



PROJECT TEAM

ARCHITECT:



CIVIL ENGINEER:



STRUCTURAL ENGINEER:



MEP ENGINEER:



COUNTRY CLUB OF HUDSON CART BARN

2155 MIDDLETON RD., HUDSON, OH 44236



PROJECT # 2223

ISSUE: CD REDESIGN 03-20-2024
FOR BID-PERMIT 06-28-2024

SITE PLAN

L1.01



1 ARCHITECTURAL SITE PLAN
SCALE: 1" = 30'





PROJECT NAME

ARCHITECT:
PENINSULA ARCHITECTS
330.657.2800

CIVIL ENGINEER:

GUTOSKEY & ASSOCIATES, INC.
440.543.6900

STRUCTURAL ENGINEER:

CARUSO ENGINEERING
440.510.5030

MEP ENGINEER:

DENK ASSOCIATES
216.531.8880



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FOR BID-PERMIT 08-28-2024

EXTERIOR ELEVATIONS

MATERIAL SCHEDULE

R-1: ASPHALT SHINGLES
30 YEAR ARCHITECTURAL SHINGLE

S-1: SIDING
FIBER CEMENT LAP SIDING TO BE JAMES HARDIE OR APPROVED EQUAL. ALL LAP SIDING IS TO BE PAINTED, COORDINATE FINAL COLOR AND EXPOSURE WITH ARCHITECT AND OWNER.

T-1: CORNER TRIM
1X6 CORNER TRIM

EXT. ELEV. GENERAL NOTES

ALL FIBER CEMENT EXTERIOR TRIM TO BE AZEK, BORAL, OR APPROVED EQUAL. PAINTED.

ALL ROOF PENETRATIONS TO BE COORDINATED WITH ARCHITECT PRIOR TO INSTALLATION TO ENSURE AESTHETIC EXPECTATIONS ARE MAINTAINED.

GUTTER PROFILES SHALL BE SUBMITTED FOR APPROVAL PRIOR TO ORDERING.

SAFETY GLAZING PER OBC 2406.4.

WINDOWS

FIXED WINDOWS WITH SIMULATED DIVIDED LITES (GRILL BETWEEN THE GLASS, GRILL AFFIXED TO FACE OF GLASS)

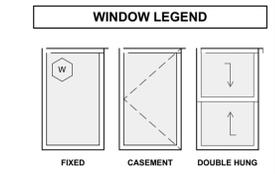
BASIS OF DESIGN WINDOWS (OR EQUAL):
-ANDRESEN 100 COMPOSITE
-HARVEY VINYL PICTURE WINDOW
-WINDSOR LEGEND CELLULAR PVC

WINDOW HEAD GIVEN ABOVE NEAREST FINISHED FLOOR UNLESS NOTED OTHERWISE.

** CONTRACTOR TO VERIFY TOTAL NUMBER OF WINDOWS WITH DOCUMENTS.

WINDOW SCHEDULE

ID	W x H	REMARKS
W1	4'-0" x 3'-0"	CUPOLA LOUVER
W2	2'-6" x 4'-0"	LOUVER
W3	2'-6" x 4'-0"	LOUVER

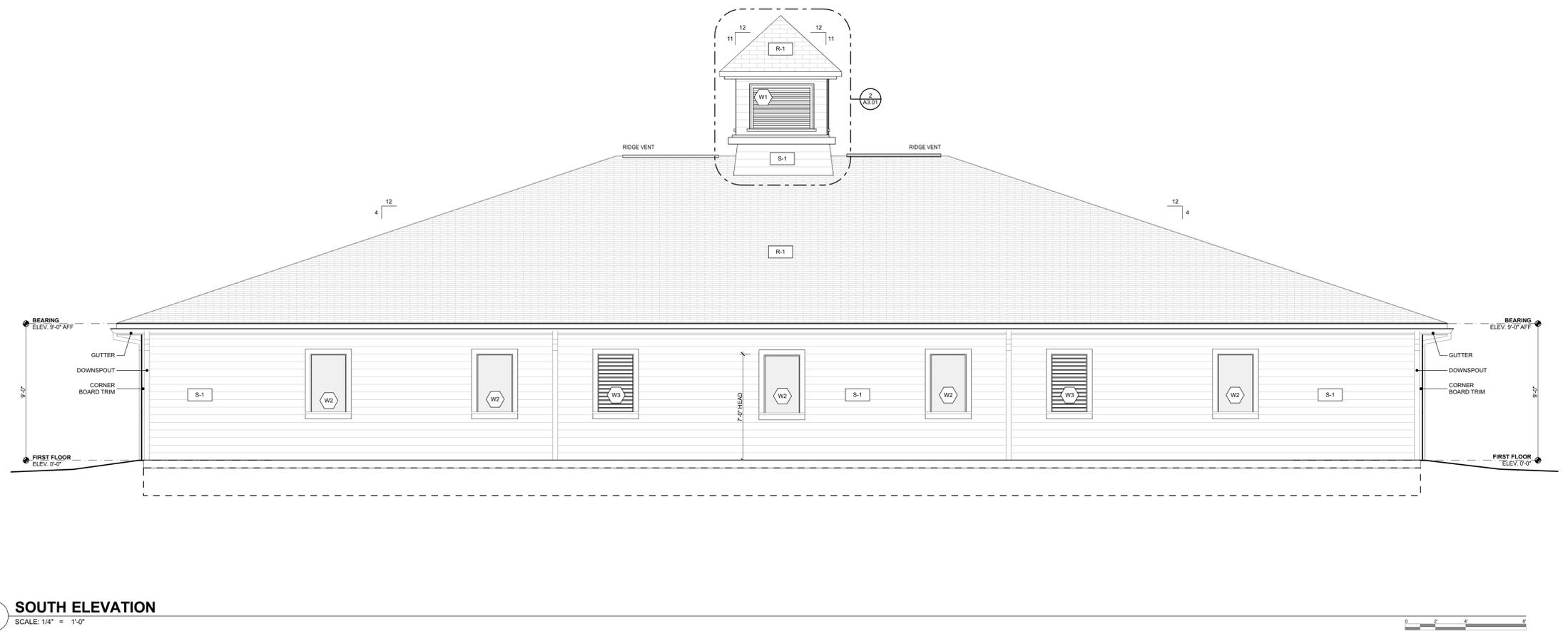
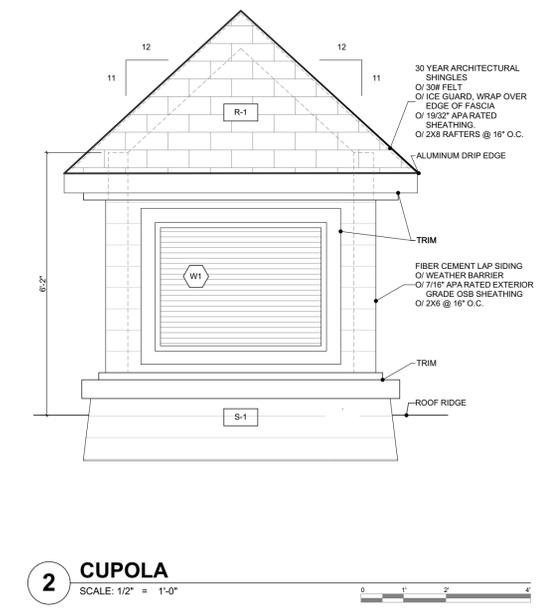
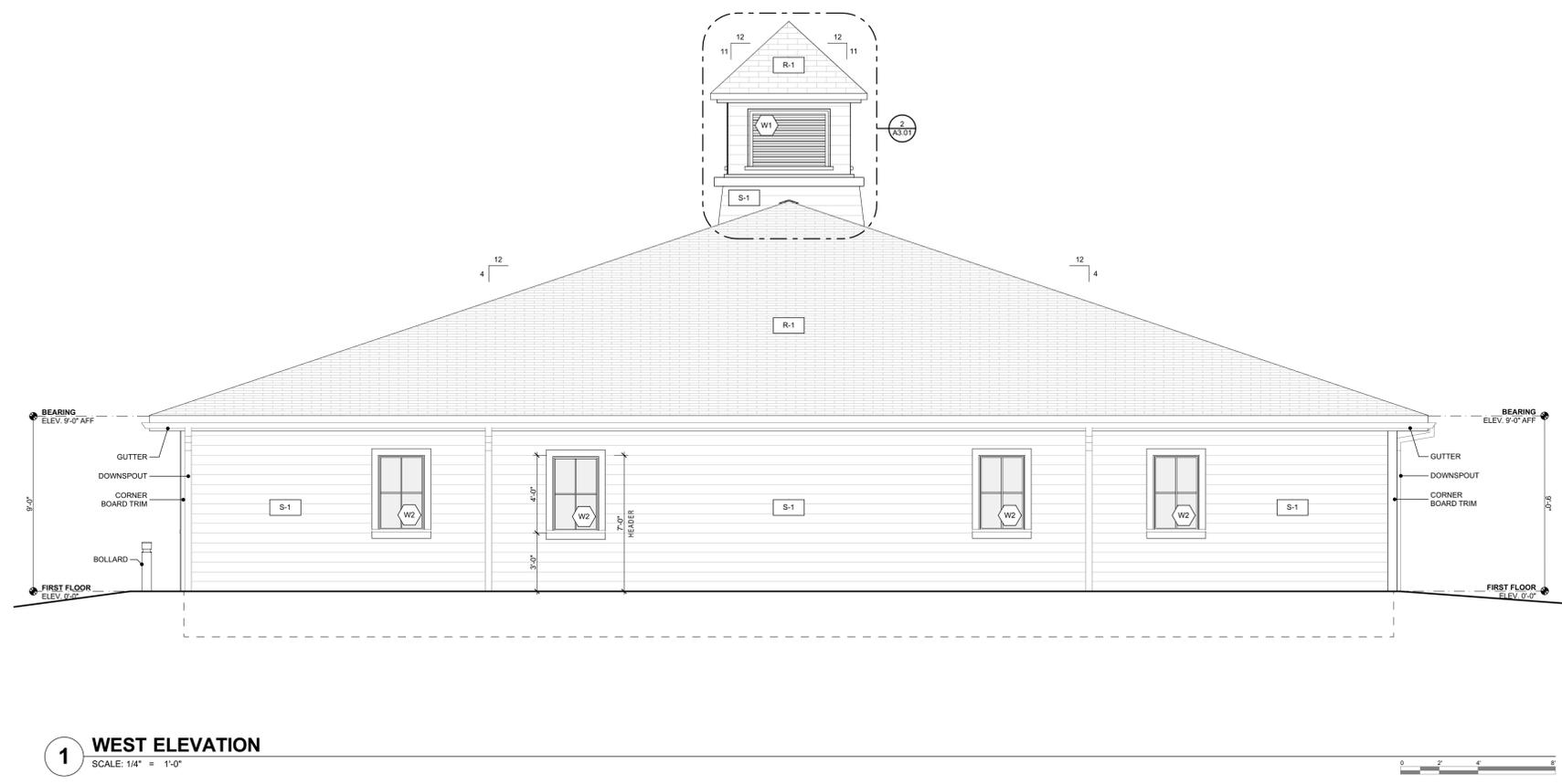


BASIS OF DESIGN:

ALL WINDOWS ARE TO BE PELLA ARCHITECT SERIES CONTEMPORARY ALUMINUM CLAD WOOD WINDOW OR APPROVED EQUAL.

WINDOW HEAD GIVEN ABOVE FIRST AND SECOND FLOOR. CONFIRM WINDOW QUANTITIES WITH ELEVATIONS.

** WINDOW COUNT PROVIDED FOR GENERAL REFERENCE AND VERIFICATION ONLY. CONTRACTOR TO VERIFY TOTAL NUMBER OF WINDOWS WITH DOCUMENTS.





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MEP ENGINEER:

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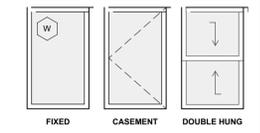
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WINDOW SCHEDULE

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W2	2'-6" x 4'-0"	
W3	2'-6" x 4'-0"	LOUVER

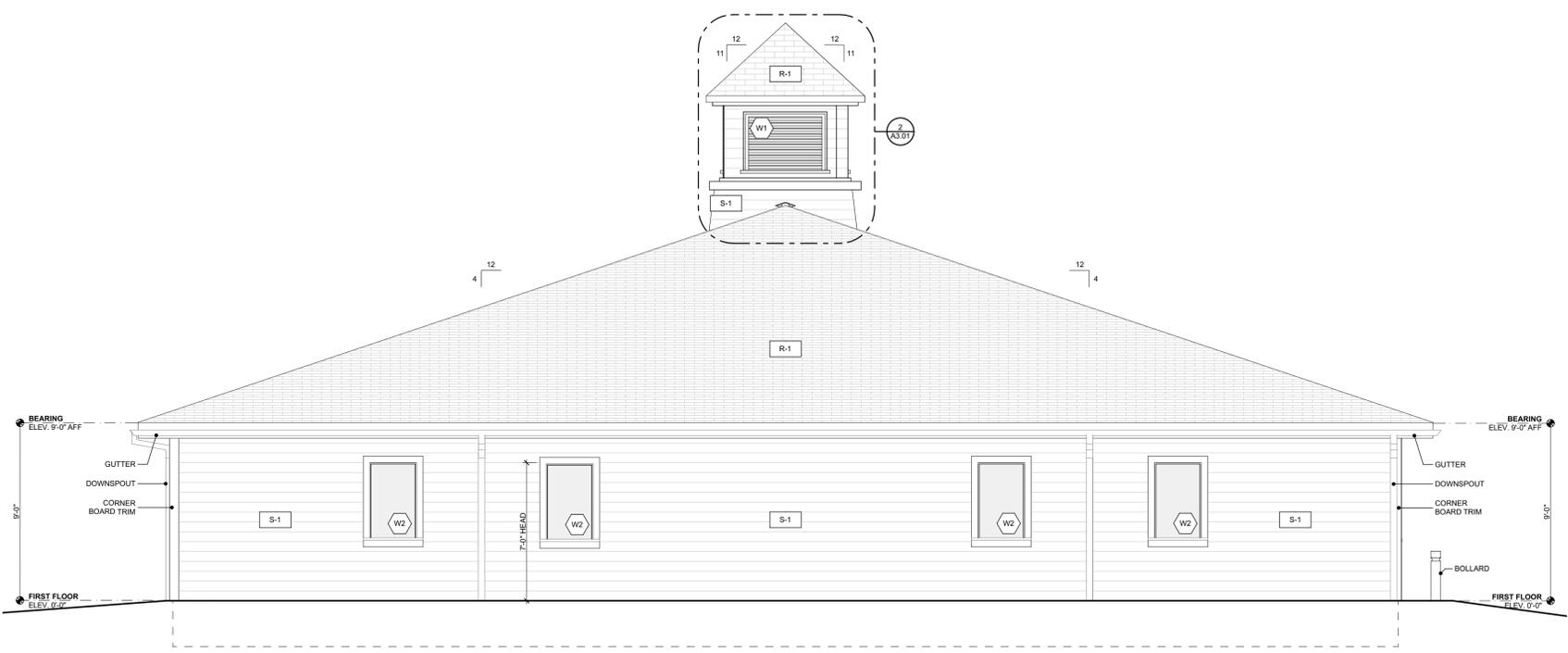
WINDOW LEGEND



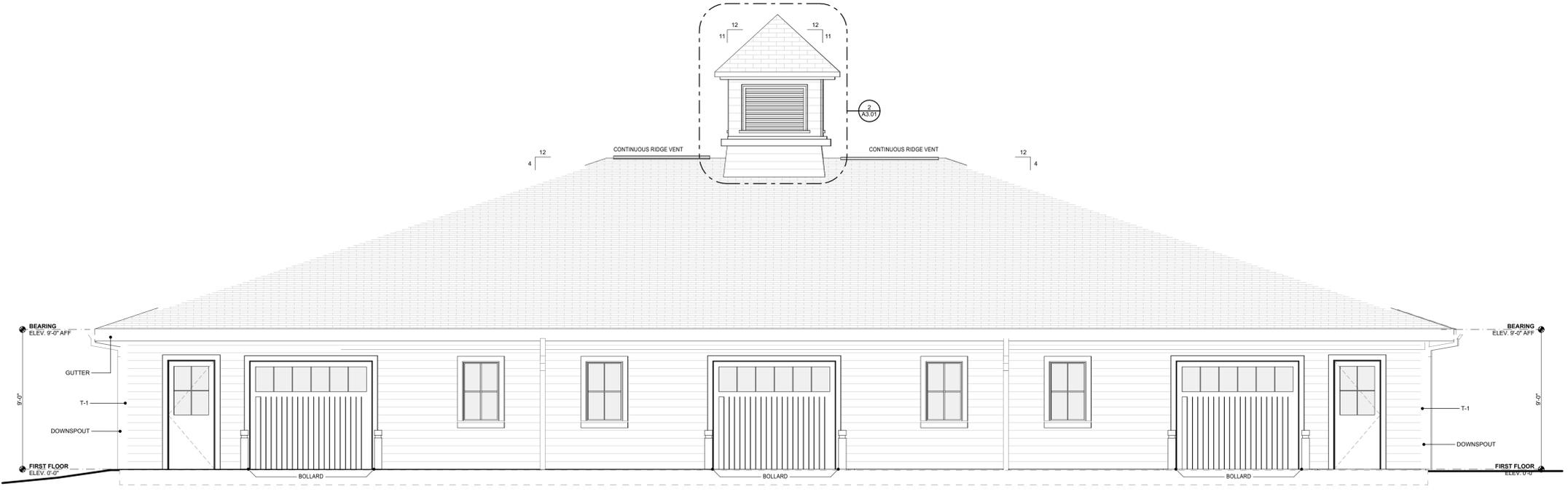
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1 EAST ELEVATION
SCALE: 1/4" = 1'-0"



2 CART BARN NORTH ELEVATION
SCALE: 1/4" = 1'-0"



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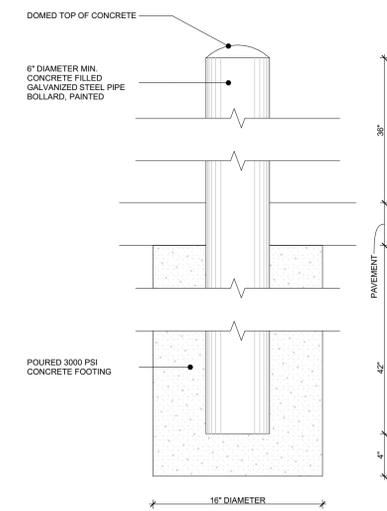
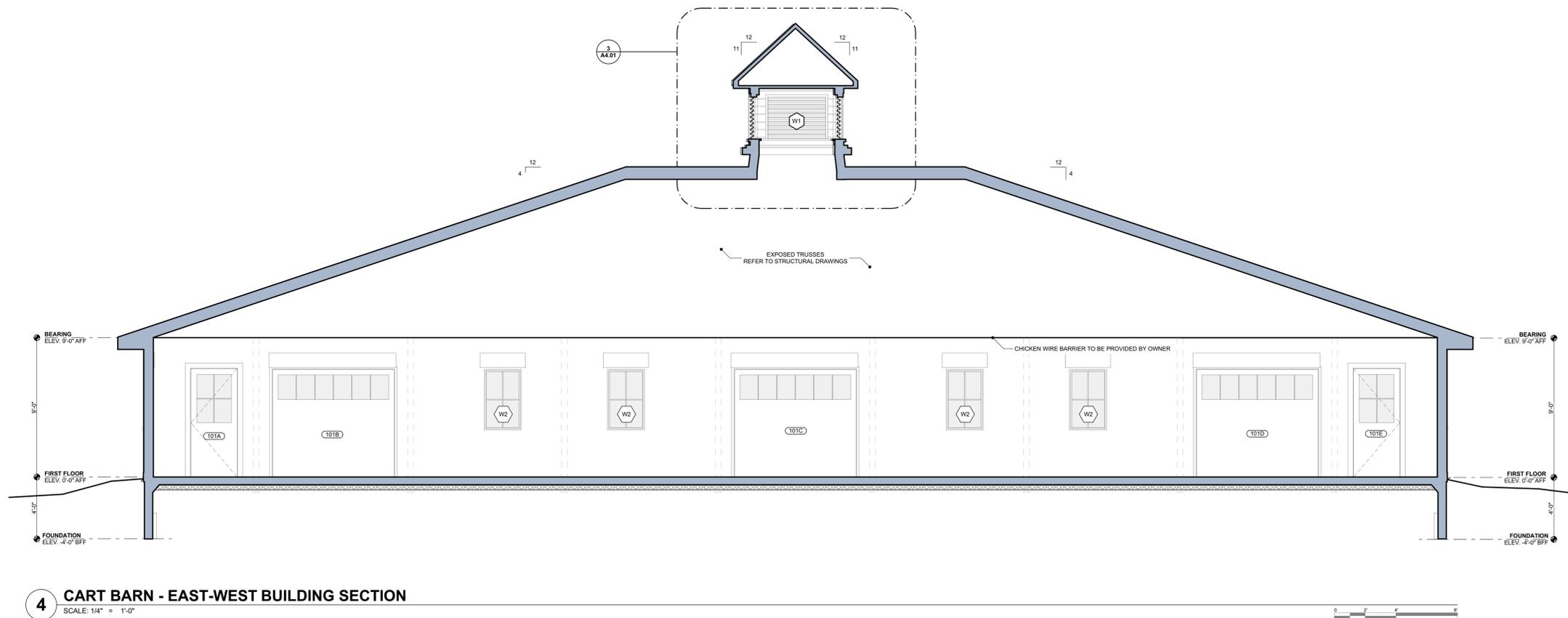
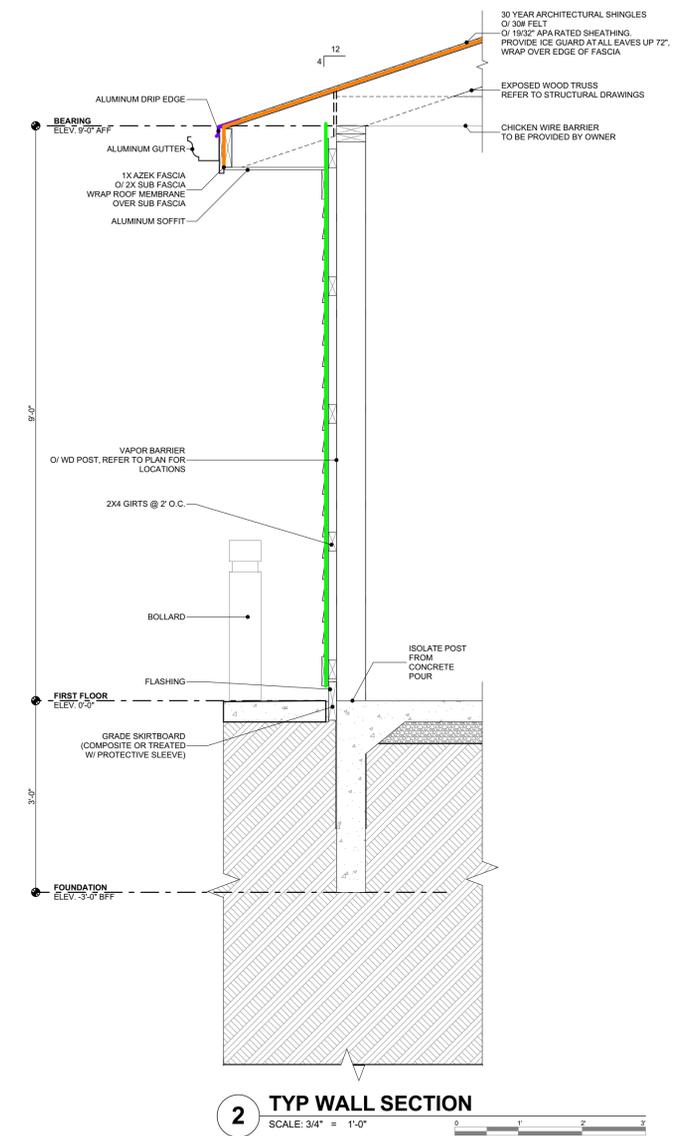
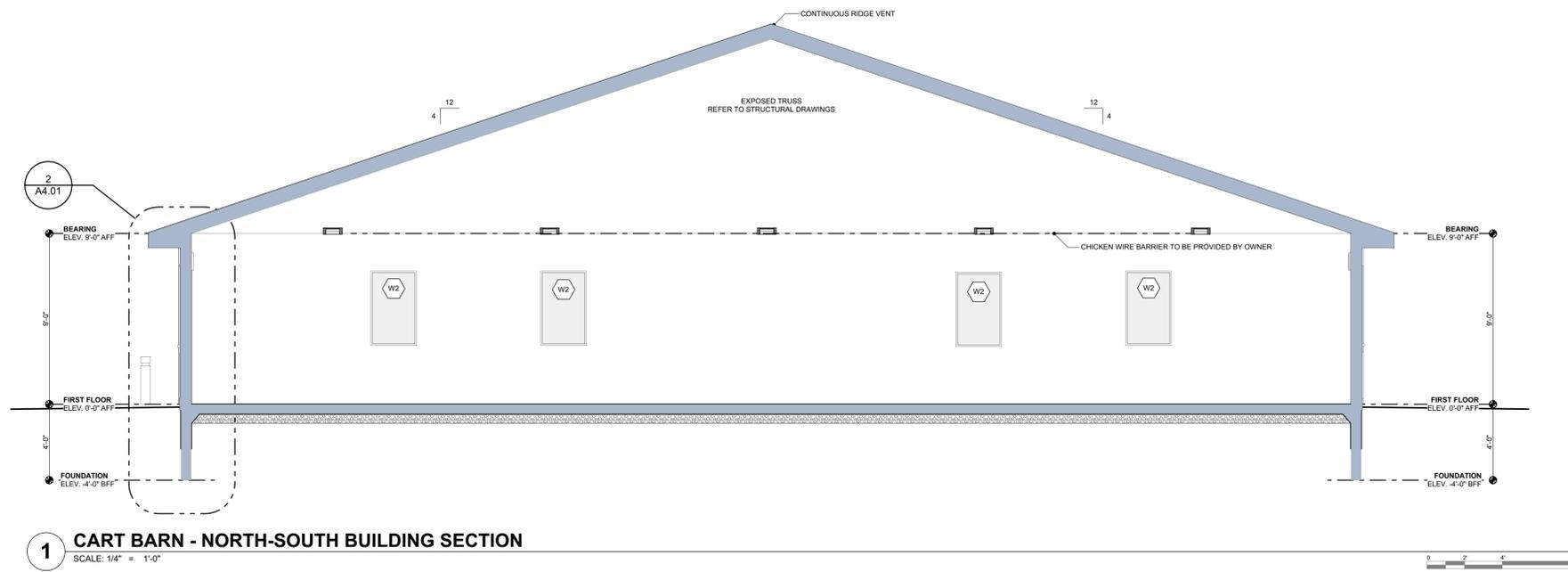


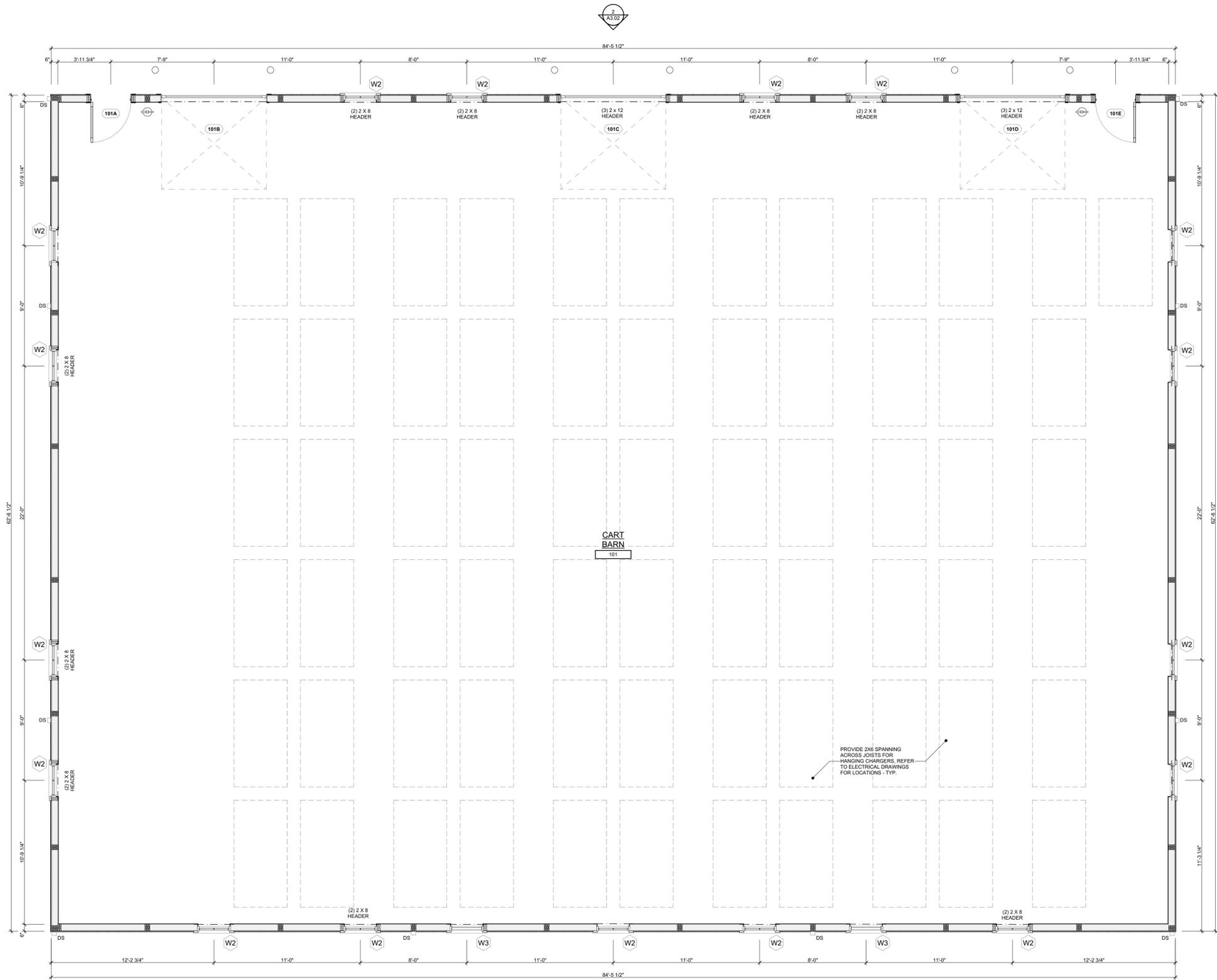
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BUILDING SECTIONS

A4.01





FLOOR PLAN GENERAL NOTES

- ALL INTERIOR WALLS SHALL BE 2 X 6 WOOD STUD WITH (1) LAYER 5/8" GYPSUM BOARD ON BOTH SIDES UNLESS NOTED OTHERWISE. REFER TO G1.01 FOR TERMINATION DETAILS AND FLOOR TO FLOOR HEIGHTS, TYPICAL.
- CIVIL GROUND FLOOR FINISH ELEVATION = 112.0'. ARCHITECTURAL GROUND FLOOR FINISH ELEVATION = 0'-0".
- VERIFY DIMENSIONS AND CONDITIONS IN FIELD. WHEN DIMENSIONS AND/OR CONDITIONS AS INDICATED ON DRAWINGS CONFLICT WITH ACTUAL, CONTACT ARCHITECT FOR CLARIFICATION.
- TYPICAL MOUNTING HEIGHTS & LOCATIONS OF FIXTURES, ACCESSORIES AND SELECT EQUIPMENT ARE SHOWN ON SHEET G1.01.
- FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BIDDING, DEMOLITION, AND NEW CONSTRUCTION.
- ALL WOOD BLOCKING AND BACKER BOARDS ARE TO BE FIRE RETARDANT TREATED TYPE.
- PROVIDE DOUBLE TOP TRACK DEFLECTION JOINT AT ALL WALLS WHICH EXTEND TO UNDERSIDE OF ROOF DECK ABOVE.
- COORDINATE LOCATION OF EQUIPMENT AND PENETRATIONS WITH MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS.
- SEE EXTERIOR ELEVATIONS FOR IDENTIFICATION OF WINDOW TYPES AND SIZES.
- HINGE SIDE OF DOOR JAMB LOCATED IN METAL STUD WALLS TO BE 4" FROM ADJACENT PERPENDICULAR WALLS, UNO.
- ALL DOORS ARE DIMENSIONED TO THE CENTER LINE OF THE ROUGH OPENING.
- VERIFY LOCATIONS OF FIRE EXTINGUISHERS WITH LOCAL FIRE DEPARTMENT OFFICIAL, AND ARCHITECT PRIOR TO PLACEMENT. ALL EXTINGUISHERS TO BE RECESSED CABINET MOUNTED TYPE, UNO.
- PROVIDE BLOCKING BEHIND ALL AV EQUIPMENT, WALL SPEAKERS, CEILING MOUNTED PROJECTORS, HANDRAILS, ACCESSORIES, ETC. CONTRACTOR RESPONSIBLE FOR MISC. STEEL, UNISTRUT, FRT WOOD BLOCKING, STRAPPING ETC AS REQUIRED TO FULLY SUPPORT EQUIPMENT AND ACCESSORIES AS INDICATED IN DOCUMENTS.
- VERIFY RATED ASSEMBLIES WITH LIFE SAFETY SHEETS.
- MOISTURE RESISTANT GYP BD TO BE USED ON WALLS AND CEILINGS OF ALL RESTROOMS AND KITCHES.
- PROVIDE LEVEL SURFACES AND PREP FLOOR TO RECEIVE SCHEDULED FINISH

FLOOR PLAN KEY

- CONCRETE FILLED STEEL BOLLARD
- ⊕ WALL MOUNTED FIRE EXTINGUISHER

DOOR PLAN AND HARDWARE NOTES

- FINAL HARDWARE SCHEDULE TO BE PROVIDED BY CONTRACTOR'S DOOR HARDWARE SUPPLIER AND APPROVED BY OWNER AND ARCHITECT.
- FINAL LOCKSET FUNCTION AND KEYING SHALL BE COORDINATED WITH THE OWNER BY THE DOOR HARDWARE SUPPLIER. PROVIDE SUB AND GRAND MASTER LEVEL KEYING AND 4 KEYS FOR EACH LOCKSET.
- ALL LOCKSETS SHALL BE ANSIBHMA GRADE 1 COMMERCIAL WITH ADA COMPLIANT LEVER HARDWARE. ALL LOCKSETS SHALL BE THE PRODUCTS OF A SINGLE MANUFACTURER. ALL DOOR LOCKS SHALL ALLOW EGRESS WITHOUT THE USE OF A KEY AND BY MEANS OF A SINGLE OPERATION.
- DOOR FRAMES SHALL BE PREPARED TO SUIT SPECIFIED DOORS AND HARDWARE.
- FURNISH NON-RISING TYPE PINS ON OUT SWINGING DOORS SCHEDULED TO RECEIVE LOCKSETS.
- FINISH DOORS AND FRAMES WITH PAINT (AS SELECTED BY OWNER) ALL SIDES.
- PROVIDE WALL OR FLOOR MOUNTED STOP AS APPROPRIATE FOR EACH DOOR.
- DOOR CLOSER CONFIGURATION SHALL BE IDENTIFIED AND COORDINATED BY THE DOOR HARDWARE SUPPLIER. ADJUST ALL CLOSER TO ADA 5 LBS. MAX. PULL FORCE.
- PROVIDE SAFETY GLAZING IN THE FOLLOWING LOCATIONS PER OBC 2406.4:
 - SWINGING DOORS
 - PANELS ADJACENT TO DOORS WHERE NEAREST EXPOSED EDGE OF GLAZING IS WITHIN 24" ARC OF EITHER VERTICAL EDGE OF DOOR IN A CLOSED POSITION
 - PANELS LARGER THAN 8 SF
 - BOTTOM EDGE OF GLAZING IS LESS THAN 18" ABOVE THE FLOOR
 - PANELS WITHIN 36" HORIZONTALLY OF A WALKING SURFACE
 - PANELS WITHIN 36" HORIZONTALLY AND LESS THAN 60" ABOVE WALKING SURFACE OF STAIR
- HARDWARE AND ACCESSORIES TO BE BRUSHED STAINLESS FINISH OR EQUIVALENT.

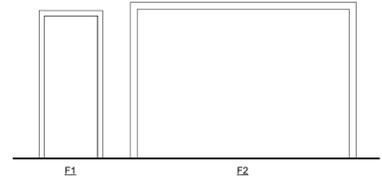
DOOR SCHEDULE - EXTERIOR

NO.	DOOR LEAF				REMARKS
	WIDTH	HEIGHT	MAT	TYPE	
101A	3'-0"	7'-0"	ALUM / GLASS	D1	PANEL
101B	8'-0"	7'-0"	STEEL / GLASS	D2	MOTORIZED OVERHEAD
101C	8'-0"	7'-0"	STEEL / GLASS	D2	MOTORIZED OVERHEAD
101D	8'-0"	7'-0"	STEEL / GLASS	D2	MOTORIZED OVERHEAD
101E	3'-0"	7'-0"	ALUM / GLASS	D1	PANEL

DOOR TYPES



FRAME TYPES



1 FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"



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ROOF FRAMING PLAN

A1.03

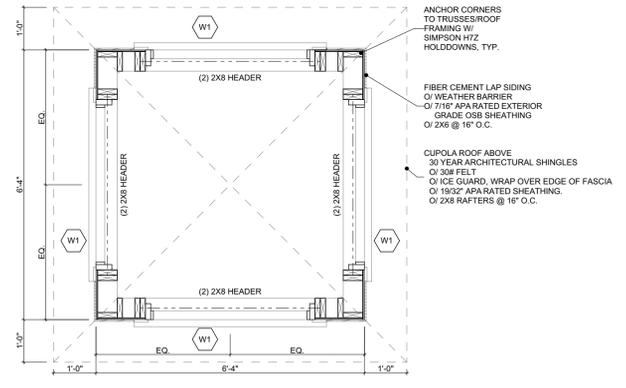
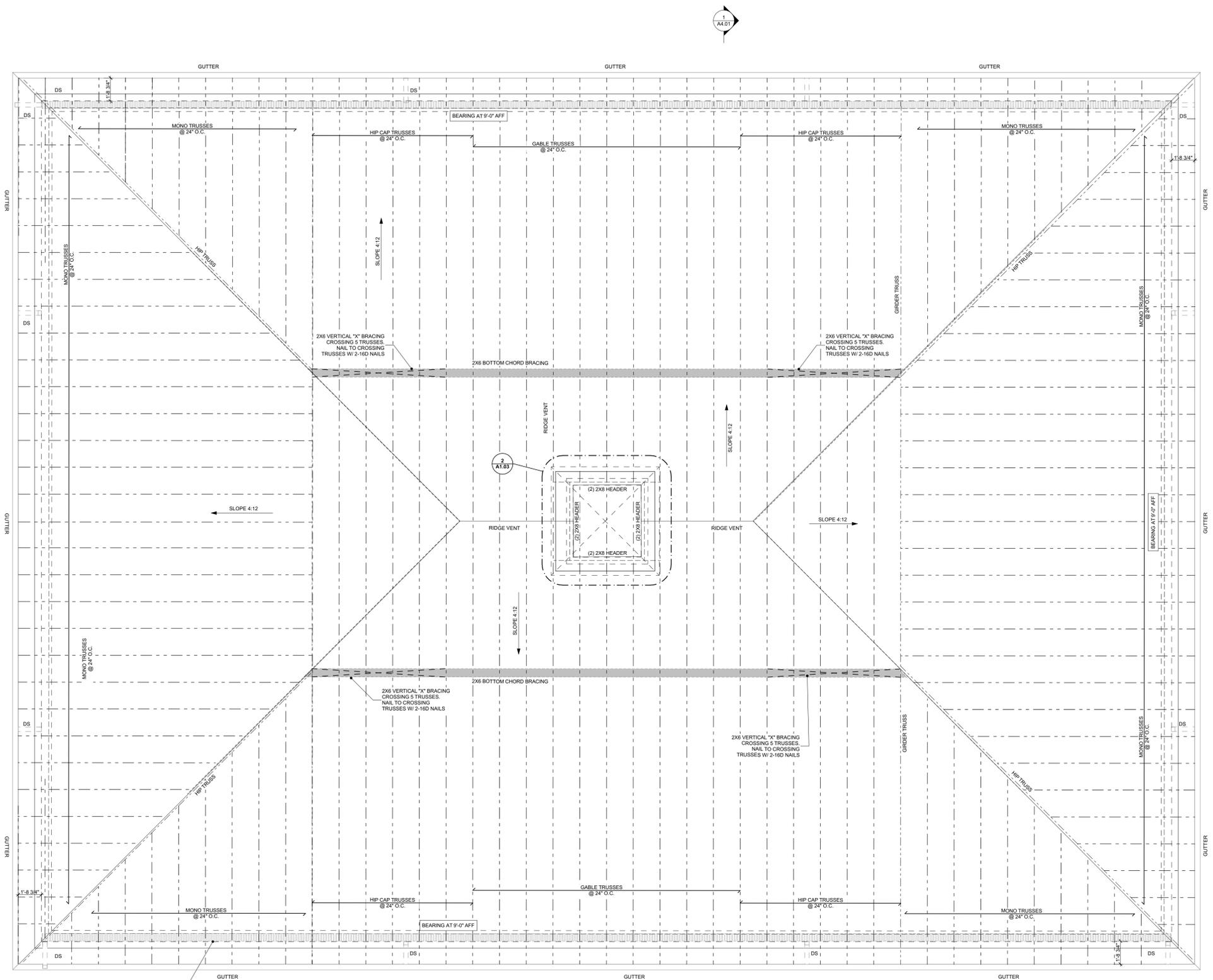
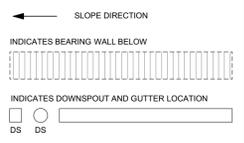
ROOF PLAN GENERAL NOTES

- REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- PENETRATIONS HAVE BEEN COORDINATED WITH MECHANICAL AND ELECTRICAL DESIGN INTENT AND ARE FOR PLANNING PURPOSES ONLY. COORDINATE FINAL LOCATIONS WITH MECHANICAL CONTRACTOR.
- FLASH AND TERMINATE ROOFING AT PENETRATIONS, EDGES, PARAPETS, ETC. PER NIBCA AND MANUFACTURER'S WRITTEN RECOMMENDATIONS UNLESS NOTED OTHERWISE.
- REFER TO ELECTRIC DRAWINGS FOR LIGHTNING PROTECTION SYSTEM. PROVIDE FLASHING DETAILS AS REQUIRED FOR SYSTEM COMPONENTS.
- OVERHANG DIMENSIONS ARE NOTED FROM THE EXTERIOR FACE OF SHEATHING TO THE EXTERIOR FACE OF THE 1X FASCIA BOARD.
- ALL BEARING ELEVATIONS NOTED ARE FROM THE INSIDE FACE OF THE 2X FRAMING U.N.O.
- GUTTER PROFILES SHALL BE SUBMITTED FOR APPROVAL PRIOR TO ORDERING.

SUBSTITUTION CHART:

LVL SIZE	WF STEEL SIZE
(2) 12" LVL	W10 x 15
(2) 14" LVL	W12 x 15
(2) 16" LVL	W14 x 22
(2) 18" LVL	W16 x 26
(3) 12" LVL	W10 x 17
(3) 14" LVL	W12 x 16
(3) 16" LVL	W14 x 22
(3) 18" LVL	W16 x 26
(2) 16" LVL W/ 1/2" PL	W16 x 26
(2) 16" LVL W/ (2) 1/2" PL	W16 x 40

ROOF PLAN LEGEND



1 ROOF PLAN
SCALE: 1/4" = 1'-0"

2 ENLARGED CUPOLA PLAN
SCALE: 1/2" = 1'-0"



MECHANICAL SPECIFICATIONS:

SECTION 15100

MECHANICAL GENERAL PROVISIONS

PART 1 GENERAL

1.01 GENERAL

- A. The provisions of the Instructions to Bidders, General Conditions, Supplementary Conditions, Alternates, Addenda and Division I are a part of this Specification. A requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. Contractors and Sub-contractors shall examine same as well as other Divisions of the Specifications which affect work under this Division.
- B. Mechanical, Architectural, Structural, Electrical and all other Drawings as well as the Specifications for all the Divisions are a part of the Contract Documents.
- C. Drawings and Specifications are to be considered as supplementing each other. Work specified but not indicated or indicated but not specified, shall be provided as though mentioned in both Specifications and Drawings.

1.02 WORK INCLUDES

- A. Mechanical General Provisions includes Plumbing, Heating, Ventilating, Air Conditioning, Fire Protection, Temperature Control, and Mechanical Systems Balancing, collectively, individually or in any combination of the several headings and the coordination and administration thereof.

B. Codes, Permits and Fees

- 1. Comply with rules, regulations of State, County, and City Authorities having jurisdiction over the premises, including safety requirements of OSHA. Do not construe this as relieving Contractor from complying with specifications, which exceed Code requirements, and not in conflict therewith.
- 2. Secure and pay for all permits and certificates of inspection required.
- 3. Deliver official record of approval by governing agencies to architect for transmittal to Owner.
- 4. Obtain all inspections required by law, ordinances, rules, regulations of authorities having jurisdiction. Furnish certificates of such inspections. Provide all equipment, power and labor necessary for inspections and tests.

1.03 SCOPE OF WORK

- A. The Bidder is required to examine carefully the site of the proposed work, the proposal, drawings, specifications, and contract forms. He shall satisfy himself as to the character, quality, and quantities of work to be performed, materials to be provided, and as to the requirements of these specifications, special provisions and contract. The submission of a proposal shall be prima facie evidence that the Bidder has made such an examination.
- B. The Contractor shall, at his own expense, furnish all the necessary materials, labor, superintendence, tools, appliances, and equipment, and shall execute in a workmanlike manner the work of this contract within the time and in the manner specified, and in conformity with the requirements set forth in the specifications herein contained or hereto attached and in accordance with the contract drawings of said work.

1.04 SHOP DRAWINGS

- A. Prepare shop drawings for mechanical equipment with adequate details and scales as necessary to clearly show construction. Clearly identify each item on the drawings as to mark location and use.

1.05 COORDINATION AND SUPERVISION

- A. Examine work of other trades, which comes in contact with or is covered by this work. Do not attach to, cover, or finish against any defective work, or install work of this Division in a manner, which will prevent other trades from properly installing their work. Consult all drawings, specifications and details of other Divisions of the work.
- B. If any work is installed so that the architectural design cannot be adhered to, Contractor is liable for cost of making such changes as Architect may require.
- C. Provide adequate competent supervision at all times when work is being performed. Cooperate with all other trades to avoid interferences and delays.

1.06 LOCAL CONDITIONS

- A. Visit site, become familiar with conditions affecting this work. No additional payment will be made on claims that arise from lack of knowledge of existing conditions.
- B. This project involves remodeling of existing areas in an operating facility. Plan work including alterations, connections to existing facilities, to permit carrying on normal building functions. When necessary to temporarily interrupt a service, arrange with Owner in advance as to time, which will be least disruptive. Consider all work as being performed during normal working hours and in conformity with approved work progress schedule.
- C. Provide temporary services of any nature required to keep building functioning. Remove temporary services when permanent facilities are completed.

1.07 PRODUCT HANDLING

- A. Pay all costs for transportation of materials, equipment to job site.
- B. Provide all scaffolding, tackle, hoists, rigging necessary for placing mechanical materials and equipment in their proper place. Scaffolding, hoisting equipment: comply with applicable Federal, State, and Local regulations. Remove temporary work when no longer required.
- C. Arrange for packaging of equipment, which must be hoisted, so that there will be no damage or distortion caused by hoisting operation. Protect all coils, bearings, fan shafts and housing from any damage during hoisting operation.
- D. Store all heating, ventilating, air conditioning equipment, plumbing fixtures, etc., in dry location until building is ready to receive them. Protect all openings, bearings, motor controls, etc., from dirt and moisture.

PART 2 PRODUCTS

2.01 GUARANTEE AND WARRANTIES

- A. Warranty that equipment and all work is installed in accordance with good engineering practice and that all equipment will meet requirements specified. Any equipment failing to perform or function as specified shall be replaced with complying equipment, without cost to the Owner.
- B. Guarantee against defects in workmanship and materials; make good, repair or replace any defective work, material or equipment within one year from date of acceptance.

2.02 EQUIPMENT

- A. Design drawings are based on the products specified by type model and size and thus establish minimum qualities, which substitutes must meet to qualify as acceptable. Proof of equality rests with the Bidder; provide all data necessary to demonstrate acceptability. The Architect reserves the right to reject proposed substitutes.
- B. The bid price for each listed alternative or substitute shall include all costs required to incorporate the item into the project.

2.03 MATERIALS

- A. All materials shall be new, full weight, of the best quality with the same brand or manufacturer used for each class of material or equipment.

2.04 DAMAGE AND EMERGENCY REPAIRS

- A. Assume responsibility for any damage caused by leaks in the piping systems being installed under this Contract. Repair all damage without extra cost to Owner.

PART 3 EXECUTION

3.01 INSTALLATION REQUIREMENTS

- A. Locations of piping, equipment, ducts, etc., on the drawings are diagrammatic; indicated positions shall be followed as closely as possible, exact locations shall be subject to building construction and interferences with other work. Difficulties preventing the installation of any part of work as indicated shall be called to the attention of the Architect. Architect will determine locations and changes. Contractor shall install the work accordingly. Architect reserves right to make minor changes in location of any part of the work up to the time of roughing in without additional cost.
- B. Do all cutting and patching in construction as necessary for installation of this work. Do not cut any structural member without specific permission from the Architect. Have cutting done by skilled mechanics as carefully as possible, and with as little damage as possible. Have patching done by first class mechanics, skilled in the several trades.
- C. Take all measurements and determine all elevations at the building.

3.02 RECORD DRAWINGS

- A. Each Contractor or Sub-contractor for mechanical work shall keep one complete set of the contract working drawings on the job site on which he shall record any deviations or changes from such contract drawings made during construction.

3.03 TESTS AND ADJUSTMENTS

- A. All piping shall be given the following pressure test without appreciable pressure drop. Equipment which would be damaged by the required test pressure shall be isolated from the system during test.

SERVICE	MEDIUM (PSI)	HRS.
Water	Water	*
- B. Sanitary sewers per State Plumbing Code or Local Authority.
 - * AWWA Standard C600.

3.04 CLEANING UP

- A. At all times, keep premises and building in neat and orderly condition. Follow explicitly any instructions of Architect in regard to storing of materials, protective measures and disposing of debris.
- B. Domestic water systems: Flush out system first, then hold a solution mixture of 500 ppm of chlorine in the water in system for a 24-hour period. Drain systems and flush. After flushing, chlorine residual shall not be in excess of 0.5 ppm at 4 widely spaced checkpoints. Chlorination procedures shall conform to AWWA Specification C601-54 and be accepted by local health department. Repeat chlorination if necessary until accepted.
- C. Upon completion of work, remove all tools, equipment, surplus materials, thoroughly clean oil piping, fixtures and equipment removing all dirt, grease and oil.

3.05 HVAC SYSTEMS ADJUSTMENTS AND BALANCE

- A. Put all heating, ventilating, exhaust and air conditioning systems and equipment into full operation and continue operation of same during each working day of testing and balancing. All testing and balancing shall be done under both cooling and heating modes of operation.
 - 1. Balance and adjust air-handling system for design flow of exhaust, and air to within 10% of design requirements.
 - 2. Submit tabulated results in triplicate including motor amperage, CFM, and location.

SECTION 15050

BASIC MATERIALS AND METHODS

PART 1 GENERAL

1.01 MATERIALS

- A. Pipe and Fittings
- B. Valves
 - 1. Valves shall be of the same manufacture where possible and equivalent to those manufactured by Nisco, Jenkins, Fairbanks, Powell, Milwaukee, Keystone or Hammond and withstand minimum 125 lbs. steam working pressure.
- C. Sewers
 - 1. Building Sewers and Drains (Underground) – Sanitary sewers to 5' 0" outside building walls shall be service weight cast iron, bell and spigot, soil pipe, with Tyler "Ty Seal" or equal, neoprene pipe gaskets or schedule 40 PVC sewer pipe and fittings per ASTM D2665 78.
 - 2. Soil, Waste, Vent and Drain Piping (Above Ground Interior) – No hub cast iron pipe and fittings made in accordance with Cast Iron Soil Pipe Institute Standard 301 72 or schedule 40 PVC drain waste and vent pipe and fittings with solvent weld joints per ASTM D2665 78 except in return air plenums.
- D. Hangers and Supports
 - 1. Provide all hangers, anchors, guides and supports to properly support and retain piping and ductwork to control expansion, contraction, anchorage, drainage and prevent sway and vibration. Piping shall be so supported as not to place a strain on valves or equipment.
- E. Vibration Control
 - 1. Vibration or noise created in any part of the building by the operation of any equipment furnished and/or installed under this contract will be prohibited and the Contractor shall take all precautions by isolating the various items of equipment from the building structure.
 - 2. Piping and ductwork shall be supported independently of the mechanical equipment and shall be isolated as follows:
 - a. Suspend piping by threaded rods incorporating resilient hangers precompressed molded fiberglass inserts.
 - b. Flexible connections shall be used between ductwork and air handling equipment, and the ductwork attached rigidly to the structure.
- F. General Piping
 - 1. Provide shutoff valves at all branch connections to main, at all future groupings, each piece of apparatus and in mains to sectionalize the systems.
 - 2. Install valves with stems at or above horizontal position.
 - 3. Plug open ends of pipe or equipment at all times during installation to keep dirt and foreign material out of system.
 - 4. Arrange and install all pipes, valves, cleanouts, access openings and equipment so as to be accessible for service. Locate equipment to maintain clearances for tube, coil pulling, periodic servicing.

G. Joints

- 1. All pipe must be reamed and cleaned before assembly. Apply pipe compound to male end of threaded joints. All welded joints shall be as hereinbefore specified. All soldered connections on copper lines shall be cleaned, fluxed and soldered with 95 % solder, except where a silver-brazing alloy is specified.
- 2. Make joints in refrigerant with silver brazing alloy having a melting point above 1000 degree F.
- 3. Construct, install and inspect all pressure piping systems in accordance with authorities having jurisdiction.

H. Expansion

- 1. Install all piping throughout the project with adequate allowance for expansion to prevent damage to building, equipment and piping. Provide anchors, loops or approved type expansion joints as required for complete control of movement. Make changes in directions with fittings.

I. Excavation and Backfill

- 1. Do all excavation and backfilling necessary for installation of work.
- 2. After installation and testing of piping has been completed and approved for backfill, refill all excavation inside of building and under paved areas outside of building with grits or bank run sand or the previously excavated material if this excavated material is determined by the Architect to be suitable for reuse. Backfill shall be made and tamped in six inch layers.
- 3. Remove, dispose of any material not used for backfill.
- 4. Where building service lines enter or leave building such as water, sewer, etc., and are installed on filled earth, provide continuous support on a reinforced concrete beam furnished and installed under this Division. Support beam on building end with vertical support down to foundation footing and on undisturbed earth at other end.

SECTION 15250

INSULATION

PART 1 GENERAL

1.01 GENERAL

- A. All insulation shall be installed over clean dry surfaces. Insulation must be dry and in good condition. Wet or damaged insulation will not be acceptable. No insulation shall be applied prior to pressure test completion of the respective piping systems.
- B. All insulation shall be continuous through wall and ceiling openings, senees and pipe hanger locations.
- C. AP Armaflex pipe insulation shall be applied with proper adhesive for working temperature of service, insulate all valves and fittings to match adjacent piping.

PART 2 – PRODUCTS

2.01 MATERIAL

- A. All insulation material (insulation, jackets, adhesives, cements, mastics, sealers, coating and finishes) shall have composite fire and smoke hazard ratings as tested under procedure ASTM E 84, NFPA 255 and UL 723, not exceeding, as follows:
 - Flame Spread 25
 - Smoke Developed 50
- B. Insulation products as manufactured by Armstrong, CertainTeed or Knauf are acceptable.
 - 1. OWENS CORNING FIBERGLAS 25: AS/SSL HEAVY DENSITY PIPE INSULATION (see insulation thickness schedule)
 - Service Thickness Type
 - Domestic Cold Water A
 - 2. Schedule of "Fiberglas 25" Pipe Insulation Thickness

MINIMUM PIPE INSULATION THICKNESS

PIPE SIZE TO 1"	1 1/2"-2"	2 1/2"-4"	5"-6" ABOVE 6"
PIPE TYPE	A	1/2"	1/2"
A	1/2"	1/2"	1/2"

SECTION 15800

AIR DISTRIBUTION

PART 1 GENERAL

1.01 WORK INCLUDES

- A. All HVAC materials, equipment and controls.

1.02 INSTALLATION

- A. Provide all sheet metal work as indicated on the drawings in accordance with the latest edition of the ASHRAE guide and data book, SMACNA standards, 1995 Second Edition, and this specification, the most demanding of which shall be the minimum standard. All joints to be Seal Class "A".

PART 2 PRODUCTS

2.01 MATERIALS

- A. Low Pressure Ductwork
 - 1. All ductwork shall be constructed of galvanized steel.
 - 2. Construct all ductwork following SMACNA HVAC Duct Construction Standards, 1995 edition.
 - 3. All ducts, except kitchen exhaust, shall be constructed to 1" W.G.
 - 4. Seal all ducts to seal Class "A."
- B. Dampers and Deflectors
 - 1. Provide and install all manual dampers and deflectors indicated on drawings or where necessary to properly distribute and balance air. Provide damper in each supply duct leaving duct main and in each branch serving individual supply, return and exhaust outlets and where otherwise indicated.
- C. Registers, Diffusers
 - 1. In general, Titus is specified. Equals by Krueger, Carnes or Nailor Hart are acceptable.
 - 2. All registers, diffusers to have a factory applied off white finish unless otherwise noted.
 - 3. See drawings for schedule.
- D. Flexible Duct Connections
 - 1. Provide flexible connections with 1" slack between ducts and fans. Flexible material shall be "vent glas" as manufactured by Iden Associates.
 - 2. Fabric shall be 22 oz. glass fabric, double coated with Neoprene, fire retardant, waterproof, airtight and U.L. approved. Fabric shall conform to NFPA 90A.



Robert Scott SUSTAR

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COUNTRY CLUB OF HUDSON CART BARN

2155 MIDDLETON RD., HUDSON, OH 44236

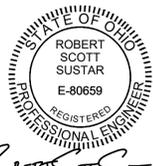


PROJECT #: 2223

ISSUE: FOR BID-PERMIT 06-28-2024

MECHANICAL SPECIFICATIONS AND SANITARY ISOMETRIC DIAGRAM

M0.01



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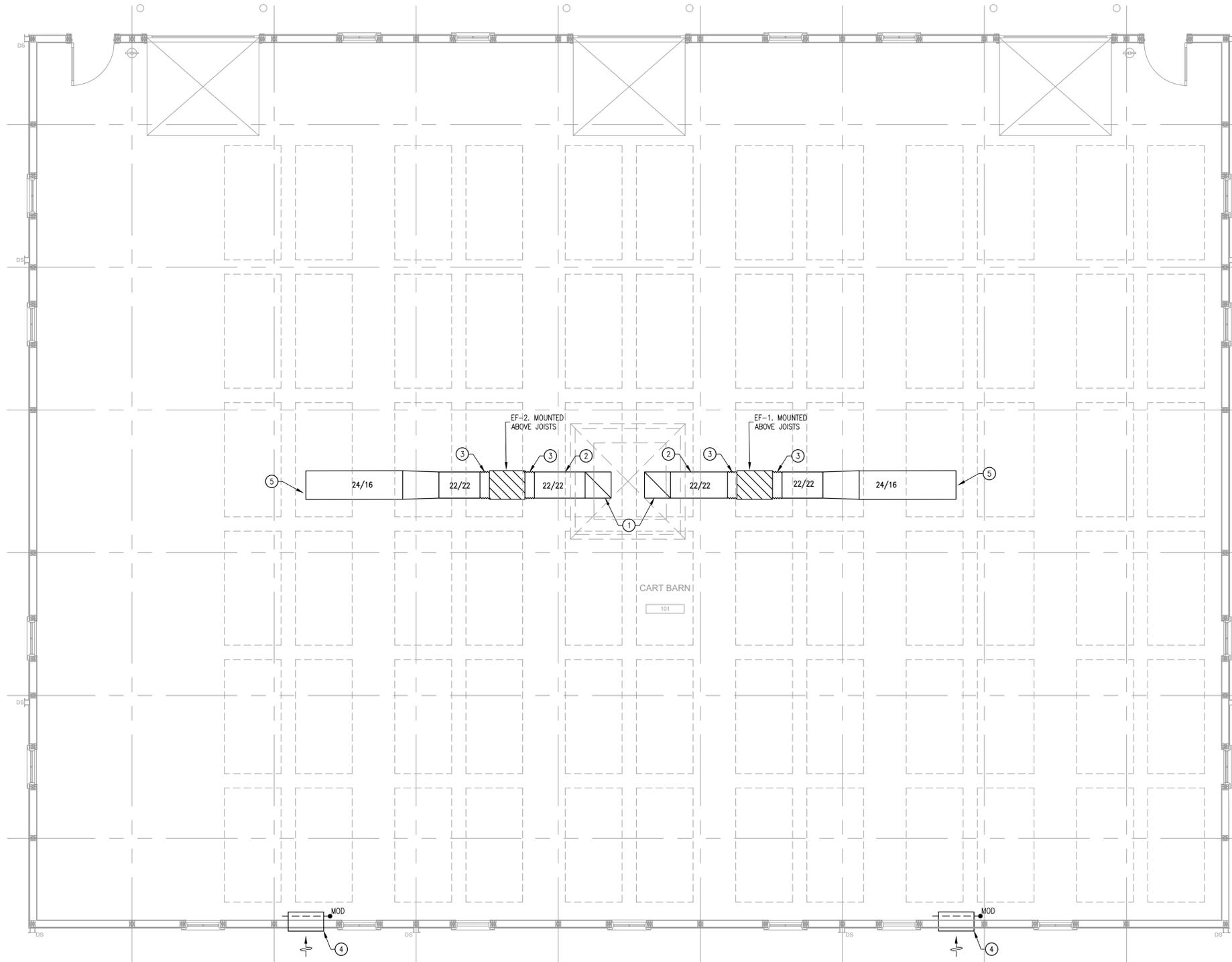
PROJECT #: 2223
ISSUE:
FOR BID-PERMIT 06-28-2024

MECHANICAL FLOOR PLAN

M1.01

EXHAUST FAN SCHEDULE									
FAN NO.	SERVICE	CFM	S.P.	HP	VOLTAGE	SONES	TYPE	MANUF. & MODEL NO.	REMARKS
EF-1	EXHAUST	2,300	0.75	0.5		11	IN-LINE	GREENHECK BSQ-160-5	1,2,3
EF-2	EXHAUST	2,300	0.75	0.5		11	IN-LINE	GREENHECK BSQ-160-5	1,2,3

REMARKS:
1. HANGING SPRING ISOLATION.
2. MOTOR MOUNTED ON BOTTOM FOR ACCESS.
3. BELT DRIVE.



1 MECHANICAL FLOOR PLAN

Scale: 1/4" = 1'-0"

CODED NOTES:

- ① TRANSITION IN RISE TO 22/16.
- ② EXTEND EXHAUST DUCT TO CONNECTION AT CUPOLA LOUVER.
- ③ FLEX DUCT AT FAN CONNECTION.
- ④ 2'-6" x 4'-0" x 4" DEEP LOUVER WITH MOTOR OPERATED DAMPER AND INSECT SCREEN. DAMPER TO BE INERLOCKED WITH FAN AND OPEN WHEN FAN IS ENERGIZED.
- ⑤ PROVIDE INSECT SCREEN ON INLET.



NEW PANELBOARD															GOLF															SCHEDULE														
VOLTAGE: 120/240V-1PH-4W					MAINS 300A/2P MCB					MOUNTING SURFACE					REMARKS: G-INDICATES GFCI BREAKER																													
BUS SIZE: 400 AMP					LOAD (KVA)					BRKR					LOAD (KVA)					SERVES					No.																			
No.	SERVES	LTG	RCPT	MTR	A/C	HTG	MISC	TRIP	P	A	B	P	TRIP	MISC	HTG	A/C	MTR	RCPT	LTG	SERVES	No.																							
1	GOLF CART CHARGING						1.8	201G	1			1	201G	1.8						GOLF CART CHARGING	2																							
3	GOLF CART CHARGING						1.8	201G	1			1	201G	1.8						GOLF CART CHARGING	4																							
5	GOLF CART CHARGING						1.8	201G	1			1	201G	1.8						GOLF CART CHARGING	6																							
7	GOLF CART CHARGING						1.8	201G	1			1	201G	1.8						GOLF CART CHARGING	8																							
9	GOLF CART CHARGING						1.8	201G	1			1	201G	1.8						GOLF CART CHARGING	10																							
11	GOLF CART CHARGING						1.8	201G	1			1	201G	1.8						GOLF CART CHARGING	12																							
13	GOLF CART CHARGING						1.8	201G	1			1	201G	1.8						GOLF CART CHARGING	14																							
15	GOLF CART CHARGING						1.8	201G	1			1	201G	1.8						GOLF CART CHARGING	16																							
17	GOLF CART CHARGING						1.8	201G	1			1	201G	1.8						GOLF CART CHARGING	18																							
19	GOLF CART CHARGING						1.8	201G	1			1	201G	1.8						GOLF CART CHARGING	20																							
21	GOLF CART CHARGING						1.8	201G	1			1	201G	1.8						GOLF CART CHARGING	22																							
23	GOLF CART CHARGING						1.8	201G	1			1	201G	1.8						GOLF CART CHARGING	24																							
25	GOLF CART CHARGING						1.8	201G	1			1	201G	1.8						GOLF CART CHARGING	26																							
27	GOLF CART CHARGING						1.8	201G	1			1	201G	1.8						GOLF CART CHARGING	28																							
29	GOLF CART CHARGING						1.8	201G	1			1	201G	1.8						GOLF CART CHARGING	30																							
31	GOLF CART CHARGING						1.8	201G	1			1	201G	1.8						GOLF CART CHARGING	32																							
33	GOLF CART CHARGING						1.8	201G	1			1	201G	1.8						GOLF CART CHARGING	34																							
35	GOLF CART CHARGING						1.8	201G	1			1	201G	1.8						GOLF CART CHARGING	36																							
37	SPARE						201	1												SPACE	38																							
38	SPARE						201	1				1	201G					1.0		RECEPTACLE	40																							
41	SPARE						201	1				1	201G					1.2		RECEPTACLE	42																							
43	SPARE						201	1				1	201							SPARE	44																							
45	LIGHTING	1.2					201	1				1	201	1.2						EF-1	46																							
47	EXTERIOR LIGHTING	0.2					201	1				1	201	1.2						EF-2	48																							
49	FACP						201	1				1	201	0.6						GARAGE DOOR OPENER	50																							
51	SPARE						201	1				1	201	0.6						GARAGE DOOR OPENER	52																							
53	SPARE						201	1				1	201	0.6						GARAGE DOOR OPENER	54																							
55	SPARE						201	1				1	201							SPARE	56																							
57	SPACE						201	1												SPACE	58																							
58	SPACE						201	1												SPACE	60																							
															67.8	0.0	0.0	0.0	2.2	1.4	CONNECTED KVA	71.4																						

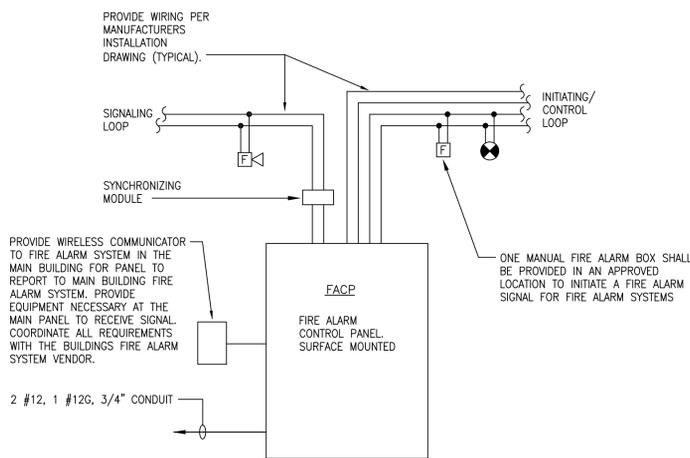
NOTES:
1. ALL CIRCUIT BREAKERS ARE 20A-1P UNLESS OTHERWISE NOTED.

Largest Motor	0.00	125%
Remainig Motors	0.00	
Motor Dmd	0.00	
Lighting	1.40	125%
Lighting Dmd	1.75	
Receptacles	2.20	100%
Receptacles	0.00	50%
Receptacle Dmd	2.20	
Miscellaneous	94.9	85% 80.682
Heating	0.0	0
AC	0.0	
Design Load for Panel Total	84.63 KVA	
	235.09 Amps	

TYPE	WATTAGE		DESCRIPTION	CATALOG #	EQUAL MANUFACTUER
	LAMP	FIXTURE			
A	LED 3500K 7400L	52W	LED 8'-0" LONG SURFACE MOUNTED AT 9'-0" TO BOTTOM OF THE TRUSSES WITH FULL FROSTED WIDE DISTRIBUTION LENS.	METALUX 85NX-745L-LW-UNV-L835-CD-1-MOUNTING	LITHONIA HE WILLIAMS HUBBELL
B	LED 3000K 2000L	17W	LED DARK SKY COMPLIANT EXTERIOR WALL SCONCE, AND ADJUSTABLE OUTPUT. WITH INTEGRAL PHOTOCELL. COLOR BY ARCHITECT.	LITHONIA ARC1LED-P2-30K-MVOLT-PE-FAO	HUBBELL EATON
BP	2-3W LED	5W	DUAL HEAD WHITE FINISH EMERGENCY EGRESS LIGHTING FIXTURE, WHITE FINISH, 120V. WITH COLD WEATHER BATTERY	SURE-LITES AP25QLED30	HUBBELL LITHONIA EATON
X	LED FURN. WITH FIXTURE	2 PER FACE	LED CEILING MOUNTED EMERGENCY EXIT SIGN WITH WHITE POLYCARBONATE HOUSING, RED STENCIL LETTERS, UNIVERSAL MOUNT, COLD WEATHER BATTERY, CHARGER AND REMOTE HEAD CAPABLE	SURE-LITES LPXC25-R3	EMERGI-LITE LITHONIA EATON
RH	LED FURN. W/FIXTURE	3	LED SURFACE MOUNTED EMERGENCY LIGHT WITH TWO (2) INTEGRAL 1.5W LED LAMPS, WET LOCATION HOUSING	SURE-LITES SRPD	EMERGI-LITE DUAL-LITE EATON

LIGHTING FIXTURE SCHEDULE NOTES:

1. THE E.C. SHALL COORDINATE ALL COLORS, FINISHES, LENGTHS, ETC. OF FIXTURES WITH THE ARCHITECT AND ACTUAL FIELD CONDITIONS PRIOR TO PLACING PURCHASE ORDER.
2. THE E.C. SHALL COORDINATE ALL TRIMS OF LIGHT FIXTURES WITH ARCHITECTURAL REFLECTED CEILING PLANS, EXISTING CONDITIONS, ETC. AND INCLUDE APPROPRIATE TRIM (LAY-IN, DRYWALL, ETC.) IN BASE BID. SUBMISSION OF SHOP DRAWINGS WILL BE INTERPRETED THAT THIS COORDINATION WITH THE ARCHITECT HAS BEEN COMPLETED AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED DUE TO THE LACK OF THIS COORDINATION.
3. ALL LIGHT FIXTURE LED COLOR TEMPERATURES SHALL BE VERIFIED WITH THE ARCHITECT PRIOR TO SUBMITTING SHOP DRAWINGS.



ADDRESSABLE FIRE ALARM SYSTEM - WIRING DIAGRAM

SCALE: NONE

FIRE ALARM SYSTEM GENERAL NOTES:

1. THIS RISER REPRESENTS A TYPICAL SYSTEM AND IS NOT INTENDED FOR INSTALLATION. SYSTEM SUPPLIER SHALL PROVIDE INSTALLATION DRAWINGS AND SCHEMATIC WIRING DIAGRAMS. EXACT SYSTEM REQUIREMENTS SHALL BE COORDINATED WITH THE SYSTEM SUPPLIER. SYSTEM INSTALLER SHALL BE NICET CERTIFIED, IF REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION.
2. SYSTEM SUPPLIER SHALL SUPERVISE INSTALLATION, PROGRAM AND TEST SYSTEM AND INSTRUCT OWNER ON SYSTEM OPERATION.
3. ALL FIRE ALARM WIRING SHALL BE PLENUM RATED. EXPOSED FIRE ALARM WIRING SHALL BE INSTALLED IN CONDUIT.
4. ALL CONTROL CABINETS SHALL BE GROUNDED PER NEC REQUIREMENTS AND PER SPECIFICATIONS.
5. PROVIDE CELLULAR DIALER FOR OFFSITE MONITORING BY A CENTRAL STATION.
6. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. REFER TO DRAWINGS FOR DEVICE QUANTITY AND LOCATIONS.
7. SYSTEM DESIGNER SHALL BE RESPONSIBLE FOR ALL SHOP DRAWINGS, COORDINATION WITH OTHER TRADES AND INSTALLATION. SUBMIT PLANS FOR ENGINEER REVIEW.

FIRE ALARM DESIGN DOCUMENTS:

DESIGN AND FINAL DOCUMENTS ARE THE RESPONSIBILITY OF THE FIRE ALARM CONTRACTOR. THIS DOCUMENT HAS BEEN CREATED TO ASSIST THE FIRE ALARM CONTRACTORS IN DEFINING SCOPE AND IDENTIFYING ELEMENTS OF THE BUILDING. THE FIRE ALARM CONTRACTOR AND THE CERTIFIED DESIGN PROFESSIONAL IS RESPONSIBLE TO DESIGN THE SYSTEM, OBTAIN PERMITS/INSPECTIONS AND PROVIDE A COMPLETE SYSTEM.

ELECTRICAL SYMBOL LEGEND

POWER SYMBOLS

- GFCI LP HOMERUN TO PANEL "LP". CIRCUITS 1 and 3 (GFCI INDICATES BREAKER TO BE GFCI TYPE)
- MANUAL MOTOR STARTER WITH 2 SETS OF AUXILIARY CONTACTS
- DOUBLE DUPLEX (QUADPLEX) RECEPTACLE. MTD AT 18" AFF.
- DUPLEX RECEPTACLE - G.F.C.I. TYPE. MTD AT 18" AFF OR AS NOTED ON PLAN.
- DUPLEX RECEPTACLE - MOUNTED HORIZONTAL
- DUPLEX RECEPTACLE MOUNTED AT 84" A.F.F.
- DUPLEX RECEPTACLE - MOUNTING AT 48" A.F.F.
- DUPLEX RECEPTACLE - MOUNTED AT 6" ABOVE COUNTER/BACKSPLASH
- JUNCTION BOX MOUNTING HEIGHT/SIZE AS REQUIRED.
- CIRCUIT BREAKER PANELBOARD REFER TO PLANS FOR DESCRIPTIONS.
- FLAME RETARDANT PLYWOOD BACKBOARD, 3/4"D. x 96"H. BY LENGTH OF WALL, U.O.N.
- SINGLE OR THREE PHASE MOTOR - SEE DRAWINGS FOR DESCRIPTION
- FUSED DISCONNECT SWITCH

FIRE ALARM/SAFETY & PROTECTION SYMBOLS

- FIRE ALARM ADDRESSABLE SMOKE DETECTOR- CEILING MOUNTED, U.O.N.
- FIRE ALARM PULL STATION WITH AUDIBLE SAFETY GUARD - MOUNTING AT 48" A.F.F.
- FIRE ALARM SPEAKER/STROBE WITH FLASHING STROBE LIGHT- MOUNTING AT 80" A.F.F., WHITE FINISH.
- FIRE ALARM (VISUAL ONLY) FLASHING STROBE LIGHT- MOUNTING AT 80" A.F.F., WHITE FINISH.
- FIRE ALARM CONTROL PANEL, SIMPLEX-GRINNELL 4100ES NETWORK/VOICE EMERGENCY MASS NOTIFICATION SYSTEM.

LIGHTING AND CONTROLS SYMBOLS

- LIGHT FIXTURE TYPE "A1"
- LED LIGHT FIXTURE TYPE "C1"
- SWITCH, SINGLE POLE - 20 AMP, 120V SPECIFICATION GRADE. "3" INDICATES THREE-WAY SWITCH
- DUAL TECHNOLOGY WALL SWITCH SENSOR WITH RELAY, SINGLE GANG, SINGLE POLE, 400 SQ FT COVERAGE, MANUAL/AUTO ON, TYPICAL WATTSTOPPER DW-200, 120/277V.
- CEILING MOUNTED PASSIVE INFRARED, OCCUPANCY/VACANCY SENSOR, WHITE FINISH. LUTRON, WATTSTOPPER, OR EQUAL

ABBREVIATIONS

- U.O.N. UNLESS OTHERWISE NOTED
- E.C. ELECTRICAL CONTRACTOR
- M.C. MECHANICAL CONTRACTOR
- G.C. GENERAL CONTRACTOR
- H.V.A.C. HEATING VENTILATION AND AIR CONDITIONING
- A.F.F. ABOVE FINISHED FLOOR
- CLG CEILING MOUNTED
- WP WEATHERPROOF
- ADA AMERICANS WITH DISABILITIES

GENERAL NOTES:

1. ALL CONDUIT PENETRATIONS THROUGH FIRE RATED WALLS, FLOORS, OR SHAFTS SHALL BE SEALED IN ACCORDANCE WITH SPECIFICATIONS.
2. CONTRACTOR SHALL COORDINATE LOCATION OF ALL FIXTURES AND CEILING MOUNTED DEVICES WITH THE ARCHITECTURAL CEILING PLAN, SECTIONS, ELEVATIONS, AND DETAILS. CONTRACTOR SHALL ALSO COORDINATE LOCATION OF RECEPTACLES AND OTHER WALL MOUNTED DEVICES WITH THE ARCHITECTURAL WALL FINISHES AND ELEVATIONS.
3. UTILIZATION OF THE PHRASE "PROVIDED BY" WITHIN THE CONTEXT OF THESE DOCUMENTS SHALL EXPLICITLY REPRESENT "FURNISHED AND INSTALLED BY".
4. THE ROUTING OF ALL SURFACE MOUNTED/EXPOSED CONDUIT IN FINISHED AREAS (OR WHERE NOTED ON THE DRAWINGS) SHALL BE COORDINATED WITH, AND SHALL BE APPROVED BY THE ARCHITECT PRIOR TO INSTALLATION.
5. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF FIRE PROTECTION EQUIPMENT WITH THE FIRE PROTECTION CONTRACTOR. EXACT ELECTRICAL REQUIREMENTS SHALL BE VERIFIED IN THE FIELD.
6. THE CONTRACTOR SHALL REMOVE SUCH EXISTING WORK AS CALLED FOR IN THE DRAWINGS, OR AS REQUIRED TO CLEAR THE AREAS OF NEW CONSTRUCTION.
7. ALL LOW VOLTAGE AND SYSTEM CABLING LOCATED ABOVE CEILINGS SHALL BE PROPERLY RATED FOR THE APPLICATION. WITHOUT EXCEPTION, ALL CABLING SHALL BE HUNG FROM BRIDAL TYPE RINGS OR PLACED IN CABLE TRAY BY THE E.C. IN EXPOSED CEILING AREAS, ALL CABLING SHALL BE RUN IN CONDUIT TO THE NEAREST ACCESSIBLE CEILING LOCATION.
8. COORDINATE FIRE ALARM CABLING, ROUTING, MOUNTING BOXES, AND TERMINATIONS WITH THE OWNER, AND ARCHITECT PRIOR TO ROUGH-IN.



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MEP ENGINEER:



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COUNTRY CLUB OF HUDSON CART BARN

2155 MIDDLETON RD, HUDSON, OH 44236

N



PROJECT #: 2223

ISSUE: FOR BID-PERMIT 06-28-2024

ELECTRICAL LEGENDS, SCHEDULES & DETAILS



PROJECT TEAM

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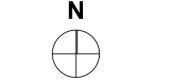
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COUNTRY CLUB OF HUDSON CART BARN
2155 MIDDLETON RD., HUDSON, OH 44236



PROJECT # 2223

ISSUE: FOR BID/PERMIT 06-28-2024

Table with 2 columns: Issue Number and Description. Issues 1 through 10 are listed.

ELECTRICAL SPECIFICATIONS

E0.02

SECTION 2600 - ELECTRICAL GENERAL PROVISIONS

PART 1 - GENERAL

101 GENERAL PROVISIONS

A. The provisions of the Instruction to Bidders, General Conditions, Supplementary Conditions, Alternates, Addenda, and Division 1 are a part of this Specification. A requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. Contractors and Sub contractors shall examine same as well as other Divisions of the Specifications which effect work under this Division.

B. The Contractor shall furnish all materials and do all work in accordance with these specifications, and any supplementary documents provided by the architect. The work shall include everything shown on the drawings and/or required by the specifications as interpreted by the Architect, regardless of where such information is indicated (Architectural, HVAC, Plumbing, etc. Contract Documents). All work and materials furnished and installed shall be new and of the best quality and workmanship. The Contractor shall cooperate with the Architect so that no error or discrepancy in the Contract Documents shall cause the work to be reworked or poor workmanship to be performed.

C. Material or labor which is not indicated on the Drawings or Specification but which is obviously necessary to complete the work (and is usually included in similar work) shall be provided. Drawings and specifications are to be considered as supplementing each other. Work specified and not indicated, or indicated but not specified, shall be provided as mentioned in such specifications and drawings.

D. In the event of discrepancies between the contract documents (drawings and specifications), the Contractor shall adhere to the more stringent requirement.

E. Visit the site of the work and become familiar with conditions affecting the installation. The contractor shall ascertain the location of existing structures, utilities, equipment, etc. that may affect contract work and advise the engineer no later than five (5) working days prior to bid due date. Submission of a proposal shall presuppose knowledge of such conditions and no additional compensation shall be allowed where extra labor or materials are required because of ignorance of these conditions.

102 WORK INCLUDES

A. Include all labor, material, equipment, tools, transportation, insurance, temporary protection, supervision, services, permits and certificates of inspection necessary for the proper completion of all electrical work. Items omitted, but necessary to make the electrical system complete and workable, shall be understood to form part of the work.

B. It is the purpose of the Electrical Drawings to indicate the approximate location of all equipment, outlets, etc. Ascertain exact locations and arrange work accordingly. The right is reserved to effect reasonable changes in the location of devices and/or equipment up to the time of roughing in without additional cost to the Owner. Changes in location of devices and/or equipment caused by interference with the work of other trades shall be made only with the consent of the Architect's or Owner's representative and at no additional cost.

C. The Electrical Contractor shall cooperate with the owner's representative and all other trades in an effort to overcome difficulties encountered through field conditions.

D. Work shall include, but not be limited to, the following general systems and equipment

- Temporary lighting and power distribution equipment for construction
Extension/renovation of the existing power distribution system
Temporary wiring to maintain existing electrical system during construction
Lighting fixtures (luminaires), lamps, switches
Lighting and power
Cabinets and pull boxes
Disconnect switches

Wire items normally associated with equipment supplied by others such as limit switches for door operator motors and motor operated stoppers.

E. The Electrical Design is based on the National Electrical Code. The Electrical Contractor shall operate in the base bid the cost of providing materials and equipment necessary to satisfy local or regional codes.

103 RELATED WORK SPECIFIED ELSEWHERE

A. Starters for lifting purposes, the electrical contractor shall include a starter for all air handling equipment furnished by the mechanical contractor that requires control from a remote device unless otherwise noted. Wiring and disconnect shall be under Division 16.

B. The Electrical Contractor shall be responsible for coordinating with other trades (mechanical, plumbing, etc.) and shall verify equipment and device voltage, phase and capacity specifications. This Contractor shall furnish and install all necessary wiring, raceways and protective devices, etc., as required for the correct and proper operation of the installed equipment, in accordance with the manufacturer's recommendations.

104 PERMITS AND FEES

A. Secure and pay for all permits and inspections required for electrical work. Turn over all certificates of approval by the governing agencies, to the Architect for transmittal to Owner before payment is made for the work.

B. Give the proper authorities notices as required by law relative to the work in his charge. Comply with the regulations regarding temporary enclosures, obstructions or excavations and pay all legal fees involved.

C. Work shall be installed in accordance with the provisions of the National Electric Code, as interpreted by the local board having jurisdiction, as well as any further modifications or regulations of local or state authorities.

D. Provisions of the latest revisions to the Federal Occupational Safety and Health Act (OSHA) shall be satisfied.

105 CODES, STANDARDS, AND REFERENCES

A. All materials and workmanship shall comply with all applicable Codes, Specifications, Local and State Ordinances, Industry Standards, and Utility Company regulations and latest editions.

B. In case of conflict between the Contract Documents and the requirements of any Code or Authorities having jurisdiction, the most stringent requirements of the aforementioned shall govern.

106 TESTING

A. After installation but prior to energization, perform tests for grounds, short circuits and proper function. Faults in the installation shall be corrected.

B. Insulation resistance tests shall be made on the electrical system with not less than 1000V DC. For 30 seconds using an approved megohmmeter (Biddle Megger or equal) and also complete performance/continuity test on grounding system.

C. The Contractor shall provide the equipment and required technical personnel to perform such tests and inspections.

D. The tests shall ensure that the equipment is operational and functioning within Industry Standards and manufacturer's tolerances.

E. The inspection and testing shall comply with the project plans and specifications as well as with the manufacturer's drawings, instruction manuals, and other applicable data for the apparatus tested.

F. The Contractor shall clean the equipment, torque down all accessible bolts, perform insulation resistance tests on all branch and feeder circuits, continuity checks on all branch and control wiring, and resistance tests for all distribution and utilization equipment. At each test site, the Contractor shall provide any test control power necessary to perform these tests.

G. The Contractor shall notify the Architect (2) weeks prior to the commencement of any testing. The Contractor shall set and adjust the protective devices and associated auxiliary thing devices in accordance with the values specified by the manufacturer. They shall maintain a written record of all tests, settings, etc. and upon completion of the tests include them in a final report. The report shall detail any/all deficiencies in the system material, workmanship, or design.

H. Provide a final report of all equipment, systems, etc. that has been tested and include in Maintenance Manual.

107 DEMONSTRATION OF COMPLETE ELECTRICAL SYSTEM

A. Before final payment, demonstrate to the Owner's satisfaction the proper operation of each of the systems comprising this Contract.

B. Instruct the Owner's maintenance personnel in the operation and maintenance of all electrical equipment and controls.

108 CLEANING AND FINISHING

A. After all tests have been completed, clean all equipment leaving everything in working order at the completion of this work.

B. All debris created by the execution of this work shall be removed.

C. This section of the specifications shall include the cleaning of all equipment on a day-to-day basis and final cleaning of all electrical equipment prior to turning building over to the Owner. All necessary cleaning referred to herein shall be cleaned to the satisfaction of the Architect and the Owner.

D. All electrical equipment shall be completely cleaned inside and out prior to initial energizing.

E. Cleaning shall consist of vacuuming all buses, enclosures (inside and out), etc. After vacuuming is complete, all equipment shall be cleaned with a cleaning agent that conforms to manufacturer's guidelines. If equipment is wet after cleaning, it shall be thoroughly dried and inspected by the manufacturer's representative before energizing.

F. All lighting fixtures, devices, device plates, etc., shall be cleaned and left in "like new" condition to the satisfaction of the Architect, prior to Owner occupancy.

G. All rubbish and discarded materials shall be disposed of and removed from the site on a day-to-day basis, as required.

H. All equipment, whether part of the Electrical Contractor's Contract or not, which must be cleaned due to the Electrical Contractor's work, shall be cleaned by the Electrical Contractor to the satisfaction of the Architect.

109 COORDINATION WITH OTHER TRADES

A. Locate all electrical equipment, devices, light fixtures, etc. on coordination drawings being provided by the Mechanical Contractor, as set forth in Mechanical Specification Section 1500. Include all feeders, main conduit run, pullboxes, etc. to avoid conflicts with ductwork, plumbing, and structural components.

B. Consult the drawings covering the work for the various other trades, the field layouts of the Contractors for the trades and their shop drawings. Coordinate schedule accordingly in laying out work.

C. Keep fully informed of the progress of the general construction. Install work that is to be concealed within the building construction in sufficient time to secure proper location without delay to the work of other trades. Place all equipment too large to fit through openings stairways, etc. in a timely manner. All conduit and outlet boxes concealed in masonry construction shall be installed during wall construction. Attend electrical work during the progress of building in to prevent misalignments and damages to the electrical work.

D. Examine the work of other trades when their work comes in contact with or is covered by this work. Do not attempt to cover up or finish against any defective work. Install work in a manner, which will prevent proper installation of the work of other trades.

E. All outlets, switches and receptacles shall be centered with regard to paneling, trim equipment, etc. and shall line up with either bottom or top of masonry courses.

F. Take all field measurements necessary and assume responsibility for their accuracy.

G. Electrical Contractor shall compare his drawings and specifications with those for other Trades and report any discrepancies between them to the Architect and obtain from written instructions, changes necessary in the electrical work. All work shall be installed in coordination with other Trades installing interrelated work. Before installation, Electrical Trade shall make proper provisions to avoid interferences in a manner approved by the Architect. All changes required in the work of the Electrical Trade caused by their neglect, shall be made by them at their own expense.

H. Locations of conduit and equipment shall be adjusted to accommodate the work with interferences anticipated and encountered. The Contractor shall determine the exact routing and location of his respective systems prior to fabrication or installation.

I. The Contract Drawings are diagrammatic only. Intending to show general runs and locations of conduit, equipment, terminals and specialties and not necessarily showing all required offsets, details and accessories and equipment to be connected. All work shall be accurately laid out with other Trades to avoid conflicts and to provide a neat and workmanlike installation that will afford maximum accessibility for operation, maintenance and headroom.

110 GUARANTEE

A. Guarantee all workmanship and materials provided under the contract for one year after acceptance by the Owner and completion of all punch list items. Repair or replace any defect without cost to the Owner.

B. Manufacturers shall provide their standard warranties for work under the Electrical Trades. However, such guarantees shall be in addition to and not in lieu of all other liabilities that the manufacturer and the Contractor may have by law or by other provisions of the Contract Documents.

C. All materials, items of equipment and workmanship furnished under the Electrical Section shall carry the standard warranty against all defects in material and workmanship. Any fault due to defective or improper material, equipment, workmanship or design which may develop shall be made good, forthwith, by and at the expense of the Contractor for the work under his Contract, including all other damage due to areas, materials and other systems resulting from this failure.

D. Upon receipt of notice from the Owner of failure of any part of the systems or equipment during the guarantee period, the affected part or parts shall be replaced by the Contractor for his work.

111 SUBMITTALS

A. Submit drawings and wiring diagrams in accordance with Division 1 on all items of equipment provided for review by the Engineer. These shall include, but not be limited to, the following

- Disconnect switches
Lighting fixtures and ballasts
Devices

B. The submittals will be reviewed only for general compliance and not for dimensions, quantities, etc. The submittals that are returned shall be used for procurement. The responsibility of correct procurement remains solely with the Contractor. The submittal review shall not relieve the Contractor of responsibility for errors or omissions and deviations from the contract requirements.

C. The Contractor shall insure submittals bear the Contractor's dated approval stamp and indicate all options. If the submittal shows variations from the requirements of the contract documents, for any reason, the Contractor shall make specific mention of such variation in his letter of transmittal. The Contractor shall note in red on the submittal any change in design or dimension on the item submitted including changes made by the manufacturer that may differ from catalog information.

D. Contractor agrees that shop drawing submittals processed by the Engineer are not change orders; that the purpose of shop drawing submittals by the Contractor is to demonstrate to the Engineer that the Contractor understands the design concept, that he demonstrates his understanding by indicating which equipment and material he intends to provide and by detailing the fabrication and installation methods he intends to use.

E. Contractor further agrees that if deviations, discrepancies, or conflicts between shop drawing submittals and the contract documents in the form of design drawings and specifications are discovered either prior to or after shop drawing submittals are processed by the Engineer, the design drawings and specifications shall control and shall be followed.

F. Contractor shall submit list of manufacturers he intends to use on project thirty (30) working days after award of contract of items noted in paragraph "M".

G. All shop drawings shall be clearly marked to indicate the specific equipment and options being provided.

112 WORKMANSHIP

A. Workmanship shall be in accordance with the best practices of the trade. Journeyman electricians under the supervision of a competent Foreman shall install electrical work.

PART 2 - PRODUCTS

201 EQUIPMENT AND MATERIALS

A. Equipment and materials used on this job shall be new, UL Labeled, and DSHA approved.

B. Equipment and materials shall be protected and be the responsibility of this Contractor until formally accepted by the Owner.

C. All manufacturers of electrical equipment shall demonstrate to the satisfaction of the Contractor and Engineer that their equipment will function properly under the conditions of use as indicated on the drawings and as specified herein. Dimensions, weights, operating characteristics and all other related appearances should be verified before submittal of shop drawings.

D. Contractor shall insure that all equipment suppliers understand that their equipment is required to meet specific ratings and requirements under actual installed conditions.

E. The Contractor shall furnish and install all equipment, accessories, connections and incidental items necessary to fully complete the work under his Contract for use, occupancy and operation by the Owner.

F. Where equipment of the acceptable manufacturers requires different arrangement or connections from those shown, it shall be the responsibility of the Contractor to install the equipment to operate properly and in accordance with the original intent of the drawing and specifications. When directed by the Architect, the Contractor shall submit drawings showing the proposed installation. If the proposed installation is approved, the Contractor shall make all necessary changes in all related work provided under other Sections including location of roughing-in connections by other Trades, conduit, supports, etc. All changes shall be made at no increase in the Contract amount or additional cost to the other Trades and/or Owner.

G. All equipment of one type (such as cable, paneboards, wiring devices, etc.) shall be the product of one manufacturer.

H. Equipment pre-purchased by the Contractor on behalf of the Owner or by the Owner himself, if assigned to the Contractor shall be received, installed, etc. as if the Contractor purchased the equipment under the base bid. All guarantees, service contracts, etc., shall be the same as for all other equipment provided under this Contract.

PART 3 - EXECUTION

301 TEMPORARY LIGHT AND POWER

A. Provide electric service of sufficient capacity to supply the electric light and power requirements of construction site.

B. All necessary transformers, meters, cables, paneboards, lamps, switches, and associated equipment shall be provided.

C. Temporary lights shall be based on a minimum of 1 watt per square foot, except where higher lighting intensities are required by Codes, Standards or specified, in which case the wattage shall be increased to provide the higher intensities. Sufficient wiring, outlets and lamps shall be installed to ensure proper lighting in rooms, spaces, stairs, egress, and passage areas. The lamp used shall be 100 watt.

D. Temporary wiring of a special nature for light, those using it shall pay for safety and power other than mentioned above.

E. Temporary electric service shall not be used for electric welding purposes; those requiring welding shall provide portable engine generators for welding purposes.

F. Temporary work shall be removed after it has served its purpose.

G. Lamps installed in permanent lighting fixtures and used for lighting during construction shall be replaced just prior to the date of substantial completion.

SECTION 26050 - BASIC MATERIALS AND METHODS

PART 1 - GENERAL

101 WORK INCLUDES

- Conduits
Wire and Cable
Cable Supports
Outlet Boxes
Cabinets
Wiring Devices
Safety Switches
Fuses

Supporting Devices
Equipment Mounting
Access Doors

102 RELATED WORK SPECIFIED ELSEWHERE

A. Section 26010 General Electrical Provisions

PART 2 - PRODUCT

201 MATERIAL AND EQUIPMENT

A. Materials and equipment used on this project shall meet OSHA requirements.

B. Material and equipment built into the work for which examination service is provided shall bear the Underwriters Laboratories Label.

C. Materials and equipment provided under this Contract shall be new and of the quality herein specified. Each class of materials shall be of the same type and make throughout the building.

202 CONDUITS

A. All conduits shall be EMT for homeruns. Conduits shall be of sizes required to accommodate the number of conductors in accordance with the National Electrical Code wiring tables or as indicated on the drawings, whichever is larger. Healthcare Grade MC cable may be used for all other interior branch circuits, u.o.n.

B. Where types of conduits are not stipulated then, proper selection of material shall be determined by the installer to fulfill wiring requirements, and comply with applicable articles of the National Electrical Code (NEC).

C. Make conduit connections to motors with flexible metal conduit, as specified herein, of the same size as the feeder conduit, and make such connection as short as practical.

D. All conduits that pass through the roof shall be in pipe portals as manufactured by the Pate Co. and shall be installed as recommended by the manufacturer. RPS Corporation and Thycurb Corporation are acceptable.

E. All conduits that are indicated on the drawings to be run exposed on the building roof shall be supplied with pipe roller supports as manufactured by the Pate Co. and shall be installed as recommended by the manufacturer. RPS Corporation and Thycurb Corporation are acceptable.

203 WIRE AND CABLE

A. Wire and cable for power and lighting feeders larger than 16AWG shall be copper stranded 600-volt type THW/THN or XHHW copper.

B. Wire and cable for power and lighting branch circuits shall be THW/THN copper for #10 and smaller and THW or XHHW copper for #8 and larger.

C. Wire size shall be determined from the appropriate N.E.C. tables utilizing the necessary derating Factors for temperature, grouping, etc. Minimum wire size for power and lighting circuits shall be #12. Wire sizes #12 and smaller may be solid. Wire sizes #10 and larger shall be stranded.

D. Individual circuits are indicated on the drawings for clarity. Circuits may be grouped for homeruns. Note that the applicable N.E.C. adjustment Factors must be applied.

E. The Electrical Contractor shall install separate neutrals for each individual branch circuit unless noted otherwise. Combined neutrals may only be used with the Architect/Engineer's approval and only for circuits on different phases.

F. Control wires shall be #14 stranded THW copper.

G. Feeders or branch circuits in extremely hot locations where ambient temperatures are 90 degrees C. or above shall be type AVA.

H. Cords for make-up connections to portable equipment shall be 600 volt, heat resistant, rubber insulated, portable cable with neoprene jacket type "SD" and "V" of extra flexible stranded copper.

I. Provide wire and raceway systems as described herein and as indicated on the drawings.

J. Wire and cable shall meet or exceed IPCEA-NECA Standards S-19-81 and ASTM-D1552.

K. As part of the Base Bid, flexible metal conduit, MC type cable, or AC type cable may be used in lieu of EMT conduit within Architectural casework and lock partitions.

L. Metal Clad (type MC) cable, Armored (type AC) cable, or Manufactured Wiring Systems may be utilized in lieu of branch circuit EMT conduit. Installation of MC cable shall comply with Article 338 and 517 of the National Electrical Code. Installation of Manufactured Wiring Systems shall comply with Article 517 and 604 of the National Electrical Code. All branch circuit homerun conduits within the ceiling space complete to the paneboards shall be EMT conduit. Wiring shall be as specified elsewhere in this Section. A green equipment-grounding conductor shall be provided in MC cable, AC cable, and Manufactured Wiring Systems. These types of cabling systems are not allowed for emergency wiring distribution in healthcare projects.

204 CABLE SUPPORTS

A. Cable support ladders shall be malleable iron castings with hot dip galvanized finish, furnished complete with locknuts for rigid conduits and also EMT, size to cable requirements.

B. Cable support fitting shall be threaded at the top to allow fastenings to enclosure.

205 OUTLET BOXES

A. All outlet boxes used upon which lighting fixtures are to be installed and shall be equipped with 3/8" inch. Fixture studs.

B. 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.

C. Flush device boxes in masonry walls shall be masonry boxes designed for the purpose, or 4 inch square boxes with raised square covers designed for masonry.

Flush boxes in other walls shall have proper raised covers suitable for wall material.

D. Wiring device boxes for surface conduit work shall be FS series cast boxes.

E. Boxes feeding recessed fixtures in furred ceilings shall be accessible through ceiling opening.

CABINETS

A. Electrical Contractor shall furnish and install cabinets suitable for the use indicated as shown on the drawings.

B. Cabinets shall be flush or surface mounted and of sizes indicated on the drawings.

C. Approved manufacturers for cabinets shall be Hoffman, Carlon or Architect approved.

207 WIRING DEVICES

A. Duplex receptacles shall be "specification grade" 20 ampere, 125 volt, 3 wire, grounded type. The top shall be of high impact thermo-plastic such as nylon. The strap shall be heavy-duty. Where receptacles shall be brass and riveted to the strap. Automatic ground clip shall be provided. Manufacturers and their catalog numbers listed are acceptable.

B. Manual motor starters shall be Cutler-Hammer type "MS" with pilot light or equal by Square D, General Electric, or Siemens.

C. Weatherproof receptacles shall be Hubbell HGF5362 duplex outlet with Type: #89510 safety outlet enclosure in compliance with NEC 408(B)(1).

208 SAFETY SWITCHES

A. Safety switches shall be heavy-duty unfused or fused and shall be installed where indicated on the Drawings and/or where required by Code.

B. If double lugging or oversized wires are required, provide a wire way or splice box.

C. Switches shall have an integral quick-make, quick-break operating handle mechanism. Switches shall have a dual cover interlock to prevent opening of the switch door in the "ON" position or to prevent closing of the switch mechanism with the door open. Handle position shall indicate if the switch is "ON" or "OFF".

D. Indoor enclosures shall be NEMA 1. Exterior enclosures shall be NEMA 3R. NEMA 1 enclosures shall be code gauge UL 98 sheet steel, treated with a rust inhibiting phosphate primer and finished in gray baked enamel. Enclosures shall be provided with padlocking provisions.

E. Acceptable manufacturers shall be Square D, General Electric, Cutler-Hammer, or Siemens.

209 SUPPORTING DEVICES

A. All hardware, supports, hangers, angle iron, channels, rods, clamps necessary to install electrical equipment and lighting fixtures shall be supplied to suit conditions and application. The use of perforated straps will be permitted.

B. Supporting devices shall be galvanized or aluminum material.

210 EQUIPMENT MOUNTING

A. All equipment mounted on exterior walls shall be attached to 3/4" plywood boards furred out 1" from wall. Provide painting of plywood boards to match the finish of the walls.

PART 3 - EXECUTION

301 CONDUITS

A. Conduits shall be continuous and be secured to all boxes in a manner that each system shall be electrically continuous from point of service to all outlets. Terminals of all conduits shall be provided with locknuts and bushings. Plug ends of each conduit with an approved cap or disc to prevent the entrance of foreign materials during construction.

B. Conduits run in floor slab or concrete work shall have a minimum of one (1") inch of concrete cover and clean throats. Do not cross conduits in slab.

C. Provide expansion conduit fittings at all points where conduits cross building expansion joints.

D. Run exposed conduit parallel to, or at right angles to, building structural members. Vertical runs are to be plumb.

E. All conduit terminating in sheet steel enclosures shall have double locknuts and a bushing. Locknuts shall be a type that will "bite" into the metal of the box. All bushings shall be of the insulating type.

F. Conduit shall be run concealed in finished areas.

G. Conduits shall not be run on the exterior of the building or on the roof unless specifically indicated on the drawings. The routing of such conduits shall be approved by the Architect.

H. Homeruns to panels shall be 3/4" minimum.

I. Provide empty conduits with #12 pull wires.

J. Conduit entry into building shall be watertight.

K. Raceways or sleeves shall be filled with an approved material to prevent the circulation of warm air to a colder section of the raceway or sleeve where passing from the interior to the exterior of a building or from a cold storage room to a heated room.

L. Conduit supporting systems shall be attached to the deck, slab, or structural framing only and not to any other appearances at the ceiling such as mechanic ducts, pipes and suspended ceiling hanger wires or framing members.

M. Conduits shall be supported by steel or malleable clamps. Do not support conduits using wire or perforated strapping.

N. Conduits,



M.T. Denk
PROJECT TEAM

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STRUCTURAL ENGINEER:
DANMARK ENGINEERING
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MEP ENGINEER:
DENK ASSOCIATES
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COUNTRY CLUB OF HUDSON CART BARN

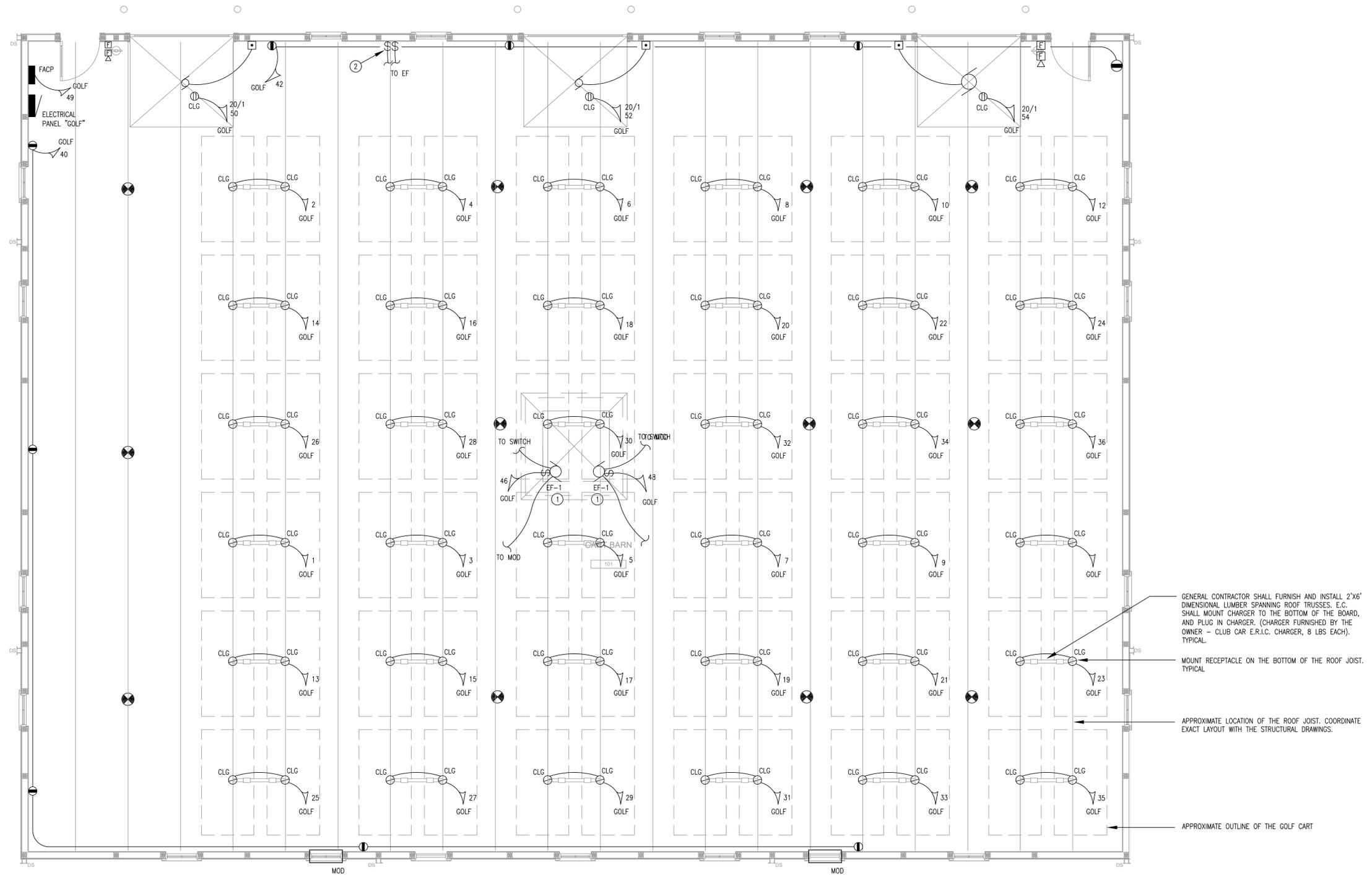
2155 MIDDLETON RD, HUDSON, OH 44236



PROJECT #: 2223
ISSUE:
FOR BID-PERMIT 06-28-2024

POWER PLAN

E2.01



1 POWER PLAN
Scale: 1/4" = 1'-0"

GENERAL NOTE:
1. WALL MOUNTED RECEPTACLES SHALL BE INSTALLED AT 48" AFF. TYPICAL.

CODED NOTES:
① EXHAUST FAN: 1/2 HP, 120V-1Ø. PROVIDE INTERLOCK WIRING TO MOTOR OPERATED DAMPER TO OPEN WHEN FAN IS ENERGIZED.
② PROVIDE WALL SWITCH WITH PILOT LIGHT. PROVIDE NAMEPLATE TO READ: "EXHAUST FANS"

