

Request for Proposals  
Foundation Construction  
Town of Johnson,  
Johnson Public Library Building

**CALENDAR OF EVENTS / RFP TIMELINE**

Listed below are the important dates and times by which the actions noted must be completed. All dates are subject to change by the TOWN OF JOHNSON. If the TOWN OF JOHNSON finds it necessary to change any of these dates or times prior to the due date, the change will be accomplished by addendum.

ACTION Issue RFP	COMPLETION DATE
	4/30/2025
Last Day for Questions	5/7/2025
Addendums Posted (If Necessary)	
Submission Deadline	5/12/2025 4:00pm
Mandatory Site Visit	5/5/2025 4:00pm
Vendor Presentations	As requested by vendor, not required
Review and Award	5/12/2025 4:00pm

# Request for Proposals Concrete Foundation

[townofjohnson.com](http://townofjohnson.com)

The Town of Johnson requests proposals from qualified Concrete Contractors to construct a new foundation under the relocated Johnson Public Library. **The timeline for this project is extremely tight, with a wall pour date of 5/30/25 or sooner.** The walls must cure per specification of two weeks before the building can be let down.

## **Background:**

The Johnson Public Library has been relocated to 73 School Street in Johnson, Vermont. The building is currently elevated on wooden cribbing awaiting a foundation to be lowered onto.

## **The Building:**

Johnson Public Library  
73 School Street  
Johnson, Vermont, 05656

The building is roughly 40' x 45' with two main sections to the foundation. Please refer to the attached bid specifications for the construction.

## **Contractors submitting a proposal will be expected to be able to:**

- Provide a bid to construct the new foundation as specified.
- Work with the building moving company to ensure beam pockets are adequate to remove the existing steel beams.
- Work with the Architect, Structural Engineer, Mechanical Engineer and the Town to ensure the foundation is built as specified.
- Provide examples of foundations for other municipalities, schools, building relocations, or government buildings.
- Clean up after construction.
- Ensure a safe construction zone throughout the construction.
- Work with Town staff to address any concerns that may arise.
- Attend the Site Visit on **5/5/25 at 4:00pm**  
**73 School Street, Johnson, Vermont 05656**
- Maintain General Liability Insurance, and sign the Town of Johnson's Non-Employee Work Agreement

This request for proposal includes the following work; to be considered, your bid must contain all work included in this bid and specifications provided.

Contractors will:

- Pour the footing with reinforcement to specification, the current pad has been constructed to receive the footing. Pad elevation is at base of footing height.
- Pour the exterior walls, interior walls, and chimney support, with reinforcement, per specification, to height, leaving beam pockets to remove the steel beams.
- Work with the Building Mover to schedule the lowering of the building.
- Install 2x12 Pressure Treated plate, install shims, and grout to specification.
- Install 5"x5"x1/2" angle iron per specification.
- Install Simpson DTT2Z's per specification.
- Install crushed stone to top of footer, install insulation on walls and top of footer height at ground, and install second layer of crushed stone, install vapor barrier, and install third layer of crushed stone per specification.
- Pour wall beam pockets, these "cold" joints must be waterproof, per specification.
- Work with the Mechanical Engineer and Architect to allow a waterproof sewer through pipe through the side wall of the foundation, location and size TBD.

This RFP does not include backfilling the completed foundation.

Any contractor who submits a proposal must be willing and able to fulfill the assigned requirements of this contract and shall follow all Town of Johnson standards for equal-opportunity employment and non-discrimination practices.

Site Visit, Mandatory:

- **5/5/25 at 4:00pm 73 School Street, Johnson, Vermont 05656**

### Proposal Submittal

If the submitting contractor has not already been employed by the Town of Johnson, the proposal must include a minimum of three professional references or examples of similar work in picture or narrative form.

Please direct any questions regarding proposal submission to the Johnson Town Administrator, Thomas Galinat, at [tojadministrator@townofjohnson.com](mailto:tojadministrator@townofjohnson.com) or 802-793-8480

Completed proposals must be received no later than 5/12/25 at 12pm and delivered by email or in person to:

Thomas Galinat  
293 Lower Main West  
Johnson, VT 05656, or  
[tojadministrator@townofjohnson.com](mailto:tojadministrator@townofjohnson.com)

Responses must be marked "Library Foundation"

NOTE: The Town reserves the right to reject any and all proposals. Proposals received after this deadline may be refused and deemed ineligible for consideration.

### Selection of Contractor

The Town of Johnson reserves the right to accept a proposal and enter into an agreement as a result of the initial proposals received, or alternatively, it may elect to conduct negotiations with those Bidders as determined by the Town, to be within an acceptable competitive range, or alternatively, to negotiate separately with any Bidders when it is determined to be in the best interest of the Town. In addition, the Town may request that Bidders provide a best and final offer. The Town may negotiate any proposal or best and final offer at any time after the deadline for the submission of proposals.

### Proposal Requirements and Examination of Work to be Performed

The contractor is required to thoroughly examine the request for proposal requirements and the work contemplated, and it will be assumed that the contractor has investigated and is satisfied as to the requirements. It is mutually agreed that submission of a request for proposal shall be considered evidence that the contractor has made such examination.

### Confidentiality:

Please be advised that all notifications, releases, and addendums associated with this RFP will be posted on-line at [townofjohnson.com](http://townofjohnson.com) and copies provided at the Town Clerk's Office where the original solicitation resides. The Town may not attempt to contact consultants with updated information. It is the responsibility of each consultant to provide an email contact and to periodically check their email and the town website for notifications, releases and addendums associated with the RFP. The Town encourages proposals from economically disadvantaged businesses enterprises and consultants shall comply with all federal funding requirements. The Town reserves the right to reject any and all submittals and to make a consultant selection based on the needs and requirements of the Town and may select the consultant that it feels will provide the best value to the Town.

PROJECT NOTES

THESE STRUCTURAL DRAWINGS SUPPLEMENT AND ARE TO BE COORDINATED WITH CIVIL, ARCHITECTURAL, MEPFP AND OTHER PROJECT-RELATED DOCUMENTS

CONTRACTOR SHALL FIELD VERIFY ALL RELEVANT EXISTING CONDITIONS, DIMENSIONS, ELEVATIONS, ETC PRIOR TO THE START OF CONSTRUCTION. NOTIFY ENGINEER OF ANY SIGNIFICANT DISCREPANCIES. WHERE CONTRACTOR IS INSTRUCTED TO "FIT" OR "MATCH", THE CONTRACTOR IS RESPONSIBLE FOR GATHERING EXISTING INFO AND CONFIRMING & ADJUSTING THE DIMENSIONS SLIGHTLY IN ORDER TO FIT OR MATCH.

FOR WORK WITH EXISTING STRUCTURES:

- AN INSPECTION OF EXISTING, VISIBLE STRUCTURAL ELEMENTS WAS PERFORMED FOR THE PREPARATION OF THIS DESIGN. CONCEALED STRUCTURE ELEMENTS IN POOR CONDITION AND/OR UNFORESEEN CONDITIONS MAY BE ENCOUNTERED DURING CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND DESIGN AS SOON AS POSSIBLE. NES DOES NOT REPRESENT THAT EVERY FEATURE OR DEFECT IS FOUND AND INCORPORATED INTO THE DESIGN.

ANY WORK FOUND TO BE DEFECTIVE AND/OR NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

AS APPLICABLE, NOTIFY NES WITH 24 HOURS MINIMUM NOTICE OF:

- FIRST FOOTING PLACEMENT
- FIRST FOUNDATION WALL PLACEMENT
- AT THE 90% COMPLETION OF ROUGH CARPENTRY OR STRUCTURAL STEEL ERECTION.

COLD AND HOT WEATHER CONSTRUCTION:

- CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS RELATED TO THE MANAGEMENT OF HOT AND COLD WEATHER CONSTRUCTION. THIS INCLUDES AND IS NOT LIMITED TO: PROTECT SOILS IN THE CONSTRUCTION SITE FROM FREEZING, MANAGE HOT WEATHER CONCRETE PLACEMENT, PROTECTION OF CONSTRUCTION.
- ANY WORK DAMAGED BY ENVIRONMENTAL CONDITIONS IS TO BE REPAIRED OR REPLACED AT THE ENGINEER'S DISCRETION AT THE CONTRACTOR'S EXPENSE.
- PROTECTIONS AND MANAGEMENT OF COLD AND HOT WEATHER CONSTRUCTION IS AT THE EXPENSE OF THE CONTRACTOR.

NOTIFY ENGINEER OF SIGNIFICANT PROJECT MILESTONES WITH 24 HOURS MINIMUM NOTICE. THIS INCLUDES CONCRETE PLACEMENT, 90% COMPLETION OF ROUGH CARPENTRY, 90% COMPLETION OF STRUCTURAL STEEL ERECTION, ETC.

CONTRACTOR REQUESTED CHANGES: IF CONTRACTOR REQUESTS CHANGES TO CONSTRUCTION AND/OR MATERIALS, THEY ARE TO SUBMIT A FORMAL RFI TO DOCUMENT THE REQUEST AND THE ANSWER. ANY SUBSTITUTIONS MUST BE ACCOMPANIED BY DOCUMENTATION OR NARRATIVE DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS EQUAL TO THAT IN THE CONSTRUCTION DOCUMENTS.

THE CONCRETE STRUCTURES ARE DESIGNED TO ANTICIPATE AND MINIMIZE SHRINKAGE AND TEMPERATURE CRACKING. HOWEVER, HAIRLINE SHRINKAGE CRACKS MAY OCCUR. THESE TYPES OF CRACKS ARE TYPICALLY NOT STRUCTURAL IN NATURE AND SHOULD NOT AFFECT THE SERVICEABILITY OF THE CONCRETE.

STRUCTURAL DESIGN PARAMETERS

CODE:	IBC 2015, AMENDED BY THE VT. 2015 FIRE BUILDING SAFETY CODE
TOWN:	JOHNSON, VT
CONSTRUCTION TYPE	5 B
RISK CATEGORY AND IMPORTANCE FACTORS	
RISK CATEGORY:	II
IMPORTANCE FACTORS	
SNOW, Is	1.0
ICE, I	1.0
WIND, Iw	1.0
SEISMIC, Ie	1.0
1st FLOOR LIVE LOAD:	100 PSF
ROOF LOAD:	
GROUND SNOW LOAD(Pg):	60 PSF
FLAT ROOF SNOW LOAD(Pf):	47 PSF
SOLAR LOAD ALLOWANCE:	0 PSF (RELOCATED EXISTING) 5 PSF (NEW ROOF CONSTRUCTION)
EXPOSURE FACTOR(Ce):	1.0
THERMAL FACTOR (Ct):	1.1
SNOW DRIFT DATA	SEE PLANS (PHASE 3)
FLOOR AND ROOF DEFLECTION CRITERIA:	
INDIVIDUAL ROOF MEMBERS-LIVE LOAD	L/360 MAXIMUM
INDIVIDUAL FLOOR MEMBERS- LIVE LOAD	L/480 MAXIMUM
WIND LOAD:	
ULTIMATE DESIGN WIND SPEED (Vult):	115 MPH
NOMINAL DESIGN WIND SPEED (Vasd):	90 MPH
EXPOSURE CATEGORY:	C
SEISMIC LOAD: (WIND LOADING CONTROLS)	
MAPPED SPECTRAL RESPONSE COEFFICIENTS:	Ss = 0.29, S1=0.069
SITE CLASS:	D
DESIGN SPECTRAL RESPONSE ACC PARAMETERS:	Sds = 0.23, Sd1=0.097
SEISMIC DESIGN CATEGORY:	B
SEISMIC FORCE RESISTING SYSTEM:	WOOD SHEAR WALLS
DESIGN BASE SHEAR:	V= CsW
ANALYSIS PROCEDURE:	EQUIVALENT LATERAL FORCE
GEOTECHNICAL:	
DESIGN SOIL BEARING CAPACITY:	2,000 PSF
DESIGN METHODOLOGY:	ALLOWABLE STRESS DESIGN

STRUCTURAL DRAWING LEGEND

NOT ALL MAY APPLY DATUM OF 0'-0" MAY ALSO BE USED	
	STRUCTURAL FILL
	CRUSHED STONE
	GRANULAR BACKFILL
	CAST IN PLACE CONCRETE
	EARTH -GENERAL
	EXISTING SOIL- UNDISTURBED
	FOOTING MARK [TOP OF FOOTING ELEVATION]
	WALL FOOTING MARK [TOP OF FOOTING ELEVATION]
	BP-1 BASE PLATE TAG
	EP-1 EMBEDDED PLATE MARK
	SOG-1 SLAB ON GRADE TAG
	CW-1 FOUNDATION WALL TAG
	BW-1 BEARING WALL TAG
	H-X HEADER TAG
	(X) SLAB JOINT
	EXISTING
	BOF BOTTOM OF FOOTING
	CL CENTERLINE
	CL CLEAR
	NTS NOT TO SCALE
	PED PEDESTRIAN DOOR
	RO ROUGH OPENING
	TOC TOP OF CONCRETE
	TOF TOP OF FOOTING
	FOF FACE OF FOUNDATION
	TOS TOP OF STEEL
	TOW TOP OF WALL
	UNO UNLESS NOTED OTHERWISE
	VIF VERIFY IN FIELD
	WJ FOUNDATION WALL CRACK CONTROL JOINT
	FFE FINISH FLOOR ELEVATION
	WS WALL STEP
	FS FOOTING STEP
	WD WOOD
	T&B TOP & BOTTOM
	OC ON CENTER
	EW EACH WAY
	SPF SPRUCE PINE FIR
	SYP SOUTHERN YELLOW PINE
	RS ROUGH SAWN

SEE STRUCTURE  
EXCAVATION, BACKFILL,  
INSULATION AND VAPOR  
BARRIER SPECIFICATION  
FOR AGGREGATE SPECS

SCHEDULE OF STRUCTURAL SPECIAL INSPECTIONS CHAPTERS:	
1705.1 UNUSUAL CONSTRUCTION OR MATERIALS	N/A
1705.2.1 STRUCTURAL STEEL	N/A
1705.2.2 COLD FORMED STEEL DECK	N/A
1705.2.3 OPEN WEB STEEL JOISTS	N/A
1705.2.4 COLD FORMED STEEL TRUSSES > 60' SPAN	N/A
1705.3 CONCRETE CONSTRUCTION	YES
1705.4 MASONRY CONSTRUCTION	N/A
1705.5 WOOD CONSTRUCTION - PREFABRICATED	YES (PHASE 3)
1705.6 SOILS	YES
1705.7 DRIVEN DEEP FOUNDATIONS	N/A
1705.8 CIP DEEP FOUNDATIONS	N/A
1705.9 HELICAL PILE FOUNDATIONS	N/A
1705.10 FABRICATED ITEMS	N/A
1705.11 SP INSPECTIONS FOR WIND RESISTANCE (EXCEPTION #2)	EXEMPT
1705.12 SP INSPECTIONS FOR SEISMIC RESISTANCE(EXCEPTION #1)	EXEMPT
1705.13 TESTING FOR SEISMIC RESISTANCE	N/A
1705.14 SPRAYED FIRE-RESISTANT MATERIALS	N/A
1705.15 MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS	N/A
1705.16 EIFS FINISH SYSTEM & INSULATION	N/A
1705.17 FIRE-RESISTANT PENETRATIONS AND JOINTS	N/A

SOILS, CHAPTER 1705.6		
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1.) VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY		✓
2.) VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL		✓
3.) PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS		✓
4.) VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	✓	
5.) PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY		✓

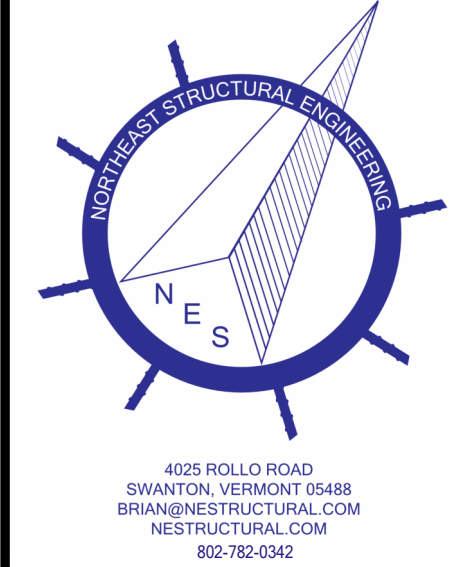
CONCRETE, CHAPTER 1705.3		
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1.) VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY		✓
2.) VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL		✓
3.) PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS		✓
4.) VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	✓	
5.) PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY		✓

PHASE 1 - STRUCTURAL SHEET LIST		WILL BE UPDATED AS SHEETS ARE DEVELOPED - REFER TO LATEST RELEASED SET
Sheet Number	Sheet Name	
S 0.1	General Notes	
S 0.2	General Notes	
S 1.0A	Phase 1 - New Foundation Footings	
S 1.1A	Phase 1 - New Foundation Walls	
S 1.2A	Phase 1 - First Floor Framing Plan	
S 4.0A	Phase 1 - Foundation Wall Details	
S 4.1A	Phase 1 - Foundation Wall Details	
S 4.2A	Phase 1 - Foundation Wall Details	
Total: 8		

PHASE 2 - STRUCTURAL SHEET LIST		WILL BE UPDATED AS SHEETS ARE DEVELOPED - REFER TO LATEST RELEASED SET
Sheet Number	Sheet Name	
S 0.1	General Notes	
S 0.2	General Notes	
Total: 2		

<b>PHASE 3 - STRUCTURAL SHEET LIST</b>		<b>WILL BE UPDATED AS SHEETS ARE DEVELOPED - REFER TO LATEST RELEASED SET</b>
Sheet Number	Sheet Name	
S 0.1	General Notes	
S 0.2	General Notes	
Total: 2		

NES PROJECT PHASING DESCRIPTION		
PHASE #	DESCRIPTION	SHEET TITLE CONVENTION
PHASE 1	NEW FOUNDATION AND FIRST FLOOR FRAMING FOR EXISTING LIBRARY - FOR BUILDING RELOCATION FOCUS	S X.XA
PHASE 2	RENOVATION TO EXISTING LIBRARY FRAMING	S X.XB
PHASE 3	NEW ADDITION FOUNDATION AND FRAMING	S X.XC
ADDITIONAL NOTES: 1. PHASE 1 PRIORITIZES REQUIRED FOUNDATION AND FRAMING TO RELOCATE THE BUILDING, PHASE 2 WILL INCLUDE ALL ADDITIONAL STRUCTURAL WORK TO THE ORIGINAL VOLUME REQUIRED FOR PROJECT 2. PHASE 2 AND 3 WILL LIKELY BE DESIGNED SIMULTANEOUSLY BUT ARE SEPARATED DUE TO EXISTING RENOVATION VS NEW ADDITION CONDITIONS 3. THESE PHASING EFFORTS ARE LIMITED TO NES PROVIDED STRUCTURAL PLANS, OTHER DISCIPLINES MAY PROVIDE DIFFERENT PHASING OR NO PHASING FOR THIS PROJECT 4. SHEETS REGARDING ALL PHASES WILL BE IN A CONVENTION S X.X (NO TRAILING LETTER)		



FOR PHASE 1  
PERMITTING AND BIDDING

Town Of Johnson  
293 Lower Main St W,  
Johnson, VT 05656

Johnson Public  
Library Relocation  
& Addition

Corner of School St and  
George Hill Rd,  
Johnson, VT

Rev. No.	Date	Description

Title:  
General Notes

NES PROJECT NO: 25016  
DATE: 03/21/2025  
DESIGNED BY: AD/BD

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S 0.1



SUBMITTALS

SUBMITTAL REVIEW IS FOR THE GENERAL CONFORMANCE WITH THE DESIGN CONCEPT ONLY AND DOES NOT RELIEVE THE CONTRACTOR OF COMPLIANCE WITH THE DESIGN DOCUMENTS WHICH HAVE PRIORITY OVER THE ENGINEER'S SHOP DRAWING REVIEW. ANY DEVIATIONS FROM THE DESIGN DOCUMENTS NOT CLEARLY NOTED BY THE CONTRACTOR WILL NOT BE CONSIDERED REVIEWED UNLESS HIGHLIGHTED AND NOTED. ENGINEER'S REVIEW OF THE SHOP DRAWINGS DOES NOT CONSTITUTE A COMPLETE CHECK OF DETAILED DIMENSIONS OR COUNT OR SERVE TO RELIEVE THE CONTRACTOR OF CONTRACTUAL RESPONSIBILITY FOR ANY ERROR OR DEVIATION FROM CONTRACT REQUIREMENTS.

THE SHOP DRAWINGS WILL BE RETURNED FOR RESUBMITTAL IF NOT FULLY REVIEWED AND STAMPED BY THE CONTRACTOR OR IF A CURSORY ENGINEER'S REVIEW SHOWS MAJOR ERRORS OR CHANGES THAT SHOULD HAVE BEEN FOUND BY THE CONTRACTOR'S REVIEW. ALL SHOP DRAWINGS SHALL INCLUDE PLAN LAYOUTS SHOWING LOCATIONS OF ITEMS DETAILED ON THE DRAWINGS. ANY CHANGES, SUBSTITUTIONS OR DEVIATIONS FROM THE CONTRACT DOCUMENTS SHALL BE CLOUDED BY THE VENDOR SUBMITTING THE SHOP DRAWINGS. ANY OF THE AFOREMENTIONED WHICH ARE NOT CLOUDED OR FLAGGED MAY RESULT IN A RETURNED FOR RESUBMITTAL RESPONSE

THE CONTRACTOR SHALL FORWARD SUBMITTALS TO THE ENGINEER VIA EMAIL OR PROJECT MANAGEMENT SOFTWARE. A COVER SHEET AND DESIGNATED LOCATION FOR THE ENGINEER'S REVIEW STAMP IS REQUIRED. THE NES WILL REVIEW AND RESPOND TO SUBMITTALS WITHIN SEVEN WORKING DAYS AND THE CONTRACTOR(S) SHOULD PLAN ACCORDINGLY.

SUBMITTALS REQUIRED FOR ENGINEER REVIEW, AS APPLICABLE TO THE PROJECT:

- SOILS:
- SIEVE ANALYSES AND MOISTURE DENSITY CURVE RESULTS FOR EACH SOURCE OF EACH TYPE OF MATERIAL USED ON THE PROJECT. ADDITIONAL TESTS MAY BE PERFORMED THROUGH THE DURATION OF THE PROJECT TO VERIFY MATERIAL CONSISTENCY.
  - IN-PLACE TESTING OF MATERIALS USUALLY BY THE OWNER, SEE FOUNDATION EXCAVATION & BACKFILL NOTES

- CAST IN PLACE CONCRETE, REINFORCEMENT, & ACCESSORIES:
- MIX DESIGNS THAT INCLUDE MIX PROPORTIONS & ADMIXTURE DATA SHEETS, SUBMITTED IN ACCORDANCE WITH ACI 318 SECTION 5. MIX DESIGNS SUCCESSFULLY USED AND TESTED BY A RECOGNIZED TESTING AGENCY WITHIN THE LAST 6 MONTHS ARE ACCEPTABLE.
  - CURING/SEALING/HARDENING COMPOUNDS, JOINT FILLER MATERIAL, EMBEDDED AND POST-INSTALLED ANCHOR SYSTEMS.
  - REINFORCING SHOP DRAWINGS SHOWING AT A MINIMUM: DIMENSIONS, PLACEMENT, CLEAR DISTANCES, BENDS, SPLICE LENGTHS, AND MECHANICAL SPLICING.
  - CONCRETE SAMPLES FOR TESTING USUALLY IS BY THE OWNER, SEE CONCRETE NOTES

- STRUCTURAL STEEL:
- SUBMIT SHOP DRAWINGS PER AISC STANDARDS, INCLUDING MEMBER IDENTIFICATION, PLACEMENT, & ELEVATION.
  - SHOW ALL CONNECTION DETAILS INCLUDING CONNECTIONS NOT DETAILED ON THE CONSTRUCTION DOCUMENTS
  - INDICATE WELDED CONNECTIONS
  - MILL CERTIFICATIONS TO INDICATE COMPLIANCE WITH MINIMUM SPECIFICATIONS
  - WELDERS' CERTIFICATES
  - STAIR AND OTHER FABRICATIONS DESIGN DRAWINGS WHERE ASSEMBLIES ARE SHOWN SCHEMATICALLY ON STRUCTURAL OR ARCHITECTURAL DRAWINGS
    - OTHER MISCELLANEOUS METALS

- WOOD CONSTRUCTION:
- SPECIES AND CERTIFICATIONS FOR LUMBER AND ENGINEERED PRODUCTS INCLUDING ENGINEERED LUMBER AND SHEATHING.
  - PRODUCT DATA SHEETS ON LIGHT GAGE WOOD FRAMED CONSTRUCTION CONNECTORS
  - PRODUCT DATA INDICATING FASTENERS' COMPATIBILITY WITH PRESERVATIVE PRESSURE TREATED LUMBER

- PREFABRICATED WOOD TRUSSES: FLOOR AND ROOF
- SUBMIT TRUSS DESIGN DRAWINGS PREPARED BY THE TRUSS MANUFACTURER INDICATING THAT REQUIRED IN IBC CH. 2303.4.1.1 AND INCLUDING BUT NOT LIMITED TO:
    - TRUSS FABRICATION COMPANY AND NAME OF PROJECT
    - TRUSS PLACEMENT DIAGRAMS
    - ALL DIMENSIONS SHOWING SHAPE, SLOPE, SPANS, MEMBER SIZES, & CHORD CONFIGURATION
    - INDIVIDUAL TRUSS MEMBER MATERIAL SPECIFICATIONS
    - DESIGN LOADS
    - MEMBER FORCES
    - HANGAR SCHEDULE/SPECIFICATION
    - MINIMUM BEARING REQUIRED
    - FABRICATOR CERTIFICATION FOR IBC CHAPTER 17 SPECIAL INSPECTIONS.
    - PROFESSIONAL ENGINEER STAMPED TRUSS DESIGN DRAWINGS INCLUDING HANGARS AND OTHER ACCESSORIES. THE PE MUST BE LICENSED AND SEALING THE DESIGN(S) IN PROJECT'S STATE.
    - OTHER INFORMATION REQUIRED BY IBC CODE AND SPECIAL INSPECTIONS

CONCRETE REINFORCEMENT:

COMPLY WITH ALL RECOMMENDATIONS OF AMERICAN CONCRETE INSTITUTE PUBLICATION ACI 318 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES".

SUBMITTALS: SEE STRUCTURAL SUBMITTALS NOTES

- MATERIALS:
- REINFORCING BARS: ASTM A-615, GRADE 60. STIRRUPS AND TIES SHALL BE GRADE 40.
  - SUPPORTING DEVICES: GALVANIZED OR NON-RUSTING TYPE. USE PLASTIC TIPPED ACCESSORIES IN CONCRETE EXPOSED TO WEATHER, WATER OR VIEW. USE LOAD BEARING PAD OR OTHER MEASURES TO PREVENT PUNCTURING VAPOR BARRIER.
  - FIBER REINFORCEMENT: STRUX 90/40 SYNTHETIC MACRO FIBER REINFORCEMENT BY GCP APPLIED TECHNOLOGIES
  - POST INSTALLED DOWELS: REBAR: ASTM A-615, GRADE 60; SMOOTH DOWELS: ASTM A 36.

- CONCRETE COVER AROUND REINFORCING (MINIMUM):
- CONCRETE FORMED AGAINST THE EARTH: 3 INCHES
  - SLABS ON FILL: 1 1/2 INCHES
  - WALLS, COLUMNS, BEAMS AND INTERIOR SLABS: 1 1/2 INCHES

AT THE TIME CONCRETE IS PLACED, ALL REINFORCEMENT SHALL BE FREE FROM DIRT, MUD, ICE, RUST, SCALE, LOOSE MILL SCALE, OIL, PAINT AND ALL OTHER COATINGS WHICH MAY DESTROY OR REDUCE BOND BETWEEN STEEL AND CONCRETE.

- POST INSTALLED DOWELS:
- ALL HOLES SHALL BE DRILLED IN ACCORDANCE WITH THE MANUFACTURER'S DATA, INCLUDING HOLE DIAMETER. ALL HOLES SHALL BE CLEANED WITH COMPRESSED AIR OR MANUFACTURER'S RECOMMENDED PROCEDURE AND SHALL BE DRY PRIOR TO INSTALLATION OF EPOXY. HOLES SHALL BE FREE OF ALL MATERIAL SUCH AS LAITANCE, DUST, DIRT AND OIL.
  - ANCHOR BOLTS, REINFORCING STEEL, THREADED RODS, STAIR HANDRAILS, AND OTHER EMBEDDED STEEL ITEMS SHALL BE SET INTO HARDENED CONCRETE OR CORE-FILLED MASONRY WITH EPOXY OR EPOXY GROUT ONLY WHERE DETAILED ON THE DRAWINGS OR WHERE DETAILED ON THE DRAWINGS OR WHERE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD.
  - MANUFACTURER'S DATA FOR ALL EPOXY AND EPOXY GROUT SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD FOR APPROVAL PRIOR TO INSTALLATION. ACCEPTABLE EPOXY PRODUCTS ARE: HILTI HIT-HY200 OR APPROVED EQUAL. IN USING THE ABOVE LISTED PRODUCTS, FOLLOW STRICTLY THE MANUFACTURER'S SPECIFICATIONS AND DIRECTIONS FOR MIXING AND APPLICATION

STRUCTURE EXCAVATION, BACKFILL, INSULATION, & VAPOR BARRIER

THIS SECTION INCLUDES THE EXCAVATION, INSULATION, BACKFILL AND COMPACTION INSIDE THE STRUCTURE FOOTPRINT TO 5 FEET AROUND THE PERIMETER OF THE FOUNDATIONS

EXCAVATE TO THE SPECIFIED ELEVATIONS WITH A SMOOTH EDGED BUCKET & MINIMIZE DISTURBANCE TO EXISTING SOIL TO REMAIN. NOTIFY ENGINEER OF SUSPECT OR UNSUITABLE SOILS THAT VARY FROM THAT REPRESENTED IN THE GEOTECHNICAL REPORT

NOTIFY ENGINEER 24 HOURS IN ADVANCE OF COMPLETION OF EXCAVATIONS TO REVIEW SOIL CONDITIONS

- AGGREGATES, FREE OF ORGANIC MATTER OR OTHER NON-AGGREGATE MATERIALS:
- STRUCTURAL FILL : WELL GRADED SAND OR CRUSHER RUN GRAVEL

SIEVE	%PASSING
2"	100
1 1/2"	90-100
NO. 4	30-60
NO. 100	0-12
NO. 200	0-8
  - CLEAN CRUSHED STONE : 3/4" CLEAN CRUSHED STONE

SIEVE	%PASSING
1"	100
3/4"	90-100
3/8"	20-55
NO. 4	0-10
NO. 8	0-5
  - CLEAN CRUSHED STONE : 1 1/2" CLEAN CRUSHED STONE

SIEVE	%PASSING
1 1/2"	100
1"	90-100
1/2"	60-90
NO. 4	0-10
NO. 8	0-5
  - GRANULAR BACKFILL: WELL GRADED GRANULAR MATERIAL

SIEVE	%PASSING
3"	100
NO. 4	45-75
NO. 100	0-12
NO. 200	0-6

- CLEAN CRUSHED STONE : 3/4" CLEAN CRUSHED STONE

SIEVE	%PASSING
1"	100
3/4"	90-100
3/8"	20-55
NO. 4	0-10
NO. 8	0-5
- CLEAN CRUSHED STONE : 1 1/2" CLEAN CRUSHED STONE

SIEVE	%PASSING
1 1/2"	100
1"	90-100
1/2"	60-90
NO. 4	0-10
NO. 8	0-5
- GRANULAR BACKFILL: WELL GRADED GRANULAR MATERIAL

SIEVE	%PASSING
3"	100
NO. 4	45-75
NO. 100	0-12
NO. 200	0-6

- CLEAN CRUSHED STONE : 3/4" CLEAN CRUSHED STONE

SIEVE	%PASSING
1"	100
3/4"	90-100
3/8"	20-55
NO. 4	0-10
NO. 8	0-5
- CLEAN CRUSHED STONE : 1 1/2" CLEAN CRUSHED STONE

SIEVE	%PASSING
1 1/2"	100
1"	90-100
1/2"	60-90
NO. 4	0-10
NO. 8	0-5
- GRANULAR BACKFILL: WELL GRADED GRANULAR MATERIAL

SIEVE	%PASSING
3"	100
NO. 4	45-75
NO. 100	0-12
NO. 200	0-6

- CLEAN CRUSHED STONE : 3/4" CLEAN CRUSHED STONE

SIEVE	%PASSING
1"	100
3/4"	90-100
3/8"	20-55
NO. 4	0-10
NO. 8	0-5
- CLEAN CRUSHED STONE : 1 1/2" CLEAN CRUSHED STONE

SIEVE	%PASSING
1 1/2"	100
1"	90-100
1/2"	60-90
NO. 4	0-10
NO. 8	0-5
- GRANULAR BACKFILL: WELL GRADED GRANULAR MATERIAL

SIEVE	%PASSING
3"	100
NO. 4	45-75
NO. 100	0-12
NO. 200	0-6

ON SITE MATERIAL IS NOT TO BE USED FOR GRANULAR BACKFILL OUTSIDE OF THE FOUNDATION UNLESS THE CONTRACTOR HAS DEMONSTRATED TO THE ENGINEER'S SATISFACTION THAT THE ONSITE MATERIAL MEETS GRADATION, COMPACTION, CONSISTENCY OF AGGREGATE, AND ABSENCE OF LOAM, SILT, CLAY OR ORGANIC MATTER). CONTRACTOR IS TO ASSUME THAT THE ON-SITE MATERIAL IS NOT ACCEPTABLE AS BACKFILL UNTIL THE ENGINEER APPROVES THE MATERIAL.

REMOVE TOPSOIL AND ORGANICS AND PROVIDE 12 INCHES, MINIMUM STRUCTURAL FILL UNDER ALL SLABS. FINE GRADE TOP SLAB-ON-GRADE AGGREGATE TO THE FOLLOWING TOLERANCES: +0" TO - 3/4".

- MATERIAL PLACEMENT AND COMPACTION REQUIREMENTS:
- PLACE AND COMPACT/CONSOLIDATE FILL MATERIALS IN EVEN LIFTS NOT EXCEEDING 8 INCHES FOR HAND OPERATED VIBRATORY (PLATE) COMPACTION EQUIPMENT OR 12" FOR MECHANIZED VIBRATORY ROLLERS
  - INSIDE THE STRUCTURE FOOTPRINT/BELOW STRUCTURES, STRUCTURAL FILL COMPACTED TO 95% MODIFIED PROCTOR DENSITY, TEST FOR COMPACTION PER THE FIELD QUALITY CONTROL SCHEDULE. TEST IN ACCORDANCE WITH ASTM D6938
  - AROUND THE STRUCTURE PERIMETER: GRANULAR BACKFILL COMPACTED TO 90% MODIFIED PROCTOR DENSITY EXCEPT COMPACT TO 95% MODIFIED PROCTOR DENSITY UNDER SIDEWALKS, PAVEMENT AND OTHER STRUCTURES. TEST IN ACCORDANCE WITH ASTM D6938 PER THE FIELD QUALITY CONTROL SCHEDULE

BACKFILL EACH SIDE OF FOUNDATION WALLS EVENLY, WITH NO GREATER THAN 18 VERTICAL INCHES DIFFERENCE BETWEEN EACH SIDE OF WALL. IF WALL ARE DESIGNED FOR EARTH RETAINAGE, DO NOT BACKFILL DIFFERENTIALLY UNTIL ALL MEANS OF SUPPORT ARE IN PLACE AND CONCRETE HAS REACHED 100% OF DESIGN STRENGTH.

THE FOUNDATION DESIGN ASSUMES THAT THE FOOTINGS WILL REST UPON UNDISTURBED ORIGINAL SOIL TOPPED WITH AGGREGATE WHERE INDICATED. IN THE EVENT THAT DEMOLITION, SITE PREPARATION OR SOILS EXPLORATION DISTURBS SOIL DEEPER THAN THE SPECIFIED BOTTOM OF EXCAVATION, THAT DISTURBED SOIL MUST BE EXCAVATED. BACKFILL THE RESULTING EXCAVATION WITH STRUCTURAL FILL COMPACTED TO 95% MODIFIED PROCTOR DENSITY, MINIMUM. CONCRETE FLOWABLE FILL CAN BE USED TO FILL THE OVER-EXCAVATION WITH ENGINEER'S APPROVAL.

- FOUNDATION INSULATION:
- XPS RIGID INSULATION MEETING ASTM C578 TYPE IV (25 PSI) WITH R5 PER INCH UNLESS NOTED OTHERWISE. BUTT JOINTS TOGETHER TIGHTLY AND SECURE IN PLACE UNTIL BACKFILL OR PERMANENT CONSTRUCTION FEATURES HOLDING INSULATION IN PLACE ARE CONSTRUCTED.
  - WHERE CALLED FOR, USE UNFACED POLYISOCYANURATE INSULATION.
  - SECURE INSULATION TO AVOID DISPLACEMENT DURING CONSTRUCTION ACTIVITIES
  - ON HORIZONTAL APPLICATIONS, BUTT JOINTS TIGHTLY AND TAPE JOINTS

- VAPOR BARRIER:
- PLACE 15 MIL VAPOR BARRIER UNDER ENTIRE FLOOR SLAB AT LOCATION INDICATED
  - INSTALL VAPOR BARRIER IN ACCORDANCE ASTM E1643.
  - UNROLL VAPOR BARRIER WITH THE LONGEST DIMENSION PARALLEL WITH THE DIRECTION OF THE CONCRETE PLACEMENT AND FACE LAPS AWAY FROM THE EXPECTED DIRECTION OF THE PLACEMENT WHENEVER POSSIBLE.
  - EXTEND VAPOR BARRIER TO THE PERIMETER OF THE SLAB. IF PRACTICABLE, TERMINATE IT AT THE TOP OF THE SLAB, OTHERWISE (A) AT A POINT ACCEPTABLE TO THE STRUCTURAL ENGINEER OR (B) WHERE OBSTRUCTED BY IMPEDIMENTS, SUCH AS DOWELS, WATERSTOPS, OR ANY OTHER SITE CONDITION REQUIRING EARLY TERMINATION OF THE VAPOR BARRIER.

- OVERLAP JOINTS 6 INCHES AND SEAL WITH MANUFACTURER'S SEAM TAPE
- APPLY SEAM TAPE/CRETE CLAW TO A CLEAN AND DRY VAPOR BARRIER
- SEAL ALL PENETRATIONS (INCLUDING PIPES) PER MANUFACTURER'S INSTRUCTIONS.
- USE REINFORCING BAR SUPPORTS WITH BASE SECTIONS THAT ELIMINATE OR MINIMIZE THE POTENTIAL FOR PUNCTURE OF THE VAPOR BARRIER.
- REPAIR DAMAGED AREAS WITH VAPOR BARRIER MATERIAL OF SIMILAR (OR BETTER) PERMEANCE, PUNCTURE AND TENSILE.

CONCRETE

CAST IN PLACE CONCRETE WORK IS TO BE PERFORMED IN ACCORDANCE WITH ACI 318.

CONCRETE MUST BE SOURCED FROM A RECOGNIZED COMMERCIAL BATCH PLANT. ON-SITE BATCHING OF CONCRETE IS PROHIBITED

SUBMITTALS: SEE STRUCTURAL SUBMITTALS NOTES

FOUNDATION LAYOUT IS BY THE CONTRACTOR.

ENVIRONMENTAL EXTREMES: FOLLOW ACI 306 FOR COLD WEATHER CONCRETING AND ACI 305 FOR HOT WEATHER CONCRETING. ACCELERATING OR RETARDING ADMIXTURES IN EXTREME WEATHER MAY BE USED AFTER ENGINEER APPROVAL. CALCIUM CHLORIDE IS PROHIBITED.

- CONCRETE MIXTURE SPECIFICATIONS:
- PROVIDE COMPRESSIVE STRENGTH AS INDICATED ON THE PLANS
  - SLUMP: 2-4" BEFORE ADDITION OF ADMIXTURES AND 6-8" AFTER THE ADDITION OF ADMIXTURES
  - EXTERIOR CONCRETE IS TO BE AIR ENTRAINED USING ADMIXTURES: 4% - 6%, ASTM C260

ISOLATE SLABS ON GRADE FROM VERTICAL SURFACES WITH 1/2" EXPANSION JOINT FILLER OR RIGID INSULATION

FORM RELEASE AGENT: WATER BASED PRODUCT MANUFACTURED FOR THIS PURPOSE. DO NOT APPLY OR OVERSPRAY RELEASE AGENT ON REBAR. IF RELEASE AGENT IS ON REBAR, RELATED WORK WILL BE REJECTED AND RECONSTRUCTED AT ENGINEER'S DISCRETION.

WALL JOINTS INDICATED ON PLAN OR FOUNDATION ELEVATIONS CAN BE CONTROL JOINTS OR CONSTRUCTION JOINTS AT CONTRACTOR'S OPTION, BASED UPON MAXIMUM REASONABLE SECTION LENGTH OR DAILY CONCRETE PLACEMENT

FOUNDATION WALL AND SLAB PENETRATIONS NOT SHOWN. CONTRACTOR TO COORDINATE CONSTRUCTION WITH ARCHITECTURAL AND MEP PLANS.

PROVIDE 5' - 0" MINIMUM BOTTOM OF FOOTING DEPTH IN ALL LOCATIONS.

COLD JOINTS IN A SINGLE POUR ARE PROHIBITED. PROVIDE CONSTRUCTION JOINTS DETAILED ON THE DRAWINGS.

PROTECT PLACED AND FINISHED CONCRETE FROM INJURY, PREMATURE DRYING, MECHANICAL DAMAGE, AND TEMPERATURE EXTREMES. DO NOT PLACE UNEQUAL LATERAL PRESSURE ON WALLS UNTIL FULLY CURED AND SUPPORTING MEMBERS ARE IN PLACE.

BREAK OFF ALL FORM TIES. ON SURFACES TO REMAIN EXPOSED, PARGE HOLES SMOOTH FOR AN ATTRACTIVE FINISH.

FORMWORK FINISHES PER ACI 347, AS APPLICABLE:

FOUNDATION WALLS: CLASS C

RETAINING WALLS: CLASS C

FOOTINGS: CLASS D

- SLABS ON GRADE:
- PRIOR TO FLOOR SLAB CONSTRUCTION, THE DESIGN TEAM SHALL MEET TO DISCUSS FLOOR SLAB PLACEMENT, DESIRED FINISH, AND HOW TO ACHIEVE THAT FINISH, ETC. CONTRACTOR TO CALL FOR MEETING AT LEAST 3 WEEKS PRIOR TO SLAB CONSTRUCTION.
  - PROVIDE FINISH AS SHOWN ON THE PLANS

- WHERE LEVEL FLOORS ARE SPECIFIED, PROVIDE A FLOOR FLATNESS EXCEEDING  $F_F = 25$ ,  $F_L = 20$  FOR GROUND FLOOR. ELEVATED SLABS SHALL HAVE A FLOOR FLATNESS OF  $F_F = 25$ .

WHERE APPLICABLE, SLOPE FLOORS UNIFORMLY TO DRAIN(S)

- SLAB CURING: MODIFY OR AUGMENT THESE METHODS, OR ADOPT ADDITIONAL PROTECTIVE MEASURES, WHEN REQUIRED TO COMPENSATE FOR CHANGES IN HUMIDITY, TEMPERATURE, WIND, OR OTHER CONDITIONS. MINIMUM CURING PERIOD SHALL BE 7 DAYS.

- WATER CURING SLABS ON GRADE: WATER CURING DURING COLD WEATHER CONCRETING IS NOT PERMITTED. CONTINUOUSLY KEEP CONCRETE SURFACES WET BY COVERING WITH WATER, BY CONTINUOUS FOG SPRAYING, OR BY COVERING WITH BURLAP AND POLYETHYLENE, OR OTHER APPROVED MATERIAL THOROUGHLY SATURATED WITH WATER AND KEPT WET BY INTERMITTENT HOSING. BURLAP SHALL BE PLACED DIRECTLY ON THE CONCRETE, SATURATED WITH WATER, AND COVERED WITH 4 OR 6 MIL POLYETHYLENE SHEETING. PROVIDE SUFFICIENT ANCHORING TO PREVENT BLOW-OFF OF SHEETING. IN LIEU OF BURLAP, NON STAINING KRAFT PAPER COATED WITH NOT LESS THAN 2 MIL THICK POLYETHYLENE SHEETING MAY BE USED. PROTECT WATER CURED CONCRETE AGAINST FREEZING FOR THE FULL CURING PERIOD SPECIFIED. COMPLETELY COVER SURFACES, WITH EDGES AND ENDS LAPPED AT LEAST 4 INCH AND SEALED WITH A MASTIC OR PRESSURE-SENSITIVE TAPE. IMMEDIATELY REPAIR TEARS OR HOLES APPEARING DURING THE CURING PERIOD.
- AFTER THE WATER CURING PROCESS, APPLY FLOOR SEALER/HARDENER INDICATED ON THE DRAWINGS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

- SLAB SEALER:
  - INTERIOR: CONSOLIDECK LS PREMIUM LITHIUM - SILICATE SEALER, HARDENER AND DENSIFIER BY PROSOCO.
  - EXTERIOR: CURE SHIELD, ONE STEP WATER REPELLANT SEALER, CLEAR SILANE ACRYLIC CURING AND SEALING COMPOUND MEETING ASTM C-1315 TYPE I, CLASS A AND NCHRP 244, 25-30% SOLIDS BY SPECICHEM.
- DO NOT APPLY FLOOR SEALER/HARDENER TO AREAS OF CONCRETE THAT WILL RECEIVE FLOOR FINISH

- SLAB PENETRATIONS NOT SHOWN. CONTRACTOR TO COORDINATE CONSTRUCTION WITH ARCHITECTURAL AND MEP PLANS.
- SLAB CRACK CONTROL JOINTS ARE SHOWN. CONTRACTOR MAY CHOOSE TO CREATE A CONSTRUCTION JOINT AT CONTROL JOINT LOCATIONS BASED UPON AMOUNT OF SLAB THAT CAN BE PROPERLY CONSTRUCTED. ALLOW 5 DAYS BETWEEN ADJACENT POURS.

- CONTROL JOINT LAYOUT: ALIGN CONTROL JOINTS WITH SLAB INTERRUPTIONS AS SHOWN. WHERE NOT DIMENSIONED, SPACE CONTROL JOINTS EQUALLY BETWEEN ALIGNED CONTROL JOINTS.
- FINE GRADING OF THE SLAB BASE IS CRITICAL TO SLAB PERFORMANCE AND MINIMIZATION OF CRACKS. SEE EXCAVATION AND BACKFILL NOTES

SEAL CONTROL JOINTS AS INDICATED WITH SIKADUR 51 SL BY SIKA CORPORATION IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS

PROVIDE ONE #5 REBAR EXTENDING FROM AND CONNECTED TO FOOTING REBAR TO 6" ABOVE THE SLAB TO CREATE A CONCRETE-ENCASED ELECTRODE ELECTRICAL GROUND IN ACCORDANCE WITH ELECTRICAL CODE(S). CONTRACTOR TO VERIFY AND COORDINATE GROUNDING SYSTEM WITH ARCHITECTURAL AND ELECTRICAL DESIGNS. SYSTEM MAY VARY FROM THAT STATED.

FIELD QUALITY CONTROL

OWNER SHALL ENGAGE A QUALIFIED AND EXPERIENCED TESTING AND INSPECTION AGENCY FOR THE PERFORMANCE OF CONSTRUCTION FIELD TESTING

CONTRACTOR SHALL SCHEDULE THE TESTING AGENCY IN ACCORDANCE WITH THE REQUIREMENTS HEREIN.

AGGREGATES

IN-SITU AGGREGATE COMPACTION TESTING IN ACCORDANCE WITH ASTM D1557.

- TESTING FREQUENCY:
- BELOW STRUCTURE'S WALL FOOTINGS: ONE TEST FOR EACH LIFT FOR EVERY 20 FEET OF WALL
  - BELOW STRUCTURE'S ISOLATED FOOTINGS: ONE TEST FOR EACH LIFT
  - BELOW SLABS ON GRADE: ONE TEST FOR EVERY 500 SQUARE FEET, EACH LIFT WITH A MINIMUM OF 3 TESTS PER LIFT

IF COMPACTION TESTING DOES NOT MEET SPECIFICATION AND ADDITIONAL TESTING IS REQUIRED, THE OWNER MAY CHARGE CONTRACTOR FOR THE ADDITIONAL TESTING.

CONCRETE:

CONCRETE TESTING IN ACCORDANCE WITH ASTM C172

TESTING FREQUENCY:

ONE TEST FOR EACH 100 CY FOR EACH DESIGN MIX PER DAY

ONE TEST FOR EACH 1500 SF OF SLAB FOR EACH DESIGN MIX, PER DAY

- QUALITY CONTROL TESTING SCHEDULE:
- SAMPLING FRESH CONCRETE: TAKE ALL SAMPLES IN ACCORDANCE WITH ASTM C172, EXCEPT THAT SAMPLES OF FRESH CONCRETE SHALL BE TAKEN FROM THE MIDDLE THIRD OF EACH BATCH.
  - SLUMP TEST: TEST EACH BATCH OF CONCRETE IN ACCORDANCE WITH ASTM C143 AND WHEN ADDITIONAL WATER IS ADDED AND WHEN DIRECTED BY ENGINEER. PROVIDE CONES AND EQUIPMENT AND MAINTAIN THEM AT THE SITE WHENEVER CONCRETE IS PLACED.
  - ENTRAINED AIR CONTENT: TEST EACH BATCH OF CONCRETE IN ACCORDANCE WITH ASTM C231. MAINTAIN ENTRAINED AIR CONTENT TO WITHIN THE LIMITS SPECIFIED IN PAR. 2.01. PROVIDE THE PROPER EQUIPMENT AND MATERIALS AND PERFORM TESTS AT THE SITE.
  - COMPRESSIVE STRENGTH: MAKE AND CURE ONE SET OF FOUR 6 INCH X 12 INCH CYLINDERS IN ACCORDANCE WITH ASTM C31 FOR EACH 50 CY OF CONCRETE PLACED WITH AT LEAST ONE SET MADE FOR EACH DAY'S PLACEMENT OF CONCRETE. FOR EACH SET OF FOUR TEST CYLINDERS, TEST ONE CYLINDER AT 7 DAYS, TWO AT 28 DAYS AND IF ANY OF THE 28 DAY CYLINDERS ARE UNSATISFACTORY, THE REMAINING CYLINDER SHALL BE TESTED AT 42 DAYS. TESTING OF CYLINDERS SHALL BE IN ACCORDANCE WITH ASTM C39. PROVIDE ALL MATERIALS AND TRANSPORTING TEST CYLINDERS TO THE APPROVED TESTING LABORATORY.
  - DENSITY: EACH TIME A SET OF TEST CYLINDERS IS MADE, DETERMINE THE DENSITY OF THE CONCRETE IN ACCORDANCE WITH ASTM C138.

- FOR EACH TEST, FOUR CYLINDERS WILL BE TAKEN. TEST CYLINDERS AS FOLLOWS:
- @ 7 DAYS: TEST ONE CYLINDER
  - @ 28 DAYS: TEST TWO CYLINDERS
- IF THE 28 DAY TESTS FAIL TO MEET DESIGN PARAMETERS, HOLD THE REMAINING CYLINDERS AND TEST AT 56 DAYS.

UNTESTED CYLINDERS CAN BE DISCARDED AFTER SUCCESSFUL TESTING

- UNIT MASONRY
- IBC CHAPTER 17 SPECIAL INSPECTIONS, AS APPLICABLE
  - CMU TEST: FOR EACH TYPE OF UNIT USED, TEST ACCORDING TO ASTM C140 (COMPRESSIVE STRENGTH)
  - GROUT TEST: FOR EACH MIX PROVIDED, TEST ACCORDING TO ASTM C1019

ROUGH CARPENTRY

MATERIALS

- DIMENSIONAL LUMBER
- TYPICAL: SPF (SPRUCE-PINE-FIR) #2 OR BETTER
  - PRESSURE-TREATED LUMBER: SOUTHERN YELLOW PINE #1 OR BETTER.
  - MINIMUM MEMBER SIZE IS 2x4 NOMINAL WITH DESIGN PARAMETERS MEETING OR EXCEEDING SPF #2

- ENGINEERED LUMBER, IN ACCORDANCE WITH ASTM D 5456 AND D 2559
- LVL: LAMINATED VENEER LUMBER, 2.0E MINIMUM
  - PSL: PARALLEL STRAND LUMBER, 2.0E MINIMUM
  - LSL: LAMINATED STRAND LUMBER AS FRAMING OR RIM BOARDS, 1 1/4" THICKNESS
    - LSL BEAMS: 1.5SE, MINIMUM
    - LSL COLUMNS: 1.3E, MINIMUM

- WOOD I-JOISTS:
- TJI PREFABRICATED WOOD I-JOISTS BY TRUSJOIST OR APPROVED EQUIVALENT
    - UNITS TO BE MARKED WITH DEPTH, CLASS, SPAN RATING, MILL ID, AND ADA STANDARD IN ACCORDANCE WITH INDUSTRY STANDARDS

- WOOD SHEATHING: SEE ALSO PROJECT SPECIFIC DIAPHRAGM/SHEARWALL REQUIREMENTS ON PLANS
- FLOOR SHEATHING: 3/4" APA RATED PANELS, TONGUE & GROOVE, EXPOSURE 1 DURABILITY
  - ROOF SHEATHING: 5/8" APA RATED, EXPOSURE 1 DURABILITY
  - WALL SHEATHING: 7/16" APA RATED, EXPOSURE 1 DURABILITY

INSTALL SHEATHING WITH LONG EDGE PERPENDICULAR TO FRAMING, EDGE JOINTS EVENLY STAGGERED

- SHEATHING FASTENERS
- FLOOR: SUBFLOOR ADHESIVE, 8d RING-SHANK NAILS WITH 6" EDGE FASTENING AND 12" FIELD FASTENING
  - ROOF: 8d RING-SHANK NAILS WITH 6" EDGE FASTENING AND 12" FIELD FASTENING
  - WALL: 8d RING-SHANK NAILS WITH 6" EDGE FASTENING AND 12" FIELD FASTENING U.N.O.

- ZIP-R INSULATED WALL SHEATHING BY HUBER ENGINEERED WOODS
- OSB EXPOSURE 1 SHEATHING, 7/16 PERFORMANCE CATEGORY, STRUCTURAL 1 RATED
  - FASTENERS: 0.131 SHANK NAILS WITH 3" EDGE AND 12" FIELD FASTENER SPACING, 1 1/2" MINIMUM EMBEDMENT

- LIGHT GAGE FRAMING CONNECTOR ACCESSORIES
- MANUFACTURED BY SIMPSON STRONG-TIE OR APPROVED EQUIVALENT
  - INSTALL IN ACCORDANCE WITH MANUFACTURER-PUBLISHED INSTRUCTIONS AND RECOMMENDATIONS
  - INSTALL WITH STATED FASTENERS OR MAXIMUM FASTENERS WHERE APPLICABLE, UNLESS OTHERWISE NOTED ON THE PLANS

- PREFABRICATED WOOD TRUSSES
- MANUFACTURER MUST BE SPECIALIZED IN THE DESIGN AND CONSTRUCTION OF PREFABRICATED TRUSSES. 5 YEARS MINIMUM EXPERIENCE PROVIDING SIMILAR PRODUCTS IN THE PROJECT'S GEOGRAPHICAL REGION.
  - COMPLY WITH THE DESIGN AND SUBMITTAL REQUIREMENTS OF IBC CH. 2303.4
  - MINIMUM MEMBER SIZE IS 2x4 NOMINAL WITH DESIGN PARAMETERS MEETING SPF#2. STUD GRADE MEMBERS ARE PROHIBITED.
  - BRACING DESIGN IS BY MANUFACTURER.
  - DO NOT MODIFY ENGINEERED TRUSSES WITHOUT ENGINEER'S PERMISSION. TRUSS MANUFACTURER MAY BE RE-ENGAGED FOR INPUT ON MODIFICATIONS.
  - ALLOWABLE DEFLECTIONS:
    - ROOF: L/360 MAXIMUM WITH 3/4" MAX.
    - FLOOR: L/480 MAXIMUM
  - PRESS PLATE STEEL CONNECTORS: ASTM A446 GRADE B HOT DIPPED GALVANIZED (G60), SIZE BY THE MANUFACTURER.
  - MANUFACTURE, HANDLE, AND INSTALL IN ACCORDANCE WITH APPLICABLE CODES INCLUDING HET-80, PCT-80 WITH SUPPLEMENT, TPI-85 WITH SUPPLEMENT, QSP -88,

- GENERAL
- ALL WOOD IN CONTACT WITH CONCRETE, MASONRY OR IS EXPOSED TO THE ELEMENTS IS TO BE PRESERVATIVE PRESSURE TREATED
  - FOR MINIMUM FASTING ON ALL CONNECTIONS NOT SHOWN IN PLANS, DETAILS OR SECTIONS REFER TO IBC 2018 TABLE 2304.10.1
  - ALL FASTENERS MUST BE COMPATIBLE WITH PRESERVATIVE TREATED WOOD CHEMICALS.
  - MINIMUM FRAMING FASTENERS: SEE IBC 2018 CHAPTER 2304.10.1 FASTENER REQUIREMENTS
  - PROVIDE DOUG-FIR #1 OR BETTER BLOCKING FOR GRAB BARS, HANDRAILS, CABINTRY, AND OTHER SIMILAR COMPONENT FASTENING
  - STORE ENGINEERED LUMBER IN A MANNER PROTECTED FROM THE WEATHER
  - USE AND INSTALL ONLY INTACT, UNDAMAGED WOOD PRODUCTS
  - ENGINEERED LUMBER PRODUCTS SHALL BE HANDLED AND INSTALLED IMPLEMENTING APPLICABLE MANUFACTURER RECOMMENDATIONS



FOR PHASE 1  
PERMITTING AND BIDDING

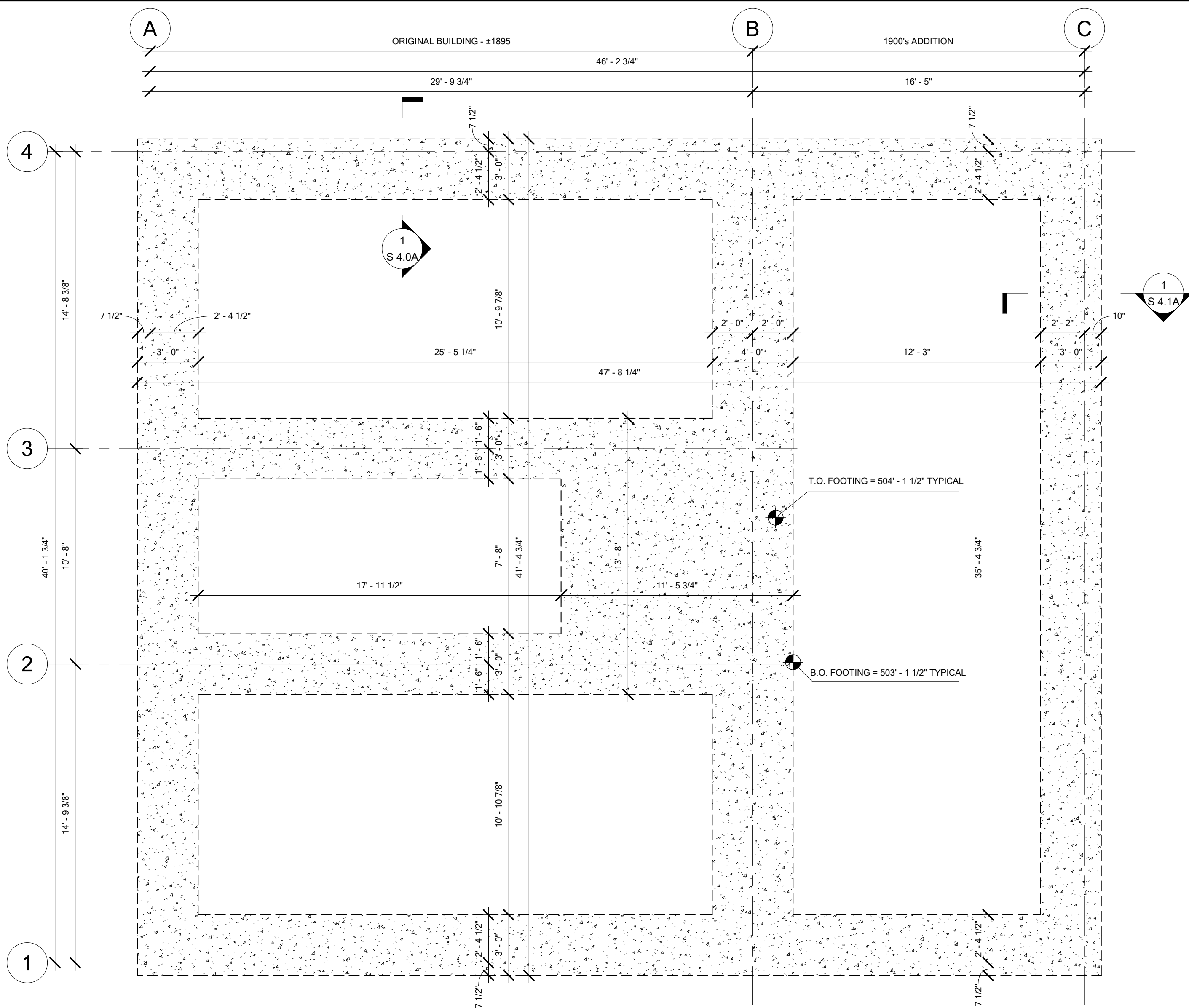
Town Of Johnson  
293 Lower Main St W,  
Johnson, VT 05656

Johnson Public  
Library Relocation  
& Addition

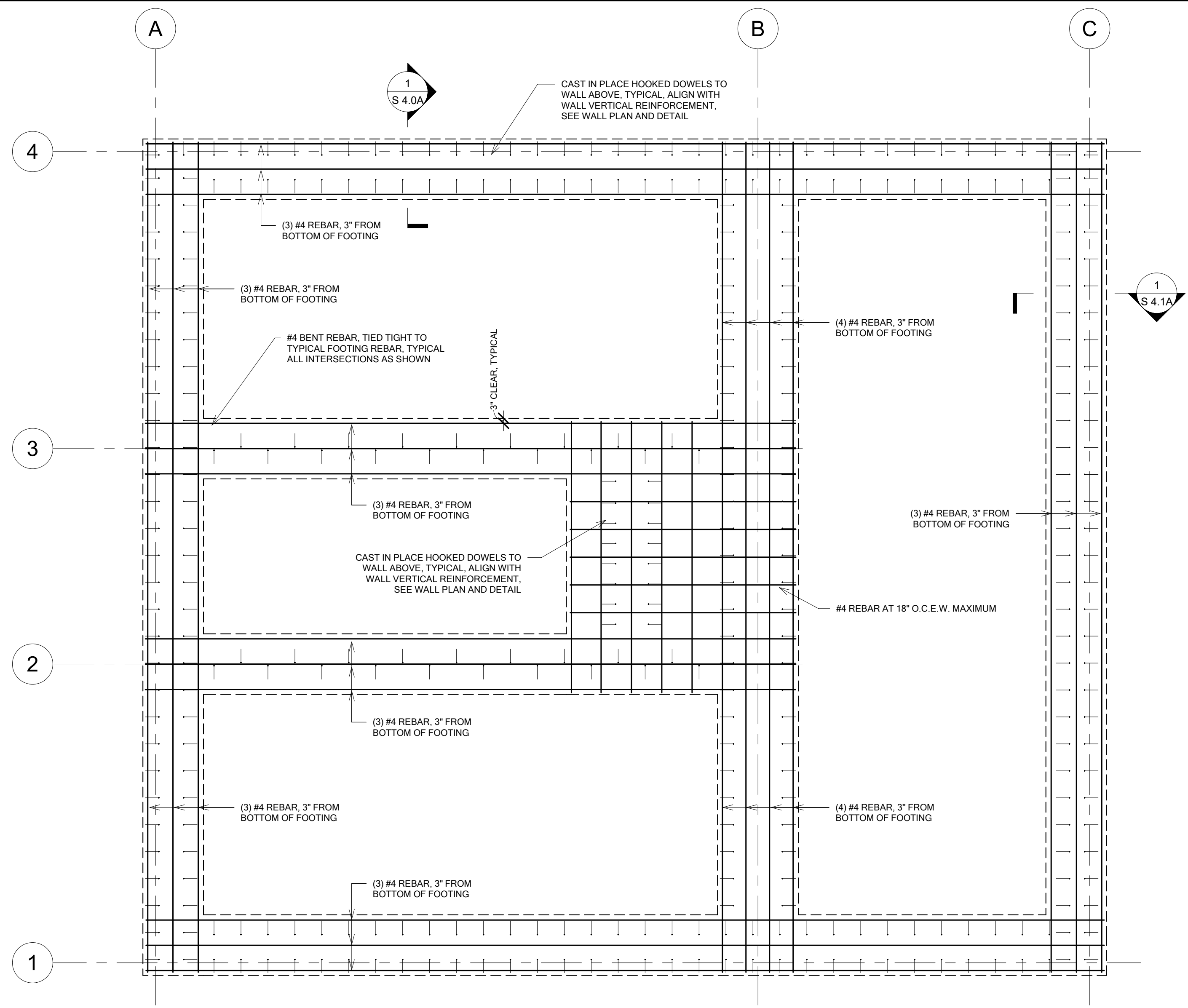
Corner of School St and  
George Hill Rd,  
Johnson, VT

Rev. No.	Date	Description

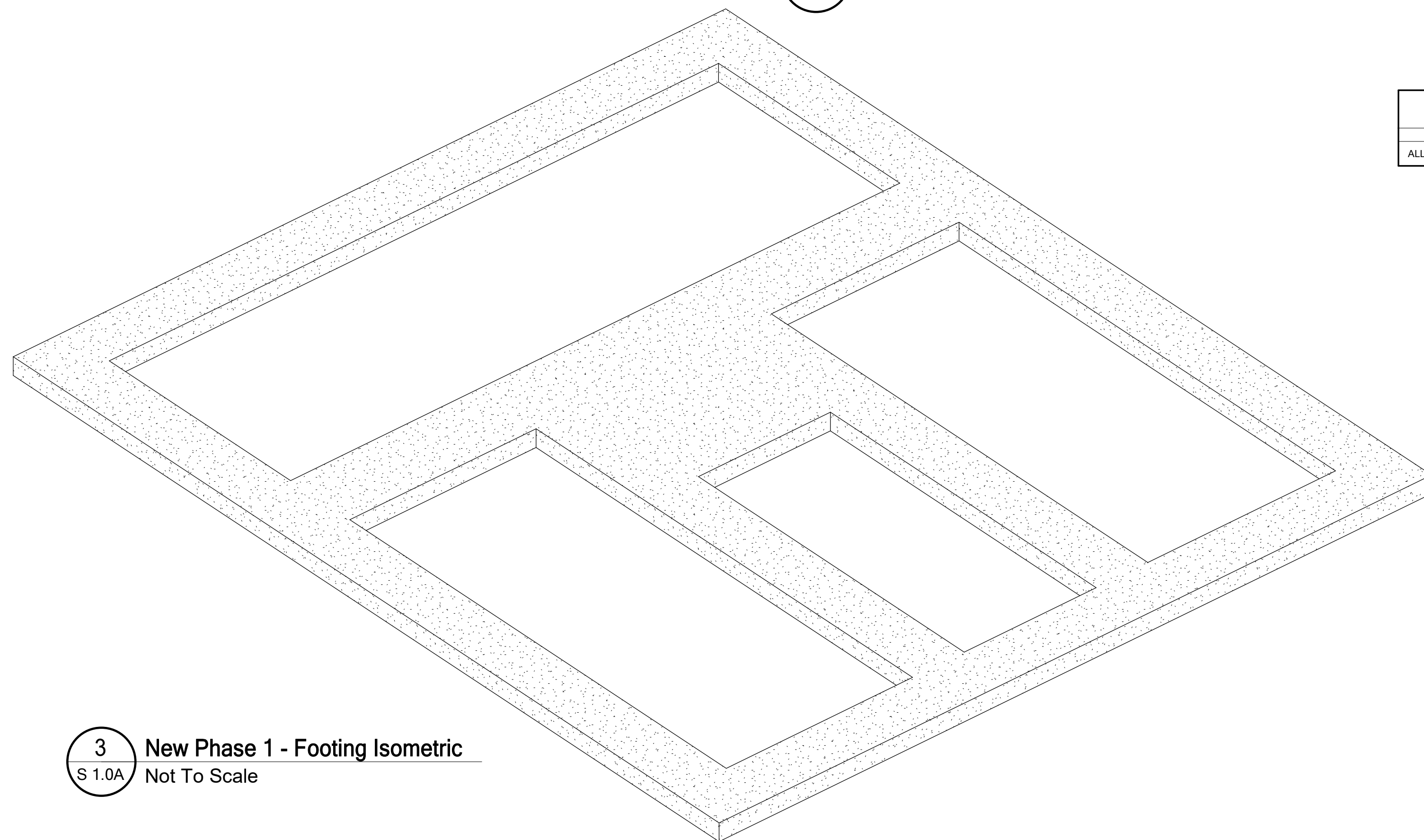




1 Phase 1 - New Foundation Footing Plan  
S 1.0A Scale: 1/4" = 1'-0"

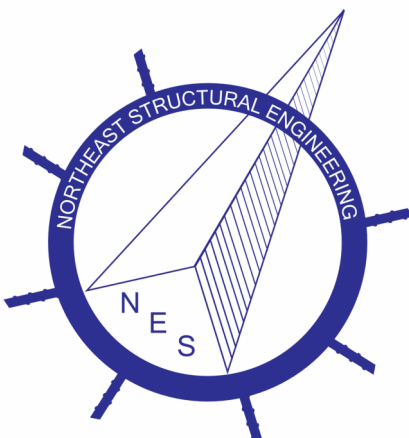


2 Phase 1 - New Foundation Footing Reinforcement Plan  
S 1.0A Scale: 1/4" = 1'-0"



3 New Phase 1 - Footing Isometric  
S 1.0A Not To Scale

WALL FOOTING SCHEDULE				
TAG	CONC. SPEC.	THICKNESS	WIDTH	REINFORCEMENT
ALL FOOTINGS	3,000 PSI	1' - 0"	VARIES, SEE FOOTING PLAN	SEE FOOTING PLAN



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FOR PHASE 1  
PERMITTING AND BIDDING

Town Of Johnson  
293 Lower Main St W,  
Johnson, VT 05656

Johnson Public  
Library Relocation  
& Addition

Corner of School St and  
George Hill Rd,  
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Rev. No.	Date	Description

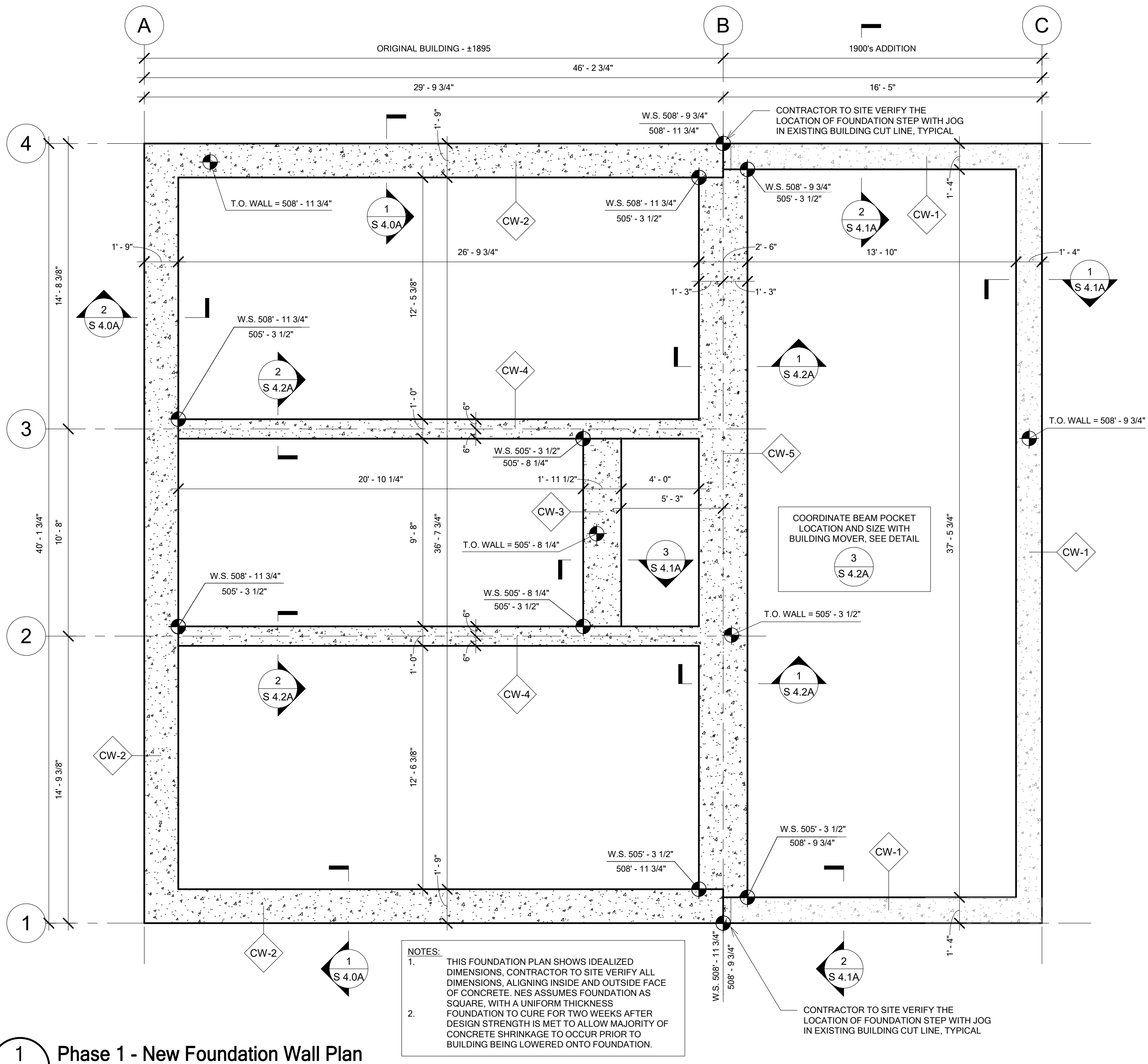
Title:  
Phase 1 - New  
Foundation  
Footings

NES PROJECT NO: 25016  
DATE: 03/21/2025  
DESIGNED BY: AD/BD

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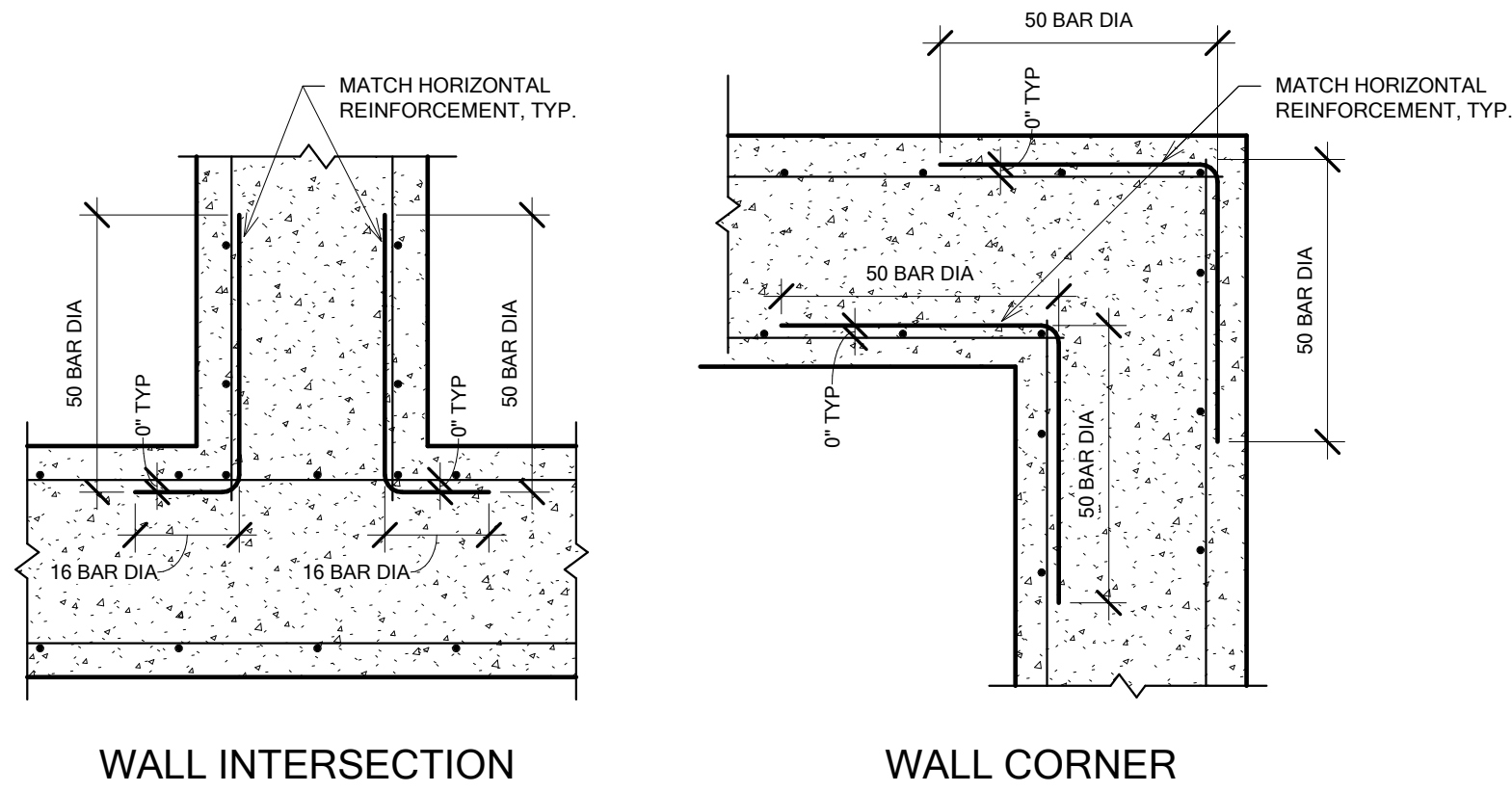
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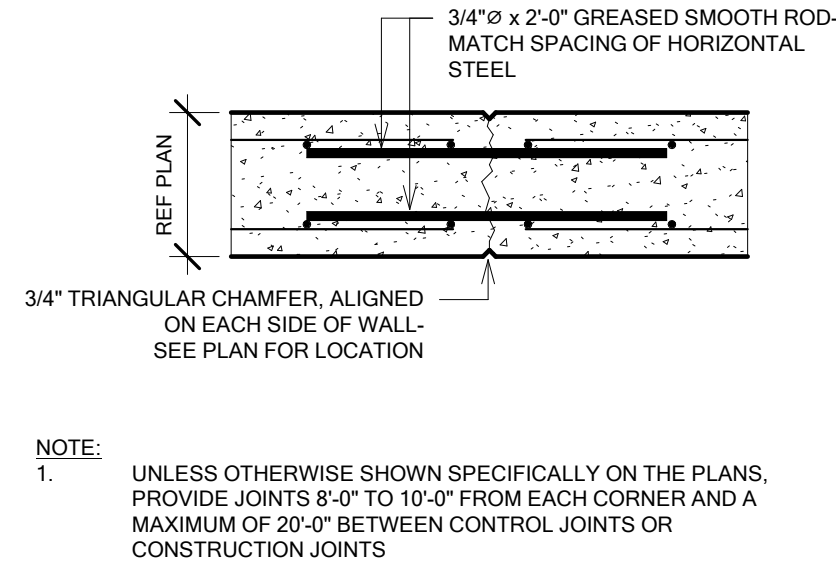


1 Phase 1 - New Foundation Wall Plan  
S 1.1A Scale: 1/4" = 1'-0"

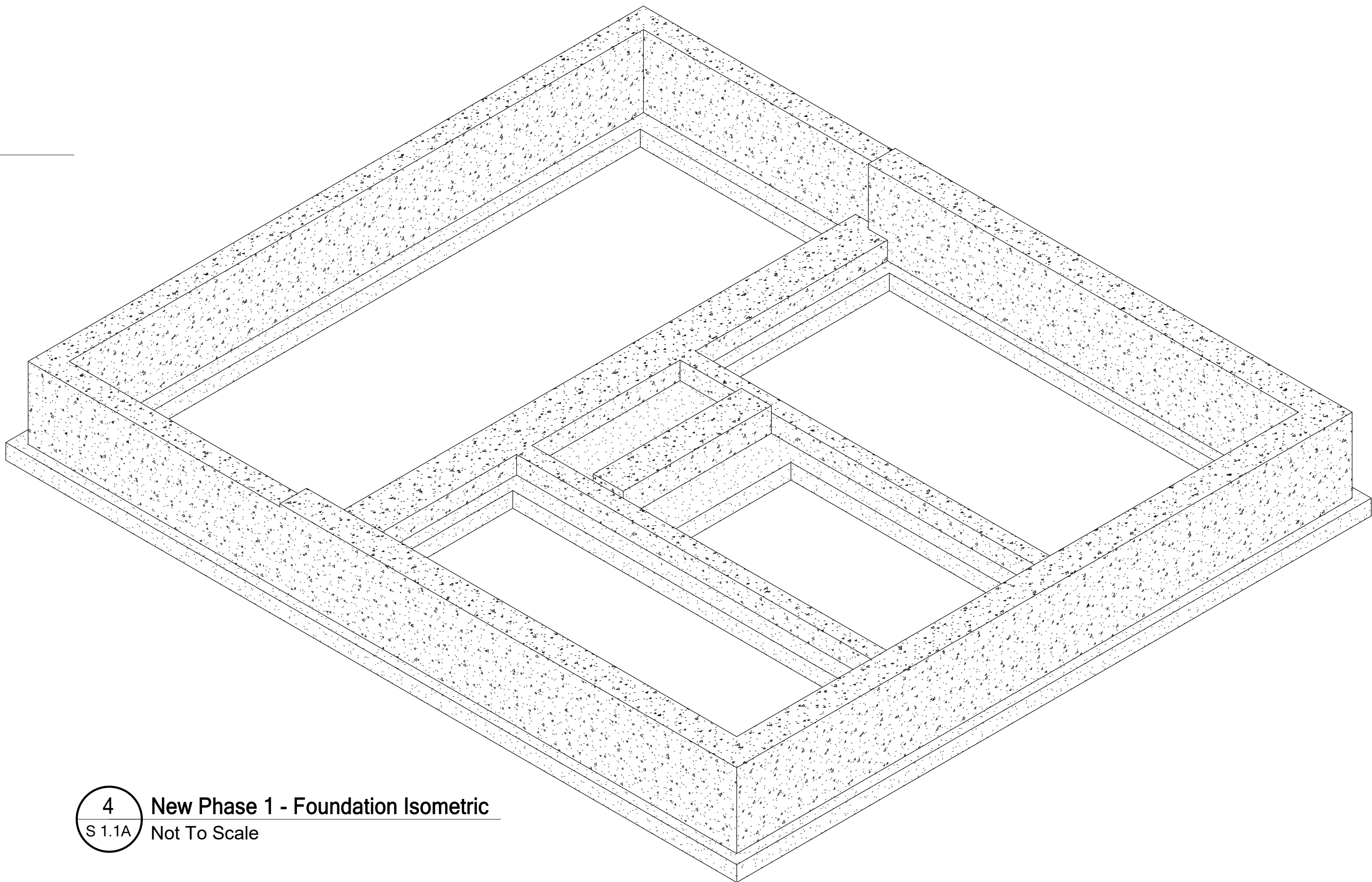
FOUNDATION WALL SCHEDULE				
TAG	CONC. SPEC.	WIDTH	REINFORCEMENT	LOCATION
CW-1	3,000 PSI	1' - 4"	(2) MATS OF #5 REBAR AT 16" O.C.E.W.EACH FACE, POSITION (1) MAT 2" CLEAR FROM INTERIOR AND EXTERIOR FACE OF FOUNDATION	1900'S ADDITION
CW-2	3,000 PSI	1' - 9"	(2) MATS OF #6 REBAR AT 16" O.C. HORIZONTAL AND #5 REBAR AT 16" O.C. VERTICAL, EACH FACE, POSITION (1) MAT 2" CLEAR FROM INTERIOR AND EXTERIOR FACE OF FOUNDATION	ORIGINAL 1900'S BUILDING
CW-3	3,000 PSI	1' - 11 1/2"	(2) MATS OF #5 REBAR AT 12" O.C.E.W. EACH FACE, POSITION (1) MAT 2" CLEAR FROM EACH FACE OF FOUNDATION	ORIGINAL CHIMNEY/HEARTH
CW-4	3,000 PSI	1' - 0"	#5 REBAR AT 16" O.C. VERTICAL AND #4 REBAR AT 12" MAX. O.C. HORIZONTAL	INTERIOR GRID "2" & "3"
CW-5	3,000 PSI	2' - 6"	(2) MATS OF #5 REBAR AT 12" O.C.E.W. EACH FACE, POSITION (1) MAT 2" CLEAR FROM EACH FACE OF FOUNDATION	INTERIOR GRID "8"



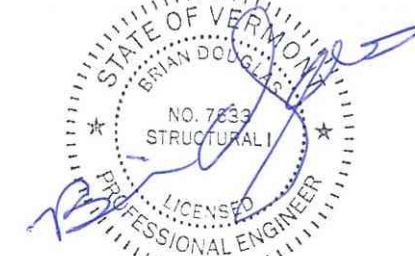
2 Additional Concrete Wall Horizontal Reinforcing  
S 1.1A Not To Scale



3 Conc. Wall Crack Control Joint  
S 1.1A Not To Scale



4 New Phase 1 - Foundation Isometric  
S 1.1A Not To Scale



FOR PHASE 1  
PERMITTING AND BIDDING

Town Of Johnson  
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Johnson Public  
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Corner of School St and  
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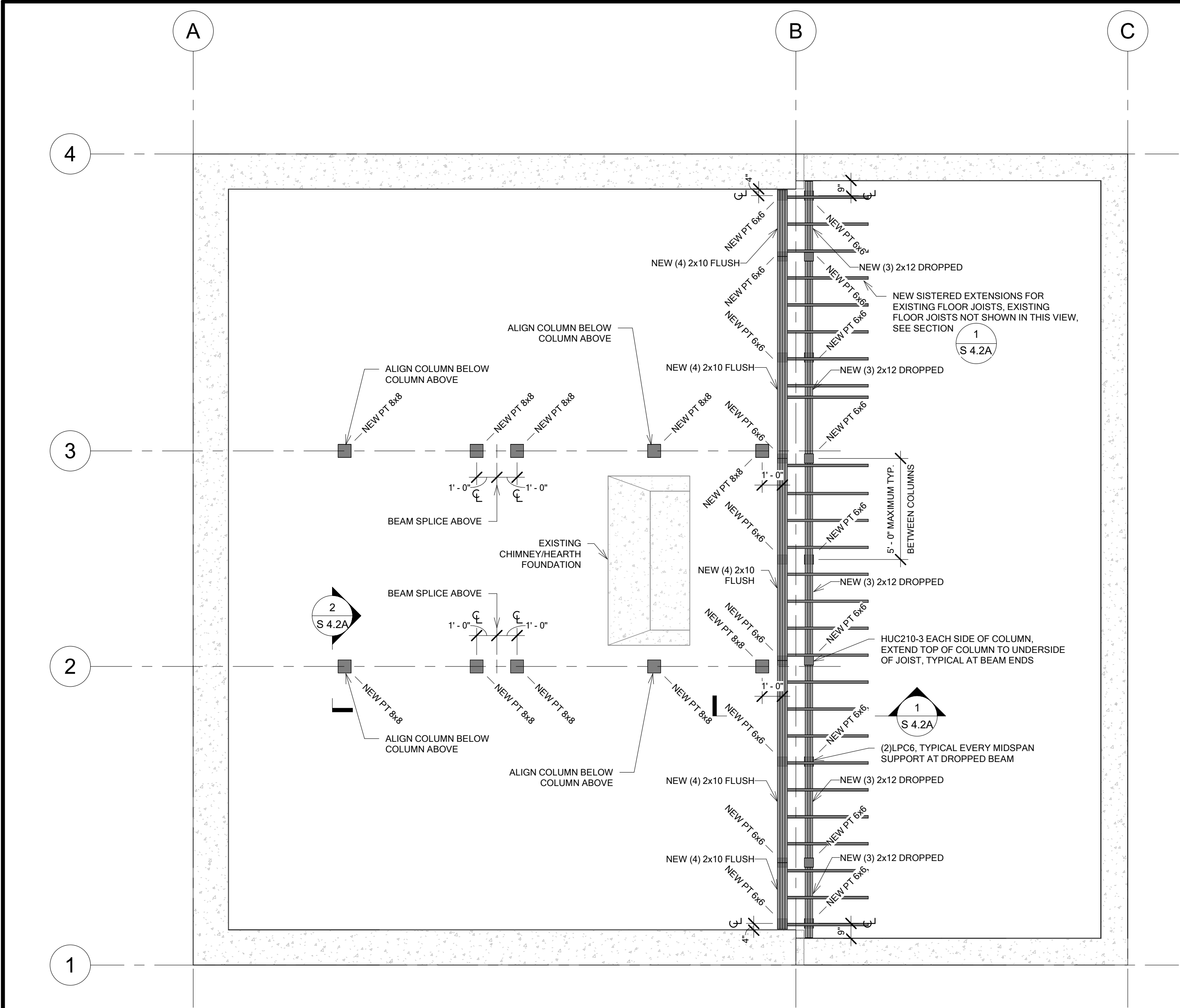
Title:  
Phase 1 - New  
Foundation Walls

NES PROJECT NO: 25016  
DATE: 03/21/2025  
DESIGNED BY: AD/BD

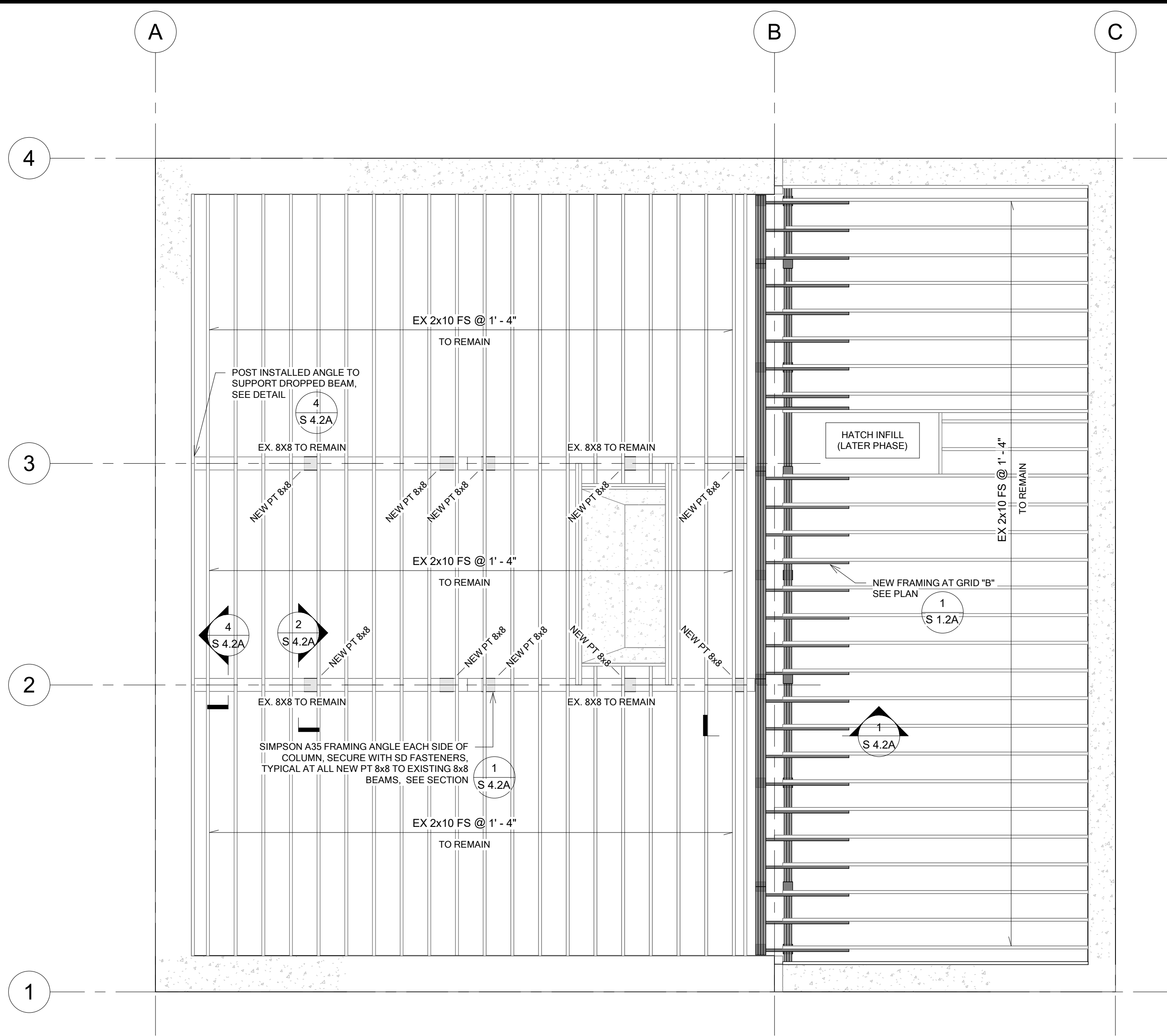
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S 1.1A

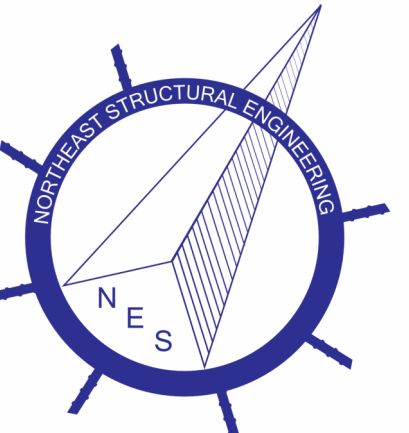




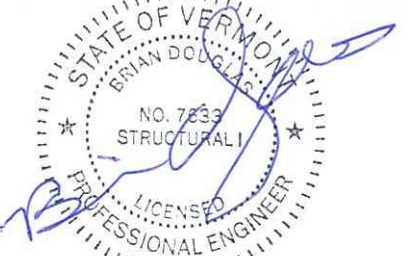
1 Phase 1 - First Floor Framing Plan (Existing Framing Hidden)  
S 1.2A Scale: 1/4" = 1'-0"



2 Phase 1 - First Floor Framing Plan  
S 1.2A Scale: 1/4" = 1'-0"



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FOR PHASE 1  
PERMITTING AND BIDDING

Town Of Johnson  
293 Lower Main St W,  
Johnson, VT 05656

Johnson Public  
Library Relocation  
& Addition

Corner of School St and  
George Hill Rd,  
Johnson, VT

Rev. No.	Date	Description

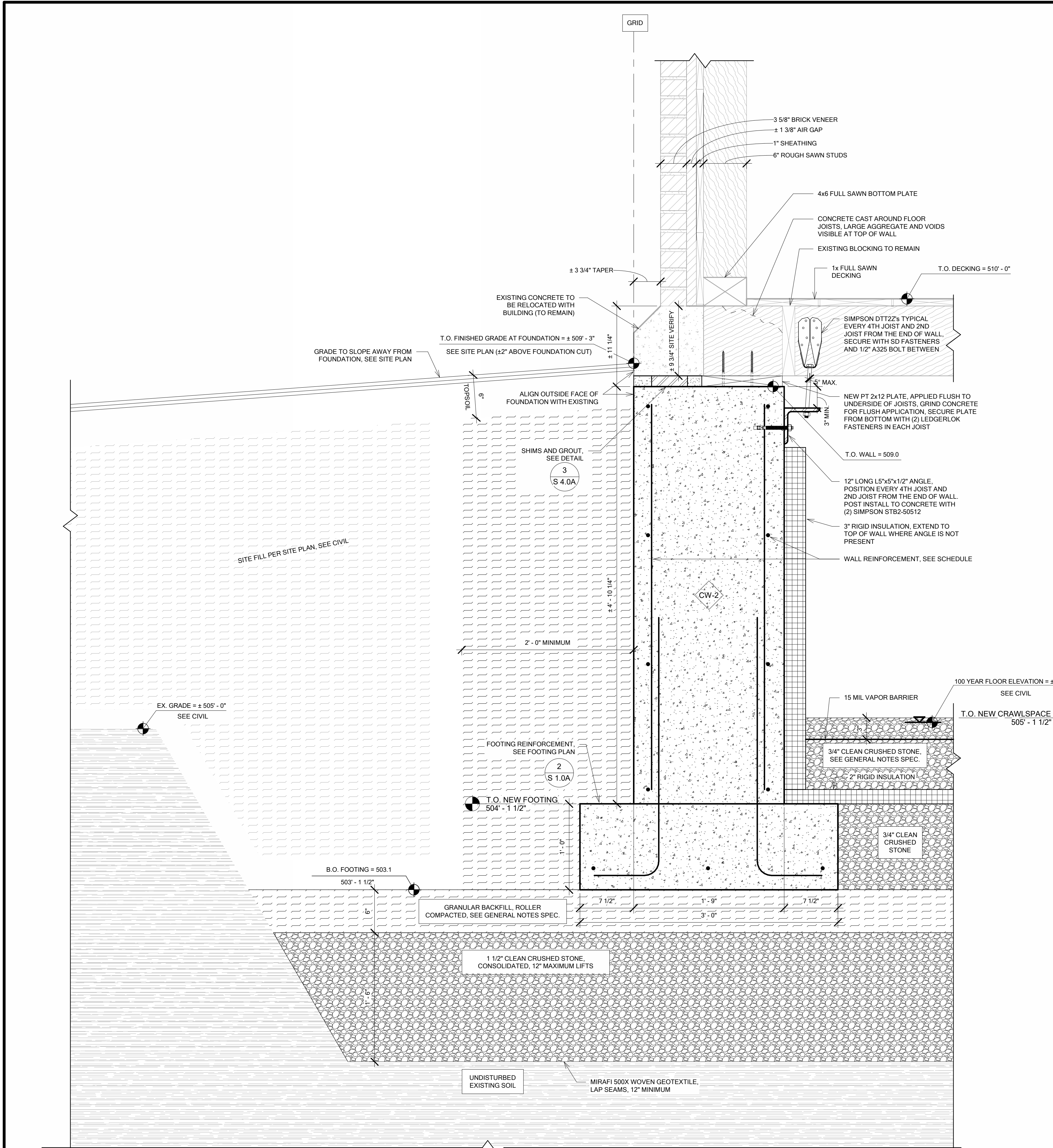
Title:  
Phase 1 - First  
Floor Framing  
Plan

NES PROJECT NO: 25016  
DATE: 03/21/2025  
DESIGNED BY: AD/BD

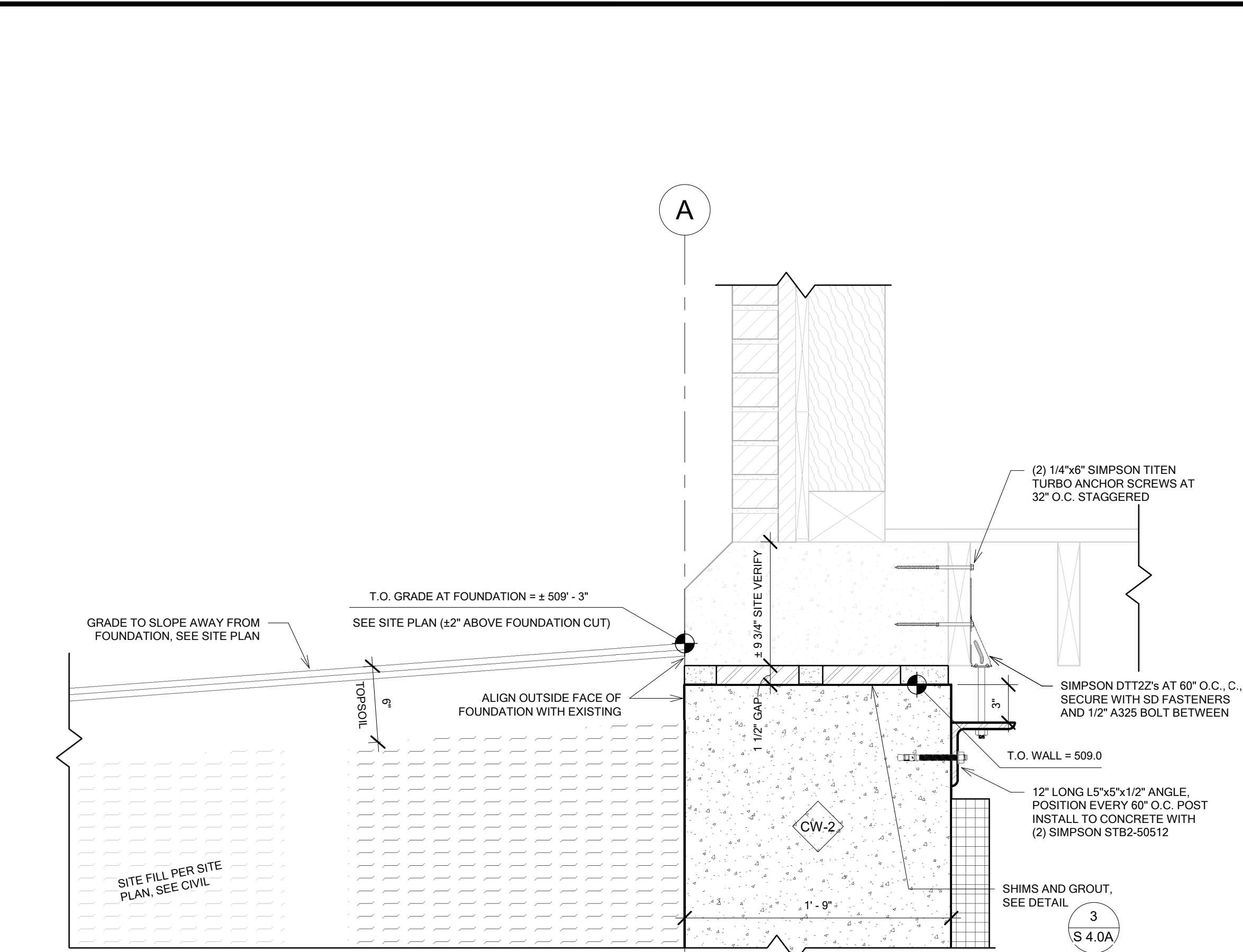
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S 1.2A

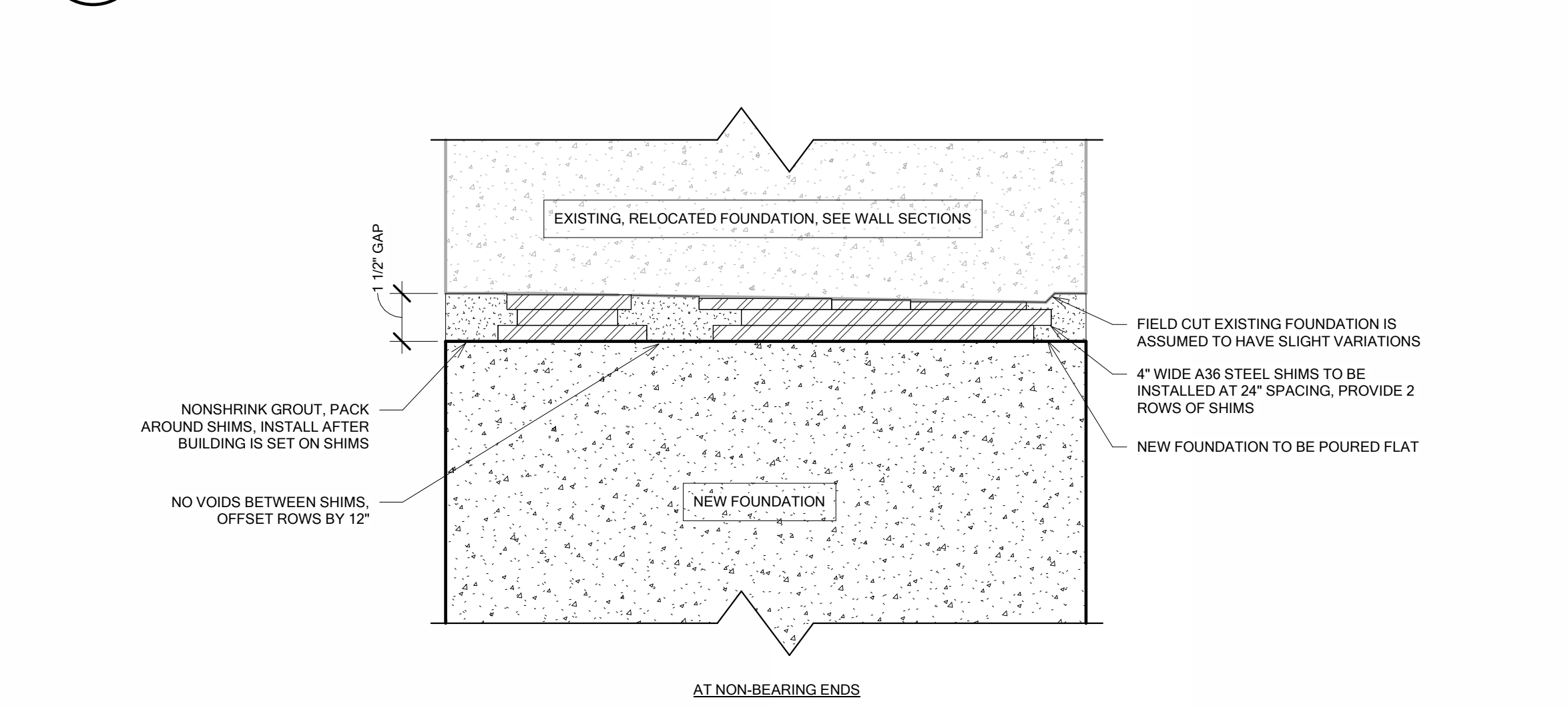




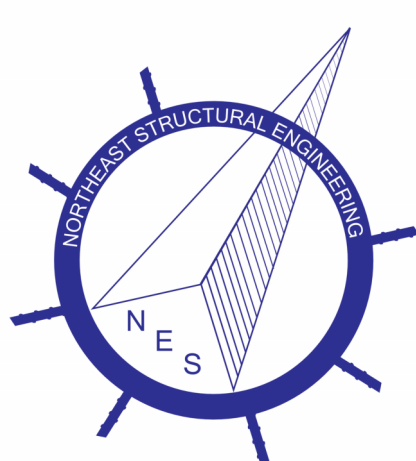
**1** Section at Original Building - Joist Perpendicular  
 S 4.0A Scale: 1 1/2" = 1'-0"




**2** Section At Original Building - Joist Parallel  
 S 4.0A Scale: 1 1/2" = 1'-0"



**3** Typical Grout Detail  
 S 4.0A Scale: 3" = 1'-0" NOTE: THIS VIEW IS A LARGER SCALE THAN OTHER VIEWS ON THIS SHEET



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STATE OF VERMONT  
 BRADY DOUGLAS  
 NO. 7253  
 STRUCTURAL  
 LICENSED PROFESSIONAL ENGINEER

**FOR PHASE 1  
 PERMITTING AND BIDDING**

**Town Of Johnson**  
 293 Lower Main St W,  
 Johnson, VT 05656

**Johnson Public  
 Library Relocation  
 & Addition**

Corner of School St and  
 George Hill Rd,  
 Johnson, VT

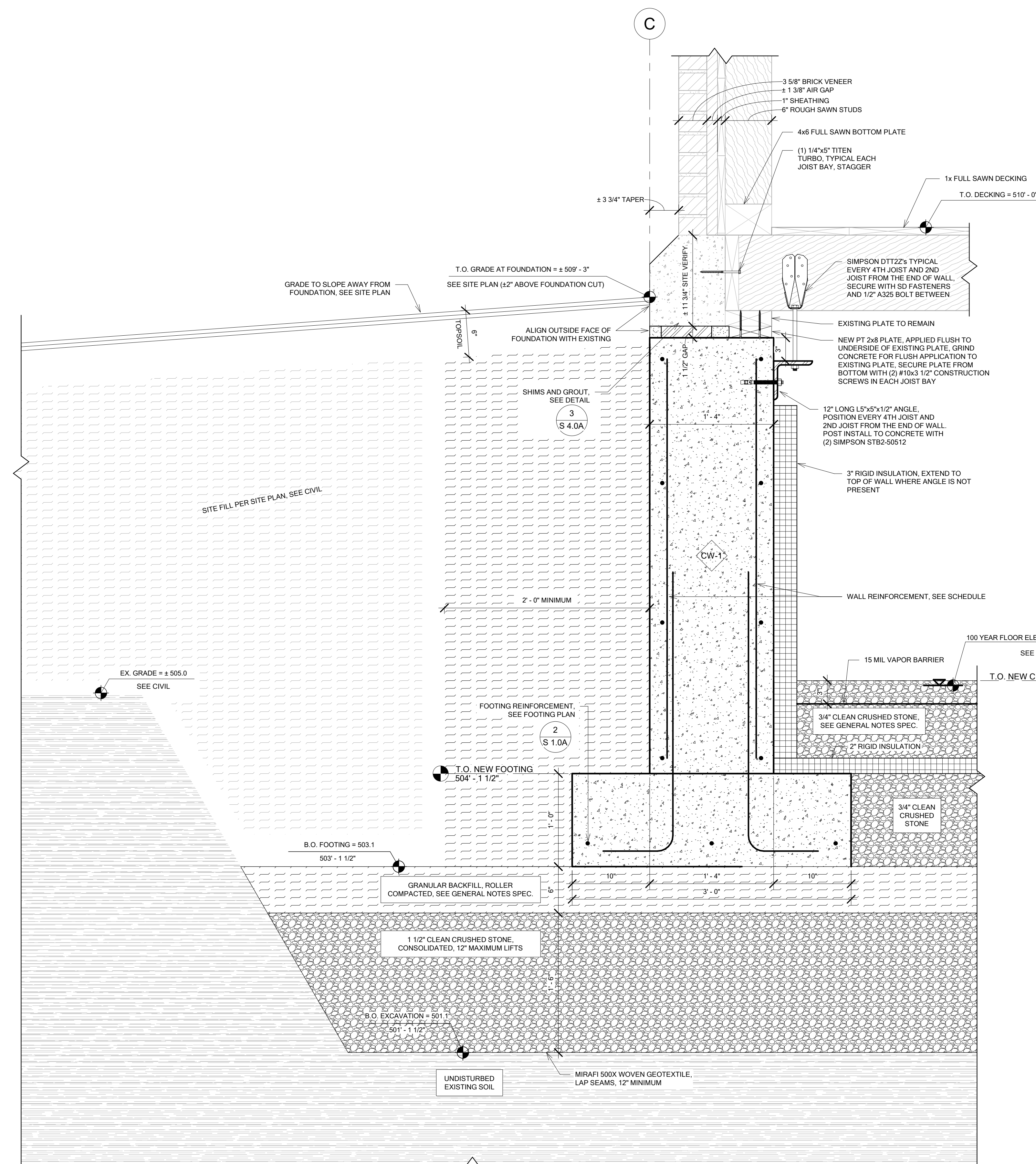
Rev. No.	Date	Description

Title:  
**Phase 1 -  
 Foundation Wall  
 Details**

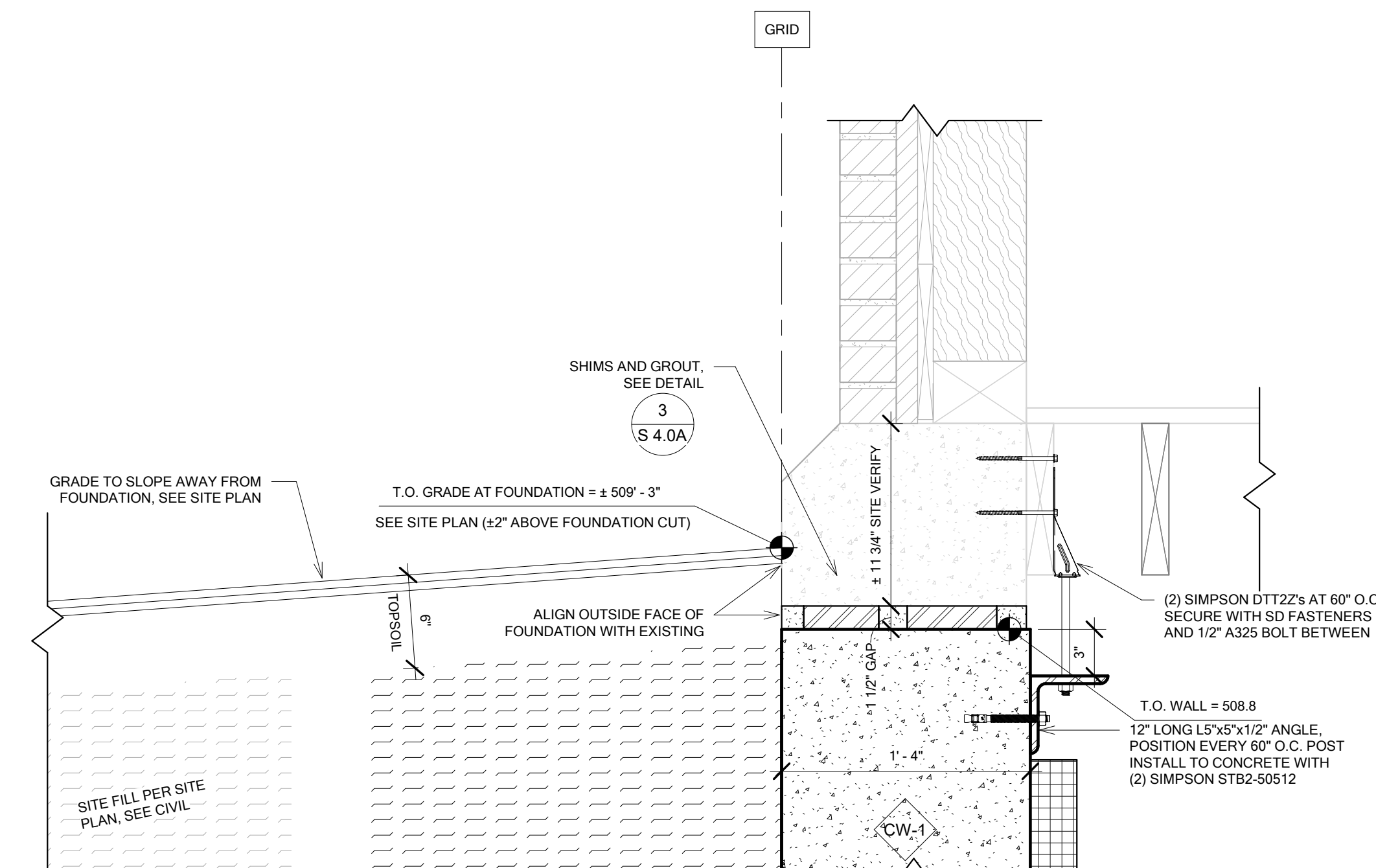
NES PROJECT NO: 25016  
 DATE: 03/21/2025  
 DESIGNED BY: AD/BD  
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S 4.0A

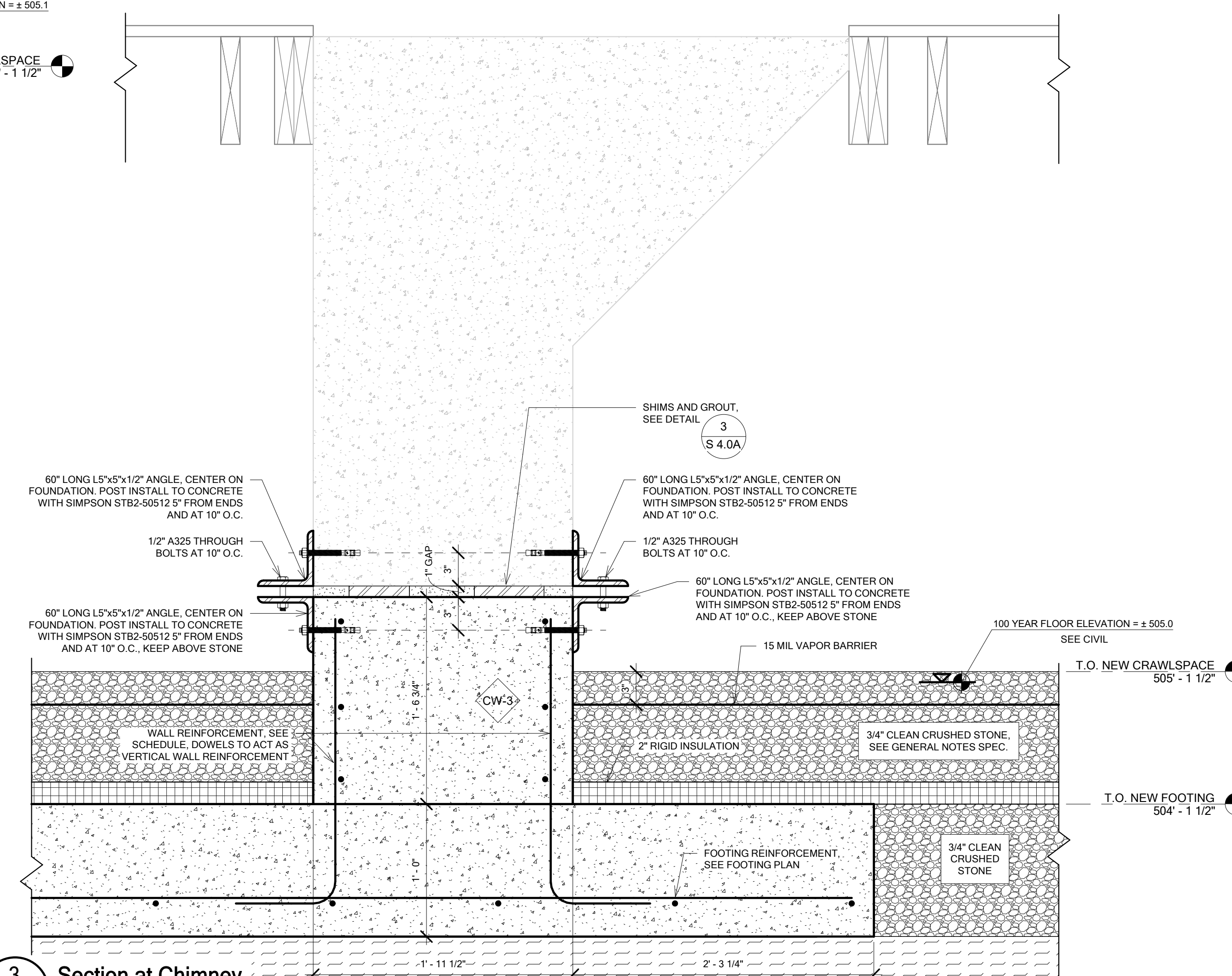




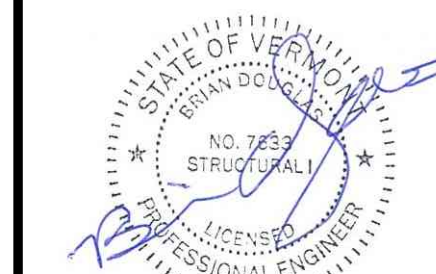
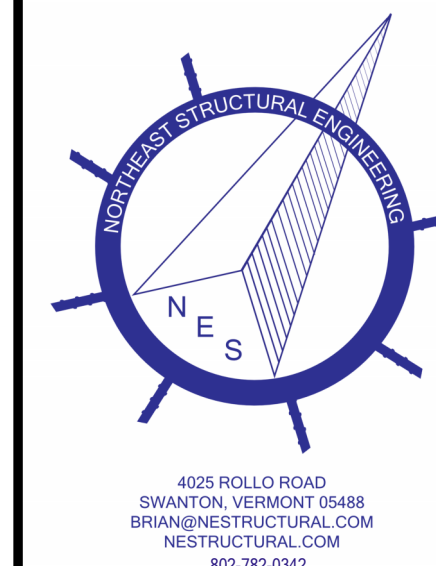
1 Section At 1900's Additon - Joist Perpendicular  
S 4.1A Scale: 1 1/2" = 1'-0"



**2** Section At 1900's Addition - Joist Parallel  
S 4.1A Scale: 1 1/2" = 1'-0"



**3** **Section at Chimney**  
S 4.1A Scale: 1 1/2" = 1'-0"



FOR PHASE 1  
PERMITTING AND BIDDING

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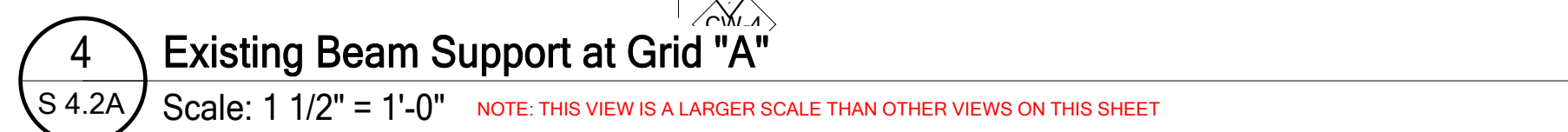
Title:  
Phase 1 -  
Foundation Wall  
Details

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## S 4.1A





COORDINATE BEAM POCKET LOCATION AND SIZE WITH BUILDING MOVER

Rev. No.	Date	Description