

CHARLES M. ARLINGHAUS  
Commissioner

**STATE of NEW HAMPSHIRE**  
**DEPARTMENT of ADMINISTRATIVE SERVICES**  
**DIVISION of PUBLIC WORKS - DESIGN & CONSTRUCTION**  
POB 483, 7 Hazen Drive – Room 250  
Concord, New Hampshire 03302-0483  
Phone 603-271-3516, Fax 603-271-3515



## DOCUMENT 00913

## ADDENDUM NUMBER 03

**TO: ALL CONTRACT BIDDERS OF RECORD**

This Addendum forms a part of the Contract Documents and modifies the Bidding Documents dated March 21, 2024, Addendum Number 1 issued 4/11/2024 and Addendum Number 2 issued 4/14/2024, with amendments and additions noted below.

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

This Addendum consists of ten pages (10) and the following Drawings:

No.	Drawing Title	Issue Date
SKA-1	Revised 1/A7.3 Top of Water table Detail	4/23/24
SKA-2	Precast Panel Staging Area	4/23/24
SKS-001	Stair tower mat Foundation Design	4/23/24
SKS-002	Stair tower Shear wall Lateral Loads	4/23/24
S-003	General Structural Notes	4/23/24
S-005	Typical Slab on Grade Details	4/23/24
S-101	Foundation Plan	4/23/24

**BIDDER'S QUESTIONS**

1. Q: Please specify what thickness the asphalt is to be for the garage floor alternate.  
A. The asphalt for the garage floor alternate shall be the same pavement section called out on our drawings for Concord roadways, as shown on Detail 1 on sheet C5.01.
2. Q: Are there any traffic coatings required for this project? 2. If so, please note where on the plans and provide a specification.  
A. No traffic coatings are required on this project.
3. Q: Will ground improvement only be required below footings? No reference is made to slab support in the structural drawings or project specs. If slab support ground improvement is requested, can slab live loading and tolerable settlements be provided?  
A. Ground improvement is only required beneath footings and not required under the slab.
4. Q: Factored loading provided on the foundation plan S-101 results in a contact pressure greater than 6,000 PSF (DL+LL+SL). Can confirmation be provided from the structural engineer that ground improvement can be designed for a maximum allowable bearing pressure of 6,000psf?  
A. Revised unfactored loads have been provided on the revised S1.03 drawing.

5. Q: There are numerous concerns with the size and detail of the exterior structural precast panels. All of these exterior panels are designed as load bearing walls. However, based on the panelization and thickness/widths of these panels they cannot be fabricated and shipped as shown. Panel D is drawn as a panel with fingers sticking down in an M shape configuration. These 2' panels will crack and cannot be shipped. There are a number of panels with 1'-5" or 1'-6" tall precast strips above the windows. This doesn't allow enough thickness for connections.
- A. The precast manufacture is responsible for performance design including rigging and handling to prevent stresses exceeding the tensile splitting capacity of the concrete. Provisions to eliminate cracking such as additional handling points, strong back stiffeners, introduction of joints and similar provisions are to be considered by the P/C MFG in their design. The design team is receptive to performance design considerations similar to the above pending preservation of the design intent with respect to the architectural appearance. The performance designer, through reasonable analysis, may consider alternative connection designs to accommodate panel thickness or increases therein as shown to comply with the design intent.
6. Q: The documents note that this project is IBC 2018 with ASCE 7-16 as the applicable building codes, Seismic Design Category C, and for the double tees to be pre-topped with integral precast washes. Per ASCE7-16, precast washes are not allowed in Seismic Design Category C. Please provide drawings and details showing the extent of CIP washes and diaphragm steel required by to be carried in the bid?
- A. ASCE 7-16 C14.2.4 & C12.10.3.5, provides guidance on Diaphragm Seismic design, ACI 318 provides design criteria for diaphragm and connections design and allows CIP topping slab reinforcement, however it does not mandate washes to be CIP, rather it facilitates criteria for composite and non-composite conditions. ACI 550.5 provides requirements for the design of precast concrete diaphragms with connections. The design intent is for Precast washes.
7. Q: The shear walls are located at column lines 1/B and 7/B. These walls are shown as 27' wide with large openings. Panel U is a n "M" configuration panel which cannot be classified as a shear wall.
- A. Use of industry approved splices sleeves can accommodate composite action across panel sections and are anticipated to meet the design intent.
8. Q: Panel T has a 1'-5" section across the top that is 8" thick in locations. This can't handle the loads of a shear wall. Panel S has a 1'-5" section across the top of the "shear wall" and cannot handle the loads of a shear wall. Please advise if these walls should be made as architectural walls with additional shear walls added at column lines 2 and 6 that can handle the seismic loads?
- A. The analysis is a stiffness-based analysis, and the panel with smaller width will absorb significantly lower shear relative to stiffer members, while fully participating in the lateral analysis. The performance designer, through reasonable analysis, may consider alternative connection designs to accommodate panel thickness or increases therein as shown to comply with the design intent.

9. Q: The drawings show Overhead Power Lines along Green Street and School Street. The plans show the new garage 10' to 15' from these power lines. Per OSHA guidelines the precast erection operations (no part of equipment, load line, or load including rigging or guide lines) cannot come within 20' of energized power lines. This distance increases based on the line voltage. Please advise if the State/City has started discussions with the Utility company and they are prepared to de-energize the lines along those 2 streets to allow the precast erection to take place?
- A. The design team confirmed with the electric utility (Unitil) that the OSHA requirement is 10', and that lines must be covered during demolition and construction.
10. Q: In our RFI # 1 we asked about the overhead power lines along the edge of the site. To reiterate the question, there are power lines at the edge of the site along Spring Street and Green Street that may need to be moved to erect the precast. Has the State initiated contact with the electrical utility company about moving these poles? If not, we ask if an allowance can be given so all bidding contractors are carrying the same value for this work. As you know the local electrical utilities will not give a number for moving utility poles until they have been paid a fee for doing so.
- A. Refer to answer above
11. Q: How are the aluminum valances attached at the angles for the water table GFRC?
- A. The aluminum valance is welded to the aluminum angle.
12. Q: That same detail (A-7.3) shows an "aluminum valance" with an Linear light fixture sitting on the aluminum angle. No weep hole is shown on the angle. How do you foresee rainwater getting out of that assembly? Same question with ice and snow?"
- A. The valance is not solid. It is comprised of open circle shapes. Water is expected to drain through it. Refer to exterior elevations and A6.0.
13. Q: On the GFRC details, another question regarding how rainwater gets drained from the top of the GFRC components. Detail 3 on Drawing A-7.3 shows an aluminum valance sitting on top of the GFRC band running in the middle of the walls around the perimeter of the building. The first question is how does the aluminum valance get attached to the GFRC? Nothing is called out. The second question similar to the earlier RFI's is how does rainwater and ice an snow get beyond the valance to drain down the face of the GFRC and not behind it?
- A. Refer to answer above for valance attachment. Refer to "Changes to the Drawings" in this addendum for flashing added to top of the aluminum angle to keep water from getting behind the angle and GFRC.
14. Q: Same question on detail 1 "Pilaster Capital Detail" on drawing A-7.2
- A. Provide weep openings in sealant and backer rod joints between GFRC pilaster pieces.
15. Q: Heat tracing is listed in the plumbing specifications. At this time there is no indication if it is to be used in this project. Please clarify.
- A. The heat trace specification was provided in the event that it was necessary for any of the exposed piping. There is no heat trace indicated on the plans or intended to be installed.

16. Q: Section 22 05 33 of the specs call for Heat tracing. Which plumbing system will require?
- A. The heat trace specification was provided in the event that it was necessary for any of the exposed piping. There is no heat trace indicated on the plans or intended to be installed.
17. Q: There are two spec sections on “pavement markings” one is in Division 09, Spec section 09 91 33 Painted Traffic Markings for parked Areas” five pages and Spec. section 32 14 23 Pavement Markings, 3 pages. Which spec section should be used for the pavement markings?
- A. 09 91 33 is for interior pavement markings in the garage. Section 32 14 23 is a civil section for the pavement markings outside the garage.
18. Q: Spec section 31 66 13.13 Aggregate Pier Ground Improvement, page 1, Part 1 General Conditions, paragraph 1.03 Approved Installers Section A. states “The AP installer (the installer) shall be approved by the Owner’s Geotechnical Engineer S.W. Cole at least two (2) weeks prior to bid opening.” So, we ask, are the following firms “approved”: R.S. Audley, Inc. Concord NH; H.B. Fleming, S. Portland, Maine; Helical Drilling, Braintree Mass.; Keller-North America, Cumberland R.I.
- A. S.W. Cole has responded: We are familiar with and approve of all the firms listed below for GI except for R.S. Audley. Please have Audley provide their qualifications package as listed in the specification. R.S. Audley, Inc. Concord NH; H.B. Fleming, S. Portland, Maine; Helical Drilling, Braintree Mass.; Keller-North America, Cumberland R.I.
19. Q: "The precast concrete contractors are requiring an additional laydown area near the site, within a couple of miles, able to support 20-30 precast trailers loaded & unloaded on-site at any given time. The anticipated erection duration is about 3 months. Would the State have a nearby area that could be used for this purpose, and help keep costs down, instead of GC carrying additional costs for that? They have just shared this information with us.
- A. Capitol Street is expected to be used for delivery of precast panels. The contractor will coordinate closing of the street with the City during the temporary period needed to erect the precast panels and for the crane during the final stages. The requested nearby staging area will be provided by the State for the project. For bidding purposes one potential site is the lawn in front of the NHDAS building at Loudon Rd. and Hazen Dr. See SKA-2 “Precast Panel Staging Site” for the location. See question 38 below for additional information.
20. Q: One of our bidders carries a different overhead coiling door than what was specified. Will a Hormann Speed Guardian 5000 CLP U 42 door be an acceptable alternate to the specified doors?
- A. Submit as a substitution request following the procedures in Section 01600 Project Requirements.
21. Q: Reference 1/A5.6. There is a Faux Wood Wall System noted on the 1st floor wall. 1. Is this the same system as the ceiling? If not, please provide a specification. 2. Does this only occur in the Elevator Stair Tower?
- A. Yes, this is the same system. This only occurs in the main elevator/stair tower.

22. Q: Drawing S-201 calls for contraction control joint spacing of 20'X24', while specification 033000, 3.03 B. 4, calls for control joints in slabs on ground of 15'X15'. Please specify whether we are to follow the direction of drawings S-201 or specification 033000.
- A. The control spacing shall be as shown on dwg S201, Specifications & general notes on S03 have been updated and attached to reflect this design intent.
23. Q: The elevator is called out in the structural drawings as having an expansion joint which means it is a separate structure. Has the EOR run lateral and seismic loads for this structure and what are those loads? Which walls are being utilized for the lateral resistance members?
- A. See the attached SKS-001 and SKS-002 for supplemental information.
24. Q: Drawing S-201 calls for contraction control joint spacing of 20'X24', while specification 033000, 3.03 B. 4, calls for control joints in slabs on ground of 15'X15'. Please specify whether we are to follow the direction of drawings S-201 or specification 033000.
- A. The control spacing shall be as shown on dwg S201, Specifications & general notes on S03 have been updated and attached to reflect this design intent. Refer to changed drawing sections.
25. Q: Reference spec 14 2400. Is an electric traction elevator permitted? One of the specified elevator manufacturers cannot meet the height requirement of 33' with hydraulic elevator.
- A. Submit as a substitution request following the procedures in Section 01600 Project Requirements.
26. Q: Will work within the street require police details? Or can this be done with flaggers? Will temporary road closures be permitted for this work?
- A. See note 9 on Sheet T1.01. Traffic control plans (TCP's) must be accepted by the City of Concord. TCP's must include signage, flaggers, and/or UTO's and shall meet MUTCD, NHDOT, and City of Concord requirements.
27. Q: There are a couple of structures and some piping going in North State Street. Will this require off-hours work?
- A. See note 9 on Sheet T1.01. Traffic control plans (TCP's) must be accepted by the City of Concord. The City of Concord may require off-hour work, but this is unknown.
28. Q: The structural grid is based on architectural panels. Can this be converted back to a column and shear wall grid for structural integrity.
- A. The grid doesn't control the structural integrity, the contractor should maintain the design grid for continuity between shop drawings and design drawings.
29. Q: Is the skew in the upper left corner due to property lines.
- A. Yes

30. Q: The external façade is not capable of holding the load bearing requirements to support the DTs, we would like to suggest a structural grid to complete the structural integrity, then a GFRC system can be installed afterwards to complete exterior look.
- A. The submitted question did not include backup information to support the conclusion that the façade is not capably load bearing. Therefore, we can't accept the proposal to add a separate structural grid without more information supporting the claim being submitted. At this time, all we can say in response is that the structural design intent provides for P/C support of the double tees on P/C elements. The drawings indicate that GFRC components are post applied and are not load bearing or acting as a vehicle bumper component.
31. Q: Can L beams be used on the load bearing ends and GFRC be the infills
- A. Continuous ledges, haunches, and similar bearing devises to support precast double tees will be by the Precast Manufacturer's performance design. The support system shall not detract from the architectural design intent. GFRC components are post applied and not load bearing or vehicle bumper component.
32. Q: Can the GFRC panels take car impact loads and handle OSHA clearances?
- A. GFRC components are post applied and not load bearing or vehicle bumper component.
33. Q: Can a cable rail system be used for OSHA/Car impact behind the façade?
- A. The design intent is for the precast components to resist car impact loading.
34. Q: Can a plain grey garage be built, and architectural façade be applied post install?
- A. The architectural design intent may be achievable in other ways, but the finished appearance shown on the drawings is a project requirement.
35. Q: If the spandrels are required for load bearing sides and vehicle impact, can they be redesigned to capture some of the architectural look and infill by GFRC?
- A. This question suggests that details such as 6/A4.11 are GFRC, however detail 8/A4.11 identifies these infills to be precast. The intent is that the spandrel panels provide as much detail as is efficient to produce in precast. Bidders are referred to A6.0 for the intended extent of applied GFRC.
36. Q: The Geotech report is labeled as a draft. The last five borings will not be completed until the existing building is taken down. Once the last five borings have been done and a final Geotech report has been issued assuming this will be after the bids are received what will be the mechanism to adjust the cost of the work if unsuitable or hazardous soils are found?
- A. The defined change order process in Section 01200 Price and Payment Procedures will be used to adjust the cost of the work.
37. Q: Please confirm tile flooring is only to be on the ground floor level of the north stair lobby and in the elevator.

- A. The tile flooring is only to be on the ground floor level of the north stair lobby. This addendum removes granite tile in the elevator as part of a different question. Refer to “Changes to the Specifications” for more information.
38. Q: Please confirm if Capitol Street can be closed off during the sitework activities and precast concrete erection and be used as laydown area.
- A. Capitol Street is expected to be closed off for precast concrete erection and sitework activities only. Other site areas shall be used for laydown. Refer to Civil Traffic drawings for temporary street reduction measures for sidewalk and curb work. Contractor is responsible for notifying the State and City of proposed closure dates and coordinating the closure with the City and State.
39. Q: There seems to be a faux wood slat wall system at the lobby: Is this the same system as the wood faux ceilings? Can an elevation or detail be provided for this wall?
- A. Yes, it is the same system as the ceiling. Refer to 1/A5.6 for an elevation.
40. Q: The typical SOG detail and Geotech report states that the base can be “12” compacted NHDOT 304.4 crushed stone (fine) over structural fill to frost depth or 2-inches of rigid foam insulation”; a. Does this mean that the gravel layer can be eliminated, and the slab can be built over the 2” insulation?; b. Or does it mean the structural fill to frost depth can be eliminated, and the layer of stone can be placed on 2” rigid insulation?
- A. 12” of Crushed Stone over Structural Fill to frost depth can be provided OR 12” of Crushed Stone over 2” of rigid foam insulation can be provided.
41. Q: Are the CMU walls 8” or 12” thickness? Plans seem to conflict in certain areas.
- A. 12” at both under the ramp and at the elevator face.
42. Q: The drawings show Egress Stair rail details on A9.3 and don’t show any bronze cap as called out in spec. section 057311.2.03A. Do they want the bronze cap?
- A. The egress stairs (south-east and south-west) do not get a bronze cap. Only the north stair in the elevator tower has a bronze cap as referenced on A5.7
43. Q: Per geotech report all fill excavated will be “fill material with urban debris”. Do we need to figure this is contaminated material?
- A. No testing has been done as part of the project design. Testing will be performed and results published in a following addendum.
44. Q: Please confirm our interpretation of detail 1 on S-004 "Typical Ground Improvement Detail": GC to provide Option 1 or Option 2 as follows: Option 1: Sitework contractor to excavate entire building SOG footprint and provide structural fill down 4' to frost line. Sitework contractor to provide 12" of crushed stone under entire building SOG footprint No rigid insulation required. Option 2: Sitework contractor to provide 12" of crushed stone under entire building SOG footprint Provide 2" rigid insulation under entire SOG footprint. Sitework contractor DOES NOT NEED to excavate entire building SOG footprint and provide structural fill down 4' to frost line.



- A. Over the entire SOG area provide either: 12” of Crushed Stone over Structural Fill to frost depth (4'-0" below slab on grade) or 12” of Crushed Stone over 2” of rigid foam insulation.
45. Q: Angles at the water table GFRC profile at the does not seem to have a sealant – are there concerns of rain/ice getting into the framing?
- A. Replace 1/A7.3 with SKA-1 (issued with this addendum) showing a surface mounted metal Reglet with sealant pocket above the aluminum angle to prevent water from traveling behind it into the GFRC below.
55. Q: Detail 1 on Drawing A-7.3 shows a section through the GFRC water table, no caulking is shown at the area where the aluminum angle attaches to the precast. A weep hole is called out at the base of the GFRC water table indicating that water may get behind the assembly. Should there be caulking at the point where the aluminum angle attaches to the precast
- A. See response to question above.


### **CHANGES TO THE SPECIFICATIONS**

46. Section 32 1440 STONE PAVING, STEPS, AND WALLS
1. Add: 2.1-B-2-a: Swenson “Concord Grey” 12x12 in Thermal Finish is acceptable
  2. Add: 2.1-C-2-a: Swenson “Woodbury Grey” 12x12 in Thermal Finish is acceptable.
  3. Add: 2.1-E-1: Materials for Stone Veneer are acceptable for stone slab benches, except for size as these are single piece benches.
47. Section 14 2400 ELEVATOR
1. Delete 2.09-A-3. Granite flooring will not be used in the elevator. The flooring will be the sheet carpet walk-off mat specified in 09 6816 Sheet Carpeting.
48. Section 01500 TEMPORARY FACILITIES OR CONTROLS
1. The 30-foot minimum distance will be waived for this project. Revise 1.10-C to: “NH DPW will review proposed office and shed locations on site with general contractor. Do not locate them without approval of NHDPW.”
  2. Part 1.15 Traffic Regulation, page 7, Part A. Signs, Signals, and Devices: Part 2 Automatic Traffic Control Signals: as approved by local jurisdictions., and Part E. which states “Provide, operate, and maintain automatic traffic control signals to direct and maintain orderly flow of traffic in areas under Contractor’s control, and areas affected by Construction operations. We do not see how this is appropriate on this project. We ask if this type of signal is a requirement on this project, and where it would be located if it is found to be needed.
- B. Use of Automatic Traffic Control Signals is at the discretion of the Contractor or if required by AHJ.

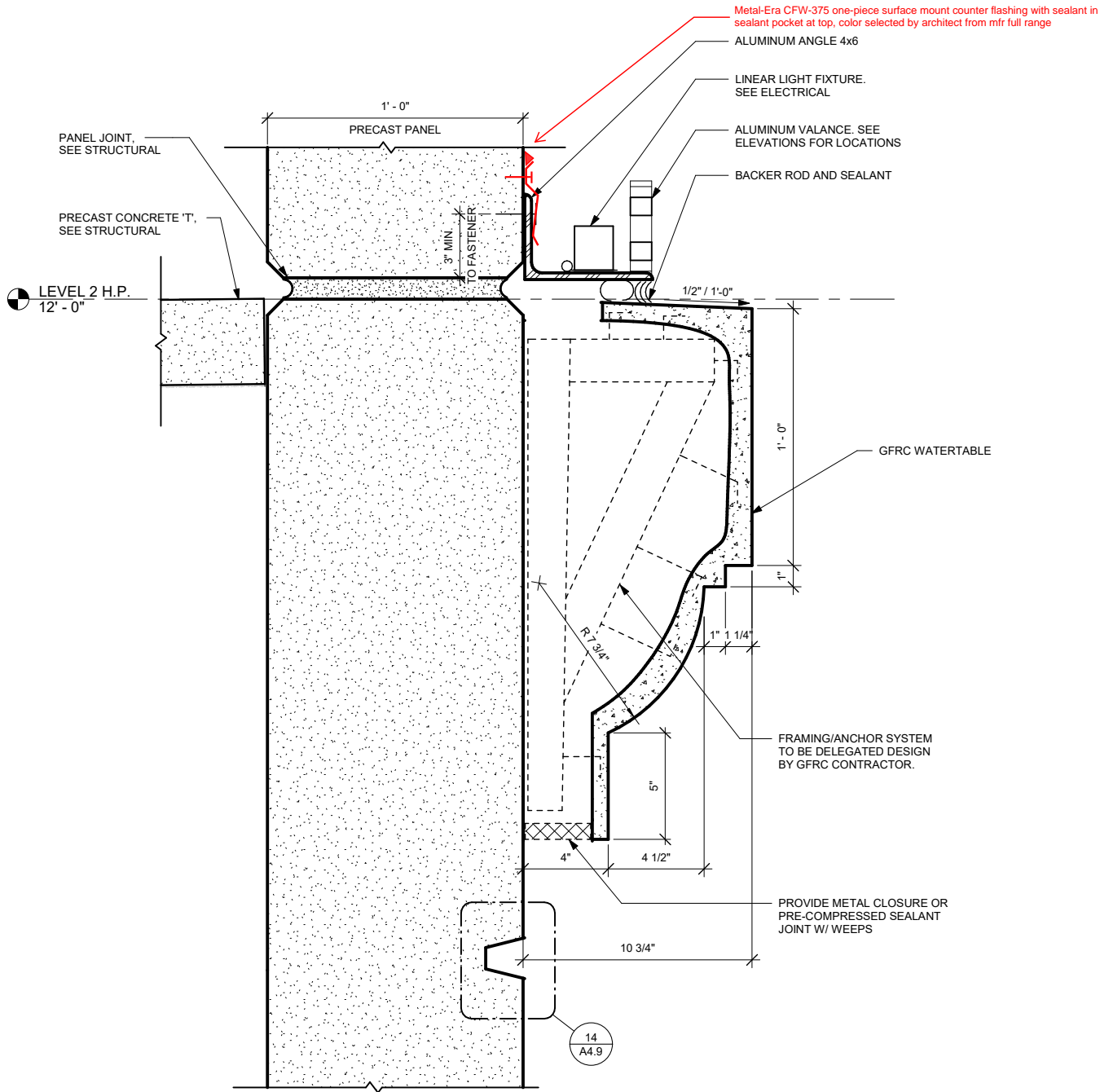
- C. Replace quoted sentence in 1.18-C to read: “Project related photography by the owner, A/E team, and the contractor's team are allowed”.

**CHANGES TO THE DRAWINGS**

- 49. S-003 GENERAL STRUCTURAL NOTES
  - a) Replace sheet with sheet issued in this addendum. Updated concrete notes.
- 50. S-005 TYPICAL SLAB ON GRADE DETAILS
  - a) Replace sheet with sheet issued in this addendum. Updated detail 1.
- 51. S-101 FOUNDATION PLAN
  - a) Replace sheet with sheet issued in this addendum. Loads are updated to show unfactored loads.
- 52. A4.14 “PRECAST MOCKUP”
  - a) Replace “50% CD – NOT FOR CONSTRUCTION” with “ISSUED FOR CONSTRUCTION 3/8/24”.

for   
Theodore Kupper, P.E., Director  
Division of Public Works - Design and  
Construction

END OF DOCUMENT



① TOP OF WATERTABLE DETAIL  
N.T.S.

**SCOTT + PARTNERS**  
 ARCHITECTURE  
 7 CARMICHAEL ST. ESSEX JUNCTION, VT 05452  
 P. 802.879.5153 | F. 802.872.2764 | SCOTTPARTNERS.COM

project name:  
**NH Legislative Garage**  
 project address:  
 33 CAPITOL STREET  
 CONCORD, NH

scale:  
 project no. 16-1142  
 checked by: JA / KT  
 drawn by: EK / TN  
 date: 04/18/2024

issue sketch date: 04/18/24

Date	Revisions
4/19/24	Addendum 3

sketch title:  
 REVISED 1/A7.3

sketch no.  
**SKA-1**



**SCOTT + PARTNERS**  
ARCHITECTURE

7 CARMICHAEL ST. ESSEX JUNCTION, VT 05452  
P. 802.879.5153 | F. 802.872.2764 | SCOTTPARTNERS.COM

project name:  
**NH Legislative Garage**

project address:  
33 CAPITOL STREET  
CONCORD, NH

scale:  
project no. 16-1142  
checked by: JA / KT  
drawn by: EK / TN  
date: 04/18/2024

issue sketch date: 04/18/24

Date	Revisions
4/19/24	Addendum 3

sketch title:  
Potential Staging Site

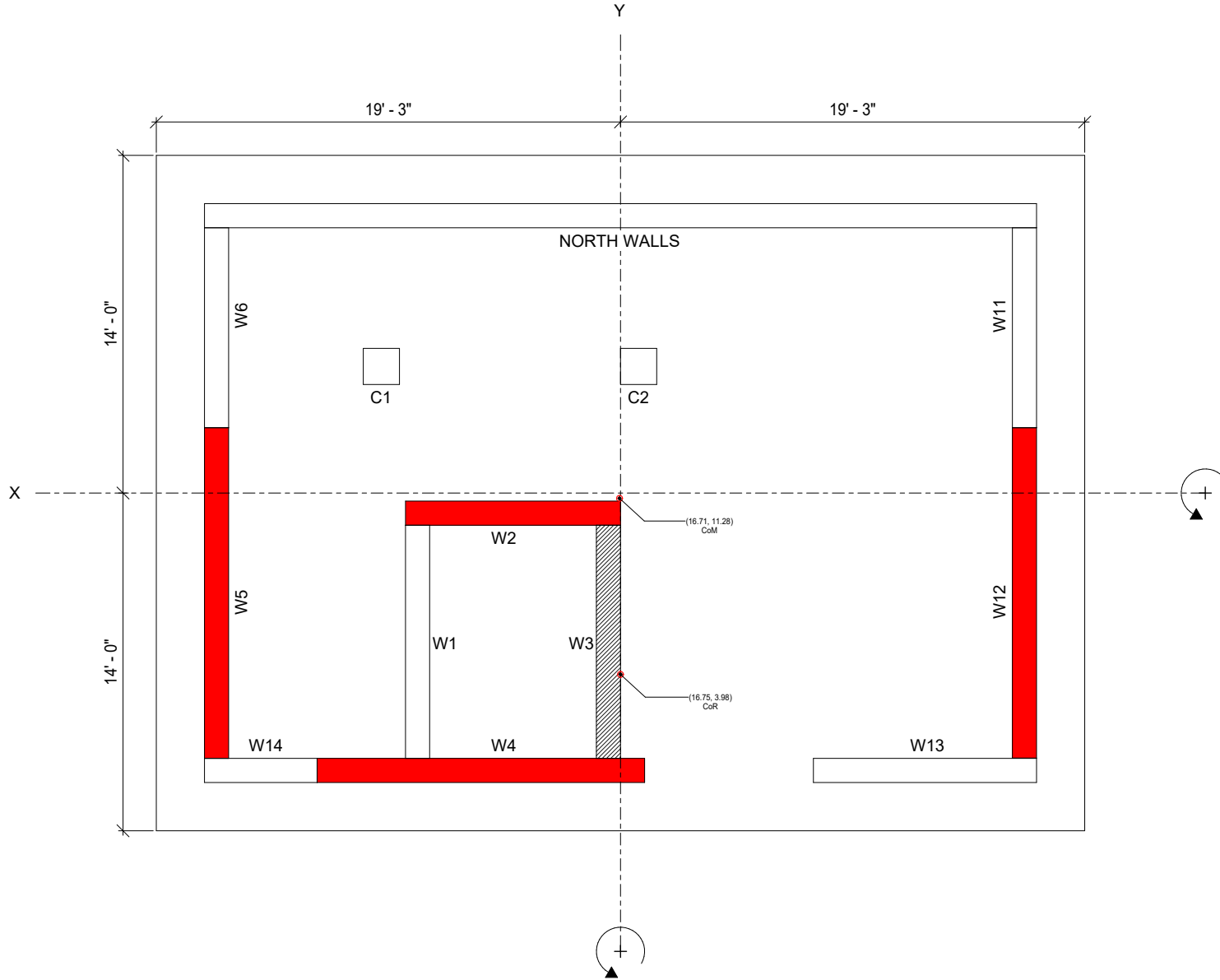
sketch no.  
**SKA-2**

Proposed staging area is at the corner of Loudon Rd. and Hazen Drive adjacent to the NHDAS office building. ("Staging Area 1" on the image above). Access the staging area off of Charles Doe Drive.

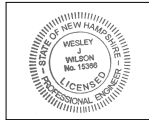
Prior to using lawn as staging area, provide temporary gravel base at staging area to support traffic loads of the precast panel delivery vehicles and storage.

Remove temporary gravel base after staging area is no longer needed and restore lawn.

Repair any sidewalks and paving on adjacent streets that are damaged during operations at the staging area.



**ISSUED FOR  
CONSTRUCTION SET**



Project name:  
**New Legislative Parking Garage**  
State Project Number: 81284-B  
Project Address:  
33 Capitol St.  
Concord, NH 03301

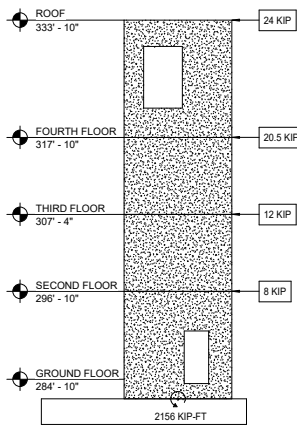
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project no. 20-23131.00-1  
checked by: WW  
drawn by: SP  
proj. date: 03/08/24  
sheet date: 04/18/24

No	Date	Revisions
3	4/19/24	Addendum 3

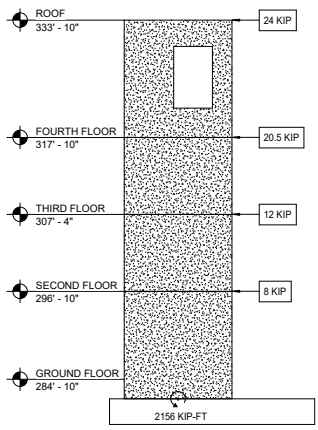
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**STAIRTOWER  
MAT  
FOUNDATION  
DESIGN**

sheet no.  
**SKS-001**

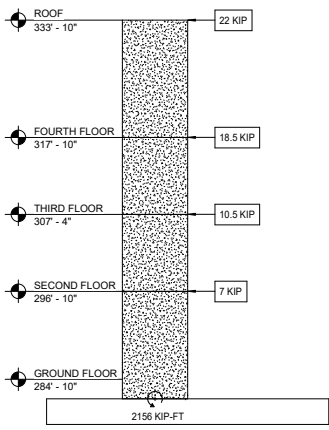
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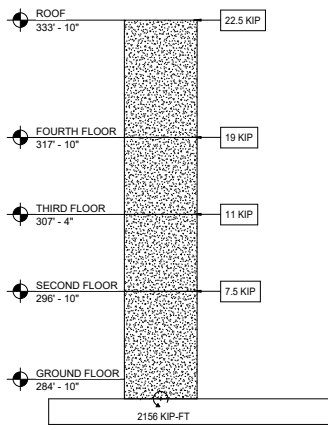
WALL 5



WALL 12



WALL 2



WALL 4

ALL FORCES ARE REVERSIBLE



**DESMAN**  
 15 TREMONT ST. SUITE 300 BOSTON, MA 02108  
 P: 617.770.9882 DESMAN.COM

**SCOTT + PARTNERS**  
 ARCHITECTURE  
 7 CANTONMENT ST. BURLINGTON, VT 05401  
 P: 802.279.2153 F: 802.292.2964 SCOTTANDPARTNERS.COM

**New Legislative Parking Garage**  
 Project name:  
 State Project Number: 81284-B  
 Project Address:  
 33 Capitol St.  
 Concord, NH 03301

scale: 1/8" = 1'-0"  
 project no. 20-23131.00-1  
 checked by: WW  
 drawn by: SP  
 proj. date: 03/08/24  
 sheet date: 04/18/24

No	Date	Revisions
3	4/19/24	Addendum 3

sheet title:  
**STAIRTOWER  
 SHEAR WALL  
 LATERAL LOADS**

sheet no.  
**ISSUED FOR  
 CONSTRUCTION SET**  
**SKS-002**

CONCRETE NOTES

- 1. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 318 & ACI 301. THESE DOCUMENTS SHALL BE AVAILABLE IN THE FIELD OFFICE.
2. EXCEPT WHERE OTHERWISE INDICATED, CONCRETE TYPES AND MINIMUM 28-DAY COMPRESSIVE STRENGTHS SHALL BE AS FOLLOWS:
3. ALL CONCRETE EXPOSED TO MOISTURE AND/OR FREEZE-THAW CYCLES IN SERVICE SHALL BE AIR ENTRAINED WITH 5-7.5% AIR CONTENT AND W/C RATIO OF 0.40. SEE PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
4. CEMENT SHALL CONFORM TO ASTM C150 TYPE I OR TYPE III. USE ONLY ONE BRAND OF CEMENT FOR ALL EXPOSED TO VIEW CONCRETE. AGGREGATES SHALL CONFORM TO ASTM C33 (REGULAR WEIGHT). ALL CONCRETE SHALL CONTAIN AN APPROVED WATER REDUCING ADMIXTURE. NO CALCIUM CHLORIDE SHALL BE USED IN ANY CONCRETE. SEE PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. ALL REINFORCEMENT SHALL BE DETAILED AND INSTALLED WITH A MINIMUM CLEAR CONCRETE COVER IN ACCORDANCE WITH ACI 318 OR PER THE SCHEDULE UNDER ITEM (20) HEREIN BELOW, WHICHEVER IS MORE STRINGENT. VERIFY PROPER REINFORCEMENT SPACING PER ACI 318 BASED ON DESIGN DATA. NOTIFY ARCHITECT IF BASED ON THE CONTRACT DRAWINGS, CODE SPACING LIMITS ARE VIOLATED. IN THIS INSTANCE ARCHITECT WILL ISSUE SUPPLEMENTAL INSTRUCTIONS.
6. ALL REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60. WHERE WELDING OF REINFORCEMENT BARS IS REQUIRED, USE REBAR CONFORMING TO ASTM A706 GRADE 60, UNLESS NOTED OTHERWISE. ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185. SEE NOTE 34 BELOW FOR EPOXY COATED REINFORCEMENT.
7. ALL REINFORCEMENT BARS SHALL BE DETAILED, FABRICATED, LABELED, SUPPORTED AND SPACED IN FORMS AND SECURED IN PLACE IN ACCORDANCE WITH THE PROCEDURES AND REQUIREMENTS OUTLINED IN THE LATEST EDITION OF THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", ACI 315. BAR SUPPORTS IN CONTACT WITH EXPOSED SURFACES SHALL BE PLASTIC TIPPED.
8. ALL 135° HOOKS SHALL BE MINIMUM 6d, WHERE d IS BAR DIAMETER. ALL OTHER HOOKS SHALL BE STANDARD ACI 90° OR 180° HOOKS.
9. FOR COLUMN REBAR AND DOWEL EXTENSION AND SPLICES SEE TYPICAL DETAILS. ALL REINFORCING LAP SPLICES SHALL CONFORM TO THE REQUIREMENTS OF ACI 318, LATEST EDITION. SEE REBAR TENSION LAP SPLICE SCHEDULE THIS DRAWING. MECHANICAL SPLICES SHALL CONFORM TO ACI 318 DOWELS SHALL MATCH SIZE, NUMBER AND SPACING OF THE MAIN REINFORCEMENT, U.N.O.
10. THERE SHALL BE NO FIELD CUTTING OF ANY REINFORCEMENT WITHOUT AN EXPRESSED WRITTEN CONSENT OF THE ARCHITECT. FIELD MODIFICATIONS TO APPROVED SHOP DRAWINGS SHALL NOT BE DONE WITHOUT ARCHITECT'S WRITTEN APPROVAL. ALL FIELD BENDING OF REINFORCEMENT SHALL BE APPROVED IN WRITING BY THE ARCHITECT. UNLESS EXPRESSLY PERMITTED ON THE CONTRACT DRAWINGS. ALL FIELD BENDING OF REINFORCEMENT SHALL BE DONE COLD. HEATING OF BARS WILL NOT BE PERMITTED. FIELD BENDING OF REINFORCEMENT LARGER THAN #5 IS NOT PERMITTED, UNLESS SPECIFICALLY APPROVED IN WRITING BY THE ARCHITECT.
11. ALL WALLS AND STRUCTURAL SLABS SHALL BE REINFORCED WITH AT LEAST #4@12" EACH WAY, EACH FACE, UNLESS NOTED OTHERWISE. ALL SLABS-ON-GRADE SHALL BE REINFORCED WITH STRUCTURAL FIBER AS NOTED ON PLANS. WHERE STRUCTURAL FIBER IN SLABS-ON-GRADE IS NOT REQUIRED OR IS NOT NOTED ON THE DRAWINGS, PROVIDE AT LEAST ONE (1) LAYER OF 6X6-W2XW2 W.W.F., UNLESS NOTED OTHERWISE. PROVIDE ONE (1) LAYER OF 6X6-W1.4XW1.4 W.W.F. CONTINUOUS IN ALL CONCRETE FILLS OVER THE STRUCTURAL SLAB, UNLESS NOTED OTHERWISE. ALL WELDED WIRE FABRIC REGARDLESS OF SLAB COMPONENT SHALL BE PROPERLY SUPPORTED ON APPROPRIATE CHAIRS/BOLSTERS AND TIED DOWN SECURELY.
12. PROVIDE ADDITIONAL REINFORCEMENT AT ALL OPENINGS IN WALLS AND SLABS IN ACCORDANCE WITH TYPICAL DETAILS FOR ELEVATED SLABS, WALLS AND SLABS-ON-GRADE.
13. PROVIDE ADEQUATE BOLSTER, HI-CHAIRS, SUPPORT BARS, ETC., TO MAINTAIN MINIMUM SPECIFIED CLEAR CONCRETE COVER FOR THE ENTIRE LENGTH OF ANY AND ALL BARS. PROVIDE CONTINUOUS #4 SPACER BARS IN WALLS AND SLABS TO SUPPORT DOWELS. HEAVIER SPACER BARS MAY BE REQUIRED IN BEAMS TO ALLEVIATE CONGESTION IN THE PRESENCE OF TENDON BUNDLES AND MILD STEEL REINFORCEMENT IN THE SAME OR IN PARALLEL LAYERS.
14. FOR EXPANSION JOINTS SEE NOTATION ON DRAWINGS, UNLESS SPECIFIED OTHERWISE.
15. ISOLATION JOINTS: ALL SLABS-ON-GRADE SHALL BE ISOLATED FROM ADJACENT WALLS AND BUILDING COLUMNS, PER TYPICAL DETAILS, UNLESS NOTED OTHERWISE.
16. PLACE ALL SLABS-ON-GRADE AND SLABS-ON-FILL WITH AN APPROVED PATTERN AND SEQUENCE OF CONSTRUCTION AND CONTROL JOINTS TO MINIMIZE SHRINKAGE CRACKS. THE MAXIMUM SPACING BETWEEN JOINTS SHALL BE AS SHOWN IN PLANS. A SUGGESTED ARRANGEMENT AND DETAILS ARE SHOWN ON THE DRAWINGS.



CONCRETE NOTES (CONTINUED)

Table with 4 columns: STRUCTURAL COMPONENT, LOCATIONS, PERCENTAGE, MINIMUM TRANSVERSE. Rows include SLABS, BEAMS, COLUMNS, and WALLS with their respective locations and percentages.

- 17. NO CONSTRUCTION JOINT SHALL BE MADE WITHOUT REINFORCEMENT INSTALLED PERPENDICULAR TO THE PLANE OF THE JOINT. SEE DRAWINGS FOR TYPICAL DETAILS. THE FOLLOWING QUANTITIES ARE MINIMUM IN PERCENT OF CROSS SECTIONAL AREA OF A CONCRETE ELEMENT IN THE PLANE OF THE CONSTRUCTION JOINT, UNLESS SPECIFICALLY NOTED OTHERWISE IN SECTIONS AND DETAILS:
18. CONSTRUCTION AND CONTROL JOINTS IN STRUCTURES SHALL BE PROVIDED IN ACCORDANCE WITH ACI 318 SECTION 6.4 AND AS FOLLOWS:
A. FOR CONVENTIONAL CONSTRUCTION OF SLABS AND BEAMS. PLACE VERTICAL CONSTRUCTION JOINTS (BETWEEN SUCCESSIVE PLACEMENTS) WITHIN MIDDLE THIRD OF RESPECTIVE SPANS.
B. HORIZONTAL CONSTRUCTION JOINTS IN WALLS SHOULD BE AVOIDED. WHEN REQUIRED FOR CONSTRUCTABILITY, PLACE WITHIN MIDDLE THIRD OF VERTICAL SPAN.
C. VERTICAL CONSTRUCTION JOINTS IN WALLS SHALL BE PROVIDED AT CLOSURE STRIPS AS PER NOTE 11 UNDER "FOUNDATION NOTES" HEREIN ABOVE, OR WHENEVER CONTROL JOINTS ARE PLACED. LOCATE WALL CONTROL/CONSTRUCTION JOINTS NO FARTHER APART THAN CLEAR WALL HEIGHT TIMES THREE (3) OR 25 FEET, WHICHEVER IS LESS. FOLLOW TYPICAL DETAILS FOR JOINT GROOVES AT ALL CONSTRUCTION AND CONTROL JOINTS.
D. PROVIDE CONTROL JOINTS CONSTRUCTED WITH THE USE OF CHAMFER STRIPS IN ALL UPTURNED BEAMS AND "CRASH" WALLS. EXTEND JOINT OVER THE TOP OF UPTURNED BEAM OR "CRASH" WALL, AND FILL WITH SEALANT. IF NOT SPECIFICALLY INDICATED, SPACE SUCH JOINTS AT 10 FT MAX ON-CENTER.
E. SURFACE OF A MEMBER CROSS-SECTION AT A CONSTRUCTION JOINT SHALL BE INTENTIONALLY ROUGHENED TO A MINIMUM 1/4 INCH AMPLITUDE PRIOR TO PLACEMENT OF ADJACENT CONCRETE SEGMENT.
F. STRUCTURE ON EITHER SIDE OF JOINT SHALL BE SHORED UNTIL THE AFFECTED MEMBER CONCRETE HAS ATTAINED MINIMUM 28-DAY COMPRESSIVE STRENGTH.
G. FOR POST-TENSIONED CONSTRUCTION, PLACE CONSTRUCTION JOINTS SUCH THAT AN INTERMEDIATE STRESSING POINT IS APPROXIMATELY AT A MEMBER MID-DEPTH. GENERALLY, SHORING OF POST-TENSIONED CONCRETE MEMBERS ON EITHER SIDE OF CONSTRUCTION JOINT IS REQUIRED UNTIL THE STRUCTURE IS FULLY STRESSED. EXCEPTIONS TO THIS ARE STAGE CONSTRUCTED AND/OR STAGE STRESSED TRANSFER GIRDERS, WHICH ARE SPECIFICALLY DETAILED.
H. IN ALL INSTANCES, LOCATIONS OF ALL CONSTRUCTION JOINTS SHALL BE REVIEWED BY THE ARCHITECT. NO HORIZONTAL CONSTRUCTION JOINTS WILL BE PERMITTED IN BEAMS, SLABS, MATS, OR PADS UNLESS SPECIALLY SHOWN ON THE DRAWINGS.
I. ALL CONSTRUCTION JOINTS SHALL BE WIRE BRUSHED, CLEANED, MOISTENED AND TREATED WITH A CONCRETE SLURRY OR NEAT CEMENT GROUT IMMEDIATELY PRIOR TO PLACING NEW CONCRETE.

Table with 3 columns: MEMBER TYPE, EXPOSED\*, NOT EXPOSED. Rows include CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH, BEAM - TO TOP STIRRUP, BEAM - TO SIDE AND BOT. STIRRUP, COLUMN - TO TIES, "CRASH" WALL, GRADE BEAM - TO STIRRUP, GRADE BEAM - BOTTOM, SLAB - TOP, SLAB - BOTTOM, and WALL.

Table with 3 columns: MEMBER TYPE, EXPOSED\*, NOT EXPOSED. Rows include CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH, BEAM - TO TOP STIRRUP, BEAM - TO SIDE AND BOT. STIRRUP, COLUMN - TO TIES, "CRASH" WALL, GRADE BEAM - TO STIRRUP, GRADE BEAM - BOTTOM, SLAB - TOP, SLAB - BOTTOM, and WALL.

EXPOSED\* = TO EARTH OR WEATHER OR PARKING DECK

CONCRETE NOTES (CONTINUED)

- 21. ALL REINFORCING BAR SPLICES SHALL CONFORM TO THE FOLLOWING SCHEDULES. LAP SPLICING OF BARS LARGER THAN #11 IS NOT PERMITTED. ALL WELDED WIRE FABRIC SHALL BE LAP SPLICED OVER TWO (2) FULL MESH PANELS AND TIED SECURELY. WHERE REQUIRED, DOWELS FROM ADJACENT EARLIER PLACEMENT INTO CURRENT PLACEMENT SHALL MATCH SIZE AND NUMBER OF REINFORCING BARS, UNLESS NOTED OTHERWISE.

SCHEDULE NO. 1 - UNCOATED TOP BARS. Table with columns for BAR SIZE, CLASS, LAP, and 11 bar sizes (#4 to #11).

SCHEDULE NO. 2 - UNCOATED BARS OTHER THAN TOP BARS. Table with columns for BAR SIZE, CLASS, LAP, and 11 bar sizes (#4 to #11).

SCHEDULE NO. 3 - EPOXY COATED TOP BARS. Table with columns for BAR SIZE, CLASS, LAP, and 11 bar sizes (#4 to #11).

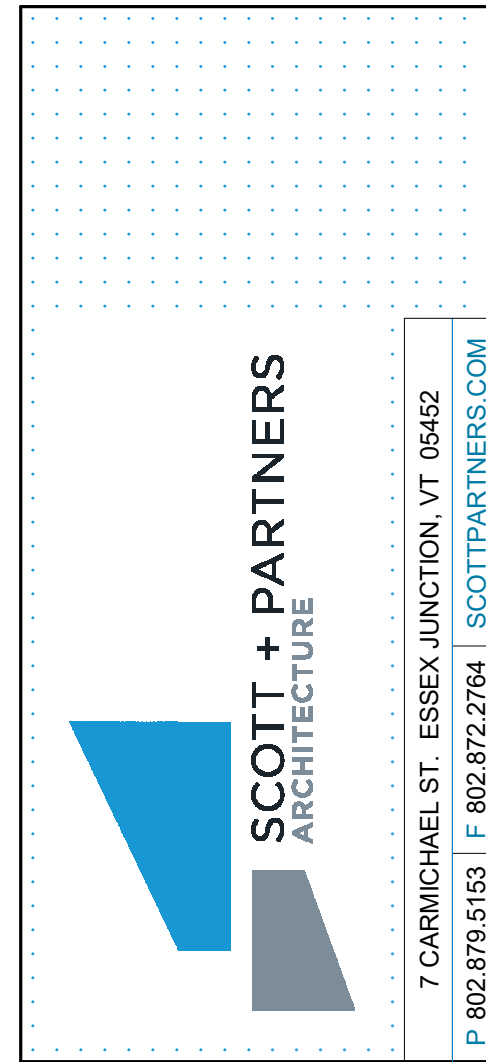
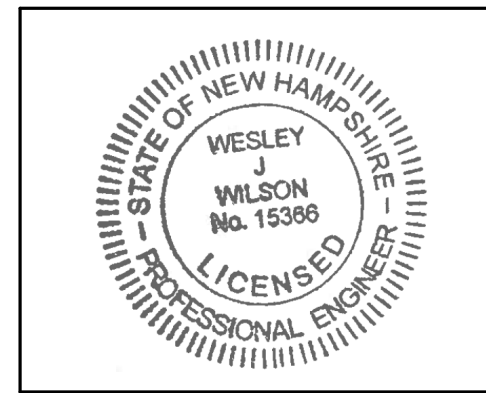
SCHEDULE NO. 4 - EPOXY COATED BARS OTHER THAN TOP BARS. Table with columns for BAR SIZE, CLASS, LAP, and 11 bar sizes (#4 to #11).

ALL LAP SPLICE SCHEDULES PLACED ON THIS DRAWING ARE BASED ON THE FOLLOWING ASSUMPTIONS:

- A. THE ABOVE SCHEDULES ARE INTENDED FOR MATS, CAPS, COLUMNS AND BEAMS/GIRDERS WITH CLEAR COVER TO REBAR NOT LESS THAN 2", AND CENTER-TO-CENTER SPACING OF BARS BEING DEVELOPED IN A LAYER OF NOT LESS THAN 4"D, WHERE d IS NOMINAL BAR DIAMETER. USE SMALLER OF THE TWO DIAMETERS IN LAP SPLICES OF BARS OF DIFFERENT SIZE.
B. FOR STRUCTURES WHERE CLEAR CONCRETE COVER TO REINFORCEMENT BEING DEVELOPED IS LESS THAN 2" BUT IS IN ACCORDANCE WITH THE NOTE 23 UNDER "CONCRETE NOTES" ABOVE, THE DETAILER SHALL REFER TO THE CRSI DESIGN HANDBOOK, SPLICE SCHEDULES IN CHAPTER 5.
C. CLEAR DISTANCE BETWEEN BAR LAYERS IN BEAMS/GIRDERS IS NOT LESS THAN 1".
D. REFER TO THE ACI 318 FOR REQUIREMENTS ON THE BASIS OF WHICH THESE SCHEDULES HAVE BEEN ESTABLISHED FOR REGULAR WEIGHT CONCRETE AND REINFORCING STEEL YIELD STRENGTH OF Fy=60 KSI.
E. FOR TOP BAR DEFINITION, SEE ACI 318. FOR PURPOSES OF DETERMINATION OF REBAR SPACING FOR PARTICULAR MEMBER, TENDON BUNDLES IF PRESENT IN BEAMS MUST BE TREATED AS REBAR OF A DIAMETER BASED ON EQUIVALENT CROSS-SECTIONAL AREA OF A BUNDLE.
F. DEVELOPMENT LENGTHS IN THESE SCHEDULES ARE IN INCHES.
G. DEVELOPMENT LENGTH = CLASS A LAP SPLICE.
H. WHEREVER TENSION LAP SPLICE IS REQUIRED AS SHOWN ON THE DRAWINGS, IN THESE NOTES HEREIN ABOVE OR MANDATED BY ACI 318 BUILDING CODE, USE CLASS B LAP SPLICE.
22. PITCH ALL SLABS TO DRAINS WHERE DRAINS ARE INDICATED ON CONTRACT DRAWINGS.
23. PROVIDE 3/4" CHAMFER AT EDGES OF ALL CONCRETE ELEMENTS EXPOSED TO VIEW (I.E. TOPS OF RETAINING WALLS, CRASH WALLS, EDGES OF BEAMS, GIRDERS, COLUMNS, SLABS, ETC.) UNLESS OTHERWISE NOTED.
24. COMPONENTS WITHIN CONCRETE BUILDING FRAME SHALL BE GIVEN THE FOLLOWING PRIORITY FOR REINFORCEMENT, EMBEDS AND HARDWARE PLACEMENT:
(1) POST-TENSIONING TENDONS;
(2) MILD STEEL REINFORCEMENT;
(3) EMBEDDED STRUCTURAL ITEMS, SUCH AS PLATES, INSERTS, ETC.
(4) EMBEDDED ARCHITECTURAL ITEMS, SUCH AS REGLETS, DRIPS, ETC.
(5) EMBEDDED CONDUITS AND/OR PIPES.

CONCRETE NOTES (CONTINUED)

- 25. ELECTRICAL CONDUITS AND MECHANICAL/PLUMBING PIPES CAST INTO SLABS SHALL BE PLACED BETWEEN THE TOP AND BOTTOM LAYERS OF REINFORCEMENT, IN A WAY NOT INTERFERING WITH THE POST-TENSIONING TENDONS, WHERE APPLICABLE, AND SHALL NOT HAVE AN OUTSIDE DIAMETER GREATER THAN ONE-FIFTH THE SLAB THICKNESS, U.N.O. CROSSOVERS OF CONDUITS AND/OR PIPES SHALL NOT BE PERMITTED. THE CLEAR DISTANCES BETWEEN CONDUITS AND/OR PIPES SHALL NOT BE LESS THAN 1.5 TIMES THE LARGER OF THE TWO ADJACENT DIAMETERS BUT IN NO CASE SHALL A CLEAR SPACING BE LESS THAN 2 INCHES. REFER TO PROJECT SPECIFICATIONS FOR MORE INFORMATION.
26. IN SLABS, NO CONDUITS OR PIPES SHALL BE PLACED CLOSER THAN 12 INCHES TO A COLUMN FACE OR EDGE OF CONCRETE, UNLESS NOTED OTHERWISE. NO HORIZONTAL CONDUITS SHALL BE CASTED WITHIN SLABS-ON-GRADE.
27. DOWELS IN FOUNDATION STRUCTURES FOR THE CONSTRUCTION IMMEDIATELY ABOVE HAVE BEEN IDENTIFIED ON THE DRAWINGS. IF NO DOWELS IS INDICATED, PROVIDE AS A MINIMUM NUMBER AND SIZE MATCHING THAT OF RESPECTIVE WALL, PIER, COLUMN, ETC., IMMEDIATELY ABOVE.
28. NEITHER BEAM NOR SLAB REINFORCEMENT SHALL BE SLEEVED THROUGH OR OTHERWISE INTERRUPTED, EXCEPT AS SHOWN ON THE STRUCTURAL DRAWINGS.
29. NO ALUMINUM OF ANY TYPE SHALL BE ALLOWED IN THE CONCRETE WORK, UNLESS COATED TO PREVENT ALUMINUM-CONCRETE REACTION.
30. DESIGN OF FORMWORK FOR CONCRETE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE DESIGN SHALL INCLUDE ALL FORCES ACTING UPON FORMWORK BEFORE, DURING AND AFTER CONCRETE PLACEMENT. THE CONTRACTOR'S PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE WORK IS TO BE PERFORMED, SHALL DESIGN ALL FORMWORK AND ASSOCIATED SHORING, BRACING AND ANCHORAGE. SEE ALSO NOTE 34 BELOW.
31. EACH SUBCONTRACTOR SHALL PROVIDE SLEEVES IN CONCRETE FORMWORK. SLEEVE LOCATION AND SIZES SHALL BE SUBMITTED TO AND APPROVED BY THE ARCHITECT PRIOR TO PLACEMENT. NO CORING OF THE CONCRETE WORK WILL BE ALLOWED WITHOUT AN EXPRESSED WRITTEN CONSENT OF ARCHITECT.
32. CONCRETE TESTING WILL BE PERFORMED BY THE OWNER'S TESTING LABORATORY IN ACCORDANCE WITH ACI 301 SUBSECTION 1.6. AND THE PROJECT SPECIFICATIONS ACCEPTANCE OF CONCRETE WILL BE BASED ON THE RESULTS OF FIELD TESTING AS OUTLINED IN THE SPECIFICATIONS AS WELL AS ON THE LAB STRENGTH TESTING. EARLY CONCRETE STRENGTH AS REQUIRED FOR STRESSING OR FORM REMOVAL SHALL NOT BE CONSIDERED AN ACCEPTANCE CRITERION. DETERMINATION OF THIS STRENGTH TO ASCERTAIN CONTRACTABILITY SHALL BE PART OF THE TESTING SCOPE OF WORK PROVIDED BY THE CONTRACTOR.
33. FORMWORK FOR SLABS AND BEAMS SHALL BE CAMBERED TO COMPENSATE FOR DEFLECTIONS OF SHORING/FORMWORK SYSTEM DUE TO CONSTRUCTION LOADS. THIS CAMBER SHALL BE IN ADDITION TO THAT SHOWN ON THE CONTRACT DRAWINGS, IF ANY.
34. PROVIDE EPOXY COATED REINFORCEMENT IN THE STRUCTURE AS SHOWN ON THE DWG'S AND CALLED OUT IN SPECIFICATIONS.
35. FULL STRENGTH TENSION SPLICES SHALL BE PROVIDED ON REINFORCING BARS WHERE NOTED ON THE DRAWINGS. SUCH SPLICES SHALL BE IN ACCORDANCE WITH ACI 318, MEMBER-BASED SECTION .
36. THE CONTRACTOR SHALL SUBMIT DETAILED DRAWINGS SHOWING THE LOCATIONS OF ALL CONSTRUCTION JOINTS, REVEALS, CURBS, SLAB DEPRESSIONS, SLEEVES, OPENINGS, ETC.
37. PLACEMENT OF SLEEVES BY ALL TRADES SHALL BE COORDINATED BY THE CONTRACTOR AND SUBMITTED TO THE ARCHITECT FOLLOWING THIS COORDINATION. NO CORING OF THE CONCRETE WORK WILL BE ALLOWED WITHOUT AN EXPRESSED WRITTEN CONSENT OF THE ARCHITECT. TYPICAL SLEEVE PLACEMENT DETAILS AND MAXIMUM SLEEVE SIZES AND SPACING ARE SHOWN ON THE CONTRACT DRAWINGS. PLACEMENT, SPACING OR SIZING OF SLEEVES NOT IN AGREEMENT WITH THE DRAWINGS MAY RESULT IN RE-SIZING OF MEMBERS ADDED REINFORCEMENT OR OTHER STRENGTHENING REQUIRING RE-DESIGN. ALL SUCH CHANGES IN THE STRUCTURE DESIGN SHALL BE CONTRACTOR'S RESPONSIBILITY.
38. SHOP DRAWINGS SHOWING REINFORCING DETAILS, INCLUDING STEEL SIZES, SPACING AND PLACEMENT SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW PRIOR TO FABRICATION.
39. ALL CONCRETE MIXING TRUCKS TO BE NH DOT APPROVED AND LABELLED.
40. SEE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.



Project name: New Legislative Parking Garage
State Project Number: 81284-B
Project Address: 33 Capitol St, Concord, NH 03301

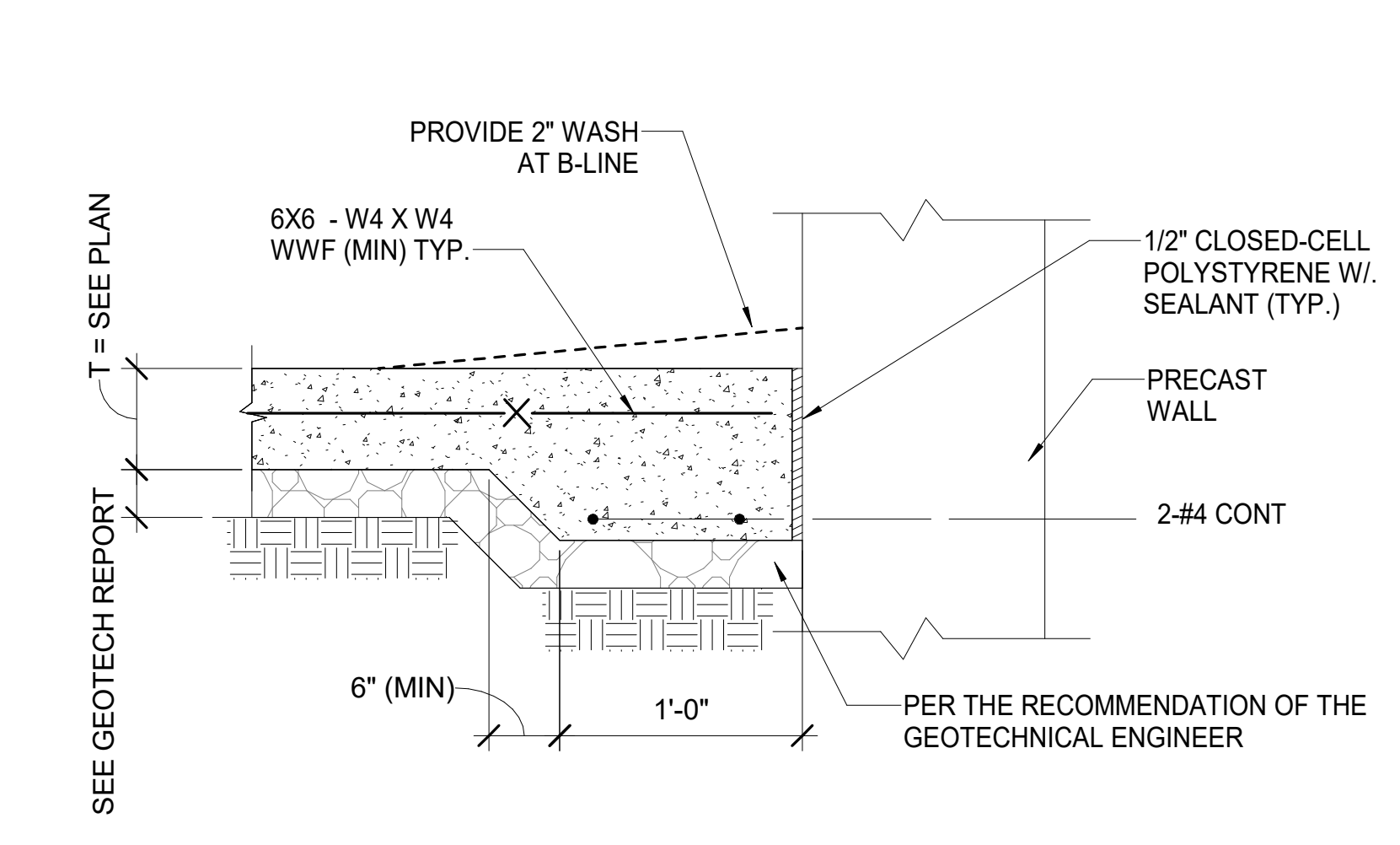
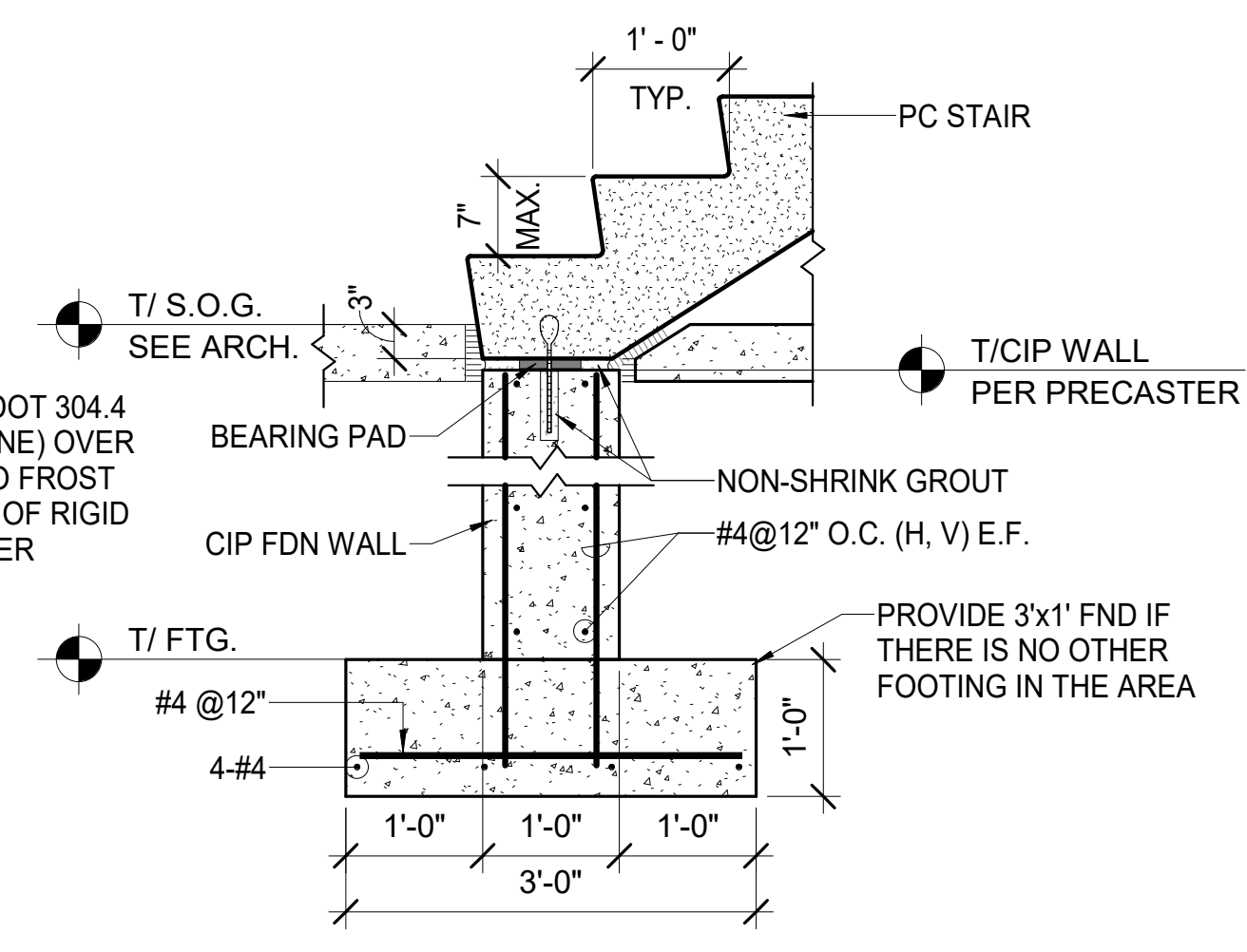
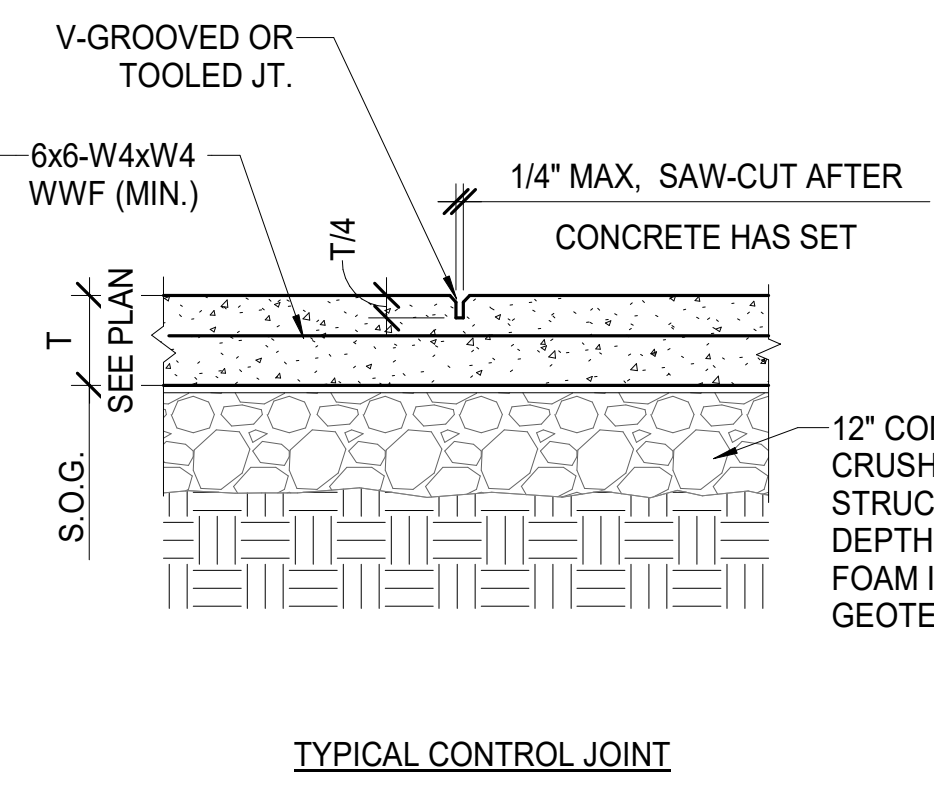
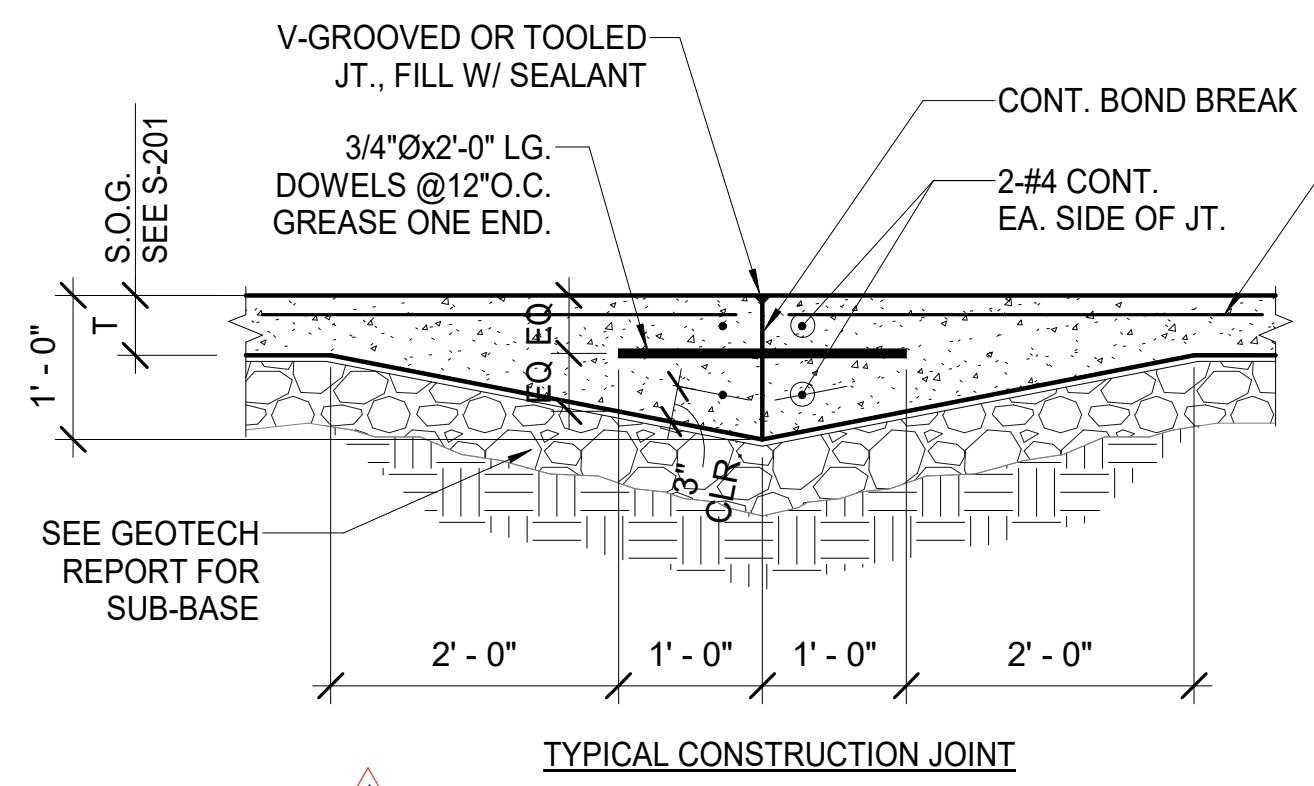
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drawn by: SP
proj. date: 03/08/24
sheet date: 04/19/24

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sheet title: GENERAL STRUCTURAL NOTES

sheet no. S-003

ISSUED FOR CONSTRUCTION SET

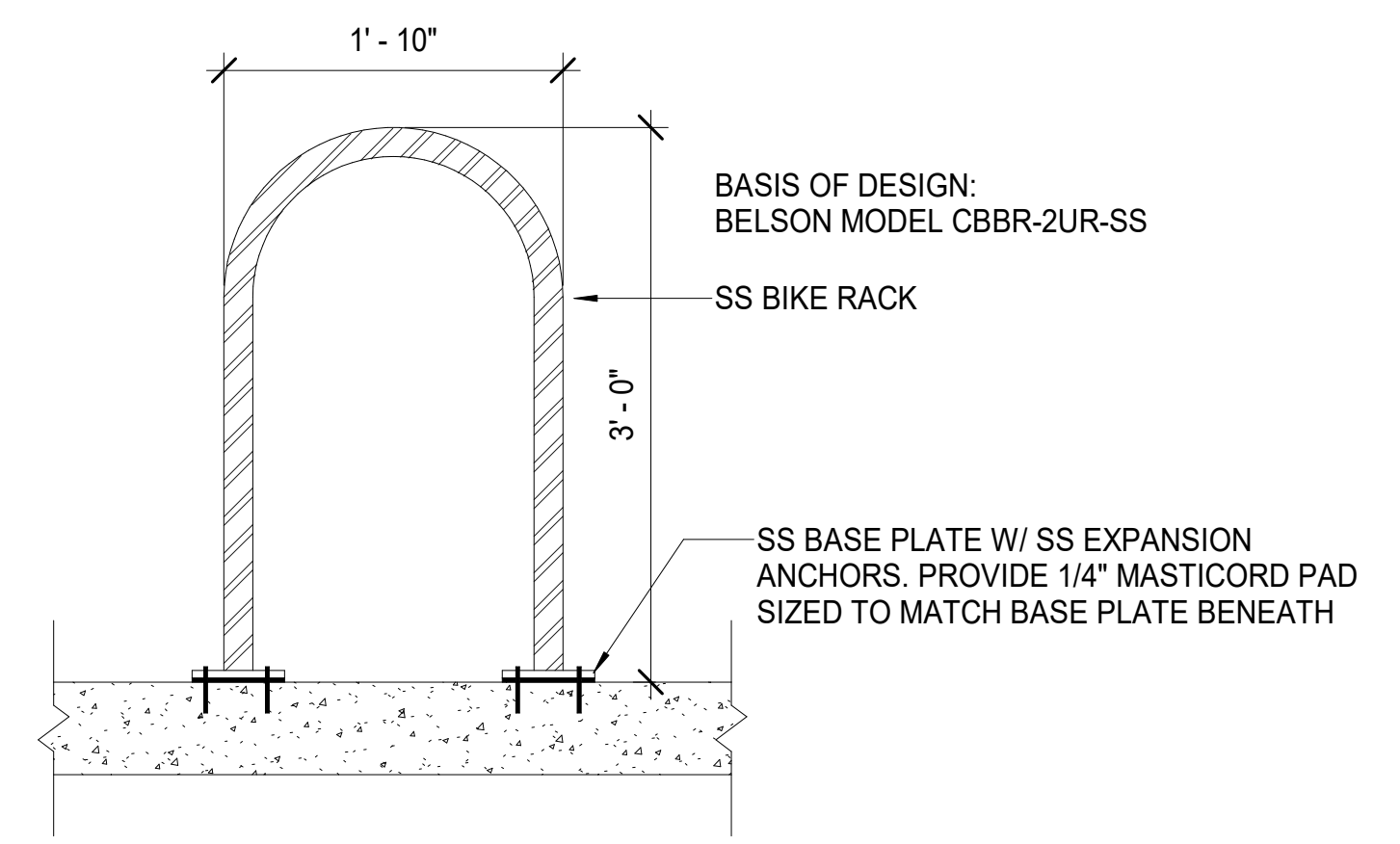
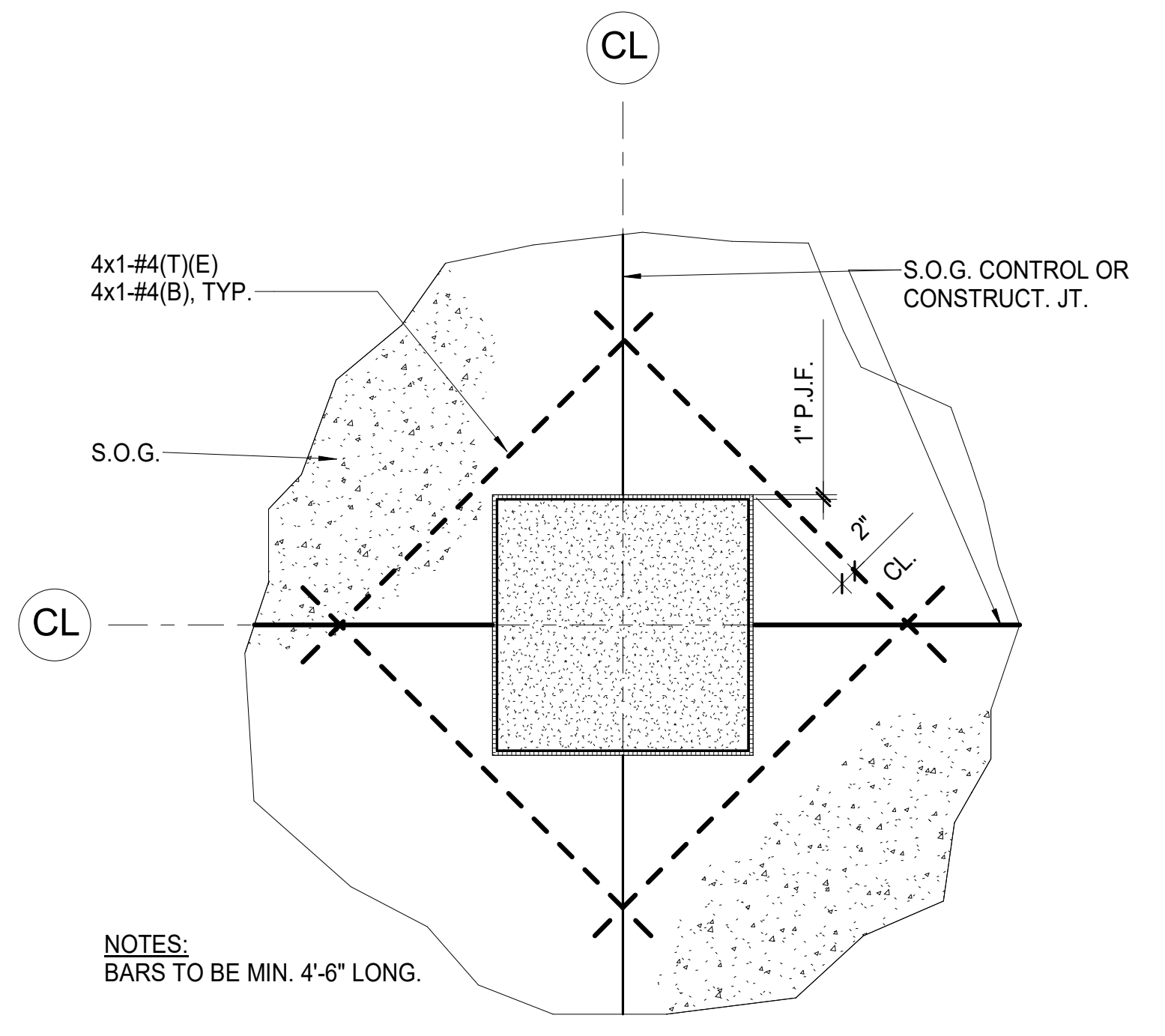
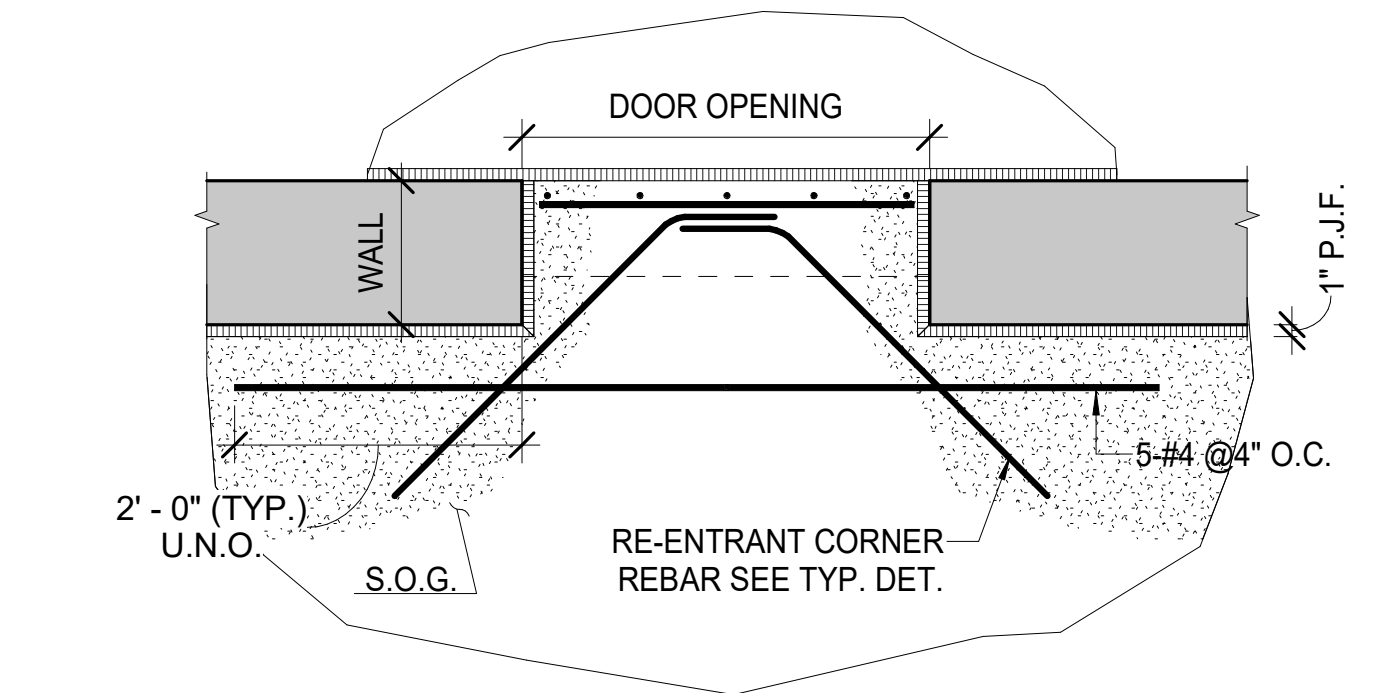


**NOTES:**  
 CONSTRUCTION AND CONTROL JOINTS ARE INTERCHANGEABLE AT CONTRACTOR'S OPTION. JOINTS LOCATED AT COLUMN CENTERLINES ARE CONSIDERED OPTIMUM; HOWEVER, IT IS INTENDED THAT THE CONTRACTOR LAYOUT A PATTERN THAT WILL RESULT IN JOINTS WITH MAXIMUM CENTER TO CENTER, AS SHOWN IN PLAN, IN EACH DIRECTION INTENDED TO MINIMIZE CRACKING DUE TO CONCRETE DRYING SHRINKAGE AND THERMAL EFFECTS. DO NOT LOCATE CONSTRUCTION AND/OR CONTROL JOINTS BELOW MASONRY WALLS.

**1 JOINT DETAILS FOR REINFORCED S-O-G**  
 S-005 SCALE: 3/4" = 1'-0"

**5 DETAIL @ BASE OF P/C STAIR**  
 S-005 SCALE: 3/4" = 1'-0"

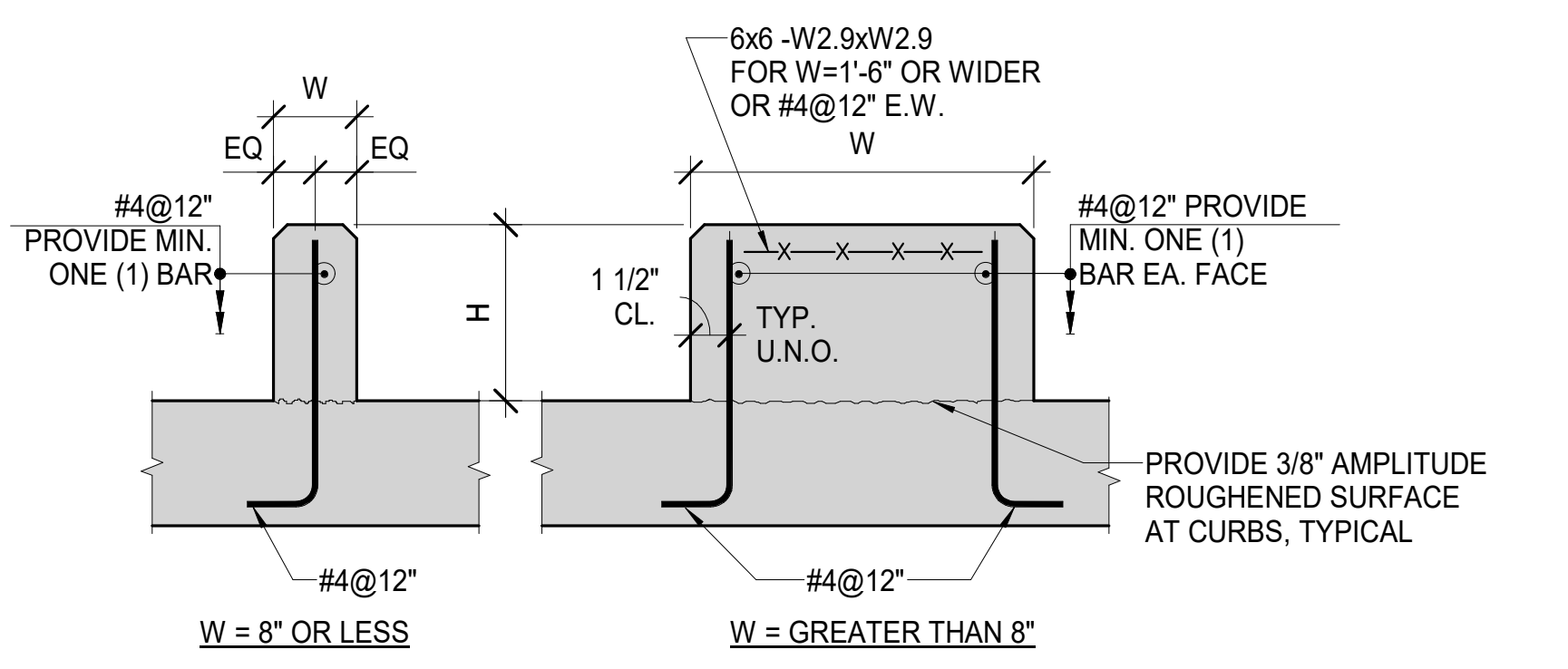
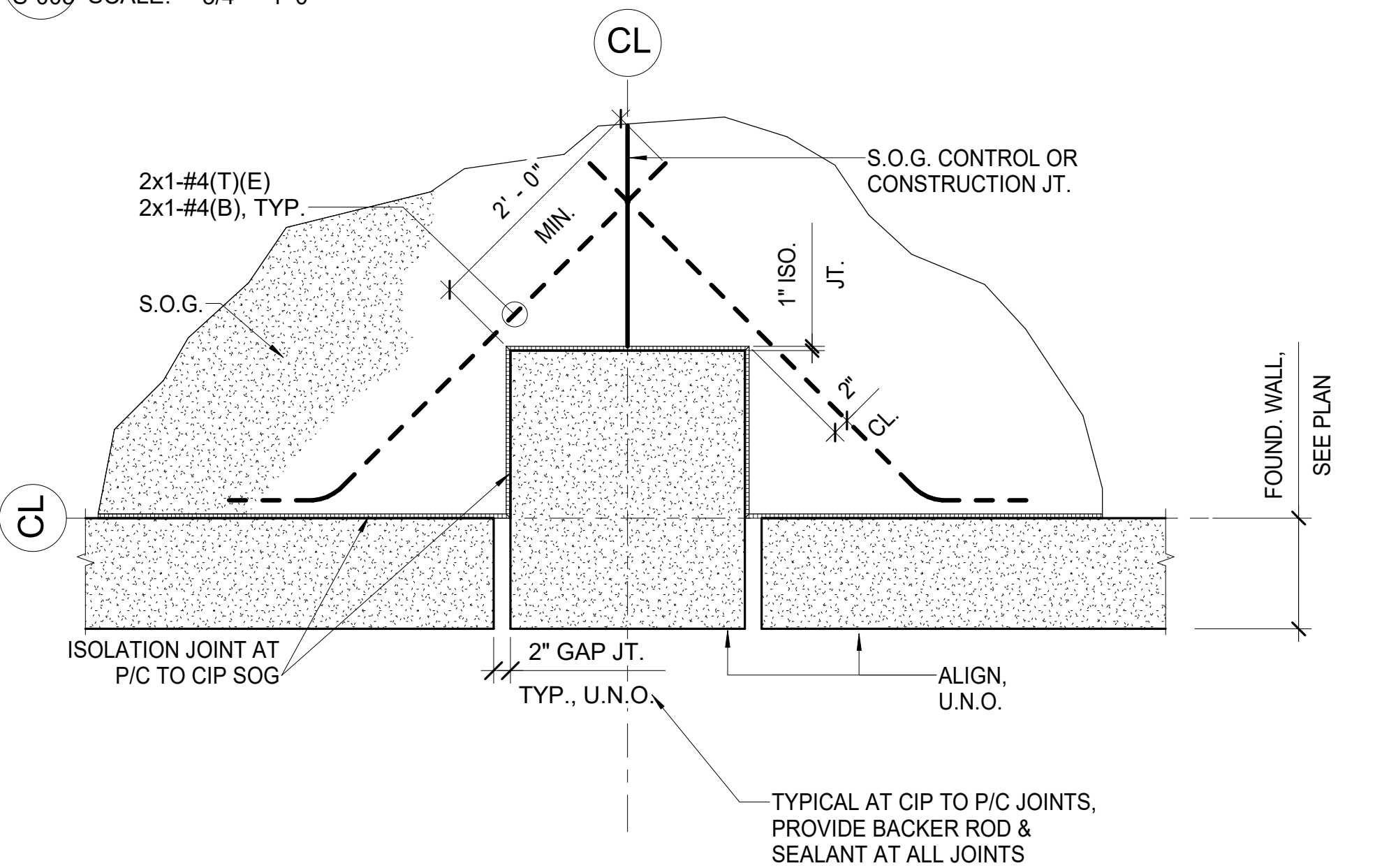
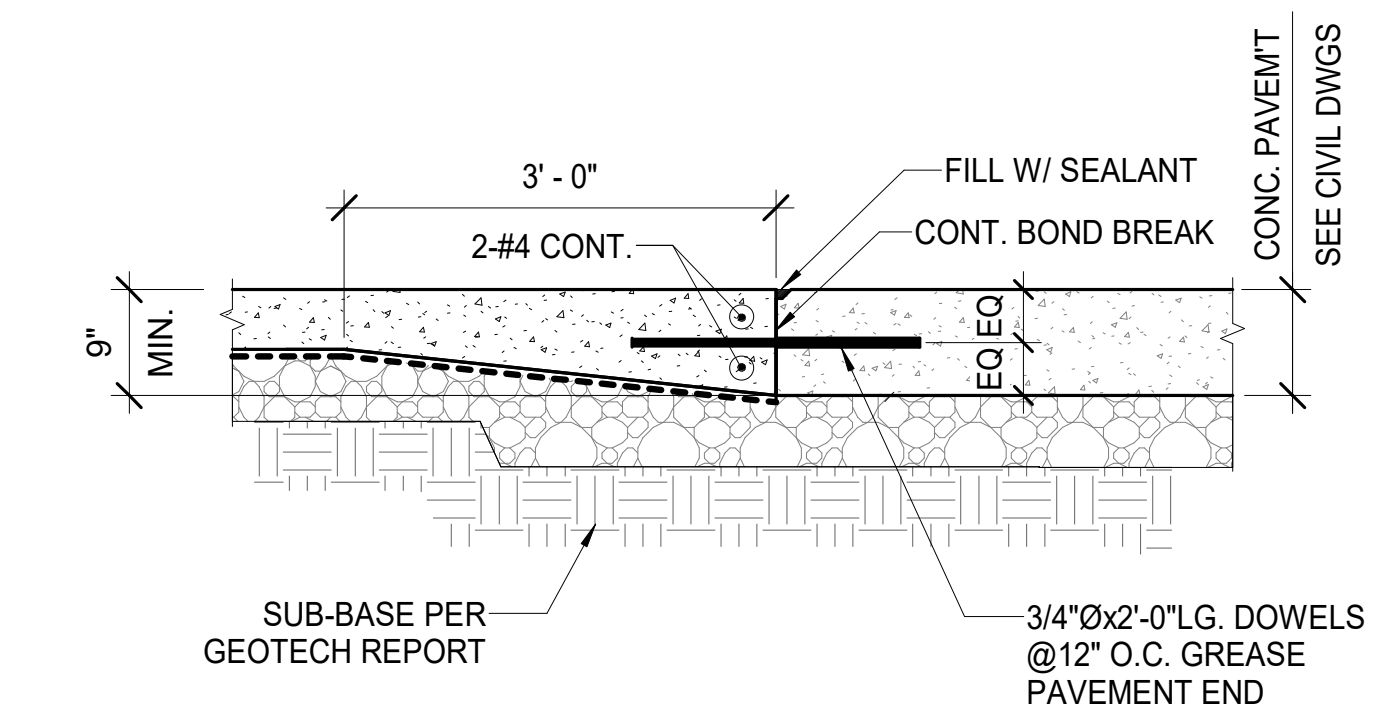
**8 TYP. WALL/S-O-G SECTION**  
 S-005 SCALE: 1 1/2" = 1'-0"



**2 TYP. S-O-G-FOUNDATION-WALL INTERFACE DETAIL @ DOOR OPENING**  
 S-005 SCALE: 3/4" = 1'-0"

**6 TYP. INTERIOR COLUMN ISOLATION JOINT DETAIL @ S-O-G**  
 S-005 SCALE: 3/4" = 1'-0"

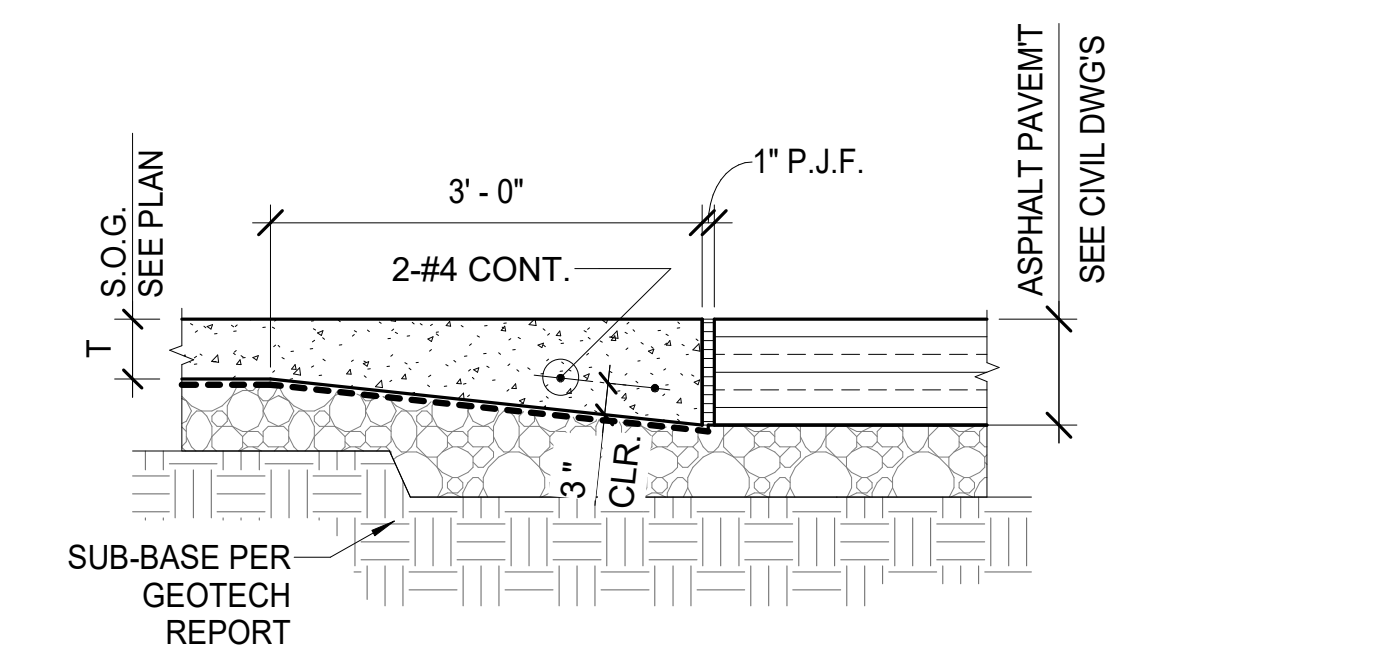
**9 BIKE LOOP DETAIL**  
 S-005 SCALE: 1" = 1'-0"



**3 S-O-G TO CONCRETE PAVEMENT INTERFACE DETAIL**  
 S-005 SCALE: 3/4" = 1'-0"

**7 TYP. EXTERIOR COLUMN ISO. JOINT DETAIL @ S-O-G**  
 S-005 SCALE: 3/4" = 1'-0"

**10 CONCRETE CURB DETAIL**  
 S-005 SCALE: 3/4" = 1'-0"

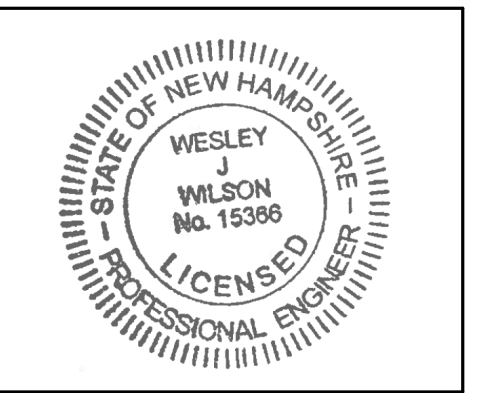


**4 S-O-G TO ASPHALT PAVEMENT INTERFACE**  
 S-005 SCALE: 3/4" = 1'-0"

**NOTES:**

- FOR CURB W AND H DIMENSIONS SEE ARCH. DWG'S.
- MINIMUM PERMISSIBLE WIDTH W=4".
- CURBS WITH W=1'-6" AND WIDER REQUIRE TRANSVERSE TOOLED CONTROL JOINTS SPACED AT 10'-0" MAX. O.C.
- CURBS WITH WIDTHS (W) UNDER 10 FT. DO NOT REQUIRE LONGITUDINAL CONTROL JOINTS. FOR WIDER CURBS PROVIDE LONGITUDINAL TOOLED CONTROL JOINTS AT 10'-0" MAX.
- SEE DET. 1, THIS DWG. FOR TOOLED CONTROL JOINT DETAIL.

**ISSUED FOR CONSTRUCTION SET**



**DESMAN**  
 18 TREMONT ST., SUITE 300, BOSTON, MA 02108  
 P 617.778.9882  
 DESMAN.COM

**SCOTT + PARTNERS**  
 ARCHITECTURE  
 7 CARMICHAEL ST., ESSEX JUNCTION, VT 05452  
 P 802.879.5153 | F 802.872.2764 | SCOTTPARTNERS.COM

**New Legislative Parking Garage**  
 State Project Number: 81284-B  
 Project Address:  
 33 Capitol St.  
 Concord, NH 03301

scale: As indicated  
 project no. 20-23131.00-1  
 checked by: WW  
 drawn by: SP  
 proj. date: 03/08/24  
 sheet date: 04/19/24

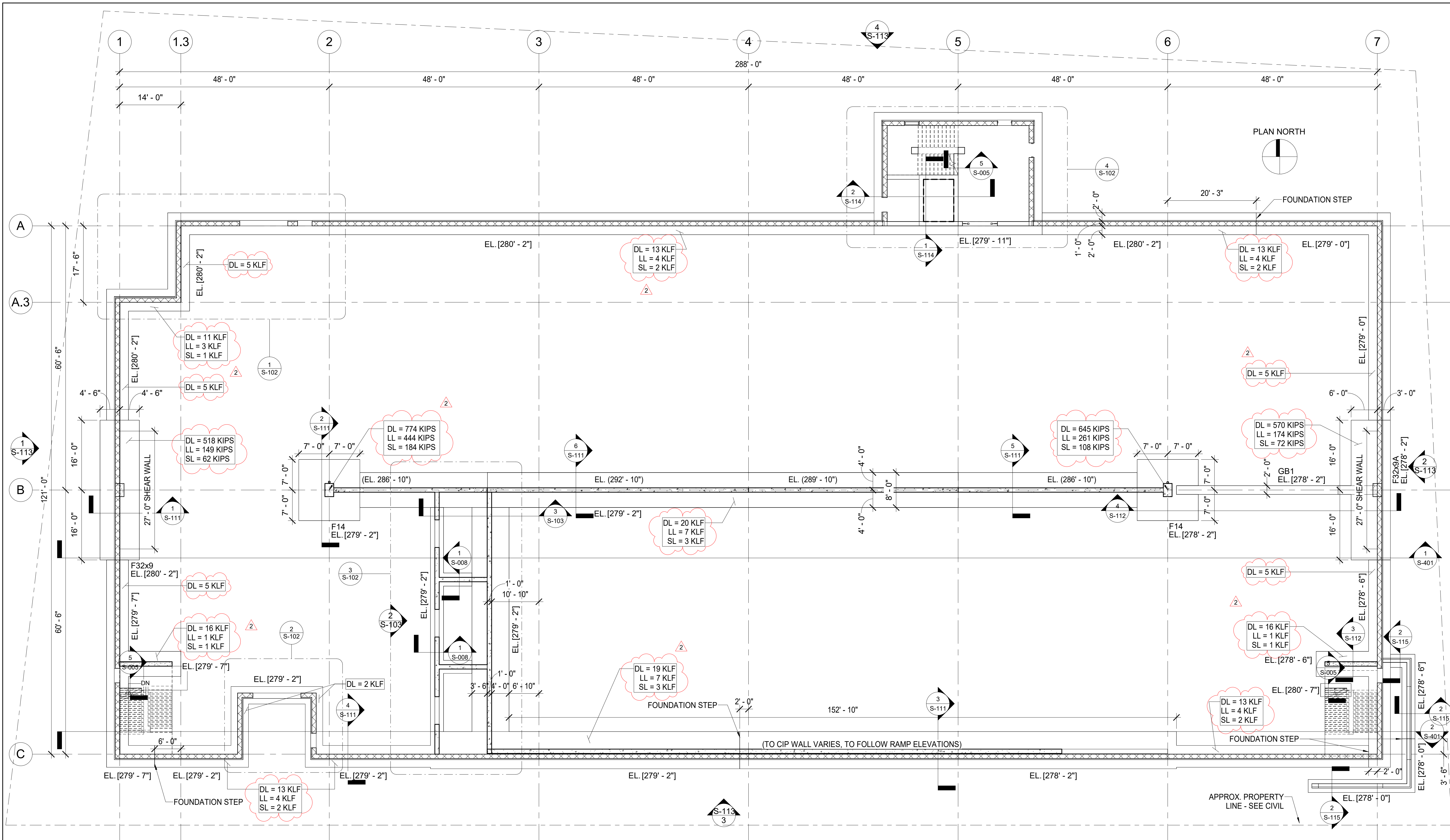
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1	04/18/24	ADDENDUM 3

sheet title:  
**TYPICAL SLAB-ON-GRADE DETAILS**

sheet no.  
**S-005**



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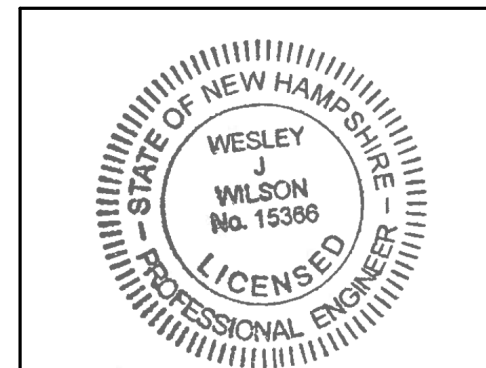
**1 FOUNDATION PLAN**  
SCALE: 3/32" = 1'-0"

**GENERAL NOTES:**

- F# DENOTES GARAGE FOOTING TYPE, REFERENCE FOOTING SCHEDULE ON THIS SHEET.
- (XX'-X") DENOTES TOP OF FOOTING ELEVATION.
- (XX'-X") DENOTES TOP OF CAST-IN-PLACE WALL ELEVATION
- ALL FOOTINGS ARE CENTERED UNDER COLUMNS U.N.O.
- PROVIDE SLAB-ON-GRADE (SOG) THROUGHOUT THE GRADE LEVEL. SEE TYPICAL DETAILS ALL AREAS, UNLESS OTHERWISE NOTED. SEE S-201 FOR SOG PLAN AND SPOT ELEVATIONS
- FOOTINGS TO BE 4,000 PSI CONCRETE U.N.O. AND ARE TO BEAR OF 6KSF GROUND IMPROVEMENT AS DIRECTED BY THE GEOTECHNICAL ENGINEER. REFER TO S.W. COLE GEOTECHNICAL REPORT DATED OCTOBER 26, 2023. REFER TO PROJECT GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.
- SEE STRUCTURAL NOTES ON S-002, S-003 & S-004.
- SEE TYPICAL FOUNDATION DETAILS ON S-005, S-006 & S-007
- FOR ADDITIONAL INFORMATION ON GARAGE C.I.P. CONCRETE SEE SPECIFICATION SECTION 03 3000
- ALL VERTICAL C.I.P. CONCRETE WALLS EXPOSED TO VIEW ARE FOR SMOOTHED FORMED FINISH. SEE SPECIFICATIONS FOR ADDITIONAL DETAILS.
- PROVIDE BROOM FINISH AT ALL HORIZONTAL SURFACES U.N.O. MEDIUM BROOM FINISH WITHIN PARKING AREAS, LIGHT BROOM FINISH WITHIN PEDESTRIAN AREAS.
- CONTRACTOR TO COORDINATE ALL UTILITIES PENETRATIONS IN CIP WALLS PRIOR TO PLACING FOUNDATION CONCRETE. REFERENCE DRAWING C2.10 FOR PENETRATIONS IN TO THE FOUNDATION WALLS FOR UTILITIES.
- ALL LOADS SHOWN ARE UNFACTORED.

FTG MARK	GARAGE FOOTING SCHEDULE				CONCRETE $f_c = 4,000$ PSI SOIL BRG CAPACITY $F_b = 6,000$ PSF			
	DIMENSIONS		BOTTOM REINF.		TOP REINFORCEMENT		REMARKS	
	L	W	D	LONG WAY	SHORT WAY	LONG WAY		SHORT WAY
F14	14'-0"	14'-0"	42"	15-#10	15-#10			
F32x9	32'-0"	9'-0"	36"	10-#8	40-#9	10-#8	40-#9	
F32x9A	32'-0"	9'-0"	42"	10-#8	40-#9	10-#8	40-#9	
GB1	SEE PLAN	2'-0"	42"	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN	

**ISSUED FOR  
CONSTRUCTION SET**



**DESMAN**  
18 TREMONT ST., SUITE 300, BOSTON, MA 02108  
P 617.778.9882  
DESIGN.COM

**SCOTT + PARTNERS**  
ARCHITECTURE  
7 CARMICHAEL ST., ESSEX JUNCTION, VT 05452  
P 802.879.5153 | F 802.872.2764 | SCOTTPARTNERS.COM

**New Legislative Parking Garage**  
State Project Number: 81284-B  
Project Address:  
33 Capitol St.  
Concord, NH 03301

scale: As indicated  
project no. 20-23131.00-1  
checked by: WW  
drawn by: SP  
proj. date: 03/08/24  
sheet date: 04/19/24

No	Date	Revisions
1	04/05/24	ADDENDUM 1
2	04/18/24	ADDENDUM 3

sheet title:  
**FOUNDATION PLAN**

sheet no.  
**S-101**