DOCUMENT 00 91 13

ADDENDA

ADDENDUM NUMBER 02

DATE: 08/28/2023

PROJECT: The Salvation Army - Niles

PROJECT NUMBER: 23-0578

OWNER: The Salvation Army

ARCHITECT: Abonmarche
315 W. Jefferson Blvd.
South Bend, IN 46601

TO: Prospective Bidders

This Addendum forms a part of the Contract Documents and modifies the Bidding Documents dated July 31, 2023, and Addendum Number 1 issued August 21, 2023, with amendments and additions noted below.

Acknowledge receipt of this Addendum in the space provided in the Bid Form. Failure to do so may disqualify the Bidder.

This Addendum consists of 32 pages and the following Drawings:

No.	Drawing Title	Issue Date
C0.1	Existing Conditions	07-31-2023
C1.0	Removals Plan	07-31-2023
C2.0	Site Layout Plan	07-31-2023
C3.0	Grading and Drainage Plan	07-31-2023
C4.0	Utility Plan	07-31-2023
S1.1	Roof Framing Plans	07-31-2023
S3.2	Structural Details	07-31-2023
S4.1	Structural Elevations	07-31-2023

S4.2	Structural Elevations	07-31-2023
A2.1	First Floor – Reflected Ceiling Plan	07-31-2023

GENERAL INFORMATION

1. **CLARIFY** Owner shall provide all third party testing.
2. **ADD** Knox Box shall be provided by G.C.
    a. Knox Box shall meet requirements of local Fire Marshall.
    b. Knox Box shall be dark bronze and located adjacent to the south entry door.
3. **CLARIFY** G.C.'s may provide voluntary alternate for Door Hardware package (ie…Corbin exit devices)
    a. Door Hardware shall be provided as a complete package.
4. **CLARIFY** The sloped beams at the Chapel wood ceiling are NOT wrapped.
    a. Exposed steel shall be painted black as specified.
5. **CLARIFY** The west wall of the chapel requires a 2hr rating as indicated on the drawings.
    a. The east wall of the chapel is NOT rated.

CHANGES TO THE PROJECT MANUAL

DOCUMENT 00 01 10 - TABLE OF CONTENTS (Not Re-Issued)

6. **ADD** Section 004321 – Allowance Form
7. **ADD** Section 012100 – Allowances

DOCUMENT 004321 – Allowance Form

8. **ADD** Entire Section (Attached)

DOCUMENT 012100 – Allowances

9. **ADD** Entire Section (Attached)
    a. Includes the following
        i. Furniture
        ii. Signage
        iii. TV's and TV Brackets
        iv. Shed and Concrete Pad

DOCUMENT 042000 – Unit Masonry (Re-Issued)

10. **REVISE** Paragraph 1.5 Action Submittals
11. **REVISE** Paragraph 1.6 Informational Submittals
12. Paragraph 2.2 Performance Requirements
    a. **DELETE** Paragraph A.2
13. **REVISE** Paragraph 2.4.C CMUs: ASTM C90
14. **REVISE** Paragraph 2.7 Mortar and Grout Materials
15. **REVISE** Paragraph 2.8 Reinforcement, Ties, and Anchors
16. **REVISE** Paragraph 2.10 Mortar and Grout Mixes
17. **REVISE** Paragraph 2.11 Miscellaneous Masonry Accessories
18. **REVISE** Paragraph 3.12 Control and Expansion Joints
19. **REVISE** Paragraph 3.16 Field Quality Control

CHANGES TO THE DRAWINGS

DRAWING – CIVIL SHEETS C0.1, C1.0, C2.0, C3.0, C4.0 (Re-Issued)

20. Increase size to the drainage basin
21. revise inverts
22. **ADD** fire hydrant an dipping across South 17th Street
23. Relocation of inlet structure at northwest drive.
24. **DELETE** tree at southeast existing drive entrance.

DRAWING S1.1 – ROOF FRAMING PLANS (Re-Issued)

25. Update lintel plan and lintel by grid 4

DRAWING S3.2 – STRUCTURAL DETAILS (Re-Issued)

26. **ADD** galv. Note to 21/S3.2

DRAWING S4.1 – STRUCTURAL ELEVATIONS (Re-Issued)

27. **ADD** galv. Note to 4,5,6,7/S4.1

DRAWING S4.2 – STRUCTURAL ELEVATIONS (Re-Issued)

28. **ADD** galv. Note to 1/S4.2

DRAWING A2.1 – FIRST FLOOR – REFLECTED CEILING PLAN (Re-Issued)

29. REVISE Chapel lighting layout.
30. REVISE Lighting Legend for fixture L17

APPROVAL OF ADDITIONAL PRODUCTS/SYSTEMS

31. Include the following acceptable manufacturers in sections indicated:

072100	BASF – Spraytite 178 Series Building Envelope Insulation
081416	Oshkosh GP, GT, &GF Series Wood Doors

QUESTIONS

32. What is the specified grass seed mix?

a. Kentucky Bluegrass – Supreme – shall be 4 way blend
   i. **New Turf**: Sow 2-3 pounds Kentucky Blue grass seed per 1,000 square feet or 80-120 lbs per acre
   ii. **Over-seeding**: sow 1-1 ½ pounds Kentucky Bluegrass seed per 1,000 square feet or 40-60 lbs per acre for broadcast over-seeding

iii. **Planting**: Plant Kentucky Bluegrass Supreme seed when soil temperature reaches 55 degrees in spring up until a minimum of 8 weeks before frost in fall.

33. THE SPECIFICATIONS SHOW THIS FOR ACOUSTICAL TILE TYPE 1: USG 'MARS', 24"X24" AT ALL LOCATIONS U.O.N.
   a. The reveal edge shall be SLT (Shadowline Tapered)/

34. THERE IS AN ACT-3 ON THE FINISH SCHEDULE THAT IS NOT IDENTIFIED.
   a. Delete ACT-3 and substitute in ACT-1 in room #102 and #111.

35. Paint for Exterior CMU walls?
   a. Provide Sherwin Williams PrepRite ProBlock Exterior Latex Primer-Sealer
      i. Apply coats as required to fill pores and provide an even coating.
   b. Provide Sherwin Williams Emerald Urethane Enamel Exterior Waterbased Satin paint.
      i. Provide (2) coats minimum, additional coats as required for consistent even coating.
   c. Provide Sherwin Williams Anti-Grafiti Siloxane coating to all exterior exposed CMU walls.
   d. Installation shall meet manufacturer's written requirements for project application

36. Are exterior door and window canopies field painted?
   a. No, provide factory applied powder coat finish. Color shall be dark bronze.

37. Is paint required at Walls and Ceilings above acoustical ceiling clouds?
   a. Yes, walls and ceilings/structure and exposed ductwork, etc… shall be painted to match general wall color.

38. Are all storefronts on plan sheet A8.3 prefinished aluminum?
   a. Refer to ADDENDUM #1 for additional clarification.
   b. All storefront and curtainwall systems shall have dark bronze anodized finish.
   c. All interior hollow metal frames shall be field painted (finish shall be free of brush strokes)

39. Is Chapel wood ceiling field stained?
   a. Yes, provide Sherwin Williams Sher-Wood WB-S Stain
      i. Color shall be selected by Architect from manufacturer's full range.

40. Please provide cabinet specifications.
   a. Refer to specification section 064116 in original

41. Which windows require roller shades?
   a. Roller shades shall be provided at all windows in the following locations.
      ii. Offices (typ)
      iii. Multi-Purpose Rooms (typ)
      iv. Chapel
      v. Dining

42. Provide shower room wainscot, shower tile, trim, and shower pan information.
   a. The shower will be fully tiled and the wainscoting in the restroom will be wrapped into the shower stall. The concrete slab shall be recessed 1 ½" to allow for accessible entry. Mosaic tile shall be used for the finish of the shower floor.
      vi. Floor tile at shower: Mosaic floor tile TBD
      vii. Schluter trim at drywall/tile corner: FINEC
      viii. Schluter trim at tile floor/wall base: DILEX-HKS (in lieu of 6" cove base)
      ix. Schluter trim at top of wainscot tile: INDEC

43. Please provide EFP (EPOXY FLAKE FLOORING) Specification or BOD.
   a. Provide STONHARD Stonetec 'Dakota Bronze' or Equal.
      iv. Install as required by manufacturer's written requirements.
      v. Installer shall be certified by manufacturer

44. Please clarify the different types of rigid insulation
   a. Provide polyiso rigid insulation with cover board at flat roof as specified per manufacturer warranty.
   b. Provide XPS rigid insulation at the CMU wall on the south side of the building.
   c. Provide XPS rigid insulation at foundation walls as specified.
   d. Provide XPS rigid Insulation at the under slab perimeter as specified.
   e. Provide ZIP insulated Sheathing at the rest of the building.

45. Please confirm the cap material at the monument sign
   a. Cap material shall be dark bronze coping to match building

46. KITCHEN EQUIPMENT CLARIFICATION: (NOTE: ATLAS Restaurant Equipment is an Approved Manufacturer)
   a. KE-1: Ice Bin, 30"W x 34"D x 38"H, with side-hinged front-opening door, side grips, 365 lbs. application capacity, AHRI certified 12.3 cu. ft., for top-mounted ice maker, Duratech exterior, NSF – or similar.
   b. KE-2: Traulsen G-Series 1-seciton, reach-in freezer w/ self-contained solid doors.
   c. KE-3: Traulsen G-Series 1-seciton, reach-in refrigerator w/ self-contained solid doors.
   d. KE-4: Econ-air 6024EX-2-PSP-F 6'long exhaust.
   e. KE-5: Garland x-series 60" gas restaurant 6 burner range with built-in griddle.
   f. KE-6: Advance Tabco – Sealed Well Electric Table food warmer (SW-3E-240)
   g. KE-7: Clean dish table – TBD
   h. KE-8: Soiled dish table – Owner provided
   i. KE-9: Hobart AM16 door type commercial dishwasher
   j. KE-10: Advance Tabco 7-PS-20 Stainless Steel Hand Sink
   k. KE-11: 30" x 72" Eagle Group work table with undershelf T3072B
   l. KE-12: 24" x 36" Eagle Group work table with undershelf T2436B-2X

47. HARDWARE SET 13 IN THE ADDENDUM 001 DOOR HARDWARE SPECIFICATIONS IS ASSIGNED TO DOOR 103-A. DOOR 103-A IS NOT LISTED AND DOOR 110-A IS NOT IN THE HARDWARE SPECIFICAITONS.
   a. Door 103-A shall be deleted and replaced with door number 110-A. Specifications for 103-A shall transfer to door 110-A.

48. SPECIFICATION FOR VW-1 VINYL DECAL AT ENTRY.
   a. The vinyl decal shall be ARLON DPS 8200 – Supplier reference: Sign Design, 1310 S Main St #1, South Bend, IN 46601

49. DRAWINGS CALL FOR FACIA, TRIM, COPING, ETC. TO BE .080 ALUMINUM BUT TPO SPECIFICATION CALLS FOR COPING TO BE 24 GUAGE STEEL.
   a. Roofing trim and flashing to be 24 gauge galvanized steel.

50. GUTTER IS ONLY CALLED OUT ON DRAWINGS AS HEAVY DUTY.
   a. The heavy-duty gutter shall be 24 gauge galvanized steel.

51. What is the specification for the new fence?
   a. 4' Ht. Galvanized Black Vinyl – Coated 9 ga Chain link
   b. W/ 5' Single and 5' double Gates (See Plans)
   c. Top rail w/ Caps and Bottom Aluminum Tension Wired.
   d. Chain-Link fabric has a polyvinyl chloride extruded over zinc-coated steel wire per ASTM F 668 Class 1. The polyvinyl chloride is adhered to zinc-coated steel wire per ASTM F 668 Class 2a.

52. HOW WILL UTILITY FEES BE HANDLED?
   a. Owner will apply for new service and pay applicable fees.
   b. General Contractor shall coordinate complete installation.

END OF DOCUMENT

SECTION 004321 - ALLOWANCE FORM

1.1 BID INFORMATION

A. Bidder: _____.

B. Project Name: The Salvation Army, Niles.

C. Project Location: 1707 Miller Dr., Niles, MI 49120.

D. Owner: The Salvation Army, an Illinois Corporation.

E. Architect: Abonmarche Consultants, Inc.

F. Architect Project Number: 22-0578.

1.2 BID FORM SUPPLEMENT

A. This form is required to be attached to the Bid Form.

B. The undersigned Bidder certifies that Base Bid submission to which this Bid Supplement is attached includes those allowances described in the Contract Documents and scheduled in Section 012100 "Allowances."

1.3 SUBMISSION OF BID SUPPLEMENT

A. Respectfully submitted this ____ day of _____, 2023.

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

C. Authorized Signature:_____(Handwritten signature).

D. Signed By:_____(Type or print name).

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

END OF DOCUMENT 004321

SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section includes administrative and procedural requirements governing allowances.

B. Types of allowances include the following:

1. Lump-sum allowances.

C. Related Requirements:

1. Section 012600 "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
2. Section 014000 "Quality Requirements" for procedures governing the use of allowances for field testing by an independent testing agency.

1.3 DEFINITIONS

A. Allowance: A quantity of work or dollar amount included in the Contract, established in lieu of additional requirements, used to defer selection of actual materials and equipment to a later date when direction will be provided to Contractor. If necessary, additional requirements will be issued by Change Order.

1.4 SELECTION AND PURCHASE

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

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

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

1.5 ACTION SUBMITTALS

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

1.6 INFORMATIONAL SUBMITTALS

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

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

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

1.7 LUMP-SUM ALLOWANCES

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

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

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

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

1.8 ADJUSTMENT OF ALLOWANCES

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

1. Include installation costs in purchase amount only where indicated as part of the allowance.
2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other markups.

3. Submit substantiation of a change in scope of Work, if any, claimed in Change Orders related to unit-cost allowances.
4. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.

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

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

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

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

3.2 PREPARATION

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

3.3 SCHEDULE OF ALLOWANCES

A. **Allowance No. 1**: Lump-Sum Allowance: Include the sum of $145,000.00 for the furniture package.

1. This allowance includes material, receiving, handling, and installation costs.

B. **Allowance No. 2**: Lump-Sum Allowance: Include the sum of $80,000.00 for exterior building 'Logo' signs and site monument sign, as shown on Drawings.

1. This allowance includes material, receiving, handling, and installation costs.

C. **Allowance No. 3**: Lump-Sum Allowance: Include the sum of $15,000.00 for TV's and Wall Mount Brackets, at locations shown on Drawings.

1. This allowance includes material, receiving, handling, and installation costs.

2. Owner shall select make and model for TVs and brackets.

D. **Allowance No. 4**: Lump-Sum Allowance: Include the sum of $10,000.00 for Shed and Concrete Pad, as shown on Drawings.

1. This allowance includes material, receiving, handling, and installation costs.

Retain first subparagraph below if costs in addition to material costs are covered under this allowance. Revise to suit Project. Delete below if this allowance is for material costs only.Retain subparagraph below if this allowance is a quantity allowance with a corresponding unit price to be used to adjust the Contract Sum once final quantities are established. Revise to suit Project.END OF SECTION 012100

SECTION 042000 - UNIT MASONRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Concrete masonry units.
2. Clay face brick.
3. Mortar and grout.
4. Steel reinforcing bars.
5. Masonry-joint reinforcement.
6. Ties and anchors.
7. Embedded flashing.
8. Miscellaneous masonry accessories.
9. Masonry-cell fill.

B. Products Installed but not Furnished under This Section:

1. Cast-stone trim in unit masonry.
2. Steel lintels in unit masonry.
3. Steel shelf angles for supporting unit masonry.
4. Cavity wall insulation.

1.3 DEFINITIONS

A. CMU(s): Concrete masonry unit(s).

B. Reinforced Masonry: Masonry containing reinforcing steel in grouted cells.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Store masonry units on elevated platforms in a dry location. If units are not stored in an enclosed location, cover tops and sides of stacks with waterproof sheeting, securely tied. If units become wet, do not install until they are dry.

B. Store cementitious materials on elevated platforms, under cover, and in a dry location. Do not use cementitious materials that have become damp.

C. Store aggregates where grading and other required characteristics can be maintained and contamination avoided.

D. Deliver preblended, dry mortar mix in moisture-resistant containers. Store preblended, dry mortar mix in delivery containers on elevated platforms in a dry location or in covered weatherproof dispensing silos.

E. Store masonry accessories, including metal items, to prevent corrosion and accumulation of dirt and oil.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For the following:
   1. Reinforcing Steel: Detail bending, lap lengths, and placement of unit masonry reinforcing bars. Comply with ACI 315. Show elevations of reinforced walls.

1.6 INFORMATIONAL SUBMITTALS

A. Material Certificates: For each type and size of the following:

   1. Masonry units.
      a. Include data on material properties.
      b. For masonry units used in structural masonry, include data and calculations establishing average net-area compressive strength of units.
   2. Integral water repellant used in CMUs.
   3. Cementitious materials. Include name of manufacturer, brand name, and type.
   4. Mortar admixtures.
   5. Preblended, dry mortar mixes. Include description of type and proportions of ingredients.
   6. Grout mixes. Include description of type and proportions of ingredients.
   7. Reinforcing bars.
   8. Joint reinforcement.
   9. Anchors, ties, and metal accessories.

B. Mix Designs: For each type of mortar and grout. Include description of type and proportions of ingredients.

   1. Include test reports for mortar mixes required to comply with property specification. Test according to ASTM C109/C109M for compressive strength, ASTM C1506 for water retention, and ASTM C91/C91M for air content.
   2. Include test reports, according to ASTM C1019, for grout mixes required to comply with compressive strength requirement.

C. Statement of Compressive Strength of Masonry: For each combination of masonry unit type and mortar type, provide statement of average net-area compressive strength of masonry units, mortar type, and resulting net-area compressive strength of masonry determined according to TMS 602/ACI 530.1/ASCE 6.

D. Cold-Weather and Hot-Weather Procedures: Detailed description of methods, materials, and equipment to be used to comply with requirements.

1.7 FIELD CONDITIONS

A. Protection of Masonry: During construction, cover tops of walls, projections, and sills with waterproof sheeting at end of each day's work. Cover partially completed masonry when construction is not in progress.

1. Extend cover a minimum of 24 inches down both sides of walls, and hold cover securely in place.
2. Where one wythe of multiwythe masonry walls is completed in advance of other wythes, secure cover a minimum of 24 inches down face next to unconstructed wythe, and hold cover in place.

B. Do not apply uniform floor or roof loads for at least 12 hours and concentrated loads for at least three days after building masonry walls or columns.

C. Stain Prevention: Prevent grout, mortar, and soil from staining the face of masonry to be left exposed or painted. Immediately remove grout, mortar, and soil that come in contact with such masonry.

1. Protect base of walls from rain-splashed mud and from mortar splatter by spreading coverings on ground and over wall surface.
2. Protect sills, ledges, and projections from mortar droppings.
3. Protect surfaces of window and door frames, as well as similar products with painted and integral finishes, from mortar droppings.
4. Turn scaffold boards near the wall on edge at the end of each day to prevent rain from splashing mortar and dirt onto completed masonry.

D. Cold-Weather Requirements: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freezing conditions. Comply with cold-weather construction requirements contained in TMS 602/ACI 530.1/ASCE 6.

1. Cold-Weather Cleaning: Use liquid cleaning methods only when air temperature is 40 deg F and higher and will remain so until masonry has dried, but not less than seven days after completing cleaning.

E. Hot-Weather Requirements: Comply with hot-weather construction requirements contained in TMS 602/ACI 530.1/ASCE 6.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations for Masonry Units: Obtain exposed masonry units of a uniform texture and color, or a uniform blend within the ranges accepted for these characteristics, from single source from single manufacturer for each product required.

B. Source Limitations for Mortar Materials: Obtain mortar ingredients of a uniform quality, including color for exposed masonry, from single manufacturer for each cementitious component and from single source or producer for each aggregate.

C. Basis-of-Design: Consumers Concrete Corporation, www.consumersconcrete.com, 800-643-4235, 3506 Lovers Lane, Kalamazoo, MI 49003

2.2 PERFORMANCE REQUIREMENTS

A. Provide unit masonry that develops indicated net-area compressive strengths at 28 days.

1. Determine net-area compressive strength of masonry from average net-area compressive strengths of masonry units and mortar types (unit-strength method) according to TMS 602/ACI 530.1/ASCE 6.

2.3 UNIT MASONRY, GENERAL

A. Masonry Standard: Comply with TMS 602/ACI 530.1/ASCE 6, except as modified by requirements in the Contract Documents.

B. Defective Units: Referenced masonry unit standards may allow a certain percentage of units to contain chips, cracks, or other defects exceeding limits stated. Do not use units where such defects are exposed in the completed Work and will be within 20 feet vertically and horizontally of a walking surface.

C. Fire-Resistance Ratings: Comply with requirements for fire-resistance-rated assembly designs indicated.

1. Where fire-resistance-rated construction is indicated, units shall be listed and labeled by a qualified testing agency acceptable to authorities having jurisdiction.

2.4 CONCRETE MASONRY UNITS

A. Shapes: Provide shapes indicated and as follows, with exposed surfaces matching exposed faces of adjacent units unless otherwise indicated.

1. Provide special shapes for lintels, corners, jambs, sashes, movement joints, headers, bonding, and other special conditions.

2. Provide square-edged units for outside corners unless otherwise indicated.
3. Provide 1" bullnose shapes at all opening jamb locations.

B. Integral Water Repellent: Provide units made with W.R. Grace "Dry-Block" integral water repellent system.

C. CMUs: ASTM C90.
1. Unit Compressive Strength: Provide units with minimum average net-area compressive strength of 2150 psi.
2. Density Classification: Normal weight.
3. Size (Width): Manufactured to dimensions 3/8 inch less-than-nominal dimensions.
4. Exposed Faces: Provide color and texture matching the range represented by Architect's sample.

D. Insulated CMUs: Where indicated, units shall contain perlite insulation, designed for installing in cores of masonry units, that conform to the requirements of ASTM Designation C549.

2.5 LINTELS

A. General: Provide one of the following:

B. Masonry Lintels: Prefabricated or built-in-place masonry lintels made from bond beam CMUs matching adjacent CMUs in color, texture, and density classification, with reinforcing bars placed as indicated and filled with coarse grout. Cure precast lintels before handling and installing. Temporarily support built-in-place lintels until cured.

C. Loose Laid Steel Lintels: Galvanized steel angle lintels. Size and bearing as noted on the drawings.

2.6 BRICK

A. General: Provide shapes indicated and as follows, with exposed surfaces matching finish and color of exposed faces of adjacent units:

1. For ends of sills and caps and for similar applications that would otherwise expose unfinished brick surfaces, provide units without cores or frogs and with exposed surfaces finished.
2. Provide special shapes for applications where stretcher units cannot accommodate special conditions, including those at corners, movement joints, bond beams, sashes, and lintels.
3. Provide special shapes for applications requiring brick of size, form, color, and texture on exposed surfaces that cannot be produced by sawing.
4. Provide special shapes for applications where shapes produced by sawing would result in sawed surfaces being exposed to view.

B. Clay Face Brick: Facing brick complying with ASTM C216.

1. Manufacturers: Subject to compliance with requirements, provide the following:

a. The Belden Brick Company, www.beldenbrick.com, 330-456-0031, Canton, OH 44702.

2. Type: FBS.
3. Size (Actual Dimensions): 3-5/8 inches wide by 2-1/4 inches high by 7-5/8 inches long.
4. Application: Use where brick is exposed unless otherwise indicated.
5. Color and Texture: Belden Modular Boystown Matt.

2.7 MORTAR AND GROUT MATERIALS

A. Water: Potable.

B. Portland Cement: ASTM C150/C150M, Type I or II, except Type III may be used for cold-weather construction. Provide natural color or white cement as required to produce mortar color indicated.

1. Alkali content shall not be more than 0.1 percent when tested according to ASTM C114.

C. Hydrated Lime: ASTM C207, Type S.

D. Portland Cement-Lime Mix: Packaged blend of portland cement and hydrated lime containing no other ingredients.

E. Mortar Cement: ASTM C1329/C1329M.

1. Products: Subject to compliance with requirements, provide the following:

a) Lafarge North America Inc.; Lafarge Mortar Cement Magnolia Superbond Mortar Cement.

F. Aggregate for Mortar: ASTM C144.

1. For mortar that is exposed to view, use washed aggregate consisting of natural sand or crushed stone.
2. For joints less than 1/4 inch thick, use aggregate graded with 100 percent passing the No. 16 sieve.
3. White-Mortar Aggregates: Natural white sand or crushed white stone.

G. Aggregate for Grout: ASTM C404.

H. Cold-Weather Admixture: Nonchloride, noncorrosive, accelerating admixture complying with ASTM C494/C494M, Type C, and recommended by manufacturer for use in masonry mortar of composition indicated.

1. Products: Subject to compliance with requirements, provide one of the following:

   a) BASF Corporation Chemicals - Building Systems; Trimix-NCA.
   b) Euclid Chemical Company (The); an RPM company; Accelguard 80.
   c) Grace Construction Products, W. R. Grace & Co. - Conn.; Morset.

B.

2.8 REINFORCEMENT, TIES, AND ANCHORS

A. General:

1. Brick Ties shall be spaced to support a maximum area of 2 square feet, but shall have a maximum horizontal spacing of 24" on center.

2. Wall Ties at CMU: Corrugated formed sheet metal , 3/4" wide by 0.05 inch thick, 22 gage, hot dip galvanized to ASTM A 153/A 153M, Class B, sized to provide not more than 1 inch and not less than 1/2" of mortar coverage from the masonry face.

3. Masonry Veneer Anchors: 2-piece anchors that permit differential movement between masonry veneer and structural backup, hot dip galvanized to ASTM A 153/A 153M, Class B. Ties shall extend at least 1-1/2 inches (38 mm) into veneer but with at least a 5/8-inch (16-mm) cover on outside face.

   a. Anchor plates: Not less than 0.075 inch thick, designed for fastening to structural backup through sheathing by two fasteners: provide design with legs that penetrate sheathing and insulation to provide positive anchorage.
   b. Wire ties: Manufacturer's standard triangle shape, 0.1875 inch thick.
   c. Vertical adjustment: Not less than 2 inches.
   d. Ties shall extend at least 1-1/2 inches (38 mm) into veneer but with at least a 5/8-inch (16-mm) cover on outside face

4. Joint Reinforcement: Use ladder type joint reinforcement where vertical reinforcement is involved and truss type elsewhere, unless otherwise indicated.

5. Single Wythe Joint Reinforcement: Truss or ladder type complying with ASTM A951/A951M.
   a. ASTM A1064/A1064M steel wire.
   b. Interior Walls: Hot-dip galvanized carbon steel.
   c. Exterior Walls: Hot-dip galvanized carbon steel.
   d. Wire Size for Side Rods: 0.148-inch diameter.
   e. Wire Size for Cross Rods: 0.148-inch diameter.
   f. Spacing of Cross Rods: Not more than 16 inches o.c.

g. Provide in lengths of not less than 10 feet, with prefabricated corner and tee units.
h. Provide not more than 1 inch and not less than 1/2 inch of mortar coverage on each exposure.

6. Reinforcing Bar Positioners: Wire units designed to fit into mortar bed joints spanning masonry unit cells and to hold reinforcing bars in center of cells. Units are formed from 0.148-inch steel wire, hot-dip galvanized after fabrication. Provide units designed for number of bars indicated.
   a. Products: Subject to compliance with requirements, provide one of the following:
      1) Heckmann Building Products Inc.; No. 376 Rebar Positioner.
      2) Hohmann & Barnard, Inc.; #RB or #RB-Twin Rebar Positioner.

7. Reinforcing Steel: ASTM A615/A615M, Grade 60 (60,000 psi), deformed billet bars; galvanized.

   a. Shop fabricate reinforcing bars that are shown to be hooked or bent. Provide a minimum lap of 48 times the bar diameter at all splices, unless otherwise noted.

8. Manufacturers (Basis-of-Design):

   a. Hohmann & Barnard, Inc. www.h-b.com

2.9 MASONRY-CELL FILL

A. Loose-Fill Insulation: Perlite complying with ASTM C549, Type II (surface treated for water repellency and limited moisture absorption) or Type IV (surface treated for water repellency and to limit dust generation).

2.10 MORTAR AND GROUT MIXES

A. General: Do not use admixtures, including pigments, air-entraining agents, accelerators, retarders, water-repellent agents, antifreeze compounds, or other admixtures unless otherwise indicated.

1. Do not use calcium chloride in mortar or grout.
2. Use portland cement-lime or mortar cement mortar unless otherwise indicated.
3. For exterior masonry, use portland cement-lime or mortar cement mortar.
4. For reinforced masonry, use portland cement-lime or mortar cement mortar.
5. Add cold-weather admixture (if used) at same rate for all mortar that will be exposed to view, regardless of weather conditions, to ensure that mortar color is consistent.
6. Integral Water Repellent: Provide units made with W.R. Grace "Dry-Block" integral water repellent system.

B. Preblended, Dry Mortar Mix: Furnish dry mortar ingredients in form of a preblended mix. Measure quantities by weight to ensure accurate proportions, and thoroughly blend ingredients before delivering to Project site.

C. Mortar for Unit Masonry: Comply with ASTM C270, Proportion Specification. Provide the following types of mortar for applications stated unless another type is indicated.
1. For masonry below grade or in contact with earth, use **Type M.**
2. For reinforced masonry, use **Type S.**
3. For exterior, above-grade, load-bearing and nonload-bearing walls and parapet walls; for interior load-bearing walls; for interior nonload-bearing partitions; and for other applications where another type is not indicated, use Type S.

D. Grout for Unit Masonry: Comply with ASTM C476.
1. Use grout of type indicated or, if not otherwise indicated, of type (fine or coarse) that will comply with TMS 602/ACI 530.1/ASCE 6 for dimensions of grout spaces and pour height.
2. Proportion grout in accordance with ASTM C476, paragraph 4.2.2 for specified 28-day compressive strength indicated, but not less than 2800 psi.
3. Provide grout with a slump of **8 to 11 inches** as measured according to ASTM C143/C143M.

2.11 MISCELLANEAOUS MASONRY ACCESSORIES

A. Compressible Filler: Premolded filler strips complying with ASTM D1056, Grade 2A1; compressible up to 35 percent; of width and thickness indicated; formulated from neoprene.

B. Preformed Control-Joint Gaskets: Made from PVC, complying with ASTM D2287, Type PVC-65406 and designed to fit standard sash block and to maintain lateral stability in masonry wall; size and configuration as indicated.

C. Bond-Breaker Strips: Asphalt-saturated felt complying with ASTM D226/D226M, Type I (No. 15 asphalt felt).

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

1. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
2. Verify that foundations are within tolerances specified.
3. Verify that reinforcing dowels are properly placed.
4. Verify that substrates are free of substances that impair mortar bond.

B. Before installation, examine rough-in and built-in construction for piping systems to verify actual locations of piping connections.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

A. Thickness: Build cavity and composite walls and other masonry construction to full thickness shown. Build single-wythe walls to actual widths of masonry units, using units of widths indicated.

B. Build chases and recesses to accommodate items specified in this and other Sections.

C. Leave openings for equipment to be installed before completing masonry. After installing equipment, complete masonry to match construction immediately adjacent to opening.

D. Use full-size units without cutting if possible. If cutting is required to provide a continuous pattern or to fit adjoining construction, cut units with motor-driven saws; provide clean, sharp, unchipped edges. Allow units to dry before laying unless wetting of units is specified. Install cut units with cut surfaces and, where possible, cut edges concealed.

E. Select and arrange units for exposed unit masonry to produce a uniform blend of colors and textures. Mix units from several pallets or cubes as they are placed.

F. Matching Existing Masonry: Match coursing, bonding, color, and texture of existing masonry.

G. Wetting of Brick: Wet brick before laying if initial rate of absorption exceeds 30 g/30 sq. in. per minute when tested according to ASTM C67. Allow units to absorb water so they are damp but not wet at time of laying.

3.3 TOLERANCES

A. Dimensions and Locations of Elements:

1. For dimensions in cross section or elevation, do not vary by more than plus 1/2 inch or minus 1/4 inch.
2. For location of elements in plan, do not vary from that indicated by more than plus or minus 1/2 inch.
3. For location of elements in elevation, do not vary from that indicated by more than plus or minus 1/4 inch in a story height or 1/2 inch total.

B. Lines and Levels:

1. For bed joints and top surfaces of bearing walls, do not vary from level by more than 1/4 inch in 10 feet, or 1/2-inch maximum.

2. For conspicuous horizontal lines, such as lintels, sills, parapets, and reveals, do not vary from level by more than 1/8 inch in 10 feet, 1/4 inch in 20 feet, or 1/2-inch maximum.
3. For vertical lines and surfaces, do not vary from plumb by more than 1/4 inch in 10 feet, 3/8 inch in 20 feet, or 1/2-inch maximum.
4. For conspicuous vertical lines, such as external corners, door jambs, reveals, and expansion and control joints, do not vary from plumb by more than 1/8 inch in 10 feet, 1/4 inch in 20 feet, or 1/2-inch maximum.
5. For lines and surfaces, do not vary from straight by more than 1/4 inch in 10 feet, 3/8 inch in 20 feet, or 1/2-inch maximum.
6. For vertical alignment of exposed head joints, do not vary from plumb by more than 1/4 inch in 10 feet or 1/2-inch maximum.
7. For faces of adjacent exposed masonry units, do not vary from flush alignment by more than 1/16 inch except due to warpage of masonry units within tolerances specified for warpage of units.

C. Joints:

1. For bed joints, do not vary from thickness indicated by more than plus or minus 1/8 inch, with a maximum thickness limited to 1/2 inch.
2. For exposed bed joints, do not vary from bed-joint thickness of adjacent courses by more than 1/8 inch.
3. For head and collar joints, do not vary from thickness indicated by more than plus 3/8 inch or minus 1/4 inch.
4. For exposed head joints, do not vary from thickness indicated by more than plus or minus 1/8 inch. Do not vary from adjacent bed-joint and head-joint thicknesses by more than 1/8 inch.
5. For exposed bed joints and head joints of stacked bond, do not vary from a straight line by more than 1/16 inch from one masonry unit to the next.

3.4 LAYING MASONRY WALLS

A. Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint thicknesses and for accurate location of openings, movement-type joints, returns, and offsets. Avoid using less-than-half-size units, particularly at corners, jambs, and, where possible, at other locations.

B. Bond Pattern for Exposed Masonry: Unless otherwise indicated, lay exposed masonry in running bond; do not use units with less-than-nominal 4-inch horizontal face dimensions at corners or jambs.

C. Lay concealed masonry with all units in a wythe in running bond or bonded by lapping not less than 2 inches. Bond and interlock each course of each wythe at corners. Do not use units with less-than-nominal 4-inch horizontal face dimensions at corners or jambs.

D. Stopping and Resuming Work: Stop work by stepping back units in each course from those in course below; do not tooth. When resuming work, clean masonry surfaces that are to receive mortar, remove loose masonry units and mortar, and wet brick if required before laying fresh masonry.

E. Built-in Work: As construction progresses, build in items specified in this and other Sections. Fill in solidly with masonry around built-in items.

F. Fill space between steel frames and masonry solidly with mortar unless otherwise indicated.

G. Where built-in items are to be embedded in cores of hollow masonry units, place a layer of metal lath, wire mesh, or plastic mesh in the joint below, and rod mortar or grout into core.

H. Fill cores in hollow CMUs with grout 24 inches under bearing plates, beams, lintels, posts, and similar items unless otherwise indicated.

I. Build nonload-bearing interior partitions full height of story to underside of solid floor or roof structure above unless otherwise indicated.

1. Install compressible filler in joint between top of partition and underside of structure above.
2. Fasten partition top anchors to structure above and build into top of partition. Grout cells of CMUs solidly around plastic tubes of anchors and push tubes down into grout to provide 1/2-inch clearance between end of anchor rod and end of tube. Space anchors 48 inches o.c. unless otherwise indicated.
3. Wedge nonload-bearing partitions against structure above with small pieces of tile, slate, or metal. Fill joint with mortar after dead-load deflection of structure above approaches final position.
4. At fire-rated partitions, treat joint between top of partition and underside of structure above to comply with Section 078443 "Joint Firestopping."

3.5 MORTAR BEDDING AND JOINTING

A. Lay as follows:

1. Bed face shells in mortar and make head joints of depth equal to bed joints.
2. Bed webs in mortar in all courses of piers, columns, and pilasters.
3. Bed webs in mortar in grouted masonry, including starting course on footings.
4. Fully bed entire units, including areas under cells, at starting course on footings where cells are not grouted.
5. Fully bed units and fill cells with mortar at anchors and ties as needed to fully embed anchors and ties in mortar.

B. Lay solid masonry units and hollow brick with completely filled bed and head joints; butter ends with sufficient mortar to fill head joints and shove into place. Do not deeply furrow bed joints or slush head joints.

C. Lay structural clay tile as follows:

1. Lay vertical-cell units with full head joints unless otherwise indicated. Provide bed joints with full mortar coverage on face shells and webs.

2. Lay horizontal-cell units with full bed joints unless otherwise indicated. Keep drainage channels, if any, free of mortar. Form head joints with sufficient mortar so excess will be squeezed out as units are placed in position. Butter both sides of units to be placed, or butter one side of unit already in place and one side of unit to be placed.
3. Maintain joint thicknesses indicated except for minor variations required to maintain bond alignment. If not indicated, lay walls with 1/4- to 3/8-inch- thick joints.

D. Set firebox brick in full bed of refractory mortar with full head joints. Form joints by buttering both surfaces of adjoining brick and sliding it into place. Make joints just wide enough to accommodate variations in size of brick, approximately 1/8 inch. Tool joints smooth on surfaces exposed to fire or smoke.

E. Install clay flue liners to comply with ASTM C1283. Install flue liners ahead of surrounding masonry. Set clay flue liners in full bed of refractory mortar 1/16 to 1/8 inch thick. Strike joints flush on inside of flue to provide smooth surface. Maintain expansion space between flue liner and surrounding masonry except where surrounding masonry is required to provide lateral support for flue liners.

F. Set trim units in full bed of mortar with full vertical joints. Fill dowel, anchor, and similar holes.

1. Clean soiled surfaces with fiber brush and soap powder and rinse thoroughly with clear water.
2. Allow cleaned surfaces to dry before setting.
3. Wet joint surfaces thoroughly before applying mortar.
4. Rake out mortar joints for pointing with sealant.

G. Rake out mortar joints at to a uniform depth of 1/4 inch and point with epoxy mortar to comply with epoxy-mortar manufacturer's written instructions.

H. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than joint thickness unless otherwise indicated.

1. For glazed masonry units, use a nonmetallic jointer 3/4 inch or more in width.

I. Cut joints flush for masonry walls to receive plaster or other direct-applied finishes (other than paint) unless otherwise indicated.

J. Cut joints flush where indicated to receive waterproofing unless otherwise indicated.

3.6 COMPOSITE MASONRY

A. Bond wythes of composite masonry together using one of the following methods:

1. Individual Metal Ties: Provide ties as shown installed in horizontal joints, but not less than one metal tie for 4.5 sq. ft. of wall area spaced not to exceed 24 inches o.c. horizontally and 16 inches o.c. vertically. Stagger ties in alternate courses. Provide additional ties within 12 inches of openings and space not more than 36 inches apart around perimeter of openings. At intersecting and abutting walls, provide ties at no more than 24 inches o.c. vertically.

    a. Where bed joints of wythes do not align, use adjustable-type (two-piece-type) ties.

2. Masonry-Joint Reinforcement: Installed in horizontal mortar joints.

    a. Where bed joints of both wythes align, use tab-type reinforcement.
    b. Where bed joints of wythes do not align, use adjustable-type (two-piece-type) reinforcement with continuous horizontal wire in facing wythe attached to ties.

3. Header Bonding: Provide masonry unit headers extending not less than 3 inches into each wythe. Space headers not more than 8 inches clear horizontally and 16 inches clear vertically.

B. Bond wythes of composite masonry together using bonding system indicated on Drawings.

C. Collar Joints: Solidly fill collar joints by parging face of first wythe that is laid and shoving units of other wythe into place.

D. Collar Joints in Clay Tile Masonry: After each course is laid, fill the vertical, longitudinal joint between wythes solidly with mortar at exterior walls, except cavity walls.

E. Corners: Provide interlocking masonry unit bond in each wythe and course at corners unless otherwise indicated.

1. Provide continuity with masonry-joint reinforcement at corners by using prefabricated L-shaped units as well as masonry bonding.

F. Intersecting and Abutting Walls: Unless vertical expansion or control joints are shown at juncture, bond walls together as follows:

1. Provide individual metal ties not more than 16 inches o.c.
2. Provide continuity with masonry-joint reinforcement by using prefabricated T-shaped units.
3. Provide rigid metal anchors not more than 48 incheso.c. If used with hollow masonry units, embed ends in mortar-filled cores.

3.7 CAVITY WALLS

A. Bond wythes of cavity walls together using one of the following methods:

1. Individual Metal Ties: Provide ties as shown installed in horizontal joints, but not less than one metal tie for 4.5 sq. ft. of wall area spaced not to exceed 36 inches o.c. horizontally and 16 inches o.c. vertically. Stagger ties in alternate courses. Provide additional ties within 12 inches of openings and space not more than 36 inches apart around perimeter of openings. At intersecting and abutting walls, provide ties at no more than 24 inches o.c. vertically.

    a. Where bed joints of wythes do not align, use adjustable-type (two-piece-type) ties.
    b. Where one wythe is of clay masonry and the other of concrete masonry, use adjustable-type (two-piece-type) ties to allow for differential movement regardless of whether bed joints align.

2. Masonry-Joint Reinforcement: Installed in horizontal mortar joints.

    a. Where bed joints of both wythes align, use tab-type reinforcement.
    b. Where bed joints of wythes do not align, use adjustable-type (two-piece-type) reinforcement with continuous horizontal wire in facing wythe attached to ties.
    c. Where one wythe is of clay masonry and the other of concrete masonry, use adjustable-type (two-piece-type) reinforcement with continuous horizontal wire in facing wythe attached to ties to allow for differential movement regardless of whether bed joints align.

3. Header Bonding: Provide masonry unit headers extending not less than 3 inches into each wythe. Space headers not more than 8 inches clear horizontally and 16 inches clear vertically.
4. Masonry-Veneer Anchors: Comply with requirements for anchoring masonry veneers.

B. Bond wythes of cavity walls together using bonding system indicated on Drawings.

C. Keep cavities clean of mortar droppings and other materials during construction. Bevel beds away from cavity, to minimize mortar protrusions into cavity. Do not attempt to trowel or remove mortar fins protruding into cavity.

D. Parge cavity face of backup wythe in a single coat approximately 3/8 inch thick. Trowel face of parge coat smooth.

E. Installing Cavity Wall Insulation: Place small dabs of adhesive, spaced approximately 12 inches o.c. both ways, on inside face of insulation boards, or attach with plastic fasteners designed for this purpose. Fit courses of insulation between wall ties and other confining obstructions in cavity, with edges butted tightly both ways. Press units firmly against inside wythe of masonry or other construction as shown.

    1. Fill cracks and open gaps in insulation with crack sealer compatible with insulation and masonry.

3.8 ANCHORED MASONRY VENEERS

A. Anchor masonry veneers to wall framing and concrete and masonry backup with masonry-veneer anchors to comply with the following requirements:

1. Fasten anchors through sheathing to wall framing and to concrete and masonry backup with metal fasteners of type indicated. Use two fasteners unless anchor design only uses one fastener.
2. Embed tie sections in masonry joints.
3. Locate anchor sections to allow maximum vertical differential movement of ties up and down.
4. Space anchors as indicated, but not more than 18 inches o.c. vertically and 24 inches o.c. horizontally, with not less than one anchor for each 2 sq. ft. of wall area. Install additional anchors within 12 inches of openings and at intervals, not exceeding 8 inches, around perimeter.
5. Space anchors as indicated, but not more than 16 inches o.c. vertically and 25 inches o.c. horizontally, with not less than one anchor for each 3.5 sq. ft. of wall area. Install additional anchors within 12 inches of openings and at intervals, not exceeding 36 inches, around perimeter.
6. Space anchors as indicated, but not more than 18 inches o.c. vertically and horizontally. Install additional anchors within 12 inches of openings and at intervals, not exceeding 24 inches, around perimeter.

B. Provide not less than 2 7/8"of airspace between back of masonry veneer and face of sheathing or insulation.

1. Keep airspace clean of mortar droppings and other materials during construction. Bevel beds away from airspace, to minimize mortar protrusions into airspace. Do not attempt to trowel or remove mortar fins protruding into airspace.

3.9 MASONRY-CELL FILL

A. Pour loose-fill insulation into cavities to fill void spaces. Maintain inspection ports to show presence of fill at extremities of each pour area. Close the ports after filling has been confirmed. Limit the fall of fill to one story high, but not more than 20 feet.

B. Install molded-polystyrene insulation units into masonry unit cells before laying units.

3.10 MASONRY-JOINT REINFORCEMENT

A. General: Install entire length of longitudinal side rods in mortar with a minimum cover of 5/8 inch on exterior side of walls, 1/2 inch elsewhere. Lap reinforcement a minimum of 6 inches.

1. Space reinforcement not more than 16 inches o.c.
2. Space reinforcement not more than 8 inches o.c. in foundation walls and parapet walls.

3. Provide reinforcement not more than 8 inches above and below wall openings and extending 24 inches beyond openings in addition to continuous reinforcement.

B. Interrupt joint reinforcement at control and expansion joints unless otherwise indicated.

C. Provide continuity at wall intersections by using prefabricated T-shaped units.

D. Provide continuity at corners by using prefabricated L-shaped units.

E. Cut and bend reinforcing units as directed by manufacturer for continuity at corners, returns, offsets, column fireproofing, pipe enclosures, and other special conditions.

3.11 ANCHORING MASONRY TO STRUCTURAL STEEL AND CONCRETE

A. Anchor masonry to structural steel and concrete, where masonry abuts or faces structural steel or concrete, to comply with the following:

1. Provide an open space not less than 1/2 inch wide between masonry and structural steel or concrete unless otherwise indicated. Keep open space free of mortar and other rigid materials.
2. Anchor masonry with anchors embedded in masonry joints and attached to structure.
3. Space anchors as indicated, but not more than 24 inches o.c. vertically and 36 inches o.c. horizontally.

3.12 CONTROL AND EXPANSION JOINTS

A. General: Install control- and expansion-joint materials in unit masonry as masonry progresses. Do not allow materials to span control and expansion joints without provision to allow for in-plane wall or partition movement.

B. Form control joints in concrete masonry as follows:
1. Install preformed control-joint gaskets designed to fit standard sash block.

C. Form expansion joints in brick as follows:

1. Build flanges of metal expansion strips into masonry. Lap each joint 4 inches in direction of water flow. Seal joints below grade and at junctures with horizontal expansion joints if any.
2. Build flanges of factory-fabricated, expansion-joint units into masonry.
3. Build in compressible joint fillers where indicated.
4. Form open joint full depth of brick wythe and of width indicated, but not less than 3/8 inch for installation of sealant and backer rod specified in Section 079200 "Joint Sealants."

D. Provide horizontal, pressure-relieving joints by either leaving an airspace or inserting a compressible filler of width required for installing sealant and backer rod specified in Section 079200 "Joint Sealants," but not less than 3/8 inch.

1. Locate horizontal, pressure-relieving joints beneath shelf angles supporting masonry.

3.13 LINTELS

A. Install steel lintels where indicated.

B. Provide masonry lintels where shown and where openings of more than 8 inches for brick-size units and 16 inches for block-size units are shown without structural steel or other supporting lintels.

C. Provide minimum bearing of 8 inches at each jamb unless otherwise indicated.

3.14 FLASHING, WEEP HOLES, AND CAVITY VENTS

A. General: Install embedded flashing and weep holes in masonry at shelf angles, lintels, ledges, other obstructions to downward flow of water in wall, and where indicated. Install cavity vents at shelf angles, ledges, and other obstructions to upward flow of air in cavities, and where indicated.

B. Install flashing as follows unless otherwise indicated:

1. Prepare masonry surfaces so they are smooth and free from projections that could puncture flashing. Where flashing is within mortar joint, place through-wall flashing on sloping bed of mortar and cover with mortar. Before covering with mortar, seal penetrations in flashing with adhesive, sealant, or tape as recommended by flashing manufacturer.
2. At multiwythe masonry walls, including cavity walls, extend flashing through outer wythe, turned up a minimum of 8 inches, and 1-1/2 inches into the inner wythe. Form 1/4-inch hook in edge of flashing embedded in inner wythe.
3. At masonry-veneer walls, extend flashing through veneer, across airspace behind veneer, and up face of sheathing at least 8 inches; with upper edge tucked under water-resistive barrier, lapping at least 4 inches. Fasten upper edge of flexible flashing to sheathing through termination bar.
4. At lintels and shelf angles, extend flashing a minimum of 6 inches into masonry at each end. At heads and sills, extend flashing 6 inches at ends and turn up not less than 2 inches to form end dams.
5. Interlock end joints of ribbed sheet metal flashing by overlapping ribs not less than 1-1/2 inches or as recommended by flashing manufacturer, and seal lap with elastomeric sealant complying with requirements in Section 079200 "Joint Sealants" for application indicated.
6. Install metal drip edges with ribbed sheet metal flashing by interlocking hemmed edges to form hooked seam. Seal seam with elastomeric sealant complying with requirements in Section 079200 "Joint Sealants" for application indicated.
7. Install metal drip edges beneath flexible flashing at exterior face of wall. Stop flexible flashing 1/2 inch back from outside face of wall, and adhere flexible flashing to top of metal drip edge.

8. Install metal flashing termination beneath flexible flashing at exterior face of wall. Stop flexible flashing 1/2 inch back from outside face of wall, and adhere flexible flashing to top of metal flashing termination.
9. Cut flexible flashing off flush with face of wall after masonry wall construction is completed.

C. Install single-wythe CMU flashing system in bed joints of CMU walls where indicated to comply with manufacturer's written instructions. Install CMU cell pans with upturned edges located below face shells and webs of CMUs above and with weep spouts aligned with face of wall. Install CMU web covers so that they cover upturned edges of CMU cell pans at CMU webs and extend from face shell to face shell.

D. Install reglets and nailers for flashing and other related construction where they are shown to be built into masonry.

E. Install weep holes in exterior wythes and veneers in head joints of first course of masonry immediately above embedded flashing.

1. Use specified weep/cavity vent products to form weep holes.
2. Use wicking material to form weep holes above flashing under brick sills. Turn wicking down at lip of sill to be as inconspicuous as possible.
3. Space weep holes 24 inches o.c. unless otherwise indicated.
4. Space weep holes formed from 16 inches o.c.
5. Cover cavity side of weep holes with plastic insect screening at cavities insulated with loose-fill insulation.
6. Trim wicking material flush with outside face of wall after mortar has set.

F. Place pea gravel in cavities as soon as practical to a height equal to height of first course above top of flashing, but not less than 2 inches, to maintain drainage.

1. Fill cavities full height by placing pea gravel in cavities as masonry is laid, so that at any point, masonry does not extend more than 24 inches above top of pea gravel.

G. Place cavity drainage material in airspace behind veneers to comply with configuration requirements for cavity drainage material in "Miscellaneous Masonry Accessories" Article.

H. Install cavity vents in head joints in exterior wythes at spacing indicated. Use specified weep/cavity vent products to form cavity vents.

1. Close cavities off vertically and horizontally with blocking in manner indicated. Install through-wall flashing and weep holes above horizontal blocking.

3.15 REINFORCED UNIT MASONRY

A. Temporary Formwork and Shores: Construct formwork and shores as needed to support reinforced masonry elements during construction.

1. Construct formwork to provide shape, line, and dimensions of completed masonry as indicated. Make forms sufficiently tight to prevent leakage of mortar and grout. Brace, tie, and support forms to maintain position and shape during construction and curing of reinforced masonry.
2. Do not remove forms and shores until reinforced masonry members have hardened sufficiently to carry their own weight and that of other loads that may be placed on them during construction.

B. Placing Reinforcement: Comply with requirements in TMS 602/ACI 530.1/ASCE 6.

C. Grouting: Do not place grout until entire height of masonry to be grouted has attained enough strength to resist grout pressure.

1. Comply with requirements in TMS 602/ACI 530.1/ASCE 6 for cleanouts and for grout placement, including minimum grout space and maximum pour height.
2. Limit height of vertical grout pours to not more than 60 inches.

3.16 FIELD QUALITY CONTROL

A. Testing and Inspecting: Owner will engage special inspectors to perform tests and inspections and prepare reports. Allow inspectors access to scaffolding and work areas as needed to perform tests and inspections. Retesting of materials that fail to comply with specified requirements shall be done at Contractor's expense.

B. Inspections: Special inspections according to Level **B** in TMS 402/ACI 530/ASCE 5.
1. Begin masonry construction only after inspectors have verified proportions of site-prepared mortar.
2. Place grout only after inspectors have verified compliance of grout spaces and of grades, sizes, and locations of reinforcement.
3. Place grout only after inspectors have verified proportions of site-prepared grout.

C. Testing Prior to Construction: One set of tests.

D. Testing Frequency: One set of tests for each 5000 sq. ft. of wall area or portion thereof.

E. Concrete Masonry Unit Test: For each type of unit provided, according to ASTM C140 for compressive strength.

F. Mortar Aggregate Ratio Test (Proportion Specification): For each mix provided, according to ASTM C780.

G. Mortar Test (Property Specification): For each mix provided, according to ASTM C780. Test mortar for mortar air content and compressive strength.

H. Grout Test (Compressive Strength): For each mix provided, according to ASTM C1019.

3.17 PARGING

A. Parge exterior faces of below-grade masonry walls, where indicated, in two uniform coats to a total thickness of 3/4 inch. Dampen wall before applying first coat, and scarify first coat to ensure full bond to subsequent coat.

B. Use a steel-trowel finish to produce a smooth, flat, dense surface with a maximum surface variation of 1/8 inch per foot. Form a wash at top of parging and a cove at bottom.

C. Damp-cure parging for at least 24 hours and protect parging until cured.

3.18 REPAIRING, POINTING, AND CLEANING

A. Remove and replace masonry units that are loose, chipped, broken, stained, or otherwise damaged or that do not match adjoining units. Install new units to match adjoining units; install in fresh mortar, pointed to eliminate evidence of replacement.

B. Pointing: During the tooling of joints, enlarge voids and holes, except weep holes, and completely fill with mortar. Point up joints, including corners, openings, and adjacent construction, to provide a neat, uniform appearance. Prepare joints for sealant application, where indicated.

C. In-Progress Cleaning: Clean unit masonry as work progresses by dry brushing to remove mortar fins and smears before tooling joints.

D. Final Cleaning: After mortar is thoroughly set and cured, clean exposed masonry as follows:

1. Remove large mortar particles by hand with wooden paddles and nonmetallic scrape hoes or chisels.
2. Test cleaning methods on sample wall panel; leave one-half of panel uncleaned for comparison purposes. Obtain Architect's approval of sample cleaning before proceeding with cleaning of masonry.
3. Protect adjacent stone and nonmasonry surfaces from contact with cleaner by covering them with liquid strippable masking agent or polyethylene film and waterproof masking tape.
4. Wet wall surfaces with water before applying cleaners; remove cleaners promptly by rinsing surfaces thoroughly with clear water.
5. Clean brick by bucket-and-brush hand-cleaning method described in BIA Technical Notes 20.
6. Clean concrete masonry by applicable cleaning methods indicated in NCMA TEK 8-4A.
7. Clean masonry with a proprietary acidic cleaner applied according to manufacturer's written instructions.
8. Clean stone trim to comply with stone supplier's written instructions.
9. Clean limestone units to comply with recommendations in ILI's "Indiana Limestone Handbook."

3.19 MASONRY WASTE DISPOSAL

A. Salvageable Materials: Unless otherwise indicated, excess masonry materials are Contractor's property. At completion of unit masonry work, remove from Project site.

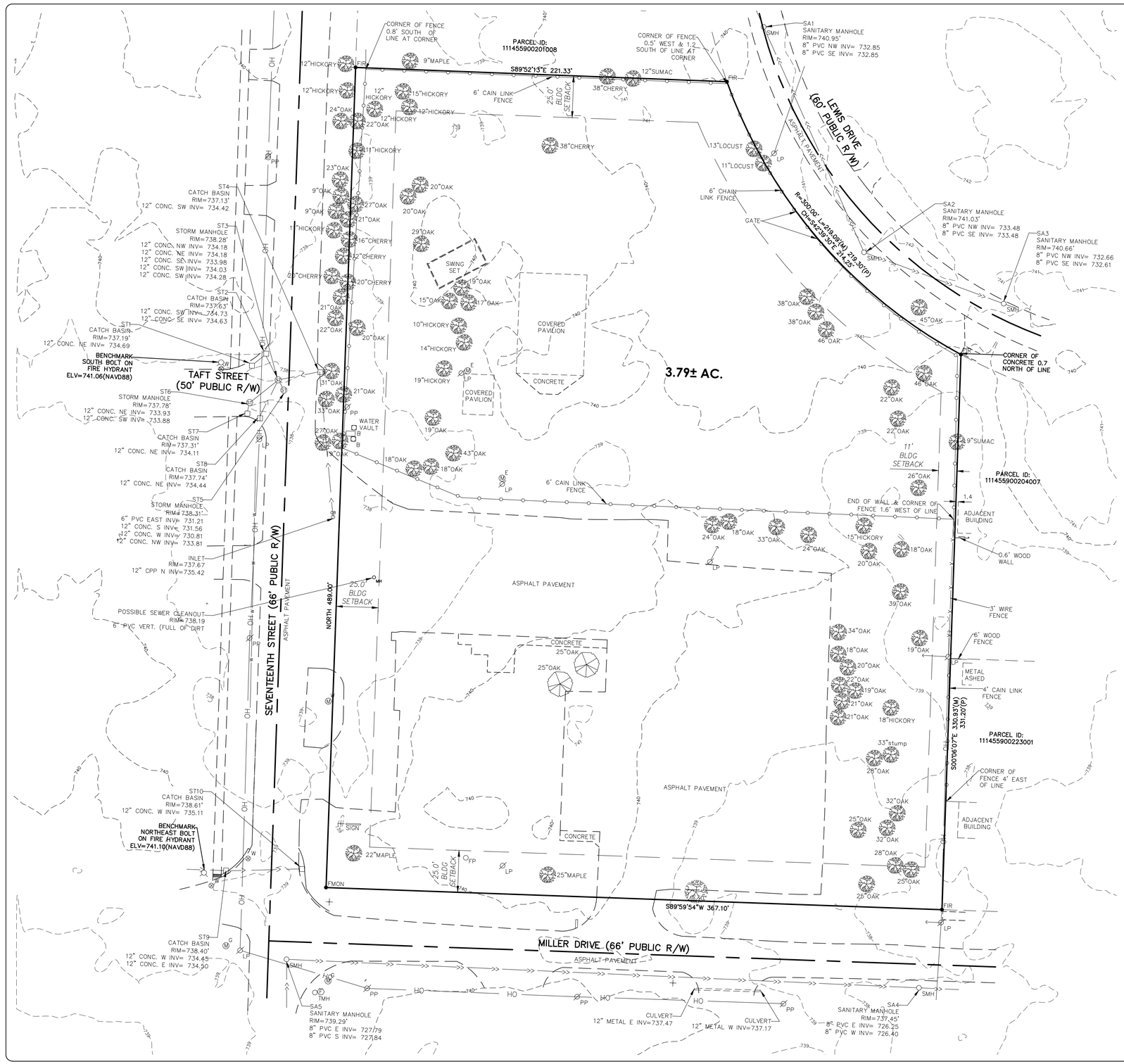
B. Waste Disposal as Fill Material: Dispose of clean masonry waste, including excess or soil-contaminated sand, waste mortar, and broken masonry units, by crushing and mixing with fill material as fill is placed.

1. Crush masonry waste to less than 4 inches in each dimension.
2. Mix masonry waste with at least two parts of specified fill material for each part of masonry waste. Fill material is specified in Section 312000 "Earth Moving."
3. Do not dispose of masonry waste as fill within 18 inches of finished grade.

C. Masonry Waste Recycling: Return broken CMUs not used as fill to manufacturer for recycling.

D. Excess Masonry Waste: Remove excess clean masonry waste that cannot be used as fill, as described above or recycled, and other masonry waste, and legally dispose of off Owner's property.

END OF SECTION 042000



02	ADDENDUM NO. 2	DEF	08/24/23
01	FENCE, PATIO, AND STORMWATER POND	PHW	07/19/23

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PROJECT:
SALVATION ARMY-NILES FACILITY
THE SALVATION ARMY
1707 MILLER DRIVE
NILES MI 49120

SHEET TITLE:
EXISTING CONDITIONS

DRAWN BY: PHW
DESIGNED BY:
PM REVIEW: ARD
QA/QC REVIEW: RAD
DATE: JULY 31, 2023
SEAL:

SIGNATURE:
DATE:
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HORZ: 1" = 30'
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SHEET NO.
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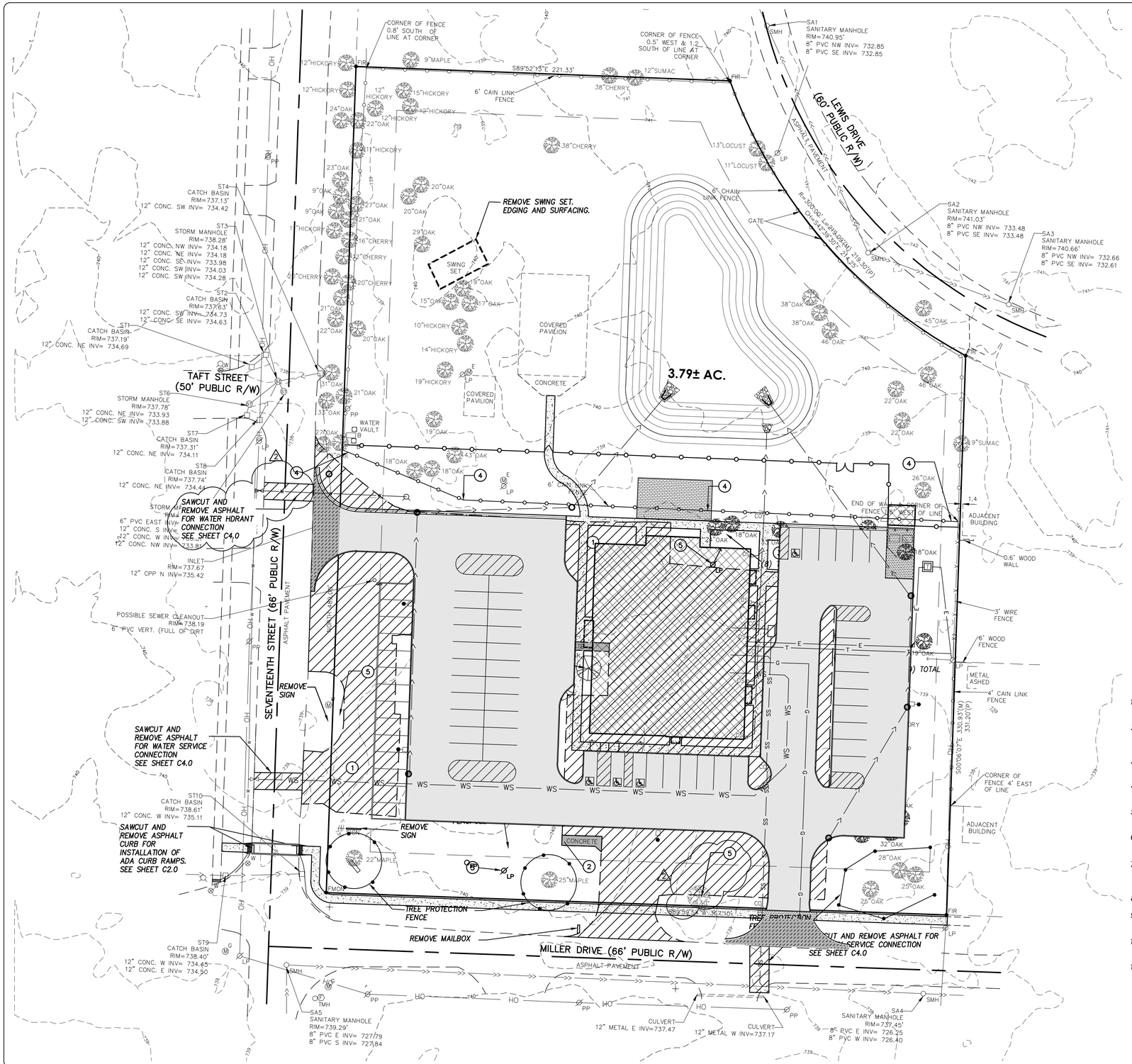

LEGEND:

- ELECTRIC METER
- POWER POLE
- LIGHT POLE
- GUY WIRE
- FIRE HYDRANT
- WATER VALVE
- SANITARY MANHOLE
- STORM MANHOLE
- CATCH BASIN
- TELEPHONE MANHOLE
- GAS MANHOLE
- FIBER OPTIC MARK
- SIGN
- MAILBOX
- BOLLARD
- FOUND IRON
- FOUND MONUMENT
- TREE
- STORM DRAINAGE PIPE
- SANITARY SEWER PIPE
- OVERHEAD LINE
- WIRE FENCE
- CHAIN LINK FENCE
- WOOD FENCE

REMOVALS LEGEND

1. REMOVE EXISTING ASPHALT PAVEMENT AND BASE
2. REMOVE EXISTING CONCRETE PAVEMENT
3. REMOVE TREE, STUMP, AND ALL ROOT SYSTEMS
4. REMOVE EXISTING CHAIN LINK FENCE, POSTS, AND FOUNDATIONS
5. REMOVE EXISTING POWER / LIGHT POLE AND ELECTRIC WHERE PRESENT. CONTRACTOR TO COORDINATE WITH UTILITY PROVIDER.

NOTES

1. CONTRACTOR SHALL REQUEST EXISTING UTILITY LOCATION FROM MISS DIG 811 PRIOR TO COMMENCING CONSTRUCTION.
2. CONTRACTOR SHALL ONLY COMMENCE CONSTRUCTION IN PUBLIC STREET R.O.W. WITH APPROVED PERMITS AND PROVIDE NOTIFICATION TO NILES TOWNSHIP DEPT OF PUBLIC WORKS, CITY OF NILES, AND BERRIEN COUNTY ROAD DEPT. BEFORE STARTING ANY WORK.
3. CONTRACTOR SHALL REMOVE TOPSOIL AND STOCKPILE THE MATERIAL ONSITE AT A LOCATION APPROVED BY THE OWNER.
4. REMOVED ITEMS SHALL BE DISPOSED OFF-SITE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES.
5. CONTRACTOR IS TO COORDINATE WITH THE RESPECTIVE UTILITY PROVIDER FOR ALL UTILITY SHUT-OFFS AND REMOVALS OR RELOCATIONS.
6. CONTRACTOR SHALL REVIEW ENTIRE PLAN SET AND NOTIFY ENGINEER OF DISCREPANCIES FOUND ON PLAN FOR FURTHER CLARIFICATION AND/OR REVISIONS PRIOR TO CONSTRUCTION.
7. BACKFILL VOIDS RESULTING FROM EXCAVATIONS/REMOVALS WITH APPROPRIATE SOIL MATERIAL TO RECEIVE NEW CONSTRUCTION AND COMPACT. SOIL TO BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.
8. REMOVE ALL PLANTS AND THEIR ROOT SYSTEMS AND LANDSCAPE MATERIALS.
9. CONTRACTOR SHALL REMOVE ANY EXISTING SITE FEATURE CONFLICTING WITH PROPOSED IMPROVEMENTS AS DIRECTED BY THE ENGINEER.
10. TREE PROTECTION FENCE TO BE 4' HIGH ORANGE MESH MATERIAL, MOUNTED ON STEEL POSTS, 6' O.C. PLACE FENCE AT TREE DRIP LINE.
11. PAVING REMOVALS, BARRICADES, AND SIGNAGE IN 17TH STREET AND MILLER DRIVE FOR UTILITY CONNECTIONS TO BE DONE ACCORDING TO BERRIEN COUNTY ROAD DEPARTMENT STANDARDS.

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SHEET TITLE:
REMOVALS PLAN

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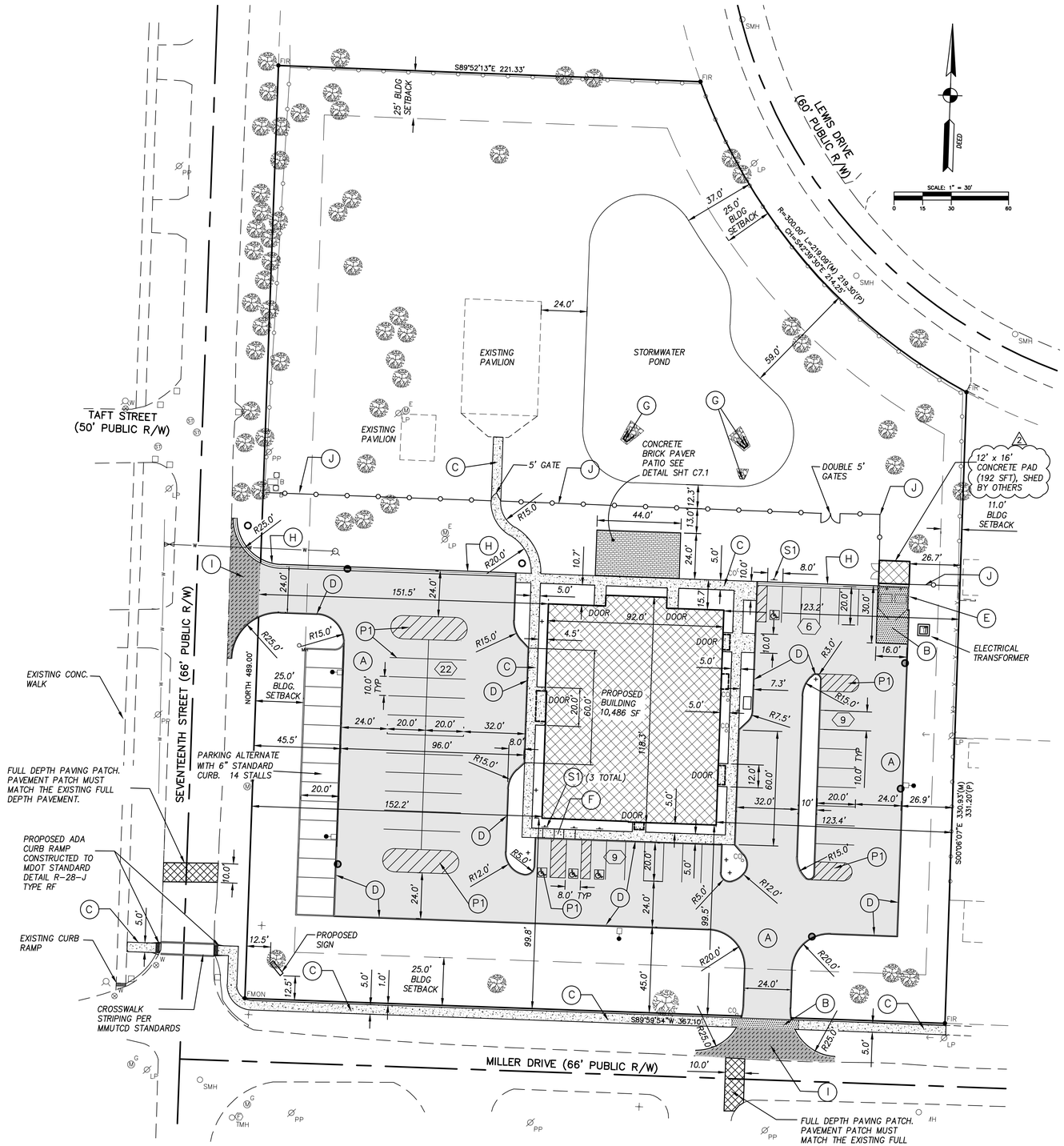

PROPOSED FEATURES LEGEND

- PROPOSED BUILDING
- (A) PROPOSED STANDARD DUTY ASPHALT PAVING
- (B) PROPOSED 6" THICK CONCRETE
- (C) PROPOSED 4" CONCRETE SIDEWALK
- (D) PROPOSED STANDARD 6"CONCRETE CURB
- (E) PROPOSED 12'x 16' x 6' HIGH MASONRY REFUSE ENCLOSURE AND GATES
- (F) PROPOSED BARRIER FREE PARKING CURB RAMP
- (G) STORM END SECTION WITH RIP-RAP
- (H) PROPOSED 4" ROLL-OVER CURB AND GUTTER
- (I) PROPOSED HEAVY DUTY ASPHALT PAVING
- (J) PROPOSED 4' HIGH CHAIN LINK FENCE SEE SPECIFICATIONS
- (S1) R7-8: "RESERVED PARKING" (ADA ACCESS) & R7-8P: "VAN ACCESSIBLE"
- (P1) 4" SOLID PAINT LINE YELLOW FOR PARKING SPACE BLUE FOR ADA PARKING SPACE AND AISLE
- PROPOSED LED AREA LIGHT ON 20' POLE
- DRAINAGE STRUCTURE
- STORM MANHOLE
- (12) NUMBER OF PARKING SPACES IN PARKING BAY

PROPOSED LOT COVERAGE

PROPOSED MAIN BUILDING	10,486 SF	6.4%
PROPOSED SHED BUILDING	192 SF	0.1%
EXISTING BUILDINGS TO REMAIN	2832 SF	1.7%
PROPOSED ASPHALT PAVEMENT	41,200 SF	25.0%
PROPOSED HEAVY CONCRETE	476 SF	0.3%
PROPOSED CONCRETE SIDEWALK	3300 SF	2.0%
PROPOSED PAVER PATIO	1056 SF	0.6%
PROPOSED PARKING ALTERNATE	2800 SF	1.7%
TOTAL IMPERVIOUS AREA	62,342 SF	37.8%
TOTAL LAWN AND LANDSCAPING	101,568 SF	62.2%
TOTAL SUBJECT PROPERTY AREA	164,910 SF	100.0%

GENERAL NOTES

1. CURRENT ZONING: 'LB' LOCAL BUSINESS
2. EXISTING LAND USE: ASSEMBLY HALL
3. PROPOSED LAND USE: ASSEMBLY/OFFICE
4. BUILDING SETBACKS : FRONT/REAR= 25' SIDE=11'
5. THE BUILDING WILL BE SERVICED BY NILES CHARTER TOWNSHIP MUNICIPAL WATER AND SEWER.
6. LANDSCAPING, LIGHTING & SIGNAGE WILL BE IN ACCORDANCE WITH THE NILES CHARTER TOWNSHIP ZONING ORDINANCE UNLESS THE PROPER VARIANCES ARE OBTAINED.
7. STORM WATER WILL BE DETAINED ON SITE PER THIS PLAN SET.
8. SEE ARCHITECTURAL DRAWINGS FOR BUILDING ELEVATIONS AND LAYOUT.
9. PROPOSED BUILDING HEIGHT 35'
10. DIMENSIONS AS SHOWN ARE FACE OF CURB
11. RADII ARE SHOWN TO FACE OF CURB
12. FLOODPLAIN: PER FEMA MAP NUMBER 26021C0428C EFFECTIVE 04/17/2006, THIS PARCEL IS LOCATED IN FLOOD ZONE "X" AREAS DETERMINED TO BE OUTSIDE THE 0.2% CHANCE OF ANNUAL FLOODPLAIN.
13. WETLANDS : ACCORDING TO NATIONAL WETLANDS INVENTORY MAP SITE CONTAINS NO WETLANDS NOR ARE PRESENT ON ADJACENT PROPERTIES.
14. REQUIRED PARKING PER NILES CHARTER TOWNSHIP ZONING ORDINANCE

    TOTAL REQUIRED PARKING = 46 SPACES

    PROPOSED PARKING:(43) 10'X20' SPACES + (3) 8'X20' ADA SPACES

    TOTAL PROPOSED PARKING = 46 (PARKING ALTERNATE + 14 SPACES = 60 SPACES TOTAL)

THROUGH FURTHER ANALYSIS ON DIFFERENT USE TYPES, THERE WAS AN ANTICIPATED AMOUNT OF 61 SPACES. HOWEVER, CORRESPONDING TO THE HOURS OF VARIOUS ACTIVITIES, AN ALLOTTED 46 SPOTS PROVIDES THE STANDARD NEEDS AS WELL AS ADDITIONAL ADJACENT PARKING, AVAILABLE FOR USE.

SITE PLAN CONSTRUCTION NOTES

1. CONTRACTOR SHALL REQUEST EXISTING UTILITY LOCATION FROM MISS DIG 811 PRIOR TO COMMENCING CONSTRUCTION.
2. DAMAGE TO PUBLIC AND PRIVATE PROPERTY AS A RESULT FROM CONSTRUCTION SHALL BE REPAIRED TO EQUAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE OWNER.
3. NO STREETS SHALL BE CLOSED OR RESTRICTED WITHOUT PRIOR APPROVAL FROM THE LOCAL AUTHORITY HAVING JURISDICTION..
4. CONTRACTOR SHALL PROTECT THE WORK AND THE SAFETY OF THE PUBLIC AND SHALL PROVIDE, ERECT AND MAINTAIN BARRICADES, SIGNALS, SIGNS AND OTHER TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AND AS DIRECTED BY THE AUTHORITY HAVING JURISDICTION.
5. CONTRACTOR SHALL CONSTRUCT SIDEWALKS, RAMPS, PARKING SPACES AND ADA ACCESSIBLE AREAS IN ACCORDANCE WITH THE CURRENT ADA STANDARDS.
6. TRAFFIC SIGN DESIGNATIONS SHALL COMPLY WITH THE U.S. DEPT. OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD).
7. CURB RADII NOTED ARE DIMENSIONED ALONG THE FACE OF CURB.
8. CONTRACTOR SHALL BRING DRAWING DISCREPANCIES AND CONFLICTS TO THE ATTENTION OF THE ENGINEER AS SOON AS THEY ARE NOTICED, FOR CLARIFICATIONS AND REVISIONS AS NECESSARY.
9. CONTRACTOR SHALL PREPARE RECORD DRAWINGS WITH FIELD LOCATIONS AND ELEVATIONS UPON COMPLETION OF THE WORK FOR SUBMITTAL TO THE ENGINEER.

02	ADDENDUM NO. 2	DEF	08/24/23
01	FENCE, PATIO, AND STORMWATER POND	PHW	07/19/23

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SHEET TITLE:
SITE LAYOUT PLAN

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DESIGNED BY: JDS
PM REVIEW: ARD
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DATE: JULY 31, 2023
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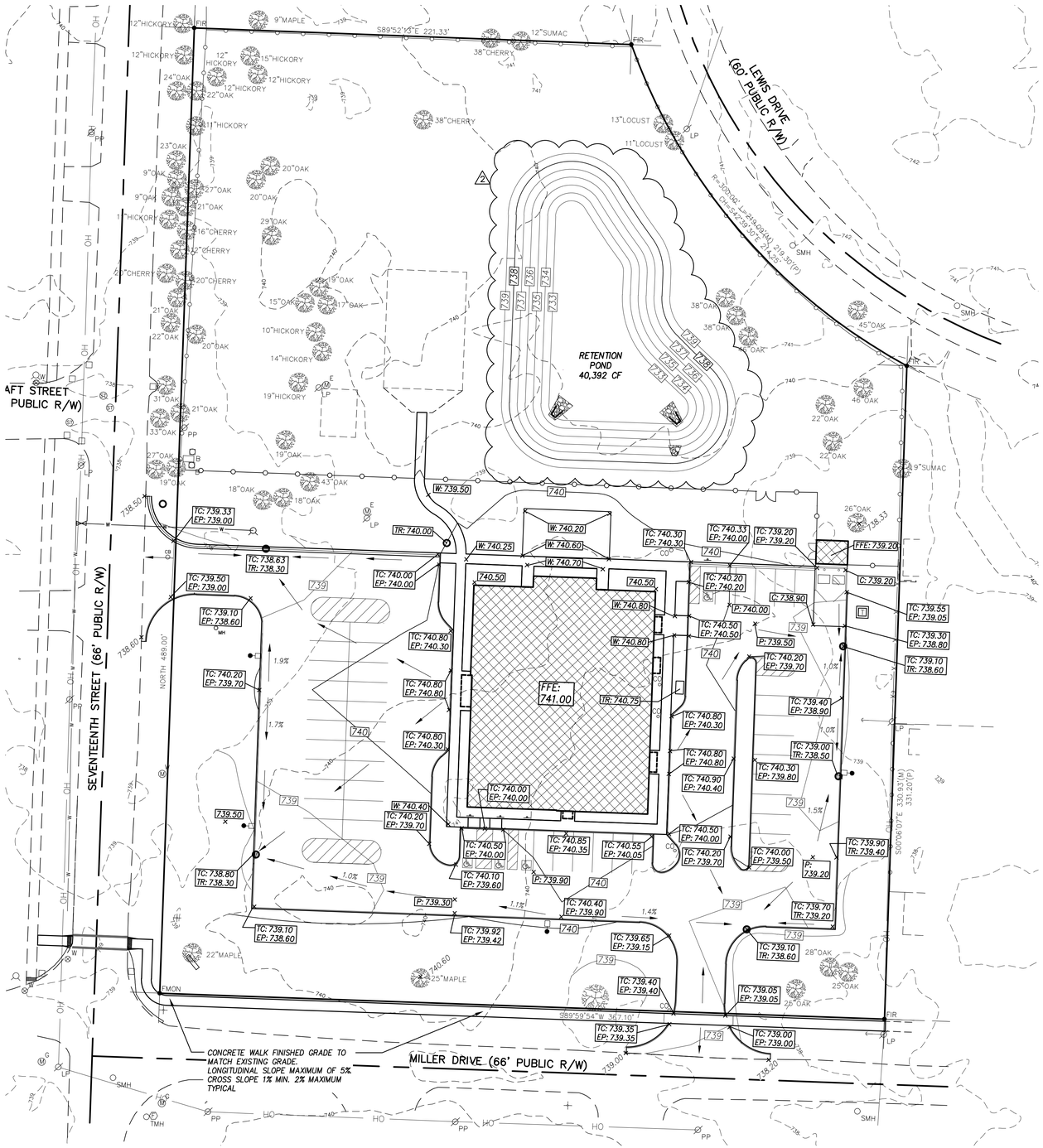
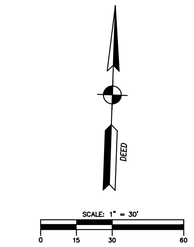
ACI JOB #: 22-0578
SHEET NO.: C2.0





GRADING LEGEND

TR:729.30	STRUCTURE RIM ELEV.
FFE:722.96	FINISHED FLOOR ELEV.
TC:722.42 EP:721.92	TOP OF CURB ELEV. FINISHED PAVEMENT ELEV.
P:722.96	FINISHED PAVEMENT ELEV.
W:722.96	FINISHED SIDEWALK ELEV.
× 722.96	EXISTING ELEVATION
723	EXISTING CONTOUR
722	PROPOSED CONTOUR
	DIRECTION OF DRAINAGE FLOW & SLOPE

2.

BERRIEN COUNTY DETENTION POND DESIGN CALCULATION SPREADSHE

Project Name:	Salvation Army	Proposed Percent Imperviousness:	38%
Project Location:	Niles Charter Township	Proposed Runoff "C" Value:	0.47
		Maximum Allowable Outflow (CFS):	0.57
Cont. Drainage Area (Acres):	3.79	Storm Recurrence Interval (Yrs):	25

RETENTION POND DESIGN CALCULATION

Retain the 100-Year 24-Hour Storm event from the Entire Contributing Area (6.15 Inches of total Rainfall).

39,428 CFT

POND STAGE-STORAGE CALCULATIONS

Stage	Area (sf)	Volume (cf)	
		Increment	Cumulative
733	4514		
		5166	5166
734	5818		
		6521	11687
735	7224		
		7978	19665
736	8732		
		9535	29200
737	10338		
		11192	40392
738	12046		

Recovery Time = 40392 cf / (4514 sf x 7 in/hr) = 15.3 hrs

GRADING PLAN CONSTRUCTION NOTES:

1. CONTRACTOR SHALL REMOVE TOPSOIL AND STOCKPILE THE MATERIAL ONSITE AT A LOCATION APPROVED BY THE OWNER. PLACE A MINIMUM OF 4 INCHES OF TOPSOIL ON ALL DISTURBED AREAS OUTSIDE THE BUILDING AND PARKING AREAS.
2. A QUALIFIED SOIL TESTING FIRM APPROVED BY THE OWNER SHALL PERFORM COMPACTION TESTING DURING CONSTRUCTION.
3. PRIOR TO COMMENCING PAVING OPERATIONS, CONTRACTOR SHALL PROOF ROLL EXPOSED SUBGRADE WITH A GEOTECHNICAL ENGINEER OR QUALIFIED REPRESENTATIVE TO WITNESS THE WORK. EXCAVATE UNSUITABLE SOIL AND BACKFILL AND COMPACT WITH SUITABLE MATERIAL CAPABLE OF SUPPORTING THE ANTICIPATED LOADS.
4. PLACE SITE GRADING BACKFILL IN MAXIMUM SIX INCH LIFTS AND COMPACT TO 100% STANDARD PROCTOR TO THE TOP OF SUBGRADE OR IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
5. FINISHED GRADES AT BUILDING DOORWAYS SHALL MATCH THE BUILDING FINISHED FLOOR ELEVATION, UNLESS OTHERWISE NOTED.
6. CONTRACTOR IS RESPONSIBLE FOR MEETING ADA GUIDELINES AT SIDEWALKS AND PARKING AREAS.
7. PAVING CONTRACTOR IS RESPONSIBLE FOR ADJUSTING ALL CASTINGS LOCATED IN THE PAVEMENT TO FINISHED GRADE.
8. THE PROPOSED CONTOURS AND SPOT ELEVATIONS ON THIS DRAWING SHOW GRADING INTENT ONLY. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THAT THE PROVIDED GRADING PLAN MAINTAINS POSITIVE DRAINAGE TO PREVENT PONDED WATER OR ENCROACHMENT ONTO ADJACENT PROPERTIES; AND SHALL CONTACT THE ENGINEER IF ADDITIONAL GRADES ARE NEEDED, IF THE DESIGN DOES NOT PROVIDE POSITIVE DRAINAGE, OR IF ANY DISCREPANCIES/CONFLICTS ARE FOUND.

02	ADDENDUM NO. 2	DEF	08/24/23
01	FENCE, PATIO, AND STORMWATER POND	PHW	07/19/23

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SHEET TITLE:

GRADING AND DRAINAGE PLAN

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DESIGNED BY: PHW
PM REVIEW: ARD
QA/QC REVIEW: RAD
DATE: JULY 31, 2023
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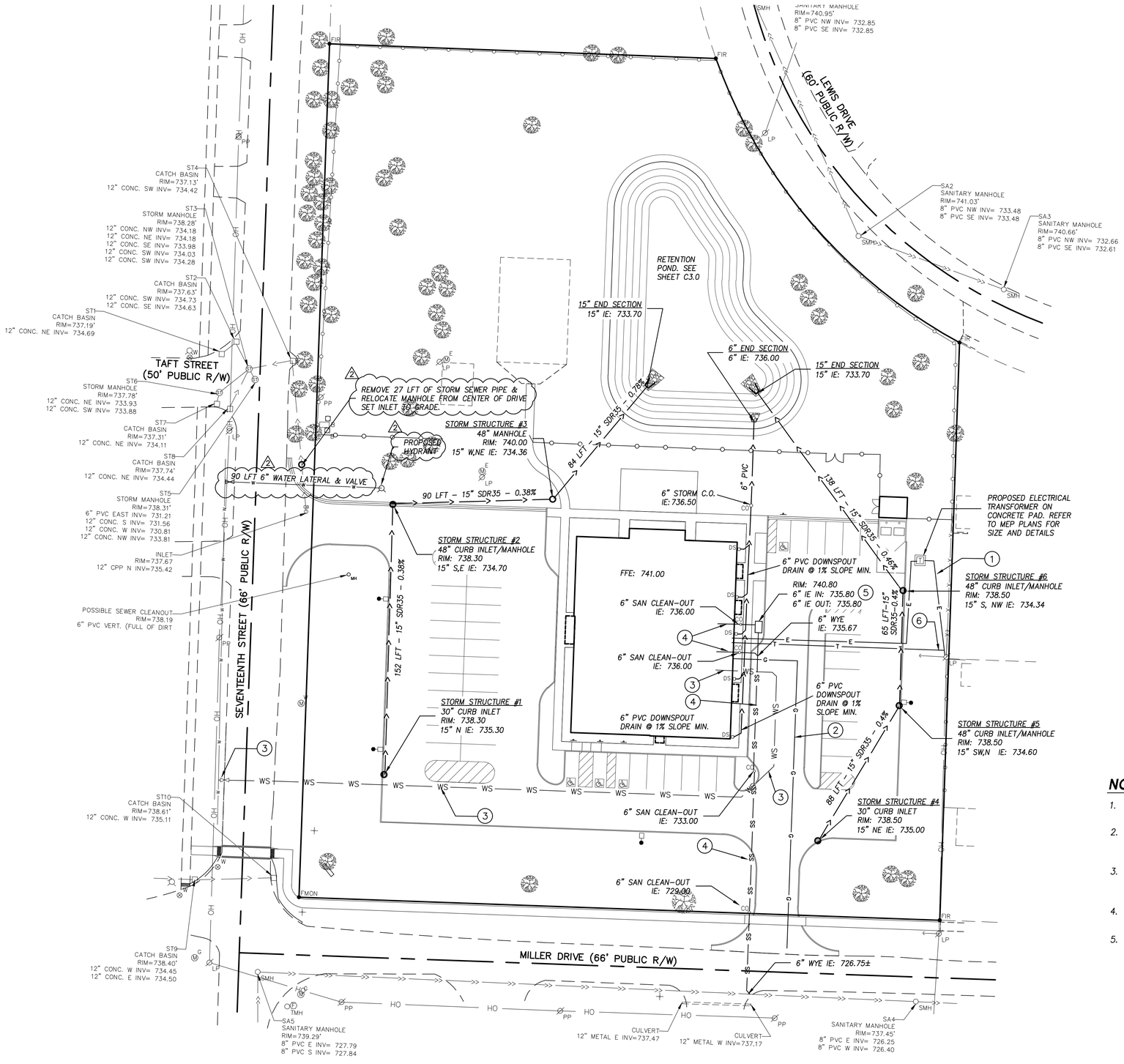

PROPOSED UTILITY KEYNOTES

■○ *PROPOSED LED AREA LUMINAIRE MOUNTED ON 20' POLE–SEE LIGHTING PLAN SHEET C6.0*

1. *PROPOSED ELECTRIC SERVICE –INSTALLED BY THE UTILITY COMPANY. CONTRACTOR TO INSTALL CONDUIT FROM NEAREST SERVICE CONNECTION POINT TO TRANSFORMER. COORDINATE WITH UTILITY PROVIDER FOR CONNECTION POINT. SEE ARCHITECTURAL PLANS FOR ELECTRICAL SCHEDULES AND DETAILS.*
2. *PROPOSED GAS SERVICE: UTILITY PROVIDER TO INSTALL SERVICE FROM NEAREST EXISTING GAS MAIN. CONNECTION TO GAS METER BY UTILITY PROVIDER. VERIFY CONNECTION POINT WITH MEP PLANS.*
3. *PROPOSED 2" TEE AND VALVE AND 2" DOMESTIC WATER SERVICE TYPE K COPPER. VERIFY CONNECTION POINT AT BUILDING WITH MEP PLANS.*
4. *PROPOSED 6" SDR35 SANITARY SERVICE LEAD. INSTALL AT 1% MINIMUM SLOPE AND TO CITY OF NILES GENERAL CONSTRUCTION SPECIFICATIONS. VERIFY UTILITY CONNECTION LOCATION AND ELEVATIONS AT BUILDING WITH ARCHITECTURAL AND PLUMBING PLANS.*
5. *GREASE TRAP*
6. *PROPOSED TELECOMMUNICATION SERVICE. INSTALLED FROM NEAREST CONNECTION POINT BY UTILITY PROVIDER.*

PROPOSED UTILITY LEGEND

—> —> —	*PROPOSED STORM*
—— T ——	*PROPOSED U.G. TELECOMMUNICATION SERVICE*
—— SS ——	*PROPOSED 6" SANITARY SERVICE LATERAL*
—— WS ——	*PROPOSED WATER SERVICE*
—— E ——	*PROPOSED U.G. PRIMARY ELECTRIC SERVICE*
—— G ——	*PROPOSED GAS SERVICE*
◎	*DRAINAGE STRUCTURE*
◎	*STORM MANHOLE*
C.O.○	*CLEANOUT*
⋈	*WATER VALVE*
DS□	*DOWNSPOUT*

NOTES:

1. *SANITARY AND WATER UTILITIES TO BE INSTALLED PER NILES CHARTER TOWNSHIP STANDARDS AND SPECIFICATIONS AND DETAILS.*
2. *SANITARY AND WATER CONNECTIONS IN MILLER DRIVE AND 17TH STREET TO HAVE OPEN CUT THROUGH THE STREET AND PERMIT IS REQUIRED FROM BERRIEN COUNTY ROAD DEPARTMENT.*
3. *CONTRACTOR IS TO SECURE ALL PERMITS REQUIRED FOR WORK INSIDE THE 17TH STREET AND MILLER DRIVE R.O.W. AND TO COORDINATE WITH THE AUTHORITY HAVING JURISDICTION.*
4. *REFER TO ARCHITECTURAL / MECHANICAL DRAWINGS FOR LOCATION OF SANITARY OUTLETS FROM BUILDING.*
5. *BUILDING DOWNSPOUTS TO BE PIPED TO DETENTION BASIN WITH 6" DIA SCH40 SOLID PVC PIPE AT 1% SLOPE MINIMUM.*

02	ADDENDUM NO. 2	DEF	08/24/23
1 01	FENCE/DETENTION BASIN/WATER/LANDSCAPE	PHW	07/19/23

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UTILITY PLAN

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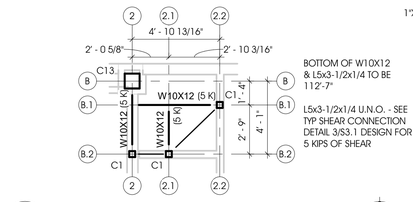
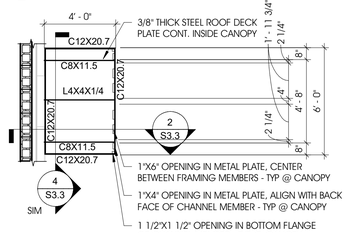
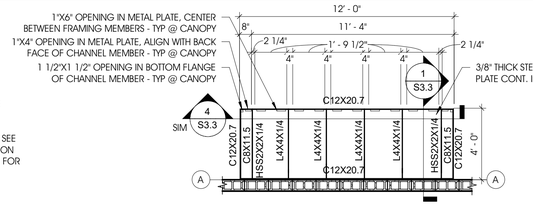


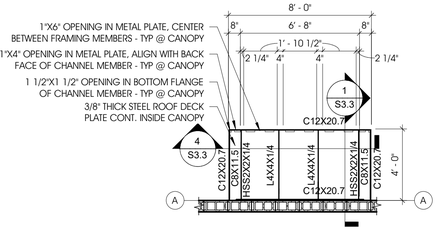
7 S1.1 PARTIAL ROOF FRAMING PLAN - PARTITION WALL SUPPORT 1/4" = 1'-0"



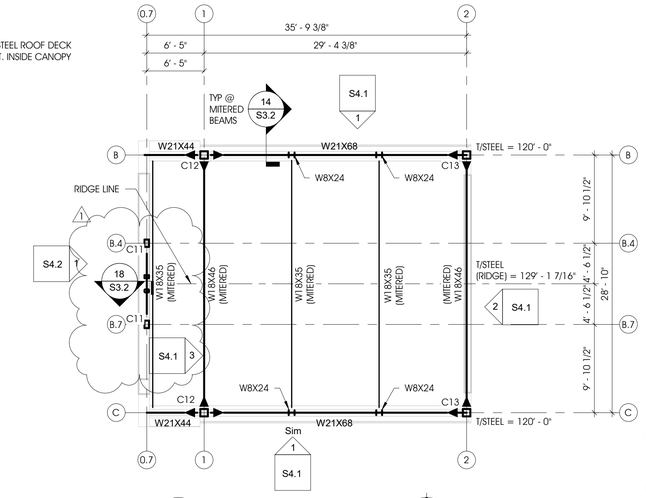
6 S1.1 6' CANOPY FRAMING PLAN 1/4" = 1'-0"



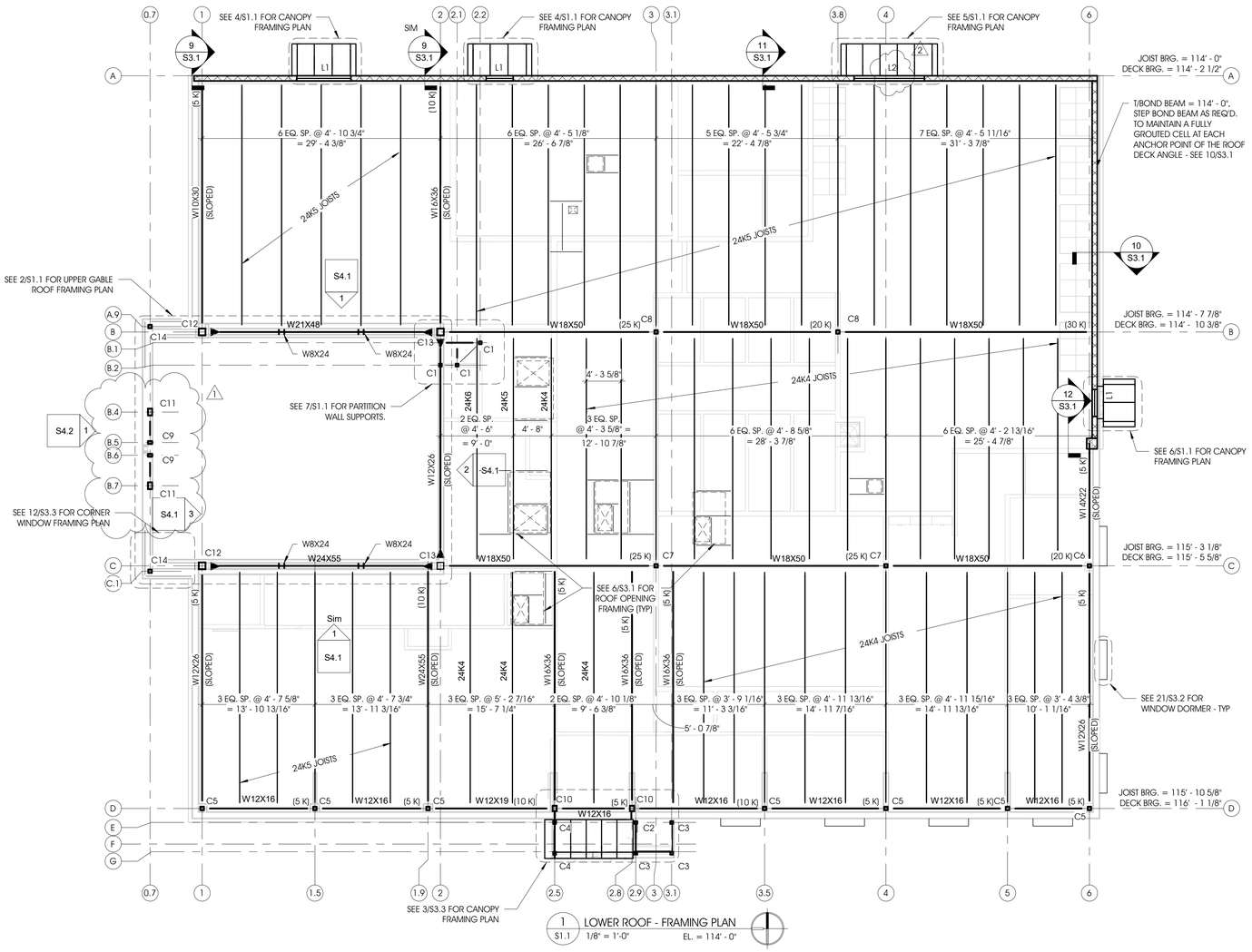
5 S1.1 12' CANOPY FRAMING PLAN 1/4" = 1'-0"



4 S1.1 8' CANOPY FRAMING PLAN 1/4" = 1'-0"



2 S1.1 UPPER GABLE ROOF - FRAEL. = 121' -7"N 1/8" = 1'-0"



1 S1.1 LOWER ROOF - FRAMING PLAN 1/8" = 1'-0" EL. = 114' - 0"

GENERAL NOTES

1. ALL BEAMS TO BEAR ON BEARING PLATES (MIN. 10"x6") IN POCKET IN CMU WALLS AND ON CMU PILASTER (6" MIN. BEARING LENGTH, WELD TO PLATE) PROVED HEADED STUDS AT PLATE UNDERSIDE.
2. ALL CMU WALLS TO BE REINFORCED WITH #5 VERTICAL BARS @ 48" O.C., CENTERED IN WALL (U.N.O) MIN. LAP = 24".
3. PROVIDE BOND BEAM AT TOP OF PARAPET WALL W/ (2) CONT. #5 BARS.
4. JOIST BEARING VARIES, SEE PLAN FOR JOIST BEARING ELEVATIONS.
5. ROOF DECK = 1.5B20 METAL DECK U.N.O.
6. T/STL. EL. AS NOTED ON PLANS. T/STL. EL. = JOIST BRG. EL. U.N.O. ALL SLOPED STEEL BEAM TO HAVE T/STL. ALIGNED W/ ADJACENT PARALLEL ROOF JOISTS.
7. UPPER GABLE ROOF DECK = 3X6 DOUGLAS FIR, KD SELECT DEX TONGUE AND GROOVE TIMBER DECKING.
8. FASTENERS IN TONGUE AND GROOVE TIMBER DECKING SHALL NOT PENETRATE THE INTERIOR FACE OF THE TIMBER DECKING
8. MECH. ENGINEER TO VERIFY LOCATION AND SIZE OF OPENINGS AND ANGLE FRAMES AT RTU'S.
9. JOISTS HAVE BEEN DESIGNED FOR SNOW AND DEAD LOADS. JOIST MANUF. TO REFER TO MECH. DRAWINGS TO DESIGN JOISTS FOR RTU LOADING.
10. DECK OPENINGS TO BE FRAMED WITH L5X3-1/2X1/4 U.N.O. SEE S6/S3.1 FOR FRAMING DETAIL.
11. CANOPIES TO BE SHOP WELDED WITH HSS BRACES SEPERATE FROM CANOPY U.N.O - CONNECTION DESIGN BY STEEL MANUF. ALL EXTERIOR CANOPY FRAMING TO BE HOT DIP GALVANIZED, SHOP PRIMED, AND PAINTED PER SPECIFICATIONS.

COLUMN SCHEDULE

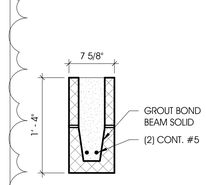
MARK	SHAPE	BASE PLATE	LOCATION	BRG. ELEV.	T/COL. ELEV.	QNTY
C1	HSS 4X4X5/16	10"X10"X3/4"	B.1-2.2; B.2-2; B.2-2.1	99'-5 1/2"	113'-5"	3
C2	HSS 4X4X3/8	8"X8"X3/4"	E-2.9	100'-0"	115'-6"	1
C3	HSS 4X4X3/8	8"X8"X3/4"	G-2.9; G-3.1; E-3.1	100'-0"	120'-1 5/8"	3
C4	HSS 4X4X3/8	10"X8"X3/4"	E-2.5; G-2.5	110' - 11 15/16"	120'-1 5/8"	2
C5	HSS 5X5X1/4	11"X11"X3/4"	D-1; D-1.5; D-1.9; D-3.5; D-4; D-5; D-6	99'-5 1/2"	115'-10 9/16"	7
C6	HSS 5X5X1/4	11"X11"X3/4"	C-6	99'-5 1/2"	115'-3 1/8"	1
C7	HSS 5X5X1/4	11"X11"X3/4"	C-3; C-4	99'-5 1/2"	115'-3 1/8"	2
C8	HSS 5X5X1/4	11"X11"X3/4"	B-3; B-3.8	99'-5 1/2"	114'-7 7/8"	2
C9	HSS 6X4X5/16	10"X7"X3/4"	B.5-0.7; B.6-0.7	99'-5 1/2"	-	2
C10	HSS 8X6X3/8	14"X12"X3/4"	D-2.5; D-2.8	99'-5 1/2"	115'-10 9/16"	2
C11	HSS 10X6X3/8	16"X7"X3/4"	B.4-0.7; B.7-0.7	99'-5 1/2"	130'-3 5/8"	2
C12	HSS 10X10X1/2	16"X11"X3/4"	B-1; C-1	99'-5 1/2"	121'-1 5/16"	2
C13	HSS 10X10X1/2	16"X16"X3/4"	B-2; C-2	99'-5 1/2"	121'-1 5/16"	2
C14	HSS 5X5X1/4	11"X11"X3/4"	A.9-0.7; C.1-0.7	99'-5 1/2"	110'-5 1/4"	2

NOTES: BRG. ELEVATION EQUALS BOT. OF BASE PLATE ELEVATIONS. SEE DETAILS FOR NON-SHRINK GROUT REQUIREMENTS AND TOP OF FDTN. ELEVATIONS.

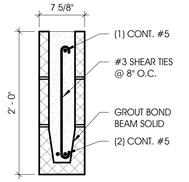
LINTEL LEGEND

HEADER MARK	LINTEL SIZE	HORIZ. REINFORCING	VERTICAL REINFORCING
L1	16" BOND BEAM	2 CONT. #5 BAR	
L2	24" BOND BEAM	TOP: 1 CONT. #5 BAR BOTTOM: 2 CONT. #5 BAR	#3 SHEAR TIES @ 8" O.C. HOOKED AS SHOWN

NOTES:
1. PROVIDE MINIMUM 8" BEARING EACH SIDE OF OPENING.
2. ALL LOOSE LINTELS TO BE HOT-DIP GALVANIZED.
3. PROVIDE L4X4X3/8 LINTEL FOR VENEER SUPPORT AS REQUIRED.



L1 - LINTEL SECTION
SCALE: 1" = 1'-0"



L2 - LINTEL SECTION
SCALE: 1" = 1'-0"

BEAM KEY PLAN

(SHAPE) — SHEAR REACTION (KIPS ASD)
(T/STL. EL.)

NO.	REVISION DESCRIPTION	BY	DATE
2	REVISION #2		08/28/2023
1	REVISION #1		08/22/2023

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PROJECT:
NILES FACILITY
1707 MILLER DR. NILES, MI
49120

ROOF FRAMING PLANS

SHEET TITLE:

MODELED BY: JMO
DESIGNED BY: JMO
PM REVIEW: SFL
QA/QC REVIEW: SFL
DATE: 07/31/2023
SEAL:

STATE OF MICHIGAN
SCOTT FRANCIS LEBLANC
ENGINEER
No. 6201067898
LICENSED PROFESSIONAL ENGINEER

SIGNATURE:
DATE:

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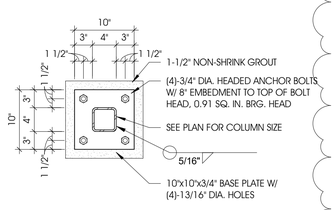
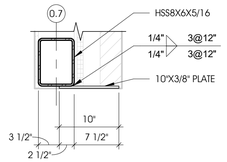
22-0578

SHEET NO.
S1.1

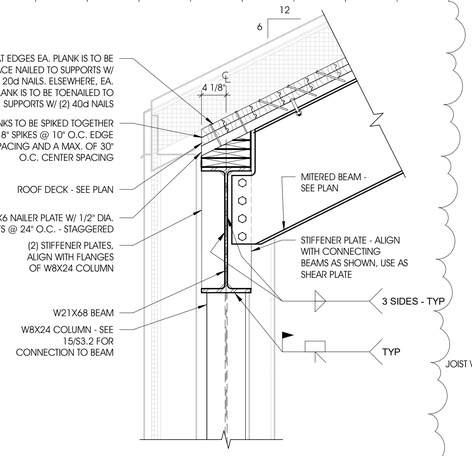
File Path



23 S3.2 BASE PLATE DETAIL: C1
1" = 1'-0"

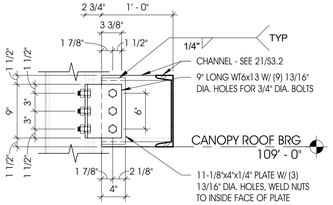


18 S3.2 STRUCTURAL DETAIL
1" = 1'-0"



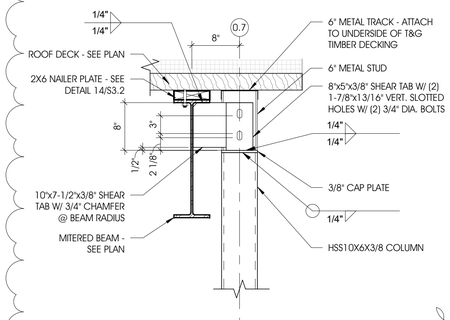
NOTE:
FABRICATOR TO DESIGN EACH BEAM CONNECTION FOR THE FOLLOWING ASD (SERVICE LOADS)
REACTIONS: V=10 KIPS

14 S3.2 STRUCTURAL DETAIL
1" = 1'-0"



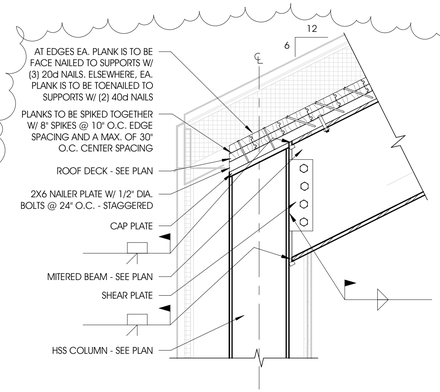
NOTE:
FABRICATOR TO DESIGN EACH BEAM CONNECTION FOR THE FOLLOWING ASD (SERVICE LOADS)
REACTIONS: V=400 LB, M=200 LB-FT

22 S3.2 SHADE STRUCTURE CONNECTION DETAIL
1" = 1'-0"



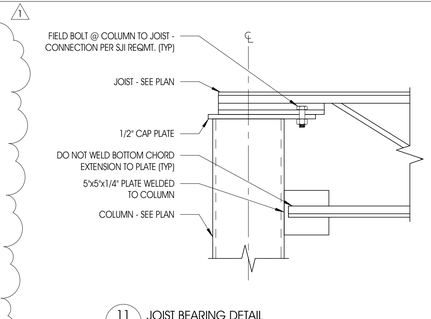
NOTE:
FABRICATOR TO DESIGN EACH BEAM CONNECTION FOR THE FOLLOWING ASD (SERVICE LOADS)
REACTIONS: V=5 KIPS

17 S3.2 STRUCTURAL DETAIL
1" = 1'-0"

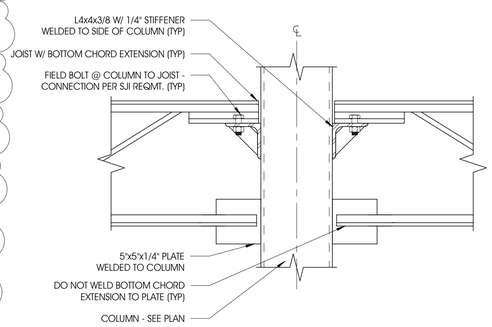


NOTE:
FABRICATOR TO DESIGN EACH BEAM CONNECTION FOR THE FOLLOWING ASD (SERVICE LOADS)
REACTIONS: V=10 KIPS, M=25 K-FT

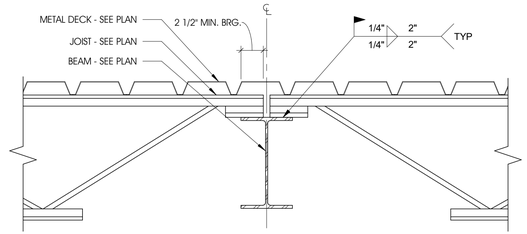
13 S3.2 MOMENT CONNECTION DETAIL
1" = 1'-0"



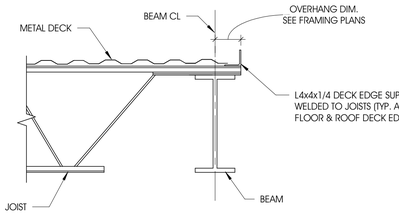
11 S3.2 JOIST BEARING DETAIL
1 1/2" = 1'-0"



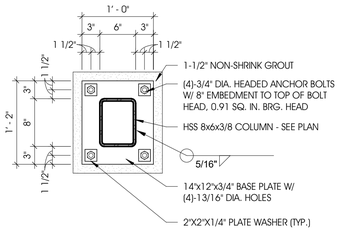
10 S3.2 JOIST BEARING DETAIL
1 1/2" = 1'-0"



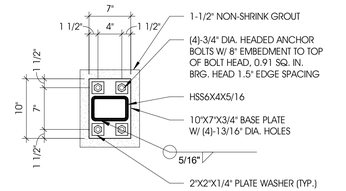
9 S3.2 JOIST BEARING DETAIL
1 1/2" = 1'-0"



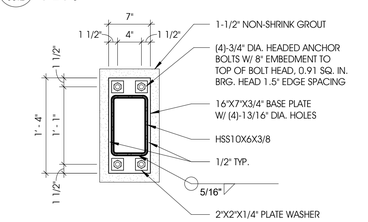
8 S3.2 JOIST BEARING DETAIL
1" = 1'-0"



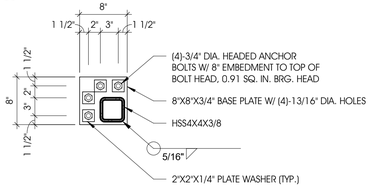
7 S3.2 BASE PLATE DETAIL: C10
1" = 1'-0"



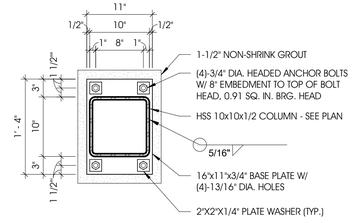
6 S3.2 BASE PLATE DETAIL: C9
1" = 1'-0"



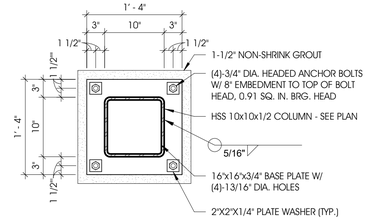
5 S3.2 BASE PLATE DETAIL: C11
1" = 1'-0"



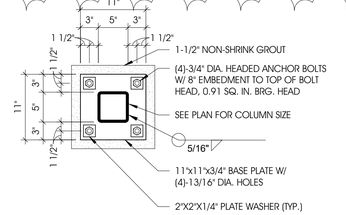
4 S3.2 BASE PLATE DETAIL: C2 - C3
1" = 1'-0"



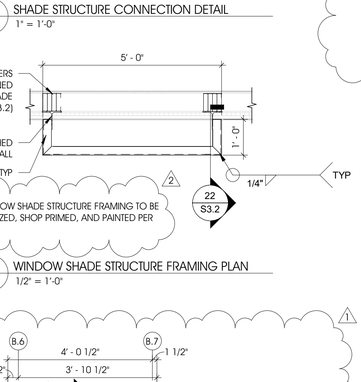
3 S3.2 BASE PLATE DETAIL: C12
1" = 1'-0"



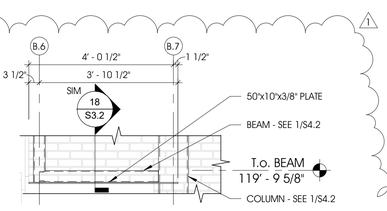
2 S3.2 BASE PLATE DETAIL: C13
1" = 1'-0"



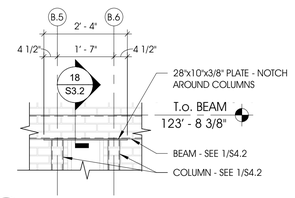
1 S3.2 BASE PLATE DETAIL: C5, C6, C7, C8, C14
1" = 1'-0"



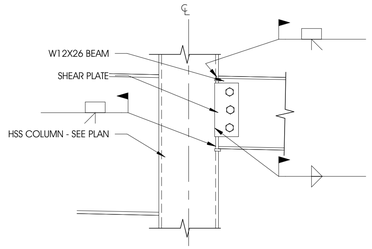
21 S3.2 WINDOW SHADE STRUCTURE FRAMING PLAN
1/2" = 1'-0"



20 S3.2 BRICK LINTEL DETAIL
1/2" = 1'-0"

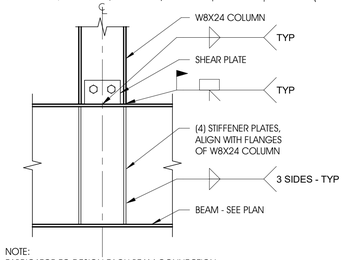


19 S3.2 BRICK LINTEL DETAIL
1/2" = 1'-0"



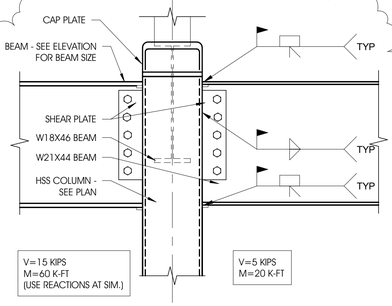
NOTE:
FABRICATOR TO DESIGN EACH BEAM CONNECTION FOR THE FOLLOWING ASD (SERVICE LOADS)
REACTIONS: V=5 KIPS, M=25 K-FT

16 S3.2 MOMENT CONNECTION DETAIL
1" = 1'-0"



NOTE:
FABRICATOR TO DESIGN EACH BEAM CONNECTION FOR THE FOLLOWING ASD (SERVICE LOADS)
REACTIONS: V=5 KIPS, M=15 K-FT

15 S3.2 NEW DETAIL
1" = 1'-0"



NOTE:
FABRICATOR TO DESIGN EACH BEAM CONNECTION FOR THE FOLLOWING ASD (SERVICE LOADS) REACTIONS:

12 S3.2 MOMENT CONNECTION DETAIL
1" = 1'-0"

NO.	REVISION DESCRIPTION	BY	DATE
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PROJECT:
DOING THE MOST GOOD
THE SALVATION ARMY
NILES FACILITY
1707 MILLER DR. NILES, MI
49120

STRUCTURAL DETAILS

SHEET TITLE:

MODELED BY: JMO
DESIGNED BY: JMO
PM REVIEW: SFL
QA/QC REVIEW: SFL
DATE: 07/31/2023

SEAL:
STATE OF MICHIGAN
SCOTT FRANCIS LEBLANG
ENGINEER
No. 6201067898
LICENSED PROFESSIONAL ENGINEER

SIGNATURE:
DATE:

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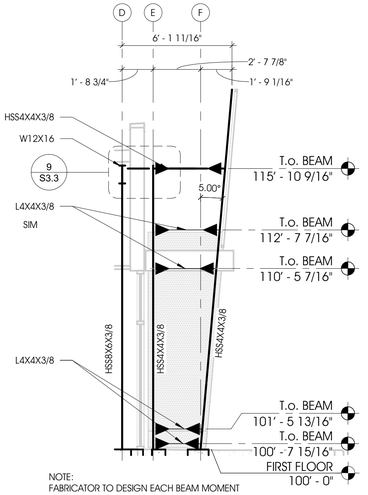
S3.2

File Path



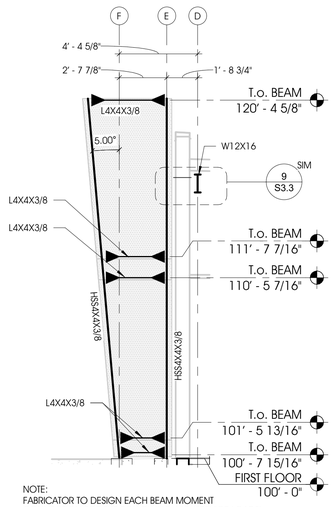
NOTE:
FABRICATOR TO DESIGN EACH BEAM MOMENT CONNECTION FOR THE FOLLOWING ASD (SERVICE LOADS)
REACTIONS: V=5 KIPS, M=5 K-FT

PERFORATED METAL FRAMES TO BE SHOP WELDED U.N.O - CONNECTION DESIGN BY STEEL MANUF.

2

ALL EXTERIOR ENTERANCE FEATURE STRUCTURAL FRAMING TO BE HOT DIP GALVANIZED, SHOP PRIMED, AND PAINTED PER SPECIFICATIONS.

7 S4.1 ENTRANCE ELEVATION - GRID 2.8
1/4" = 1'-0"



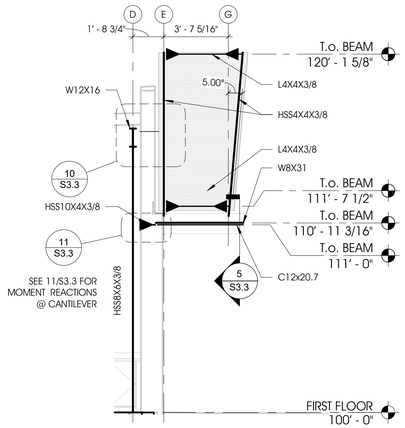
NOTE:
FABRICATOR TO DESIGN EACH BEAM MOMENT CONNECTION FOR THE FOLLOWING ASD (SERVICE LOADS)
REACTIONS: V=500 LBS, M=500 LB-FT

PERFORATED METAL FRAMES TO BE SHOP WELDED U.N.O - CONNECTION DESIGN BY STEEL MANUF.

2

ALL EXTERIOR ENTERANCE FEATURE STRUCTURAL FRAMING TO BE HOT DIP GALVANIZED, SHOP PRIMED, AND PAINTED PER SPECIFICATIONS.

5 S4.1 ENTRANCE ELEVATION - GRID 3.1
1/4" = 1'-0"



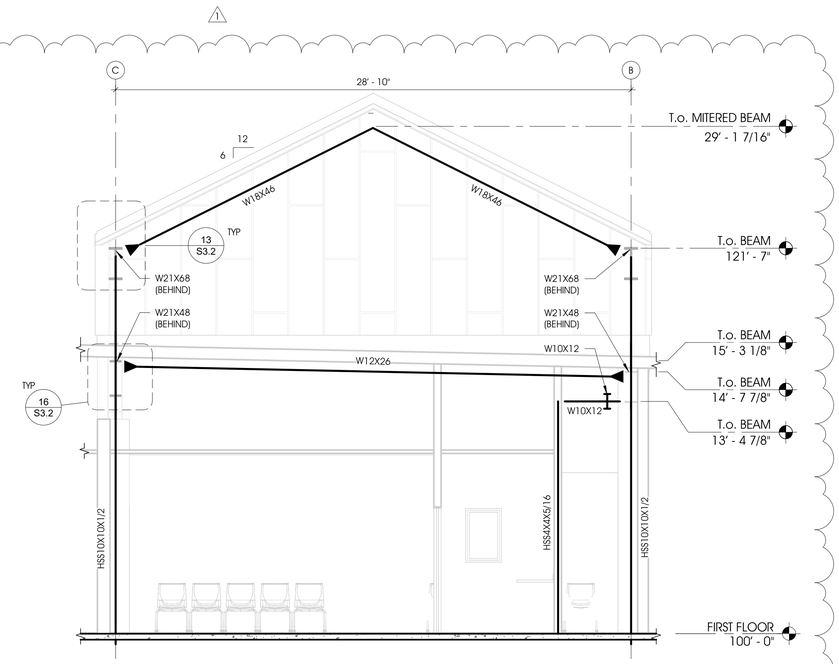
NOTE:
FABRICATOR TO DESIGN EACH BEAM MOMENT CONNECTION FOR THE FOLLOWING ASD (SERVICE LOADS)
REACTIONS: V=5 KIPS, M=5 K-FT

PERFORATED METAL FRAMES TO BE SHOP WELDED U.N.O - CONNECTION DESIGN BY STEEL MANUF.

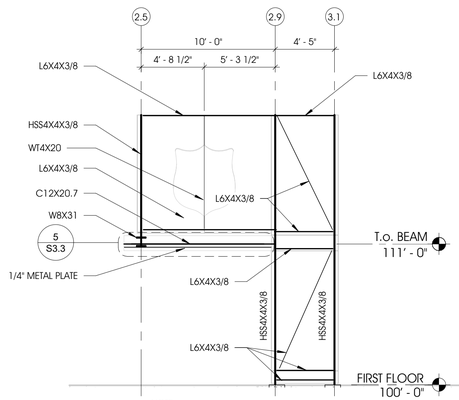
2

ALL EXTERIOR ENTERANCE FEATURE STRUCTURAL FRAMING TO BE HOT DIP GALVANIZED, SHOP PRIMED, AND PAINTED PER SPECIFICATIONS.

4 S4.1 ENTRANCE ELEVATION - GRID 2.5
1/4" = 1'-0"



2 S4.1 CHAPEL ELEVATION - GRID LINE 2
1/4" = 1'-0"



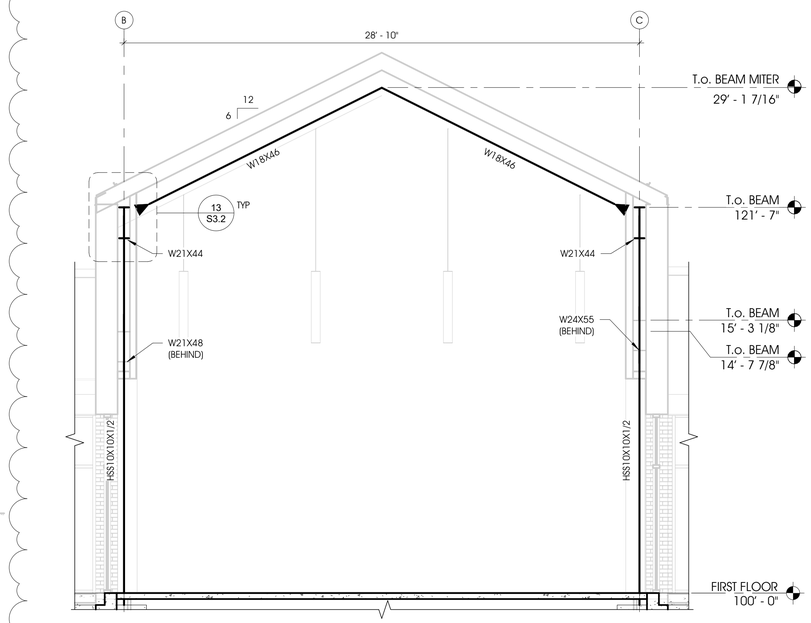
NOTE:
SEE ARCH. PLANS FOR ELEVATIONS OF L6X4X3/8 ANGLES

SHEAR REACTIONS FOR ANGLE AND WT BEAMS IS 500 LBS

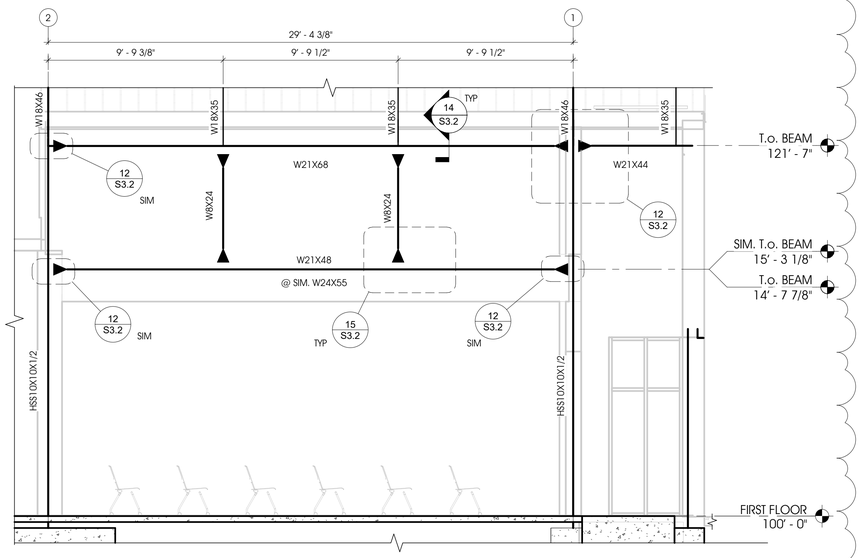
2

ALL EXTERIOR ENTERANCE FEATURE FRAMING TO BE HOT DIP GALVANIZED, SHOP PRIMED, AND PAINTED PER SPECIFICATIONS.

6 S4.1 ENTRANCE ELEVATION FRONT
3/16" = 1'-0"



3 S4.1 CHAPEL ELEVATION - GRID LINE 1
1/4" = 1'-0"



1 S4.1 CHAPEL ELEVATION - GRID LINE B (SIM. @ GRID LINE C)
1/4" = 1'-0"

File Path

NO.	REVISION DESCRIPTION	BY	DATE
2	REVISION #2		08/28/2023
1	REVISION #1		08/22/2023

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Engineering, Architecture, Land Surveying

PROJECT:

DOING THE MOST GOOD

THE SALVATION ARMY

NILES FACILITY
1707 MILLER DR. NILES, MI 49120

STRUCTURAL ELEVATIONS

SHEET TITLE:

MODELED BY: JMO

DESIGNED BY: JMO

PM REVIEW: SFL

QA/QC REVIEW: SFL

DATE: 07/31/2023

SEAL:

STATE OF MICHIGAN
SCOTT FRANCIS LERLANG
ENGINEER
No. 6201067898
LICENSED PROFESSIONAL ENGINEER

SIGNATURE:

DATE:

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22-0578

SHEET NO.
S4.1

NOTE:
METAL FRAME TO BE SHOP WELDED U.N.O. - CONNECTION DESIGN BY STEEL MANUF.

ALL COMPONENTS OF BRICK LINTELS THAT ARE EMBEDDED IN, OR SUPPORT THE BRICK VENEER SHALL BE HOT DIP GALVANIZED, SHOP PRIMED, AND PAINTED PER SPECIFICATIONS.

1 S4.2 BRICK CROSS FRAME
1/4" = 1'-0"

NO.	REVISION DESCRIPTION	BY	DATE
2	REVISION #2		08/28/2023
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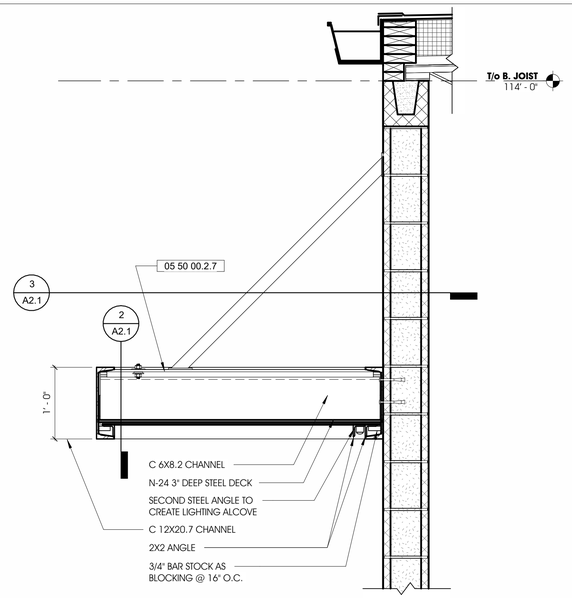
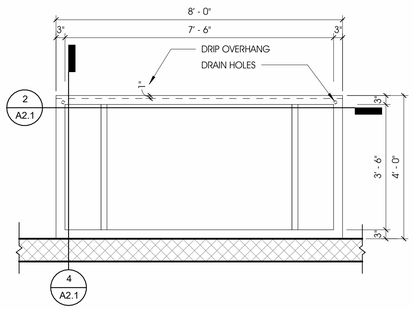
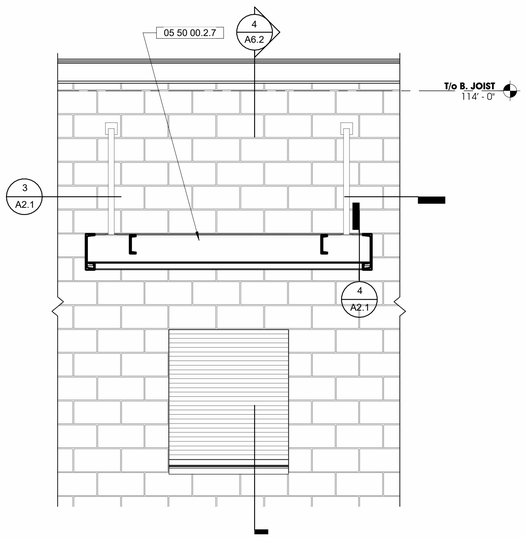


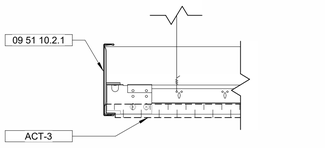
4 A2.1 CANOPY WALL SECTION
1" = 1'-0"



3 A2.1 CANOPY PLAN VIEW
1/2" = 1'-0"



2 A2.1 CANOPY ELEVATION
1/2" = 1'-0"



5 A2.1 COMPASSO CEILING SYSTEM DETAIL
3" = 1'-0"

1 A2.1 REFLECTED CEILING PLAN - FIRST FLOOR
1/8" = 1'-0"

GENERAL NOTES - REFLECTED CEILING PLAN

A. REFER TO ELECTRICAL DRAWINGS FOR ADDTIONAL INFORMATION.

B. PROVIDE ROLLER SHADE AT ALL EXTERIOR WINDOWS.

C. PROVIDE USG COMPASSO TRIM @ ALL LOCATIONS WHERE LIG CEILING IS NOT CONTINUOUS TO PERIMETER WALLS. REFER TO DETAIL 1/A2.1

D. PROVIDE SOUND ATTENUATION BATT INSULATION ABOVE CEILINGS TO ABSORB SOUND, TYP. @ OFFICE / ADMINISTRATION SPACES.

KEYNOTE LEGEND

Key Value	Keynote Text
05 50 00.2.7	CUSTOM STEEL AWNINGS & CANOPIES, REFER TO STRUCTURAL
07 71 00.2.1	ALUMINUM GUTTER SHALL BE HEAVY DUTY. PROVIDE ADDITIONAL 1/8"x1 1/2" SUPPORT BRACKETS AT 36" O.C. GUTTER PROFILE SHALL BE 9"W x 7"D STYLE 'A' PER SMACNA ARCHITECTURAL SHEET METAL MANUAL. GUTTER AND SUPPORT BRACKET COLOR SHALL BE DARK BRONZE.
07 71 00.2.4	ALUMINUM DOWNSPOUT SHALL BE HEAVY DUTY, SMOOTH, 4" x 4" RECTANGULAR SHAPE. COLOR SHALL BE DARK BRONZE.
09 51 10.2.1	
99 00 00.2.5	DOOR CANOPY - REFER TO DETAILS ON SHEET A2.1
99 00 00.2.6	WINDOW CANOPY - REFER TO DETAIL 4/A2.1
99 00 00.2.7	MAIN ENTRY CANOPY & SCREENWALL - REFER TO SHEET A7.3

CEILING FINISHES

SUSPENDED ACOUSTIC TILE: 24"X24"

SUSPENDED ACOUSTIC TILE: 24"X48"

HARD CEILING: 5/8" GYPSUM BOARD

PLANKS

L1	2X2 LED (BASIS OF DESIGN = LITHONIA BLT - 3000K @ OFFICE AREAS)	
L2	(L1 EM) 2X2 LED (BASIS OF DESIGN = LITHONIA BLT - 3000K @ OFFICE AREAS)	
L3	2X2 LED (BASIS OF DESIGN = LITHONIA BLT - 3500K @ COMMON AREAS)	
L4	(L3 EM) 2X2 LED (BASIS OF DESIGN = LITHONIA BLT - 3500K @ COMMON AREAS)	
L5	EXTERIOR LED STRIP LIGHTS	
L6	(L5 EM) EXTERIOR LED STRIP LIGHTS	
L7	Suspended 2'W x 4'L Linear LED	
L8	(L7 EM) Suspended 2'W x 4'L Linear LED	
L9	Suspended 2'W x 8'L Linear LED	
L10	(L9 EM) Suspended 2'W x 8'L Linear LED	
L11	Suspended 1x4 Linear LED Utility Light @ 10' - 1"	
L12	(L11 EM) Suspended 1x4 Linear LED Utility Light @ 10' - 1"	
L13	Suspended 1x8 Linear LED Utility Light @ 10' - 1"	
L14	(L13 EM) Suspended 1x8 Linear LED Utility Light @ 10' - 1"	
L15	2X4 LED (BASIS OF DESIGN = LITHONIA BLT - 3500K @ COMMON AREAS)	
L16	(L15 EM) 2X4 LED (BASIS OF DESIGN = LITHONIA BLT - 3500K @ COMMON AREAS)	
L17	MANNING DP-272-PT-B144-30-D0-B90-UNV-WH-SIN	
L18	(L17 EM) 6D 48L HPC PENDANT	2
L19	4'W x 4'L Wall Mount LED	
L20	EXT. EM EXIT LIGHT	

NO.	REVISION DESCRIPTION	BY	DATE
2	ADDENDUM 002	MDN	08/29/23

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NILES FACILITY
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SHEET TITLE:
FIRST FLOOR - REFLECTED CEILING PLAN

MODELED BY: JPA, AND
DESIGNED BY: ARD
PM REVIEW: ARD
QA/QC REVIEW: MDN
DATE: 07/31/2023
SEAL:

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