

# **ASM FACILITY SITE PLAN**

**SP# 13-22 (FOLLOW UP TO MSP# 03-22)**

## **STAFF REPORT #2**

**(Please refer to 10/26/2022 report for earlier comments)**

November 30, 2022

**SITE:** 7 Security Drive, Map 251 Lot 018

**ZONING:** General-1 (G-1)

**PURPOSE OF PLAN:** Enclosure of the 25' x 50' concrete equipment pad, extension of existing driveway to improve truck traffic movements, replace existing 41 imperious parking stalls with porous surface area, and add 13 parking stalls (porous surface area).

### **PLANS UNDER REVIEW:**

Site Plan / ASM Facility, Map 251 Lot 018, 7 Security Drive, Hudson, NH 03051; prepared by: Gale Associates, Inc. 6 Bedford Farms Drive, Bedford, NH 03110; prepared for: JMC Hudson Properties, LLC, 5 Lehoux Drive, Hooksett, NH 03106; consisting of 15 sheets including a cover sheet and general notes 1-27 on Sheet 4; dated September 19, 2022; last revised November 15, 2022.

### **ATTACHMENTS:**

- A. Peer Review, prepared by Fuss & O'Neill, received October 24, 2022.
- B. Applicant Response to Peer Review, prepared by Gale Associates, received November 15, 2022.
- C. CAP Fee worksheet
- D. Drainage Analysis, prepared by Gales Associates, dated November 15, 2022 – provided digitally only.

### **APPLICATION TRACKING:**

- September 19, 2022 – Application received.
- October 26, 2022 – Application accepted. Public input received. Waiver granted from §276-11.1.B(12)(a) to require 200ft distance. Waiver granted from §193-10.G that permits only one driveway. Public hearing continued.
- November 30, 2022 – Public hearing scheduled.

### **COMMENTS & RECOMMENDATIONS:**

#### **REVISIONS**

The November 15, 2022 revised plan includes the following changes from the previous plan:

1. A stockade fence and landscaping has been added in accordance with the 1997 site plan
2. A lockbox around the NO2 tanks has been added to prevent accidental filling of tanks outside of the Town noise ordinance.
3. The proposed slope along the east side of the facility has been steepened from 2H:1V to 1H:1V to reduce the amount of mature vegetation that will be cleared. The steepened slope will be stabilized with riprap material.
4. Parking spaces have been reduced to 50 total spaces. This eliminates the previously proposed 9'x20' spaces as well as the need for a third ADP parking space.
5. The originally proposed infiltration trench system has been converted to a subsurface infiltration system.
6. Grading on the eastern boundary has been corrected to avoid grading onto the abutting property.
7. Snow storage areas have been added
8. The existing concrete retaining wall shown on Drawing C101 will be reconstructed in-kind

#### RESPONSE NOTES

Fuss & O'Neill reviewed the site plan on October 24, 2022 (**Attachment A**) and Gale Associates provided the Applicant's response on November 15, 2022 (**Attachment B**). Items of note include:

1. Due to recent damage to the existing septic system, a new system is being designed, permitted, and constructed. Approval of the septic system will be required separately. This is not due to any increase in employees. (Item 5.b, Page 5 of att. B)
2. The additional parking spaces are to accommodate overlapping employees during change in working shifts. (Item 5.b, Page 5 of att. B)
3. The peer review requested that the applicant determine if a winter maintenance and salt minimization plan is necessary; the applicant has submitted an inquiry to NHDES but has not yet received a response. (Item 6.m, page 7 of att. B)
4. The peer review noted that according to SMR 290-5.B.1.a the project meets the definition of a "new development" and WQV calculations are required. The applicant responded that the proposed project is expected to disturb only 34,471 SF and does not meet the 40,000 SF threshold for the requirement. (Item 6.n, page 7 of att. B)

*Note: it has since been confirmed with Fuss & O'Neill and the Applicant that the total disturbed area is under 40,000 sf.*

5. The Applicant needs to provide additional detail for the stormwater system to account for frozen ground conditions. The Engineering Department recommends a 2" solid pipe with

a minimum vertical clearance from the bottom of the drainage pond of 2” as a condition of approval. (Item 6.u, page 8 of att. B)

- 6. The Applicant has not illustrated earth stockpiles, equipment storage, and protection of the pervious parking area. The Applicant states they are unable to illustrate this, however staff recommends it be adequately addressed. (Item 6.aa, page 8 of att. B)
- 7. Erosion control is needed around the installation of the pervious parking area. Current response is not adequate. (Item 8.a, page 10 of att. B)

**DRAFT MOTIONS**

**CONTINUE the public hearing to a date certain:**

I move to continue the site plan application for the Site Plan / ASM Facility, 7 Security Drive, Map 251 Lot 018, to date certain, \_\_\_\_\_, 2022.

Motion by: \_\_\_\_\_ Second: \_\_\_\_\_ Carried/Failed: \_\_\_\_\_

**DEFER the public hearing to a date certain:**

I move to defer the site plan application for the Site Plan / ASM Facility, 7 Security Drive, Map 251 Lot 018, to date certain, \_\_\_\_\_, 2022.

Motion by: \_\_\_\_\_ Second: \_\_\_\_\_ Carried/Failed: \_\_\_\_\_

*Draft Motions continue on the following page*

**APPROVE the site plan application:**

I move to approve the site plan application entitled: Site Plan / ASM Facility, Map 251 Lot 018, 7 Security Drive, Hudson, NH 03051; prepared by: Gale Associates, Inc. 6 Bedford Farms Drive, Bedford, NH 03110; prepared for: JMC Hudson Properties, LLC, 5 Lehoux Drive, Hooksett, NH 03106; consisting of 15 sheets including a cover sheet and general notes 1-27 on Sheet 4; dated September 19, 2022; last revised November 15, 2022; subject to, and revised per, the following stipulations:

1. All stipulations of approval shall be incorporated into the Development Agreement, which shall be recorded at the HCRD, together with the Plan.
2. A cost allocation procedure (CAP) amount of \$1,825 shall be paid prior to the issuance of a Certificate of Occupancy.
3. Prior to the issuance of a final certificate of occupancy, an L.L.S. Certified “as-built” site plan shall be provided to the Town of Hudson Land Use Division confirming that the development conforms to the Plan approved by the Planning Board.
4. Prior to the Planning Board endorsement of the Plan, it shall be subject to final administrative review by Town Planner and Town Engineer.
5. Prior to application for a building permit, the Applicant shall schedule a pre-construction meeting with the Town Engineer.
6. Construction activities involving the subject lot shall be limited to the hours between 7:00 A.M. and 5:00 P.M. No construction activities shall be allowed on Saturdays or Sundays.
7. Hours of refuse removal shall be exclusive to the hours between 7:00 A.M. and 7:00 P.M., Monday through Friday only.
8. Applicant shall provide a maintenance schedule and plan for the pervious pavement prior to construction.
9. Applicant shall provide soil testing results for the pervious pavement area prior to recording the plan.

Motion by: \_\_\_\_\_ Second: \_\_\_\_\_ Carried/Failed: \_\_\_\_\_



October 24, 2022

Mr. Brian Groth  
Town Planner  
Town of Hudson  
12 School Street  
Hudson, NH 03051

Re: Town of Hudson Planning Board Review  
ASM Facility Site Plan, 7 Security Drive  
Tax Map 251 Lot 18; Acct. #1350-545  
Reference No. 20030249.2230

Dear Mr. Groth:

Fuss & O'Neill (F&O) has reviewed the first submission of the materials received on October 20, 2022, related to the above-referenced project. Authorization to proceed was received on October 20, 2022. A list of items reviewed is enclosed. The scope of our review is based on the Site Plan Review Codes, Stormwater Codes, Driveway Review Codes, Sewer Use Ordinance 77, Zoning Regulations, and criteria outlined in the CLD Consulting Engineers Proposal approved September 16, 2003, revised September 20, 2004, June 4, 2007, September 3, 2008, and October 2015.

We have included a copy of Fuss & O'Neill's evaluation of the checklist for your reference. We note that several items could not be verified by Fuss & O'Neill and require action by the Town.

The project appears to consist of new parking areas, driveway extension, and enclosure of an existing concrete pad to create a building addition on the existing industrial building site. Proposed improvements to the site also include drainage improvements and other associated site improvements. The proposed building will continue be serviced by public water and private subsurface disposal system.

The following items are noted:

**1. Site Plan Review Codes (HR 275)**

- a. Hudson Regulation (HR) 275-6.C. The site does not contain any existing sidewalks and the applicant has not proposed to add any additional sidewalks.
- b. HR 275-6.I. The scope of this review does not include the adequacy of any fire protection provisions for the proposed building. The applicant has not shown the existing water connection on the plan set or any fire service or hydrant locations.
- c. HR 275-6.T. The applicant has not proposed any off-site improvements.
- d. HR 275-8.C.(2)(g) and Zoning Ordinance (ZO) 334-15.A. The applicant has provided parking calculations on the plan set and noted that 36 parking are required for the industrial use based on the building square footage and that 54 spaces are provided. The applicant has not provided an employee count for calculating a comparison parking space count per the Regulation.
- e. HR 275-8.C.(4). The applicant has proposed several parking spaces with the dimensions of

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03101  
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800.286.2469  
[www.fando.com](http://www.fando.com)  
  
California  
Connecticut  
Maine  
Massachusetts  
New Hampshire  
Rhode Island  
Vermont



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nine feet by 20 feet. The reduced width will require approval of the Planning Board.

- f. HR 275-8.C.(6). The applicant did not label any off-street loading areas on the plan set and has not specifically noted existing loading spaces on the plan set. We note that 2 spaces are required, and it appears there may be loading areas on either side of the concrete retaining wall at the south end of the building.
- g. HR 275-9.C.(11). The applicant has provided two handicap accessible parking spaces for the site. We note that based on the total number of parking spaces, three handicap accessible spaces should be provided. The applicant should also provide a detail for the handicap parking signs on the plan set as well as show their location on the site plan.
- h. HR 275-9.F. The applicant has not provided copies of any easements or deeds for the site. We note that no easements are shown on the plan set.

## 2. Administrative Review Codes (HR 276)

- a. HR 276-11.1.B.(4). The applicant should add the Planning Board approval block on all sheets of the plan set as required.
- b. HR 276-11.1.B.(6). The applicant should provide the owner's signature and phone number on the plan set as required.
- c. HR 276-11.1.B.(12). The applicant should clarify whether any of the abutting parcels are residential uses and would therefore meet the additional residential use setback.
- d. HR 276-11.1.B.(13). The applicant has noted that any sign disturbed by this project will be reset. No new sign locations are shown.
- e. HR 276-11.1.B.(16). The applicant has not shown the location of driveways and parking areas within 200 feet of the tract.
- f. HR 276-11.1.B.(18). The applicant has provided new grading on the east side of the site for the new driveway location. We note that the applicant should also provide grading for the proposed new pervious pavement areas.
- g. HR 276-11.1.B.(20). The applicant should show the height of the existing building on the plan set.
- h. HR 276-11.1.B.(23). The applicant has not noted any pertinent highway projects on the plan set.

## 3. Driveway Review Codes (HR 275-8.B. (34)/Chapter 193)

- a. HR 193.10.E. The applicant has not provided any Sight Distance information for the new driveway. We note that the driveway enters onto a cul-de-sac with what appears to be an adequate line of sight looking to the left (west) from the driveway. The applicant should confirm that features such as landscaping or signs won't obstruct this sight line.
- b. HR 193.10.G. The applicant has proposed to add an additional driveway for a total of two driveway locations for the lot. The applicant has not provided a copy of a waiver request from this Regulation within the submission materials.
- c. The applicant should review and adjust the proposed location of the stop sign at the eastern driveway to be in line with the stop bar.



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**4. Traffic (HR 275-9.B)**

- a. HR 275-9.B. The applicant has not provided any traffic information for review.

**5. Utility Design/Conflicts**

- a. HR 275-9.E. The applicant has not shown the existing water service location or shown any power or communication services.
- b. HR 275-9.E. The applicant should confirm that the existing septic system is adequately sized for the proposed building addition and any corresponding increase in employees.

**6. Drainage Design/Stormwater Management (HR 275-9.A./Chapter 290)**

- a. HR 275-6.F. The applicant should provide additional information on the groundwater recharge requirement. An NHDES AoT GRV BMP worksheet or similar should be provided.
- b. HR 275-9.A.3 and SMR 290-5.A.9. The applicant should coordinate with the Town if test pit information is required, including but not limited to test pit locations upon the plan set, test pit data, ESHWT, as well as all other information related to the proposed infiltration.
- c. SMR 290-5.A.1 and 290-5.A.3. The applicant should provide language in the Drainage Analysis Report, stating if and how low impact development (LID) strategies for stormwater runoff were evaluated for this project.
- d. SMR 290-5.A.4. The applicant should provide the required GRV calculation.
- e. SMR 290-5.A.11. The applicant should provide the BMP worksheets for the stormwater management measures proposed.
- f. SMR 290-5.A.11. The applicant should provide additional notes upon the plan set to remove all previously compacted subgrades and unsuitable materials from below the existing pavement. Installing pervious materials above a compacted subgrade will prevent stormwater from infiltrating and could create a “bathtub” effect with groundwater being trapped in the 10” of crushed stone.
- g. SMR 290-5.A.11. We note the CN value of pervious pavers was chosen to be 39. The applicant should provide additional information and supporting materials as to the use of this CN value.
- h. SMR 290-5.A.11. The applicant should provide additional information on the proposed pre-treatment of the site.
- i. SMR 290-5.A.11. The applicant should review the grading on the eastern boundary. A small section of the 140 contour is graded onto the abutting property, which would require rights from the abutter to perform this grading.
- j. SMR 290-5.A.12 and 290-7.A.9. The applicant should provide the required I&M materials for proper maintenance to ensure a prolonged lifespan of the proposed infiltration trench and pervious pavers, as well as other onsite stormwater features such as catch basins and drainage runs.
- k. SMR 290-5.A.12 and 290-7.A.9. Due to the weather conditions in the northeast pervious pavement/pavers require a VERY specific I&M routine for their maintenance. The property owner/maintainer should be aware that the use of sand will clog the voids over time, and will require periodic vacuuming. The future maintenance crew must be made aware that “driveway sealing” is not allowed, as well.



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- l. SMR 290-5.A.12 and 290-7.A.9. The proposed infiltration trench appears to be prone to clogging in the current design. The applicant should review the design with the Town Engineer to ensure this does not become clogged over time. The applicant may want to implement a filter fabric to help prolong the lifespan of the infiltration trench.
- m. SMR 290-5.A.12 and 290-7.A.9. Due to the location of the project in respect to the nearby Limit Brook, the applicant should review the NHDES screening layers to verify if a winter maintenance and salt minimization plan is necessary.
- n. SMR 290-5.B.1.a. This project meets the definition of a “new development”, with existing impervious cover being less than 40%. The applicant should provide the required WQV calculations.
- o. SMR 290-5.B.1.b. The applicant should provide the required TSS and TP removal calculations for the proposed stormwater treatment.
- p. SMR 290-6.A.1. The applicant should add notes on the Erosion Control Plan Sheet C301 calling out the locations for the proposed Catch Basin Filter Baskets.
- q. SMR 290-6.A.1. The applicant should revise note #21 on Site Plan Sheet C101, to state “proposed” as well as the existing catch basin inlets.
- r. SMR 290-6.A.1. The applicant should provide outlet protection calculations to the outlet upgradient of CB5.
- s. SMR 290-6.A.8. The applicant should add a note for the requirement to coordinate a pre-construction meeting with the Town Engineer.
- t. SMR 290-6.A.13 and SMR 290-7.A.9. The applicant should provide the required erosion control and winter stabilization notes to the plan set.
- u. SMR 290-7.A.6. The applicant should provide information as to how the stormwater system is designed to account for frozen ground conditions.
- v. SMR 290-7.A.7. The applicant should confirm with the Town if any additional coordination is required due to the close proximity of the onsite wetland.
- w. SMR 290-7.A.8. The applicant should provide a New Hampshire licensed professional engineer’s stamp on the drainage report and plans.
- x. SMR 290-7.B. The applicant should provide existing conditions contours on the pre-development watershed plan.
- y. SMR 290-7.B.16. The applicant should illustrate snow storage areas upon the plan set.
- z. SMR 290-7.B.16. We note snow storage is not permitted per NHDES AoT guidelines within infiltration areas. The applicant should review the need for a fence and/or signage to prevent this. If signage is utilized, the I&M Manual should be updated to note snow storage shall not occur within the stormwater basin.
- aa. SMR 290-10.B. The applicant should provide a note on the plan set stating the requirement for the EPA GCP/NOI. We note the inclusion of the SWPPP within the drainage report, but contractors do not always review the drainage report.
- bb. Hudson Engineering Technical Guidelines & Typical Details (HETGTD) 920.4.1 through 920.4.5. The applicant shall illustrate the locations of the requested items upon the plan set.
- cc. HETGTD 920.4.14. The applicant should provide additional information on the type of seeding/hydroseeding to be used within the infiltration trench slopes. This should be a type with the ability to be inundated by stormwater after larger storms.
- dd. HETGTD 930.3. The applicant should revise the “Infiltration Trench with Stormtech Pipe Detail” on Plan Sheet C501. The detail itself calls for a 24” Stormtech Pipe, while the detail illustrates an arch and the note on Plan Sheet C103 calls for a 24” Stormtech Arch.





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- ee. HETGTD 930.3. The applicant should provide additional information on the arch chamber to be used, as it does not appear that Stormtech makes a 24" arch. Stormtech only makes 30" and a 16" arch chamber systems (SC-740 and SC-310).
- ff. The applicant will be required to comply with all provisions of the Town of Hudson's MS4 permit, including but not limited to annual reporting requirements, construction site stormwater runoff control, and record keeping requirements.
- gg. Please note that this review was carried out in accordance with applicable regulations and standards in place in New Hampshire at this time. Note that conditions at the site, including average weather conditions, patterns and trends, and design storm characteristics, may change in the future. In addition, future changes in federal, state or local laws, rules or regulations, or in generally accepted scientific or industry information concerning environmental, atmospheric and geotechnical conditions and developments may affect the information and conclusions set forth in this review. In no way shall Fuss & O'Neill be liable for any of these changed conditions that may impact the review, regardless of the source of or reason for such changed conditions. Other than as described herein, no other investigation or analysis has been requested by the Client or performed by Fuss & O'Neill in preparing this review.

#### **7. Zoning (ZO 334)**

- a. ZO 334-14.A. The applicant has not provided any architectural plans that show the height of the proposed building addition or the existing building.
- b. ZO 334-17 & 334-21. The applicant has noted that the subject parcel is located within the General (G-1) zoning district. The existing/proposed use is permitted by the Ordinance within this district.
- c. ZO 334-33. The applicant has not shown any wetlands located on the plan set.
- d. ZO 334-60. The applicant does not appear to be adding any new signs other than traffic signs to the plan set. It appears the existing ground sign is to remain unaltered.
- e. ZO 334-83 and HR 218-4.E. The applicant has noted that the site is not located within a designated flood hazard area.

#### **8. Erosion Control/Wetland Impacts**

- a. The applicant should review the need for erosion control around the installation of the pervious parking area on the west of the site.
- b. The Town of Hudson should reserve the right to require any additional erosion control measures as needed.

#### **9. Landscaping (HR 275-8.C.(7) & 276-11.1.B.(20)) and Lighting (HR 276-11.1.B.(14))**

- a. HR 276-11.1.B.(14). The applicant has stated that there will be no exterior lighting.
- b. The applicant is not proposing to add any additional landscaping to the site.



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**10. State and Local Permits (HR 275-9.G.)**

- a. HR 275-9.G. The applicant did not provide copies of any applicable Town, State or Federal approvals or permits in the review package. The applicant has not noted the need for any State or Federal permits.
- b. Additional local and state permitting may be required.

**11. Other**

- a. The applicant has shown both jersey barrier and an existing concrete wall in the same location on the south end of the building. The applicant should clarify the intent for construction at this location, and provide a detail for the retaining wall. The misspelling in this call out on sheet C101 should be corrected also.
- b. The applicant has not provided a detail for the proposed dumpster enclosures.

Please feel free to call if you have any questions.

Very truly yours,



Steven W. Reichert, P.E.

SWR:  
Enclosure

cc: Town of Hudson Engineering Division – File  
Gale Associates, Inc. – smb@gain.com



Gale Associates, Inc.

6 Bedford Farms Drive, Suite 101 | Bedford, NH 03110

P 603.471.1887 F 603.471.1809

www.galeassociates.com

November 15, 2022

Mr. Brian Groth, ACIP  
Town Planner  
Town of Hudson  
12 School Street  
Hudson, New Hampshire 03051

Subject: ASM Facility  
7 Security Drive (File SP# 13-22)  
Hudson, New Hampshire

Dear Mr. Groth:

Gale Associates, Inc. (Gale) has received and reviewed the review comments from the Town of Hudson, the Hudson Planning Board, and Hudson's third-party consultant (Fuss O'Neill). This cover letter incorporates the review comments received (**bold text**), and our associated responses (regular text). In addition, we have included revised plans and supplemental information as requested by the Town. At your convenience, please review the below responses, updated plans, and supplemental information enclosed herein.

**Hudson Staff Report:**

- 1. Please identify the "light industrial" uses (existing and proposed) with the Table of Permitted Principal Uses §334-21.**  
The Zoning Analysis Table on Sheet 4 (Drawing C101 – Site Plan) has been updated accordingly.
- 2. Does the enclosure around the 25 x 50 concrete pad have a roof? If so, how high is that roof?**  
The 25'x50' concrete pad is proposed to be enclosed. The roof is proposed to be approximately 12 inches lower than the existing roof height and sloped to the rear of the site. The existing building height is 19 feet; Sheet 4 (Drawing C101 – Site Plan) has been updated to reflect this information.
- 3. There had been a recent Code Enforcement complaint about outside/outdoor fabrication operations, in possible violation of Hudson Town Code §249 Noise and possible §334-16.1 Site Plan. I would recommend adherence to the original site plan of 1997 HCRD # 28977 and have the fence and tree buffer along the southerly property line installed/completed as approved on that 1997 plan.**  
Sheet 4 (Drawing C101 – Site Plan) has been updated to include the installation of a stockade fence and landscaping in accordance with the approved 1997 site plan.

**Hudson Planning Board:**

- 1. Is it possible to install fencing and landscaping along the rear of the property line in accordance with the original approved site plan?**  
Sheet 4 (Drawing C101 – Site Plan) has been updated to include the installation of a stockade fence and landscaping in accordance with the approved 1997 site plan.

**SINCE 1964**

Mr. Brian Groth, ACIP, Hudson Town Planner  
ASM Facility – 7 Security Drive (File SP# 13-22)  
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- 2. Is it possible to install a “lock-box” around the nitrous oxide (NO<sub>2</sub>) tanks to prevent accidental filling of tanks outside of the Town noise ordinance; lockbox would be per the specifications of the Hudson Fire Department?**

Sheet 4 (Drawing C101 – Site Plan), Note No. 10 has noted a “lockbox” around the NO<sub>2</sub> tanks to prevent accidental filling of tanks outside of the Town noise ordinance; lockbox would be per the specifications of the Hudson Fire Department.

- 3. Is it possible to acoustically dampen the NO<sub>2</sub> tank filling process?**

The Applicant/Owner is researching the feasibility of this request.

- 4. Is it possible to provide a cut-sheet of the Storm-Crete pre-cast porous concrete paver system?**

Please see Stormcrete brochure included herein.

- 5. Is it possible to landscape the 2H:1H slope along the east side of the facility?**

In replacement of adding landscaping, the project area has been modified to steepen the proposed slope from 2H:1V to 1H:1V which reduces the amount of existing mature vegetation to be cleared and grubbed. The steepened slope has been stabilized with riprap material.

**Hudson Third-party Consultant:**

- 1. Site Plan Review Codes (HR 275)**

- a. Hudson Regulation (HR) 275-6.C. The site does not contain any existing sidewalks and the Applicant has not proposed to add any additional sidewalks.**

No response necessary.

- b. HR 275-6.I. The scope of this review does not include the adequacy of any fire protection provisions for the proposed building. The Applicant has not shown the existing water connection on the plan set or any fire service or hydrant locations.**

Sheet 4 (Drawing C101 – Site Plan) has been updated to identify the existing water services.

- c. HR 275-6.T. The Applicant has not proposed any off-site improvements.**

No response necessary.

- d. HR 275-8.C.(2)(g) and Zoning Ordinance (ZO) 334-15.A. The Applicant has provided parking calculations on the plan set and noted that 36 parking spaces are required for the industrial use based on the building square footage and that 54 spaces are provided. The Applicant has not provided an employee count for calculating a comparison parking space count per the Regulation.**

Sheet 4 (Drawing C101 – Site Plan) has been updated to limit the parking space count to fifty (50) spaces. The additional parking spaces are not an indication of additional employees, but a measure to provide parking for overlapping employees during change in work shifts. At this time, there are 45 employees working the 1st shift and 10 employees working the 2nd shift.  $45 + 10 = 55 \times 0.75 = 41.25$ ; 42 parking spaces required, 50 spaces provided.

- e. HR 275-8.C.(4). The Applicant has proposed several parking spaces with the dimensions of nine feet by 20 feet. The reduced width will require approval of the Planning Board.**

The two (2) 9’x20’ parking spaces illustrated on Sheet 4 (Drawing C101 – Site Plan) have been removed from the site layout.

Mr. Brian Groth, ACIP, Hudson Town Planner  
ASM Facility – 7 Security Drive (File SP# 13-22)  
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- f. **HR 275-8.C.(6). The Applicant did not label any off-street loading areas on the plan set and has not specifically noted existing loading spaces on the plan set. We noted that two (2) spaces are required, and it appears there may be loading areas on either side of the concrete retaining wall at the south end of the building.**

Sheet 4 (Drawing C101 – Site Plan) has been updated to identify the two (2) existing off-street loading areas.

- g. **HR 275-9.C.(11). The Applicant has provided two handicap accessible parking spaces for the site. We noted that based on the total number of parking spaces, three (3) handicap accessible spaces should be provided. The Applicant should also provide a detail for the handicap parking signs on the plan set as well as show their location on the site plan.**

Sheet 4 (Drawing C101 – Site Plan) has been updated to limit the parking space count to 50 spaces to meet current ADA requirements. Detail No. 7 on Sheet 12 (Drawing C502 – Civil Construction Details) has been updated accordingly.

- h. **HR 275-9.F. The Applicant has not provided copies of any easements or deeds for the site. We noted that no easements are shown on the plan set.**

No easements are required for the proposed improvements.

**2. Administrative Review Codes (HR 276)**

- a. **HR 276-11.1.B.(4). The Applicant should add the Planning Board approval block on all sheets of the plan set as required.**

Sheets 3, 5, 6, and 9 of the plan set have been updated accordingly.

- b. **HR 276-11.1.B.(6). The Applicant should provide the owner's signature and phone number on the plan set as required.**

The Applicant's signature will be provided on the final plan set; HR 276-11.1.B.(6) does not require a phone number to be provided.

- c. **HR 276-11.1.B.(12). The Applicant should clarify whether any of the abutting parcels are residential uses and would, therefore, meet the additional residential use setback.**

Sheet 4 (Drawing C101 – Site Plan) has been updated to identify abutting property uses. However, the Applicant submitted a waiver with respect to this requirement, which was approved by the Hudson Planning Board on 10/26/22.

- d. **HR 276-11.1.B.(13). The Applicant has noted that any sign disturbed by this project will be reset. No new sign locations are shown.**

No response necessary.

**HR 276-11.1.B.(16). The Applicant has not shown the location of driveways and parking areas within 200 feet of the tract.**

The Hudson Planning Board discussed this requirement during the 10/26/22 public hearing and decided this information was not necessary and is covered by the HR 276-11.1.B(12)(a) waiver approval.

Mr. Brian Groth, ACIP, Hudson Town Planner  
ASM Facility – 7 Security Drive (File SP# 13-22)  
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- e. **HR 276-11.1.B.(18). The Applicant has provided new grading on the east side of the site for the new driveway location. We noted that the Applicant should also provide grading for the proposed new pervious pavement areas.**

Sheet 6 (Drawing C103 – Grading and Drainage Plan) has been updated to identify spot shot elevations. In addition, grading information is obtained via driveway profile and associated cross-sections of Sheets 7 and 8 (Drawings C301 and C302).

- f. **HR 276-11.1.B.(20). The Applicant should show the height of the existing building on the plan set.**

The existing building height is 19 feet; Sheet 4 (Drawing C101 – Site Plan) has been updated to reflect this information.

- g. **HR 276-11.1.B.(23). The Applicant has not noted any pertinent highway projects on the plan set.**

No response necessary.

**3. Driveway Review Codes (HR 275-8.B. (34)/Chapter 193)**

- a. **HR 193.10.E. The Applicant has not provided any Sight Distance information for the new driveway. We noted that the driveway enters onto a cul-de-sac with what appears to be an adequate line of sight looking to the left (west) from the driveway. The Applicant should confirm that features such as landscaping, or signs will not obstruct this sight line.**

Existing landscaping and/or signage will not impact the current sign distances.

- b. **HR 193.10.G. The Applicant has proposed to add an additional driveway for a total of two (2) driveway locations for the lot. The Applicant has not provided a copy of a waiver request from this Regulation within the submission materials.**

The Applicant submitted a waiver with respect to this requirement, which was approved by the Hudson Planning Board on 10/26/22.

- c. **The Applicant should review and adjust the proposed location of the stop sign at the eastern driveway to be in line with the stop bar.**

Sheet 4 (Drawing C101 – Site Plan) has been updated accordingly.

**4. Traffic (HR 275-9.B)**

- a. **HR 275-9.B. The Applicant has not provided any traffic information for review.**

No response necessary.

**5. Utility Design/Conflicts**

- a. **HR 275-9.E. The Applicant has not shown the existing water service location or shown any power or communication services.**

There is no change in existing water, power, and/or communication services.

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ASM Facility – 7 Security Drive (File SP# 13-22)  
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- b. HR 275-9.E. The Applicant should confirm that the existing septic system is adequately sized for the proposed building addition and any corresponding increase in employees.**

A new system is being designed, permitted, and constructed due to a recent incident of a truck driving over the existing septic system. Please note, the additional parking spaces are not an indication of additional employees, but a measure to provide parking for overlapping employees during change in working shifts.

**6. Drainage Design/Stormwater Management (HR 275-9.A./Chapter 290)**

- a. HR 275-6.F. The Applicant should provide additional information on the groundwater recharge requirement. An NHDES AoT GRV BMP worksheet or similar should be provided.**  
NHDES AoT GRV BMP worksheet has been prepared and included within the drainage report.

- b. HR 275-9.A.3 and SMR 290-5.A.9. The Applicant should coordinate with the Town if test pit information is required, including but not limited to test pit locations upon the plan set, test pit data, ESHWT, as well as all other information related to the proposed infiltration.**  
Note No. 2 on Sheet 6 (Drawing C103 – Grading and Drainage Plan) has been added identifying the location of proposed test pits.

- c. SMR 290-5.A.1 and 290-5.A.3. The Applicant should provide language in the Drainage Analysis Report, stating if and how Low Impact Development (LID) strategies for stormwater runoff were evaluated for this project.**

The drainage report describes the LID strategies used (i.e., conversion of existing and new parking to be porous concrete, installation of a subsurface infiltration system, and minimizing of disturbed mature vegetation). According to SMR 290-5.A.1, no language is required unless, "...LID strategies or measures are not appropriate or practical for the particular site."

- d. SMR 290-5.A.4. The Applicant should provide the required GRV calculation.**  
NHDES AoT GRV BMP worksheet has been prepared and included within the drainage report.

- e. SMR 290-5.A.11. The Applicant should provide the BMP worksheets for the stormwater management measures proposed.**  
NHDES AoT Infiltration Practice worksheet has been prepared and included within the drainage report.

- f. SMR 290-5.A.11. The Applicant should provide additional notes upon the plan set to remove all previously compacted subgrades and unsuitable materials from below the existing pavement. Installing pervious materials above a compacted subgrade will prevent stormwater from infiltrating and could create a "bathtub" effect with groundwater being trapped in the 10" of crushed stone.**

Note No. 2 on Sheet 6 (Drawing C103 – Grading and Drainage Plan) has been updated accordingly.

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- g. SMR 290-5.A.11. We noted the CN value of pervious pavers was chosen to be 39. The Applicant should provide additional information and supporting materials as to the use of this CN value.**

Table 2-2a located in Appendix A2 of the HydroCAD Stormwater Modeling System Manual (version 10) lists an open space, good condition, Hydrologic Soil Group (HSG) 'A' soils to have a CN value of 39. According to Stormcrete's website, the pre-cast porous concrete surface has a minimum infiltration rate of 250 inches/hour. In comparison to the infiltration rate for a Windor soils (Ksat Values for New Hampshire, dated September 2009), is 20 inches/hour. Therefore, the pre-cast porous concrete surface is not the limiting factor and the CN value of 39 was used to closely mimic existing soil conditions.

- h. SMR 290-5.A.11. The Applicant should provide additional information on the proposed pre-treatment of the site.**

The originally proposed infiltration trench system has been converted to a subsurface infiltration system that is collected by a deep sump catch basin with an oil/water separator pre-treatment measure prior to discharging to the subsurface infiltration system.

- i. SMR 290-5.A.11. The Applicant should review the grading on the eastern boundary. A small section of the 140 contour is graded onto the abutting property, which would require rights from the abutter to perform this grading.**

This has been corrected.

- j. SMR 290-5.A.12 and 290-7.A.9. The Applicant should provide the required I&M materials for proper maintenance to ensure a prolonged lifespan of the proposed infiltration trench and pervious pavers, as well as other on-site stormwater features such as catch basins and drainage runs.**

Done.

- k. SMR 290-5.A.12 and 290-7.A.9. Due to the weather conditions in the northeast pervious pavement/pavers require a VERY specific I&M routine for their maintenance. The property owner/maintainer should be aware that the use of sand will clog the voids over time and will require periodic vacuuming. The future maintenance crew must be made aware that "driveway sealing" is not allowed, as well.**

The Applicant is aware of the maintenance requirements associated with this type of surface condition.

- l. SMR 290-5.A.12 and 290-7.A.9. The proposed infiltration trench appears to be prone to clogging in the current design. The Applicant should review the design with the Town Engineer to ensure this does not become clogged over time. The Applicant may want to implement a filter fabric to help prolong the lifespan of the infiltration trench.**

Done.



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- m. SMR 290-5.A.12 and 290-7.A.9. Due to the location of the project in respect to the nearby Limit Brook, the Applicant should review the NHDES screening layers to verify if a winter maintenance and salt minimization plan is necessary.**  
A review of the NHDES screening layer was performed. There were no findings if a winter maintenance and salt minimization plan is necessary based on the website review. An email to Aubrey Voelker (NHDES Salt Reduction Program Coordinator) was submitted on 11/10/22 inquiring if a winter maintenance and salt minimization plan is required based on their understanding; to date no response has been received.
- n. SMR 290-5.B.1.a. This project meets the definition of a “new development” with existing impervious cover being less than 40%. The Applicant should provide the required WQV calculations.**  
According to SMR 290-5.B only applies to areas that disturb 40,000 square feet or more. The proposed project is expected to disturb approximately 34,471 square feet. It is our opinion, this requirement is not applicable. Please see Figure 3 of the Drainage Analysis dated 11/15/22.
- o. SMR 290-5.B.1.b. The Applicant should provide the required TSS and TP removal calculations for the proposed stormwater treatment.**  
Please see response to review comment No. 6.n.
- p. SMR 290-6.A.1. The Applicant should add notes on the Erosion Control Plan Sheet C301 calling out the locations for the proposed Catch Basin Filter Baskets.**  
Done.
- q. SMR 290-6.A.1. The Applicant should revise Note #21 on Site Plan Sheet C101, to state “proposed” as well as the existing catch basin inlets.**  
Done.
- r. SMR 290-6.A.1. The Applicant should provide outlet protection calculations to the outlet upgradient of CB5.**  
Done.
- s. SMR 290-6.A.8. The Applicant should add a note for the requirement to coordinate a pre-construction meeting with the Town Engineer.**  
Note No. 11 located on Sheet 4 (Drawing C101 – Site Plan) has been updated accordingly.
- t. SMR 290-6.A.13 and SMR 290-7.A.9. The Applicant should provide the required erosion control and winter stabilization notes to the plan set.**  
Erosion control notes have been added Sheet 11 (Drawing C303 – Erosion Control Plan).

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- u. SMR 290-7.A.6. The Applicant should provide information as to how the stormwater system is designed to account for frozen ground conditions.**  
The high air void content of the uniformly graded crushed stone reservoir course maximizes storage of filtered water thereby allowing more time for water to infiltrate into the native soil below between storms; and creates a capillary barrier that arrests any upwards vertical water movement, and in doing so, prevents winter freeze-thaw and heaving. Additionally, because of the ability to infiltrate thawed snow and ice immediately into the reservoir course, there is less of a need for deicing materials and the voids in the porous surface do not represent any freezing potential. Frost present in ground areas beneath reservoir courses have not proven to be a problem; since, there is typically not enough liquid stormwater present at the time of the frost occurring.
- v. SMR 290-7.A.7. The Applicant should confirm with the Town if any additional coordination is required due to the close proximity of the on-site wetland.**  
According to Note No. 8 of Sheet 2 (Existing Conditions Plan) no wetlands were observed.
- w. SMR 290-7.A.8. The Applicant should provide a New Hampshire licensed professional engineer's stamp on the drainage report and plans.**  
Done.
- x. SMR 290-7.B. The Applicant should provide existing conditions contours on the pre-development watershed plan.**  
Done.
- y. SMR 290-7.B.16. The Applicant should illustrate snow storage areas upon the plan set.**  
Sheet 6 (Drawing C103 – Grading and Drainage Plan) has been updated to illustrate snow storage areas.
- z. SMR 290-7.B.16. We noted snow storage is not permitted per NHDES AoT guidelines within infiltration areas. The Applicant should review the need for a fence and/or signage to prevent this. If signage is utilized, the I&M Manual should be updated to note snow storage shall not occur within the stormwater basin.**  
The trench infiltration system has been changed to a subsurface infiltration system; therefore, this concern is not applicable.
- aa. SMR 290-10.B. The Applicant should provide a note on the plan set stating the requirement for the EPA GCP/NOI. We noted the inclusion of the SWPPP within the drainage report, but contractors do not always review the drainage report.**  
Note No. 17 located on Sheet 4 (Drawing C101 – Site Plan) has been updated accordingly.

**Hudson Engineering Technical Guidelines & Typical Details (HETGTD) 920.4.1 through 920.4.5. The Applicant shall illustrate the locations of the requested items upon the plan set.**

  - 920.4.1 Earth Stockpiles  
At this time, the Applicant is unable to illustrate due to contractor's means and methods.
  - 920.4.2 Equipment storage, including refueling areas  
At this time, the Applicant is unable to illustrate due to contractor's means and methods.

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- 920.4.3 Method of stump disposal  
Please see Note No. 1 located on Sheet 9 (Drawing C301 – Erosion Control Plan).
- 920.4.4 Areas of soil disturbance  
Please see Sheet 6 (Drawing C103 – Grading and Drainage Plan).
- 920.4.5 Areas of cut and fill  
Please see Sheet 6 (Drawing C103 – Grading and Drainage Plan).

**bb. HETGTD 920.4.14. The Applicant should provide additional information on the type of seeding/hydroseeding to be used within the infiltration trench slopes. This should be a type with the ability to be inundated by stormwater after larger storms.**

A note has been added to the Sheet 6 (Drawing C103 – Grading and Drainage Plan) stating all 3H:1V and 2H:1V slopes shall be stabilized with matting to support vegetation growth until grass root system has been established.

**cc. HETGTD 930.3. The Applicant should revise the “Infiltration Trench with Stormtech Pipe Detail” on Plan Sheet C501. The detail itself calls for a 24” Stormtech Pipe, while the detail illustrates an arch, and the note on Plan Sheet C103 calls for a 24” Stormtech Arch.**

Sheet 6 (Drawing C103 – Grading and Drainage Plan) has been updated.

**dd. HETGTD 930.3. The Applicant should provide additional information on the arch chamber to be used, as it does not appear that Stormtech makes a 24” arch. Stormtech only makes 30” and 16” arch chamber systems (SC-740 and SC-310).**

Detail No. 4 – Infiltration Trench with Stormtech Detail on Sheet 13 (Drawing C501 – Civil Construction Details) has been updated accordingly.

**ee. The Applicant will be required to comply with all provisions of the Town of Hudson’s MS4 permit, including but not limited to annual reporting requirements, construction site stormwater runoff control, and record keeping requirements.**

Please see Note No. 9 located on Sheet 4 (Drawing C101 – Site Plan).

**ff. Please note that this review was carried out in accordance with applicable regulations and standards in place in New Hampshire at this time. Note that conditions at the site, including average weather conditions, patterns and trends, and design storm characteristics, may change in the future. In addition, future changes in federal, state, or local laws, rules, or regulations, or in generally accepted scientific or industry information concerning environmental, atmospheric, and geotechnical conditions, and developments may affect the information and conclusions set forth in this review. In no way shall Fuss & O’Neill be liable for any of these changed conditions that may impact the review, regardless of the source of or reason for such changed conditions. Other than as described herein; no other investigation or analysis has been requested by the Client or performed by Fuss & O’Neill in preparing this review.**

No response necessary.

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**7. Zoning (ZO 334)**

- a. ZO 334-14.A. The Applicant has not provided any architectural plans that show the height of the proposed building addition or the existing building.**

Please see the preliminary plans prepared by McBrie, LLC for SL Chasse Welding, dated 09/26/22.

- b. ZO 334-17 & 334-21. The Applicant has noted that the subject parcel is located within the General (G-1) zoning district. The existing/proposed use is permitted by the Ordinance within this district.**

No response necessary.

- c. ZO 334-33. The Applicant has not shown any wetlands located on the plan set.**

No response necessary.

- d. ZO 334-60. The Applicant does not appear to be adding any new signs other than traffic signs to the plan set. It appears the existing ground sign is to remain unaltered.**

No response necessary.

- e. ZO 334-83 and HR 218-4.E. The Applicant has noted that the site is not located within a designated flood hazard area.**

No response necessary.

**8. Erosion Control/Wetland Impacts**

- a. The Applicant should review the need for erosion control around the installation of the pervious parking area on the west of the site.**

Protection of the pervious parking area is a contractor's means and methods to protect.

- b. The Town of Hudson should reserve the right to require any additional erosion control measures as needed.**

No response necessary.

**9. Landscaping (HR 275-8.C.(7) & 276-11.1.B.(20)) and Lighting (HR 276-11.1.B.(14))**

- a. HR 276-11.1.B.(14). The Applicant has stated that there will be no exterior lighting.**

No response necessary.

- b. The Applicant is not proposing to add any additional landscaping to the site.**

No response necessary.

**10. State and Local Permits (HR 275-9.G.)**

- a. HR 275-9.G. The Applicant did not provide copies of any applicable Town, State, or Federal approvals or permits in the review package. The Applicant has not noted the need for any State or Federal permits.**

No NHDES – Wetland, Shoreland, or Alteration of Terrain (AoT) permits are required as part of this project. NHDES – Individual Sewage Disposal System is being applied due to the recent truck impact but is considered not part of this project. The US Environmental Protection Agency (EPA) – Notice of Intent (NOI) is required and will be obtained by the Contractor as directed in Note No. 17 of Sheet 4 (Drawing C101 – Site Plan).

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**b. Additional local and state permitting may be required.**

No response necessary.

**11. Other**

**a. The Applicant has shown both a jersey barrier and an existing concrete wall in the same location on the south end of the building. The Applicant should clarify the intent for construction at this location and provide a detail for the retaining wall. The misspelling in this call-out on sheet C101 should be corrected also.**

The call-out on Sheet 4 (Drawing C101) identifies that the existing concrete retaining wall is to be reconstructed in-kind.

**b. The Applicant has not provided a detail for the proposed dumpster enclosures.**

Detail No. 15 – Dumpster Enclosure on Sheet 13 (Drawing C503 – Civil Construction Details) has been added.

If you have any questions or concerns, please do not hesitate to contact us.

Best regards,  
Gale Associates, Inc.

A handwritten signature in blue ink that reads "Scott M. Bourcier". The signature is fluid and cursive, with the first and last names being the most prominent.

Scott M. Bourcier, P.E.  
Project Manager

SMB/slr

Enclosures:

- Stormcrete Brochure
- Drainage Report
- Site Plan
- Structural Plan (Preliminary)

cc: Nicholas Mercier, ASM Facility  
Steven W. Reichert, Fuss O'Neill



# TOWN OF HUDSON

## Planning Board

Timothy Malley, Chairman



12 School Street · Hudson, New Hampshire 03051 · Tel: 603-886-6008 · Fax: 603-594-1142

### CAP FEE WORKSHEET - 2022

Date: 11-22-22 Zone # 2 Map/Lot: 251/018 7 Security Drive

Project Name: ASM Facility Site Plan

Proposed ITE Use #1: Light Industrial

Proposed Building Area (net square footage): 1,250 S.F.

#### CAP FEES: (ONE CHECK NEEDED)

1.	(Bank 09) 2070-702	Zone 2 (\$1.46 per sf X 1,250 sf)	\$ <u>1,825.00</u>
----	-----------------------	--------------------------------------	--------------------

Check should be made payable to the Town of Hudson.

Thank you,  
Brian Groth  
Town Planner

# SITE PLAN

## ASM FACILITY

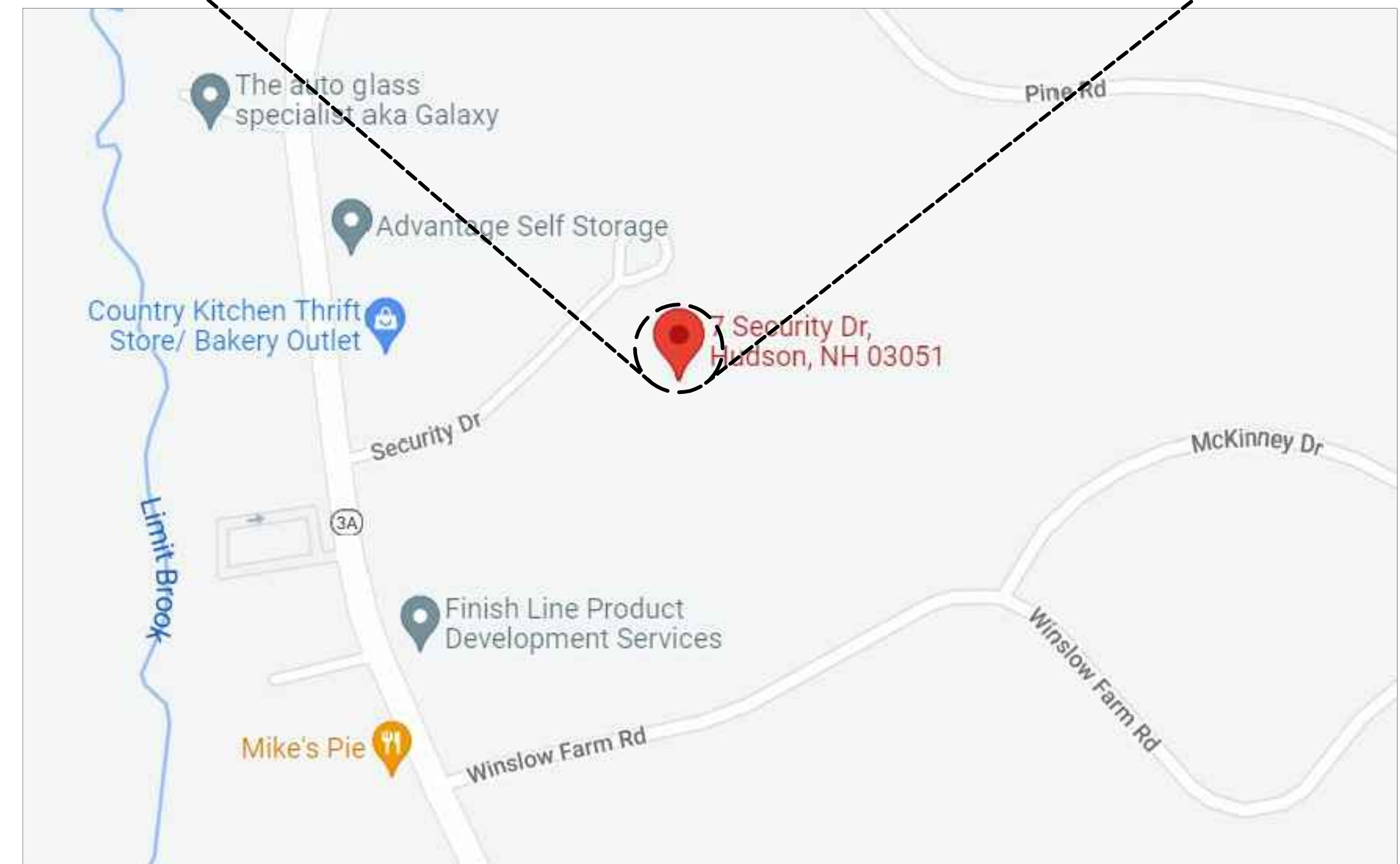
7 SECURITY DRIVE  
HUDSON, NH 03051

PREPARED FOR  
JMC HUDSON PROPERTIES, LLC  
5 LEHOUX DRIVE  
HOOKSETT, NH 03106

DRAWING NO	TITLE
G001	COVER SHEET
SHEET 1 OF 1	EXISTING CONDITIONS PLAN
C002	DEMOLITION PLAN
C101	SITE PLAN
C102	TRUCK TURNING MOVEMENT PLAN
C103	GRADING AND DRAINAGE PLAN
C201	DRIVEWAY PROFILE AND CROSS-SECTIONS
C202	DRIVEWAY CROSS-SECTIONS
C301	EROSION CONTROL PLAN
C302	EROSION CONTROL DETAILS
C303	EROSION CONTROL NOTES (SHEET 1 OF 2)
C304	EROSION CONTROL NOTES (SHEET 2 OF 2)
C501	CIVIL CONSTRUCTION DETAILS (SHEET 1 OF 3)
C502	CIVIL CONSTRUCTION DETAILS (SHEET 2 OF 3)
C503	CIVIL CONSTRUCTION DETAILS (SHEET 3 OF 3)



SITE MAP  
NOT TO SCALE



LOCATION MAP  
NOT TO SCALE



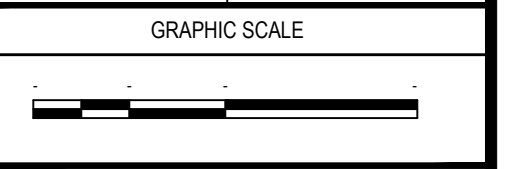
Gale Associates, Inc.  
Engineers and Planners  
6 BEDFORD FARMS DRIVE | BEDFORD, NH  
03110  
P 603.471.1887 F 603.471.1809  
www.gainc.com  
Boston Baltimore Orlando Hartford Bedford

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NOT FOR CONSTRUCTION

PROJECT	ASM FACILITY 7 SECURITY DRIVE HUDSON, NH 03051
OWNER	JMC HUDSON PROPERTIES, LLC 5 LEHOUX DRIVE HOOKSETT, NH 03106

NO.	DATE	DESCRIPTION	BY
△	11/15/22	TOWN REVIEW	APL
PROJECT NO.		718770	
CADD FILE		718770_G001	
DESIGNED BY		APL	
DRAWN BY		APL	
CHECKED BY		SMB	
DATE		9/19/2022	
DRAWING SCALE		NOT TO SCALE	



SHEET TITLE  
COVER SHEET

DRAWING NO.  
**G001**  
1 OF 15

**NOTES**

- 1) THE PURPOSE OF THIS PLAN IS TO DEPICT THE EXISTING CONDITIONS OF MAP 251 LOT 18, LOCATED AT 7 SECURITY DRIVE IN HUDSON, NEW HAMPSHIRE.
- 2) THIS PLAN IS BASED ON FIELD EVIDENCE LAST OBSERVED IN JULY OF 2022.
- 3) THIS PARCEL OF LAND DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD AREA AS INTERPOLATED FROM THE FLOOD INSURANCE RATE MAP (FIRM) FOR HILLSBOROUGH COUNTY, NEW HAMPSHIRE (ALL JURISDICTIONS) #3301100580, HAVING AN EFFECTIVE DATE OF SEPTEMBER 25 2009.
- 4) THE SUBJECT LOT IS SERVICED BY A PRIVATE, ONSITE SEPTIC AND PUBLIC WATER.
- 5) THIS PLAN IS INTENDED TO BE AT THE DEPICTED SCALE WHEN PLOTTED ON 22x34 (ANSI D) SIZE PAPER.
- 6) ALL DISTANCES, UNLESS OTHERWISE INDICATED, ARE US SURVEY FEET HORIZONTAL.
- 7) ALL ZONING INFORMATION SHALL BE VERIFIED PRIOR TO ANY BUILDING OR CONSTRUCTION ACTIVITY.
- 8) NO WETLANDS WERE OBSERVED WHILE ON SITE.
- 9) UNDERGROUND UTILITIES EXIST CONTACT DIG SAFE (811) PRIOR TO ANY SITE WORK/CONSTRUCTION.

**DATUM**

HORIZONTAL: NAD83-2011  
 VERTICAL: NAVD88 - GEOID18

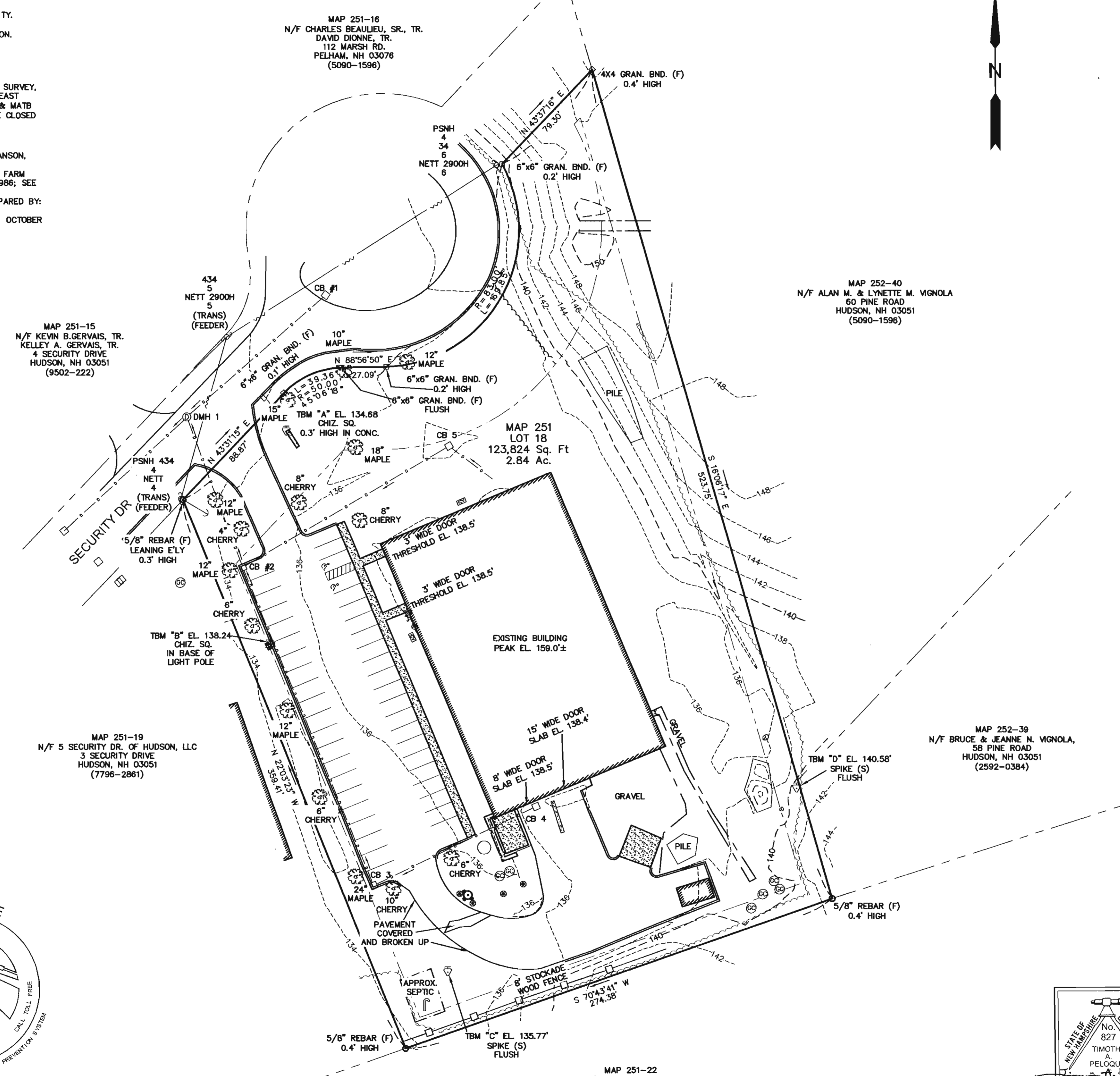
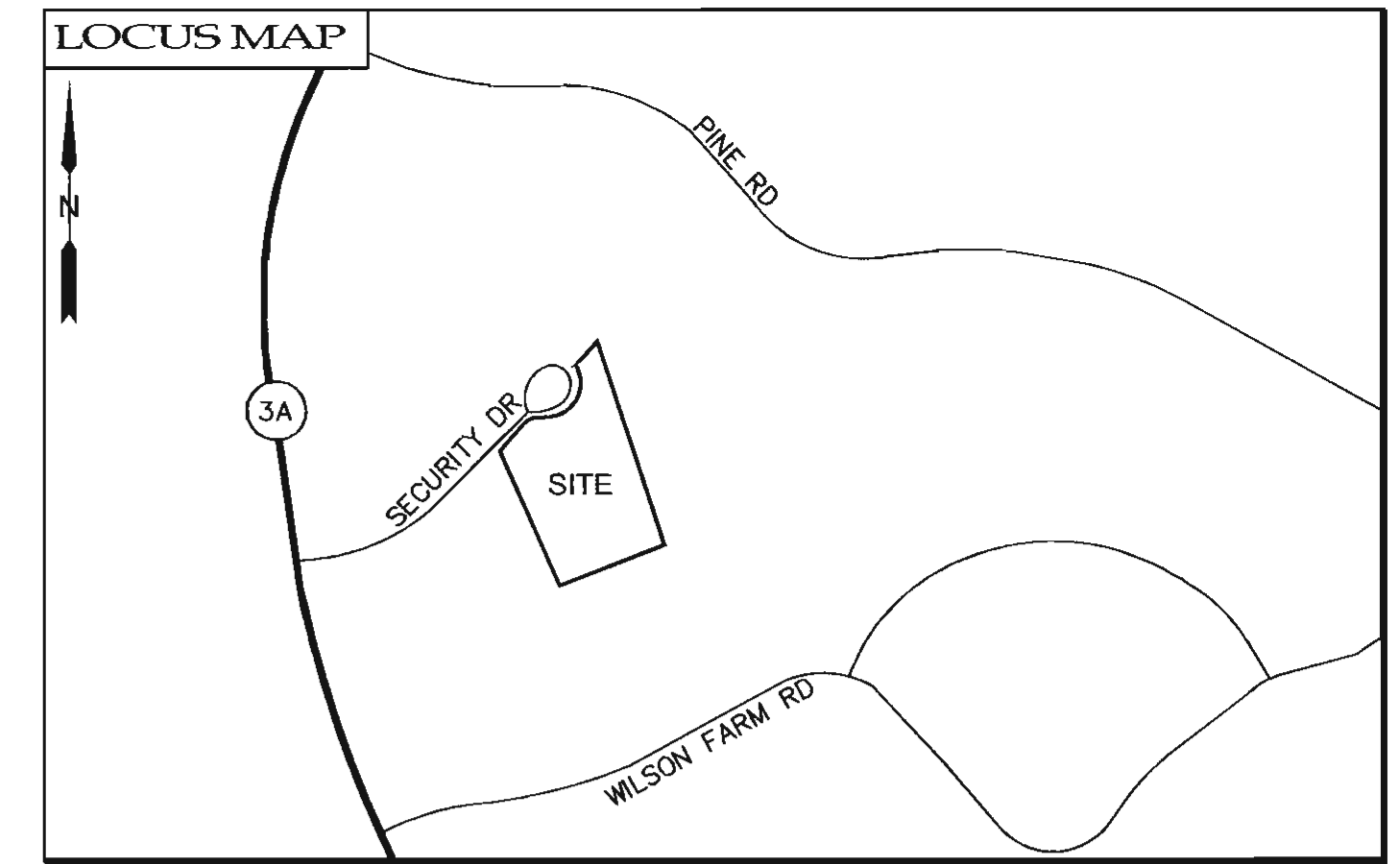
VERTICAL AND HORIZONTAL DATA SHOWN ARE BASED ON GNSS OBSERVATIONS BY PROMISED LAND SURVEY, LLC ON JULY 14, 2022 USING CARLSON BRX7 GPS. OBSERVATIONS WERE ADJUSTED USING A LEAST SQUARES ADJUSTMENT UTILIZING CORS STATIONS ZBW1 (MASHUA NH), WES2 (WESTFORD, MA), & MATB (TEMPESBURY, MA) AND WERE INSTRUMENT (LEICA TS16) VERIFIED AND INCORPORATED INTO THE CLOSED TRAVERSE, WHICH HAD A CLOSURE OF 1:114,517.

**PLANS OF REFERENCE**

- 1) SUBDIVISION PLAN PINE ROAD"; PREPARED FOR: BRUCE VIGNOLA; PREPARED BY: ALLAN H. SWANSON, INC.; DATED: AUGUST 12, 1977; SEE HCR PLAN No. 10054.
- 2) "SUBDIVISION PLA LOT 14 / MAP 2 NORMAND FARM DEVELOPMENT"; PREPARED FOR: NORMAND FARM DEVELOPMENT COMPANY; PREPARED BY: MAYNARD & PAQUETTE, INC.; DATED: NOVEMBER 1, 1986; SEE HCRD PLAN No. 24484.
- 3) "SUBDIVISION PLAN POULIN SUBDIVISION"; PREPARED FOR: GERARD AND JOHANNE POULIN; PREPARED BY: MAYNARD & PAQUETTE, INC.; DATED: OCTOBER 28, 1998; SEE HCRD PLAN No. 28478.
- 4) "SITE PLAN MASHUA FABRICATION CORP."; PREPARED BY: MAYNARD & PAQUETTE, INC.; DATED: OCTOBER 31, 1997; SEE HCRD PLAN No. 28977.

**ZONING**

GENERAL-1 MINIMUM:  
 SETBACKS:  
 FRONT - 50'  
 SIDE - 15'  
 REAR - 15'



**LEGEND**

- BOUND
- ⊙ BOLLARD
- CATCH BASIN
- ⊙ DRAIN MANHOLE
- ⊙ ELECTRIC HAND HOLE
- ⊙ ELECTRIC METER
- ⊙ FIRE UTILITY
- ⊙ GAS METER
- ⊙ GAS TANK (LP)
- ⊙ GUYWIRE
- ⊙ HYDRANT-FIRE
- ⊙ IRON PIPE/REBAR
- ⊙ IRRIGATION
- ⊙ TREE - CONIFEROUS
- ⊙ TREE - DECIDUOUS
- ⊙ UTILITY POLE
- ⊙ VENT



**DRAINAGE INVERT INFORMATION**

STRUCTURE	RIM EL.	INV. IN	INV. IN	INV. OUT	SUMP EL.
CB 1	134.3'			18" RCP (W) EL. 129.5'	EL. 126.6'
DMH 1	133.0'	18" RCP (E) EL. 127.6'	18" HDPE (S) EL. 127.7'	18" RCP (W) EL. 127.6'	EL. 125.0'
CB 2	135.1'	18" HDPE (S) EL. 129.8'	15" HDPE (E) EL. 129.9'	18" RCP (N) EL. 130.0'	EL. 127.0'
CB 3	134.8'	12" HDPE (E) EL. 131.1'		18" HDPE (N) EL. 131.0'	EL. 128.5'
CB 4	137.7'		12" HDPE (W) EL. 134.8'	18" HDPE (N) EL. 131.9'	
CB 5	135.3'	8" PVC (SE) EL. 132.2'		15" HDPE (W) EL. 132.3'	EL. 129.5'



**LAND OWNERS OF RECORD**  
 JMC HUDSON PROPERTIES, LLC  
 5 LEHOX DRIVE  
 HOOKSETT, NH 03106  
 HILLSBOROUGH COUNTY REGISTRY OF DEEDS BOOK 9482 / PAGE 759

**EXISTING CONDITIONS PLAN**  
**NASHUA FABRICATION, INC.**  
 MAP 251 LOT 18  
 7 SECURITY DR.  
 HUDSON, NEW HAMPSHIRE  
 AUGUST 16, 2022  
 LAND OWNER: JMC HUDSON PROPERTIES, LLC  
 5 LEHOX DRIVE  
 HOOKSETT, NH 03106  
 SCALE: 1"=40' SHEET 1 OF 1

**PREPARED BY:**  
  
**Promised Land Survey, LLC**  
 PO Box 447  
 Derry, New Hampshire 03038  
 Tel: (603) 432-2112  
 www.PromisedLandSurvey.com  
 Land Surveying • Mapping • Planning • Permitting • Layout

**REVISIONS**

NO.	DATE	DESCRIPTION	BY





**Gale Associates, Inc.**  
 Engineers and Planners  
 6 BEDFORD FARMS DRIVE | BEDFORD, NH 03110  
 P 603.471.1887 F 603.471.1809  
 www.gainc.com  
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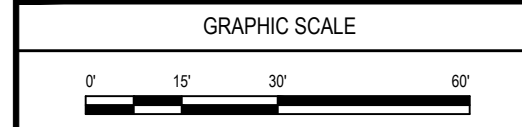
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**NOT FOR CONSTRUCTION**

PROJECT  
**ASM FACILITY  
 7 SECURITY DRIVE  
 HUDSON, NH 03051**

OWNER  
**JMC HUDSON PROPERTIES, LLC  
 5 LEHOUX DRIVE  
 HOOKSETT, NH 03106**

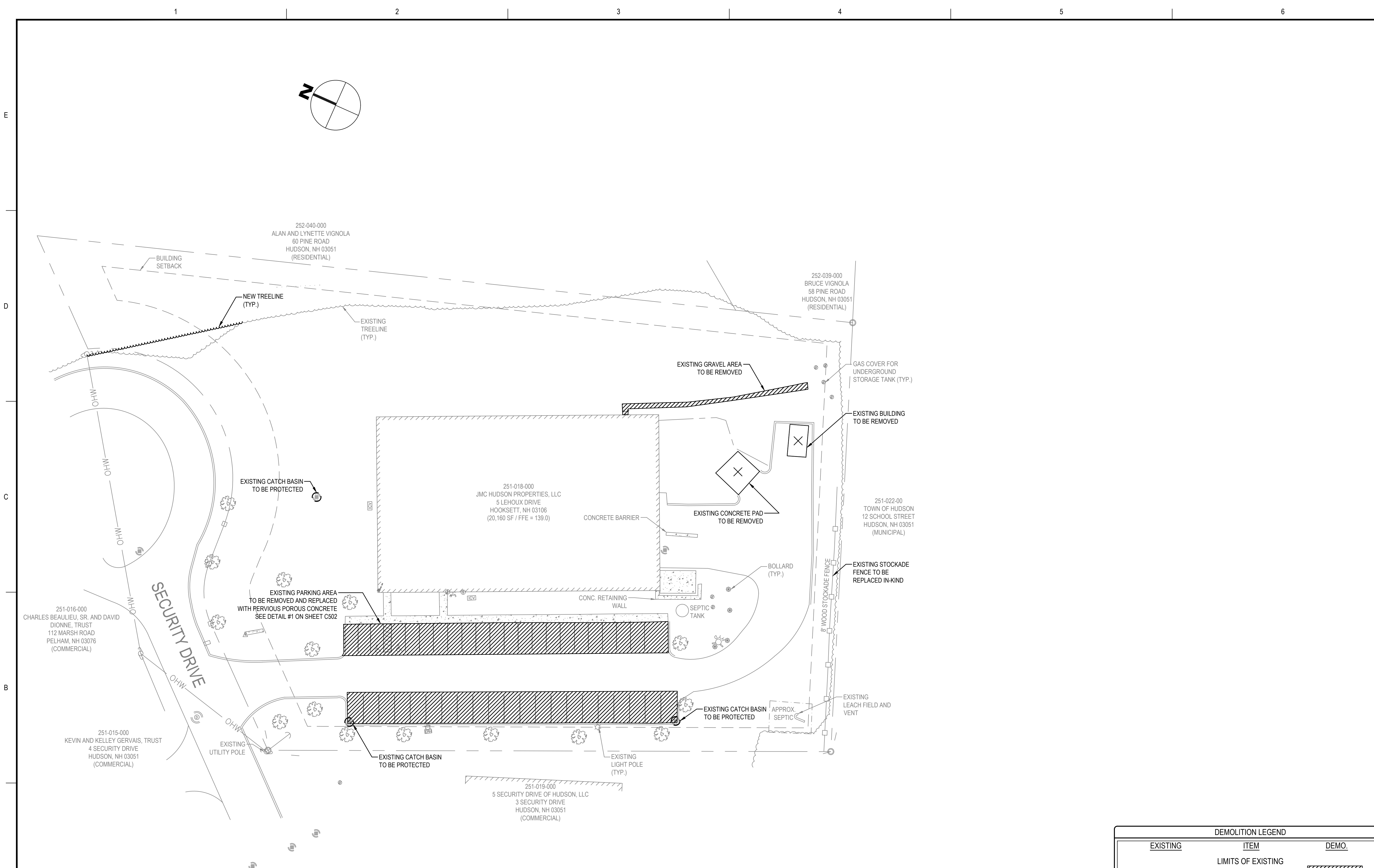
NO.	DATE	DESCRIPTION	BY
△	11/15/22	TOWN REVIEW	APL
PROJECT NO.		718770	
CADD FILE		718770_C002	
DESIGNED BY		APL	
DRAWN BY		APL	
CHECKED BY		SMB	
DATE		9/19/2022	
DRAWING SCALE		1" = 30'	



SHEET TITLE

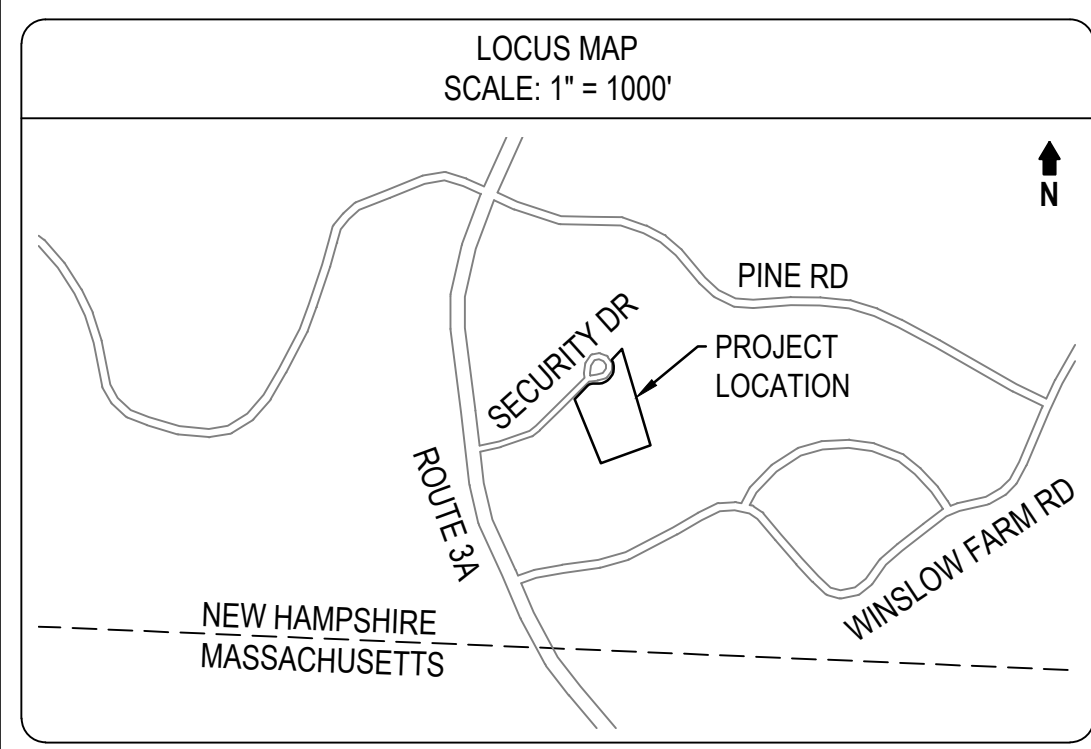
**DEMOLITION PLAN**

DRAWING NO.  
**C002**  
 3 OF 15



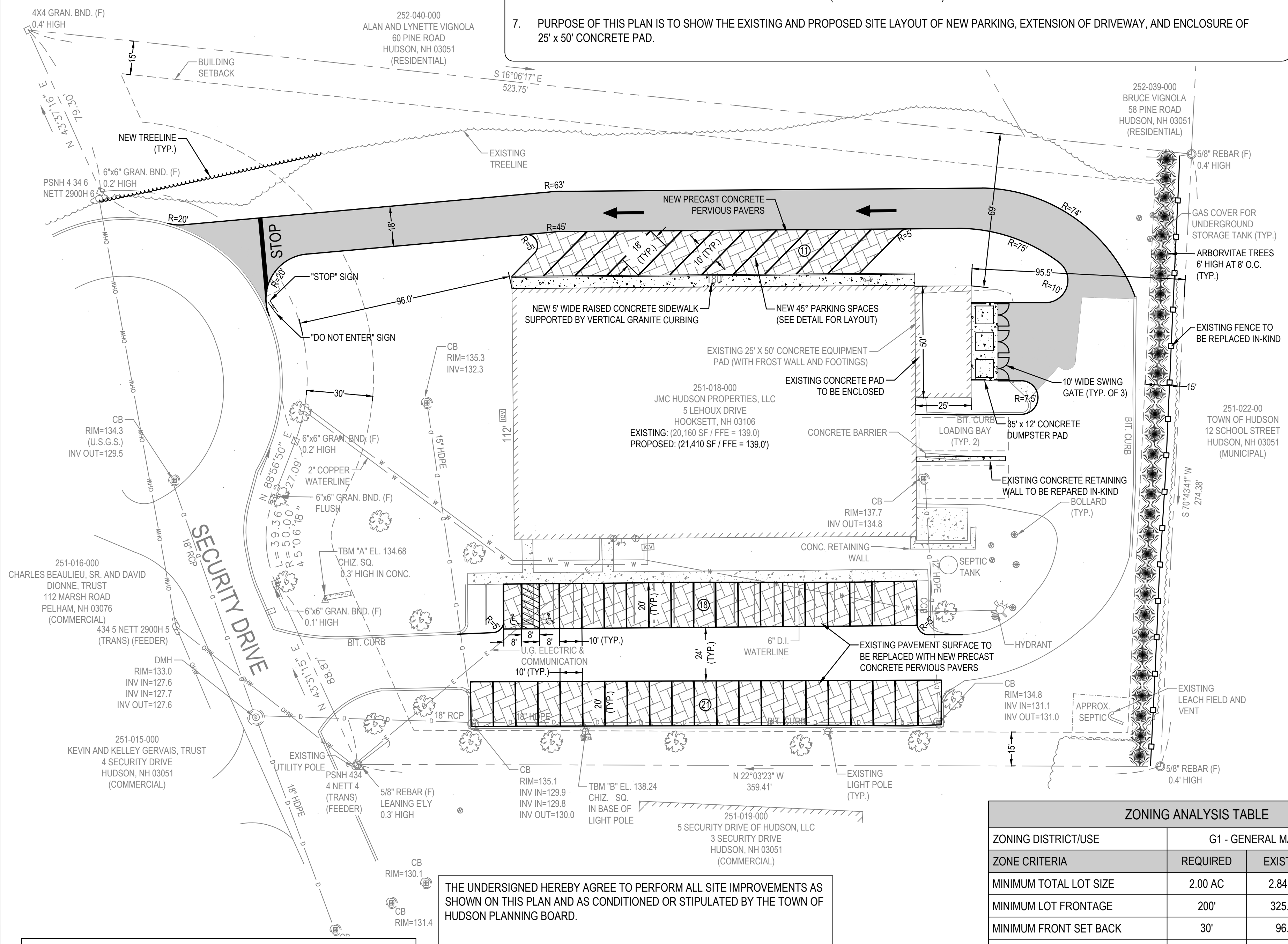
DEMOLITION LEGEND		
EXISTING	ITEM	DEMO.
	LIMITS OF EXISTING BITUMINOUS CONCRETE PAVEMENT TO BE REPLACED	
	STRUCTURE, UTILITY, OR SITE FEATURE TO BE REMOVED	
	SITE FEATURE TO REMAIN AND BE PROTECTED	
	TREELINE	

APPROVED BY THE HUDSON, NH PLANNING BOARD.  
 DATE OF MEETING: \_\_\_\_\_  
 \_\_\_\_\_ SIGNATURE DATE: \_\_\_\_\_  
 \_\_\_\_\_ SIGNATURE DATE: \_\_\_\_\_  
 SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AS WHICH THE PLAN RECEIVES FINAL APPROVAL.



- GENERAL NOTES**
1. APPLICANT/OWNER: JMC HUDSON PROPERTIES, LLC  
5 LEHOUX DRIVE  
HOOKSETT, NH 03106
  2. LOT SHOWN ON ASSESSOR'S MAP 215-018-000, 7 SECURITY DRIVE IN THE TOWN OF HUDSON, OF HILLSBOROUGH COUNTY, AND THE STATE OF NEW HAMPSHIRE. (NHDES SUBDIVISION #35101-A).
  3. PROPERTY LINE AND INFORMATION TAKEN FROM A PLAN ENTITLED "EXISTING CONDITION PLAN, NASHUA FABRICATION INC., MAP 251 LOT 18, 7 SECURITY DRIVE, HUDSON, NEW HAMPSHIRE" DATED AUGUST 16, 2022, PREPARED BY PROMISED LAND SURVEY, LLC.
  4. EXISTING CONDITIONS INFORMATION PROVIDED BY PROMISED LAND SURVEY, LLC DURING FIELD SURVEY PERFORMED IN SUMMER 2022.
  5. FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) FOR THE TOWN OF HUDSON, HILLSBOROUGH COUNTY, NEW HAMPSHIRE, MAP NUMBER 33011C0658D, EFFECTIVE DATE: SEPTEMBER 25, 2009 INDICATES THE PROJECT PARCEL IS NOT LOCATED WITHIN A DESIGNATED FLOOD HAZARD AREA.
  6. SITE IS SERVICE BY MUNICIPAL WATER AND PRIVATE SEPTIC (NHDES #CA1997006527).
  7. PURPOSE OF THIS PLAN IS TO SHOW THE EXISTING AND PROPOSED SITE LAYOUT OF NEW PARKING, EXTENSION OF DRIVEWAY, AND ENCLOSURE OF 25' x 50' CONCRETE PAD.

- GENERAL NOTES (CONT.)**
8. IT SHALL BE UNLAWFUL TO MODIFY, CHANGE, OR ALTER ANY STRUCTURE SHOWN ON THIS PLAN IN ANY WAY, TO CONVERT OR ALTER ANY STRUCTURE SHOWN ON THIS PLAN, OR CHANGE THE USE INDICATED ON THIS PLAN WITHOUT RECEIVING PRIOR APPROVAL FROM THE TOWN OF HUDSON PLANNING BOARD.
  9. THE OWNER SHALL BE RESPONSIBLE TO SUBMIT A COPY OF ALL ENVIRONMENTAL PERMITS OBTAINED TO THE TOWN OF HUDSON PLANNING BOARD, INCLUDING ANNUAL UP-DATES OF STORMWATER POLLUTION PREVENTION PLAN (S.W.P.P.P) INFORMATION.
  10. THE OWNER SHALL BE RESPONSIBLE TO INSTALL A LOCK-BOX, IN ACCORDANCE WITH HUDSON FIRE DEPARTMENT SPECIFICATIONS, TO SECURE THE NITROUS OXIDE SECURITY FENCE.
  11. CONTRACTOR SHALL HOLD A PRE-CONSTRUCTION MEETING WITH THE TOWN PRIOR TO COMMENCEMENT OF CONSTRUCTION.
  12. THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES BETWEEN THE HOURS OF 7:00 AM TO 5:00 PM MONDAY THROUGH FRIDAY, NO CONSTRUCTION ACTIVITIES SHALL BE PERFORMED SATURDAYS AND SUNDAYS.
  13. THE CONTRACTOR SHALL BE RESPONSIBLE TO FURNISH AND MAINTAIN A TELEPHONE NUMBER WHERE THE CONTRACTOR CAN BE REACHED 24-HOURS A DAY, 7 DAYS A WEEK, UNTIL PROJECT COMPLETION.
  14. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT DIG SAFE (888-DIG-SAFE) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITIES.
  15. THE CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH ALL APPLICABLE REGULATIONS OF THE OCCUPATION SAFETY AND HEALTH ADMINISTRATION (O.S.H.A.).
  16. THE CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW ALL OF THE DRAWINGS, SPECIFICATIONS, AND PERMIT APPROVALS ASSOCIATED WITH THIS PROJECT'S SCOPE OF WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS, RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER-OF-RECORD, IN WRITING, PRIOR TO THE INITIATION OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE ENGINEER-OF-RECORD SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK DEFINED BY THE DRAWINGS AND IN FULL CONFORMANCE WITH LOCAL, STATE, AND FEDERAL CODES AND REGULATIONS.
  17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, INCLUDING A U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) NOTICE OF INTENT (NOI), PRIOR TO CONSTRUCTION. INCLUDING BEING FAMILIAR WITH THE APPLICABLE PROVISIONS OF EACH PERMIT AS THEY APPLY TO THE WORK AND ABIDE BY THOSE PROVISIONS DURING CONSTRUCTION.
  18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING "STREET OPENING PERMIT" FROM THE HUDSON PUBLIC WORKS DEPARTMENT PRIOR TO PERFORMING ANY WORK WITHIN THE MUNICIPALITY'S RIGHT-OF-WAY.
  19. THE CONTRACTOR SHALL BE RESPONSIBLE TO INSTALL AND MAINTAIN TRAFFIC CONTROL DEVICES AS NECESSARY AND IN A MANNER CONSISTENT WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.).
  20. THE CONTRACTOR SHALL BE RESPONSIBLE TO SUBMIT A TRAFFIC CONTROL PLAN TO THE OWNER AND THE TOWN OF HUDSON PUBLIC WORKS DEPARTMENT PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY THE TOWN OF HUDSON POLICE DEPARTMENT (603-886-6011), FIRE DEPARTMENT (603-886-6021), AND PUBLIC WORKS DEPARTMENT (603-886-6018) AT LEAST 24-HOURS IN ADVANCE OF ANY STREET CLOSING OR DETOUR.
  21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DISTURBED AREAS. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE PERFORMED IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL", PUBLISHED BY THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES (LATEST EDITION).
  22. ALL EXISTING AND PROPOSED STORM DRAINAGE INLETS SHALL BE PROTECTED BY STRAW BALE FILTERS AND CATCH BASIN FILTER BASKETS TO PREVENT ENTRY OF SEDIMENT FROM RUNOFF WATERS INTO THE STORM DRAIN SYSTEM.
  23. SUITABLE EXCAVATION MATERIALS MAY BE INCORPORATED INTO THE PROJECT. THIS PROVISION SHALL NOT RELIEVE THE CONTRACTOR'S OBLIGATION TO REMOVE AND DISPOSE, IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS, OF ANY EXCESS SUITABLE MATERIAL OR MATERIAL DETERMINED BY THE ENGINEER-OF-RECORD TO BE UNSUITABLE.
  24. ALL CONCRETE AND BITUMINOUS PATCH AREAS SHALL MATCH EXISTING GRADES. ALL CURB RADII ARE TO THE OUTSIDE FACE.
  25. THERE WILL BE NO EXTERIOR LIGHTING.
  26. EXISTING SIGNS IMPACTED BY THIS PROJECT SHALL BE RESET AT NO ADDITIONAL COST TO THE OWNER. RESETTING OF SIGNS SHALL CONFORM TO THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.).
  27. NO FABRICATION OPERATION IN VIOLATION OF HUDSON TOWN CODE, PARTICULARLY SS249 NOISE AND SS334-16.1 SITE PLAN EXPANSION, SHALL OCCUR ON-SITE. NO FABRICATION OPERATIONS SHALL OCCUR ON THE PROPOSED CONCRETE EQUIPMENT/DRY STORAGE PAD UNTIL THE PAD IS ENCLOSED AND OPERATIONS COMPLY WITH NOISE ORDINANCE, HUDSON TOWN CODE SS249, AS PART OF A SEPARATE FUTURE APPROVED SITE PLAN.



APPROVED BY THE HUDSON, NH PLANNING BOARD.

DATE OF MEETING: \_\_\_\_\_

SIGNATURE DATE: \_\_\_\_\_

SIGNATURE DATE: \_\_\_\_\_

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THE UNDERSIGNED HEREBY AGREE TO PERFORM ALL SITE IMPROVEMENTS AS SHOWN ON THIS PLAN AND AS CONDITIONED OR STIPULATED BY THE TOWN OF HUDSON PLANNING BOARD.

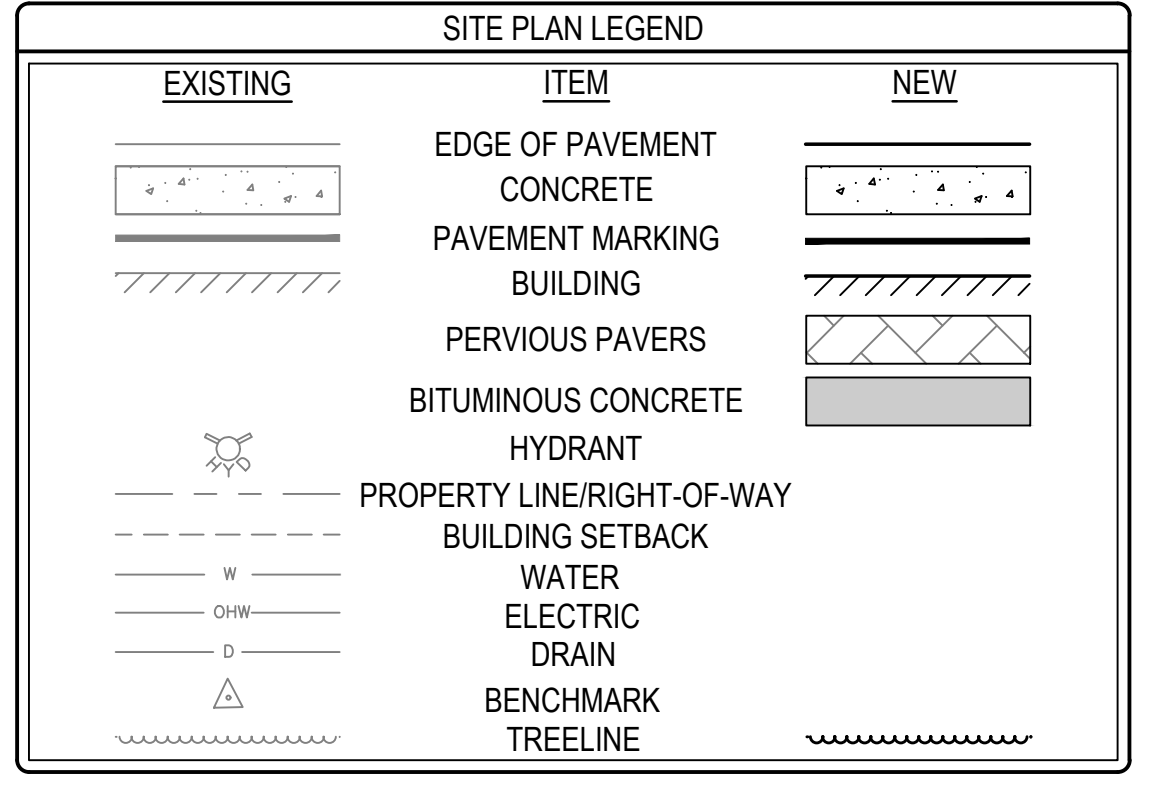
NICHOLAS MERCIER  
JMC HUDSON PROPERTIES, LLC  
5 LEHOUX DRIVE, HOOKSETT, NH

DATE \_\_\_\_\_

PURSUANT TO THE SITE REVIEW REGULATIONS OF THE HUDSON PLANNING BOARD, THE SITE PLAN APPROVAL GRANTED HEREIN EXPIRES ONE YEAR FROM DATE OF APPROVAL.

**ZONING ANALYSIS TABLE**

ZONING DISTRICT/USE	G1 - GENERAL MANUFACTURING		
	REQUIRED	EXISTING	PROPOSED
MINIMUM TOTAL LOT SIZE	2.00 AC	2.84 AC	2.84 AC
MINIMUM LOT FRONTAGE	200'	325.42'	325.42'
MINIMUM FRONT SET BACK	30'	96.0'	96.0'
MINIMUM SIDE SET BACK	15'	69.0'	69.0'
MINIMUM REAR SET BACK	15'	114.3'	95.5'
OPEN SPACE	40%	61.5%	60.5%
BUILDING HEIGHT (MAX.)	50'	19'	19'
PARKING SPACES:	1 / 600 G.F.A.	43	50
CALCULATION (INDUSTRIAL): 21,410 / 600 = 36 PARKING SPACES			



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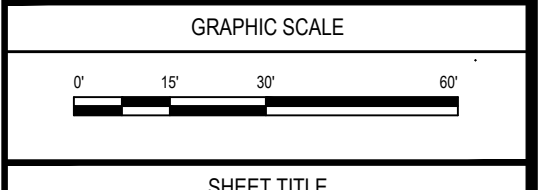
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**NOT FOR CONSTRUCTION**

**PROJECT**  
ASM FACILITY  
7 SECURITY DRIVE  
HUDSON, NH 03051

**OWNER**  
JMC HUDSON PROPERTIES, LLC  
5 LEHOUX DRIVE  
HOOKSETT, NH 03106

NO.	DATE	DESCRIPTION	BY
11/15/22	TOWN REVIEW	APL	
PROJECT NO.	718770		
CADD FILE	718770_C101		
DESIGNED BY	MSK		
DRAWN BY	MSK		
CHECKED BY	SMB		
DATE	9/19/2022		
DRAWING SCALE	1" = 30'		



SHEET TITLE

**SITE PLAN**

DRAWING NO.  
**C101**

4 OF 15

1 2 3 4 5 6

GENERAL NOTES

- 1. DESIGN TRUCK WAS BASED ON THE AASHTO WB-50 CLASS.



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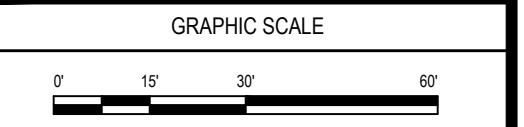
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PROJECT  
**ASM FACILITY  
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 HUDSON, NH 03051**

OWNER  
**JMC HUDSON PROPERTIES, LLC  
 5 LEHOUX DRIVE  
 HOOKSETT, NH 03106**

NO.	DATE	DESCRIPTION	BY
△	11/15/22	TOWN REVIEW	APL
PROJECT NO.		718770	
CADD FILE		718770_C102	
DESIGNED BY		APL	
DRAWN BY		APL	
CHECKED BY		SMB	
DATE		9/19/2022	
DRAWING SCALE		1" = 30'	



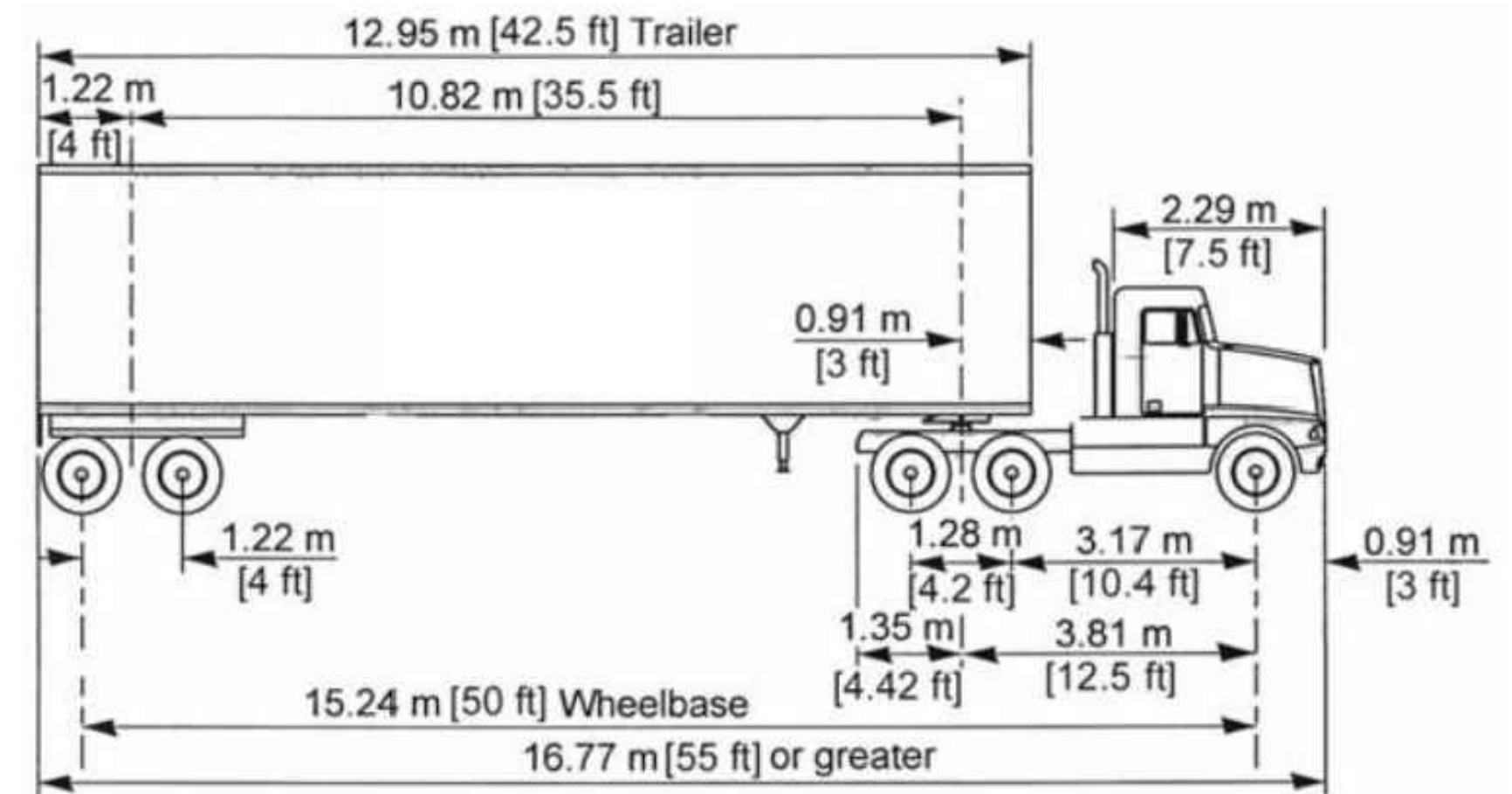
SHEET TITLE

**TRUCK TURNING MOVEMENT PLAN**

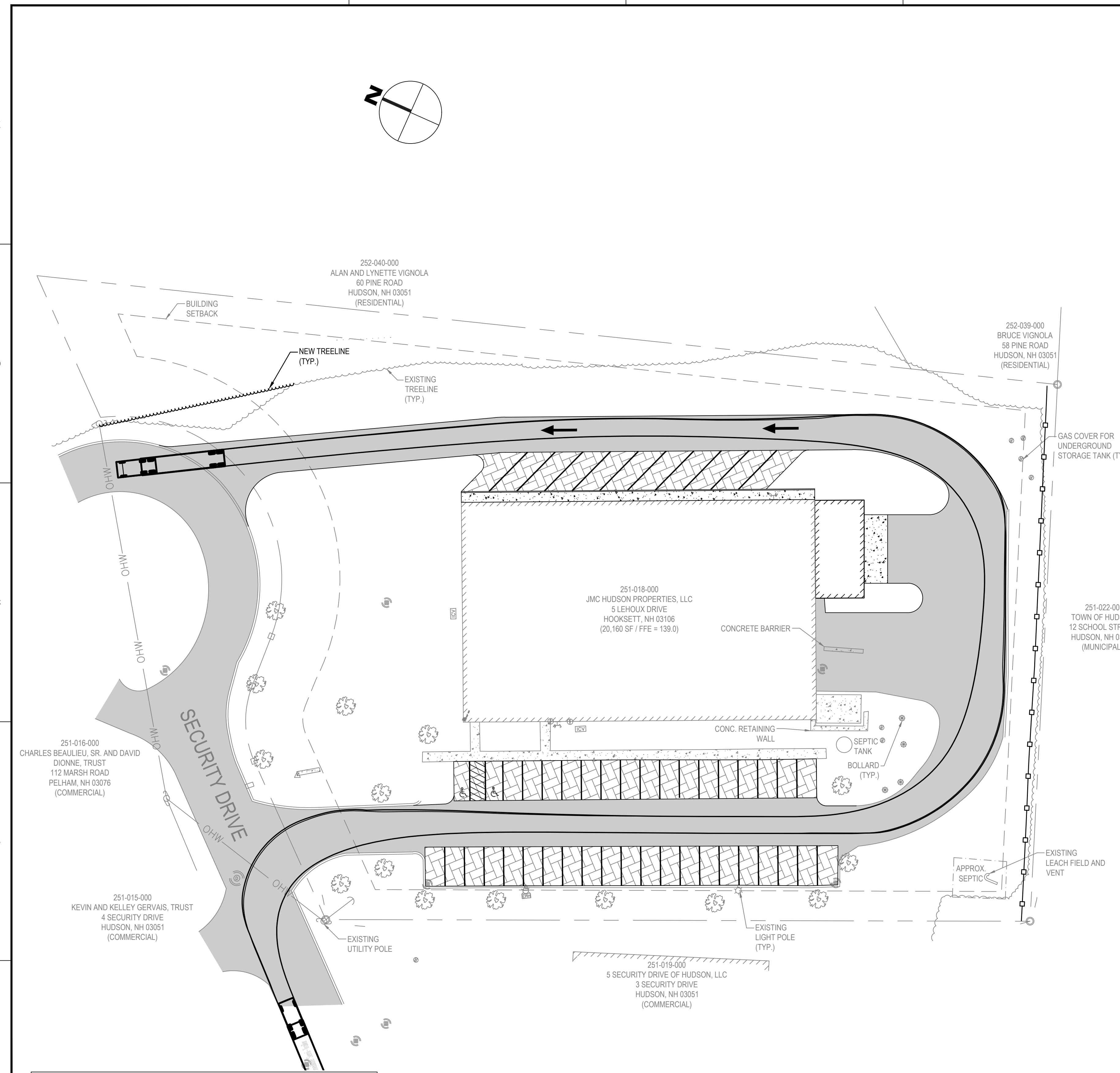
DRAWING NO.

**C102**

5 OF 15



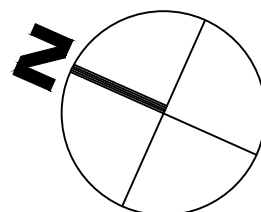
COMPOSITE WB-50 TRUCK  
 NOT TO SCALE



APPROVED BY THE HUDSON, NH PLANNING BOARD.  
 DATE OF MEETING: \_\_\_\_\_  
 SIGNATURE DATE: \_\_\_\_\_  
 SIGNATURE DATE: \_\_\_\_\_  
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TRUCK TURNING MOVEMENT LEGEND

EXISTING	ITEM	NEW
	PAVEMENT	
	PAVEMENT MARKING	
	CONCRETE PADS AND SIDEWALK	
	PERVIOUS CONCRETE PAVERS	
	TREELINE	



GENERAL NOTES

- TEST PITS ARE TO BE PERFORMED PRIOR TO CONSTRUCTION COMMENCING. INFILTRATION TO BE PERFORMED AT THE INVERT OF THE STORMCRETE STONE RESERVOIR AND INFILTRATION PIPE STONE BEDDING. INFORMATION SHALL BE SUBMITTED TO THE ENGINEER-OF-RECORD FOR DESIGN OF PRE-CAST POROUS CONCRETE STORMWATER SYSTEM AND INFILTRATION SYSTEM. TEST PITS SHOWN ON THIS PLAN ARE PROPOSED LOCATIONS. IN THE EVENT AN INFILTRATION RATE OF 6 INCHES/HOUR (KSAT) IS NOT ACHIEVED AT THE INVERT OF THE STORMCRETE STONE RESERVOIR, THEN THE CONTRACTOR SHALL SCARIFY THE UNDERLYING SOILS PER STORMCRETE SPECIFICATIONS.
- ALL 3H:1V AND 2H:1V SLOPES SHALL BE STABILIZED WITH MATTING; SEE DETAIL NO. 1 ON SHEET C302.
- ALL 1H:1V SLOPES SHALL BE STABILIZED WITH RIPRAP; SEE DETAIL NO. 5 ON SHEET C302.

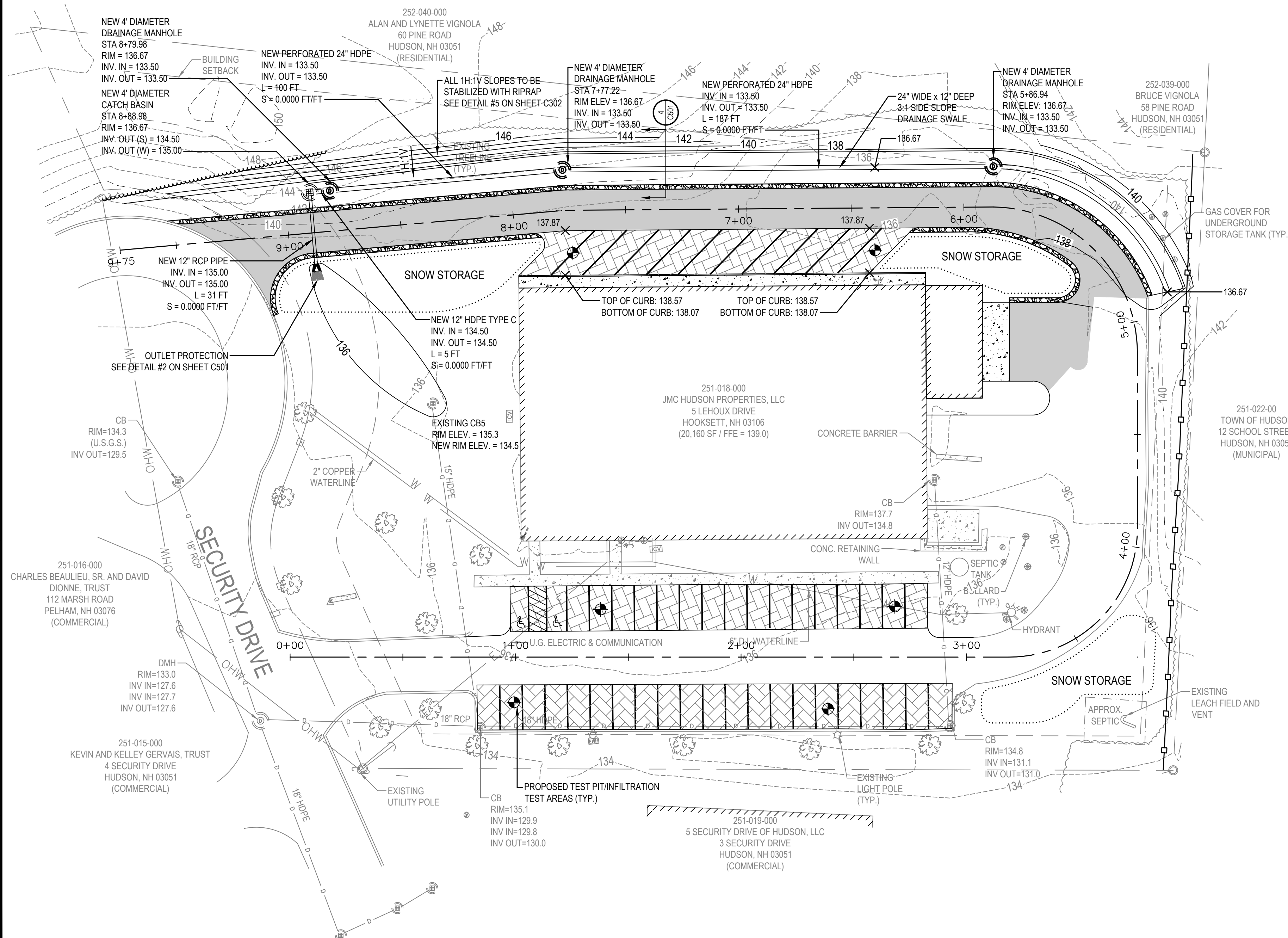
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PROJECT  
**ASM FACILITY**  
**7 SECURITY DRIVE**  
**HUDSON, NH 03051**

OWNER  
**JMC HUDSON PROPERTIES, LLC**  
**5 LEHOUX DRIVE**  
**HOOKSETT, NH 03106**



GRADING AND DRAINAGE LEGEND		
EXISTING	ITEM	NEW
---140---	MAJOR CONTOUR	—140—
---138---	MINOR CONTOUR	—138—
	FLARED END SECTION	▲
	CATCH BASIN	⊕
	TREELINE	~~~~~
	PAVEMENT	[Pattern]
	SHOULDER STONE	[Pattern]
	INFILTRATION	[Pattern]
	TRENCH STONE	[Pattern]
	PAVEMENT	[Pattern]
	CONCRETE PADS AND SIDEWALK	[Pattern]
	PERVIOUS	[Pattern]
	CONCRETE PAVERS	[Pattern]
—D—	DRAINAGE PIPE	—D—
	PAVEMENT MARKINGS	—

NO.	DATE	DESCRIPTION	BY
△	11/15/22	TOWN REVIEW	APL

PROJECT NO.	718770
CADD FILE	718770_C103
DESIGNED BY	APL
DRAWN BY	APL
CHECKED BY	SMB
DATE	9/19/2022
DRAWING SCALE	1" = 30'

GRAPHIC SCALE

SHEET TITLE

**GRADING AND DRAINAGE PLAN**

APPROVED BY THE HUDSON, NH PLANNING BOARD.

DATE OF MEETING: \_\_\_\_\_

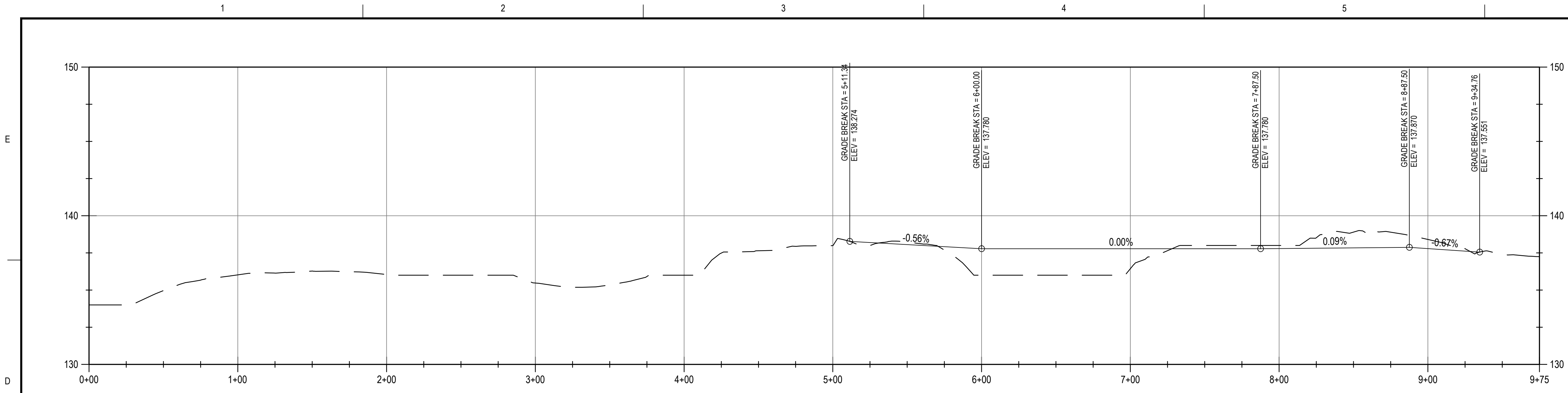
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 SIGNATURE DATE: \_\_\_\_\_

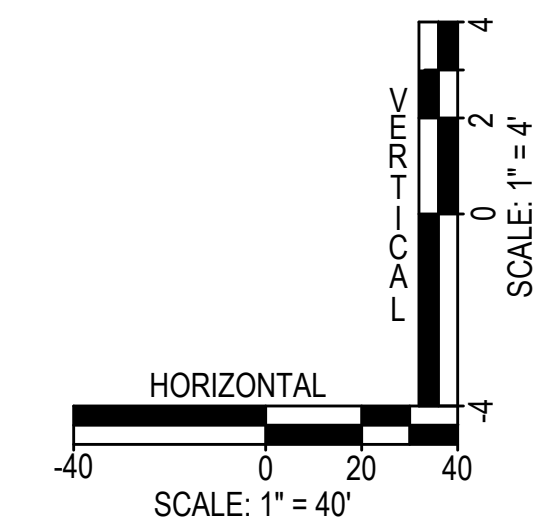
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DRAWING NO.  
**C103**

6 OF 15



PROFILE SCALE



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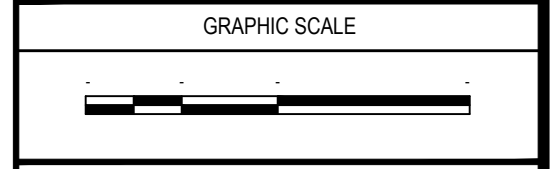
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PROJECT  
**ASM FACILITY  
 7 SECURITY DRIVE  
 HUDSON, NH 03051**

OWNER  
**JMC HUDSON PROPERTIES, LLC  
 5 LEHOUX DRIVE  
 HOOKSETT, NH 03106**

NO.	DATE	DESCRIPTION	BY
△	11/15/22	TOWN REVIEW	APL
PROJECT NO.		718770	
CADD FILE		718770_C103	
DESIGNED BY		APL	
DRAWN BY		APL	
CHECKED BY		SMB	
DATE		9/19/2022	
DRAWING SCALE		AS NOTED	

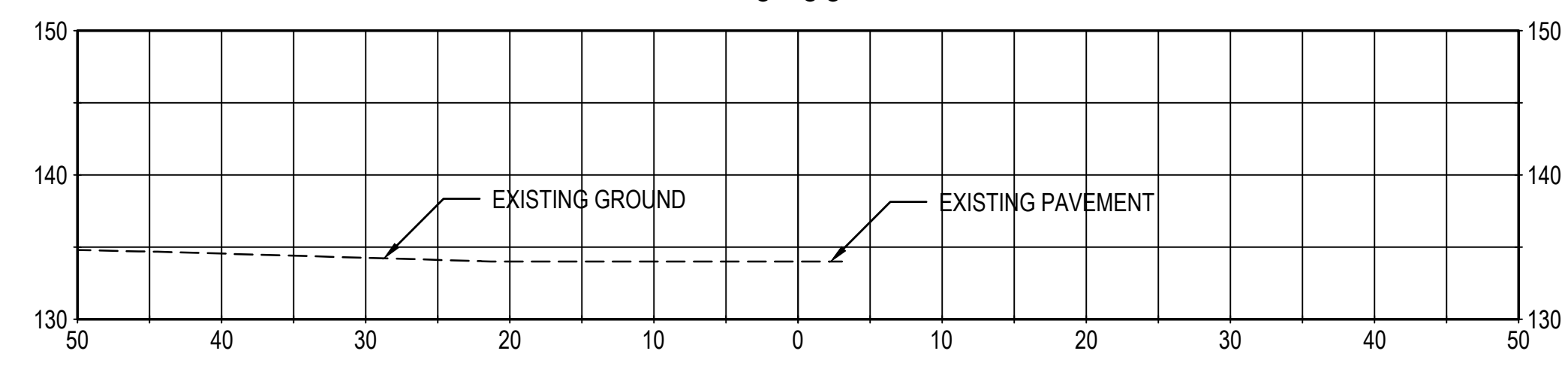


SHEET TITLE  
**DRIVEWAY PROFILE  
 AND CROSS-SECTIONS**

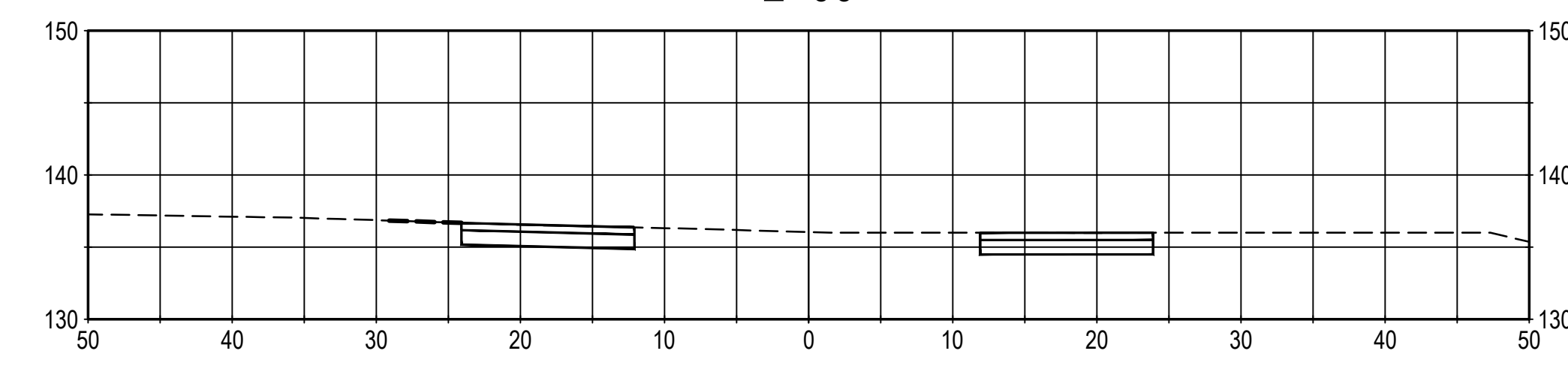
DRAWING NO.  
**C201**

7 OF 15

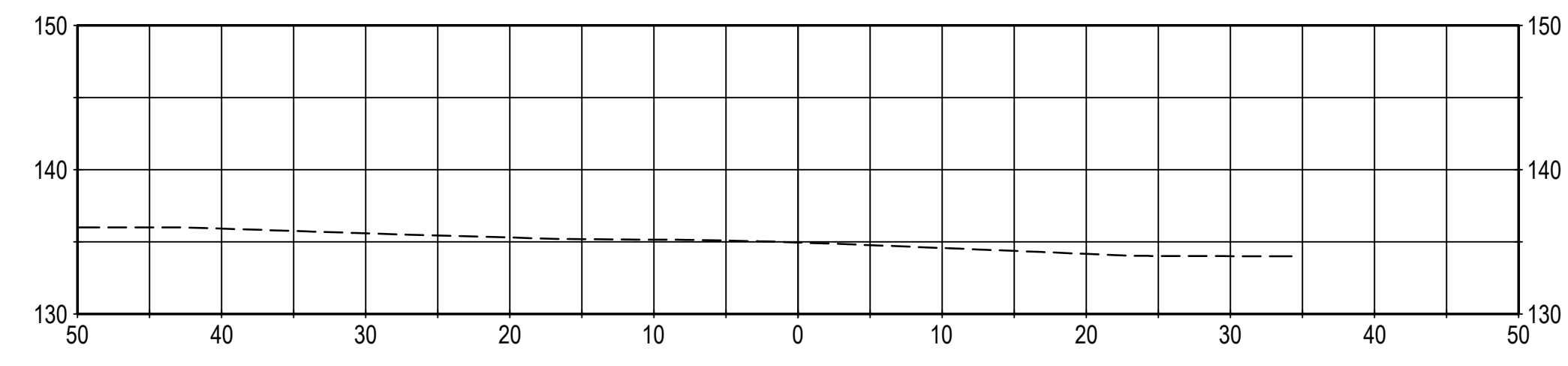
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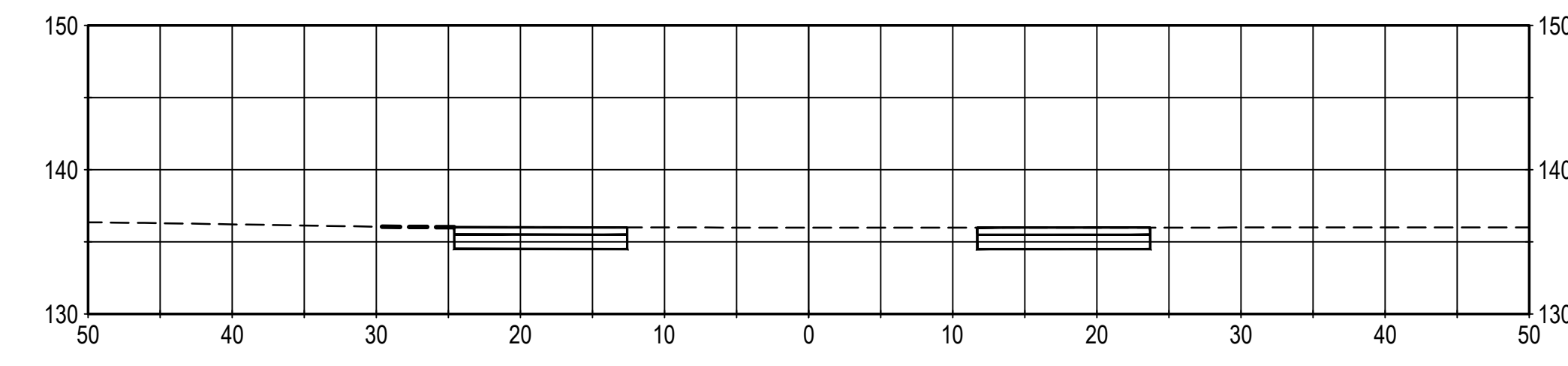
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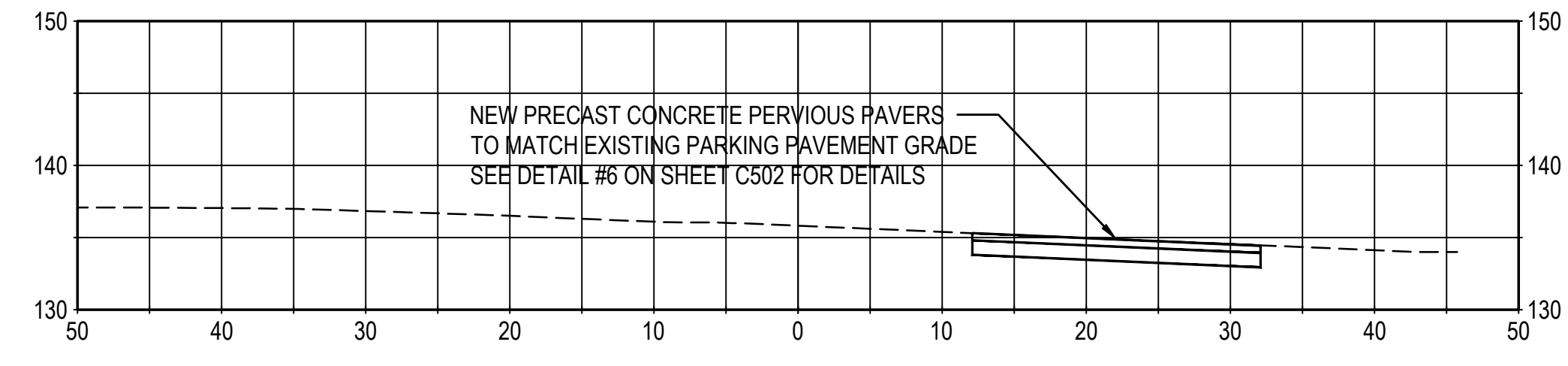
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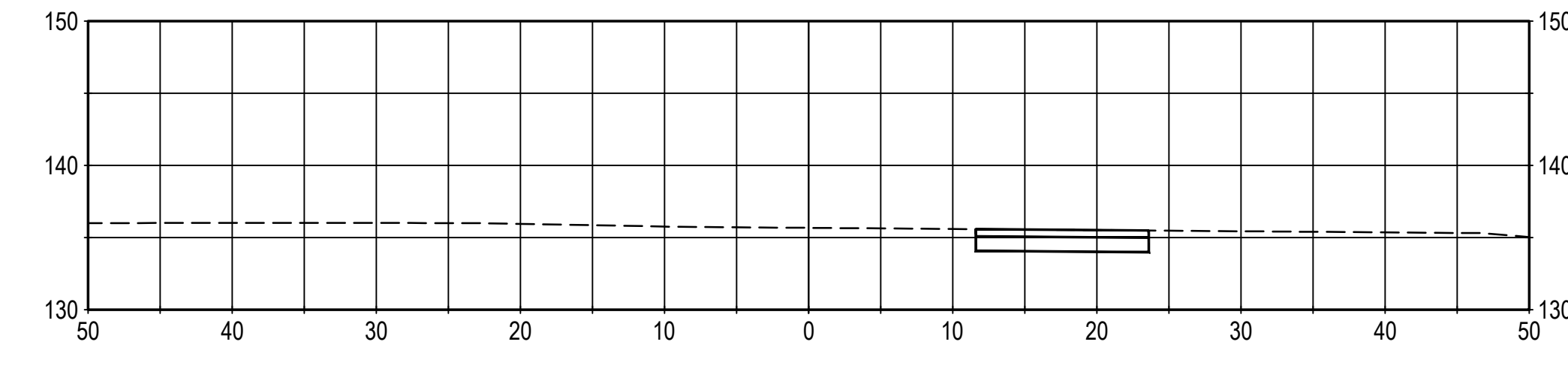
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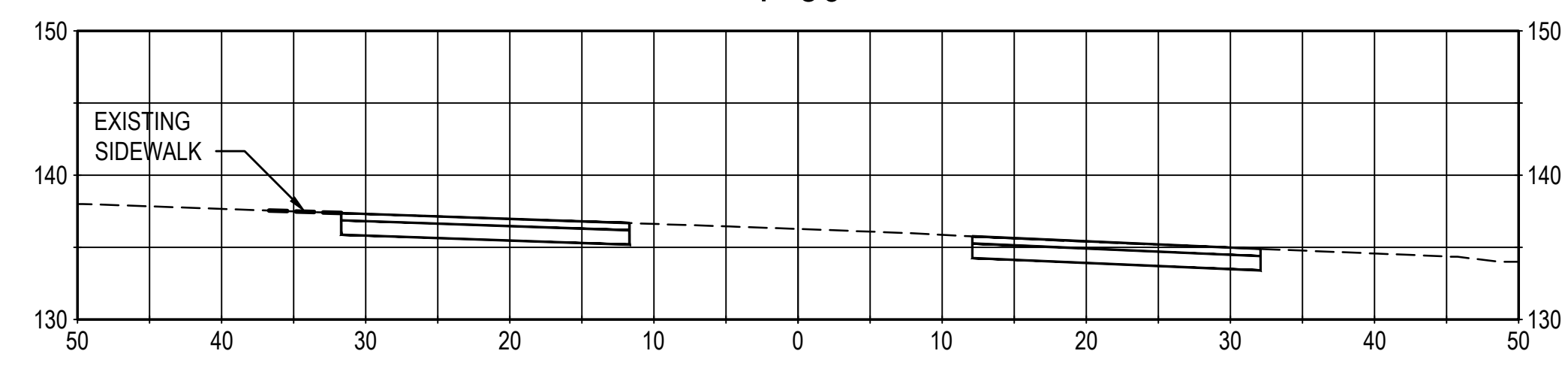
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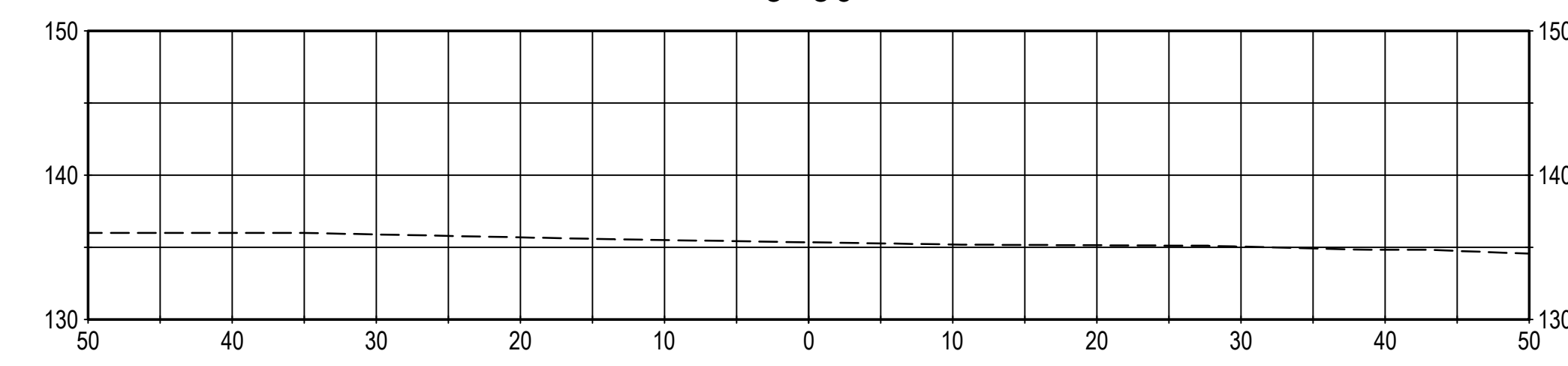
2+94



1+50



3+50





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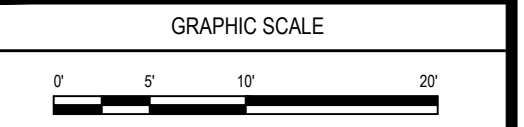
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DRAWING SCALE		1" = 10'	

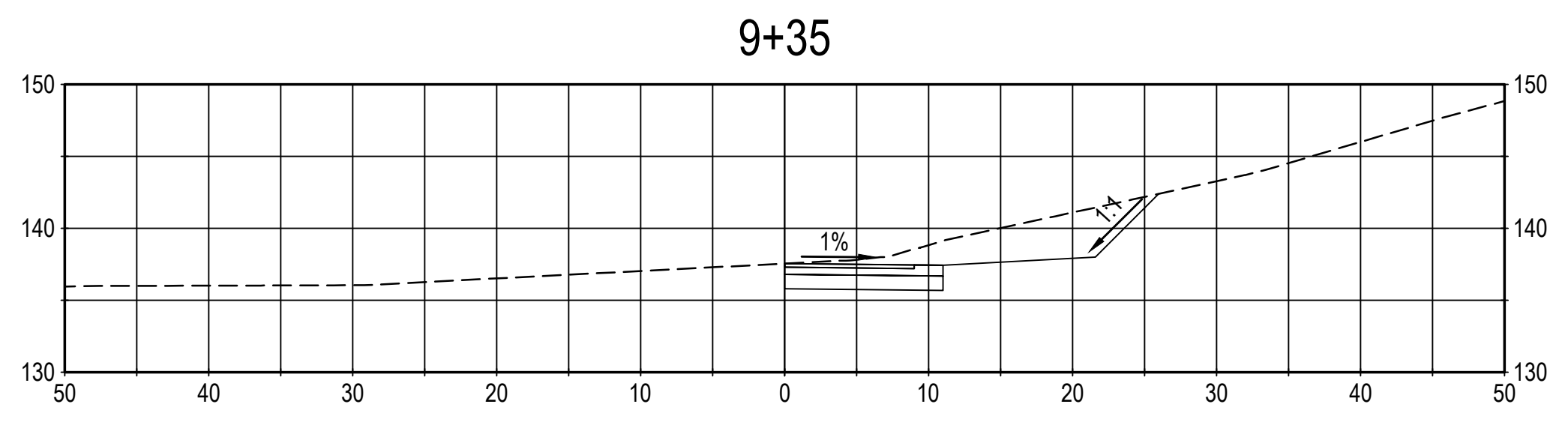
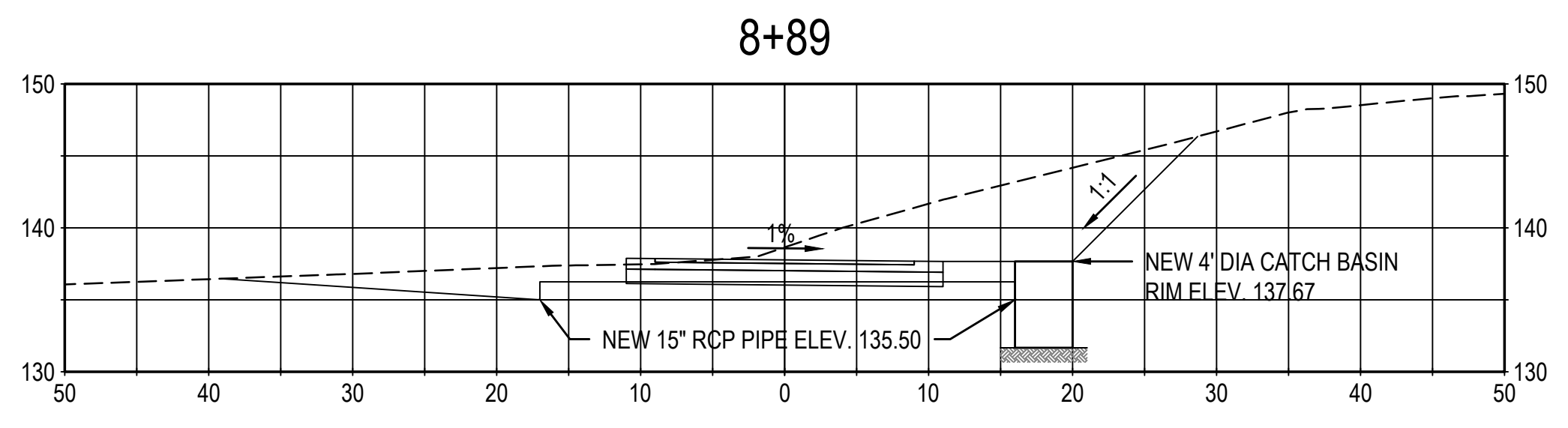
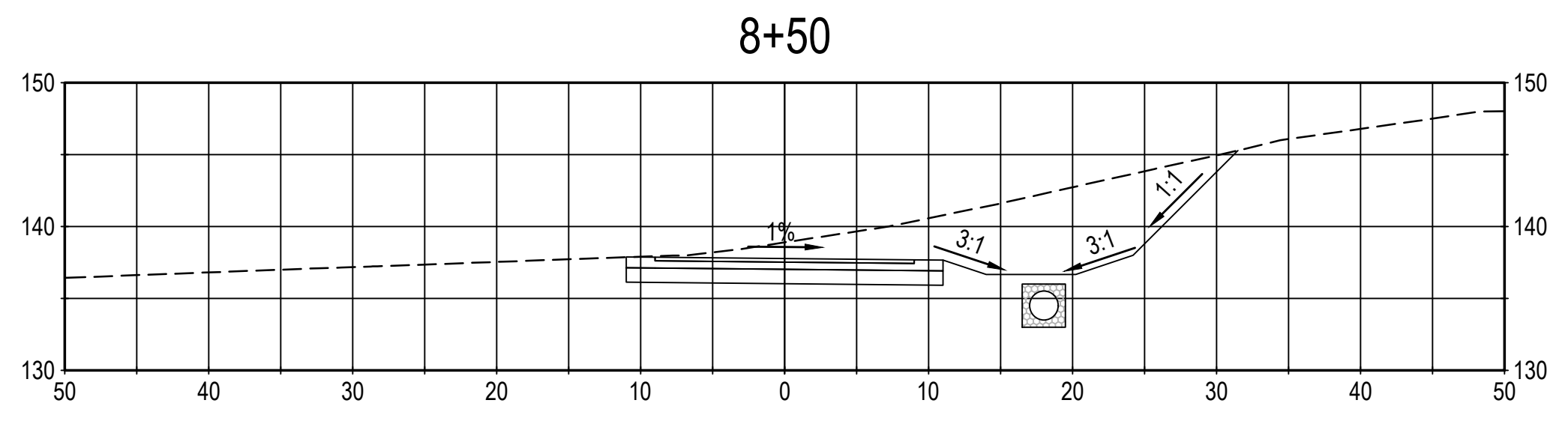
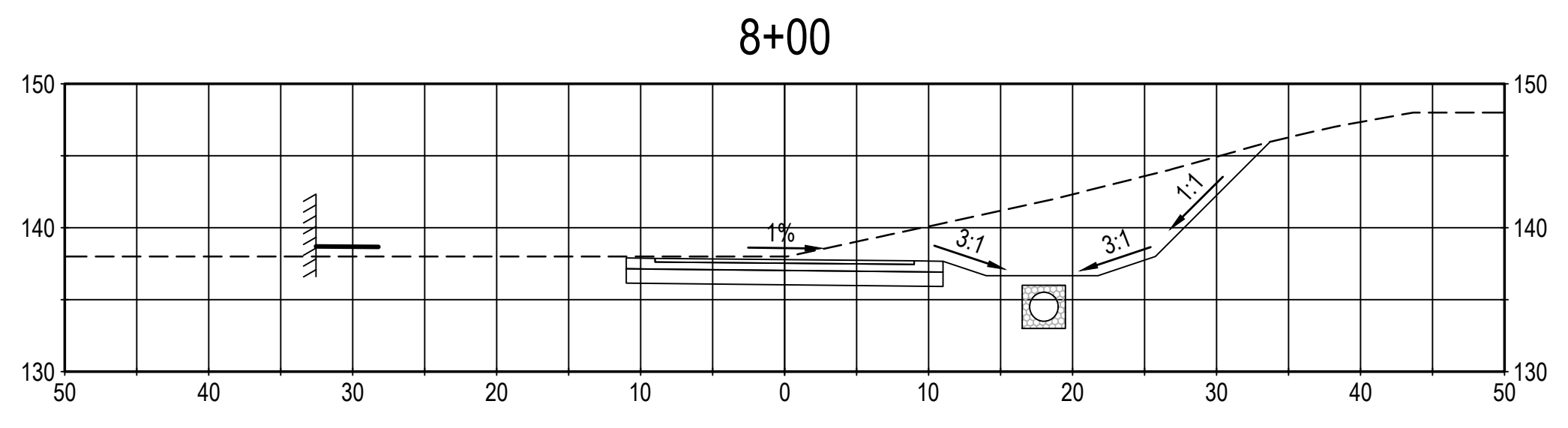
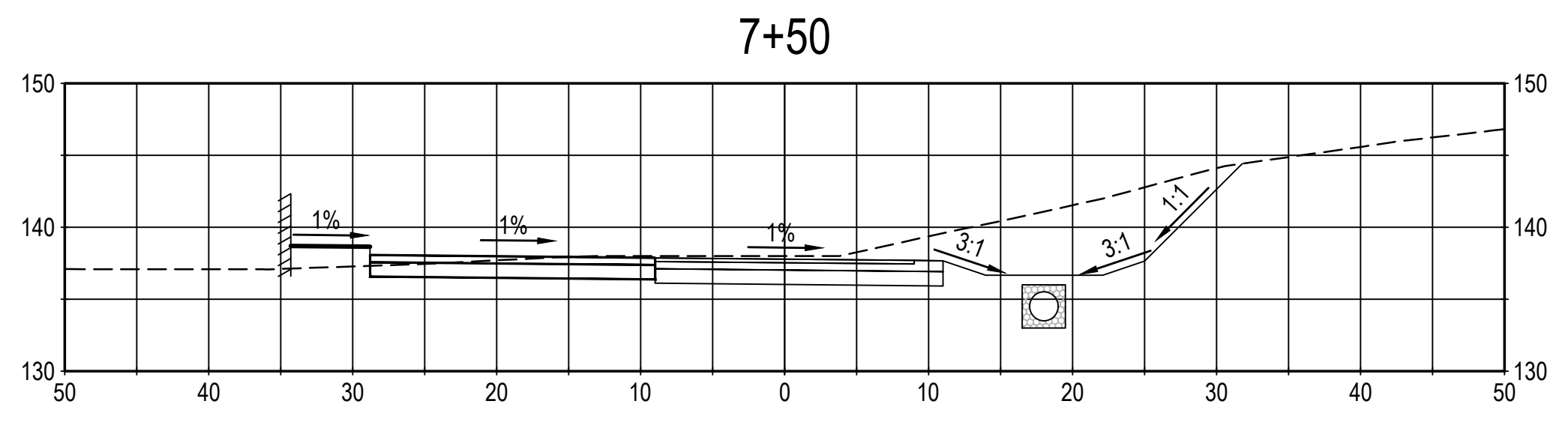
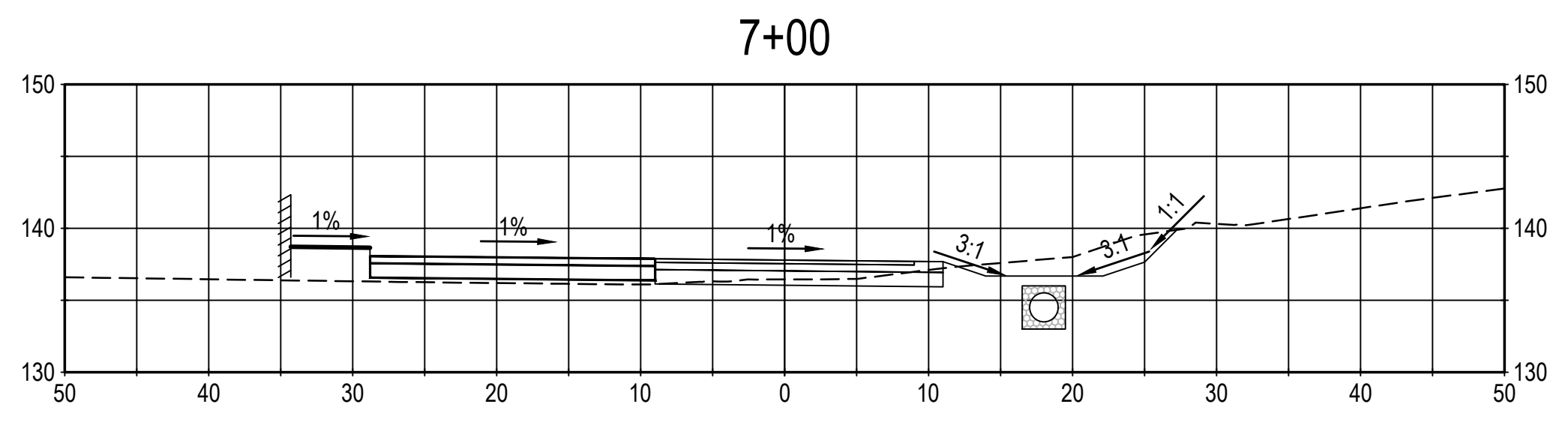
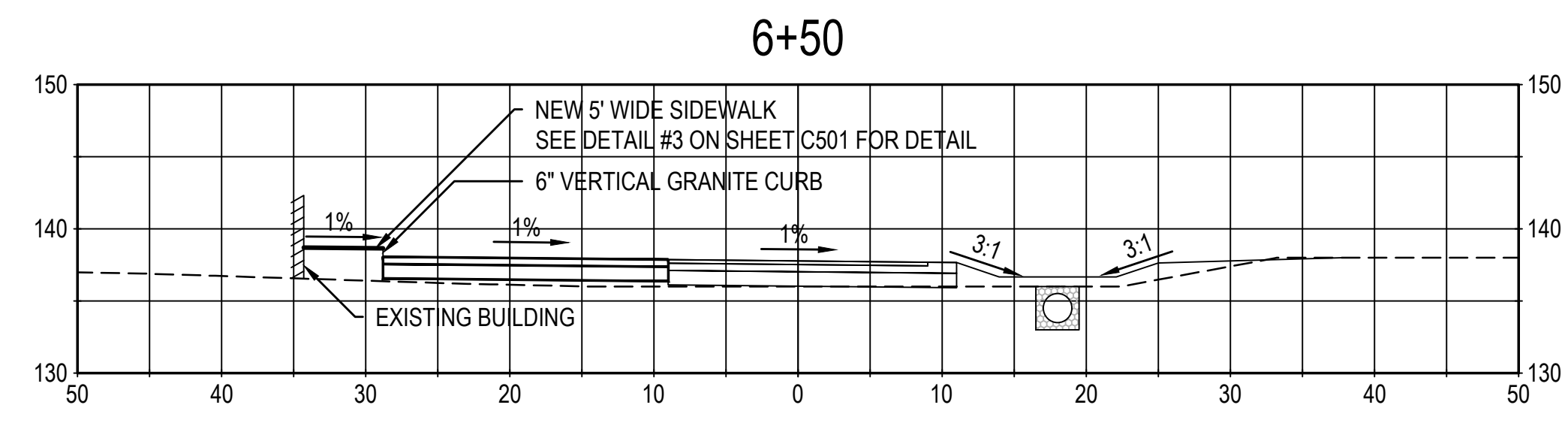
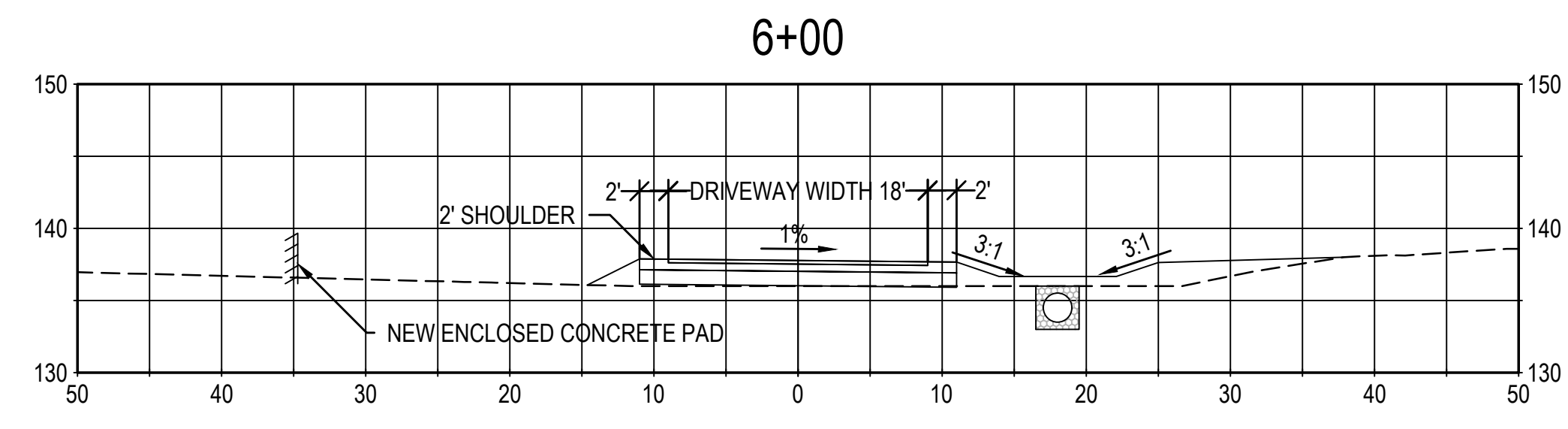
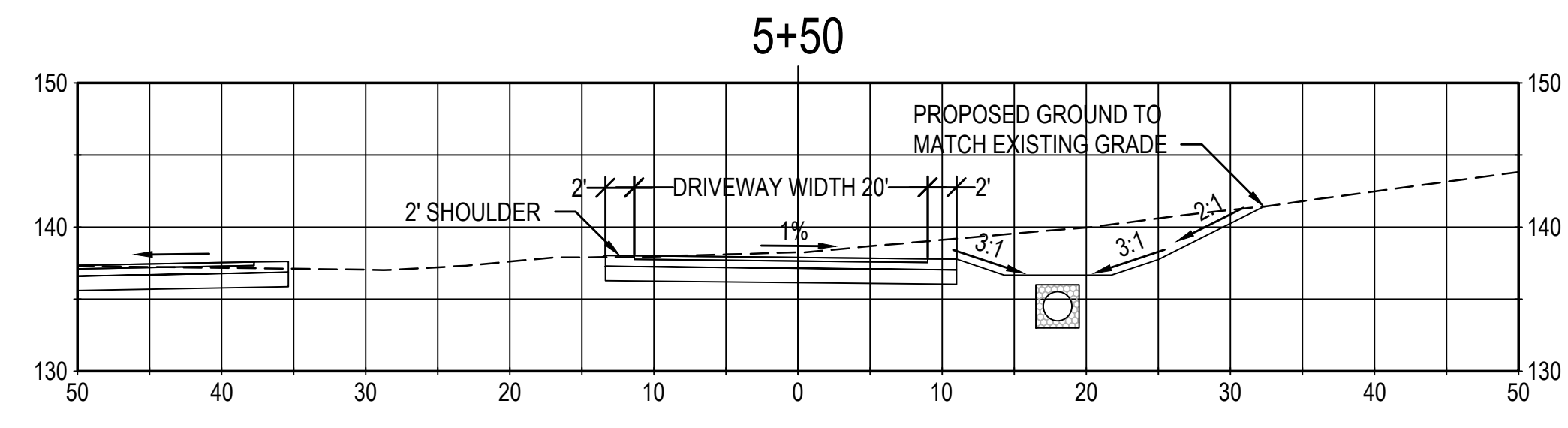
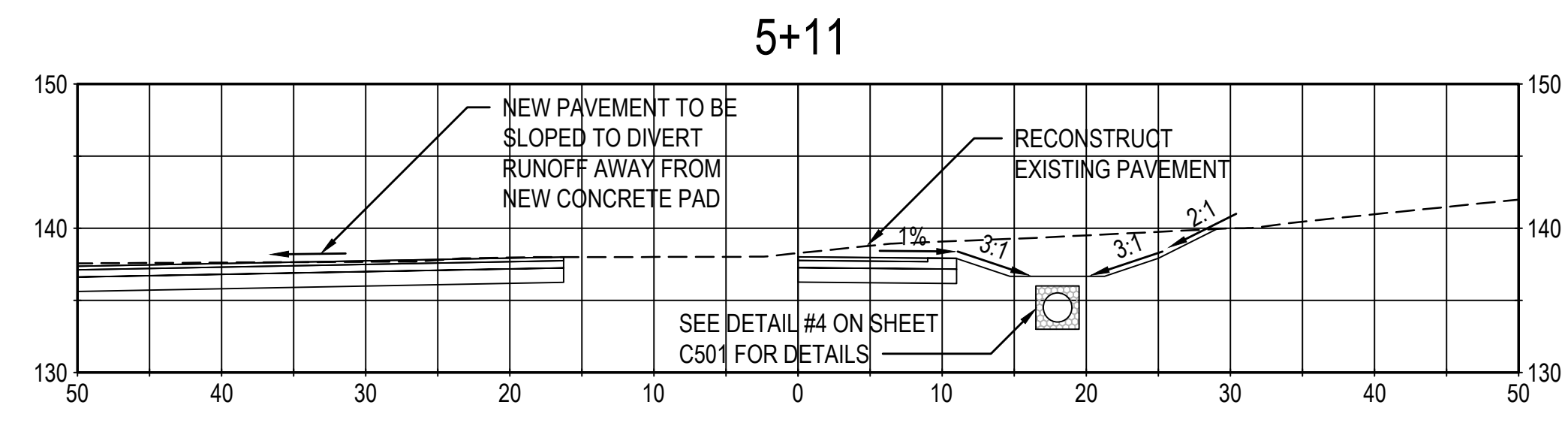
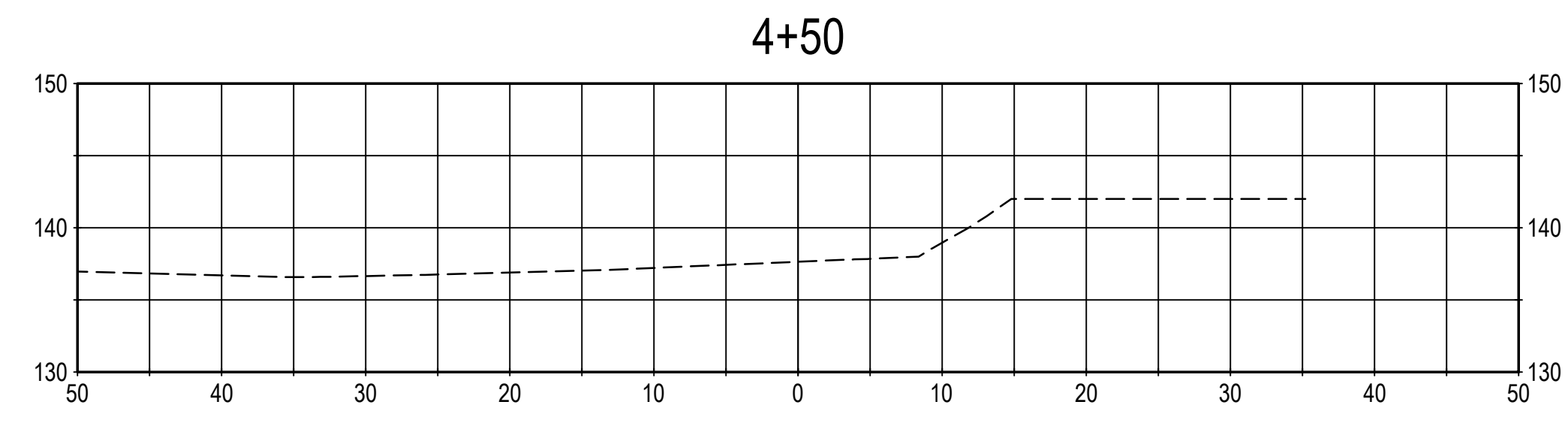
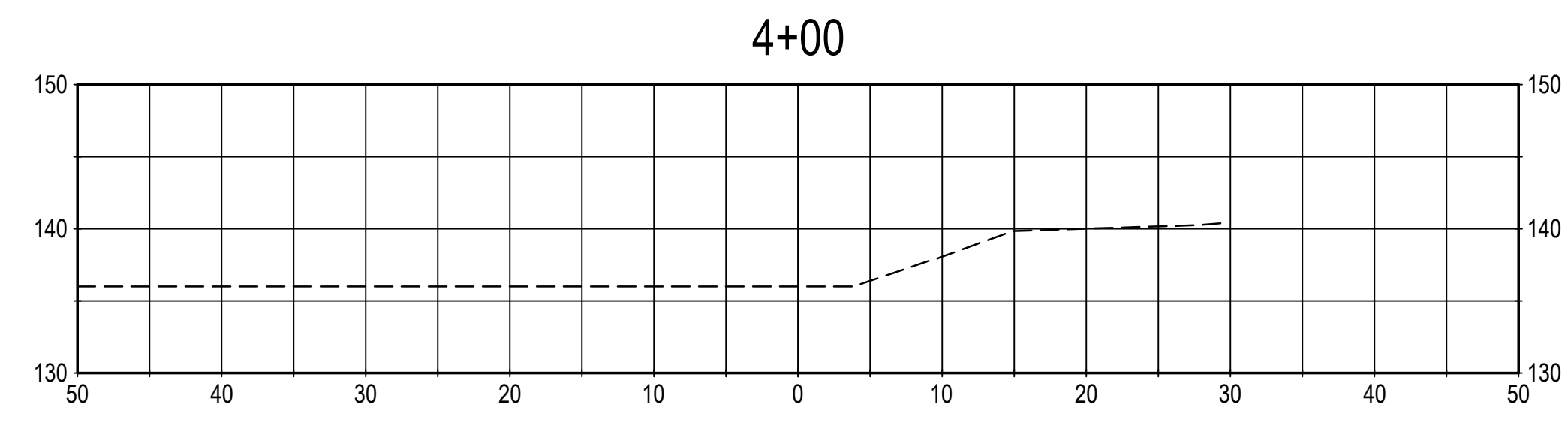


SHEET TITLE

**DRIVEWAY  
 CROSS-SECTIONS**

DRAWING NO.  
**C202**  
 8 OF 15

E  
D  
C  
B  
A



GENERAL NOTES

- CONTRACTOR SHALL USE STUMP GRINDINGS AS EROSION CONTROL MEASURES TO MAXIMUM EXTENT POSSIBLE.



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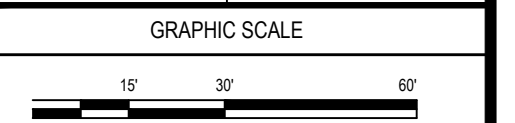
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PROJECT  
**ASM FACILITY  
 7 SECURITY DRIVE  
 HUDSON, NH 03051**

OWNER  
**JMC HUDSON PROPERTIES, LLC  
 5 LEHOUX DRIVE  
 HOOKSETT, NH 03106**

NO.	DATE	DESCRIPTION	BY
△	11/15/22	TOWN REVIEW	APL
PROJECT NO.		718770	
CADD FILE		718770_C301	
DESIGNED BY		APL	
DRAWN BY		APL	
CHECKED BY		SMB	
DATE		9/19/2022	
DRAWING SCALE		1" = 30'	



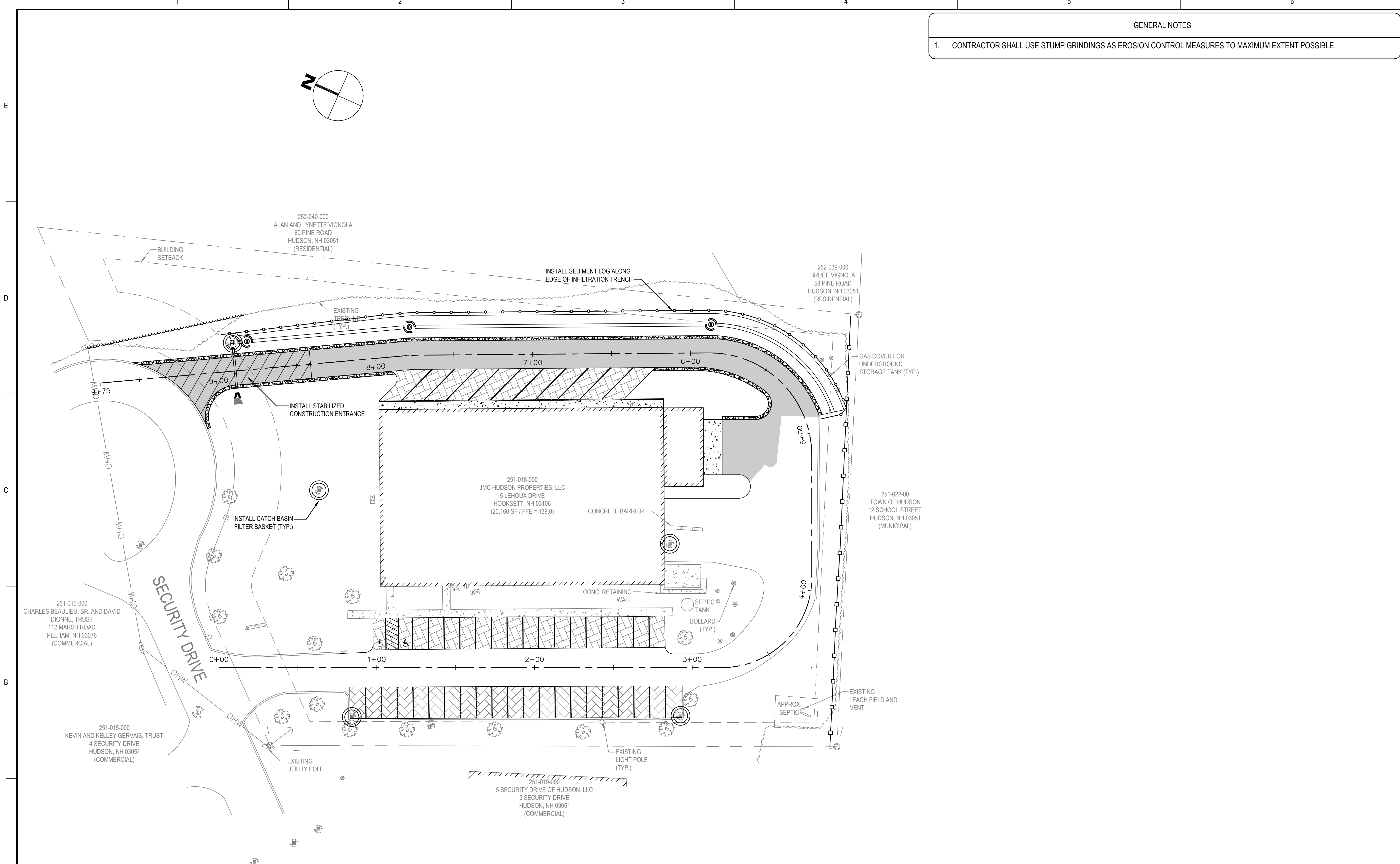
SHEET TITLE

**EROSION CONTROL PLAN**

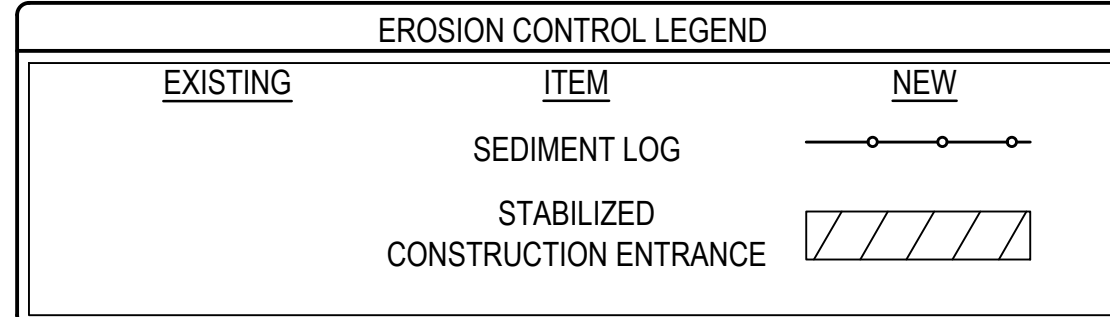
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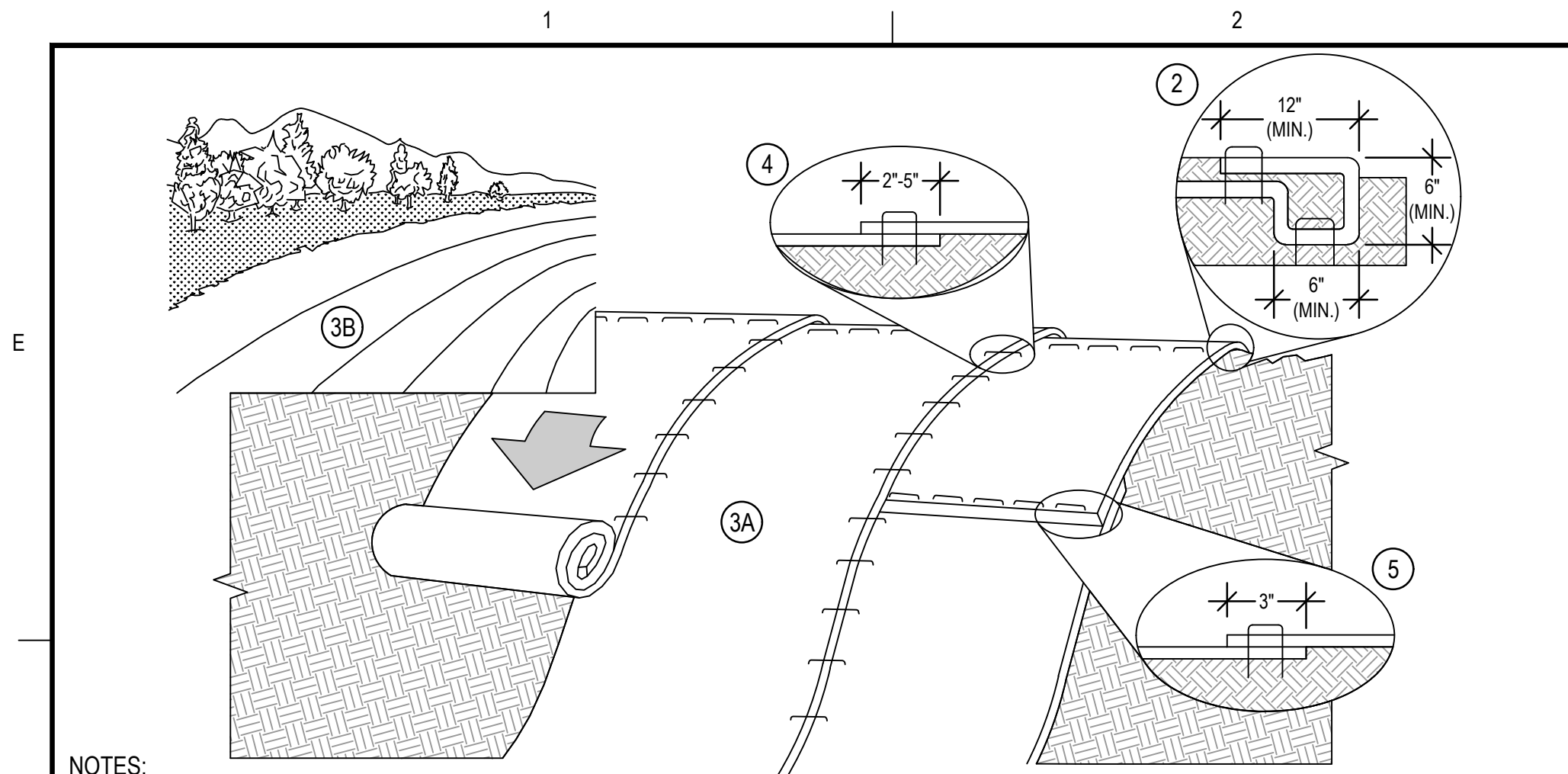
**C301**

9 OF 15



APPROVED BY THE HUDSON, NH PLANNING BOARD.  
 DATE OF MEETING: \_\_\_\_\_  
 \_\_\_\_\_ SIGNATURE DATE: \_\_\_\_\_  
 \_\_\_\_\_ SIGNATURE DATE: \_\_\_\_\_  
 SITE PLANS ARE VALID FOR TWO YEARS FROM THE DATE OF PLANNING BOARD MEETING FINAL APPROVAL. FINAL APPROVAL COMMENCES AT THE PLANNING BOARD MEETING DATE AS WHICH THE PLAN RECEIVES FINAL APPROVAL.

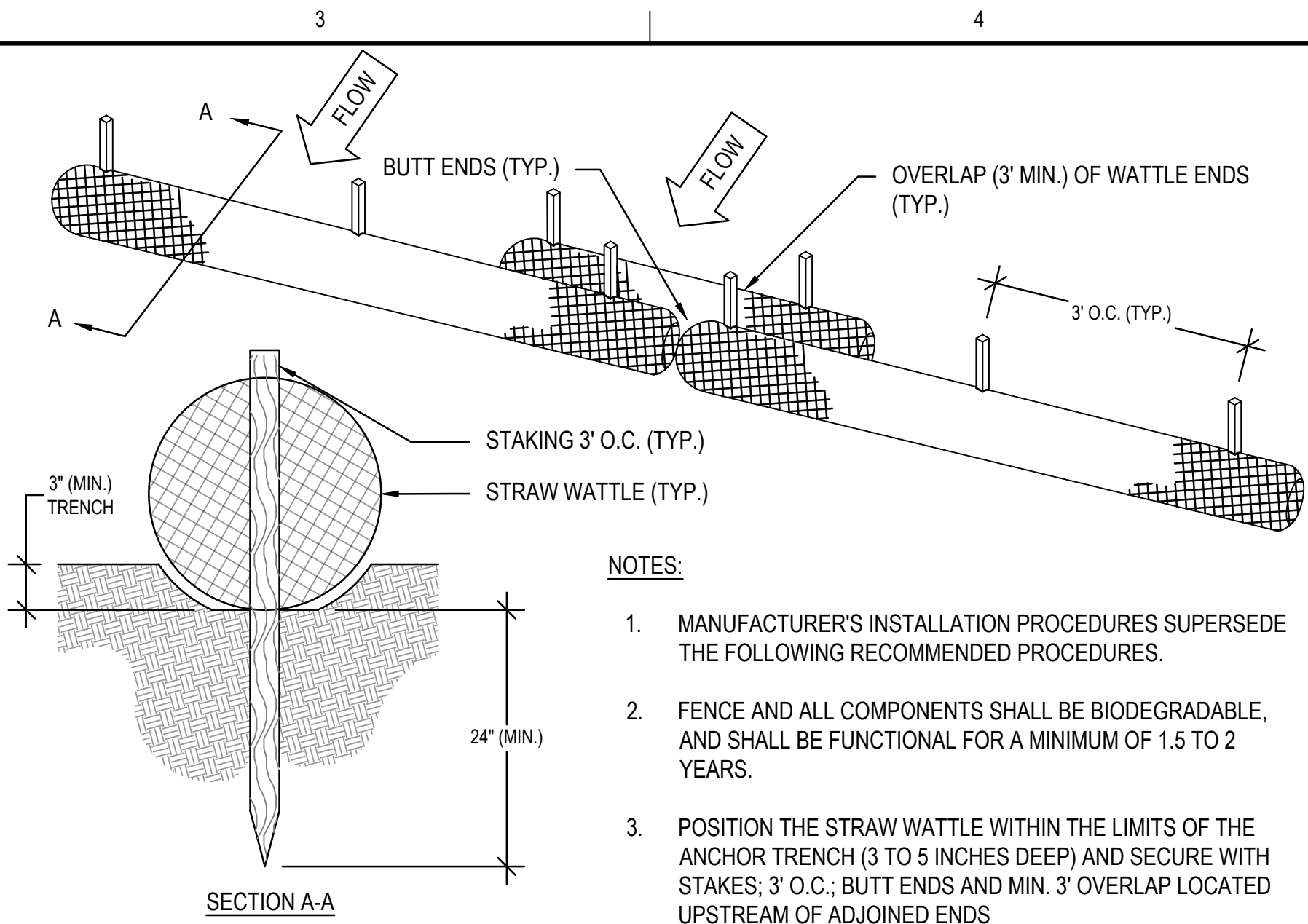




NOTES:

1. MANUFACTURER'S INSTALLATION PROCEDURES SUPERSEDE THE FOLLOWING RECOMMENDED PROCEDURES.
2. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP)
3. BEGIN INSTALLATION OF MATTING AT THE TOP OF THE SLOPE BY ANCHORING THE RECP IN A 6" DEEP X 6" WIDE TRENCH WITH 12" (APPROX.) OF RECP EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP WITH A ROW OF STAPLES/STAKES 12" (APPROX.) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED 12" (APPROX.) APART ACROSS THE WIDTH OF THE RECP.
4. ROLL THE RECP (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. ALL RECP MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS
5. THE EDGES OF PARALLEL RECP'S SHALL BE STAPLED WITH A 2" TO 5" (APPROX.) OVERLAP.
6. CONSECUTIVE RECP SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH A 3" (APPROX.) OVERLAP. STAPLE THROUGH OVERLAPPED AREA 12" (APPROX.) APART ACROSS ENTIRE RECP WIDTH.
7. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP.

1 SLOPE STABILIZATION MATTING DETAIL  
N.T.S.



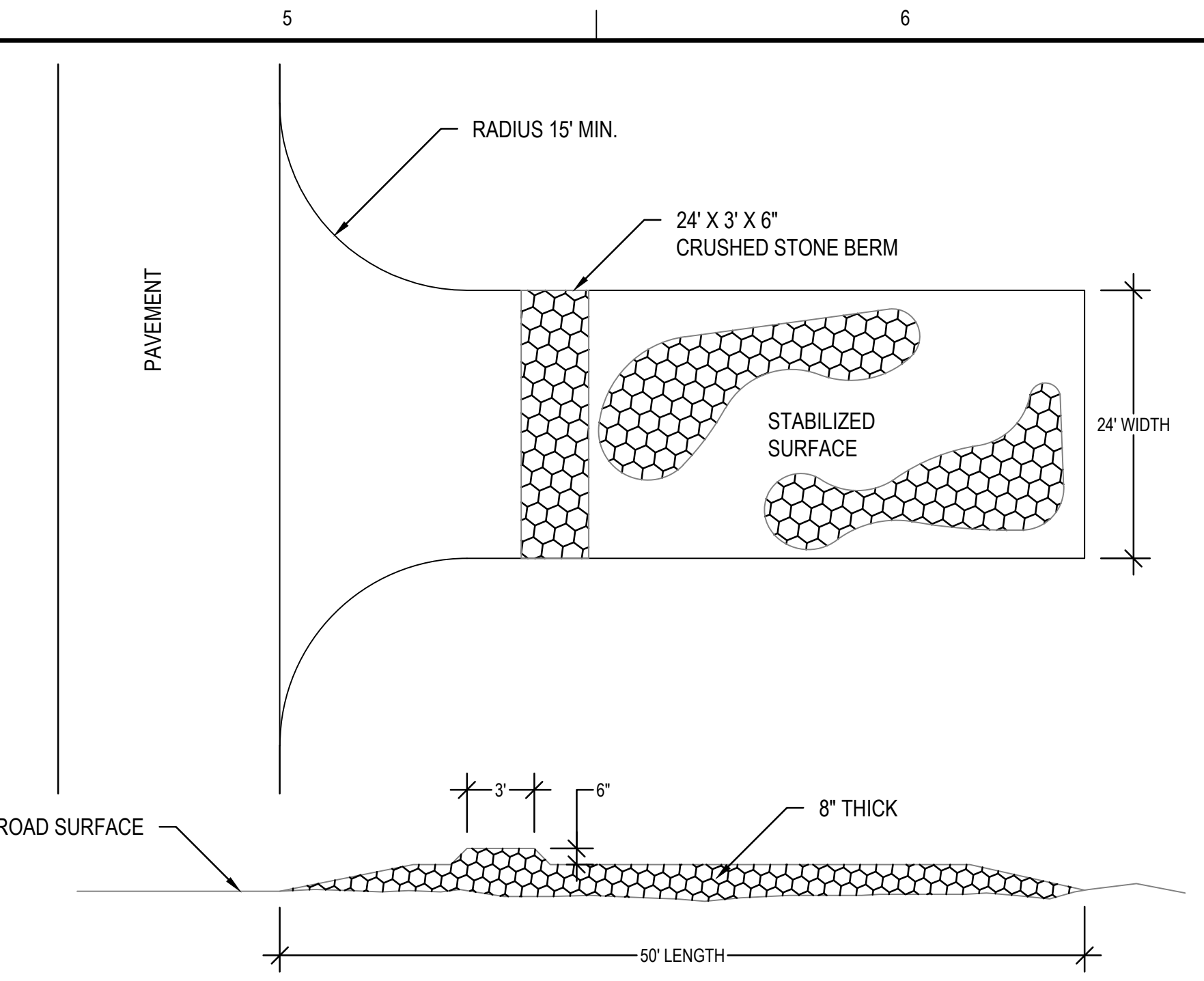
NOTES:

1. MANUFACTURER'S INSTALLATION PROCEDURES SUPERSEDE THE FOLLOWING RECOMMENDED PROCEDURES.
2. FENCE AND ALL COMPONENTS SHALL BE BIODEGRADABLE, AND SHALL BE FUNCTIONAL FOR A MINIMUM OF 1.5 TO 2 YEARS.
3. POSITION THE STRAW WATTLE WITHIN THE LIMITS OF THE ANCHOR TRENCH (3 TO 5 INCHES DEEP) AND SECURE WITH STAKES; 3' O.C.; BUTT ENDS AND MIN. 3' OVERLAP LOCATED UPSTREAM OF ADJOINED ENDS

MAINTENANCE:

1. STRAW WATTLES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL EVENTS. ALL REPAIRS, INCLUDING EVIDENCE OF FABRIC DECOMPOSITION OR INEFFECTIVENESS DURING THE EXPECTED LIFE OF THE FWATTLE, SHALL BE MADE IMMEDIATELY.
2. SEDIMENT DEPOSITS LOCATED ALONG THE UP-HILL SIDE SHALL BE REMOVED AFTER EACH STORM EVENT OR WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE UP-HILL ORIGINAL INSTALLED BARRIER'S REVEAL. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE PERMANENTLY STABILIZED.
3. SEDIMENT DEPOSITS THAT ARE REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

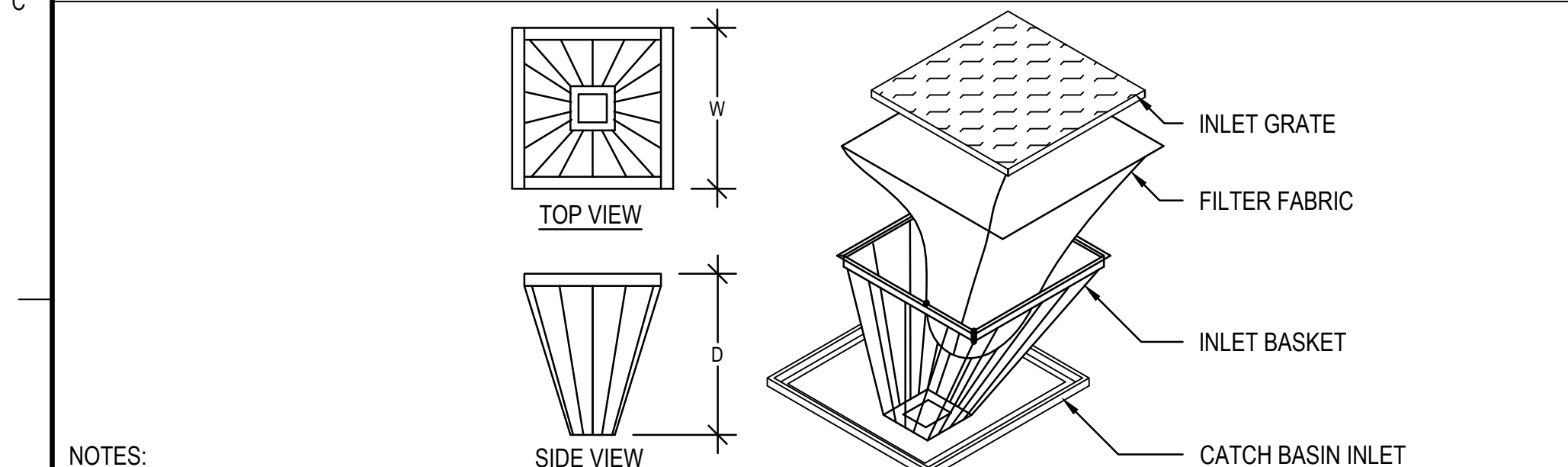
2 SILT SOCK/STRAW WATTLE DETAIL  
N.T.S.



MAINTENANCE:

1. IN THE EVENT THAT MUD OR SOIL PARTICLES CLOG THE VOIDS OF THE CONSTRUCTION ENTRANCE, THE CONSTRUCTION ENTRANCE SHOULD BE TOP DRESSED WITH NEW STONE. COMPLETE REPLACEMENT OF THE CONSTRUCTION ENTRANCE MAY BE REQUIRED.
2. IF WASH FACILITIES ARE USED, SEDIIMENTATION TRAPS SHOULD BE CLEANED AS OFTEN AS NECESSARY TO ASSURE THAT ADEQUATE PERFORMANCE OF SEDIMENTATION COLLECTION AND STORAGE IS AVAILABLE.

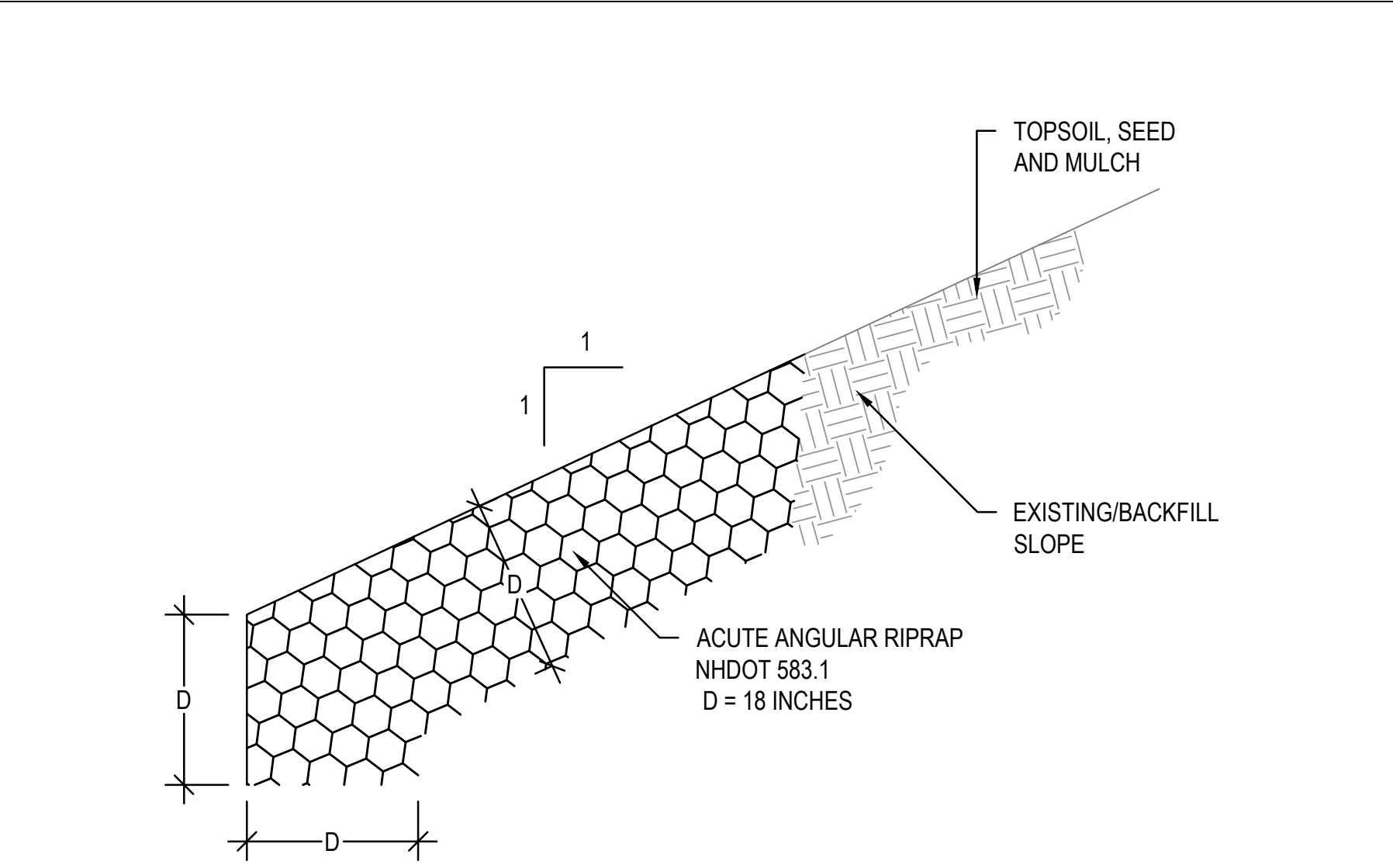
3 STABILIZED CONSTRUCTION ENTERANCE DETAIL  
(TEMPORARY, TO BE REMOVED PRIOR TO FINAL PAVING)  
N.T.S.



NOTES:

1. INLET BASKETS SHALL BE USED ON CATCH BASINS DURING CONSTRUCTION AS INDICATED ON PLANS. INLET BASKETS SHALL BE FURNISHED AND INSTALLED AS MANUFACTURED BY "METAL-ERA, INC.", "WAUKESHA WI., OR APPROVED EQUAL, IN STRICT ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS AND SPECIFICATIONS. BASKET FRAME CONSISTS OF COMMERCIAL GRADE STEEL ANGLES (ASTM A36). SIDES TO BE 3/4"x2"x2". BACK AND FRONT 1/2"x1"x1" WELDED IN PLACE. LENGTH AND WIDTH OF OPENING TO BE DETERMINED BY INSIDE DIMENSIONS OF EXISTING INLET GRATES OR PRE-CAST CONCRETE OPENINGS. THE SIDES OF THE INLET BASKET SHALL BE A MINIMUM OF 1/4 INCH DIAMETER STEEL RODS, APPROXIMATELY 14 INCHES DEEP. BOTTOM FRAME TO BE 1/2"x1" FLATS 5"x5" WELDED. A MINIMUM OF 14 RODS SHALL BE WELDED IN PLACE BETWEEN THE TOP FRAME/BASKET HANGER AND THE BOTTOM FRAME. CERTAIN NON-TYPICAL INLETS MAY REQUIRE SPECIAL CONFIGURATIONS, AND/OR SHALLOWER DEPTH BASKETS.
2. FILTER FABRIC SHALL BE PUSHED DOWN AND FORMED TO THE SHAPE OF THE BASKET. THE SHEET OF FABRIC SHALL BE LARGE ENOUGH TO BE SUPPORTED BY THE BASKET FRAME WHEN HOLDING SEDIMENT AND EXTEND AT LEAST 6 INCHES PAST THE FRAME. THE INLET GRATE SHALL BE PLACED OVER THE BASKET/FRAME AND WILL SERVE AS THE FABRIC ANCHOR.
3. THE FILTER FABRIC SHALL BE A GEO-TEXTILE FABRIC: POLYESTER, POLYPROPYLENE, STABILIZED NYLON, POLYETHYLENE OR POLYVINYLIDENE CHLORIDE MEETING THE FOLLOWING SPECIFICATIONS: GRAB STRENGTH: 45LB. MINIMUM IN ANY PRINCIPAL DIRECTION (ASTM D1682). MULLEN BURST STRENGTH: MINIMUM 60 PSI (ASTM D774).
4. THE FABRIC SHALL HAVE AN OPENING NO GREATER THAN A NUMBER 20 U.S. STANDARD SIEVE AND MINIMUM PERMEABILITY OF 120 GPM/SQ.FT.
5. THE INLET BASKET SHALL BE INSPECTED WITHIN 24 HOURS AFTER EACH RAINFALL OR DAILY DURING EXTENDED PERIODS OF PRECIPITATION. REPAIRS SHALL BE MADE IMMEDIATELY, AS NECESSARY, TO PREVENT PARTICLES FROM ENTERING THE DRAINAGE PIPING SYSTEM AND/OR CAUSING SURFACE FLOODING.
6. INLET BASKETS SHALL BE MAINTAINED IN PLACE UNTIL ALL PAVING IS COMPLETED AND ALL UNPAVED AREAS HAVE BEEN STABILIZED WITH VEGETATION. THEY SHALL BE REMOVED UPON COMPLETION.

4 CATCH BASIN FILTER BASKET DETAIL  
N.T.S.



NOTES:

1. RIPRAP SHALL BE PLACED ON SLOPES STEEPER THAN 2:1.
2. RIPRAP PLACEMENT ON BACKFILL MATERIAL: IF RIPRAP MATERIAL IS TO BE PLACED ON NEW BACKFILL MATERIAL (VERSUS AN EXISTING SLOPE), THEN NEW BACKFILL MATERIAL SHALL BE PLACED AND COMPACTED TO THE EXPOSED LIMIT OF THE PROPOSED RIPRAP MATERIAL. ONCE BACKFILL MATERIAL HAS BEEN PLACED, THEN EXCAVATION OF THE NEWLY PLACED BACKFILL CAN BE REMOVED AND REPLACED WITH RIPRAP MATERIAL IN ACCORDANCE TO THE DIAGRAM ABOVE.

5 RIPRAP SLOPE DETAIL  
N.T.S.

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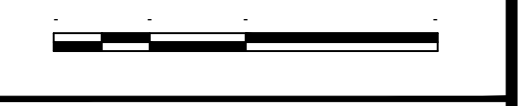
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PROJECT  
**ASM FACILITY**  
**7 SECURITY DRIVE**  
**HUDSON, NH 03051**

OWNER  
**JMC HUDSON PROPERTIES, LLC**  
**5 LEHOUX DRIVE**  
**HOOKSETT, NH 03106**

NO.	DATE	DESCRIPTION	BY
△	11/15/22	TOWN REVIEW	APL
PROJECT NO.	718770		
CADD FILE	718770_C302		
DESIGNED BY	APL		
DRAWN BY	APL		
CHECKED BY	SMB		
DATE	9/19/2022		
DRAWING SCALE	N.T.S.		

GRAPHIC SCALE



SHEET TITLE

**EROSION CONTROL DETAILS**

DRAWING NO.  
**C302**  
10 OF 15



	GENERAL EROSION AND SEDIMENTATION CONTROL NOTES:  THIS PLAN HAS BEEN DEVELOPED AS A STRATEGY TO CONTROL SOIL EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION. THIS PLAN IS BASED ON THE STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION IN DEVELOPING AREAS AS CONTAINED IN THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES (NHDES) STORMWATER MANUAL, VOLUME 3. THE PROPOSED LOCATIONS OF EROSION CONTROL BEST MANAGEMENT PRACTICES (TO BE INSTALLED AT A MINIMUM) ARE SHOWN ON THE PLAN SET HEREIN.  1. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3 - EROSION AND SEDIMENTATION CONTROLS DURING CONSTRUCTION", PUBLISHED BY THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES (NHDES); DATED DECEMBER 2008 (OR CURRENT EDITION).  2. THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION SHALL BE MAINTAINED IN AN UNTREATED OR UNVEGETATED CONDITION FOR THE MINIMUM TIME REQUIRED. IN GENERAL, ALL DISTURBED AREAS SHALL NOT BE LEFT BARE FOR MORE THAN 30 DAYS. SHALL BE STABILIZED IN A MANNER TO MITIGATE EROSION OR SEDIMENTATION FROM EXITING THE LIMIT OF WORK AND SHALL BE RESTORED IN-KIND UPON COMPLETION OF THE PROJECT. THE MAXIMUM AREA ALLOWED TO BE DISTURBED AND LEFT UNSTABILIZED IS TWO (2) ACRES AT ANY ONE TIME.  3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSPECT, MONITOR AND MAINTAIN ALL EROSION CONTROL STRUCTURES; SEE EROSION CONTROL - INSPECTION, MONITORING & MAINTENANCE NOTES LOCATED HEREIN.  4. SEDIMENT BARRIERS (SILT FENCE, STONE CHECK DAMS, STABILIZED CONSTRUCTION ENTRANCES, ETC.) SHALL BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF UP-GRADIENT DRAINAGE AREAS.  5. ALL EXISTING STORM DRAINAGE INLETS SHALL BE PROTECTED BY STRAW BALE FILTERS AND CATCH BASIN FILTER BASKETS TO PREVENT ENTRY OF SEDIMENT FROM RUNOFF WATERS INTO THE STORM DRAIN SYSTEM.  6. NO TREES ARE TO BE REMOVED FROM AREAS OUTSIDE THE LIMITS OF GRADING OR FROM SPECIFICALLY DESIGNATED UNDISTURBED AREAS WITHIN THE CONSTRUCTION AREA. IF TREES DESIGNATED TO BE SAVED ARE DAMAGED, CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING THEM AT NO COST TO THE OWNER OR OWNER'S REPRESENTATIVE.  7. SLOPES, EITHER PERMANENT OR TEMPORARY, BETWEEN SLOPES 3 HORIZONTAL TO ONE VERTICAL (3:1) TO TWO HORIZONTAL TO ONE VERTICAL (2:1) SHALL BE STABILIZED WITH EROSION CONTROL BLANKETS AND ANCHORED MULCH NETTING (100% BIODEGRADABLE - PLASTIC NETTING WILL NOT BE ALLOWED - AND BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS). SLOPES STEEPER THAN ONE VERTICAL TO ONE VERTICAL (1:1) SHALL BE STABILIZED WITH RIPRAP.  8. CUT AND FILL AREAS ARE TO BE PERMANENTLY STABILIZED AS SOON AS PRACTICABLE BUT NO LATER THAN 72 HOURS FOLLOWING FINAL GRADING.  9. ALL AREAS OF EXPOSED OR DISTURBED SOIL OTHER THAN THE NEWLY STABILIZED STREAM BANK TO BE STABILIZED AS SOON AS PRACTICABLE BUT NO LATER THAN 45 DAYS FROM THE TIME OF INITIAL DISTURBANCE, UNLESS A SHORTER TIME IS SPECIFIED BY LOCAL AUTHORITIES, THE CONSTRUCTION SEQUENCE APPROVED AS PART OF THE ISSUED PERMIT, OR AN INDEPENDENT MONITOR.  10. PERMANENT OR TEMPORARY COVER MUST BE IN PLACE BEFORE THE GROWING SEASON ENDS. WHEN SEEDED AREAS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO EARLY OCTOBER. WHEN SEEDED AREAS ARE NOT MULCHED, SEED SHOULD BE PLACED FROM EARLY SPRING TO MAY 20 OR FROM AUGUST 15 TO SEPTEMBER 15. NO DISTURBED AREA SHALL BE LEFT EXPOSED DURING WINTER MONTHS (NOVEMBER THROUGH MARCH). SEE WINTER CONSTRUCTION NOTES. PLANT ANNUAL RYE GRASS PRIOR TO OCTOBER 15TH.  11. AFTER OCTOBER 15TH: WHERE MULCH IS USED, IT SHALL BE APPLIED AT TWICE THE RATE AS DURING REGULAR CONSTRUCTION SEASON TO PROVIDE ADDITIONAL PROTECTION. SNOW AND ICE SHALL BE REMOVED TO A THICKNESS LESS THAN ONE INCH BEFORE APPLYING MULCH (IF APPLICABLE) TO DISTURBED SOILS. WHERE FINISHED GRADE IS ACHIEVED, OR BEFORE FORECASTED THAW OR SPRING MELT, MULCH MUST BE SECURED WITH EROSION CONTROL NETTING, TRACKING, OR OTHER METHOD. DIVERSION SWALES OR DITCHES WITHOUT STABILIZED VEGETATION BY OCTOBER 15TH SHALL BE STABILIZED WITH STONE FILL OR EROSION CONTROL NETTING AS APPROVED BY OWNER OR OWNER'S DESIGNATED REPRESENTATIVE.  12. ONCE DISTURBED AREAS HAVE BEEN STABILIZED AND VEGETATION IS ESTABLISHED, ALL TEMPORARY EROSION CONTROL MEASURES SUCH AS SILT FENCE SHALL BE REMOVED. AREAS DISTURBED BY REMOVAL OF THESE MEASURES SHALL BE IMMEDIATELY SEEDED ACCORDING TO SEEDING SPECIFICATIONS ON THESE DRAWINGS.  13. SPECIES CONSIDERED LOCALLY INVASIVE OR NOXIOUS MAY NOT BE USED.  14. USE ONLY NON-PHOSPHATE FERTILIZERS WITHIN 20' OF SURFACE WATERS.  15. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND RE-GRADED ONTO OPEN AREAS. POST SEEDING SEDIMENT, IF ANY, WILL BE DISPOSED OF IN AN ACCEPTABLE MANNER.  16. RE-VEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE. ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND RE-VEGETATED AS FOLLOWS:  16.1. A MINIMUM OF FOUR (4) INCHES OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE.  16.2. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST. IF SOIL TESTING IS NOT DEEMED FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 POUNDS PER ACRE OR 18.4 POUNDS PER 1,000 SQUARE FEET USING 10-20-20 (N-P205-K20) OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB PER 1,000 SQ. FT.).  16.3. FOLLOWING SEED BED PREPARATION, DITCHES AND BACK SLOPES WILL BE SEEDED WITH A MIXTURE OF 47% CREEPING RED FESCUE, 5% REDTOP, AND 48% TALL FESCUE. THE LAWN AREAS WILL BE SEEDED WITH A PREMIUM TURF MIXTURE OF 44% KENTUCKY BLUEGRASS, 44% CREEPING RED FESCUE, AND 12% PERENNIAL RYE GRASS. SEEDING RATE IS 1.03 LBS PER 1000 SQ. FT. LAWN QUALITY SOD MAY BE SUBSTITUTED FOR SEED.  16.4. HAY MULCH AT THE RATE OF 70-90 LBS PER 1000 SQUARE FEET OR A HYDRO- APPLICATION OF CELLULOSE FIBER SHALL BE APPLIED FOLLOWING SEEDING. A SUITABLE BINDER WILL BE USED ON HAY MULCH FOR WIND CONTROL.  17. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE IS STABILIZED.  18. AN AREA IS CONSIDERED "STABLE" IF ONE OF THE FOLLOWING HAS OCCURRED: BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED; A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED; A MINIMUM OF 3" OF NON-EROSIVE MATERIAL (SUCH AS STONE RIP RAP OR A CERTIFIED COMPOST BLANKET) HAS BEEN INSTALLED; OR EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.  19. WETLANDS (EXCEPT THOSE WHICH ARE TO BE FILLED IN ACCORDANCE WITH STATE AND FEDERAL REGULATIONS) WILL BE PROTECTED WITH SILT FENCE INSTALLED AT THE EDGE OF THE WETLAND OR THE BOUNDARY OF WETLAND DISTURBANCE.  20. IN GENERAL, AREAS WITHIN 100 FEET OF DELINEATED WETLANDS OR STREAMS SHALL HAVE A MAXIMUM PERIOD OF EXPOSURE OF NOT MORE THAN 15 DAYS.	21. IN GENERAL, AREAS WITHIN 100 FEET OF DELINEATED WETLANDS OR STREAMS SHALL HAVE A MAXIMUM PERIOD OF EXPOSURE OF NOT MORE THAN 15 DAYS.  22. FOLLOW APPROPRIATE EROSION CONTROL MEASURES PRIOR TO EACH STORM IN ALL AREAS WITHIN 100 FEET OF DELINEATED WETLANDS OR STREAMS.  23. THE DETENTION POND SHALL NOT HAVE WATER DIRECTED TO IT UNTIL THE SLOPES HAVE ESTABLISHED A 75% VEGETATIVE GROWTH.  24. THE DETENTION POND EMBANKMENT WILL BE MULCHED AT TWICE THE RATE FOR HAY MULCH OR WITH AN EROSION CONTROL BARK MULCH MIX IF THEY ARE NOT FULLY STABILIZED BY NOVEMBER 15TH.  EROSION CONTROL - INSPECTION, MONITORING & MAINTENANCE:  1. THE CONTRACTOR SHALL PREPARE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION (NHDOT), SECTION 645.  2. THE CONTRACTOR SHALL MAINTAIN INSPECTION AND REPAIR REPORTS OF EROSION AND SEDIMENT CONTROL MONITORING AND THESE SHALL BE KEPT AT THE PROJECT SITE DURING CONSTRUCTION. THE REPORTS SHALL INCLUDE THE FOLLOWING:  2.1. THE INSPECTION DATE;  2.2. NAMES, TITLES, AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION;  2.3. WEATHER INFORMATION AND A DESCRIPTION OF ANY DISCHARGES OCCURRING AT THE TIME OF THE INSPECTION;  2.4. LOCATION(S) OF DISCHARGES OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE;  2.5. LOCATION(S) OF BMPS THAT NEED TO BE MAINTAINED;  2.6. LOCATION(S) OF BMPS THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION;  2.7. LOCATION(S) WHERE ADDITIONAL BMPS ARE NEEDED THAT DID NOT EXIST AT THE TIME OF INSPECTION; AND,  2.8. CORRECTIVE ACTION REQUIRED INCLUDING IMPLEMENTATION DATES  3. AT LEAST ONCE EVERY 7 CALENDAR DAYS AND DURING OR WITHIN 24 HOURS OF ANY RAIN EVENT IN WHICH 1/2 -INCH OF PRECIPITATION OR MORE FALLS WITHIN A 24-HOUR PERIOD. THE CONTRACTOR SHALL HAVE QUALIFIED PERSONNEL INSPECT ALL CLEARED AND GRADED AREAS OF THE CONSTRUCTION SITE AND ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES.  4. THIS INSPECTION WILL VERIFY THAT ALL EROSION CONTROL DEVICES ARE IN GOOD AND WORKING CONDITION. DISCHARGE LOCATIONS WILL BE INSPECTED TO VERIFY THAT SEDIMENTS ARE NOT ENTERING THE DRAINAGE SYSTEM AND ARE NOT EXITING THE PROJECT SITE. VEHICLE ACCESS LOCATIONS WILL BE INSPECTED FOR EVIDENCE OF SEDIMENT TRACKING INTO THE PUBLIC RIGHT-OF-WAY.  5. ANY OBSERVED ACCUMULATION OF SEDIMENT OFF THE SITE WILL BE IMMEDIATELY REMOVED AND THE AREA RESTORED TO PRE-CONSTRUCTION CONDITIONS.  6. TEMPORARY MEASURES INSPECTION SHALL VERIFY THAT ANY TEMPORARY MEASURES BEING USED BY THE CONTRACTOR ARE CONSTRUCTED AND OPERATING IN ACCORDANCE WITH APPROVED STANDARDS AND SPECIFICATIONS. MEASURES SHALL BE REPAIRED AND ACCUMULATION OF SEDIMENTS SHALL BE CLEANED AS NEEDED.  EROSION CONTROL - WINTER CONSTRUCTION  FOR SITE WORK CONSTRUCTION BETWEEN OCTOBER 15TH AND EARLY APRIL THE CONTRACTOR SHALL FOLLOW WINTER CONSTRUCTION EROSION PROTECTION METHODS AS DESCRIBED BELOW:  1. CHECK ALL PERIMETER EROSION CONTROL MEASURES AND COMPLETE ANY REQUIRED MAINTENANCE AND REPAIR BEFORE THE GROUND FREEZES.  2. PUT IN PLACE ANY ADDITIONALLY NECESSARY EROSION CONTROL MEASURES; DIVERSION DIKES, HAY BALES, SILT FENCE, SEDIMENT TRAPS AND/OR BASINS, ETC. TO PROTECT DOWNSTREAM WATER QUALITY FROM ANTICIPATED WINTER WORK PRIOR TO GROUND FREEZING.  3. ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.  4. ALL DITCHES OR SWALES THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH OR THAT ARE DISTURBED AFTER OCTOBER 15TH SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.  5. AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3-INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3, OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON, BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT.  6. INSPECT THE EROSION AND SEDIMENT CONTROL MEASURES MORE FREQUENTLY THAN IS SPECIFIED IN THE EROSION CONTROL INSPECTION, MONITORING, AND MAINTENANCE SPECIFICATIONS FOUND ON THIS SHEET DURING THE WINTER AND SPRING THAW MONTHS TO PREVENT FAILURE AND/OR OVERLOADING.  7. BEFORE PREDICTED THAWS AND/OR HEAVY RAIN EVENTS CHECK ALL MEASURES TO ENSURE THAT THEY WILL BE ABLE TO HANDLE POTENTIALLY HEAVY AND INTENSE RUNOFF AND SEDIMENTATION.  8. CONTRACTOR SHALL BE PREPARED TO INSTALL A SECOND LINE OF DEFENSE IF PROBLEMS WITH IN-PLACE EROSION CONTROL MEASURES OCCUR DURING WINTER THAW AND SPRING RAIN EVENTS.  9. AS EARLY AS PRACTICAL AT THE BEGINNING OF THE NEXT GROWING SEASON, CONTRACTOR SHALL STABILIZE COMPLETED AREAS WITH PERMANENT VEGETATIVE CONTROLS AS SPECIFIED ON THESE DRAWINGS.	EROSION CONTROL - SOIL STOCKPILE PRACTICES:  1. STOCKPILES SHALL BE LOCATE A MINIMUM OF 50 FEET AWAY FROM CONCENTRATED FLOWS OF STORMWATER, DRAINAGE COURSES, AND INLETS.  2. STOCKPILES SHALL BE PROTECTED FROM STORMWATER RUN-ON USING TEMPORARY PERIMETER MEASURES SUCH AS DIVERSIONS, BERMS, SANDBAGS, OR OTHER APPROVED PRACTICE.  3. STOCKPILES SHALL BE SURROUNDED BY SEDIMENT BARRIERS TO PREVENT MIGRATION OF MATERIAL BEYOND THE IMMEDIATE CONFINES OF THE STOCKPILES.  4. STOCKPILES SHALL BE PROTECTED FROM WIND EROSION CONTROL PRACTICES AS APPROPRIATE.  5. PROTECTION OF INACTIVE STOCKPILES: 5.1. COVER WITH ANCHORED TARPS OR PROTECT WITH SOIL STABILIZATION MEASURES (TEMPORARY SEED AND MULCH OR OTHER TEMPORARY STABILIZATION PRACTICE) AND TEMPORARY PERIMETER SEDIMENT BARRIERS AT ALL TIMES. 5.2. CONCRETE RUBBLE, ASPHALT CONCRETE RUBBLE, AGGREGATE MATERIALS, AND OTHER SIMILAR MATERIALS TO BE PROTECTED WITH TEMPORARY SEDIMENT PERIMETER BARRIERS AT ALL TIMES. IF THE MATERIALS ARE A SOURCE OF DUST, THEY ARE TO BE COVERED.  6. PROTECTION OF ACTIVE STOCKPILES: 6.1. SURROUND WITH TEMPORARY LINEAR SEDIMENT BARRIERS PRIOR TO THE ONSET OF PRECIPITATION. PERIMETER BARRIERS TO BE MAINTAINED AT ALL TIMES, AND ADJUSTED AS NEEDED TO ACCOMMODATE THE DELIVERY AND REMOVAL OF MATERIALS FROM THE STOCKPILE. THE INTEGRITY OF THE BARRIER TO BE INSPECTED AT THE END OF EACH WORKING DAY. 6.2. WHEN A STORM EVENT IS PREDICTED, STOCKPILES TO BE PROTECTED WITH AN ANCHORED PROTECTIVE COVERING.  7. MAINTENANCE REQUIREMENTS: 7.1. INSPECT ALL SOIL STOCKPILES IMMEDIATELY AFTER STORM EVENTS AND AT THE FREQUENCIES SPECIFIED IN THE PROJECT EROSION AND SEDIMENT CONTROL PLAN AND IN APPLICABLE PERMITS. AT A MINIMUM, INSPECT WEEKLY DURING WET WEATHER PERIODS TO VERIFY THAT EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE AND FUNCTIONING PROPERLY. 7.2. REPAIR AND/OR REPLACE PERIMETER CONTROLS AND STOCKPILE COVERINGS AS NEEDED TO KEEP THEM FUNCTIONING PROPERLY.		



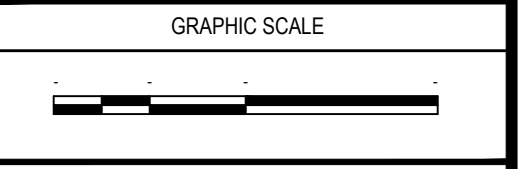
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PROJECT <b>ASM FACILITY 7 SECURITY DRIVE HUDSON, NH 03051</b>	OWNER <b>JMC HUDSON PROPERTIES, LLC 5 LEHOUX DRIVE HOOKSETT, NH 03106</b>
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NO.	DATE	DESCRIPTION	BY
△	11/15/22	TOWN REVIEW	APL
PROJECT NO.	718770		
CADD FILE	718770_C302		
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SHEET TITLE

**EROSION CONTROL NOTES  
(SHEET 1 OF 2)**

DRAWING NO. <b>C303</b>
11 OF 15

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<p><b>EROSION CONTROL - TEMPORARY VEGETATED SPECIFICATIONS:</b></p> <p>TEMPORARY VEGETATIVE COVER SHOULD BE APPLIED WHERE EXPOSED SOIL SURFACES WILL NOT BE FINAL GRADED WITHIN 45 DAYS FROM INITIAL DISTURBANCE. SUCH AREAS INCLUDE EXCAVATED AREAS, SOIL STOCKPILES, BERMS, EMBANKMENTS AND SIDES OF SEDIMENT BASINS, TEMPORARY ROAD BANKS, AND OTHER EARTHWORKS.</p> <p>1. SITE PREPARATION:</p> <p>1.1. INSTALL NEEDED EROSION AND SEDIMENT CONTROL MEASURES SUCH AS SILTATION BARRIERS, DIVERSIONS, AND SEDIMENT TRAPS.</p> <p>1.2. GRADE AS NEEDED FOR THE ACCESS OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.</p> <p>1.3. RUNOFF SHOULD BE DIVERTED FROM THE SEEDED AREA.</p> <p>1.4. ON SLOPES 4:1 OR STEEPER, THE FINAL PREPARATION SHOULD INCLUDE CREATING HORIZONTAL GROOVES PERPENDICULAR TO THE DIRECTION OF THE SLOPE TO CATCH SEED AND REDUCE RUNOFF.</p> <p>2. SEEDBED PREPARATION:</p> <p>2.1. STONES AND TRASH SHALL BE REMOVED SO AS NOT TO INTERFERE WITH THE SEEDING AREA.</p> <p>2.2. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.</p> <p>2.3. IF APPLICABLE, FERTILIZER AND ORGANIC SOIL AMENDMENTS SHOULD BE APPLIED DURING THE GROWING SEASON.</p> <p>2.3.1. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 600 POUNDS PER ACRE OR 13.8 POUNDS PER 1,000 SQUARE FEET OF LOW PHOSPHATE FERTILIZER1 (N-P2O5-K2O) OR EQUIVALENT. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB. PER 1,000 SQUARE FEET).</p> <p>2.3.2. FERTILIZER SHOULD BE RESTRICTED TO A LOW PHOSPHATE (LESS THAN 2% PHOSPHORUS), SLOW RELEASE NITROGEN (AT LEAST 50% SLOW RELEASE COMPONENT) FERTILIZER WHEN APPLIED TO AREAS BETWEEN 25 FEET AND 250 FEET FROM A SURFACE WATER BODY. NO FERTILIZER EXCEPT LIMESTONE SHOULD BE APPLIED WITHIN 25 FEET OF A SURFACE WATER BODY. THESE LIMITATIONS ARE REQUIREMENTS FOR ANY WATER BODY PROTECTED BY THE COMPREHENSIVE SHORELAND PROTECTION ACT.</p> <p>3. SEEDING:</p> <p>3.1. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2-INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED 10% WHEN HYDROSEEDING.</p> <p>3.2. TEMPORARY SEEDING SHOULD TYPICALLY OCCUR PRIOR TO SEPTEMBER 15TH.</p> <p>3.3. AREAS SEEDED BETWEEN MAY 15TH AND AUGUST 15TH SHOULD BE COVERED WITH HAY OR STRAW MULCH, ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE.</p> <p>3.4. VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED AREA SHOULD BE ACHIEVED PRIOR TO OCTOBER 15TH. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT OTHER TEMPORARY STABILIZATION MEASURES FOR WINTER PROTECTION.</p> <p>3.5. RECOMMENDED SEEDING:</p> <table border="1"> <thead> <tr> <th>SPECIES</th> <th>LBS/Ac</th> <th>LBS/1k S.F.</th> <th>REMARKS</th> </tr> </thead> <tbody> <tr> <td>WINTER RYE</td> <td>112</td> <td>2.5</td> <td>FALL SEEDING (8/15-9/15). SEED TO A 1" DEPTH.</td> </tr> <tr> <td>OATS</td> <td>80</td> <td>2.0</td> <td>SPRING SEEDING (4/15-5/15). SEED TO A 1" DEPTH.</td> </tr> <tr> <td>ANNUAL RYEGRASS</td> <td>40</td> <td>1.0</td> <td>EARLY SPRING/FALL SEEDING. 1/4" COVER OVER SEED.</td> </tr> <tr> <td>PERENNIAL RYEGRASS</td> <td>30</td> <td>0.7</td> <td>SUMMER/FALL SEEDING. SEED TO 1/2" DEPTH.</td> </tr> </tbody> </table> <p>4. MAINTENANCE REQUIREMENTS</p> <p>4.1. TEMPORARY SEEDING SHOULD BE INSPECTED WEEKLY AND AFTER ANY RAINFALL EXCEEDING 1/2 INCH IN 24 HOURS ON ACTIVE CONSTRUCTION SITES.</p> <p>4.2. TEMPORARY SEEDING SHOULD BE INSPECTED JUST PRIOR TO SEPTEMBER 15, TO ASCERTAIN WHETHER ADDITIONAL SEEDING IS REQUIRED TO PROVIDE STABILIZATION OVER THE WINTER PERIOD.</p> <p>4.3. BASED ON INSPECTION, AREAS SHOULD BE RESEDED TO ACHIEVE FULL STABILIZATION OF EXPOSED SOILS. IF IT IS TOO LATE IN THE PLANTING SEASON TO APPLY ADDITIONAL SEED, THEN OTHER TEMPORARY STABILIZATION MEASURES SHOULD BE IMPLEMENTED.</p> <p>4.4. AT A MINIMUM, 85% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION.</p> <p>4.5. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHOULD BE MADE AND AREAS SHOULD BE RESEDED, WITH OTHER TEMPORARY MEASURES (E.G., MULCH) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.</p>		SPECIES	LBS/Ac	LBS/1k S.F.	REMARKS	WINTER RYE	112	2.5	FALL SEEDING (8/15-9/15). SEED TO A 1" DEPTH.	OATS	80	2.0	SPRING SEEDING (4/15-5/15). SEED TO A 1" DEPTH.	ANNUAL RYEGRASS	40	1.0	EARLY SPRING/FALL SEEDING. 1/4" COVER OVER SEED.	PERENNIAL RYEGRASS	30	0.7	SUMMER/FALL SEEDING. SEED TO 1/2" DEPTH.	<p><b>EROSION CONTROL - PERMANENT VEGETATED SPECIFICATIONS:</b></p> <p>1. SITE PREPARATION:</p> <p>1.1. INSTALL NEEDED EROSION AND SEDIMENT CONTROL MEASURES SUCH AS SILTATION BARRIERS, DIVERSIONS, AND SEDIMENT TRAPS.</p> <p>1.2. GRADE AS NEEDED FOR THE ACCESS OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.</p> <p>1.3. RUNOFF SHOULD BE DIVERTED FROM THE SEEDED AREA.</p> <p>1.4. ON SLOPES 4:1 OR STEEPER, THE FINAL PREPARATION SHOULD INCLUDE CREATING HORIZONTAL GROOVES PERPENDICULAR TO THE DIRECTION OF THE SLOPE TO CATCH SEED AND REDUCE RUNOFF.</p> <p>2. SEEDBED PREPARATION:</p> <p>2.1. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.</p> <p>2.2. REMOVE FROM THE SURFACE ALL STONES 2 INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, CONCRETE, CLOUDS, LUMPS, TRASH OR OTHER UNSUITABLE MATERIAL.</p> <p>2.3. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE TILLED AND FIRMED AS ABOVE.</p> <p>2.4. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.</p> <p>2.5. IF APPLICABLE, FERTILIZER AND ORGANIC SOIL AMENDMENTS SHOULD BE APPLIED DURING THE GROWING SEASON.</p> <p>2.5.1. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 600 POUNDS PER ACRE OR 13.8 POUNDS PER 1,000 SQUARE FEET OF LOW PHOSPHATE FERTILIZER1 (N-P2O5-K2O) OR EQUIVALENT. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB. PER 1,000 SQUARE FEET).</p> <p>2.5.2. FERTILIZER SHOULD BE RESTRICTED TO A LOW PHOSPHATE (LESS THAN 2% PHOSPHORUS), SLOW RELEASE NITROGEN (AT LEAST 50% SLOW RELEASE COMPONENT) FERTILIZER WHEN APPLIED TO AREAS BETWEEN 25 FEET AND 250 FEET FROM A SURFACE WATER BODY. 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WHEN CROWN VETCH IS SEEDED IN LATER SUMMER, AT LEAST 35% OF THE SEED SHOULD BE HARD SEED (UNSCARIFIED). IF SEEDING CANNOT BE DONE WITHIN THE SPECIFIED SEEDING DATES, MULCH ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING PRACTICE," AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.</p> <p>3.4.1. TEMPORARY SEEDING SHOULD TYPICALLY OCCUR PRIOR TO SEPTEMBER 15TH.</p> <p>3.4.2. AREAS SEEDED BETWEEN MAY 15TH AND AUGUST 15TH SHOULD BE COVERED WITH HAY OR STRAW MULCH, ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE PRESENTED IN THE "NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL VOLUME 3 - CONSTRUCTION PHASE EROSION AND SEDIMENT CONTROLS".</p> <p>3.5. VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED AREA SHOULD BE ACHIEVED PRIOR TO OCTOBER 15TH. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT TEMPORARY STABILIZATION MEASURES FOR OVERWINTER PROTECTION, AND COMPLETE PERMANENT SEED STABILIZATION DURING THE NEXT GROWING SEASON.</p> <p>4. HYDROSEEDING:</p> <p>4.1. WHEN HYDROSEEDING (HYDRAULIC APPLICATION), PREPARE THE SEEDBED AS SPECIFIED ABOVE OR BY HAND RAKING TO LOOSEN AND SMOOTH THE SOIL AND TO REMOVE SURFACE STONES LARGER THAN 2 INCHES IN DIAMETER.</p> <p>4.2. SLOPES MUST BE NO STEEPER THAN 2 TO 1 (2 FEET HORIZONTALLY TO 1 FOOT VERTICALLY).</p> <p>4.3. LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. THE USE OF FIBER MULCH ON CRITICAL AREAS IS NOT RECOMMENDED (UNLESS IT IS USED TO HOLD STRAW OR HAY). BETTER PROTECTION IS GAINED BY USING STRAW MULCH AND HOLDING IT WITH ADHESIVE MATERIALS OR 500 POUNDS PER ACRE OF WOOD FIBER MULCH.</p> <p>4.4. SEEDING RATES MUST BE INCREASED 10% WHEN HYDROSEEDING.</p> <p>4.5. RECOMMENDED SEEDING:</p> <table border="1"> <thead> <tr> <th>SPECIES</th> <th>LBS/Ac</th> <th>LBS/1k S.F.</th> </tr> </thead> <tbody> <tr> <td>TALL FESCUE</td> <td>20</td> <td>0.45</td> </tr> <tr> <td>CREeping RED FESCUE</td> <td>20</td> <td>0.45</td> </tr> <tr> <td>REDTOP</td> <td>2</td> <td>0.05</td> </tr> <tr> <td></td> <td>42</td> <td>0.95 TOTAL</td> </tr> </tbody> </table>		SPECIES	LBS/Ac	LBS/1k S.F.	TALL FESCUE	20	0.45	CREeping RED FESCUE	20	0.45	REDTOP	2	0.05		42	0.95 TOTAL	<p>5. MAINTENANCE REQUIREMENTS</p> <p>5.1. PERMANENT SEEDED AREAS SHOULD BE INSPECTED AT LEAST MONTHLY DURING THE COURSE OF CONSTRUCTION. INSPECTIONS, MAINTENANCE, AND CORRECTIVE ACTIONS SHOULD CONTINUE UNTIL THE OWNER ASSUMES PERMANENT OPERATION OF THE SITE.</p> <p>5.2. SEEDED AREAS SHOULD BE MOWED AS REQUIRED TO MAINTAIN A HEALTHY STAND OF VEGETATION, WITH MOWING HEIGHT AND FREQUENCY DEPENDENT ON TYPE OF GRASS COVER.</p> <p>5.3. BASED ON INSPECTION, AREAS SHOULD BE RESEDED TO ACHIEVE FULL STABILIZATION OF EXPOSED SOILS.</p> <p>5.4. AT A MINIMUM, 85% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION.</p> <p>5.5. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHOULD BE MADE AND AREAS SHOULD BE RESEDED, WITH OTHER TEMPORARY MEASURES (E.G., MULCH) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.</p>	
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Gale Associates, Inc.  
Engineers and Planners  
6 BEDFORD FARMS DRIVE | BEDFORD, NH 03110  
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Boston Baltimore Orlando Hartford Bedford

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**NOT FOR CONSTRUCTION**

PROJECT: **ASM FACILITY  
7 SECURITY DRIVE  
HUDSON, NH 03051**

OWNER: **JMC HUDSON PROPERTIES, LLC  
5 LEHOUX DRIVE  
HOOKSETT, NH 03106**

NO.	DATE	DESCRIPTION	BY
△	11/15/22	TOWN REVIEW	APL

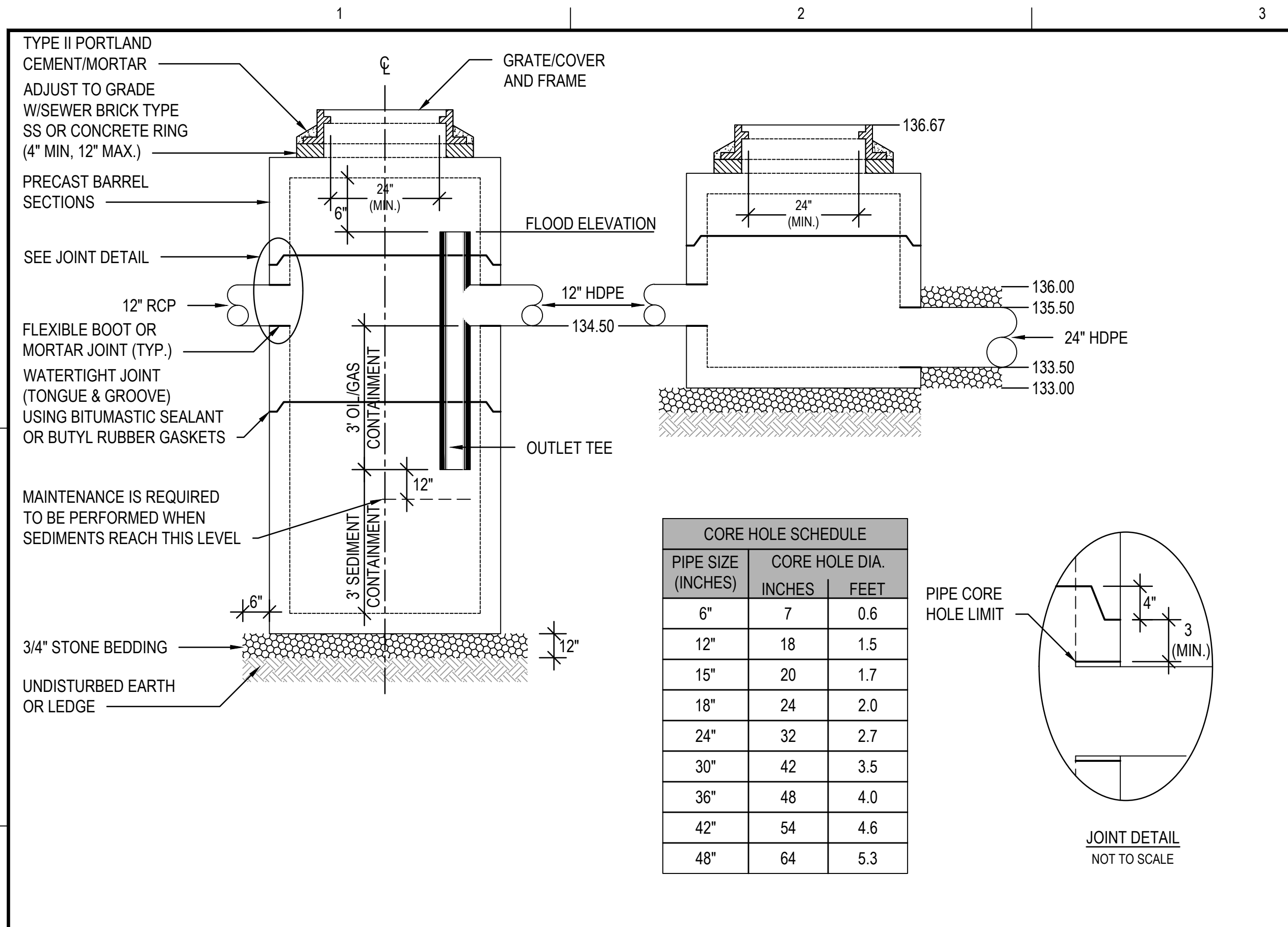
PROJECT NO.	718770
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GRAPHIC SCALE

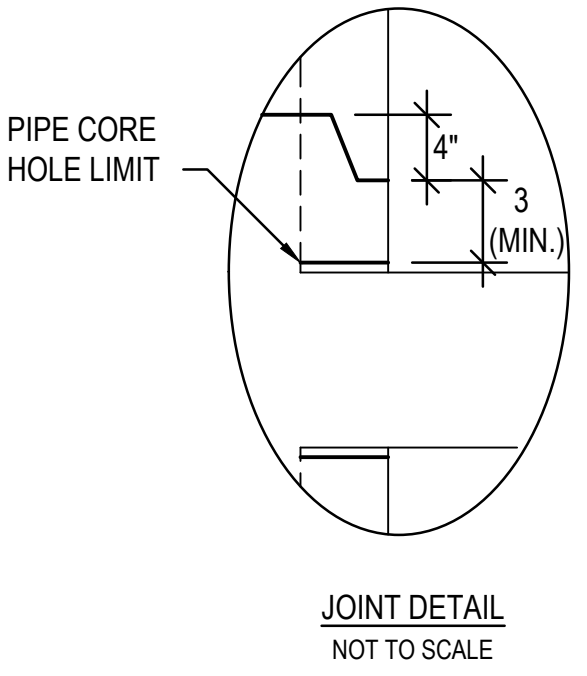
SHEET TITLE

**EROSION CONTROL NOTES  
(SHEET 2 OF 2)**

DRAWING NO.	<b>C304</b>
12 OF 15	

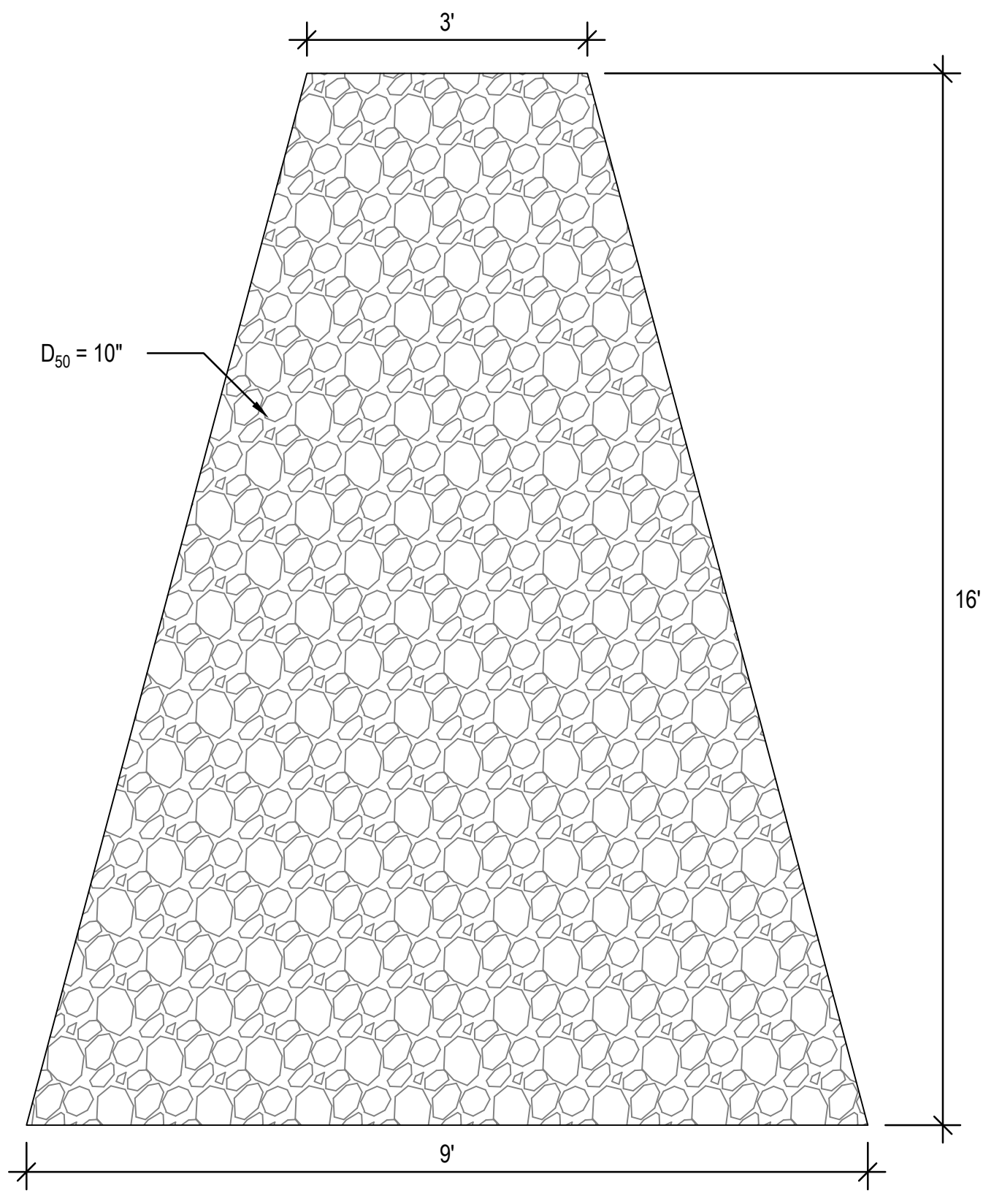


CORE HOLE SCHEDULE		
PIPE SIZE (INCHES)	CORE HOLE DIA. INCHES	FEET
6"	7	0.6
12"	18	1.5
15"	20	1.7
18"	24	2.0
24"	32	2.7
30"	42	3.5
36"	48	4.0
42"	54	4.6
48"	64	5.3

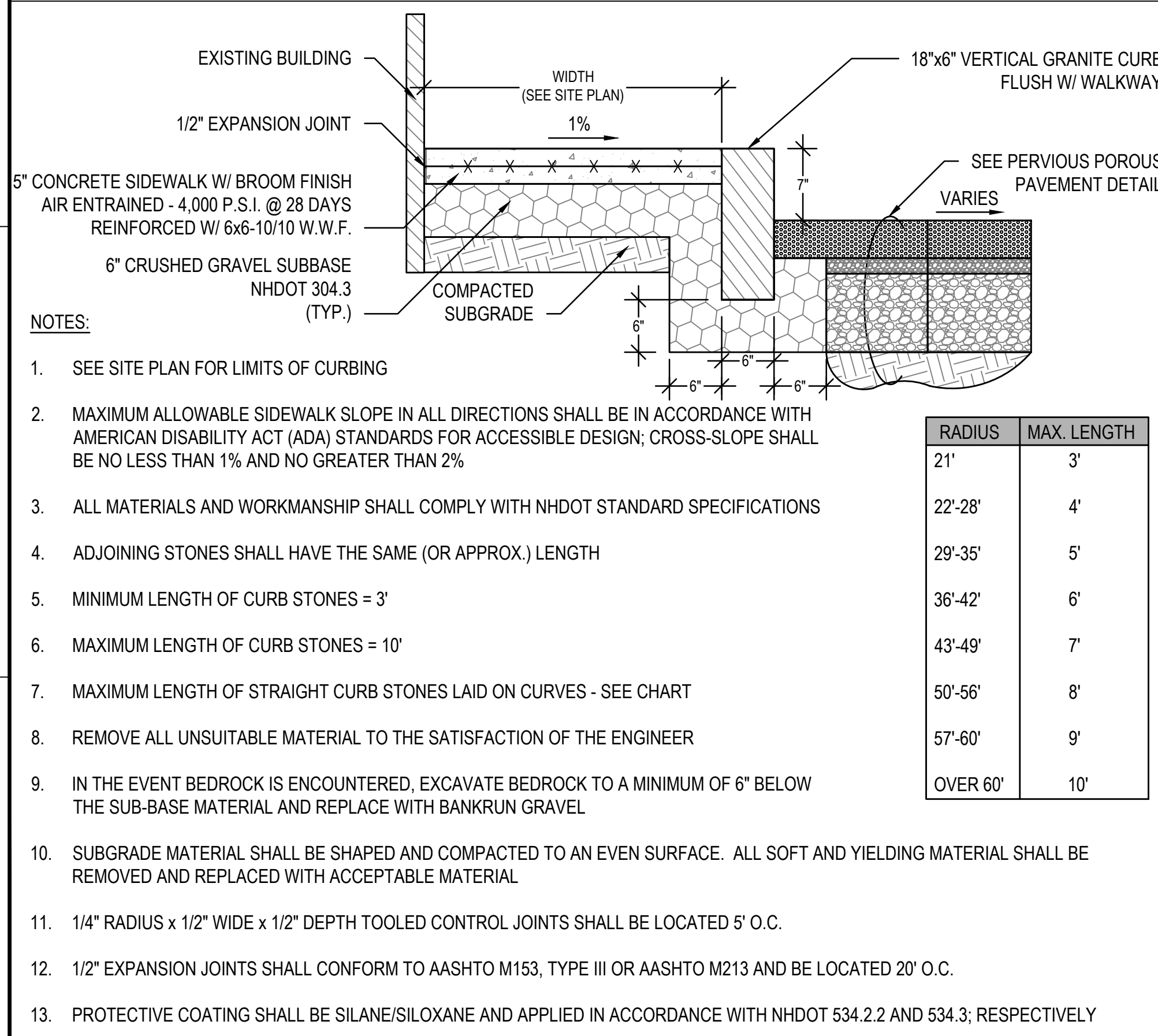


**1 SUBSURFACE INFILTRATION DETAIL**  
N.T.S.

- NOTES:**
1. PRECAST SECTIONS SHALL BE REINFORCED AND BE 5" THICK FOR A 4' DIAMETER STRUCTURE, 6" THICK FOR A 5' DIAMETER STRUCTURE, 7" THICK FOR A 6' DIAMETER STRUCTURE AND 9" THICK FOR A 8' DIAMETER STRUCTURE.
  2. PRECAST BASE SECTIONS SHALL BE REINFORCED AND CONSIST OF A FLOOR THICKNESS OF 6" THICK FOR A 4' DIAMETER STRUCTURE, 8" THICK FOR A 5' DIAMETER STRUCTURE, 8" THICK FOR A 6' DIAMETER STRUCTURE AND 10" THICK FOR A 9' DIAMETER STRUCTURE.
  3. PRECAST SECTIONS SHALL MEET HS-20 LOADING, CONSIST OF CONCRETE THAT IS A MINIMUM OF 4000psi @ 28 DAYS AND SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM C-478; LATEST REVISION.
  4. PRECAST SECTIONS SHALL HAVE TONGUE AND GROOVE JOINT 4" HIGH AT AN 11-DEGREE ANGLE CENTERED IN THE WIDTH OF THE WALL AND SHALL BE ASSEMBLED USING AN APPROVED FLEXIBLE SEALANT IN JOINTS.
  5. PRECAST CONE SECTIONS MAY BE EITHER CONCENTRIC, ECCENTRIC OR FLAT SLAB TOPS MAY BE USED WHERE PIPE WOULD OTHERWISE ENTER INTO THE CONE SECTION OF THE STRUCTURE AND WHERE PERMITTED.
  6. ALL STRUCTURES WITH MULTIPLE PIPES SHALL HAVE A MINIMUM OF 12" OF INSIDE SURFACE BETWEEN HOLES AND NO MORE THAN 75% OF A HORIZONTAL CROSS-SECTION SHALL BE HOLES, INCLUDING NO HOLES SHALL BE LOCATED CLOSER THAN 3" TO JOINTS.
  7. OUTSIDE PIPE EDGES SHALL PROJECT NO MORE THAN 3" BEYOND INSIDE WALL STRUCTURE.
  8. SEE PLANS FOR STRUCTURE SIZES.
  9. LABEL ON PLANS THE SIZE OF CB'S TO BE INSTALLED (i.e. 4' DIA., 5' DIA., 6' DIA., ETC.).
  10. CONTACT LOCAL MANUFACTURERS TO REVIEW CB/DMH LAYOUT & DETERMINE ASSOCIATED SIZES.

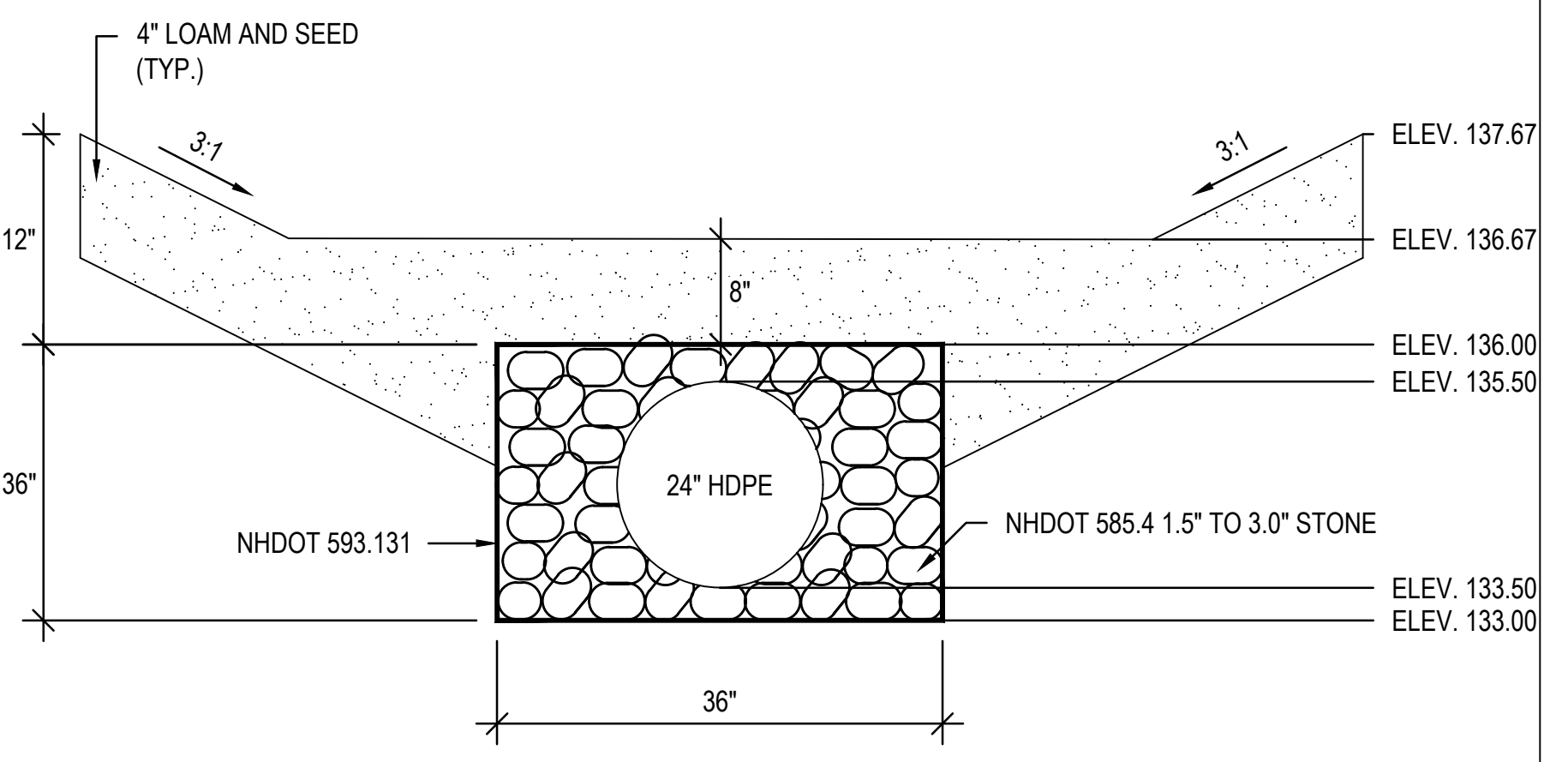


**2 RIPRAP APRON DETAIL**  
N.T.S.

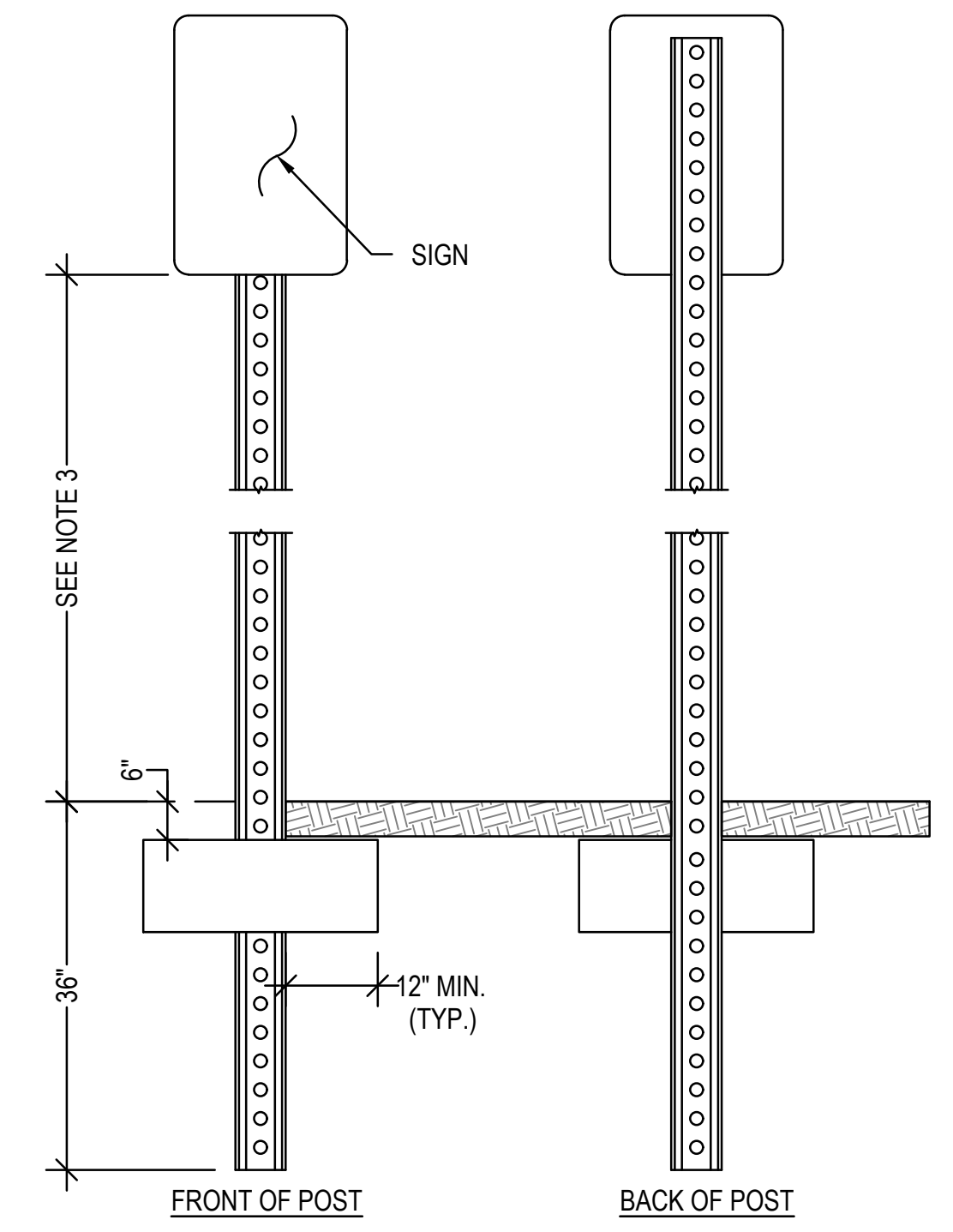


RADIUS	MAX. LENGTH
21'	3'
22'-28'	4'
29'-35'	5'
36'-42'	6'
43'-49'	7'
50'-56'	8'
57'-60'	9'
OVER 60'	10'

**3 VERTICAL GRANITE CURB/SIDEWALK/BUILDING DETAIL**  
N.T.S.



**4 DRAINAGE SWALE DETAIL**  
N.T.S.



- NOTES:**
1. STEEL "U" POSTS AND HARDWARE SHALL BE IN ACCORDANCE WITH NHDOT SECTION 615.
  2. ALL POSTS SHALL BE INSTALLED PLUMB AND DRIVEN TO DEPTH IDENTIFIED ABOVE.
  3. SIGNS SHALL BE INSTALLED TO A HEIGHT OF 6' MEASURED FROM THE FINISH GRADE OF PAVEMENT TO BOTTOM OF SIGN; IF INSTALL WITHIN SHOULDER. INSTALLATION HEIGHT SHALL INCREASE TO 7' MEASURED FROM FINISH GRADE OF SIDEWALK/RAISED MEDIAN TO BOTTOM OF SIGN; IF INSTALLED WITHIN SIDEWALK OF RAISED MEDIAN.

**5 STEEL "U" POST DETAIL**  
N.T.S.

**NOT FOR CONSTRUCTION**

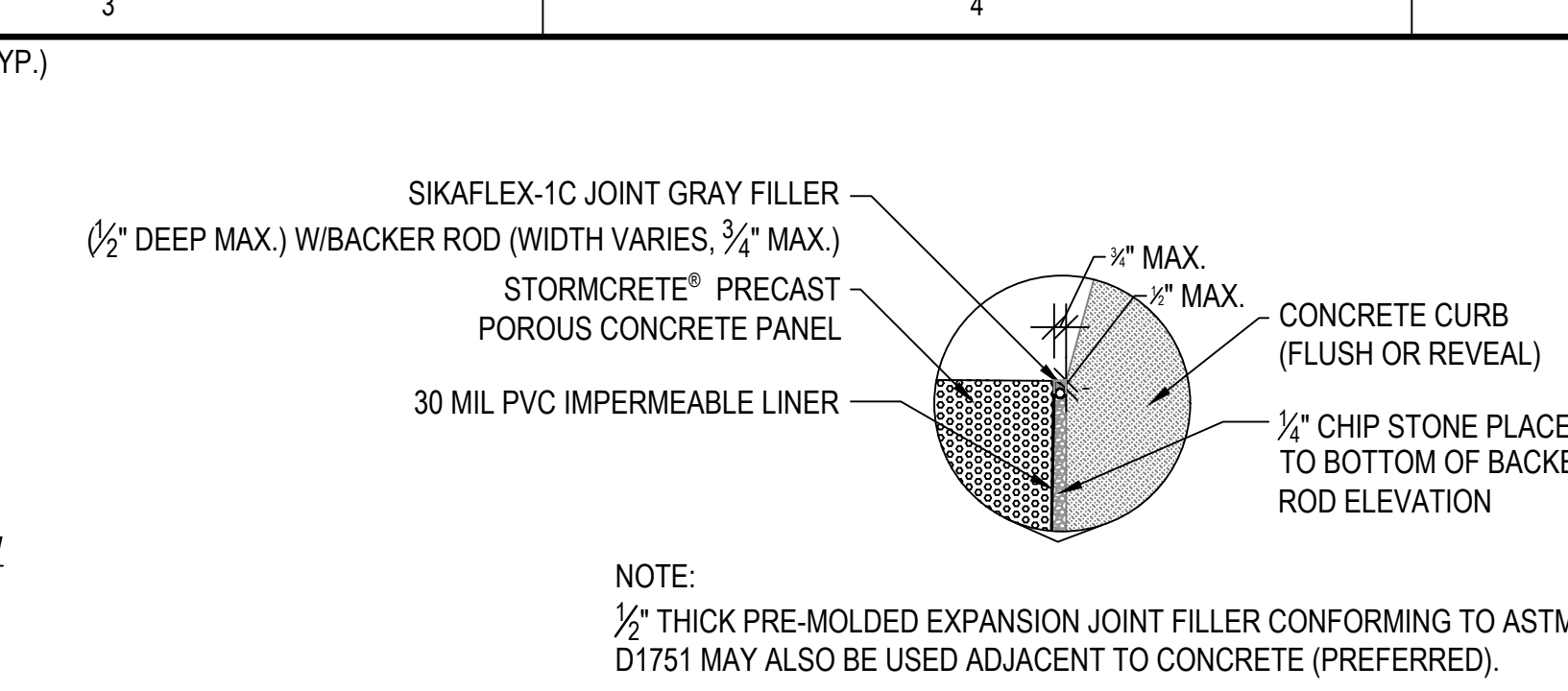
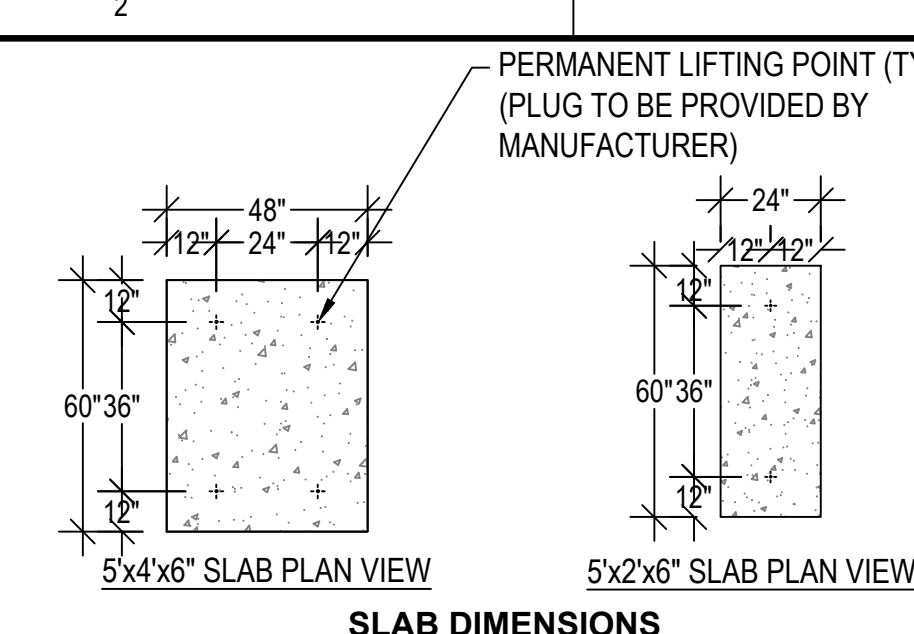
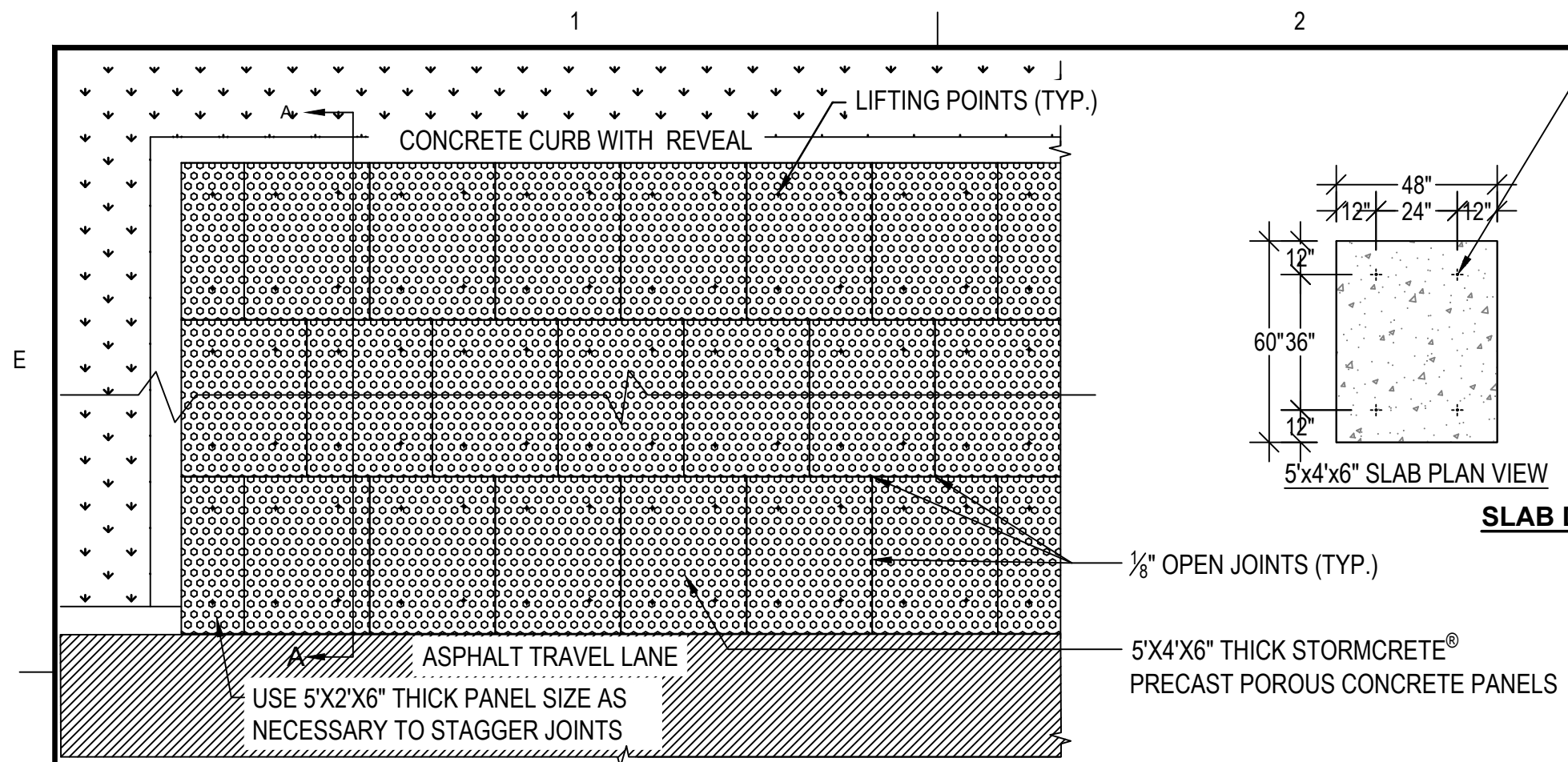
PROJECT  
**ASM FACILITY  
7 SECURITY DRIVE  
HUDSON, NH 03051**

OWNER  
**JMC HUDSON PROPERTIES, LLC  
5 LEHOUX DRIVE  
HOOKSETT, NH 03106**

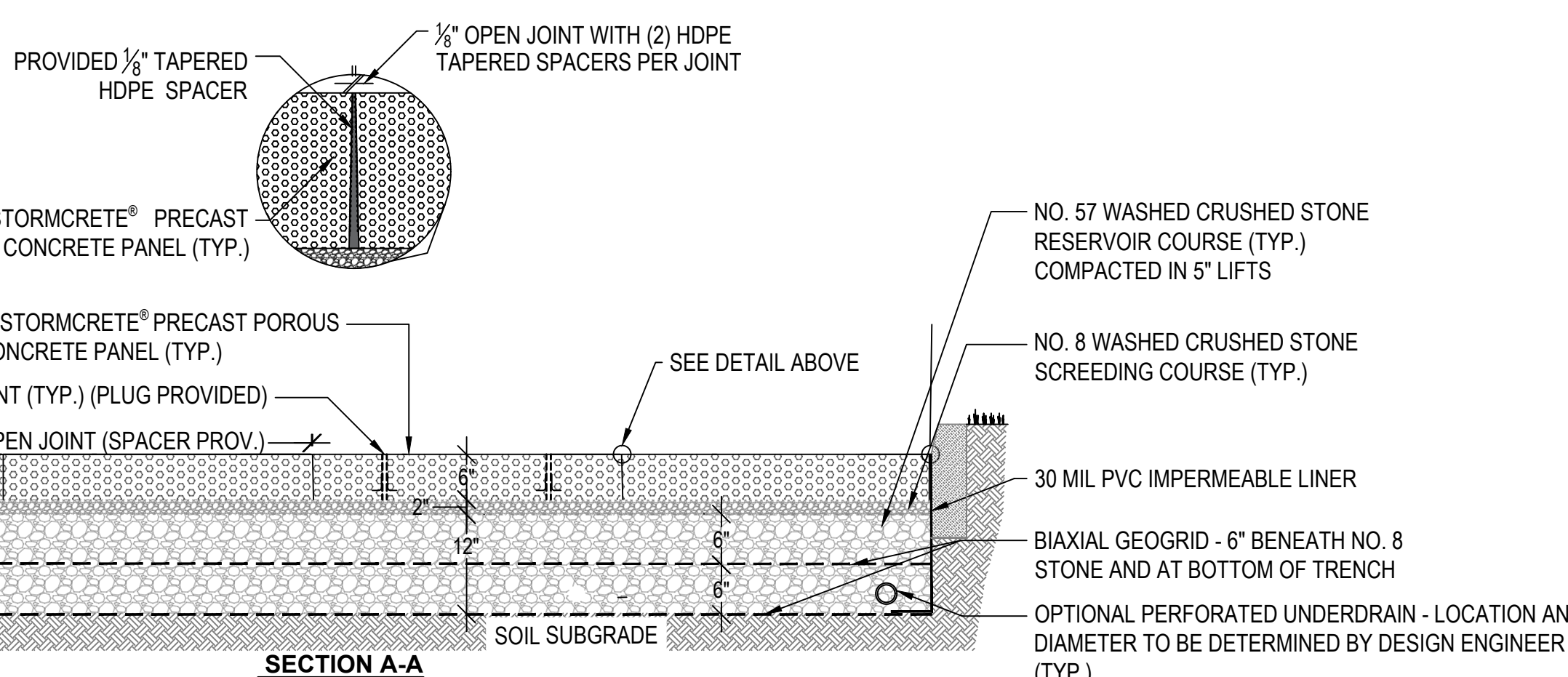
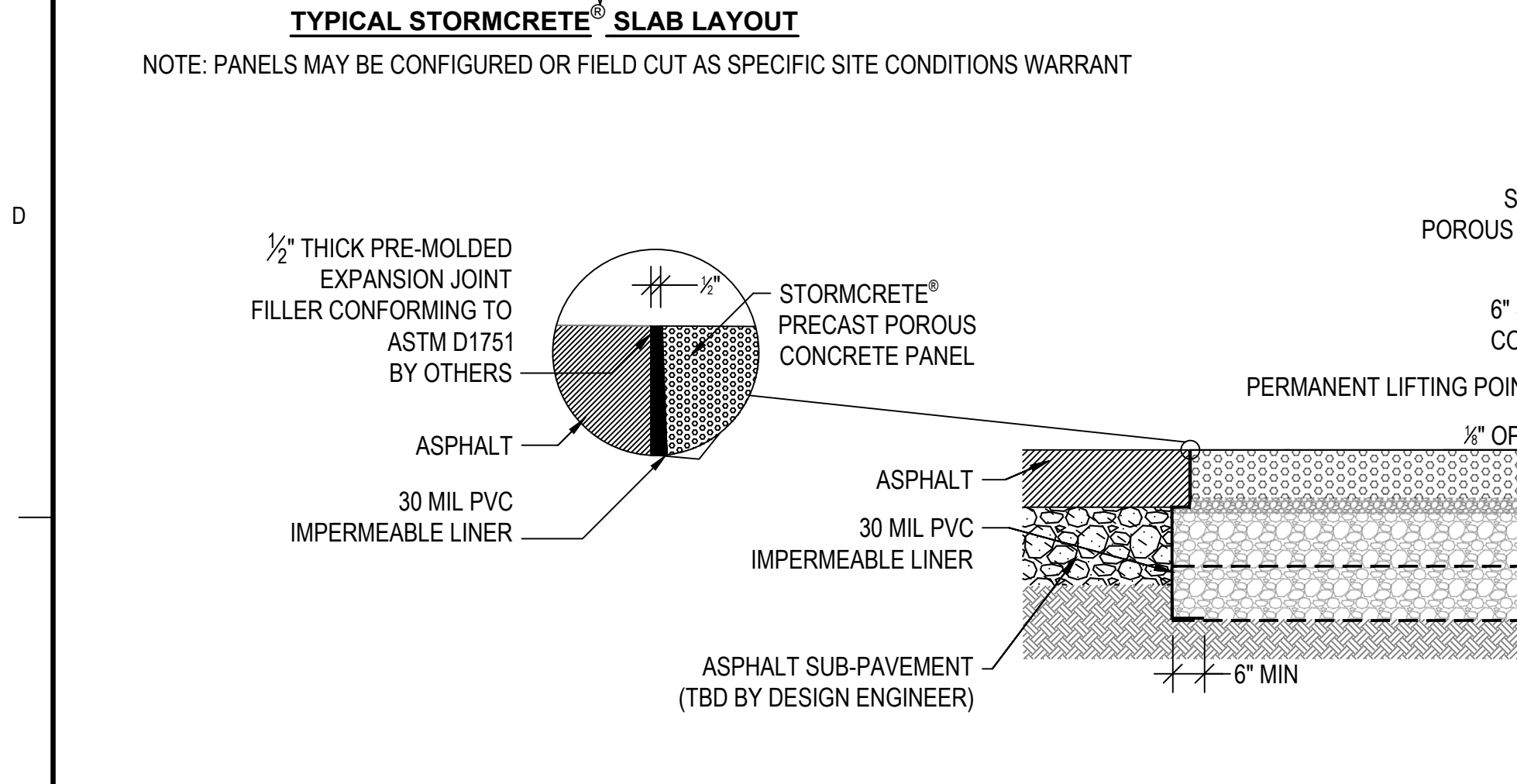
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DESIGNED BY	APL		
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CHECKED BY	SMB		
DATE	9/19/2022		
DRAWING SCALE	N.T.S.		

GRAPHIC SCALE

SHEET TITLE  
**CIVIL CONSTRUCTION  
DETAILS  
(SHEET 1 OF 3)**



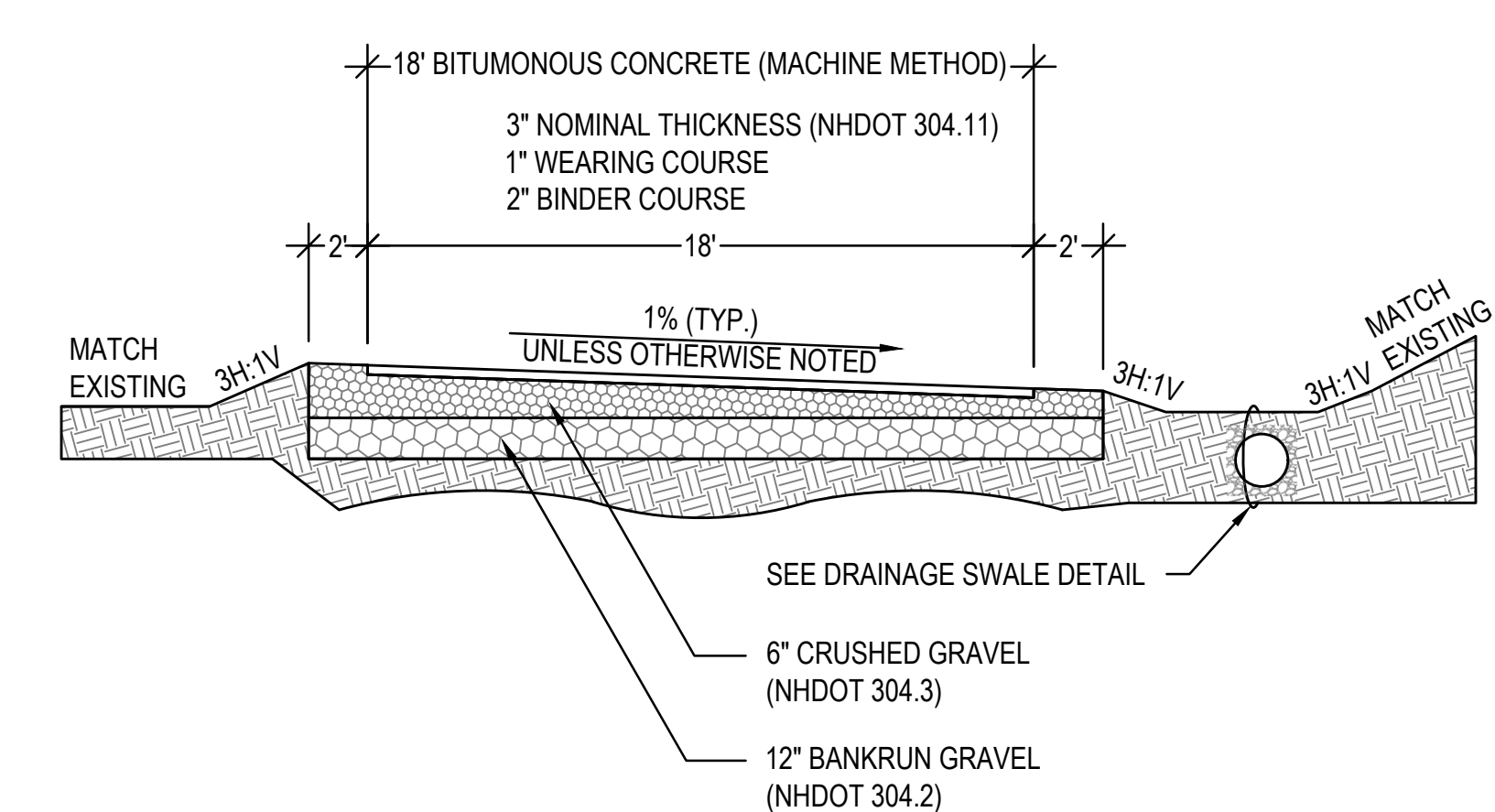
- NOTES:**
- PRECAST POROUS CONCRETE PANELS SHALL BE THE STORMCRETE® SYSTEM AS MANUFACTURED BY POROUS TECHNOLOGIES, LLC [WWW.STORM-CRETE.COM](http://WWW.STORM-CRETE.COM) (888) 357-1161
  - STORMCRETE® PRECAST POROUS CONCRETE SHALL HAVE A CONCRETE AVERAGE UNIT WEIGHT OF 120 LB/CF (+/- 4%) AND A VOID RATIO OF 15-25% WHEN TESTED IN CONFORMANCE WITH ASTM D1754/1754M-12 STANDARD TEST METHOD FOR DENSITY AND VOID CONTENT OF HARDENED PERVIOUS CONCRETE.
  - WASHED CRUSHED STONE RESERVOIR AND SCREEDING COURSE GRADATIONS AND THICKNESS SHALL BE BASED ON SUBSURFACE CONDITIONS, DEPTH OF FREEZING, TRAFFIC LOADINGS, AND STORM WATER DETENTION/RETENTION REQUIREMENTS AS SPECIFIED BY DESIGN PROFESSIONAL.
  - ADJACENT MATERIAL SHALL NOT BE ALLOWED TO COME INTO DIRECT CONTACT WITH SIDES OF PANEL. PLACE 1/2" MOLDED BITUMINOUS EXPANSION JOINT MATERIAL IN CONFORMANCE WITH ASTM D1751, STANDARD SPECIFICATION FOR PREFORMED EXPANSION JOINT FILLER FOR CONCRETE PAVING AND STRUCTURAL CONSTRUCTION (NONEXTRUDING AND RESILIENT BITUMINOUS TYPES).
  - PRECAST POROUS CONCRETE PANELS SHALL BE REINFORCED WITH ULTRA-THIN MONOFILAMENT HOMOPOLYMER POLYPROPYLENE FIBERS EQUIVALENT TO SIKA PPF-300 MANUFACTURED BY SIKA CORPORATION, OR APPROVED EQUAL.
  - 1/2" GALV. COIL THREAD LIFTING INSERT SHALL BE MANUFACTURED BY A.L.P. SUPPLY PART NUMBER C16312134P, OR EQUAL.
  - PANELS MAY BE CONFIGURED OR FIELD CUT AS SPECIFIC SITE CONDITIONS REQUIRE. PANELS SHALL BE CUT WITH A DIAMOND BLADE MASONRY SAW. CUT UNITS SHALL BE NO NARROWER THAN 18" AND CUTTING SHALL OCCUR SO THAT A MINIMUM OF 8" IS MAINTAINED BETWEEN LIFTERS EMBEDDED IN PANELS AND CUT EDGES.
  - PANEL LAYOUTS SHALL BE PLANNED SO AS TO MINIMIZE OR ELIMINATE LOCATIONS WHERE UTILITY STRUCTURES INTERSECT WITH PANEL JOINTS. WHOLE AND HALF PANELS SHALL BE USED IN COMBINATION WITH CAST IN PLACE COLLARS TO SURROUND UTILITIES.
  - STORMCRETE® PRECAST POROUS CONCRETE PANELS SHALL HAVE A MINIMUM INFILTRATION RATE OF 250 IN./HR. WHEN TESTED IN ACCORDANCE WITH ASTM C1701 - INFILTRATION RATE OF IN PLACE PERVIOUS CONCRETE.
  - BIAXIAL GEOGRID SHALL BE INDUSTRIAL FABRICS BaseLOK™ BL-6 OR APPROVED EQUAL.
  - NO. 57 STONE SHALL BE COMPACTED IN 6" LIFTS.
  - REFER TO MANUFACTURER'S HANDLING AND INSTALLATION INSTRUCTIONS FOR ADDITIONAL PRODUCT SPECIFIC INFORMATION.



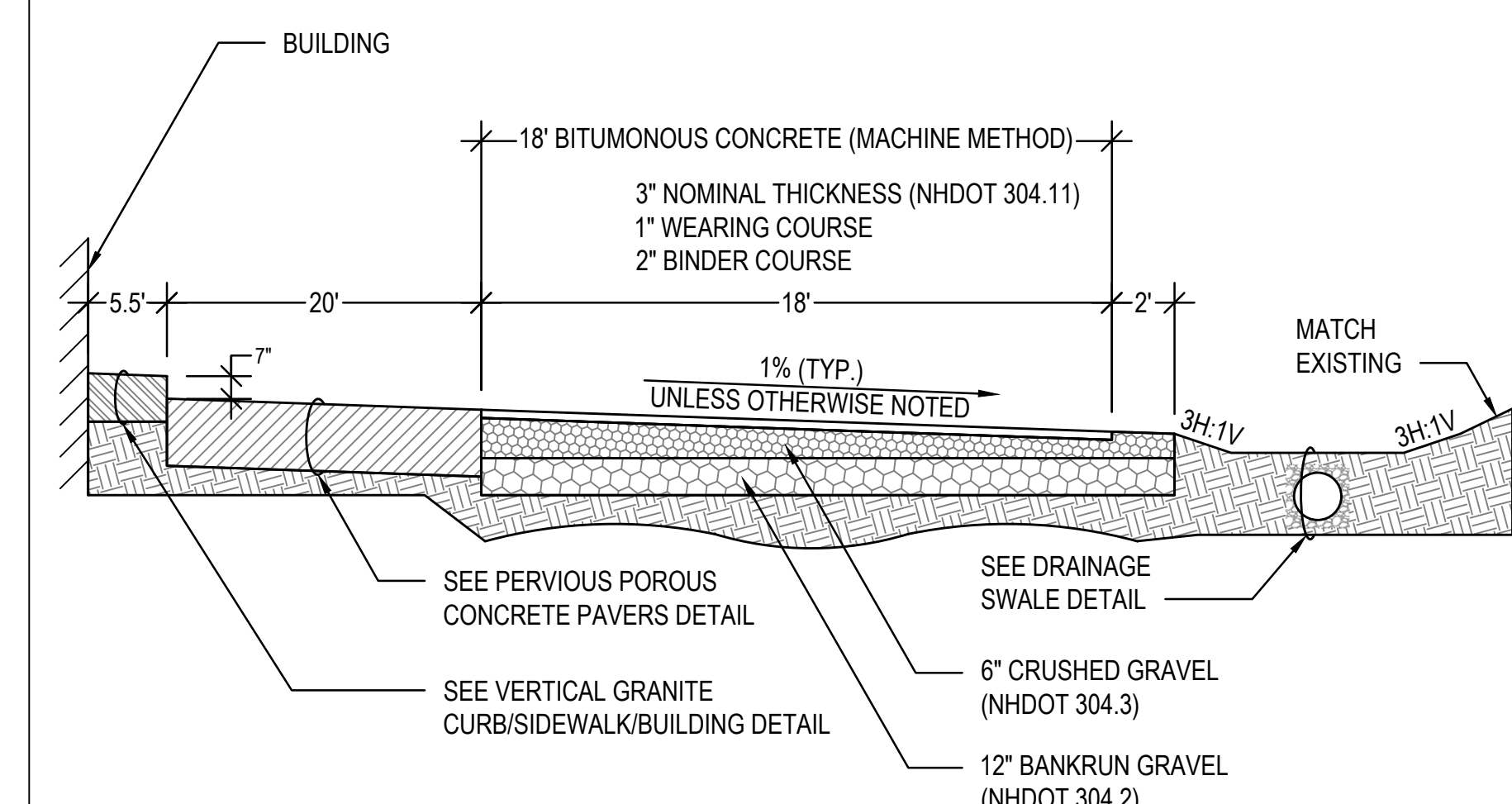
**6 PERVIOUS POROUS CONCRETE PAVERS DETAIL**  
N.T.S.

IDENT #	SIGN SIZE		TEXT	TEXT DIMENSIONS			SHIELD SIZE (INCH)	ARROW (INCH)	NUMBER AL (INCH)	# SIGNS REQ'D	SIGN AREA (SQ. FT.)		POSTS PER SIGN					REMARKS					
	WIDTH (INCH)	HEIGHT (INCH)		LETTER HEIGHT (INCH)							NOM. AREA	TOTAL AREA	BREAKAWAY	STEEL I-BEAM	CONCRETE BASE	4" O.D. ALUMINUM U-CHANNEL GALV.	2" SQ. BREAKAWAY						
				UC	LC	CAPS																	
R5-1	30	30				4C				1	6.25	12.5							WHITE ON RED ON WHITE MOUNTED ON 2" "U" GALV. POST				
R1-1	30	30				4C				1	4.25	8.5							WHITE ON RED ON 2" "U" GALV. POST				
D9-6	24	24								2	4	8							WHITE ON BLUE ON 2" "U" GALV. POST				

**7 SIGN TEXT SUMMARY**  
N.T.S.



**8 TYPICAL DRIVEWAY SECTION WITH STORMTECH PIPE DETAIL**  
N.T.S.



**9 TYPICAL DRIVEWAY SECTION W/PARKING AREA DETAIL**  
N.T.S.

**GALE**  
 Engineers and Planners  
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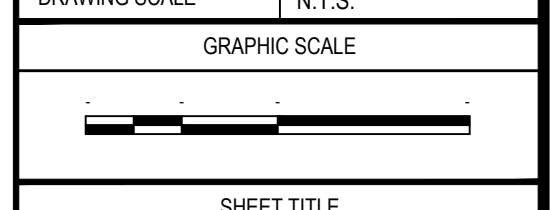
**NOT FOR CONSTRUCTION**

PROJECT  
**ASM FACILITY  
 7 SECURITY DRIVE  
 HUDSON, NH 03051**

OWNER  
**JMC HUDSON PROPERTIES, LLC  
 5 LEHOUX DRIVE  
 HOOKSETT, NH 03106**

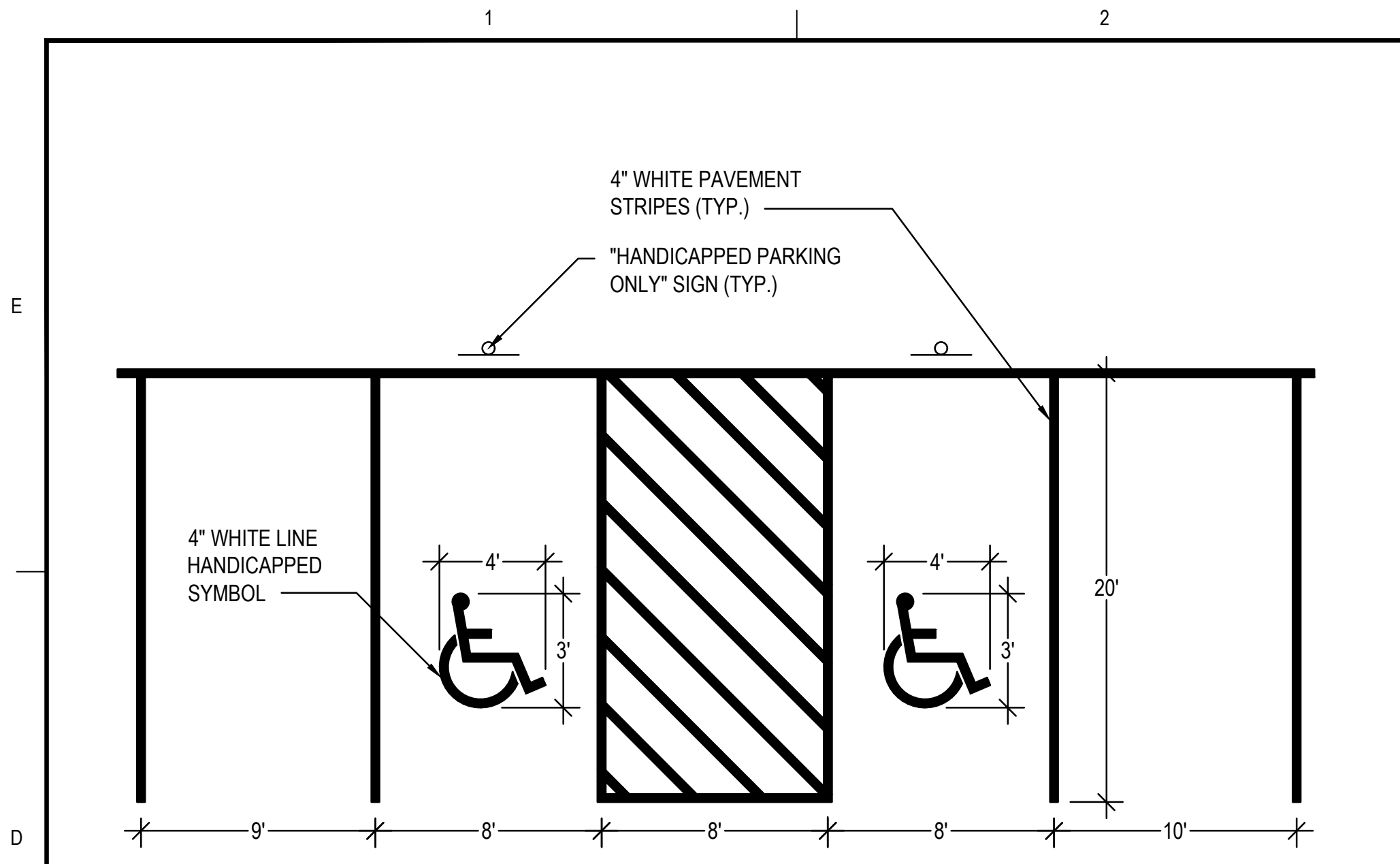
NO.	DATE	DESCRIPTION	BY
1	11/15/22	TOWN REVIEW	APL

PROJECT NO. 718770  
 CADD FILE 718770\_C501  
 DESIGNED BY APL  
 DRAWN BY APL  
 CHECKED BY SMB  
 DATE 9/19/2022  
 DRAWING SCALE N.T.S.



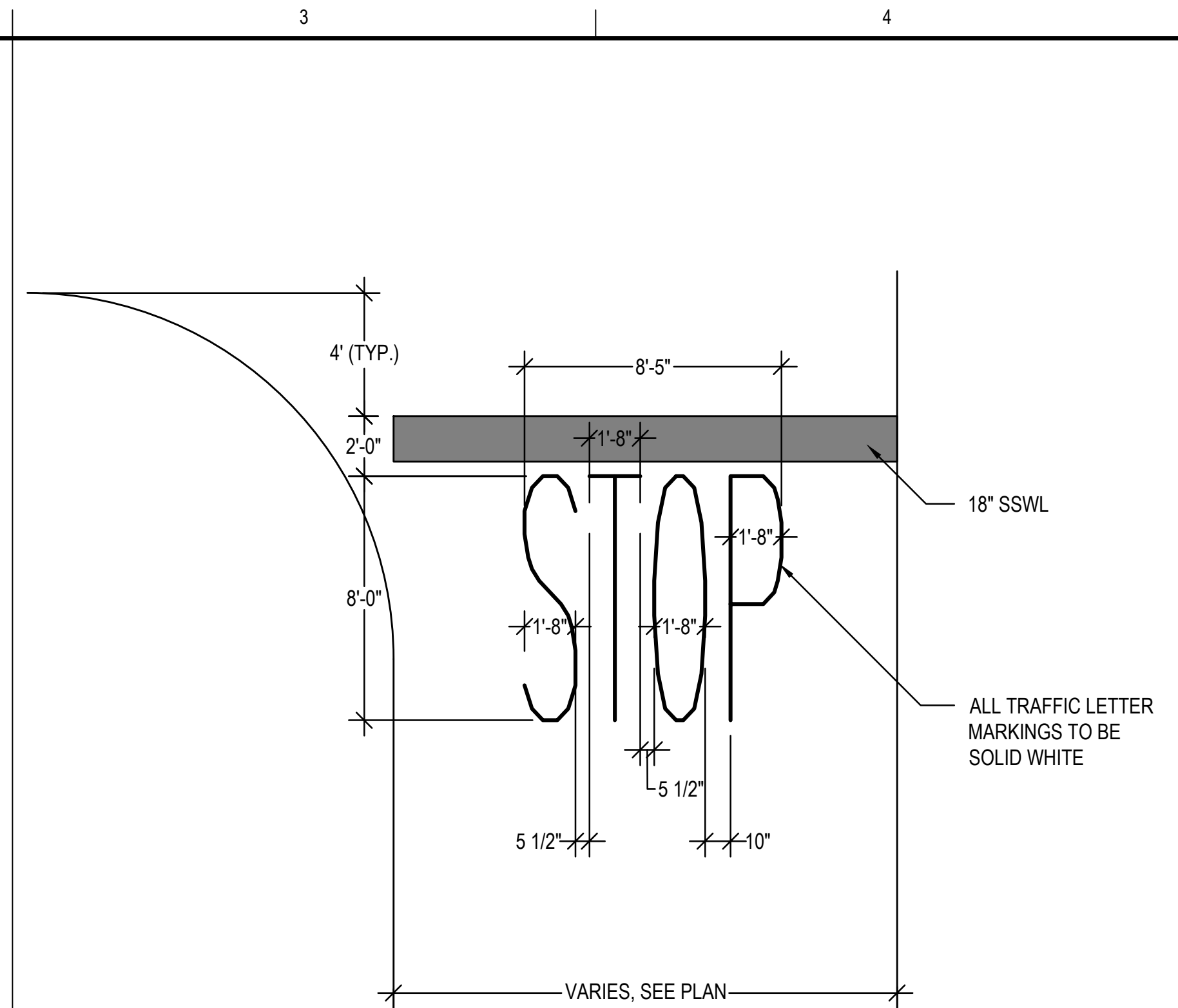
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**CIVIL CONSTRUCTION  
 DETAILS  
 (SHEET 2 OF 3)**

DRAWING NO.  
**C502**  
 14 OF 15

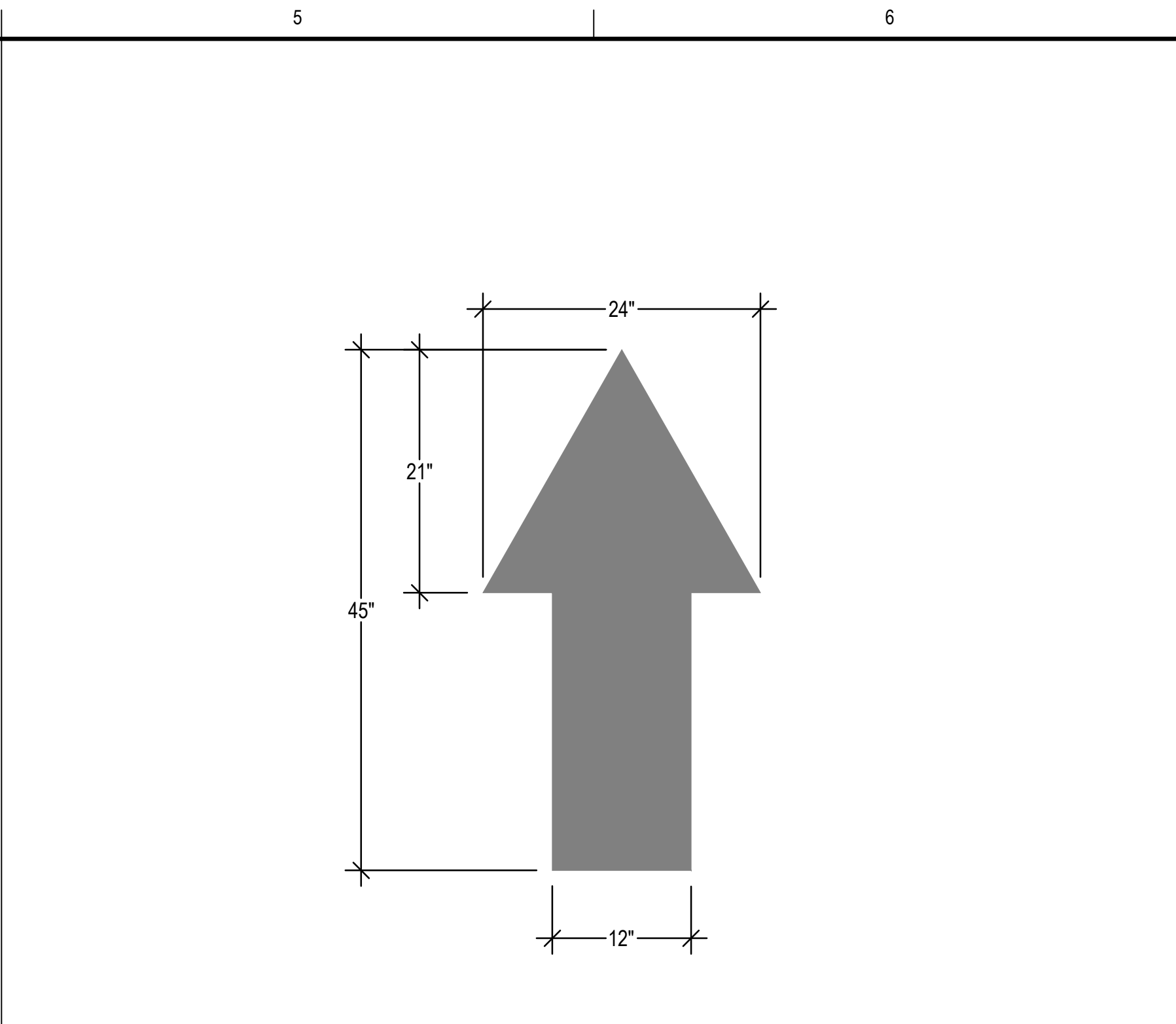


NOTES:  
 1. ALL PAVEMENT MARKINGS/STRIPING SHALL CONFORM TO LOCAL AND STATE REGULATIONS.

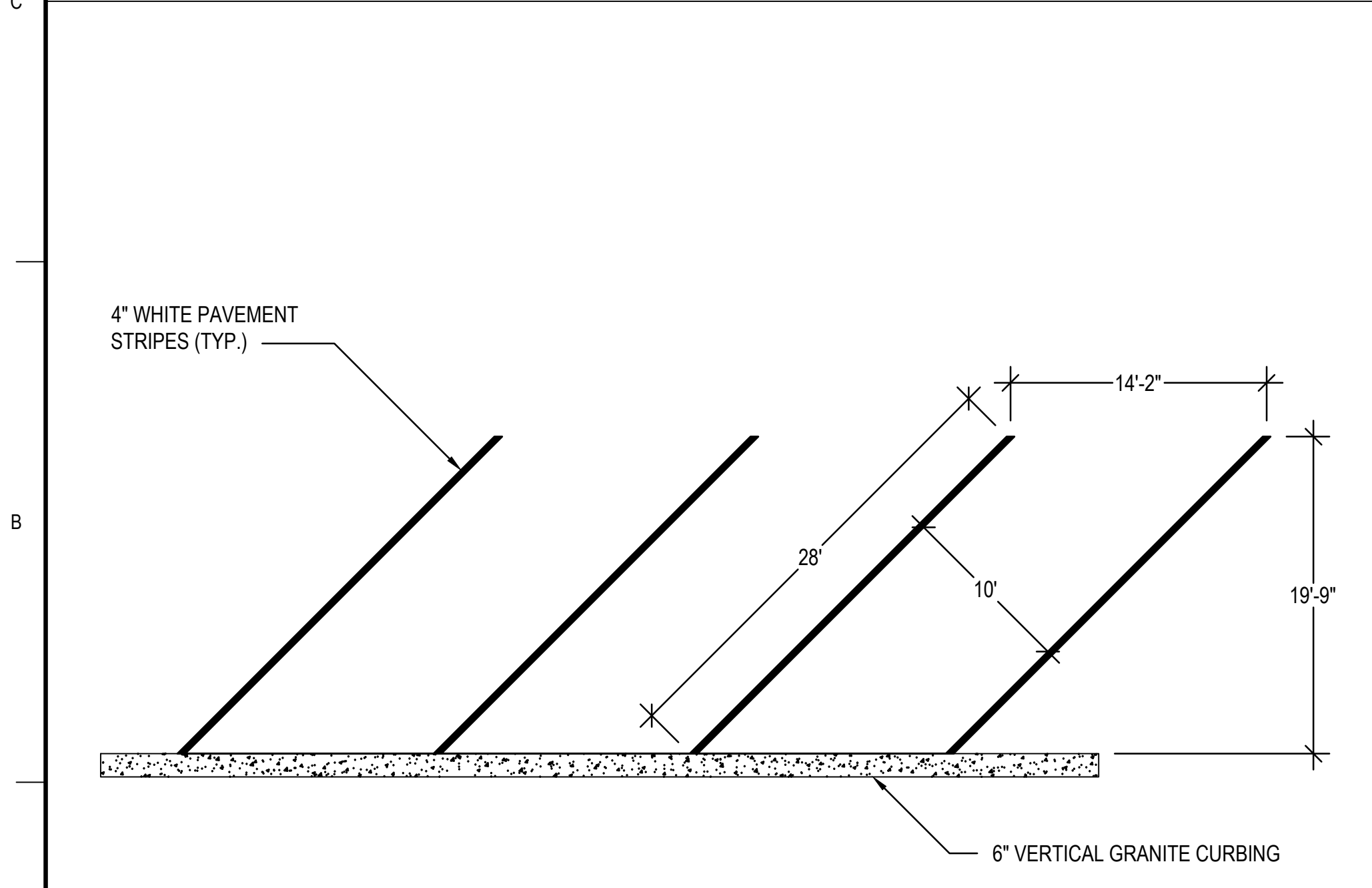
10 MULTI-HANDICAP & ADJACENT PARKING PAVEMENT MARKING DETAIL  
 N.T.S.



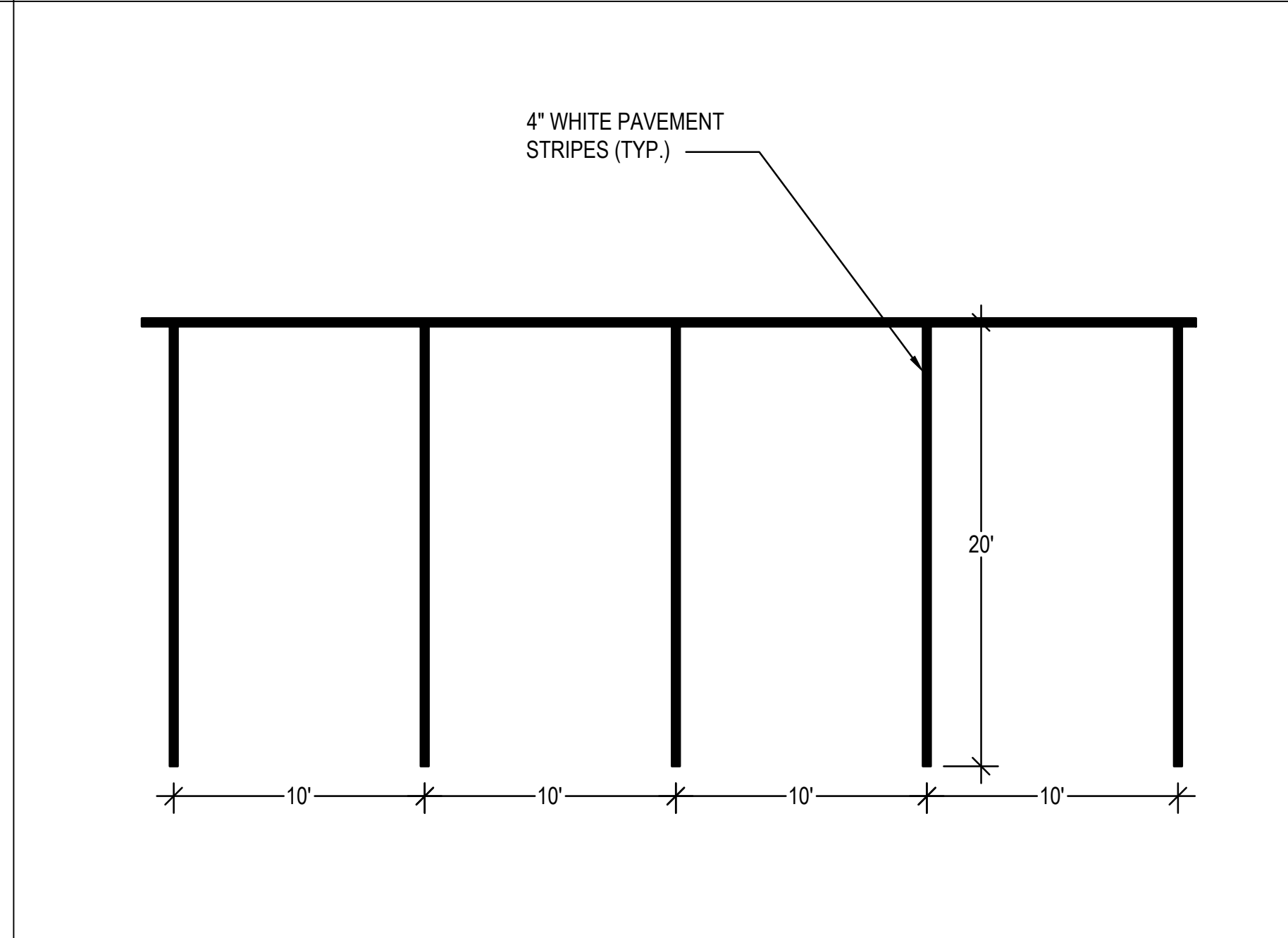
11 STOP PAVEMENT MARKING DETAIL  
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12 TRAFFIC FLOW ARROW DETAIL  
 N.T.S.

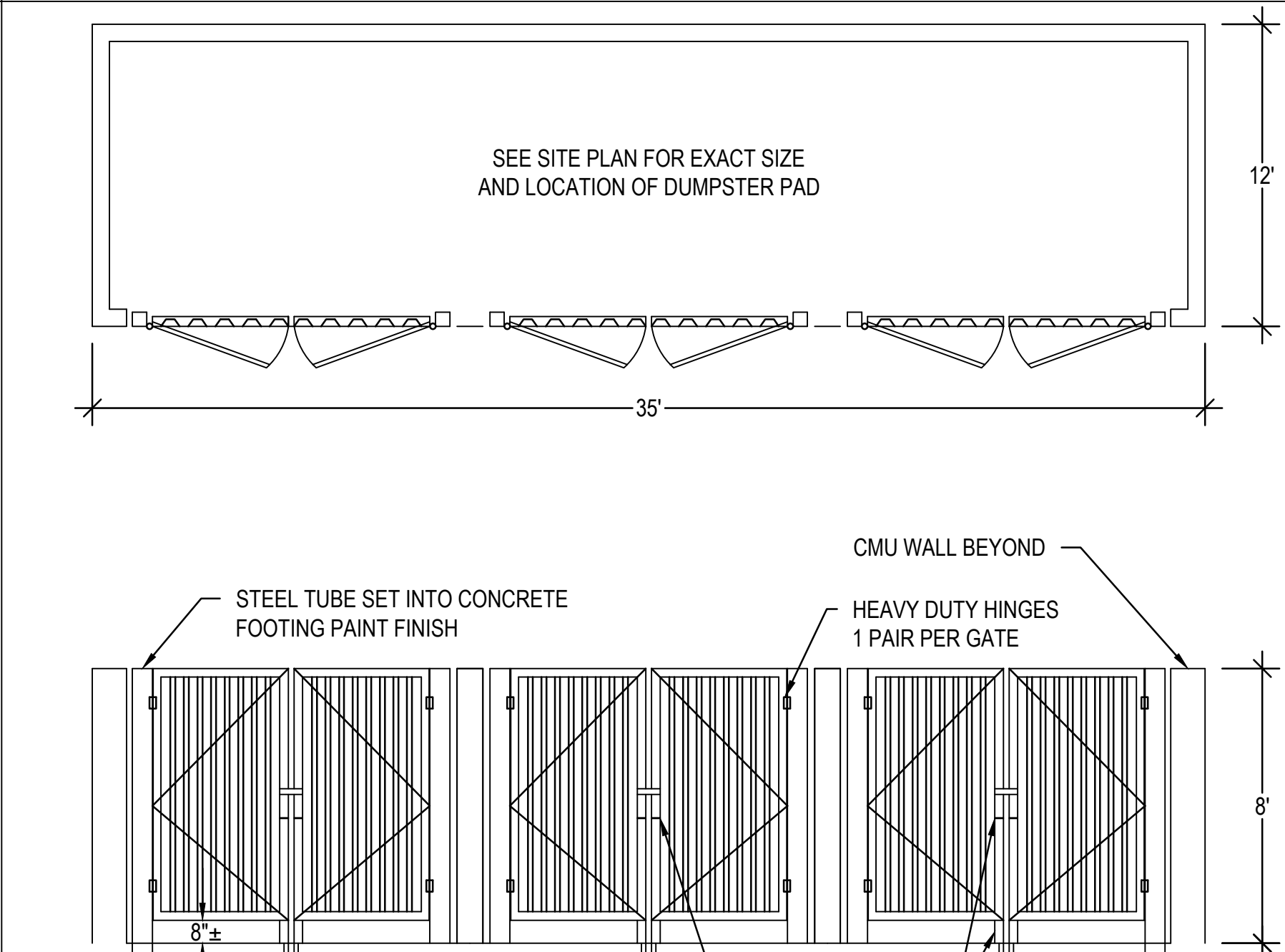


13 45° PARKING PAVEMENT MARKING DETAIL  
 N.T.S.



NOTES:  
 1. ALL PAVEMENT MARKINGS/STRIPING SHALL CONFORM TO LOCAL AND STATE REGULATIONS.

14 STANDARD PARKING PAVEMENT MARKING DETAIL  
 N.T.S.



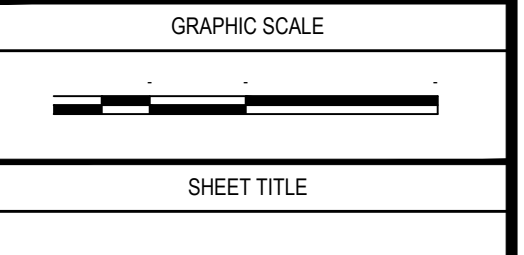
15 DUMPSTER ENCLOSURE DETAIL  
 N.T.S.

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PROJECT  
**ASM FACILITY**  
**7 SECURITY DRIVE**  
**HUDSON, NH 03051**

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SHEET TITLE  
**CIVIL CONSTRUCTION**  
**DETAILS**  
**(SHEET 3 OF 3)**

**GENERAL NOTES**

ALL WORK SHALL CONFORM TO THE 2015 INTERNATIONAL BUILDING CODE (IBC) WITH NEW HAMPSHIRE AMENDMENTS

THE OWNER SHALL RETAIN THE SERVICES OF AN INDEPENDENT TESTING AGENCY TO PERFORM STRUCTURAL INSPECTIONS AS INDICATED ON THE DRAWINGS AND AS REQUIRED/INDICATED BY THE PROGRAM OF STRUCTURAL TESTS AND INSPECTIONS.

THE CONTRACTOR SHALL EXAMINE ARCHITECTURAL, MECHANICAL, PLUMBING, FIRE PROTECTION AND ELECTRICAL DRAWINGS FOR VERIFICATION, LOCATION AND DIMENSIONS OF CHASES, INSERTS, OPENINGS, SLEEVES, DEPRESSIONS AND OTHER PROJECT REQUIREMENTS NOT SHOWN ON THE STRUCTURAL/FOUNDATION DRAWINGS.

THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS IN THE FIELD AND WITH THE ARCHITECTURAL DRAWINGS AND SHALL NOTIFY THE OWNER/ARCHITECT/ENGINEER OF ANY DISCREPANCY BEFORE PROCEEDING WITH THE WORK. EXISTING CONDITIONS SHOWN ARE NOT GUARANTEED.

THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BRACING & SHORING UNTIL ALL STRUCTURAL WORK IS COMPLETE.

SHOP DRAWINGS, IN ADDITION TO THE SUBMITTALS REQUIRED BY THE PROJECT SPECIFICATIONS, SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND COMMENTS PRIOR TO FABRICATION FOR THE FOLLOWING:

- 1) CONCRETE MIX & CURING METHOD
- 2) STRUCTURAL STEEL
- 3) REINFORCING STEEL
- 4) STRUCTURAL FILL & COMPACTION METHOD
- 5) EXPANSION BOLTS AND ADHESIVE ANCHORS

PROVIDE SEALANT AT ALL CONTROL JOINTS.

PROVIDE RIGID INSULATION PER THE ARCHITECTURAL DRAWINGS.

**STRUCTURAL DESIGN NOTES**

BUILDING RISK CATEGORY II

DESIGN LOADS:

SNOW DESIGN DATA

GROUND SNOW LOAD,  $P_g = 50$  PSF (+DRIFTING)

SNOW EXPOSURE FACTOR  $C_e = 1.0$

SNOW IMPORTANCE FACTOR  $I = 1.0$

THERMAL FACTOR  $C_t = 1.0$

FLAT ROOF SNOW LOAD  $P_f = 35$  PSF

WIND LOAD DESIGN DATA

BASIC WIND SPEED  $V = 121$  MPH

EXPOSURE CATEGORY = B

INTERNAL PRESS. COEFF.  $G_{CPI} = +/- 0.18$

SEISMIC DESIGN DATA:

SEISMIC IMPORTANCE FACTOR,  $I = 1.0$

MAPPED SPECTRAL RESPONSE ACCELERATION – SS: .384 & S1: .0079

SITE CLASS = D

SPECTRAL RESPONSE COEFFICIENTS – SDS: 0.382 & SD1: 0.127

SEISMIC DESIGN CATEGORY = B

SEISMIC RESPONSE COEFFICIENT,  $C_S = 0.092$

DESIGN BASE SHEAR = 42 KIPS

BASIC SEISMIC–FORCE–RESISTING SYSTEM: "BUILDING FRAME SYSTEM"

SEISMIC RESISTING SYSTEM: CONCENTRICALLY BRACED FRAMES

RESPONSE MODIFICATION FACTOR,  $R = 3$

ANALYSIS PROCEDURE UTILIZED: "EQUIVALENT LATERAL FORCE METHOD"

DEFLECTION CRITERIA:

ROOF LIVE LOAD DEFLECTION:  $L/360$

ROOF TOTAL LOAD DEFLECTION:  $L/240$

**STRUCTURAL INSPECTIONS**

INSPECTION AND TESTING WILL BE PERFORMED PER CHAPTER 17 OF THE IBC 2015. THE OWNER WILL EMPLOY A TESTING AGENCY (SELECTED BY THE ENGINEER/OWNER) TO PERFORM STRUCTURAL TESTS AND INSPECTIONS AS INDICATED ON THIS SHEET. TEST REPORTS SHALL BE ADDRESSED TO MCBRIE, LLC & SENT DIRECTLY FROM THE TESTING AGENCY.

THE CONTRACTOR SHALL COORDINATE WITH, NOTIFY, AND PROVIDE ACCESS AND A SAFE WORKING ENVIRONMENT FOR THE OWNER'S TESTING AGENCY BOTH IN THE SHOP AND IN THE FIELD.

ALL FILL INSTALLATION, CONCRETE REINFORCING, CONCRETE PLACEMENT AND STRUCTURAL STEEL INSTALLATIONS SHALL BE INSPECTED/OBSERVED BY THE SER OR AN INDEPENDENT TESTING AGENCY. ANY WORK COMPLETED WITHOUT INSPECTIONS SHALL BE CONSIDERED AS UNACCEPTABLE AND SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.

- AT A MINIMUM, THE FOLLOWING WILL BE INSPECTED:
- 1. EXCAVATION OF BUILDING FOOTPRINT AND CONTROLLED FILL AREAS
  - 2. PROOF ROLLING OF SUBGRADES
  - 3. PILE DRIVING/INSTALLATION (CONTINUOUS INSPECTION REQUIRED PER MSBC 1816.13)
  - 4. REBAR PLACEMENT
  - 5. CONCRETE PLACEMENT AND STRENGTH

**GEOTECHNICAL/FOUNDATION DESIGN**

FOUNDATION/FOOTING DESIGN IS BASED UPON AN ASSUMED BEARING CAPACITY OF 3,000 PSF GC TO VERIFY. BOTTOM ELEVATION OF FOOTING SHALL BE ADJUSTED UPON APPROVAL FROM STRUCTURAL ENGINEER OF RECORD, IF NECESSARY, TO BEAR ON ENGINEERED FILL OVER FIRM MATERIAL CAPABLE OF SUPPORTING A MINIMUM SOIL BEARING CAPACITY OF 3,000 PSF.

ALL FOOTINGS SHALL BEAR ON A MINIMUM OF 1 FOOT LIFT OF STRUCTURAL FILL OVER EXISTING BEDROCK IF ENCOUNTERED. GEOTECHNICAL ENGINEER SHALL APPROVE ALL SUBGRADE SOILS PRIOR TO INSTALLATION OF FOOTING FORMS.

THE CONTRACTOR SHALL HIRE THE SERVICES OF A REGISTERED GEOTECHNICAL ENGINEER IN THE STATE OF MA TO PROVIDE WRITTEN CONFIRMATION OF THE EVALUATION OF THE SUBGRADES FOR SOIL STIFFNESS AND DENSITY PRIOR TO PLACEMENT OF FOOTINGS. THE EVALUATION REPORT SHALL PROVIDE/INCLUDE THE ALLOWABLE BEARING CAPACITY OF THE SUBGRADE BASED UPON AN IN-PLACE TEST SIMILAR TO A CONE PENETROMETER TEST OR DYNAMIC CONE TEST.

THE CONTRACTOR HIRED GEOTECHNICAL ENGINEER SHALL ALSO PROVIDE THE CONSTRUCTION OBSERVATION/TESTING SERVICES LISTED IN THE PROGRAM OF STRUCTURAL TESTS AND INSPECTIONS ON THIS SHEET.

**CONCRETE & REINFORCING**

ALL CONCRETE WORK SHALL CONFORM TO THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-05)" AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" (ACI 301).

ALL CONCRETE IN FOUNDATION WALLS AND FOOTINGS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. ALL CONCRETE IN SLABS-ON-GRADE AND ELEVATED SLABS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS. NO CONCRETE SHALL BE CAST IN WATER OR ON FROZEN GROUND.

DOWELS SHALL BE PROVIDED IN CONCRETE FOUNDATION WALLS AS INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF THE DOWELS WITH THE PROPOSED CMU WALL VERTICAL REINFORCING WHERE APPLICABLE. ALL DOWELS ARE TO BE EPOXY GROUTED INTO EXISTING SLABS/FOUNDATIONS WITH HILTI HIT HY20 EPOXY OR APPROVED EQUAL.

FOUNDATION WALLS SHALL HAVE CONSTRUCTION JOINTS AS DETAILED. REINFORCEMENT SHALL BE CONTINUOUS THROUGH ALL CONSTRUCTION JOINTS AS INDICATED ON THE DRAWINGS.

BACKFILL AGAINST WALLS SHALL BE PLACED ALTERNATELY ON EACH SIDE IN 12" MAXIMUM LIFTS. WALLS WITH UNBALANCED FILL AND WHERE TOP OF WALL IS SUPPORTED BY THE FLOOR FRAMING SHALL BE TEMPORARILY BRACED OR SHORED IF BACKFILLED BEFORE FRAMING IS COMPLETE.

REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING:

(A) ATSM 615, GRADE 60 FOR DEFORMED BARS ( $F_y = 60,000$  P.S.I.)

(B) WELDED WIRE FABRIC (WWF) REINFORCEMENT: ASTM A185

(C) REINFORCING SHALL BE LAPPED PER ACI

WELDED WIRE FABRIC (WWF) SHALL BE LAPPED 6" OR ONE SPACE, WHICHEVER IS LARGER, AND SHALL BE WIRED TOGETHER.

**STRUCTURAL STEEL**

STRUCTURAL STEEL WORK SHALL CONFORM TO PART 5 OF THE MANUAL OF STEEL CONSTRUCTION (AISC 360-10 ASD). ALL WELDING SHALL CONFORM TO AWS D1.1 AND BE PERFORMED BY APPROVED CERTIFIED WELDERS. ALL WELDS SHALL USE E70XX ELECTRODES BOTH IN THE SHOP AND IN THE FIELD.

SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION.

CONNECTION CALCULATIONS, STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NH, SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION.

STRUCTURAL STEEL SHALL CONFORM TO ASTM A992 ( $F_y=50$ ksi) FOR W-SHAPES, ASTM A36 FOR CHANNELS & OTHER ROLLED SHAPES, ASTM A500, GRADE B ( $F_y = 46$ ksi) FOR HSS TUBES AND PIPE COLUMNS. BOLTED CONNECTIONS SHALL BE MADE USING A MINIMUM OF 3/4"Ø ASTM A325 HIGH STRENGTH BOLTS.

ALL STRUCTURAL STEEL TO RECEIVE ONE SHOP COAT OF STANDARD GRAY PRIMER U.N.O. OR UNLESS SPRAY-FIREPROOFED – COORDINATE WITH ARCHITECTURAL DRAWINGS. TOUCH UP ALL BARE AREAS AFTER ERECTION.

ALL ANCHOR BOLTS TO BE A.S.T.M. F1554, A36

LEVELING/BEARING PLATES SHALL BE SET ON FULL BEDS OF NON-SHRINK, NONMETALLIC GROUT WITH A MINIMUM COMPRESSIVE STRENGTH OF 3,500 PSI AT 3 DAYS.

**STEEL DECK**

ALL STEEL DECKING SHALL CONFORM TO THE STEEL DECK INSTITUTE (SDI) APPLICABLE REQUIREMENTS. INSTALLATION SHALL BE PER THE MANUFACTURER'S RECOMMENDATIONS IN ACCORDANCE WITH SDI SPECIFICATIONS.

STEEL DECK SHALL TYPICALLY BE STORED OFF THE GROUND AT THE JOBSITE AND BE PROTECTED FROM THE ELEMENTS WITH A WATERPROOF COVERING WHERE REQUIRED.

DECK SHEETS SHALL BE PLACED IN ACCORDANCE WITH APPROVED ERECTION LAYOUT DRAWINGS (INCLUDING FASTENING SCHEDULE) SUPPLIED BY THE SUPPLIER, AND IN CONFORMANCE WITH THE MANUFACTURER'S STANDARDS. UNLESS NOTED OTHERWISE END LAPS SHALL OCCUR OVER SUPPORTS AND SHALL NOT BE LESS THAN 2 INCHES.

NO PERMANENT SUSPENDED LOADS ARE TO BE SUPPORTED BY STEEL ROOF DECK. THIS INCLUDES PIPING, DUCTWORK, MECHANICAL UNITS, CEILINGS, ETC. ALL COMPONENTS ARE TO SUSPENDED FROM STRUCTURAL FRAMING MEMBERS, USING APPROVED ATTACHMENT DEVICES.

THE CONTRACTOR SHALL PROVIDE A SECONDARY FRAMING SYSTEM (i.e. UNISTRUT OR APPROVED EQUAL) ATTACHED TO STRUCTURAL FRAMING TO SUPPORT ALL PERMANENT SUSPENDED LOADS AT THE UNDERSIDE OF ALL METAL ROOF DECKS. THE SECONDARY FRAMING SYSTEM SHALL SPAN BETWEEN STRUCTURAL STEEL BEAMS AND SHALL NOT BE CONNECTED IN ANY WAY TO THE METAL DECK.

SUBMIT SHOP DRAWINGS FOR REVIEW.

**LEGEND / ABBREVIATIONS**

- ADD'L = ADDITIONAL
- ALT. = ALTERNATE
- APPROX. = APPROXIMATELY
- ARCH. = ARCHITECT
- BM. = BEAM
- B.O.F. = BOTTOM OF FOOTING
- B.O.S. = BOTTOM OF STEEL
- BRG. PL = BEARING PLATE
- COL. = COLUMN
- CONN. = CONNECTION
- CONT. = CONTINUOUS (SINGLE MEMBER)
- DBL = DOUBLE
- DL = DEAD LOAD
- E.F. = EACH FACE
- EL. = ELEVATION
- EMB. = EMBEDMENT
- E.O.S. = EDGE OF SLAB
- E.W. = EACH WAY
- EXIST. = EXISTING
- EXT. = EXTERIOR
- FND. = FOUNDATION
- FTG. = FOOTING
- GA. = GAUGE
- GALV. = GALVANIZED
- HOR. = HORIZONTAL
- K = KIP (1 KIP = 1000 lbs)
- LL = LIVE LOAD
- MANUF. = MANUFACTURER
- MAX. = MAXIMUM
- MIN. = MINIMUM
- N.T.S. = NOT TO SCALE
- RD = ROOF DRAIN
- REINF. = REINFORCING
- SER = STRUCTURAL ENGINEER OF RECORD
- SIM. = SIMILAR
- S.S. = STAINLESS STEEL
- STIFF. PL = STIFFENER PLATE
- STR. SHTHG' = STRUCTURAL SHEATHING
- T&B = TOP & BOTTOM
- T.O.C. = TOP OF CONCRETE
- T.O.S. = TOP OF STEEL
- U.N.O. = UNLESS NOTED OTHERWISE
- VERT. = VERTICAL
- V.I.F. = VERIFY IN FIELD
- V.W.A. = VERIFY WITH ARCHITECTURAL DRAWINGS
- V.W.O. = VERIFY WITH OWNER
- WF = WIDE FLANGE
- WWF = WELDED WIRE FABRIC

NO.	DATE	REVISIONS

PREPARED FOR:  
  
SL CHASSE WELDING

ASM FACILITY  
7 SECURITY DRIVE  
HUDSON, NH  
McBRIE JOB # 22-000

DRWN BY: BJK

CHK'D BY:

DATE: 9/26/22

**McBrie, LLC**  
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North Andover, MA 01923  
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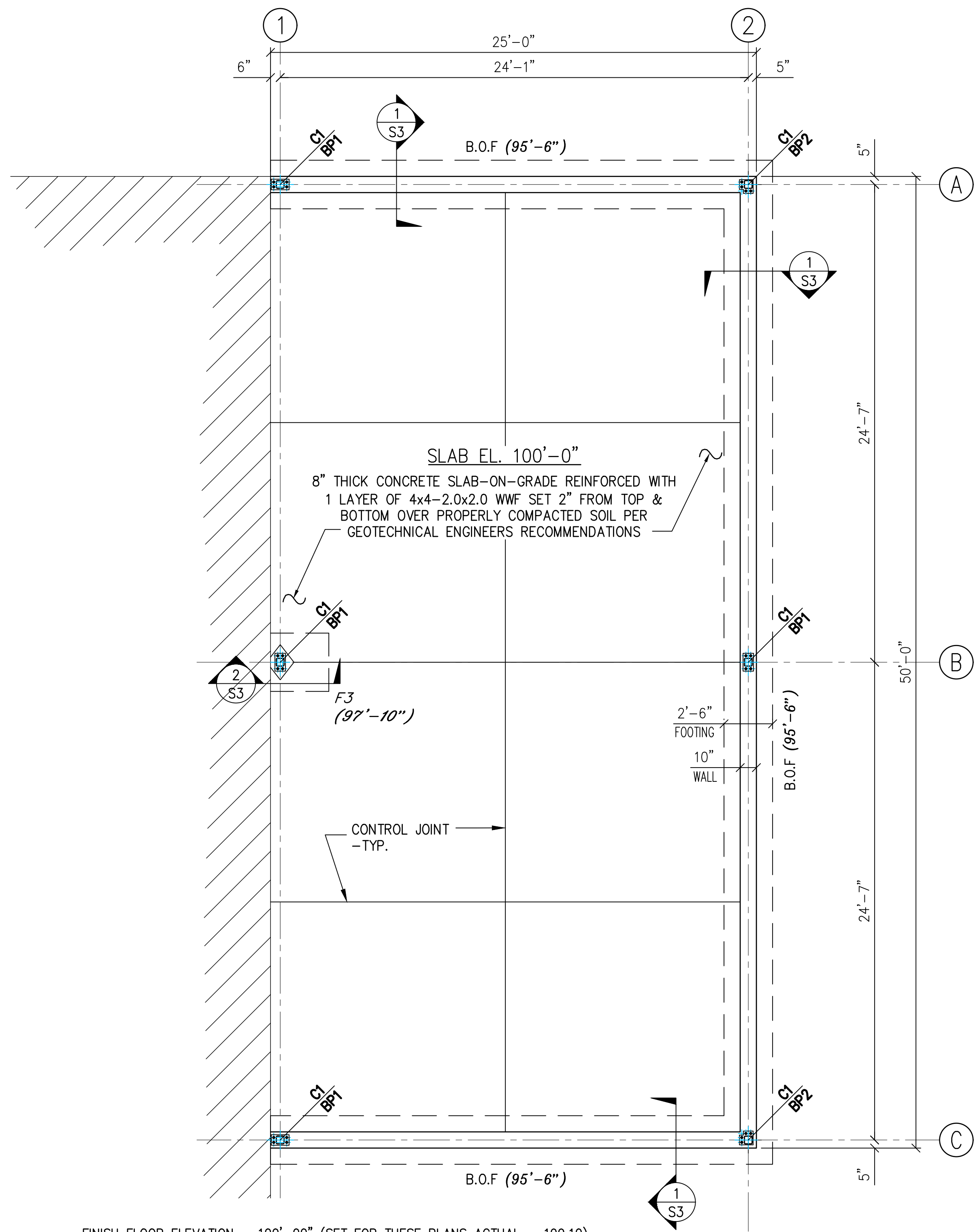
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NOTES  
  
SCALE: AS NOTED

**SI**

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FINISH FLOOR ELEVATION = 100'-00" (SET FOR THESE PLANS ACTUAL = 199.10)

TOP OF FOUNDATION WALL ELEVATIONS NOTED AS [XX'-X"] ARE BASED UPON FINISH FLOOR ELEV. = xxx'-x" (SEE SITE PLAN)

ELEVATIONS NOTED AS (XX.X) INDICATE THE BOTTOM OF FOOTING ELEVATION. PREPARATION OF SUBGRADE SHALL CONFORM TO THE SPECIFICATIONS PRESENTED IN THE GEOTECHNICAL INVESTIGATION REPORT BY OTHERS.

SEE SHEET S1 FOR GENERAL NOTES, DETAILS AND SECTIONS NOT SHOWN ON THIS SHEET.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS INDICATED WITH THE ARCHITECTURAL DRAWINGS BEFORE COMMENCEMENT OF WORK.

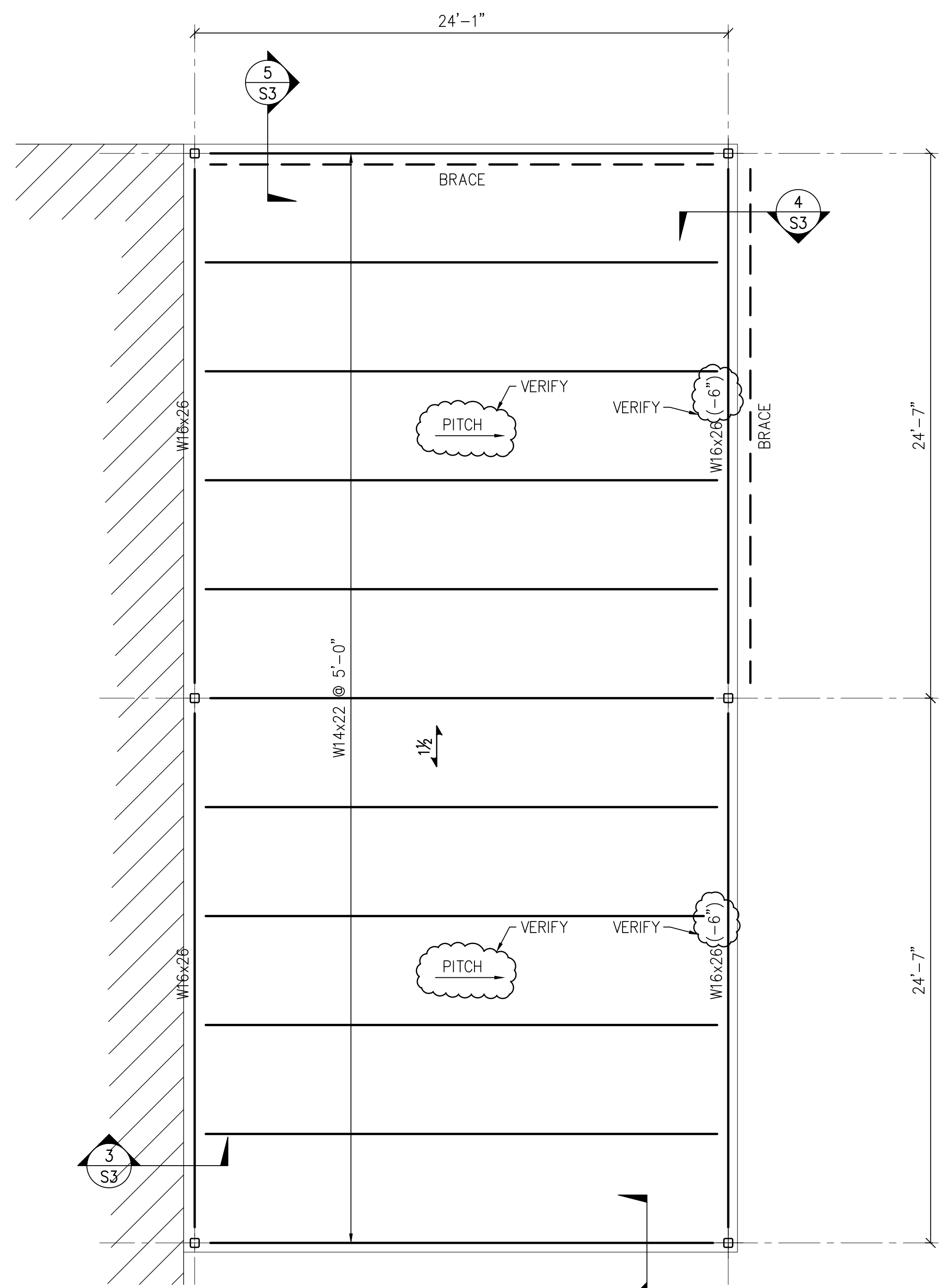
ADJUST BOTTOM OF FOOTING ELEVATIONS AS REQUIRED TO MAINTAIN 4'-0" BELOW GRADE TO BOTTOM OF FOOTING

REFER TO ARCHITECTURAL DRAWINGS FOR DOOR DROPS

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

FOOTING SCHEDULE			
MARK	PLAN SIZE	DEPTH	REINFORCING
F3	3'-0" x 3'-0"	18"	4 - #5 BOTTOM E.W.

COLUMN SCHEDULE	
MARK	SIZE
C1	HSS5x5x1/4"

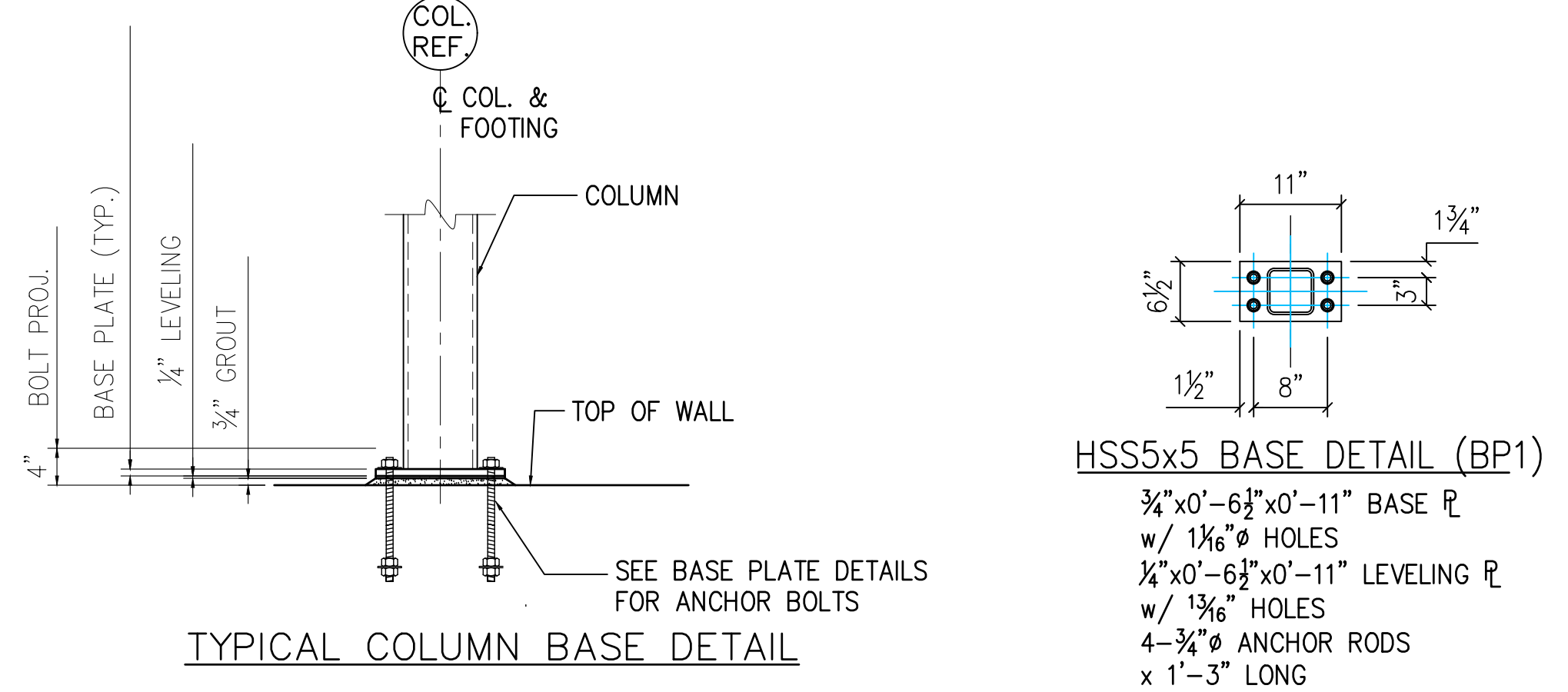


TOP OF STEEL ELEVATION = (EL. 118'-11") DIMENSIONS SHOWN (+/-#'-#") INDICATE DISTANCE ABOVE OR BELOW TOP OF STEEL ELEVATION.

1 1/2" INDICATES SPAN DIRECTION OF 22GA-1 1/2" TYPE B G60 ROOF DECK. FIELD WELD DECK AT EDGE RIBS 6" O/C MAX. AND AT INTERMEDIATE RIBS 12" O/C MAX. TO ALL SUPPORTS. (ALL WELDS TO BE 5/8" PUDDLE WELDS). SIDE LAPS SHALL BE FASTENED AT 12" O/C

STRUCTURAL STEEL FINISH: ONE SHOP COAT OF GRAY PRIMER

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



TYPICAL COLUMN BASE DETAIL

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PREPARED FOR:  
SL CHASSE WELDING

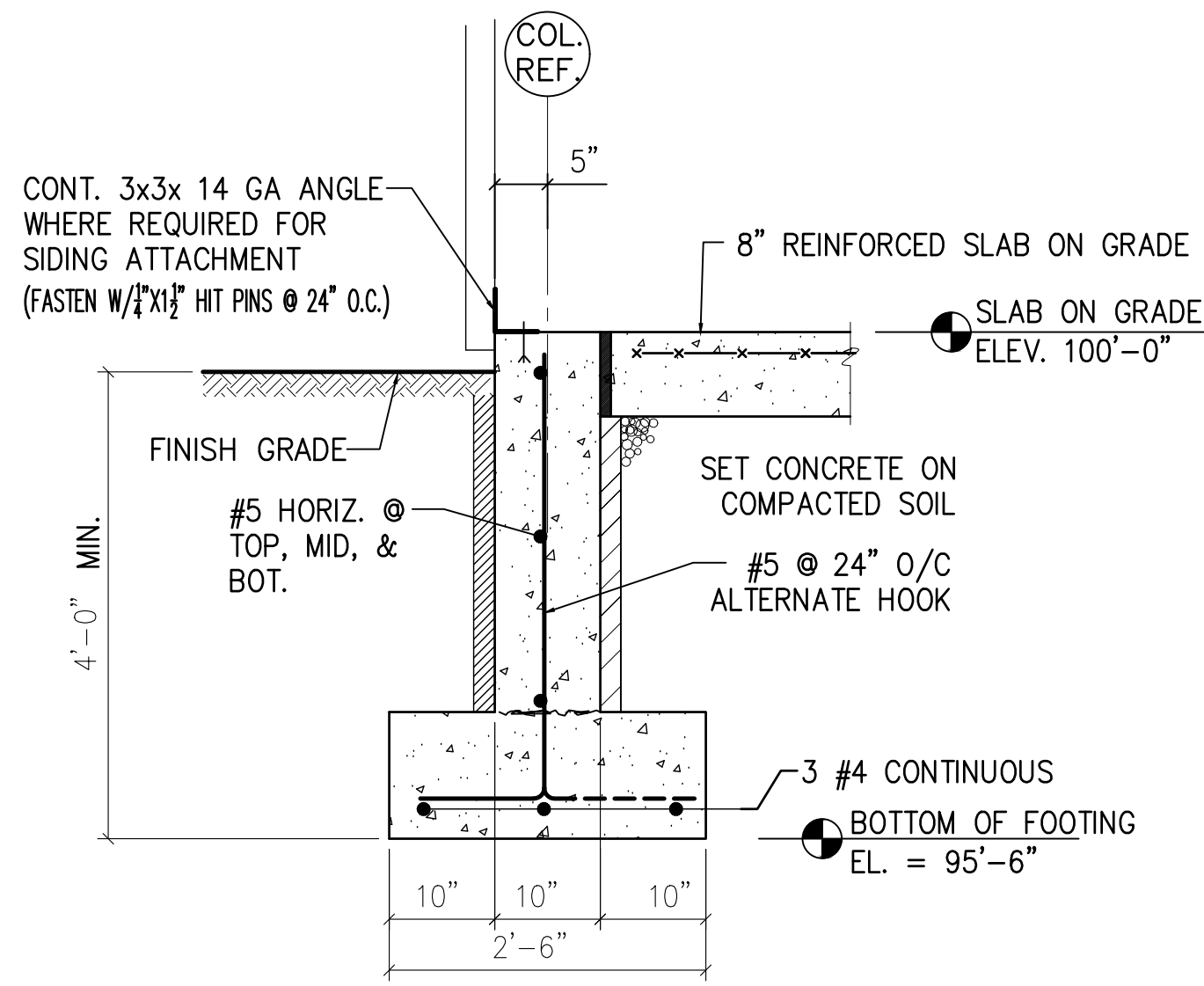
ASM FACILITY  
7 SECURITY DRIVE  
HUDSON, NH  
McBrie JOB # 22-000

DRWN BY: BJK  
CHK'D BY:  
DATE: 9/26/22

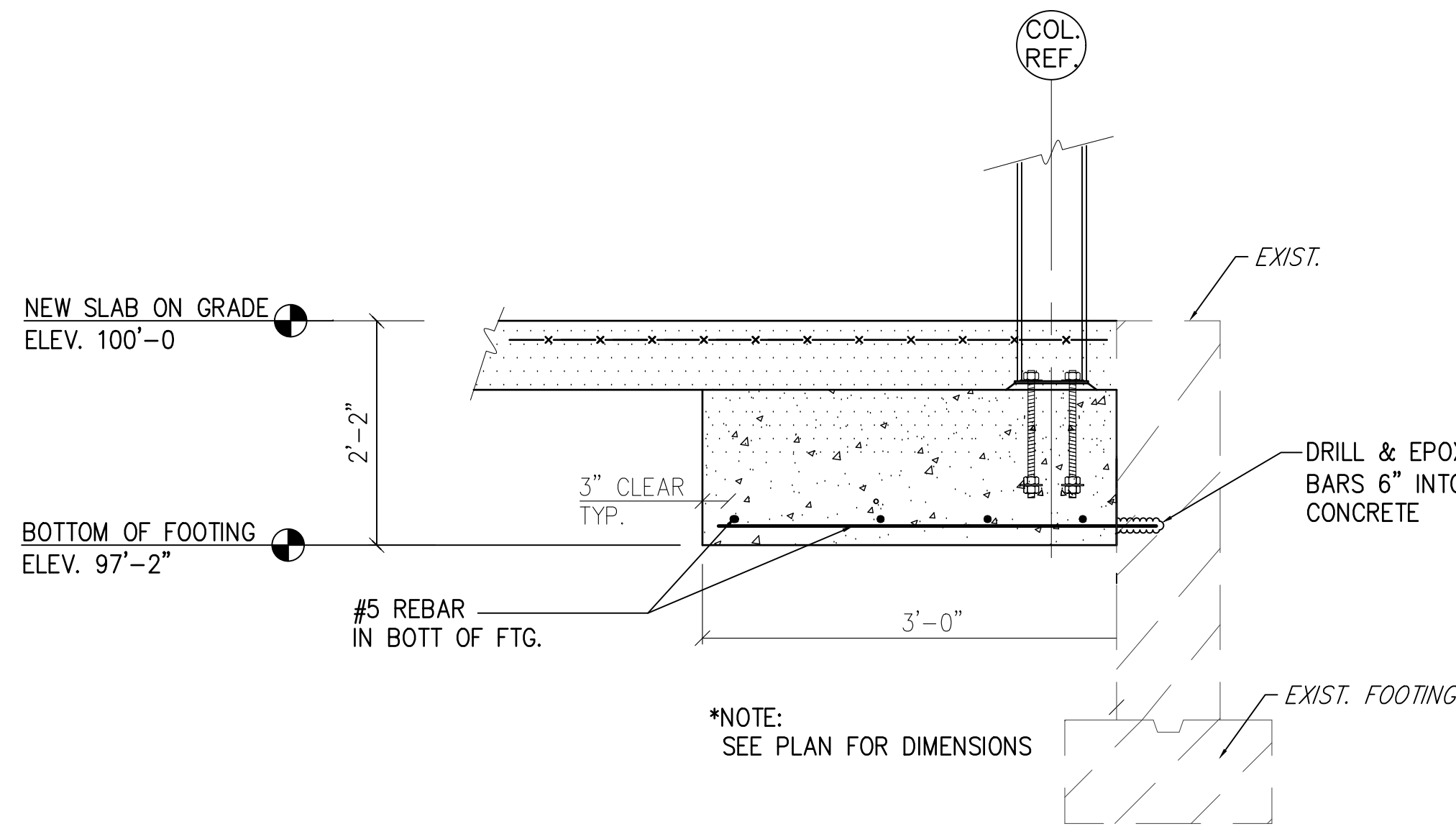
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FOUNDATION/  
FRAMING  
SCALE: AS NOTED

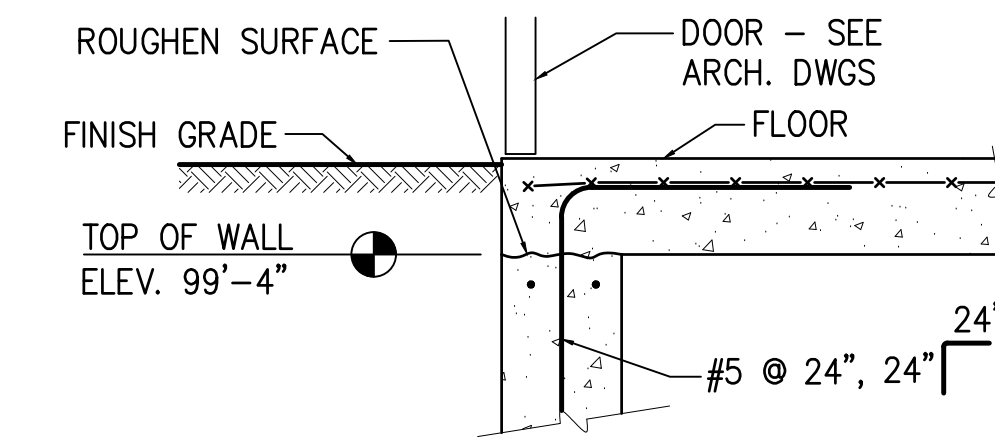
**S2**



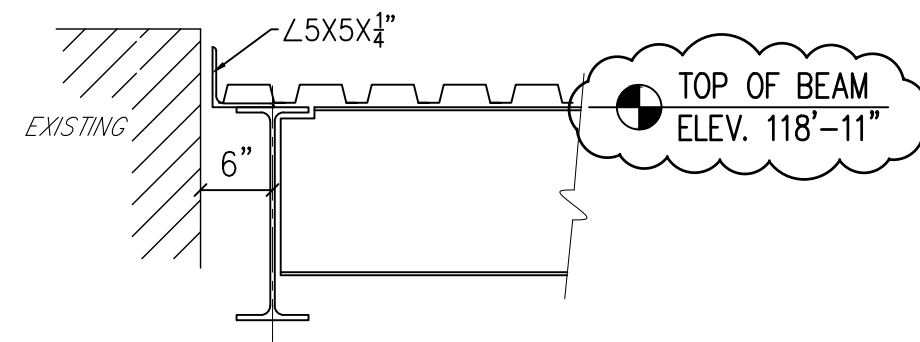
1 FOUNDATION WALL SECTION  
SCALE: 3/4" = 1'-0"



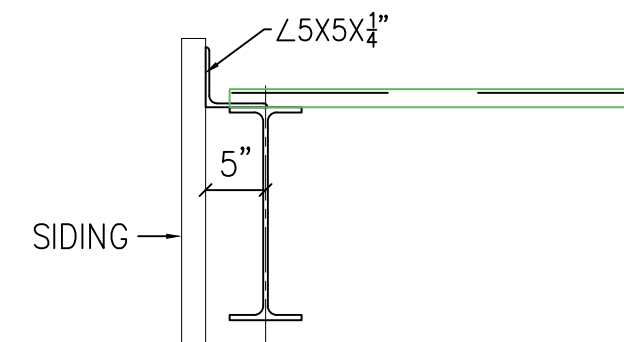
2 FOOTING TO EXISTING SECTION  
SCALE: 3/4" = 1'-0"



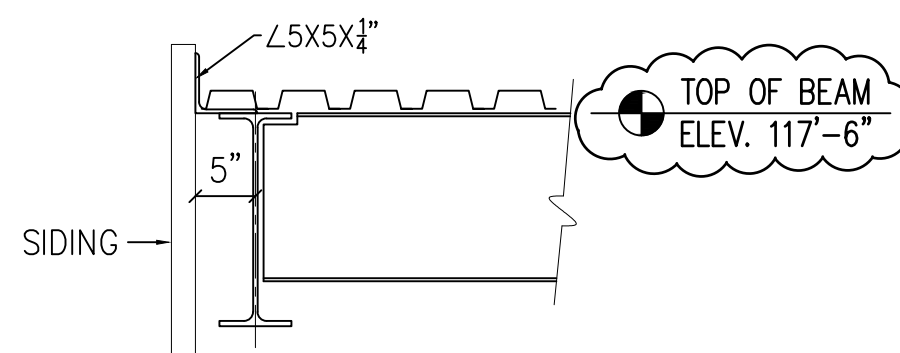
TYPICAL SECTION AT DOOR LOCATIONS  
SCALE: 3/4" = 1'-0"



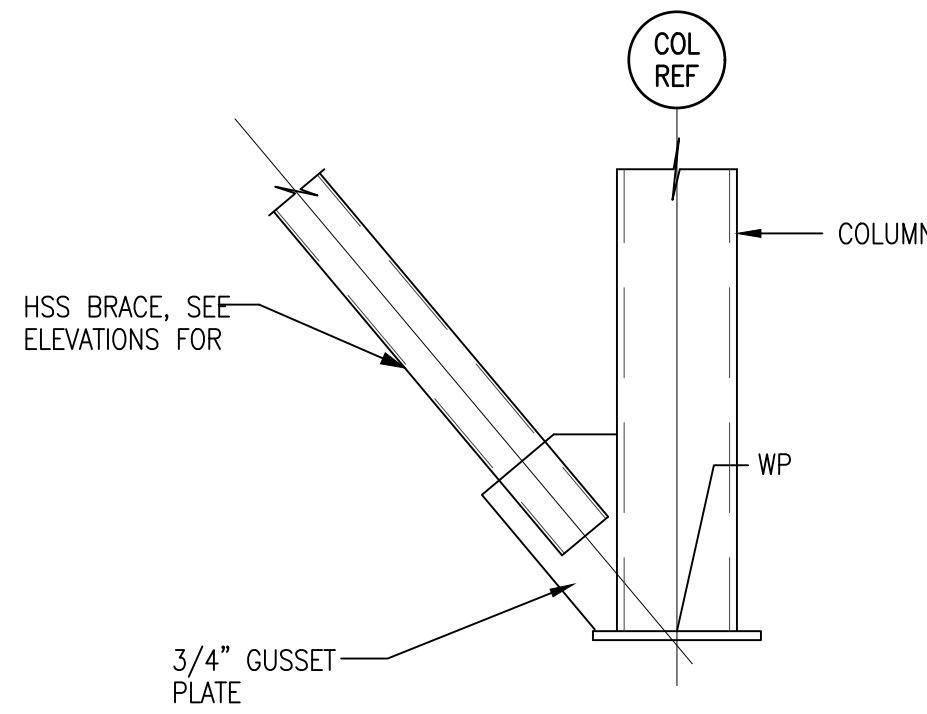
3 TYPICAL EDGE OF JOIST @ EXISTING  
SCALE: 3/4" = 1'-0"



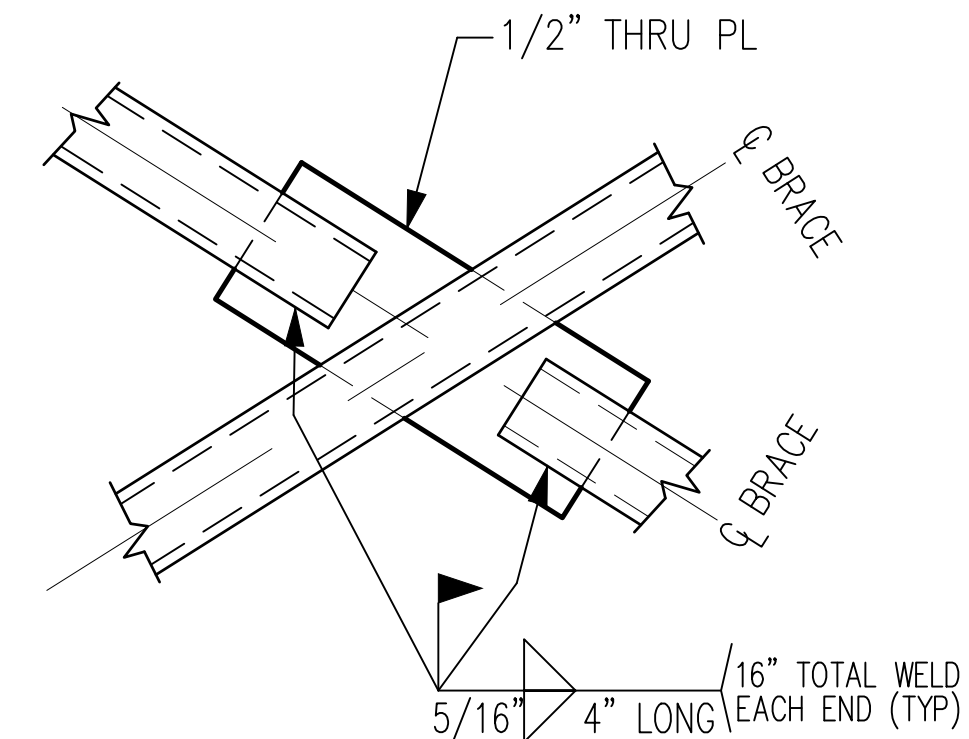
5 TYPICAL EDGE OF JOIST @ EXISTING  
SCALE: 3/4" = 1'-0"



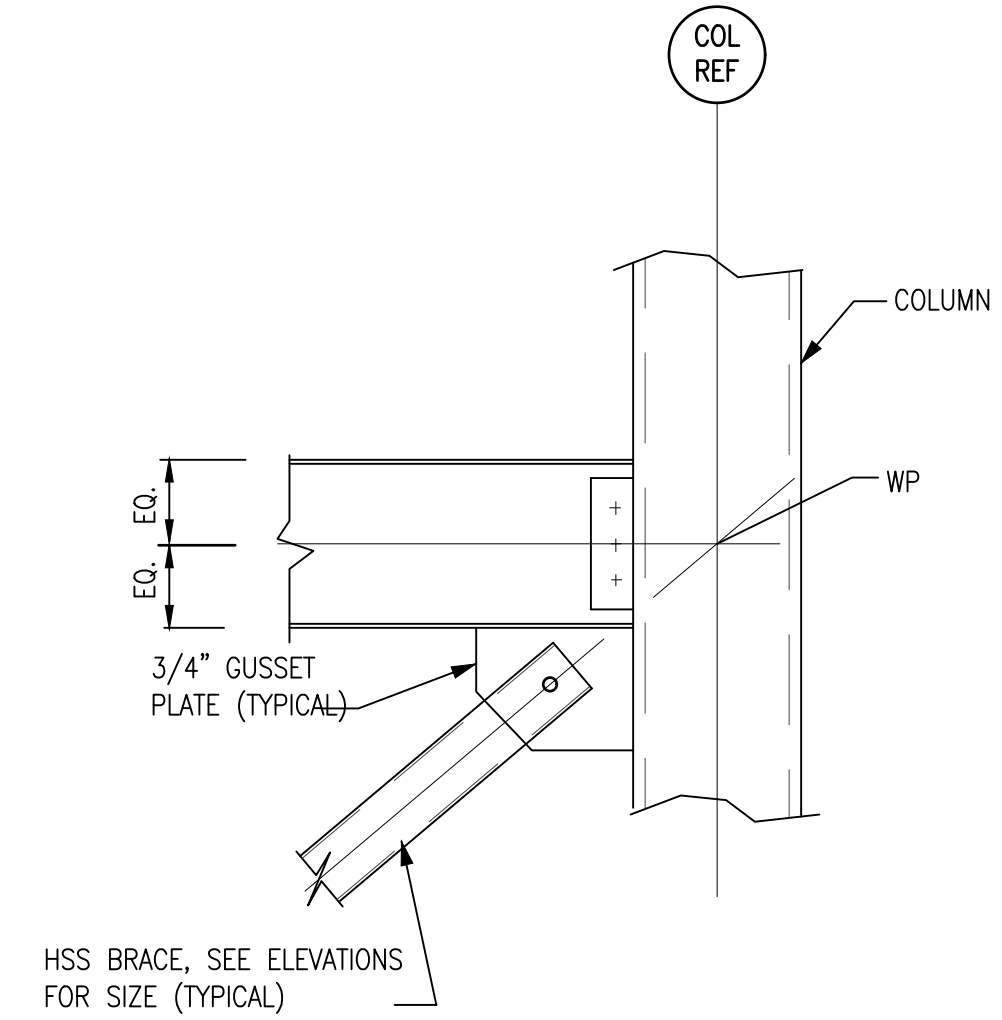
4 TYPICAL EDGE OF JOIST @ EXISTING  
SCALE: 3/4" = 1'-0"



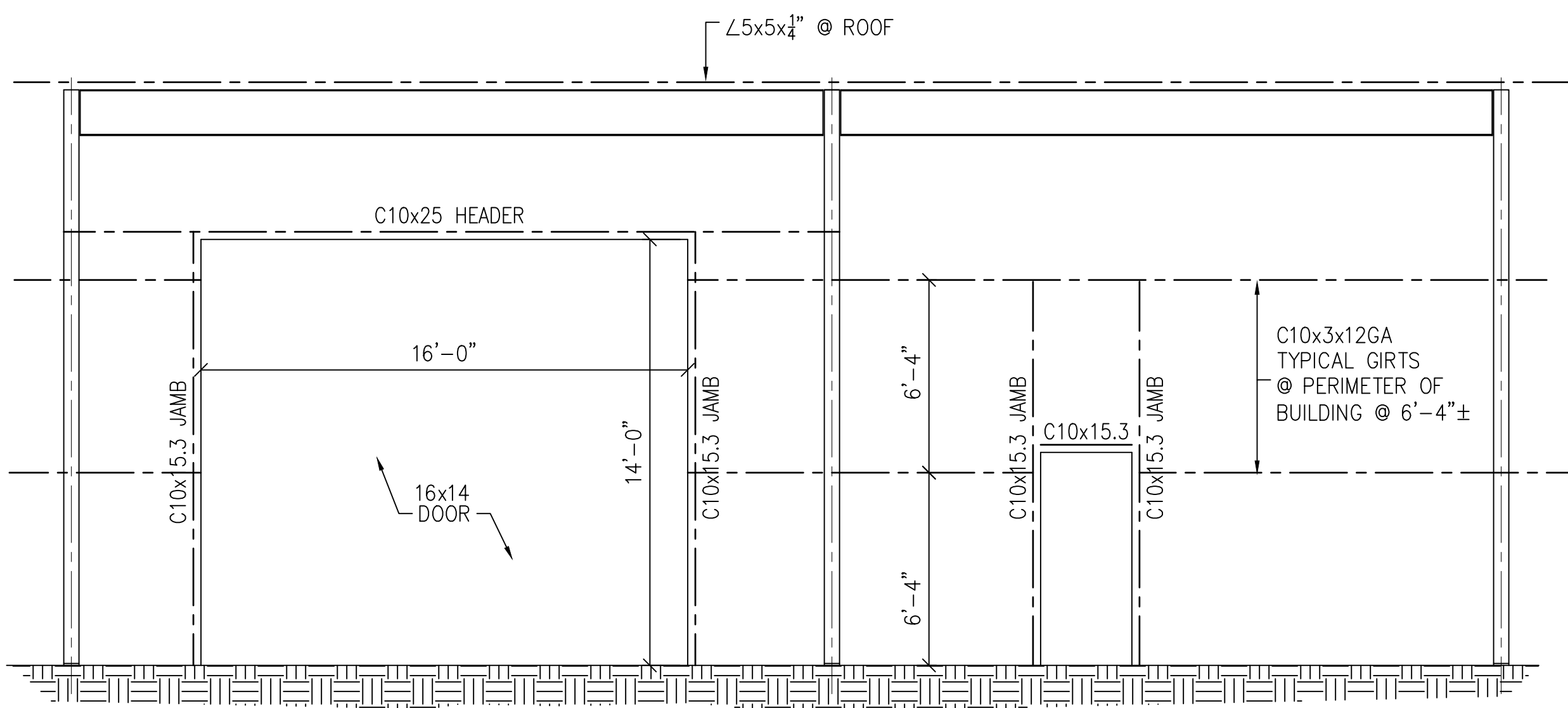
DETAIL A



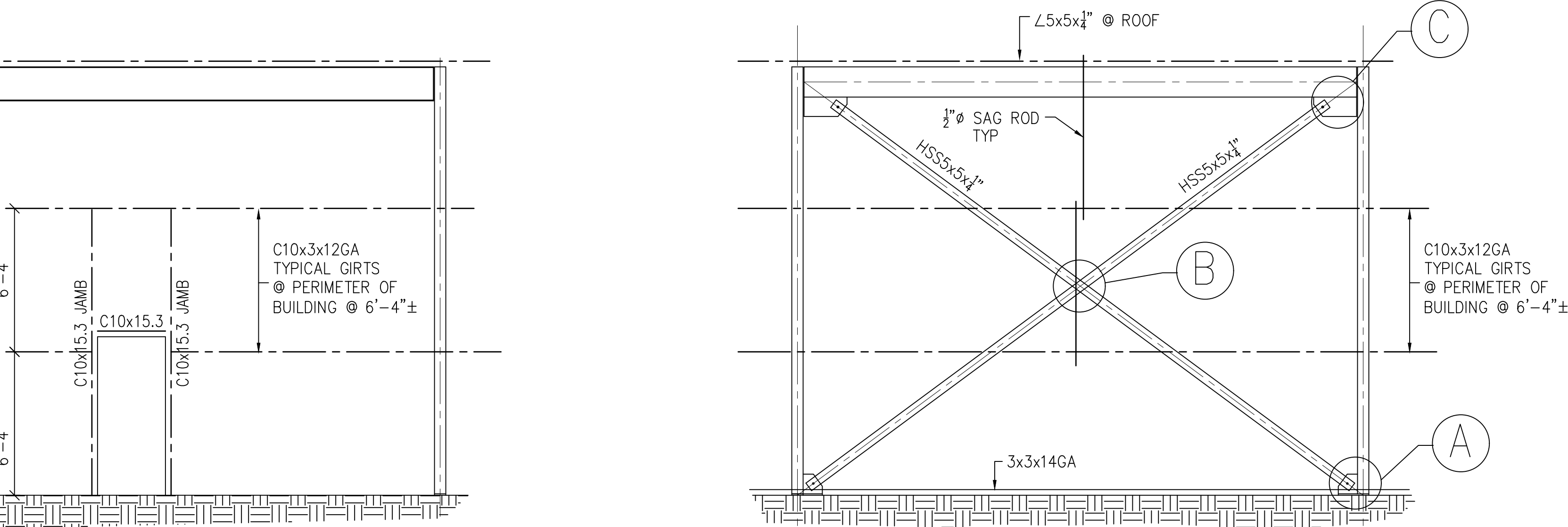
DETAIL B



DETAIL C

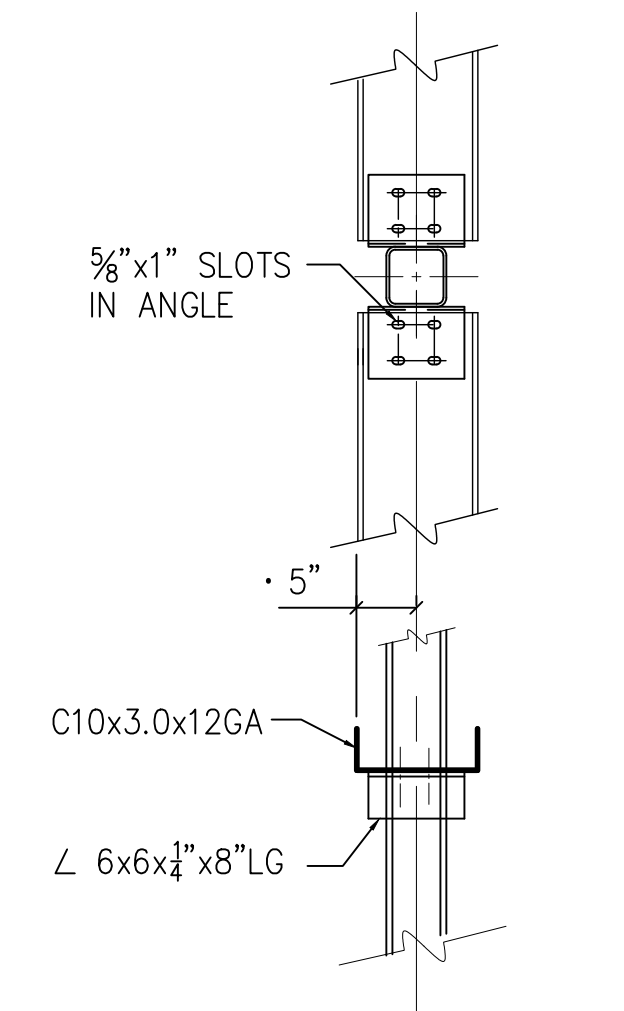


TYPICAL FRAME DETAIL @ OVERHEAD DOOR  
SCALE: 1/4" = 1'-0"



TYPICAL FRAME DETAIL @ MAN DOOR  
SCALE: 1/4" = 1'-0"

BRACE 1  
SCALE: 1/4" = 1'-0"



GIRT CONNECTION DETAILS

NO.	DATE	REVISIONS

PREPARED FOR:  
SL CHASSE WELDING

ASM FACILITY  
7 SECURITY DRIVE  
HUDSON, NH  
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SEAL

FOUNDATION/ROOF SECTIONS  
SCALE: AS NOTED

S3

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