

# TALAWANDA SCHOOL DISTRICT MAINTENANCE AND BUS GARAGE

5302 University Park Blvd.  
City of Oxford, Ohio 45056

## ARCHITECT

### App Architecture

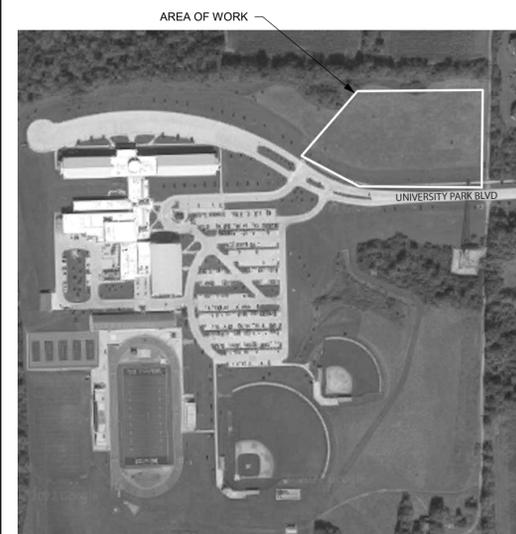
615 Woodside Drive  
Englewood, Ohio 45322  
(937) 836-8898

## STRUCTURAL, ELECTRICAL, MECHANICAL AND PLUMBING ENGINEERS

### L2 Engineering, LLC

6950 Sales Road  
Waynesville, OH 45068  
(937) 361-6731

## VICINITY MAP



## CODE INFORMATION (OBC 2017)

### PROJECT DESCRIPTION

PROJECT CONSISTS OF A NEW 7800 SF MAINTENANCE AND BUS GARAGE FOR TALAWANDA CITY SCHOOL DISTRICT

### USE GROUP CLASSIFICATION

OBC (302) USE GROUP = B: BUSINESS - SUPPORT SPACES  
S-1: STORAGE - MOTOR VEHICLE REPAIR GARAGE

OBC (508.3) MIXED OCCUPANCIES : NON SEPARATED MIXED USE

### CONSTRUCTION TYPE CLASSIFICATION

OBC (602) CONSTRUCTION TYPE = VB  
BUILDING DESCRIPTION = CONCRETE SLAB WITH WOOD FRAMED LOAD BEARING WALLS WITH METAL SIDING

### HEIGHT AND AREA LIMITATIONS

OBC (503) BUILDING AREA AND HEIGHT ALLOWABLE BASE TABULAR AREA = B - 2 STORIES/9,000 SF - STORY  
= S-1 - 1 STORY/9000 SF - STORY  
S-1 IS MOST RESTRICTIVE USE GROUP AT 9,000 SF ALLOWABLE

### BUILDING DESCRIPTION:

FLOOR AREA: FIRST FLOOR = 7800 SF  
MEZZANINES = EAST 771 SF AND WEST 866 SF

OBC (505.2) EACH MEZZANINE IS NOT GREATER THAN ONE-THIRD OF THE FLOOR AREA

### OCCUPANT LOAD

OBC (1004) ALLOWABLE = B : 1664 SF/100 = 17 OCCUPANTS  
= S-1: 6,136 SF/100 = 61 OCCUPANTS

### DECLARED OCCUPANT LOAD

GROUND FLOOR = B: 15  
= S-1: 15  
TOTAL = 30 OCCUPANTS

### FIRE PROTECTION

BUILDING DESCRIPTION: NON SUPPRESSED

OBC (903.2.9.1) FIRE AREAS DO NOT EXCEED 5000 S.F. (BUILDING IS SEPARATED INTO TWO FIRE AREAS.)

### PLUMBING FIXTURES REQUIRED

| USE GROUP | WC | LAVS | SHOWERS | EYEWASH | D.F. | SERVICE SINK |
|-----------|----|------|---------|---------|------|--------------|
| B         | 1  | 1    | 0       | 0       | 1    | 1            |
| S1        | 1  | 1    | 0       | 0       | 0    | 1            |
| TOTAL     | 2  | 2    | 0       | 0       | 1*   | 2            |

### PLUMBING FIXTURES PROPOSED

| USE GROUP | WC | LAVS | SHOWERS | EYEWASH | D.F. | SERVICE SINK |
|-----------|----|------|---------|---------|------|--------------|
| B         | 5  | 4    | 0       | 2       | 0    | 2            |

\*REQUIREMENT FOR 1 DRINKING FOUNTAIN WILL BE MET WITH THE ADDITION OF 1 REFRIGERATED DRINKING WATER COOLER WITH REPLACEABLE WATER BOTTLES.

## DRAWING INDEX

### GENERAL

G0.1 COVER SHEET  
G0.2 SPECIFICATIONS  
G0.3 SPECIFICATIONS  
G0.4 LIFE SAFETY PLAN

### ARCHITECTURAL

AC1.0 ARCHITECTURAL SITE PLAN  
A0.1 ABBREVIATIONS AND SYMBOLS  
A0.2 FINISH SCHEDULES  
A0.3 DOOR AND WINDOW SCHEDULES  
A0.4 DOOR AND WINDOW DETAILS  
A1.1 REFERENCE PLANS  
A1.2 DIMENSION PLAN  
A1.3 ROOF PLAN  
A2.1 REFLECTED CEILING PLAN  
A3.1 EXTERIOR ELEVATIONS  
A3.2 BUILDING SECTIONS  
A4.1 WALL SECTIONS  
A5.1 EXTERIOR DETAILS  
A6.1 VERTICAL CIRCULATION  
A7.1 INTERIOR ELEVATIONS  
A8.1 CASEWORK DETAILS

### STRUCTURAL

S0.1 GENERAL NOTES  
S0.2 SPECIAL INSPECTIONS  
S1.0 FOUNDATION PLAN  
S1.1 MEZZANINE FRAMING PLAN  
S1.2 ROOF FRAMING PLAN  
S2.1 WALL SECTIONS  
S3.1 STRUCTURAL DETAILS

### PLUMBING

P0.1 PLUMBING LEGEND AND GENERAL NOTES  
P0.2 PLUMBING SCHEDULES AND DETAILS  
P1.1 FIRST FLOOR PLUMBING PLAN  
P2.1 MEZZANINE PLUMBING PLAN  
P3.1 ENLARGED PLUMBING PLANS  
P4.1 PLUMBING ISOMETRICS

### MECHANICAL

M0.1 HVAC LEGEND AND GENERAL NOTES  
M0.2 HVAC SCHEDULES & DETAILS  
M1.1 FIRST FLOOR HVAC PLAN  
M2.1 MEZZANINE FLOOR HVAC PLAN

### ELECTRICAL

E0.1 ELECTRICAL LEGEND AND GENERAL NOTES  
E0.2 ELECTRICAL EQUIPMENT AND LIGHTING SCHEDULE  
E0.3 ELECTRICAL SPECIFICATIONS  
E1.1 ELECTRICAL POWER PLAN  
E1.2 ELECTRICAL LIGHTING PLAN  
E1.3 SITE PLAN  
E1.4 SITE ILLUMINATION PLAN  
E4.1 PANELBOARD SCHEDULES  
E4.2 PANELBOARD SCHEDULE AND SINGLE LINE

## CIVIL DRAWINGS

CIVIL DRAWINGS, AS PREPARED AND STAMPED BY BAYER BECKER CIVIL ENGINEERS, ARE BOUND AND ATTACHED AT THE BACK OF THIS SET FOR REVIEW AND PERMIT.

### CIVIL

C100 TITLE SHEET  
C101 GENERAL NOTES  
C200 EXISTING CONDITIONS & DEMOLITION PLAN  
C300 DETAILED SITE LAYOUT & UTILITY PLAN  
C301 SITE DETAILS  
C302 UTILITY DETAILS  
C400 SITE GRADING & EROSION CONTROL PLAN  
C401 EROSION CONTROL NOTES & DETAILS



TALAWANDA SCHOOL DISTRICT  
**MAINTENANCE AND BUS GARAGE**  
5302 University Park Blvd.  
City of Oxford, Ohio 45056

### ISSUE

| NO. | DATE       | DESCRIPTION |
|-----|------------|-------------|
|     | 04/08/2022 | FOR BIDDING |

|         |            |
|---------|------------|
| DATE    | 04/08/2022 |
| JOB NO. | 3977.00    |
| DRAWN   | MLG        |
| CHECKED | RFW        |

TITLE  
**COVER SHEET**

SHEET NO.

# GO.1

8/5/2022 8:52:13 AM

ARCHITECTURAL SPECIFICATIONS

DIVISION 01 - GENERAL REQUIREMENTS

- SECTION 011000 - SUMMARY
1. PROJECT IDENTIFICATION:
A. PROJECT NAME: NEW MAINTENANCE AND BUS GARAGE
B. PROJECT LOCATION: 5301 UNIVERSITY PARK BLVD, CITY OF OXFORD, OHIO 45056
C. OWNER: TALAWANDA CITY SCHOOL DISTRICT
2. TYPE OF CONTRACT: SINGLE PRIME CONTRACT

SECTION 013300 - SUBMITTAL PROCEDURES

- 1. TRANSMITTAL FORM: AIA G810 OR APPROVED EQUAL.
2. PRODUCT SUBMITTALS:
A. PRODUCT DATA: 1 COPY - ELECTRONIC
B. SHOP DRAWINGS: 1 COPY - ELECTRONIC
C. SAMPLES: 2 SETS.

SECTION 014000 - QUALITY REQUIREMENTS

- 1. TESTING AGENCY: LICENSED LABORATORY, OBTAINED BY OWNER SELECTED BY CONTRACTOR AND APPROVED BY OWNER.
2. TESTS AND INSPECTIONS REQUIRED:
A. SOILS:
B. CONCRETE:
C. LOADING:
3. SEE ALSO STRUCTURAL DRAWINGS.

SECTION 014200 - REFERENCES

- 1. APPLICABILITY OF INDUSTRY STANDARDS: UNLESS THE CONTRACT DOCUMENTS INCLUDE MORE STRINGENT REQUIREMENTS, APPLICABLE CONSTRUCTION INDUSTRY STANDARDS HAVE THE SAME FORCE AND EFFECT AS IF BOUND OR COPIED DIRECTLY INTO THE CONTRACT DOCUMENTS TO THE EXTENT REFERENCED. SUCH STANDARDS ARE MADE PART OF THE CONTRACT DOCUMENTS BY REFERENCE.
2. PUBLICATION DATES OF INDUSTRY STANDARDS: COMPLY WITH STANDARDS IN EFFECT AS OF DATE OF CONTRACT DOCUMENTS.

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

- 1. TEMPORARY UTILITY INSTALLATION AS FOLLOWS:
A. GENERAL: INSTALL TEMPORARY SERVICE OR CONNECT TO EXISTING SERVICE.
B. SEWERS AND DRAINAGE: PROVIDE TEMPORARY UTILITIES TO REMOVE EFFLUENCE LAWFULLY.
C. WATER SERVICE: INSTALL WATER SERVICE AND DISTRIBUTION PIPING IN SIZES AND PRESSURES ADEQUATE FOR CONSTRUCTION. (USE OWNER'S EXISTING WATER SERVICE FACILITIES.
D. SANITARY FACILITIES: PROVIDE TEMPORARY TOILETS, WASH FACILITIES, AND DRINKING WATER FOR CONSTRUCTION PERSONNEL. (USE OWNER'S EXISTING TOILET FACILITIES.)
E. HEATING AND COOLING: PROVIDE TEMPORARY HEATING AND COOLING REQUIRED BY CONSTRUCTION ACTIVITIES FOR CURING OR DRYING AND PROTECTION OF COMPLETED INSTALLATION OF MATERIALS AND EQUIPMENT.
F. VENTILATION AND HUMIDITY CONTROL: PROVIDE TEMPORARY VENTILATION REQUIRED BY CONSTRUCTION ACTIVITIES FOR CURING OR DRYING AND PROTECTION OF COMPLETED INSTALLATION OF MATERIALS AND EQUIPMENT.
G. ELECTRIC POWER SERVICE: PROVIDE ELECTRIC POWER SERVICE AND DISTRIBUTION SYSTEM OF SUFFICIENT SIZE, CAPACITY, AND POWER CHARACTERISTICS REQUIRED FOR CONSTRUCTION ACTIVITIES. (USE OWNER'S EXISTING POWER SERVICE AND DISTRIBUTION SYSTEM.
H. LIGHTING: PROVIDE TEMPORARY LIGHTING WITH LOCAL SWITCHING THAT PROVIDES ADEQUATE ILLUMINATION FOR CONSTRUCTION OPERATIONS, OBSERVATIONS, INSPECTIONS, AND TRAFFIC CONDITIONS.
I. TELEPHONE SERVICE: INSTALL TEMPORARY TELEPHONE SERVICE IN COMMON-USE AREA FOR USE BY ALL CONSTRUCTION PERSONNEL.

- 2. TEMPORARY FACILITIES INCLUDES THE FOLLOWING:
A. GENERAL FIELD OFFICE.
3. TEMPORARY EQUIPMENT INCLUDES THE FOLLOWING:
A. FIRE EXTINGUISHERS: PORTABLE, UL RATED, WITH CLASS AND EXTINGUISHING AGENT AS REQUIRED BY LOCATIONS AND CLASSES OF FIRE EXPOSURES.
B. HEATING EQUIPMENT: UNLESS OWNER AUTHORIZES USE OF PERMANENT HEATING SYSTEM, PROVIDED VENTED, SELF-CONTAINED, LIQUID-PROPANE-GAS OR FUEL-OIL HEATERS WITH INDIVIDUAL SPACE THERMOSTATIC CONTROL.

- 4. TEMPORARY SECURITY AND PROTECTION FACILITIES AS FOLLOWS:
A. EROSION AND SEDIMENTATION CONTROL: PROVIDE MEASURES TO PREVENT SOIL EROSION AND SOIL BEARING WATER RUN-OFF AND AIRBORNE DUST TO ADJACENT PROPERTIES AND WALKWAYS.
B. SITE ENCLOSURE FENCE: INSTALLED TO PREVENT PEOPLE AND ANIMALS FROM EASILY ENTERING SITE EXCEPT BY LOCKED ENTRANCE GATES.
C. BARRICADES, WARNING SIGNS, AND LIGHTS: COMPLY WITH AUTHORITIES HAVING LOCAL JURISDICTION.

- 5. TEMPORARY SUPPORT FACILITIES AS FOLLOWS:
A. ROADS AND PAVED AREAS:
B. DEWATERING FACILITIES AND DRAINS:
C. PROJECT IDENTIFICATION SIGN:
D. WASTE DISPOSAL FACILITIES:

SECTION 016000 - PRODUCT REQUIREMENTS

- 1. PRODUCT SUBSTITUTIONS: CONSIDERED IF APPROVED BY OWNER AND ARCHITECT.
2. GENERAL PRODUCTS REQUIREMENTS: PROVIDE PRODUCTS COMPLYING WITH CONTRACT DOCUMENTS, UNDAMAGED, AND, UNLESS OTHERWISE INDICATED, ARE NEW AT TIME OF INSTALLATION.
3. PRODUCT DELIVERY, STORAGE, AND HANDLING: USE MEANS AND METHODS THAT WILL PREVENT PRODUCT DAMAGE, DETERIORATION, AND LOSS, INCLUDING THE FIFT.

SECTION 017700 - CLOSEOUT PROCEDURES

- 1. SUBMIT LIST OF ITEMS TO BE COMPLETED AND CORRECTED AND WRITTEN REQUEST FOR AN INSPECTION. COMPLETE AND CORRECT ITEMS ON PUNCH LIST.
2. FINAL CLEANING: CLEAN EACH SURFACE OR UNIT TO CONDITION EXPECTED IN AN AVERAGE COMMERCIAL BUILDING CLEANING AND MAINTENANCE PROGRAM. COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. REMOVE DEBRIS AND SURFACE DUST, CLEAN GLASS, REMOVE SOILS AND STAINS, CLEAN LIGHT LENSES AND DUCTWORK, AND REPLACE AIR FILTERS AND LIGHT BULBS USED DURING CONSTRUCTION.
3. WARRANTIES: SUBMIT WRITTEN WARRANTIES FOR DESIGNATED PORTIONS OF WORK.

SECTION 017823 - OPERATION AND MAINTENANCE DATA

- 1. OPERATION AND MAINTENANCE MANUALS: 1 SETS BINDERS WITH TABLE OF CONTENTS FOR SYSTEMS, SUBSYSTEMS, AND EQUIPMENT AND 1 ELECTRONIC.

SECTION 017839 - PROJECT RECORD DOCUMENTS

- 1. RECORD DRAWINGS: 1 SET MARKED TO SHOW ACTUAL INSTALLATION WHERE VARIES FROM ORIGINAL.

DIVISION 03 - CONCRETE

- SECTION 033000 - CAST-IN-PLACE CONCRETE WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE LATEST "AMERICAN CONCRETE INSTITUTE" RECOMMENDATIONS.
2. CONCRETE MIXES FOR BUILDING ELEMENTS:
A. FOOTINGS: (3000) PSI.
B. SLABS-ON-GRADE: (4000) PSI.
C. SUPPORTED SLABS, BEAMS, JOISTS: (4000) PSI.
D. (EXTERIOR CONCRETE 4 TO 6% AIR CONTENT.)
E. SLUMP LIMIT: (4") (PLUS OR MINUS 1").
3. STEEL REINFORCEMENT SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE LATEST A.I.S.C. RECOMMENDATIONS.
4. REINFORCING BARS: ASTM A 615, GRADE 60.
5. FINISHING FORMED SURFACES: EXPOSED WALLS AND OTHER SURFACES SHALL RECEIVE SMOOTH-FORMED FINISH.
6. UNDER-SLAB VAPOR BARRIER: ASTM E 1745, CLASS A, 15-MIL THICK, 0.018 PERMS. INSTALL PER ASTM E 1643 WITH TAPE.
7. FINISHING FLOORS AND SLABS: APPLY TROWEL FINISH TO SURFACES EXPOSED TO VIEW AND TO BE COVERED WITH FINISH FLOORING MATERIAL. APPLY CURING AND SEALING COMPOUND UNIFORMLY TO FLOORS.
8. REFER TO STRUCTURAL DRAWINGS, S0.1 FOR ADDITIONAL INFORMATION.

SECTION 054000 - COLD-FORMED METAL FRAMING

- 1. COLD-FORMED METAL FRAMING GENERAL: COMPLY WITH AISI'S "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" AND ITS "STANDARD FOR COLD-FORMED STEEL FRAMING - GENERAL PROVISIONS." ENGINEERING IS RESPONSIBILITY OF QUALIFIED PROFESSIONAL ENGINEER.
2. SHEET STEEL: ASTM A 1003, STRUCTURAL GRADE, TYPE H, METALLIC COATED, GRADE AS REQUIRED BY STRUCTURAL PERFORMANCE, G90 COATING.
3. LOAD-BEARING WALL FRAMING:
A. STEEL STUDS: C-SHAPED, MINIMUM 0.0538" THICKNESS, 1-1/4" FLANGE WIDTH.
B. STEEL TRACK: U-SHAPED, MINIMUM 0.0538" THICKNESS, 1-1/4" FLANGE WIDTH.
C. STEEL BOX OR BACK-TO-BACK HEADERS: C-SHAPES, MINIMUM 0.0538" THICKNESS, 1-5/8" FLANGE WIDTH.
4. EXTERIOR NON-LOAD-BEARING WALL FRAMING:
A. STEEL STUDS: C-SHAPED, MINIMUM 0.0538" THICKNESS, 1-5/8" FLANGE WIDTH.
B. STEEL TRACK: U-SHAPED, MINIMUM 0.0538" THICKNESS, 1-1/4" FLANGE WIDTH.
C. VERTICAL DEFLECTION CLIPS: MANUFACTURER'S STANDARD BYPASS HEAD CLIP.
D. SINGLE DEFLECTION TRACK: MANUFACTURER'S STANDARD DEEP LEG, U-SHAPED, MINIMUM 0.0538" THICKNESS, 1" PLUS TWICE THE DESIGN GAP FLANGE WIDTH.
5. FRAMING ACCESSORIES: ANCHORS, CLIPS, AND BOLTS.
A. STEEL SHAPES AND CLIPS: ASTM A 36.
B. ANCHOR BOLTS: ASTM F1554.
C. EXPANSION ANCHORS: ASTM E 488.
D. MECHANICAL FASTENERS: ASTM C 1513.
E. WELDING ELECTRODES: AWS STANDARDS.

SECTION 055213 - PIPE AND TUBE RAILINGS - STAIRS

- 1. STRUCTURAL PERFORMANCE REQUIREMENTS FOR HANDRAILS AND TOP RAILS OF GUARDS:
A. UNIFORM LOAD OF 50 LBF/FT (ANY DIRECTION).
B. CONCENTRATED LOAD OF 200 LBF (ANY DIRECTION).
C. LOADS NEED NOT BE ASSUMED TO ACT CONCURRENTLY.
2. QUALITY ASSURANCE: WELDING ACCORDING TO AWS A1.1 "STRUCTURAL WELDING CODE-STEEL".
3. STEEL AND IRON:
A. TUBING: ASTM A 500 (COLD FORMED).
B. PIPE: ASTM A 53, TYPE F OR TYPE S, GRADE A, STANDARD WEIGHT (SCHEDULE 40) UNLESS NOTED OTHERWISE.
C. PLATES, SHAPES, AND BARS: ASTM A 36.
D. CASTINGS: GRAY IRON ASTM A 48, CLASS 30; MALLEABLE IRON ASTM A 47.
E. SHOP (ZINC-RICH) PRIMER: SSPC-20.
F. BITUMINOUS PAINT: COLD-APPLIED ASPHALT EMULSION, ASTM D 1187 L, NONSHRINK, NONMETALLIC GROUT: ASTM C 1107.
4. FABRICATION: COMPLY WITH PERFORMANCE REQUIREMENTS: MINIMIZE FIELD SPLICING AND ASSEMBLY, CUT DRILL AND PUNCH CLEANLY AND ACCURATELY, WELDED CONNECTIONS, WALL RETURNS, WALL BRACKETS AND FITTINGS, AND INSERTS AND ANCHORS.
5. INSTALLATION: SET RAILINGS ACCURATELY IN LOCATION, ALIGNMENT, AND ELEVATION. FASTEN TO IN-PLACE CONSTRUCTION. USE MECHANICAL TO CONNECT RAILING.) (USE FULLY WELDED JOINTS TO CONNECT RAILING.) SET ANCHORPOSTS IN FORM OR CORE-DRILLED HOLES. ANCHOR RAILING ENDS AND ATTACH HANDRAILS TO WALL WITH WALL BRACKETS.

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES

SECTION 061000 - ROUGH CARPENTRY

- 1. LUMBER REQUIREMENTS AND TREATMENTS:
A. LUMBER: DOC PS 20 AND APPLICABLE RULES OF GRADING AGENCIES INDICATED S4S.
B. WOOD-PRESERVATIVE-TREATED LUMBER (WPT): AWPA C2 OR AWFA C31 IF NOT IN CONTACT WITH GROUND.
2. DIMENSION LUMBER FOR FRAMING AND MISCELLANEOUS LUMBER: 19% MAXIMUM MOISTURE CONTENT, CONSTRUCTION OR NO. 2 GRADE, AND MIXED SOUTHERN PINE; SPB.
3. TIMBER FRAMING: SOUTHERN PINE, NO. 1 GRADE; SP1B 20% MAXIMUM MOISTURE CONTENT.
4. ENGINEERED WOOD PRODUCTS:
A. PARALLEL-STRAND LUMBER: ASTM D 5456 AND ASTM D 2559 ADHESIVE
B. WOOD I-JOISTS: ASTM D 5055 AND DOC PS 1 WEB MATERIAL.
5. PLYWOOD BACKING PANELS: DOC PS 1, EXPOSURE 1, C-D PLUGGED, 1/2" THICK.
6. FASTENERS: SIZE AND TYPE APPROPRIATE TO BOTH UNIT AND SUBSTRATE. PROVIDE METAL FRAMING ANCHORS FOR CONNECTIONS IN LOAD-BEARING FRAMING.

SECTION 061600 - SHEATHING

- 1. WALL PANEL PRODUCTS REQUIREMENTS AND TREATMENTS:
A. PLYWOOD: DOC PS 1 AND APPLICABLE RULES OF GRADING AGENCIES INDICATED.
B. ORIENTED-STRAND BOARD: DOC PS 2.
C. PRESERVATIVE-TREATED PLYWOOD WPT: AWPA C9.
D. FIRE-RETARDANT-TREATED PLYWOOD WPT: AWPA C27. (MECHANICAL ROOM ONLY)
2. WALL SHEATHING:
A. PLYWOOD: EXPOSURE 1, STRUCTURAL EXPOSURE 1, 24/0 SPAN RATING, NOT LESS THAN 3/8" NOMINAL THICKNESS.
B. ORIENTED-STRAND-BOARD: EXPOSURE 1, STRUCTURAL EXPOSURE 1, 24/0 SPAN RATING, 3/8" MINIMUM THICKNESS.
C. PAPER-SURFACED GYPSUM: ASTM C 79 OR ASTM C 1396, TYPE X, 5/8".
D. EXTRUDED-POLYSTYRENE-FOAM: ASTM C 578, TYPE IV.
3. ROOF SHEATHING:
A. PLYWOOD: EXPOSURE 1, STRUCTURAL 1 EXPOSURE, 24/0 SPAN RATING, 1/2" NOMINAL THICKNESS.
B. ORIENTED-STRAN-BOARD: EXPOSURE 1, STRUCTURAL 1 EXPOSURE 1, 1/2" NOMINAL THICKNESS.
4. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
5. FASTENERS: SIZE AND TYPE REQUIRED FOR UNITS AND SUBSTRATES.
6. BUILDING WRAP: ASTM E 1677, TYPE 1 AIR RETARDER: 152 G PER ASTM E 96.
7. FLEXIBLE FLASHING: 0.040" COMPOSITE, SELF-ADHESIVE, PLIABLE, RUBBERIZED-ASPHALT COMPOUND, BONDED TO HIGH-DENSITY, CROSS-LAMINATED POLYETHYLENE FILM.
8. INSTALLATION: WITH MINIMUM NUMBER OF JOINTS, FITTING TIGHTLY AGAINST OTHER CONSTRUCTION, AND SECURELY ATTACHED TO SUBSTRATE BY POWER-DRIVEN FASTENERS.
A. WOOD STRUCTURAL PANELS: APA FORM NO. E305.
B. GYPSUM SHEATHING: GA-253.
C. FIBERBOARD SHEATHING: ASTM C 846.
D. FOAM-PLASTIC SHEATHING: MANUFACTURER.
E. PARTICLEBOARD UNDERLAYMENT: NPA.
F. HARDBOARD UNDERLAYMENT: AHA.

SECTION 064023 - INTERIOR ARCHITECTURAL WOODWORK

- 1. FABRICATOR AND INSTALLER QUALIFICATIONS: CERTIFIED PARTICIPANT IN AWIS QUALITY CERTIFICATION PROGRAM.
2. MATERIALS: COMPLY WITH AWIS QUALITY STANDARD FOR EACH TYPE OF WOODWORK AND QUALITY GRADE.
A. HARDBOARD: AHA MA135.4.
B. MEDIUM-DENSITY BOARD: ANSI A208.2, GRADE MD.
C. PARTICLEBOARD: ANSI GRADE 208.1, GRADE (M-2) M-2-EXTERIOR GLUE.
D. SOFTWOOD PLYWOOD: DOC PS 7 MEDIUM DENSITY OVERLAY.
E. VENEER-FACED PANEL PRODUCTS HARDWOOD PLYWOOD: HPVA HP-1.
F. THERMOSET DECORATIVE PANELS: PARTICLE BOARD OR MEDIUM-DENSITY FIBERBOARD WITH FUSED, MELMANINE- IMPREGNATED DECORATIVE PAPER, LMA SAT-1.
G. HIGH-PRESSURE DECORATIVE LAMINATE PL: NEMLAD 3, GRADES AS INDICATED; WILSON ART, NEVAMAR, OR APPROVED EQUAL.
H. SOLID SURFACING SS: HOMOGENEOUS SOLID SHEETS OF FILLED PLASTIC RESIN, ISSFA-2, LG.
J. CABINET HARDWARE:
A. HINGES: 2 1/2 INCH, 5-KNUCKLE STEEL HINGES MADE FROM 0.093 INCH THICK METAL AS FOLLOWS:
\* PRODUCT: ROCKFORD PROCESS CONTROL (RPC) MODEL NO. 376-101 WITH HOSPITAL TIP NON-REMOVABLE PIN.
\* SEMI-CONCEALED HINGES FOR FLUSH OVERLAY DOORS: BAMA A156.9.
\* FINISH: 26D DULL CHROME
B. DOOR AND DRAWER PULLS: BACK MOUNTED, SOLID METAL, 6 INCHES LONG, 5/16" IN DIAMETER, LANSA BY IKEA.
C. ADJUSTABLE SHELF STANDARDS AND SUPPORTS: KNAPE AND VOGT #255 STEEL STANDARDS AND #236 STEEL SUPPORTS.
D. CLOSET SHELF STANDARDS AND SUPPORTS: KNAPE AND VOGT KV185 HEAVY DUTY DOUBLE SLOTTED SHELF BRACKETS AND KV85 HEAVY DUTY DOUBLE SLOTTED SHELF STANDARDS.
E. DRAWER SLIDES: BHMA A156.9, B05091 (KITCHEN ONLY) HEAVY DUTY (GRADE 1HD-100 AND GRADE 1HD-200); CONCEALED UNDERMOUNT; FULL-OVERTRAVEL-EXTENSION TYPE; ZINC-PLATED STEEL BALL-BEARING SLIDES; INTEGRATED SOFT-CLOSE; AIR DAMPENING.
F. EXPOSED HARDWARE FINISHES: FOR EXPOSED HARDWARE, PROVIDE FINISH THAT COMPLIES WITH BHMA A156.9 FOR BHMA FINISH NUMBER INDICATED.
\* SATIN CHROMIUM PLATED: BHMA 626 FOR BRASS OR BRONZE BASE: BHMA 652 FOR STEEL BASE.
K. FURRING, BLOCKING, SHIMS, AND HANG STRIPS: (FIRE-RETARDANT-TREATED SOFTWOOD LUMBER, KILN DRIED TO LESS THAN 15% MOISTURE CONTENT.
3. FABRICATION: PREMIUM-GRADE INTERIOR WOODWORK COMPLYING WITH REFERENCED QUALITY STANDARDS. FABRICATE TO DIMENSIONS, PROFILES, AND DETAILS INDICATED. COMPLETE FABRICATION, INCLUDING ASSEMBLY, FINISHING, AND HARDWARE APPLICATION, TO MAXIMUM EXTENT POSSIBLE BEFORE SHIPMENT. TRIAL FIT ASSEMBLIES AT SHOP THAT CANNOT BE SHIPPED COMPLETELY.
4. PLASTIC-LAMINATE CABINETS: PREMIUM GRADE, FLUSH OVERLAY REVEAL OVERLAY FLUSH INSET AWI CONSTRUCTION, GRADE VGS SURFACES, AND GRADE VGS PVC T-MOLD EDGES.
5. PLASTIC-LAMINATE COUNTERTOPS: PREMIUM GRADE WITH HGP LAMINATE GRADE, MEDIUM-DENSITY FIBERBOARD CORE EXTERIOR GRADE PLYWOOD AT SINKS, AND PLASTIC-LAMINATE BACKER SHEET.
6. SOLID-SURFACING-MATERIAL COUNTERTOPS AND STOOLS: PREMIUM GRADE, 3/4" THICK, WITH LOOSE BACKSPASHES - WOMEN'S RESTROOM.
7. TRANSPARENT SHOP FINISH: PREMIUM GRADE, AWI TO MATCH APPROVED SAMPLE.
8. INSTALL WOODWORK LEVEL, PLUMB, TRUE, AND STRAIGHT AND SHIM WITH CONCEALED SHIMS. INSTALL LEVEL AND PLUMB TO 1/8" IN 96" TOLERANCE. SCRIBE AND CUT TO FIT ADJOINING WORK, REFINISH CUT SURFACES, AND REPAIR DAMAGED FINISH.

DIVISION 07 - THERMAL AND MOISTURE PROTECTION

SECTION 072100 - THERMAL INSULATION

- 1. INSULATION MATERIALS:
A. EXTRUDED-POLYSTYRENE BOARD: ASTM C 578, TYPE IV, 1.60 LB/CU. FT. WITH MAXIMUM 75 FLAME AND 450 SMOKE.
B. UNFACED, GLASS-FIBER BLANKET: ASTM C 655, TYPE I, WITH MAXIMUM 25 FLAME AND 50 SMOKE, ASTM E 136.
C. FACED, GLASS-FIBER BLANKET: ASTM C 655, TYPE III, CLASS A, CATEGORY 1, FACED WITH FOIL SCRIMP PANEL POLYETHYLENE VAPOR RETARDER MEMBRANE ON 1 FACE.
2. VAPOR RETARDERS:
A. POLYETHYLENE: ASTM D 4397, 6 MILS, WITH MAXIMUM PERMEANCE RATING OF 0.13 PERM.
3. AUXILIARY MATERIALS AND FASTENERS: VAPOR-RETARDER TAPE AND ADHESIVES, EAIVE TROUGH, SPINDLE-TYPE ANCHORS, INSULATION-RETAINING WASHERS, INSULATION STANDOFF SPACERS, AND ANCHOR ADHESIVE AS REQUIRED TO MEET APPLICATION STANDARDS FOR INSTALLATION.
4. INSTALLATION: IN COMPLIANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS APPLICABLE TO PRODUCTS AND APPLICATION EXTEND INSULATION IN THICKNESS INDICATED TO ENVELOP ENTIRE AREA AND CUT TO FIT TIGHTLY AROUND OBSTRUCTIONS AND SURROUNDINGS MATERIALS.

SECTION 074113.16 STANDING SEAM - METAL ROOF PANELS

- 1. MATERIALS:
A. GENERAL: PROVIDE FACTORY-FORMED METAL ROOF PANELS DESIGNED TO BE INSTALLED BY LAPPING AND INTERCONNECTING RAISED SIDE EDGES OF ADJACENT PANELS WITH JOINT TYPE INDICATED AND MECHANICALLY ATTACHING PANELS TO SUPPORTS USING CONCEALED CLIPS IN SIDE LAPS. INCLUDE CLIPS, CLEATS, PRESSURE PLATES, AND ACCESSORIES REQUIRED FOR WEATHERTIGHT INSTALLATION.
a. STEEL PANEL SYSTEMS: UNLESS MORE STRINGENT REQUIREMENTS ARE INDICATED, COMPLY WITH ASTM E 1514.
B. VERTICAL-RIB, SNAP-LOCK, STANDING-SEAM METAL ROOF PANELS: FORMED WITH VERTICAL RIBS AT PANEL EDGES AND INTERMEDIATE STIFFENING RIBS SYMMETRICALLY SPACED BETWEEN RIBS; DESIGNED FOR SEQUENTIAL INSTALLATION BY MECHANICALLY ATTACHING PANELS TO SUPPORTS USING CONCEALED CLIPS LOCATED UNDER ONE SIDE OF PANELS, ENGAGING OPPOSITE EDGE OF ADJACENT PANELS, AND SHEETING PANELS TOGETHER.
C. SELF-ADHERING SHEET UNDERLAYMENT GRANULAR SURFACED: ASTM D 1970, 55 MIL., GLASS-FIBER-MAT-REINFORCED.
D. RIDGE VENT: RIGID SECTION, HIGH-DENSITY POLYPROPYLENE WITH FILTER STRIPS; FOR USE UNDER RIDGE SHINGLES.
E. ACCESSORIES: ASPHALT ROOFING CEMENT, ROOFING NAILS, AND FELT UNDERLAYMENT NAILS.
F. SHEET METAL FLASHING AND TRIM: ALUMINUM, MILL FINISHED FABRICATED TO FORM DRIP EDGES AND APRON, STEP, CRICKET, AND OPEN VALLEY FLASHINGS.
G. VENT PIPE FLASHING: ASTM B 749, TYPE L51121, 1/16" THICK, WITH LEAD SLEEVE AND EXTENDING 4" ONTO ROOF.
2. INSTALLATION:
A. EXAMINE SUBSTRATES FOR COMPLIANCE WITH REQUIREMENTS FOR INSTALLATION TOLERANCES AND OTHER CONDITIONS AFFECTING PERFORMANCE OF WORK.
B. SELF ADHERING UNDERLAYMENT SHEET INSTALLATION: INSTALL SINGLE LAYER OF FELT IN PARALLEL COURSES PERPENDICULAR TO ROOF SLOPE.
C. INSTALL METAL FLASHINGS AND OTHER SHEET METAL IN ACCORDANCE WITH ARMA'S "RESIDENTIAL ASPHALT ROOFING MANUAL" AND NRCA'S "THE NRCA ROOFING AND WATERPROOFING MANUAL".
D. INSTALL METAL SHINGLES IN ACCORDANCE WITH ARMA'S "RESIDENTIAL ASPHALT ROOFING MANUAL" AND NRCA'S "THE NRCA ROOFING AND WATERPROOFING MANUAL".
E. INSTALL RIDGE VENTS, RIDGE AND HIP METAL CAP SHINGLES.

SECTION 076200 - SHEET METAL FLASHING AND TRIM

- 1. PROVIDE MANUFACTURED AND FORMED SHEET METAL FLASHING AND TRIM AS SHOWN ON DRAWINGS AND AS FOLLOWS:
a. GUTTER
b. DOWNSPOUTS
2. SHEET MATERIALS:
A. PREPARED METALLIC-COATED STEEL SHEET HOT-DIP PROCESS: ASTM A 755.
3. MISCELLANEOUS MATERIALS: FASTENERS, SOLDER, SEALING TAPE, ELASTOMERIC SEALANT, BITUMINOUS COATING, AND ASPHALT ROOFING CEMENT.
4. FABRICATION: CUSTOM FABRICATE TO COMPLY WITH RECOMMENDATIONS IN SMACNA'S "ARCHITECTURAL SHEET METAL MANUAL" THAT APPLY TO DESIGN DIMENSIONS, METAL, AND OTHER CHARACTERISTICS; SHOP FABRICATE WHERE PRACTICAL; OBTAIN FIELD MEASUREMENTS BEFORE FABRICATION. USE THICKNESS OR WEIGHT REQUIRED, AVOID EXCESSIVE OIL CANNING AND BUCKLING, FORM HEMMED EXPOSED EDGES, PROVIDE SEALED AND EXPANSION JOINTS, AND SECURE WITH CONCEALED FASTENERS WHERE POSSIBLE.
5. INSTALLATION: EXAMINE SUBSTRATE CONDITIONS PRIOR TO INSTALLATION. ANCHOR COMPONENTS SECURELY IN PLACE, WITH PROVISIONS FOR THERMAL AND STRUCTURAL MOVEMENT. PAINT SURFACES TO PROTECT AGAINST GALVANIC ACTION. AVOID EXCESSIVE OIL CANNING, BUCKLING, AND TOOL MARKS. INSTALL TRUE TO LINE AND LEVELS INDICATED AND PROVIDE UNIFORM, NEAT SEAMS. FIT TO SUBSTRATES TO RESULT IN WATERTIGHT PERFORMANCE.

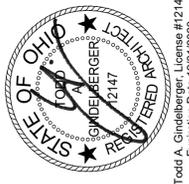
SECTION 074213.13 - FORMED METAL FLUSH PANELS (INTERIOR WALLS - CEILINGS)

- 1. MATERIALS:
A. GENERAL: PROVIDE FACTORY-FORMED METAL PANELS DESIGNED TO BE FIELD ASSEMBLED BY LAPPING AND INTERCONNECTING SIDE EDGES OF ADJACENT PANELS AND MECHANICALLY ATTACHING THROUGH PANEL TO SUPPORTS USING CONCEALED FASTENERS AND FACTORY-APPLIED SEALANT IN SIDE LAPS.
B. REVEAL-JOINT, CONCEALED-FASTENER METAL WALL PANELS: FORMED WITH VERTICAL PANEL EDGES AND INTERMEDIATE STIFFENING RIBS SYMMETRICALLY SPACED, A FLAT PAN BETWEEN PANEL EDGES WITH NARROW REVEAL JOINT BETWEEN PANELS. HIGH BEAD PATTERN.
2. INSTALLATION:
A. EXAMINE SUBSTRATES, AREAS, AND CONDITIONS WITH INSTALLER PRESENT, FOR COMPLIANCE WITH REQUIREMENTS FOR INSTALLATION TOLERANCES, METAL PANEL SUPPORTS, AND OTHER CONDITIONS AFFECTING PERFORMANCE OF THE WORK.
a. EXAMINE WALL FRAMING TO VERIFY THAT GIRTS, ANGLES, CHANNELS, STUDS, AND OTHER STRUCTURAL PANEL SUPPORT MEMBERS AND ANCHORAGE HAVE BEEN INSTALLED WITHIN ALIGNMENT TOLERANCES REQUIRED BY METAL WALL PANEL MANUFACTURER.
b. EXAMINE WALL SHEATHING TO VERIFY THAT SHEATHING JOINTS ARE SUPPORTED BY FRAMING OR BLOCKING AND THAT INSTALLATION IS WITHIN FLATNESS TOLERANCES REQUIRED BY METAL WALL PANEL MANUFACTURER.

SECTION 079200 - JOINT SEALANTS

- 1. MAINTAIN WATERTIGHT AND AIRTIGHT CONTINUOUS SEALS WITHOUT STAINING OR DETERIORATING ADJOINING SUBSTRATES.
2. MATERIALS: COMPATIBLE WITH ONE ANOTHER AND WITH SUBSTRATES UNDER CONDITIONS OF SERVICE AND APPLICATIONS AS FOLLOWS:
A. EXTERIOR ELASTOMERIC SEALANT: MULTICOMPONENT NONSAG POLYSULFIDE, ASTM C920, TYPE M, GRADE NS, CLASS 25 PECORA SYNTHACALK GC-2+ OR SONNEBORN SONOLASTIC POLYSULFIDE SEALANT.
B. INTERIOR LATEX SEALANT: ASTM C 834, TYPE OP, GRADE NF BOSTIC CHEM-CALK 600, PECORA AC-20 +, SONNEBORN SONOLAC, OR TREMCO TREMFLX 834.
C. INTERIOR ACOUSTICAL JOINT SEALANT: NONSAG, PAINTABLE, NONSTAINING LATEX SEALANT, ASTM 834 PECORA AC-20 FTR ACOUSTICAL AND INSULATION SEALANT AND USG SHEETROCK ACOUSTICAL SEALANT.
D. JOINT SEALANT BACKING: CYLINDRICAL, ASTM C 1330, TYPE C AND POLYETHYLENE BOND-BREAKER TAPE.
E. MISCELLANEOUS: PRIMER, CLEANERS, AND MASKING TAPE.
3. INSTALLATION: EXAMINE JOINTS AND PREPARE BY CLEANING, PRIMING WHERE RECOMMENDED, AND MASKING ADJOINING SURFACES. COMPLY WITH MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS AND ASTM C 1193. INSTALL BACKING AND BOND-BREAKERS AND PLACE SEALANTS SO THEY DIRECTLY CONTACT AND FULLY WET SUBSTRATES. TOOL TO PRODUCE SMOOTH, UNIFORM CROSS-SECTIONAL SHAPES AND DEPTHS.

APP Architecture create focused design



TALAWANDA SCHOOL DISTRICT MAINTENANCE AND BUS GARAGE

ISSUE

Table with 3 columns: NO., DATE, DESCRIPTION. Row 1: 04/08/2022 PERMIT AND CONSTRUCTION

TITLE SPECIFICATIONS

SHEET NO.

GO.2

615 Woodside Drive, Englewood, Ohio 45322 T 937.836.8898 F 937.832.3696 www.app-arch.com

Todd A. Gindeberger, License #12147, Expiration Date 12/31/2023

5301 University Park Blvd, City of Oxford, Ohio 45056

# ARCHITECTURAL SPECIFICATIONS

## DIVISION 08 - OPENINGS

### SECTION 081113 - HOLLOW METAL DOORS AND FRAMES

- DOORS STANDARD: FABRICATE WITH SMOOTH SURFACES, WITHOUT VISIBLE JOINTS OR SEAMS ON EXPOSED FACES. COMPLY WITH ANSI A250.8 AND SDI 108 RECOMMENDATIONS WITH FLUSH PANEL DESIGN, AND MANUFACTURER'S STANDARD CORE INSULATION FOR THERMAL-BROKEN DOORS. FACTORY PRIME, ANSI A250.10 FOR FIELD PAINTING.
  - EXTERIOR DOORS AND WHERE NOTED: LEVEL 3 AND PHYSICAL PERFORMANCE LEVEL (A) (EXTRA HEAVY DUTY), MODEL 2 SEAMLESS WITH METALLIC-COATED FACE SHEETS, CORE CONSTRUCTION: POLYSTYRENE THERMAL RATED, R-VALUE 2.8 OR BETTER.
  - INTERIOR DOORS: FLUSH PANEL, MANUFACTURER'S STANDARD KRAFT-PAPER HONEYCOMB OR ONE PIECE POLYSTYRENE CORE, COMPLY WITH ASTM A 1008/A 1008M.
  - HARDWARE REINFORCEMENT: ANSISDI A250.6.
- FRAMES STANDARD: FABRICATE WITH MITERED AND WELDED FACE CORNERS (AND SEAMLESS FACE JOINTS). COMPLY WITH ANSI A250.8. FACTORY PRIME, ANSI A250.10, FOR FIELD PAINTING.
  - EXTERIOR FRAMES: 0.067" (14 GAUGE) THICK METALLIC-COATED STEEL SHEET.
  - INTERIOR FRAMES: 0.053" (16 GAUGE) THICK STEEL SHEET.
  - HARDWARE REINFORCEMENT: ANSISDI A250.6.
  - JAMB AND FLOOR ANCHORS: 0.042" (18 GAUGE) THICK, ADJUSTABLE WHERE NECESSARY.
- HARDWARE PREPARATION: FACTORY PREPARE TO RECEIVE TEMPLATED MORTISED HARDWARE INCLUDING CUTOUTS, REINFORCEMENT, DRILLING TAPPING.
  - INSTALL DOORS AND FRAMES PLUMB, RIGID, PROPERLY ALIGNED, AND SECURELY FASTENED.
  - FRAMES: COMPLY WITH SDI A250.11. BRACE SECURELY UNTIL PERMANENT ANCHORS ARE SET.
  - DOORS: FIT ACCURATELY IN FRAMES, WITHIN SPECIFIED CLEARANCES: 1/8" +/- 1/16" AT JAMBS, HEAD, AND BETWEEN DOORS; 3/8" MAXIMUM BETWEEN DOOR AND THRESHOLD; AND 3/4" BETWEEN DOOR AND FINISH FLOOR. SHIM AS NECESSARY. INSTALL FIRE-RATED DOORS WITH CLEARANCES ACCORDING TO NFPA 80.)
  - GLAZING: SECURE STOPS WITH COUNTERSUNK MACHINE SCREWS AT 9" O.C. AND 2" FROM CORNERS.

### SECTION 083613 OVERHEAD DOORS

- SECTIONAL OVERHEAD DOORS OF THE FOLLOWING TYPES: FLUSH STEEL DOORS, THERMALLY-BROKEN, POLYSTYRENE INSULATED, ELECTRIC DOOR OPENERS.
  - ASTM A 653/A 653M - SPECIFICATION FOR STEEL SHEET, ZINC-COATED (GALVANIZED) OR ZINC-IRON ALLOY-COATED (GALVANEALD) BY THE HOT DIP PROCESS.
  - ASTM B 209/209M - SPECIFICATION FOR ALUMINUM AND ALUMINUM-ALLOY SHEET AND PLATE.
- WIND PERFORMANCE REQUIREMENTS
  - DESIGN DOORS TO WITHSTAND POSITIVE AND NEGATIVE WIND LOADS AS CALCULATED IN ACCORDANCE WITH APPLICABLE BUILDING CODE. DESIGN WIND LOAD: 20 LB/FS. SAFETY FACTOR: 1.5 TIMES DESIGN WIND LOAD.
- DOOR CONSTRUCTION
  - PANELS: SANDWICH CONSTRUCTION OF EXTERIOR AND INTERIOR STEEL SKINS PRESSURE BONDED TO AN EXPANDED CORE, WITH SKINS SEPARATED BY A CONTINUOUS SILICONE FILLING FORMING A THERMAL BREAK.
  - STEEL SKINS FORMED FROM ROLL FORMED COMMERCIAL OR DRAWING QUALITY STEEL SHEET, HOT-DIP GALVANIZED PER ASTM A924/A 924M AND ASTM A 653/A 653M, PREPAINTED WITH PRIMER AND BAKED-ON POLYESTER TOPCOAT; SECTIONS FORMED TO CREATE WEATHER TIGHT TONGUE- IN-GROOVE MEETING JOINT, UNLESS OTHERWISE SPECIFIED.
- ELECTRIC DOOR OPERATORS
  - GENERAL: PROVIDE ELECTRIC DOOR OPERATOR PROVIDED BY DOOR MANUFACTURER FOR DOOR WITH OPERATION LIFE SPECIFIED COMPLETE WITH ELECTRIC MOTOR AND FACTORY PRE-WIRED CONTROLS, STARTER, GEAR-REDUCTION UNIT, CLUTCH, REMOTE-CONTROL STATIONS, CONTROL DEVICES, INTEGRAL GEARING FOR LOCKING DOOR, AND ACCESSORIES REQUIRED FOR PROPER OPERATION. COMPLY WITH NFPA 70, SOLENOID-OPERATED BRAKE.
  - ELECTRIC MOTOR: PROVIDE HIGH-STARTING TORQUE, REVERSIBLE, CONTINUOUS-DUTY, CLASS A INSULATED, ELECTRIC MOTOR, COMPLYING WITH NEMA MG 1, WITH OVERLOAD PROTECTION, SIZED TO START, ACCELERATE, AND OPERATE DOOR IN EITHER DIRECTION.
    - TYPE: JACKSHAFT
    - HP
      - 3/4HP (559 W)
      - 1 HP (746 W)
    - POWER CHARACTERISTICS:
      - 120 V.
- EXAMINATION
  - EXAMINE WALL AND OVERHEAD AREAS, INCLUDING OPENING FRAMING AND BLOCKING, WITH INSTALLER PRESENT, FOR COMPLIANCE WITH REQUIREMENTS FOR INSTALLATION TOLERANCES, CLEARANCES, AND OTHER CONDITIONS AFFECTING PERFORMANCE OF WORK IN THIS SECTION.

## SECTION 085113 - ALUMINUM WINDOWS

- WINDOW MATERIALS:
  - PERFORMANCE: AAMA/WMDA 101/1.5.2/NAFS.
  - TYPE: (FIXED)
  - MANUFACTURER: KAWNEER SEALAIR ARCHITECTURAL WINDOWS OR EQUAL.
  - GLAZING: BEAD AND WEDGE. INSULATING GLASS: LOW-E INSULATING, ASTM E 774 FOR CLASS CBA UNITS WITH 10 YEAR WARRANTY, AS FOLLOWS: OVERALL THICKNESS: (1"); (EACH LITE 1/4"). SPACER AND SEAL: MANUFACTURER'S STANDARD, INDOOR LITE: (TYPE 1, CLASS 1, CLEAR FLOAT GLASS). OUTDOOR LITE: (TYPE 1, CLASS 2, TINTED FLOAT GLASS).
  - ACCESSORIES: NONCORROSIVE FASTENERS, REINFORCEMENT, ANCHORS, AND CLIPS.
  - FINISHES: CLASS 1, COLOR ANODIC.
  - COLOR TO BE SELECTED BY ARCHITECT.
- WINDOW FABRICATION: COMPLY WITH AAMA/NWDA 101.1.S.2 PERFORMANCE REQUIREMENTS. INCLUDE COMPLETE SYSTEM FOR ASSEMBLING COMPONENTS AND ANCHORING WINDOWS. FACTORY GLAZE WITH SNAP-ON INTERIOR GLAZING STOPS.
- WINDOW INSTALLATION: COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS FOR INSTALLING WINDOWS, HARDWARE, ACCESSORIES, AND OTHER COMPONENTS. PROTECT AGAINST GALVANIC ACTION. INSTALL COMPONENTS PLUMB AND TRUE IN ALIGNMENT WITH ESTABLISHED LINES AND GRADES AND TO DRAIN CONDENSATION AND PENETRATING WATER. SET SILLS IN FULL SEALANT BED. ADJUST OPERATING SASHES AND VENTILATORS, HARDWARE, AND OPERATORS FOR TIGHT FIT AND SMOOTH OPERATION.

## SECTION 087100 - DOOR HARDWARE

- SUPPLIER QUALIFICATIONS: EMPLOYEE CURRENTLY CERTIFIED BY DHI AS AN ARCHITECTURAL HARDWARE CONSULTANT AND RESPONSIBLE FOR PREPARATION OF DOOR HARDWARE AND KEYING SCHEDULES (AND DISTRIBUTION OF TEMPLATES).
- MANUFACTURER AND SERIES:
  - HINGES: (IVES 58B1 4-1/2 X 4-1/2).
  - LOCKSETS (HEAVY DUTY COMMERCIAL), (BORED, GRADE 1), (SARGENT 7-LINE CYLINDRICAL LEVER LOCK).
  - EXIT DEVICES: (VON DUPRIN 99).
  - CLOSERS: (LCN 4040).
  - WALL STOPS: (IVES 407).
  - THRESHOLDS: (NATIONAL GUARD 896).
  - PUSH-PULL PLATES: (ROCKWOOD 70 6" X 16" AND 107 X 70C 4" X 16").
  - FLUSH BOLTS: (ROCKWOOD 1942).
  - KICK PLATES: (INPRO .060 HIGH IMPACT).
  - WEATHERSTRIPPING: (NATIONAL GUARD 133NDBK).
  - KEYING SYSTEM: (MASTER KEY SYSTEM) COORDINATE WITH OWNER.
- FINISHES: BHMA (619) EXCEPT ALUMINUM CLOSERS, INPRO KICKPLATES, AND BMHA (630) HARDWARE ON TOILET ROOM DOORS.
- INSTALLATION STANDARD: MOUNT UNITS AT HEIGHTS PER DHIS ("RECOMMENDED LOCATIONS FOR ARCHITECTURAL HARDWARE FOR STANDARD STEEL DOORS AND FRAMES") ("RECOMMENDED LOCATIONS FOR ARCHITECTURAL HARDWARE FOR WOOD FLUSH DOORS"). ADJUST AND CHECK EACH OPERATING ITEM TO ENSURE PROPER FUNCTION.

## SECTION 092900 - GYPSUM BOARD

| SET                                 | DESCRIPTION            | QTY             | UNIT | PRICE |
|-------------------------------------|------------------------|-----------------|------|-------|
| A. SET 1 - OFFICE / CONFERENCE ROOM | a. 3 EA HINGE          | 58B1 4.5 X 4.5  | 652  | IVE   |
|                                     | b. 1 EA OFFICE LOCK    | L397G05         | 619  | SAR   |
|                                     | c. 1 EA WALLS STOP     | WS407CCV        | 630  | IVE   |
|                                     | d. 3 EA DOOR SILENCERS |                 |      |       |
| B. SET 2 - RESTROOM                 | a. 3 EA HINGE          | 58B1 4.5 X 4.5  | 652  | IVE   |
|                                     | b. 1 EA CLOSER         | 4041            | 689  | LCN   |
|                                     | c. 1 EA PRIVACY SET    | L11U465         | 619  | SAR   |
|                                     | d. 1 EA KICK PLATE     | 8400 8 X 35     | 630  | IVE   |
| C. SET 3 - MECHANICAL               | a. 3 EA HINGE          | 58B1 4.5 X 4.5  | 652  | IVE   |
|                                     | b. 1 EA STORER, LOCK   | L047G04         | 619  | SAR   |
|                                     | c. 1 EA KICK PLATE     | 8400 8 X 35     | 630  | IVE   |
|                                     | d. 1 EA WALL STOP      | WS407CCV        | 630  | IVE   |
| D. SET 4 - BREAK/TRAINING           | a. 3 EA HINGE          | 58B1 4.5 X 4.5  | 652  | IVE   |
|                                     | b. 1 EA PASSAGE        | L157U15         | 619  | SAR   |
|                                     | c. 1 EA KICK PLATE     | 8400 8 X 35     | 630  | IVE   |
|                                     | d. 1 EA WALL STOP      | WS407CCV        | 630  | IVE   |
| E. SET 5 - EXIT                     | a. 3 EA HINGE          | 58B1 4.5 X 4.5  | 652  | IVE   |
|                                     | b. 1 EA CLOSER         | 4041            | 689  | LCN   |
|                                     | c. 1 EA EXIT HARDWARE  | 99L-FX06        | 626  | VON   |
|                                     | d. 1 EA KICK PLATE     | 8400 8 X 2 LOW  | 630  | IVE   |
| F. SET 6 - MULTI USER RESTROOM      | a. 4 EA HINGE          | 58B1 4.5 X 4.5  | 666  | IVE   |
|                                     | b. 1 EA CLOSER         | 4041            | 689  | LCN   |
|                                     | c. 1 EA PUSH PLATE     | 8200 4 X 16     | US4  | IVE   |
|                                     | d. 1 EA PULL PLATE     | 8190 3-1/4 X 12 | US4  | IVE   |

## SECTION 098000 - GLAZING

- GLASS PRODUCTS:
  - ANNEALED FLOAT GLASS: ASTM C 1036, TYPE I, QUALITY Q3, CLASS 1.
  - HEAT-TREATED (FULLY TEMPERED) FLOAT GLASS: ASTM C 1048, TYPE I, QUALITY-Q3, CLASS 1, KIND FT.
  - INSULATING GLASS: FACTORY-ASSEMBLED SEEDED LITES OF LOW-E GLASS SEPARATED BY DEHYDRATED INNERSPACE, ASTM E 774 FOR CLASS CBA AND AS FOLLOWS: OVERALL THICKNESS: (1"); (EACH LITE 1/4"). SPACER AND DUAL SEAL: MANUFACTURER'S STANDARD, INDOOR LITE: (TYPE 1, CLASS 1, CLEAR FLOAT GLASS). INDOOR LITE: (TYPE 1, CLASS 1, CLEAR FLOAT GLASS). OUTDOOR LITE: (TYPE 1, CLASS 2, TINTED FLOAT GLASS).
  - GLAZING GASKETS: NEOPRENE, ASTM C 864.
  - GLAZING SEALANTS: NEUTRAL-CURING SILICONE, CLASS 50, TYPE S, GRADE NS (DOW 791 OR PECORA 885).
  - GLAZING TAPES: PREFORMED, BUTLY-BASED ELASTOMERIC, ASTM C 1281 AND AAMA 800.
  - ACCESSORIES: PRIMERS, SEALERS, SETTING BLOCKS, SPACERS, AND EDGE BLOCKS.
- INSTALLATION: COMPLY WITH COMBINED WRITTEN INSTRUCTIONS OF MANUFACTURERS OF GLASS, SEALANTS, GASKETS, AND OTHER GLAZING MATERIALS. PROVIDE NECESSARY BITE, MINIMUM EDGE AND FACE CLEARANCES, ADEQUATE SEALANT THICKNESS, AND REASONABLE TOLERANCES. INSTALL SETTING BLOCKS AND PROVIDE PRIMERS, SPACERS, AND EDGE BLOCKS WHERE REQUIRED. SET GLASS UNITS BY (DRY GASKET GLAZING) (WET SEALANT GLAZING) (TAPE GLAZING).

## DIVISION 09 - FINISHES

- SECTION 092216 - NON-STRUCTURAL METAL FRAMING MEMBERS, GENERAL: COMPLY WITH ASTM C 754 FOR CONDITIONS INDICATED.
  - STEEL SHEET COMPONENTS: ASTM C 645.
  - PROTECTIVE COATING: ASTM A 653/A 653M G40, HOT-DIP GALVANIZED.
- SUSPENSION SYSTEM COMPONENTS:
  - TE WIRE: ASTM A 641/A, CLASS 1, ZINC COATING, 0.0625".
  - WIRE HANGERS: ASTM A 641/A, CLASS 1, ZINC COATING, 0.162".
  - CARRYING CHANNELS: COLD-ROLLED, STEEL SHEET, 0.0538" WITH MINIMUM 1/2" FLANGES.
  - FURRING CHANNELS: COLD-ROLLED, STEEL SHEET, 0.0538" WITH MINIMUM 1/2" FLANGES, 3/4" DEEP.
  - HAT-SHAPED RIGID FURRING CHANNELS: ASTM C 645, 7/8".
- STEEL FRAMING FOR FRAMED ASSEMBLIES:
  - STEEL STUDS AND RUNNERS: ASTM C 645, (0.0312, 20 GAUGE), (3-5/8") DEPTH (AND SLIP-TYPE HEAD JOINTS).
  - RESILIENT FURRING CHANNELS: 1/2" DEEP, ASYMMETRICAL OR HAT SHAPED.
  - COLD-ROLLED FURRING CHANNELS: 0.053", WITH 1/2" FLANGES AND 3/4" DEEP (UNLESS OTHERWISE INDICATED).
- INSTALLATION STANDARD: ASTM C 754 AND (ASTM C 840 FOR GYPSUM BOARD ASSEMBLIES). INSTALL FRAMING AND BLOCKING TO SUPPORT FIXTURES, EQUIPMENT SERVICES, GRAB BARS, TOILET ACCESSORIES, OR SIMILAR CONSTRUCTION. INSTALL STUDS AT (16") (24") O.C.

## SECTION 092900 - GYPSUM BOARD

| SET   | DESCRIPTION  | QTY | UNIT | PRICE |
|---|--|-----|------|-------|
| A. TYPICAL CONDITIONS: 5/8" TYPE X.   | a. WET AREAS AND GARAGES: 5/8" MOISTURE/MOLD RESISTANT TYPE.                             |     |      |       |
|   | b. CEILINGS: 1/2" CEILING TYPE.  |     |      |       |
|   | c. INTERIOR WALLS: 5/8" TYPE X.  |     |      |       |
|   | d. INTERIOR WALLS: 5/8" TYPE X.  |     |      |       |
| B. AUXILIARY MATERIALS:   | a. JOINT TREATMENT: JOINT TAPE AND COMPOUND FOR APPROPRIATE MATERIALS & APPLICATION.     |     |      |       |
|   | b. TRIM ACCESSORIES: CONTROL JOINTS, CORNER BEADS, BULLNOSE BEADS, AND EDGE BEADS.       |     |      |       |
|   | c. FASTENERS: STEEL DRILL SCREWS, ASTM C 100 (LAMINATING ADHESIVE FOR DIRECT ADHERENCE). |     |      |       |
|   | d. SOUND ATTENUATION BLANKETS: (2') ASTM C 665, TYPE I.                                  |     |      |       |
| C. APPLICATION AND FINISH: COMPLY WITH ASTM C 840. (SINGLE-LAYER) APPLICATION WITH EDGE AND END JOINTS OVER SURFACES AND VERTICAL JOINTS STAGGERED ON OPPOSITE SIDES OF PARTITIONS. ATTACH TRIM ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS. FINISH BOARD IN CONCEALED AREAS TO LEVEL 1 AND TO LEVEL 4 IN EXPOSED AREAS. |  |     |      |       |

## SECTION 095113 - ACOUSTICAL PANEL CEILINGS

- ACOUSTICAL PANELS: CLASS A, COMPLYING WITH ASTM E 1264 CLASSIFICATIONS FOR TYPES, PATTERNS, ACOUSTICAL RATINGS AND LIGHT REFLECTANCE.
  - ACOUSTICAL PANEL: 24" X 24" X 3/4", ARMSTRONG "MESA", ANGLED TEGULAR LAY-IN SECOND LOOK, #886.
- METAL SUSPENSION SYSTEM: NARROW-FACE, CAPPED, DOUBLE-WEB, STEEL, INTERMEDIATE-DUTY, WITH PAINTED WHITE ALUMINUM CAP AND COMPLYING WITH ASTM A 663. MANUFACTURERS: ARMSTRONG, CHICAGO METALLIC, AND USG.
- METAL EDGE MOLDINGS AND TRIM: ROLL-FORMED SHEET-METAL, OF SAME MATERIAL, FINISH, AND COLOR AS GRID.
- INSTALL TO COMPLY WITH ASTM C 636, PER MANUFACTURER'S WRITTEN INSTRUCTIONS, AND CISCA'S "CEILING SYSTEM HANDBOOK". SUPPORT LIGHT FIXTURES AT FOUR CORNERS WITH WIRE HANGERS.

## SECTION 095113 - RESILIENT WALL BASE AND ACCESSORIES

- RESILIENT WALL BASE: ASTM F 1861, TYPE TS, GROUP I, COVERED STYLE, 4" 6" IN TOILETS HIGH X 1/8" THICK, WITH PRE-FORMED OUTSIDE CORNERS. MANUFACTURER/COLOR: JOHNSONITE.
- PREPARE AND INSTALL COMPLYING WITH MANUFACTURER'S WRITTEN INSTRUCTIONS TO ENSURE ADHESION.

## SECTION 096516 - LINOLEUM FLOORING

- MCT - MARMOLEUM COMPOSITE TILE: ASTM F 1700, 13 x 13 INCHES, 0.080 INCH THICKNESS. MANUFACTURER/TYPE/COLOR: FORBO FLOORING.
- PREPARE AND LAY COMPLYING WITH MANUFACTURER'S WRITTEN INSTRUCTIONS TO ENSURE ADHESION.
  - PREPARE CONCRETE SUBSTRATES ACCORDING TO ASTM F 710. USE TROWELABLE LEVELING AND PATCHING COMPOUND TO FILL CRACKS, HOLES, AND DEPRESSIONS AND TO TRANSITION SMALL CHANGES IN ELEVATION OF SUBSTRATE.
  - INSTALLATION: LAY TILES (SQUARE WITH ROOM), (WITH ALTERNATING GRAIN DIRECTION), AND WITH EQUAL WIDTH TILES AT OPPOSITE ENDS OF THE ROOM.

## SECTION 099100 - PAINTING

- PRODUCTS: COMPLY WITH "MPI APPROVED PRODUCTS LIST". APPROVED MANUFACTURERS: SHERWIN-WILLIAMS, BENJAMIN MOORE.
- INTERIOR PAINTING WITH PREMIUM GRADE SYSTEMS:
  - STEEL SUBSTRATES:
    - PRIME COAT: ALKYD METAL PRIMER (MPI # 76).
    - TOPCOAT: INTERIOR ALKYD (SEMIGLOSS) (MPI #47).
  - STEEL SUBSTRATES: ALKYD SYSTEM (STEEL HANDRAILS)
    - PRIME COAT: PRO INDUSTRIAL PRO-CRYL UNIVERSAL PRIMER.
    - INTERMEDIATE COAT: MATCHING TOPCOAT.
    - TOPCOAT: PRE-CATALYZED WATERBOASED EPOXY EG-SHEL.
  - GYPSUM BOARD SUBSTRATES:
    - PRIMER: INTERIOR LATEX PRIMER/SEALER (MPI #60).
    - TOPCOAT: INTERIOR LATEX (SATIN) (MPI #43). (NOTE: PREMIUM GRADE REQUIRES INTERMEDIATE COAT MATCHING TOPCOAT).
- STAINING AND TRANSPARENT FINISHING WITH CUSTOM (PREMIUM) GRADE SYSTEMS:
  - EXTERIOR FINISH CARPENTRY SUBSTRATES: SOLID-COLOR LATEX STAIN SYSTEM (MPI EXT 6.3K).
    - PRIME COAT: EXTERIOR ALKYD WOOD PRIMER.
    - TWO STAIN COATS: EXTERIOR SOLID-COLOR LATEX STAIN.
- PREPARE AND APPLY COMPLYING WITH REQUIREMENTS IN "MPI ARCHITECTURAL PAINT SPECIFICATIONS MANUAL" AND MANUFACTURER'S WRITTEN INSTRUCTIONS.
  - APPLY ONLY WHEN SURFACE AND AIR TEMPERATURES ARE BETWEEN 50 & 95 DEG F.
  - CLEAN SUBSTRATES OF SUBSTANCES THAT COULD IMPAIR BONDING, INCLUDING DIRT, OIL, GREASE, RUST, AND INCOMPATIBLE PAINT.
  - COUNTERSINK STEEL NAILS AND PUTTY (TINTED).
  - APPLY BY BRUSH UNLESS OTHERWISE NOTED OR APPROVED.
  - APPLY ADDITIONAL COATS UNTIL UNDERCOATS OR OTHER CONDITIONS DO NOT SHOW THROUGH.

## DIVISION 10 - SPECIALTIES

### SECTION 102113 - TOILET COMPARTMENTS

- SOLID POLYMER UNITS UNITS WITH OVERHEAD BRACED TOILET ENCLOSURES AND WALL HUNG URINAL SCREENS.
  - MANUFACTURERS: ACCURATE PARTITIONS CORP. AMCO INC. COMITE INDUSTRIES/CAPITOL PARTITIONS, METCAR CORP.
  - DOOR, PANEL, SCREEN AND PILASTER CONSTRUCTION: SOLID POLYPROPYLENE (PP) PANEL MATERIAL LESS THAN 1" THICK SEAMLESS, WITH EASED EDGES AND WITH HOMOGENOUS COLOR AND PATTERN THROUGHOUT THICKNESS OF MATERIAL.
  - FINISH/COLOR: SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL REANGE, WITH MANUFACTURER'S STANDARD THROUGH-COLOR CORE MATCHING FACE SHEET.
  - ACCESSORIES (CHROME PLATED): HEAD RAILS, PILASTER SHOES, ANCHORS, AND FASTENERS.
  - DOORS: STANDARD 24" WIDE, IN-SWINGING; ACCESSIBLE 32" MINIMUM CLEAR OPENING, OUT-SWINGING.
  - DOOR HARDWARE: STAINLESS STEEL HINGES, LATCH AND KEOPER, COAT HOOK, DOOR BUMPER, AND DOOR PULL.
- INSTALLATION: COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. INSTALL UNITS RIGID STRAIGHT, LEVEL, AND PLUMB AND SECURE WITH MANUFACTURER'S RECOMMENDED ANCHORING DEVICES. SECURE PLASTERS TO FLOOR AND HEADRAIL. HANG DOORS AND ADJUST FOR ALIGNMENT AND OPERATION.

### SECTION 102600 - WALL AND DOOR PROTECTION

- MANUFACTURERS:
  - BASIS-OF-DESIGN: CONSTRUCTION SPECIALTIES "ACROVYN".
  - ACCEPTABLE: (IPC) (KOROGARD) (PAWLING).
- WALL (AND DOOR) PROTECTION TYPES:
  - 2" END-WALL GUARDS: ACROVYN (FSC-25 FLUSH) (SSH-20 SURFACE).
  - 4" SURFACE WALL GUARDS: (ACROVYN SCR-40).
  - WALL COVERINGS: (ACROVYN 040 RIGID SHEET) (ACROVYN 060" HIGH IMPACT SHEET).
- MATERIALS:
  - PLASTIC SHEET WALL COVERING: ASTM D 1784, CLASS 1, TEXTURED, CHEMICAL- AND STAIN-RESISTANT, SEMIRIGID, HIGH-IMPACT-RESISTANT PVC OR ACRYLIC-MODIFIED VINYL PLASTIC SHEET WITH INTEGRAL COLOR THROUGHOUT.
  - FASTENERS AND ADHESIVE: TYPE RECOMMENDED BY MANUFACTURER AND FOR USE WITH MATERIAL BEING ADHERED TO SUBSTRATE.
- INSTALLATION: INSTALL UNITS LEVEL, PLUMB, AND TRUE TO LINE WITHOUT DISTORTIONS. DO NOT USE DEFECTIVE MATERIALS. PROVIDE SPICES, MOUNTING HARDWARE, ANCHORS, AND ACCESSORIES FOR A COMPLETE INSTALLATION. (PROVIDE TOP AND EDGE MOLDING, CORNERS, AND DIVIDER BARS TO COMPLETE WALL COVERING INSTALLATION.)

### SECTION 102800 - TOILET, BATH AND LAUNDRY ACCESSORIES

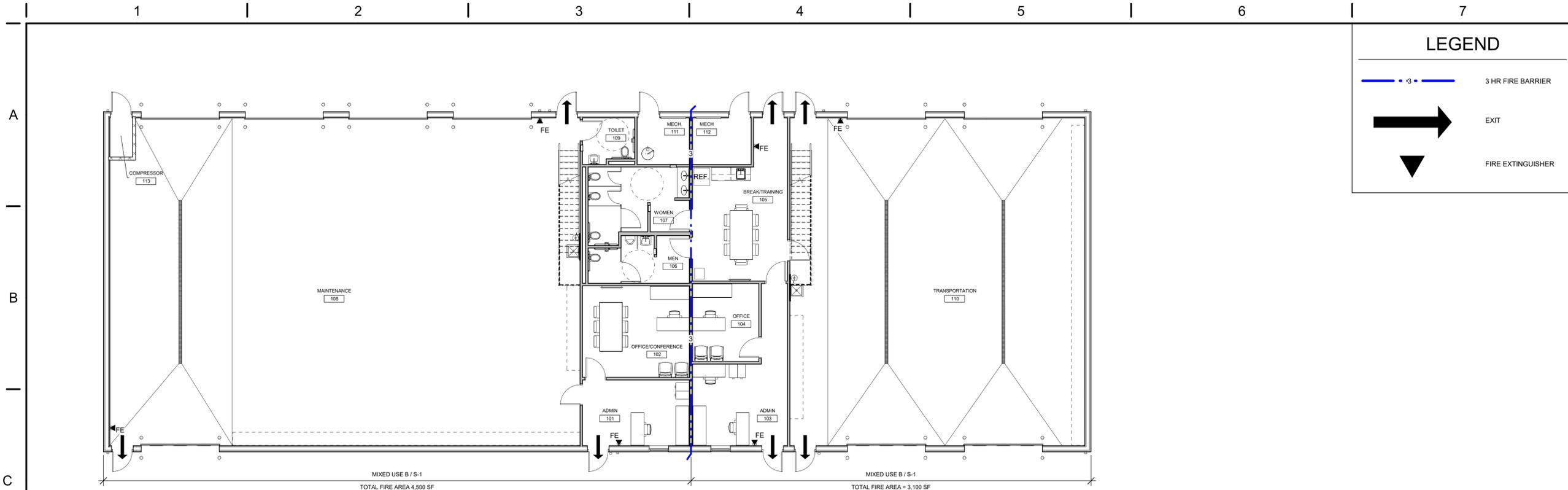
- MANUFACTURERS:
  - BASIS-OF-DESIGN: BOBRICK CLASSIC SERIES.
  - ACCEPTABLE: AMERICAN SPECIALTIES BRADLEY.
- MATERIALS:
  - STAINLESS STEEL: ASTM A 666, TYPE 304, 0.0312" MINIMUM.
  - SHEET STEEL: ASTM A 1008, DESIGNATION CS, COLD ROLLED, COMMERCIAL STEEL, 0.0359" MINIMUM.
  - GALVANIZED STEEL MOUNTING DEVICES: ASTM A 153, HOT-DIPPED GALVANIZED AFTER FABRICATION.
  - FASTENERS: SCREWS, BOLTS, AND OTHER DEVICES, TAMPER-AND-THEFT RESISTANT WHERE EXPOSED.
  - MIRRORS: ASTM C 1503, MIRROR GLAZING QUALITY, CLEAR-GLASS MIRRORS, 1/4" THICK.
- FABRICATE UNITS WITH TIGHT SEAMS AND JOINTS AND EXPOSED EDGES ROLLED. HANG DOORS WITH CONTINUOUS STAINLESS-STEEL HINGE. PROVIDE FULLY CONCEALED ANCHORAGE. SUPPORT FRAMED MIRRORS WITH TAMPER-RESISTANT INSTALLATION.
- TOILET AND BATH ACCESSORY SCHEDULE SURFACE MOUNTED UNITS UNLESS OTHERWISE NOTED BOBRICK PRODUCTS BASIS-OF-DESIGN:
  - TOILET TISSUE ROLL DISPENSER: B-7685 SINGLE, SUPPORT ARMS AND SPINDLE.
  - SEMI RECESSED PAPER TOWEL DISPENSER AND WASTE RECEPTACLE B-3942 OR EQUAL.
  - GRAB BARS 1-1/2", SATIN FINISH WITH PEENED GRIP AND CONCEALED MOUNTING-B-8806 (TINTED).
  - STRAIGHTBARS: REFER TO SHEET A0.1 FOR SIZES.
  - MIRROR UNIT ANGLE FRAME-B-290 1836.
- INSTALLATION: ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS, USING FASTENERS APPROPRIATE TO SUBSTRATE INDICATED AND RECOMMENDED BY MANUFACTURER. INSTALL LEVEL, PLUMB, AND FIRMLY ANCHORED IN LOCATIONS AND AT HEIGHTS INDICATED.



## ISSUE

| NO.        | DATE                    | DESCRIPTION |
|------------|-------------------------|-------------|
| 04/08/2022 | PERMIT AND CONSTRUCTION |             |

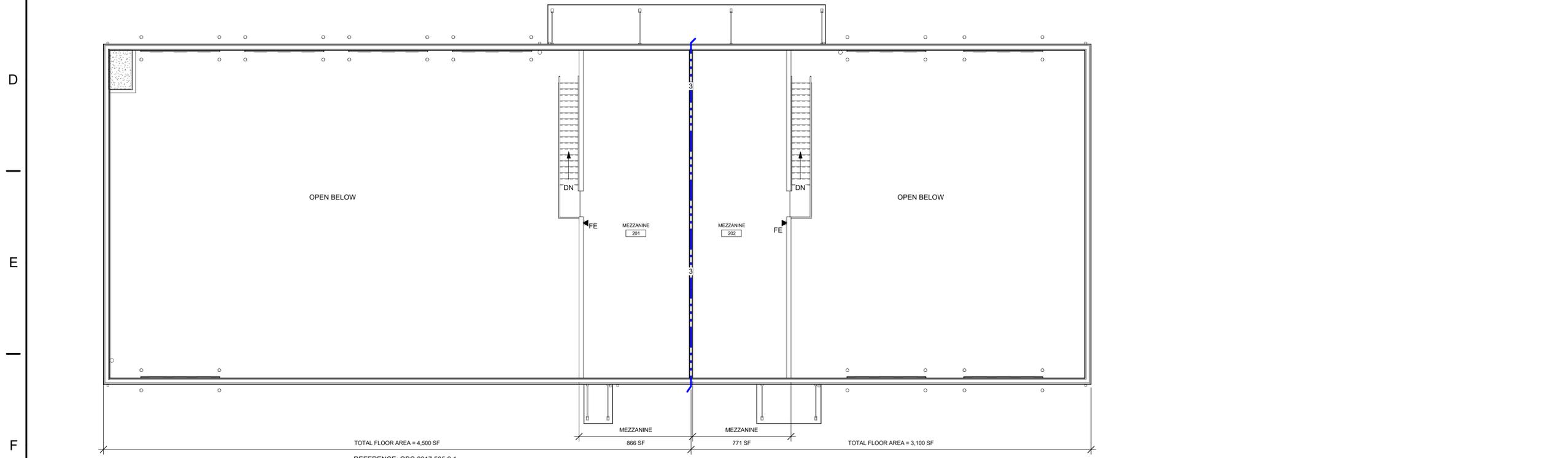
|   |                |
|---|----------------|
| DATE                                      | 04/08/2022     |
| JOB NO.                                   | 3977.00        |
| DRAWN                                     | MLG            |
| CHECKED                                   | RFW            |
| COPYRIGHT © 2022 - App Architecture, Inc. |                |
| TITLE                                     | SPECIFICATIONS |
| SHEET NO.                                 |                |



**LEGEND**

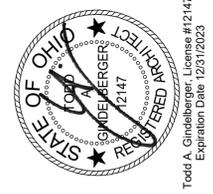
- 3 HR FIRE BARRIER
- EXIT
- FIRE EXTINGUISHER

**1** FIRST FLOOR REFERENCE PLAN  
1/8" = 1'-0"



**2** MEZZANINE REFERENCE PLAN  
1/8" = 1'-0"

**APP Architecture**  
creative focused design  
615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8898 F 937.832.3696  
www.app-arch.com



TALAWANDA SCHOOL DISTRICT  
**MAINTENANCE AND BUS GARAGE**  
5301 University Park Blvd.  
City of Oxford, Ohio 45056

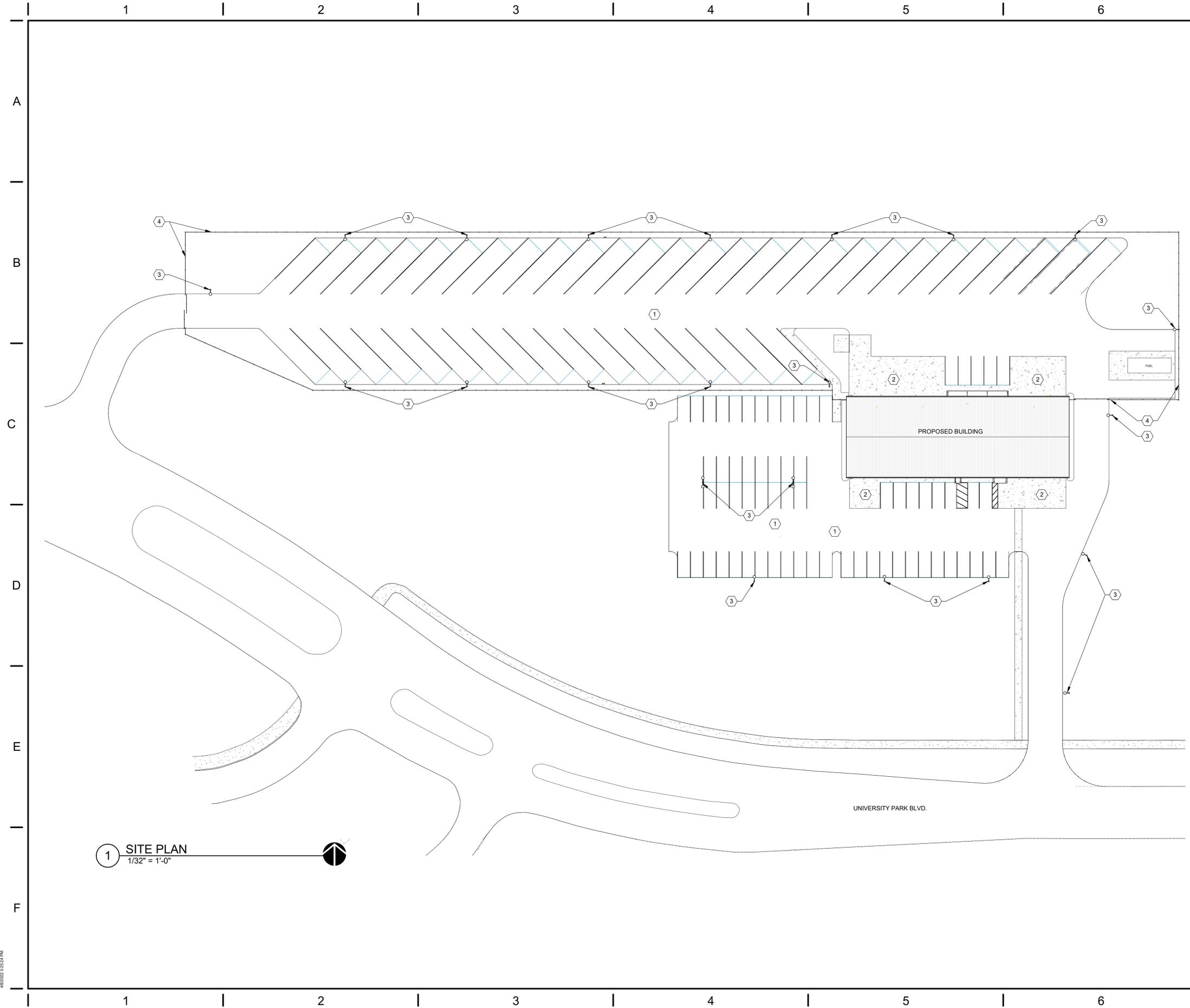
ISSUE

| NO.        | DATE                    | DESCRIPTION |
|------------|-------------------------|-------------|
| 04/08/2022 | PERMIT AND CONSTRUCTION |             |

|   |                         |
|---|-------------------------|
| DATE                                      | 04/08/2022              |
| JOB NO.                                   | 3977.00                 |
| DRAWN                                     | MLG                     |
| CHECKED                                   | RFW                     |
| COPYRIGHT © 2022 - App Architecture, Inc. |                         |
| TITLE                                     | <b>LIFE SAFETY PLAN</b> |

SHEET NO.  
**GO.4**

4/8/2022 3:25:29 PM



1 SITE PLAN  
1/32" = 1'-0"

**CONSTRUCTION NOTES**

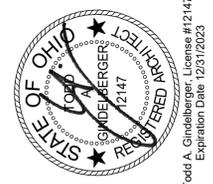
- 00 INDICATES CONSTRUCTION NOTE.
1. ASPHALT PARKING LOT. REFER TO CIVIL DRAWINGS BY OTHERS.
  2. CONCRETE PAD. REFER TO CIVIL DRAWINGS BY OTHERS.
  3. EXTERIOR LIGHT FIXTURE. REFER TO ELECTRICAL DRAWINGS.
  4. SECURITY FENCE. REFER TO CIVIL DRAWINGS BY OTHERS.

**GENERAL NOTES**

A. REFER TO CIVIL DRAWINGS PREPARED BY BAYER BECKER FOR COMPLETE SITE INFORMATION.

**APP Architecture**  
creative focused design

615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8898 F 937.832.3696  
www.app-arch.com



TALAWANDA SCHOOL DISTRICT

**MAINTENANCE AND BUS GARAGE**

5301 University Park Blvd.  
City of Oxford, Ohio 45056

| ISSUE |            |                         |
|-------|------------|-------------------------|
| NO.   | DATE       | DESCRIPTION             |
|       | 04/08/2022 | PERMIT AND CONSTRUCTION |

|   |                                |
|---|--------------------------------|
| DATE                                      | 04/08/2022                     |
| JOB NO.                                   | 3977.00                        |
| DRAWN                                     | MLG                            |
| CHECKED                                   | RFW                            |
| COPYRIGHT © 2022 - App Architecture, Inc. |                                |
| TITLE                                     | <b>ARCHITECTURAL SITE PLAN</b> |

SHEET NO.

**AC1.0**

4/8/2022 3:25:24 PM

# ABBREVIATIONS

| SYMBOL      |  |
|-------------|--|
| @<br>L<br>E | AT<br>AND<br>ANGLE<br>DIAMETER<br>CENTER LINE<br>PLATE |
| ABV         | ABOVE  |
| AC          | AIR CONDITIONING                                       |
| AFF         | ABOVE FINISHED FLOOR                                   |
| AHU         | AIR HANDLER UNIT                                       |
| AL          | ALUMINUM   |
| ALT         | ALTERNATE  |
| ANOD        | ANODIZED   |
| ANCH        | ANCHOR   |
| APPROX      | APPROXIMATELY  |
| ARCH        | ARCHITECT OR ARCHITECTURAL                             |
| ATTEN       | ATTENUATED   |
| AUTO        | AUTOMATIC  |
| AVG         | AVERAGE  |
| BLDG        | BUILDING   |
| BLK         | BLOCK  |
| BLKG        | BLOCKING   |
| BOT         | BOTTOM   |
| BRG         | BEARING  |
| BSMT        | BASEMENT   |
| CAB         | CABINET  |
| CB          | CATCH BASIN  |
| CC          | CENTER TO CENTER                                       |
| CF          | CUBIC FOOT   |
| CFCI        | CONTRACTOR FURNISH, CONTRACTOR INSTALL                 |
| CFOI        | CONTRACTOR FURNISH, OWNER INSTALL                      |
| CG          | CORNER GUARD   |
| CJ          | CONTROL JOINT  |
| CLG         | CEILING  |
| CL          | CLOSET   |
| CLR         | CLEAR  |
| CMU         | CONCRETE MASONRY UNIT                                  |
| CO          | CLEAN OUT  |
| COL         | COLUMN   |
| CONC        | CONCRETE   |
| CONST       | CONSTRUCTION   |
| CONT        | CONTINUOUS OR CONTINUE                                 |
| CPU         | CENTRAL PROCESSING UNIT (COMPUTER)                     |
| CY          | CUBIC YARD   |
| DBL         | DOUBLE   |
| DEMO        | DEMOLISH, DEMOLITION                                   |
| DF          | DRINKING FOUNTAIN                                      |
| DIA         | DIAMETER   |
| DIM         | DIMENSION  |
| DISP        | DISPENSER  |
| DIV         | DIVISION   |
| DS          | DOWNSPOUT  |
| DWG         | DRAWING  |
| DTL         | DETAIL   |
| EA          | EACH   |
| EC          | ELECTRICAL CONTRACTOR                                  |
| EIPS        | EXTERIOR INSULATION AND FINISH SYSTEM                  |
| EJ          | EXPANSION JOINT  |
| ELEC        | ELECTRIC OR ELECTRICAL                                 |
| ELEV        | ELEVATION OR ELEVATOR                                  |
| EMERG       | EMERGENCY  |
| EQ          | EQUAL  |
| EQUIP       | EQUIPMENT  |
| EWC         | ELECTRIC WATER COOLER                                  |
| EXIST OR EX | EXISTING   |
| EXP         | EXPANSION  |
| EXT         | EXTERIOR   |
| FD          | FLOOR DRAIN  |
| FE          | FIRE EXTINGUISHER                                      |
| FEC         | FIRE EXTINGUISHER CABINET                              |
| FF          | FINISH FLOOR   |
| FIN         | FINISH OR FINISHED                                     |
| FLOR        | FLOOR  |
| FND         | FOUNDATION   |
| FRT         | FIRE RETARDANT TREATED WOOD                            |
| FT          | FOOT OR FEET OR FULLY TEMPERED                         |
| FTG         | FOOTING  |
| FUR         | FURRING  |
| FV          | FIELD VERIFY   |
| FOW         | FACE OF WALL   |

| G              |   |
|----------------|---|
| GALV           | GALVANIZED                              |
| GC             | GENERAL CONTRACTOR                      |
| GD             | GRADE OR GRADING                        |
| GEN            | GENERAL                                 |
| GL             | GLASS OR GLAZING                        |
| GND            | GROUND                                  |
| GYP            | GYPNUM                                  |
| GWB            | GYPNUM BOARD                            |
| GWT            | GLAZED WALL TILE                        |
| HB             | HOSE BIBB                               |
| HDW            | HARDWARE                                |
| HM             | HOLLOW METAL                            |
| HORIZ          | HORIZONTAL                              |
| HT             | HEIGHT                                  |
| HVAC           | HEATING, VENTILATION & AIR CONDITIONING |
| HWD            | HARDWARE                                |
| ID             | INSIDE DIAMETER                         |
| IN             | INCH                                    |
| INCL           | INCLUDE (D) (ING)                       |
| INT            | INTERIOR                                |
| INV            | INVERT                                  |
| JB             | JUNCTION BOX                            |
| JC             | JANITOR CLOSET                          |
| L              | LONG                                    |
| LAV            | LAVATORY                                |
| LBS            | POUNDS                                  |
| LH             | LEFT HAND                               |
| LL             | LIVE LOAD                               |
| LLH            | LONG LEG HORIZONTAL                     |
| LLV            | LONG LEG VERTICAL                       |
| LTL            | LINTEL                                  |
| LVR            | LOUVER                                  |
| M              | MEN OR METER                            |
| MAS            | MASONRY                                 |
| MAT            | MATERIAL                                |
| MC             | MECHANICAL CONTRACTOR                   |
| MECH           | MECHANICAL                              |
| MFR            | MANUFACTURER                            |
| MH             | MOUNTING HEIGHT, MANHOLE                |
| MIL            | THOUSANDTHS OF AN INCH                  |
| MM             | MILLIMETER                              |
| MIN            | MINIMUM                                 |
| MISC           | MISCELLANEOUS                           |
| MO             | MASONRY OPENING                         |
| MTD            | MOUNTED                                 |
| MTL            | METAL                                   |
| N              | NORTH OR NITROGEN                       |
| NC             | NURSE CALL                              |
| NIC            | NOT IN CONTRACT                         |
| NO             | NUMBER OR NITROUS OXIDE                 |
| NOM            | NOMINAL                                 |
| NRC            | NOISE REDUCTION COEFFICIENT             |
| NTS            | NOT TO SCALE                            |
| O              | OUTSIDE DIAMETER                        |
| OD             | OWNER FURNISH, CONTRACTOR INSTALL       |
| OFI            | OWNER FURNISH, OWNER INSTALL            |
| OFVI           | OWNER FURNISH, VENDOR INSTALL           |
| OH             | OVERHEAD                                |
| OHD            | OVERHEAD DOOR                           |
| OPNG           | OPENING                                 |
| OPP            | OPPOSITE                                |
| O <sub>2</sub> | OXYGEN                                  |
| P              | PARALLEL                                |
| PAR            | PLUMBING CONTRACTOR                     |
| PCF            | POUNDS PER CUBIC FOOT                   |
| PL             | PLATE OR PROPERTY LINE                  |
| PLBG           | PLUMBING                                |
| PLWD           | PLYWOOD                                 |
| PME            | PLUMBING, MECHANICAL & ELECTRICAL       |
| PNL            | PANEL                                   |
| PAR            | PARALLEL                                |
| PSF            | POUNDS PER SQUARE FOOT                  |
| PSI            | POUNDS PER SQUARE INCH                  |
| PVC            | POLYVINYL CHLORIDE                      |

| QTY   | QUANTITY                          |
|-------|-----------------------------------|
| R     | RADIUS                            |
| RA    | RETURN AIR                        |
| RB    | RUBBER BASE                       |
| RD    | ROOF DRAIN                        |
| RECP  | RECEPTACLE                        |
| REF   | REFERENCE                         |
| REINF | REINFORCE                         |
| REQD  | REQUIRED                          |
| RET   | RETURN                            |
| REV   | REVISION                          |
| RH    | RIGHT HAND                        |
| RM    | ROOM                              |
| RO    | ROUGH OPENING                     |
| ROW   | RIGHT OF WAY                      |
| S     | SOUTH                             |
| SAN   | SANITARY                          |
| SB    | SINK BASE                         |
| SCHED | SCHEDULE                          |
| SEAL  | SEALANT                           |
| SECT  | SECTION                           |
| SF    | SQUARE FEET                       |
| SG    | SAFETY GLASS                      |
| SH    | SPRINKLER HEAD OR SHOWER HEAD     |
| SHT   | SHEET                             |
| SHTG  | SHEATHING                         |
| SIM   | SIMILAR                           |
| SPEC  | SPECIFICATION(S)                  |
| SPK   | SPEAKER                           |
| SQ    | SQUARE                            |
| ST    | STREET                            |
| STC   | SOUND TRANSMISSION CLASSIFICATION |
| STD   | STANDARD                          |
| STL   | STEEL                             |
| STR   | STRUCTURAL                        |
| SUSP  | SUSPENDED                         |
| SV    | SHEET VINYL                       |
| SYS   | SYSTEM                            |
| T & G | TONGUE & GROOVE                   |
| TB    | TOWEL BAR                         |
| T&B   | TOP AND BOTTOM                    |
| TEL   | TELEPHONE                         |
| TCC   | TOP OF CONCRETE                   |
| TOS   | TOP OF STEEL                      |
| TOM   | TOP OF MASONRY                    |
| TOW   | TOP OF WALL                       |
| TRANS | TRANSFORMER                       |
| TV    | TELEVISION                        |
| TYP   | TYPICAL                           |
| UC    | UNDER CABINET OR COUNTER          |
| UH    | UNIT HEATER                       |
| UL    | UNDERWRITERS LABORATORY           |
| UNO   | UNLESS NOTED OTHERWISE            |
| V     | VACUUM                            |
| VB    | VAPOR BARRIER                     |
| VCT   | VINYL COMPOSITION TILE            |
| VERT  | VERTICAL                          |
| VS    | VACUUM SLIDE                      |
| W     | WIDE OR WEST OR WOMEN             |
| W     | WITH                              |
| W/O   | WITHOUT                           |
| WC    | WATER CLOSET OR WALL CABINET      |
| WD    | WOOD                              |
| WIN   | WINDOW                            |
| WP    | WORK POINT                        |
| WPT   | WOOD PRESERVATIVE TREATMENT       |
| WT    | WEIGHT                            |
| WWF   | WELDED WIRE FABRIC                |

# REFERENCE SYMBOLS

**DRAWING TITLE**

A1 FIRST FLOOR PLAN  
1/4" = 1'-0"

..... DRAWING TITLE  
..... SCALE OF DRAWING  
..... DRAWING REFERENCE NUMBER

**INTERIOR ELEVATIONS**

1  
4 A1.1 2  
3

..... DRAWING REFERENCE NUMBER  
..... DRAWING SHEET NUMBER

**BUILDING/DETAIL SECTION**

B1  
A1.1

..... DRAWING REFERENCE NUMBER  
..... DRAWING SHEET NUMBER

**ENLARGED DETAIL**

B1  
A1.1

..... DRAWING REFERENCE NUMBER  
..... DRAWING SHEET NUMBER

**EXTERIOR ELEVATIONS**

1  
4 A1.1 2  
3

..... DRAWING REFERENCE NUMBER  
..... DRAWING SHEET NUMBER

**MATCH LINE**

A1  
A1.1

..... DRAWING REFERENCE NUMBER  
..... DRAWING SHEET NUMBER

**MATERIAL SYMBOLS IN SECTION**

|                 |                          |                   |
|-----------------|--------------------------|-------------------|
| EARTH           | LOOSE OR BATT INSULATION | BRICK             |
| GRANULAR FILL   | RIGID INSULATION         | SOLID SURFACE     |
| CONCRETE        | STEEL                    | GYPNUM / PLASTER  |
| CMU BLOCK       | PLYWOOD                  | WOOD, FINISHED    |
| BLOCKING / SHIM |                          | WOOD, DIMENSIONAL |

# DRAWING SYMBOLS

**COLUMN CENTER LINES**

1 A

**ROOM SYMBOL**

ROOM NAME ..... ROOM NAME  
101 ..... ROOM NUMBER

**PLAN SYMBOLS**

- CONSTRUCTION NOTES
- DEMOLITION NOTES
- ACCESSORIES (LETTERS)
- DOOR NUMBER SYMBOL
- WINDOW SYMBOL
- WALL TYPE
- REVISION / CHANGE
- CORNER GUARD
- END WALL PROTECTOR
- FIRE EXTINGUISHER CABINET
- TRUE NORTH
- PROJECT NORTH
- CHANGE IN ELEVATION
- ELEVATION

**REFLECTED CEILING SYMBOLS**

- SURFACE MOUNTED LIGHT FIXTURES
- RECESSED LIGHT FIXTURES
- CALL LIGHT
- EXIT LIGHT
- SUPPLY DIFFUSER
- RETURN
- SMOKE DETECTOR
- SPEAKER
- SPRINKLER HEAD
- CURTAIN OR IV TRACK
- CEILING HEIGHT

**INTERIOR ELEVATION SYMBOLS**

- DUPLEX RECEPTACLE
- TELE/DATA OUTLET
- LIGHT SWITCH
- DUPLEX RECEPTACLE (EMERGENCY POWER)
- NURSE CALL BUTTON
- CODE BLUE BUTTON
- MEDICAL GAS OUTLET
- TEMPERED GLASS
- SPANDREL GLASS

**TYPICAL WALL CONVENTIONS**

EXISTING CONSTRUCTION TO BE REMOVED

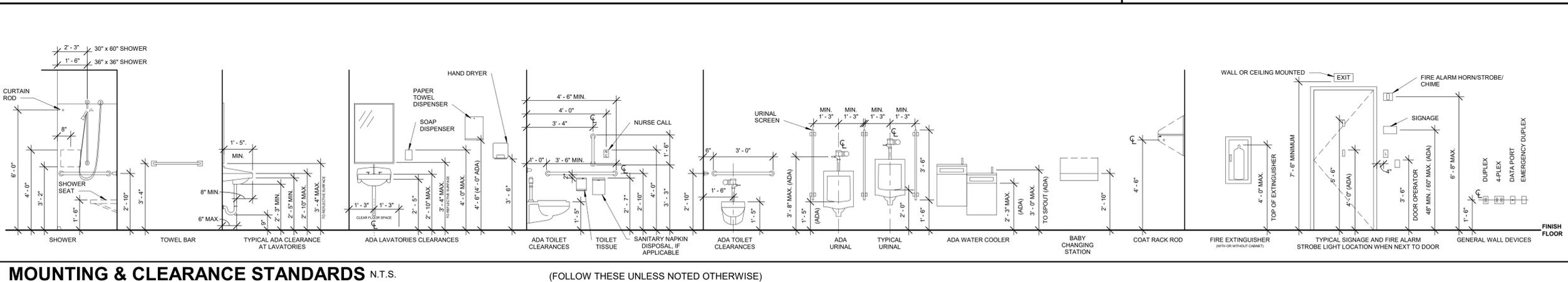
EXISTING CONSTRUCTION TO REMAIN

NEW CONSTRUCTION (NEW BUILDING OR ADDITION)

**FIRE BARRIER LEGEND**

- SMOKE RESISTIVE
- 1 HR. FIRE BARRIER
- 1S HR. FIRE/SMOKE BARRIER
- 2 HR. FIRE BARRIER
- 2S HR. FIRE/SMOKE BARRIER
- 3 HR. FIRE BARRIER

ALL SYMBOLS OR ABBREVIATIONS MIGHT NOT NECESSARILY BE USED ON THIS PROJECT.  
ADDITIONAL SYMBOLS OR ABBREVIATIONS MAY APPEAR ON SUBSEQUENT SHEETS.



**APP Architecture**  
creative focused design

615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8898 F 937.832.3696  
www.app-arch.com

**STATE OF OHIO**  
TODD A. GINDBERGER  
REGISTERED ARCHITECT  
LICENSE # 2147  
EXPIRATION DATE 12/31/2023

TALAWANDA SCHOOL DISTRICT

**MAINTENANCE AND BUS GARAGE**

5301 University Park Blvd.  
City of Oxford, Ohio 45056

ISSUE

| NO.        | DATE                    | DESCRIPTION |
|------------|-------------------------|-------------|
| 04/08/2022 | PERMIT AND CONSTRUCTION |             |

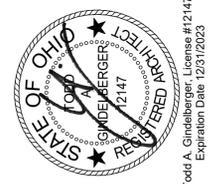
DATE 04/08/2022  
JOB NO. 3977.00  
DRAWN MLG  
CHECKED RFW  
COPYRIGHT © 2022 - App Architecture, Inc.  
TITLE ABBREVIATIONS AND SYMBOLS  
SHEET NO. **A0.1**

| ROOM FINISH SCHEDULE |                   |       |      |          |     |       |      |      |      |         |         |  |
|----------------------|-------------------|-------|------|----------|-----|-------|------|------|------|---------|---------|--|
| ROOM No.             | ROOM NAME         | FLOOR | BASE | WAINSCOT |     | WALLS |      |      |      | CEILING | REMARKS |  |
|                      |                   |       |      | MAT.     | HT. | N     | S    | E    | W    | MAT.    |         |  |
| 101                  | ADMIN             | MCT   | RB-1 |          |     | P-1   | MTLP | P-1  | P-1  | APC     |         |  |
| 102                  | OFFICE/CONFERENCE | MCT   | RB-1 |          |     | P-1   | P-1  | P-1  | P-1  | APC     |         |  |
| 103                  | ADMIN             | MCT   | RB-1 |          |     | P-1   | MTLP | P-1  | P-1  | APC     |         |  |
| 104                  | OFFICE            | MCT   | RB-1 |          |     | P-1   | P-1  | P-1  | P-1  | APC     |         |  |
| 105                  | BREAK/TRAINING    | MCT   | RB-1 |          |     | P-1   | P-1  | P-1  | P-1  | APC     |         |  |
| 106                  | MEN               | MCT   | RB-1 |          |     | P-1   | P-1  | P-1  | P-1  | APC     |         |  |
| 107                  | WOMEN             | MCT   | RB-1 |          |     | P-1   | P-1  | P-1  | P-1  | APC     |         |  |
| 108                  | MAINTENANCE       | SC    | RB-1 |          |     | MTLP  | MTLP | P-1  | MTLP | MTLP    | 1       |  |
| 108B                 | STAIR             | -     | RB-1 | VWP      | 48" | MTLP  | MTLP | P-1  | MTLP | MTLP    |         |  |
| 109                  | TOILET            | SC    | RB-1 |          |     | MTLP  | P-1  | P-1  | P-1  | APC     |         |  |
| 110                  | TRANSPORTATION    | SC    | RB-1 |          |     | MTLP  | MTLP | MTLP | P-1  | MTLP    | 1       |  |
| 110B                 | STAIR             | -     | RB-1 | VWP      | 48" | MTLP  | MTLP | MTLP | P-1  | MTLP    |         |  |
| 111                  | MECH.             | SC    | -    |          |     | MTLP  | P-1  | P-1  | P-1  | -       |         |  |
| 112                  | MECH              | SC    | -    |          |     | MTLP  | P-1  | P-1  | P-1  | -       |         |  |
| 113                  | COMPRESSOR        | SC    | -    |          |     | MTLP  | P-1  | P-1  | MTLP | -       |         |  |
| 201                  | MEZZANINE         | MCT   | RB-1 |          |     | MTLP  | MTLP | P-1  | -    | MTLP    |         |  |
| 202                  | MEZZANINE         | MCT   | RB-1 |          |     | MTLP  | MTLP | -    | P-1  | MTLP    |         |  |

| ROOM FINISH SCHEDULE REMARKS |  |   |
|------------------------------|--|---|
| No.                          |  | REMARK  |
| 1                            |  | RUBBER BASE ONLY AT DRYWALL WALLS OF ADMIN CORRIDOR |

| MATERIAL LEGEND |      |                          |                               |                                     |                              |          |               |   |
|-----------------|------|--------------------------|-------------------------------|-------------------------------------|------------------------------|----------|---------------|---|
| SORT MATERIAL   | ITEM | MATERIAL                 | MANUFACTURER                  | MATERIAL MODEL NO.                  | CONTACT INFO                 | COLOR    | FLAME / SMOKE | COMMENTS                                |
| BASE            |      |                          |                               |                                     |                              |          |               |   |
| BASE            | RB-1 | RUBBER BASE 6"           | JOHNSONITE                    | TRADITIONAL RUBBER BASE WITH 6" TOE | ERIN RINK 513.504.5734       | TBD      |               |   |
| CABINETS        |      |                          |                               |                                     |                              |          |               |   |
| CABINETS        | PL   | PLASTIC LAMINATE         | WILSONART                     | TBD                                 | DONNA ARIAPAD 513.295.0380   | TBD      |               | CABINETS AS NOTED                       |
| CABINETS        | SSM  | SOLID SURFACE            | LG                            | T003                                | SHERRIN MASTERS 502.689.6655 | SATURN   |               |   |
| CEILING         |      |                          |                               |                                     |                              |          |               |   |
| CEILING         | APC  | ACOUSTIC PANEL CEILING   | ARMSTRONG CEILING SYSTEMS     | MESA 686 24" X 24"                  | MONTY GILLESPIE 513.309.1495 | WHITE    | CLASS A       |   |
| CEILING         | EXPS | EXPOSED STRUCTURE        |                               |                                     |                              |          |               |   |
| FLOOR           |      |                          |                               |                                     |                              |          |               |   |
| FLOOR           | MCT  | MARMOLEUM COMPOSITE TILE | FORBO FLOORING                | MCT 3048 (AS SELECTED BY OWNER)     | TOM BUIKEMA, 937.231.2732    | GRAPHITE | CLASS 1       |   |
| FLOOR           | SC   | SEALED CONCRETE          | LATICRETE                     | L&M AQUAPEL                         |                              |          |               |   |
| WALL            |      |                          |                               |                                     |                              |          |               |   |
| WALL            | MTLP | METAL LINER PANEL        | DIMENSIONAL METALS INC. (DMI) | FLUSH PANEL FP1012                  |                              | WHITE    |               | LOW BEAD STIFFNER PATTERN               |
| WALL            | P-1  | PAINT                    | SHERWIN WILLIAMS              | TBD                                 | ANGIE JULIAN 317.714.5610    | TBD      |               | EGGSHELL FINISH.                        |
| WALL            | P-2  | PAINT                    | SHERWIN WILLIAMS              | TBD                                 | ANGIE JULIAN 317.714.5610    | TBD      |               | ENAMEL PAINT FOR METAL DOORS AND FRAMES |
| WALL            | VWP  | VINYL WALL PROTECTION    | INPRO                         |                                     |                              | OATMEAL  |               |   |

**APP Architecture**  
creative focused design  
615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8698 F 937.832.3696  
www.app-arch.com



TALAWANDA SCHOOL DISTRICT  
**MAINTENANCE AND BUS GARAGE**  
5301 University Park Blvd.  
City of Oxford, Ohio 45056

| ISSUE |            |                         |
|-------|------------|-------------------------|
| NO.   | DATE       | DESCRIPTION             |
|       | 04/08/2022 | PERMIT AND CONSTRUCTION |

|   |            |
|---|------------|
| DATE                                      | 04/08/2022 |
| JOB NO.                                   | 3977.00    |
| DRAWN                                     | MLG        |
| CHECKED                                   | RFW        |
| COPYRIGHT © 2022 - App Architecture, Inc. |            |

TITLE  
**FINISH SCHEDULES**

SHEET NO.  
**A0.2**

4/8/2022 3:24:58 PM

DOOR AND FRAME SCHEDULE

| DOOR No. | ROOM NAME      | HDW. SET | SIZE   |        |        | DOOR  |      |             |     | FRAME |      |         |         | FIRE RTG. | REMARKS |
|----------|----------------|----------|--------|--------|--------|-------|------|-------------|-----|-------|------|---------|---------|-----------|---------|
|          |                |          | W      | H      | T      | MAT.  | TYPE | FIN.        | U/C | MAT.  | TYPE | FIN.    | HEAD    |           |         |
| 101A     | ADMIN          | 1        | 3'-0"  | 7'-0"  | 1 3/4" | HM    | NL1  | P-2         | HM  | 1     | P-2  | B1/A0.4 | C1/A0.4 |           | 1,4     |
| 101B     | ADMIN          | 5        | 3'-0"  | 7'-0"  | 1 3/4" | HM    | NL1  | P-2         | HM  | 1     | P-2  | B3/A0.4 | C3/A0.4 |           |         |
| 102      | ADMIN          | 4        | 3'-0"  | 7'-0"  | 1 3/4" | HM    | F1   | P-2         | HM  | 1     | P-2  | B1/A0.4 | C1/A0.4 |           |         |
| 103A     | ADMIN          | 4        | 3'-0"  | 7'-0"  | 1 3/4" | HM    | NL1  | P-2         | HM  | 1     | P-2  | B1/A0.4 | C1/A0.4 |           | 2       |
| 103B     | ADMIN          | 5        | 3'-0"  | 7'-0"  | 1 3/4" | HM    | NL1  | P-2         | HM  | 1     | P-2  | B3/A0.4 | C3/A0.4 |           |         |
| 104      | ADMIN          | 1        | 3'-0"  | 7'-0"  | 1 3/4" | HM    | F1   | P-2         | HM  | 1     | P-2  | B1/A0.4 | C1/A0.4 |           |         |
| 105A     | BREAK/TRAINING | 5        | 3'-0"  | 7'-0"  | 1 3/4" | HM    | NL1  | P-2         | HM  | 1     | P-2  | B3/A0.4 | C3/A0.4 |           |         |
| 105B     | BREAK/TRAINING | 1        | 3'-0"  | 7'-0"  | 1 3/4" | HM    | NL1  | P-2         | HM  | 1     | P-2  | B1/A0.4 | C1/A0.4 |           | 3       |
| 106      | MEN            | 6        | 3'-0"  | 7'-0"  | 1 3/4" | HM    | F1   | P-2         | HM  | 1     | P-2  | B1/A0.4 | C1/A0.4 | 180 MIN.  |         |
| 107      | WOMEN          | 6        | 3'-0"  | 7'-0"  | 1 3/4" | HM    | F1   | P-2         | HM  | 1     | P-2  | B1/A0.4 | C1/A0.4 | 180 MIN.  |         |
| 108A     | MAINTENANCE    | 5        | 3'-0"  | 7'-0"  | 1 3/4" | HM    | NL1  | P-2         | HM  | 1     | P-2  | B3/A0.4 | C3/A0.4 |           |         |
| 108B     | STAIR          | 5        | 3'-0"  | 7'-0"  | 1 3/4" | HM    | NL1  | P-2         | HM  | 1     | P-2  | B3/A0.4 | C3/A0.4 |           |         |
| 109      | TOILET         | 2        | 3'-0"  | 7'-0"  | 1 3/4" | HM    | F1   | P-2         | HM  | 1     | P-2  | B1/A0.4 | C1/A0.4 |           | 3       |
| 110A     | STAIR          | 5        | 3'-0"  | 7'-0"  | 1 3/4" | HM    | NL1  | P-2         | HM  | 1     | P-2  | B3/A0.4 | C3/A0.4 |           |         |
| 110B     | TRANSPORTATION | 5        | 3'-0"  | 7'-0"  | 1 3/4" | HM    | NL1  | P-2         | HM  | 1     | P-2  | B3/A0.4 | C3/A0.4 |           |         |
| 111      | MECH.          | 3        | 3'-0"  | 7'-0"  | 1 3/4" | HM    | F1   | P-2         | HM  | 1     | P-2  | B3/A0.4 | C3/A0.4 |           |         |
| 112      | MECH.          | 3        | 3'-0"  | 7'-0"  | 1 3/4" | HM    | F1   | P-2         | HM  | 1     | P-2  | B3/A0.4 | C3/A0.4 |           |         |
| 113      | COMPRESSOR     | 3        | 3'-0"  | 7'-0"  | 1 3/4" | HM    | NL1  | P-2         | HM  | 1     | P-2  | B3/A0.4 | C3/A0.4 |           |         |
| OH-A1    | MAINTENANCE    | -        | 12'-0" | 14'-0" | 2"     | STEEL | OH1  | PWDR COATED | -   | -     | -    | F1/A0.4 | F3/A0.4 |           |         |
| OH-A2    | MAINTENANCE    | -        | 12'-0" | 14'-0" | 2"     | STEEL | OH1  | PWDR COATED | -   | -     | -    | F1/A0.4 | F3/A0.4 |           |         |
| OH-A3    | MAINTENANCE    | -        | 12'-0" | 14'-0" | 2"     | STEEL | OH1  | PWDR COATED | -   | -     | -    | F1/A0.4 | F3/A0.4 |           |         |
| OH-A4    | MAINTENANCE    | -        | 12'-0" | 14'-0" | 2"     | STEEL | OH1  | PWDR COATED | -   | -     | -    | F1/A0.4 | F3/A0.4 |           |         |
| OH-A5    | MAINTENANCE    | -        | 12'-0" | 14'-0" | 2"     | STEEL | OH1  | PWDR COATED | -   | -     | -    | F1/A0.4 | F3/A0.4 |           |         |
| OH-B1    | TRANSPORTATION | -        | 12'-0" | 14'-0" | 2"     | STEEL | OH1  | PWDR COATED | -   | -     | -    | F1/A0.4 | F3/A0.4 |           |         |
| OH-B2    | TRANSPORTATION | -        | 12'-0" | 14'-0" | 2"     | STEEL | OH1  | PWDR COATED | -   | -     | -    | F1/A0.4 | F3/A0.4 |           |         |
| OH-B3    | TRANSPORTATION | -        | 12'-0" | 14'-0" | 2"     | STEEL | OH1  | PWDR COATED | -   | -     | -    | F1/A0.4 | F3/A0.4 |           |         |
| OH-B4    | TRANSPORTATION | -        | 12'-0" | 14'-0" | 2"     | STEEL | OH1  | PWDR COATED | -   | -     | -    | F1/A0.4 | F3/A0.4 |           |         |

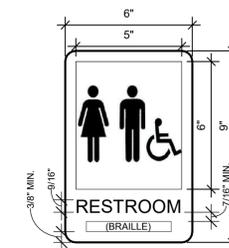
DOOR REMARKS

| No. | REMARK   |
|-----|--|
| 1   | ADD CLOSER   |
| 2   | ADD ONE EA EXIT HARDWARE   |
| 3   | INSUATED EXTERIOR TYPE DOORS IN INTERIOR LOCATION WITH WEATHER STRIP AND SWEEP |

Window Schedule

| TYPE | QUANTITY | R.O.  |        | Sill Height | FRAME MATERIAL | JAMB    | HEAD    | SILL    | HEAD HEIGHT | COMMENTS |
|------|----------|-------|--------|-------------|----------------|---------|---------|---------|-------------|----------|
|      |          | WIDTH | HEIGHT |             |                |         |         |         |             |          |
| AF1  | 2        | 3'-0" | 4'-2"  | 3'-0"       | ALUM           | C6/A0.4 | B6/A0.4 | E6/A0.4 | 7'-2"       |          |

SIGNAGE LEGEND



UNISEX RESTROOM - TYPE 1

3" = 1'-0"



MEN'S RESTROOM - TYPE 2

3" = 1'-0"

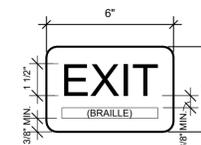


WOMEN'S RESTROOM - TYPE 3

3" = 1'-0"

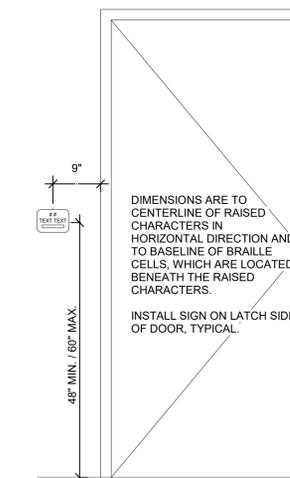
SIGN NOTES

- A. ALL SIGNS SHALL HAVE BRAILLE LETTERING BENEATH TEXT, TYPICAL.
- B. SIGNS MOUNTED ON GLASS AT DOOR NEED TO BE MOUNTED WITH ADHESIVE AND MATCHING BACKER PLATE FOR OTHER SIDE OF GLASS.
- C. TEXT AND GRAPHICS TO BE NON-GLARE COLOR IN HIGH CONTRAST WITH BACKGROUND. SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD COLORS.
- D. BACKGROUND TO BE NON-GLARE COLOR IN HIGH CONTRAST WITH TEXT AND GRAPHICS. SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD COLORS.
- E. 1/2" RADIUS CORNERS.
- F. ALL TEXT ON SIGNS LOCATED NEXT TO INTERIOR DOORS WILL BE 1/32" RAISED CHARACTERS, UPPERCASE, AND VIEWABLE AT LESS THAN 6 FEET.



EXIT SIGN - TYPE 4

3" = 1'-0"



SIGNAGE LOCATION

3/4" = 1'-0"

**APP Architecture**  
creative focused design

615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8898 F 937.832.3696  
www.app-arch.com

STATE OF OHIO  
TODD A. GINDEBERGER  
REGISTERED ARCHITECT  
LICENSE # 12147  
Expiration Date 12/31/2023

TALAWANDA SCHOOL DISTRICT

**MAINTENANCE AND BUS GARAGE**

5301 University Park Blvd.  
City of Oxford, Ohio 45056

ISSUE

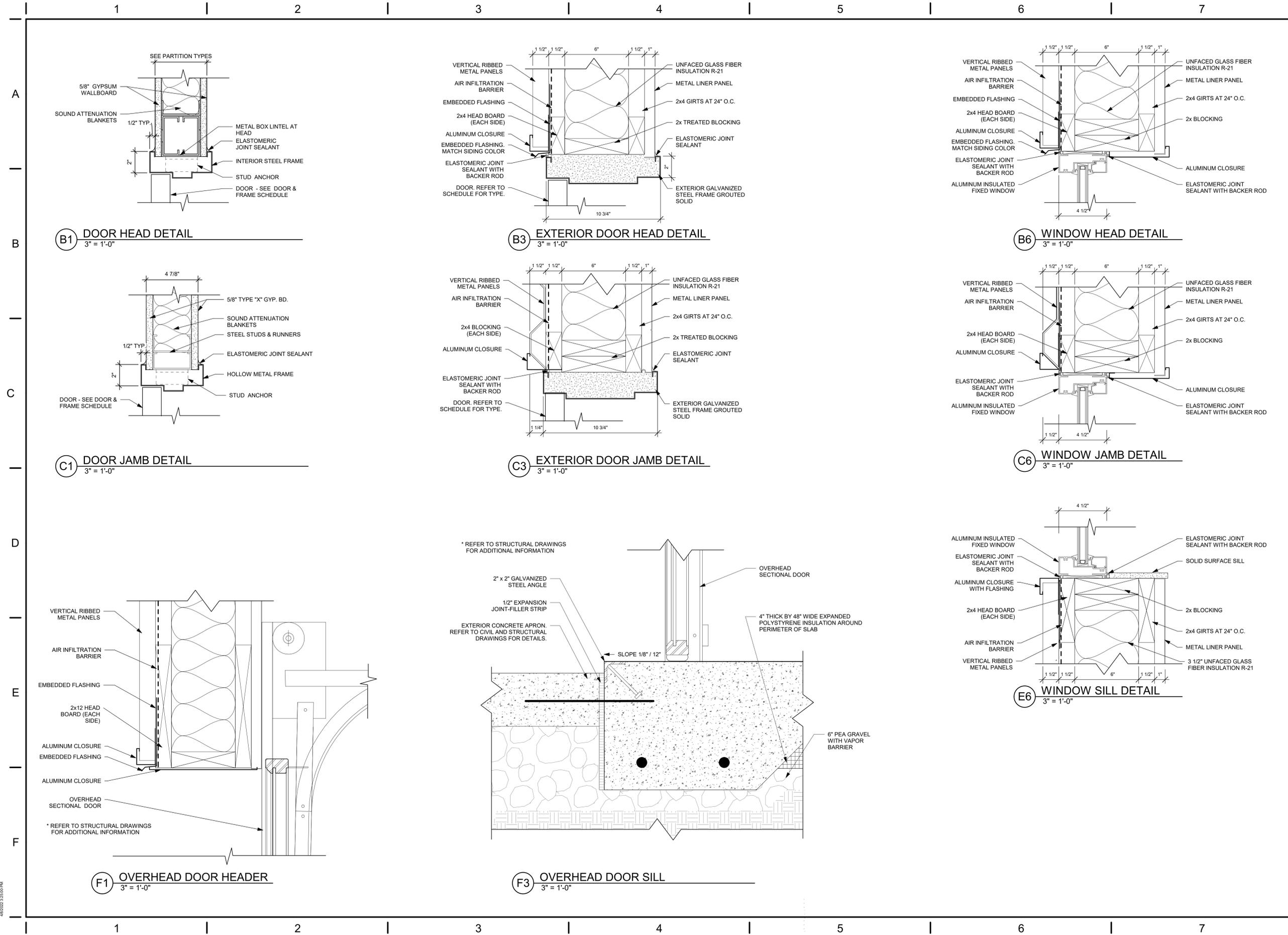
| NO.        | DATE       | DESCRIPTION             |
|------------|------------|-------------------------|
| 04/08/2022 | 04/08/2022 | PERMIT AND CONSTRUCTION |

DATE 04/08/2022  
JOB NO. 3977.00  
DRAWN MLG  
CHECKED RFW  
COPYRIGHT © 2022 - App Architecture, Inc.

TITLE  
**DOOR AND WINDOW SCHEDULES**

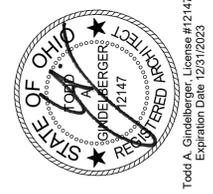
SHEET NO.  
**A0.3**

4/8/2022 3:24:59 PM



**APP Architecture**  
creative focused design

615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8898 F 937.832.3696  
www.app-arch.com



TALAWANDA SCHOOL DISTRICT

**MAINTENANCE AND BUS GARAGE**

5301 University Park Blvd.  
City of Oxford, Ohio 45056

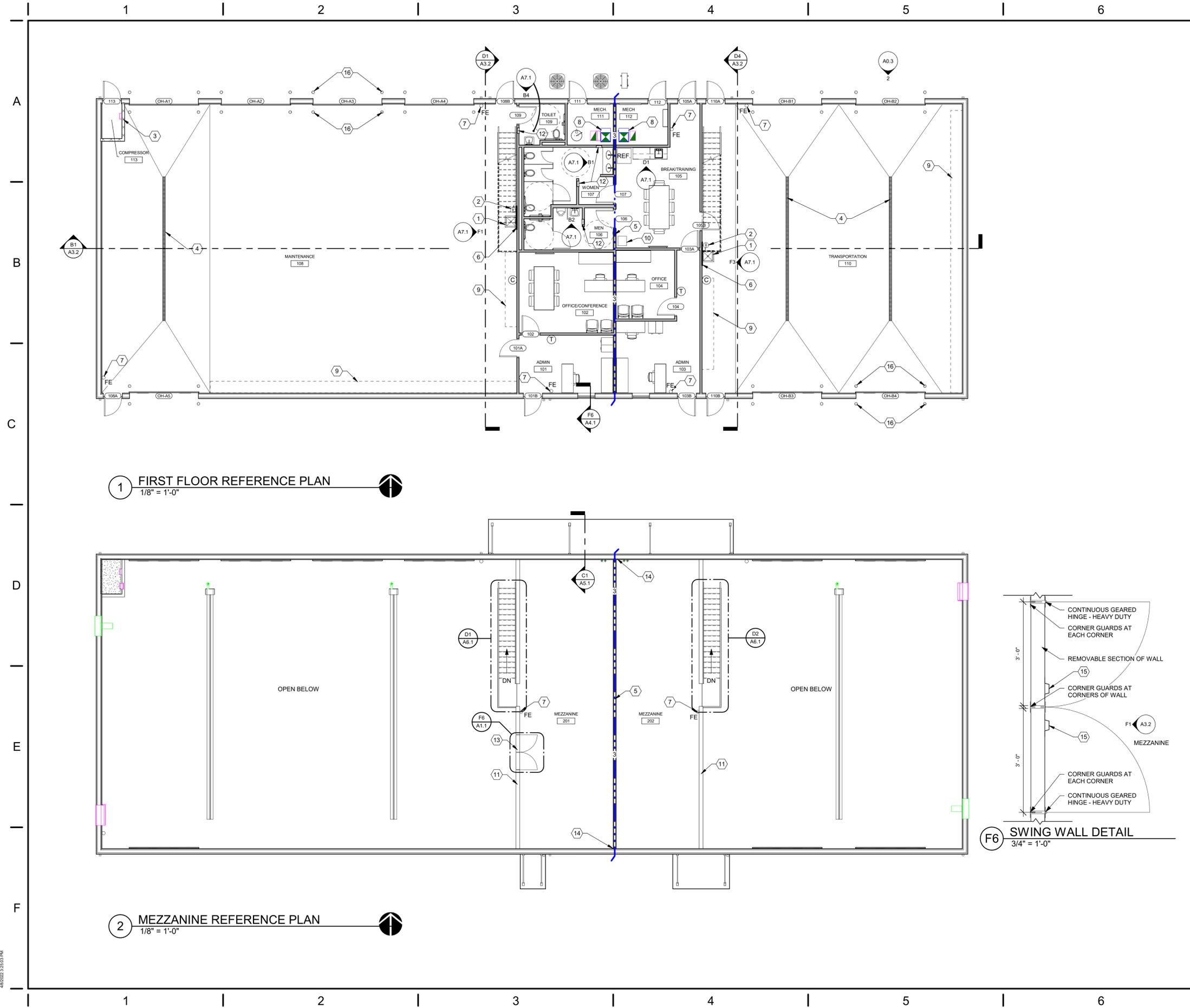
ISSUE

| NO.        | DATE       | DESCRIPTION             |
|------------|------------|-------------------------|
| 04/08/2022 | 04/08/2022 | PERMIT AND CONSTRUCTION |

|   |            |
|---|------------|
| DATE                                      | 04/08/2022 |
| JOB NO.                                   | 3977.00    |
| DRAWN                                     | MLG        |
| CHECKED                                   | RFW        |
| COPYRIGHT © 2022 - App Architecture, Inc. |            |
| TITLE<br><b>DOOR AND WINDOW DETAILS</b>   |            |
| SHEET NO.                                 |            |

**A0.4**

4/8/2022 3:25:00 PM



1 FIRST FLOOR REFERENCE PLAN  
1/8" = 1'-0"

2 MEZZANINE REFERENCE PLAN  
1/8" = 1'-0"

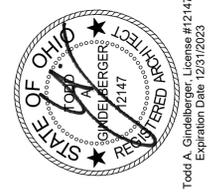
F6 SWING WALL DETAIL  
3/4" = 1'-0"

CONSTRUCTION NOTES

- 00 INDICATES CONSTRUCTION NOTE.
- 1. MOP SINK. REFER TO PLUMBING DRAWINGS.
- 2. EYE WASH STATION. REFER TO PLUMBING DRAWINGS.
- 3. 6" CMU WALL UP TO 8' - 0" A.F.F. PROVIDE BULLNOSE EDGE AT CORNER. CAP WITH 3/4" PLYWOOD OVER 2X6 WOOD JOISTS 16" O.C.
- 4. TRENCH DRAIN. REFER TO PLUMBING DRAWINGS.
- 5. 3 HR. FIRE RATED BARRIER UL U490. EXTEND FULL HEIGHT TO UNDERSIDE OF ROOF DECK.
- 6. VINYL WALL PROTECTION (WVP) ON THIS WALL 48" HEIGHT WITH LOCAL FIRE DEPARTMENT.
- 7. WALL HUNG FIRE EXTINGUISHER. COORDINATE F.E. TYPE WITH LOCAL FIRE DEPARTMENT.
- 8. FURNACE. REFER TO MECHANICAL DRAWINGS.
- 9. LOCATION FOR OWNER'S STORAGE.
- 10. REQUIREMENTS FOR 1 DRINKING FOUNTAIN WILL BE MET WITH THE ADDITION OF 1 REFRIGERATED DRINKING WATER COOLER WITH REPLACEABLE WATER BOTTLES.
- 11. 42" HIGH METAL STUD WALL WITH 5/8" HIGH ABUSE GYPSUM BOARD AND TREATED 1X8 WOOD CAP WITH RADIUS EDGES.
- 12. SEMI-RECESSED C-FOLD PAPER TOWEL DISPENSER.
- 13. REMOVABLE SECTION OF WALL. MIN. 6' - 0" COORDINATE EXACT LOCATION WITH OWNER.
- 14. FIRE CAULK FULL HEIGHT AT OUTSIDE WALL. BOTH SIDES.
- 15. 5" CLOSED GRIP HANDLE ATTACHED TO SOLID WOOD BLOCKING.
- 16. METAL PIPE BOLLARD. TYPICAL ALL OVERHEAD DOORS. REFER TO CIVIL DRAWINGS FOR LOCATION.

**APP Architecture**  
creative focused design

615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8898 F 937.832.3696  
www.app-arch.com



TALAWANDA SCHOOL DISTRICT

**MAINTENANCE AND BUS GARAGE**

5301 University Park Blvd.  
City of Oxford, Ohio 45056

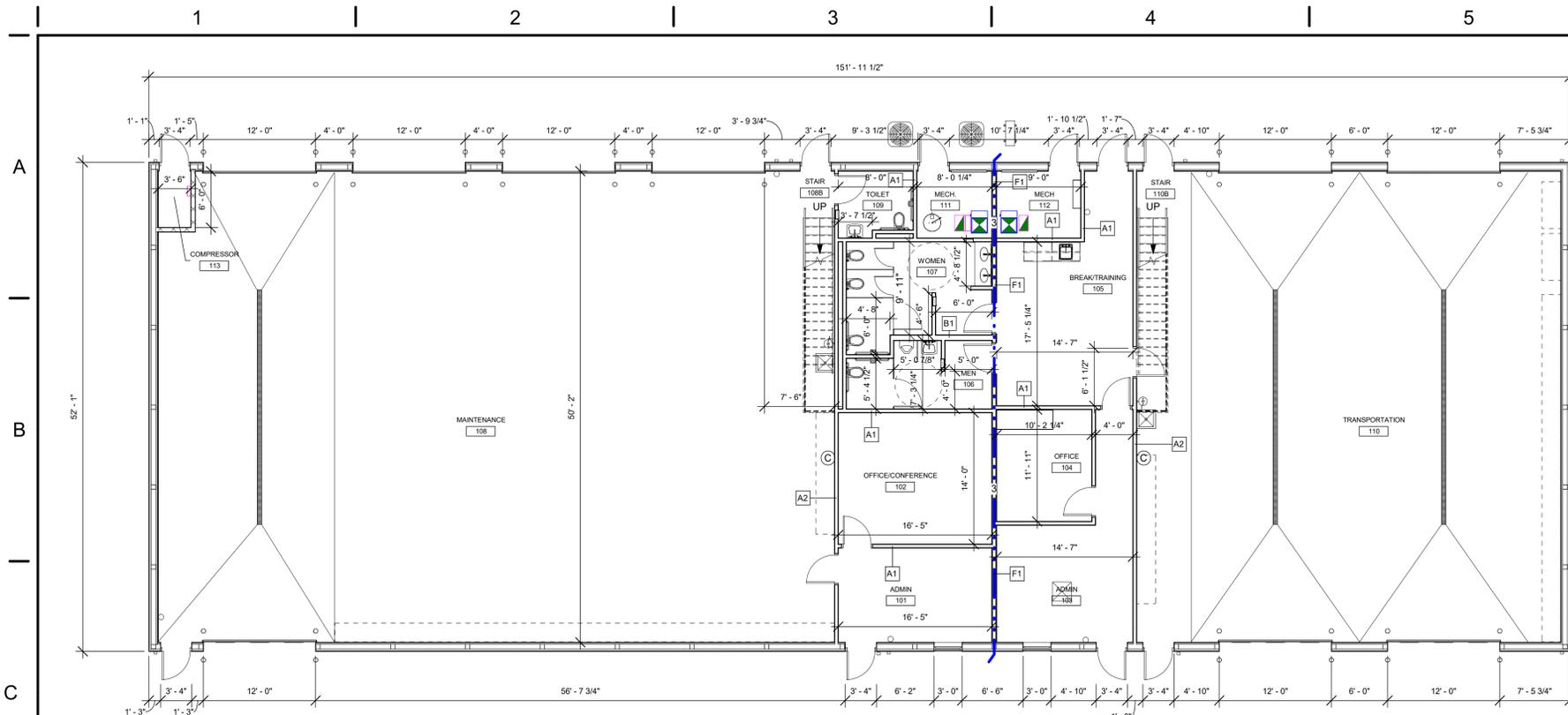
ISSUE

| NO.        | DATE       | DESCRIPTION             |
|------------|------------|-------------------------|
| 04/08/2022 | 04/08/2022 | PERMIT AND CONSTRUCTION |

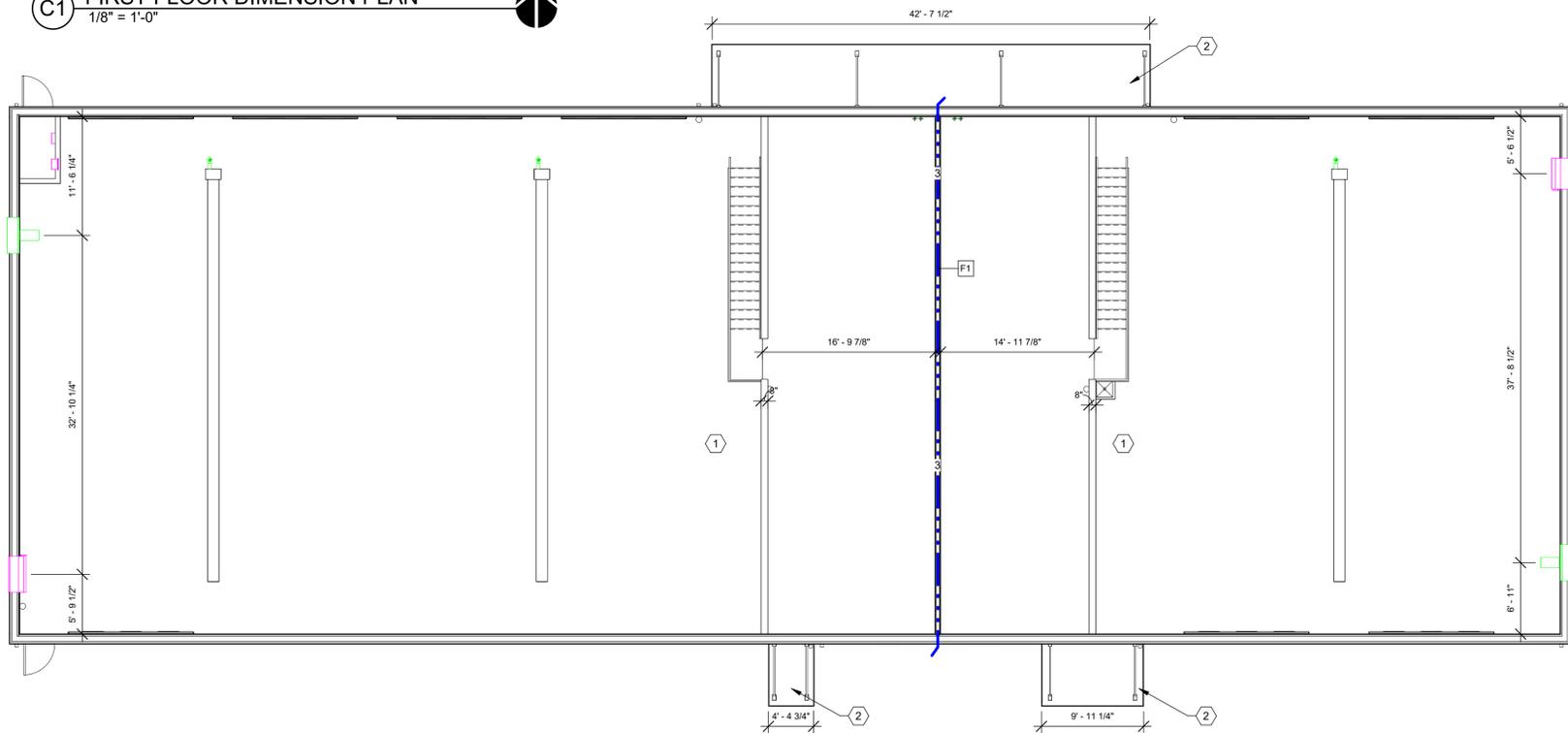
|   |            |
|---|------------|
| DATE                                      | 04/08/2022 |
| JOB NO.                                   | 3977.00    |
| DRAWN                                     | MLG        |
| CHECKED                                   | RFW        |
| COPYRIGHT © 2022 - App Architecture, Inc. |            |

TITLE  
REFERENCE PLANS

SHEET NO.  
**A1.1**



**C1** FIRST FLOOR DIMENSION PLAN  
1/8" = 1'-0"



**F1** MEZZANINE REFERENCE PLAN  
1/8" = 1'-0"

**CONSTRUCTION NOTES**

(00) INDICATES CONSTRUCTION NOTE.

- 42" HIGH METAL STUD WALL WITH 5/8" HIGH ABUSE GYPSUM BOARD AND TREATED 1X8 WOOD CAP WITH RADIUS EDGES.
- CENTER OVERHANG ON DOORS.

**GENERAL NOTES**

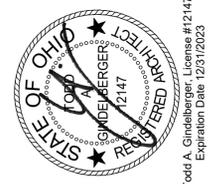
- ALL INTERIOR PARTITIONS ARE A1 U.N.O.
- PROVIDE FIRE RETARDANT WOOD BLOCKING BEHIND ALL WALL HUNG ACCESSORIES, CABINETS, FURNISHINGS, HANDRAILS U.N.O.
- FOR SIDEWALKS AND EXTERIOR PADS REFER TO CIVIL PLANS.

**INTERIOR WALL TYPES SCHEDULE**

| TYPE | BASE WALL WIDTH | FIRE RATING<br>TESTING AGENCY,<br>ASSEMBLY NO. | DETAILS & NOTES  |
|------|-----------------|--|--|
| A1   | 3 5/8"          | -  | <p>DECK — SLIP- HEAD CONNECTION AT HEAD<br/>— 5/8" TYPE "X" GYPSUM BOARD<br/>CEILING — 3 5/8" STEEL STUDS @ 16" O.C. SEE STRUCTURAL FOR GAUGE.<br/>— 3 1/2" SOUND ATTENUATION<br/>FLOOR — 5/8" TYPE "X" GYPSUM BOARD</p>                   |
| A2   | 3 5/8"          | -  | <p>DECK — SLIP- HEAD CONNECTION AT HEAD<br/>— 5/8" TYPE "X" GYPSUM BOARD<br/>CEILING — 3 5/8" STEEL STUDS @ 16" O.C. SEE STRUCTURAL FOR GAUGE.<br/>— 3 1/2" BATT INSULATION<br/>FLOOR — 5/8" TYPE "X" GYPSUM BOARD</p>                     |
| B1   | 6"              | -  | <p>DECK — SLIP- HEAD CONNECTION AT HEAD<br/>— 5/8" TYPE "X" GYPSUM BOARD<br/>CEILING — 6" STEEL STUDS @ 16" O.C.<br/>— 3 1/2" SOUND ATTENUATION<br/>FLOOR — 5/8" TYPE "X" GYPSUM BOARD</p>   |
| F1   | 3 5/8"          | 3 HR FIRE BARRIER<br>UL U490                   | <p>ROOF — SLIP- HEAD CONNECTION AT HEAD<br/>— (2) LAYERS 3/4" TYPE "X" GYPSUM BOARD<br/>CEILING — 3 1/2" STEEL STUDS @ 16" O.C. SEE STRUCTURAL FOR GAUGE.<br/>— 3" SOUND ATTENUATION<br/>FLOOR — (2) LAYERS 3/4" TYPE "X" GYPSUM BOARD</p> |

**APP Architecture**  
creative focused design

615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8898 F 937.832.3696  
www.app-arch.com



TALAWANDA SCHOOL DISTRICT

**MAINTENANCE AND BUS GARAGE**

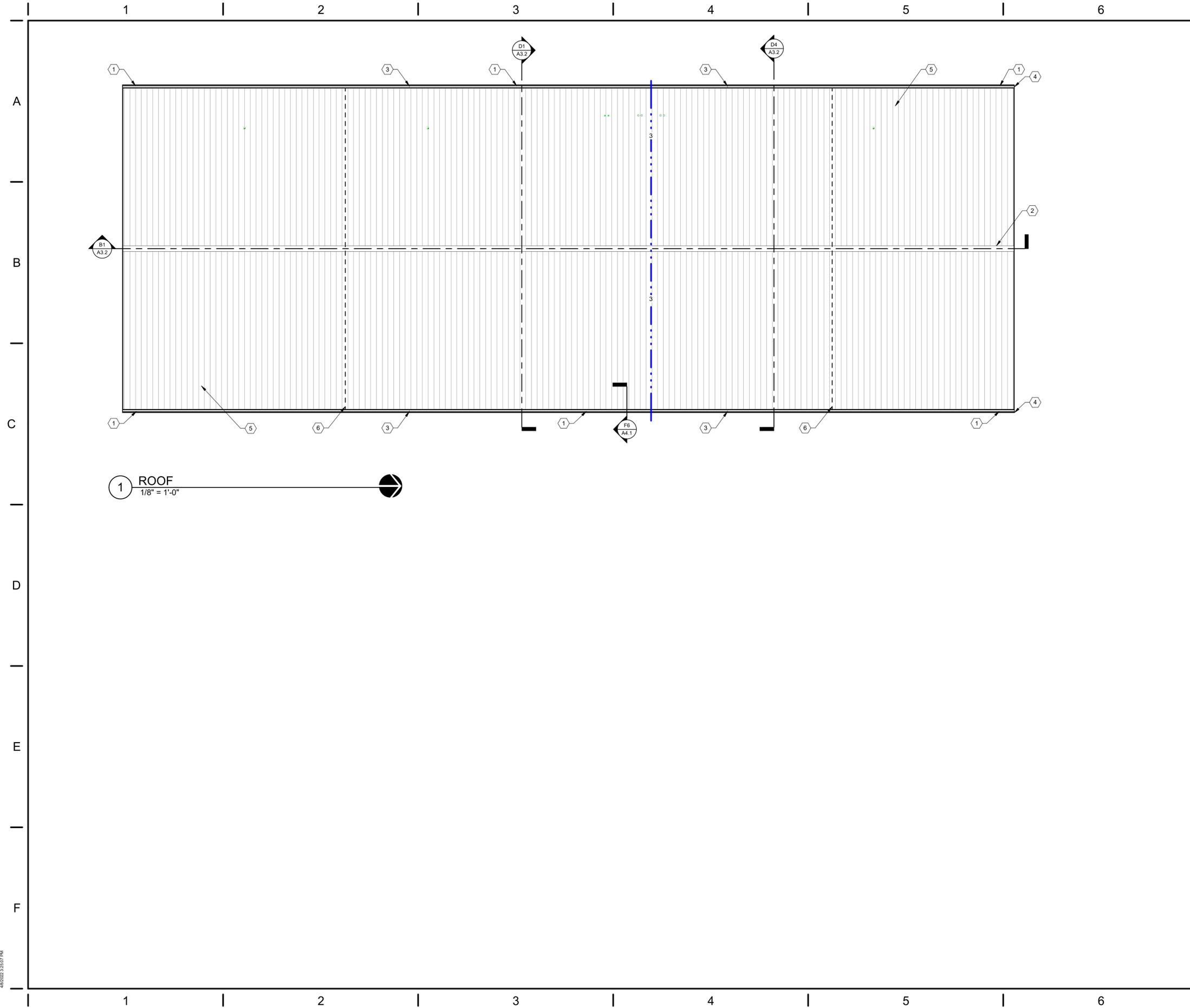
5301 University Park Blvd.  
City of Oxford, Ohio 45056

ISSUE

| NO.        | DATE       | DESCRIPTION             |
|------------|------------|-------------------------|
| 04/08/2022 | 04/08/2022 | PERMIT AND CONSTRUCTION |

|   |                       |
|---|-----------------------|
| DATE                                      | 04/08/2022            |
| JOB NO.                                   | 3977.00               |
| DRAWN                                     | MLG                   |
| CHECKED                                   | RFW                   |
| COPYRIGHT © 2022 - App Architecture, Inc. |                       |
| TITLE                                     | <b>DIMENSION PLAN</b> |

SHEET NO.  
**A1.2**



### CONSTRUCTION NOTES

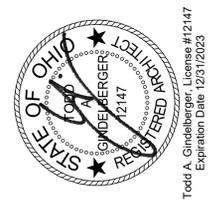
- 00 INDICATES CONSTRUCTION NOTE.
1. DOWNSPOUT LOCATION WITH 24" DOWNSPOUT ADAPTOR. BASIS OF DESIGN: PIEDMONT MANUFACTURING, PIEDMONT PIPE DOWNSPOUT - MODEL SO. REFER TO SHEET A5.01 FOR DETAILS.
  2. CONTINUOUS RIDGE VENT. SEE B1/A5.1 FOR DETAILS.
  3. GUTTER EXPANSION JOINT - INSTALL PER LATEST EDITION OF SMACNA STANDARDS. GUTTER EXPANSION JOINTS SPACING NOT TO EXCEED 40 FT.
  4. 6" PREFINISHED ALUMINUM GUTTER.
  5. STANDING SEAM METAL ROOF - COLOR TO MATCH SCHOOL BUILDINGS.
  6. DRAFTSTOPPING. AREA BETWEEN NOT TO EXCEED 3000 SF.

### GENERAL NOTES

- COORDINATE ROOF PENETRATIONS WITH PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS.
- ALL PENETRATIONS THROUGH ROOF (I.E. VENTS, FLUTES, ETC.) SHALL BE PAINTED TO MATCH ROOF.

**APP Architecture**  
creative focused design

615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8898 F 937.832.3696  
www.app-arch.com



TALAWANDA SCHOOL DISTRICT

**MAINTENANCE AND BUS GARAGE**

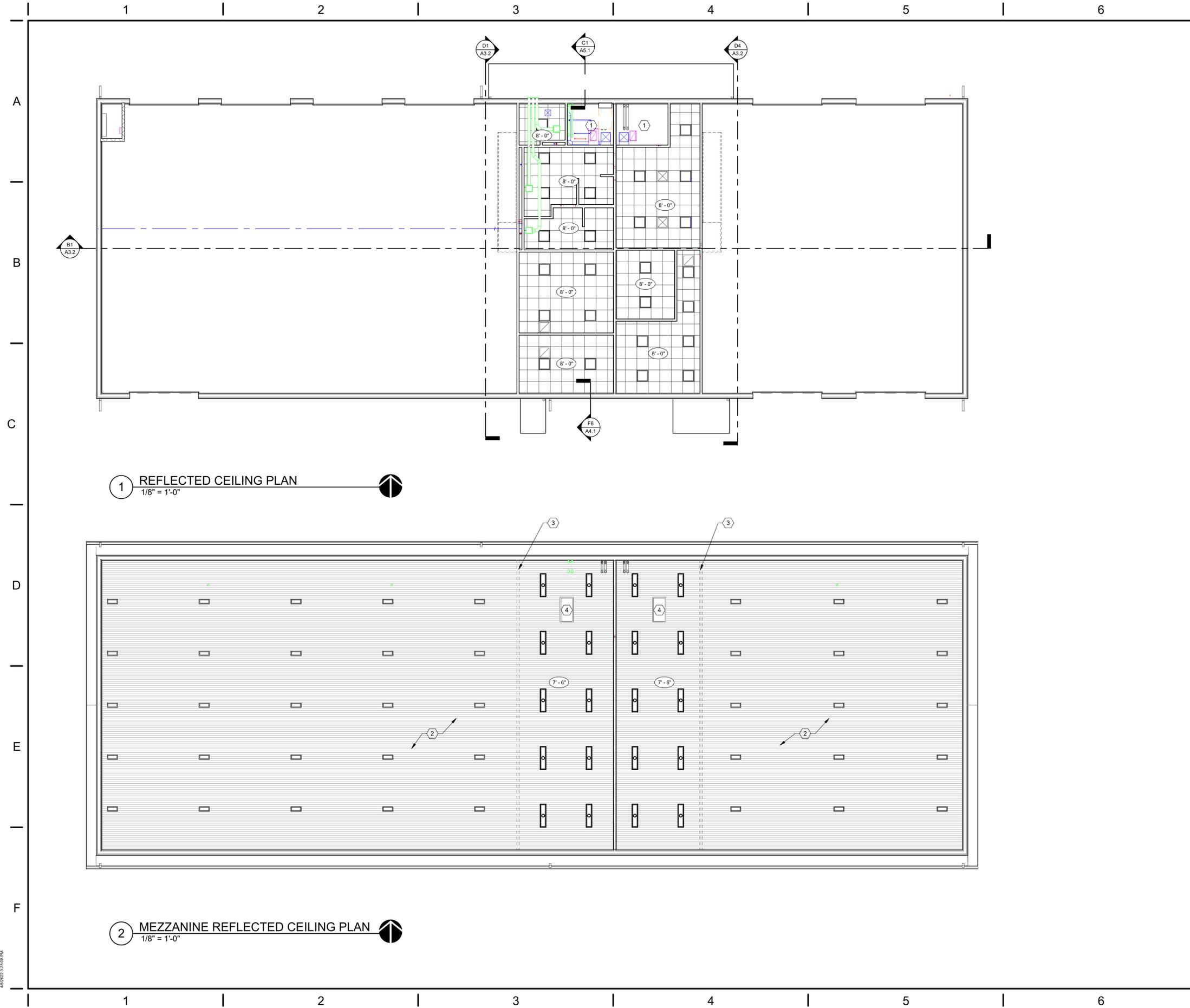
5301 University Park Blvd.  
City of Oxford, Ohio 45056

| ISSUE |            |                         |
|-------|------------|-------------------------|
| NO.   | DATE       | DESCRIPTION             |
|       | 04/08/2022 | PERMIT AND CONSTRUCTION |

|   |            |
|---|------------|
| DATE                                      | 04/08/2022 |
| JOB NO.                                   | 3977.00    |
| DRAWN                                     | MLG        |
| CHECKED                                   | RFW        |
| COPYRIGHT © 2022 - App Architecture, Inc. |            |

TITLE  
**ROOF PLAN**

SHEET NO.  
**A1.3**



1 REFLECTED CEILING PLAN  
1/8" = 1'-0"

2 MEZZANINE REFLECTED CEILING PLAN  
1/8" = 1'-0"

CONSTRUCTION NOTES

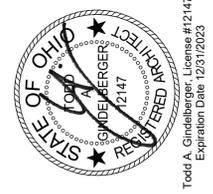
- 00 INDICATES CONSTRUCTION NOTE.
1. OPEN TO DECK ABOVE.
  2. METAL LINER CEILING PANELS.
  3. EXTENT OF MEZZANINE BELOW.
  4. ATTIC ACCESS PANEL.

GENERAL NOTES

- REFER TO ROOM FINISH SCHEDULE, MATERIALS LEGEND, AND SPECIFICATIONS FOR CEILING TYPES AND FINISHES.
- MEASURE VEILING AND LAYOUT GRIDS TO BALANCE BORDER WIDTHS AT OPPOSITE EDGES. BORDER TILES TO BE 3" MINIMUM U.N.O. INSTALL EDGE MOLDING AT PERIMETER U.N.O.
- ALL DEVICES INSTALLED IN THE COUSTIC PANEL ARE TO BE CENTERED IN THE TILE.
- CONTRACTOR TO BRING ANY CONFLICTS TO THE ARCHITECT'S ATTENTION PRIOR TO INSTALLATION.
- ALL MEP ITEMS SHOWN ARE FOR REFERENCE ONLY. REFER TO MEP DRAWINGS FOR AMOUNTS AND LOCATIONS.

**APP Architecture**  
creative focused design

615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8898 F 937.832.3696  
www.app-arch.com



TALAWANDA SCHOOL DISTRICT  
**MAINTENANCE AND BUS GARAGE**  
5301 University Park Blvd.  
City of Oxford, Ohio 45056

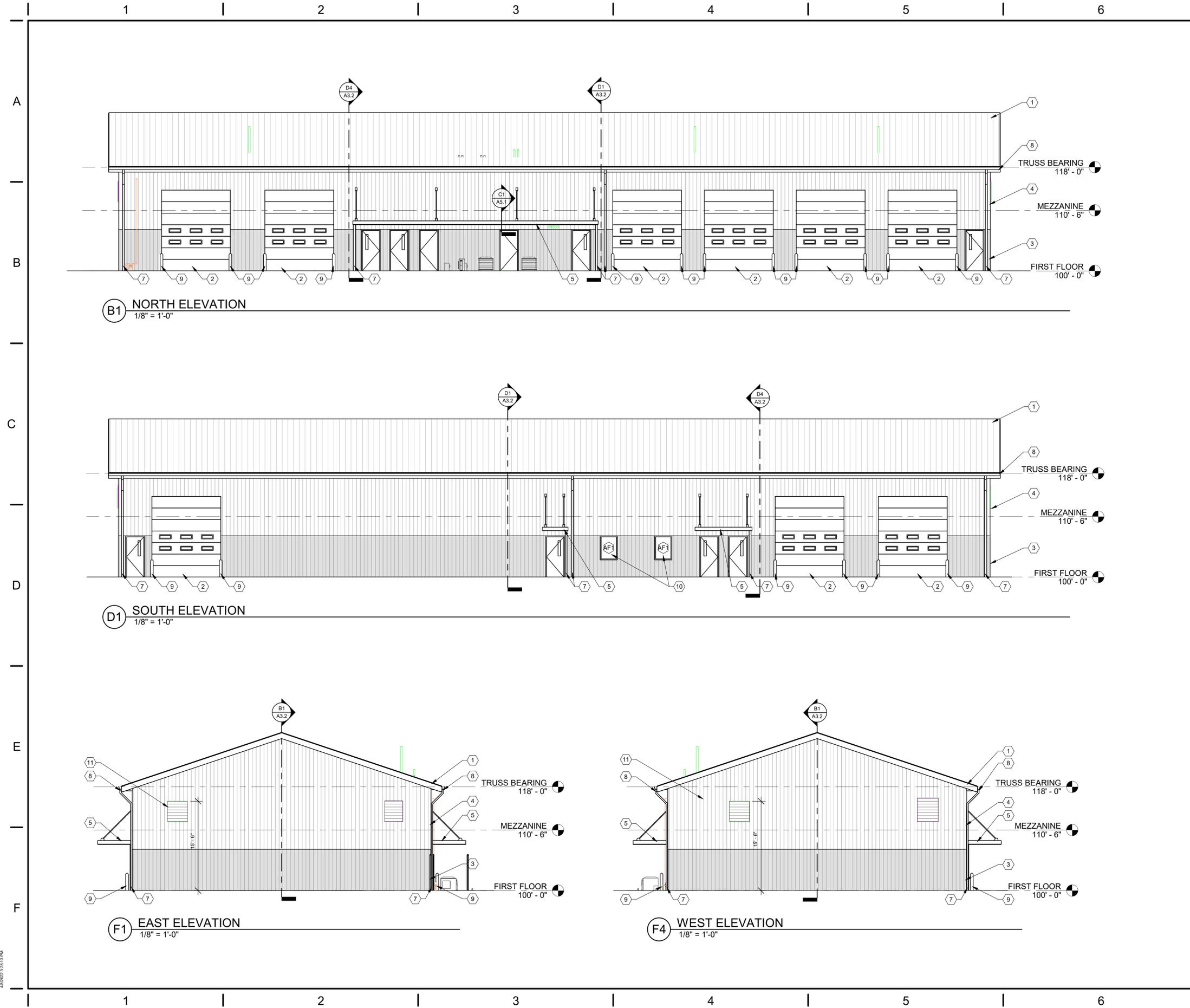
| ISSUE |            |                         |
|-------|------------|-------------------------|
| NO.   | DATE       | DESCRIPTION             |
|       | 04/08/2022 | PERMIT AND CONSTRUCTION |

|   |            |
|---|------------|
| DATE                                      | 04/08/2022 |
| JOB NO.                                   | 3977.00    |
| DRAWN                                     | MLG        |
| CHECKED                                   | RFW        |
| COPYRIGHT © 2022 - App Architecture, Inc. |            |

TITLE  
**REFLECTED CEILING PLAN**

SHEET NO.  
**A2.1**

4/8/2022 3:25:08 PM



**B1 NORTH ELEVATION**  
1/8" = 1'-0"

**D1 SOUTH ELEVATION**  
1/8" = 1'-0"

**F1 EAST ELEVATION**  
1/8" = 1'-0"

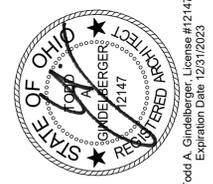
**F4 WEST ELEVATION**  
1/8" = 1'-0"

**CONSTRUCTION NOTES**

- 00 INDICATES CONSTRUCTION NOTE.
1. STANDING SEAM METAL ROOF. ICE AND WATER SHIELD BELOW. COLOR PANELS TO MATCH EXISTING SCHOOL.
  2. INSULATED OVERHEAD DOORS.
  3. TYPE 1 VERTICAL RIBBED METAL SIDING. ALIGN WITH TOP OF DOOR AND WINDOW FRAME. COLOR TBD.
  4. TYPE 2 VERTICAL RIBBED METAL SIDING. ALIGN WITH TOP OF DOOR AND WINDOW FRAME. COLOR TBD.
  5. ALUMINUM CANOPY. SEE SHEET A5.1 FOR DETAILS.
  6. LOUVER. REFER TO MECHANICAL DRAWINGS FOR DETAILS.
  7. DOWNSPOUT LOCATION WITH 24" DOWNSPOUT ADAPTOR. BASIS OF DESIGN: PIEDMONT MANUFACTURING. PIEDMONT PIPE DOWNSPOUT - MODEL SO. REFER TO SHEET A5.01 FOR DETAILS.
  8. 6" x 6" ALUMINUM GUTTER.
  9. PIPE BOLLARD. SEE SHEET A5.1 FOR DETAILS.
  10. INSULATED FIXED GLASS WINDOW. REFER TO A0.5 FOR DETAILS.
  11. METAL LOUVERS. COLOR TO MATCH SIDING. REFER TO MECHANICAL DRAWINGS.

**APP Architecture**  
creative focused design

615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8898 F 937.832.3696  
www.app-arch.com



TALAWANDA SCHOOL DISTRICT

**MAINTENANCE AND BUS GARAGE**

5301 University Park Blvd.  
City of Oxford, Ohio 45056

ISSUE

| NO.        | DATE                    | DESCRIPTION |
|------------|-------------------------|-------------|
| 04/08/2022 | PERMIT AND CONSTRUCTION |             |

|   |            |
|---|------------|
| DATE                                      | 04/08/2022 |
| JOB NO.                                   | 3977.00    |
| DRAWN                                     | MLG        |
| CHECKED                                   | RFW        |
| COPYRIGHT © 2022 - App Architecture, Inc. |            |
| TITLE                                     |            |
| <b>EXTERIOR ELEVATIONS</b>                |            |

SHEET NO.

**A3.1**

4/8/2022 3:25:13 PM

1 | 2 | 3 | 4 | 5 | 6 | 7

A

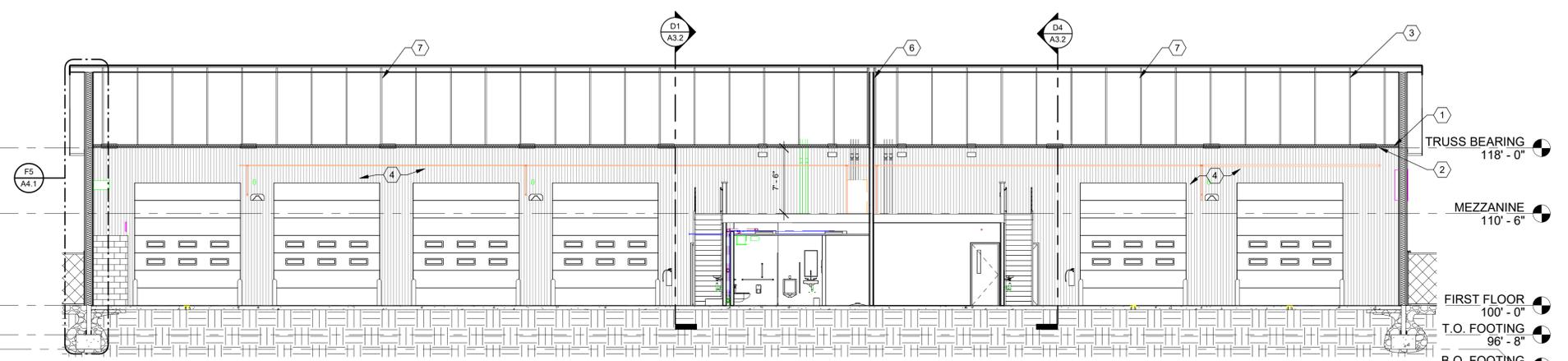
B

C

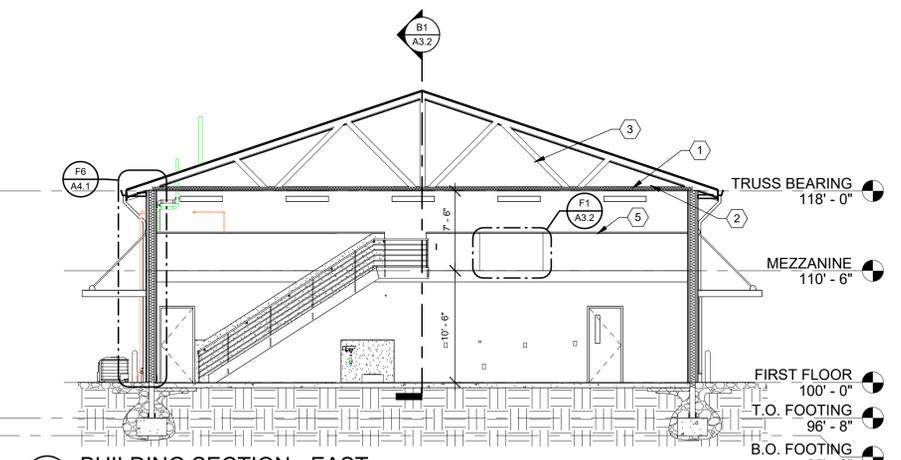
D

E

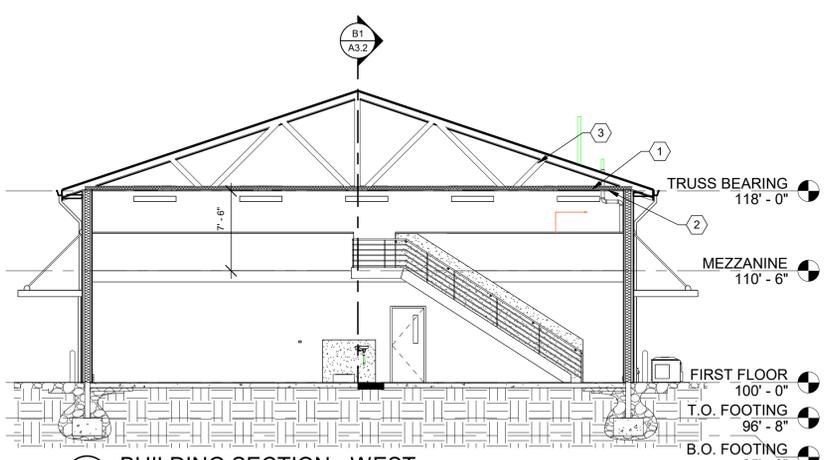
F



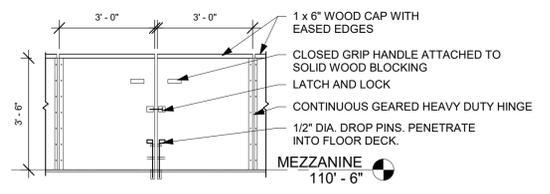
**B1** BUILDING SECTION - NORTH  
1/8" = 1'-0"



**D1** BUILDING SECTION - EAST  
1/8" = 1'-0"



**D4** BUILDING SECTION - WEST  
1/8" = 1'-0"



**F1** SWING WALL ELEVATION  
3/8" = 1'-0"

**CONSTRUCTION NOTES**

- 00 INDICATES CONSTRUCTION NOTE.
1. LOOSE FILL GLASS FIBER INSULATION (R-45) ALONG BOTTOM CHORD OF TRUSSES.
  2. METAL LINER PANELS ATTACHED TO BOTTOM CHORD OF TRUSSES.
  3. WOOD TRUSS 4' - 0" O.C. SHOWN FOR REFERENCE ONLY. REFER TO STRUCTURAL DRAWINGS.
  4. METAL LINER PANEL AT INSIDE WALLS.
  5. REMOVABLE SECTION OF WALL.
  6. 2 LAYERS OF GYPSUM TYPE "X" INSTALLED EACH SIDE FO FIRE BARRIER BEFORE ATTACHING DOUBLE STRUCTURAL TRUSS.
  7. DRAFTSTOPPING. AREA BETWEEN NOT TO EXCEED 3000 SF.

**APP Architecture**  
creative focused design  
615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8898 F 937.832.3696  
www.app-arch.com

NOT FOR CONSTRUCTION

TALAWANDA SCHOOL DISTRICT  
**MAINTENANCE AND BUS GARAGE**  
5302 University Park Blvd.  
City of Oxford, Ohio 45056

ISSUE

| NO. | DATE       | DESCRIPTION |
|-----|------------|-------------|
|     | 04/08/2022 | FOR BIDDING |

**GENERAL NOTES**

- TRUSSES SHOWN FOR REFERENCE ONLY. REFER TO STRUCTURAL DRAWINGS FOR FRAMING DETAILS.
- FOR SIDEWALKS AND EXTERIOR PADS REFER TO CIVIL SITE PLAN.

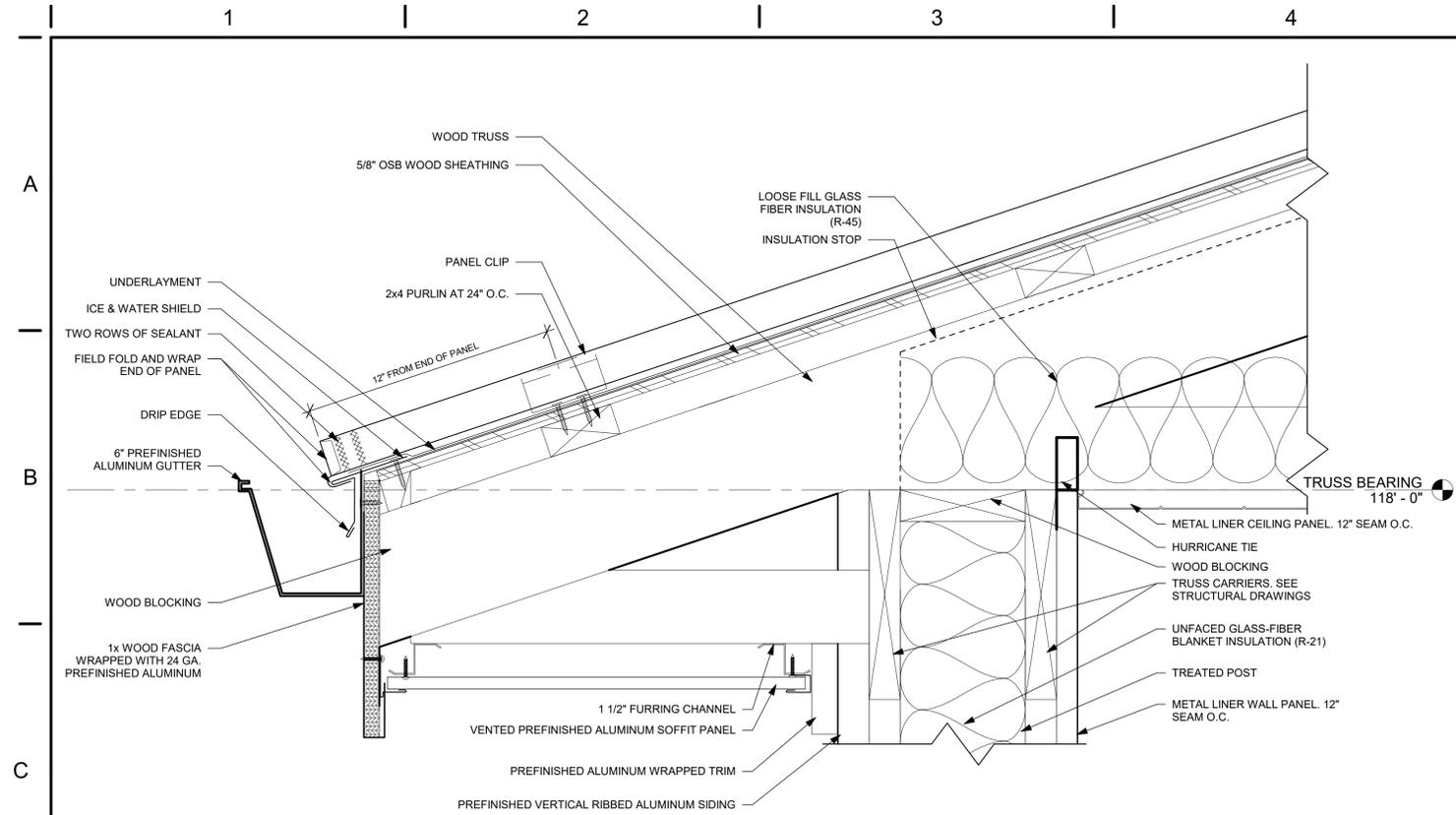
|   |            |
|---|------------|
| DATE                                      | 04/08/2022 |
| JOB NO.                                   | 3977.00    |
| DRAWN                                     | MLG        |
| CHECKED                                   | RFW        |
| COPYRIGHT © 2022 - App Architecture, Inc. |            |

TITLE  
**BUILDING SECTIONS**

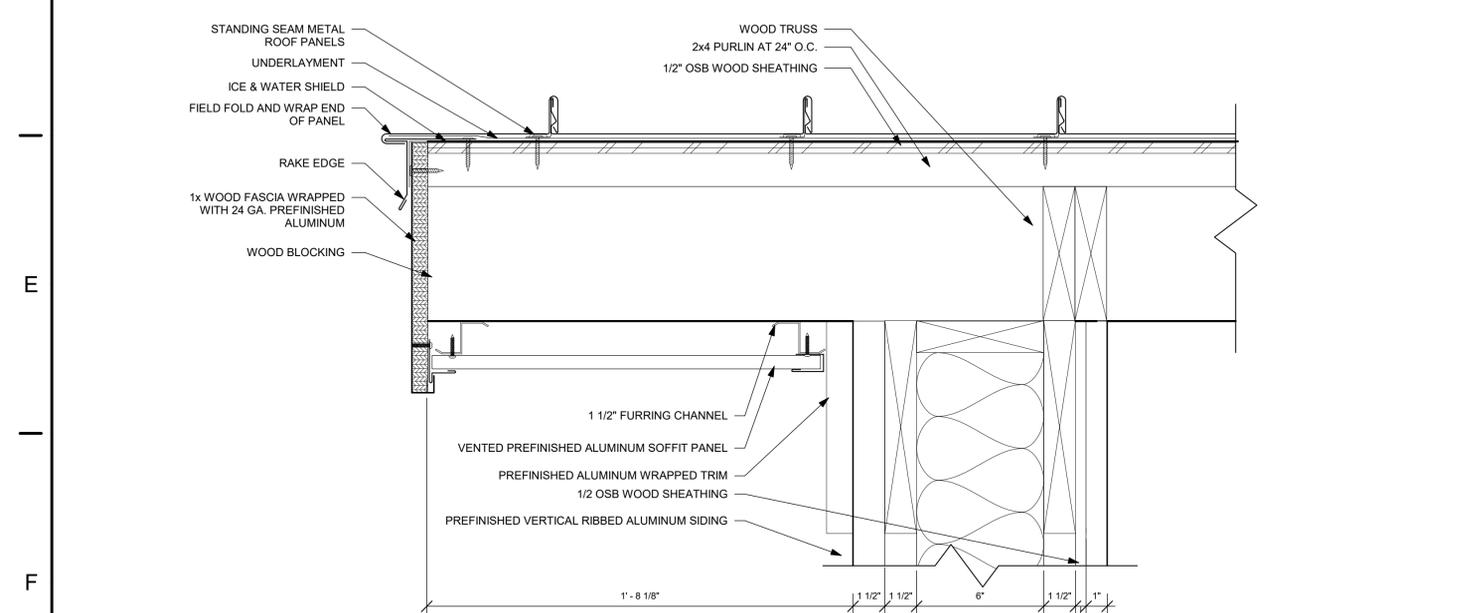
SHEET NO.  
**A3.2**

07/20/2022 9:01:03 AM

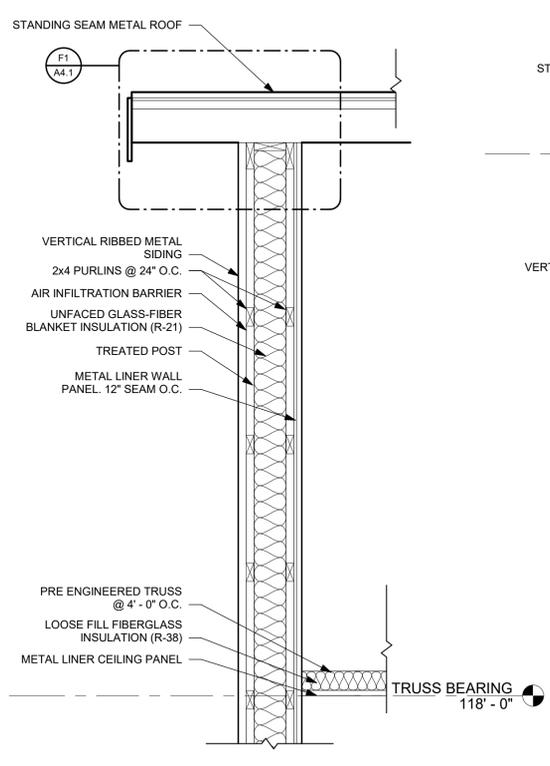
1 | 2 | 3 | 4 | 5 | 6 | 7



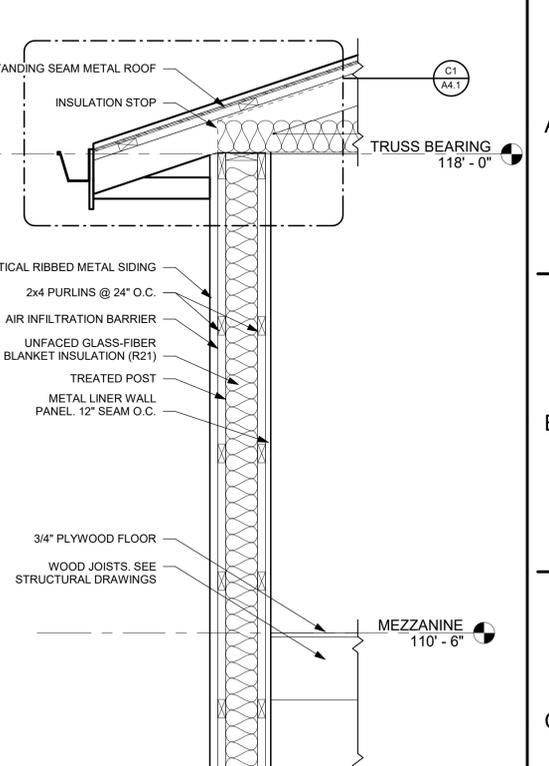
**C1** ROOF EDGE DETAIL - GABLE  
3" = 1'-0"



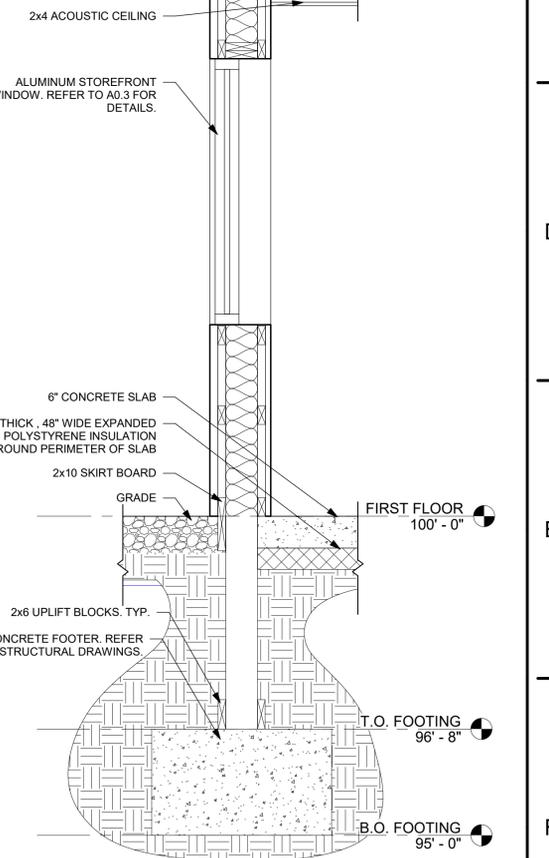
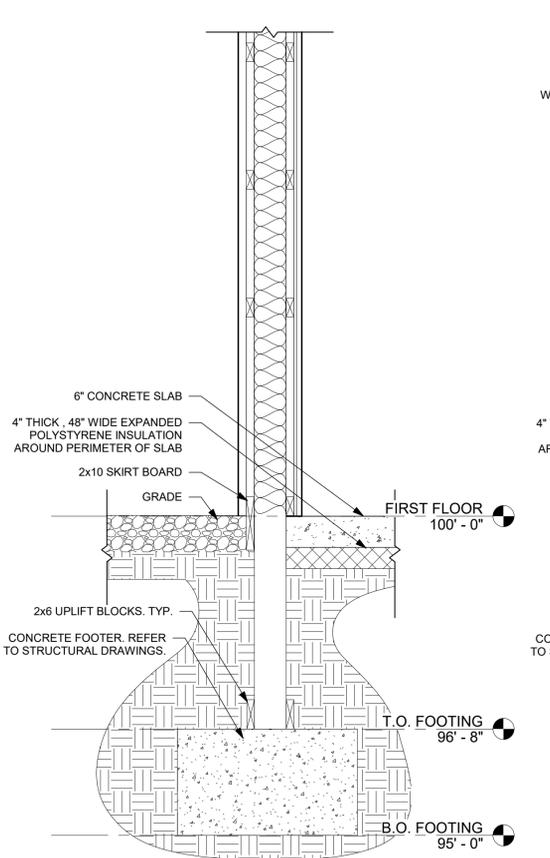
**F1** ROOF EDGE DETAIL - RAKE  
3" = 1'-0"



**F5** WALL SECTION  
3/4" = 1'-0"



**F6** WALL SECTION  
3/4" = 1'-0"



ISSUE

| NO. | DATE       | DESCRIPTION |
|-----|------------|-------------|
|     | 04/08/2022 | FOR BIDDING |

|   |            |
|---|------------|
| DATE                                      | 04/08/2022 |
| JOB NO.                                   | 3977.00    |
| DRAWN                                     | MLG        |
| CHECKED                                   | RFW        |
| COPYRIGHT © 2022 - App Architecture, Inc. |            |

TITLE  
**WALL SECTIONS**

SHEET NO.

**A4.1**

07/2022 9.0027 AM

1 | 2 | 3 | 4 | 5 | 6 | 7

A

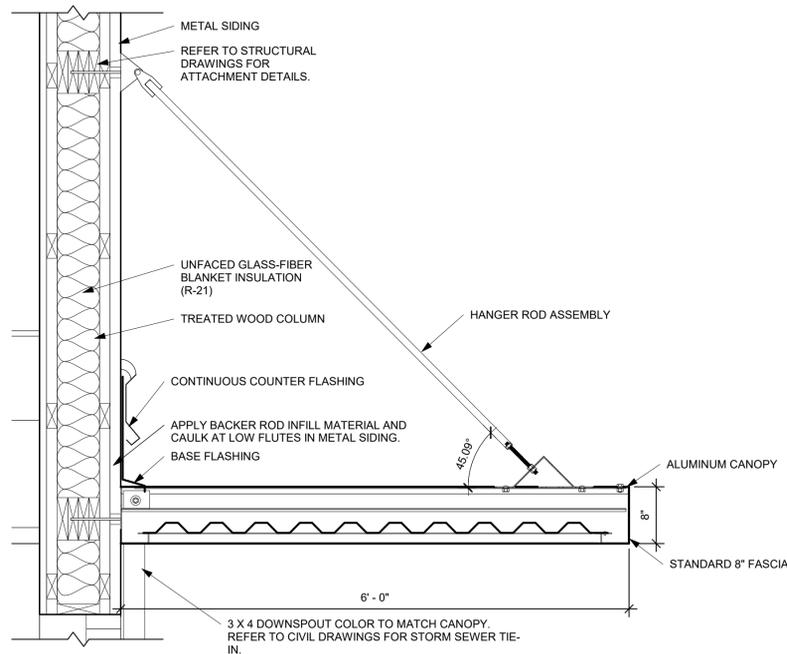
B

C

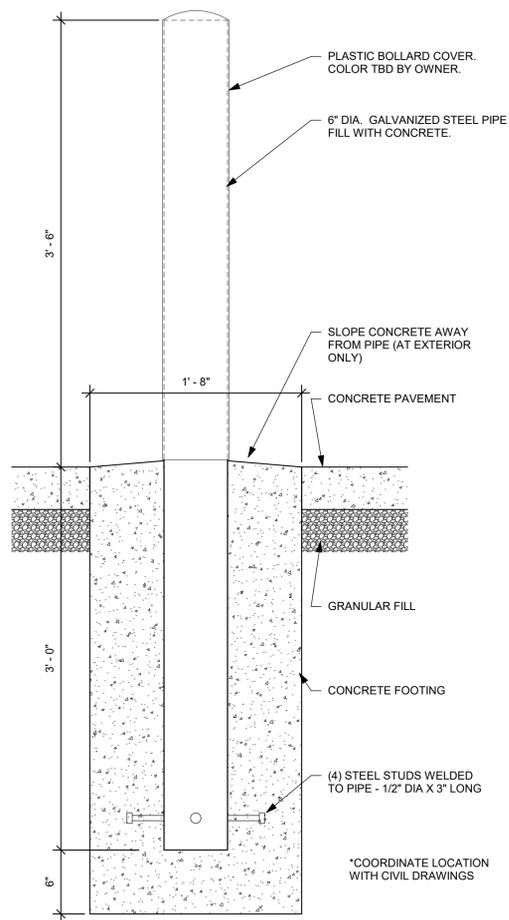
D

E

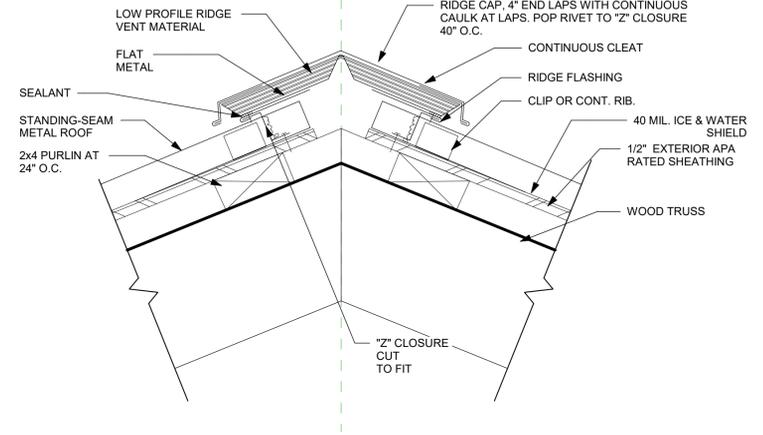
F



**C1** AWNING SECTION DETAIL  
1" = 1'-0"

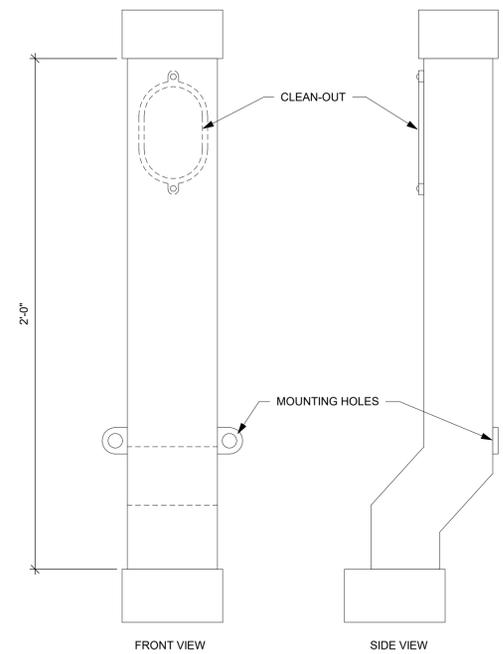


**F1** PIPE BOLLARD DETAIL  
1 1/2" = 1'-0"



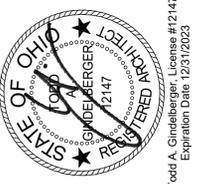
**B1** RIDGE DETAIL  
3" = 1'-0"

BASIS OF DESIGN: PIEDMONT MANUFACTURING, PIEDMONT PIPE DOWNSPUT - MODEL SO. OFFSETS AND SIZING TO BE COORDINATED WITH DOWNSPOUTS AND STORM PIPING.



**F6** DOWNSPOUT ADAPTOR  
3" = 1'-0"

**APP Architecture**  
creative focused design  
615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8898 F 937.832.3696  
www.app-arch.com



TALAWANDA SCHOOL DISTRICT  
**MAINTENANCE AND BUS GARAGE**  
5301 University Park Blvd.  
City of Oxford, Ohio 45056

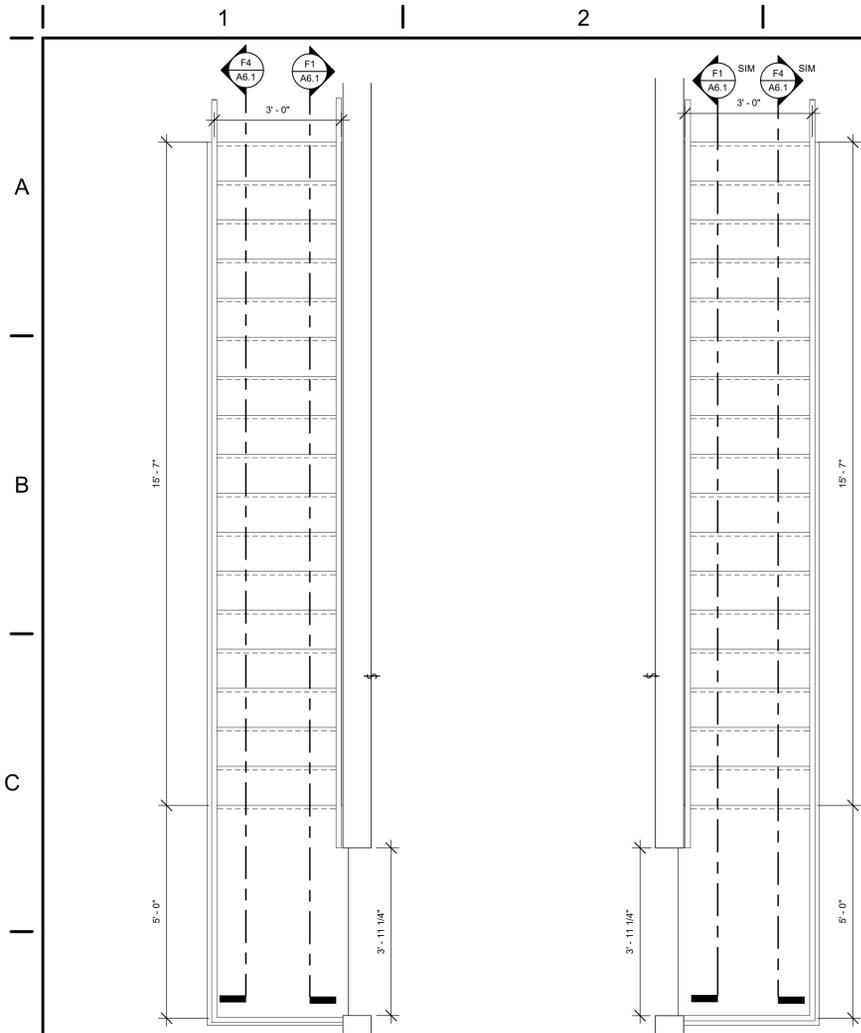
| ISSUE      |            |                         |
|------------|------------|-------------------------|
| NO.        | DATE       | DESCRIPTION             |
| 04/08/2022 | 04/08/2022 | PERMIT AND CONSTRUCTION |

|   |                  |
|---|------------------|
| DATE                                      | 04/08/2022       |
| JOB NO.                                   | 3977.00          |
| DRAWN                                     | MLG              |
| CHECKED                                   | RFW              |
| COPYRIGHT © 2022 - App Architecture, Inc. |                  |
| TITLE                                     | EXTERIOR DETAILS |

SHEET NO.  
**A5.1**

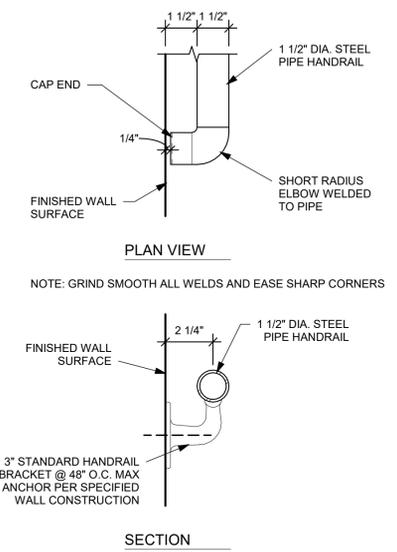
4/8/2022 3:25:19 PM

1 | 2 | 3 | 4 | 5 | 6 | 7



**D1 WEST STAIR ENLARGED PLAN**  
1/2" = 1'-0"

**D2 EAST STAIR ENLARGED PLAN**  
1/2" = 1'-0"



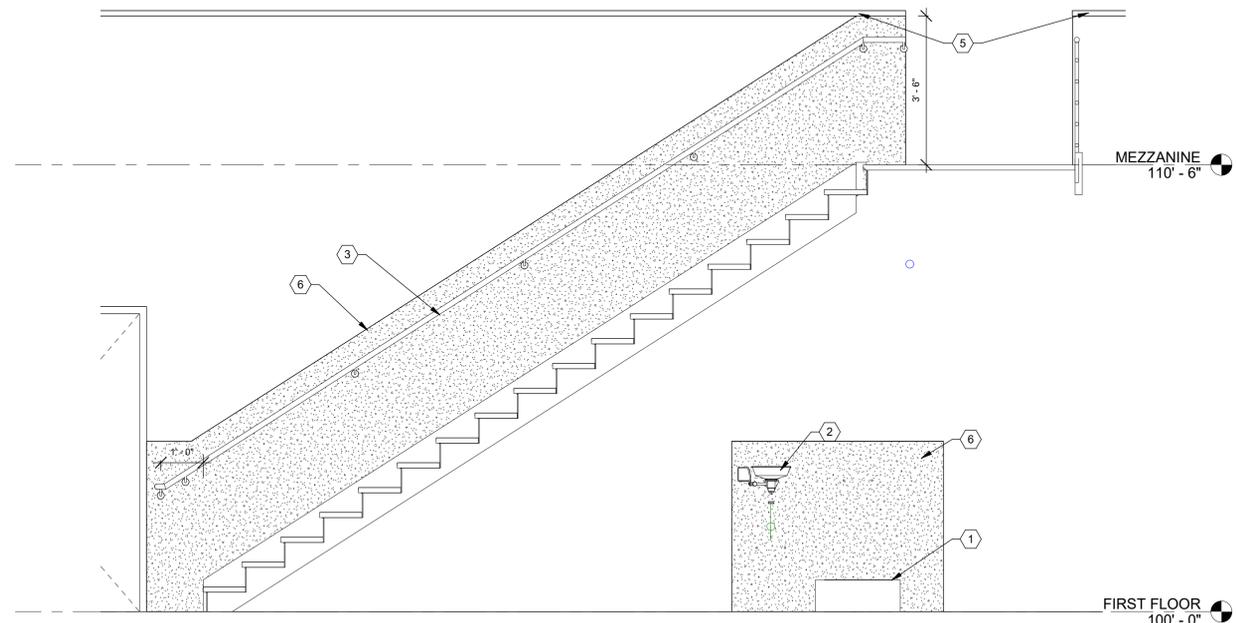
**C5 HAND RAIL DETAILS**  
3" = 1'-0"

**CONSTRUCTION NOTES**

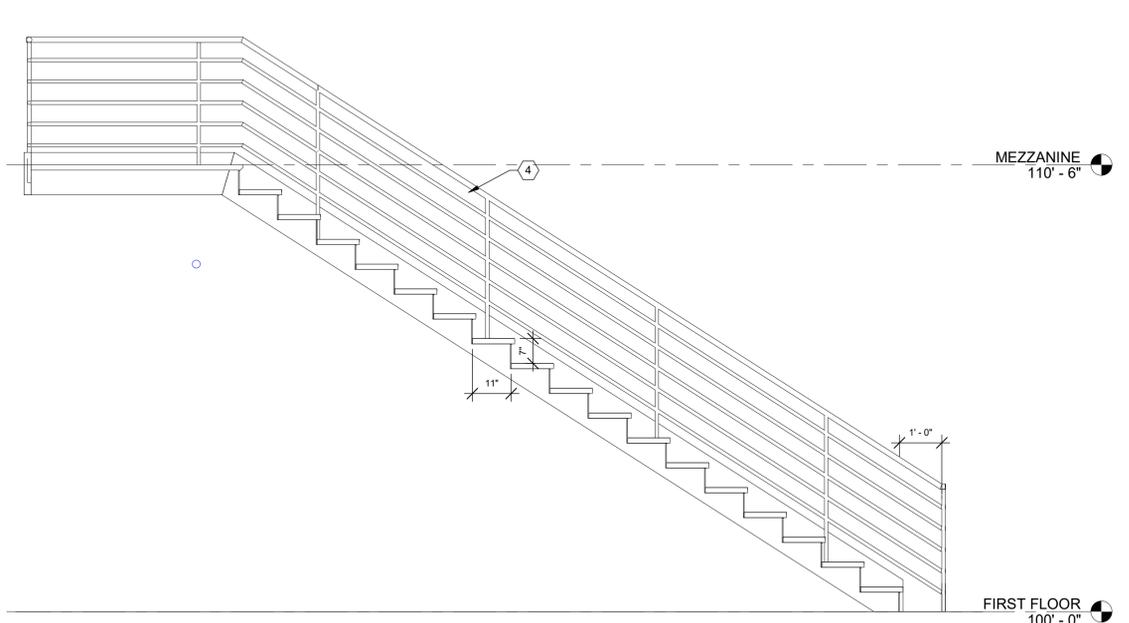
- INDICATES CONSTRUCTION NOTE.
- MOP SINK REFER TO PLUMBING DRAWINGS.
- EYE WASH STATION. REFER TO PLUMBING DRAWING.
- 1 1/2" PIPE HANDRAILING WITH WALL BRACKETS AT 4'-0" O.C. MAXIMUM TYPICAL. RETURN TO WALL AT ENDS.
- 1 1/2" PIPE GUARD RAILING WITH 3/4" DIAMETER STEEL PICKETS. SPACING BETWEEN PICKETS < 4 3/4" O.C. 1 1/2" BOTTOM RAIL < 4 3/4" O.C. ABOVE FINISHED FLOOR.
- 42" HIGH WALL WITH 6" WOOD CAP WITH RADIUS EDGES.
- VINYL WALL PROTECTION 48" ABOVE FINISHED FLOOR AND FINISHED STAIR. REFER TO FINISH SCHEDULE.
- STAIR PAN. REFER TO STRUCTURAL DRAWINGS FOR TYPE AND CONSTRUCTION.

**GENERAL NOTES**

- RADIUS/ GRIND/ EASE CORNERS AND SURFACES SMOOTH ON RAILS, POSTS, WELDS, AND CONNECTORS.
- ALL RAILS AND STRUCTURE SHALL BE EPOXY PAINTED.
- WHEN SIMILAR, REVERSE SECTIONS AND DETAILS.



**F1 TYPICAL STAIR WALL SECTION**  
1/2" = 1'-0"



**F4 TYPICAL STAIR SECTION - SUPPORT**  
1/2" = 1'-0"

**APP Architecture**  
creative focused design

615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8698 F 937.832.3696  
www.app-arch.com

**STATE OF OHIO**  
TODD A. GINDEBERGER  
REGISTERED ARCHITECT  
LICENSE # 2147  
Expiration Date 12/31/2023

TALAWANDA SCHOOL DISTRICT

**MAINTENANCE AND BUS GARAGE**

5301 University Park Blvd.  
City of Oxford, Ohio 45056

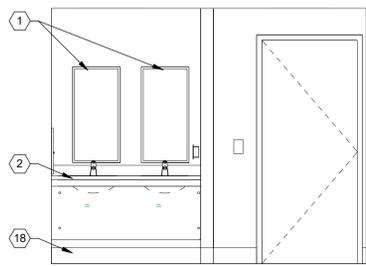
ISSUE

| NO.        | DATE       | DESCRIPTION             |
|------------|------------|-------------------------|
| 04/08/2022 | 04/08/2022 | PERMIT AND CONSTRUCTION |

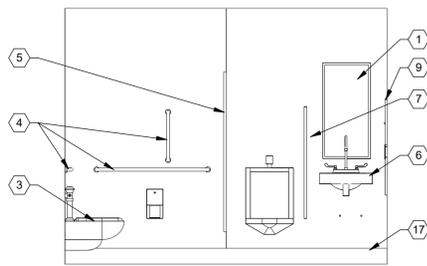
|   |                      |
|---|----------------------|
| DATE                                      | 04/08/2022           |
| JOB NO.                                   | 3977.00              |
| DRAWN                                     | MLG                  |
| CHECKED                                   | RFW                  |
| COPYRIGHT © 2022 - App Architecture, Inc. |                      |
| TITLE                                     | VERTICAL CIRCULATION |

SHEET NO.  
**A6.1**

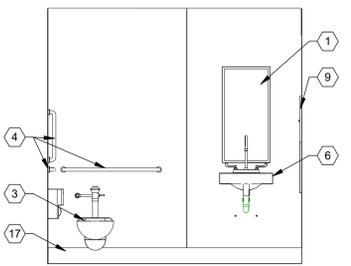
4/8/2022 3:25:21 PM



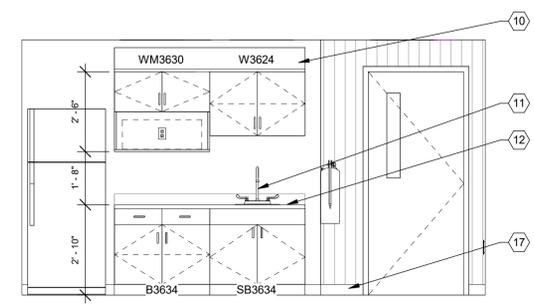
**B1 WOMEN'S TLT ROOM ELEVATION**  
3/8" = 1'-0"



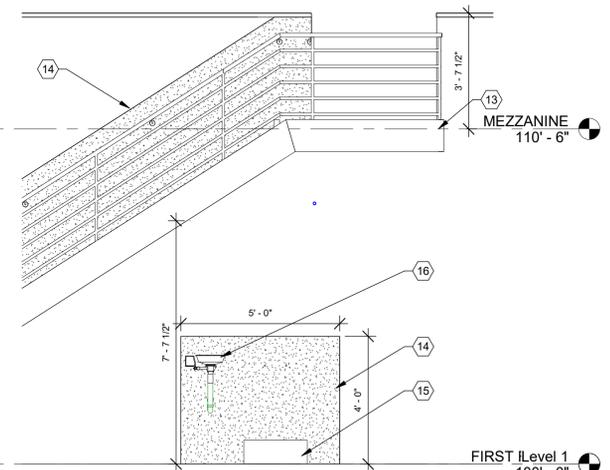
**B2 MEN'S TLT ROOM ELEVATION**  
3/8" = 1'-0"



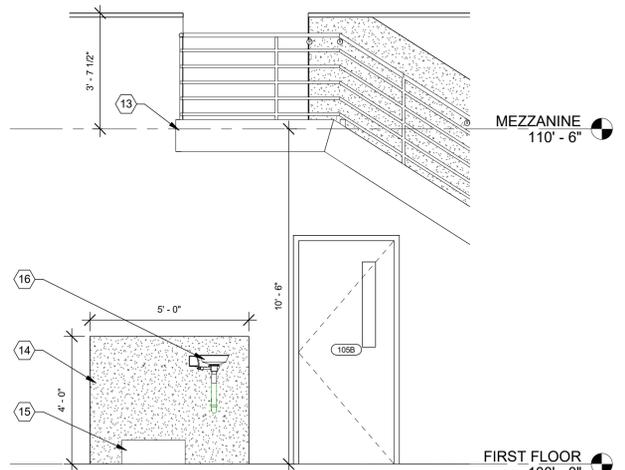
**B4 UNISEX TLT ROOM ELEVATION**  
3/8" = 1'-0"



**D1 BREAK ROOM ELEVATION**  
3/8" = 1'-0"



**F1 WEST MOP SINK ELEVATION**  
3/8" = 1'-0"



**F3 EAST MOP SINK ELEVATION**  
3/8" = 1'-0"

**CONSTRUCTION NOTES**

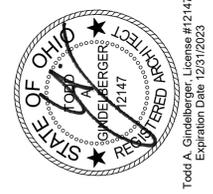
- 00) INDICATES CONSTRUCTION NOTE.
- 24" x 30" MIRROR
  - ACCESSIBLE SLOPED BASE SINK WITH INTEGRAL BOWL. REFER TO A8.1 FOR DETAILS.
  - WALL HUNG TOILET. REFER TO PLUMBING DRAWINGS.
  - ACCESSIBLE GRAB BARS. REFER TO A0.1 FOR HEIGHT AND CLEARANCES.
  - TOILET PARTITION.
  - WALL HUNG SINK. REFER TO PLUMBING DRAWINGS.
  - URINAL SCREEN.
  - SOAP DISPENSER.
  - SEMI RECESSED PAPER TOWEL DISPENSER. C-FOLD.
  - PLASTIC LAMINATE SLOPED TOP.
  - UNDERMOUNT SINK. SEE PLUMBING DRAWINGS FOR DETAILS.
  - SOLID SURFACE COUNTERTOP.
  - STAIRS. REFER TO A6.1 FOR DETAILS.
  - VINYL WALL PROTECTION.
  - MOP SINK. REFER TO PLUMBING DRAWINGS.
  - EYE WASH STATION. REFER TO PLUMBING DRAWINGS.
  - 6" RUBBER BASE

**GENERAL NOTES**

- FOR CASEWORK DETAILS REFER TO SHEET A8.1
- ALL BASE AND WALL CABINETS (PL-1). U.N.O.
- INSTALL SOLID WOOD (FIRE TREATED) BLOCKING IN WALLS BEHIND WALL-MOUNTED ITEMS INCLUDING CASEWORK, RAILINGS, TOILET ACCESSORIES.
- REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL RECEPTACLE LOCATIONS.
- ALL COUNTERTOPS 25" DEEP U.N.O.

**APP Architecture**  
creative focused design

615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8898 F 937.832.3696  
www.app-arch.com



TALAWANDA SCHOOL DISTRICT

**MAINTENANCE AND BUS GARAGE**

5301 University Park Blvd.  
City of Oxford, Ohio 45056

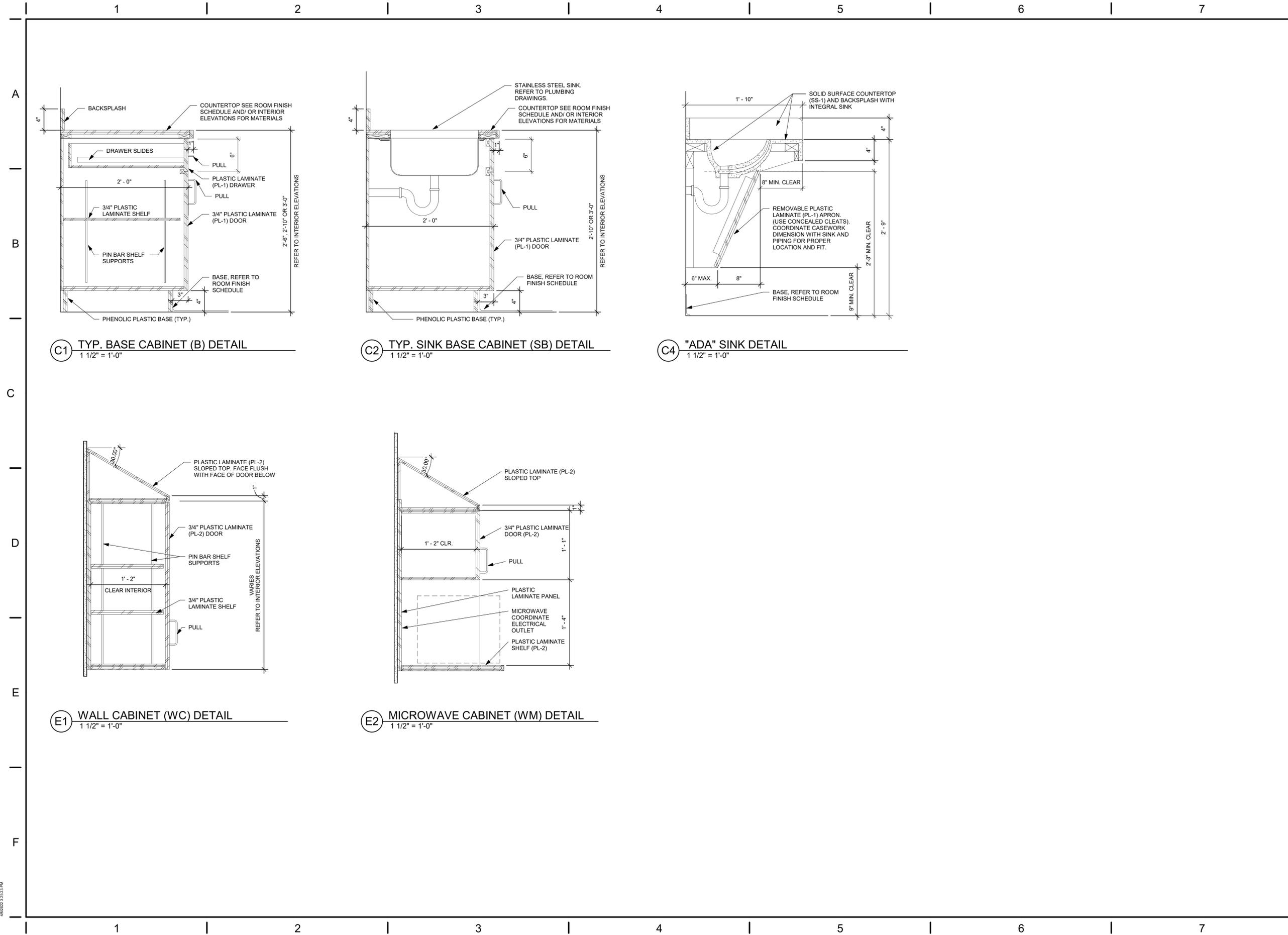
| ISSUE |            |                         |
|-------|------------|-------------------------|
| NO.   | DATE       | DESCRIPTION             |
|       | 04/08/2022 | PERMIT AND CONSTRUCTION |

|   |            |
|---|------------|
| DATE                                      | 04/08/2022 |
| JOB NO.                                   | 3977.00    |
| DRAWN                                     | MLG        |
| CHECKED                                   | RFW        |
| COPYRIGHT © 2022 - App Architecture, Inc. |            |
| TITLE                                     |            |
| <b>INTERIOR ELEVATIONS</b>                |            |

SHEET NO.

**A7.1**

4/8/2022 3:25:23 PM



**C1** TYP. BASE CABINET (B) DETAIL  
1 1/2" = 1'-0"

**C2** TYP. SINK BASE CABINET (SB) DETAIL  
1 1/2" = 1'-0"

**C4** "ADA" SINK DETAIL  
1 1/2" = 1'-0"

**E1** WALL CABINET (WC) DETAIL  
1 1/2" = 1'-0"

**E2** MICROWAVE CABINET (WM) DETAIL  
1 1/2" = 1'-0"

ISSUE

| NO.        | DATE       | DESCRIPTION             |
|------------|------------|-------------------------|
| 04/08/2022 | 04/08/2022 | PERMIT AND CONSTRUCTION |

|   |            |
|---|------------|
| DATE                                      | 04/08/2022 |
| JOB NO.                                   | 3977.00    |
| DRAWN                                     | MLG        |
| CHECKED                                   | RFW        |
| COPYRIGHT © 2022 - App Architecture, Inc. |            |
| TITLE<br><b>CASEWORK DETAILS</b>          |            |

4/8/2022 3:25:23 PM

| 1   | 2   | 3                     | 4               | 5               | 6               | 7               |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
|---|---|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|-----------------|-------|----------|-----------------------|-----------|-------|----------|-----------------------|-----------|----------------|---------------|-----------|----|----------|----------|-----|----------|----------|-----|----------|----------|-----|----------|----------|---|----------|----------------------|-----------------------------|------|------------------------|------|---------------------------------------|--------------|--|------|---|-------|---|--------------------|--|-----------------------------------|------------------------------|-------|--|--|--------------------|-----|--|--|-------|--|--|-------|---|-----|-------|---|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|---|---|----|----|----|----|---|---|---|-----|----|----|--------------------|-----|--|--|-------|--|--|-------|---|-----|-------|---|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|---|---|----|----|----|----|---|---|---|----|----|----|--|
| <p><b>A. GENERAL:</b></p> <p>1. THE STRUCTURAL ENGINEER OF RECORD IS RESPONSIBLE FOR THE ADEQUACY OF THE STRUCTURAL DESIGN AS SHOWN IN THE CONTRACT DOCUMENTS WHICH DEPICT THE STRUCTURE IN ITS COMPLETED FORM. THE STRUCTURE IS DESIGNED TO BE CAPABLE OF WITHSTANDING CODE PRESCRIBED DESIGN FORCES AND FULLY STABLE WHEN THE STRUCTURE IS FULLY CONSTRUCTED (I.E., FULLY BUILT). IT IS SOLELY THE RESPONSIBILITY OF OTHERS TO DETERMINE ERECTION PROCEDURE AND SEQUENCE AS WELL AS TO PROVIDE FOR THE SAFETY OF THE STRUCTURE AND ITS COMPONENTS PARTS DURING ERECTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, SHEETING, TEMPORARY BRACING, GUYS, TIE DOWNS, OR DE-WATERING WHICH MIGHT BE NECESSARY. SUCH MATERIAL SHALL REMAIN THE CONTRACTOR'S PROPERTY AFTER THE COMPLETION OF THE PROJECT.</p> <p>2. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.</p> <p>3. ALL ELEVATIONS GIVEN ON THE STRUCTURAL DRAWINGS ARE BASED ON THE GROUND FLOOR DATUM OF 100'-0" (U.N.O.).</p> <p>4. SHOULD ANY OF THE DETAILED INSTRUCTIONS SHOWN ON THE PLANS CONFLICT WITH THE GENERAL STRUCTURAL NOTES, THE SPECIFICATIONS, OR WITH EACH OTHER, IT SHALL BE ASSUMED THAT THE STRICTEST PROVISION SHALL GOVERN AND A WRITTEN REQUEST FOR INFORMATION (RFI) SHALL BE SUBMITTED TO THE A/E. ADDITIONALLY, ALL ITEMS WHICH, IN THE OPINION OF THE CONTRACTOR, APPEAR TO BE DEFICIENCIES, OMISSIONS, OR AMBIGUITIES IN THE PLANS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE A/E. CONTRACTOR SHALL SUBMIT RFI PRIOR TO COMMENCING WITH AFFECTED WORK AND SHALL AWAIT THE A/E'S APPROVAL-TO-PROCEED PRIOR TO PERFORMING WORK.</p> <p>5. STRUCTURAL DRAWINGS ARE INTENDED TO BE USED WITH THE OTHER DRAWINGS RELEASED FOR THE PROJECT. CONTRACTOR TO COORDINATE, TO THE EXTENT POSSIBLE, SUCH INTERRELATIONSHIPS IN PROJECT SHOP DRAWINGS AND FIELD WORK.</p> <p>6. DO NOT SCALE THESE DRAWINGS. USE DIMENSIONAL DATA PROVIDED.</p> <p>7. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR FIRE RATING REQUIREMENTS, FIRE-PROOFING METHODS, AND FIRE-PROOFING MATERIALS FOR STRUCTURAL MEMBERS.</p> <p><b>B. DELEGATED DESIGN / DEFERRED SUBMITTALS:</b></p> <p>1. DELEGATED DESIGN AND DEFERRED SUBMITTALS ARE ITEMS DESIGNED BY OTHERS. SHOP DRAWINGS AND CALCULATIONS SHALL BE GENERATED FOR THE DESIGN AND FABRICATION OF ALL DELEGATED DESIGN AND DEFERRED SUBMITTALS ITEMS INDICATED BELOW. THESE DRAWINGS AND CALCULATIONS SHALL BE SEALED AND SIGNED BY A PROFESSIONAL ENGINEER IN THE STATE WHERE THE PROJECT IS TO BE CONSTRUCTED. FOR ITEMS INDICATED AS "DESIGNED BY THE CONTRACTOR", "DESIGNED BY SUPPLIER", "DESIGNED BY FABRICATOR" AND "DESIGNED BY INSTALLER", THESE ENTITIES PROVIDING THEIR OWN ENGINEERING WITH THEIR DESIGNS COMPLETED BY A PROFESSIONAL ENGINEER WHO WILL SEAL AND SIGN THEIR SUBMITTALS THEN THESE ENTITIES WILL INDEPENDENTLY CONTRACT A THIRD PARTY TO PROVIDE THIS SERVICE ON THEIR BEHALF. UNLESS SPECIFIED ON THE DRAWINGS OR IN THE SPECIFICATIONS, DELEGATED DESIGN ITEMS SHALL BE DESIGNED FOR ALL CODE DEFINED LOADS PLUS INDUSTRY STANDARD LOADS INCLUDING GRAVITY LOADS AND LATERAL LOADS DUE TO WIND AND SEISMIC. SEE THE RELEVANT SECTIONS OF THE GENERAL NOTES SHEETS FOR ADDITIONAL DESIGN REQUIREMENTS. CALCULATIONS SHALL INCLUDE REVIEW OF THE CAPACITIES OF ALL SUPPORTING STRUCTURAL ELEMENTS INCLUDING LOCAL STRESSES DUE TO THE CONNECTION METHODS SELECTED. ADDITIONALLY, THE CALCULATIONS AND DRAWINGS SHALL CLEARLY INDICATE THE MAGNITUDES AND DIRECTIONS OF THE LOADS IMPARTED ON THE SUPPORTING STRUCTURAL ELEMENTS. THE LOADING CRITERIA USED FOR DESIGN OF THE DELEGATED DESIGN SYSTEMS AND COMPONENTS SHALL BE CLEARLY INDICATED ON THE DRAWINGS AND CALCULATIONS, REGARDLESS OF WHETHER THEY ARE MANDATED BY THE ENGINEER OF RECORD BY WAY OF THE DRAWING AND SPECIFICATIONS OR DERIVED BY THE DESIGNER.</p> <p>2. TEMPORARY SHORING:<br/>FOUNDATIONS - SHEET PILING, PILES AND LAGGING REQUIRED FOR INSTALLATION OF FOUNDATIONS AND FOUNDATION WALLS SHALL BE DESIGNED BY THE CONTRACTOR. EXCAVATIONS REQUIRED FOR FOUNDATION AND FOUNDATION WALL CONSTRUCTION NEXT TO EXISTING BUILDINGS, NEAR PROPERTY LINES AND NEAR OR OVER UTILITIES MUST BE CONSIDERED BY THE CONTRACTOR IN EVALUATING SHORING REQUIREMENTS.</p> <p>3. MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION COMPONENTS:<br/>ROOF-TOP UNITS - DESIGN OF THE MECHANICAL UNIT CURB, CONNECTIONS OF THE UNIT TO THE CURB AND CONNECTIONS OF THE CURB TO STRUCTURE SHALL BE PROVIDED BY THE MECHANICAL UNIT CONTRACTOR. ADDITIONAL SUPPORT FRAMING FOR SUPPORTING THE GRAVITY AND LATERAL LOADS SHALL BE DESIGNED, ENGINEERED AND PROVIDED IF IT IS NOT INDICATED ON THE STRUCTURAL DRAWINGS. IF ADDITIONAL SUPPORT FRAMING IS PROVIDED, THE STRUCTURAL ADEQUACY SHALL BE VERIFIED FOR ALL ASCE 7-16 LOAD COMBINATIONS. SHOP DRAWINGS AND CALCULATIONS PROVIDED BY THE MECHANICAL CONTRACTOR SHALL PROVIDE DETAILS INDICATING THESE CONNECTIONS, SUPPORT AND BRACING OF DUCTWORK, PIPING, CONDUIT AND CABLE TRAYS ASSOCIATED WITH MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION COMPONENTS SHALL BE PROVIDED BY THE CONTRACTOR INSTALLING THE COMPONENTS. FOR PROJECTS IN SEISMIC DESIGN CATEGORY C, D AND HIGHER, SEISMIC BRACING OF ALL MECHANICAL AND ELECTRICAL COMPONENTS REQUIRED BY THE ASCE 7-16 SHALL BE DESIGNED BY THE MECHANICAL CONTRACTOR AND CLEARLY INDICATED AND DETAILED ON THE SHOP DRAWINGS.</p> <p>4. STAIRS:<br/>ALL INTERIOR AND EXTERIOR STAIRS AND LANDINGS SHALL BE DESIGNED AND ENGINEERED BY THE STAIR FABRICATOR. CONNECTIONS TO STRUCTURE SHALL BE DESIGNED BY THE STAIR FABRICATOR AND CLEARLY INDICATED AND COMMUNICATED TO THE ENGINEER OF RECORD PRIOR TO FABRICATION UNLESS INDICATED ON THE DRAWINGS. ADDITIONAL FOUNDATIONS REQUIRED FOR STAIR SUPPORT SHALL BE DESIGNED BY THE FABRICATOR. IF A FOUNDATION IS INDICATED ON THE STRUCTURAL DRAWINGS, THE ADEQUACY OF THE FOUNDATION SHALL BE VERIFIED FOR THE LOADS RESULTING FROM THE STAIR FABRICATORS DESIGN. THE STAIR FABRICATOR SHALL CLEARLY INDICATE THE LOCATION OF THESE FOUNDATIONS AND THEIR INTERRELATIONSHIP WITH FOUNDATION OF THE PRIMARY STRUCTURE.</p> <p>5. SUPPORTS FOR INTERIOR FINISHES AND ACCOUTERMENTS:<br/>INTERIOR PARTITIONS, SOFFITS AND STOREFRONT SYSTEMS NOT PART OF THE MAIN BUILDING SHELL SHALL BE DESIGNED BY THE SUPPLIER. SUPPORTS AND CONNECTION TO STRUCTURE REQUIRED FOR ARTWORK, SPECIALTY LIGHTING SYSTEMS, MONITORS, VIDEO EQUIPMENT AND PROJECTION SCREENS, TELEVISIONS AND ANY OTHER MISCELLANEOUS ITEMS SHALL BE PROVIDED BY THE SUPPLIER.</p> <p>6. WINDOWS, STOREFRONTS, GLAZING AND CURTAIN WALL SYSTEMS:<br/>ALL EXTERIOR AND INTERIOR GLAZING SYSTEMS AND THEIR CONNECTIONS TO STRUCTURE SHALL BE DESIGNED BY THE SUPPLIER. CONNECTION LOCATIONS SHALL BE CLEARLY INDICATED AND COORDINATED WITH ARCHITECTURAL AND STRUCTURAL DETAILS.</p> <p>DUE TO MOVEMENT OF THE STRUCTURAL FRAMING SYSTEMS FROM LATERAL WIND AND SEISMIC FORCES, THE GLAZING SYSTEM MUST BE DESIGNED TO ACCOMMODATE 3/4" HORIZONTAL STORY DRIFT IN EACH DIRECTION AT EACH STORY LEVEL. THE DESIGN STORY DRIFT IS THE DIFFERENCE IN LATERAL DISPLACEMENT OF THE TOP OF THE STORY UNDER CONSIDERATION RELATIVE TO THE BOTTOM OF THAT STORY (TOP OF THE STORY BELOW).</p> <p>THE CONNECTIONS OF THE GLAZING SYSTEM TO STRUCTURE CAN BE DESIGNED FOR THIS RELATIVE HORIZONTAL MOVEMENT. THE CONNECTIONS SHALL BE DESIGNED FOR 3/4" HORIZONTAL (IN-PLANE) MOVEMENT IN ADDITION TO THE VERTICAL DEFLECTION REQUIREMENTS AS NOTED IN THE PLANS, DETAILS AND SPECIFICATIONS. IF THE CONNECTIONS ARE NOT DESIGNED FOR THE LATERAL MOVEMENT, THE GLAZING SYSTEM SHALL BE DESIGNED TO ACCOMMODATE 3/4" HORIZONTAL STORY DRIFT IN EACH DIRECTION AT EACH STORY LEVEL TO ACCOUNT FOR DIFFERENTIAL DISPLACEMENTS FROM LOAD REVERSALS IN THE STRUCTURAL SYSTEMS.</p> <p>7. RAILING AND GUARDRAILS:<br/>THE INTERIOR AND EXTERIOR RAILING AND GUARDRAILS SHALL BE DESIGN BY THE FABRICATOR. UNLESS SPECIFICALLY DETAILED ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS, THE FABRICATOR SHALL DESIGN THE CONNECTIONS TO STRUCTURE AND VERIFY THE CAPACITY OF THE RECEIVING STRUCTURAL ELEMENTS FOR LOADS DUE TO THEIR CONNECTIONS.</p> | <p><b>C. SOIL / STRUCTURE INTERACTION &amp; SOIL PREPARATION INFORMATION:</b></p> <p>1. DO NOT BACKFILL WALLS UNTIL CONCRETE HAS ATTAINED FOURTEEN (14) DAY STRENGTH OR LATERAL BRACING IS PROVIDED.</p> <p>2. FOUNDATIONS HAVE BEEN DESIGNED ASSUMING AN ALLOWABLE SOIL BEARING PRESSURE OF 1500 POUNDS PER SQUARE FOOT (PSF). SOIL CONDITIONS SHALL BE INSPECTED BY A GEOTECHNICAL ENGINEER OR AN APPOINTED REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER PRIOR TO CONCRETE PLACEMENT. THE GEOTECHNICAL ENGINEER (OR REPRESENTATIVE) SHALL BE THE SOLE JUDGE AS TO THE SUITABILITY OF THE BEARING MATERIAL.</p> <p><b>D. DESIGN LOADS:</b></p> <p>1. CODE REFERENCES:</p> <p>a. OHIO BUILDING CODE (OBC) - 2017<br/>b. ASCE 7-16, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES<br/>c. BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY, ACI 318 - 2017<br/>d. BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES AND SPECIFICATIONS FOR MASONRY STRUCTURES AND COMMENTARIES, ACI 530 - 2016<br/>e. COLD-FORMED STEEL DESIGN MANUAL, AISI - 2017<br/>f. SPECIFICATIONS FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, AISI - 2017<br/>g. CATALOG OF STANDARD SPECIFICATIONS AND LOAD TABLES FOR STEEL JOISTS AND JOIST GIRDERS, STEEL JOIST INSTITUTE - 2017<br/>h. STEEL DECK INSTITUTE FLOOR DECK DESIGN MANUAL, 1st EDITION - MARCH 2014<br/>i. STEEL DECK INSTITUTE ROOF DECK DESIGN MANUAL, 1st EDITION - MAY 2013<br/>j. STEEL DECK INSTITUTE DIAPHRAGM DESIGN MANUAL, 4th EDITION - SEPTEMBER 2015<br/>k. STEEL DECK INSTITUTE MANUAL OF CONSTRUCTION WITH STEEL DECK - OCTOBER 2016<br/>l. STEEL DECK INSTITUTE STANDARD PRACTICE DETAILS - MAY 2001<br/>m. MANUAL OF STEEL CONSTRUCTION - AISC, 15th EDITION - 2017<br/>n. SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OF A490 BOLTS - 01 AUGUST 2014<br/>o. STRUCTURAL WELDING CODE - STEEL, ANSII/AWS D1.1 - 2015<br/>p. FEMA 405 - NEHRP RECOMMENDED PROVISIONS FOR SEISMIC REGULATIONS FOR NEW BLDGS AND OTHER STRUCTURES - 2015</p> <p><b>DEAD LOADS:</b></p> <p>ROOF DEAD LOAD 20 PSF (10 PSF TOP CHORD / 10 PSF BOTTOM CHORD)</p> <p>FLOOR DEAD LOAD 20 PSF</p> <p><b>LIVE LOADS:</b></p> <p>ROOF LIVE LOAD:<br/>MINIMUM DESIGN ROOF LIVE LOAD 20 PSF</p> <p>FLOOR LIVE LOAD:<br/>GARAGE SPACES 250 PSF<br/>LIGHT STORAGE AREAS (MEZZANINE) 125 PSF</p> <p><b>SNOW LOAD PARAMETERS:</b></p> <p>a. GROUND SNOW LOAD, P<sub>g</sub> 20 PSF<br/>b. FLAT-ROOF SNOW LOAD, P<sub>f</sub> 14 PSF<br/>c. THERMAL FACTOR, C<sub>t</sub> 1.0<br/>d. EXPOSURE FACTOR, C<sub>e</sub> 1.0<br/>e. SNOW LOAD IMPORTANCE FACTOR, I 1.0</p> <p><b>WIND DESIGN PARAMETERS:</b></p> <p>a. BASIC WIND SPEED = 115 MPH<br/>b. WIND EXPOSURE = EXPOSURE C<br/>c. MAIN WIND DESIGN VELOCITY PRESSURES:</p> <table border="1"> <thead> <tr> <th>HEIGHT (FT.)</th> <th>WINDWARD WALL</th> <th>LEEWARD WALL</th> <th>SIDEWALLS</th> </tr> </thead> <tbody> <tr> <td>0-15</td> <td>22.0 PSF</td> <td>-17.8 PSF / -10.3 PSF</td> <td>-22.8 PSF</td> </tr> <tr> <td>15-20</td> <td>22.9 PSF</td> <td>-17.8 PSF / -10.3 PSF</td> <td>-22.8 PSF</td> </tr> <tr> <td>20-25</td> <td>23.7 PSF</td> <td>-17.8 PSF / -10.3 PSF</td> <td>-22.8 PSF</td> </tr> </tbody> </table> <p><b>COMPONENT AND CLADDING - WALLS</b></p> <table border="1"> <thead> <tr> <th>AREA (SQ. FT.)</th> <th>INTERIOR ZONE</th> <th>EDGE ZONE</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>30.8 PSF</td> <td>37.9 PSF</td> </tr> <tr> <td>100</td> <td>26.6 PSF</td> <td>29.4 PSF</td> </tr> <tr> <td>200</td> <td>25.4 PSF</td> <td>27.0 PSF</td> </tr> <tr> <td>500</td> <td>23.7 PSF</td> <td>23.7 PSF</td> </tr> </tbody> </table> <p><b>SEISMIC DESIGN PARAMETERS:</b></p> <p>a. OCCUPANCY CATEGORY II<br/>b. SITE CLASS D<br/>c. IMPORTANCE FACTOR 1.0<br/>d. SEISMIC DESIGN CATEGORY, B<br/>e. RESPONSE MODIFICATION COEFFICIENT, R 1 1/2<br/>f. 0.2 SECOND MAPPED SPECTRAL ACCELERATION, S<sub>s</sub> 16.0%<br/>g. 1.0 SECOND MAPPED SPECTRAL ACCELERATION, S<sub>1</sub> 7.0%<br/>h. 0.2 SECOND MAXIMUM SPECTRAL RESPONSE, S<sub>ms</sub> 25.6%<br/>i. 1.0 SECOND MAXIMUM SPECTRAL RESPONSE, S<sub>m1</sub> 16.8%<br/>j. 0.2 SECOND DESIGN SPECTRAL RESPONSE, S<sub>ds</sub> 17.1%<br/>k. 1.0 SECOND DESIGN SPECTRAL RESPONSE, S<sub>d1</sub> 11.2%<br/>l. SEISMIC RESPONSE COEFFICIENT, C<sub>s</sub> 8.55%<br/>m. DEFLECTION AMPLIFICATION FACTOR, C<sub>d</sub> 1 1/2<br/>n. ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE<br/>e. SEISMIC FORCE-RESISTING SYSTEM: TIMBER FRAMES<br/>p. SEISMIC BASE SHEAR: V = C<sub>s</sub> x WEIGHT</p> <p>SCHEDULE OF SPECIAL INSPECTION SERVICES PER CHAPTER 17 OF INTERNATIONAL BUILDING CODE. SEE SECTION 1704.3 "CONTRACTOR RESPONSIBILITY"</p> | HEIGHT (FT.)          | WINDWARD WALL   | LEEWARD WALL    | SIDEWALLS       | 0-15            | 22.0 PSF        | -17.8 PSF / -10.3 PSF | -22.8 PSF       | 15-20 | 22.9 PSF | -17.8 PSF / -10.3 PSF | -22.8 PSF | 20-25 | 23.7 PSF | -17.8 PSF / -10.3 PSF | -22.8 PSF | AREA (SQ. FT.) | INTERIOR ZONE | EDGE ZONE | 10 | 30.8 PSF | 37.9 PSF | 100 | 26.6 PSF | 29.4 PSF | 200 | 25.4 PSF | 27.0 PSF | 500 | 23.7 PSF | 23.7 PSF | <p><b>E. REINFORCED CONCRETE:</b></p> <p>1. MATERIALS:</p> <p>a. SEE SPECIFICATIONS FOR DETAILED REQUIREMENTS RELATED TO THE CONCRETE TO BE USED ON THIS PROJECT.</p> <p>b. STRUCTURAL CONCRETE OVERVIEW - SEE SPECS FOR SPECIFIC INFO</p> <table border="1"> <thead> <tr> <th>LOCATION</th> <th>f<sub>c</sub> (PSI)</th> </tr> </thead> <tbody> <tr> <td>FOUNDATIONS AND GRADE BEAMS</td> <td>3000</td> </tr> <tr> <td>TYP. INTERIOR CONCRETE</td> <td>4000</td> </tr> <tr> <td>EXTERIOR CONCRETE EXPOSED TO DE-ICING</td> <td>4500, 6% AIR</td> </tr> <tr> <td>BACKFILL BELOW FOOTINGS, CONCRETE FILL IN STRUCTURES</td> <td>1500</td> </tr> </tbody> </table> <p>c. ALL DEFORMED REINFORCING BARS: F<sub>y</sub> = 60,000 P.S.I.</p> <p>d. WELDED WIRE FABRIC: ASTM A185</p> <p>2. FIELD MANUAL:<br/>PROVIDE AT LEAST ONE COPY OF THE LATEST ACI FIELD REFERENCE MANUAL, SP-15, IN THE FIELD OFFICE AT ALL TIMES.</p> <p>3. CONTINGENCIES:<br/>PROVIDE LEAN CONCRETE UNDER FOUNDATIONS FOR ACCIDENTAL OVER-EXCAVATION, SOFT SPOTS AND TRENCHES.</p> <p>4. FOOTINGS, PIERS, WALLS AND SLABS:</p> <p>a. DOWELS IN FOOTINGS TO MATCH VERTICAL PIER OR WALL REINFORCING, U.N.O.</p> <p>b. PROVIDE CORNER BARS AT WALL AND FOOTING CORNERS TO MATCH HORIZONTAL REINFORCING, MINIMUM LENGTH OF EACH LEG - 45 BAR DIAMETERS. (PLACE AS PER DETAILS U.N.O.).</p> <p>c. PROVIDE 10 MIL. POLYETHYLENE VAPOR RETARDER AND 6" COMPACTED AGGREGATE SUBBASE MATERIAL ON TOP IN ACCORDANCE WITH THE TYPICAL SLAB DETAILS. UNDER ALL INTERIOR SLABS ON GRADE, VAPOR RETARDER SHALL BE CARRIED TO AND PLACED IN CONTACT WITH RIGID INSULATION AT INTERIOR FACE OF EXTERIOR FOUNDATION WALLS. SEE SPECIFICATIONS FOR FURTHER INFORMATION.</p> <p>5. CONSTRUCTION JOINTS:<br/>CONSTRUCTION JOINTS PERMITTED ONLY WHERE SHOWN OR AS APPROVED BY THE STRUCTURAL ENGINEER. ALL CONSTRUCTION JOINTS ARE TO BE KEYS.</p> <p>6. CHAMFER:<br/>PROVIDE 3/4" CHAMFER AT ALL EXPOSED EDGES OF CONCRETE, U.N.O.</p> <p>7. MISCELLANEOUS:<br/>a. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR OPENINGS AND COORDINATE WORK WITH THE CONSTRUCTION MANAGER AND OTHER TRADES. IF OPENING IS NOT SHOWN ON THE STRUCTURAL DRAWINGS, OBTAIN PRIOR APPROVAL.</p> <p>8. CONCRETE COVER:<br/>U.N.O. DETAIL REINFORCING TO PROVIDE MINIMUM CONCRETE COVER AS FOLLOWS:</p> <table border="1"> <tbody> <tr> <td>CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:</td> <td>3 IN.</td> </tr> <tr> <td>CONCRETE EXPOSED TO EARTH OR WEATHER:<br/>No. 6 - No. 18 BARS<br/>No. 5 BAR, W31 OR D31 WIRE, AND SMALLER</td> <td>2 IN.<br/>1 1/2 IN.</td> </tr> <tr> <td>CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR IN CONTACT WITH GROUND:<br/>SLABS, WALLS, AND JOISTS:<br/>No. 14 AND No. 18 BARS<br/>No. 11 BARS AND SMALLER<br/>BEAMS AND COLUMNS:<br/>PRIMARY REINFORCEMENT, STIRRUPS, TIES AND SPIRALS</td> <td>1 1/2 IN.<br/>3/4 IN.<br/>1 1/2 IN.</td> </tr> <tr> <td>SURFACES EXPOSED TO LIQUIDS:</td> <td>2 IN.</td> </tr> <tr> <td>SLABS ON GRADE - 1/3 SLAB THICKNESS FROM TOP OF SLAB OR AS SHOWN ON DRAWINGS</td> <td></td> </tr> </tbody> </table> <p><b>TENSION LAP SCHEDULE:</b></p> <p>f<sub>c</sub> = 3000 PSI TENSION LAP SPLICE LENGTHS (INCHES) - TOP BARS (NOTES 1 AND 2)</p> <table border="1"> <thead> <tr> <th rowspan="2">BAR COVER (INCHES)</th> <th colspan="3">3/4</th> <th colspan="3">1 1/2</th> </tr> <tr> <th>2 1/2</th> <th>4</th> <th>&gt;=6</th> <th>2 1/2</th> <th>4</th> <th>&gt;=6</th> </tr> </thead> <tbody> <tr> <td>#4</td> <td>29</td> <td>29</td> <td>29</td> <td>29</td> <td>29</td> <td>29</td> </tr> <tr> <td>#5</td> <td>36</td> <td>36</td> <td>36</td> <td>36</td> <td>36</td> <td>36</td> </tr> <tr> <td>#6</td> <td>43</td> <td>43</td> <td>43</td> <td>43</td> <td>43</td> <td>43</td> </tr> <tr> <td>#7</td> <td>69</td> <td>69</td> <td>69</td> <td>66</td> <td>63</td> <td>63</td> </tr> <tr> <td>#8</td> <td>-</td> <td>-</td> <td>-</td> <td>86</td> <td>72</td> <td>72</td> </tr> <tr> <td>#9</td> <td>-</td> <td>-</td> <td>-</td> <td>109</td> <td>81</td> <td>81</td> </tr> </tbody> </table> <p>f<sub>c</sub> = 4000 PSI TENSION LAP SPLICE LENGTHS (INCHES) - TOP BARS (NOTES 1 AND 2)</p> <table border="1"> <thead> <tr> <th rowspan="2">BAR COVER (INCHES)</th> <th colspan="3">3/4</th> <th colspan="3">1 1/2</th> </tr> <tr> <th>2 1/2</th> <th>4</th> <th>&gt;=6</th> <th>2 1/2</th> <th>4</th> <th>&gt;=6</th> </tr> </thead> <tbody> <tr> <td>#4</td> <td>25</td> <td>25</td> <td>25</td> <td>25</td> <td>25</td> <td>25</td> </tr> <tr> <td>#5</td> <td>31</td> <td>31</td> <td>31</td> <td>31</td> <td>31</td> <td>31</td> </tr> <tr> <td>#6</td> <td>37</td> <td>37</td> <td>37</td> <td>37</td> <td>37</td> <td>37</td> </tr> <tr> <td>#7</td> <td>60</td> <td>60</td> <td>60</td> <td>57</td> <td>54</td> <td>54</td> </tr> <tr> <td>#8</td> <td>-</td> <td>-</td> <td>-</td> <td>74</td> <td>62</td> <td>62</td> </tr> <tr> <td>#9</td> <td>-</td> <td>-</td> <td>-</td> <td>94</td> <td>70</td> <td>70</td> </tr> </tbody> </table> <p><b>NOTES:</b></p> <p>1. TOP BARS ARE DEFINED AS HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BARS.</p> <p>2. FOR BARS OTHER THAN TOP BARS, DIVIDE DEVELOPMENT LENGTH SPECIFIED IN TABLE BY 1.3.</p> <p>3. INTERPOLATE FOR SPLICE LENGTHS AS NECESSARY</p> <p>4. TENSION LAP SPLICES ARE BASED ON CLASS B. FOR CLASS A, DIVIDE BY 1.3. UNLESS NOTED OTHERWISE IN DRAWINGS, ASSUME ALL SPLICES AS CLASS B.</p> <p>5. IF SPLICE DIMENSION IS INDICATED IN DRAWINGS, PROVIDE LARGER SPLICE LENGTH.</p> <p>6. LAP SPLICE TABLES ARE BASED ON ACI 318-02, SECTIONS 12.2.2, 12.2.3 &amp; 12.14.2</p> <p>7. VALUES SHOWN IN TABLE MAY BE LOWERED WITH K<sub>tr</sub> IF TRANSVERSE REINFORCEMENT EXISTS PER 12.2.3.</p> | LOCATION | f <sub>c</sub> (PSI) | FOUNDATIONS AND GRADE BEAMS | 3000 | TYP. INTERIOR CONCRETE | 4000 | EXTERIOR CONCRETE EXPOSED TO DE-ICING | 4500, 6% AIR | BACKFILL BELOW FOOTINGS, CONCRETE FILL IN STRUCTURES | 1500 | CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: | 3 IN. | CONCRETE EXPOSED TO EARTH OR WEATHER:<br>No. 6 - No. 18 BARS<br>No. 5 BAR, W31 OR D31 WIRE, AND SMALLER | 2 IN.<br>1 1/2 IN. | CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR IN CONTACT WITH GROUND:<br>SLABS, WALLS, AND JOISTS:<br>No. 14 AND No. 18 BARS<br>No. 11 BARS AND SMALLER<br>BEAMS AND COLUMNS:<br>PRIMARY REINFORCEMENT, STIRRUPS, TIES AND SPIRALS | 1 1/2 IN.<br>3/4 IN.<br>1 1/2 IN. | SURFACES EXPOSED TO LIQUIDS: | 2 IN. | SLABS ON GRADE - 1/3 SLAB THICKNESS FROM TOP OF SLAB OR AS SHOWN ON DRAWINGS |  | BAR COVER (INCHES) | 3/4 |  |  | 1 1/2 |  |  | 2 1/2 | 4 | >=6 | 2 1/2 | 4 | >=6 | #4 | 29 | 29 | 29 | 29 | 29 | 29 | #5 | 36 | 36 | 36 | 36 | 36 | 36 | #6 | 43 | 43 | 43 | 43 | 43 | 43 | #7 | 69 | 69 | 69 | 66 | 63 | 63 | #8 | - | - | - | 86 | 72 | 72 | #9 | - | - | - | 109 | 81 | 81 | BAR COVER (INCHES) | 3/4 |  |  | 1 1/2 |  |  | 2 1/2 | 4 | >=6 | 2 1/2 | 4 | >=6 | #4 | 25 | 25 | 25 | 25 | 25 | 25 | #5 | 31 | 31 | 31 | 31 | 31 | 31 | #6 | 37 | 37 | 37 | 37 | 37 | 37 | #7 | 60 | 60 | 60 | 57 | 54 | 54 | #8 | - | - | - | 74 | 62 | 62 | #9 | - | - | - | 94 | 70 | 70 | <p><b>F. ROUGH CARPENTRY:</b></p> <p>1. FRAMING LUMBER SHALL COMPLY WITH THE LATEST EDITION OF THE "NATIONAL DESIGN SPECIFICATION" (NDS), AMERICAN FOREST &amp; PAPER ASSOCIATION / AMERICAN WOOD COUNCIL.</p> <p>2. ALL SAWN LUMBER SHALL BE STAMPED WITH THE GRADE WORK OF A CERTIFIED LUMBER GRADING AGENCY. MOISTURE CONTENT SHALL NOT EXCEED 19%. ALL SAWN LUMBER SHALL BE SPRUCE-PINE-FIR OR SOUTHERN PINE.</p> <p>3. SAWN LUMBER:<br/>SMALLER DIMENSION &lt;4x NOMINAL: NO. 2 &amp; BETTER<br/>SMALLER DIMENSION &gt;4x NOMINAL: NO. 1 &amp; BETTER</p> <p>4. WOOD STRUCTURAL PANELS: ALL PANELS SHALL CONFORM TO NER-108 AND BEAR THE STAMP OF THE APA OR AN APPROVED GRADING AGENCY WITH THE FOLLOWING SPAN RATINGS:<br/>WALLS: 3/8" NOMINAL THICKNESS (3/8" MIN.) - 32/16, SHEATHING<br/>NAILS: 8d COMMON @ 6" O.C. - EDGES (UNO)<br/>8d COMMON @ 12" O.C. - FIELD (UNO)<br/>ROOF: 3/8" NOMINAL THICKNESS (3/8" MIN.) - 40/20, SHEATHING<br/>NAILS: 8d COMMON @ 6" O.C. - EDGES (UNO)<br/>8d COMMON @ 12" O.C. - FIELD (UNO)<br/>FLOOR: 3/8" NOMINAL THICKNESS (3/8" MIN.) - 24" O.C. T&amp;G STURD-I-FLOOR OR 48/24, T&amp;G, SHEATHING<br/>GLUE &amp; NAIL: 10d COMMON @ 6" O.C. - EDGES (UNO)<br/>10d COMMON @ 10" O.C. - FIELD (UNO)</p> <p>PROVIDE BLOCKING AT WALL PANEL EDGES AND AS DESIGNATED ON THESE DRAWINGS.</p> <p>5. FRAMING ANCHORS: "SIMPSON" OR APPROVED EQUAL. INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS.</p> <p>6. FOR NAILING NOT SHOWN ON THESE DRAWINGS, USE IBC NAILING SCHEDULE, TABLE 2304.9.1.</p> <p>7. STRUCTURAL MEMBERS SHALL NOT BE CUT FOR PIPES, DUCTS, ETC., UNLESS SPECIFICALLY NOTED, DETAILED OR APPROVED IN WRITING BY THE ENGINEER.</p> <p>8. ALL EXPOSED MEMBERS OR MEMBERS IN CONTACT WITH CONCRETE SHALL BE PRESERVATIVE-TREATED WOOD STAMPED BY AN APPROVED AGENCY.</p> <p>9. ALL STEEL, FASTENERS, AND CONNECTORS IN CONTACT WITH WOOD THAT HAS ACQ FORMULATION PRESERVATIVE TREATMENT WITHOUT AMMONIA SHALL BE GALVANIZED (G185) PER ASTM A653 AND ASTM A193 OR TYPE 316L STAINLESS STEEL. ALL STEEL FASTENERS, AND CONNECTORS IN CONTACT WITH WOOD THAT HAS ACQ FORMULATION PRESERVATIVE TREATMENT WITH AMMONIA SHALL BE TYPE 316L STAINLESS STEEL.</p> <p>10. ALL NON-BEARING WALLS BELOW FRAMING SHALL BE SLIP CONNECTED TO ALLOW FOR POTENTIAL FRAMING DEFLECTION AND UPLIFT.</p> <p><b>G. PROPRIETARY PRODUCTS:</b></p> <p>1. ENGINEERED WOOD MATERIALS SHALL CONFORM TO THE FOLLOWING:</p> <p>a. LAMINATED VENEER LUMBER (LVL) - F<sub>b</sub> = 2600 PSI, E = 1.9 x 10<sup>6</sup> PSI, F<sub>v</sub> = 285 PSI MINIMUM. PARALLEL STRAND LUMBER (PSL) MAY BE SUBSTITUTED FOR LVL PRODUCTS WITH EQUIVALENT SIZES AS LONG AS ABOVE MINIMUM PROPERTIES ARE MAINTAINED.</p> <p>b. LAMINATED STRAND LUMBER (LSL)<br/>BEAM, STUD, JOIST (1.55E): F<sub>b</sub> = 2325 PSI, E = 1.55 x 10<sup>6</sup> PSI, F<sub>v</sub> = 310 PSI MINIMUM. LVL OR PSL MAY NOT BE SUBSTITUTED FOR LSL PRODUCTS, UNLESS APPROVED IN WRITING BY THE ENGINEER.<br/>RIM BOARD (1.3E): F<sub>b</sub> = 1700 PSI, E = 1.3 x 10<sup>6</sup> PSI, F<sub>v</sub> = 400 PSI MINIMUM. LVL OR PSL MAY NOT BE SUBSTITUTED FOR LSL PRODUCTS, UNLESS APPROVED IN WRITING BY THE ENGINEER.</p> <p>2. MULTIPLE PLIES OF MATERIAL MAY BE USED TO ACHIEVE THE TOTAL WIDTH INDICATED ON DRAWINGS. PLIES MUST BE JOINED TO FORM A SINGLE MEMBER AS REQUIRED BY THE MANUFACTURER OR AS DETAILED.</p> |
| HEIGHT (FT.)  | WINDWARD WALL   | LEEWARD WALL          | SIDEWALLS       |                 |                 |                 |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| 0-15  | 22.0 PSF  | -17.8 PSF / -10.3 PSF | -22.8 PSF       |                 |                 |                 |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| 15-20   | 22.9 PSF  | -17.8 PSF / -10.3 PSF | -22.8 PSF       |                 |                 |                 |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| 20-25   | 23.7 PSF  | -17.8 PSF / -10.3 PSF | -22.8 PSF       |                 |                 |                 |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| AREA (SQ. FT.)  | INTERIOR ZONE   | EDGE ZONE             |                 |                 |                 |                 |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| 10  | 30.8 PSF  | 37.9 PSF              |                 |                 |                 |                 |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| 100   | 26.6 PSF  | 29.4 PSF              |                 |                 |                 |                 |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| 200   | 25.4 PSF  | 27.0 PSF              |                 |                 |                 |                 |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| 500   | 23.7 PSF  | 23.7 PSF              |                 |                 |                 |                 |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| LOCATION  | f <sub>c</sub> (PSI)  |                       |                 |                 |                 |                 |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| FOUNDATIONS AND GRADE BEAMS   | 3000  |                       |                 |                 |                 |                 |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| TYP. INTERIOR CONCRETE  | 4000  |                       |                 |                 |                 |                 |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| EXTERIOR CONCRETE EXPOSED TO DE-ICING   | 4500, 6% AIR  |                       |                 |                 |                 |                 |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| BACKFILL BELOW FOOTINGS, CONCRETE FILL IN STRUCTURES  | 1500  |                       |                 |                 |                 |                 |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:   | 3 IN.   |                       |                 |                 |                 |                 |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| CONCRETE EXPOSED TO EARTH OR WEATHER:<br>No. 6 - No. 18 BARS<br>No. 5 BAR, W31 OR D31 WIRE, AND SMALLER   | 2 IN.<br>1 1/2 IN.  |                       |                 |                 |                 |                 |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR IN CONTACT WITH GROUND:<br>SLABS, WALLS, AND JOISTS:<br>No. 14 AND No. 18 BARS<br>No. 11 BARS AND SMALLER<br>BEAMS AND COLUMNS:<br>PRIMARY REINFORCEMENT, STIRRUPS, TIES AND SPIRALS  | 1 1/2 IN.<br>3/4 IN.<br>1 1/2 IN.   |                       |                 |                 |                 |                 |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| SURFACES EXPOSED TO LIQUIDS:  | 2 IN.   |                       |                 |                 |                 |                 |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| SLABS ON GRADE - 1/3 SLAB THICKNESS FROM TOP OF SLAB OR AS SHOWN ON DRAWINGS  |   |                       |                 |                 |                 |                 |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| BAR COVER (INCHES)  | 3/4   |                       |                 | 1 1/2           |                 |                 |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
|   | 2 1/2   | 4                     | >=6             | 2 1/2           | 4               | >=6             |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| #4  | 29  | 29                    | 29              | 29              | 29              | 29              |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| #5  | 36  | 36                    | 36              | 36              | 36              | 36              |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| #6  | 43  | 43                    | 43              | 43              | 43              | 43              |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| #7  | 69  | 69                    | 69              | 66              | 63              | 63              |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| #8  | -   | -                     | -               | 86              | 72              | 72              |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| #9  | -   | -                     | -               | 109             | 81              | 81              |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| BAR COVER (INCHES)  | 3/4   |                       |                 | 1 1/2           |                 |                 |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
|   | 2 1/2   | 4                     | >=6             | 2 1/2           | 4               | >=6             |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| #4  | 25  | 25                    | 25              | 25              | 25              | 25              |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| #5  | 31  | 31                    | 31              | 31              | 31              | 31              |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| #6  | 37  | 37                    | 37              | 37              | 37              | 37              |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| #7  | 60  | 60                    | 60              | 57              | 54              | 54              |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| #8  | -   | -                     | -               | 74              | 62              | 62              |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| #9  | -   | -                     | -               | 94              | 70              | 70              |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| <p><b>C</b></p>   | <p><b>D</b></p>   | <p><b>E</b></p>       | <p><b>F</b></p> | <p><b>A</b></p> | <p><b>B</b></p> | <p><b>C</b></p> | <p><b>D</b></p> | <p><b>E</b></p>       | <p><b>F</b></p> |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |
| 1   | 2   | 3                     | 4               | 5               | 6               | 7               |                 |                       |                 |       |          |                       |           |       |          |                       |           |                |               |           |    |          |          |     |          |          |     |          |          |     |          |          |   |          |                      |                             |      |                        |      |                                       |              |  |      |   |       |   |                    |  |                                   |                              |       |  |  |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |     |    |    |                    |     |  |  |       |  |  |       |   |     |       |   |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |   |   |    |    |    |    |   |   |   |    |    |    |  |

**APP Architecture**  
 creative focused design  
 615 Woodside Drive, Englewood, Ohio 43322  
 T 937.836.8898 F 937.832.3696  
 www.app-arch.com



TALAWANDA SCHOOL DISTRICT  
**MAINTENANCE AND BUS GARAGE**  
 5301 University Park Blvd.  
 City of Oxford, Ohio 45056

| ISSUE     |                         |             |
|-----------|-------------------------|-------------|
| NO.       | DATE                    | DESCRIPTION |
| 4/08/2022 | PERMIT AND CONSTRUCTION |             |

|   |               |
|---|---------------|
| DATE                                      | 4/08/2022     |
| JOB NO.                                   | 2021145       |
| DRAWN                                     | JMR           |
| CHECKED                                   | JMR           |
| COPYRIGHT © 2022 - App Architecture, Inc. |               |
| TITLE                                     | GENERAL NOTES |
| SHEET NO.                                 | S0.1          |

A

TABLE 1705.3 REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

| VERIFICATION AND INSPECTION   | CONTINUOUS | PERIODIC | REFERENCED STANDARD                          | IBC REFERENCE            |
|---|------------|----------|--|--------------------------|
| 1. INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT.  | --         | X        | ACI 318: 3.5, 7.1-7.7                        | 1913.4                   |
| 2. INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1704.3, ITEM 5B.  | --         | --       | AWS D1.4<br>ACI 318: 3.5.2                   | --                       |
| 3. INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED.   | X          | --       | --   | 1911.5                   |
| 4. VERIFYING USE OF REQUIRED DESIGN MIX.  | --         | X        | ACI 318: Ch. 4, 5.2-5.4                      | 1904 2.2, 1913.2, 1913.3 |
| 5. AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.           | X          | --       | ASTM C 172<br>ASTM C 31<br>ACI 318: 5.6, 5.8 | 1913.10                  |
| 6. INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.  | X          | --       | ACI 318: 5.9, 5.10                           | 1913.6, 1913.7, 1913.8   |
| 7. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.   | --         | X        | ACI 318: 5.11, 5.13                          | 1913.9                   |
| 8. INSPECTION OF PRESTRESSED CONCRETE:  |            |          |  |                          |
| A. APPLICATION OF PRESTRESSING FORCES.  | X          | --       | ACI 318: 18.20                               | --                       |
| B. GROUTING OF BONDED PRESTRESSING TENDONS IN THE SEISMIC-FORCE-RESISTING SYSTEM.   | X          | --       | ACI 318: 18.18.4                             | --                       |
| 9. ERECTION OF PRECAST CONCRETE MEMBERS.  | --         | X        | ACI 318: Ch. 16                              | --                       |
| 10. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS. | --         | X        | ACI 318: 6.2                                 | --                       |
| 11. INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.   | --         | X        | ACI 318: 6.1.1                               | --                       |

B

C

SPECIAL INSPECTION PROGRAM NOTES:

- PERIODIC INSPECTION FREQUENCY DETERMINED BY THE DESIGN PROFESSIONAL, UNLESS NEEDED OTHERWISE.
- CONTINUOUS OR PERIODIC SELECTION TO BE MADE BY THE DESIGN PROFESSIONAL BASED ON BUILDING CATEGORY AND DESIGN METHODOLOGY.

SPECIAL INSPECTION/TESTING PROGRAM

- THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE TO THE SATISFACTION OF THE BUILDING OFFICIAL FOR THE INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION STIPULATED.
- IF NECESSARY, THE CONTRACTOR SHALL ARRANGE A PRE-CONSTRUCTION MEETING WITH THE ARCHITECT, ENGINEER, BUILDING OFFICIAL, AND TESTING AGENCY TO REVIEW THE SPECIAL INSPECTION REQUIREMENTS.
- DUTIES OF THE SPECIAL INSPECTOR INCLUDE, BUT ARE NOT LIMITED TO:
  - ACKNOWLEDGE AND CONFORM TO THE SPECIAL INSPECTION REQUIREMENTS OF OBC.
  - THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR CONFORMANCE WITH THE APPROVED PERMIT PLANS AND SPECIFICATIONS. ALL DISCREPANCIES SHALL BE BROUGHT TO IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE ATTENTION OF THE ARCHITECT, THE ENGINEER AND THE BUILDING OFFICIAL.
  - THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS FOR EACH INSPECTION TO THE CONTRACTOR, THE ARCHITECT, THE ENGINEER AND THE BUILDING OFFICIAL AS A MINIMUM. THE REPORTS SHALL BE DISTRIBUTED IN A TIMELY MANNER.
  - INSPECTION FOR PREFABRICATED COMPONENTS SHALL BE THE SAME AS IF THE MATERIAL WAS INSTALLED ON SITE. CONTINUOUS INSPECTION SHALL NOT BE REQUIRED DURING THE PREFABRICATION IF THE APPROVED AGENCY CERTIFIES THE CONSTRUCTION AND FURNISHES EVIDENCE OF COMPLIANCE.
  - THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL REPORT STATING WHETHER THE WORK REQUIRING INSPECTION WAS INSPECTED AND WHETHER THE WORK WAS COMPLETED IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATION AND IN CONFORMANCE WITH ANY APPLICABLE WORKMANSHIP PROVISIONS OF THE APPLICABLE CODE.
- SPECIAL INSPECTION AND TESTING REQUIREMENTS APPLY EQUALLY TO ALL BIDDER DESIGNED COMPONENTS.

STRUCTURAL OBSERVATION:

- STRUCTURAL OBSERVATION CONFORMING TO THE 2017 OBC SECTION 1710 WILL BE PERFORMED BY AN L2 ENGINEERING REPRESENTATIVE IN ORDER TO REVIEW THE CONTRACTOR'S WORK FOR GENERAL CONFORMANCE WITH THE DESIGN DOCUMENTS.
- THE CONTRACTOR SHALL PROVIDE L2 ENGINEERING WITH A MINIMUM OF 3 DAYS NOTICE TO PROPERLY SCHEDULE THE OBSERVATION VISIT.
- IF ADDITIONAL ENGINEERING TIME IS REQUIRED DUE TO INCOMPLETE OR UNACCEPTABLE WORK BY THE CONTRACTOR, L2 ENGINEERING SHALL BE REIMBURSED FOR ALL ASSOCIATED COSTS.
- STRUCTURAL OBSERVATION FOR THIS PROJECT WILL OCCUR AT THE FOLLOWING STAGES:
  - DURING CONCRETE PLACEMENT
- STRUCTURAL OBSERVATION OCCURS INDEPENDENT OF THE SPECIAL INSPECTION PROGRAM.

F

TABLE 1705.6 REQUIRED VERIFICATION AND INSPECTION OF SOILS

| VERIFICATION AND INSPECTION TASK   | CONTINUOUS | PERIODIC |
|--|------------|----------|
| 1. VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.                                | --         | X        |
| 2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.                                   | --         | X        |
| 3. PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS.  | --         | X        |
| 4. VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL. | X          | --       |
| 5. PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.            | --         | X        |

|   |  |   |
|---|--|---|
| <b>A</b><br>A/E - ARCHITECT/ENGINEER<br>AB - ANCHOR BOLT/ROD<br>AFF - ABOVE FINISH FLOOR<br>ARCH - ARCHITECT (URAL)<br><b>B</b><br>BFF - BELOW FINISH FLOOR<br>BLK - BLOCK (ING)<br>BM - BEAM<br>BRG - BEARING<br>BU - BUILT UP<br>B/- BOTTOM OF<br><b>C</b><br>CAM (C=) - CAMBER<br>CIP - CAST-IN-PLACE<br>CJ - CONTROL JOINT<br>CL - CENTERLINE<br>CLR - CLEAR<br>CMU - CONCRETE MASONRY UNIT<br>COL - COLUMN<br>COND - CONCRETE<br>CONN - CONNECT (ION)<br>CONT - CONTINUOUS<br>CONTR - CONTRACT (OR)<br>CTR - CENTER<br>CU - CUBIC<br><b>D</b><br>D - DEEP, DEPTH<br>DBL - DOUBLE<br>DEMO - DEMOLITION, DEMOLISH<br>DET - DETAIL<br>DIA - DIAMETER<br>DIAG - DIAGONAL, DIAGRAM<br>DIM - DIMENSION<br>DIR - DIRECTION<br>DL - DEAD LOAD<br>DR - DRAIN<br>DWG - DRAWING<br><b>E</b><br>EA - EACH<br>EF - EACH FACE<br>EJ - EXPANSION JOINT<br>EL - ELEV - ELEVATION<br>EMBED - EMBEDMENT<br>EQ - EQUAL<br>EST - ESTIMATE<br>EW - EACH WAY<br>EQUIP - EQUIPMENT<br>EXP - EXPANSION<br>EXT - EXTERIOR<br><b>F</b><br>FD - FLOOR DRAIN<br>FF - FINISHED FLOOR<br>FIN - FINISH (ED)<br>FLG - FLANGE<br>FLR - FLOOR (ING)<br>FOC - FACE OF CONCRETE<br>FOM - FACE OF MASONRY<br>FOS - FACE OF STUD<br>FOW - FACE OF WALL<br>FS - FAR SIDE<br>FT - FOOT, FEET<br>FTG - FOOTING<br>FRMG - FRAMING<br>FUT - FUTURE<br><b>G</b><br>GA - GAGE, GAUGE<br>GALV - GALVANIZED<br>GC - GENERAL CONTRACTOR<br>GEN - GENERAL<br>GL - GRADE LINE<br>GLU/LAM - GLUE-LAMINATED BEAM<br>GR BM - GRADE BEAM<br>GYP BD - GYPSUM BOARD<br><b>H</b><br>H - HIGH<br>HAS - HEADED ANCHOR STUD<br>HC - HOLLOW CORE<br>HDR - HEADER<br>HGR - HANGER<br>HORIZ - HORIZONTAL<br>HR - HANDRAIL<br>HS - HIGH STRENGTH<br>HSB - HIGH STRENGTH BOLT<br>HSS - HOLLOW STRUCTURAL SHAPE<br>HT - HEIGHT | <b>I</b><br>ID - INSIDE DIAMETER<br>INCL - INCLUDING<br>INT - INTERIOR<br>J<br>JT - JOIST<br>JT - JOINT<br>K<br>K - KIPS (1000 lbs.)<br>KCJ - KEYED CONSTRUCTION JOINT<br>KLF - KIPS PER LINEAR FOOT<br>KSF - KIPS PER SQUARE FOOT<br>KSI - KIPS PER SQUARE INCH<br><b>L</b><br>L - ANGLE<br>LL - DOUBLE ANGLE<br>LBS - POUNDS<br>LG - LONG<br>LL - LIVE LOAD<br>LLH - LONG LEG HORIZONTAL<br>LLV - LONG LEG VERTICAL<br>LOC - LOCATION<br>LONG - LONGITUDINAL<br>LSL - LAMINATED STRAND LUMBER<br>LT WT - LIGHT WEIGHT<br>LVL - LAMINATED VENEER LUMBER<br><b>M</b><br>MATL - MATERIAL<br>MAX - MAXIMUM<br>MBR - MEMBER<br>MC - MISCELLANEOUS CHANNEL<br>MECH - MECHANICAL<br>MEZZ - MEZZANINE<br>MFD - MANUFACTURED<br>MFR - MANUFACTURER<br>MIN - MINIMUM<br>MISC - MISCELLANEOUS<br>MTL - METAL<br><b>N</b><br>NA - NOT APPLICABLE<br>NIC - NOT IN CONTRACT<br>NO - NUMBER<br>NOM - NOMINAL<br>NS - NEAR SIDE<br>NTS - NOT TO SCALE<br><b>O</b><br>OC - ON CENTER<br>OD - OUTSIDE DIAMETER<br>OH DR - OVERHEAD DOOR<br>OPNG - OPENING<br>OPP - OPPOSITE<br>OSB - ORIENTED STRAND BOARD<br>OVS - OVERSIZED<br><b>P</b><br>PAF - POWDER ACTUATED FASTENER<br>PCF - POUNDS PER CUBIC FOOT<br>PL - PLATE<br>PLF - POUNDS PER LINEAR FOOT<br>PLYWD - PLYWOOD<br>PNL - PANEL<br>PR - PAIR, PIPE RAIL<br>PRCST - PRECAST<br>PREFAB - PREFABRICATED<br>PSF - POUNDS PER SQUARE FOOT<br>PSI - POUNDS PER SQUARE INCH<br>PT - POST TENSION (ED), PRESSURE TREATED<br><b>R</b><br>R - RADIUS<br>RCP - REINFORCED CONCRETE PIPE<br>RD - ROOF DRAIN<br>REF - REFERENCE<br>REINF - REINFORCING<br>REQ'D - REQUIRED<br>REV - REVISION<br>RO - ROUGH OPENING | <b>S</b><br>SCHED - SCHEDULE<br>SECT - SECTION<br>SHT - SHEET<br>SHTHG - SHEATHING<br>SIM - SIMILAR<br>SL - SNOW LOAD<br>SLV - SLEEVE<br>SOG - SLAB-ON-GRADE<br>SPEC - SPECIFICATION<br>SQ - SQUARE<br>SSL - SHORT SLOTTED<br>SST - STAINLESS STEEL<br>STD - STANDARD<br>STIF - STIFFENER<br>STL - STEEL<br>SUSP - SUSPENDED<br>SW - SHEAR WALL<br>SYMM - SYMMETRICAL<br><b>T</b><br>T&B - TOP AND BOTTOM<br>T&G - TONGUE AND GROOVE<br>TBD - TO BE DETERMINED<br>THK - THICK (NESS)<br>TL - TOTAL LOAD<br>TO - TOP OF<br>TOB - TOP OF BEAM<br>TOC - TOP OF CONCRETE<br>TOCW - TOP OF CONCRETE WALL<br>TOF - TOP OF FOOTING<br>TOM - TOP OF MASONRY<br>TOS - TOP OF STEEL<br>TOW - TOP OF WALL<br>TRANS - TRANSVERSE<br>TYP - TYPICAL<br><b>U</b><br>UNO - UNLESS NOTED OTHERWISE<br><b>V</b><br>V - SHEAR<br>VERT - VERTICAL<br>VIF - VERIFY IN FIELD<br>VR - VAPOR RETARDER<br>VRFY - VERIFY<br><b>W</b><br>W - WIDTH<br>WI - WITH<br>W/O - WITHOUT<br>WD - WOOD<br>WF - WIDE FLANGE<br>WL - WIND LOAD<br>WLD - WELD (ED)<br>WP - WATERPROOFING, WORK POINT<br>WS - WATERSTOP<br>WT - WEIGHT<br>WWF - WELDED WIRE FABRIC<br><b>Y</b><br>YD - YARD |
|---|--|---|

A

B

C

D

E

F

**APP Architecture**  
creative focused design

615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8898 F 937.832.3696  
www.app-arch.com



TALAWANDA SCHOOL DISTRICT

**MAINTENANCE AND BUS GARAGE**

5301 University Park Blvd.  
City of Oxford, Ohio 45056

ISSUE

| NO. | DATE      | DESCRIPTION             |
|-----|-----------|-------------------------|
|     | 4/08/2022 | PERMIT AND CONSTRUCTION |

|         |           |
|---------|-----------|
| DATE    | 4/08/2022 |
| JOB NO. | 2021145   |
| DRAWN   | JMR       |
| CHECKED | JMR       |

COPYRIGHT © 2022 - App Architecture, Inc.

TITLE  
**SPECIAL INSPECTIONS**

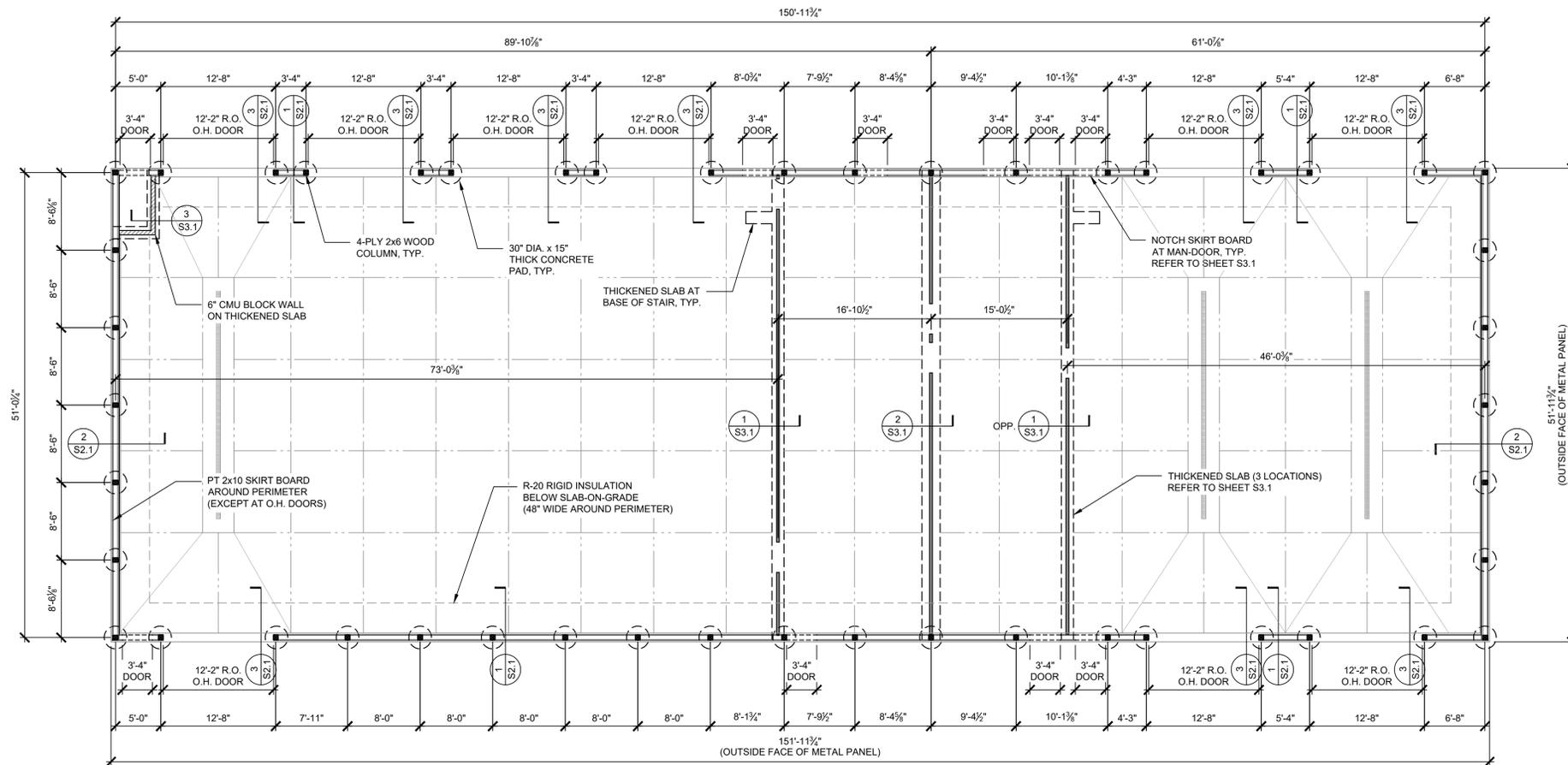
SHEET NO.  
**S0.2**

# FOUNDATION PLAN

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

## FOUNDATION NOTES:

1. AT MAINTENANCE & TRANSPORTATION BAYS, PROVIDE 6" THICK CONCRETE SLAB-ON-GRADE w/ 6x6 - W2.9 x W2.9 WWF OVER 6" MIN. COMPACTED GRANULAR BASE & 10 MIL VAPOR BARRIER. AT OFFICE SPACES, PROVIDE 4" THICK CONCRETE SLAB-ON-GRADE w/ 6x6 - W1.4 x W1.4 WWF OVER 4" MIN. COMPACTED GRANULAR BASE & 6 MIL VAPOR BARRIER. T/SLAB = 100'-0".
2. ----- DENOTES APPROXIMATE LOCATION OF CONTROL JOINT.
3. B/FOOTING = 95'-0" U.N.O.
4. REFER TO ARCH. DWG'S FOR EXACT LOCATIONS OF MAN-DOORS.
5. AT TRENCH DRAINS, THICKEN SLAB AS NEEDED TO MAINTAIN 6" OF CONCRETE COVER AROUND DRAIN. INSTALL #4 x 8" LONG DOWELS AT 24" O.C. AROUND PERIMETER OF TRENCH DRAIN CONSTRUCTION JOINT (4" EPOXY EMBEDMENT).



ISSUE

| NO. | DATE      | DESCRIPTION             |
|-----|-----------|-------------------------|
| 1   | 4/08/2022 | PERMIT AND CONSTRUCTION |

|         |           |
|---------|-----------|
| DATE    | 4/08/2022 |
| JOB NO. | 2021145   |
| DRAWN   | JMR       |
| CHECKED | JMR       |

TITLE  
**FOUNDATION PLAN**

SHEET NO.  
**S1.0**

1 | 2 | 3 | 4 | 5 | 6 | 7

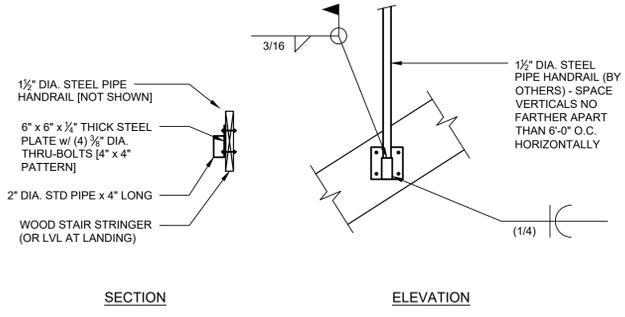
A  
B  
C  
D  
E  
F

**MEZZANINE FRAMING PLAN**

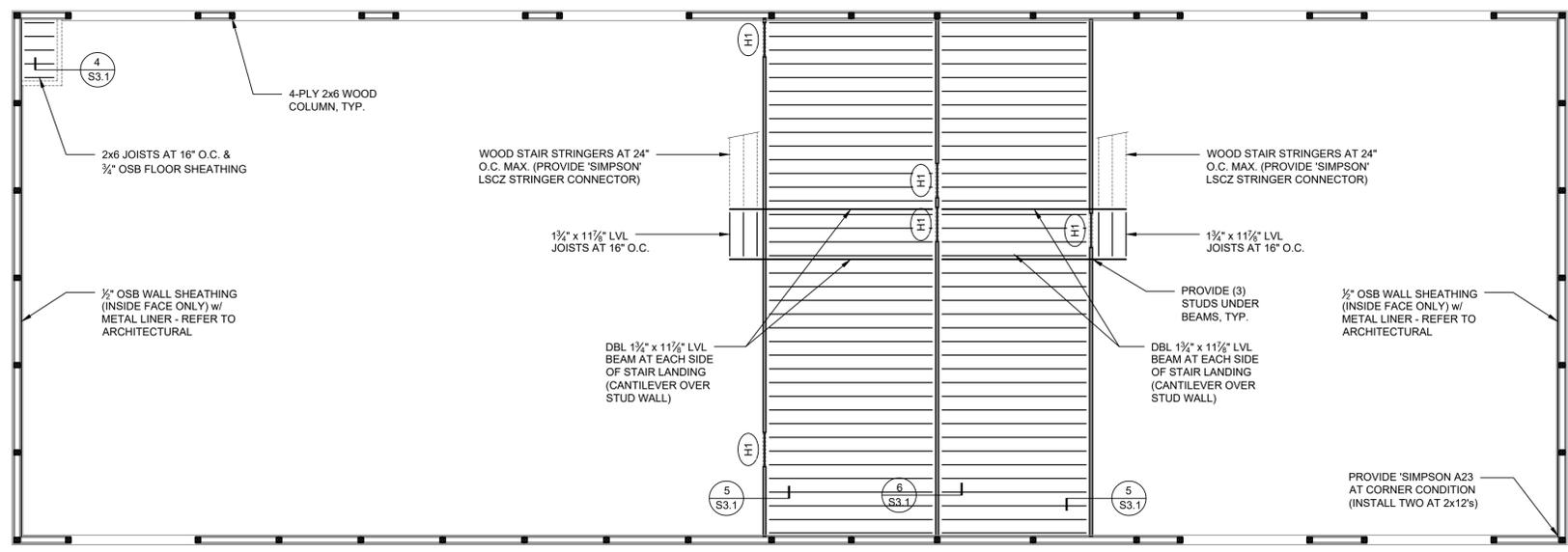
SCALE : 1/8" = 1'-0"

**FRAMING NOTES:**

1. TYPICAL MEZZANINE FRAMING CONSISTS OF 11 1/8" DEEP TJI-560 FLOOR JOISTS AT 16" O.C. T/FLOOR = 109'-6".
2. PROVIDE 3/4" OSB FLOOR SHEATHING (GLUED & SCREWED).
3. SEE SHEET S3.1 FOR TYPICAL DOOR FRAMING, WINDOW / LOUVER FRAMING, AND CANOPY FRAMING. REFER TO ARCH. DWG'S FOR LOCATIONS.
4. PROVIDE DEFLECTION TRACKS AT THE TOP OF ALL NON-LOAD BEARING INTERIOR LIGHT GAUGE STUD WALLS, TYP.



1 TYPICAL DETAIL - HANDRAIL ATTACHMENT AT STAIR/LANDING  
SCALE: 3/4" = 1'-0"



**LIGHT GAUGE HEADER SCHEDULE:**

|      |                                 |
|------|---------------------------------|
| (H1) | (2) 600S162-54 (50 KSI) STUDS & |
|      | (2) 362T150-54 (50 KSI) TRACKS  |



ISSUE

| NO. | DATE      | DESCRIPTION             |
|-----|-----------|-------------------------|
| 1   | 4/08/2022 | PERMIT AND CONSTRUCTION |

|         |           |
|---------|-----------|
| DATE    | 4/08/2022 |
| JOB NO. | 2021145   |
| DRAWN   | JMR       |
| CHECKED | JMR       |

1 | 2 | 3 | 4 | 5 | 6 | 7

1 | 2 | 3 | 4 | 5 | 6 | 7

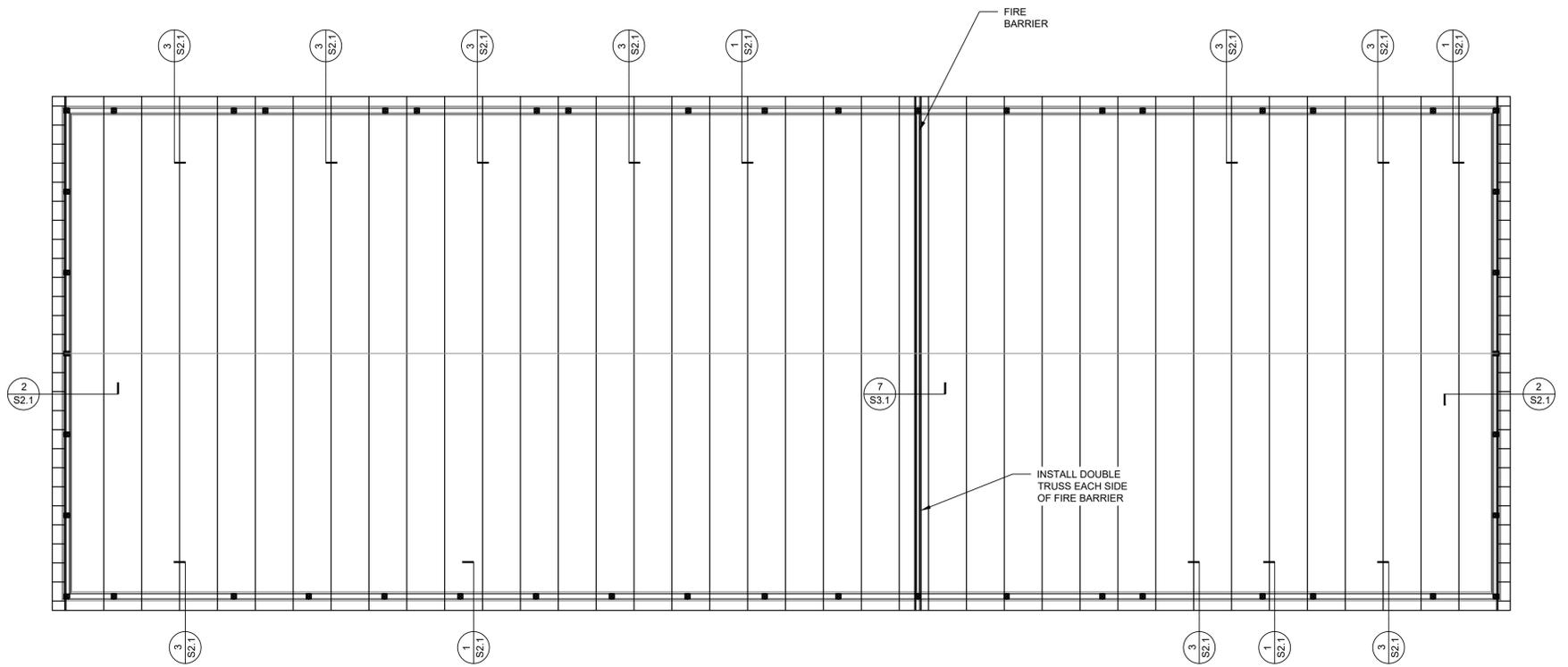
A  
B  
C  
D  
E  
F

### ROOF FRAMING PLAN

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

### FRAMING NOTES:

- DESIGN ROOF TRUSSES FOR 20 PSF DEAD LOAD (10 PSF - TOP CHORD & 10 PSF - BOTTOM CHORD) AND 25 PSF LIVE LOAD (TOP CHORD ONLY). LIMIT TOTAL DEFLECTION TO SPAN / 240. SPACE TRUSSES NO FARTHER APART THAN 4'-0" O.C.
- TRUSS BEARING ELEVATION = 118'-0" U.N.O.



**APP Architecture**  
creative focused design

615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8898 F 937.832.3696  
www.app-arch.com



TALAWANDA SCHOOL DISTRICT

**MAINTENANCE AND BUS GARAGE**

5301 University Park Blvd.  
City of Oxford, Ohio 45056

| ISSUE     |                         |
|-----------|-------------------------|
| NO.       | DESCRIPTION             |
| 4/08/2022 | PERMIT AND CONSTRUCTION |

|         |           |
|---------|-----------|
| DATE    | 4/08/2022 |
| JOB NO. | 2021145   |
| DRAWN   | JMR       |
| CHECKED | JMR       |

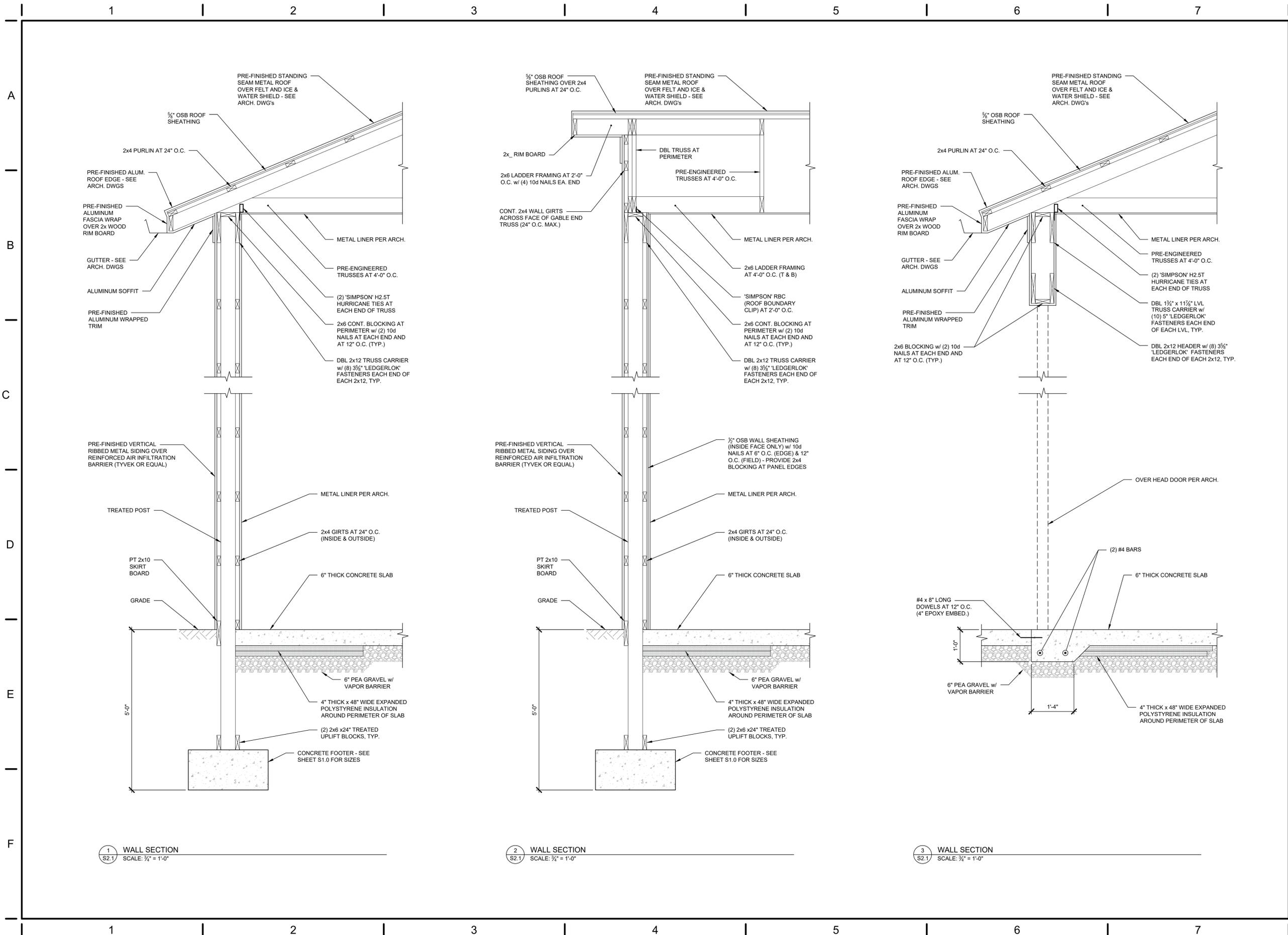
COPYRIGHT © 2022 - App Architecture, Inc.

TITLE  
**ROOF FRAMING PLAN**

SHEET NO.

# S1.2

1 | 2 | 3 | 4 | 5 | 6 | 7



TALAWANDA SCHOOL DISTRICT

**MAINTENANCE AND BUS GARAGE**

5301 University Park Blvd.  
City of Oxford, Ohio 45056

ISSUE

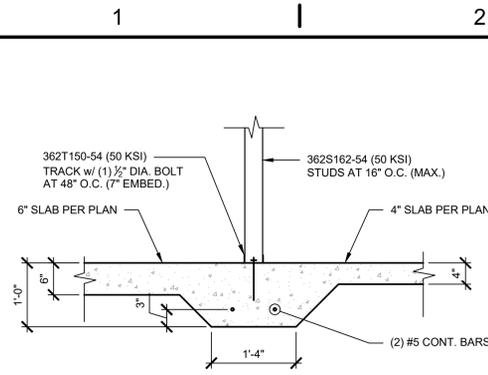
| NO. | DATE      | DESCRIPTION             |
|-----|-----------|-------------------------|
| 1   | 4/08/2022 | PERMIT AND CONSTRUCTION |

|         |           |
|---------|-----------|
| DATE    | 4/08/2022 |
| JOB NO. | 2021145   |
| DRAWN   | JMR       |
| CHECKED | JMR       |

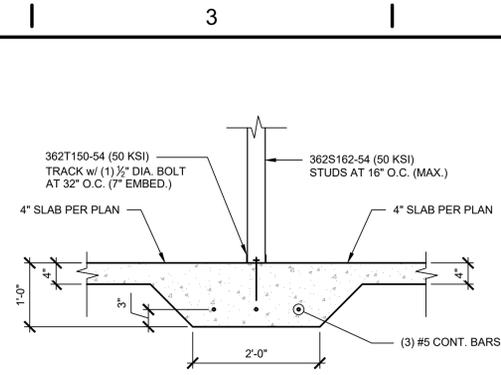
COPYRIGHT © 2022 - App Architecture, Inc.

TITLE  
**WALL SECTIONS**

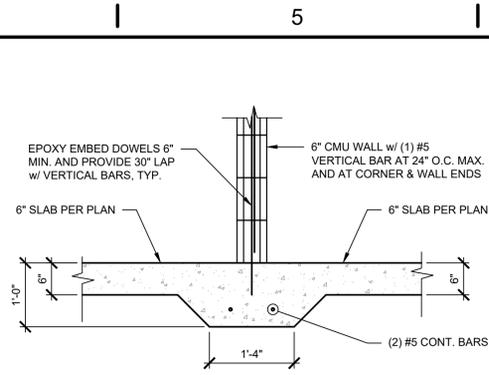
SHEET NO.  
**S2.1**



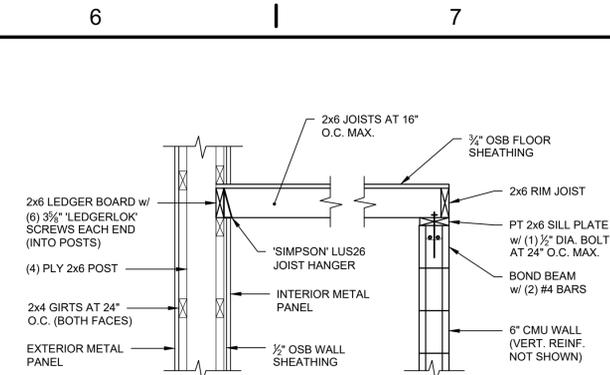
1 SECTION  
SCALE: 3/4" = 1'-0"



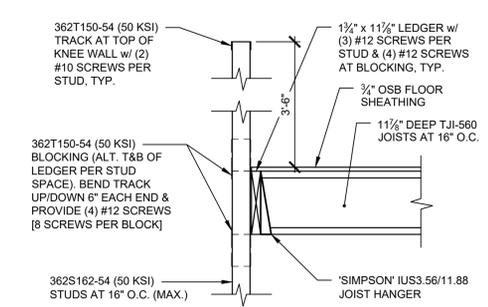
2 SECTION  
SCALE: 3/4" = 1'-0"



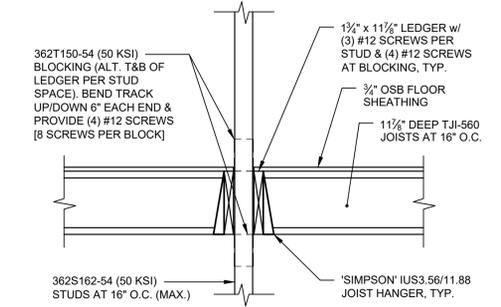
3 SECTION  
SCALE: 3/4" = 1'-0"



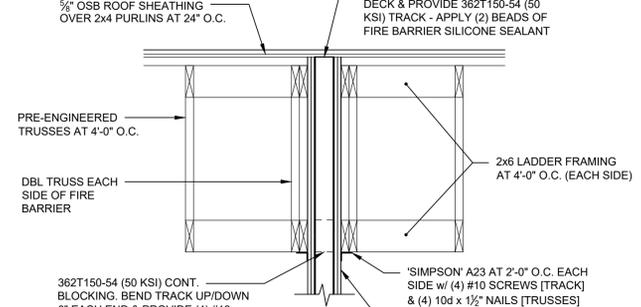
4 SECTION  
SCALE: 3/4" = 1'-0"



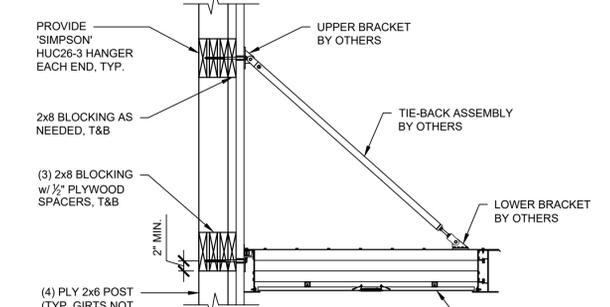
5 SECTION  
SCALE: 3/4" = 1'-0"



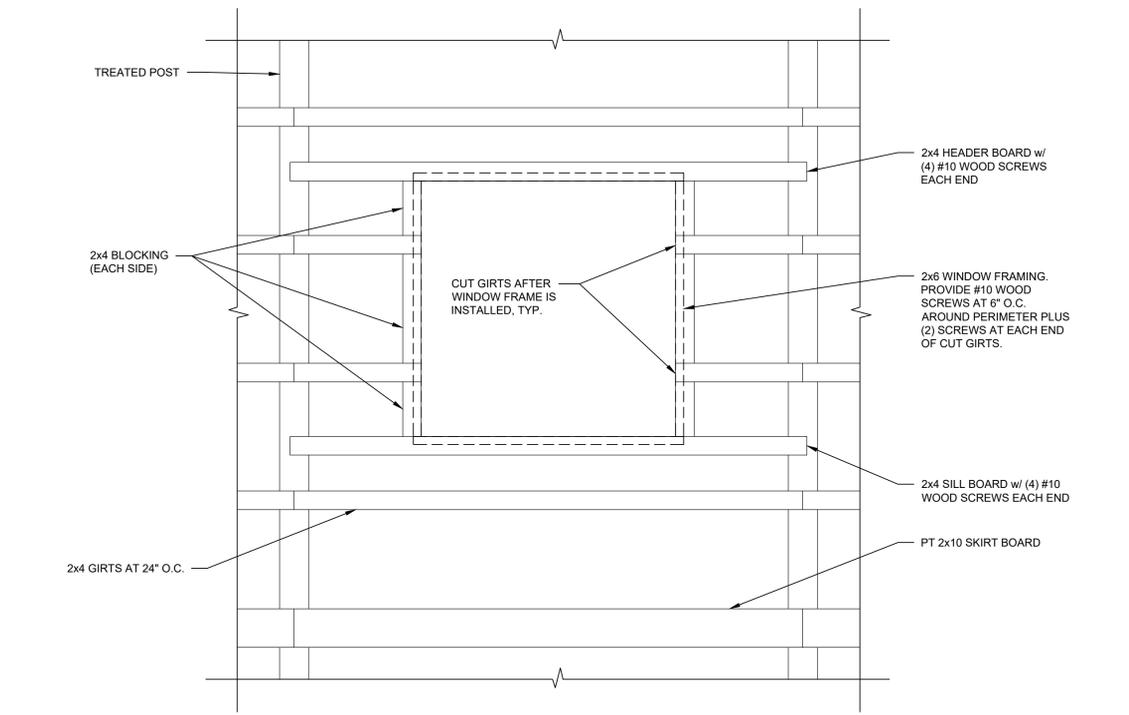
6 SECTION  
SCALE: 3/4" = 1'-0"



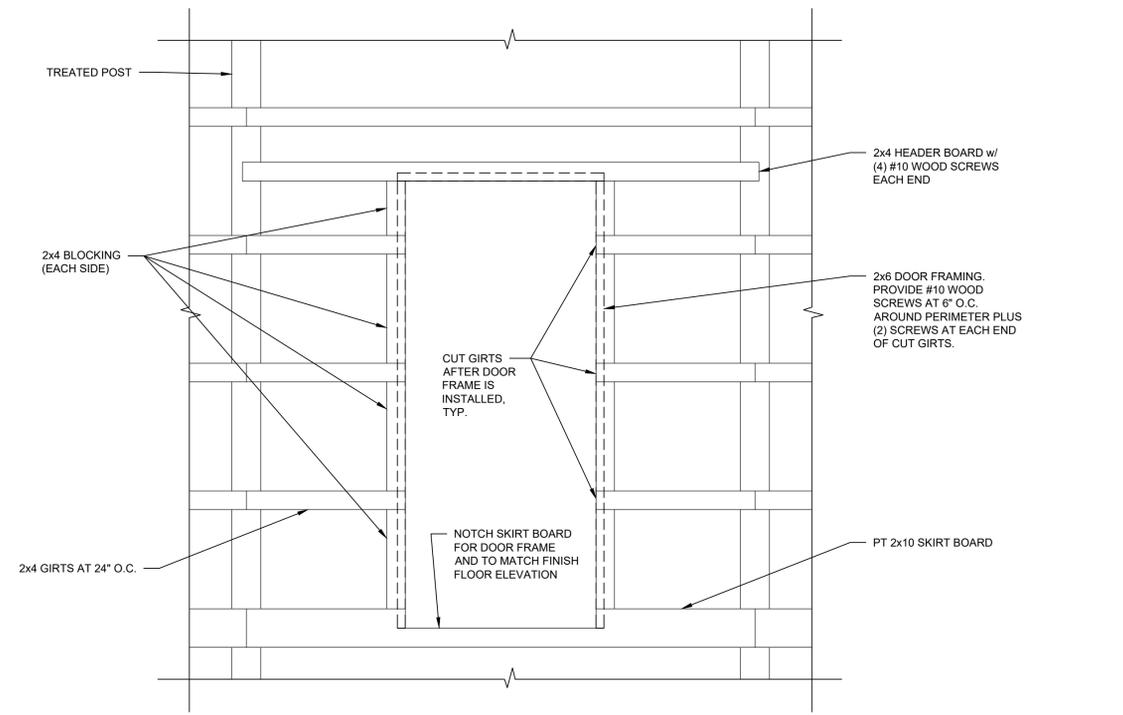
7 SECTION  
SCALE: 3/4" = 1'-0"



8 CANOPY DETAIL  
SCALE: 3/4" = 1'-0"



9 ELEVATION - TYPICAL WINDOW FRAMING  
SCALE: 3/4" = 1'-0"



10 ELEVATION - TYPICAL DOOR FRAMING  
SCALE: 3/4" = 1'-0"

ISSUE

| NO. | DATE      | DESCRIPTION             |
|-----|-----------|-------------------------|
| 1   | 4/08/2022 | PERMIT AND CONSTRUCTION |

|         |           |
|---------|-----------|
| DATE    | 4/08/2022 |
| JOB NO. | 2021145   |
| DRAWN   | JMR       |
| CHECKED | JMR       |

TITLE  
**STRUCTURAL DETAILS**

SHEET NO.  
**S3.1**

# PLUMBING SPECIFICATIONS

## A. GENERAL CONDITIONS

- WORK UNDER THIS CONTRACT SHALL CONSIST OF, BUT NOT LIMITED TO: FURNISHINGS, INSTALLATION, TESTING, AND WARRANTY OF PLUMBING AS INDICATED ON THE DRAWINGS AND AS SPECIFIED HEREIN.
- PLUMBING SHALL BE INSTALLED BY A LICENSED CONTRACTOR. WARRANTY SHALL BE FOR ONE YEAR FROM DATE OF FINAL ACCEPTANCE.
- THE WORD "PROVIDE" SHALL BE DEFINED TO MEAN "FURNISH AND INSTALL, COMPLETE, AND OPERATING," WHERE THE WORD "EQUAL TO" IS USED THE CONTRACTOR SHALL HAVE THE OPTION OF SELECTING BETWEEN ONE OF THE ADDITIONAL NAMES OR MANUFACTURERS LISTED OR MAY SUBMIT PRODUCTS SUBJECT TO ENGINEER'S APPROVAL.
- ALL PERMIT AND INSPECTION FEES ARE TO BE INCLUDED IN CONTRACTOR'S SCOPE.
- PROVIDE THE OWNER CERTIFICATES OF APPROVAL FROM INSPECTION AGENCIES.
- WORK MUST CONFORM TO ALL APPLICABLE LOCAL, STATE, AND FEDERAL LAWS, ORDINANCES, AND REGULATIONS. PLUMBING CONTRACTOR SHALL SECURE AND PAY FOR ALL FEES AND PERMITS ASSOCIATED WITH HIS PORTION OF THE WORK.
- PLUMBING CONTRACTOR SHALL COORDINATE ALL ASPECTS OF WORK WITH OTHER TRADES PRIOR TO AND DURING CONSTRUCTION/INSTALLATION.
- WORK PLANS TO BE CONSIDERED AS DIAGRAMMATIC AND ALONG WITH THE SPECIFICATIONS, REFLECT A MINIMUM ACCEPTABLE STANDARD. ALL WORK SHALL CONFORM TO THE OHIO PLUMBING CODE, AND THE AMERICANS WITH DISABILITIES ACT GUIDELINES.
- UNLESS OTHERWISE NOTED, ALL FLOOR DRAINS SHALL BE THREE (3") INCH IN SIZE.
- WHEN A CONFLICT BETWEEN PLANS AND SPECIFICATIONS OR NOTES OCCURS, THE ENGINEER SHALL DECIDE WHICH GOVERNS. GENERALLY, THE MORE RESTRICTIVE, MORE SPECIFIC, OR STRICTER PROVISION SHALL GOVERN. IF ANY DISCREPANCIES ARE DISCOVERED ON THE PLANS OR BETWEEN THE PLANS AND THE SPECIFICATIONS, THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER AND OBTAIN CLARIFICATION OF THE INTENT FROM THE ENGINEER PRIOR TO CONSTRUCTION OR INSTALLATION OF PROPOSED IMPROVEMENTS.
- REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURE HEIGHTS AND ACCESSIBILITY REQUIREMENTS.

## PIPING NOTES

- FIXTURES TO BE COMPLETE WITH SUPPLY PIPES WITH STOPS. SUPPLIES AND STOPS TO BE CHROME PLATE W/SET SCREW ESCUTCHEONS, WHERE EXPOSED TO VIEW.
- ACCESSIBLE SHUTOFF VALVES SHALL BE PROVIDED FOR EACH TOILET ROOM AND EXTERIOR WALL HYDRANTS. PLUMBING CONTRACTOR TO PROVIDE 8"x8" (MIN.) ACCESS PANELS FOR SHUTOFF VALVES WHERE REQUIRED. COORDINATE TYPE AND FINISH WITH DIV. 2 REQUIREMENTS.
- PROVIDE SHOCK ARRESTORS AT COLD AND HOT WATER CONNECTIONS TO WASHING MACHINE AND REFRIGERATOR ICE MAKER. PROVIDE AIR CHAMBERS AT WATER SUPPLY CONNECTIONS TO ALL OTHER FIXTURE OR PROVIDE SHOCK ARRESTORS PER FIXTURE GROUP AS RECOMMENDED BY PDI INSTITUTE AND MANUFACTURER.
- PLUMBING VENTS SHALL BE A MINIMUM OF 12'-0" FROM ANY HVAC OUTDOOR AIR OPENINGS.
- PROVIDE CLEANOUTS AT BASE OF ALL DWV AND STORM RISERS AND WITHIN 5'-0" (EITHER SIDE) OF EXTERIOR WALL AS REQUIRED BY CODE, WHETHER OR NOT DIRECTLY INDICATED ON PLUMBING PLAN.
- DRAINAGE (STORM OR SANITARY) PIPE SIZE BELOW FLOOR TO BE 2" MINIMUM. FOR SIZES REFER TO PLANS AND ISOMETRICS.
- ROUTE GAS AND WATER PIPING AS HIGH AS POSSIBLE, OFFSET WHERE IN CONFLICT WITH OTHER TRADES.
- GAS MAIN ROUTED THROUGH CEILING SPACE SHALL BE INSTALLED IN SUCH A MANNER SO AS NOT TO SUBJECT PIPING TO POSSIBLE DAMAGE. VALVES SHALL NOT BE INSTALLED IN CEILING SPACE.
- NATURAL GAS EQUIPMENT CONNECTIONS SHALL BE PROVIDED WITH VALVES, UNIONS, DIRT LEGS, ETC. AS NECESSARY FOR A COMPLETE INSTALLATION. INSTALL "AGA" APPROVED FLEXIBLE GAS SUPPLY CONNECTION WHERE SPECIFICALLY NOTED. REFER TO DETAILS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- BACKFILL AROUND UNDERGROUND PIPING WITH 3/8" CLEAN (CA-16) GRAVEL ALL AROUND. BACKFILL A MINIMUM OF TWO TIMES THE PIPE OUTSIDE DIAMETER, PRIOR TO FINAL BACKFILL. PVC PIPING SHALL BE PROPERLY SUPPORTED EVERY 4'-0" ALONG ITS HORIZONTAL RUN PRIOR TO BACKFILLING.
- DWV, SUPPLY, GAS AND STORM PIPING ROUTED THROUGH FINISHED AREAS SHALL BE CONCEALED ABOVE CEILING OR IN FURRED-OUT WALL. DWV, SUPPLY, GAS AND STORM PIPING PIPING SHALL NOT BE EXPOSED IN FINISHED AREAS, EXCEPT WHERE NOTED ON DRAWINGS.

## EQUIPMENT NOTES:

- INSTALL ALL THERMOMETERS IN ACCESSIBLE AND READABLE POSITIONS.

## FINISH NOTES:

- PAINT ALL PLUMBING PIPE SUPPORTS WITH A RUST INHIBITIVE PRIMER AND TWO COATS OF GLOSS GRAY OR BLACK ENAMEL OR ACRYLIC PAINT.
- PAINT ALL UNINSULATED/UNJACKETED PLUMBING PIPING EXPOSED TO OUTDOORS, INCLUDING PIPING COMPONENTS, VALVES, UNIONS, & ETC., WITH ONE COAT OF RUST INHIBITIVE PRIMER AND TWO COATS OF GLOSS ENAMEL OR ACRYLIC PAINT.
- THE PLUMBING CONTRACTOR SHALL PROVIDE ALL FIRESTOPPING FOR PLUMBING PIPE PENETRATIONS THROUGH SMOKE AND FIRE RATED ASSEMBLIES. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL RATED ASSEMBLIES. ALL PENETRATIONS SHALL BE FIRESTOPPED TO ORIGINAL ASSEMBLY RATING AND FLOOR PENETRATIONS SEALED WATER TIGHT WITH A FLEXIBLE SEALANT.

## B. INSTALLATIONS

- INSPECT THE EXISTING FACILITY AND VERIFY LOCATIONS OF ALL EXISTING UTILITIES.
- DRAWINGS INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS. HOWEVER, MAKE FIELD ADJUSTMENTS TO INSURE CORRECT FIT.
- PIPING SHALL NOT BE INSTALLED ABOVE ELECTRICAL EQUIPMENT OR ABOVE ACCESS TO SAME PER "NEC" GUIDELINES.
- WORK SHALL BE PLANNED AND EXECUTED TO PROVIDE REASONABLY CONTINUOUS SERVICE OF EXISTING FACILITIES.
- PROVIDE WALL OR CEILING ACCESS PANELS WHERE REQUIRED FOR ACCESS TO CONCEALED VALVES, EQUIPMENT, ET. PANELS SHALL BE MINIMUM 18"x18" OR LARGER AS REQUIRED AND SHALL BE COMPATIBLE WITH THE AREA IN WHICH THEY ARE INSTALLED. PANELS IN FIRE RATED BUILDING ELEMENTS SHALL BE LABELED IN COMPLIANCE WITH THE RATING OF THE BUILDING ELEMENT.
- PROVIDE ALL CUTTING AND PATCHING NECESSARY TO INSTALL THE WORK. SAW CUT OR DRILL OPENINGS.
- ALL FERROUS METAL WHICH IS NOT FACTORY, SHOP PAINTED, GALVANIZED WHICH WILL BE EXPOSED IN FINISHED AREAS OR OUTSIDE THE BUILDING SHALL BE PRIME COATED.
- PROVIDE PIPE SLEEVES AT PENETRATIONS OF BUILDING ELEMENTS. SLEEVES MAY BE GALVANIZED SHEET METAL OR STEEL PIPE. FIRE STOPPING SHALL BE PROVIDED AT ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES. FIRE STOPPING SHALL BE UL LISTED AND PROVIDE A FIRE RATING EQUAL TO THAT OF THE CONSTRUCTION BEING PENETRATED.
- ALL WELDERS SHALL BE FULLY CERTIFIED IN ACCORDANCE WITH ASME QUALIFICATIONS.
- PROVIDE PIPE LABELING AND VALVE TAGGING USING MANUFACTURED LABELS: TAGS IN COMPLIANCE WITH ANSI A13.1.
- FLUSH NEW PIPING SYSTEM PRIOR TO OPERATION. PROVIDE SERVICES OF A FIRM REGULARLY ENGAGED IN DISINFECTION SERVICES TO DISINFECT THE DOMESTIC WATER SYSTEM IN ACCORDANCE WITH AWWA GUIDELINES.
- BALANCE DOMESTIC HOT WATER RECIRCULATION SYSTEM TO FLOW RATES INDICATED ON THE DRAWINGS.
- PREPARE TEST AND INSPECTION REPORTS.
- TEST AND CERTIFY BACKFLOW PREVENTERS AND PRESSURE VACUUM BREAKERS ACCORDING TO CODE AND STANDARD PER AUTHORITY HAVING JURISDICTION.
- REPLACE DEFECTIVE PRODUCTS AND/OR MATERIALS WITH NEW.
- PROVIDE ATMOSPHERIC VENT DRAIN CONNECTION ON BACKFLOW PREVENTERS AND EXTEND PIPING TO FLOOR DRAIN FOR INDIRECT DISCHARGE WITH MINIMUM 2" AIR GAP.

## C. INSTALLATIONS

- BEFORE CONSTRUCTION OR INSTALLATION OF MATERIALS OR EQUIPMENT, CONTRACTOR SHALL SUBMIT AN ELECTRONIC COPY OF SHOP DRAWINGS TO BE REVIEWED BY THE ENGINEER.
- SHOP DRAWINGS SHALL INDICATE INDIVIDUAL COMPONENTS, MODEL NUMBERS, AND ELECTRICAL INFORMATION.
- SHOP DRAWINGS FOR THE FOLLOWING SHALL BE SUBMITTED.

- PIPE FITTINGS
- VALVES
- HEATERS
- PLUMBING FIXTURES
- DRAINS, CLEANOUTS, AND CARRIERS

## D. TESTING

- ALL PIPING PROVIDED SHALL BE PRESSURE TESTED.
  - DOMESTIC WATER: HYDROSTATIC AT 125 PSI FOR 1.5 TIMES MAXIMUM OPERATING PRESSURE FOR 6 HOURS.
  - UNDERGROUND WATER: HYDROSTATIC AT 125 PSI FOR 6 HOURS AND/OR IN CONFORMANCE WITH AWWA PROCEDURES.
  - SOIL, WASTE, VENT, AND STORM: IN CONFORMANCE WITH PLUMBING CODE.
  - INTERIOR NATURAL GAS: 50 PSI COMPRESSED AIR FOR 6 HOURS.
- EXCAVATION: EXCAVATE FOR ALL UNDERGROUND PIPING. BACKFILL AND COMPACT TO FINISH GRADE OR TO LEVELS CONSISTENT WITH THE GENERAL CONTRACTOR'S ACTIVITIES. PROVIDE COMPACTED BACKFILL OF GRADED PEA GRAVEL, GRADED COURSE SAND, OR CRUSHED LIMESTONE (MAXIMUM 0.75" SIZE) UNDER ANY PAVED OR OTHER HARD SURFACED AREAS. EXCAVATION, TRENCH WALL SUPPORTING AND OPEN TRENCH BARRICADING, AND SIGNAGE SHALL BE PER OSHA AND LOCAL REQUIREMENTS. A UTILITY LOCATOR SERVICE SHALL BE PROVIDED TO IDENTIFY AND/OR VERIFY THE LOCATION OF EXISTING PRIVATE UTILITIES WITHIN THE EXCAVATION AREA.
- HANGERS: ALL INTERIOR ABOVE GRADE PIPING SHALL BE SUPPORTED BY ATTACHMENT TO THE BUILDING STRUCTURAL ELEMENTS. HANGER ROD SIZES AND HANGER/SUPPORT SPACING SHALL BE PER THE FOLLOWING SCHEDULES. FIRE SUPPRESSION HANGER AND SUPPORT REQUIREMENTS SHALL BE PER NFPA STANDARDS.

| PIPE SIZE | MINIMUM HANGER ROD DIAMETER |
|-----------|-----------------------------|
| ≤ 1"      | 0.25"                       |
| 1.25"-3"  | 0.375"                      |
| 4"-6"     | 0.5"                        |

| PIPE MATERIAL SIZE | MAXIMUM HANGER/SUPPORT SPACING |
|--------------------|--------------------------------|
|                    | VERTICAL                       |
| STEEL              | BASE AND 15'                   |
| COPPER             | BASE AND 10'                   |
| CAST IRON          | BASE AND EACH FLOOR LEVEL      |
| PLASTIC            | PER MANUFACTURER               |
|                    | HORIZONTAL                     |
| STEEL/ ≤ 2"        | 8'                             |
| STEEL/ 2.5"-6"     | 10'                            |
| STEEL/ > 6"        | 12'                            |
| COPPER/ ≤ 1.25"    | 6'                             |
| COPPER/ ≤ 1.5"-2"  | 8'                             |
| COPPER/ > 2"       | 10'                            |
| CAST IRON          | 10' AND EACH FITTING/JOINT     |
| PLASTIC            | PER MANUFACTURER               |

## J. PIPING

- INSULATION: PROVIDE INSULATION ON ALL NEW DOMESTIC WATER AND INTERIOR HORIZONTAL STORM DRAINAGE PIPING (INCLUDING HORIZONTAL OVERFLOW DRAINAGE PIPING AND THE UNDERSIDE OF ALL ROOF DRAIN SUMPS) WITH FIBERGLASS/TUBULAR CLOSED CELL PIPE INSULATION IN COMPLIANCE WITH ASHRAE 90.1. FIBERGLASS INSULATION SHALL BE FACTORY MOLDED TUBULAR FIBERGLASS WITH ALL SERVICE JACKET, INTEGRAL VAPOR BARRIER, AND FACTORY ADHESIVE OVERLAPPING JOINTS. PROVIDE FACTORY MOLDED PVC COVERS AND INSULATION FOR FITTINGS, VALVES, AND DEVICES. TUBULAR CLOSED CELL INSULATION SHALL BE FOAM PLASTIC TYPE WITH PRESSURE-SENSITIVE ADHESIVE TAPE CLOSURE SYSTEM AND/OR VAPOR SEALING ADHESIVE. COMPOSITE INSULATING SYSTEMS SHALL NOT EXCEED A MAXIMUM FLAME SPREAD OF 25 ADEN SMOKE DEVELOPMENT OF 50 AS ESTABLISHED BY NFPA TEST METHODS. FIBERGLASS INSULATION MANUFACTURERS: OWENS-CORNING, JOHNS MANVILLE, MASON, OR KNAUFF. TUBULAR CLOSED CELL INSULATION SHALL BE EQUAL TO ARMSTRONG ARMACELL ARMAFLEX 2000. INSULATION THICKNESS SHALL COMPLY WITH THE FOLLOWING SCHEDULE:

| PIPE SYSTEM                | RUNOUTS <12' | ≤1"  | 1.25"-2" | 2.5"-4" | 5"-6" | ≥6"  |
|----------------------------|--------------|------|----------|---------|-------|------|
| DOMESTIC COLD WATER        | 0.5"         | 0.5" | 0.5"     | 1.0"    | 1.0"  | 1.0" |
| DOMESTIC HOT WATER         | 0.5"         | 1.0" | 1.0"     | 1.5"    | 1.5"  | 1.5" |
| DOMESTIC HOT RETURN        | 0.5"         | 1.0" | 1.0"     | 1.5"    | 1.5"  | 1.5" |
| STORM (INCLUDING OVERFLOW) | -            | -    | -        | 1.0"    | 1.0"  | 1.0" |

- PLUMBING FIXTURES: PROVIDE PLUMBING FIXTURES COMPLETE WITH SUPPORTS, CARRIERS, AND SUPPLY AND WASTE TRIM. SUPPLIES TO EACH FIXTURE SHALL BE INDIVIDUALLY VALVED. ALL WASTE AND SUPPLY TRIM SHALL BE CHROME PLATED BRASS. FIXTURES SHALL BE WHITE UNLESS OTHERWISE SPECIFIED. SEAL JOINTS AROUND EACH FIXTURE AT THE WALL, FLOOR, AND ANY ADJACENT STRUCTURE. JOINT SEALANT SHALL BE ONE PART, MILDEW RESISTANT SILICONE, ASTM C920, TYPE S, GRADE NS, CLASS 25 WITH FUNGICIDE, EQUAL TO PECORA 698.

- VALVES: VALVES SHALL BE TWO-PIECE, BRONZE BODY, BALL TYPE, 150 WSP, EQUAL TO NIBCO T-580-70, T-585-70, AND T-580-70-66. CHECK VALVES SHALL BE BRONZE, SWING TYPE, 125 WSP, EQUAL TO NIBCO T-413-Y. BALANCING SHUTOFF VALVES SHALL BE GLOBE TYPE, POSITIVE SHUTOFF DESIGN, 125 PSI, WITH MEMORY STOP, GAUGE PORTS, AND PORTABLE GAUGE KIT, EQUAL TO ARMSTRONG CBV SERIES.

- INTERIOR DOMESTIC WATER: PIPING SHALL BE TYPE L SEAMLESS HARD DRAWN COPPER TUBING WITH WROUGHT COPPER OR CAST BRONZE FITTINGS AND SOLDERED JOINTS OR PEX TUBING WITH EXPANSION OR MECHANICAL CRIMP FITTINGS MATCHING TUBING TYPE. SOLDER SHALL BE LEAD-FREE TIN ALLOW, 95-5 TIN-ANTIMONY, OR SILVER BEARING TIN. UNDER FLOOR BURIED PIPING SHALL BE TYPE K SOFT COPPER TUBING WITH SILVER BRAZED JOINTS OR PEX TUBING WITH EXPANSION OR MECHANICAL CRIMP FITTINGS MATCHING TUBING TYPE.
- INTERIOR SOIL, WASTE, AND VENT PIPING INCLUDING IN GRADE BELOW THE FLOOR SLAB, SHALL BE SCHEDULE 40 PVC, ASTM D2665. FITTING SHALL BE DRAINAGE TYPE. JOINTS SHALL BE SOLVENT WELDED. FLOOR DRAIN TRAPS SHALL BE THE SAME MATERIAL AS THE CONNECTING PIPING. PROVIDE CLEANOUTS WHERE SHOWN ON THE DRAWINGS AND WHERE REQUIRED BY THE GOVERNING PLUMBING CODE.
- EXTERIOR NATURAL GAS SERVICE PIPING: PIPING SHALL BE AS APPROVED BY THE GAS COMPANY. PIPING SHALL BE POLYETHYLENE PLASTIC, PE 2306 OR 2406, TYPE II, GRADE 3, OR PE3406 OR 3408, TYPE III, GRADE 3, CONFORMING TO ASTM D2513. FITTINGS SHALL BE MOLDED POLYETHYLENE AND JOINTS SHALL BE BUTT HEAT-FUSION TYPE CONFORMING TO ASTM D2513 AND D2665. UNDERGROUND VALVES SHALL BE PLASTIC BALL VALVE, 125 PSI, EQUAL TO NORDSTROM POLYVALVE. PROVIDE A VALVE BOX AND COVER AT GRADE. ABOVE GROUND VALVES SHALL BE IRON BODY LUBRICATED PLUG VALVE, 200 PSI, EQUAL TO NORDSTRM #142 AND #143. PROVIDE MINIMUM 30" OF BURIAL DEPTH AND A COPPER TRACER WIRE. VERIFY WITH THE GAS COMPANY THE LOCATION OF CONNECTION TO SOURCE. AVAILABLE GAS PRESSURE, SERVICE SIZE, METER AND REGULATOR SETTING REQUIREMENTS, ETC. BEFORE INSTALLING ANY WORK. CONTRACTOR SHALL BE A FULLY QUALIFIED INSTALLER TO PERFORM COVERED TASKS AS REQUIRED BY THE DOT AND PUCO OPERATOR QUALIFICATION RULE AND SHALL BE LISTED AS A QUALIFIED CONTRACTOR OF THE SERVICING GAS COMPANY.
- INTERIOR NATURAL GAS PIPING: PIPING SHALL BE SCHEDULE 40 BLACK STEEL, ASTM A53, TYPE E OR F. FITTINGS SHALL BE STEEL WELDING TYPE AND THREADED MALLEABLE IRON TYPE, CONSISTENT WITH JOINT REQUIREMENTS. JOINTS SHALL BE WELDED, EXCEPT THAT THREADED JOINTS MAY BE USED ON THREADED VALVES AND UNIONS, AT FINAL CONNECTIONS TO EQUIPMENT. VALVES, UNIONS, AND THREADED JOINTS ARE NOT PERMITTED IN INACCESSIBLE CONCEALED LOCATIONS. SHUTOFF VALVES 2" AND SMALLER SHALL BE TWO-PIECE FORGED BRASS BALL VALVE, 600 PSI NON-SHOCK WOG, SCREWED ENDS, EQUAL TO HAMMOND 8901. SHUTOFF VALVES 2.5" AND LARGER SHALL BE IRON BODY LUBRICATED PLUG VALVE, 200 PSI, FLANGED ENDS, EQUAL TO NORDSTROM #143. MATERIALS AND INSTALLATION SHALL CONFORM TO THE INTERNATIONAL FUEL GAS CODE AND NFPA 54 NATIONAL FUEL GAS CODE. VENT PIPING SHALL BE EXTENDED INDIVIDUALLY FROM EACH GAS VENTING DEVICE TO OUTSIDE THE BUILDING.

# PLUMBING LEGEND

| SYMBOL    | DESCRIPTION                         | ABBREVIATIONS |                                   |
|-----------|-------------------------------------|---------------|-----------------------------------|
| ---V---   | VENT PIPING                         | ADA           | AMERICAN WITH DISABILITIES ACT    |
| ---SAN--- | SANITARY PIPING                     | AFF           | ABOVE FINISHED FLOOR              |
| ---GW---  | GREASE WASTE PIPING                 | BFP           | BACKFLOW PREVENTER                |
| ---NG---  | NATURAL GAS PIPING                  | CO            | CLEANOUT                          |
| ---CW---  | DOMESTIC COLD WATER PIPING          | CW            | DOMESTIC COLD WATER               |
| ---HW---  | DOMESTIC HOT WATER PIPING           | DS            | DOWNSPOUT                         |
| ---HWR--- | DOMESTIC HOT WATER RETURN PIPING    | ET            | EXPANSION TANK                    |
| --- ---   | BALL VALVE                          | EX            | EXISTING                          |
| --- ---   | CHECK VALVE                         | FCO           | FLOOR CLEANOUT                    |
| --- ---   | BALANCING VALVE                     | FD            | FLOOR DRAIN                       |
| --- ---   | BACKFLOW PREVENTER                  | FSEC          | FOOD SERVICE EQUIPMENT CONTRACTOR |
| --- ---   | HOT WATER RETURN RECIRCULATION PUMP | GMR           | GAS METER/REGULATOR               |
| --- ---   | PIPE CAP                            | GS            | GAS SERVICE                       |
| --- ---   | PIPE UP                             | GT            | GREASE TRAP OR KITCHEN WASTE      |
| --- ---   | PIPE DOWN                           | HB            | HOSE BIBB                         |
| --- ---   | EXISTING PIPING TO REMAIN           | HW            | DOMESTIC HOT WATER                |
| --- ---   | EXISTING PIPING TO BE DEMOLISHED    | HWR           | DOMESTIC HOT WATER RETURN         |
| --- ---   | NEW PIPING                          | IND           | INDIRECT WASTE                    |
| --- ---   | FLOW ARROW                          | LV            | LAVATORY                          |
| --- ---   | KEYNOTE DESIGNATION                 | MB            | MOP BASIN                         |
| --- ---   | KEYNOTE DESIGNATION                 | NG            | NATURAL GAS                       |
| --- ---   | KEYNOTE DESIGNATION                 | NP            | NON POTABLE WATER                 |
| --- ---   | KEYNOTE DESIGNATION                 | NTS           | NOT TO SCALE                      |
| --- ---   | KEYNOTE DESIGNATION                 | OD            | OVERFLOW STORM DRAIN              |
| --- ---   | KEYNOTE DESIGNATION                 | ODS           | OVERFLOW DOWNSPOUT                |
| --- ---   | KEYNOTE DESIGNATION                 | SAN           | SANITARY                          |
| --- ---   | KEYNOTE DESIGNATION                 | SD            | STORM DRAIN                       |
| --- ---   | KEYNOTE DESIGNATION                 | SK            | SINK                              |
| --- ---   | KEYNOTE DESIGNATION                 | TP            | TRAP PRIMER                       |
| --- ---   | KEYNOTE DESIGNATION                 | TYP.          | TYPICAL                           |
| --- ---   | KEYNOTE DESIGNATION                 | UR            | URINAL                            |
| --- ---   | KEYNOTE DESIGNATION                 | VR            | VENT RISER                        |
| --- ---   | KEYNOTE DESIGNATION                 | VS            | VENT STACK                        |
| --- ---   | KEYNOTE DESIGNATION                 | VTR           | VENT THRU ROOF                    |
| --- ---   | KEYNOTE DESIGNATION                 | WC            | WATER CLOSET                      |
| --- ---   | KEYNOTE DESIGNATION                 | WCO           | WALL CLEANOUT                     |
| --- ---   | KEYNOTE DESIGNATION                 | WH            | WATER HEATER                      |
| --- ---   | KEYNOTE DESIGNATION                 | WS            | WATER SERVICE                     |
| --- ---   | KEYNOTE DESIGNATION                 | WTC           | WATER COOLER                      |
| --- ---   | KEYNOTE DESIGNATION                 | YCO           | YARD CLEANOUT                     |

## PLUMBING INDEX OF DRAWINGS

| SHEET NUMBER | SHEET NAME                        |
|--------------|-----------------------------------|
| P0.1         | PLUMBING LEGEND AND GENERAL NOTES |
| P0.2         | PLUMBING SCHEDULES AND DETAILS    |
| P1.1         | FIRST FLOOR PLUMBING PLAN         |
| P2.1         | MEZZANINE PLUMBING PLAN           |
| P3.1         | ENLARGED PLUMBING PLANS           |
| P4.1         | PLUMBING ISOMETRICS               |

**APP Architecture**  
creative focused design

615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8898 F 937.837.3696  
www.app-arch.com



NEW MAINTENANCE & BUS GARAGE  
**TALAWANDA SCHOOL DISTRICT**  
5901 UNIVERSITY PARK BLVD  
OXFORD, OHIO 45056

## ISSUE

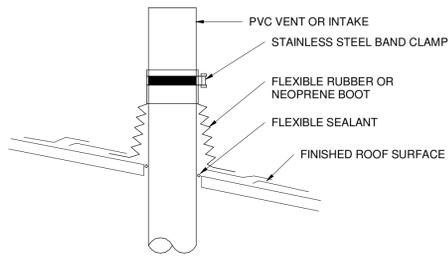
| NO.      | DATE | DESCRIPTION             |
|----------|------|-------------------------|
| 04/08/22 |      | PERMIT AND CONSTRUCTION |

|   |          |
|---|----------|
| DATE  | 04/08/22 |
| JOB NO.   | 2021145  |
| DRAWN   | JDO      |
| CHECKED   | JLW      |
| COPYRIGHT © 2022 - App Architecture, Inc.         |          |
| TITLE<br><b>PLUMBING LEGEND AND GENERAL NOTES</b> |          |
| SHEET NO.   |          |

**P0.1**

1 | 2 | 3 | 4 | 5 | 6 | 7

A



③ PLUMBING VENT THROUGH SLOPED ROOF  
NTS

| GAS PIPE SIZING         |         |
|-------------------------|---------|
| PIPE SIZE (BLACK STEEL) | MAX MBH |
| 0.5"                    | 37      |
| 0.75"                   | 77      |
| 1"                      | 144     |
| 1.25"                   | 296     |
| 1.5"                    | 443     |
| 2"                      | 854     |
| 2.5"                    | 1,360   |
| 3"                      | 2,410   |

GENERAL NOTES:  
 1. SIZING BASED ON LESS THAN 2 PSIG PRESSURE, 0.5 PSIG DROP PER TABLE 402.4(2) OF IFGC  
 2. TOTAL DEVELOPED LENGTH = 175 FT.

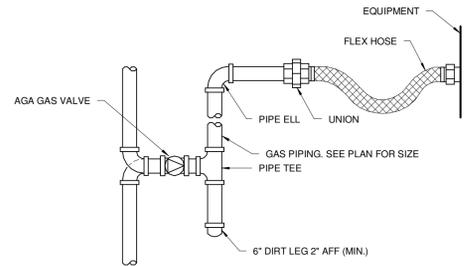
| PLUMBING FIXTURE SCHEDULE |                  |  |                    |      |      |       |      |   |  |
|---------------------------|------------------|--|--------------------|------|------|-------|------|---|--|
| PLAN MARK                 | FIXTURE TYPE     | DESCRIPTION  | LOCATION           | SAN. | VENT | CW    | HW   | ACCESSORIES   |  |
| A1                        | WATER CLOSET ADA | AMERICAN STANDARD MODEL #3351.101 "AFWALL", WALL MOUNT, ELONGATED BOWL, TOP SPUD, WHITE VITREOUS CHINA, WITH OLSONITE #95 ELONGATED, WHITE, OPEN FRONT, NO COVER SEAT, WITH SELF SUSTAINING HINGE; 481310-100 BOLT CAPS; SLOAN ROYAL #111 MANUAL FLUSH VALVE.  | VARIES             | 4.0" | 2.0" | 1.00" |      | MOUNT 17" TO RIM  |  |
| A2                        | WATER CLOSET     | AMERICAN STANDARD MODEL #3351.101 "AFWALL", WALL MOUNT, ELONGATED BOWL, TOP SPUD, WHITE VITREOUS CHINA, WITH OLSONITE #95 ELONGATED, WHITE, OPEN FRONT, NO COVER SEAT, WITH SELF SUSTAINING HINGE; 481310-100 BOLT CAPS; SLOAN ROYAL #111 MANUAL FLUSH VALVE.  | VARIES             | 4.0" | 2.0" | 1.00" |      |   |  |
| B1                        | LAVATORY         | AMERICAN STANDARD MODEL #0355.012 "LUCERNE", WALL MOUNT, WHITE VITREOUS CHINA, 4" CENTER FAUCET HOLES; AMERICAN STANDARD MODEL #6114.116.002, "MONTERREY" SINGLE CONTROL CENTERSET FAUCET W/ 4" CENTER, LESS DRAIN; 1/2" SUPPLY AND STOP (TWO REQUIRED); 1-1/2" CAST BRASS P-TRAP.   | VARIES             | 1.5" | 1.5" | 0.50" | 0.5" | PROVIDE "TRUEBRO" HAND-LAV GUARD INSTALLATION KIT MODEL #102 (WHITE) OR APPROVED EQUAL. PROVIDE 1070 ASSE MIXING VALVE. |  |
| B2                        | LAVATORY         | AMERICAN STANDARD MODEL #0476.028 "AQUALYN", DROP IN, WHITE VITREOUS CHINA, 4" CENTER FAUCET HOLES; AMERICAN STANDARD MODEL #6114.116.002, "MONTERREY" SINGLE CONTROL CENTERSET FAUCET W/ 4" CENTER, LESS DRAIN; 1/2" SUPPLY AND STOP (TWO REQUIRED); 1-1/2" CAST BRASS P-TRAP.  | WOMEN 107          | 1.5" | 1.5" | 0.50" | 0.5" | PROVIDE "TRUEBRO" HAND-LAV GUARD INSTALLATION KIT MODEL #102 (WHITE) OR APPROVED EQUAL. PROVIDE 1070 ASSE MIXING VALVE. |  |
| B3                        | SINK             | ELKAY MODEL #LRD1720SC LUSTERSTONE CLASSIC, 17"x20"x7-5/8" SINGLE BOWL, DROP-IN, STAINLESS STEEL, 4" CENTER FAUCET HOLES, LK18B DRAIN INCLUDED; #LK406GN04T4SC FACUET INCLUDED; 1/2" SUPPLY AND STOP (TWO REQUIRED); #LK500 P-TRAP INCLUDED  | BREAK/TRAINING 105 | 1.5" | 1.5" | 0.50" | 0.5" | PROVIDE 1070 ASSE MIXING VALVE.   |  |
| C1                        | URINAL           | AMERICAN STANDARD MODEL #6590001EC "WASHBROOK", WHITE VITREOUS CHINA WALL MOUNTED, (LOW FLOW 1.0 GALLON PER FLUSH), SIPHON JET, SLOAN ROYAL #186-1.0 MANUAL FLUSH VALVE.   | MEN 106            | 4.0" | 1.5" | 0.75" |      | REFER TO ARCH. DRAWINGS FOR MOUNTING HEIGHT.  |  |
| D1                        | MOP/UTILITY SINK | MUSTEE PRECAST MODEL #63M (24"x24"x10"); T&S BRASS FAUCET MODEL #B-0655-BSTR CHROME PLATED WITH VACUUM BREAKER, INTEGRAL STOPS, ADJUSTABLE WALL BRACE, PAIL HOOK AND 3/4" HOSE THREAD ON SPOUT; MUSTEE #85.600 HOSE BRACKET, 30" LONG FLEXIBLE, HEAVY DUTY 5/8" RUBBER HOSE, CLOTH REINFORCED WITH 3/4" BRASS COUPLING AT ONE END. | VARIES             | 3.0" | 1.5" | 0.50" | 0.5" |   |  |
| E1                        | EYE WASH         | BRADLEY MODEL #S19224 SERIES WALL-MOUNT HALO EYEWASH   | VARIES             | 1.5" | 1.5" | 0.50" | 0.5" | PROVIDE BRADLEY NAVIGATOR S19-2000 EFX8 EMERGENCY THERMOSTATIC MIXING VALVE.  |  |

B

| PLUMBING EQUIPMENT SCHEDULE |   |            |                   |                   |             |             |       |          |             |       |
|-----------------------------|---|------------|-------------------|-------------------|-------------|-------------|-------|----------|-------------|-------|
| PLAN MARK                   | DESCRIPTION   | COLD WATER | HOT WATER (120°F) | HOT WATER (140°F) | NATURAL GAS | NON POTABLE | WASTE | INDIRECT | FLOOR DRAIN | NOTES |
| ET-1                        | EXPANSION TANK - DOMESTIC WATER SYSTEM - WATTS #PLT-12 - 150 PSI RATING   | 0.75"      |                   |                   |             |             |       |          |             |       |
| HB-1                        | WALL MOUNTED HOSE BIB - FREEZELESS, AUTOMATIC DRAIN, VACUUM BREAKER, BRASS FINISH - MINIMAL INSTALL DEPTH, FEED 90° FROM OUTLET | 0.75"      |                   |                   |             |             |       |          |             | 3     |
| HB-2                        | WOODFORD MODEL #65 SERIES, FREEZELESS, AUTOMATIC DRAIN, VACUUM BREAKER, BRASS FINISH  | 0.75"      |                   |                   |             |             |       |          |             | 1     |
| OI-1                        | OIL INTERCEPTOR - ZURN #Z250H - BELOW SLAB  |            |                   |                   |             |             | 4"    |          |             |       |
| RPZ-1                       | REDUCED PRESSURE BACKFLOW PREVENTER - EQUAL TO WATTS SERIES 009   |            |                   | 2.0"              |             |             |       |          |             |       |
| WH-1                        | GAS WATER HEATER - RHEEM MODEL #GPDV50-65, 50 GALLON, 65 MBH, 59 GPH RECOVERY AT 100°F TEMP RISE                                | 1.0"       |                   | 1.0"              |             |             |       |          |             | 2     |

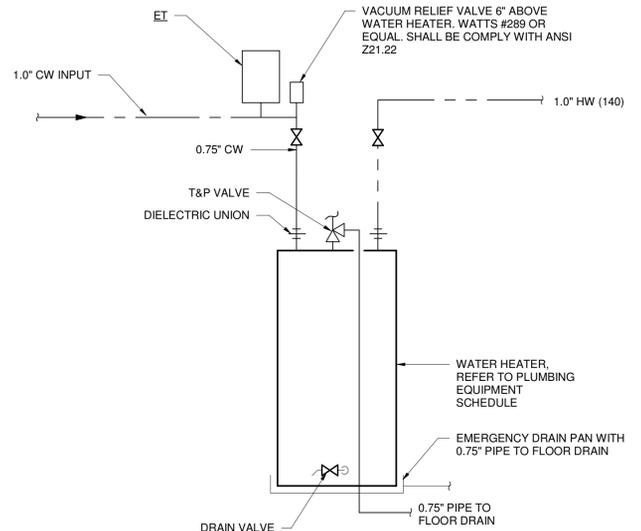
NOTES:  
 1. MOUNT AT 18" A.F.G.  
 2. PROVIDE VENT PIPING PER MANUFACTURER GUIDELINES.  
 3. COORDINATE MOUNTING HEIGHT WITH OWNER PRIOR TO ROUGH-IN.

C



② GAS EQUIPMENT CONNECTION  
NTS

D



① WATER HEATER PIPING DETAIL  
NTS

E

| DRAIN AND CLEANOUT SCHEDULE |   |       |      |        |      |           |       |      |                 |      |        |                |      |            |      |            |          |        |                     |           |               |           |          |              |                 |               |                |               |             |               |            |              |
|-----------------------------|---|-------|------|--------|------|-----------|-------|------|-----------------|------|--------|----------------|------|------------|------|------------|----------|--------|---------------------|-----------|---------------|-----------|----------|--------------|-----------------|---------------|----------------|---------------|-------------|---------------|------------|--------------|
| PLAN MARK                   | APPROVED SUPPLIERS - J.R. SMITH, JOSAM, WATTS, ZURN | TYPE  |      |        |      | BODY      |       |      | OUTLET          |      |        | STRAINER/GRATE |      |            |      | TOP FINISH |          |        | ADDITIONAL FEATURES |           |               |           | SEE NOTE |              |                 |               |                |               |             |               |            |              |
|                             |   | FLOOR | ROOF | TRENCH | DECK | CAST IRON | BRASS | HDPE | STAINLESS STEEL | SIZE | BOTTOM | SIDE           | SIZE | ADJUSTABLE | FLAT | DOME       | RECESSED | FUNNEL | HINGED              | 1/2 GRATE | NICKEL-BRONZE | CAST IRON |          | DUCTILE IRON | STAINLESS STEEL | ANCHOR FLANGE | FLASHING CLAMP | DBL. DRAINAGE | SED. BUCKET | AUX. STRAINER | GRAVELSTOP | U-DECK CLAMP |
| FD-1                        | Z507  | X     |      |        |      | X         |       |      | 3"              | X    |        | 7"             | X    |            |      |            |          |        |                     |           | X             |           |          |              | X               | X             | X              |               |             |               |            | 1            |
| TD-1                        | Z886  |       |      | X      |      |           | X     |      |                 |      |        | 6.25" WIDE     | X    |            |      |            |          |        |                     |           |               | X         |          |              |                 |               |                |               |             |               |            | 2,3          |
| FCO                         | ZN1400-B  | X     |      |        |      | X         |       |      | 6"              | X    |        | 7-7/8"         | X    |            |      |            |          |        |                     |           | X             |           |          |              |                 |               |                |               |             |               |            |              |
| GCO                         | Z1474-VP  | X     |      |        |      | X         |       |      |                 |      |        |                | X    |            |      |            |          |        |                     |           | X             |           |          |              |                 |               |                |               |             |               |            |              |

NOTES:  
 1. PROVIDE TRAP SEAL PROTECTION DEVICE EQUAL TO Z1072.  
 2. TOTAL LENGTH OF DRAIN TO BE 25'-0".  
 3. SLOPE TO MIDDLE OF DRAIN.

F

1 | 2 | 3 | 4 | 5 | 6 | 7

**APP Architecture**  
creative focused design  
615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8698 F 937.832.3696  
www.app-arch.com



NEW MAINTENANCE & BUS GARAGE  
**TALAWANDA SCHOOL DISTRICT**  
5301 UNIVERSITY PARK BLVD  
OXFORD, OHIO 45056

| ISSUE    |      |                         |
|----------|------|-------------------------|
| NO.      | DATE | DESCRIPTION             |
| 04/08/22 |      | PERMIT AND CONSTRUCTION |

|   |          |
|---|----------|
| DATE                                      | 04/08/22 |
| JOB NO.                                   | 2021145  |
| DRAWN                                     | JDO      |
| CHECKED                                   | JLW      |
| COPYRIGHT © 2022 - App Architecture, Inc. |          |

TITLE  
**PLUMBING SCHEDULES AND DETAILS**

SHEET NO.  
**P0.2**

4/8/2022 1:41:54 PM

1 | 2 | 3 | 4 | 5 | 6 | 7

A

B

C

D

E

F

A

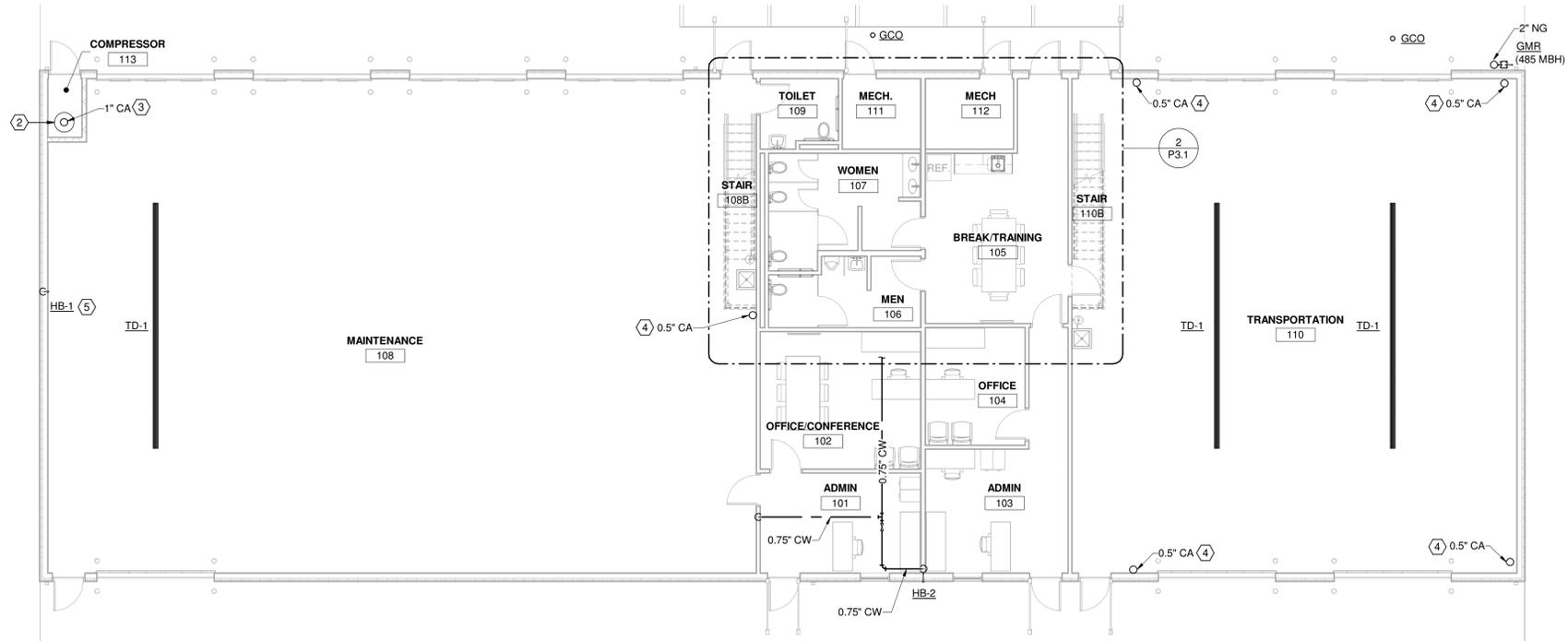
B

C

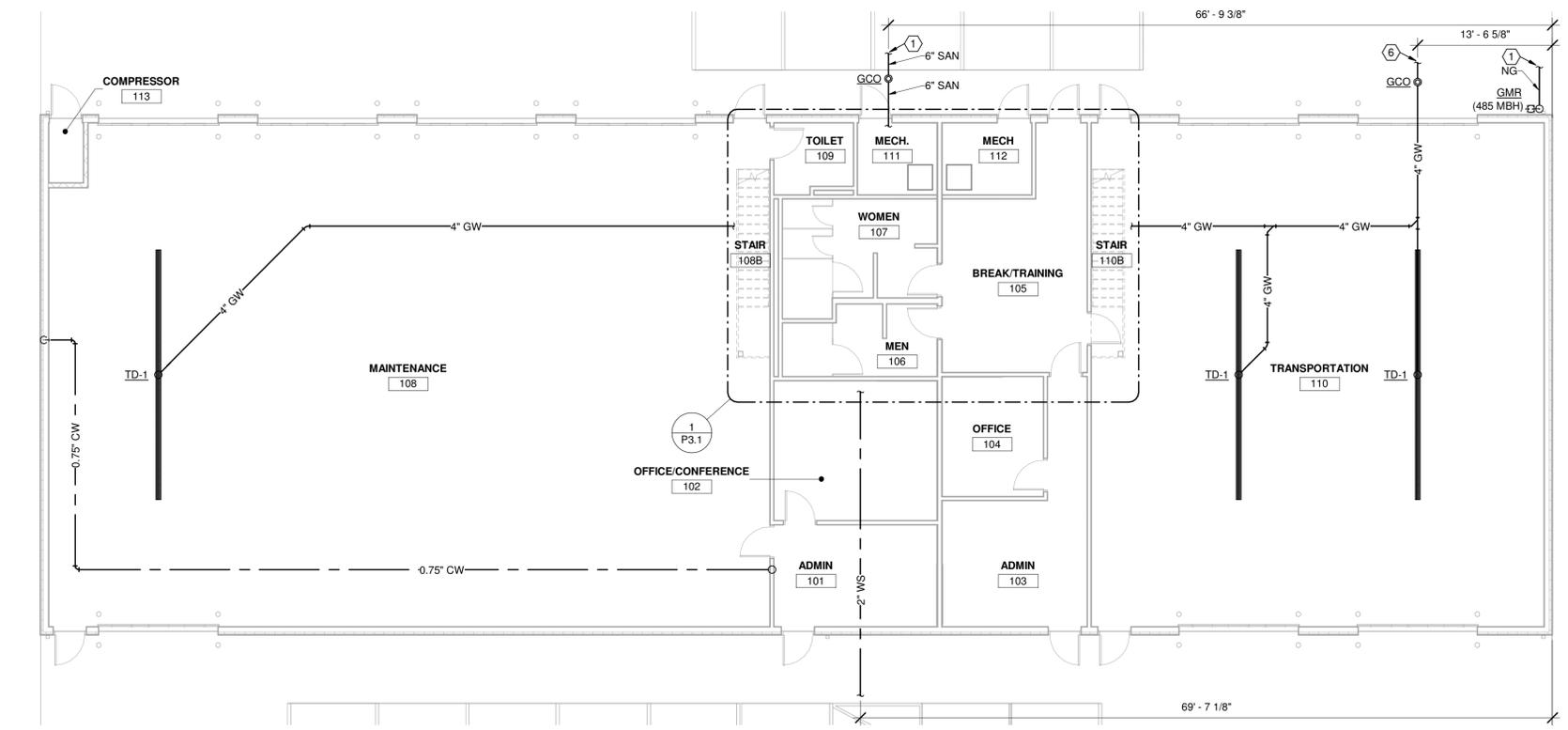
D

E

F



② FIRST FLOOR PLUMBING PLAN (ABOVE SLAB)  
1/8" = 1'-0"



① FIRST FLOOR PLUMBING PLAN (BELOW SLAB)  
1/8" = 1'-0"

- DRAWING NOTES**
- REFER TO CIVIL DRAWINGS FOR CONTINUATION.
  - AIR COMPRESSOR PROVIDED BY OWNER.
  - COMPRESSED AIR PIPING UP TO STRUCTURE ABOVE. REFER TO 1/P2.1 FOR CONTINUATION.
  - 0.5" COMPRESSED AIR PIPING FROM MEZZANINE ABOVE. TERMINATE WITH SHUT-OFF VALVE 4'-0" A.F.F.
  - SUPPLY PIPING TO HOSE BIB TO BE ROUTED ON WARM SIDE OF INSULATED WALL.
  - EXTEND TRENCH DRAIN DISCHARGE TO OIL INTERCEPTOR LOCATED BELOW GRADE. COORDINATE OIL INTERCEPTOR FINAL LOCATION WITH GENERAL CONTRACTOR AND CIVIL ENGINEER. REFER TO EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.

**APP Architecture**  
creative focused design

615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8898 F 937.832.3696  
www.app-arch.com



**NEW MAINTENANCE & BUS GARAGE**  
**TALAWANDA SCHOOL DISTRICT**  
5901 UNIVERSITY PARK BLVD  
OXFORD, OHIO 45056

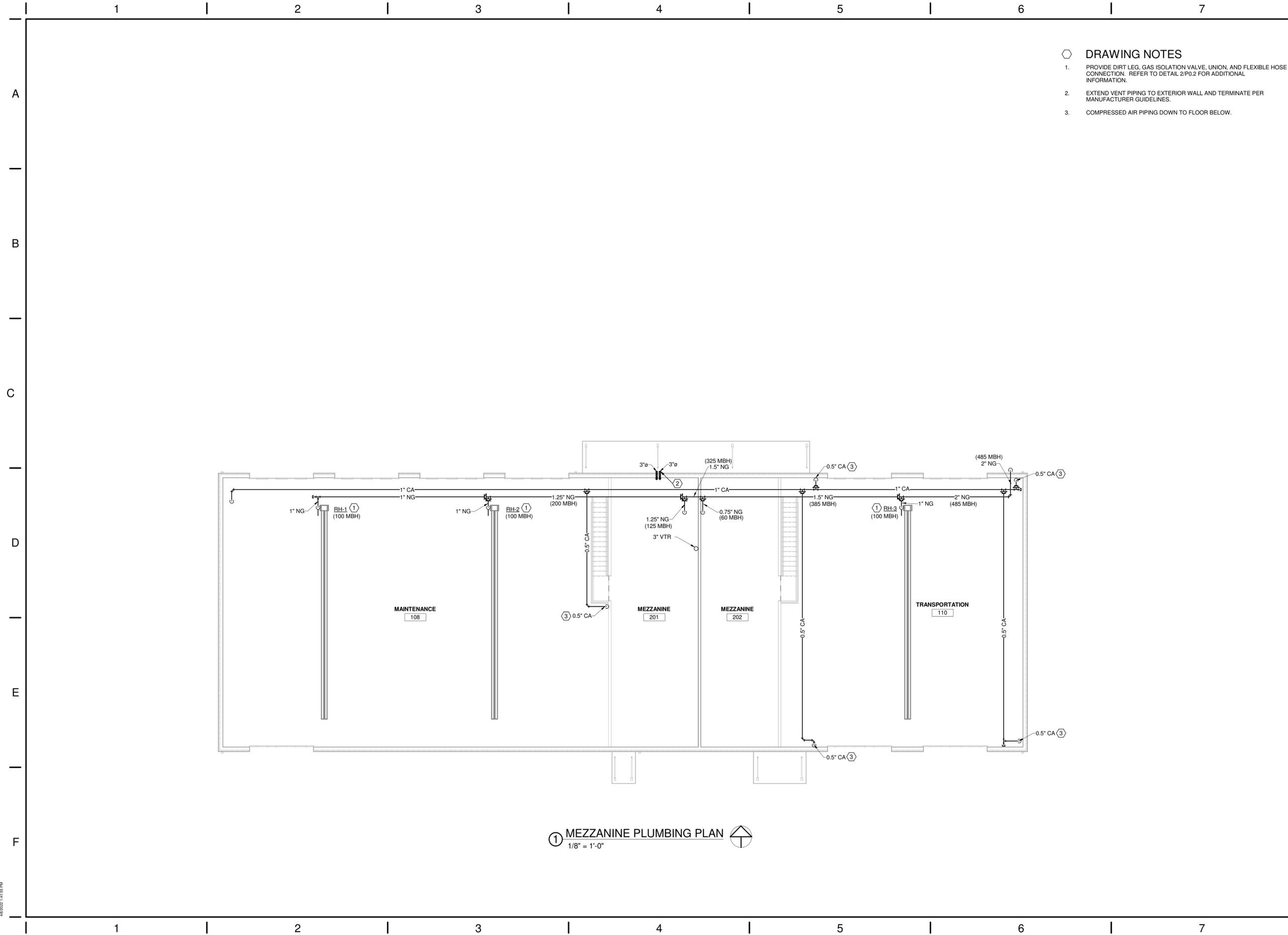
| ISSUE    |      |                         |
|----------|------|-------------------------|
| NO.      | DATE | DESCRIPTION             |
| 04/08/22 |      | PERMIT AND CONSTRUCTION |

|   |          |
|---|----------|
| DATE                                      | 04/08/22 |
| JOB NO.                                   | 2021145  |
| DRAWN                                     | JDO      |
| CHECKED                                   | JLW      |
| COPYRIGHT © 2022 - App Architecture, Inc. |          |

TITLE  
**FIRST FLOOR PLUMBING PLAN**

SHEET NO.  
**P1.1**

4/8/2022 1:41:55 PM



- DRAWING NOTES**
1. PROVIDE DIRT LEG, GAS ISOLATION VALVE, UNION, AND FLEXIBLE HOSE CONNECTION. REFER TO DETAIL 2/P0.2 FOR ADDITIONAL INFORMATION.
  2. EXTEND VENT PIPING TO EXTERIOR WALL AND TERMINATE PER MANUFACTURER GUIDELINES.
  3. COMPRESSED AIR PIPING DOWN TO FLOOR BELOW.

**APP Architecture**  
creative focused design

615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8898 F 937.832.3696  
www.app-arch.com



**NEW MAINTENANCE & BUS GARAGE**  
**TALAWANDA SCHOOL DISTRICT**  
5901 UNIVERSITY PARK BLVD  
OXFORD, OHIO 45056

| ISSUE    |          |                         |
|----------|----------|-------------------------|
| NO.      | DATE     | DESCRIPTION             |
| 04/08/22 | 04/08/22 | PERMIT AND CONSTRUCTION |

|         |          |
|---------|----------|
| DATE    | 04/08/22 |
| JOB NO. | 2021145  |
| DRAWN   | JDO      |
| CHECKED | JLW      |

COPYRIGHT © 2022 - App Architecture, Inc.  
TITLE  
**MEZZANINE PLUMBING PLAN**

SHEET NO.  
**P2.1**

① MEZZANINE PLUMBING PLAN  
1/8" = 1'-0"

4/8/2022 1:41:55 PM

1 | 2 | 3 | 4 | 5 | 6 | 7

A  
B  
C  
D  
E  
F

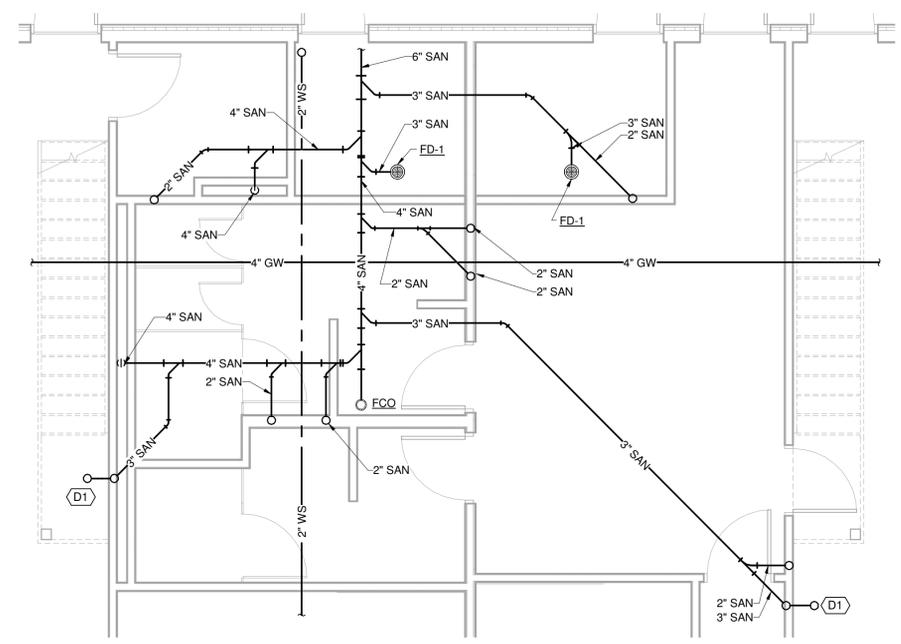
- DRAWING NOTES**
1. PROVIDE DIRT LEG, GAS ISOLATION VALVE, UNION, AND FLEXIBLE HOSE CONNECTION. REFER TO DETAIL 2/P0.2 FOR ADDITIONAL INFORMATION.
  2. EXTEND VENT PIPING TO EXTERIOR WALL FACE TIGHT TO STRUCTURAL FRAMING AND UP TO MEZZANINE. REFER TO 1/P2.1 FOR CONTINUATION.
  3. PROVIDE NEW FLOOR SET TANK TYPE WATER HEATER. EXPANSION TANK MOUNTED TO WALL USING WALL BRACKET EQUAL TO HOLD-RITE MODEL QS-12. TANK SHALL NOT BE SUPPORTED BY PIPING. REFER TO WATER HEATER PIPING DIAGRAM FOR ADDITIONAL INFORMATION.

**APP Architecture**  
creative focused design

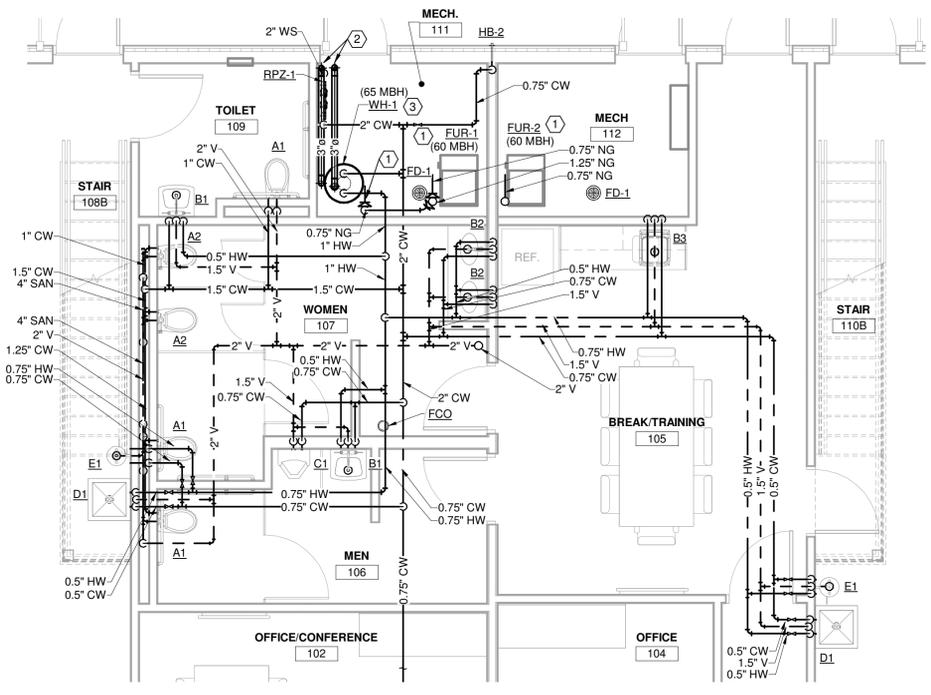
615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8698 F 937.832.3696  
www.app-arch.com



**NEW MAINTENANCE & BUS GARAGE**  
**TALAWANDA SCHOOL DISTRICT**  
5301 UNIVERSITY PARK BLVD  
OXFORD, OHIO 45056



① ENLARGED FIRST FLOOR PLUMBING PLAN (BELOW SLAB)  
1/4" = 1'-0"



② ENLARGED FIRST FLOOR PLUMBING PLAN (ABOVE SLAB)  
1/4" = 1'-0"

ISSUE

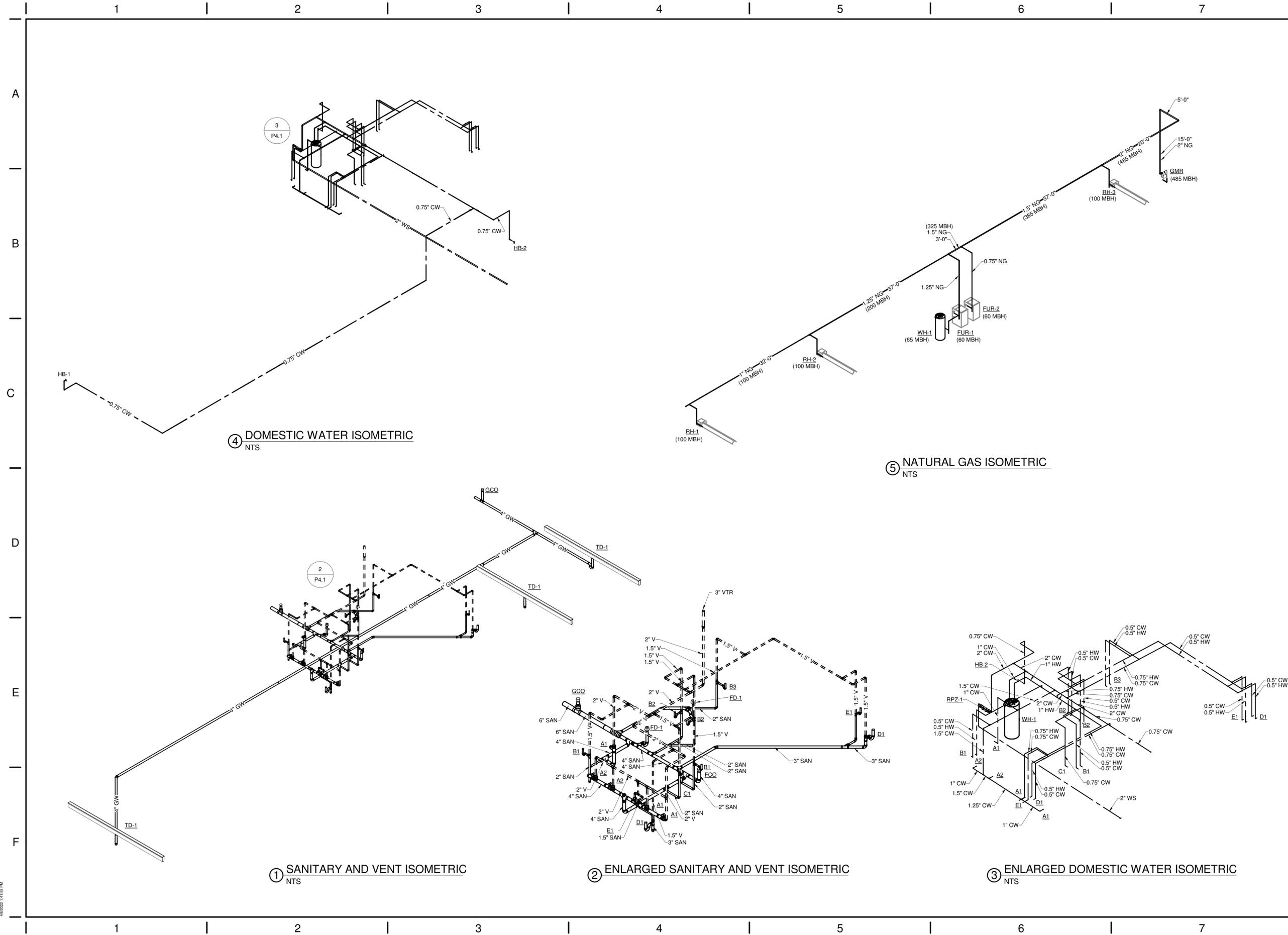
| NO.      | DATE                    | DESCRIPTION |
|----------|-------------------------|-------------|
| 04/08/22 | PERMIT AND CONSTRUCTION |             |

|         |          |
|---------|----------|
| DATE    | 04/08/22 |
| JOB NO. | 2021145  |
| DRAWN   | JDO      |
| CHECKED | JLW      |

COPYRIGHT © 2022 - App Architecture, Inc.  
TITLE  
**ENLARGED PLUMBING PLANS**

SHEET NO.  
**P3.1**

4/8/2022 1:41:56 PM



4/8/2022 1:41:58 PM



**NEW MAINTENANCE & BUS GARAGE**  
**TALAWANDA SCHOOL DISTRICT**  
5301 UNIVERSITY PARK BLVD  
OXFORD, OHIO 45056

| ISSUE    |      |                         |
|----------|------|-------------------------|
| NO.      | DATE | DESCRIPTION             |
| 04/08/22 |      | PERMIT AND CONSTRUCTION |

|   |          |
|---|----------|
| DATE                                      | 04/08/22 |
| JOB NO.                                   | 2021145  |
| DRAWN                                     | JDO      |
| CHECKED                                   | JLW      |
| COPYRIGHT © 2022 - App Architecture, Inc. |          |

TITLE  
**PLUMBING ISOMETRICS**

SHEET NO.  
**P4.1**

## GENERAL NOTES

- A. DO NOT SCALE DRAWINGS. IF DIMENSIONS CANNOT BE DETERMINED OR DOCUMENTS ARE IN CONFLICT (WITH THEMSELVES OR FIELD CONDITIONS), THE CONTRACTOR MUST OBTAIN CLARIFICATION FROM THE ARCHITECT PRIOR TO CONTINUATION OF WORK.
- B. CONTRACTOR(S) SHALL VISIT THE SITE TO ACQUAINT THEMSELVES WITH THE EXISTING OR NEWLY INSTALLED CONDITIONS. CONTRACTOR(S) SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, UTILITIES, AND EXISTING OR NEWLY INSTALLED CONDITIONS PRIOR TO CONSTRUCTION.
- C. THE CONSTRUCTION DOCUMENTS AND DRAWING NOTES / SPECIFICATIONS ARE INTENDED TO DESCRIBE AND PROVIDE FOR A FINISHED PIECE OF WORK. THE WORK SHALL BE COMPLETED IN EVERY DETAIL EVEN THOUGH EVERY ITEM NECESSARILY INVOLVED IS NOT PARTICULARLY MENTIONED OR SPECIFIED. ALL WORK SHALL BE INSTALLED AS SHOWN ON THE DRAWINGS AND / OR MANUFACTURER'S SPECIFICATIONS AND INSTALLATION INSTRUCTIONS. IF ANY CONTRACTOR IS IN DOUBT AS TO THE TRUE MEANING OF ANY PART OF THE DOCUMENTS, OR FINDS DISCREPANCIES IN OR OMISSIONS FROM ANY PART OF THE DOCUMENTS, HE MUST CONTACT THE ARCHITECT FOR CLARIFICATION.
- D. ALL DIMENSIONS ARE TO FACE OF STUD, CONCRETE, MASONRY, OR CENTERLINE OF COLUMN, UNLESS NOTED OTHERWISE. WHEN EXISTING CONDITIONS ARE SHOWN, DIMENSIONS ARE TO FACE OF EXISTING FINISH, UNLESS NOTED OTHERWISE.
- E. FINISH FLOOR ELEVATIONS ARE FOR GENERAL REFERENCE. REFER TO CIVIL SHEETS FOR ACTUAL FINISH FLOOR ELEVATIONS.
- F. EQUIPMENT AND FURNITURE SHOWN IS FOR REFERENCE ONLY. EQUIPMENT AND FURNITURE PROVIDED BY OWNER (UNLESS NOTED OTHERWISE), COORDINATE EQUIPMENT AND FURNITURE INSTALLATION AND UTILITY CONNECTIONS WITH OWNER AND OWNER'S SUPPLIER.
- G. **DEFINITIONS:**  
**NECESSARY:** WORK NEEDED TO COMPLETE THE WORK TO "MAKE IT OPERATIONAL".  
**REQUIRED:** WORK NEEDED TO BE IN COMPLIANCE WITH BUILDING CODE, GOVERNING CODE, OR JURISDICTION HAVING AUTHORITY.  
**PROVIDE:** RESPONSIBLE FOR PURCHASE, DELIVERY, RECEIVING, INSPECTION, STORAGE, PREPARATION, AND INSTALLATION OF ITEM(S).  
**FURNISH:** RESPONSIBLE FOR PURCHASE AND DELIVERY OF ITEM(S).  
**INSTALL:** RESPONSIBLE FOR RECEIVING, INSPECTION, STORAGE, PREPARATION, AND INSTALLATION OF ITEM(S).  
**BASIS OF DESIGN:** AN ACCEPTABLE MANUFACTURER OR PRODUCT DESIGNATED BY THE DESIGN PROFESSIONAL, WHICH EXHIBITS THE INTENDED STANDARDS AND DESIGN CRITERIA THAT MUST BE MET FOR PERFORMANCE. THE ITEM(S) INDICATED MAY BE PROVIDED OR AN ITEM OF EQUIVALENT APPEARANCE, AESTHETIC, QUALITY, MATERIAL, CONSTRUCTION, AND PERFORMANCE MAY BE SUBSTITUTED SUBJECT TO THE ARCHITECT'S OR DESIGN PROFESSIONAL'S APPROVAL. (REFER TO THE "SUBSTITUTIONS" SPECIFICATION FOR ADDITIONAL INFORMATION)  
**OR EQUAL:** MAY FOLLOW A "BASIS OF DESIGN" OR OTHER SPECIFIED MANUFACTURER OR PRODUCT AND INDICATES THAT AN ITEM OF EQUIVALENT APPEARANCE, AESTHETIC, QUALITY, MATERIAL, CONSTRUCTION, AND PERFORMANCE MAY BE SUBSTITUTED SUBJECT TO THE ARCHITECT'S OR DESIGN PROFESSIONAL'S APPROVAL. (REFER TO THE "SUBSTITUTIONS" SPECIFICATION FOR ADDITIONAL INFORMATION)

## HVAC GENERAL SPECIFICATIONS

- A. UPON COMPLETION OF ALL HVAC WORK, THE CONTRACTOR SHALL SUBMIT (2) COPIES OF THE MANUFACTURER'S OPERATION AND MAINTENANCE MANUALS FOR ALL EQUIPMENT TO THE OWNER. THE CONTRACTOR SHALL PROVIDE TO THE ARCHITECT A COMPLETE SET OF RECORD DRAWINGS WITH ANY AND ALL CHANGES OR MODIFICATIONS TO THE DESIGN, CONSTRUCTION, SYSTEMS, OR EQUIPMENT CLEARLY INDICATED; SHOP DRAWINGS; INFORMATION ON THE THERMOSTATS, CONTROL WIRING DIAGRAMS, AND OTHER PERTINENT INFORMATION.
- B. **HVAC EQUIPMENT:** ALL EQUIPMENT SHALL BE COMPLETE IN EVERY RESPECT WITH ALL DEVICES, APPURTENANCES, AND ACCESSORIES PROVIDED TO MEET THE DESIGN INTENT AND OPERATION OF THE SYSTEMS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN. EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. ALL AIR CONDITIONING EQUIPMENT MUST HAVE A CONDENSATE DRAIN AND BE TRAPPED IN ACCORDANCE WITH MANUFACTURER'S DATA. ALL COMPRESSORS ARE TO INCLUDE A 5-YEAR EXTENDED WARRANTY.
- C. **GAS PIPING (IF INCLUDED IN THE PROJECT):** CONTRACTOR TO COORDINATE (INCLUDING VERIFICATION OF EXISTING SYSTEM EQUIPMENT, MAINS, LINE SIZES, AND REQUIREMENTS) AND SIZE GAS PIPING PER MANUFACTURER'S RECOMMENDATIONS, LOCAL CODE, AND UTILITY COMPANY REQUIREMENTS, UNLESS PROVIDED OTHERWISE IN THE CONSTRUCTION DOCUMENTS - **ARCHITECT/ENGINEER TO REVIEW AND APPROVE GAS PIPING SIZING PRIOR TO INSTALLATION.** GAS PIPING TO BE INSTALLED PER NFPA 54. REFER TO PLUMBING GENERAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- D. **REFRIGERANT LINE SET:** HVAC CONTRACTOR TO SIZE REFRIGERANT LINE SET SIZES PER MANUFACTURER'S RECOMMENDATIONS AND FIELD CONDITIONS - **ARCHITECT/ENGINEER TO REVIEW AND APPROVE LINE SET SIZES PRIOR TO INSTALLATION.** LINES EXCEEDING 150 FEET IN LENGTH REQUIRE A PUMP (SIZED AND PROVIDED BY THE HVAC CONTRACTOR).
- E. **NOISE AND VIBRATION:** MECHANICAL AND ELECTRICAL EQUIPMENT IS TO OPERATE WITHOUT OBJECTIONABLE NOISE OR VIBRATION. ALL MOTOR OPERATED OR ROTATING EQUIPMENT IS TO BE VIBRATION ISOLATED OR FREE FROM ALL BEAMS, COLLUMNS, FLOORS, CEILINGS, JOISTS, WALLS, AND OTHER PARTS OF THE BUILDING STRUCTURE. HANGER RODS FOR ALL PIPING, EQUIPMENT, AND DUCTWORK CONNECTED TO MOTOR OPERATED OR ROTATING EQUIPMENT IS TO BE PROVIDED WITH KINETICS OR APPROVED EQUAL FIBERGLASS ISOLATOR HANGERS. PROVIDE FLEXIBLE COLLARS IN ALL CONNECTIONS BETWEEN VIBRATING EQUIPMENT (FANS, COP UNITS, ETC.) AND DUCTS. THE FLEXIBLE CONNECTION IS TO BE RATED FOR THE OPERATING PRESSURE OF THE SYSTEM.
- F. **CURBS AND STEEL FRAMING FOR SUPPORT:** PROVIDE ALL NECESSARY CURBS AND STEEL FRAMING REQUIRED TO INSTALL ALL HVAC EQUIPMENT AS DESCRIBED OR IMPLIED ON THE DRAWINGS. CURBS SHALL BE OF THE SAME MANUFACTURER OF THE EQUIPMENT SUPPORTED. INSULATE UNDER THE COMPRESSOR SECTION TO PREVENT CONDENSATION. ALL CURBS MUST BE INSTALLED SO THAT TOP OF CURBS ARE LEVEL.
- G. **DUCTWORK:** DUCTWORK IS TO BE FABRICATED WITH GALVANIZED SHEET STEEL (NO FIBERGLASS ALLOWED) IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS-METAL AND FLEXIBLE" AND NAIMA "FIBROUS GLASS DUCT CONSTRUCTION STANDARDS," LATEST EDITIONS; CONFORMING TO THE REQUIREMENTS IN THE REFERENCED STANDARD FOR METAL THICKNESS, REINFORCING TYPES AND INTERVALS, TIE ROD APPLICATIONS, AND JOINT TYPES AND INTERVALS. ALL JOINTS, SEAMS, AND CONNECTIONS MUST BE SECURELY FASTENED AND SEALED AIRTIGHT IN COMPLIANCE WITH THE INTERNATIONAL ENERGY CONSERVATION CODE AND OHIO MECHANICAL CODE.
- H. **BRANCH DUCTWORK:** ALL DUCT BRANCHES TO DIFFUSERS ARE TO BE RECTANGULAR OR ROUND RIGID DUCT. ALL BRANCH TAKEOFFS FROM RECTANGULAR MAINS TO BE CONNECTED TO SPIN COLLARS WITH SCOOPS AND QUADRANT DAMPERS.
- I. **FLEXIBLE DUCTWORK:** FLEX DUCTWORK IS TO BE NFPA 90 AND 90A APPROVED INDICATING NO VINYL, TESTED IN ACCORDANCE WITH UL 181, AND LISTED AND LABELED AS CLASS 0 OR CLASS 1 DUCT. NO FLEX DUCT RUN TO EXCEED **8'-0" MAXIMUM** TOTAL LENGTH AT ANY ONE LOCATION. ALL FLEX CONNECTIONS TO BE TAPED AND STRAPPED PER MANUFACTURER'S INSTRUCTIONS. FLEXIBLE AIR DUCT MAY ONLY BE USED IN THE REFERENCED STANDARD FOR APPROVAL FROM THE ARCHITECT. **FLEXIBLE DUCTWORK IS NOT PERMITTED TO BE USED FOR RETURN DUCTWORK.**
- J. **DUCTWORK INSULATION:** INSTALL INSULATION PRODUCTS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES. INSULATION MUST COMPLY WITH NFPA 90A. DUCT SIZES SHOWN ON DRAWINGS ARE INSIDE CLEAR DIMENSIONS. INSULATE DUCTWORK PER THE DUCT CONSTRUCTION SCHEDULE. PROVIDE DUCTWORK INSULATION WITHOUT INTERRUPTION THROUGH WALLS, FLOORS, AND SIMILAR PENETRATIONS. ALL INSULATION SHALL HAVE A FLAME SPREAD RATINGS OF NOT MORE THAN 25 AND A SMOKE DEVELOPED RATINGS OF NO HIGHER THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM C411, OR AS REQUIRED BY LOCAL CODES.
- K. WHERE ROUND DUCTWORK IS INDICATED ON PLANS, PROVIDE RECTANGULAR DUCTWORK. IF ROUND DUCTWORK CANNOT BE INSTALLED BECAUSE OF OBSTRUCTIONS, INSUFFICIENT CLEARANCES OR OTHER CAUSES DUE TO FIELD CONDITIONS, CONTRACTOR'S OPTION TO INSTALL RECTANGULAR DUCTWORK IN LIEU OF INDICATED ROUND DUCTWORK AT OTHER LOCATIONS. SIZE ALL RECTANGULAR DUCTWORK CONVERSIONS COMPARABLE TO INDICATED DUCTWORK SIZE PER SMACNA "HVAC DUCT CONSTRUCTION STANDARDS-METAL AND FLEXIBLE," LATEST EDITION. SHOULD THE CONTRACTOR BE IN DOUBT OF THE REQUIREMENTS UNDER THIS SECTION, DUCTWORK SIZING, OR SHOULD ANY DISCREPANCY BE REVEALED BASED ON FIELD CONDITIONS, IMMEDIATELY CONTACT THE ARCHITECT FOR CLARIFICATION.
- L. PROVIDE A FLEXIBLE CONNECTION BETWEEN BONNET AND RIGID DUCT ON ALL SUPPLY AND RETURN DUCTWORK.
- M. **DIFFUSERS, GRILLES, REGISTERS, AND DAMPERS:** PROVIDE DIFFUSERS, GRILLES, AND REGISTERS AS SCHEDULED. DEVICES TO BE COMPLETE WITH BALANCING DAMPERS, FRAMES, AND ALL ACCESSORIES. FINISH AS INDICATED. PROVIDE UL LISTED (UL555) FIRE RATED DAMPERS AT ALL FIRE PARTITION OR FIRE BARRIER PENETRATIONS, WHETHER SHOWN OR NOT SHOWN ON THE PLANS. ALL GRAVITY DAMPERS REQUIRE SEALS.
- N. **SUPPORT AND BRACING:** INSTALL RIGID ROUND AND RECTANGULAR METAL DUCTWORK WITH APPROVED SUPPORT SYSTEMS INDICATED IN SMACNA STANDARDS AND STATE BUILDING CODE. SUPPORT HORIZONTAL DUCTS AT A MAXIMUM INTERVAL OF 10 FEET AND WITHIN 2 FEET OF EACH ELBOW AND WITHIN 4 FEET OF EACH BRANCH INTERSECTION USING DOUBLE STRAP HANGERS ON EACH SIDE OF FITTING. SUPPORT VERTICAL DUCTS AT A MAXIMUM INTERVAL OF 10 FEET AND AT EACH FLOOR. FLEXIBLE AND OTHER FACTORY MADE DUCTS SHALL BE SUPPORTED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. NO WOOD SHALL BE USED TO SUPPORT OR BRACE DUCTS. PROVIDE SWAY AND SEISMIC BRACING AS REQUIRED BY STATE AND LOCAL CODES. PROVIDE FIXED ANCHORS AT EACH MECHANICAL DIFFUSER OR GRILLE TO CEILING GRID, CEILING GRID CONTRACTOR TO PROVIDE SUPPORT WIRES AT OPPOSITE CORNERS OF LIGHT FIXTURES, MECHANICAL DIFFUSERS, AND GRILLES TO STRUCTURE ABOVE.

## HVAC GENERAL SPECIFICATIONS CONT'D

- O. **CONTROLS:** EACH UNIT TO BE CONTROLLED BY THERMOSTAT WITH PROPER STAGES OF HEATING AND COOLING - MOUNTED AT 5'4" AFF (REFER TO MECHANICAL SHEETS FOR MODEL NO. AND LOCATION). CONTROL WIRING IS TO BE FURNISHED AND INSTALLED BY THE HVAC CONTRACTOR. POWER WIRING IS TO BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
- P. **POWER AND CONTROL WIRING:** ELECTRICAL CONTRACTOR TO PROVIDE ALL NECESSARY POWER WIRING FOR HVAC EQUIPMENT FROM SUITABLE FUSED DISCONNECT SOURCE TO UNIT WITH FUSED DISCONNECT TO MEET NATIONAL ELECTRIC CODE (NEC), STATE AND LOCAL CODES. HVAC CONTRACTOR TO PROVIDE 24 VOLT OR LESS CONTROL WIRING.
- Q. **STARTUP:** HVAC CONTRACTOR TO PROVIDE STARTUP PER MANUFACTURER'S WRITTEN RECOMMENDATIONS.
- R. **AIRFLOW AND TESTING:** ALL DUCT AS PER SMACNA GUIDELINES. THE SYSTEM TO BE BALANCED AND TESTED BY AN INDEPENDENT, "NEBB" CERTIFIED, BALANCING CONTRACTOR PER "NEBB".
- S. PROCEDURES. THE HVAC CONTRACTOR SHALL INCLUDE THE COST OF THE BALANCING AND TESTING IN HIS BID. THE BALANCING CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TRANSPORTATION, AND EQUIPMENT NECESSARY TO COMPLETELY BALANCE THE AIR FLOW FOR THE HVAC SYSTEMS AS SHOWN ON THE DRAWINGS. HVAC CONTRACTOR SHALL INSTALL NEW FILTERS IN ALL UNITS PRIOR TO THE AIR BALANCE. THE COMPLETE AIR BALANCE SHALL TAKE PLACE WITH OUTSIDE AIR DAMPERS IN MINIMUM POSITION. BALANCE THE SYSTEM TO WITHIN +5 PERCENT OF THE DESIGN REQUIREMENTS. THE HVAC CONTRACTOR AT NO ADDITIONAL COST SHALL PERFORM ANY REQUIRED CHANGES REQUIRED TO ACHIEVE SPECIFIED FLOW RATES. ALL CONTROL SEQUENCES SHALL BE TESTED (INTERLOCKED EQUIPMENT, SMOKE DETECTORS, SMOKE EVACUATION ECONOMIZER, CO2 SENSORS, ETC.) AND OPERATING STATUS RECORDED IN THE REPORT. A DIGITAL OR THREE (3) PRINTED COPIES OF THE BALANCE AND TESTING REPORT SHALL BE PROVIDED TO THE OWNER, OWNER'S REPRESENTATIVE, OR ARCHITECT BEFORE PROJECT CLOSE OUT FOR REVIEW. THE BALANCING CONTRACTOR SHALL RECHECK ANY ITEMS THAT THE OWNER OR ARCHITECT DEEMS REASONABLY NECESSARY AT NO ADDITIONAL COST TO THE OWNER.
- T. VENTILATION AND COMBUSTION AIR INTAKE: PROVIDE OUTSIDE VENTILATION AIR BY NATURAL VENTILATION OR MECHANICAL EQUIPMENT AS REQUIRED BY THE MECHANICAL CODE (REFER TO OUTSIDE AIR VENTILATION SCHEDULE). IF GAS-FIRED EQUIPMENT IS USED, VERIFY THAT THE MECHANICAL ROOM AND / OR MECHANICAL EQUIPMENT ARE PROVIDED WITH ADEQUATE COMBUSTION AND DILUTION AIR IN COMPLIANCE WITH THE MECHANICAL CODE. PROVIDE ADDITIONAL AIR AS REQUIRED. PROVIDE A VENT DESIGNED FOR THE TYPE OF APPLIANCE BEING VENTED FOR ALL GAS-FIRED EQUIPMENT TO THE EXTERIOR. PROVIDE VENTS DIRECTLY TO THE EXTERIOR FOR ALL EXHAUST FANS. ALL EXHAUST AND INTAKE OPENINGS MUST BE LOCATED A MINIMUM OF 10 FEET FROM LIT LINES OR BUILDINGS ON THE SAME LOT.
- U. PROVIDE A SMOKE DETECTOR IN RETURN AIR SYSTEMS WITH A DESIGN CAPACITY GREATER THAN 2,000 CFM IN THE RETURN AIR DUCT OR PLENUM UPSTREAM OF ANY FILTERS, EXHAUST AIR CONNECTIONS, OUTDOOR AIR CONNECTIONS, OR DECONTAMINATION EQUIPMENT AND APPLIANCES (PER OMC SECTION 606.2.1). WHERE TWO OR MORE UNITS SHARE THE SAME RETURN, THE COMBINED AMOUNT OF CFM SHALL BE USED IN DETERMINING WHETHER A DUCT SMOKE DETECTOR IS REQUIRED. COORDINATE THESE REQUIREMENTS BETWEEN THE HVAC AND THE ELECTRICAL OR FIRE ALARM CONTRACTORS.
- V. PROVIDE ACCESS TO ALL DAMPERS, CONTROLS, AND OTHER ITEMS IN DUCTWORK THAT REQUIRE SERVICE OR INSPECTION. IF THE ACCESS PANEL LOCATION IS EXPOSED, THE OWNER OR THE ARCHITECT MUST APPROVE IT PRIOR TO INSTALLATION. ACCESS PANELS ARE NOT REQUIRED ABOVE LAY-IN GRID TYPE CEILINGS.
- W. ALL HVAC EVAPORATORS AND COOLING COILS REQUIRE A CONDENSATE DRAIN, WHICH IS CONVEYED TO AN APPROPRIATE PLACE OF DISPOSAL (TYPICALLY INDIRECTLY INTO A FLOOR DRAIN). A SECONDARY DRAIN OR AUXILIARY DRAIN PAN (WITH A SEPARATE DRAIN OR A WATER LEVEL DETECTION DEVICE CONFORMING TO UL 508 THAT WILL SHUT OFF THE EQUIPMENT SERVED PRIOR TO OVERFLOW OF THE AUXILIARY DRAIN PAN) IS REQUIRED FOR ANY EQUIPMENT THAT PRODUCES CONDENSATE AND WHERE DAMAGE MAY OCCUR AS A RESULT OF OVERFLOW FROM THE EQUIPMENT DRAIN PAN OR STOPPAGE IN THE CONDENSATE DRAIN (PER OMC SECTION 307.2.3). COORDINATE THESE REQUIREMENTS BETWEEN THE HVAC AND PLUMBING CONTRACTORS AND THE ARCHITECT.
- X. ALL ROOF AND/OR EXTERIOR WALL PENETRATIONS ARE TO BE SEALED AIR AND WATER TIGHT, COORDINATE WITH THE GENERAL CONTRACTOR AND OTHER SUB-CONTRACTORS. ALL EQUIPMENT, PIPES, DUCTS, ETC. ARE TO BE INSTALLED CONCEALED ABOVE THE CEILING UNLESS SHOWN OTHERWISE.
- Y. VERIFY ALL SUSPENDED MECHANICAL LOADS WITH ARCHITECT PRIOR TO ORDERING NEW MECHANICAL EQUIPMENT.
- Z. HVAC CONTRACTOR TO COORDINATE ROUTING AND LOCATION OF ALL DEVICES WITH BUILDING STRUCTURE AND OTHER CEILING MOUNTED DEVICES.
- AA. HVAC CONTRACTOR TO REVIEW DRAWINGS FOR COMPLIANCE WITH LOCAL CODES AND WITH AUTHORITIES HAVING JURISDICTION OVER THIS PROJECT. CONTACT ARCHITECT WITH ANY QUESTIONS OR CONCERNS.

| DUCTWORK SYMBOL LEGEND |                                   |  |                                     |
|------------------------|-----------------------------------|--|-------------------------------------|
|                        | SUPPLY OR OUTSIDE AIR DUCT UP     |  | RADIUS RECTANGULAR ELBOW            |
|                        | RETURN OR EXHAUST AIR DUCT UP     |  | SUPPLY OR OUTSIDE AIR ROUND DUCT UP |
|                        | SUPPLY OR OUTSIDE AIR DUCT DOWN   |  | RETURN OR EXHAUST AIR ROUND DUCT UP |
|                        | RETURN OR EXHAUST AIR DUCT DOWN   |  | ROUND DUCT DOWN                     |
|                        | SUPPLY OR OUTSIDE AIR DUCT OFFSET |  | ROUND OFFSET                        |
|                        | RETURN AIR DUCT OFFSET            |  | ROUND ELBOW                         |
|                        | MANUAL BALANCING DAMPER           |  | ROUND WYE                           |
|                        | MOTORIZED DAMPER                  |  | RECTANGULAR BRANCH TAKEOFF          |
|                        | FIRE DAMPER                       |  | RECTANGULAR DUCT TERMINATION        |
|                        | RECTANGULAR TO ROUND TRANSITION   |  | ROUND DUCT TERMINATION              |
|                        | RECTANGULAR TRANSITION            |  |                                     |
|                        | STANDARD RECTANGULAR ELBOW        |  |                                     |

| ANNOTATION SYMBOL LEGEND |                             |  |                     |
|--------------------------|-----------------------------|--|---------------------|
|                          | THERMOSTAT OR TEMP. SENSOR  |  | SECTION SYMBOL      |
|                          | HUMIDISTAT                  |  | EQUIPMENT PLAN MARK |
|                          | SWITCH                      |  | CONNECT TO EXISTING |
|                          | KEYED NOTE SYMBOL           |  | DETAIL SYMBOL       |
|                          | VAV TERMINAL UNIT MARK      |  |                     |
|                          | AHU-1 EQUIPMENT MARK        |  |                     |
|                          | A-8'0" A-24x12 250 AIRFLOW  |  |                     |
|                          | 8'0" ROUND DUCT SIZE        |  |                     |
|                          | 24x12 RECTANGULAR DUCT SIZE |  |                     |

| AIR DEVICE AND DUCT ACCESS. LEGEND |   |  |   |
|------------------------------------|---|--|---|
|                                    | RETURN AIR GRILLE                                   |  | SUPPLY AIR DIFFUSER (HARD CONNECTION)   |
|                                    | SUPPLY AIR DIFFUSER WITH FLEXIBLE RUNOUT AND DAMPER |  | RETURN OR EXH. GRILLE (HARD CONNECTION) |
|                                    | SIDEWALL DIFFUSER                                   |  | 14X14 TRANSFER OPENING IN WALL          |
|                                    | SUPPLY AIR DIFFUSER (HARD CONNECTION)               |  | TRANSFER OPENING IN WALL                |
|                                    | RETURN OR EXH. GRILLE (HARD CONNECTION)             |  |   |

| PIPE SYMBOL LEGEND |                          |
|--------------------|--------------------------|
|                    | PIPE DOWN                |
|                    | PIPE UP                  |
|                    | TEE DOWN                 |
|                    | TEE UP                   |
|                    | PIPE BREAK (FOR CLARITY) |
|                    | CAPPED PIPE              |
|                    | REFRIGERANT SUCTION PIPE |
|                    | REFRIGERANT HOT GAS PIPE |

| HVAC INDEX OF DRAWINGS |                               |
|------------------------|-------------------------------|
| SHEET NUMBER           | SHEET NAME                    |
| MO.1                   | HVAC LEGEND AND GENERAL NOTES |
| MO.2                   | HVAC SCHEDULES & DETAILS      |
| M1.1                   | FIRST FLOOR HVAC PLAN         |
| M2.1                   | MEZZANINE FLOOR HVAC PLAN     |

| ISSUE    |      |                         |
|----------|------|-------------------------|
| NO.      | DATE | DESCRIPTION             |
| 04/08/22 |      | PERMIT AND CONSTRUCTION |

|         |          |
|---------|----------|
| DATE    | 04/08/22 |
| JOB NO. | 2021145  |
| DRAWN   | JLW      |
| CHECKED | JLW      |

COPYRIGHT © 2022 - App Architecture, Inc.  
TITLE  
**HVAC LEGEND AND GENERAL NOTES**

SHEET NO.

**MO.1**

### DIFFUSERS, REGISTERS, GRILLES AND LOUVERS SCHEDULE

| PLAN MARK | DESCRIPTION                        | BASIS OF DESIGN |       | MOUNTING | FINISH | MATERIAL | DAMPER TYPE     | NOTES |
|-----------|------------------------------------|-----------------|-------|----------|--------|----------|-----------------|-------|
|           |                                    | MFR             | MODEL |          |        |          |                 |       |
| A1        | SQUARE FACE DIFFUSER, 24"x24" FACE | TITUS           | TMS   | LAY-IN   | WHITE  | STEEL    | -               | -     |
| B1        | EGGCRATE RETURN GRILLE             | TITUS           | 50F   | LAY-IN   | WHITE  | STEEL    | -               | -     |
| C1        | DBL DEFLECTION SUPPLY GRILLE       | TITUS           | 272RL | SURFACE  | WHITE  | STEEL    | OPP. BLADE DMPR | -     |
| D1        | RETURN GRILLE                      | TITUS           | 350RL | SURFACE  | WHITE  | STEEL    | OPP. BLADE DMPR | -     |

GENERAL NOTES:  
A PRICE AND KRUEGER ACCEPTABLE ALTERNATE MANUFACTURERS.  
NOTES:

### GAS FIRED RADIANT HEATER SCHEDULE

| PLAN MARK | DESCRIPTION                 | BASIS OF DESIGN |             | INPUT MBH | ELECTRIC V/PH | TUBE LENGTH | NOTES  |
|-----------|-----------------------------|-----------------|-------------|-----------|---------------|-------------|--------|
|           |                             | MANUF.          | MODEL       |           |               |             |        |
| RH-1      | SINGLE STAGE, LOW INTENSITY | RE-VERBER-RAY   | DES3-40-100 | 100       | 120/1         | 1.7         | 41'-1" |
| RH-2      | SINGLE STAGE, LOW INTENSITY | RE-VERBER-RAY   | DES3-40-100 | 100       | 120/1         | 1.7         | 41'-1" |
| RH-3      | SINGLE STAGE, LOW INTENSITY | RE-VERBER-RAY   | DES3-40-100 | 100       | 120/1         | 1.7         | 41'-1" |

NOTES:  
1. PROVIDE WITH POLISHED ALUMINUM REFLECTOR, FLEXIBLE GAS CONNECTOR, 24V CONTROL TRANSFORMER AND DIGITAL HEATING ONLY LOW VOLTAGE THERMOSTAT.

### DUCTLESS SPLIT SYSTEM SCHEDULE

| PLAN MARK | INDOOR UNIT     |            |     |           |                             |                             | OUTDOOR UNIT    |            |           |     |      | NOTES |
|-----------|-----------------|------------|-----|-----------|-----------------------------|-----------------------------|-----------------|------------|-----------|-----|------|-------|
|           | BASIS OF DESIGN |            | CFM | V/PH      | NOM. COOLING CAPACITY (MBH) | NOM. HEATING CAPACITY (MBH) | BASIS OF DESIGN |            | ELECTRIC  |     |      |       |
|           | MFR             | MODEL      |     |           |                             |                             | MFR             | MODEL      | V/PH      | MCA | MOCP |       |
| FC-1      | DAIKIN          | MSZ-GL18NA | -   | 208-230/1 | 18.0                        | 13.8                        |                 |            |           |     |      | 1,2   |
| AC-3      |                 |            |     |           |                             |                             | DAIKIN          | MUZ-GL18NA | 208-230/1 | 14  | 15   |       |

GENERAL NOTES:  
A INDOOR UNIT COOLING CAPACITY BASED ON 80°F DB, 67°F WB E.A.T., OUTDOOR UNIT COOLING CAPACITY BASED ON 95°F AMBIENT TEMPERATURE. HEATING CAPACITY BASED ON 17°F AMBIENT TEMPERATURE.  
B INDOOR UNIT AIRFLOW QUANTITIES BASED ON HIGH FAN SPEED SETTING.

NOTES:  
1. INDOOR UNIT POWERED FROM OUTDOOR UNIT. WIRING AND DISCONNECTS BY EC.  
2. PROVIDE WITH WALL MOUNTED WIRED TEMPERATURE CONTROLLER WITH CLEAR VENTED LOCKABLE ENCLOSURE WITH TAMPERPROOF HARDWARE. REFER TO PLANS FOR MOUNTING LOCATION.

### VENTILATION SCHEDULE

| ROOM NUMBER | ROOM NAME         | OCCUPANCY TYPE | AREA (SF) | OCCUPANT DENSITY (#/1000SF) | PEOPLE AIR RATE (CFM/PERSON) | AREA AIR RATE (CFM/SF) | NUMBER OF PEOPLE | MINIMUM O.A. AIRFLOW (CFM) |
|-------------|-------------------|----------------|-----------|-----------------------------|------------------------------|------------------------|------------------|----------------------------|
| 101         | ADMIN             | OFFICE         | 167       | 5                           | 5                            | 0.06                   | 1                | 15                         |
| 102         | OFFICE/CONFERENCE | CONFERENCE     | 230       | 50                          | 5                            | 0.06                   | 12               | 74                         |
| 103         | ADMIN             | OFFICE         | 234       | 5                           | 5                            | 0.06                   | 2                | 24                         |
| 104         | OFFICE            | OFFICE         | 122       | 5                           | 5                            | 0.06                   | 1                | 12                         |
| 105         | BREAK/TRAINING    | BREAK          | 293       | 25                          | 5                            | 0.06                   | 8                | 58                         |
| 106         | MEN               |                | 101       |                             |                              |                        |                  |                            |
| 107         | WOMEN             |                | 162       |                             |                              |                        |                  |                            |
| 108         | MAINTENANCE       |                | 3530      | 0                           | 0                            | 0.75                   | 0                | 2648                       |
| 109         | TOILET            |                | 54        |                             |                              |                        |                  |                            |
| 110         | TRANSPORTATION    |                | 2178      | 0                           | 0                            | 0.75                   | 0                | 1634                       |
| 111         | MECH              |                | 58        |                             |                              |                        |                  |                            |
| 112         | MECH              |                | 65        |                             |                              |                        |                  |                            |
| 113         | COMPRESSOR        |                | 21        |                             |                              |                        |                  |                            |
|             |                   |                | 7214      |                             |                              |                        |                  | 4465                       |

### FURNACE SCHEDULE

| PLAN MARK | BASIS OF DESIGN |        |       | VENT. AIR CFM | ESP   | HEATING   |            | NOM. COOL CAPACITY (TONS) | DIMENSION |       |        | ELECTRICAL |     | NOTES |           |
|-----------|-----------------|--------|-------|---------------|-------|-----------|------------|---------------------------|-----------|-------|--------|------------|-----|-------|-----------|
|           | MFR             | MODEL  | CFM   |               |       | MBH INPUT | MBH OUTPUT |                           | WIDTH     | DEPTH | HEIGHT | V/PH       | MCA |       | MOCP      |
| FUR-1     | CARRIER         | 59SC2D | 1,000 | 89            | 0.50" | 60        | 56         | 2.5                       | 14.5"     | 29"   | 34"    | 120/1      | 9.9 | 15    | 1,2,3,4,5 |
| FUR-2     | CARRIER         | 59SC2D | 1,000 | 94            | 0.50" | 60        | 56         | 2.5                       | 14.5"     | 29"   | 34"    | 120/1      | 9.9 | 15    | 1,2,3,4,5 |

GENERAL NOTES:  
A ACCEPTABLE ALTERNATE MANUFACTURER BY RHEEM OR BRYANT.  
B REFRIGERANT PIPING TO BE SIZED BY MANUFACTURER.

NOTES:  
1. PROVIDE WITH NON-FUSED DISCONNECT SWITCH.  
2. PROVIDE MATCHED EVAPORATOR COIL AND CONDENSING UNIT.  
3. PROVIDE WITH FILTER RACK AND 1" PLEATED SPARE SET OF FILTERS.  
4. PROVIDE CONCENTRIC VENT KIT AND NEUTRALIZING KIT.  
5. PROVIDE WITH 7-DAY PROGRAMMABLE THERMOSTAT.

### AIR COOLED CONDENSING UNIT SCHEDULE

| PLAN MARK | ASSOCIATED INDOOR UNIT | BASIS OF DESIGN |        | NOM. TONS | AMB. TEMP (°F) | MIN. UNIT EER | REFRIG. | ELECTRICAL |      |      | NOTES |
|-----------|------------------------|-----------------|--------|-----------|----------------|---------------|---------|------------|------|------|-------|
|           |                        | MFR             | MODEL  |           |                |               |         | V/PH       | MCA  | MOCP |       |
| CU-1      | FUR-1                  | CARRIER         | 24ACC6 | 2.5       | 95             | 16            | R410A   | 208-230/1  | 16.7 | 25   | 1     |
| CU-2      | FUR-2                  | CARRIER         | 24ACC6 | 2.5       | 95             | 16            | R410A   | 208-230/1  | 16.7 | 25   | 1     |

GENERAL NOTES:  
A ACCEPTABLE ALTERNATE MANUFACTURER BY CARRIER OR BRYANT.

NOTES:  
1. PROVIDE WITH CONCRETE OR COMPOSITE EQUIPMENT PAD.

### FAN SCHEDULE

| PLAN MARK | TYPE            | MANUF.    | MODEL   | CFM   | ESP (WC) | WHEEL SIZE | DRIVE  | MAX. SONES | ELECTRICAL |       |   | NOTES |
|-----------|-----------------|-----------|---------|-------|----------|------------|--------|------------|------------|-------|---|-------|
|           |                 |           |         |       |          |            |        | HP         | VOLT       | PHASE |   |       |
| EF-1      | CEILING EXHAUST | GREENHECK | SE      | 5,250 | 0.38     | -          | DIRECT | -          | 1.5        | 208   | 1 | 2     |
| EF-2      | CEILING EXHAUST | GREENHECK | SE      | 3,300 | 0.38     | -          | DIRECT | -          | 0.75       | 208   | 1 | 2     |
| EF-3      | CEILING EXHAUST | GREENHECK | SPB-110 | 140   | 0.25     | -          | DIRECT | 2.0        | 80W        | 120   | 1 | 1,3   |
| EF-4      | CEILING EXHAUST | GREENHECK | SPA-200 | 200   | 0.25     | -          | DIRECT | 2.0        | 52W        | 120   | 1 | 1,3   |
| EF-5      | CEILING EXHAUST | GREENHECK | SPB-110 | 110   | 0.25     | -          | DIRECT | 2.0        | 80W        | 120   | 1 | 1,3   |

NOTES:  
1. PROVIDE WITH INTEGRAL DISCONNECT SWITCH, BACKDRAFT DAMPER AND MOTOR SPEED SELECTOR.  
2. PROVIDE WITH MOTOR GUARD, BACKDRAFT DAMPER, WALL SLEEVE AND EXTERIOR LOUVER. FAN SHALL BE CONTROLLED BY WALL STARTER, WIRING BY E.C.  
3. FAN SHALL BE CONTROLLED BY OCCUPANCY SENSOR.

### ELECTRIC UNIT HEATER SCHEDULE

| PLAN MARK | TYPE                 | BASIS OF DESIGN |       | KW | VOLT | PHASE | DIMENSIONS |        |       |        | NOTES |
|-----------|----------------------|-----------------|-------|----|------|-------|------------|--------|-------|--------|-------|
|           |                      | MANUF.          | MODEL |    |      |       | LENGTH     | HEIGHT | DEPTH | RECESS |       |
| EUH-1     | RECESSED WALL HEATER | MARLEY          | EFF   | 4  | 208  | 3     | 15"        | 19"    | 4"    | 3"     | 1     |

NOTES:  
1. PROVIDE DISCONNECT SWITCH, INTEGRAL THERMOSTAT AND TAMPERPROOF HARWARE.

**APP Architecture**  
creative focused design  
615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8898 F 937.832.3696  
www.app-arch.com

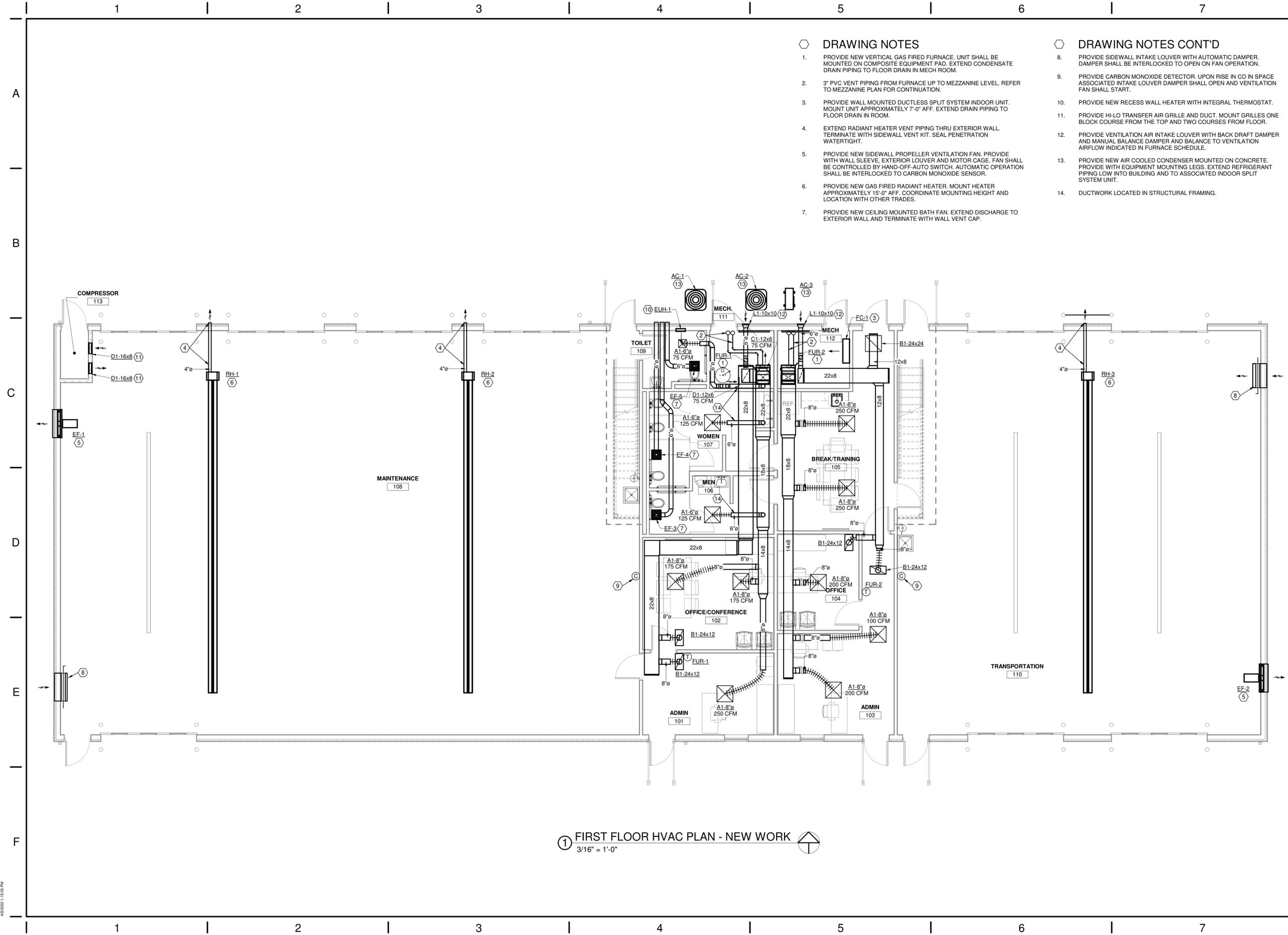


**TALAWANDA SCHOOL DISTRICT**  
NEW MAINTENANCE & BUS GARAGE  
5001 UNIVERSITY PARK BLVD  
OXFORD, OHIO 45056

| ISSUE    |                         |             |
|----------|-------------------------|-------------|
| NO.      | DATE                    | DESCRIPTION |
| 04/08/22 | PERMIT AND CONSTRUCTION |             |

DATE 04/08/22  
JOB NO. 2021145  
DRAWN JLW  
CHECKED JLW  
COPYRIGHT © 2022 - App Architecture, Inc.

TITLE  
**HVAC SCHEDULES & DETAILS**  
SHEET NO.  
**M0.2**



**DRAWING NOTES**

1. PROVIDE NEW VERTICAL GAS FIRED FURNACE. UNIT SHALL BE MOUNTED ON COMPOSITE EQUIPMENT PAD. EXTEND CONDENSATE DRAIN PIPING TO FLOOR DRAIN IN MECH ROOM.
2. 3" PVC VENT PIPING FROM FURNACE UP TO MEZZANINE LEVEL. REFER TO MEZZANINE PLAN FOR CONTINUATION.
3. PROVIDE WALL MOUNTED DUCTLESS SPLIT SYSTEM INDOOR UNIT. MOUNT UNIT APPROXIMATELY 7'-0" AFF. EXTEND DRAIN PIPING TO FLOOR DRAIN IN ROOM.
4. EXTEND RADIANT HEATER VENT PIPING THRU EXTERIOR WALL. TERMINATE WITH SIDEWALL VENT KIT. SEAL PENETRATION WATERTIGHT.
5. PROVIDE NEW SIDEWALL PROPELLER VENTILATION FAN. PROVIDE WITH WALL SLEEVE, EXTERIOR LOUVER AND MOTOR CAGE. FAN SHALL BE CONTROLLED BY HAND-OFF-AUTO SWITCH. AUTOMATIC OPERATION SHALL BE INTERLOCKED TO CARBON MONOXIDE SENSOR.
6. PROVIDE NEW GAS FIRED RADIANT HEATER. MOUNT HEATER APPROXIMATELY 15'-0" AFF. COORDINATE MOUNTING HEIGHT AND LOCATION WITH OTHER TRADES.
7. PROVIDE NEW CEILING MOUNTED BATH FAN. EXTEND DISCHARGE TO EXTERIOR WALL AND TERMINATE WITH WALL VENT CAP.

**DRAWING NOTES CONT'D**

8. PROVIDE SIDEWALL INTAKE LOUVER WITH AUTOMATIC DAMPER. DAMPER SHALL BE INTERLOCKED TO OPEN ON FAN OPERATION.
9. PROVIDE CARBON MONOXIDE DETECTOR. UPON RISE IN CO IN SPACE ASSOCIATED INTAKE LOUVER DAMPER SHALL OPEN AND VENTILATION FAN SHALL START.
10. PROVIDE NEW RECESS WALL HEATER WITH INTEGRAL THERMOSTAT.
11. PROVIDE HI-LO TRANSFER AIR GRILLE AND DUCT. MOUNT GRILLES ONE BLOCK COURSE FROM THE TOP AND TWO COURSES FROM FLOOR.
12. PROVIDE VENTILATION AIR INTAKE LOUVER WITH BACK DRAFT DAMPER AND MANUAL BALANCE DAMPER AND BALANCE TO VENTILATION AIRFLOW INDICATED IN FURNACE SCHEDULE.
13. PROVIDE NEW AIR COOLED CONDENSER MOUNTED ON CONCRETE. PROVIDE WITH EQUIPMENT MOUNTING LEGS. EXTEND REFRIGERANT PIPING LOW INTO BUILDING AND TO ASSOCIATED INDOOR SPLIT SYSTEM UNIT.
14. DUCTWORK LOCATED IN STRUCTURAL FRAMING.

1 FIRST FLOOR HVAC PLAN - NEW WORK  
3/16" = 1'-0"

**APP Architecture**  
creative focused design

615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8898 F 937.832.3696  
www.app-arch.com



NEW MAINTENANCE & BUS GARAGE  
**TALAWANDA SCHOOL DISTRICT**  
5001 UNIVERSITY PARK BLVD  
OXFORD, OHIO 45056

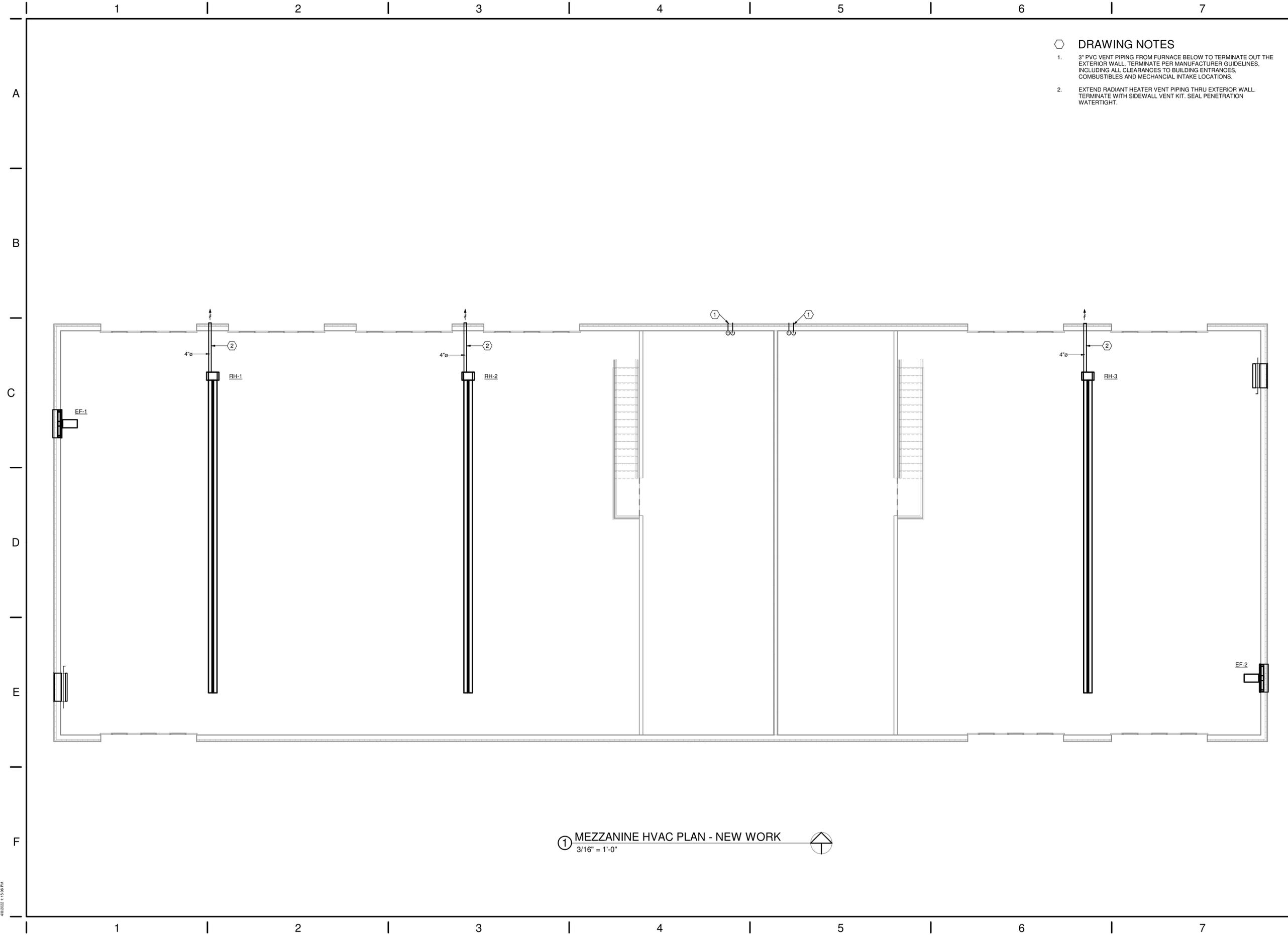
| ISSUE    |          |                         |
|----------|----------|-------------------------|
| NO.      | DATE     | DESCRIPTION             |
| 04/08/22 | 04/08/22 | PERMIT AND CONSTRUCTION |

|         |          |
|---------|----------|
| DATE    | 04/08/22 |
| JOB NO. | 2021145  |
| DRAWN   | JLW      |
| CHECKED | JLW      |

COPYRIGHT © 2022 - App Architecture, Inc.  
TITLE  
**FIRST FLOOR HVAC PLAN**

SHEET NO.  
**M1.1**

4/8/2022 11:55:05 PM



**DRAWING NOTES**

1. 3" PVC VENT PIPING FROM FURNACE BELOW TO TERMINATE OUT THE EXTERIOR WALL. TERMINATE PER MANUFACTURER GUIDELINES, INCLUDING ALL CLEARANCES TO BUILDING ENTRANCES, COMBUSTIBLES AND MECHANICAL INTAKE LOCATIONS.
2. EXTEND RADIANT HEATER VENT PIPING THRU EXTERIOR WALL. TERMINATE WITH SIDEWALL VENT KIT. SEAL PENETRATION WATERTIGHT.

**APP Architecture**  
creative focused design  
615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8896 F 937.832.3696  
www.app-arch.com



**NEW MAINTENANCE & BUS GARAGE**  
**TALAWANDA SCHOOL DISTRICT**  
5001 UNIVERSITY PARK BLVD  
OXFORD, OHIO 45056

| ISSUE    |      |                         |
|----------|------|-------------------------|
| NO.      | DATE | DESCRIPTION             |
| 04/08/22 |      | PERMIT AND CONSTRUCTION |

|         |          |
|---------|----------|
| DATE    | 04/08/22 |
| JOB NO. | 2021145  |
| DRAWN   | JLW      |
| CHECKED | JLW      |

COPYRIGHT © 2022 - App Architecture, Inc.  
TITLE  
**MEZZANINE FLOOR HVAC PLAN**

SHEET NO.  
**M2.1**

① **MEZZANINE HVAC PLAN - NEW WORK**  
3/16" = 1'-0"

4/8/2022 11:50:06 PM

## GENERAL LIGHTING/POWER NOTES

- LIGHT FIXTURES DESIGNATED AS "NIGHT LIGHTS" SHALL BE ON UNSWITCHED CIRCUIT, UNLESS NOTED.
- EXIT LIGHTS SHALL BE ON UNSWITCHED CIRCUIT, UNLESS NOTED.
- ALL RECESSED DOWNLIGHTS MOUNTED IN GRID CEILING SHALL BE CENTERED IN CEILING TILE, UNLESS NOTED.
- IN ALL MECHANICAL ROOMS, COORDINATE EXACT LOCATION OF LIGHT FIXTURES WITH HVAC DUCTWORK.
- CONDUCTORS FOR BRANCH CIRCUITRY ARE #12 AWG MINIMUM, UNLESS NOTED. DERATE PER CODE WHERE CIRCUITS ARE COMBINED.
- ALL HOMERUN CONDUCTORS BACK TO PANEL SHALL BE #10 AWG MINIMUM, UNLESS NOTED. PROVIDE A GREEN GROUND CONDUCTOR IN ALL BRANCH CIRCUITRY. DERATE PER CODE WHERE CIRCUITS ARE COMBINED.
- ALL CONDUIT DROPS FOR PLENUM RATED CABLES SHALL BE PROVIDED WITH A CONDUIT BUSHING ABOVE CEILING.
- WHERE TERMINATED IN J-BOX, ALL SPARE CIRCUITRY SHALL BE LABELED WITH PANEL AND CIRCUIT NUMBER.
- COORDINATE WITH MECHANICAL CONTRACTOR AND PROVIDE ALL NECESSARY AUXILIARY CONTACTS, RELAY, ETC. IN MOTOR STARTERS FOR REQUIRED CONTROL OF MECHANICAL EQUIPMENT.
- DO NOT SUPPORT CONDUIT OFF OF CEILING GRID, CEILING GRID SUPPORTS, MECHANICAL SUPPORTS, OR ANY OTHER TRADE'S SUPPORTS. INSTALL CONDUITS AND BOXES ON SEPARATE SUPPORTS FROM BAR JOIST OR STRUCTURE.
- COORDINATE OUTLET LOCATIONS FOR ALL KITCHEN AND BAR EQUIPMENT PRIOR TO ROUGH-IN.

## ABBREVIATIONS

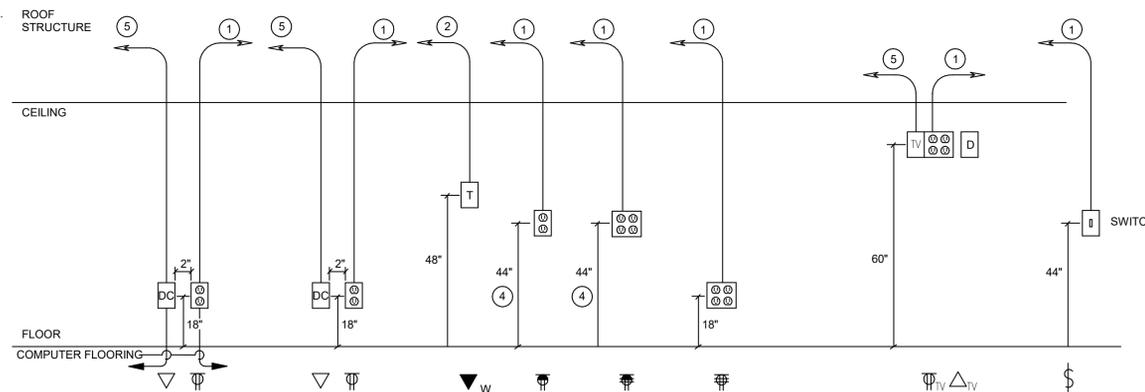
|       |                           |
|-------|---------------------------|
| A     | AMPS                      |
| AFF   | ABOVE FINISHED FLOOR      |
| AFG   | ABOVE FINISHED GRADE      |
| BKR   | BREAKER                   |
| C     | CONDUIT                   |
| CATV  | CABLE TELEVISION          |
| CUH   | CABINET UNIT HEATER       |
| CKT   | CIRCUIT                   |
| Cu    | COPPER                    |
| E     | EXISTING                  |
| EF    | EXHAUST FAN               |
| ELEC  | ELECTRICAL                |
| EM    | EMERGENCY                 |
| EMT   | EMERGENCY METALLIC TUBING |
| FCU   | FAN COIL UNIT             |
| G     | GROUND                    |
| GF    | GROUND FAULT INTERRUPTER  |
| GRC   | GALVANIZED RIGID CONDUIT  |
| HP    | HORSEPOWER                |
| J     | JUNCTION BOX              |
| KVA   | KILOVOLT AMPERE           |
| KW    | KILOWATTS                 |
| LGTTG | LIGHTING                  |
| MECH  | MECHANICAL                |
| MW    | MICROWAVE                 |
| NIC   | NOT IN CONTRACT           |
| NL    | NIGHT LIGHT               |
| NTS   | NOT TO SCALE              |
| PVC   | POLYVINYL CHLORIDE        |
| P     | PHASE (POLE)              |
| TTB   | TELEPHONE TERMINAL BOX    |
| TYP   | TYPICAL                   |
| UNO   | UNLESS OTHERWISE NOTED    |
| UV    | UNIT VENTILATOR           |
| V     | VOLTS                     |
| VAV   | VARIABLE AIR VOLUME       |
| VIF   | VERIFY IN FIELD           |
| W     | WATTS                     |
| WC    | WATER COOLER              |
| WP    | WEATHERPROOF              |
| UH    | UNIT HEATER               |
| UNO   | UNLESS NOTED OTHERWISE    |

## GENERAL PROJECT NOTES

- WORK SHALL BE DONE IN ACCORDANCE WITH LOCAL, STATE OF OHIO, 2017 NEC AND NATIONAL CODES, RECOMMENDATIONS, REGULATIONS, AND REQUIREMENTS.
- COORDINATE ELECTRICAL REQUIREMENTS FOR NEW WORK WITH THE PLUMBING AND MECHANICAL CONTRACTORS. VERIFY VOLTAGE, PHASE AND ACCESSORY REQUIREMENTS, SUCH AS MOTOR STARTERS AND DISCONNECTS.
- CONTRACTOR SHALL PERFORM ALL CUTTING AND PATCHING AS REQUIRED FOR HIS WORK. OPENINGS IN NEW WALLS AND FLOORS SHALL BE PLANNED AND COORDINATED WITH GENERAL CONTRACTOR FOR THE INSTALLATION OF APPROPRIATE SLEEVES.
- NEW OPENINGS IN EXISTING WALLS AND FLOORS SHALL BE CORE DRILLED OR SAW CUT. OPENINGS IN NEW WALLS AND FLOORS SHALL BE PLANNED AND COORDINATED WITH GENERAL CONTRACTOR FOR THE INSTALLATION OF APPROPRIATE SLEEVES.
- ALL CONDUIT SHALL BE 3/4" MINIMUM U.N.O.
- CONDUIT SHALL BE CONCEALED IN CEILING OR WALLS WHEREVER POSSIBLE.
- ALL BRANCH CIRCUITS AND FEEDERS SHALL CONTAIN A GREEN INSULATED GROUND CONDUCTOR. GROUNDING BY MEANS OF RACEWAY IS NOT PERMITTED.
- REFER TO MECHANICAL, PLUMBING, AND ARCHITECTURAL PLANS FOR EXACT LOCATION OF EQUIPMENT.
- CONTRACTOR SHALL COORDINATE EXACT HEIGHT OF DEVICES DESIGNATED AS OVER COUNTER WITH CASE WORK AND FURNITURE DRAWINGS.
- VERIFY CEILING TYPES PER THE ARCHITECTURAL REFLECTED CEILING PLAN. PROVIDE APPROPRIATE TYPE FIXTURE, LAY-IN FOR GRID, FLANGE FOR DRYWALL, ETC.
- VERIFY AND COORDINATE MOUNTING HEIGHTS AND LOCATIONS OF ALL DEVICES MOUNTED IN CASEWORK OR ABOVE COUNTERS WITH SPECIFIC EQUIPMENT FURNISHED.
- NO MORE THAN 3 PHASE CONDUCTORS SHALL BE INSTALLED IN ANY ONE CIRCUIT, UNLESS NOTED OTHERWISE. EACH BRANCH CIRCUIT SHALL CONTAIN THEIR OWN NEUTRAL CONDUCTOR. NO SHARED NEUTRALS.
- CONTRACTOR SHALL PROVIDE ALL FIRESTOPPING FOR CONDUIT OR CABLE TRAY PENETRATIONS THAT PENETRATE ACOUSTICAL RATED OR SMOKE AND FIRE RATED ASSEMBLIES. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL RATED ASSEMBLIES. ALL RATED PENETRATIONS SHALL BE FIRESTOPPED TO ORIGINAL ASSEMBLY RATING. ALL NON-RATED FLOOR PENETRATIONS SHALL BE SEALED WATER TIGHT WITH A FLEXIBLE SEALANT.
- PROVIDE ALL PULL BOXES, IN ACCESSIBLE AREA, THAT EXCEED NEC NUMBER OF BENDS OR LENGTH IN FEEDER AND BRANCH CIRCUITS. INSTALL BOXES WHERE REQUIRED PER CODE.
- ALL WIRING DEVICES SHALL BE OF HEAVY DUTY COMMERCIAL GRADE CONSTRUCTION. REFER TO ARCHITECTURAL SHEETS AND CODE SHEET FOR ALL FIRE-RATED PARTITION LOCATIONS AND RATINGS. COORDINATE COLORS WITH ARCHITECT.
- CONTRACTOR IS RESPONSIBLE FOR ALL CORE-DRILLS REQUIRED FOR INSTALLATION OF ELECTRICAL WORK.
- ROUTING OF CIRCUITRY INSTALLED IN CASEWORK, CABINETRIES, ETC. SHALL BE COORDINATED FOR PROPER CONCEALMENT AND FUNCTION OF CASEWORK, CABINETRIES, ETC.
- VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO EXCAVATION, TRENCHING, OR DRILLING.
- ALL ROOF PENETRATIONS OR PATCHES SHALL BE MADE PER ROOFING MANUFACTURER WARRANTY REQUIREMENTS.
- ALL EXPOSED METAL CONDUITS ARE TO BE PAINTED TO MATCH THE ADJACENT SURFACE. COORDINATION OF PAINTING OF CONDUIT IS TO BE BY THE ELECTRICAL CONTRACTOR, WITH PAINTING BY OTHERS.
- ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL REQUIRED JUNCTION BOXES, PULL BOXES, ETC FOR A COMPLETE INSTALLATION PER THE N.E.C. AND LOCAL CODES. ALL CONDUCTORS SHALL BE RATED FOR 90 DEGREE CELSIUS.
- COORDINATE WORK WITH OTHER TRADES. COORDINATION OR SCHEDULING SHALL BE RESPONSIBILITY OF THE INVOLVED CONTRACTORS.
- ALL LOW VOLTAGE CABLING INSTALLED IN SPACES WITHOUT A LAY-IN OR WITH A HARD CEILING SHALL BE INSTALLED IN CONDUIT AND BOXES.

## DETAIL NOTES:

- 120V RECEPTACLE BRANCH CIRCUIT. REFER TO POWER PLANS
- 3/4" CONDUIT WITH CABLES TO CABLETRAY/DATA/COMM. BACKBOARD. SWITCH LEG.
- OR 4" ABOVE BACKSPLASH
- STUB 1" CONDUIT TO ABOVE ACCESSIBLE CEILING. PROVIDE BUSHING



## LEGEND

|    |                                 |
|----|---------------------------------|
| DC | DATA/COMMUNICATIONS OUTLET      |
| T  | TELEPHONE OUTLET                |
| TV | AV BOX                          |
| O  | 120V POWER OUTLET               |
| S  | SWITCH                          |
| DO | DOUBLE DUPLEX 120V POWER OUTLET |

2 TYPICAL DEVICE ELEVATION DETAILS  
NTS

## ELECTRICAL LEGEND

| LIGHTING |   | FIRE ALARM                |   |
|----------|---|---------------------------|---|
| A1       | LIGHTING FIXTURE. REFER TO FIXTURE SCHEDULE. LETTER INDICATES TYPE.   | FA                        | FIRE ALARM PULL STATION, 44" AFF MOUNTING HEIGHT  |
| A1       | EMERGENCY LIGHTING FIXTURE WITH EMERGENCY BALLAST. "NL" INDICATES NIGHT LIGHT CIRCUIT (NL - NIGHT LIGHT - FIXTURE TO OPERATE CONTINUOUSLY). | FAH                       | FIRE ALARM HORN/STROBE. 80" AFF MOUNTING HEIGHT   |
| C1       | LIGHTING FIXTURE. LETTER INDICATES TYPE.  | FAA                       | FIRE ALARM DUCT MOUNTED SMOKE DETECTOR. S = SUPPLY, R = RETURN - COORDINATE WITH DUCTWORK. MAKE SAMPLING TUBE FULL WIDTH OF DUCT IN LENGTH. PROVIDE SMOKE DETECTOR FOR DAMPER OPERATION AND 120 VOLT POWER CONNECTION AS SHOWN ON THE POWER DRAWINGS. COORDINATE ALL CONNECTIONS WITH MECHANICAL CONTRACTOR. CONNECT TO ALARM SYSTEM. |
| C1       | EMERGENCY LIGHTING FIXTURE WITH EMERGENCY BALLAST OR POWERED THROUGH INVERTER SYSTEM.   | FAA                       | FIRE ALARM ANNUNCIATOR PANEL.   |
| X1       | CEILING MOUNTED EXIT SIGN. REFER TO FIXTURE SCHEDULE. SHADED AREA DENOTES FACE OF UNIT. CONNECT TO LOCAL UNSWITCHED LIGHTING CIRCUIT.       | FAA                       | FIRE ALARM CONTROL PANEL.   |
| X1       | WALL MOUNTED EXIT SIGN. REFER TO FIXTURE SCHEDULE. SHADED AREA DENOTES FACE OF UNIT. CONNECT TO LOCAL UNSWITCHED LIGHTING CIRCUIT.          | FAA                       | FIRE ALARM STROBE. 80" AFF MOUNTING HEIGHT.   |
| 3        | SINGLE POLE WALL SWITCH. 120/277 VOLT, 20 AMP. 44" AFF.   | BL                        | BLUE EXTERIOR STROBE LIGHT FOR FIRE DEPARTMENT CONNECTION WP - WEATHERPROOF   |
| 3        | THREE WAY WALL SWITCH. 120/277V, 20 AMP. 44" AFF  | FS                        | SPRINKLER SYSTEM FLOW SWITCH FURNISHED AND INSTALLED BY THE FIRE PROTECTION CONTRACTOR, CONNECTED BY ELECTRICAL CONTRACTOR.   |
| 4        | FOUR WAY WALL SWITCH. 120/277V, 20 AMP. 44" AFF   | TS                        | SPRINKLER SYSTEM GATE VALVE. SUPERVISORY SWITCH FURNISHED AND INSTALLED BY THE FIRE PROTECTION CONTRACTOR, CONNECTED BY ELECTRICAL CONTRACTOR.  |
| OC       | OCCUPANCY SENSOR WALL SWITCH. 120/277V, 20 AMP. 44" AFF   | WP                        | FIRE ALARM STROBE. 80" AFF MOUNTING HEIGHT.   |
| P        | SINGLE POLE WALL SWITCH WITH PILOT LIGHT. 120/277V, 20 AMP. 44" AFF   | M                         | MAGNETIC DOOR HOLD OPEN.  |
| xx       | EMERGENCY EGRESS LIGHT. REFER TO FIXTURE SCHEDULE.  | RPS                       | FIRE ALARM REMOTE POWER SUPPLY.   |
| CC       | CEILING MOUNTED OCCUPANCY SENSOR.   | Z                         | FIRE ALARM MONITOR MODULE.  |
|          |   | R                         | FIRE ALARM CONTROL RELAY MODULE.  |
|          |   | E.O.L.R.                  | END OF THE LINE RESISTOR.   |
|          |   | KB                        | FIRE ALARM CONTROL RELAY MODULE.  |
| POWER    |   | DOOR ACCESS               |   |
| U        | DUPLEX RECEPTACLE. 120 VOLT, 20 AMP. 18" AFF UNO.   | E                         | ELECTRIC DOOR STRIKE.   |
| U        | DUPLEX RECEPTACLE WITH USB PLUG. 120 VOLT, 20 AMP. 18" AFF UNO.   | DC                        | DOOR SWITCH/CONTACT.  |
|          | DUPLEX RECEPTACLE MOUNTED AT 46" OR ABOVE BACKSPLASH. 120 VOLT, 20 AMP.   | CR                        | KEY OR KEYCARD ACTIVATED SWITCH IN TAMPER PROOF ENCLOSURE. WP - WEATHERPROOF.   |
|          | DOUBLE DUPLEX RECEPTACLE. 120 VOLT, 20 AMP. 18" AFF UNO.  | HC                        | HANDICAP DOOR ACCESS BUTTON IN FLUSH WALL BOX.  |
|          | 120 VOLT DOUBLE DUPLEX, 20 AMP RECEPTACLE MOUNTED AT 46" AFF OR 4" ABOVE BACKSPLASH.  | INTRUDER DETECTION SYSTEM |   |
|          | DUPLEX RECEPTACLE WITH GROUND FAULT PROTECTION. 120 VOLT, 20 AMP. 18" AFF UNO, WP-WEATHERPROOF BOX  | PIR                       | CEILING MOUNTED MOTION SENSOR DEVICE.   |
|          | FLUSH FLOOR DUPLEX RECEPTACLE IN FLOOR BOX  | KP                        | CEILING MOUNTED MOTION SENSOR DEVICE.   |
|          | 120 VOLT SINGLE 20 AMP RECEPTACLE.  | DATA & COMMUNICATION      |   |
|          | DUPLEX RECEPTACLE. CEILING MOUNTED  | 2                         | DATA /COMMUNICATION OUTLET. TWO PORTS REFER TO DETAIL FOR MOUNTING REQUIREMENTS.  |
|          | SPECIAL PURPOSE RECEPTACLE. REFER TO FLOOR PLANS FOR NEMA CONFIGURATION.  | W                         | WALL PHONE. 54" AFF.  |
|          | FRACTIONAL HP MOTOR STARTER WITH THERMAL OVERLOADS.   | 4                         | DATA/COMMUNICATION. FOUR PORT DATA, 18" AFF.  |
|          | ELECTRICAL MOTOR.   | 6                         | DATA/COMMUNICATION. FOUR PORT DATA, 18" AFF.  |
|          | INDICATES FINAL CONNECTION REQUIRED.  | WAP                       | WIRELESS ACCESS CONNECTION POINT WITH CEILING MOUNTED CISCO WIRELESS DEVICE.  |
|          | HOMERUN TO PANELBOARD. NOTION INDICATES PANEL AND CIRCUIT NUMBER. (ALL CONDUCTORS SHALL BE #10 UNLESS NOTED OTHERWISE.)                     |                           |   |
|          | ELECTRICAL PANELBOARD.  |                           |   |
|          | JUNCTION BOX.   |                           |   |
|          | CONDUIT STUB-OUT AND CAP BELOW GRADE. MARK STUB-OUT AT GRADE LEVEL.   |                           |   |
|          | UNDERGROUND HIGH VOLTAGE OR SECONDARY SERVICE FEED.   |                           |   |
|          | SAFETY DISCONNECT SWITCH (NON-FUSED). 4X INDICATES ENCLOSURE TYPE.  |                           |   |
|          | SAFETY DISCONNECT SWITCH (FUSED).   |                           |   |
|          | COMBINATION MOTOR STARTER/DISCONNECT. WITH HOA SWITCH AT UNIT (FUSIBLE). OR (CIRCUIT BREAKER FOR ELEVATOR).                                 |                           |   |
|          | TRANSFORMER (NUMBER INDICATES WHICH TRANSFORMER).   |                           |   |
|          | HAND DRYER. VERIFY MOUNTING WITH SUPPLIER.  |                           |   |
| GENERAL  |   |                           |   |
| 2        | DETAIL # _____ DETAIL REFERENCE TAG, DRAWING # REFER TO DETAIL SHEETS   |                           |   |
| XX       | KEYNOTE FOR DRAWING   |                           |   |
| 2        | DETAIL REFERENCE TAG (SECTION)  |                           |   |
| EF-1     | MECHANICAL EQUIPMENT TAG. REFER TO EQUIPMENT DATA SCHEDULE.   |                           |   |
| Φ        | INDICATES NEW WORK.   |                           |   |
| Φ        | INDICATES TO BE REMOVED.  |                           |   |
| Φ        | INDICATES EXISTING TO REMAIN.   |                           |   |

| ELECTRICAL INDEX OF DRAWINGS |  |
|------------------------------|--|
| SHEET NUMBER                 | SHEET NAME                                 |
| E0.1                         | ELECTRICAL LEGEND AND GENERAL NOTES        |
| E0.2                         | ELECTRICAL EQUIPMENT AND LIGHTING SCHEDULE |
| E0.3                         | ELECTRICAL SPECIFICATIONS                  |
| E1.1                         | ELECTRICAL POWER PLAN                      |
| E1.2                         | ELECTRICAL LIGHTING PLAN                   |
| E1.3                         | SITE PLAN                                  |
| E4.1                         | PANELBOARD SCHEDULES                       |
| E4.2                         | PANELBOARD SCHEDULE AND SINGLELINE         |

**APP Architecture**  
creative focused design

615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8898 F 937.832.3696  
www.app-arch.com



NEW MAINTENANCE & BUS GARAGE  
**TALAWANDA SCHOOL DISTRICT**  
5301 UNIVERSITY PARK BLVD  
OXFORD, OHIO 45056

| ISSUE      |                         |             |
|------------|-------------------------|-------------|
| NO.        | DATE                    | DESCRIPTION |
| 04/08/2022 | PERMIT AND CONSTRUCTION |             |

|         |          |
|---------|----------|
| DATE    | 04/08/22 |
| JOB NO. | 2021145  |
| DRAWN   | JMS      |
| CHECKED | RLS      |

COPYRIGHT © 2022 - App Architecture, Inc.  
TITLE  
**ELECTRICAL LEGEND AND GENERAL NOTES**

SHEET NO.  
**E0.1**

**EQUIPMENT ELECTRICAL DATA SCHEDULE**

| PLAN SYMBOL | DESCRIPTION/LOCATION | LOAD CHARACTERISTICS |    |         |       |      |             | STARTER |           |            |            |             | DISCONNECT |      |             |            | CTRL DEVICE       |           |      | PANEL | CIRCUIT | FEEDER SIZE/ RACEWAY | NOTES | PLAN SYMBOL                 |            |            |
|-------------|----------------------|----------------------|----|---------|-------|------|-------------|---------|-----------|------------|------------|-------------|------------|------|-------------|------------|-------------------|-----------|------|-------|---------|----------------------|-------|-----------------------------|------------|------------|
|             |                      | KW                   | HP | VOLTAGE | PHASE | FLA  | SPEED DRIVE | TYPE    | NEMA SIZE | FURNISH BY | INSTALL BY | AUXIL RELAY | LOCATION   | TYPE | FURNIS H BY | INSTALL BY | SWITCH/ FUSE SIZE | LOCATION  | TYPE |       |         |                      |       |                             | FURNISH BY | INSTALL BY |
| AC-1        | AIR CONDITIONER      | -                    | -  | 208     | 1     | 16.7 | -           | -       | -         | ES         | ES         | -           | IN UNIT    | -    | EC          | EC         | -                 | NEAR UNIT | -    | -     | -       | -                    | -     | (3)#12, (1)#12 GRD. IN .75" | -          | AC-1       |
| AC-2        | AIR CONDITIONER      | -                    | -  | 208     | 1     | 16.7 | -           | -       | -         | ES         | ES         | -           | IN UNIT    | -    | EC          | EC         | -                 | NEAR UNIT | -    | -     | -       | -                    | -     | (3)#12, (1)#12 GRD. IN .75" | -          | AC-2       |
| AC-3        | AIR CONDITIONER      | -                    | -  | 208     | 1     | 14.7 | -           | -       | -         | ES         | ES         | -           | IN UNIT    | -    | EC          | EC         | -                 | NEAR UNIT | -    | -     | -       | -                    | -     | (3)#12, (1)#12 GRD. IN .75" | -          | AC-3       |
| FC-1        | FAN COIL             | -                    | -  | 208     | 1     | -    | -           | -       | -         | ES         | ES         | -           | IN UNIT    | -    | EC          | EC         | -                 | NEAR UNIT | -    | -     | -       | -                    | -     | (3)#12, (1)#12 GRD. IN .75" | -          | FC-1       |
| FUR-1       | FURNACE              | -                    | -  | 120     | 1     | -    | -           | -       | -         | ES         | ES         | -           | IN UNIT    | SW   | EC          | EC         | -                 | NEAR UNIT | -    | -     | -       | -                    | -     | (3)#12, (1)#12 GRD. IN .75" | -          | FUR-1      |
| FUR-2       | FURNACE              | -                    | -  | 120     | 1     | -    | -           | -       | -         | ES         | ES         | -           | IN UNIT    | SW   | EC          | EC         | -                 | NEAR UNIT | -    | -     | -       | -                    | -     | (3)#12, (1)#12 GRD. IN .75" | -          | FUR-2      |
| EF-1        | EXHAUST FAN          | -                    | -  | 120     | 1     | -    | -           | -       | -         | ES         | ES         | -           | IN UNIT    | SW   | EC          | EC         | -                 | NEAR UNIT | -    | -     | -       | -                    | -     | (3)#12, (1)#12 GRD. IN .75" | -          | EF-1       |
| EF-2        | EXHAUST FAN          | -                    | -  | 120     | 1     | -    | -           | -       | -         | ES         | ES         | -           | IN UNIT    | SW   | EC          | EC         | -                 | NEAR UNIT | -    | -     | -       | -                    | -     | (3)#12, (1)#12 GRD. IN .75" | -          | EF-2       |
| EF-3        | EXHAUST FAN          | -                    | .5 | 120     | 1     | -    | -           | -       | -         | ES         | ES         | -           | IN UNIT    | SW   | EC          | EC         | -                 | NEAR UNIT | -    | -     | -       | -                    | -     | (3)#12, (1)#12 GRD. IN .75" | -          | EF-3       |
| EF-4        | EXHAUST FAN          | -                    | .5 | 120     | 1     | -    | -           | -       | -         | ES         | ES         | -           | IN UNIT    | SW   | EC          | EC         | -                 | NEAR UNIT | -    | -     | -       | -                    | -     | (3)#12, (1)#12 GRD. IN .75" | -          | EF-4       |
| EF-5        | EXHAUST FAN          | -                    | .5 | 120     | 1     | -    | -           | -       | -         | ES         | ES         | -           | IN UNIT    | SW   | EC          | EC         | -                 | NEAR UNIT | -    | -     | -       | -                    | -     | (3)#12, (1)#12 GRD. IN .75" | -          | EF-5       |
| WH-1        | WATER HEATER         | -                    | -  | 120     | 1     | -    | -           | -       | -         | ES         | ES         | -           | IN UNIT    | SW   | EC          | EC         | -                 | NEAR UNIT | -    | -     | -       | -                    | -     | (3)#12, (1)#12 GRD. IN .75" | -          | WH-1       |
| RH-1        | RADIANT HEATER       | -                    | -  | 120     | 1     | 1.7  | -           | -       | -         | ES         | ES         | -           | IN UNIT    | SW   | EC          | EC         | -                 | NEAR UNIT | -    | -     | -       | -                    | -     | (3)#12, (1)#12 GRD. IN .75" | -          | RH-1       |
| RH-2        | RADIANT HEATER       | -                    | -  | 120     | 1     | 1.7  | -           | -       | -         | ES         | ES         | -           | IN UNIT    | SW   | EC          | EC         | -                 | NEAR UNIT | -    | -     | -       | -                    | -     | (3)#12, (1)#12 GRD. IN .75" | -          | RH-2       |
| RH-3        | RADIANT HEATER       | -                    | -  | 120     | 1     | 1.7  | -           | -       | -         | ES         | ES         | -           | IN UNIT    | SW   | EC          | EC         | -                 | NEAR UNIT | -    | -     | -       | -                    | -     | (3)#12, (1)#12 GRD. IN .75" | -          | RH-3       |
| EUH-1       | ELECTRIC UNIT HEATER | 5                    | -  | 208     | 3     | 1.7  | -           | -       | -         | ES         | ES         | -           | IN UNIT    | SW   | EC          | EC         | -                 | NEAR UNIT | -    | -     | -       | -                    | -     | (3)#12, (1)#12 GRD. IN .75" | -          | EUH-1      |

ABBREVIATIONS:  
 CC - CONTROL CONTRACTOR      FS - FUSED SWITCH      GC - GENERAL CONTRACTOR      VC - VENTILATION CONTRACTOR  
 CP - CORD/PLUG                      FSC - FIRE SUPPRESSION CONTRACTOR      HC - HEATING CONTRACTOR  
 EC - ELECTRICAL CONTRACTOR      FSEC - FOOD SERVICE EQUIP. CONTRACTOR      PC - PLUMBING CONTRACTOR      TS - THERMOSTAT  
 ES - EQUIPMENT SUPPLIER              FVNR - FULL VOLTAGE NON-REVERSING      SC - SPRINKLER CONTRACTOR

NOTES:

**LIGHTING FIXTURE SCHEDULE**

| FIXTURE SYMBOL | LAMPS/LIGHT ENGINE |              |        |        |            |                               | FIXTURE VOLTAGE | FIXTURE INPUT WATTS | FIXTURE EFFICIENCY | DELIVERED LUMENS | MANUFACTURER AND MODEL NUMBER              | OTHER ACCEPTABLE MANUFACTURER | DIFFUSER MEDIA | CLASSIFICATION | TRIM COLOR |        |        |                |          |          | MOUNTING | SIZE (IN.)  |              |                | NOTES |                |                |                 |                  |                   |        |       |
|----------------|--------------------|--------------|--------|--------|------------|-------------------------------|-----------------|---------------------|--------------------|------------------|--|-------------------------------|----------------|----------------|------------|--------|--------|----------------|----------|----------|----------|-------------|--------------|----------------|-------|----------------|----------------|-----------------|------------------|-------------------|--------|-------|
|                | QUANTITY           |              |        |        |            |                               |                 |                     |                    |                  |  |                               |                |                | WHITE      | NICKEL | CHROME | BRUSHED NICKEL | STANDARD | SEE NOTE |          | S - SURFACE | R - RECESSED | SM - STEM MTD. |       | WM - WALL MTD. | C - CHAIN MTD. | UC - UNDER CAB. | CS - CEIL. SURF. | DIAMETER OR WIDTH | LENGTH | DEPTH |
|                | FLOUORESCENT       | INCANDESCENT | H.I.D. | L.E.D. | WATTS/LAMP | (MANUFACTURER) CATALOG NUMBER |                 |                     |                    |                  |  |                               |                |                |            |        |        |                |          |          |          |             |              |                |       |                |                |                 |                  |                   |        |       |
| A1             | -                  | -            | -      | 1      | 75.9       | -                             | 120             | 75.9                | -                  | 10,527           | COLUMBIA #CLB-2-40-LX-W-ED-U-CABLE MOUNT   | AS PRE-APPROVED               | HIGH BAY       | N              | X          |        |        |                |          |          |          |             |              | C              | 10    | 22.7           | 2.3            | -               |                  |                   |        |       |
| A2             | -                  | -            | -      | 1      | 30         | -                             | 120             | 30                  | -                  | 3,338            | COLUMBIA #CFP22-40/33/2835                 | AS PRE-APPROVED               | EDGE LIT LED   | N              | X          |        |        |                |          |          |          |             |              | R              | 23.7  | 23.7           | 1.58           | -               |                  |                   |        |       |
| A3             | -                  | -            | -      | 1      | 30         | -                             | 120             | 30                  | -                  | 4,274            | COLUMBIA #CSL4-LSCS                        | AS PRE-APPROVED               | EDGE LIT LED   | N              | X          |        |        |                |          |          |          |             |              | CS             | 11.8  | 47.7           | 1.58           | -               |                  |                   |        |       |
| X1             | -                  | -            | -      | 1      | -          | -                             | 120             | -                   | -                  | -                | COMPASS #CCRRC                             | AS PRE-APPROVED               | -              | EM             | X          |        |        |                |          |          |          |             |              | WM-7-6"        | 19.25 | 8.125          | 1.75           | -               |                  |                   |        |       |
| ER             | -                  | -            | -      | 1      | -          | -                             | 120             | -                   | -                  | -                | COMPASS #CORS                              | AS PRE-APPROVED               | -              | EM             | X          |        |        |                |          |          |          |             |              | WM-7-6"        | 4.5   | DIA            | 6.7            | -               |                  |                   |        |       |
| WV             | -                  | -            | -      | 2      | -          | -                             | 120             | -                   | -                  | -                | COMPASS #CU2                               | AS PRE-APPROVED               | -              | EM             | X          |        |        |                |          |          |          |             |              | WM-7-6"        | 4     | 9              | 2.75           | -               |                  |                   |        |       |
| PL1            | -                  | -            | -      | 1      | 72.1       | -                             | 120             | 72.1                | -                  | 9,429            | BEACON #VP-1-160L-75-4K7-4F-UNV-ASQU-BLT-F | AS PRE-APPROVED               | SITE LIGHTING  | N              | X          | X      | X      | X              | X        | X        | X        | X           | POLE         | -              | -     | -              | 1              |                 |                  |                   |        |       |
| PL2            | -                  | -            | -      | 1      | 72.1       | -                             | 120             | 72.1                | -                  | 10,461           | BEACON #VP-1-160L-75-4K7-3-UNV-ASQU-BLT-F  | AS PRE-APPROVED               | SITE LIGHTING  | N              | X          | X      | X      | X              | X        | X        | X        | X           | POLE         | -              | -     | -              | 1              |                 |                  |                   |        |       |
| PL3            | -                  | -            | -      | 1      | 72.1       | -                             | 120             | 144.2               | -                  | 9,429            | BEACON #VP-1-160L-75-4K7-4F-UNV-ASQU-BLT-F | AS PRE-APPROVED               | SITE LIGHTING  | N              | X          | X      | X      | X              | X        | X        | X        | X           | POLE         | -              | -     | -              | 1              |                 |                  |                   |        |       |
| WP1            | -                  | -            | -      | 1      | 80         | -                             | 120             | 80                  | -                  | 9,478            | BEACON #TRV-D-36L-80-4K7-4F-UNV-BLT        | AS PRE-APPROVED               | SITE LIGHTING  | N              | X          | X      | X      | X              | X        | X        | X        | X           | WM-16-0"     | -              | -     | -              | -              |                 |                  |                   |        |       |

NOTES:  
 1. POLE #VALMONT #DS330-400Q250-D1-FP-BK-FBC



NEW MAINTENANCE & BUS GARAGE  
**TALAWANDA SCHOOL DISTRICT**  
 5301 UNIVERSITY PARK BLVD  
 OXFORD, OHIO 45056

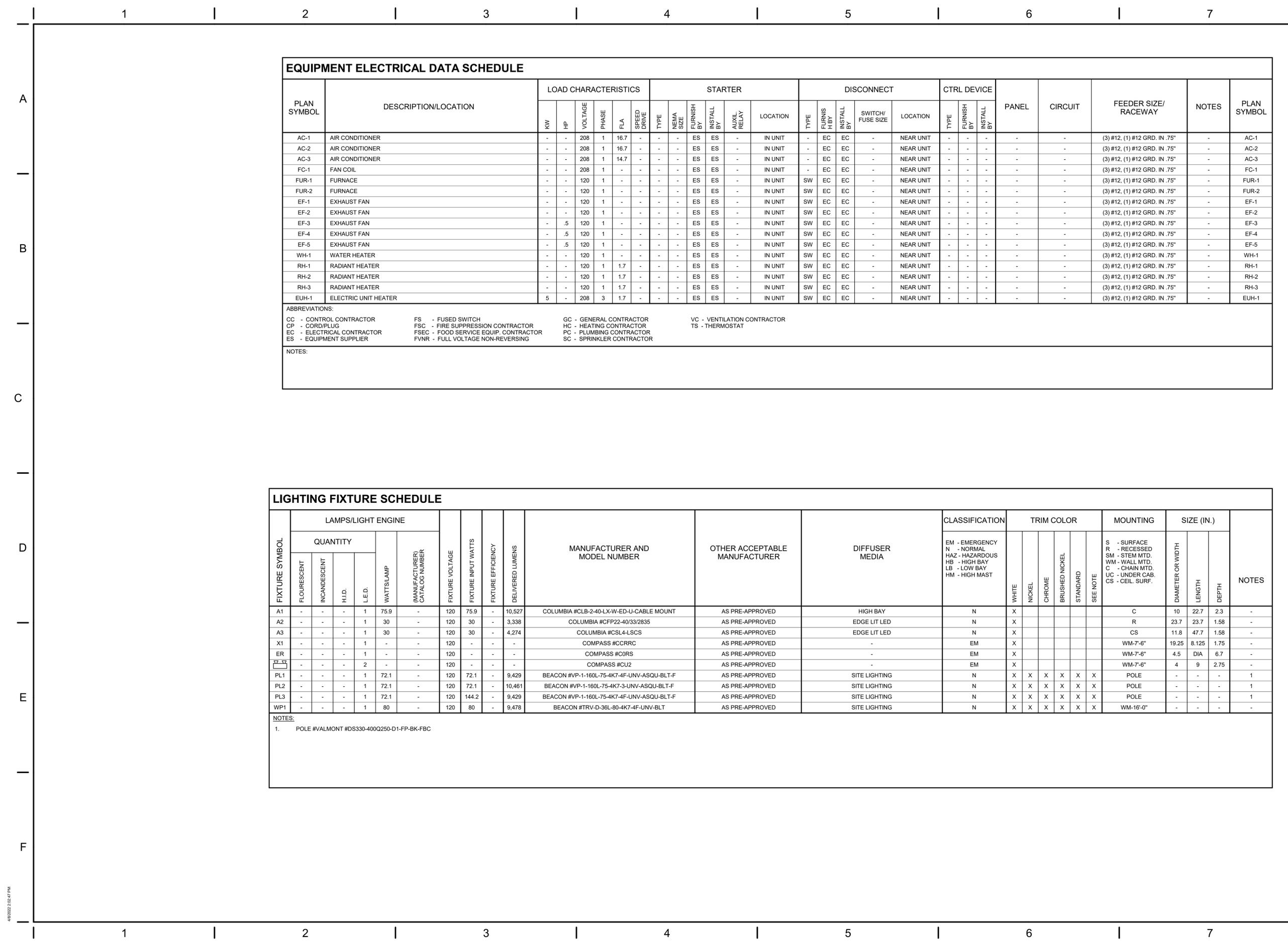
ISSUE

| NO.        | DATE                    | DESCRIPTION |
|------------|-------------------------|-------------|
| 04/08/2022 | PERMIT AND CONSTRUCTION |             |

DATE 04/08/22  
 JOB NO. 2021145  
 DRAWN JMS  
 CHECKED RLS  
 COPYRIGHT © 2022 - App Architecture, Inc.

TITLE  
**ELECTRICAL EQUIPMENT AND LIGHTING SCHEDULE**

SHEET NO.  
**E0.2**



4/8/2022 2:02:47 PM

ELECTRICAL SPECIFICATIONS

GENERAL PROVISIONS

A. REFERENCE

- 1. THE GENERAL CONDITIONS AND OTHER CONTRACT DRAWINGS AS SET FORTH IN THE FOREGOING PAGES ARE HEREBY INCORPORATED INTO AND BECOME A PART OF THE SPECIFICATIONS FOR WORK UNDER THIS NILE, INsofar AS THEY APPLY HERETO.
2. ALL SPECIFICATIONS UNDER THIS DIVISION TITLE ARE DIRECTED TO AND ARE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR, UNLESS OTHER TRADES OR PERSONS ARE SPECIFICALLY MENTIONED, "ELECTRICAL CONTRACTOR" IS INFERRED AND INTENDED.
3. ALL PANEL BOARDS AND CIRCUIT BREAKERS SHALL BE BY SQUARE D PER OWNER REQUIREMENTS.

B. CONTRACT DRAWINGS

- 1. THE DRAWINGS ACCOMPANYING THESE SPECIFICATIONS ARE COMPLEMENTARY EACH TO THE OTHER AND WHAT IS CALLED FOR BY ONE SHALL BE AS IF CALLED FOR BY BOTH.
2. CONSULT ALL CONTRACT DRAWINGS WHICH MAY AFFECT THE LOCATION OF EQUIPMENT, CONDUIT AND WIRING AND MAKE MINOR ADJUSTMENTS IN LOCATION TO SECURE COORDINATION.
3. WIRING LAYOUT IS SCHEMATIC AND EXACT LOCATIONS SHALL BE DETERMINED BY FIELD CONDITIONS.
4. OTHER THAN MINOR ADJUSTMENTS SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR APPROVAL BEFORE PROCEEDING WITH THE WORK.

C. JOB-SITE COPY OF DOCUMENTS

- 1. MAINTAIN AT THE SITE, ONE COPY OF ALL DRAWINGS, SPECIFICATIONS, ADDENDA APPROVED SHOP DRAWINGS, CHANGE ORDERS AND OTHER MODIFICATIONS, IN GOOD ORDER AND MARKED TO RECORD ALL CHANGES MADE DURING CONSTRUCTION. THESE SHALL BE AVAILABLE TO THE OWNER'S REPRESENTATIVE. THE DRAWINGS MARKED TO RECORD ALL CHANGES MADE DURING CONSTRUCTION SHALL BE DELIVERED TO THE OWNER'S REPRESENTATIVE FOR THE OWNER UPON COMPLETION OF THE WORK. AN ADDITIONAL SET OF DRAWINGS WILL BE FURNISHED BY THE OWNER'S REPRESENTATIVE FOR THIS PURPOSE UPON REQUEST.

D. MANUFACTURER'S DRAWINGS

- 1. THE CONTRACTOR SHALL SUBMIT TO THE ARCHITECT FOR REVIEW, (4) COPIES OF MANUFACTURER'S DRAWINGS AND WIRING DIAGRAMS. THE ENGINEER WILL REVIEW CONTRACTOR'S SHOP DRAWINGS AND RELATED SUBMITTALS (AS INDICATED BELOW) WITH RESPECT TO THE ABILITY OF THE DETAILED WORK, WHEN COMPLETE, TO BE A PROPERLY FUNCTIONING INTEGRAL ELEMENT OF THE OVERALL SYSTEM DESIGNED BY THE ENGINEER. BEFORE SUBMITTING A SHOP DRAWING OR ANY RELATED MATERIAL TO THE ENGINEER, CONTRACTOR SHALL REVIEW EACH SUCH SUBMISSION FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND OPERATIONS OF CONSTRUCTION, AND SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO, ALL OF WHICH ARE THE SOLE RESPONSIBILITY OF CONTRACTOR; APPROVE EACH SUCH SUBMISSION BEFORE SUBMITTING IT; AND SO STAMP EACH SUCH SUBMISSION BEFORE SUBMITTING IT. THE ENGINEER SHALL ASSUME THAT NO SHOP DRAWING OR RELATED SUBMITTAL COMPRISES A VARIATION UNLESS CONTRACTOR ADVISES ENGINEER OTHERWISE VIA A WRITTEN INSTRUMENT WHICH IS ACKNOWLEDGED BY ENGINEER IN WRITING. THE ITEMS, TYPES OF SUBMITTALS AND RELATED MATERIAL (IF ANY) CALLED FOR ARE INDICATED BELOW:

ITEMS SHOP DRAWINGS TYPE SUBMITTALS REQUIRED

LIGHTING FIXTURES
WIRING DEVICES

E. GUARANTEES

- 1. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEFECTS, REPAIRS AND REPLACEMENTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR AFTER DATE OF SUBSTANTIAL COMPLETION AS DETERMINED BY THE OWNER'S REPRESENTATIVE. PRODUCT GUARANTEES GREATER THAN ONE (1) YEAR SHALL BE PASSED ALONG TO THE OWNER FOR FULL BENEFIT OF THE MANUFACTURER'S WARRANTY.

WORK INCLUDED

A. INSTALLATION, MATERIALS, AND WORKMANSHIP

- 6. FURNISH AND INSTALL ALL NECESSARY ANCHORS, SUPPORTS, STRAPS, BOXES, FITTINGS AND OTHER SIMILAR APPURTENANCES NOT INDICATED ON THE DRAWINGS BUT WHICH ARE REQUIRED FOR A COMPLETE AND PROPERLY INSTALLED SYSTEM CONSISTENT WITH THE ARCHITECTURAL TREATMENT OF THE BUILDING.
7. THE ELECTRICAL CONTRACTOR, INsofar AS THE WORK IS CONCERNED, SHALL AT ALL TIMES KEEP THE PREMISES IN A NEAT AND ORDERLY CONDITION, AND AT THE COMPLETION OF THE WORK, SHALL PROPERLY CLEAN UP AND CART AWAY DEBRIS AND EXCESS MATERIALS. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF DUMPSTER & REFUSE DISPOSAL AS REQUIRED FOR ELECTRICAL WORK.
8. ALL MATERIALS SHALL BE NEW AND UNDETERIORATED AND OF A QUALITY NOT LESS THAN THE MINIMUM SPECIFIED.
9. TEMPORARY WIRING AND LIGHTING SHALL BE INSTALLED BY THE ELECTRICAL CONTRACTOR IN ACCORDANCE WITH NEC AND OSHA.

B. COORDINATION OF PLANS AND SPECIFICATIONS

- 1. CONTACT THE OWNER'S REPRESENTATIVE IMMEDIATELY IF THERE IS ANY QUESTIONS REGARDING THE MEANING OR INTENT OF EITHER PLANS OR SPECIFICATIONS, OR UPON NOTICING ANY DISCREPANCIES OR OMISSIONS IN EITHER PLANS OR SPECIFICATIONS.

C. CUTTING AND PATCHING

- 1. PATCHING SHALL MATCH EXISTING SURFACES IN KIND AND FINISH AND SHALL BE DONE BY THE GENERAL CONTRACTOR AT THE ELECTRICAL CONTRACTOR'S EXPENSE.
2. REPAIR OF DAMAGES, BY THE ELECTRICAL CONTRACTOR, TO NEWLY PATCHED AND REFINISHED AREAS SHALL BE DONE BY THE GENERAL CONTRACTOR AT THE ELECTRICAL CONTRACTOR'S EXPENSE, TO MATCH EXISTING CONDITION.
3. WHERE REQUIRED TO MAINTAIN FIRE RATING, OPENINGS SHALL BE SEALED UTILIZING 3M BRAND FIRE BARRIER PENETRATION SEALING SYSTEMS. FIRE BARRIER OR FIRE STOP SYSTEMS FROM CROUSE-HINDS, THOMAS & BETTS OR DOW CORNING MAY BE USED AT CONTRACTOR'S OPTION. THIS INCLUDES HOLES LEFT DUE TO REMOVAL OF EXISTING CONDUITS, BUS DUCT, ETC. OPENINGS SHALL BE TEMPORARILY FIRE STOPPED UNTIL PERMANENT FIRE STOPPING IS DONE.

D. CLEANING AND PAINTING

- 1. ALL ELECTRICAL EQUIPMENT SHALL BE KEPT DRY AND CLEAN DURING THE CONSTRUCTION PERIOD. INTERIOR OF ALL ENCLOSURES SHALL BE CLEANED OF DIRT AND DEBRIS BEFORE INSTALLING TRIM OR COVERS.
2. ALL FINISHED SURFACES OF EQUIPMENT FURNISHED UNDER THIS CONTRACT SHALL BE THOROUGHLY CLEANED OF DIRT AND ALL SCRATCHED OR DAMAGED SURFACES SHALL BE TOUCHED UP WITH MATCHING MATERIALS BEFORE FINAL ACCEPTANCE OF THE WORK.
3. WHEN ALL WORK IS COMPLETED AND ALL WORK HAS BEEN SATISFACTORILY TESTED AND ACCEPTED BY THE OWNER'S REPRESENTATIVE, ALL CONDUIT AND OTHER EXPOSED SURFACES SHALL BE THOROUGHLY CLEANED.

CODES AND FEES

A. CODES:

- 1. ALL WORK PERFORMED UNDER THIS SPECIFICATION SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AS PREPARED AND PUBLISHED BY THE NATIONAL FIRE PROTECTION ASSOCIATION AND ANY APPLICABLE STATE OR LOCAL CODES.

B. FEES:

- 1. OBTAIN AND PAY FOR ANY AND ALL PERMITS REQUIRED BY ALL LAWS AND REGULATIONS AND PUBLIC AUTHORITY HAVING SUCH JURISDICTION.

TESTS AND SPECIFICATIONS

- A. OBTAIN ALL INSPECTIONS REQUIRED BY ALL LAWS, ORDINANCES, RULES, REGULATIONS OR PUBLIC AUTHORITY HAVING JURISDICTION AND OBTAIN CERTIFICATES OF SUCH INSPECTIONS AND SUBMIT SAME TO THE OWNER'S REPRESENTATIVE. PAY ALL FEES, CHARGES AND OTHER EXPENSES IN CONNECTION THEREIN. OBTAIN OCCUPANCY PERMIT AS REQUIRED BY OWNER. FINAL PAYMENT SHALL NOT BE MADE UNTIL OCCUPANCY PERMIT IS OBTAINED.
B. WORK SHALL BE UNACCEPTABLE WHEN FOUND TO BE DEFECTIVE OR CONTRARY TO THE PLANS SPECIFICATIONS, CODES SPECIFIED OR ACCEPTED STANDARDS OF GOOD WORKMANSHIP.

- C. THE CONTRACTOR SHALL PROMPTLY CORRECT ALL WORK FOUND UNACCEPTABLE BY THE OWNER'S REPRESENTATIVE WHETHER OBSERVED BEFORE OR AFTER SUBSTANTIAL COMPLETION AND WHETHER OR NOT FABRICATED, INSTALLED OR COMPLETED. THE CONTRACTOR SHALL BEAR ALL COSTS OF CORRECTING SUCH UNACCEPTABLE WORK, INCLUDING COMPENSATION FOR THE OWNERS REPRESENTATIVE ADDITIONAL SERVICES MADE NECESSARY THEREBY.
D. THE ELECTRICAL CONTRACTOR SHALL TEST AND OBTAIN ACCEPTANCE FOR THE FOLLOWING SYSTEMS:
1. EMERGENCY LIGHTING.
2. RECEPTACLE AND EQUIPMENT POWER.
3. LIGHTING.

CONDUIT

- A. FURNISH AND INSTALL ALL CONDUITS, BOXES, FITTINGS, ETC., FOR A COMPLETE RACEWAY SYSTEM.
B. ALL WIRING SHALL BE RUN IN EMT CONDUIT UNLESS OTHERWISE NOTED.
C. ALL CONDUIT SIZES STATED HEREIN OR MARKED ON THE DRAWINGS ARE MINIMUM SIZE AND SHALL BE NO LESS THAN 3/4" UNLESS OTHERWISE NOTED.
D. ALL CONDUIT SHALL BE SUBSTANTIALLY SUPPORTED BY PIPE STRAPS OR SUITABLE CLAMPS OR HANGERS ATTACHED TO THE ELEMENTS OF THE BUILDING STRUCTURE TO PROVIDE RIGID INSTALLATION; IN NO CASE SHALL CONDUIT BE ATTACHED OR SUPPORTED FROM ADJOINING PIPE OR INSTALLED IN SUCH A MANNER AS TO PREVENT THE READY REMOVAL OF OTHER PIPE FOR REPAIRS. "MINERALAC" TYPE SUPPORTS AND "UNISTRUT" TYPE ONE BOLT SUPPORTS WITH SQUARE ENDS SHALL NOT BE USED AT ANY LOCATION.

WIRE AND CABLE

- A. ALL CONDUCTORS SHALL BE STRANDED AND OF THE AWG SIZE AND TYPE SHOWN ON THE DRAWINGS. WHERE NO SIZE OR TYPE IS SHOWN, CONDUCTORS SHALL NOT BE LESS THAN #12 TYPE XHHW, THHN, OR THWN. ALL CONDUCTORS SHALL BE COPPER AND HAVE 600 VOLT INSULATION; BE UL LABELED AND OF AMERICAN MANUFACTURER.
B. ALL CONNECTIONS ARE TO BE MADE USING PRESSURE TYPE TERMINALS.
C. THE FOLLOWING COLOR CODE SHALL BE USED:
208 VOLT
PHASE A BLACK
PHASE B RED
PHASE C BLUE
NEUTRAL WHITE
EQUIPMENT GROUND GREEN
D. CONDUCTORS NO. 10 AWG OR SMALLER SHALL HAVE INSULATION COLORED AS NOTED ABOVE.
E. CONDUCTORS NO. 8 AWG OR LARGER SHALL HAVE INSULATION COLORED AS NOTED ABOVE OR COLORED TAPE, MINIMUM SIZE 1/2", WRAPPED TWICE AROUND AT THE FOLLOWING POINTS:
1. AT EACH TERMINAL.
2. AT EACH CONDUIT ENTRANCE.
3. AT INTERVALS NOT MORE THAN 12 INCHES APART.
4. IN ALL BOXES, PANEL TUBS, SWITCHBOARDS, ETC.
F. ALL BRANCH CIRCUITS SHALL BE MARKED IN THE PANELBOARD GUTTERS. MARKERS SHALL INDICATE CORRESPONDING BRANCH-CIRCUIT NUMBERS.
G. EACH BRANCH CIRCUIT REQUIRING A NEUTRAL SHALL BE FURNISHED WITH A SEPARATE INDIVIDUAL NEUTRAL CONDUCTOR.

BOXES AND PLATES

- A. FURNISH AND INSTALL ALL OUTLET, JUNCTION, AND PULLBOXES AS INDICATED ON THE DRAWINGS AND AS NECESSARY TO INSTALL THE REQUIRED CONDUIT AND WIRING IN A NEAT AND WORKMANLIKE MANNER.
B. PULLBOXES AND JUNCTION BOXES SHALL BE GALVANIZED AND OF THE CORRECT SIZE AND SIZE AND GAUGE, IN ACCORDANCE WITH CODE REQUIREMENTS AND SHALL BE UL LABELED.
C. FLUSH OUTLET, JUNCTION AND PULLBOXES SHALL BE PRESSED STEEL GALVANIZED OR SHERARDIZED AND SHALL BE A MINIMUM OF 4" SQUARE OR OCTAGONAL SIMILAR TO APPLETON #40. STEEL BOXES CAST IN CONCRETE SHALL BE DESIGNED FOR CONCRETE INSTALLATION.
D. FLUSH WALL BOXES IN TILE, MARBLE, BRICK OR OTHER FINISHED MASONRY WALLS SHALL BE STEEL CITY GW-135-C SERIES OR RACO 695 SERIES.
E. SWITCH PLATES ON FLUSH AND CAST BOXES SHALL BE SIERRA NOS. P-1, P-2, P-3 ETC., AS REQUIRED, AND SHALL BE MADE OF IVORY PLASTIC. COORDINATE ALL DEVICES AND COVER PLATE COLORS WITH ARCHITECT PRIOR TO PURCHASE.
F. DUPLEX RECEPTACLE PLATES ON FLUSH AND CAST BOXES SHALL BE SIERRA NO. P-8 IVORY PLASTIC.
G. ALL BOXES SHALL BE RIGIDLY SUPPORTED FROM BUILDING STRUCTURE INDEPENDENT OF THE CONDUIT SYSTEM. BOXES CAST INTO MASONRY OR CONCRETE ARE CONSIDERED TO BE RIGIDLY SUPPORTED.

WIRING DEVICES

- A. WIRING DEVICES SHALL BE FURNISHED IN STRICT ACCORDANCE WITH THE CATALOG NUMBERS AND MANUFACTURERS LISTED IN THE SCHEDULE WHICH FOLLOWS. OTHER SPECIAL PURPOSE DEVICES SHALL BE AS SPECIFIED ON THE DRAWINGS.
B. DUPLEX GROUNDING TYPE RECEPTACLE - 20 AMP, 125 VOLT - NEMA 5-20R:
1. HUBBELL - 5362-1.
2. ARROW HART - 5362-1.

D. SINGLE POLE SWITCHES - 20 AMP, 120/277 VOLT:

- 1. HUBBELL - 1221-1.
2. ARROW HART - 1991-1.

G. G.F.I. RECEPTACLE - 15 AMP, 125 VOLT - NEMA 5-15R:

- 1. HUBBELL - GF 5262-1 WITH S26 OR PJ26 PLATE OR WP-26 W.P. COVER.

H. G.F.I. RECEPTACLE - 20 AMP, 125 VOLT - NEMA 5-20R:

- 1. HUBBELL - GF 5362-1 WITH S26 OR PJ26 PLATE OR WP-26 W.P. COVER.

I. GROUND ALL RECEPTACLES IN ACCORDANCE WITH ARTICLE 250.146 OF NEC AND AS INDICATED IN THE GROUNDING SECTION OF THIS SPECIFICATION.

J. GENERAL USE DUPLEX RECEPTACLES SHALL BE GROUNDING TYPE, 15 AMPERE, 125 VOLT UNLESS THERE IS ONLY ONE ON A 20 AMPERE CIRCUIT, THEN IT SHALL BE 20 AMPERE.

K. COORDINATE DEVICE COLOR WITH ARCHITECT.

IDENTIFICATION

- H. EACH PIECE OF ELECTRICAL EQUIPMENT AND INDIVIDUAL SWITCHES, ALL DISCONNECTS, STARTERS ALL EXHAUST FAN MANUAL STARTING SWITCHES, ALL POWER AND LIGHTING PANELS, ALL CABINETS AND PULL BOXES, ETC., SHALL BE IDENTIFIED ON THE FRONT COVER OR TRIM WITH ITS NAME AND/OR DESIGNATION NUMBER OR LETTER AS SHOWN ON THE DRAWINGS AND WITH THE VOLTAGE AVAILABLE WITHIN THE PANEL.
I. IDENTIFICATION SHALL BE IN THE FORM OF LAMINATED PLASTIC NAMEPLATES, BLACK FACE, WITH THE LETTERS ENGRAVED INTO THE WHITE BACKGROUND, MINIMUM 1/4" HIGH. PLATES SHALL BE DRILLED ON EACH END FOR SHEETMETAL SCREW ATTACHMENT, NO "DYMO" OR SIMILAR TYPE LABELS WILL BE ALLOWED.

- J. THE FOLLOWING IS AN EXAMPLE OF THE NAMEPLATE LAYOUT AND WORDING:
AC-1 DISCONNECT
208V - 1PH CKT B-12

K. PLASTIC NAMEPLATES SHALL BE ATTACHED TO FACE OF ELECTRICAL DEVICE BY SHEETMETAL SCREWS. LOCATE PLATE SO WORDING READS HORIZONTALLY AND PLATE DOES NOT OBSTRUCT OTHER IDENTIFICATION PLATES, LATCHES OR OPERATORS.

- L. WHERE CIRCUIT BREAKERS OR FUSES ARE APPLIED IN COMPLIANCE WITH THE SERIES COMBINATION RATINGS MARKED ON THE EQUIPMENT BY THE MANUFACTURER, THE EQUIPMENT ENCLOSURE(S) SHALL BE LEGIBLY MARKED IN THE FIELD TO INDICATE THE EQUIPMENT HAS BEEN APPLIED WITH A SERIES COMBINATION RATING. THE MARKING SHALL BE READILY VISIBLE AND STATE "CAUTION - SERIES RATED SYSTEM."

GROUNDING

- A. ALL FEEDERS AND BRANCH CIRCUITS OVER 100 VOLTS SHALL INCLUDE A GROUNDING CONDUCTOR SIZED IN ACCORDANCE WITH NEC TABLE 250.122, EXCEPT NOT BE SMALLER THAN #12 FOR POWER AND LIGHTING CIRCUITS AND #14 FOR CONTROL CIRCUITS. ALL GROUND CONDUCTORS SHALL BE GREEN, OR AS SPECIFIED UNDER SECTION "WIRE AND CABLE."
B. ALL GROUND CLAMPS SHALL BE PENN-UNION "GPL" TYPE OR SIMILAR BY O.Z. OR BURNDY.
C. CONDUIT FOR SOLITARY GROUND CONDUCTORS SHALL BE RIGID SCHEDULE 40 PVC NON-METALLIC ELECTRICAL CONDUIT WITH UL LABEL. SOLITARY GROUND CONDUCTORS SHALL NOT BE PLACED THROUGH METALLIC SLEEVES OR CONDUITS AND SHALL NOT BE COMPLETELY ENCIRCLED BY METALLIC HANGERS OR SUPPORTS.
D. THE GROUND CONDUCTOR SHALL BE CONNECTED TO THE NEUTRAL IN ONLY TWO LOCATIONS - ON THE SUPPLY SIDE OF THE SERVICE DISCONNECT MEANS PER NEC 250.24 AND ON SEPARATELY DERIVED SYSTEMS PER NEC 250.30.
E. AT EACH RECEPTACLE BOX, THE GROUND CONDUCTOR SHALL ENTER AND CONNECT, WITH NORMAL WIRING CONNECTOR, TO: 1) THE GROUND PIGTAIL TO RECEPTACLE; 2) THE GROUND PIGTAIL TO BOX GROUND SCREW; AND 3) THE OUTGOING GROUND CONDUCTOR TO NEXT DEVICE, IF NOT AT END OF RUN, METAL TO METAL CONTACT BETWEEN THE DEVICE YOKE AND THE OUTLET BOX IS NOT ACCEPTABLE AS A BOND FOR EITHER SURFACE MOUNTED BOXES OR FLUSH TYPE BOXES.
F. CONDUIT SYSTEM SHALL BE ELECTRICALLY CONTINUOUS. ALL LOCK NUTS SHALL CUT THROUGH ENAMELED OR PAINTED SURFACES ON ENCLOSURES, WHERE ENCLOSURES AND NON-CURRENT CARRYING METALS ARE ISOLATED FROM THE CONDUIT SYSTEM, USE BONDING JUMPERS WITH APPROVED CLAMPS. WHERE REDUCING WASHERS ARE USED AND WHERE CONCENTRIC OR ECCENTRIC KNOCKOUTS ARE NOT COMPLETELY REMOVED BONDING BUSHINGS SHALL BE REQUIRED.

LIGHTING FIXTURES

- A. CONTRACTOR SHALL FURNISH AND INSTALL LIGHTING FIXTURES AS INDICATED IN FIXTURE SCHEDULE SHOWN ON DRAWINGS, AND SPECIFIED HEREIN.
B. LENS THICKNESS FOR FIXTURES SHALL BE 0.125 INCHES, MINIMUM (NOT NOMINAL) AND HAVE A MINIMUM WEIGHT OF 8.0 OUNCES PER SQUARE FOOT.
C. FLUSH FIXTURES MAY BE FURNISHED WITH PRE-WIRED FEATURE PROVIDED THEY ARE UL APPROVED FOR 75 C WIRING AND THE JUNCTION BOX CAPACITY IS SUFFICIENT FOR THE CIRCUIT WIRING REQUIREMENTS.
D. CLEARANCES FOR RECESSED PORTIONS OF FIXTURES FROM COMBUSTIBLE MATERIAL AND THERMAL INSULATION, SHALL BE IN ACCORDANCE WITH NEC ARTICLE 410.66.
E. ANY FIXTURES SCRATCHED, BENT, CRACKED OR IN ANY WAY DAMAGED BEFORE ACCEPTANCE BY OWNER SHALL BE REPLACED AT THIS CONTRACTOR'S EXPENSE.
F. ALL FIXTURES SHALL BE IN WORKING ORDER AT THE TIME OF FINAL ACCEPTANCE OF THE WORK BY THE OWNER.
G. ALL LIGHTING FIXTURES ARE TO BE GROUNDED ON THE INTERIOR OF THE FIXTURE HOUSING, ON CLEAN BARE METAL (FREE OF PAINT), BY USE OF A PIGTAIL AND FASTENED BY A SCREW USED FOR NO OTHER PURPOSE.

DISCONNECTS

- H. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL HEAVY DUTY FUSIBLE DISCONNECT OR NON-FUSIBLE DISCONNECT SWITCHES WHERE SHOWN ON THE DRAWINGS, IN CONFORMANCE WITH NEC REQUIREMENTS FOR EACH UNIT OF EQUIPMENT. (DOES NOT INCLUDE DISCONNECTS FURNISHED BY FIRE PUMP PROVIDER)
I. SWITCHES SHALL BE WALL MOUNTED IN GENERAL PURPOSE ENCLOSURE UNLESS OTHERWISE NOTED. THEY SHALL BE NEMA HEAVY-DUTY TYPE AND SHALL HAVE THE RATING, CAPACITY AND NUMBER OF POLES FOR THE SERVICE CONCERNED.
J. EXTERIOR SWITCHES SHALL BE NEMA 3R TYPE.
K. FUSIBLE SWITCHES SHALL HAVE CLASS R FUSE CLIPS.
L. SWITCHES FOR USE ON MOTOR CIRCUITS SHALL BE HORSEPOWER RATED.
M. SWITCHES SHALL BE INSTALLED TO PROVIDE CODE REQUIRED CLEARANCE AND SHALL BE GENERALLY WALL MOUNTED AT 6'-0" TO TOP.
N. DISCONNECTS MOUNTED ON EQUIPMENT SHALL BE FIELD COORDINATED AND LOCATED TO CLEAR ANY ACCESS OPENINGS OR PATHS.
O. PROVIDE FREE STANDING UNISTRUT SUPPORT FRAME FOR SWITCHES THAT CANNOT BE WALL OR EQUIPMENT MOUNTED. FRAME SHALL BE FULL HEIGHT AND ATTACHED AT THE FLOOR AND CEILING, OR ANGLE BRACED TO FLOOR OR POURED INTO CONCRETE EQUIPMENT PAD IN ORDER TO PROVIDE RIGID STRUCTURE. MINIMUM HEIGHT TO TOP OF FLOOR MOUNTED SWITCHES SHALL BE 36".
P. HANDLE SHALL BE PAD LOCKABLE.

MOTOR AND EQUIPMENT WIRING

- A. PROVIDE POWER AND CONNECT ALL MOTORS AND MOTOR DRIVEN EQUIPMENT SHOWN ON THE PLANS.
B. FURNISH, INSTALL AND CONNECT ALL OVER CURRENT AND DISCONNECT MEANS AS REQUIRED BY THE NATIONAL ELECTRICAL CODE.
C. MOTORS AND MOTOR DRIVEN EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY OTHERS. MOTOR STARTERS, CONTROLLERS AND CONTROL DEVICES, OTHER THAN BUILDING AUTOMATION SYSTEM (TEMPERATURE CONTROL) EQUIPMENT, DEVICES AND STARTERS FOR CONTROLLERS, FURNISHED AS PART OF PACKAGED EQUIPMENT, SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR EXCEPT AS OTHERWISE NOTED. MOTOR STARTERS SHALL BE RATED AT 25,000 AIC MINIMUM.
D. INSTALL AND WIRE ALL MOTOR EQUIPMENT PER WIRING DIAGRAMS AND INSTRUCTION FURNISHED TO HIM, INCLUDING INTERLOCK WIRING BETWEEN EQUIPMENT.

APP Architecture creative focused design
615 Woodside Drive, Englewood, Ohio 45322
T 937.836.8898 F 937.832.3696
www.app-arch.com



NEW MAINTENANCE & BUS GARAGE
TALAWANDA SCHOOL DISTRICT
5301 UNIVERSITY PARK BLVD
OXFORD, OHIO 45056

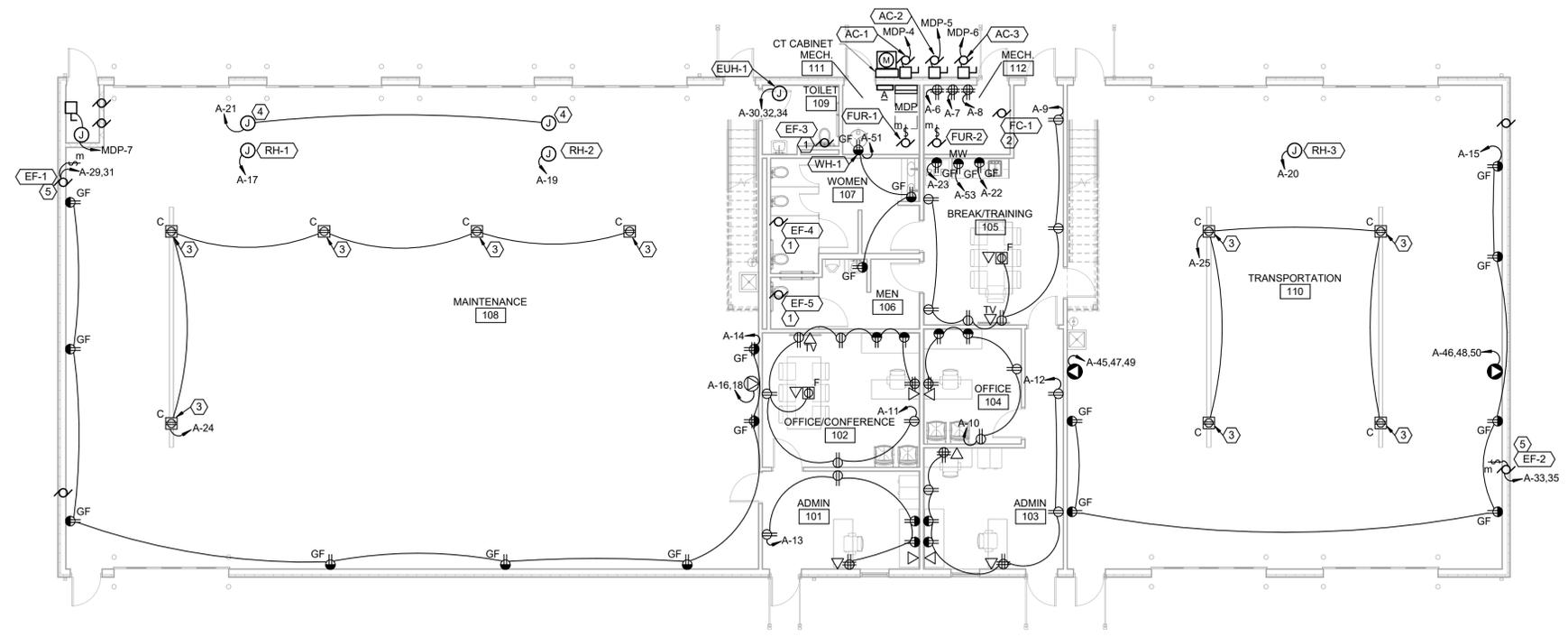
ISSUE
NO. DATE DESCRIPTION
04/08/2022 PERMIT AND CONSTRUCTION

DATE 04/08/22
JOB NO. 2021145
DRAWN JMS
CHECKED RLS

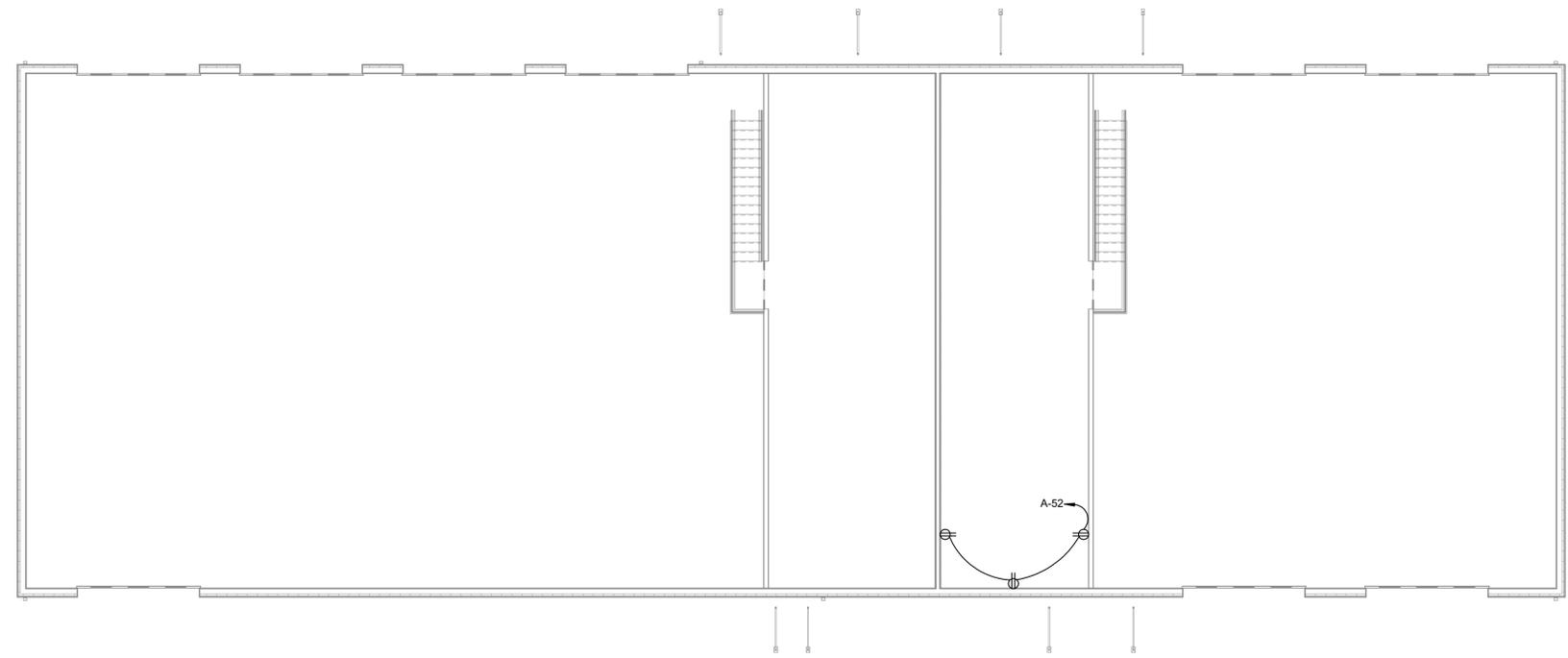
TITLE
ELECTRICAL SPECIFICATIONS
SHEET NO.
E0.3

1 | 2 | 3 | 4 | 5 | 6 | 7

A  
B  
C  
D  
E  
F



① FIRST FLOOR POWER PLAN - NEW WORK  
1/8" = 1'-0"



② MEZZANINE POWER PLAN - NEW WORK  
1/8" = 1'-0"

- DRAWING NOTES**
- EXHAUST FAN TO BE CONNECTED AND CONTROLLED BY LIGHTING SWITCH IN SPACE.
  - INDOOR UNIT IS POWERED FROM OUTDOOR UNIT.
  - COORDINATE EXACT LOCATION OF RECEPTACLES FOR GARAGE DOOR OPENERS. LOCATION COULD BE LOCATED ON WALL ABOVE OPENING. COORDINATE WITH OVERHEAD DOOR CONTRACTOR PRIOR TO ROUGH IN.
  - COORDINATE EXACT LOCATION OF CORD REELS WITH OWNER PRIOR TO ROUGH IN.
  - DAMPER IS TO BE CIRCUITED WITH FAN. PROVIDE INTERLOCK WIRING BETWEEN EXHAUST FAN AND AUTOMATIC BACKDRAFT DAMPER. COORDINATE EXACT REQUIREMENTS CLOSELY WITH HC.

**APP Architecture**  
creative focused design  
615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8898 F 937.832.3696  
www.app-arch.com



**NEW MAINTENANCE & BUS GARAGE**  
**TALAWANDA SCHOOL DISTRICT**  
5301 UNIVERSITY PARK BLVD  
OXFORD, OHIO 45056

| ISSUE |            |                         |
|-------|------------|-------------------------|
| NO.   | DATE       | DESCRIPTION             |
|       | 04/08/2022 | PERMIT AND CONSTRUCTION |

|   |          |
|---|----------|
| DATE                                      | 04/08/22 |
| JOB NO.                                   | 2021145  |
| DRAWN                                     | JMS      |
| CHECKED                                   | RLS      |
| COPYRIGHT © 2022 - App Architecture, Inc. |          |

TITLE  
**ELECTRICAL POWER PLAN**

SHEET NO.  
**E1.1**

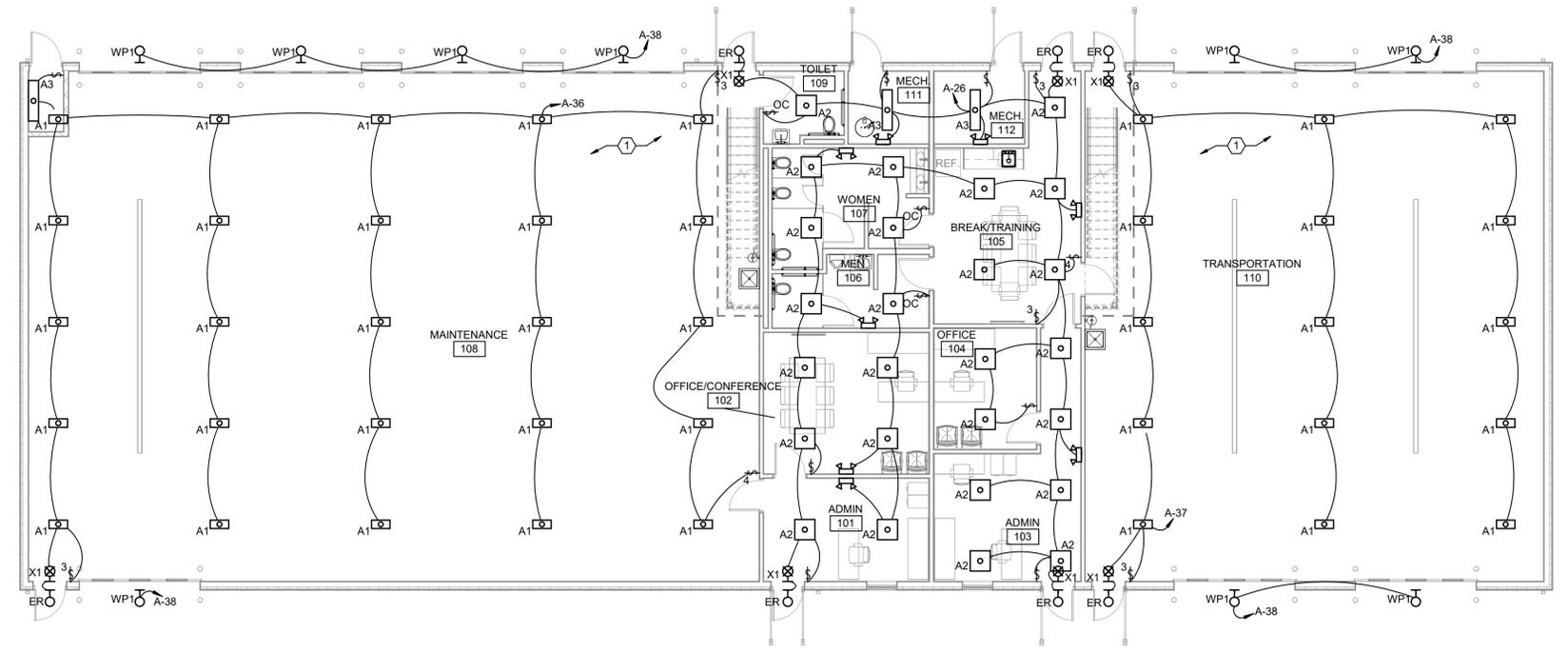
1 | 2 | 3 | 4 | 5 | 6 | 7

4/8/2022 2:02:49 PM

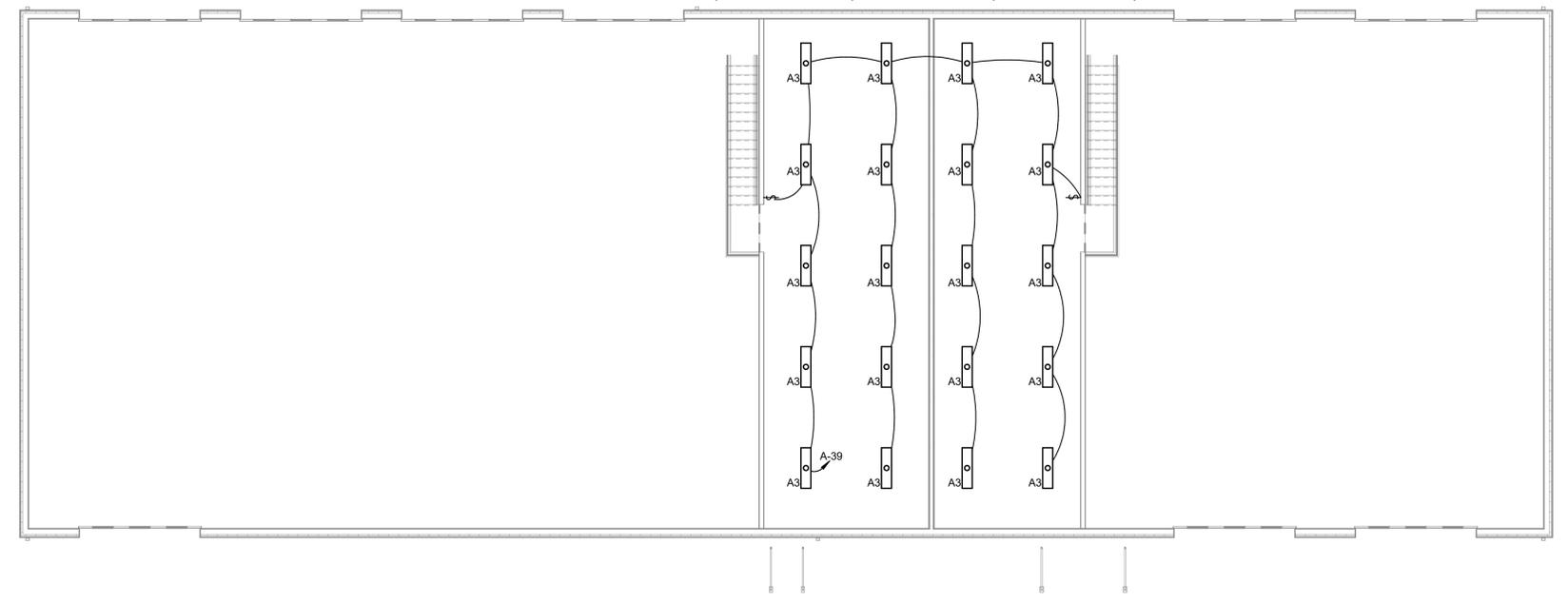
1 | 2 | 3 | 4 | 5 | 6 | 7

A  
B  
C  
D  
E  
F

**DRAWING NOTES**  
 1. COORDINATE EXACT LOCATION OF LIGHTS SUCH THAT THEY DO NOT INTERFERE WITH GAS FIRED RADIANT HEAT EQUIPMENT OR OVERHEAD DOORS.



① FIRST FLOOR LIGHTING PLAN - NEW WORK  
 1/8" = 1'-0"



② MEZZANINE LIGHTING PLAN - NEW WORK  
 1/8" = 1'-0"

**APP Architecture**  
 creative focused design  
 615 Woodside Drive, Englewood, Ohio 45322  
 T 937.836.8898 F 937.832.3696  
 www.app-arch.com



**TALAWANDA SCHOOL DISTRICT**  
 NEW MAINTENANCE & BUS GARAGE  
 5301 UNIVERSITY PARK BLVD  
 OXFORD, OHIO 45056

| ISSUE |            |                         |
|-------|------------|-------------------------|
| NO.   | DATE       | DESCRIPTION             |
|       | 04/08/2022 | PERMIT AND CONSTRUCTION |

|   |          |
|---|----------|
| DATE                                      | 04/08/22 |
| JOB NO.                                   | 2021145  |
| DRAWN                                     | JMS      |
| CHECKED                                   | RLS      |
| COPYRIGHT © 2022 - App Architecture, Inc. |          |

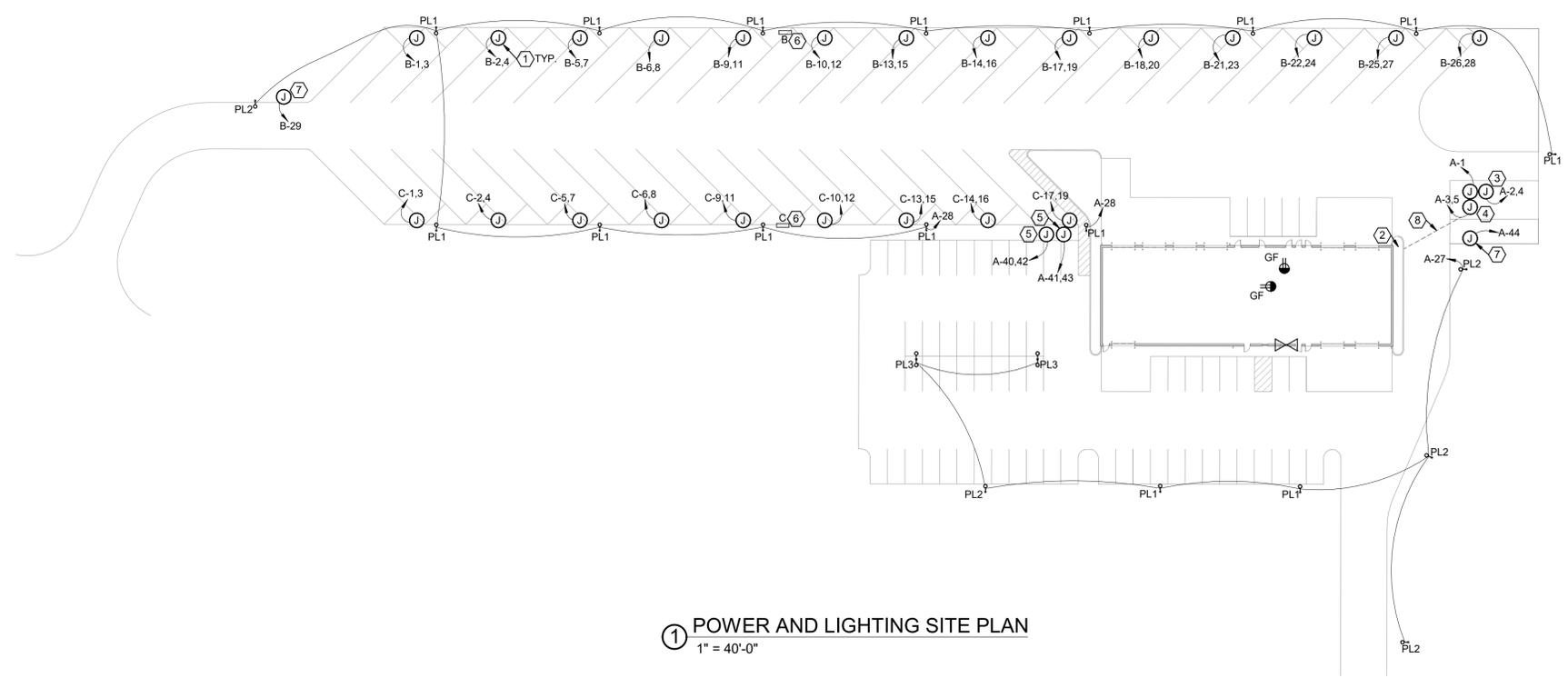
TITLE  
**ELECTRICAL LIGHTING PLAN**  
 SHEET NO.  
**E1.2**

1 | 2 | 3 | 4 | 5 | 6 | 7

4/8/2022 2:02:50 PM

1 | 2 | 3 | 4 | 5 | 6 | 7

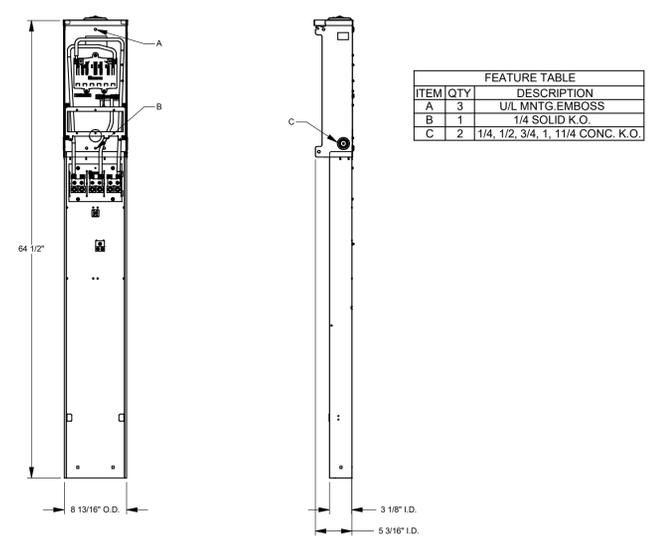
A  
B  
C  
D  
E  
F



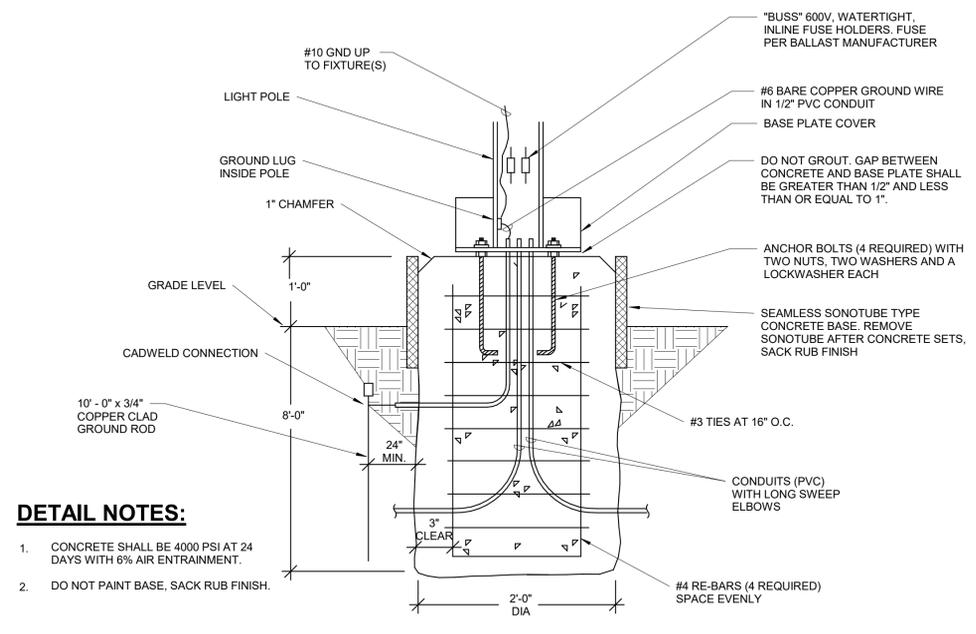
1 POWER AND LIGHTING SITE PLAN  
1" = 40'-0"

- ### DRAWING NOTES
- PROVIDE NEW DIRECT BURY POWER PEDESTAL BY MILBANK #U5200-XL. POWER PEDESTAL SHALL HAVE 2 20A/1P BREAKERS EACH SERVING 1 5-20R GFCI OUTLET. COORDINATE FINAL POWER PEDESTAL SPECS WITH OWNER PRIOR TO ORDERING.
  - CONTRACTOR TO INSTALL EPO. LOCATION TO BE COORDINATED AT SITE PRIOR TO ROUGH IN. EPO SHALL BE PROVIDED WITH LOCKING MEANS OR A LOCKING COVER TO SATISFY NEC 513.14 AND NEC 110.25. EPO WILL BE CONTROLLING A NORMALLY OPEN CONTACTOR THAT DISCONNECTS ALL CIRCUITS SERVING FUELING SKID.
  - PROVIDE (3) #10, (1) #10 IN .75" C.
  - PROVIDE (3) #12, (1) #12 IN .75" C.
  - ELECTRIC VEHICLE CHARGING STATION. PROVIDE (3) #8, (1) #10 GRD. IN 1" C.
  - PROVIDE (2) 4"x4" PRESSURE TREATED POSTS WITH 2"x6" PRESSURE TREATED BAND BOARDS TO SUPPORT EXTERIOR PANEL BOARDS. 4"x4" POSTS ARE TO BE BURIED 3' INTO THE GROUND AND SET IN CONCRETE. TOP OF PANEL SHALL BE AT 6'-0". PANEL IS TO BE NEMA 3R RATED.
  - COORDINATE EXACT LOCATION OF JUNCTION BOX FOR GATE OPERATOR PRIOR TO ROUGH IN.
  - PROVIDE 1" C. FOR DATA FOR FEEDER ROOT SYSTEM FROM FUELING STATION TO BUILDING. COORDINATE CONDUIT LOCATION IN BUILDING AT SITE WITH OWNER.

- ### GENERAL NOTES
- PER ARTICLE 514 OF THE NFPA CODE DIESEL FUEL IS A "COMBUSTIBLE" LIQUID, NOT A FLAMMABLE LIQUID. THEREFORE, A DIESEL DISPENSING AREA IS NONCLASSIFIED AND ELECTRICAL EQUIPMENT AND WIRING IS NOT REQUIRED TO COMPLY WITH THE STRINGENT REQUIREMENTS OF CHAPTER 5.
  - EACH CIRCUIT LEADING TO OR THROUGH A DISPENSER (INCLUDING EQUIPMENT FOR REMOTE PUMPING SYSTEMS) MUST HAVE A CLEARLY IDENTIFIED AND READILY ACCESSIBLE SWITCH (LOCATED REMOTE FROM THE DISPENSER) TO DISCONNECT SIMULTANEOUSLY ALL CONDUCTORS OF THE CIRCUIT (INCLUDING THE GROUNDED NEUTRAL CONDUCTOR). YOU CANT USE SINGLE-POLE BREAKERS WITH HANDLE TIES.
  - YOU CAN USE SET-SCREW AND COMPRESSION COUPLINGS AND CONNECTORS FOR ELECTRICAL METALLIC TUBING (EMT), IMC, OR RMC INSTALLED IN A NONCLASSIFIED AREA, PROVIDING THE CIRCUIT DOES NOT PASS THROUGH, OR IS PART OF, ANY CIRCUIT WITHIN A HAZARDOUS CLASSIFIED LOCATION.
  - PER NEC 514.9 (A) A LISTED SEAL SHALL BE PROVIDED IN EACH CONDUIT RUN ENTERING OR LEAVING A DISPENSER OR ANY CAVITIES OR ENCLOSURES IN DIRECT COMMUNICATION THEREWITH. THE SEALING FITTING OR LISTED EXPLOSION PROOF REDUCER AT THE SEAL SHALL BE THE FIRST FITTING AFTER THE CONDUIT EMERGES FROM THE EARTH OR CONCRETE.
  - PER NEC 516.16 ALL METAL RACEWAYS, THE METAL ARMOR OR METALLIC SHEATH ON CABLES, AND ALL NON-CURRENT-CARRYING METAL PARTS OF FIXED AND PORTABLE ELECTRICAL EQUIPMENT, REGARDLESS OF VOLTAGE, SHALL BE GROUNDED AND BONDED. GROUNDING AND BONDING IN CLASS I LOCATION SHALL COMPLY WITH NEC 501.30



3 POWER PEDESTAL DETAIL  
NTS



- ### DETAIL NOTES:
- CONCRETE SHALL BE 4000 PSI AT 24 DAYS WITH 6% AIR ENTRAINMENT.
  - DO NOT PAINT BASE, SACK RUB FINISH.

2 PARKING LOT POLE BASE  
NTS

**APP Architecture**  
creative focused design  
615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8698 F 937.832.3696  
www.app-arch.com



NEW MAINTENANCE & BUS GARAGE  
**TALAWANDA SCHOOL DISTRICT**  
5301 UNIVERSITY PARK BLVD  
OXFORD, OHIO 45056

| ISSUE |            |                         |
|-------|------------|-------------------------|
| NO.   | DATE       | DESCRIPTION             |
|       | 04/08/2022 | PERMIT AND CONSTRUCTION |

|         |          |
|---------|----------|
| DATE    | 04/08/22 |
| JOB NO. | 2021145  |
| DRAWN   | JMS      |
| CHECKED | RLS      |

COPYRIGHT © 2022 - App Architecture, Inc.

TITLE  
**SITE PLAN**

SHEET NO.  
**E1.3**

4/8/2022 2:02:51 PM

1 | 2 | 3 | 4 | 5 | 6 | 7

A

B

C

D

E

F

7/15/2023 2:42:27 PM

**BEACON**  
VIPER Area/Site  
VIPER LUMINAIRE

**FEATURES**

- Low profile LED area luminaire with a variety of IES distributions for lighting applications such as auto detailing, retail, commercial, and campus parking lots.
- Featuring two different optical technologies, Strike and MicroStrike Optics, which provide the best distribution patterns for virtually any construction.
- Rated for high vibration applications including bridges and overpasses. All sizes are rated for 15G.
- Control options including photo control, occupancy sensing, NX Distributed Intelligence™, WISCAPE, and 7 Pin with submeter control.
- New customizable luminaire output feature allows for the luminaire and luminaire output to be customized in the factory to meet whatever specification requirements may arise.
- Field interchangeable mounting provides additional flexibility after the fixture has shipped.

**CONTROL TECHNOLOGY**  
NX DISTRIBUTED INTELLIGENCE™  
WISCAPE

**SPECIFICATIONS**

**CONSTRUCTION**

- Die-cast housing with hidden vertical heat fins are optimized for heat dissipation while retaining a clean smooth outer surface.
- Corrosion resistant, die-cast aluminum housing with 1000-hour powder coat paint finish.
- External hardware is corrosion resistant.

**OPTICS**

- MicroStrike Optics (MS, 300, 480, or 720 LED count) maintains uniformity in spacing and beam diameter throughout the luminaire. LED count evenly distributes the entire luminaire surface area to provide a low glare appearance. Catalog page found on page 2.
- Strike Optics (S6, 72, 108, or 162 LED count) provide best in class distributions and maximum pole spacing in new applications with high powered LED. Strike optics are held in place with a polycarbonate bezel to replicate the appearance of the MicroStrike Optics so both solutions can be combined on the same application. Catalog page found on page 3.
- Both optics maximize target area illumination with minimal spillage at the house side, reducing light trespass issues. Additional backlight control shields and house side shields can be added for further reduction of illumination behind the pole.
- One-piece silicone gasket ensures a weatherproof seal.
- Zero up light at 0 degrees of tilt.
- Field-replaceable optics.

**INSTALLATION**

- Mounting patterns for each arm can be found on page 11.
- Optical universal mounting holes for ease of installation during retrofit applications. Available as an option (MS2) or necessary for square and round poles.
- All mounting hardware included.

DATE: LOCATION: Talawanda Bus Garage  
TYPE: PLx PROJECT: Talawanda Bus Garage  
CATALOG #: VPA-M90L-75-K7...UNV-ASQU-BLT-F

**MICROSTRIKE STRIKE**



**CONTROL TECHNOLOGY**  
NX DISTRIBUTED INTELLIGENCE™  
WISCAPE

**SPECIFICATIONS**

**CONSTRUCTION**

- Die-cast housing with hidden vertical heat fins are optimized for heat dissipation while retaining a clean smooth outer surface.
- Corrosion resistant, die-cast aluminum housing with 1000-hour powder coat paint finish.
- External hardware is corrosion resistant.

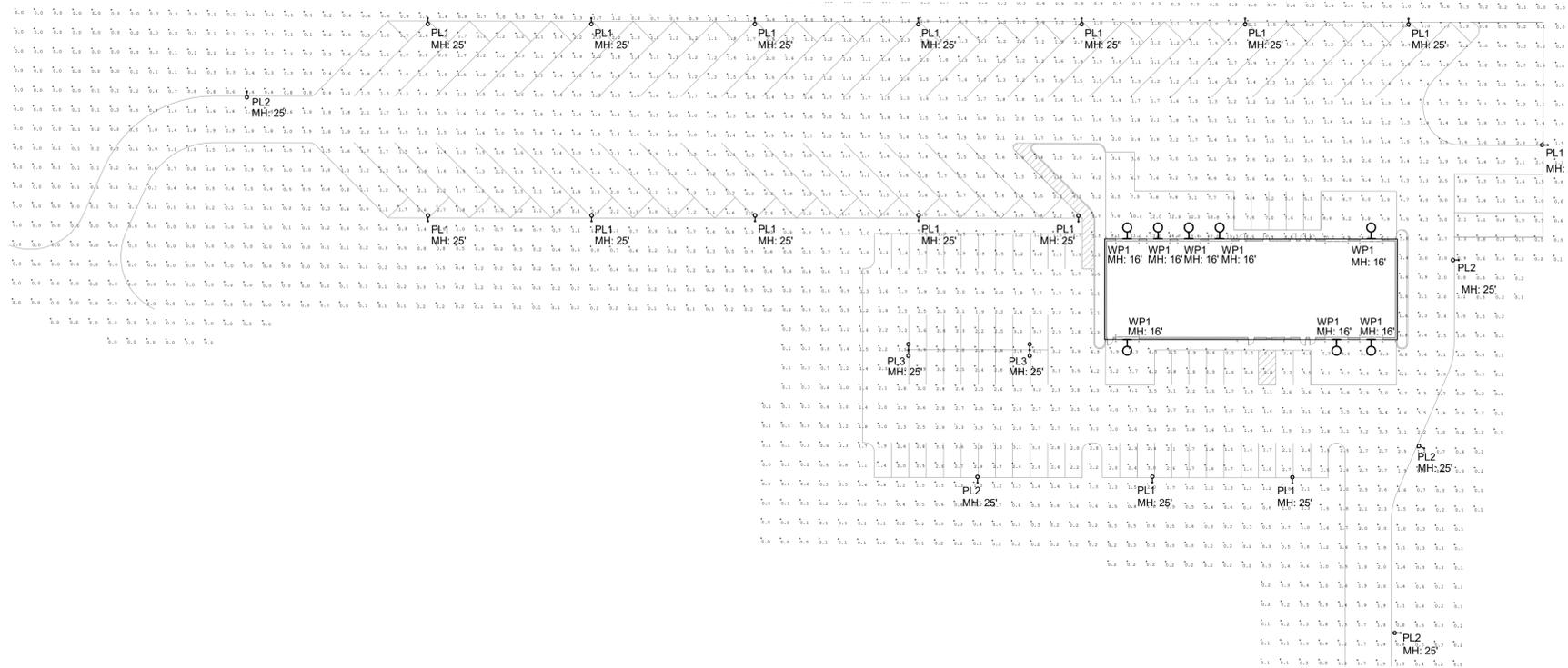
**OPTICS**

- MicroStrike Optics (MS, 300, 480, or 720 LED count) maintains uniformity in spacing and beam diameter throughout the luminaire. LED count evenly distributes the entire luminaire surface area to provide a low glare appearance. Catalog page found on page 2.
- Strike Optics (S6, 72, 108, or 162 LED count) provide best in class distributions and maximum pole spacing in new applications with high powered LED. Strike optics are held in place with a polycarbonate bezel to replicate the appearance of the MicroStrike Optics so both solutions can be combined on the same application. Catalog page found on page 3.
- Both optics maximize target area illumination with minimal spillage at the house side, reducing light trespass issues. Additional backlight control shields and house side shields can be added for further reduction of illumination behind the pole.
- One-piece silicone gasket ensures a weatherproof seal.
- Zero up light at 0 degrees of tilt.
- Field-replaceable optics.

**INSTALLATION**

- Mounting patterns for each arm can be found on page 11.
- Optical universal mounting holes for ease of installation during retrofit applications. Available as an option (MS2) or necessary for square and round poles.
- All mounting hardware included.

TYPE 'PLx' FIXTURES



1 SITE ILLUMINATION PLAN  
1" = 40'-0"

**BEACON**  
TRAVERSE  
SURFACE CEILING GARAGE

**FEATURES**

- Wall surface mounted luminaire with a field-replaceable LED light engine.
- Optional passive infrared (PIR) motion sensor.
- Horizontal opening motion allows for minimal effort during installation, maintenance, or upgrading.
- LED wattages from 27 Watt to 136 Watt. Easy and fast mounting.
- Mounts the backplate to wall and attach front on hinges to close.

**CONTROL TECHNOLOGY**  
energent™ SiteSense

**SPECIFICATIONS**

**CONSTRUCTION**

- Die-cast main (thermal housing provides direct heat exchange between the LED light engine and the cool outdoor air).
- LED drivers are thermally isolated from the main housing, mechanically attached and heat vented to the rear housing.
- Shape of the rear housing is designed to prevent debris accumulation and so a wind entering element. The back and rear housings are designed to hinge open for easy mounting and easy access.
- ES polyester powder coat electrostatically applied and thermocured.
- Finish consists of a five-stage zinc phosphate chemical pretreatment regimen with a polymer primer, primer over dry coat, and top coated with a thermoset super TGIC polyester powder coat finish.
- The finish meets the AAMA 2604 performance specification which includes passing a 3000-hour salt spray test for corrosion resistance and meets exceeding or loss of adhesion per ASTM D522 and reflects surface impacts of up to 160 rebound.

**OPTICS**

- Cartridge one-piece cartridge system consisting of an LED engine, optics, gasket and gasket seal bezel.
- Cartridge is held together with internal brass standoffs secured to the board so that can be field-applied in a one-piece optical system.
- Optics are held in place without the use of adhesives.
- Cartridge assembly is available in various lighting distributions using TR designed optic optical lenses over each LED.

DATE: LOCATION: Talawanda Bus Garage  
TYPE: WP1 PROJECT: Talawanda Bus Garage  
CATALOG #: TRV-D-36L-60-K7-4F-UNV-BLT



**CONTROL TECHNOLOGY**  
energent™ SiteSense

**SPECIFICATIONS**

**CONSTRUCTION**

- Die-cast main (thermal housing provides direct heat exchange between the LED light engine and the cool outdoor air).
- LED drivers are thermally isolated from the main housing, mechanically attached and heat vented to the rear housing.
- Shape of the rear housing is designed to prevent debris accumulation and so a wind entering element. The back and rear housings are designed to hinge open for easy mounting and easy access.
- ES polyester powder coat electrostatically applied and thermocured.
- Finish consists of a five-stage zinc phosphate chemical pretreatment regimen with a polymer primer, primer over dry coat, and top coated with a thermoset super TGIC polyester powder coat finish.
- The finish meets the AAMA 2604 performance specification which includes passing a 3000-hour salt spray test for corrosion resistance and meets exceeding or loss of adhesion per ASTM D522 and reflects surface impacts of up to 160 rebound.

**OPTICS**

- Cartridge one-piece cartridge system consisting of an LED engine, optics, gasket and gasket seal bezel.
- Cartridge is held together with internal brass standoffs secured to the board so that can be field-applied in a one-piece optical system.
- Optics are held in place without the use of adhesives.
- Cartridge assembly is available in various lighting distributions using TR designed optic optical lenses over each LED.

TYPE 'WP1' FIXTURE

**APP Architecture**  
creative focused design

615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8896 F 937.832.3696  
www.app-arch.com



**NEW MAINTENANCE & BUS GARAGE**  
**TALAWANDA SCHOOL DISTRICT**  
5001 UNIVERSITY PARK BLVD  
OXFORD, OHIO 45056

ISSUE

| NO. | DATE | DESCRIPTION |
|-----|------|-------------|
|     |      |             |

DATE: 04/08/22  
JOB NO.: 2021145  
DRAWN: ATD  
CHECKED: RLS

COPYRIGHT © 2022 - App Architecture, Inc.  
TITLE: SITE ILLUMINATION PLAN

SHEET NO.  
**E1.4**

A

B

C

D

E

F

| Switchboard: MDP       |                |                     |                  |                              |                   |           |         |
|------------------------|----------------|---------------------|------------------|------------------------------|-------------------|-----------|---------|
| Location: MECH. 111    |                | Volts: 120/208 Wye  |                  | A.I.C. Rating:               |                   |           |         |
| Supply From:           |                | Phases: 3           |                  | Mains Type:                  |                   |           |         |
| Mounting: FLOOR        |                | Wires: 4            |                  | Mains Rating: 800 A          |                   |           |         |
| Enclosure: Switchboard |                |                     |                  | MCB Rating: 800 A            |                   |           |         |
| Notes:                 |                |                     |                  |                              |                   |           |         |
| CKT                    |                | Circuit Description | # of Poles       | Frame Size                   | Trip Rating       | Load      | Remarks |
| 1                      | A              |                     | 3                | 225 A                        | 225 A             | 89996 VA  |         |
| 2                      | B              |                     | 3                | 225 A                        | 225 A             | 45000 VA  |         |
| 3                      | C              |                     | 3                | 225 A                        | 225 A             | 27000 VA  |         |
| 4                      | AC-1           |                     | 2                | 25 A                         | 25 A              | 3474 VA   |         |
| 5                      | AC-2           |                     | 2                | 25 A                         | 25 A              | 3474 VA   |         |
| 6                      | AC-3           |                     | 2                | 20 A                         | 20 A              | 2912 VA   |         |
| 7                      |                | AIR COMPRESSOR      | 3                | 50 A                         | 50 A              | 10400 VA  |         |
| 8                      |                |                     |                  |                              |                   |           |         |
| 9                      |                |                     |                  |                              |                   |           |         |
| 10                     |                |                     |                  |                              |                   |           |         |
| 11                     |                |                     |                  |                              |                   |           |         |
| 12                     |                |                     |                  |                              |                   |           |         |
|                        |                |                     |                  |                              | Total Conn. Load: | 182255 VA |         |
|                        |                |                     |                  |                              | Total Amps:       | 506 A     |         |
| Legend:                |                |                     |                  |                              |                   |           |         |
| Load Classification    | Connected Load | Demand Factor       | Estimated Demand | Panel Totals                 |                   |           |         |
| Lighting - Exterior    | 2019 VA        | 125.00%             | 2524 VA          |                              |                   |           |         |
| Motor                  | 10691 VA       | 108.12%             | 11560 VA         | Total Conn. Load: 182255 VA  |                   |           |         |
| Receptacle             | 164750 VA      | 53.03%              | 87375 VA         | Total Est. Demand: 106229 VA |                   |           |         |
| Lighting               | 4894 VA        | 100.00%             | 4894 VA          | Total Conn.: 506 A           |                   |           |         |
|                        |                |                     |                  | Total Est. Demand: 295 A     |                   |           |         |
| Notes:                 |                |                     |                  |                              |                   |           |         |

| Branch Panel: B     |                |                     |                    |                             |             |                     |          |          |      |                     |     |
|---------------------|----------------|---------------------|--------------------|-----------------------------|-------------|---------------------|----------|----------|------|---------------------|-----|
| Location:           |                |                     | Volts: 120/208 Wye |                             |             | A.I.C. Rating:      |          |          |      |                     |     |
| Supply From: MDP    |                |                     | Phases: 3          |                             |             | Mains Type: MB      |          |          |      |                     |     |
| Mounting: SURFACE   |                |                     | Wires: 4           |                             |             | Mains Rating: 225 A |          |          |      |                     |     |
| Enclosure: NEMA 3R  |                |                     |                    |                             |             | MCB Rating: 1 A     |          |          |      |                     |     |
| Notes:              |                |                     |                    |                             |             |                     |          |          |      |                     |     |
| CKT                 |                | Circuit Description | Trip               | Poles                       | A           | B                   | C        | Poles    | Trip | Circuit Description | CKT |
| 1                   |                | BUS POWER PEDESTAL  | 20 A               | 2                           | 1500        | 1500                |          | 2        | 20 A | BUS POWER PEDESTAL  | 2   |
| 3                   |                |                     | --                 | --                          |             | 1500                | 1500     | --       | --   |                     | 4   |
| 5                   |                | BUS POWER PEDESTAL  | 20 A               | 2                           |             |                     | 1500     | 1500     | 20 A | BUS POWER PEDESTAL  | 6   |
| 7                   |                |                     | --                 | --                          | 1500        | 1500                |          | --       | --   |                     | 8   |
| 9                   |                | BUS POWER PEDESTAL  | 20 A               | 2                           |             | 1500                | 1500     | 2        | 20 A | BUS POWER PEDESTAL  | 10  |
| 11                  |                |                     | --                 | --                          |             |                     | 1500     | 1500     | --   |                     | 12  |
| 13                  |                | BUS POWER PEDESTAL  | 20 A               | 2                           | 1500        | 1500                |          | 2        | 20 A | BUS POWER PEDESTAL  | 14  |
| 15                  |                |                     | --                 | --                          |             | 1500                | 1500     | --       | --   |                     | 16  |
| 17                  |                | BUS POWER PEDESTAL  | 20 A               | 2                           |             |                     | 1500     | 1500     | 20 A | BUS POWER PEDESTAL  | 18  |
| 19                  |                |                     | --                 | --                          | 1500        | 1500                |          | --       | --   |                     | 20  |
| 21                  |                | BUS POWER PEDESTAL  | 20 A               | 2                           |             | 1500                | 1500     | 2        | 20 A | BUS POWER PEDESTAL  | 22  |
| 23                  |                |                     | --                 | --                          |             |                     | 1500     | 1500     | --   |                     | 24  |
| 25                  |                | BUS POWER PEDESTAL  | 20 A               | 2                           | 1500        | 1500                |          | 2        | 20 A | BUS POWER PEDESTAL  | 26  |
| 27                  |                |                     | --                 | --                          |             |                     |          | --       | --   |                     | 28  |
| 29                  |                | GATE OPERATOR       | 20 A               | 1                           |             |                     | 3000     |          |      |                     | 30  |
|                     |                |                     |                    |                             | Total Load: | 15000 VA            | 15000 VA | 15000 VA |      |                     |     |
|                     |                |                     |                    |                             | Total Amps: | 125 A               | 125 A    | 125 A    |      |                     |     |
| Legend:             |                |                     |                    |                             |             |                     |          |          |      |                     |     |
| Load Classification | Connected Load | Demand Factor       | Estimated Demand   | Panel Totals                |             |                     |          |          |      |                     |     |
| Receptacle          | 45000 VA       | 61.11%              | 27500 VA           |                             |             |                     |          |          |      |                     |     |
|                     |                |                     |                    | Total Conn. Load: 45000 VA  |             |                     |          |          |      |                     |     |
|                     |                |                     |                    | Total Est. Demand: 27500 VA |             |                     |          |          |      |                     |     |
|                     |                |                     |                    | Total Conn.: 125 A          |             |                     |          |          |      |                     |     |
|                     |                |                     |                    | Total Est. Demand: 76 A     |             |                     |          |          |      |                     |     |
| Notes:              |                |                     |                    |                             |             |                     |          |          |      |                     |     |

| Branch Panel: C     |                |                     |                    |                             |             |                     |         |         |      |                     |     |
|---------------------|----------------|---------------------|--------------------|-----------------------------|-------------|---------------------|---------|---------|------|---------------------|-----|
| Location:           |                |                     | Volts: 120/208 Wye |                             |             | A.I.C. Rating:      |         |         |      |                     |     |
| Supply From: MDP    |                |                     | Phases: 3          |                             |             | Mains Type: MB      |         |         |      |                     |     |
| Mounting: SURFACE   |                |                     | Wires: 4           |                             |             | Mains Rating: 225 A |         |         |      |                     |     |
| Enclosure: NEMA 3R  |                |                     |                    |                             |             | MCB Rating: 1 A     |         |         |      |                     |     |
| Notes:              |                |                     |                    |                             |             |                     |         |         |      |                     |     |
| CKT                 |                | Circuit Description | Trip               | Poles                       | A           | B                   | C       | Poles   | Trip | Circuit Description | CKT |
| 1                   |                | BUS POWER PEDESTAL  | 20 A               | 2                           | 1500        | 1500                |         | 2       | 20 A | BUS POWER PEDESTAL  | 2   |
| 3                   |                |                     | --                 | --                          |             | 1500                | 1500    | --      | --   |                     | 4   |
| 5                   |                | BUS POWER PEDESTAL  | 20 A               | 2                           |             |                     | 1500    | 1500    | 20 A | BUS POWER PEDESTAL  | 6   |
| 7                   |                |                     | --                 | --                          | 1500        | 1500                |         | --      | --   |                     | 8   |
| 9                   |                | BUS POWER PEDESTAL  | 20 A               | 2                           |             | 1500                | 1500    | 2       | 20 A | BUS POWER PEDESTAL  | 10  |
| 11                  |                |                     | --                 | --                          |             |                     | 1500    | 1500    | --   |                     | 12  |
| 13                  |                | BUS POWER PEDESTAL  | 20 A               | 2                           | 1500        | 1500                |         | 2       | 20 A | BUS POWER PEDESTAL  | 14  |
| 15                  |                |                     | --                 | --                          |             | 1500                | 1500    | --      | --   |                     | 16  |
| 17                  |                | BUS POWER PEDESTAL  | 20 A               | 2                           |             |                     | 1500    |         |      |                     | 18  |
| 19                  |                |                     | --                 | --                          | 1500        |                     |         | --      | --   |                     | 20  |
| 21                  |                |                     |                    |                             |             |                     |         |         |      |                     | 22  |
| 23                  |                |                     |                    |                             |             |                     |         |         |      |                     | 24  |
| 25                  |                |                     |                    |                             |             |                     |         |         |      |                     | 26  |
| 27                  |                |                     |                    |                             |             |                     |         |         |      |                     | 28  |
| 29                  |                |                     |                    |                             |             |                     |         |         |      |                     | 30  |
|                     |                |                     |                    |                             | Total Load: | 10500 VA            | 9000 VA | 7500 VA |      |                     |     |
|                     |                |                     |                    |                             | Total Amps: | 89 A                | 77 A    | 63 A    |      |                     |     |
| Legend:             |                |                     |                    |                             |             |                     |         |         |      |                     |     |
| Load Classification | Connected Load | Demand Factor       | Estimated Demand   | Panel Totals                |             |                     |         |         |      |                     |     |
| Receptacle          | 27000 VA       | 68.52%              | 18500 VA           |                             |             |                     |         |         |      |                     |     |
|                     |                |                     |                    | Total Conn. Load: 27000 VA  |             |                     |         |         |      |                     |     |
|                     |                |                     |                    | Total Est. Demand: 18500 VA |             |                     |         |         |      |                     |     |
|                     |                |                     |                    | Total Conn.: 75 A           |             |                     |         |         |      |                     |     |
|                     |                |                     |                    | Total Est. Demand: 51 A     |             |                     |         |         |      |                     |     |
| Notes:              |                |                     |                    |                             |             |                     |         |         |      |                     |     |



NEW MAINTENANCE & BUS GARAGE  
**TALAWANDA SCHOOL DISTRICT**  
 5301 UNIVERSITY PARK BLVD  
 OXFORD, OHIO 45056

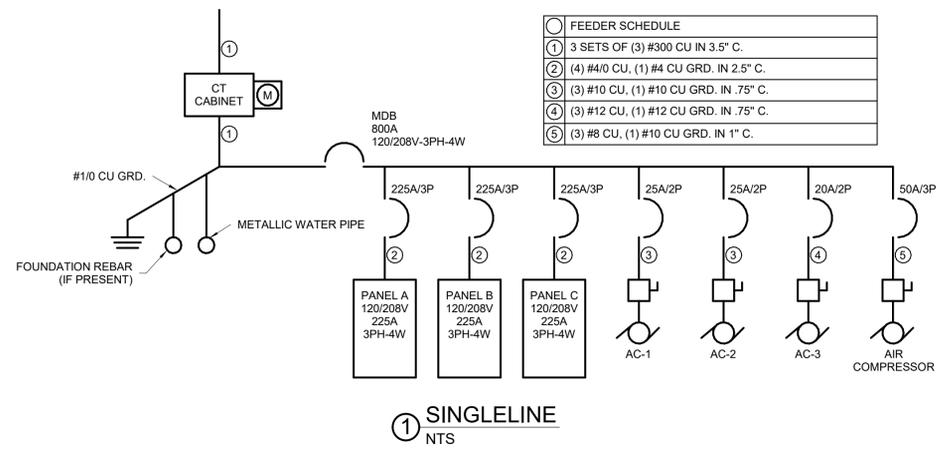
| ISSUE |            |                         |
|-------|------------|-------------------------|
| NO.   | DATE       | DESCRIPTION             |
|       | 04/08/2022 | PERMIT AND CONSTRUCTION |

|   |          |
|---|----------|
| DATE                                      | 04/08/22 |
| JOB NO.                                   | 2021145  |
| DRAWN                                     | JMS      |
| CHECKED                                   | RLS      |
| COPYRIGHT © 2022 - App Architecture, Inc. |          |

TITLE  
**PANELBOARD SCHEDULES**  
 SHEET NO.  
**E4.1**

1 | 2 | 3 | 4 | 5 | 6 | 7

A  
B  
C  
D  
E  
F



| FEEDER SCHEDULE |  |
|-----------------|--|
| ①               | 3 SETS OF (3) #300 CU IN 3.5" C.       |
| ②               | (4) #4/0 CU, (1) #4 CU GRD. IN 2.5" C. |
| ③               | (3) #10 CU, (1) #10 CU GRD. IN 75" C.  |
| ④               | (3) #12 CU, (1) #12 CU GRD. IN 75" C.  |
| ⑤               | (3) #8 CU, (1) #10 CU GRD. IN 1" C.    |

① SINGLELINE NTS

### Branch Panel: A

Location: MDP  
Supply From: MDP  
Mounting: Recessed  
Enclosure: Type 1

Volts: 120/208 Wye  
Phases: 3  
Wires: 4

A.I.C. Rating:  
Mains Type: MB  
Mains Rating: 225 A  
MCB Rating: 1 A

Notes:

| CKT                | Circuit Description                     | Trip | Poles | A        |          |          | B    |      |      | C    |      |    | Poles | Trip                            | Circuit Description | CKT |
|--------------------|---|------|-------|----------|----------|----------|------|------|------|------|------|----|-------|---------------------------------|---------------------|-----|
|                    |   |      |       | 180      | 800      | 2400     | 800  | 2400 | 1500 | 1800 | 1620 | 2  |       |                                 |                     |     |
| 1                  | ALARM BOX                               | 20 A | 1     | 180      | 800      |          |      |      |      |      |      | 2  | 20 A  | PUMP                            | 2                   |     |
| 3                  | FUEL MANAGEMENT SYSTEM                  | 30 A | 2     |          |          | 2400     | 800  |      |      |      |      |    |       |                                 | 4                   |     |
| 5                  | --                                      | --   | --    |          |          |          |      | 2400 | 1500 |      |      |    |       |                                 | 6                   |     |
| 7                  | DATA RACK                               | 20 A | 1     | 1500     | 1500     |          |      |      |      |      |      | 1  | 20 A  | DATA RACK                       | 8                   |     |
| 9                  | BREAK/TRAINING 105 RECEPS.              | 20 A | 1     |          |          | 1260     | 1080 |      |      |      |      | 1  | 20 A  | OFFICE 104 RECEPS.              | 10                  |     |
| 11                 | OFFICE/CONFERENCE 102 RECEPS.           | 20 A | 1     |          |          |          |      |      |      | 1800 | 1620 | 1  | 20 A  | ADMIN 103 RECEPS.               | 12                  |     |
| 13                 | ADMIN 101 RECEPS.                       | 20 A | 1     | 1080     | 1800     |          |      |      |      |      |      | 1  | 20 A  | MAINTENANCE 108 RECEPS.         | 14                  |     |
| 15                 | TRANSPORTATION 110 RECEPS.              | 20 A | 1     |          |          | 1080     | 0    |      |      |      |      | 2  | 30 A  | GENERAL 220V RECEP. MAINTENANCE | 16                  |     |
| 17                 | RADIANT HEATER 1                        | 20 A | 1     |          |          |          |      |      |      | 250  | 0    | -- | --    |                                 | 18                  |     |
| 19                 | RADIANT HEATER 2                        | 20 A | 1     | 250      | 250      |          |      |      |      |      |      | 1  | 20 A  | RADIANT HEATER 3                | 20                  |     |
| 21                 | MAINTENANCE 108 CORD REELS              | 20 A | 1     |          |          | 360      | 180  |      |      |      |      | 1  | 20 A  | BREAK/TRAINING 105 GFCI RECEP   | 22                  |     |
| 23                 | BREAK/TRAINING 105 REFRIGERATOR RECEPT. | 20 A | 1     |          |          |          |      |      |      | 180  | 900  | 1  | 20 A  | MAINTENANCE GARAGE OPENERS      | 24                  |     |
| 25                 | TRANSPORTATION GARAGE OPENERS           | 20 A | 1     | 720      | 842      |          |      |      |      |      |      | 1  | 20 A  | LIGHTING OFFICE AREA            | 26                  |     |
| 27                 | EXTERIOR LIGHTING - FRONT               | 20 A | 1     |          |          | 1009     | 1009 |      |      |      |      | 1  | 20 A  | EXTERIOR LIGHTING - BACK        | 28                  |     |
| 29                 | EXHAUST FAN 1                           | 20 A | 2     |          |          |          |      |      |      | 208  | 1333 | 3  | 30 A  | ELECTRIC UNIT HEATER            | 30                  |     |
| 31                 | --                                      | --   | --    | 208      | 1333     |          |      |      |      |      |      | -- | --    |                                 | 32                  |     |
| 33                 | EXHAUST FAN 2                           | 20 A | 2     |          |          | 208      | 1333 |      |      |      |      | -- | --    |                                 | 34                  |     |
| 35                 | --                                      | --   | --    |          |          |          |      |      |      | 208  | 1594 | 1  | 20 A  | MAINTENANCE LIGHTING            | 36                  |     |
| 37                 | TRANSPORTATION LIGHTING                 | 20 A | 1     | 1139     | 720      |          |      |      |      |      |      | 1  | 20 A  | EXTERIOR WALL PACK LIGHTING     | 38                  |     |
| 39                 | MEZZANINE LIGHTING                      | 20 A | 1     |          |          | 600      | 4000 |      |      |      |      | 2  | 20 A  | CAR CHARGING PORT               | 40                  |     |
| 41                 | CAR CHARGING PORT                       | 20 A | 2     |          |          |          |      | 4000 | 4000 |      |      | -- | --    |                                 | 42                  |     |
| 43                 | --                                      | --   | --    | 4000     | 180      |          |      |      |      | 6000 | 6000 | -- | --    |                                 | 44                  |     |
| 45                 | TRANSPORTATION 110 WELDER               | 50 A | 3     |          |          | 6000     | 6000 |      |      |      |      | 3  | 50 A  | TRANSPORTATION 110 WELDER       | 46                  |     |
| 47                 | --                                      | --   | --    |          |          |          |      |      |      | 6000 | 6000 | -- | --    |                                 | 48                  |     |
| 49                 | --                                      | --   | --    | 6000     | 6000     |          |      |      |      |      |      | -- | --    |                                 | 50                  |     |
| 51                 | WATER HEATER IGNITER                    | 20 A | 1     |          |          | 540      | 540  |      |      |      |      | 1  | 20 A  | MEZZANINE RECEPTACLES           | 52                  |     |
| 53                 | MICROWAVE                               | 20 A | 1     |          |          |          |      |      |      | 1200 |      |    |       |                                 | 54                  |     |
| 55                 |   |      |       |          |          |          |      |      |      |      |      |    |       |                                 | 56                  |     |
| 57                 |   |      |       |          |          |          |      |      |      |      |      |    |       |                                 | 58                  |     |
| 59                 |   |      |       |          |          |          |      |      |      |      |      |    |       |                                 | 60                  |     |
| 61                 |   |      |       |          |          |          |      |      |      |      |      |    |       |                                 | 62                  |     |
| 63                 |   |      |       |          |          |          |      |      |      |      |      |    |       |                                 | 64                  |     |
| 65                 |   |      |       |          |          |          |      |      |      |      |      |    |       |                                 | 66                  |     |
| 67                 |   |      |       |          |          |          |      |      |      |      |      |    |       |                                 | 68                  |     |
| 69                 |   |      |       |          |          |          |      |      |      |      |      |    |       |                                 | 70                  |     |
| 71                 |   |      |       |          |          |          |      |      |      |      |      |    |       |                                 | 72                  |     |
| 73                 |   |      |       |          |          |          |      |      |      |      |      |    |       |                                 | 74                  |     |
| 75                 |   |      |       |          |          |          |      |      |      |      |      |    |       |                                 | 76                  |     |
| 77                 |   |      |       |          |          |          |      |      |      |      |      |    |       |                                 | 78                  |     |
| 79                 |   |      |       |          |          |          |      |      |      |      |      |    |       |                                 | 80                  |     |
| 81                 |   |      |       |          |          |          |      |      |      |      |      |    |       |                                 | 82                  |     |
| 83                 |   |      |       |          |          |          |      |      |      |      |      |    |       |                                 | 84                  |     |
| <b>Total Load:</b> |   |      |       | 28502 VA | 28306 VA | 33193 VA |      |      |      |      |      |    |       |                                 |                     |     |
| <b>Total Amps:</b> |   |      |       | 238 A    | 236 A    | 277 A    |      |      |      |      |      |    |       |                                 |                     |     |

Legend:

| Load Classification | Connected Load | Demand Factor | Estimated Demand | Panel Totals              |          |
|---------------------|----------------|---------------|------------------|---------------------------|----------|
| Lighting - Exterior | 2019 VA        | 125.00%       | 2524 VA          | <b>Total Conn. Load:</b>  | 89996 VA |
| Motor               | 832 VA         | 112.50%       | 936 VA           | <b>Total Est. Demand:</b> | 54408 VA |
| Receptacle          | 82350 VA       | 56.07%        | 46175 VA         | <b>Total Conn.:</b>       | 250 A    |
| Lighting            | 4894 VA        | 100.00%       | 4894 VA          | <b>Total Est. Demand:</b> | 151 A    |

Notes:

**APP Architecture**  
creative focused design  
615 Woodside Drive, Englewood, Ohio 45322  
T 937.836.8898 F 937.832.3696  
www.app-arch.com



**TALAWANDA SCHOOL DISTRICT**  
NEW MAINTENANCE & BUS GARAGE  
5301 UNIVERSITY PARK BLVD  
OXFORD, OHIO 45056

| ISSUE |            |                         |
|-------|------------|-------------------------|
| NO.   | DATE       | DESCRIPTION             |
|       | 04/08/2022 | PERMIT AND CONSTRUCTION |

|         |          |
|---------|----------|
| DATE    | 04/08/22 |
| JOB NO. | 2021145  |
| DRAWN   | JMS      |
| CHECKED | RLS      |

COPYRIGHT © 2022 - App Architecture, Inc.  
TITTLE  
**PANELBOARD SCHEDULE AND SINGLELINE**

SHEET NO.  
**E4.2**

4/8/2022 2:02:53 PM

1 | 2 | 3 | 4 | 5 | 6 | 7

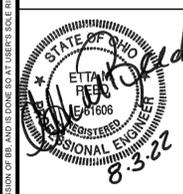
# NEW MAINTENANCE & BUS GARAGE TALAWANDA CITY SCHOOL DISTRICT

5301 UNIVERSITY PARK BLVD  
SECTION 35, TOWN 5, RANGE 1  
CITY OF OXFORD  
BUTLER COUNTY, OHIO



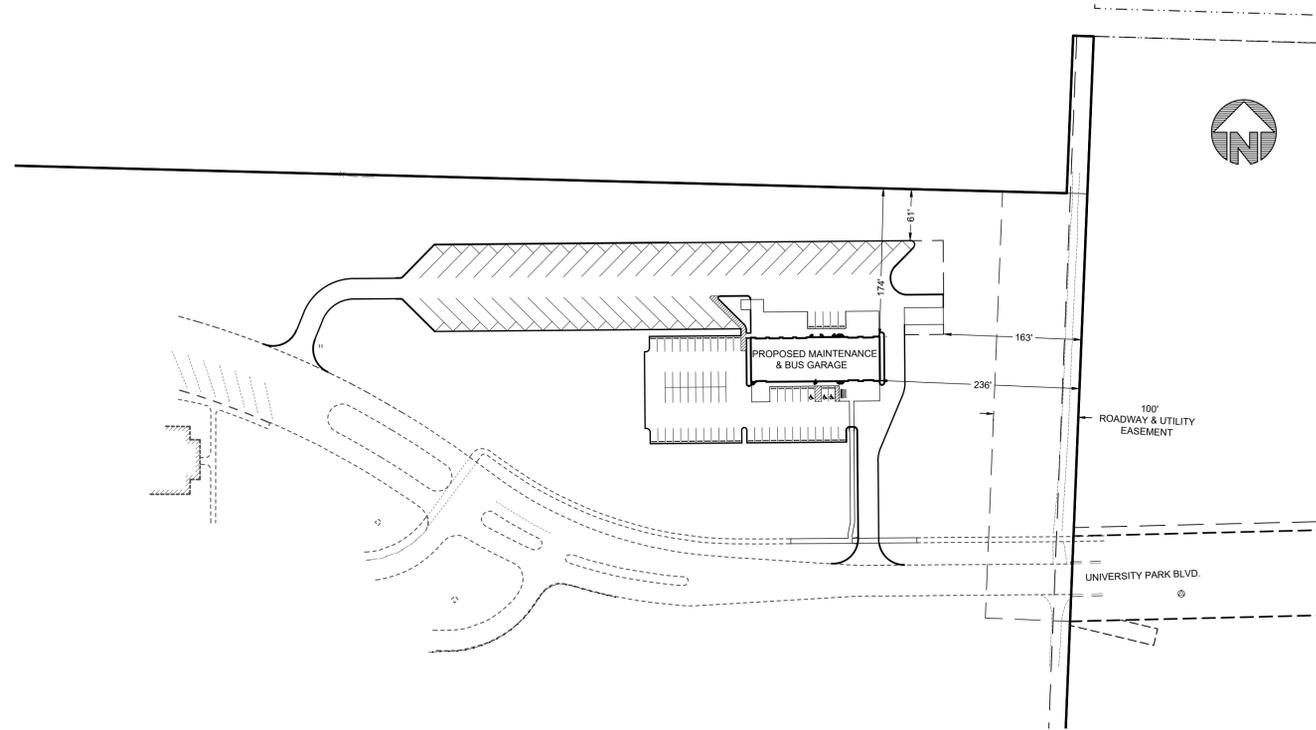
## SURVEYOR & ENGINEER

BAYER BECKER  
110 S. COLLEGE AVENUE  
OXFORD, OHIO 45056  
513.523.4270

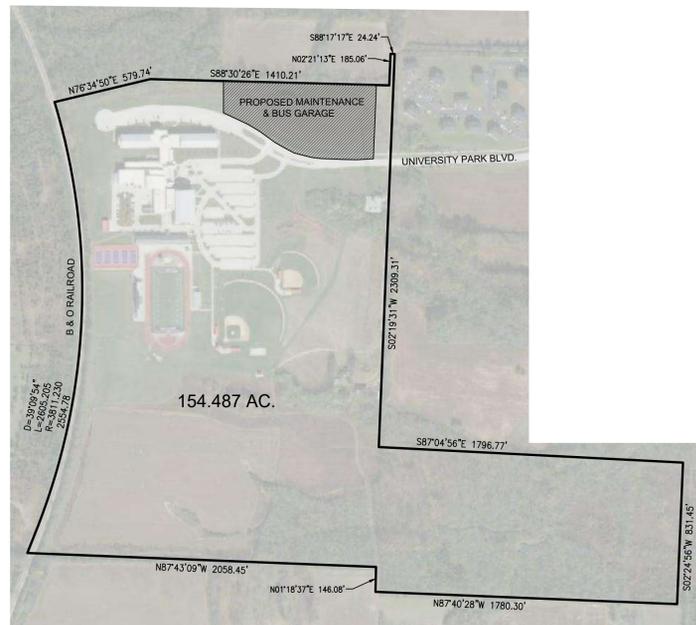


### LEGEND

- ⊙ - Ex Sanitary M.H.
- ⊙ - Ex Storm M.H.
- ⊙ - Ex Storm Catch Basin
- ⊙ - Ex Fire Hydrant
- ⊙ - Ex Water Valve
- ⊙ - Ex Gas Marker
- ⊙ - Ex Elec. Box
- ⊙ - Ex Light Pole
- ⊙ - Ex Transformer
- ⊙ - Ex Tele. Box
- ⊙ - Ex Cable Box
- ⊙ - Ex Sign
- ⊙ - Ex Post
- ⊙ - Ex Deciduous Tree
- ⊙ - Ex Deciduous Bush
- R/W - Ex Right of Way
- - Found Conc. Mon.
- - Found 5/8" Iron Pin (cap as noted)
- W — Ex Underground Water Main
- G — Ex Underground Gas Main
- U — Ex Overhead Utilities
- UT — Ex Underground Fiber Optic
- UE — Ex Underground Electric
- UT — Ex Underground Telephone
- HPS — Ex Underground High Pressure Steam Line
- — Ex Treenline
- — Ex Major Contour
- — Ex Minor Contour



**AREA MAP**  
1"=100 FT



**OVERALL PROPERTY MAP**  
(1"=500')



### CONTACTS

**GAS**  
GLENWOOD ENERGY  
5181 COLLEGE CORNER PIKE  
OXFORD, OHIO 45056  
ATTN: KEITH SMITH  
513-523-2555

**SANITARY, WATER & STORM SEWER**  
CITY OF OXFORD  
15 S. COLLEGE AVE  
OXFORD, OHIO 45056  
ATTN: SCOTT OTTO, PE  
513-524-5208

**CABLE TV**  
SPECTRUM  
3691 TURNER ROAD  
CLAYTON, OHIO 45415  
ATTN: TIM KUSS  
937-425-8850

**ELECTRIC**  
DUKE ENERGY  
1199 NILLES ROAD  
FAIRFIELD, OHIO 45014  
ATTN: ALAN EAST  
513-313-9220

**TELEPHONE**  
FRONTIER  
6464 WESTBROOK ROAD  
CLAYTON, OHIO 45315  
ATTN: CHUCK BERNACCHI  
937-833-0468

**TALAWANDA SCHOOL DISTRICT**  
131 W. CHESTNUT STREET  
OXFORD, OHIO 45056  
ATTN: BILL HUBBARD  
DIRECTOR OF DISTRICT FACILITIES  
513-273-3132  
HUBBARD@TALAWANDA.ORG

### INDEX OF SHEETS

| DRAWING NO. | DRAWING TITLE                         | ISSUE DATE | REVISION NO. | REVISION DATE |
|-------------|---------------------------------------|------------|--------------|---------------|
| C100        | TITLE SHEET                           | 05-27-22   |              |               |
| C101        | GENERAL NOTES                         | 05-27-22   |              |               |
| C200        | EXISTING CONDITIONS & DEMOLITION PLAN | 05-27-22   |              |               |
| C300        | SITE LAYOUT & UTILITY PLAN            | 05-27-22   | 1            | 08-03-22      |
| C301        | SITE DETAILS                          | 05-27-22   |              |               |
| C302        | UTILITY DETAILS                       | 05-27-22   | 1            | 08-03-22      |
| C400        | SITE GRADING & EROSION CONTROL PLAN   | 05-27-22   | 1            | 08-03-22      |
| C401        | EROSION CONTROL NOTES & DETAILS       | 05-27-22   |              |               |

| Item | Revision Description      | Date     | Drawn | Checked |
|------|---------------------------|----------|-------|---------|
| 1    | REVISED PER CITY COMMENTS | 08-03-22 | TAE   | EMR     |

**NEW MAINTENANCE & BUS GARAGE  
TALAWANDA CITY SCHOOL DISTRICT**  
5301 UNIVERSITY PARK BLVD  
SECTION 35, TOWN 5, RANGE 1  
CITY OF OXFORD  
BUTLER COUNTY, OHIO



Drawing: 21-0202 CD  
Drawn by: JLE  
Checked by: EMR  
Issue Date: 05/27/22

Sheet: **C100**

GENERAL

- 1. ITEM NUMBERS REFER TO THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT) CONSTRUCTION AND MATERIAL SPECIFICATIONS (2018) AND ALL CONSTRUCTION WORK SHALL BE DONE ACCORDING TO SAID SPECIFICATIONS AND IN ACCORDANCE WITH APPLICABLE STANDARDS OF THE GOVERNING AGENCIES. WHEN IN CONFLICT, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN.
2. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND ELEVATIONS OF ALL EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION OR EARTH MOVING OPERATIONS.
3. FORTY-EIGHT (48) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTOR SHALL NOTIFY THE OHIO UTILITY PROTECTION SERVICE (OUPS) AND ALL OTHER AGENCIES WHICH MAY HAVE UNDERGROUND UTILITIES INVOLVED IN THIS PROJECT AND ARE NOT MEMBERS OF OHIO UNDERGROUND PROTECTION, INC.
4. CONTRACTOR AND OWNER SHALL VERIFY AND ACCEPT ALL QUANTITIES PRIOR TO BEGINNING CONSTRUCTION.
5. CONTRACTOR SHALL VERIFY THAT COORDINATES, IF USED, MATCH PLAN DIMENSIONS. WHEN IN CONFLICT, THE PLAN DIMENSIONS SHALL GOVERN OVER COORDINATES, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
6. UNLESS OTHERWISE NOTED, ALL CONSTRUCTION DETAILS SHALL CONFORM WITH THE "STANDARD CONSTRUCTION DRAWINGS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION".
7. EXISTING SITE SURVEY, TOPOGRAPHY, AND SUBSURFACE CONDITIONS: EXISTING CONDITIONS PRESENTED IN DRAWING, REPORT OR SPECIFICATION FORM ARE BELIEVED ACCURATE WITHIN NORMAL INDUSTRY TOLERANCES BUT ARE NOT GUARANTEED. INVESTIGATE, SURVEY, CONFIRM AND VERIFY ALL CONDITIONS BEARING ON THE WORK BY ANY MEANS NECESSARY BEFORE STARTING ANY WORK THAT CHANGES EXISTING CONDITIONS. REPORT ANY UNACCEPTABLE DISCREPANCIES TO THE ENGINEER IN WRITING BEFORE BEGINNING OPERATIONS.
7.1. WRITTEN CLAIMS OF DIFFERENCE SHALL BE ACCOMPANIED BY SUBSTANTIATING EVIDENCE. CLAIMS OF DIFFERENCE SHALL BE RESOLVED, INCLUDING DETERMINATION OF QUANTITIES AND COSTS AND METHODS OF CONTRACT MODIFICATION, BEFORE WORK THAT ALTERS SUCH EXISTING CONDITIONS IS STARTED.
7.2. INITIATION OF SITE-CLEARING, SOIL-MOVING OPERATIONS, DEMOLITION OR OTHER ACTIVITY THAT ALTERS EXISTING CONDITIONS SHALL BE EVIDENCE THAT CONTRACTOR HAS MADE ALL INVESTIGATIONS AND EVALUATIONS IT DEEMS NECESSARY AND HAS ACCEPTED ALL EXISTING CONDITIONS PRESENT WHETHER OR NOT THEY CONFORM EXACTLY TO THE DOCUMENTS.
7.3. WITHOUT ADVANCE WRITTEN NOTIFICATION OF UNACCEPTABLE DISCREPANCY, NO CLAIM FOR EXTRA WILL BE CONSIDERED FOR A CLAIM OF DIFFERENCE BETWEEN DOCUMENTS AND ACTUAL CONDITIONS AFTER THE CONTRACTOR HAS ALTERED EXISTING CONDITIONS.
8. WHERE CONNECTING TO EXISTING ASPHALT PAVEMENT, THE CONTRACTOR SHALL SAW CUT THE EXISTING EDGE OF PAVEMENT TO PROVIDE A CLEAN AND SOUND EDGE. ITEM 407 TACK COAT SHALL BE APPLIED TO THE ENTIRE CUT FACE OF THE EXISTING PAVEMENT PRIOR TO THE PLACEMENT OF THE PROPOSED PAVEMENT.
9. PARKING LOT PAVEMENT MARKINGS SHALL CONFORM TO ITEM 641 PAVEMENT MARKINGS AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAVEMENT MARKING MATERIAL SHALL BE PER ITEM 642 TRAFFIC PAINT UNLESS OTHERWISE NOTED.
10. PARKING LOT STRIPING SHALL BE FOUR (4) INCHES WIDE WHITE HIGHWAY-TYPE STRIPING APPLIED IN ACCORDANCE WITH THE PLAN.
11. ALL DIMENSIONS AND PROPOSED ELEVATIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
12. ALL RADII ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
13. ALL RADII ARE 4.5' UNLESS NOTED EXCEPT ROADWAY/DRIVEWAY INTERSECTIONS WHERE RADII ARE 15' UNLESS OTHERWISE NOTED.
14. SITE LIGHTING OPERATION HOURS: DUSK TO DAWN.
15. CURB IN PARKING AREAS IS TYPE B UNLESS OTHERWISE NOTED.
16. PARKING STALLS ARE 9'x15' UNLESS OTHERWISE NOTED.
17. ALL SITE CONCRETE SHALL BE PER ODOT ITEM 499 CLASS C UNLESS OTHER WISE NOTED ON THE PLANS.
18. TAPER CURB HEIGHT FROM 6" TO 0" IN 5' AT ALL LOCATIONS PROPOSED CURB BEGINS AND ENDS.

DEMOLITION NOTES

- 1. THE TOPOGRAPHIC AND UTILITY INFORMATION SHOWN IS BASED ON A TOPOGRAPHIC SURVEY PREPARED BY BAYER BECKER, AND VARIOUS UTILITY PLANS PROVIDED BY THOSE GOVERNING AGENCIES.
2. THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLAN HAVE BEEN OBTAINED BY FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS AND DO NOT NECESSARILY REPRESENT ALL UNDERGROUND UTILITIES ADJACENT TO OR UPON THE PREMISES. THE ENGINEER DOES NOT GUARANTEE THEIR ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY LOCATIONS WITH UTILITY COMPANIES BEFORE MAKING EXCAVATIONS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS WHETHER SHOWN ON THESE PLANS OR NOT.
3. APPROPRIATE UTILITY COMPANIES AND OHIO UTILITIES PROTECTION SERVICE (811) SHALL BE NOTIFIED AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO BREAKING GROUND FOR THE PURPOSE OF VERIFYING BY FIELD INSPECTION THE EXACT LOCATION OF THE UNDERGROUND UTILITY. UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS ACCORDING TO AVAILABLE INFORMATION.
4. THESE PLANS, AS PREPARED BY BAYER BECKER, DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE DEMOLITION/CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF BAYER BECKER'S REGISTERED PROFESSIONAL ENGINEER HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY U.S. OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) AND/OR LOCAL REGULATIONS.
5. ALL CONTRACTORS INCLUDING BUT NOT LIMITED TO THE DEMOLITION, EXCAVATION, PAVING, PLUMBING, ELECTRICAL, SIGN, FIRE PROTECTION, HVAC CONTRACTORS SHALL BE UNDER THE DIRECTION OF THE GENERAL CONTRACTOR OR OWNER WHO WILL BE HELD RESPONSIBLE FOR THE COORDINATION OF ALL WORK ON THIS PROJECT AND THE PROPER EXECUTION OF THE SAME.
6. THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
7. REMOVAL AND/OR RELOCATION OF ANY UTILITIES SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY AND SHALL BE DISCONNECTED PER THE ASSOCIATED UTILITY AGENCY'S REQUIREMENTS.
8. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES, FACILITIES, AND STRUCTURES THAT ARE INTENDED TO CONTINUE TO PROVIDE SERVICE WHETHER SHOWN ON THE PLANS OR NOT.
9. WHERE CONNECTING TO EXISTING PAVEMENT, THE CONTRACTOR SHALL SAWCUT THE EXISTING EDGE OF PAVEMENT TO PROVIDE A SOUND & CLEAN EDGE. THE CONTRACTOR SHALL APPLY ITEM 407 TACK COAT TO THE ENTIRE CUT FACE OF THE EXISTING PAVEMENT PRIOR TO THE PLACEMENT OF THE PROPOSED PAVEMENT.
10. THE CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES PRIOR TO DEMOLITION AND CONSTRUCTION.
11. AS SOON AS DEMOLITION WORK HAS BEEN OTHERWISE COMPLETED AND APPROVED BY THE OWNER, EARTHWORK MAY BEGIN. THE FINAL GRADE IN AREAS OUTSIDE THE CONSTRUCTION SITE SHALL BE SUCH AS TO PRESENT A NEAT, WELL-DRAINED APPEARANCE, AND TO PREVENT WATER FROM DRAINING UNNECESSARILY ONTO ADJACENT PREMISES.

GENERAL UTILITY

- 1. BACKFILL OF ALL UTILITY EXCAVATIONS IN STRUCTURAL AREAS INCLUDING UNDER PAVEMENTS OR WITHIN TEN (10) FEET OF ANY BUILDING AREAS SHOULD BE CONTINUALLY MONITORED BY A REPRESENTATIVE OF THE PROJECT GEOTECHNICAL ENGINEER TO VERIFY THAT PROPER LIFT THICKNESS, MOISTURE CONDITION, AND COMPACTIVE EFFORT ARE MAINTAINED.
2. CONTRACTOR SHALL VERIFY ALL UTILITY AND CONDUIT SIZES AND LOCATIONS WITH THE ARCHITECTURAL, MECHANICAL, AND STRUCTURAL DRAWINGS PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
3. ALL BUILDING UTILITY SERVICES ARE TO BE STUBBED 5 FT. FROM THE BUILDING FOR CONNECTION BY INTERIOR CONTRACTOR.
4. ALL UTILITY TRENCHES PROPOSED WITHIN THE LIMITS OF EXISTING PAVEMENT AND WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE BACKFILLED TO SUBGRADE WITH CONTROL DENSITY FILL TO A DISTANCE OF 5 FT BEYOND THE BACK OF CURB.
5. THE CITY OF OXFORD DOES NOT ACCEPT ANY RESPONSIBILITY FOR THE RELOCATION, REPAIR, OR REPLACEMENT OF ANY OTHER UTILITY INSTALLED WITHIN 5 FT OF THE CENTERLINE OF ANY SANITARY SEWER MAIN OR WATER MAIN.
6. CONTRACTOR SHALL OBTAIN RIGHT OF WAY PERMIT FROM CITY OF OXFORD FOR ALL WORK PROPOSED WITHIN THE PUBLIC RIGHT OF WAY.

STORM SEWERS

- 1. ALL WORK AND MATERIALS ARE TO CONFORM TO THE 2010 EDITION OF ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS AND CITY OF OXFORD SPECIFICATIONS. WHEN IN CONFLICT, THE MORE STRINGENT REQUIREMENTS SHALL PREVAIL.
2. STORM SEWER PIPES DESIGNATED AS "STM" SHALL MEET THE MATERIAL & INSTALLATION REQUIREMENTS OF ODOT ITEM 603, TYPE B CONDUITS AND AS FOLLOWS:
2.1. NON-REINFORCED CONCRETE PIPE PER ODOT SPECIFICATION 706.01
2.2. REINFORCED CONCRETE CIRCULAR PIPE PER ODOT SPECIFICATION 706.02
2.3. PRECAST REINFORCED CONCRETE BOX SECTIONS PER ODOT SPECIFICATION 706.05
2.4. REINFORCED CONCRETE ELLIPTICAL CULVERT, STORM DRAIN, AND SEWER PIPE PER ODOT SPECIFICATION 706.04
2.5. ALUMINIZED TYPE 2 CORRUGATED STEEL PIPE AND PIPE ARCHES WITH PAVED INVERT PER ODOT SPECIFICATIONS 707.01 OR 707.02
2.6. CORRUGATED STEEL SPIRAL RIB CONDUITS PER ODOT SPECIFICATIONS 707.12
2.7. CORRUGATED POLYETHYLENE SMOOTH LINED PIPE PER ODOT SPECIFICATION 707.33
2.8. POLYVINYL CHLORIDE PROFILE WALL PIPE PER ODOT SPECIFICATION 707.42
2.9. PIPE BEDDING AND TRENCH BACKFILL SHALL BE PER ODOT 603 AND STANDARD DRAWING DM-1.4 CONDUIT INSTALLATION. CONTRACTOR SHALL PROVIDE AN ALTERNATE BID ITEM TO PROVIDE STRUCTURAL BACKFILL FOR ALL TRENCHES TO PAVEMENT SUBGRADE.
3. ALL STORM STRUCTURES ARE ODOT TYPES UNLESS OTHERWISE INDICATED.
4. ALL CATCH BASINS SHALL BE EQUIPPED WITH HEAVY DUTY, BICYCLE SAFE GRATES CAPABLE OF CARRYING AN HS-25 LOADING, UNLESS OTHERWISE NOTED.
5. ANY EXISTING STORM SEWER CUT IN EXCAVATION WHICH DRAINS AN OFFSITE AREA MUST BE TIED INTO THE STORM SEWER SYSTEM.
6. ALL CATCH BASINS IN THE PAVEMENT OR CURB ARE TO HAVE A MINIMUM OF TWO FOUR (4) INCH PERFORATED UNDERDRAINS EXTENDING TWENTY (20) LINEAR FEET FROM THE CATCH BASIN. UNDERDRAINS SHALL BE PLACED ONE ON EACH SIDE OF THE STORM SEWER AND AS NEAR TO PERPENDICULAR TO THE STORM SEWER AS IS PRACTICAL WITHOUT INTERFERING WITH STORM PIPES SHOWN ON THE PLANS. SEE PAVEMENT UNDERDRAIN DETAIL 4/C302.
7. AS THE INSTALLATION OF THE STORM SEWER PROGRESSES, EROSION CONTROL MEASURES SHALL BE PLACED AT INLET AND OUTLET OF SEWERS TO CONTROL THE SILT.
8. SUMP LINE CONDUITS ARE TO BE SDR 35, ARMO 2000, OR EQUIVALENT.
9. ALL JOINTS SHALL BE SOIL SEAL JOINTS UNLESS SPECIFICALLY NOTED ON THE PLANS.
10. DEFLECTION TESTING FOR STORM SEWERS AND CULVERTS SHALL BE AS PER THE REQUIREMENTS OF THE CITY OF OXFORD.
11. STORM WATER AND EXTRANEOUS FLOWS ARE PROHIBITED FROM ENTERING THE EXISTING SYSTEM DURING CONSTRUCTION. NO OPEN CUT TRENCHES WILL BE ALLOWED TO REMAIN OPEN OVERNIGHT. STORM DRAINS, DIVERSION DITCHES, PUMPS ETC., SHALL BE USED AS REQUIRED TO MAINTAIN THE INTEGRITY OF THE SYSTEM AT ALL TIMES.
12. ALL CATCH BASINS WITH A DEPTH GREATER THAN 4.0 FT SHALL BE PROVIDED WITH STEPS. STEPS SHALL MEET THE REQUIREMENTS OF ODOT STANDARD 604.
13. ALL STORM SEWER SHALL HAVE A MAXIMUM MANNING'S ROUGHNESS COEFFICIENT OF 0.013.
14. ROOF DRAINS ARE TO BE PER ODOT 707.33, 707.42, OR 707.45.

SANITARY SEWERS

- 1. ALL WORK AND MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF OXFORD'S WATER AND SANITARY SEWER IMPROVEMENT SPECIFICATIONS AND BACKFLOW CROSS CONNECTION MANUAL. ROOF DRAINS, FOUNDATION DRAINS, AND ALL OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.
2. (NOT USED)
3. NO BUILDING SHALL BE CONNECTED TO A SEWER LATERAL UNTIL THE BUILDING IS UNDER ROOF.
4. SANITARY SHALL BE A MINIMUM OF SDR 35 FOR DEPTHS LESS THAN 16 FEET AND SDR 26 FOR DEPTHS GREATER THAN OR EQUAL TO 16 FEET.
5. ALL SANITARY SEWER MANHOLES, CASTINGS, PIPE, ETC., SHALL CONFORM WITH CURRENT SPECIFICATIONS OF THE CITY OF OXFORD'S WATER AND SANITARY SEWER IMPROVEMENT SPECIFICATIONS AND BACKFLOW CROSS CONNECTION MANUAL.
6. SANITARY SEWER MATERIALS AND INSTALLATION TO BE AS PER THE CITY OF OXFORD'S WATER AND SANITARY SEWER IMPROVEMENT SPECIFICATIONS AND BACKFLOW CROSS CONNECTION MANUAL CROSSINGS:
WHENEVER A SANITARY SEWER AND WATER MAIN MUST CROSS, THE SEWER SHALL BE AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST 18 INCHES SEPARATION BETWEEN THE OUTSIDE PIPE WALLS, BELOW THE BOTTOM OF THE WATER MAIN. IF IT IS ABSOLUTELY IMPOSSIBLE TO MAINTAIN THE 18 INCH VERTICAL SEPARATION, THE WATER MAIN SHALL BE RELOCATED OR THE SEWER SHALL BE CONSTRUCTED AS FOLLOWS:
8.1. A SEWER PASSING OVER OR UNDER THE WATER MAIN SHALL BE ENCASED OR CONSTRUCTED OF MATERIALS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION FOR A MINIMUM DISTANCE OF 10 FEET ON EACH SIDE OF THE WATER MAIN.
8.2. THE SEWER CROSSING SHALL BE CONSTRUCTED SO THAT THE SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS.
8.3. WHERE A WATER MAIN PASSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATER MAIN.
9. ALL BUILDINGS TO BE SERVED BY THE PUBLIC SEWER SYSTEM SHALL BE CONSTRUCTED SO AS TO PROVIDE A MINIMUM OF 4 FT OF VERTICAL SEPARATION BETWEEN THE PUBLIC SANITARY SEWER AT THE POINT OF CONNECTION AND THE LOWEST BUILDING LEVEL SERVED BY A GRAVITY SEWER CONNECTION. IN ADDITION, SAID BUILDING LEVEL SHALL BE AT LEAST 1 FT ABOVE THE LOWEST POINT OF FREE-OVERFLOW (NON-SEALED MANHOLE COVER) UPSTREAM OF ANY TREATMENT FACILITY OF WASTEWATER PUMPING FACILITY THAT RECEIVES THE DISCHARGE FROM SAID BUILDING. SAID MINIMUM SERVICE LEVELS SHALL BE RECORDED ON THE "AS-BUILT" PLANS FOR THE DEVELOPMENT WHICH WILL BE KEPT ON FILE IN THE OFFICE OF THE THE CITY OF OXFORD.
10. (NOT USED)
11. PROVIDE THE CITY OF OXFORD WITH A FORTY-EIGHT (48) HOUR NOTICE PRIOR TO THE START OF ANY CONSTRUCTION, INCLUDING SANITARY INSTALLATION BY CALLING (513) 524-5206.
12. SANITARY SEWER LATERALS, WHICH SHALL INCLUDE ALL PIPE AND APPURTENANCES FROM THE BUILDING TO THE PUBLIC SEWER MAIN, AND THE CONNECTION TO THE PUBLIC SEWER MAIN SHALL BE CONSIDERED PRIVATE AND THE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN. THE CONNECTION TO THE SEWER MAIN WOULD BE ANY PIPING THAT EXTENDS OUT FROM THE MAIN BARREL OF THE SEWER MAIN.

WATER MAINS

- 1. ALL WATER WORK AND WATER MAIN MATERIALS INCLUDING PIPE, FITTINGS, VALVES, HYDRANTS, AND INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF CITY OF OXFORD'S WATER AND SANITARY SEWER IMPROVEMENT SPECIFICATIONS AND BACKFLOW CROSS CONNECTIONS MANUAL.
2. ALL PUBLIC WATER MAIN MATERIALS, VALVES, FIRE HYDRANTS, FITTINGS, AND APPURTENANCES SHALL BE CLASS 53 DUCTILE IRON PER AWWA C-151.
3. (NOT USED)
4. PRIVATE MAINS AND APPURTENANCES SHALL MEET OR EXCEED THE REQUIREMENTS OF THE THE CITY OF OXFORD.
5. FIRE DEPARTMENT CONNECTION (STORTZ CONNECTION) SHALL BE WITHIN 75 FT. OF A PUBLIC FIRE HYDRANT OR A FIRE HYDRANT OFF OF THE MAIN BETWEEN THE PUBLIC MAIN AND THE METER PIT.
6. FIRE DEPARTMENT CONNECTION LINE SHALL TIE INTO THE FIRE SUPPRESSION SYSTEM ON THE BUILDING SIDE OF THE PUMP IF A PUMP IS INSTALLED.
7. NO PART OF ANY FIRE HYDRANT SETTING SHALL BE CLOSER THAN FIVE (5) FEET FROM ANY INLET, DRIVEWAY, PARKING LOT, UTILITY POLE, OR GUY WIRE ANCHOR.
8. WATER MAINS SHALL MAINTAIN A MINIMUM COVER OF FOUR (4) FEET.
9. ALL WATER MAIN VALVES SHALL HAVE A MINIMUM DEPTH OF 2.5 FT. AND MAXIMUM DEPTH OF 4.0 FT. FROM PROPOSED GRADE TO THE TOP OF THE VALVE OPERATING NUT.
10. A MINIMUM CLEAR DISTANCE OF TEN (10) FEET HORIZONTAL OR EIGHTEEN (18) INCHES VERTICAL SHALL BE MAINTAINED BETWEEN SANITARY AND/OR STORM SEWERS AND WATER MAINS.
11. SANITARY AND STORM SEWERS THAT CROSS WATER MAINS SHALL BE LOCATED SUCH THAT THE SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS.
12. ALL WATER MAINS SHALL BE PROVIDED WITH JOINT RESTRAINT AT ALL TEES, HORIZONTAL AND VERTICAL BENDS, ETC., WHETHER SHOWN ON THE PLAN VIEW OR NOT. JOINT RESTRAINT SHALL MEET THE REQUIREMENTS OF THE CITY OF OXFORD'S WATER AND SANITARY SEWER IMPROVEMENT SPECIFICATIONS AND BACKFLOW CROSS CONNECTION MANUAL.
13. SERVICE PIPING SMALLER THAN THREE (3) INCHES SHALL BE SEAMLESS COPPER FLEXIBLE WATER TUBING, ASTM B 88, TYPE K, PRESSURE CLASS 250.
13.1. FITTINGS SHALL BE COMPRESSION STYLE FOR CTS TUBING. CONSULT GOVERNING AGENCY FOR A LISTING OF ACCEPTABLE MANUFACTURERS AND PRODUCTS.
13.2. COUPLINGS WITH SET SCREWS OR GRIP RINGS WILL NOT BE ACCEPTABLE.
13.3. WATER SERVICE TUBING SHALL BE BEDDED SIX (6) INCHES ABOVE AND BELOW WITH SAND OR OTHER NON-COMPACTIVE MATERIAL APPROVED BY THE GOVERNING AGENCY.
14. CITY OF OXFORD WATER DEPARTMENT SHALL ESTABLISH PROCEDURES FOR REPAIRS TO WATER MAIN OR WATER SERVICES DAMAGED.
15. ALL WATER METER PITS SHALL CONFORM TO THE MATERIALS AND SPECIFICATIONS OF THE GOVERNING AGENCY.
16. THE FOLLOWING ITEMS ARE TO BE APPROVED BY THE FIRE DEPARTMENT:
16.1. INSTALLATION OF ALL UNDERGROUND FIRE SUPPRESSION LINES ARE TO BE INSPECTED BY THE FIRE DEPARTMENT; INSTALLERS ARE REQUIRED TO BE LICENSED BY THE OHIO FIRE MARSHALL.
16.2. WATER SUPPLY AND CONNECTIONS TO THE SUPPLY.
16.3. PRESSURE REGULATORS OR METERS ON THE WATER SUPPLY LINES.
16.4. LOCATION AND/OR OMISSION OF FIRE DEPARTMENT CONNECTIONS.
16.5. FIRE DEPARTMENT CONNECTION HOSE CONNECTION THREADS (CAPS ALSO REQUIRED)
16.6. USE OF CONTROL VALVES IN WATER SUPPLY OTHER THAN INDICATING VALVES.
16.7. SIZE AND LOCATION OF VALVE PITS; USE OF BURIED VALVES OR PITS.
16.8. LOCATION AND IDENTIFICATION OF SECTION VALVES IN UNDERGROUND WATER SUPPLIES.
16.9. TYPE, ARRANGEMENT, LOCATION, IDENTIFICATION, THREADS, PROTECTION OF ALL HYDRANTS
16.10. UNDERGROUND PIPING INSTALLATION METHODS AND PROCEDURES.
16.11. HYDROSTATIC TESTING OF UNDERGROUND SYSTEMS; FIRE DEPT. MUST BE CALLED TO WITNESS TESTING; PROVIDE COPY OF CONTRACTOR'S MATERIAL & TEST CERTIFICATE FOR UNDERGROUND SYSTEM. AMOUNT OF PIPE LEAKAGE TO BE ACCEPTABLE TO FIRE DEPT.
16.12. FLUSHING OF UNDERGROUND SYSTEM TO BE WITNESSED BY FIRE DEPT.
16.13. HYDRANT OPERATING TEST TO BE WITNESSED BY FIRE DEPT.

GAS FACILITIES AND SERVICES

- 1. FOR GAS ENGINEERING NOTIFICATION, AGREEMENTS AND OFFICIAL CORRESPONDENCE RELATED TO GLENWOOD ENERGY, ADDRESS TO:
KEITH SMITH
513-523-2555
5181 COLLEGE CORNER PIKE
OXFORD, OH 45056
2. THE GAS MAIN INFORMATION PROVIDED SHOWS THE APPROXIMATE LOCATIONS AND DEPTHS OF COVER AND IS PROVIDED TO COMPLY WITH STATUTORY REGULATIONS. THIS INFORMATION SHOULD BE USED ONLY FOR PLANNING, NOT CONSTRUCTION.
3. ALL GAS MAIN DEPTHS OF COVER IF NOTED ARE APPROXIMATE DEPTHS OF COVER RECORDED AT THE TIME OF INSTALLATION. ANY RESULTING GRADE CHANGES SINCE THE TIME OF THE MAIN INSTALLATION WILL CAUSE THE EXISTING DEPTHS OF COVER TO BE DIFFERENT. EXTREME CARE MUST BE TAKEN TO ENSURE SAFE EXCAVATION WHEN APPROACHING KNOWN OR SUSPECTED GAS FACILITIES.
4. GAS SERVICE SHALL MEET THE REQUIREMENTS OF THE UTILITY PROVIDER.
5. FOR ADDITIONAL GAS FACILITY RECORD INFORMATION, CALL 513-523-2555.
6. TO COMPLY WITH FEDERAL AND STATE REGULATIONS CONCERNING DAMAGE PREVENTION PROGRAMS, THE UTILITY COMPANIES MUST BE CONTACTED AT LEAST 48 HOURS (2 WORKING DAYS) PRIOR TO EXCAVATION BY CALLING THE OHIO UTILITIES PROTECTION SERVICE (OUPS), TOLL FREE AT 811.
7. GAS FACILITIES ARE TO BE KEPT IN SERVICE AT ALL TIMES.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES TO GAS FACILITIES DURING OR AS A RESULT OF THE CONTRACTOR'S CONSTRUCTION. ALL DAMAGE TO GAS FACILITIES REQUIRING ADJUSTMENTS, RELOCATIONS AND/OR REPAIRS WILL BE MADE AT THE CONTRACTOR'S EXPENSE.
9. THE CONTRACTOR SHALL SHEET AND SHORE ALL EXCAVATIONS AS REQUIRED TO CONTINUOUSLY SUPPORT GAS FACILITIES WITHIN THE ZONE OF INFLUENCE (AS DETERMINED BY THE NATURAL ANGLE OF REPOSE OF THE SOIL).
10. CROSSING BURIED GAS FACILITIES WITH HEAVY CONSTRUCTION EQUIPMENT MAY CAUSE DAMAGE TO THE GAS FACILITIES. CONTACT THE GAS ENGINEERING DEPARTMENT FOR DETAILS ON HOW TO PROTECT THE GAS FACILITIES FROM DAMAGE.
11. THE CONTRACTOR SHALL NOT BACKFILL EXPOSED GAS FACILITIES UNTIL THE UTILITY HAS INSPECTED ITS FACILITIES AND PERFORMED ANY MAINTENANCE AND/OR ADJUSTMENTS THAT MAY BE REQUIRED.
12. THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING ANY DAMAGE TO EXISTING GAS FACILITIES. THIS INCLUDES PROTECTION OF COATINGS AND WRAPPINGS ON STEEL GAS MAINS. IT ALSO INCLUDES ANY DAMAGE WHICH MAY HAVE OCCURRED TO PLASTIC GAS MAINS, SUCH AS CRIMPS OR GOUGES.
13. WHEN CAST IRON OR SIMILAR GAS FACILITIES ARE EXPOSED OR INTERFERED WITH BY THE CONTRACTOR, REPLACEMENT OR REINFORCEMENT BY THE UTILITY OWNER MAY BE REQUIRED AT THE CONTRACTOR'S EXPENSE. BACKFILL WITH CONTROL LOW STRENGTH MATERIAL WILL BE REQUIRED.
14. BLASTING OR OTHER CONSTRUCTION PROCEDURES WHICH MAY TRANSMIT LOADS OR VIBRATIONS IN THE VICINITY OF GAS FACILITIES MUST BE APPROVED BY THE GAS ENGINEERING DEPARTMENT. A BLASTING PLAN, IDENTIFYING ALL PERTINENT INFORMATION, MUST BE SUBMITTED IN WRITING BY A BLASTING EXPERT PRIOR TO ANY WORK.
15. PROPOSED DEVELOPMENT PLANS AROUND AND NEAR GAS FACILITIES WITHIN PRIVATE EASEMENTS MUST BE SUBMITTED TO THE GAS ENGINEERING DEPARTMENT FOR REVIEW. THESE PLANS MUST BE APPROVED BEFORE ANY WORK MAY BEGIN WITHIN THE UTILITY OWNER'S EASEMENTS.
16. SPECIFIED EASEMENT WIDTHS MUST BE MAINTAINED IN ORDER FOR THE UTILITY PROVIDER TO PROTECT ITS FACILITIES.
17. NO PERMANENT STRUCTURES MAY BE BUILT WITHIN THE EASEMENTS.
18. CUTS AND FILLS ARE GENERALLY NOT PERMITTED WITHIN THE EASEMENTS. SOME FILLS MAY BE ALLOWED, AND WILL BE REVIEWED ON AN INDIVIDUAL BASIS. ANY PERMITTED FILLS WILL BE LIMITED TO AN AMOUNT WHICH WILL ALLOW THE UTILITY OWNERS TO PROPERLY MAINTAIN ITS FACILITIES.
19. PERPENDICULAR UTILITY CROSSINGS OF GAS EASEMENTS ARE ACCEPTABLE, PROVIDED PROPER CLEARANCES ARE MAINTAINED. PARALLEL INSTALLATIONS ARE NORMALLY NOT ALLOWED.
20. GAS FACILITIES SHOWN ON THIS PLAN ARE TO BE INSTALLED BY GLENWOOD ENERGY CONTRACTOR COORDINATE ALL CONDUIT TRENCHING ACTIVITIES WITH GLENWOOD ENERGY REPRESENTATIVE.

GRADING NOTES

- A. ITEM NUMBERS REFER TO THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT) CONSTRUCTION AND MATERIAL SPECIFICATIONS (2018) AND ALL CONSTRUCTION WORK SHALL BE DONE ACCORDING TO SAID SPECIFICATIONS AND IN ACCORDANCE WITH APPLICABLE STANDARDS OF THE GOVERNING AGENCIES. WHEN IN CONFLICT, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN.
B. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND ELEVATIONS OF ALL EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION OR EARTH MOVING OPERATIONS.
C. FORTY-EIGHT (48) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTOR SHALL NOTIFY THE OHIO UTILITY PROTECTION SERVICE (OUPS) AND ALL OTHER AGENCIES WHICH MAY HAVE UNDERGROUND UTILITIES INVOLVED IN THIS PROJECT AND ARE NOT MEMBERS OF OHIO UNDERGROUND PROTECTION, INC.
D. CONTRACTOR AND OWNER SHALL VERIFY AND ACCEPT ALL QUANTITIES PRIOR TO BEGINNING CONSTRUCTION.
E. CONTRACTOR SHALL VERIFY THAT COORDINATES, IF USED, MATCH PLAN DIMENSIONS. WHEN IN CONFLICT, THE PLAN DIMENSIONS SHALL GOVERN OVER COORDINATES, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
F. UNLESS OTHERWISE NOTED, ALL CONSTRUCTION DETAILS SHALL CONFORM WITH THE "STANDARD CONSTRUCTION DRAWINGS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION".
G. EXISTING SITE SURVEY, TOPOGRAPHY, AND SUBSURFACE CONDITIONS: EXISTING CONDITIONS PRESENTED IN DRAWING, REPORT OR SPECIFICATION FORM ARE BELIEVED ACCURATE WITHIN NORMAL INDUSTRY TOLERANCES BUT ARE NOT GUARANTEED. INVESTIGATE, SURVEY, CONFIRM AND VERIFY ALL CONDITIONS BEARING ON THE WORK BY ANY MEANS NECESSARY BEFORE STARTING ANY WORK THAT CHANGES EXISTING CONDITIONS. REPORT ANY UNACCEPTABLE DISCREPANCIES TO THE ENGINEER IN WRITING BEFORE BEGINNING OPERATIONS.
G.A. WRITTEN CLAIMS OF DIFFERENCE SHALL BE ACCOMPANIED BY SUBSTANTIATING EVIDENCE. CLAIMS OF DIFFERENCE SHALL BE RESOLVED, INCLUDING DETERMINATION OF QUANTITIES AND COSTS AND METHODS OF CONTRACT MODIFICATION, BEFORE WORK THAT ALTERS SUCH EXISTING CONDITIONS IS STARTED.
G.B. INITIATION OF SITE-CLEARING, SOIL-MOVING OPERATIONS, DEMOLITION OR OTHER ACTIVITY THAT ALTERS EXISTING CONDITIONS SHALL BE EVIDENCE THAT CONTRACTOR HAS MADE ALL INVESTIGATIONS AND EVALUATIONS IT DEEMS NECESSARY AND HAS ACCEPTED ALL EXISTING CONDITIONS PRESENT WHETHER OR NOT THEY CONFORM EXACTLY TO THE DOCUMENTS.
G.C. WITHOUT ADVANCE WRITTEN NOTIFICATION OF UNACCEPTABLE DISCREPANCY, NO CLAIM FOR EXTRA WILL BE CONSIDERED FOR A CLAIM OF DIFFERENCE BETWEEN DOCUMENTS AND ACTUAL CONDITIONS AFTER THE CONTRACTOR HAS ALTERED EXISTING CONDITIONS.
H. BACKFILL OF ALL UTILITY EXCAVATIONS IN STRUCTURAL AREAS INCLUDING UNDER PAVEMENTS OR WITHIN TEN (10) FEET OF ANY BUILDING AREAS SHOULD BE CONTINUALLY MONITORED BY A REPRESENTATIVE OF THE PROJECT GEOTECHNICAL ENGINEER TO VERIFY AND DOCUMENT THAT PROPER LIFT THICKNESS, MOISTURE CONDITION, AND COMPACTIVE EFFORT ARE MAINTAINED. THE GRADING PLAN IS TO BE USED FOR GRADING PURPOSES ONLY.
I. SPOT ELEVATIONS REPRESENT FINISH PAVEMENT GRADE, SUBGRADE OF THE BUILDING PAD VARIES BETWEEN 9" AND 12" BELOW FINISH FLOOR. CONTRACTOR SHALL REVIEW THE FOUNDATION PLAN TO DETERMINE BUILDING SUBGRADE ELEVATIONS.
J. CONTRACTOR AND OWNER SHALL AGREE TO ALL EXCAVATION AND EMBANKMENT QUANTITIES PRIOR TO CONSTRUCTION.
K. CONTRACTOR SHALL REMOVE ALL TREES AND CLEAN ALL AREAS AS DETERMINED BY THE ENGINEER OR ARCHITECT TO PERFORM ALL GRADING AND UTILITY WORK IN ACCORDANCE WITH THE DRAWINGS, GENERAL NOTES, AND PROJECT SPECIFICATIONS. RESERVE MULCH FOR SOIL EROSION MULCHING AS NECESSARY.
L. THE PROJECT HAS BEEN DESIGNED TO CONTROL EROSION AND PREVENT DAMAGE TO OTHER PROPERTY. ALL STRIPPING, EARTHWORK, AND REGRADING SHALL BE PERFORMED TO MINIMIZE EROSION. NATURAL VEGETATION SHALL BE RETAINED WHEREVER POSSIBLE. THE PROPOSED PLAN WILL ALLOW MOST ERODED MATERIALS TO BE RETAINED ON SITE.
M. GEOTECHNICAL REPORT HAS BEEN COMPLETED FOR THIS SITE BY PROFESSIONAL SERVICE INDUSTRIES. COPIES OF THIS REPORT ARE AVAILABLE FROM THE OWNER'S REPRESENTATIVE.
N. CONTRACTOR SHALL OBTAIN A COPY OF THE COMPLETE GEOTECHNICAL REPORT PRIOR TO BEGINNING WORK.
O. CONTRACTOR SHALL SETUP AN ONSITE PRE-CONSTRUCTION MEETING WITH OWNER, PROJECT GEOTECHNICAL ENGINEER, EARTHWORK CONTRACTOR, AND SITE CIVIL ENGINEER PRIOR TO BEGINNING CONSTRUCTION.
P. ALL EARTHWORK AND CONSTRUCTION ACTIVITY SHALL BE PERFORMED PER THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER AS DESCRIBED IN THE GEOTECHNICAL EXPLORATION REPORT AND ALL ADDENDUMS AND/OR THE PROJECT SPECIFICATIONS. WHEN IN CONFLICT THE MORE STRINGENT REQUIREMENTS SHALL PREVAIL.
Q. BUILDING PAD PREPARATION SHALL BE MADE IN ACCORDANCE WITH GEOTECHNICAL ENGINEER'S, STRUCTURAL ENGINEER'S, AND ARCHITECT'S RECOMMENDATIONS, BUILDING DIMENSIONS SHALL BE VERIFIED WITH THE ARCHITECTURAL AND STRUCTURAL DRAWINGS PRIOR TO CONSTRUCTION.
R. ANY AREAS THAT APPEAR AS FUTURE BUILDING OR PARKING LOTS SHALL BE GRADED TO DRAIN TO THE NEAREST SWALE, CATCH BASIN, OR OTHER DRAINAGE FEATURE. IF NECESSARY, CONTRACTOR SHALL CONSTRUCT TEMPORARY FACILITIES TO DRAIN THESE AREAS TO THE NEAREST DRAINAGE FEATURE. THE FUTURE BUILDING PADS SHOULD BE LEFT HIGH TO ACCOUNT FOR DRAINAGE ACROSS THE PAD 0.5% MIN.
S. EXCESSIVELY ORGANIC TOPSOIL AND LOOSE MATERIALS SHALL BE STRIPPED FROM THE CONSTRUCTION AREAS AND WASTED OR STOCKPILED. AN AVERAGE TOPSOIL THICKNESS OF 3" WAS USED BY THE ENGINEER WHEN DEVELOPING THESE PLANS. ACTUAL TOPSOIL THICKNESS MAY VARY ACROSS THE AND THE EXACT DEPTH OF STRIPPING SHOULD BE DETERMINED BY A REPRESENTATIVE OF THE PROJECT GEOTECHNICAL ENGINEER IN THE FIELD AT THE TIME OF THE STRIPPING OPERATIONS.
T. AFTER STRIPPING OF THE TOPSOIL HAS BEEN PERFORMED, THE EXPOSED SUBGRADE SHALL BE PROOFROLLED WITH APPROVED EQUIPMENT TO IDENTIFY POCKETS OF SOFT UNSUITABLE MATERIALS. UNDER THE DIRECTION OF THE PROJECT GEOTECHNICAL ENGINEER, UNSUITABLE MATERIALS SHOULD BE REMOVED AND REPLACED WITH A WELL-COMPACTED MATERIAL.
U. THE LAST 12" OF ALL FILLS OUTSIDE OF PAVEMENT AND BUILDING AREAS SHALL BE TOPSOIL UNLESS OTHERWISE NOTED. ALL TOPSOIL FILLS SHALL BE BENCH OR KNIT INTO FILL SLOPES AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
V. SEE LANDSCAPE PLANS FOR SEED MIXTURES TO BE USED THE GRADED AREAS.
W. THE CITY OF OXFORD REQUIRES AN AS-BUILT VOLUME CERTIFICATION OF ALL DETENTION/RETENTION BASINS. CONTRACTOR SHOULD CONTACT THE SITE CIVIL ENGINEER TO PERFORM AS-BUILT VOLUME CERTIFICATION PRIOR TO FINAL GRADING AND SEEDING OF BASINS.



Table with 4 columns: Date, Chk, Item, Revision Description. The table is mostly empty with some minor entries in the Revision Description column.

NEW MAINTENANCE & BUS GARAGE
TALAWANDA CITY SCHOOL DISTRICT
5301 UNIVERSITY PARK BLVD
CONGRESS LANDS WEST OF THE MIAMI RIVER
SECTION 35, TOWN 5, RANGE 1
CITY OF OXFORD
BUTLER COUNTY, OHIO



Table with 2 columns: Field, Value. Fields include Drawing (21-0202 CD), Drawn by (JLE), Checked By (EMR), Issue Date (05/27/22), and Sheet (C101).

C101

Plot time: Aug 03, 2022 - 3:31pm
Drawing name: J:\2021\21-0202\CVDWG\21-0202 CD.dwg - Layout Tab, C101 General Notes

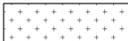
THIS DOCUMENT AND ALL RELATED DETAIL DRAWINGS, SPECIFICATIONS AND ELECTRONIC MEDIA PREPARED OR FURNISHED BY BAYER BECKER (BB) ARE INSTRUMENTS OF PROFESSIONAL SERVICE AND IS THE EXCLUSIVE PROPERTY OF BB. NO DISCLOSURE, USE, REPRODUCTION OR DUPLICATION IN WHOLE OR IN PART MAY BE MADE WITHOUT WRITTEN PERMISSION OF BB. AND IS DONE SO AT USER'S SOLE RISK. COPYRIGHT - ALL RIGHTS RESERVED.

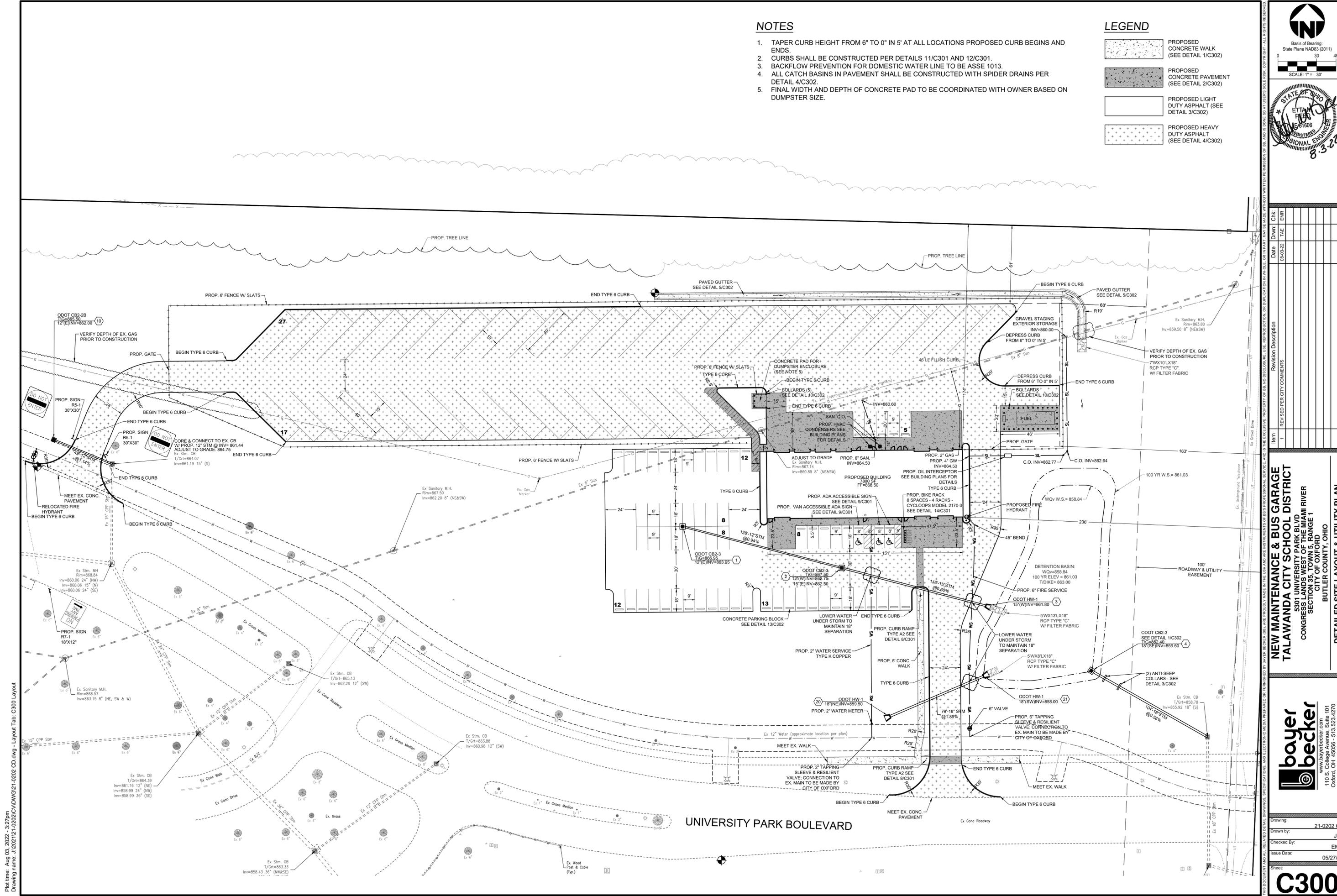


**NOTES**

1. TAPER CURB HEIGHT FROM 6" TO 0" IN 5' AT ALL LOCATIONS PROPOSED CURB BEGINS AND ENDS.
2. CURBS SHALL BE CONSTRUCTED PER DETAILS 11/C301 AND 12/C301.
3. BACKFLOW PREVENTION FOR DOMESTIC WATER LINE TO BE ASSE 1013.
4. ALL CATCH BASINS IN PAVEMENT SHALL BE CONSTRUCTED WITH SPIDER DRAINS PER DETAIL 4/C302.
5. FINAL WIDTH AND DEPTH OF CONCRETE PAD TO BE COORDINATED WITH OWNER BASED ON DUMPSTER SIZE.

**LEGEND**

-  PROPOSED CONCRETE WALK (SEE DETAIL 1/C302)
-  PROPOSED CONCRETE PAVEMENT (SEE DETAIL 2/C302)
-  PROPOSED LIGHT DUTY ASPHALT (SEE DETAIL 3/C302)
-  PROPOSED HEAVY DUTY ASPHALT (SEE DETAIL 4/C302)

| Date     | Chk | Item | Revision Description      |
|----------|-----|------|---------------------------|
| 08-03-22 | EMR | 1    | REVISED PER CITY COMMENTS |

**NEW MAINTENANCE & BUS GARAGE**  
**TALAWANDA CITY SCHOOL DISTRICT**  
 5301 UNIVERSITY PARK BLVD  
 CONGRESS LANDS WEST OF THE MIAMI RIVER  
 SECTION 35, TOWN 5, RANGE 1  
 BUTLER COUNTY, OHIO

**DETAILED SITE LAYOUT & UTILITY PLAN**

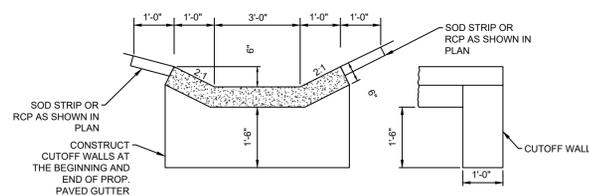
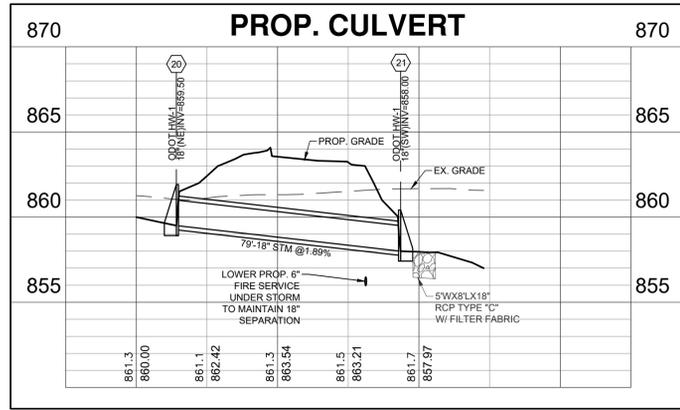
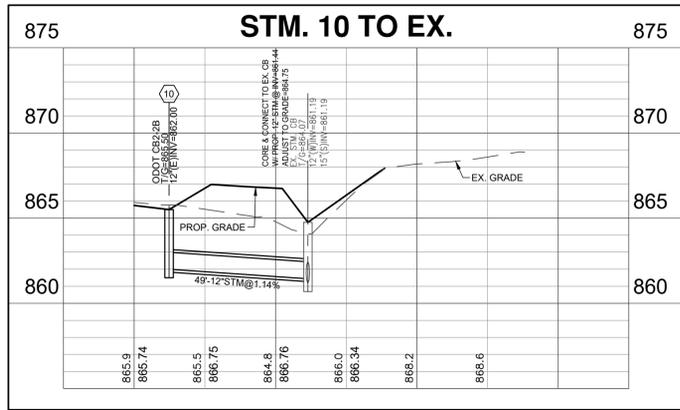
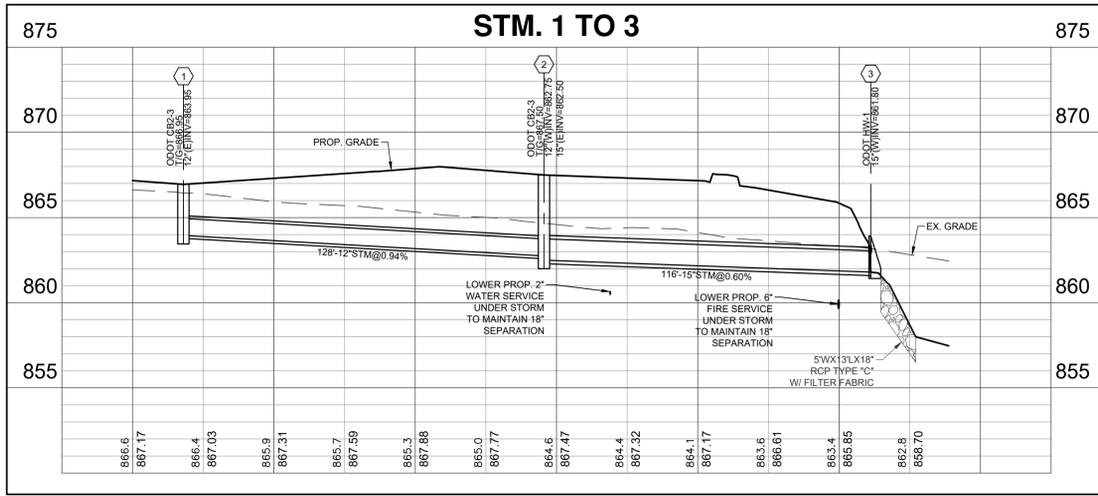


www.bayerbecker.com  
 110 S. College Avenue, Suite 101  
 Oxford, OH 45056 - 513.523.4270

Drawing: 21-0202 CD  
 Drawn by: JLE  
 Checked by: EMR  
 Issue Date: 05/27/22  
 Sheet: **C300**

Plot time: Aug 03, 2022 - 3:27pm  
 Drawing name: J:\2021\21-0202\CD\DWG21-0202 CD.dwg - Layout Tab: C300 Layout

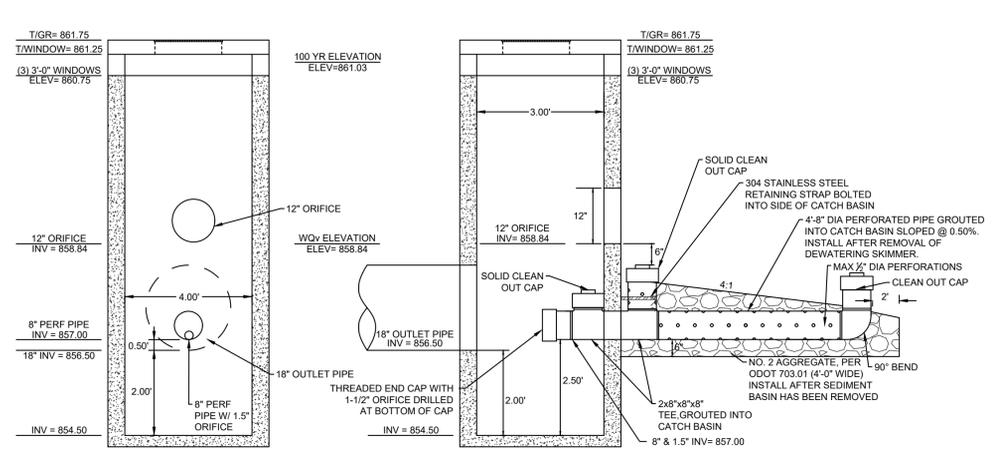
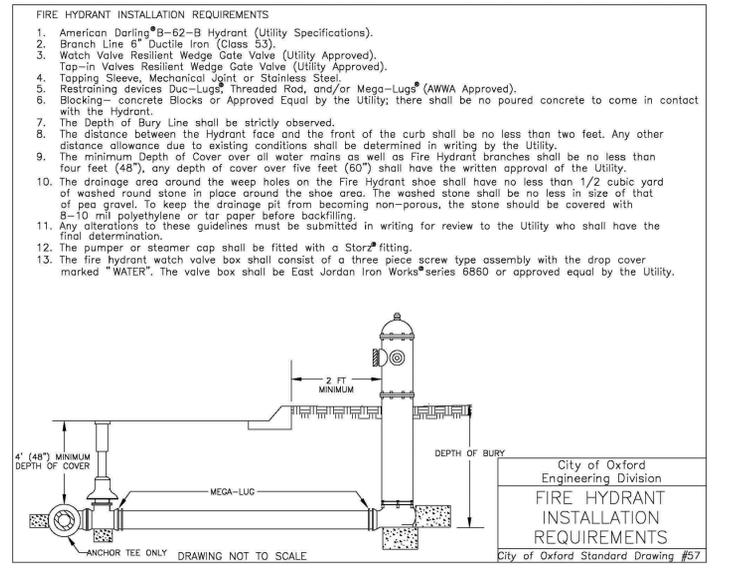
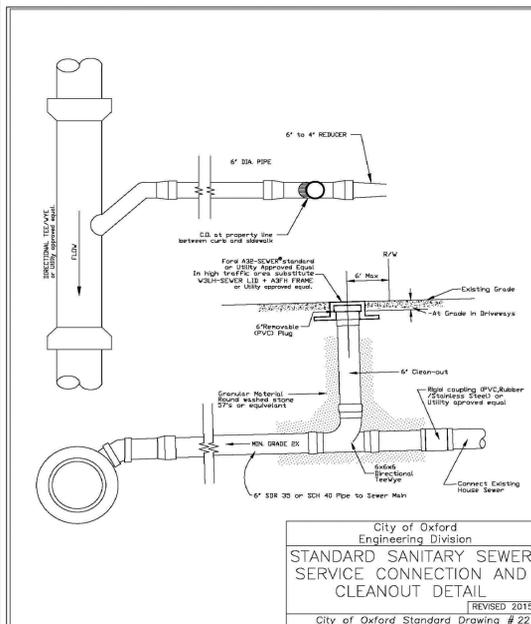
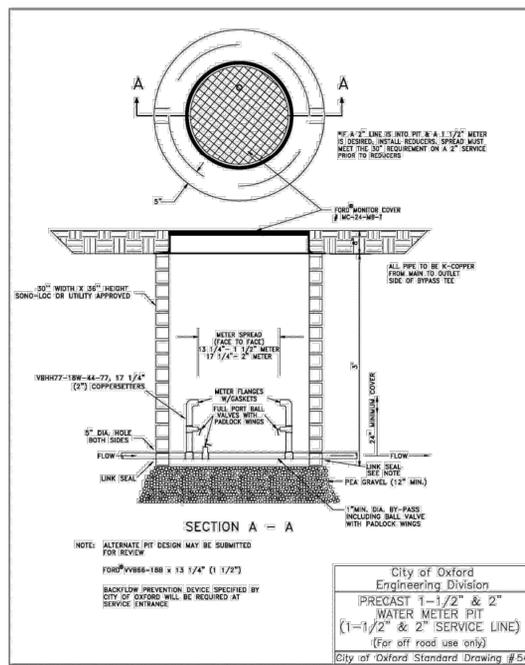




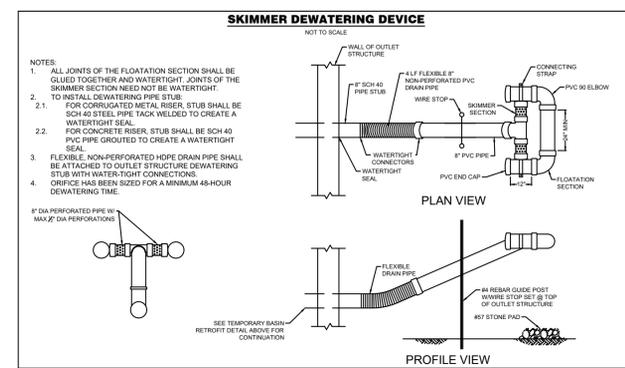
- CONSTRUCT GUTTERS WITH 4000 PSI COMPRESSIVE STRENGTH CONCRETE.
- IMPRESS CONCRETE GUTTER CONTRACTION JOINTS AND SPACE AT 10 FOOT INTERVALS.

**5**  
C302  
**PAVED GUTTER DETAIL**  
NOT TO SCALE

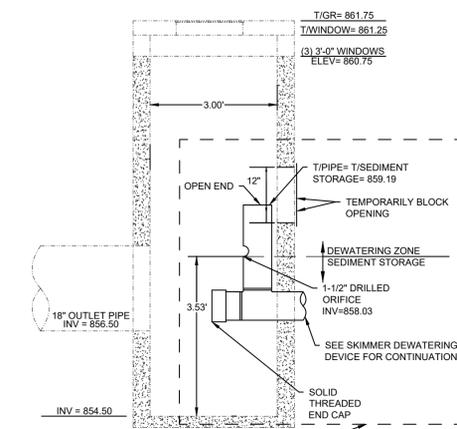
**6**  
C302  
**TYPICAL DITCH TO BASIN**  
NOT TO SCALE



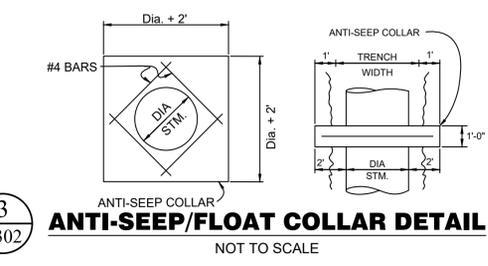
**1**  
C302  
**POST-CONSTRUCTION DETAIL  
DETENTION BASIN OUTLET STRUCTURE - ODOT CB2-3**  
NOT TO SCALE



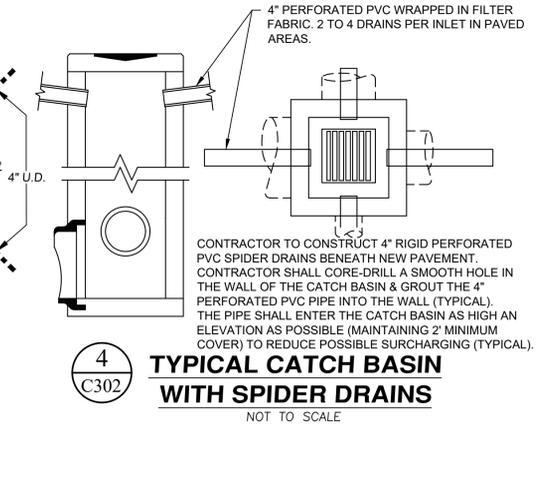
**2**  
C302  
**DURING CONSTRUCTION  
OUTLET CONTROL STRUCTURE  
SEDIMENT BASIN RETROFIT**  
NOT TO SCALE



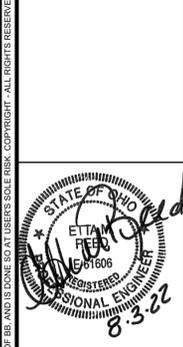
**3**  
C302  
**TEMPORARY  
BASIN RETROFIT DETAIL**  
NOT TO SCALE



**4**  
C302  
**ANTI-SEEP/FLOAT COLLAR DETAIL**  
NOT TO SCALE



**4**  
C302  
**TYPICAL CATCH BASIN  
WITH SPIDER DRAINS**  
NOT TO SCALE



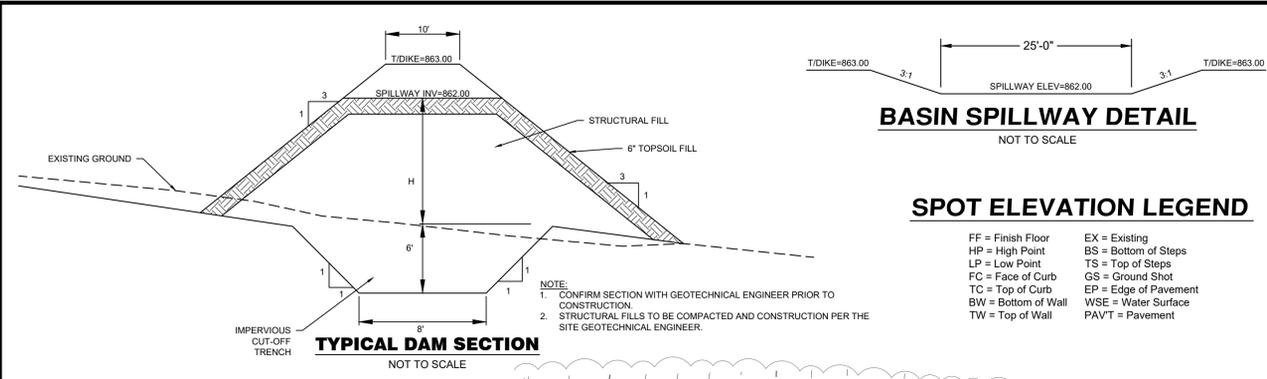
| Date     | Drawn | Checked | Item |
|----------|-------|---------|------|
| 08/03/22 | JLE   | EMR     | 1    |

**NEW MAINTENANCE & BUS GARAGE  
TALAWANDA CITY SCHOOL DISTRICT**  
5301 UNIVERSITY PARK BLVD  
CONGRESS LANDS WEST OF THE MIAMI RIVER  
SECTION 35, TOWN 5, RANGE 1  
CITY OF OXFORD  
BUTLER COUNTY, OHIO



|                      |
|----------------------|
| Utility Details      |
| Drawing: 21-0202.CD  |
| Drawn by: JLE        |
| Checked by: EMR      |
| Issue Date: 05/27/22 |
| Sheet: <b>C302</b>   |

Plot time: Aug 03, 2022 - 3:28pm  
Drawing name: J:\2021\21-0202\CVDWG\21-0202 CD.dwg - Layout Tab: C302 Utility Details



**SPOT ELEVATION LEGEND**

- FF = Finish Floor
- HP = High Point
- LP = Low Point
- FC = Face of Curb
- TC = Top of Curb
- BW = Bottom of Wall
- TW = Top of Wall
- EX = Existing
- BS = Bottom of Steps
- TS = Top of Steps
- GS = Ground Shot
- EP = Edge of Pavement
- WSE = Water Surface
- PAVT = Pavement

**BASIN SUMMARY**

|                                |            |
|--------------------------------|------------|
| DRAINAGE AREA =                | 5.48 ACRES |
| SEDIMENT BASIN                 |            |
| SEDIMENT STORAGE REQUIRED =    | 0.11 AC-FT |
| SEDIMENT STORAGE PROVIDED =    | 0.11 AC-FT |
| DEWATERING VOLUME REQUIRED =   | 0.23 AC-FT |
| DEWATERING VOLUME PROVIDED =   | 0.23 AC-FT |
| SEDIMENT CONTROL ORIFICE DIA = | 1-1/2 IN   |
| DEWATERING DRAWDOWN TIME =     | 63.40 HRS  |
| (48HR MIN)                     |            |
| PERMANENT STORMWATER FACILITY: |            |
| WQV STORAGE REQUIRED =         | 0.26 AC-FT |
| WQV STORAGE PROVIDED =         | 0.26 AC-FT |
| @ ELEV =                       | 858.84     |
| WQV ORIFICE DIA =              | 1-1/2" IN  |
| WQV DRAWDOWN TIME =            | 49.70 HRS  |
| (48HR MIN)                     |            |
| 100 YEAR W.S. ELEVATION =      | 861.03     |
| EMERGENCY SPILLWAY INV =       | 862.00     |

**SWPPP NOTES**

TYPE OF CONSTRUCTION ACTIVITY: Mass Earthwork, Utility Installation, Pavement, & Proposed Building/ Maintenance Garage

TOTAL DISTURBED AREA: ±6.1 Acres

PRIOR LAND USE: Vacant Land

RECEIVING WATERS: Unnamed Tributary to Collins Creek  
Unamed Tributary to Lick Run

IMPERVIOUS CALCULATIONS:  
IMPERVIOUS AREA 0.55 ACRES  
PRE-DEVELOPED 2.80 ACRES  
POST-DEVELOPED

**SOIL DATA:**

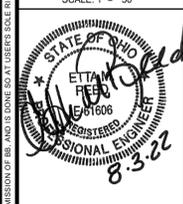
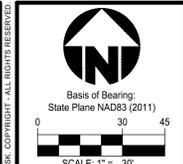
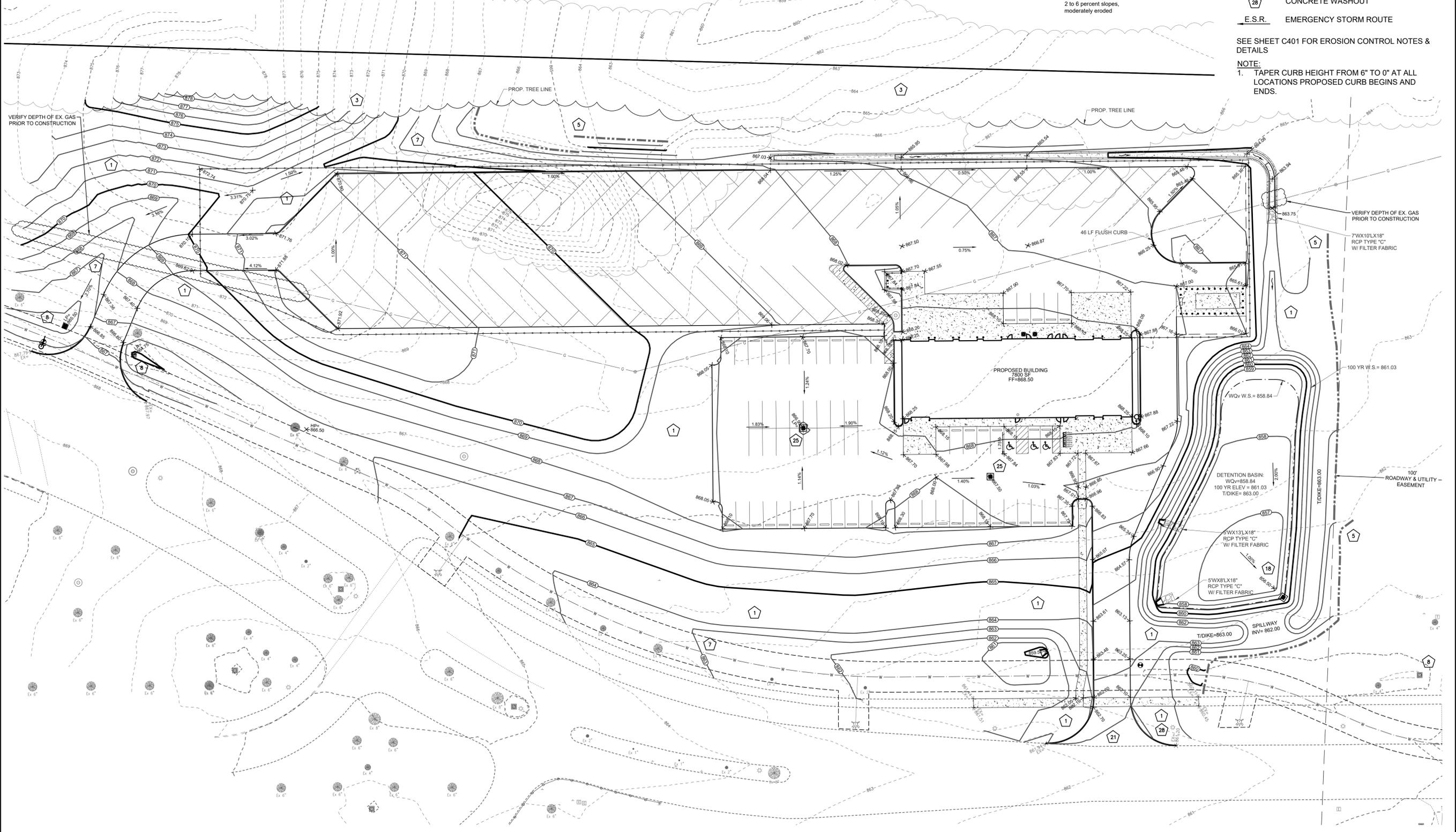
|        |  |     |
|--------|--|-----|
| SYMBOL | SOIL NAME  | HSG |
| FCA    | Fincaste silt loam, southern ohio till plain, 0 to 2 percent slopes  | B/D |
| RIB    | Russell silt loam 2 to 6 percent slopes                              | B   |
| RvB2   | Russell-Miamian silt loams, 2 to 6 percent slopes, moderately eroded | C   |

**LEGEND**

- 1 SEEDING AND MULCHING
- 3 PRESERVE EXISTING VEGETATION
- 5 SILT FENCE
- 7 ROCK CHECK DAM
- 8 INLET PROTECTION
- 18 SEDIMENT BASIN (SEE DETAIL 2/C302)
- 21 CONSTRUCTION ENTRANCE
- 25 DANDY BAG INLET SEDIMENT FILTER
- 26 BEAVER DAM
- 28 CONCRETE WASHOUT
- E.S.R. EMERGENCY STORM ROUTE

SEE SHEET C401 FOR EROSION CONTROL NOTES & DETAILS

**NOTE:**  
1. TAPER CURB HEIGHT FROM 6" TO 0" AT ALL LOCATIONS PROPOSED CURB BEGINS AND ENDS.



| Date     | Chk | Item | Revision Description      |
|----------|-----|------|---------------------------|
| 08/03/22 | EMR | 1    | REVISED PER CITY COMMENTS |

**NEW MAINTENANCE & BUS GARAGE  
TALAWANDA CITY SCHOOL DISTRICT**  
5301 UNIVERSITY PARK BLVD  
CONGRESS LANDS WEST OF THE MIAMI RIVER  
SECTION 35, TOWN 5, RANGE 1  
CITY OF OXFORD  
BUTLER COUNTY, OHIO

**SITE GRADING & EROSION CONTROL PLAN**



|             |            |
|-------------|------------|
| Drawing:    | 21-0202 CD |
| Drawn by:   | JLE        |
| Checked By: | EMR        |
| Issue Date: | 05/27/22   |
| Sheet:      |            |

**C400**

Plot time: Aug 03, 2022 - 3:30pm  
Drawing name: J:\2021\21-0202\CVDWG\21-0202 CD.dwg - Layout Tab: C400 Grading

THIS DOCUMENT AND ALL RELATED DETAIL DRAWINGS, SPECIFICATIONS, AND ELECTRONIC MEDIA PREPARED OR FURNISHED BY BAYER BECKER (BB) ARE PROUDLY MADE IN THE USA AND ARE INSTRUMENTS OF PROFESSIONAL SERVICE AND IS THE EXCLUSIVE PROPERTY OF BB. NO DISCLOSURE, USE, REPRODUCTION, OR DUPLICATION IN WHOLE OR IN PART, MAY BE MADE WITHOUT WRITTEN PERMISSION OF BB, AND IS DONE SO AT USER'S SOLE RISK. COPYRIGHT - ALL RIGHTS RESERVED.

**PERMANENT SEEDING**

Permanent seeding includes the seedbed preparation, seeding, and the establishment of perennial vegetation used to permanently stabilize soil, prevent sediment pollution, reduce runoff by promoting infiltration, and provide storm water quality benefits offered by dense vegetation.

**CONDITIONS WHERE PRACTICE APPLIES**

Permanent seeding should be applied to:

- Areas or portions of construction sites which can be brought to final grade. Applications of permanent seeding should not be delayed until construction on limited portions of the site being completed.
- Areas on that will be regraded, but will not be regraded for a year or more.

**PLANNING CONSIDERATIONS**

Healthy dense turf will have a dramatic long lasting effect on stormwater quality as well as promoting infiltration and reducing the amount of runoff. To establish quality vegetation, careful preparation of the seedbed, soil, even subsoil is highly encouraged.

Soil Conditions—Stormwater quality and the amount of runoff both vary significantly with soil compaction. Nonirrigated soils improve stormwater by promoting infiltration, dense vegetation, high infiltration, and lower runoff rates. Other factors include: nutrient filtration, denitrification & absorption, and potential leachate activity in the soil.

Construction activity can create highly compacted soils but also offers the opportunity to improve soil conditions. The best time for improving soil conditions is during the establishment of permanent vegetation. It is highly recommended that subsoils, plows or other implements be specified as part of final seedbed preparation. Use direction in tillage areas.

Minimum Soil Conditions—Vegetation cannot be expected to stabilize soil that is unstable due to its texture, structure, water movement or excessively steep slope. The following minimum soil conditions are needed for the establishment and maintenance of a long-term vegetation cover. If these conditions cannot be met, see the Standards and Specifications for Regrading.

Cut and fill areas should be prepared to hold at least a moderate amount of available moisture. The soil must be free from material that is toxic or otherwise harmful to plant growth.

| Permanent Seeding                |              |                            |
|----------------------------------|--------------|----------------------------|
| Seed Mix                         | Seeding Rate | Notes:                     |
|                                  | lb./ac.      | lb./1,000 ft. <sup>2</sup> |
| <b>General Use</b>               |              |                            |
| Creeping Red Fescue              | 20-40        | 1/2-1                      |
| Kentucky Bluegrass               | 10-20        | 1/4-1/2                    |
| Tall Fescue                      | 40           | 1                          |
| Dwarf Fescue                     | 40           | 1                          |
| <b>Steep Banks or Cut Slopes</b> |              |                            |
| Tall Fescue                      | 40           | 1                          |
| Crown Vetch                      | 10           | 1/4                        |
| Tall Fescue                      | 20           | 1/2                        |
| Flat Pea Fescue                  | 20           | 1/2                        |
| Do not seed later than August    |              |                            |
| <b>Road Ditches and Swales</b>   |              |                            |
| Tall Fescue                      | 40           | 1                          |
| Dwarf Fescue                     | 50           | 2 1/4                      |
| Kentucky Bluegrass               | 80           | 2 1/4                      |
| <b>Lawns</b>                     |              |                            |
| Perennial Ryegrass               | 60           | 1 1/2                      |
| Kentucky Bluegrass               | 60           | 1 1/2                      |
| Creeping Red Fescue              | 60           | 1 1/2                      |
| Kentucky Bluegrass               | 60           | 1 1/2                      |

Note: Other approved seed species may be substituted.

| Maintenance for Permanent Seedings        |          |                   |      |  |
|---|----------|-------------------|------|--|
| Mixture                                   | Formula  | lb./1,000 sq. ft. | Time | Mowing   |
| Creeping Red Fescue<br>Kentucky Bluegrass | 10-10-10 | 500               | 12   | Not closer than 3"   |
| Tall Fescue                               | 10-10-10 | 500               | 12   | Fall, yearly or as needed<br>Not closer than 4"                      |
| Dwarf Fescue                              | 10-10-10 | 500               | 12   | Not closer than 2"   |
| Crown Vetch Fescue                        | 0-20-20  | 400               | 10   | Spring, yearly following establishment and every 4-7 yrs. thereafter |
| Flat Pea Fescue                           | 0-20-20  | 400               | 10   | Do not mow   |

Note: Following soil test recommendations is preferred to fertilizer rates shown above.

**SITE PREPARATION**

1. A suitable, plow or other implement shall be used to reduce soil compaction and allow maximum infiltration. (Maximum infiltration will help control both runoff rate and water quality.) Subsoiling should be done where the soil moisture is too high to till or crack or fracture. Subsoiling shall not be done on slope areas where soil preparation should be limited to what is necessary for establishing vegetation.
2. The soil shall be graded as needed to permit the use of conventional equipment for seeded preparation and seeding.
3. Seed shall be applied where needed to establish vegetation.

**SEEDING PREPARATION**

1. **Line**—Agricultural grade limestone shall be applied to acid soil to be counteracted by a soil test. In lieu of a soil test, lime shall be applied at the rate of 100 lb./1,000 sq. ft. or 2 tons/acre.
2. **Fertilizer**—Fertilizer shall be applied as recommended by a soil test. In lieu of a soil test, fertilizer shall be applied at a rate of 12 lb./1,000 sq. ft. or 600 lbs. of 10-10-10 or 12-12-12 analysis.
3. The lime and fertilizer shall be worked into the soil with a disk harrow, spring tooth harrow, or other suitable implement to a depth of 3 in. On sloping land the soil shall be worked on the contour.

**SEEDING DATES AND SOIL CONDITIONS**

Seeding should be done March 1 to May 31 or August 1 to September 30. These seeding dates are ideal but, with the use of additional rain and irrigation, seeding may be made any time throughout the growing season. Tillage/seedbed preparation should be done when the soil is dry enough to crumble and not form clumps when compressed by hand. For winter seeding, see the following section on dormant seeding.

**MULCHING**

1. Mulch material shall be applied immediately after seeding. Seedings made during optimum seeding dates and with favorable soil conditions and on very flat areas may not need mulch to achieve adequate stabilization. Dormant seedings shall be mulched.
2. Materials
  - Straw—if straw is used it shall be unrotted small-grain straw applied at the rate of 2 tons/acre, or 90 lb./1,000 sq. ft. (two to three bales). The mulch shall be spread uniformly by hand or mechanically so the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000-sq-ft. sections and spread two 45-lb. bales of straw in each section.
  - Hydroseeds—If wood cellulose fiber is used, it shall be used at 2,000 lb./acre, or 40 lb./1,000 sq. ft.
  - Other—Other acceptable mulches include mulch matings applied according to manufacturer's recommendations or wood chips applied at 2 tons/acre.
3. Straw mulch shall be anchored immediately to minimize loss by wind or water. Anchoring Methods:
  - Mechanical—A disk, crimper, or similar type tool shall be set straight to punch or anchor the mulch material into the soil. Straw mechanically anchored shall not be finely chopped but, generally, be left longer than 6 in.
  - Mulch Nettings—Nettings shall be used according to the manufacturer's recommendations. Netting may be necessary to hold mulch in place in areas of concentrated runoff and on critical slopes.
  - Asphalt Emulsion—Asphalt shall be applied as recommended by the manufacturer or at the rate of 160 gal./acre.
  - Synthetic Binders—Synthetic binders such as Acrylic DLR (Aqui-Tac), DCA-70, Petrosol, Terra Tack or equal may be used at rates recommended by the manufacturer.
  - Wood Cellulose Fiber—Wood cellulose fiber binder shall be applied at a net dry weight of 750 lb./acre. The wood-cellulose fiber binder shall be mixed with water and the mixture shall contain a maximum of 50 lb./100 gal.

**IRRIGATION**

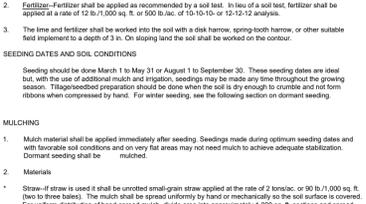
1. Permanent seeding shall include irrigation to establish vegetation during dry or hot weather or an adverse site condition as needed for adequate moisture to prevent erosion and plant growth.
2. Excessive irrigation rates shall be avoided and irrigation monitored to prevent erosion and damage from runoff.

**DITCH CHECK**

Points A should be higher than point B

PROPER PLACEMENT OF A STRAW BALE BARRIER IN DRAINAGE WAY

Source: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, Sherwood and Wyant



**TEMPORARY SEEDING**

Temporary seeding provides erosion control on areas in between construction operations. Grasses which are quick growing are needed and usually mulched to provide prompt, temporary soil stabilization. It effectively restores the area of a construction project to erosion and should be used everywhere the sequence of construction operations allows vegetation to be established.

**CONDITIONS WHERE PRACTICE APPLIES**

Temporary seeding should be applied on exposed soil where additional work (grading etc.) is not scheduled for more than 14 days. Permanent seeding should be applied if the area will be stable for more than a year.

**PLANNING CONSIDERATIONS**

The practice has the potential to drastically reduce the amount of sediment eroded from a construction site. Control efficiencies greater than 90% will be achieved with proper applications of temporary seeding. Because practices used to stabilize erosion are usually much less effective, temporary seeding is to be used even on areas where runoff is treated by sediment trapping practices. Because temporary seeding is highly effective and practical on construction sites, its use is highly recommended.

| Temporary Seeding Species Selection |   |                            |          |          |
|-------------------------------------|---|----------------------------|----------|----------|
| Seeding Dates                       | Species   | Lb./1,000 ft. <sup>2</sup> | Per Acre |          |
| March 1 to August 15                | Data  | 3                          | 40       | 4 bushel |
|                                     | Tall Fescue   | 1                          | 40       | 40 lb.   |
|                                     | Annual Ryegrass   | 1                          | 40       | 40 lb.   |
|                                     | Perennial Ryegrass                                      | 1                          | 40       | 40 lb.   |
| August 16 to November 1             | Rye   | 3                          | 2 bushel | 40 lb.   |
|                                     | Tall Fescue   | 1                          | 40       | 40 lb.   |
|                                     | Annual Ryegrass   | 1                          | 40       | 40 lb.   |
|                                     | Perennial Ryegrass                                      | 1                          | 40       | 40 lb.   |
| November 1 to Spring Seeding        | Use multi-species seeding practices or dormant seeding. |                            |          |          |
|                                     | Use multi-species seeding practices or dormant seeding. |                            |          |          |
|                                     | Use multi-species seeding practices or dormant seeding. |                            |          |          |
|                                     | Use multi-species seeding practices or dormant seeding. |                            |          |          |

Note: Other approved seed species may be substituted.

1. Structural erosion- and sediment-control practices such as diversions and sediment traps shall be installed and stabilized with temporary seeding prior to grading the rest of the construction site.
2. Temporary seed shall be applied between construction operations on soil that will not be graded or reworked by 14 days or more. These site areas should be seeded as soon as possible after grading or shall be seeded within 7 days. Several applications of temporary seeding are necessary on typical construction projects.
3. The seedbed should be pulverized and loose to ensure the success of establishing vegetation. However, temporary seeding shall not be incorporated if final seedbed preparation is not possible.
4. Soil Amendments—Applications of temporary vegetation shall establish adequate stands of vegetation which may require the use of soil amendments. Soil tests shall be taken on the site to predict the need for lime and fertilizer.
5. Seeding Method—Seed shall be applied uniformly with a cyclone seeder, drill/cultipacker seeder, or hydroseeder. When feasible, seed that has been broadcast shall be covered by raking or dragging and then lightly tamped into place. If hydroseeding is used, the seed and fertilizer will be mixed on-site and the seeding shall be done immediately and without interruption.

**MULCHING TEMPORARY SEEDING**

1. Applications of temporary seeding shall include mulch which shall be applied during or immediately after seeding. Seedings made during optimum seeding dates and with favorable soil conditions and on very flat areas may not need mulch to achieve adequate stabilization.
2. Materials
  - Straw—if straw is used, it shall be unrotted small-grain straw applied at the rate of 2 tons/acre, or 90 lb./1,000 sq. ft. (two to three bales). The mulch shall be spread uniformly by hand or mechanically so the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000-sq-ft. sections and spread two 45-lb. bales of straw in each section.
  - Hydroseeds—If wood cellulose fiber is used, it shall be used at 2,000 lb./acre, or 40 lb./1,000 sq. ft.
  - Other—Other acceptable mulches include mulch matings applied according to manufacturer's recommendations or wood chips applied at 2 tons/acre.
3. Straw mulch shall be anchored immediately to minimize loss by wind or water. Anchoring Methods:
  - Mechanical—A disk, crimper, or similar type tool shall be set straight to punch or anchor the mulch material into the soil. Straw mechanically anchored shall not be finely chopped but, generally, be left longer than 6 in.
  - Mulch Nettings—Nettings shall be used according to the manufacturer's recommendations. Netting may be necessary to hold mulch in place in areas of concentrated runoff and on critical slopes.
  - Asphalt Emulsion—Asphalt shall be applied as recommended by the manufacturer or at the rate of 160 gal./acre.
  - Synthetic Binders—Synthetic binders such as Acrylic DLR (Aqui-Tac), DCA-70, Petrosol, Terra Tack or equal may be used at rates recommended by the manufacturer.
  - Wood Cellulose Fiber—Wood cellulose fiber binder shall be applied at a net dry weight of 750 lb./acre. The wood-cellulose fiber binder shall be mixed with water and the mixture shall contain a maximum of 50 lb./100 gal.

**DORMANT SEEDINGS**

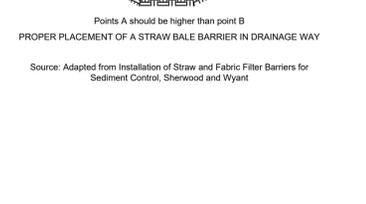
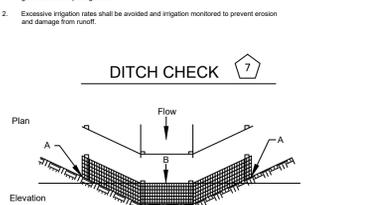
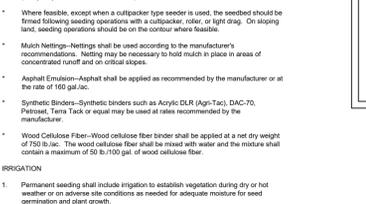
1. Seeding shall not be started from October 1 through November 20. During this period the seeds are likely to germinate but probably will not be able to survive the winter.
2. The following methods may be used for "Dormant Seeding":
  - From October 1 through November 20, prepare the seedbed, add the required amounts of lime and fertilizer, then mulch and anchor. After November 20, and before March 15, broadcast the selected seed mixture. Increase the seeding rates to 25% for this type of seeding.
  - From November 20 through March 15, when soil conditions permit, prepare the seedbed, lime and fertilizer, apply the selected seed mixture, mulch and anchor. Increase the seeding rates by 50% for this type of seeding.
3. Apply seed uniformly with a cyclone seeder, drill/cultipacker seeder, or hydro-seeder (dry mix may include seed and fertilizer) in a firm, moist seedbed.
4. Where feasible, except when a cultipacker type seeder is used, the seedbed should be firm following seeding operations with a cultipacker, roller, or light drag. On sloping land, seeding operations should be on the contour where feasible.
5. Mulch Nettings—Nettings shall be used according to the manufacturer's recommendations. Netting may be necessary to hold mulch in place in areas of concentrated runoff and on critical slopes.
6. Asphalt Emulsion—Asphalt shall be applied as recommended by the manufacturer or at the rate of 160 gal./acre.
7. Synthetic Binders—Synthetic binders such as Acrylic DLR (Aqui-Tac), DCA-70, Petrosol, Terra Tack or equal may be used at rates recommended by the manufacturer.
8. Wood Cellulose Fiber—Wood cellulose fiber binder shall be applied at a net dry weight of 750 lb./acre. The wood cellulose fiber binder shall be mixed with water and the mixture shall contain a maximum of 50 lb./100 gal.

**MULCHING**

1. Mulch material shall be applied immediately after seeding. Seedings made during optimum seeding dates and with favorable soil conditions and on very flat areas may not need mulch to achieve adequate stabilization. Dormant seedings shall be mulched.
2. Materials
  - Straw—if straw is used it shall be unrotted small-grain straw applied at the rate of 2 tons/acre, or 90 lb./1,000 sq. ft. (two to three bales). The mulch shall be spread uniformly by hand or mechanically so the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000-sq-ft. sections and spread two 45-lb. bales of straw in each section.
  - Hydroseeds—If wood cellulose fiber is used, it shall be used at 2,000 lb./acre, or 40 lb./1,000 sq. ft.
  - Other—Other acceptable mulches include mulch matings applied according to manufacturer's recommendations or wood chips applied at 2 tons/acre.
3. Straw mulch shall be anchored immediately to minimize loss by wind or water. Anchoring Methods:
  - Mechanical—A disk, crimper, or similar type tool shall be set straight to punch or anchor the mulch material into the soil. Straw mechanically anchored shall not be finely chopped but, generally, be left longer than 6 in.
  - Mulch Nettings—Nettings shall be used according to the manufacturer's recommendations. Netting may be necessary to hold mulch in place in areas of concentrated runoff and on critical slopes.
  - Asphalt Emulsion—Asphalt shall be applied as recommended by the manufacturer or at the rate of 160 gal./acre.
  - Synthetic Binders—Synthetic binders such as Acrylic DLR (Aqui-Tac), DCA-70, Petrosol, Terra Tack or equal may be used at rates recommended by the manufacturer.
  - Wood Cellulose Fiber—Wood cellulose fiber binder shall be applied at a net dry weight of 750 lb./acre. The wood cellulose fiber binder shall be mixed with water and the mixture shall contain a maximum of 50 lb./100 gal.

**CONSTRUCTION OF A FILTER BARRIER**

1. SET THE STAKES.
2. SET THE POSTS AND EXCAVATE A 6" X 6" TRENCH UPSLOPE ALONG THE LINE OF POSTS.
3. STAPLE WIRE FENCING TO THE POSTS.
4. ATTACH THE FILTER FABRIC TO THE WIRE FENCE AND EXTEND IT INTO THE TRENCH.
5. BACKFILL AND COMPACT THE EXCAVATED SOIL.



**CONCRETE WASHOUT BASIN**

1. INSTALL ON RELATIVELY FLAT AREAS.
2. INSPECT WEEKLY AND AS DIRECTED IN THE STORMWATER POLLUTION PREVENTION PLAN. REPAIR/REPLACE AS NEEDED.
3. REMOVE COLLECTED CONCRETE WHEN IT APPEARS 1/3 FULL.
4. DISPOSE OF INORGANIC MATERIAL PROPERLY.

**SILT FENCE**

**INSTALLATION**

1. PUT UP BEFORE ANY OTHER WORK IS DONE.
2. INSTALL ON DOWNSLOPE SIDE(S) OF SITE WITH ENDS EXTENDED UP SIDESLOPES A SHORT DISTANCE.
3. PLACE PARALLEL TO THE CONTOUR OF THE LAND AND AT THE FLATTEST AREA AVAILABLE TO ALLOW WATER TO POND BEHIND FENCE.
4. STAKE TO BE A MINIMUM OF 32 INCHES LONG
5. MINIMUM HEIGHT SILT FENCE 16 INCHES ABOVE ORIGINAL GROUND SURFACE
6. LEAVE NO GAPS BETWEEN SECTIONS OF SILT FENCE INSPECT AND REPAIR ONCE A WEEK AND AFTER EVERY 1/2 INCH RAIN. REMOVE SEDIMENT IF DEPOSITS REACH HALF THE FENCE HEIGHT.
7. MAXIMUM DISTANCE FROM TOE OF THE SLOPE, LEAVING AT LEAST 5' DISTANCE.
8. STAKE ON DOWNHILL SIDE OF GEOTEXTILE WITH 8" OF CLOTH CLOTH BELOW THE GROUND SURFACE; EXCESS MATERIAL TO LAY ON THE BOTTOM OF 6" TRENCH
9. ODOT TYPE "C" GEOTEXTILE FABRIC OR EQUAL.
10. MAINTAIN UNTIL A LAWN IS ESTABLISHED.

**MATERIALS: FILTER FABRIC SHALL MEET THE REQUIREMENTS OF CMS 712.09, TYPE C. SUPPORT STAKES SHALL BE A MINIMUM OF 1.5'X1.5' (38X38), NOMINAL, AND SHALL BE HARDWOOD OF SOUND QUALITY. THE STAKES SHALL BE DRIVEN A MINIMUM OF 6" (150) BELOW THE BOTTOM OF THE FILTER FABRIC. THE MAXIMUM SPACING BETWEEN SUPPORT STAKES SHALL BE 10' (3 M).**

**CONSTRUCTION: THE BOTTOM OF THE FABRIC SHALL BE BURIED 6" (150) BELOW THE GROUND. THE ENDS OF ADJACENT SECTIONS OF FENCE SHALL BE OVERLAPPED WITH THE END STAKE OF EACH SECTION WRAPPED TOGETHER PRIOR TO INSTALLATION. THE GROUND ELEVATION OF THE FENCE SHALL BE HELD CONSTANT EXCEPT THAT THE END ELEVATIONS SHALL BE RAISED UPLOPE TO PREVENT FLOW AROUND THE END OF THE FENCE. MAINTENANCE: THE FILTER FABRIC FENCE SHALL BE MAINTAINED TO BE FUNCTIONAL. THIS SHALL INCLUDE REMOVAL OF TRAPPED SEDIMENT AND REQUIRED CLEANING, REPAIR, AND REPLACEMENT OF THE FILTER FABRIC. THE MAINTENANCE OR REPLACEMENT COST WILL BE PAID FOR BY THE DEPARTMENT UNDER UNIT BID PRICES, AGREED UNIT PRICES, OR CMS 109.04.**

**PAYMENT: THE COST OF ALL MATERIALS, CONSTRUCTION AND REMOVAL SHALL BE PAID FOR UNDER ITEM 207 - TEMPORARY PERIMETER FILTER FABRIC FENCE OR TEMPORARY DITCH CHECK FILTER FABRIC FENCE, LINEAR FOOT (METER).**

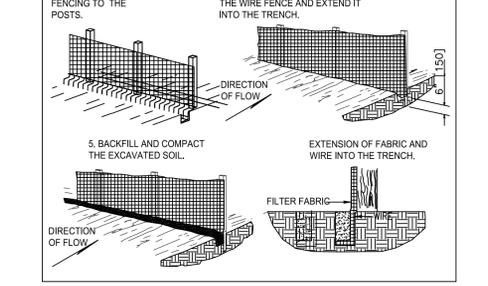
**CONSTRUCTION OF A FILTER BARRIER**

1. SET THE STAKES.
2. SET THE POSTS AND EXCAVATE A 6" X 6" TRENCH UPSLOPE ALONG THE LINE OF POSTS.
3. STAPLE WIRE FENCING TO THE POSTS.
4. ATTACH THE FILTER FABRIC TO THE WIRE FENCE AND EXTEND IT INTO THE TRENCH.
5. BACKFILL AND COMPACT THE EXCAVATED SOIL.



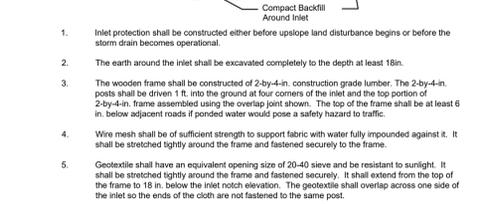
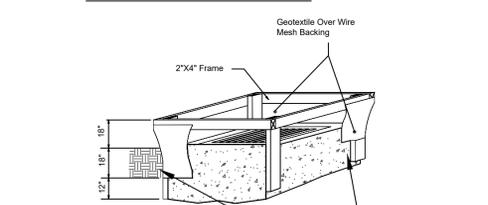
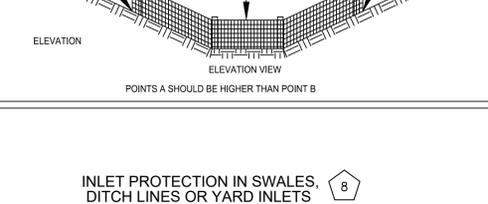
**CONSTRUCTION OF A FILTER BARRIER**

1. SET THE STAKES.
2. SET THE POSTS AND EXCAVATE A 6" X 6" TRENCH UPSLOPE ALONG THE LINE OF POSTS.
3. STAPLE WIRE FENCING TO THE POSTS.
4. ATTACH THE FILTER FABRIC TO THE WIRE FENCE AND EXTEND IT INTO THE TRENCH.
5. BACKFILL AND COMPACT THE EXCAVATED SOIL.



**CONSTRUCTION OF A FILTER BARRIER**

1. SET THE STAKES.
2. SET THE POSTS AND EXCAVATE A 6" X 6" TRENCH UPSLOPE ALONG THE LINE OF POSTS.
3. STAPLE WIRE FENCING TO THE POSTS.
4. ATTACH THE FILTER FABRIC TO THE WIRE FENCE AND EXTEND IT INTO THE TRENCH.
5. BACKFILL AND COMPACT THE EXCAVATED SOIL.



**CONSTRUCTION OF A FILTER BARRIER**

1. SET THE STAKES.
2. SET THE POSTS AND EXCAVATE A 6" X 6" TRENCH UPSLOPE ALONG THE LINE OF POSTS.
3. STAPLE WIRE FENCING TO THE POSTS.
4. ATTACH THE FILTER FABRIC TO THE WIRE FENCE AND EXTEND IT INTO THE TRENCH.
5. BACKFILL AND COMPACT THE EXCAVATED SOIL.

**DANDY BAG® INLET SEDIMENT FILTER**

THE PATENTED DANDY BAG® IS DESIGNED FOR USE WITH FLAT GRATES (INCLUDING ROUND) AND MOUNTABLE CURBS TO DETAIN SEDIMENT-LOADED STORM WATER. THE SUSPENDED SOLIDS ARE ALLOWED TO SETTLE OUT OF THE SLOWED FLOW PRIOR TO ENTERING THE DANDY BAG®.

**INSTALLATION**

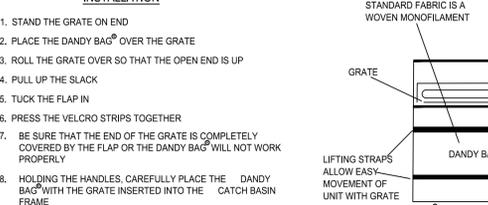
1. STAND THE GRATE ON END
2. PLACE THE DANDY BAG® OVER THE GRATE
3. ROLL THE GRATE OVER SO THAT THE OPEN END IS UP
4. PULL UP THE SLACK
5. TUCK THE FLAP IN
6. PRESS THE VELCRO STRIPS TOGETHER
7. BE SURE THAT THE END OF THE GRATE IS COMPLETELY COVERED BY THE FLAP OR THE DANDY BAG® WILL NOT WORK PROPERLY
8. HOLDING THE HANDLES, CAREFULLY PLACE THE DANDY BAG® WITH THE GRATE INSERTED INTO THE CATCH BASIN FRAME

**MAINTENANCE**

TO INSURE PROPER OPERATION REMOVE SILT, SEDIMENT, AND DEBRIS FROM THE SURFACE AND THE VICINITY OF THE UNIT WITH A SQUARE POINT SHOVEL OR STIFF BRISTLE BROOM FROM THE ENVIRONMENTALLY SENSITIVE AREAS AND WATERWAYS IN MANNER SATISFACTORY TO THE ENGINEER/SUPERVISOR. REMOVE FINE MATERIAL FROM INSIDE DANDY BAG® AS NEEDED. DISPOSE OF DANDY BAG® NO LONGER IN USE AT AN APPROPRIATE RECYCLING OR SOLID WASTE FACILITY.

**INLET INSPECTION**

TO INSPECT INLET, REMOVE DANDY BAG® WITH GRATE INSIDE. INSPECT CATCH BASIN AND REPLACE DANDY BAG® BACK INTO GRATE FRAME.



**CONSTRUCTION OF A FILTER BARRIER**

1. SET THE STAKES.
2. SET THE POSTS AND EXCAVATE A 6" X 6" TRENCH UPSLOPE ALONG THE LINE OF POSTS.
3. STAPLE WIRE FENCING TO THE POSTS.
4. ATTACH THE FILTER FABRIC TO THE WIRE FENCE AND EXTEND IT INTO THE TRENCH.
5. BACKFILL AND COMPACT THE EXCAVATED SOIL.

