
September 14, 2022

Yarmouth Planning Board
Department of Planning and Development
200 Main Street,
Yarmouth, ME 04096

Preliminary Site Plan and Subdivision Review Applications

90 Main Street Project Yarmouth, Maine



Two Great Falls Plaza
Auburn, Maine 04210

T 207 784 2941
F 207 784 3856

September 14, 2022

Yarmouth Planning Board
Department of Planning and Development
200 Main Street,
Yarmouth, ME 04096

Yarmouth Planning Board,

The enclosed package for Preliminary Review is a revision to the "90 Main Street Project: Conceptual Site Plans and Subdivision Review Applications" (Original: April 13, 2022 & Revision: June 15, 2022). The modifications are in further refinement in response to comments at the last two meeting by the Planning Department, The Planning Board, and Yarmouth residents. Additional information has also been submitted as part of this package from the civil engineer and geotechnical engineer with more detail on utilities, stormwater management, erosion & sedimentation control, soils, and grading. We look forward to reviewing the revised package with the board.

DESCRIPTION OF MODIFICATIONS

This enclosed package will focus on the modifications and supplemental information, rather than resubmitting all the documents from the original submission. Please reference "90 Main Street Project: Conceptual Site Plans and Subdivision Review Applications" (Original: April 13, 2022 & Revision: June 15, 2022).

The project site is located at 90 Main Street and composed of two parcels (Tax Map 32-7 & 32-11) in the Village Center District (CD4) and consists of two proposed Residential Cottages (Single Detached Dwellings) to the rear of an existing Mixed Use building (Live/Work and Attached Dwelling). We are including adjacent 82-84 Main St (Tax Map 32-6), as requested by the board since it is contiguous property owned by the applicant. Please note that there is no modification to this property proposed as part of this application and the applicant has removed the property from the condo association (see attached revised Exhibit 4). As previously noted, the condominium documents will need to be updated at the conclusion of the planning board process to ensure everything is aligned to the approved site plan.

In reference to the previously requested title information, please see attached revised Exhibit 4. Borings were taken at the site and recorded in Exhibit 16 and a Soils report is included in Exhibit 18c as part of the

Stormwater Management Report. Attached in a revised Exhibit 18 are a Traffic Assessment, an Erosion & Sedimentation Control Report, and a Stormwater Management Report and soil information as requested. Attached as Exhibit 28 are architectural plans, elevations, and a rendering looking from the 18 Portland Street North-East Corner, looking North-East. Attached as Exhibit 29 are Civil Drawings filling in requested information on the site requirements.

For the proposed Thoroughfare coming off Portland Street we are proposing to use the Alley designation per the CBDC ordinance. We believe this to be the most appropriate to the use and location on the site. The proposed Thoroughfare is composed of a 12 foot drive plus a 4 feet wide paver sidewalk to provide a 16 foot emergency access way to the two new single family homes. The North edge (page down) of the Thoroughfare is proposed to match the existing driveway. Moving the Thoroughfare further to the North was discussed but would result in the removal of the existing trees along the North property line. These trees will be maintained with a 14'-0" minimum canopy over the Thoroughfare. As previously submitted the exiting portion of the driveway/thoroughfare will be unchanged from the current location, and therefore the sight distances and conditions have not changed. The civil engineer addresses the site lines and traffic loads in their documentation.

This project is aligned with the Yarmouth Comprehensive Plan by providing additional residential units to the Village Center while complimenting and supporting the existing Mixed Use building on Main Street. We believe that the revisions to the site plan and development of the architectural and civil drawings are responsive to the requests by the Planning Board and neighbors comments and look forward to meeting to review. Thank you for your time in reviewing this application.

Sincerely,



Adam R. Lemire, AIA
Maine Licensed Architect

Exhibit 4 (Original 4/13/2022, Revised 9/14/2022)

“Attach as Exhibit #4 evidence of applicant's right, title, or interest in the site. A complete copy of the document must be provided; financial information may be deleted.”

Charles L. Hewitt & Katharine Carey (referred to as Owner) owned three contiguous properties (Tax Map 32-7, 32-11, & 32-8) which were combined as the 90 Main Street Condominium Association. The Owner sold Units #1 and #2 (The Mixed Use Building) and retained rights to the remaining Units #3, #4 & #5. The Owners also hold declarant rights per the Condominium Documents attached in Exhibit 7. Additional information may be made available upon request.

The Owners removed Unit #3 (82-84 Main Street) on 9/9/2022 from the Condominium Associates. The Owners still retain ownership of the property. See documents attached to this Exhibit for reference.

Per request by the Planning Board, additional information on proof of title for the “Back Lot” is provided in this attached exhibit.

See attached documents:

Exhibit 4a: Title Analysis Letter

Exhibit 4b: Title Insurance

Exhibit 4c: Deed of Sale

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P.O. BOX 4510
PORTLAND, MAINE 04112-4510
www.jbgh.com

Charles M. Katz-Leavy
e-mail: ckatzleavy@jbgh.com

(207) 775-7271 (Phone)
(207) 775-7935 (Fax)

May 17, 2022

By Electronic Mail
Katharine Carey
Kate@katecarey.net

RE: Title Analysis

Dear Kate:

You asked me to briefly review who holds fee title to a strip of land off Portland Street in Yarmouth, Maine, which is shown on a plan titled "Plan of Land/Existing Conditions on Main Street & Portland Streete in Yarmouth, Maine" prepared by Wayne T. Wood & Co. dated November 2021 (the "Plan") as a two (2) rod passageway running from Portland Street between land n/f of Marjorie J. Titcomb, Trustee of the Marjorie J. Titcomb Revocable Trust and land n/f of Planetary School House, LLC.

I reviewed the Plan and several deeds, including but not limited to:

- Warranty Deed from Beatrice M. Carter to Lena R. Vining dated October 20, 1960 and recorded in the Cumberland County Registry of Deeds in Book 2571, Page 197 (Tax Map 32 Lot 11); and
- Quicclaim Deed from Marjorie J. Titcomb to Marjorie J. Titcomb, Trustee of the Marjorie J. Titcomb Revocable Trust u/d/t April 19, 1995 dated April 13, 2016 and recorded in the Cumberland County Registry of Deeds in Book 33216, Page 117; and
- Deed of Distribution by Patricia Nelson-Reade, Personal Representative of the Estate of Ernest D. Vining to Charles L. Hewitt and Katherine S. Carey by dated December 15, 2021 and recorded in Book 39006, Page 91.

Based on my review, it appears that fee title to the strip of land was transferred from Patricia Nelson-Reade, Personal Representative of the Estate of Ernest D. Vining, to Katharine S. Carey and Charles L. Hewitt, by Deed of Distribution dated December 15, 2021 and recorded in the Cumberland County Registry of Deeds in Book 39006, Page 91. This strip of land was

Jensen Baird
Gardner Henry

May 17, 2022
Page 2

subsequently declared as part of 90 Main Street Condominium by Declaration of Condominium dated January 25, 2022 and recorded in Cumberland County Registry of Deeds in Book 39179, Page 126.

Please let me know if you have any questions.

Very truly yours,

Charlie Katz-Leavy

Charles M. Katz-Leavy, Esq.

CKL

TWO LIGHTS SETTLEMENT SERVICES, LLC

970 BAXTER BLVD

STE. 204

PORTLAND, ME 04103

Phone.207.761.7277

Fax.207.761.0838

December 28, 2021

**Charles Lewis Hewitt and Katharine S. Carey
88 Main Street
Yarmouth, ME 04096**

**RE: 82-84 Main Street
& 0 Portland Street
Yarmouth, ME 04096**

Dear Charles Lewis Hewitt and Katharine S. Carey:

Enclosed is your Stewart Title Guaranty Company GOLD Owner's Policy insuring your title to the above-captioned premises.

Please note that this is an extremely important document which provides legal protection to you in the event of a claim or challenge to your title and should be safeguarded along with your other important papers.

We at Two Lights Settlement Services, LLC thank you for the opportunity to have been of service to you in this transaction. Should you decide to refinance this property or are involved in another real estate transaction in the future, we would be pleased to assist you.

Very truly yours,

Jessica Childs

Enclosure



ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE FOR A ONE-TO-FOUR FAMILY RESIDENCE

ISSUED BY
STEWART TITLE GUARANTY COMPANY

As soon as You Know of anything that might be covered by this Policy, You must notify Us promptly in writing at the address shown in Section 3 of the Conditions.

OWNER'S COVERAGE STATEMENT

This Policy insures You against actual loss, including any costs, attorneys' fees and expenses provided under this Policy. The loss must result from one or more of the Covered Risks set forth below. This Policy covers only Land that is an improved residential lot on which there is located a one-to-four family residence and only when each insured named in Schedule A is a Natural Person.

Your insurance is effective on the Policy Date. This Policy covers Your actual loss from any risk described under Covered Risks if the event creating the risk exists on the Policy Date or, to the extent expressly stated in Covered Risks, after the Policy Date.

Your insurance is limited by all of the following:

- The Policy Amount
- For Covered Risk 16, 18, 19 and 21, Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A
- The Exceptions in Schedule B
- Our Duty To Defend Against Legal Actions
- The Exclusions on page 3
- The Conditions on pages 3 and 4.

COVERED RISKS

The Covered Risks are:

1. Someone else owns an interest in Your Title.
2. Someone else has rights affecting Your Title because of leases, contracts, or options.
3. Someone else claims to have rights affecting Your Title because of forgery or impersonation.
4. Someone else has an Easement on the Land.
5. Someone else has a right to limit Your use of the Land.

Countersigned by:

Carly S. Joyce
Authorized Countersignature

Two Lights Settlement Services, LLC
Company Name

970 Baxter Blvd
Suite 204
Portland, ME 04103
City, State



Frederick H. Eppinger
Frederick H. Eppinger
President and CEO

David Hisey
David Hisey
Secretary

For coverage information or assistance resolving a complaint, call (800) 729-1902 or visit www.stewart.com. To make a claim, furnish written notice in accordance with Section 3 of the Conditions.

COVERED RISKS (Cont.)

6. Your Title is defective. Some of these defects are:
 - a. Someone else's failure to have authorized a transfer or conveyance of your Title.
 - b. Someone else's failure to create a valid document by electronic means.
 - c. A document upon which Your Title is based is invalid because it was not properly signed, sealed, acknowledged, delivered or recorded.
 - d. A document upon which Your Title is based was signed using a falsified, expired, or otherwise invalid power of attorney.
 - e. A document upon which Your Title is based was not properly filed, recorded, or indexed in the Public Records.
 - f. A defective judicial or administrative proceeding.
7. Any of Covered Risks 1 through 6 occurring after the Policy Date.
8. Someone else has a lien on Your Title, including a:
 - a. lien of real estate taxes or assessments imposed on Your Title by a governmental authority that are due or payable, but unpaid;
 - b. Mortgage;
 - c. judgment, state or federal tax lien;
 - d. charge by a homeowner's or condominium association; or
 - e. lien, occurring before or after the Policy Date, for labor and material furnished before the Policy Date.
9. Someone else has an encumbrance on Your Title.
10. Someone else claims to have rights affecting Your Title because of fraud, duress, incompetency or incapacity.
11. You do not have actual vehicular and pedestrian access to and from the Land, based upon a legal right.
12. You are forced to correct or remove an existing violation of any covenant, condition or restriction affecting the Land, even if the covenant, condition or restriction is excepted in Schedule B. However, You are not covered for any violation that relates to:
 - a. any obligation to perform maintenance or repair on the Land; or
 - b. environmental protection of any kind, including hazardous or toxic conditions or substancesunless there is a notice recorded in the Public Records, describing any part of the Land, claiming a violation exists. Our liability for this Covered Risk is limited to the extent of the violation stated in that notice.
13. Your Title is lost or taken because of a violation of any covenant, condition or restriction, which occurred before You acquired Your Title, even if the covenant, condition or restriction is excepted in Schedule B.
14. The violation or enforcement of those portions of any law or government regulation concerning:
 - a. building;
 - b. zoning;
 - c. land use;
 - d. improvements on the Land;
 - e. land division; or
 - f. environmental protection,if there is a notice recorded in the Public Records, describing any part of the Land, claiming a violation exists or declaring the intention to enforce the law or regulation. Our liability for this Covered Risk is limited to the extent of the violation or enforcement stated in that notice.
15. An enforcement action based on the exercise of a governmental police power not covered by Covered Risk 14 if there is a notice recorded in the Public Records, describing any part of the Land, of the enforcement action or intention to bring an enforcement action. Our liability for this Covered Risk is limited to the extent of the enforcement action stated in that notice.
16. Because of an existing violation of a subdivision law or regulation affecting the Land:
 - a. You are unable to obtain a building permit;
 - b. You are required to correct or remove the violation; or
 - c. someone else has a legal right to, and does, refuse to perform a contract to purchase the Land, lease it or make a Mortgage loan on it.The amount of Your insurance for this Covered Risk is subject to Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.
17. You lose Your Title to any part of the Land because of the right to take the Land by condemning it, if:
 - a. there is a notice of the exercise of the right recorded in the Public Records and the notice describes any part of the Land; or
 - b. the taking happened before the Policy Date and is binding on You if You bought the Land without Knowing of the taking.
18. You are forced to remove or remedy Your existing structures, or any part of them - other than boundary walls or fences - because any portion was built without obtaining a building permit from the proper government office. The amount of Your insurance for this Covered Risk is subject to Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.
19. You are forced to remove or remedy Your existing structures, or any part of them, because they violate an existing zoning law or zoning regulation. If You are required to remedy any portion of Your existing structures, the amount of Your insurance for this Covered Risk is subject to Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.
20. You cannot use the Land because use as a single-family residence violates an existing zoning law or zoning regulation.
21. You are forced to remove Your existing structures because they encroach onto Your neighbor's land. If the encroaching structures are boundary walls or fences, the amount of Your insurance for this Covered Risk is subject to Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.
22. Someone else has a legal right to, and does, refuse to perform a contract to purchase the Land, lease it or make a Mortgage loan on it because Your neighbor's existing structures encroach onto the Land.
23. You are forced to remove Your existing structures which encroach onto an Easement or over a building set-back line, even if the Easement or building set-back line is excepted in Schedule B.
24. Your existing structures are damaged because of the exercise of a right to maintain or use any Easement affecting the Land, even if the Easement is excepted in Schedule B.
25. Your existing improvements (or a replacement or modification made to them after the Policy Date), including lawns, shrubbery or trees, are damaged because of the future exercise of a right to use the surface of the Land for the extraction or development of minerals, water or any other substance, even if those rights are excepted or reserved from the description of the Land or excepted in Schedule B.

26. Someone else tries to enforce a discriminatory covenant, condition or restriction that they claim affects Your Title which is based upon race, color, religion, sex, handicap, familial status, or national origin.
27. A taxing authority assesses supplemental real estate taxes not previously assessed against the Land for any period before the Policy Date because of construction or a change of ownership or use that occurred before the Policy Date.
28. Your neighbor builds any structures after the Policy Date - other than boundary walls or fences - which encroach onto the Land.
29. Your Title is unmarketable, which allows someone else to refuse to perform a contract to purchase the Land, lease it or make a Mortgage loan on it.
30. Someone else owns an interest in Your Title because a court order invalidates a prior transfer of the title under federal bankruptcy, state insolvency, or similar creditors' rights laws.
31. The residence with the address shown in Schedule A is not located on the Land at the Policy Date.
32. The map, if any, attached to this Policy does not show the correct location of the Land according to the Public Records.

OUR DUTY TO DEFEND AGAINST LEGAL ACTIONS

We will defend Your Title in any legal action only as to that part of the action which is based on a Covered Risk and which is not excepted or excluded from coverage in this Policy. We will pay the costs, attorneys' fees, and expenses We incur in that defense.

We will not pay for any part of the legal action which is not based on a Covered Risk or which is excepted or excluded from coverage in this Policy.

We can end Our duty to defend Your Title under Section 4 of the Conditions.

THIS POLICY IS NOT COMPLETE WITHOUT SCHEDULES A AND B

EXCLUSIONS

In addition to the Exceptions in Schedule B, You are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of those portions of any law or government regulation concerning:
 - a. building;
 - b. zoning;
 - c. land use;
 - d. improvements on the Land;
 - e. land division; and
 - f. environmental protection.

This Exclusion does not limit the coverage described in Covered Risk 8.a., 14, 15, 16, 18, 19, 20, 23 or 27.
2. The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not limit the coverage described in Covered Risk 14 or 15.
3. The right to take the Land by condemning it. This Exclusion does not limit the coverage described in Covered Risk 17.
4. Risks:
 - a. that are created, allowed, or agreed to by You, whether or not they are recorded in the Public Records;
 - b. that are Known to You at the Policy Date, but not to Us, unless they are recorded in the Public Records at the Policy Date;
 - c. that result in no loss to You; or
 - d. that first occur after the Policy Date - this does not limit the coverage described in Covered Risk 7, 8.e., 25, 26, 27 or 28.
5. Failure to pay value for Your Title.
6. Lack of a right:
 - a. to any land outside the area specifically described and referred to in paragraph 3 of Schedule A; and
 - b. in streets, alleys, or waterways that touch the Land.

This Exclusion does not limit the coverage described in Covered Risk 11 or 21.
7. The transfer of the Title to You is invalid as a preferential transfer or as a fraudulent transfer or conveyance under federal bankruptcy, state insolvency, or similar creditors' rights laws.
8. Contamination, explosion, fire, flooding, vibration, fracturing, earthquake or subsidence.
9. Negligence by a person or an Entity exercising a right to extract or develop minerals, water, or any other substances.

CONDITIONS

1. DEFINITIONS

- a. Easement - the right of someone else to use the Land for a special purpose.
- b. Estate Planning Entity - a legal entity or Trust established by a Natural Person for estate planning.
- c. Known - things about which You have actual knowledge. The words "Know" and "Knowing" have the same meaning as Known.
- d. Land - the land or condominium unit described in paragraph 3 of Schedule A and any improvements on the Land which are real property.
- e. Mortgage - a mortgage, deed of trust, trust deed or other security instrument.
- f. Natural Person - a human being, not a commercial or legal organization or entity. Natural Person includes a trustee of a Trust even if the trustee is not a human being.
- g. Policy Date - the date and time shown in Schedule A. If the insured named in Schedule A first acquires the interest shown in Schedule A by an instrument recorded in the Public Records later than the date and time shown in Schedule A, the Policy Date is the date and time the instrument is recorded.
- h. Public Records - records that give constructive notice of matters affecting Your Title, according to the state statutes where the Land is located.
- i. Title - the ownership of Your interest in the Land, as shown in Schedule A.
- j. Trust - a living trust established by a Natural Person for estate planning.
- k. We/Our/Us - Stewart Title Guaranty Company.
- l. You/Your - the insured named in Schedule A and also those identified in Section 2.b. of these Conditions.

2. CONTINUATION OF COVERAGE

- a. This Policy insures You forever, even after You no longer have Your Title. You cannot assign this Policy to anyone else.
- b. This Policy also insures:
 - (1) anyone who inherits Your Title because of Your death;
 - (2) Your spouse who receives Your Title because of dissolution of Your marriage;
 - (3) the trustee or successor trustee of Your Trust or any Estate Planning Entity created for You to whom or to which You transfer Your Title after

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the Policy Date;

(4) the beneficiaries of Your Trust upon Your death; or

(5) anyone who receives Your Title by a transfer effective on Your death as authorized by law.

c. We may assert against the insureds identified in Section 2.b. any rights and defenses that We have against any previous insured under this Policy.

3. HOW TO MAKE A CLAIM

a. Prompt Notice Of Your Claim

(1) As soon as You Know of anything that might be covered by this Policy, You must notify Us promptly in writing.

(2) Send Your notice to Stewart Title Guaranty Company, P.O. Box 2029, Houston, Texas 77252-2029, Attention: Claims Department. Please include the Policy number shown in Schedule A, and the county and state where the Land is located. Please enclose a copy of Your policy, if available.

(3) If You do not give Us prompt notice, Your coverage will be reduced or ended, but only to the extent Your failure affects Our ability to resolve the claim or defend You.

b. Proof Of Your Loss

(1) We may require You to give Us a written statement signed by You describing Your loss which includes:

(a) the basis of Your claim;

(b) the Covered Risks which resulted in Your loss;

(c) the dollar amount of Your loss; and

(d) the method You used to compute the amount of Your loss.

(2) We may require You to make available to Us records, checks, letters, contracts, insurance policies and other papers which relate to Your claim. We may make copies of these papers.

(3) We may require You to answer questions about Your claim under oath.

(4) If you fail or refuse to give Us a statement of loss, answer Our questions under oath, or make available to Us the papers We request, Your coverage will be reduced or ended, but only to the extent Your failure or refusal affects Our ability to resolve the claim or defend You.

4. OUR CHOICES WHEN WE LEARN OF A CLAIM

a. After We receive Your notice, or otherwise learn, of a claim that is covered by this Policy, Our choices include one or more of the following:

(1) Pay the claim;

(2) Negotiate a settlement;

(3) Bring or defend a legal action related to the claim;

(4) Pay You the amount required by this Policy;

(5) End the coverage of this Policy for the claim by paying You Your actual loss resulting from the Covered Risk, and those costs, attorneys' fees and expenses incurred up to that time which We are obligated to pay;

(6) End the coverage described in Covered Risk 16, 18, 19 or 21 by paying You the amount of Your insurance then in force for the particular Covered Risk, and those costs, attorneys' fees and expenses incurred up to that time which We are obligated to pay;

(7) End all coverage of this Policy by paying You the Policy Amount then in force, and those costs, attorneys' fees and expenses incurred up to that time which We are obligated to pay;

(8) Take other appropriate action.

b. When We choose the options in Sections 4.a. (5), (6) or (7), all Our obligations for the claim end, including Our obligation to defend, or continue to defend, any legal action.

c. Even if We do not think that the Policy covers the claim, We may choose one or more of the options above. By doing so, We do not give up any rights.

5. HANDLING A CLAIM OR LEGAL ACTION

a. You must cooperate with Us in handling any claim or legal action and give Us all relevant information.

b. If You fail or refuse to cooperate with Us, Your coverage will be reduced or ended, but only to the extent Your failure or refusal affects Our ability to resolve the claim or defend You.

c. We are required to repay You only for those settlement costs, attorneys' fees and expenses that We approve in advance.

d. We have the right to choose the attorney when We bring or defend a legal action on Your behalf. We can appeal any decision to the highest level. We do not have to pay Your claim until the legal action is finally decided.

e. Whether or not We agree there is coverage, We can bring or defend a legal action, or take other appropriate action under this Policy. By doing so, We do not give up any rights.

6. LIMITATION OF OUR LIABILITY

a. After subtracting Your Deductible Amount if it applies, We will pay no more than the least of:

(1) Your actual loss;

(2) Our Maximum Dollar Limit of Liability then in force for the particular Covered Risk, for claims covered only under Covered Risk 16, 18, 19 or 21; or

(3) the Policy Amount then in force.

and any costs, attorneys' fees and expenses that We are obligated to pay under this Policy.

b. If We pursue Our rights under Sections 4.a.(3) and 5.e. of these Conditions and are unsuccessful in establishing the Title, as insured:

(1) the Policy Amount then in force will be increased by 10% of the Policy Amount shown in Schedule A, and

(2) You shall have the right to have the actual loss determined on either the date the claim was made by You or the date it is settled and paid.

c. (1) If We remove the cause of the claim with a reasonable diligence after receiving notice of it, all Our obligations for the claim end, including any obligation for loss You had while We were removing the cause of the claim.

(2) Regardless of 6.c.(1) above, if You cannot use the Land because of a claim covered by this Policy:

(a) You may rent a reasonably equivalent substitute residence and We will repay You for the actual rent You pay, until the earlier of:

(i) the cause of the claim is removed; or

(ii) We pay You the amount required by this Policy. If Your claim is covered only under Covered Risk 16, 18, 19 or 21, that payment is the amount of Your insurance then in force for the particular Covered Risk.

(b) We will pay reasonable costs You pay to relocate any personal property You have the right to remove from the Land, including transportation of that personal property for up to twenty-five (25) miles from the Land, and repair of any damage to that personal property

because of the relocation. The amount We will pay You under this paragraph is limited to the value of the personal property before You relocate it.

- d. All payments We make under this Policy reduce the Policy Amount then in force, except for costs, attorneys' fees and expenses. All payments We make for claims which are covered only under Covered Risk 16, 18, 19 or 21 also reduce Our Maximum Dollar Limit of Liability for the particular Covered Risk, except for costs, attorneys' fees and expenses.
- e. If We issue, or have issued, a Policy to the owner of a Mortgage that is on Your Title and We have not given You any coverage against the Mortgage, then:
 - (1) We have the right to pay any amount due You under this Policy to the owner of the Mortgage, and any amount paid shall be treated as a payment to You under this Policy, including under Section 4.a. of these Conditions;
 - (2) Any amount paid to the owner of the Mortgage shall be subtracted from the Policy Amount then in force; and
 - (3) If Your claim is covered only under Covered Risk 16, 18, 19 or 21, any amount paid to the owner of the Mortgage shall also be subtracted from Our Maximum Dollar Limit of Liability for the particular Covered Risk.
- f. If You do anything to affect any right of recovery You may have against someone else, We can subtract from Our liability the amount by which You reduced the value of that right.

7. TRANSFER OF YOUR RIGHTS TO US

- a. When We settle Your claim, We have all the rights and remedies You have against any person or property related to the claim. You must not do anything to affect these rights and remedies. When We ask, You must execute documents to evidence the transfer to Us of these rights and remedies. You must let Us use Your name in enforcing these rights and remedies.
- b. We will not be liable to You if We do not pursue these rights and remedies or if We do not recover any amount that might be recoverable.
- c. We will pay any money We collect from enforcing these rights and remedies in the following order:
 - (1) to Us for the costs, attorneys' fees and expenses We paid to enforce these rights and remedies;
 - (2) to You for Your loss that You have not already collected;
 - (3) to Us for any money We paid out under this Policy on account of Your claim; and
 - (4) to You whatever is left.
- d. If You have rights and remedies under contracts (such as indemnities, guaranties, bonds or other policies of insurance) to recover all or part of Your loss, then We have all of those rights and remedies, even if those contracts provide that those obligated have all of Your rights and remedies under this Policy.

8. THIS POLICY IS THE ENTIRE CONTRACT

This Policy, with any endorsements, is the entire contract between You and Us. To determine the meaning of any part of this Policy, You must read the entire Policy and any endorsements. Any changes to this Policy must be agreed to in writing by Us. Any claim You make against Us must be made under this Policy and is subject to its terms.

9. INCREASED POLICY AMOUNT

The Policy Amount then in force will increase by ten percent (10%) of the Policy Amount shown in Schedule A each year for the first five years following the Policy Date shown in Schedule A, up to one hundred fifty percent (150%) of the Policy Amount shown in Schedule A. The increase each year will happen on the anniversary of the Policy Date shown in Schedule A.

10. SEVERABILITY

If any part of this Policy is held to be legally unenforceable, both You and We can still enforce the rest of this Policy.

11. ARBITRATION

- a. If permitted in the state where the Land is located, You or We may demand arbitration.
- b. The law used in the arbitration is the law of the state where the Land is located.
- c. The arbitration shall be under the Title Insurance Arbitration Rules of the American Land Title Association ("Rules"). You can get a copy of the Rules from Us.
- d. Except as provided in the Rules, You cannot join or consolidate Your claim or controversy with claims or controversies of other persons.
- e. The arbitration shall be binding on both You and Us. The arbitration shall decide any matter in dispute between You and Us.
- f. The arbitration award may be entered as a judgment in the proper court.

12. CHOICE OF LAW

The law of the state where the Land is located shall apply to this policy.

OWNER'S INFORMATION SHEET

Your Title Insurance Policy is a legal contract between You and Us.

It applies only to a one-to-four family residence and only if each insured named in Schedule A is a Natural Person. If the Land described in Schedule A of the Policy is not an improved residential lot on which there is located a one-to-four family residence, or if each insured named in Schedule A is not a Natural Person, contact Us immediately.

The Policy insures You against actual loss resulting from certain Covered Risks. These Covered Risks are listed beginning on page one of the Policy. The Policy is limited by:

- Provisions of Schedule A
- Exceptions in Schedule B
- Our Duty To Defend Against Legal Actions On Page 3
- Exclusions on page 3
- Conditions on pages 3, 4 and 5.

You should keep the Policy even if You transfer your Title to the Land. It may protect against claims made against You by someone else after You transfer Your Title.

IF YOU WANT TO MAKE A CLAIM, SEE SECTION 3 UNDER CONDITIONS ON PAGES 4.

The premium for this Policy is paid once. No additional premium is owed for the Policy.

This sheet is not Your insurance Policy. It is only a brief outline of some of the important Policy features. The Policy explains in detail Your rights and obligations and Our rights and obligations. Since the Policy - and not this sheet - is the legal document,

YOU SHOULD READ THE POLICY VERY CAREFULLY.

If You have any questions about Your Policy, contact:

STEWART TITLE GUARANTY COMPANY
P.O. Box 2029
Houston, Texas 77252-2029



P.O. Box 2029
Houston, TX 77252-2029



**HOMEOWNER'S POLICY OF TITLE INSURANCE
FOR A ONE-TO-FOUR FAMILY RESIDENCE
ISSUED BY**

TABLE OF CONTENTS	PAGE
OWNER'S COVERAGE STATEMENT	1
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EXCLUSIONS	3
CONDITIONS	
1. Definitions	3
2. Continuation of Coverage	3
3. How to Make a Claim	4
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8. This Policy is the Entire Contract	5
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10. Severability	5
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12. Choice of Law	5
SCHEDULE A	
Policy Number, [Premium], Date [and Time] and Amount Deductible Amounts and Maximum Dollar Limits of Liability	
Street Address of the Land	
1. Name of Insured	
2. Interest in Land Covered	
3. Description of the Land	
SCHEDULE B – EXCEPTIONS	

**ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE
STEWART TITLE GUARANTY COMPANY**

SCHEDULE A

Effective Date: December 17, 2021 at 11:49 AM
Office File No.: 2021-2166

Our name and address is:
Stewart Title Guaranty Company
P.O. Box 2029, Houston, Texas 77252-2029

Owner Policy No.: O-0000-841459471

Policy Amount: \$460,000.00

Premium: \$884.00

Deductible Amounts and Maximum Dollar Limits of Liability for Covered Risk 16, 18, 19 and 21:

<u>Your Deductible Amount</u>	<u>Our Maximum Dollar Limit of Liability</u>
Covered Risk 16: 1% of Policy Amount or \$2,500.00 (whichever is less)	\$10,000.00
Covered Risk 18: 1% of Policy Amount or \$5,000.00 (whichever is less)	\$25,000.00
Covered Risk 19: 1% of Policy Amount or \$5,000.00 (whichever is less)	\$25,000.00
Covered Risk 21: 1% of Policy Amount or \$2,500.00 (whichever is less)	\$ 5,000.00

Street Address of the Land: 82-84 Main Street, & 0 Portland Street, Yarmouth ME 04096

1. Name of Insured: Charles L Hewitt and Katharine S Carey

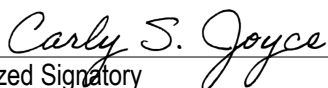
2. Your interest in the Land covered by this Policy is: Fee Simple

3. The Land referred to in this Policy is described as:
See attached Scheudle A, Page 2: "Exhibit A – Legal Description"

4. The land herein described is encumbered by the following mortgage and assignments thereof, if any:

Mortgage from Charles Lewis Hewitt and Katharine S. Carey to Guild Mortgage Company LLC, its successors and/or assigns as their interests may appear, dated December 15, 2021 in the original principal amount of \$391,000.00 recorded in the Cumberland County Registry of Deeds on December 17, 2021 @ 11:50 AM Book 39006, Page 93.

COUNTERSIGNED:


Authorized Signatory

Two Lights Settlement Services, LLC

**ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE
STEWART TITLE GUARANTY COMPANY**

Owner Policy No.: O-0000-841459471

SCHEDULE A

EXHIBIT A: Legal Description

Certain real property, together with the buildings and improvements thereon, located in Yarmouth, in the County of Cumberland and State of Maine and being more particularly bounded and described as follows;

Two certain lots or parcels of land with the improvements and buildings thereon situated on the road leading front Lower Falls in Yarmouth to New Gloucester known as Main Street in the Town of Yarmouth, County of Cumberland and State of Maine and described as follows;

Parcel #1 - Deed from Clarence A. Brown, Trustee, to Philip L. Vining dated April 24, 1936 and recorded at the Cumberland County Registry of Deeds in Book 1495, Page 270. Said parcel also being conveyed by Philip L. Vining to himself and Lena R. Vining, as joint tenants, by deed dated June 6, 1978, recorded at said Registry in Book 4235, Page 55. The said Lena P. Vining died on March 10, 1985, leaving Philip L. Vining as surviving joint tenant.

Parcel #2 - Parcel described in a deed from Beatrice M. Carter to Lena P. Vining dated October 20, 1960, recorded at said Registry of Deeds in Book 2571, Page 197. Also described in a Deed of Distribution from Philip L. Vining, Personal Representative of the Estate of Lena P. Vining to Philip L. Vining dated July 30, 1986, recorded in Book 7291, Page 301.

**ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE
STEWART TITLE GUARANTY COMPANY**

SCHEDULE B

Owner Policy No.: O-0000-841459471

In addition to the Exclusions, You are not insured against loss, costs, attorneys' fees and expenses resulting from:

General Exceptions:

1. Rights of present tenants, lessees or parties in possession.
2. Any lien or right to a lien, for services, labor or materials heretofore or hereinafter furnished, imposed by law and not shown by the public records.
3. Discrepancies, conflicts in boundary lines, shortage in area, easements, encroachments, and facts which an accurate survey and inspection of the premises would disclose.

Special Exceptions:

4. The mortgage, if any, referred to in item 4 of Schedule A.
5. Liens for real estate taxes and assessments, which become due and payable subsequent to the date of this policy, plus unpaid water and sewer charges, if any. Taxes are paid through December 31, 2021.
6. IF THE INSURED PREMISES IS A CONDOMINIUM UNIT:
Covenants, conditions, restrictions, reservations, easements, liens for assessments, options, powers of attorney and limitations on title, created by the laws of the State of the insured premises or set forth in the Master Deed or Declaration of Condominium, in the related By-laws, or in the Declaration of Trust, as duly recorded in the appropriate Land Records Office and as the same may have been lawfully amended, and in any instrument creating the estate or interest insured by this policy.
7. Any inaccuracy in the area, square footage, or acreage of land described in Schedule A. The Company does not insure the area, square footage, or acreage of the land.

☒ **FOR ADDITIONAL EXCEPTIONS, SEE SCHEDULE B ADDENDUM ATTACHED HERETO**

Inclusion of a specific survey exception under Special Exceptions of Schedule B does NOT eliminate General Exception 3 in the Owner's Policy.

Covered Risks Not Limited by General Exceptions: If this Schedule B is attached to an ALTA Homeowners Policy (2/3/10) ("Homeowners Policy"), the General Exceptions listed above do not limit the coverage provided by the Covered Risks of the policy as follows: Exception No. 1 does not limit Covered Risks 2 and 22; Exception No. 2 does not limit Covered Risk 8e (i.e., the words "heretofore or" are deemed to be omitted from the exception); Exception No. 3 does not limit Covered Risks 16, 18, 19, 21, 22, 23, 24 and 31; and Exception No. 4 does not limit Covered Risks 8a and 27.

NOTE: The policy amount will automatically increase by 10% of the amount shown on Schedule A on each of the first five anniversaries of the policy date shown on Schedule A with respect to policies insuring the title to one-to-four family residential premises or a residential condominium unit.

Schedule B

ALTA Homeowner's Policy of Title Insurance for a One-to-Four Family Residence Revised 02/03/10

**ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE
STEWART TITLE GUARANTY COMPANY**

SCHEDULE B ADDENDUM

Owner's Policy No.: O-0000-841459471

8. Any exceptions, reservations, easements, restrictions, covenants, conditions, and rights of others to use any and all rights-of-way or any other matters referenced on the attached Exhibit A.
9. Title to and rights of the public and others entitled thereto in and to those portions of the insured premises lying within the bounds of adjacent streets, roads and ways or any portion of the premises lying beyond the high water mark of any abutting body of water.
10. This policy does not insure exact amounts of area, acreage or square footage of the premises.
11. Notes, rights of way, rights, reservations, easements, restrictions, covenants, conditions and other matters depicted on Plan of Land/Existing Conditions at 88 Main Street in Yarmouth, Maine for Kate Carey dated June, 2021 by Wayne Wood & Co.(not yet recorded)
12. Rights, rights of way, reservations, easements, restrictions, covenants, and conditions referred to or set forth in instrument recorded in the Cumberland County Registry of Deeds in Book 4235, Page 55.
13. Rights, rights of way, reservations, easements, restrictions, covenants, and conditions returned to or set forth in instrument recorded in the Cumberland County Registry of Deeds in Book 2571, Page 197.
14. Rights, rights of way, reservations, easements, restrictions, covenants, and conditions returned to or set forth in instrument recorded in the Cumberland County Registry of Deeds in Book 1495, Page 270.

DLN: 1002140176373

DEED OF SALE BY PERSONAL REPRESENTATIVE (TESTATE)

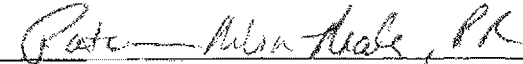
KNOW ALL BY THESE PRESENTS, that I, **Patricia Nelson-Reade**, duly appointed and acting **Personal Representative of the Estate of Ernest D. Vining**, deceased, whose Will was duly admitted to probate in the Probate Court of Cumberland County, Maine, as more fully appears in Docket No. 2020-1239, and having given notice to each person succeeding to an interest in the real property described below at least ten (10) days prior to the sale pursuant to 18-A MRSA §3-711, by the powers conferred by law, and every other power, for consideration paid, GRANT to **Charles L. Hewitt and Katharine S. Carey**, as joint tenants, both of Yarmouth, County of Cumberland and State of Maine, whose mailing address is 88 Main Street, Yarmouth, ME 04096, certain real property located in Yarmouth, County of Cumberland and State of Maine, which is more particularly described in Exhibit A attached hereto and made a part hereof.

This conveyance is made SUBJECT, HOWEVER, to real estate taxes which are not yet due and payable, which, by acceptance hereof, Grantee assumes and agrees to pay.

WITNESS my hand and seal this 15th day of December, 2021.


Witness

Estate of Ernest D. Vining

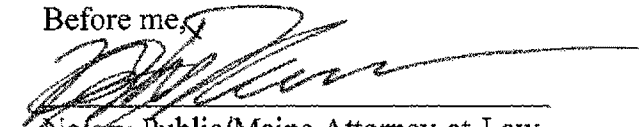
By: 
Patricia Nelson-Reade, Personal Representative
of the Estate of Ernest D. Vining

STATE OF MAINE
COUNTY OF CUMBERLAND, SS.

December 15, 2021

Then personally appeared the above-named Patricia Nelson-Reade, as Personal Representative of the Estate of Ernest D. Vining, and acknowledged the foregoing instrument to be her free act and deed and in her said capacity.

Before me,


Notary Public/Maine Attorney-at-Law
Printed Name: _____

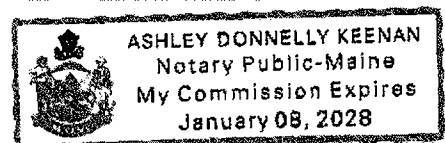


EXHIBIT A

Certain real property, together with the buildings and improvements thereon, located in Yarmouth, in the County of Cumberland and State of Maine and being more particularly bounded and described as follows;

Two certain lots or parcels of land with the improvements and buildings thereon situated on the road leading front Lower Falls in Yarmouth to New Gloucester known as Main Street in the Town of Yarmouth, County of Cumberland and State of Maine and described as follows;

Parcel #1 - Deed from Clarence A. Brown, trustee, to Philip L. Vining dated April 24, 1936. recorded at the Cumberland County Registry of Deeds in Book 1495, Page 270. Said parcel also being conveyed by Philip L. Vining to himself and Lena R. Vining as joint tenants by deed dated June 6, 1978, recorded at said Registry in Book 4235, Page 55. The said Lena P. Vining died on March 10, 1985, survived by the said Philip L. Vining as joint tenant.

Parcel #2 - Parcel described in a deed from Beatrice M. Carter to Lena P. Vining dated October 20, 1960, recorded at said registry of deeds in Book 2571, Page 197. Also described in a Deed of Distribution from Philip L. Vining, personal representative of the estate of Lena P. Vining to himself dated July 30, 1986, recorded in Book 7291, Page 301.

Meaning and intending to describe the real estate conveyed by (i) deed of Charles M. Vining and Caroline B. Vining to Ernest D. Vining, dated December 30, 1998 and recorded in the Cumberland Registry of Deeds at Book 14473, Page 18; (ii) deed of Charles M. Vining and Caroline B. Vining to Ernest D. Vining, dated January 3, 1999 and recorded in the Cumberland Registry of Deeds at Book 14473, Page 22; (iii) deed of Charles M. Vining and Caroline B. Vining to Ernest D. Vining, dated September 14, 2001 and recorded in the Cumberland Registry of Deeds at Book 16768, Page 7; (iv) deed of Charles M. Vining and Caroline B. Vining to Ernest D. Vining, dated July 9, 2002 and recorded in the Cumberland Registry of Deeds at Book 17864, Page 23; and (v) deed of Bradford E. Vining to Ernest D. Vining, dated October 16, 2008 and recorded in the Cumberland Registry of Deeds at Book 26418, Page 135.

Exhibit 7 (Original 4/13/2022, Revised 9/14/2022)

"If a condominium, homeowners, or property owners association will be established, attach as Exhibit #7 the articles of incorporation, the Declaration of Covenants and Responsibilities, and the proposed by-laws of the organization."

See attached additional documents in addition to those submitted previously.

Exhibit 7a: Certificate of Termination (Unit 3) - Bk 39708 Pg 73

Exhibit 7b: Quitclaim Deed - Bk 39708 Pg 76

Exhibit 7c: Revised Condo Plat - Plan Bk 222 Pg 373

AFTER RECORDING RETURN TO:

Charles Katz-Leavy, Esq.
Jensen Baird Gardner & Henry
P.O. Box 4510
Portland, Maine 04112-4510

**CERTIFICATE OF TERMINATION OF PORTION
OF 90 MAIN STREET CONDOMINIUM**

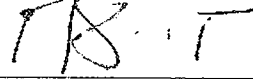
All of the Unit Owners of 90 MAIN STREET CONDOMINIUM (the "Condominium"), created under Declaration of 90 Main Street Condominium, dated January 25, 2022 and recorded in the Cumberland County Registry of Deeds in Book 39179, Page 126 (the "Declaration") hereby certify that One Hundred Percent (100%) of the Unit Owners voted on September 6, 2022 in favor of terminating a portion of the Condominium known as Unit #3 and the surrounding land, as further described on Exhibit A attached hereto and incorporated herein, pursuant to the following resolution:

A. Voted: to terminate Unit #3 of the Condominium and the surrounding land described in Exhibit A attached hereto and incorporated herein, and to convert the real estate to a single parcel of land to be owned by Charles L. Hewitt and Katharine Carey.

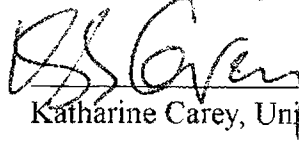
B. Voted: to amend the Condominium Plat recorded in said Registry in Plan Book 222, Page 27, to remove Unit #3 of the Condominium and the surrounding land described in Exhibit A attached hereto and incorporated herein.

This Termination of Condominium of Unit #3 is signed by all of the members of the Condominium and shall be effective on recording in the Cumberland County Registry of Deeds. If this Termination is not recorded in said Registry on or before December 31, 2022 it shall become null and void.

Witness our hands and seals as of September 9, 2022.



Charles L. Hewitt, Unit 3 owner



Katharine Carey, Unit 3 owner

State of Maine

County of Cumberland, ss

September 9, 2022

Then personally appeared before me the above named Charles L. Hewitt and Katharine Carey and acknowledged the foregoing to be their free act and deed.

Before me,



Notary Public/~~Attorney at Law~~

Name:

Gabe A. Michelson
Notary Public, State of Maine
My Commission Expires July 23, 2026

Witness our hands and seals as of September 9, 2022.

Fremont-Smith Co., LLC
(Units 1 & 2 owner)



By: Leandra Fremont Smith

Its: member

Exhibit A

Beginning on a line of the road leading from Lower Falls (Main St) in Yarmouth to New Gloucester, on the south side of said road, at the east corner of the store lot, now or formerly owned by the heirs of W. N. Richards, formerly owned by Gad Hitchcock; thence southeasterly on a line of said road, thirty-five and one half feet (35.50'); thence southwesterly on a parallel line with the side line of said Richards' store lot, ninety-six feet (96.0'); thence northwesterly thirty-five and one half feet (35.50') to a point ninety-six feet (96.0') from the street; thence northeasterly by said Richards' store lot ninety-six feet (96.0') to first mentioned bound.

Said lot being shown as 84 Main on a plan titled "90 Main Street Project, 90 Main Street Yarmouth, ME" dated 06-13-2022 by Platz Associates.

After recording return to:

Charles Katz-Leavy
Jensen Baird
PO Box 4510
Portland, ME 04112

DLN 1002240209453

QUITCLAIM DEED WITH COVENANT

KNOW ALL PERSONS BY THESE PRESENTS, that **CHARLES L. HEWITT** and **KATHARINE CAREY** of Yarmouth, Maine, and **FREMONT-SMITH CO., LLC**, a Maine limited liability company (collectively "Grantors") do hereby **GRANT** to **CHARLES L. HEWITT** and **KATHARINE CAREY** of Yarmouth, Maine, with a mailing address of 84 Main St Yarmouth, ME 04096, with **QUITCLAIM COVENANTS**, a certain lot or parcel of land together with any improvements thereon located in the Town of Yarmouth, County of Cumberland, and State of Maine, and described more particularly as follows:

SEE EXHIBIT A ATTACHED HERETO
AND INCORPORATED HEREIN BY REFERENCE

Reference is herein made to a Termination of Portion of 90 Main Street Condominium dated and recorded together herewith.

IN WITNESS WHEREOF, Grantors have caused this instrument to be signed and sealed on this 9 day of September, 2022.

WITNESS:

Julia L. Varrese
[Signature]

[Signature]
Charles L. Hewitt
[Signature]
Katherine Carey

State of Maine
County of Cumberland, ss

September 9, 2022

Then personally appeared before me the above named Charles L. Hewitt and Katherine Carey and acknowledged the foregoing to be their free act and deed.

Before me,

[Signature]
Notary Public/Attorney at Law
Name:

Gabe A. Michelson
Notary Public, State of Maine
My Commission Expires July 23, 2026

WITNESS:

Fremont-Smith Co., LLC

[Signature]

[Signature]
By: Leandra Fremont Smith
Its: frembsc

Seen and Agreed to:

90 Main Street Condominium

[Signature]
By Katherine S. Carey
Its President

EXHIBIT A

Beginning on a line of the road leading from Lower Falls (Main St) in Yarmouth to New Gloucester, on the south side of said road, at the east corner of the store lot, now or formerly owned by the heirs of W. N. Richards, formerly owned by Gad Hitchcock; thence southeasterly on a line of said road, thirty-five and one half feet (35.50'); thence southwesterly on a parallel line with the side line of said Richards' store lot, ninety-six feet (96.0'); thence northwesterly thirty-five and one half feet (35.50') to a point ninety-six feet (96.0') from the street; thence northeasterly by said Richards' store lot ninety-six feet (96.0') to first mentioned bound.

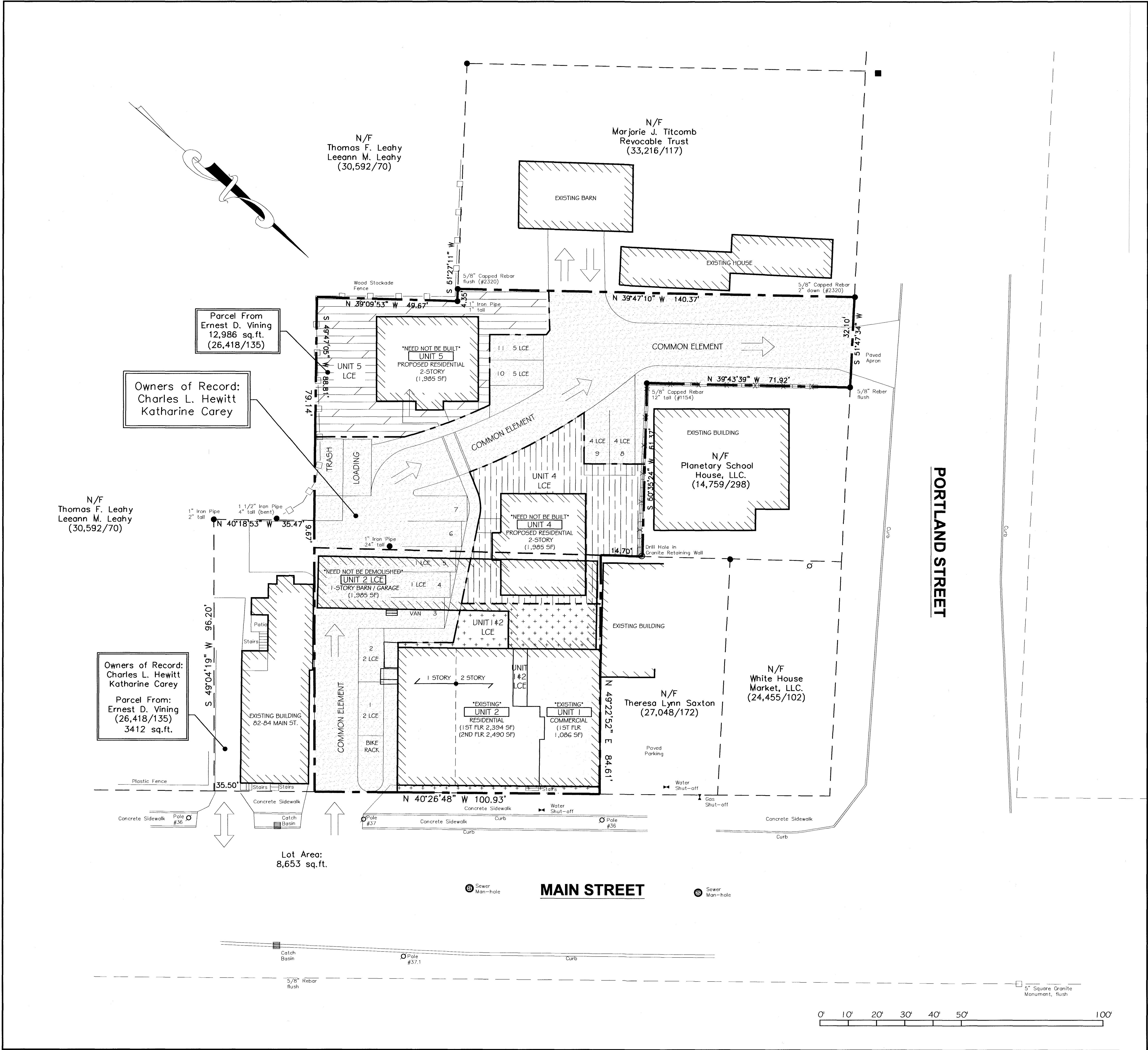
Said lot being shown as 84 Main on a plan titled "90 Main Street Project, 90 Main Street Yarmouth, ME" dated 06-13-2022 by Platz Associates.

SUBJECT TO the following covenant:

The owner of the above-referenced parcel agrees to cooperate in good faith with the abutting 90 Main Street Condominium Association regarding the maintenance and repair of any shared infrastructure and improvements benefitting both the above-described parcel and the 90 Main Street Condominium.

Reference is made to the following recorded documents:

1. A plan titled "90 Main Street Project, 90 Main Street Yarmouth, ME" dated 06-13-2022 by Platz Associates.
2. A certificate of termination of condominium pertaining to 90 Main Street Condominium, of near or even date, to be recorded in the Cumberland County Registry of Deeds.
3. An amended Condominium Plat of 90 Main Street Condominium, of near or even date, to be recorded in the Cumberland County Registry of Deeds.



NOTES

- GENERAL NOTES:
- THIS SHEET AMENDS THE PREVIOUSLY RECORDED CONDOMINIUM PLAT AT 222/27 DATED "01-12-2022".
 - SITE PLAN BASED ON SURVEY DATED "NOVEMBER 2021" BY WAYNE WOOD & CO. 30 WOOD DRIVE, GRAY MAINE 04039
 - EXISTING UNIT 1 & UNIT 2 BASED ON FLOOR PLANS DATED 8/18/20 BY GLEASON ARCHITECTS, PO BOX 596 STRATHAM, NEW HAMPSHIRE 03885
 - DECLARANTS / OWNERS SOURCES OF TITLE - 32,617 / 124 AND 39,006 / 91.
 - UNIT 4, UNIT 5, AND SITE IMPROVEMENTS NEED NOT BE BUILT. LOCATION OF NEW CONSTRUCTION MAY BE MODIFIED.
 - UNIT 2 LCE BARN / GARAGE MAY BE DEMOLISHED AT DECLARANTS OPTION.

ZONING SUMMARY:

1. Property is located in the	VILLAGE CENTER (CD4)
2. Parcel Area:	+/- .50 acres / 21,639 square feet(s)
3. Zoning Regs:	Required or Allowed / Provided
Min Lot Area	None / 21,639 sq (existing)
Min Lot Area Per Unit	None / N/A
Max Lot Coverage	85% / 71% (15,355 sq / 21,639 sq)
Lot Width	18'-0" to 120'-0" / 100'-11"
Frontage Buildout	40% to 100% / 71%
Min Front Setback	0'-0" / 3'-0" (existing)
Min Side Rear Setback	0'-0" / 5'-0"
Rear Setback	3'-0" / 5'-0"
Max. Bldg Height	35'-0" / 33'-1" (2 story)
Use Designation	Existing = Mixed Use - Commercial 1st Floor, Residential Unit 2nd Floor & Partial 1st Floor Proposed Add = Two (2) Detached Residential Units 2 spaces min per residential unit - 3 Units = 6 spaces 2 spaces min per 1000 sq. ft. Retail Area - 1,066 SF = 2 spaces TOTAL: 8 spaces required / 11 provided (1 ADA Van Accessible, 1 ADA Accessible)
Parking Req.	
Overlay zoning districts (if any):	None

SITE PLAN KEY

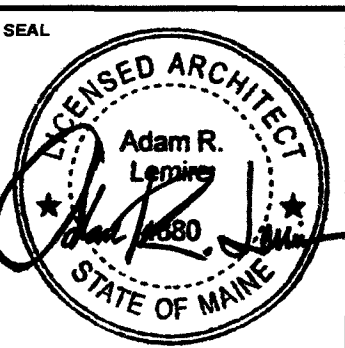
- 90 MAIN ST. PROPERTY LINE
- ADJACENT PROPERTY LINE
- REMOVED PROPERTY LINE
- BOUNDARY OF LCE (LIMITED COMMON ELEMENT)
- EXISTING IRON PIPE OR PIN
- EXISTING FENCE
- EXISTING BUILDING
- "NEED NOT BE BUILT" PROPOSED BUILDING
- CE (COMMON ELEMENT)
- UNIT #2 LCE (LIMITED COMMON ELEMENT)
- UNIT 4 LCE (LIMITED COMMON ELEMENT)
- UNIT 5 LCE (LIMITED COMMON ELEMENT)

STATE OF MAINE, CUMBERLAND SS
REGISTRY OF DEEDS
RECEIVED September 9, 2022
AT 11:11 PM AND RECORDED IN
PLAN BOOK 222 PAGE 373
ATTEST *Deborah Spaulding*
REGISTER

AMENDED CONDOMINIUM PLAT
90 MAIN STREET CONDOMINIUM
90 MAIN STREET YARMOUTH, MAINE
PREPARED FOR
OWNER OF RECORD
CHARLES L. HEWITT AND KATHARINE CAREY
MAILING ADDRESS: 90 MAIN STREET,
YARMOUTH, MAINE 04096
BY
PLATZ ASSOCIATES
TWO GREAT FALLS PLAZA, AUBURN, MAINE 04210

PLATZ ASSOCIATES
Architects - Engineers
Construction Managers
Tel 207-784-2941
Fax 207-784-3856
Two Great Falls Plaza, Auburn, Maine 04210

Proposed Site Plan for:
90 MAIN STREET CONDOMINIUM
90 Main Street
Yarmouth, Maine



ORIGINAL DATE: 09-08-2022

NO.	DESCRIPTION	DATE

JOB NO. 202141

DRAWN BY ARL CHECKED BY -

SHEET TITLE
CONDOMINIUM PLAT

SHEET

C100

Exhibit 9 (Original 4/13/2022, Revised 9/14/2022)

“Attach as Exhibit #9 a list of all consultants retained for this proposed project, such as engineers, architects, landscape architects, environmental consultants; and those firms or personnel who will be responsible for constructing, operating and maintaining the project.”

Architect:	Platz Associates Contact: Adam R. Lemire, AIA Two Great Falls Plaza. Auburn, ME 04210
Structural Engineer:	Shelley Engineering, Inc. Contact: Tim Shelley, PE 58 Mayberry Rd, Gray, ME 04039
Civil Engineer:	Acorn Engineering, Inc Contact: Travis Letellier, PE 500 Washington Ave Suite 202, Portland, ME 04103
Hazardous Assessment:	Northeast Test Consultants P.O. Box 438, Westbrook, ME 04096
Building Contractor:	Codere Construction Contact: Benjamin Codere PO Box 6481, Scarborough, ME 04070-6481

Exhibit 11 (Original 4/13/2022, Revised 9/14/2022)

“Attach as Exhibit #11 written confirmation from the Yarmouth Water District that it can supply the proposed development and that the proposed plan has been approved by the District. If the applicant proposes a private supply, provide evidence that a sufficient and healthful water supply is available for the proposed development.”

Plans have been sent to Eric Gagnon at the Yarmouth Water District for review and approval. We will forward their ability to serve letter as soon as it is received.

Exhibit 12 (Original 4/13/2022, Revised 9/14/2022)

“Attach as Exhibit #12 a written evaluation and demonstration of the adequacy and availability of adjacent streets to serve the proposed project. If you must submit a full traffic study to DEP, provide two (2) copies with this application. (see Ch. 702 H.2.)”

A Traffic Assessment has been provided with the application materials for review. There are no new curb cuts proposed for this project and a DOT permit and based on the scale of the development there will be no detrimental effects on the local traffic.

Exhibit 13 (Original 4/13/2022, Revised 9/14/2022)

“Attach as Exhibit #13 a description of any problems of drainage or topography, or a representation that, in the opinion of the applicant, there are none.”

The site is relatively flat in its existing conditions and will have no problems with grading or drainage on the property.

Exhibit 14 (Original 4/13/2022, Revised 9/14/2022)

“Attach as Exhibit #14 a complete stormwater management plan, including drainage calculations for pre- and post-development for 2 yr. and 25 yr. storm events, a drainage plan, and an assessment of any pollutants in the stormwater runoff, that meets the requirements of Chapter 702, Review Criteria re Stormwater Management.”

A complete stormwater report with calculations has been provided with the application materials.

Exhibit 15 (Original 4/13/2022, Revised 9/14/2022)

“Attach as Exhibit #15 a written description of erosion and sedimentation control measures to be used during and after construction of the proposed project.”

An erosion and sedimentation control plan has been provided with the application materials for review. In addition, erosion and sedimentation control features are included on the site plans along with details and written notes.

Exhibit 16 (Original 4/13/2022, Revised 9/14/2022)

“Attach as Exhibit #16 a medium intensity soils classification report, including description of soils and interpretation of engineering properties. Include geotechnical report, if applicable.”

See attached Boring Location Map and Logs.

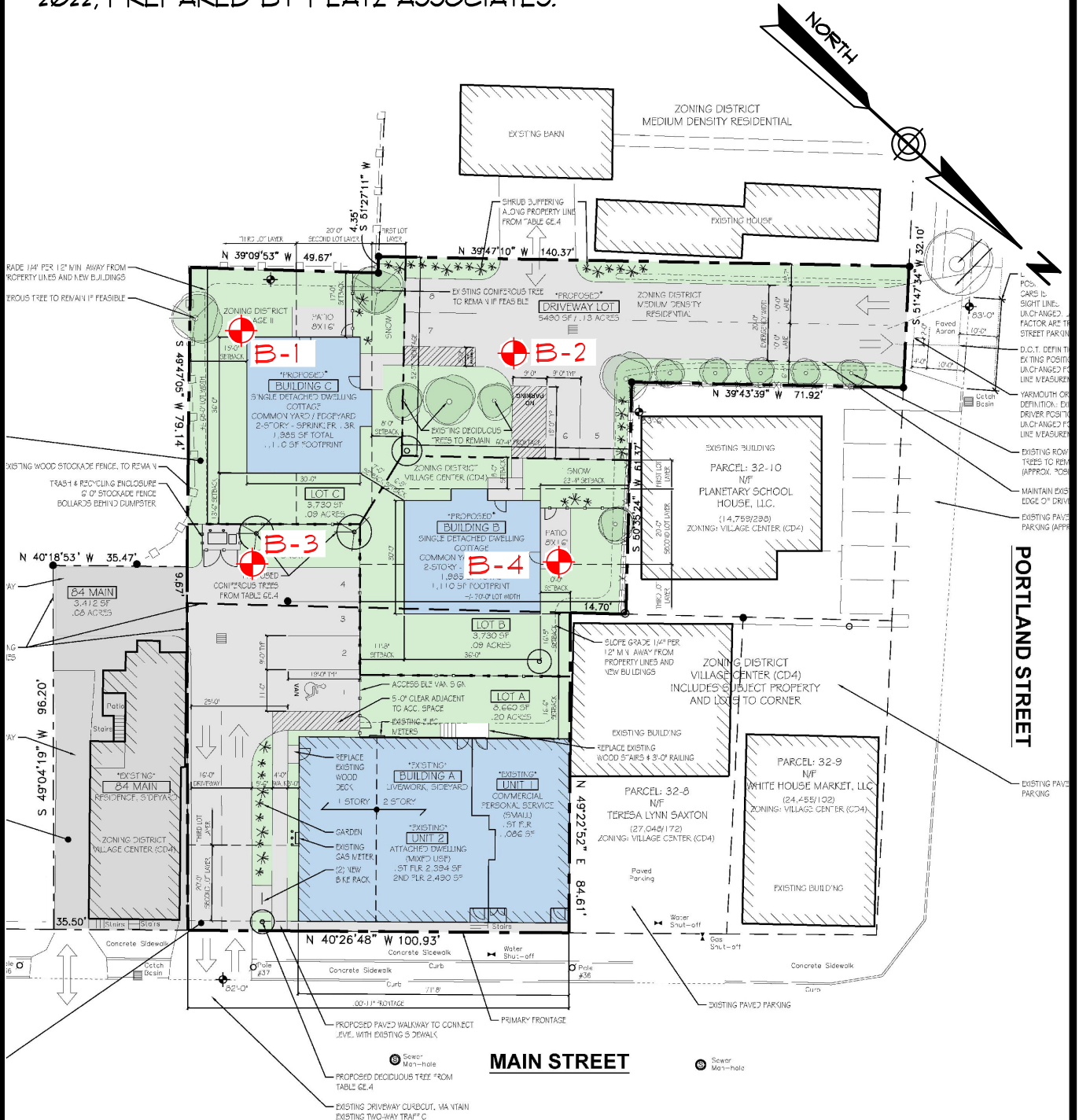
PLAN REFERENCE


"PROPOSED SITE PLAN - AMENDED, 90 MAIN STREET PROJECT", DATED APRIL 13, 2022, PREPARED BY PLATZ ASSOCIATES.

LEGEND




SUMMIT TEST BORING
(JULY 15, 2022)



					SOIL BORING LOG				Boring #: B-1		
Drilling Co: Summit Geoengineering Services, Inc.					Project: Buildings and Driveways				Project #: 22276		
Driller: S. Floyd					Location: 90 Main Street				Sheet: 1 of 1		
Summit Staff: C. Plante, EI					City, State: Yarmouth, ME				Chkd by: WMP		
Boring Elevation:					Reference:						
Date started: 7/15/2022					Date Completed: 7/15/2022						
DRILLING METHOD		SAMPLER			ESTIMATED GROUND WATER DEPTH						
Vehicle:	AMS PP	Length:	24" SS		Date	Depth	Elevation	Reference			
Model:	9500 VTR	Diameter:	2"OD/1.5"ID		7/15/2022			None observed			
Method:	2 1/4" HSA	Hammer:	140 lb								
Hammer Style:	Automatic	Method:	ASTM D1586								
Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION		Geological/ Test Data		Geological Stratum	
1	S-1	24/17	0-2	2		Brown fine SAND, some Silt, trace Gravel and roots, loose, humid, SM			TOPSOIL		
2				3		Brownish gray fine Sandy SILT, trace Clay, firm, moist, ML			GLACIAL MARINE		
3				4							
4											
5											
6	S-2	24/19	5-7	3		Gray Silty CLAY, slightly mottled, stiff, damp, CL		PP > 4.5 tsf	GLACIAL MARINE		
7				6							
8				7							
9				9							
10											Grayish olive Silty CLAY, little fine Sand seams, moderately mottled, stiff, damp, CL
11	S-3	24/24	10-12	3							
12				4							
13				5							
14				6		Grayish tan Silty fine SAND, little to trace Clay, trace Silty Clay seams, loose, moist to wet, SM					
15											
16	S-4	24/19	15-17	2							
17				4							
18				5		Tan fine SAND, some Silt, loose, moist to wet, SM					
19				5							
20											
21	S-5	24/20	20-22	4							
22				6		Gray Silty CLAY, some fine Sand, CL					
				5		Tan fine SAND, some Silt, loose, moist to wet, SM					
				6		End of Boring at 22 ft - No refusal					

Granular Soils		Cohesive Soils		% Composition ASTM D2487	NOTES:	Soil Moisture Condition
Blows/ft.	Density	Blows/ft.	Consistency			
0-4	V. Loose	<2	V. soft	< 5% Trace 5-15% Little 15-30% Some > 30% With	PP = Pocket Penetrometer, MC = Moisture Content LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength Bedrock Joints Shallow = 0 to 35 degrees Dipping = 35 to 55 degrees Steep = 55 to 90 degrees Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200	Dry: S = 0% Humid: S = 1 to 25% Damp: S = 26 to 50% Moist: S = 51 to 75% Wet: S = 76 to 99% Saturated: S = 100%
5-10	Loose	2-4	Soft			
11-30	Compact	5-8	Firm			
31-50	Dense	9-15	Stiff			
>50	V. Dense	16-30	V. Stiff			
		>30	Hard			


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					SOIL BORING LOG				Boring #: B-2	
Drilling Co: Summit Geoengineering Services, Inc.					Project: Buildings and Driveways				Project #: 22276	
Driller: S. Floyd					Location: 90 Main Street				Sheet: 1 of 1	
Summit Staff: C. Plante, EI					City, State: Yarmouth, ME				Chkd by: WMP	
Boring Elevation:					Reference:					
Date started: 7/15/2022					Date Completed: 7/15/2022					
DRILLING METHOD		SAMPLER			ESTIMATED GROUND WATER DEPTH					
Vehicle:	AMS PP	Length:	24" SS		Date	Depth	Elevation	Reference		
Model:	9500 VTR	Diameter:	2"OD/1.5"ID		7/15/2022			None observed		
Method:	2 1/4" HSA	Hammer:	140 lb							
Hammer Style:	Automatic	Method:	ASTM D1586							
Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION		Geological/ Test Data		Geological Stratum
1	S-1	24/16	0-2	3		Brown fine SAND, some Silt, trace Gravel and roots, loose, humid, SM				TOPSOIL
				5						
2				5						
3						Gray Silty CLAY, trace fine Sand, CL				GLACIAL MARINE
4										
5										
6	S-2	24/21	5-7	4		Gray Silty CLAY, trace fine Sand, moderately mottled, stiff, damp, CL		PP > 4.5 tsf		
				6						
7				7						
8				8		Gray Silty CLAY, trace fine Sand, slightly mottled, stiff, damp, CL		PP = 2.8 - 4.3 tsf		
9										
10										
11	S-3	24/24	10-12	3						
				4						
12				5						
13				7		Grayish tan Silty fine SAND, trace Clay and Silty Clay layers, loose, moist to wet, SM				
14										
15										
16	S-4	24/20	15-17	2						
				3						
17				4						
18				5		Tan fine SAND, some to little Silt, compact, moist, SM				
19										
20										
21	S-5	24/20	20-22	4						
				5						
22				7						
				8		End of Boring at 22 ft - No refusal				

Granular Soils		Cohesive Soils		% Composition ASTM D2487	NOTES:	Soil Moisture Condition
Blows/ft.	Density	Blows/ft.	Consistency			
0-4	V. Loose	<2	V. soft		PP = Pocket Penetrometer, MC = Moisture Content	Dry: S = 0%
5-10	Loose	2-4	Soft	< 5% Trace	LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test	Humid: S = 1 to 25%
11-30	Compact	5-8	Firm	5-15% Little	Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength	Damp: S = 26 to 50%
31-50	Dense	9-15	Stiff	15-30% Some	Shallow = 0 to 35 degrees	Moist: S = 51 to 75%
>50	V. Dense	16-30	V. Stiff	> 30% With	Dipping = 35 to 55 degrees	Wet: S = 76 to 99%
		>30	Hard		Steep = 55 to 90 degrees	Saturated: S = 100%

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Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
 Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

					SOIL BORING LOG				Boring #: B-3	
Drilling Co: Summit Geoengineering Services, Inc.					Project: Buildings and Driveways				Project #: 22276	
Driller: S. Floyd					Location: 90 Main Street				Sheet: 1 of 2	
Summit Staff: C. Plante, EI					City, State: Yarmouth, ME				Chkd by: WMP	
Boring Elevation:					Reference:					
Date started: 7/15/2022					Date Completed: 7/15/2022					
DRILLING METHOD		SAMPLER			ESTIMATED GROUND WATER DEPTH					
Vehicle:	AMS PP	Length:	24" SS		Date	Depth	Elevation	Reference		
Model:	9500 VTR	Diameter:	2"OD/1.5"ID		7/15/2022			None observed		
Method:	2 1/4" HSA	Hammer:	140 lb							
Hammer Style:	Automatic	Method:	ASTM D1586							
Depth (ft.)	No.	Pen/Rec (in)	Depth (ft)	blows/6"	Elev. (ft.)	SAMPLE DESCRIPTION		Geological/ Test Data		Geological Stratum
1	S-1	24/13	0-2	4		Brown Gravelly medium-coarse SAND, loose, damp, SW				FILL
				6						
				4						
2				4						
3						Gray Silty CLAY, trace fine Sand, CL				GLACIAL MARINE
4										
5										
	S-2	24/21	5-7	2						
6				4		Gray Silty CLAY, trace fine Sand, slightly mottled, stiff, damp, CL		PP = 3.5 - 4.3 tsf		
				5						
7				6						
8										
9						Gray Silty CLAY, trace fine Sand, slightly mottled, firm, moist to damp, CL		PP = 3.0 - 4.3 tsf		
10										
	S-3	24/24	10-12	3						
11				4						
				4		Gray Silty CLAY, trace fine Sand, slightly mottled, firm, moist to damp, CL				
12				6						
13										
14										
15						Gray Silty CLAY, trace fine Sand, slightly mottled, firm, moist to damp, CL				
	S-4	24/22	15-17	1						
16				6						
				7						
17				5		Tan f SAND, sm Silt, compact, moist, SM				
						Gray Silty CLAY, little fine Sand, CL				
18						Cobble at 19 ft				
19										
20										
	S-5	24/21	20-22	4						
21				6		Tan fine SAND, some to little Silt, compact, damp, SM				
				6						
22				6						
						Gray Silty CLAY, CL				

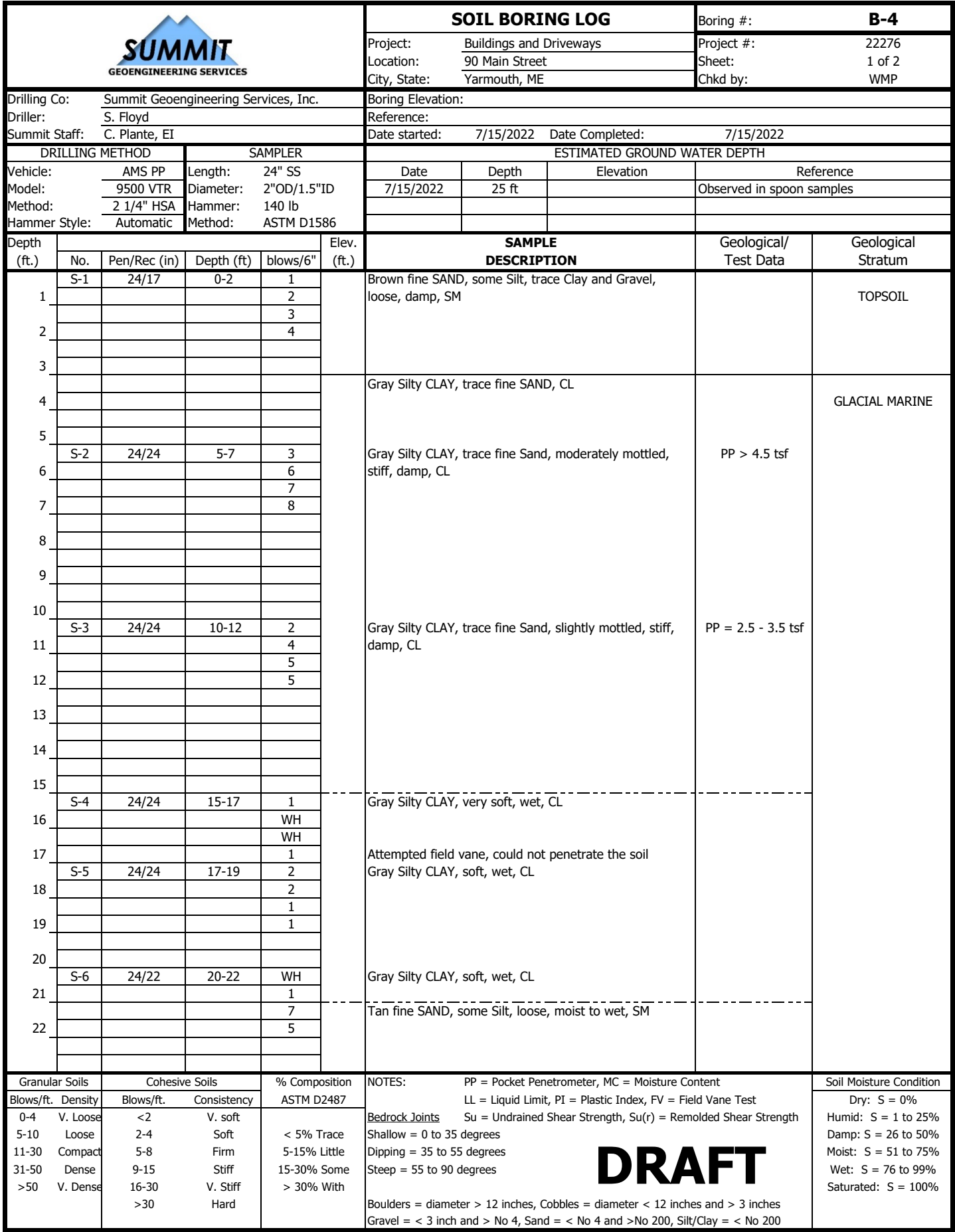
Granular Soils		Cohesive Soils		% Composition ASTM D2487	NOTES:	Soil Moisture Condition
Blows/ft.	Density	Blows/ft.	Consistency			
0-4	V. Loose	<2	V. soft		PP = Pocket Penetrometer, MC = Moisture Content	Dry: S = 0%
5-10	Loose	2-4	Soft	< 5% Trace	LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test	Humid: S = 1 to 25%
11-30	Compact	5-8	Firm	5-15% Little	Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength	Damp: S = 26 to 50%
31-50	Dense	9-15	Stiff	15-30% Some	Shallow = 0 to 35 degrees	Moist: S = 51 to 75%
>50	V. Dense	16-30	V. Stiff	> 30% With	Dipping = 35 to 55 degrees	Wet: S = 76 to 99%
		>30	Hard		Steep = 55 to 90 degrees	Saturated: S = 100%

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Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches
Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200

					SOIL BORING LOG				Boring #: B-3	
Drilling Co: Summit Geoengineering Services, Inc.					Project: Buildings and Driveways				Project #: 22276	
Driller: S. Floyd					Location: 90 Main Street				Sheet: 2 of 2	
Summit Staff: C. Plante, EI					City, State: Yarmouth, ME				Chkd by: WMP	
Boring Elevation:					Reference:					
Date started: 7/15/2022					Date Completed: 7/15/2022					
DRILLING METHOD		SAMPLER			ESTIMATED GROUND WATER DEPTH					
Vehicle: AMS PP		Length: 24" SS			Date	Depth	Elevation	Reference		
Model: 9500 VTR		Diameter: 2"OD/1.5"ID			7/15/2022			None observed		
Method: 2 1/4" HSA		Hammer: 140 lb								
Hammer Style: Automatic		Method: ASTM D1586								
Depth (ft.)					Elev. (ft.)	SAMPLE DESCRIPTION		Geological/ Test Data	Geological Stratum	
	No.	Pen/Rec (in)	Depth (ft)	blows/6"						
23						Probe with spear tip and SPT Hammer, no samples taken			GLACIAL MARINE	
				10						
24				8						
				20						
25									(PROBABLE) GLACIAL TILL	
26				18						
27				20						
28				18						
29				21						
30				25						
31				27						
32										
33										
34										
35						End of Boring at 32.3 ft - Probe refusal			(PROBABLE) BEDROCK	
36										
37										
38										
39										
40										
41										
42										
43										
44										

Granular Soils		Cohesive Soils		% Composition ASTM D2487	NOTES: PP = Pocket Penetrometer, MC = Moisture Content LL = Liquid Limit, PI = Plastic Index, FV = Field Vane Test Su = Undrained Shear Strength, Su(r) = Remolded Shear Strength Shallow = 0 to 35 degrees Dipping = 35 to 55 degrees Steep = 55 to 90 degrees Boulders = diameter > 12 inches, Cobbles = diameter < 12 inches and > 3 inches Gravel = < 3 inch and > No 4, Sand = < No 4 and >No 200, Silt/Clay = < No 200	Soil Moisture Condition
Blows/ft.	Density	Blows/ft.	Consistency			Dry: S = 0% Humid: S = 1 to 25% Damp: S = 26 to 50% Moist: S = 51 to 75% Wet: S = 76 to 99% Saturated: S = 100%
0-4	V. Loose	<2	V. soft	< 5% Trace	<div style="font-size: 48pt; font-weight: bold; text-align: center;">DRAFT</div>	
5-10	Loose	2-4	Soft	5-15% Little		
11-30	Compact	5-8	Firm	15-30% Some		
31-50	Dense	9-15	Stiff	> 30% With		
>50	V. Dense	16-30	V. Stiff			
		>30	Hard			



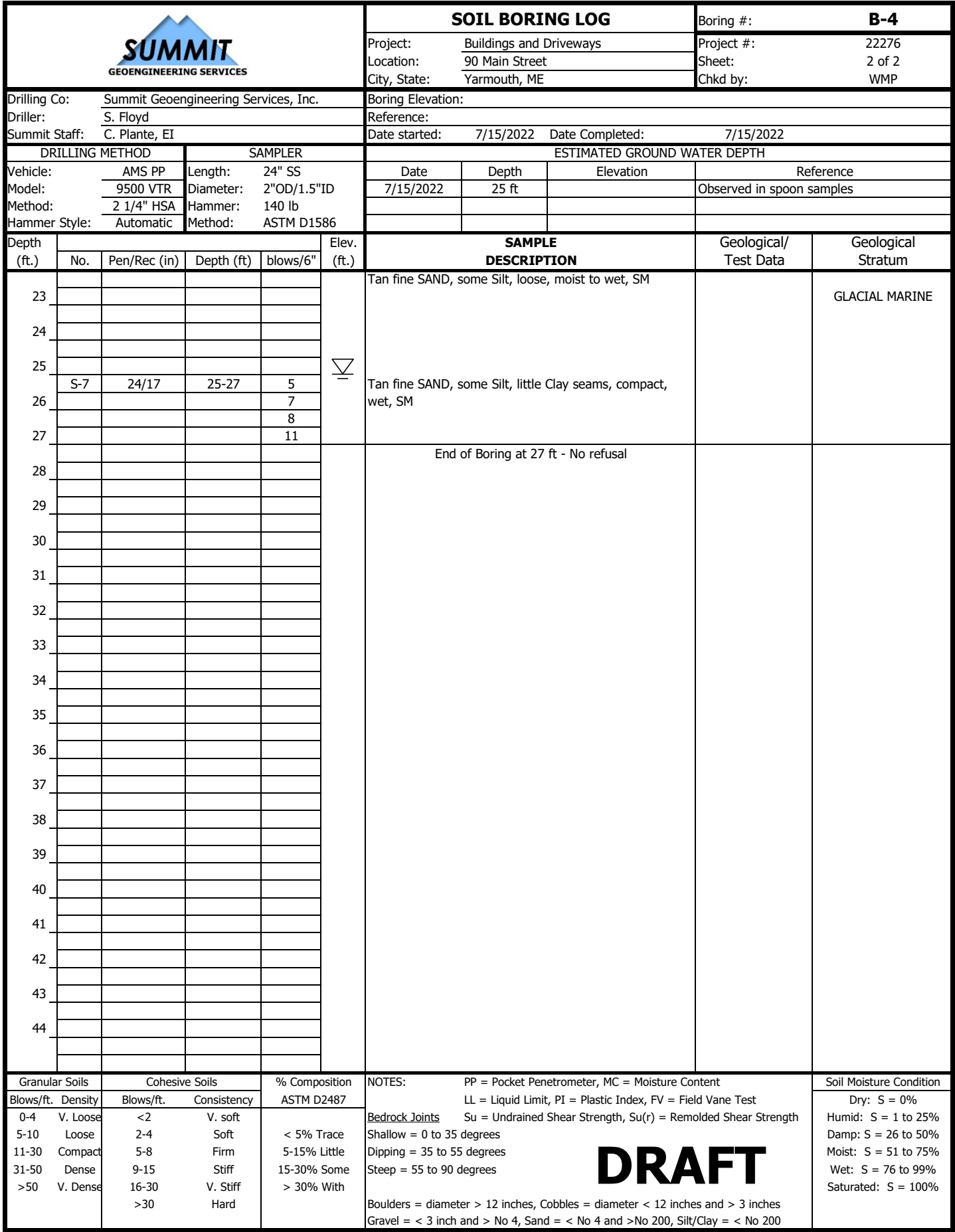


Exhibit 18 (Original 4/13/2022, Revised 9/14/2022)

“Attach as Exhibit #18 a written statement that explains how the project complies with the site plan review criteria and with specific performance standards required in the zoning district, if applicable. If applicable, please note how the proposal specifically complies with the separate components of the Route One Corridor Design Guidelines.”

Responses to each site Plan Criteria is provided below and in attached exhibits.

Exhibit 18a – Traffic Assessment

Exhibit 18b – Erosion & Sedimentation Control Report

Exhibit 18c – Stormwater Management Report

“H. REVIEW CRITERIA The Planning Board shall approve a site plan application whenever it finds that:

1. Conformance with Comprehensive Plan: The proposed development is located and designed in such a way as to be in conformance with the Town’s Comprehensive Plan.”

The project is designed to be in conformance with the Town’s Comprehensive Plan. The project increases the residential uses of the village district utilizing a village infill lot for single family homes of a scale conforming to the surrounding neighborhood. It is designed to be pedestrian friendly and enhances the character of the Main St. by removing parking at the frontage, reducing the opening width, and adding landscaping. The existing Mixed Use building on the street will also be maintained as part of this project.

“2. Traffic: The proposed development will not cause unreasonable highway or public road congestion or unsafe conditions with respect to use of the highways, public road or pedestrian walkways existing or proposed. The Planning Board may require mitigation when the proposed development is anticipated to result in a decline in service, below level of service “c”, of nearby roadways of intersections. Levels of service are defined by the 1985 Highway Capacity manual published by the Highway Research Board.”

The project adds two single family homes to the existing property, and it is not anticipated this will have a significant impact on existing traffic. A traffic assessment has been provided for review.

"3. Parking and Vehicle Circulation: The proposed plan provides for adequate parking and vehicle circulation. The amount of dedicated parking provided onsite or within a reasonable walking distance from the site meets the requirements of ARTICLE II.H of the Zoning Ordinance (Off Street Parking and Loading), the size of the parking spaces, vehicle aisle dimensions and access points are in conformance with the Technical Standards of Section J of this document."

Access to the site is proposed to be the equivalent to the existing access with improvements to meet current ordinances and life safety requirements. Utilizing existing curb cut entrance at Main St. and a similar configuration at Portland street.

Parking was calculated using the CBDC Chapter 703 – Table 5.K.1 Parking Requirements. Ten (10) parking spaces are required, and the site plan provides twelve (12) total. There will be one ADA/Van spot that will be appropriately marked and include a code-compliant sign.

"4. Sanitary Sewerage: The proposed development will not cause an unreasonable adverse effect to the Municipal sewerage treatment facilities and will not aggravate an existing unhealthy situation such as the bypassing of untreated sewerage into Casco Bay, the Royal River, or its tributaries. If a subsurface wastewater disposal system is to be used, the system conforms to the requirements of the State Plumbing Code."

The scale and use of the project should not have any significant impacts on Municipal facilities and is shown with a 6 inch sanitary line connection to the municipal system. There is no subsurface wastewater disposal system planned.

"5. Water: The proposed development will not cause the depletion of local water resources or be inconsistent with the service plan of the Yarmouth Water District."

The scale and use of the project should not have any significant impacts on the Yarmouth Water District. Plans have been sent to Eric Gagnon at the Yarmouth Water District for review and approval. We will forward their reply letter as soon as it is received.

"6. Fire Safety: The proposed development is located and designed in such a way as to provide adequate access and response time for emergency vehicles or mitigates inadequate access or response time by providing adequate fire safety features such as but not limited to fire lanes, smoke and fire alarms and sprinkler systems, as part of the proposed development."

The two new proposed buildings will meet current local, state, and federal life safety code standards and provide adequate egress, interconnected smoke detectors, Gas Detectors, Carbon Monoxide detectors, required House Numbers, and will be fully sprinklered per NFPA 13D. Revisions to the emergency access has been discussed with the fire chief and further review is expected.

"7. Buffering: The proposal provides for adequate on-site buffering in the vicinity of property boundaries, when required by this subsection. On-site buffering is required wherever commercial, industrial or mixed use developments are proposed adjacent to or across a street from residential districts or agricultural uses, where multi-family buildings are to be located adjacent to single family uses or districts, and when required by ARTICLE IV.S.3 of the Yarmouth Zoning Ordinance (Mobile Home Park Performance Standards). Buffer areas shall consist of an area ranging from a minimum of five feet to a maximum of twentyfive feet in width, adjacent to the property boundary, in which no paving, parking or structures may be located. The Planning Board may allow a buffer area of less width when site conditions, such a natural features, vegetation, topography, or site improvements, such as additional landscaping, berming, fencing or low walls, make a lesser area adequate to achieve the purposes of this Section. Landscaping and screening, such as plantings, fences or hedges, are to be located in buffer areas to minimize the adverse impacts on neighboring properties from parking and vehicle circulation areas, outdoor storage areas, exterior lighting and buildings."

Areas abutting the Medium Density Residential District shall be screened adjacent to parking areas with plantings in accordance with the Yarmouth Ordinances on buffering. See plantings on attached site plan.

"8. Natural Areas: The proposal does not cause significant adverse impacts to natural resources or areas such as wetlands, significant geographic features, significant wildlife and marine habitats and natural fisheries. The proposal is consistent with the recommendations of the Maine Department of Inland Fisheries and Wildlife as found in the document titled "The Identification and Management of Significant Fish and Wildlife Resources in Southern Coastal Maine," February 1988."

There are no wetlands on the site, significant geographic features, significant wildlife and marine habitats and natural fisheries. The site is an urban infill lot.

"9. Lighting: The proposal shall provide exterior lighting sufficient for the safety and welfare of the general public while not creating an unsafe situation or nuisance to neighboring properties or motorists traveling nearby roadways."

The project proposes exterior lighting fixtures to provide adequate lighting for safely navigating the site. All exterior fixtures shall be dark sky compliant and shielded / directed so as not to shine across neighboring property lines. New down light sconces are proposed for entrances at the interior of the property. Street lighting, primarily for illuminating the parking and trash area, will provide ambient light to the thoroughfare. Additional information will be provided.

“10. Storm Water Management: The plan provides for adequate storm water management facilities so that the post development runoff rate will be no greater than the predevelopment rate or that there is no adverse downstream impact. Proposed storm water detention facilities shall provide for the control of two year and twenty-five year storm frequency rates. The design, construction and maintenance of private facilities are maintenance of private storm water management facilities.”

A stormwater management plan has been prepared and included with the submission materials for review. The design mimics the existing conditions by detaining and infiltrating stormwater on the property with an appropriately sized overflow at the same location as pre-development conditions. The proposed stormwater system will eliminate stormwater discharges for most smaller storms and be an overall benefit to the neighboring properties.

“11. Erosion and Sedimentation Control: The proposed development includes adequate measures to control erosion and sedimentation and will not contribute to the degradation of nearby streams, watercourses or coastal lowlands by virtue of soil erosion or sedimentation. The erosion control measures are to be in conformance with the most current edition of the “Environmental Quality handbook, Erosion and Sedimentation Control”, prepared by the Maine Soil and Water Conservation Commission.”

An erosion and sedimentation control plan has been prepared and included with the submission materials.

“12. Buildings: The bulk, location and height of proposed buildings or structures will not cause health or safety problems to existing uses in the neighborhood, including without limitation those resulting from any substantial reduction to light and air or any significant wind impact. To preserve the scale, character, and economy of the Town in accordance with the Comprehensive Plan no Individual Retail use with a Footprint greater than 55,000 square feet shall be permitted. Structures defined as Shopping Centers shall be limited to a Footprint of 75,000 square feet. When necessary to accommodate larger projects, several Individual Retail Structures with Footprints of not more than 55,000 square feet each may be placed on the same lot, provided that all other standards are met. No less than 40 feet shall be allowed as separation distance

between buildings. Efforts to save and plant native trees between and among structures shall be encouraged."

The two proposed detached single family dwellings will be of a scale keeping with the mixed use neighborhood and will not cause health or safety issues for the surrounding neighborhood. The sections above relating to Shopping Centers do not apply.

"13. Existing Landscaping: The site plan minimizes to the extent feasible any disturbance or destruction of significant existing vegetation, including mature trees over four (4) inches in diameter and significant vegetation buffers."

The design of the site minimizes disturbances to the greatest extent possible while providing necessary utility required to support the existing mixed use building and new detached single family dwellings. The intent is to include street trees and additional trees on individual lots to provide a fully landscaped environment and visual buffers.

"14. Infrastructure: The proposed development is designed so as to be consistent with off premises infrastructure, such as but not limited to sanitary and storm sewers, waste water treatment facilities, roadways, sidewalks, trail systems and street lights, existing or planned by the Town."

The project will not negatively impact existing infrastructure and circulation systems.

"15. Advertising Features: The size, location, design, color, texture, material and lighting of all permanent signs and outdoor lighting fixtures are provided with a common design theme and will not detract from the design of proposed buildings or neighboring properties."

There are no plans for signs associated with the development except for those related to the street and parking which will be standard DOT signage. Outdoor lighting fixtures will be integrated and harmonious with the architecture of the proposed structures and will not detract from neighboring properties.

"16. Design Relationship to Site and Surrounding Properties: The proposed development provides a reasonably unified response to the design constraints of the site and is sensitive to nearby developments by virtue of the location, size, design, and landscaping of buildings, driveways, parking areas, storm water management facilities, utilities storage areas and advertising features."

The site plan was designed to be sensitive to the character and scale with the surrounding neighborhood while meeting the requirements of the ordinance on a tight village lot. The new buildings were scaled and located to have minimum impact on the street and are set back behind the primary Mixed Use building on Main St. The parking is split into small pods instead of one large parking lot. Landscaping throughout including at the main street access will improve streetscape and interior site.

“17. Scenic Vistas and Areas: The proposed development will not result in the loss of scenic vistas or visual connection to scenic areas as identified in the Town’s Comprehensive Plan.”

There are no scenic vistas and areas within the proposed development area and it will not block any significant views.

“18. Utilities: Utilities such as electric, telephone and cable TV services to proposed buildings are located underground except when extraordinary circumstances warrant overhead service. Propane or natural gas tanks are located in safe and accessible areas, which are properly screened. ”

Utilities are planned to be underground. The new building will be connected to existing public infrastructure via underground connections. The utility plan shows information about and locations of proposed utilities.

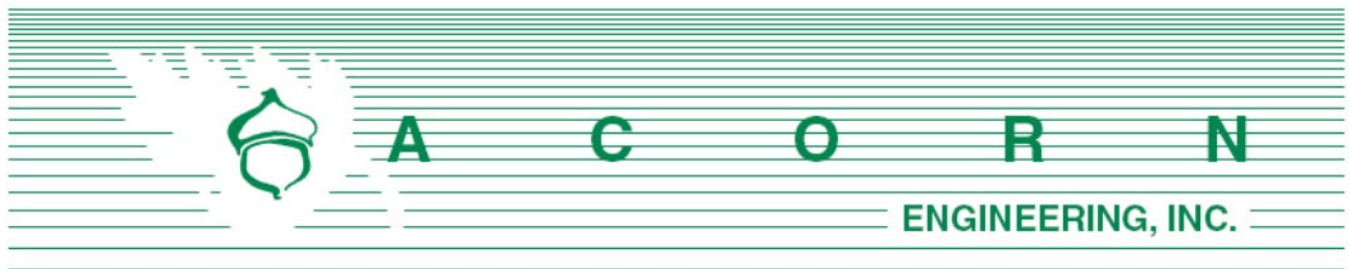
“19. Technical Standards: The proposed development meets the requirements of ARTICLE I.J (Technical Standards) of this Ordinance, except as waived by the Planning Board.”

The site plan meets the requirements of Article I – J including:

1. *Parking Spaces:* 9 x 19 feet
2. *Parking Aisle Width:* Parallel = 12 feet, 90 degree = 25 feet
3. *Driveway Standards:* Not applicable, proposed thoroughfare alley has separate road standards.
4. *Exterior Lighting:* Style consistent with architecture, freestanding will be medium or low height and shielded or directed away from neighboring properties. Required Light Levels: Parking lots: average 1.5 foot-candles throughout. Intersections: 3 foot-candles. Maximum at property lines: 1.0 foot-candle. In residential areas: average 0.6 foot-candle.

5. *Buffers*: The site plan has included as much buffering of items listed in this section as possible with the constraints of the site. Vegetative buffers at the South West will buffer the neighboring property from parking, while a stockade fence will shield the trash and loading area from the neighboring property, and existing tall stockade fence runs for a significant portion of the South East property line abutting properties.
6. *Sanitary Sewage*: The project plans on utilizing the Municipal sewer system. Details are provided on sheet C-41.
7. *Water System*: The project plans to be on town water and shall meet requirements of the technical standards. Details are provided on Sheet C-41
8. *Fire Safety*: The new detached single family residences shall be sprinklered per NFPA 13D and meet the requirements of CHAPTER 317 (Sprinkler Ordinance) of the Yarmouth Municipal Code.
9. *Storm Water management Facilities*: See storm water management report and design on site plans for discussion.
10. *100-999 cubic yards*. Not applicable It is not anticipated that a significant amount of excavation will be required.
11. *More than 1000 cubic yards*. Not applicable.
12. *Any Site Plan review shall include the following criteria to insure the protection of public health, safety and general welfare*:
- a) *fencing, landscaped buffer strips*; The site plan has included as much buffering of items listed in this section as possible with the constraints of the site. Vegetative buffers at the South West will buffer the neighboring property from parking, while a stockade fence will shield the trash and loading area from the neighboring property, and existing tall stockade fence runs for a significant portion of the South East property line. abutting properties.
 - b) *advertising signs, lighting*;
 - c) *parking spaces, loading and unloading areas*; shown on site plan.
 - d) *entrances and exits*; New residences include main entrances on the proposed thoroughfare and secondary exits to private patio and yard areas.
 - e) *time period for operation*; Not applicable, not a business use.
 - f) *hours of operation*; Not applicable, not a business use.
 - g) *methods of operation*; Not applicable, not a business use.

- h) weight and loading limit of trucks; Trash Trucks and small delivery vehicles are the only trucks anticipated on site. Average weights can be submitted if required.
- i) potential sand and gravel spillage upon public streets; Not anticipated.
- j) rehabilitation proposals, Not applicable.
- k) street trees of 2 ½ (two and one half) to 3 (three) inch caliper every 50' of street frontage,: See revised plans.
- l) sidewalks on at least one side of the street: Alley Thoroughfares are "Shared Use" Walkways. Defined walkways are at Main St. and Portland St. entrances for safety purposes.
- m) bike racks: A proposed bike rack is located at the Main Street entrance. It will have space for a minimum of two bicycles.



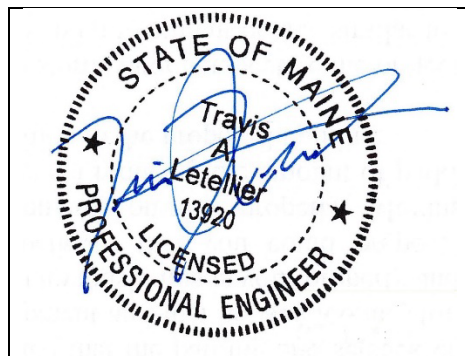
TRAFFIC ASSESSMENT

Prepared For:

**Platz Associates
90 Main Street Project
90 Main Street
Yarmouth, Maine 04096**

Prepared By:

**Acorn Engineering, Inc.-
500 Washington Street
Portland, Maine 04101**



September 2022

Introduction

Charles Hewitt and Katherine Carey are proposing two (2) residential dwelling units on their property located at 90 Main Street in Yarmouth, Maine. The site sits at the intersection of Portland Street and Main Street and the development will provide access driveways to both streets.

The proposed alley will provide access to the two proposed dwelling units along with access to an existing house on the neighboring property. The existing house currently uses this location for its main access driveway.

The second site access is also at a location currently with an existing curb cut serving a small parking lot. The proposed use at this location will not change from its existing use and no additional trips are anticipated.

This report will determine daily and peak hour trips for the proposed Portland Street access, discuss recent traffic safety and incident reports, and determine sight distance.

Site Traffic

The trip generation discussed below is based on trip tables within the tenth edition of the Institute of Transportation Engineers (ITE) "Trip Generation" handbook. Land use #210 – Single Family Detached Housing reports the following rates:

Weekday	= 9.44 trips per dwelling unit
AM Peak Hour	= 0.74 trips per dwelling unit
PM Peak Hour	= 0.99 trips per dwelling unit

Applying these rates, the two proposed, and one existing, dwelling units will generate a total of 28 daily trips with two (2) trips in the morning peak hour and three (3) trips in the evening peak hour.

Existing Nearby Roadway Safety Conditions

Over the last full three-year reporting time frame (2019 through 2021) there have been a total of nine (9) incidents identified by the MaineDOT within 500 feet of this development. Of these, eight (8) involved only property damage, sideswipes or rearends, while one (1), a rollover, involved a non-fatal injury. The intersection of Portland Street and Main Street is not considered a High Crash Location by the MaineDOT.

Sight Distance

Article I, section J.3.a of Chapter 702 of the Yarmouth Zoning Ordinance outlines the following requirements for sight distance:

Sight Distance: Any exit driveway or access road shall be so designed in profile and grading and so located as to provide the following minimum sight distance measured in each direction. The measurements shall be from the driver's seat of a vehicle standing on that portion of the existing driveway with the front of the vehicle a minimum of ten (10) feet behind the curb line or edge or shoulder with the height of the eye three and seventy five hundredths (3.75) feet to the top of an object four and five-tenths (4.5) feet above the pavement.



<i>Allowable Speed (Miles per hour)</i>	<i>Minimum Required Sight (distance)</i>
25	160
40	275
45	325
50	350
55	425

The posted speed of both Main Street and Portland Street is 25 MPH and require a sight distance of 160 feet. At the proposed alley way access, looking right, a sight distance of 210 feet was measured, with the limiting factor being the end of the intersection, Portland Street and Main Street. Looking left, a sight distance of 400 feet was measured with existing vegetation being the limiting factor. The existing 24-inch maple tree at this location does not interfere with the sight distance using the specifications above, see image 2 below. The existing driveway on Main Street has more than 400 feet of sight distance in each direction.

Conclusions

- The two new dwelling units along with the existing house can be expected to generate 28 average daily trips, two (2) AM peak hour trips and three (3) PM peak hour trips.
- The MaineDOT shows a low number of vehicle incidents nearby in the past three years (2019-2021)
- Sight distance exceeds Town Standards in all directions and will provide safe vehicle movements in and out of the development.



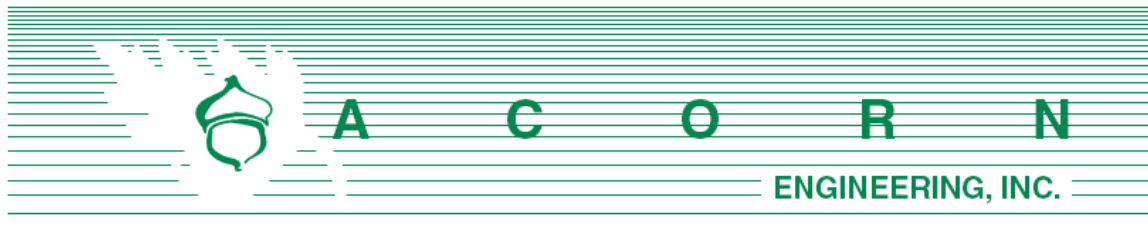


Image 1: Alley location, Portland Street, Looking Right



Image 2: Alley location, Portland Street, Looking Left





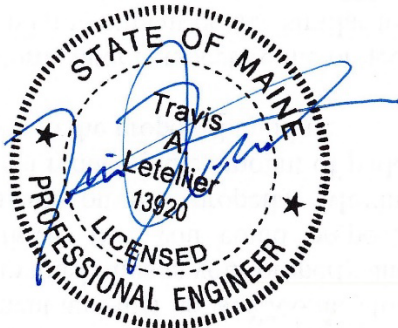
EROSION & SEDIMENTATION **CONTROL REPORT**

Prepared For:

**Platz Associates
90 Main Street Project
90 Main Street
Yarmouth, Maine 04096**

Prepared By:

**Acorn Engineering, Inc.
65 Hanover Street
Portland, Maine 04101**



September 2022

INTRODUCTION

Acorn Engineering, Inc. has been retained by Platz, to provide civil engineering services for the proposed development at 90 Main Street, Yarmouth, Maine. The property consists of approximately 0.57 acres of land located in the CD-4 village center zoning district.

The following Erosion and Sedimentation Control Report was developed in accordance with the Town of Yarmouth Land Use Ordinance Article I.H.11 and the Maine DEP Chapter 500 Stormwater Management Appendix A and B (1), Amended August 12, 2015. This narrative also meets the standards required in the Maine DEP's Erosion & Sediment Control BMP's Manual, revised in 2016.

1.0 EXISTING CONDITIONS

The site is located bordering on Main Street and Portland Avenue. All surrounding lots are used for residential housing.

The current lot use has an existing mixed-use building and shed with grades ranging from 1 to 2 percent across the site. The roof and driveway in the front of the lot drain into the lot to a natural low point on the property, where stormwater initially ponds, and infiltrates then overflows to the southeast corner of the lot. A boundary plan has been prepared by Wayne T. Wood, dated August 14th, 2022.

1.1 Existing Soils

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County
- United States Department of Agriculture Web Soil Survey

Given the wastewater will be served by the public sewer main and no deep cuts are proposed, the Applicant does not intend to pursue a more intense soil survey.

The area within and surrounding the project includes soil types listed in the table below. The susceptibility of soils to erosion is indicated on a relative "K" scale of values over a range of 0.02 to 0.69. Higher "K" values indicate more erodible soils.

Table 1 - "K" Value		
Soils Type	Subsurface	Substratum
Elmwood fine sandy loam (EmB)	.32	.49

Implementation of the proposed Erosion & Sedimentation Measures by the contractor will be of importance given the natural erodibility of the soils.



1.2 Existing Erosion Problems

There are no signs of erosion.

1.3 Critical Areas

Critical areas that would require special attention are any catch basin inlets into the Towns storm system.

1.4 Protected Natural Resource

The client is not aware of the presence of any existing significant natural features on site. The project is not located within a watershed classified as an Urban Impaired Stream by the Maine DEP.

1.5 Previous Construction Activity (5 years)

Acorn Engineering, Inc. is not aware of any construction related activities within the project limits within the past 5 years.

1.6 Timber Harvesting

Acorn Engineering, Inc. is not aware of any timber harvesting within the past five years.

2.0 EROSION CONTROL MEASURES AND SITE STABILIZATION

As part of the site development, the following temporary and permanent erosion and sedimentation control devices shall be implemented. Devices shall be installed as described in this report or within the plan set. See the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices for further reference.

2.1 Temporary Erosion Control Measures

The following temporary erosion and sedimentation control measures are planned for the project's construction period:

2.1.1 Crushed stone stabilized construction entrances shall be placed at all access points to the project site where there are disturbed areas. The following specifications shall be followed at a minimum:

- Stone size shall be 2-3 inches, or reclaimed or recycled concrete equivalent.
- The thickness of the entrance stone layer shall be no less than 6 inches.
- The entrance shall not be less than 20 feet wide, however not less than the full width of points where ingress or egress occurs. The length shall not be less than 50 feet in length.



- Geotextile fabric (woven or non-woven) shall be placed over the entire entrance area.
 - The entrance/exit shall be maintained to the extent that it will prevent the tracking of sediment onto public roadways.
- 2.1.2 Siltation fence or erosion control berm shall be installed downgradient of any disturbed areas to trap runoff borne sediments until permanent stabilization is achieved. The silt fence or erosion control berm shall be installed per the details provided in the plan set and inspected before and immediately after each rainfall and at least daily during prolonged rainfall. Repairs shall be made if there are any signs of erosion or sedimentation below the fence line or berm. If there are signs of undercutting at the center or the edges or impounding large volumes of water behind the fence or berm, the barrier shall be replaced with a stone check dam. When time for removal, it is recommended that silt fences be removed by cutting the fence material at ground level to avoid additional soil disturbance.
- 2.1.3 Hay mulch, including hydroseeding, is intended to provide cover for denuded or seeded areas until revegetation is established. Temporary mulch should be applied to areas that will not be actively worked for more than 14 days (7 days in sensitive areas). Mulch placed between April 15th and November 1st on slopes of less than 15 percent shall be covered by fabric netting and anchored with staples in accordance with the manufacturer's recommendation. Mulch placed between November 1st and April 15th on slopes equal to or steeper than 8 percent and equal to or flatter than 2:1 shall use mats or fabric netting and anchored with staples in accordance with the manufacturer's recommendation.
- 2.1.4 At any time of the year, all slopes greater than 3:1 shall be stabilized with Double Net Erosion Control Blanket Bionet SC150BN by North American Green or Approved Equal, or Erosion Control Mix Slope Protection as detailed within the plans.
- 2.1.5 Portland Avenue shall be swept to control mud and dust from the construction site as necessary. Add additional stone to the stabilized construction entrance to minimize the tracking of material off the site and onto the surrounding roadways.
- 2.1.6 It is not anticipated that the installation of stone check dams will be necessary during demolition operations.
- 2.1.7 Silt fence stake spacing shall not exceed 6 feet unless the fence is supported with 14-gauge wire in which case the maximum spacing shall not exceed 10 feet. The silt fence shall be "toed" into the ground.
- 2.1.8 Storm drain inlet protection shall be provided to storm drains using any of the following: hay bale drop inlet structures, silt fence drop inlet sediment filter, gravel and wire mesh drop inlet sediment filter, or curb inlet sediment filter.



Barriers shall be inspected after every rainfall event and repaired as necessary. Sediments shall be removed when accumulation has reached $\frac{1}{2}$ the design height.

- 2.1.9 Dust control shall be accomplished using any of the following: water, calcium chloride, stone, or an approved MDEP product. Dust control shall be applied as needed to accomplish dust control.
- 2.1.10 Temporary loam, seed, and mulching shall be used in areas where no other erosion control measure is used. Application rates for seeding are provided at the end of this report.
- 2.1.11 Stockpiles shall be stabilized within 7 days of formation unless a scheduled rain event occurs prior to the 7-day window, in which case the stockpile shall be stabilized prior to the rain event. Methods of stabilization shall be mulch, erosion control mix, or erosion control blankets/mats. Silt fence or a wood waste compost filter berm shall be placed downhill of any soil stockpile location.
- 2.1.12 For disturbance between November 1 and April 15, please refer to winter stabilization plan in this report and the Maine Erosion and Sediment Control BMP manual for further information.
- 2.1.13 It is of the utmost importance that stormwater runoff and potential sediment from the construction site be diverted around the proposed underdrains until the trench is backfilled.

2.2 Permanent Erosion Control Measures

The following permanent erosion control measures are intended for post disturbance areas of the project.

- 2.2.1 All disturbed areas during construction, not subject to other proposed conditions, shall receive a minimum 4" of loam, limed, and mulched. Erosion control blankets or mats shall be placed over the mulch in areas noted in paragraph 4.1 of this report.
- 2.2.2 All stormwater devices shall be installed and tributary areas stabilized prior receiving stormwater.
- 2.2.3 Refer to the Maine Erosion and Sediment Control BMP manual for additional information.

3.0 EROSION AND SEDIMENTATION CONTROL PLAN

- 3.1 The Construction Management & Erosion Control Plan is included within the plan set.



4.0 DETAILS AND SPECIFICATIONS

4.1 Erosion & Sedimentation Control Details and Specifications are included in the plan set.

5.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

Winter Construction consists of earthwork disturbance between the dates of November 1 and April 15. If a construction site is not stabilized with pavement, a road gravel base, 75% mature vegetation cover or riprap by November 15, then the site shall be protected with over-winter stabilization. Any area not stabilized with pavement, vegetation, mulching, erosion control mix, erosion control mats, riprap, or gravel base on a road shall be considered open.

The contractor shall limit the work area to areas that work will occur in during the subsequent 15 days and so that it can be mulched one day prior to a snow event. The contractor shall stabilize work areas prior to opening additional work areas to minimize areas without erosion control measures.

The following measures shall be implemented during winter construction periods:

5.1 Sediment Barriers

During frozen conditions, sediment barriers may consist of erosion control mix berms or any other recognized sediment barriers as frozen soil prevents the proper installation of hay bales or silt fences.

5.2 Mulching

All areas shall be considered to be denuded until seeded and mulched. Hay and straw mulch shall be applied at a rate of 150 lb. per 1,000 square feet or 3 tons/acre (twice the normal accepted rate of 75-lbs./1,000 s.f. or 1.5 tons/acre) and shall be properly anchored. Erosion control mix must be applied with a minimum 4-inch thickness. Mulch shall not be spread on top of snow. The snow shall be removed down to a one-inch depth or less prior to application. After each day of final grading, the area shall be properly stabilized with anchored hay or straw or erosion control matting. An area shall be considered to have been stabilized when exposed surfaces have been either mulched or adequately anchored so that ground surface is not visible through the mulch. Between the dates of November 1 and April 15, all mulch shall be anchored by either mulch netting, tracking or wood cellulose fiber. The cover will be considered sufficient when the ground surface is not visible through the mulch. After November 1st, mulch and anchoring of all exposed soil shall occur at the end of each final grading workday.



5.3 Soil Stockpiling

Stockpiles of soil or subsoil shall be mulched for over winter protection with hay or straw at twice the normal rate or with a four-inch layer of erosion control mix. This shall be done within 24 hours of stocking and re-established prior to any rainfall or snowfall.

5.4 Seeding

Between the dates of October 15th and April 1st, loam or seed shall not be required. During periods of above freezing temperatures finished areas shall be fine graded and either protected with mulch or temporarily seeded and mulched until the final treatment can be applied. If the date is after November 1st and if the exposed area has not been loamed, final grading with a uniform surface, then the area may be dormant seeded at a rate of 3 times higher than specified for permanent seed and then mulched.

Dormant seeding may be placed prior to the placement of mulch or erosion control blankets. If dormant seeding is used for the site, all disturbed areas shall receive 4" of loam and seed at an application rate of 5 lbs./1,000 s.f. All areas seeded during the winter shall be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 75% catch) shall be revegetated by replacing loam, seed and mulch. If dormant seeding is not used for the site, all disturbed areas shall be revegetated in the spring.

5.5 Over winter stabilization of disturbed soils

By September 15th, all disturbed soils on areas having a slope less than 15% shall be seeded and mulched. If the disturbed areas are not stabilized by this date, then one of the following actions shall be taken to stabilize the soil for late fall and winter:

- Stabilize the soil with temporary vegetation – By October 1st, seed the disturbed soil with winter rye at a seeding rate of 3lbs per 1,000 s.f., lightly mulch the seeded soil with hay or straw at 75 lbs per 1,000 s.f., and anchor the mulch with plastic netting. 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 1st, then mulch the area for over-winter protection.
- Stabilize the soil with sod – Stabilize the disturbed soil with properly installed sod by October 1st. Proper installation includes 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.
- Stabilize the soil with mulch – By November 15th, mulch the disturbed soil by spreading hay or straw at a rate of at least 150 lbs per 1,000 s.f. on the area so that no soil is visible through the mulch. Immediately after applying the mulch,



anchor the mulch with plastic netting to prevent wind from moving the mulch off the disturbed soil.

5.6 Over winter stabilization of disturbed slopes

All stone-covered slopes shall be constructed and stabilized by November 15th. All slopes to be vegetated shall be seeded and mulched by September 1st. A slope is considered a grade greater than 15%. If a slope to be vegetated is not stabilized by September 1st, then one of the following action shall be taken to stabilize the slope for late fall and winter:

- Stabilize the soil with temporary vegetation and erosion control mats – By October 1st the disturbed slope shall be seeded with winter rye at a seeding rate of 3 lbs per 1,000 s.f. and then install erosion control mats or anchored mulch over the seeding. If the rye fails to grow at least three inches or fails to cover at least 75% of the slope by November 1st, then the contractor shall cover the slope with a layer of erosion control mix or with stone riprap.
- Stabilize the soil with sod – The disturbed slope shall be stabilized with properly installed sod by October 1st. Proper installation includes the contractor pinning the sod onto the slope 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. The contractor shall not use late-season sod installation to stabilize slopes having a grade greater than 3H:1V or having groundwater seeps on the slope face.
- Stabilize the soil with erosion control mix – Erosion control mix shall be properly installed by November 15th. The contractor shall not use erosion control mix to stabilize slopes having grades greater than 2H:1V or having groundwater seeps on the slope face.
- Stabilize the soil with stone riprap – Place a layer of stone riprap on the slope by November 15th. A registered professional engineer shall be hired to determine the stone size needed for stability on the slope and to design a filter layer for underneath the riprap.

6.0 INSPECTION AND MAINTENANCE

A person with knowledge of erosion and stormwater control, including the standards and conditions in the permit, shall conduct periodic visual inspections of installed erosion control measures. The frequency of inspection shall occur at least once every two weeks, as well as after a “storm event”. A “storm event” shall consist 0.5 inches of rain within a 24-hour period. The following Erosion and Sediment Control - Best Management Practices (BMP's) shall inspected in the manner as described.



6.1 Sediment Barriers

Hay bale barriers, silt fences and filter berms shall be inspected and repaired for the following if there are any signs of erosion or sedimentation below them. If there are signs of undercutting at the center or the edges of the barrier, or impounding of large volumes of water behind them, sediment barriers shall be replaced with a temporary check dam. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly. Sediment deposits should be removed when deposits reach approximately one-half the height of the barrier. Filter berms should be reshaped as needed. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required should be dressed to conform to the existing grade, prepared and seeded.

6.2 Stabilized Stone Construction Entrances

The exit shall be maintained in a condition that will prevent tracking of sediment onto public rights-of-way. When the control pad becomes ineffective, the stone shall be removed along with the collected soil material and redistributed on site in a stable manner. The entrance should then be reconstructed. The contractor shall sweep or wash pavement at exits, which have experienced mud-tracking on to the pavement or traveled way. When washing is required, it shall be done on an area stabilized with aggregate, which drains into an approved sediment trapping device. All sediment shall be prevented from entering storm drains, ditches, or waterways. All sweeping conducted shall not be sweep into the existing wetland.

6.3 Mulched Areas

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 must 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. 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.

6.4 Dust Control

When temporary dust control measures are used, repetitive treatment shall be applied as needed to accomplish control. Frequent reapplication of water may be necessary to mitigate dust occurring on warm sunny days, the distribution of water should not cause turbid runoff. Sweeping of paved road surface should occur during dry conditions and shall be swept from the centerline to the edge of the travel way, and shall not to be swept into a waterbody or wetland. Public roads may also require sweeping when necessary.



6.5 Stormwater Appurtenances

All underdrains, storm drains, and catch basins need to be operating effectively and free of debris.

6.6 Erosion and Sedimentation Control Inspections:

Acorn Engineering has personnel qualified to conduct Erosion and Sedimentation Control Inspections. For further information, contact:

Contact: Will Savage, PE
Telephone: (207) 775-2655

Qualifications:

- Maine Professional Engineering License #11419
- Maine DEP - Certified in Maintenance & Inspection of Stormwater BMP's Cert #14
- Certified Erosion, Sediment and Storm Water Inspector (CESSWI) Cert #0293
- Certified Professional in Erosion and Sediment Control (CPESC) Cert. #4620

The Contractor has sole responsibility for complying with the Erosion and Sedimentation Report/Plan, including control of fugitive dust. The Contractor shall be responsible for any monetary penalties resulting from failure to comply with these standards.

7.0 IMPLEMENTATION SCHEDULE

The following implementation sequence is intended to maximize the effectiveness of the above described erosion control measures. Contractors should avoid overexposing disturbed areas and limit the amount of stabilization area.

1. Install a stabilized construction entrance in all locations where construction traffic will enter and exit the site.
2. Install perimeter silt fence or erosion control berm.
3. Install all other erosion control devices as necessary throughout the remainder of this schedule.
4. Commence installation of drainage infrastructure.
5. Prioritize the downhill side to contain runoff within the site while providing an engineered outlet to the municipal storm drain system within Lambert Street.
6. Commence earthwork operations, associated with the parking lot construction.
7. Commence installation of utilities.
8. Continue earthwork and grading to subgrade as necessary for construction.
9. Complete installation of drainage infrastructure, as well as other utility work.
10. Complete remaining earthwork operations.
11. Install sub-base and base gravels in paved areas.
12. Install paving, curbing and brickwork.



13. Loam, lime, fertilize, seed and mulch disturbed areas and complete all landscaping.
14. Once the site is stabilized and mulching of landscape areas is complete, remove all temporary erosion control measures.
15. Touch up areas without a vigorous catch of grass with loam and seed.
16. Complete site signage and striping.
17. Execute proper maintenance of all temporary and permanent erosion control measures throughout the project.

The above implementation sequence should be generally followed by the site contractor. However, the contractor may construct several items simultaneously. The contractor shall submit to the owner a schedule of the completion of the work. If the contractor is to commence the construction of more than one item above, they shall limit the amount of exposed areas to those areas in which work is expected to be undertaken during the following 30 days.

The contractor shall re-vegetate disturbed areas as rapidly as possible. All areas shall be permanently stabilized within 7 days of final grading or before a storm event. The contractor shall incorporate planned inlets and drainage systems as early as possible into the construction phase.

8.0 CONCLUSION

The above erosion control narrative is intended to minimize the development impact by implementing temporary and permanent erosion control measures. The contractor shall also refer to the Maine Erosion and Sediment Control BMP manual for additional information.



9.0 ATTACHMENTS

- Temporary Seeding Plan



TEMPORARY SEEDING PLAN

Site Preparation

The seeded areas shall be feasibly graded out to provide the use of equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. If necessary, the site may require additional temporary erosion control measures outlined in the Erosion Control report.

Seedbed Preparation

Fertilizer shall be applied to the site at a rate of 13.8 pounds per 1,000 square feet. The composition of the fertilizer shall be 10-10-10 (N-P₂O₅-K₂O) or equivalent.

Limestone shall be applied to the site at a rate of 138 pounds per 1,000 square feet.

Seeding

The composition and amount of temporary seed applied to a site shall be determined by the following table:

Seed	Pounds / 1,000 S.F.	Recommended Seeding Dates
Winter Rye	2.57	Aug-15 to Oct-1
Oats	1.84	Apr-1 to Jul-1 Aug-15 to Sep-15
Annual Ryegrass	0.92	Apr-1 to Jul-1
Sudangrass	0.92	May-15 to Aug-15
Perennial	0.92	Aug-15 to Sep-15

Mulching

Mulch shall be applied at a rate of 70 lbs – 90 lbs per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

Conclusion

Please refer to the Maine Erosion and Sediment Control BMP manual for additional information pertaining to temporary seeding and mulching.



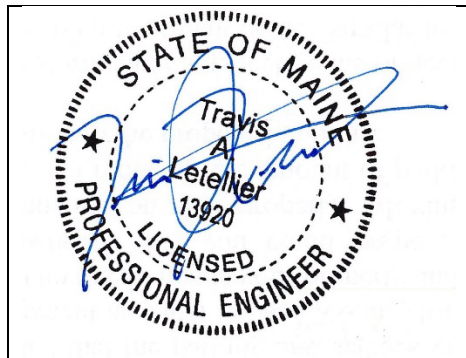
STORMWATER MANAGEMENT **REPORT**

Prepared For:

**Platz Associates
90 Main Street Project
90 Main Street
Yarmouth, Maine 04096**

Prepared By:

**Acorn Engineering, Inc.-
500 Washington Street
Portland, Maine 04101**



September 2022



INTRODUCTION

Acorn Engineering, Inc. has been retained by Platz, to provide civil engineering services for the proposed development at 90 Main Street, Yarmouth, Maine. The property consists of approximately 0.57 acres of land located in the CD-4 village center zoning district.

A stormwater analysis was prepared to demonstrate that the project will meet the requirements set forth by Maine DEP Chapter 500 Basic and General Standards and the following requirements from the Town of Yarmouth:

- Town of Yarmouth Land Use Ordinance Article I.H.10 (2 & 25 year storms)

EXISTING CONDITIONS

The site is located bordering on Main Street and Portland Avenue. The current lot use has an existing mixed-use building and shed with grades ranging from 1 to 2 percent across the site. The roof and driveway in the front of the lot drain into the lot to a natural low point on the property, where stormwater initially ponds, and infiltrates then overflows to the southeast corner of the lot. A boundary plan has been prepared by Wayne T. Wood, dated August 14th 2022.

PROPOSED DEVELOPMENT

The proposed development includes the construction of (2) two-story single-family structures and a driveway and parking (defined as an Alley) to serve the buildings. The project proposes to divide the existing property line into four (4) separate conforming parcels with a shared driveway and utility corridor. There will be eight (8) parking spaces accessed by the existing curb cuts on Main & Portland Streets.

Through a series of surface inlets and the entirety of the proposed roof and pavement areas is proposed to be routed to two dry wells. The dry wells will collect, detain and infiltrate stormwater on the property. In larger storms the system will overflow via level spreader to the same corner of the property stormwater discharges from the site in pre-development conditions.



GENERAL STANDARDS – WATER QUALITY

The development shall provide water quality treatment for no less than 95% of the new impervious area and 80% of the new developed area. The project includes the redevelopment of existing impervious area including a paved driveway and gravel parking. Water quality treatment shall be provided using perforated dry wells that infiltrate stormwater into the ground.

The system was sized to meet or exceed the requirements set forth within the MDEP Volume III: BMPs Technical Design Manual Section 7. Filtration BMPs have been shown to be very effective at removing a wide range of pollutants from stormwater runoff.

The treatment of the impervious surface is as follows:

Table 1 - Impervious Treatment Area Table				
Existing Impervious Area (SF)	Proposed Total Impervious Area (SF)	Net Change in Impervious Area (SF)	Proposed Impervious Area with Treatment (SF)	% Overall Impervious Area Treated
14,225	14,276	51	14,276	100%

As shown above, the project anticipates meeting and exceeding the required treatment for new impervious surfaces and developed area.

Furthermore, the minimum 80% treatment of new developed area is exceeded as ample stormwater treatment is being provided while the proposed development footprint is negligibly larger than the existing development footprint.

Regarding the water quality volume, this requirement is met by sizing the system to store 1 inch of runoff from the impervious tributary area and 0.4 inches of runoff from the landscaped tributary area.

Table 2 – Water Quality Volume			
Tributary Impervious Area (SF)	Tributary Pervious Area (SF)	Water Quality Volume Required (CF)	System Storage Volume Provided (CF)
14,276	9,532	1,506	1,542

Furthermore, the system is able to pass a 1-year storm rainfall (2.5") without overflowing into the beehive bypass drain.



FLOODING STANDARD – WATER QUANTITY

The proposed project was modeled using HydroCAD to verify that the post-development conditions do not exceed the pre-development conditions. A 24-hour SCS Type III storm distribution for the 2, 10, and 25-year storm events were used. The corresponding rainfall amounts for these storms are 3.1”, 4.60”, and 5.80” respectively.

Due to the numerous variables, and inherent inaccuracies with the modeling program used to calculate stormwater runoff it is custom at Acorn Engineering, Inc. to round to the nearest whole number. However due to the small size of the project and the minimal existing flows, the stormwater runoff shall be rounded to the nearest tenth of a cubic feet per second (cfs).

Time of Concentration (T_c)

The times of concentration for subcatchments in both the pre and post conditions were calculated by entering the flow path with the associated ground cover and slopes. HydroCAD then calculated the T_c 's and incorporated the total T_c for each subcatchment into the model. When the calculated T_c was less than six minutes (0.1 hours), a direct entry of six minutes was used as advised by the TR-55 model. Consistent with previous submissions and best practices, the sheet flow length for any T_c path was capped at 100 feet.

Curve Number

The stormwater calculations used the following Curve Number (CN) values in the pre- and post- development conditions as follows:

Pre-Development

- Pavement, Roofs – CN 98
- Gravel – CN 96
- 50-75% Grass Cover – Fair, HSG B – CN 69

Post-Development

- Pavement, Roofs – CN 98
- 50-75% Grass Cover – Good, HSG A – CN 61

Points of Analysis (POA)

The project was broken up into two points of analysis.

- POA #1: drains to the rear of the property at the southeastern corner of the property. This POA contains more than 90 percent of the property.
- POA #2: drains to the Town's ROW along Main Street and is a small area with no change in impervious area from pre-development to post-development. This POA was not included in the peak discharges below because there was no change in area or surface cover and because the size of the subcatchment on the property was very



small.

Pre-development Calculations

The pre-development model for POA #1 was broken into two separate subcatchments.

- Subcatchment 1S – This tributary includes the front section of the lot which consists of roofs a gravel driveway area and grassed landscape. This subcatchment drains to a natural low point on the property and then overflows to POA #1.
- Subcatchment 2S – This tributary includes the back section of the site. This area includes the existing gravel driveway and some grassed area. This subcatchment drains to POA #1.

A pre-development watershed map developed for this project can be viewed in Attachment A and a copy of the HydroCAD calculations is included within Attachment C, of this report.

Peak flow rates for the storm events are as follows:

Table 3 – Pre-Development Peak Stormwater Flows POA #1		
Drainage Area	2 – Year Storm Event (cfs)	25 – Year Storm Event (cfs)
Total Runoff	0.9	2.4

Post-development Calculations:

The post-development model for POA #1 was combined into one subcatchment that equals the size of the two pre-development subcatchments.

- Subcatchment 1C – This tributary includes the entirety of the re-developed parcel

A post-development Watershed Map developed for this project can be viewed in Attachment B and a copy of the HydroCAD calculations is included within Attachment C, of this report.

The post-development calculations include changes to the land use, and the compensation provided by the stormwater BMP. The following table represents comparison of pre-development and post-development condition peak runoff rates for the proposed development and tributary area.

Table 4 – Comparison of Peak Flows – POA #1				
Drainage Area	2 – Year Storm Event (cfs)		25 – Year Storm Event (cfs)	
	Pre	Post	Pre	Post
Total Runoff	0.9	0.1	2.4	2.4

As shown in Table 4, the net impact of the post development peak flows will result in no



increase from the pre-development levels.

Due to the increase in overall detention and relatively small increase in impervious area on site the smaller and more common storms show a dramatic decrease in peak discharges. This means that for most rain events the proposed system will detain and infiltrate the entire volume of stormwater.

The Medium Intensity Web Soil Survey shows the existing site containing 100% type B soils can be viewed in Attachment D of this report. A copy of the HydroCAD calculations is included within Attachment C of this report.

SOILS

Onsite soil information includes the following:

- Soil Conservation Service Medium Intensity Soil Survey for Cumberland County

Table 5 – Hydrologic Soil Group (HSG)	
Soils Type	Hydrologic Soil Group
Elmwood fine sandy loam - EmB	B

The applicant does not intend to perform a more intense hydric soil boundary delineation.

CONCLUSION

The proposed development was designed to meet the requirements implemented by the MDEP under the Stormwater Management Statute (38 M.R.S.A. § 420-D).

The proposed project as designed is not anticipated to cause flooding or erosion problems within the subject site, abutters' sites, nor within the right-of-way. Overall, the project will provide an improvement to stormwater runoff and overall management as outlined above.

ATTACHMENTS

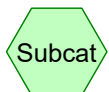
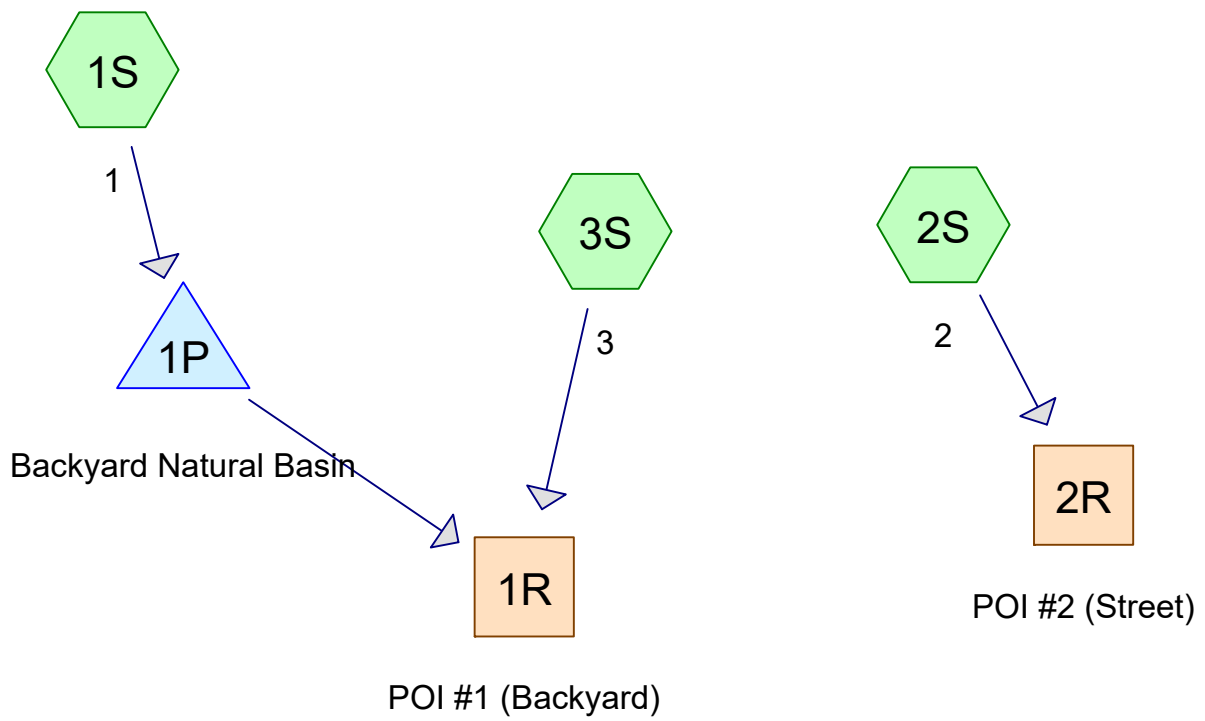
Attachment A: Pre-Development Watershed Map

Attachment B: Post-Development Watershed Map

Attachment C: HydroCAD Calculations

Attachment D: Soil Conservation Service Medium Intensity Soil Survey for Cumberland County Report

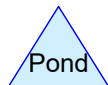




Subcat



Reach



Pond



Link

Routing Diagram for 1178_PRE

Prepared by HP, Printed 9/13/2022

HydroCAD® 10.00-26 s/n 00620 © 2020 HydroCAD Software Solutions LLC

Project Notes

Rainfall events imported from "Post Development_4-21-21.hcp"

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.220	69	50-75% Grass cover, Fair, HSG B (1S, 3S)
0.056	96	GRAVEL (3S)
0.029	98	PAVE TO STREET (2S)
0.271	98	PAVE/ROOF (1S)
0.575	87	TOTAL AREA

Summary for Subcatchment 1S: 1

Runoff = 0.90 cfs @ 12.09 hrs, Volume= 0.065 af, Depth= 1.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

Area (sf)	CN	Description
5,162	69	50-75% Grass cover, Fair, HSG B
* 11,804	98	PAVE/ROOF
16,966	89	Weighted Average
5,162		30.43% Pervious Area
11,804		69.57% Impervious Area

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

Summary for Subcatchment 2S: 2

Runoff = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af, Depth= 2.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

Area (sf)	CN	Description
* 1,251	98	PAVE TO STREET
1,251		100.00% Impervious Area

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

Summary for Subcatchment 3S: 3

Runoff = 0.23 cfs @ 12.09 hrs, Volume= 0.016 af, Depth= 1.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

Area (sf)	CN	Description
* 2,421	96	GRAVEL
4,412	69	50-75% Grass cover, Fair, HSG B
6,833	79	Weighted Average
6,833		100.00% Pervious Area

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

Summary for Reach 1R: POI #1 (Backyard)

Inflow Area = 0.546 ac, 49.60% Impervious, Inflow Depth = 0.76" for 2-year event
 Inflow = 0.85 cfs @ 12.13 hrs, Volume= 0.034 af
 Outflow = 0.85 cfs @ 12.13 hrs, Volume= 0.034 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 2R: POI #2 (Street)

Inflow Area = 0.029 ac, 100.00% Impervious, Inflow Depth = 2.87" for 2-year event
 Inflow = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af
 Outflow = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Pond 1P: Backyard Natural Basin

Inflow Area = 0.389 ac, 69.57% Impervious, Inflow Depth = 1.99" for 2-year event
 Inflow = 0.90 cfs @ 12.09 hrs, Volume= 0.065 af
 Outflow = 0.74 cfs @ 12.14 hrs, Volume= 0.065 af, Atten= 18%, Lag= 3.3 min
 Discarded = 0.09 cfs @ 12.14 hrs, Volume= 0.047 af
 Primary = 0.66 cfs @ 12.14 hrs, Volume= 0.018 af

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 297.47' @ 12.14 hrs Surf.Area= 1,900 sf Storage= 560 cf

Plug-Flow detention time= 39.5 min calculated for 0.065 af (100% of inflow)
 Center-of-Mass det. time= 39.5 min (851.9 - 812.3)

Volume	Invert	Avail.Storage	Storage Description
#1	297.00'	1,250 cf	Depression in Backyard (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
297.00	500	0	0
297.50	2,000	625	625
297.75	3,000	625	1,250

Device	Routing	Invert	Outlet Devices
#1	Primary	297.38'	10.0' long x 12.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.57 2.62 2.70 2.67 2.66 2.67 2.66 2.64
#2	Discarded	297.00'	2.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.09 cfs @ 12.14 hrs HW=297.47' (Free Discharge)

↑**2=Exfiltration** (Exfiltration Controls 0.09 cfs)

Primary OutFlow Max=0.65 cfs @ 12.14 hrs HW=297.47' (Free Discharge)

↑**1=Broad-Crested Rectangular Weir** (Weir Controls 0.65 cfs @ 0.76 fps)

Summary for Subcatchment 1S: 1

Runoff = 2.00 cfs @ 12.08 hrs, Volume= 0.147 af, Depth= 4.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

Area (sf)	CN	Description
5,162	69	50-75% Grass cover, Fair, HSG B
* 11,804	98	PAVE/ROOF
16,966	89	Weighted Average
5,162		30.43% Pervious Area
11,804		69.57% Impervious Area

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

Summary for Subcatchment 2S: 2

Runoff = 0.16 cfs @ 12.08 hrs, Volume= 0.013 af, Depth= 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

Area (sf)	CN	Description
* 1,251	98	PAVE TO STREET
1,251		100.00% Impervious Area

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

Summary for Subcatchment 3S: 3

Runoff = 0.64 cfs @ 12.09 hrs, Volume= 0.046 af, Depth= 3.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

Area (sf)	CN	Description
* 2,421	96	GRAVEL
4,412	69	50-75% Grass cover, Fair, HSG B
6,833	79	Weighted Average
6,833		100.00% Pervious Area

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

Summary for Reach 1R: POI #1 (Backyard)

Inflow Area = 0.546 ac, 49.60% Impervious, Inflow Depth = 2.59" for 25-year event
 Inflow = 2.35 cfs @ 12.11 hrs, Volume= 0.118 af
 Outflow = 2.35 cfs @ 12.11 hrs, Volume= 0.118 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 2R: POI #2 (Street)

Inflow Area = 0.029 ac, 100.00% Impervious, Inflow Depth > 5.56" for 25-year event
 Inflow = 0.16 cfs @ 12.08 hrs, Volume= 0.013 af
 Outflow = 0.16 cfs @ 12.08 hrs, Volume= 0.013 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Pond 1P: Backyard Natural Basin

Inflow Area = 0.389 ac, 69.57% Impervious, Inflow Depth = 4.54" for 25-year event
 Inflow = 2.00 cfs @ 12.08 hrs, Volume= 0.147 af
 Outflow = 1.84 cfs @ 12.12 hrs, Volume= 0.147 af, Atten= 8%, Lag= 2.0 min
 Discarded = 0.10 cfs @ 12.12 hrs, Volume= 0.075 af
 Primary = 1.74 cfs @ 12.12 hrs, Volume= 0.072 af

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 297.55' @ 12.12 hrs Surf.Area= 2,185 sf Storage= 722 cf

Plug-Flow detention time= 33.5 min calculated for 0.147 af (100% of inflow)
 Center-of-Mass det. time= 33.4 min (822.8 - 789.3)

Volume	Invert	Avail.Storage	Storage Description
#1	297.00'	1,250 cf	Depression in Backyard (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
297.00	500	0	0
297.50	2,000	625	625
297.75	3,000	625	1,250

Device	Routing	Invert	Outlet Devices
#1	Primary	297.38'	10.0' long x 12.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.57 2.62 2.70 2.67 2.66 2.67 2.66 2.64
#2	Discarded	297.00'	2.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.10 cfs @ 12.12 hrs HW=297.55' (Free Discharge)

↑**2=Exfiltration** (Exfiltration Controls 0.10 cfs)

Primary OutFlow Max=1.74 cfs @ 12.12 hrs HW=297.55' (Free Discharge)

↑**1=Broad-Crested Rectangular Weir** (Weir Controls 1.74 cfs @ 1.05 fps)

Summary for Subcatchment 1S: 1

Runoff = 1.03 cfs @ 12.09 hrs, Volume= 0.074 af, Depth= 2.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr Custom Rainfall=3.40"

Area (sf)	CN	Description
5,162	69	50-75% Grass cover, Fair, HSG B
* 11,804	98	PAVE/ROOF
16,966	89	Weighted Average
5,162		30.43% Pervious Area
11,804		69.57% Impervious Area

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

Summary for Subcatchment 2S: 2

Runoff = 0.09 cfs @ 12.08 hrs, Volume= 0.008 af, Depth= 3.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr Custom Rainfall=3.40"

Area (sf)	CN	Description
* 1,251	98	PAVE TO STREET
1,251		100.00% Impervious Area

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

Summary for Subcatchment 3S: 3

Runoff = 0.27 cfs @ 12.09 hrs, Volume= 0.019 af, Depth= 1.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr Custom Rainfall=3.40"

Area (sf)	CN	Description
* 2,421	96	GRAVEL
4,412	69	50-75% Grass cover, Fair, HSG B
6,833	79	Weighted Average
6,833		100.00% Pervious Area

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

Summary for Reach 1R: POI #1 (Backyard)

Inflow Area = 0.546 ac, 49.60% Impervious, Inflow Depth = 0.93" for Custom event
 Inflow = 1.05 cfs @ 12.12 hrs, Volume= 0.043 af
 Outflow = 1.05 cfs @ 12.12 hrs, Volume= 0.043 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 2R: POI #2 (Street)

Inflow Area = 0.029 ac, 100.00% Impervious, Inflow Depth = 3.17" for Custom event
 Inflow = 0.09 cfs @ 12.08 hrs, Volume= 0.008 af
 Outflow = 0.09 cfs @ 12.08 hrs, Volume= 0.008 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Pond 1P: Backyard Natural Basin

Inflow Area = 0.389 ac, 69.57% Impervious, Inflow Depth = 2.26" for Custom event
 Inflow = 1.03 cfs @ 12.09 hrs, Volume= 0.074 af
 Outflow = 0.90 cfs @ 12.13 hrs, Volume= 0.074 af, Atten= 13%, Lag= 2.7 min
 Discarded = 0.09 cfs @ 12.13 hrs, Volume= 0.050 af
 Primary = 0.81 cfs @ 12.13 hrs, Volume= 0.023 af

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 297.48' @ 12.13 hrs Surf.Area= 1,938 sf Storage= 584 cf

Plug-Flow detention time= 38.5 min calculated for 0.073 af (100% of inflow)
 Center-of-Mass det. time= 38.5 min (847.1 - 808.7)

Volume	Invert	Avail.Storage	Storage Description
#1	297.00'	1,250 cf	Depression in Backyard (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
297.00	500	0	0
297.50	2,000	625	625
297.75	3,000	625	1,250

Device	Routing	Invert	Outlet Devices
#1	Primary	297.38'	10.0' long x 12.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.57 2.62 2.70 2.67 2.66 2.67 2.66 2.64
#2	Discarded	297.00'	2.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.09 cfs @ 12.13 hrs HW=297.48' (Free Discharge)

↑**2=Exfiltration** (Exfiltration Controls 0.09 cfs)

Primary OutFlow Max=0.80 cfs @ 12.13 hrs HW=297.48' (Free Discharge)

↑**1=Broad-Crested Rectangular Weir** (Weir Controls 0.80 cfs @ 0.81 fps)

Summary for Subcatchment 1S: 1

Runoff = 0.12 cfs @ 12.10 hrs, Volume= 0.009 af, Depth= 0.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr WQ Rainfall=1.00"

Area (sf)	CN	Description
5,162	69	50-75% Grass cover, Fair, HSG B
* 11,804	98	PAVE/ROOF
16,966	89	Weighted Average
5,162		30.43% Pervious Area
11,804		69.57% Impervious Area

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

Summary for Subcatchment 2S: 2

Runoff = 0.03 cfs @ 12.08 hrs, Volume= 0.002 af, Depth= 0.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr WQ Rainfall=1.00"

Area (sf)	CN	Description
* 1,251	98	PAVE TO STREET
1,251		100.00% Impervious Area

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

Summary for Subcatchment 3S: 3

Runoff = 0.00 cfs @ 12.35 hrs, Volume= 0.001 af, Depth= 0.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr WQ Rainfall=1.00"

Area (sf)	CN	Description
* 2,421	96	GRAVEL
4,412	69	50-75% Grass cover, Fair, HSG B
6,833	79	Weighted Average
6,833		100.00% Pervious Area

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

Summary for Reach 1R: POI #1 (Backyard)

Inflow Area = 0.546 ac, 49.60% Impervious, Inflow Depth = 0.02" for WQ event
 Inflow = 0.00 cfs @ 12.35 hrs, Volume= 0.001 af
 Outflow = 0.00 cfs @ 12.35 hrs, Volume= 0.001 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 2R: POI #2 (Street)

Inflow Area = 0.029 ac, 100.00% Impervious, Inflow Depth = 0.79" for WQ event
 Inflow = 0.03 cfs @ 12.08 hrs, Volume= 0.002 af
 Outflow = 0.03 cfs @ 12.08 hrs, Volume= 0.002 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Pond 1P: Backyard Natural Basin

Inflow Area = 0.389 ac, 69.57% Impervious, Inflow Depth = 0.28" for WQ event
 Inflow = 0.12 cfs @ 12.10 hrs, Volume= 0.009 af
 Outflow = 0.04 cfs @ 12.48 hrs, Volume= 0.009 af, Atten= 67%, Lag= 22.8 min
 Discarded = 0.04 cfs @ 12.48 hrs, Volume= 0.009 af
 Primary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Peak Elev= 297.11' @ 12.48 hrs Surf.Area= 843 sf Storage= 77 cf

Plug-Flow detention time= 13.0 min calculated for 0.009 af (100% of inflow)

Center-of-Mass det. time= 13.0 min (882.9 - 869.9)

Volume	Invert	Avail.Storage	Storage Description
#1	297.00'	1,250 cf	Depression in Backyard (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
297.00	500	0	0
297.50	2,000	625	625
297.75	3,000	625	1,250

Device	Routing	Invert	Outlet Devices
#1	Primary	297.38'	10.0' long x 12.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.57 2.62 2.70 2.67 2.66 2.67 2.66 2.64
#2	Discarded	297.00'	2.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.04 cfs @ 12.48 hrs HW=297.11' (Free Discharge)

↑**2=Exfiltration** (Exfiltration Controls 0.04 cfs)

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=297.00' (Free Discharge)

↑**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Subcatchment 1S: 1

Runoff = 1.37 cfs @ 12.09 hrs, Volume= 0.100 af, Depth= 3.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr WQV USSF Rainfall=4.26"

Area (sf)	CN	Description
5,162	69	50-75% Grass cover, Fair, HSG B
* 11,804	98	PAVE/ROOF
16,966	89	Weighted Average
5,162		30.43% Pervious Area
11,804		69.57% Impervious Area

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

Summary for Subcatchment 2S: 2

Runoff = 0.12 cfs @ 12.08 hrs, Volume= 0.010 af, Depth= 4.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr WQV USSF Rainfall=4.26"

Area (sf)	CN	Description
* 1,251	98	PAVE TO STREET
1,251		100.00% Impervious Area

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

Summary for Subcatchment 3S: 3

Runoff = 0.40 cfs @ 12.09 hrs, Volume= 0.028 af, Depth= 2.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr WQV USSF Rainfall=4.26"

Area (sf)	CN	Description
* 2,421	96	GRAVEL
4,412	69	50-75% Grass cover, Fair, HSG B
6,833	79	Weighted Average
6,833		100.00% Pervious Area

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

Summary for Reach 1R: POI #1 (Backyard)

Inflow Area = 0.546 ac, 49.60% Impervious, Inflow Depth = 1.49" for WQV USSF event
 Inflow = 1.54 cfs @ 12.11 hrs, Volume= 0.068 af
 Outflow = 1.54 cfs @ 12.11 hrs, Volume= 0.068 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 2R: POI #2 (Street)

Inflow Area = 0.029 ac, 100.00% Impervious, Inflow Depth = 4.02" for WQV USSF event
 Inflow = 0.12 cfs @ 12.08 hrs, Volume= 0.010 af
 Outflow = 0.12 cfs @ 12.08 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Pond 1P: Backyard Natural Basin

Inflow Area = 0.389 ac, 69.57% Impervious, Inflow Depth = 3.07" for WQV USSF event
 Inflow = 1.37 cfs @ 12.09 hrs, Volume= 0.100 af
 Outflow = 1.25 cfs @ 12.12 hrs, Volume= 0.100 af, Atten= 9%, Lag= 2.2 min
 Discarded = 0.09 cfs @ 12.12 hrs, Volume= 0.060 af
 Primary = 1.16 cfs @ 12.12 hrs, Volume= 0.039 af

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 297.51' @ 12.12 hrs Surf.Area= 2,027 sf Storage= 639 cf

Plug-Flow detention time= 36.1 min calculated for 0.100 af (100% of inflow)
 Center-of-Mass det. time= 36.1 min (836.3 - 800.1)

Volume	Invert	Avail.Storage	Storage Description
#1	297.00'	1,250 cf	Depression in Backyard (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
297.00	500	0	0
297.50	2,000	625	625
297.75	3,000	625	1,250

Device	Routing	Invert	Outlet Devices
#1	Primary	297.38'	10.0' long x 12.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.57 2.62 2.70 2.67 2.66 2.67 2.66 2.64
#2	Discarded	297.00'	2.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.09 cfs @ 12.12 hrs HW=297.51' (Free Discharge)

↑**2=Exfiltration** (Exfiltration Controls 0.09 cfs)

Primary OutFlow Max=1.16 cfs @ 12.12 hrs HW=297.51' (Free Discharge)

↑**1=Broad-Crested Rectangular Weir** (Weir Controls 1.16 cfs @ 0.91 fps)

Summary for Subcatchment 1S: 1

Runoff = 1.37 cfs @ 12.09 hrs, Volume= 0.100 af, Depth= 3.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr WQV USSF 1 Rainfall=4.26"

Area (sf)	CN	Description
5,162	69	50-75% Grass cover, Fair, HSG B
* 11,804	98	PAVE/ROOF
16,966	89	Weighted Average
5,162		30.43% Pervious Area
11,804		69.57% Impervious Area

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

Summary for Subcatchment 2S: 2

Runoff = 0.12 cfs @ 12.08 hrs, Volume= 0.010 af, Depth= 4.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr WQV USSF 1 Rainfall=4.26"

Area (sf)	CN	Description
* 1,251	98	PAVE TO STREET
1,251		100.00% Impervious Area

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

Summary for Subcatchment 3S: 3

Runoff = 0.40 cfs @ 12.09 hrs, Volume= 0.028 af, Depth= 2.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr WQV USSF 1 Rainfall=4.26"

Area (sf)	CN	Description
* 2,421	96	GRAVEL
4,412	69	50-75% Grass cover, Fair, HSG B
6,833	79	Weighted Average
6,833		100.00% Pervious Area

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

Summary for Reach 1R: POI #1 (Backyard)

Inflow Area = 0.546 ac, 49.60% Impervious, Inflow Depth = 1.49" for WQV USSF 1 event
 Inflow = 1.54 cfs @ 12.11 hrs, Volume= 0.068 af
 Outflow = 1.54 cfs @ 12.11 hrs, Volume= 0.068 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 2R: POI #2 (Street)

Inflow Area = 0.029 ac, 100.00% Impervious, Inflow Depth = 4.02" for WQV USSF 1 event
 Inflow = 0.12 cfs @ 12.08 hrs, Volume= 0.010 af
 Outflow = 0.12 cfs @ 12.08 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Pond 1P: Backyard Natural Basin

Inflow Area = 0.389 ac, 69.57% Impervious, Inflow Depth = 3.07" for WQV USSF 1 event
 Inflow = 1.37 cfs @ 12.09 hrs, Volume= 0.100 af
 Outflow = 1.25 cfs @ 12.12 hrs, Volume= 0.100 af, Atten= 9%, Lag= 2.2 min
 Discarded = 0.09 cfs @ 12.12 hrs, Volume= 0.060 af
 Primary = 1.16 cfs @ 12.12 hrs, Volume= 0.039 af

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 297.51' @ 12.12 hrs Surf.Area= 2,027 sf Storage= 639 cf

Plug-Flow detention time= 36.1 min calculated for 0.100 af (100% of inflow)
 Center-of-Mass det. time= 36.1 min (836.3 - 800.1)

Volume	Invert	Avail.Storage	Storage Description
#1	297.00'	1,250 cf	Depression in Backyard (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
297.00	500	0	0
297.50	2,000	625	625
297.75	3,000	625	1,250

Device	Routing	Invert	Outlet Devices
#1	Primary	297.38'	10.0' long x 12.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.57 2.62 2.70 2.67 2.66 2.67 2.66 2.64
#2	Discarded	297.00'	2.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.09 cfs @ 12.12 hrs HW=297.51' (Free Discharge)

↑**2=Exfiltration** (Exfiltration Controls 0.09 cfs)

Primary OutFlow Max=1.16 cfs @ 12.12 hrs HW=297.51' (Free Discharge)

↑**1=Broad-Crested Rectangular Weir** (Weir Controls 1.16 cfs @ 0.91 fps)

Summary for Subcatchment 1S: 1

Runoff = 0.96 cfs @ 12.09 hrs, Volume= 0.069 af, Depth= 2.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr WQV USSF 2 Rainfall=3.24"

Area (sf)	CN	Description
5,162	69	50-75% Grass cover, Fair, HSG B
* 11,804	98	PAVE/ROOF
16,966	89	Weighted Average
5,162		30.43% Pervious Area
11,804		69.57% Impervious Area

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

Summary for Subcatchment 2S: 2

Runoff = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af, Depth= 3.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr WQV USSF 2 Rainfall=3.24"

Area (sf)	CN	Description
* 1,251	98	PAVE TO STREET
1,251		100.00% Impervious Area

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

Summary for Subcatchment 3S: 3

Runoff = 0.25 cfs @ 12.09 hrs, Volume= 0.018 af, Depth= 1.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr WQV USSF 2 Rainfall=3.24"

Area (sf)	CN	Description
* 2,421	96	GRAVEL
4,412	69	50-75% Grass cover, Fair, HSG B
6,833	79	Weighted Average
6,833		100.00% Pervious Area

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

Summary for Reach 1R: POI #1 (Backyard)

Inflow Area = 0.546 ac, 49.60% Impervious, Inflow Depth = 0.84" for WQV USSF 2 event
 Inflow = 0.95 cfs @ 12.13 hrs, Volume= 0.038 af
 Outflow = 0.95 cfs @ 12.13 hrs, Volume= 0.038 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 2R: POI #2 (Street)

Inflow Area = 0.029 ac, 100.00% Impervious, Inflow Depth = 3.01" for WQV USSF 2 event
 Inflow = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af
 Outflow = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Pond 1P: Backyard Natural Basin

Inflow Area = 0.389 ac, 69.57% Impervious, Inflow Depth = 2.12" for WQV USSF 2 event
 Inflow = 0.96 cfs @ 12.09 hrs, Volume= 0.069 af
 Outflow = 0.82 cfs @ 12.14 hrs, Volume= 0.069 af, Atten= 15%, Lag= 3.0 min
 Discarded = 0.09 cfs @ 12.14 hrs, Volume= 0.048 af
 Primary = 0.73 cfs @ 12.14 hrs, Volume= 0.020 af

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 297.47' @ 12.14 hrs Surf.Area= 1,919 sf Storage= 572 cf

Plug-Flow detention time= 39.0 min calculated for 0.069 af (100% of inflow)
 Center-of-Mass det. time= 39.0 min (849.6 - 810.6)

Volume	Invert	Avail.Storage	Storage Description
#1	297.00'	1,250 cf	Depression in Backyard (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
297.00	500	0	0
297.50	2,000	625	625
297.75	3,000	625	1,250

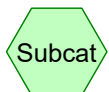
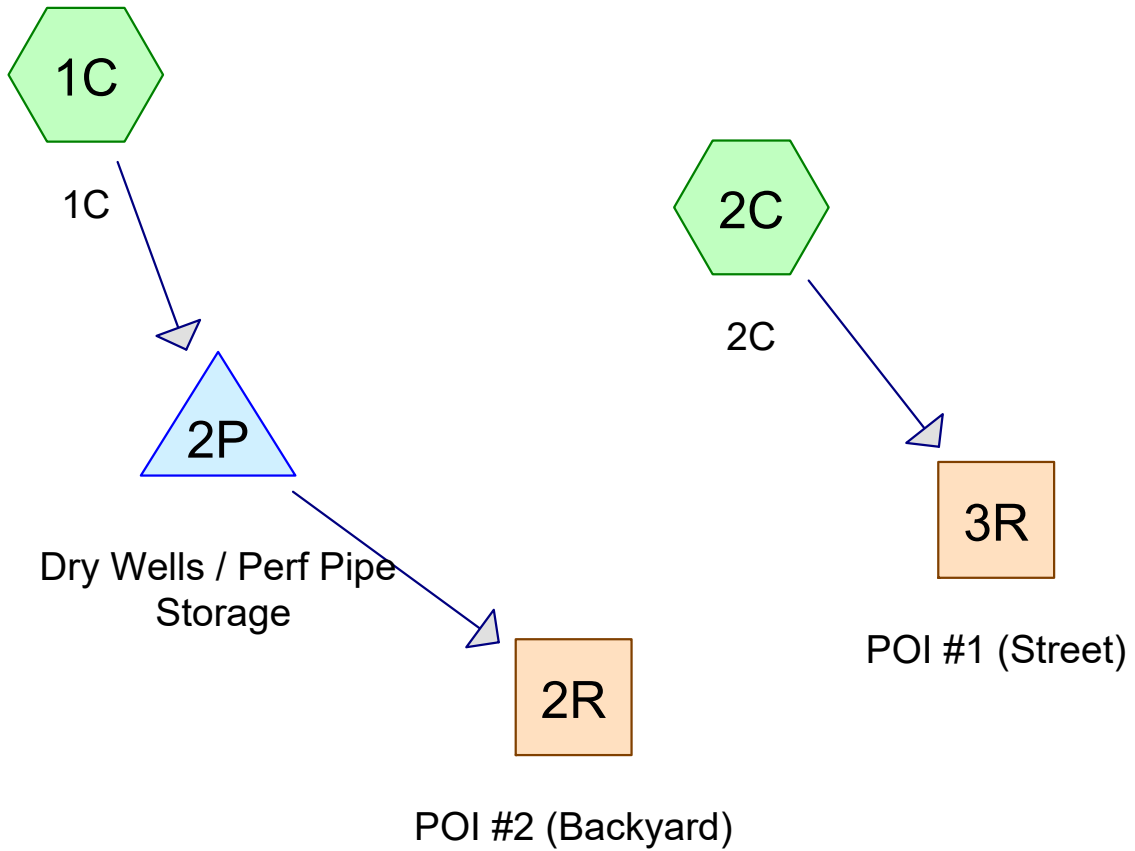
Device	Routing	Invert	Outlet Devices
#1	Primary	297.38'	10.0' long x 12.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.57 2.62 2.70 2.67 2.66 2.67 2.66 2.64
#2	Discarded	297.00'	2.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.09 cfs @ 12.14 hrs HW=297.47' (Free Discharge)

↑**2=Exfiltration** (Exfiltration Controls 0.09 cfs)

Primary OutFlow Max=0.73 cfs @ 12.14 hrs HW=297.47' (Free Discharge)

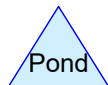
↑**1=Broad-Crested Rectangular Weir** (Weir Controls 0.73 cfs @ 0.78 fps)



Subcat



Reach



Pond



Link

Routing Diagram for 1178_POST

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Project Notes

Rainfall events imported from "Post Development_4-21-21.hcp"

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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.219	61	>75% Grass cover, Good, HSG B (1C)
0.029	98	PAVE/ROOF (2C)
0.328	98	ROOF/PAVE (1C)
0.575	84	TOTAL AREA

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Type III 24-hr 2-year Rainfall=3.10"

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Summary for Subcatchment 1C: 1C

Runoff = 0.98 cfs @ 12.09 hrs, Volume= 0.070 af, Depth= 1.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	14,267	98	ROOF/PAVE
	9,532	61	>75% Grass cover, Good, HSG B
	23,799	83	Weighted Average
	9,532		40.05% Pervious Area
	14,267		59.95% Impervious Area

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

Summary for Subcatchment 2C: 2C

Runoff = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af, Depth= 2.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	1,251	98	PAVE/ROOF
	1,251		100.00% Impervious Area

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

Summary for Reach 2R: POI #2 (Backyard)

Inflow Area = 0.546 ac, 59.95% Impervious, Inflow Depth = 0.04" for 2-year event
 Inflow = 0.03 cfs @ 13.42 hrs, Volume= 0.002 af
 Outflow = 0.03 cfs @ 13.42 hrs, Volume= 0.002 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 3R: POI #1 (Street)

Inflow Area = 0.029 ac, 100.00% Impervious, Inflow Depth = 2.87" for 2-year event
 Inflow = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af
 Outflow = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Pond 2P: Dry Wells / Perf Pipe Storage

Inflow Area = 0.546 ac, 59.95% Impervious, Inflow Depth = 1.53" for 2-year event
 Inflow = 0.98 cfs @ 12.09 hrs, Volume= 0.070 af
 Outflow = 0.08 cfs @ 13.42 hrs, Volume= 0.070 af, Atten= 92%, Lag= 79.8 min
 Discarded = 0.05 cfs @ 13.42 hrs, Volume= 0.068 af
 Primary = 0.03 cfs @ 13.42 hrs, Volume= 0.002 af

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 296.31' @ 13.42 hrs Surf.Area= 1,100 sf Storage= 1,555 cf

Plug-Flow detention time= 342.7 min calculated for 0.070 af (100% of inflow)
 Center-of-Mass det. time= 342.7 min (1,177.1 - 834.4)

Volume	Invert	Avail.Storage	Storage Description
#1	296.00'	175 cf	FI & Beehive Depressions (Prismatic) Listed below (Recalc)
#2	293.00'	183 cf	Stone Trench (Prismatic) Listed below (Recalc)
			459 cf Overall x 40.0% Voids
#3	292.72'	336 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
			1,200 cf Overall - 360 cf Embedded = 840 cf x 40.0% Voids
#4	293.10'	360 cf	15.0" Round Pipe Storage Inside #3
			L= 293.1'
#5	290.90'	286 cf	Stone Around Dry Well #1 (Prismatic) Listed below (Recalc)
			765 cf Overall - 50 cf Embedded = 715 cf x 40.0% Voids
#6	290.90'	286 cf	Stone Around Dry Well #2 (Prismatic) Listed below (Recalc)
			765 cf Overall - 50 cf Embedded = 715 cf x 40.0% Voids
#7	291.90'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder Inside #5
#8	291.90'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder Inside #6
		1,727 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
296.00	20	0	0
296.50	100	30	30
297.00	480	145	175

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
293.00	131	0	0
296.50	131	459	459

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
292.72	600	0	0
294.72	600	1,200	1,200

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Type III 24-hr 2-year Rainfall=3.10"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
290.90	150	0	0
296.00	150	765	765

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
290.90	150	0	0
296.00	150	765	765

Device	Routing	Invert	Outlet Devices
#1	Primary	296.30'	15.0' 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
#2	Device 1	296.00'	12.0" Horiz. Beehive C= 0.600 Limited to weir flow at low heads
#3	Discarded	290.90'	2.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.05 cfs @ 13.42 hrs HW=296.31' (Free Discharge)↑ **3=Exfiltration** (Exfiltration Controls 0.05 cfs)**Primary OutFlow** Max=0.01 cfs @ 13.42 hrs HW=296.31' (Free Discharge)↑ **1=Broad-Crested Rectangular Weir** (Weir Controls 0.01 cfs @ 0.17 fps)↑ **2=Beehive** (Passes 0.01 cfs of 0.28 cfs potential flow)

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Type III 24-hr 25-year Rainfall=5.80"

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Summary for Subcatchment 1C: 1C

Runoff = 2.48 cfs @ 12.09 hrs, Volume= 0.178 af, Depth= 3.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	14,267	98	ROOF/PAVE
	9,532	61	>75% Grass cover, Good, HSG B
	23,799	83	Weighted Average
	9,532		40.05% Pervious Area
	14,267		59.95% Impervious Area

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

Summary for Subcatchment 2C: 2C

Runoff = 0.16 cfs @ 12.08 hrs, Volume= 0.013 af, Depth> 5.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	1,251	98	PAVE/ROOF
	1,251		100.00% Impervious Area

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

Summary for Reach 2R: POI #2 (Backyard)

Inflow Area = 0.546 ac, 59.95% Impervious, Inflow Depth = 1.95" for 25-year event
 Inflow = 2.36 cfs @ 12.10 hrs, Volume= 0.089 af
 Outflow = 2.36 cfs @ 12.10 hrs, Volume= 0.089 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 3R: POI #1 (Street)

Inflow Area = 0.029 ac, 100.00% Impervious, Inflow Depth > 5.56" for 25-year event
 Inflow = 0.16 cfs @ 12.08 hrs, Volume= 0.013 af
 Outflow = 0.16 cfs @ 12.08 hrs, Volume= 0.013 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Pond 2P: Dry Wells / Perf Pipe Storage

Inflow Area = 0.546 ac, 59.95% Impervious, Inflow Depth = 3.91" for 25-year event
 Inflow = 2.48 cfs @ 12.09 hrs, Volume= 0.178 af
 Outflow = 2.42 cfs @ 12.10 hrs, Volume= 0.178 af, Atten= 2%, Lag= 1.0 min
 Discarded = 0.06 cfs @ 12.10 hrs, Volume= 0.089 af
 Primary = 2.36 cfs @ 12.10 hrs, Volume= 0.089 af

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 296.69' @ 12.10 hrs Surf.Area= 1,276 sf Storage= 1,615 cf

Plug-Flow detention time= 188.7 min calculated for 0.178 af (100% of inflow)
 Center-of-Mass det. time= 188.8 min (996.3 - 807.6)

Volume	Invert	Avail.Storage	Storage Description
#1	296.00'	175 cf	FI & Beehive Depressions (Prismatic) Listed below (Recalc)
#2	293.00'	183 cf	Stone Trench (Prismatic) Listed below (Recalc)
			459 cf Overall x 40.0% Voids
#3	292.72'	336 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
			1,200 cf Overall - 360 cf Embedded = 840 cf x 40.0% Voids
#4	293.10'	360 cf	15.0" Round Pipe Storage Inside #3
			L= 293.1'
#5	290.90'	286 cf	Stone Around Dry Well #1 (Prismatic) Listed below (Recalc)
			765 cf Overall - 50 cf Embedded = 715 cf x 40.0% Voids
#6	290.90'	286 cf	Stone Around Dry Well #2 (Prismatic) Listed below (Recalc)
			765 cf Overall - 50 cf Embedded = 715 cf x 40.0% Voids
#7	291.90'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder Inside #5
#8	291.90'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder Inside #6
		1,727 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
296.00	20	0	0
296.50	100	30	30
297.00	480	145	175

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
293.00	131	0	0
296.50	131	459	459

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
292.72	600	0	0
294.72	600	1,200	1,200

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Type III 24-hr 25-year Rainfall=5.80"



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
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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
290.90	150	0	0
296.00	150	765	765

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
290.90	150	0	0
296.00	150	765	765

Device	Routing	Invert	Outlet Devices
#1	Primary	296.30'	15.0' 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
#2	Device 1	296.00'	12.0" Horiz. Beehive C= 0.600 Limited to weir flow at low heads
#3	Discarded	290.90'	2.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.06 cfs @ 12.10 hrs HW=296.69' (Free Discharge)

3=Exfiltration (Exfiltration Controls 0.06 cfs)
Primary OutFlow Max=2.36 cfs @ 12.10 hrs HW=296.69' (Free Discharge)

1=Broad-Crested Rectangular Weir (Passes 2.36 cfs of 9.11 cfs potential flow)


2=Beehive (Orifice Controls 2.36 cfs @ 3.01 fps)

Summary for Subcatchment 1C: 1C

Runoff = 1.14 cfs @ 12.09 hrs, Volume= 0.081 af, Depth= 1.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr Custom Rainfall=3.40"

	Area (sf)	CN	Description
*	14,267	98	ROOF/PAVE
	9,532	61	>75% Grass cover, Good, HSG B
	23,799	83	Weighted Average
	9,532		40.05% Pervious Area
	14,267		59.95% Impervious Area

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

Summary for Subcatchment 2C: 2C

Runoff = 0.09 cfs @ 12.08 hrs, Volume= 0.008 af, Depth= 3.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr Custom Rainfall=3.40"

	Area (sf)	CN	Description
*	1,251	98	PAVE/ROOF
	1,251		100.00% Impervious Area

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

Summary for Reach 2R: POI #2 (Backyard)

Inflow Area = 0.546 ac, 59.95% Impervious, Inflow Depth = 0.22" for Custom event
Inflow = 0.28 cfs @ 12.47 hrs, Volume= 0.010 af
Outflow = 0.28 cfs @ 12.47 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 3R: POI #1 (Street)

Inflow Area = 0.029 ac, 100.00% Impervious, Inflow Depth = 3.17" for Custom event
Inflow = 0.09 cfs @ 12.08 hrs, Volume= 0.008 af
Outflow = 0.09 cfs @ 12.08 hrs, Volume= 0.008 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Pond 2P: Dry Wells / Perf Pipe Storage

Inflow Area = 0.546 ac, 59.95% Impervious, Inflow Depth = 1.77" for Custom event
 Inflow = 1.14 cfs @ 12.09 hrs, Volume= 0.081 af
 Outflow = 0.33 cfs @ 12.47 hrs, Volume= 0.081 af, Atten= 71%, Lag= 22.9 min
 Discarded = 0.05 cfs @ 12.47 hrs, Volume= 0.071 af
 Primary = 0.28 cfs @ 12.47 hrs, Volume= 0.010 af

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 296.34' @ 12.47 hrs Surf.Area= 1,105 sf Storage= 1,559 cf

Plug-Flow detention time= 313.0 min calculated for 0.081 af (100% of inflow)
 Center-of-Mass det. time= 313.0 min (1,143.2 - 830.1)

Volume	Invert	Avail.Storage	Storage Description
#1	296.00'	175 cf	FI & Beehive Depressions (Prismatic) Listed below (Recalc)
#2	293.00'	183 cf	Stone Trench (Prismatic) Listed below (Recalc)
			459 cf Overall x 40.0% Voids
#3	292.72'	336 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
			1,200 cf Overall - 360 cf Embedded = 840 cf x 40.0% Voids
#4	293.10'	360 cf	15.0" Round Pipe Storage Inside #3
			L= 293.1'
#5	290.90'	286 cf	Stone Around Dry Well #1 (Prismatic) Listed below (Recalc)
			765 cf Overall - 50 cf Embedded = 715 cf x 40.0% Voids
#6	290.90'	286 cf	Stone Around Dry Well #2 (Prismatic) Listed below (Recalc)
			765 cf Overall - 50 cf Embedded = 715 cf x 40.0% Voids
#7	291.90'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder Inside #5
#8	291.90'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder Inside #6
		1,727 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
296.00	20	0	0
296.50	100	30	30
297.00	480	145	175

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
293.00	131	0	0
296.50	131	459	459

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
292.72	600	0	0
294.72	600	1,200	1,200

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Type III 24-hr Custom Rainfall=3.40"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
290.90	150	0	0
296.00	150	765	765

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
290.90	150	0	0
296.00	150	765	765

Device	Routing	Invert	Outlet Devices
#1	Primary	296.30'	15.0' 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
#2	Device 1	296.00'	12.0" Horiz. Beehive C= 0.600 Limited to weir flow at low heads
#3	Discarded	290.90'	2.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.05 cfs @ 12.47 hrs HW=296.34' (Free Discharge)↑ **3=Exfiltration** (Exfiltration Controls 0.05 cfs)**Primary OutFlow** Max=0.25 cfs @ 12.47 hrs HW=296.34' (Free Discharge)↑ **1=Broad-Crested Rectangular Weir** (Weir Controls 0.25 cfs @ 0.45 fps)↑ **2=Beehive** (Passes 0.25 cfs of 0.73 cfs potential flow)

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Type III 24-hr WQ Rainfall=1.00"

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Summary for Subcatchment 1C: 1C

Runoff = 0.05 cfs @ 12.13 hrs, Volume= 0.006 af, Depth= 0.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr WQ Rainfall=1.00"

	Area (sf)	CN	Description
*	14,267	98	ROOF/PAVE
	9,532	61	>75% Grass cover, Good, HSG B
	23,799	83	Weighted Average
	9,532		40.05% Pervious Area
	14,267		59.95% Impervious Area

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

Summary for Subcatchment 2C: 2C

Runoff = 0.03 cfs @ 12.08 hrs, Volume= 0.002 af, Depth= 0.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr WQ Rainfall=1.00"

	Area (sf)	CN	Description
*	1,251	98	PAVE/ROOF
	1,251		100.00% Impervious Area

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

Summary for Reach 2R: POI #2 (Backyard)

Inflow Area = 0.546 ac, 59.95% Impervious, Inflow Depth = 0.00" for WQ event
 Inflow = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af
 Outflow = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 3R: POI #1 (Street)

Inflow Area = 0.029 ac, 100.00% Impervious, Inflow Depth = 0.79" for WQ event
 Inflow = 0.03 cfs @ 12.08 hrs, Volume= 0.002 af
 Outflow = 0.03 cfs @ 12.08 hrs, Volume= 0.002 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Pond 2P: Dry Wells / Perf Pipe Storage

Inflow Area = 0.546 ac, 59.95% Impervious, Inflow Depth = 0.13" for WQ event
 Inflow = 0.05 cfs @ 12.13 hrs, Volume= 0.006 af
 Outflow = 0.01 cfs @ 12.10 hrs, Volume= 0.006 af, Atten= 72%, Lag= 0.0 min
 Discarded = 0.01 cfs @ 12.10 hrs, Volume= 0.006 af
 Primary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 291.28' @ 12.78 hrs Surf.Area= 300 sf Storage= 46 cf

Plug-Flow detention time= 25.0 min calculated for 0.006 af (100% of inflow)
 Center-of-Mass det. time= 25.0 min (943.0 - 918.0)

Volume	Invert	Avail.Storage	Storage Description
#1	296.00'	175 cf	FI & Beehive Depressions (Prismatic) Listed below (Recalc)
#2	293.00'	183 cf	Stone Trench (Prismatic) Listed below (Recalc)
			459 cf Overall x 40.0% Voids
#3	292.72'	336 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
			1,200 cf Overall - 360 cf Embedded = 840 cf x 40.0% Voids
#4	293.10'	360 cf	15.0" Round Pipe Storage Inside #3
			L= 293.1'
#5	290.90'	286 cf	Stone Around Dry Well #1 (Prismatic) Listed below (Recalc)
			765 cf Overall - 50 cf Embedded = 715 cf x 40.0% Voids
#6	290.90'	286 cf	Stone Around Dry Well #2 (Prismatic) Listed below (Recalc)
			765 cf Overall - 50 cf Embedded = 715 cf x 40.0% Voids
#7	291.90'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder Inside #5
#8	291.90'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder Inside #6
		1,727 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
296.00	20	0	0
296.50	100	30	30
297.00	480	145	175

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
293.00	131	0	0
296.50	131	459	459

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
292.72	600	0	0
294.72	600	1,200	1,200

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Type III 24-hr WQ Rainfall=1.00"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
290.90	150	0	0
296.00	150	765	765

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
290.90	150	0	0
296.00	150	765	765

Device	Routing	Invert	Outlet Devices
#1	Primary	296.30'	15.0' 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
#2	Device 1	296.00'	12.0" Horiz. Beehive C= 0.600 Limited to weir flow at low heads
#3	Discarded	290.90'	2.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.01 cfs @ 12.10 hrs HW=290.97' (Free Discharge)↑ **3=Exfiltration** (Exfiltration Controls 0.01 cfs)**Primary OutFlow** Max=0.00 cfs @ 1.00 hrs HW=290.90' (Free Discharge)↑ **1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)↑ **2=Beehive** (Controls 0.00 cfs)

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Type III 24-hr WQV USSF Rainfall=4.26"

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Summary for Subcatchment 1C: 1C

Runoff = 1.61 cfs @ 12.09 hrs, Volume= 0.114 af, Depth= 2.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr WQV USSF Rainfall=4.26"

	Area (sf)	CN	Description
*	14,267	98	ROOF/PAVE
	9,532	61	>75% Grass cover, Good, HSG B
	23,799	83	Weighted Average
	9,532		40.05% Pervious Area
	14,267		59.95% Impervious Area

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

Summary for Subcatchment 2C: 2C

Runoff = 0.12 cfs @ 12.08 hrs, Volume= 0.010 af, Depth= 4.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr WQV USSF Rainfall=4.26"

	Area (sf)	CN	Description
*	1,251	98	PAVE/ROOF
	1,251		100.00% Impervious Area

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

Summary for Reach 2R: POI #2 (Backyard)

Inflow Area = 0.546 ac, 59.95% Impervious, Inflow Depth = 0.80" for WQV USSF event
 Inflow = 1.38 cfs @ 12.15 hrs, Volume= 0.036 af
 Outflow = 1.38 cfs @ 12.15 hrs, Volume= 0.036 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 3R: POI #1 (Street)

Inflow Area = 0.029 ac, 100.00% Impervious, Inflow Depth = 4.02" for WQV USSF event
 Inflow = 0.12 cfs @ 12.08 hrs, Volume= 0.010 af
 Outflow = 0.12 cfs @ 12.08 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.0 min

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Type III 24-hr WQV USSF Rainfall=4.26"

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Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Pond 2P: Dry Wells / Perf Pipe Storage

Inflow Area = 0.546 ac, 59.95% Impervious, Inflow Depth = 2.51" for WQV USSF event
 Inflow = 1.61 cfs @ 12.09 hrs, Volume= 0.114 af
 Outflow = 1.43 cfs @ 12.15 hrs, Volume= 0.114 af, Atten= 11%, Lag= 4.0 min
 Discarded = 0.05 cfs @ 12.15 hrs, Volume= 0.078 af
 Primary = 1.38 cfs @ 12.15 hrs, Volume= 0.036 af

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 296.42' @ 12.15 hrs Surf.Area= 1,119 sf Storage= 1,570 cf

Plug-Flow detention time= 250.7 min calculated for 0.114 af (100% of inflow)
 Center-of-Mass det. time= 250.7 min (1,070.8 - 820.1)

Volume	Invert	Avail.Storage	Storage Description
#1	296.00'	175 cf	FI & Beehive Depressions (Prismatic) Listed below (Recalc)
#2	293.00'	183 cf	Stone Trench (Prismatic) Listed below (Recalc)
			459 cf Overall x 40.0% Voids
#3	292.72'	336 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
			1,200 cf Overall - 360 cf Embedded = 840 cf x 40.0% Voids
#4	293.10'	360 cf	15.0" Round Pipe Storage Inside #3
			L= 293.1'
#5	290.90'	286 cf	Stone Around Dry Well #1 (Prismatic) Listed below (Recalc)
			765 cf Overall - 50 cf Embedded = 715 cf x 40.0% Voids
#6	290.90'	286 cf	Stone Around Dry Well #2 (Prismatic) Listed below (Recalc)
			765 cf Overall - 50 cf Embedded = 715 cf x 40.0% Voids
#7	291.90'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder Inside #5
#8	291.90'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder Inside #6
		1,727 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
296.00	20	0	0
296.50	100	30	30
297.00	480	145	175

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
293.00	131	0	0
296.50	131	459	459

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
292.72	600	0	0
294.72	600	1,200	1,200

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Type III 24-hr WQV USSF Rainfall=4.26"

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
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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
290.90	150	0	0
296.00	150	765	765

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
290.90	150	0	0
296.00	150	765	765

Device	Routing	Invert	Outlet Devices
#1	Primary	296.30'	15.0' 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
#2	Device 1	296.00'	12.0" Horiz. Beehive C= 0.600 Limited to weir flow at low heads
#3	Discarded	290.90'	2.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.05 cfs @ 12.15 hrs HW=296.42' (Free Discharge)

3=Exfiltration (Exfiltration Controls 0.05 cfs)
Primary OutFlow Max=1.32 cfs @ 12.15 hrs HW=296.42' (Free Discharge)

1=Broad-Crested Rectangular Weir (Passes 1.32 cfs of 1.48 cfs potential flow)


2=Beehive (Orifice Controls 1.32 cfs @ 1.67 fps)

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Type III 24-hr WQV USSF 1 Rainfall=4.26"

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Summary for Subcatchment 1C: 1C

Runoff = 1.61 cfs @ 12.09 hrs, Volume= 0.114 af, Depth= 2.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr WQV USSF 1 Rainfall=4.26"

	Area (sf)	CN	Description
*	14,267	98	ROOF/PAVE
	9,532	61	>75% Grass cover, Good, HSG B
	23,799	83	Weighted Average
	9,532		40.05% Pervious Area
	14,267		59.95% Impervious Area

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

Summary for Subcatchment 2C: 2C

Runoff = 0.12 cfs @ 12.08 hrs, Volume= 0.010 af, Depth= 4.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr WQV USSF 1 Rainfall=4.26"

	Area (sf)	CN	Description
*	1,251	98	PAVE/ROOF
	1,251		100.00% Impervious Area

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

Summary for Reach 2R: POI #2 (Backyard)

Inflow Area = 0.546 ac, 59.95% Impervious, Inflow Depth = 0.80" for WQV USSF 1 event

Inflow = 1.38 cfs @ 12.15 hrs, Volume= 0.036 af

Outflow = 1.38 cfs @ 12.15 hrs, Volume= 0.036 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 3R: POI #1 (Street)

Inflow Area = 0.029 ac, 100.00% Impervious, Inflow Depth = 4.02" for WQV USSF 1 event

Inflow = 0.12 cfs @ 12.08 hrs, Volume= 0.010 af

Outflow = 0.12 cfs @ 12.08 hrs, Volume= 0.010 af, Atten= 0%, Lag= 0.0 min

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Type III 24-hr WQV USSF 1 Rainfall=4.26"

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Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Pond 2P: Dry Wells / Perf Pipe Storage

Inflow Area = 0.546 ac, 59.95% Impervious, Inflow Depth = 2.51" for WQV USSF 1 event
 Inflow = 1.61 cfs @ 12.09 hrs, Volume= 0.114 af
 Outflow = 1.43 cfs @ 12.15 hrs, Volume= 0.114 af, Atten= 11%, Lag= 4.0 min
 Discarded = 0.05 cfs @ 12.15 hrs, Volume= 0.078 af
 Primary = 1.38 cfs @ 12.15 hrs, Volume= 0.036 af

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 296.42' @ 12.15 hrs Surf.Area= 1,119 sf Storage= 1,570 cf

Plug-Flow detention time= 250.7 min calculated for 0.114 af (100% of inflow)
 Center-of-Mass det. time= 250.7 min (1,070.8 - 820.1)

Volume	Invert	Avail.Storage	Storage Description
#1	296.00'	175 cf	FI & Beehive Depressions (Prismatic) Listed below (Recalc)
#2	293.00'	183 cf	Stone Trench (Prismatic) Listed below (Recalc)
			459 cf Overall x 40.0% Voids
#3	292.72'	336 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
			1,200 cf Overall - 360 cf Embedded = 840 cf x 40.0% Voids
#4	293.10'	360 cf	15.0" Round Pipe Storage Inside #3
			L= 293.1'
#5	290.90'	286 cf	Stone Around Dry Well #1 (Prismatic) Listed below (Recalc)
			765 cf Overall - 50 cf Embedded = 715 cf x 40.0% Voids
#6	290.90'	286 cf	Stone Around Dry Well #2 (Prismatic) Listed below (Recalc)
			765 cf Overall - 50 cf Embedded = 715 cf x 40.0% Voids
#7	291.90'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder Inside #5
#8	291.90'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder Inside #6
		1,727 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
296.00	20	0	0
296.50	100	30	30
297.00	480	145	175

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
293.00	131	0	0
296.50	131	459	459

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
292.72	600	0	0
294.72	600	1,200	1,200

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
290.90	150	0	0
296.00	150	765	765

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
290.90	150	0	0
296.00	150	765	765

Device	Routing	Invert	Outlet Devices
#1	Primary	296.30'	15.0' 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
#2	Device 1	296.00'	12.0" Horiz. Beehive C= 0.600 Limited to weir flow at low heads
#3	Discarded	290.90'	2.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.05 cfs @ 12.15 hrs HW=296.42' (Free Discharge)↑ **3=Exfiltration** (Exfiltration Controls 0.05 cfs)**Primary OutFlow** Max=1.32 cfs @ 12.15 hrs HW=296.42' (Free Discharge)↑ **1=Broad-Crested Rectangular Weir** (Passes 1.32 cfs of 1.48 cfs potential flow)↑ **2=Beehive** (Orifice Controls 1.32 cfs @ 1.67 fps)

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Type III 24-hr WQV USSF 2 Rainfall=3.24"

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Summary for Subcatchment 1C: 1C

Runoff = 1.05 cfs @ 12.09 hrs, Volume= 0.075 af, Depth= 1.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr WQV USSF 2 Rainfall=3.24"

	Area (sf)	CN	Description
*	14,267	98	ROOF/PAVE
	9,532	61	>75% Grass cover, Good, HSG B
	23,799	83	Weighted Average
	9,532		40.05% Pervious Area
	14,267		59.95% Impervious Area

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

Summary for Subcatchment 2C: 2C

Runoff = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af, Depth= 3.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
Type III 24-hr WQV USSF 2 Rainfall=3.24"

	Area (sf)	CN	Description
*	1,251	98	PAVE/ROOF
	1,251		100.00% Impervious Area

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

Summary for Reach 2R: POI #2 (Backyard)

Inflow Area = 0.546 ac, 59.95% Impervious, Inflow Depth = 0.12" for WQV USSF 2 event

Inflow = 0.09 cfs @ 12.74 hrs, Volume= 0.006 af

Outflow = 0.09 cfs @ 12.74 hrs, Volume= 0.006 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Reach 3R: POI #1 (Street)

Inflow Area = 0.029 ac, 100.00% Impervious, Inflow Depth = 3.01" for WQV USSF 2 event

Inflow = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af

Outflow = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af, Atten= 0%, Lag= 0.0 min

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Type III 24-hr WQV USSF 2 Rainfall=3.24"

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Routing by Stor-Ind+Trans method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs

Summary for Pond 2P: Dry Wells / Perf Pipe Storage

Inflow Area = 0.546 ac, 59.95% Impervious, Inflow Depth = 1.64" for WQV USSF 2 event
 Inflow = 1.05 cfs @ 12.09 hrs, Volume= 0.075 af
 Outflow = 0.14 cfs @ 12.74 hrs, Volume= 0.075 af, Atten= 87%, Lag= 38.8 min
 Discarded = 0.05 cfs @ 12.74 hrs, Volume= 0.069 af
 Primary = 0.09 cfs @ 12.74 hrs, Volume= 0.006 af

Routing by Stor-Ind method, Time Span= 1.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 296.31' @ 12.74 hrs Surf.Area= 1,101 sf Storage= 1,556 cf

Plug-Flow detention time= 328.6 min calculated for 0.075 af (100% of inflow)
 Center-of-Mass det. time= 328.6 min (1,160.9 - 832.4)

Volume	Invert	Avail.Storage	Storage Description
#1	296.00'	175 cf	FI & Beehive Depressions (Prismatic) Listed below (Recalc)
#2	293.00'	183 cf	Stone Trench (Prismatic) Listed below (Recalc)
			459 cf Overall x 40.0% Voids
#3	292.72'	336 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
			1,200 cf Overall - 360 cf Embedded = 840 cf x 40.0% Voids
#4	293.10'	360 cf	15.0" Round Pipe Storage Inside #3
			L= 293.1'
#5	290.90'	286 cf	Stone Around Dry Well #1 (Prismatic) Listed below (Recalc)
			765 cf Overall - 50 cf Embedded = 715 cf x 40.0% Voids
#6	290.90'	286 cf	Stone Around Dry Well #2 (Prismatic) Listed below (Recalc)
			765 cf Overall - 50 cf Embedded = 715 cf x 40.0% Voids
#7	291.90'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder Inside #5
#8	291.90'	50 cf	4.00'D x 4.00'H Vertical Cone/Cylinder Inside #6
		1,727 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
296.00	20	0	0
296.50	100	30	30
297.00	480	145	175

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
293.00	131	0	0
296.50	131	459	459

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
292.72	600	0	0
294.72	600	1,200	1,200

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Type III 24-hr WQV USSF 2 Rainfall=3.24"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
290.90	150	0	0
296.00	150	765	765

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
290.90	150	0	0
296.00	150	765	765

Device	Routing	Invert	Outlet Devices
#1	Primary	296.30'	15.0' 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
#2	Device 1	296.00'	12.0" Horiz. Beehive C= 0.600 Limited to weir flow at low heads
#3	Discarded	290.90'	2.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.05 cfs @ 12.74 hrs HW=296.31' (Free Discharge)↑ **3=Exfiltration** (Exfiltration Controls 0.05 cfs)**Primary OutFlow** Max=0.06 cfs @ 12.74 hrs HW=296.31' (Free Discharge)↑ **1=Broad-Crested Rectangular Weir** (Weir Controls 0.06 cfs @ 0.28 fps)↑ **2=Beehive** (Passes 0.06 cfs of 0.46 cfs potential flow)



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Cumberland County and Part of Oxford County, Maine



July 27, 2022

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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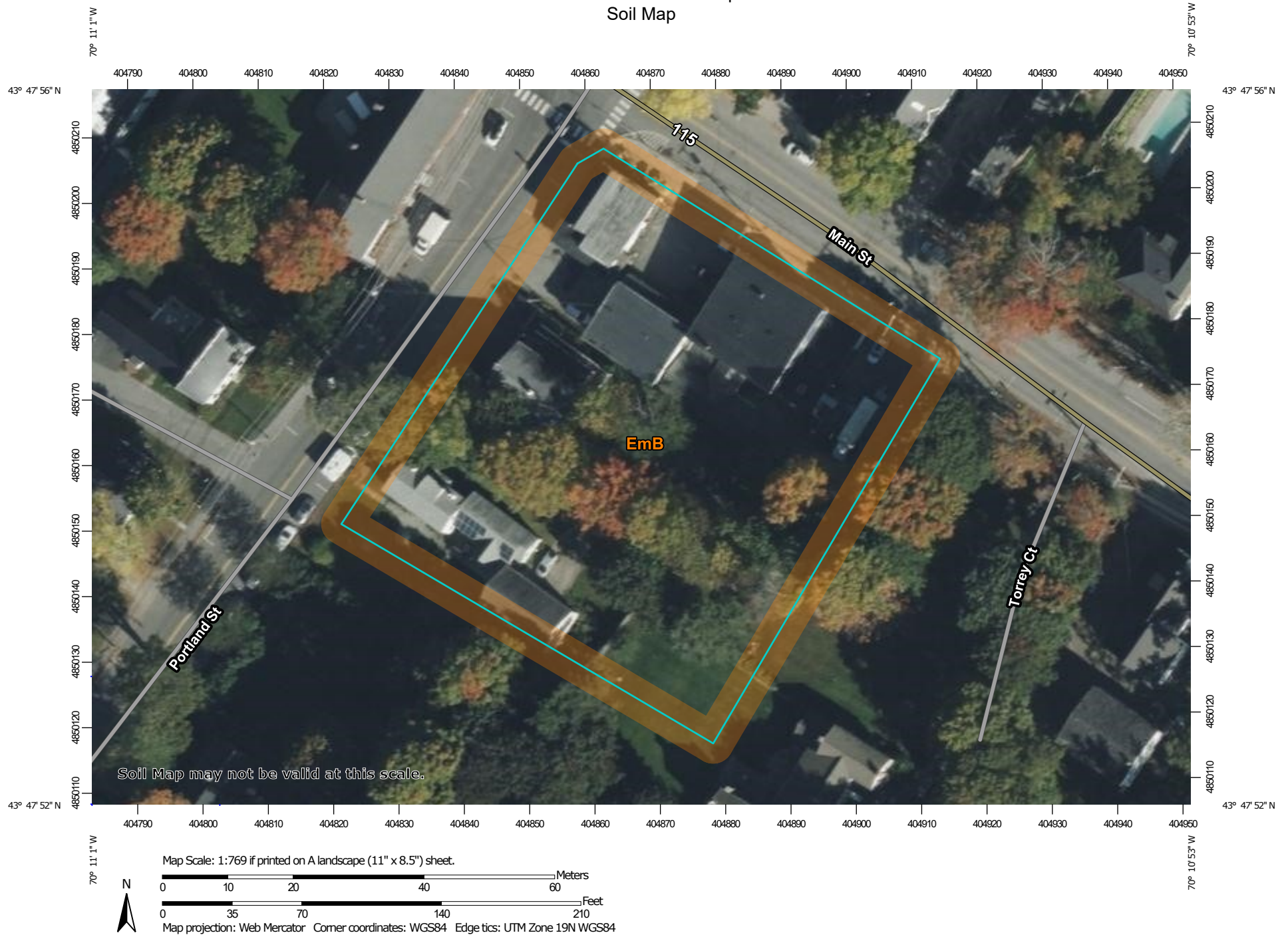
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Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.


Custom Soil Resource Report Soil Map



Custom Soil Resource Report


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 1:24,000.

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: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 18, Aug 31, 2021

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

Date(s) aerial images were photographed: Jul 22, 2021—Oct 7, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

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
EmB	Elmwood fine sandy loam, 0 to 8 percent slopes	1.1	100.0%
Totals for Area of Interest		1.1	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Cumberland County and Part of Oxford County, Maine

EmB—Elmwood fine sandy loam, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: blh8
Elevation: 10 to 900 feet
Mean annual precipitation: 38 to 55 inches
Mean annual air temperature: 43 to 46 degrees F
Frost-free period: 130 to 195 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Elmwood and similar soils: 88 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Elmwood

Setting

Landform: Stream terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Coarse-loamy glaciolacustrine deposits

Typical profile

H1 - 0 to 8 inches: fine sandy loam
H2 - 8 to 25 inches: sandy loam
H3 - 25 to 65 inches: silty clay loam

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 9.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B
Ecological site: F144BY402ME - Clay Hills
Hydric soil rating: No

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Exhibit 25 (Original 4/13/2022, Revised 9/14/2022)

See Large Scale Sheets submitted with this booklet:

C102 – Proposed Preliminary Site Plan (Original 4/13/2022, Revised 9/14/2022)

Note: Information on Civil Drawings (Exhibit 28) superseded information on previously submitted C101 and C103, and dimensional information on revised C102.

SITE PLAN KEY

- PROJECT SITE PROPERTY LINE
PARCEL PROPERTY LINE
ZONING DISTRICT BOUNDARY
PROPOSED LOT LINE
BOUNDARY OF RIGHT OF WAY
EXISTING IRON PIPE OR PIN
EXISTING FENCE
EXISTING BUILDING
PROPOSED BUILDING
PROPOSED LAWN
PROPOSED PAVEMENT
PROPOSED PAVER SIDEWALK
PROPOSED PAVED WALKWAY / PATIO
PAVEMENT PITCH FOR DRAINAGE
1/4" PER 12" (2%) MIN
WALL SCONCE DOWNLIGHT (DARK SKY COMPLIANT)

PLANTING KEY

- PROPOSED SHRUB - Yellowroot
SLENDER DEUTZIA
5 GALLON MIN CONTAINER
PROPOSED SHRUB - SLENDER DEUTZIA
5 GALLON MIN CONTAINER
18" TO 24" CLEAR MIN TO PAVEMENT
PROPOSED SHRUB - BOTTLEBRUSH BUCKEYE
5 GALLON MIN CONTAINER
18" TO 24" CLEAR MIN TO PAVEMENT
PINE - EXISTING TREE
CALIPER: NOTED ON PLAN
TO REMAIN AS FEASIBLE
MAPLE - EXISTING TREE
CALIPER: NOTED ON PLAN
TO REMAIN AS FEASIBLE
ASH - EXISTING TREE
CALIPER: NOTED ON PLAN
TO REMAIN AS FEASIBLE
SUGAR MAPLE - PROPOSED TREE
CALIPER: 2" MIN
HEIGHT: 8'-0" MIN
JAPANESE LILAC - PROPOSED TREE
CALIPER: 2" MIN
HEIGHT: 8'-0" MIN
WHITE FIR - PROPOSED
CALIPER: 1 1/2" MIN
HEIGHT: 5' TO 7' MIN
SEE CIVIL DRAWINGS FOR TREE
PLANTING DETAILS

GENERAL SITE PLAN NOTES

THE AFFECTED PARCEL IS 90 MAIN STREET (TAX MAP 32-7) AND PORTLAND STREET (TAX MAP 32-11).

DEED REFERENCES ARE MADE TO THE CUMBERLAND COUNTY REGISTRY OF DEEDS

FLOOD ZONE CLASSIFICATION: PROPERTY DOES NOT LAY WITHIN A DESIGNATED FLOOD HAZARD ZONE

THERE ARE NO WETLANDS ON THE SUBJECT PROPERTY AS SHOWN.

ALL DIMENSIONAL INFORMATION SHALL DEFER TO CIVIL DRAWINGS IN EXHIBIT 28.

ZONING SUMMARY

1. Property is located in the VILLAGE CENTER (CD4) - See Full Analysis on C101
2. Parcel Area: Parcel 32-7 (Main St) 8,653 square feet(s) or +/- .20 acres
Parcel 32-11 (Portland St) 12,986 square feet(s) or +/- .30 acres
Parcel 32-6 (No Modification) 3,412 square feet(s) or +/- .08 acres

PLATZ ASSOCIATES

Architects - Engineers
Construction Managers

Tel 207-784-2941
Fax 207-784-3856

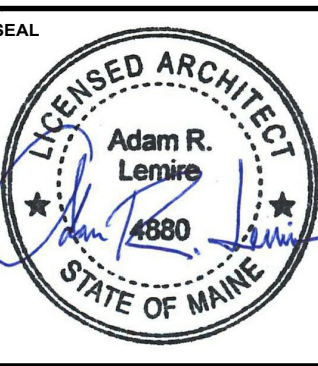
Two Great Falls Plaza, Auburn, Maine 04210

90 MAIN STREET PROJECT

90 Main Street Yarmouth, ME

Charles L. Hewitt & Katharine Carey

Proposed Site Plan for:



ORIGINAL DATE: 04-13-2022

DRAWING ISSUE		
No.	DESCRIPTION	DATE
	CONCEPTUAL	04-13-2022
1	AMENDMENT #1	06-15-2022
2	PRELIMINARY	09-14-2022

No drawing shall be recognized as a construction document unless it bears a blue inked registration seal

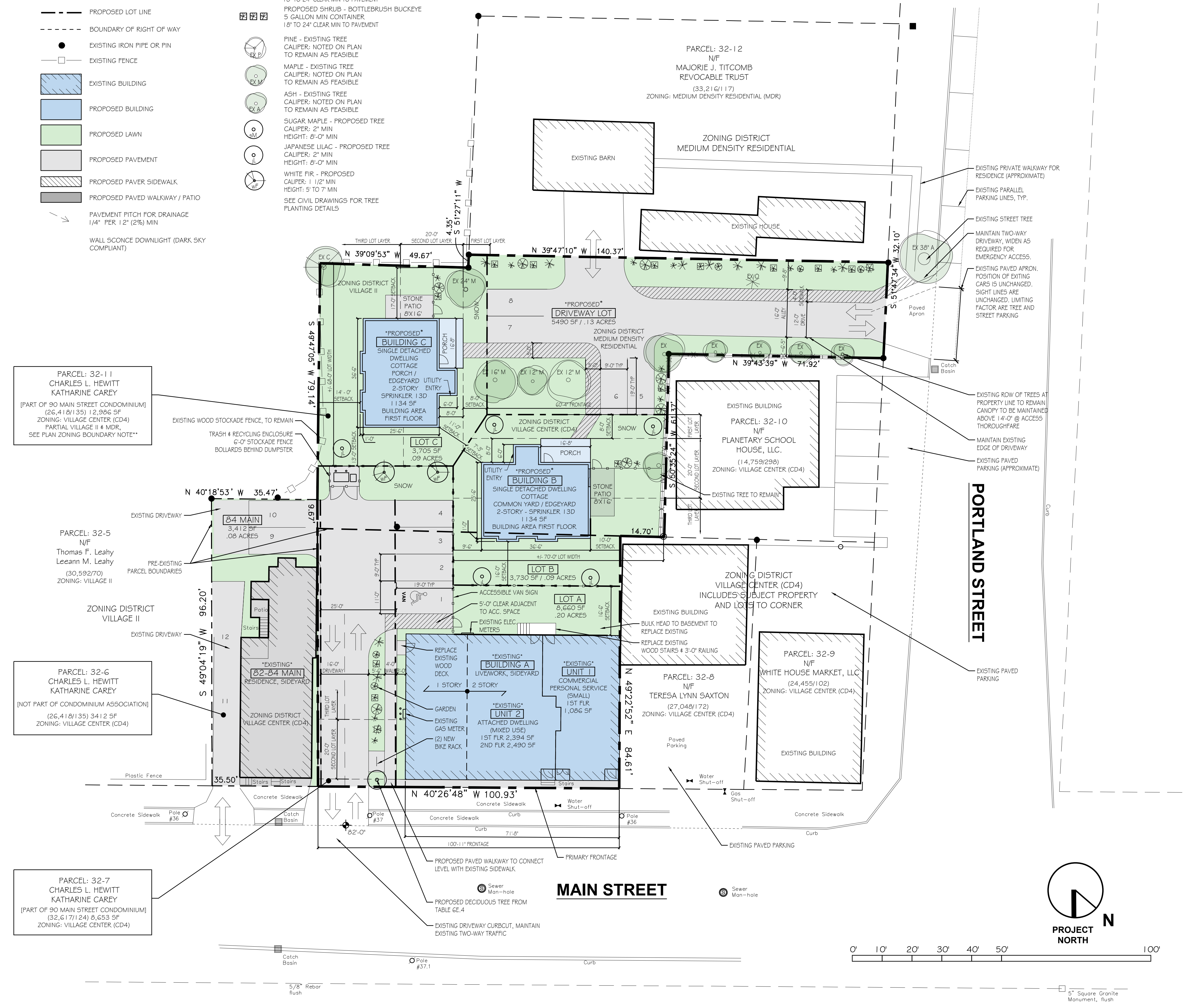
JOB NO. 202141

DRAWN BY ARL CHECKED BY -

SHEET TITLE PROPOSED SITE PLAN - AMENDED

SHEET

C102



1	PROPOSED PRELIMINARY SITE PLAN	-	NOTES
	SCALE : 1:200		N.T.S.

Exhibit 27

See attached elevations, plans, and rendering of the proposed buildings:

A101 – Proposed Building B Architectural Plans

A201 – Proposed Building B Architectural Elevations

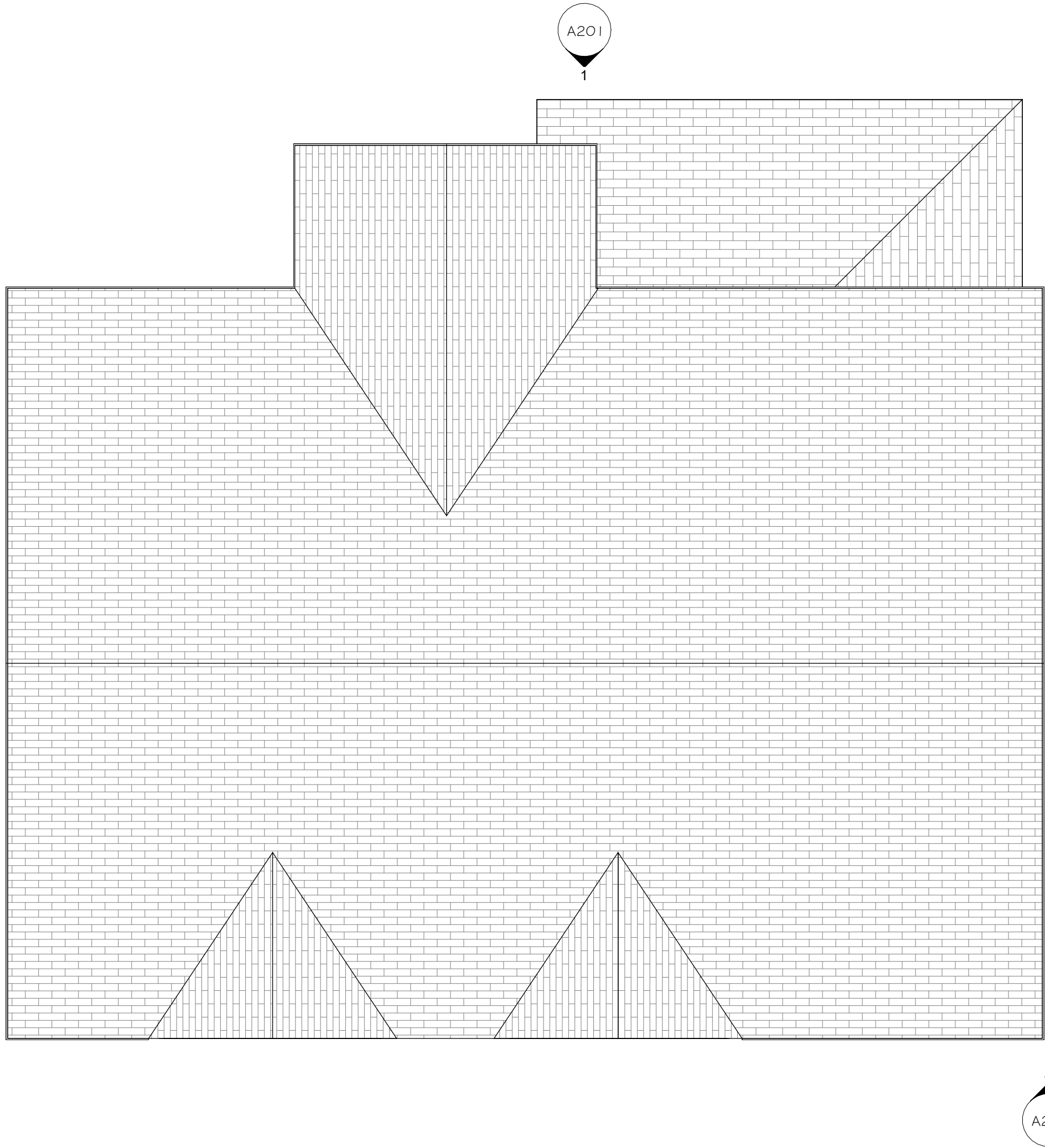
A102 – Proposed Building C Architectural Plans

A202 – Proposed Building C Architectural Elevations

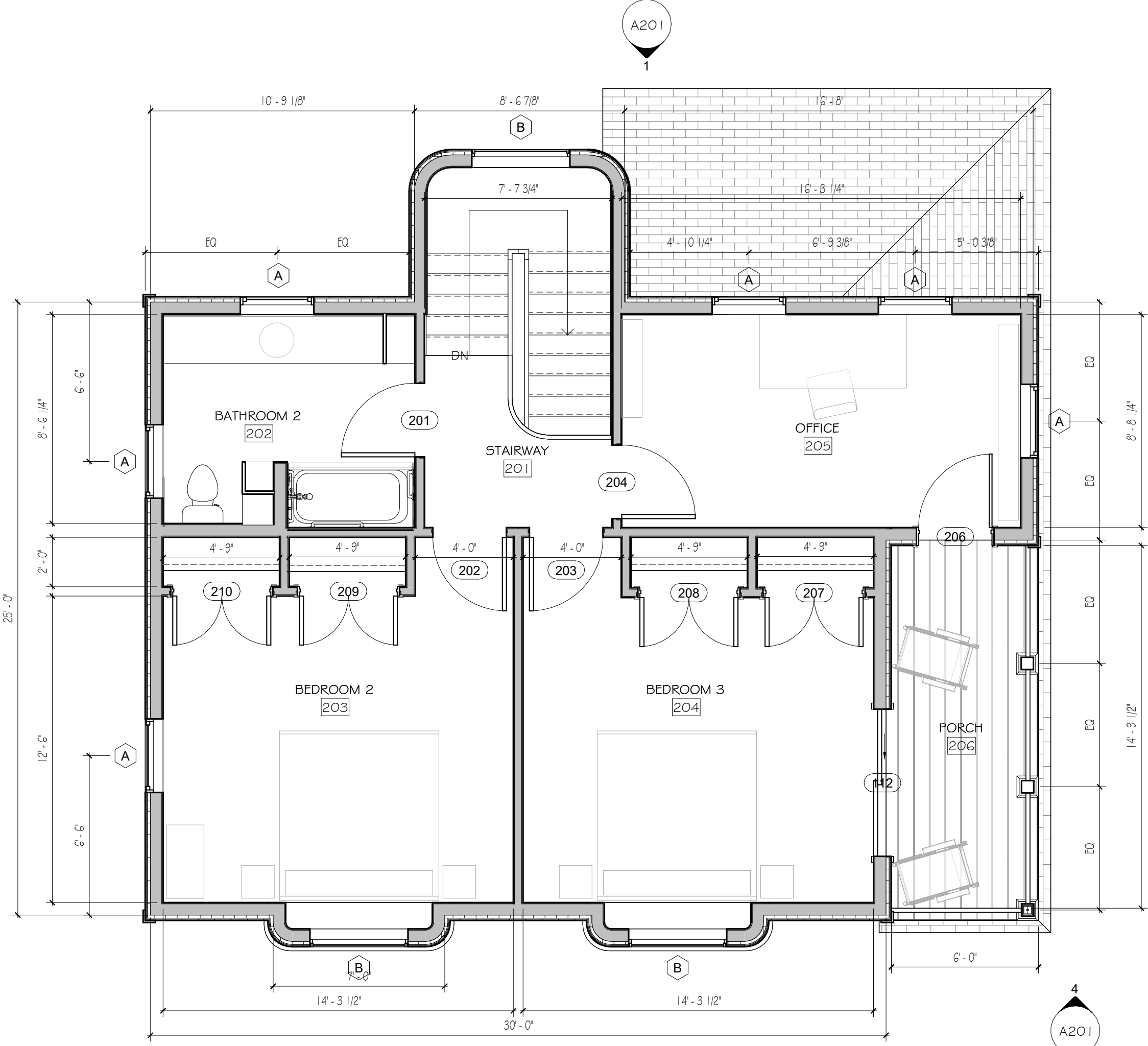
3D Rendering from Perspective of North-East corner of 18 Portland Street's house, looking North-East at eye level.

GENERAL NOTES:

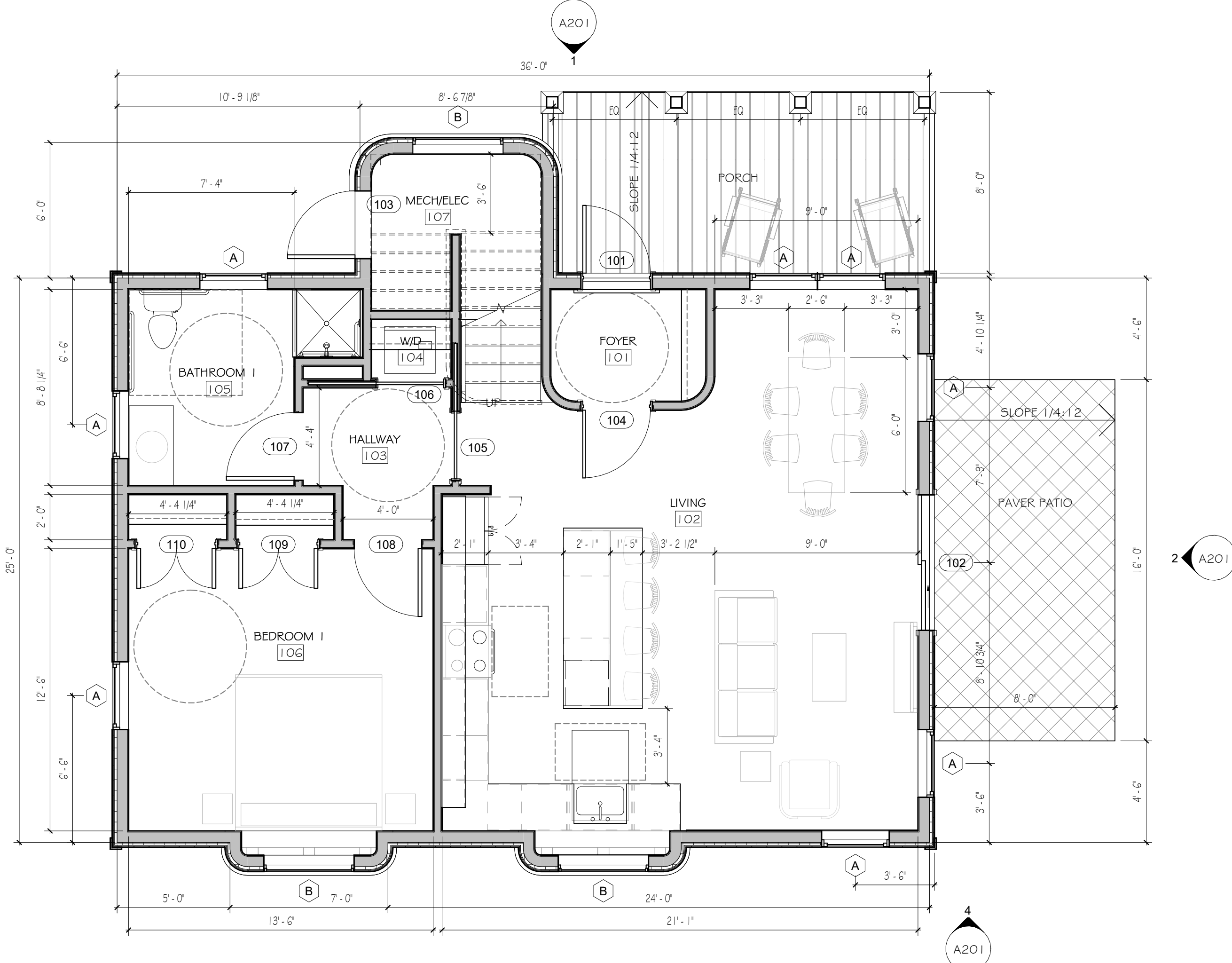
1. THE PROPOSED BUILDINGS WILL MEET CURRENT LOCAL, STATE, AND FEDERAL LIFE SAFETY CODE STANDARDS
2. BUILDING TO BE SPRINKLERED PER NFPA 13D
3. INTERCONNECTED SMOKE DETECTORS, AS REQUIRED
4. GAS DETECTORS, AS REQUIRED
5. CARBON MONOXIDE DETECTORS, AS REQUIRED
6. HOUSE NUMBERS, AS REQUIREDAND



3 ROOF PLAN
A101 SCALE: 1/4" = 1'-0"



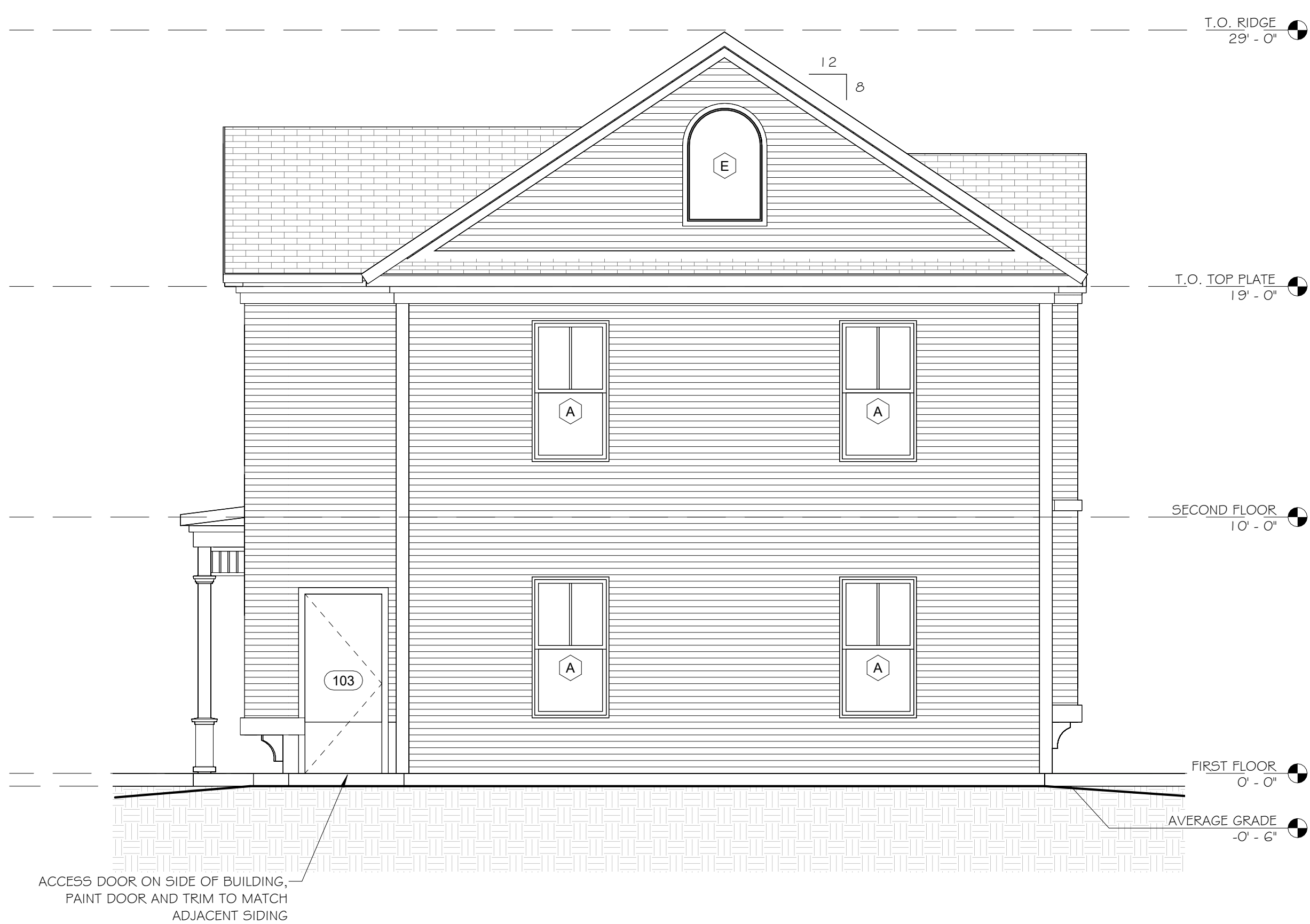
2 SECOND FLOOR PLAN
A101 SCALE: 1/4" = 1'-0"



1 FIRST FLOOR PLAN
A101 SCALE: 1/4" = 1'-0"



4 NORTH ELEVATION
A201 SCALE: 1/4" = 1'-0"



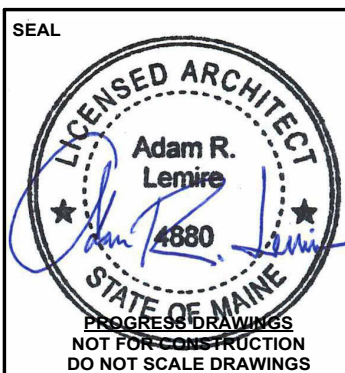
3 EAST ELEVATION
A201 SCALE: 1/4" = 1'-0"



2 WEST ELEVATION
A201 SCALE: 1/4" = 1'-0"



1 SOUTH ELEVATION - FRONTAGE MAIN FACADE
A201 SCALE: 1/4" = 1'-0"



ORIGINAL DATE: 09/14/2022		
DRAWING ISSUE		
No.	DESCRIPTION	DATE
	PRELIMINARY	09/14/2022

JOB NO. 202141

DRAWN BY ARL CHECKED BY -

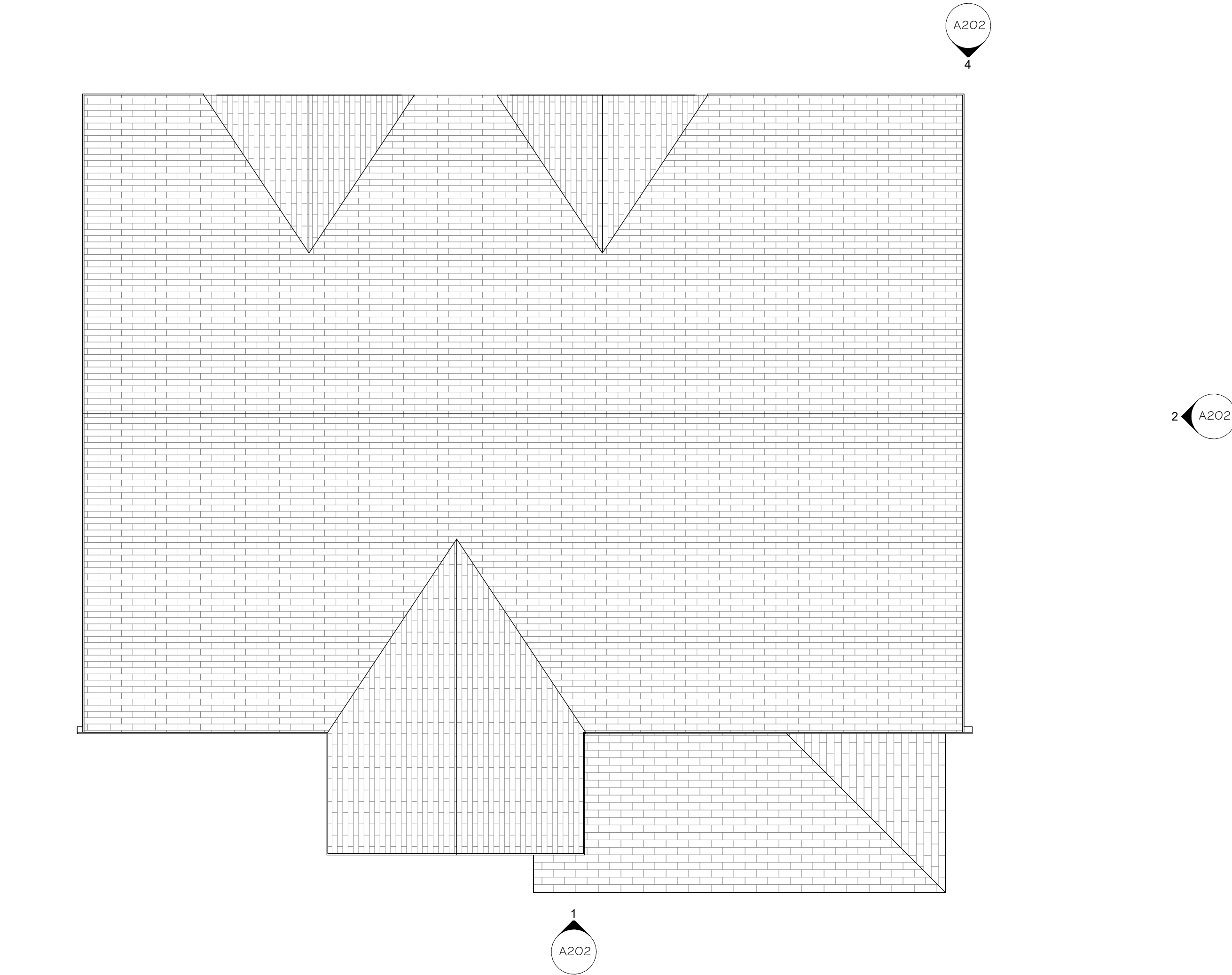
SHEET TITLE
BUILDING B
EXTERIOR
ELEVATIONS

SHEET
A201

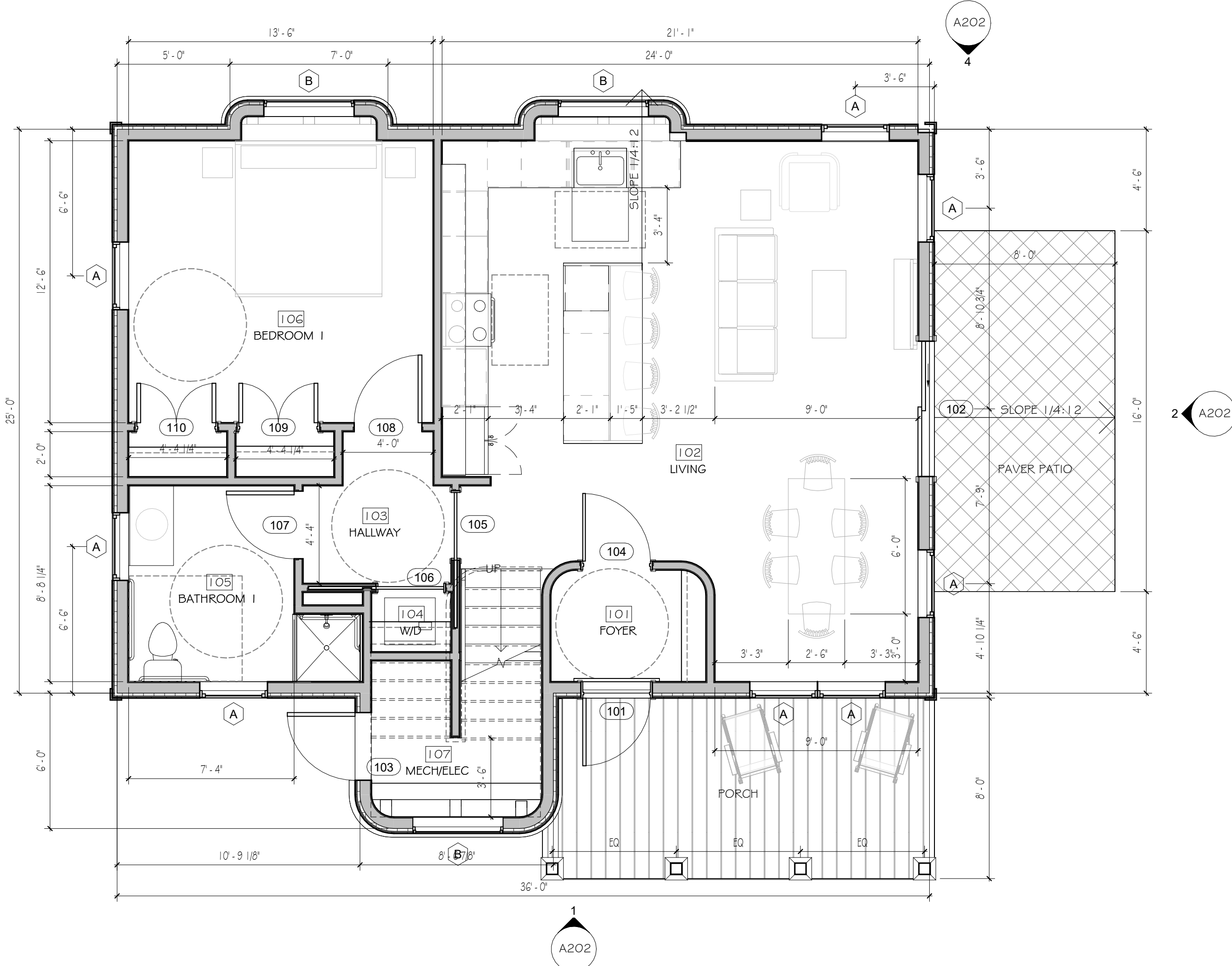
GENERAL NOTES:

1. THE PROPOSED BUILDINGS WILL MEET CURRENT LOCAL, STATE, AND FEDERAL LIFE SAFETY CODE STANDARDS
2. BUILDING TO BE SPRINKLERED PER NFPA 13D
3. INTERCONNECTED SMOKE DETECTORS, AS REQUIRED
4. GAS DETECTORS, AS REQUIRED
5. CARBON MONOXIDE DETECTORS, AS REQUIRED
6. HOUSE NUMBERS, AS REQUIREDAND

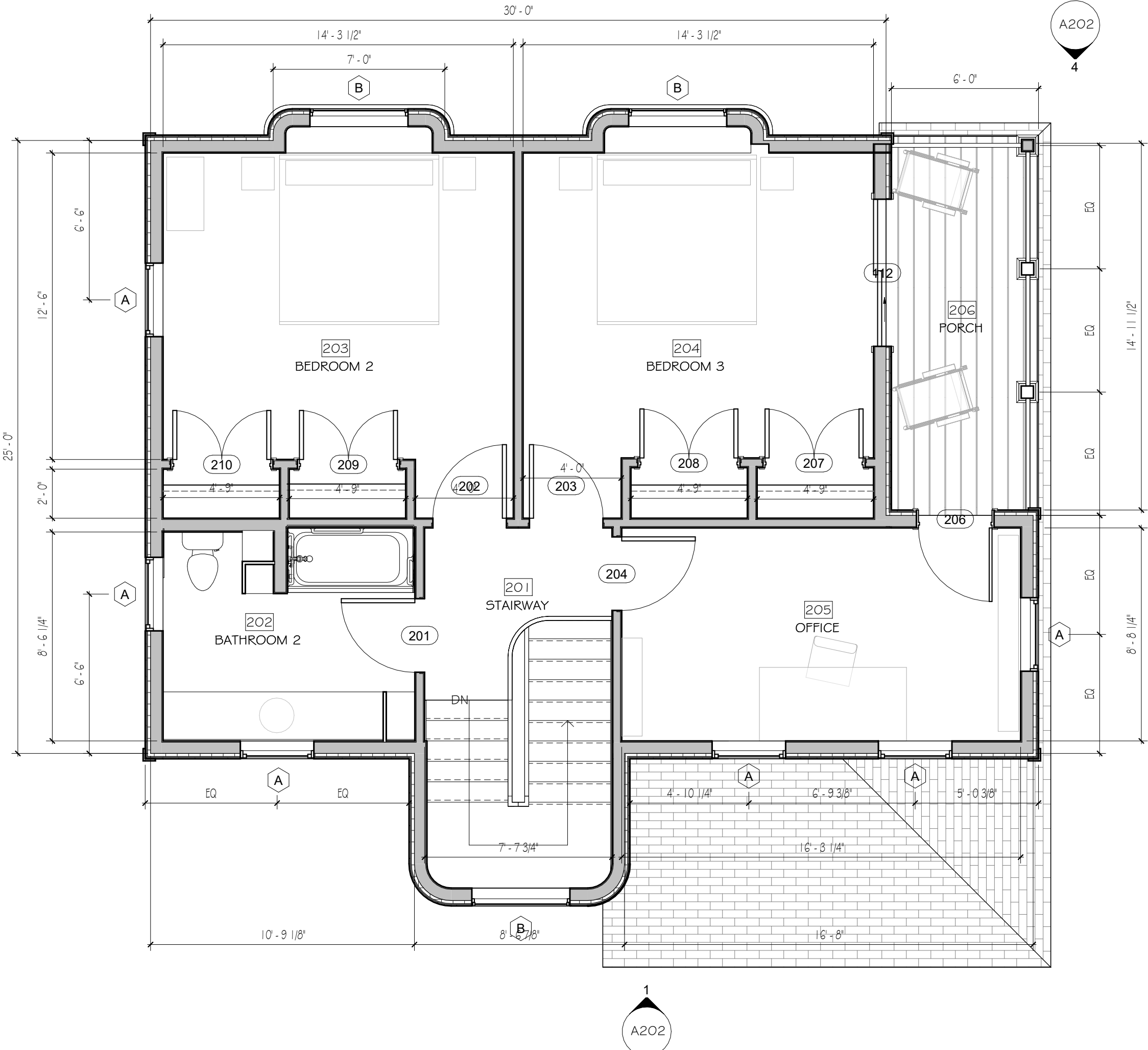
3 ROOF PLAN
A102 SCALE: 1/4" = 1'-0"



1 FIRST FLOOR PLAN
A102 SCALE: 1/4" = 1'-0"

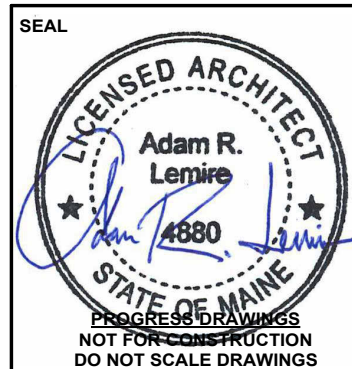


2 SECOND FLOOR PLAN
A102 SCALE: 1/4" = 1'-0"



Proposed Design of:
90 Main Street Project
Building C
Yarmouth, Maine

PLATZ ASSOCIATES
Architects - Engineers
Construction Managers
Tel 207-784-2941
Fax 207-784-3856
Two Great Falls Plaza, Auburn, Maine 04210



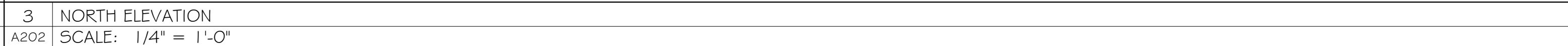
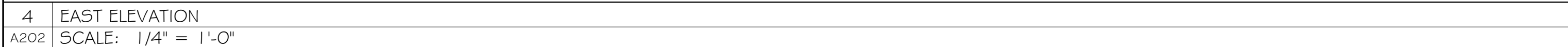
ORIGINAL DATE: 09/14/2022		
DRAWING ISSUE		
No.	DESCRIPTION	DATE
1	PRELIMINARY	09/14/2022

JOB NO. 202141

DRAWN BY ARL
CHECKED BY -

SHEET TITLE
BUILDING C
FLOOR PLANS

SHEET
A102



11/202141
Carey-Hewitt
House\CONDOCS\REVIT\BUILDING
C:\p



Exhibit 28

See attached Civil Engineering documents:

C-01 – Cover sheet & Legend

C-02 – General Notes

EX – Existing Conditions Plan – By Wayne Wood & Co Dated 8/22/22

C-10 – Utility Plan

C-20 – Utility Plan

C-30 – Grading, Drainage and Erosion Control Plan

C-40 – Site Details – 1

C-41 – Utility Details - 1

C-42 – Drainage Details

C-42 – Erosion Control Details & Notes

YARMOUTH, MAINE

ABBREVIATIONS

DRAWING NO.
C-01

1. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE ANY POTENTIAL CONFLICTS WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.

- CIVIL SITE NOTES:

- SPECIAL INSPECTION NOTES:

1. ALL SITE SOILS-RELATED WORK AND FOOTING EXCAVATIONS PRIOR TO PLACING FORMS, SHALL BE REVIEWED BY THE PROJECT GEOTECHNICAL ENGINEER. CONTRACTOR TO NOTIFY GEOTECHNICAL ENGINEER.
2. STORMWATER INSPECTIONS TO BE CONDUCTED BY ACORN ENGINEERING. CONTRACTOR TO NOTIFY ACORN ENGINEERING.
3. NORMAL REVIEWS BY LOCAL BUILDING DEPARTMENT. NOTIFY 48 HOURS PRIOR TO REQUIRED REVIEW.
4. REQUIRED SPECIAL INSPECTIONS PER I.B.C. SECTION 1705.6 BY AN APPROVED SPECIAL INSPECTOR RETAINED BY OWNER. CONTRACTOR TO COORDINATE SPECIAL INSPECTIONS.
5. SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
- 5.1. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR SHALL BE TO OBSERVE AND/OR TEST THE WORK ASSIGNED AND OUTLINE ABOVE FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS, ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION.
- 5.2. THE SPECIAL INSPECTOR SHALL FURNISH REGULAR REPORTS TO THE BUILDING OFFICIAL, THE ARCHITECT AND ENGINEER OF RECORD, AND OTHER DESIGNATED PERSONS. PROGRESS REPORTS FOR CONTINUOUS INSPECTION SHALL BE FURNISHED WEEKLY. INDIVIDUAL REPORTS OF PERIODIC INSPECTIONS SHALL BE FURNISHED WITHIN ONE WEEK OF INSPECTION DATES.

THE REPORTS SHALL NOTE UNCORRECTED DEFICIENCIES, AND NET CHANGES TO THE APPROVED CONSTRUCTION DOCUMENTS AUTHORIZED BY THE ENGINEER OF RECORD.

- 5.3. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT WITHIN TEN DAYS OF THE FINAL INSPECTION STATING WHETHER THE WORK REQUIRING A SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE AND BELIEF, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE INTERNATIONAL BUILDING CODE. WORK NOT IN COMPLIANCE SHALL BE NOTED IN THE REPORT.
- 5.4. SPECIAL INSPECTOR SHALL BE EMPLOYED BY OWNER AND COORDINATED BY THE CONTRACTOR.

1. MONUMENTS DELINEATING PROPERTY LINES OR RIGHT OF WAYS SHALL NOT BE DISTURBED DURING CONSTRUCTION OPERATIONS. IN THE CASE A MONUMENT IS DISTURBED, AT THE CONTRACTOR'S EXPENSE, THE MONUMENT SHALL BE RESET TO ITS ORIGINAL LOCATION AND ELEVATION BY A LICENSED PROFESSIONAL LAND SURVEYOR.

2. ALL DIMENSIONS ON THE FOLLOWING SHEETS TAKE PRECEDENT OVER SCALED DIMENSIONS. EACH DRAWING WITH A BAR SCALE MEANS THAT THE DRAWING/DETAIL HAS BEEN SCALED AS ACCURATELY AS POSSIBLE, AND THE BAR SCALE IS FOR GENERAL REFERENCE ONLY. IF NO BAR SCALE IS PRESENT, THEN THERE IS NO SCALE TO THAT DRAWING/DETAIL. AT NO TIME SHOULD DRAWINGS BE SCALED FROM. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, SPECIFICATIONS AND THE FIELD CONDITION SHALL BE IMMEDIATELY REPORTED TO ACORN FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS.
3. SIGNAGE, STRIPING, AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
4. ALL TRAFFIC CONTROL SIGNS INDICATED ON THE SITE LAYOUT PLAN ARE TO MEET ALL REQUIREMENTS & CONDITIONS OF THE TOWN OF YARMOUTH, MAINE DEPARTMENT OF TRANSPORTATION AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES LATEST EDITION.
5. THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A LICENSED PROFESSIONAL LAND SURVEYOR TO PROVIDE A MINIMUM OF TWO TEMPORARY BENCHMARKS WITHIN THE SITE AND TO LOCATE PROPOSED STRUCTURE CORNERS.
6. CONTRACTOR TO ENSURE THAT ACCESS, INCLUDING BUT NOT LIMITED TO WALKWAYS, DRIVEWAYS, AND MAILBOXES ADJACENT TO THE PROJECT REMAIN FUNCTIONAL AND AVAILABLE FOR USE AT ALL TIMES.

1. THIS PROJECT IS SUBJECT TO THE TERMS AND CONDITIONS OF A BUILDING PERMIT FROM THE TOWN OF YARMOUTH.
2. THE CONTRACTOR SHALL REVIEW THE ABOVE REFERENCED PERMITS PRIOR TO SUBMITTING A BID FOR THIS PROJECT, AND INCLUDE COSTS AS NECESSARY TO COMPLY WITH THE CONDITIONS OF THESE PERMITS.
3. ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY REQUIRES A STREET OPENING PERMIT FROM THE TOWN OF YARMOUTH. ADDITIONALLY, COORDINATE WITH THE DEPARTMENT OF PUBLIC WORKS.

1. TOPSOIL STRIPPED FROM THE SITE THAT IS SUITABLE FOR REUSE AS LOAM (MEETS THE REQUIREMENTS WITHIN SECTION 615 OF THE MDOT STANDARD SPECIFICATIONS, MOST RECENT VERSION AND IS FREE OF TRACEABLE AMOUNTS OF CONTAMINANTS) SHALL BE STOCKPILED WITHIN THE PROPOSED LIMIT OF WORK AREA. THE CONTRACTOR SHALL NOT ASSUME THAT ANY STRIPPED TOPSOIL WILL BE ACCEPTABLE FOR REUSE WITH THEIR ESTIMATE.

2. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY; NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING. DEWATERING SHALL INCLUDE TREATMENT OF SILT THROUGH THE USE OF A DIRTBAG BY ACF ENVIRONMENTAL OR APPROVED EQUIVALENT. FLOWS FROM DEWATERING ACTIVITIES SHALL NOT BE DISCHARGED INTO SANITARY SEWERS. SEE BORING LOGS FOR ADDITIONAL INFORMATION.
3. THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING ANY EASEMENT OR TEMPORARY CONSTRUCTION RIGHTS AS NECESSARY BY PRIVATE ADJACENT LAND OWNERS. THE CONTRACTOR SHALL NOT DISTURB ANY SOIL BEYOND THE PROPERTY LINE WITHOUT NOTIFYING AND OBTAINING SUCH EASEMENT OR TEMPORARY CONSTRUCTION RIGHT FROM THE ADJACENT LAND OWNERS. PRIOR TO THE CONTRACTOR PRICING THE WORK, THEY SHALL PROVIDE ACFORN WITH PROOF OF SUCH EASEMENT OR TEMPORARY RIGHTS. SHOULD EASEMENTS OR TEMPORARY RIGHTS NOT BE AVAILABLE, THE CONTRACTOR SHALL INCLUDE COST FOR BRACING AND SHORING AS NECESSARY.
4. THE CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE FREE OF LOW SPOTS AND PONDING AREAS. THE MINIMUM SLOPE SHALL MEET OR EXCEED 0.5% IN ALL CASES. ALL SLOPES SHALL BE AWAY FROM BUILDINGS AND TOP OF PAVEMENT SHALL BE AT OR BELOW EXISTING FINISH FLOOR ELEVATIONS.
5. NO ADDITIONAL PAYMENT FOR UNSUITABLE MATERIALS.
6. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF $N=0.012$ OR LESS.
7. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
8. NATIVE SOILS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LIMIT THE DISTURBANCE TO SUBGRADE SOILS. SHOULD THE SUBGRADE BECOME YIELDING OR DIFFICULT TO WORK, CONTACT ACFORN. THE DISTURBED AREAS SHALL BE EXCAVATED AND BACKFILLED WITH COMPACTED SELECT FILL OR CRUSHED STONE AT NO ADDITIONAL EXPENSE TO THE OWNER.

1. DISTURBED AREAS ARE DEFINED AS THOSE SURFACES WHERE EXISTING VEGETATION OR STRUCTURES HAVE BEEN REMOVED, EXPOSING NATIVE SOIL TO THE ELEMENTS.

2. ALL ROUTINE WORK ACTIVITIES SHALL BE CONDUCTED IN SUCH A WAY TO LIMIT THE AMOUNT OF DISTURBED AREA AT ONE TIME TO THE EXTENT PRACTICABLE.
3. PRIOR TO THE START OF ANY CLEARING/LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL APPLICABLE EROSION CONTROL DEVICES SUCH AS PERIMETER SILT FENCE, AND OTHER APPLICABLE MEASURES. IN THE EVENT THE CONTRACTOR IS NOT SURE A EROSION CONTROL MEASURE SHOULD BE IMPLEMENTED, THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD TO CONFIRM IMPLEMENTATION OF ANY EROSION CONTROL DEVICES.
4. ALL GROUND AREAS GRADED FOR CONSTRUCTION SHALL BE GRADED, LOAMED, SEEDED AND MULCH SHALL BE APPLIED AS SOON AS POSSIBLE WITHIN 7 DAYS FOLLOWING THE COMPLETION OF ANY SOIL DISTURBANCE, AND PRIOR TO ANY STORM EVENT.
5. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED TO THE SATISFACTION OF THE CITY. THE CONTRACTOR SHALL REFERENCE THE APPROVED EROSION AND SEDIMENTATION CONTROL REPORT FOR TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES IN ADDITION TO THE PLAN SET. REFER TO THE CURRENT MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.
6. AT THE END OF CONSTRUCTION, THE CONTRACTOR SHALL REMOVE ALL SEDIMENT FROM STORM DRAINS, CATCH BASINS, AND APPURTENANCES.
7. REFER TO THE EROSION CONTROL DETAILS & NOTES FOR ADDITIONAL INFORMATION.

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED UPON RECORDS OF VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TEST PIT TO DETERMINE THE EXACT LOCATION AND ELEVATION OF UTILITIES TO COORDINATE WITH THE PROPOSED CONNECTIONS OR CROSSING. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO ACORN FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS.

2. CONTRACTOR TO BYPASS EXISTING SEWER FLOW CONTROL AT CONNECTION TO EXISTING SYSTEM AT NO ADDITIONAL COST.
3. CONTRACTOR SHALL, AT NO ADDITIONAL COST TO THE OWNER, CONDUCT EXPLORATORY EXCAVATIONS AT LOCATIONS WHERE PROPOSED EXCAVATION WILL INTERSECT WITH EXISTING UTILITIES, PRIOR TO THE ORDERING OF STRUCTURES.
4. ALL NEW SANITARY MANHOLES SHALL BE VACUUM TESTED BEFORE BACKFILLING. TESTING SHALL BE COMPLETED IN ACCORDANCE

WITH TECHNICAL REPORT #16 (TR-16): GUIDES FOR THE DESIGN OF WASTEWATER TREATMENT WORKS, PREPARED BY THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION.

5. SEWER MANHOLES SHALL BE 4' ID UNLESS OTHERWISE STATED ON THE PLANS.
6. CONTRACTOR TO PROVIDE 5.5' OF COVER FROM TOP OF PIPE TO FINISH GRADE FOR WATER MAINS.
7. THRUST BLOCKS SHALL BE USED FOR THRUST RESTRAIN ON WATER MAINS. DETAIL AND LIMITS FOR THRUST BLOCKS ARE SHOWN WITHIN THE PLAN SET.
8. WATER INFRASTRUCTURE SHALL BE TESTED IN ACCORDANCE WITH THE YARMOUTH WATER DISTRICT DOCUMENT "WATER AND SEWER CONSTRUCTION SPECIFICATIONS AND PROCEDURE", MOST RECENT REVISION.
9. ALL REQUIRED FITTINGS FOR THE WATER MAIN ARE NOT SHOWN ON DRAWINGS. CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY FITTINGS REQUIRED TO CONSTRUCT THE WATER MAIN IN ACCORDANCE WITH TOWN OF YARMOUTH, STATE OF MAINE AND AMERICAN WATER WORKS ASSOCIATION STANDARDS AND REGULATIONS.
10. CONTRACTOR SHALL COORDINATE WORK REGARDING ANY WATER MAIN CONNECTION AND WATER MAIN SHUTDOWN WITH THE YARMOUTH WATER DISTRICT AT LEAST SEVEN (7) DAYS PRIOR TO CONSTRUCTION.
11. ALL WATER PIPE INSTALLATION SHALL CONFORM WITH THE YARMOUTH WATER DISTRICT SPECIFICATIONS AND PROCEDURES, MOST RECENT EDITION.
12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
13. SEWER, GAS, TELEPHONE, ELECTRICITY, CABLE, WATER AND ANY OTHER UTILITY CONNECTIONS SHALL BE REVIEWED BY PLUMBING, ELECTRICAL, AND MECHANICAL DESIGNER FOR CONSISTENCY WITH THEIR PLANS PRIOR TO CONSTRUCTION.
14. COORDINATE EXIT POINT FOR SECONDARY UTILITY SERVICES WITH THE ARCHITECT/ELECTRICAL ENGINEER. SECONDARY LINE LOCATIONS NOT PROVIDED BY ACORN WITHIN THE UTILITY PLAN.
15. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL THE NECESSARY PERMITS FOR THE INSTALLATION OF THE UTILITIES AND STORMDRAINS WITHIN THE PUBLIC RIGHT OF WAY. THE CONTRACTOR SHALL SUBMIT A MAINTENANCE OF TRAFFIC PLAN TO THE CITY IN ACCORDANCE WITH THE TOWN OF YARMOUTH TECHNICAL MANUAL PRIOR TO ANY WORK.
16. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL BOXES, FITTINGS, CONNECTORS, COVER PLATES AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL AT NO EXTRA EXPENSE TO THE OWNER.
17. ALL PIPE LINES SHALL SLOPE UNIFORMLY BETWEEN ELEVATIONS INDICATED ON THE DRAWINGS. NO CRESTS OR SAGS IN THE PIPING WILL BE PERMITTED. ALL HORIZONTAL AND VERTICAL BENDS IN PRESSURIZED PIPE LINES SHALL BE SUITABLY RESTRAINED WITH THRUST BLOCKS OR RETAINER GLANDS. RETAINER GLANDS ALLOWED FOR DUCTILE IRON PIPE ONLY. PROVIDE ALL BENDS, HORIZONTAL AND VERTICAL, AS REQUIRED TO MEET THE GRADES AND ALIGNMENTS INDICATED ON THE DRAWINGS.
18. ALL WASTEWATER PIPING, EXCLUDING BUILDING DRAINS, AND ALL PRESSURIZED PIPING, TO INCLUDE WATER MAINS, INSTALLED BENEATH STRUCTURES SHALL BE ENCASED IN CONCRETE.
19. WHERE NEW PIPING IS TO BE CONNECTED TO EXISTING PIPING, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ADAPTERS, FITTINGS AND ADDITIONAL PIPE AS REQUIRED TO ENSURE A COMPLETE AND PROPERLY FUNCTIONING CONNECTION. CONTRACTOR TO VERIFY LOCATION, ELEVATION, ORIENTATION AND MATERIAL OF CONSTRUCTION. ADAPTERS AND FITTINGS ARE INCIDENTAL TO THE PIPE INSTALLATION.
20. WHENEVER POSSIBLE, WATER LINES SHOULD BE INSTALLED OVER WASTEWATER LINES. A MINIMUM SEPARATION OF 18 INCHES BETWEEN THE BOTTOM OF THE WATER LINE AND THE TOP OF THE WASTEWATER LINE SHALL BE MAINTAINED WHERE POSSIBLE. WHERE A WATER LINE CROSSES UNDER THE WASTEWATER LINE, A FULL LENGTH OF WASTEWATER PIPE SHALL BE CENTERED ABOVE THE WATER LINE SO THAT BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE.
21. THE CONTRACTOR SHALL BE ANTICIPATE THAT THE NATIVE SILT AND CLAY SOILS WILL NOT BE SUITABLE FOR PIPE TRENCH BACKFILL IN PAVED AREAS.
22. GROUNDWATER SHALL BE CONTROLLED TO A LEVEL OF AT LEAST ONE FOOT BELOW SUBGRADE OF THE PIPE OR STRUCTURE. THE CONTRACTOR SHALL MAINTAIN THE LOWERED GROUNDWATER LEVEL UNTIL CONSTRUCTION HAS BEEN COMPLETED TO SUCH AN EXTENT THAT THE STRUCTURES OR PIPES WILL NOT BE FLOATED OR OTHERWISE DAMAGED.
23. EXCAVATION TO SUBRADE IN NATIVE SILT AND CLAY SHALL BE COMPLETED WITH A SMOOTH EDGE BUCKET TO MINIMIZE SUBGRADE DISTURBANCE.
24. ALL ADJUSTMENTS TO FINISHED GRADE ARE TO BE COMPLETED BY THE CONTRACTOR. THE CONTRACTOR SHALL CONFIRM STRUCTURES THAT REQUIRE ADJUSTMENT WITH THE ENGINEER OR OWNERS REPRESENTATIVE PRIOR TO ADJUSTING FRAMES.

1. THE FOLLOWING ITEMS ARE TYPICAL OF MATERIAL WHICH MAY BE ON SITE.

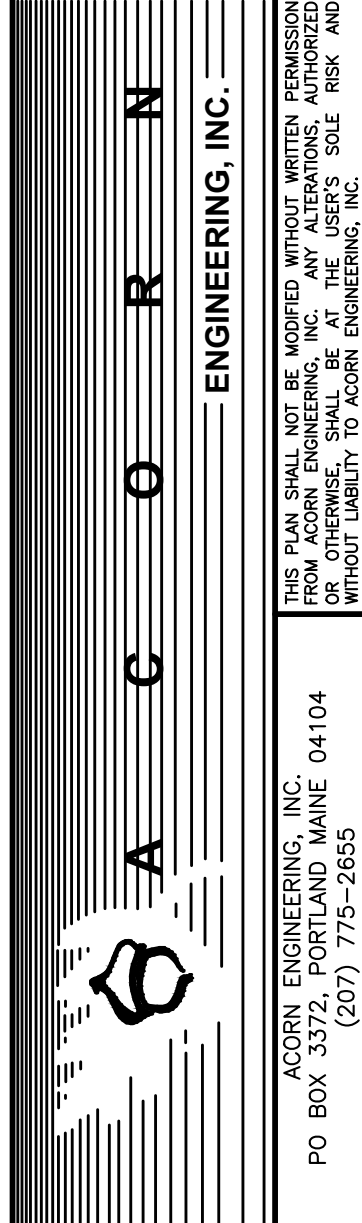
- ROCK AND CONCRETE FOUNDATIONS
 - CONCRETE SLABS
 - BITUMINOUS ASPHALT PAVEMENT
 - CONCRETE PADS AND BLOCKS
 - FENCE, POST AND FENCING
 - UNDERGROUND UTILITY LINES
 - ABOVE AND OR BELOW FUEL OIL AND PROPANE GAS TANKS
 - STORM DRAIN PIPES AND APPURTENANCE STRUCTURES
 - OTHER TRASH & MISCELLANEOUS SOLID WASTES
2. THE CONTRACTOR IS ADVISED TO VISIT THE SITE TO CONFIRM DEMOLITION ITEMS SINCE THE LIST IS NOT INCLUSIVE OF THE SITE CONDITIONS WHICH MAY BE ENCOUNTERED
3. ALL DISPOSAL OF DEMOLITION DEBRIS OR WASTE SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, & FEDERAL REGULATIONS. CONTRACTORS SHALL PROVIDE OWNER WITH APPROPRIATE "BILLS OF LADING" DEMONSTRATING PROPER DISPOSAL OF ALL MATERIALS.
4. THE CLIENT HAS NOT REQUESTED NOR HAS ACORN COMPLETED A PHASE I - ENVIRONMENTAL SITE ASSESSMENT FOR THE PROPERTY.

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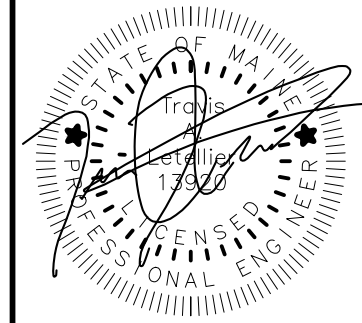
DRAWING NAME: **GENERAL NOTES**

PROJECT NAME: **90 MAIN STREET PROJECT**

CLIENT: **PLATZ ASSOCIATES
YARMOUTH, ME**



FILE:	1178_CIVIL
JN:	1178
SCALE:	AS NOTED
DESIGNED BY:	SJL
DRAWN BY:	AWG
CHECKED BY:	WHS



DRAWING NO.
C-02

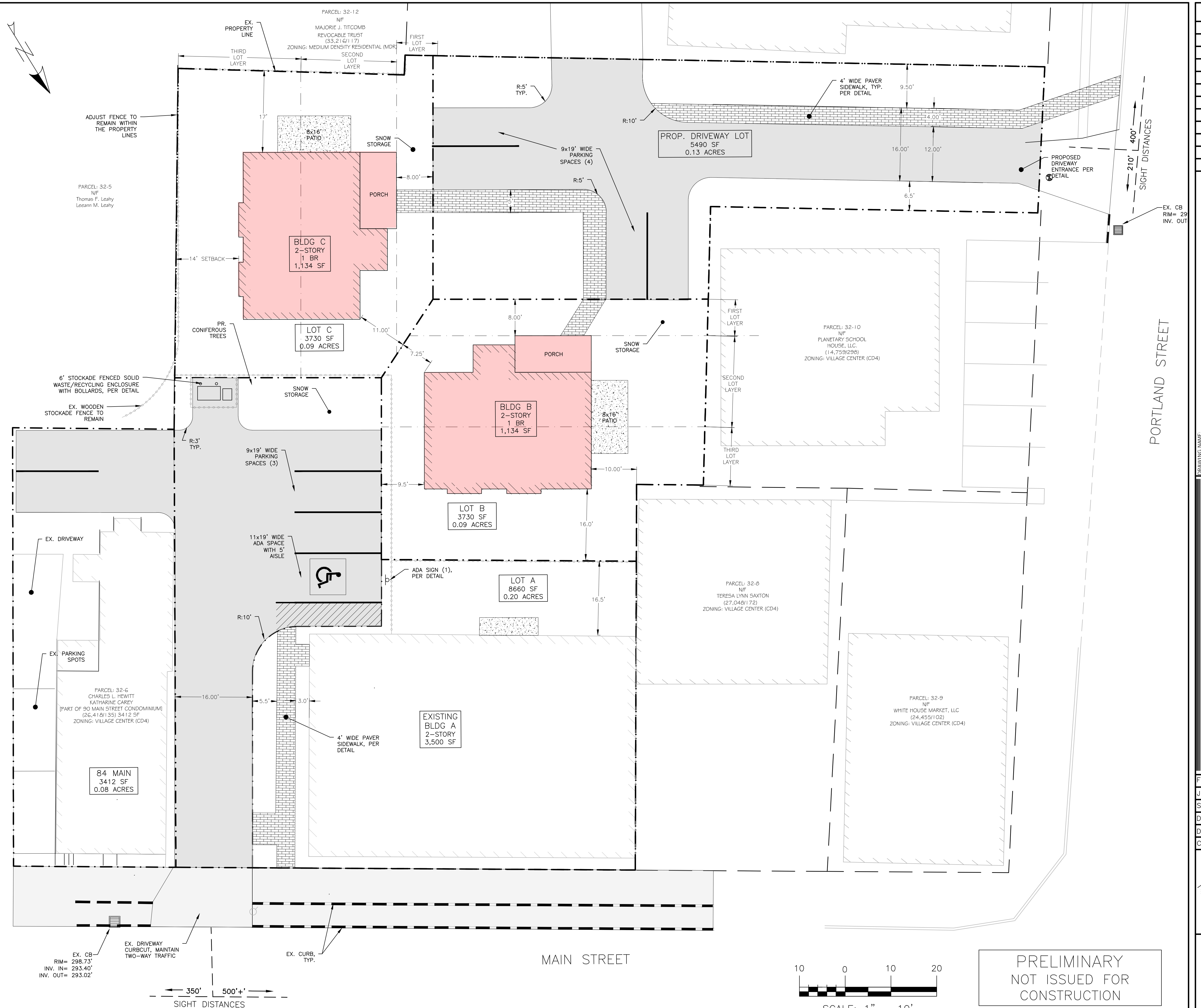
1. ALL BRICK SIDEWALK AND VERTICAL GRANITE CURB TO BE REPLACED SHALL BE REBUILT TO TOWN OF YARMOUTH STANDARD.
2. ALL PAVEMENT STRIPING AND MARKINGS SHALL COMPLY TO THE TOWN OF YARMOUTH STANDARDS.
3. ANY ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
4. CURB TO BE REMOVED, STOCKPILED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
5. ALL RAMPS TO CONFORM TO ADA GUIDELINES. SLOPE SHALL NOT EXCEED 1 INCH PER FOOT.
6. ALL SITE SIGNAGE TO COMPLY WITH MUTCD STANDARDS. CONTRACTOR TO COORDINATE AND INSTALL.
7. FOLLOWING COMPLETION OF CONSTRUCTION, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND MANAGEMENT OF DRIVEWAYS, SITE LIGHTING, TRASH REMOVAL AND SNOW REMOVAL.

SPACE AND BULK STANDARDS – LOT B		
VILLAGE CENTER (CD4) ZONE	REQUIRED	PROVIDED
MINIMUM LOT AREA	NONE	3,730 SF
MAX LOT COVERAGE	85%	36% (1,326 SF / 3,730 SF)
FRONT YARD SETBACK	0–16'	9.50'
MIN. SIDE YARD SETBACK	0'	8.00'
REAR YARD SETBACK	15'	16.00'
LOT WIDTH	18'–120'	70'
FRONTAGE BUILDOUT	40%–100%	60% (36' / 60')
PARKING	1–2 PER UNIT	2 PROVIDED

SPACE AND BULK STANDARDS – LOT C		
VILLAGE CENTER (CD4) ZONE	REQUIRED	PROVIDED
MINIMUM LOT AREA	NONE	3,730 SF
MAX LOT COVERAGE	85%	36% (1,326 SF / 3,730 SF)
FRONT YARD SETBACK	0–16'	8.00'
MIN. SIDE YARD SETBACK	0'	11.00'
REAR YARD SETBACK	15'	14.00'
LOT WIDTH	18'–120'	68'
FRONTAGE BUILDOUT	40%–100%	51% (36' / 70')
PARKING	1–2 PER UNIT	2 PROVIDED


SPACE AND BULK STANDARDS – LOT A – EXISTING		
VILLAGE CENTER (CD4) ZONE	REQUIRED	PROVIDED
MINIMUM LOT AREA	NONE	8,660 SF
MAX LOT COVERAGE	85%	78% (6,790 SF / 8,660 SF)
FRONT YARD SETBACK	0–16'	3.00'
MIN. SIDE YARD SETBACK	0'	0'
REAR YARD SETBACK	15'	20.00'
LOT WIDTH	18'–120'	100'
FRONTAGE BUILDOUT	40%–100%	71% (72' / 100')
PARKING	1–2 PER UNIT	2 PROVIDED

SPACE AND BULK STANDARD – 84 MAIN STREET – EXISTING		
VILLAGE CENTER (CD4) ZONE	REQUIRED	PROVIDED
MINIMUM LOT AREA	NONE	3,390 SF
MAX LOT COVERAGE	85%	42% (1,558 SF / 3,730 SF)
FRONT YARD SETBACK	0–16'	3.00'
MIN. SIDE YARD SETBACK	0'	0'
REAR YARD SETBACK	15'	14.00'
LOT WIDTH	18'–120'	35'
FRONTAGE BUILDOUT	40%–100%	69% (24' / 35')
PARKING	1–2 PER UNIT	4 PROVIDED

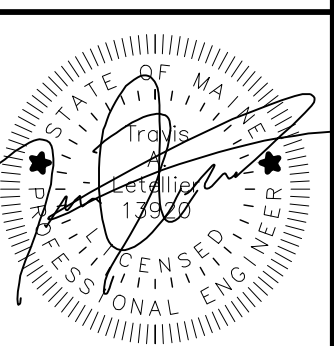
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PROJECT NAME: 90 MAIN STREET PROJECT

CLIENT: PLATZ ASSOCIATES
YARMOUTH, ME

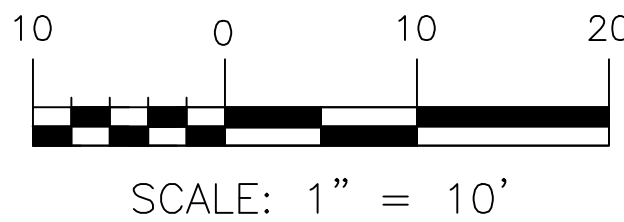

A C O R N
ENGINEERING, INC.
 PACOR ENGINEERING, INC. 04104
 P.O. BOX 3372, PORTLAND, MAINE
 (207) 779-2655
 NO. 2001-2001 NOT TO BE USED WITHOUT WRITTEN PERMISSION FROM PACOR ENGINEERING, INC. ANY ALLEGATIONS AUTHORIZED BY PACOR ENGINEERING, INC. ARE NOT TO BE USED WITHOUT WRITTEN AUTHORITY TO PROMOTE AND INTERFERE IN THE SALE OF RISK AND

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IN:	1178
SCALE:	AS NOTED
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DRAWN BY:	AWG
CHECKED BY:	WHS



DRAWING NO.
C-10


1. LOCATION OF PROPOSED CONNECTIONS ARE APPROXIMATE. CONTRACTOR TO CONTACT ENGINEER IF FIELD INFORMATION VARIES FROM INFORMATION ON PLANS.
2. CONTRACTOR IS TO BE CAUTIONED THAT CERTAIN LOCATIONS AND/OR SECTIONS OF EXISTING UTILITIES HAVE BEEN PROVIDED THROUGH UTILITY COORDINATION OR OTHER OBSERVATIONS. INFORMATION IS NOT TO BE RELIED UPON AS EXACT OR COMPLETE. CONTRACTOR TO FIELD VERIFY AND COORDINATE WITH UTILITY COMPANY, AND DIG AT NO LESS THAN 72 HOURS PRIOR TO EXCAVATION TO RELOCATE EXISTING UTILITIES. CONTRACTOR SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS INDICATED IN THE PLANS. CONTRACTOR DOES NOT DOCUMENT ANY OF THE ABOVE DIFFERENTIATIONS FROM EXISTING CONDITIONS, INCLUDING UTILITY INFORMATION, PRIOR TO ANY CHANGES.
3. FOR ALL UTILITIES, AGRIC ENGINEERING DESIGN LIMITS END AT EXTERIOR WALL OF BUILDING. METERING OF UTILITIES TO BE COMPLETED BY M.E.P. UNLESS OTHERWISE SPECIFIED.
4. CONTRACTOR TO COORDINATE WITH ARCHITECT ON FINAL UTILITY CONNECTIONS WITHIN THE BUILDING.
5. SEWER UTILITIES: CONTRACTOR TO COORDINATE WITH ARCHITECT FOR FINAL SEWER CONNECTION. SEWER UTILITIES TO BE CONSTRUCTED IN ACCORDANCE WITH THE YARMOUTH WATER DISTRICT STANDARDS. THE SEWER MAINLINE SHALL BE INSTALLED WITHIN THE THE PROPERTY LINE FOR EACH CITY SEWER CONNECTION. CONTRACT ENGINEER IF INVERT FIELD CONDITIONS VARY FROM DESIGN.
6. WATER UTILITIES: FINAL PIPE SIZE PROVIDED BY M.E.P. ENGINEER AND FIRE PROTECTION DESIGNER. BACKFLOW PREVENTER, BACKFLOW PREVENTION, AND PRESSURE REDUCERS TO BE COMPLETED BY M.E.P. ENGINEER. DOMESTIC WATER PIPE SIZES WILL DETERMINE THE FINAL WATER METERING OPTIONS. METER MAY BE SMALLER THAN PROPOSED. WATER MAIN, WATER METERING, PRESSURE REDUCER AND BACKFLOW PREVENTION TO BE PROVIDED IN ACCORDANCE WITH THE YARMOUTH WATER DISTRICT STANDARDS. CONTRACTOR TO FOLLOW METERING GUIDELINES OF THE YARMOUTH WATER DISTRICT AND CITY OF YARMOUTH.
7. GAS UTILITIES: PROJECT GAS LOAD, GAS UTILITY DESIGN, AND FINAL GAS CONNECTIONS AND METERING TO BE PROVIDED BY M.E.P. ENGINEER. IN ACCORDANCE WITH UNTIL, WHEN EXCAVATION OCCURS NEAR THE MAIN, ANODE BED, OR RECTIFIER, UNTIL DAMAGE CONTROL DEPARTMENT SHALL BE COORDINATED WITH.
8. ELECTRIC UTILITIES: ELECTRIC DESIGN TO BE FINALIZED BY M.E.P. ENGINEER. METER LOCATION TO BE DETERMINED BY M.E.P. ENGINEER. METER LOCATION AND TRANSFORMER SIZE, IF NECESSARY DEFINED BY M.E.P. M.E.P. TO FINALIZE SEWER CONNECTION TO BUILDING. ALL ELECTRIC CONSTRUCTION SHALL CONFORM TO CMP GUIDELINES AND NUMBERS OF STANDARD REQUIREMENTS, MOST RECENT EDITION, DESIGN SUBJECT TO FINAL APPROVAL FROM CMP.
9. SECONDARY CONDUIT RUNS SHOWN FOR REFERENCE, SUBJECT TO CHANGE BASED UPON FIELD CONDITIONS AND MEP DESIGN. CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND UTILITIES WITH ALL UTILITY COMPANIES INVOLVED.
10. REFER TO STRUCTURAL PLANS FOR FOUNDATION REQUIREMENTS. DESIGN OF TEMPORARY SOIL RESTRAINT MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IF NECESSARY FOR CONSTRUCTION.
11. CONTRACTOR SHALL ENSURE THAT FOUNDATION DRAINS AND UNDERDRAINS ARE CONSTRUCTED WITH POSITIVE OUTLET TO PROPOSED CONNECTIONS.
12. ALL SPOT GRASSES ARE PROPOSED UNLESS PRECEDED BY "EX".
13. REFER TO FLOWLINES FOR STORMWATER DRAINAGE DIRECTION
14. ACCESS, DRAINAGE, UTILITY AND MAINTENANCE EASEMENTS FOR THE BENEFIT ALL SITES IN THE DEVELOPMENT AND THE TOWN OF YARMOUTH SHALL BE PROVIDED.



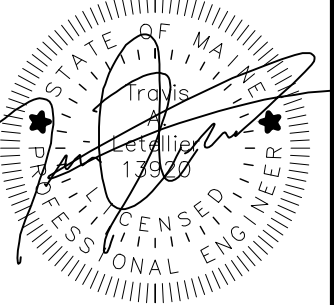
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CONSTRUCTION

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UTILITY PLAN
90 MAIN STREET PROJECT
PLATZ ASSOCIATES
YARMOUTH, ME

	A C O R N		ENGINEERING, INC.	PROJECT NAME
	P O BOX 3274 PORTLAND, MAINE 04104 (207) 775-2855			
WE AND OUR FIRM ARE NOT LICENSED ARCHITECTS, ENGINEERS OR PROFESSIONAL DESIGNERS. ANY SERVICES RENDERED BY US ARE FOR INFORMATIONAL PURPOSES ONLY. WE ASSUME NO LIABILITY FOR ANY ERRORS, OMISSIONS, OR INADEQUACIES IN OUR WORK. WE ASSUME NO LIABILITY FOR ANY DAMAGE TO PERSONS OR PROPERTY.				CLIENT:

FILE:	1178_CIVIL
IN:	1178
SCALE:	AS NOTED
DESIGNED BY:	TAL
DRAWN BY:	AWG
CHECKED BY:	WHS



DRAWING NO.
C-20

1. LOCATION OF PROPOSED CONNECTIONS ARE APPROXIMATE. CONTRACTOR TO CONTACT ENGINEER IF FIELD INFORMATION VARIES FROM INFORMATION ON PLANS.
2. CONTRACTOR IS TO BE CAUTIONED THAT CERTAIN LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES HAVE BEEN PROVIDED THROUGH UTILITY RECORDS AND/OR OTHER OBSERVATIONS. INFORMATION IS NOT TO BE RELIED UPON AS EXACT OR COMPLETE. CONTRACTOR TO FIELD VERIFY AND COORDINATE WITH UTILITY COMPANY AND DIG SAFE NO LESS THAN 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF ALL UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS INDICATED IN THE CONTRACT DOCUMENTS. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES FROM EXISTING CONDITIONS, INCLUDING UTILITY INFORMATION PRIOR TO ANY CHANGES.
3. FOR ALL UTILITIES, ACONRY ENGINEERING DESIGN LIMITS END AT EXTERIOR WALL OF BUILDING. METERING OF UTILITIES TO BE COMPLETED BY M.E.P. UNLESS SPECIFIED OTHERWISE.
4. CONTRACTOR TO COORDINATE WITH ARCHITECT ON FINAL UTILITY CONNECTIONS WITHIN THE BUILDING.
5. SEWER UTILITIES: CONTRACTOR TO COORDINATE WITH ARCHITECT FOR FINAL SERVICE CONNECTION. SEWER UTILITIES TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF PORTLAND TECHNICAL STANDARDS. VALVE FOR BACKFLOW PREVENTION SHALL BE INSTALLED IN ACCORDANCE WITH CITY OF PORTLAND CITY SEWER CONNECTION. CONTRACT ENGINEER IF INVERT FIELD CONDITIONS VARY FROM DESIGN.
6. WATER UTILITIES: FINAL PIPE SIZING PROVIDED BY M.E.P. ENGINEER AND FIRE PROTECTION DESIGNER. INTERNAL METERING, BACKFLOW PREVENTION, AND PRESSURE REDUCING DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH DOMESTIC WATER PIPE SIZES WILL DETERMINE THE FINAL WATER METERING OPTIONS. METER MAY BE SMALLER THAN PROPOSED WATER MAIN. WATER METERING, PRESSURE REDUCING DEVICES, BACKFLOW PREVENTION SHALL BE INSTALLED TO MEET THE PORTLAND WATER DISTRICT STANDARDS. CONTRACTOR TO FOLLOW METERING GUIDELINES OF THE PORTLAND WATER DISTRICT AND CITY OF PORTLAND.
7. GAS UTILITIES: PROJECT GAS LOAD, GAS UTILITY DESIGN, AND FINAL GAS SERVICE LOCATION AND METERS TO BE DEFINED BY M.E.P. AND IN ACCORDANCE WITH CITY OF PORTLAND GAS UTILITY STANDARDS. GAS METERING, GAS RECIPIER, UNTIL DAMAGE CONTROL DEPARTMENT SHALL BE COORDINATED WITH.
8. ELECTRIC UTILITIES: ELECTRIC DESIGN TO BE FINALIZED BY M.E.P. ENGINEER. ELECTRICAL LOAD TO BE DETERMINED BY M.E.P. ENGINEER. METER LOCATION AND ELECTRICAL INFORMATION TO BE PROVIDED BY M.E.P. ENGINEER TO FINALIZE SERVICE CONNECTION TO BUILDING. ALL ELECTRIC CONSTRUCTION SHALL CONFORM TO CMP GUIDEBOOK OF STANDARD REQUIREMENTS, MOST RECENT EDITION. DESIGN SUBJECT TO FINAL APPROVAL FROM CMP.
9. SECONDARY CONDUIT RUNS SHOWN FOR REFERENCE, SUBJECT TO CHANGE BASED ON FIELD CONDITIONS. CONTRACTOR TO COORDINATE WITH THE FINALIZE INSTALLATION OF UNDERGROUND UTILITIES WITH ALL UTILITY COMPANIES INVOLVED.
10. REFER TO STRUCTURAL PLANS FOR FOUNDATION REQUIREMENTS. DESIGN OF FOUNDATION AND SOIL RESTRAINT MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IF NECESSARY FOR CONSTRUCTION.
11. CONTRACTOR SHALL ENSURE THAT FOUNDATION DRAINS AND UNDERDRAINS ARE CONSTRUCTED WITH POSITIVE OUTLET TO PROPOSED CONNECTIONS..
12. ALL SPOT GRADERS ARE PROPOSED UNLESS PRECEDED BY "EX."
13. REFER TO FLOWLINES FOR STORMWATER DRAINAGE DIRECTION



PRELIMINARY
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CONSTRUCTION

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DRAWING NAME: **GRADING, DRAINAGE AND EROSION PLAN**

PROJECT NAME: **90 MAIN STREET PROJECT**

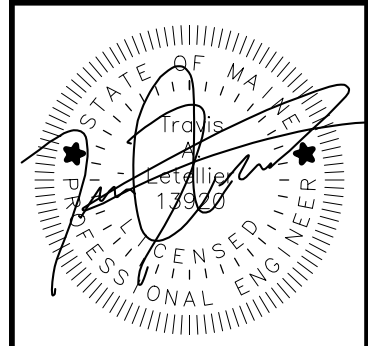
CLIENT: **PLATZ ASSOCIATES
YARMOUTH, ME**

ACORN ENGINEERING, INC. PO BOX 3372, PORTLAND, MAINE 04104
 (207) 775-2655

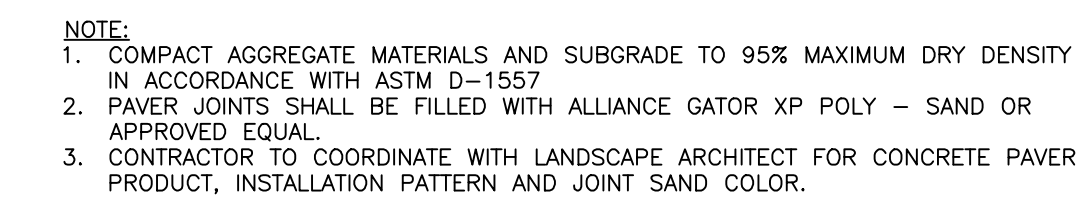
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS AUTHORIZED BY ACORN ENGINEERING, INC. SHALL BE MADE IN WRITING WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

A C O R N
ENGINEERING, INC.

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JN:	1178
SCALE:	AS NOTED
DESIGNED BY:	TAL
DRAWN BY:	AWG
CHECKED BY:	WHS



DRAWING NO.
C-30



THICKNESS OF LAYERS	
STANDARD	LAYERS
2-3/8"	CONCRETE PAVR
4"	SAND MDOT 703.05 AGGREGATE
15"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

Technical drawing of a wheelchair symbol with dimensions and material specifications:

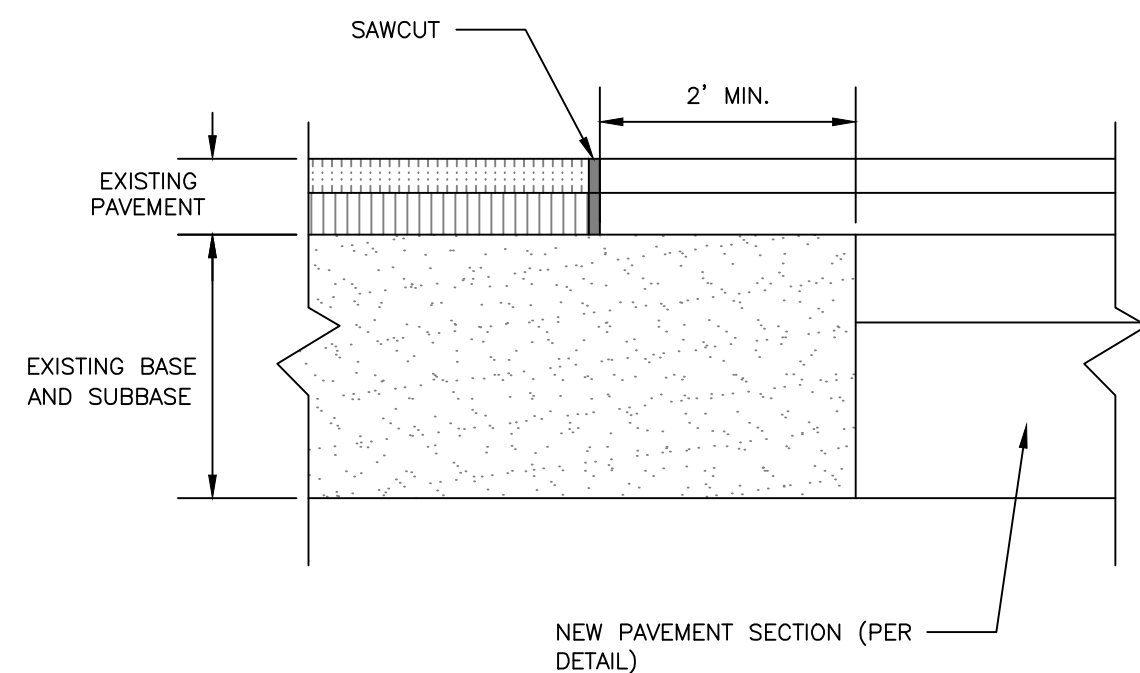
- Overall Dimensions:**
 - Width: 7'-0"
 - Height: 7'-0"
- Symbol Components and Dimensions:**
 - Headrest:** R=6"
 - Backrest:** 1'-0" (width), 2'-0" (height), 5" (thickness)
 - Seat:** 1'-0" (width), 8" (height), 4" (TYP.) (thickness)
 - Wheels:** R=1'-8" (radius), R=2'-0" (radius)
 - Footrest:** 23" (length), 1'-0" (width)
- Material Specifications:**
 - WHITE REFLECTIVE PAINT
 - NON-SKID BLUE PAINT
- Other Dimensions:**
 - 3'-1" (height to top of seat)
 - 3'-6" (width to center of parking space)
 - 8" (width of base)
 - 3" (width of base)
 - 1'-6" (width of base)
- Center of Parking Space:** Indicated by a dot and a line pointing to the center of the symbol.

Diagram illustrating the installation of a tree, showing the trunk, root ball, and surrounding materials. Labels include:

- REINFORCED RUBBERHOSE AND CEDAR STAKES - 3 PER TREE
- DOUBLE #10 GAUGE WIRE GUY TWISTED - INSTALL APPROX. 4.0' ABOVE FINISHED GRADE
- REMOVE ALL LABELS, TAGS OR FOREIGN MATTER FROM LIMES
- 2"x2" STAKE, IN LINE WITH TRUNK
- TREE WRAP WITH 50% OVERLAP WRAP TREE FROM BOTTOM UP
- 3" DEPTH BARK MULCH LAYER
- 5" TALL EARTHEN SAUCER
- CUT ALL METAL OR ROPE BINDINGS AND REMOVE BURLAP FROM TOP 1/3 OF ROOTBALL
- TOPSOIL MIXTURE
- 4" +/-
- FINISH GRADE
- 1/3 HT.
- EXISTING SOIL
- 12" MINIMUM, WITH BACKFILL MIXTURE 1/4" SAND/CHIP
- 6"

NOTES:

1. SAWCUT EXISTING PAVEMENT AND REMOVE 2" STRIP OF EXISTING PAVEMENT. CREATE UNIFORM AND RIGID BUTT JOINT AND APPLY 2" BITUMINOUS TACK COAT AT AN APPLICATION RATE OF 0.10 TO 0.14 GALLONS PER SQUARE YARD PRIOR TO PLACEMENT OF NEW BITUMINOUS PAVEMENT.
2. THE NEW PAVEMENT SECTION SHALL MEET THE CITY OF YARMOUTH BITUMINOUS PAVEMENT SECTION DETAIL AT A MINIMUM OR THE EXISTING PAVEMENT AND AGGREGATE BASE AND SUBBASE DEPTH WHICHEVER IS GREATER.



A cross-sectional diagram of a road pavement structure. The diagram shows five distinct layers, each with a unique hatching pattern. From top to bottom, the layers are: a thin surface course, a binder course, a thicker aggregate base layer, an aggregate subbase layer, and a subgrade layer. Five leader lines point from text labels on the right to the corresponding layers. The labels include material specifications and thicknesses for the first three layers.

Layer	Material Specification	Thickness
Surface Course	MDOT 403.09	12.5mm
Binder Course	MDOT 403.09	19mm
Aggregate Base	Gravel	703.06
Aggregate Subbase	Gravel	703.06
Subgrade	-	-

- NOTES:

1. COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557
2. SURFACE AND AGGREGATE MATERIALS SHALL MEET THE CITY OF PORTLAND STANDARDS IN ADDITION TO MDT STANDARDS.

THICKNESS OF LAYERS	
STANDARD	LAYERS
1 1/2"	SURFACE COURSE MDOT 403.09 GRADE C (12.5mm)
2 1/2"	BINDER COURSE MDOT 403.09 GRADE B (19mm)
3"	AGGREGATE BASE GRAVEL MDOT 703.06 TYPE A
18"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

A cross-sectional diagram of a road pavement structure. The diagram shows five distinct layers stacked vertically. From top to bottom, the layers are: a thin surface layer with a fine texture, a layer with a horizontal line pattern, a layer with a coarse aggregate texture, a layer with a medium aggregate texture, and a bottom layer with a diagonal hatching pattern. Five labels on the right side, each with a leader line pointing to a specific layer, identify the components: 'SURFACE COURSE MDOT 403.09 GRADE C (9.5MM)' points to the top layer, 'BINDER COURSE MDOT 403.09 GRADE B (19MM)' points to the second layer, 'AGGREGATE BASE GRAVEL MDOT 703.06 TYPE B' points to the third layer, 'AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D' points to the fourth layer, and 'SUBGRADE' points to the bottom layer.

Diagram illustrating the cross-section of a road pavement structure, showing the following layers from top to bottom:

- SURFACE COURSE MDOT 403.09 GRADE C (9.5MM)
- BINDER COURSE MDOT 403.09 GRADE B (19MM)
- AGGREGATE BASE GRAVEL MDOT 703.06 TYPE B
- AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D
- SUBGRADE

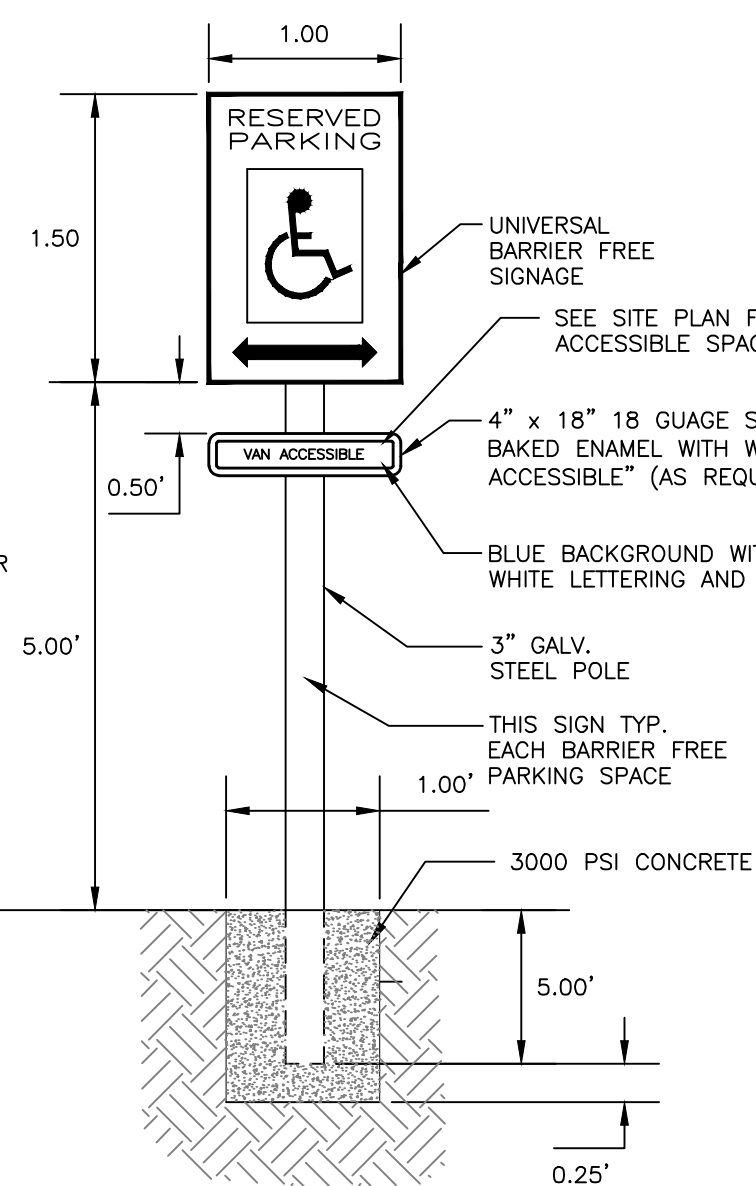
- NOTES:

1. COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557
2. SURFACE AND AGGREGATE MATERIALS SHALL MEET THE CITY OF PORTLAND STANDARDS IN ADDITION TO MDOT STANDARDS.

THICKNESS OF LAYERS	
STANDARD	LAYERS
1-1/2"	SURFACE COURSE MDOT 403.09 GRADE C (9.5mm)
2"	BINDER COURSE MDOT 403.09 GRADE B (19mm)
3"	AGGREGATE BASE GRAVEL MDOT 703.06 TYPE B
5"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

NOTES:

-
1. ALL ASPECTS OF RESERVED PARKING SIGN CONSTRUCTION SHALL BE IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION.
2. SIGN SHALL BE CONSTRUCTED AS SIGN R7-8 UNDER THE "PARKING AND STANDING SIGNS AND PLAQUES" (R7 SERIES) WITHIN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION. VAN ACCESSIBILITY SHALL BE CONSTRUCTED AS SIGN R7-8a OR R7-8b.
3. SIGN POST CONSTRUCTION AND MOUNTING SHALL BE IN ACCORDANCE WITH CHAPTER 2A OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 OR MOST RECENT EDITION.
- 1.50'
- 0.50'
- 5.00'
- PARKING
- UNIVERSAL BARRIER-FREE SIGNAGE
- SEE SITE PLAN FOR VAN ACCESSIBLE SPACE
- 4" x 18" 18 GAUGE STEEL BAKED ENAMEL WITH WORDS "VAN ACCESSIBLE" (AS REQUIRED).
- BLUE BACKGROUND WITH WHITE LETTERING AND BORDER
- 3" GALV. STEEL POLE
- THIS SIGN TYP. EACH BARRIER FREE PARKING SPACE
- VAN ACCESSIBLE



NOTE:
ALL PIPES SHALL BE TOPPED
WITH A 4" BLACK PLASTIC COVER

4" GALVANIZED STEEL PIPE

3'-0"

5'-0"

7'-0"

PAVEMENT (SEE SHEET C-10)

BOLLARD POST FILLED WITH CONCRETE

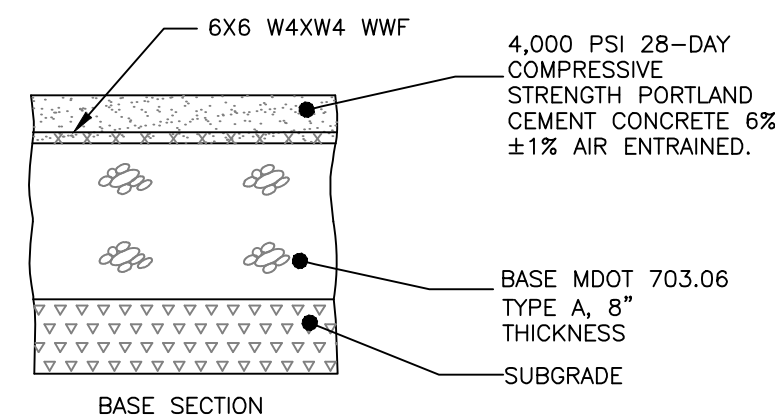
3" MIN.

1'-6"

SYM. ABOUT C
WHEN IN GROUPS

NOTES:

1. THE CONCRETE PAD SHALL BE 10'X3.25'X6" IN SIZE.
2. COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557.
3. FINISH WITH A STIFF, COARSE, FIBER BROOM.



REFER TO THE BASE SECTION FOR ADDITIONAL INFORMATION

10'

6'

6' TALL STOCKADE FENCE CONTINUOUS AROUND TRASH / RECYCLING CONTAINMENT ENCLOSURE

DUAL PANEL SWING GATE

10'x12' 6" CONCRETE PAD PER DETAIL

BOLLARDS PER DETAIL

10'-0"

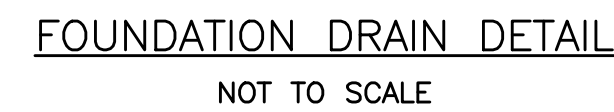
12'-0"

APPROX. 8'-0"

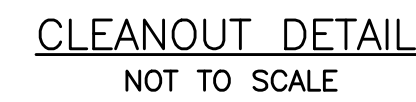
10'-0"

PLAN VIEW

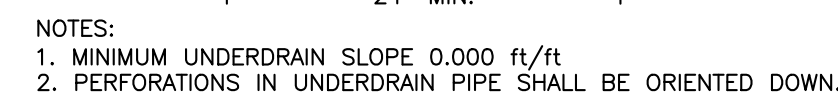
1. REFER TO THE BUILDING ARCHITECTS PLANS FOR THE BUILDING FOUNDATION, BACKFILL, ROOF DRAIN, SIDEWALK AND OTHER DETAILS.
2. PERFORATIONS IN UNDERDRAIN PIPE SHALL BE ORIENTED DOWN.
3. FOUNDATION WALL FOOTINGS SHALL BE CONSTRUCTED TO A MIN. DEPTH OF 4 FT BELOW ADJACENT FINISH GRADE. REFER TO STRUCTURAL ENGINEERS PLANS FOR ADDITIONAL INFORMATION AND MIN. REQUIREMENTS.



1. REFER TO THE GRADING AND DRAINAGE PLANS FOR ADDITIONAL INFORMATION



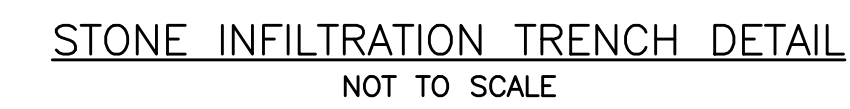
1. CONTRACTOR RESPONSIBLE FOR THE INSTALLATION OF THE ROOF DRAIN, ADAPTER AND COVER, GUTTERS, AND DOWNSPOUTS, UNLESS OTHERWISE DIRECTED.
2. ALL PIPES SHALL BE OF UNIFORM SIZE.



INFILTRATION PIPE DETAIL
NOT TO SCALE



BEEHIVE OVERFLOW SYSTEM
NOT TO SCALE



1. ALL CONCRETE TO HAVE A MIN. OF 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
2. DESIGN LOAD FOR H-20 WHEEL LOAD.
3. CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS.
4. REINFORCE TO 0.12 IN SQ./LF.
5. JOINTS SEALED WITH BUTYL RUBBER.
6. ALL PIPES TO HAVE A WATERTIGHT SEAL.
7. SUBMITTAL OF SHOP DRAWING TO ENGINEER FOR APPROVAL IS REQUIRED



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

[illegible]


DRAINAGE DETAILS

90 MAIN STREET PROJECT

PLATZ ASSOCIATES
YARMOUTH, ME

.....

11777



A C O R N
ENGINEERING, INC.

FILE:	1178_CIVIL
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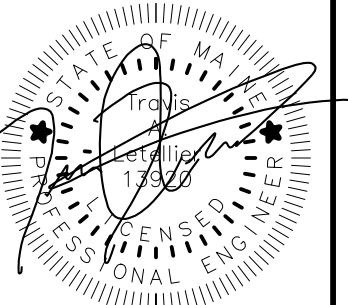
N:	1178
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SALE:	AS NOTED
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DESIGNED BY: SJL

RAWN BY: AWG

HECKED BY: WHS



DRAWING NO.

C-42

