# ELIZABETHTOWN HIGH SCHOOL FIELD HOUSE

Elizabethtown, Kentucky

for the

Elizabethtown Independent School District

620 N Mulberry St, Elizabethtown, Kentucky 42701 p 270.769.3381

BG # 00-000 RTA # 1834



101 old lafayette avenue lexington, kentucky 40502 p 859.254.4018 www.rosstarrant.com

# enhancing education through great design

STRUCTURAL ENGINEER:

STRUCTURAL DESIGN GROUP, INC.

220 Great Circle Road, Suite 106

Nashville, Tennessee 37228 f 615.255.1486

p 615.255.5537

M.E.P. ENGINEER:

HARDWARE CONSULTANT:

CMTA, INC.

2429 Members Way p 859.253.0892

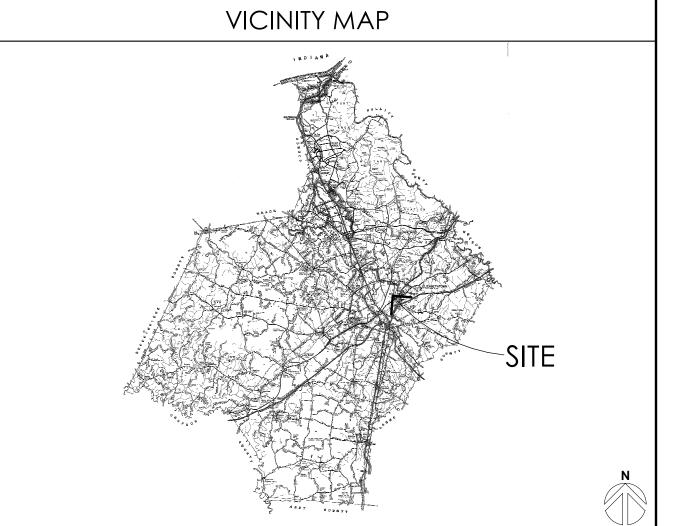
Lexington, Kentucky 40504 f 859.231.8357

CALVERT INDEPENDENT HARDWARE SPECIFICATIONS, LLC 307 Oakwood Circle

p 502.930.2039

Vine Grove, Kentucky 40175

PROJECT SITE ADDRESS: 620 N Mulberry St, Elizabethtown, Kentucky



CAMPUS MAP PROJECT VICINITY MAP M,E,&P Engineer: CMTA, Inc. 220 Great Circle Rd. Suite 10

ELIZABETHTOWN INDEPENDENT SCHO Elizabethtown, Kentucky

INDEX OF DRAWINGS

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**NOT FOR** 

CONSTRUCTION

SD0.1 SITE DEVELOPMENT

A5.1 BUILDING SECTIONS

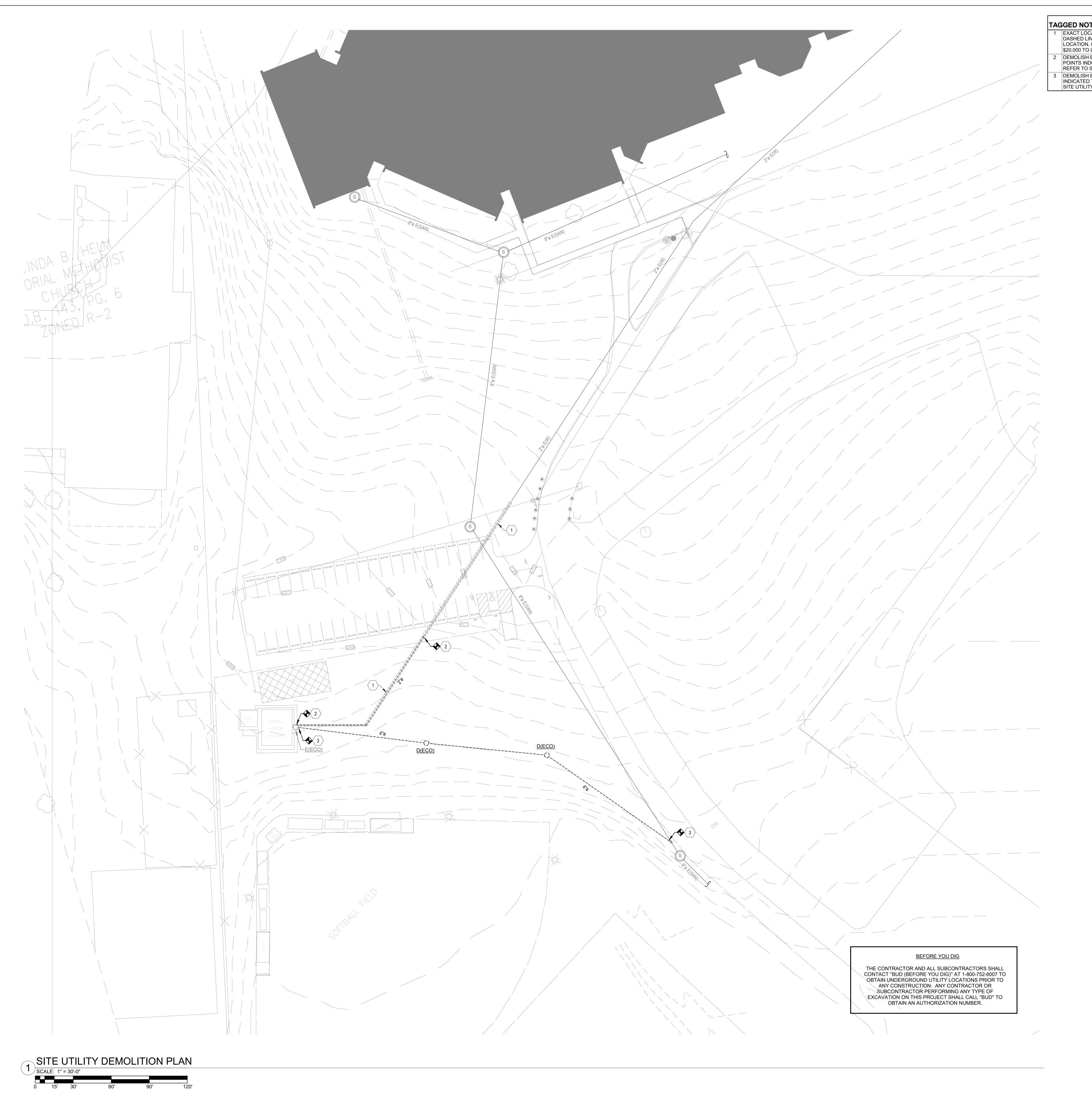
A0.1 GENERAL ARCHITECTURAL DETAILS

A6.1 DOORS AND FRAME SCHEDULE A7.1 REFLECTED CEILING PLAN(S)

> Drawn By: \_\_\_TS, NS Rev'd By: GH, KL

SHEET RELEASE SCHEMATIC DESIGN

**COVER SHEET** 



TAGGED NOTES

EXACT LOCATION OF DOMESTIC WATER PIPING INDICATED BY DASHED LINES IS UNKNOWN. LOCATION SHOWN IS ASSUMED LOCATION. CONTRACTOR SHALL INCLUDE AN ALLOWANCE OF \$20,000 TO LOCATE EXISTING PIPING.

DEMOLISH EXISTING DOMESTIC WATER PIPING BETWEEN POINTS INDCIATED TO ALLOW FOR NEW CONSTRUCTION. REFER TO SITE UTILITY NEW WORK PLAN. DEMOLISH EXISTING SANITARY PIPING BETWEEN POINTS

INDICATED TO ALLOW FOR NEW CONSTRUCTION. REFER TO SITE UTILITY NEW WORK PLAN.

S SITE UTILITY GENERAL NOTES - MECHANICAL

DO NOT SCALE FROM MECHANICAL AND ELECTRICAL DRAWINGS. FIELD VERIFY REQUIRED DIMENSIONS. CONTRACTOR SHALL CUT ALL PAVEMENT, CURBING, ETC. AS REQUIRED FOR WORK. CONTRACTOR SHALL REFER TO CM SCOPING DOCUMENTS FOR PATCH AND REPAIR OF CONCRETE/ASPHALT/GRADE. ANY SUCH WORK NOT EXPLICITLY MENTIONED UNDER A SEPARATE CONTRACT IS

TO BE INCLUDED IN THE CONTRACTOR'S BID. FEDERAL, STATE, LOCAL, MUNICIPALITY AND UTILITY COMPANY CODES, RULES, REGULATIONS AND REQUIREMENTS APPLY UNLESS EXCEEDED BY THIS DESIGN.

WHEN INTERRUPTION OF AN EXISTING UTILITY OR SERVICES IS PLANNED OR OCCURS ACCIDENTALLY, THE CONTRACTOR(S) SHALL WORK CONTINUOUSLY AS NEEDED TO RESTORE SAME PROVIDING PREMIUM TIME AS NEEDED AT NO INCREASE IN THE CONTRACT PRICE. PLANNED INTERRUPTION OF ANY SERVICE SHALL BE COORDINATED WITH THE APPROPRIATE MUNICIPALITY OR UTILITY COMPANY, THE ARCHITECT AND THE BUILDING OPERATORS AT LEAST TWO WEEKS IN ADVANCE OF THE ANTICIPATED INTERRUPTION. A SCHEDULE FOR THESE OUTAGES SHALL BE DEVELOPED AND AGREED UPON BETWEEN THE PARTIES MENTIONED TO AVOID UNNECESSARY INCONVENIENCE TO THE OWNER OR ANY AFFECTED PARTY. NOTIFY THE UTILITY COMPANY

LOCATIONS, DEPTHS, MATERIAL TYPES, ELEVATIONS, ETC. OF ALL APPURTENANCES, LINES, BUILDINGS, ETC. INDICATED ON THESE DRAWINGS WERE TAKE FROM VARIOUS SOURCES, ARE DIAGRAMMATIC ONLY AND ARE SUBJECT TO SUBSTANTIAL VARIATION FROM EXISTING CONDITIONS. EXISTING UTILITIES LOCATIONS MAY VARY (CONSEQUENTLY ALL CONTRACTORS SHALL EXERCISE EXTREME CARE IN THE COURSE OF THEIR WORK SO AS INSURE THAT THEY DO NOT INTERRUPT ANY EXISTING SERVICE. FOR SAFETY PURPOSES, PAY PARTICULAR ATTENTION TO THIS PRECAUTION RELATIVE TO NATURAL

OF ANY ANTICIPATED SERVICES REQUIRED FROM THEM AT LEAST TWO WEEKS IN ADVANCE IN WRITING AND INSURE THAT THEY DO NOT DELAY

GAS AND ELECTRICAL LINES. ALL WORK SHALL BE PERFORMED IN ACCORD WITH ALL FEDERAL, STATE, AND/OR LOCAL RULES, REGULATIONS, STANDARDS AND SAFETY REQUIREMENTS. UTILITIES SHALL ALSO BE INSTALLED IN ACCORD WITH THE APPLICABLE

MUNICIPALITY OR UTILITY COMPANY STANDARDS. IN ALL CASES, THE MOST STRINGENT REQUIREMENT SHALL APPLY. IF ANY VARIATION OCCURS, CONSULT THE BUILDING ENGINEER AND THE MECHANICAL ENGINEER'S REPRESENTATIVE. CONTRACTOR SHALL VISIT SITE AND FIELD VERIFY THE ROUTING OF ALL UTILITIES NEW AND EXISTING PRIOR TO SUBMISSION OF BIDS. SUBMISSION OF A BID PROPOSAL INDICATES THAT THE CONTRACTOR IS FULLY AWARE OF ALL OBSTRUCTIONS AND WILL INSTALL ALL OF THE NEW UTILITIES WITHOUT REQUESTS FOR ANY ADDITIONAL CHANGES.

OCCURRING IN THIS PROJECT. ANY SUCH PATCH AND REPAIR NOT EXPLICITLY COVERED UNDER A SEPARATE CONTRACT SHALL BE INCLUDED IN THE CONTRACTOR'S BID. THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE DRAWINGS ARE APPROXIMATE ONLY. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY EXCAVATION WORK REQUIRED TO LOCATE UNDERGROUND UTILITIES. THE CONTRACTOR IS ALSO REQUIRED TO NOTIFY ANY OTHER AFFECTED UTILITY OWNERS PRIOR TO DIGGING. IN THE EVENT OF ACCIDENTAL INTERRUPTION OF

CONTRACTOR SHALL REFER TO CM SCOPING DOCUMENT FOR PATCH

AND REPAIR OF LANDSCAPING THAT IS DISTURBED BY WORK

THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD OTHER EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE OTHER UTILITIES. THE UTILITY WILL BE REQUIRED TO FURNISH SUCH

SERVICE, CONTRACTOR WILL IMMEDIATELY NOTIFY THE OTHER UTILITY

EQUIPMENT. CONTRACTOR SHALL PAY ALL TAP FEES, UTILITY COST, UTILITY CONNECTION COSTS, METER FEES, EXTENSION AND DEVELOPMENT CHARGES. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

CONTRACTOR SHALL COORDINATE LOCATION OF ALL UNDERGROUND WATER LINES, GAS LINES, SANITARY LINES, SEWER LINES, VAULTS, ETC., WITH ELECTRICAL PULL BOXES, CONDUITS, POLE BASES ETC. SPECIFICALLY COORDINATE PLACEMENT OF CHILLED WATER PIPING IN CONFLICTS ARISE.

M ALL PIPING TO BE ABANDONED SHALL BE CAPPED WATERTIGHT. NO PIPING SHALL BE LEFT OPEN-ENDED. REFER TO SITE DEMOLITION PLAN FOR TREES TO BE REMOVED. IF TREES ARE TO REMAIN, CONTRACTOR SHALL TAKE CARE TO INSTALL PIPING AND LIMIT EXCAVATING ACTIVITIES TO OUTSIDE THE DRIP-LINE OF EXISTING TREES TO REMAIN.

| SITE UTILITIES LEGEND          |          |            |        |  |  |  |
|--------------------------------|----------|------------|--------|--|--|--|
|                                | EXISTING | DEMOLITION | NEW    |  |  |  |
| OVERHEAD PRIMARY               | EOP      | DOP        | ——OP—  |  |  |  |
| OVERHEAD SECONDARY             | EOS      | DOS        | os     |  |  |  |
| OVERHEAD STREET LIGHTING       | EOSL     | DOSL       | OSL    |  |  |  |
| OVERHEAD TRAFFIC SIGNAL        | EOTS     | DOTS       | ——ots— |  |  |  |
| OVERHEAD TELECOMMUNICATIONS    | EOT      | DOT        | ——от—  |  |  |  |
| OVERHEAD FIBER OPTIC           | EOF      | DOF        | ——ОF—  |  |  |  |
| OVERHEAD CATV                  | EOTV     | DOTV       | ——отv— |  |  |  |
| UNDERGROUND PRIMARY            | EUP      | DUP        | ——UP—  |  |  |  |
| UNDERGROUND SECONDARY          | EUS      | DUS        | ——us—  |  |  |  |
| UNDERGROUND STREET LIGHTING    | EUSL     | DUSL       | USL-   |  |  |  |
| UNDERGROUND TRAFFIC SIGNAL     | EUTS     | DUTS       | ——UTS— |  |  |  |
| UNDERGROUND TELECOMMUNICATIONS | EUT      | DUT        | ——UT—  |  |  |  |
| UNDERGROUND FIBER OPTIC        | EUF      | DUF        | ——UF—  |  |  |  |
| UNDERGROUND CATV               | EUTV     | DUTV       | ——UTV— |  |  |  |
| CHILLED WATER                  | CW       | CW         | CW     |  |  |  |
| DOMESTIC WATER                 | VV       | W          | ——W—   |  |  |  |
| GAS                            | GAS      | GAS        | ——GAS— |  |  |  |
| HIGH PRESSURE SUPPLY           | HPS      | HPS        | ——HPS— |  |  |  |
| HIGH PRESSURE RETURN           | HPR      | HPR        | HPR-   |  |  |  |
| PUMP DISCHARGE RETURN          | PDR      | PDR        | ——PDR— |  |  |  |
| SANITARY SEWER                 | SS       | :SS        | ss     |  |  |  |
| STORM                          | —STORM—— | STORM      | STORM- |  |  |  |
| FIRE HYDRANT                   | F.H.     | D(F.H.)    | F.H.   |  |  |  |
| WATER VALVE                    | WV 🚫     | D(WV)      | wv (   |  |  |  |
| EXTERIOR CLEANOUT              | ECO ()   | D(ECO)     | ECO O  |  |  |  |
| SANITARY MANHOLE               | S        | ((S))      | (S)    |  |  |  |

| UTILITY COMPANY CON                                     | ITACTS            |   |
|---|-------------------|---|
| POWER<br>COMPANY NAME                                   | NAME              | xxx xxx xxxx                            |
| TELEPHONE COMPANY NAME                                  | NAME              | XXX.XXX.XXXX                            |
| CABLE TELEVISION COMPANY NAME                           | NAME              | XXX.XXX.XXXX                            |
| WATER & SEWER COMPANY NAME                              | NAME              | XXX XXX XXXX                            |
| GAS<br>COMPANY NAME                                     | NAME              | XXX XXX XXXX                            |
| FIRE CHIEF  |                   | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| FIRE DEPARTMENT NAME  IT IS THE CONTRACTORS RES         | PONSIBILITY TO ME |   |
| ORDINANCE AND MUNICIPAL I<br>INSTALLATION, INSPECTIONS, |                   |   |

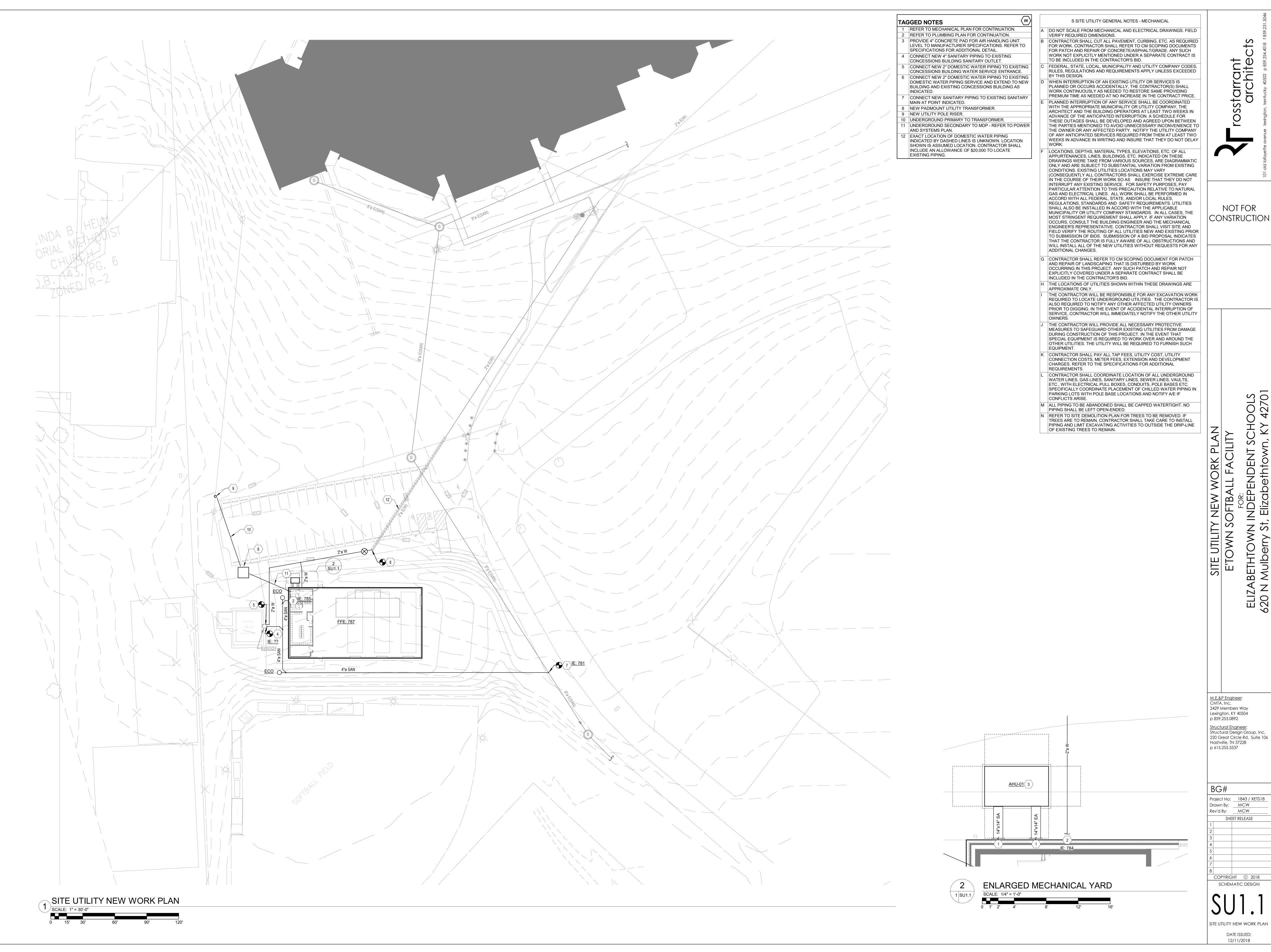
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ELIZABETHTOWN INDEPENDENT SCHOOLS 620 N Mulberry St, Elizabethtown, KY 4270

M,E,&P Engineer: CMTA, Inc. 2429 Members Way Lexington, KY 40504 p 859.253.0892 Structural Engineer: Structural Design Group, Inc. 220 Great Circle Rd. Suite 106 Nashville, TN 37228 p 615.255.5537

Drawn By: MCW Rev'd By: MCW SHEET RELEASE COPYRIGHT © 2018 SCHEMATIC DESIGN

SITE UTILITY DEMOLITION PLAN DATE ISSUED:



ELIZABETHTOWN INDEPENDENT SCHOOLS 620 N Mulberry St, Elizabethtown, KY 4270

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M,E,&P Engineer: 2429 Members Way Lexington, KY 40504 p 859.253.0892

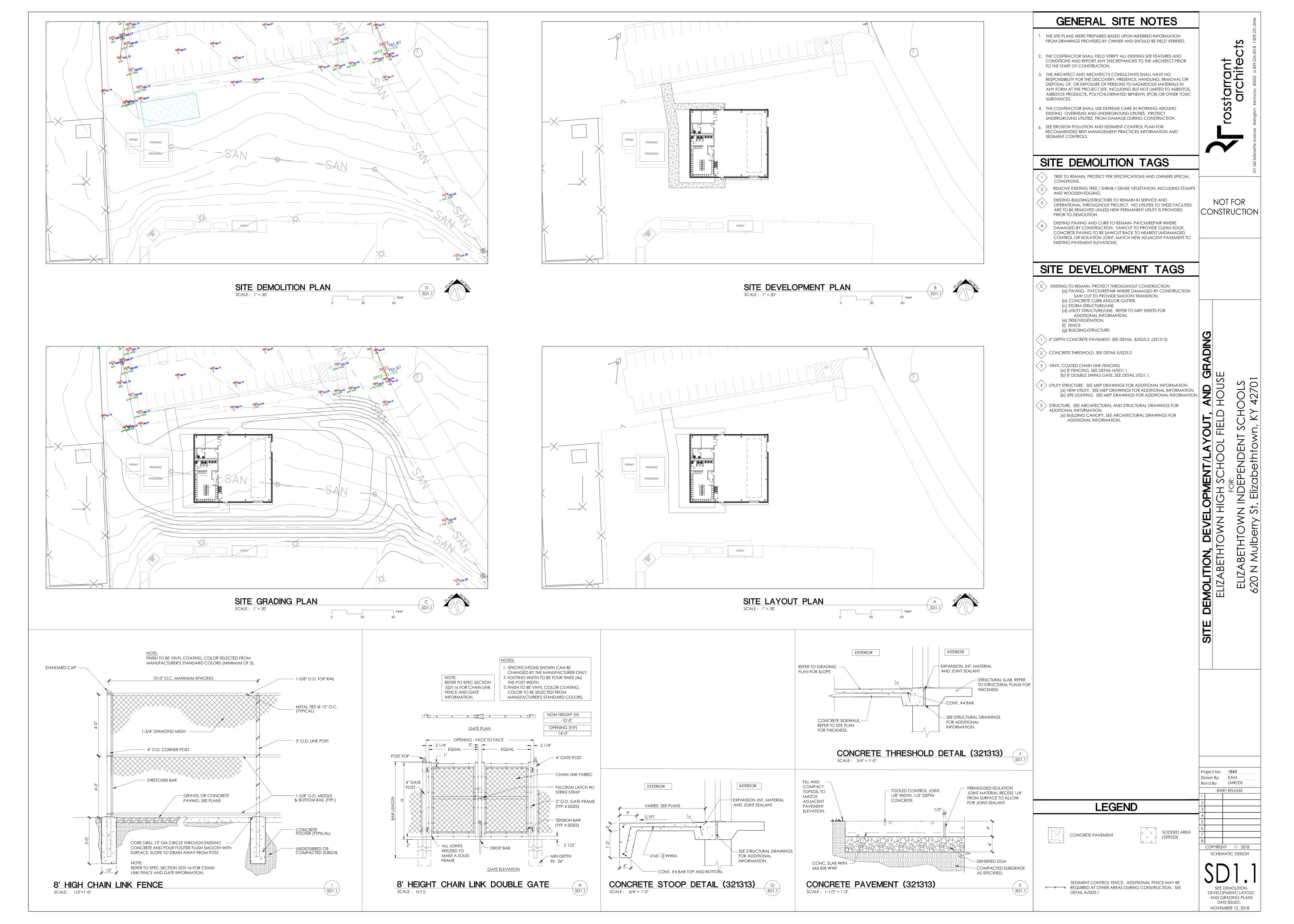
<u>Structural Engineer:</u> Structural Design Group, Inc. 220 Great Circle Rd. Suite 106 Nashville, TN 37228 p 615.255.5537

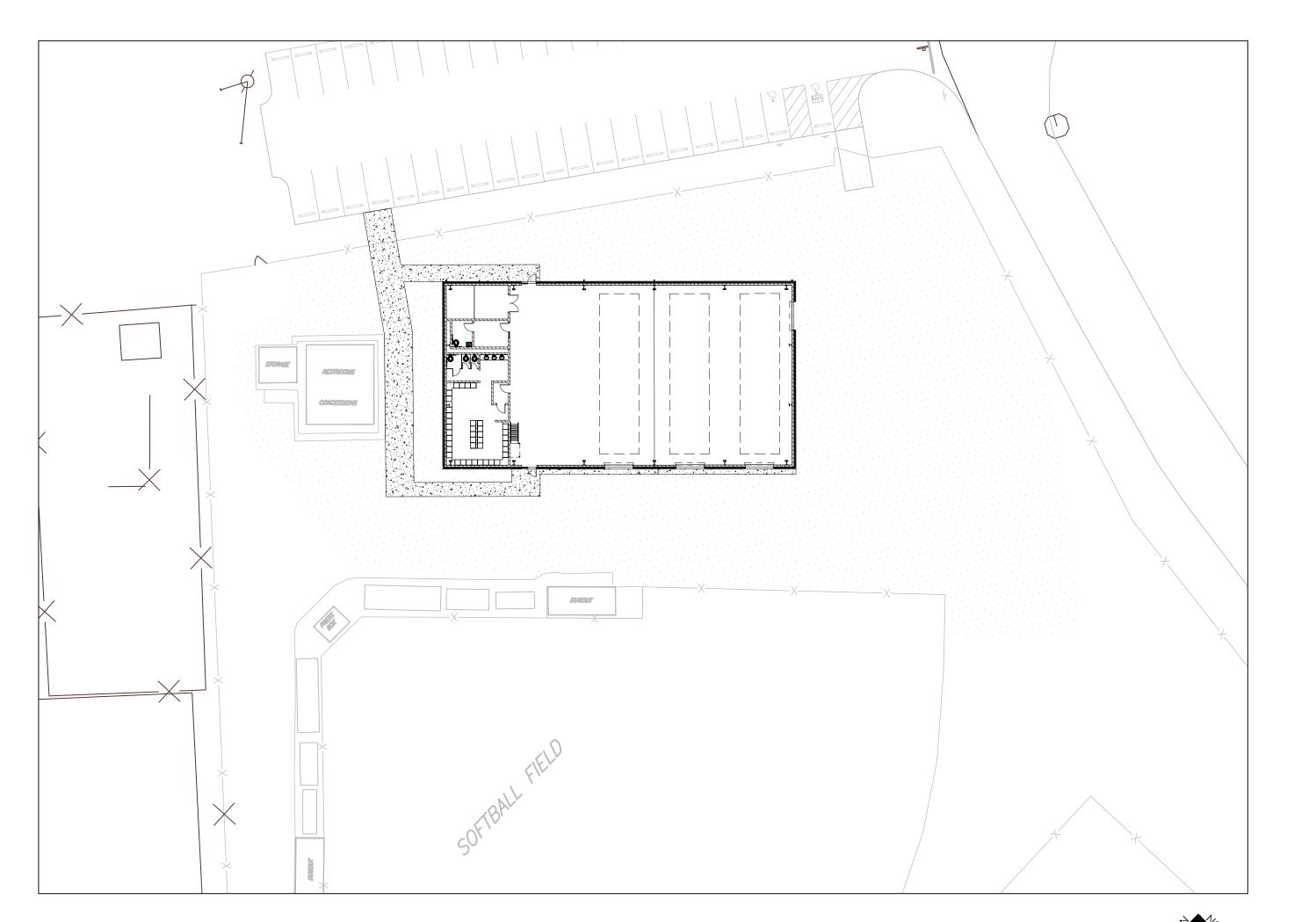
 
 Project No:
 1843 / XETS18

 Drawn By:
 MCW

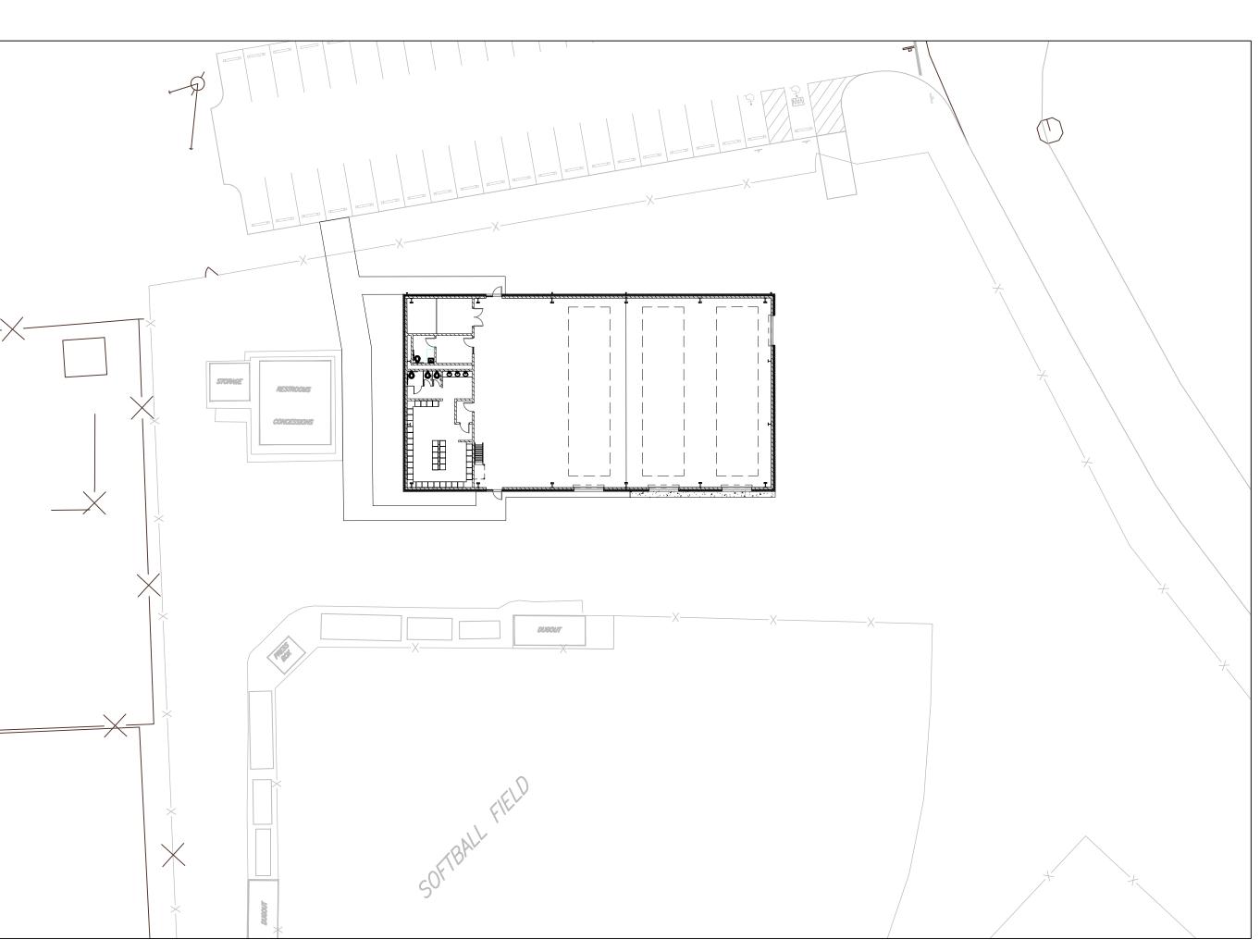
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 MCW
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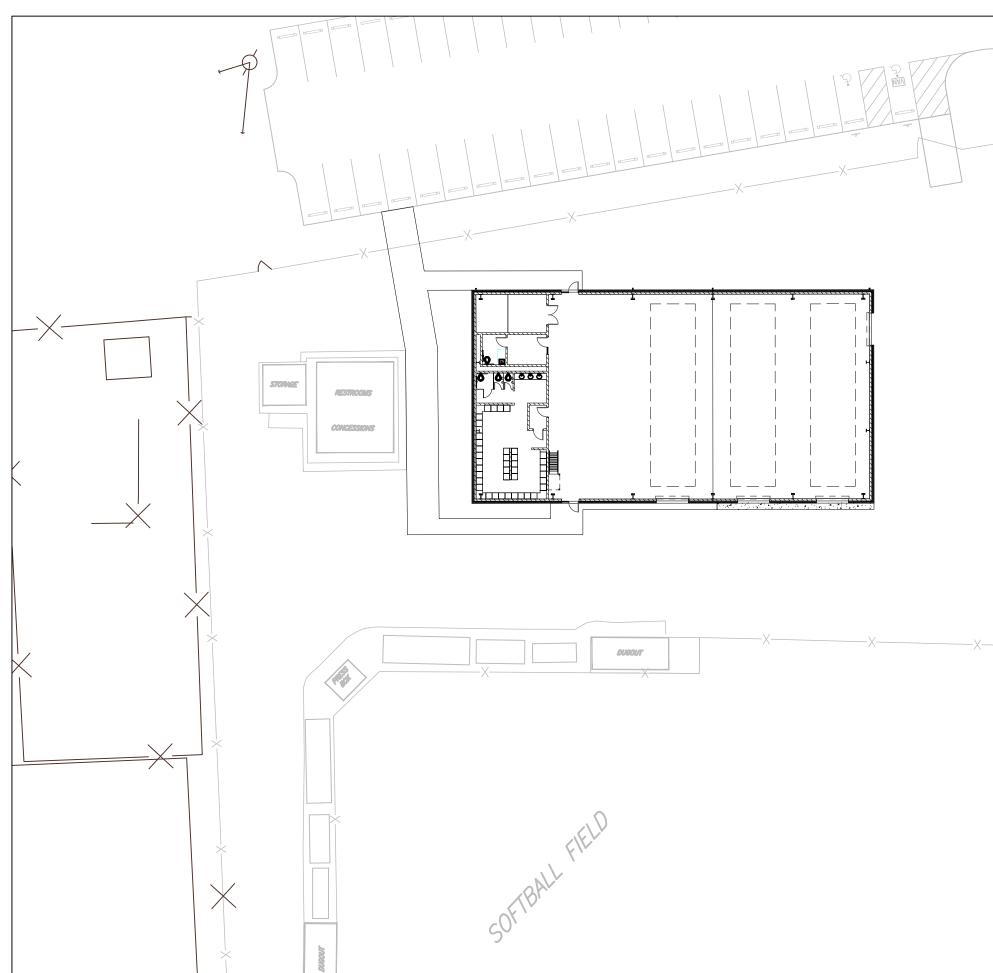
SCHEMATIC DESIGN SITE UTILITY NEW WORK PLAN











ALTERNATE #1: SITE LAYOUT PLAN

SCALE: 1" = 30'

SD1.2



# GENERAL SITE NOTES

- THE SITE PLANS WERE PREPARED BASED UPON INFERRED INFORMATION FROM DRAWINGS PROVIDED BY OWNER AND SHOULD BE FIELD VERIFIED.
- 2. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SITE FEATURES AND CONDITIONS AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO THE START OF CONSTRUCTION.
- . THE ARCHITECT AND ARCHITECT'S CONSULTANTS SHALL HAVE NO RESPONSIBILITY FOR THE DISCOVERY, PRESENCE, HANDLING, REMOVAL OR DISPOSAL OF, OR EXPOSURE OF PERSONS TO HAZARDOUS MATERIALS IN ANY FORM AT THE PROJECT SITE, INCLUDING BUT NOT LIMITED TO ASBESTOS, ASBESTOS PRODUCTS, POLYCHLORINATED BIPHENYL (PCB) OR OTHER TOXIC
- 4. THE CONTRACTOR SHALL USE EXTREME CARE IN WORKING AROUND EXISTING OVERHEAD AND UNDERGROUND UTILITIES. PROTECT UNDERGROUND UTILITIES FROM DAMAGE DURING CONSTRUCTION.
- SEE EROSION POLLUTION AND SEDIMENT CONTROL PLAN FOR RECOMMENDED BEST MANAGEMENT PRACTICES INFORMATION AND SEDIMENT CONTROLS.

# SITE DEVELOPMENT TAGS

- $\left\langle 0 \right\rangle$  existing to remain. Protect throughout construction. [a] PAVING. PATCH/REPAIR WHERE DAMAGED BY CONSTRUCTION. SAW CUT TO PROVIDE SMOOTH TRANSITION. [b] CONCRETE CURB AND/OR GUTTER. [c] STORM STRUCTURE/LINE. [d] UTILITY STRUCTURE/LINE. REFER TO MEP SHEETS FOR ADDITIONAL INFORMATION. [e] TREE/VEGETATION.
- [g] BUILDING/STRUCTURE. (1) 4" DEPTH CONCRETE PAVEMENT. SEE DETAIL, B/SD3.2. (321313)
- 2 CONCRETE THRESHOLD. SEE DETAIL E/SD3.2
- (3) VINYL COATED CHAIN LINK FENCING [a] 8' FENCING. SEE DETAIL H/SD1.1. [b] 8' DOUBLE SWING GATE. SEE DETAIL I/SD1.1.

[f] FENCE

- 4 UTILITY STRUCTURE. SEE MEP DRAWINGS FOR ADDITIONAL INFORMATION. [a] NEW UTILITY. SEE MEP DRAWINGS FOR ADDITIONAL INFORMATION. [b] SITE LIGHTING. SEE MEP DRAWINGS FOR ADDITIONAL INFORMATION.
- 5 > STRUCTURE. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION. [a] BUILDING CANOPY. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

NOT FOR

CONSTRUCTION

Project No: 1843 Drawn By: KAM Rev'd By: LMR/DS

# **LEGEND**

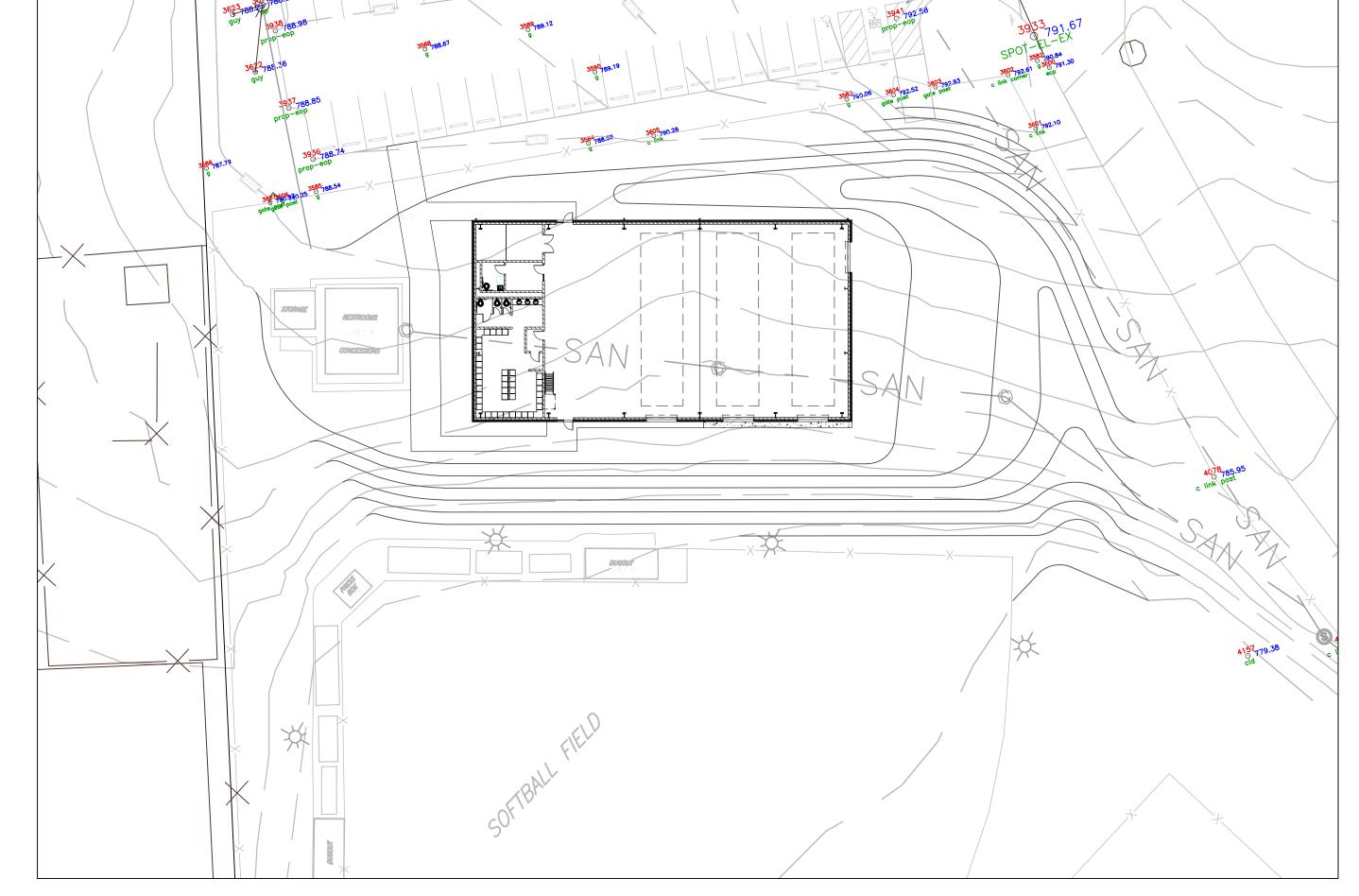




SEDIMENT CONTROL FENCE. ADDITIONAL FENCE MAY BE • • • REQUIRED AT OTHER AREAS DURING CONSTRUCTION. SEE DETAIL A/SD0.1

SCHEMATIC DESIGN

DEVELOPMENT/ LAYOUT AND GRADING PLANS DATE ISSUED: NOVEMBER 12, 2018



ALTERNATE #1: SITE GRADING PLAN

SCALE: 1" = 30'

### **DESIGN CRITERIA**

- 1. Building Code: 2013 Kentucky Building Code
  - 1.1 Building Risk Category: III
- 2. Design Loads
- 2.1 Uniform Floor Live Loads (reduced per Building Code, UNO)

General Areas \_\_ psf 100 psf Stairs Mechanical Rooms \_\_ psf

- 2.2 Concentrated Floor Live Loads (distributed over 2.5 ft x 2.5 ft, UNO)
- 1.000 lbs Storage
- 2.3 Roof Loads
  - 2.3.1 Uniform Roof Live Load 20 psf (reduced per Bldg. Code) Concentrated Roof Live Load 300 lbs
  - 2.3.2 Snow Loads: Ground Snow = 43 psf (with drift loads per Code)

Terrain Category = CSnow Exposure Factor, Ce = 1.0Snow Load Importance Factor, I = 1.1Thermal Factor: Heated Spaces, Ct = 1.0Unheated Spaces, Ct = 1.2 Flat-roof Snow Load: Heated Spaces, Pf = \_\_ psf Unheated Spaces, Pf = \_\_ psf Rain-on-Snow Surcharge: 5 psf (where applicable)

- 2.4 Wind Loads: Basic Wind Speed V(ult)=120 mph; V(asd)= 93 mph Wind Exposure C
  - Internal Pressure Coefficient =  $\pm$ 0.18 (Enclosed Building) Directionality Factor, Kd = 0.85
  - 2.4.1 Component and Cladding Pressures: See S\_\_\_\_
- 2.5 Earthquake Loads Seismic Importance Factor, I = 1.25Mapped Spectral Response Accelerations, Ss and S1 = 0.267 and 0.129Site Class: C Spectral Response Coefficients, Sds and Sd1 = 0.214 and 0.144Seismic Design Category: C Basic Seismic-Force-Resisting System: Response Modification Factor, R = 3.0Analysis Procedure: Equivalent Lateral Force Procedure
- Structural Engineer is not responsible for the design of steel stairs, handrails, curtain wall/window wall systems, cold-formed steel framing, or other systems not shown in the Structural Documents. Such systems shall be designed, furnished, and installed as required by other portions of the Construction Documents.
- 4. No explicit provisions have been made for future building expansion.
- 5. Structure has been designed for future vertical expansion, see key plan \_\_\_\_\_.

# **GENERAL**

- 1. Reference to standards or specifications of technical societies, organizations. or associations means the standard or specification referenced by the governing Building Code shown on the Drawings, unless specifically noted otherwise.
- 2. Material, workmanship, and design shall conform to the referenced Building
- 3. For dimensions not shown in the Structural Drawings, see the Architectural Drawings.
- 4. Contractor responsibilities include, but are not limited to, the following:
  - 4.1 Coordinate the Structural Documents with the Architectural, Mechanical, Electrical, Plumbing, and Civil Documents. Architect/Structural Engineer shall be notified of any discrepancy or omission.
  - 4.2 Coordinate Structural Documents with Architectural and MPE Documents for location and quantity of miscellaneous framing for items such as roof drains, suspended or supported mechanical units, window washing davits, etc. Refer to Architectural and MPE Documents for additional miscellaneous structural elements that may not appear in the Structural Documents.
  - 4.3 Equipment/Framing Verification
    - 4.3.1 Mechanical Equipment: Submit actual weights of equipment to be used for review at least 3 weeks prior to fabrication and construction. Coordinate opening sizes and locations with Mechanical Contractor.
    - 4.3.2 Miscellaneous Framing: Verify framing shown on the Structural Drawings for mechanical equipment, Owner-furnished items, partitions, etc. is consistent with the requirements of such items.
  - 4.4 The structure is stable only in its completed form. Temporary supports required for stability during all intermediate stages of construction shall be designed, furnished, and installed by the Contractor.
  - 4.5 Contractor has sole responsibility for jobsite safety and complying with all health and safety precautions as required by any regulatory agency. In performing construction observation visits to the jobsite, the Structural Engineer will have no control over, nor responsibility for, the Contractor's means, methods, sequences, techniques, or Procedures in performing the work.
  - 4.6 Contractor is responsible for locating concrete reinforcement prior to installation of post-installed anchors, through bolts, or other post-installed items in concrete. Existing reinforcemént including póst-tensioning tendons shall not be cut or otherwise damaged while installing post-installed anchors.
- 5. Contractor shall field verify all existing conditions, elevations, and site conditions prior to construction and fabrication. Contractor shall immediately notify Structural Engineer of any existing conditions that are in conflict with the Structural Documents.

# STRUCTURAL NOTES

THE STRUCTURAL NOTES DEFINE GENERAL DESIGN AND MATERIAL REQUIREMENTS AND ARE INTENDED TO SUPPLEMENT, BUT NOT REPLACE, THE PROJECT SPECIFICATIONS SUBMITTALS

- 1. Shop Drawings and Submittals
  - 1.1 Reproduction of Structural Drawings for shop drawings is not permitted.
  - 1.2 Electronic drawing files will not be provided to the Contractor.
  - 1.3 Review of shop drawings will be for conformance with the Construction Documents regarding arrangement and sizes of members and the Contractor's interpretation of the design loads, if applicable, and Construction Document details. Such review shall not relieve the Contractor of the full responsibility to comply with the Construction Documents.
- 2. Submittals
  - 2.1 The Structural Quality Assurance Plan and Specifications identify the required submittals. Prior to (or with) the first submittal, Contractor shall submit a list of all required submittals for Engineer's review.
- 3. Deferred Submittals
  - 3.1 Deferred Submittals include those portions of the project that are furnished by the Contractor and designed by someone other than the Engineer of Record and are submitted at the time of the application. Deferred Submittals shall be submitted to the Building Official prior to fabrication and installation.
  - 3.2 Submittal documents for Deferred Submittals:
    - 3.2.1 Shall be included in the Contractor's scope of services and shall be sealed by an Engineer licensed in the project state. Design of Deferred Submittals shall be in accordance with the governing Building Code indicated above.
    - 3.2.2 Shall be submitted to the registered design professional in responsible charge who shall review them and forward them to the Building Official with a notation indicating the deferred submittal documents have been reviewed and that they have been found in general conformance with the design of the building. Deferred submittal items shall not be installed until the design and submittal documents have been approved by the Building Official.
- 3.3 The following shall be considered Deferred Submittals:

Steel Connections - See "Structural Steel" Section Cold-formed Exterior Steel Stud Framing Roof Top Unit Anchorage Steel Stairs and Handrails Curtainwall/Window Wall Systems Metal Building System Slotted Channel Strut Framing (e.g. Unistrut) Seismic Anchorage and Bracing of MPE Equipment

### FOUNDATION

1. Geotechnical Report: Report No. \_\_\_\_\_, Dated \_\_\_\_\_ 1.1 It is the responsibility of the contractor to obtain a copy of the

- 2. Building Pad Preparation
  - 2.1 Strip vegetation and topsoil.
  - 2.2 Proofroll building areas with a minimum of two complete coverages of a loaded dump-truck or scraper in each of two perpendicular directions. Replace soft areas with compacted structural fill.

geotechnical report and comply with the recommendations found therein.

- 3. Soil Bearing Capacity: Isolated Footings \_\_\_\_\_ psf Continuous Footings \_\_\_\_ psf
  - 3.1 Footings shall not bear on rock. Remove rock, if any, for a depth of 2 feet below footing bearing elevation.

# REINFORCEMENT

- 1. Reinforcing Bars: ASTM A615, Grade 60
  - 1.1 Reinforcing bars are not to be welded.
- 2. Welded Wire Reinforcement (WWR): ASTM A1064, 8" minimum side and end laps
- Reinforcement Placement (UNO)
- 3.1 Concrete Reinforcement Cover Below Grade: clear clear Formed
- 3.2 Masonry reinforcing steel: Place in the center of CMU cells.
- 4. Reinforcement Splices
  - 4.1 Reinforcement marked "Continuous" can be spliced at locations determined by Contractor. All other reinforcement shall be spliced only at locations shown or noted, unless approved in writing by Structural Engineer.
  - 4.2 Splice Lengths (UNO) Concrete Reinforcement: See Concrete Lap Splice Tables in Drawings Masonry Reinforcement: See CMU Lap Splice Tables in Drawings
- Deformed Bar Anchors (DBA): ASTM A496
  - 5.1 Deformed Bar Anchors shall conform to AWS D1.1, Type C studs with a minimum yield strength of 70 ksi and minimum tensile strength of 80 ksi.
  - 5.2 Deformed Bar Anchors shall be stud welded

### CAST-IN-PLACE CONCRETE

- 1. Concrete Properties
  - 1.1 Normal Weight Structural Concrete

|  | (min)                  | (max.) |                                |
|--|------------------------|--------|--------------------------------|
| Footings (Isolated/Continuous)                     | 3,000 psi              |        | None Required                  |
| Foundation Walls, Pedestals<br>Slabs on Grade      | _,000 psi<br>3,500 psi | 0.48   | None Required<br>None Required |
| Slabs on Steel Forms<br>Mechanical Equipment Pads: | 3,000 psi              | 0.48   | None Required                  |
| Interior<br>Exterior                               | 3,000 psi<br>3,000 psi |        | None Required<br>5.0 +/- 1.5%  |
| All Other Concrete                                 | 5,000 psi              | 0.40   | 5.0 +/- 1.5%                   |

28-Day, f'c w/cm Ratio Entrained Air

Note: All concrete shall be assigned the exposure classes FO, SO, PO, and CO; except concrete in Aggressive Environment shall be assigned the exposure classes F3, S0, P1, and C2 (see ACI 318).

- 2. Construction Joint Locations: No horizontal construction joints are permitted except as shown on the Structural Drawings. Obtain written consent for additional joints.
- 3. Pipes or ducts shall not exceed one-third the slab or wall thickness unless specifically detailed. See mechanical and electrical drawings for location of sleeves, accessories, etc.
  - 3.1 Conduit shall not be placed within the slab on grade. Conduit shall be installed below the slab on grade within the granular subbase.
- 4. Special Finishes: Refer to Architectural Drawings for molds, grooves, ornaments, clips or grounds required to be encased in concréte and for location of floor finishes and slab depressions.
- 5. Defect Repair: Honey-combing, spalls, cracks, etc. shall be repaired. Extent of defective area to be determined by the Structural Engineer.
- 6. Curing
  - 6.1 Begin curing procedures immediately following commencement of the finishing operation.
- 6.2 Concrete shall be moist cured in accordance with ACI 308. See Specification for additional information.
- 6.3 All concrete slabs that are to have exposed stained or polished concrete finish shall be wet cured a minimum of 7 days in strict accordance with ACI 301. The acceptable methods of wet curing are ponding, continuous fogging, continuous sprinkling; or application of mats or fabric kept continuously wet.

### NON-SHRINK GROUTING

- 1. Non-shrink grout under steel base plates shall be non-metallic with minimum compressive strength of 5000 psi at 28 days.
- 2. Non-shrink grout used for patching, repair, and other specific applications shall be submitted for review and approval by engineer.

# **CONCRETE MASONRY**

- 1. CMU Minimum Compressive Strength, f'm = 2,000 psi.
- 2. Mortar: Walls below grade Type M Bearing walls Type M or S Partition walls Type N
- 3. Coarse Grout: 2,500 psi min. compressive strength conforming to ASTM C476.
  - 3.1 Grout solid bond beams, reinforced CMU cores, and CMU cores and wall cavities below grade.
  - 3.2 Masonry webs on each side of grouted cells shall be fully mortared. Exterior Single wythe CMU walls shall have head joints fully mortared.
- 4. Horizontal Joint Reinforcement: Two (2) No. 9 gage longitudinal wires at 16" vertically, UNO. Lap wire 6 inches minimum. Provide accessories for corners, intersections, etc. Use ladder type for walls with vertical reinforcing.
- 5. Provide open bottom beam block units with 3" deep minimum web openings at horizontal reinforcement locations not located over an opening. A minimum clear space of one bar diameter shall be provided between the reinforcing bars and the face of masonry units.
- 6. CMU has been designed assuming "running bond" placement. Do not use "stack bond" unless approved by Structural Engineer.
- 7. Contraction Joints: Unless noted otherwise on the Plans, maximum spacing of 1 1/2 times of wall height or 24 feet (whichever is less) in all concrete masonry walls (including partitions) above grade.
- 8. Submit written construction procedures prior to the start of masonry construction.

|      | STRUCTURAL INDEX                    |  |
|------|-------------------------------------|--|
| S0.1 | STRUCTURAL NOTES                    |  |
| S0.2 | STRUCTURAL NOTES (cont.)            |  |
| S0.3 | STRUCTURAL QUALITY ASSURANCE PLAN   |  |
| S0.4 | WIND PRESSURE DIAGRAM PLAN          |  |
| S0.5 | LEGENDS, SCHEDULES AND REBAR TABLES |  |
| S1.1 | FOUNDATION PLAN                     |  |
| S1.2 | MEZZANINE FRAMING PLAN              |  |

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Drawn By: CCA / AO Rev'd By: CH/DH SHEET RELEASE

> SCHEMATIC DESIGN STRUCTURAL NOTES DATE ISSUED:

# STRUCTURAL NOTES

THE STRUCTURAL NOTES DEFINE GENERAL DESIGN AND MATERIAL REQUIREMENTS AND ARE INTENDED TO SUPPLEMENT, BUT NOT REPLACE, THE PROJECT SPECIFICATIONS

#### STRUCTURAL STEEL

- 1. Steel Shapes
  - 1.1 W-Shapes: ASTM A992 (Grade 50)
  - 1.2 Angles, Channels, Plates, UNO: ASTM A36
  - 1.3 Square/Rectangular/Round Hollow Structural Sections (HSS): ASTM A500, Grade B
  - 1.4 Pipe Structural Sections: ASTM A53, Grade B
- 1.5 Structural steel exposed to weather shall be galvanized.
- 2. Anchor Rods, Bolts, and Studs
  - 2.1 Anchor Rods: ASTM F1554, Grade 36. Headed Rods or threaded rods with plate washer and heavy hex nut.
  - 2.2 Bolts: 3/4" Diameter A325 minimum. All connections may be bearing type, UNO. Design bearing type connections for load values with threads included in the shear plane. Submit proposed bolt tightening procedure for review.
  - 2.3 Headed Studs: ASTM A108. See Details for Diameter, Length and Spacing. Length given is in-place length after burn-off.
- 3. Structural steel shall be fabricated and erected according to the "Specification for Structural Steel Buildings" dated June 22, 2010 and the AISC "Code of Standard Practice for Steel Buildings and Bridges" dated April 14, 2010.
- 4. Connections shall be detailed based on the design information provided in the Structural Documents.
  - 4.1 Standard Shear Connections: Detail as bolted or welded double-angle, single-plate, single-angle, or tee connections in accordance with the connection tables in the "Manual of Steel Construction", Fourteenth Edition.
    - 4.1.1 Shear connections not defined in the AISC Manual shall be designed by an Engineer licensed in the project state. This design service shall be included in the Contractor's scope of services. Shop drawings of such connections shall be sealed by the Engineer.
  - 4.2 Welded Connections: Prequalified welded joints in accordance with AISC and the Structural Welding Code of the American Welding Society; "Non-prequalified joints" shall be qualified prior to fabrication.
  - 4.3 Factored Design Forces/Reactions: As shown on the Structural Drawings or, if not shown, the factored design reaction shall be half of the "Maximum Total Uniform Load (LRFD)" tabulated in the "Manual of Steel Construction", Fourteenth Edition.
  - 4.4 Steel connections shall have the strength to resist a minimum horizontal force of five percent of the factored design reaction.
- 5. Shop Drawings: Submittal shall adequately depict structural members and connections.
- 6. Weld electrodes for welding of demand critical welds shall be low-hydrogen, E70 electrodes with a minimum Charpy V-Notch (CVN) toughness of 20 ft-lbs at 0 degrees Fahrenheit and 40 ft-lbs at 70 degrees Fahrenheit.
- . Written welding procedures for shop and field welding of all structural steel shall be submitted to the Structural Engineer and the Special Inspector for review and approval. Do not fabricate steel until the welding procedures have been approved. The approved written welding procedures shall be strictly adhered to during the fabrication and field erection of all structural steel.
- . Welders shall be qualified for the work performed in accordance with AWS D1.1. Welder qualifications shall be certified by the local building authority and verified by the Contractor and the Special Inspector.

# STEEL JOISTS

- 1. Steel Joists, Bridging, and Connections: Designed, fabricated, and erected according to Specifications of the Steel Joist Institute (SJI).
- Design of steel joists, bridging, and their connections shall be the sole responsibility of the Contractor. Submit shop drawings sealed by an Engineer licensed in the project state.
- 3. Contractor shall coordinate the construction and erection of walls, beam framing, steel decking, etc. to ensure compatibility of roof and wall systems considering pitch and camber of steel joists.

# STEEL DECK

- 1. Non-Composite Steel Form Floor Deck: 24 gage, galvanized
- 2. Submit shop drawings with the manufacturer's catalog demonstrating compliance with the Contract Documents and the Steel Deck Institute.

# COLD-FORMED NON-LOAD BEARING EXTERIOR STEEL STUD FRAMING

- 1. Design of cold-formed exterior steel non-load bearing studs and their connections shall be the sole responsibility of the Contractor. Design and shop drawing submittals shall comply with the Specifications. Shop drawings shall be sealed by an Engineer licensed in the Project state.
- 2. Cold-Formed Steel Design, Fabrication and Erection: Conform to AISI S100-12, "North American Specification for Design of Cold-Formed Steel Structural Members".

### METAL BUILDING SYSTEM (SEE ARCHITECTURAL SPECIFICATIONS)

- 1. Design of Metal Building System shall be the sole responsibility of the Contractor. Submit shop drawings sealed by an Engineer licensed in the project state. Review of shop drawings shall be for conformance with the Contract Documents and the Contractor's interpretation of the design loads and Contract Document details. Such review shall not relieve the Contractor of full responsibility for the design of the Metal Building System.
- 2. Metal Building System includes the following:

Steel Frames
Lateral Load Resisting System (X-bracing, portal frames, diaphragm, etc.)
Wind Columns

Column anchor bolts (type, number, diameter, and embedment, adhesive anchors shall not be used)
Roof purlins
Wall girts

Wide flange/channel girt that distributes the lateral load from the top of the exterior wall to the metal building frame Roof and wall metal panels

Opening framing (doors, roof vents, etc.)

- . Metal Building System shall be designed for the live, wind, and seismic loads as prescribed by the Building Code given in the CODE/DESIGN CRITERIA section above and the loads listed below. Load combinations shall be in accordance with the Building Code and the MBMA "Low Rise Building Systems Manual".
- 3.1 Dead Loads
  - 3.1.1 Weight of structural frame and all other materials of the building system.
  - 3.1.2 Collateral dead load (not to be included in load combinations involving wind uplift) of \_\_\_\_ psf.
  - 3.1.3 Suspended items such as mechanical equipment, plumbing, folding partitions, etc. identified in the Contract Documents.
- 4. Metal Building System shall meet the serviceability deflection and drift limits as given in the AISC "Steel Design Guide Series 3: Serviceability Design Considerations for Low Rise Buildings", except as modified below:
- 4.1 Lateral Drift/Deflection due to wind forces mandated by the Building Code (where H is the Building Height and L is the span length)

Building Frame
Wind Columns
Member supporting top of Perimeter Wall
L/360

- . Metal Building manufacturer shall be accredited by the International Accreditation Service, Inc. (IAS), under the Inspection Programs for Manufacturers of Metal Building Systems by complying with AC472.
- Structural steel sections and welded plate members shall be designed, fabricated and erected in accordance with the AISC "Specification for Structural Steel Buildings: Allowable Stress Design and Plastic Design" or the AISC "Load and Resistance Factor Design Specification for Structural Steel Buildings"; and the AISC "Code of Standard Practice for Steel Buildings and Bridges".
- 7. Light-gage, cold formed structural members and panels shall be designed in accordance with the AISI "Specification for the Design of Cold-Formed Steel Structural Members".
- 8. Footings have been designed based upon assumed column reactions and no base column moments. Shop Drawings shall clearly indicate foundation reactions for code required load combinations. Footing construction shall not begin until Structural Engineer reviews foundation reactions and returns reviewed shop drawings.

# SEISMIC ANCHORAGE AND BRACING OF NON-STRUCTURAL COMPONENTS

- 1. Architectural, mechanical, and electrical components shall be properly anchored and braced to resist the seismic forces specified in the referenced Building Code. Refer to the architectural and MPE documents for specific details and additional information.
- 2. Suspended ducts, pipes, and conduits shall be braced in accordance with the ANSI/SMACNA 001-2008 Seismic Restraint Manual, 3rd Edition. Refer to the MPE documents for specific details and requirements.

# ANCHORAGE OF MECHANICAL COMPONENTS

- 1. Roof Top Structures and Equipment
  - 1.1 Rooftop structures and equipment shall be properly anchored and braced to resist wind and seismic forces. Refer to MPE documents for specific details and additional information.
  - 1.2 Design of anchorage for rooftop structures, curbs and equipment shall be the sole responsibility of the Contractor. Submit shop drawings sealed by an Engineer licensed in the project state. Shop drawings shall show plan layout, typical elevations, details, and anchorage to the structure.
- 2. Piping
  - 2.1 Pipe loads supported by "C" clamps at the edge of structural steel beam flanges cannot exceed 500 pounds.
  - 2.2 Total load of mechanical components applied to any one structural steel beam is not to exceed 4000 pounds unless specifically approved by the Structural Engineer.

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STRUCTURAL NOTES (cont.)
ABETHTOWN HIGH SCHOOL FIELD HOUSE
FOR:
IZABETHTOWN INDEPENDENT SCHOOLS
Elizabethtown, Kentucky

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220 Great Circle Rd. Suite 106
Nashville, TN 37228

p 615.255.5537

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STRUCTURAL NOTES (cont.)

SCHEMATIC DESIGN

# STRUCTURAL QUALITY ASSURANCE PLAN

### **GENERAL**

This Structural Quality Assurance Plan includes:

- 1. The Statement of Special Inspections which defines the scope of testing and inspection that is required
- The responsibilities of the Contractor.
- Structural Observations

Refer to other portions of the Construction Documents for Special Inspections required of architectural, mechanical, electrical, or other building components.

Special Inspector will be hired by the Owner.

Special Inspector shall maintain records of inspections in accordance with Chapter 17 of the Building Code and shall distribute these records to the Building Official, Architect, and Structural Engineer on a weekly basis, unless noted otherwise below. Reports shall indicate that work inspected/tested was done in conformance to the Construction Documents. Discrepancies shall be brought to the immediate attention of the Contractor for correction. If the discrepancies are not corrected, they shall be brought to the attention of the Building Official, Architect, and Structural Engineer prior to completion of that phase of the work.

At the conclusion of the project, the Special Inspector shall submit a final report documenting required special inspections and correction of any discrepancies noted in the inspections.

### **STATEMENT OF SPECIAL INSPECTIONS**

Special Inspector shall perform the following tests and inspections of all structural elements included within this Statement of Special Inspections.

- The following elements are part of the Seismic-Force-Resisting (SFR) System. and require additional Special Inspections or Testing for Seismic Resistance:
  - Moment Frames and their Foundations
  - Braced Frames and their Foundations
  - Special Moment Frames and their Foundations Special Structural Walls, their Foundations, and associated Coupling Beams
- Floor and Roof Diaphragms
- The followings elements are part of the Main Wind-Force-Resisting (MWFR) System and require additional Special Inspections for Wind Resistance:
- Moment Frames and their Foundations
- Braced Frames and their Foundations
- Floor and Roof Diaphragms, including Collectors, Drag Struts, and Boundary Elements
- Roof Cladding and Fastening Connections Fabrication and Installation of Impact Resistant Systems or Components
- The following tables contain material, components and work that require special inspection or testing: a. Inspection Frequency, C - Continuous special inspection. Special inspection by the special inspector who is present when and where the work to be inspected is being performed.
- Inspection Frequency, P Periodic special inspection. Special inspection by the special inspector who is intermittently present where the work to be inspected has been or is being
- performed. For structural steel observe the items on a random basis. See Steel section for additional information for inspection tasks.

|    | SOILS  | Inspection<br>Frequency |   | Remarks  |
|----|--|-------------------------|---|--|
| 1. | Verify materials below shallow foundations are adequate to achieve the design bearing capacity.  |                         | Р |  |
| 2. | Verify excavations are extended to proper depth and have reached proper material.  |                         | Р | Inspection is required after excavation is complete and prior to placement of structural fills.          |
| 3. | Perform classification and testing of controlled fill materials.   |                         | Р | Perform laboratory tests of field samples provided by contractor for verification of in place densities. |
| 4. | Verify use of proper materials, densities, and lift thickness during placement and compaction of controlled fill.  a. As a minimum, perform one test per lift for every 2500 square feet of fill placed. | С                       |   | Refer to specification for lift thicknesses and compaction.  |
| 5. | Prior to placement of controlled fill, observe subgrade and verify that the site has been prepared properly (e.g. proofrolling, etc.).   |                         | Р |  |
| 6. | Determine quantities of material removed and quantities of material placed where Unit Prices are involved.   |                         | Р |  |

|    | NON-SHRINK GROUTING  |   | ection<br>uency | Remarks   |
|----|--|---|-----------------|---|
| 1. | <ul> <li>Compressive strength tests per ASTM C1107.</li> <li>a. Number of Tests: One test for each ten bags of grout used or minimum of one test for each day of grouting.</li> <li>b. Cube Size: 2-inch x 2-inch</li> <li>c. Test Schedule: (1) cube at 3-days, (2) cubes at 7-days, (3) cubes at 28-days.</li> </ul> | С |                 |   |
| 2. | Perform one performance evaluation test prior placing grout under base plates. Test shall be performed as outlined in ACI 351.1R-99  |   | Р               | One test shall be performed at the beginning job prior to placement of grout under base plates. |

| CONCRETE CONSTRUCTION |   | NCRETE CONSTRUCTION   Inspection   Frequency |   |  |
|-----------------------|---|--|---|--|
| 1.                    | Inspection of reinforcing steel placement and installation. Grade, size, quantity, quality, location, spacing, clearances.  |  | Р | ACI 318: 3.5, 7.1 – 7.7 / IBC 1910.4   |
| 2.                    | Inspection of anchors cast in concrete. Verify compliance of the following: diameter, grade, type, length, number, placement, and embedment dpeth.  | С  |   | ACI 318: 1.3.2, 8.1.3, 21.1.8 / IBC 1908.5, 1909.1, AISC 360-10 N5.7   |
| 3.                    | Inspection of post-installed mechanical anchors installed in hardened concrete members: verify anchor type, anchor dimensions, hole diameter and cleaning procedures, anchor spacing, edge distances, concrete minimum thickness, anchor embedment, and tightening torque.  | С  |   | ACI 318: 3.8.6, 8.1.3, 21.1.8 / IBC 1909.1  Use of post installed anchors must be approved by Structural Engineer  |
| 4.                    | Inspection of post-installed adhesive anchors and reinforcing steel installed in hardened concrete members: Verify adhesive type, anchor rod dimensions, hole diameter and cleaning procedures, anchor spacing, edge distances, concrete minimum thickness, anchor embedment and tightening toque.  | С  |   | ACI App. D9.2.4  |
| 5.                    |   |  | Р | ACI 318: Ch. 4, 5.2 – 5.4, IBC 1904.2, 1910.2, 1910.3  |
| 6.                    | Sampling fresh concrete from concrete discharge. Mold one set of specimens for compressive strength testing for each 150 cubic yards or each 5,000 square feet of slab or wall surface area for each mix design placed in any one day. No fewer than five tests for a given class of concrete for the entire project.  a. Mold (5) 4x8-inch compressive strength cylinders, break and report (1) at 7-days, (3) at 28-days, or mold (4) 6x12-inch compressive strength cylinders, break and report (1) at 7-days, (2) at 28-days.  b. Remaining specimen(s) shall be broken as directed by the Structural Engineer if compressive strengths do not appear adequate.  c. For each set molded, record:  i. Slump  ii. Air Content  iii. Unit Weight  iv. Temperature, ambient and concrete  v. Batch and discharge times  vi. Location and placement  vii. Any pertinent information, such as addition of water, addition of admixtures, etc.  d. Verify compliance with construction documents | С  |   | ACI 318: 5.6, 5.8 ACI (5.a, 5b.i, ii, iii, iv, v, vi), SDG (5b.vii, 5.c, 5.d) ASTM C 172, ASTM C 31  ACI 318: 5.6.1 Report in writing on the same day as tests are performed. Reports of compressive strength tests shall contain the project identification name and number, date of concrete placement, name of concrete testing agency, concrete design compressive strength, location of concrete placement in structure, concrete mix proportions and materials, compressive breaking strength and type of break. |
| 7.                    | Inspection of concrete conveying and placement for proper application techniques.   | С  |   | ACI 318: 5.9, 5.10   |
| 8.                    | Inspection for maintenance of specified curing temperature and techniques.  |  | Р | ACI 318: 5.11 – 5.13   |
| 9.                    | Inspection of formwork for shape, location, and dimensions of the concrete member being formed.   |  | Р | ACI 318: 6.1.1   |
| 10.                   | Perform testing of floor Flatness and Levelness of concrete slab placements in accordance with ASTM E1155. See specification  |  | Р | ACI 117-10   |

| LE   | CONCRETE MASONRY EVEL B - (FOR RISK CATEGORY I, II, OR III STRUCTURES using Engineered methods, NON-Empirical)  | Inspe<br>Frequ | ction<br>lency | Remarks   |
|--|---|----------------|----------------|---|
| Verification of f 'm in accordance with Specification TM-<br>Article 1.4 B prior to construction |   |                |                | TMS 602 - Article 1.4 B                               |
| 2.   | Verification of Slump flow and Visual Stability Index (VSI) as delivered to the project site for self-consolidating grout.  |                |                | TMS 602 - Article 1.5 B.1.b.3                         |
| 3.   | Verify compliance with the following approved submittals  |                |                |   |
|  | Mortar mix designs indicating type and proportions of ingredients in compliance with the proportion specification of ASTM C270  |                | Р              | TMS 602 - Article 2.1 and 2.6 A                       |
|  | <ul> <li>Mortar mix designs and mortar tests performed in<br/>accordance with the property specification of ASTM<br/>C270.</li> </ul>                                 |                | Р              | TMS 602 - Article 2.1 and 2.6 A                       |
|  | <ul> <li>Grout mix designs indicating type and proportions of the<br/>ingredients according to the proportion requirements of<br/>ASTM C476</li> </ul>                |                | Р              | TMS 602 - Article 2.2                                 |
|  | d. Grout mix designs and grout strength test performed in accordance with ASTM C476   |                | Р              | TMS 602 - Article 2.2                                 |
|  | e. Grout compressive strength tests performed in accordance with ASTM C1019, and slump flow and Visual Stability Index (VSI) as determined by ASTM C1611/C1611M.      | -              | Р              | TMS 602 - Article 2.2                                 |
|  | f. Construction procedures cold weather (temperature below 40°F) or hot weather (temperature above 90°F)  |                | Р              | TMS 602 - Article 1.8 C and 1.8 D                     |
| 4.   | As masonry construction begins, verify that the following are in compliance:  |                |                |   |
|  | a. Proportions of site-prepared mortar  |                | Р              | TMS 602 - Article 2.1 and 2.6 A                       |
|  | b. Construction of mortar joints  |                | Р              | TMS 602 - Article 3.3 B                               |
|  | c. Location of reinforcement and connectors   |                | Р              | TMS 602 - Article 3.4                                 |
| 5.   | Prior to grouting, verify that the following are in compliance:   |                |                |   |
|  | a. Grout space.   |                | Р              | TMS 602 - Article 3.2 D and 3.2 F                     |
|  | b. Grade, type, and size of reinforcement and anchor bolts  |                | Р              | TMS 402 - Sec 1.16<br>TMS 602 - Article 2.4 and 3.4   |
|  | c. Placement of reinforcement and connectors (including horizontal joint reinforcement)   |                | Р              | TMS 402 - Sec 1.16<br>TMS 602 - Article 3.2 E and 3.4 |
|  | d. Proportions of site-prepared grout   |                | Р              | TMS 602 - Article 2.6 B                               |
|  | e. Construction of mortar joints  |                | Р              | TMS 602 - Article 3.3 B                               |
| 6.   | Verify during construction:   |                |                |   |
|  | a. Size and location of structural elements   |                | Р              | TMS 602 - Article 3.3 F                               |
|  | <ul> <li>Type, size, and location of anchors, including other<br/>details of anchorage of masonry to structural members,<br/>frames, or other construction</li> </ul> |                | Р              | TMS 402 - Sec. 1.16.4.3, 1.17.1                       |
|  | <ul> <li>Preparation, construction, and protection of masonry<br/>during cold weather (temperature below 40°F) or hot<br/>weather (temperature above 90°F)</li> </ul> |                | Р              | TMS 602 - Article 1.8 C and 1.8 D                     |
|  | d. Placement of grout is in compliance  | С              |                | TMS 602 - Article 3.5                                 |
| 7.   | Observe preparation of grout specimens, mortar specimens, and/or prisms   |                | Р              | TMS 602 - Article 1.4 B.2.b.3, 1.4 B.3, 1.4 B.4       |

|                            |                                    | STRUCTURAL STEEL  | · •                | ection<br>lency | Remarks   |
|----------------------------|------------------------------------|---|--------------------|-----------------|---|
| fabr<br>Cha<br>coo<br>fund | ricato<br>apter<br>ordina<br>ction | the following tasks have been be performed by the per's or erector's quality control program in accordance to N of AISC 360-10. It is permitted that this tasked be atted with the Special Inspector so that the inspection is are performed by only one party. The Special                           | (                  |                 | nese items on a random basis.<br>need not be delayed pending<br>ections.  |
| ere                        | ctor's                             | or shall review records of tasked performed by the s and fabricator's quality control program to verify eness.  | Perf. – I<br>membe |                 | ese tasks for each welded joint or  |
| 1.                         | sho<br>mei                         | pection of steel framing to verify compliance with details wn on the approved construction documents including mber locations, bracing, stiffening application of joint details   |                    | Obs.            | AISC 360-10 N5.7  |
| 2.                         | Rev<br>belo<br>a.<br>b.            | rach connection, proper fasteners, etc.  view the material test reports and certifications as listed ow for compliance with the construction documents.  Main structural steel material test reports  Anchor rods and threaded rods test reports  Headed stud anchors - manufacturer's certifications | Perf.              |                 | AISC 360-10 N5.2 & N3.2   |
| 3.                         | Visi                               | ual Inspection Tasks Prior to Welding   |                    |                 | AISC 360-10 Table N5.4-1  |
|                            | a.                                 | Welding procedure specifications (WPSs) available   | Perf.              |                 | AWS D1.1/D1.1M 6.3  |
|                            | b.                                 | Manufacturer certifications for welding consumables available.  | Perf.              |                 |   |
|                            | C.                                 | Material identification (type/grade)  |                    | Obs.            |   |
|                            | d.                                 | Welder identification system The fabricator or erector, as applicable, shall maintain a system by which a welder who has welded a joint or member can be identified. Stamps, if used, shall be the low-stress type.   |                    | Obs.            | AWS D1.1/D1.1M 6.4 (welder qualification) (identification system not required by AWS D1.1/D1.1M)  |
|                            | e.                                 | Fit-up of groove welds (including joint geometry)  i. Joint preparation  ii. Dimensions (alignment, root opening, root face, bevel)  iii. Cleanliness (condition of steel surfaces)  iv. Tacking (tack weld quality and location)  v. Backing type and fit (if applicable)                            |                    | Obs.            | AWS D1.1/D1.1M 6.5.2<br>AWS D1.1/D1.1M 5.22<br>AWS D1.1/D1.1M 5.15<br>AWS D1.1/D1.1M 5.18<br>AWS D1.1/D1.1M 5.10, 5.22.1.1  |
|                            | f.                                 | Configuration and finish of access holes  |                    | Obs.            | AWS D1.1/D1.1M 6.5.2, 5.17  |
|                            | g.                                 | Fit-up of fillet welds  i. Dimensions (alignment, gaps at root)  ii. Cleanliness (condition of steel surfaces)  iii. Tacking (tack weld quality and location)   |                    | Obs.            | AWS D1.1/D1.1M 5.22.1<br>AWS D1.1/D1.1M 5.15<br>AWS D1.1/D1.1M 5.18   |
|                            | h.                                 | Check welding equipment   |                    | Obs.            | Only Required for shop Fabrication.   |
| 4.                         |                                    | ual Inspection Tasks During Welding   |                    |                 | AISC 360-10 Table N5.4-2  |
|                            |                                    | Use of qualified welders  |                    | Obs.            | AWS D1.1/D1.1M 6.4  |
|                            |                                    | Control and handling of welding consumables i. Packaging ii. Exposure control   |                    | Obs.            | AWS D1.1/D1.1M 6.2<br>AWS D1.1/D1.1M 5.3.1<br>AWS D1.1/D1.1M 5.3.2 (for SMAW),<br>AWS D1.1/D1.1M 5.3.3 (for SAW)  |
|                            | C.                                 | No welding over cracked tack welds  |                    | Obs.            | AWS D1.1/D1.1M 5.18   |
|                            |                                    | Environmental conditions i. Wind speed within limits ii. Precipitation and temperature  |                    | Obs.            | AWS D1.1/D1.1M 5.12.1<br>AWS D1.1/D1.1M 5.12.2  |
|                            | e.                                 | WPS followed i. Settings on welding equipment ii. Travel speed iii. Selected welding materials iv. Shielding gas type/flow rate v. Preheat applied vi. Interpass temperature maintained (min./max.) vii. Proper position (F, V, H, OH) viii. Intermix of filler metals avoided unless approved        |                    | Obs.            | AWS D1.1/D1.1M 6.3.3, 6.5.2, 5.5, 5.21  AWS D1.1/D1.1M 5.6, 5.7   |
|                            | f.                                 | Welding techniques i. Interpass and final cleaning ii. Each pass within profile limitations iii. Each pass meets quality requirements   |                    | Obs.            | AWS D1.1/D1.1M 6.5.2, 6.5.3, 5.24<br>AWS D1.1/D1.1M 5.30.1  |
| 5.                         | Visi                               | ual Inspection Tasks After Welding  |                    |                 | AISC 360-10 Table N5.4-3  |
|                            | a.                                 | Welds cleaned   |                    | Obs.            | AWS D1.1/D1.1M 5.30.1   |
|                            | b.                                 | Size, length and location of welds  | Perf.              |                 | AWS D1.1/D1.1M 6.5.1  |
|                            | C.                                 | Welds meet visual acceptance criteria i. Crack prohibition ii. Weld/base-metal fusion iii. Crater cross section iv. Weld profiles v. Weld size vi. Undercut vii. Porosity   | Perf.              |                 | AWS D1.1/D1.1M 6.5.3<br>AWS D1.1/D1.1M Table 6.1(1)<br>AWS D1.1/D1.1M Table 6.1(2)<br>AWS D1.1/D1.1M Table 6.1(3)<br>AWS D1.1/D1.1M Table 6.1(4), 5.24<br>AWS D1.1/D1.1M Table 6.1(6)<br>AWS D1.1/D1.1M Table 6.1(7)<br>AWS D1.1/D1.1M Table 6.1(8) |
|                            | d.                                 | Arc strikes   | Perf.              |                 | AWS D1.1/D1.1M 5.29   |
|                            | e.                                 | k-area. When welding of doubler plates, continuity plates or stiffeners has been performed in the k-area, visually inspect the web k-area for cracks within 3 in. (75mm) of the weld  | Perf.              |                 | Not addressed in AWS but see AISC (1997b). See Commentary Section A3.1c and Section J10.8.  |
|                            | f.                                 | weld.  Backing removed and weld tabs removed and finished, an fillet welds added (if required)  | d Perf.            |                 | AWS D1.1/D1.1M 5.10, 5.31   |
|                            |                                    |   | <b>5</b> ,         |                 | ANNO DA A/DA ANA C E O E OC   |
|                            | g.                                 | Repair activities   | Perf.              |                 | AWS D1.1/D1.1M 6.5.3, 5.26  |

|  | ·  |  | CONTRACTOR RESPONSIBILITIES  |
|--|--|--|--|
| STRUCTURAL STEEL CONT.   | Inspection Frequency   | Remarks  | Contractor shall submit to the Building Official, Owner, and the Architectural that contains the following:  Advantagement of suprepage of the special requirements contains.  |
| Nondestructive Testing (NDT) of Welded Joints  | and radiographic testing (Inspector in accordance we fabricator's shop may be proceed by the fabricator performs the ND fabricator's NDT reports. A performed by the Special with AWS D1.1/D1.1M for | agnetic particle testing (MT), penetrant testing (PT) RT), where required, shall be performed by Special with AWS D1.1/D1.1M. NDT of welds completed in a performed by that fabricator when fabricator is AISC are Building Official where applicable. When the DT, the Special inspection agency shall review the All NDT of welds completed in the field shall be inspector. Acceptance criteria shall be in accordance statically loaded structures, unless otherwise drawings or project specifications. | <ul> <li>a. Acknowledgment of awareness of the special requirements cont Inspections for the main wind- or seismic force-resisting system component listed in the statement of special inspections.</li> <li>2. Contractor shall pay for any additional structural testing/inspection required complying with the Construction Documents due to negligence or noncadditional structural testing/inspection required for his convenience.</li> <li>3. Contractor is responsible to ensure that the Special Inspector is on site required by Statement of Special Inspection. Any work that requires special without the Special Inspector being present is subject to being demolis</li> </ul>  |
| <ul> <li>a. UT all complete penetration groove welds subject to<br/>transversely applied tension loading in a butt, T- and<br/>corner joints in material 5/16" thick or greater. MT shall be<br/>performed on 25% of all beam-to-column CJP groove<br/>welds.</li> </ul>   | Perf   | AISC 360-10 N5.5b & AISC 341-10 J6.2b  | <ul> <li>4. Contractor has the following responsibilities to the Special Inspector:</li> <li>a. Provide copy of Construction Documents to Special Inspector are orders and field orders prior to inspection of work contained them</li> <li>b. Notify Special Inspector sufficiently in advance of operations to a</li> </ul>  |
| b. Thermally cut surfaces of access holes when material thickness is greater than 2" shall be tested by MT or PT.  Any crack shall be deemed unacceptable.   | Perf   | AISC 360-10 N5.5c  | scheduling of tests. c. Cooperate with Special Inspector and provide access to work. d. Provide samples of materials to be tested in required quantities.  |
| c. Establish weld soundness of welded joint subject to fatigue by RT of UT for the following joints:   | Perf   | Reduction in rate of UT is prohibited.<br>AISC 360-10 N5.5d  | <ul> <li>e. Provide storage space for Special Inspector's exclusive use, suc<br/>testing samples.</li> </ul>   |
| <ul> <li>k-Area NDT: Where welding of doubler plates, continuity<br/>plates or stiffeners has been performed the web shall be<br/>tested for cracks using MT.</li> </ul>   | Perf.  | The MT inspection area shall include the k-area base metal within 3-in if the weld and shall be performed within 48 hours following completion of the welding. AISC 341-10 J6.2a   | 5. Contractor shall perform the following: a. SOILS  |
| e. Base Metal NDT for Lamellar Tearing and Laminations: After joint completion, base metal thicker than 1-1/2" loaded in tension in the through-thickness direction in tee and corner joints, where the connected material is greater than 3/4" and contains CJP groove welds, shall be UT for discontinuities behind and adjacent to the fusion line of such welds. | Perf   | Any base metal discontinuities found within t/4 of the steel surface shall be accepted or rejected on the basis of criteria of AWS D1.1/D1.1M Table 6.2, where is the thickness of the part subjected to the through-thickness strain. AISC 341-10 J6.2c   | D. CAST-IN-PLACE CONCRETE  |
| f. Beam Cope and Access Hole NDT: At welded splices and connections, thermally cut surfaces of beam copes and access holes shall be tested using MT or PT, when the flange thickness exceeds 1-1/2 in. for rolled shapes, or when the web thickness exceeds 1-1/2 in. for built-up sections.   | Perf   | AISC 341-10 J6.2d  | iii. Submit manufacturer's certification that concrete materials Construction Documents. c. NON-SHRINK GROUTING i. Submit product data sheets for non-shrink grout that show Documents and with ASTM C1107 for fluid or flowable gro   |
| g. Reduced Beam Section (RBS) Repair NDT: Magnetic<br>particle testing shall be performed on any weld and<br>adjacent area of the reduced beam section (RBS) cut<br>surface that has been repaired by welding, or on the base<br>metal of the RBS cut surface if a sharp notch has been<br>removed by grinding.  | Perf   | AISC 341-10 J6.2e  | d. CONCRETE MASONRY i. Submit a certification from each manufacturer or supplier comply with the Construction Documents: 1. Concrete masonry units. 2. Mortar materials: Portland cement, hydrated lime,   |
| h. Weld Tab Removal Sites: At the ends of welds were weld tabs have been removed, MT shall be performed on the same beam-to-column joints receiving UT   | Perf   | AISC 341-10 J6.2f  | <ul><li>3. Grout materials: Portland cement and aggregates.</li><li>4. Joint reinforcement steel.</li></ul>  |
| <ul> <li>Document all NDT performed, identifying tested weld by<br/>location in the structure, piece mark and location.</li> <li>Concurrent to submitting NDT reports to EOR or owner<br/>submit to contractor.</li> </ul>   | Perf   | AISC 360-10 N5.5g  | 5. Reinforcing steel. e. STRUCTURAL STEEL i. If fabricator or erector is not AISC certified, the fabricator maintain <i>quality control</i> procedures and perform inspectio   |
| j. Review NDT test reports performed by fabricator   |  | AISC 360-10 N7   | performed in accordance with the Section N of the Specifi  |
| . Inspection Tasks Prior to Bolting  |  | Perform for 10% of all Snug tight joints if task is applicable and all pretension and slip critical joints.  AISC 360-10 Table N5.6-1  | Building, AISC 360-10 and the <i>construction documents</i> . P and inspections, except for all NDT of welds completed in shall be by the fabricator and Erector.  |
| Manufacturer's certifications available for fastener materials   | Perf   | RCSC 2.1 & 9.1   | <ol> <li>Make available the documents listed in AISC 360-1<br/>review by the EOR of the EOR's Designee prior to</li> </ol>   |
| b. Fasteners marked in accordance with ASTM requirements   | Perf   | RCSC Figure C-2.1 & 9.1 (Also See ASTM Standards)  | required by the contract documents to be submitted ii. Provide non-destructive test (NDT) reports performed in seponts |
| c. Proper fasteners selected for the joint detail (grade, type, bolt length if threads are to be excluded from shear plane)  | Obs.   | RCSC 2.3.2, 2.7.2 & 9.1  | by piece mark and location in the piece.  f. POST-INSTALLED ANCHORS  |
| d. Proper bolting procedure selected for joint detail  | Obs.   | RCSC 4 & 8   | <ol> <li>Contractor shall contact manufacturer's representative for</li> </ol>   |
| <ul> <li>Connecting elements, including the appropriate faying<br/>surface condition and hole preparation, if specified, meet<br/>applicable requirements</li> </ul>   | Obs.   | RCSC 3, 9.4 & 9.3  | a letter indicating that training has taken place. g. STEEL JOISTS i. Submit manufacturer's certificate of compliance that the second compliance that the se |
| f. Pre-installation verification testing by installation personne observed and documented for fastener assemblies and methods used, not required for Snug tight bolts  | Obs.   | RCSC 7 & 9.2   | <ul> <li>i. Submit manufacturer's certificate of compliance that the s         Documents.         h. STEEL DECK     </li> </ul>  |
| g. Proper storage provided for bolts, nuts, washers and other fastener components  | Obs.   | RCSC 2.2,8 & 9.1   | <ul> <li>i. Submit manufacturer's certificate of compliance that the s         Construction Documents.</li> </ul>  |
| B. Inspection Tasks During Bolting   |  | Perform for 10% of all Snug tight joints if task is applicable and all pretension and slip critical joints. Special Inspector need not be present during bolt pretensioning procedures. AISC 360-10 Table N5.6-2   | i. METAL BUILDING SYSTEM  i. Submit certification that the Metal Building System manuf   |
| <ul> <li>Fastener assemblies, of suitable condition, placed in all<br/>holes and washers (if required) are positioned as required</li> </ul>   | Obs.   | RCSC 8.1 & 9.1   | building Systems by complying with AC472.  |
| <ul> <li>Joint brought to the snug-tight condition prior to the<br/>pretensioning operation</li> </ul>   | Obs.   | RCSC 8.1 & 9.1   |  |
| c. Fastener component not turned by the wrench prevented from rotating   | Obs.   | RCSC 8.2 & 9.2   |  |
| <ul> <li>d. Fasteners are pretensioned in accordance with the RCSC<br/>Specification, progressing systematically from the most<br/>rigid point toward the free edges</li> </ul>  | Obs.   | RCSC 8.2 & 9.2   |  |
| 9. Inspection Tasks After Bolting  |  | AISC 360-10 Table N5.6-3   |  |

| STEEL JOISTS  | Inspe<br>Frequ | ection<br>uency | Remarks |
|---|----------------|-----------------|---------|
| Visual inspection of bolted and welded connections.     |                | Р               |         |
| Verify installation of bridging or braces.              |                | Р               |         |
| Verify connections for top and bottom chords.           |                | Р               |         |
| Verify reinforcement of members for concentrated loads. |                | Р               |         |
| 5. Verify proper bearing.                               |                | Р               |         |

a. Document acceptance or rejection of bolted connections

Perf.

|    | STEEL DECK  | Inspe<br>Frequ | ection<br>uency | Remarks |
|----|---|----------------|-----------------|---------|
| 1. | Material verification of steel deck.  a. Identification markings to conform to ASTM standards specified in the approved construction documents  b. Manufacturer's certified test reports.   |                | Р               |         |
| 2. | Verify general alignment and deck lap.  |                | Р               |         |
| 3. | Verify welds for size and pattern.  |                | Р               |         |
| 4. | Inspection of welding at floor deck   |                | Р               |         |
| 5. | Verify spacing and type of sidelap attachments.   |                | Р               |         |
| 7. | Inspect welding operations, screw attachment, bolting, anchoring, and other fastening of components within the lateral force resisting system along including shear walls, braces, diaphragms, collectors (drag struts) and hold downs. |                | Р               |         |

### **CONTRACTOR RESPONSIBILITIES**

- 1. Contractor shall submit to the Building Official, Owner, and the Architect a written statement of responsibility
- that contains the following: a. Acknowledgment of awareness of the special requirements contained in the Statement of Special Inspections for the main wind- or seismic force-resisting system or a wind- or seismic-resisting component listed in the statement of special inspections.
- 2. Contractor shall pay for any additional structural testing/inspection required for work or materials not complying with the Construction Documents due to negligence or nonconformance and shall pay for any additional structural testing/inspection required for his convenience.
- Contractor is responsible to ensure that the Special Inspector is on site as required to perform all tasks required by Statement of Special Inspection. Any work that requires special inspection and is performed without the Special Inspector being present is subject to being demolished and reconstructed.
- a. Provide copy of Construction Documents to Special Inspector and latest addenda (include change orders and field orders prior to inspection of work contained therein). Notify Special Inspector sufficiently in advance of operations to allow assignment of personnel and

  - Cooperate with Special Inspector and provide access to work. Provide samples of materials to be tested in required quantities.
- Provide storage space for Special Inspector's exclusive use, such as for storing and curing concrete
- Provide labor to assist Special Inspector in performing tests/inspections.
- 5. Contractor shall perform the following:
  - Identify soils to be used as structural fill. CAST-IN-PLACE CONCRETE
  - Submit manufacturer's certification that reinforcing materials comply with Construction
  - Establish concrete mix design proportions in accordance with the specifications and
  - ACI 318, Chapter 5.
  - Submit manufacturer's certification that concrete materials meet the requirements of the
  - Construction Documents.
  - NON-SHRINK GROUTING Submit product data sheets for non-shrink grout that shows compliance with the Construction
  - Documents and with ASTM C1107 for fluid or flowable grouts, prior to placement of grout.
  - Submit a certification from each manufacturer or supplier stating that the following materials
  - comply with the Construction Documents: Concrete masonry units.
  - Mortar materials: Portland cement, hydrated lime, and aggregates.
  - Grout materials: Portland cement and aggregates.
  - Joint reinforcement steel.
  - Reinforcing steel.
  - e. STRUCTURAL STEEL
    - If fabricator or erector is not AISC certified, the fabricator and/or erector shall establish and maintain *quality control* procedures and perform inspections to ensure that their work is performed in accordance with the Section N of the Specification for Structural Steel Building, AISC 360-10 and the *construction documents*. Payment of these Quality control tests and inspections, except for all NDT of welds completed in the field by the Special Inspector, shall be by the fabricator and Erector.
    - 1. Make available the documents listed in AISC 360-10 N3.2 in electronic or printed form for review by the EOR of the EOR's Designee prior to fabrication or erection unless otherwise required by the contract documents to be submitted:
    - Provide non-destructive test (NDT) reports performed in shop by fabricator. Fabricator is responsible for cost of NDT performed in shop. Reports shall identify the tested weld by piece mark and location in the piece.
  - POST-INSTALLED ANCHORS i. Contractor shall contact manufacturer's representative for product installation training. Submit a letter indicating that training has taken place.
  - i. Submit manufacturer's certificate of compliance that the steel joists comply with the Construction Documents.
  - h. STEEL DECK Submit manufacturer's certificate of compliance that the supplied steel deck complies with the
    - Construction Documents. METAL BUILDING SYSTEM
    - i. Submit certification that the Metal Building System manufacturer is accredited by the International Accreditation Service, Inc. (IAS), under the Inspection Programs for Manufacturers of Metal Building Systems by complying with AC472.

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M,E,&P Engineer: 2429 Members Way Lexington, KY 40504 p 859.253.0892 <u>Structural Engineer:</u> Structural Design Group, Inc. 220 Great Circle Rd. Suite 106 Nashville, TN 37228

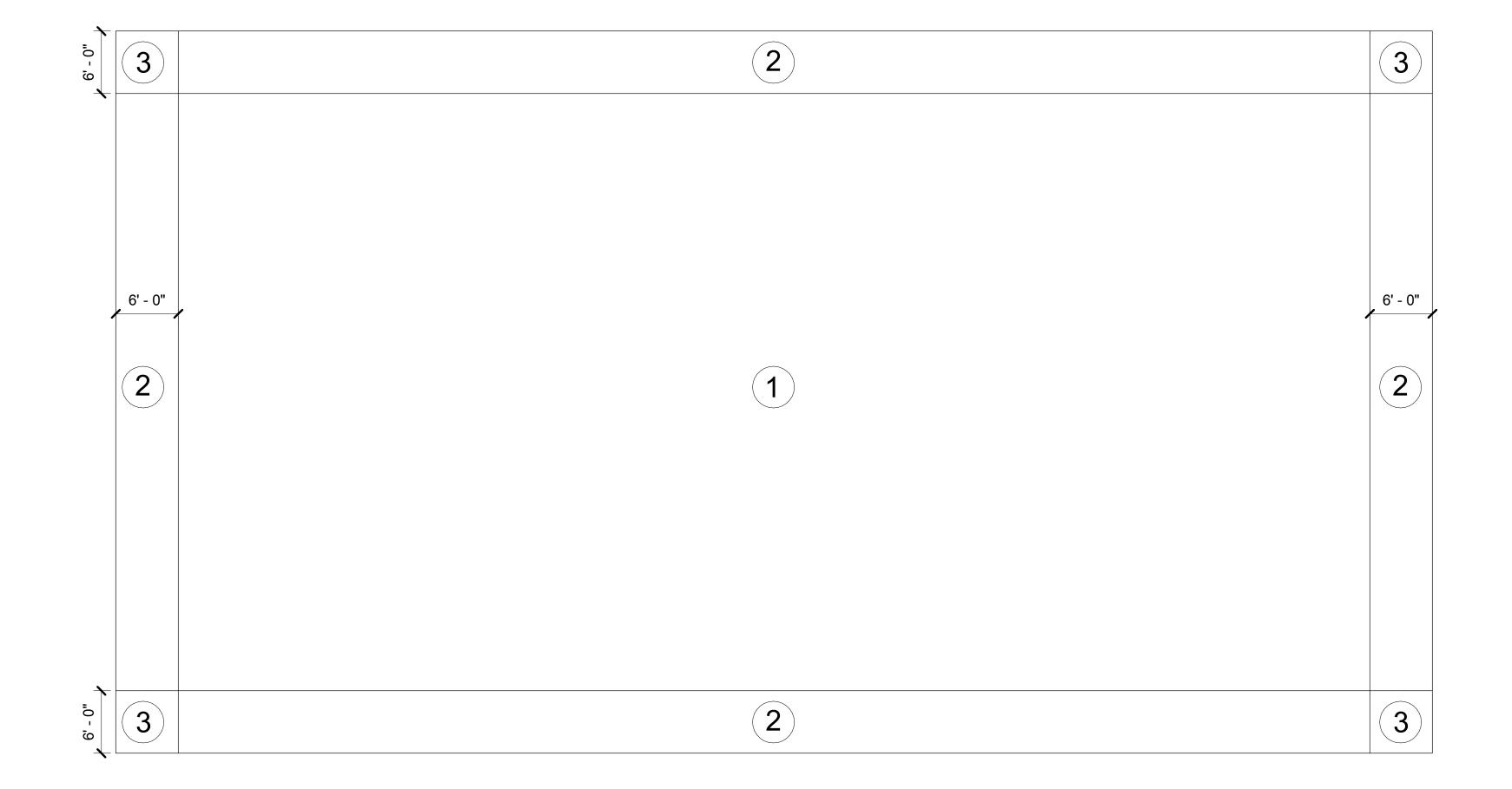
p 615.255.5537

Drawn By: CCA / AO Rev'd By: CH/DH SHEET RELEASE

> STRUCTURAL QUALITY ASSURANCE PLAN

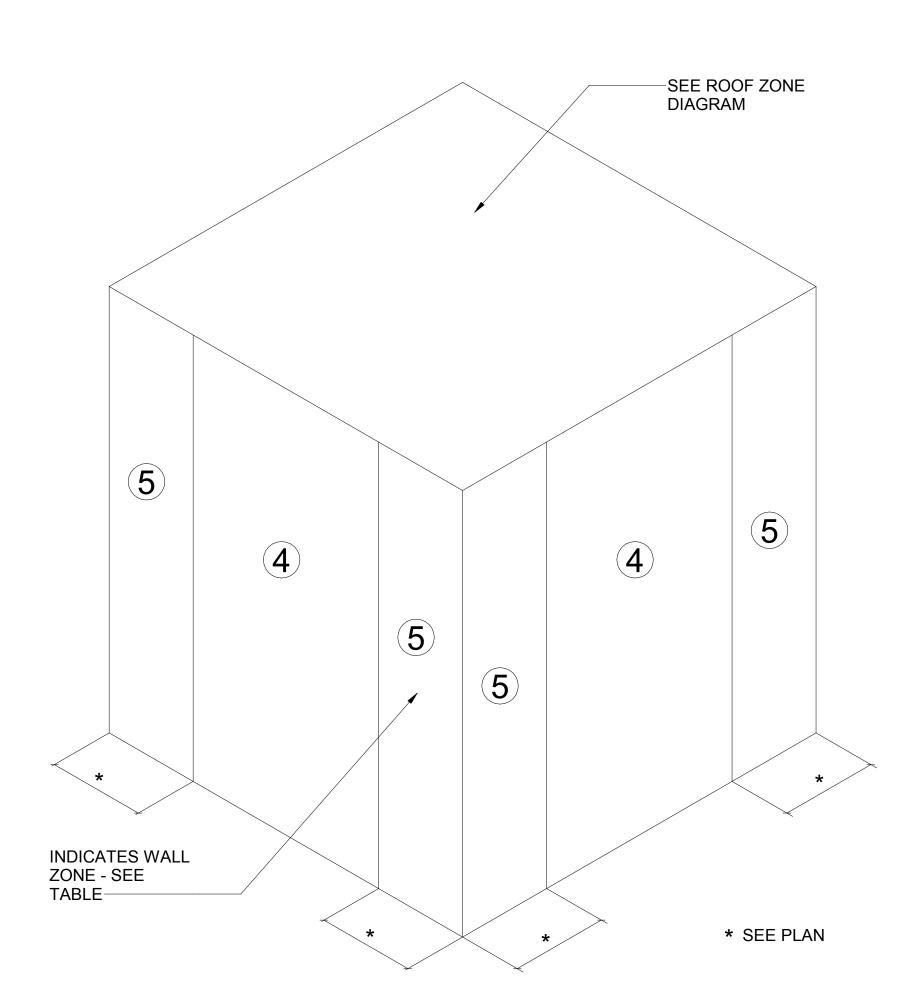
> > DATE ISSUED: 12/11/2018

SCHEMATIC DESIGN



WIND PRESSURE PLAN

1/8" = 1'-0"



WALL ZONE DIAGRAM

# WIND PRESSURE DIAGRAM NOTES:

1. DESIGN WIND PRESSURES WERE CALCULATED IN ACCORDANCE WITH ASCE 7-10 BASED ON AN EFFECTIVE WIND AREA AND WITH Kd= 0.85 MULTIPLY BY 0.6 FOR ASD

2. ROOF UPLIFT WIND PRESSURES IN ZONES 1, 2, AND 3 ARE GROSS UPLIFT VALUES. NET UPLIFT PRESSURES SHALL BE CONSIDERED EQUAL TO GROSS PRESSURES.

3. TABULATED WIND PRESSURES SHALL BE USED IN THE DESIGN OF EXTERIOR COMPONENT AND CLADDING MATERIALS. INTERPRETATION AND APPLICATION OF THESE PRESSURES TO SPECIFIC PORTIONS OF THE BUILDING AREAS SHALL BE THE RESPONSIBILITY OF THE EXTERIOR COMPONENT AND CLADDING MATERIAL SUPPLIER.

4. WHERE PARAPET HEIGHT EXCEEDS 3' - 0", CORNER ZONES (ZONE 3), MAY BE TREATED AS PERIMETER ZONES (ZONE 2).

|   | EXTERIOR W    | ALL PRESS    | SURES       |
|---|---------------|--------------|-------------|
|   | AREA (SQ. FT) | ZONE 4 (PSF) | ZONE 5 (PSF |
|   | 10            |              |             |
|   | 50            |              |             |
|   | 100           |              |             |
|   | 200           |              |             |
|   | ≥ 500         |              |             |
| 1 |               |              |             |

| ROO           | ROOF UPLIFT PRESSURES |              |              |  |  |  |  |  |  |  |  |  |  |
|---------------|-----------------------|--------------|--------------|--|--|--|--|--|--|--|--|--|--|
| AREA (SQ. FT) | ZONE 1 (PSF)          | ZONE 2 (PSF) | ZONE 3 (PSF) |  |  |  |  |  |  |  |  |  |  |
| 10            | -38                   |              |              |  |  |  |  |  |  |  |  |  |  |
| 20            | -36                   |              |              |  |  |  |  |  |  |  |  |  |  |
| 50            | -33                   |              |              |  |  |  |  |  |  |  |  |  |  |
| 100           | -31                   |              |              |  |  |  |  |  |  |  |  |  |  |
| 200           | -29                   |              |              |  |  |  |  |  |  |  |  |  |  |
| 2500          | -26                   |              |              |  |  |  |  |  |  |  |  |  |  |

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WIND PRESSURE DIAGRAM PLAN
ELIZABETHTOWN HIGH SCHOOL FIELD HOUSE
FOR:
ELIZABETHTOWN INDEPENDENT SCHOOLS
Elizabethtown, Kentucky

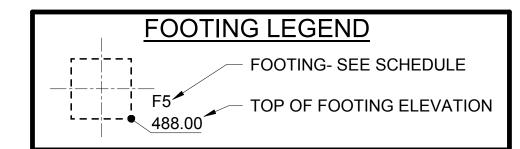
M,E,&P Engineer:
CMTA, Inc.
2429 Members Way
Lexington, KY 40504
p 859.253.0892

Structural Engineer:
Structural Design Group, Inc.
220 Great Circle Rd. Suite 106
Nashville, TN 37228
p 615.255.5537

SO.4
WIND PRESSURE DIAGRAM
PLAN
DATE ISSUED:

### **FOUNDATION NOTES:**

- 1. WALL REINFORCING FOR FULL HEIGHT OF WALLS IS INDICATED ON PLANS (ie, X" #X@XX", DENOTES CMU/BAR SIZE/BAR SPACING) SEE TYPICAL CMU / WALL REINFORCING DETAIL FOR ADDITIONAL REINFORCING AT OPENINGS, CORNERS, CMU CONTRACTION JOINTS, ETC.
- 2. WALLS SHOWN ON PLAN WITHOUT REINFORCING INDICATED TO HAVE MINIMUM REINFORCING AS SHOWN IN THE TYPICAL CMU WALL REINFORCING DETAIL.
- 3. LINTELS ABOVE DOOR AND WINDOW OPENINGS ARE SHOWN ON PLANS. "LX" - SEE CMU LINTEL SCHEDULE FOR SIZE AND REINFORCING.
- 4. CJ (CMU CONTRACTION JOINT) SHOWN ON PLANS INDICATES APPROPRIATE LOCATIONS OF CONTRACTION JOINTS. LOCATIONS ARE INTENDED TO COINCIDE WITH CMU COURSING. COORDINATE LOCATION OF JOINTS WITH ARCHITECTURAL DRAWINGS. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF BRICK JOINTS.
- 5. ALL DIMENSIONS ARE TO BE VERIFIED WITH ARCHITECTURAL DRAWINGS BEFORE DETAILING AND CONSTRUCTION AR TO BEGIN. FOR DIMENSIONS NOT SHOWN, SEE ARCHITECTURAL DRAWINGS.
- 6. DO NOT LOCATE PLUMBING LINES WITHIN CONCRETE FOOTINGS.



#### Concrete Minimum 28 Day Compressive Strength f'c = 3000 psi Case 1 Case 2 Size Bars Bars 2'-6" 2'-0" 3'-9" 3'-0" 5'-0" 3'-3" 2'-9" 3'-9" 6'-0" 4'-3" 3'-3" 4'-9" 5'-0" 3'-9" 7'-3" 5'-6" 7'-0" 10'-6" 8'-0" 11'-9" 7'-0" 13'-3" 10'-3" 15'-0" 7'-9" 11'-6" 8'-9" 16'-6"

12'-9"

| Concrete Minimum 28 Day Compressive Strength, f'c = 4000 psi |             |               |             |               |  |  |  |  |  |  |  |  |
|--|-------------|---------------|-------------|---------------|--|--|--|--|--|--|--|--|
| Bar  | Cas         |               | Case 2      |               |  |  |  |  |  |  |  |  |
| Size   | Top<br>Bars | Other<br>Bars | Top<br>Bars | Other<br>Bars |  |  |  |  |  |  |  |  |
| #3   | 2'-3"       | 1'-9"         | 3'-3"       | 2'-6"         |  |  |  |  |  |  |  |  |
| #4   | 3'-0"       | 2'-3'         | 4'-3"       | 3'-3"         |  |  |  |  |  |  |  |  |
| #5   | 3'-6"       | 2'-9"         | 5'-3"       | 4'-3"         |  |  |  |  |  |  |  |  |
| #6   | 5'-3"       | 4'-0"         | 7'-9"       | 6'-0"         |  |  |  |  |  |  |  |  |
| #7   | 7'-6"       | 5'-9"         | 11'-3"      | 8'-9"         |  |  |  |  |  |  |  |  |
| #8   | 8'-6"       | 6'-6"         | 12'-9"      | 9'-9"         |  |  |  |  |  |  |  |  |
| #9   | 9'-6"       | 7'-6"         | 14'-3"      | 11'-0"        |  |  |  |  |  |  |  |  |
| #10  | 10'-9"      | 8'-3"         | 16'-0"      | 12'-6"        |  |  |  |  |  |  |  |  |
| #11  | 12'-0"      | 9'-3"         | 17'-9"      | 13'-9"        |  |  |  |  |  |  |  |  |

# **SPLICE LENGTH NOTES:**

Case #1: For beams and columns, concrete cover greater than or equal to bar diameter, bar spacing greater than or equal to 2 times bar diameter, and ties as specified on the drawings. For other members, concrete cover greater than or equal to bar diameter and bar spacing greater than or equal to 3 times bar diameter.

Case #2: For beams and columns, concrete cover less than bar diameter and bar spacing less than 2 bar diameters. For other members, concrete cover less than bar diameter and bar spacing developing 125% of the reinforcing steel ASTM specified less than 3 times bar diameter.

| C           | oncrete Mompress<br>= 5000 | ive Stre |     | ıy   |
|-------------|----------------------------|----------|-----|------|
| Bar<br>Size | Cas                        | se 1     | Cas | se 2 |
| Size        |                            |          |     |      |

| f'c  | f'c = 5000 psi |               |             |               |  |  |  |  |  |  |  |  |
|------|----------------|---------------|-------------|---------------|--|--|--|--|--|--|--|--|
| Bar  | Cas            | se 1          | Case 2      |               |  |  |  |  |  |  |  |  |
| Size | Top<br>Bars    | Other<br>Bars | Top<br>Bars | Other<br>Bars |  |  |  |  |  |  |  |  |
| #3   | 2'-0"          | 1'-9"         | 3'-0"       | 2'-3"         |  |  |  |  |  |  |  |  |
| #4   | #4 2'-9"       |               | 3'-9"       | 3'-0"         |  |  |  |  |  |  |  |  |
| #5   | 3'-3"          | 2'-6"         | 4'-9"       | 3'-9"         |  |  |  |  |  |  |  |  |
| #6   | 4'-9"          | 3'-9"         | 7'-0"       | 5'-6"         |  |  |  |  |  |  |  |  |
| #7   | 6'-9"          | 5'-3"         | 10'-0"      | 7'-9"         |  |  |  |  |  |  |  |  |
| #8   | 7'-9"          | 6'-0"         | 11'-6"      | 8'-9"         |  |  |  |  |  |  |  |  |
| #9   | 8'-9"          | 6'-9"         | 12'-9"      | 10'-0"        |  |  |  |  |  |  |  |  |
| #10  | 9'-9"          | 7'-6"         | 14'-6"      | 11'-3"        |  |  |  |  |  |  |  |  |
| #11  | 10'-9"         | 8'-3"         | 16'-0"      | 12'-3"        |  |  |  |  |  |  |  |  |

| Concrete Minimum 28 Day<br>Compressive Strength,<br>f'c = 6000 psi |             |               |             |               |  |  |  |  |  |  |
|--|-------------|---------------|-------------|---------------|--|--|--|--|--|--|
| Bar  | Cas         | se 1          | Cas         | se 2          |  |  |  |  |  |  |
| Size   | Top<br>Bars | Other<br>Bars | Top<br>Bars | Other<br>Bars |  |  |  |  |  |  |
| #3   | 2'-0"       | 1'-6"         | 2'-9"       | 2'-3"         |  |  |  |  |  |  |
| #4   | 2'-6"       | 2'-0"         | 3'-6"       | 2'-9"         |  |  |  |  |  |  |
| #5   | 3'-0"       | 2'-3"         | 4'-3"       | 3'-6"         |  |  |  |  |  |  |
| #6   | 3'-6"       | 2'-9"         | 5'-3"       | 4'-0"         |  |  |  |  |  |  |
| #7   | 5'-0"       | 4'-0"         | 8'-6"       | 6'-6"         |  |  |  |  |  |  |
| #8   | 5'-9"       | 4'-6"         | 8'-6"       | 6'-6"         |  |  |  |  |  |  |
| #9   | 6'-6"       | 5'-0"         | 9'-6"       | 7'-3"         |  |  |  |  |  |  |
| #10  | 7'-3"       | 5'-6"         | 10'-9"      | 8'-3"         |  |  |  |  |  |  |
| #11  | 8'-0"       | 6'-3"         | 11'-9"      | 9'-3"         |  |  |  |  |  |  |

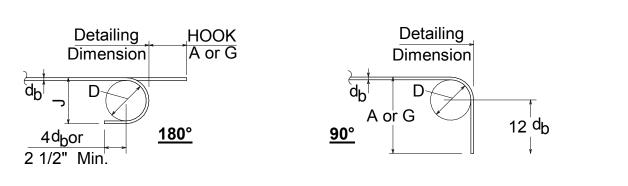
Top bars are horizontal reinforcement with more than 12" of fresh concrete placed below the splice.

Where indicated on the drawings, class "A" lap splice lengths may be calculated by dividing tabulated values by 1.3.

As contractor's alternate, class "B" splice lengths may be calculated by the steel reinforcement detailer in accordance with ACI 318 and submitted for review.

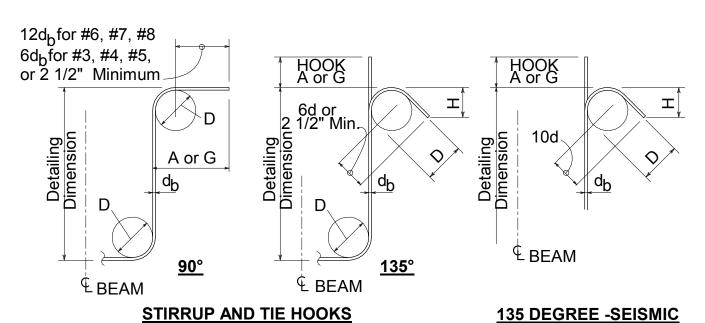
Tension couplers may be used and installed in accordance with manufacturer's recommendations and shall be capable of minimum yield strength.

For lightweight structural concrete, multiply lap splice lengths by 1.3



| BAR  | FINISHED  <br>  BEND | 180 DEG     | 6. HOOKS  | 90 DEG HOOKS |  |  |
|------|----------------------|-------------|-----------|--------------|--|--|
| SIZE | DIAMETER<br>D, in.   | A or G, in. | J, in.    | A or G, in.  |  |  |
| #3   | 2 1/4"               | 5"          | 3"        | 6"           |  |  |
| #4   | 3"                   | 6"          | 4"        | 8"           |  |  |
| #5   | 3 3/4"               | 7"          | 5"        | 10"          |  |  |
| #6   | 4 1/2"               | 8"          | 6"        | 1'-0"        |  |  |
| #7   | 5 1/4"               | 10"         | 7"        | 1'-2"        |  |  |
| #8   | 6"                   | 11"         | 8"        | 1'-4"        |  |  |
| #9   | 9 1/2"               | 1'-3"       | 11 3/4"   | 1'-7"        |  |  |
| #10  | 10 3/4"              | 1'-5"       | 1'-1 1/4" | 1'-10"       |  |  |
| #11  | 12"                  | 1'-7"       | 1'-2 3/4" | 2'-0"        |  |  |
| #14  | 18 1/4"              | 2'-3"       | 1'-9 3/4" | 2'-7"        |  |  |
| #18  | 24"                  | 3'-0"       | 2'-4 1/2" | 3'-5"        |  |  |

**RECOMMENDED END HOOKS, ALL GRADES** 



|      |        |        | STIRRUP & TII<br>K DIMENSION | 135° STIRRUP - TIE<br>HOOK DIMENSIONS, in |            |              |  |  |
|------|--------|--------|------------------------------|---|------------|--------------|--|--|
| BAR  |        |        | 135° H                       | HOOKS                                     | 135° HOOKS |              |  |  |
| SIZE | D,in*  | A or G | A or G                       | H<br>APPROX.                              | A or G     | H<br>APPROX. |  |  |
| #3   | 1 1/2" | 4"     | 4"                           | 2 1/2"                                    | 4 1/4"     | 3"           |  |  |
| #4   | 2"     | 4 1/2" | 4 1/2"                       | 3"  | 4 1/2"     | 3"           |  |  |
| #5   | 2 1/2" | 6"     | 5 1/2"                       | 3 3/4"                                    | 5 1/2"     | 3 3/4"       |  |  |
| #6   | 4 1/2" | 1'-0"  | 8"                           | 4 1/2"                                    | 8"         | 4 1/2"       |  |  |
| #7   | 5 1/4" | 1'-2"  | 9"                           | 5 1/4"                                    | 9"         | 5 1/4"       |  |  |
| #8   | 6"     | 1'-4"  | 10 1/2"                      | 6"  | 10 1/2"    | 6"           |  |  |

STIRRUP / TIE HOOKS

\* GRADES 40, 50 and 60

TYPICAL BAR HOOK DETAILS

#### ABOVE FINISHED FLOOR JOINT JOIST ALT. ALTERNATE JST ARCHITECT/ARCHITECTURE ARCH. KIPS BLDG BUILDING KSI KIPS PER SQUARE INCH BRG BEARING KSF KIPS PER SQUARE FOOT B or BOT BOTTOM LBS or # POUNDS **BOTTOM OF SOMETHING** B/xxx LIVE LOAD CONTRACTION/CONSTRUCTION JOINT LLH LONG LEG HORIZONTAL CENTERLINE LLO LONG LEG OUTSTANDING CLR LLV LONG LEG VERTICAL CMU **CONCRETE MASONRY UNIT** MPE MECHANICAL, PLUMBING AND ELECTRICAL COL. COLUMN MFR MANUFACTURER CONC CONCRETE MATL MATERIAL CONN. CONNECTION MAX. MAXIMUM CONT. CONTINUOUS/CONTINUED MECH. MECHANICAL COORD COORDINATE MIN. MINIMUM DBL DOUBLE MISC. **MISCELLANEOUS** DIA. DIAMETER NUMBER No. or # DEAD LOAD NS **NEAR SIDE DRILLED PIER** N/A NOT APPLICABLE DWG, DWGS DRAWING(S) NTS NOT TO SCALE EACH ОН OPPOSITE HAND EACH END OPP. OPPOSITE EACH FACE PART. PARTIAL, OR PARTITION EACH WAY PLATE **EXPANSION JOINT** PH PENTHOUSE **ELEVATION** PSF POUNDS PER SQUARE FOOT **EQUAL** POUNDS PER SQUARE INCH PSI ELEVATOR REACTION **EMBED** EMBEDMENT/EMBEDDED RAD. RADIUS EOS EDGE OF SLAB RD **ROOF DRAIN EQUIP EQUIPMENT** REINF. REINFORCING/REINFORCEMENT EXIST. EXISTING

REQD

REV.

RTU

SIM.

SQ.

STL

/xxx

THK

TYP.

UNO

VERT.

WT

SYM.

STD

STIFF.

SECT.

**SPECS** 

EXP.

F/xxx

FDN

FIN.

FLG

GALV.

HDD

ICF

INT.

HORIZ

FLR or FL.

EXT.

**EXPANSION** 

FOUNDATION

FACE OF SOMETHING

FIELD DETERMINED

EXTERIOR

**FINISHED** 

FLANGE

FAR SIDE

FOOTING

HEADED

FIELD VERIFY

GALVANIZED

HORIZONTAL

INFORMATION INTERIOR

INSULATED CONCRETE FORM

**FLOOR** 

FEET

GAGE

REQUIRED

SECTION

SIMILAR

SQUARE

STEEL

TOP

THICK

TYPICAL

VERTICAL

WITHOUT **WORK POINT** 

WEIGHT

STANDARD

STIFFENER

SYMMETRICAL

THICKNESS

TOP OF SOMETHING

**UNLESS NOTED OTHERWISE** 

WELDED WIRE REINFORCEMENT

REVISION/REVISED

**ROOF TOP UNIT** 

**SPECIFICATIONS** 

STRUCTURAL ABBREVIATIONS

SS  $\sim$ ELIZABETHTOWN INDEPENDENT SCHO Elizabethtown, Kentucky

starrant archite

S

S

**NOT FOR** 

CONSTRUCTION

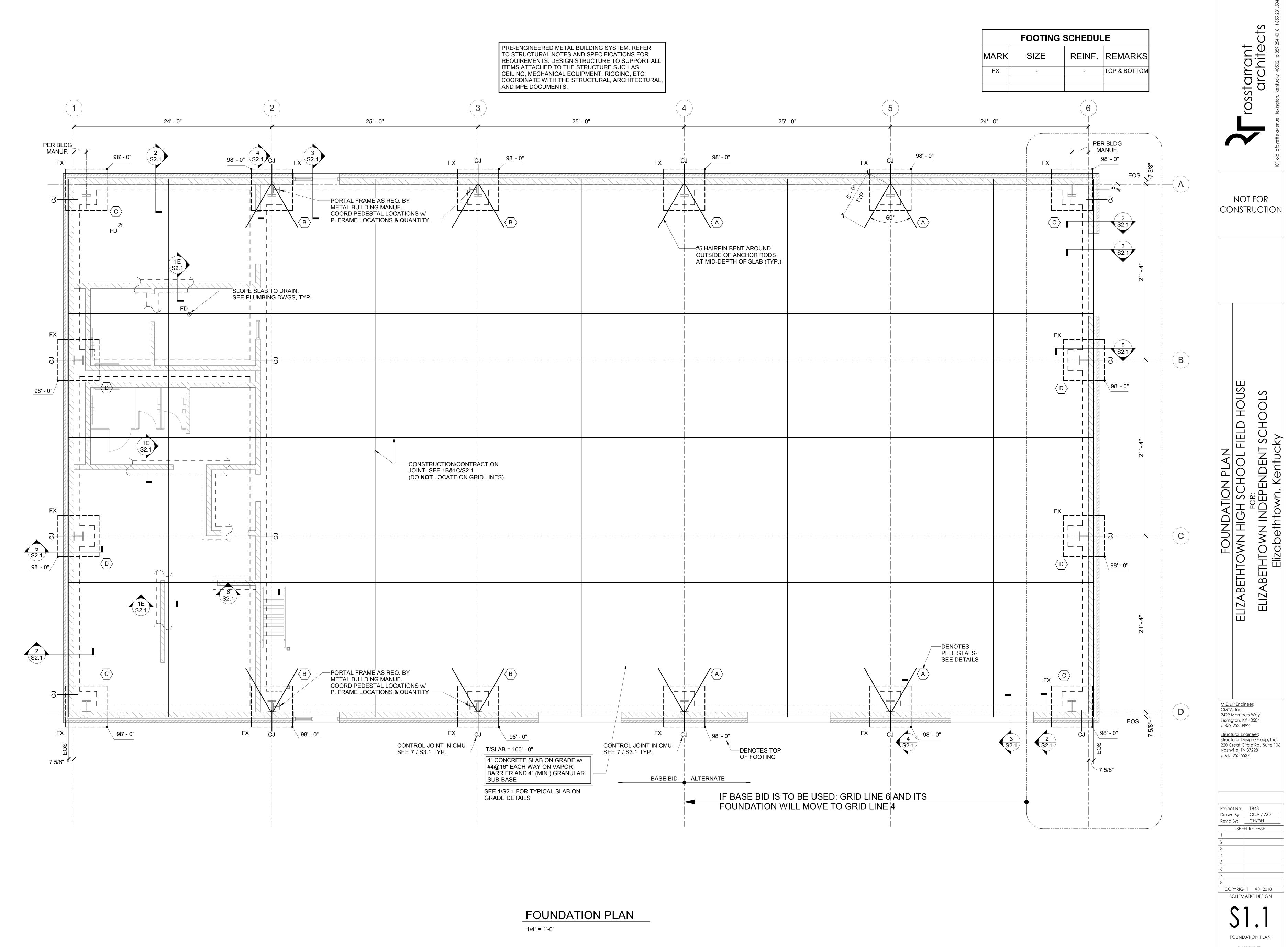
M,E,&P Engineer: 2429 Members Way Lexington, KY 40504 p 859.253.0892 <u>Structural Engineer:</u> Structural Design Group, Inc. 220 Great Circle Rd. Suite 106 Nashville, TN 37228 p 615.255.5537

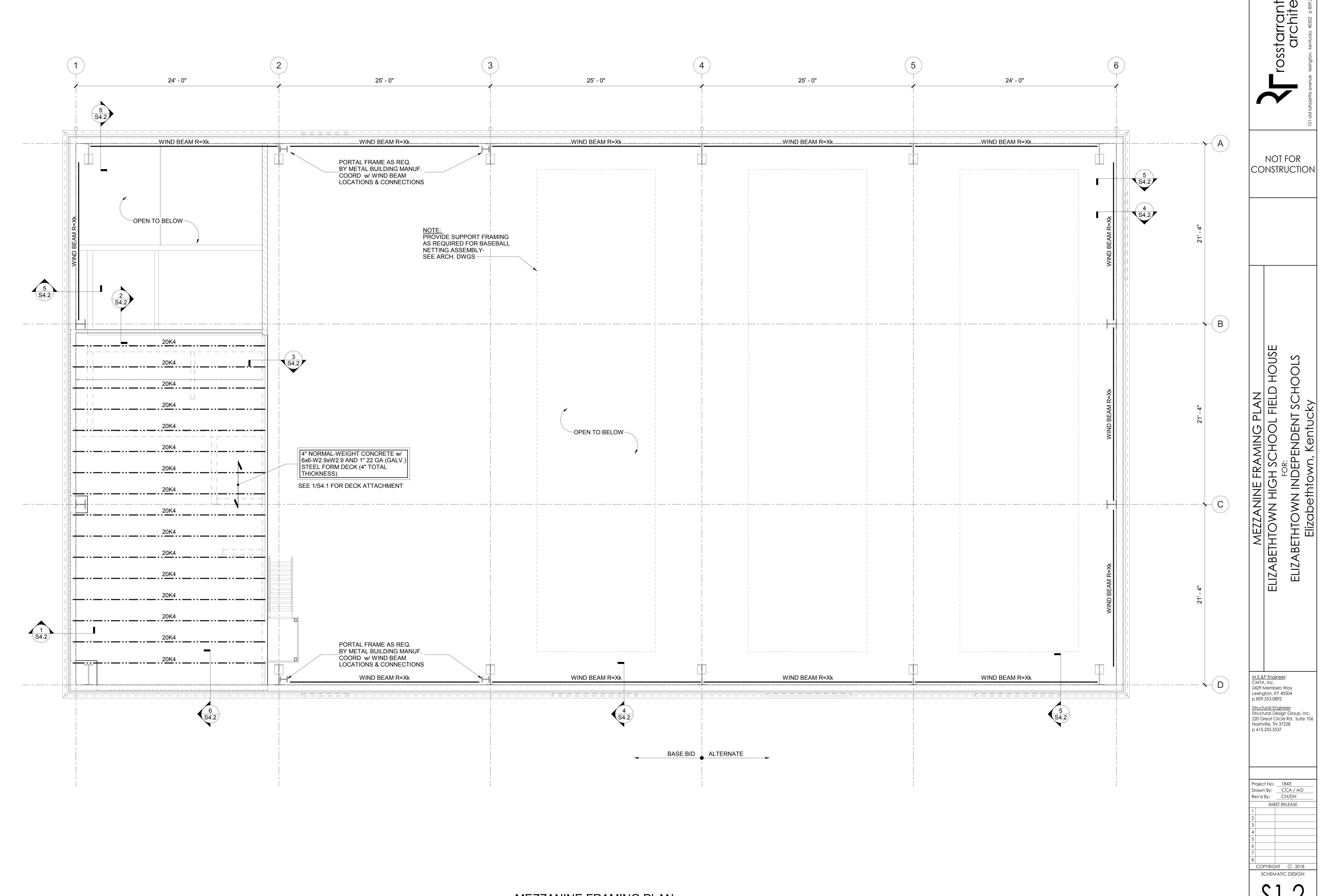
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LEGENDS, SCHEDULES AND **REBAR TABLES** 

> DATE ISSUED: 12/11/2018

CONCRETE REINFORCEMENT CLASS "B" SPLICE LENGTHS (UNO)



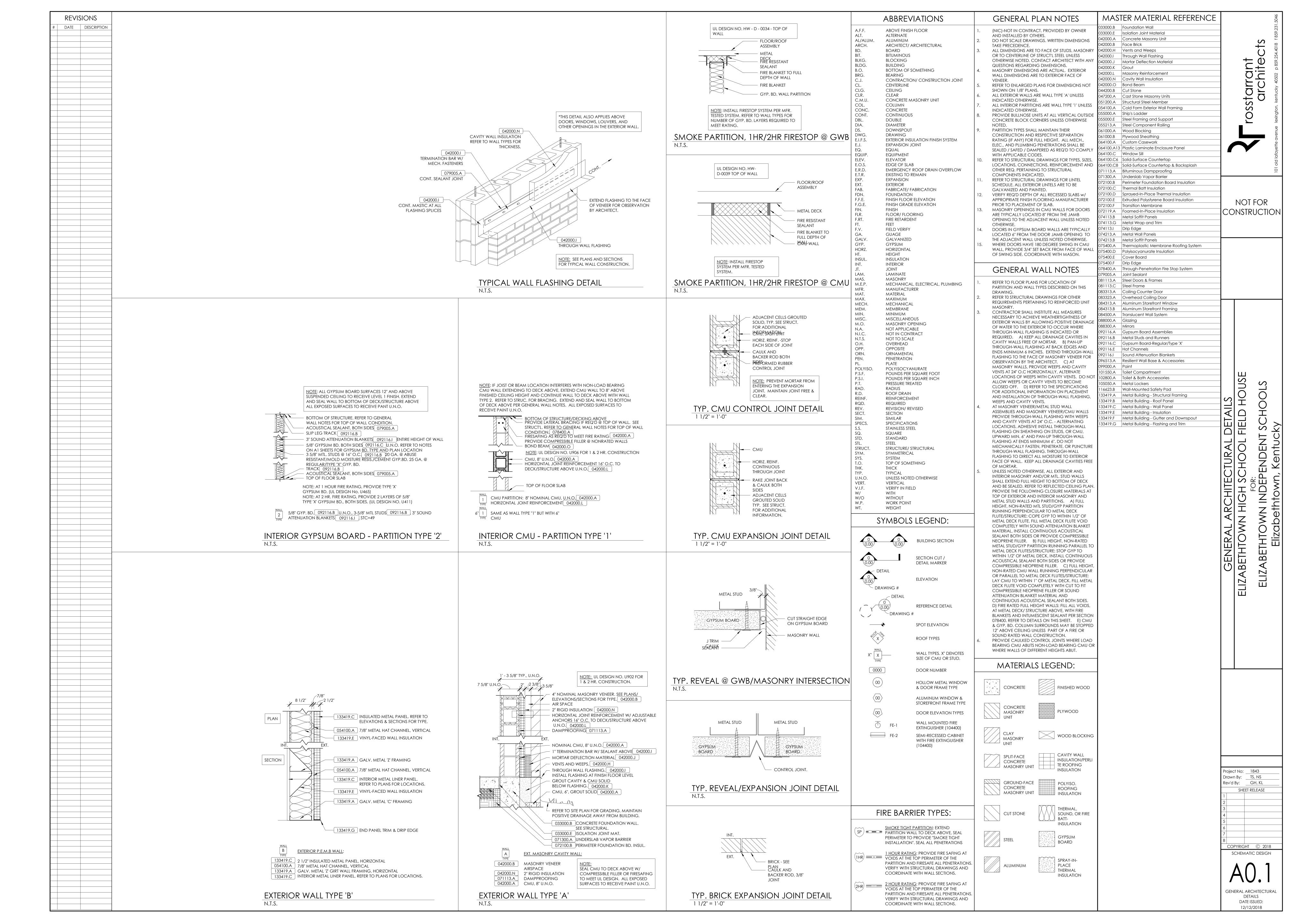


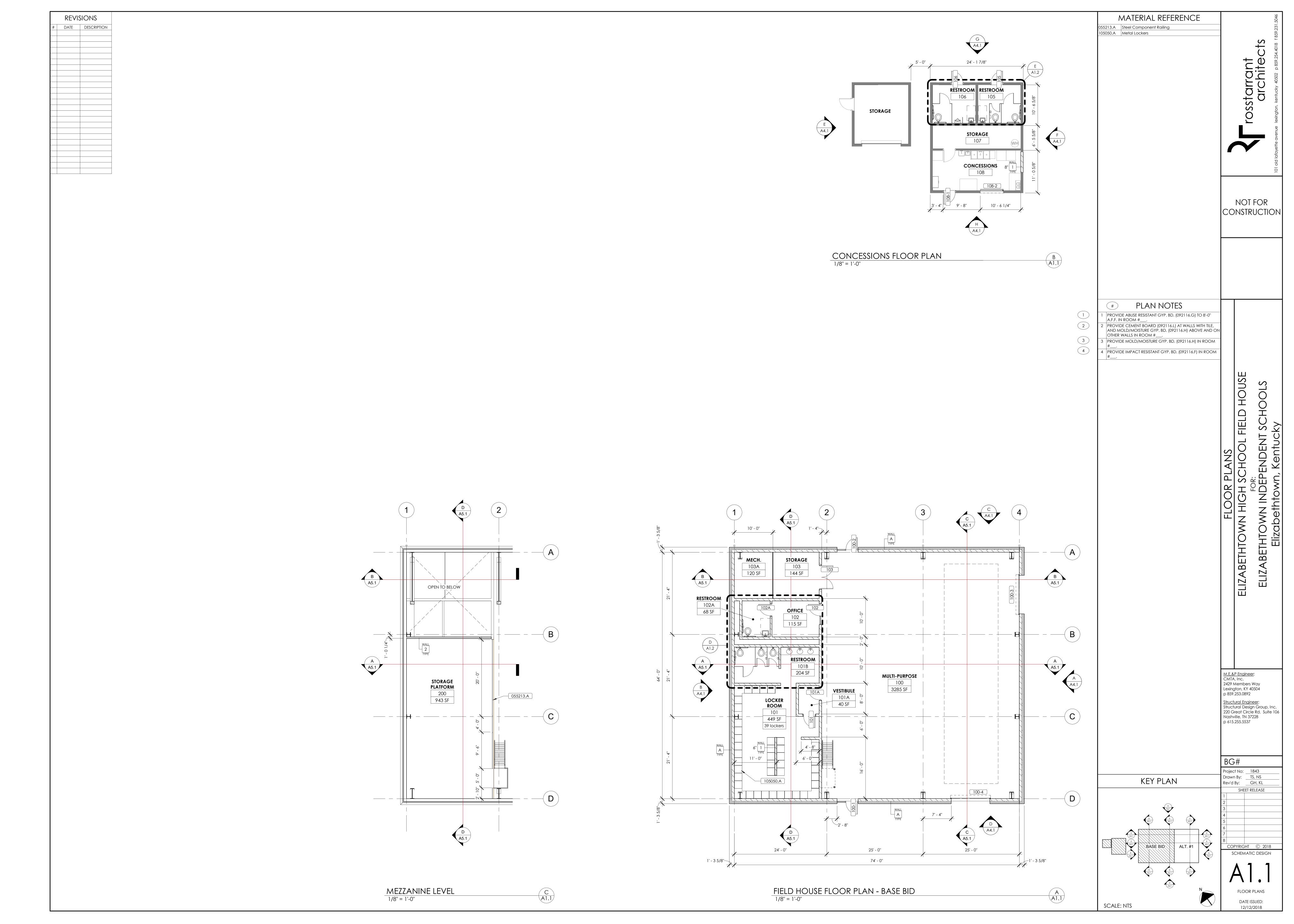
MEZZANINE FRAMING PLAN

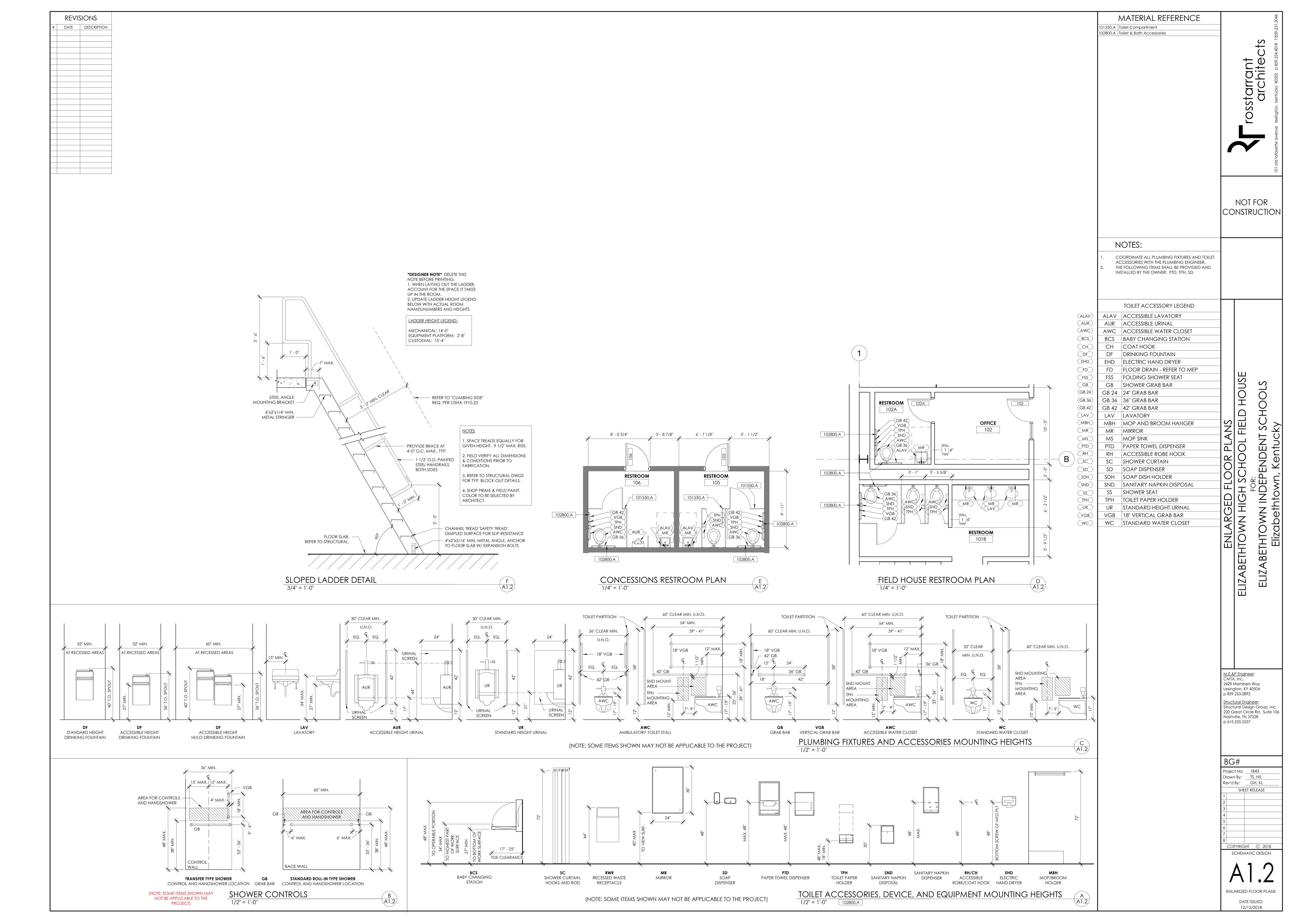
MEZZANINE FRAMING PLAN

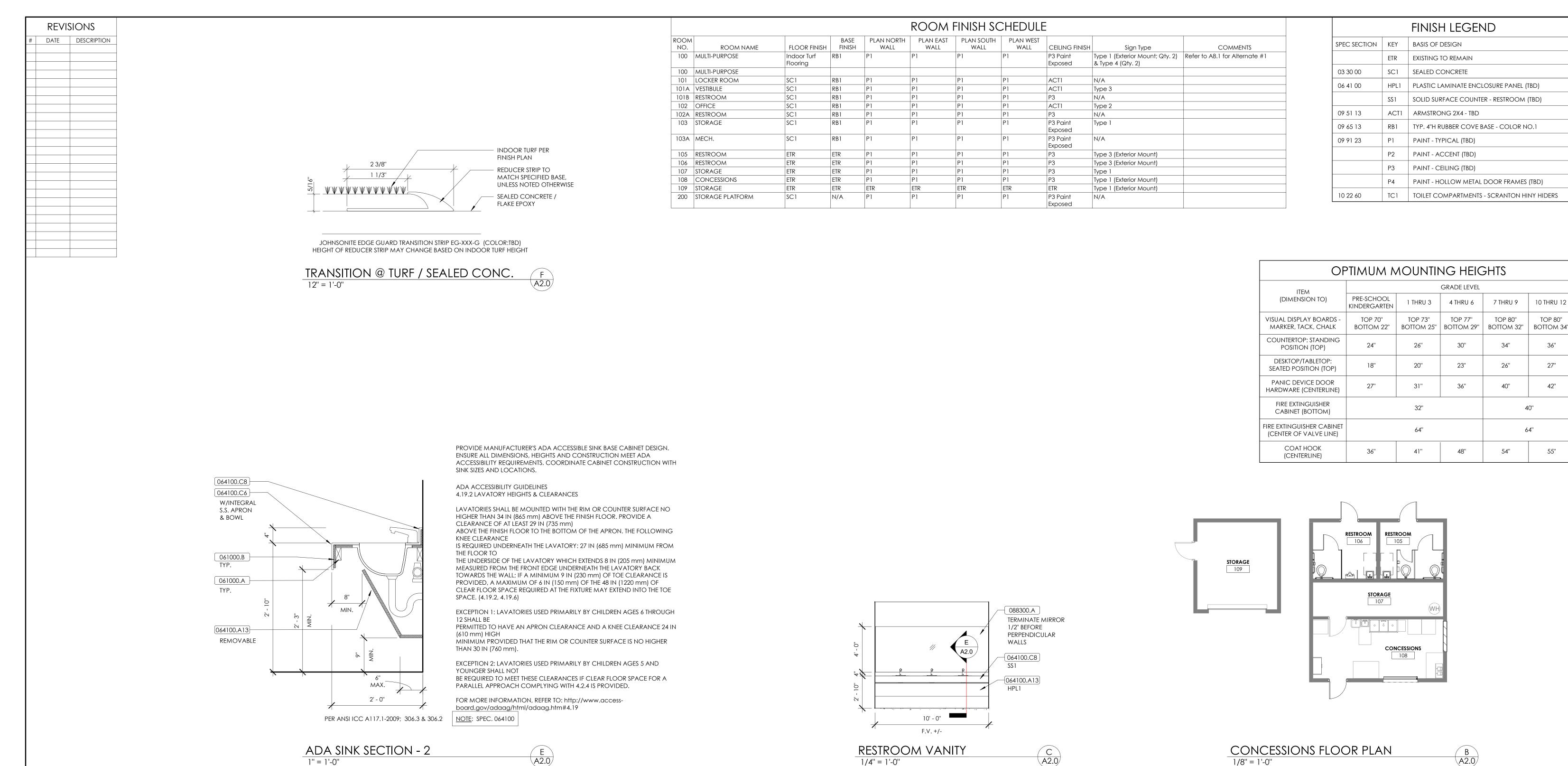
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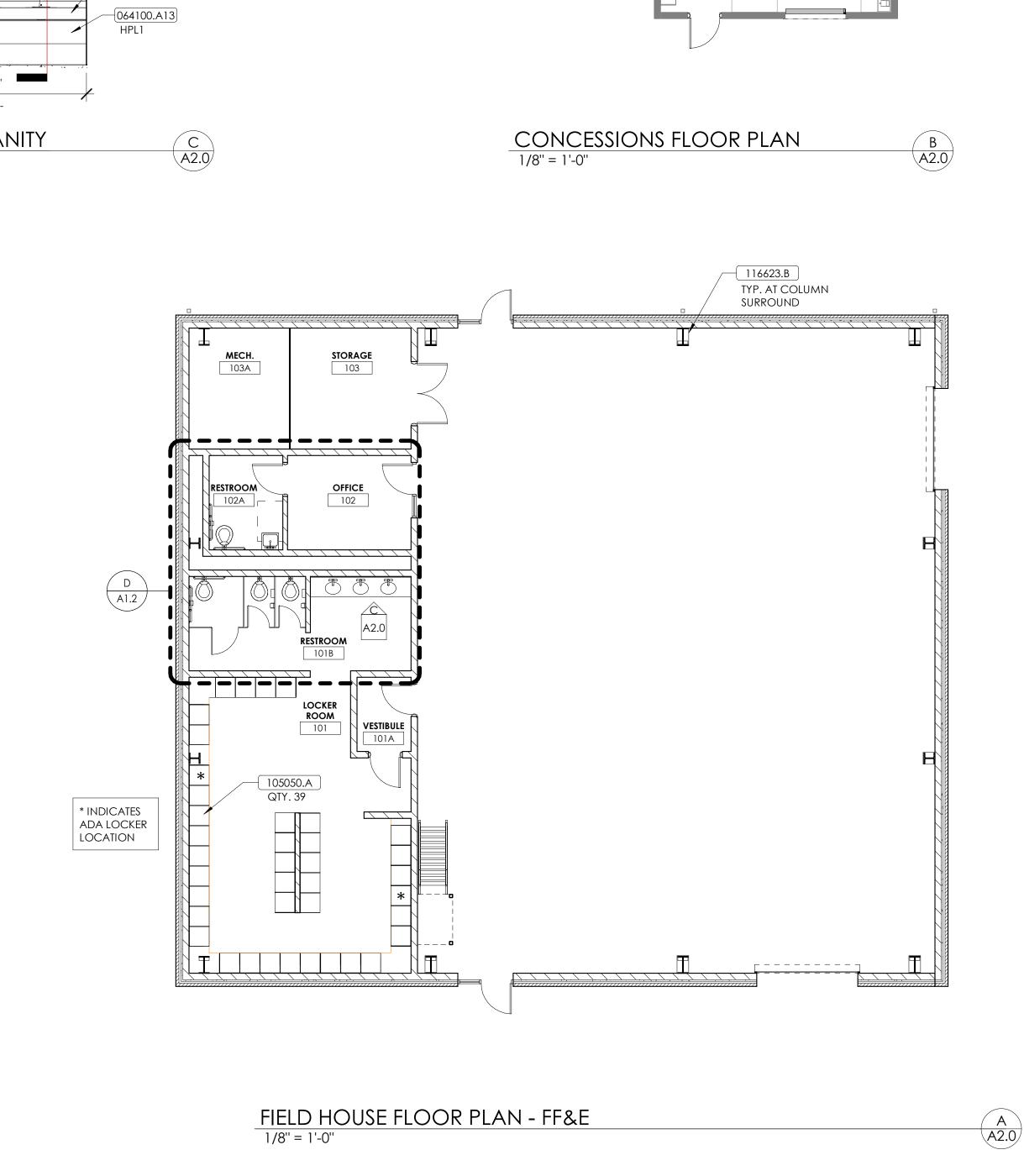
1/4" = 1'-0"

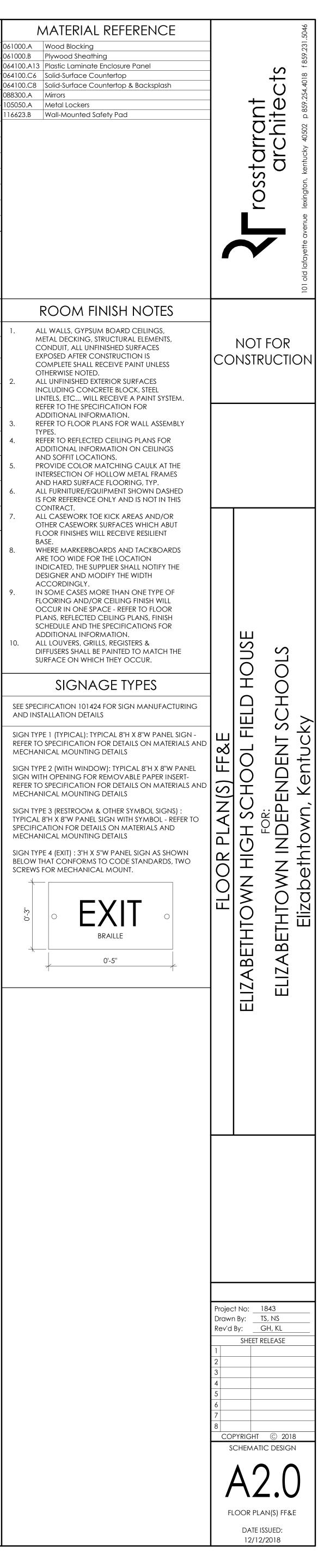












088300.A Mirrors

CONTRACT.

TOP 80"

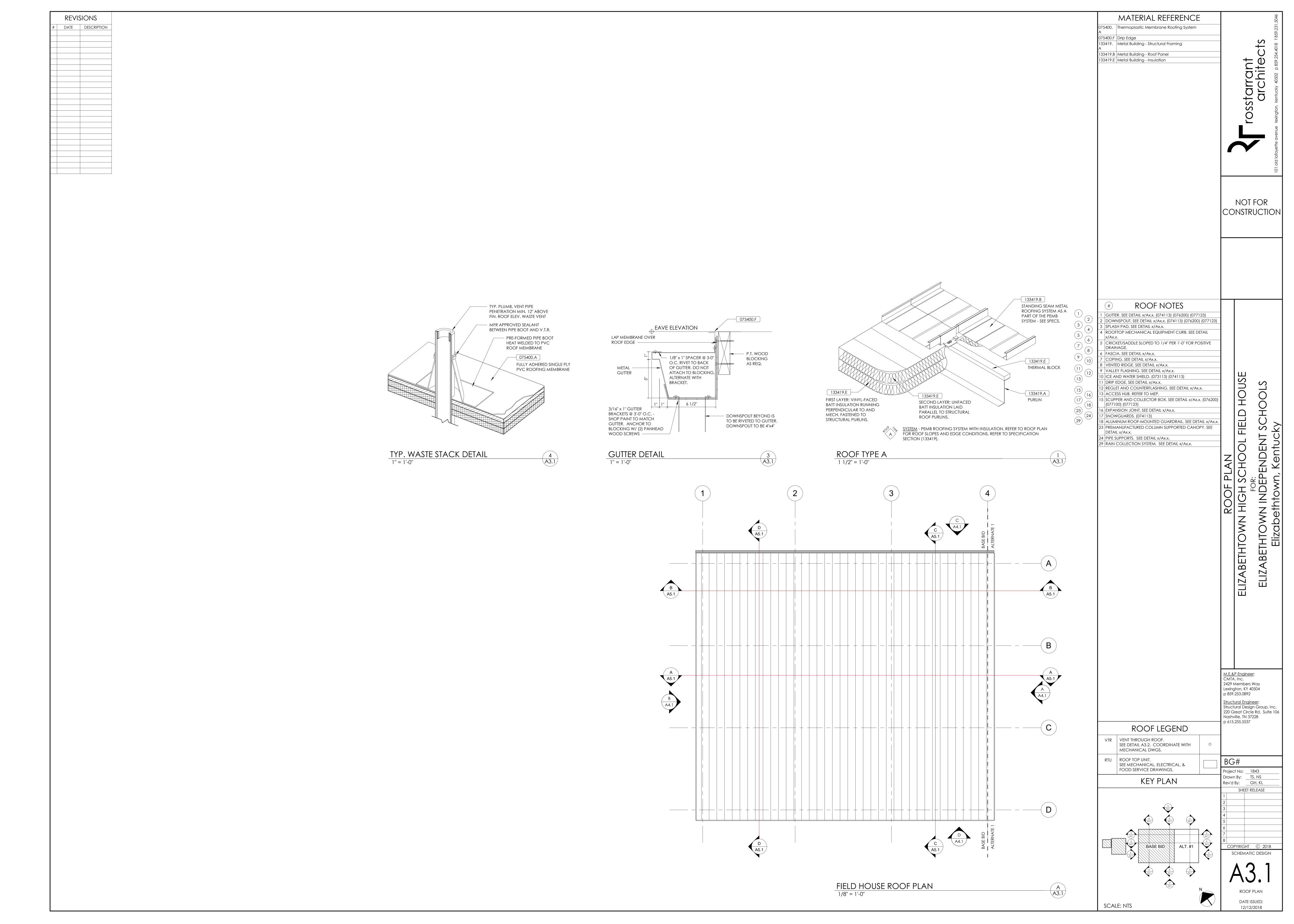
34"

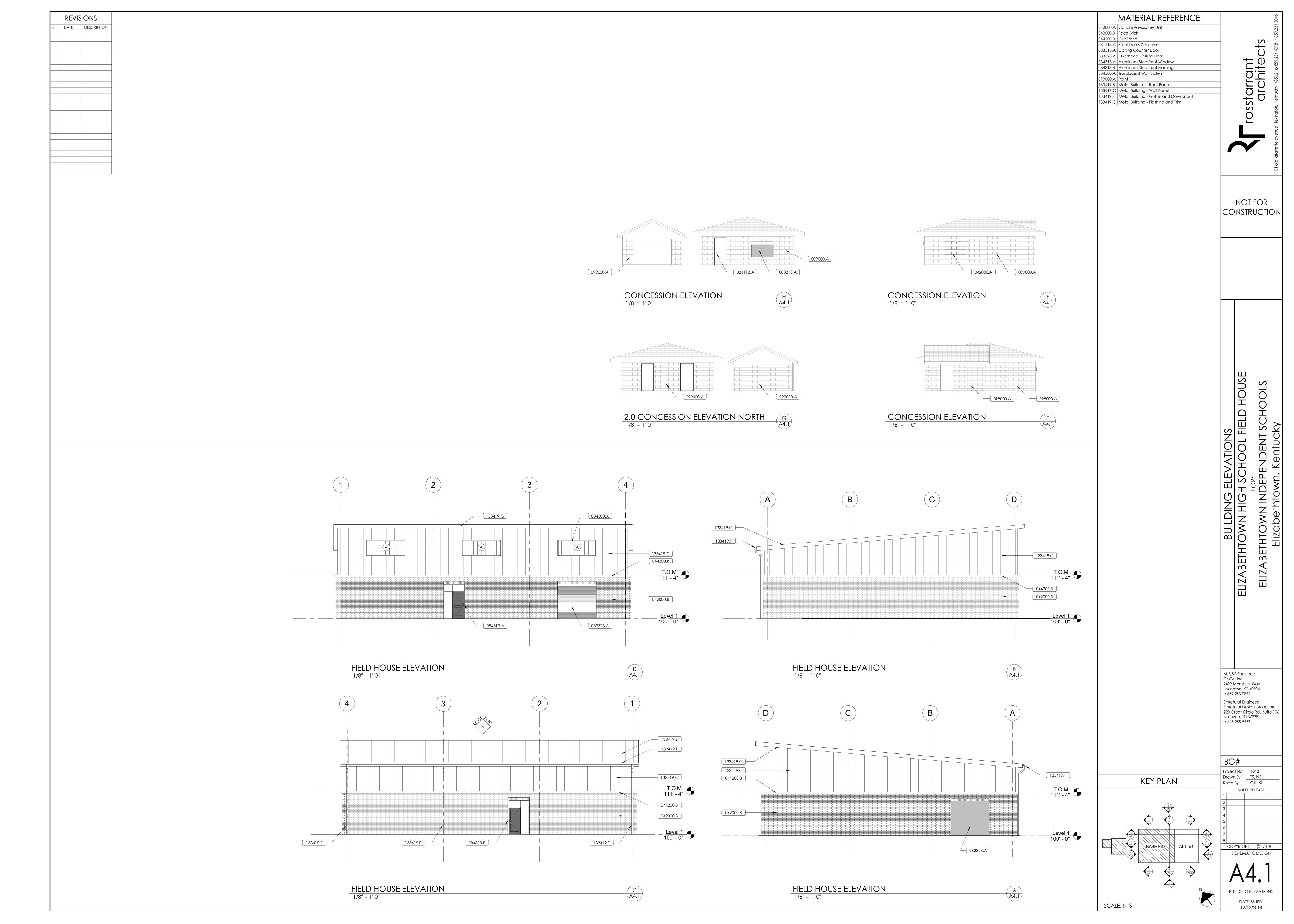
40''

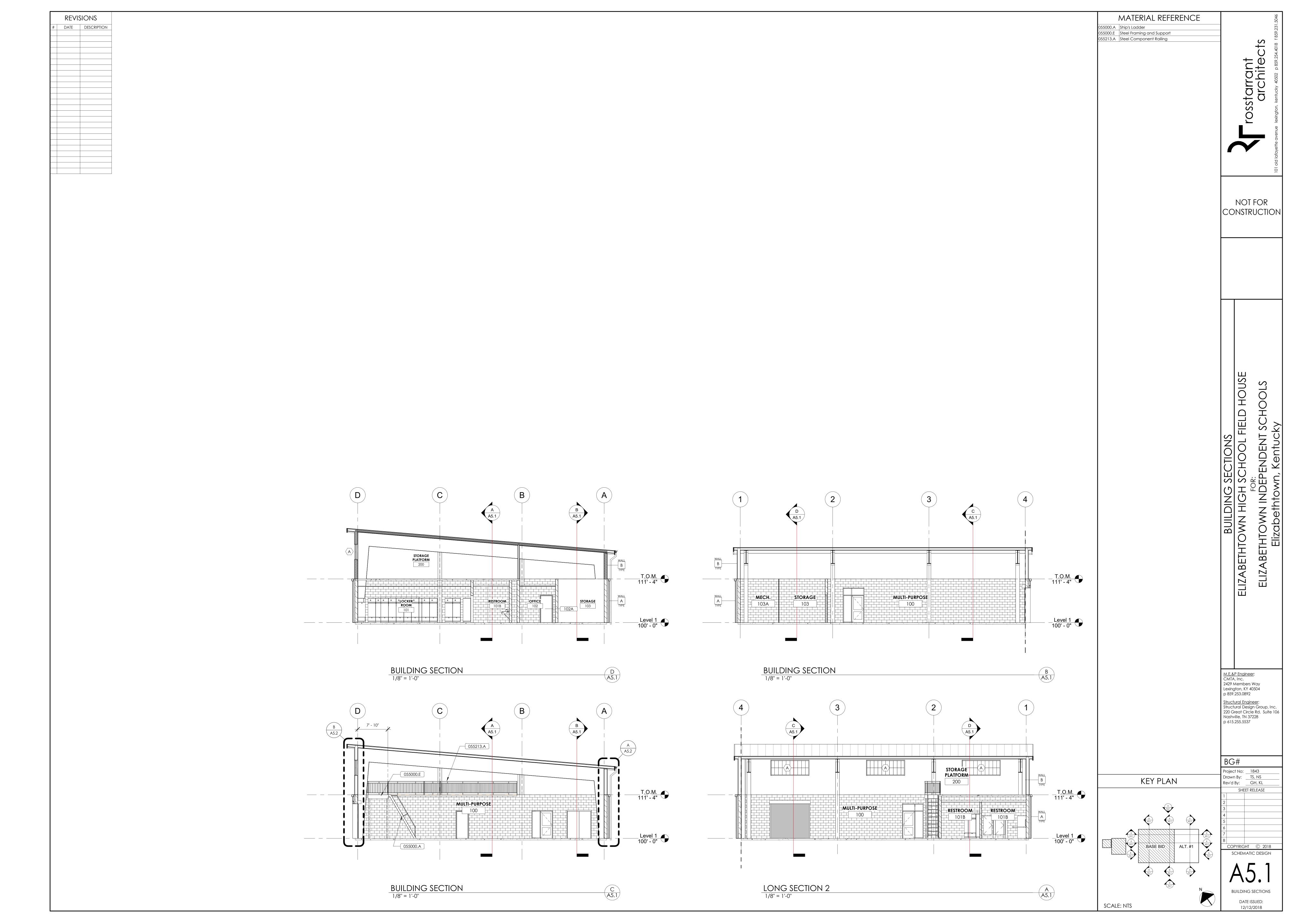


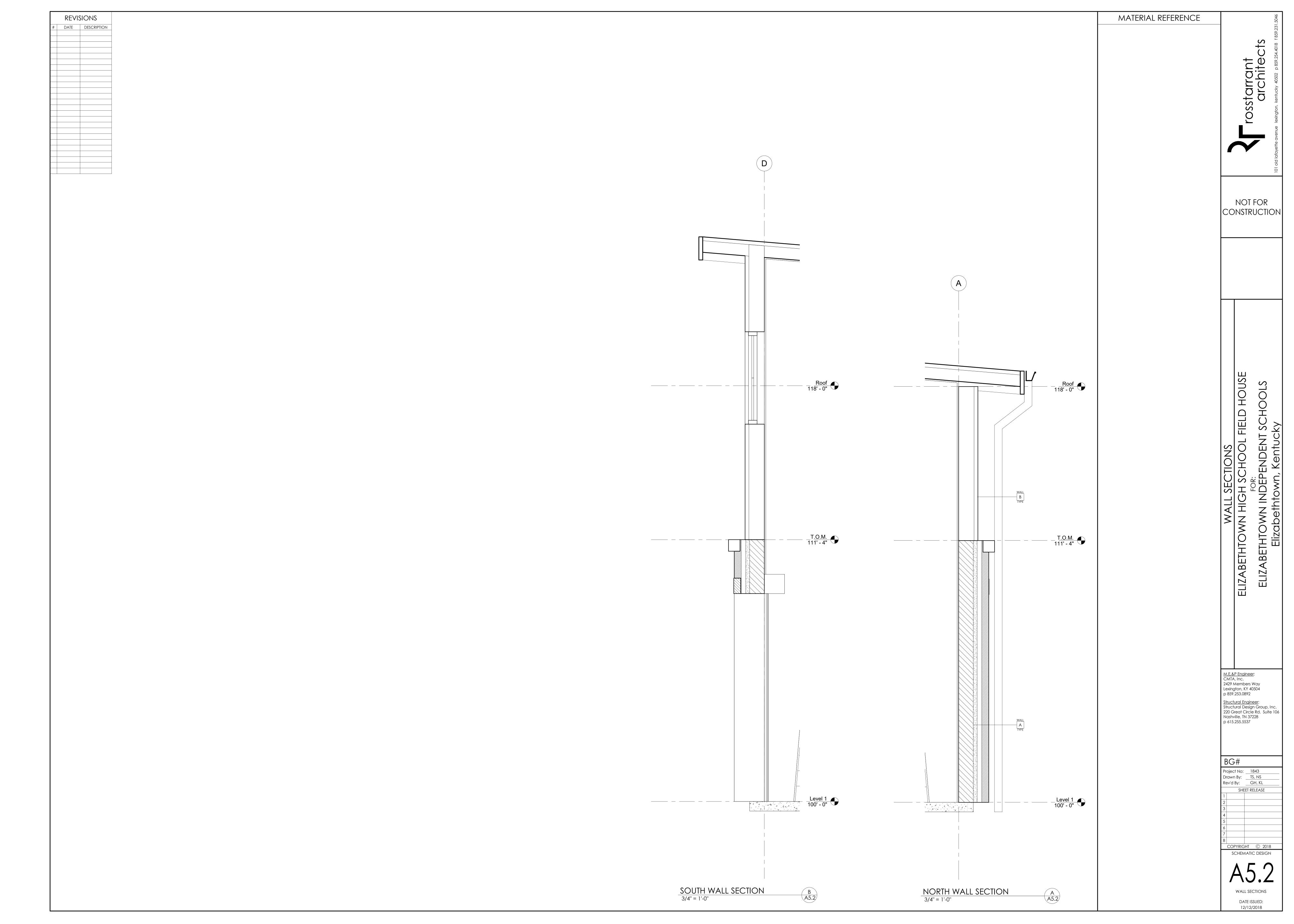
OPEN TO BELOW

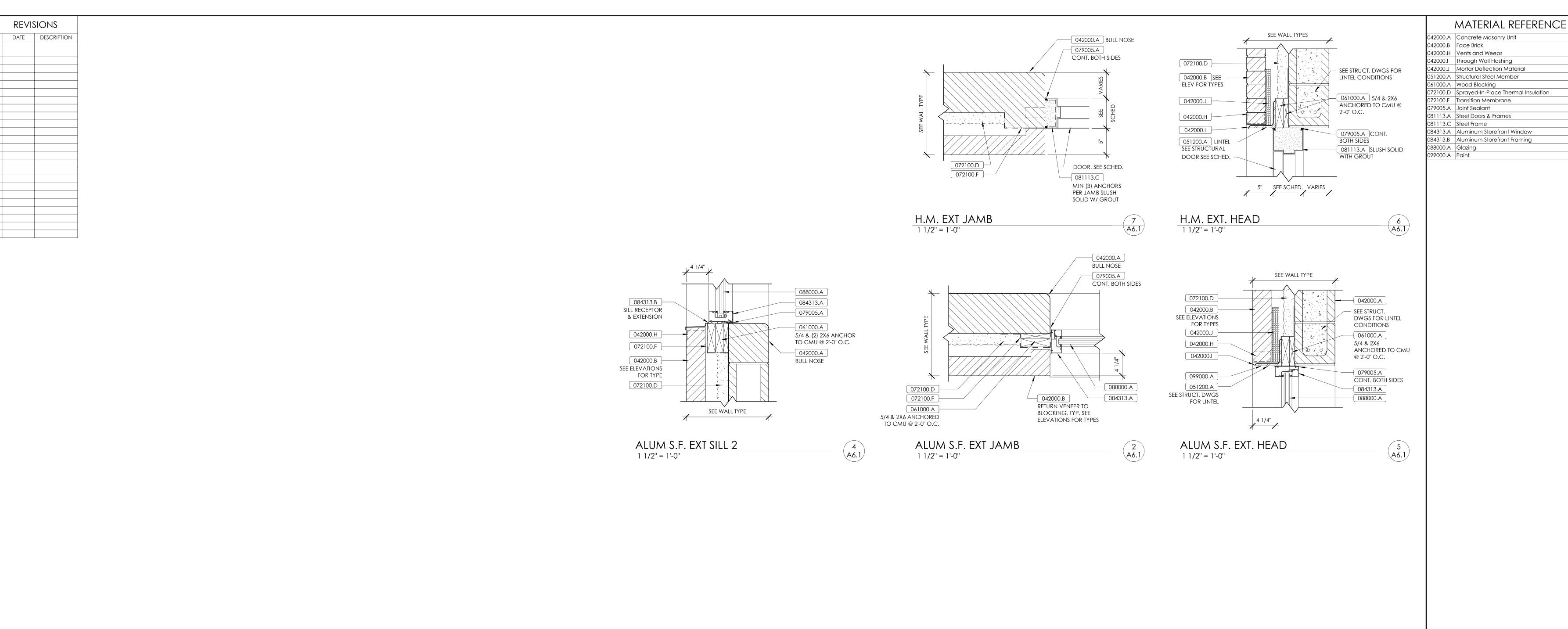
STORAGE PLATFORM 200



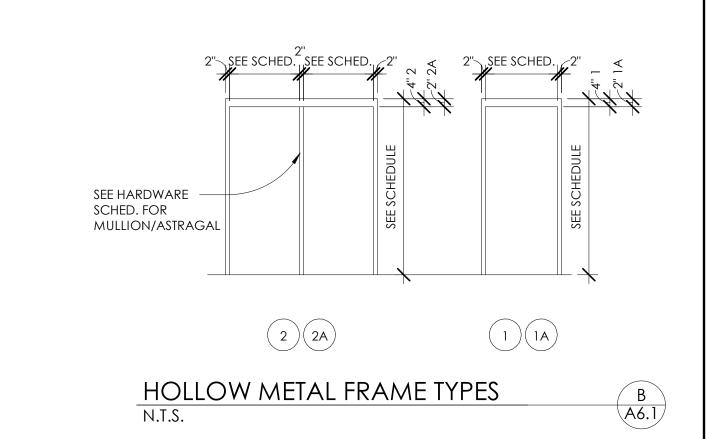






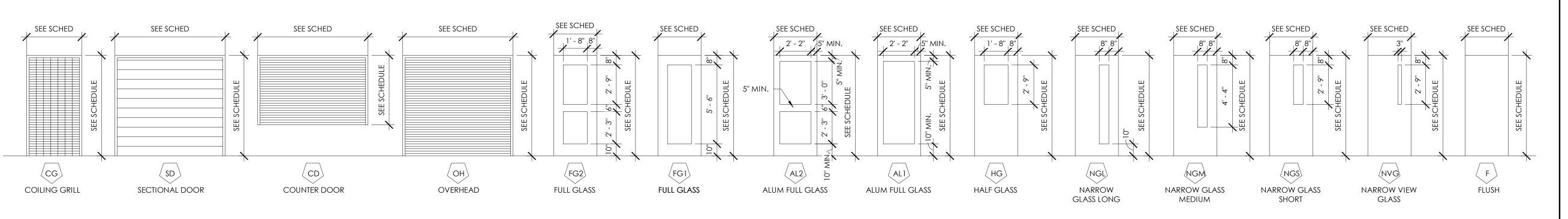


|        |      |           |          |        |     |      |       |     | rs ani |        |      |        |         |          |
|--------|------|-----------|----------|--------|-----|------|-------|-----|--------|--------|------|--------|---------|----------|
|        |      |           |          | DO     | OR  |      |       |     | FR.A   | ME     |      |        |         |          |
| DOOR   |      |           |          |        |     |      | GLASS | MAT |        | DETAIL |      | FIRE   |         |          |
| NUMBER | PAIR | W         | Н        | THICK  | MAT | TYPE |       |     | TYPE   | HEAD   | JAMB | RATING | SET NO. | COMMENTS |
| 00-1   |      | 3' - 0"   | 7' - 0'' | 1 3/4" | AL  | AL1  |       | AL  |        |        |      |        |         |          |
| 00-2   |      | 3' - 0"   | 7' - 0'' | 1 3/4" | AL  | AL1  |       | AL  |        |        |      |        |         |          |
| 00-3   |      | 10' - 0'' | 9' - 0'' | 2"     | AL  | ОН   |       | -   | -      |        |      |        |         |          |
| 00-4   |      | 10' - 0'' | 9' - 0'' | 2"     | AL  | ОН   |       | -   | -      |        |      |        |         |          |
| 01     |      | 3' - 0"   | 7' - 0'' | 1 3/4" | НМ  | F    |       | НМ  | 1      |        |      |        |         |          |
| 01A    |      | 3' - 0"   | 7' - 0'' | 1 3/4" | НМ  | F    |       | НМ  | 1      |        |      |        |         |          |
| 02     |      | 3' - 0"   | 7' - 0'' | 1 3/4" | AL  | AL1  |       |     |        |        |      |        |         |          |
| 02A    |      | 3' - 0''  | 7' - 0'' | 1 3/4" | HM  | F    |       | НМ  | 1      |        |      |        |         |          |
| 03     | Χ    | 6' - 0''  | 7' - 0'' | 1 3/4" | НМ  | F    |       | НМ  |        |        |      |        |         |          |
| 05     |      | 3' - 0''  | 7' - 0'' | 1 3/4" | НМ  | F    |       | НМ  |        |        |      |        |         |          |
| 06     |      | 3' - 0''  | 7' - 0'' | 1 3/4" | НМ  | F    |       | HM  | 1      |        |      |        |         |          |
| 08-1   |      | 3' - 0"   | 7' - 0'' | 1 3/4" | НМ  | F    |       | НМ  | 1      |        |      |        |         |          |
| 08-2   |      | 6' - 0''  | 4' - 0'' | 1 3/4" |     | OHC  |       | AL  |        |        |      |        |         |          |



DOOR TYPES

N.T.S.



DOOR SCHEDULE ABBREVIATION LEGEND:

AL = ALUMINUMAW = ALUMINUM WINDOW ARG = ASSAULT RESISTANT GLAZING BN = BULLNOSE BR = BULLET RESISTANT GLAZING CW = CURTAINWALL FIRE RATED GLAZING HM = HOLLOW METAL I = INSULATED

IFA = INTEGRATED FRAME ASSEMBLY IP = INFILL PANEL L = LAMINATED O = OBSCURE GLAZING S = SMOKESF = STOREFRONT SPG. = SPANDREL GLAZING T. = TEMPERED

A6.1

DOORS AND FRAME SCHEDUL DATE ISSUED: 12/12/2018

sstarrant architea

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NOT FOR

CONSTRUCTION

JSE

ELIZABETHTOWN HIGH SCHOOL FIELD HOU
FOR:
ELIZABETHTOWN INDEPENDENT SCHOOL
Elizabethtown, Kentucky

M,E,&P Engineer: CMTA, Inc. 2429 Members Way Lexington, KY 40504 p 859.253.0892

Drawn By: TS, NS Rev'd By: GH, KL

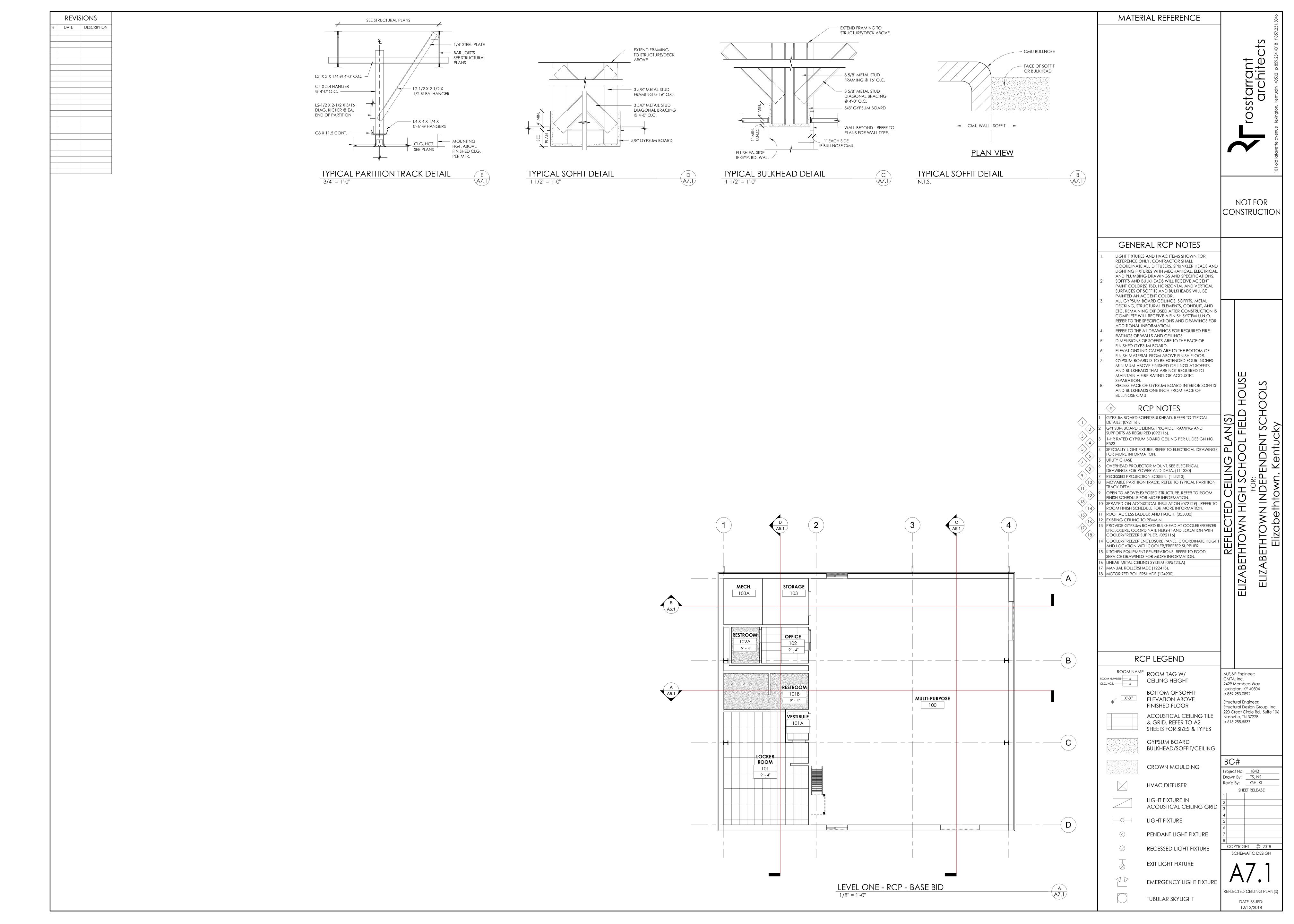
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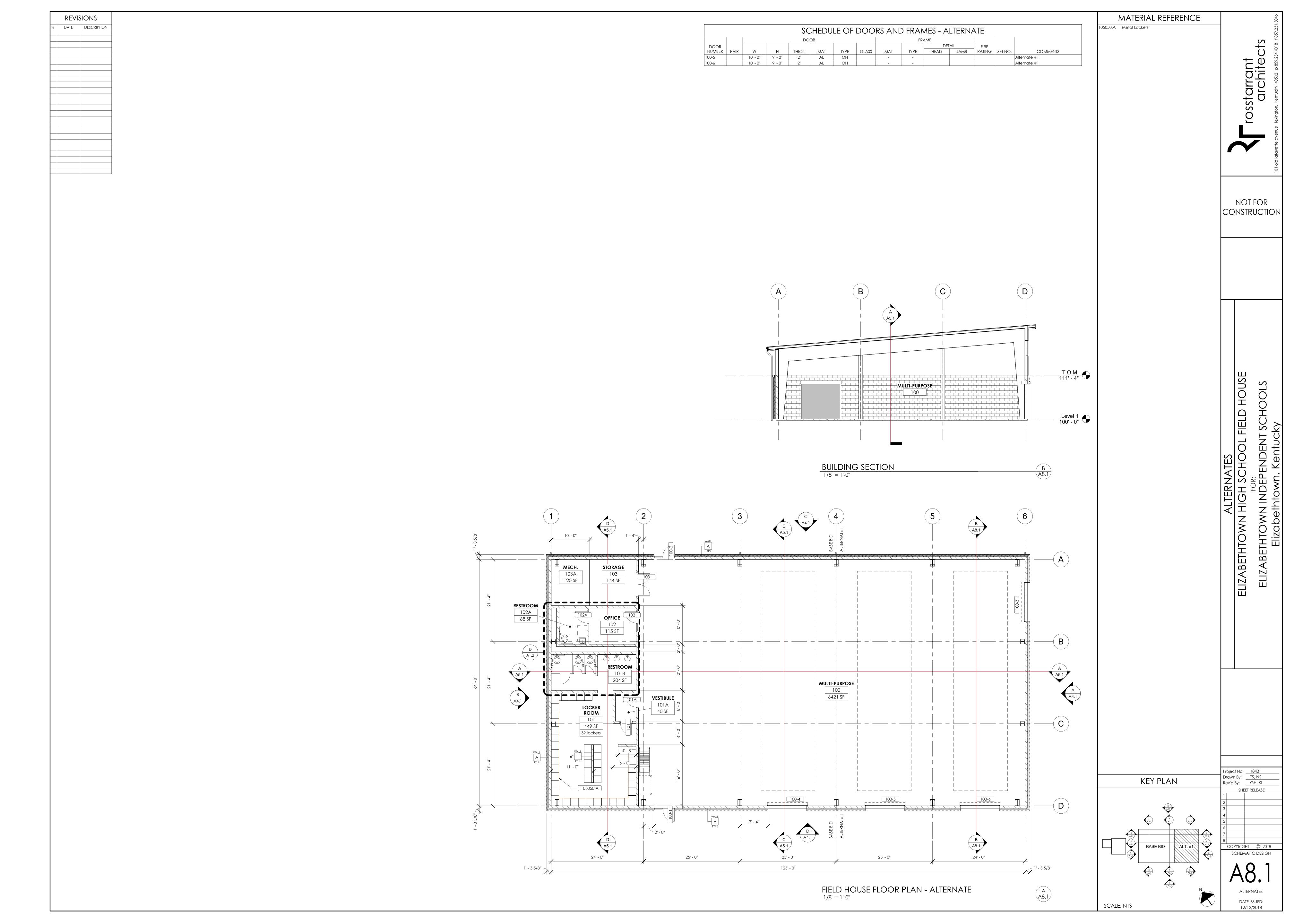
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SCHEMATIC DESIGN

Structural Engineer: Structural Design Group, Inc. 220 Great Circle Rd. Suite 106 Nashville, TN 37228 p 615.255.5537

T.I. = TEMPERED INSULATED W = WIRE GLASS WD = WOOD \*SEE DRAWING A0.1 FOR MORE ABBREVIATIONS.





|      | PLUMBING FIXTURE SCHEDULE   |        |      |      |       |       |
|------|---|--------|------|------|-------|-------|
| TAG  | DESCRIPTION   | CW     | HW   | VENT | WASTE | POWER |
| FD-1 | FLOOR DRAIN - 6" DIA. : ZURN, ZN-415 OR EQUAL FLOOR DRAIN WITH 6" DIAMETER TOP, TYPE "B" NICKEL BRONZE STRAINER, 4" DRAIN OUTLET AND TRAP PRIMER CONNECTION.  | -      | -    | 2"   | 4"    | No    |
| НВ   | HOSE BIBB: ZURN MODEL Z1350 OR EQUAL ENCASED MODERATE CLIMATE WALL HYDRANT FOR NARROW WALL INSTALLATION. WITH ALL BRONZE BODY, ALL BRONZE INTERIOR PARTS, REPLACEABLE SEAT WASHER, LOOSE KEY OPERATED CONTROL VALVE, VACUUM BREAKER AND 3/4" MALE HOSE CONNECTION. ADJUSTABLE STAINLESS STEEL BOX FURNISHED WITH HINGED COVER CYLINDER LOCK AND "WATER" STAMPED ON THE COVER. MOUNTED WITH HOSE CONNECTION AT 18" ABOVE FINISHED FLOOR ELEVATION OF AREA SERVED.  | 1/2"   | -    | -    | -     | No    |
| P-1  | WATER CLOSET - WALL MOUNTED- MANUAL FLUSH VALVE : VITREOUS CHINA, WALL MOUNTED ELONGATED BOWL, SIPHON JET, 11/2" TOP SPUD INLET, CHINA BOLT CAPS AND WHITE OPEN FRONT PLASTIC SEAT WITH SELF-SUSTAINING CHECK HINGES. PROVIDE WITH MANUAL 1.6 GPF FLUSH VALVE. PROVIDE WALL CARRIER. MOUNT WITH BOWL AT 15" AFF.  | 1-1/2" | -    | 2"   | 4"    | No    |
| P-1A | WATER CLOSET - FLOOR MOUNTED - MANUAL FLUSH VALVE - ADA COMPLIANT : VITREOUS CHINA, 18" HIGH ELONGATED BOWL, SIPHON JET, 11/2" TOP SPUD INLET, CHINA BOLT CAPS AND WHITE OPEN FRONT PLASTIC SEAT WITH SELF-SUSTAINING CHECK HINGES. PROVIDE MANUAL 1.6 GPF FLUSH VALVE WITH HANDLE AT A MAXIMUM OF 31" AFF.   | 1-1/2" | -    | 2"   | 4"    | No    |
| P-2  | LAVATORY - WALL HUNG W/ SINGLE LEVER FAUCET - ADA COMPLIANT : VITREOUS CHINA, 20"X18" WALL HUNG LAVATORY WITH 4" FAUCET CENTERS, CONCEALED ARMS AND 4" HIGH BACKSPLASH. PROVIDE WITH A 0.5 GPM SINGLE LEVER FAUCET, CHROME PLATED 3/8" SUPPLIES WITH STOPS, GRID DRAIN, A KENTUCKY CODE P-TRAP, TAILPIECE AND ESCUTCHEONS. MOUNT LAVATORY AT A HEIGHT LEAVING A CLEARANCE OF AT LEAST 29" FROM THE FLOOR TO THE APRON AND THE RIM AT A MAXIMUM OF 34" AFF. PROVIDE ON THE EXPOSED WASTE PIPE AND WATER SUPPLY LINES A TRAP-WRAP INSULATION KIT WITH A VINYL AND PLASTIC COVERING. | 1/2"   | 1/2" | 2"   | 2"    | No    |
| P-3  | LAVATORY - COUNTER TOP - ADA COMPLIANT : VITREOUS CHINA, 19"X16" OVAL COUNTERTOP LAVATORY, SELF-RIMMING WITH FRONT OVERFLOW. PROVIDE WITH A .5 GPM SINGLE LEVER FAUCET, GRID DRAIN, 3/8" ANGLE SUPPLIES WITH STOPS, KENTUCKY CODE P-TRAP, TAILPIECE AND ESCUTCHEONS. INSTALL ON THE SUPPLY LINES AND P-TRAP AN INSULATION KIT WITH A VINYL PLASTIC COVERING.  | 1/2"   | 1/2" | 2"   | 2"    | No    |
| P-4  | URINAL - ADA COMPLIANT : VITREOUS CHINA SIPHON JET URINAL WITH 3/4' TOP SPUD INLET, 2" I.P.S. OUTLET AND 1.0 GPF MANUAL FLUSH VALVE. MOUNT WITH LIP OF URINAL AT 16" ABOVE FINISHED FLOOR. CONTROLS SHALL BE A MAXIMUM OF 39" ABOVE FINISHED FLOOR. PROVIDE FLOOR MOUNTED WALL CARRIER.   | 3/4"   | -    | 2"   | 2"    | Yes   |

| SCHEDULE - ELECTRIC WATER HEATER |              |         |                  |                                |                    |                    |                    |                    |  |  |  |
|----------------------------------|--------------|---------|------------------|--------------------------------|--------------------|--------------------|--------------------|--------------------|--|--|--|
| MANUFACTURER                     | MODEL#       | SERVICE | STORAGE<br>(GAL) | RECOVERY @<br>100°F RISE (GPH) | KW                 | VOLTAGE            | PHASE              | REMARKS            |  |  |  |
|                                  |              |         |                  |                                |                    |                    |                    |                    |  |  |  |
|                                  | MANUFACTURER |         |                  | STORAGE                        | STORAGE RECOVERY @ | STORAGE RECOVERY @ | STORAGE RECOVERY @ | STORAGE RECOVERY @ |  |  |  |

|      | JLATION          | I PUMP |         |     |                         |          |         |       |         |
|------|------------------|--------|---------|-----|-------------------------|----------|---------|-------|---------|
| MARK | MANUFACTUR<br>ER | MODEL  | SERVICE | GPM | PRESS DROP<br>(FT HEAD) | MOTOR HP | VOLTAGE | PHASE | REMARKS |

### PHASING NOTE:

A. THIS PROJECT INTERFACES EXTENSIVELY WITH EXISTING BUILDING SERVICES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AND PHASE ALL TIE-INS AND INTERRUPTIONS OF EXISTING SERVICES TO MINIMIZE OR ELIMINATE DOWNTIME. AS AN EXAMPLE, MAIN GAS SERVICE. WATER SERVICE, ELECTRICAL SERVICE, HVAC SERVICES, STEAM GENERATION, ETC., WILL BE AFFECTED AND REPLACED OR MOVED DURING THIS PROJECT. THE CONTRACTOR SHALL INSTALL ALL NEW SERVICES AND EQUIPMENT AND HAVE THEM TESTED AND FULLY AND RELIABLY FUNCTIONAL PRIOR TO INTERRUPTING, RELOCATING OR REMOVING ANY EXISTING SERVICES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BARE ANY AND ALL COSTS ASSOCIATED WITH THIS PHASING, INCLUDING TEMPORARY SERVICES, TEMPORARY RELOCATION, PREMIUM TIME WORK, ETC. CONTRACTOR SHALL COORDINATE ALL SAID WORK WITH THE OWNER AND APPLICABLE UTILITIES PER THE CONTRACT DOCUMENTS.

### PLUMBING GENERAL NOTES:

- A. COORDINATE THE LOCATION OF DRAINS, THERMOSTATS, GAS OUTLETS, ETC., WITH ALL CASEWORK EQUIPMENT, MECHANICAL ROOM EQUIPMENT, ETC., PRIOR TO COMMENCING INSTALLATION. WORK NOT SO COORDINATED SHALL BE REMOVED AND PROPERLY INSTALLED AT THE EXPENSE OF THE CONTRACTOR.
- B. THE CONTRACTOR SHALL EXERCISE EXTREME CARE IN THE COURSE OF THEIR WORK SO AS TO INSURE THAT THEY DO NOT INTERRUPT ANY EXISTING SERVICE. FOR SAFETY PURPOSES, PAY PARTICULAR ATTENTION TO THIS PRECAUTION RELATIVE TO NATURAL GAS AND ELECTRICAL LINES. VERIFY THE LOCATION, SIZE, TYPE, ETC., OF EACH UNDERGROUND OR OVERHEAD UTILITY. ALL WORK SHALL BE PERFORMED IN ACCORD WITH ALL FEDERAL, STATE AND/OR LOCAL RULES, REGULATIONS, STANDARD AND SAFETY REQUIREMENTS. UTILITIES SHALL BE INSTALLED IN ACCORD WITH THE APPLICABLE MUNICIPALITY OR UTILITY COMPANY STANDARDS. IN ALL CASES, THE MOST STRINGENT REQUIREMENT SHALL APPLY.
- APPLY.

  C. WHERE WORK IS REQUIRED ABOVE EXISTING LAY-IN, PLASTER OR GYPSUM BOARD CEILINGS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND REINSTALLATION (OR REPLACEMENT, IF DAMAGED) OF ALL CEILING OR TILE AND GRID MEMBERS NECESSARY TO PERFORM HIS WORK. NEW TILE AND GRID SHALL MATCH THE SURROUNDING AREAS. ALL PATCHING WORK SHALL MATCH ADJACENT SURFACES.
- D. ALL NEW WORK SHALL BE HUNG FROM STRUCTURE, NOT FROM THE WORK OF OTHER TRADES, WHETHER EXISTING OR NEW.
   E. COORDINATE ALL WORK WITH PROJECT PHASING
- REQUIREMENTS.

  F. PATCH, REPAIR AND PAINT OR PROVIDE WALL COVERING FOR (TO OWNER'S STANDARDS) EXISTING WALLS, CEILINGS, ETC., THAT ARE TO REMAIN IF DAMAGED DURING CONSTRUCTION. REPAIRS SHALL MATCH ADJACENT SURFACES TO THE SATISFACTION OF THE ARCHITECT AND OWNER.
- G. OBSERVE ALL APPLICABLE CODES, RULES AND REGULATIONS THAT MAY APPLY TO THE WORK UNDER THIS CONTRACT. (CITY, COUNTY, LOCAL, FEDERAL, MUNICIPALITY, UTILITY COMPANY, COMMONWEALTH OF KENTUCKY, ETC.)
  H. CONTRACTOR SHALL BE AWARE OF UNSEEN PLUMBING WORK DURING DEMOLITION. IF ITEMS ARE UNCOVERED DURING DEMOLITION THEN FIELD VERIFY THE USE OF THE ITEMS AND PLAN AN ALTERNATE ROUTE TO RUN THESE ITEMS. THEN CONTACT THE ENGINEERS TO REVIEW THE ROUTING.
  I. IF AREA OF CONSTRUCTION HAS A POST TENSION FLOOR SLAB. CONTRACTOR SHALL USE ULTRA SOUND OR OTHER APPROVED METHODS TO SURVEY THE EXISTING FLOOR STRUCTURE BEFORE MAKING ANY AND ALL FLOOR PENETRATIONS.
- J. WHERE FIRE PROOFING IS SPRAYED ON EXISTING STRUCTURE ALL EXISTING CONDUITS, WATER, HYDRONIC, STEAM, CHILLED WATER, FIRE PROTECTION LINES, MED GAS, ETC. SHALL BE LOWERED TO BE BELOW FULL THICKNESS OF FIRE PROOFING WITH NO INTERFERENCE.
   K. ALL PENETRATIONS OF FIRE AND SMOKE RATED ASSEMBLIES SHALL BE APPROPRIATELY FIRE STOPPED PER AN APPROVED U.L. LISTED STANDARD. CONTRACTOR SHALL PAY PARTICULAR
- ATTENTION TO INSULATED PIPING PENETRATIONS.

  L. ALL WORK REQUIRING DOWNTIME OF ANY AREA IN THE BUILDING SHALL BE SCHEDULED 2 WEEKS IN ADVANCE, AND SHALL COMPLY WITH INTERIM LIFE SAFETY MEASURES.
- EXCEPT AS NOTED.

  N. IN ACCORDANCE WITH K.R.S. ALL PLUMBING WORK SHALL BE CONSTRUCTED IN COMPLIANCE WITH PLANS APPROVED BY AND BEARING THE APPROVAL STAMP OF THE KENTUCKY DIVISION OF PLUMBING AND/OR THE DIVISION OF WATER. THE CONTRACTOR SHALL NOT BEGIN WORK UNTIL HE HAS RECEIVED SUCH APPROVED PLANS.

M. ALL PIPING IN ROOMS WITH CEILINGS SHALL BE ABOVE CEILING

O. LOCATIONS OF PIPING AND EQUIPMENT ARE APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD. DO NOT SCALE THE DRAWINGS.

REQUIRE TO COMPLETE THEIR WORK. (GAS, SEWER, WATER,

- P. ALL OFFSETS IN PIPING ARE NOT NECESSARILY SHOWN.
   PROVIDE ADDITIONAL OFFSETS WHERE NECESSARY.
   Q. THE CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY COMPANY
   FEES OR OTHER COSTS THAT ANY UTILITY COMPANY MAY
- R. WHERE MOUNTING HEIGHTS ARE NOT INDICATED OR ARE IN CONFLICT WITH ANY OTHER BUILDING SYSTEM, CONTACT THE ENGINEERS BEFORE INSTALLATION. REFER ALSO TO ARCHITECTURAL WALL INTERIOR AND EXTERIOR WALL ELEVATIONS, CEILING HEIGHTS AND OTHER DETAIL OF THESE
- DOCUMENTS.

  S. DOUBLE WIDTH TURNING VANES SHALL BE INSTALLED IN ALL SUPPLY. RETURN. AND EXHAUST DUCTWORK ELBOWS.
- TURNING VANES NOT REQUIRED FOR KITCHEN EXHAUSTS.

  T. ANY VIBRATING, OSCILLATING OR OTHER NOISE OR MOTION PRODUCING EQUIPMENT SHALL BE ISOLATED FROM SURROUNDING SYSTEMS IN AN APPROVED MANNER. NOISY OR STRUCTURALLY DAMAGING INSTALLATIONS SHALL BE SATISFACTORILY REPLACED OR REPAIRED AT THE INSTALLING CONTRACTOR'S EXPENSE. THE FINAL DECISION ON THE SUITABILITY OF A PARTICULAR INSTALLATION'S ACCEPTABILITY
- SHALL BE THAT OF THE ENGINEER.

  U. DEVIATIONS IN SIZE, CAPACITIES, FIT, FINISH, ETC. FOR EQUIPMENT FROM THAT USED AS BASIS OF DESIGN SHALL BE THE RESPONSIBILITY OF THE PURCHASER OF THAT EQUIPMENT. ANY PROVISIONS REQUIRED TO ACCOMMODATE A DEVIATION, WHETHER APPROVED BY THE ENGINEERS OR NOT,
- SHALL BE THE RESPONSIBILITY OF THE PURCHASER.

  V. VALVES, BALANCING DAMPERS OR ANY
  MECHANICAL/ELECTRICAL ITEM REQUIRING ACCESS SHALL NOT
  BE LOCATED ABOVE A HARD CEILING. IF THIS IS NOT POSSIBLE,
  THEN AN APPROPRIATELY SIZED ACCESS DOOR SHALL BE
  PLACED UNDER THE ITEM TO ALLOW EASY MAINTENANCE AND
  ADJUSTMENT. ADDITIONALLY ALL SUCH ITEMS SHALL NOT BE
  LOCATED AN UNREASONABLE DISTANCE ABOVE THE CEILINGS.
  IN GENERAL ALL SUCH ITEMS UNLESS INDICATED OTHERWISE
  SHALL BE MOUNTED SIX TO TWELVE INCHES ABOVE THE
  CEILING. IF IN DOUBT, CONTACT ENGINEER PRIOR TO
- INSTALLING.
  W. ALL MANHOLES, VAULTS AND SIMILAR UNDERGROUND
  STRUCTURES SHALL HAVE THE TOP ELEVATION SET FLUSH
  WITH FINISHED GRADE UNLESS SPECIFICALLY NOTED
  OTHERWISE.
- X. WHEN RUNNING ANY TYPE OF PIPING BELOW A FOOTER, OR IN THE ZONE OF INFLUENCE THE PIPING SHALL BE BACKFILLED WITH CEMENTITIOUS FLOWABLE FILL PER SPECIFICATIONS. WHENEVER POSSIBLE, LOCATE PIPING OUTSIDE OF THE ZONE OF INFLUENCE. THE ZONE OF INFLUENCE IS THE AREA UNDER THE FOOTER WITHIN A 45 DEGREE ANGLE PROJECTING DOWN FROM THE BOTTOM EDGE OF THE FOOTER OF ALL SIDES OF THE FOOTER. ADDITIONALLY, GREASE TRAPS, MANHOLES, VAULTS AND OTHER UNDERGROUND STRUCTURES SHALL BE HELD AWAY FROM BUILDING WALLS FAR ENOUGH TO BE
- OUTSIDE OF THE ZONE OF INFLUENCE.

  Y. WORK IN CONFINED AREAS SHALL BE IN ACCORDANCE WITH THE OWNER'S SAFETY POLICY REQUIREMENTS.
- Z. THE DOCUMENTS COMPLY WITH 2006 IMC, 2007 KBC, AND 2009 IECC.AA. THE DOCUMENTS COMPLY WITH 2006 IMC, 2007 KBC, AND

ASHRAE 90.1-2007.

# **HAZARDOUS MATERIAL NOTE:**

- A. THE CONTRACTOR IT IS HEREBY ADVISED THAT IS POSSIBLE THAT ASBESTOS AND/OR OTHER HAZARDOUS MATERIALS ARE OR WERE PRESENT IN THIS BUILDING(S). ANY WORKER, OCCUPANT, VISITOR, ETC., WHO ENCOUNTERS ANY MATERIAL OF WHOSE CONTENT THEY ARE NOT CERTAIN SHALL PROMPTLY REPORT THE EXISTENCE AND LOCATION OF THAT MATERIAL TO THE OWNER. FURTHERMORE, THE CONTRACTOR SHALL INSURE THAT NO ONE COMES NEAR TO OR IN
- CONTACT WITH ANY SUCH MATERIAL OR FUMES THEREFROM UNTIL ITS CONTENT CAN BE ASCERTAINED TO BE NON-HAZARDOUS.

  B. CMTA, INC. HAS NO EXPERTISE IN THE DETERMINATION OF THE PRESENCE OF ANY HAZARDOUS MATERIAL. THEREFORE, NO ATTEMPT HAS BEEN MADE BY CMTA TO IDENTIFY THE EXISTENCE OR LOCATION OF ANY SUCH HAZARDOUS MATERIAL. FURTHERMORE, CMTA NOR ANY AFFILIATE HEREOF WILL NOT OFFER OR MAKE ANY RECOMMENDATIONS RELATIVE TO THE REMOVAL, HANDLING OR DISPOSAL OF SUCH MATERIAL.
- C. IF THE WORK WHICH IS TO BE PERFORMED INTERFACES, CONNECTS OR RELATES IN ANY PHYSICAL WAY WITH OR TO EXISTING COMPONENTS WHICH CONTAIN OR BEAR ANY HAZARDOUS MATERIAL, ASBESTOS BEING ONE, THEN IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO CONTACT THE OWNER AND SO ADVISE HIM/HER IMMEDIATELY.
- IMMEDIATELY.

  D. THE CONTRACTOR BY EXECUTION OF THE CONTRACT FOR ANY WORK AND/OR BY THE ACCOMPLISHMENT OF ANY WORK THEREBY AGREE TO BRING NO CLAIM RELATIVE TO HAZARDOUS MATERIALS FOR NEGLIGENCE, BREACH OF CONTRACT, INDEMNITY, OR ANY OTHER SUCH ITEM AGAINST CMTA, ITS PRINCIPALS, EMPLOYEES, AGENTS OR CONSULTANTS. ALSO, THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD CMTA, ITS PRINCIPALS, EMPLOYEES, AGENTS AND CONSULTANTS HARMLESS FROM ANY SUCH RELATED CLAIMS WHICH MAY BE BROUGHT BY ANY SUBCONTRACTORS,
- SUPPLIERS OR ANY OTHER THIRD PARTIES.

  E. THE CONTRACTOR IS DIRECTED TO THE SPECIFICATIONS FOR FURTHER INFORMATION

# SYMBOLS & ABBREVIATIONS

| A, AIR | MEDICAL AIR                                    | •   | POINT OF CONNECTION                             |
|--------|--|---|---|
| AFF    | ABOVE FINISHED FLOOR                           | <b>◆</b>  | LIMIT OF DEMOLITION                             |
| AFR    | ABOVE FINISHED ROOF                            | — о — э   | PIPE ELBOW TURNING UP/TURNING DOWN              |
| C.I.   | CAST IRON                                      | —o— —÷  | PIPE TEE TURNING UP/TURNING DOWN                |
| CO2    | CARBON DIOXIDE                                 | ——— A ———   | MEDICAL AIR                                     |
| CW     | DOMESTIC COLD WATER                            | —— CA ——  | COMPRESSED AIR                                  |
| DN     | DOWN   | FM  | FORCED MAIN                                     |
| EV     | EVACUATION (WASTE ANESTHETIC GAS DISPOSAL)     | FP  | FIRE PROTECTION LINE                            |
| FHV    | FIRE HOSE VALVE WITH CABINET                   | ——- G——-  | GAS LINE  |
| FPWH   | FREEZE PROOF WALL HYDRANT                      | GW  | SANITARY WASTE PIPING TO GREASE TRAP            |
| НВ     | HOSE BIBB                                      | o   | OXYGEN PIPING                                   |
| HW     | DOMESTIC HOT WATER                             | ORL   | OVERFLOW ROOF LEADER PIPING                     |
| IAW    | IN ACCORDANCE WITH                             |   | ROOF LEADER PIPING                              |
| ID     | INSIDE DIMENSION                               | SAN   | SANITARY WASTE PIPING                           |
| IE     | INVERT ELEVATION                               | ss  | STORM SEWER PIPING                              |
| LPA    | LINE PRESSURE ALARM (MEDICAL GAS AREA ALARM)   | V   | VACUUM PIPING                                   |
| МН     | MANHOLE  | VT  | VENT PIPING                                     |
| MSA    | MULTI-SINGLE ALARM (MEDICAL GAS MASTER ALARM)  | — E(NAME) —   | EXISTING PIPING (THIN LINE)                     |
| NTS    | NOT TO SCALE                                   | -ABAN(NAME)-  | ABANDONED EXISTING PIPING (THIN LINE)           |
| NIC    | NOT IN CONTRACT                                |   | DOMESTIC COLD WATER PIPING                      |
| NO     | NORMALLY OPEN                                  |   | DOMESTIC HOT WATER SUPPLY                       |
| NC     | NORMALLY CLOSED                                |   | DOMESTIC RECIRCULATING HOT WATER                |
| O, OX  | OXYGEN   | ————II  | CLEANOUT IN CEILING SPACE                       |
| OD     | OUTSIDE DIMENSION                              | ——————————————————————————————————————  | FLOOR CLEANOUT                                  |
| OFCI   | OWNER FURNISHED, CONTRACTOR INSTALLED          |   | EXTERIOR CLEANOUT                               |
| OFOI   | OWNER FURNISHED, OWNER INSTALLED               | ——————————————————————————————————————  | BALANCING VALVE                                 |
| CFCI   | CONTRACTOR FURNISHED, CONTRACTOR INSTALLED     | —— <del></del> δ——  | BALL VALVE                                      |
| OR     | OPEN RECEPTACLE                                | <b>_</b>  | SAFETY RELIEF VALVE                             |
| ORL    | OVERFLOW ROOF LEADER                           | <u></u>   | SAFETY RELIEF VALVE                             |
| PRV    | PRESSURE REDUCING VALVE (STEAM, WATER, OR GAS) |   | OS&Y (GATE) VALVE                               |
| PSI    | POUNDS PER SQUARE INCH                         |   | PRESSURE REDUCING VALVE (STEAM, GAS, WATER, ETC |
| RHW    | DOMESTIC RECIRCULATING HOT WATER               | <del></del>   | STRAINER  |
| RL     | ROOF LEADER                                    | $-\vec{\nabla}\!$ | CHECK VALVE                                     |
| SCW    | SOFT DOMESTIC COLD WATER                       | — <del>—</del> ——————————————————————————————————                                       | DOUBLE CHECK VALVE ASSEMBLY                     |
| SR     | SANITARY RISER                                 | ——————————————————————————————————————  | PIPING UNION                                    |
| ТВ     | THRUST BLOCK                                   | FS  | FLOW SWITCH                                     |
| TE     | TOP ELEVATION                                  | P°s   | PRESSURE SWTICH                                 |
| TP     | TRAP PRIMER                                    | T <sup>rs</sup>   | TAMPER SWITCH                                   |
| TYP    | TYPICAL  |   | THERMOMETER                                     |
| UON    | UNLESS OTHERWISE NOTED                         | V   | VACUUM BREAKER                                  |
| V, VAC | VACUUM   | •   | LIMITED AREA SPRINKLER HEAD                     |
| VTR    | VENT THRU ROOF                                 | T   | PETE'S PLUG                                     |
|        |  | <u>FD-#</u>   | FLOOR DRAIN DESIGNATOR                          |
|        |  | RD-#  | ROOF DRAIN DESIGNATOR                           |
|        |  | <u></u><br><u>P-#</u>   | PLUMBING FIXTURE DESIGNATOR                     |
|        |  | XXX   | EQUIPMENT TAG DESIGNATOR                        |
|        |  | X<br>X  | TAGGED NOTE DESIGNATOR                          |
|        |  | $\stackrel{\wedge}{\mathbb{A}}$   | REVISION DESIGNATOR                             |
|        |  |   | TEMPERATURE SENSOR                              |
|        |  | X <sub>S</sub>  | HOSE BIB  |
|        |  | \ \   |   |

| rosstarrant architects

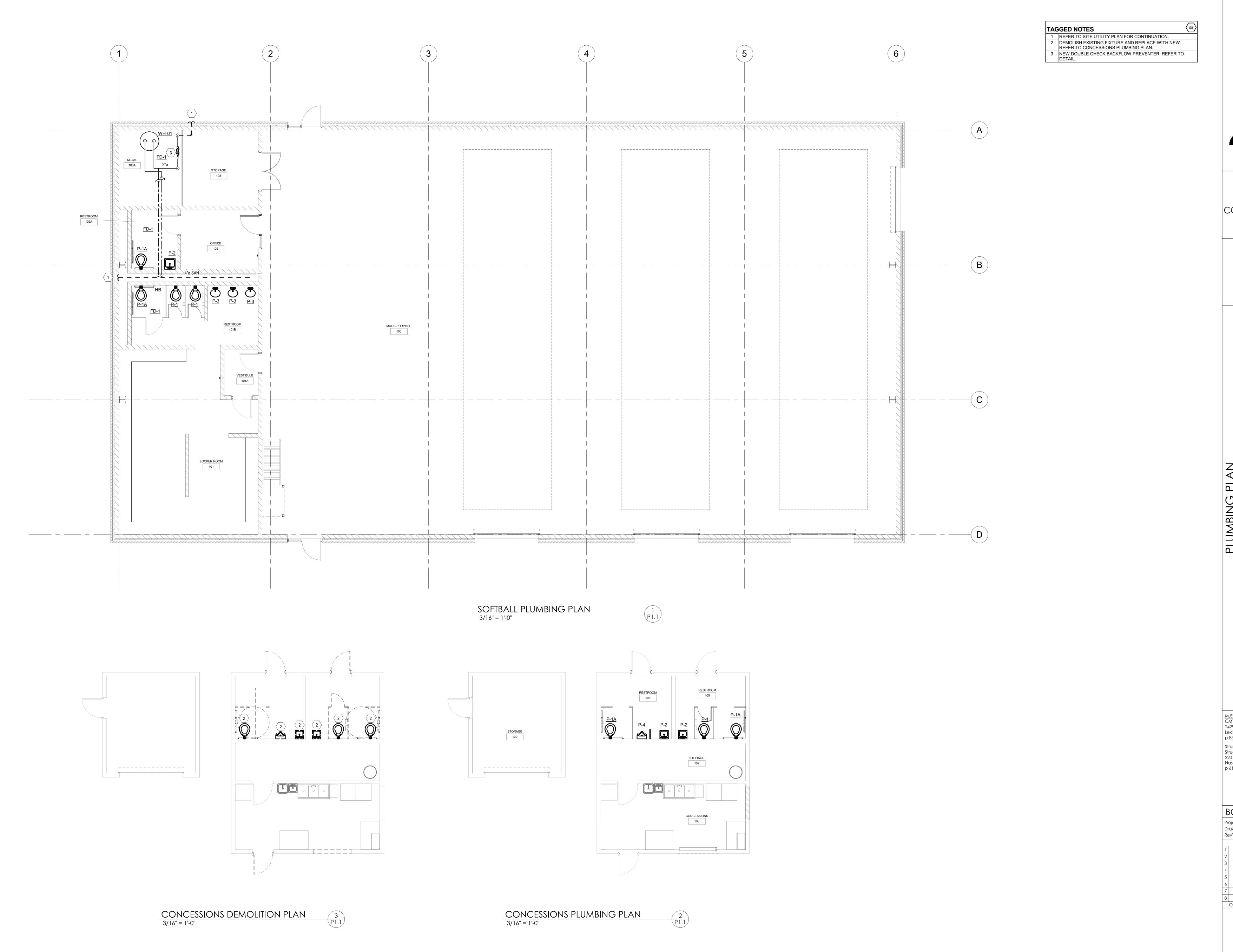
NOT FOR CONSTRUCTION

TOWN SOFTBALL FACILITY
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2429 Members Way
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PLUMBING LEGEND



NOT FOR

CONSTRUCTION

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SCHEMATIC DESIGN

PLUMBING PLAN DATE ISSUED: 12/11/2018

### **HAZARDOUS MATERIAL NOTE:**

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- SUPPLIERS OR ANY OTHER THIRD PARTIES. . THE CONTRACTOR IS DIRECTED TO THE SPECIFICATIONS FOR FURTHER INFORMATION.

### **PHASING NOTE:**

A. THIS PROJECT INTERFACES EXTENSIVELY WITH EXISTING BUILDING SERVICES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AND PHASE ALL TIE-INS AND INTERRUPTIONS OF EXISTING SERVICES TO MINIMIZE OR ELIMINATE DOWNTIME. AS AN EXAMPLE, MAIN GAS SERVICE, WATER SERVICE, ELECTRICAL SERVICE, HVAC SERVICES, STEAM GENERATION, ETC., WILL BE AFFECTED AND REPLACED OR MOVED DURING THIS PROJECT. THE CONTRACTOR SHALL INSTALL ALL NEW SERVICES AND EQUIPMENT AND HAVE THEM TESTED AND FULLY AND RELIABLY FUNCTIONAL PRIOR TO INTERRUPTING, RELOCATING OR REMOVING ANY EXISTING SERVICES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BARE ANY AND ALL COSTS ASSOCIATED WITH THIS PHASING, INCLUDING TEMPORARY SERVICES, TEMPORARY RELOCATION, PREMIUM TIME WORK, ETC. CONTRACTOR SHALL COORDINATE ALL SAID WORK WITH THE OWNER AND APPLICABLE UTILITIES PER THE CONTRACT DOCUMENTS.

### **MECHANICAL DEMOLITION NOTES:**

- A. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR AREAS IN WHICH THE CEILING IS REMAINING. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE EXISTING CEILING AS REQUIRED AND REINSTALLATION. TEMPORARILY SUPPORT LIGHTS, DIFFUSERS,
- CEILING ETC. REPLACE BROKEN CEILING TILES WITH NEW AT NO ADDITIONAL COST TO OWNER. FIELED VERIFY EXACT REQUIREMENTS. B. ALL OUTAGES SHALL BE SCHEDULED THROUGH THE PROJECT REPRESENTATIVE FOR PROPER COORDINATION. A REQUEST FOR AN OUTAGE SHALL BE SUBMITTED IN WRITING A MINIMUM OF TWO WEEKS IN ADVANCE.
- DURING SPRINKLER SYSTEM OUTAGES THE CONTRACTORS SHALL PROVIDE FIRE WATCH OF AREAS WITH OUTAGES. D. ALL WALLS AND FLOOR SLABS SHALL BE REPAIRED TO MATCH EXISTING AND TO A LIKE NEW CONDITION. ALL RATED WALLS AND FLOOR SLABS SHALL BE PATCHED AND REPAIRED TO MAINTAIN RATING.
- E. ALL EXISTING BUILDING FINISHES SHALL BE PROTECTED DURING THE DEMOLITION PHASE. F. HEAVY DASHED LINES INDICATE ITEMS FOR REMOVAL (U.O.N) AND
- LIGHT SOLID LINES INDICATE EXISTING ITEMS TO REMAIN. G. COORDINATE DISPOSAL OF ALL FIXTURES, DEVICES, ETC. (INDICATED FOR DEMOLITION) WITH THE OWNER.

|      |              | SCHEDULE - REGISTERS, GRILLES, DIFFUSERS |      |             |            |                 |                  |         |      |                   |                  |         |  |
|------|--------------|--|------|-------------|------------|-----------------|------------------|---------|------|-------------------|------------------|---------|--|
| MARK | MANUFACTURER | MODEL#                                   | TYPE | GRILLE SIZE | PANEL SIZE | DUCT INLET SIZE | DUCT BRANCH SIZE | MAX CFM | P.D. | NOISE<br>CRITERIA | THROW<br>PATTERN | REMARKS |  |
| E-01 |              |  |      |             |            |                 |                  |         |      |                   |                  |         |  |
| E-03 |              |  |      |             |            |                 |                  |         |      |                   |                  |         |  |
| S-01 |              |  |      |             |            |                 |                  |         |      |                   |                  |         |  |
| S-03 |              |  |      |             |            |                 |                  |         |      |                   |                  |         |  |

|       |                            | SCH    | EDULE | - CIRCU | LATION | FAN     |       |         |  |  |
|-------|----------------------------|--------|-------|---------|--------|---------|-------|---------|--|--|
|       | MANUFACTUR ELECTRICAL DATA |        |       |         |        |         |       |         |  |  |
| MARK  | ER                         | MODEL# | TYPE  | WEIGHT  | FLA    | VOLTAGE | PHASE | REMARKS |  |  |
| CF-01 |                            |        |       |         |        |         |       |         |  |  |

|       | S      | CHEDU  | ILE - ELI | ECTRIC  | UNIT | HEATE      | RS    |         |  |
|-------|--------|--------|-----------|---------|------|------------|-------|---------|--|
|       |        |        |           | AIRFLOW |      | ELECTRICAL |       |         |  |
| MARK  | MANUF. | MODEL# | TYPE      | (CFM)   | KW   | VOLTAGE    | PHASE | REMARKS |  |
| UH-01 |        |        |           |         |      |            |       |         |  |

### **MECHANICAL GENERAL NOTES:**

- A. COORDINATE THE LOCATION OF DRAINS, THERMOSTATS, GAS OUTLETS, ETC., WITH ALL CASEWORK EQUIPMENT, MECHANICAL ROOM EQUIPMENT, ETC., PRIOR TO COMMENCING INSTALLATION. WORK NOT SO COORDINATED SHALL BE REMOVED AND PROPERLY INSTALLED AT THE EXPENSE OF THE CONTRACTOR.
- B. THE CONTRACTOR SHALL EXERCISE EXTREME CARE IN THE COURSE OF THEIR WORK SO AS TO INSURE THAT THEY DO NOT INTERRUPT ANY EXISTING SERVICE. FOR SAFETY PURPOSES, PAY PARTICULAR ATTENTION TO THIS PRECAUTION RELATIVE TO NATURAL GAS AND ELECTRICAL LINES. VERIFY THE LOCATION, SIZE, TYPE, ETC., OF EACH UNDERGROUND OR OVERHEAD UTILITY. ALL WORK SHALL BE PERFORMED IN ACCORD WITH ALL FEDERAL, STATE AND/OR LOCAL RULES, REGULATIONS, STANDARD AND SAFETY REQUIREMENTS. UTILITIES SHALL BE INSTALLED IN ACCORD WITH THE APPLICABLE MUNICIPALITY OR UTILITY COMPANY STANDARDS. IN ALL CASES, THE MOST STRINGENT REQUIREMENT SHALL
- C. WHERE WORK IS REQUIRED ABOVE EXISTING LAY-IN, PLASTER OR GYPSUM BOARD CEILINGS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND REINSTALLATION (OR REPLACEMENT, IF DAMAGED) OF ALL CEILING OR TILE AND GRID MEMBERS NECESSARY TO PERFORM HIS WORK. NEW TILE AND GRID SHALL MATCH THE SURROUNDING AREAS. ALL
- PATCHING WORK SHALL MATCH ADJACENT SURFACES. D. ALL NEW WORK SHALL BE HUNG FROM STRUCTURE, NOT FROM THE WORK OF OTHER TRADES, WHETHER EXISTING OR NEW. E. COORDINATE ALL WORK WITH PROJECT PHASING
- REQUIREMENTS. F. PATCH, REPAIR AND PAINT OR PROVIDE WALL COVERING FOR (TO OWNER'S STANDARDS) EXISTING WALLS, CEILINGS, ETC., THAT ARE TO REMAIN IF DAMAGED DURING CONSTRUCTION. REPAIRS SHALL MATCH ADJACENT SURFACES TO THE SATISFACTION OF THE ARCHITECT AND OWNER.
- G. OBSERVE ALL APPLICABLE CODES, RULES AND REGULATIONS THAT MAY APPLY TO THE WORK UNDER THIS CONTRACT. (CITY, COUNTY, LOCAL, FEDERAL, MUNICIPALITY, UTILITY COMPANY, COMMONWEALTH OF KENTUCKY, ETC.) H. CONTRACTOR SHALL BE AWARE OF UNSEEN PLUMBING. HVAC AND ELECTRICAL WORK DURING DEMOLITION. IF ITEMS ARE UNCOVERED DURING DEMOLITION THEN FIELD VERIFY THE USE
- OF THE ITEMS AND PLAN AN ALTERNATE ROUTE TO RUN THESE ITEMS. THEN CONTACT THE ENGINEERS TO REVIEW THE ROUTING. I. IF AREA OF CONSTRUCTION HAS A POST TENSION FLOOR SLAB. CONTRACTOR SHALL USE ULTRA SOUND OR OTHER APPROVED METHODS TO SURVEY THE EXISTING FLOOR STRUCTURE
- BEFORE MAKING ANY AND ALL FLOOR PENETRATIONS. J. WHERE FIRE PROOFING IS SPRAYED ON EXISTING STRUCTURE ALL EXISTING CONDUITS, WATER, HYDRONIC, STEAM, CHILLED WATER, FIRE PROTECTION LINES, MED GAS, ETC. SHALL BE LOWERED TO BE BELOW FULL THICKNESS OF FIRE PROOFING WITH NO INTERFERENCE.
- K. ALL PENETRATIONS OF FIRE AND SMOKE RATED ASSEMBLIES SHALL BE APPROPRIATELY FIRE STOPPED PER AN APPROVED U.L. LISTED STANDARD. CONTRACTOR SHALL PAY PARTICULAR ATTENTION TO INSULATED PIPING PENETRATIONS.
- L. ALL WORK REQUIRING DOWNTIME OF ANY AREA IN THE BUILDING SHALL BE SCHEDULED 2 WEEKS IN ADVANCE, AND SHALL COMPLY WITH INTERIM LIFE SAFETY MEASURES.
- M. ALL DUCTWORK, PIPING, CONDUITS, ETC. IN ROOMS WITH CEILINGS SHALL BE ABOVE CEILING EXCEPT AS NOTED. N. INSTALL AIR VENTS AT HIGH POINTS IN PIPING AND DRAINS IN LOW POINTS. USE CARE TO AVOID FREEZING OF EXTERIOR
- O. LOCATIONS OF PIPING, DUCTS AND EQUIPMENT ARE APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD. DO NOT SCALE THE DRAWINGS.
- P. ALL OFFSETS IN DUCTS AND PIPING ARE NOT NECESSARILY SHOWN. PROVIDE ADDITIONAL OFFSETS WHERE NECESSARY. Q. COORDINATE ALL HVAC WORK WITH ELECTRICAL, PLUMBING
- AND OTHER TRADES TO AVOID INTERFERENCE WITH PIPING, DUCTS, CONDUIT AND OTHER EQUIPMENT R. INSTALL ALL PIPING, DUCTWORK AND EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION
- INSTRUCTION. IF IN CONFLICT WITH THE DESIGN INDICATED IN CONTRACT DOCUMENTS, ADVISE THE ENGINEERS PRIOR TO INSTALLATION FOR CLARIFICATION. PROVIDE RECOMMENDED ACCESS AND SERVICE CLEARANCES FOR ALL EQUIPMENT. S. SEAL AIRTIGHT AROUND ALL DUCTS AND PIPING PENETRATIONS
- THROUGH WALLS, FLOORS AND ROOF. PROVIDE FIRE STOPPING IN FIRE PARTITION. T. SEAL ALL NEW DUCTWORK JOINTS WITH UNITED MCGILL,
- IRONGRIP 601 OR EQUAL WATER BASED SEALANT. U. ALL MOTOR DRIVEN EQUIPMENT SHALL BE INSTALLED WITH
- FLEXIBLE CONNECTIONS TO DUCTWORK, PIPING, ETC., UNLESS OTHERWISE NOTED. V. THE CONTRACTOR SHALL RELOCATE OR AVOID ANY EXISTING
- EQUIPMENT APPURTENANCES, ETC., THAT CONFLICT WITH NEW WORK. W. WHERE MOUNTING HEIGHTS ARE NOT INDICATED OR ARE IN CONFLICT WITH ANY OTHER BUILDING SYSTEM, CONTACT THE ENGINEERS BEFORE INSTALLATION. REFER ALSO TO
- ARCHITECTURAL WALL INTERIOR AND EXTERIOR WALL ELEVATIONS, CEILING HEIGHTS AND OTHER DETAIL OF THESE DOCUMENTS. X. DOUBLE WIDTH TURNING VANES SHALL BE INSTALLED IN ALL
- SUPPLY, RETURN, AND EXHAUST DUCTWORK ELBOWS. TURNING VANES NOT REQUIRED FOR KITCHEN EXHAUSTS. Y. ANY VIBRATING, OSCILLATING OR OTHER NOISE OR MOTION PRODUCING EQUIPMENT SHALL BE ISOLATED FROM SURROUNDING SYSTEMS IN AN APPROVED MANNER. NOISY OR STRUCTURALLY DAMAGING INSTALLATIONS SHALL BE SATISFACTORILY REPLACED OR REPAIRED AT THE INSTALLING CONTRACTOR'S EXPENSE. THE FINAL DECISION ON THE
- SHALL BE THAT OF THE ENGINEER. Z. DEVIATIONS IN SIZE, CAPACITIES, FIT, FINISH, ETC. FOR EQUIPMENT FROM THAT USED AS BASIS OF DESIGN SHALL BE THE RESPONSIBILITY OF THE PURCHASER OF THAT EQUIPMENT. ANY PROVISIONS REQUIRED TO ACCOMMODATE A DEVIATION, WHETHER APPROVED BY THE ENGINEERS OR NOT, SHALL BE THE RESPONSIBILITY OF THE PURCHASER.

SUITABILITY OF A PARTICULAR INSTALLATION'S ACCEPTABILITY

- AA. VALVES, BALANCING DAMPERS OR ANY MECHANICAL/ELECTRICAL ITEM REQUIRING ACCESS SHALL NOT BE LOCATED ABOVE A HARD CEILING. IF THIS IS NOT POSSIBLE, THEN AN APPROPRIATELY SIZED ACCESS DOOR SHALL BE PLACED UNDER THE ITEM TO ALLOW EASY MAINTENANCE AND ADJUSTMENT. ADDITIONALLY ALL SUCH ITEMS SHALL NOT BE LOCATED AN UNREASONABLE DISTANCE ABOVE THE CEILINGS. IN GENERAL ALL SUCH ITEMS UNLESS INDICATED OTHERWISE SHALL BE MOUNTED SIX TO TWELVE INCHES ABOVE THE CEILING. IF IN DOUBT, CONTACT ENGINEER PRIOR TO
- INSTALLING. BB. ALL MANHOLES, VAULTS AND SIMILAR UNDERGROUND STRUCTURES SHALL HAVE THE TOP ELEVATION SET FLUSH WITH FINISHED GRADE UNLESS SPECIFICALLY NOTED
- OTHERWISE. CC. WHEN RUNNING ANY TYPE OF PIPING BELOW A FOOTER, OR IN THE ZONE OF INFLUENCE THE PIPING SHALL BE BACKFILLED WITH CEMENTITIOUS FLOWABLE FILL PER SPECIFICATIONS. WHENEVER POSSIBLE. LOCATE PIPING OUTSIDE OF THE ZONE OF INFLUENCE. THE ZONE OF INFLUENCE IS THE AREA UNDER THE FOOTER WITHIN A 45 DEGREE ANGLE PROJECTING DOWN FROM THE BOTTOM EDGE OF THE FOOTER OF ALL SIDES OF THE FOOTER. ADDITIONALLY, GREASE TRAPS, MANHOLES, VAULTS AND OTHER UNDERGROUND STRUCTURES SHALL BE HELD AWAY FROM BUILDING WALLS FAR ENOUGH TO BE
- OUTSIDE OF THE ZONE OF INFLUENCE. DD. WORK IN CONFINED AREAS SHALL BE IN ACCORDANCE WITH THE OWNER'S SAFETY POLICY REQUIREMENTS.

TYPE | FANS | RPM | ("WC) | ("WC) | (PER FAN) | (PER FAN) | VOLT. | PH. | MCA | MOCP | VFD | FREQ. | REMARKS

TYPE | EFFICIENCY | FILTERS | (IN) | (IN) | (FPM)

FILTER NO OF WIDTH HEIGHT VELOCITY (CLEAN)

FACE DROP DROP

("WC)

EE. THE DOCUMENTS COMPLY WITH 2006 IMC, 2007 KBC, AND 2009 FF. THE DOCUMENTS COMPLY WITH 2006 IMC, 2007 KBC, AND

ASHRAE 90.1-2007.

# SYMBOLS & ABBREVIATIONS

|   | SI IDDI V DIEEI ISED   | \/A\/   | VARIABLE AIR VOLUME ROY                           |
|---|--|---|---|
|   | SUPPLY DIFFUSER  RETURN GRILLE   | VAV<br>VFD  | VARIABLE AIR VOLUME BOX  VARIABLE FREQUENCY DRIVE |
|   | EXHAUST GRILLE   | xxx   | EQUIPMENT TAG DESIGNATOR                          |
|   | LINEAR SLOT DIFFUSER   | ×   | POINT OF CONNECTION                               |
| SA  | SUPPLY AIR DUCT  | <b>•</b>  | LIMIT OF DEMOLITION                               |
| RA P  | RETURN AIR DUCT  | <b>→</b> →  | PIPE ELBOW TURNING UP/TURNING DOWN                |
| EA +  | EXHAUST AIR DUCT   | - <u></u> - <del>•</del> - <del>•</del> -         | PIPE TEE TURNING UP/TURNING DOWN                  |
| RA +  | OUTSIDE AIR DUCT   | — CHWS/R —  | CHILLED WATER SUPPLY/RETURN                       |
|   |  |   |   |
| OA  | TRANSFER AIR DUCT  | —— CD ——  | CONDENSATE DRAIN                                  |
| GEA T   | GENERATOR EXHAUST AIR DUCT   | —— CBS/R ——                                       | CHILLED BEAM SUPPLY/RETURN                        |
| COA   | COMBUSTION AIR DUCT  | —— CWS/R ——                                       | CONDENSER WATER SUPPLY/RETURN                     |
| SA -  | SA AIR DUCT TURNING UP   | —— DTS/R ——                                       | DUAL TEMP. WATER SUPPLY/RETURN                    |
| × SA  | SA AIR DUCT TURNING DOWN   | FLUE  | BOILER/WATER HEATER FLUE                          |
| RA  | RA AIR DUCT TURNING UP   | GS/R  | GEOTHERMAL WATER SUPPLY/RETURN                    |
| RA +  | RA AIR DUCT TURNING DOWN   | HWS/R   | HEATING WATER SUPPLY/RETURN                       |
| EA  | EA AIR DUCT TURNING UP   | HPS/R   | HEAT PUMP WATER<br>SUPPLY/RETURN                  |
| EA  | EA AIR DUCT TURNING DOWN   | —— LPS (#) ——                                     | LOW PRESSURE STEAM; (#) DENOTES PRESSURE          |
| D(NAME)   | DUCT TO BE DEMOLISHED  | —— LPC ——   | LOW PRESSURE STEAM CONDENSATE                     |
| E(NAME)   | EXISTING DUCT  | —— MPS (#) ——                                     | MEDIUM PRESSURE STEAM; (#) DENOTES PRESSURE       |
| \ <del>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</del> | FLEXIBLE DUCT  | MPC   | MEDIUM PRESSURE STEAM CONDENSATE                  |
|   | FIRE DAMPER  | —— HPS (#) ——                                     | HIGH PRESSURE STEAM; (#) DENOTES PRESSURE         |
| SD<br>FSD   | SMOKE DAMPER   | HPC   | HIGH PRESSURE STEAM CONDENSATE                    |
|   | COMBINATION FIRE/SMOKE DAMPER  | —— CST ——   | CLEAN STEAM PIPING                                |
|   | MOTORIZED DAMPER   | SVT   | STEAM VENT PIPING                                 |
|   | VOLUME DAMPER  | —— HRS/R ——                                       | HEAT RECOVERY SUPPLY/RETURN PIPING                |
| AFF   | ABOVE FINISHED FLOOR   | —— PD ——  | STEAM CONDENSATE PUMPED DISCHARGE                 |
| AFR   | ABOVE FINISHED ROOF  | —— BFW ——   | BOILER FEEDWATER                                  |
| BAS   | BUILDING AUTOMATION SYSTEM   | D(NAME)   | PIPING TO BE DEMOLISHED                           |
| CAV   | CONSTANT AIR VOLUME BOX  | — E(NAME) —                                       | EXISTING PIPING                                   |
| CD  | CONDENSATE DRAIN   | -ABAN(NAME)-                                      | ABANDONED EXISTING PIPING                         |
| C.I.  | CAST IRON  | K 7   | EXISTING DUCT OR PIPING TO BE REMOVED             |
| СО  | CARBON MONOXIDE SENSOR   |   | TWO-WAY CONTROL VALVE                             |
| DD  | DUCT SMOKE DETECTOR  | —— <del>———————————————————————————————————</del> | THREE-WAY CONTROL VALVE                           |
| DN  | DOWN   | φ   | AUTOMATIC AIR VENT                                |
| FD  | FIRE DAMPER  | <u> </u>  | MANUAL AIR VENT                                   |
| FOS/R   | FUEL OIL SUPPLY/RETURN   | <b>─</b>  | BALANCING VALVE                                   |
| FOT   | FUEL OIL TANK  | <b>─</b> ─ <u></u>                                | BALL VALVE  |
| Н   | HUMIDITY SENSOR  | <b>──</b> ₩──                                     | BUTTERFLY VALVE                                   |
| ID  | INSIDE DIMENSION   | <b>──</b> ⋈──                                     | TRIPLE DUTY VALVE                                 |
| NC  | NORMALLY CLOSED  | <del></del>                                       | STRAINER  |
| NO  | NORMALLY OPEN  | <b>──</b> ⋈──                                     | MANUAL ISOLATION VALVE                            |
| NIC   | NOT IN CONTRACT  | —— XXI  | GLOBE VALVE                                       |
| NO  | NORMALLY OPEN  | <u> </u>  | OS&Y (GATE) VALVE                                 |
| NTS   | NOT TO SCALE   | <del></del>                                       | PRESSURE REDUCING VALVE (STEAM, GAS, WATER, ETG   |
| OD  | OUTSIDE DIMENSION  |   | AUTO-FLOW CONTROL VALVE                           |
| CFCI  | CONTRACTOR FURNISHED, CONTRACTOR INSTALLED                             |   | CHECK VALVE                                       |
| OFCI  | OWNER FURNISHED, CONTRACTOR INSTALLED                                  | — <del>—</del> ———                                | DOUBLE CHECK VALVE ASSEMBLY                       |
| OFOI  | OWNER FURNISHED, OWNER INSTALLED                                       |   | FLEXIBLE PIPE CONNECTION                          |
| OR  | OPEN RECEPTACLE  |   | FLOW METER (VENTURI)                              |
| PRS   | PRESSURE REDUCING STATION  | <br>  | PIPING UNION                                      |
| PRV   | PRESSURE REDUCING STATION  PRESSURE REDUCING VALVE (STEAM, WATER, GAS) |   | FLOW SWITCH                                       |
|   | ·  |   |   |
| PSI   | POUNDS PER SQUARE INCH   | ₽™s   | PRESSURE SWITCH                                   |
| S   | SWITCH   | ——————————————————————————————————————            | TAMPER SWITCH                                     |
| SD  | SMOKE DAMPER   | т   | THERMOMETER                                       |
| Т   | THERMOSTAT   |   | PETE'S PLUG                                       |
| ТВ  | THRUST BLOCK   | $\langle \mathbf{x} \rangle$                      | TAGGED NOTE DESIGNATOR                            |
| TS  | TEMPERATURE SENSOR   | $\bigcirc$  | REVISION DESIGNATOR                               |
| TE  | TOP ELEVATION  | X   | THERMOMETER                                       |
| TYP   | TYPICAL  | $\chi_{s}$  | TEMPERATURE SENSOR                                |
|   |  |   |   |

|         |                   |                    |                  |            |          |               |            |            |               |               |            |         | SCH         | EDULE      | - PAC    | KAG      | ED A      | IR HAN        | DLER         |             |            |           |          |          |         |       |           |          |              |             |
|---------|-------------------|--------------------|------------------|------------|----------|---------------|------------|------------|---------------|---------------|------------|---------|-------------|------------|----------|----------|-----------|---------------|--------------|-------------|------------|-----------|----------|----------|---------|-------|-----------|----------|--------------|-------------|
|         |                   |                    |                  |            |          |               |            |            | PHYS          | ICAL DATA     | 4          |         |             |            |          |          | SUPF      | PLY FAN       |              |             |            |           |          |          |         |       |           | EXH      | IAUST FAN    |             |
| NAA DIK |                   |                    |                  |            |          | 055) 405      |            |            |               |               |            |         |             | FAN MOTOR  | # OF F   | AN E.S.P | P. T.S.P. | RATED H.P.    | B.H.P.       | 5           |            | OP.       |          | FAN MOTO | R # OF  | FAN   | E.S.P. T  | S.P. RAT | TED H.P. B.H | <b>д.Р.</b> |
| MARK    | MANUFACTURER      | MODEL#             | UNIT CONF        | IGURATION  |          | SERVICE       | LOCATI     | ON (IN     | 1.) (IN.)     | (IN.)         | (LBS)      | CFM     | CFM         | TYPE       | FANS RI  | JM (" WC | ;) (" WC) | (PER FAN)     | PER FAN) VO  | LT. PH. MCA | A MOCP V   | FD FREQ.  | RA CFM   | TYPE     | FANS    | RPM   | (, MC) (, | WC) (PE  | ER FAN) (PER | (FAN) V     |
| AHU-01  |                   |                    |                  |            |          |               |            |            |               |               |            |         |             |            |          |          |           |               |              |             |            |           |          |          |         |       |           |          |              |             |
|         |                   |                    |                  |            | 1        | -             |            | '          |               | COOLING F     | PERFORMAI  | NCE     |             |            |          | '        | '         |               | '            |             |            | ELECTRIC  | HEATING  |          |         |       |           |          |              |             |
|         |                   |                    |                  |            |          |               |            | DX C       | OIL           | ,             |            | ,       |             |            |          |          | HOT G     | SAS REHEAT CO | DIL          | TOTAL       |            |           |          |          |         |       |           |          |              |             |
|         |                   |                    |                  |            |          |               |            |            |               |               |            |         |             |            |          |          |           |               |              | HEATING     | ELECT      | TRIC      |          |          |         |       |           | 1        |              |             |
|         | FINS              | SPACING            | FACE A           | ND         |          | SENSIBLE      |            |            |               |               |            | FACE    | VELOCITY    |            |          | TOTAL    | CAPACITY  | Υ             |              | CAPACITY    | CONSUM     |           |          |          | SCR     |       |           | 1        | FILTER       | NO C        |
| MARK    |                   | INS/IN) REFRIGER   |                  |            | AL (MBH) |               | AT DB (°F) | EAT WB (°F | ) LAT DE      | s (°F) L      | AT WB (°F) |         | (FPM)       | APD (IN. W | /G.) EER |          | ИВН)      |               | UNIT LAT (°F |             | (KV        |           | EAT (°F) | LAT (°F) | CONTROL | _   N | MARK      | TYPE     | EFFICIENCY   | Y FILTE     |
| AHU-01  |                   |                    |                  |            |          |               |            |            |               |               |            |         |             |            |          |          |           |               |              |             |            |           |          |          |         | Al    | AHU-01    |          |              |             |
|         |                   |                    |                  |            |          |               |            |            | ENERGY        | RECOVER       | RY WHEEL P | ERFORMA | ANCE        |            |          |          |           |               |              |             |            |           |          |          |         |       |           |          |              |             |
|         |                   |                    | VINTER OPERATION | N          |          |               |            |            |               |               |            |         | R OPERATION | )N         |          |          |           |               |              |             | FI         | ECTRIC DA | ТΔ       |          |         |       |           |          |              |             |
|         | AIR STREAM        |                    |                  |            | TOTAL    |               |            | AIR STR    | <u></u> ΕΛΝ11 |               |            |         | TREAM 2     | 214        | TOTAL    | OFNO     | UDI E     |               | 400 410      | A DD AID    |            |           |          |          |         |       |           |          |              |             |
|         |                   |                    | AIR STREAM 2     |            | TOTAL    |               |            |            |               | . A T \ A / D |            |         |             |            | TOTAL    | SENS     |           | TOTAL         | APD AIR      | APD AIR     |            |           |          |          |         |       |           |          |              |             |
|         | EAT DB EAT WB LAT |                    |                  | S LAT WB   | CAPCITY  | TOTAL         | EAT DB     | EAT WB     |               |               | EAT DB     | FAI MB  | LAT DB      | LAT WB     | CAPACIT  |          |           | TOTAL         | STREAM 1     | STREAM 2    | .          |           |          |          |         |       |           |          |              |             |
| MARK    | (°F) (°F) (°I     | F) (°F) (°F)       | (°F) (°F)        | (°F)       | (MBH)    | EFFECTIVENESS | S (°F)     | (°F)       | (°F)          | (°F)          | (°F)       | (°F)    | (°F)        | (°F)       | (MBH)    | (ME      | SH) EI    | FFECTIVENESS  | (IN WG)      | (IN WG)     | HP \       | VOLTAGE   | PHASE    |          |         |       |           |          |              |             |
| AHU-01  |                   |                    |                  |            |          |               |            |            |               |               |            |         |             |            |          |          |           |               |              |             |            |           |          |          |         |       |           |          |              |             |
|         | UNI               | T INLET OCTAVE BAN | ID FREQUENCY S   | OUND POWER | R LEVELS |               |            | UNIT OUT   | LET OCTAV     | E BAND FI     | REQUENCY   | SOUND P | POWER LEVI  | ELS        |          |          | UNIT R    | RADIATED OCT  | VE BAND FRE  | QUENCY SOU  | ND POWER L | EVELS     |          |          |         |       |           |          |              |             |
| MARK    | 63 HZ 125 HZ      | 250 HZ 500         | HZ 1000 HZ       | 2000 HZ    | 4000 H   | IZ 8000 HZ    | 63 HZ      | 125 HZ     | 250 HZ        | 500 HZ        | 1000 Hz    | 2000    | 0 HZ 40     | 00 HZ 80   | 000 HZ   | 63 HZ    | 125 HZ    | 250 HZ        | 500 HZ       | 1000 HZ     | 2000 HZ    | 4000 HZ   | 8000 HZ  |          |         |       |           |          |              |             |
| AHU-01  |                   |                    |                  |            |          |               |            |            |               |               |            |         |             |            |          |          |           |               |              |             |            |           |          |          |         |       |           |          |              |             |
|         | 1                 |                    |                  |            |          |               |            |            |               |               | 1          |         |             |            |          |          |           |               |              |             |            |           |          |          |         |       |           |          |              |             |

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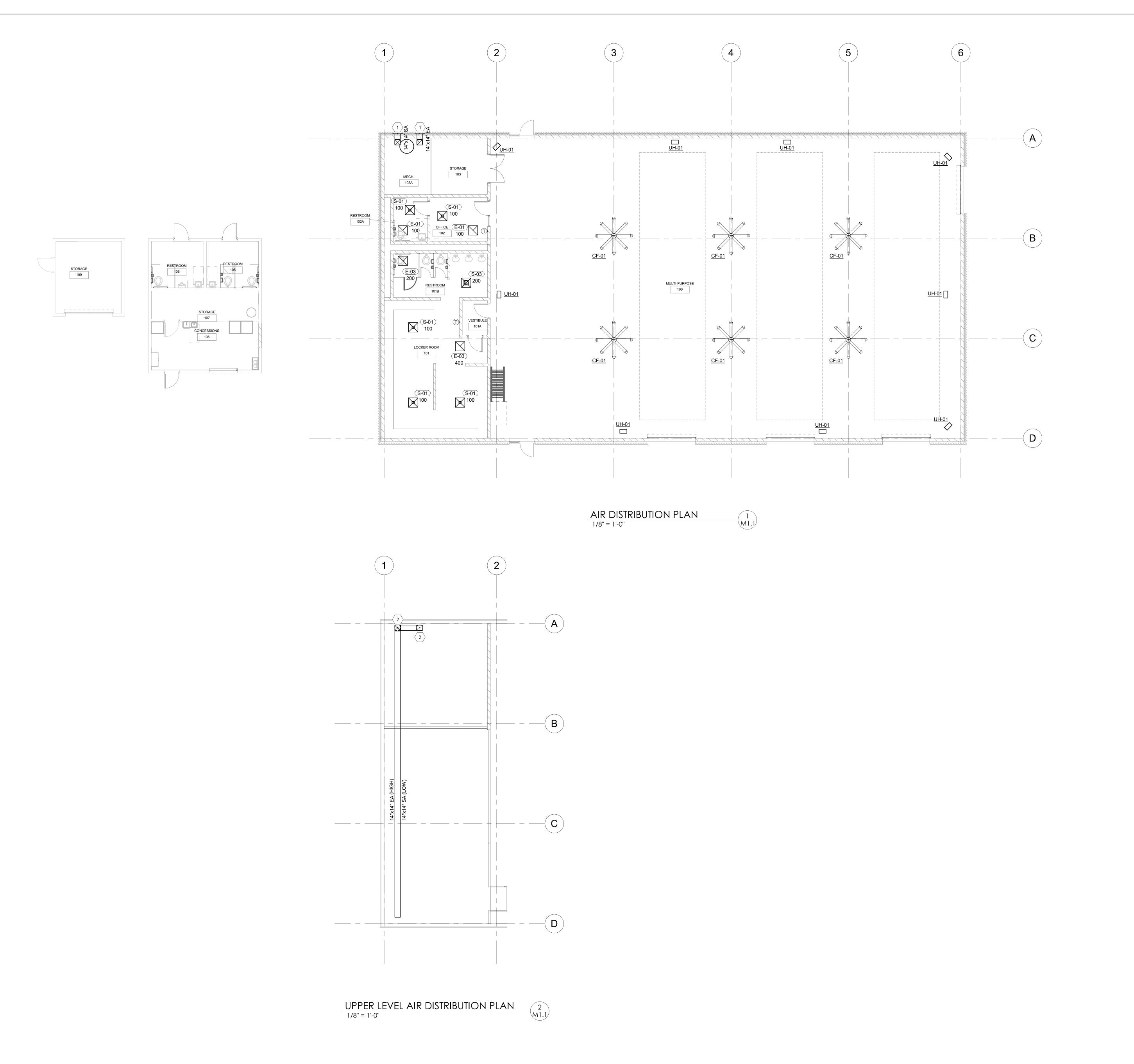
M,E,&P Engineer: 2429 Members Way Lexington, KY 40504 p 859.253.0892 <u>Structural Engineer:</u> Structural Design Group, Inc. 220 Great Circle Rd. Suite 106 Nashville, TN 37228

p 615.255.5537

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MECHANICAL LEGEND



TAGGED NOTES REFER TO SITE UTILITY PLAN FOR CONTINUATION.

 DUCT DOWN TO BELOW. REFER TO AIR DISTRIBUTION PLAN FOR CONTINUATION. rosstarrant archited

NOT FOR CONSTRUCTION

MECHANICAL PLAN
E'TOWN SOFTBALL FACILITY
FOR:
ELIZABETHTOWN INDEPENDENT SCHOOLS
620 N Mulberry St, Elizabethtown, KY 42701

M,E,&P Engineer: CMTA, Inc. 2429 Members Way Lexington, KY 40504 p 859.253.0892 Structural Engineer: Structural Design Group, Inc. 220 Great Circle Rd. Suite 106 Nashville, TN 37228 p 615.255.5537

 
 Project No:
 \_\_1843 / XETS18

 Drawn By:
 \_\_MCW

 Rev'd By:
 \_\_MCW

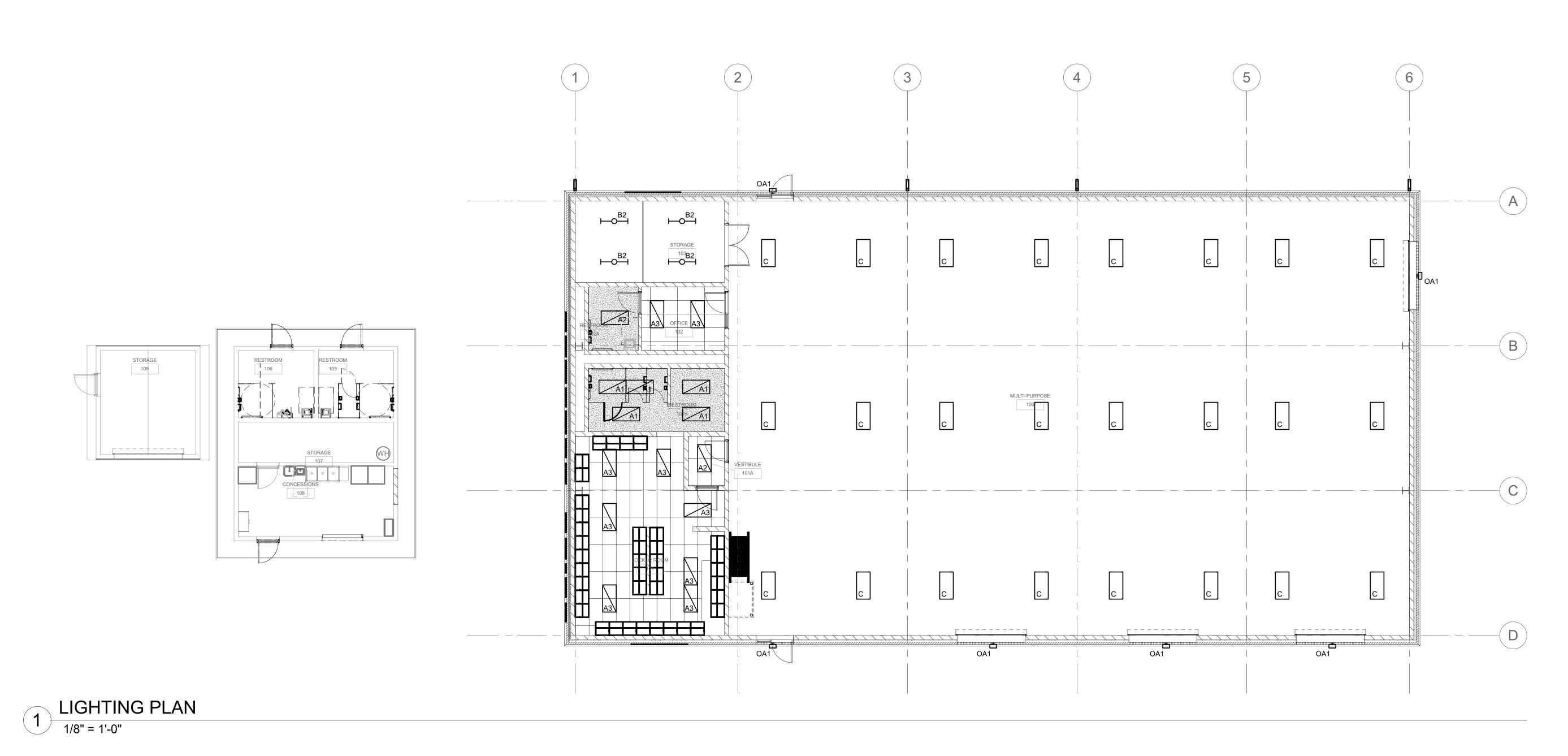
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MECHANICAL PLAN

| DESCRIPTION   | MOUNTIN<br>G HEIGHT<br>(TO<br>CENTER | OF BOX) DKAWIN G SYMBOL                | DESCRIPTION  DESCRIPTION  | CENTER OF BOX) URAWIN G SYMBOL | DESCRIPTION   | MOUNTIN<br>G HEIGHT<br>(TO | OF BOX) URAWIN G SYMBOL   | DESCRIPTION   | MOUNTIN<br>G HEIGHT<br>(TO<br>CENTER | DRAWIN<br>G<br>SYMBOL                               | DESCRIPTION   | MOUNTIN<br>G HEIGHT<br>(TO<br>CENTER | OF BOX) DRAWIN G SYMBOL |
|---|--------------------------------------|--|---|--------------------------------|---|----------------------------|---|---|--------------------------------------|---|---|--------------------------------------|-------------------------|
| LIGHTING CONTROL SWITCHES LIGHT SWITCH: LOW VOLTAGE   | 46"                                  | <b>6</b>                               | LIGHTING  |                                | ABBREVIATIONS UNLESS OTHERWISE NOTED  |                            | UON   | SECURITY PANIC ALARM PANIC ALARM BUTTON   | 46"                                  | (PB)  | SECURITY  |                                      |                         |
| EXAM LIGHT SWITCH   | 46"                                  | \$X                                    | REFER TO LUMINAIRE SCHEDULE FOR EXACT FIXTURE SPECIFICATIONS, MOUNTING HEIGHTS,   |                                | OWNER FURNISHED CONTRACTOR INSTALLED  |                            | OFCI  | PANIC ALARM ANNUNCIATOR   | 46"                                  | PA  | NOTE:  ALL INTRUSION SYSTEM DEVICES SHALL BE ROUTED IN  |                                      | 1                       |
| NIGHT LIGHT SWITCH WITH CONSTANTLY ILLUMINATED HANDLE   | 46"                                  | \$N                                    | SURFACE OR SUSPENDED CEILING FIXTURE (SLASH INDICATES RECESSED)   | ⊕,O,<br>□ ,□                   | OWNER FURNISHED OWNER INSTALLED  CONTRACTOR FURNISHED CONTRACTOR INSTALLED  |                            | OFOI<br>CFCI  | AMBER STROBE PANIC ALARM POWER SUPPLY CABINET   |                                      | AS<br>SEC-P   | SURFACE RACEWAY WHERE EXPOSED OR ON EXISTING WALL TO ABOVE CEILING. (U.O.N.)  |                                      | 1                       |
| SURGICAL LIGHT INTENSITY CONTROL  LOW VOLTAGE DIMMER SWITCH   | 46"                                  | \$SL<br> <br>  \$D                     | POLE MOUNTED AREA LIGHT   |                                | CONTRACTOR FURNISHED OWNER INSTALLED INDICATES EMERGENCY POWER  |                            | CFOI<br>E, EM   | SECURITY INTERCOM   | 10                                   |   | CONTRACTOR SHALL PROVIDE 2" BRIDLE RING PATH OR 3/4" "CONDUIT FOR ROUTING ALL CABLE CONCEALED TO EXPANSION MODULE OR MAIN |                                      | 1                       |
| LINE VOLTAGE SWITCH   | 46"                                  | \$LV                                   | EMERGENCY BATTERY WALL-PACK WALL MOUNT FIXTURE  | <b>—</b> ф,ю                   | SPECIAL OUTLETS   |                            |   | AUDIO/VIDEO INTERCOM STATION: MASTER WITH SELECTIVE DOOR CONTROLS, POWER SUPPLIES &   |                                      |   | CONTROL PANEL. FIELD VERIFY BEST ROUTING PATH. ALL EXACT DEVICE LOCATIONS SHALL BE  |                                      | 1                       |
| LINE VOLTAGE THREE-WAY SWITCH   | 46"                                  | \$3                                    | FLOODLIGHT SURGICAL/EXAM LIGHT  |                                | FLOORBOX, POWER ONLY, AS SCHEDULED  | FLOOR                      | Φ   | DOOR RELAY CONTACTS AS REQUIRED FOR OPERATION OF ANY DOOR IN THE SYSTEM AND   | 18"                                  | (IM)  | ESTABLISHED PRIOR TO INSTALLATION AT "PRE-<br>SECURITY INSTALLATION MEETING".   |                                      |                         |
| LINE VOLTAGE FOUR-WAY SWITCH  KEYED SWITCH  | 46"                                  | \$LV4<br>  \$K                         | EXIT LIGHT (CEILING, END, WALL MOUNT)   | (⊙) SL, XL<br><b>⊕⊕</b> ⊗      | FLOORBOX, COMBINATION POWER AND LOW<br>VOLTAGE, REFER TO FLOORBOX SCHEDULE  | FLOOR                      |   | VIEWING OF ANY AUDIO/VIDEO INTERCOM REMOTE ON THE SYSTEM. AIPHONE#AX-MV W/DESK STAND - COLOR BY ARCHITECT.                                    |                                      |   | NEW CEILING MOUNTED INTRUSION DETECTOR. LOCATED AT LEAST 24" AWAY FROM ANY AIR DIFFUSER. (TYPE BOSCH DS9370)              |                                      | 9370<br>M               |
| OCCUPANCY OR VACANCY SENSOR SWITCH  | 46"                                  | \$0s,\$vs                              | STRIP FIXTURE   | — · · · · · ·                  | FIRE RATED POKE THOUGH FLOOR BOX, COORDINATE  |                            | 1   | SAME AS "IM" EXCEPT WALL MOUNTED  | 46"                                  | (IM)W   | NEW WALL MOUNTED INTRUSION DETECTOR   |                                      | 633                     |
| LIGHT SWITCH FOR UNDER-CABINET LIGHTS   | 46"                                  | \$U                                    | CROSS-HATCHING INDICATES LIGHT IS POWERED FROM THE EMERGENCY-CRITICAL BRANCH  |                                | EXACT COVER REQUIREMENTS WITH ARCHITECTURAL FINISHES, DEVICES AS SCHEDULED  |                            | •   | AUDIO/VIDEO INTERCOM STATION: REMOTE WITH FLUSH-MTD S.S. ENCLOSURE. AIPHONE #AX-DVF.  | 46"                                  | (IR)  | (TYPE SENTROL AP-633)   |                                      | HM)                     |
| LLUMINATED HANDLE LIGHT SWITCH (ILLUMINATED WHEN LOAD IS OFF)   | 46"                                  | \$1L                                   | PARALLEL-HATCHING INDICATES LIGHT IS POWERED FROM THE EMERGENCY-LIFE SAFETY BRANCH  |                                | AUDIO/VISUAL SYSTEM OUTLET WITH DUPLEX RECEPTACLE, REFER TO ASSOCIATED DETAIL FOR ADDITIONAL INFORMATION                        | 1'-6"                      | HOAV  | SECURITY ACCESS CONTROL   | DOOR                                 | $\Diamond$  | NEW CORNER MOUNTED INTRUSION DETECTOR TYPE INTERLOGIX 6550U.  |                                      | ←(M)                    |
| PILOT LIGHT SWITCH (ILLUMINATED WHEN LOAD IS ON   | ) 46"                                | \$PL                                   | MISCELLANEOUS   |                                | COMBINATION POWER AND DATA OUTLET LOCATION, REFER TO ASSOCIATED DETAIL FOR ADDITIONAL   | 1'-6"                      |   | DOOR ALARM/POSITION SWITCH  MAGNETIC LOCK(S)  | FRAME<br>ABV DOOR                    | [DA]  | NEW WALL MOUNTED INTRUSION DETECTOR.  |                                      | CTX<br>HM               |
| ION-REVERSING MOTOR STARTER SNAP SWITCH   | AS NOTED                             | \$ M                                   | CONDUIT CONCEALED IN WALLS OR IN CEILING  | GROUND                         | INFORMATION   |                            |   | DOOR POWER SUPPLY   | ABV CLG                              | DS  | USED IN UNHEATED AREAS. (TYPE SENTROL 6157CTX)  |                                      | ]                       |
| MOMENTARY CONTACT SWITCH  | 46"                                  | \$ MC                                  | SPACE: ARROW(S) INDICATE(S) HOME RUN & # OF CIRCUITS: HASHMARKS INDICATE # OF CONDUCTORS. DASHED LINE INDICATES                       |                                | COMBINATION POWER AND DATA OUTLET LOCATION,<br>GFCI DUPLEX RECEPTACLE, REFER TO ASSOCIATED<br>DETAIL FOR ADDITIONAL INFORMATION | 1'-6"                      | H   | DOOR DELAYED EGRESS/ELECTRIFIED PANIC MECHAN ELECTRIC STRIKE  | AT LATCH                             | (DP)  | NEW WALL MOUNTED INTRUSION DETECTOR. USED OUTDOORS. (TYPE PROTECH SDI-77XL2)  |                                      | HM EX                   |
| HAND-OFF-AUTO 3-POSTION SWITCH  | 46"                                  | \$ HOA                                 | CONDUIT BELOW FLOOR.  |                                | OVERHEAD PROJECTOR: PROVIDE DUPLEX<br>RECEPTACLE, ONE DATA, HDMI, 3.5mm AUDIO,  | CLG                        | $\downarrow$  | AUTOMATIC DOOR CONNECTION (MAY ALSO HAVE ELECTRIC STRIKE/MAG-LOCK/ELECTRIFIED PANIC   |                                      | <b>○</b>  | MAIN CONTROL PANEL. SURFACE-MOUNTED WITH  |                                      |                         |
| TIMER SWITCH  | 40                                   | \$ <sup>T</sup>                        | DISCONNECT SWITCH 5'-0"  MAGNETIC STARTER 5'-0"   |                                | AND VGA OUTLET ON (3) PLATES  |                            |   | CONNECTION - SEE ARCHITECTURAL HARDWARE SPECIFICATIONS)   | OLO                                  | AD  | BOTTOM AT 60" AFF - (SEE SPECIFICATIONS)  |                                      | MP)                     |
| PHOTO-CELL AS NOTED   | CLG<br>AS NOTED                      |  | MAGNETIC COMBINATION STARTER 5'-0"  |                                | SPECIAL VIDEO SYSTEM SIGNAL INPUT   |                            | •   | DOOR RELEASE PUSH-PLATE / INFRA-RED OPERATOR STATION. PROVIDE ANY ADDITIONAL ROUGH-IN FOR   |                                      | PP  | SECONDARY CONTROL PANEL. SURFACE-<br>MOUNTED WITH BOTTOM AT 60" AFF - (SEE<br>SPECIFICATIONS)                             |                                      | MP                      |
| MERGENCY AUTOMATIC TRANSFER SWITCH  | CLG                                  | PC)<br>ER                              | VARIABLE FREQUENCY DRIVE 5'-0"  ENCLOSED FLUSH MTD. CIRCUIT BREAKER 5'-0"   |                                | SURFACE PLUG-MOLD   |                            | _   | "EMERGENCY RELEASE" OPERATOR STATIONS AS REQUIRED.  | OL OIL                               | (KS)  | KEYPAD STATION. SURFACE-MOUNTED BOTTOM  |                                      | 1                       |
| OR LIGHTING CONTROLS (REFER TO DETAIL)  OWER OUTLETS  |                                      |  | BOX ON ANY DEVICE INDICATES SURFACE MOUNTED BACKBOX/WIREMOLD  |                                | SURFACE WIRE-MOLD   |                            |   | DOOR RELEASE KEYSWITCH STATION  DOOR RELEASE KEYPAD STATION   | 6'-0"                                | KP KP   | AT 60" AFF - (SEE SPECIFICATIONS)   |                                      | (KP)                    |
| IMPLEX RECEPTACLE   | 1'-6"                                | $\ominus$                              | CIRCLE ON ANY DEVICE INDICATES DEVICE FED FROM STUB UP CONDUIT  | $\Box \Leftrightarrow$         | POWER POLE AS NOTED   |                            | PP  | DOOR RELEASE CARD READER STATION. PROVIDE ANY ADDITIONAL ROUGH-IN FOR "EMERGENCY  | 46"                                  | CRI   | EXPANSION MODULE PANEL. SURFACE MOUNTED WITH CENTERLINE AT 54" AFF - (SEE   |                                      | (EP)                    |
| OUPLEX RECEPTACLE-SAFETY TYPE, TAMPER-RESISTA<br>OUPLEX RECEPTACLE  | 1'-6"                                | ⊕ s<br>  ⊕                             | WIREWAY WITH REMOVABLE COVER (SIZE AS NOTED) AS SHOW  | N MA                           | TELEVISION  TELEVISION SPLITTERS/AMPLIEIERS/DISTRIBUTION  | <u> </u>                   | - [ <del></del>   | RELEASE" OPERATOR STATIONS AS REQUIRED.   |                                      | CP A  | SPECIFICATIONS)   |                                      | \                       |
| LASH THROUGH ANY DEVICE INDICATES IOUNTING ABOVE COUNTERTOP 4" ABOVE  |                                      | <b>Ø</b> , <b>₩</b>                    | TRENCH DUCT (SIZE AS NOTED)  AS SHOW  |                                | TELEVISION SPLITTERS/AMPLIFIERS/DISTRIBUTION  | 46"<br>7'-0"               | TV-HE   | SAME AS "CR" EXCEPT MULLION MOUNT  MOTION SENSOR DOOR CONTROL   | 46"<br>CEIL.                         | CR M<br>(MS)  | FIRE ALARM. PROVIDE CONNECTION TO FIRE<br>ALARM CONTROL PANEL AS REQUIRED BY<br>OWNER.                                    |                                      | FA                      |
| ACKSPLASH ILLED CENTER BAR INDICATES INTEGRAL GROUND  | 1'-6"                                | → ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | PUSHBUTTON STATION 46"  FLEXIBLE CONDUIT  |                                | TELEVISION SYSTEM OUTLET WITH DUPLEX RECEPTACLE, COORDINATE LOCATION WITH WALL BRACKET WHERE APPLICABLE                         | / -0                       | H◯ <sub>T</sub>   | PUSH-TO-EXIT BUTTON   | 46"                                  | PE  | BOILER ALARM. FROM PANEL TO N.O. CONTACTS   |                                      |                         |
| FAULT PROTECTION (GFCI) DEAD FRONT GFCI DEVICE, LABEL AND INSTALL IN  | 1 -0                                 | lacksquare                             | PANELBOARD, SURFACE OR FLUSH MOUNTED, 6'-6" TO TO   | <u> </u>                       | OVERHEAD PAGING   |                            | 1   | ACCESS CONTROL POWER SUPPLIES/CONTROL PANEL   | 46"                                  | SEC-A   | WITH E.O.L. RESISTOR AT FAULT RELAY IN THE I/O J-BOX LOCATED IN THE BOILER.   |                                      | B                       |
| READILY ACCESSIBLE LOCATION FILLED OUTER BARS INDICATES INTEGRAL INTEGRAL ISB OUT ETS IN ADDITION TO POWER RECEPTACLES          | 1'-6"                                | <u> </u>                               | HATCHING INDICATES EMERGENCY  TRANSFORMER  AS NOTED   |                                | PAGING SPEAKER: CEILING   | CLG                        | s   | SECURITY CCTV VIDEO SURVEILLANCE  |                                      | DD.   | SPARE SECURITY SYSTEM CABLE. INSTALL J-BOX<br>AT POINT INDICATED. COIL UP 30' AT J-BOX AND 10'                            |                                      |                         |
| JSB OUTLETS IN ADDITION TO POWER RECEPTACLES GANG RECEPTACLE IN COMBINATION WITH SWITCH (PROVIDE DIVIDER IF LIGHTING CIRCUIT IS | 46"                                  | C/S                                    | EQUIPMENT TAG, REFER TO EQUIPMENT SCHEDULE  |                                | PAGING SPEAKER W/ VOLUME CONTROL  | CLG                        | \$\sqrt{\sq}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}} | REMOTE DOOR RELEASE PUSH-BUTTON  CCTV CAMERA: CEILING MOUNT DOME  | 8" ACT                               | RR<br>(CC)  | AT POINT INDICATED. COIL OF 30 AT 3-50X AND TO AT PANEL TROUGH. LABEL EACH END AND IDENTIFY WITH WIRE MARKERS.            |                                      | s                       |
| OPPLEX RECEPTACLE, CEILING MOUNTED  | CLG                                  | <del></del>                            | TAGGED NOTE   | EQUIP-1                        | PAGING SPEAKER: WALL  | 8'-0"                      | <b>√</b> s⟩   | CCTV CAMERA: WALL MOUNT DOME  |                                      | ©co<br>□  | WALK-IN REFRIGERATION ALARM. CONNECT TO EQUIPMENT AND COIL UP 3' AT ASSIGNED SECURITY                                     |                                      | WR)                     |
| UADRUPLEX RECEPTACLE UNCTION BOX, CEILING OR WALL   | 1-0                                  | <del>Ψ</del><br>  Φ,Ю                  | REVISION TAG  MECHANICAL EQUIPMENT DESIGNATOR   |                                | RECESSED WALL MOUNTED PAGING SPEAKER<br>DUKANE 5A606 SPEAKER. ATLAS 417-8WD   | 8'-0"                      | ⊢\S <sub>R</sub>  | INDICATES EXTERIOR CAMERA RATED FOR CONDITIONS, WET LOCATION LISTED, WITH   |                                      | WP  | PANEL FOR FINAL CONNECTION BY OTHERS. LABEL CABLE FOR IDENTIFICATION.   |                                      | Į WRJ                   |
| OLTAGE/1PH RECEPTACLE, AS NOTED   | AS NOTED                             | <b>€</b>                               | (SEE MECH. SCHEDULES)   |                                | WALL MOUNTED PAGING HORN  | 9'-0"                      | HHX   | AUXILLARY HEATER  INDICATES CAMERA WITH PAN/TILT/ZOOM FUNCTION  |                                      | PTZ   | REGRIGERANT MONITOR. FROM PANEL TO N.O. CONTACTS WITH E.O.L. RESISTOR AT THE FAULT  |                                      | RM                      |
| OLTAGE/3PH RECEPTACLE, AS NOTED  DOG-HOUSE" TYPE TWIN DUPLEX RECEPTACLE   | 1'-6"                                |  | WIRE BASKET CABLE TRAY, SIZE AS NOTED AS SHOW  LADDER CABLE TRAY, SIZE AS NOTED AS SHOW   | - ==                           | VANDAL PROOF / WEATHERPROOF WALL  | SEE                        | <del> </del>  | CCTV POWER SUPPLIES/CONTROL PANEL   | 46"                                  | SEC-C   | RELAY OF THE MONITORING EQUIPMENT.  SUMP PUMP. FROM PANEL TO SUMP PUMP FLOAT  |                                      |                         |
| //ITH ONE DUPLEX RECEPTACLE ON BOTH SIDES  S INDICATES SURGE SUPPRESION TYPE OUTLET(S)  | ON CNTR.                             | ● DP                                   | SOLID BOTTOM CABLE TRAY, SIZE AS NOTED  AS SHOW   | N H                            | MOUNTED PAGING SPEAKER. QUAM VP1  | FLOOR<br>PLANS             | ⊢\S <sub>WP</sub>   | SECURITY INTRUSION DETECTION  |                                      |   | SWITCH. (PROVIDE FLOAT SWITCH WITH 20 FT MECH. BULB AND CORD WEIGHT)  |                                      | SP                      |
| ROUND FAULT PROTECTED DUPLEX WITH   |                                      | ⊕_ss                                   | LOW VOLTAGE CABLE PATH  DOORBELL PUSHBUTTON STATION, PROVIDE  |                                | EXTERIOR VANDAL PROOF / WEATHERPROOF WALL MOUNTED PAGING SPEAKER, SHALL BE PAINTED  | SEE<br>FLOOR               | ⊢S <sub>EXT.</sub>  | MOTION DETECTOR   | CLG                                  | MD  | BOILER MANAGEMENT ALARM. FROM SECURITY PANEL TO SEQUENCER PANEL AS REQUIRED BY  |                                      | BM BM                   |
| /EATHER-PROOF "WHILE IN USE" TYPE DIE-CAST<br>IETAL COVERPLATE WITH LOCKABLE<br>NCLOSURE AT OUTLET - SEE SPECIFICATIONS         | 2'-2"                                | <b>⊕</b> WP                            | COMPLETE WITH TRANSFORMER (MOUNT ABOVE CEILING IN CORRIDOR NEAR PUSH-BUTTON) AND ALL ACCESSORIES, POWER FROM NEAREST AVAILABLE 46"    | DB                             | COLOR SELECTED BY ARCHITECT/OWNER. QUAM VP6   | PLANS                      |   | MOTION DETECTOR KEYPAD CONTROLLER   | 46"                                  | MK  | OWNER.  |                                      | 1                       |
| OUPLEX FOR ELECTRIC WATER COOLER:   |                                      |  | 120V NORMAL POWER GENERAL RECEPTACLE CIRCUIT,  DETERMENTATION PROVIDE PROVIDE   |                                | CALL INITIATION STATION   | 46"                        | K¢  | SECURITY SYSTEM HEAD END  | 46"                                  | SEC-M   | EXISTING SECURITY DEVICE TO BE COMPLETELY REMOVED (BACK TO SOURCE).   |                                      | (D)                     |
| CONTRACTOR TO CONCEAL OUTLET BEHIND COOLER, PROVIDE READILY ACCESSIBLE GFI DEVICE AT 18"  |                                      | € EWC                                  | CONNECTION TO PUSHBUTTON STATION IN AREA. COORDINATE EXACT AUDIO SOUND (CHIME, BUZZER,  | DBO                            | WALL VOLUME CONTROL   | 46"                        | <del>                                    </del>   | DATA / VOICE  |                                      |   | MAKE UP WATER ALARM. FROM PANEL TO N.O. CONTACTS WITH E.O.L. RESISTOR AT FAULT  |                                      | MW                      |
| DJACENT TO WATER COOLER   |                                      |  | ETC.) DESIRED WITH OWNER/ARCHITECT, NUTONE OR  EQUAL EQUIPMENT HARDWIRE CONNECTION (SEE DETAIL)                                       |                                | LCD WALL DISPLAY  |                            | (LD)  | DATA OUTLET : NUMBER BESIDE OUTLET INDICATES NUMBER OF DATA JACKS   | 1'-6"                                | #D  | RELAY OF THE MONITORING EQUIPMENT   |                                      | 1                       |
| MAIN CONTROL PANEL CENTRAL PROCESSING UNIT (C   | PU6'-6" TO                           | FACP                                   | KITCHEN EQUIPMENT OUTLET COUPLING CONNECTION (SEE DETAIL)   | → 0×                           | PAGING MICROPHONE   | 1'-6"                      |   | VOICE OUTLET : NUMBER BESIDE OUTLET INDICATES NUMBER OF VOICE JACKS   | 1'-6"                                | #V  | EMERGENCY GENERATOR (FROM SECURITY PANEL AND TERMINATED TO N.O. SETSET OF CONTACTS AT THE FAULT OR TROUBLE RELAY OF THE   |                                      | EG                      |
| PULL STATION : DOUBLE ACTION  | 46" TO<br>LEVER                      | F                                      | MOTOR CONNECTION, REFER TO EQUIPMENT CONNECTION SCHEDULE  |                                | PAGING SYSTEM AMPLIFIER/TUNER CABINET   | 46"                        | PA  | COMBINATION OUTLET : NUMBER BESIDE OUTLET INDICATES NUMBER OF DATA/VOICE JACKS  | 1'-6"                                | #D/#V   | CONTROL PANEL, OR TRANSFER SWITCH CABINET.  LOW PRESSURE CONTROL SWITCH FOR DX  |                                      | 1                       |
| EYED, LOCKED PULL STATION : DOUBLE ACTION. STATION SHALL ONLY BE OPERABLE VIA KEY IN  | 46" TO<br>LEVER                      | FK                                     | WIREGUARD - PROVIDE MANUFACTURER'S<br>SPECIFIC GUARD FOR DEVICE NOTED   | WG                             | CLOCKS  ANALOG CLOCK  | 84"                        | -<br>   | SLASH THROUGH ANY DEVICE INDICATES MOUNTING ABOVE COUNTERTOP 4" ABOVE   |                                      | #D #V #D/#V   | COOLING UNITS AND CHILLER'S REFRIGERANT PRESSURE MONITOR SWITCH.  |                                      | (P)                     |
| OSSESSION OF STAFF. UDIO/VISUAL NOTIFICATION APPLIANCE  | WALL, CLG                            | F (F)                                  | WEATHERPROOF - NEMA-3R, WET LOCATION LISTED. PROVIDE COVERS, RATINGS, ETC, AS SUITABLE FOR  | WP                             | ELAPSED TIMER   |                            | U ET  | BACKSPLASH  |                                      | $\overline{\mathcal{A}}$ , $\overline{\mathcal{A}}$ | AMBER HIGH POWER WEATHERPROOF XENON<br>STROBE LIGHT / 12VDC 140 mA, STI-9621  |                                      | AS                      |
| AUDIO-ONLY NOTIFICATION APPLIANCE   | WALL, CLG                            | A A                                    | OUTDOORS.  EXPLOSION PROOF - PROVIDE WIRING METHODS,  | XP                             | DIGITAL CLOCK: SINGLE FACE  | 84"                        | DC  | RF TRACKER ANTENNA TELEMETRY ANTENNA  | CLG                                  | ,   | PROTECTIVE CAGE.  INDOOR 105 dB STEADY AND WARBLE TONES /   |                                      | 1                       |
| VISUAL-ONLY NOTIFICATION APPLIANCE  | WALL, CLG                            |  | ENCLOSURES, RATINGS, ETC. AS SUITABLE FOR HAZARDOUS LOCATION.   | A                              | DIGITAL CLOCK: DUAL FACE  CLOCK SYSTEM HEAD END   | 84"                        | 2DC<br>CLOCK  |   | CLG                                  | , ·   | 12VDC 140mA MOUNTED ON CONCRETE OR BRICK WALL. (DO NOT MOUNT IN CEILING TILE)   |                                      | PS                      |
| BELL / LIGHT  | 80"                                  | BL                                     | WIREGUARD - PROVIDE MANUFACTURER'S<br>SPECIFIC GUARD FOR DEVICE NOTED   |                                | ozookororziinizab ziab  |                            | OLOGIN  | OUTLET (VOICE ONLY) : PAYPHONE TYPE  MAIN DISTRIBUTION FRAME - REFERENCE DATA   | AS REQ'D.                            | PAY   | MORTISE KEYSWITCH / ALTERNATE (MAINTAINED   |                                      |                         |
| BELL ONLY PHOTO-ELECTRIC SMOKE DETECTOR   |                                      | SD                                     | DI LIMBINO FIVILIDE COL ENOID VALVE/EL FOTBIO EVE   |                                |   |                            |   | SYSTEM SCHEMATICS AND DETAILS FOR ADDITIONAL REQUIREMENTS   |                                      | MDF   | SPDT/GREEN AND RED BICOLOR LED 12 OR 24 VOLT STAINLESS STEEL SINGLE GANG FACE PLATE.                                      |                                      | BS                      |
| PHOTO-ELECTRIC SMOKE DETECTOR  PHOTO-ELECTRIC SMOKE DETECTOR FOR  | CLG                                  | 1                                      | PLUMBING FIXTURE SOLENOID VALVE/ELECTRIC EYE SENSOR CONNECTION. COORDINATE EXACT CONNECTION REQUIREMENTS WITH MANUFACTURER.           | +                              |   |                            |   | INTERMEDIATE DISTRIBUTION FRAME - REFERENCE DATA SYSTEM SCHEMATICS AND DETAILS FOR  |                                      | IDF   | (2) OMRON LY2F 12VDC RELAYS, (2) OMRON PTF08A   |                                      | RS                      |
| PATIENT ROOM MONITORING (SEE RISER) PROJECTED BEAM SMOKE DETECTOR; EMITTER  | CLG                                  | SD P                                   | PLUMBING FIXTURE ELECTRIC EYE TRANSFORMER   |                                |   |                            |   | ADDITIONAL REQUIREMENTS  TELECOMMUNICATIONS SYSTEM BACKBOARD.   |                                      |   | RELAY SOCKETS (SEE DETAIL FOR MOUNTING LOCATION)  |                                      |                         |
| BE) AND RECEIVER (BR)   | CLC                                  | BE , BR                                | CONNECTION. TRANSFORMER SHALL BE 120V-24V. MOUNT ABOVE SUSPENDED ACCESSIBLE CEILING IN J-BOX. PROVIDE ADDITIONAL TRANSFORMERS OF SAME | $\bigcirc$                     |   |                            |   | PROVIDE 96"H x 3/4"D FIRE-RETARDENT PLYWOOD<br>BACKBOARD WITH TWO (2) COATS OF NON-   |                                      | TEL   | DDC INTERLOCK, HOLDS HEATING AND AIR OFF UNTIL SECURITY SYSTEM HAS BEEN DISARMED.   |                                      | (EI)                    |
| HEAT DETECTOR CARBON MONOXIDE DUCT DETECTOR   | CLG<br>ABV CLG                       | HD                                     | TYPE AS/IF NEEDED  PROVIDE CONNECTION TO HAND DRYER (SEE VERIFY W   |                                |   |                            |   | CONDUCTIVE, FIRE-RETANDANT LIGHT GRAY PAINT, # 3/0 TO GROUND BAR AT MAIN SERVICE SWITCHBOARD, 30-PT GROUND BAR AND A 6'-0". #3 AWG PIGTAIL AT |                                      | _ '   | ALL SECURITY DEVICES INDICATED WITH "WG"  |                                      | WG                      |
| CARBON MONOXIDE ALARM: SINGLE STATION   | CLG                                  |  | ARCHITECTURAL SPECIFICATIONS)  ARCHITECTURAL SPECIFICATIONS   |                                |   |                            |   | BACKBOARD. INSTALL BOARD AT 2' AFF. (LENGTH OF BOARD AS INDICATED ON FLOOR PLAN)  |                                      |   | SHALL BE PROVIDED WITH WIREGUARD FOR PROTECTION.  |                                      | 1                       |
| V/SOUNDER BASE SARBON MONOXIDE AUDIO/VISUAL NOTIFICATION  | WALL                                 | CM<br>FX                               | SURGE PROTECTION DEVICE  GENERATOR ANNUNCIATOR PANEL - SEE SPECIFICATION \$6"   | GEN-A                          |   |                            |   | WIRELESS ACCESS POINT OUTLET WITH PROVISIONS FOR (1 DATA OUTLET FOR ANTENNA, PROVIDE A  |                                      |   |   |                                      |                         |
| PPLIANCE OOR HOLDER : WALL TYPE   | WALL                                 | DH CM                                  | THERMOSTAT PROVIDED BY MECHANICAL   |                                |   |                            |   | COMPLETE DATA OUTLET WITH FACEPLATE ABOVE CEILING, MOUNTED AT AN ACCESSIBLE HEIGHT NO   |                                      | WAP   |   |                                      |                         |
| OOR HOLDER : CLOSURE TYPE   | ABV DOOR                             |  | CONTRACTOR, ELECTRICAL CONTRACTOR SHALL PROVIDE BACK-BOX CONDUIT STUB-UP, REFER TO MECHANICAL DRAWINGS FOR LOCATIONS                  |                                |   |                            |   | MORE THAN 24" ABOVE CEILING. AT EACH OUTLET, PROVIDE A 20' COIL OF CABLE AHEAD OF THE OUTLET FOR ADJUSTMENT OF FINAL OUTLET LOCATION. THE     |                                      |   | LOCAL SOUND   |                                      |                         |
| UCT SMOKE DETECTOR  | ABV CLG                              | DD C                                   | CONDUIT DOWN  | - °                            |   |                            |   | CONTRACTOR SHALL COORDINATE EXACT LOCATIONS WITH THE OWNER AND ADJUST OUTLET LOCATIONS AT   | .                                    |   | WALL MICRO-PHONE OUTLET : SINGLE  | 1'-4"                                | M                       |
| ONNECTION TO SPRINKLER FLOW   | 1.2. 020                             | [DD]<br>  FS                           | GROUND BUS BAR ON INSULATED STANDOFFS 2'-0"  BUS DUCT, AMPERAGES AS NOTED AS SHOW   |                                |   |                            |   | SUBSTANTIAL COMPLETION TO ACCOMMODATE OWNER'S WAP LOCATIONS.  |                                      |   | WALL MICRO-PHONE OUTLETS(# AS NOTED)  | 1'-4"                                | M 2 ,3 4                |
| NITCH WITH ADDRESSABLE MODULE  ONNECTION TO SPRINKLER TAMPER  | -                                    | TS                                     | AS SHOW   | <u>.</u> ,                     |   |                            |   |   |                                      |   | FLOOR MICRO-PHONE OUTLET : SINGLE   | FLOOR                                | ⊙ <sub>M</sub>          |
| WITCH WITH ADDRESSABLE MODULE RESSURE SWITCH  |                                      |  |   |                                |   |                            |   |   |                                      |   | FLOOR MICRO-PHONE OUTLETS(# AS NOTED)   | FLOOR                                | • M2, M3, N             |
| EMOTE L.C.D. FIRE ALARM ANNUNCIATOR   | 54"                                  | FAA                                    |   |                                |   |                            |   |   |                                      |   | AUDITORIUM SYSTEM SOUND SPEAKER   | SEE SPECS                            | (AS)                    |
| EMOTE FIRE ALARM ANNUNCIATOR W/ MICROPHONE  | 54"                                  | FAAM                                   |   |                                |   |                            |   |   |                                      |   | CAFETERIA SYSTEM SOUND SPEAKER  | SEE SPECS                            | (S)                     |
| OST INDICATOR VALVE   |                                      | PIV                                    |   |                                |   |                            |   |   |                                      |   | AUDITORIUM SOUND SYSTEM AMPLIFIER   | 5'-0" TO<br>CENTE                    | SS-A                    |
| WER SUPPLY/CONTROL FOR AUDIO/VISUAL DEVICE  | 6 46"                                | NAC TRAN                               |   |                                |   |                            |   |   |                                      |   | CAFETERIA SOUND SYSTEM AMPLIFIER  | 5'-0" TO<br>CENTE                    | SS-C                    |
| ANSPONDER CABINET APHICS DISPLAY TERMINAL   | 40                                   | GDT                                    |   |                                |   |                            |   |   |                                      |   | LECTURE HALL SOUND SYSTEM AMPLIFIER   | 5-0" TO<br>CENTE                     | SS-L                    |
| RE ALARM CONTROL EXTENDER   |                                      | EXT                                    |   |                                |   |                            |   |   |                                      |   | LECTURE HALL SOUND SYSTEM SPEAKER   | R<br>5'-0" TO<br>CENTE               | LS                      |
| OLATION MODULE  | WALL                                 |  |   |                                |   |                            |   |   |                                      |   | CLASSROOM SOUND SYSTEM SPEAKER  | R<br>SEE SPECS                       | (SS)                    |
| ONE ADDRESSABLE MODULE  |                                      | Z                                      |   |                                |   |                            |   |   |                                      |   | BAND SOUND SYSTEM SPEAKER   | SEE DWGS                             | 1 _                     |
| .V.A.C. SMOKE DAMPER CONNECTION   |                                      | SM                                     |   |                                |   |                            |   |   |                                      |   | E. E  |                                      | <u> </u>                |
| LUSH MOUNTED REMOTE ALARM INDICATING TATION/TEST SWITCH   | 7'-6"                                | RI                                     |   |                                |   |                            |   |   |                                      |   |   |                                      |                         |
| REMAN'S PHONE JACK  | 4'-6"                                | FP FP                                  |   |                                |   |                            |   |   |                                      |   |   |                                      |                         |
| IREMAN'S KNOX BOX CONNECTION  |                                      | КВ                                     |   |                                |   |                            |   |   |                                      |   |   |                                      |                         |
| DDRESSABLE RELAY MODULE   | 1                                    | R                                      |   |                                |   |                            |   |   |                                      |   |   |                                      |                         |
| IDICATES VANDAL-PROOF POLYCARBONATE COVER,<br>ANDAL PROOF COVERS SHALL BE UL LISTED FOR   |                                      | PC                                     |   |                                |   |                            |   |   |                                      |   |   |                                      |                         |
| ANDAL PROOF COVERS SHALL BE ULLISTED FOR<br>SE WITH THE SPECIFIC DEVICE THEY ARE  |                                      |  |   |                                |   |                            |   |   |                                      |   |   |                                      |                         |
| BOTE FEENGHIME AUDIBLE NOTIFACTION  |                                      | I CH                                   |   |                                |   |                            |   |   |                                      |   |   |                                      |                         |

NOT FOR CONSTRUCTION ELECTRICAL LEGEND
E'TOWN SOFTBALL FACILITY
FOR:
ELIZABETHTOWN INDEPENDENT SCHOOLS
620 N Mulberry St, Elizabethtown, KY 42701 M,E,&P Engineer: CMTA, Inc. 2429 Members Way Lexington, KY 40504 p 859.253.0892 Structural Engineer: Structural Design Group, Inc. 220 Great Circle Rd. Suite 106 Nashville, TN 37228 p 615.255.5537 SHEET RELEASE COPYRIGHT © 2018 SCHEMATIC DESIGN

ELECTRICAL LEGEND



UPPER LEVEL LIGHTING

2 PLAN

TAGGED NOTES ## ELECTRICAL

ELECTRICAL LIGHTING NOTES

REFER TO THE ARCHITECT'S REFLECTED CEILING PLANS, ELEVATIONS, AND CASEWORK DETAILS FOR EXACT LOCATIONS OF ALL WALL AND CEILING MOUNTED ELECTRICAL DEVICES.
CONTRACTOR SHALL FOLLOW BRANCH CIRCUITING LAY-OUT, AS INDICATED ON THE FLOOR PLANS, WITH A MAXIMUM OF THREE (3) BRANCH CIRCUITS PER HOMERUN. EACH BRANCH CIRCUIT SHALL BE PROVIDED WITH A DEDICATED NEUTRAL CONDUCTORS. DEDICATED NEUTRAL CONDUCTORS SHALL BE CONSIDERED CURRENT CARRYING. IF ADDITIONAL CONDUCTORS ARE RAN IN THE SAME CONDUIT WITH THOSE INDICATED, CONTRACTOR SHALL DERATE ALL CURRENT CARRYING CONDUCTORS PER N.E.C. #310.15(B)(3), AND UPSIZE CONDUIT AS REQUIRED PER N.E.C. #300.17 AND ANNEX C. MULTIWIRE BRANCH CIRCUITS AS DEFINED IN N.E.C #100 / 210.4 (CIRCUITS SHARING

A COMMON NEUTRAL CONDUCTOR) SHALL NOT BE PERMITTED.

• IDENTIFY THE PANEL AND CIRCUIT NUMBER FOR ALL RECEPTACLES, SWITCHES, ETC. IN AREA OF CONSTRUCTION. PROVIDE CLEAR ADHESIVE LABELS WITH BLACK LETTERING. IN HEALTHCARE FACILITIES, ENGRAVE EMERGENCY DEVICE COVERPLATES IN PATIENT CARE AREAS. ALSO, MARK INSIDES OF ALL DEVICE BOXES WITH PANEL AND CIRCUIT NUMBER.

LOCATE CHAIN-HUNG INDUSTRIAL FIXTURES IN MECHANICAL ROOMS TO AVOID DUCTWORK AND PIPING, TO MAXIMIZE AVAILABLE LIGHT. SPACE AROUND EQUIPMENT, AIR HANDLERS, ETC. TO PROVIDE ADEQUATE LIGHTING TO ALL AREAS OF ROOM. PROVIDE ADDITIONAL FIXTURES OF SAME TYPE AS NEEDED TO FULFILL THIS REQUIREMENT.
 LOCATE EXIT SIGNS FOR MAXIMUM VIEWING AREA TO IDENTIFY EGRESS PATHS AS INDICATED ON PLANS. COORDINATE LOCATIONS SUCH THAT ARCHITECTURAL FEATURES OR EQUIPMENT FROM OTHER TRADES DO

NOT OBSTRUCT VIEW.

WHERE EXIT SIGNS OR EMERGENCY BATTERY PACKS ARE PROVIDED, THEY SHALL BE CONNECTED TO AN UNSWITCHED LINE.
 ALL LIGHTING FIXTURE LENSES, PARABOLIC LOUVERS, DOWNLIGHTING ALZAK CONES AND "PARACUBE" LOUVERS SHALL BE HANDLED WITH COTTON GLOVES DURING INSTALLATION AND LAMPING TO AVOID FINGERPRINTS OR DIRT DEPOSITS. IT IS PREFERRED THAT FIXTURES BE SHIPPED AND INSTALLED WITH CLEAR PLASTIC BAGS TO PROTECT LOUVERS. AT CLOSE OF PROJECT, AND AFTER CONSTRUCTION AIR FILTERS ARE CHANGED, REMOVE BAGS. ANY LOUVER OR CONE SHOWING DIRT OR FINGER PRINTS SHALL BE CLEANED WITH SOLVENT RECOMMENDED BY THE MANUFACTURER, OR REPLACED AS NECESSARY IN ORDER TO TURN OVER TO THE OWNER NEW FIXTURES AT OCCUPANCY.

RECESSED LUMINAIRES SHALL BE SECURED SUCH THAT THE FORCE REQUIRED INSERTING LAMPS, TRIMS, LENSES, LOUVERS, OR DOOR FRAMES DOES NOT SHIFT HOUSING. ALL TRIMS SHALL BE COMPLETELY FLUSH WITH FINISHED CEILINGS AT COMPLETION OF CONSTRUCTION.

| rosstarrant architec

NOT FOR CONSTRUCTION

ELECTRICAL LIGHTING FLANS
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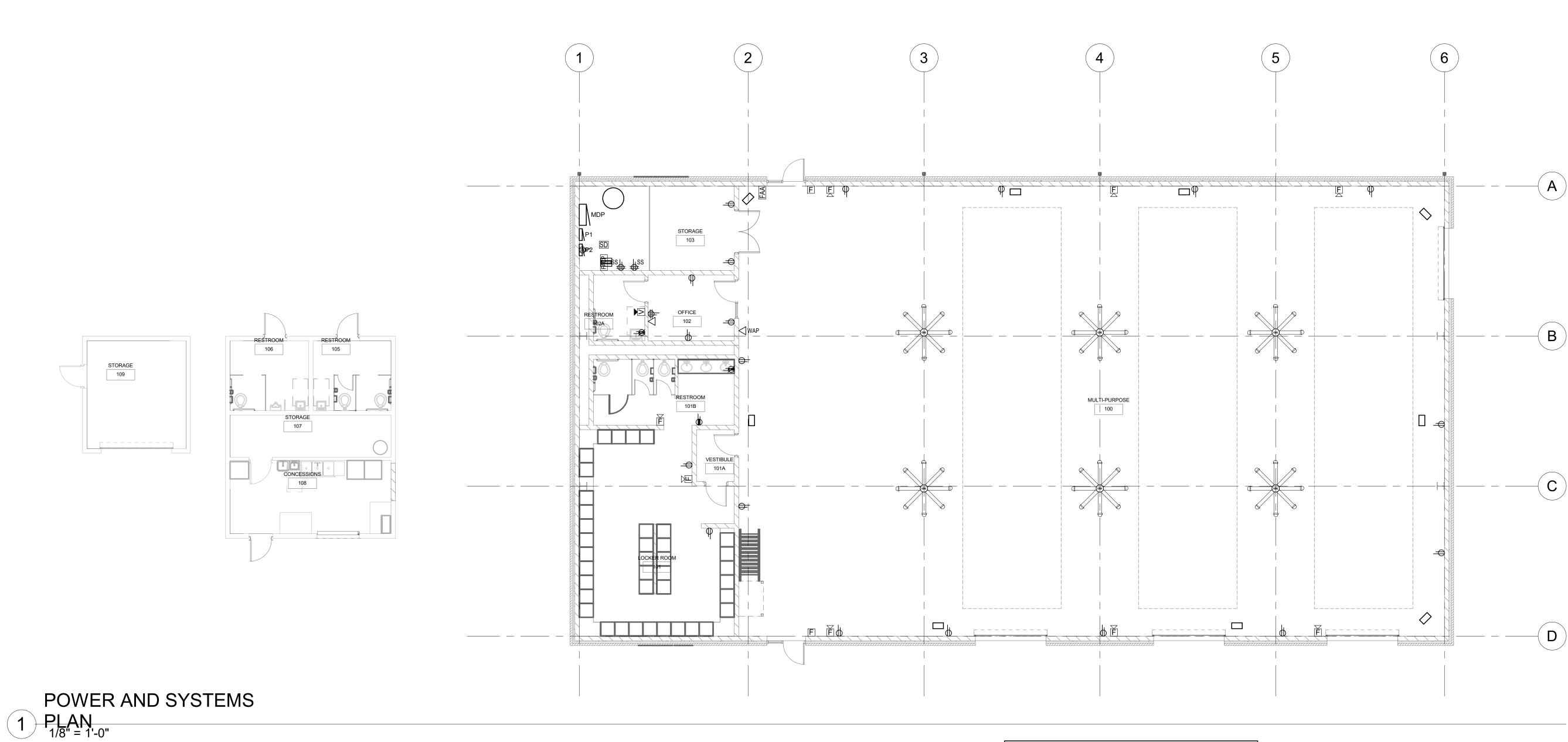
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SCHEMATIC DESIGN

ELECTRICAL LIGHTING PLANS

DATE ISSUED:



UPPER LEVEL POWER

2 AND SYSTEMS PLAN

1/8" = 1'-0"

**ELECTRICAL POWER NOTES** TAGGED NOTES

 REFER TO THE ARCHITECT'S REFLECTED CEILING PLANS, ELEVATIONS, AND CASEWORK DETAILS FOR EXACT LOCATIONS OF ALL WALL AND CEILING MOUNTED ELECTRICAL DEVICES. CONTRACTOR SHALL FOLLOW BRANCH CIRCUITING LAY-OUT, AS INDICATED ON THE FLOOR PLANS, WITH A MAXIMUM OF THREE (3) BRANCH CIRCUITS PER HOMERUN. EACH BRANCH CIRCUIT SHALL BE PROVIDED WITH A DEDICATED NEUTRAL CONDUCTOR. DEDICATED NEUTRAL CONDUCTORS SHALL BE CONSIDERED CURRENT CARRYING. IF ADDITIONAL CONDUCTORS ARE RAN IN THE SAME CONDUIT WITH THOSE INDICATED, CONTRACTOR SHALL DERATE ALL CURRENT

CARRYING CONDUCTORS PER NEC 310.15(B)(3), AND UPSIZE CONDUIT AS REQUIRED PER NEC 300.17 AND ANNEX C. MULTIWIRE BRANCH CIRCUITS AS DEFINED IN NEC 100 / 210.4 (CIRCUITS SHARING A COMMON NEUTRAL CONDUCTOR) SHALL NOT BE PERMITTED. • IDENTIFY THE PANEL AND CIRCUIT NUMBER FOR ALL RECEPTACLES,

ADHESIVE LABELS WITH BLACK LETTERING. IN HEALTHCARE FACILITIES,

ENGRAVE EMERGENCY DEVICE COVERPLATES IN PATIENT CARE AREAS. MARK INSIDES OF ALL DEVICE BOXES WITH PANEL AND CIRCUIT

SWITCHES, ETC. IN AREA OF CONSTRUCTION. PROVIDE CLEAR

 RECEPTACLES THAT ARE CONTROLLED BY AN AUTOMATIC MEANS SUCH AS OCCUPANCY SENSOR OR ENERGY MANAGEMENT SYSTEM SHALL BE MARKED IN ACCORDANCE WITH NEC 406.3(E). LOCATIONS OF ELECTRICAL CONNECTIONS AND LOCAL DISCONNECTS SHALL BE COORDINATED WITH MECHANICAL AND PLUMBING CONTRACTORS TO ENSURE ACCESS AND WORKING CLEARANCE IS MAINTAINED PER NEC. NOTIFY OTHER TRADES OF REQUIRED CLEARANCE AREAS TO AVOID ROUTING OF OTHER SYSTEMS IN THESE AREAS. DO NOT INSTALL ELECTRICAL EQUIPMENT OVER EQUIPMENT NAMEPLATES OR ACCESS PANELS OR THROUGH ACCESS/MAINTENANCE CLEARANCES OF EQUIPMENT BY OTHER

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CONSTRUCTION

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Drawn By: JNJ
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SCHEMATIC DESIGN

ELECTRICAL POWER AND SYSTEMS PLANS