

**Town of Kittery
Planning Board Meeting
November 16, 2023**

ITEM 2—27 & 29 Wentworth—Site Plan — Preliminary Review

Action: Approve plan or continue review. Eric Weinrieb, on behalf of applicant Madbury Real Estate Ventures, is proposing to convert an existing bed and breakfast into two independent inns with a total of 24 rental units and 2 innkeeper’s suites. The proposed development is located on the properties of 27 & 29 Wentworth Street, Map 9 Lots 37, 38, in the Kittery Foreside (MU-KF) Zone.

PROCESS SUMMARY

REQ'D	ACTION	COMMENTS	STATUS
NO	Sketch Plan Acceptance/Approval	7/27/23	Accepted
YES	Planning board determination of completeness	9/14/23	Accepted
NO	Site Visit	9/19/23	Held
YES	Public Hearing	9/28/23	Held
YES	Preliminary Plan Approval	Scheduled for 11/16/23	TBD
YES	Final Plan Review and Decision		TBD

Applicant: Prior to the signing of the approved Plan any **Conditions of Approval related to the Findings of Fact along with waivers and variances (by the BOA) must be placed on the Final Plan and, when applicable, recorded at the York County Registry of Deeds. PLACE THE MAP AND LOT NUMBER IN 1/4" HIGH LETTERS AT LOWER RIGHT BORDER OF ALL PLAN SHEETS.** As per Section 16.4.4.L - Grading/Construction Final Plan Required. - Grading or construction of roads, grading of land or lots, or construction of buildings is prohibited until the original copy of the approved final plan endorsed has been duly recorded in the York County registry of deeds when applicable.

OTHER PERMITS AND REQUIREMENTS

- Coordination with MDOT street project on Wentworth Street.
- State Fire Marshal NFPA #13 fire protection system approval.
- DEP construction permitting and site review.

PROJECT INTRODUCTION

This is the third preliminary review for the redevelopment of the existing Enchanted Nights bed and breakfast into two inns on adjacent lots. The properties are located on Wentworth Street leading into the Kittery Foreside, directly abutting residential dwellings and a railroad running adjacent to 29 Wentworth to the northeast. Per assessor data, Enchanted Nights is an 8-bedroom bed and breakfast on 29 Wentworth Street, utilizing an additional 3-bedroom house on the adjacent property of 27 Wentworth. The plan proposes constructing one 12-unit inn, with a 13th innkeeper’s suite, on each property. Both inns would share a 16-space parking lot and a driveway located on the property of 29 Wentworth.

The property on 27 Wentworth would be demolished, with the new building moved closer to the street while maintaining the minimum 10’ front yard setback. The property on 29 Wentworth would be partially demolished during renovation, with the intention of maintaining the majority of the original 1800’s era structure. Each inn will be a 4-story building. The upper floor of 27 Wentworth will have two larger guest suites with recessed balconies. 29 Wentworth will have one ADA accessible unit on the ground floor and one innkeeper’s suite in the existing walk-in basement. Following guidance from the planning board, the applicant has drafted an easement to ensure shared parking access for both properties.

Per the definition of an inn in §16.3, each individual use requires an innkeeper’s suite. When the sketch plan was accepted on September 27th, the planning board advised the applicant they were amenable to a single innkeeper’s suite to manage both inns, if a restrictive covenant was drafted to ensure an innkeeper would be required on both properties should ownership

36 change hands at any point. The planning board also said they were amenable to a requested modification of the open space
37 minimum, to allow the applicant to fit all the required parking spaces (a minimum of 18).

38
39 The planning board first reviewed the preliminary application on September 14th, where they accepted the application as
40 complete. They then held a site walk on September 19th, and a public hearing during their September 28th meeting. However,
41 at this stage the planning board decided they wanted a legal consultation's advisement before moving forward with the
42 single innkeeper. The Town contracted an attorney from Preti Flaherty, who drafted a letter (attached below) advising the
43 planning board to adhere strictly to the code's definition of an inn. The legal consultant also advised against granting a
44 modification to the open space minimum, as they considered it a dimensional standard which would require a variance from
45 Board of Appeals.

46
47 Following this legal response, the applicant has submitted a new plan set with a note dictating one innkeeper's suite will be
48 required for each inn. The new plan also reduced the proposed parking lot to meet open space requirements, from 22 spaces
49 to 16 spaces. Before the legal determination, the third-party review of the original plan set found only minor issues that
50 were small enough to allow conditional approval. The applicant has submitted a revision of the original plan set that has
51 corrected these minor issues. They have also provided a copy of the new plan set meeting innkeeper and open space
52 requirements, which they intend to submit at the final plan stage. Because the new plan includes more open space, it will
53 have a smaller impact than the original proposal. A second peer review of the revised original plan set is expected to be
54 completed on November 13th. As long as no significant issues are found, staff believe the original preliminary site plan can
55 be approved as is, with the understanding that a plan set honoring the open space minimum and innkeeper requirements will
56 be provided at the final stage.

57 58 **WAIVERS REQUESTED**

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60
- 61 1. Parking minimum modification: the applicant is requesting to reduce the number of required parking spaces from
62 18 to 16, to meet the required open space minimum.
 - 63 2. Signpost distance modification: the applicant is requesting to reduce the setback of a proposed signpost from 33
64 feet from the centerline of the road to 22.5 feet, to ensure the proposed landscaping does not block visibility of the
65 signage.
 - 66 3. Drainpipe size waiver: the applicant is requesting to reduce the requirements from a 12" drainpipe to 6", as they are
67 only proposing roof leaders and underdrain pipes.
- 68

69 **STAFF COMMENTS**

70 Listed below are comments provided by staff in addition to general review of standards:

- 71
72
- 73 1. The applicant has submitted a draft parking access easement to provide shared parking for both properties, even if
74 ownership should change. Upon receiving feedback from the board, the applicant will add a note in the site plan
75 stating this.
 - 76 a. Planning staff suggest the property descriptions in the easement contain the map/lot property identifiers.
 - 77 2. A snow storage plan is indicated on the original site plan (sheet 4, Note 11). Snow storage areas are indicated on
78 the proposed new sketch plan as well.
 - 79 3. Staff suggest removing Japanese Tree Lilac from the landscaping plan's list of preferred species, as they are
80 considered non-native to Maine.
 - 81 4. MDOT is planning a sidewalk development project along Wentworth Street. Included in this packet is an email
82 from project manager Brian Keezer confirming the applicant and property owners have been in contact with DOT
83 staff. MDOT plans to send the project out to bid in November and is assuming construction will begin Spring 2024
(if a suitable contractor is chosen within that timeframe).

- 84 a. MDOT is requesting the applicant install utilities for the proposed inns before the project begins. If that is
 85 not possible, the applicant will need to coordinate with the to-be-determined contractor regarding
 86 construction plans.
 87 b. Because the applicant is proposing to close the existing driveway entrance onto 27 Wentworth, MDOT is
 88 requesting the applicant coordinate with them to plan when to pour that area to create sidewalk.
 89

90 **PROJECT ANALYSIS**

91 Staff reviewed the application and provided materials and have provided their determination on the requirements and
 92 standards below:
 93

Code Ref.	§16.4 Land Use Zone Standards	
	Standard	Determination
§16.4.25.B/C.	Permitted/Special Exception Uses	The proposed use is permitted
§16.4.25.D.(1).	Design standards	It appears the standard is satisfied.
§16.4.25.D.(2).(a).	Minimum land area per dwelling unit: 5,000 sq ft.	Not applicable
§16.4.25.D.(2).(b).	Lot size: 5,000 sq ft. minimum	It appears the standard is satisfied.
§16.4.25.D.(2).(c).	Street frontage: no minimum	It appears the standard is satisfied.
§16.4.25.D.(2).(d).	Front setback: 10 ft minimum if not along Government Street or Wallingford Square	It appears the standard is satisfied.
§16.4.25.D.(2).(e).	Rear and side setbacks: 10 ft minimum.	It appears the standard is satisfied.
§16.4.25.D.(2).(f).	Separation distance between buildings on the same lot: 10 ft minimum	Inns are on separate lots: not applicable.
§16.4.25.D.(2).(g).	Building height: 40 ft maximum	It appears the standard is satisfied.
§16.4.25.D.(2).(h).	Shoreland zone: setback from all other uses, including buildings and parking: 75 ft unless modified	Not applicable
§16.4.25.D.(2).(i).	Building coverage: 60% maximum	It appears the standard is satisfied
§16.4.25.D.(2).(j).	Open space: 40% minimum	It appears the standard is satisfied
§16.4.25.D.(3).	Building footprint maximum: 1,500 square feet. NOTE: if development is replacing a building existing on the lot as of April 1, 2005, the development can match the existing footprint. Width of the new building as measured parallel to the front lot line may not be greater than the width of the pre-existing building.	It appears the standard is satisfied

§16.4.25.D.(4).	Special design standards	Design standards appear to be met.
§16.4.25.D.(5).	Signage: display of signboard and/or products of sale	This standard does not appear to apply to the proposed wooden signpost. See §16.5.23. below.
§16.4.25.D.(7).	Off-street parking standards: one parking space per guest room: NOTE: the proposed development is exempt for up to 6 required off-street parking spaces	16 spaces are provided, 2 of which are ADA. The applicant is requesting a waiver to reduce the parking space minimum to 16, noted in the waivers section above.
Code Ref.	§16.5 Performance Standards	
	Standard	Determination
§16.5.10	Essential Services	All utilities in plan are proposed to be underground. The standard appears to be satisfied. Utility installation will be in coordination with MDOT sidewalk project.
§16.5.23	Wentworth Street is a part of Maine State Route 103. The signpost notated on the Site preparation plan (sheet C-1) must notate and be placed outside of 33 ft setback from center line of ROW.	The applicant is requesting a waiver to the 33 feet minimum setback, as described in the waivers section above. As it is a general performance standard in §16.5, the planning board has authority to grant this modification.
§16.5.25	Sprinkler Systems are required in all buildings of 3 stories or more and must meet NFPA standards	Kittery Water District has sufficient capacity for sprinkler systems. Approval will be determined by State Fire Marshal.
§16.5.27	Street Standards	MDOT is currently in the process of installing sidewalks along Wentworth St. The proposed development will coordinate with MDOT to ensure utility installation does not impair state project.
Code Ref.	§16.7.10 Preliminary Site Plan Requirements	
	Standard	Determination

§16.7.10.C.(4).(a-i).	<ul style="list-style-type: none"> • Paper plan sheets no smaller than 11” x 17” • Scale of drawing no greater than 1 inch = 30 feet • Code block in right-hand corner • Standard boundary survey of existing conditions • Compass with arrow pointing true north • Locus map of property • Vicinity map and aerial photograph • Surveyed acreage of parcel(s), rights-of-way, wetlands, and amount of street frontage • Names and addresses of owners of record abutting property 	Provided
§16.7.10.C.(4).(j).	Existing conditions survey including all identified structures, natural resources, rights-of-way, and utilities located on and within 100 feet of the property.	Provided
§16.7.10.C.(4).(k).	<ul style="list-style-type: none"> • Proposed development area including: • Location and detail of proposed structures and signs • Proposed utilities including power, water, and sewer. • Sewage facilities type and placement. • Domestic water source • Lot lines, rights-of-way, and street alignments • Road and other paved area plans • Existing and proposed setbacks • Storage areas for waste or hazardous materials • Topographic contours of existing contours and finished grade elevations • Locations and dimensions of artificial features such as pedestrian ways, sidewalks, curb cuts, driveways, fences, retaining walls, 	Provided
§16.7.10.C.(4).(l).	Natural features or site elements to be preserved.	Provided
§16.7.10.C.(4).(m).	Identified property encumbrances.	Provided
§16.7.10.C.(4).(n).	Kittery Water District approval letter.	Provided
§16.7.10.C.(4).(o).	Erosion and sedimentation control plan.	Provided
§16.7.10.C.(4).(p).	Stormwater management plan and drainage analysis.	Provided
§16.7.10.C.(4).(q).	Soil survey.	Provided
§16.7.10.C.(4).(r).	Vehicular traffic report.	Provided
§16.7.10.C.(4).(s).	Traffic impact analysis.	Estimated trips do not trigger a traffic impact analysis.
§16.7.10.C.(4).(t).	Test pit analysis.	Not applicable
§16.7.10.C.(4).(u).	Approval letter from Town sewage.	Provided
§16.7.10.C.(4).(v).	Evaluation of development by Technical Review Committee department heads.	Provided

§16.7.10.C.(4).(w).	Additional submissions as required: <ul style="list-style-type: none"> • Restrictive covenant for innkeeper’s suite • Shared parking access easement 	Provided
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95 **DISCUSSION, NEXT STEPS, AND RECOMMENDATIONS**

96 The purpose of a preliminary review is for the planning board to see an application in its entirety, receive feedback from
 97 the public, and further solidify their stance on any requested modifications to standards. Following the legal
 98 determination, the applicant is only seeking waivers for general performance standards, as advised. The first peer review
 99 has found no significant issues with the original site plan. As the new site plan will only reduce the impact of stormwater
 100 runoff, staff are satisfied with the proposal as submitted. As long as the peer review of the revised original site plan does
 101 not uncover any significant issues, staff believe a preliminary approval (with the condition that the third-party engineer
 102 will review the final site plan when submitted) is warranted. Staff suggest the planning board advise the applicant on next
 103 steps regarding final plan submittal.
 104

105 **RECOMMENDED MOTIONS**

106 Below are recommended motions for the Board's use and consideration:

107 ***Motion to conditionally approve the application***

108 Move to approve (with the conditions listed above) the preliminary site plan by Eric Weinrieb, on behalf of applicant
 109 Madbury Real Estate Ventures, proposing to convert an existing bed and breakfast into two independent inns with a total of
 110 12 rental units each and a single innkeeper’s suite. The proposed development is located on the properties of 27 & 29
 111 Wentworth Street, Map 9 Lots 37, 38, in the Kittery Foreside (MU-KF) Zone.

RE: request for counsel: 27-29 Wentworth Kittery

Jason Garnham <JGarnham@kitteryme.org>

Mon 10/16/2023 12:00 PM

To: Langsdorf, Stephen E. F. <SLangsdorf@preti.com>; Maxim Zakian <mzakian@kitteryme.org>

Cc: Kendra Amaral <KAmaral@kitteryme.org>

Thank you, Stephen. Your advice is clear to me. We'll share with the Board and applicant accordingly. Much appreciated,

-Jason

From: Langsdorf, Stephen E. F. <SLangsdorf@preti.com>**Sent:** Monday, October 16, 2023 11:31 AM**To:** Jason Garnham <JGarnham@kitteryme.org>; Maxim Zakian <mzakian@kitteryme.org>**Cc:** Kendra Amaral <KAmaral@kitteryme.org>**Subject:** RE: request for counsel: 27-29 Wentworth Kittery

Jason, my thoughts are as follows:

1. The Planning Board's ability to grant waivers under Section 16.7.8 is limited to improvements required by the performance standards applicable to the proposed development. While the Code does not define exactly what constitutes an "improvement," it is generally limited to modifications to the proposed site and surrounding areas, such as roads, sewer, drainage, and buffering, as opposed to the construction of the primary structure itself. There are instances in which "improvement" is used in reference to an entire development; however, those are generally in reference to modifications to an existing structure. Unlike these types of improvements, the requirement that an inn contain an innkeeper's suite is not a performance standard applicable to an inn, it is a requirement of the definition of "inn" as a permitted use and likely intended to allow the Planning Board to differentiate an inn from a hotel or other type of commercial lodging use. While the Planning Board generally has the authority to determine the appropriate use classification for any proposed development, it does not have the power or authority to alter or waive any requirements within the definition of a particular use. Were the Board to classify the proposed development, with more than 12 rooms and only a single innkeeper's suite, as an inn, it would be subject to judicial review, which would consider both the factual reasons for the classification, as well as the applicable definition provided by the Code. In this case, it is unlikely that a reviewing court would consider a restrictive covenant, which may not become effective for the duration of the proposed use, to be a sufficient basis for a determination that the project is properly defined as an inn or that the definition of an inn is something that could be waived under Section 16.7.8. As a result, I would advise against the Board granting a waiver from the requirement for a second innkeeper's suite.
2. The open space requirement applicable to the MU-Kittery Foreside Zone is a dimensional standard applicable to the entire zone, not truly a performance standard applicable to only a particular project or use. The Planning Board does not have the authority to modify those types of requirements. The relaxation or modification of open space standards applicable to a given zone should be obtained through a variance request submitted to the Board of Appeals. This is supported by definition of "variance" under the Code ("a variance is authorized only for dimensional requirements related to height, area and size of structure, or size of yards and open spaces") and the variance standards provided for the Board of Appeals under Section 16.2.12(D)(2)(a). The applicant could either seek a variance from the Board of Appeals before continuing with Planning Board review or the Planning Board could impose a condition of approval that requires the applicant to obtain a variance from the Board of Appeals before commencing any work on the development.

Please let me know if you want to have a follow up discussion.

Stephen E. F. Langsdorf

Pronouns: he/him/his

PretiFlaherty

From: Jason Garnham <JGarnham@kitteryme.org>

Sent: Thursday, October 12, 2023 3:41 PM

To: Langsdorf, Stephen E. F. <SLangsdorf@preti.com>; Maxim Zakian <mzakian@kitteryme.org>

Cc: Kendra Amaral <KAmaral@kitteryme.org>

Subject: RE: request for counsel: 27-29 Wentworth Kittery

Note: *** This email originated from outside of Preti. Please do not click on any links or open attachments unless you can verify the sender and content.***

Hi Stephen,

I hate to bug you, but wanted to check in on this. Would it be helpful for us to schedule a brief call/ Teams meeting?

Best,

-Jason

From: Jason Garnham

Sent: Thursday, September 21, 2023 1:30 PM

To: Langsdorf, Stephen E. F. <SLangsdorf@preti.com>; Maxim Zakian <mzakian@kitteryme.org>

Cc: Kendra Amaral <KAmaral@kitteryme.org>

Subject: request for counsel: 27-29 Wentworth Kittery

Stephen,

Kittery's planning board is requesting a legal review of our code to confirm whether they have the authority to grant certain waivers for a site plan application. Can you or your colleagues please review when you have a bit of time? The questions we have are as follows:

1. **Does the planning board have the authority to grant a waiver to a project requirement that is cloaked as a definition?** The applicant is proposing two inn buildings on abutting lots. Each inn has 12 rooms, with one of them containing a 13th innkeeper's suite. The definition of an inn in **16.3** of our code lists an inn as having up to 12 rooms plus one innkeeper's suite. Can the planning board allow the applicant to move forward with one single inn (and innkeeper's suite) for both buildings?
 - a. Our [code's](#) definition of an inn is as follows: "A commercial place of lodging which contains a dwelling unit occupied by an owner or resident manager, which has 12 or fewer guest rooms, and may include a restaurant which also serves non-guests. Rentals to the same party for more than 12 weeks in a calendar year are prohibited."
 - b. Sec [16.7.8 Waivers](#) says: *Upon written request, the Planning Board may waive or modify certain required improvements, due to special circumstances of a particular plan, if the applicant demonstrates that the interest of public health, safety, the natural environment, and general welfare are not harmed, or if those improvements are inappropriate because of inadequacy or lack of connecting facilities adjacent or in proximity to the proposed development, subject to appropriate conditions as determined by the Planning Board, and provided the waivers do not have the effect of nullifying the intent and purpose of the Comprehensive Plan and Title 16.*
 - c. Both lots have the same owner. The applicant has provided a restrictive covenant stating that if ownership were to change, both properties would each require an innkeeper's suite. I can provide a copy of this covenant in a follow-up email.
2. **Would zoning standards, such as minimum open space requirements on a lot, be considered a project requirement that the planning board has authority to grant a waiver for ?** The applicant is requesting a waiver to zoning standards to reduce the required open space minimum. Our waivers section for site plans (**16.7.8**) is rather vague but seems to grant the planning board the authority to do so. I am specifically

looking at subsection B of the waivers ordinance that says "projects seeking waiver of performance standards must be classified as major site plan applications," which this project is. Can you please review our waivers section to see if the planning board is able to grant this?

- a. The definition of open space in our [code](#) reads as follows: Open space includes all dedicated portions of a parcel that has vegetated surfaces or is in an undisturbed natural state. "Open space" does not include areas occupied by a building or a parking area, except where required by the management plan in place to govern the open space and as approved by the Planning Board. Vegetated surfaces of outdoor commercial uses may be used to satisfy up to 50% of the required open space on any parcel, except those parcels within a conservation subdivision.
- b. Staff believe this is a project requirement that the board can waive. There are certain standards, such as minimum setbacks, that can't be waived unless the code explicitly states otherwise, but open space is not one of those.
- c. Not sure if this additional context is beneficial, but the proposed modification appears to have a positive impact towards the stated purpose of the zone in [16.4.25.A](#).

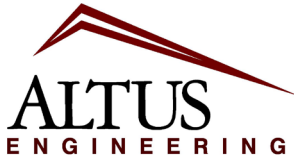
I'm sending this on Town Planner Max's behalf so he can embark on a trip he planned for a long weekend. Please let him know if you need additional information, etc: Maxim Zakian, 207-475-1323, mzakian@kitteryme.org. Of course we'll be glad to schedule a time to discuss if it will be helpful.

Much appreciated,

-Jason

Jason Garnham, AICP
Director of Planning and Development
Town of Kittery, ME
207-475-1307

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**Civil
Site Planning
Environmental
Engineering**

133 Court Street
Portsmouth, NH
03801-4413

October 5, 2023

Maxim Zakian, Town Planner
Town of Kittery
200 Rogers Road
Kittery, Maine 03904

**Re: Site Plan Review
Tax Map 9, Lots 37 & 38
27 & 29 Wentworth Street
P5431**

Transmitted via email to: mzakian@kitteryme.org

Dear Max:

Altus Engineering (Altus) offers the following responses to CMA's peer review letter, dated September 22, 2023. Altus responses are in red:

16.4 Land Use Zone Regulations

16.4.25 Mixed Use – Kittery Foreside (MU-KF) Zone **Altus: Agree.**

16.4.25.B. 12. Inn is listed as an allowed use in the MU-KF zone. **Altus: Agree.**

The applicant has requested a waiver from 16.4.25.i. requiring a minimum of 40% open space. The 40% minimum is not met on either lot. It is not clear why the applicant has not met the minimum and is applying for a waiver. **Altus: The Planning Board indicated that they were favorable to this waiver; to achieve 40% open space, ten (10) spaces would need to be eliminated, therefore making the project not viable or would further exacerbate the problematic parking situation in the Foreside zone.**

16.7 Design and Performance Standards-Built Environment

A. Water supply

The applicant is proposing to connect the inns to the Kittery Water District water supply for domestic and fire services. These are proposed via a single service/tap at the main per building that splits. KWD should review components of the design. **Altus: The service configuration and components were reviewed and approved by KWD. The applicant will most likely have KWD install the two (2) water services up to the property line.**

B. Sewage disposal

The applicant is proposing to connect the inns to public sewer through separate services. The service for Lot 37 is located within the stormwater treatment device footprint. Alternative configurations should be analyzed. Kittery sewer services should review components of the design. **Altus: KSD has reviewed and has no issues with the service layout and components. The proposed layout for Lot 27 runs outside to the proposed stormwater gallery and was selected for long-term maintenance needs. Anti-seep collars or clay dams will be added to minimize the potential for stormwater to migrate through the sewer trench.**

C. Stormwater and surface drainage

1. The applicant has presented a Drainage Analysis for the project. Stormwater management and treatment are accomplished through the use of closed porous pavement, a raingarden, stone drip edges and an underground stormwater management gallery. **Altus: The rain garden was previously revised to a depression only with no filter media.**

16.7.11.C.3.a. The applicant has requested a waiver of the minimum pipe size of 12". The only onsite drainage piping proposed is for roof leaders and underdrain pipes, not for stormwater conveyance pipes. We believe this waiver request is appropriate. **Altus: Agree. The P.B. have indicated that they are supportive of this waiver.**

We have the following comment on the drainage analysis:

1. Were the assumed infiltration rates of 4"/hr under the rain garden, the stormwater management gallery, and the porous pavement confirmed in the field? **Altus: The infiltration rate is based on test pits performed by Altus Engineering near the stormwater systems.**
2. The analysis states that the model was based on extreme precipitation values for Kittery, but the table indicates it is for NH. We note that Portsmouth rainfall data is required to be used by 16.7.11.C.4.a. **Altus: The extreme precipitation values for Portsmouth area are provided and reflect the same values as for Kittery, Maine.**
3. Please provide the cited UNH Stormwater Center studies regarding the prorated Tc value. **Altus: The documentation has been removed from UNHSC website. Therefore, the Tc has been modified to a minimum of 6 minutes. This will have no impact on the drainage results – updated computations are enclosed.**
4. The Tc path for Subcatchment 11 should be shown on the Post-Development Drainage Area Plan. **Altus: Tc path has been added.**
5. Ponds should be labeled on the Post-Development Drainage Area Plan. **Altus: Pond symbol has been added.**
6. Why are the analysis points modelled as reaches (2' x 0.25' deep parabolic channels) post construction? **Altus: The reaches are 1-foot dummy reaches to combine flows only, not conveyances.**

Stormwater Inspection and Maintenance Manual

1. Under porous pavement, major storms should be defined (1"). **Altus: This is indicated on the first page of the document for all BMPs.**
2. The frequency of porous pavement maintenance is specified (2-4 per year) but could be specifically listed (e.g. one per season, quarterly, etc.) **Altus: Added spring/fall or quarterly.**
3. Stormwater is misspelled in "stormwater management galleries". **Altus: Corrected.**
2. There should be a section on rain garden maintenance. **Altus: The rain garden was previously revised to a depression only with no filter media.**
4. The Permit Coverage and Plans contains items that are not shown on the plans and there are items on the plans that are not in the table. **Altus: Corrected**

E. Vehicular traffic

The applicant has provided a traffic generator summary for a business hotel but has not drawn any conclusions. The site distances at the entrance should be provided. **Altus: The sight distance is noted on the Site Plan; based on MDOT plan set, the sight distance is greater than 325 feet in both directions.**

H. Exterior lighting general requirements

The lighting plan appears to indicate glare beyond the property line on Wentworth Street from the inn on Lot 37. Alternative lighting should be considered to meet the ordinances. **Altus: New lighting plan has been provided.**

We have the following comments on the plans:

Cover Sheet

1. Applicant is misspelled. **Altus: Corrected**
2. In the Sheet Index, landscape is misspelled. **Altus: Corrected**

Existing Conditions Plan

1. Note 1 has one of the addresses incorrectly listed as 28 Wentworth Street. **Altus: Corrected**

Site Preparation Plan

1. The dashed red line should be defined in the legend. **Altus: Added**
2. Are the steps and walk on Lot 37 to be removed? Please call this out on the plan. **Altus: Added TBR label.**
3. The leader buried electric to be abandoned has a misspelling. **Altus: Changed as noted.**
4. What are the details of abandoning the buried electric lines? Are they in conduit? Should this be cut and capped? **Altus: Add note "Service to be discontinued at utility pole". The underground conduits are in the work zone and will be removed as they are encountered.**
5. Verify that Kittery Water District wants the two old services cut and capped 2' beyond the property line and not at the property line or at the main. **Altus: Corrected notes per KWD request to leave existing curb stops and services to the property line left in place.**
6. Where are the existing sewer services located? What abandonment or demolition is planned for them? **Altus: Will confirm location with KSD and any standards they require for discontinuing sewer service.**

Site Plan

1. The colored/shaded/hatched areas and linetypes should be defined. **Altus: All colored areas are labeled.**
2. There are several symbols on the plan that are not defined. **Altus: Legend are shown on other sheets.**
3. Note 7 should be amended to remove information not pertinent to the plan. **Altus: Changed as noted.**
4. Lot 10 should be amended to read "Kittery Water District water". **Altus: Changed as noted.**
5. We note that part of the new building on Lot 38 is located in the sewer easement and that the sewer department has allowed it. **Altus: The new addition is within the existing building footprint. KSW has reviewed plans and has no issues.**

Stormwater Management Plan

3. Amend Note 9 to remove the wetland reference. **Altus: Changed.**
4. Should the minimum length of the construction entrance be 50'? **Altus: Changed to 50 feet..**
5. What are the gray rectangles adjacent to the parking lot on the western side of the property? This should be called out. **Altus: Label added.**
6. The locations of the underdrain pipes in the porous pavement should be shown on the plans. **Altus: There are no underdrain pipes within porous pavement. Updated Porous Pavement Detail.**
7. What are the inverts of the roof leaders and piping to the yard drain? **Altus: Label added.**
8. The elevations in the permeable paver table do not add up. **Altus: The overall profile of porous pavement is 39" as shown on the detail.**
9. The rain garden should be called out on the plan. **Altus: The rain garden was previously revised to a depression only with no filter media.**

Utility Plan

1. Amend "X" fire and X" domestic" leader for service sizes. **Altus: Sizes will be added after mechanical determined the sizes prior to final approval.**
2. Should there be two water main taps for each inn rather than the domestic service branching off of the fire service lines? **Altus: This is the configuration proposed and approved by KWD.**

3. The sewer service for the inn on Lot 37 runs through the stormwater treatment gallery. This is not preferred. Is there an alternate location? Can the service come from Wentworth Street? **Altus: The existing sewer service connections are shown added based on tie sheets provided by KSD. The proposed connections have been adjusted to utilize existing sewer services.**

Please contact me directly if you have any questions or require any additional information.

Sincerely,

ALTUS ENGINEERING



Eric D. Weinrieb, P.E.
President

RMB/edw/5431.Town.resp.ltr.docx

Enclosures

ecopy: Taylor McMaster, Madbury Real Estate Ventures
Brandon Holden, Winter Holden Architecture
Robbi Woodburn, Landscape Architect



Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Paved Areas	X	1.2 fc	3.8 fc	0.1 fc	38.0:1	12.0:1
Calc Zone #1	+	0.3 fc	3.8 fc	0.0 fc	N/A	N/A

Schedule									
Symbol	Label	QTY	Manufacturer	Catalog	Description	Number Lamps	Lamp Output	LLF	Input Power
⊕	B	7	Bullard Bollards	A-750	Ware security bollard	1	500	0.9	8
○	DL	5	Gotham Architectural Lighting	EVO4 30/20 AR MWD LSS	EVO 4IN ROUND DOWNLIGHT, 80 CRI, 3000K, 2000LM, MED WIDE DIST, CLEAR SEMI-SEC	1	1895	0.9	19.5
—	DS	7	SPI Lighting Inc. Mequon, WI 53092	EEW12121	SPI Lighting - In grade luminaire. Product ID: SPI OPTICAL # 6892 Operating at 120 VAC and 60 Hz	21	10	0.9	8
○	P	15	Vision 3 Lighting	PA1 STEM MOUNTED AT 36" ABOVE GRADE	N/A	1	214	0.9	4.1
□	S4	5	Lithonia Lighting	DSX0 LED P1 30K 80CRI	D-Series Size 0 Area Luminaire P1 BLCX POLE MOUNTED AT Performance Package 3000K CCT 80 CRI Type 4 Extreme Backlight Control	1	3135	0.9	33.21
○	SL	2	Hydrel	Pine P1 80CRI 30K 120 SDO65 FLC	Pine, Clear Lens	1	2970	0.9	33.1
○	U	2	Vision3 Lighting	IG6 in-ground uplight	LED PAR20 4000K 35 DEGREE BEAM ANGLE	1	1280	0.9	18
○	W	8	Vision 3 Lighting	PAS		1	530	0.9	7.5



Plan View
Scale - 1" = 16ft

Wentworth Street Inn

Designer
Scott E Drouin
Date
10/04/2023
Scale
Not to Scale
Drawing No.

Summary

THE FORESIDE INN

27 & 29 WENTWORTH STREET KITTERY, MAINE

Assessor's Parcel 9, Lots 37 & 38

Owner:

27 WENTWORTH STREET, LLC
&
MREV KITTERY INN, LLC

401 EDGEWATER PLACE, SUITE 570
WAKEFIELD, MA 01880

Plan Issue Date:

August 24, 2023
October 5, 2023

Preliminary Site Plan Review
Resubmit Preliminary Site Plan

Applicant:

MADBURY REAL ESTATE VENTURES

401 EDGEWATER PLACE, SUITE 570
WAKEFIELD, MA 01880


Architect:

**WINTER
HOLBEN** 7 Wallingford Square
Unit 2099
Kittery, ME 03904
architecture + design (207) 994-3104

Landscape Architect:

 **woodburn
& company**
LANDSCAPE ARCHITECTURE
103 Kent Place Newmarket, New Hampshire Phone: 603.659.5949

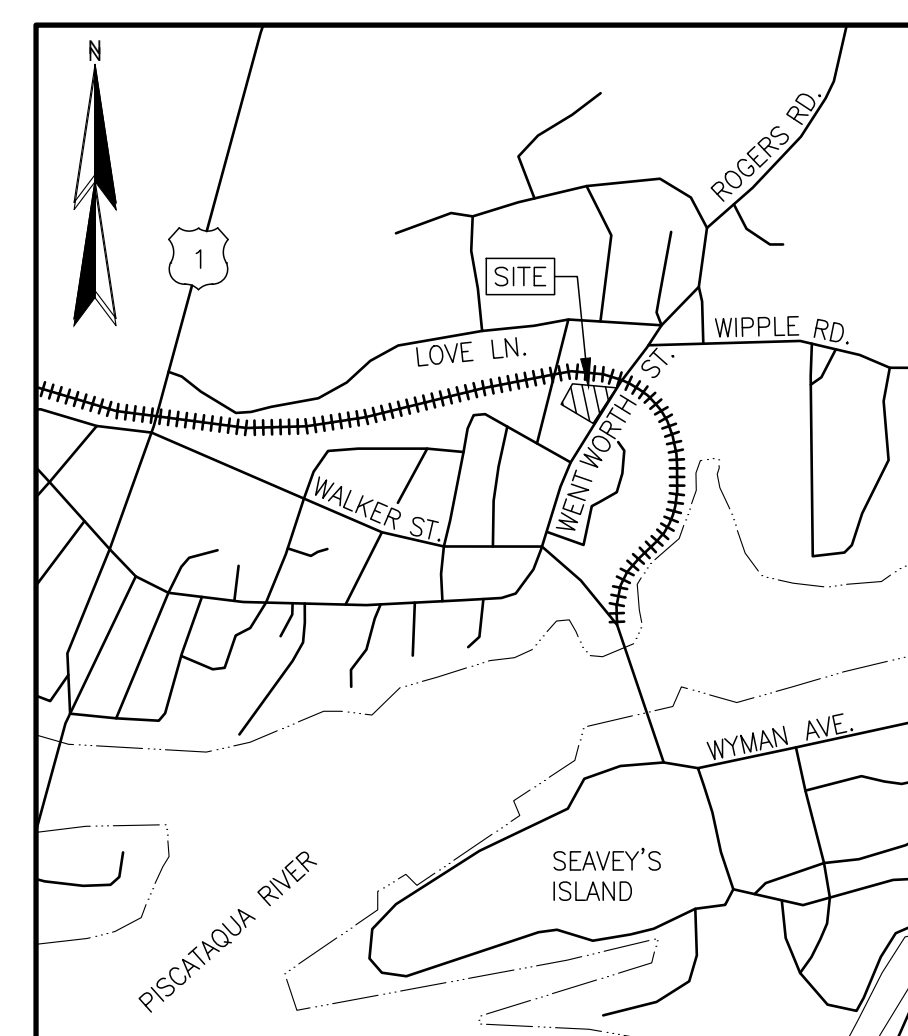
Civil Engineer:

**ALTUS**
ENGINEERING

133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com

Surveyor:

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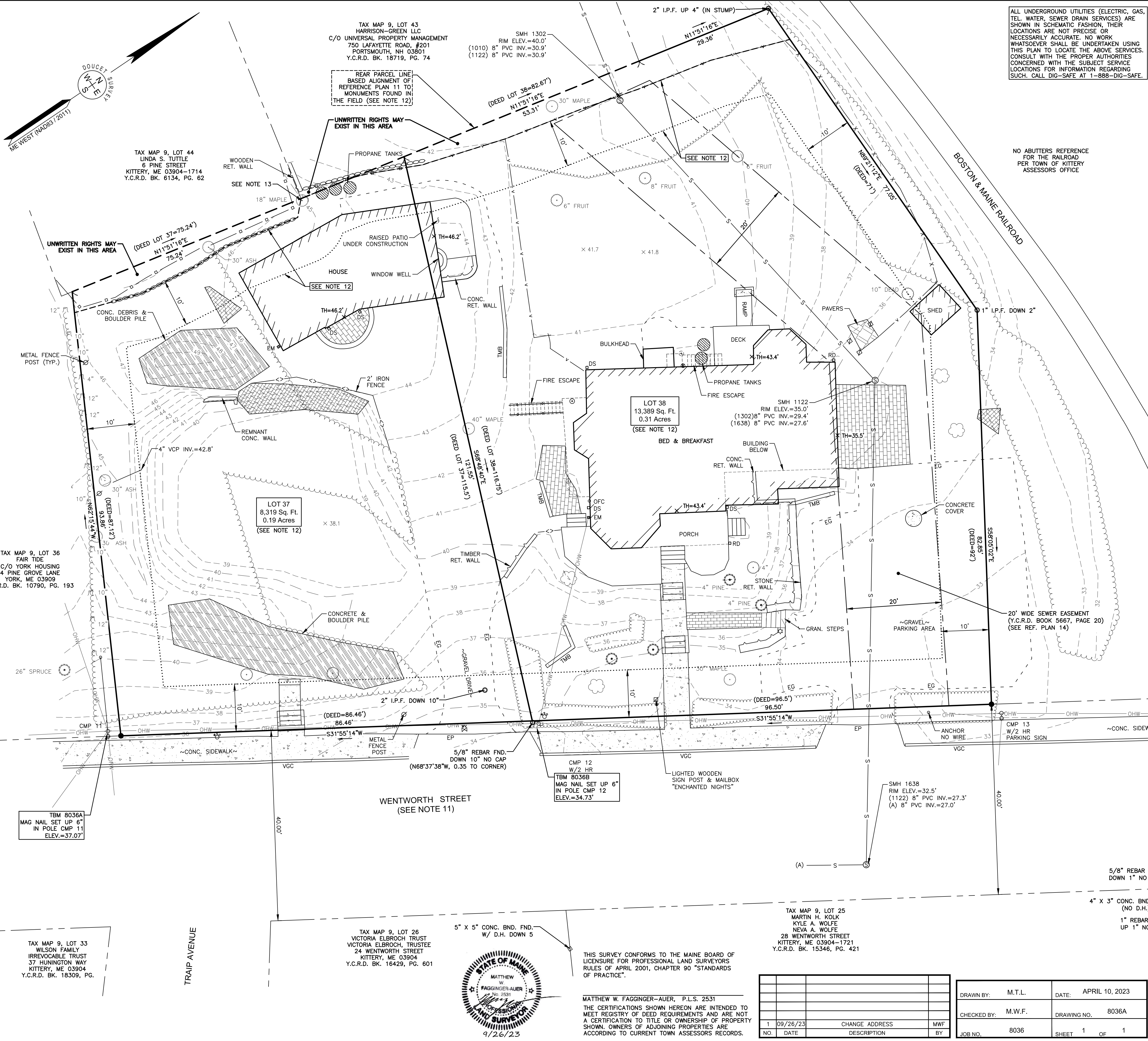
LOCUS

NOT TO SCALE

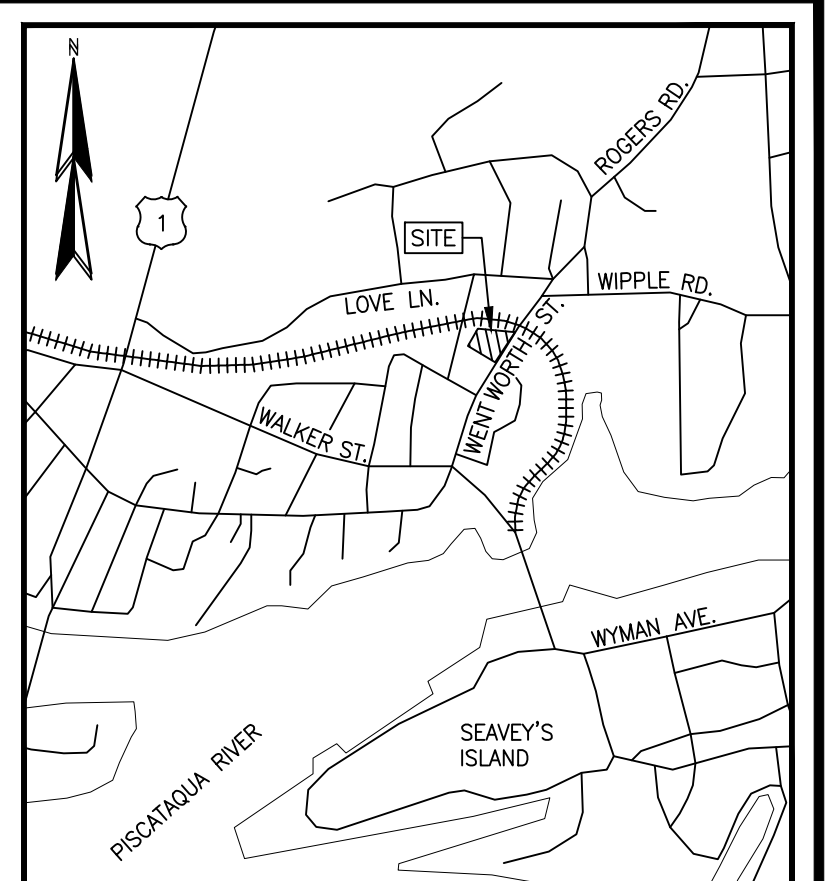
Sheet Index

Title	Sheet No.:	Rev.	Date
Existing Conditions Plan	1 of 1	0	09/26/23
Site Preparation Plan	C-1	0	10/05/23
Site Plan	C-2	0	10/05/23
Stormwater Mgmt. Plan	C-3	0	10/05/23
Grading Plan	C-4	0	10/05/23
Utility Plan	C-5	0	10/05/23
Landscape Plan	L-1	0	10/05/23
Detail Sheet	C-6	0	10/05/23
Detail Sheet	C-7	0	10/05/23
Detail Sheet	C-8	0	10/05/23
Detail Sheet	C-9	0	10/05/23
Detail Sheet	C-10	0	10/05/23

- NOTES:**
- REFERENCE: TAX MAP 9, LOTS 37 & 38, 27 & 28 WENTWORTH STREET, KITTERY, MAINE.
 - TOTAL PARCEL AREA: LOT 37 = 8,289 SQ. FT. OR 0.19 AC. LOT 38 = 13,893 SQ. FT. OR 0.31 AC.
 - OWNER OF RECORD: NANCY P. BOGNERBERGER, 29 WENTWORTH STREET, KITTERY, ME 03904-1720. Y.C.R.D. BK. 6527, PG. 279 - LOT 37. Y.C.R.D. BK. 4993, PG. 227 - LOT 38.
 - FIELD SURVEY PERFORMED BY J.P.E. & S.N.F. (DOUCET SURVEY) DURING ON APRIL 4, 2023 USING A TOTAL STATION AND A SURVEY GRADE GPS WITH A DATA COLLECTOR AND A DIGITAL LEVEL. TRAVERSE ADJUSTMENT BASED ON LEAST SQUARE ANALYSIS.
 - HORIZONTAL DATUM BASED ON NAD83(2011) MAINE WEST STATE PLANE COORDINATE ZONE (1802) DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KEYNET GPS VRS NETWORK.
 - VERTICAL DATUM IS BASED ON NAVD88 PER CONTROL SURVEY PERFORMED IN 2018/2019 BY DOUCET SURVEY FOR THE PORTSMOUTH NAVAL SHIPYARD.
 - FLOOD HAZARD ZONE: "C", PER FIRM MAP #2301710008D, DATED 7/3/1986.
 - PROPER FIELD PROCEDURES WERE FOLLOWED IN ORDER TO GENERATE CONTOURS AT 1' INTERVALS. ANY MODIFICATION OF THIS INTERVAL WILL DIMINISH THE INTEGRITY OF THE DATA, AND DOUCET SURVEY WILL NOT BE RESPONSIBLE FOR ANY SUCH ALTERATION PERFORMED BY THE USER.
 - UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON OBSERVED PHYSICAL EVIDENCE AND PAINT MARKS FOUND ON-SITE.
 - THE ACCURACY OF MEASURED UTILITY INVERTS AND PIPE SIZES/TYPES IS SUBJECT TO NUMEROUS FIELD CONDITIONS, INCLUDING: THE ABILITY TO MAKE VISUAL OBSERVATIONS, DIRECT ACCESS TO THE VARIOUS ELEMENTS, MANHOLE CONFIGURATION, ETC.
 - DUE TO THE COMPLEXITY OF RESEARCHING ROAD RECORDS AS A RESULT OF INCOMPLETE, UNORGANIZED, INCONCLUSIVE, OBLITERATED, OR LOST DOCUMENTS, THERE IS AN INHERENT UNCERTAINTY INVOLVED WHEN ATTEMPTING TO DETERMINE THE LOCATION AND WIDTH OF A ROADWAY RIGHT OF WAY. THE EXTENT OF WENTWORTH STREET AS DEPICTED HEREON IS/ARE BASED ON RESEARCH CONDUCTED AT THE YORK COUNTY REGISTRY OF DEEDS, THE TOWN OF KITTERY AND MAINE DEPARTMENT OF TRANSPORTATION. WENTWORTH STREET IS LISTED AS A 40' WIDE RIGHT OF WAY PER YORK COUNTY COMMISSIONERS RECORDS VOLUME 16, PAGE 255 & VARIABLE WIDTH PER Y.C.R.D. BOOK 2828, PAGE 137. SEE ALSO REFERENCE PLAN 2.
 - THE BOUNDARY LINES AS SHOWN ARE A REPRESENTATION OF THE DEEDED BOUNDARIES BASED ON THE OPERATIVE RECORDS AND THE LIMITED BOUNDARY EVIDENCE FOUND IN THE FIELD. UNWRITTEN RIGHTS MAY APPLY WHERE LINES OF OCCUPATION DIFFER FROM THE BOUNDARY LINES AS SHOWN. LAND OWNER SHOULD CONSULT WITH AN ATTORNEY PRIOR TO DEVELOPMENT NEAR LINES OF OCCUPATION.
 - PARCEL AREAS AND THE SETBACKS ALONG THE WESTERLY BOUNDARY LINES ARE BASED ON A LINE ESTABLISHED FROM PHYSICAL EVIDENCE SUCH AS STONE WALLS AND FENCES AS THE LIMITS OF OCCUPATION FOR THE SUBJECT AND ADJUTING PARCELS.
 - PER DISCUSSION WITH LINDA TUTTLE ON 6/5/23, AT THE TIME SHE ERECTED HER FENCE 20 YEARS AGO, THE ABUTMENT OF OUR SUBJECT PARCEL INDICATED THE COMMON LOT LINE SPLIT THE MAPLE TREE SHOWN. ATTEMPTS TO REACH THE OWNERS OF TAX MAP 9, LOT 36 AND LOT 43 VIA CERTIFIED MAIL AND PHONE WERE UNSUCCESSFUL.
 - THE DEED FOR LOT 38, Y.C.R.D. BOOK 4993, PAGE 227 HAS AN ERROR IN CLOSURE OF 11.98".
- REFERENCE PLANS:**
- STANDARD BOUNDARY SURVEY PREPARED FOR PHYLIS F. GRAY, WENTWORTH STREET, KITTERY, MAINE, DATED JULY 1997 BY ANDERSON LIVINGSTON ENGINEERS, INC. FILE NO. 5771, PLAN NO. 1505.970701 (NOT RECORDED).
 - "STATE OF MAINE DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS RIGHT OF WAY MAP, STATE HIGHWAY 100" KITTERY, YORK COUNTY FEDERAL AID PROJECT NO. M-4220(1) & M-4220(2) DATED MAY 1981 Y.C.R.D. PLANS 139-57 & 58.
 - "PLAN SHOWING PORTION OF PROPERTY OF GERTRUDE P. WILSON TO BE CONVEYED TO GEORGE B. LANDERS. LOCATED IN KITTERY, YORK COUNTY, ME." DATED APRIL 9, 1954 BY MOULTON ENGINEERING CO., Y.C.R.D. PLAN 25-22.
 - "PLAN SHOWING PROPERTY OF GEORGE S. WOOD, LOCATED IN KITTERY, YORK COUNTY, ME", DATED AUGUST 1953, BY MOULTON ENGINEERING CO., Y.C.R.D. PLAN 25-9.
 - "PLAN SHOWING DIVISION OF ANDREW'S ELECTRICAL SHOP, INC. AND EMILE H. LEBEL, JR. & WILLETTA J. LEBEL, KITTERY, YORK COUNTY, ME", DATED AUGUST 1956, BY MOULTON ENGINEERING CO., Y.C.R.D. PLAN 21-20.
 - "STANDARD BOUNDARY SURVEY OF THE RICE PUBLIC LIBRARY LOT, WENTWORTH ST. & TRAP AVE, KITTERY, MAINE" DATED JAN. 18, 1981 BY EASTERLY SURVEYING Y.C.R.D. PLAN 201-11.
 - "STATE OF MAINE DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP, "ROGERS ROAD" KITTERY, YORK COUNTY, FEDERAL AID PROJECT NO. M-STP-4215(2) DATED MARCH 1993 SHEET 1 OF 6 Y.C.R.D. PLAN 269-6.
 - "STANDARD BOUNDARY SURVEY FOR PROPERTY AT 17 WENTWORTH STREET, KITTERY, YORK COUNTY, MAINE, OWNED BY EDMUND K. ARNOLD & BYONG HWAN KIM", BY NORTHEASTERLY SURVEYING, INC., DATED JULY 31, 2003, Y.C.R.D. PLAN 284-24.
 - "STANDARD BOUNDARY AND TOPOGRAPHIC SURVEY, OF LAND OF THE ROMAN CATHOLIC BISHOP OF PORTLAND, ST. RAPHAEL'S CHURCH, WENTWORTH ST. & WHIPPLE RD., KITTERY, MAINE" DATED 2/21/2001 BY CIVIL CONSULTANTS (NOT RECORDED).
 - "LAND IN KITTERY, MAINE, YORK HARBOR & BEACH R.R. CO. TO BOSTON & MAINE R.R.", DATED APRIL 1927, Y.C.R.D. PLAN 10-69.
 - "PLAN OF HOUSE LOTS IN KITTERY MAINE OWNED BY ROBERT M. OTIS & CAROLINE L. LOCKE", BY MOSES A. SAFFORD, DATED JUNE 27, 1870, Y.C.R.D. PLAN 1-72.
 - "CENTERLINE SURVEY FOR A DRAINAGE EASEMENT AND PERIMETER SURVEY FOR 1.4 ACRE ACQUISITION, NAVAL SHIPYARD, PORTSMOUTH, NH." DATED OCT. 23, 1998 BY OAK POINT ASSOCIATES (NOT RECORDED).
 - "RIGHT OF WAY AND TRACK MAP (FORMERLY YORK BARBOR & BEACH R.R. CO.) BOSTON AND MAINE R.R., OPERATED BY THE BOSTON AND MAINE R.R., STATION 0+00 TO STATION 52+80", DATED JUNE 30, 1914, BY THE OFFICE OF VALUATION ENGINEER, BOSTON, MASS (NOT RECORDED).
 - "REVISED SEWER EASEMENT, KITTERY MAP 9, LOT 38", DATED MARCH 22, 1991, BY ANDERSON LIVINGSTON, (NOT RECORDED).



ALL UNDERGROUND UTILITIES (ELECTRIC, GAS, TEL. WATER, SEWER DRAIN SERVICES) ARE SHOWN IN SCHEMATIC FASHION, THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE SUBJECT SERVICE LOCATIONS FOR INFORMATION REGARDING SUCH. CALL DIG-SAFE AT 1-888-DIG-SAFE.



- LEGEND**
- EXISTING LOT LINE
 - APPROXIMATE ABUTTERS LOT LINE
 - MAJOR CONTOUR LINE
 - MINOR CONTOUR LINE
 - STONE WALL
 - REMAINING STONE WALL
 - RETAINING WALL
 - STOCKADE FENCE
 - PICKET FENCE
 - POST & RAIL FENCE
 - WIRE FENCE
 - OVERHEAD WIRE
 - SEWER LINE
 - TREE LINE
 - SHRUB LINE
 - CONCRETE
 - PILE
 - LEDGE OUTCROP
 - SPOT GRADE
 - FENCE POST
 - WOODEN POST
 - POST
 - UTILITY POLE & GUY WIRE
 - UTILITY POLE W/LIGHT
 - LIGHT POST
 - SEWER MANHOLE
 - WATER GATE VALVE
 - FALCET
 - ELECTRIC METER
 - CANIFEROUS TREE
 - DECIDUOUS TREE
 - DECIDUOUS BUSH
 - TREE STUMP
 - CONCRETE
 - DOUBLE YELLOW LINE
 - EDGE OF GRAVEL
 - GRANITE
 - OIL FILL CAP
 - POLYVINYL CHLORIDE PIPE
 - ROOF DRAIN
 - RETAINING WALL
 - THRESHOLD ELEVATION
 - VITREOUS CLAY PIPE
 - VERTICAL GRANITE CURB
 - INVERT I.D. CONNECTION UNKNOWN
 - PIPE/ROD FOUND
 - 5/8" REBAR W/D CAP TO BE SET
- ZONE: MU-KF**
- DIMENSIONAL REQUIREMENTS:**
- MIN. LOT SIZE: 5,000 SQ. FT.
 - MIN. FRONTAGE: 0 FT.
 - MIN. FRONT SETBACK: 10 FT.
 - MIN. SIDE/REAR SETBACK: 10 FT.
 - MAX. BUILDING HEIGHT: 40 FT.
 - MAX. BUILDING COVERAGE: 60 %
 - MIN. OPEN SPACE ON SITE: 40%
- *SEE TOWN OF KITTERY LAND USE ZONE REGULATIONS FOR ADDITIONAL DIMENSIONAL REQUIREMENTS.

EXISTING CONDITIONS PLAN
FOR
MADBURY REAL ESTATE VENTURES
OF
TAX MAP 9, LOTS 37 & 38
27 & 29 WENTWORTH STREET
KITTERY, MAINE

SCALE: 1 INCH = 10 FT.



THIS SURVEY CONFORMS TO THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS RULES OF APRIL 2001, CHAPTER 90 "STANDARDS OF PRACTICE".

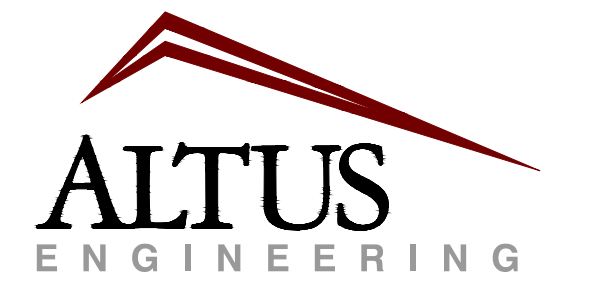
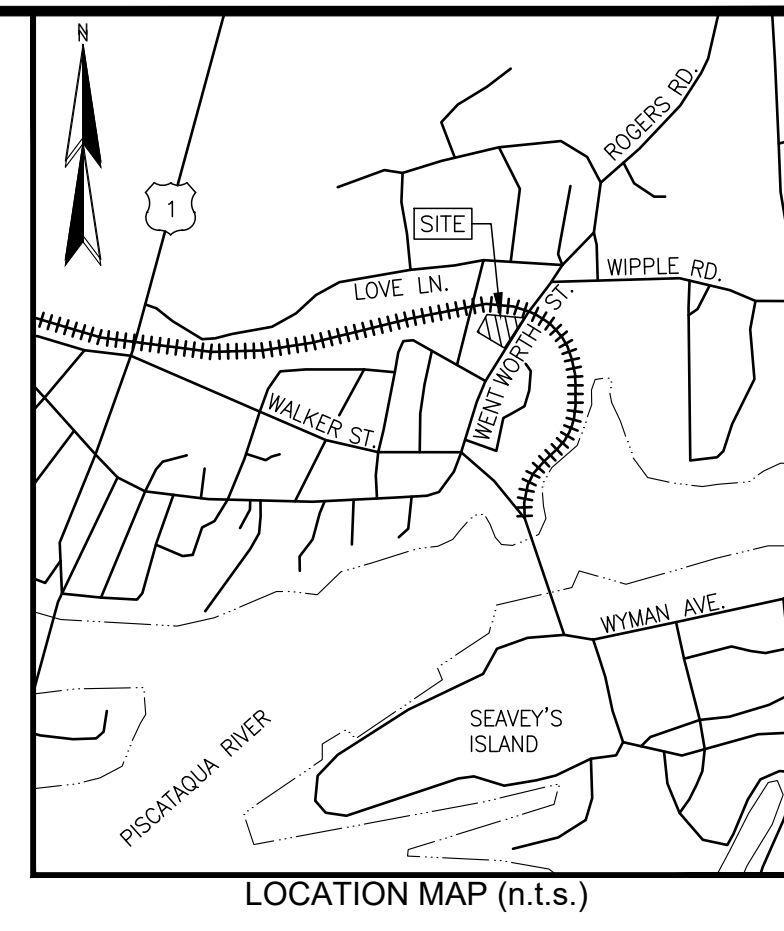
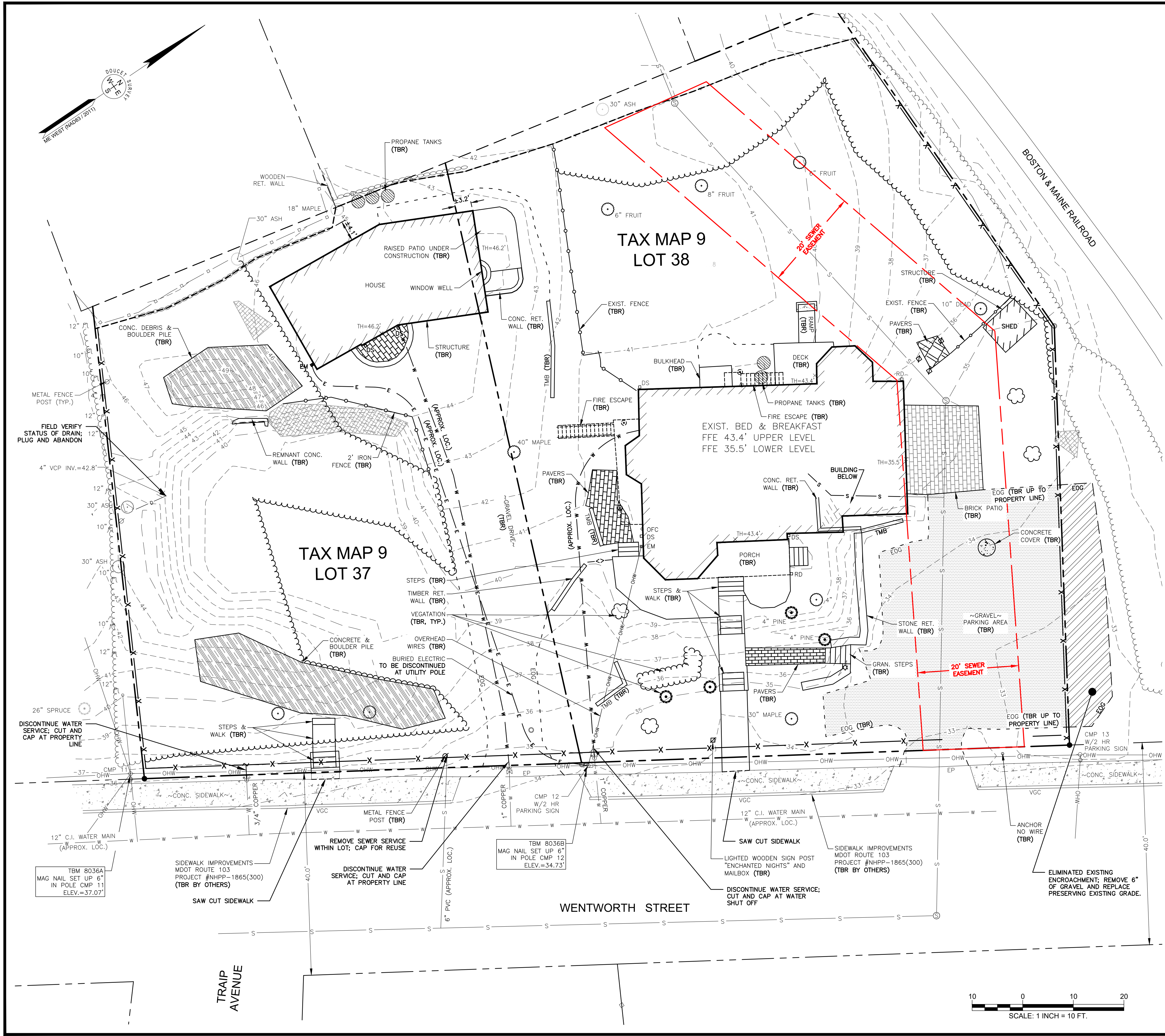
MATTHEW W. FAGGINGER-AUER, P.L.S. 2531
THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT TOWN ASSESSORS RECORDS.

NO.	DATE	DESCRIPTION	BY
1	09/26/23	CHANGE ADDRESS	MWF

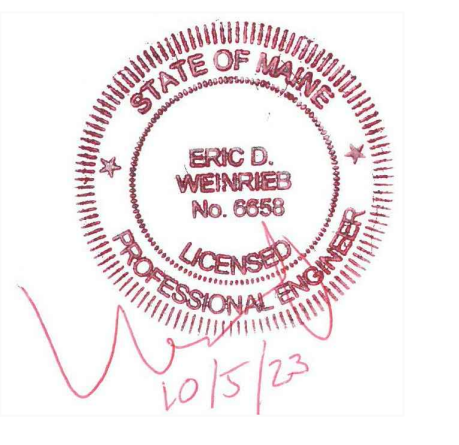
DRAWN BY:	M.T.L.	DATE:	APRIL 10, 2023
CHECKED BY:	M.W.F.	DRAWING NO.	8036A
JOB NO.	8036	SHEET	1 OF 1

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(603) 433-2335 www.altus-eng.com



NOTES:
1. ALL UNDERGROUND UTILITIES (ELECTRIC, GAS, TEL. WATER, SEWER DRAIN SERVICES) ARE SHOWN IN SCHEMATIC FASHION, THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE SUBJECT SERVICE LOCATIONS FOR INFORMATION REGARDING SUCH. CALL DIG-SAFE AT 1-888-DIG-SAFE.

NOT FOR CONSTRUCTION
ISSUED FOR:
PRELIM. SITE PLAN APPROVAL
ISSUE DATE:
OCTOBER 5, 2023

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EDW	08/24/23
1	TOWN COMMENTS	EDW	10/05/23

DRAWN BY: RMB
APPROVED BY: EDW
DRAWING FILE: 5433SITE.dwg

SCALE:
(22"x34") 1" = 10'
(11"x17") 1" = 20'

OWNER:
27 WENTWORTH STREET, LLC
& MREV KITTEERY INN, LLC
401 EDGEWATER PLACE,
SUITE 570
WAKEFIELD, MA 01880

APPLICANT:
MADBURY REAL ESTATE
VENTURES
401 EDGEWATER PLACE,
SUITE 570
WAKEFIELD, MA 01880

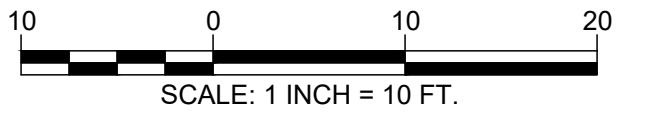
PROJECT:
THE FORESIDE INN
TAX MAP 9
LOTS 37 & 38
27 & 29 WENTWORTH STREET
KITTEERY, MAINE

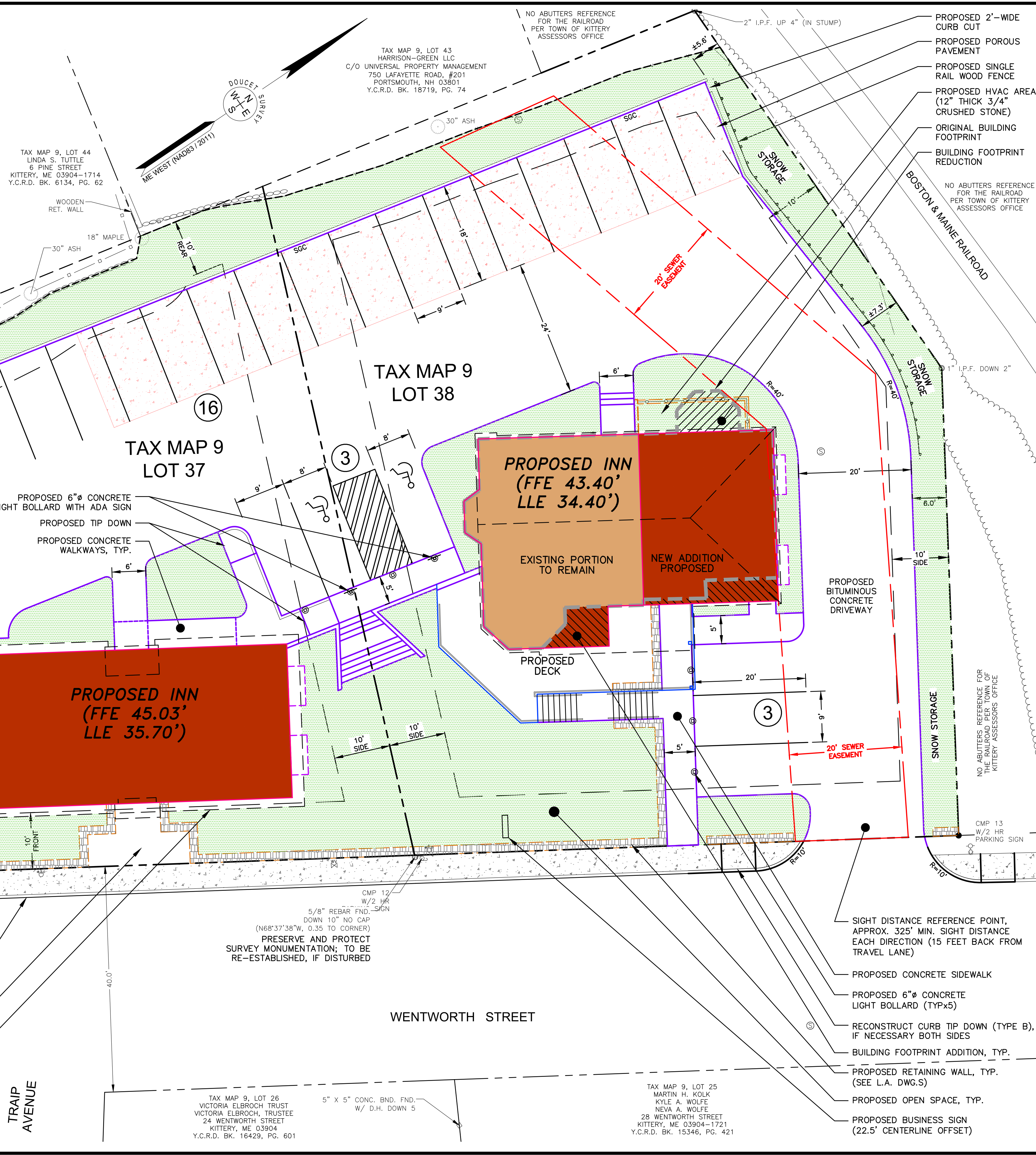
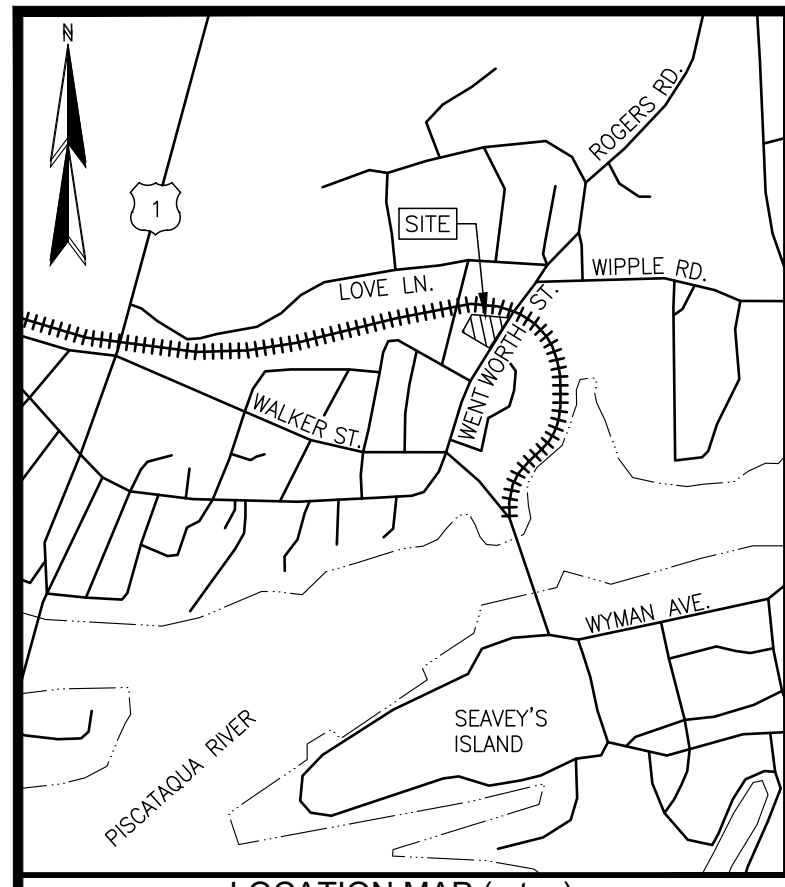
TITLE:
SITE
PREPARATION
PLAN

SHEET NUMBER:
C - 1

LEGEND

---	EXISTING LOT LINE
---	BUILDING SETBACK LINE
---	APPROX. ABUTTERS LOT LINE
---	MAJOR CONTOUR LINE
---	MINOR CONTOUR LINE
---	STONE WALL
---	REMNANT STONE WALL
---	RETAINING WALL
---	STOCKADE FENCE
---	PICKET FENCE
---	POST & RAIL FENCE
---	WIRE FENCE
---	OVERHEAD WIRE
---	SEWER LINE
---	TREE LINE
---	SHRUB LINE
---	CONCRETE
---	LEDGE OUTCROP
○	PIPE/ROD FOUND
○	5/8" REBAR W/ID CAP TO BE SET
○	SPOT GRADE
○	FENCE POST
○	WOODEN POST
○	POST
○	UTILITY POLE & GUY WIRE
○	UTILITY POLE W/LIGHT
○	LIGHT POST
○	SEWER MANHOLE
○	WATER GATE VALVE
○	WATER SHUTOFF VALVE
○	FAUCET
○	ELECTRIC METER
○	CONIFEROUS TREE
○	DECIDUOUS TREE
○	DECIDUOUS BUSH
○	TREE STUMP
○	CONCRETE
○	DOWN SPOUT
○	DOUBLE YELLOW LINE
○	EDGE OF GRAVEL
○	GRANITE
○	OIL FILL CAP
○	POLYVINYL CHLORIDE PIPE
○	ROOF DRAIN
○	RETAINING WALL
○	THRESHOLD ELEVATION
○	TIMBER EDGE / CURB
○	VITREOUS CLAY PIPE
○	VERTICAL GRANITE CURB
○	TO BE REMOVED/RAZED
---	SEWER EASEMENT





- SITE NOTES:**
- REFERENCE: TAX MAP 9, LOTS 37 & 38 27 & 29 WENTWORTH STREET KITTERY, MAINE
 - TOTAL PARCEL AREA: LOT 37 = 8,319 SQ. FT. OR 0.19 AC. LOT 38 = 13,389 SQ. FT. OR 0.31 AC.
 - OWNER OF RECORD: LOT 37 (27 WENTWORTH STREET) 27 WENTWORTH STREET, LLC 401 EDGEWATER PLACE, SUITE 570 WAKEFIELD, MA 01880 DEED BOOK 19297 PAGE 823
LOT 38 (29 WENTWORTH STREET) MREV KITTERY INN, LLC 401 EDGEWATER PLACE, SUITE 570 WAKEFIELD, MA 01880 DEED BOOK 19297 PAGE 853
 - ZONE: MIXED USE - KITTERY FORESIDE (MU-KF)
DIMENSIONAL REQUIREMENTS:

	REQ'D	LOT 37 EXISTING	PROPOSED	LOT 38 EXISTING	PROPOSED
MIN. LOT AREA	5,000 SF	8,319 SF	8,319 SF	13,389 SF	13,389 SF
MIN. FRONTAGE	0'	+86.46'	+86.46'	+96.50'	+96.50'
MIN. FRONT SETBACK	10'	>79'	>11.0'	>35'	>35'
MIN. SIDE SETBACK	10'	-±3.2'	±11.0'	>20'	>20'
MIN. REAR SETBACK	10'	±4.1'	>50'	>50'	>50'
MAX. BLDG. COVERAGE	60%	±9.4%	±18.1%	±13.0%	±13.5%
MAX. BLDG. HEIGHT	40'	<40'	<40'	<40'	<40'
MIN. OPEN SPACE	40%	±60.8%	±30.6% *	±54.0%	±27.4% *
- * WAIVER REQUESTED
- PARKING REQ'S: 1 SPACES PER GUEST ROOM (NOT INCLUDING INNKEEPER UNIT)
24 UNITS -> 24 SPACES TOTAL WITH A 6 SPACE CREDIT
18 SPACES REQ'D
22 SPACES PROVIDED
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL PERMITS OBTAINED FOR THIS PROJECT.
 - CONTRACTOR SHALL OBTAIN A "DIGSAFE" NUMBER AT LEAST 72 HOURS PRIOR TO COMMENCING CONSTRUCTION.
 - PAINTED ISLANDS SHALL BE 4"-WIDE DIAGONAL WHITE LINES 3"-0" O.C. BORDERED BY 4"-WIDE WHITE LINES. PARKING STALLS SHALL BE SEPARATED BY 4"-WIDE WHITE LINES. SEE DETAILS FOR HANDICAP SYMBOLS, SIGNS AND SIGN DETAILS.
 - PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL ON UNIFORM TRAFFIC DEVICES," "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" AND THE AMERICANS WITH DISABILITIES ACT (ADA), LATEST EDITIONS.
 - PROPOSED TELEPHONE, ELECTRIC AND CABLE SERVICES AND CONDUITS SHALL BE INSTALLED UNDERGROUND.
 - LOTS SHALL BE SERVED BY KITTERY WATER DISTRICT WATER AND MUNICIPAL SEWER.
 - ACCUMULATED SNOW WILL BE PLOWED TO AREAS ADJACENT TO PAVEMENT IN A MANNER AS NOT TO HINDER SIGHT LINES AT INTERSECTION. NO SNOW SHALL BE PUSHED ONTO ABUTTING PROPERTY NOR STORED WITHIN 5' OF SHRUBS AND TREES. EXCESS SNOW SHALL BE HAULED OFF-SITE, AS NEEDED.
 - HORIZONTAL DATUM BASED ON NAD83(2011) MAINE WEST STATE PLANE COORDINATE ZONE (1802) DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KEYNET GPS VRS NETWORK.
 - VERTICAL DATUM IS BASED ON APPROXIMATE NAVD83(GEOD18) (±.2') DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KEYNET GPS VRS NETWORK.
 - FLOOD HAZARD ZONE: "X", PER FIRM MAP #2301710008D, DATED 7/3/1986 AND IS NOT WITHIN A 100-YEAR FLOOD ZONE.
 - TRASH TOTES SHALL BE STORED INSIDE FOR SCHEDULED PICKUPS.
 - FINAL MECHANICAL UNITS LOCATION TO BE DETERMINED.
 - NO WETLANDS FOUND ON SITE.
 - THE CONTRACTOR SHALL VERIFY ALL BUILDING DIMENSIONS WITH THE ARCHITECTURAL AND STRUCTURAL PLANS PRIOR TO CONSTRUCTION. ALL DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER FOR RESOLUTION.
 - BUILDING AREA SHOWN IS BASED ON FOOTPRINT MEASURED TO THE EDGE OF FOUNDATIONS AND/OR SLABS. ACTUAL INTERIOR SPACE WILL DIFFER.
 - CROSS EASEMENTS SHALL BE RECORDED REGARDING VEHICULAR AND PEDESTRIAN ACCESS, GRADING, STORMWATER MANAGEMENT AND UTILITIES.
 - ADDITIONAL WAY FINDING SIGN(S) WILL BE ADDED, AS NEEDED.
 - MAINE DOT IS PROPOSING IMPROVEMENTS TO WENTWORTH STREET BEGINNING IN THE FALL OF 2023. IT IS THE INTENT OF THIS DESIGN THAT ANY UTILITY SERVICE IN THE RIGHT-OF-WAY IS COMPLETED PRIOR TO OR IN CONJUNCTION WITH MDOT WORK. CONTACT MDOT FOR SCHEDULE.
BRIAN KEIZER
MAINE DOT
16 STATE HOUSE STATION
AUGUSTA, ME 04333-0016
CELL: (207) 462-0697
EMAIL: BRIAN.KEIZER@MAINE.GOV
 - THE INN ON 27 WENTWORTH MUST CONVERT A GUESTROOM INTO AN INNKEEPER'S SUITE IF THE PROPERTY WERE EVER TO CHANGE OWNERSHIP.
 - A PARKING ACCESS EASEMENT, PROVIDING SHARED PARKING OF BOTH PROPERTIES, SHALL REMAIN IN PERPETUITY EVEN IF OWNERSHIP SHOULD CHANGE.

PLAN REFERENCE:

- "EXISTING CONDITIONS PLAN FOR MADBURY ESTATE VENTURES", DATED JUNE 14, 2023, PREPARED BY DOUCET SURVEY, LLC.

TOWN OF KITTERY, PLANNING BOARD

CHAIR	DATE
OWNER	DATE
APPLICANT	DATE

SCALE: 1 INCH = 10 FT.

133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com

ERIC D. WEINBERG
No. 0558
LICENSED PROFESSIONAL ENGINEER

10/5/23

NOT FOR CONSTRUCTION

ISSUED FOR:
PRELIM. SITE PLAN APPROVAL

ISSUE DATE:
OCTOBER 5, 2023

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EDW	08/24/23
1	TOWN COMMENTS	EDW	10/05/23

DRAWN BY: _____ RMB
APPROVED BY: _____ EDW
DRAWING FILE: _____ 5431SITE.dwg

SCALE:
(22"x34") 1" = 10'
(11"x17") 1" = 20'

OWNERS:
**27 WENTWORTH STREET, LLC
& MREV KITTERY INN, LLC**
401 EDGEWATER PLACE,
SUITE 570
WAKEFIELD, MA 01880

APPLICANT:
**MADBURY REAL ESTATE
VENTURES**
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SUITE 570
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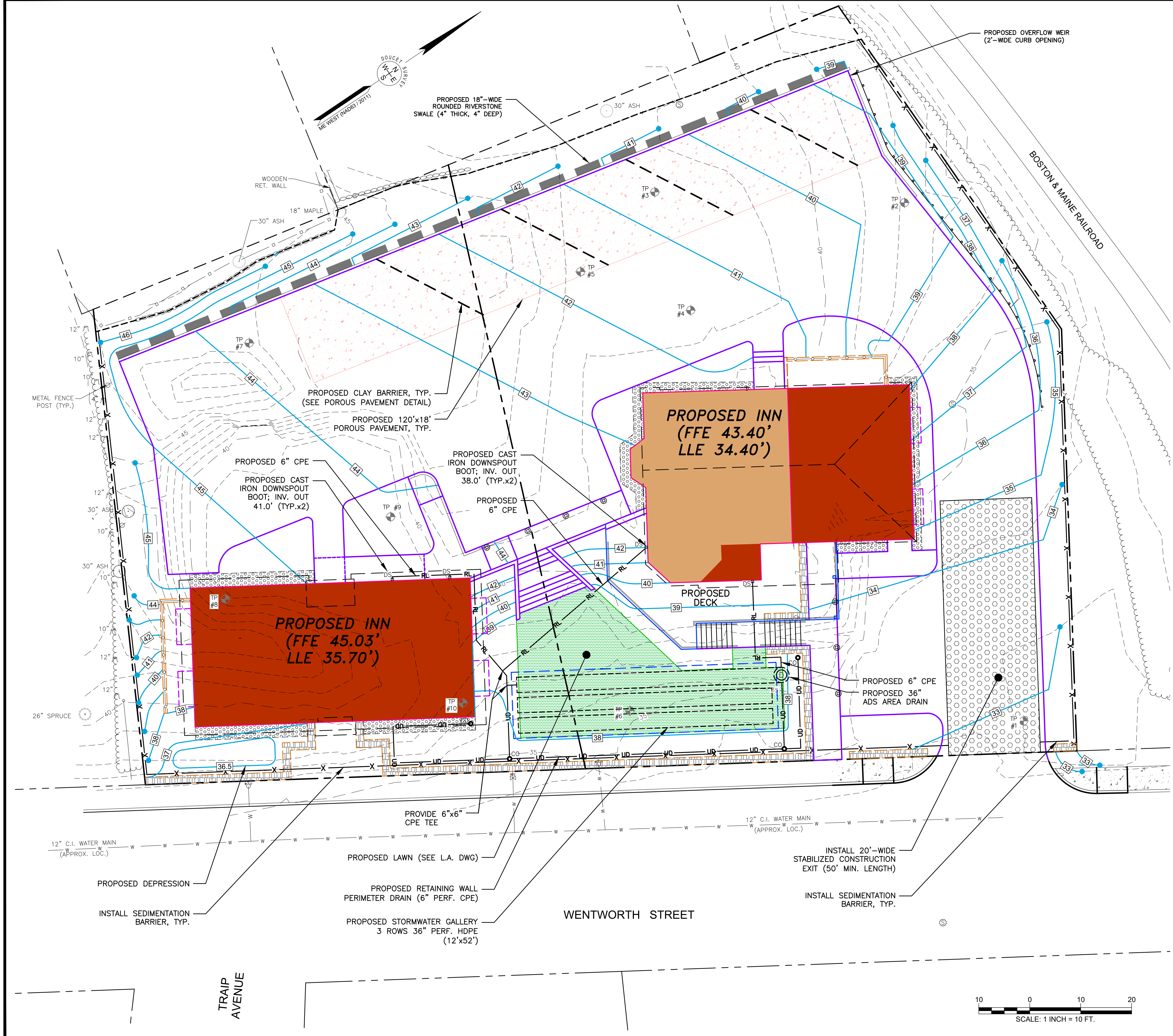
PROJECT:
THE FORESIDE INN
TAX MAP 9
LOTS 37 & 38
27 & 29 WENTWORTH STREET
KITTERY, MAINE

TITLE:

DATE

SITE PLAN

SHEET NUMBER:
C - 2



EROSION AND SEDIMENT CONTROL NOTES:

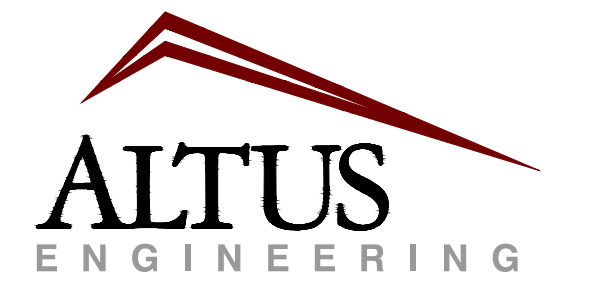
- DO NOT BEGIN CONSTRUCTION UNTIL ALL STATE AND LOCAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.
- THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED UPON THE FIELD LOCATION OF ALL VISIBLE STRUCTURES (IE. CATCH BASINS, MANHOLES, WATER GATES, ETC.) AND INFORMATION COMPILED FROM PLANS PROVIDED BY UTILITY PROVIDERS AND GOVERNMENTAL AGENCIES. AS SUCH, THEY ARE NOT INCLUSIVE AS OTHER UTILITIES AND UNDERGROUND STRUCTURES THAT ARE NOT SHOWN ON THE PLANS MAY EXIST. THE ENGINEER, SURVEYOR AND OWNER ACCEPT NO RESPONSIBILITY FOR POTENTIAL INACCURACIES IN THE PLAN AND/OR UNFORESEEN CONDITIONS.
- PERIMETER SEDIMENT CONTROLS AND CULVERT AND CATCH BASIN INLET PROTECTION MEASURES SHALL BE INSTALLED AFTER TREE CLEARING OPERATIONS HAVE CEASED AND BEFORE ANY STUMPING, GRUBBING OR OTHER EARTH DISTURBANCE.
- NO EARTHWORK SHALL COMMENCE UNTIL ALL APPROPRIATE SEDIMENT AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE PROPERLY MAINTAINED IN GOOD WORKING ORDER FOR THE DURATION OF CONSTRUCTION AND THE SITE IS STABILIZED.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE DESIGN STANDARDS AND SPECIFICATIONS SET FORTH BY THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
- CONTRACTOR SHALL CONTROL DUST BY SPRAYING WATER, SWEEPING PAVED SURFACES, PROVIDING TEMPORARY VEGETATION, AND/OR MULCHING EXPOSED AREAS AND STOCKPILES.
- GRIND STUMPS AND REUSE GRINDINGS FOR EROSION CONTROL WHERE POSSIBLE. NO STUMPS SHALL BE BURIED ON SITE.
- ORGANIC FILTER BERMS AND/OR OTHER PERIMETER CONTROLS MAY BE USED IN LIEU OF SILTFENCE IN CERTAIN APPLICATIONS WHEN APPROVED IN WRITING BY THE ENGINEER.
- THE CONTRACTOR SHALL TAKE WHATEVER MEANS NECESSARY TO PREVENT EROSION, PREVENT SEDIMENT FROM LEAVING THE SITE AND ENSURE PERMANENT SOIL STABILIZATION.
- ALL CATCH BASINS AND CULVERTS SHALL BE PROVIDED APPROPRIATE TEMPORARY INLET PROTECTION (SEE DETAILS).
- ALL EROSION CONTROL BLANKETS AND FASTENERS SHALL BE BIODEGRADABLE.
- ALL EROSION CONTROL BLANKETS SHALL BE BY NORTH AMERICAN GREEN OR EQUAL AS APPROVED IN WRITING BY THE ENGINEER.
- ALL SWALES, STORMWATER PONDS AND THEIR CONTRIBUTING AREAS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
- ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE SIX (6") INCHES OF LOAM, LIMESTONE, FERTILIZER, SEED, AND MULCH USING APPROPRIATE SOIL STABILIZATION TECHNIQUES. SEE DETAILS FOR ADDITIONAL INFORMATION.
- UPON COMPLETION OF CONSTRUCTION, ALL DRAINAGE INFRASTRUCTURE SHALL BE CLEANED OF ALL DEBRIS AND SEDIMENT.
- UPON COMPLETION OF CONSTRUCTION, ALL TEMPORARY EROSION AND SEDIMENT CONTROLS SHALL BE REMOVED AND ANY AREAS DISTURBED BY THE REMOVAL SMOOTHED AND REVEGETATED.

TEST PIT LOGS:

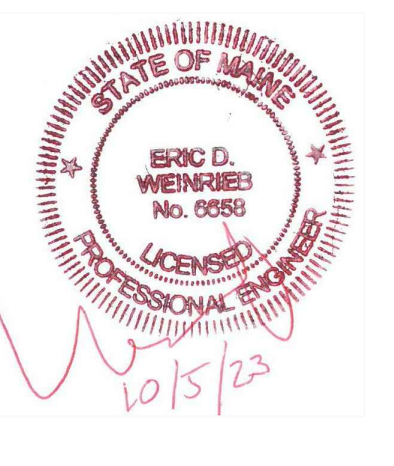
TP #	ESHWI:	REFUSAL:	OBSERVED WATER:
TP #1	36"	NONE	60"
TP #2	NONE	5"-32" RIPABLE	NONE
TP #3	NONE	40"-64"	NONE
TP #4	NONE	26"-40"	NONE
TP #5	NONE	55"	NONE
TP #6	NONE	56"	NONE
TP #7	NONE	6" RIPABLE	NONE
TP #8	NONE	16" RIPABLE	NONE
TP #9	NONE	9" RIPABLE	NONE
TP #10	NONE	20"-53" RIPABLE	NONE

LEGEND:

---	EXISTING CONTOUR
---	PROPOSED CONTOUR
TP #	EXISTING TEST PIT
PD	PROPOSED 6" CPE DRAIN
UD	PROPOSED 6" PERF. UNDERDRAIN
RL	PROPOSED 6" CPE ROOF LEADER
CO	PROPOSED 6" CLEANOUT



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DRAWING FILE: 5431SITE.dwg

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& MREV KITTEERY INN, LLC
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SUITE 570
WAKEFIELD, MA 01880**

APPLICANT:
**MADBURY REAL ESTATE
VENTURES
401 EDGEWATER PLACE,
SUITE 570
WAKEFIELD, MA 01880**

PROJECT:
**THE FORESIDE INN
TAX MAP 9
LOTS 37 & 38
27 & 29 WENTWORTH STREET
KITTEERY, MAINE**

TITLE:
**STORMWATER
MGMT. PLAN**

SHEET NUMBER:
C - 3

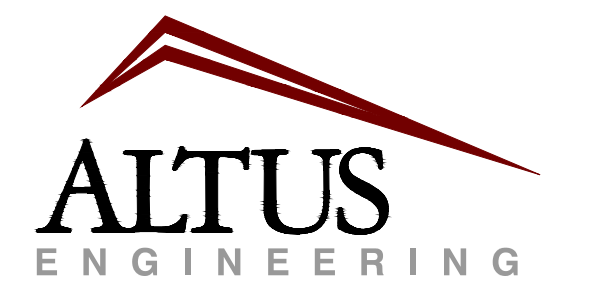


CONSTRUCTION NOTES:

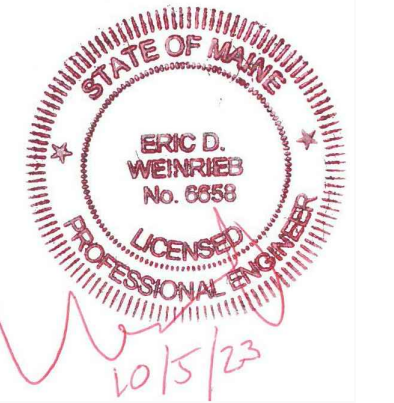
- DO NOT BEGIN CONSTRUCTION UNTIL ALL STATE AND LOCAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.
- CONTRACTOR SHALL OBTAIN A "DIGSAFE" NUMBER AT LEAST 72 HOURS PRIOR TO COMMENCING CONSTRUCTION.
- ALL CONSTRUCTION SHALL MEET THE MINIMUM CONSTRUCTION STANDARDS OF THE TOWN OF KITTERY AND MDT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION. THE MORE STRINGENT SPECIFICATION SHALL GOVERN.
- UNLESS OTHERWISE AGREED IN WRITING, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING TEMPORARY BENCHMARKS (TBM) AND PERFORMING ALL CONSTRUCTION SURVEY LAYOUT.
- PRIOR TO CONSTRUCTION, FIELD VERIFY JUNCTIONS, LOCATIONS AND ELEVATIONS/INVERTS OF ALL EXISTING STORMWATER AND UTILITY LINES. PRESERVE AND PROTECT LINES TO BE RETAINED.
- ALL BENCHMARKS AND TOPOGRAPHY SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO INITIATING CONSTRUCTION.
- TEMPORARY INLET PROTECTION MEASURES SHALL BE INSTALLED IN ALL EXISTING AND PROPOSED CATCH BASINS WITHIN 100' OF THE PROJECT SITE WHEN SITE WORK WITHIN CONTRIBUTING AREAS IS ACTIVE OR SAID AREAS HAVE NOT BEEN STABILIZED.
- PROTECTION OF SUBGRADE: THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN STABLE, DEWATERED SUBGRADES FOR FOUNDATIONS, PAVEMENT AREAS, UTILITY TRENCHES, AND OTHER AREAS DURING CONSTRUCTION. SUBGRADE DISTURBANCE MAY BE INFLUENCED BY EXCAVATION METHODS, MOISTURE, PRECIPITATION, GROUNDWATER CONTROL, AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT SUBGRADE DISTURBANCE. SUCH PRECAUTIONS MAY INCLUDE DIVERTING STORMWATER RUNOFF AWAY FROM CONSTRUCTION AREAS, REDUCING TRAFFIC IN SENSITIVE AREAS, AND MAINTAINING AN EFFECTIVE DEWATERING PROGRAM. SOILS EXHIBITING HEAVING OR INSTABILITY SHALL BE OVER EXCAVATED TO MORE COMPETENT BEARING SOIL AND REPLACED WITH FREE DRAINING STRUCTURAL FILL. IF THE EARTHWORK IS PERFORMED DURING FREEZING WEATHER, EXPOSED SUBGRADES ARE SUSCEPTIBLE TO FROST. NO FILL OR UTILITIES SHALL BE PLACED ON FROZEN GROUND. THIS WILL LIKELY REQUIRE REMOVAL OF A FROZEN SOIL CRUST AT THE COMMENCEMENT OF EACH DAY'S OPERATIONS. THE FINAL SUBGRADE ELEVATION WOULD ALSO REQUIRE AN APPROPRIATE DEGREE OF INSULATION AGAINST FREEZING.
- IF SUITABLE, EXCAVATED MATERIALS SHALL BE PLACED AS FILL WITHIN UPLAND AREAS ONLY AND SHALL NOT BE PLACED WITHIN WETLANDS. PLACEMENT OF BORROW MATERIALS SHALL BE PERFORMED IN A MANNER THAT PREVENTS LONG TERM DIFFERENTIAL SETTLEMENT. EXCESSIVELY WET MATERIALS SHALL BE STOCKPILED AND ALLOWED TO DRAIN BEFORE PLACEMENT. FROZEN MATERIAL SHALL NOT BE USED FOR CONSTRUCTION.
- BLASTING OPERATIONS, IF REQUIRED, SHALL MEET THE AIR BLAST STANDARDS OF THE MDEP RULES, CHAPTER 375.10(C)(4)(C). GROUND VIBRATION AT STRUCTURES NOT OWNED OR CONTROLLED BY THE OWNER MUST BE NO GREATER THAN THE FREQUENCY-DEPENDENT LIMITS DEFINED IN FIGURE B-1 OF APPENDIX B, U.S. BUREAU OF MINES RI 8507. FLYROCK MAY NOT LEAVE PROPERTY OWNED OR CONTROLLED BY THE OWNER OR ENTER A PROTECTED RESOURCE.
- DRAINAGE PIPE SHALL BE CORRUGATED POLYETHYLENE PIPE (CPP), TYPE ADS N-12 OR HANCOR H1-Q, OR DUCTILE IRON CLASS 52 WHERE SPECIFIED.
- ALL CATCH BASIN, MANHOLE AND OTHER DRAINAGE RIMS SHALL BE SET FLUSH WITH OR NO LESS THAN 0.1' BELOW FINISH GRADE. ANY RIM ABOVE SURROUNDING FINISH GRADE SHALL NOT BE ACCEPTED.
- ALL SPOT GRADES ARE AT FINISH GRADE AND BOTTOM OF CURB WHERE APPLICABLE.
- ALL ROOF DRAIN RISERS SHALL BE LOCATED IN COORDINATION WITH THE ARCHITECTURAL PLANS TO MATCH GUTTER DOWNSPOUTS. RISERS SHALL BE SET TO FINISH GRADE PLUS 1" (MIN.).
- IN ORDER TO PROVIDE VISUAL CLARITY ON THE PLANS, DRAINAGE AND OTHER UTILITY STRUCTURES MAY NOT BE DRAWN TO SCALE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER SIZING AND LOCATION OF ALL STRUCTURES AND IS DIRECTED TO RESOLVE ANY POTENTIAL DISCREPANCY WITH THE ENGINEER PRIOR TO CONSTRUCTION.
- WORK HOURS FOR CONSTRUCTION SHALL BE AS APPROVED BY TOWN OF KITTERY. STANDARD WORK HOURS SHALL BE 7AM TO 7PM, MONDAY - SATURDAY.

LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT GRADE
- PROPOSED SPOT GRADE
- ROW SIDEWALK ELEV. (APPROX.)
- PROP. TOP / BOTTOM OF WALL



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VENTURES
401 EDGEWATER PLACE,
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PROJECT:
THE FORESIDE INN

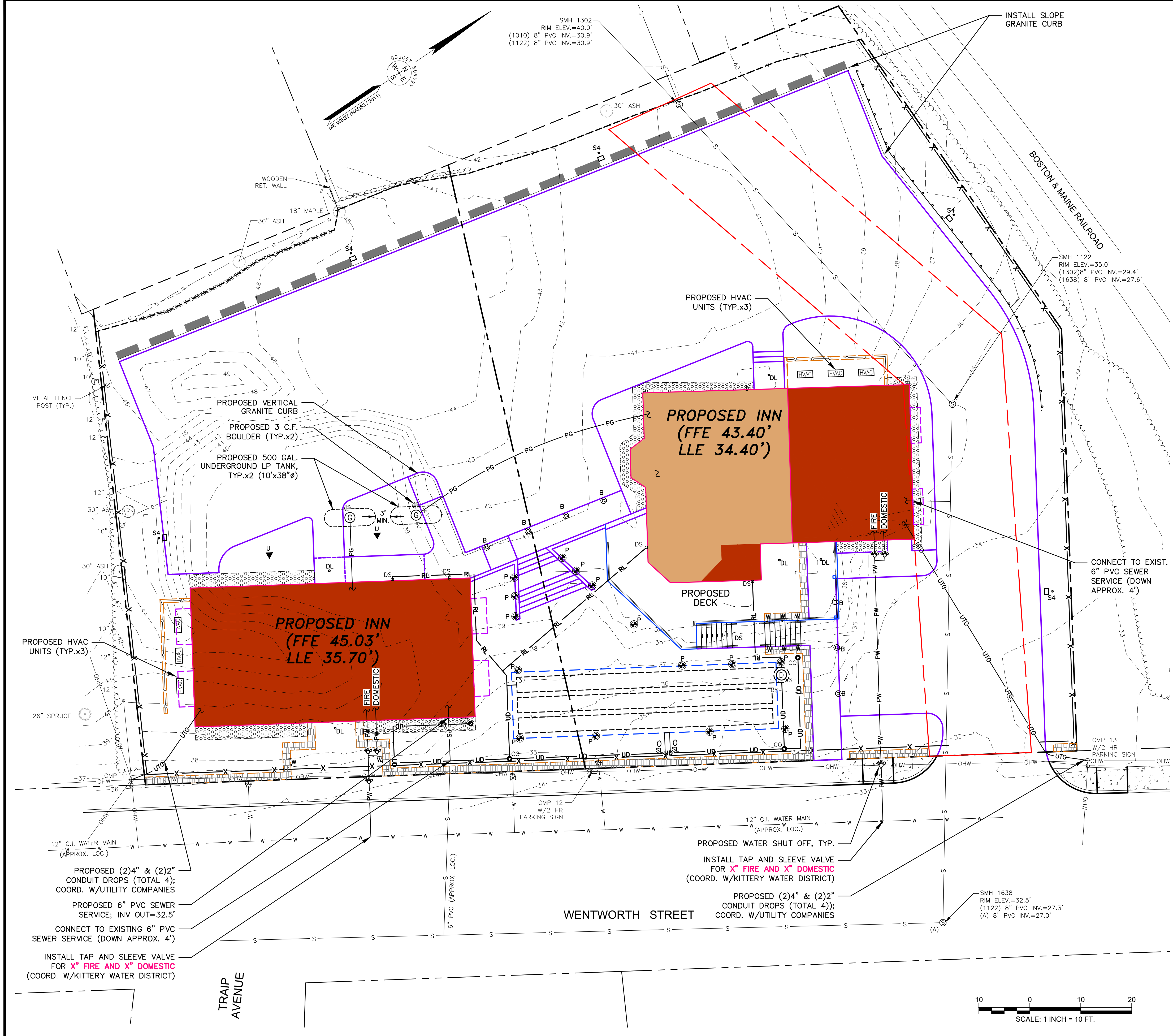
TAX MAP 9
LOTS 37 & 38
27 & 29 WENTWORTH STREET
KITTERY, MAINE

TITLE:

GRADING PLAN

SHEET NUMBER:

C - 4

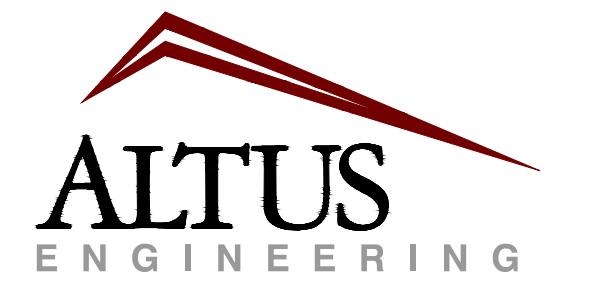


UTILITY NOTES:

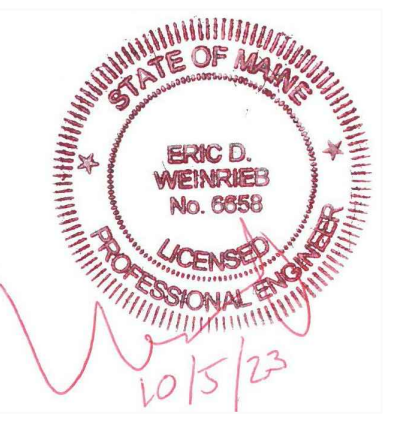
- THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED UPON THE FIELD LOCATION OF ALL VISIBLE STRUCTURES (IE. CATCH BASINS, MANHOLES, WATER GATES, ETC.) AND INFORMATION COMPILED FROM PLANS PROVIDED BY UTILITY PROVIDERS AND GOVERNMENTAL AGENCIES. AS SUCH, THEY ARE NOT INCLUSIVE AS OTHER UTILITIES AND UNDERGROUND STRUCTURES THAT ARE NOT SHOWN ON THE PLANS MAY EXIST. THE ENGINEER, SURVEYOR AND OWNER ACCEPT NO RESPONSIBILITY FOR POTENTIAL INACCURACIES IN THE PLAN AND/OR UNFORESEEN CONDITIONS. THE CONTRACTOR SHALL NOTIFY, IN WRITING, SAID AGENCIES, UTILITY PROVIDERS, TOWN OF KITTERY DPW AND OWNER'S AUTHORIZED REPRESENTATIVE AND CALL DIG SAFE AT 1 (800) DIG-SAFE AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO ANY EXCAVATION WORK.
- PRIOR TO CONSTRUCTION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND FIELD VERIFY JUNCTIONS, LOCATIONS AND ELEVATIONS/INVERTS OF ALL EXISTING AND PROPOSED STORMWATER AND UTILITY LINES. CONFLICTS SHALL BE ANTICIPATED AND ALL EXISTING LINES TO BE RETAINED SHALL BE PROTECTED. ANY DAMAGE DONE TO EXISTING UTILITIES SHALL BE REPAIRED AND, IF NECESSARY, EXISTING UTILITIES SHALL BE RELOCATED AT NO EXTRA COST TO THE OWNER. ALL CONFLICTS SHALL BE RESOLVED WITH THE INVOLVEMENT OF THE ENGINEER, DPW AND APPROPRIATE UTILITIES.
- ALL CONSTRUCTION SHALL MEET THE MINIMUM CONSTRUCTION STANDARDS OF THE TOWN OF KITTERY AND MDT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, LATEST EDITION. THE MORE STRINGENT SPECIFICATION SHALL GOVERN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE POSTING OF ALL BONDS AND PAYMENT OF ALL TAP, TIE-IN AND CONNECTION FEES.
- IF REQUIRED, ALL ROAD/LANE CLOSURES OR OTHER TRAFFIC INTERRUPTIONS SHALL BE COORDINATED WITH THE KITTERY POLICE DEPARTMENT, DPW, MDT AND ADJUTING PROPERTY OWNERS (WHERE APPROPRIATE) AT LEAST TWO WEEKS PRIOR TO COMMENCING RELATED CONSTRUCTION.
- ALL TRENCHING, PIPE LAYING AND BACKFILLING SHALL CONFORM TO FEDERAL OSHA AND CITY REGULATIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRENCHING, BEDDING, BACKFILL & COMPACTION FOR ALL UTILITY TRENCHING IN ADDITION TO ALL CONDUIT INSTALLATION AND COORDINATION OF ALL REQUIRED INSPECTIONS.
- DETECTABLE WARNING TAPE SHALL BE PLACED OVER THE ENTIRE LENGTH OF ALL BURIED UTILITIES, COLORS PER THE RESPECTIVE UTILITY PROVIDERS.
- SEE ARCHITECTURAL/MECHANICAL DRAWINGS FOR EXACT LOCATIONS & ELEVATIONS OF UTILITY CONNECTIONS AT BUILDING. COORDINATE ALL WORK WITHIN FIVE (5) FEET OF BUILDINGS WITH BUILDING CONTRACTOR AND ARCHITECTURAL/MECHANICAL DRAWINGS. ALL CONFLICTS AND DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY AND PRIOR TO COMMENCING RELATED WORK.
- UTILITY PROVIDERS:
WATER: KITTERY WATER DISTRICT, (207) 439-1128
SEWER: KITTERY WASTEWATER, (207) 439-4646
CABLE/INTERNET/TELECOMMS: PROVIDER PER OWNER
ELECTRIC: CENTRAL MAINE POWER, (800) 565-3181
PROPANE: PROVIDER PER OWNER
- ALL WATER AND SEWER INSTALLATIONS SHALL BE CONSTRUCTED AND TESTED PER THE TOWN OF KITTERY'S STANDARDS AND SPECIFICATIONS. ALL OTHER UTILITIES SHALL BE TO THE STANDARDS AND SPECIFICATIONS OF THE RESPECTIVE UTILITY PROVIDERS.
- WHERE WATER LINES CROSS, RUN ADJACENT TO OR ARE WITHIN 5' OF STORM DRAINAGE PIPES OR STRUCTURES, 2" THICK CLOSED CELL RIGID BOARD INSULATION SHALL BE INSTALLED FOR FROST PROTECTION.
- WHERE WATER OR SEWER LINES ARE INSTALLED WITH LESS THAN 5' OF COVER, 2" THICK CLOSED CELL RIGID BOARD INSULATION SHALL BE INSTALLED FOR THE FULL WIDTH OF THE TRENCH FOR FROST PROTECTION.
- WATER AND SANITARY SEWER LINES SHALL BE LOCATED AT LEAST 10' HORIZONTALLY FROM EACH OTHER. WHERE CROSSING, 18" MINIMUM VERTICAL CLEARANCE SHALL BE PROVIDED WITH WATER INSTALLED OVER SEWER.
- CONTRACTOR TO PROVIDE BOLLARDS AT SERVICE ENTRANCES PER THE SPECIFICATIONS OF THE RESPECTIVE UTILITY PROVIDERS.
- CONTRACTOR TO COORDINATE WITH K.W.D. FOR THE FILING OF REQUIRED MDT LOCATION PERMIT AND HIGHWAY OPENING PERMIT.
- ELECTRICAL CONTRACTOR TO PROVIDE CONDUIT LAYOUT PLAN FOR SITE LIGHTING FIXTURES.

LEGEND:

- PE — PROPOSED ELECTRIC
- UTC — PROPOSED ELECTRIC/COMM./CABLE
- PG — PROPOSED GAS
- HVAC — PROPOSED HEATING/VENTILATION/AIR CONDITION
- PS — PROPOSED SEWER
- PW — PROPOSED WATER
- ⊕ — PROPOSED SHUTOFF VALVE
- ⊠_{S4} — PROPOSED POLE LIGHT
- ⊙_B — PROPOSED BOLLARD LIGHT (7 TOTAL)
- ⊙_w — PROPOSED WALL LIGHT (8 TOTAL)
- ⊙_p — PROPOSED PATH LIGHT
- DS — PROPOSED STEP LIGHT (7 TOTAL)
- ▼_U — PROPOSED UP LIGHT (2 TOTAL)
- ⊙_{SL} — PROPOSED SIGN LIGHT (2 TOTAL)



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PROJECT:
**THE FORESIDE INN
TAX MAP 9
LOTS 37 & 38
27 & 29 WENTWORTH STREET
KITTERY, MAINE**

TITLE:
UTILITY PLAN

SHEET NUMBER:
C - 5

Landscape Notes

- Design is based on drawings by Altus Engineering dated August 2023 and may require adjustment due to actual field conditions.
- The contractor shall follow best management practices during construction and shall take all means necessary to stabilize and protect the site from erosion.
- Erosion Control shall be in place prior to construction. See Engineer's drawings and specifications.
- The Contractor shall verify layout and grades and inform the Landscape Architect or Client's Representative of any discrepancies or changes in layout and/or grade relationships prior to construction.
- It is the contractor's responsibility to verify drawings provided are to the correct scale prior to any bid, estimate or installation. A graphic scale bar has been provided on each sheet for this purpose. If it is determined that the scale of the drawing is incorrect, the landscape architect will provide a set of drawings at the correct scale, at the request of the contractor.
- Trees to Remain within the construction zone shall be protected from damage for the duration of the project by snow fence or other suitable means of protection to be approved by Landscape Architect or Client's Representative. Snow fence shall be located at the drip line at a minimum and shall include any and all surface roots. Do not fill or mulch on the trunk flare. Do not disturb roots. In order to protect the integrity of the roots, branches, trunk and bark of the tree(s) no vehicles or construction equipment shall drive or park on or on the area within the drip line(s) of the tree(s). Do not store any refuse or construction materials or portalets within the tree protection area. If excavation is to occur within the root zone then the contractor shall clearly prune the roots prior to excavations.
- This plan is for review purposes only, NOT for Construction. Construction Documents will be provided upon request.
- Location, support, protection, and restoration of all existing utilities and appurtenances shall be the responsibility of the Contractor.
- The Contractor shall verify exact location and elevation of all utilities with the respective utility owners prior to construction. Call DIGSAFE at 811 or 888-DIG-SAFE.
- The Contractor shall procure any required permits prior to construction.
- Prior to any landscape construction activities Contractor shall test all existing loam and loam from off-site intended to be used for lawns and plant beds using a thorough sampling throughout the supply. Soil testing shall indicate levels of pH, nitrates, macro and micro nutrients, texture, soluble salts, and organic matter. Contractor shall provide Landscape Architect with test results and recommendations from the testing facility along with soil amendment plans as necessary for the proposed plantings to thrive. All loam to be used on site shall be amended as approved by the Landscape Architect prior to placement.
- Contractor shall notify landscape architect or owner's representative immediately if at any point during demolition or construction a site condition is discovered which may negatively impact the completed project. This includes, but is not limited to, unforeseen drainage problems, unknown subsurface conditions, and discrepancies between the plan and the site. If a Contractor is aware of a potential issue and does not bring it to the attention of the Landscape Architect or Owner's Representative immediately, they may be responsible for the labor and materials associated with correcting the problem.
- The Contractor shall furnish and plant all plants shown on the drawings and listed thereon. All plants shall be nursery-grown under climatic conditions similar to those in the locality of the project. Plants shall conform to the botanical names and standards of size, culture, and quality for the highest grades and standards as adopted by the American Association of Nurserymen, Inc. in the American Standard of Nursery Stock, American Standards Institute, Inc. 230 Southern Building, Washington, D.C. 20005.
- A complete list of plants, including a schedule of sizes, quantities, and other requirements is shown on the drawings. In the event that quantity discrepancies or material omissions occur in the plant materials list, the planting plans shall govern.
- All plants shall be legibly tagged with proper botanical name.
- The Contractor shall **guarantee all plants including seeding** for not less than one year from time of acceptance.
- Owner or Owner's Representative will inspect plants upon delivery for conformity to Specification requirements. Such approval shall not affect the right of inspection and rejection during or after the progress of the work. The Owner reserves the right to inspect and/or select all trees at the place of growth and reserves the right to approve a representative sample of each type of shrub, herbaceous perennial, annual, and ground cover at the place of growth. Such sample will serve as a minimum standard for all plants of the same species used in this work.
- No substitutions of plants may be made without prior approval of the Owner or the Owner's Representative for any reason.
- All landscaping shall be provided with the following:
 - Outside hose attachments spaced a maximum of 150 feet apart, and
 - An underground irrigation system, or
 - A temporary irrigation system designed for a two-year period of plant establishment.
- If an automatic irrigation system is installed, all irrigation valve boxes shall be located within planting bed areas.
- The contractor is responsible for all plant material from the time their work commences until final acceptance. This includes but is not limited to maintaining all plants in good condition, the security of the material once delivered to the site, watering of plants, including seeding and weeding. Plants shall be appropriately watered prior to, during, and after planting. It is the Contractor's responsibility to provide clean water suitable for plant health from off site, should it not be available on site.
- All disturbed areas will be dressed with 6" of loam and planted as noted on the plans or seeded except plant beds. Plant beds shall be prepared to a depth of 12" with 75% loam and 25% compost.
- Trees, ground cover, and shrub beds shall be mulched to a depth of 2" with one-year-old, well-composted, shredded native bark not longer than 4" in length and 1/2" in width, free of woodchips and sawdust. Mulch for ferns and herbaceous perennials shall be no longer than 1" in length. Trees in lawn areas shall be mulched in a 5' diameter min. saucer. Color of mulch shall be black.
- Drip strip shall extend to 6" beyond roof overhang and shall be edged with 3/16" thick metal edger.
- In no case shall mulch touch the stem of a plant nor shall mulch ever be more than 3" thick total (including previously applied mulch).
- Secondary lateral branches of deciduous trees overhanging vehicular and pedestrian travel ways shall be pruned up to a height of 6' to allow clear and safe passage of vehicles and pedestrians under tree canopy. Within the sight distance triangles at vehicle intersections the canopies shall be raised to 8' min.
- Snow shall be stored a minimum of 5' from shrubs and trunks of trees.
- Landscape Architect is not responsible for the means and methods of the Contractor.

Prune only cross-over limbs, co-dominant leaders, and broken or dead branches.

Mark the north side of the tree in the nursery. Rotate the tree to face north of the site whenever possible.

Set top of root ball flush with grade or 1-2" (25-50 mm) higher in slowly draining soils.

50 MM (2 IN.) max. Mulch. Do NOT place mulch in contact with tree trunk. Maintain the mulch weed-free for a minimum of three years after planting.

Tamp soil around root ball base firmly with foot pressure so that root ball does not shift.

Place root ball on unexcavated or tamped soil.

Tree Detail

NTS

Set shrub to display best face towards the primary view whenever possible.

50 MM (2 IN.) max. mulch over the ball of the shrub. Maintain the mulch weed-free for a minimum of three years after planting.

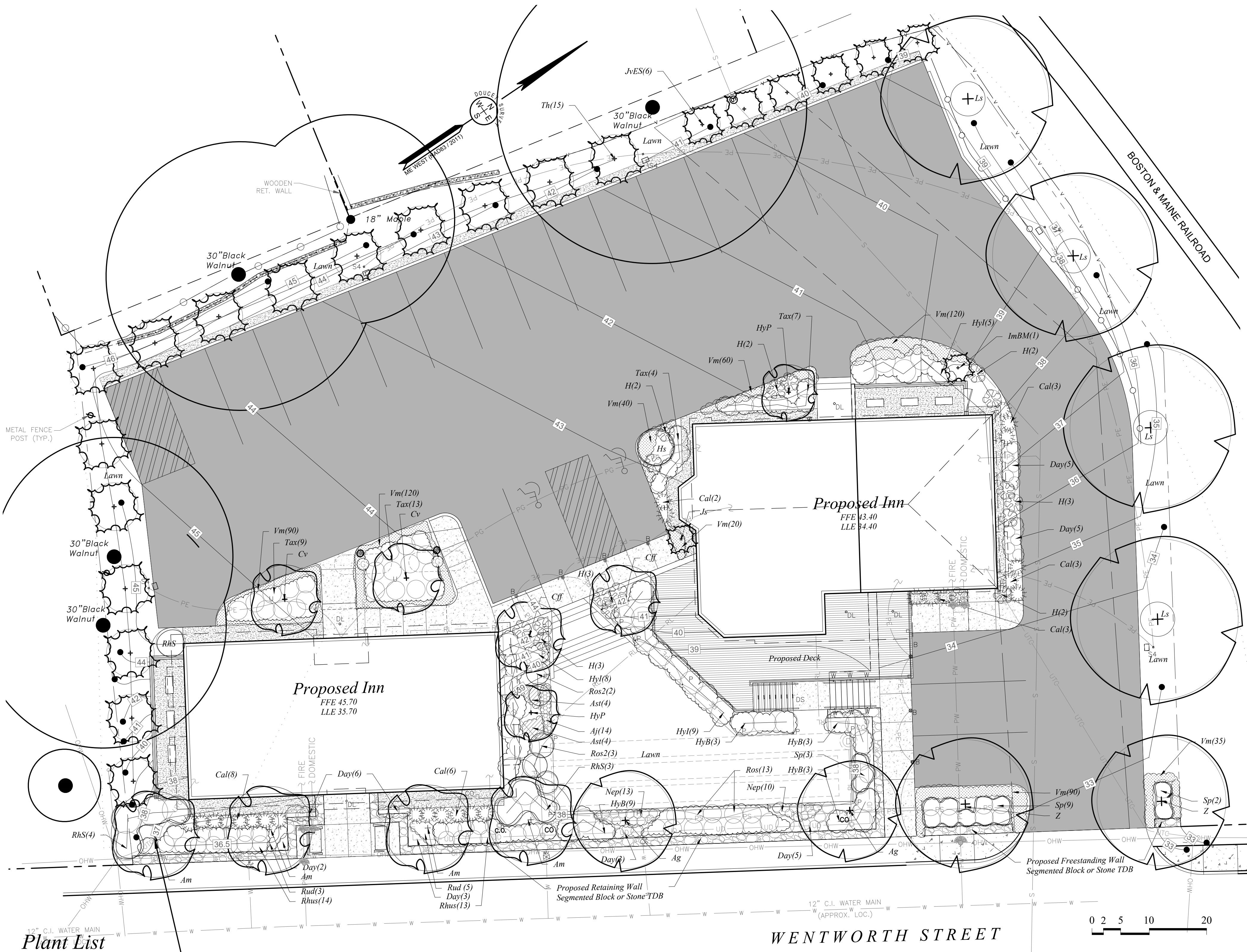
Set top of root ball 3-4" above surrounding grade and feather planting soil towards the crown of the plant.

Tamp soil around root ball base firmly with foot pressure so that root ball does not shift.

Place root ball on unexcavated or tamped soil.

Shrub Detail

NTS



Plant List

TREES						
Symbol	Botanical Name	Common Name	Quantity	Size	Comments	
Am	<i>Amelanchier grandiflora</i> 'Robin Hill'	Robin Hill Serviceberry	4	2.5-3" cal.	BB	
Ag	<i>Acer griseum</i>	Paperbark Maple	2	3-3.5" cal.	BB	
Cff	<i>Carpinus betulus</i> 'Frans Fontaine'	Frans Fontaine Hornbeam	2	3" cal.	BB	
Cv	<i>Chionanthus virginicus</i>	Fringetree	2	8-10' ht.	BB matched	
JvES	<i>Juniperus virginiana</i> 'Emerald Sentinel'	Emerald Sentinel Eastern Red Cedar	6	7-8' ht.	BB	
Ls	<i>Liquidambar styraciflua</i>	American Sweetgum	4	3" cal.	BB	
TH	<i>Thuja plicata</i> 'Green Giant'	Green Giant Western Red Cedar	15	8-10' ht	B&B	
Z	<i>Zelkova serrata</i> 'Green Vase'	Green Vase Zelkova	2	3" cal.	BB	

SHRUBS						
Symbol	Botanical Name	Common Name	Quantity	Size	Comments	
Hs	<i>Hibiscus syriacus</i> 'Blue Satin'	Blue Satin Rose of Sharon	1	5-6' ht	BB	
HyB	<i>Hydrangea</i> 'Bloomstruck'	Bloomstruck Hydrangea	12	3 gal	BB	
Hyl	<i>Hydrangea</i> 'Incrediball'	Incrediball Hydrangea	17	5 gal	BB	
HyP	<i>Hydrangea paniculata</i> 'Limelight'	Limelight Hydrangea	2	15 gal.	Treeform BB	
Js	<i>Juniperus scopulorum</i> 'Skyrocket'	Skyrocket Juniper	1	5-6' ht	BB	
Rhs	<i>Rhododendron</i> 'Scintillation'	Scintillation Rhododendron	11	5 gal	BB	
Rhus	<i>Rhus amorata</i> 'Grow Low'	Grow Low Sumac	27	3 gal.		
Ros1	<i>Rosa</i> 'Apricot Drift'	Apricot Drift Rose	13	3 gal.		
Ros2	<i>Rosa</i> 'Blush Knockout'	Blush Knockout Rose	5	3 gal.		
SpDD	<i>Spirea</i> 'Double Play Doozie'	Double Play Doozie Spirea	14	3 gal/		
Tax	<i>Taxus media</i> 'Everlow'	Everlow Yew	33	18-24" BB		

PERENNIALS						
Symbol	Botanical Name	Common Name	Quantity	Size	Comments	
Aj	<i>Ajuga reptans</i> 'Burgandy Glow'	Burgandy Glow Ajuga	16	1 qt		12" o.c.
Cal	<i>Calamagrostis</i> 'Karl Foerster'	Karl Foerster Feather Reed Grass	25	1 gal		
Day	<i>Hemerocallis</i> 'Big Tyme Happy'	Big Tyme Happy Daylily	13	1 gal		
	<i>Hemerocallis</i> 'Chicago Apache'	Chicago Apache Daylily	14	1 gal		
	<i>Hemerocallis</i> 'South Seas'	South Seas Daylily	12	1 gal		
H1	<i>Hosta sieboldiana</i> 'Elegans'	Elegans Hosta	5	1 gal		
H2	<i>Hosta</i> 'Frances Williams'	Frances Williams Hosta	4	1 gal		
H3	<i>Hosta</i> 'Dream Weaver'	Dream Weaver Hosta	4	1 gal		
H4	<i>Hosta</i> 'Krossa Regal'	Krossa Regal Hosta	4	1 gal		
Nep	<i>Nepeta</i> 'Little Trudy'	Little Trudy Catmint	23	1 gal		
Rud	<i>Rudbeckia</i> 'Early Bird Gold'	Early Bird Gold Black Eyed Susan	1	1 gal		
VMB	<i>Vinca minor</i> 'Bowles'	Bowles Periwinkle	510	2" pots		8" o.c.

PROJECT NAME AND LOCATION

Inn Redevelopment
Map 9 Lots 37 & 38
27 & 29 Wentworth Street
Kittery, Maine
Latitude: 043° 05' 17" N
Longitude: 070° 44' 32" W

DESCRIPTION

The project consists of razing two (2) existing multi-family residences and a portion of existing Inn to construct two (2) 12-unit inns with one caretaker unit on two lots. The project will be completed in a single phase.

DISTURBED AREA

The total area to be disturbed is approximately 0.5 acres for new construction of driveway and associated improvements. Prior to lot clearing and soil disturbance, sedimentation barrier shall be installed to prevent sediment leaving the lot.

SEQUENCE OF MAJOR ACTIVITIES

- 1. Install temporary erosion control measures, including silt fences and stabilized construction entrances.
2. Upon completion of Items 1, demo existing structures, clear and grub wooded areas, strip and stockpile loam.
3. Construct ditches and stabilize prior to directing flow to them.
4. Construct drainage structures, swales & driveway base materials.
5. Ditches and swales with grades over 5% shall have sides and bottom reinforced with excelsior matting.
6. Grade and shape lots to finish elevations.
7. Stabilize disturbed areas.
8. When all construction activity is complete and site is stabilized, remove all hay bales, storm check dams, silt fences and sediment that has been trapped by these devices.

NAME OF RECEIVING WATER

Closed municipal drainage systems to tidal waters of Piscataqua River.

TEMPORARY EROSION AND SEDIMENT CONTROLS AND STABILIZATION PRACTICES

All work shall be in accordance with state and local permits. Work shall conform to the practices described in the "Maine Erosion and Sediment Control BMPs, 2003" published by the Maine Department of Environmental Protection.

As indicated in the sequence of Major Activities, the hay bales and silt fences shall be installed prior to commencing any clearing or grading of the site. Structural controls shall be installed concurrently with the applicable activity.

During construction, runoff will be diverted around the site with stabilized channels where possible. Sheet runoff from the site will be filtered through hay bale barriers, stone check dams, and silt fences.

Temporary and permanent vegetation and mulching is an integral component of the erosion and sedimentation control plan. All areas shall be inspected and maintained until desired vegetative cover is established.

Temporary vegetation shall be maintained in these areas until permanent seeding is applied. Additionally, erosion sedimentation measures shall be maintained until permanent vegetation is established.

INSTALLATION, MAINTENANCE AND INSPECTION PROCEDURES FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES

- A. GENERAL
1. Permanent controls shall be installed prior to earth moving operations.
2. The smallest practical portion of the site will be denuded at one time and no more than be mulched in one day.
3. Sediment barriers shall be installed downgradient of stockpiles and diversion swales installed upgradient of stockpiles to prevent movement of soil.
4. All diversion dikes shall be inspected and any breaches promptly repaired.
5. The owner's authorized engineer shall inspect the site on a periodic basis to review compliance with the plans.
6. All ditches and swales shall be stabilized prior to directing runoff to them.
7. Temporary water diversion (swales, basins, etc) shall be used as necessary until areas are stabilized.
8. Ponds and swales shall be installed early on in the construction sequence.
9. All cut and fill slopes shall be seeded/loomed within 72 hours of achieving finished grade.
10. An area shall be considered stable if one of the following has occurred:
a. Base coarse gravels have been installed in areas to be paved;
b. A minimum of 90% vegetated grass has been established;
c. A minimum of 3 inches of non-erosive material such as stone or riprap has been installed; or
d. Erosion control blankets have been properly installed.

- B. MULCHING Application
* In sensitive areas (within 100 ft of streams, wetlands and in lake watersheds) temporary mulch shall be applied within 7 days of exposing soil or prior to any storm event.
* Areas, which have been temporarily or permanently seeded, shall be mulched immediately following seeding.
* Areas which cannot be seeded within the growing season shall be mulched for over-winter protection and the area should be seeded at the beginning of the growing season.
* Mulch anchoring should be used on slopes greater than 5% in late fall (past September 15), and over-winter (September 15 - April 15).

Type of Mulch
Hay or Straw Mulches
Organic mulches, including hay and straw, shall be air-dried, free of undesirable seeds and coarse materials. Application rate shall be 2 bales (70-90 pounds) per 1000 sq. ft. or 1.5 to 2 tons (90-100 bales) per acre to cover 75 to 90 % of the ground surface.

Erosion Control Mix
Erosion control mix shall consist primarily of organic material and shall include any of the following: shredded bark, stump grindings, composted bark or other acceptable products based on a similar raw source. Wood or bark chips, ground construction debris or reprocessed wood products shall not be acceptable as the organic component of the mix.
It can be used as a stand-alone reinforcement:
* On slopes 2 horizontal to 1 vertical or less.
* On frozen ground or forested areas.
* At the edge of gravel parking areas and areas under construction.

Other reinforcement BMPs (i.e. riprap) should be used:
* On slopes with groundwater seepage;
* At low points with concentrated flows and in gullies;
* At the bottom of steep perimeter slopes exceeding 100 feet in length;
* Below culvert outlet aprons; and
* Around catch basins and closed storm systems.

Composition
Erosion control mix shall contain a well-graded mixture of particle sizes and may contain rocks less than 4" in diameter. Erosion control mix must be free of refuse, physical contaminants, and material toxic to plant growth. The mix composition shall meet the following standards:
* The organic matter content shall be between 80 and 100%, dry weight basis.
* Particle size by weight shall be 100% passing a 6" screen and a minimum of 70%, maximum of 85%, passing a 0.75" screen.
* The organic portion needs to be fibrous and elongated.
* Large portions of silts, clays or fine sands are not acceptable in the mix.

Installation
* Erosion control mix shall not be used on slopes steeper than 2:1.
* On slopes of 3:1 or less; 2 inches plus an additional 1/2 inch per 20 feet of slope up to 100 feet.
* On slopes between 3:1 and 2:1, 4 inch plus an additional 1/2 inch per 20 feet of slope up to 100 feet.
The thickness of the mulch at the bottom of the slope needs to be:
<20' of slope 2.0" slopes between 3:1 and 2:1
<60' of slope 3.0" 4.0'
<100' of slope 4.0" 6.0'
* It shall be placed evenly and must provide 100% soil coverage, with the soil totally invisible.

Any required repairs shall be made immediately, with additional erosion control mix placed on top of the mulch to reach the recommended thickness. When the mix is decomposed, clogged with sediment, eroded or ineffective, it shall be replaced or repaired. Erosion control mix mulch shall be left in place. If the mulch needs to be removed spread it out into the landscape.

Maintenance
All mulches must be inspected periodically, in particular after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied. Nets shall be inspected after rain events for dislocation or failure. If washouts or breakage occur, re-install the nets as necessary after repairing damage to the slope.

TEMPORARY VEGETATION

Considerations
* Proper seedbed preparation and the use of quality seed are important in this practice just as in permanent seeding. Failure to carefully follow sound agronomic recommendations will often result in an inadequate stand of vegetation that provides little or no erosion control.
* Nutrients and pesticides used to establish and maintain a vegetation cover shall be managed to protect the surface and ground water quality.
* Temporary seeding shall be used extensively in sensitive areas (ponds and lake watersheds, steep slopes, streambanks, etc.).
* Late fall seeding may fail and cause water quality deterioration in spring runoff events, thus other measures such as mulching shall be implemented.

Specifications
Seedbed Preparation
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 10-10-10 (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).

Seeding
* Select seed from recommendations in enclosed table.
* Where the seed has been compacted by construction operations, loosen soil to a depth of 2 inches before applying fertilizer, lime and seed.
* Apply seed uniformly by hand, cyclone seeder, drill, cultipacker type seeder or hydroseeder (slurry including seed and fertilizer). Hydroseeding that includes mulch may be left on soil surface. Seeding rates must be increased 10% when hydroseeding.

Mulching
Apply mulch over seeded area according to the TEMPORARY MULCHING BMP.

Maintenance
Temporary seeding shall be periodically inspected. At a minimum, 95% of the soil surface should be covered by vegetation. If any evidence of erosion or sedimentation is apparent, repairs shall be made and other temporary measures used in the interim (mulch, filter barriers, check dams, etc.).

Table with 5 columns: Seed, Temporary Seeding Rates and Dates (Lb./Ac, Seeding Depth), Recommended Seeding Dates, Remarks. Rows include Winter Rye, Oats, Annual Ryegrass, Sudangrass, Perennial, and Temporary mulch with or without dormant seeding.

D. FILTERS
Tubular Sediment Barrier
a. To be provided by an approved manufacturer or supplier;
b. Installed per manufacturer's specifications;
c. Barrier shall be removed when they have served their useful purpose but not before the upslope areas has been permanently stabilized.

Straw/Hay Bales
* Bales shall be placed in a single row, lengthwise on the contour, with ends of adjacent bales tightly abutting one another.
* All bales shall be either wire-bound or string-tied. Bales shall be installed so that bindings are oriented around the sides, parallel to the ground surface to prevent deterioration of the bindings.
* The barrier shall be entrenched and backfilled. A trench shall be excavated the width of a bale and the length of the proposed barrier to a minimum depth of 4 inches.
* After the bales are staked and chinked, the excavated soil shall be backfilled against the barrier. Backfill soil shall conform to the ground level on the downhill side and shall be piled up to 4 inches above the uphill side of the barrier.
* At least two stakes or rebars driven through the bale shall securely anchor each bale. The first stake in each bale shall be driven toward the previously laid bale to force the bales together. Stakes or re-bars shall be driven deep enough into the ground to securely anchor the bales.
* The gaps between bales shall be chinked (filled by wedging) with hay to prevent water from escaping between the bales.

Organic Filter Berm See detail

Installation
* Sediment barriers shall be installed along the down gradient side of proposed ground disturbance areas prior to any construction activities.
* The barrier must be placed along a relatively level contour.

Maintenance
* Hay bale barriers, sedimentation barriers and filter berms shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. They shall be repaired immediately if there are any signs of erosion or sedimentation below them.
* Should the fabric on a sedimentation barrier or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier still is necessary, the fabric shall be replaced promptly.
* Sediment deposits should be removed when deposits reach approximately one third (1/3) the height of the barrier.
* Filter berms should be reshaped as needed.
* Any sediment deposits remaining in place after the sedimentation barrier or filter barrier is no longer required shall be dressed or removed to conform to the existing grade, prepared and seeded.
* Additional stone may have to be added to the construction stabilized entrance, rock barriers, stone lined swales, etc., periodically to maintain proper function of the erosion control structure.

PERMANENT SEEDING

- 1. Bedding - stones larger than 1 1/2", trash, roots, and other debris that will interfere with seeding and future maintenance of the area should be removed. Where feasible, the soil should be tilled to a depth of 6" to prepare a seedbed and mix fertilizer (refer to Landscape Drawings and Specifications) into the soil.
2. Fertilizer (refer to Landscape Drawings and Specifications) - lime and fertilizer should be applied evenly over the area prior to or at the time of seeding and incorporated into the soil.
3. Seed Mixture (See Landscape Drawings for additional information):
3.1. Lawn seed mix shall be a fresh, clean new seed crop.
3.2. Seed mixture shall conform to landscape specifications.
4. Sodding - sodding is done where it is desirable to rapidly establish cover on a disturbed area. Sodding an area may be substituted for permanent seeding procedures anywhere on site.

DEWATERING

A dewatering plan shall be implemented to address excavation de-watering following heavy rainfall events or where the excavation may intercept the groundwater table during construction.

All dewatering discharge locations shall be located on relatively flat ground at least 75' from streams and 25' from wetlands. The contractor shall utilize "dirtbags", erosion control mix berms, or similar methods for filtration of dewatering and shall conform to the Maine Erosion and Sediment Control BMPs.

Placement of "Dirtbags" shall be located such that they can be removed intact upon completion of construction with no discharge of silt at the site and properly disposed.

MONITORING SCHEDULE
The contractor shall be responsible for installing, monitoring, maintaining, repairing, replacing and removing all of the erosion and sedimentation controls or appointing a qualified subcontractor to do so. Maintenance measures will be applied as needed during the entire construction cycle. Immediately following any significant rainfall, and at least once a week, a visual inspection will be made of all erosion and sedimentation controls as follows:
1. sedimentation barrier shall be inspected and repaired. Sediment trapped behind these barriers shall be excavated when it reaches a depth of 6" and redistributed to areas undergoing final grading.
2. Construction entrance shall be visually inspected and repaired as needed. Any areas subject to rutting shall be reseeded or stabilized. The voids of the construction entrance become filled with mud, more crushed stone shall be added as needed. The public roadway shall be swept should mud be deposited/tracked onto them.

STANDARDS FOR STABILIZING SITES FOR THE WINTER

- 1. Standard for the timely stabilization of disturbed slopes (any area having a grade greater than 25%) - the contractor will seed and mulch all slopes to be vegetated by September 15th. If the contractor fails to stabilize any slope to be vegetated by September 15th, then the contractor will take one of the following actions to stabilize the slope for late fall and winter.
A. Stabilize the soil with temporary vegetation and erosion control mats by October 1st the contractor will seed the disturbed slope with winter rye at a rate of 3 pounds per 1000 square feet and then install erosion control mats or anchored hay mulch over the seeding. The contractor will monitor growth of the rye over the next 30 days.
B. Stabilize the slope with wood-waste compost; the contractor will place a six-inch layer of wood-waste compost on the slope by November 15th. The contractor will not use wood-waste compost to stabilize slopes having grades greater than 50% (2h:1v) or having groundwater seeps on the slope face.
C. Stabilize the slope with stone riprap; the contractor will place a layer of stone riprap on the slope by November 15th. The developer's owner will hire a registered professional engineer to determine the stone size needed for stability on the slope and to design a filter layer for underneath the riprap.
2. Standard for the timely stabilization of disturbed soils - by September 15th the contractor will seed and mulch all disturbed soils on the site. If the contractor fails to stabilize these soils by this date, then the contractor will take one of the following actions to stabilize the soil for late fall and winter.
A. Stabilize the soil with temporary vegetation; by October 1st the contractor will seed the disturbed soil with winter rye at a seeding rate of 3 pounds per 1000 square feet, lightly mulch the seeded soil with hay or straw at 75 pounds per 1000 square feet, and anchor the mulch with plastic netting. The contractor will monitor growth of the rye over the next 30 days. If the rye fails to grow at least three inches or fails to cover at least 75% of the disturbed soil before November 1, then the contractor will mulch the area for over-winter protection as described in item iii of this standard.
B. Stabilize the soil with sod; the contractor will stabilize the disturbed soil with properly installed sod by October 1st. Proper installation includes the contractor pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil.
C. Stabilize the soil with mulch; by November 15th the contractor will mulch the disturbed soil by spreading hay or straw at a rate of at least 150 pounds per 1000 square feet on the area so that no soil is visible through the mulch. Immediately after applying the mulch, the contractor will anchor the mulch with netting or other method to prevent wind from moving the mulch off the disturbed soil.

Winter inspections shall be performed after, each rainfall, snowstorm or thawing and at least once a week. All areas within 75 feet of a protected natural resource must be protected with a double row of sediment barrier.

EROSION CONTROL REMOVAL
An area is considered stable if it is paved or if 90% growth of planted seeds is established. once an area is considered stable, the erosion control measures can be removed as follows:
1. sedimentation barrier: sedimentation barrier shall be disposed of legally and properly off-site, all sediment trapped behind these controls shall be distributed to an area undergoing final grading or removed and relocated off-site.
2. Stabilized Construction Entrance: The stabilized construction entrance shall be removed once the compacted roadway base is in place. Stone and sediment from the construction entrance shall be redistributed to an area undergoing grading or removed and relocated offsite.
3. Miscellaneous: Once all the trapped sediments have been removed from the temporary sedimentation devices the disturbed areas must be regraded in an aesthetic manner to conform to the surrounding topography. Once graded these disturbed areas must be loamed (if necessary), fertilized, seeded and mulched in accordance with the rates previously stated.

The above erosion controls must be removed within 30 days of final stabilization of the site. Conformance with this plan and following these practices will result in a project that complies with the state regulatory standards and the standards of the natural resources protection act, and will protect water quality in areas downstream from the project.

INSPECTION AND MAINTENANCE

- 1. All sediment control measures shall be inspected at least once each week and following any storm event of 0.25 inches or greater. An inspection report shall be made after each inspection by a qualified inspector engaged by the Owner. The qualified inspector shall be a Professional Engineer licensed in Maine or be a Certified Professional in Erosion and Sediment Control approved by the Owner and MDEP.
2. All measures shall be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours and completed within 72 hours.
3. Inspection and maintenance requirements: inspect disturbed and impervious areas, erosion and stormwater control measures, areas used for storage that are exposed to precipitation, and locations where vehicles enter or exit the site. Inspect these areas at least once a week as well as before and after a 0.5 inches or greater storm event and prior to completion of permanent stabilization measures.
4. Inspection Log (report): A log (report) must be kept summarizing the scope of the inspection, name(s) and qualifications of the personnel making the inspection, the date(s) of the inspection, and major observations relating to operation of erosion and sedimentation controls and pollution prevention measures. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and location(s) where additional BMPs are needed.

HOUSEKEEPING

- 1. Spill prevention: Controls must be used to prevent pollutants from construction and waste materials stored onsite, including storage practices to minimize exposure of the materials to stormwater and appropriate spill prevention, containment, and response planning implementation. The contractor shall conduct a statement of the composition of the mixture and the percentage of pure and germination of each variety.
2. Groundwater protection: Protection of the groundwater is required by the contractor and owner. During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography, and other relevant factors accumulates runoff that infiltrates into the soil.

Note: Lack of appropriate pollutant removal BMPs may result in violations of the groundwater quality standard established by 39 M.R.S.A. §465-C(1). Any project proposing infiltration of stormwater must provide adequate pre-treatment of stormwater prior to discharge of stormwater to the infiltration area, or provide treatment within the infiltration area, in order to prevent accumulation of fines, reductions in infiltration rate, and consequent flooding and destabilization.

Note: Dewatering a stream without a permit from the department violates state water quality standards and the Natural Resources Protection Act.

Note: Fugitive sediment and dust: Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control.

Note: Debris and other materials: Litter, construction debris, and construction chemicals exposed to stormwater must be prevented from becoming a pollutant source. Construction materials and construction debris should be covered to prevent rainwater from washing contaminants off the site. Any fertilizers, cleaning products, herbicides should be protected from the weather and used in accordance with manufacturers recommendations.

Note: Any contaminants that are washed off the site by rainwater is a violation of the Clean Waters Act. To prevent these materials from becoming a source of pollutants, construction activities related to a project may be required to comply with applicable provisions of rules related to solid, universal, and hazardous waste, including, but not limited to, the Maine Solid Waste and Hazardous Waste Management Rules; Maine Hazardous Waste Management Rules; Maine Oil Conveyance and Storage Rules; and Maine Pesticide requirements.

Note: For guidance on dewatering controls, consult the Maine Erosion and Sediment Control BMPs, published by the Maine Department of Environmental Protection.

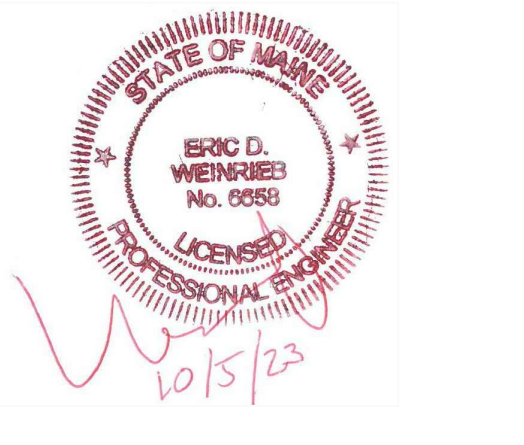
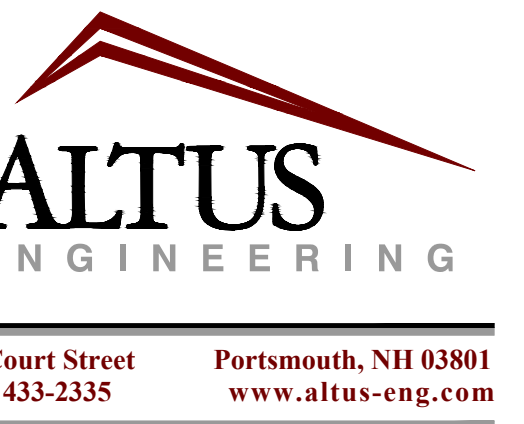
- 6. Non-stormwater discharges: Identify and prevent contamination by non-stormwater discharges. Where allowed non-stormwater discharges exist, they must be identified and steps should be taken to ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge. Authorized non-stormwater discharges are:
* Discharges from firefighting activities
* Fire hydrant flushings
* Vehicle washwater if detergents are not used and washing is limited to the exterior of vehicles (engine, undercarriage, and transmission washing is prohibited)
* Dust control runoff in accordance with permit conditions
* Routine external building washdown, not including surface paint removal, that does not involve detergents
* Pavement washwater (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material had been removed) if detergents are not used
* Uncontaminated air conditioning or compressor condensate
* Uncontaminated groundwater or spring water
* Foundation or footer drain-water where flows are not contaminated
* Uncontaminated wastewater
* Potable water sources including wastewater flushings

- 7. Unauthorized non-stormwater discharges: Identify and prevent contamination from discharges that is mixed with a source of non-stormwater, other than those discharges in compliance with 6. Unauthorized non-stormwater discharges are:
* Wastewater from the washout or cleanout of concrete, stucco, paint, form release oils, curing compounds or other construction materials;
* Fuels, oils, or other pollutants used in vehicle and equipment operations and maintenance;
* Soaps, solvents or detergents used in vehicle and equipment wash;
* Toxic or hazardous substances from a spill or other release.

Allowable non-stormwater discharges cannot be authorized under this permit unless they are directly related to and originate from a construction site or dedicated support activity.

This project has a written erosion control plan and stormwater maintenance plan. Modifications to the plan must be approved by the Town.

Maintenance of stormwater treatment and control systems must occur regularly. The stormwater maintenance report provides inspection details and time lines for doing the inspections and reporting to the Town and DEP.



NOT FOR CONSTRUCTION
ISSUED FOR: PRELIM. SITE PLAN APPROVAL
ISSUE DATE: OCTOBER 5, 2023

REVISIONS
NO. DESCRIPTION BY DATE
0 INITIAL SUBMISSION EDW 08/24/23
1 TOWN COMMENTS EDW 10/05/23

DRAWN BY: RMB
APPROVED BY: EDW
DRAWING FILE: 5431DETAILS.dwg

SCALE: AS SHOWN

OWNER: 27 WENTWORTH STREET, LLC & MREV KITTERY INN, LLC
401 EDGEWATER PLACE, SUITE 570
WAKEFIELD, MA 01880

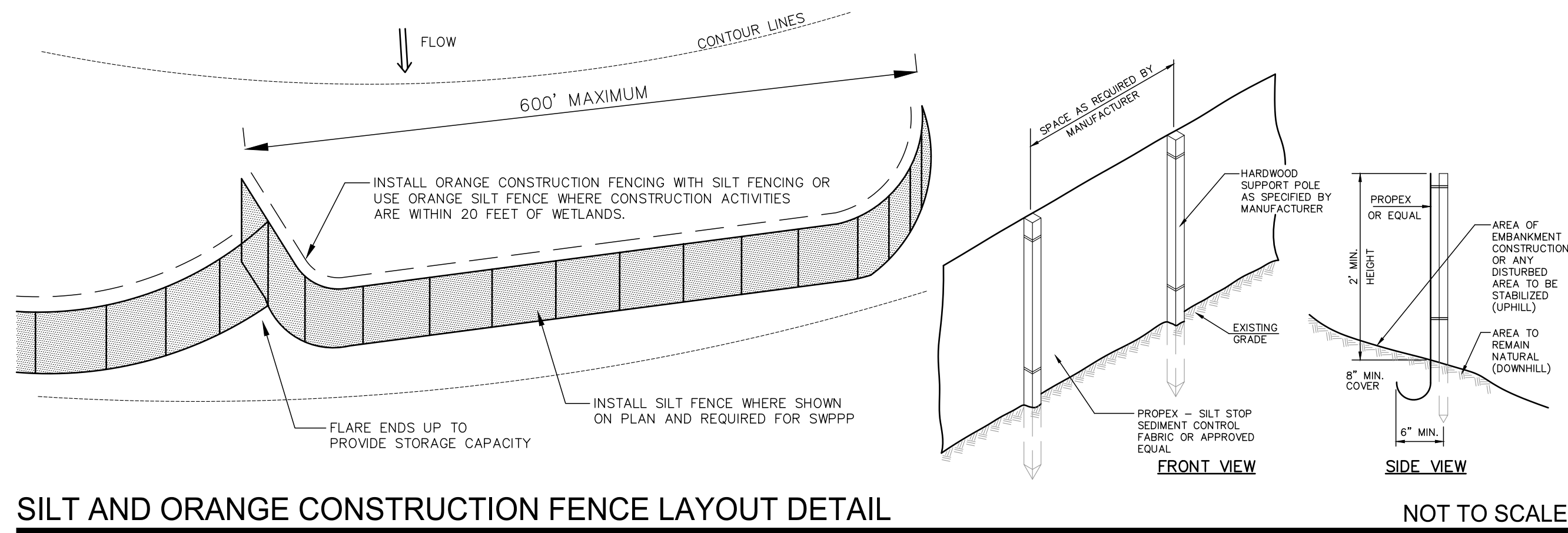
APPLICANT: MADBURY REAL ESTATE VENTURES
401 EDGEWATER PLACE, SUITE 570
WAKEFIELD, MA 01880

PROJECT: THE FORESIDE INN
TAX MAP 9
LOTS 37 & 38
27 & 29 WENTWORTH STREET
KITTERY, MAINE

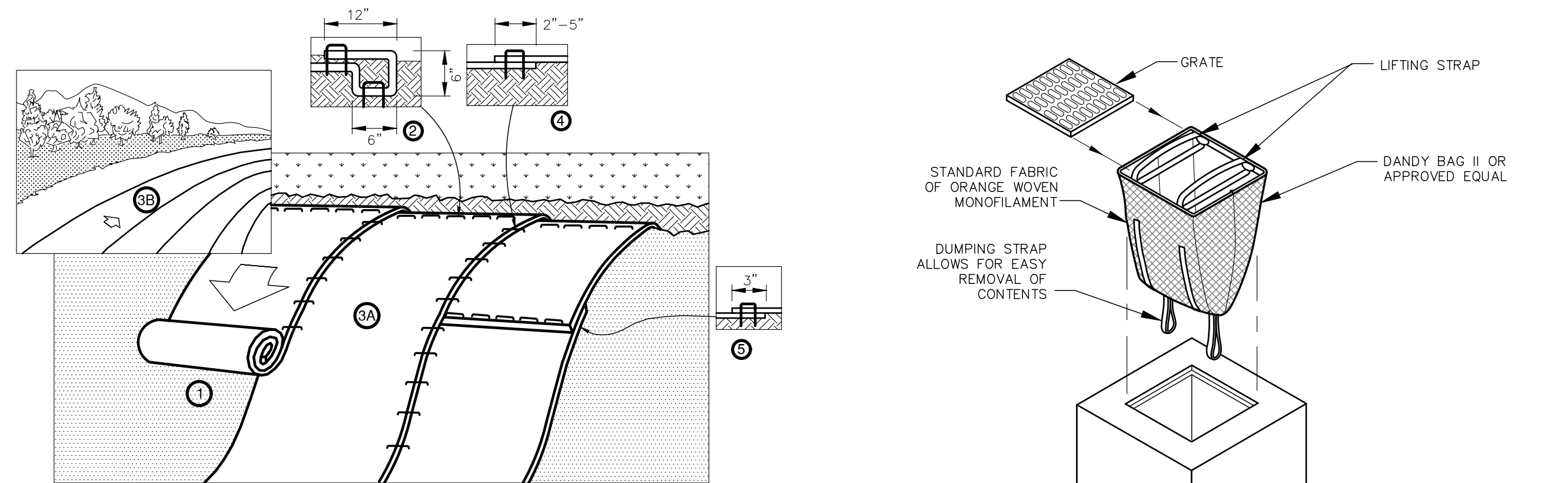
TITLE: DETAIL SHEET

SHEET NUMBER: C - 6

Pxxxx



SILT AND ORANGE CONSTRUCTION FENCE LAYOUT DETAIL NOT TO SCALE



NOTES

- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" 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 BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
- ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.
- THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
- CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH. NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

INSTALLATION AND MAINTENANCE:

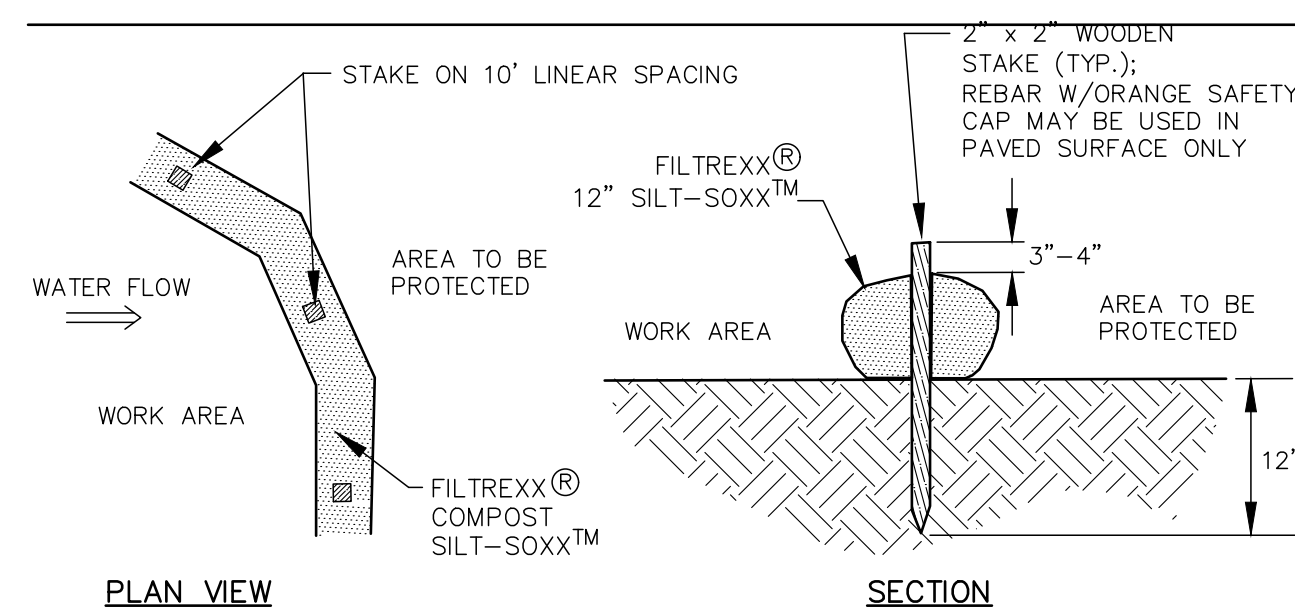
INSTALLATION: REMOVE THE GRATE FROM CATCH BASIN. IF USING OPTIONAL OIL ABSORBENTS; PLACE ABSORBENT PILLON IN UNIT. STAND GRATE ON END. MOVE THE TOP LIFTING STRAPS OUT OF THE WAY AND PLACE THE GRATE INTO CATCH BASIN INSERT SO THE GRATE IS BELOW THE TOP STRAPS AND ABOVE THE LOWER STRAPS. HOLDING THE LIFTING DEVICES, INSERT THE GRATE INTO THE INLET.

MAINTENANCE: REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF THE UNIT AFTER EACH STORM EVENT. AFTER EACH STORM EVENT AND AT REGULAR INTERVALS, LOOK INTO THE CATCH BASIN INSERT. IF THE CONTAINMENT AREA IS MORE THAN 1/3 FULL OF SEDIMENT, THE UNIT MUST BE EMPTIED. TO EMPTY THE UNIT, LIFT THE UNIT OUT OF THE INLET USING THE LIFTING STRAPS AND REMOVE THE GRATE. IF USING OPTIONAL ABSORBENTS; REPLACE ABSORBENT WHEN NEAR SATURATION.

UNACCEPTABLE INLET PROTECTION METHOD:

A SIMPLE SHEET OF GEOTEXTILE UNDER THE GRATE IS NOT ACCEPTABLE.

EROSION CONTROL BLANKET - SLOPE NOT TO SCALE

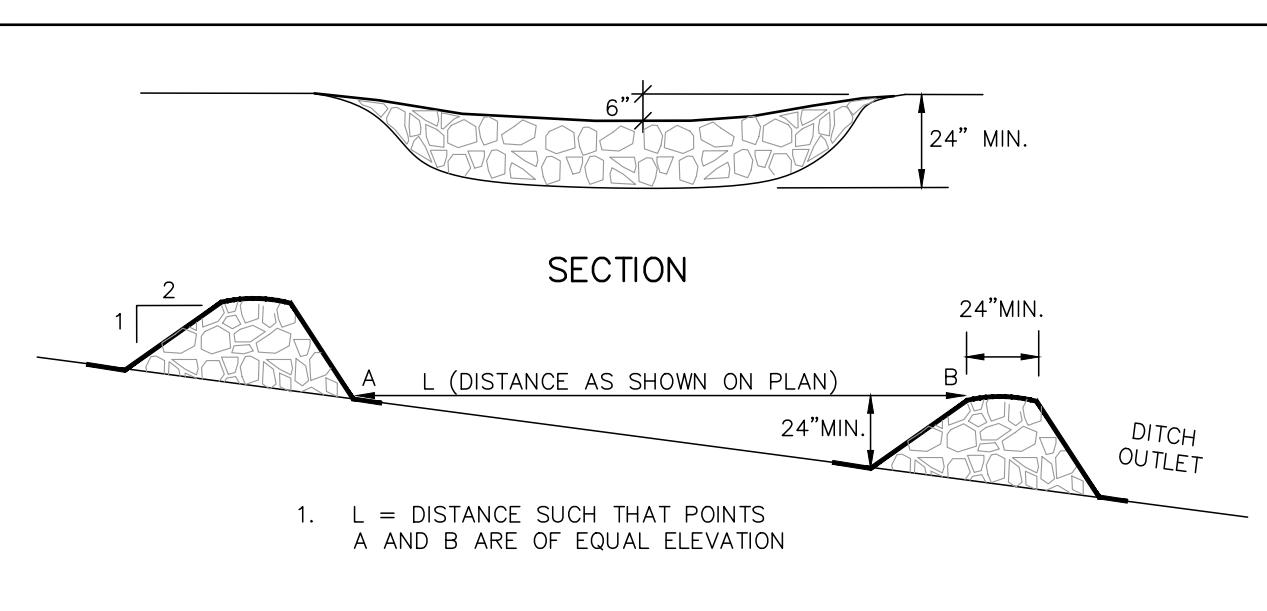


NOTES:

- SILT-SOXX MAY BE USED IN PLACE OF SILT FENCE OR OTHER SEDIMENT BARRIERS.
- ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
- SILT-SOXX COMPOST/SOIL/ROCK/SEED FILL MATERIAL SHALL BE ADJUSTED AS NECESSARY TO MEET THE REQUIREMENTS OF THE SPECIFIC APPLICATION.
- ALL SEDIMENT TRAPPED BY SILT-SOXX SHALL BE DISPOSED OF PROPERLY.

TUBULAR SEDIMENT BARRIER NOT TO SCALE

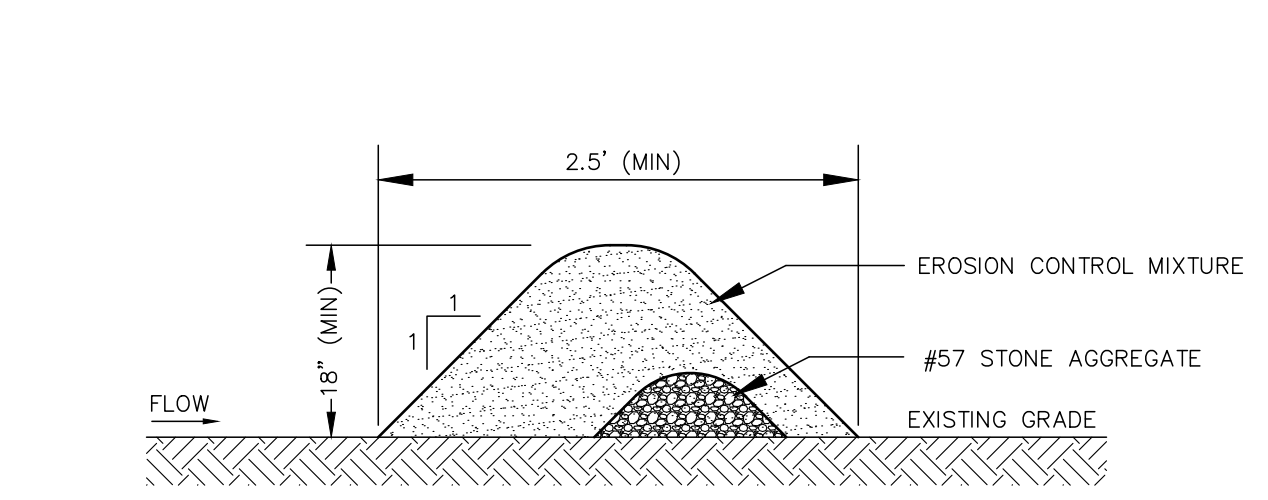
STONE CHECK DAM NOT TO SCALE



NOTES:

- L = DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION
- CHECK DAM SHALL BE CONSTRUCTED OF 2" TO 3" STONE WITH COMPLETE COVERAGE OF DITCH OR SWALE TO INSURE THAT THE CENTER OF THE STRUCTURE IS LOWER THAN THE EDGES.

STONE CHECK DAM NOT TO SCALE

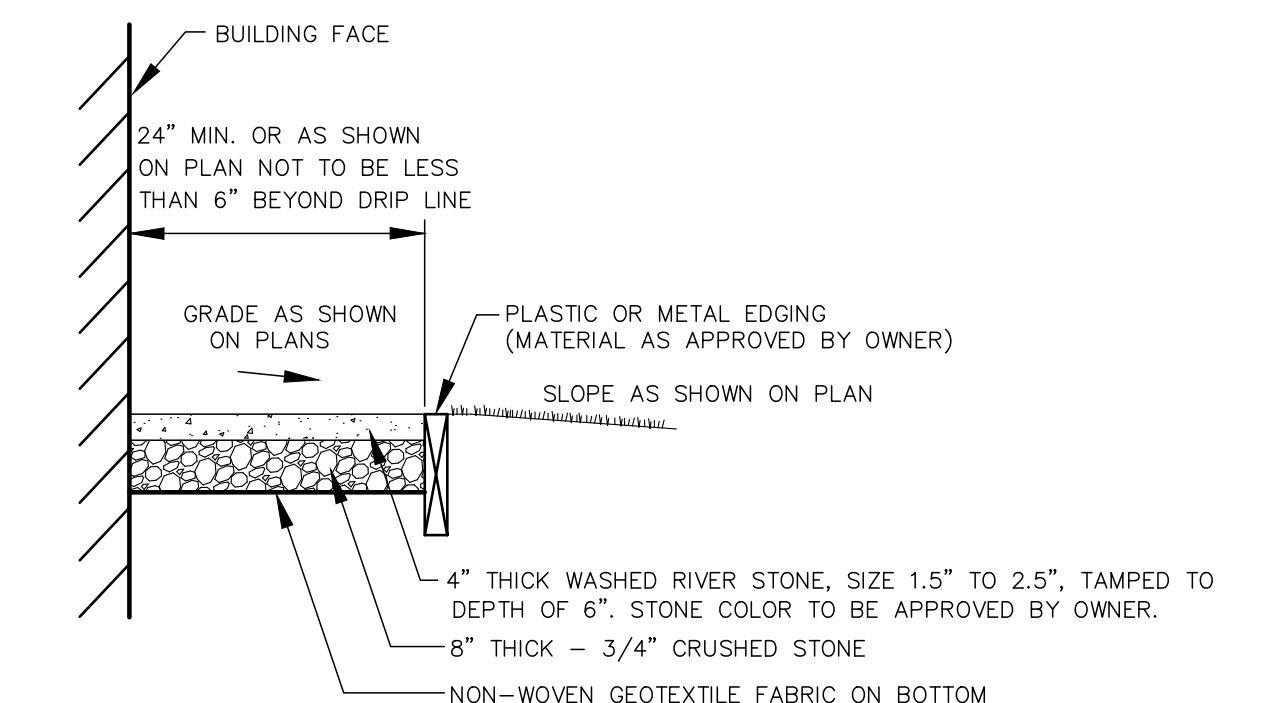


ORGANIC FILTER BERM NOT TO SCALE

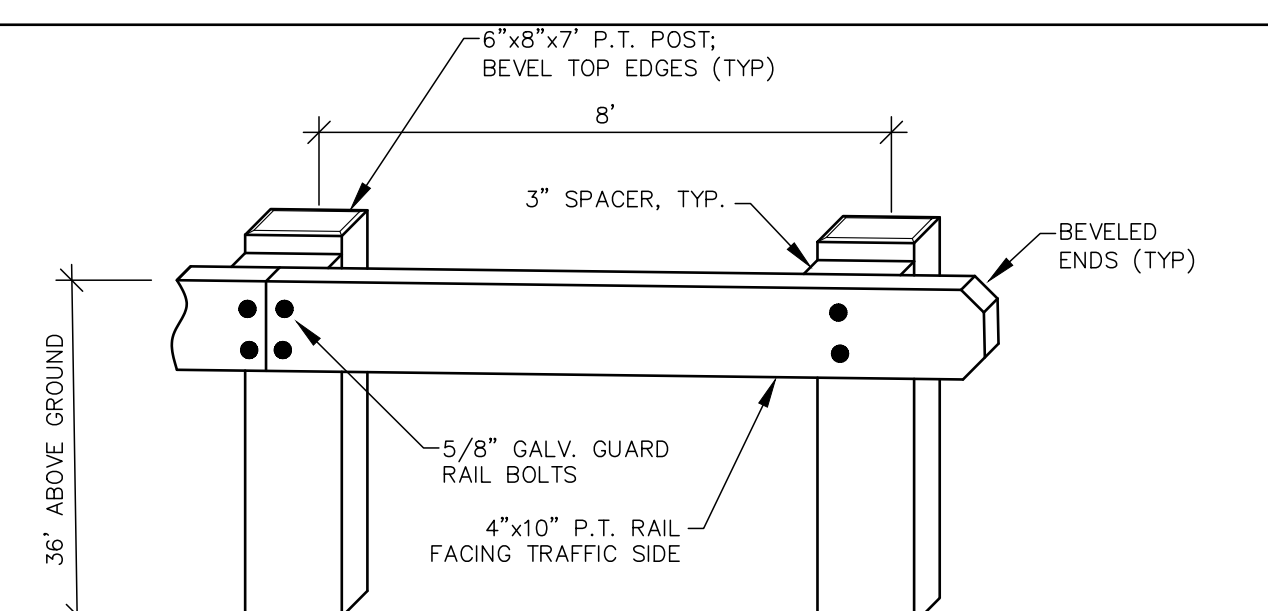
NOTES

- ORGANIC FILTER BERMS MAY BE UTILIZED IN LIEU OF SILT FENCE OR OTHER SEDIMENT BARRIERS.
- THE EROSION CONTROL MIXTURE USED IN FILTER BERMS SHALL BE A WELL-GRADED MIX OF PARTICLE SIZES THAT MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER, STUMP GRINDINGS, SHREDDED OR COMPOSTED BARK, AND/OR ACCEPTABLE MANUFACTURED PRODUCTS AND SHALL BE FREE OF REFUSE, PHYSICAL CONTAMINANTS AND MATERIAL TOXIC TO PLANT GROWTH. EROSION CONTROL MIXTURE SHALL MEET THE FOLLOWING STANDARDS:
 - THE ORGANIC CONTENT SHALL BE 80-100% OF DRY WEIGHT.
 - PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN, AND 70-85% PASSING A 0.75" SCREEN.
 - THE ORGANIC PORTION SHALL BE FIBROUS AND ELONGATED.
 - LARGE PORTIONS OF SILTS, CLAYS, OR FINE SANDS SHALL NOT BE INCLUDED IN THE MIXTURE.
 - SOLUBLE SALTS CONTENT SHALL BE >4.0mmhos/cm.
 - THE pH SHALL BE BETWEEN 5.0 AND 8.0.
- ORGANIC FILTER BERMS SHALL BE INSTALLED ALONG A RELATIVELY LEVEL CONTOUR. IT MAY BE NECESSARY TO CUT TALL GRASSES OR WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES THAT WOULD ENABLE FINES TO WASH UNDER THE BERM.
- ON SLOPES LESS THAN 5% OR AT THE BOTTOM OF SLOPES NO STEEPER THAN 3:1 AND UP TO 20' LONG, THE BERM SHALL BE A MINIMUM OF 12" HIGH (AS MEASURED ON THE UPHILL SIDE) AND A MINIMUM OF 36" WIDE. ON LONGER AND/OR STEEPER SLOPES, THE BERM SHALL BE TALLER AND WIDER TO ACCOMMODATE THE POTENTIAL FOR ADDITIONAL RUNOFF (MAXIMUM HEIGHT SHALL NOT EXCEED 2').
- FROZEN GROUND, OUTCROPS OF BEDROCK, AND VERY ROOTED FORESTED AREAS PRESENT THE MOST PRACTICAL AND EFFECTIVE LOCATIONS FOR ORGANIC FILTER BERMS. OTHER BMP'S SHOULD BE USED AT LOW POINTS OF CONCENTRATED RUNOFF, BELOW CULVERT OUTLET APRONS, AROUND CATCH BASINS, AND AT THE BOTTOM OF STEEP PERIMETER SLOPES THAT HAVE A LARGE CONTRIBUTING AREA.
- SEDIMENT SHALL BE REMOVED FROM BEHIND THE FILTER BERMS WHEN IT HAS ACCUMULATED TO ONE HALF THE ORIGINAL HEIGHT OF THE BERM.
- ORGANIC FILTER BERMS MAY BE LEFT IN PLACE ONCE THE SITE IS STABILIZED PROVIDED ANY SEDIMENT DEPOSITS TRAPPED BY THEM ARE REMOVED AND DISPOSED OF PROPERLY.
- FILTER BERMS ARE PROHIBITED AT THE BASE OF SLOPES STEEPER THAN 8% OR WHERE THERE IS FLOWING WATER WITHOUT THE SUPPORT OF ADDITIONAL MEASURES SUCH AS SILTFENCE.

ORGANIC FILTER BERM NOT TO SCALE



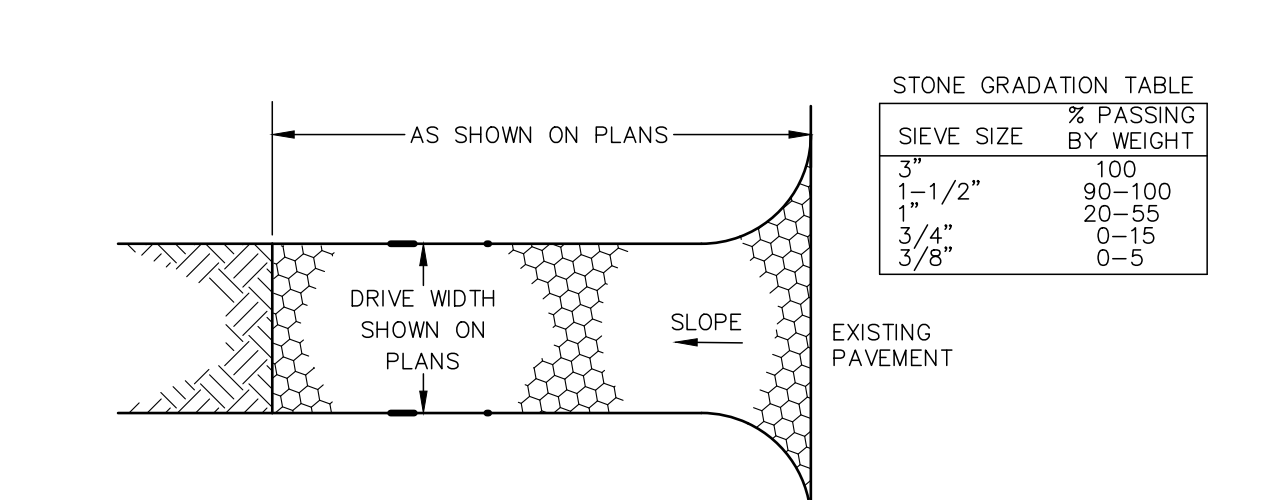
DRIP EDGE DETAIL NOT TO SCALE



NOTE:

FENCE BY GC/AAA FENCE COMPANY, DOVER, NH, TEL. (800) 660-0833 OR APPROVED EQUAL

SINGLE RAIL WOOD BARRIER NOT TO SCALE

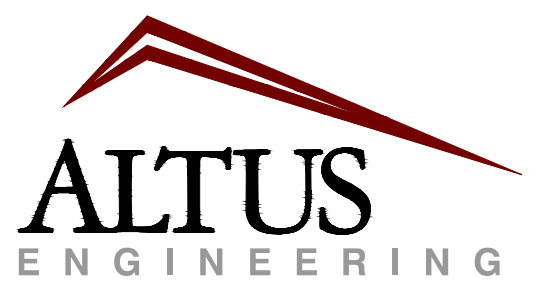


STABILIZED CONSTRUCTION EXIT NOT TO SCALE

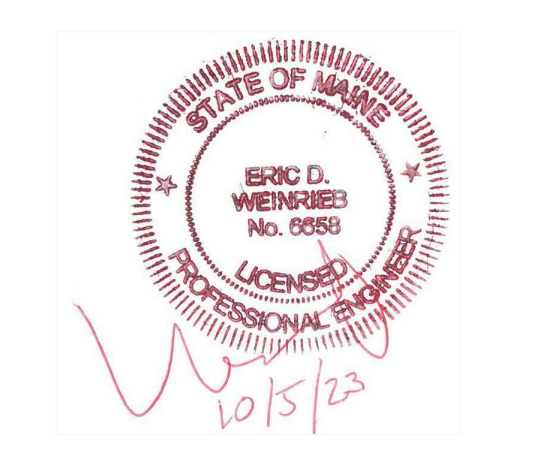
CONSTRUCTION SPECIFICATIONS

- STONE SIZE - NHDOT STANDARD STONE SIZE #4 - SECTION 703 OF NHDOT STANDARD.
- LENGTH - DETAILED ON PLANS (50 FOOT MINIMUM).
- THICKNESS - SIX (6) INCHES (MINIMUM).
- WIDTH - FULL DRIVE WIDTH UNLESS OTHERWISE SPECIFIED.
- FILTER FABRIC - MIRAFI 600X OR EQUAL APPROVED BY ENGINEER.
- SURFACE WATER CONTROL - ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS WILL REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- STABILIZED CONSTRUCTION EXITS SHALL BE INSTALLED AT ALL ENTRANCES TO PUBLIC RIGHTS-OF-WAY, AT LOCATIONS SHOWN ON THE PLANS, AND/OR WHERE AS DIRECTED BY THE ENGINEER.

STABILIZED CONSTRUCTION EXIT NOT TO SCALE



133 Court Street Portsmouth, NH 03801
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THE FORESIDE INN

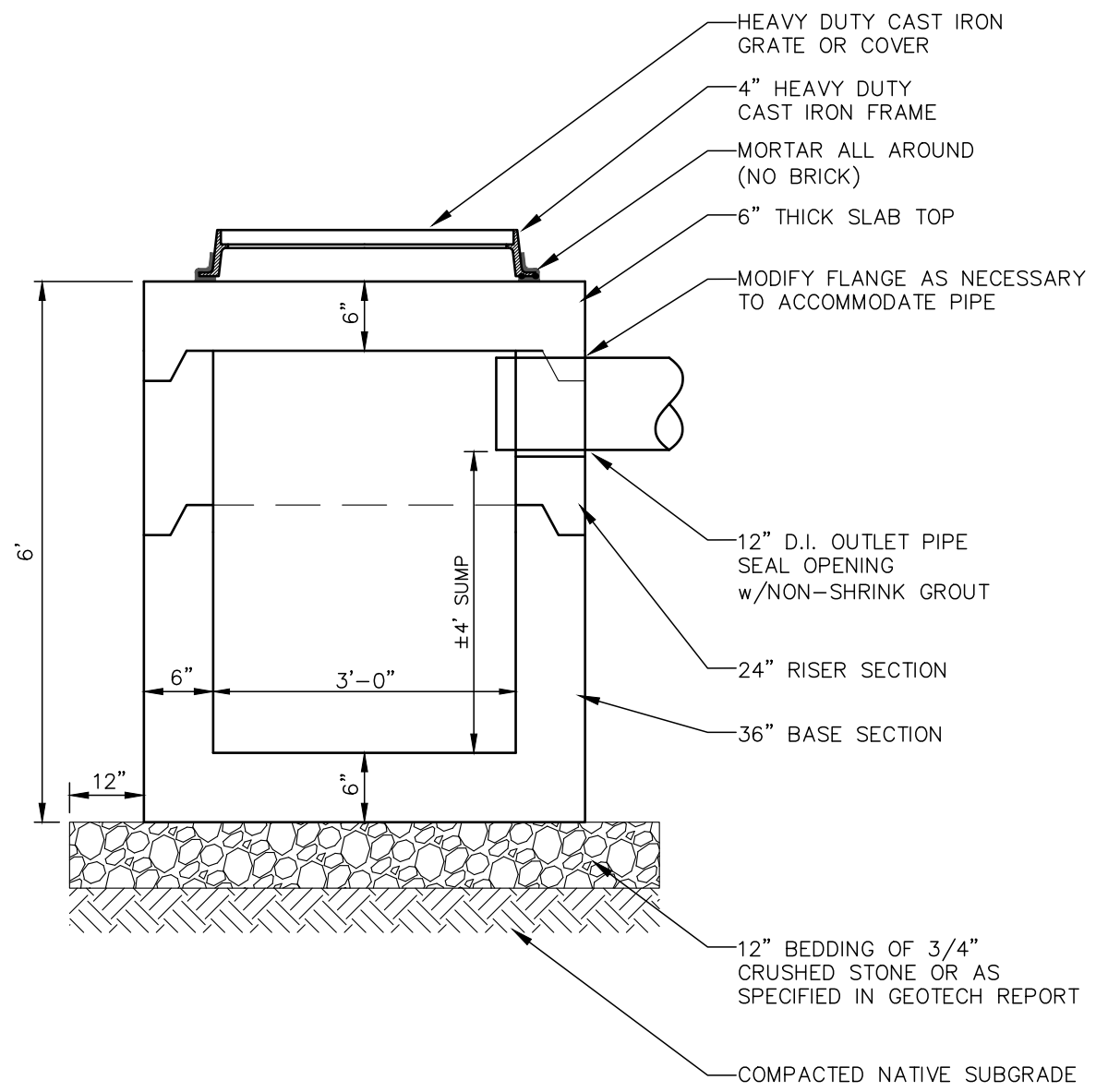
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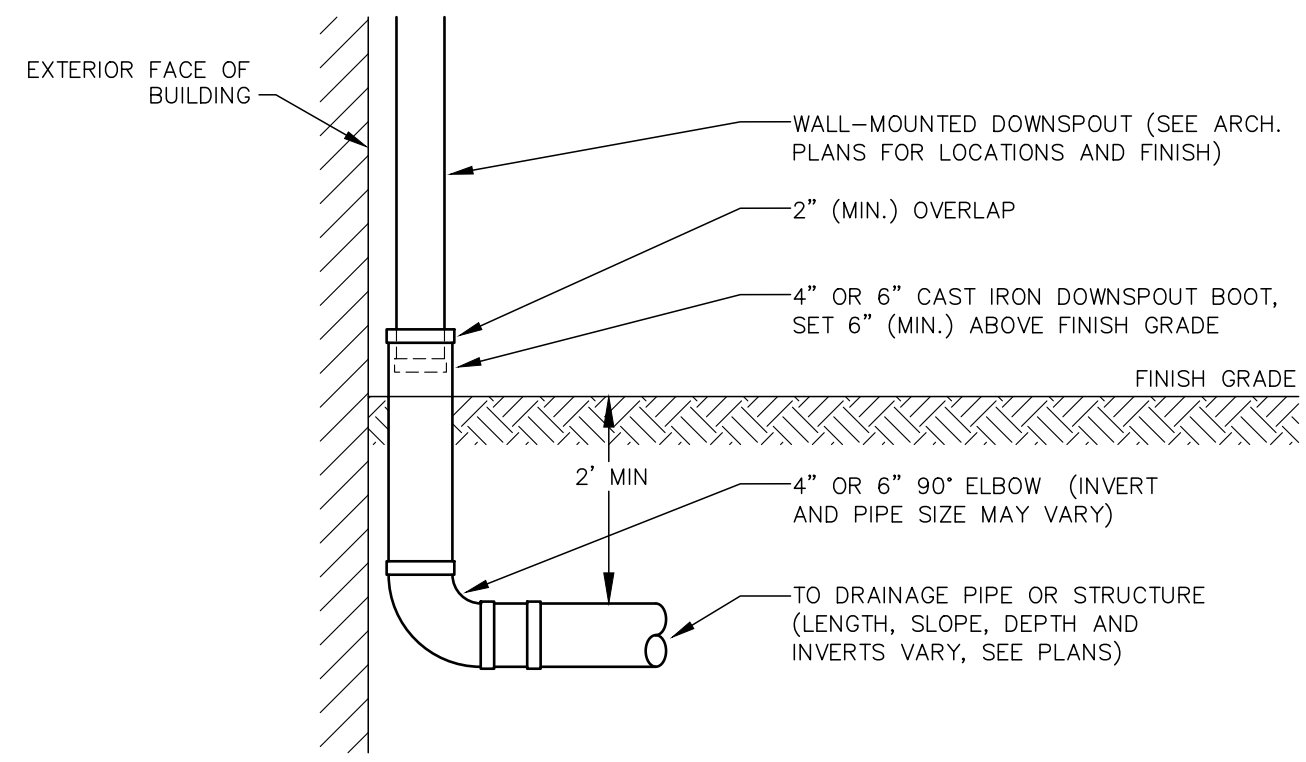
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C - 7

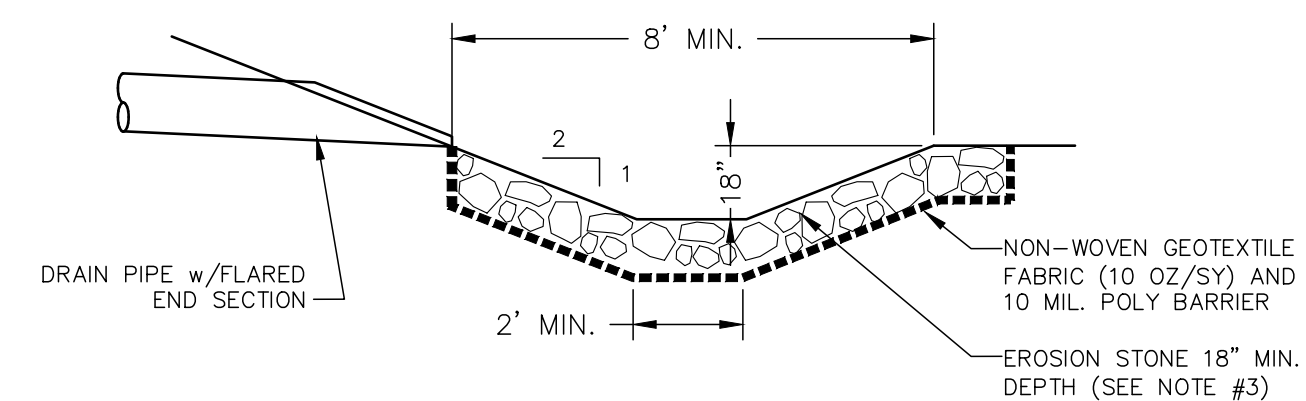


- NOTES**
- STRUCTURE SHALL TO ACCOMMODATE HEAVY DUTY 24\"/>

3' I.D. LOW PROFILE CB / DMH NOT TO SCALE



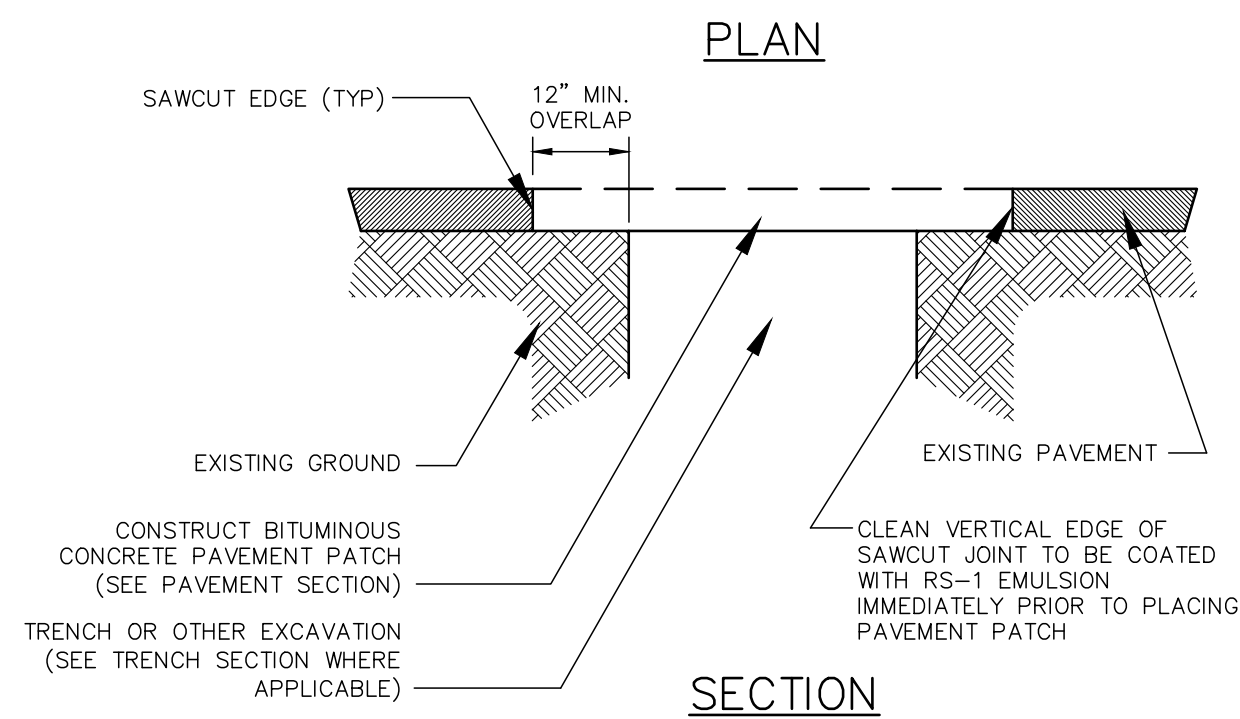
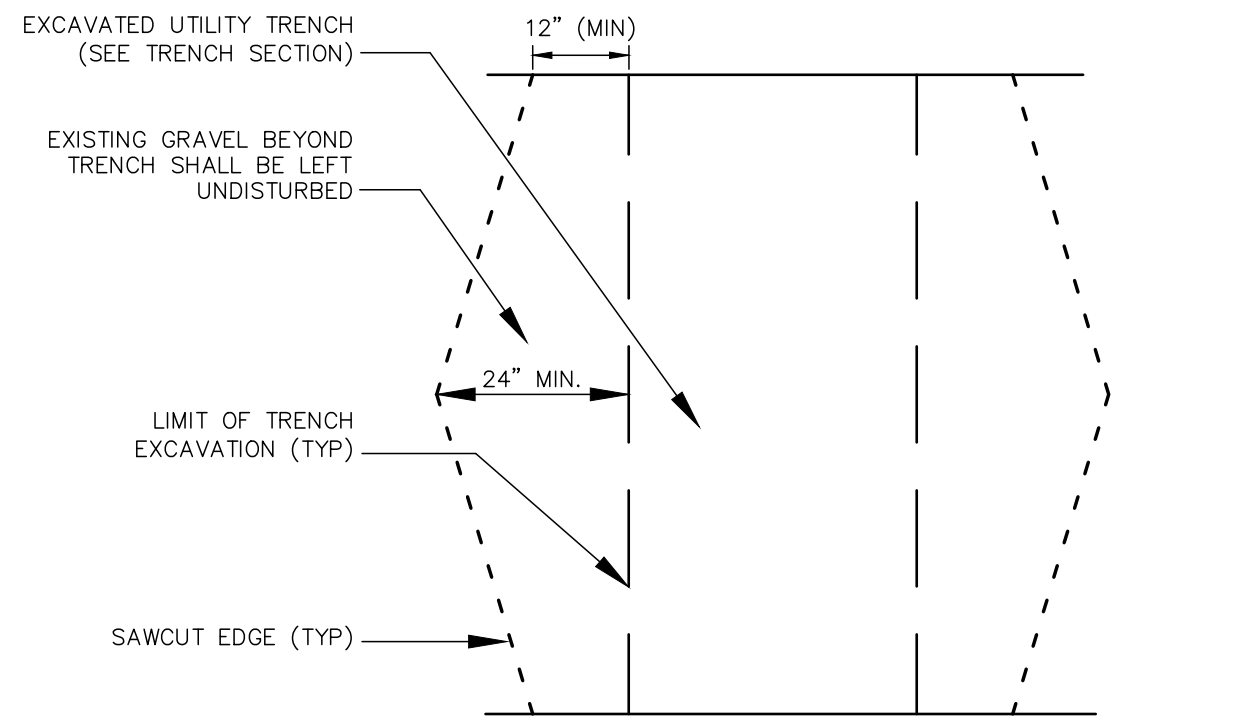
EXTERIOR ROOF DRAIN CONNECTION NOT TO SCALE



- NOTES**
- CONSTRUCT PLUNGE POOL TO THE WIDTHS AND LENGTHS SHOWN ON THE PLAN.
 - THE SUBGRADE FOR THE GEOTEXTILE FABRIC AND RIPRAP SHALL BE PREPARED TO ACCOUNT FOR THE DEPTH OF RIPRAP.
 - EROSION STONE USED FOR THE PLUNGE POOL SHALL MEET THE FOLLOWING GRADATION:

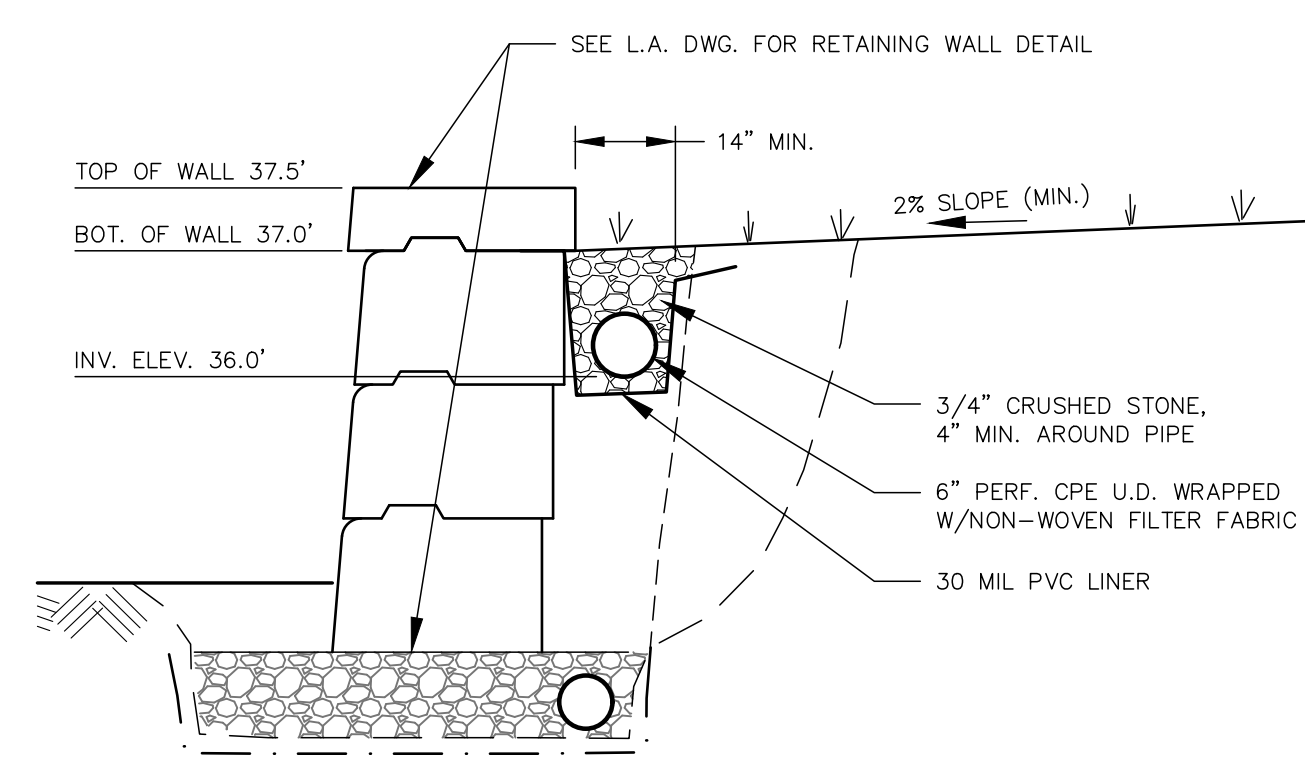
SIZE	PERCENT PASSING BY WEIGHT
18"	100
12"	90-100
4"	0-15
 - GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE EROSION STONE. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 18\"/>
 - THE EROSION STONE MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

PLUNGE POOL NOT TO SCALE

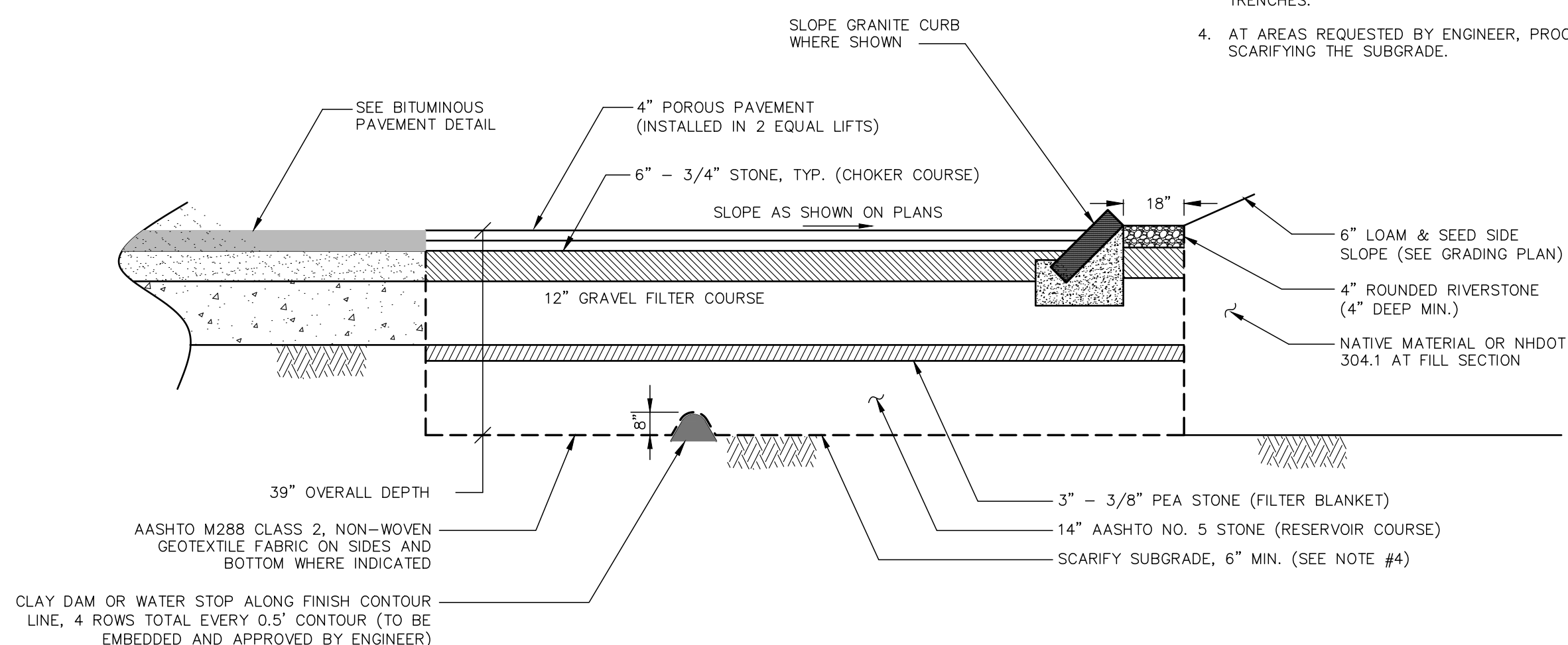


- NOTES**
- MACHINE CUT EXISTING PAVEMENT.
 - ALL TEMPORARY, DAMAGED OR DEFECTIVE PAVEMENT SHALL BE REMOVED PRIOR TO PLACEMENT OF PERMANENT TRENCH REPAIRS.
 - DIAMOND PATCHES, SHALL BE REQUIRED FOR ALL TRENCHES CROSSING ROADWAY. DIAMOND PATCHES SHALL MEET NHDOT REQUIREMENTS.

TYPICAL TRENCH PATCH NOT TO SCALE



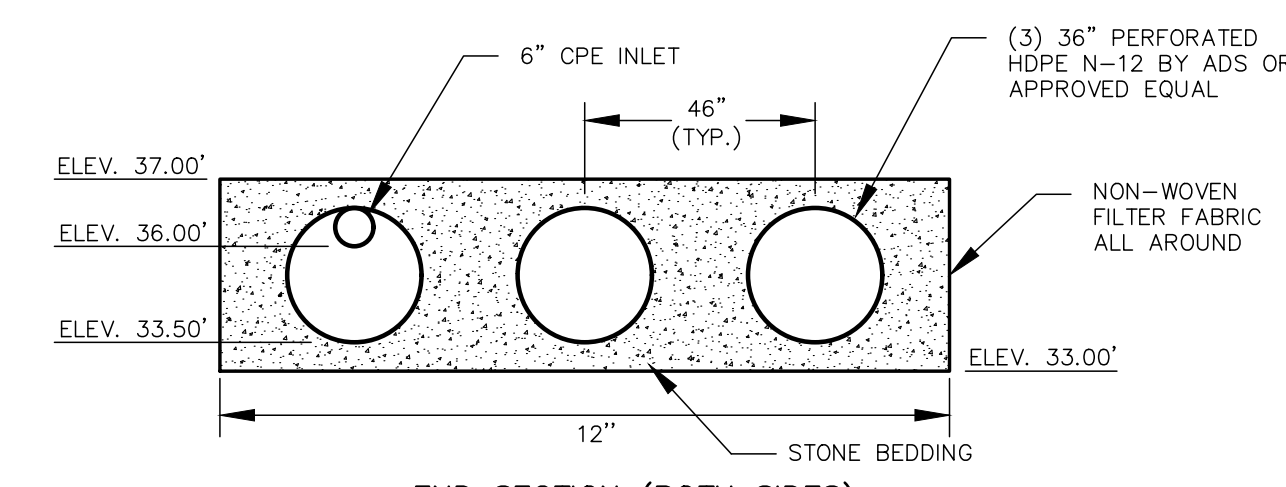
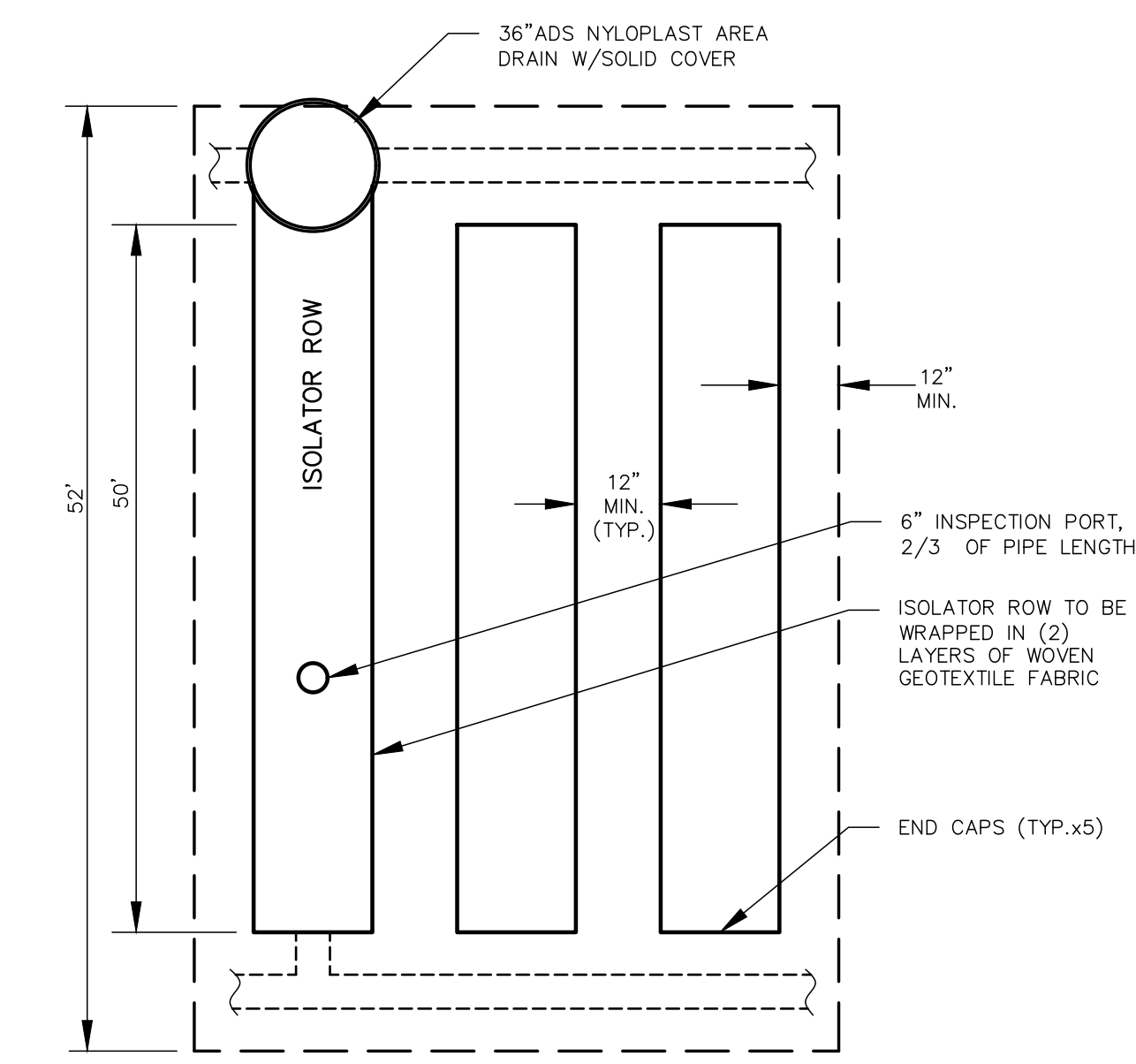
RETAINING WALL PERIMETER DRAIN NOT TO SCALE



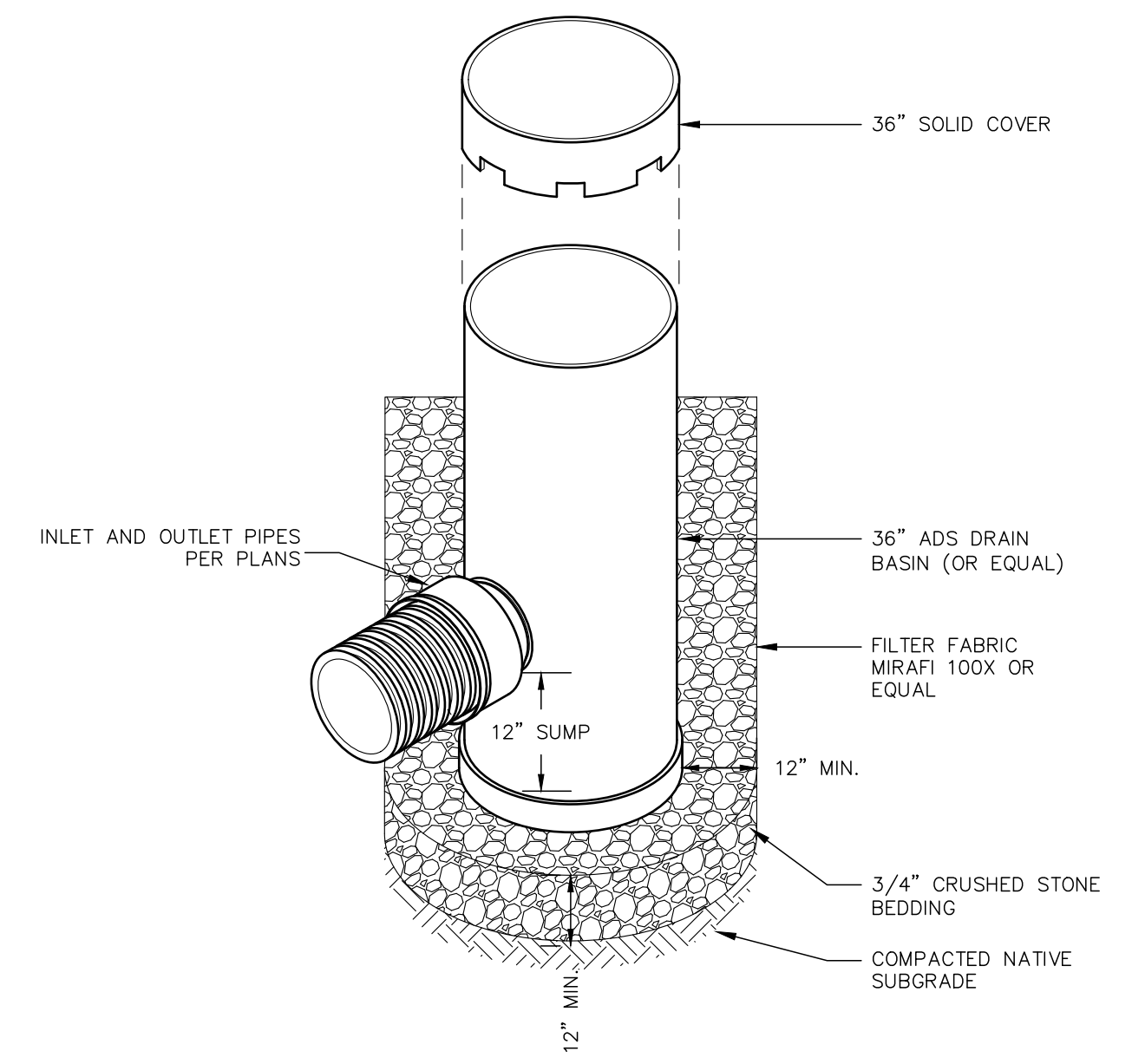
MATERIAL GRADATIONS

RESERVOIR COURSE		CHOKER COURSE STONE		FILTER BLANKET		GRAVEL FILTER COURSE	
SIEVE SIZE	% PASSING BY WEIGHT	SIEVE SIZE	% PASSING BY WEIGHT	SIEVE SIZE	% PASSING BY WEIGHT	SIEVE SIZE	% PASSING BY WEIGHT
1-1/2"	100	1-1/2"	100	1/2"	100	6"	100
1"	90 - 100	1"	95 - 100	3/8"	85 - 100	# 4	70 - 85
3/4"	20 - 55	1/2"	25 - 60	# 4	10 - 30	# 200	0 - 6
1/2"	0 - 10	# 4	0 - 10	# 8	0 - 10		
3/8"	0 - 5	# 8	0 - 5	# 16	0 - 5		

POROUS PAVEMENT NOT TO SCALE

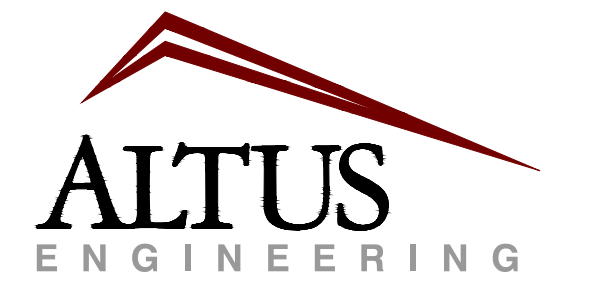


STORMWATER MANAGEMENT GALLERY N.T.S.

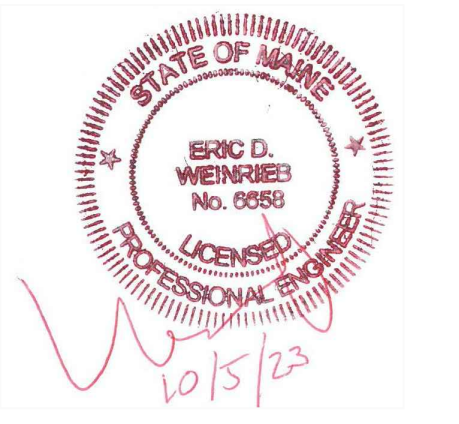


- NOTES:**
- FRAMES AND GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN AND DETAILS.
 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE, N-12HP AND PVC SEWER.
 - INLINE DRAIN TO BE PVC DIAMETER AS SPECIFIED AND AS MANUFACTURED BY ADS OR APPROVED EQUAL.
 - THE CONTRACTOR SHALL INSTALL THE DRAIN BASIN PER THE MANUFACTURER'S RECOMMENDATIONS AND AS SHOWN ON THE DRAWINGS.

AREA DRAIN NOT TO SCALE



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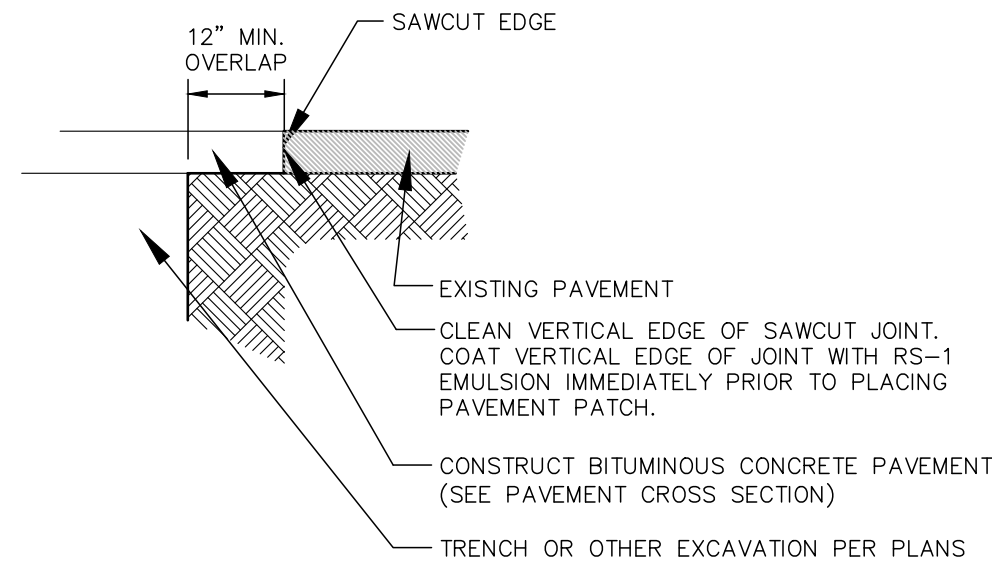
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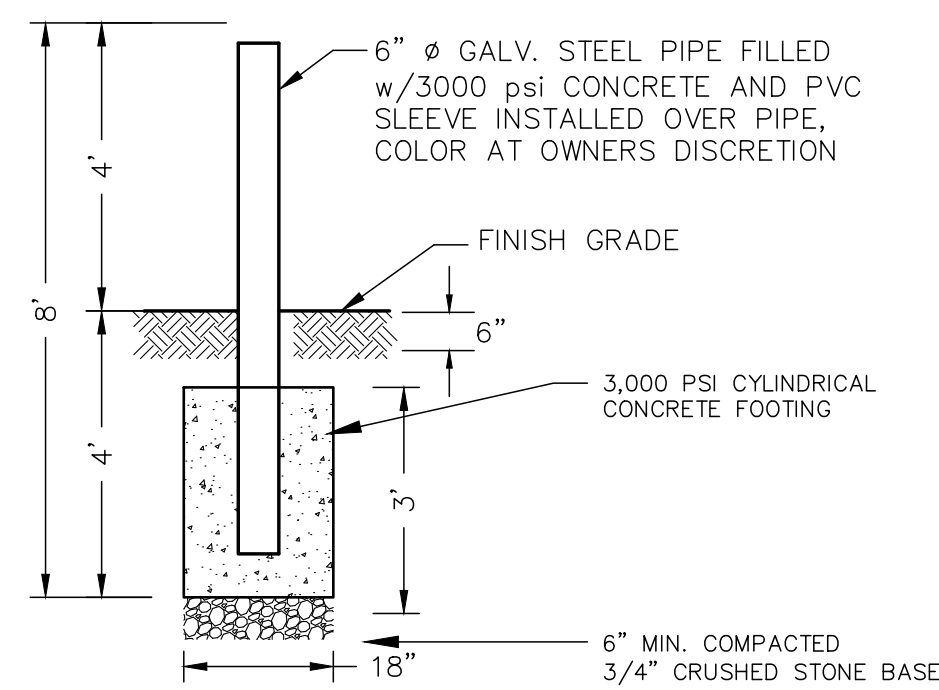
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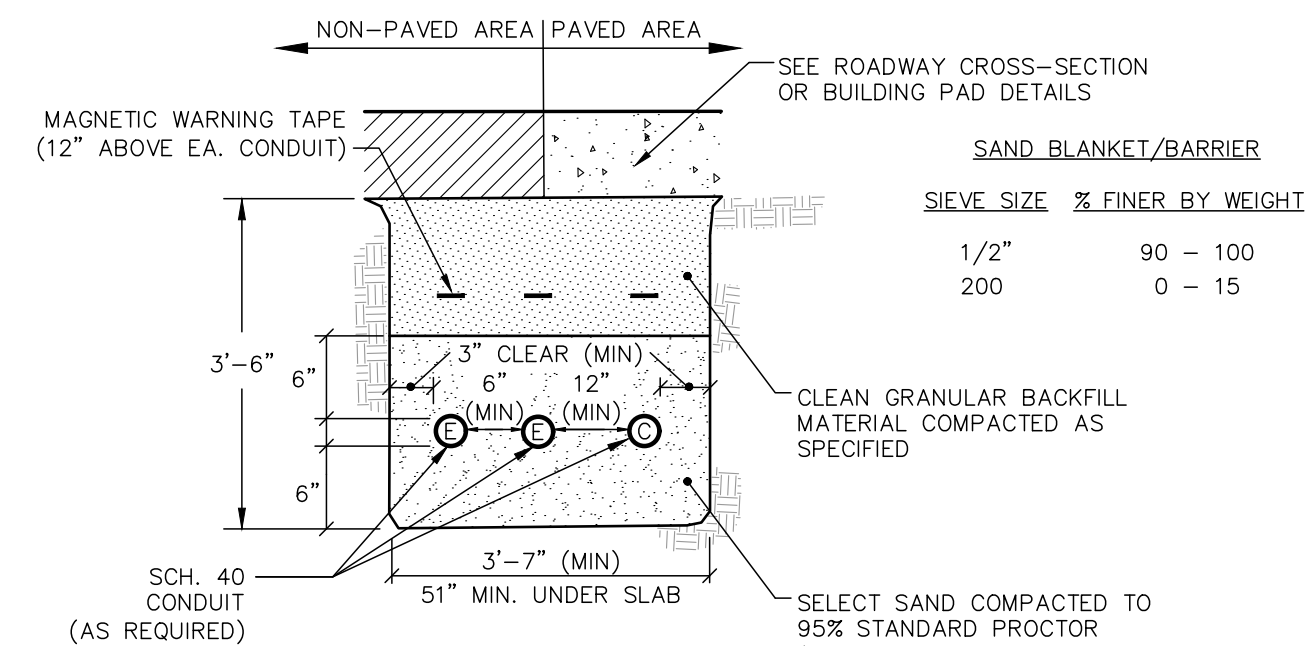
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C - 8



TYPICAL PAVEMENT SAWCUT NOT TO SCALE

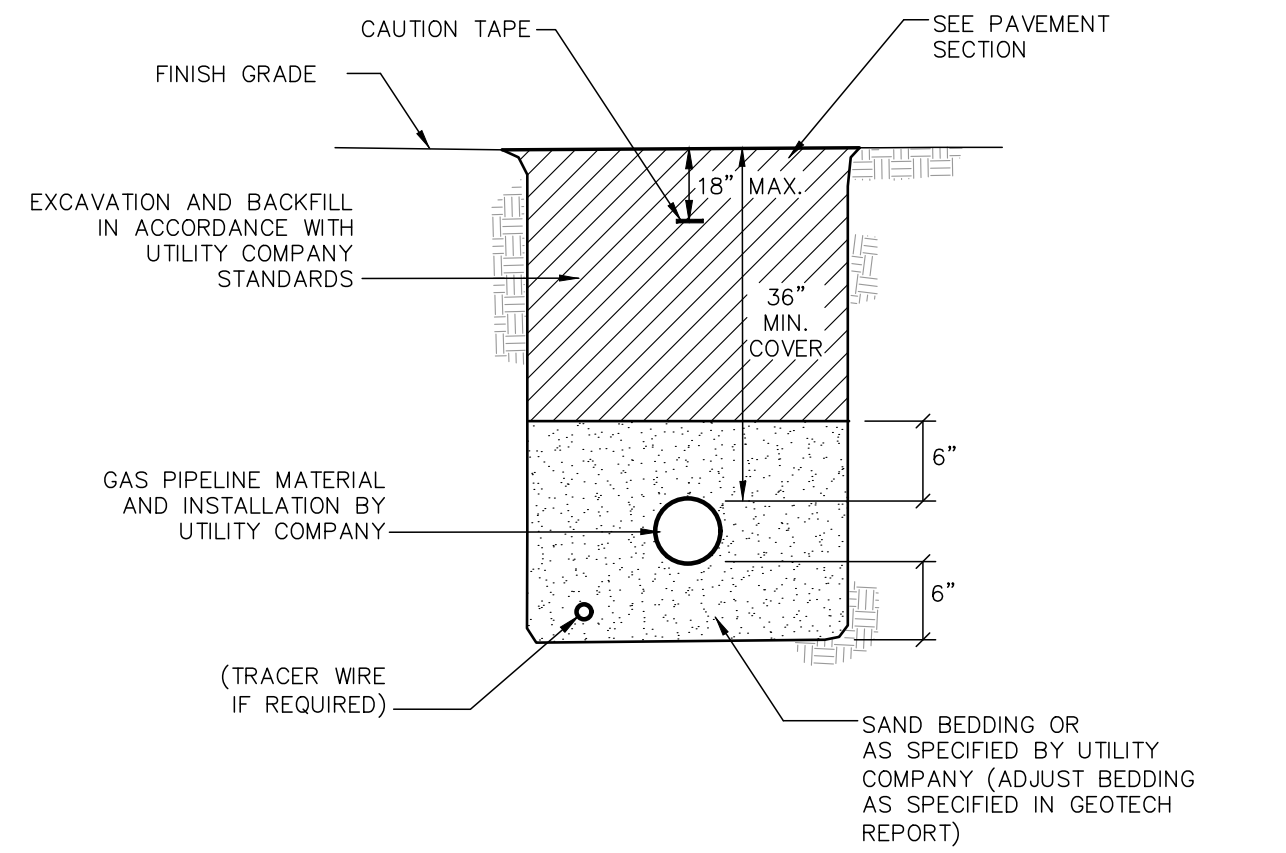


BOLLARD NOT TO SCALE



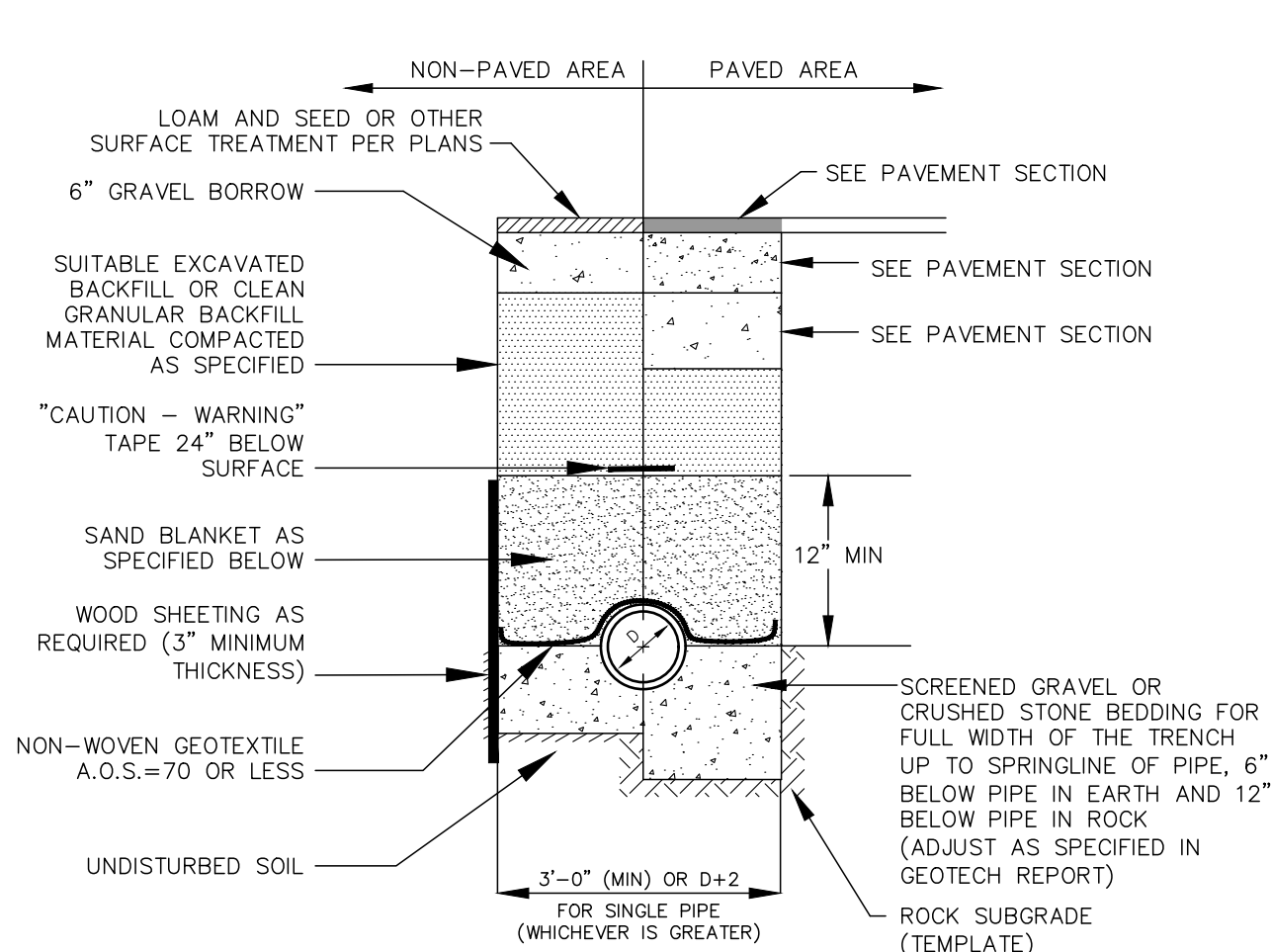
- NOTES**
- ALL CONDUIT IS TO BE SCHEDULE 40 PVC, ELECTRICAL GRADE, GRAY IN COLOR AND INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS. A 10-FOOT HORIZONTAL SECTION OF RIGID GALVANIZED STEEL CONDUIT WILL BE REQUIRED AT EACH SWEEP, UNLESS IN THE OPINION OF THE SERVICE PROVIDER DESIGNER, THE SWEEP-PVC JOINT IS NOT SUBJECT TO FAILURE DURING PULLING OF THE CABLE. ALL JOINTS ARE TO BE WATERTIGHT.
 - ALL 90 DEGREE SWEEPS WILL BE MADE WITH RIGID GALVANIZED STEEL WITH A MINIMUM RADIUS OF 36 INCHES FOR PRIMARY CABLES AND 24 INCHES FOR SECONDARY CABLES.
 - BACKFILL MAY BE MADE WITH EXCAVATED MATERIAL OR COMPARABLE, UNLESS MATERIAL IS DEEMED UNSUITABLE BY SERVICE PROVIDER. BACKFILL SHALL BE FREE OF FROZEN LUMPS, ROCKS, DEBRIS, AND RUBBISH. ORGANIC MATERIAL SHALL NOT BE USED AS BACKFILL. BACKFILL SHALL BE IN 6-INCH LAYERS AND THOROUGHLY COMPACTED.
 - A SUITABLE PULLING STRING, CAPABLE OF 300 POUNDS OF PULL, MUST BE INSTALLED IN THE CONDUIT BEFORE SERVICE PROVIDER IS NOTIFIED TO INSTALL CABLE. THE STRING SHOULD BE BLOWN INTO THE CONDUIT AFTER THE RUN IS ASSEMBLED TO AVOID BONDING THE STRING TO THE CONDUIT. A MINIMUM OF TWENTY-FOUR (24") INCHES OF ROPE SLACK SHALL REMAIN AT THE END OF EACH DUCT. PULL ROPE SHALL BE INSTALLED IN ALL CONDUIT FOR FUTURE PULLS. PULL ROPE SHALL BE NYLON ROPE HAVING A MINIMUM TENSILE STRENGTH OF THREE HUNDRED (300#) LBS.
 - SERVICE PROVIDER SHALL BE GIVEN THE OPPORTUNITY TO INSPECT ALL CONDUIT PRIOR TO BACKFILL. THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS SHOULD SERVICE PROVIDER BE UNABLE TO INSTALL ITS CABLE IN A SUITABLE MANNER.
 - TYPICAL CONDUIT SIZES ARE 3-INCH FOR SINGLE PHASE PRIMARY AND SECONDARY VOLTAGE CABLES, 4-INCH FOR THREE PHASE SECONDARY, AND 5-INCH FOR THREE PHASE PRIMARY. HOWEVER, SERVICE PROVIDERS MAY REQUIRE DIFFERENT NUMBERS, TYPES AND SIZES OF CONDUIT THAN THOSE SHOWN HERE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL CONDUIT SIZES, TYPES AND NUMBERS WITH EACH SERVICE PROVIDER PRIOR TO ORDERING THEM.
 - ROUTING OF CONDUIT, LOCATION OF MANHOLES, TRANSFORMERS, CABINETS, HANDHOLES, ETC., SHALL BE DETERMINED BY SERVICE PROVIDER DESIGN PERSONNEL. THE CONTRACTOR SHALL COORDINATE WITH ALL SERVICE PROVIDERS PRIOR TO THE INSTALLATION OF ANY CONDUIT.
 - ALL CONDUIT INSTALLATIONS MUST CONFORM TO THE CURRENT EDITION OF THE NATIONAL ELECTRIC SAFETY CODE, STATE AND LOCAL CODES AND ORDINANCES, AND WHERE APPLICABLE, THE NATIONAL ELECTRIC CODE. WHERE REQUIRED BY UTILITY PROVIDER, CONDUIT SHALL BE SUPPORTED IN PLACE USING PIPE STANCHIONS PLACED EVERY FIVE (5) FEET ALONG THE CONDUIT RUN.
 - UNDER A BUILDING SLAB THE CONDUIT SHALL BE ENCASED IN 8" OF CONCRETE ON ALL SIDES.
 - ALL CONDUIT TERMINATIONS SHALL BE CAPPED TO PREVENT DEBRIS FROM ENTERING CONDUIT.

ELECTRIC / COMMUNICATION TRENCH NOT TO SCALE



- NOTES**
- CONTRACTOR TO COORDINATE WITH UTILITY COMPANY AND PROVIDE ALL EXCAVATION, COMPACTION AND BACKFILL FOR PIPE INSTALLATION.
 - BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T 99, METHOD C. SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99, METHOD C.

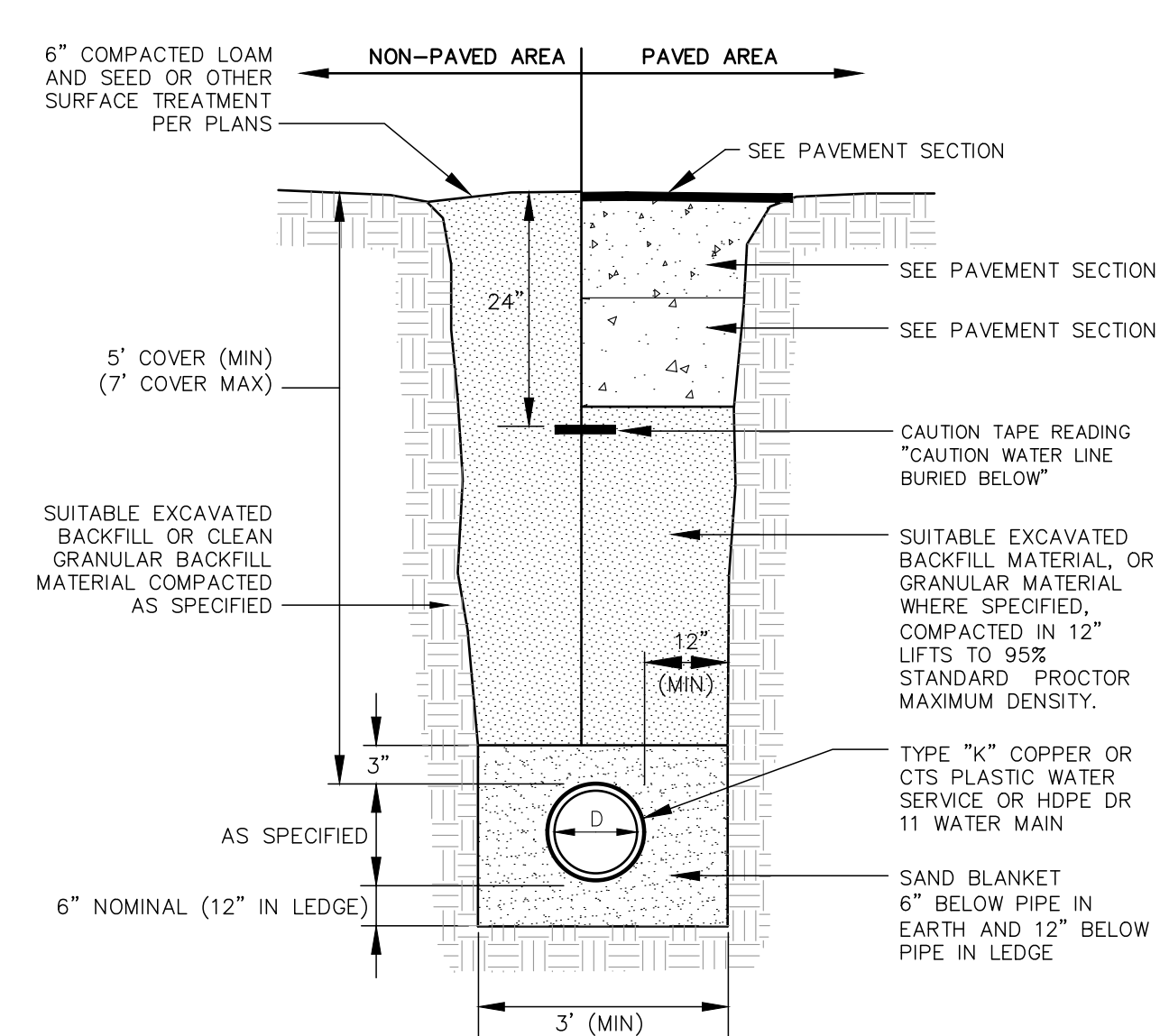
GAS TRENCH NOT TO SCALE



- NOTES**
- BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T 99, METHOD C. SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99, METHOD C.
 - INSULATE GRAVITY SEWER AND FORCEMAINS WHERE THERE IS LESS THAN 5'-0" OF COVER WITH 2" THICK CLOSED CELL RIGID BOARD INSULATION, 18" ON EACH SIDE OF PIPE.
 - MAINTAIN 12" MINIMUM HORIZONTAL SEPARATION AND WIDEN TRENCH ACCORDINGLY IF MULTIPLE PIPES ARE IN TRENCH.
 - PROVIDE ANTI-SEEP COLLARS (RIPLEY DAM OR APPROVED EQUAL); LOCATIONS TO BE FIELD DETERMINED BY ENGINEER.

SAND BLANKET/BARRIER		SCREENED GRAVEL OR CRUSHED STONE BEDDING	
SI-EVE SIZE	% FINER BY WEIGHT	SI-EVE SIZE	% PASSING BY WEIGHT
1/2"	90 - 100	1"	100
200	0 - 15	3/4"	90 - 100
		3/8"	20 - 55
		# 4	0 - 10
		# 8	0 - 5

DRAINAGE AND SEWER TRENCH NOT TO SCALE

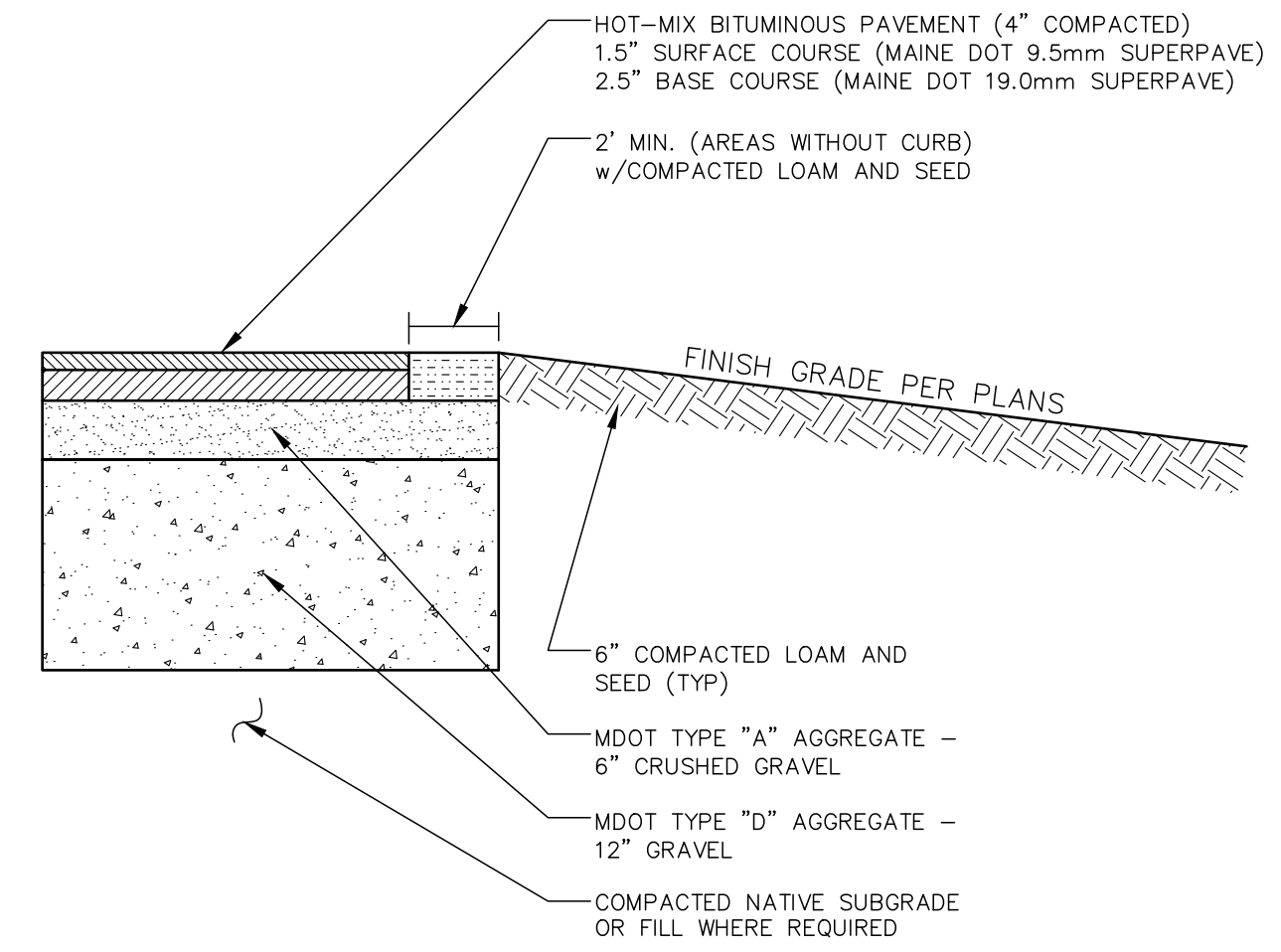


- NOTES**
- BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T 99, METHOD C. SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99, METHOD C.
 - ALL TRENCHING AND BACKFILL SHALL CONFORM WITH THE STANDARDS OF THE KITTEERY WATER DISTRICT.

WATER MAIN TRENCH NOT TO SCALE

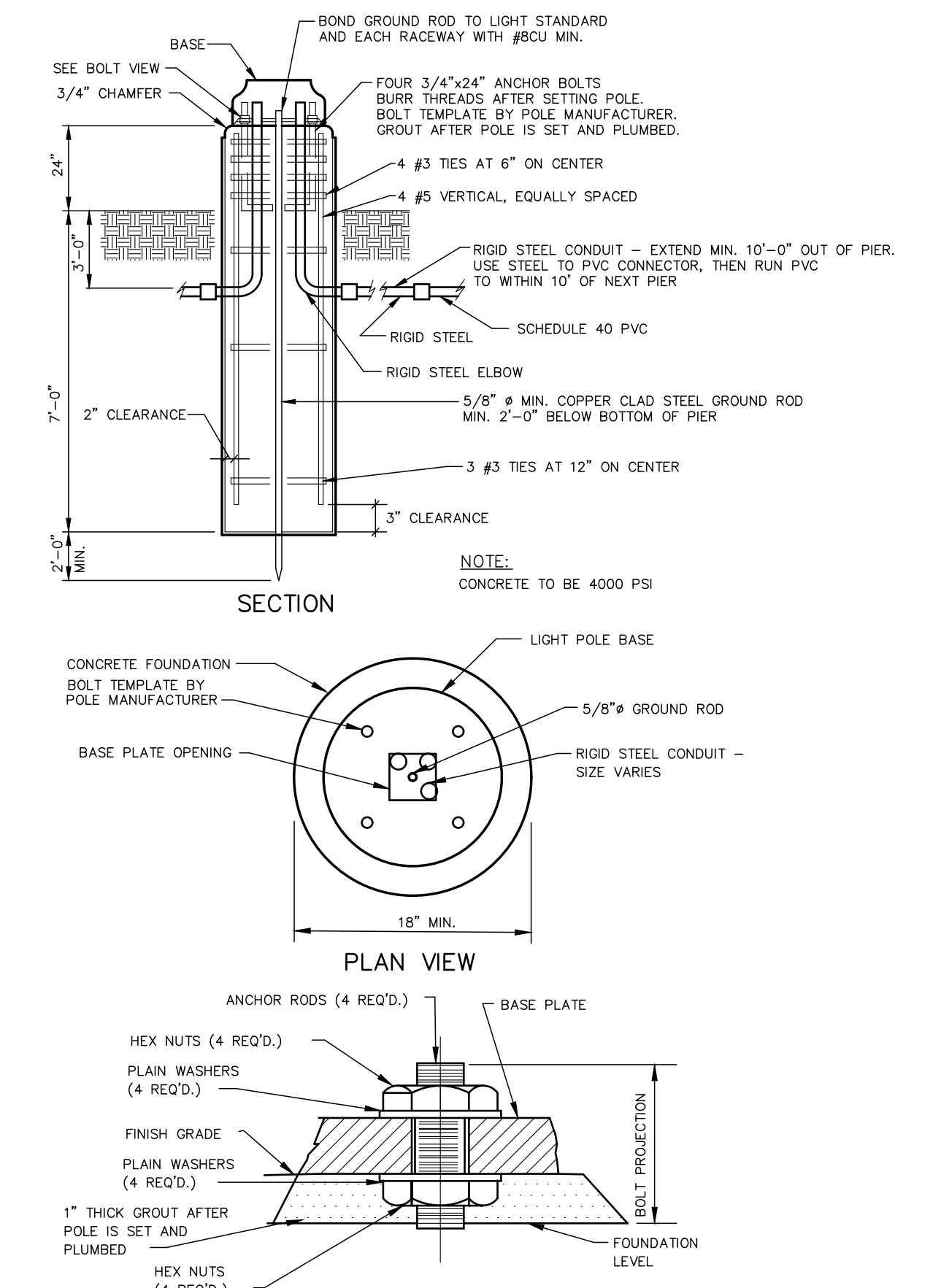
- STANDARD TRENCH NOTES**
- ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE: BACKFILL AS STATED IN THE TECHNICAL SPECIFICATIONS OR AS SHOWN ON THE DRAWING.
 - BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING THE GRADATION SHOWN IN THE TRENCH DETAIL. WHERE ORDERED BY THE ENGINEER TO STABILIZE THE BASE, SCREENED GRAVEL OR CRUSHED STONE 1-1/2 INCH TO 1/2 INCH SHALL BE USED.
 - SAND BLANKET: CLEAN SAND FREE FROM ORGANIC MATTER MEETING THE GRADATION SHOWN IN THE TRENCH DETAIL. BLANKET MAY BE REPLACED WITH BEDDING MATERIAL FOR CAST-IRON, DUCTILE IRON, AND REINFORCED CONCRETE PIPE PROVIDED THAT NO STONE LARGER THAN 2" IS IN CONTACT WITH THE PIPE AND THE GEOTEXTILE IS RELOCATED ACCORDINGLY.
 - SUITABLE MATERIAL: IN ROADS, ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, ALL WET OR SOFT MUCK, PEAT, OR CLAY, ALL EXCAVATED LEDGE MATERIAL, ALL ROCKS OVER 6 INCHES IN LARGEST DIMENSION, AND ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION. IN CROSS COUNTRY CONSTRUCTION, SUITABLE MATERIAL SHALL BE AS DESCRIBED ABOVE, EXCEPT THAT THE ENGINEER MAY PERMIT THE USE OF TOP SOIL, LOAM, MUCK, OR PEAT, IF SATISFIED THAT THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE AND PROVIDED THAT EASY ACCESS TO THE SEWER FOR MAINTENANCE AND POSSIBLE RECONSTRUCTION WILL BE PRESERVED.
 - BASE COURSE AND PAVEMENT SHALL MEET THE REQUIREMENTS OF THE MAINE DEPARTMENT OF TRANSPORTATION'S LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES - DIVISION 700.
 - SHEETING, IF REQUIRED: WHERE SHEETING IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID-DIAMETER, IT SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION 1 FOOT ABOVE THE TOP OF PIPE. WHERE SHEETING IS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE, IT SHALL BE CUT OFF AT LEAST 3 FEET BELOW FINISHED GRADE, BUT NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE.
 - W = MAXIMUM ALLOWABLE TRENCH WIDTH TO A PLANE 12 INCHES ABOVE THE PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, W SHALL BE NO MORE THAN 36 INCHES. FOR PIPES GREATER THAN 15 INCHES IN NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS PIPE OUTSIDE DIAMETER (O.D.) ALSO, W SHALL BE THE PAYMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED EXCAVATION BELOW GRADE.
 - FOR CROSS COUNTRY CONSTRUCTION, BACKFILL, FILL AND/OR LOAM SHALL BE MOUND TO A HEIGHT OF 6 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
 - CONCRETE FOR ENCASEMENT SHALL CONFORM TO THE MAINE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS STANDARD SPECIFICATION REQUIREMENTS FOR CLASS A (3000#) CONCRETE AS FOLLOWS:
CEMENT: 6.0 BAGS PER CUBIC YARD
WATER: 5.75 GALLONS PER BAG
CEMENT MAXIMUM SIZE OF AGGREGATE: 1 INCH
CONCRETE ENCASEMENT IS NOT ALLOWED FOR PVC PIPE.
 - CONCRETE FULL ENCASEMENT: IF FULL ENCASEMENT IS UTILIZED, DEPTH OF CONCRETE BELOW PIPE SHALL BE 1/4 I.D. (4" MINIMUM). BLOCK SUPPORT SHALL BE SOLID CONCRETE BLOCKS.
 - MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION DESIGN STANDARDS REQUIRE TEN FEET (10') SEPARATION BETWEEN WATER AND SEWER. REFER TO TOWN'S STANDARD SPECIFICATIONS FOR METHODS OF PROTECTION IN AREAS THAT CANNOT MEET THESE REQUIREMENTS.

WATER MAIN TRENCH NOT TO SCALE

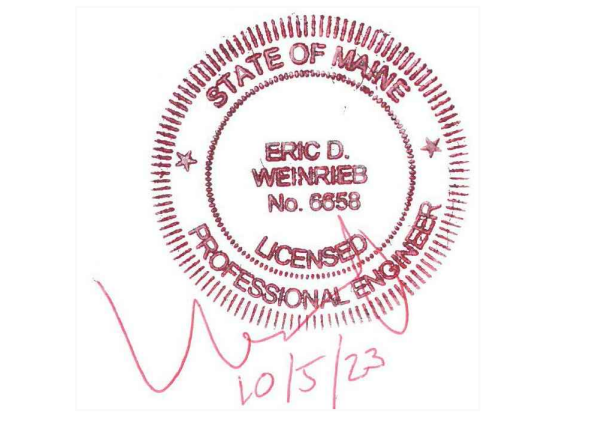


- NOTES**
- PROJECT GEOTECHNICAL REPORT MAY REQUIRE A DIFFERENT PAVEMENT CROSS SECTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR READING AND FOLLOWING ALL RECOMMENDATIONS IN THE GEOTECHNICAL REPORT. IN THE EVENT THAT THE REPORT AND CIVIL PLANS DIFFER, THE MORE STRINGENT SPECIFICATION SHALL APPLY.
 - ALL EXISTING FILL, BURIED ORGANIC MATTER, CLAY, LOAM, MUCK, AND/OR OTHER QUESTIONABLE MATERIAL SHALL BE REMOVED FROM BELOW ALL PAVEMENT, SHOULDERS AND UNDERGROUND PIPING/UTILITIES TO DEPTHS RECOMMENDED IN GEOTECHNICAL REPORT.
 - SUBGRADE SHALL BE PROFFERED A MINIMUM OF 6 PASSES WITH A 10-TON VIBRATORY COMPACTOR OPERATING AT PEAK RATED FREQUENCY OR BY MEANS APPROVED BY THE ENGINEER.
 - FILL BELOW PAVEMENT GRADES SHALL BE GRANULAR BORROW COMPACTED PER MDT REQUIREMENTS.
 - SITWORK CONTRACTOR SHALL COORDINATE GEOTECHNICAL ENGINEERING INSPECTIONS WITH THE CONSTRUCTION MANAGER PRIOR TO PLACING GRAVELS.
 - TACK COAT SHALL BE APPLIED BETWEEN SUCCESSIVE LIFTS OF ASPHALT.
 - THE BITUMINOUS PAVEMENT SHALL BE COMPACTED TO 92 TO 97 PERCENT OF ITS THEORETICAL MAXIMUM DENSITY AS DETERMINED BY ASTM D-2041. THE BASE AND SUBBASE MATERIALS SHOULD BE COMPACTED TO AT LEAST 95 PERCENT OF THEIR MAXIMUM DRY DENSITIES AS DETERMINED BY ASTM D-1557.

SITE PAVEMENT CROSS SECTION NOT TO SCALE



LIGHT POLE BASE DETAIL NOT TO SCALE



NOT FOR CONSTRUCTION
ISSUED FOR:
PRELIM. SITE PLAN APPROVAL
ISSUE DATE:
OCTOBER 5, 2023

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EDW	08/24/23
1	TOWN COMMENTS	EDW	10/05/23

DRAWN BY: _____ RMB
APPROVED BY: _____ EDW
DRAWING FILE: 5431DETAILS.dwg

SCALE:
AS SHOWN

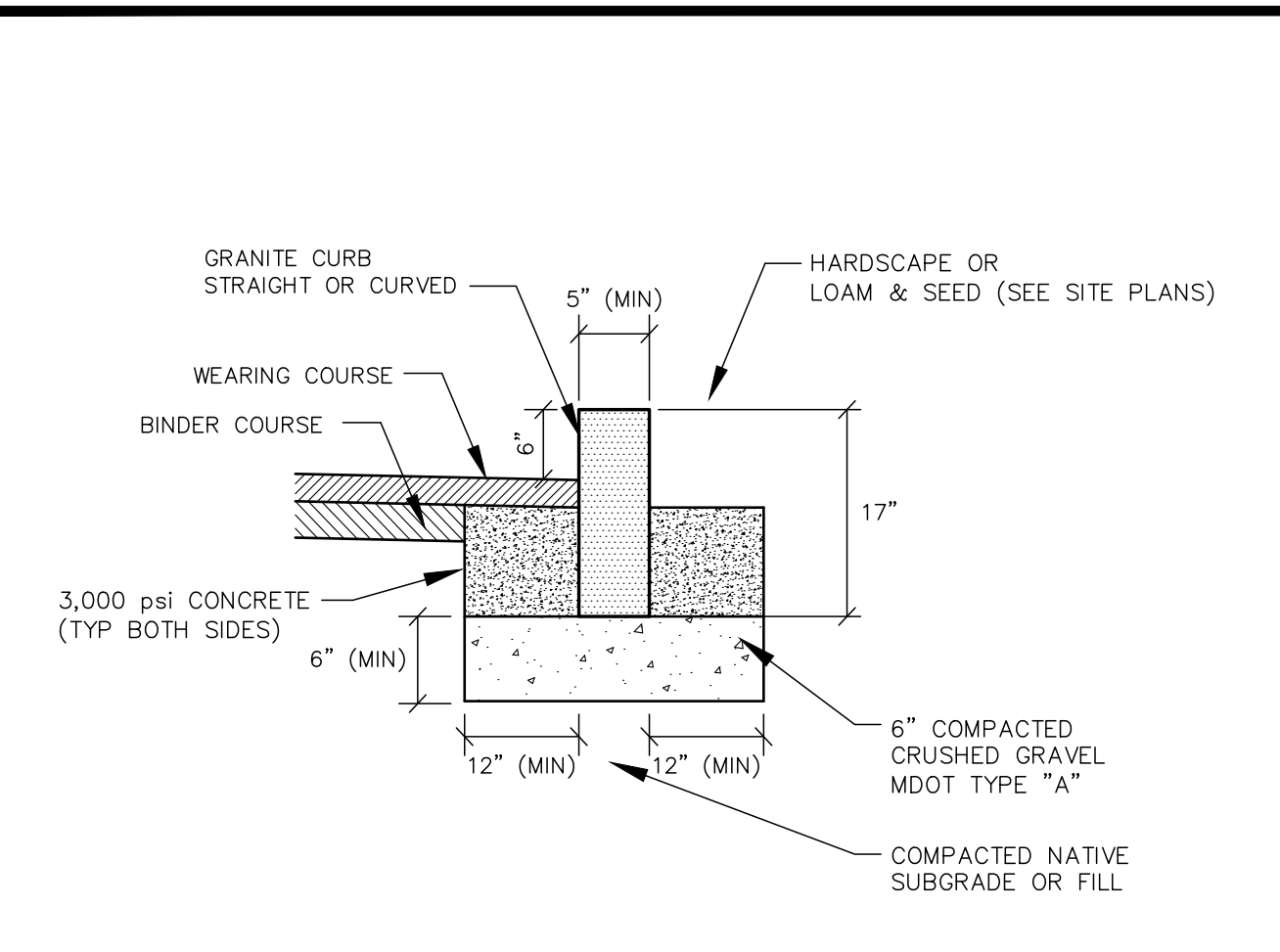
OWNER:
27 WENTWORTH STREET, LLC & MREV KITTEERY INN, LLC
401 EDGEWATER PLACE,
SUITE 570
WAKEFIELD, MA 01880

APPLICANT:
MADBURY REAL ESTATE VENTURES
401 EDGEWATER PLACE,
SUITE 570
WAKEFIELD, MA 01880

PROJECT:
THE FORESIDE INN
TAX MAP 9
LOTS 37 & 38
27 & 29 WENTWORTH STREET
KITTEERY, MAINE

TITLE:
DETAIL SHEET

SHEET NUMBER:
C - 9

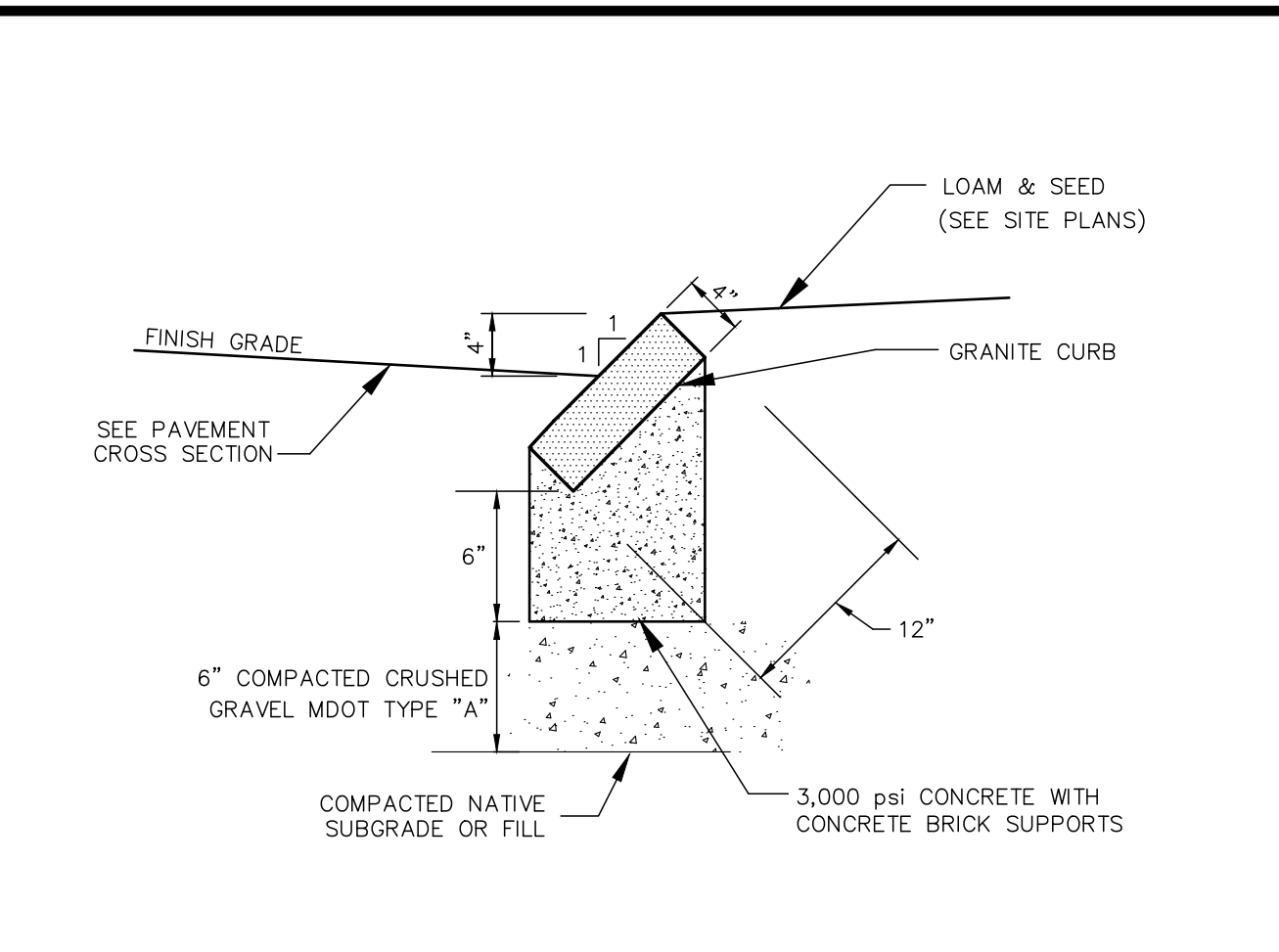


NOTES:

- SEE PLANS FOR CURB LOCATION.
- ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
- MINIMUM LENGTH OF CURB STONES = 3'
- MAXIMUM LENGTH OF CURB STONES = 10'
- MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES - SEE CHART.
- CURB ENDS TO ROUNDED AND BATTERED FACES TO BE CUT WHEN CALLED FOR ON THE PLANS.

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'

VERTICAL GRANITE CURB NOT TO SCALE

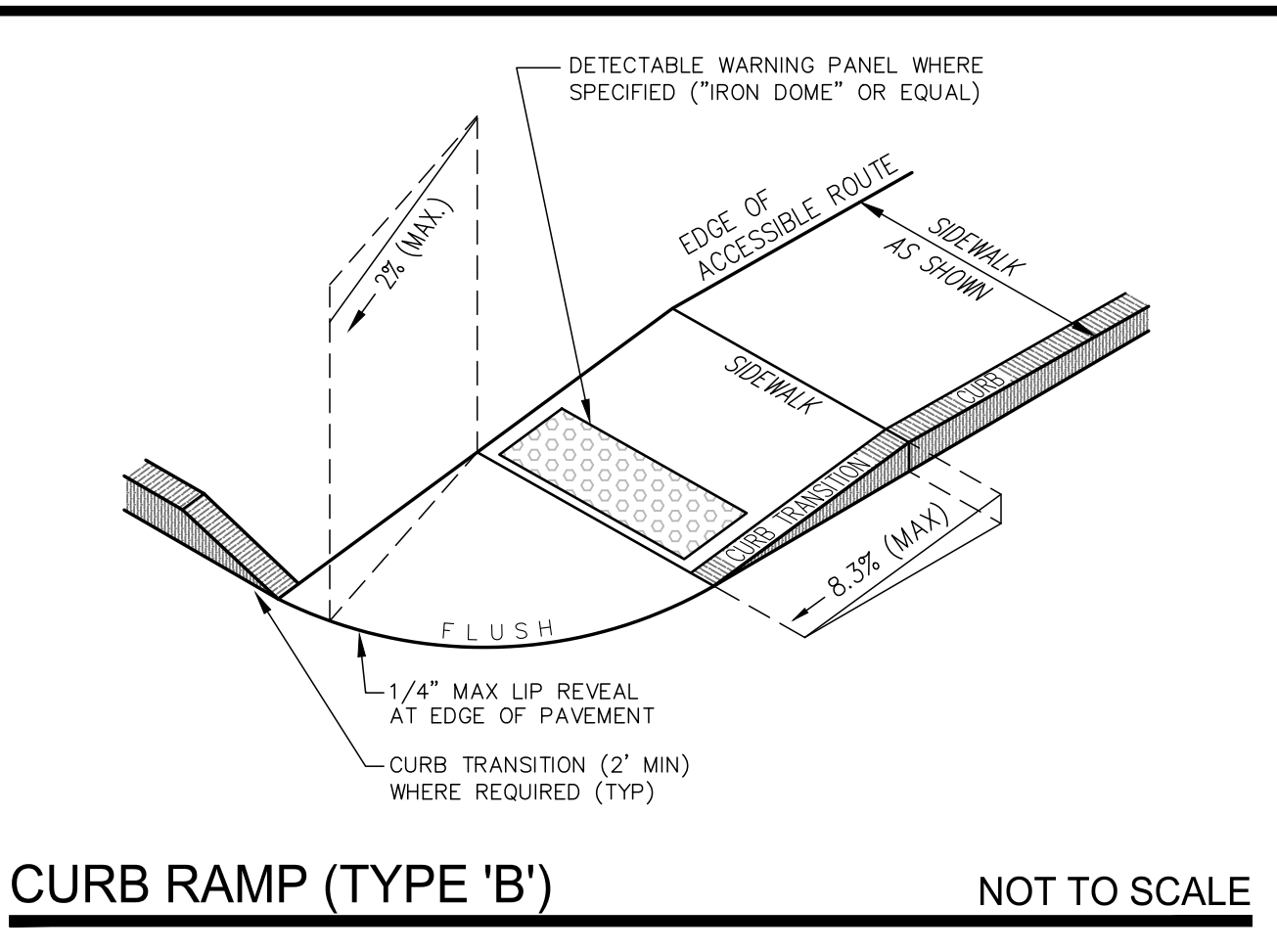


NOTES:

- SEE SITE PLAN FOR LIMITS OF CURBING
- ADJOINING STONES OF STRAIGHT CURB LAID ON CURVES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH
- MINIMUM LENGTH OF STRAIGHT CURB STONES = 18"
- MAXIMUM LENGTH OF STRAIGHT CURB STONES = 8'
- MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES - SEE CHART

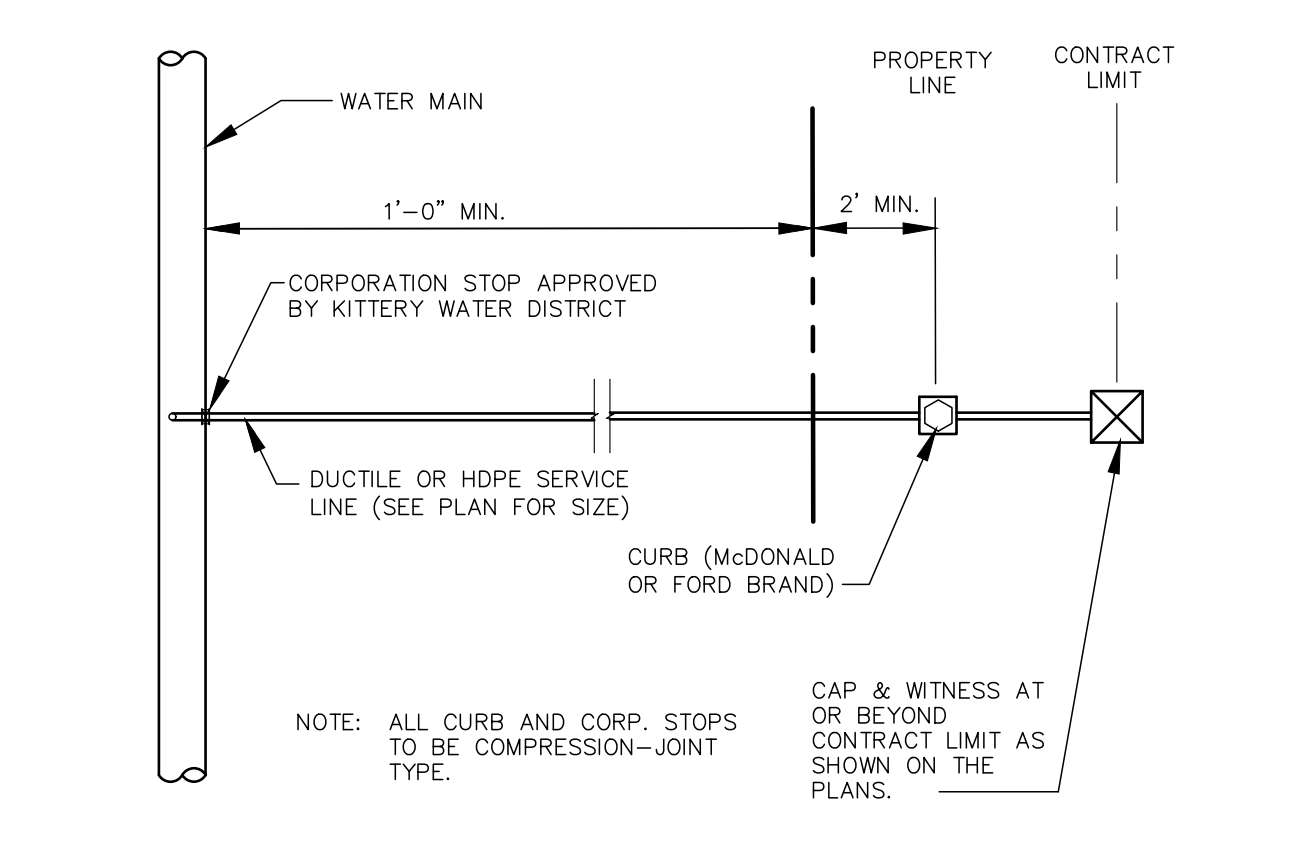
RADIUS FOR STONES WITH SQUARE JOINTS	MAXIMUM LENGTH
16'-28'	1'-6"
29'-41'	2'
42'-55'	3'
56'-68'	4'
69'-82'	5'
83'-96'	6'
97'-110'	7'
OVER 110'	8'

SLOPED GRANITE CURB NOT TO SCALE

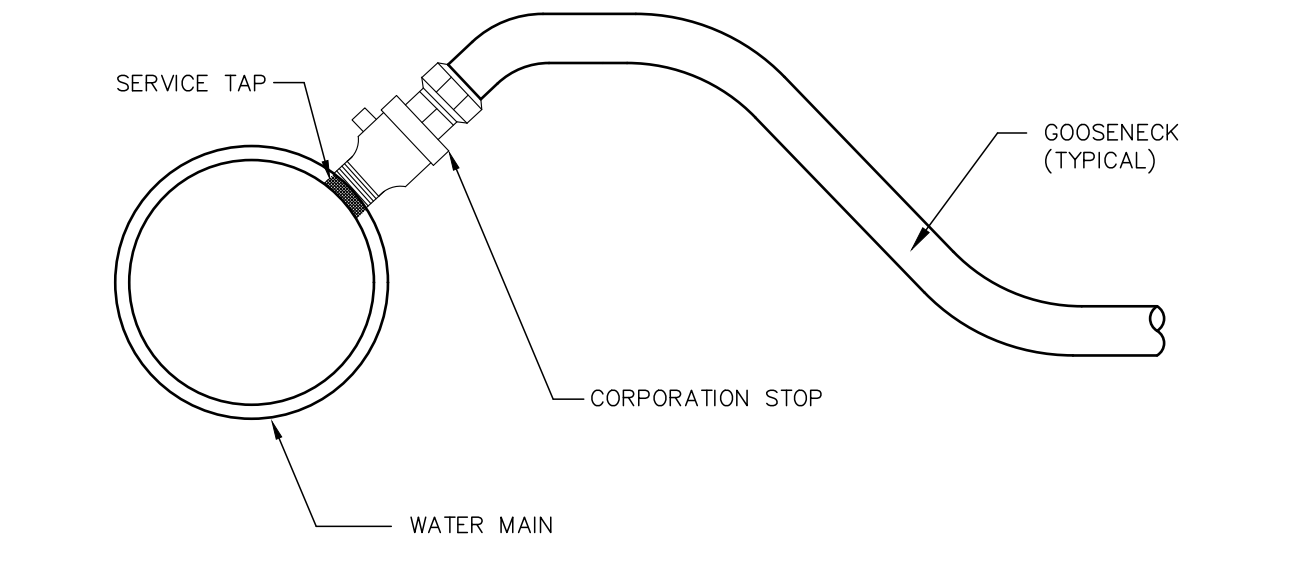


- NOTES APPLICABLE TO ALL CURB RAMPS:**
- THE MAXIMUM ALLOWABLE CROSS SLOPE OF AN ACCESSIBLE ROUTE (SIDEWALK) AND CURB SHALL BE 2%.
 - THE MAXIMUM ALLOWABLE RUNNING SLOPE OF AN ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
 - THE MAXIMUM ALLOWABLE RUNNING SLOPE OF AN ACCESSIBLE ROUTE (SIDEWALK) CURB RAMP SHALL BE 8.3% FOR A MAXIMUM ELEVATION CHANGE OF 6".
 - CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
 - BASE OF RAMP SHALL BE GRADED TO PREVENT THE PONDING OF WATER.
 - SEE CONCRETE SIDEWALK SECTION FOR RAMP CONSTRUCTION.
 - ALL CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH AMERICANS WITH DISABILITIES ACT (ADA), PROWAG R305.21 AND ALL APPLICABLE CODES.
 - FLUSH CURB SECTIONS SHALL HAVE A MAXIMUM LIP REVEAL OF 1/4" WITH A BEVEL AT THE EDGE OF PAVEMENT.
 - EDGES OF CONCRETE SIDEWALK FOOTINGS ALONG FLUSH CURBS SHALL BE HAUNCHED SO AS TO EXTEND TO A MINIMUM DEPTH OF 1' BELOW FINISH GRADE.
 - NO RAMP SHALL BE LESS THAN 4' IN WIDTH.
 - CURB RAMPS SHALL HAVE A FLAT 2% MAX LANDING AT THE TOP AND BOTTOM OF THE RAMPS WHEN THERE IS A CHANGE IN DIRECTION.

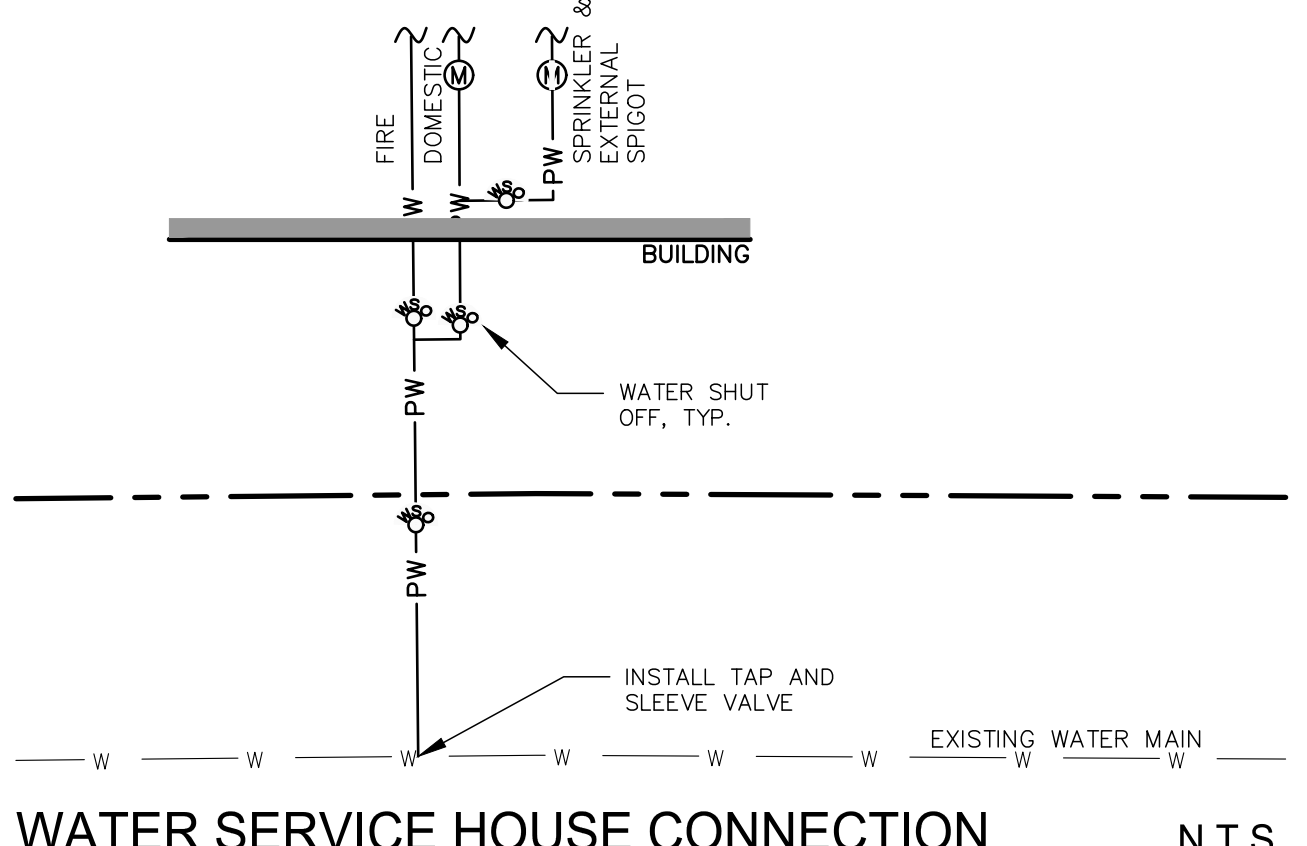
CURB RAMP NOTES NOT TO SCALE



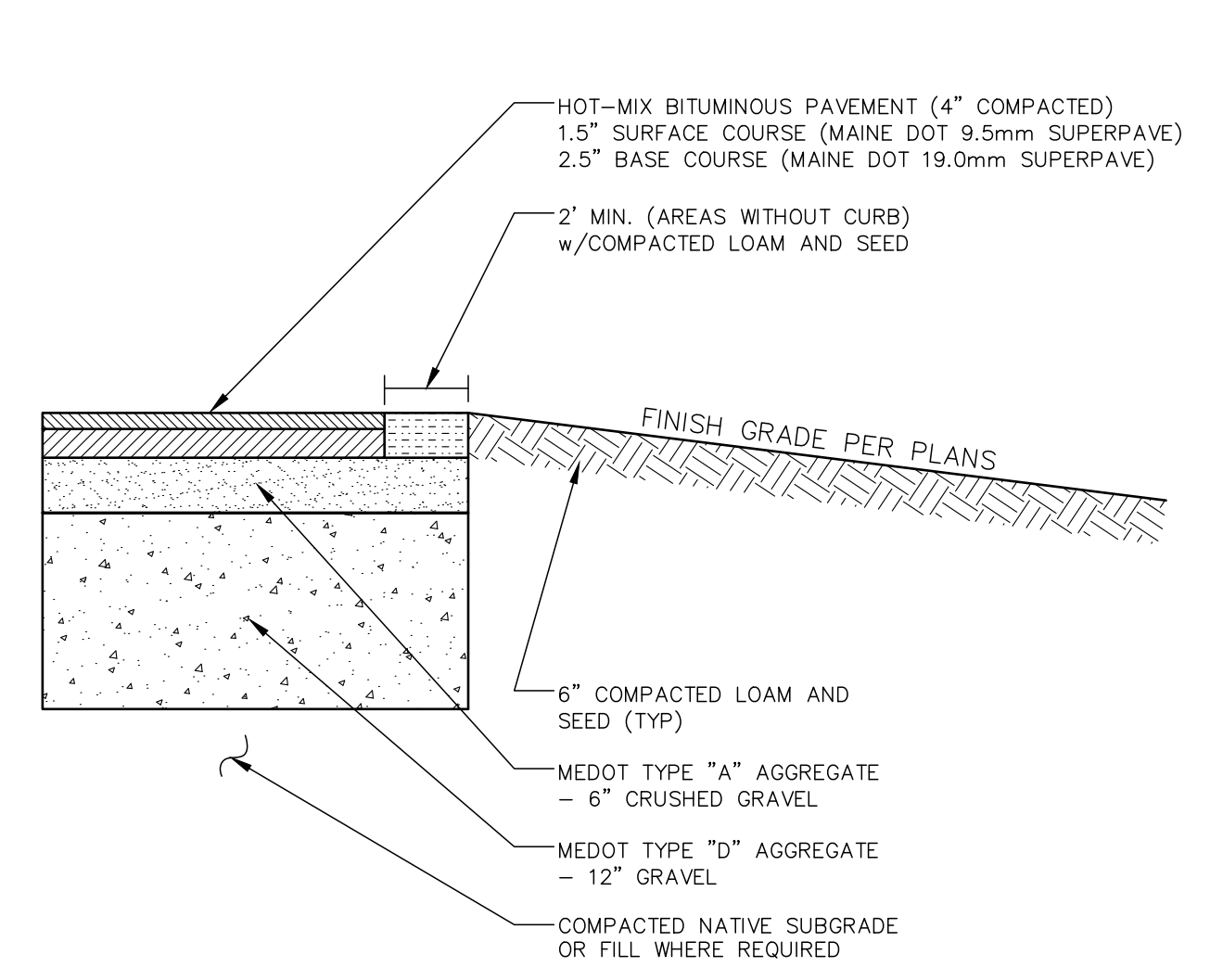
NOTE: ALL CURB AND CORP. STOPS TO BE COMPRESSION-JOINT TYPE. CAP & WITNESS AT OR BEYOND CONTRACT LIMIT AS SHOWN ON THE PLANS.



WATER SERVICE CONNECTION NOT TO SCALE

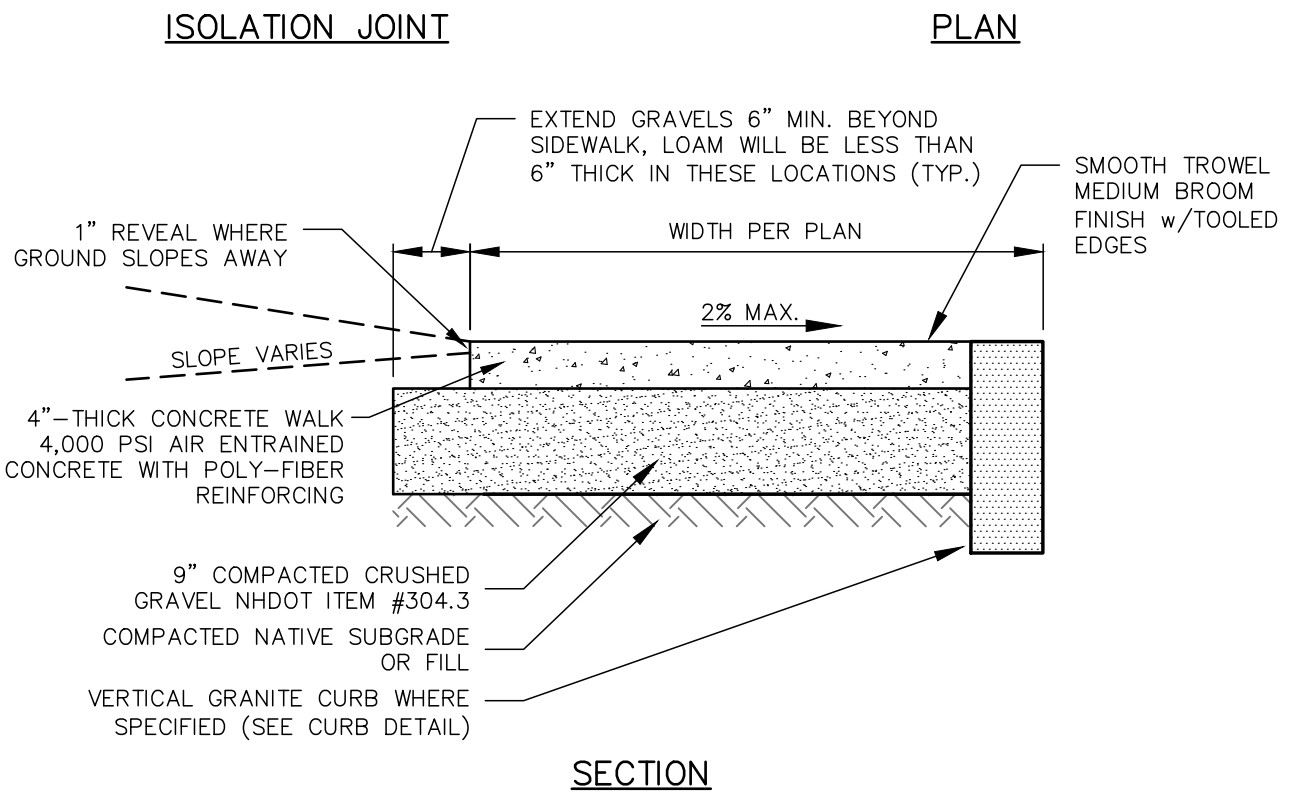
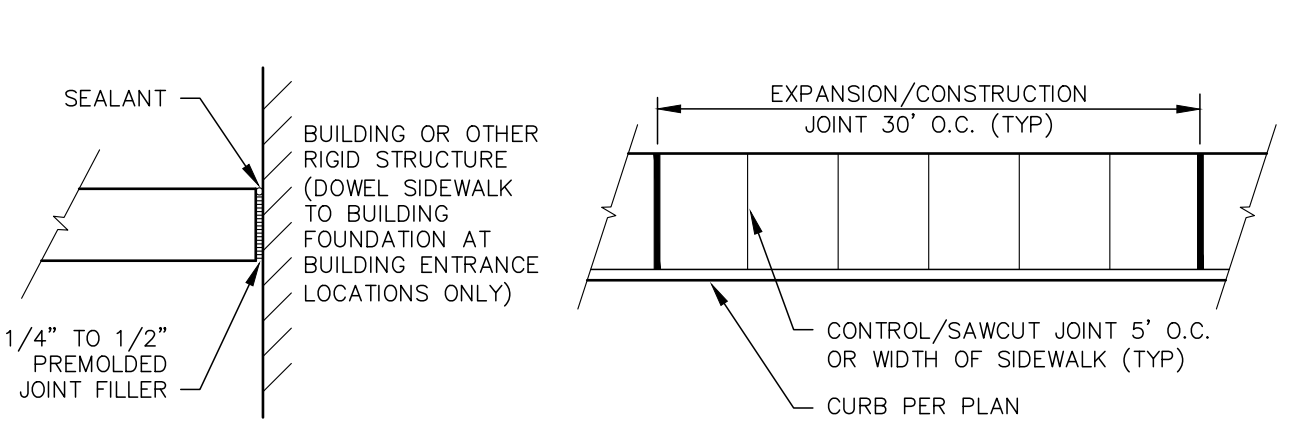
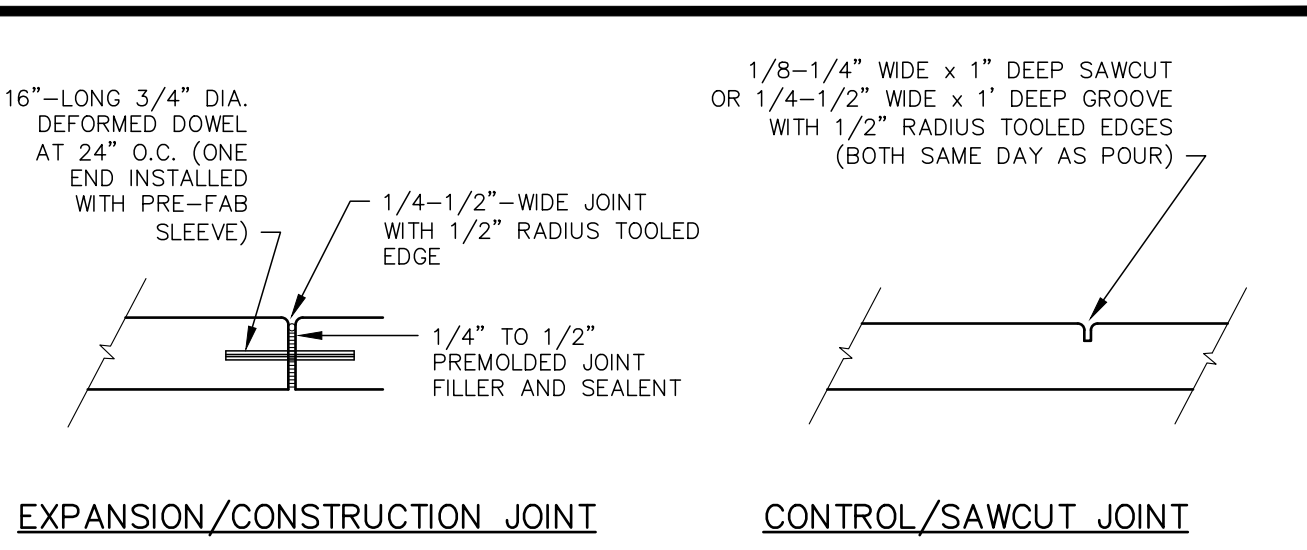


WATER SERVICE HOUSE CONNECTION N.T.S.

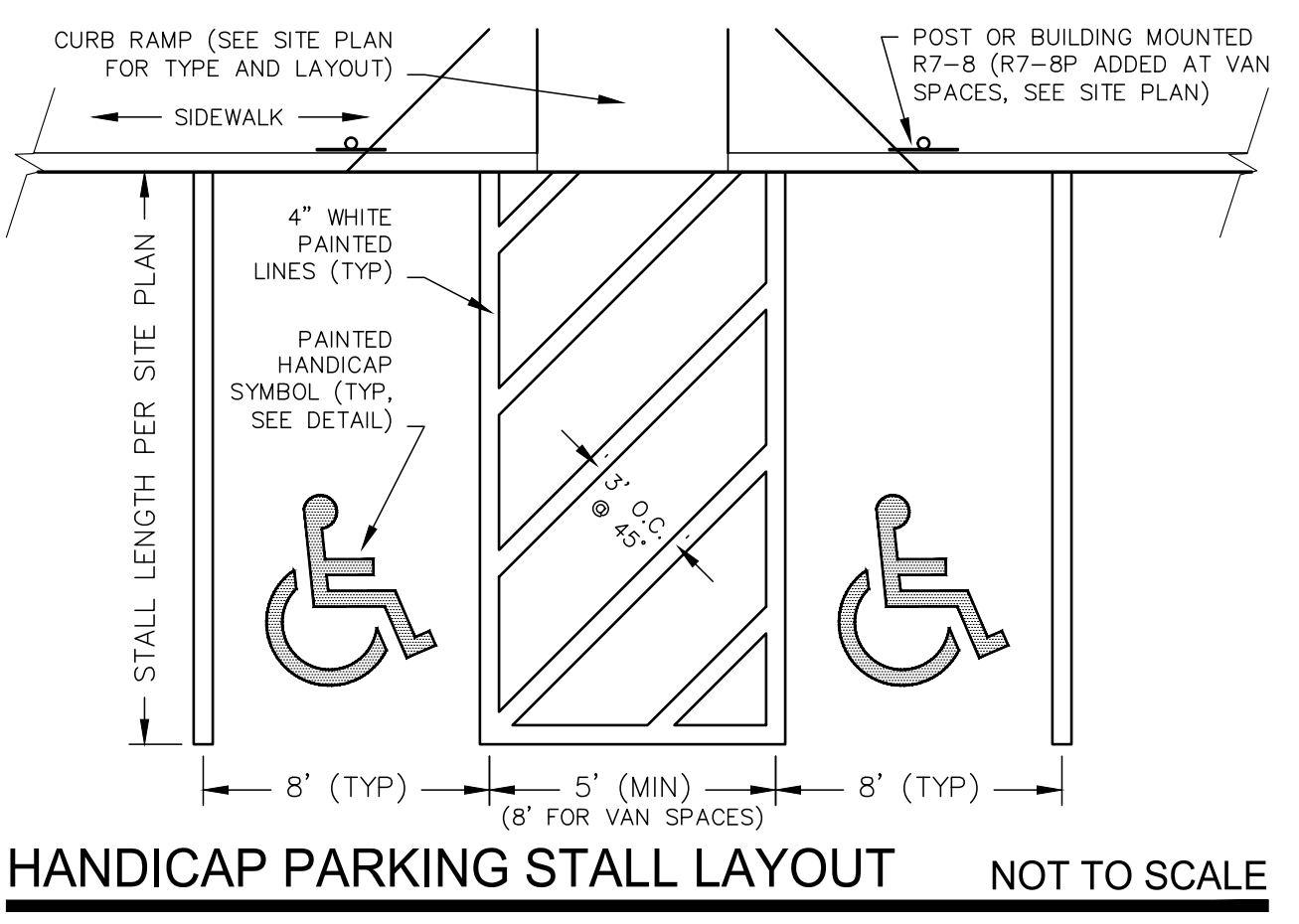


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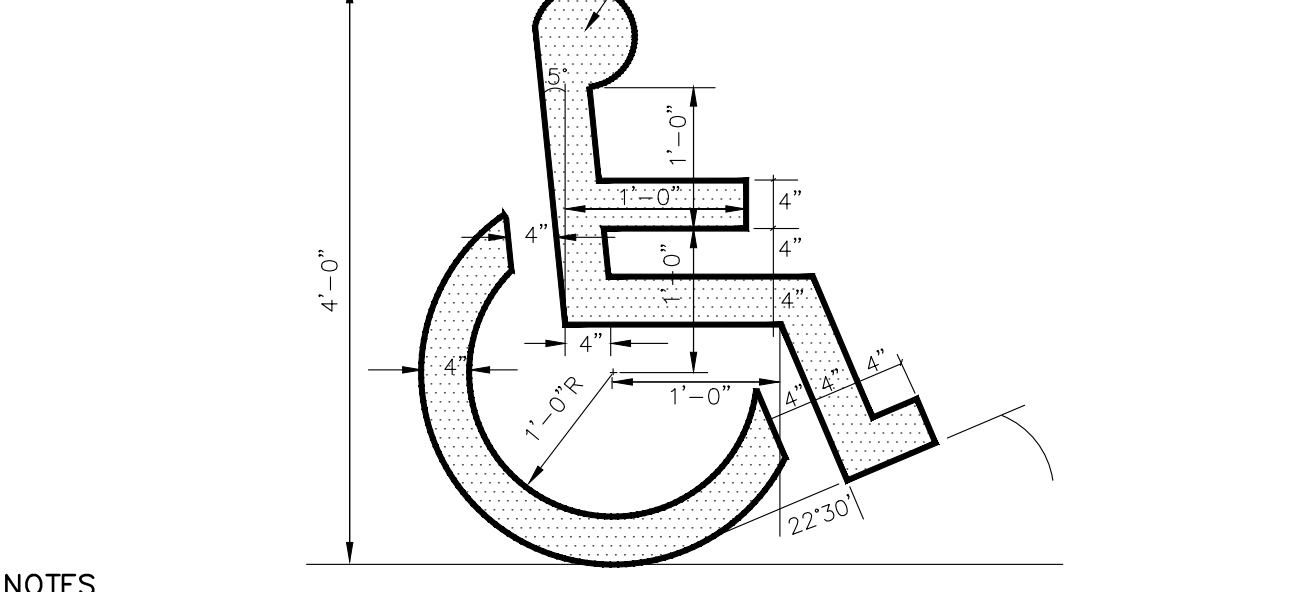
SITE PAVEMENT CROSS SECTION NOT TO SCALE



CONCRETE SIDEWALK NOT TO SCALE



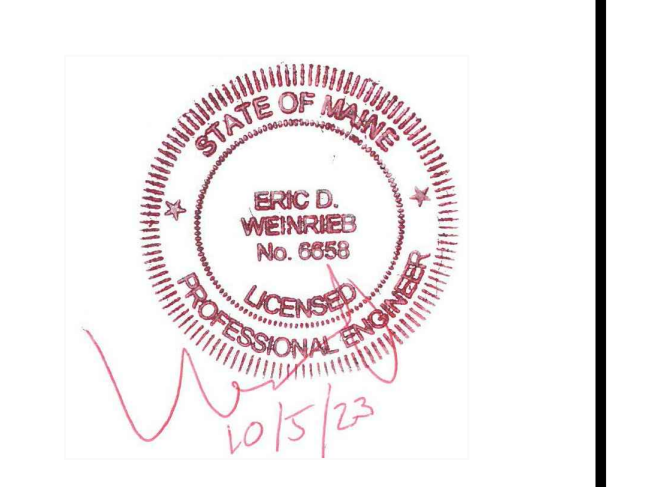
HANDICAP PARKING STALL LAYOUT NOT TO SCALE



- NOTES:**
- SYMBOL TO BE PAINTED IN ALL HANDICAPPED ACCESSIBLE SPACES IN WHITE PAINT (BLUE-PAINTED SQUARE BACKGROUND OPTIONAL).

PAINTED HANDICAP SYMBOL NOT TO SCALE

ALTUS ENGINEERING
 133 Court Street Portsmouth, NH 03801
 (603) 433-2335 www.altus-eng.com



NOT FOR CONSTRUCTION

ISSUED FOR:
PRELIM. SITE PLAN APPROVAL

ISSUE DATE:
OCTOBER 5, 2023

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EDW	08/24/23
1	TOWN COMMENTS	EDW	10/05/23

DRAWN BY: _____ RMB
 APPROVED BY: _____ EDW
 DRAWING FILE: 5431DETAILS.dwg

SCALE:
 AS SHOWN

OWNER:
 27 WENTWORTH STREET, LLC
 & MREV KITTERY INN, LLC
 401 EDGEWATER PLACE,
 SUITE 570
 WAKEFIELD, MA 01880

APPLICANT:
 MADBURY REAL ESTATE
 VENTURES
 401 EDGEWATER PLACE,
 SUITE 570
 WAKEFIELD, MA 01880

PROJECT:
 THE FORESIDE INN

TAX MAP 9
 LOTS 37 & 38
 27 & 29 WENTWORTH STREET
 KITTERY, MAINE

TITLE:
 DETAIL SHEET

SHEET NUMBER:
 C - 10

27-29 WENTWORTH STREET

KITTERY, MAINE 03904

SITE CONTEXT:



5 WHIPPLE ROAD



9-11 WHIPPLE ROAD



15 WHIPPLE ROAD



6-8 WHIPPLE ROAD



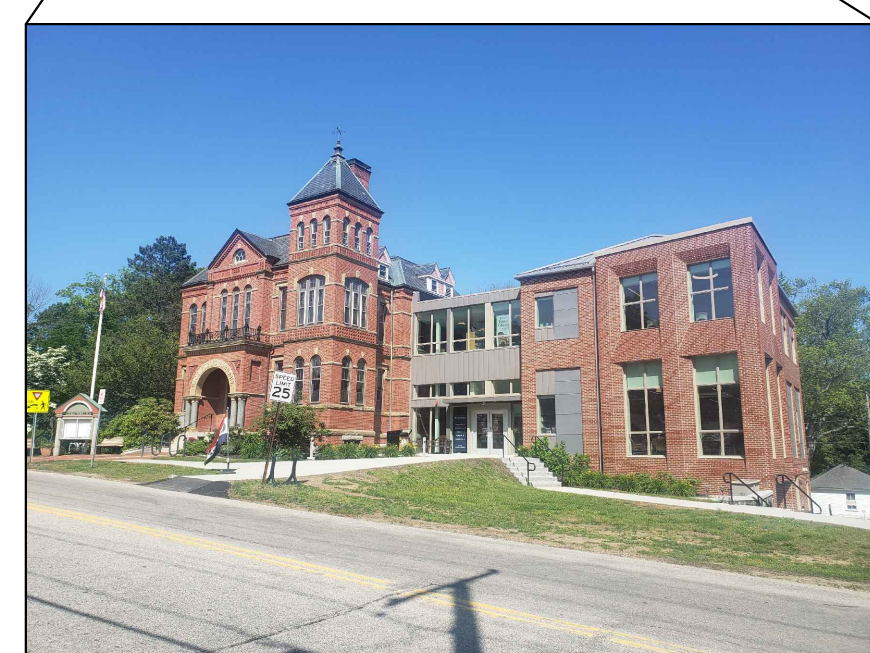
29 WENTWORTH - PROJECT SITE



27 WENTWORTH - PROJECT SITE



12 DAME STREET



8 WENTWORTH STREET



23-25 WENTWORTH STREET

PROJECT DESCRIPTION:

REDEVELOPMENT OF TWO SEPARATE INNS LOCATED AT 27 AND 29 WENTWORTH STREET. THE SITES WILL BE OPERATED AS TWO INDEPENDENT BOUTIQUE INNS.

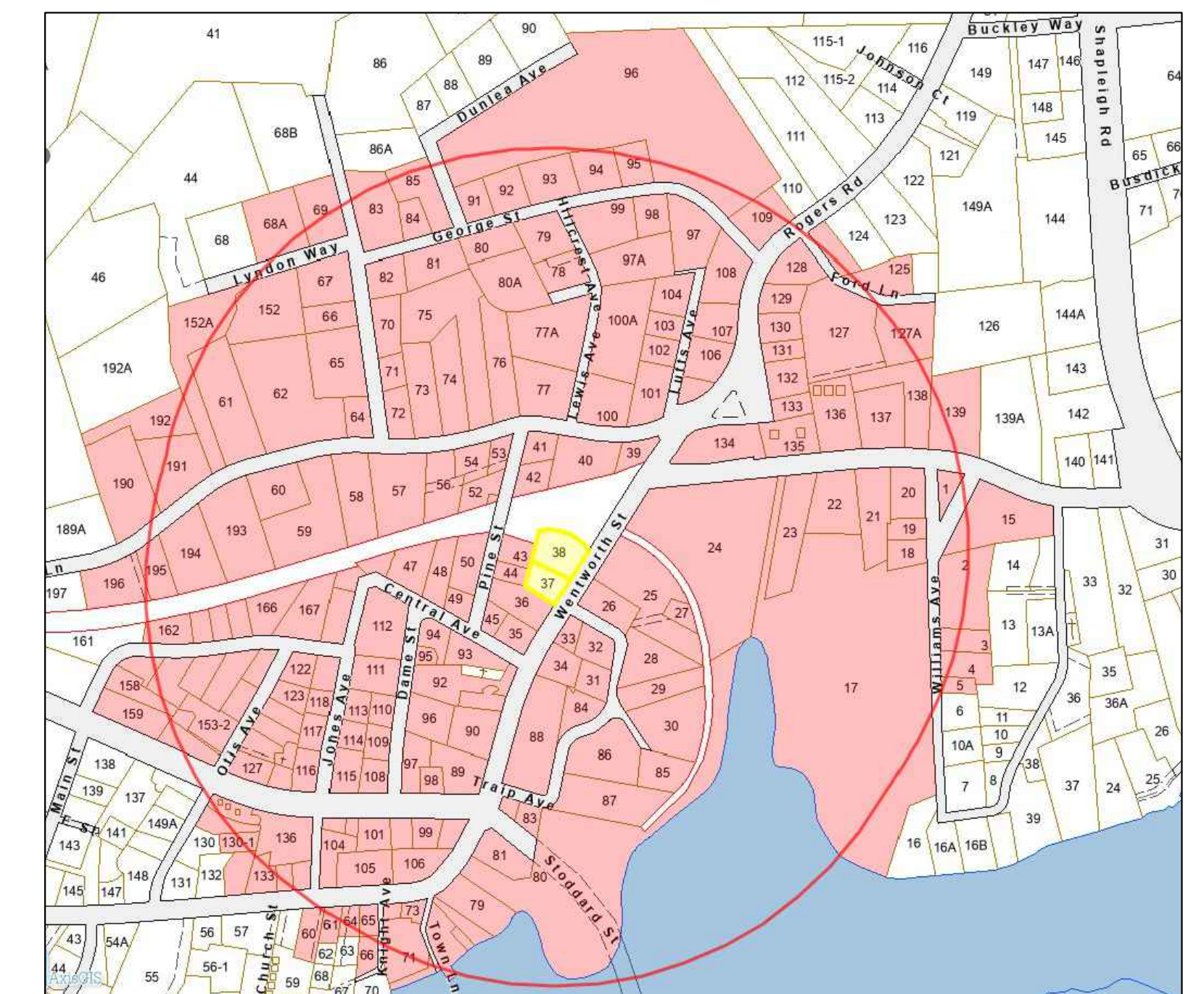
- WORK AT 27 WENTWORTH WILL INCLUDE:
- DEMOLITION OF THE CURRENT, NON-CONFORMING STRUCTURE.
 - CONSTRUCTION OF TWELVE RENTAL UNITS
 - DEVELOPMENT OF THE SITE TO PROVIDE OFF STREET PARKING FOR THE INN.

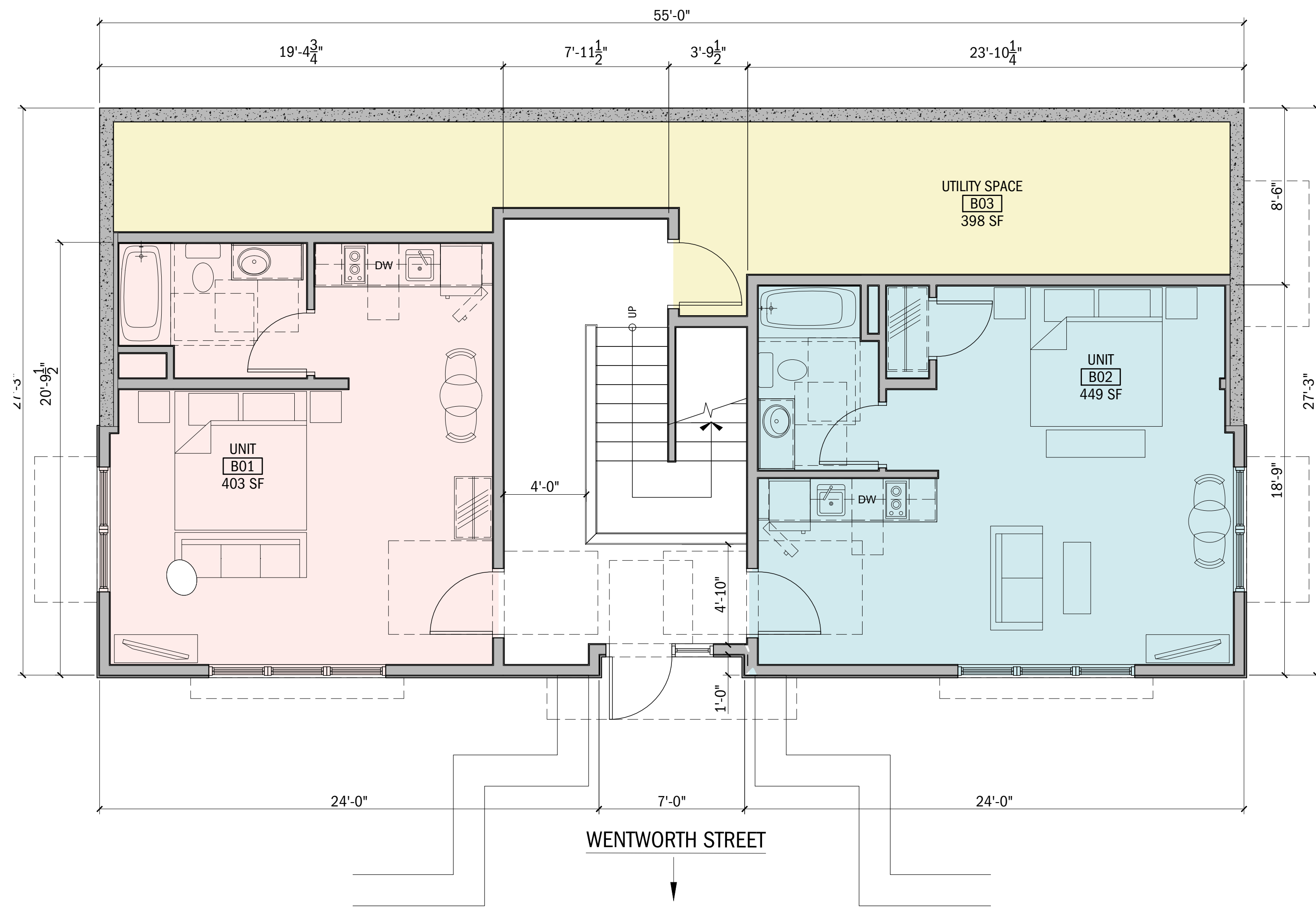
- WORK AT 29 WENTWORTH WILL INCLUDE:
- PARTIAL DEMOLITION WILL ALLOW FOR RENOVATION OF THE ORIGINAL 1800s ERA STRUCTURE AND AN ADDITION TO THIS INTO TWELVE RENTAL UNITS AND AN ADDITIONAL INN KEEPER'S UNIT.
 - DEVELOPMENT OF THE SITE TO PROVIDE OFF STREET PARKING FOR THE INN.

DRAWING INDEX:

- 01 TITLE SHEET AND SITE CONTEXT
- 02 27 WENTWORTH ST - FLOOR PLANS
- 03 27 WENTWORTH ST - FLOOR PLANS - CONTINUED
- 04 27 WENTWORTH ST - ROOF PLAN
- 05 29 WENTWORTH ST - FLOOR PLANS
- 06 29 WENTWORTH ST - FLOOR PLANS - CONTINUED
- 07 27 WENTWORTH ST - ROOF PLAN
- 08 27 WENTWORTH ST - EXTERIOR ELEVATIONS
- 09 27 WENTWORTH ST - EXTERIOR ELEVATIONS
- 00 29 WENTWORTH ST - EXTERIOR ELEVATION
- 01 29 WENTWORTH ST - EXTERIOR ELEVATION
- 12 29 WENTWORTH ST - EXTERIOR ELEVATION
- 13 29 WENTWORTH ST - EXTERIOR ELEVATION
- 14 PERSPECTIVE VIEW
- 15 PERSPECTIVE VIEW
- 16 PERSPECTIVE VIEW

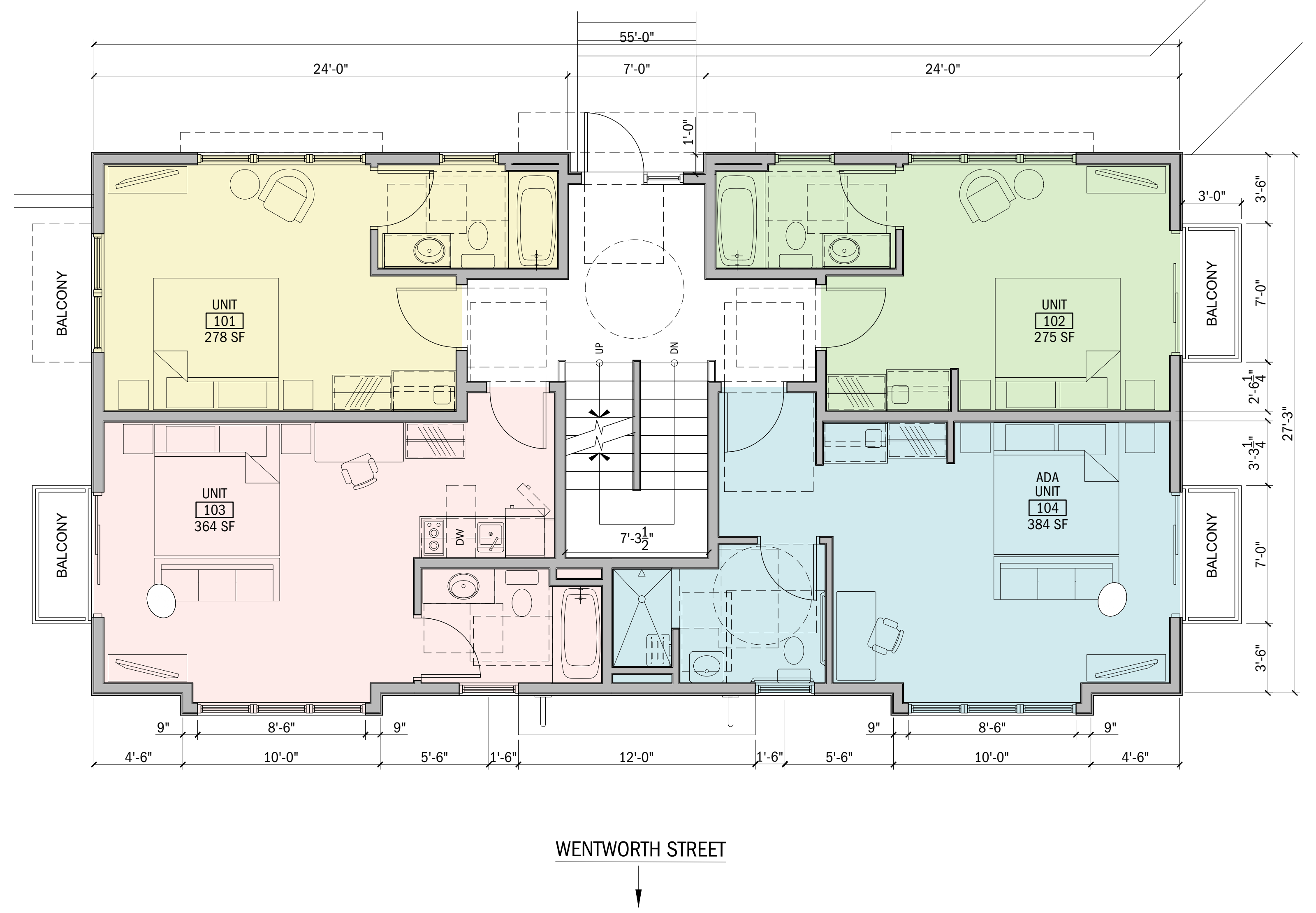
SITE ABUTTERS WITHIN 1000' OF SITE





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

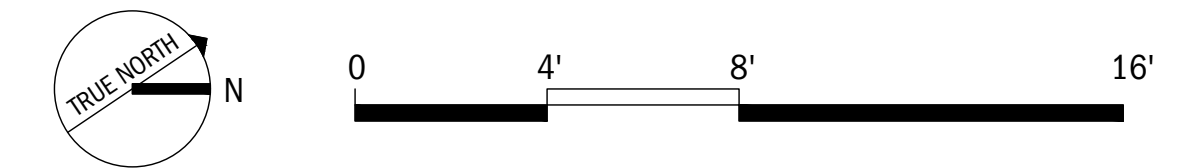
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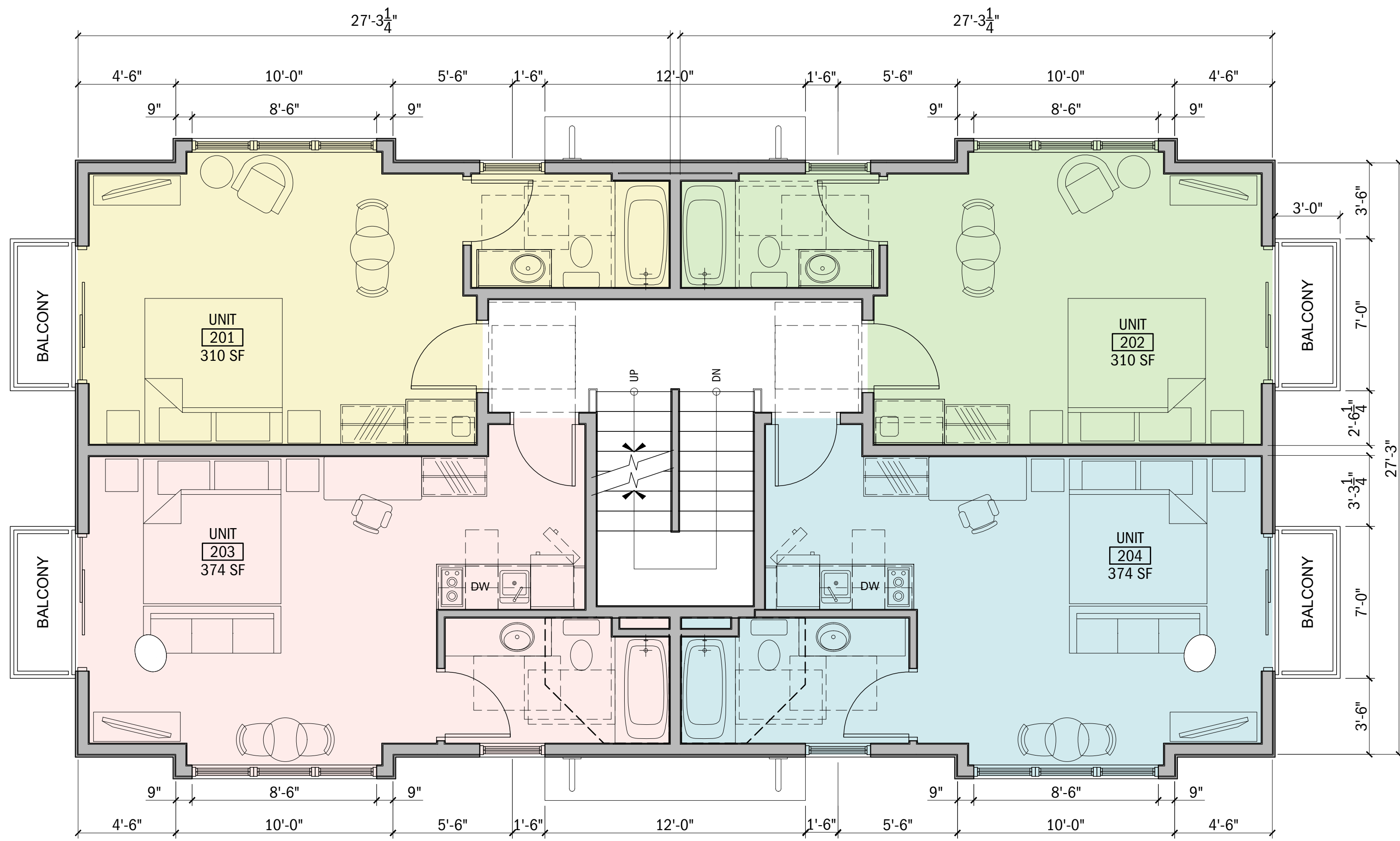


FIRST FLOOR PLAN
SCALE: 1/4"=1'-0"

2

27 WENTWORTH ST			
FLOOR	ROOM #	ROOM TYPE	AREA
BASEMENT FLOOR	B01	SUITE	403 SF
	B02	SUITE	449 SF
FIRST FLOOR	101	BUSINESS	278 SF
	102	BUSINESS	274 SF
	103	SUITE	364 SF
	104 (ADA)	BUSINESS	384 SF
SECOND FLOOR	201	BUSINESS	310 SF
	202	BUSINESS	310 SF
	203	SUITE	374 SF
	204	SUITE	374 SF
THIRD FLOOR	301	SUITE	452 SF
	302	SUITE	452 SF
ROOM TOTALS		BUSINESS	5
		SUITES	7
		TOTAL	12



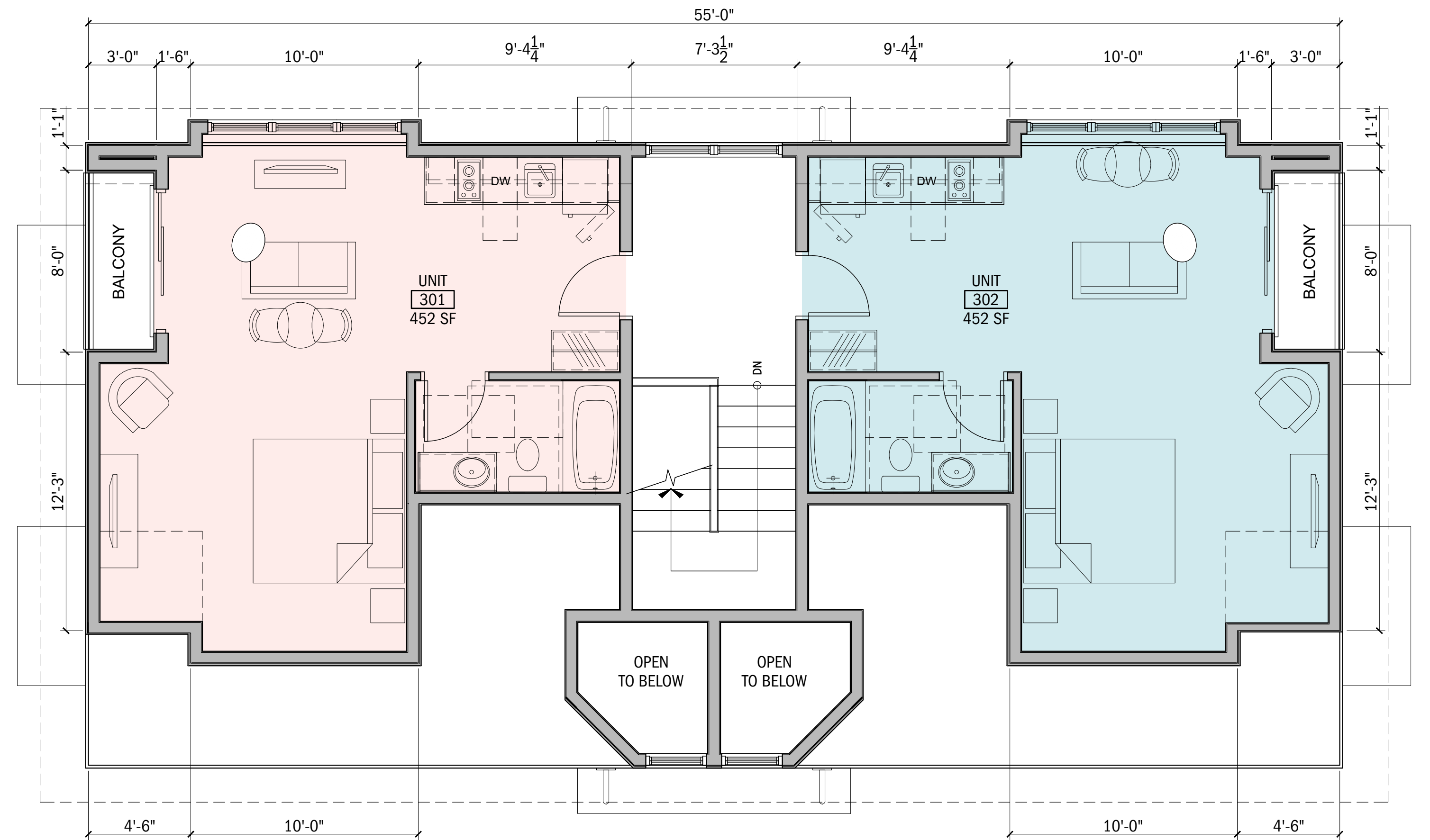


WENTWORTH STREET



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

1



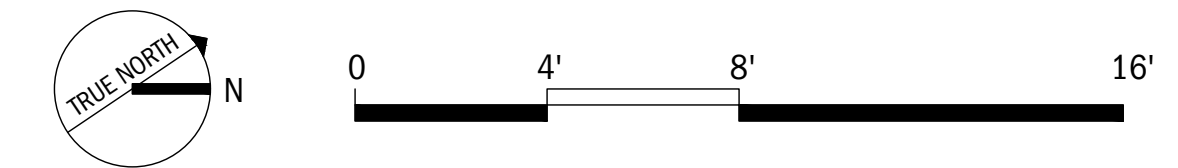
WENTWORTH STREET

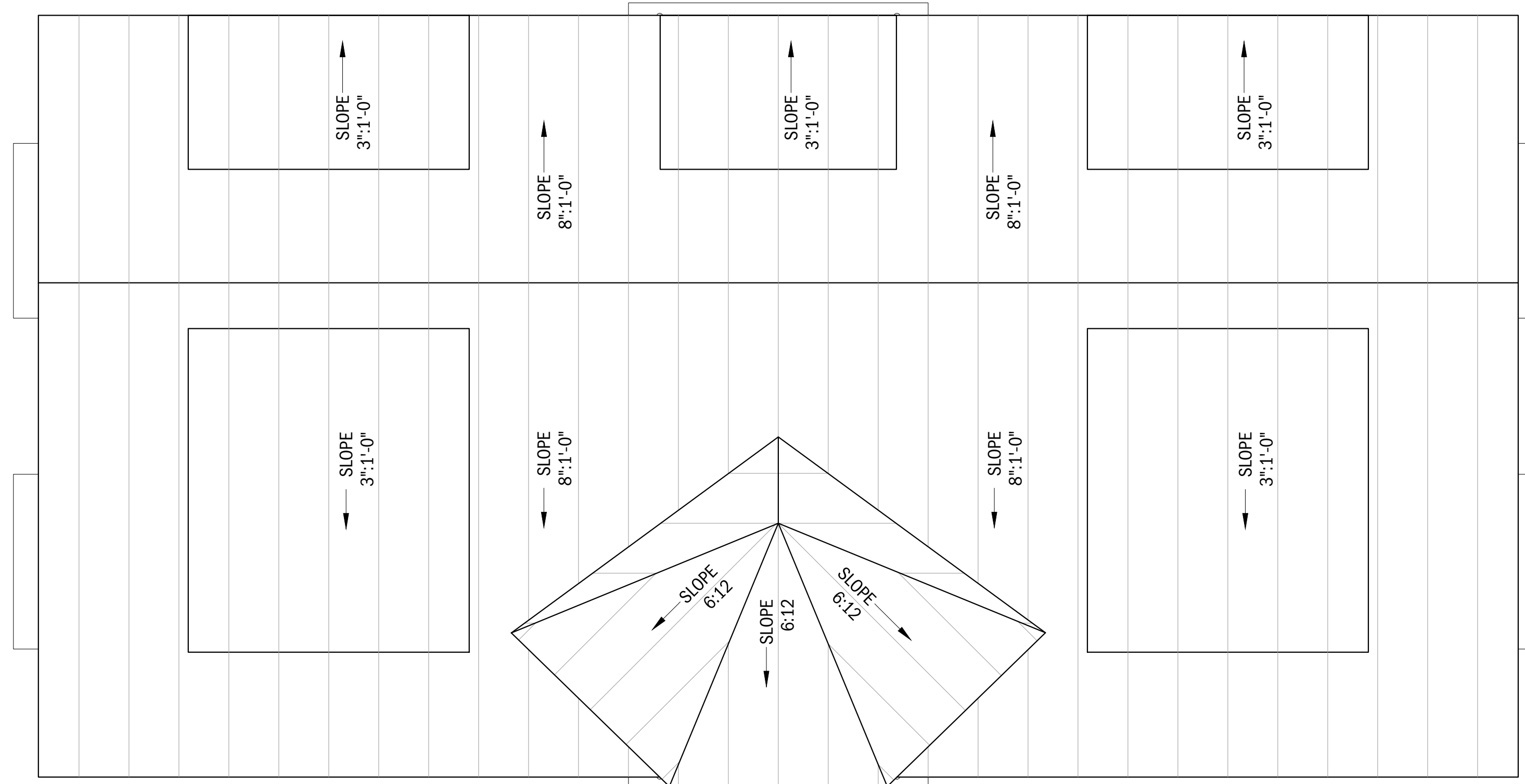


THIRD FLOOR PLAN
SCALE: 1/4"=1'-0"

2

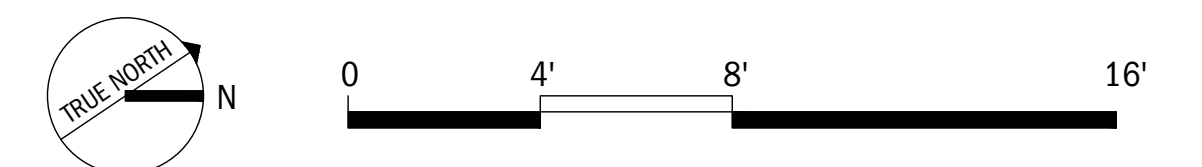
27 WENTWORTH ST			
	ROOM #	ROOM TYPE	AREA
BASEMENT FLOOR	B01	SUITE	403 SF
	B02	SUITE	449 SF
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ROOM TOTALS	BUSINESS		5
	SUITES		7
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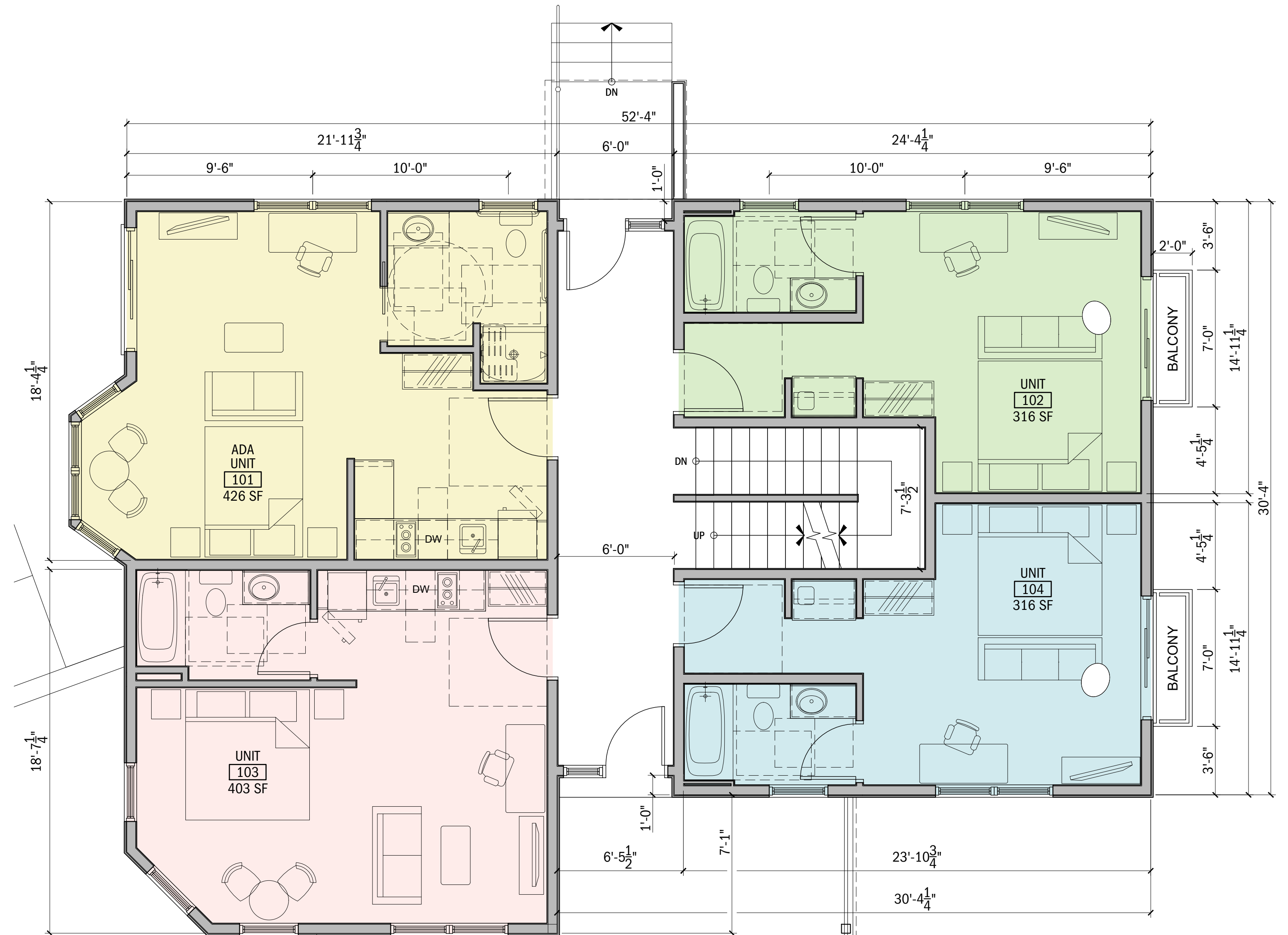
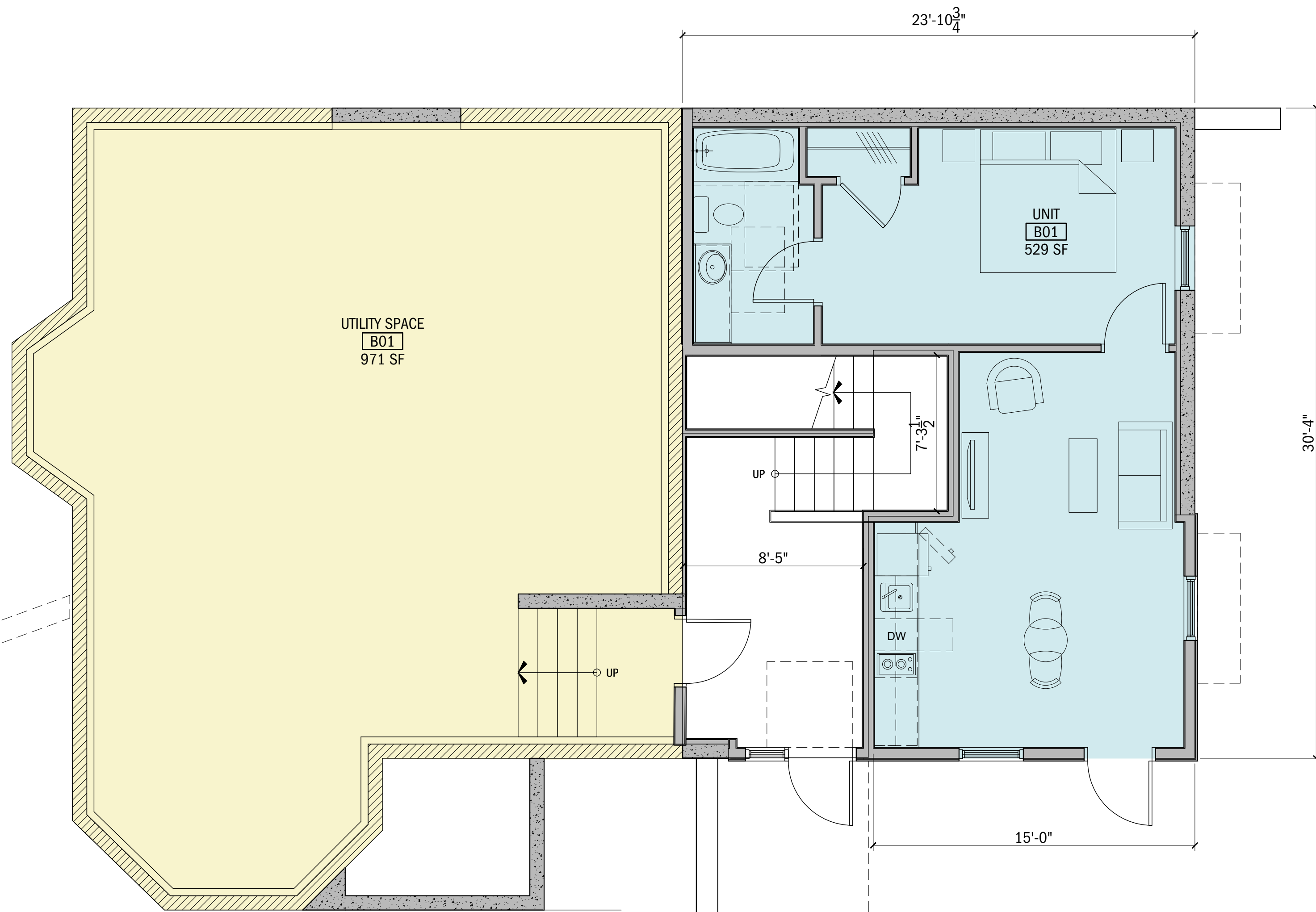




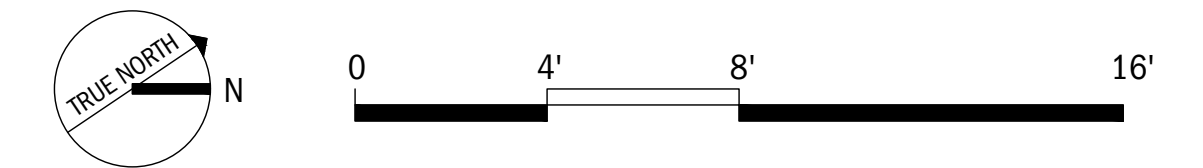
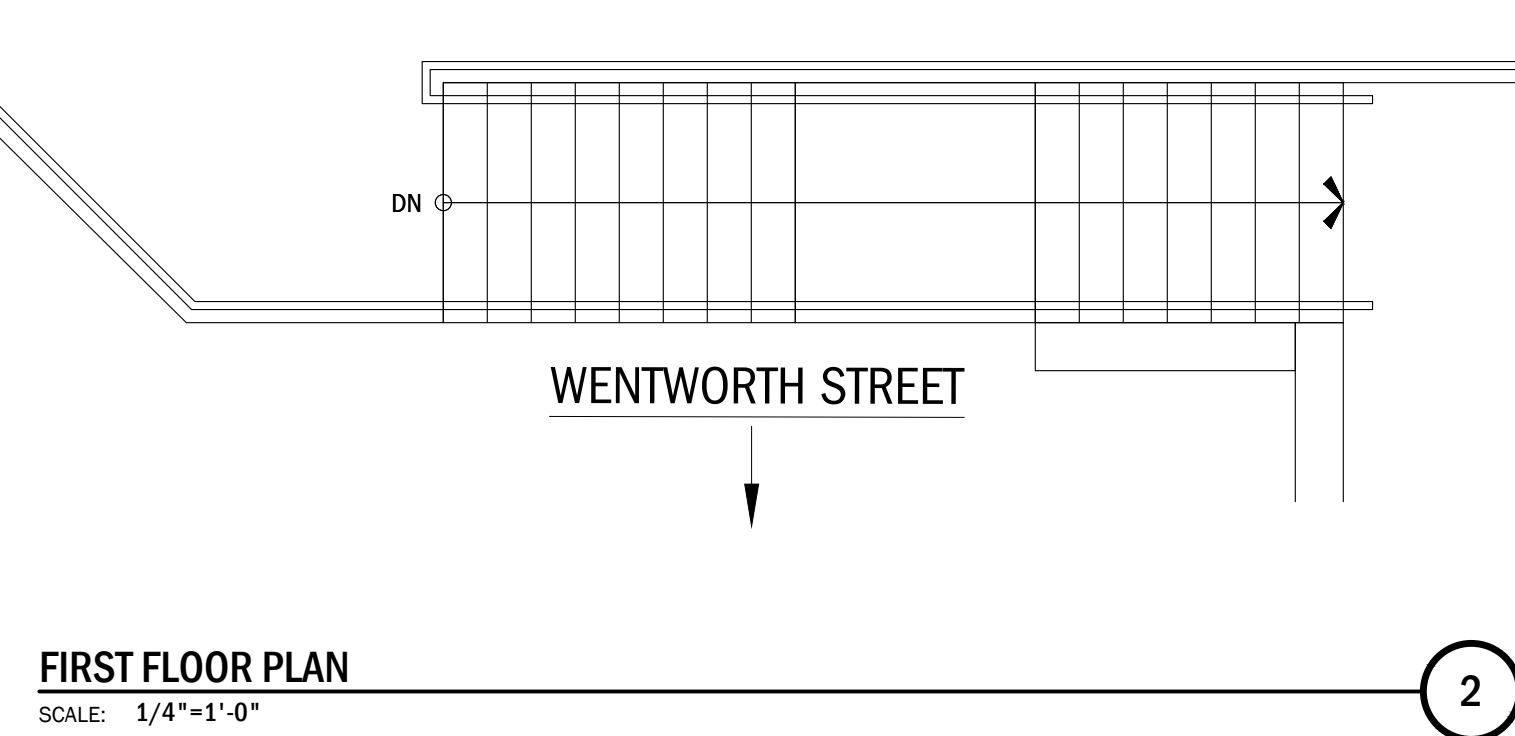
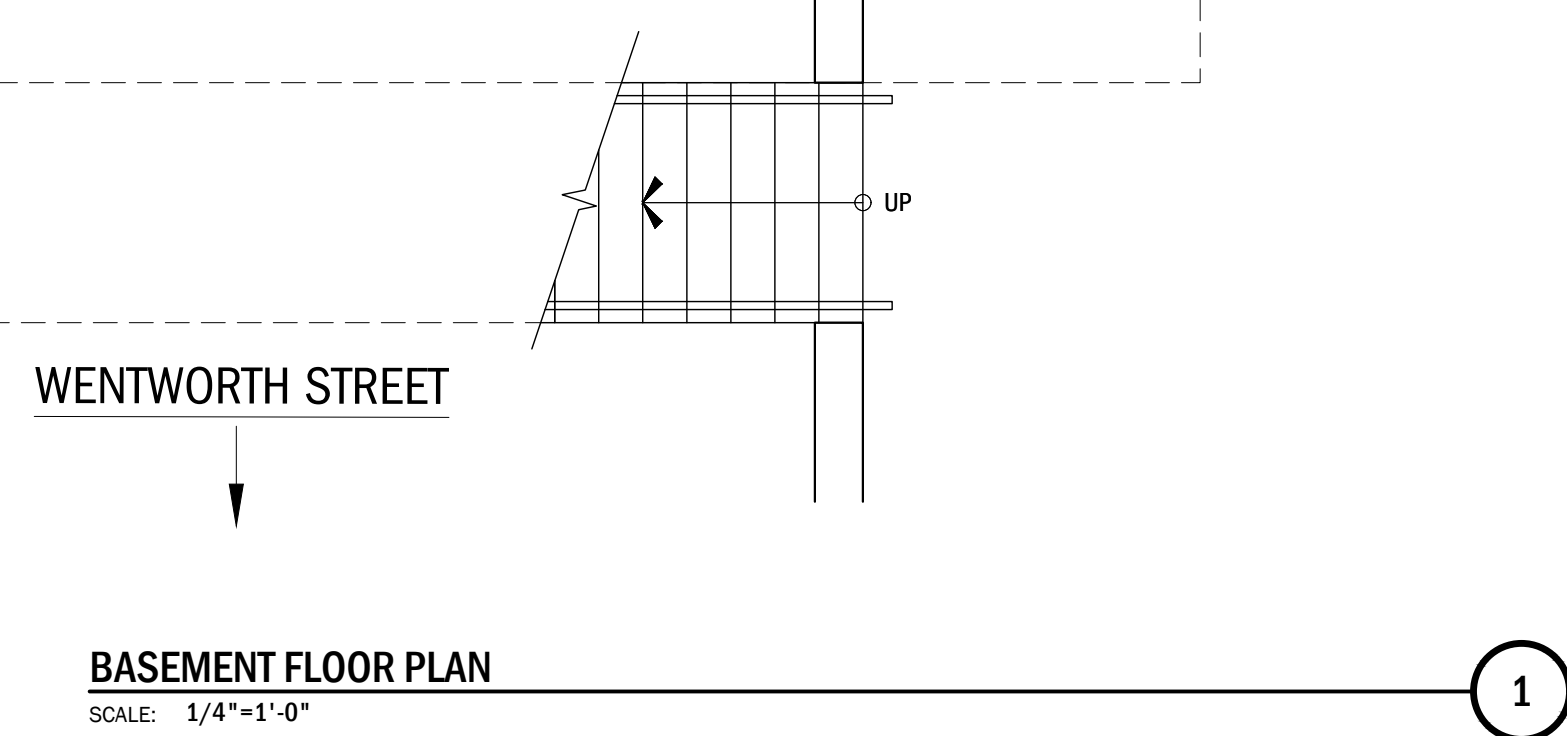
ROOF PLAN
SCALE: 1/4"=1'-0"

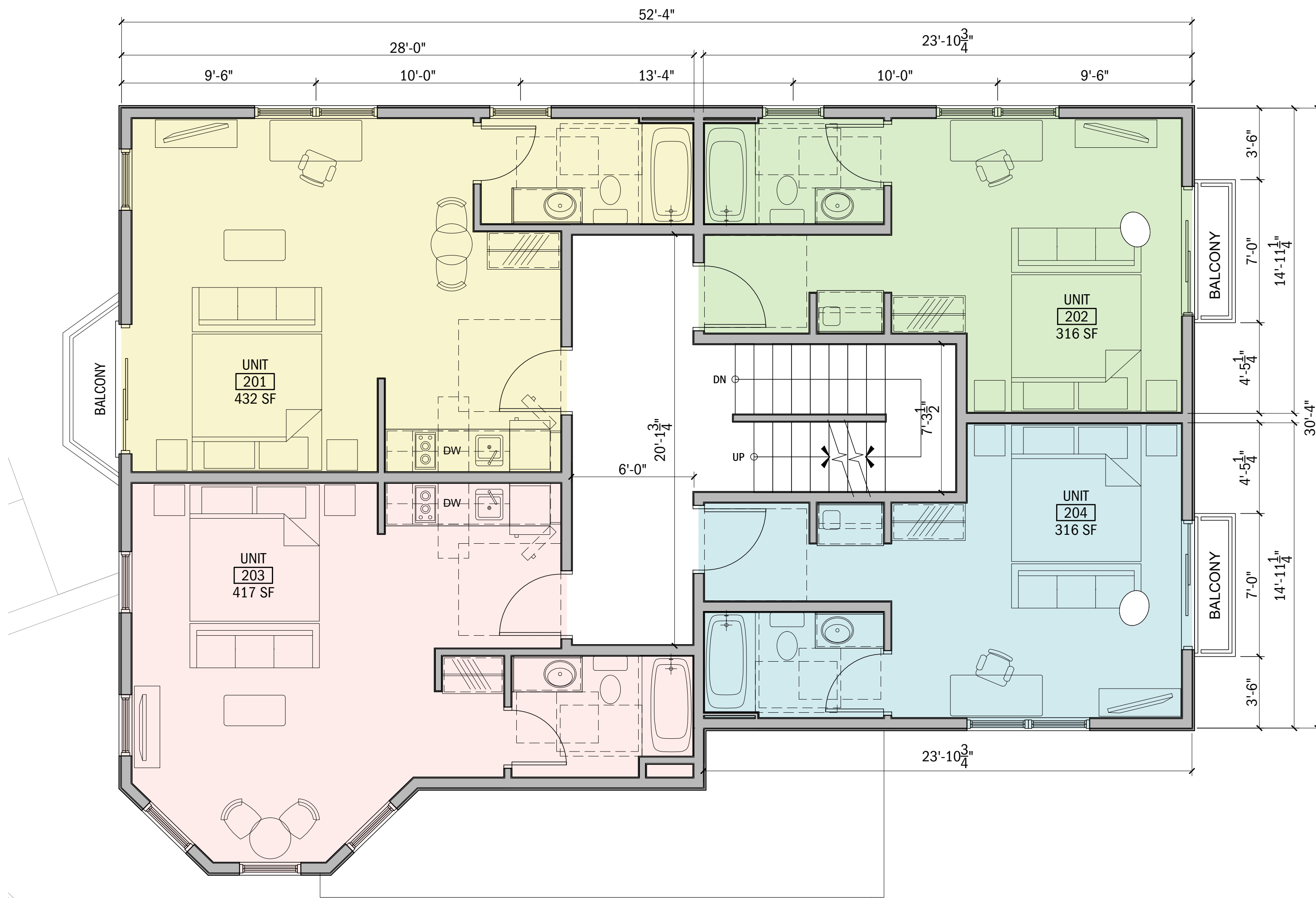
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29 WENTWORTH ST			
FLOOR	ROOM #	ROOM TYPE	AREA
BASEMENT FLOOR	B01	INNKEEPER	529 SF
FIRST FLOOR	101 (ADA)	SUITE	426 SF
	102	BUSINESS	316 SF
	103	SUITE	403 SF
	104	BUSINESS	316 SF
SECOND FLOOR	201	SUITE	432 SF
	202	BUSINESS	316 SF
	203	SUITE	417 SF
	204	BUSINESS	316 SF
THIRD FLOOR	301	SUITE	396 SF
	302	BUSINESS	316 SF
	303	SUITE	382 SF
	304	BUSINESS	316 SF
ROOM TOTALS		BUSINESS	6
		SUITES	6
		TOTAL	12



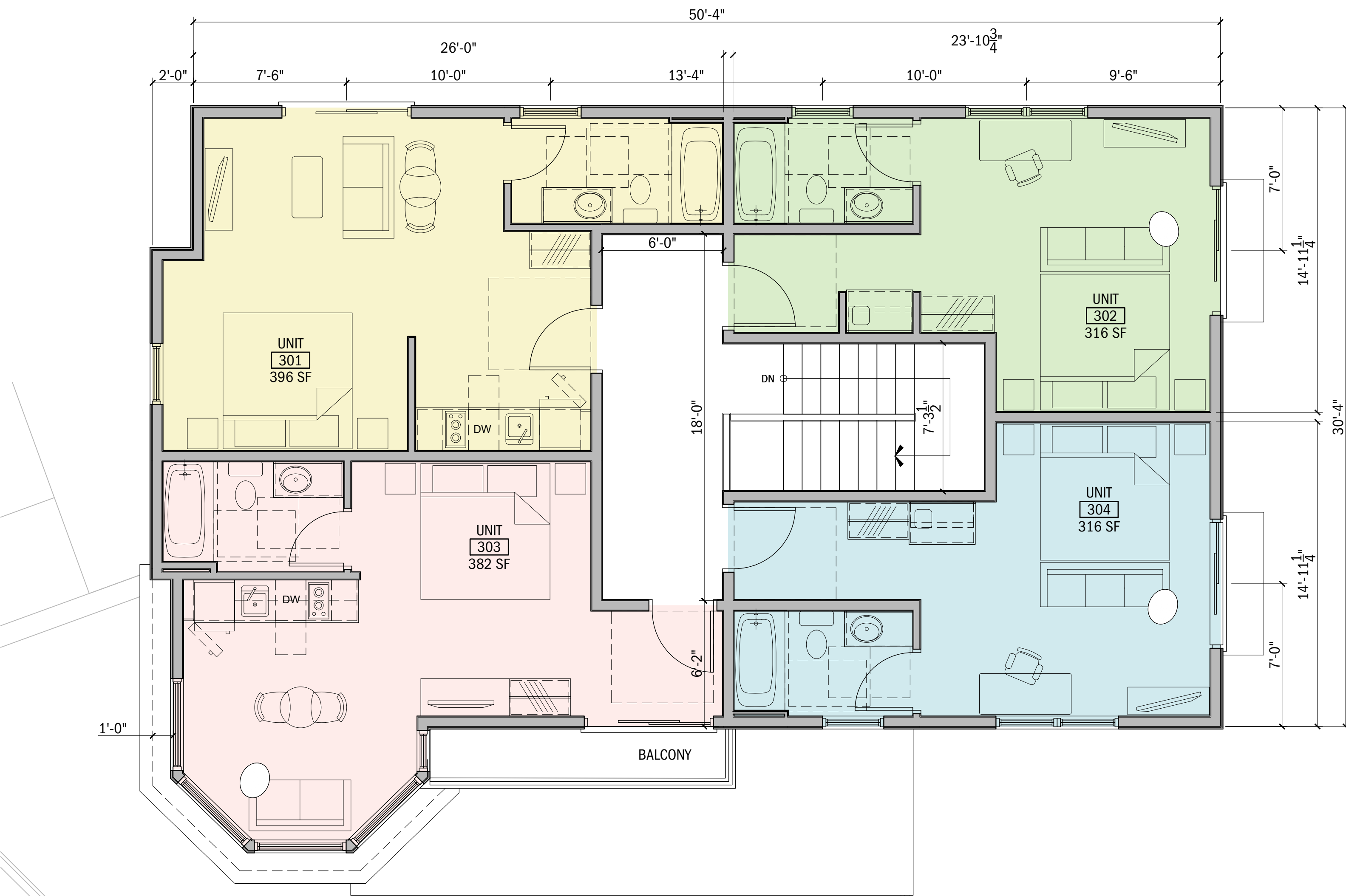


29 WENTWORTH ST			
FLOOR	ROOM #	ROOM TYPE	AREA
BASEMENT FLOOR	B01	INNKEEPER	529 SF
FIRST FLOOR	101 (ADA)	SUITE	426 SF
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	204	BUSINESS	316 SF
THIRD FLOOR	301	SUITE	396 SF
	302	BUSINESS	316 SF
	303	SUITE	382 SF
	304	BUSINESS	316 SF
ROOM TOTALS		BUSINESS	6
		SUITES	6
		TOTAL	12

WENTWORTH STREET

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

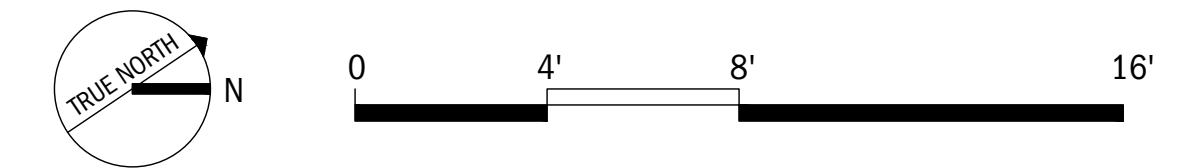
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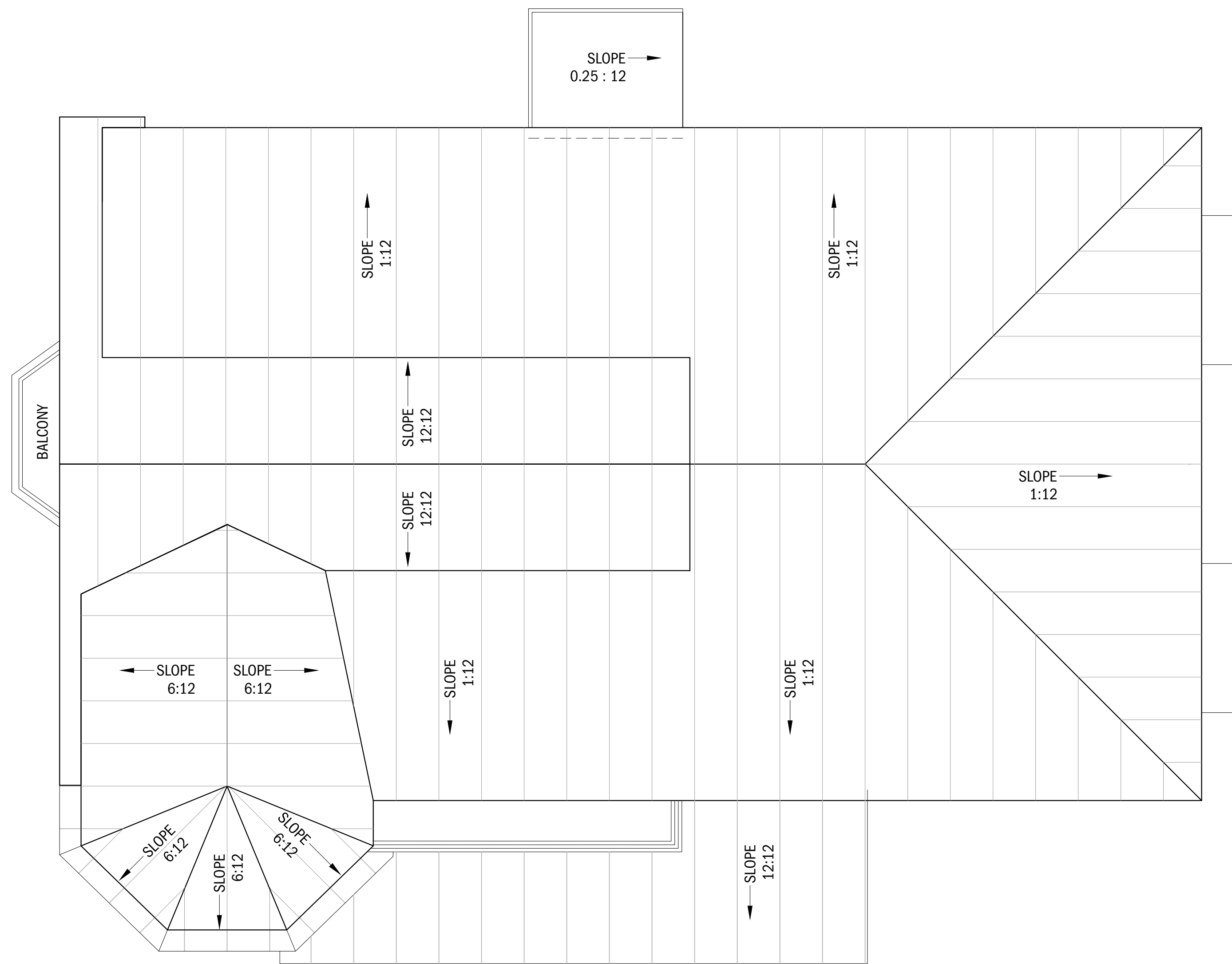


WENTWORTH STREET

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

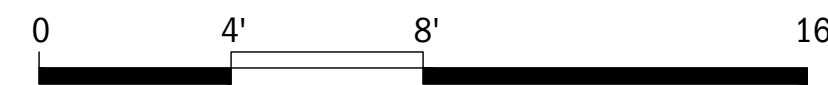
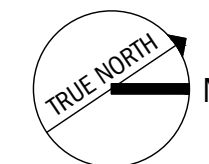
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ROOF PLAN
SCALE: 1/4"=1'-0"

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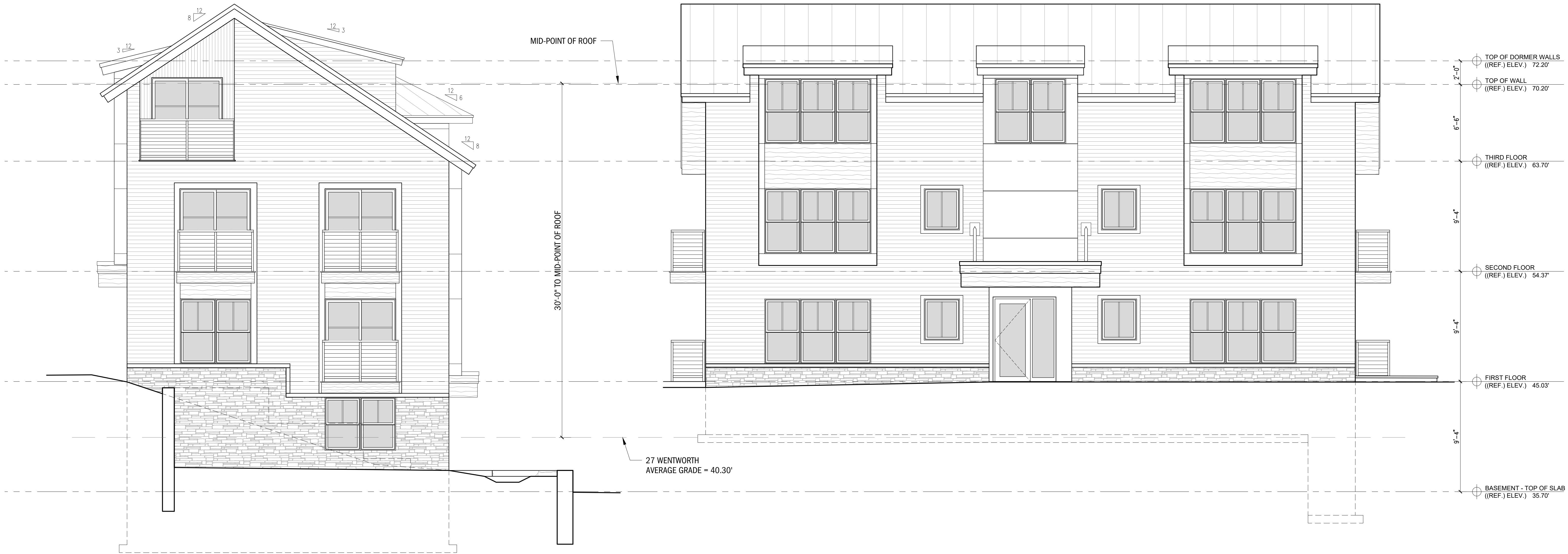


NORTH EXTERIOR ELEVATION
SCALE: 1/4"=1'-0"

1

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

2



SOUTH EXTERIOR ELEVATION
SCALE: 1/4"=1'-0"

1

WEST EXTERIOR ELEVATION
SCALE: 1/4"=1'-0"

2



NORTH EXTERIOR ELEVATION
SCALE: 1/4"=1'-0"

1



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

1



SOUTH EXTERIOR ELEVATION
SCALE: 1/4"=1'-0"

1



WEST EXTERIOR ELEVATION
SCALE: 1/4"=1'-0"

1



VIEW LOOKING SOUTH-WEST FROM WENTWORTH STREET
SCALE: N.T.S.

1



VIEW LOOKING NORTH-WEST FROM WENTWORTH STREET
SCALE: N.T.S.

1



VIEW LOOKING WEST FROM WENTWORTH STREET
SCALE: N.T.S.

1

DRAINAGE ANALYSIS

The Foreside Inn

**Tax Map 49, Lots 37 & 38
27 & 29 Wentworth Street
Kittery, Maine**

October 5, 2023

Prepared For:

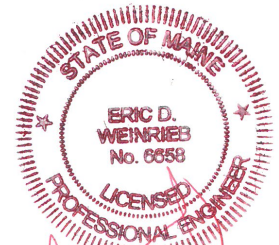
Madbury Real Estate Ventures

c/o Taylor McMaster
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Wakefield, MA 001880
(617) 290-1269

Prepared By:

ALTUS ENGINEERING

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Portsmouth, NH 03801
Phone: (603) 433-2335



*W
10/5/23*



Table of Contents

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Section 5	Precipitation Table
Section 6	NRCS Soils Report
Section 7	Stormwater Operations and Maintenance Plan
Section 8	Watershed Plans
	Pre-Development Watershed Plan
	Post-Development Watershed Plan

Section 1

Narrative

PROJECT DESCRIPTION

The property is located at 27 & 29 Wentworth Street. This redevelopment project proposes to construct a 12-unit inn on each parcel with a 13th innkeeper's suite taker unit on 29 Wentworth Street together with associated site improvements. Both inns will share an 18-space parking lot and access drive on 29 Wentworth Street. The structure at 27 Wentworth will be demolished with a new building constructed closer to the street. The property at 29 Wentworth will be partially demolished during renovation with the intention to maintain the original 1800's era structure.

The stormwater management system proposed will include porous pavement to filter and infiltrate all runoff flowing to it; and an 11.5'x42' underground stormwater management gallery (SMG) consisting of 2 rows of 30-inch pipe to infiltrate runoff from rooves and lawn area. The perimeter underdrain system will be wrapped with non-woven filter fabric to minimize sediment entering the SMG.

Site Soils

The Natural Resources Conservation Service (NRCS) classifies the site soils as Urban Land (Ur) with a hydrological soil group (HSG) designation of C.

Pre-Development (Existing Conditions)

The Pre-Development Watershed Plan (Sheet WS-1) reflects the current conditions of the site which include the existing building and parking areas. The current site can be divided into two (2) subcatchments which northeast discharge to the Boston & Maine Railroad property and east to Wentworth Street. The nearest closed drainage system is approximately 300 feet downgradient of the site.

Post-Development (Proposed Conditions)

The proposed project will construct two (2) commercial units, a new drainage system and associated site improvements.

As shown on the attached Post-Development Watershed Plan (Sheet WS-2), the site was divided into five (5) subcatchment areas in the post-development conditions. The same points of analysis that were used in the Pre-Development model (POA #'s 1 and 2) were used for comparison of the Pre- and Post-development conditions.

CALCULATION METHODS

The drainage study was completed using the USDA SCS TR-20 Method within the HydroCAD Stormwater Modeling System. Reservoir routing was performed with the Dynamic Storage Indication method with automated calculation of tailwater conditions. A Type III 24-hour rainfall distribution was utilized in analyzing the data for the 2- and 25-year 24-hour storm events using Extreme Precipitation rainfall data provided by Cornell University.

The following conservative modeling approaches and assumptions were incorporated into the analysis:

- Model based on extreme precipitation values for Kittery published by Cornell/UNH.
- Used T_c of 6 minutes for those subcatchments where measured T_c was less than 6 minutes. SCS TR-55 Urban Hydrology for Small Watersheds indicates that the minimum T_c should be 0.1 hour or 6 minutes. The Federal Highway Administration Hydraulic Engineering states that minimum time of concentration (T_c) for urbanized areas should not be less than 5-minutes. Extremely short T_c times can lead to improbable runoff values and are not appropriate for design.
- Infiltration rates through biofilter media of the porous pavement and from the stormwater gallery is set at 4.0 in/hr with a phase-in depth of 0.01’.

Disclaimer

Altus Engineering notes that stormwater modeling is limited in its capacity to precisely predict peak rates of runoff and flood elevations. Results should not be considered to represent actual storm events due to the number of variables and assumptions involved in the modeling effort. Surface roughness coefficients (n), entrance loss coefficients (k_e), velocity factors (k_v) and times of concentration (T_c) are based on subjective field observations and engineering judgment using available data. For design purposes, curve numbers (C_n) describe the average conditions. However, curve numbers will vary from storm to storm depending on the antecedent runoff conditions (ARC) including saturation and frozen ground. Also, higher water elevations than predicted by modeling could occur if drainage channels, closed drain systems or culverts are not maintained and/or become blocked by debris before and/or during a storm event as this will impact flow capacity of the structures. Structures should be re-evaluated if future changes occur within relevant drainage areas in order to assess any required design modifications.

Drainage Analysis

A complete summary of the drainage model is included in the appendix of this report. The following table compares pre- and post-development peak rates at the Point of Analysis identified on the plans for the 2 and 25-year storm events:

**Stormwater Modeling Summary
Peak Q (cfs) for Type III 24-Hour Storm Events**

	2-Yr Storm (3.21 inch)	25-Yr Storm (6.17 inch)
POA #1 (East property line)		
Pre	0.72	1.77
Post	0.19	0.53
Change	-0.53	-1.24
POA #2 (NE Property Line)		
Pre	0.18	0.56
Post	0.11	0.26
Change	-0.07	-0.30

As the above table demonstrates, the proposed peak rates of runoff will be decreased from the existing conditions for all analyzed storm events.

CONCLUSION

This proposed roadway and site development will have minimal adverse effect on abutting properties and infrastructure as a result of stormwater runoff or siltation. Post-construction peak rates of runoff from the site will be lower than the existing conditions for all analyzed storm events. The new stormwater management system will also provide appropriate treatment to runoff from 84% of the proposed impervious surfaces from the site where none previously existed. Appropriate steps will be taken to properly mitigate erosion and sedimentation using temporary and permanent Best Management Practices for sediment and erosion control, including a porous pavement, SMG and roofline drip strips.

Section 2

USGS Map and Aerial Photo



Vicinity Plan

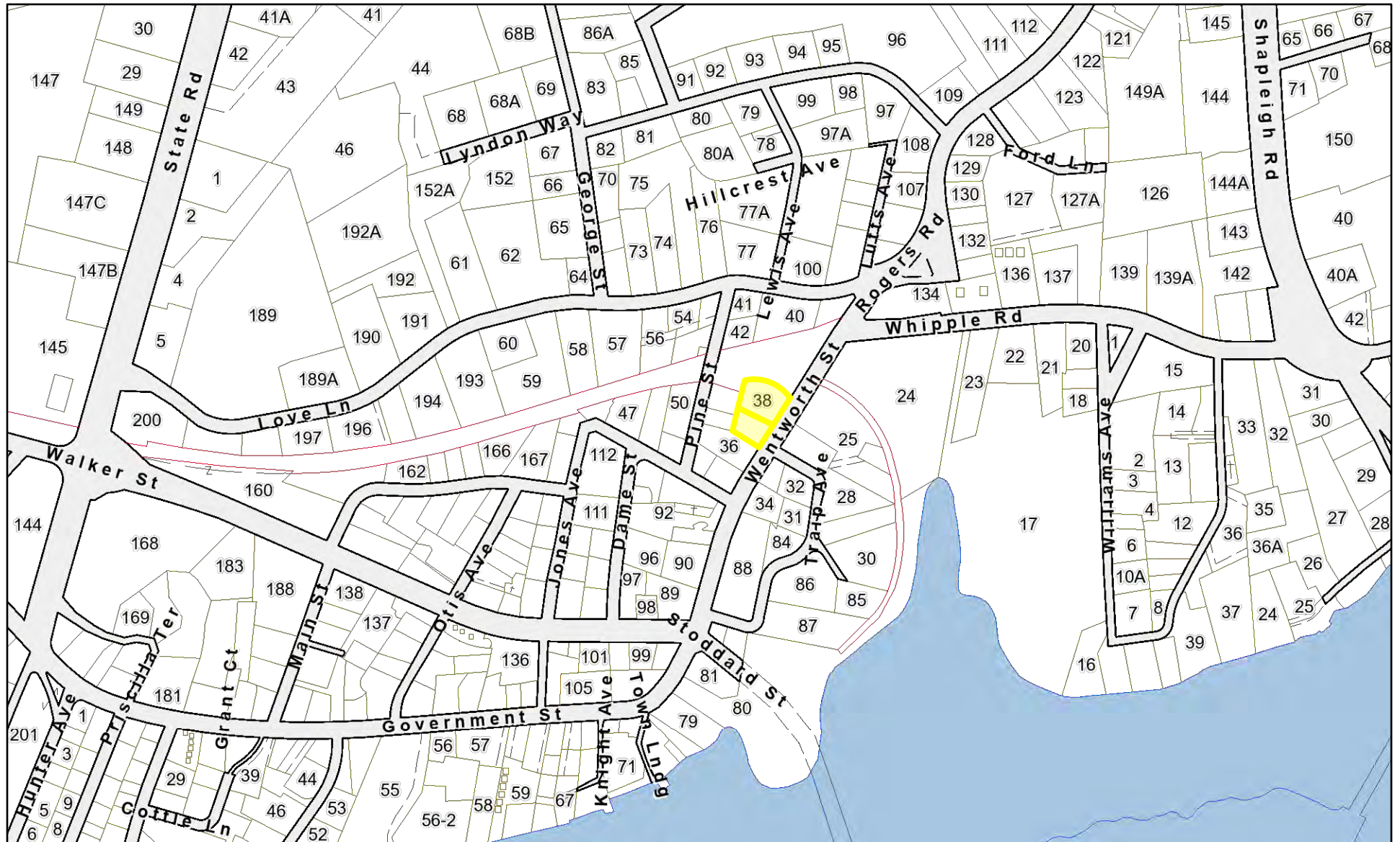
Kittery, ME

1 inch = 400 Feet



July 13, 2023

www.cai-tech.com





Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.

Aerial Photograph

Write a description for your map.

Legend

 27 Wentworth St

 27 Wentworth St

Google Earth

700 ft



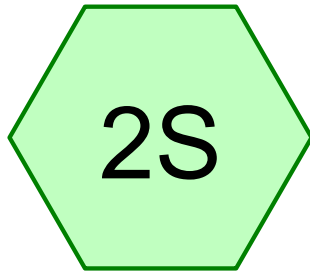
Section 3

Drainage Calculations

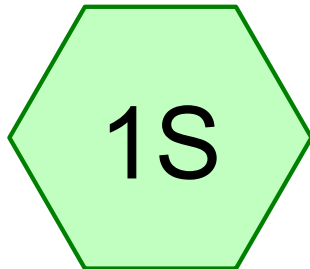
Pre-Development

2-Year, 24-Hour Summary

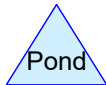
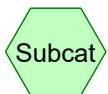
25-Year, 24-Hour Summary



(new Subcat)



(new Subcat)



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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.189	74	>75% Grass cover, Good, HSG C (1S, 2S)
0.098	96	Gravel surface, HSG C (1S, 2S)
0.020	98	Ledge, HSG C (1S, 2S)
0.025	98	Paved parking, HSG C (1S, 2S)
0.062	98	Roofs, HSG C (1S, 2S)
0.102	70	Woods, Good, HSG C (1S, 2S)
0.497	83	TOTAL AREA

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Type III 24-hr 2-yr Rainfall=3.21"

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Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: (new Subcat)

Runoff Area=15,418 sf 23.71% Impervious Runoff Depth=1.77"
Flow Length=105' Tc=6.0 min CN=85 Runoff=0.72 cfs 0.052 af

Subcatchment 2S: (new Subcat)

Runoff Area=6,222 sf 15.99% Impervious Runoff Depth=1.22"
Flow Length=200' Tc=7.9 min CN=77 Runoff=0.18 cfs 0.015 af

Total Runoff Area = 0.497 ac Runoff Volume = 0.067 af Average Runoff Depth = 1.61"
78.51% Pervious = 0.390 ac 21.49% Impervious = 0.107 ac

Summary for Subcatchment 1S: (new Subcat)

Runoff = 0.72 cfs @ 12.09 hrs, Volume= 0.052 af, Depth= 1.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.21"

Area (sf)	CN	Description
2,062	98	Roofs, HSG C
4,175	96	Gravel surface, HSG C
878	98	Paved parking, HSG C
* 715	98	Ledge, HSG C
4,868	74	>75% Grass cover, Good, HSG C
2,720	70	Woods, Good, HSG C
15,418	85	Weighted Average
11,763		76.29% Pervious Area
3,655		23.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	65	0.0400	0.21		Sheet Flow, Grass: Short n= 0.150 P2= 3.21"
0.2	40	0.0700	4.26		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
5.5	105	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 2S: (new Subcat)

Runoff = 0.18 cfs @ 12.12 hrs, Volume= 0.015 af, Depth= 1.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.21"

Area (sf)	CN	Description
620	98	Roofs, HSG C
107	96	Gravel surface, HSG C
220	98	Paved parking, HSG C
* 155	98	Ledge, HSG C
3,376	74	>75% Grass cover, Good, HSG C
1,744	70	Woods, Good, HSG C
6,222	77	Weighted Average
5,227		84.01% Pervious Area
995		15.99% Impervious Area

5431 Pre*Type III 24-hr 2-yr Rainfall=3.21"*

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Page 5

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	25	0.0200	0.06		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.21"
0.3	65	0.0600	3.67		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
0.5	110	0.0500	3.35		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
7.9	200	Total			

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Type III 24-hr 25-yr Rainfall=6.17"

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Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: (new Subcat)

Runoff Area=15,418 sf 23.71% Impervious Runoff Depth=4.46"
Flow Length=105' Tc=6.0 min CN=85 Runoff=1.77 cfs 0.132 af

Subcatchment 2S: (new Subcat)

Runoff Area=6,222 sf 15.99% Impervious Runoff Depth=3.63"
Flow Length=200' Tc=7.9 min CN=77 Runoff=0.56 cfs 0.043 af

Total Runoff Area = 0.497 ac Runoff Volume = 0.175 af Average Runoff Depth = 4.22"
78.51% Pervious = 0.390 ac 21.49% Impervious = 0.107 ac

Summary for Subcatchment 1S: (new Subcat)

Runoff = 1.77 cfs @ 12.09 hrs, Volume= 0.132 af, Depth= 4.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.17"

Area (sf)	CN	Description
2,062	98	Roofs, HSG C
4,175	96	Gravel surface, HSG C
878	98	Paved parking, HSG C
* 715	98	Ledge, HSG C
4,868	74	>75% Grass cover, Good, HSG C
2,720	70	Woods, Good, HSG C
15,418	85	Weighted Average
11,763		76.29% Pervious Area
3,655		23.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	65	0.0400	0.21		Sheet Flow, Grass: Short n= 0.150 P2= 3.21"
0.2	40	0.0700	4.26		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
5.5	105	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 2S: (new Subcat)

Runoff = 0.56 cfs @ 12.11 hrs, Volume= 0.043 af, Depth= 3.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.17"

Area (sf)	CN	Description
620	98	Roofs, HSG C
107	96	Gravel surface, HSG C
220	98	Paved parking, HSG C
* 155	98	Ledge, HSG C
3,376	74	>75% Grass cover, Good, HSG C
1,744	70	Woods, Good, HSG C
6,222	77	Weighted Average
5,227		84.01% Pervious Area
995		15.99% Impervious Area

5431 Pre*Type III 24-hr 25-yr Rainfall=6.17"*

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	25	0.0200	0.06		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.21"
0.3	65	0.0600	3.67		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
0.5	110	0.0500	3.35		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
7.9	200	Total			

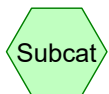
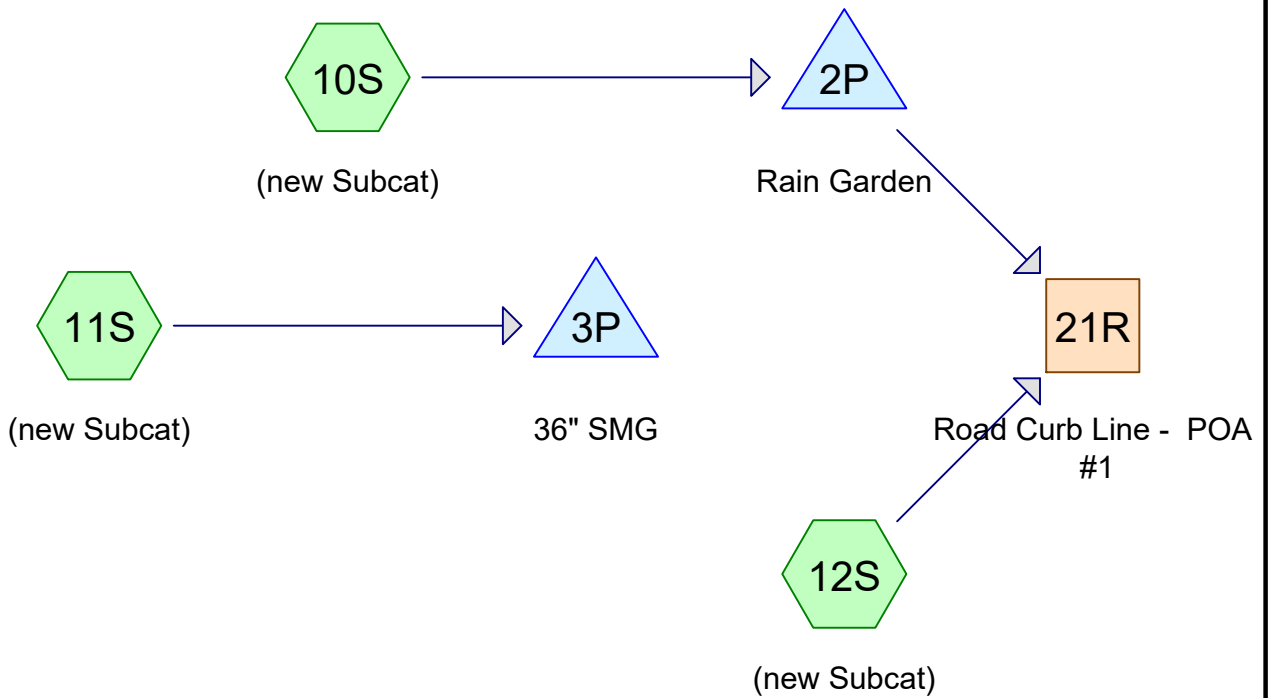
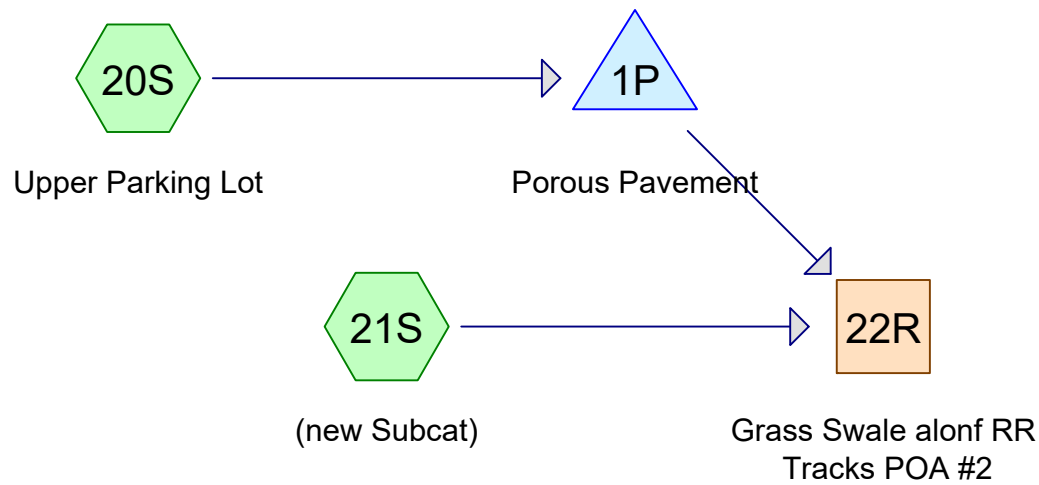
Section 4

Drainage Calculations

Post-Development

2-Year, 24-Hour Summary

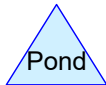
25-Year, 24-Hour Summary



Subcat



Reach



Pond



Link

Routing Diagram for 5431 Post2

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5431 Post2

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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.146	74	>75% Grass cover, Good, HSG C (10S, 11S, 12S, 20S, 21S)
0.264	98	Paved parking, HSG C (10S, 11S, 12S, 20S, 21S)
0.087	98	Roofs, HSG C (10S, 11S, 12S, 20S)
0.497	91	TOTAL AREA

5431 Post2

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.497	HSG C	10S, 11S, 12S, 20S, 21S
0.000	HSG D	
0.000	Other	
0.497		TOTAL AREA

5431 Post2

Type III 24-hr 2-yr Rainfall=3.21"

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Time span=0.00-100.00 hrs, dt=0.05 hrs, 2001 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 10S: (new Subcat) Runoff Area=1,359 sf 41.65% Impervious Runoff Depth=1.69"
 Flow Length=55' Slope=0.1400 '/' Tc=6.0 min CN=84 Runoff=0.06 cfs 0.004 af

Subcatchment 11S: (new Subcat) Runoff Area=4,800 sf 50.54% Impervious Runoff Depth=1.84"
 Flow Length=55' Slope=0.1400 '/' Tc=6.0 min CN=86 Runoff=0.23 cfs 0.017 af

Subcatchment 12S: (new Subcat) Runoff Area=2,992 sf 77.61% Impervious Runoff Depth=2.46"
 Flow Length=65' Slope=0.0400 '/' Tc=6.0 min CN=93 Runoff=0.19 cfs 0.014 af

Subcatchment 20S: Upper Parking Lot Runoff Area=10,330 sf 85.21% Impervious Runoff Depth=2.55"
 Tc=6.0 min CN=94 Runoff=0.66 cfs 0.050 af

Subcatchment 21S: (new Subcat) Runoff Area=2,164 sf 53.56% Impervious Runoff Depth=1.92"
 Flow Length=60' Slope=0.1000 '/' Tc=6.0 min CN=87 Runoff=0.11 cfs 0.008 af

Reach 21R: Road Curb Line - POA #1 Avg. Flow Depth=0.08' Max Vel=1.28 fps Inflow=0.19 cfs 0.014 af
 n=0.013 L=1.0' S=0.0100 '/' Capacity=2.43 cfs Outflow=0.19 cfs 0.014 af

Reach 22R: Grass Swale along RR Avg. Flow Depth=0.11' Max Vel=1.16 fps Inflow=0.11 cfs 0.008 af
 n=0.022 L=1.0' S=0.0100 '/' Capacity=0.66 cfs Outflow=0.11 cfs 0.008 af

Pond 1P: Porous Pavement Peak Elev=35.51' Storage=5 cf Inflow=0.66 cfs 0.050 af
 Discarded=0.67 cfs 0.050 af Primary=0.00 cfs 0.000 af Outflow=0.67 cfs 0.050 af

Pond 2P: Rain Garden Peak Elev=36.91' Storage=67 cf Inflow=0.06 cfs 0.004 af
 Discarded=0.01 cfs 0.004 af Primary=0.02 cfs 0.000 af Outflow=0.03 cfs 0.004 af

Pond 3P: 36" SMG Peak Elev=34.24' Storage=457 cf Inflow=0.23 cfs 0.017 af
 Outflow=0.01 cfs 0.017 af

Total Runoff Area = 0.497 ac Runoff Volume = 0.094 af Average Runoff Depth = 2.27"
29.43% Pervious = 0.146 ac 70.57% Impervious = 0.351 ac

5431 Post2

Type III 24-hr 2-yr Rainfall=3.21"

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Summary for Subcatchment 10S: (new Subcat)

Runoff = 0.06 cfs @ 12.09 hrs, Volume= 0.004 af, Depth= 1.69"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.21"

Area (sf)	CN	Description
402	98	Roofs, HSG C
164	98	Paved parking, HSG C
793	74	>75% Grass cover, Good, HSG C
1,359	84	Weighted Average
793		58.35% Pervious Area
566		41.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	55	0.1400	0.33		Sheet Flow, Grass: Short n= 0.150 P2= 3.21"
2.8	55	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 11S: (new Subcat)

Runoff = 0.23 cfs @ 12.09 hrs, Volume= 0.017 af, Depth= 1.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.21"

Area (sf)	CN	Description
2,088	98	Roofs, HSG C
338	98	Paved parking, HSG C
1,992	74	>75% Grass cover, Good, HSG C
382	74	>75% Grass cover, Good, HSG C
4,800	86	Weighted Average
2,374		49.46% Pervious Area
2,426		50.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	55	0.1400	0.33		Sheet Flow, Grass: Short n= 0.150 P2= 3.21"
2.8	55	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 12S: (new Subcat)

Runoff = 0.19 cfs @ 12.09 hrs, Volume= 0.014 af, Depth= 2.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.21"

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Type III 24-hr 2-yr Rainfall=3.21"

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Area (sf)	CN	Description
183	98	Roofs, HSG C
2,139	98	Paved parking, HSG C
670	74	>75% Grass cover, Good, HSG C
2,992	93	Weighted Average
670		22.39% Pervious Area
2,322		77.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	65	0.0400	1.67		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.21"
0.6	65	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 20S: Upper Parking Lot

Runoff = 0.66 cfs @ 12.09 hrs, Volume= 0.050 af, Depth= 2.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.21"

Area (sf)	CN	Description
1,105	98	Roofs, HSG C
7,697	98	Paved parking, HSG C
1,528	74	>75% Grass cover, Good, HSG C
0	70	Woods, Good, HSG C
10,330	94	Weighted Average
1,528		14.79% Pervious Area
8,802		85.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Porous Pavement

Summary for Subcatchment 21S: (new Subcat)

Runoff = 0.11 cfs @ 12.09 hrs, Volume= 0.008 af, Depth= 1.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.21"

Area (sf)	CN	Description
0	98	Roofs, HSG C
1,159	98	Paved parking, HSG C
1,005	74	>75% Grass cover, Good, HSG C
0	70	Woods, Good, HSG C
2,164	87	Weighted Average
1,005		46.44% Pervious Area
1,159		53.56% Impervious Area

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Type III 24-hr 2-yr Rainfall=3.21"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	60	0.1000	2.37		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.21"
0.4	60	Total, Increased to minimum Tc = 6.0 min			

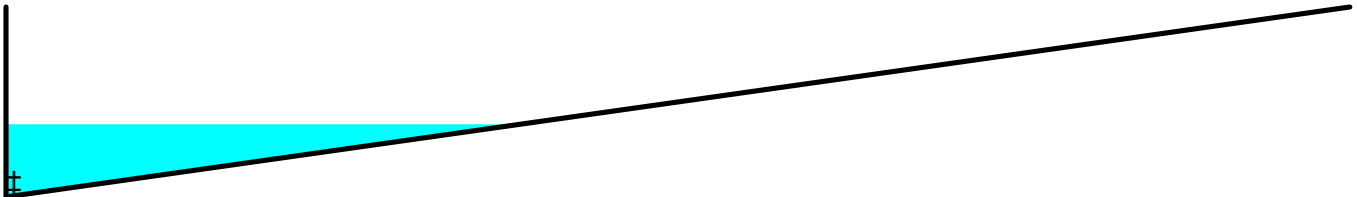
Summary for Reach 21R: Road Curb Line - POA #1

Inflow Area = 0.100 ac, 66.38% Impervious, Inflow Depth = 1.72" for 2-yr event
 Inflow = 0.19 cfs @ 12.09 hrs, Volume= 0.014 af
 Outflow = 0.19 cfs @ 12.09 hrs, Volume= 0.014 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
 Max. Velocity= 1.28 fps, Min. Travel Time= 0.0 min
 Avg. Velocity = 0.50 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 12.09 hrs
 Average Depth at Peak Storage= 0.08'
 Bank-Full Depth= 0.20' Flow Area= 1.0 sf, Capacity= 2.43 cfs

0.00' x 0.20' deep channel, n= 0.013 Asphalt, smooth
 Side Slope Z-value= 0.0 50.0 '/' Top Width= 10.00'
 Length= 1.0' Slope= 0.0100 '/'
 Inlet Invert= 31.90', Outlet Invert= 31.89'



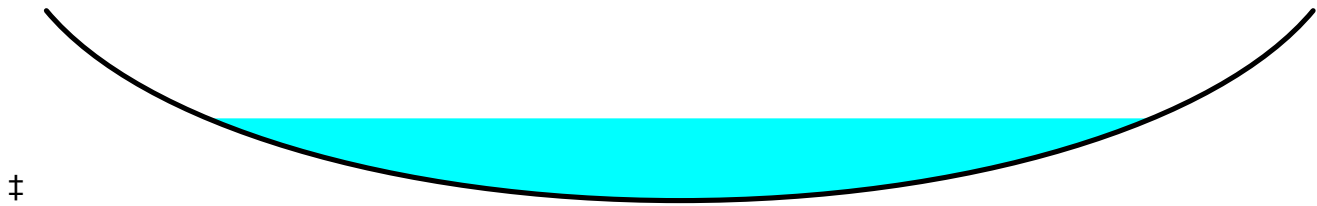
Summary for Reach 22R: Grass Swale along RR Tracks POA #2

Inflow Area = 0.287 ac, 79.73% Impervious, Inflow Depth = 0.33" for 2-yr event
 Inflow = 0.11 cfs @ 12.09 hrs, Volume= 0.008 af
 Outflow = 0.11 cfs @ 12.09 hrs, Volume= 0.008 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
 Max. Velocity= 1.16 fps, Min. Travel Time= 0.0 min
 Avg. Velocity = 0.39 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 12.09 hrs
 Average Depth at Peak Storage= 0.11'
 Bank-Full Depth= 0.25' Flow Area= 0.3 sf, Capacity= 0.66 cfs

2.00' x 0.25' deep Parabolic Channel, n= 0.022 Earth, clean & straight
 Length= 1.0' Slope= 0.0100 '/'
 Inlet Invert= 31.90', Outlet Invert= 31.89'



Summary for Pond 1P: Porous Pavement

Inflow Area = 0.237 ac, 85.21% Impervious, Inflow Depth = 2.55" for 2-yr event
 Inflow = 0.66 cfs @ 12.09 hrs, Volume= 0.050 af
 Outflow = 0.67 cfs @ 12.09 hrs, Volume= 0.050 af, Atten= 0%, Lag= 0.1 min
 Discarded = 0.67 cfs @ 12.09 hrs, Volume= 0.050 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
 Peak Elev= 35.51' @ 12.09 hrs Surf.Area= 2,160 sf Storage= 5 cf

Plug-Flow detention time= 0.1 min calculated for 0.050 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (787.1 - 787.0)

Volume	Invert	Avail.Storage	Storage Description
#1	35.50'	1,405 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
35.50	2,160	0.0	0	0
36.67	2,160	40.0	1,011	1,011
38.72	2,160	5.0	221	1,232
38.80	2,160	100.0	173	1,405

Device	Routing	Invert	Outlet Devices
#1	Discarded	35.50'	4.00 cfs Exfiltration when above 35.50' Phase-In= 0.01'
#2	Primary	38.72'	2.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Discarded OutFlow Max=2.15 cfs @ 12.09 hrs HW=35.51' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 2.15 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=35.50' (Free Discharge)
 ↑2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 2P: Rain Garden

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Type III 24-hr 2-yr Rainfall=3.21"

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Inflow Area = 0.031 ac, 41.65% Impervious, Inflow Depth = 1.69" for 2-yr event
 Inflow = 0.06 cfs @ 12.09 hrs, Volume= 0.004 af
 Outflow = 0.03 cfs @ 12.33 hrs, Volume= 0.004 af, Atten= 57%, Lag= 14.1 min
 Discarded = 0.01 cfs @ 12.33 hrs, Volume= 0.004 af
 Primary = 0.02 cfs @ 12.33 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
 Peak Elev= 36.91' @ 12.33 hrs Surf.Area= 218 sf Storage= 67 cf

Plug-Flow detention time= 100.1 min calculated for 0.004 af (100% of inflow)
 Center-of-Mass det. time= 100.5 min (929.9 - 829.4)

Volume	Invert	Avail.Storage	Storage Description	
#1	36.50'	88 cf	Custom Stage Data (Conic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
36.50	115	0	0	115
37.00	246	88	88	248

Device	Routing	Invert	Outlet Devices
#1	Discarded	36.50'	4.000 in/hr Exfiltration over Wetted area above 36.50' Excluded Wetted area = 115 sf Phase-In= 0.01'
#2	Primary	36.90'	10.0' long x 2.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

Discarded OutFlow Max=0.01 cfs @ 12.33 hrs HW=36.91' (Free Discharge)
 ↑1=**Exfiltration** (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.02 cfs @ 12.33 hrs HW=36.91' (Free Discharge)
 ↑2=**Broad-Crested Rectangular Weir** (Weir Controls 0.02 cfs @ 0.21 fps)

Summary for Pond 3P: 36" SMG

Inflow Area = 0.110 ac, 50.54% Impervious, Inflow Depth = 1.84" for 2-yr event
 Inflow = 0.23 cfs @ 12.09 hrs, Volume= 0.017 af
 Outflow = 0.01 cfs @ 15.28 hrs, Volume= 0.017 af, Atten= 95%, Lag= 191.3 min
 Discarded = 0.01 cfs @ 15.28 hrs, Volume= 0.017 af

Routing by Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
 Peak Elev= 34.24' @ 15.28 hrs Surf.Area= 676 sf Storage= 457 cf

Plug-Flow detention time= 636.4 min calculated for 0.017 af (100% of inflow)
 Center-of-Mass det. time= 636.2 min (1,458.6 - 822.4)

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Type III 24-hr 2-yr Rainfall=3.21"

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Volume	Invert	Avail.Storage	Storage Description
#1	33.00'	657 cf	Custom Stage Data (Conic) Listed below (Recalc) 2,704 cf Overall - 1,060 cf Embedded = 1,644 cf x 40.0% Voids
#2	33.50'	1,060 cf	36.0" Round Pipe Storage x 3 Inside #1 L= 50.0'
		1,718 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
33.00	676	0	0	676
37.00	676	2,704	2,704	1,045

Device	Routing	Invert	Outlet Devices
#1	Discarded	33.00'	4.000 in/hr Exfiltration over Wetted area above 33.00' Excluded Wetted area = 676 sf Phase-In= 0.01'

Discarded OutFlow Max=0.01 cfs @ 15.28 hrs HW=34.24' (Free Discharge)
 ↑**1=Exfiltration** (Exfiltration Controls 0.01 cfs)

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Type III 24-hr 25-yr Rainfall=6.17"

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Time span=0.00-100.00 hrs, dt=0.05 hrs, 2001 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 10S: (new Subcat) Runoff Area=1,359 sf 41.65% Impervious Runoff Depth=4.36"
 Flow Length=55' Slope=0.1400 '/ Tc=6.0 min CN=84 Runoff=0.15 cfs 0.011 af

Subcatchment 11S: (new Subcat) Runoff Area=4,800 sf 50.54% Impervious Runoff Depth=4.57"
 Flow Length=55' Slope=0.1400 '/ Tc=6.0 min CN=86 Runoff=0.56 cfs 0.042 af

Subcatchment 12S: (new Subcat) Runoff Area=2,992 sf 77.61% Impervious Runoff Depth=5.35"
 Flow Length=65' Slope=0.0400 '/ Tc=6.0 min CN=93 Runoff=0.39 cfs 0.031 af

Subcatchment 20S: Upper Parking Lot Runoff Area=10,330 sf 85.21% Impervious Runoff Depth=5.47"
 Tc=6.0 min CN=94 Runoff=1.36 cfs 0.108 af

Subcatchment 21S: (new Subcat) Runoff Area=2,164 sf 53.56% Impervious Runoff Depth=4.68"
 Flow Length=60' Slope=0.1000 '/ Tc=6.0 min CN=87 Runoff=0.26 cfs 0.019 af

Reach 21R: Road Curb Line - POA #1 Avg. Flow Depth=0.11' Max Vel=1.66 fps Inflow=0.53 cfs 0.035 af
 n=0.013 L=1.0' S=0.0100 '/ Capacity=2.43 cfs Outflow=0.53 cfs 0.035 af

Reach 22R: Grass Swale along RR Avg. Flow Depth=0.16' Max Vel=1.50 fps Inflow=0.26 cfs 0.019 af
 n=0.022 L=1.0' S=0.0100 '/ Capacity=0.66 cfs Outflow=0.26 cfs 0.019 af

Pond 1P: Porous Pavement Peak Elev=35.51' Storage=10 cf Inflow=1.36 cfs 0.108 af
 Discarded=1.36 cfs 0.108 af Primary=0.00 cfs 0.000 af Outflow=1.36 cfs 0.108 af

Pond 2P: Rain Garden Peak Elev=36.93' Storage=72 cf Inflow=0.15 cfs 0.011 af
 Discarded=0.01 cfs 0.007 af Primary=0.14 cfs 0.004 af Outflow=0.15 cfs 0.011 af

Pond 3P: 36" SMG Peak Elev=35.64' Storage=1,202 cf Inflow=0.56 cfs 0.042 af
 Outflow=0.02 cfs 0.042 af

Total Runoff Area = 0.497 ac Runoff Volume = 0.211 af Average Runoff Depth = 5.10"
29.43% Pervious = 0.146 ac 70.57% Impervious = 0.351 ac

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Type III 24-hr 25-yr Rainfall=6.17"

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Summary for Subcatchment 10S: (new Subcat)

Runoff = 0.15 cfs @ 12.09 hrs, Volume= 0.011 af, Depth= 4.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.17"

Area (sf)	CN	Description
402	98	Roofs, HSG C
164	98	Paved parking, HSG C
793	74	>75% Grass cover, Good, HSG C
1,359	84	Weighted Average
793		58.35% Pervious Area
566		41.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	55	0.1400	0.33		Sheet Flow, Grass: Short n= 0.150 P2= 3.21"
2.8	55	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 11S: (new Subcat)

Runoff = 0.56 cfs @ 12.09 hrs, Volume= 0.042 af, Depth= 4.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.17"

Area (sf)	CN	Description
2,088	98	Roofs, HSG C
338	98	Paved parking, HSG C
1,992	74	>75% Grass cover, Good, HSG C
382	74	>75% Grass cover, Good, HSG C
4,800	86	Weighted Average
2,374		49.46% Pervious Area
2,426		50.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	55	0.1400	0.33		Sheet Flow, Grass: Short n= 0.150 P2= 3.21"
2.8	55	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 12S: (new Subcat)

Runoff = 0.39 cfs @ 12.09 hrs, Volume= 0.031 af, Depth= 5.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.17"

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Type III 24-hr 25-yr Rainfall=6.17"

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Area (sf)	CN	Description
183	98	Roofs, HSG C
2,139	98	Paved parking, HSG C
670	74	>75% Grass cover, Good, HSG C
2,992	93	Weighted Average
670		22.39% Pervious Area
2,322		77.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	65	0.0400	1.67		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.21"
0.6	65	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 20S: Upper Parking Lot

Runoff = 1.36 cfs @ 12.09 hrs, Volume= 0.108 af, Depth= 5.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.17"

Area (sf)	CN	Description
1,105	98	Roofs, HSG C
7,697	98	Paved parking, HSG C
1,528	74	>75% Grass cover, Good, HSG C
0	70	Woods, Good, HSG C
10,330	94	Weighted Average
1,528		14.79% Pervious Area
8,802		85.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Porous Pavement

Summary for Subcatchment 21S: (new Subcat)

Runoff = 0.26 cfs @ 12.09 hrs, Volume= 0.019 af, Depth= 4.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.17"

Area (sf)	CN	Description
0	98	Roofs, HSG C
1,159	98	Paved parking, HSG C
1,005	74	>75% Grass cover, Good, HSG C
0	70	Woods, Good, HSG C
2,164	87	Weighted Average
1,005		46.44% Pervious Area
1,159		53.56% Impervious Area

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Type III 24-hr 25-yr Rainfall=6.17"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	60	0.1000	2.37		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.21"
0.4	60	Total, Increased to minimum Tc = 6.0 min			

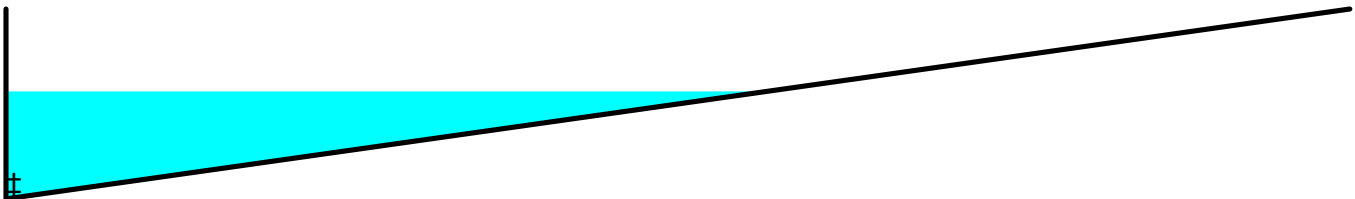
Summary for Reach 21R: Road Curb Line - POA #1

Inflow Area = 0.100 ac, 66.38% Impervious, Inflow Depth = 4.20" for 25-yr event
 Inflow = 0.53 cfs @ 12.09 hrs, Volume= 0.035 af
 Outflow = 0.53 cfs @ 12.09 hrs, Volume= 0.035 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
 Max. Velocity= 1.66 fps, Min. Travel Time= 0.0 min
 Avg. Velocity = 0.60 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 12.09 hrs
 Average Depth at Peak Storage= 0.11'
 Bank-Full Depth= 0.20' Flow Area= 1.0 sf, Capacity= 2.43 cfs

0.00' x 0.20' deep channel, n= 0.013 Asphalt, smooth
 Side Slope Z-value= 0.0 50.0 '/' Top Width= 10.00'
 Length= 1.0' Slope= 0.0100 '/'
 Inlet Invert= 31.90', Outlet Invert= 31.89'

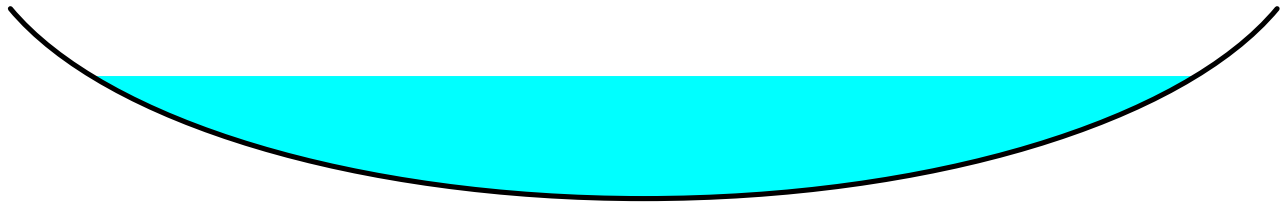
**Summary for Reach 22R: Grass Swale along RR Tracks POA #2**

Inflow Area = 0.287 ac, 79.73% Impervious, Inflow Depth = 0.81" for 25-yr event
 Inflow = 0.26 cfs @ 12.09 hrs, Volume= 0.019 af
 Outflow = 0.26 cfs @ 12.09 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
 Max. Velocity= 1.50 fps, Min. Travel Time= 0.0 min
 Avg. Velocity = 0.48 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 12.09 hrs
 Average Depth at Peak Storage= 0.16'
 Bank-Full Depth= 0.25' Flow Area= 0.3 sf, Capacity= 0.66 cfs

2.00' x 0.25' deep Parabolic Channel, n= 0.022 Earth, clean & straight
 Length= 1.0' Slope= 0.0100 '/'
 Inlet Invert= 31.90', Outlet Invert= 31.89'



‡

Summary for Pond 1P: Porous Pavement

[88] Warning: Qout>Qin may require smaller dt or Finer Routing

Inflow Area = 0.237 ac, 85.21% Impervious, Inflow Depth = 5.47" for 25-yr event
 Inflow = 1.36 cfs @ 12.09 hrs, Volume= 0.108 af
 Outflow = 1.36 cfs @ 12.09 hrs, Volume= 0.108 af, Atten= 0%, Lag= 0.1 min
 Discarded = 1.36 cfs @ 12.09 hrs, Volume= 0.108 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
 Peak Elev= 35.51' @ 12.09 hrs Surf.Area= 2,160 sf Storage= 10 cf

Plug-Flow detention time= 0.1 min calculated for 0.108 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (767.9 - 767.8)

Volume	Invert	Avail.Storage	Storage Description	
#1	35.50'	1,405 cf	Custom Stage Data (Prismatic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
35.50	2,160	0.0	0	0
36.67	2,160	40.0	1,011	1,011
38.72	2,160	5.0	221	1,232
38.80	2,160	100.0	173	1,405

Device	Routing	Invert	Outlet Devices												
#1	Discarded	35.50'	4.00 cfs Exfiltration when above 35.50' Phase-In= 0.01'												
#2	Primary	38.72'	2.0' long x 5.0' breadth Broad-Crested Rectangular Weir												
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00												
			2.50 3.00 3.50 4.00 4.50 5.00 5.50												
			Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65												
			2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88												

Discarded OutFlow Max=4.00 cfs @ 12.09 hrs HW=35.51' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 4.00 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=35.50' (Free Discharge)
 ↑2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

5431 Post2

Type III 24-hr 25-yr Rainfall=6.17"

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Summary for Pond 2P: Rain Garden

Inflow Area = 0.031 ac, 41.65% Impervious, Inflow Depth = 4.36" for 25-yr event
 Inflow = 0.15 cfs @ 12.09 hrs, Volume= 0.011 af
 Outflow = 0.15 cfs @ 12.10 hrs, Volume= 0.011 af, Atten= 0%, Lag= 0.6 min
 Discarded = 0.01 cfs @ 12.10 hrs, Volume= 0.007 af
 Primary = 0.14 cfs @ 12.10 hrs, Volume= 0.004 af

Routing by Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
 Peak Elev= 36.93' @ 12.10 hrs Surf.Area= 225 sf Storage= 72 cf

Plug-Flow detention time= 67.1 min calculated for 0.011 af (100% of inflow)
 Center-of-Mass det. time= 67.4 min (869.8 - 802.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	36.50'	88 cf	Custom Stage Data (Conic) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
36.50	115	0	0	115	
37.00	246	88	88	248	

Device	Routing	Invert	Outlet Devices										
#1	Discarded	36.50'	4.000 in/hr Exfiltration over Wetted area above 36.50' Excluded Wetted area = 115 sf Phase-In= 0.01'										
#2	Primary	36.90'	10.0' long x 2.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32										

Discarded OutFlow Max=0.01 cfs @ 12.10 hrs HW=36.93' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.14 cfs @ 12.10 hrs HW=36.93' (Free Discharge)
 ↑2=Broad-Crested Rectangular Weir (Weir Controls 0.14 cfs @ 0.45 fps)

Summary for Pond 3P: 36" SMG

Inflow Area = 0.110 ac, 50.54% Impervious, Inflow Depth = 4.57" for 25-yr event
 Inflow = 0.56 cfs @ 12.09 hrs, Volume= 0.042 af
 Outflow = 0.02 cfs @ 15.31 hrs, Volume= 0.042 af, Atten= 96%, Lag= 193.0 min
 Discarded = 0.02 cfs @ 15.31 hrs, Volume= 0.042 af

Routing by Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
 Peak Elev= 35.64' @ 15.31 hrs Surf.Area= 676 sf Storage= 1,202 cf

Plug-Flow detention time= 774.8 min calculated for 0.042 af (100% of inflow)
 Center-of-Mass det. time= 776.4 min (1,573.1 - 796.7)

5431 Post2

Type III 24-hr 25-yr Rainfall=6.17"

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Volume	Invert	Avail.Storage	Storage Description
#1	33.00'	657 cf	Custom Stage Data (Conic) Listed below (Recalc) 2,704 cf Overall - 1,060 cf Embedded = 1,644 cf x 40.0% Voids
#2	33.50'	1,060 cf	36.0" Round Pipe Storage x 3 Inside #1 L= 50.0'
		1,718 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
33.00	676	0	0	676
37.00	676	2,704	2,704	1,045

Device	Routing	Invert	Outlet Devices
#1	Discarded	33.00'	4.000 in/hr Exfiltration over Wetted area above 33.00' Excluded Wetted area = 676 sf Phase-In= 0.01'

Discarded OutFlow Max=0.02 cfs @ 15.31 hrs HW=35.64' (Free Discharge)
 ↑**1=Exfiltration** (Exfiltration Controls 0.02 cfs)

Section 5

Precipitation Table

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Metadata for Point

Smoothing	Yes
State	NH
Location	Portsmouth
Latitude	43.075 degrees North
Longitude	70.759 degrees West
Elevation	0 feet
Date/Time Time)	Mon Sep 25 2023 13:11:25 GMT-0400 (Eastern Daylight

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min	1hr	2hr	3hr	6hr	12hr	24hr	48hr	1day	2day	4day	7day	10day			
1yr	0.26	0.40	0.50	0.65	0.81	1.04	1yr	0.70	0.98	1.21	1.56	2.03	2.66	2.92	1yr	2.35	2.81	3.22	3.94	4.55	1yr
2yr	0.32	0.50	0.62	0.81	1.02	1.30	2yr	0.88	1.18	1.52	1.94	2.49	3.21	3.57	2yr	2.84	3.43	3.94	4.68	5.33	2yr
5yr	0.37	0.58	0.73	0.98	1.25	1.61	5yr	1.08	1.47	1.89	2.43	3.14	4.07	4.58	5yr	3.60	4.40	5.04	5.94	6.70	5yr
10yr	0.41	0.65	0.82	1.12	1.45	1.89	10yr	1.25	1.73	2.23	2.89	3.75	4.87	5.53	10yr	4.31	5.32	6.09	7.11	7.98	10yr
25yr	0.48	0.76	0.97	1.34	1.77	2.34	25yr	1.53	2.14	2.78	3.63	4.74	6.17	7.10	25yr	5.46	6.83	7.80	9.03	10.05	25yr
50yr	0.54	0.86	1.10	1.54	2.07	2.76	50yr	1.79	2.53	3.29	4.32	5.66	7.39	8.58	50yr	6.54	8.25	9.42	10.81	11.98	50yr
100yr	0.60	0.97	1.25	1.77	2.42	3.26	100yr	2.09	2.98	3.90	5.16	6.77	8.85	10.38	100yr	7.83	9.98	11.38	12.96	14.27	100yr
200yr	0.67	1.10	1.43	2.05	2.82	3.83	200yr	2.44	3.52	4.62	6.13	8.08	10.61	12.55	200yr	9.39	12.07	13.76	15.55	17.02	200yr
500yr	0.80	1.31	1.71	2.48	3.48	4.76	500yr	3.00	4.38	5.76	7.70	10.22	13.48	16.14	500yr	11.93	15.52	17.67	19.78	21.49	500yr

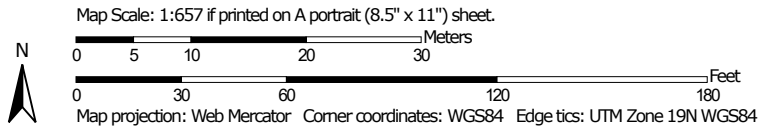
Section 6

NRCS Soil Survey

Soil Map—York County, Maine
(5431 Wentworth Street)



Soil Map may not be valid at this scale.




MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: York County, Maine
Survey Area Data: Version 21, Aug 30, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 19, 2020—Sep 20, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ur	Urban land	1.1	100.0%
Totals for Area of Interest		1.1	100.0%

Section 7

Stormwater Operations & Maintenance Plan

STORMWATER INSPECTION AND MAINTENANCE MANUAL

**The Foreside Inn
27 & 29 Wentworth Street
Kittery Assessor's Map 9 Lots 37 & 38**

**OWNER AT TIME OF APPROVAL:
Madbury Real Estate Ventures
401 Edgewater Place, Suite 570
Wakefield, MA 01880**

Proper inspection, maintenance, and repair are key elements in maintaining a successful stormwater management program on a developed property. Routine inspections ensure permit compliance and reduce the potential for deterioration of infrastructure or reduced water quality. Inspections should also be carried out after any rainfall of 1" or more. Qualified inspectors shall be Professional Engineers licensed in the State of Maine or Certified Professionals in Erosion and Sediment Control. The following responsible parties shall be in charge of managing the stormwater facilities:

RESPONSIBLE PARTIES:

Owner: Madbury Real Estate Ventures (617) 290-1269
Name Company Phone

Inspection: Madbury Real Estate Ventures (617) 290-1269
Name Company Phone

Maintenance: Madbury Real Estate Ventures (617) 290-1269
Name Company Phone

NOTES:

Inspection and maintenance responsibilities shall transfer to any future property owner(s).

This manual shall be updated as needed to reflect any changes related to any transfer of ownership and/or any delegation of inspection and maintenance responsibilities to any entity other than those listed above.



POROUS PAVEMENT

Function – Porous pavement is designed to capture rainwater runoff containing suspended solids, nutrients and pollutants. Proper maintenance of porous pavement is crucial for ensuring its longevity and functionality to infiltrate runoff.

Maintenance

- Signs shall be installed indicating the location of porous pavement and the special maintenance required.
- New porous pavement shall be inspected several times in the first month after construction and at least annually thereafter. Inspections shall be conducted after major storms to check for surface ponding that might indicate possible clogging.
- Inspect annually for pavement deterioration or spalling.
- Vacuum sweeping shall be performed 2-4 times a year. Power washing may be required prior to vacuum sweeping to dislodge trapped particles.
- Sand and abrasives shall not be used for winter maintenance, as they will clog the pores; de-icing materials shall be used instead.
- Never reseal or repave with impermeable materials. If the porous pavement is damaged, it can be repaired using conventional, non-porous patching mixes as long as the cumulative area repaired does not exceed 10 percent of the paved area.

STREET/PARKING LOT SWEEPING (DENSE PAVEMENT)

Function – Parking lots accumulate sand and debris. Street sweeping removes the sand and debris, which lowers transport of sediment and pollutants the stormwater systems and into the environment.

Maintenance

- A regular periodic cleaning schedule is recommended. The more frequent, the greater the sediment and pollutant removal. Regular cleaning of paved areas reduces the frequency of cleaning catch basins and drainage systems. It is recommended that the parking lots and access ways shall be swept at least once a month during winter months.

LANDSCAPED AREAS - FERTILIZER MANAGEMENT

Function – Fertilizer management involves controlling the rate, timing and method of fertilizer application so that the nutrients are taken up by the plants thereby reducing the chance of polluting the surface and ground waters. Fertilizer management can be effective in reducing the amounts of phosphorus and nitrogen in runoff from landscaped areas, particularly lawns.

Maintenance

- Have the soil tested by your landscaper or local Soil Conservation Service for nutrient requirements and follow the recommendations.
- Do not apply fertilizer to frozen ground.
- Clean up any fertilizer spills.
- Do not allow fertilizer to be broadcast into water bodies.
- When fertilizing a lawn, water thoroughly, but do not create a situation where water runs off the surface of the lawn.

LANDSCAPED AREAS - LITTER CONTROL

Function – Landscaped areas tend to filter debris and contaminants that may block drainage systems and pollute the surface and ground waters.

Maintenance

- Litter Control and lawn maintenance involves removing litter such as trash, leaves, lawn clippings, pet wastes, oil and chemicals from streets, parking lots, and lawns before materials are transported into surface waters.
- Litter control shall be implemented as part of the ground's maintenance program.

DRIP STRIPS

Function – Drip strips are to provide erosion control of surface where impervious surfaces meet non-impervious surfaces, such as building or roadway edges. They also can provide for the infiltration and treatment of runoff and are particularly effective for roof-generated stormwater.

Maintenance

Drip strips should be inspected annually for erosion, rutting, and migration of stone. Any areas experiencing erosion shall be properly maintained by replacing or adding additional stone to the area of concern.

STORMWATER MANAGEMENT GALLERIES

Function – Stormwater management galleries (SMG), as referred to for this project, are subsurface stormwater storage chambers with open graded stone. The SMGs provide several important stormwater functions including pre-treatment in “isolator rows” and detain stormwater to attenuate peak rates of runoff as well as provide water quality treatment by binding runoff pollutants to soil particles beneath the basin as water percolates into the subsurface.

Maintenance

Maintaining a clean and obstruction-free retention/detention system helps to ensure the system performs the intended function of the primary design. Buildup of debris may obstruct flow through the laterals in a retention system or block the entranceway of the outlet pipe in a detention system. This may result in ineffective operation or complete failure of the system. Additionally, surrounding areas may potentially run the risk of damage due to flooding or other similar issues. All retention/detention systems must be cleaned and maintained. Underground systems may be maintained more cost effectively if these simple guidelines are followed. Inspection should be performed at a minimum of once per year. Cleaning should be done at the discretion of individuals responsible for maintaining proper storage and flow. While maintenance can generally be performed year round, it should be scheduled during a relatively dry season.

GENERAL CLEAN UP

- Upon completion of the project, the contractor shall remove all temporary stormwater structures (i.e., temporary stone check dams, silt fence, temporary diversion swales, catch basin inlet filter, etc.). Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform to the existing grade, prepared, and seeded. Remove any sediment in catch basins and clean drainpipes that may have accumulated during construction.
- Once in operation, all paved areas of the site should be swept at least once annually at the end of winter/early spring prior to significant spring rains.

MUNICIPAL REPORTING

The Owner shall retain a qualified post-construction stormwater inspector to inspect the site's stormwater infrastructure. By July 1 of each year, said inspector shall provide a completed and signed certification to the Town's Code Enforcement Officer that the inspection has been completed. The notification shall include a determination of the ongoing maintenance and functionality of the infrastructure, describe any deficiencies, and outline any necessary corrective action taken or recommended to the Owner.

APPENDIX

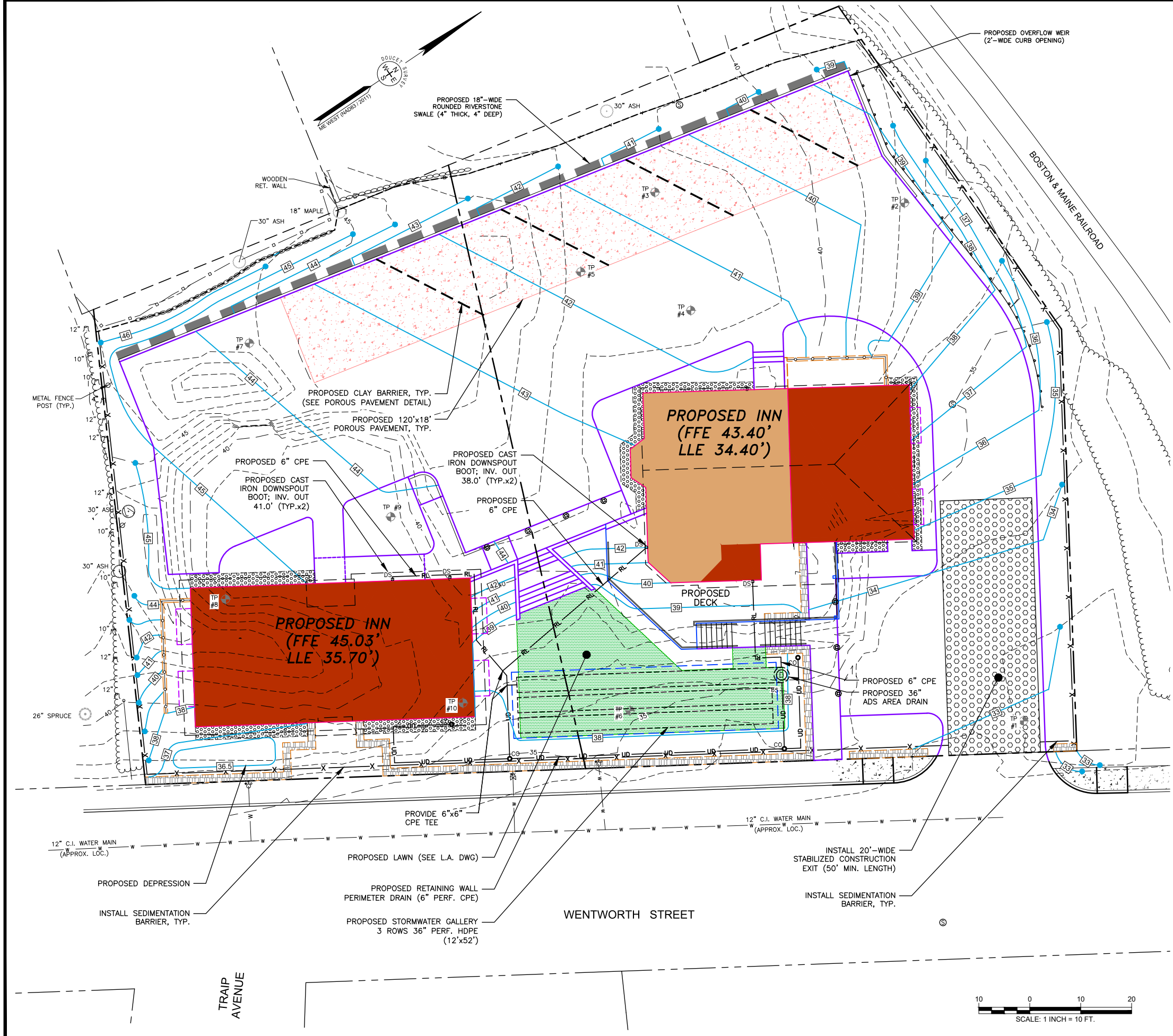
- A. Stormwater System Operations and Maintenance Report
- B. Site Grading and Drainage Plan

STORM WATER SYSTEM OPERATION AND MAINTENANCE REPORT

General Information		
Project Name	The Foreside Inn	
Owner		
Inspector's Name(s)		
Inspector's Contact Information		
Date of Inspection	Start Time:	End Time:
Type of Inspection: <input type="checkbox"/> Annual Report <input type="checkbox"/> Post-storm event <input type="checkbox"/> Due to a discharge of significant amounts of sediment		
Notes:		

General Site Questions and Discharges of Significant Amounts of Sediment			
Subject	Status	Notes	
<i>A discharge of significant amounts of sediment may be indicated by (but is not limited to) observations of the following. Note whether any are observed during this inspection:</i>			
<i>Notes/ Action taken:</i>			
1	Do the current site conditions reflect the attached site plan?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2	Is the site permanently stabilized, temporary erosion and sediment controls are removed, and stormwater discharges from construction activity are eliminated?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
3	Is there evidence of the discharge of significant amounts of sediment to surface waters, or conveyance systems leading to surface waters?	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Permit Coverage and Plans				
#	BMP/Facility	Inspected	Corrective Action Needed and Notes	Date Corrected
	Grassed Underdrained Soil Filter	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Yard Drains	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Drainage Pipes	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Plunge Pool	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Vegetated Areas	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Stormwater Management Gallery (Infiltration Basin)	<input type="checkbox"/> Yes <input type="checkbox"/> No		
		<input type="checkbox"/> Yes <input type="checkbox"/> No		



- EROSION AND SEDIMENT CONTROL NOTES:**
- DO NOT BEGIN CONSTRUCTION UNTIL ALL STATE AND LOCAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.
 - THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED UPON THE FIELD LOCATION OF ALL VISIBLE STRUCTURES (IE. CATCH BASINS, WATER GATES, ETC.) AND INFORMATION COMPILED FROM PLANS PROVIDED BY UTILITY PROVIDERS AND GOVERNMENTAL AGENCIES. AS SUCH, THEY ARE NOT INCLUSIVE AS OTHER UTILITIES AND UNDERGROUND STRUCTURES THAT ARE NOT SHOWN ON THE PLANS MAY EXIST. THE ENGINEER, SURVEYOR AND OWNER ACCEPT NO RESPONSIBILITY FOR POTENTIAL INACCURACIES IN THE PLAN AND/OR UNFORESEEN CONDITIONS.
 - PERIMETER SEDIMENT CONTROLS AND CATCH BASIN INLET PROTECTION MEASURES SHALL BE INSTALLED AFTER TREE CLEARING OPERATIONS HAVE CEASED AND BEFORE ANY STUMPING, GRUBBING OR OTHER EARTH DISTURBANCE.
 - NO EARTHWORK SHALL COMMENCE UNTIL ALL APPROPRIATE SEDIMENT AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE PROPERLY MAINTAINED IN GOOD WORKING ORDER FOR THE DURATION OF CONSTRUCTION AND THE SITE IS STABILIZED.
 - ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE DESIGN STANDARDS AND SPECIFICATIONS SET FORTH BY THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
 - CONTRACTOR SHALL CONTROL DUST BY SPRAYING WATER, SWEEPING PAVED SURFACES, PROVIDING TEMPORARY VEGETATION, AND/OR MULCHING EXPOSED AREAS AND STOCKPILES.
 - GRIND STUMPS AND REUSE GRINDINGS FOR EROSION CONTROL WHERE POSSIBLE. NO STUMPS SHALL BE BURIED ON SITE.
 - ORGANIC FILTER BERMS AND/OR OTHER PERIMETER CONTROLS MAY BE USED IN LIEU OF SILTFENCE IN CERTAIN APPLICATIONS WHEN APPROVED IN WRITING BY THE ENGINEER.
 - THE CONTRACTOR SHALL TAKE WHATEVER MEANS NECESSARY TO PREVENT EROSION, PREVENT SEDIMENT FROM LEAVING THE SITE AND ENSURE PERMANENT SOIL STABILIZATION.
 - ALL CATCH BASINS AND CULVERTS SHALL BE PROVIDED APPROPRIATE TEMPORARY INLET PROTECTION (SEE DETAILS).
 - ALL EROSION CONTROL BLANKETS AND FASTENERS SHALL BE BIODEGRADABLE.
 - ALL EROSION CONTROL BLANKETS SHALL BE BY NORTH AMERICAN GREEN OR EQUAL AS APPROVED IN WRITING BY THE ENGINEER.
 - ALL SWALES, STORMWATER PONDS AND THEIR CONTRIBUTING AREAS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
 - ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE SIX (6") INCHES OF LOAM, LIMESTONE, FERTILIZER, SEED, AND MULCH USING APPROPRIATE SOIL STABILIZATION TECHNIQUES. SEE DETAILS FOR ADDITIONAL INFORMATION.
 - UPON COMPLETION OF CONSTRUCTION, ALL DRAINAGE INFRASTRUCTURE SHALL BE CLEANED OF ALL DEBRIS AND SEDIMENT.
 - UPON COMPLETION OF CONSTRUCTION, ALL TEMPORARY EROSION AND SEDIMENT CONTROLS SHALL BE REMOVED AND ANY AREAS DISTURBED BY THE REMOVAL SMOOTHED AND REVEGETATED.

TEST PIT LOGS:

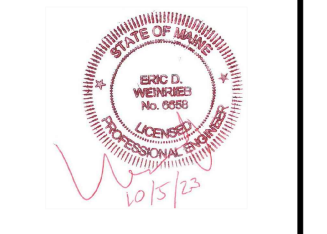
TP #	ESHW:	REFUSAL:	OBSERVED WATER:
TP #1	36"	NONE	60"
TP #2	5"-32" RIPABLE	NONE	NONE
TP #3	40"-64"	NONE	NONE
TP #4	26"-40"	NONE	NONE
TP #5	55"	NONE	NONE
TP #6	56"	NONE	NONE
TP #7	6" RIPABLE	NONE	NONE
TP #8	16" RIPABLE	NONE	NONE
TP #9	9" RIPABLE	NONE	NONE
TP #10	20"-53" RIPABLE	NONE	NONE

LEGEND:

- 34---
- 34---
- TP #
- PD
- UD
- RL
- CO

EXISTING CONTOUR
PROPOSED CONTOUR
EXISTING TEST PIT
PROPOSED 6" CPE DRAIN
PROPOSED 6" PERF. UNDERDRAIN
PROPOSED 6" CPE ROOF LEADER
PROPOSED 6" CLEANOUT

ALTUS ENGINEERING
133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com



NOT FOR CONSTRUCTION

ISSUED FOR:
PRELIM. SITE PLAN APPROVAL

ISSUE DATE:
OCTOBER 5, 2023

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EDW	08/24/23
1	TOWN COMMENTS	EDW	10/05/23

DRAWN BY: _____ RMB
APPROVED BY: _____ EDW
DRAWING FILE: 5431SITE.dwg

SCALE:
(22"x34") 1" = 10'
(11"x17") 1" = 20'

OWNER:
**27 WENTWORTH STREET, LLC
& MREV KITTERY INN, LLC
401 EDGEWATER PLACE,
SUITE 570
WAKEFIELD, MA 01880**

APPLICANT:
**MADBURY REAL ESTATE
VENTURES
401 EDGEWATER PLACE,
SUITE 570
WAKEFIELD, MA 01880**

PROJECT:
THE FORESIDE INN

**TAX MAP 9
LOTS 37 & 38
27 & 29 WENTWORTH STREET
KITTERY, MAINE**

TITLE:
**STORMWATER
MGMT. PLAN**

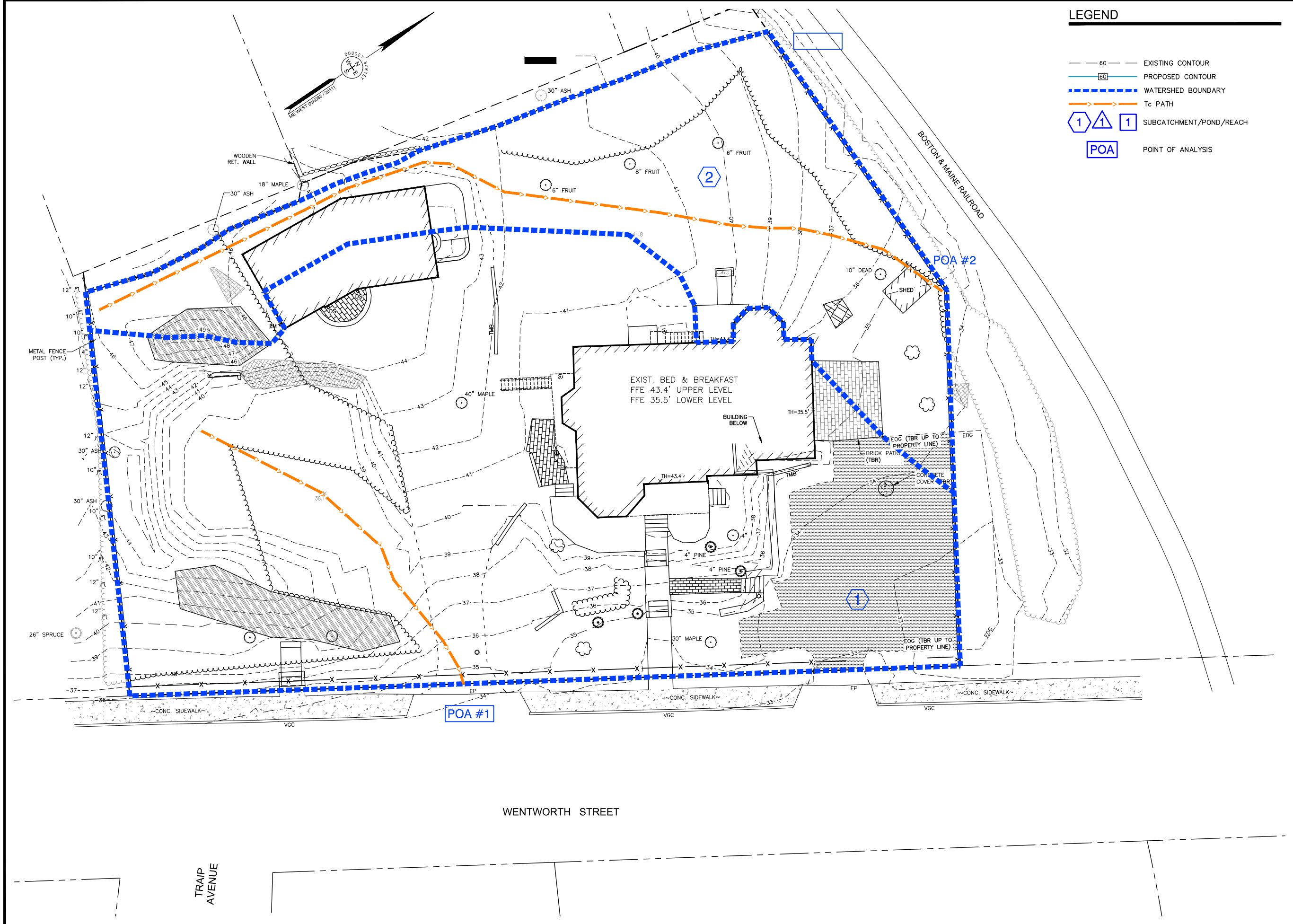
SHEET NUMBER:
C - 3

Section 8

Watershed Plans

Pre-Development Drainage Area Plan

Post-Development Drainage Area Plan



LEGEND

- 60 — EXISTING CONTOUR
- 60 — PROPOSED CONTOUR
- — WATERSHED BOUNDARY
- — Tc PATH
- ① ① ① SUBCATCHMENT/POND/REACH
- POA POINT OF ANALYSIS



133 Court Street Portsmouth, NH 03801
 (603) 433-2335 www.altus-eng.com



NOT FOR CONSTRUCTION

ISSUED FOR: APPROVAL

ISSUE DATE: AUGUST 24, 2023

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EDW	08/24/23

DRAWN BY: RMB
 APPROVED BY: EDW
 DRAWING FILE: 5433SITE.dwg

SCALE:
 (22"x34") 1" = 10'
 (11"x17") 1" = 20'

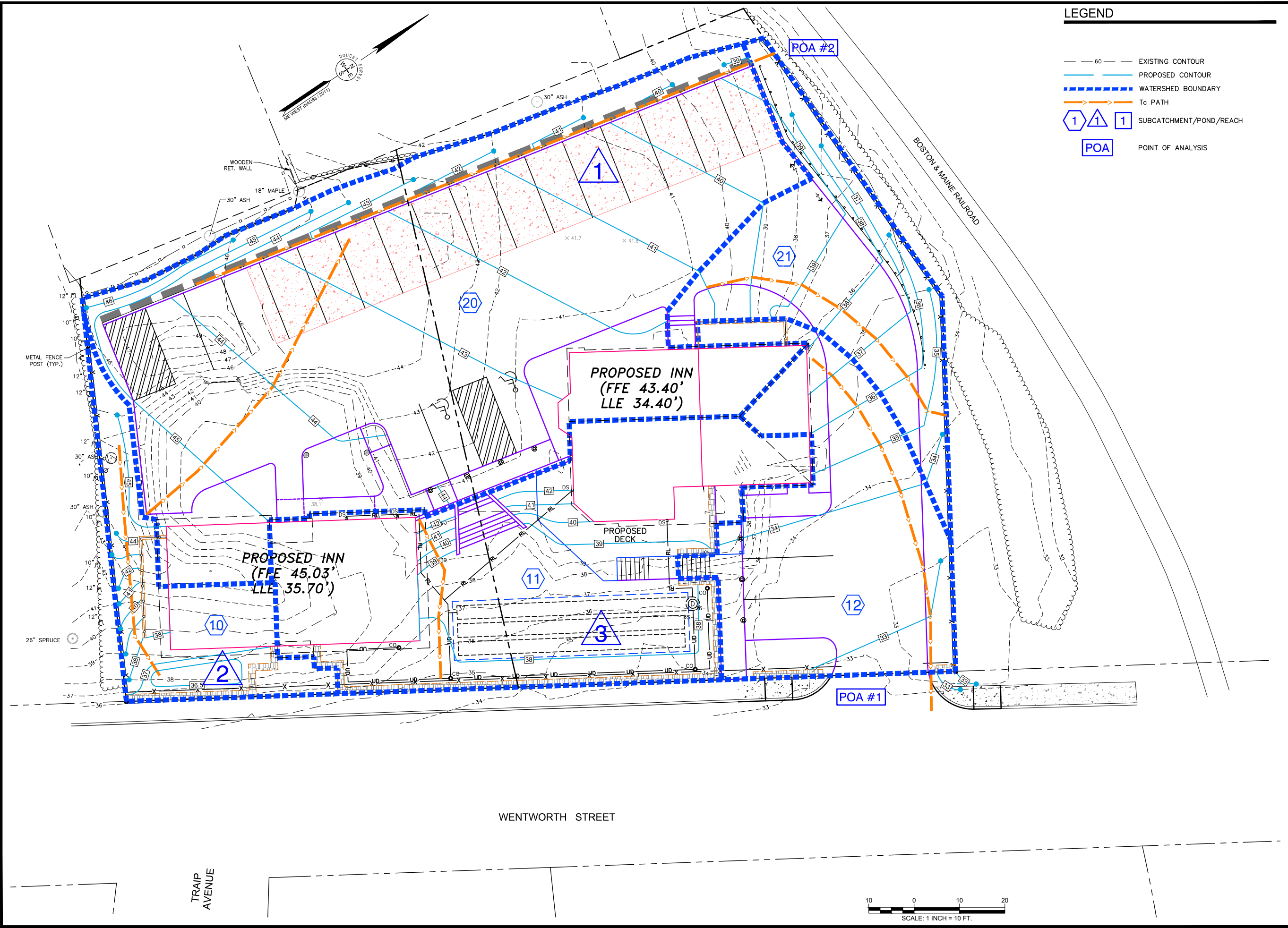
OWNER:
 NANCY P. BOGENBERGER
 29 WENTWORTH STREET
 KITTERY, MAINE 03904

APPLICANT:
 MADBURY REAL ESTATE
 VENTURES
 401 EDGEWATER PLACE,
 SUITE 570
 WAKEFIELD, MA 01880

PROJECT:
 INN
 RE-DEVELOPMENT
 TAX MAP 9
 LOTS 37 & 38
 27 & 29 WENTWORTH STREET
 KITTERY, MAINE

TITLE:
 PRE-DEVELOPMENT
 WATERSHED
 PLAN

SHEET NUMBER:
 WS - 1

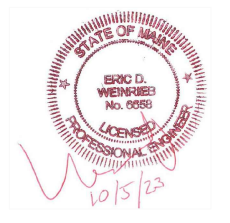


LEGEND

- 60 --- EXISTING CONTOUR
- PROPOSED CONTOUR
- WATERSHED BOUNDARY
- Tc PATH
- 1 1 1 SUBCATCHMENT/POND/REACH
- POA POINT OF ANALYSIS



133 Court Street Portsmouth, NH 03801
 (603) 433-2335 www.altus-eng.com



NOT FOR CONSTRUCTION
 ISSUED FOR: APPROVAL
 ISSUE DATE: OCTOBER 5, 2023

REVISIONS		
NO.	DESCRIPTION	BY DATE
0	INITIAL SUBMISSION	EDW 07/11/23
1	TOWN COMMENTS	EDW 10/05/23

DRAWN BY: RMB
 APPROVED BY: EDW
 DRAWING FILE: 5431SITE.dwg

SCALE:
 (22"x34") 1" = 10'
 (11"x17") 1" = 20'

OWNER:
 27 WENTWORTH STREET, LLC
 & MREV KITTERY INN, LLC
 401 EDGEWATER PLACE,
 SUITE 570
 WAKEFIELD, MA 01880

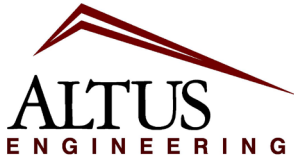
APPLICANT:
 MADBURY REAL ESTATE
 VENTURES
 401 EDGEWATER PLACE,
 SUITE 570
 WAKEFIELD, MA 01880

PROJECT:
THE FORESIDE INN

 TAX MAP 9
 LOTS 37 & 38
 27 & 29 WENTWORTH STREET
 KITTERY, MAINE

TITLE:
**POST-DEVELOPMENT
 WATERSHED
 PLAN**

SHEET NUMBER:
WS - 2



**Civil
Site Planning
Environmental
Engineering**

133 Court Street
Portsmouth, NH
03801-4413

November 3, 2023

Maxim Zakian, Town Planner
Town of Kittery
200 Rogers Road
Kittery, Maine 03904

**Re: Site Plan Review
Tax Map 9, Lots 37 & 38
27 & 29 Wentworth Street
P5431**

Advanced copy via email to: mzakian@kitteryme.org

Dear Max:

On October 5, 2023, Altus Engineering (Altus) re-submitted the Preliminary Review Site Plan applicant package for consideration at the November 16, 2023, Public Hearing. On October 17, 2023, we received a copy of the legal opinion regarding open space and the innkeeper's unit. Subsequently, we have reviewed the design to include an innkeeper's unit for each lot. Additionally, we have reduced the number of parking spaces and adjusted the lot line between parcels to meet the 40% open space requirement on each lot.

An updated package was submitted on October 5, 2023, addressing most of the CMA's comments from their September 22, 2023 letter. The following comments have since been revised based on the October 17, 2023 legal opinion. Altus responses are in red:

The applicant has requested a waiver from 16.4.25.i. requiring a minimum of 40% open space. The 40% minimum is not met on either lot. It is not clear why the applicant has not met the minimum and is applying for a waiver. **Altus: A Preliminary Lot Line Adjustment Plan has been included in this plan so each lot will meet the Town's 40% green space requirement.**

A. Sewage disposal

The applicant is proposing to connect the inns to public sewer through separate services. The service for Lot 37 is located within the stormwater treatment device footprint. Alternative configurations should be analyzed. Kittery sewer services should review components of the design. **Altus: We have subsequently received the tie sheet of existing service connections for both lots. Each building will utilize these existing connections; therefore, no new connection is required.**

Please contact me directly if you have any questions or require any additional information.

Sincerely,

ALTUS ENGINEERING



Eric D. Weinrieb, P.E.

President

RMB/edw/5431.Town.resp.ltr.docx

Enclosures

ecopy: Taylor McMaster, Madbury Real Estate Ventures
Brandon Holden, Winter Holden Architecture
Robbi Woodburn, Landscape Architect

THE FORESIDE INN

27 & 29 WENTWORTH STREET
KITTERY, MAINE

Assessor's Parcel 9, Lots 37 & 38

Owner:

27 WENTWORTH STREET, LLC
&
MREV KITTERY INN, LLC

401 EDGEWATER PLACE, SUITE 570
WAKEFIELD, MA 01880

Plan Issue Date:

August 24, 2023
October 5, 2023
November 3, 2023

Preliminary Site Plan Review
Resubmit Preliminary Site Plan
Resubmit Preliminary Site Plan

Applicant:

MADBURY REAL ESTATE VENTURES

401 EDGEWATER PLACE, SUITE 570
WAKEFIELD, MA 01880

Architect:

**WINTER
HOLBEN** 7 Wallingford Square
Unit 2099
Kittery, ME 03904
architecture + design (207) 994-3104

Landscape Architect:

**woodburn
& company**
LANDSCAPE ARCHITECTURE
103 Kent Place Newmarket, New Hampshire Phone: 603.659.5949

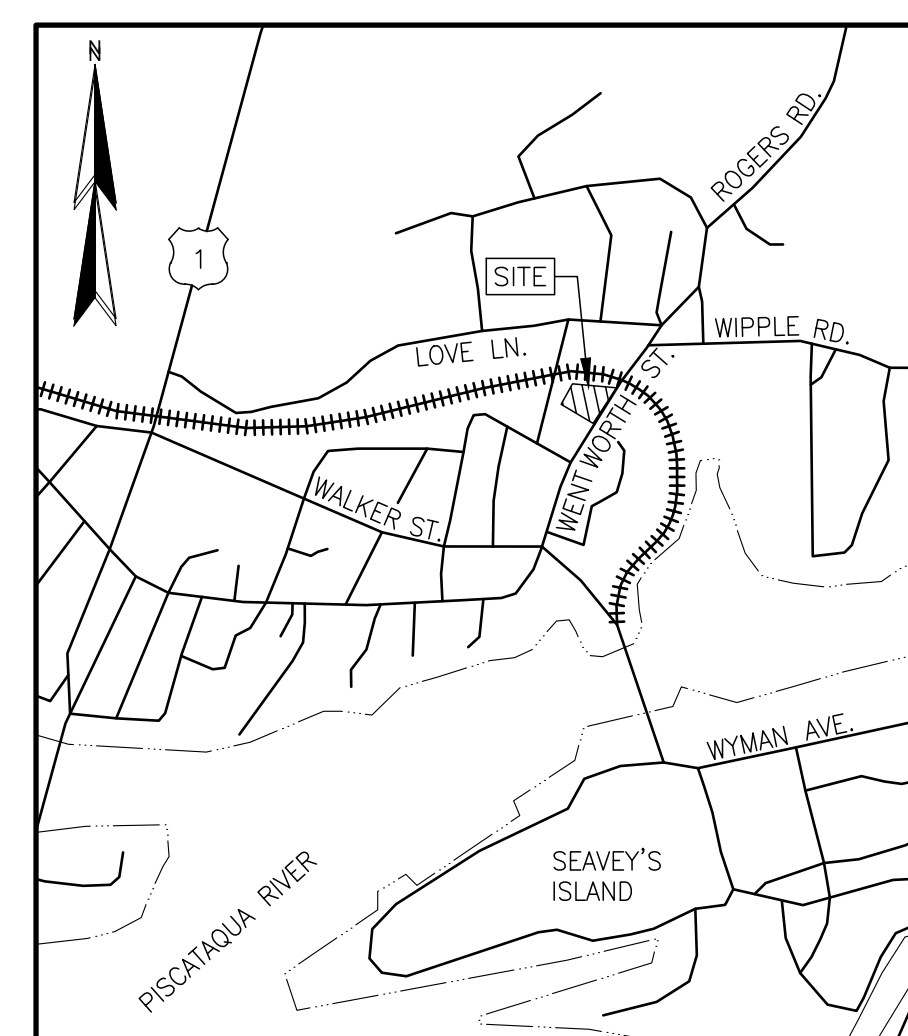
Civil Engineer:

ALTUS
ENGINEERING

133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com

Surveyor:

**DOUCET
SURVEY**
Serving Your Professional Surveying & Mapping Needs
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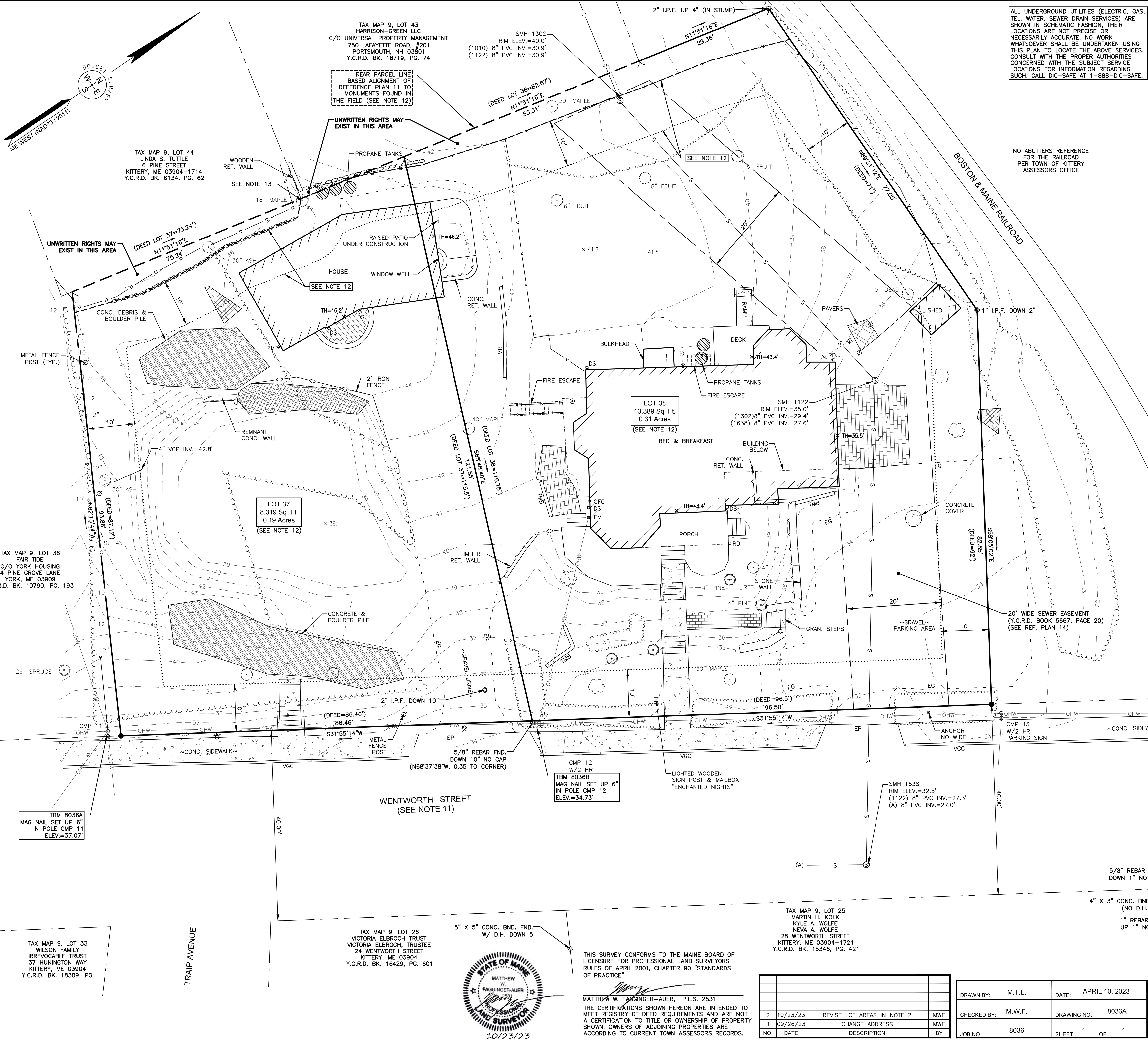
LOCUS

NOT TO SCALE

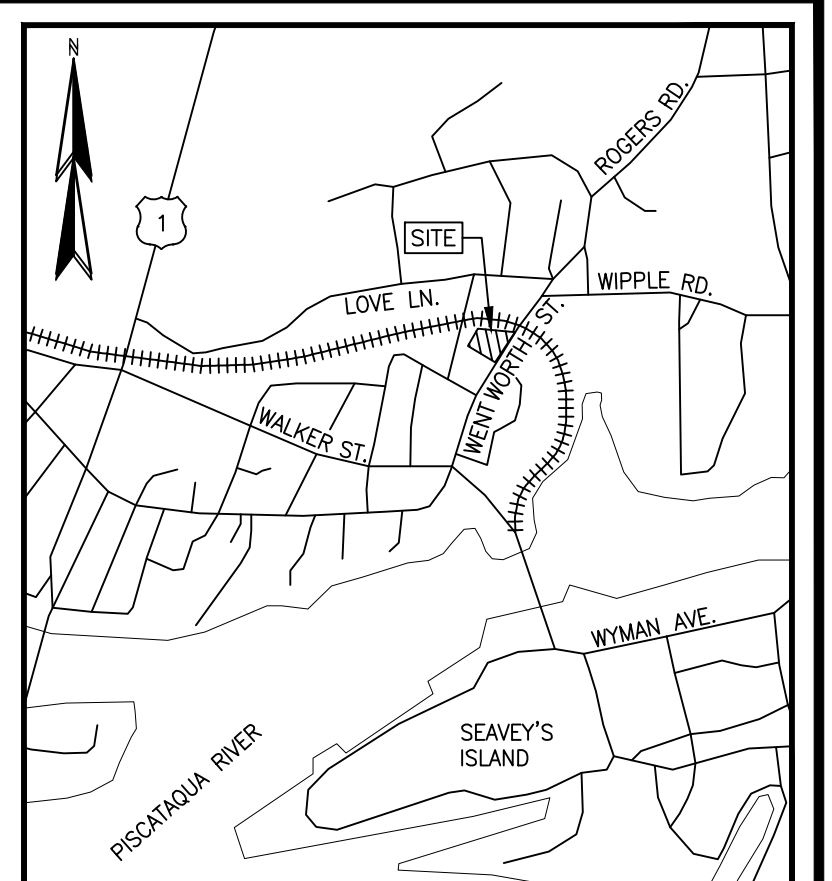
Sheet Index

Title	Sheet No.:	Rev.	Date
Existing Conditions Plan	1 of 1	0	10/23/23
Preliminary Lot Line Adjustment Plan	1 of 1	0	11/03/23
Site Preparation Plan	C-1	0	11/03/23
Site Plan	C-2	0	11/03/23
Stormwater Mgmt. Plan	C-3	0	11/03/23
Grading Plan	C-4	0	11/03/23
Utility Plan	C-5	0	11/03/23
Landscape Plan	L-1	0	11/03/23
Detail Sheet	C-6	0	11/03/23
Detail Sheet	C-7	0	11/03/23
Detail Sheet	C-8	0	11/03/23
Detail Sheet	C-9	0	11/03/23
Detail Sheet	C-10	0	11/03/23

- NOTES:**
- REFERENCE: TAX MAP 9, LOTS 37 & 38 27 & 28 WENTWORTH STREET KITTERY, MAINE
 - TOTAL PARCEL AREA: LOT 37 = 8,319 SQ. FT. OR 0.19 AC. (SEE NOTE 12) LOT 38 = 13,389 SQ. FT. OR 0.31 AC. (SEE NOTE 12)
 - OWNER OF RECORD: NANCY P. BOGENBERGER 29 WENTWORTH STREET KITTERY, ME 03904-1720 Y.C.R.D. BK. 6527, PG. 279 - LOT 37 Y.C.R.D. BK. 4993, PG. 227 - LOT 38
 - FIELD SURVEY PERFORMED BY J.P.E. & S.N.F. (DOUCET SURVEY) DURING ON APRIL 4, 2023 USING A TOTAL STATION AND A SURVEY GRADE GPS WITH A DATA COLLECTOR AND A DIGITAL LEVEL. TRAVERSE ADJUSTMENT BASED ON LEAST SQUARE ANALYSIS.
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 - VERTICAL DATUM IS BASED ON NAVD88 PER CONTROL SURVEY PERFORMED IN 2018/2019 BY DOUCET SURVEY FOR THE PORTSMOUTH NAVAL SHIPYARD.
 - FLOOD HAZARD ZONE: "C", PER FIRM MAP #2301710008D, DATED 7/3/1986.
 - PROPER FIELD PROCEDURES WERE FOLLOWED IN ORDER TO GENERATE CONTOURS AT 1' INTERVALS. ANY MODIFICATION OF THIS INTERVAL WILL DIMINISH THE INTEGRITY OF THE DATA, AND DOUCET SURVEY WILL NOT BE RESPONSIBLE FOR ANY SUCH ALTERATION PERFORMED BY THE USER.
 - UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON OBSERVED PHYSICAL EVIDENCE AND PAINT MARKS FOUND ON-SITE.
 - THE ACCURACY OF MEASURED UTILITY INVERTS AND PIPE SIZES/TYPES IS SUBJECT TO NUMEROUS FIELD CONDITIONS, INCLUDING: THE ABILITY TO MAKE VISUAL OBSERVATIONS, DIRECT ACCESS TO THE VARIOUS ELEMENTS, MANHOLE CONFIGURATION, ETC.
 - DUE TO THE COMPLEXITY OF RESEARCHING ROAD RECORDS AS A RESULT OF INCOMPLETE, UNORGANIZED, INCONCLUSIVE, OBLITERATED, OR LOST DOCUMENTS, THERE IS AN INHERENT UNCERTAINTY INVOLVED WHEN ATTEMPTING TO DETERMINE THE LOCATION AND WIDTH OF A ROADWAY RIGHT OF WAY. THE EXTENT OF WENTWORTH STREET AS DEPICTED HEREON IS/ARE BASED ON RESEARCH CONDUCTED AT THE YORK COUNTY REGISTRY OF DEEDS, THE TOWN OF KITTERY AND MAINE DEPARTMENT OF TRANSPORTATION. WENTWORTH STREET IS LISTED AS A 40' WIDE RIGHT OF WAY PER YORK COUNTY COMMISSIONERS RECORDS VOLUME 16, PAGE 255 & VARIABLE WIDTH PER Y.C.R.D. BOOK 2828, PAGE 137. SEE ALSO REFERENCE PLAN 2.
 - THE BOUNDARY LINES AS SHOWN ARE A REPRESENTATION OF THE DEEDED BOUNDARIES BASED ON THE OPERATIVE RECORDS AND THE LIMITED BOUNDARY EVIDENCE FOUND IN THE FIELD. UNWRITTEN RIGHTS MAY APPLY WHERE LINES OF OCCUPATION DIFFER FROM THE BOUNDARY LINES AS SHOWN. LAND OWNER SHOULD CONSULT WITH AN ATTORNEY PRIOR TO DEVELOPMENT NEAR LINES OF OCCUPATION.
 - PARCEL AREAS AND THE SETBACKS ALONG THE WESTERLY BOUNDARY LINES ARE BASED ON A LINE ESTABLISHED FROM PHYSICAL EVIDENCE SUCH AS STONE WALLS AND FENCES AS THE LIMITS OF OCCUPATION FOR THE SUBJECT AND ADJUTING PARCELS.
 - PER DISCUSSION WITH LINDA TUTTLE ON 6/5/23, AT THE TIME SHE ERRECTED HER FENCE 20+ YEARS AGO THE ABUTTER OF OUR SUBJECT PARCEL INDICATED THE COMMON LOT LINE SPLIT THE MAPLE TREE SHOWN. ATTEMPTS TO REACH THE OWNERS OF TAX MAP 9, LOT 36 AND LOT 43 VIA CERTIFIED MAIL AND PHONE WERE UNSUCCESSFUL.
 - THE DEED FOR LOT 38, Y.C.R.D. BOOK 4993, PAGE 227 HAS AN ERROR IN CLOSURE OF 11.98".
- REFERENCE PLANS:**
- STANDARD BOUNDARY SURVEY PREPARED FOR PHYLIS F. GRAY, WENTWORTH STREET, KITTERY, MAINE DATED JULY 1997 BY ANDERSON LIVINGSTON ENGINEERS, INC. FILE NO. 5771, PLAN NO. 1505.970701 (NOT RECORDED)
 - "STATE OF MAINE DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS RIGHT OF WAY MAP, STATE HIGHWAY "100" KITTERY, YORK COUNTY FEDERAL AID PROJECT NO. M-4220(1) & M-4220(2)" DATED MAY 1981 Y.C.R.D. PLANS 139-57 & 58.
 - "PLAN SHOWING PORTION OF PROPERTY OF GERTRUDE P. WILSON TO BE CONVEYED TO GEORGE B. LANDERS. LOCATED IN KITTERY, YORK COUNTY, ME." DATED APRIL 9, 1954 BY MOULTON ENGINEERING CO. Y.C.R.D. PLAN 25-22.
 - "PLAN SHOWING PROPERTY OF GEORGE S. WOOD, LOCATED IN KITTERY, YORK COUNTY, ME.", DATED AUGUST 1953, BY MOULTON ENGINEERING CO., Y.C.R.D. PLAN 25-9.
 - "PLAN SHOWING DIVISION OF ANDREW'S ELECTRICAL SHOP, INC. AND EMILE H. LEBEL, JR. & WILLETTA J. LEBEL, KITTERY, YORK COUNTY, ME.", DATED AUGUST 1956, BY MOULTON ENGINEERING CO., Y.C.R.D. PLAN 21-20.
 - "STANDARD BOUNDARY SURVEY OF THE RICE PUBLIC LIBRARY LOT, WENTWORTH ST. & TRAP AVE, KITTERY, MAINE" DATED JAN. 18, 1981 BY EASTERLY SURVEYING Y.C.R.D. PLAN 201-11.
 - "STATE OF MAINE DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP, "ROGERS ROAD" KITTERY, YORK COUNTY, FEDERAL AID PROJECT NO. M-STP-4215(2)" DATED MARCH 1993 SHEET 1 OF 6 Y.C.R.D. PLAN 269-6.
 - "STANDARD BOUNDARY SURVEY FOR PROPERTY AT 17 WENTWORTH STREET, KITTERY, YORK COUNTY, MAINE, OWNED BY EDMUND K. ARNOLD & BYONG HWAN KIM", BY NORTHEASTERLY SURVEYING, INC., DATED JULY 31, 2003, Y.C.R.D. PLAN 284-24.
 - "STANDARD BOUNDARY AND TOPOGRAPHIC SURVEY, OF LAND OF THE ROMAN CATHOLIC BISHOP OF PORTLAND, ST. RAPHAEL'S CHURCH, WENTWORTH ST. & WHIPPLE RD., KITTERY, MAINE" DATED 2/21/2001 BY CIVIL CONSULTANTS (NOT RECORDED).
 - "LAND IN KITTERY, MAINE, YORK HARBOR & BEACH R.R. CO. TO BOSTON & MAINE R.R.", DATED APRIL 1927, Y.C.R.D. PLAN 10-69.
 - "PLAN OF HOUSE LOTS IN KITTERY MAINE OWNED BY ROBERT M. OTIS & CAROLINE L. LOCKE", BY MOSES A. SAFFORD, DATED JUNE 27, 1870, Y.C.R.D. PLAN 1-72.
 - "CENTERLINE SURVEY FOR A DRAINAGE EASEMENT AND PERIMETER SURVEY FOR 1.4 ACRE ACQUISITION, NAVAL SHIPYARD, PORTSMOUTH, NH." DATED OCT. 23, 1998 BY OAK POINT ASSOCIATES (NOT RECORDED).
 - "RIGHT OF WAY AND TRACK MAP (FORMERLY YORK BARBOR & BEACH R.R. CO.) BOSTON AND MAINE R.R., OPERATED BY THE BOSTON AND MAINE R.R., STATION 0+00 TO STATION 52+80", DATED JUNE 30, 1914, BY THE OFFICE OF VALUATION ENGINEER, BOSTON, MASS (NOT RECORDED).
 - "REVISED SEWER EASEMENT, KITTERY MAP 9, LOT 38", DATED MARCH 22, 1991, BY ANDERSON LIVINGSTON, (NOT RECORDED).



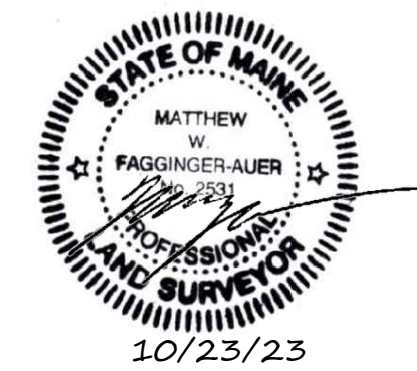
ALL UNDERGROUND UTILITIES (ELECTRIC, GAS, TEL. WATER, SEWER DRAIN SERVICES) ARE SHOWN IN SCHEMATIC FASHION, THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE SUBJECT SERVICE LOCATIONS FOR INFORMATION REGARDING SUCH. CALL DIG-SAFE AT 1-888-DIG-SAFE.



- LEGEND**
- EXISTING LOT LINE
 - APPROXIMATE ABUTTERS LOT LINE
 - MAJOR CONTOUR LINE
 - MINOR CONTOUR LINE
 - STONE WALL
 - REMAINT STONE WALL
 - RETAINING WALL
 - STOCKADE FENCE
 - PICKET FENCE
 - POST & RAIL FENCE
 - WIRE FENCE
 - OVERHEAD WIRE
 - SEWER LINE
 - TREE LINE
 - SHRUB LINE
 - EMBRITTE
 - PILE
 - LEDGE OUTCROP
 - SPOT GRADE
 - FENCE POST
 - WOODEN POST
 - POST
 - UTILITY POLE & GUY WIRE
 - UTILITY POLE W/LIGHT
 - LIGHT POST
 - SEWER MANHOLE
 - WATER GATE VALVE
 - FALCET
 - ELECTRIC METER
 - CONFERRER TREE
 - DECIDUOUS TREE
 - DECIDUOUS BUSH
 - TREE STUMP
 - CONCRETE
 - CONC. DRAIN
 - EDGE OF GRAVEL
 - GRANITE
 - OFC
 - PVC
 - ROOF DRAIN
 - RETAINING WALL
 - THRESHOLD ELEVATION
 - TIMBER EDGE / CURB
 - VITREOUS CLAY PIPE
 - VERTICAL GRANITE CURB
 - INVERT I.D. CONNECTION UNKNOWN
 - PIPE/ROD FOUND
 - 5/8" REBAR W/D CAP TO BE SET
- ZONE: MU-KF**
- DIMENSIONAL REQUIREMENTS:**
- MIN. LOT SIZE: 5,000 SQ. FT.
 - MIN. FRONTAGE: 0 FT.
 - MIN. FRONT SETBACK: 10 FT.
 - MIN. SIDE/REAR SETBACK: 10 FT.
 - MAX. BUILDING HEIGHT: 40 FT.
 - MAX. BUILDING COVERAGE: 60 %
 - MIN. OPEN SPACE ON SITE: 40%
- *SEE TOWN OF KITTERY LAND USE ZONE REGULATIONS FOR ADDITIONAL DIMENSIONAL REQUIREMENTS.

EXISTING CONDITIONS PLAN
FOR
MADBURY REAL ESTATE VENTURES
OF
TAX MAP 9, LOTS 37 & 38
27 & 29 WENTWORTH STREET
KITTERY, MAINE

SCALE: 1 INCH = 10 FT.



THIS SURVEY CONFORMS TO THE MAINE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS RULES OF APRIL 2001, CHAPTER 90 "STANDARDS OF PRACTICE".

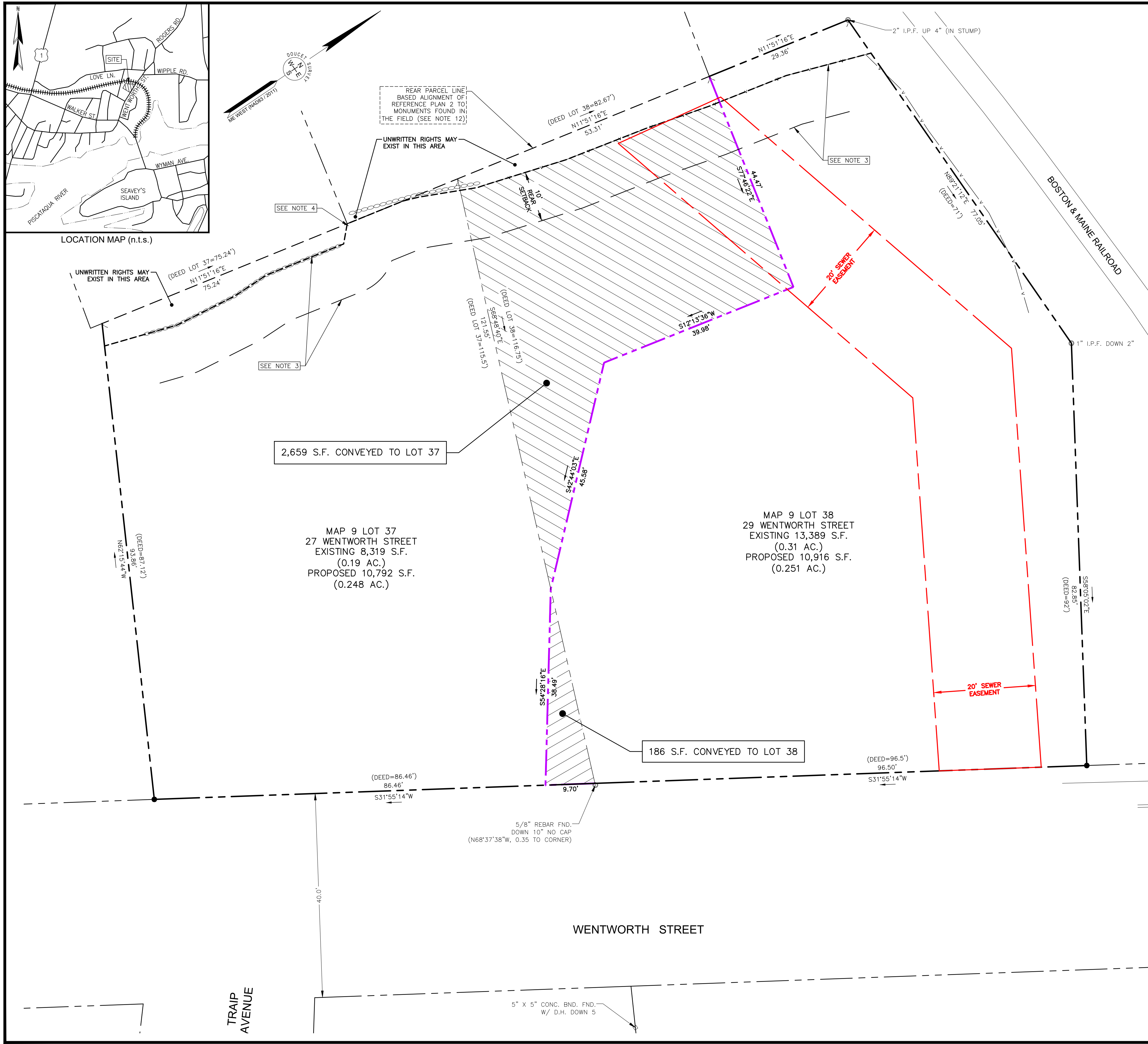
MATTHEW W. FARGINGER-AUER, P.L.S. 2531
THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET CERTIFICATION OF DEED REQUIREMENTS AND ARE NOT A CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT TOWN ASSESSORS RECORDS.

NO.	DATE	DESCRIPTION	BY
2	10/23/23	REVISE LOT AREAS IN NOTE 2	MWF
1	09/26/23	CHANGE ADDRESS	MWF

DRAWN BY:	M.T.L.	DATE:	APRIL 10, 2023
CHECKED BY:	M.W.F.	DRAWING NO.:	8036A
JOB NO.:	8036	SHEET	1 OF 1

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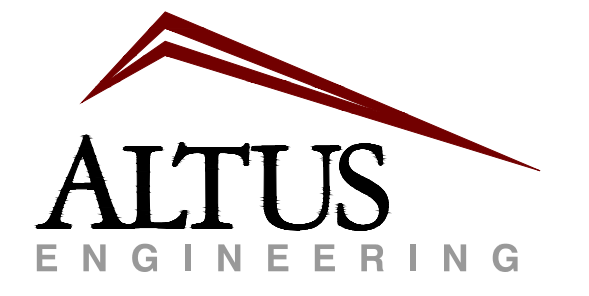
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TOWN OF KITTERY, PLANNING BOARD

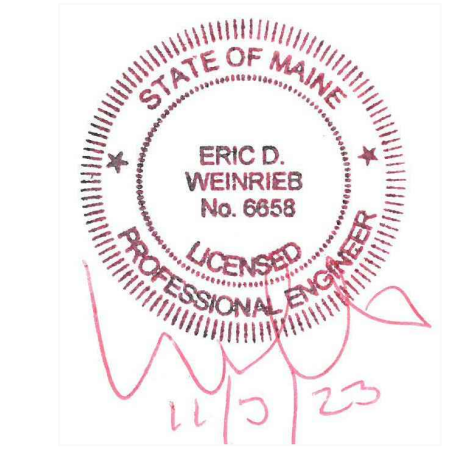
CHAIR	DATE
OWNER	DATE
APPLICANT	DATE

YORK ss REGISTRY OF DEEDS
 RECEIVED _____ 20__
 AT _____ H _____ M _____ M., AND
 RECORDED IN BOOK _____ PAGE _____
 ATTEST:

 REGISTER



133 Court Street Portsmouth, NH 03801
 (603) 433-2335 www.altus-eng.com



NOT FOR CONSTRUCTION

ISSUED FOR:
PRELIM. SITE PLAN APPROVAL

ISSUE DATE:
NOVEMBER 3, 2023

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EDW	11/03/23

DRAWN BY: _____ RMB
 APPROVED BY: _____ EDW
 DRAWING FILE: _____ 5431SITE.dwg

SCALE:
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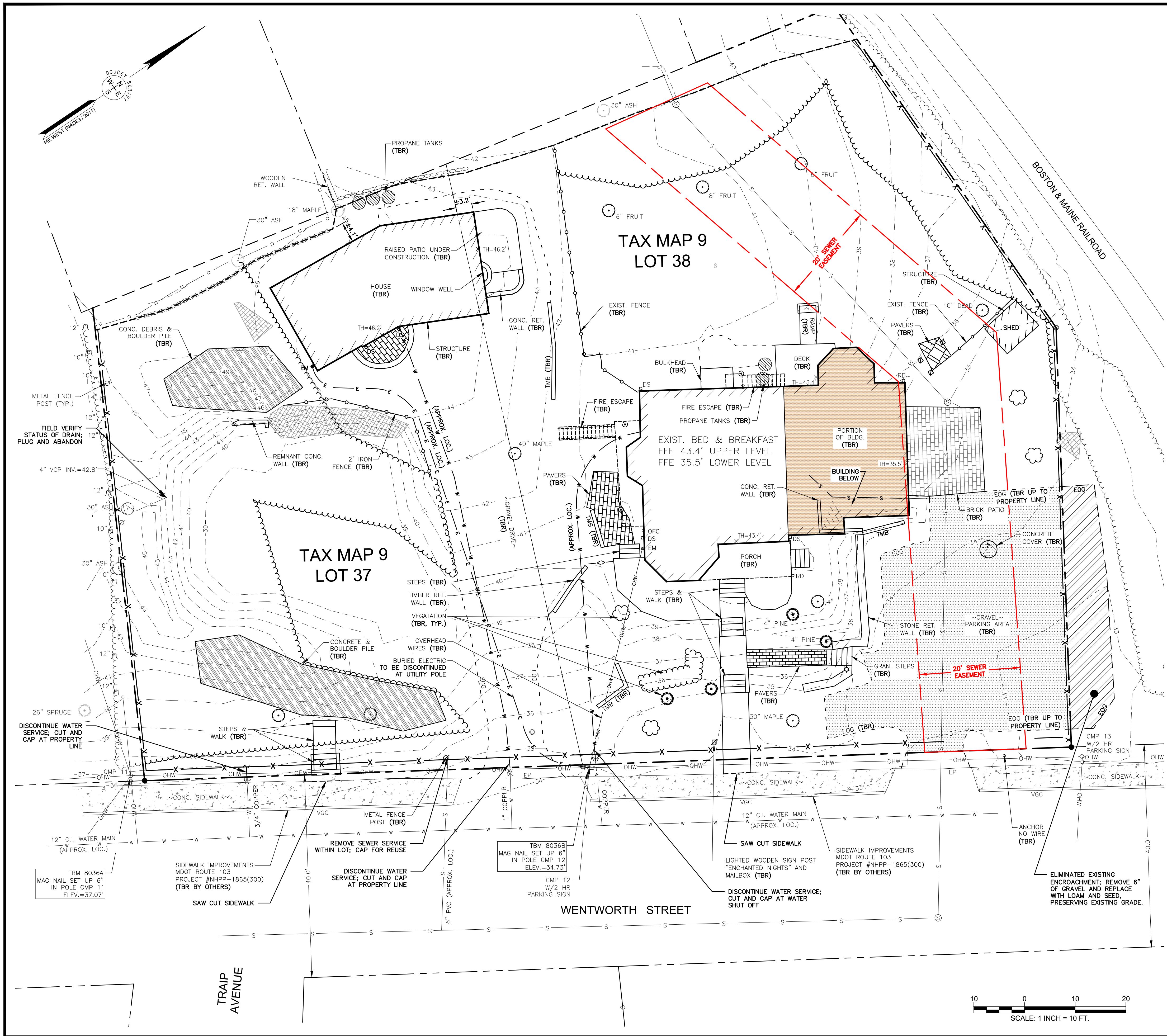
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PROJECT:
THE FORESIDE INN

**TAX MAP 9
 LOTS 37 & 38**
 27 & 29 WENTWORTH STREET
 KITTERY, MAINE

TITLE:
**PRELIMINARY
 LOT LINE
 ADJUSTMENT PLAN**

SHEET NUMBER:
1 OF 1

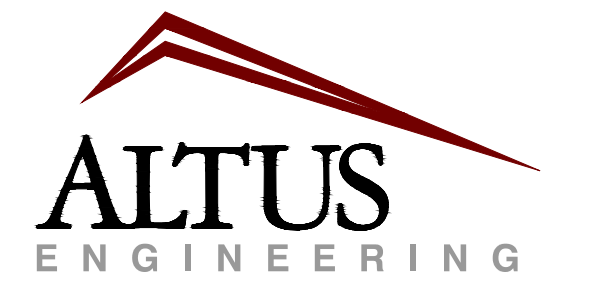


DEMOLITION NOTES

1. ALL UNDERGROUND UTILITIES (ELECTRIC, GAS, TEL. WATER, SEWER DRAIN SERVICES) ARE SHOWN IN SCHEMATIC FASHION, THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE SUBJECT SERVICE LOCATIONS FOR INFORMATION REGARDING SUCH. CALL DIG-SAFE AT 1-888-DIG-SAFE.
2. DEMOLITION PERMIT REQUIRED PRIOR TO ANY BUILDING DEMOLITION ACTIVITIES. CONTRACTOR IS NOTIFIED THAT THIS PERMIT PROCESS MAY REQUIRE A 30-DAY LEAD TIME.
3. CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING UTILITIES SCHEDULED TO REMAIN.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE TIMELY NOTIFICATION OF ALL PARTIES, CORPORATIONS, COMPANIES, INDIVIDUALS AND STATE AND LOCAL AUTHORITIES OWNING AND/OR HAVING JURISDICTION OVER ANY UTILITIES RUNNING TO, THROUGH OR ACROSS AREAS TO BE DISTURBED BY DEMOLITION AND/OR CONSTRUCTION ACTIVITIES WHETHER OR NOT SAID UTILITIES ARE SUBJECT TO DEMOLITION, RELOCATION, MODIFICATION AND/OR CONSTRUCTION.
5. ALL UTILITY DISCONNECTIONS/DEMOLITIONS/RELOCATIONS SHALL BE COORDINATED BETWEEN THE CONTRACTOR, ALL APPROPRIATE UTILITY COMPANIES, PORTSMOUTH DPW AND ADJUTING PROPERTY OWNERS. UNLESS OTHERWISE SPECIFIED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELATED EXCAVATION, TRENCHING AND BACKFILLING.
6. WHERE SPECIFIED TO REMAIN, MANHOLE RIMS, CATCH BASIN GRATES, VALVE COVERS, HANDHOLES, ETC. SHALL BE ADJUSTED TO FINISH GRADE UNLESS OTHERWISE SPECIFIED.
7. ALL MATERIALS SCHEDULED FOR DEMOLITION OR REMOVAL ON PRIVATE PROPERTY SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED.
8. ALL MATERIAL SCHEDULED TO BE REMOVED SHALL BE LEGALLY DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS/CODES.
9. NO BURNING SHALL BE PERMITTED PER LOCAL REGULATIONS.
10. HAZARDOUS MATERIALS ENCOUNTERED DURING DEMOLITION AND CONSTRUCTION ACTIVITIES SHALL BE ABATED IN STRICT ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL REGULATIONS.
11. EXISTING UTILITIES TO BE DISCONTINUED SHALL BE ABANDONED IN PLACE UNLESS OTHERWISE NOTED TO BE REMOVED OR ENCOUNTERED DURING THE INSTALLATION OF NEW WORK.
12. SHOULD GROUNDWATER BE ENCOUNTERED DURING EXCAVATION, APPROPRIATE BEST MANAGEMENT PRACTICES SHALL BE EMPLOYED TO ENSURE SEDIMENT LADEN WATER IS NOT DISCHARGED INTO THE TOWN DRAINAGE SYSTEM. A DISCHARGE PERMIT SHALL BE OBTAINED PRIOR TO DISCHARGING GROUNDWATER.
13. THIS PLAN IS INTENDED TO PROVIDE MINIMUM GUIDELINES FOR THE DEMOLITION OF EXISTING SITE FEATURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL BUILDINGS, PAVEMENT, CONCRETE, CURBING, SIGNS, FENCES, UTILITIES, FENCES, VEGETATION AND OTHER EXISTING FEATURES AS NECESSARY TO FULLY CONSTRUCT THE PROJECT.

LEGEND

---	EXISTING LOT LINE
---	BUILDING SETBACK LINE
---	APPROX. ADJUTING LOT LINE
---	MAJOR CONTOUR LINE
---	MINOR CONTOUR LINE
---	STONE WALL
---	REMNANT STONE WALL
---	RETAINING WALL
---	STOCKADE FENCE
---	PICKET FENCE
---	POST & RAIL FENCE
---	WIRE FENCE
---	OVERHEAD WIRE
---	SEWER LINE
---	TREE LINE
---	SHRUB LINE
---	CONCRETE
---	PILE
---	LEDGE OUTCROP
○	PIPE/ROD FOUND
○	5/8" REBAR W/ID CAP TO BE SET
○	SPOT GRADE
○	FENCE POST
○	WOODEN POST
○	POST
○	UTILITY POLE & GUY WIRE
○	UTILITY POLE W/LIGHT
○	LIGHT POST
○	SEWER MANHOLE
○	WATER GATE VALVE
○	WATER SHUTOFF VALVE
○	FAUCET
○	ELECTRIC METER
○	CONIFEROUS TREE
○	DECIDUOUS TREE
○	DECIDUOUS BUSH
○	TREE STUMP
○	CONCRETE
○	DOWN SPOUT
○	DOUBLE YELLOW LINE
○	EDGE OF GRAVEL
○	GRANITE
○	OIL FILL CAP
○	POLYVINYL CHLORIDE PIPE
○	ROOF DRAIN
○	RETAINING WALL
○	THRESHOLD ELEVATION
○	TIMBER EDGE / CURB
○	VITREOUS CLAY PIPE
○	VERTICAL GRANITE CURB
○	TO BE REMOVED/RAZED
---	SEWER EASEMENT



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REVISIONS

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EDW	08/24/23
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2	TOWN COMMENTS	EDW	11/03/23

DRAWN BY: _____ RMB
APPROVED BY: _____ EDW
DRAWING FILE: _____ 5433SITE.dwg

SCALE:
(22"x34") 1" = 10'
(11"x17") 1" = 20'

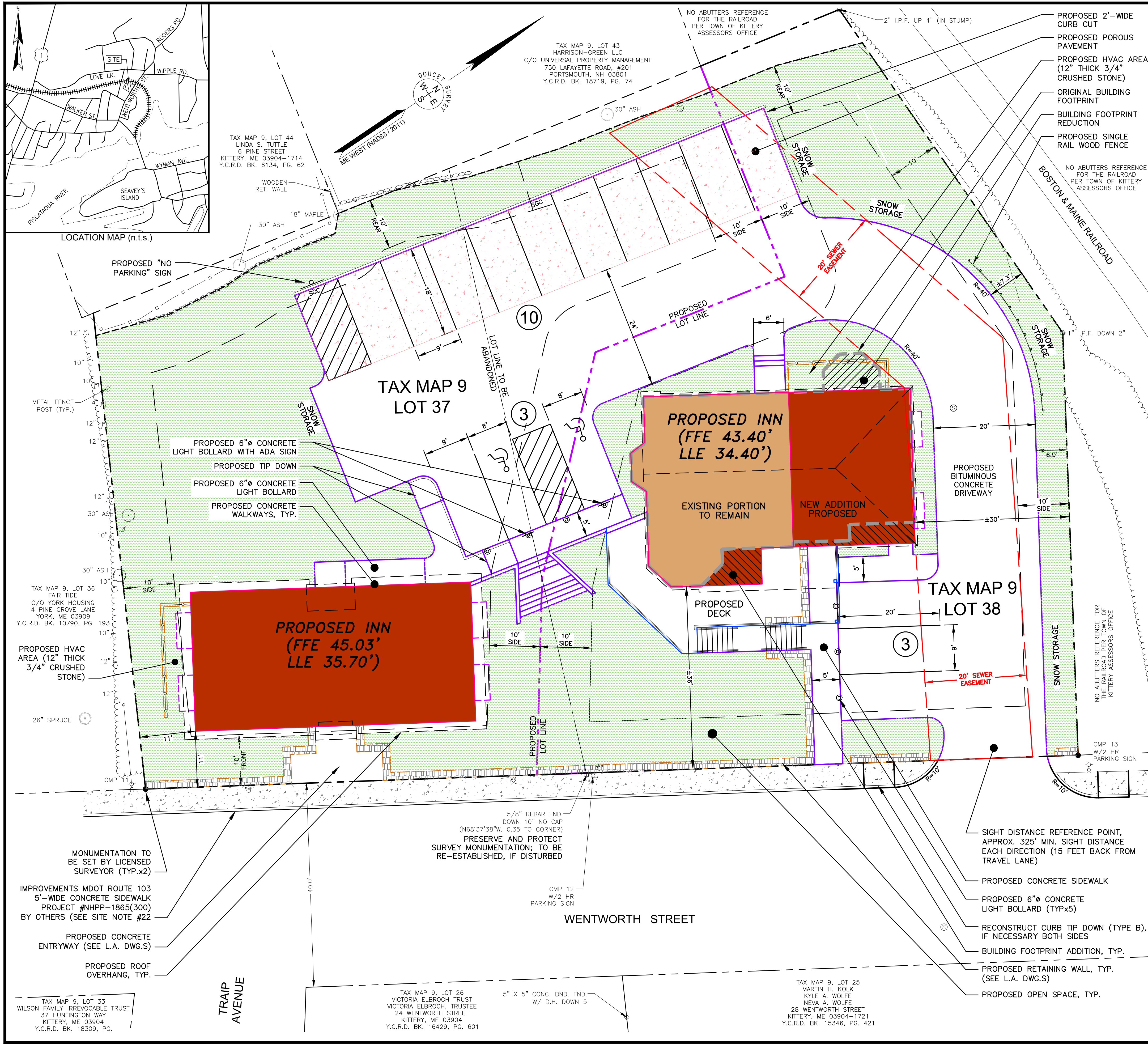
OWNER:
**27 WENTWORTH STREET, LLC
& MREV KITTERY INN, LLC
401 EDGEWATER PLACE,
SUITE 570
WAKEFIELD, MA 01880**

APPLICANT:
**MADBURY REAL ESTATE
VENTURES
401 EDGEWATER PLACE,
SUITE 570
WAKEFIELD, MA 01880**

PROJECT:
**THE FORESIDE INN
TAX MAP 9
LOTS 37 & 38
27 & 29 WENTWORTH STREET
KITTERY, MAINE**

TITLE:
**SITE
PREPARATION
PLAN**

SHEET NUMBER:
C - 1



- SITE NOTES:**
- REFERENCE: TAX MAP 9, LOTS 37 & 38 27 & 29 WENTWORTH STREET KITTERY, MAINE
 - TOTAL PARCEL AREA: LOT 37 = 8,319 SQ. FT. OR 0.19 AC. LOT 38 = 13,389 SQ. FT. OR 0.31 AC.
 - OWNER OF RECORD: LOT 37 (27 WENTWORTH STREET) 27 WENTWORTH STREET, LLC 401 EDGEWATER PLACE, SUITE 570 WAKEFIELD, MA 01880 DEED BOOK 19297 PAGE 823
LOT 38 (29 WENTWORTH STREET) MREV KITTERY INN, LLC 401 EDGEWATER PLACE, SUITE 570 WAKEFIELD, MA 01880 DEED BOOK 19297 PAGE 853
 - ZONE: MIXED USE - KITTERY FORESIDE (MU-KF)
DIMENSIONAL REQUIREMENTS:

	REQ'D	EXISTING	PROPOSED	EXISTING	PROPOSED
MIN. LOT AREA	5,000 SF	8,319 SF	10,792 SF	13,389 SF	10,916 SF
MIN. FRONTAGE	0'	+86.46'	+98.16'	+96.50'	+86.80'
MIN. FRONT SETBACK	10'	+79'	+111.0'	+36'	+36'
MIN. SIDE SETBACK	10'	+3.2'	+11.0'	+30'	+30'
MIN. REAR SETBACK	10'	+4.1'	+50'	+50'	+50'
MAX. BLDG. COVERAGE	60%	+9.4%	+13.9%	+13.0%	+15.6%
MAX. BLDG. HEIGHT	40'	<40'	<40'	<40'	<40'
MIN. OPEN SPACE	40%	+60.8%	40.6%	+54.0%	40.1%
- PARKING REQ.S: 1 SPACES PER GUEST ROOM (NOT INCLUDING INNKEEPER UNIT)
24 UNITS -> 24 SPACES TOTAL WITH A 6 SPACE CREDIT
18 SPACES REQ'D
16 SPACES PROVIDED
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL PERMITS OBTAINED FOR THIS PROJECT.
 - CONTRACTOR SHALL OBTAIN A "DIGSAFE" NUMBER AT LEAST 72 HOURS PRIOR TO COMMENCING CONSTRUCTION.
 - PAINTED ISLANDS SHALL BE 4"-WIDE DIAGONAL WHITE LINES 3'-0" O.C. BORDERED BY 4"-WIDE WHITE LINES. PARKING STALLS SHALL BE SEPARATED BY 4"-WIDE WHITE LINES. SEE DETAILS FOR HANDICAP SYMBOLS, SIGNS AND SIGN DETAILS.
 - PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL ON UNIFORM TRAFFIC DEVICES" STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" AND THE AMERICANS WITH DISABILITIES ACT (ADA), LATEST EDITIONS.
 - PROPOSED TELEPHONE, ELECTRIC AND CABLE SERVICES AND CONDUITS SHALL BE INSTALLED UNDERGROUND.
 - LOTS SHALL BE SERVED BY KITTERY WATER DISTRICT WATER AND KITTERY SEWER DISTRICT.
 - ACCUMULATED SNOW WILL BE PLOWED TO AREAS ADJACENT TO PAVEMENT IN A MANNER AS NOT TO HINDER SIGHT LINES AT INTERSECTION. NO SNOW SHALL BE PUSHED ONTO ADJUTING PROPERTY NOR STORED WITHIN 5' OF SHRUBS AND TREES. EXCESS SNOW SHALL BE HAULED OFF-SITE, AS NEEDED.
 - HORIZONTAL DATUM BASED ON NAD83(2011) MAINE WEST STATE PLANE COORDINATE ZONE (1802) DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KEYNET GPS VRS NETWORK.
 - VERTICAL DATUM IS BASED ON APPROXIMATE NAVD88(GEOD18) (+/-2') DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KEYNET GPS VRS NETWORK.
 - FLOOD HAZARD ZONE: "X", PER FIRM MAP #2301710008D, DATED 7/3/1986 AND IS NOT WITHIN A 100-YEAR FLOOD ZONE.
 - TRASH TOTES SHALL BE STORED INSIDE FOR SCHEDULED PICKUPS.
 - FINAL MECHANICAL UNITS LOCATION TO BE DETERMINED.
 - NO WETLANDS FOUND ON SITE.
 - THE CONTRACTOR SHALL VERIFY ALL BUILDING DIMENSIONS WITH THE ARCHITECTURAL AND STRUCTURAL PLANS PRIOR TO CONSTRUCTION. ALL DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER FOR RESOLUTION.
 - BUILDING AREA SHOWN IS BASED ON FOOTPRINT MEASURED TO THE EDGE OF FOUNDATIONS AND/OR SLABS. ACTUAL INTERIOR SPACE WILL DIFFER.
 - CROSS EASEMENTS SHALL BE RECORDED REGARDING VEHICULAR AND PEDESTRIAN ACCESS, GRADING, STORMWATER MANAGEMENT AND UTILITIES.
 - ADDITIONAL WAY FINDING SIGN(S) WILL BE ADDED, AS NEEDED.
 - MAINE DOT IS PROPOSING IMPROVEMENTS TO WENTWORTH STREET BEGINNING IN THE SPRING OF 2024. IT IS THE INTENT OF THIS DESIGN THAT ANY UTILITY SERVICE IN THE RIGHT-OF-WAY IS COMPLETED PRIOR TO OR IN CONJUNCTION WITH MDOT WORK. CONTACT MDOT FOR SCHEDULE.
 - BRIAN KEEZER
MAINE DOT
16 STATE HOUSE STATION
AUGUSTA, ME 04333-0016
CELL: (207) 462-0697
EMAIL: BRIAN.KEEZER@MAINE.GOV
 - EACH INN SHALL HAVE AN INNKEEPER'S SUITE.
 - A PARKING ACCESS EASEMENT, PROVIDING SHARED PARKING OF BOTH PROPERTIES, SHALL REMAIN IN PERPETUITY EVEN IF OWNERSHIP SHOULD CHANGE.

PLAN REFERENCE:

- "EXISTING CONDITIONS PLAN FOR MADBURY ESTATE VENTURES", REVISION DATE OCTOBER 23, 2023, PREPARED BY DOUCET SURVEY, LLC.

TOWN OF KITTERY, PLANNING BOARD

CHAIR	DATE
OWNER	DATE
APPLICANT	DATE

SCALE: 1 INCH = 10 FT.

ALTUS ENGINEERING

133 Court Street Portsmouth, NH 03801
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ERIC D. WEINRIEB
No. 6668
LICENSED PROFESSIONAL ENGINEER
11/3/23

NOT FOR CONSTRUCTION

ISSUED FOR:
PRELIM. SITE PLAN APPROVAL

ISSUE DATE:
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APPROVED BY: _____ EDW
DRAWING FILE: _____ 5431SITE.dwg

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& MREV KITTERY INN, LLC
401 EDGEWATER PLACE,
SUITE 570
WAKEFIELD, MA 01880

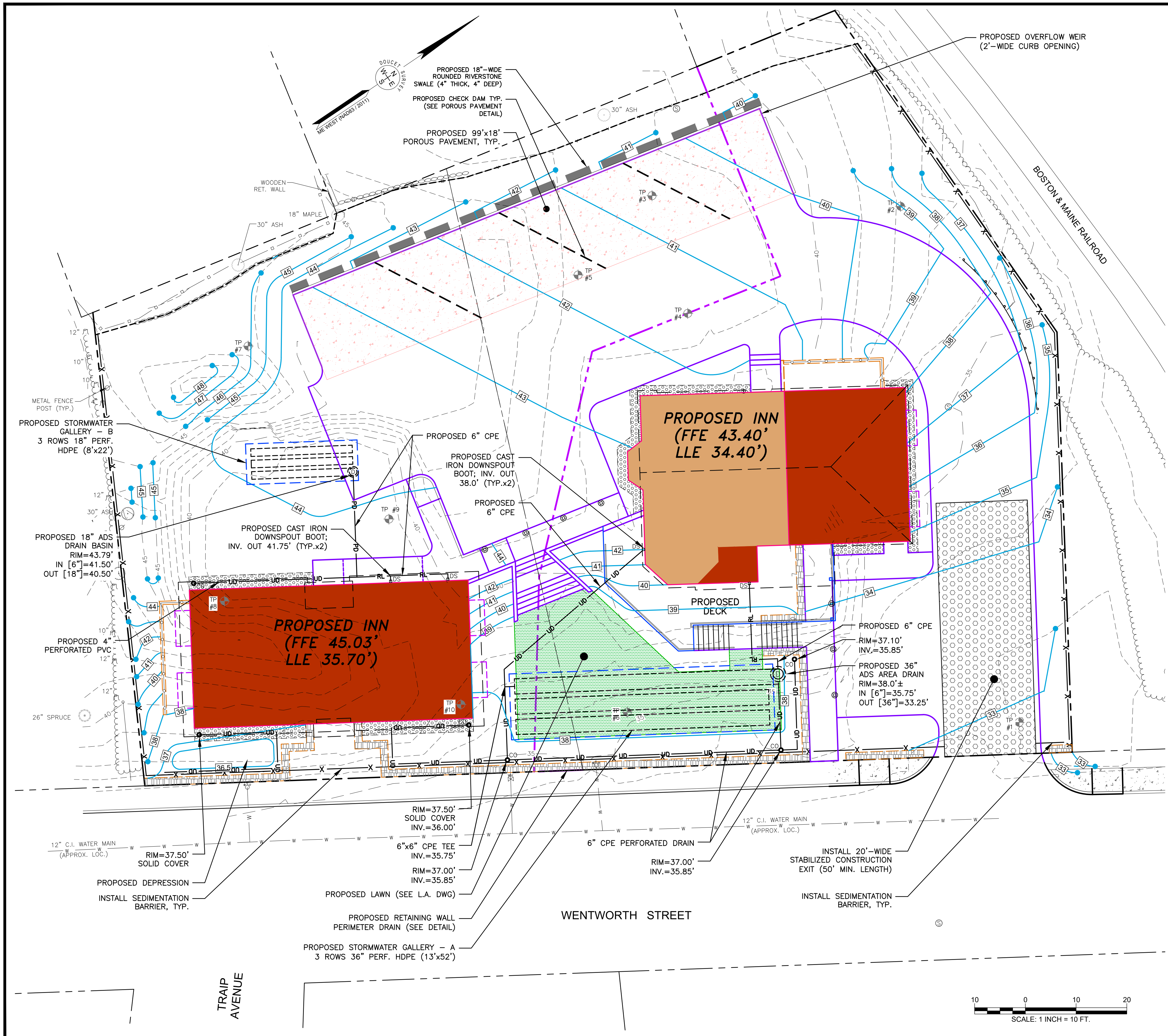
APPLICANT:
MADBURY REAL ESTATE
VENTURES
401 EDGEWATER PLACE,
SUITE 570
WAKEFIELD, MA 01880

PROJECT:
THE FORESIDE INN
TAX MAP 9
LOTS 37 & 38
27 & 29 WENTWORTH STREET
KITTERY, MAINE

TITLE:

SITE PLAN

SHEET NUMBER:
C - 2



EROSION AND SEDIMENT CONTROL NOTES:

- DO NOT BEGIN CONSTRUCTION UNTIL ALL STATE AND LOCAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.
- THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED UPON THE FIELD LOCATION OF ALL VISIBLE STRUCTURES (IE. CATCH BASINS, MANHOLES, WATER GATES, ETC.) AND INFORMATION COMPILED FROM PLANS PROVIDED BY UTILITY PROVIDERS AND GOVERNMENTAL AGENCIES. AS SUCH, THEY ARE NOT INCLUSIVE AS OTHER UTILITIES AND UNDERGROUND STRUCTURES THAT ARE NOT SHOWN ON THE PLANS MAY EXIST. THE ENGINEER, SURVEYOR AND OWNER ACCEPT NO RESPONSIBILITY FOR POTENTIAL INACCURACIES IN THE PLAN AND/OR UNFORESEEN CONDITIONS.
- PERMETER SEDIMENT CONTROLS AND CULVERT AND CATCH BASIN INLET PROTECTION MEASURES SHALL BE INSTALLED AFTER TREE CLEARING OPERATIONS HAVE CEASED AND BEFORE ANY STUMPING, GRUBBING OR OTHER EARTH DISTURBANCE.
- NO EARTHWORK SHALL COMMENCE UNTIL ALL APPROPRIATE SEDIMENT AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE PROPERLY MAINTAINED IN GOOD WORKING ORDER FOR THE DURATION OF CONSTRUCTION AND THE SITE IS STABILIZED.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE DESIGN STANDARDS AND SPECIFICATIONS SET FORTH BY THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
- CONTRACTOR SHALL CONTROL DUST BY SPRAYING WATER, SWEEPING PAVED SURFACES, PROVIDING TEMPORARY VEGETATION, AND/OR MULCHING EXPOSED AREAS AND STOCKPILES.
- GRIND STUMPS AND REUSE GRINDINGS FOR EROSION CONTROL WHERE POSSIBLE. NO STUMPS SHALL BE BURIED ON SITE.
- ORGANIC FILTER BERMS AND/OR OTHER PERIMETER CONTROLS MAY BE USED IN LIEU OF SILTFENCE IN CERTAIN APPLICATIONS WHEN APPROVED IN WRITING BY THE ENGINEER.
- THE CONTRACTOR SHALL TAKE WHATEVER MEANS NECESSARY TO PREVENT EROSION, PREVENT SEDIMENT FROM LEAVING THE SITE AND ENSURE PERMANENT SOIL STABILIZATION.
- ALL CATCH BASINS AND CULVERTS SHALL BE PROVIDED APPROPRIATE TEMPORARY INLET PROTECTION (SEE DETAILS).
- ALL EROSION CONTROL BLANKETS AND FASTENERS SHALL BE BIODEGRADABLE.
- ALL EROSION CONTROL BLANKETS SHALL BE BY NORTH AMERICAN GREEN OR EQUAL AS APPROVED IN WRITING BY THE ENGINEER.
- ALL SWALES, STORMWATER PONDS AND THEIR CONTRIBUTING AREAS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
- ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE SIX (6") INCHES OF LOAM, LIMESTONE, FERTILIZER, SEED, AND MULCH USING APPROPRIATE SOIL STABILIZATION TECHNIQUES. SEE DETAILS FOR ADDITIONAL INFORMATION.
- UPON COMPLETION OF CONSTRUCTION, ALL DRAINAGE INFRASTRUCTURE SHALL BE CLEANED OF ALL DEBRIS AND SEDIMENT.
- UPON COMPLETION OF CONSTRUCTION, ALL TEMPORARY EROSION AND SEDIMENT CONTROLS SHALL BE REMOVED AND ANY AREAS DISTURBED BY THE REMOVAL SMOOTHED AND REVEGETATED.

TEST PIT LOGS:

TP #	ESHW:	REFUSAL:	OBSERVED WATER:
TP #1	36"	NONE	60"
TP #2	5"-32" RIPABLE	NONE	NONE
TP #3	40"-64"	NONE	NONE
TP #4	26"-40"	NONE	NONE
TP #5	55"	NONE	NONE
TP #6	56"	NONE	NONE
TP #7	6" RIPABLE	NONE	NONE
TP #8	16" RIPABLE	NONE	NONE
TP #9	9" RIPABLE	NONE	NONE
TP #10	20"-53" RIPABLE	NONE	NONE

LEGEND:

---	EXISTING CONTOUR
---	PROPOSED CONTOUR
●	EXISTING TEST PIT
---	PROPOSED 6" CPE DRAIN
---	PROPOSED 6" PERF. UNDERDRAIN
---	PROPOSED 6" CPE ROOF LEADER
---	PROPOSED 6" CLEANOUT

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STATE OF MAINE
 ERIC D. WEINRIEB
 No. 6658
 LICENSED PROFESSIONAL ENGINEER
 11/03/23

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DRAWN BY: _____ RMB
 APPROVED BY: _____ EDW
 DRAWING FILE: _____ 5431SITE.dwg

SCALE:
 (22"x34") 1" = 10'
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 401 EDGEWATER PLACE, SUITE 570
 WAKEFIELD, MA 01880

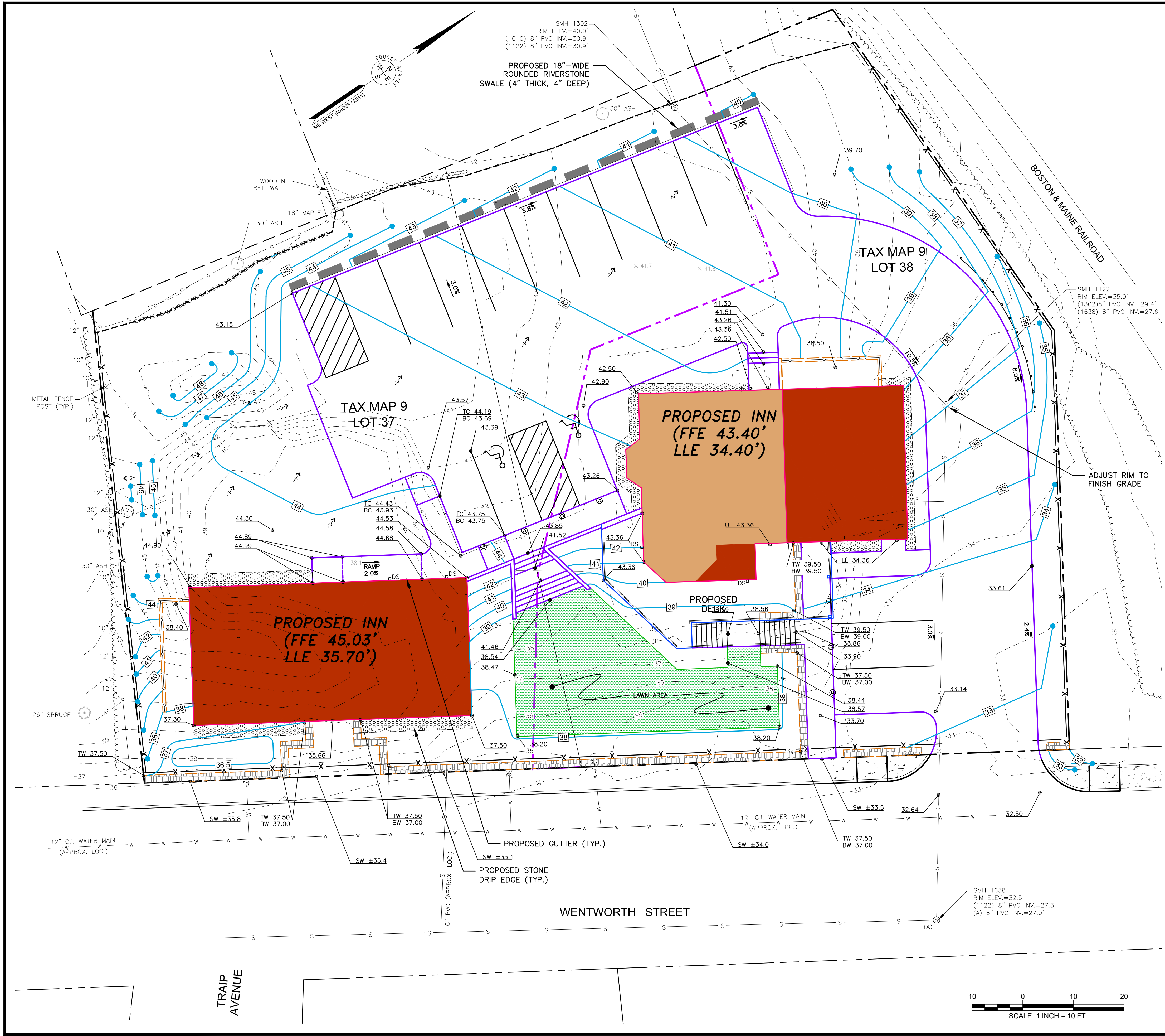
APPLICANT:
MADBURY REAL ESTATE VENTURES
 401 EDGEWATER PLACE, SUITE 570
 WAKEFIELD, MA 01880

PROJECT:
THE FORESIDE INN
 TAX MAP 9
 LOTS 37 & 38
 27 & 29 WENTWORTH STREET
 KITTEERY, MAINE

TITLE:
STORMWATER MGMT. PLAN

SHEET NUMBER:
C - 3



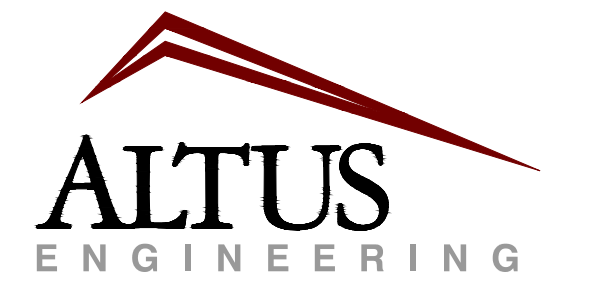


CONSTRUCTION NOTES:

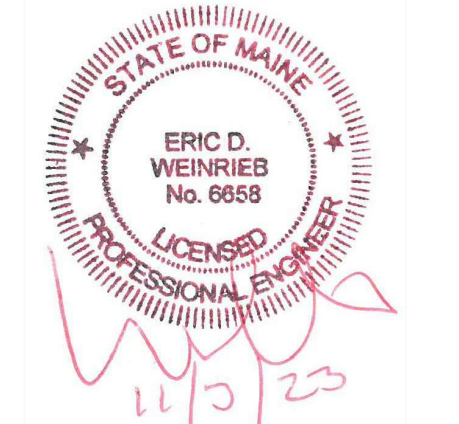
- DO NOT BEGIN CONSTRUCTION UNTIL ALL STATE AND LOCAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.
- CONTRACTOR SHALL OBTAIN A "DIGSAFE" NUMBER AT LEAST 72 HOURS PRIOR TO COMMENCING CONSTRUCTION.
- ALL CONSTRUCTION SHALL MEET THE MINIMUM CONSTRUCTION STANDARDS OF THE TOWN OF KITTEERY AND MDT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION. THE MORE STRINGENT SPECIFICATION SHALL GOVERN.
- UNLESS OTHERWISE AGREED IN WRITING, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING TEMPORARY BENCHMARKS (TBM) AND PERFORMING ALL CONSTRUCTION SURVEY LAYOUT.
- PRIOR TO CONSTRUCTION, FIELD VERIFY JUNCTIONS, LOCATIONS AND ELEVATIONS/INVERTS OF ALL EXISTING STORMWATER AND UTILITY LINES. PRESERVE AND PROTECT LINES TO BE RETAINED.
- ALL BENCHMARKS AND TOPOGRAPHY SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO INITIATING CONSTRUCTION.
- TEMPORARY INLET PROTECTION MEASURES SHALL BE INSTALLED IN ALL EXISTING AND PROPOSED CATCH BASINS WITHIN 100' OF THE PROJECT SITE WHEN SITE WORK WITHIN CONTRIBUTING AREAS IS ACTIVE OR SAID AREAS HAVE NOT BEEN STABILIZED.
- PROTECTION OF SUBGRADE: THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN STABLE, DEWATERED SUBGRADES FOR FOUNDATIONS, PAVEMENT AREAS, UTILITY TRENCHES, AND OTHER AREAS DURING CONSTRUCTION. SUBGRADE DISTURBANCE MAY BE INFLUENCED BY EXCAVATION METHODS, MOISTURE, PRECIPITATION, GROUNDWATER CONTROL, AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT SUBGRADE DISTURBANCE. SUCH PRECAUTIONS MAY INCLUDE DIVERTING STORMWATER RUNOFF AWAY FROM CONSTRUCTION AREAS, REDUCING TRAFFIC IN SENSITIVE AREAS, AND MAINTAINING AN EFFECTIVE DEWATERING PROGRAM. SOILS EXHIBITING HEAVING OR INSTABILITY SHALL BE OVER EXCAVATED TO MORE COMPETENT BEARING SOIL AND REPLACED WITH FREE DRAINING STRUCTURAL FILL. IF THE EARTHWORK IS PERFORMED DURING FREEZING WEATHER, EXPOSED SUBGRADES ARE SUSCEPTIBLE TO FROST. NO FILL OR UTILITIES SHALL BE PLACED ON FROZEN GROUND. THIS WILL LIKELY REQUIRE REMOVAL OF A FROZEN SOIL CRUST AT THE COMMENCEMENT OF EACH DAY'S OPERATIONS. THE FINAL SUBGRADE ELEVATION WOULD ALSO REQUIRE AN APPROPRIATE DEGREE OF INSULATION AGAINST FREEZING.
- IF SUITABLE, EXCAVATED MATERIALS SHALL BE PLACED AS FILL WITHIN UPLAND AREAS ONLY AND SHALL NOT BE PLACED WITHIN WETLANDS. PLACEMENT OF BORROW MATERIALS SHALL BE PERFORMED IN A MANNER THAT PREVENTS LONG TERM DIFFERENTIAL SETTLEMENT. EXCESSIVELY WET MATERIALS SHALL BE STOCKPILED AND ALLOWED TO DRAIN BEFORE PLACEMENT. FROZEN MATERIAL SHALL NOT BE USED FOR CONSTRUCTION.
- BLASTING OPERATIONS, IF REQUIRED, SHALL MEET THE AIR BLAST STANDARDS OF THE MDEP RULES, CHAPTER 375.10(C)(4)(C). GROUND VIBRATION AT STRUCTURES NOT OWNED OR CONTROLLED BY THE OWNER MUST BE NO GREATER THAN THE FREQUENCY-DEPENDENT LIMITS DEFINED IN FIGURE B-1 OF APPENDIX B, U.S. BUREAU OF MINES RI 8507. FLYROCK MAY NOT LEAVE PROPERTY OWNED OR CONTROLLED BY THE OWNER OR ENTER A PROTECTED RESOURCE.
- DRAINAGE PIPE SHALL BE CORRUGATED POLYETHYLENE PIPE (CPP), TYPE ADS N-12 OR HANCOR H1-Q, OR DUCTILE IRON CLASS 52 WHERE SPECIFIED.
- ALL CATCH BASIN, MANHOLE AND OTHER DRAINAGE RIMS SHALL BE SET FLUSH WITH OR NO LESS THAN 0.1' BELOW FINISH GRADE. ANY RIM ABOVE SURROUNDING FINISH GRADE SHALL NOT BE ACCEPTED.
- ALL SPOT GRADES ARE AT FINISH GRADE AND BOTTOM OF CURB WHERE APPLICABLE.
- ALL ROOF DRAIN RISERS SHALL BE LOCATED IN COORDINATION WITH THE ARCHITECTURAL PLANS TO MATCH GUTTER DOWNSPOUTS. RISERS SHALL BE SET TO FINISH GRADE PLUS 1" (MIN.).
- IN ORDER TO PROVIDE VISUAL CLARITY ON THE PLANS, DRAINAGE AND OTHER UTILITY STRUCTURES MAY NOT BE DRAWN TO SCALE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER SIZING AND LOCATION OF ALL STRUCTURES AND IS DIRECTED TO RESOLVE ANY POTENTIAL DISCREPANCY WITH THE ENGINEER PRIOR TO CONSTRUCTION.
- WORK HOURS FOR CONSTRUCTION SHALL BE AS APPROVED BY TOWN OF KITTEERY. STANDARD WORK HOURS SHALL BE 7AM TO 7PM, MONDAY - SATURDAY.

LEGEND:

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT GRADE
- PROPOSED SPOT GRADE
- ROW SIDEWALK ELEV. (APPROX.)
- PROP. TOP / BOTTOM OF WALL



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SUITE 570
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PROJECT:
THE FORESIDE INN

**TAX MAP 9
LOTS 37 & 38
27 & 29 WENTWORTH STREET
KITTEERY, MAINE**

TITLE:

GRADING PLAN

SHEET NUMBER:

C - 4

Landscape Notes

- Design is based on drawings by Altus Engineering dated August 2023 and may require adjustment due to actual field conditions.
- The contractor shall follow best management practices during construction and shall take all means necessary to stabilize and protect the site from erosion.
- Erosion Control shall be in place prior to construction. See Engineer's drawings and specifications.
- The Contractor shall verify layout and grades and inform the Landscape Architect or Client's Representative of any discrepancies or changes in layout and/or grade relationships prior to construction.
- It is the contractor's responsibility to verify drawings provided are to the correct scale prior to any bid, estimate or installation. A graphic scale bar has been provided on each sheet for this purpose. If it is determined that the scale of the drawing is incorrect, the landscape architect will provide a set of drawings at the correct scale, at the request of the contractor.
- Trees to Remain within the construction zone shall be protected from damage for the duration of the project by snow fence or other suitable means of protection to be approved by Landscape Architect or Client's Representative. Snow fence shall be located at the drip line at a minimum and shall include any and all surface roots. Do not fill or mulch on the trunk flare. Do not disturb roots. In order to protect the integrity of the roots, branches, trunk and bark of the tree(s) no vehicles or construction equipment shall drive or park on or on the area within the drip line(s) of the tree(s). Do not store any refuse or construction materials or portalets within the tree protection area. If excavation is to occur within the root zone then the contractor shall clearly prune the roots prior to excavations.
- This plan is for review purposes only, NOT for Construction. Construction Documents will be provided upon request.
- Location, support, protection, and restoration of all existing utilities and appurtenances shall be the responsibility of the Contractor.
- The Contractor shall verify exact location and elevation of all utilities with the respective utility owners prior to construction. Call DIGSAFE at 811 or 888-DIG-SAFE.
- The Contractor shall procure any required permits prior to construction.
- Prior to any landscape construction activities Contractor shall test all existing loam and loam from off-site intended to be used for lawns and plant beds using a thorough sampling throughout the supply. Soil testing shall indicate levels of pH, nitrates, macro and micro nutrients, texture, soluble salts, and organic matter. Contractor shall provide Landscape Architect with test results and recommendations from the testing facility along with soil amendment plans as necessary for the proposed plantings to thrive. All loam to be used on site shall be amended as approved by the Landscape Architect prior to placement.
- Contractor shall notify landscape architect or owner's representative immediately if at any point during demolition or construction a site condition is discovered which may negatively impact the completed project. This includes, but is not limited to, unforeseen drainage problems, unknown subsurface conditions, and discrepancies between the plan and the site. If a Contractor is aware of a potential issue and does not bring it to the attention of the Landscape Architect or Owner's Representative immediately, they may be responsible for the labor and materials associated with correcting the problem.
- The Contractor shall furnish and plant all plants shown on the drawings and listed therein. All plants shall be nursery-grown under climatic conditions similar to those in the locality of the project. Plants shall conform to the botanical names and standards of size, culture, and quality for the highest grades and standards as adopted by the American Association of Nurserymen, Inc. in the American Standard of Nursery Stock, American Standards Institute, Inc. 230 Southern Building, Washington, D.C. 20005.
- A complete list of plants, including a schedule of sizes, quantities, and other requirements is shown on the drawings. In the event that quantity discrepancies or material omissions occur in the plant materials list, the planting plans shall govern.
- All plants shall be legibly tagged with proper botanical name.
- The Contractor shall **guarantee all plants including seeding** for not less than one year from time of acceptance.
- Owner or Owner's Representative will inspect plants upon delivery for conformity to Specification requirements. Such approval shall not affect the right of inspection and rejection during or after the progress of the work. The Owner reserves the right to inspect and/or select all trees at the place of growth and reserves the right to approve a representative sample of each type of shrub, herbaceous perennial, annual, and ground cover at the place of growth. Such sample will serve as a minimum standard for all plants of the same species used in this work.
- No substitutions of plants may be made without prior approval of the Owner or the Owner's Representative for any reason.
- All landscaping shall be provided with the following:
 - Outside hose attachments spaced a maximum of 150 feet apart, and
 - An underground irrigation system, or
 - A temporary irrigation system designed for a two-year period of plant establishment.
- If an automatic irrigation system is installed, all irrigation valve boxes shall be located within planting bed areas.
- The contractor is responsible for all plant material from the time their work commences until final acceptance. This includes but is not limited to maintaining all plants in good condition, the security of the plant material once delivered to the site, watering of plants, including seeding and weeding. Plants shall be appropriately watered prior to, during, and after planting. It is the Contractor's responsibility to provide clean water suitable for plant health from off site, should it not be available on site.
- All disturbed areas will be dressed with 6" of loam and planted as noted on the plans or seeded except plant beds. Plant beds shall be prepared to a depth of 12" with 75% loam and 25% compost.
- Trees, ground cover, and shrub beds shall be mulched to a depth of 2" with one-year-old, well-composted, shredded native bark not longer than 4" in length and 1/2" in width, free of woodchips and sawdust. Mulch for ferns and herbaceous perennials shall be no longer than 1" in length. Trees in lawn areas shall be mulched in a 5' diameter min. saucer. Color of mulch shall be black.
- Drip strip shall extend to 6" beyond roof overhang and shall be edged with 3/16" thick metal edger.
- In no case shall mulch touch the stem of a plant nor shall mulch ever be more than 3" thick total (including previously applied mulch).
- Secondary lateral branches of deciduous trees overhanging vehicular and pedestrian travel ways shall be pruned up to a height of 6' to allow clear and safe passage of vehicles and pedestrians under tree canopy. Within the eight distance triangles at vehicle intersections the canopies shall be raised to 8' min.
- Snow shall be stored a minimum of 5' from shrubs and trunks of trees.
- Landscape Architect is not responsible for the means and methods of the Contractor.

Prune only cross-over limbs, co-dominant leaders, and broken or dead branches.

Mark the north side of the tree in the nursery. Rotate the tree to face north of the site whenever possible.

Set top of root ball flush with grade or 1-2" (25-50 mm) higher in slowly draining soils.

50 MM (2 IN.) max. Mulch. Do NOT place mulch in contact with tree trunk. Maintain the mulch weed-free for a minimum of three years after planting.

Tamp soil around root ball base firmly with foot pressure so that root ball does not shift.

Place root ball on unexcavated or tamped soil.

Tree Detail

NTS

Set shrub to display best face towards the primary view whenever possible.

50 MM (2 IN.) max. mulch over the ball of the shrub. Maintain the mulch weed-free for a minimum of three years after planting.

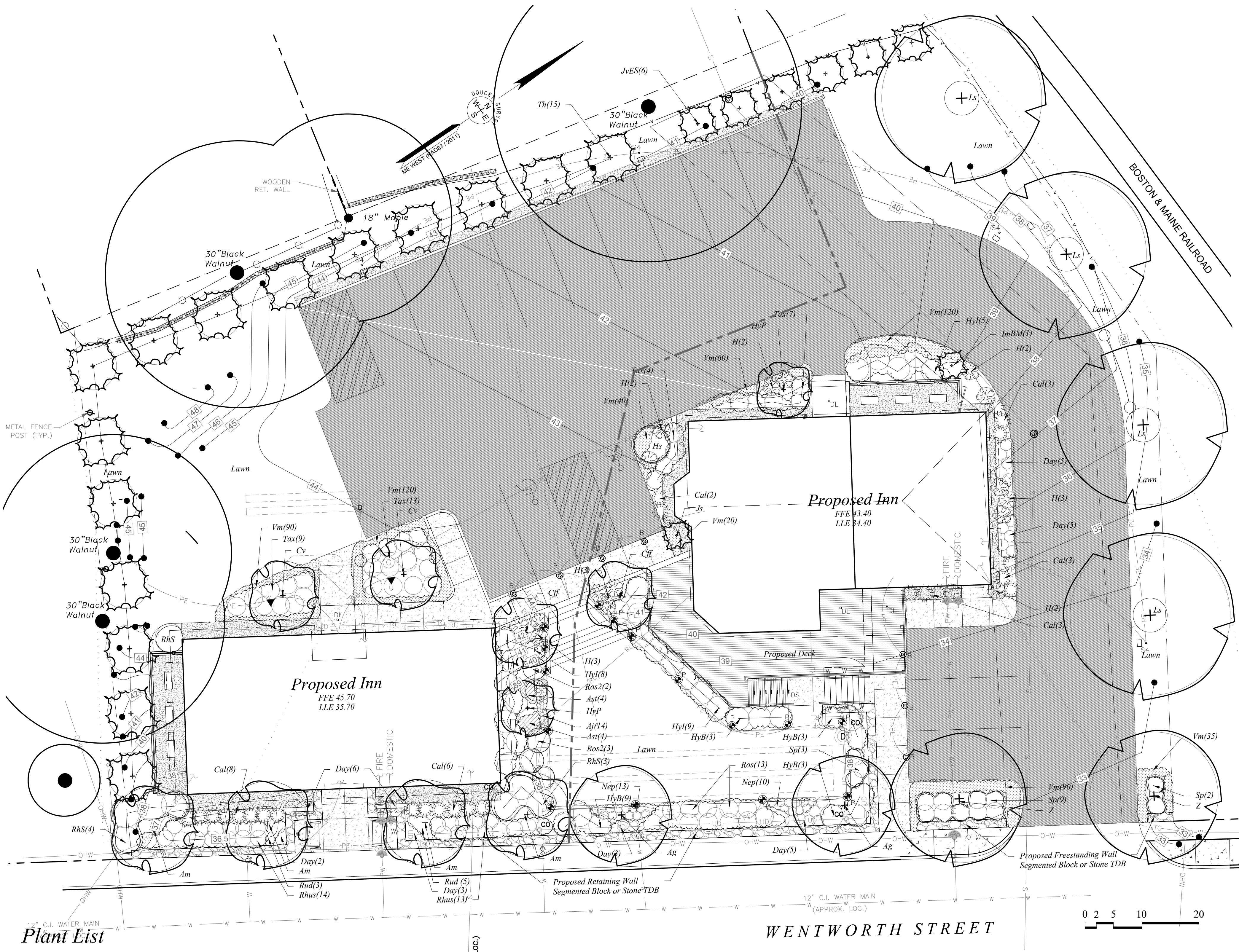
Set top of root ball 3-4" above surrounding grade and feather planting soil towards the crown of the plant.

Tamp soil around root ball base firmly with foot pressure so that root ball does not shift.

Place root ball on unexcavated or tamped soil.

Shrub Detail

NTS



Plant List

TREES					
Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Am	<i>Amelanchier grandiflora</i> 'Robin Hill'	Robin Hill Serviceberry	4	2.5-3" cal.	BB
Ag	<i>Acer griseum</i>	Paperbark Maple	2	3-3.5" cal.	BB
Cff	<i>Carpinus betulus</i> 'Frans Fontaine'	Frans Fontaine Hornbeam	2	3" cal.	BB
Cv	<i>Chionanthus virginicus</i>	Fringetree	2	8-10' ht.	BB matched
JvES	<i>Juniperus virginiana</i> 'Emerald Sentinel'	Emerald Sentinel Eastern Red Cedar	6	7-8' ht.	BB
Ls	<i>Liquidambar styraciflua</i>	American Sweetgum	4	3" cal.	BB
Th	<i>Thuja plicata</i> 'Green Giant'	Green Giant Western Red Cedar	15	8-10' ht	B&B
Z	<i>Zelkova serrata</i> 'Green Vase'	Green Vase Zelkova	2	3" cal.	BB
SHRUBS					
Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Hs	<i>Hibiscus syriacus</i> 'Blue Satin'	Blue Satin Rose of Sharon	1	5-6' ht	BB
HyB	<i>Hydrangea</i> 'Bloomstruck'	Bloomstruck Hydrangea	12	3 gal.	
Hyl	<i>Hydrangea</i> 'Incrediball'	Incrediball Hydrangea	17	5 gal.	
HyP	<i>Hydrangea paniculata</i> 'Limelight'	Limelight Hydrangea	2	15 gal.	Treeform BB
Js	<i>Juniperus scopulorum</i> 'Skyrocket'	Skyrocket Juniper	1	5-6' ht	BB
Rhs	<i>Rhododendron</i> 'Scintillation'	Scintillation Rhododendron	11	5 gal.	
Rhus	<i>Rhus amorata</i> 'Grow Low'	Grow Low Sumac	27	3 gal.	
Ros1	<i>Rosa</i> 'Apricot Drift'	Apricot Drift Rose	13	3 gal.	
Ros2	<i>Rosa</i> 'Blush Knockout'	Blush Knockout Rose	5	3 gal.	
SpDD	<i>Spirea</i> 'Double Play Doozie'	Double Play Doozie Spirea	14	3 gal/	
Tax	<i>Taxus media</i> 'Everlow'	Everlow Yew	33	18-24" BB	

PERENNIALS

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Aj	<i>Ajuga reptans</i> 'Burgandy Glow'	Burgandy Glow Ajuga	16	1 qt	12" o.c.
Cal	<i>Calamagrostis</i> 'Karl Foerster'	Karl Foerster Feather Reed Grass	25	1 gal	
Day	<i>Hemerocallis</i> 'Big Tyme Happy'	Big Tyme Happy Daylily	13	1 gal	
	<i>Hemerocallis</i> 'Chicago Apache'	Chicago Apache Daylily	14	1 gal	
	<i>Hemerocallis</i> 'South Seas'	South Seas Daylily	12	1 gal	
H1	<i>Hosta sieboldiana</i> 'Elegans'	Elegans Hosta	5	1 gal	
H2	<i>Hosta</i> 'Frances Williams'	Frances Williams Hosta	4	1 gal	
H3	<i>Hosta</i> 'Dream Weaver'	Dream Weaver Hosta	4	1 gal	
H4	<i>Hosta</i> 'Krossa Regal'	Krossa Regal Hosta	4	1 gal	
Nep	<i>Nepeta</i> 'Little Trudy'	Little Trudy Catmint	23	1 gal	
Rud	<i>Rudbeckia</i> 'Early Bird Gold'	Early Bird Gold Black Eyed Susan	1	1 gal	
VMB	<i>Vinca minor</i> 'Bowles'	Bowles Periwinkle	510	2" pots	8" o.c.

PROJECT NAME AND LOCATION

Inn Redevelopment
Map 9 Lots 37 & 38
27 & 29 Wentworth Street
Kittery, Maine

Latitude: 043° 05' 17" N
Longitude: 070° 44' 32" W

DESCRIPTION

The project consists of razing two (2) existing multi-family residences and a portion of existing Inn to construct two (2) 12-unit inns with one caretaker unit on two lots. The project will be completed in a single phase.

DISTURBED AREA

The total area to be disturbed is approximately 0.5 acres for new construction of driveway and associated improvements. Prior to lot clearing and soil disturbance, sedimentation barrier shall be installed to prevent sediment leaving the lot.

SEQUENCE OF MAJOR ACTIVITIES

- 1. Install temporary erosion control measures, including silt fences and stabilized construction entrances.
2. Upon completion of Items 1, demo existing structures, clear and grub wooded areas, strip and stockpile loam.
3. Construct ditches and stabilize prior to directing flow to them.
4. Construct drainage structures, swales & driveway base materials.
5. Ditches and swales with grades over 5% shall have sides and bottom reinforced with excelsior matting.
6. Grade and shape lots to finish elevations.
7. Stabilize disturbed areas.
8. When all construction activity is complete and site is stabilized, remove all hay bales, storm check dams, silt fences and sediment that has been trapped by these devices.

NAME OF RECEIVING WATER

Closed municipal drainage systems discharging to tidal waters of Piscataqua River.

TEMPORARY EROSION AND SEDIMENT CONTROLS AND STABILIZATION PRACTICES

All work shall be in accordance with state and local permits. Work shall conform to the practices described in the "Maine Erosion and Sediment Control BMPs, 2003" published by the Maine Department of Environmental Protection.

As indicated in the sequence of Major Activities, the hay bales and silt fences shall be installed prior to commencing any clearing or grading of the site. Structural controls shall be installed concurrently with the applicable activity.

During construction, runoff will be diverted around the site with stabilized channels where possible. Sheet runoff from the site will be filtered through hay bale barriers, stone check dams, and silt fences.

Temporary and permanent vegetation and mulching is an integral component of the erosion and sedimentation control plan. All areas shall be inspected and maintained until desired vegetative cover is established.

Temporary vegetation shall be maintained in these areas until permanent seeding is applied. Additionally, erosion sedimentation measures shall be maintained until permanent vegetation is established.

INSTALLATION, MAINTENANCE AND INSPECTION PROCEDURES FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES

- A. GENERAL
1. Permitter controls shall be installed prior to earth moving operations.
2. The smallest practical portion of the site will be denuded at one time and no more than be mulched in one day.
3. Sediment barriers shall be installed downgradient of stockpiles and diversion swales installed upgradient of stockpiles to prevent movement of soil.
4. All diversion dikes shall be inspected and any breaches promptly repaired.
5. The owner's authorized engineer shall inspect the site on a periodic basis to review compliance with the plans.
6. All ditches and swales shall be stabilized prior to directing runoff to them.
7. Temporary water diversion (swales, basins, etc) shall be used as necessary until areas are stabilized.
8. Ponds and swales shall be installed early on in the construction sequence.
9. All cut and fill slopes shall be seeded/loamed within 72 hours of achieving finished grade.
10. An area shall be considered stable if one of the following has occurred:
a. Base coarse gravels have been installed in areas to be paved;
b. A minimum of 90% vegetated grass has been established;
c. A minimum of 3 inches of non-erosive material such as stone or riprap has been installed; or
d. Erosion control blankets have been properly installed.

- B. MULCHING
Application
* In sensitive areas (within 100 ft of streams, wetlands and in lake watersheds) temporary mulch shall be applied within 7 days of exposing soil or prior to any storm event.
* Areas, which have been temporarily or permanently seeded, shall be mulched immediately following seeding.
* Areas which cannot be seeded within the growing season shall be mulched for over-winter protection and the area should be seeded at the beginning of the growing season.
* Mulch anchoring should be used on slopes greater than 5% in late fall (past September 15), and over-winter (September 15 - April 15).

Type of Mulch
Hay or Straw Mulches
Organic mulches, including hay and straw, shall be air-dried, free of undesirable seeds and coarse materials. Application rate shall be 2 bales (70-90 pounds) per 1000 sq. ft. or 1.5 to 2 tons (90-100 bales) per acre to cover 75 to 90 % of the ground surface.

Erosion Control Mix
Erosion control mix shall consist primarily of organic material and shall include any of the following: shredded bark, stump grindings, composted bark or other acceptable products based on a similar raw source. Wood or bark chips, ground construction debris or reprocessed wood products shall not be acceptable as the organic component of the mix.
It can be used as a stand-alone reinforcement:
* On slopes 2 horizontal to 1 vertical or less.
* On frozen ground or forested areas.
* At the edge of gravel parking areas and areas under construction.

Other reinforcement BMPs (i.e. riprap) should be used:
* On slopes with groundwater seepage;
* At low points with concentrated flows and in gullies;
* At the bottom of steep perimeter slopes exceeding 100 feet in length;
* Below culvert outlet aprons; and
* Around catch basins and closed storm systems.

Composition
Erosion control mix shall contain a well-graded mixture of particle sizes and may contain rocks less than 4" in diameter. Erosion control mix must be free of refuse, physical contaminants, and material toxic to plant growth. The mix composition shall meet the following standards:
* The organic matter content shall be between 80 and 100%, dry weight basis.
* Particle size by weight shall be 100% passing a 6" screen and a minimum of 70%, maximum of 85%, passing a 0.75" screen.
* The organic portion needs to be fibrous and elongated.
* Large portions of silts, clays or fine sands are not acceptable in the mix.

Installation
* Erosion control mix shall not be used on slopes steeper than 2:1.
* On slopes of 3:1 or less; 2 inches plus an additional 1/2 inch per 20 feet of slope up to 100 feet.
* On slopes between 3:1 and 2:1, 4 inch plus an additional 1/2 inch per 20 feet of slope up to 100 feet.
The thickness of the mulch at the bottom of the slope needs to be:
<20' of slope 2.0" slopes between 3:1 and 2:1
<60' of slope 3.0" 4.0'
<100' of slope 4.0" 5.0' 6.0'
* It shall be placed evenly and must provide 100% soil coverage, with the soil totally invisible.

Any required repairs shall be made immediately, with additional erosion control mix placed on top of the mulch to reach the recommended thickness. When the mix is decomposed, clogged with sediment, eroded or ineffective, it shall be replaced or repaired. Erosion control mix mulch shall be left in place. If the mulch needs to be removed spread it out into the landscape.

Maintenance
All mulches must be inspected periodically, in particular after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied. Nets shall be inspected after rain events for dislocation or failure. If washouts or breakage occur, re-install the nets as necessary after repairing damage to the slope. Inspections shall take place until grasses are firmly established (95% soil surface covered with grass). Where mulch is used in conjunction with ornamental plantings, inspect periodically throughout the year to determine if mulch is maintaining coverage of the soil surface. Repair as needed.

TEMPORARY VEGETATION

Considerations
* Proper seedbed preparation and the use of quality seed are important in this practice just as in permanent seeding. Failure to carefully follow sound agronomic recommendations will often result in an inadequate stand of vegetation that provides little or no erosion control.
* Nutrients and pesticides used to establish and maintain a vegetation cover shall be managed to protect the surface and ground water quality.
* Temporary seeding shall be used extensively in sensitive areas (ponds and lake watersheds, steep slopes, streambanks, etc.).
* Late fall seeding may fail and cause water quality deterioration in spring runoff events, thus other measures such as mulching shall be implemented.

Specifications
Seedbed Preparation
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 10-10-10 (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).

Seeding
* Select seed from recommendations in enclosed table.
* Where the seed will be compacted by construction operations, loosen soil to a depth of 2 inches before applying fertilizer, lime and seed.
* Apply seed uniformly by hand, cyclone seeder, drill, cultipacker type seeder or hydroseeder (slurry including seed and fertilizer). Hydroseeding that includes mulch may be left on soil surface. Seeding rates must be increased 10% when hydroseeding.

Mulching
Apply mulch over seeded area according to the TEMPORARY MULCHING BMP.

Maintenance
Temporary seeding shall be periodically inspected. At a minimum, 95% of the soil surface should be covered by vegetation. If any evidence of erosion or sedimentation is apparent, repairs shall be made and other temporary measures used in the interim (mulch, filter barriers, check dams, etc.).

Table with 5 columns: Seed, Temporary Seeding Rates and Dates (Lb./Ac, Seeding Depth), Recommended Seeding Dates, and Remarks. Rows include Winter Rye, Oats, Annual Ryegrass, Sudangrass, and Perennial.

D. FILTERS
Tubular Sediment Barrier
a. To be provided by an approved manufacturer or supplier;
b. Installed per manufacturer's specifications;
c. Barrier shall be removed when they have served their useful purpose but not before the upslope areas has been permanently stabilized.

Straw/Hay Bales
* Bales shall be placed in a single row, lengthwise on the contour, with ends of adjacent bales tightly abutting one another.
* All bales shall be either wire-bound or string-tied. Bales shall be installed so that bindings are oriented around the sides, parallel to the ground surface to prevent deterioration of the bindings.
* The barrier shall be entrenched and backfilled. A trench shall be excavated the width of a bale and the length of the proposed barrier to a minimum depth of 4 inches.
* After the bales are staked and chinked, the excavated soil shall be backfilled against the barrier. Backfill soil shall conform to the ground level on the downhill side and shall be piled up to 4 inches above the uphill side of the barrier.
* At least two stakes or rebars driven through the bale shall securely anchor each bale. The first stake in each bale shall be driven toward the previously laid bale to force the bales together. Stakes or re-bars shall be driven deep enough into the ground to securely anchor the bales.
* The gaps between bales shall be chinked (filled by wedging) with hay to prevent water from escaping between the bales.

Organic Filter Berm See detail

Installation
* Sediment barriers shall be installed along the down gradient side of proposed ground disturbance areas prior to any construction activities.
* The barrier must be placed along a relatively level contour.

Maintenance
* Hay bale barriers, sedimentation barriers and filter berms shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. They shall be repaired immediately if there are any signs of erosion or sedimentation below them.
* Should the fabric on a sedimentation barrier or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier still is necessary, the fabric shall be replaced promptly.
* Sediment deposits should be removed when deposits reach approximately one third (1/3) the height of the barrier.
* Filter berms should be reshaped as needed.
* Any sediment deposits remaining in place after the sedimentation barrier or filter barrier is no longer required shall be dressed or removed to conform to the existing grade, prepared and seeded.
* Additional stone may have to be added to the construction stabilized entrance, rock barriers, stone lined swales, etc., periodically to maintain proper function of the erosion control structure.

PERMANENT SEEDING

- 1. Bedding - stones larger than 1 1/2", trash, roots, and other debris that will interfere with seeding and future maintenance of the area should be removed. Where feasible, the soil should be tilled to a depth of 6" to prepare a seedbed and mix fertilizer (refer to Landscape Drawings and Specifications) into the soil.
2. Fertilizer (refer to Landscape Drawings and Specifications) - lime and fertilizer should be applied evenly over the area prior to or at the time of seeding and incorporated into the soil.
3. Seed Mixture (See Landscape Drawings for additional information):
3.1. Lawn seed mix shall be a fresh, clean new seed crop.
3.2. Seed mixture shall conform to landscape specifications.
4. Sodding - sodding is done where it is desirable to rapidly establish cover on a disturbed area. Sodding an area may be substituted for permanent seeding procedures anywhere on site.

DEWATERING

A dewatering plan shall be implemented to address excavation de-watering following heavy rainfall events or where the excavation may intercept the groundwater table during construction.

All dewatering discharge locations shall be located on relatively flat ground at least 75' from streams and 25' from wetlands. The contractor shall utilize "dirtbags", erosion control mix berms, or similar methods for filtration of dewatering and shall conform to the Maine Erosion and Sediment Control BMPs.

Placement of "Dirtbags" shall be located such that they can be removed intact upon completion of construction with no discharge of silt at the site and properly disposed.

MONITORING SCHEDULE
The contractor shall be responsible for installing, monitoring, maintaining, repairing, replacing and removing all of the erosion and sedimentation controls or appointing a qualified subcontractor to do so. Maintenance measures will be applied as needed during the entire construction cycle.

- 1. sedimentation barrier shall be inspected and repaired. Sediment trapped behind these barriers shall be excavated when it reaches a depth of 6" and redistributed to areas undergoing final grading.
2. Construction entrance shall be visually inspected and repaired as needed. Any areas subject to rutting shall be resurfaced by the contractor.
3. Standard for the timely stabilization of disturbed slopes (any area having a grade greater than 25%) - the contractor will seed and mulch all slopes to be vegetated by September 15th.
4. Stabilize the soil with temporary vegetation and erosion control mats by October 1st.
5. Stabilize the slope with wood-waste compost; the contractor will place a six-inch layer of wood-waste compost on the slope by November 15th.
6. Standard for the timely stabilization of disturbed soils - by September 15th the contractor will seed and mulch all disturbed soils on the site.

- A. Stabilize the soil with temporary vegetation; by October 1st the contractor will seed the disturbed soil with winter rye at a seeding rate of 3 pounds per 1000 square feet, lightly mulch the seeded soil with hay or straw at 75 pounds per 1000 square feet, and anchor the mulch with plastic netting.
B. Stabilize the slope with wood-waste compost; the contractor will place a six-inch layer of wood-waste compost on the slope by November 15th.
C. Stabilize the slope with stone riprap; the contractor will place a layer of stone riprap on the slope by November 15th.
D. Standard for the timely stabilization of disturbed soils - by September 15th the contractor will seed and mulch all disturbed soils on the site.
E. Stabilize the soil with temporary vegetation; by October 1st the contractor will seed the disturbed soil with winter rye at a seeding rate of 3 pounds per 1000 square feet, lightly mulch the seeded soil with hay or straw at 75 pounds per 1000 square feet, and anchor the mulch with plastic netting.
F. Stabilize the soil with sod; the contractor will stabilize the disturbed soil with properly installed sod by October 1st.
G. Stabilize the soil with mulch; by November 15th the contractor will mulch the disturbed soil by spreading hay or straw at a rate of at least 150 pounds per 1000 square feet on the area so that no soil is visible through the mulch.

Winter inspections shall be performed after, each rainfall, snowstorm or thawing and at least once a week. All areas within 75 feet of a protected natural resource must be protected with a double row of sediment barrier.

EROSION CONTROL REMOVAL
An area is considered stable if it is paved or if 90% growth of planted seeds is established.
1. sedimentation barrier; sedimentation barrier shall be disposed of legally and properly off-site.
2. Stabilized Construction Entrance; The stabilized construction entrance shall be removed once the compacted roadway base is in place.
3. Miscellaneous; Once all the trapped sediments have been removed from the temporary sedimentation devices the disturbed areas must be regraded in an aesthetic manner to conform to the surrounding topography.

The above erosion controls must be removed within 30 days of final stabilization of the site. Conformance with this plan and following these practices will result in a project that complies with the state regulatory standards and the standards of the natural resources protection act, and will protect water quality in areas downstream from the project.

INSPECTION AND MAINTENANCE

- 1. All sediment control measures shall be inspected at least once each week and following any storm event of 0.25 inches or greater.
2. All measures shall be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours and completed within 72 hours.
3. Inspection and maintenance requirements: inspect disturbed and impervious areas, erosion and stormwater control measures, areas used for storage that are exposed to precipitation, and locations where vehicles enter or exit the site.
4. Inspection Log (report): A log (report) must be kept summarizing the scope of the inspection, name(s) and qualifications of the personnel making the inspection, the date(s) of the inspection, and major observations relating to operation of erosion and sedimentation controls and pollution prevention measures.

HOUSEKEEPING

- 1. Spill prevention: Controls must be used to prevent pollutants from construction and waste materials stored onsite, including storage practices to minimize exposure of the materials to stormwater and appropriate spill prevention, containment, and response planning implementation.
2. Groundwater protection: Protection of the groundwater is required by the contractor and owner. During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area.

Lock of appropriate pollutant removal BMPs may result in violations of the groundwater quality standard established by 39 M.R.S.A. §465-C(1). Any project proposing infiltration of stormwater must provide adequate pre-treatment of stormwater prior to discharge of stormwater to the infiltration area, or provide treatment within the infiltration area, in order to prevent accumulation of fines, reductions in infiltration rate, and consequent flooding and destabilization.

Fugitive sediment and dust: Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction.

Dewatering a stream without a permit from the department violates state water quality standards and the Natural Resources Protection Act.

Debris and other materials: Litter, construction debris, and construction chemicals exposed to stormwater must be prevented from becoming a pollutant source. Construction materials and construction debris should be covered to prevent rainwater from washing contaminants off the site.

- Any contaminants that are washed off the site by rainwater is a violation of the Clean Waters Act. To prevent these materials from becoming a source of pollutants, construction activities related to a project may be required to comply with applicable provisions of rules related to solid, universal, and hazardous waste, including, but not limited to, the Maine Solid Waste and Hazardous Waste Management Rules; Maine Hazardous Waste Management Rules; Maine Oil Conveyance and Storage Rules; and Maine Pesticide requirements.
Trench or foundation dewatering: Trench dewatering is the removal of water from trenches, foundations, coffer dams, ponds, and other areas within the construction area that retain water after excavation.

For guidance on dewatering controls, consult the Maine Erosion and Sediment Control BMPs, published by the Maine Department of Environmental Protection.

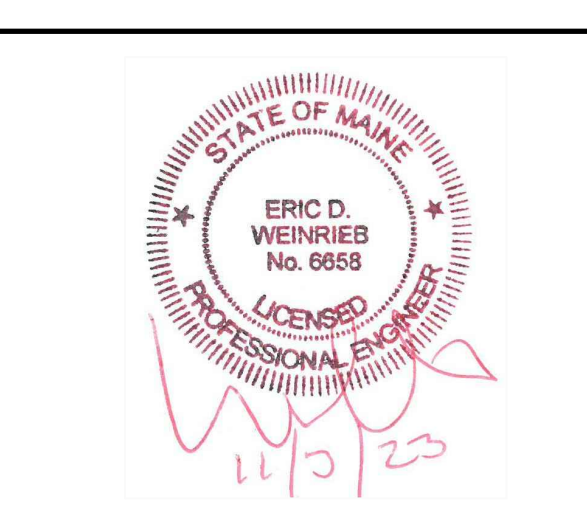
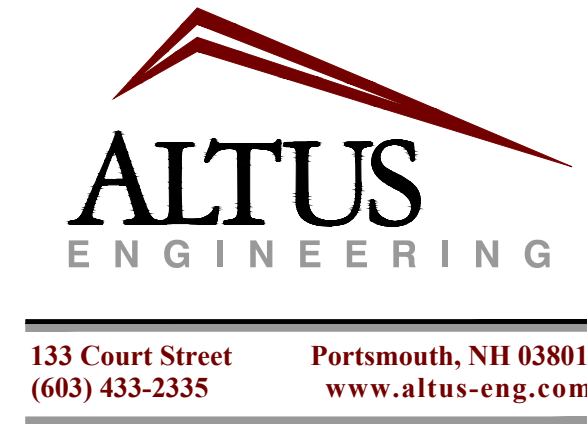
- Non-stormwater discharges: Identify and prevent contamination by non-stormwater discharges. Where allowed non-stormwater discharges exist, they must be identified and steps should be taken to ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge.
Authorized non-stormwater discharges are:
- Discharges from firefighting activities
- Fire hydrant flushings
- Vehicle washwater if detergents are not used and washing is limited to the exterior of vehicles (engine, undercarriage, and transmission washing is prohibited)
- Dust control runoff in accordance with permit conditions
- Routine external building washdown, not including surface paint removal, that does not involve detergents
- Pavement washwater (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material had been removed) if detergents are not used
- Uncontaminated air conditioning or compressor condensate
- Uncontaminated groundwater or spring water
- Foundation or footer drain-water where flows are not contaminated
- Uncontaminated excavator dewatering
- Potable water sources including waterline flushings

- Unauthorized non-stormwater discharges: Identify and prevent contamination from discharges that is mixed with a source of non-stormwater, other than those discharges in compliance with 6.
Unauthorized non-stormwater discharges are:
- Wastewater from the washout or cleanout of concrete, stucco, paint, form release oils, curing compounds or other construction materials;
- Fuels, oils, or other pollutants used in vehicle and equipment operations and maintenance;
- Soaps, solvents or detergents used in vehicle and equipment wash;
- Toxic or hazardous substances from a spill or other release.

Allowable non-stormwater discharges cannot be authorized under this permit unless they are directly related to and originate from a construction site or dedicated support activity.

This project has a written erosion control plan and stormwater maintenance plan. Modifications to the plan must be approved by the Town.

Maintenance of stormwater treatment and control systems must occur regularly. The stormwater maintenance report provides inspection details and time lines for doing the inspections and reporting to the Town and DEP.



NOT FOR CONSTRUCTION
ISSUED FOR:
PRELIM. SITE PLAN APPROVAL
ISSUE DATE:
NOVEMBER 3, 2023

Table with 2 columns: NO. DESCRIPTION, BY DATE. Rows include 0 INITIAL SUBMISSION, 1 TOWN COMMENTS, 2 TOWN COMMENTS.

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APPROVED BY: EDW
DRAWING FILE: 5431DETAILS.dwg

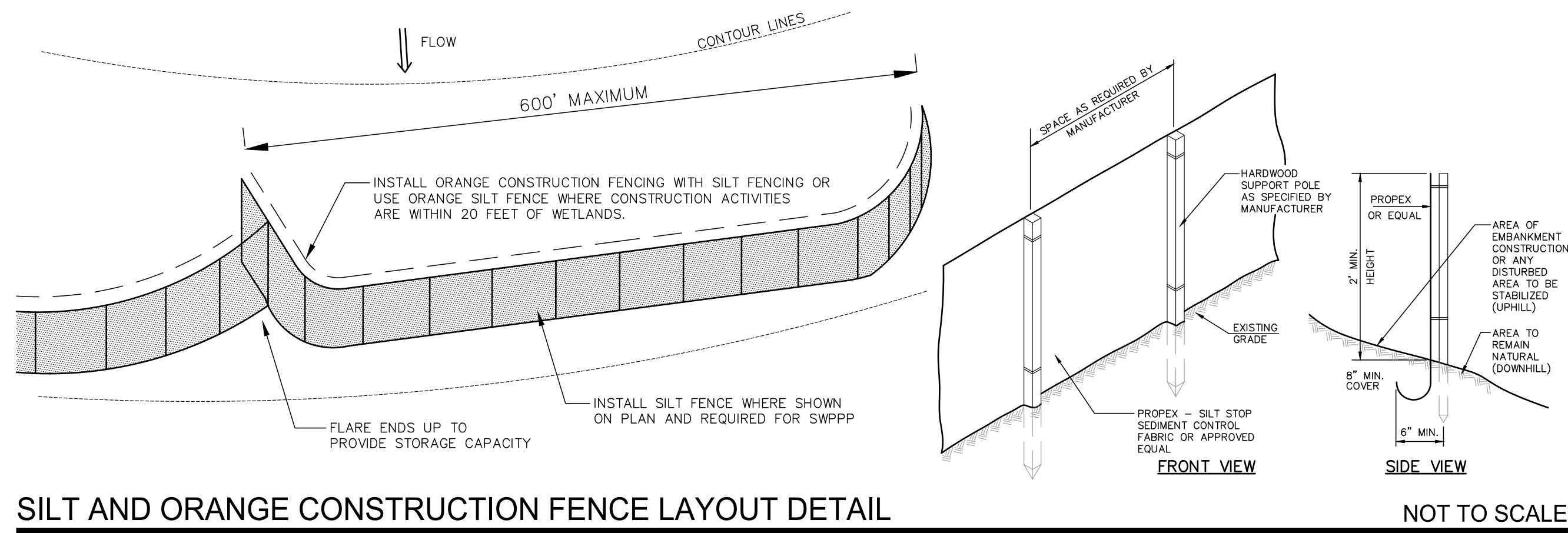
SCALE:
AS SHOWN

OWNER:
27 WENTWORTH STREET, LLC
& MREV KITTERY INN, LLC
401 EDGEWATER PLACE, SUITE 570
WAKEFIELD, MA 01880

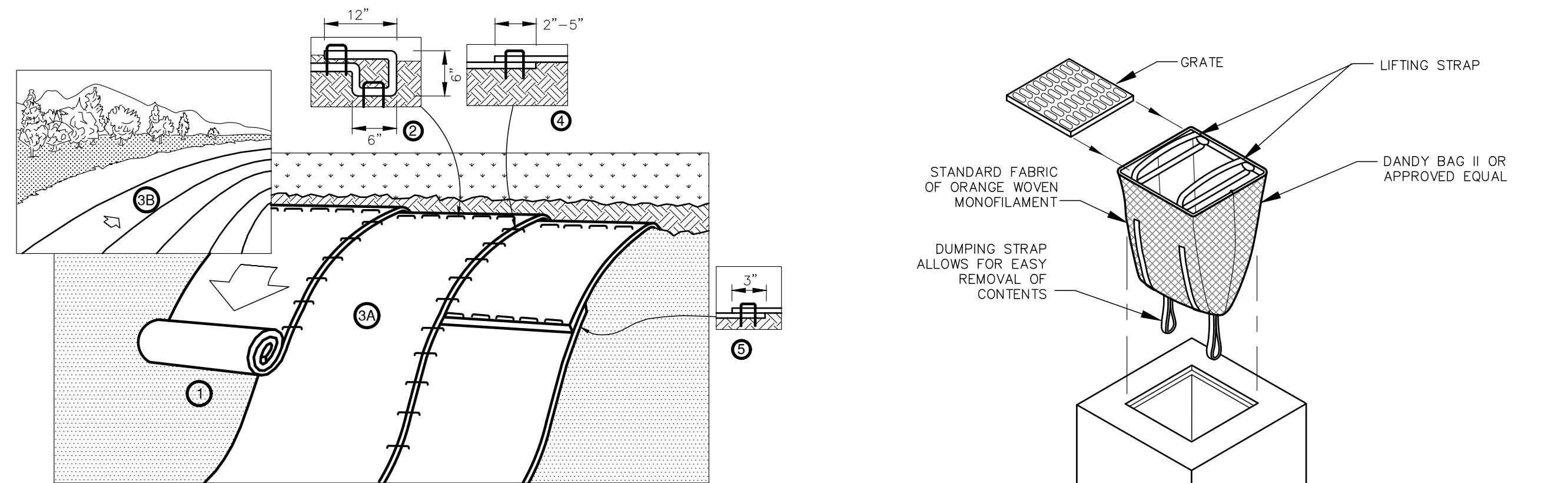
APPLICANT:
MADBURY REAL ESTATE VENTURES
401 EDGEWATER PLACE, SUITE 570
WAKEFIELD, MA 01880

PROJECT:
THE FORESIDE INN
TAX MAP 9
LOTS 37 & 38
27 & 29 WENTWORTH STREET
KITTERY, MAINE

TITLE:
DETAIL SHEET
SHEET NUMBER:
C - 6



SILT AND ORANGE CONSTRUCTION FENCE LAYOUT DETAIL NOT TO SCALE



- NOTES**
- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
 - BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" 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 BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
 - ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.
 - THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
 - CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH. NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

INSTALLATION AND MAINTENANCE:

INSTALLATION: REMOVE THE GRATE FROM CATCH BASIN. IF USING OPTIONAL OIL ABSORBENTS; PLACE ABSORBENT PILLON IN UNIT. STAND GRATE ON END. MOVE THE TOP LIFTING STRAPS OUT OF THE WAY AND PLACE THE GRATE INTO CATCH BASIN INSERT SO THE GRATE IS BELOW THE TOP STRAPS AND ABOVE THE LOWER STRAPS. HOLDING THE LIFTING DEVICES, INSERT THE GRATE INTO THE INLET.

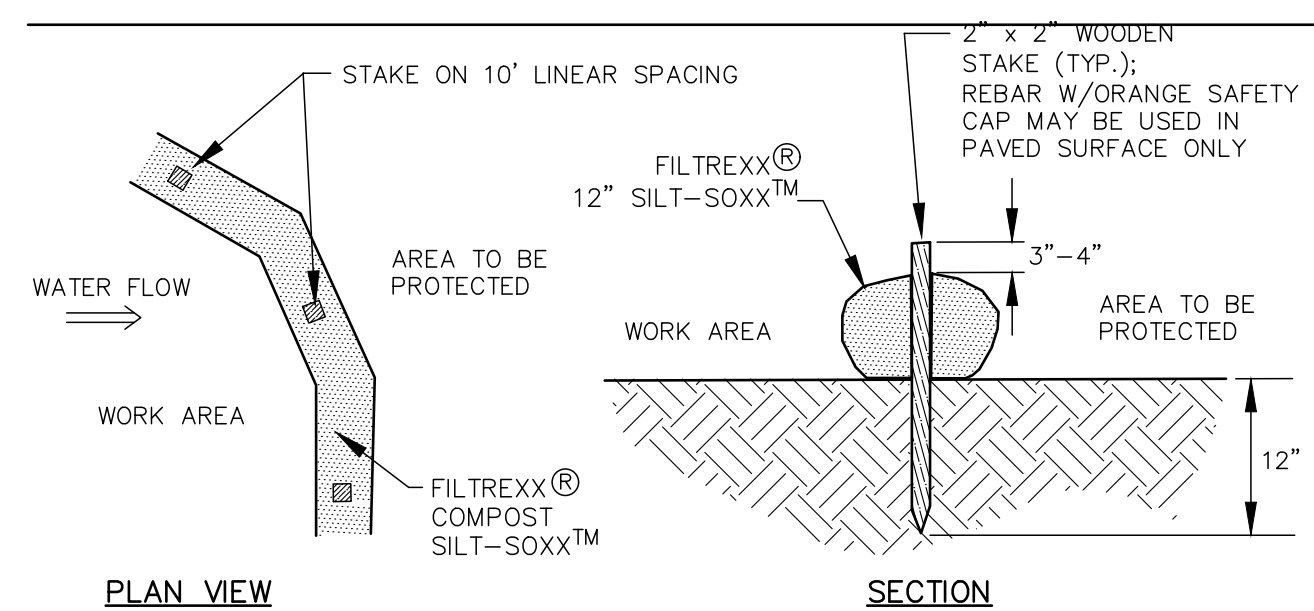
MAINTENANCE: REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF THE UNIT AFTER EACH STORM EVENT. AFTER EACH STORM EVENT AND AT REGULAR INTERVALS, LOOK INTO THE CATCH BASIN INSERT. IF THE CONTAINMENT AREA IS MORE THAN 1/3 FULL OF SEDIMENT, THE UNIT MUST BE EMPTIED. TO EMPTY THE UNIT, LIFT THE UNIT OUT OF THE INLET USING THE LIFTING STRAPS AND REMOVE THE GRATE. IF USING OPTIONAL ABSORBENTS; REPLACE ABSORBENT WHEN NEAR SATURATION.

UNACCEPTABLE INLET PROTECTION METHOD:

A SIMPLE SHEET OF GEOTEXTILE UNDER THE GRATE IS NOT ACCEPTABLE.

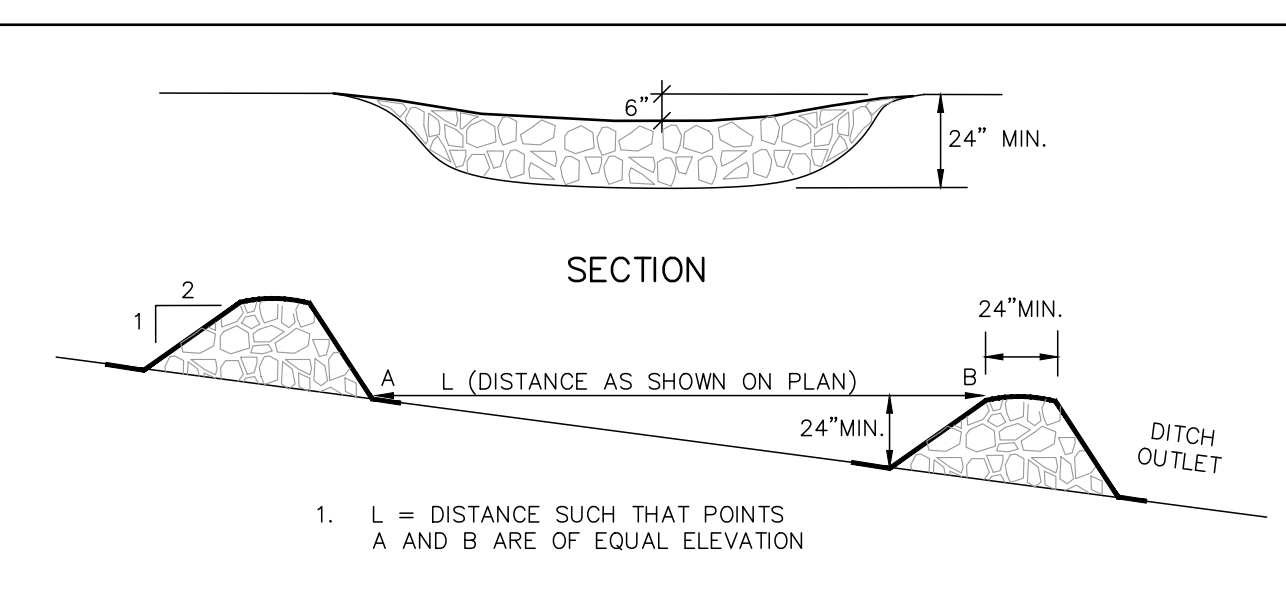
EROSION CONTROL BLANKET - SLOPE NOT TO SCALE

STORM DRAIN INLET PROTECTION NOT TO SCALE



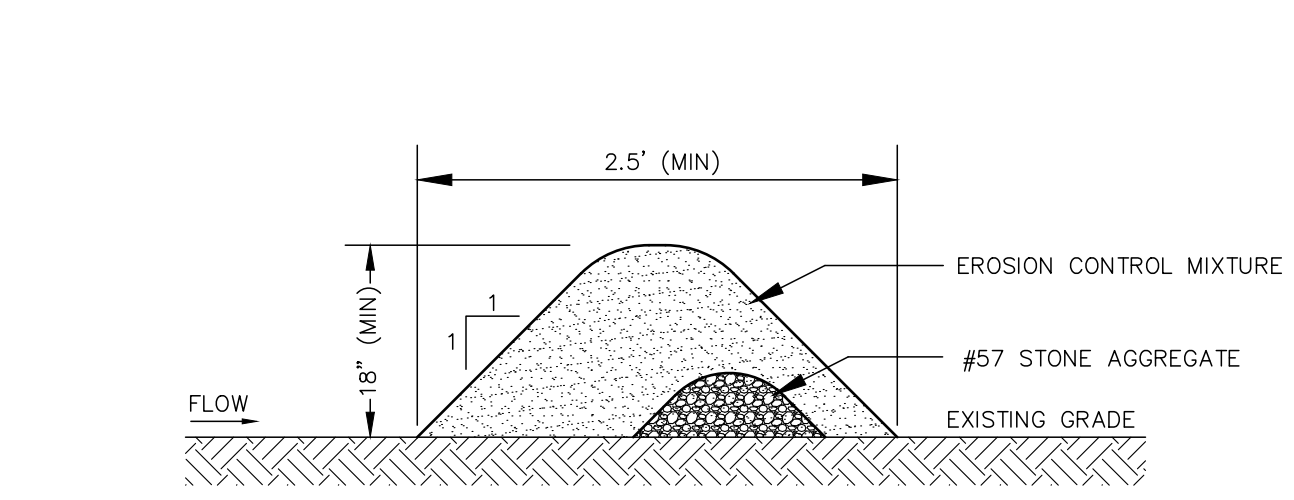
- NOTES:**
- SILT-SOXX MAY BE USED IN PLACE OF SILT FENCE OR OTHER SEDIMENT BARRIERS.
 - ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
 - SILT-SOXX COMPOST/SOIL/ROCK/SEED FILL MATERIAL SHALL BE ADJUSTED AS NECESSARY TO MEET THE REQUIREMENTS OF THE SPECIFIC APPLICATION.
 - ALL SEDIMENT TRAPPED BY SILT-SOXX SHALL BE DISPOSED OF PROPERLY.

TUBULAR SEDIMENT BARRIER NOT TO SCALE



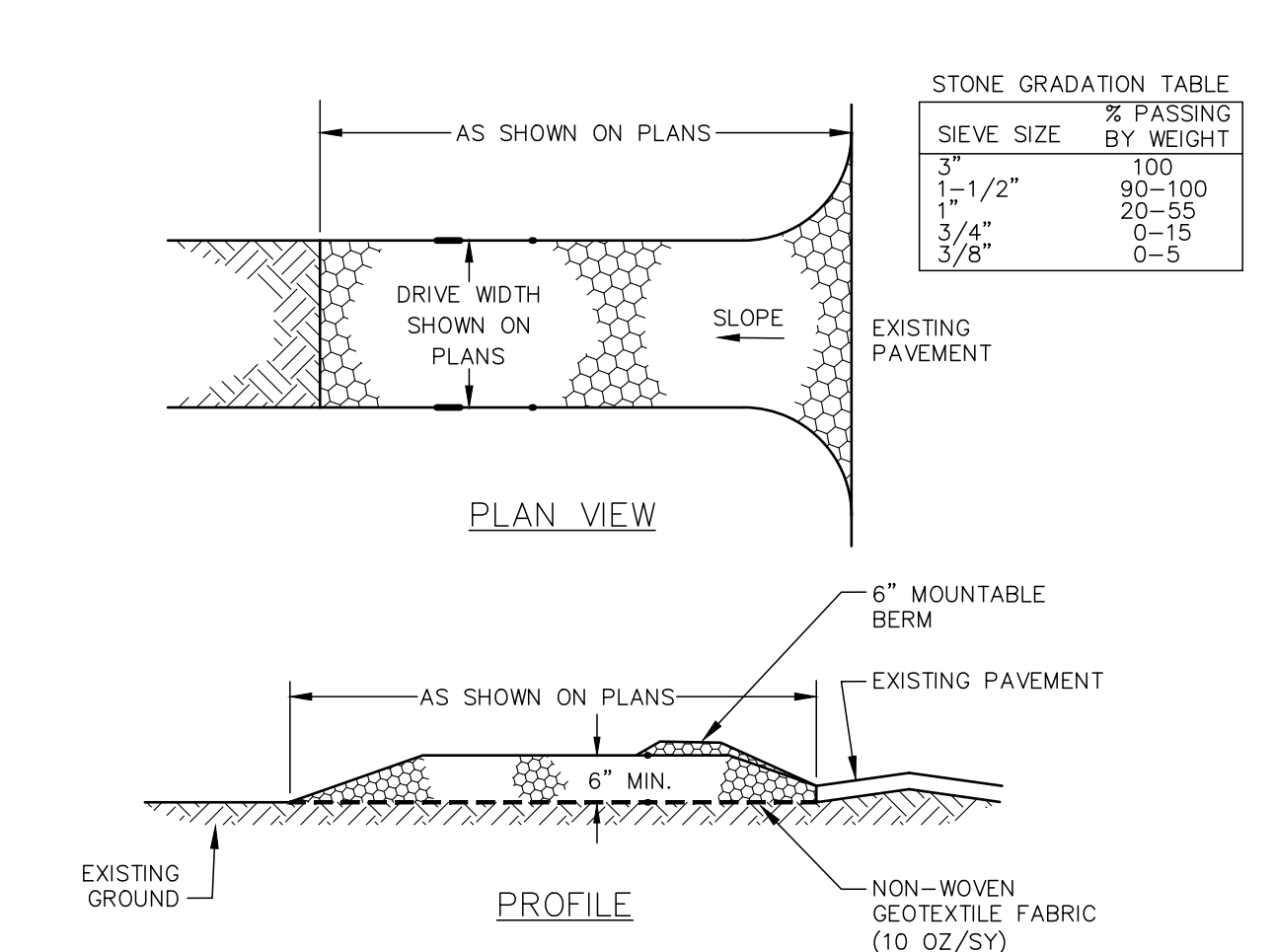
- L = DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION
- CHECK DAM SHALL BE CONSTRUCTED OF 2" TO 3" STONE WITH COMPLETE COVERAGE OF DITCH OR SWALE TO INSURE THAT THE CENTER OF THE STRUCTURE IS LOWER THAN THE EDGES.

STONE CHECK DAM NOT TO SCALE



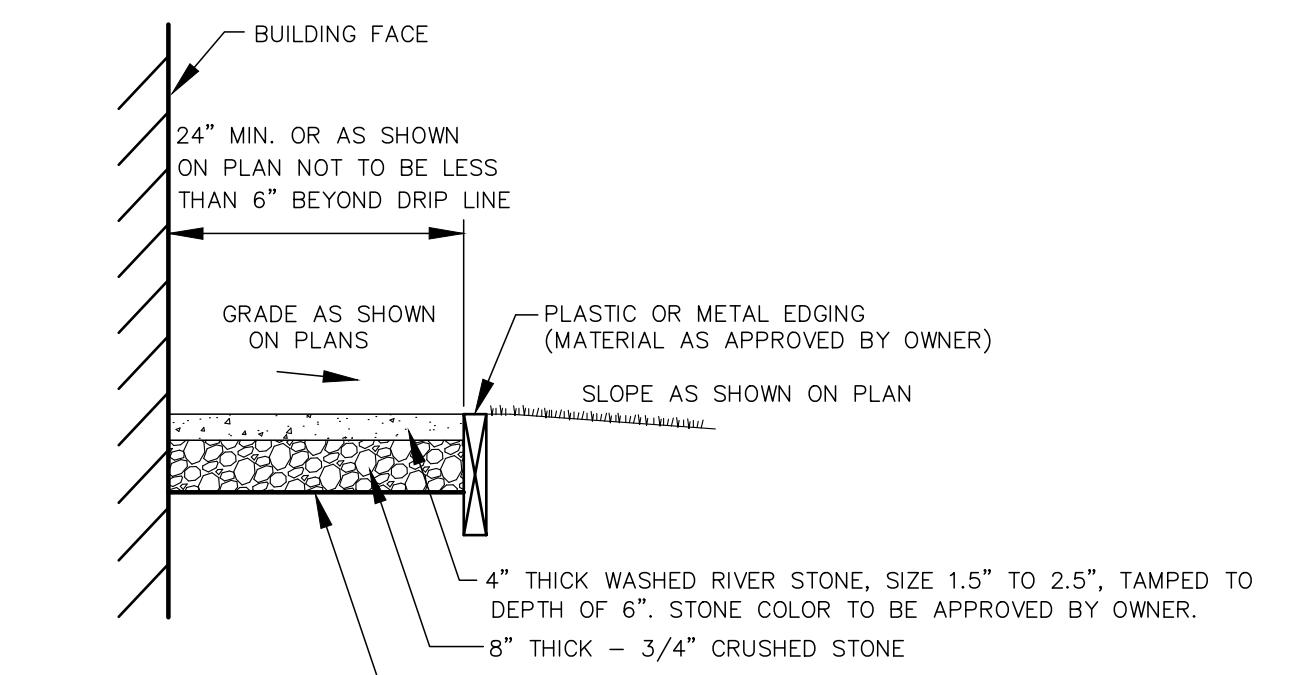
- NOTES**
- ORGANIC FILTER BERMS MAY BE UTILIZED IN LIEU OF SILT FENCE OR OTHER SEDIMENT BARRIERS.
 - THE EROSION CONTROL MIXTURE USED IN FILTER BERMS SHALL BE A WELL-GRADED MIX OF PARTICLE SIZES THAT MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER, STUMP GRINDINGS, SHREDDED OR COMPOSTED BARK, AND/OR ACCEPTABLE MANUFACTURED PRODUCTS AND SHALL BE FREE OF REFUSE, PHYSICAL CONTAMINANTS AND MATERIAL TOXIC TO PLANT GROWTH. EROSION CONTROL MIXTURE SHALL MEET THE FOLLOWING STANDARDS:
 - THE ORGANIC CONTENT SHALL BE 80-100% OF DRY WEIGHT.
 - PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN, AND 70-85% PASSING A 0.75" SCREEN.
 - THE ORGANIC PORTION SHALL BE FIBROUS AND ELONGATED.
 - LARGE PORTIONS OF SILTS, CLAYS, OR FINE SANDS SHALL NOT BE INCLUDED IN THE MIXTURE.
 - SOLUBLE SALTS CONTENT SHALL BE >4.0mmhos/cm.
 - THE pH SHALL BE BETWEEN 5.0 AND 8.0.
 - ORGANIC FILTER BERMS SHALL BE INSTALLED ALONG A RELATIVELY LEVEL CONTOUR. IT MAY BE NECESSARY TO CUT TALL GRASSES OR WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES THAT WOULD ENABLE FINES TO WASH UNDER THE BERM.
 - ON SLOPES LESS THAN 5% OR AT THE BOTTOM OF SLOPES NO STEEPER THAN 3:1 AND UP TO 20' LONG, THE BERM SHALL BE A MINIMUM OF 12" HIGH (AS MEASURED ON THE UPHILL SIDE) AND A MINIMUM OF 36" WIDE. ON LONGER AND/OR STEEPER SLOPES, THE BERM SHALL BE TALLER AND WIDER TO ACCOMMODATE THE POTENTIAL FOR ADDITIONAL RUNOFF (MAXIMUM HEIGHT SHALL NOT EXCEED 2').
 - FROZEN GROUND, OUTCROPS OF BEDROCK, AND VERY ROOTED FORESTED AREAS PRESENT THE MOST PRACTICAL AND EFFECTIVE LOCATIONS FOR ORGANIC FILTER BERMS. OTHER BMP'S SHOULD BE USED AT LOW POINTS OF CONCENTRATED RUNOFF, BELOW CULVERT OUTLET APRONS, AROUND CATCH BASINS, AND AT THE BOTTOM OF STEEP PERIMETER SLOPES THAT HAVE A LARGE CONTRIBUTING AREA.
 - SEDIMENT SHALL BE REMOVED FROM BEHIND THE FILTER BERMS WHEN IT HAS ACCUMULATED TO ONE HALF THE ORIGINAL HEIGHT OF THE BERM.
 - ORGANIC FILTER BERMS MAY BE LEFT IN PLACE ONCE THE SITE IS STABILIZED PROVIDED ANY SEDIMENT DEPOSITS TRAPPED BY THEM ARE REMOVED AND DISPOSED OF PROPERLY.
 - FILTER BERMS ARE PROHIBITED AT THE BASE OF SLOPES STEEPER THAN 8% OR WHERE THERE IS FLOWING WATER WITHOUT THE SUPPORT OF ADDITIONAL MEASURES SUCH AS SILTFENCE.

ORGANIC FILTER BERM NOT TO SCALE

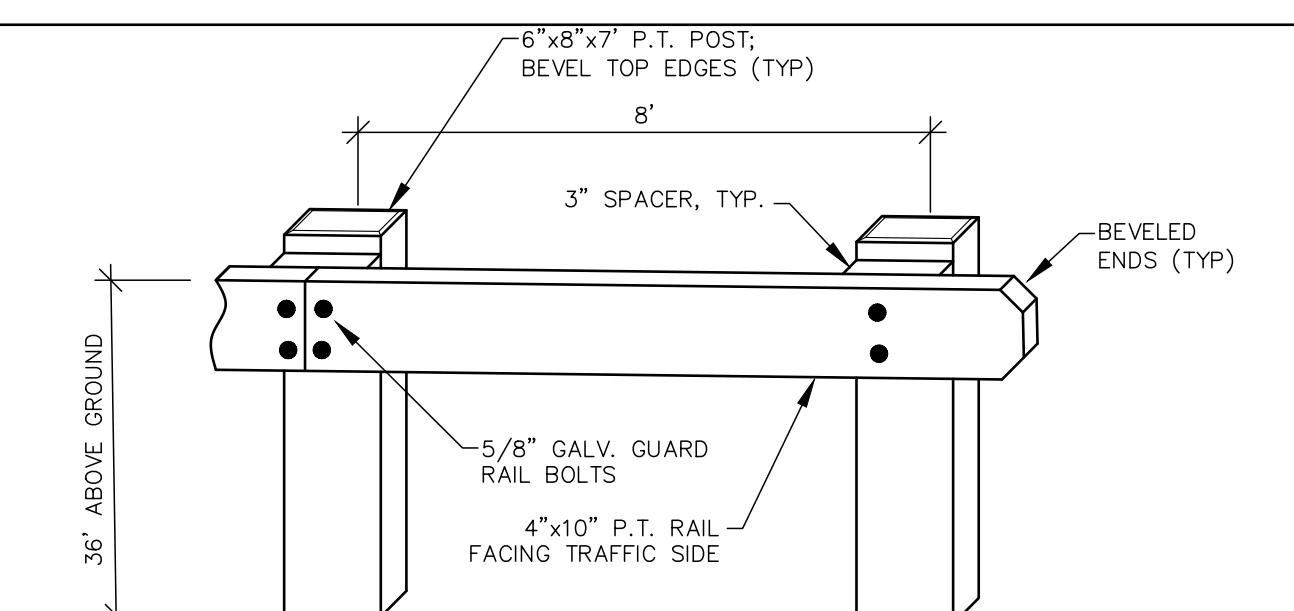


- CONSTRUCTION SPECIFICATIONS**
- STONE SIZE - NHDOT STANDARD STONE SIZE #4 - SECTION 703 OF NHDOT STANDARD.
 - LENGTH - DETAILED ON PLANS (50 FOOT MINIMUM).
 - THICKNESS - SIX (6) INCHES (MINIMUM).
 - WIDTH - FULL DRIVE WIDTH UNLESS OTHERWISE SPECIFIED.
 - FILTER FABRIC - MIRAFI 600X OR EQUAL APPROVED BY ENGINEER.
 - SURFACE WATER CONTROL - ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
 - MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS WILL REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
 - WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
 - STABILIZED CONSTRUCTION EXITS SHALL BE INSTALLED AT ALL ENTRANCES TO PUBLIC RIGHTS-OF-WAY, AT LOCATIONS SHOWN ON THE PLANS, AND/OR WHERE AS DIRECTED BY THE ENGINEER.

STABILIZED CONSTRUCTION EXIT NOT TO SCALE



DRIP EDGE DETAIL NOT TO SCALE



NOTE:

FENCE BY GC/AAA FENCE COMPANY, DOVER, NH, TEL. (800) 660-0833 OR APPROVED EQUAL

SINGLE RAIL WOOD BARRIER NOT TO SCALE

ALTUS ENGINEERING

133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com

STATE OF MAINE
ERIC D. WEINRIEB
No. 6658
LICENSED PROFESSIONAL ENGINEER
11/03/23

NOT FOR CONSTRUCTION

ISSUED FOR:
PRELIM. SITE PLAN APPROVAL

ISSUE DATE:
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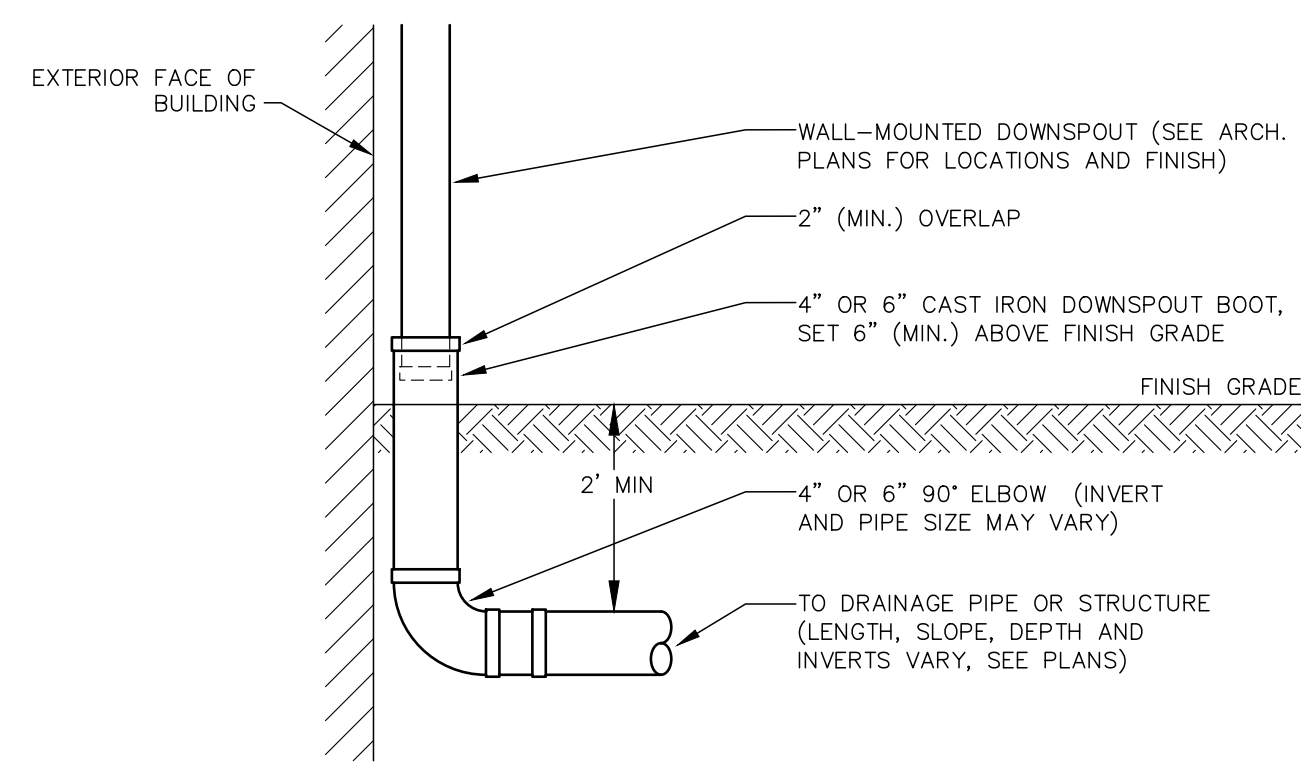
OWNER:
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401 EDGEWATER PLACE, SUITE 570
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APPLICANT:
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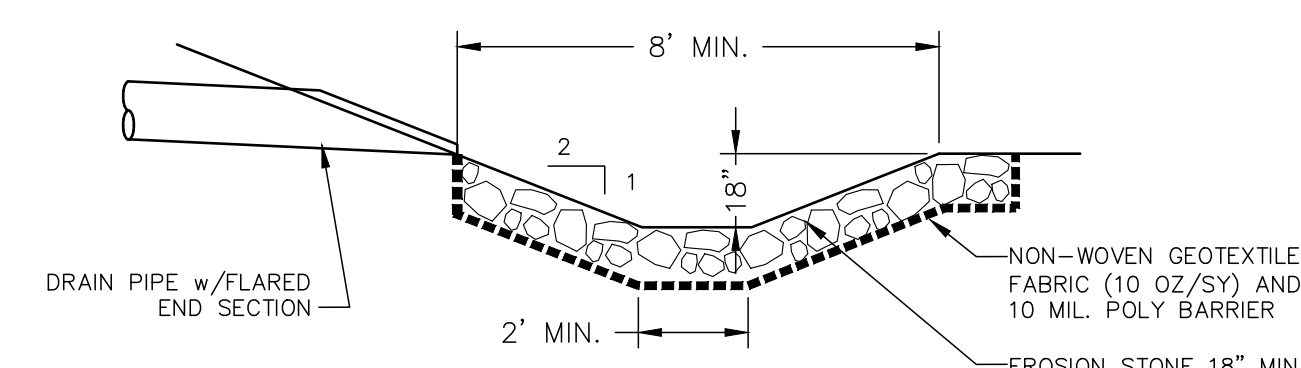
PROJECT:
THE FORESIDE INN
TAX MAP 9
LOTS 37 & 38
27 & 29 WENTWORTH STREET
KITTERY, MAINE

TITLE:
DETAIL SHEET

SHEET NUMBER:
C - 7

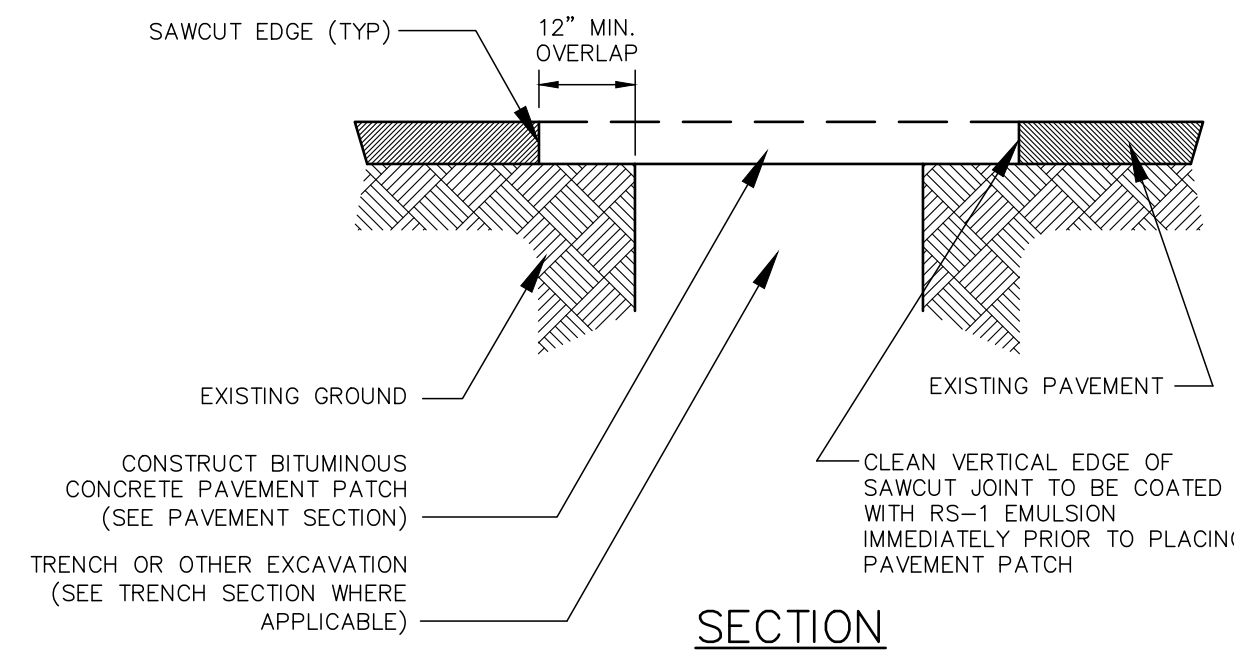
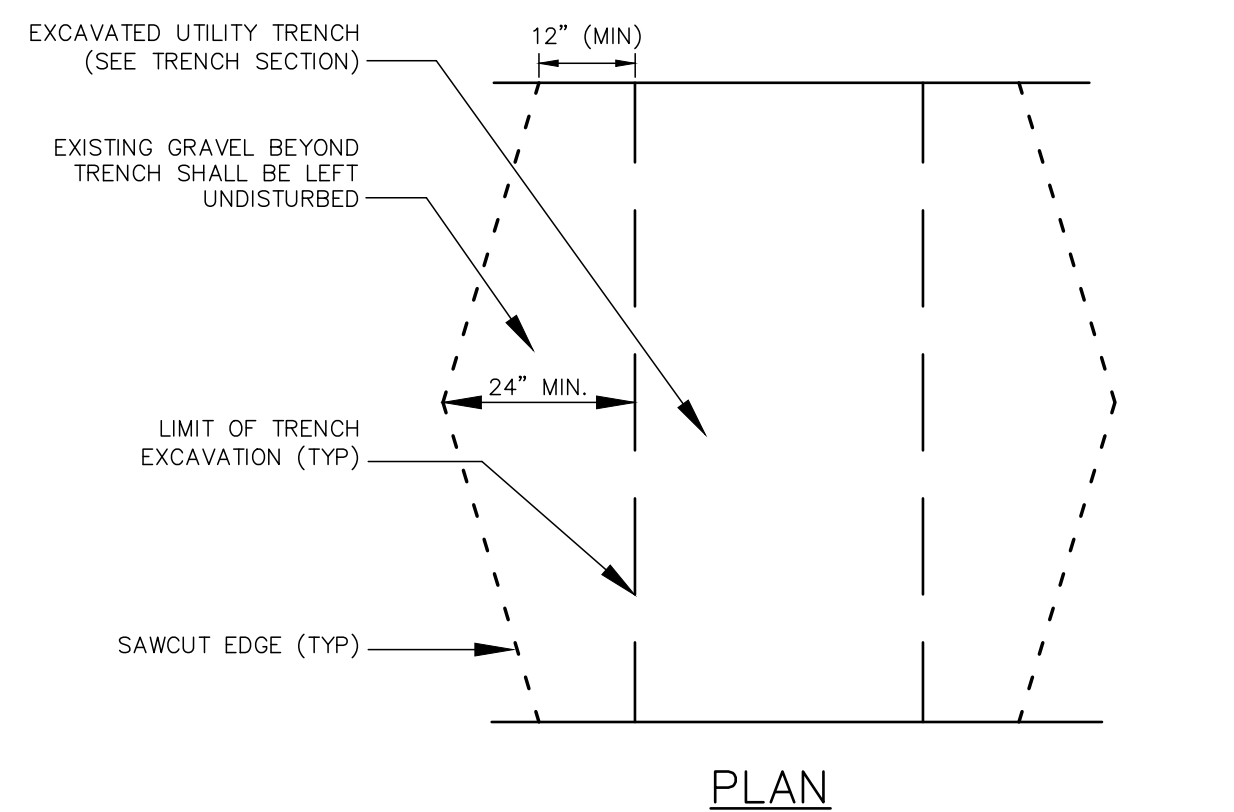


EXTERIOR ROOF DRAIN CONNECTION NOT TO SCALE



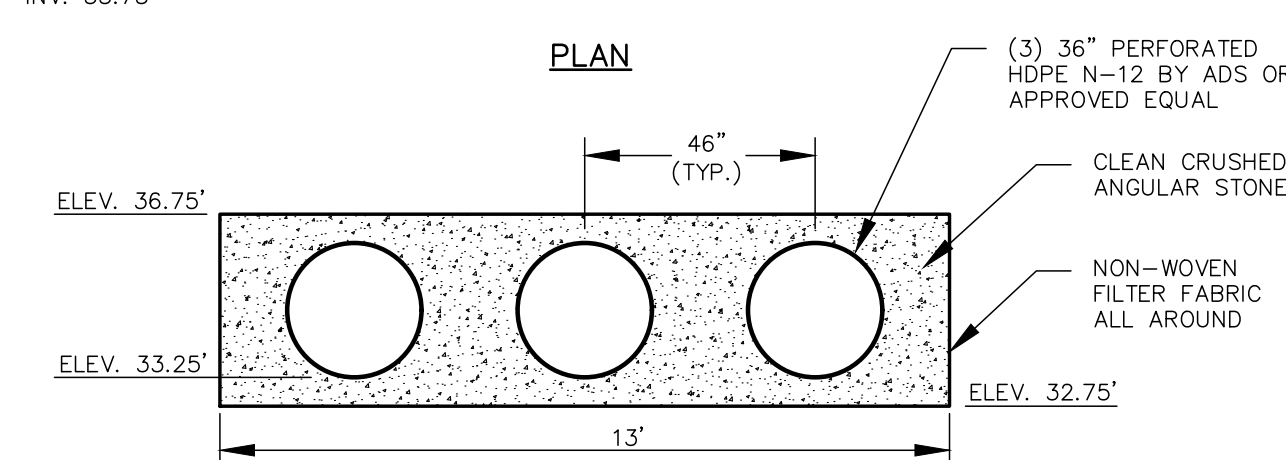
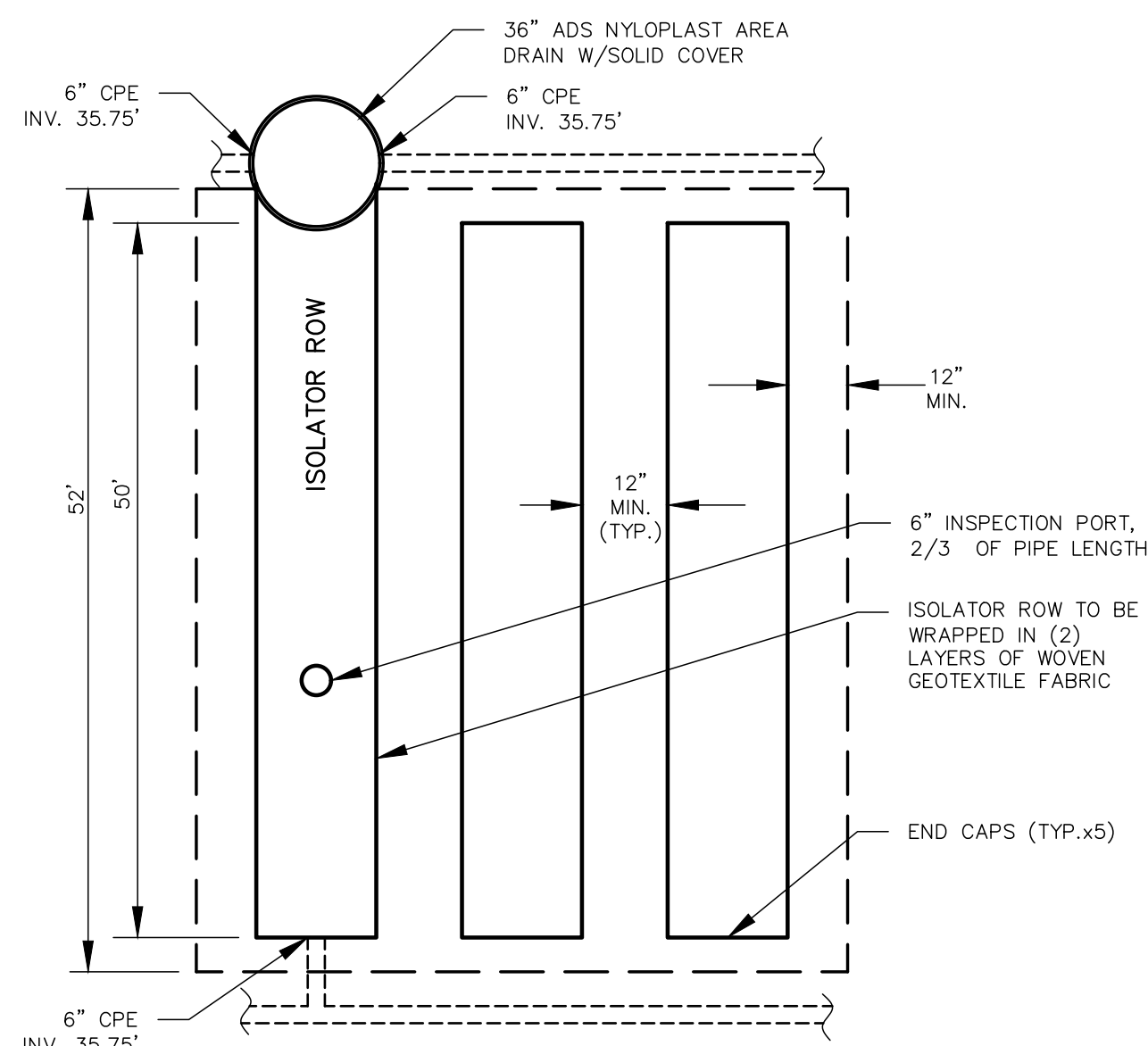
- NOTES:**
- CONSTRUCT PLUNGE POOL TO THE WIDTHS AND LENGTHS SHOWN ON THE PLAN.
 - THE SUBGRADE FOR THE GEOTEXTILE FABRIC AND RIPRAP SHALL BE PREPARED TO ACCOUNT FOR THE DEPTH OF RIPRAP.
 - EROSION STONE USED FOR THE PLUNGE POOL SHALL MEET THE FOLLOWING GRADATION:
- | SIZE | PERCENT PASSING BY WEIGHT |
|------|---------------------------|
| 18" | 100 |
| 12" | 90-100 |
| 4" | 0-15 |
- GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE EROSION STONE. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 18". THE EROSION STONE MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.

PLUNGE POOL NOT TO SCALE

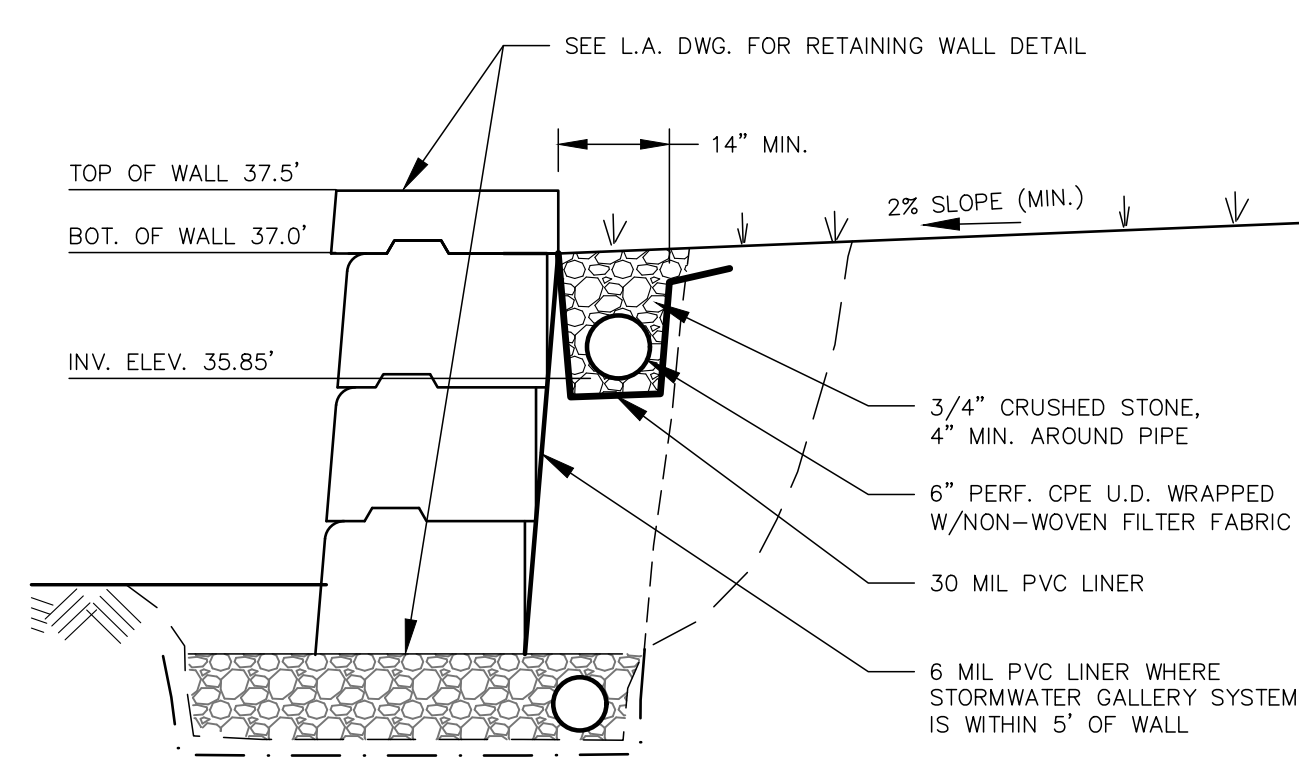


- NOTES:**
- MACHINE CUT EXISTING PAVEMENT.
 - ALL TEMPORARY, DAMAGED OR DEFECTIVE PAVEMENT SHALL BE REMOVED PRIOR TO PLACEMENT OF PERMANENT TRENCH REPAIRS.
 - DIAMOND PATCHES, SHALL BE REQUIRED FOR ALL TRENCHES CROSSING ROADWAY. DIAMOND PATCHES SHALL MEET NHDOT REQUIREMENTS.

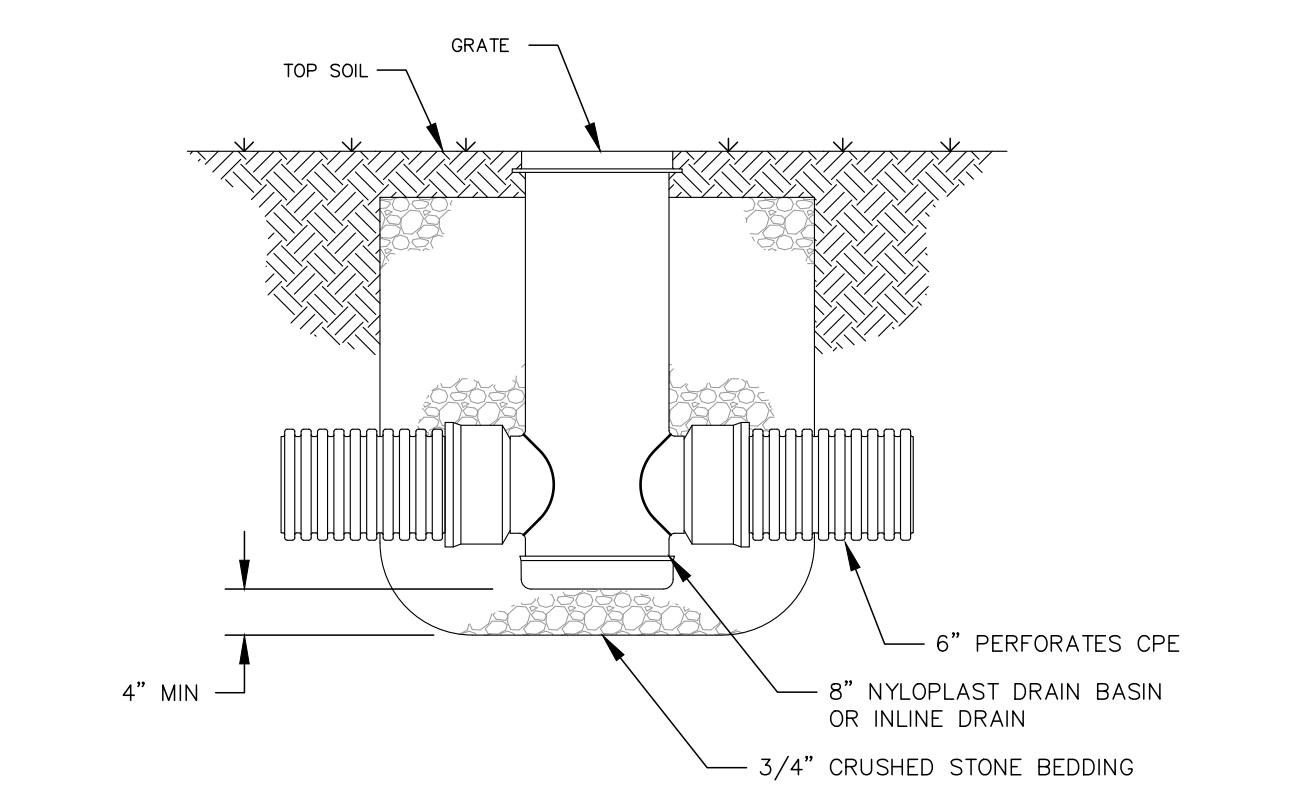
TYPICAL TRENCH PATCH NOT TO SCALE



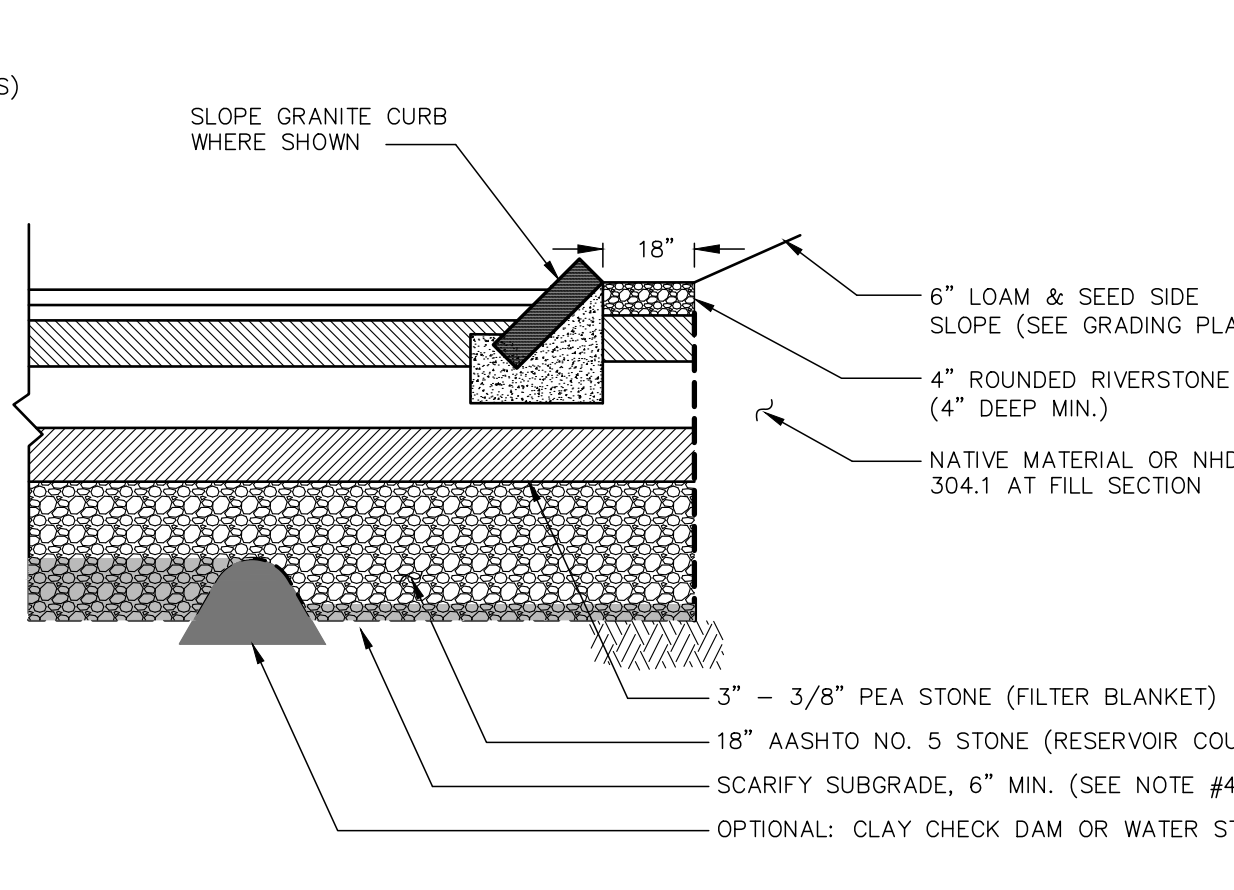
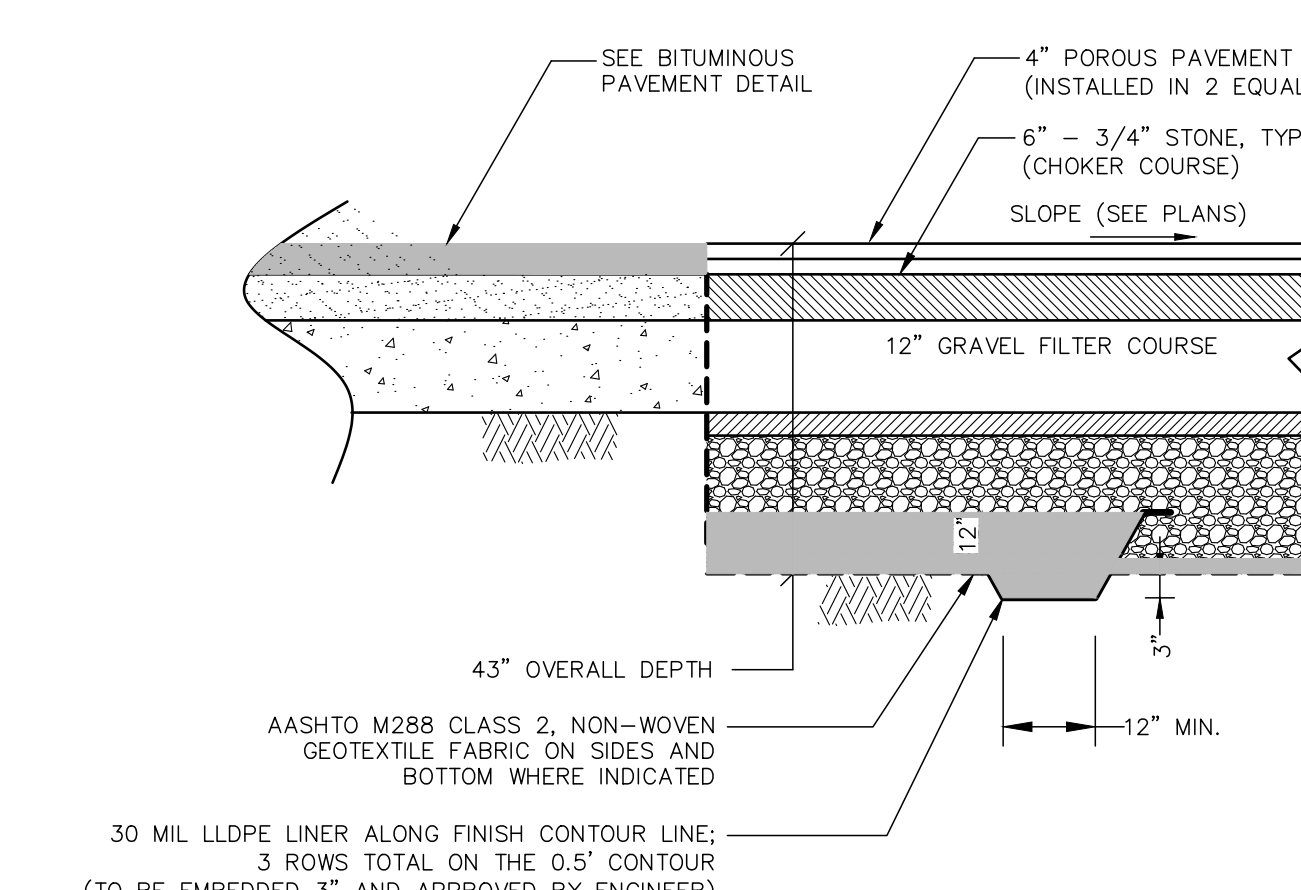
STORMWATER MANAGEMENT GALLERY - A N.T.S.



RETAINING WALL PERIMETER DRAIN NOT TO SCALE



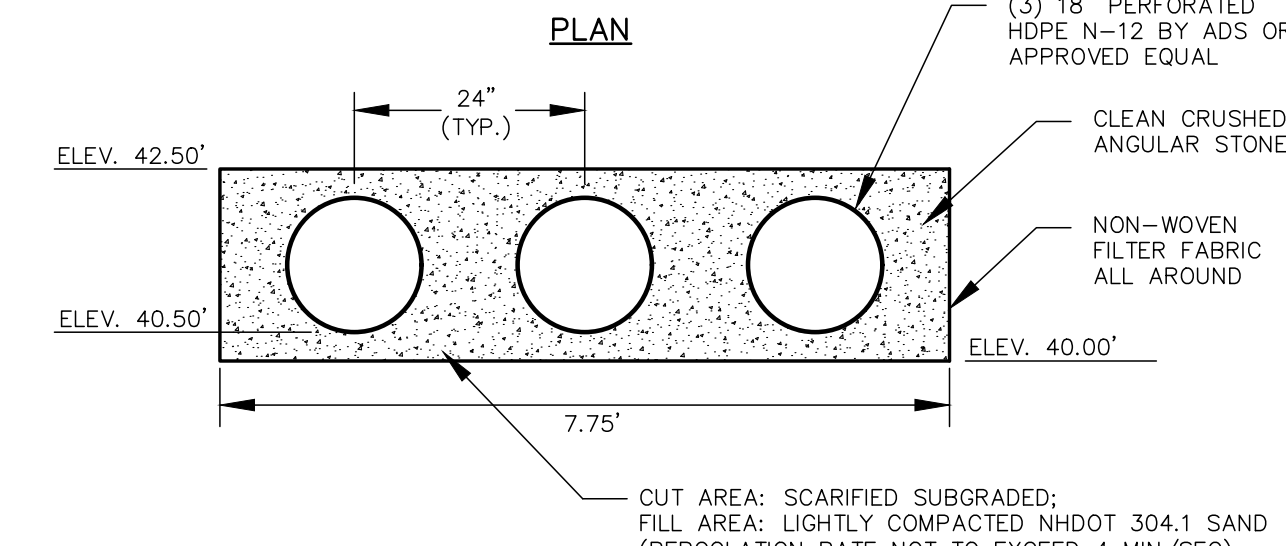
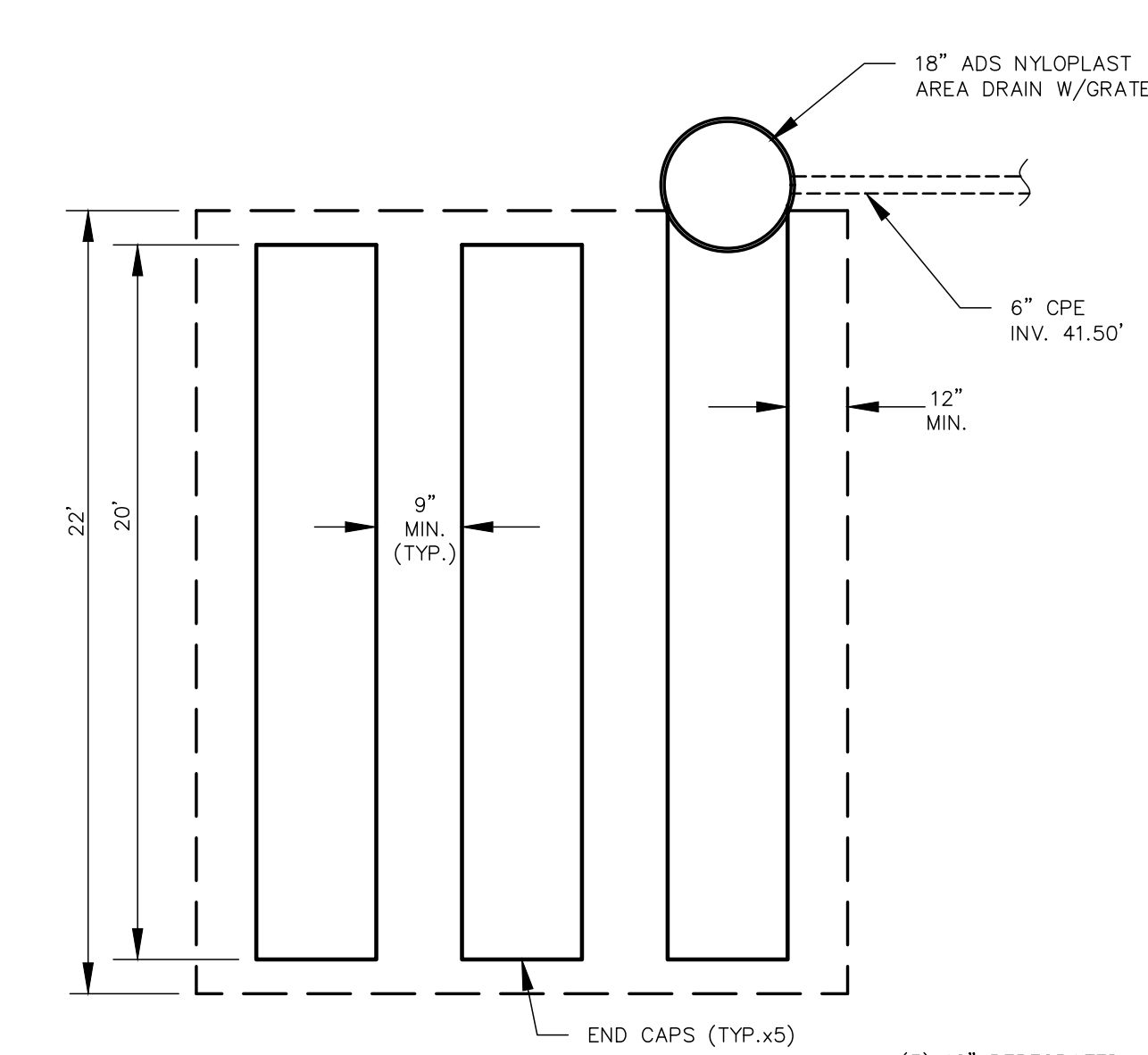
CLEANOUT W/GRATE NOT TO SCALE



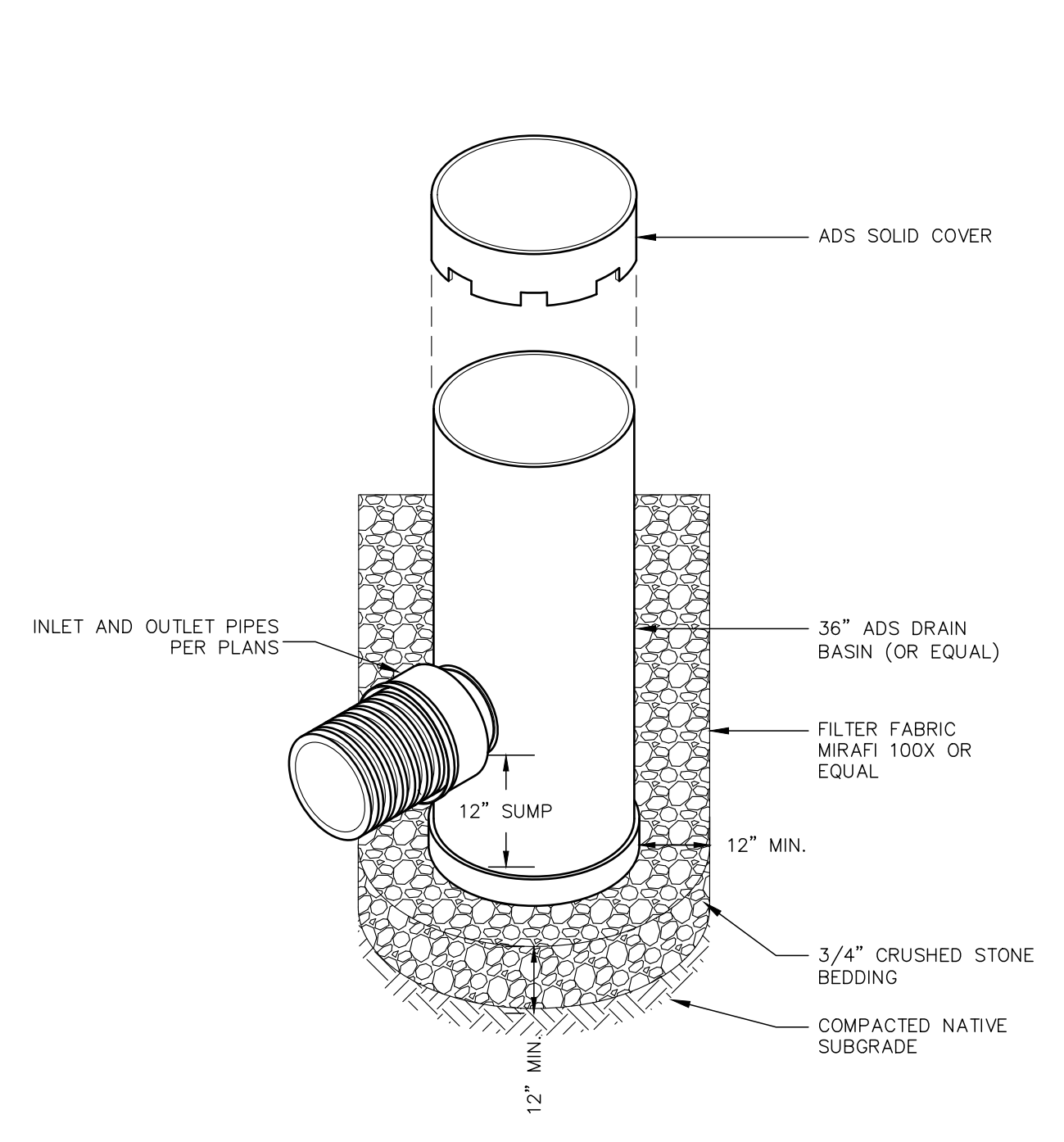
MATERIAL GRADATIONS

RESERVOIR COURSE		CHOKER COURSE STONE		FILTER BLANKET		GRAVEL FILTER COURSE	
SIZE	% PASSING BY WEIGHT	SIZE	% PASSING BY WEIGHT	SIZE	% PASSING BY WEIGHT	SIZE	% PASSING BY WEIGHT
1-1/2"	100	1-1/2"	100	1/2"	100	6"	100
1"	90 - 100	1"	95 - 100	3/8"	85 - 100	# 4	70 - 85
3/4"	20 - 55	1/2"	25 - 60	# 4	10 - 30	# 200	0 - 6
1/2"	0 - 10	# 4	0 - 10	# 8	0 - 10		
3/8"	0 - 5	# 8	0 - 5	# 16	0 - 5		

POROUS PAVEMENT NOT TO SCALE

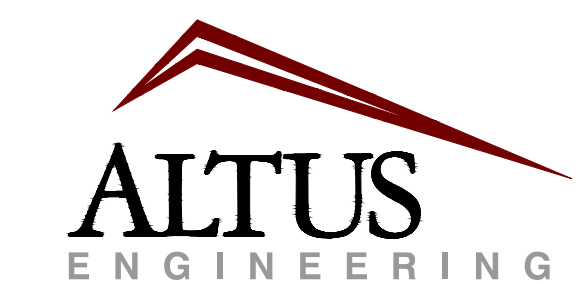


STORMWATER MANAGEMENT GALLERY - B N.T.S.

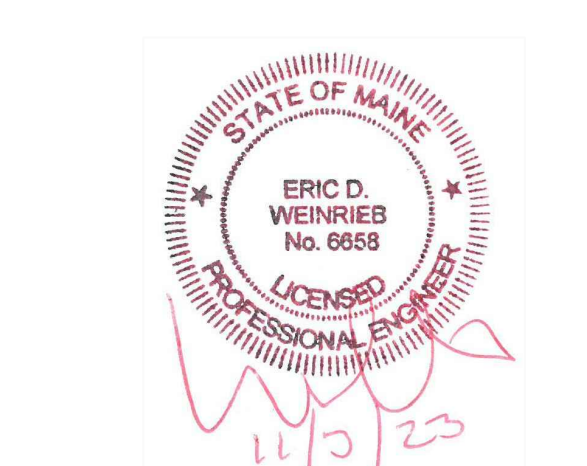


- NOTES:**
- FRAMES AND GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN AND DETAILS.
 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE, N-12HP AND PVC SEWER.
 - INLINE DRAIN TO BE PVC DIAMETER AS SPECIFIED AND AS MANUFACTURED BY ADS OR APPROVED EQUAL.
 - THE CONTRACTOR SHALL INSTALL THE DRAIN BASIN PER THE MANUFACTURER'S RECOMMENDATIONS AND AS SHOWN ON THE DRAWINGS.

AREA DRAIN NOT TO SCALE



133 Court Street Portsmouth, NH 03801
(603) 433-2335 www.altus-eng.com



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SCALE:
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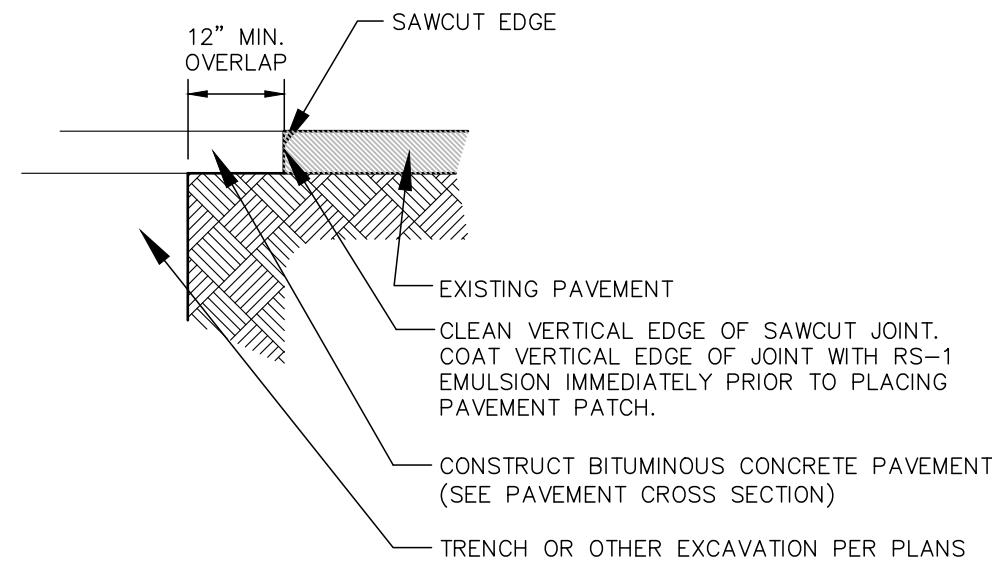
OWNER:
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VENTURES
401 EDGEWATER PLACE,
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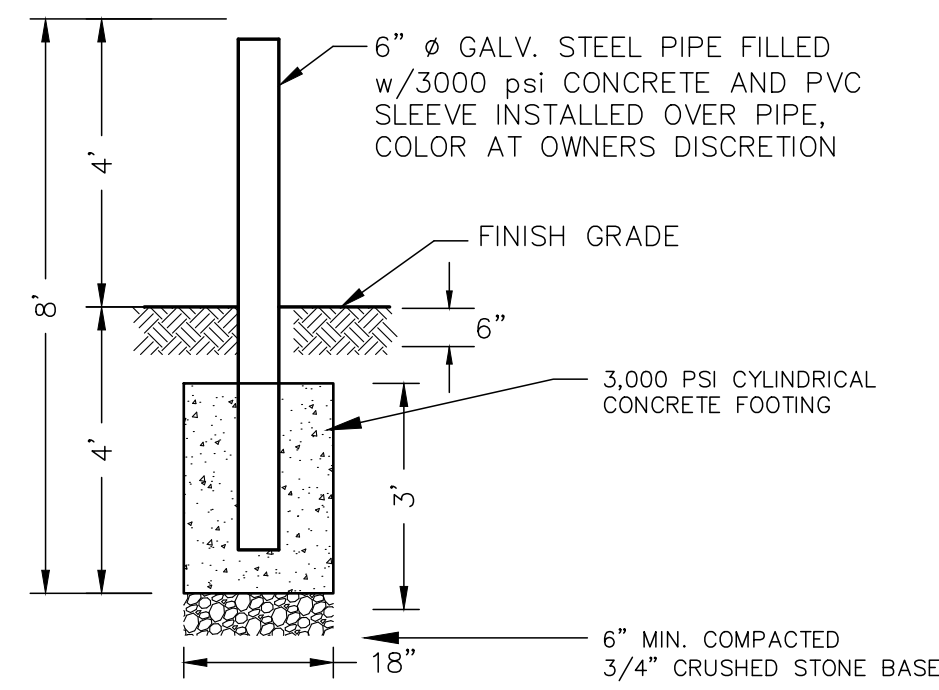
PROJECT:
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TITLE:
DETAIL SHEET

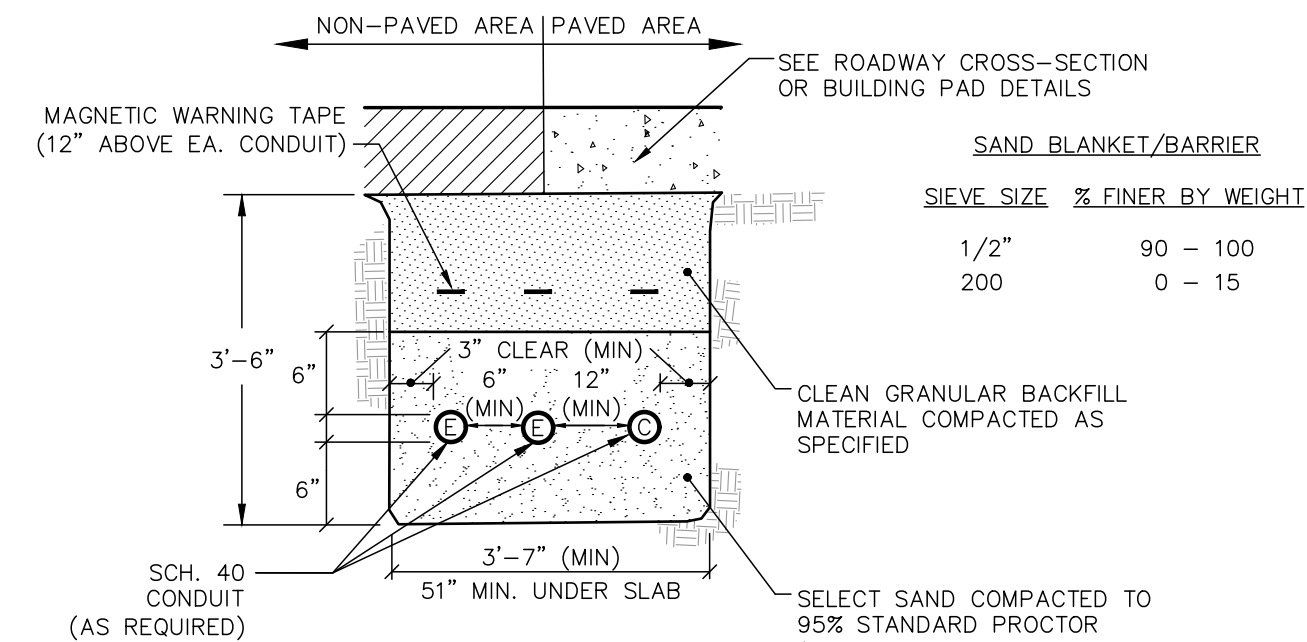
SHEET NUMBER:
C - 8



TYPICAL PAVEMENT SAWCUT NOT TO SCALE

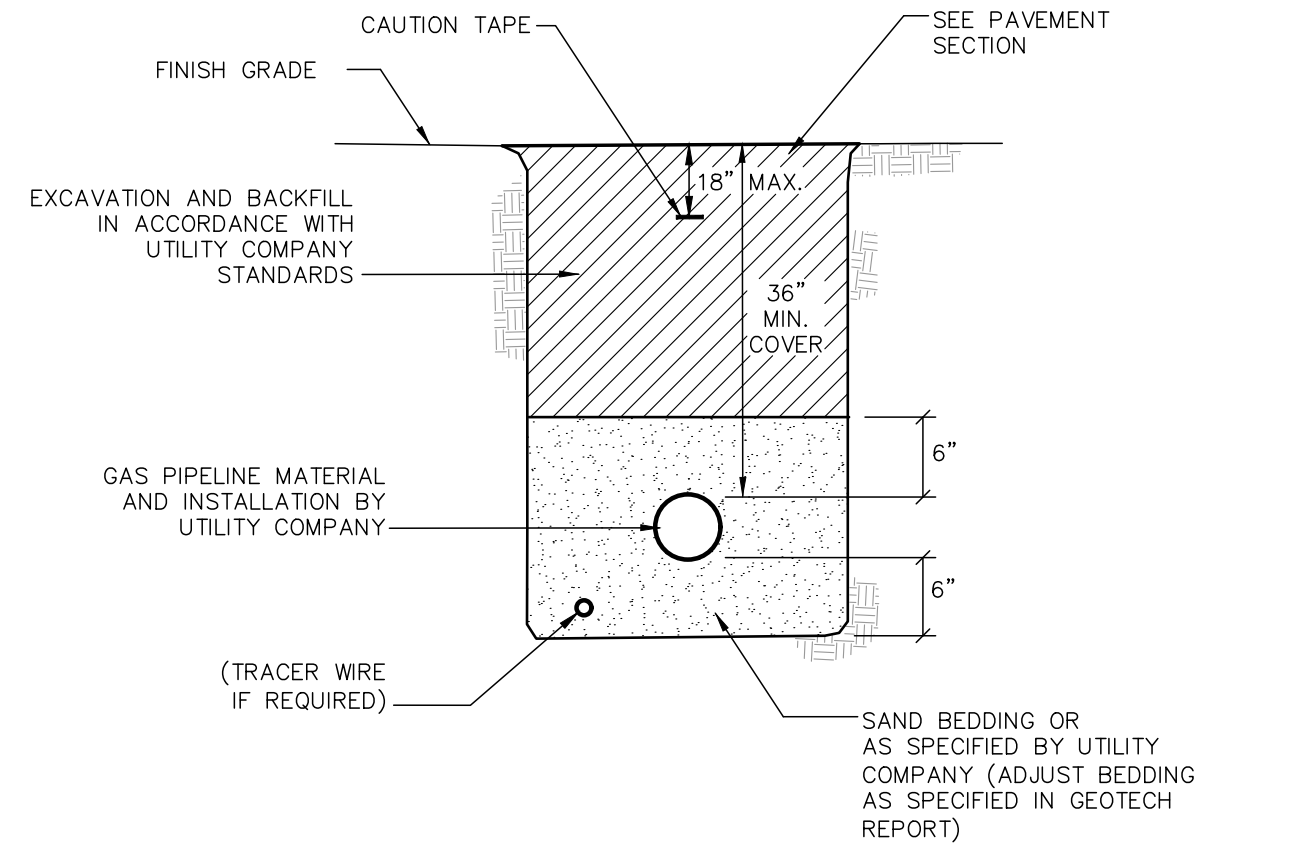


BOLLARD NOT TO SCALE



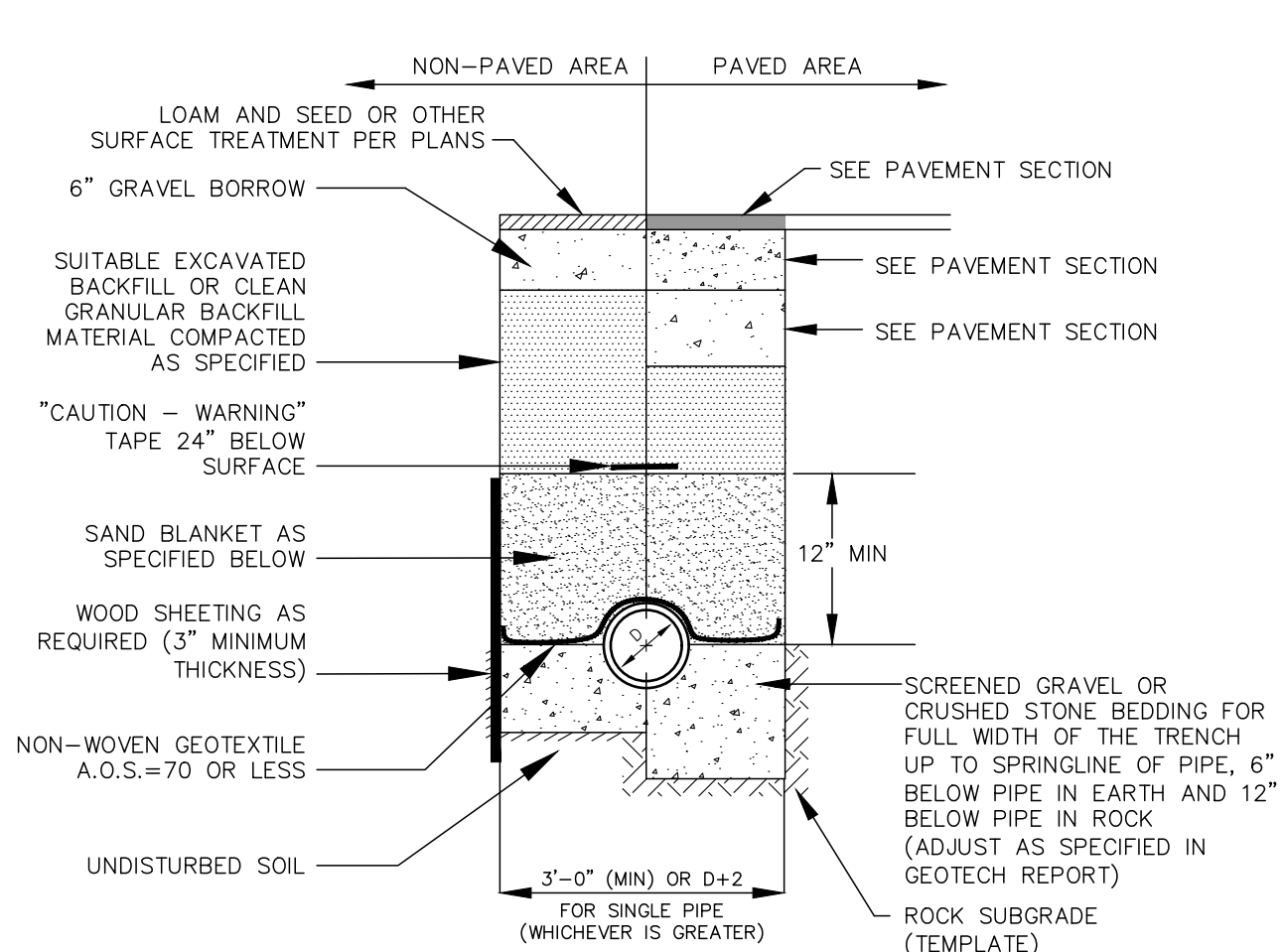
- NOTES**
- ALL CONDUIT IS TO BE SCHEDULE 40 PVC, ELECTRICAL GRADE, GRAY IN COLOR AND INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS. A 10-FOOT HORIZONTAL SECTION OF RIGID GALVANIZED STEEL CONDUIT WILL BE REQUIRED AT EACH SWEEP, UNLESS IN THE OPINION OF THE SERVICE PROVIDER DESIGNER, THE SWEEP-PVC JOINT IS NOT SUBJECT TO FAILURE DURING PULLING OF THE CABLE. ALL JOINTS ARE TO BE WATERTIGHT.
 - ALL 90 DEGREE SWEEPS WILL BE MADE WITH RIGID GALVANIZED STEEL WITH A MINIMUM RADIUS OF 36 INCHES FOR PRIMARY CABLES AND 24 INCHES FOR SECONDARY CABLES.
 - BACKFILL MAY BE MADE WITH EXCAVATED MATERIAL OR COMPARABLE, UNLESS MATERIAL IS DEEMED UNSUITABLE BY SERVICE PROVIDER. BACKFILL SHALL BE FREE OF FROZEN LUMPS, ROCKS, DEBRIS, AND RUBBISH. ORGANIC MATERIAL SHALL NOT BE USED AS BACKFILL. BACKFILL SHALL BE IN 6-INCH LAYERS AND THOROUGHLY COMPACTED.
 - A SUITABLE PULLING STRING, CAPABLE OF 300 POUNDS OF PULL, MUST BE INSTALLED IN THE CONDUIT BEFORE SERVICE PROVIDER IS NOTIFIED TO INSTALL CABLE. THE STRING SHOULD BE BLOWN INTO THE CONDUIT AFTER THE RUN IS ASSEMBLED TO AVOID BONDING THE STRING TO THE CONDUIT. A MINIMUM OF TWENTY-FOUR (24") INCHES OF ROPE SLACK SHALL REMAIN AT THE END OF EACH DUCT. PULL ROPE SHALL BE INSTALLED IN ALL CONDUIT FOR FUTURE PULLS. PULL ROPE SHALL BE NYLON ROPE HAVING A MINIMUM TENSILE STRENGTH OF THREE HUNDRED (300#) LBS.
 - SERVICE PROVIDER SHALL BE GIVEN THE OPPORTUNITY TO INSPECT ALL CONDUIT PRIOR TO BACKFILL. THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS SHOULD SERVICE PROVIDER BE UNABLE TO INSTALL ITS CABLE IN A SUITABLE MANNER.
 - TYPICAL CONDUIT SIZES ARE 3-INCH FOR SINGLE PHASE PRIMARY AND SECONDARY VOLTAGE CABLES, 4-INCH FOR THREE PHASE SECONDARY, AND 5-INCH FOR THREE PHASE PRIMARY. HOWEVER, SERVICE PROVIDERS MAY REQUIRE DIFFERENT NUMBERS, TYPES AND SIZES OF CONDUIT THAN THOSE SHOWN HERE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL CONDUIT SIZES, TYPES AND NUMBERS WITH EACH SERVICE PROVIDER PRIOR TO ORDERING THEM.
 - ROUTING OF CONDUIT, LOCATION OF MANHOLES, TRANSFORMERS, CABINETS, HANDHOLES, ETC., SHALL BE DETERMINED BY SERVICE PROVIDER DESIGN PERSONNEL. THE CONTRACTOR SHALL COORDINATE WITH ALL SERVICE PROVIDERS PRIOR TO THE INSTALLATION OF ANY CONDUIT.
 - ALL CONDUIT INSTALLATIONS MUST CONFORM TO THE CURRENT EDITION OF THE NATIONAL ELECTRIC SAFETY CODE, STATE AND LOCAL CODES AND ORDINANCES, AND WHERE APPLICABLE, THE NATIONAL ELECTRIC CODE. WHERE REQUIRED BY UTILITY PROVIDER, CONDUIT SHALL BE SUPPORTED IN PLACE USING PIPE STANCHIONS PLACED EVERY FIVE (5) FEET ALONG THE CONDUIT RUN.
 - UNDER A BUILDING SLAB THE CONDUIT SHALL BE ENCASED IN 8" OF CONCRETE ON ALL SIDES.
 - ALL CONDUIT TERMINATIONS SHALL BE CAPPED TO PREVENT DEBRIS FROM ENTERING CONDUIT.

ELECTRIC / COMMUNICATION TRENCH NOT TO SCALE



- NOTES**
- CONTRACTOR TO COORDINATE WITH UTILITY COMPANY AND PROVIDE ALL EXCAVATION, COMPACTION AND BACKFILL FOR PIPE INSTALLATION.
 - BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T 99, METHOD C. SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99, METHOD C.

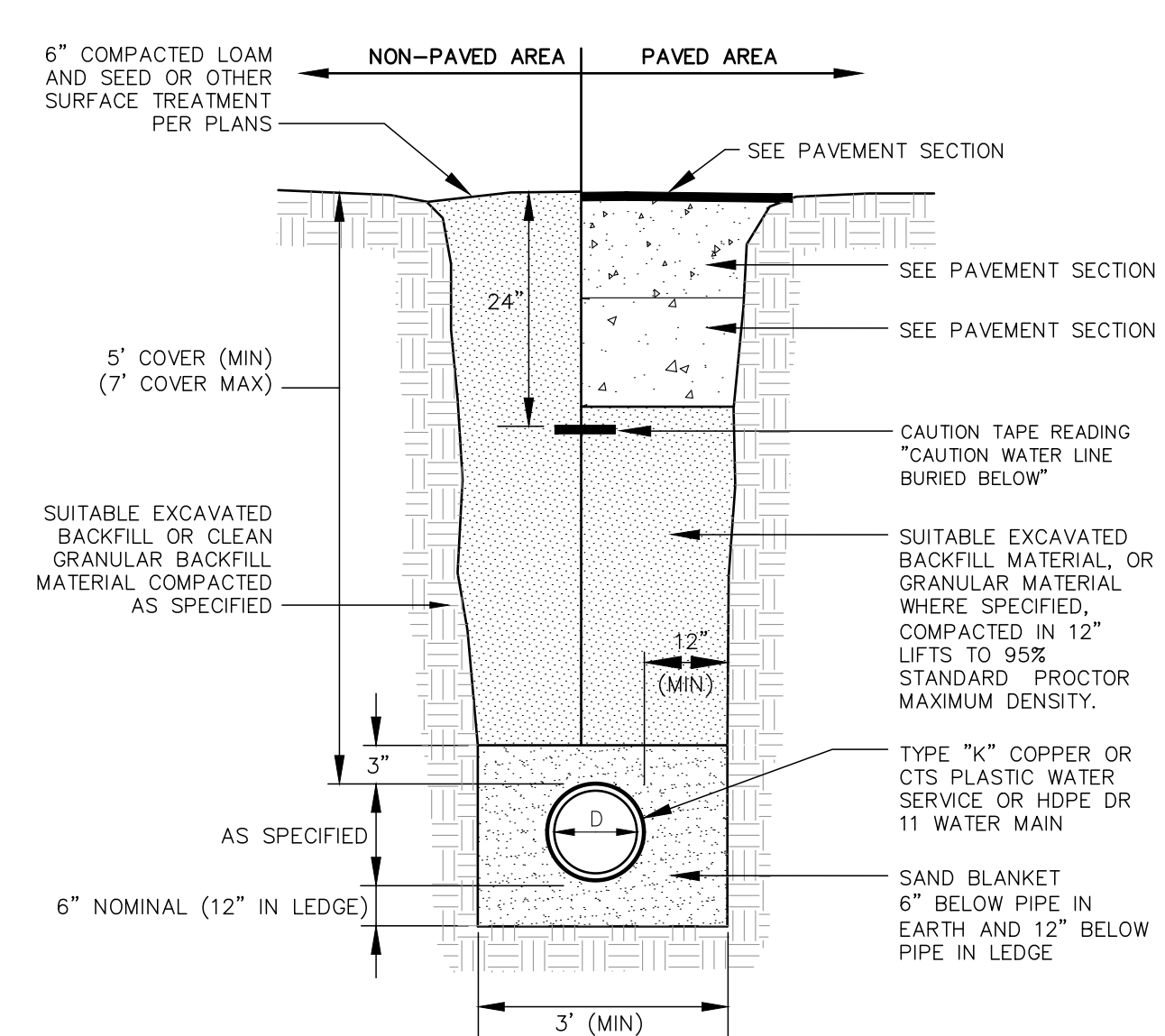
GAS TRENCH NOT TO SCALE



- NOTES**
- BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T 99, METHOD C. SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99, METHOD C.
 - INSULATE GRAVITY SEWER AND FORCEMAINS WHERE THERE IS LESS THAN 5'-0" OF COVER WITH 2" THICK CLOSED CELL RIGID BOARD INSULATION, 18" ON EACH SIDE OF PIPE.
 - MAINTAIN 12" MINIMUM HORIZONTAL SEPARATION AND WIDEN TRENCH ACCORDINGLY IF MULTIPLE PIPES ARE IN TRENCH.
 - PROVIDE ANTI-SEEP COLLARS (RIPLEY DAM OR APPROVED EQUAL); LOCATIONS TO BE FIELD DETERMINED BY ENGINEER.

SAND BLANKET/BARRIER		SCREENED GRAVEL OR CRUSHED STONE BEDDING	
SIeve SIZE	% FINER BY WEIGHT	SIeve SIZE	% PASSING BY WEIGHT
1/2"	90 - 100	1"	100
200	0 - 15	3/4"	90 - 100
		3/8"	20 - 55
		# 4	0 - 10
		# 8	0 - 5

DRAINAGE AND SEWER TRENCH NOT TO SCALE



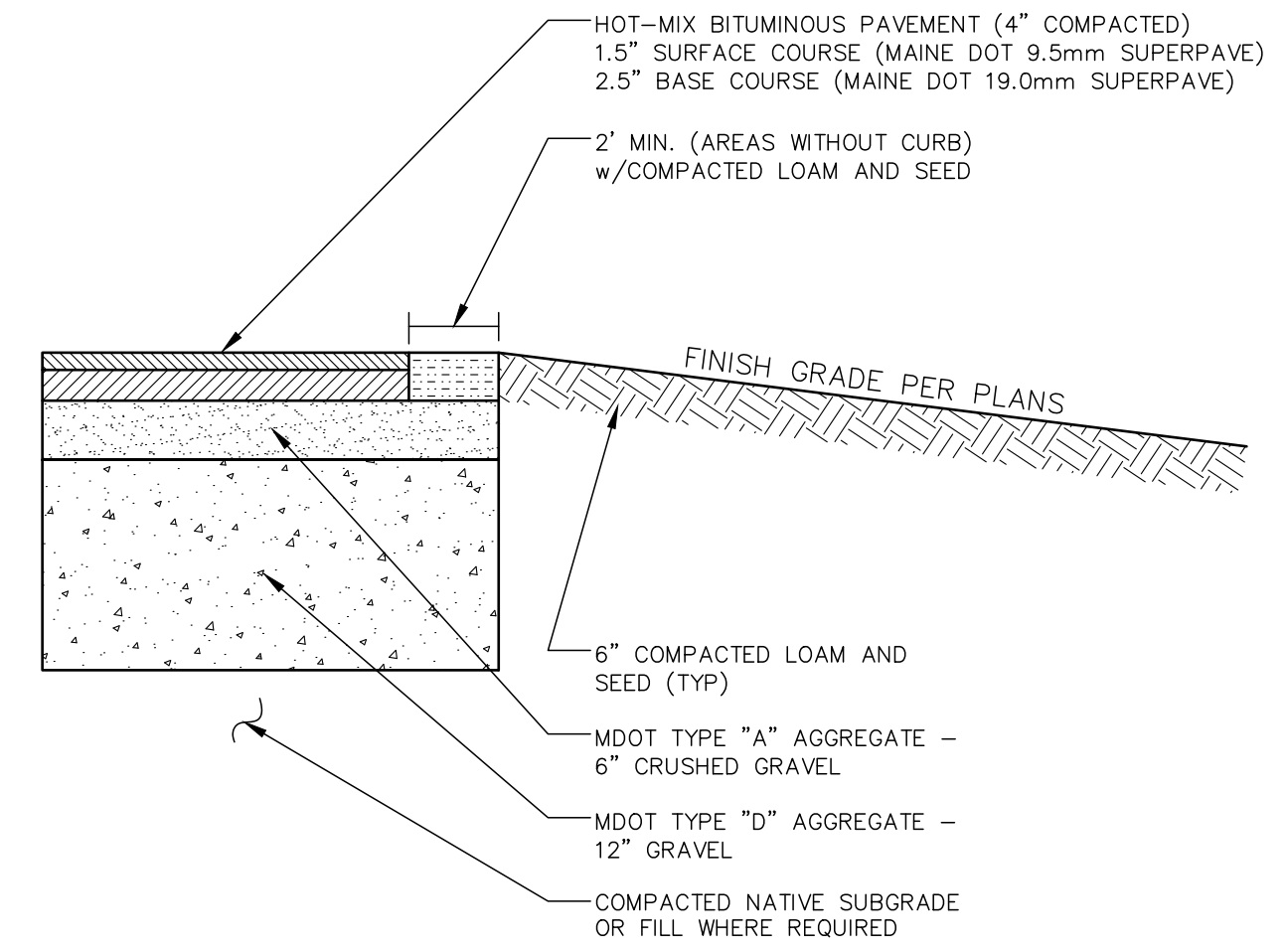
- NOTES**
- BACKFILL MATERIAL BELOW PAVED OR CONCRETE AREAS, BEDDING MATERIAL, AND SAND BLANKET SHALL BE COMPACTED TO NOT LESS THAN 95% OF AASHTO T 99, METHOD C. SUITABLE BACKFILL MATERIAL BELOW LOAM AREAS SHALL BE COMPACTED TO NOT LESS THAN 90% OF AASHTO T 99, METHOD C.
 - ALL TRENCHING AND BACKFILL SHALL CONFORM WITH THE STANDARDS OF THE KITTEERY WATER DISTRICT.

WATER MAIN TRENCH NOT TO SCALE

STANDARD TRENCH NOTES

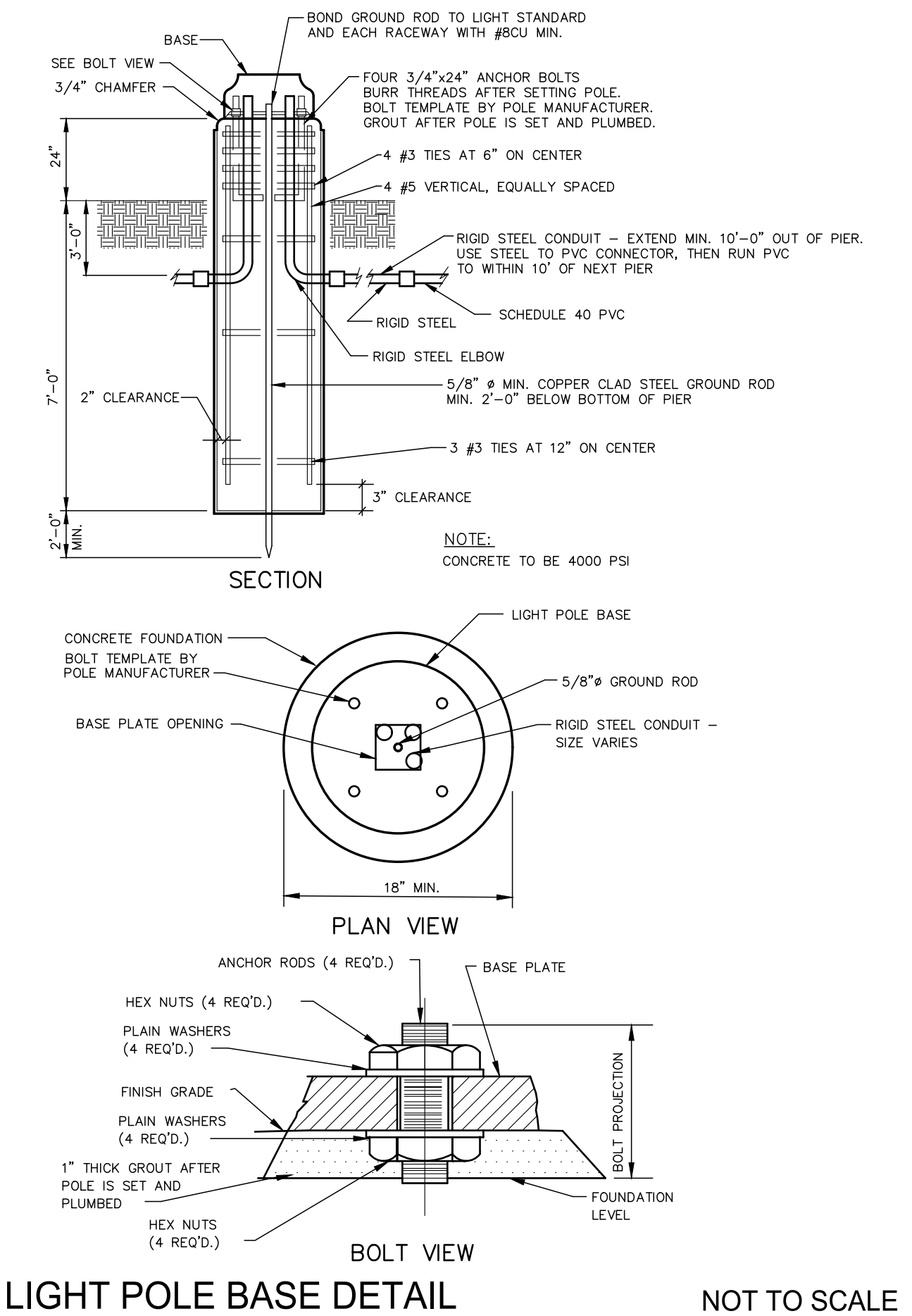
- ORDERED EXCAVATION OF UNSUITABLE MATERIAL BELOW GRADE; BACKFILL AS STATED IN THE TECHNICAL SPECIFICATIONS OR AS SHOWN ON THE DRAWING.
- BEDDING: SCREENED GRAVEL AND/OR CRUSHED STONE FREE FROM CLAY, LOAM, ORGANIC MATTER AND MEETING THE GRADATION SHOWN IN THE TRENCH DETAIL. WHERE ORDERED BY THE ENGINEER TO STABILIZE THE BASE, SCREENED GRAVEL OR CRUSHED STONE 1-1/2 INCH TO 1/2 INCH SHALL BE USED.
- SAND BLANKET: CLEAN SAND FREE FROM ORGANIC MATTER MEETING THE GRADATION SHOWN IN THE TRENCH DETAIL. BLANKET MAY BE REPLACED WITH BEDDING MATERIAL FOR CAST-IRON, DUCTILE IRON, AND REINFORCED CONCRETE PIPE PROVIDED THAT NO STONE LARGER THAN 2" IS IN CONTACT WITH THE PIPE AND THE GEOTEXTILE IS RELOCATED ACCORDINGLY.
- SUITABLE MATERIAL: IN ROADS, ROAD SHOULDERS, WALKWAYS AND TRAVELED WAYS, SUITABLE MATERIAL FOR TRENCH BACKFILL SHALL BE THE NATURAL MATERIAL EXCAVATED DURING THE COURSE OF CONSTRUCTION, BUT SHALL EXCLUDE DEBRIS, PIECES OF PAVEMENT, ORGANIC MATTER, TOP SOIL, ALL WET OR SOFT MUCK, PEAT, OR CLAY, ALL EXCAVATED LEDGE MATERIAL, ALL ROCKS OVER 6 INCHES IN LARGEST DIMENSION, AND ANY MATERIAL WHICH, AS DETERMINED BY THE ENGINEER, WILL NOT PROVIDE SUFFICIENT SUPPORT OR MAINTAIN THE COMPLETED CONSTRUCTION IN A STABLE CONDITION. IN CROSS COUNTRY CONSTRUCTION, SUITABLE MATERIAL SHALL BE AS DESCRIBED ABOVE, EXCEPT THAT THE ENGINEER MAY PERMIT THE USE OF TOP SOIL, LOAM, MUCK, OR PEAT, IF SATISFIED THAT THE COMPLETED CONSTRUCTION WILL BE ENTIRELY STABLE AND PROVIDED THAT EASY ACCESS TO THE SEWER FOR MAINTENANCE AND POSSIBLE RECONSTRUCTION WILL BE PRESERVED.
- BASE COURSE AND PAVEMENT SHALL MEET THE REQUIREMENTS OF THE MAINE DEPARTMENT OF TRANSPORTATION'S LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES - DIVISION 700.
- SHEETING, IF REQUIRED: WHERE SHEETING IS PLACED ALONGSIDE THE PIPE AND EXTENDS BELOW MID-DIAMETER, IT SHALL BE CUT OFF AND LEFT IN PLACE TO AN ELEVATION 1 FOOT ABOVE THE TOP OF PIPE. WHERE SHEETING IS ORDERED BY THE ENGINEER TO BE LEFT IN PLACE, IT SHALL BE CUT OFF AT LEAST 3 FEET BELOW FINISHED GRADE, BUT NOT LESS THAN 1 FOOT ABOVE THE TOP OF THE PIPE.
- W = MAXIMUM ALLOWABLE TRENCH WIDTH TO A PLANE 12 INCHES ABOVE THE PIPE. FOR PIPES 15 INCHES NOMINAL DIAMETER OR LESS, W SHALL BE NO MORE THAN 36 INCHES. FOR PIPES GREATER THAN 15 INCHES IN NOMINAL DIAMETER, W SHALL BE 24 INCHES PLUS PIPE OUTSIDE DIAMETER (O.D.) ALSO, W SHALL BE THE PAYMENT WIDTH FOR LEDGE EXCAVATION AND FOR ORDERED EXCAVATION BELOW GRADE.
- FOR CROSS COUNTRY CONSTRUCTION, BACKFILL, FILL AND/OR LOAM SHALL BE MOUND TO A HEIGHT OF 6 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
- CONCRETE FOR ENCASEMENT SHALL CONFORM TO THE MAINE DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS STANDARD SPECIFICATION REQUIREMENTS FOR CLASS A (3000#) CONCRETE AS FOLLOWS:
CEMENT: 6.0 BAGS PER CUBIC YARD
WATER: 5.75 GALLONS PER BAG
CEMENT MAXIMUM SIZE OF AGGREGATE: 1 INCH
CONCRETE ENCASEMENT IS NOT ALLOWED FOR PVC PIPE.
- CONCRETE FULL ENCASEMENT: IF FULL ENCASEMENT IS UTILIZED, DEPTH OF CONCRETE BELOW PIPE SHALL BE 1/4 I.D. (4" MINIMUM). BLOCK SUPPORT SHALL BE SOLID CONCRETE BLOCKS.
- MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION DESIGN STANDARDS REQUIRE TEN FEET (10') SEPARATION BETWEEN WATER AND SEWER. REFER TO TOWN'S STANDARD SPECIFICATIONS FOR METHODS OF PROTECTION IN AREAS THAT CANNOT MEET THESE REQUIREMENTS.

NOT TO SCALE

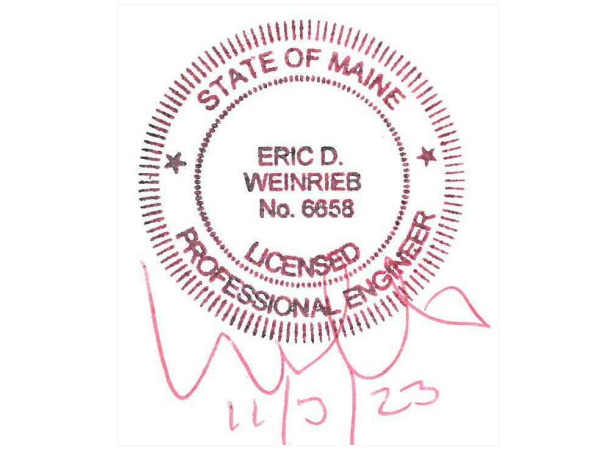


- NOTES**
- PROJECT GEOTECHNICAL REPORT MAY REQUIRE A DIFFERENT PAVEMENT CROSS SECTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR READING AND FOLLOWING ALL RECOMMENDATIONS IN THE GEOTECHNICAL REPORT. IN THE EVENT THAT THE REPORT AND CIVIL PLANS DIFFER, THE MORE STRINGENT SPECIFICATION SHALL APPLY.
 - ALL EXISTING FILL, BURIED ORGANIC MATTER, CLAY, LOAM, MUCK, AND/OR OTHER QUESTIONABLE MATERIAL SHALL BE REMOVED FROM BELOW ALL PAVEMENT, SHOULDERS AND UNDERGROUND PIPING/UTILITIES TO DEPTHS RECOMMENDED IN GEOTECHNICAL REPORT.
 - SUBGRADE SHALL BE PROFFERED A MINIMUM OF 6 PASSES WITH A 10-TON VIBRATORY COMPACTOR OPERATING AT PEAK RATED FREQUENCY OR BY MEANS APPROVED BY THE ENGINEER.
 - FILL BELOW PAVEMENT GRADES SHALL BE GRANULAR BORROW COMPACTED PER MDT REQUIREMENTS.
 - SITWORK CONTRACTOR SHALL COORDINATE GEOTECHNICAL ENGINEERING INSPECTIONS WITH THE CONSTRUCTION MANAGER PRIOR TO PLACING GRAVELS.
 - TACK COAT SHALL BE APPLIED BETWEEN SUCCESSIVE LIFTS OF ASPHALT.
 - THE BITUMINOUS PAVEMENT SHALL BE COMPACTED TO 92 TO 97 PERCENT OF ITS THEORETICAL MAXIMUM DENSITY AS DETERMINED BY ASTM D-2041. THE BASE AND SUBBASE MATERIALS SHOULD BE COMPACTED TO AT LEAST 95 PERCENT OF THEIR MAXIMUM DRY DENSITIES AS DETERMINED BY ASTM D-1557.

SITE PAVEMENT CROSS SECTION NOT TO SCALE



LIGHT POLE BASE DETAIL NOT TO SCALE



NOT FOR CONSTRUCTION
ISSUED FOR:
PRELIM. SITE PLAN APPROVAL
ISSUE DATE:
NOVEMBER 3, 2023

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EDW	08/24/23
1	TOWN COMMENTS	EDW	10/05/23
2	TOWN COMMENTS	EDW	11/03/23

DRAWN BY: _____ RMB
APPROVED BY: _____ EDW
DRAWING FILE: 5431DETAILS.dwg

SCALE:
AS SHOWN

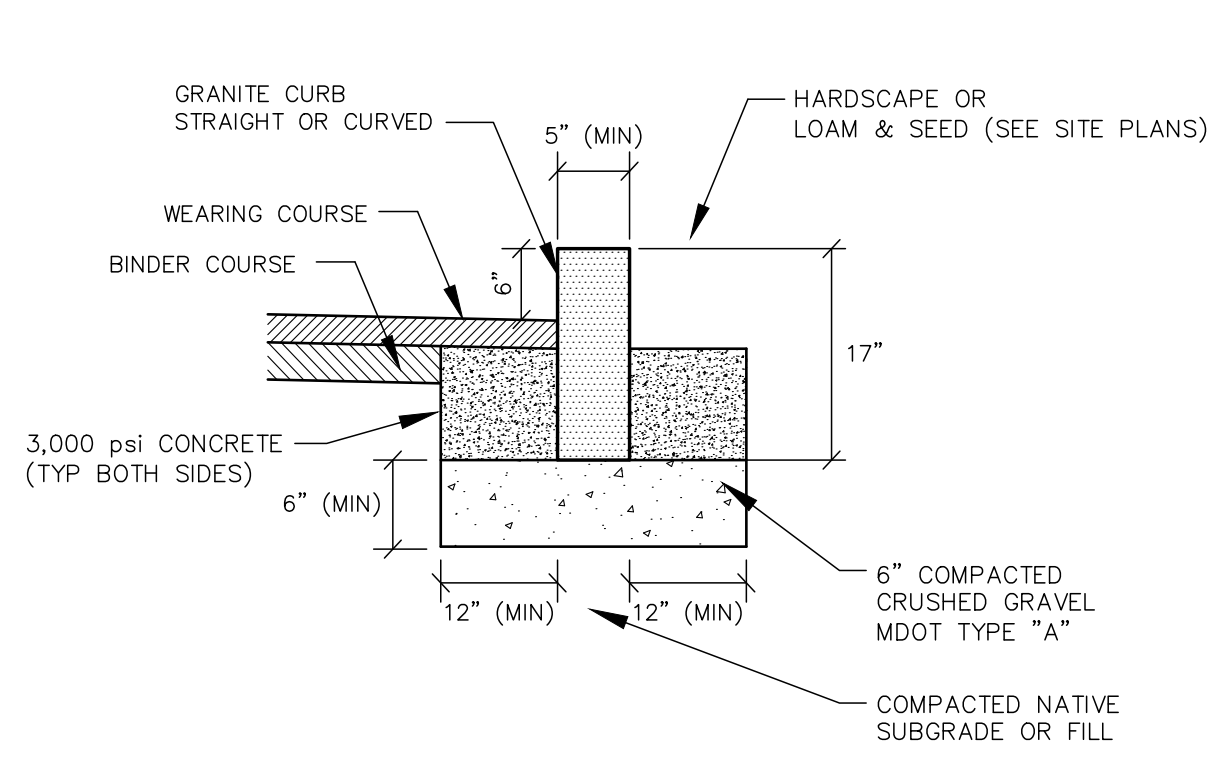
OWNER:
27 WENTWORTH STREET, LLC & MREV KITTEERY INN, LLC
401 EDGEWATER PLACE,
SUITE 570
WAKEFIELD, MA 01880

APPLICANT:
MADBURY REAL ESTATE VENTURES
401 EDGEWATER PLACE,
SUITE 570
WAKEFIELD, MA 01880

PROJECT:
THE FORESIDE INN
TAX MAP 9
LOTS 37 & 38
27 & 29 WENTWORTH STREET
KITTEERY, MAINE

TITLE:
DETAIL SHEET

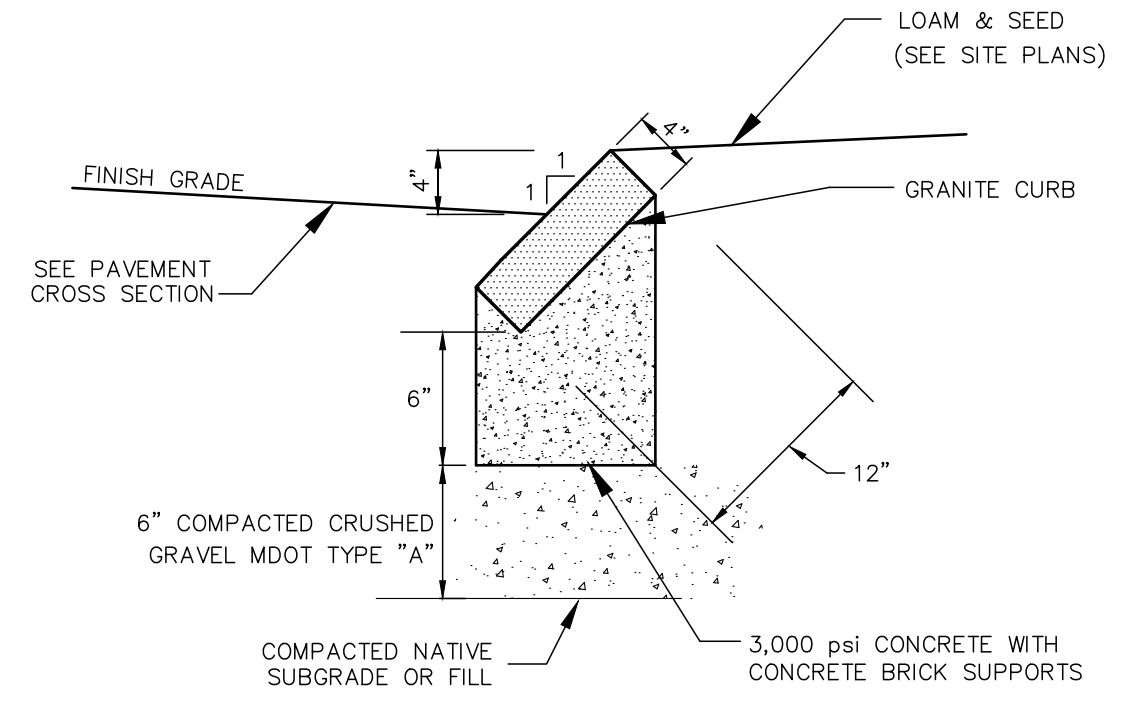
SHEET NUMBER:
C - 9



- NOTES:**
- SEE PLANS FOR CURB LOCATION.
 - ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
 - MINIMUM LENGTH OF CURB STONES = 3'
 - MAXIMUM LENGTH OF CURB STONES = 10'
 - MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES - SEE CHART.
 - CURB ENDS TO ROUNDED AND BATTERED FACES TO BE CUT WHEN CALLED FOR ON THE PLANS.

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'

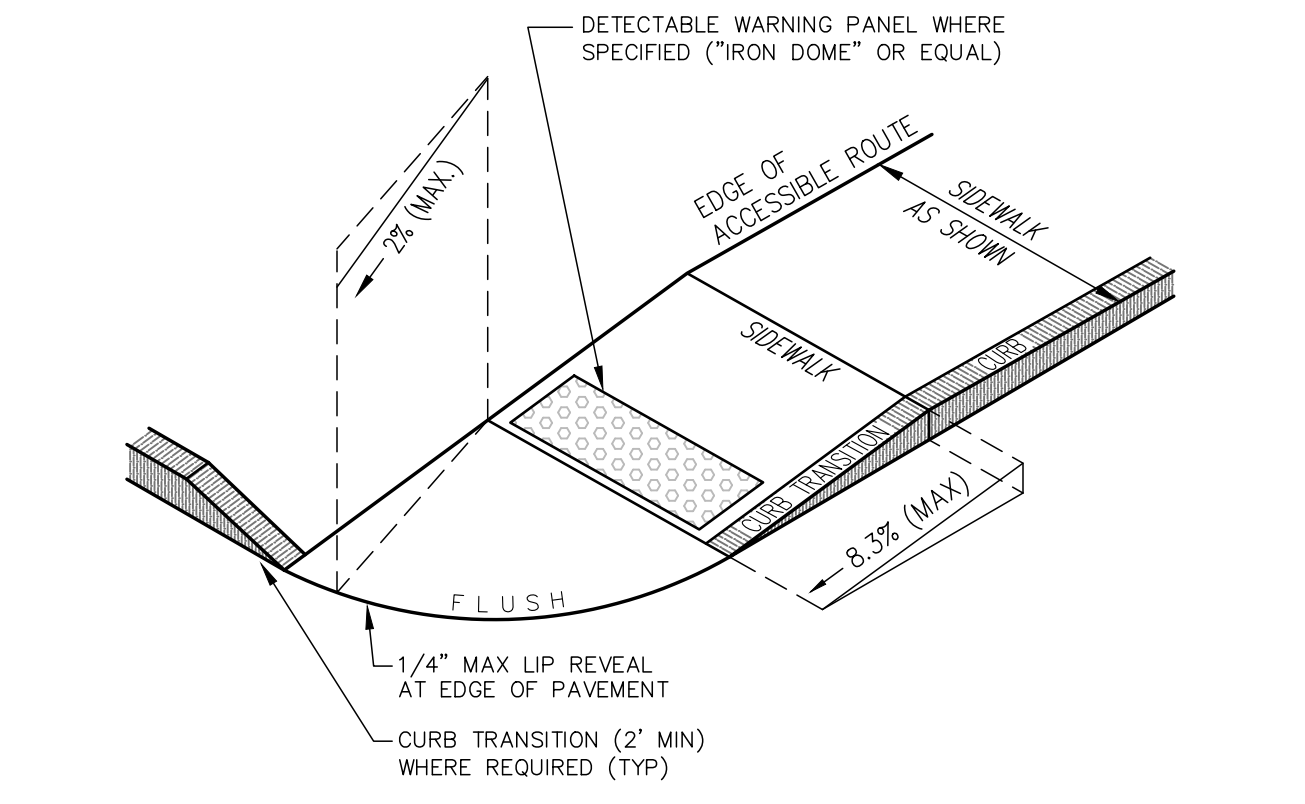
VERTICAL GRANITE CURB NOT TO SCALE



- NOTES:**
- SEE SITE PLAN FOR LIMITS OF CURBING
 - ADJOINING STONES OF STRAIGHT CURB LAID ON CURVES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH
 - MINIMUM LENGTH OF STRAIGHT CURB STONES = 18"
 - MAXIMUM LENGTH OF STRAIGHT CURB STONES = 8'
 - MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES - SEE CHART

RADIUS FOR STONES WITH SQUARE JOINTS	MAXIMUM LENGTH
16'-28'	1'-6"
29'-41'	2'
42'-55'	3'
56'-68'	4'
69'-82'	5'
83'-96'	6'
97'-110'	7'
OVER 110'	8'

SLOPED GRANITE CURB NOT TO SCALE

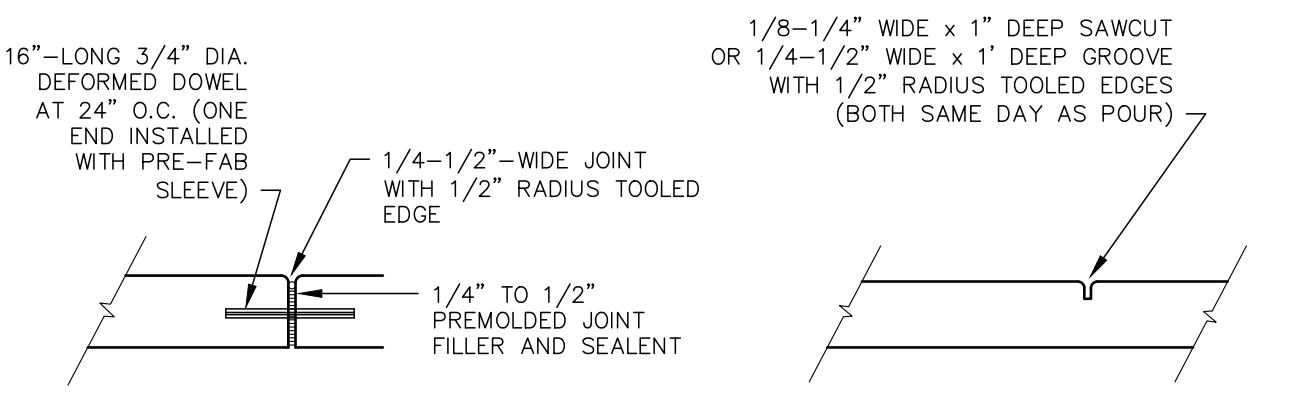


CURB RAMP (TYPE 'B') NOT TO SCALE

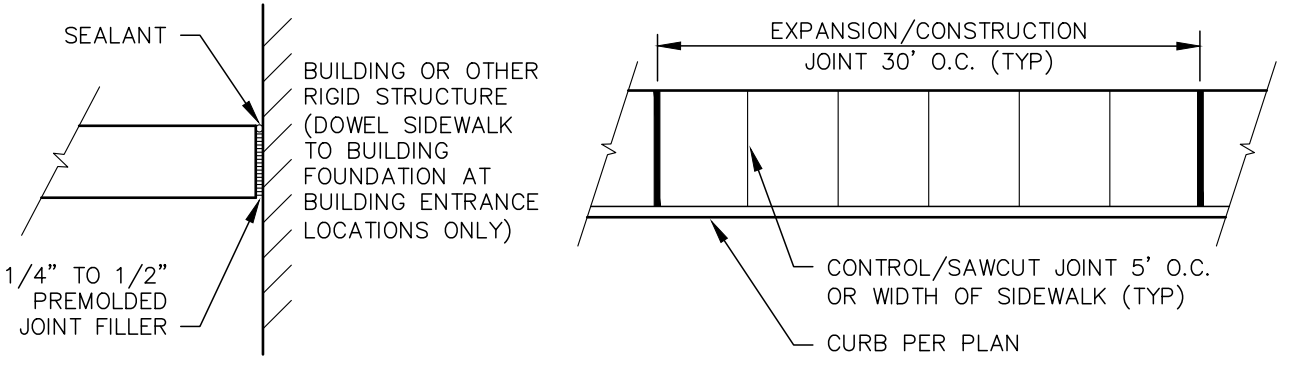
NOTES APPLICABLE TO ALL CURB RAMPS:

- THE MAXIMUM ALLOWABLE CROSS SLOPE OF AN ACCESSIBLE ROUTE (SIDEWALK) AND CURB SHALL BE 2%.
- THE MAXIMUM ALLOWABLE RUNNING SLOPE OF AN ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
- THE MAXIMUM ALLOWABLE RUNNING SLOPE OF AN ACCESSIBLE ROUTE (SIDEWALK) CURB RAMP SHALL BE 8.3% FOR A MAXIMUM ELEVATION CHANGE OF 6".
- CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
- BASE OF RAMP SHALL BE GRADED TO PREVENT THE PONDING OF WATER.
- SEE CONCRETE SIDEWALK SECTION FOR RAMP CONSTRUCTION.
- ALL CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH AMERICANS WITH DISABILITIES ACT (ADA), PROWAG R305.21 AND ALL APPLICABLE CODES.
- FLUSH CURB SECTIONS SHALL HAVE A MAXIMUM LIP REVEAL OF 1/4" WITH A BEVEL AT THE EDGE OF PAVEMENT.
- EDGES OF CONCRETE SIDEWALK FOOTINGS ALONG FLUSH CURBS SHALL BE HAUNCHED SO AS TO EXTEND TO A MINIMUM DEPTH OF 1' BELOW FINISH GRADE.
- NO RAMP SHALL BE LESS THAN 4' IN WIDTH.
- CURB RAMPS SHALL HAVE A FLAT 2% MAX LANDING AT THE TOP AND BOTTOM OF THE RAMPS WHEN THERE IS A CHANGE IN DIRECTION.

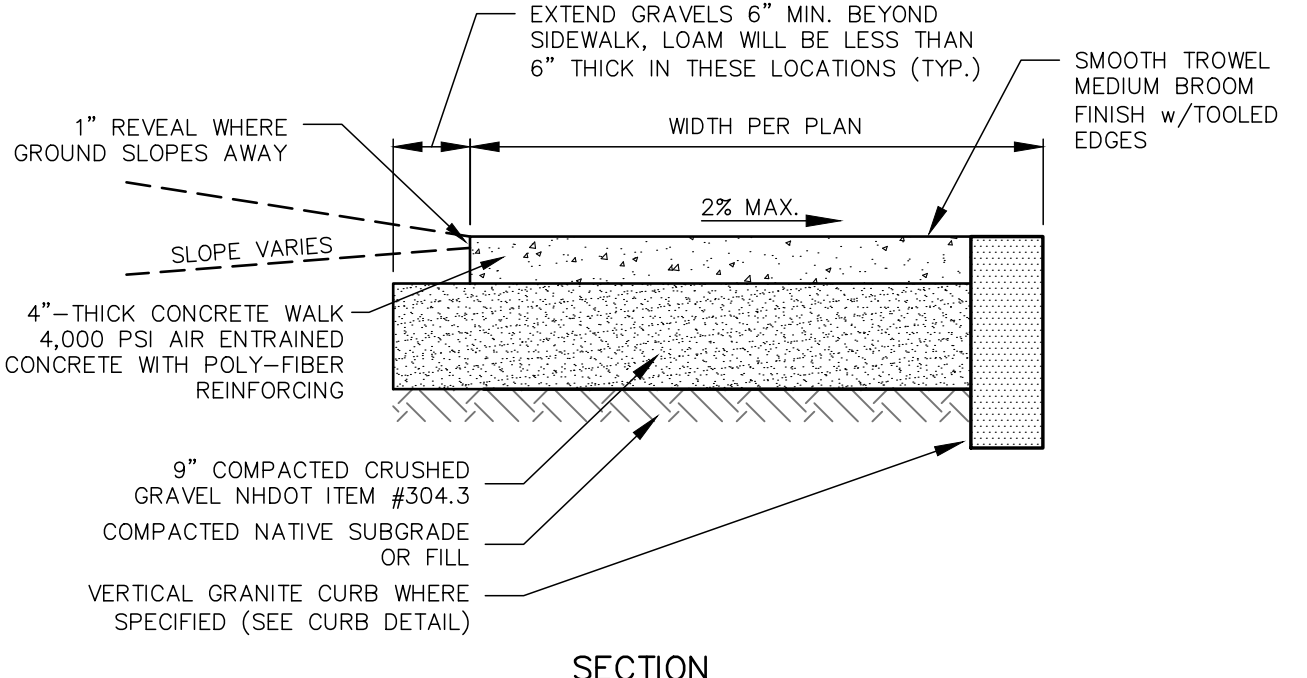
CURB RAMP NOTES NOT TO SCALE



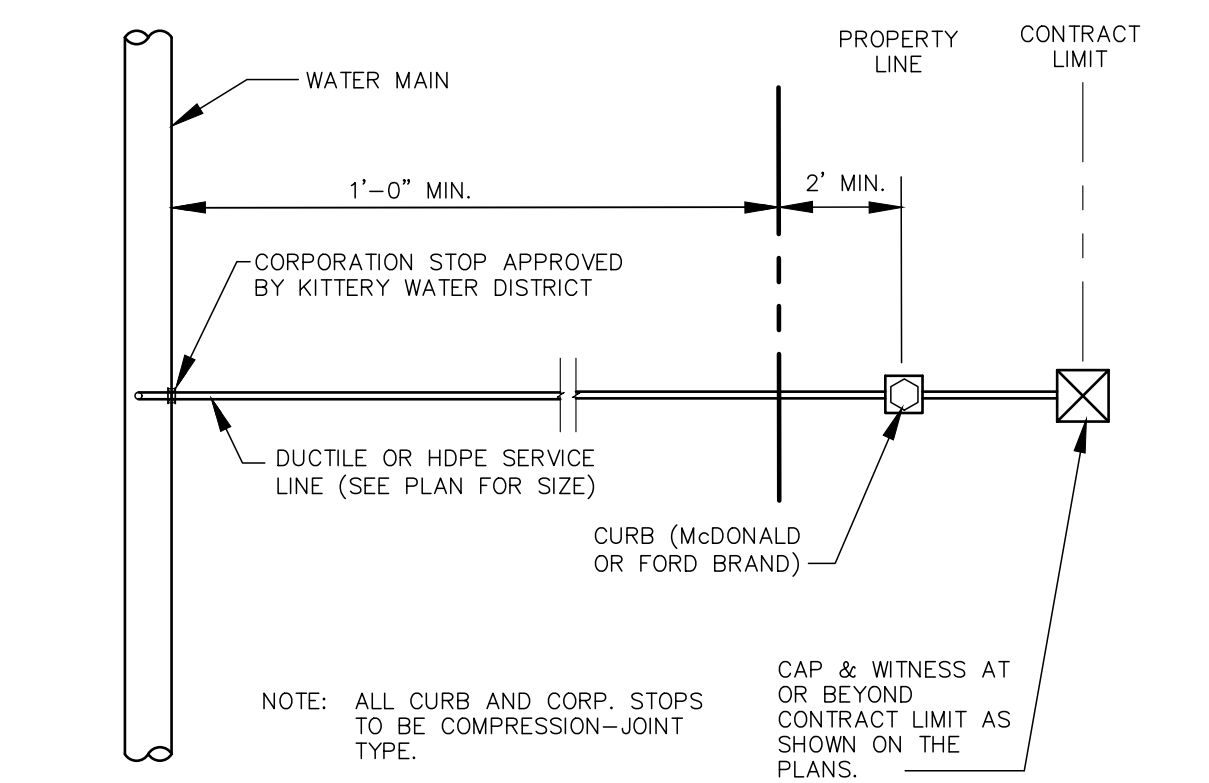
EXPANSION/CONSTRUCTION JOINT CONTROL/SAWCUT JOINT



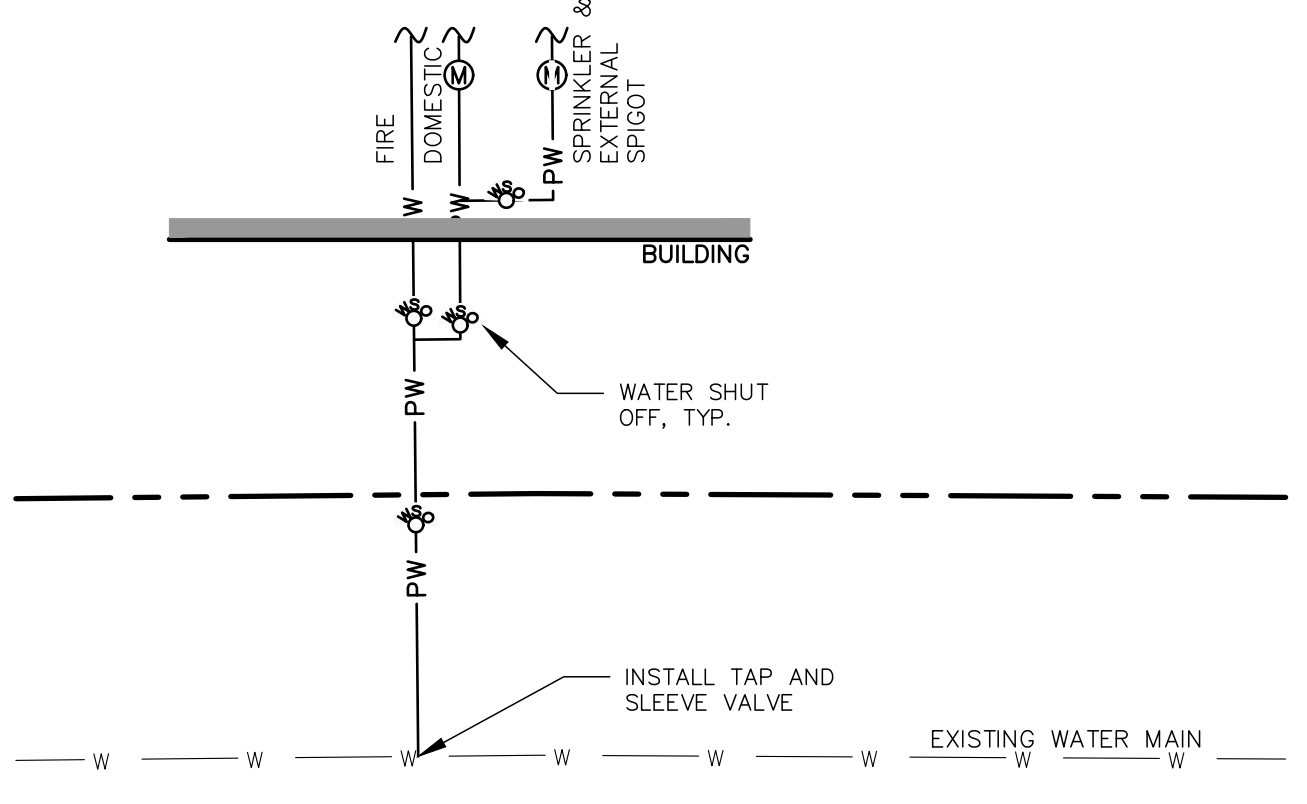
ISOLATION JOINT PLAN



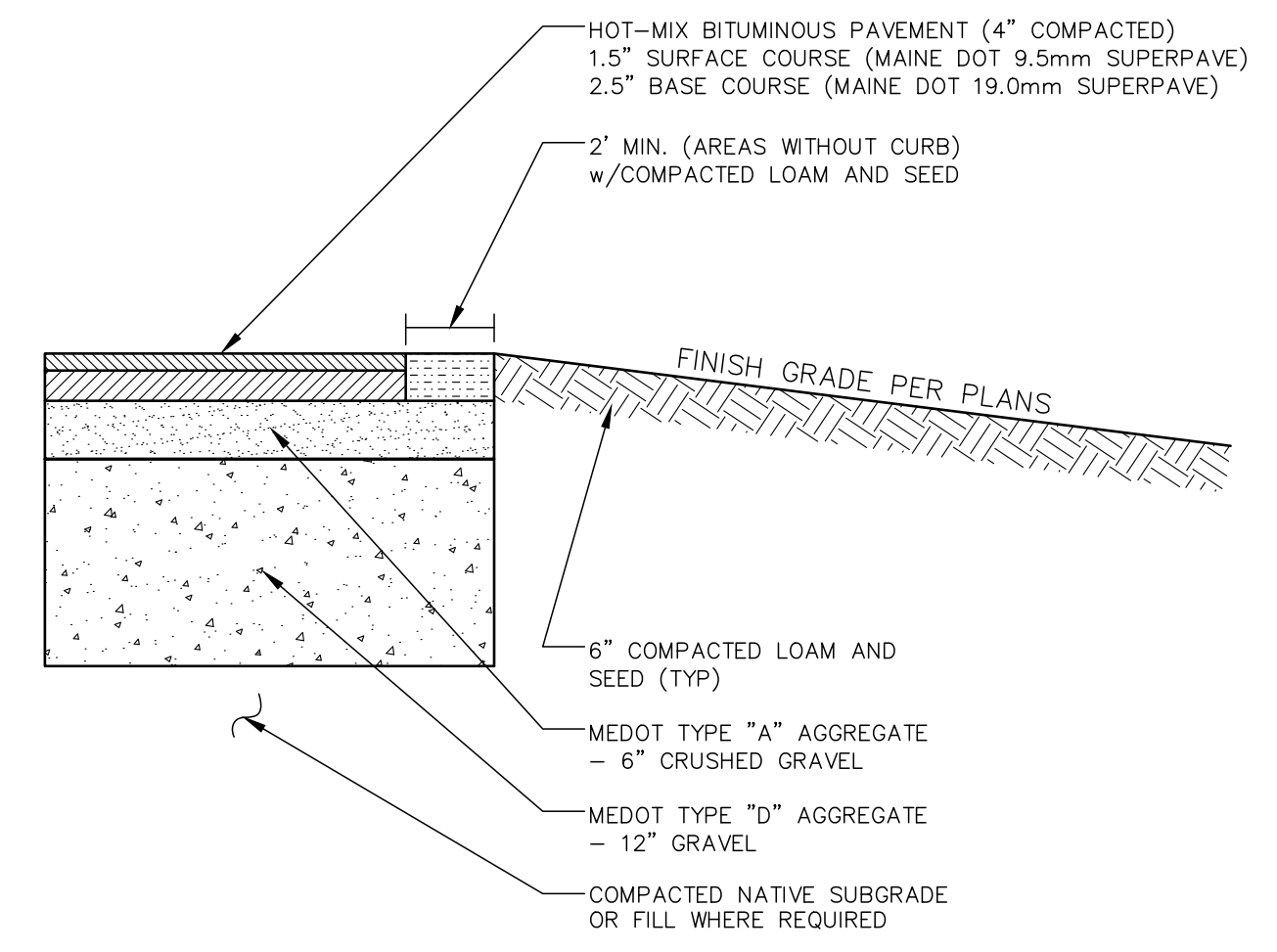
CONCRETE SIDEWALK NOT TO SCALE



NOTE: ALL MATERIALS AND SPECIFICATIONS SHALL CONFORM TO KITTERY WATER DISTRICT STANDARDS AND REQUIREMENTS. VERIFY PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES.

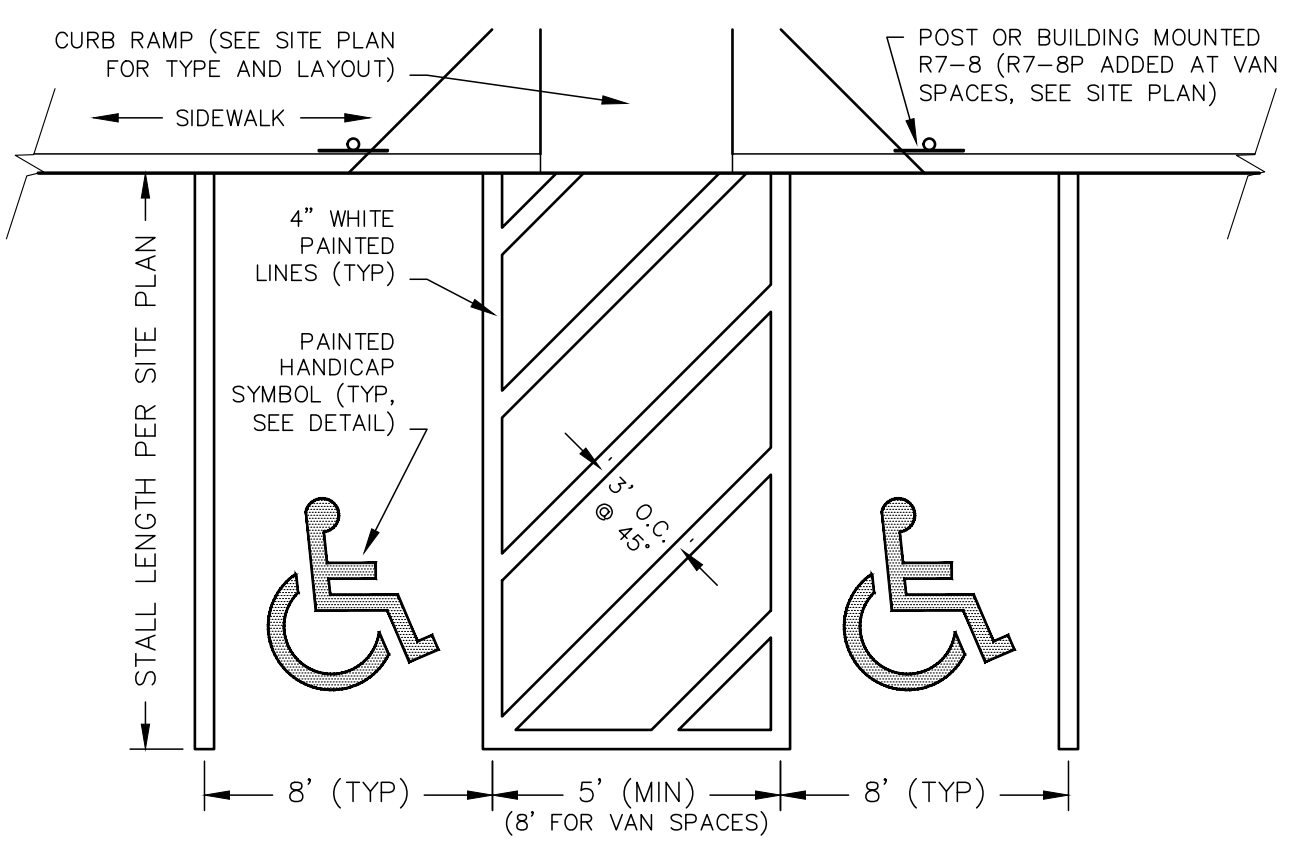


WATER SERVICE HOUSE CONNECTION N.T.S.

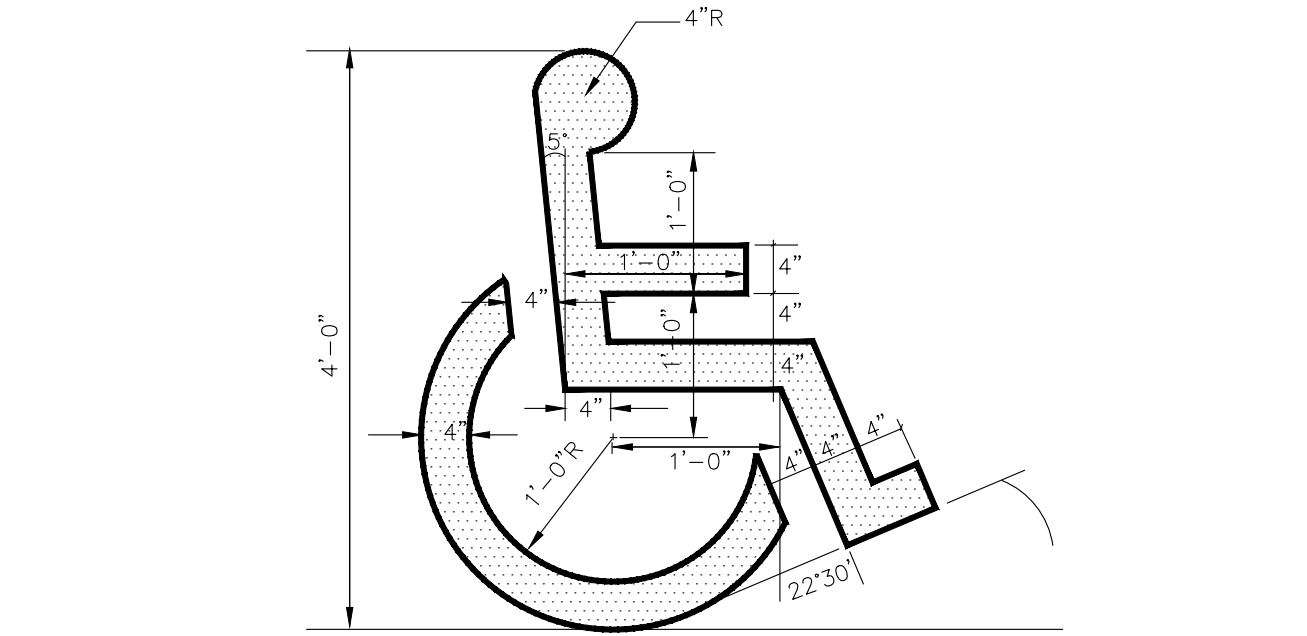


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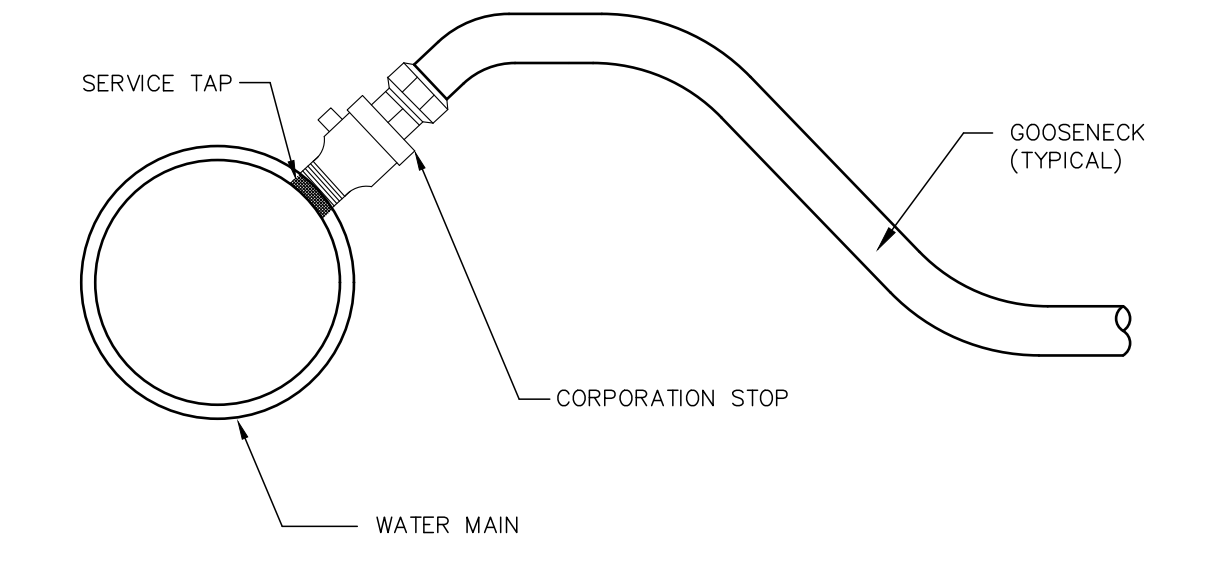
SITE PAVEMENT CROSS SECTION NOT TO SCALE



HANDICAP PARKING STALL LAYOUT NOT TO SCALE



PAINTED HANDICAP SYMBOL NOT TO SCALE



WATER SERVICE CONNECTION NOT TO SCALE



NOT FOR CONSTRUCTION

ISSUED FOR: PRELIM. SITE PLAN APPROVAL

ISSUE DATE: NOVEMBER 3, 2023

REVISIONS

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EDW	08/24/23
1	TOWN COMMENTS	EDW	10/05/23
2	TOWN COMMENTS	EDW	11/03/23

DRAWN BY: RMB
APPROVED BY: EDW
DRAWING FILE: 5431DETAILS.dwg

SCALE: AS SHOWN

OWNER:
27 WENTWORTH STREET, LLC & MREV KITTERY INN, LLC
401 EDGEWATER PLACE, SUITE 570
WAKEFIELD, MA 01880

APPLICANT:
MADBURY REAL ESTATE VENTURES
401 EDGEWATER PLACE, SUITE 570
WAKEFIELD, MA 01880

PROJECT:
THE FORESIDE INN
TAX MAP 9
LOTS 37 & 38
27 & 29 WENTWORTH STREET
KITTERY, MAINE

TITLE: DETAIL SHEET

SHEET NUMBER: C - 10

27-29 WENTWORTH STREET

KITTERY, MAINE 03904

SITE CONTEXT:



5 WHIPPLE ROAD



9-11 WHIPPLE ROAD



15 WHIPPLE ROAD



6-8 WHIPPLE ROAD



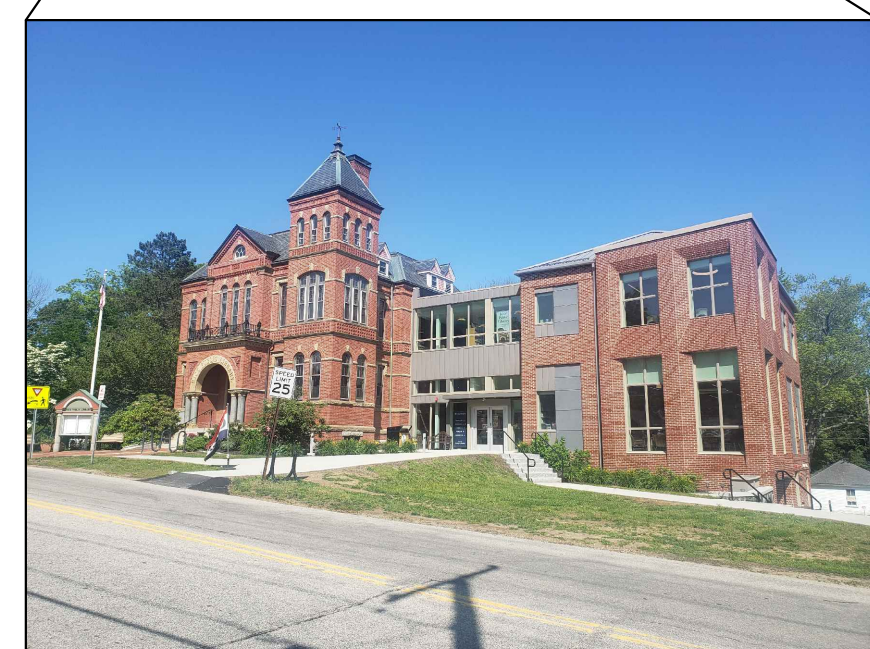
29 WENTWORTH - PROJECT SITE



27 WENTWORTH - PROJECT SITE



12 DAME STREET



8 WENTWORTH STREET



23-25 WENTWORTH STREET

PROJECT DESCRIPTION:

REDEVELOPMENT OF TWO SEPARATE INNS LOCATED AT 27 AND 29 WENTWORTH STREET. THE SITES WILL BE OPERATED AS TWO INDEPENDENT BOUTIQUE INNS.

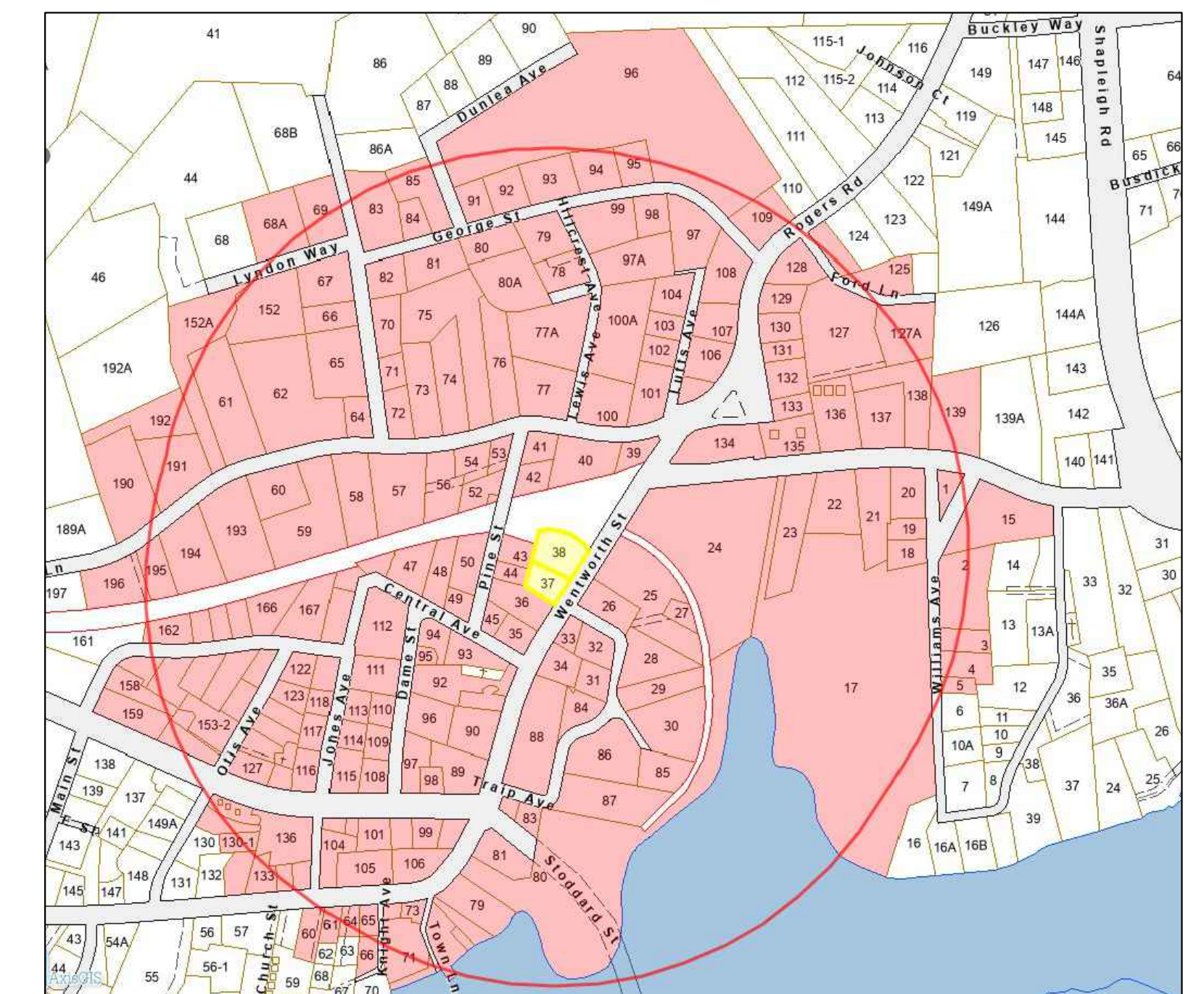
- WORK AT 27 WENTWORTH WILL INCLUDE:
- DEMOLITION OF THE CURRENT, NON-CONFORMING STRUCTURE.
 - CONSTRUCTION OF TWELVE RENTAL UNITS
 - DEVELOPMENT OF THE SITE TO PROVIDE OFF STREET PARKING FOR THE INN.

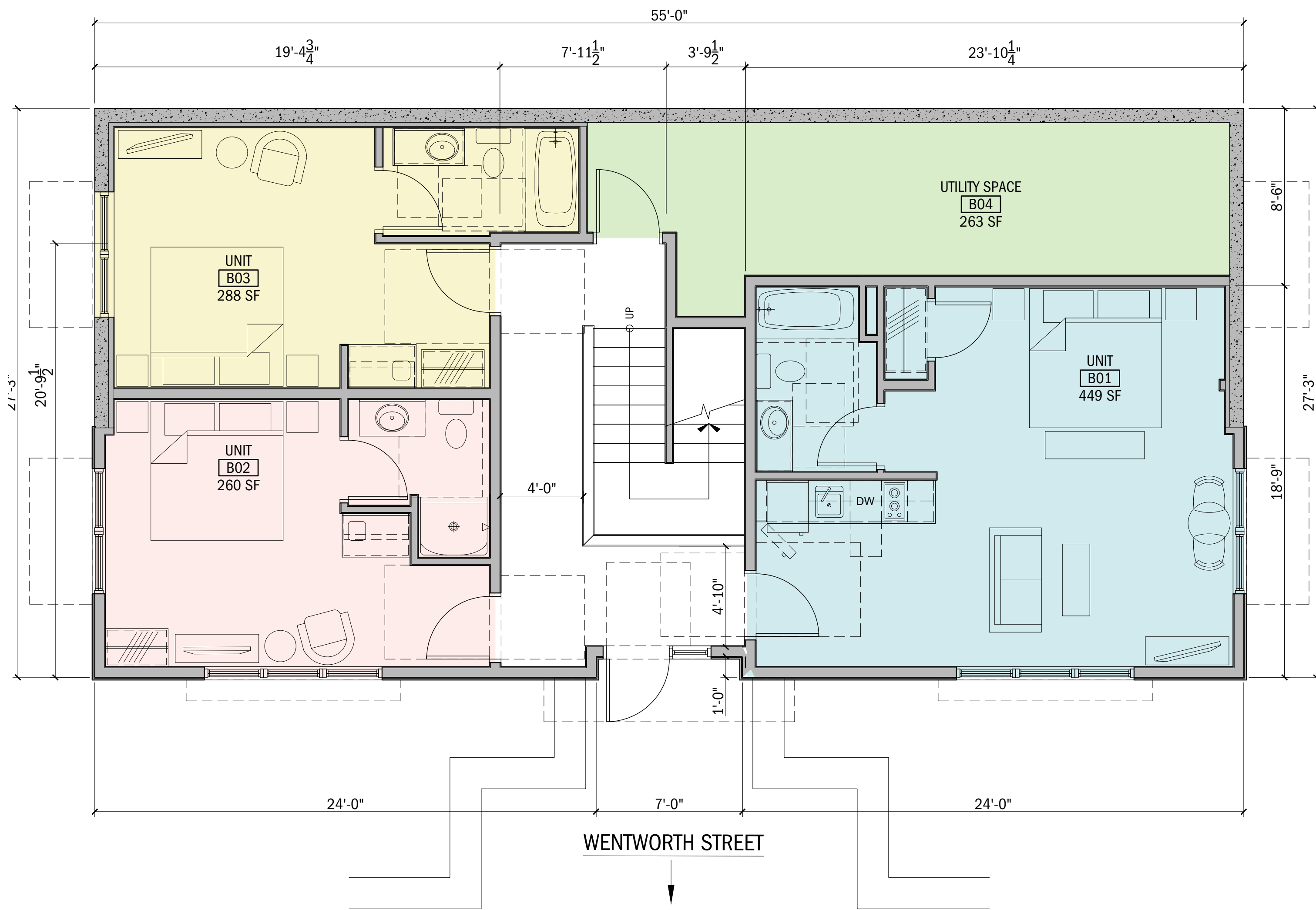
- WORK AT 29 WENTWORTH WILL INCLUDE:
- PARTIAL DEMOLITION WILL ALLOW FOR RENOVATION OF THE ORIGINAL 1800s ERA STRUCTURE AND AN ADDITION TO THIS INTO TWELVE RENTAL UNITS AND AN ADDITIONAL INN KEEPER'S UNIT.
 - DEVELOPMENT OF THE SITE TO PROVIDE OFF STREET PARKING FOR THE INN.

DRAWING INDEX:

- 01 TITLE SHEET AND SITE CONTEXT
- 02 27 WENTWORTH ST - FLOOR PLANS
- 03 27 WENTWORTH ST - FLOOR PLANS - CONTINUED
- 04 27 WENTWORTH ST - ROOF PLAN
- 05 29 WENTWORTH ST - FLOOR PLANS
- 06 29 WENTWORTH ST - FLOOR PLANS - CONTINUED
- 07 27 WENTWORTH ST - ROOF PLAN
- 08 27 WENTWORTH ST - EXTERIOR ELEVATIONS
- 09 27 WENTWORTH ST - EXTERIOR ELEVATIONS
- 00 29 WENTWORTH ST - EXTERIOR ELEVATION
- 01 29 WENTWORTH ST - EXTERIOR ELEVATION
- 12 29 WENTWORTH ST - EXTERIOR ELEVATION
- 13 29 WENTWORTH ST - EXTERIOR ELEVATION
- 14 PERSPECTIVE VIEW
- 15 PERSPECTIVE VIEW
- 16 PERSPECTIVE VIEW

SITE ABUTTERS WITHIN 1000' OF SITE

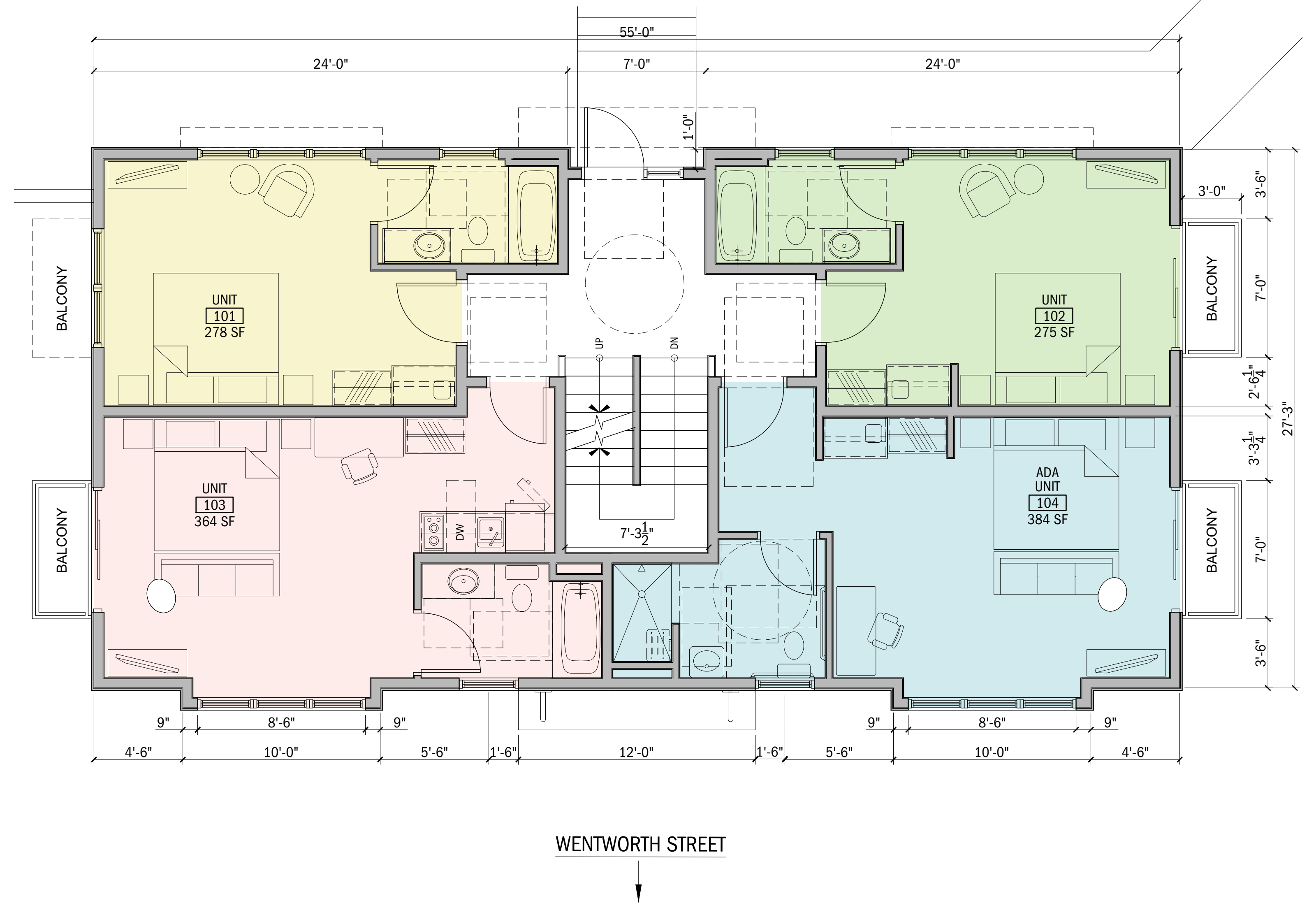




BASEMENT FLOOR PLAN

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

1

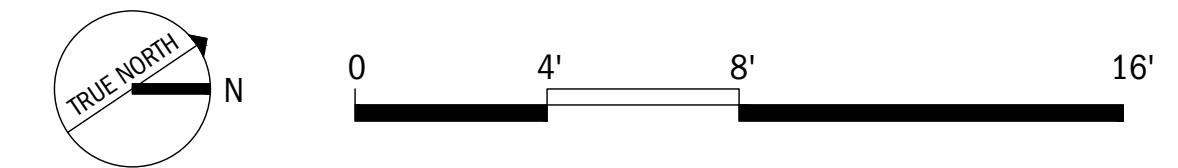


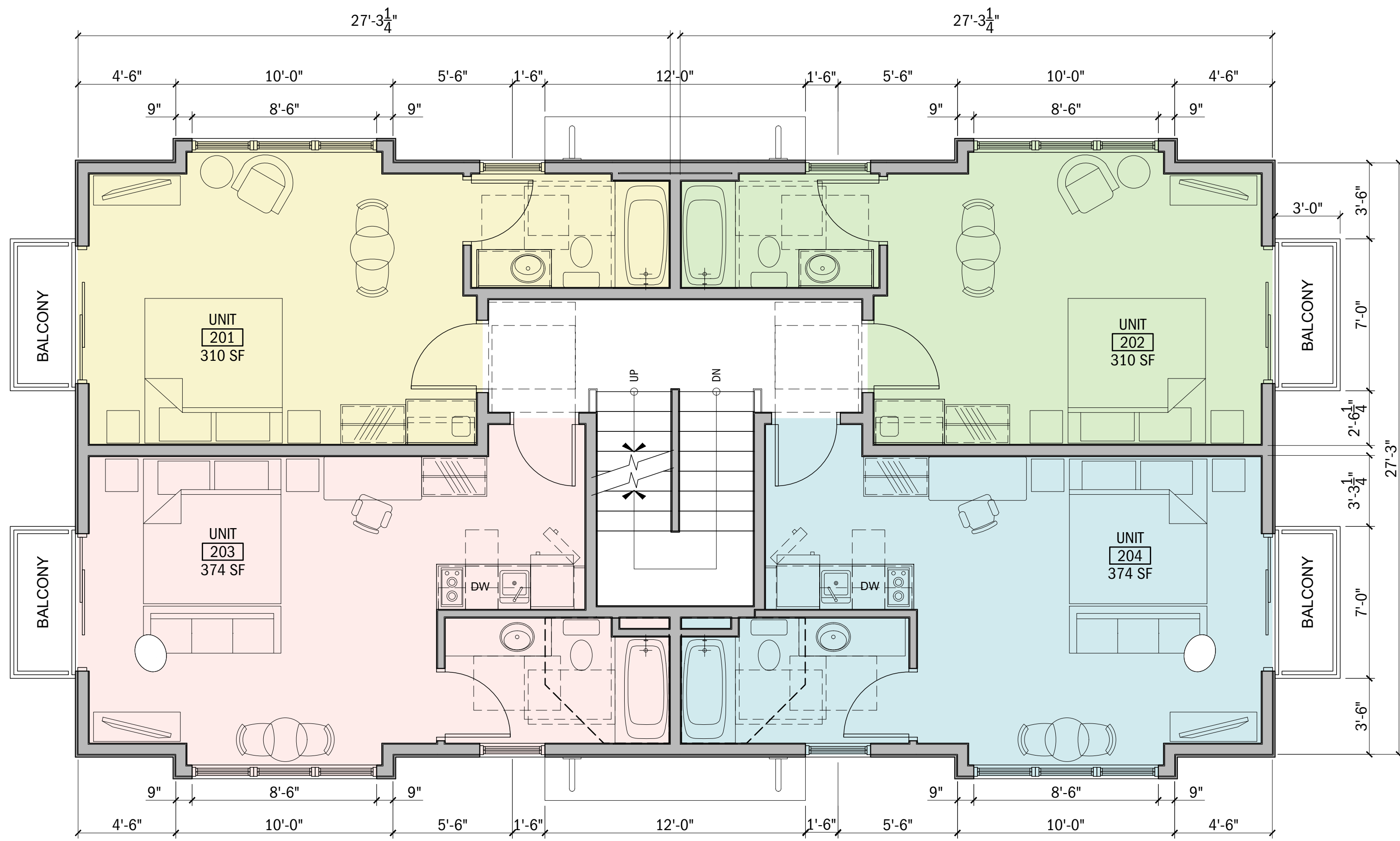
FIRST FLOOR PLAN

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

2

27 WENTWORTH ST			
	ROOM #	ROOM TYPE	AREA
BASEMENT FLOOR	B01	INNKEEPER	403 SF
	B02	BUSINESS	260 SF
	B03	BUSINESS	288 SF
FIRST FLOOR	101	BUSINESS	278 SF
	102	BUSINESS	274 SF
	103	SUITE	364 SF
	104 (ADA)	BUSINESS	384 SF
SECOND FLOOR	201	BUSINESS	310 SF
	202	BUSINESS	310 SF
	203	SUITE	374 SF
	204	SUITE	374 SF
THIRD FLOOR	301	SUITE	452 SF
	302	SUITE	452 SF
ROOM TOTALS	BUSINESS		7
	SUITES		5
	TOTAL		12





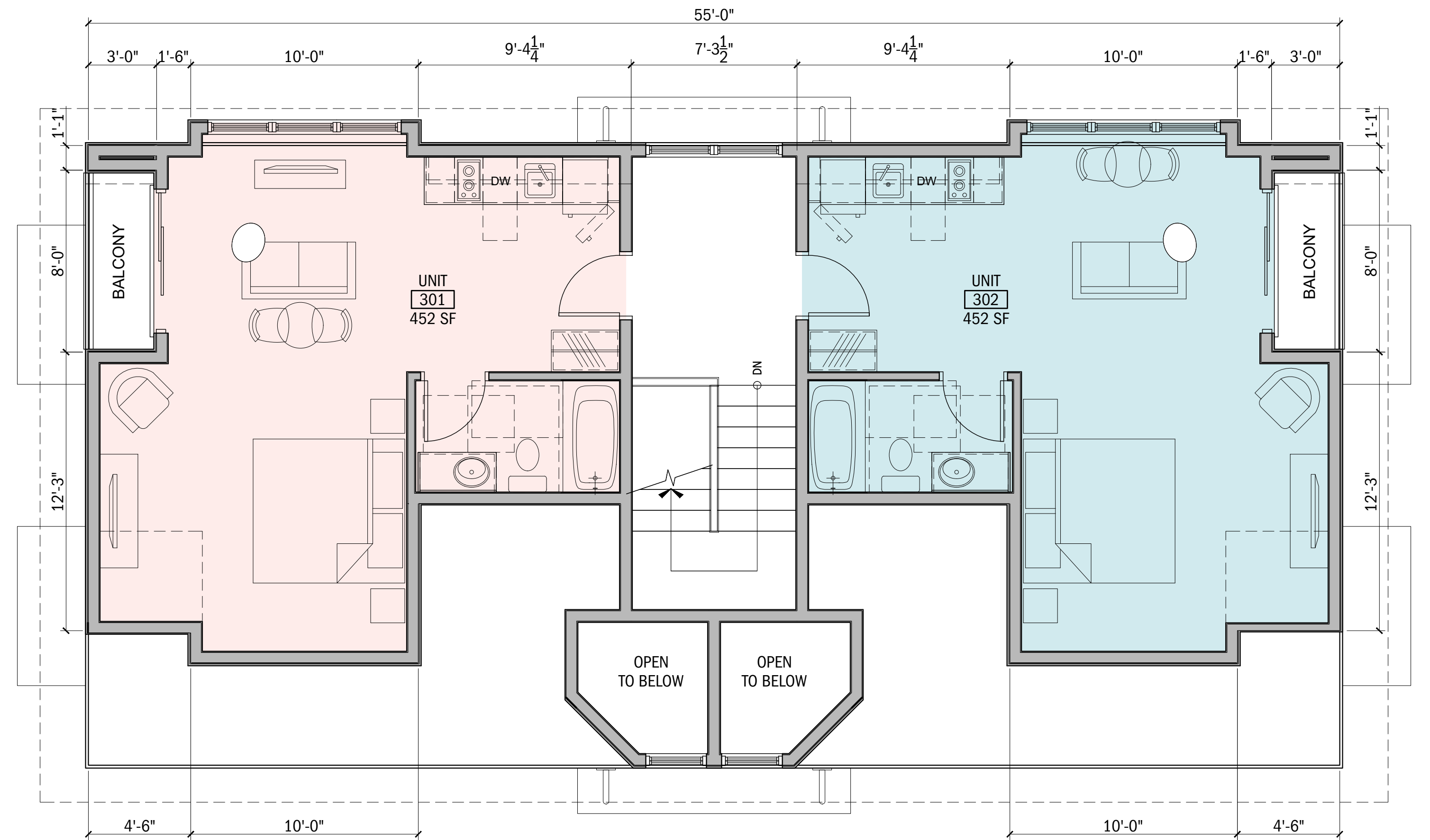
WENTWORTH STREET



SECOND FLOOR PLAN

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

1



WENTWORTH STREET

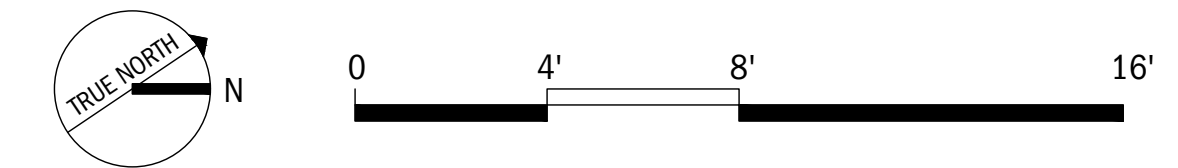


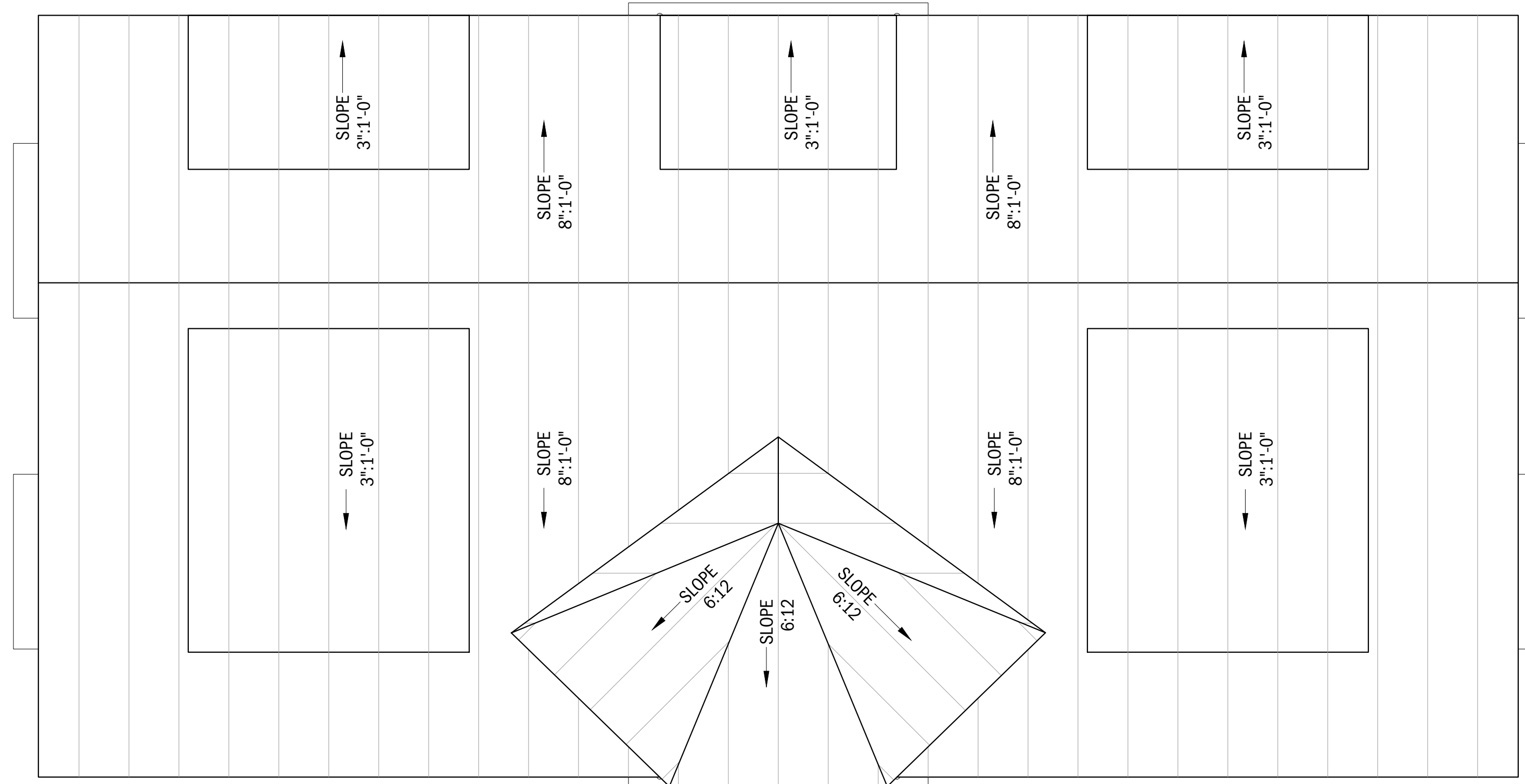
THIRD FLOOR PLAN

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

2

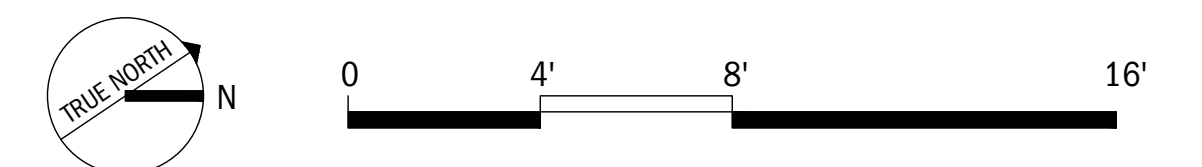
27 WENTWORTH ST			
FLOOR	ROOM #	ROOM TYPE	AREA
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ROOM TOTALS	BUSINESS		7
	SUITES		5
	TOTAL		12

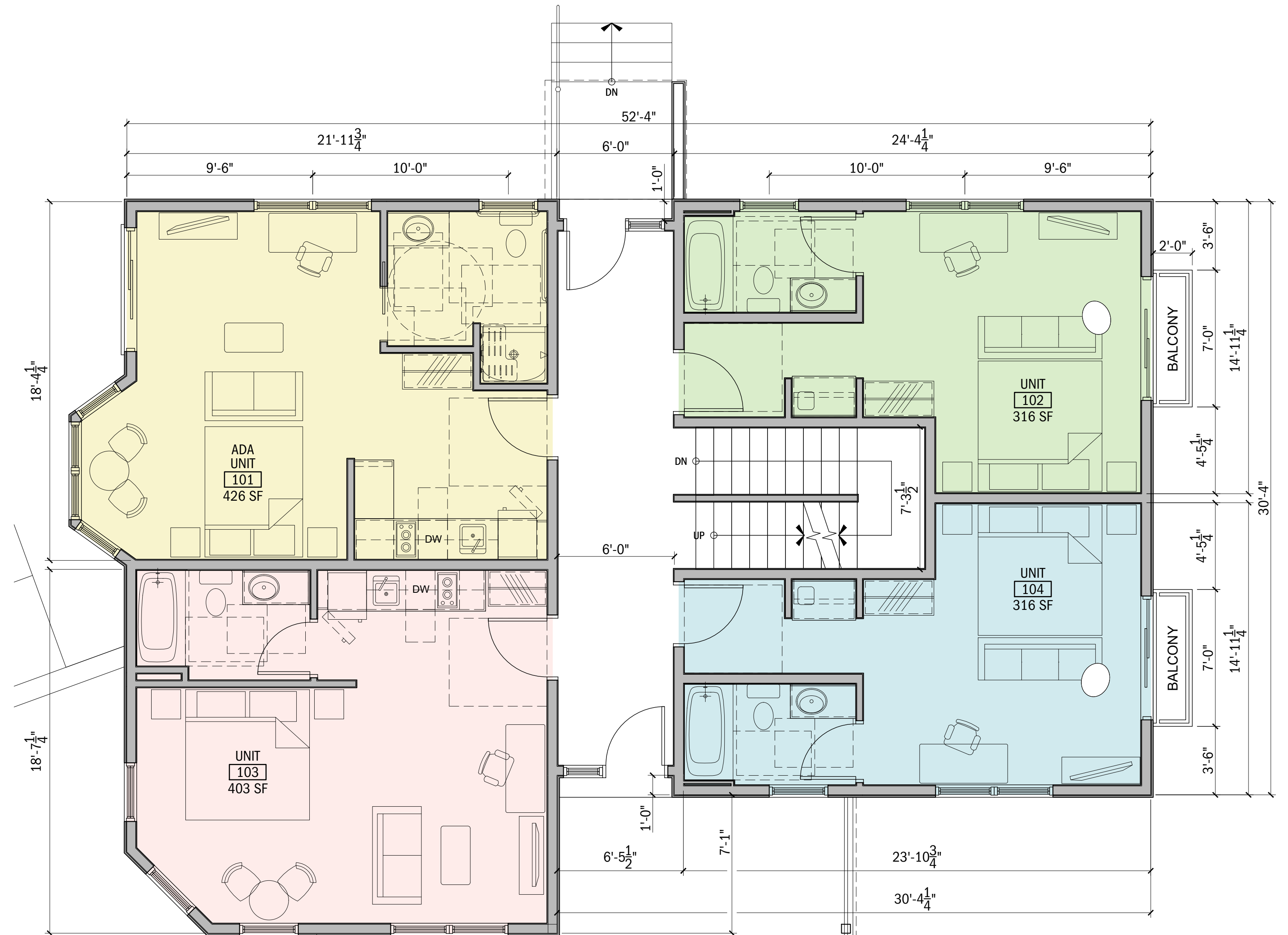
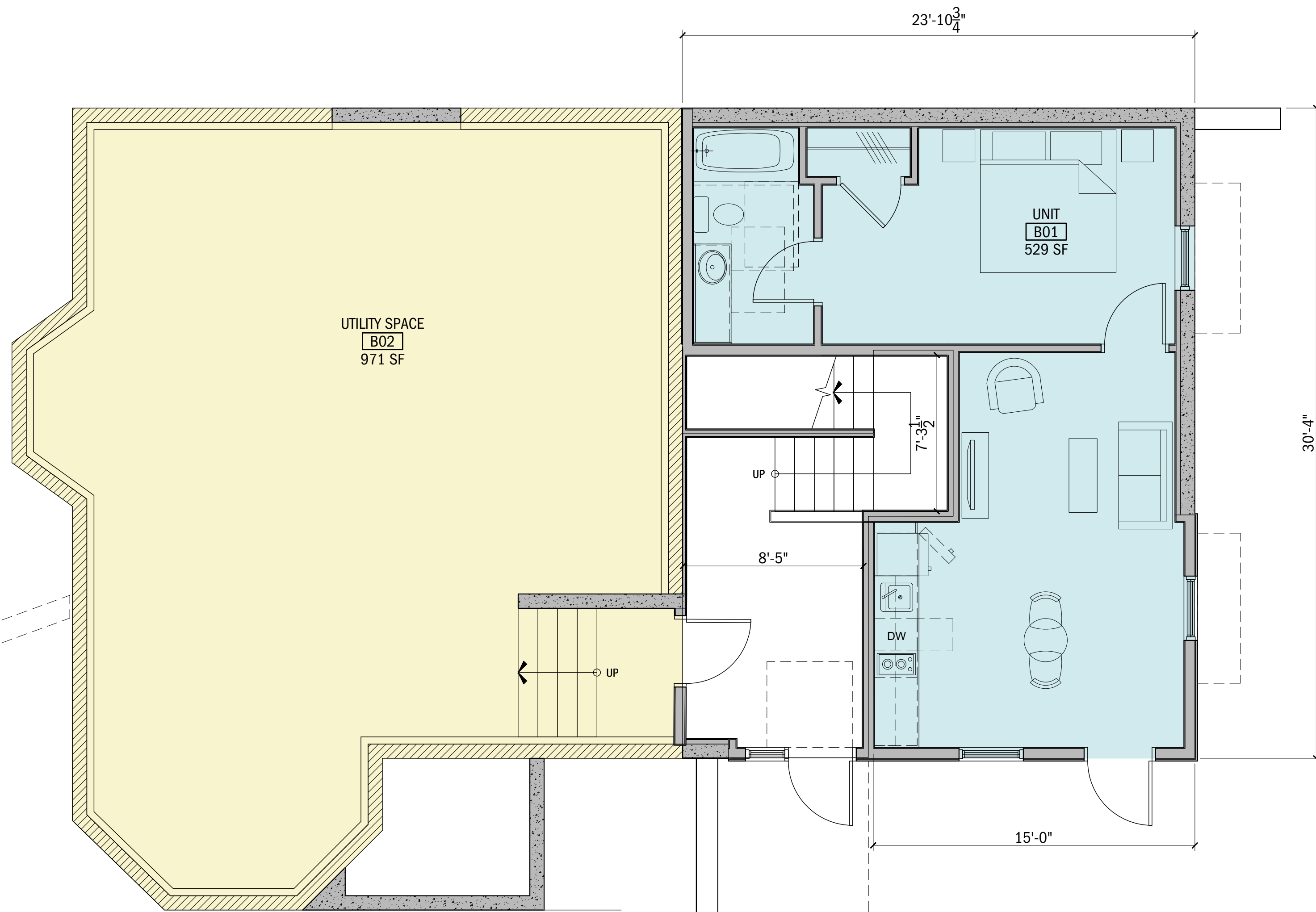




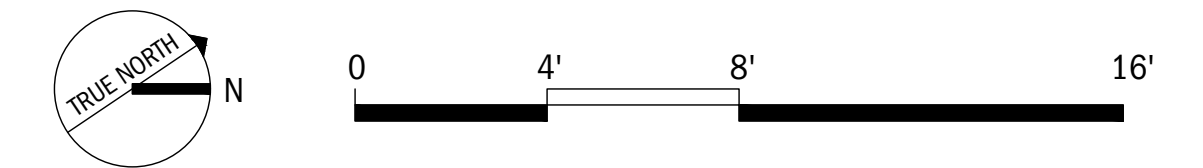
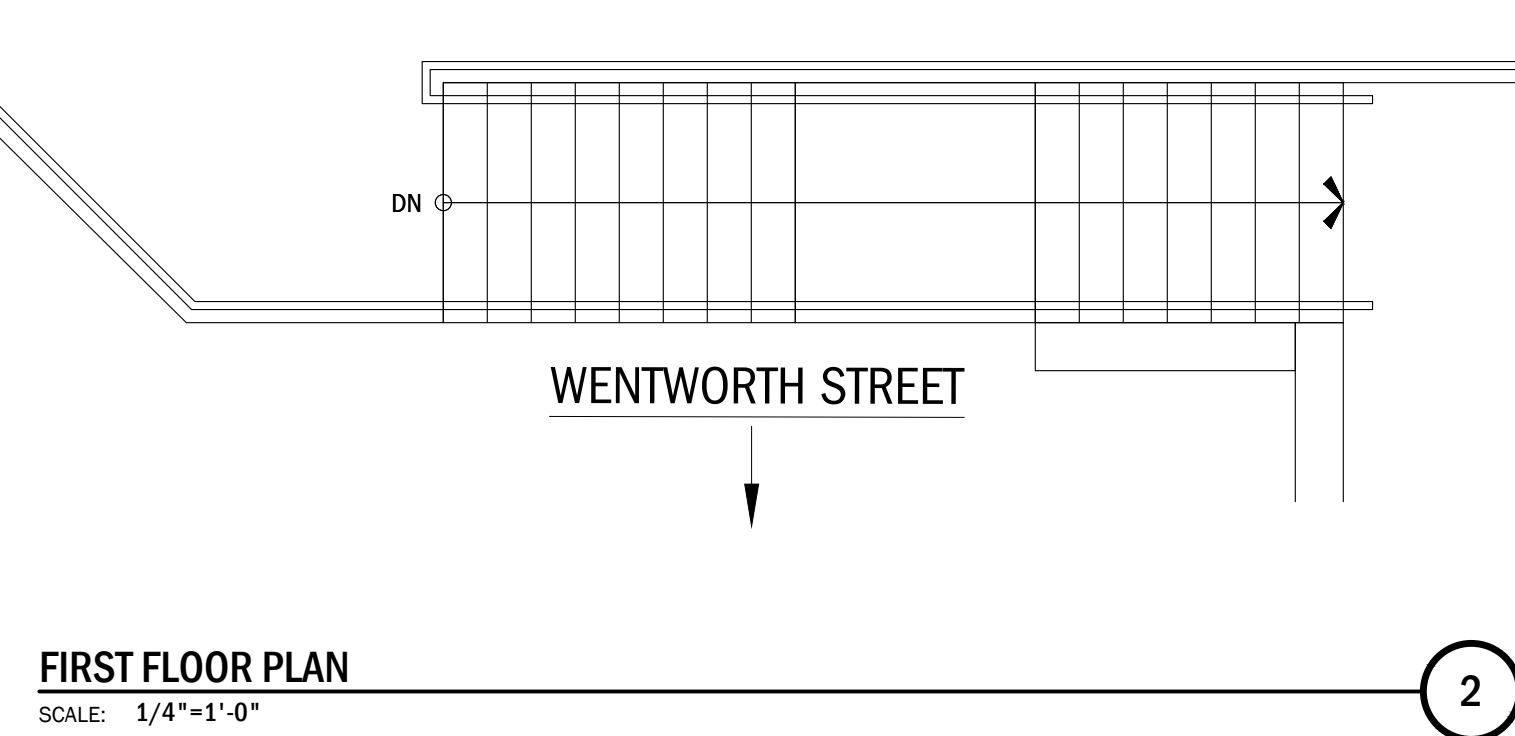
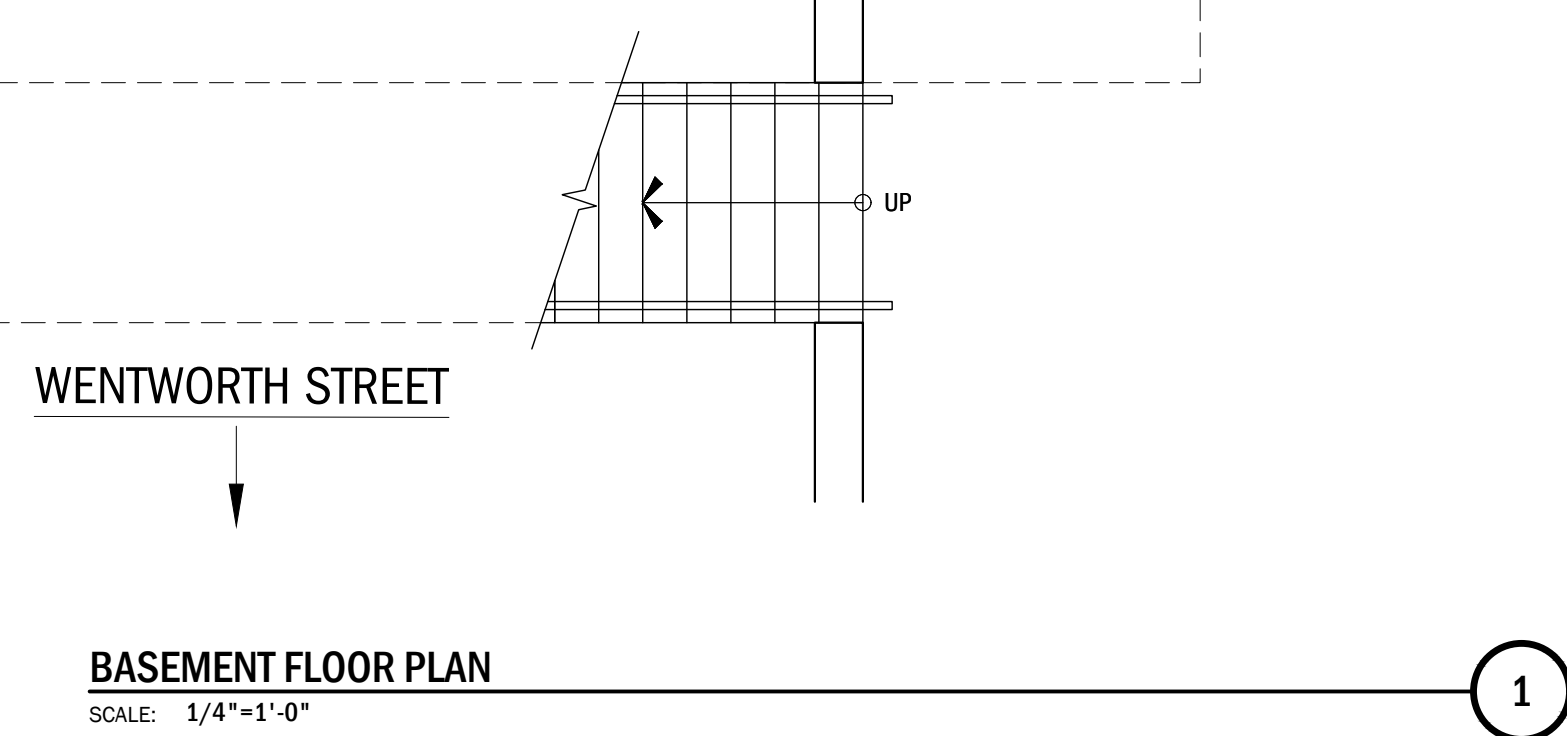
ROOF PLAN
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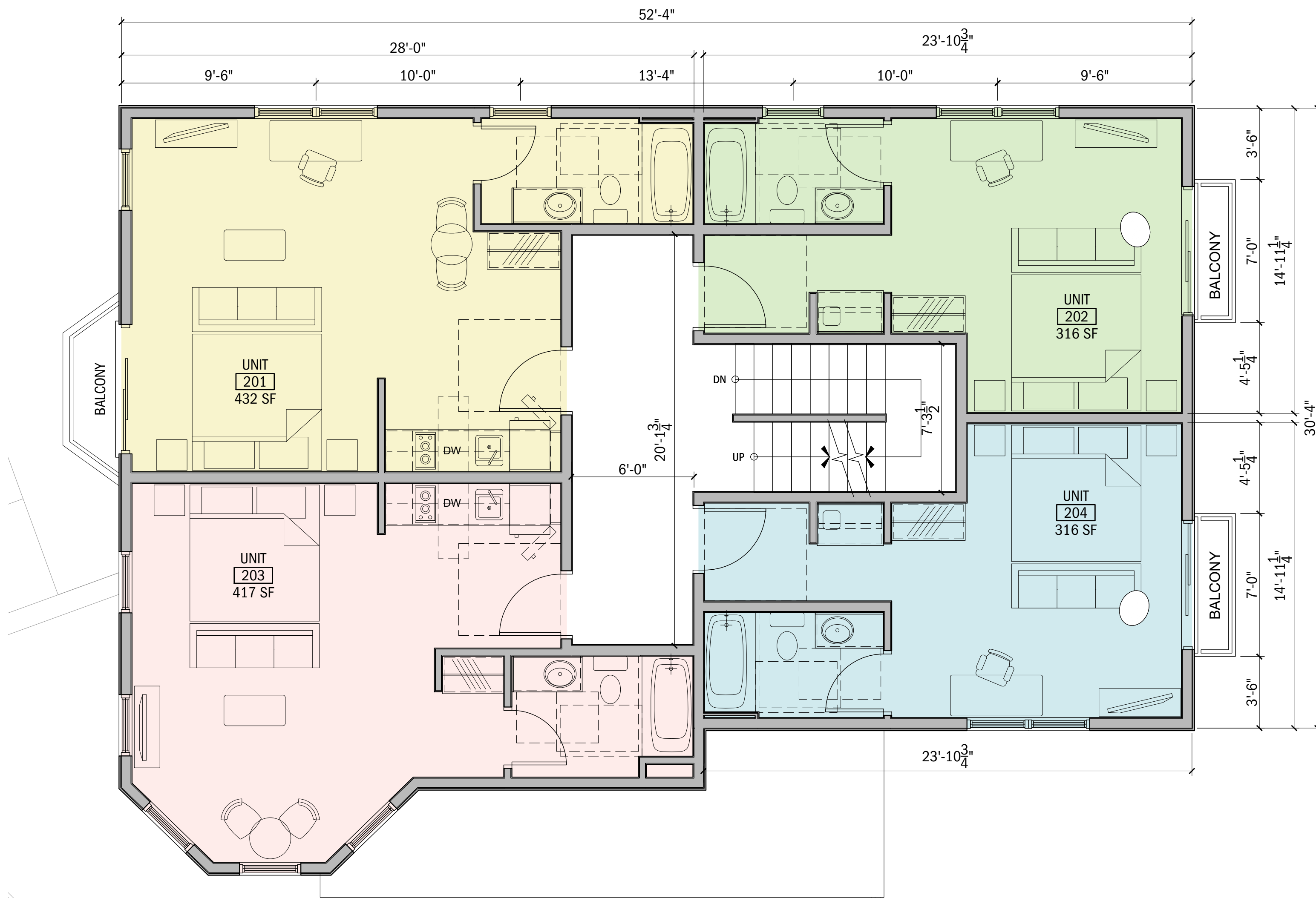
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29 WENTWORTH ST			
FLOOR	ROOM #	ROOM TYPE	AREA
BASEMENT FLOOR	B01	INNKEEPER	529 SF
FIRST FLOOR	101 (ADA)	SUITE	426 SF
	102	BUSINESS	316 SF
	103	SUITE	403 SF
	104	BUSINESS	316 SF
SECOND FLOOR	201	SUITE	432 SF
	202	BUSINESS	316 SF
	203	SUITE	417 SF
	204	BUSINESS	316 SF
THIRD FLOOR	301	SUITE	396 SF
	302	BUSINESS	316 SF
	303	SUITE	382 SF
	304	BUSINESS	316 SF
ROOM TOTALS		BUSINESS	6
		SUITES	6
		TOTAL	12



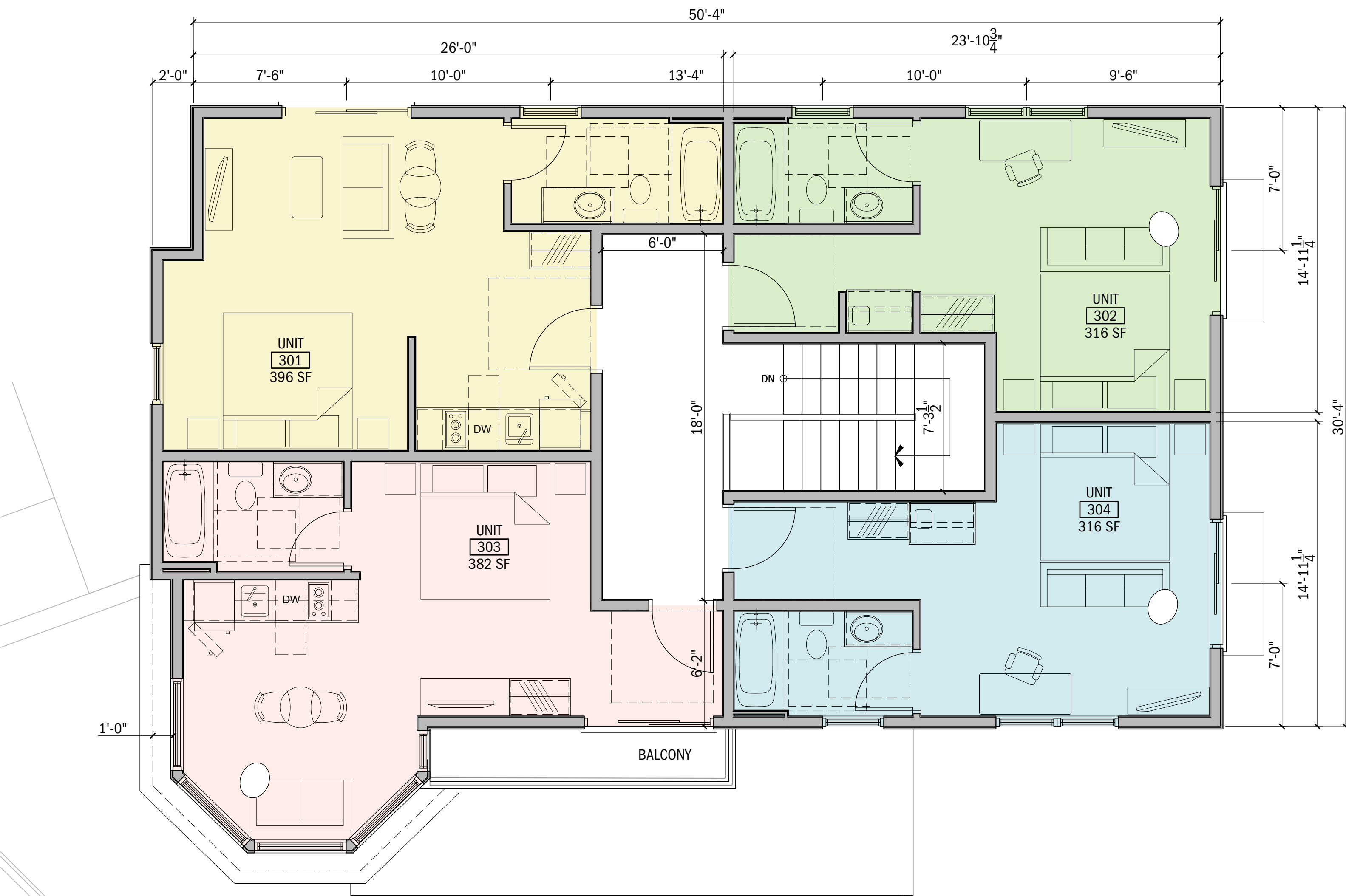


29 WENTWORTH ST			
FLOOR	ROOM #	ROOM TYPE	AREA
BASEMENT FLOOR	B01	INNKEEPER	529 SF
FIRST FLOOR	101 (ADA)	SUITE	426 SF
	102	BUSINESS	316 SF
	103	SUITE	403 SF
	104	BUSINESS	316 SF
SECOND FLOOR	201	SUITE	432 SF
	202	BUSINESS	316 SF
	203	SUITE	417 SF
	204	BUSINESS	316 SF
THIRD FLOOR	301	SUITE	396 SF
	302	BUSINESS	316 SF
	303	SUITE	382 SF
	304	BUSINESS	316 SF
ROOM TOTALS		BUSINESS	6
		SUITES	6
		TOTAL	12

WENTWORTH STREET

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

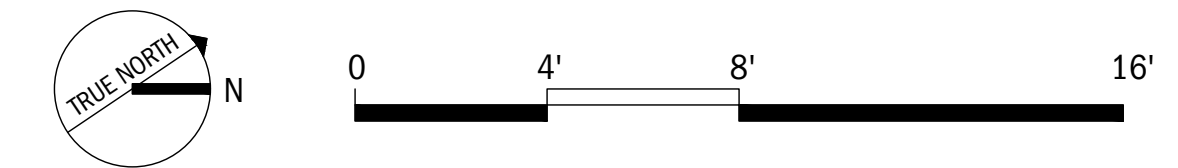
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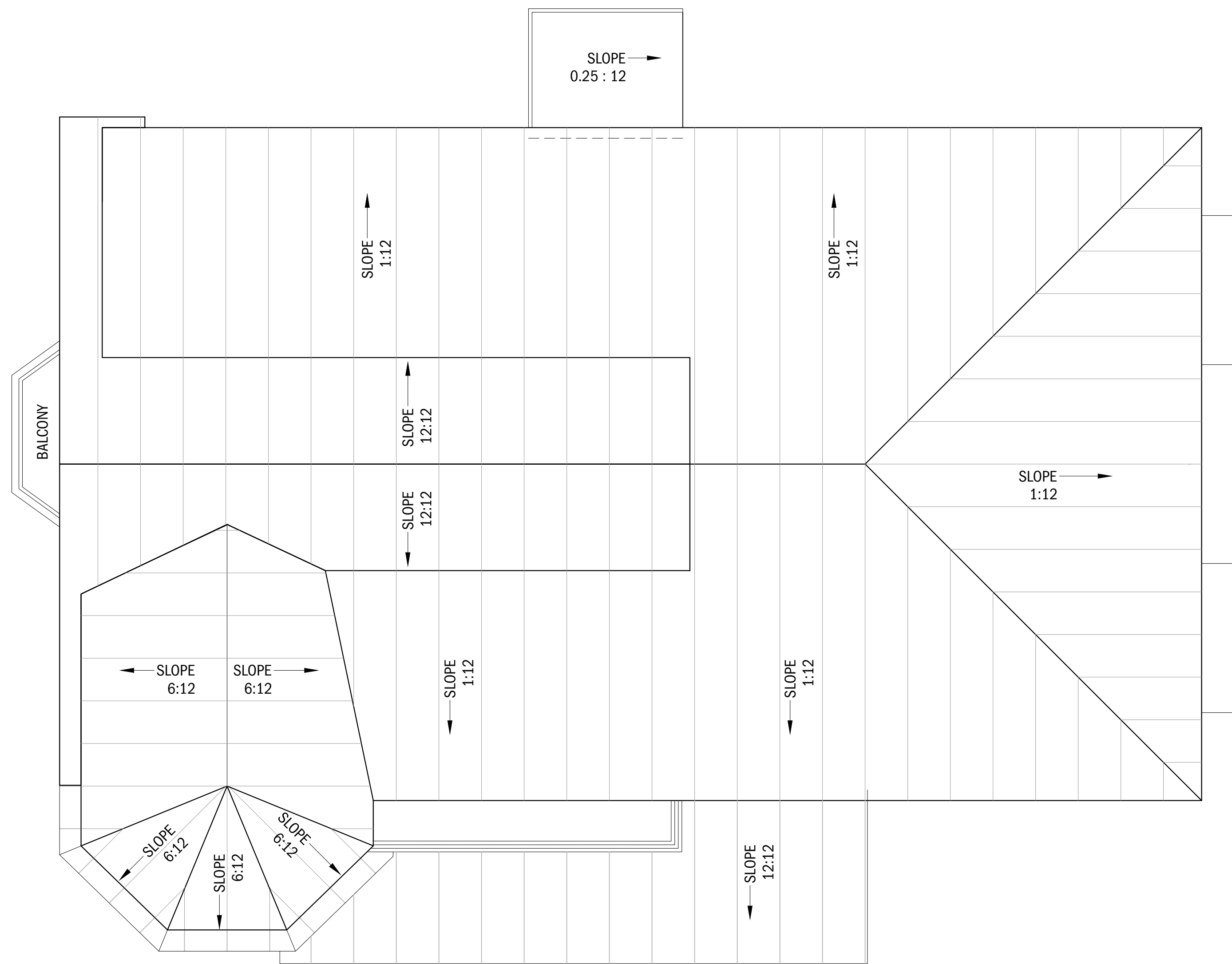


WENTWORTH STREET

THIRD FLOOR PLAN
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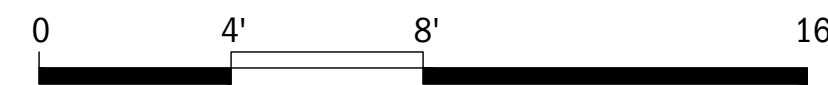
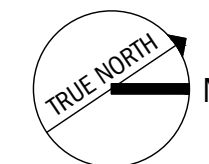
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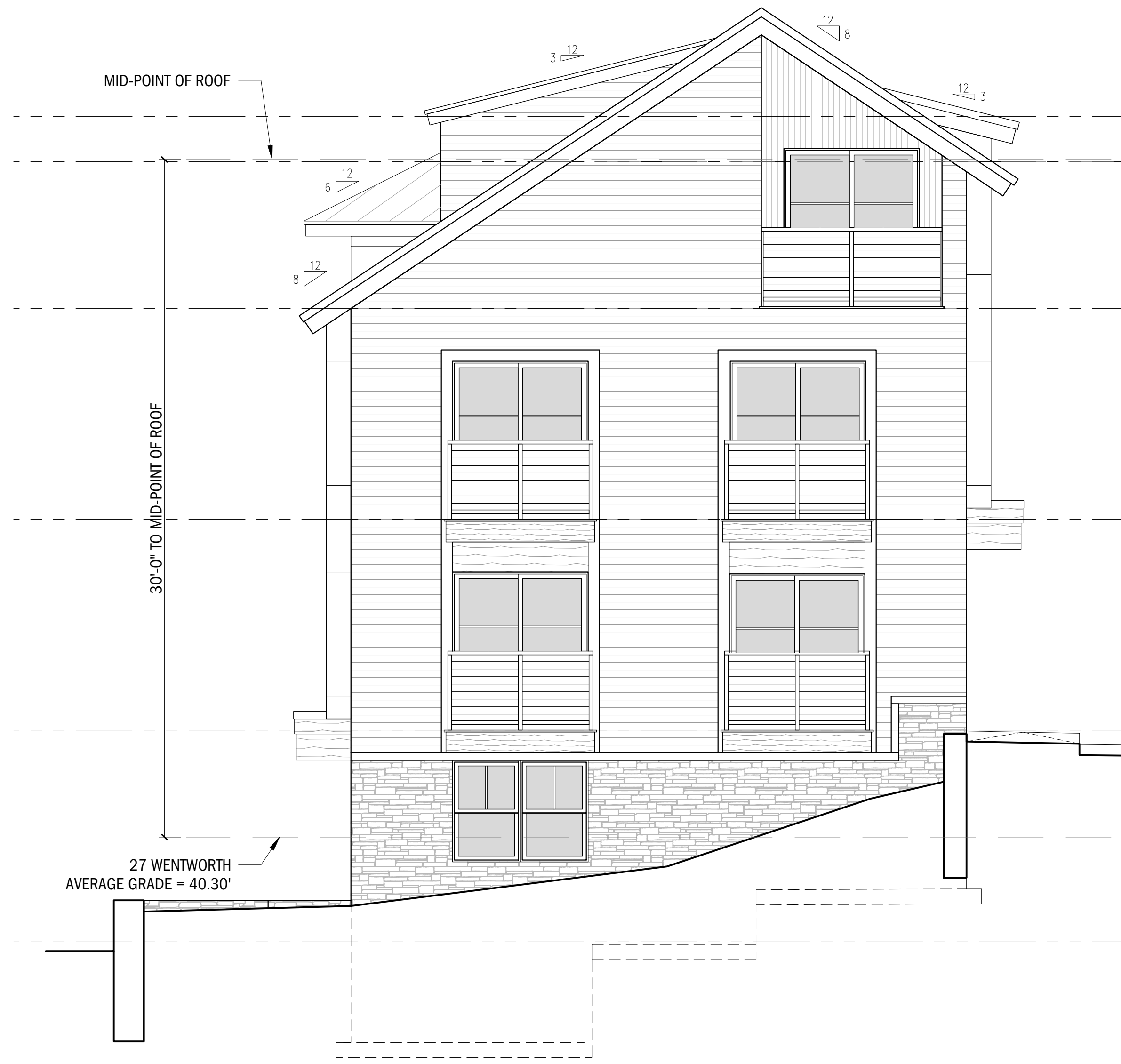




ROOF PLAN
SCALE: 1/4"=1'-0"

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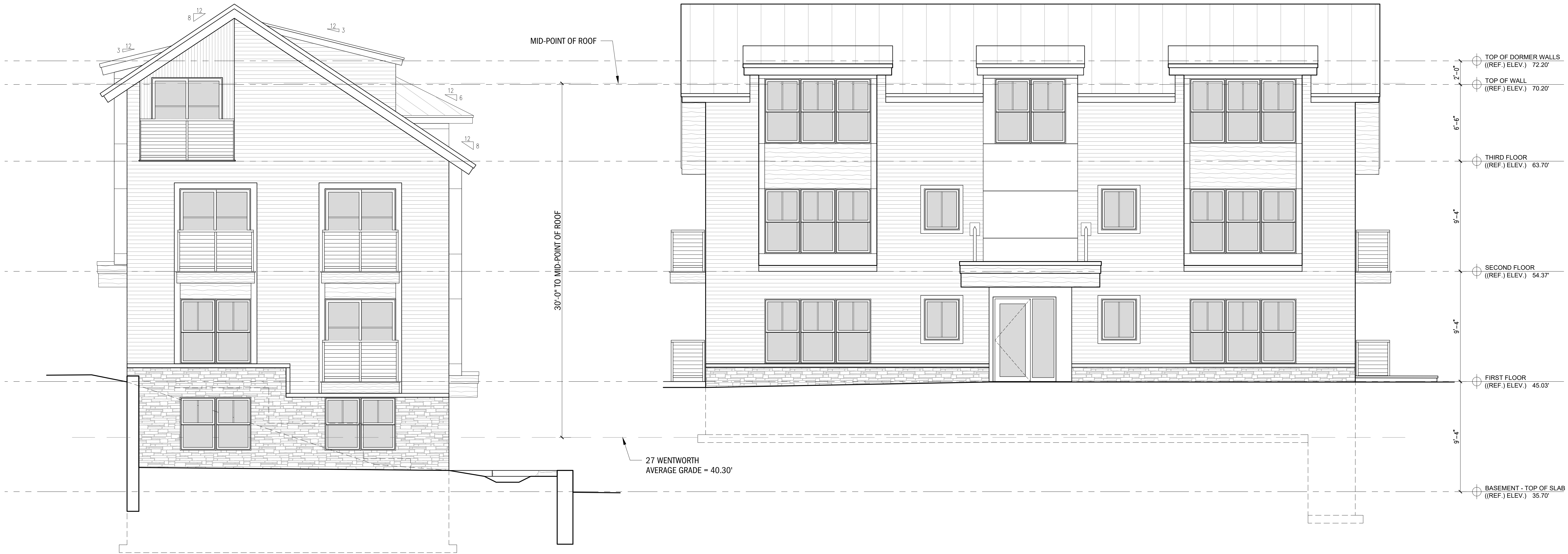
NORTH EXTERIOR ELEVATION
SCALE: 1/4"=1'-0"

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

2



SOUTH EXTERIOR ELEVATION
SCALE: 1/4"=1'-0"

1

WEST EXTERIOR ELEVATION
SCALE: 1/4"=1'-0"

2



NORTH EXTERIOR ELEVATION
SCALE: 1/4"=1'-0"

1



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

1



SOUTH EXTERIOR ELEVATION
SCALE: 1/4"=1'-0"

1



WEST EXTERIOR ELEVATION
SCALE: 1/4"=1'-0"

1



VIEW LOOKING SOUTH-WEST FROM WENTWORTH STREET
SCALE: N.T.S.

1



VIEW LOOKING NORTH-WEST FROM WENTWORTH STREET
SCALE: N.T.S.

1



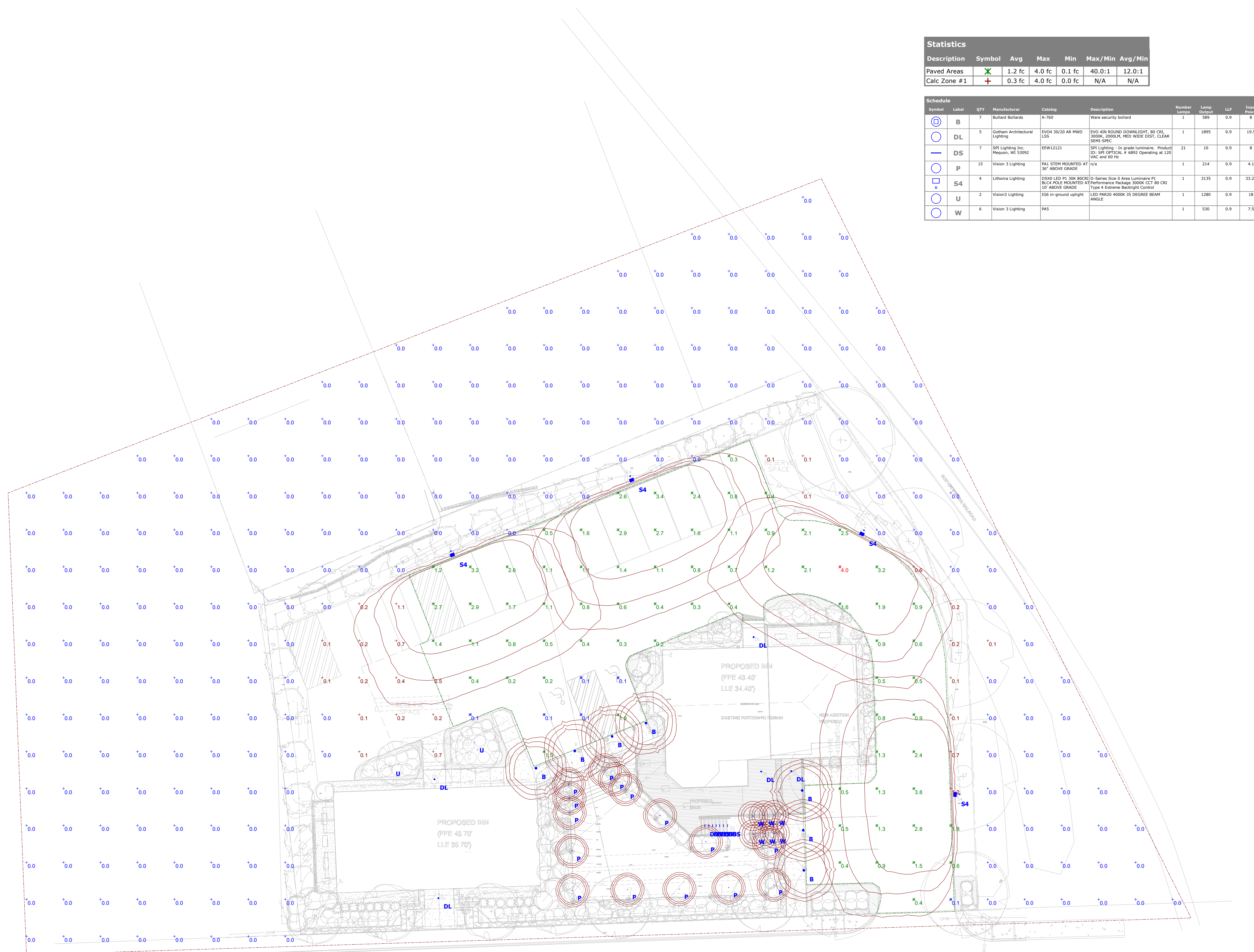
VIEW LOOKING WEST FROM WENTWORTH STREET
SCALE: N.T.S.

1



Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Paved Areas	✕	1.2 fc	4.0 fc	0.1 fc	40.0:1	12.0:1
Calc Zone #1	+	0.3 fc	4.0 fc	0.0 fc	N/A	N/A

Schedule									
Symbol	Label	QTY	Manufacturer	Catalog	Description	Number Lamps	Lamp Output	LLF	Input Power
⊕	B	7	Bullard Bollards	A-750	Ware security bollard	1	SCP	0.9	8
○	DL	5	Gotham Architectural Lighting	EVO4 30/20 AR MWD LSS	EVO 4IN ROUND DOWNLIGHT, 80 CRI, 3000K, 2000LM, MED WIDE DIST, CLEAR SEMI-REC	1	1895	0.9	19.5
—	DS	7	SPI Lighting Inc. Mequon, WI 53092	EEW12121	SPI Lighting - In grade luminaire. Product ID: SPI OPTICAL # 6892 Operating at 120 VAC and 60 Hz	21	10	0.9	8
○	P	15	Vision 3 Lighting	PA1 STEM MOUNTED AT 36" ABOVE GRADE	N/A	1	214	0.9	4.1
□	S4	4	Lithonia Lighting	DSX0 LED P1 30K 80CRI	D-Series Size 0 Area Luminaire P1 BLCX POLE MOUNTED AT PERFORMANCE PACKAGE 3000K CCT 80 CRI 10' ABOVE GRADE	1	3135	0.9	33.21
○	U	2	Vision3 Lighting	IG6 in-ground uplight	LED PAR20 4000K 35 DEGREE BEAM ANGLE	1	1280	0.9	18
○	W	6	Vision 3 Lighting	PAS		1	530	0.9	7.5



Plan View
Scale - 1" = 16ft

Wentworth Street Inn

Designer
Scott E Drouin
Date
11/02/2023
Scale
Not to Scale
Drawing No.

Summary

DRAINAGE ANALYSIS

The Foreside Inn

**Tax Map 49, Lots 37 & 38
27 & 29 Wentworth Street
Kittery, Maine**

November 3, 2023

Prepared For:

Madbury Real Estate Ventures

c/o Taylor McMaster
401 Edgewater Place, Suite 570
Wakefield, MA 001880
(617) 290-1269

Prepared By:

ALTUS ENGINEERING

133 Court Street
Portsmouth, NH 03801
Phone: (603) 433-2335



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	Site Overview
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Section 7	Stormwater Operations and Maintenance Plan
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	Pre-Development Watershed Plan
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Section 1

Narrative

PROJECT DESCRIPTION

The property is located at 27 & 29 Wentworth Street. This redevelopment project proposes to construct a 12-unit inn with a 13th innkeeper's suite taker unit on each parcel together with associated site improvements. Both inns will share a 16-space parking lot and access drive on 29 Wentworth Street. The structure at 27 Wentworth will be demolished with a new building constructed closer to the street. The property at 29 Wentworth will be partially demolished during renovation with the intention to maintain the original 1800's era structure. The lot lines will be modified to maintain the Town's open space requirements.

The stormwater management system proposed will include porous pavement to filter and infiltrate all runoff flowing to it; and a 13'x52' underground stormwater management gallery (SMG) consisting of 3 rows of 36-inch pipe and 8'x22' SMG consisting of 3 rows of 18-inch pipe to infiltrate runoff from rooves and lawn area. The perimeter underdrain system will be wrapped with non-woven filter fabric to minimize sediment entering the SMG.

Site Soils

The Natural Resources Conservation Service (NRCS) classifies the site soils as Urban Land (Ur) with a hydrological soil group (HSG) designation of C.

Pre-Development (Existing Conditions)

The Pre-Development Watershed Plan (Sheet WS-1) reflects the current conditions of the site which include the existing building and parking areas. The current site can be divided into two (2) subcatchments which northeast discharge to the Boston & Maine Railroad property and east to Wentworth Street. The nearest closed drainage system is approximately 300 feet downgradient of the site.

Post-Development (Proposed Conditions)

The proposed project will construct two (2) commercial units, a new drainage system and associated site improvements.

As shown on the attached Post-Development Watershed Plan (Sheet WS-2), the site was divided into six (6) subcatchment areas in the post-development conditions. The same points of analysis that were used in the Pre-Development model (POA #'s 1 and 2) were used for comparison of the Pre- and Post-development conditions.

CALCULATION METHODS

The drainage study was completed using the USDA SCS TR-20 Method within the HydroCAD Stormwater Modeling System. Reservoir routing was performed with the Dynamic Storage Indication method with automated calculation of tailwater conditions. A Type III 24-hour rainfall distribution was utilized in analyzing the data for the 2- and 25-year 24-hour storm events using Extreme Precipitation rainfall data provided by Cornell University.

The following conservative modeling approaches and assumptions were incorporated into the analysis:

- Model based on extreme precipitation values for Portsmouth published by Cornell/UNH.
- Used Tc of 6 minutes for those subcatchments where measured Tc was less than 6 minutes. SCS TR-55 Urban Hydrology for Small Watersheds indicates that the minimum Tc should be 0.1 hour or 6 minutes. The Federal Highway Administration [Hydraulic Engineering](#) states that minimum time of concentration (Tc) for urbanized areas should not be less than 5-minutes. Extremely short Tc times can lead to improbable runoff values and are not appropriate for design.
- Infiltration rates through biofilter media of the porous pavement and from the stormwater gallery is set at 4.0 in/hr with a phase-in depth of 0.01’.

Disclaimer

Altus Engineering notes that stormwater modeling is limited in its capacity to precisely predict peak rates of runoff and flood elevations. Results should not be considered to represent actual storm events due to the number of variables and assumptions involved in the modeling effort. Surface roughness coefficients (n), entrance loss coefficients (ke), velocity factors (kv) and times of concentration (Tc) are based on subjective field observations and engineering judgment using available data. For design purposes, curve numbers (Cn) describe the average conditions. However, curve numbers will vary from storm to storm depending on the antecedent runoff conditions (ARC) including saturation and frozen ground. Also, higher water elevations than predicted by modeling could occur if drainage channels, closed drain systems or culverts are not maintained and/or become blocked by debris before and/or during a storm event as this will impact flow capacity of the structures. Structures should be re-evaluated if future changes occur within relevant drainage areas in order to assess any required design modifications.

Drainage Analysis

A complete summary of the drainage model is included in the appendix of this report. The following table compares pre- and post-development peak rates at the Point of Analysis identified on the plans for the 2 and 25-year storm events:

Stormwater Modeling Summary Peak Q (cfs) for Type III 24-Hour Storm Events

	2-Yr Storm (3.21 inch)	25-Yr Storm (6.17 inch)
POA #1 (East property line)		
Pre	0.72	1.77
Post	0.19	0.57
Change	-0.53	-1.20
POA #2 (NE Property Line)		
Pre	0.18	0.56
Post	0.14	0.34
Change	-0.04	-0.22

As the above table demonstrates, the proposed peak rates of runoff will be decreased from the existing conditions for all analyzed storm events.

CONCLUSION

This proposed roadway and site development will have minimal adverse effect on abutting properties and infrastructure as a result of stormwater runoff or siltation. Post-construction peak rates of runoff from the site will be lower than the existing conditions for all analyzed storm events. The new stormwater management system will also provide appropriate treatment to runoff from 84% of the proposed impervious surfaces from the site where none previously existed. Appropriate steps will be taken to properly mitigate erosion and sedimentation using temporary and permanent Best Management Practices for sediment and erosion control, including a porous pavement, SMG and roofline drip strips.

Section 2

USGS Map and Aerial Photo



Vicinity Plan

Kittery, ME

1 inch = 400 Feet



July 13, 2023

www.cai-tech.com





Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.

Aerial Photograph

Write a description for your map.

Legend

 27 Wentworth St

 27 Wentworth St

Google Earth

700 ft



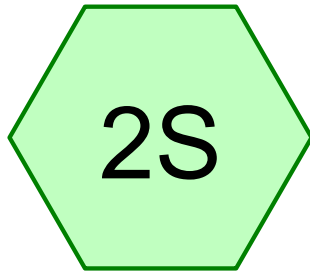
Section 3

Drainage Calculations

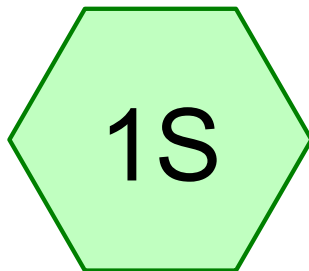
Pre-Development

2-Year, 24-Hour Summary

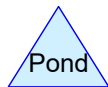
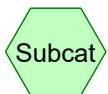
25-Year, 24-Hour Summary



(new Subcat)



(new Subcat)



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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.189	74	>75% Grass cover, Good, HSG C (1S, 2S)
0.098	96	Gravel surface, HSG C (1S, 2S)
0.020	98	Ledge, HSG C (1S, 2S)
0.025	98	Paved parking, HSG C (1S, 2S)
0.062	98	Roofs, HSG C (1S, 2S)
0.102	70	Woods, Good, HSG C (1S, 2S)
0.497	83	TOTAL AREA

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Type III 24-hr 2-yr Rainfall=3.21"

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Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: (new Subcat)

Runoff Area=15,418 sf 23.71% Impervious Runoff Depth=1.77"
Flow Length=105' Tc=6.0 min CN=85 Runoff=0.72 cfs 0.052 af

Subcatchment 2S: (new Subcat)

Runoff Area=6,222 sf 15.99% Impervious Runoff Depth=1.22"
Flow Length=200' Tc=7.9 min CN=77 Runoff=0.18 cfs 0.015 af

Total Runoff Area = 0.497 ac Runoff Volume = 0.067 af Average Runoff Depth = 1.61"
78.51% Pervious = 0.390 ac 21.49% Impervious = 0.107 ac

Summary for Subcatchment 1S: (new Subcat)

Runoff = 0.72 cfs @ 12.09 hrs, Volume= 0.052 af, Depth= 1.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.21"

Area (sf)	CN	Description
2,062	98	Roofs, HSG C
4,175	96	Gravel surface, HSG C
878	98	Paved parking, HSG C
* 715	98	Ledge, HSG C
4,868	74	>75% Grass cover, Good, HSG C
2,720	70	Woods, Good, HSG C
15,418	85	Weighted Average
11,763		76.29% Pervious Area
3,655		23.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	65	0.0400	0.21		Sheet Flow, Grass: Short n= 0.150 P2= 3.21"
0.2	40	0.0700	4.26		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
5.5	105	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 2S: (new Subcat)

Runoff = 0.18 cfs @ 12.12 hrs, Volume= 0.015 af, Depth= 1.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.21"

Area (sf)	CN	Description
620	98	Roofs, HSG C
107	96	Gravel surface, HSG C
220	98	Paved parking, HSG C
* 155	98	Ledge, HSG C
3,376	74	>75% Grass cover, Good, HSG C
1,744	70	Woods, Good, HSG C
6,222	77	Weighted Average
5,227		84.01% Pervious Area
995		15.99% Impervious Area

5431 Pre*Type III 24-hr 2-yr Rainfall=3.21"*

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Page 5

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	25	0.0200	0.06		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.21"
0.3	65	0.0600	3.67		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
0.5	110	0.0500	3.35		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
7.9	200	Total			

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Type III 24-hr 25-yr Rainfall=6.17"

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Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: (new Subcat)

Runoff Area=15,418 sf 23.71% Impervious Runoff Depth=4.46"
Flow Length=105' Tc=6.0 min CN=85 Runoff=1.77 cfs 0.132 af

Subcatchment 2S: (new Subcat)

Runoff Area=6,222 sf 15.99% Impervious Runoff Depth=3.63"
Flow Length=200' Tc=7.9 min CN=77 Runoff=0.56 cfs 0.043 af

Total Runoff Area = 0.497 ac Runoff Volume = 0.175 af Average Runoff Depth = 4.22"
78.51% Pervious = 0.390 ac 21.49% Impervious = 0.107 ac

Summary for Subcatchment 1S: (new Subcat)

Runoff = 1.77 cfs @ 12.09 hrs, Volume= 0.132 af, Depth= 4.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.17"

Area (sf)	CN	Description
2,062	98	Roofs, HSG C
4,175	96	Gravel surface, HSG C
878	98	Paved parking, HSG C
* 715	98	Ledge, HSG C
4,868	74	>75% Grass cover, Good, HSG C
2,720	70	Woods, Good, HSG C
15,418	85	Weighted Average
11,763		76.29% Pervious Area
3,655		23.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	65	0.0400	0.21		Sheet Flow, Grass: Short n= 0.150 P2= 3.21"
0.2	40	0.0700	4.26		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
5.5	105	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 2S: (new Subcat)

Runoff = 0.56 cfs @ 12.11 hrs, Volume= 0.043 af, Depth= 3.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.17"

Area (sf)	CN	Description
620	98	Roofs, HSG C
107	96	Gravel surface, HSG C
220	98	Paved parking, HSG C
* 155	98	Ledge, HSG C
3,376	74	>75% Grass cover, Good, HSG C
1,744	70	Woods, Good, HSG C
6,222	77	Weighted Average
5,227		84.01% Pervious Area
995		15.99% Impervious Area

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Type III 24-hr 25-yr Rainfall=6.17"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	25	0.0200	0.06		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.21"
0.3	65	0.0600	3.67		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
0.5	110	0.0500	3.35		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
7.9	200	Total			

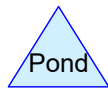
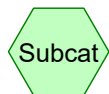
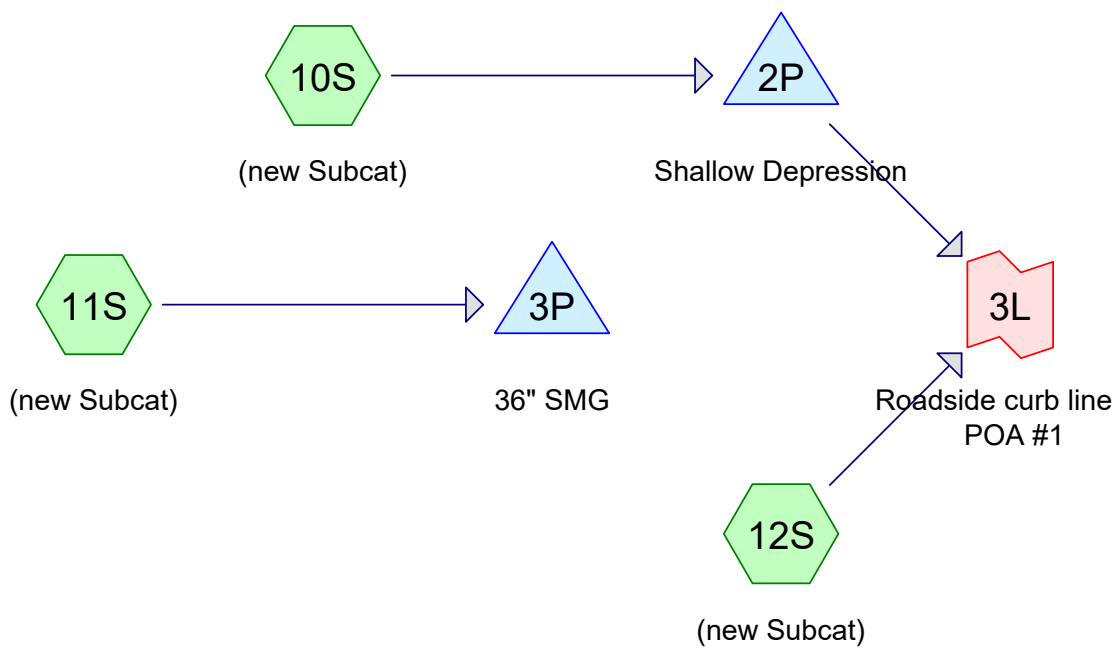
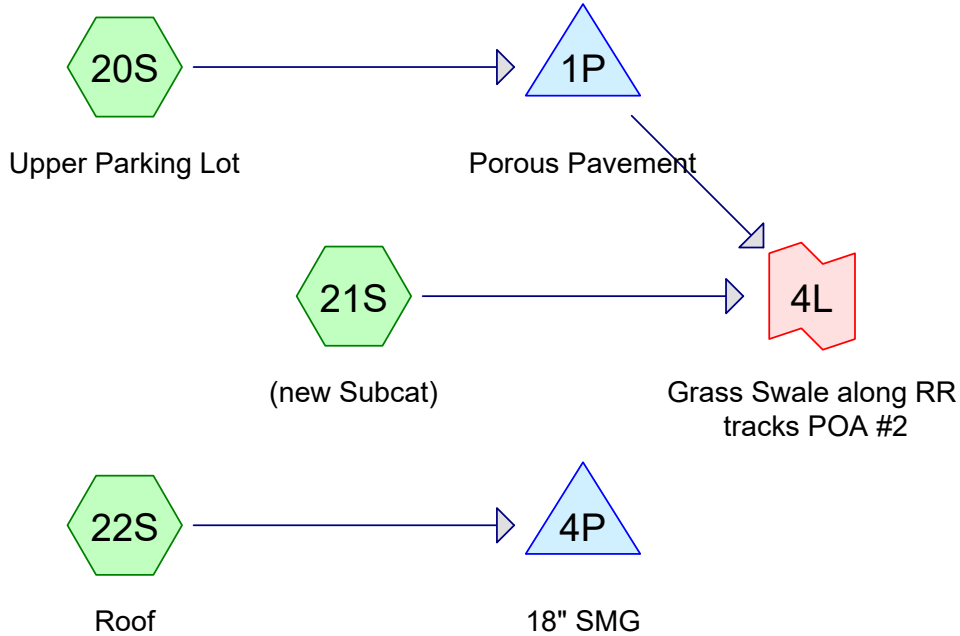
Section 4

Drainage Calculations

Post-Development

2-Year, 24-Hour Summary

25-Year, 24-Hour Summary



5431 Post3

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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.205	74	>75% Grass cover, Good, HSG C (10S, 11S, 12S, 20S, 21S)
0.206	98	Paved parking, HSG C (10S, 11S, 12S, 20S, 21S)
0.086	98	Roofs, HSG C (10S, 11S, 12S, 20S, 22S)
0.497	88	TOTAL AREA

5431 Post3

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.497	HSG C	10S, 11S, 12S, 20S, 21S, 22S
0.000	HSG D	
0.000	Other	
0.497		TOTAL AREA

5431 Post3

Type III 24-hr 2-yr Rainfall=3.21"

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Time span=0.00-100.00 hrs, dt=0.05 hrs, 2001 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 10S: (new Subcat)	Runoff Area=1,717 sf 39.08% Impervious Runoff Depth=1.62" Flow Length=75' Tc=6.0 min CN=83 Runoff=0.07 cfs 0.005 af
Subcatchment 11S: (new Subcat)	Runoff Area=4,423 sf 46.05% Impervious Runoff Depth=1.77" Flow Length=55' Slope=0.1400 '/ Tc=6.0 min CN=85 Runoff=0.21 cfs 0.015 af
Subcatchment 12S: (new Subcat)	Runoff Area=2,992 sf 77.61% Impervious Runoff Depth=2.46" Flow Length=65' Slope=0.0400 '/ Tc=6.0 min CN=93 Runoff=0.19 cfs 0.014 af
Subcatchment 20S: Upper Parking Lot	Runoff Area=8,910 sf 64.20% Impervious Runoff Depth=2.09" Tc=6.0 min CN=89 Runoff=0.49 cfs 0.036 af
Subcatchment 21S: (new Subcat)	Runoff Area=2,970 sf 44.31% Impervious Runoff Depth=1.77" Flow Length=60' Slope=0.1000 '/ Tc=6.0 min CN=85 Runoff=0.14 cfs 0.010 af
Subcatchment 22S: Roof	Runoff Area=628 sf 100.00% Impervious Runoff Depth=2.98" Flow Length=30' Slope=0.1400 '/ Tc=6.0 min CN=98 Runoff=0.04 cfs 0.004 af
Pond 1P: Porous Pavement	Peak Elev=36.14' Storage=254 cf Inflow=0.49 cfs 0.036 af Discarded=0.17 cfs 0.036 af Primary=0.00 cfs 0.000 af Outflow=0.17 cfs 0.036 af
Pond 2P: Shallow Depression	Peak Elev=36.91' Storage=68 cf Inflow=0.07 cfs 0.005 af Discarded=0.01 cfs 0.005 af Primary=0.04 cfs 0.001 af Outflow=0.05 cfs 0.005 af
Pond 3P: 36" SMG	Peak Elev=34.12' Storage=399 cf Inflow=0.21 cfs 0.015 af Outflow=0.01 cfs 0.015 af
Pond 4P: 18" SMG	Peak Elev=40.94' Storage=82 cf Inflow=0.04 cfs 0.004 af Outflow=0.00 cfs 0.004 af
Link 3L: Roadside curb line POA #1	Inflow=0.19 cfs 0.015 af Primary=0.19 cfs 0.015 af
Link 4L: Grass Swale along RR tracks POA #2	Inflow=0.14 cfs 0.010 af Primary=0.14 cfs 0.010 af

Total Runoff Area = 0.497 ac Runoff Volume = 0.084 af Average Runoff Depth = 2.02"
41.34% Pervious = 0.205 ac 58.66% Impervious = 0.291 ac

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Type III 24-hr 2-yr Rainfall=3.21"

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Summary for Subcatchment 10S: (new Subcat)

Runoff = 0.07 cfs @ 12.09 hrs, Volume= 0.005 af, Depth= 1.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.21"

Area (sf)	CN	Description
507	98	Roofs, HSG C
164	98	Paved parking, HSG C
1,046	74	>75% Grass cover, Good, HSG C
1,717	83	Weighted Average
1,046		60.92% Pervious Area
671		39.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.6	50	0.1400	0.32		Sheet Flow, Grass: Short n= 0.150 P2= 3.21"
0.1	25	0.3000	8.22		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
2.7	75	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 11S: (new Subcat)

Runoff = 0.21 cfs @ 12.09 hrs, Volume= 0.015 af, Depth= 1.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.21"

Area (sf)	CN	Description
1,699	98	Roofs, HSG C
338	98	Paved parking, HSG C
2,004	74	>75% Grass cover, Good, HSG C
382	74	>75% Grass cover, Good, HSG C
4,423	85	Weighted Average
2,386		53.95% Pervious Area
2,037		46.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	55	0.1400	0.33		Sheet Flow, Grass: Short n= 0.150 P2= 3.21"
2.8	55	Total, Increased to minimum Tc = 6.0 min			

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Type III 24-hr 2-yr Rainfall=3.21"

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Summary for Subcatchment 12S: (new Subcat)

Runoff = 0.19 cfs @ 12.09 hrs, Volume= 0.014 af, Depth= 2.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.21"

Area (sf)	CN	Description
183	98	Roofs, HSG C
2,139	98	Paved parking, HSG C
670	74	>75% Grass cover, Good, HSG C
2,992	93	Weighted Average
670		22.39% Pervious Area
2,322		77.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	65	0.0400	1.67		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.21"
0.6	65	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 20S: Upper Parking Lot

Runoff = 0.49 cfs @ 12.09 hrs, Volume= 0.036 af, Depth= 2.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.21"

Area (sf)	CN	Description
714	98	Roofs, HSG C
5,006	98	Paved parking, HSG C
3,190	74	>75% Grass cover, Good, HSG C
0	70	Woods, Good, HSG C
8,910	89	Weighted Average
3,190		35.80% Pervious Area
5,720		64.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Porous Pavement

Summary for Subcatchment 21S: (new Subcat)

Runoff = 0.14 cfs @ 12.09 hrs, Volume= 0.010 af, Depth= 1.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.21"

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Type III 24-hr 2-yr Rainfall=3.21"

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Area (sf)	CN	Description
0	98	Roofs, HSG C
1,316	98	Paved parking, HSG C
1,654	74	>75% Grass cover, Good, HSG C
0	70	Woods, Good, HSG C
2,970	85	Weighted Average
1,654		55.69% Pervious Area
1,316		44.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	60	0.1000	2.37		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.21"
0.4	60	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 22S: Roof

Runoff = 0.04 cfs @ 12.09 hrs, Volume= 0.004 af, Depth= 2.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-yr Rainfall=3.21"

Area (sf)	CN	Description			
628	98	Roofs, HSG C			
628		100.00% Impervious Area			
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	30	0.1400	2.36		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.21"
0.2	30	Total, Increased to minimum Tc = 6.0 min			

Summary for Pond 1P: Porous Pavement

Inflow Area = 0.205 ac, 64.20% Impervious, Inflow Depth = 2.09" for 2-yr event
 Inflow = 0.49 cfs @ 12.09 hrs, Volume= 0.036 af
 Outflow = 0.17 cfs @ 11.95 hrs, Volume= 0.036 af, Atten= 66%, Lag= 0.0 min
 Discarded = 0.17 cfs @ 11.95 hrs, Volume= 0.036 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
 Peak Elev= 36.14' @ 12.39 hrs Surf.Area= 1,782 sf Storage= 254 cf

Plug-Flow detention time= 8.7 min calculated for 0.036 af (100% of inflow)
 Center-of-Mass det. time= 8.7 min (819.6 - 811.0)

Volume	Invert	Avail.Storage	Storage Description
#1	35.78'	1,867 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

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Type III 24-hr 2-yr Rainfall=3.21"

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Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
35.78	1,782	0.0	0	0
37.28	1,782	40.0	1,069	1,069
39.03	1,782	5.0	156	1,225
39.39	1,782	100.0	642	1,867

Device	Routing	Invert	Outlet Devices
#1	Discarded	35.78'	4.000 in/hr Exfiltration over Surface area above 35.50' Excluded Surface area = 0 sf Phase-In= 0.01'
#2	Primary	38.72'	2.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Discarded OutFlow Max=0.17 cfs @ 11.95 hrs HW=35.82' (Free Discharge)

↑1=**Exfiltration** (Exfiltration Controls 0.17 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=35.78' (Free Discharge)

↑2=**Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 2P: Shallow Depression

Inflow Area = 0.039 ac, 39.08% Impervious, Inflow Depth = 1.62" for 2-yr event
 Inflow = 0.07 cfs @ 12.09 hrs, Volume= 0.005 af
 Outflow = 0.05 cfs @ 12.22 hrs, Volume= 0.005 af, Atten= 29%, Lag= 7.3 min
 Discarded = 0.01 cfs @ 12.22 hrs, Volume= 0.005 af
 Primary = 0.04 cfs @ 12.22 hrs, Volume= 0.001 af

Routing by Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
 Peak Elev= 36.91' @ 12.20 hrs Surf.Area= 220 sf Storage= 68 cf

Plug-Flow detention time= 93.0 min calculated for 0.005 af (100% of inflow)
 Center-of-Mass det. time= 93.3 min (926.1 - 832.8)

Volume	Invert	Avail.Storage	Storage Description
#1	36.50'	88 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
36.50	115	0	0	115
37.00	246	88	88	248

Device	Routing	Invert	Outlet Devices
#1	Discarded	36.50'	4.000 in/hr Exfiltration over Wetted area above 36.50' Excluded Wetted area = 115 sf Phase-In= 0.01'
#2	Primary	36.90'	10.0' long x 2.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

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Type III 24-hr 2-yr Rainfall=3.21"

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Discarded OutFlow Max=0.01 cfs @ 12.22 hrs HW=36.91' (Free Discharge)

↑1=Exfiltration (Exfiltration Controls 0.01 cfs)

Primary OutFlow Max=0.04 cfs @ 12.22 hrs HW=36.91' (Free Discharge)

↑2=Broad-Crested Rectangular Weir (Weir Controls 0.04 cfs @ 0.29 fps)

Summary for Pond 3P: 36" SMG

Inflow Area = 0.102 ac, 46.05% Impervious, Inflow Depth = 1.77" for 2-yr event
 Inflow = 0.21 cfs @ 12.09 hrs, Volume= 0.015 af
 Outflow = 0.01 cfs @ 15.27 hrs, Volume= 0.015 af, Atten= 95%, Lag= 190.4 min
 Discarded = 0.01 cfs @ 15.27 hrs, Volume= 0.015 af

Routing by Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs

Peak Elev= 34.12' @ 15.27 hrs Surf.Area= 676 sf Storage= 399 cf

Plug-Flow detention time= 618.2 min calculated for 0.015 af (100% of inflow)

Center-of-Mass det. time= 618.0 min (1,444.0 - 826.0)

Volume	Invert	Avail.Storage	Storage Description
#1	33.00'	657 cf	Custom Stage Data (Conic) Listed below (Recalc) 2,704 cf Overall - 1,060 cf Embedded = 1,644 cf x 40.0% Voids
#2	33.50'	1,060 cf	36.0" Round Pipe Storage x 3 Inside #1 L= 50.0'
		1,718 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
33.00	676	0	0	676
37.00	676	2,704	2,704	1,045

Device	Routing	Invert	Outlet Devices
#1	Discarded	33.00'	4.000 in/hr Exfiltration over Wetted area above 33.00' Excluded Wetted area = 676 sf Phase-In= 0.01'

Discarded OutFlow Max=0.01 cfs @ 15.27 hrs HW=34.12' (Free Discharge)

↑1=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Pond 4P: 18" SMG

Inflow Area = 0.014 ac, 100.00% Impervious, Inflow Depth = 2.98" for 2-yr event
 Inflow = 0.04 cfs @ 12.09 hrs, Volume= 0.004 af
 Outflow = 0.00 cfs @ 12.92 hrs, Volume= 0.004 af, Atten= 91%, Lag= 50.2 min
 Discarded = 0.00 cfs @ 12.92 hrs, Volume= 0.004 af

Routing by Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs

Peak Elev= 40.94' @ 12.92 hrs Surf.Area= 176 sf Storage= 82 cf

Plug-Flow detention time= 295.2 min calculated for 0.004 af (100% of inflow)

Center-of-Mass det. time= 294.5 min (1,050.9 - 756.3)

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Type III 24-hr 2-yr Rainfall=3.21"

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Volume	Invert	Avail.Storage	Storage Description
#1	40.00'	134 cf	Custom Stage Data (Conic) Listed below (Recalc) 440 cf Overall - 106 cf Embedded = 334 cf x 40.0% Voids
#2	40.50'	106 cf	18.0" Round Pipe Storage x 3 Inside #1 L= 20.0'
#3	42.50'	2 cf	1.50'D x 1.25'H Vertical Cone/Cylinder -Impervious
#4	43.75'	27 cf	Custom Stage Data (Conic) Listed below (Recalc)
		269 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
40.00	176	0	0	176
42.50	176	440	440	294

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
43.75	200	0	0	200
43.80	1,000	27	27	1,000

Device	Routing	Invert	Outlet Devices
#1	Discarded	40.00'	4.000 in/hr Exfiltration over Wetted area above 40.00' Excluded Wetted area = 176 sf Phase-In= 0.01'

Discarded OutFlow Max=0.00 cfs @ 12.92 hrs HW=40.94' (Free Discharge)
 ↳1=Exfiltration (Exfiltration Controls 0.00 cfs)

Summary for Link 3L: Roadside curb line POA #1

Inflow Area = 0.108 ac, 63.56% Impervious, Inflow Depth = 1.64" for 2-yr event
 Inflow = 0.19 cfs @ 12.09 hrs, Volume= 0.015 af
 Primary = 0.19 cfs @ 12.09 hrs, Volume= 0.015 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs

Summary for Link 4L: Grass Swale along RR tracks POA #2

Inflow Area = 0.273 ac, 59.23% Impervious, Inflow Depth = 0.44" for 2-yr event
 Inflow = 0.14 cfs @ 12.09 hrs, Volume= 0.010 af
 Primary = 0.14 cfs @ 12.09 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs

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Type III 24-hr 25-yr Rainfall=6.17"

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Time span=0.00-100.00 hrs, dt=0.05 hrs, 2001 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 10S: (new Subcat)	Runoff Area=1,717 sf 39.08% Impervious Runoff Depth=4.25" Flow Length=75' Tc=6.0 min CN=83 Runoff=0.19 cfs 0.014 af
Subcatchment 11S: (new Subcat)	Runoff Area=4,423 sf 46.05% Impervious Runoff Depth=4.46" Flow Length=55' Slope=0.1400 '/' Tc=6.0 min CN=85 Runoff=0.51 cfs 0.038 af
Subcatchment 12S: (new Subcat)	Runoff Area=2,992 sf 77.61% Impervious Runoff Depth=5.35" Flow Length=65' Slope=0.0400 '/' Tc=6.0 min CN=93 Runoff=0.39 cfs 0.031 af
Subcatchment 20S: Upper Parking Lot	Runoff Area=8,910 sf 64.20% Impervious Runoff Depth=4.90" Tc=6.0 min CN=89 Runoff=1.10 cfs 0.084 af
Subcatchment 21S: (new Subcat)	Runoff Area=2,970 sf 44.31% Impervious Runoff Depth=4.46" Flow Length=60' Slope=0.1000 '/' Tc=6.0 min CN=85 Runoff=0.34 cfs 0.025 af
Subcatchment 22S: Roof	Runoff Area=628 sf 100.00% Impervious Runoff Depth=5.93" Flow Length=30' Slope=0.1400 '/' Tc=6.0 min CN=98 Runoff=0.09 cfs 0.007 af
Pond 1P: Porous Pavement	Peak Elev=37.51' Storage=1,090 cf Inflow=1.10 cfs 0.084 af Discarded=0.17 cfs 0.084 af Primary=0.00 cfs 0.000 af Outflow=0.17 cfs 0.084 af
Pond 2P: Shallow Depression	Peak Elev=36.94' Storage=73 cf Inflow=0.19 cfs 0.014 af Discarded=0.01 cfs 0.008 af Primary=0.18 cfs 0.006 af Outflow=0.19 cfs 0.014 af
Pond 3P: 36" SMG	Peak Elev=35.41' Storage=1,077 cf Inflow=0.51 cfs 0.038 af Outflow=0.02 cfs 0.038 af
Pond 4P: 18" SMG	Peak Elev=41.63' Storage=166 cf Inflow=0.09 cfs 0.007 af Outflow=0.01 cfs 0.007 af
Link 3L: Roadside curb line POA #1	Inflow=0.57 cfs 0.037 af Primary=0.57 cfs 0.037 af
Link 4L: Grass Swale along RR tracks POA #2	Inflow=0.34 cfs 0.025 af Primary=0.34 cfs 0.025 af

Total Runoff Area = 0.497 ac Runoff Volume = 0.198 af Average Runoff Depth = 4.79"
41.34% Pervious = 0.205 ac 58.66% Impervious = 0.291 ac

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Type III 24-hr 25-yr Rainfall=6.17"

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Summary for Subcatchment 10S: (new Subcat)

Runoff = 0.19 cfs @ 12.09 hrs, Volume= 0.014 af, Depth= 4.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.17"

Area (sf)	CN	Description
507	98	Roofs, HSG C
164	98	Paved parking, HSG C
1,046	74	>75% Grass cover, Good, HSG C
1,717	83	Weighted Average
1,046		60.92% Pervious Area
671		39.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.6	50	0.1400	0.32		Sheet Flow, Grass: Short n= 0.150 P2= 3.21"
0.1	25	0.3000	8.22		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
2.7	75	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 11S: (new Subcat)

Runoff = 0.51 cfs @ 12.09 hrs, Volume= 0.038 af, Depth= 4.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.17"

Area (sf)	CN	Description
1,699	98	Roofs, HSG C
338	98	Paved parking, HSG C
2,004	74	>75% Grass cover, Good, HSG C
382	74	>75% Grass cover, Good, HSG C
4,423	85	Weighted Average
2,386		53.95% Pervious Area
2,037		46.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	55	0.1400	0.33		Sheet Flow, Grass: Short n= 0.150 P2= 3.21"
2.8	55	Total, Increased to minimum Tc = 6.0 min			

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Type III 24-hr 25-yr Rainfall=6.17"

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Summary for Subcatchment 12S: (new Subcat)

Runoff = 0.39 cfs @ 12.09 hrs, Volume= 0.031 af, Depth= 5.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.17"

Area (sf)	CN	Description
183	98	Roofs, HSG C
2,139	98	Paved parking, HSG C
670	74	>75% Grass cover, Good, HSG C
2,992	93	Weighted Average
670		22.39% Pervious Area
2,322		77.61% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	65	0.0400	1.67		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.21"
0.6	65	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 20S: Upper Parking Lot

Runoff = 1.10 cfs @ 12.09 hrs, Volume= 0.084 af, Depth= 4.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.17"

Area (sf)	CN	Description
714	98	Roofs, HSG C
5,006	98	Paved parking, HSG C
3,190	74	>75% Grass cover, Good, HSG C
0	70	Woods, Good, HSG C
8,910	89	Weighted Average
3,190		35.80% Pervious Area
5,720		64.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Porous Pavement

Summary for Subcatchment 21S: (new Subcat)

Runoff = 0.34 cfs @ 12.09 hrs, Volume= 0.025 af, Depth= 4.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.17"

5431 Post3

Type III 24-hr 25-yr Rainfall=6.17"

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Area (sf)	CN	Description
0	98	Roofs, HSG C
1,316	98	Paved parking, HSG C
1,654	74	>75% Grass cover, Good, HSG C
0	70	Woods, Good, HSG C
2,970	85	Weighted Average
1,654		55.69% Pervious Area
1,316		44.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.4	60	0.1000	2.37		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.21"
0.4	60	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 22S: Roof

Runoff = 0.09 cfs @ 12.09 hrs, Volume= 0.007 af, Depth= 5.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-yr Rainfall=6.17"

Area (sf)	CN	Description
628	98	Roofs, HSG C
628		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	30	0.1400	2.36		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.21"
0.2	30	Total, Increased to minimum Tc = 6.0 min			

Summary for Pond 1P: Porous Pavement

Inflow Area = 0.205 ac, 64.20% Impervious, Inflow Depth = 4.90" for 25-yr event
 Inflow = 1.10 cfs @ 12.09 hrs, Volume= 0.084 af
 Outflow = 0.17 cfs @ 11.70 hrs, Volume= 0.084 af, Atten= 85%, Lag= 0.0 min
 Discarded = 0.17 cfs @ 11.70 hrs, Volume= 0.084 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
 Peak Elev= 37.51' @ 12.59 hrs Surf.Area= 1,782 sf Storage= 1,090 cf

Plug-Flow detention time= 41.9 min calculated for 0.084 af (100% of inflow)
 Center-of-Mass det. time= 41.9 min (829.1 - 787.3)

Volume	Invert	Avail.Storage	Storage Description
#1	35.78'	1,867 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

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Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
35.78	1,782	0.0	0	0
37.28	1,782	40.0	1,069	1,069
39.03	1,782	5.0	156	1,225
39.39	1,782	100.0	642	1,867

Device	Routing	Invert	Outlet Devices
#1	Discarded	35.78'	4.000 in/hr Exfiltration over Surface area above 35.50' Excluded Surface area = 0 sf Phase-In= 0.01'
#2	Primary	38.72'	2.0' long x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Discarded OutFlow Max=0.17 cfs @ 11.70 hrs HW=35.82' (Free Discharge)

↑1=**Exfiltration** (Exfiltration Controls 0.17 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=35.78' (Free Discharge)

↑2=**Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 2P: Shallow Depression

Inflow Area = 0.039 ac, 39.08% Impervious, Inflow Depth = 4.25" for 25-yr event
 Inflow = 0.19 cfs @ 12.09 hrs, Volume= 0.014 af
 Outflow = 0.19 cfs @ 12.10 hrs, Volume= 0.014 af, Atten= 0%, Lag= 0.6 min
 Discarded = 0.01 cfs @ 12.10 hrs, Volume= 0.008 af
 Primary = 0.18 cfs @ 12.10 hrs, Volume= 0.006 af

Routing by Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs

Peak Elev= 36.94' @ 12.10 hrs Surf.Area= 227 sf Storage= 73 cf

Plug-Flow detention time= 61.1 min calculated for 0.014 af (100% of inflow)

Center-of-Mass det. time= 61.4 min (866.6 - 805.2)

Volume	Invert	Avail.Storage	Storage Description
#1	36.50'	88 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
36.50	115	0	0	115
37.00	246	88	88	248

Device	Routing	Invert	Outlet Devices
#1	Discarded	36.50'	4.000 in/hr Exfiltration over Wetted area above 36.50' Excluded Wetted area = 115 sf Phase-In= 0.01'
#2	Primary	36.90'	10.0' long x 2.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 Coef. (English) 2.54 2.61 2.61 2.60 2.66 2.70 2.77 2.89 2.88 2.85 3.07 3.20 3.32

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Discarded OutFlow Max=0.01 cfs @ 12.10 hrs HW=36.94' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.01 cfs)**Primary OutFlow** Max=0.18 cfs @ 12.10 hrs HW=36.94' (Free Discharge)↑**2=Broad-Crested Rectangular Weir** (Weir Controls 0.18 cfs @ 0.49 fps)**Summary for Pond 3P: 36" SMG**

Inflow Area = 0.102 ac, 46.05% Impervious, Inflow Depth = 4.46" for 25-yr event
 Inflow = 0.51 cfs @ 12.09 hrs, Volume= 0.038 af
 Outflow = 0.02 cfs @ 15.32 hrs, Volume= 0.038 af, Atten= 96%, Lag= 193.8 min
 Discarded = 0.02 cfs @ 15.32 hrs, Volume= 0.038 af

Routing by Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
 Peak Elev= 35.41' @ 15.32 hrs Surf.Area= 676 sf Storage= 1,077 cf

Plug-Flow detention time= 759.6 min calculated for 0.038 af (100% of inflow)
 Center-of-Mass det. time= 761.2 min (1,560.8 - 799.6)

Volume	Invert	Avail.Storage	Storage Description
#1	33.00'	657 cf	Custom Stage Data (Conic) Listed below (Recalc) 2,704 cf Overall - 1,060 cf Embedded = 1,644 cf x 40.0% Voids
#2	33.50'	1,060 cf	36.0" Round Pipe Storage x 3 Inside #1 L= 50.0'
		1,718 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
33.00	676	0	0	676
37.00	676	2,704	2,704	1,045

Device	Routing	Invert	Outlet Devices
#1	Discarded	33.00'	4.000 in/hr Exfiltration over Wetted area above 33.00' Excluded Wetted area = 676 sf Phase-In= 0.01'

Discarded OutFlow Max=0.02 cfs @ 15.32 hrs HW=35.41' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.02 cfs)**Summary for Pond 4P: 18" SMG**

Inflow Area = 0.014 ac, 100.00% Impervious, Inflow Depth = 5.93" for 25-yr event
 Inflow = 0.09 cfs @ 12.09 hrs, Volume= 0.007 af
 Outflow = 0.01 cfs @ 13.03 hrs, Volume= 0.007 af, Atten= 92%, Lag= 56.3 min
 Discarded = 0.01 cfs @ 13.03 hrs, Volume= 0.007 af

Routing by Stor-Ind method, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs
 Peak Elev= 41.63' @ 13.03 hrs Surf.Area= 176 sf Storage= 166 cf

Plug-Flow detention time= 336.1 min calculated for 0.007 af (100% of inflow)
 Center-of-Mass det. time= 336.9 min (1,081.6 - 744.7)

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Volume	Invert	Avail.Storage	Storage Description
#1	40.00'	134 cf	Custom Stage Data (Conic) Listed below (Recalc) 440 cf Overall - 106 cf Embedded = 334 cf x 40.0% Voids
#2	40.50'	106 cf	18.0" Round Pipe Storage x 3 Inside #1 L= 20.0'
#3	42.50'	2 cf	1.50'D x 1.25'H Vertical Cone/Cylinder -Impervious
#4	43.75'	27 cf	Custom Stage Data (Conic) Listed below (Recalc)
		269 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
40.00	176	0	0	176
42.50	176	440	440	294

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
43.75	200	0	0	200
43.80	1,000	27	27	1,000

Device	Routing	Invert	Outlet Devices
#1	Discarded	40.00'	4.000 in/hr Exfiltration over Wetted area above 40.00' Excluded Wetted area = 176 sf Phase-In= 0.01'

Discarded OutFlow Max=0.01 cfs @ 13.03 hrs HW=41.63' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.01 cfs)

Summary for Link 3L: Roadside curb line POA #1

Inflow Area = 0.108 ac, 63.56% Impervious, Inflow Depth = 4.08" for 25-yr event
 Inflow = 0.57 cfs @ 12.09 hrs, Volume= 0.037 af
 Primary = 0.57 cfs @ 12.09 hrs, Volume= 0.037 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs

Summary for Link 4L: Grass Swale along RR tracks POA #2

Inflow Area = 0.273 ac, 59.23% Impervious, Inflow Depth = 1.12" for 25-yr event
 Inflow = 0.34 cfs @ 12.09 hrs, Volume= 0.025 af
 Primary = 0.34 cfs @ 12.09 hrs, Volume= 0.025 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-100.00 hrs, dt= 0.05 hrs

Section 5

Precipitation Table

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Metadata for Point

Smoothing	Yes
State	NH
Location	Portsmouth
Latitude	43.075 degrees North
Longitude	70.759 degrees West
Elevation	0 feet
Date/Time Time)	Mon Sep 25 2023 13:11:25 GMT-0400 (Eastern Daylight

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min	1hr	2hr	3hr	6hr	12hr	24hr	48hr	1day	2day	4day	7day	10day			
1yr	0.26	0.40	0.50	0.65	0.81	1.04	1yr	0.70	0.98	1.21	1.56	2.03	2.66	2.92	1yr	2.35	2.81	3.22	3.94	4.55	1yr
2yr	0.32	0.50	0.62	0.81	1.02	1.30	2yr	0.88	1.18	1.52	1.94	2.49	3.21	3.57	2yr	2.84	3.43	3.94	4.68	5.33	2yr
5yr	0.37	0.58	0.73	0.98	1.25	1.61	5yr	1.08	1.47	1.89	2.43	3.14	4.07	4.58	5yr	3.60	4.40	5.04	5.94	6.70	5yr
10yr	0.41	0.65	0.82	1.12	1.45	1.89	10yr	1.25	1.73	2.23	2.89	3.75	4.87	5.53	10yr	4.31	5.32	6.09	7.11	7.98	10yr
25yr	0.48	0.76	0.97	1.34	1.77	2.34	25yr	1.53	2.14	2.78	3.63	4.74	6.17	7.10	25yr	5.46	6.83	7.80	9.03	10.05	25yr
50yr	0.54	0.86	1.10	1.54	2.07	2.76	50yr	1.79	2.53	3.29	4.32	5.66	7.39	8.58	50yr	6.54	8.25	9.42	10.81	11.98	50yr
100yr	0.60	0.97	1.25	1.77	2.42	3.26	100yr	2.09	2.98	3.90	5.16	6.77	8.85	10.38	100yr	7.83	9.98	11.38	12.96	14.27	100yr
200yr	0.67	1.10	1.43	2.05	2.82	3.83	200yr	2.44	3.52	4.62	6.13	8.08	10.61	12.55	200yr	9.39	12.07	13.76	15.55	17.02	200yr
500yr	0.80	1.31	1.71	2.48	3.48	4.76	500yr	3.00	4.38	5.76	7.70	10.22	13.48	16.14	500yr	11.93	15.52	17.67	19.78	21.49	500yr

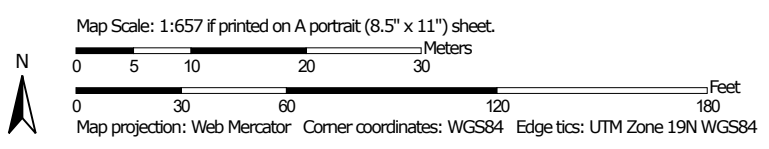
Section 6

NRCS Soil Survey

Soil Map—York County, Maine
(5431 Wentworth Street)



Soil Map may not be valid at this scale.



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: York County, Maine

Survey Area Data: Version 21, Aug 30, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 19, 2020—Sep 20, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ur	Urban land	1.1	100.0%
Totals for Area of Interest		1.1	100.0%

Section 7

Stormwater Operations & Maintenance Plan

STORMWATER INSPECTION AND MAINTENANCE MANUAL

**The Foreside Inn
27 & 29 Wentworth Street
Kittery Assessor's Map 9 Lots 37 & 38**

**OWNER AT TIME OF APPROVAL:
Madbury Real Estate Ventures
401 Edgewater Place, Suite 570
Wakefield, MA 01880**

Proper inspection, maintenance, and repair are key elements in maintaining a successful stormwater management program on a developed property. Routine inspections ensure permit compliance and reduce the potential for deterioration of infrastructure or reduced water quality. Inspections should also be carried out after any rainfall of 1" or more. Qualified inspectors shall be Professional Engineers licensed in the State of Maine or Certified Professionals in Erosion and Sediment Control. The following responsible parties shall be in charge of managing the stormwater facilities:

RESPONSIBLE PARTIES:

Owner: Madbury Real Estate Ventures (617) 290-1269
Name Company Phone

Inspection: Madbury Real Estate Ventures (617) 290-1269
Name Company Phone

Maintenance: Madbury Real Estate Ventures (617) 290-1269
Name Company Phone

NOTES:

Inspection and maintenance responsibilities shall transfer to any future property owner(s).

This manual shall be updated as needed to reflect any changes related to any transfer of ownership and/or any delegation of inspection and maintenance responsibilities to any entity other than those listed above.



POROUS PAVEMENT

Function – Porous pavement is designed to capture rainwater runoff containing suspended solids, nutrients and pollutants. Proper maintenance of porous pavement is crucial for ensuring its longevity and functionality to infiltrate runoff.

Maintenance

- Signs shall be installed indicating the location of porous pavement and the special maintenance required.
- New porous pavement shall be inspected several times in the first month after construction and at least annually thereafter. Inspections shall be conducted after major storms to check for surface ponding that might indicate possible clogging.
- Inspect annually for pavement deterioration or spalling.
- Vacuum sweeping shall be performed 2-4 times a year (spring /fall or quarterly). Power washing may be required prior to vacuum sweeping to dislodge trapped particles.
- Sand and abrasives shall not be used for winter maintenance, as they will clog the pores; de-icing materials shall be used instead.
- Never reseal or repave with impermeable materials. If the porous pavement is damaged, it can be repaired using conventional, non-porous patching mixes as long as the cumulative area repaired does not exceed 10 percent of the paved area.

BIORETENTION FILTER (RAINGARDEN)

Function – A filter basin captures and retains roof runoff and passes it through a soil filter media that contains a mixture of silty sand and organic matter to remove a wide range of pollutants, including suspended solids, phosphorus, nitrogen, metals, hydrocarbons, and some dissolved pollutants.

Maintenance

- The bioretention basin shall be inspected semi-annually and following major storm. The property owner shall be responsible for inspecting and maintaining any bio-filter basin. The legal agreement establishing the entity shall list specific maintenance responsibilities (including timetables) and provide for the funding to cover long-term inspection and maintenance.
- The structure is part of the stormwater management plan and shall not be paved over or altered in anyway. No gutters shall be installed on the roof line.
- Any debris or vegetation shall be removed from the reservoir course.
- The 12" filter layer shall be replaced if roof runoff does not drain within 48 hours following a one-inch storm or greater.

STREET/PARKING LOT SWEEPING (DENSE PAVEMENT)

Function – Parking lots accumulate sand and debris. Street sweeping removes the sand and debris, which lowers transport of sediment and pollutants the stormwater systems and into the environment.

Maintenance

- A regular periodic cleaning schedule is recommended. The more frequent, the greater the sediment and pollutant removal. Regular cleaning of paved areas reduces the frequency of cleaning catch basins and drainage systems. It is recommended that the

parking lots and access ways shall be swept at least once a month during winter months.

LANDSCAPED AREAS - FERTILIZER MANAGEMENT

Function – Fertilizer management involves controlling the rate, timing and method of fertilizer application so that the nutrients are taken up by the plants thereby reducing the chance of polluting the surface and ground waters. Fertilizer management can be effective in reducing the amounts of phosphorus and nitrogen in runoff from landscaped areas, particularly lawns.

Maintenance

- Have the soil tested by your landscaper or local Soil Conservation Service for nutrient requirements and follow the recommendations.
- Do not apply fertilizer to frozen ground.
- Clean up any fertilizer spills.
- Do not allow fertilizer to be broadcast into water bodies.
- When fertilizing a lawn, water thoroughly, but do not create a situation where water runs off the surface of the lawn.

LANDSCAPED AREAS - LITTER CONTROL

Function – Landscaped areas tend to filter debris and contaminants that may block drainage systems and pollute the surface and ground waters.

Maintenance

- Litter Control and lawn maintenance involves removing litter such as trash, leaves, lawn clippings, pet wastes, oil and chemicals from streets, parking lots, and lawns before materials are transported into surface waters.
- Litter control shall be implemented as part of the ground's maintenance program.

DRIP STRIPS

Function – Drip strips are to provide erosion control of surface where impervious surfaces meet non-impervious surfaces, such as building or roadway edges. They also can provide for the infiltration and treatment of runoff and are particularly effective for roof-generated stormwater.

Maintenance

Drip strips should be inspected annually for erosion, rutting, and migration of stone. Any areas experiencing erosion shall be properly maintained by replacing or adding additional stone to the area of concern.

STORMWATER MANAGEMENT GALLERIES

Function – Stormwater management galleries (SMG), as referred to for this project, are subsurface stormwater storage chambers with open graded stone. The SMGs provide several important stormwater functions including pre-treatment in “isolator rows” and detains stormwater to

attenuate peak rates of runoff as well as provide water quality treatment by binding runoff pollutants to soil particles beneath the basin as water percolates into the subsurface.

Maintenance

Maintaining a clean and obstruction-free retention/detention system helps to ensure the system performs the intended function of the primary design. Buildup of debris may obstruct flow through the laterals in a retention system or block the entranceway of the outlet pipe in a detention system. This may result in ineffective operation or complete failure of the system. Additionally, surrounding areas may potentially run the risk of damage due to flooding or other similar issues. All retention/detention systems must be cleaned and maintained. Underground systems may be maintained more cost effectively if these simple guidelines are followed. Inspection should be performed at a minimum of once per year. Cleaning should be done at the discretion of individuals responsible for maintaining proper storage and flow. While maintenance can generally be performed year-round, it should be scheduled during a relatively dry season.

GENERAL CLEAN UP

- Upon completion of the project, the contractor shall remove all temporary stormwater structures (i.e., temporary stone check dams, silt fence, temporary diversion swales, catch basin inlet filter, etc.). Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform to the existing grade, prepared, and seeded. Remove any sediment in catch basins and clean drainpipes that may have accumulated during construction.
- Once in operation, all paved areas of the site should be swept at least once annually at the end of winter/early spring prior to significant spring rains.

MUNICIPAL REPORTING

The Owner shall retain a qualified post-construction stormwater inspector to inspect the site's stormwater infrastructure. By July 1 of each year, said inspector shall provide a completed and signed certification to the Town's Code Enforcement Officer that the inspection has been completed. The notification shall include a determination of the ongoing maintenance and functionality of the infrastructure, describe any deficiencies, and outline any necessary corrective action taken or recommended to the Owner.

APPENDIX

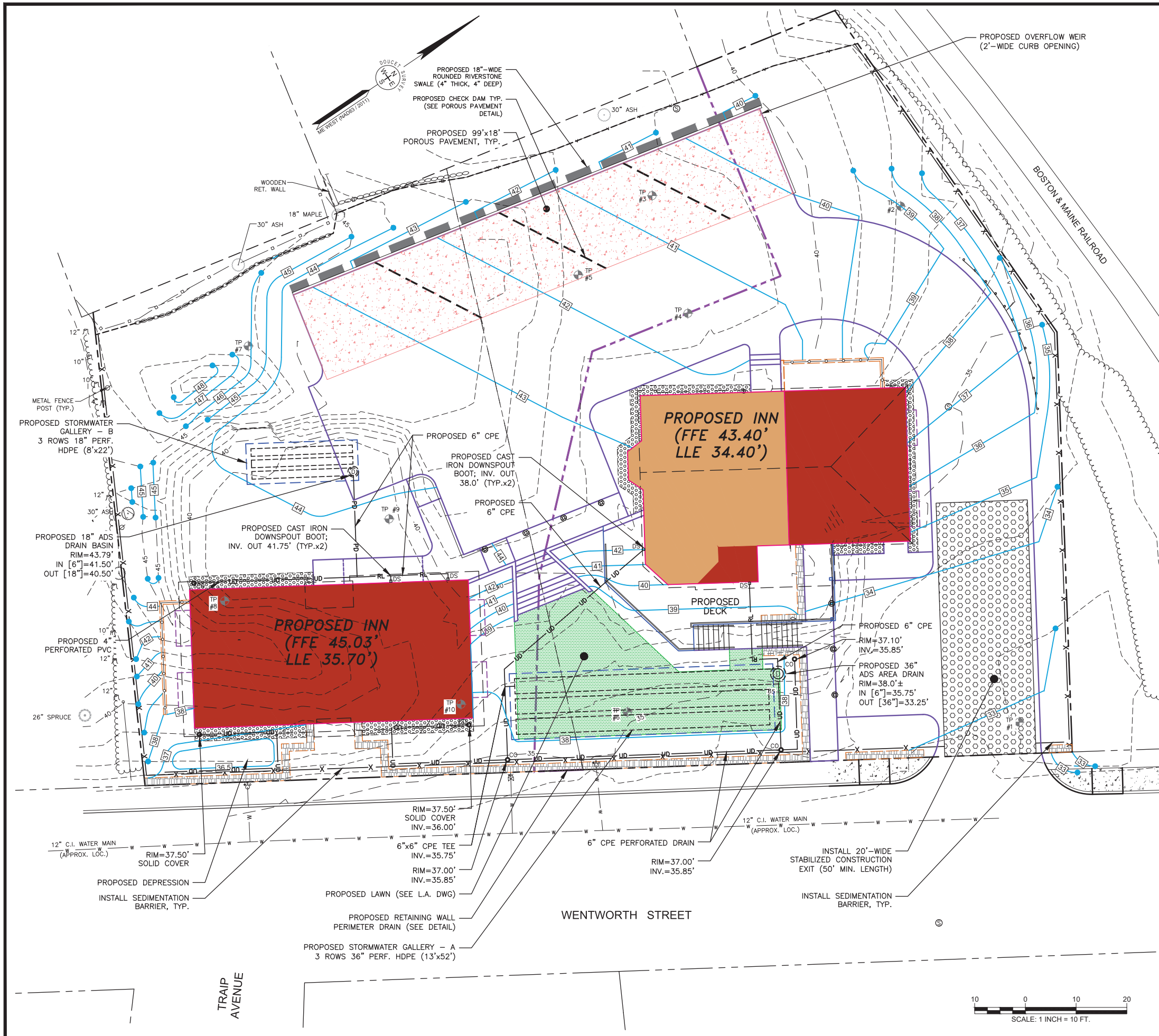
- A. Stormwater System Operations and Maintenance Report
- B. Site Grading and Drainage Plan

STORM WATER SYSTEM OPERATION AND MAINTENANCE REPORT

General Information		
Project Name	The Foreside Inn	
Owner		
Inspector's Name(s)		
Inspector's Contact Information		
Date of Inspection	Start Time:	End Time:
Type of Inspection: <input type="checkbox"/> Annual Report <input type="checkbox"/> Post-storm event <input type="checkbox"/> Due to a discharge of significant amounts of sediment		
Notes:		

General Site Questions and Discharges of Significant Amounts of Sediment		
Subject	Status	Notes
<i>A discharge of significant amounts of sediment may be indicated by (but is not limited to) observations of the following. Note whether any are observed during this inspection:</i>		
<i>Notes/ Action taken:</i>		
1	Do the current site conditions reflect the attached site plan?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2	Is the site permanently stabilized, temporary erosion and sediment controls are removed, and stormwater discharges from construction activity are eliminated?	<input type="checkbox"/> Yes <input type="checkbox"/> No
3	Is there evidence of the discharge of significant amounts of sediment to surface waters, or conveyance systems leading to surface waters?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Permit Coverage and Plans				
#	BMP/Facility	Inspected	Corrective Action Needed and Notes	Date Corrected
	Porous Pavement	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Rain Garden	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Parking Lot (paved surfaces)	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Drip Strips	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Vegetated Areas	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Stormwater Management Gallery – A (Infiltration Basin)	<input type="checkbox"/> Yes <input type="checkbox"/> No		
	Stormwater Management Gallery – B (Infiltration Basin)	<input type="checkbox"/> Yes <input type="checkbox"/> No		



EROSION AND SEDIMENT CONTROL NOTES:

- DO NOT BEGIN CONSTRUCTION UNTIL ALL STATE AND LOCAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.
- THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED UPON THE FIELD LOCATION OF ALL VISIBLE STRUCTURES (IE. CATCH BASINS, WATER GATES, ETC.) AND INFORMATION COMPILED FROM PLANS PROVIDED BY UTILITY PROVIDERS AND GOVERNMENTAL AGENCIES. AS SUCH, THEY ARE NOT INCLUSIVE AS OTHER UTILITIES AND UNDERGROUND STRUCTURES THAT ARE NOT SHOWN ON THE PLANS MAY EXIST. THE ENGINEER, SURVEYOR AND OWNER ACCEPT NO RESPONSIBILITY FOR POTENTIAL INACCURACIES IN THE PLAN AND/OR UNFORESEEN CONDITIONS.
- PERIMETER SEDIMENT CONTROLS AND CULVERT AND CATCH BASIN INLET PROTECTION MEASURES SHALL BE INSTALLED AFTER TREE CLEARING OPERATIONS HAVE CEASED AND BEFORE ANY STUMPING, GRUBBING OR OTHER EARTH DISTURBANCE.
- NO EARTHWORK SHALL COMMENCE UNTIL ALL APPROPRIATE SEDIMENT AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE PROPERLY MAINTAINED IN GOOD WORKING ORDER FOR THE DURATION OF CONSTRUCTION AND THE SITE IS STABILIZED.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE DESIGN STANDARDS AND SPECIFICATIONS SET FORTH BY THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
- CONTRACTOR SHALL CONTROL DUST BY SPRAYING WATER, SWEEPING PAVED SURFACES, PROVIDING TEMPORARY VEGETATION, AND/OR MULCHING EXPOSED AREAS AND STOCKPILES.
- GRIND STUMPS AND REUSE GRINDINGS FOR EROSION CONTROL WHERE POSSIBLE. NO STUMPS SHALL BE BURIED ON SITE.
- ORGANIC FILTER BERMS AND/OR OTHER PERIMETER CONTROLS MAY BE USED IN LIEU OF SILTFENCE IN CERTAIN APPLICATIONS WHEN APPROVED IN WRITING BY THE ENGINEER.
- THE CONTRACTOR SHALL TAKE WHATEVER MEANS NECESSARY TO PREVENT EROSION. PREVENT SEDIMENT FROM LEAVING THE SITE AND ENSURE PERMANENT SOIL STABILIZATION.
- ALL CATCH BASINS AND CULVERTS SHALL BE PROVIDED APPROPRIATE TEMPORARY INLET PROTECTION (SEE DETAILS).
- ALL EROSION CONTROL BLANKETS AND FASTENERS SHALL BE BIODEGRADABLE.
- ALL EROSION CONTROL BLANKETS SHALL BE BY NORTH AMERICAN GREEN OR EQUAL AS APPROVED IN WRITING BY THE ENGINEER.
- ALL SWALES, STORMWATER PONDS AND THEIR CONTRIBUTING AREAS SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
- ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE SIX (6") INCHES OF LOAM, LIMESTONE, FERTILIZER, SEED, AND MULCH USING APPROPRIATE SOIL STABILIZATION TECHNIQUES. SEE DETAILS FOR ADDITIONAL INFORMATION.
- UPON COMPLETION OF CONSTRUCTION, ALL DRAINAGE INFRASTRUCTURE SHALL BE CLEANED OF ALL DEBRIS AND SEDIMENT.
- UPON COMPLETION OF CONSTRUCTION, ALL TEMPORARY EROSION AND SEDIMENT CONTROLS SHALL BE REMOVED AND ANY AREAS DISTURBED BY THE REMOVAL SMOOTHED AND REVEGETATED.

TEST PIT LOGS:

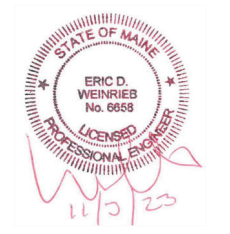
TP #	ESHW:	REFUSAL:	OBSERVED WATER:
TP #1	36"	NONE	60"
TP #2	5"-32" RIPABLE	NONE	NONE
TP #3	40"-64"	NONE	NONE
TP #4	26"-40"	NONE	NONE
TP #5	55"	NONE	NONE
TP #6	56"	NONE	NONE
TP #7	6" RIPABLE	NONE	NONE
TP #8	16" RIPABLE	NONE	NONE
TP #9	9" RIPABLE	NONE	NONE
TP #10	20"-53" RIPABLE	NONE	NONE

LEGEND:

---	EXISTING CONTOUR
---	PROPOSED CONTOUR
TP #	EXISTING TEST PIT
PD	PROPOSED 6" CPE DRAIN
UD	PROPOSED 6" PERF. UNDERDRAIN
RL	PROPOSED 6" CPE ROOF LEADER
CO	PROPOSED 6" CLEANOUT



133 Court Street
(603) 433-2335
Portsmouth, NH 03801
www.altus-eng.com



NOT FOR CONSTRUCTION

ISSUED FOR:
PRELIM. SITE PLAN APPROVAL

ISSUE DATE:
NOVEMBER 3, 2023

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EDW	08/24/23
1	TOWN COMMENTS	EDW	10/05/23
2	TOWN COMMENTS	EDW	11/03/23

DRAWN BY: _____ RMB
APPROVED BY: _____ EDW
DRAWING FILE: 5431SITE.dwg

SCALE:
(22"x34") 1" = 10'
(11"x17") 1" = 20'

OWNER:
**27 WENTWORTH STREET, LLC
& MREV KITTEERY INN, LLC
401 EDGEWATER PLACE,
SUITE 570
WAKEFIELD, MA 01880**

APPLICANT:
**MADBURY REAL ESTATE
VENTURES
401 EDGEWATER PLACE,
SUITE 570
WAKEFIELD, MA 01880**

PROJECT:
**THE FORESIDE INN
TAX MAP 9
LOTS 37 & 38
27 & 29 WENTWORTH STREET
KITTEERY, MAINE**

TITLE:
**STORMWATER
MGMT. PLAN**

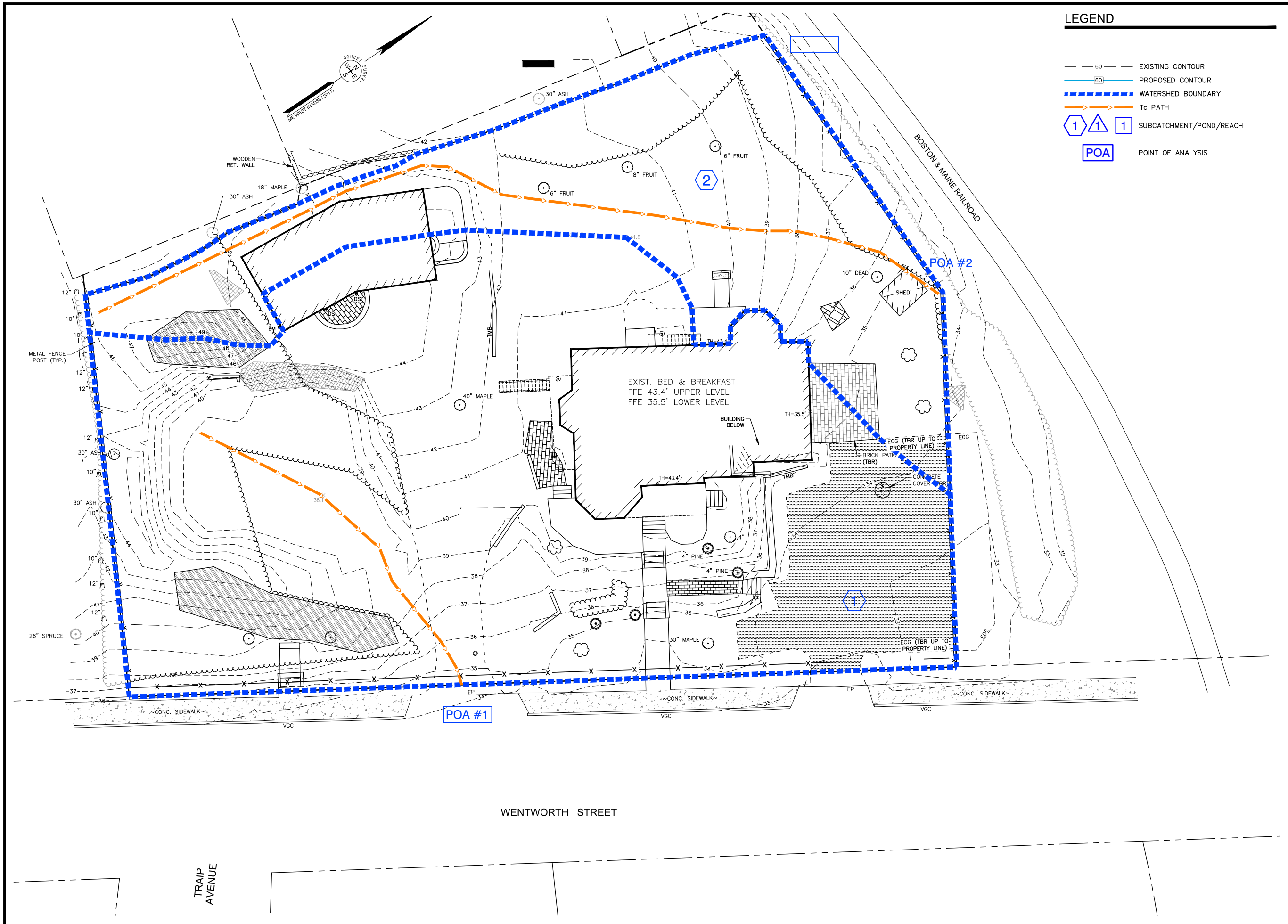
SHEET NUMBER:
C - 3

Section 8

Watershed Plans

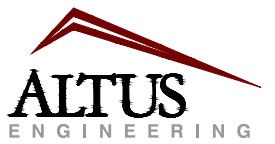
Pre-Development Drainage Area Plan

Post-Development Drainage Area Plan

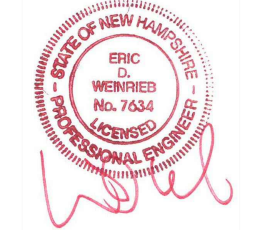


LEGEND

- 60 --- EXISTING CONTOUR
- 60 --- PROPOSED CONTOUR
- WATERSHED BOUNDARY
- Tc PATH
- ① ① ① SUBCATCHMENT/POND/REACH
- POA POINT OF ANALYSIS



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NOT FOR CONSTRUCTION
 ISSUED FOR: APPROVAL
 ISSUE DATE: AUGUST 24, 2023

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EDW	08/24/23

DRAWN BY: RMB
 APPROVED BY: EDW
 DRAWING FILE: 5433SITE.dwg

SCALE:
 (22"x34") 1" = 10'
 (11"x17") 1" = 20'

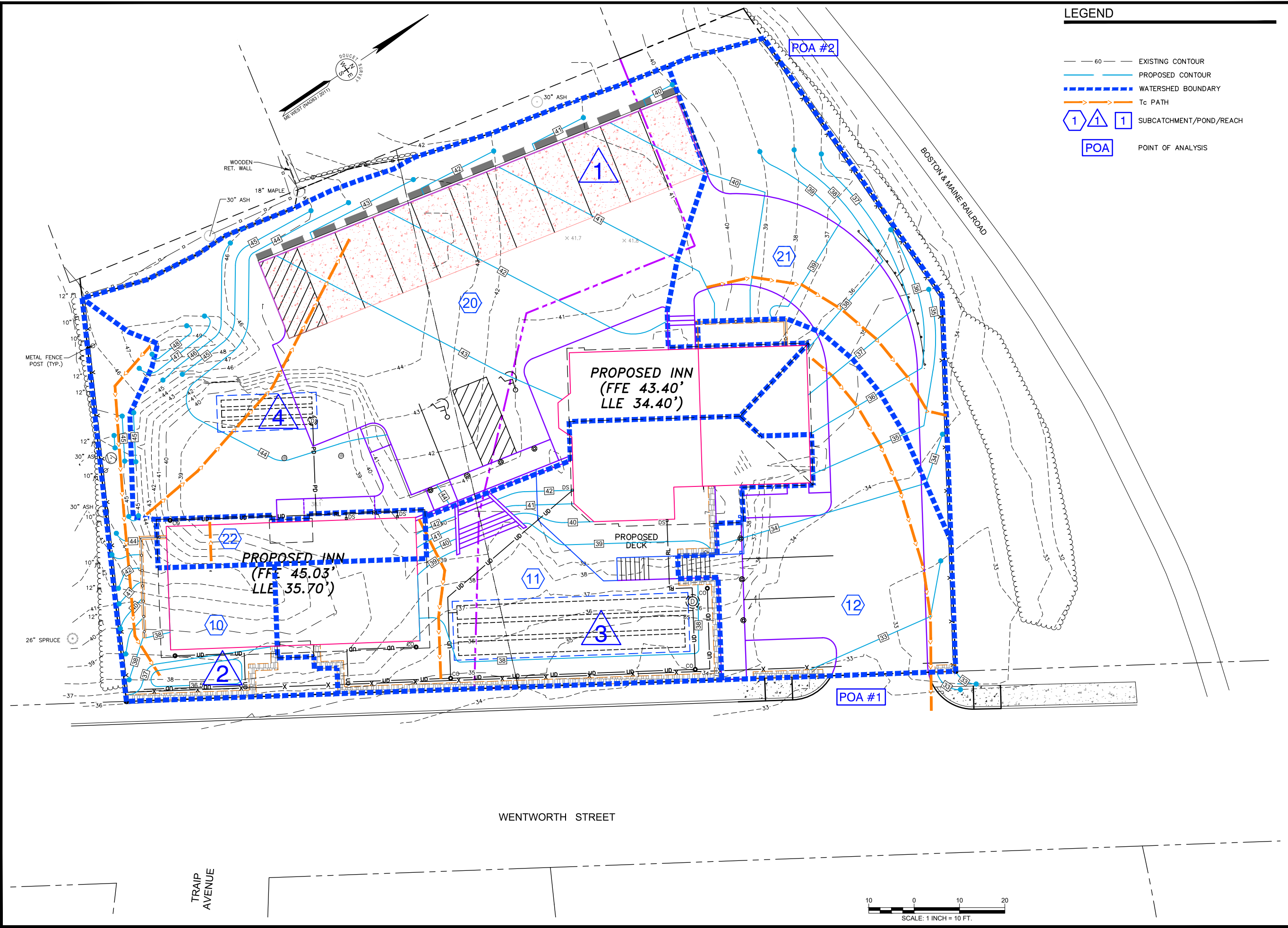
OWNER:
 NANCY P. BOGENBERGER
 29 WENTWORTH STREET
 KITTERY, MAINE 03904

APPLICANT:
 MADBURY REAL ESTATE
 VENTURES
 401 EDGEWATER PLACE,
 SUITE 570
 WAKEFIELD, MA 01880

PROJECT:
 INN
 RE-DEVELOPMENT
 TAX MAP 9
 LOTS 37 & 38
 27 & 29 WENTWORTH STREET
 KITTERY, MAINE

TITLE:
 PRE-DEVELOPMENT
 WATERSHED
 PLAN

SHEET NUMBER:
 WS - 1



LEGEND

- 60 — EXISTING CONTOUR
- PROPOSED CONTOUR
- WATERSHED BOUNDARY
- Tc PATH
- 1 1 1 SUBCATCHMENT/POND/REACH
- POA POINT OF ANALYSIS



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NOT FOR CONSTRUCTION
 ISSUED FOR: APPROVAL
 ISSUE DATE: NOVEMBER 3, 2023

NO.	DESCRIPTION	BY	DATE
0	INITIAL SUBMISSION	EDW	07/11/23
1	TOWN COMMENTS	EDW	10/05/23
2	TOWN COMMENTS	EDW	11/03/23

DRAWN BY: RMB
 APPROVED BY: EDW
 DRAWING FILE: 5431SITE.dwg

SCALE:
 (22"x34") 1" = 10'
 (11"x17") 1" = 20'

OWNER:
 27 WENTWORTH STREET, LLC
 & MREV KITTERY INN, LLC
 401 EDGEWATER PLACE,
 SUITE 570
 WAKEFIELD, MA 01880

APPLICANT:
 MADBURY REAL ESTATE
 VENTURES
 401 EDGEWATER PLACE,
 SUITE 570
 WAKEFIELD, MA 01880

PROJECT:
THE FORESIDE INN

 TAX MAP 9
 LOTS 37 & 38
 27 & 29 WENTWORTH STREET
 KITTERY, MAINE

TITLE:
**POST-DEVELOPMENT
 WATERSHED
 PLAN**

SHEET NUMBER:
WS - 2