUPPLY FAN DATA						HYDRONIC HEATING COIL DATA						HYDRONIC COOLING COIL DATA										FILTER DATA		MANUFACTURER WITH MODEL NUMBER	NOTES
	NAME	NUMBER		CFM	MIN OA CFM	EXTERNAL STATIC PRESSURE	HORSEPOWER	FLA	ELECTRICAL DATA: VOLTAGE / PHASE / MCA	MIN. MBH	EAT	LAT	ROWS	EWT	GPM	MAX WPD	TOTAL MBH	SENS MBH	EAT: DB	EAT: WB	LAT: DB	LAT: WB	ROWS	EWT	GPM	MAX WPD	TYPE	SIZE		
VUV-1A1	1.1	A102	VERTICAL	850	430	0.5	0.50	3.4	277 / 1 / 4.24	59.5	26.29 °F	91.6 °F	2	150 °F	12.0	1.80 psi	38.2	26.2	84.94	69.71	55.0	54.9	4	45 °F	5.0	0.70 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-1A2	1.2	A103	VERTICAL	850	430	0.5	0.50	3.4	277 / 1 / 4.24	59.5	26.29 °F	91.6 °F	2	150 °F	12.0	1.80 psi	38.2	26.2	84.94	69.71	55.0	54.9	4	45 °F	5.0	0.70 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-1A3	1.3	A104	VERTICAL	895	430	0.5	0.50	3.4	277 / 1 / 4.24	60.5	28.31 °F	91.8 °F	2	150 °F	12.0	1.80 psi	39.6	27.3	84.43	69.37	55.0	54.8	4	45 °F	5.5	0.80 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-1A4	1.4	A105	VERTICAL	850	430	0.5	0.50	3.4	277 / 1 / 4.24	59.5	26.29 °F	91.6 °F	2	150 °F	12.0	1.80 psi	38.2	26.2	84.94	69.71	55.0	54.9	4	45 °F	5.0	0.70 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-1A5	2.1	A106	VERTICAL	850	430	0.5	0.50	3.4	277 / 1 / 4.24	59.5	26.29 °F	91.6 °F	2	150 °F	12.0	1.80 psi	38.2	26.2	84.94	69.71	55.0	54.9	4	45 °F	5.0	0.70 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-1A6	2.2	A107	VERTICAL	830	430	0.5	0.50	3.4	277 / 1 / 4.24	59.5	25.32 °F	91.6 °F	2	150 °F	12.0	1.80 psi	38.6	26.3	85.18	69.87	55.1	54.9	4	45 °F	5.0	0.70 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-1A7	2.3	A108	VERTICAL	825	430	0.5	0.50	3.4	277 / 1 / 4.24	59.5	25.07 °F	91.6 °F	2	150 °F	12.0	1.80 psi	38.5	26.4	85.25	69.91	55.1	55.0	4	45 °F	5.0	0.70 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-1A8	2.4	A111	VERTICAL	675	430	0.5	0.50	3.4	277 / 1 / 4.24	56.6	16.10 °F	90.9 °F	2	150 °F	12.0	1.80 psi	35.9	23.2	87.58	71.44	54.8	54.6	4	45 °F	4.0	0.50 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-1A9	RESOURCE	A114	VERTICAL	625	430	0.5	0.50	3.4	277 / 1 / 4.24	56.6	12.26 °F	90.9 °F	2	150 °F	12.0	1.80 psi	38.6	24.4	88.61	72.1	54.4	54.2	4	45 °F	4.5	0.60 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3, 4
VUV-1C1	SPECIAL ED	C164	VERTICAL	985	465	0.5	0.50	3.9	277 / 1 / 4.24	95.5	28.98 °F	116.1 °F	2	150 °F	12.0	3.30 psi	43.4	30.1	84.27	69.25	55.1	54.9	4	45 °F	6.5	1.10 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-1C2			VERTICAL	985	465	0.5	0.50	3.9	277 / 1 / 4.24	95.5	28.98 °F	116.1 °F	2	150 °F	12.0	3.30 psi	43.4	30.1	84.27	69.25	55.1	54.9	4	45 °F	6.5	1.10 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-1C3			VERTICAL	970	425	0.5	0.50	4.0	208 / 1 / 9	81.8	31.72 °F	106.2 °F	2	150 °F	5.0	0.80 psi	40.2	28.2	83.59	68.8	54.8	54.7	4	45 °F	6.0	0.90 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-1C4	PRESCHOOL	C120	VERTICAL	970	425	0.5	0.50	4.0	208 / 1 / 9	84.9	31.72 °F	109.0 °F	2	150 °F	6.0	1.10 psi	40.2	28.2	83.59	68.8	54.8	54.7	4	45 °F	6.0	0.90 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-1C5	PRESCHOOL	C119	VERTICAL	970	425	0.5	0.50	4.0	208 / 1 / 9	84.8	31.72 °F	109.0 °F	2	150 °F	6.0	1.10 psi	40.2	28.2	83.59	68.8	54.8	54.7	4	45 °F	6.0	0.90 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-1C6	FLEX CLASS/PRESCHOOL	C118	VERTICAL	1120	425	0.5	0.50	4.0	208 / 1 / 9	88.5	36.52 °F	106.9 °F	2	150 °F	6.0	1.10 psi	42.8	31.0	82.42	67.99	55.1	55.0	4	45 °F	7.0	1.20 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-1C7	KINDERGARTEN	C117	VERTICAL	985	425	0.5	0.50	4.0	208 / 1 / 9	87.2	32.26 °F	107.7 °F	2	150 °F	6.0	1.10 psi	41.8	29.5	83.46	68.7	54.9	54.8	4	45 °F	6.5	1.10 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-1C8	KINDERGARTEN	C116	VERTICAL	965	425	0.5	0.50	4.0	208 / 1 / 9	78.9	31.54 °F	107.8 °F	2	150 °F	5.0	0.80 psi	40.2	28.2	83.63	68.83	54.8	54.7	4	45 °F	6.0	0.90 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-1C9	KINDERGARTEN	C115	VERTICAL	965	425	0.5	0.50	4.0	208 / 1 / 9	85	31.54 °F	108.9 °F	2	150 °F	6.0	1.10 psi	40.2	28.2	83.63	68.83	54.8	54.7	4	45 °F	6.0	0.90 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-1C10	KINDERGARTEN	C114	VERTICAL	1445	525	0.5	0.75	5.9	208 / 1 / 7.38	102.1	37.86 °F	99.7 °F	2	150 °F	6.0	1.10 psi	56.9	41.1	82.1	67.77	54.7	54.6	4	45 °F	8.0	1.70 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-1C11	MEDIA CENTER	C112	VERTICAL	1985	550	0.44	1.00	6.9	208 / 1 / 8.63	95.1	38.17 °F	80.0 °F	2	150 °F	12.0	1.80 psi	54.6	47.5	80.4	66.57	57.5	57.5	4	45 °F	12.0	2.70 psi	2" MERV 8	20"x20"	CHANGE AIR FRESHMAN F & B - C	2, 3
VUV-1D1			VERTICAL	800	500	0.5	0.50	4.0	208 / 1 / 9	81.4	17.02 °F	106.9 °F	2	150 °F	5.0	0.80 psi	40.6	26.5	87.33	71.28	54.9	54.7	4	45 °F	5.0	0.70 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-1D2			VERTICAL	1150	550	0.5	0.50	4.0	208 / 1 / 9	93.1	28.49 °F	99.2 °F	2	150 °F	5.0	0.90 psi	50.6	35.0	84.39	69.34	54.8	54.7	4	45 °F	9.0	1.70 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-2A1	5.1	A202	VERTICAL	850	430	0.5	0.50	3.4	277 / 1 / 4.24	80.5	26.29 °F	107.2 °F	2	150 °F	5.0	0.80 psi	38.2	26.2	84.94	69.71	55.0	54.9	4	45 °F	5.0	0.70 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-2A2	4.1	A203	VERTICAL	850	430	0.5	0.50	3.4	277 / 1 / 4.24	80.5	26.29 °F	107.2 °F	2	150 °F	5.0	0.80 psi	38.2	26.2	84.94	69.71	55.0	54.9	4	45 °F	5.0	0.70 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-2A3	4.2	A204	VERTICAL	890	430	0.5	0.50	3.4	277 / 1 / 4.24	81.9	28.10 °F	106.3 °F	2	150 °F	5.0	0.80 psi	40.3	27.4	84.49	69.4	55.0	54.8	4	45 °F	5.5	0.80 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-2A4	4.3	A205	VERTICAL	830	430	0.5	0.50	3.4	277 / 1 / 4.24	81.2	25.32 °F	106.8 °F	2	150 °F	5.0	0.80 psi	38.6	26.3	85.18	69.87	55.1	54.9	4	45 °F	5.0	0.70 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-2A5	4.4	A206	VERTICAL	830	430	0.5	0.50	3.4	277 / 1 / 4.24	81.2	25.32 °F	106.8 °F	2	150 °F	5.0	0.80 psi	38.6	26.3	85.18	69.87	55.1	54.9	4	45 °F	5.0	0.70 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-2A6	3.1	A207	VERTICAL	850	430	0.5	0.50	3.4	277 / 1 / 4.24	76.5	26.29 °F	103.3 °F	2	150 °F	4.0	0.60 psi	38.2	26.2	84.94	69.71	55.0	54.9	4	45 °F	5.0	0.70 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-2A7	3.2	A208	VERTICAL	800	430	0.5	0.50	3.4	277 / 1 / 4.24	79.3	23.79 °F	108.1 °F	2	150 °F	5.0	0.80 psi	38.8	25.6	85.57	70.13	54.6	54.4	4	45 °F	5.0	0.70 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-2A8	3.3	A211	VERTICAL	860	430	0.5	0.50	3.4	277 / 1 / 4.24	80.1	26.75 °F	107.5 °F	2	150 °F	5.0	0.80 psi	38.9	26.2	84.82	69.63	55.1	54.9	4	45 °F	5.0	0.70 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-2A9	3.4	A225	VERTICAL	925	430	0.5	0.50	3.4	277 / 1 / 4.24	88.7	26.96 °F	107.0 °F	2	150 °F	6.0	1.10 psi	41.2	28.6	84.12	69.16	55.0	54.8	4	45 °F	6.0	0.90 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-2A10	5.4	A226	VERTICAL	750	430	0.5	0.50	3.4	277 / 1 / 4.24	78.1	20.99 °F	109.0 °F	2	150 °F	5.0	0.80 psi	38.5	24.9	86.29	70.6	54.1	53.9	4	45 °F	5.0	0.70 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3, 4
VUV-2A11	5.3	A227	VERTICAL	750	430	0.5	0.50	3.4	277 / 1 / 4.24	78.1	20.99 °F	109.0 °F	2	150 °F	5.0	0.80 psi	37.6	24.5	86.29	70.6	54.5	54.3	4	45 °F	4.6	0.60 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3, 4
VUV-2A12	5.2	A228	VERTICAL	890	430	0.5	0.50	3.4	277 / 1 / 4.24	81.9	28.10 °F	106.3 °F	2	150 °F	5.0	0.80 psi	40.3	27.4	84.49	69.4	55.0	54.8	4	45 °F	5.5	0.80 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3
VUV-2A13	RESOURCE	A214	VERTICAL	625	410	0.5	0.50	3.4	277 / 1 / 4.24	79.5	14.66 °F	108.4 °F	2	150 °F	5.0	0.80 psi	36.5	23.6	87.96	71.69	55.0	54.8	4	45 °F	4.0	0.50 psi	2" MERV 8	16"x20"	CHANGE AIR FRESHMAN F & B - B	1, 3

NOTES:
1. CABINET SIZE = 25" D x 39.75" W x 91" H. PROVIDE WITH WALL SLEEVE, CONTRACTOR TO VERIFY WALL DEPTH. WALL LOUVER BY OTHERS.
2. CABINET SIZE = 25" D x 46.75" W x 91" H. PROVIDE WITH WALL SLEEVE, CONTRACTOR TO VERIFY WALL DEPTH. WALL LOUVER BY OTHERS.
3. PROVIDE WITH VERTICAL UNIT VENT EXTENSION PIECE TO HIDE PIPING AND DUCTWORK BELOW CEILING. PROVIDE WITH OVERFLOW SWITCH.
4. PROVIDE WITH OPTIONAL CONDENSATE PUMP KIT.

HOT WATER REHEAT TERMINAL UNIT SCHEDULE

SPECIFICATION SECTION 233600

UNIT ID	LOCATION		AIRFLOW DATA			UNIT INLET SIZE	DESIGN INLET PRESSURE IN. WG	MAX APD IN-WG	SOUND LEVEL @ DESIGN AIRFLOW	HYDRONIC HEATING COIL DATA								MANUFACTURER WITH MODEL NUMBER	NOTES
	NAME	NUMBER	DESIGN CFM	MIN CFM	HEAT CFM					MIN. MBH	EAT	LAT	ROWS	MIN OP DP	EWT	GPM	MAX WPD		
VAV-1A1	RECEPTION	A131	400	120	200	6	1	0.23	26	8.7	55 °F	95 °F	2	0.37 in-wg	150 °F	0.5	0.04	PRICE SDV	
VAV-1A2	A PRIN	A137	225	70	115	5	1	0.09	25	5.1	55 °F	95 °F	2	0.10 in-wg	150 °F	0.5	0.01	PRICE SDV	
VAV-1A3	PRIN	A138	230	70	115	5	1	0.09	25	5.1	55 °F	95 °F	2	0.10 in-wg	150 °F	0.5	0.01	PRICE SDV	
VAV-1A4	CONF	A139	320	100	160	5	1	0.16	27	7	55 °F	95 °F	2	0.17 in-wg	150 °F	0.5	0.02	PRICE SDV	
VAV-1A5	COUNSELOR	A140	75	75	75	4	1	0.01	20	3.4	55 °F	95 °F	2	0.02 in-wg	150 °F	0.5	0.01	PRICE SDV	
VAV-1A6	TEACH WKRM	A141	325	100	165	5	1	0.16	28	7.2	55 °F	95 °F	2	0.17 in-wg	150 °F	0.5	0.03	PRICE SDV	
VAV-1A7	CORRIDOR	A136	270	85	135	5	1	0.12	28	4.4	55 °F	85 °F	2	0.13 in-wg	150 °F	0.5	0.01	PRICE SDV	
VAV-1A8	SRO	A132	100	50	50	4	1	0.02	20	1.6	55 °F	85 °F	2	0.03 in-wg	150 °F	0.5	0.00	PRICE SDV	
VAV-1A9	CORRIDOR	A113	210	65	105	5	1	0.08	24	3.5	55 °F	85 °F	2	0.09 in-wg	150 °F	0.5	0.00	PRICE SDV	
VAV-1A10	CLINIC	A144	260	80	130	5	1	0.11	27	4.3	55 °F	85 °F	2	0.12 in-wg	150 °F	0.5	0.01	PRICE SDV	
VAV-1A11	CORRIDOR	A113	270	85	135	5	1	0.12	28	4.4	55 °F	85 °F	2	0.13 in-wg	150 °F	0.5	0.01	PRICE SDV	
VAV-1A12	CORRIDOR	A113	325	100	165	5	1	0.16	28	5.5	55 °F	85 °F	2	0.17 in-wg	150 °F	0.5	0.01	PRICE SDV	
VAV-1A13	CORRIDOR	A113	760	230	380	8	1	0.49	21	12.4	55 °F	85 °F	2	0.50 in-wg	150 °F	0.6	0.07	PRICE SDV	
VAV-1C14	OT/PT/SENSORY	C126	100	50	50	4	1	0.02	20	1.6	55 °F	85 °F	2	0.03 in-wg	150 °F	0.5	0.00	PRICE SDV	
VAV-1C15	OT/PT/SENSORY	C126	370	100	160	5	1	0.15	27	5.2	55 °F	85 °F	2	0.16 in-wg	150 °F	0.5	0.01	PRICE SDV	
VAV-1C16	OFFICE	C109	400	120	200	6	1	0.22	26	6.5	55 °F	85 °F	2	0.36 in-wg	150 °F	0.5	0.01	PRICE SDV	
VAV-1C17	CORRIDOR	C123	100	50	50	4	1	0.02	20	1.6	55 °F	85 °F	2	0.03 in-wg	150 °F	0.5	0.00	PRICE SDV	
VAV-1C18	CORRIDOR	C123	150	45	75	4	1	0.04	29	3.4	55 °F	95 °F	2	0.05 in-wg	150 °F	0.5	0.01	PRICE SDV	
VAV-2A1	CORRIDOR	A213	200	60	100	5	1	0.07	23	4.4	55 °F	95 °F	2	0.08 in-wg	150 °F	0.5	0.01	PRICE SDV	
VAV-2A2	CORRIDOR	A213	350	105	175	5	1	0.18	29	7.7	55 °F	95 °F	2	0.19 in-wg	150 °F	0.5	0.03	PRICE SDV	
VAV-2A3	CORRIDOR	A213	1050	315	525	9	1	0.47	20	22.8	55 °F	95 °F	2	0.48 in-wg	150 °F	1.6	0.57	PRICE SDV	

FAN COIL UNIT SCHEDULE

SPECIFICATION SECTION 238200

UNIT ID	LOCATION	CONFIGURATION	SUPPLY FAN DATA			HYDRONIC HEATING COIL SELECTION DATA									HYDRONIC COOLING COIL SELECTION DATA											FILTER	ELECTRICAL DATA					UNIT WEIGHT (LBS)	MANUFACTURER WITH MODEL NUMBER	NOTES
			SUPPLY CFM	ESP	FLA	TOTAL MBH	EAT	LAT	ROWS	FINS/INCH	APD	EWT	LWT	GPM	MAX WPD	TOTAL MBH	SENS MBH	EAT: DB	EAT: WB	LAT: DB	LAT: WB	ROWS	FINS/INCH	APD	EWT	LWT	GPM	MAX WPD	TYPE	HP	MSCP	MCA	VOLTS	PH			
FCU-1A1-	CORRIDOR/A113	HORIZONTAL CONCEALED DUCTED	400 CFM	0.50 in-wg/100ft	1.70	14.73	70 °F	104 °F	1	10	0.04 in-wg/100ft	160 °F	140 °F	1.5 GPM	6.57 psi	10.207	8.55	75 °F	63 °F	55 °F	54 °F	4	10	0.16	45 °F	55 °F	2.1 GPM	2.88 psi	1" THROWAWAY	1/4	15.0	2.12	115	1	86	KRUEGER KHFP	

LOUVER SCHEDULE

SPECIFICATION SECTION 233300

UNIT ID	LOCATION		TYPE	WIDTH (INCHES)	HEIGHT (INCHES)	DEPTH (INCHES)	FREE AREA (SQ. FT.)	MAX AIR FLOW (CFM)	MAX AIR VELOCITY (FPM)	PLENUM BOX	MANUFACTURER WITH MODEL NUMBER	NOTES
	NAME	NUMBER										
L-1	MECH	A125	FIXED DRAINABLE BLADE	24"	18"	6"	1.24	1550	1250	No	RUSKIN ELF637DX	1
L-2	MECH	A125	FIXED DRAINABLE BLADE	30"	24"	6"	2.125	1700	800	No	RUSKIN ELF637DX	1

NOTES:
1. COLOR SELECTION BY ARCHITECT.

LANGER+ BEEBE
220 N. College Ave
Indianapolis, IN 46202
kbsd CONSULTING

SCOTT COUNTY SCHOOL DISTRICT 1
AUSTIN ELEMENTARY & HS POOL RENOV.
401 US-31
AUSTIN, IN 47102

KBSO #20017
OLUWASEUN ODUKOMAIYA
REGISTERED
No. 11300632
STATE OF INDIANA
PROFESSIONAL ENGINEER
2/11/2021

PROJECT: #19160
DATE: 02/12/2021

#	Date	Desc.
1	03/02/21	ADDENDUM 1

MECHANICAL SCHEDULES

M602

PLOT DATE/TIME:3/2/2021 9:05:15 AM

GENERAL NOTES:

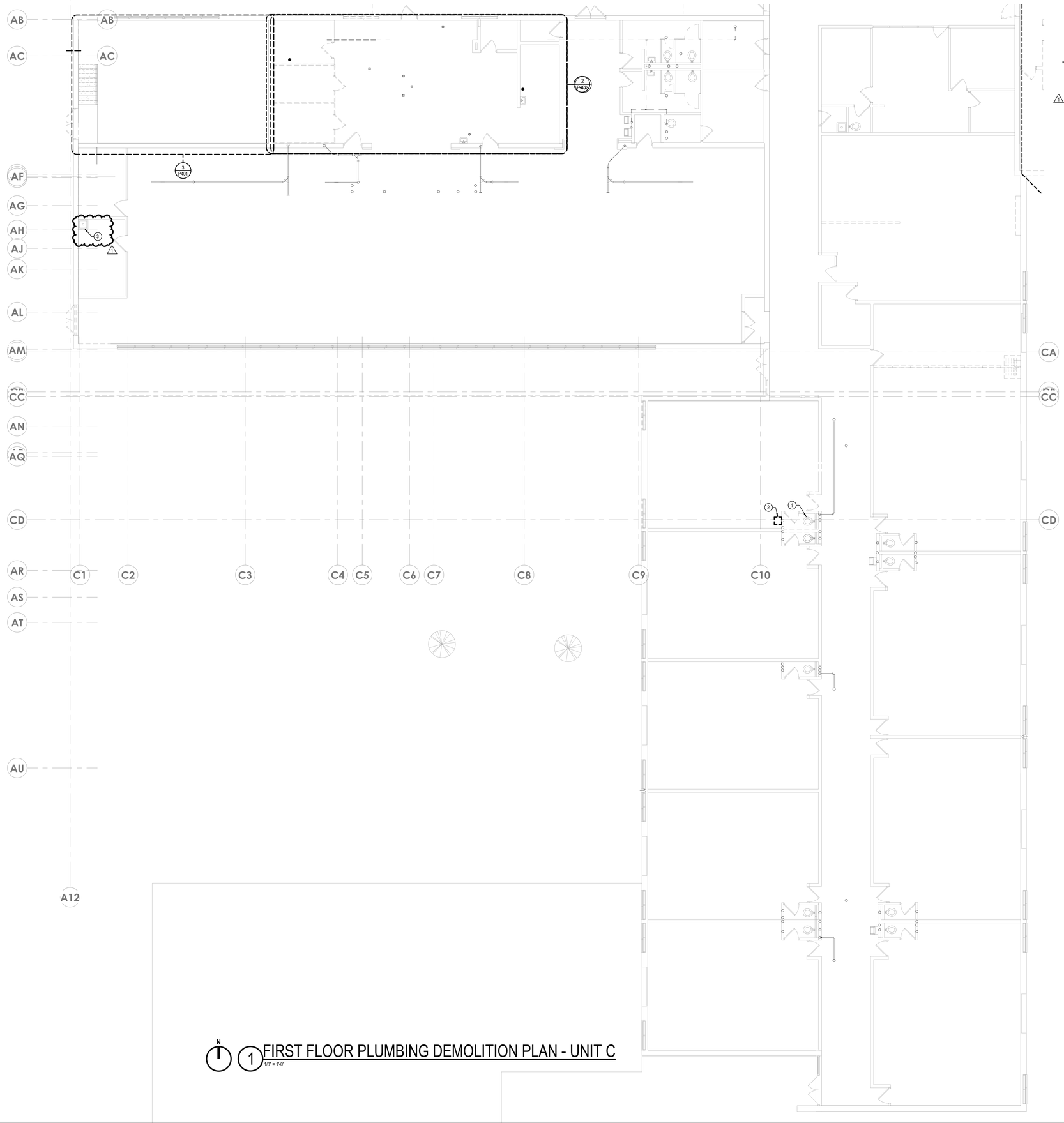
A. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS AND SPECIFICATIONS FOR INSTRUCTIONS FOR PATCHING WALLS, CEILINGS AND FLOORS.

SHEET KEYNOTES

1 REMOVE WATER CLOSET, TRIM AND CARRIER. REMOVE COLD WATER AND CAP BELOW FLOOR. REMOVE WASTE AND CAP BELOW FLOOR.

2 REMOVE LAVATORY AND TRIM. CAP WASTE AND SUPPLIES BEHIND SURFACE.

3 REMOVE LAUNDRY SINK AND TRIM.



N

1 FIRST FLOOR PLUMBING DEMOLITION PLAN - UNIT C

1/8" = 1'-0"

LANGER+ BEEBE

220 N. College Ave
Indianapolis, IN 46202

kbsq CONSULTING

SCOTT COUNTY SCHOOL DISTRICT 1
AUSTIN ELEMENTARY & HS POOL RENOVATIONS
401 US-31
AUSTIN, IN 47102

KBSQ #20017

OLUWASEUN ODUMOSU
REGISTERED
No. 11300632
STATE OF INDIANA
PROFESSIONAL ENGINEER

2/11/2021

#	Date	Desc.
1	03/02/21	ADDENDUM 1

PROJECT #19160
DATE: 02/12/2021

FIRST FLOOR PLUMBING DEMOLITION PLAN - UNIT C

PD101C

PLOT DATE/TIME:3/2/2021 9:19:31 AM

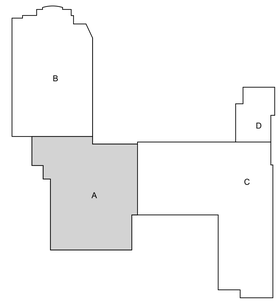
SHEET KEYNOTES

1. 4" WASTE AND 3" VENT.
2. 3" WASTE DOWN - CONNECT TO WASTE WITHIN CHASE.
3. 2" WASTE AND 2" VENT UP; 2" WASTE DOWN.
4. 4" WASTE UP AND 4" WASTE DOWN; 2" VENT UP.
5. 3/4" COLD WATER & 3/4" HOT WATER UP; 3/4" COLD WATER & 3/4" HOT WATER DOWN - TO FAUCET.
6. 2-1/2" COLD WATER UP; 2-1/2" COLD WATER DOWN - ROUTE FULL SIZE HEATER THROUGH CHASE TO FIXTURES. PROVIDE WATER HAMMER ARRESTER (WHA-D) PRIOR TO THE LAST FLUSH VALVE, ACCESSIBLE THROUGH AN ACCESS PANEL IN THE CHASE WALL.
7. 1/2" COLD WATER & 1/2" HOT WATER UP; 1/2" COLD WATER & 1/2" HOT WATER DOWN - TO FIXTURES.
8. 1-1/2" COLD WATER & 1/2" HOT WATER UP; 1-1/2" COLD WATER & 1/2" HOT WATER DOWN - TO FIXTURES. PROVIDE WATER HAMMER ARRESTER (WHA-A) ON THE BRANCH LINE TO THE WATER CLOSET ACCESSIBLE THROUGH ACCESS PANEL IN THE WALL.
9. 1/2" COLD WATER & 1/2" HOT WATER UP; 1/2" COLD WATER & 1/2" HOT WATER DOWN - TO SINK. 2" WASTE UP & 2" WASTE DOWN.
10. 2" COLD WATER & 1/2" HOT WATER DOWN - TO FIXTURES. PROVIDE WATER HAMMER ARRESTER (WHA-B) PRIOR TO THE LAST FLUSH VALVE, ACCESSIBLE THROUGH ACCESS PANEL IN THE WALL.
12. 1/2" COLD WATER UP; 1/2" COLD WATER DOWN TO WATER SUPPLY BOX.

N

1 FIRST FLOOR PLUMBING PLAN - UNIT A

1/8" = 1'-0"



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Indianapolis, IN 46202

kbsd CONSULTING

SCOTT COUNTY SCHOOL DISTRICT 1
AUSTIN ELEMENTARY & HS POOL RENOV.
401 US-31
AUSTIN, IN 47102

KBSD #20017
OLUWASEUN ODUKOMAIYA
REGISTERED
No. 11300632
STATE OF INDIANA
PROFESSIONAL ENGINEER
2/11/2021

#	Date	Desc.
1	03/02/21	ADDENDUM 1

PROJECT: #19160
DATE: 02/12/2021

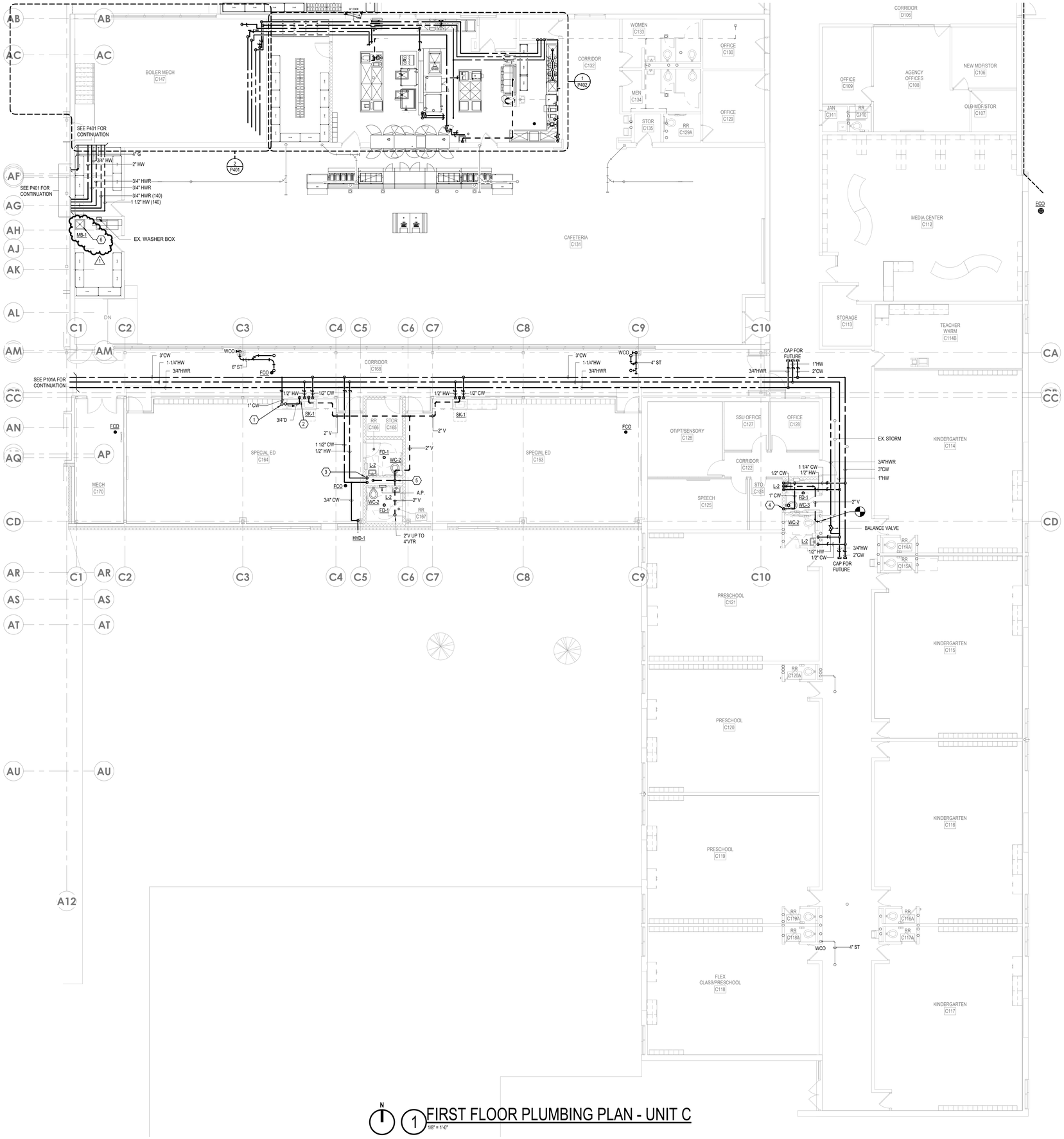
FIRST FLOOR PLUMBING PLAN - UNIT A

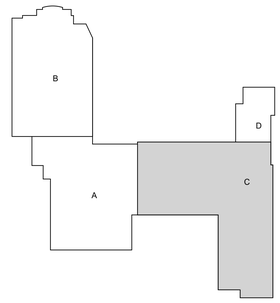
P101A

PLOT DATE/TIME: 3/1/2021 5:55:34 PM

SHEET KEYNOTES

1. 1" COLD WATER AND 3/4" DRAIN UP TO ROOF HYDRANT (HYD-2).
2. 3/4" DRAIN DOWN IN WALL TO DRAIN BOX.
3. 1-1/2" COLD WATER AND 1/2" HOT WATER DOWN TO FIXTURES. PROVIDE WATER HAMMER ARRESTER (WHA-B) PRIOR TO THE LAST FLUSH VALVE, ACCESSIBLE THROUGH AN ACCESS PANEL IN THE WALL.
4. 1" COLD WATER TO WATER CLOSET. PROVIDE WATER HAMMER ARRESTER (WHA-A) ON BRANCH LINE ABOVE CEILING.
5. SURFACE MOUNTED PIPING.
6. MODIFY ROUGH-INS TO ACCOMMODATE NEW MOP BASIN (MB-1).





N

1 FIRST FLOOR PLUMBING PLAN - UNIT C
1/8" = 1'-0"

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SCOTT COUNTY SCHOOL DISTRICT 1
AUSTIN ELEMENTARY & HS POOL RENOV.
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2/11/2021

#	Date	Desc.
1	03/12/21	ADDENDUM 1

PROJECT #19160
DATE: 02/12/2021

FIRST FLOOR PLUMBING PLAN - UNIT C

P101C

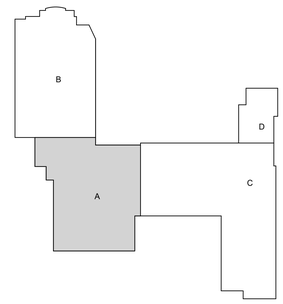
PLOT DATE/TIME: 3/2/2021 1:19:52 AM

SHEET KEYNOTES

1. 4" VENT UP THROUGH ROOF. 4" WASTE DOWN AND 3" VENT DOWN.
2. 2" VENT UP, 2" WASTE DOWN.
3. 2" VENT UP, 4" WASTE DOWN.
4. 2-1/2" COLD WATER UP TO FIXTURE. PROVIDE WATER HAMMER ARRESTER (WHA-D) PRIOR TO LAST FLUSH VALVE, ACCESSIBLE THROUGH ACCESS PANEL IN THE WALL.
5. 1/2" COLD WATER AND 1/2" HOT WATER UP TO FIXTURES.
6. 1-1/2" COLD WATER & 1/2" HOT WATER UP TO FIXTURES. PROVIDE WATER HAMMER ARRESTER (WHA-A) ON BRANCH SERVING THE WATER CLOSET, ACCESSIBLE THROUGH ACCESS PANEL IN THE WALL.
7. 3/4" COLD WATER & 3/4" HOT WATER UP TO FAUCET.
8. 1/2" COLD WATER & 1/2" HOT WATER UP TO SINK. 2" VENT UP, 2" WASTE DOWN.
9. 2" VENT UP TO 4" VTR.
10. 1" COLD WATER AND 3/4" DRAIN UP TO ROOF HYDRANT (HYD-2).
11. [illegible]
12. 1/2" COLD WATER UP TO WATER SUPPLY BOX.

N

1 SECOND FLOOR PLUMBING PLAN - UNIT A
1/8" = 1'-0"



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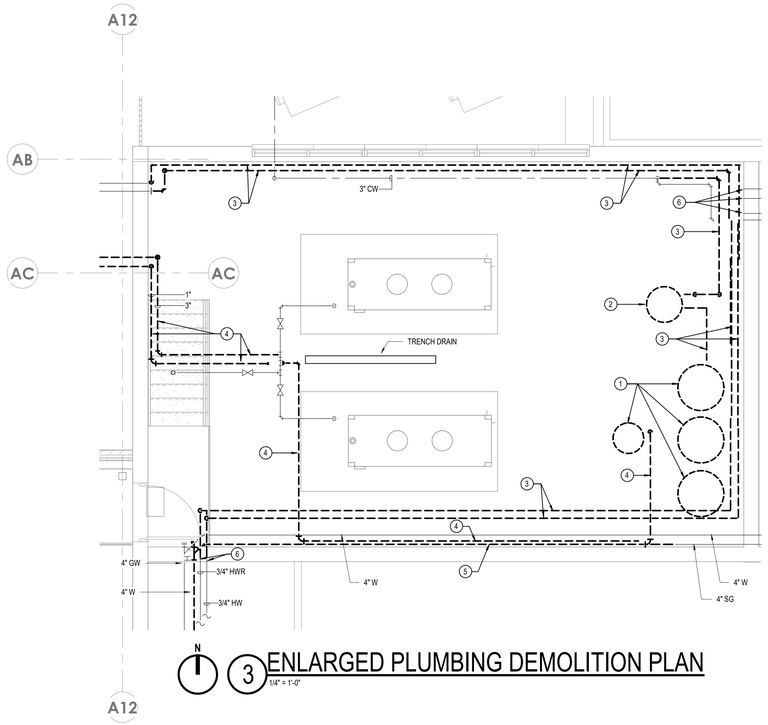
2/11/2021

PROJECT #19160		
DATE: 02/12/2021		
#	Date	Desc.
1	03/02/21	ADDENDUM 1

SECOND FLOOR PLUMBING PLAN - UNIT A

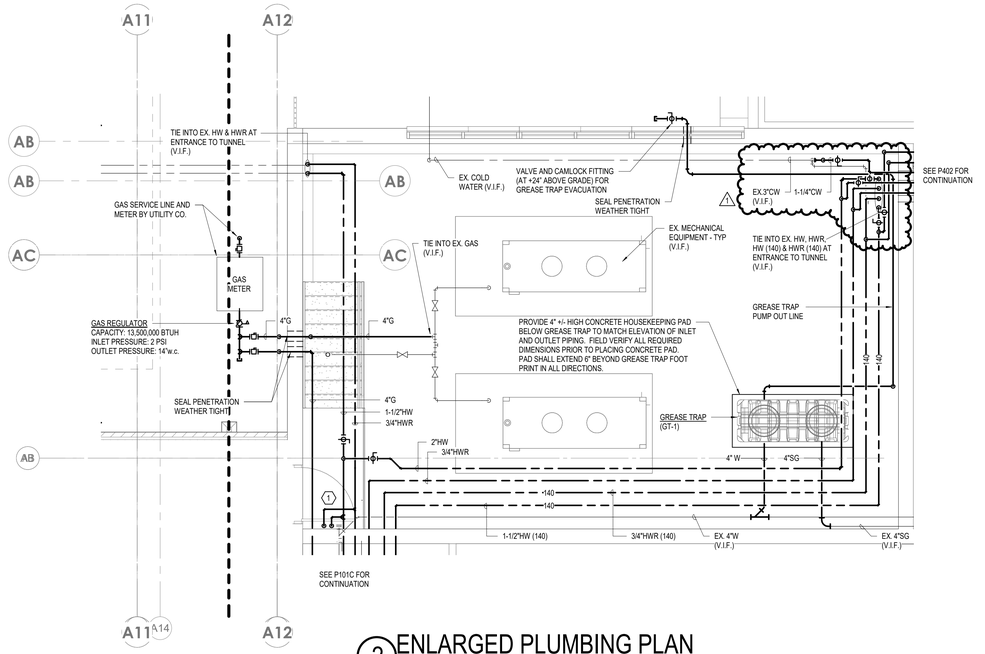
P102A

PLOT DATE/TIME/3/1/2021 1:55:29 PM



N

3 ENLARGED PLUMBING DEMOLITION PLAN
1/4" = 1'-0"



2 ENLARGED PLUMBING PLAN
1/4" = 1'-0"

GENERAL NOTES:

A. REMOVE PIPING, EQUIPMENT, ETC., SHOWN HEAVY DASHED ON THE DEMOLITION PLAN.

B. REMOVE ALL PIPING, HANGERS, VALVES, ETC. MADE OBSOLETE AS A RESULT OF THIS PROJECT.

C. PROVIDE SHUT-OFF, DIRT LEG AND UNION AT EACH NATURAL GAS CONNECTION TO GAS FIRED EQUIPMENT.

D. COORDINATE LOCATION OF NATURAL GAS CONNECTION WITH EQUIPMENT MANUFACTURER'S DATA.

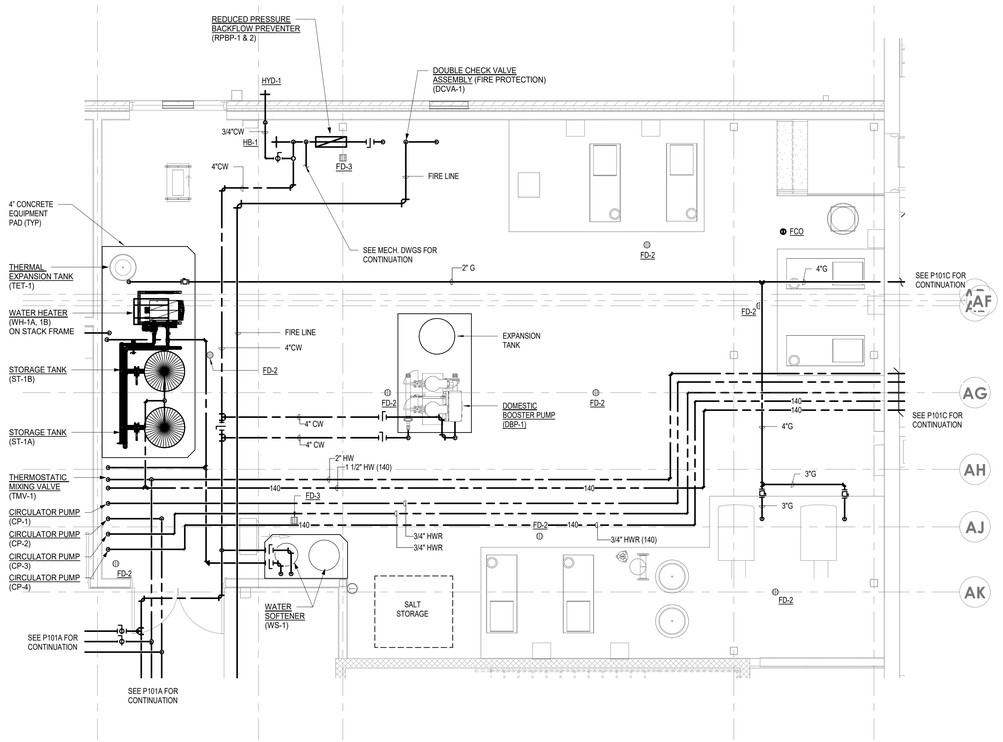
E. PRIME AND PAINT GAS PIPING OUTSIDE THE BUILIDNG TO PREVENT RUSTING. APPLY TWO COATS OF RUST-INHIBITING PRIMER AND TWO COATS OF "YELLOW" ENAMEL PAINT FORMULATED FOR EXTERIOR USE.

SHEET KEYNOTES

1 REMOVE GAS-FIRED WATER HEATER, STORAGE TANKS, EXPANSION TANK, MIXING VALVE, AND ASSOCIATED PIPING, VALVES, ETC..
2 REMOVE WATER SOFTENER AND ASSOCIATED PIPING, VALVES, ETC.
3 REMOVE DOMESTIC WATER PIPING, VALVES, HANGERS, ETC., SHOWN HEAVY DASHED.
4 REMOVE NATURAL GAS PIPING, VALVES, HANGERS, ETC., SHOWN HEAVY DASHED.
5 REMOVE SANITARY GREASE LINE, HANGERS, ETC., SHOWN HEAVY DASHED.
6 REMOVE DOMESTIC WATER PIPING UP TO A POINT WHERE PIPING ENTERS TUNNEL.

SHEET KEYNOTES

1 TIE INTO EX. HOT WATER AND HOT WATER RETURN PIPING ENTERING TUNNEL.



N

1 ENLARGED PLUMBING PLAN
1/4" = 1'-0"

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PROJECT: # 19160		
DATE: 02/12/2021		
#	Date	Desc.
1.	03/02/21	ADDENDUM 1

PLUMBING ENLARGED PLANS

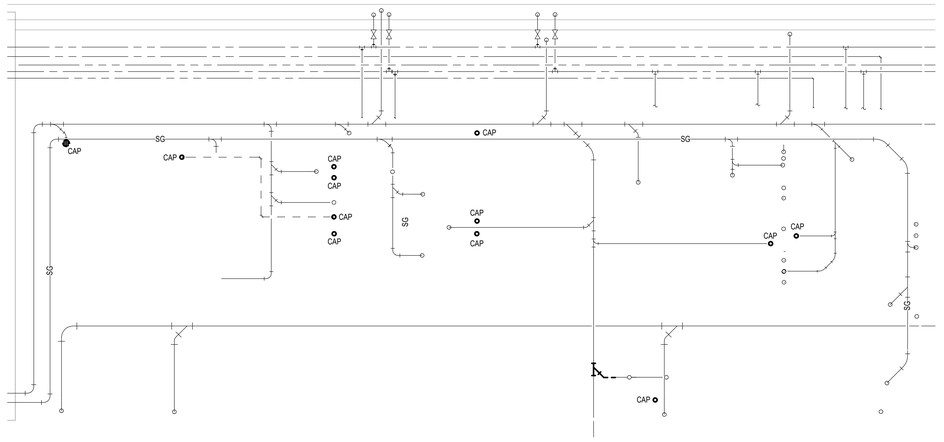
P401

PLOT DATE/TIME: 3/1/2021 1:59:40 PM

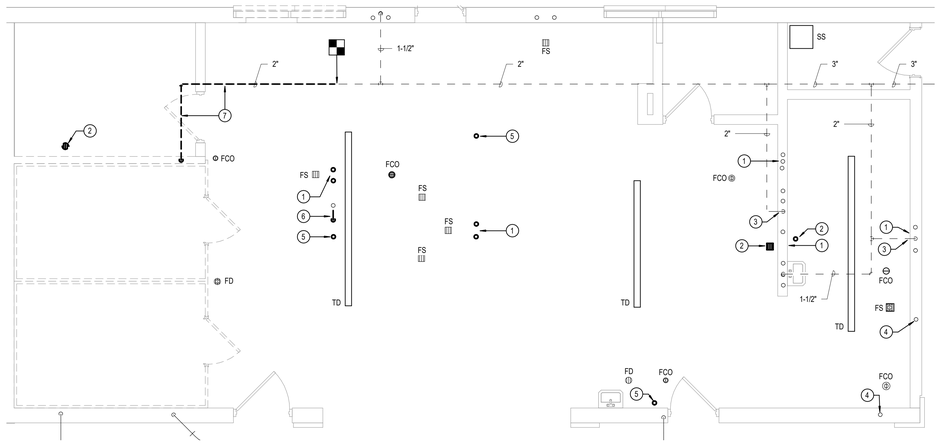
KITCHEN EQUIPMENT ROUGH-IN SCHEDULE

##	EQUIPMENT	CW	HW	140° HW	WASTE	VENT	GAS DATA		NOTES
							SIZE	LOAD (BTUH)	
17	KITCHEN PREP WORKTABLE	3/4"	1/2"	-	-	-	-	-	STUB OUT 3/4"CW AND 1/2"HW AT +14" A.F.F. WITH QUARTER-TURN BALL VALVES. PLUMB TO SPLASH MOUNTED FAUCET.
18	GARBAGE DISPOSAL SYSTEM	1/2"	-	-	2"	2"	-	-	BRANCH 1/2"CW FROM ITEM #17 AND PLUMB THRU SOLENOID VALVE (BY KEC) AND VACUUM BREAKER (BY KEC) TO DISPOSAL. CONNECT TO EX. 2" WASTE STUB UP & PLUMB 2" WASTE WITH P-TRAP TO DISPOSAL.
23	KITCHEN PREP COUNTER	3/4"	1/2"	-	EX. FLOOR SINK	-	-	-	CONNECT TO EX. CW AND EX. HW STUB OUTS WITH QUARTER-TURN BALL VALVES. PLUMB TO SPLASH MOUNTED FAUCET. PLUMB 2" COPPER INDIRECT WASTE FROM SINK AND TERMINATE AT +2" ABOVE EX. FLOOR SINK.
24	UNDERCOUNTER ICE MAKER	1/2"	-	-	EX. FLOOR SINK	-	-	-	BRANCH 1/2"CW FROM ITEM #23 AND PLUMB THRU DOUBLE CHECK VALVE (WILKINS 700XL) AND WATER FILTER (BY KEC) TO ICE MAKER. PLUMB 2" COPPER INDIRECT WASTE FROM DRAIN AND TERMINATE AT +2" ABOVE EX. FLOOR SINK.
34	COUNTERTOP HOT WATER DISPENSER	-	1/2"	-	-	-	-	-	STUB OUT 1/2"HW AT 14" A.F.F. WITH QUARTER-TURN BALL VALVE, PLUMB THRU WATER FILTER (BY KEC) TO HOT WATER DISPENSER.
44	40 GALLON TILT SKILLET	1/2"	1/2"	-	EX. FLOOR TROUGH	-	-	-	BRANCH 1/2"CW AND 1/2"HW, FROM DROPS IN UTILITY CABINET SYSTEM, AND EXTEND WITH QUARTER-TURN BALL VALVES TO FAUCET MOUNTED ON TILT SKILLET. EXTEND COPPER DRAIN LINE FROM TILT SKILLET AND TERMINATE AT +2" ABOVE EX. FLOOR TROUGH.
46	COMBI OVEN / STEAMER (FUT. STACK)	(2) 3/4"	-	-	EX. FLOOR TROUGH	-	-	-	BRANCH 3/4"CW FROM DROPS IN UTILITY CABINET SYSTEM, EXTEND 3/4"CW WITH QUARTER-TURN BALL VALVE THRU REDUCED PRESSURE BACKFLOW PREVENTER (WILKINS 375XL) BRANCH 3/4"CW TO CONDENSATE LINE FOR DRAIN WATER COOLING AND 3/4"CW THRU WATER FILTER (BY KEC) TO STEAM LINE. EXTEND 2" COPPER DRAIN LINE FROM OVEN / STEAMER AND TERMINATE AT +2" ABOVE EX. FLOOR TROUGH.
49	COMBI OVEN / STEAMER (FUT. STACK)	(2) 3/4"	-	-	EX. FLOOR TROUGH	-	-	-	BRANCH 3/4"CW FROM DROPS IN UTILITY CABINET SYSTEM, EXTEND 3/4"CW WITH QUARTER-TURN BALL VALVE THRU REDUCED PRESSURE BACKFLOW PREVENTER (WILKINS 375XL) BRANCH 3/4"CW TO CONDENSATE LINE FOR DRAIN WATER COOLING AND 3/4"CW THRU WATER FILTER (BY KEC) TO STEAM LINE. EXTEND 2" COPPER DRAIN LINE FROM OVEN / STEAMER AND TERMINATE AT +2" ABOVE EX. FLOOR TROUGH.
56	SOILED DISH TABLE	3/4"	-	1/2"	-	-	-	-	BRANCH 3/4"CW AND 1/2"HW WITH QUARTER-TURN BALL VALVES AND PLUMB TO SPLASH MOUNTED FAUCET.
57	GARBAGE DISPOSAL SYSTEM	1/2"	-	-	2"	2"	-	-	BRANCH 1/2"CW FROM ITEM #56 AND PLUMB THRU SOLENOID VALVE (BY KEC) AND VACUUM BREAKER (BY KEC) TO DISPOSAL. CONNECT TO 2" WASTE STUB UP & PLUMB 2" WASTE WITH P-TRAP TO DISPOSAL.
58	SILVERWARE SOAK SINK	-	-	-	FLOOR SINK	-	-	-	EXTEND 2" DRAIN LINE FROM SINK DRAIN AND TERMINATE AT +2" ABOVE FLOOR SINK.
59	VENTLESS DOOR-TYPE DISHMACHINE	3/4"	-	3/4"	EX. FLOOR SINK	-	-	-	BRANCH 3/4"HW (140) WITH QUARTER-TURN BALL VALVE THRU WATER FILTER (BY KEC) TO DISHMACHINE. BRANCH 3/4"CW WITH QUARTER-TURN BALL VALVE AND REDUCED PRESSURE BACKFLOW PREVENTER (WILINS 375XL) TO DRAIN WATER TEMPERING DEVICE ON DISHMACHINE. EXTEND 1-1/2" COPPER INDIRECT DRAIN AND TERMINATE AT +2" ABOVE EX. FLOOR SINK.
60	CLEAN DISHTABLE / THREE COMPARTMENT SINK	3/4"	-	3/4"	FLOOR SINK	-	-	-	BRANCH 3/4"CW AND 3/4"HW (140) WITH QUARTER-TURN BALL VALVES TO (2) SPLASH MOUNTED FAUCETS. MANIFOLD (3) DRAIN FROM WASH, RINSE AND SANITIZE SINKS AND EXTEND 2" COPPER INDIRECT WASTE AND TERMINATE AT +2" ABOVE FLOOR SINK.
65	WALL MOUNTED HAND SINK	1/2"	1/2"	-	2"	2"	-	-	STUB OUT 1/2"CW AND 1/2"HW AT +24" A.F.F., PLUMB TO FAUCET. STUB OUT 1-1/2" WASTE AT +24" A.F.F. PLUMB 1-1/2" WASTE WITH P-TRAP TO DRAIN ON SINK.

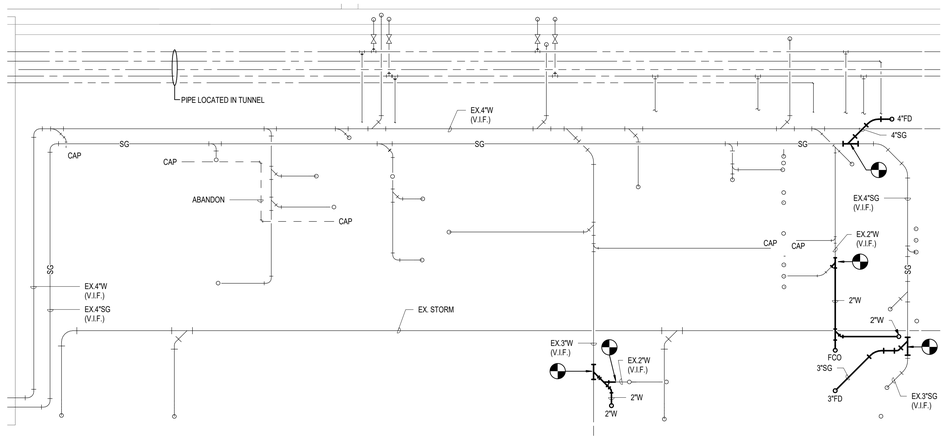
NOTES:
1. **UNLESS OTHERWISE INDICATED, KITCHEN EQUIPMENT TO BE FURNISHED BY THE KEC. PLUMBING CONTRACTOR (PC) TO BE RESPONSIBLE FOR ROUGH-INS AND FINAL CONNECTIONS.**
2. ROUGH-IN HEIGHTS AND CONNECTION SIZES INDICATED IN SCHEDULE ARE BASED ON INFORMATION AT THE TIME OF DESIGN. PC WILL COORDINATE FINAL ROUGH-IN HEIGHTS WITH KEC PRIOR TO INSTALLATION.
3. PC WILL INSTALL SERVICES TO EQUIPMENT / APPLIANCES PER THE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.
4. BACKFLOW PREVENTER FOR KITCHEN EQUIPMENT / APPLIANCES WILL BE FURNISHED AND INSTALLED BY THE PC.
5. PC WILL FURNISH AND INSTALL SHUT-OFF VALVES FOR EACH SERVICE TO EACH PIECE OF KITCHEN EQUIPMENT AND/OR APPLIANCE.
6. REFER TO FS-SERIES DRAWINGS FOR ADDITIONAL NOTES PERTAINING TO THE INSTALLATION OF PLUMBING SYSTEMS FOR THE KITCHEN.
7. PC WILL CONNECT ALL FLEXIBLE HOSE ASSEMBLIES TO FOOD SERVICE EQUIPMENT.
8. PC WILL FURNISH ALL NECESSARY FITTINGS AND REDUCERS REQUIRED TO OPERATE EQUIPMENT SERVICE.
9. ALL HOSES ARE LIMITED BY CODES IN MOST AREAS TO 6 FT MAXIMUM LENGTH. WHERE THIS IS EXCEEDED THE PC MUST EXTEND THE FEEDS TO ACCOMMODATE THIS CONDITION.



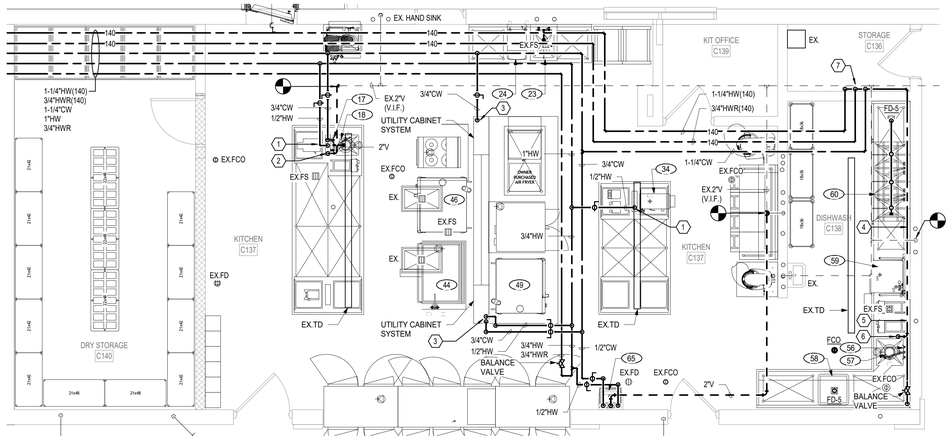
4 ENLARGED FOUNDATION PLUMBING DEMOLITION PLAN
1/4" = 1'-0"



3 ENLARGED PLUMBING DEMOLITION PLAN
1/4" = 1'-0"



2 ENLARGED FOUNDATION PLUMBING PLAN
1/4" = 1'-0"



1 ENLARGED PLUMBING PLAN
1/4" = 1'-0"

SHEET KEYNOTES

1. CAP HOT AND COLD WATER PIPING BEHIND FINISHED SURFACE.
2. REMOVE FLOOR DRAIN AND P-TRAP, CAP WASTE FINISHED SURFACE.
3. CAP WASTE PIPING BEHIND FINISHED SURFACE.
4. CAP HOT WATER PIPING BEHIND FINISHED SURFACE.
5. CAP COLD WATER PIPING BEHIND FINISHED SURFACE.
6. DISCONNECT LOOP VENT FROM WASTE PIPING. REMOVE LOOP VENT PIPING AND CAP VENT PIPING BEHIND FINISHED SURFACE. WASTE PIPING WILL BE REUSED.
7. REMOVE VENT PIPING SHOWN HEAVY DASHED. CAP VENT PIPING BEHIND FINISHED SURFACE.

SHEET KEYNOTES

1. DROP WATER LINE(S) DOWN IN UTILITY RISER (BY KEC).
2. DROP VENT LINE DOWN IN UTILITY RISER (BY KEC) TO DISPOSER.
3. DROP WATER LINE(S) DOWN IN UTILITY CABINET SYSTEM (BY KEC).
4. ROUTE WATER LINES ALONG WALL BELOW COUNTERTOP OF KITCHEN EQUIPMENT.
5. ROUTE VENT LINE ALONG WALL BELOW COUNTERTOP OF KITCHEN EQUIPMENT. TIE INTO EXISTING VENT IN WALL (V.I.F.).
6. ROUTE WASTE DOWN THRU FLOOR.
7. DROP WATER LINES ALONG WALL.

GENERAL NOTES:

A. REMOVE PIPING, EQUPMENT, ETC., SHOWN HEAVY DASHED ON THE DEMOLITION PLANS.

B. REMOVE ALL PIPING, HANGERS, VALVES, ETC. MADE OBSOLETE AS A RESULT OF THIS PROJECT.

C. PATCH HOLES IN FLOORS, WALLS, CEILINGS, ETC., WHERE PIPE IS REMOVED AND HOLE WILL NOT BE REUSED.

D. SAW CUT FLOOR TO REMOVE AND/OR CAP PIPING BELOW FLOOR. BACKFILL AND PATCH FLOOR.

E. SAW CUT FLOOR AND EXCAVATE TO INSTALL NEW PIPING BELOW FLOOR. PROVIDE APPROPRIATE PIPE BED. BACKFILL AND PATCH FLOOR.

F. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS AND SPECIFICATIONS FOR INSTRUCTIONS FOR PATCHING FLOORS, WALLS, CEILINGS, ETC.

G. SEE FOOD SERVICE (FS-SERIES) DRAWINGS FOR MORE INFORMATION RELATED TO FOOD SERVICE EQUIPMENT: DEMOLITION, EXISTING AND NEW.

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KBSO #20017

2/11/2021

#	Date	Desc.
1	03/02/21	ADDENDUM 1

PROJECT #19160
DATE: 02/12/2021

PLUMBING ENLARGED PLANS

P402

PLOT DATE/TIME:3/1/2021 5:55:47 PM

PLUMBING FIXTURE SCHEDULE

TAG	FIXTURE DESCRIPTION	FIXTURE	TRIM & ACCESSORIES
WC-1, 2	WATER CLOSET: WALL HUNG, VITREOUS CHINA, 1.28 GPF, 1,000 GRAMS MaP SCORE, ELONGATED BOWL, 1-1/2" TOP SPUD, 10" X 12" WATER SURFACE AREA, 1,000 LBS STATIC WEIGHT LOAD, CONVENTIONAL GLAZE, DIRECT-FED SIPHON JET ACTION. FLUSH VALVE: QUIET, EXPOSED, DIAPHRAGM TYPE, CHROME PLATED, HIGH CHLORAMINE RESISTANT PERMEX SYNTHETIC RUBBER DIAPHRAGM WITH DUAL FILTERED BYPASS, 1" IPS SCREWDRIVER BAK-CHECK ANGLE STOP WITH VANDAL RESISTANT STOP COVER, VACUUM BREAKER WITH FLUSH CONNECTION, 1-1/2" TOP SPUD COUPLING, HARD WIRED, INFRARED SENSOR, TRUE MECHANICAL OVERRIDE, ADA COMPLIANT. SEAT: OPEN FRONT LESS COVER, ELONGATED, HEAVY DUTY, INJECTION MOLDED SOLID PLASTIC, MOLDED IN BUMPERS, SELF-SUSTAINING CHECK HINGES, STAINLESS STEEL POSTS AND PINTLES, STA-TITE COMMERCIAL FASTENING SYSTEM. CARRIER: HEAVY DUTY, HORIZONTAL WATER CLOSET CARRIER WITH FLOOR MOUNTED FOOT SUPPORT, REAR ANCHOR, 7" ABS COUPLING, WITH O-RING SEAL, TEST CAP, THREADED ZINC PLATED SUPPORT STUDS AND HARDWARE, STUD PROTECTORS, NEOPRENE BOWL GASKET, CHROME PLATED CAP NUTS, AND ADJUSTABLE FACEPLATE.	WATER CLOSET: AMERICAN STANDARD AFWALL MILLENIUM 2257.101 NOTE: ALL WIRING, J-BOXES, ETC. FROM TRANSFORMER TO FLUSH VALVE TO BE PROVIDED BY THE PLUMBING CONTRACTOR. INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS.	FLUSH VALVE: SLOAN ROYAL 111 ESS-1.28-DFB TRANSFORMER: SLOAN EL-451 (UP TO 6 FLUSHOMETERS) SLOAN EL-386 (UP TO 1 FLUSHOMETER) SEAT: BEMIS 1955SSCT CARRIER: WADE 311
WC-3	WATER CLOSET: FLOOR MOUNTED, VITREOUS CHINA, 1.28 GPF, 1,000 GRAMS MaP SCORE, ELONGATED BOWL, 1-1/2" TOP SPUD, 10" X 12" WATER SURFACE AREA, 1,000 LBS STATIC WEIGHT LOAD, CONVENTIONAL GLAZE, DIRECT-FED SIPHON JET ACTION. FLUSH VALVE: QUIET, EXPOSED, DIAPHRAGM TYPE, CHROME PLATED, HIGH CHLORAMINE RESISTANT PERMEX SYNTHETIC RUBBER DIAPHRAGM WITH DUAL FILTERED BYPASS, 1" IPS SCREWDRIVER BAK-CHECK ANGLE STOP WITH VANDAL RESISTANT STOP COVER, VACUUM BREAKER WITH FLUSH CONNECTION, 1-1/2" TOP SPUD COUPLING, HARD WIRED, INFRARED SENSOR, TRUE MECHANICAL OVERRIDE, ADA COMPLIANT. SEAT: OPEN FRONT LESS COVER, ELONGATED, HEAVY DUTY, INJECTION MOLDED SOLID PLASTIC, MOLDED IN BUMPERS, SELF-SUSTAINING CHECK HINGES, STAINLESS STEEL POSTS AND PINTLES, STA-TITE COMMERCIAL FASTENING SYSTEM.	WATER CLOSET: AMERICAN STANDARD MADERA ADA 3043.001 NOTE: ALL WIRING, J-BOXES, ETC. FROM TRANSFORMER TO FLUSH VALVE TO BE PROVIDED BY THE PLUMBING CONTRACTOR. INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS.	FLUSH VALVE: SLOAN ROYAL 111 ESS-1.28-DFB TRANSFORMER: SLOAN EL-451 (UP TO 6 FLUSHOMETERS) SLOAN EL-386 (UP TO 1 FLUSHOMETER) SEAT: BEMIS 1955SSCT
UR-1, 2	URINAL: WALL HUNG, VITREOUS CHINA, 0.5 GPF, FLUSHING RIM, ELONGATED 14" RIM, WASHOUT FLUSHING ACTION, EXTENDED SIDES, 3/4" INLET, 2" OUTLET CONNECTION, STRAINER, ADA COMPLIANT. FLUSH VALVE: QUIET, EXPOSED, DIAPHRAGM TYPE, CHROME PLATED, HIGH CHLORAMINE RESISTANT PERMEX SYNTHETIC RUBBER DIAPHRAGM WITH DUAL FILTERED BYPASS, 3/4" IPS SCREWDRIVER BAK-CHECK ANGLE STOP WITH VANDAL RESISTANT STOP COVER, VACUUM BREAKER WITH FLUSH CONNECTION, 3/4" TOP SPUD COUPLING, HARD WIRED, INFRARED SENSOR, TRUE MECHANICAL OVERRIDE, ADA COMPLIANT. CARRIER: PLATE TYPE URINAL CARRIER WITH ROUND, STEEL UPRIGHTS, UPPER AND LOWER BEARING PLATES, RECTANGULAR BASE, CONFORMS TO ASME A112.6.1M TYPE II URINAL CARRIER - MAX LOAD TEST 200 LBS.	URINAL: AMERICAN STANDARD WASHBROOK 6590.001 NOTE: ALL WIRING, J-BOXES, ETC. FROM TRANSFORMER TO FLUSH VALVE TO BE PROVIDED BY THE PLUMBING CONTRACTOR. INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS.	FLUSH VALVE: SLOAN ROYAL 186 ESS-0.5-DFB TRANSFORMER: SLOAN EL-451 (UP TO 6 FLUSHOMETERS) SLOAN EL-386 (UP TO 1 FLUSHOMETER) CARRIER: WADE 402
L-1, 2	LAVATORY: WALL HUNG, VITREOUS CHINA, FRONT OVERFLOW, D-SHAPED BOWL, SELF-DRAINING DECK WITH CONTOURED BACK AND SIDE SPLASH SHIELDS, FAUCET LEDGE, ADA COMPLIANT. FAUCET: HARD WIRED, DECK MOUNTED, PLUG ADAPTER POWER SUPPLY, INFRARED SENSOR, 0.5 GPM MULTI-LAMINAR, POLISHED CHROME, THERMOSTATIC MIXING VALVE, ADA COMPLIANT. DRAIN / TAILPIECE: HEAVY CAST BRASS, 1-1/4" DIA., 17 GAUGE, SEAMLESS BRASS, BRASS LOCKNUT, HEAVY RUBBER BASIN WASHER, FIBER FRICTION WASHER, CHROME PLATED. P-TRAP: HEAVY CAST BRASS, 1-1/4" X 1-1/2", ADJUSTABLE, CLEANOUT PLUG, SLIP NUTS, 17 GAUGE TUBULAR WALL BEND, STEEL SHALLOW FLANGE, CHROME PLATED. SUPPLIES: QUARTER TURN BALL VALVES, 1/2" IPS X 3/8" OD, COPPER FLEXIBLE RISERS, STEEL SHALLOW FLANGES, CHROME PLATED. PROTECTIVE COVERING: OPENS AT 180° FOR EASY INSTALLATION AND SECURE FIT, FORM FITTING, EVA FOAM MATERIAL, FADE RESISTANT, CERTIFIED ANTI-MICROBIAL PER ISO 846 METHOD C, ASTM E-84, ADA COMPLIANT, WHITE, COVERS FOR DRAIN, P-TRAP, WALL BEND, SUPPLY STOPS AND SUPPLY LINES. CARRIER: LAVATORY SUPPORT WITH CONCEALED ADJUSTABLE ARMS AND SURE-SET MECHANICAL LOCKING DEVICE, AND ROUND STEEL UPRIGHTS WITH WELDED BASES.	LAVATORY: AMERICAN STANDARD LUCERNE 0356.015	FAUCET: SLOAN ETF-600 DRAIN / TAILPIECE: McGUIRE 155A P-TRAP: McGUIRE 8902C SUPPLIES: McGUIRE LFBV2165 PROTECTIVE COVERING: DEARBORN ADA100 CARRIER: WADE 520
SK-1	SINK: SS,SEAMLESS DIE-DRAWN TYPE 304 18-8 STAINLESS STEEL, INTERIOR AND TOP SURFACES POLISHED TO A NON-POROUS HAND-BLENDED FINISH WITH HIGHLIGHTED BOWL RIM, FULLY COATED UNDERSIDE INSULATED FOR SOUND AND CONDENSATE REDUCTION, STRAIGHT SIDED COMPARTMENT WITH RADIUS CORNERS, UNDER MOUNT WITH MOUNTING HARDWARE, 3-1/2" CENTER DRAIN, ADA COMPLIANT. FAUCET: 8" CONCEALED WIDESPREAD, MIXING FAUCET, LEVER HANDLES, QUARTER TURN CARTRIDGES, SPRING CHECKS, 5-3/4" SWIVEL GOOSENECK, 1.5 GPM AERATOR, 1/2" NPT MALE INLETS, CHROME PLATED, ADA COMPLIANT. DRAIN / TAILPIECE: TYPE 304 STAINLESS STEEL BODY, STRAINER AND POST, RUBBER STOPPER. CHROME PLATED 1-1/2" TAILPIECE. P-TRAP: HEAVY CAST BRASS, 1-1/2" X 1-1/2", ADJUSTABLE, CLEANOUT PLUG, SLIP NUTS, 17 GAUGE TUBULAR WALL BEND, STEEL SHALLOW FLANGE, CHROME PLATED. SUPPLIES: QUARTER TURN BALL VALVES, 1/2" IPS X 3/8" OD, COPPER FLEXIBLE RISERS, STEEL SHALLOW FLANGES, CHROME PLATED.	SINK: JUST US-ADA-1620-A	FAUCET: T&S 2850-WS DRAIN / TAILPIECE: JUST J-35 P-TRAP: McGUIRE 8912C SUPPLIES: McGUIRE LFBV2165
EWC-1	ELECTRIC WATER COOLER: BI-LEVEL ADA, HIGH EFFICIENCY FILTERED, CHILLING CAPACITY OF 8 GPH OF 50°F DRINKING WATER BASED ON 80°F INLET WATER AND 90°F AMBIENT PER ASHRAE 18 TESTING, WALL MOUNTED, UL 399, LEAD-FREE, NSF 61 & 372, MECHANICAL FRONT PUSHBUTTON ACTIVATION, CABINET AND TOP BASIN SHALL BE 14 GAUGE STAINLESS STEEL, HEAVY DUTY FRAME, VANDAL RESISTANT, CHROME PLATED BRASS BUBBLER. BOTTLE FILLING STATION: ADA COMPLIANT, INDEPENDENT MANUAL ACTIVATION, ANTIMICROBIAL COMPOUND TO PROTECT ALCOVE AND ACTIVATION BUTTON, BRUSHED STAINLESS STEEL CABINET. P-TRAP: HEAVY CAST BRASS, 1-1/4" X 1-1/2", ADJUSTABLE, CLEANOUT PLUG, SLIP NUTS, 17 GAUGE TUBULAR WALL BEND, STEEL SHALLOW FLANGE, CHROME PLATED. SUPPLY: QUARTER TURN BALL VALVE, 1/2" IPS X 3/8" OD, COPPER FLEXIBLE RISER, STEEL SHALLOW FLANGE, CHROME PLATED.	ELECTRIC WATER COOLER: OASIS PGV8SBFSL-14G	P-TRAP: McGUIRE 8902C SUPPLY: McGUIRE LFBV2165
EWC-2	ELECTRIC WATER COOLER: ADA, HIGH EFFICIENCY FILTERED, CHILLING CAPACITY OF 8 GPH OF 50°F DRINKING WATER BASED ON 80°F INLET WATER AND 90°F AMBIENT PER ASHRAE 18 TESTING, WALL MOUNTED, UL 399, LEAD-FREE, NSF 61 & 372, MECHANICAL FRONT PUSHBUTTON ACTIVATION, CABINET AND TOP BASIN SHALL BE 14 GAUGE STAINLESS STEEL, HEAVY DUTY FRAME, VANDAL RESISTANT, CHROME PLATED BRASS BUBBLER. BOTTLE FILLING STATION: ADA COMPLIANT, INDEPENDENT MANUAL ACTIVATION, ANTIMICROBIAL COMPOUND TO PROTECT ALCOVE AND ACTIVATION BUTTON, BRUSHED STAINLESS STEEL CABINET. P-TRAP: HEAVY CAST BRASS, 1-1/4" X 1-1/2", ADJUSTABLE, CLEANOUT PLUG, SLIP NUTS, 17 GAUGE TUBULAR WALL BEND, STEEL SHALLOW FLANGE, CHROME PLATED. SUPPLY: QUARTER TURN BALL VALVE, 1/2" IPS X 3/8" OD, COPPER FLEXIBLE RISER, STEEL SHALLOW FLANGE, CHROME PLATED.	ELECTRIC WATER COOLER: OASIS PGV8SBF-14G	P-TRAP: McGUIRE 8902C SUPPLY: McGUIRE LFBV2165
MB-1	MOP BASIN: 24" X 24" X 10", MOLDED STONE, STAINLESS STEEL DRAIN BODY, 3" DRAIN PIPE SIZE, DOME STRAINER. FAUCET: 8" WALL MOUNTED, QUARTER TURN CARTRIDGES WITH SPRING CHECKS, LEVER HANDLES, UPPER SUPPORT ROD, BUILT-IN STOPS, GARDEN HOSE MALE OUTLET, CHROME PLATED, 1/2" NPT VACUUM BREAKER, 1/2" NPT FEMALE INLETS, ADA COMPLIANT. MOP HANGER BRACKET: CONSTRUCTED OF 22 GAUGE #304 STAINLESS STEEL.	MOP BASIN: FIAT MSB2424	FAUCET: T&S B-0665-BSTP MOP HANGER BRACKET: FIAT 889CC
HB-1	HOSE BIBB: ANTI-SIPHON, VACUUM BREAKER PROTECTED, ASSE 1011 APPROVED, 3/4" MALE HOSE THREAD, EPDM PACKING, ADJUSTABLE BRASS NUT WITH DEEL STEM GUARD, STANDARD "O" SIZE WASHER VALVE SEAT, METAL WHEEL HANDLE, CHROME PLATED FINISH.	HOSE BIBB: WOODFORD 24	
HYD-1	WALL HYDRANT: (FREEZELESS) AUTOMATIC DRAINING WITH ANTI-SIPHON VACUUM BREAKER, ASSE 1011 APPROVED, 3/4" INLET AND OUTLET, HARDENED STAINLESS STEEL OPERATING STEM, AND ONE-PIECE VALVE PLUNGER TO CONTROL BOTH FLOW AND DRAIN FUNCTIONS, EXTERIOR FINISH TO BE CHROME PLATED, RECESSED WALL BOX WITH LOCKABLE DOOR, LOOSE TEE KEY (FURNISHED WITH EACH HYDRANT).	WALL HYDRANT: WOODFORD B65	
HYD-2	ROOF HYDRANT: (FREEZELESS) BACKFLOW PROTECTED HOSE CONNECTION, ASSE 1052, 1" NPT FEMALE INLET CONNECTION, 1-1/4" GALVANIZED PIPE CASING, 1/8" NPT DRAIN HOLE (PIPED TO DRAIN), ROOF MOUNTING SYSTEM.	ROOF HYDRANT: WOODFORD RHY2-MS	
WSB-1	WATER SUPPLY BOX: RECESSED STAINLESS STEEL WATER SUPPLY BOX WITH 1/2" QUARTER TURN VALVE, STAINLESS STEEL FRAME PLATE.	WATER SUPPLY BOX: GUY GRAY / IPS SSIB1AB	

⚠1

DRAINAGE FITTING SCHEDULE

MARK NO.	DESCRIPTION	MANUFACTURER/ MODEL NUMBER
FD-1	FLOOR DRAIN: CAST IRON, FLASHING COLLAR, NO-HUB BOTTOM OUTLET. STRAINER: NICKEL BRONZE, ROUND, FLAT, ADJUSTABLE, 5" DIAMETER. TRAP SEALER: ELASTOMERIC TRAP SEAL DEVICE WITH FITTING FOR INTERNAL TAILPIECE OR PIPE INSTALLATION.	FLOOR DRAIN: WADE 1100-A TRAP SEALER: WADE 4405
FD-2	FLOOR DRAIN: CAST IRON, WITH ANCHOR FLANGE, SEEPAGE OPENINGS, CLAMPING COLLAR, NO HUB BOTTOM OUTLET. BAR GRATE: DUCTILE IRON SLOTTED GRATE.	WADE 1340
FD-3	FLOOR SINK: CAST-IRON, DEEP BODY RECEPTOR, NO-HUB BOTTOM OUTLET. STRAINER: CAST IRON, ROUND, BAR GRATE, SEDIMENT BUCKET	WADE 1220-TD
⚠1		
FD-5	FLOOR DRAIN: CAST IRON, ACID RESISTANT COATING, 8" DEEP, NO HUB BOTTOM OUTLET. BAR GRATE: NICKEL BRONZE, SECURED, 1/2 GRATE.	WADE 9140-15
FCO	FLOOR CLEANOUT: CAST IRON BODY, ROUND, ADJUSTABLE, SECURED NICKEL BRONZE COVER, ABS PLUG, GASKET SEAL.	WADE FCO 8000
WCO	WALL CLEANOUT: STAINLESS STEEL SHALLOW COVER WITH CENTER VANDAL RESISTANT SCREW.	WADE WCO 8304
ECO	EXTERIOR CLEANOUT: CAST IRON BODY, DOUBLE FLANGED HOUSING, HEAVY DUTY SECURED SCORIATED CAST IRON COVER WITH LIFTING RING, ABS PLUG, GASKET SEAL.	WADE 8401-12
RD-1	ROOF DRAIN: DUCO CAST IRON BODY WITH COMBINED FLASHING CLAMP AND GRAVEL STOP, DUCO CAST IRON ADJUSTABLE SLEEVE AND TOP MOUNT REVERSIBLE DECK PLATE. DOME: CAST IRON.	WADE RD1 3000-42-189
RD-2	OVERFLOW DRAIN: DUCO CAST IRON BODY WITH COMBINED FLASHING CLAMP AND GRAVEL STOP, DUCO CAST IRON ADJUSTABLE SLEEVE AND TOP MOUNT REVERSIBLE DECK PLATE, 2" EXTERIOR WATER DAM. DOME: CAST IRON.	WADE RD2 3000D-42-189
GT-1	GREASE TRAP: 100 GPM FLOW, 1,895 LBS GREASE, 69 GAL SOLIDS CAP., 277 GAL LIQUID CAP., 4" CONNECTIONS, PUMP OUT PORT, PUMP OUT LINE KIT.	SCHIER GREAT BASIN GB-250

PLUMBING FIXTURE ROUGH-IN SCHEDULE

TAG	FIXTURE DESCRIPTION	HW	CW	TW	TRAP	W	V	MOUNTING HEIGHT
WC-1	WATER CLOSET - FLUSH VALVE, WALL HUNG	-	1"	-	INTEGRAL	4"	2"	15" A.F.F. TO SEAT
WC-2	WATER CLOSET - FLUSH VALVE, WALL HUNG, ADA	-	1"	-	INTEGRAL	4"	2"	17" A.F.F. TO SEAT
WC-3	WATER CLOSET - FLUSH VALVE, FLOOR OUTLET, ADA	-	1"	-	INTEGRAL	3"	2"	17" A.F.F. TO SEAT
UR-1	URINAL	-	3/4"	-	INTEGRAL	2"	2"	24" A.F.F. TO RIM
UR-2	URINAL - ADA	-	3/4"	-	INTEGRAL	2"	2"	17" A.F.F. TO RIM
L-1	LAVATORY - WALL HUNG	1/2"	1/2"	-	1-1/4"	2"	2"	34" A.F.F. TO RIM
L-2	LAVATORY - WALL HUNG, ADA	1/2"	1/2"	-	1-1/4"	2"	2"	34" A.F.F. TO RIM
SK-1	SINK - ONE COMPARTMENT, ADA	1/2"	1/2"	-	1-1/2"	2"	2"	REFER TO ARCHITECTURAL DRAWINGS
EWC-1	ELECTRIC WATER COOLER - HI/LO, ADA, BOTTLE FILLER	-	1/2"	-	1-1/4"	2"	2"	30" A.F.F. TO ADA BUBBLER ⚠1
EWC-2	ELECTRIC WATER COOLER - ADA, BOTTLE FILLER	-	1/2"	-	1-1/4"	2"	2"	33" A.F.F. TO BUBBLER
MB-1	MOP BASIN	3/4"	3/4"	-	3"	3"	2"	MOUNT FAUCET 36" A.F.F.
HB-1	HOSE BIBB	-	3/4"	-	-	-	-	24" A.F.F.
HYD-1	WALL HYDRANT - FREEZELESS	-	3/4"	-	-	-	-	18" ABOVE GRADE
HYD-2	ROOF HYDRANT - FREEZELESS	-	1"	-	-	3/4"	-	-
WSB-1	WATER SUPPLY BOX	-	1/2"	-	-	-	-	24" A.F.F.

⚠1

WATER HAMMER ARRESTOR SCHEDULE

TYPE	FIXTURE UNIT RATING	I.P.S.	J. R. SMITH NUMBER	NOTES
WHA-A	1-11	3/4"	5005	1
WHA-B	12-32	1"	5010	1
WHA-C	33-60	1"	5020	1
WHA-D	61-113	1"	5030	1
WHA-E	114-154	1"	5040	1
WHA-F	155-330	1"	5050	1

NOTES:

1. WATER HAMMER ARRESTORS SHALL BE SIZED AND INSTALLED PER THE PLUMBING DRAINAGE INSTITUTE (STANDARD PDI-WH 201) REQUIREMENTS IN ACCESSIBLE LOCATIONS ON THE COLD WATER AND HOT WATER PIPING WHERE FLUSH VALVES AND ANY OTHER QUICK CLOSING VALVES ARE USED.

PLUMBING EQUIPMENT SCHEDULE

TAG	SPECIFICATION NAME	MANUFACTURER	UNIT MODEL #	WEIGHT	CAPACITY	ELECTRICAL DATA V-PH-HZ	ELECTRICAL DATA HP	ELECTRICAL DATA KW	GAS DATA MBH IN	GAS DATA MBH OUT	NOTES
WH-1A	GAS WATER HEATER	LOCHINVAR	AWN400PM		464 GPH RECOVERY AT 100°F TEMPERATURE RISE	120-1-60	-	-	399	-	1, 2
WH-1B			AWN400PM		464 GPH RECOVERY AT 100°F TEMPERATURE RISE	120-1-60	-	-	399	-	1, 2
ST-1A	STORAGE TANK	LOCHINVAR	RJA200		200 GALLONS STORAGE	-	-	-	-	-	1, 2
ST-1B			RJA200		200 GALLONS STORAGE	-	-	-	-	-	1, 2
TMV-1	THERMOSTATIC MIXING VALVE	LAWLER	802 (#8600B)		15 PSI PRESSURE DROP AT 45 GPM FLOW 2 GPM MINIMUM FLOW	-	-	-	-	-	7
TET-1	THERMAL EXPANSION TANK	CALEFACTIO	TXA130		35 GALLONS TANK VOLUME	-	-	-	-	-	3
CP-1	CIRCULATOR PUMP	ARMSTRONG	E7B		2 GPM FLOW AT 15 FT TOTAL DYNAMIC HEAD (120°F)	120-1-60	1/6	-	-	-	4, 5, 6
CP-2	CIRCULATOR PUMP	ARMSTRONG	E12B		4 GPM FLOW AT 40 FT TOTAL DYNAMIC HEAD (120°F)	120-1-60	2/5	-	-	-	4, 5, 6
CP-3	CIRCULATOR PUMP	ARMSTRONG	E9B		4 GPM FLOW AT 35 FT TOTAL DYNAMIC HEAD (120°F)	120-1-60	1/6	-	-	-	4, 5, 6
CP-4	CIRCULATOR PUMP	ARMSTRONG	E7B		2 GPM FLOW AT 15 FT TOTAL DYNAMIC HEAD (140°F)	120-1-60	1/6	-	-	-	4, 5, 6
WS-1	WATER SOFTENER	AQUA SYSTEMS	500 GEN II 1.5"		5 CUBIC FOOT, 125,000 GRAINS OF CAPACITY AT 10 LBS/CUFT 40 GPM FLOW RATE AT 15 PSI PRESSURE DROP	120-1-60	-	-	-	-	8
RPBP-1	BACKFLOW PREVENTER (DOMESTIC)	WILKINS	375AST - 4"		15 PSI PRESSURE DROP AT 150 GPM FLOW	-	-	-	-	-	9
RPBP-2	BACKFLOW PREVENTER (HVAC MAKE-UP)	WILKINS	375XL - 1-1/2"		15 PSI PRESSURE DROP AT 25 GPM FLOW	-	-	-	-	-	9
DCVA-1	DOUBLE CHECK VALVE ASSEMBLY (FIRE PROTECTION)	AMES	COLT 200		5 PSI PRESSURE DROP AT 500 GPM FLOW	-	-	-	-	-	-
DBP-1	DOMESTIC BOOSTER SYSTEM (DUPLEX)	TIGERFLOW	DVMV-5-TF-1-S3-VM-P-VFD-NSF61-CTO		154 GPM FLOW AT 45 PSI BOOST	480-3-60	5 (EACH)	-	-	-	-

NOTES:

1. SET OUTLET TEMPERATURE AT 140°F.
2. PLUMB DRAIN FROM TEMPERATURE AND PRESSURE RELIEF AND TERMINATE AT +2" ABOVE FLOOR DRAIN.
3. ADJUST TANK PRESSURE TO BE EQUAL TO THE INCOMING WATER PRESSURE.
4. LEAD-FREE BRONZE CONSTRUCTION.
5. PUMP ON/OFF: CONTROLLED BY AQUASTAT.
6. OPERATION SCHEDULE: 24-HR, 7-DAY PROGRAMMABLE TIME CLOCK.
7. SET OUTLET TEMPERATURE AT 120°F.
8. ROUTE BACKWASH DRAIN LINE AND TERMINATE AT +2" ABOVE FLOOR DRAIN.
9. PROVIDE AIR GAP FITTING - PLUMB DRAIN LINE AND TERMINATE AT +2" ABOVE FLOOR DRAIN.
10. PROVIDE ASME EXPANSION TANK, 132 GALLONS CAPACITY, TIGERFLOW TA132E.

LANGER+BEEBE
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Indianapolis, IN 46202
KBSO CONSULTING

SCOTT COUNTY SCHOOL DISTRICT 1
AUSTIN ELEMENTARY & HS POOL RENOVATIONS
401 US-31
AUSTIN, IN 47102

KBSO #20017
OLUWASEUN ODUKOMAIYA
REGISTERED
No. 11300632
STATE OF INDIANA
PROFESSIONAL ENGINEER
2/11/2021

#	Date	Desc.
1	03/02/21	ADDENDUM 1

PROJECT #19160
DATE: 02/12/2021

PLUMBING SCHEDULES

P601

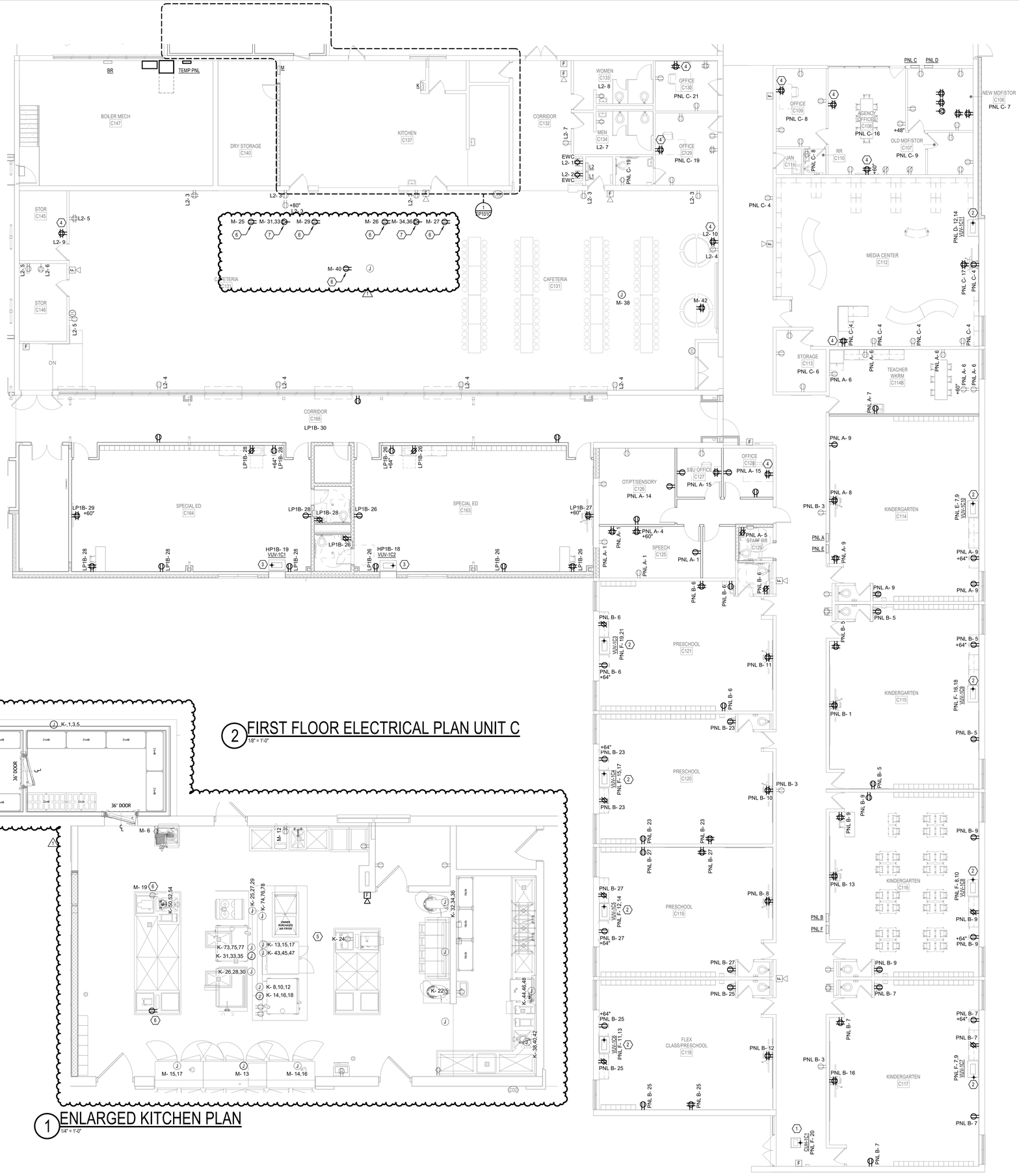
PLOT DATE/TIME:3/1/2021 5:58:48 PM

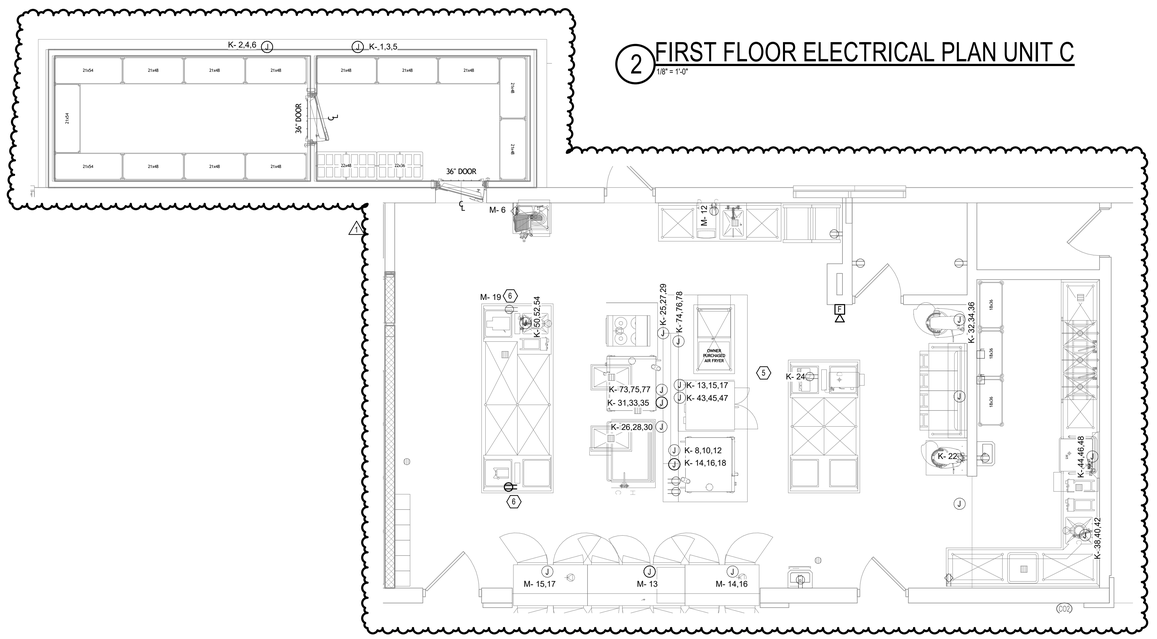
GENERAL NOTES

A REFER TO E-001 FOR GENERAL NOTES.
B REFER TO E-600 SERIES SHEETS FOR LOAD CENTER CIRCUIT SCHEDULES FOR EACH DWELLING UNIT TYPE.
C SOLID GRAY HATCH INDICATES NO ELECTRICAL DEVICE SCOPE IN ROOM OR AREA. SEE LIGHTING SHEETS FOR POSSIBLE LIGHTING SCOPE.
D PROVIDE (2) SMOKE DETECTORS, (2) HORN/STROBES, (2) STROBES, WIRE, AND CONDUIT TO FACP FROM LOCATIONS TO BE DETERMINED BY AUTHORITY HAVING JURISDICTION.
E ALL NEW STROBES TO BE 75cd UNLESS NOTED OTHERWISE.
F PROVIDE ADDITIONAL NAC PANEL(S) AND ASSOCIATED 120V CIRCUIT FROM NEAREST PANEL AS REQUIRED TO ACCOMODATE NEW DEVICES SHOWN.
G CIRCUITS LISTED ARE BASED ON EXISTING DRAWINGS. ELECTRICAL CONTRACTOR TO CONFIRM CIRCUIT AVAILABILITY.
H VERIFY HEIGHT OF ALL COUNTER HEIGHT RECEPTACLES WITH ARCHITECTURAL ELEVATIONS PRIOR TO ROUGH-IN. ALL ELEVATIONS LISTED ARE TO BOTTOM OF BOX.
I VERIFY HEIGHT OF ALL RECEPTACLES AND ROUGH-INS SERVING MONITORS WITH ARCHITECTURAL ELEVATIONS AND MOUNTING BRACKET INSTALLER PRIOR TO ROUGH-IN.

SHEET KEYNOTES

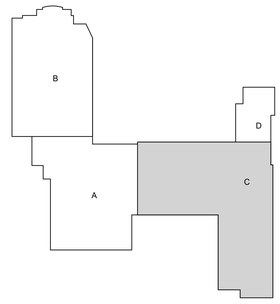
1 PROVIDE 120V POWER CONNECTION TO HYDRONIC UNIT HEATER.
2 PROVIDE 208V/1-PH, 20A DEDICATED CIRCUIT TO CLASSROOM UNIT VENTILATOR. UNIT PROVIDED WITH INTEGRAL INTERNAL DISCONNECT SWITCH.
3 PROVIDE 277V, 20A DEDICATED CIRCUIT TO CLASSROOM UNIT VENTILATOR. UNIT PROVIDED WITH INTEGRAL INTERNAL DISCONNECT SWITCH.
4 RECEPTACLE(S) INSTALLED IN DUAL CHANNEL SURFACE MOUNTED RACEWAY. SEE TECHNOLOGY DRAWINGS FOR RACEWAY DETAILS
5 SEE KITCHEN DRAWINGS FOR EQUIPMENT LABLES AND ADDITIONAL DETAILS/REQUIREMENTS.
6 PROVIDE NEW PEDESTAL BOX AND RECEAPTACLE. RE-USE EXISTING CONDUIT STUB UP.
7 PROVIDE NEW PEDESTAL BOX AND 208V, 30A RECEAPTACLE FOR SERVING HOT WELL. RE-USE EXISTING CONDUIT STUB UP. COORDINATE EXACT RECEPTACLE TYPE WITH EXISTING EQUIPMENT.





1 ENLARGED KITCHEN PLAN
1/4" = 1'-0"

2 FIRST FLOOR ELECTRICAL PLAN UNIT C
1/8" = 1'-0"



LANGER+ BEEBE
220 N. College Ave
Indianapolis, IN 46202

SCOTT COUNTY SCHOOL DISTRICT 1
AUSTIN ELEMENTARY & HS POOL RENOV.
401 US-31
AUSTIN, IN 47102

KBSO #20017
OLUWASEUN ODUKOMAIYA
REGISTERED
No. 11300632
STATE OF INDIANA
PROFESSIONAL ENGINEER
2/11/2021

#	Date	Desc.
1	03/02/21	ADDENDUM 1

PROJECT: F19160
DATE: 02/12/2021

FIRST FLOOR ELECTRICAL PLAN - UNIT C

EP101C

PLOT DATE/TIME:3/2/2021 8:20:17 AM

Branch Panel: LP1A

Location: ELECT A130 | **Volts:** 120/208 Wye | **A.I.C. Rating:**
Supply From: | **Phases:** 3 | **Mains Type:**
Mounting: | **Wires:** 4 | **Mains Rating:**
Enclosure: | | **MCB Rating:** 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	RECEPT - RM A126, A127	20 A	1	720...	720...					1	20 A	RECEPT - RM A142, A143	2
3	RECEPT - RM A137, A138	20 A	1			900...	180...			1	20 A	RECEPT - PRINTER RM A141	4
5	RECEPT - RR A135	20 A	1					180...	180...	1	20 A	RECEPT - RR A145	6
7	RECEPT - RR A128	20 A	1	180...	180...					1	20 A	RECEPT - RR A128	8
9	RECEPT - RM A139	20 A	1			720...	1260...			1	20 A	RECEPT - RM A132, A133, A134	10
11	RECEPT COUNSELOR A140	20 A	1					1440...	1000...	1	20 A	RECEPT - RM A141	12
13	RECEPT - RM A144	20 A	1	1080...	900...					1	20 A	RECEPT - RM A137	14
15	RECEPT - RM A142	20 A	1			900...	1260...			1	20 A	RECEPT - RM A131	16
17	FACP	20 A	1					500...	1200...	1	20 A	MECH A125 UNIT HEATERS	18
19	TEMP CNTL PNL	20 A	1	360...	1920...					1	20 A	BOILER B-2	20
21	HVAC	20 A	1			1920...	700...			1	20 A	CIRC PUMP CP-4	22
23	CIRC PUMP CP-3	20 A	1					700...	700...	1	20 A	CIRC PUMP CP-2	24
25	CIRC PUMP CP-1	20 A	1	700...	1080...					1	20 A	RECEPT Room A125	26
27	TMV-1	20 A	1			180...	500...			1	20 A	WATER HEATER WH-1A	28
29	WATER HEATER WH-1B	20 A	1					500...	720...	1	20 A	RECEPT - ELECT A130	30
31	FCU-1A1	20 A	1	254...	900...					1	20 A	RECEPT - RM A126	32
33	RECEPT - RM A131 AV	20 A	1			360...	180...			1	20 A	DISPOSAL	34
35	ADA DOOR OPERATOR	20 A	1					180...	528...	1	20 A	CUH-1A1	36
37	ADA DOOR OPERATOR	20 A	1	180...									38
39													40
41													42
		Total Load:		9174 VA		9060 VA		7828 VA					
		Total Amps:		78 A		77 A		65 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	5822 VA	100.00%	5822 VA		
Other	500 VA	100.00%	500 VA	**Total Conn. Load:**	26062 VA
RECEPT	15940 VA	81.37%	12970 VA	**Total Est. Demand:**	23092 VA
Miscellaneous Power	3800 VA	100.00%	3800 VA	**Total Conn.:**	72 A
				Total Est. Demand:	64 A

Notes:

Branch Panel: HP1A

Location: ELECT A130 | **Volts:** 480/277 Wye | **A.I.C. Rating:**
Supply From: | **Phases:** 3 | **Mains Type:** MLO
Mounting: | **Wires:** 4 | **Mains Rating:**
Enclosure: | | **MCB Rating:** 100 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	LIGHTING - RR A135	20 A	1	45 VA	499...					1	20 A	LIGHTING - RM A126, A127, A130	2
3	LIGHTING - RR A129	20 A	1			90 VA	90 VA			1	20 A	LIGHTING - RM A128	4
5	LIGHTING - RM A137, A138, A139	20 A	1					324...	45 VA	1	20 A	LIGHTING - RR A145	6
7	LIGHTING - RM A133, RM A134, RM A135	20 A	1	567...	632...					1	20 A	LIGHTING - RM A131, A136	8
9	LIGHTING - RM A140, RM A141	20 A	1			243...	237...			1	20 A	LIGHTING - EXTERIOR	10
11	LIGHTING - EXTERIOR	20 A	1					237...	237...	1	20 A	LIGHTING - EXTERIOR	12
13	LIGHTING - EXTERIOR	20 A	1	237...	158...					1	20 A	LIGHTING - EXTERIOR	14
15	LIGHTING MECH A125	20 A	1			657...							16
17													18
19													20
21													22
23													24
25													26
27													28
29													30
31													32
33													34
35													36
37													38
39													40
41													42
		Total Load:		2138 VA		1317 VA		843 VA					
		Total Amps:		8 A		5 A		3 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
LIGHTING	4298 VA	125.00%	5372 VA		
				Total Conn. Load:	4298 VA
				Total Est. Demand:	5372 VA
				Total Conn.:	5 A
				Total Est. Demand:	6 A

Notes:

Branch Panel: PNL F

Location: CORRIDOR C123 | **Volts:** 120/208 Wye | **A.I.C. Rating:** EXISTING
Supply From: PNL D | **Phases:** 3 | **Mains Type:** MLO
Mounting: RECESSED | **Wires:** 4 | **Mains Rating:** 225 A
Enclosure: EXISTING | | **MCB Rating:** 0 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	SPARE	20 A	1	0 VA	0 VA					1	20 A	SPARE	2
3	SPARE	20 A	1			0 VA	0 VA			1	20 A	SPARE	4
5	SPARE	20 A	1					0 VA	0 VA	1	20 A	SPARE	6
7	VUV-1C8	20 A	2	936...	936...					2	20 A	VUV-1C8	8
9						936...	936...						10
11	VUV-1C6	20 A	2					936...	936...	2	20 A	VUV-1C5	12
13				936...	936...								14
15	VUV-1C4	20 A	2			936...	936...			2	20 A	VUV-1C9	16
17								936...	936...				18
19	VUV-1C3	20 A	2	936...	180...					1	20 A	HVAC CORRIDOR C123	20
21						936...							22
23													24
25													26
27													28
29													30
		Total Load:		4860 VA		4680 VA		3744 VA					
		Total Amps:		42 A		40 A		31 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	13284 VA	100.00%	13284 VA		
				Total Conn. Load:	13284 VA
				Total Est. Demand:	13284 VA
				Total Conn.:	37 A
				Total Est. Demand:	37 A

Notes:

Branch Panel: M

Location: CAFETERIA C131 | **Volts:** 120/208 Wye | **A.I.C. Rating:** EXISTING
Supply From: | **Phases:** 3 | **Mains Type:** MLO
Mounting: RECESSED | **Wires:** 4 | **Mains Rating:** 100 A
Enclosure: EXISTING | | **MCB Rating:** 0 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	FRYERS-CONTROLS (EXISTING)	20 A	1	0 VA	0 VA					1	20 A	FRYERS (EXISTING)	2
3	SHUNT TRIP (EXISTING)	20 A	1			0 VA	0 VA			1	20 A	SHUNT TRIP (EXISTING)	4
5	40 GALLON TILT KETTLE (EXISTING)	20 A	1					0 VA	180...	1	20 A	RECEPT - FOOD SLICER	6
7	SHUNT TRIP (EXISTING)	20 A	1	0 VA	0 VA					1	20 A	30 QT MIXER (EXISTING)	8
9	WORK TABLE RECEPTACLES (EXISTING)	20 A	1			0 VA	0 VA			1	20 A	30 QT MIXER (EXISTING)	10
11	WORK TABLE RECEPTACLES (EXISTING)	20 A	1					0 VA	1000...	1	25 A	ICE MACHINE	12
13	PASS THRU REFIRGERATOR	25 A	1	1000...	1500...					2	20 A	PASS THRU HEATED CAB	14
15	PASS THRU HEATED CAB	20 A	2			1500...	1500...						16
17								1500...					18
19	RECEPT - VEG PREP TABLE	20 A	1	180...	0 VA					1	20 A	KITCHEN RECEPTACLES (EXISTING)	20
21	KITCHEN RECEPTACLES (EXISTING)	20 A	1			0 VA	0 VA			1	20 A	KITCHEN RECEPTACLES (EXISTING)	22
23	KITCHEN RECEPTACLES (EXISTING)	20 A	1					0 VA	0 VA	1	20 A	KITCHEN RECEPTACLES (EXISTING)	24
25	RECEPT - MILK COOLER	20 A	1	180...	180...					1	20 A	RECEPT - COLD WELL	26
27	RECEPT - MILK COOLER	20 A	1			180...	0 VA			1	20 A	WALK-IN COOLER & FREEZER LGTS...	28
29	RECEPT - COLD WELL	20 A	1					180...	0 VA	1	20 A	EVAPORATOR PIN (EXISTING)	30
31				750...	0 VA					1	20 A	CONTROL & LGTS EXHAUT FAN...	32
33	RECEPT - HOT WELL	30 A	2			750...	90 VA			2	30 A	RECEPT - HOT WELL	34
35	MICROWAVE OVEN (EXISTING)	20 A	1					0 VA	90 VA				36
37	MICROWAVE OVEN (EXISTING)	20 A	1	0 VA	180...					1	20 A	CEILING PROJECTOR	38
39	EXHAUST SYSTEM (EXISTING)	20 A	1			0 VA	180...			1	20 A	RECEPT - MERCHANDISER	40
41	SHUNT TRIP (EXISTING)	20 A	1					0 VA	360...	1	20 A	CEILING SCREEN	42
		Total Load:		3970 VA		4200 VA		3310 VA					
		Total Amps:		34 A		36 A		28 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
RECEPT	11480 VA	93.55%	10740 VA		
				Total Conn. Load:	11480 VA
				Total Est. Demand:	10740 VA
				Total Conn.:	32 A
				Total Est. Demand:	30 A

Notes:

Branch Panel: L2

Location: STOR C135 | **Volts:** 120/208 Wye | **A.I.C. Rating:** EXISTING
Supply From: | **Phases:** 3 | **Mains Type:** MLO
Mounting: SURFACE | **Wires:** 4 | **Mains Rating:** 100 A
Enclosure: EXISTING | | **MCB Rating:** 0 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	WATER COOLER	20 A	1	180...	180...					1	20 A	WATER COOLER	2
3	RECEPT - CAFETERIA C131	20 A	1			1260...	900...			1	20 A	RECEPT - CAFETERIA C131	4
5	RECEPT - CAFETERIA C131, RM C146	20 A	1					720...	180...	1	20 A	RECEPT - RM C146	6
7	RECEPT - MEN RR C134	20 A	1	401...	536...					1	20 A	RECEPT - WOMEN RR C133	8
9	RECEPT - SOUND SYSTEM CABINET	20 A	1			360...	360...			1	20 A	RECEPT - CAFETERIA C131 AV	10
11	WATER COOLER (EXISTING)	20 A	1					0 VA					12
13													14
15													16
17													18
19													20
21													22
23													24
25													26
27													28
29													30
		Total Load:		1296 VA		2880 VA		900 VA					
		Total Amps:		11 A		25 A		8 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
LIGHTING	396 VA	125.00%	495 VA		
RECEPT	4680 VA	100.00%	4680 VA	**Total Conn. Load:**	5076 VA
				Total Est. Demand:	5175 VA
				Total Conn.:	14 A
				Total Est. Demand:	14 A

Notes:

Branch Panel: L1

Location: STOR C135 | **Volts:** 120/208 Wye | **A.I.C. Rating:** EXISTING
Supply From: | **Phases:** 3 | **Mains Type:** MLO
Mounting: SURFACE | **Wires:** 4 | **Mains Rating:** 100 A
Enclosure: EXISTING | | **MCB Rating:** 0 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	LIGHTING - CAFETERIA	20 A	1	1022...	1022...					1	20 A	LIGHTING - CAFETERIA	2
3										1	20 A	LIGHTING - RM C132	4
5	LIGHTING - RM C147	20 A	1					480...	1239...	1	20 A	LIGHTING - RM C137, C139, C14	6
7	LIGHTING CAFETERIA C131	20 A	1	682...	203...					1	20 A	LIGHTING - RM C145, C146	8
9													10
11													12
13													14
15													16
17													18
19													20
21													22
23													24
25													26
27													28
29													30
		Total Load:		2929 VA		302 VA		1719 VA					
		Total Amps:		26 A		3 A		16 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
LIGHTING	4950 VA	125.00%	6187 VA		
				Total Conn. Load:	4950 VA
				Total Est. Demand:	6187 VA
				Total Conn.:	14 A
				Total Est. Demand:	17 A

Notes:

Branch Panel: K

Location: CAFETERIA C131 | **Volts:** 120/208 Wye | **A.I.C. Rating:** EXISTING
Supply From: | **Phases:** 3 | **Mains Type:** MLO
Mounting: RECESSED | **Wires:** 4 | **Mains Rating:** 800 A
Enclosure: EXISTING | | **MCB Rating:** 0 A

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1				1333...	2233...								2
3	WALK IN COOLER	20 A	3			1333...	2233...			3	25 A	WALK IN FREEZER	4
5								1333...	2233...				6
7				0 VA	7467...								8
9	HOOD EXHAUST SUPPLY FAN (EXISTING)	20 A	3			0 VA	7467...			3	70 A	OVEN STEAMER (TOP)	10
11								0 VA	7467...				12
13				3467...	7467...								14
15	CONVECTION OVEN (TOP)	30 A	3			3467...	7467...			3	70 A	OVEN STEAMER (BOT)	16
17								3467...	7467...				18
19				0 VA	180...					1	20 A	RECEPT - VEG PREP TABLE	20
21	FRYER (EXISTING)	20 A	3			0 VA	180...			1	20 A	RECEPT - TABLE TOP MIXER	22
23								0 VA	180...	1	20 A	RECEPT - DIGITAL SCALE	24
25				4333...	6000...								26
27	FOUR BURNER ELECTRIC RANGE	50 A	3			4333...	6000...			3	50 A	40 GALLON TILTING SKILLET	28
29								4333...	6000...				30
31				7467...	672...								32
33	OVEN STEAMER (BOT)	70 A	3			7467...	672...			3	15 A	60 QT. MIXER	34
35								7467...	672...				36
37				0 VA	1067...								38
39	SINK HEATER (EXISTING)	20 A	3			0 VA	1067...			3	15 A	GARBAGE DISPOSAL	40
41								0 VA	1067...				42
43				60 VA	5452...								44
45	CONVECTION OVEN (BOT)	30 A	3			60 VA	5452...			3	50 A	DISHMACHINE	46
47								60 VA	5452...				48
49				0 VA	1067...								50
51	HEATER (EXISTING)	20 A	3			0 VA	1067...			3	15 A	GARBAGE DISPOSAL	52
53								0 VA	1067...				54
55				0 VA	0 VA								56
57	HVAC ROOFTOP (EXISTING)	20 A	3			0 VA	0 VA			3	20 A	HVAC (EXISTING)	58
59								0 VA	0 VA				60
61				0 VA	0 VA								62
63	HVAC ROOFTOP (EXISTING)	20 A	3			0 VA	0 VA			3	20 A	HVAC (EXISTING)	64
65								0 VA	0 VA				66
67				0 VA	0 VA								68
69	RTU-1 (EXISTING)	20 A	3			0 VA	0 VA			3	20 A	HVAC (EXISTING)	70
71								0 VA	0 VA				72
73				7467...	1067...								74
75	OVEN STEAMER (TOP)	70 A	3			7467...	1067...			3	30 A	HIGH WATTAGE MICROWAVE OVEN	76
77								7467...	1067...				78
		Total Load:		56798 VA		56798 VA		56798 VA					
		Total Amps:		473 A		473 A		473 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
RECEPT	170393 VA	52.93%	90197 VA		
				Total Conn. Load:	170393 VA
				Total Est. Demand:	90197 VA
				Total Conn.:	473 A
				Total Est. Demand:	250 A

Notes:

LANCER+BEEBE
220 N. College Ave
Indianapolis, IN 46202
kbsd CONSULTING

SCOTT COUNTY SCHOOL DISTRICT 1
AUSTIN ELEMENTARY & HS POOL RENOV.
401 US-31
AUSTIN, IN 47102

KBSQ #20017
OLUWASEUN ODUMOSU
REGISTERED
No. 11300632
STATE OF INDIANA
PROFESSIONAL ENGINEER
2/11/2021

#	Date	Desc.
1	03/02/21	ADDENDUM 1

PROJECT #19160
DATE: 02/12/2021

ELECTRICAL SCHEDULES

E602

The SKILLMAN Corporation
Project Administration
Construction Management

Civil & Environmental Consultants, Inc.

Lynch, Harrison & Brumleve, Inc.

LANCER + BEEBE, LLC
ARCHITECTURE | PLANNING | INTERIORS

CONSULTING

LANCER + BEEBE
220 N. College Ave
Indianapolis, IN 46202

SCOTT COUNTY SCHOOL DISTRICT 1
NEW AUSTIN ELEMENTARY SCHOOL &
AUSTIN HIGH SCHOOL POOL RENOVATION
100% CONSTRUCTION DOCUMENTS

VOLUME II

SCOTT COUNTY SCHOOL DISTRICT 1

FEBRUARY 12, 2021

SCOTT COUNTY SCHOOL DISTRICT 1

RYAN PAYNE, PRESIDENT
KATHY MORRIS, VICE-PRESIDENT
DARLENE HALL, SECRETARY
RON ATKINS, MEMBER
DAVID DEATON, MEMBER

TREVOR JONES, SUPERINTENDENT
BEVERLY TURNER, AUSTIN ELEMENTARY PRINCIPAL

PROJECT DIRECTORY

OWNER:
SCOTT COUNTY SCHOOL DISTRICT 1
255 HWY. SOUTH
AUSTIN, IN 47102
TREVOR JONES, SUPERINTENDENT
812-794-8750

CONSTRUCTION MANAGEMENT:
THE SKILLMAN CORPORATION
3834 S. EMERSON AVE.
INDIANAPOLIS, IN 46203
VICTOR LANDFAIR
317-850-5996

ARCHITECT:
LANCER + BEEBE, LLC
220 N. COLLEGE AVENUE
INDIANAPOLIS, IN 46202
JACKIE LIANG TERRY LANCER
317-840-9525 317-797-6595

CIVIL:
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
530 E. OHIO STREET, SUITE G
INDIANAPOLIS, IN 46204
GREG RASMUSSEN
317-655-7777

STRUCTURAL:
LYNCH, HARRISON & BRUMLEVE, INC.
550 VIRGINIA AVENUE
INDIANAPOLIS, IN 46203
SCOTT CLORE DAN LEVITUS
317-423-1550

MEP ENGINEER:
KBSO CONSULTING
1344 S RANGELINE RD, SUITE 202
CARMEL, IN 46032
KELLEY BIEGHLER
317-344-8046

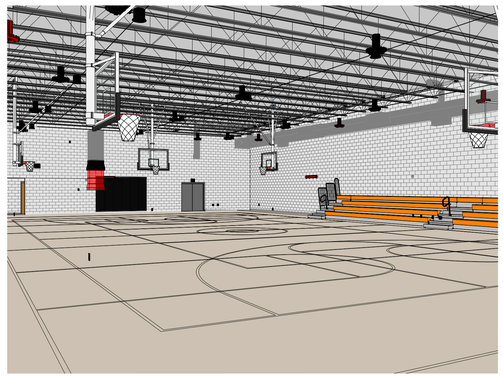
FOOD SERVICE:
VORNDRAN & ASSOCIATES
7670 SHASTA DRIVE
INDIANAPOLIS, IN 46217
JIM KESSENICH JR.
317-677-3475

AUSTIN ELEMENTARY SCHOOL
401 US-31
AUSTIN, IN 47102

AUSTIN HIGH SCHOOL
AUSTIN MIDDLE SCHOOL
401 US-31
AUSTIN, IN 47102

1 LOCATION MAP
NOT TO SCALE

2 3D VIEW - NEW AUSTIN ELEMENTARY SCHOOL
NOT TO SCALE



3 3D VIEW - NEW AMS/AHS MULTIPURPOSE
NOT TO SCALE

SHEET INDEX - VOLUME I

SHEET INDEX - VOLUME I

SHEET INDEX - VOLUME II

SHEET INDEX - VOLUME II

SCOTT COUNTY SCHOOL DISTRICT 1
AUSTIN ELEMENTARY & HS POOL RENOV.
401 US-31
AUSTIN, IN 47102

MARK RANDALL BEEBE
REGISTERED
07001164
STATE OF INDIANA
ARCHITECT

PROJECT:	#19160
DATE:	02/12/2021
#	Date / Desc.
1	03/02/21 ADDENDUM #1

COVER SHEET AND INDEX - VOLUME II

T001-II

PLOT DATE/TIME:2/3/2021 3:12:35 PM

SHEET KEYNOTES

1 SEE DETAIL 2/ T504 FOR MORE INFORMATION ON MULTIPURPOSE ROOM SOUND SYSTEM.

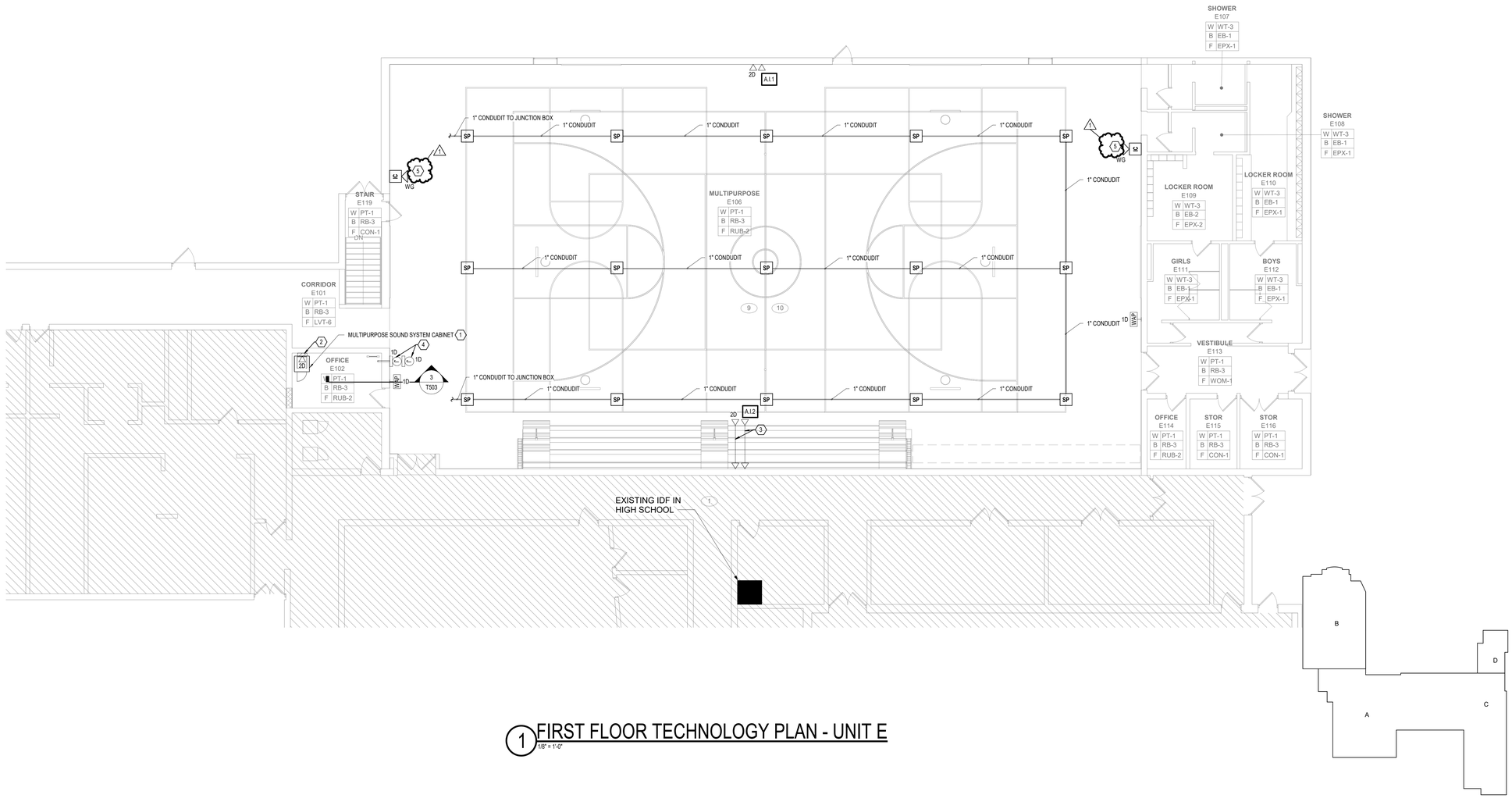
2 PROVIDE 24"x24"x8" SURFACE MOUNTED JUNCTION BOX AT +16" A.F.F.. PROVIDE THREE (3) 1-1/2" CONDUITS FROM JUNCTION BOX INTO CEILING SPACE OF E102.

3 INSTALL TELECOMMUNICATIONS OUTLETS IN FRONT OF BLEACHERS AND PROVIDE TRAVELING CABLE FOR ROUTING OF CABLING BETWEEN COLLAPSED BLEACHERS AND EXPANDED BLEACHERS.

4 REFER TO DETAIL 3/ T503 FOR MORE INFORMATION FOR ROUGH-IN AND MOUNTING HEIGHTS.

5 TIE-IN NEW INTERCOM SPEAKERS TO EXISTING DUKANE MCS350 PAGING SYSTEM LOCATED IN THE IT OFFICE IN THE HS/MS ADMIN. AREA. COORDINATE EXACT LOCATION AND INSTALLATION WITH EXISTING CONDITIONS.

NOTE:
ALL COMMUNICATIONS CABLING ON THIS SHEET SHALL BE ROUTED BACK TO THE EXISTING IDF SHOWN ON THIS SHEET



1 FIRST FLOOR TECHNOLOGY PLAN - UNIT E
1/8" = 1'-0"

LANGER+ BEEBE
220 N. College Ave
Indianapolis, IN 46202

kbsd CONSULTING

SCOTT COUNTY SCHOOL DISTRICT 1
AUSTIN ELEMENTARY & HS POOL RENOV.
401 US-31
AUSTIN, IN 47102

KBSD #20017
OLUWASEUN ODUKOMAIYA
REGISTERED
No. 11300632
STATE OF INDIANA
PROFESSIONAL ENGINEER
2/11/2021

PROJECT: #19160
DATE: 02/12/2021

#	Date	Desc.
1	03/02/21	ADDENDUM 1

FIRST FLOOR TECHNOLOGY PLAN - UNIT E

T101E

PLOT DATE/TIME:3/2/2021 9:32:50 AM